

DOWNTOWN THOROLD STREETSCAPE MASTER PLAN



CITY OF THOROLD

June 2014

Final Report

GSP Group Inc.
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ACKNOWLEDGEMENTS

The project team was guided by the Stakeholder Consultation Group (SGC), comprised of representatives of City, Region, and other community interests, which provided guidance on the appropriate format and venue for the public consultation sessions as well as acting as a review body for the draft reports and plans. GSP Group and the project team wishes to recognize the assistance of the following SGC members that assisted with their input and feedback throughout the project:

- Erik Acs – Regional Planner
- Serge Carpino – Vice Chair, Thorold BIA
- Chris Paiva – Joint Accessibility Advisory Committee (JAAC)
- Dale Robinson – Chair, Active Transportation Advisory Committee
- Eldon Darbyson – City of Thorold, Planner
- Donna Herrington – Joint Accessibility Advisory Committee (JAAC)
- George Cottage – Chair, Thorold BIA
- Joey Hewitt – Chair, Joint Accessibility Advisory Committee (JAAC)
- Jack Bernardi – City of Thorold, Planner
- Lola Emberson – City of Thorold, Planner
- Michael Skrtich – Public Representative
- Pamela Minns – Chair, Thorold LACAC
- Rebecca Lott – City Councillor
- Sean Dunsmore – City of Thorold Engineer
- Terry Dow – Thorold Tourism
- Tim Whalen – City Councillor
- Tony Vandermass – Thorold Tourism
- Tonya Kornelsen – Public Representative

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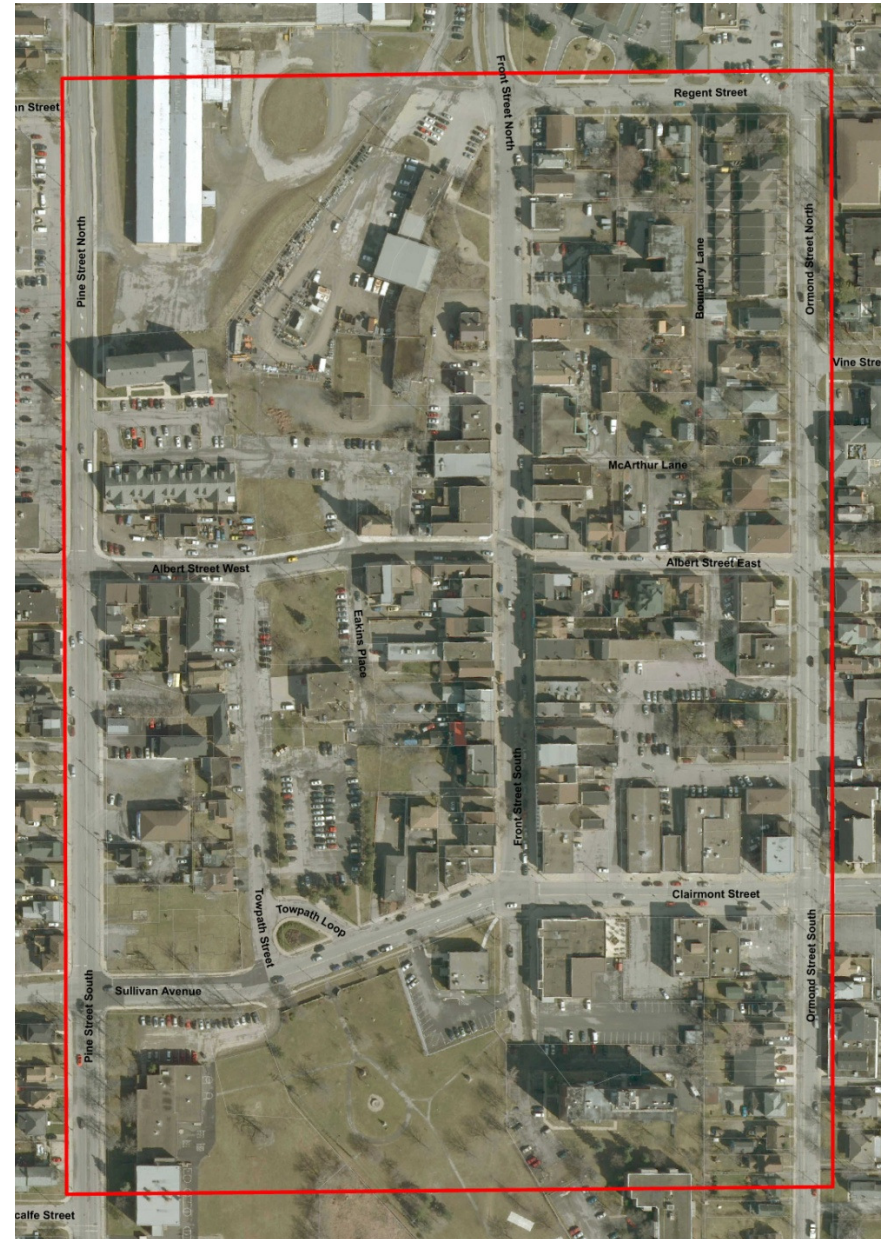
APPENDIX A Streetscape Drawings

APPENDIX B Detailed Cost Estimates

1. BACKGROUND

The City of Thorold, in partnership with the Region of Niagara, initiated a Streetscape Master Plan for its downtown area in 2013. The City embarked on this bold initiative to implement physical improvements to the downtown area's public realm in order to assist with the overall efforts of creating a healthy, vibrant, active and pedestrian-friendly place that is solidified as a destination within the City and the Region. The Streetscape Master Plan ultimately will provide a long-term strategy for improvements to the public realm (including considerations of such elements as roads, crosswalks, sidewalks, walkways, plantings, pedestrian amenities, parking areas, signage, lighting, and open spaces) as well as providing design guidelines for new developments that complement the overall form and feel of the area.

GSP Group was retained by the City of Thorold to lead a consulting team to undertake the project. The consulting team facilitated a number of community engagement sessions throughout the project to generate discussion and ideas as well as to receive feedback and input on the Streetscape Master Plan. The resulting Streetscape Master Plan captures the challenges and opportunities facing Downtown Thorold as identified by the community through those engagement sessions as well as the assessments completed by the consulting team. It provides a summary of the key existing conditions in the area (Section 2); outlines the key messages received from the community (Section 3); outlines the vision statement for the area developed through consultation (Section 4); outlines the recommended streetscape plans (Section 5); provides concepts for the vision of a new linear park through the area (Section 6); summarizes the phasing and costing for implementation (Section 7); and, identifies a series of supporting initiatives for implementation (Section 8).



2. EXISTING CONDITIONS

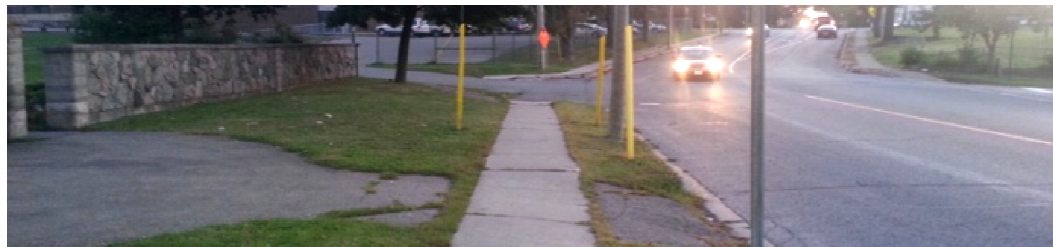
The following provides a summary of the key existing conditions within the study area inventoried through area assessments and analysis.

Sidewalks and Walkways

- Generally narrow width of walkways presents challenges for two-way, side-by-side travel through the Downtown.
- Paver materials for sidewalks along Front Street and side streets present upkeep challenges resulting in tripping hazards.
- Varying surface conditions and level of comfort for the mid-block walkways from Front Street.
- Some areas with poor definition between vehicular and pedestrian circulation routes.

Topography presents accessibility challenges to public parking lot on west side of Front Street.

- Grades and cross slopes in some areas north-south along Front Street and east-west across Front Street present challenges for pedestrians, particularly those with strollers or mobility devices.
- Little in the way of sitting areas along the streets for respite areas for pedestrians.



Street crosswalks

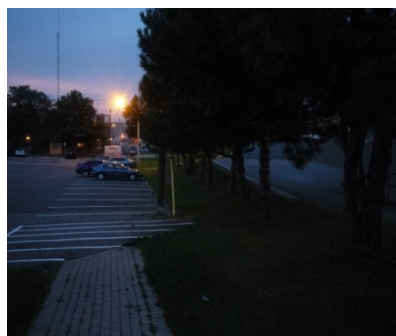
- Combination of painted lines and concrete/paver insets for treatment of crosswalks through Downtown.
- Poor condition of crosswalk paving materials along Front Street detracts from visual appearance and impression of Downtown.
- Cracked and heaving materials create uneven surfaces and resulting tripping hazards.
- Poorly lit intersections create visibility issues for pedestrians at night.
- Ends of on-street parking not defined with curb extensions that would shorten crossing distance at crosswalks and frame on-street parking bays.



Building Entrances

- Grades both north-south along Front Street and east-west across Front Street present challenges for pedestrians.
- Steps to building entrances common throughout the Downtown and particularly Front Street.
- Universal accessibility to businesses for those using mobility devices is limited.
- Recent ramp additions to business fronts evident throughout Downtown.
- Efforts have been made to cut back stairways into ramps by some existing businesses, but slope tolerances for accessibility are still exceeded.
- Limited space available on sidewalks in certain areas, especially along storefronts on Front Street West will make conversion to accessible building entrances difficult within the existing right-of-way.





Lighting

- Generally low lighting levels throughout the public spaces of the Downtown.
- Type of light source (low pressure sodium) across the Downtown provides orange-yellow light that renders colours poorly and provides a 'tired' look for Front Street.
- Maintenance and replacement issues evident as some street light standards are missing or not operational, creating gaps in light continuity along street right-of-ways and dark areas at some intersections.
- There are many areas within the existing parking areas and the linkages connecting them to the streets that have low lighting levels and create an uncomfortable condition for pedestrians.
- Secondary lighting provided on private buildings vary, creating inconsistencies along the right-of-way and parking area linkages.



Street Furnishings and Amenities

- Overall inconsistent and incomplete package of street furnishing and amenities throughout Downtown's streets and space.
- Few areas where benches are provided and standards across the Downtown vary.
- Where benches or street trees have been removed within the right-of-way, they have not been replaced as former footings in pavement are still visible.
- Only a limited number of spots with street tree plantings or raised planter boxes to decorate street edges.
- Street light standard conditions vary, and require upkeep or replacement for consistency.
- Recent bicycle racks are attractive and fit with the character of Downtown Thorold.
- Where seating opportunities are provided along Front Street by existing businesses, they appear to be well used and create activity on the street.



Signage

- Variety of styles of signage located throughout the Downtown and the various approaches to the Downtown area.
- Inconsistent placement of signage.
- Many signs difficult to read for passing motorists due to size of font.
- Many signs conveying too much information to interpret for passing motorists.
- Gateway signage along Front Street on the north side may get missed by visitors.
- No gateway signage currently provided from the other approaches to Downtown.



Battle of Beverdams Park

- Narrow width to walkways throughout the park.
- Limited amount of activity-generating uses within the park to draw visitors.
- Poor sense of entry for pedestrians from Front Street and Sullivan Avenue – park lacks an active ‘front door’.
- Existing park wall along Sullivan provides a hard edge to the interface with Downtown and barrier to pedestrian movements
- Lack of lighting throughout park reduces pedestrian comfort in the space at night.
- Existing use areas are not clearly defined or distinguished within the park.
- Interface with the apartment buildings to the east could be improved (chain-link fence provides separation and open sight lines to parking areas; pedestrian entrance from Front Street is not distinguished; parking area needs to be clearly distinguished as private from Front Street/Clairmont intersection).
- Lack of surveillance to park from pedestrians and vehicles as the park is setback from public frontage and has no vehicular connections to its interior spaces.



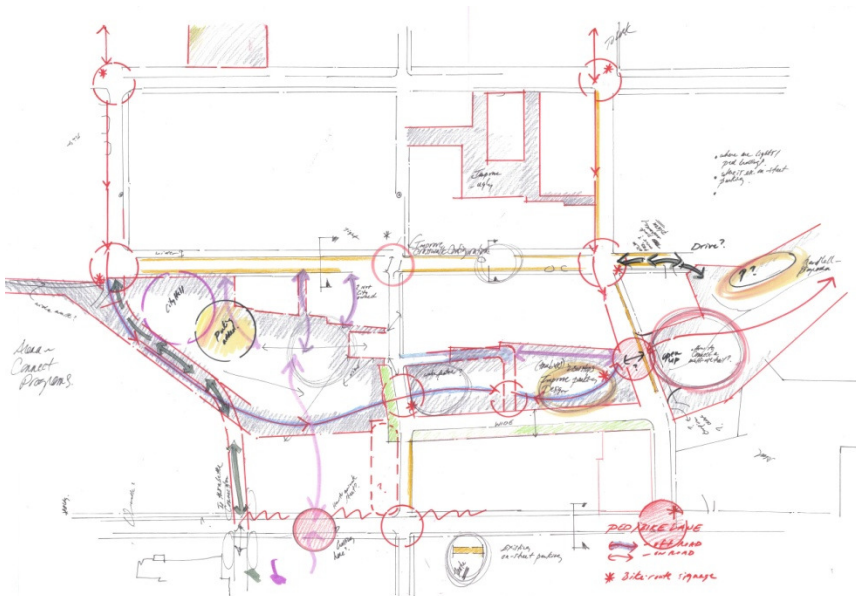
3. COMMUNITY ENGAGEMENT

Engagement and Consultation Program

The engagement and consultation program for the Downtown Thorold Streetscape Master Plan was comprehensive, diverse, and inclusive. The project team was guided by the Stakeholder Consultation Group (SGC), comprised of representatives of City, Region, accessibility, heritage, business, tourism, and other interests, which provide guidance on the appropriate format and venue for the public consultation sessions as well as acting as a review body for the draft reports and plans. The consultation program included the following sessions:

- **June 11, 2013:** first Stakeholder Consultation Group meeting to discuss the scope of the study and explore design challenges and opportunities facing Downtown Thorold.
- **July 1, 2013:** Canada Day booth at Battle of Beaverdams Park to informally introduce the study.
- **July 9, 2013:** Community Design Workshop to explore design challenges and opportunities facing Downtown Thorold.
- **September 24, 2013:** second Stakeholder Consultation Group meeting to present the preliminary streetscape concepts and draft Development Design Guidelines.
- **October 30, 2013:** Community Open House to present the refined preliminary streetscape concepts and draft Development Design Guidelines.
- **February 12, 2014:** meeting with the Thorold Business Improvement Area membership to present the detailed streetscape plans and drawings.
- **February 12, 2014:** third Stakeholder Consultation Group meeting to present the detailed streetscape plans and drawings.





Key Community Messages

The July 2013 Community Design Workshop generated many ideas and opportunities for making improvements to Downtown Thorold's streets and spaces. The following elements were the key messages heard from the community moving forward in the Streetscape Master Plan process.

1. **Build on Downtown's uniqueness:** stress the unique blend of small town feel, heritage, retail offerings, and Canal presence.
2. **Elements here but conditions vary:** a number of streetscape elements and amenities exist in the area, but the location and style is inconsistent and the physical conditions vary.
3. **Heritage does matters:** heritage is a key component of Thorold's identity, including its people, its places, its events, and its buildings.
4. **Utilize the old Canal:** the alignment of the former Welland Canal through Downtown is a key opportunity for creating a special space.
5. **Capitalize on the Park:** the existing Battle of Beaverdams Park is situated in the heart of Downtown, yet it is an untapped resource as a destination.
6. **More activities for a broader group:** needs to cater to a broader range of visitors with activities for a broader range of age groups.
7. **Improve getting people to Downtown:** connections and linkages for pedestrians and cyclists arriving need to be strengthened.
8. **Improve getting people around Downtown:** physical conditions for moving in and around Downtown, for mobility needs, should be improved.
9. **Draw cyclists to Downtown:** cyclists should be drawn to Downtown through a combination of linkages and cycling amenities.
10. **Night time uncomfortable for most:** improving the level of comfort for visitors at night is needed to improve activity throughout the day.

4. VISION STATEMENT

Downtown Thorold is a place currently transforming and there have been significant improvements through a series of initiatives and investments as witnessed by new businesses and improvements to building façades and conditions. While the changes have been positive and the momentum continues, a public realm that supports the recent improvements and encourages future investments will further enhance Downtown Thorold as an attractive and more functional place. To create a Downtown Thorold that the community can be proud of will involve striving for:

1. A place that is **inviting and welcoming** to visitors, both those visiting for the first time or repeat visitors. It provides a positive first impression to visitors upon entering the downtown and directional information at strategic entry points and throughout the area. Increased activity and an improved design provide a sense of safety and security to users and accommodate a broad range of people with different needs and interests.
2. A place that is **authentic** with a defined identity that speaks to the community's character. It is a "real" downtown that provides a day-to-day function for the community, while at the same time capitalizing on tourism opportunities to bring visitors to the area and its businesses. It is a place that is rooted in Thorold's existing character and history, which allows it to be distinct and definable from other places in Niagara and beyond.





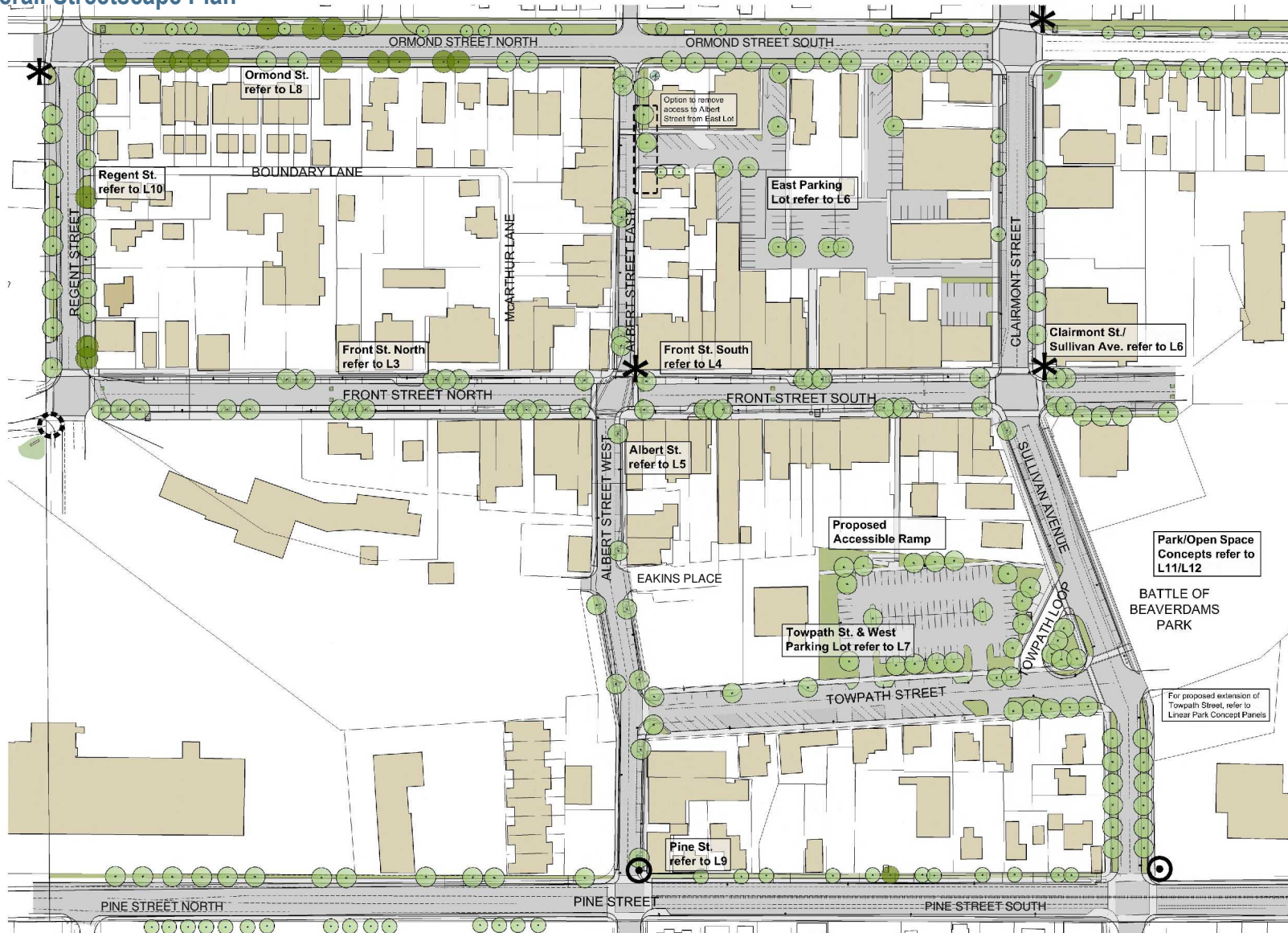
3. A place that is **charming and attractive** with buildings, storefronts, and spaces that are well maintained and visually interesting. It includes plantings to provide vibrancy and colour, sitting elements to create a relaxing environment, well maintained and attractive facades, and restored heritage buildings. These features combine to inspire a friendly, small town feel and a place that is desirable to visit.
4. A place that has a **vibrant mixture** of businesses and activities to draw people to the area. It is a complete district accommodating all aspects of daily life, including opportunities for specialty shopping, services, restaurants, employment, public services, and living downtown. It also includes a range of recreation and civic opportunities that offer people many different reasons to go there throughout various times of the day, month, and year.
5. A place that builds on the community's **history**, including its social, economic and transportation roots. It celebrates its association, both current and past, with the Welland Canal and its role in the development of the community. It embraces the area's architectural heritage and the role it plays in remembering the past while giving cues to new developments. It recognizes the people, places and events that contribute to the distinctiveness of the area.
6. A place that has **high quality spaces** that help to retain visitors within Downtown Thorold. It is easy to linger and spend time in areas that are comfortable and accommodating, whether public spaces such as parks and streets or private spaces such as patios or cafes. These spaces accommodate a broad spectrum of users, including families with children, seniors, and students, among others.

7. A place that is easy to move around for **pedestrians**. It has a connected network of pedestrian routes within the area that link to surrounding neighbourhoods and key destinations. It has sidewalks, walkways and trails that are well maintained, easy to navigate, and safe. It has resting spots with pedestrian infrastructure that allow people to move through the spaces at their own speed.
8. A place that is easy to move around for **cyclists**. It includes well defined, signed connections to the surrounding bike network. It is designed to be comfortable and safe for a range of different cyclist abilities. As well, it has the necessary elements to securely store bikes to accommodate cyclists once they have arrived.
9. A place that is **universally accessible** for all persons with disabilities. It recognizes and accommodates a diverse range of user abilities, including physical and visual considerations. Its design incorporates contemporary accessibility design principles and standards into all streets, spaces, and buildings during the process of development or re-development.
10. A place that is **easy to maintain** over the long term. Its design includes durable, sustainable elements that allow the City and community stakeholders to easily maintain the place as a clean, safe and attractive environment over time. Its design recognizes the means and capabilities of the municipality for overall maintenance.
11. A place that **encourages investment** through development and improvements. It is a place that welcomes new, well designed developments that blend in with the overall character of the area. It has guidance tools that encourage good design for its streets, buildings, and spaces. It has flexible rules that accommodate the creation of attractive and visually interesting new developments that contribute to the pedestrian nature of the area.

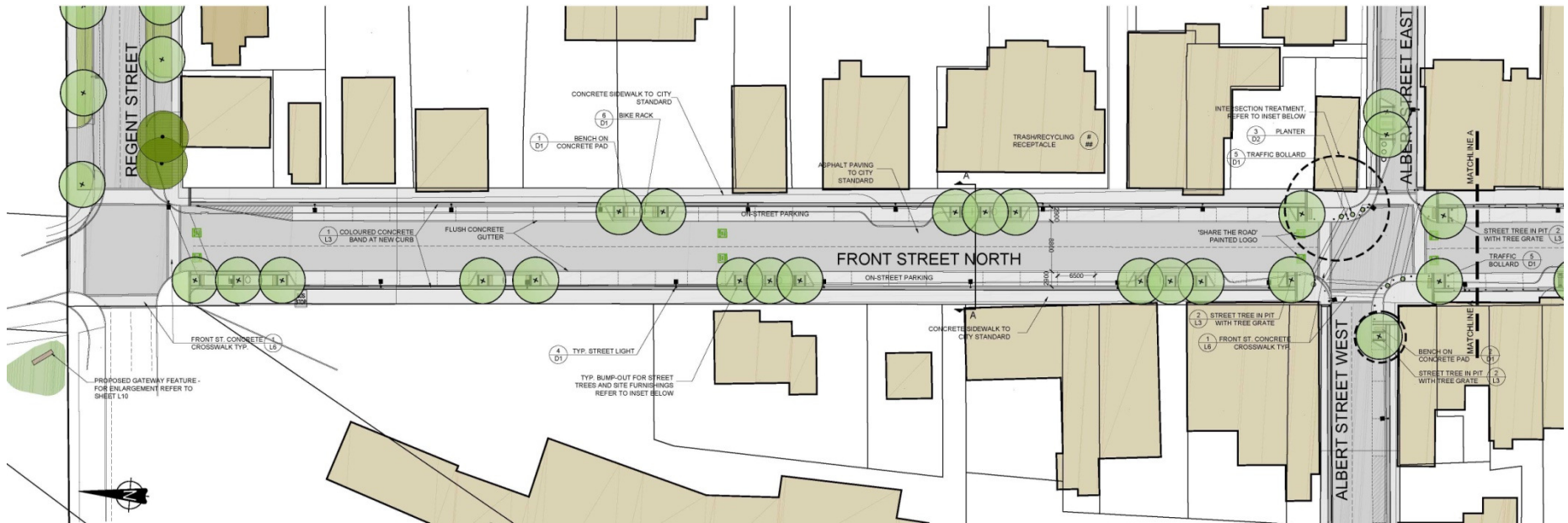


5. STREETSCAPE PLAN

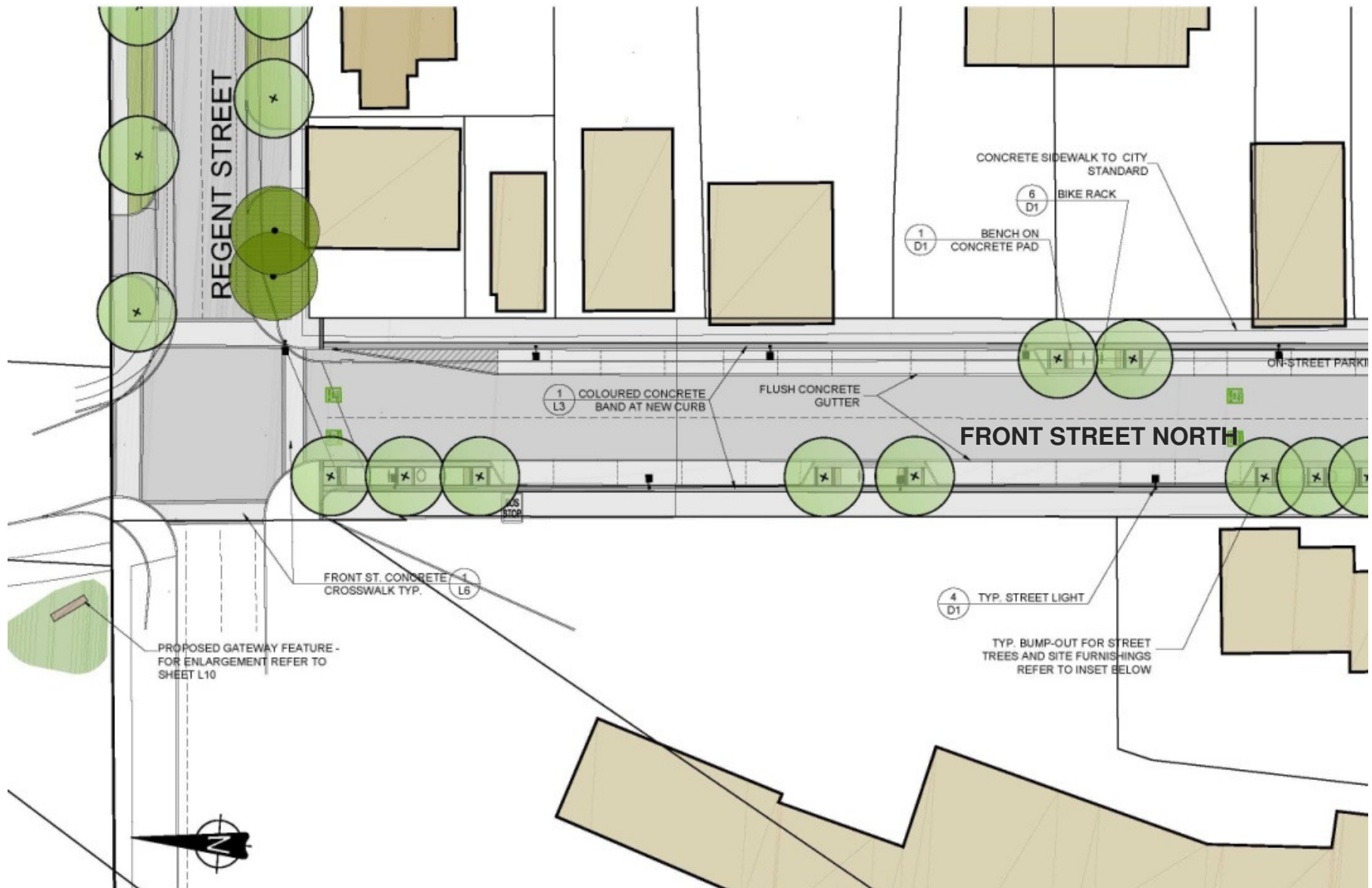
Overall Streetscape Plan



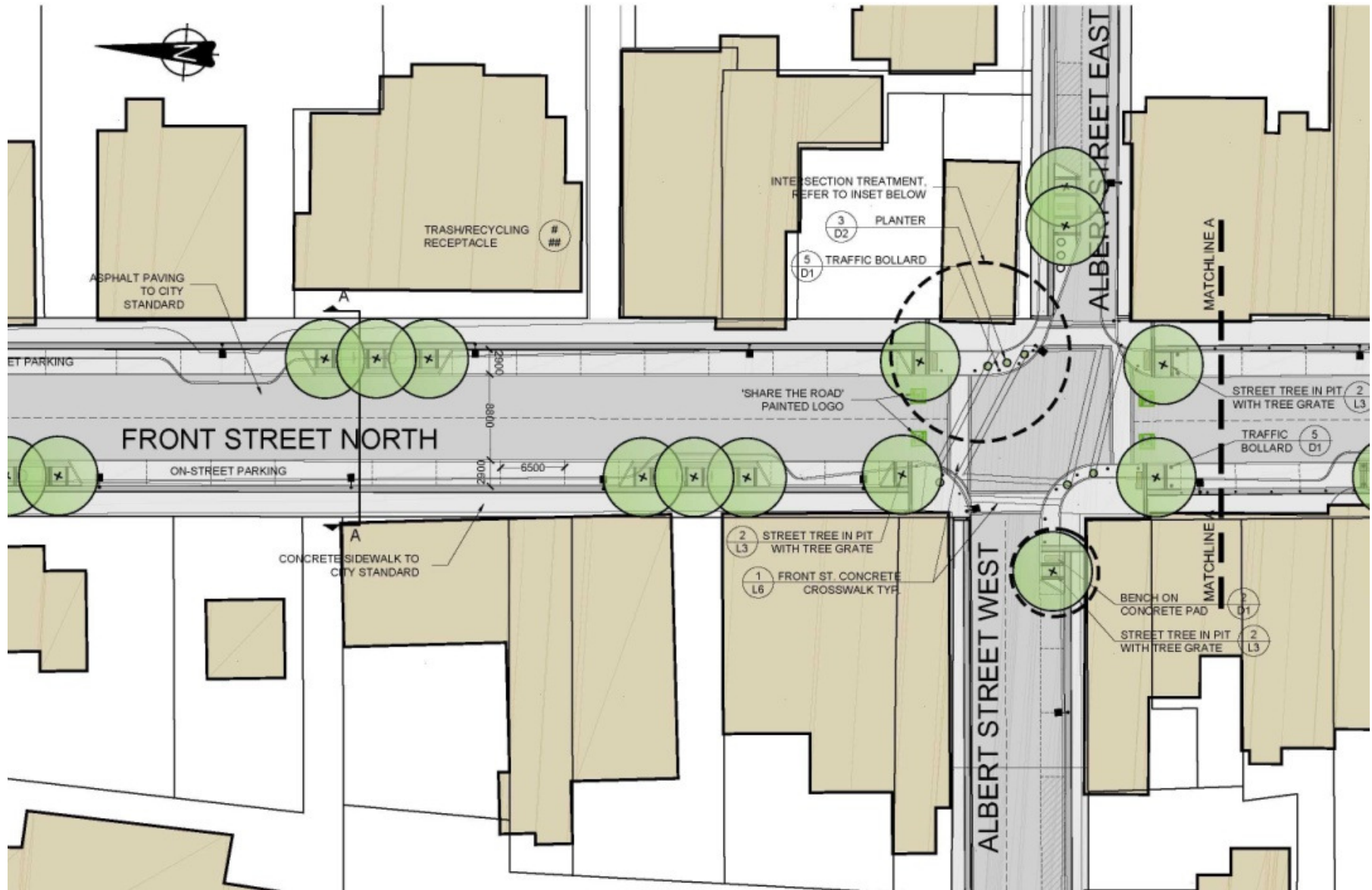
Front Street – North Overall section



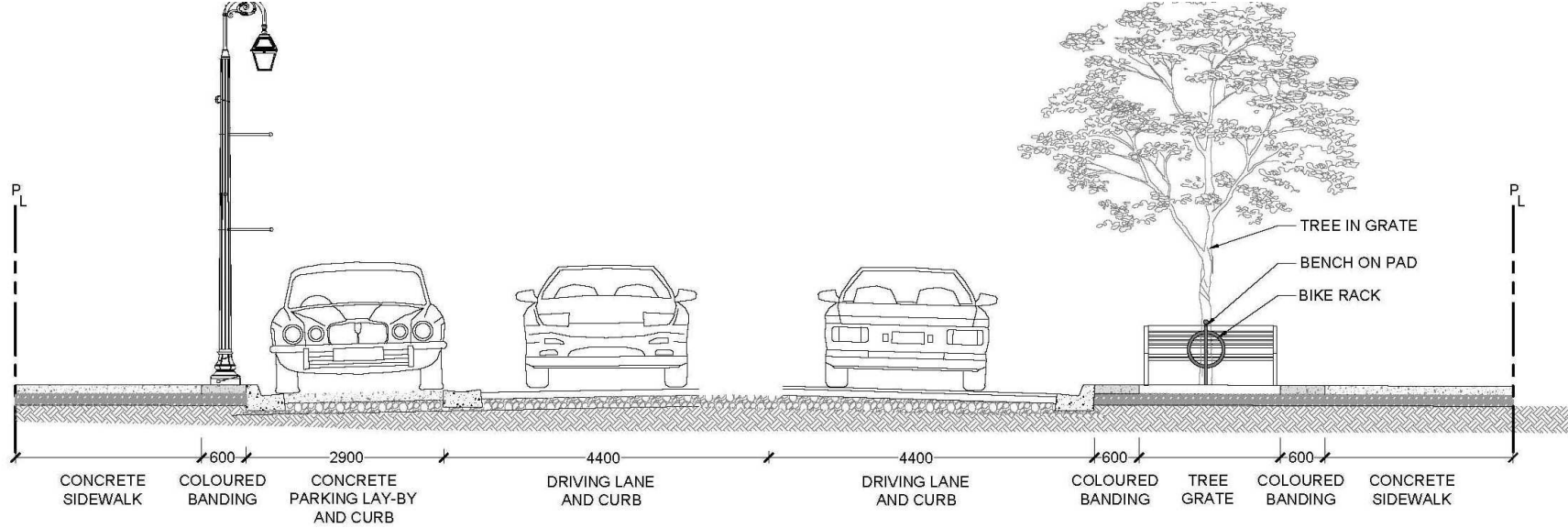
Front Street – North At Regent Street



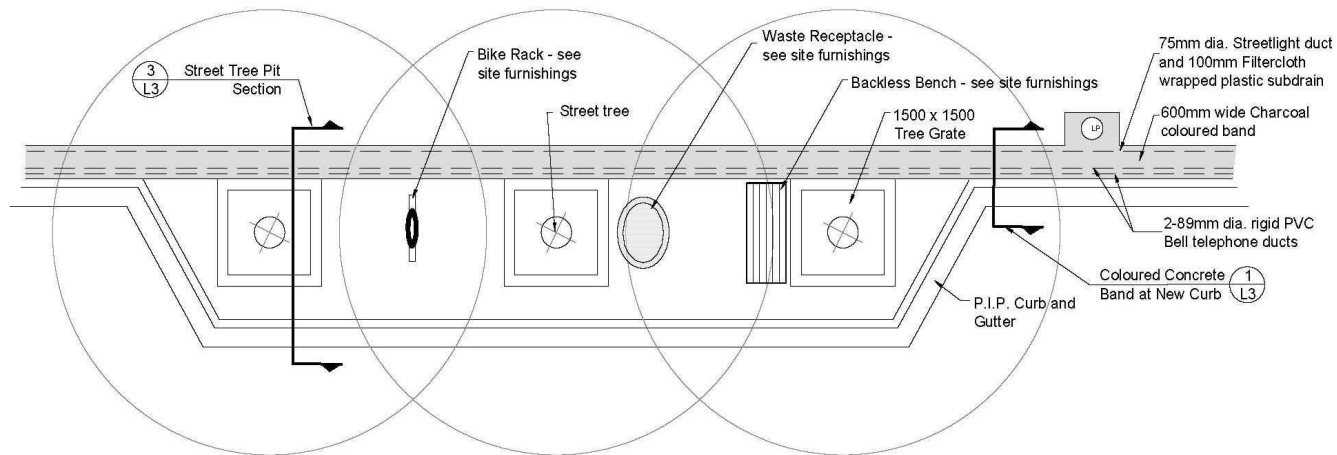
Front Street – North At Albert Street



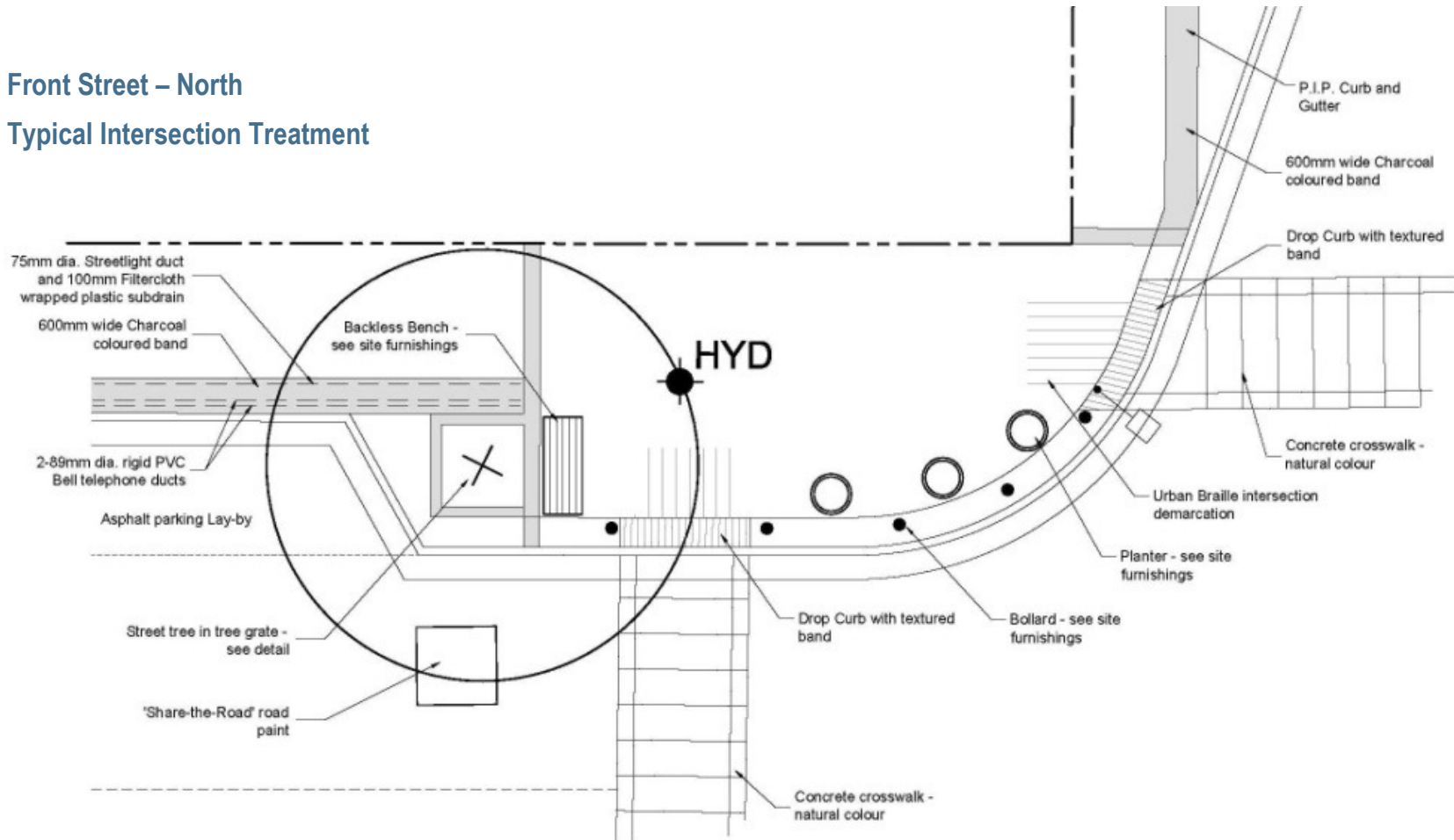
Front Street – North Section A-A



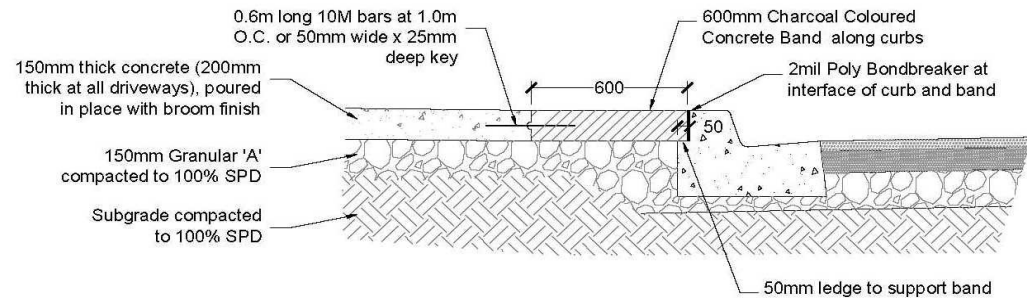
Front Street – North Bump-out



Front Street – North Typical Intersection Treatment

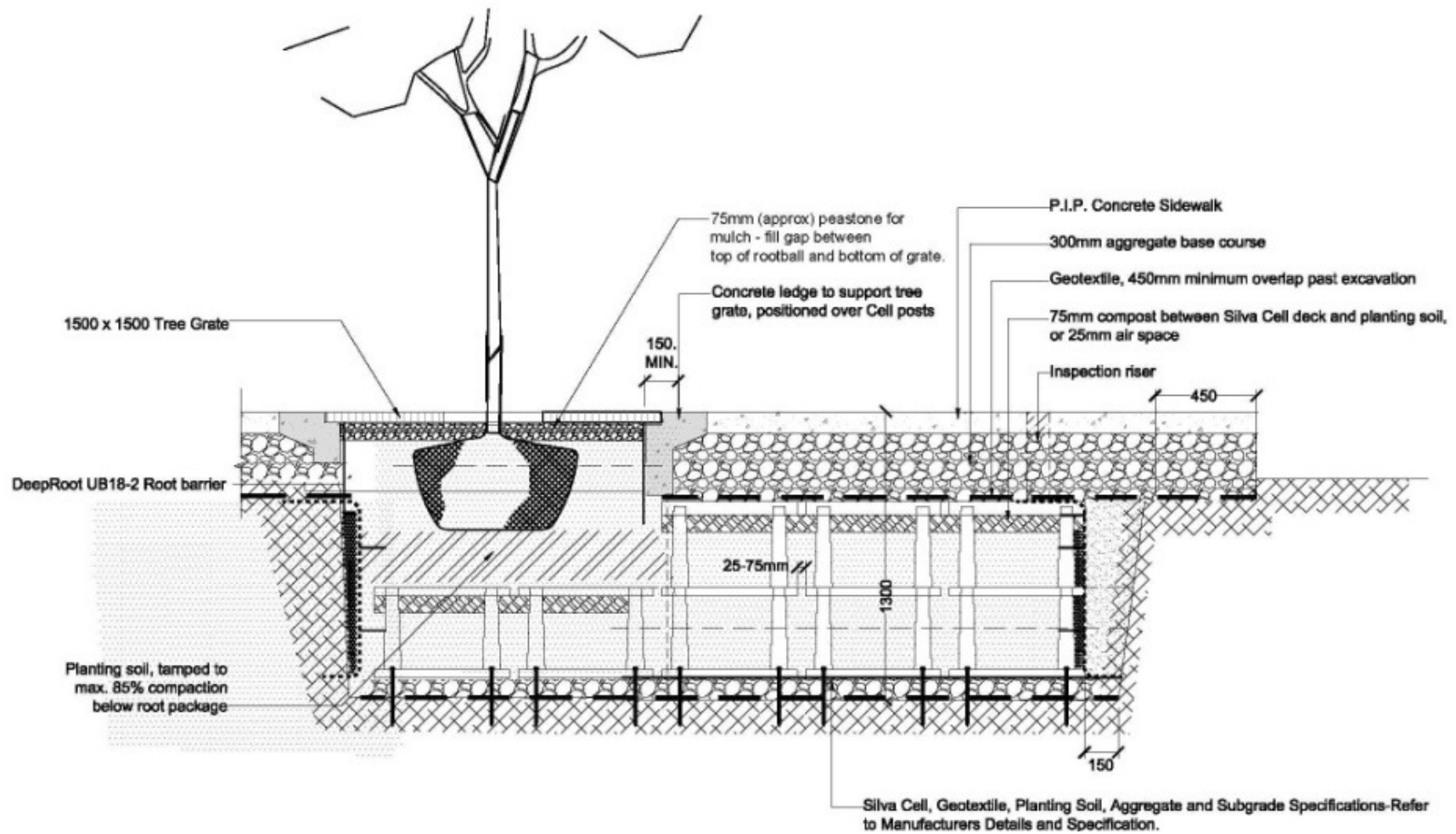


Coloured Concrete Band at New Curb



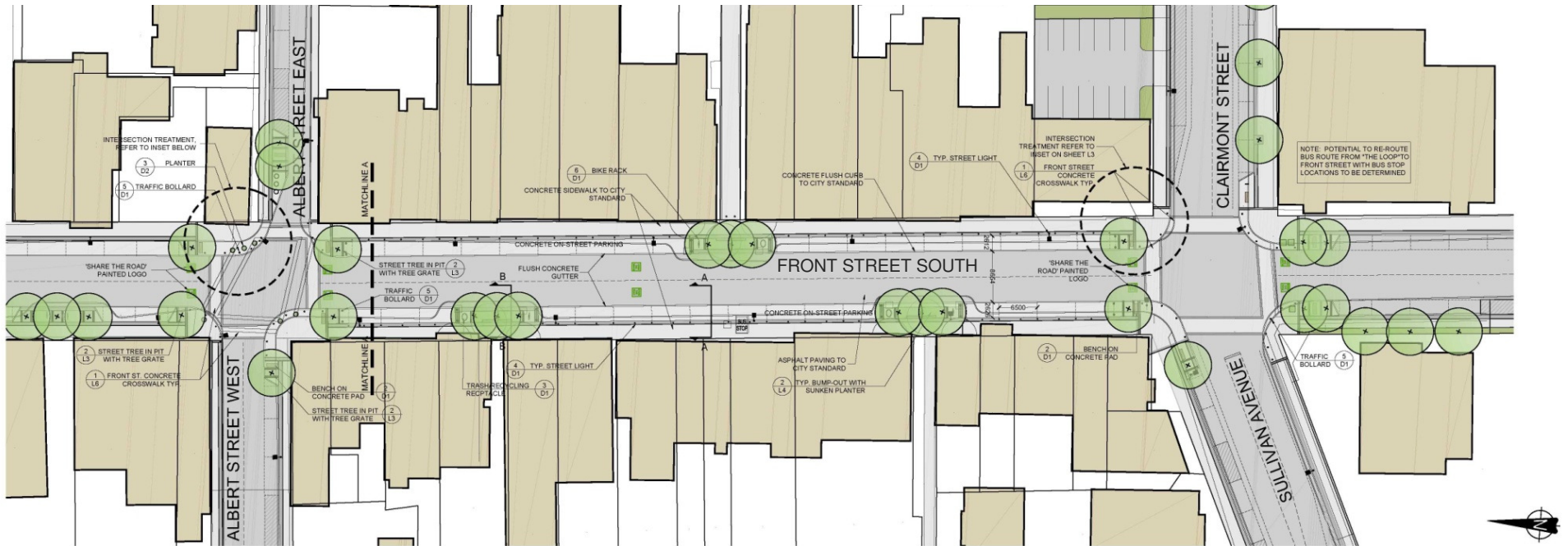
Front Street – North

Silva Cell Rooting System at Street Tree Pit

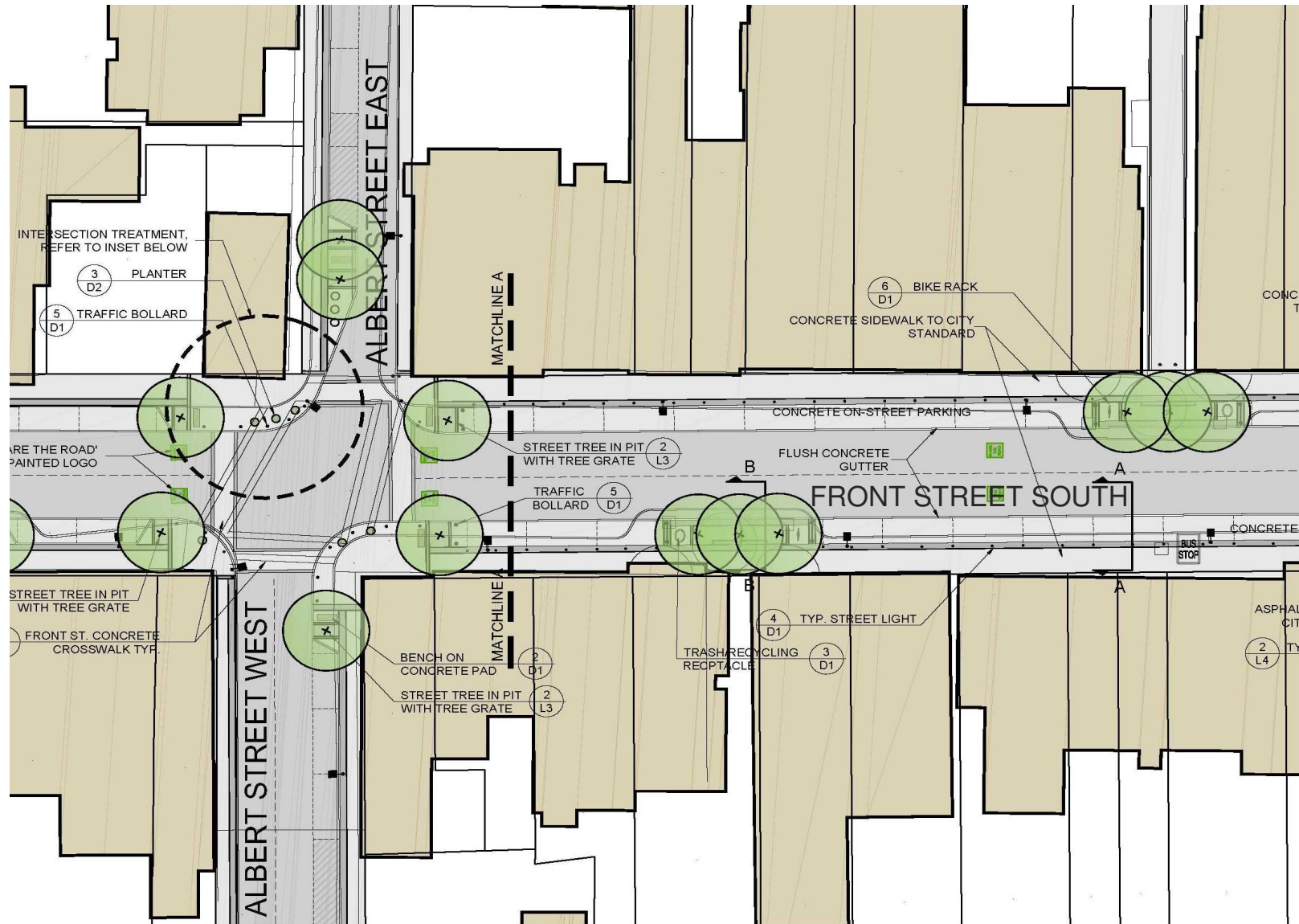


Front Street – South

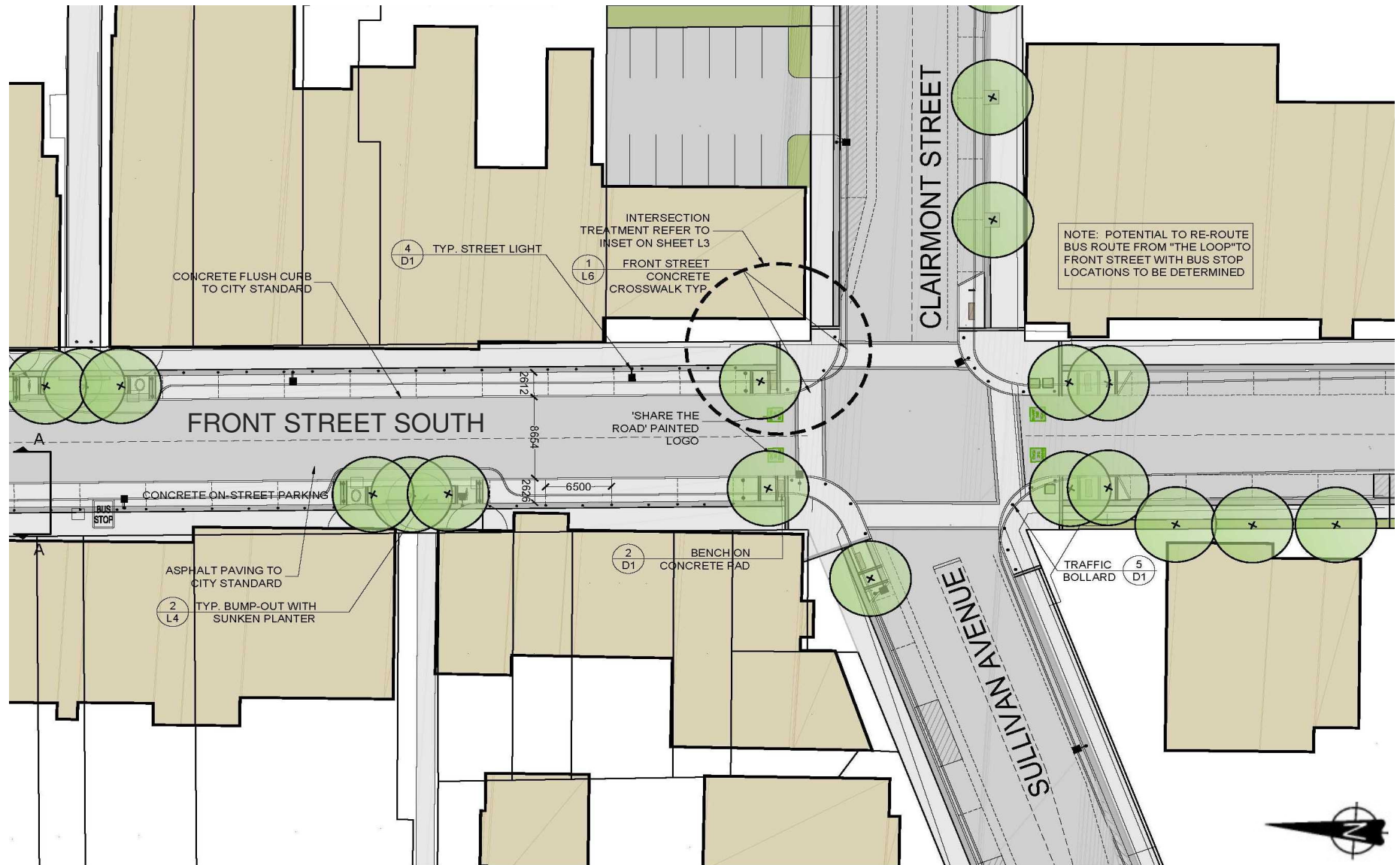
Overall section



Front Street – South At Albert Street

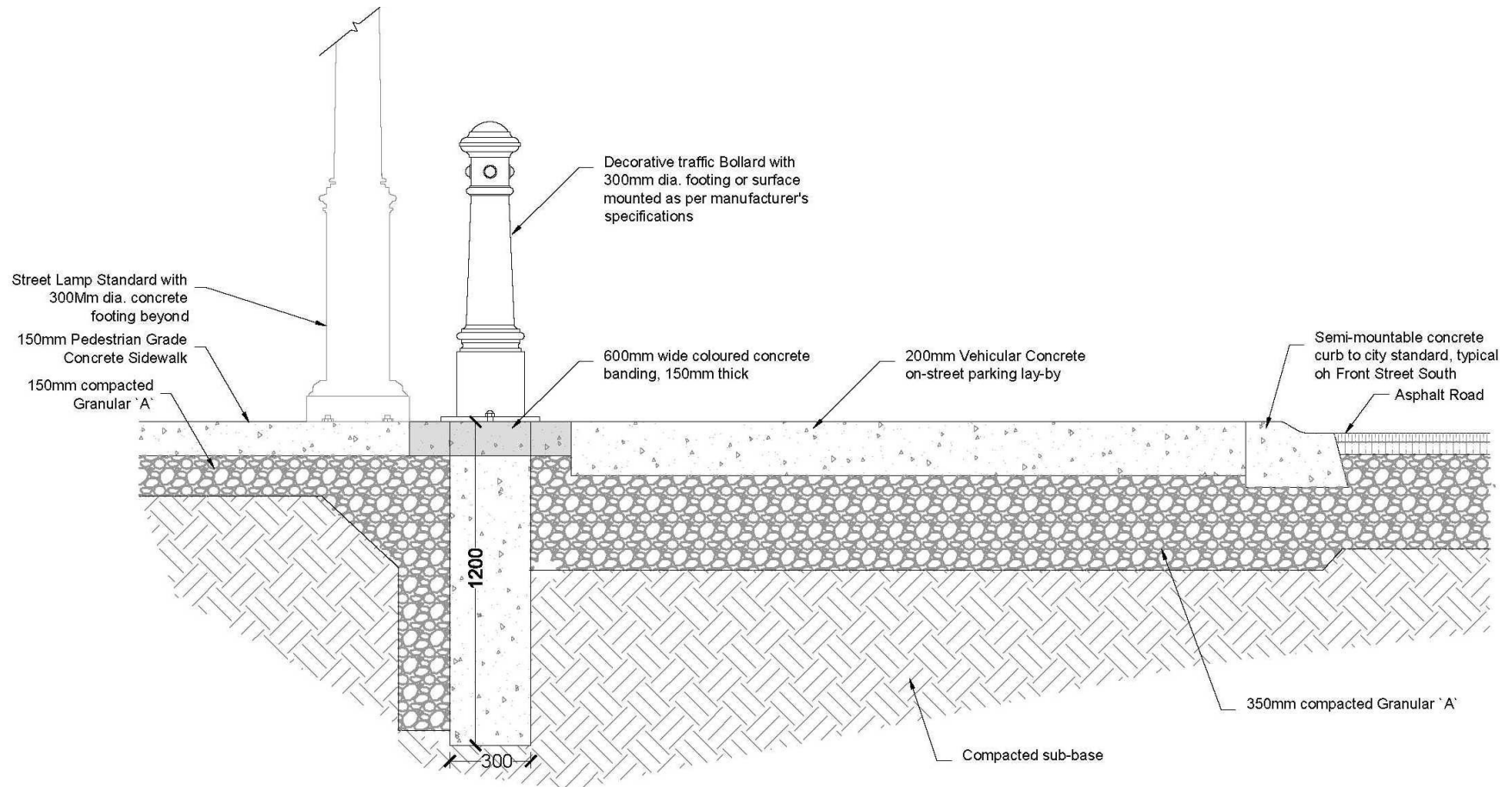


Front Street – South At Clairmont/Sullivan



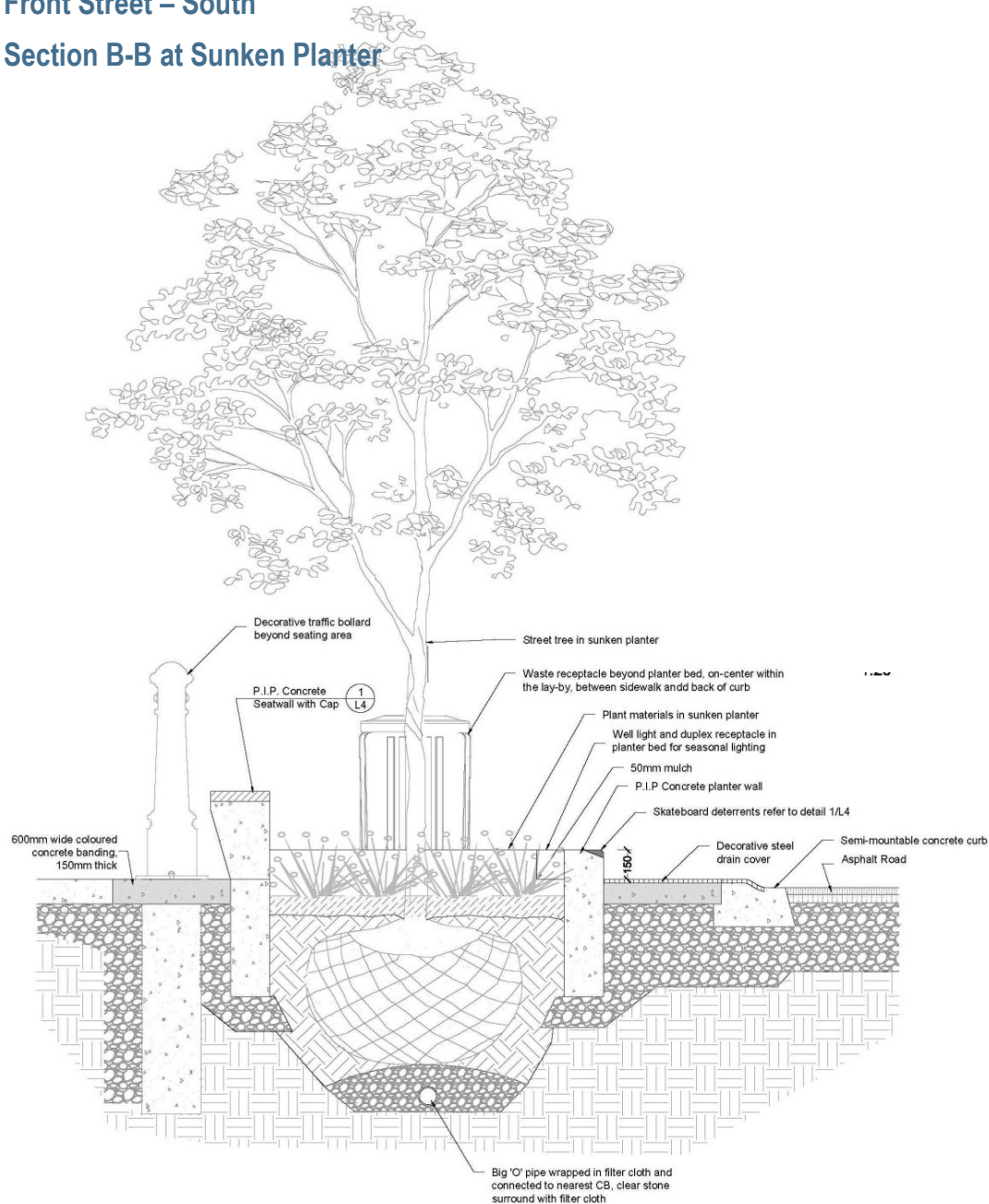
Front Street – South

Section A-A at Parking Lay-By



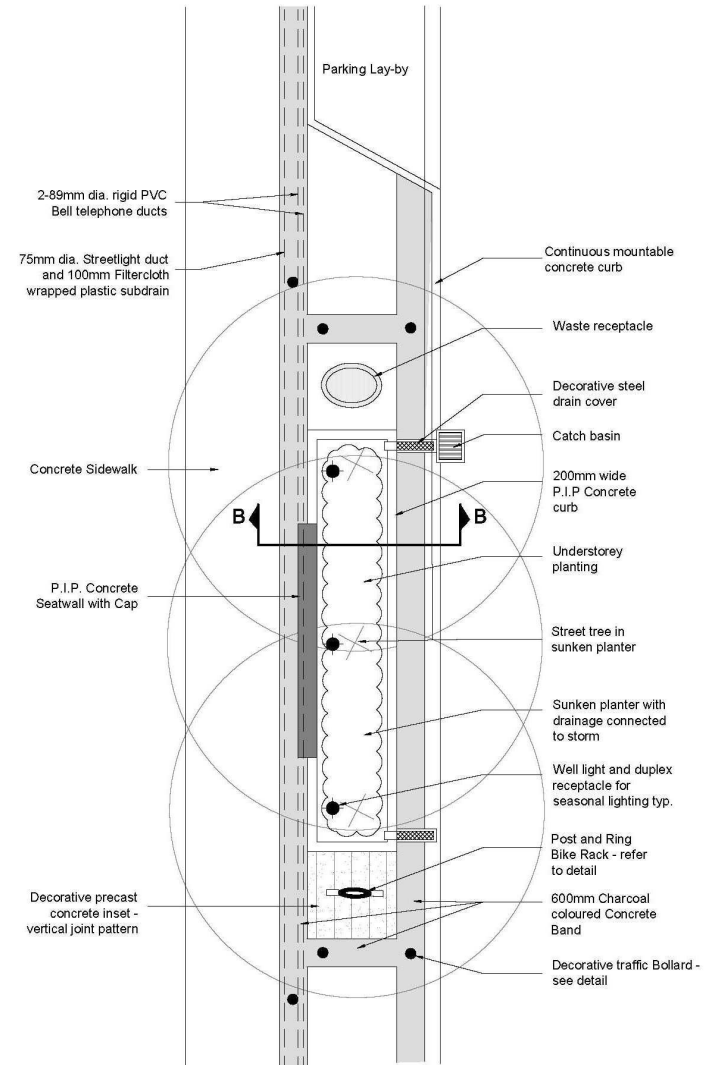
Front Street – South

Section B-B at Sunken Planter

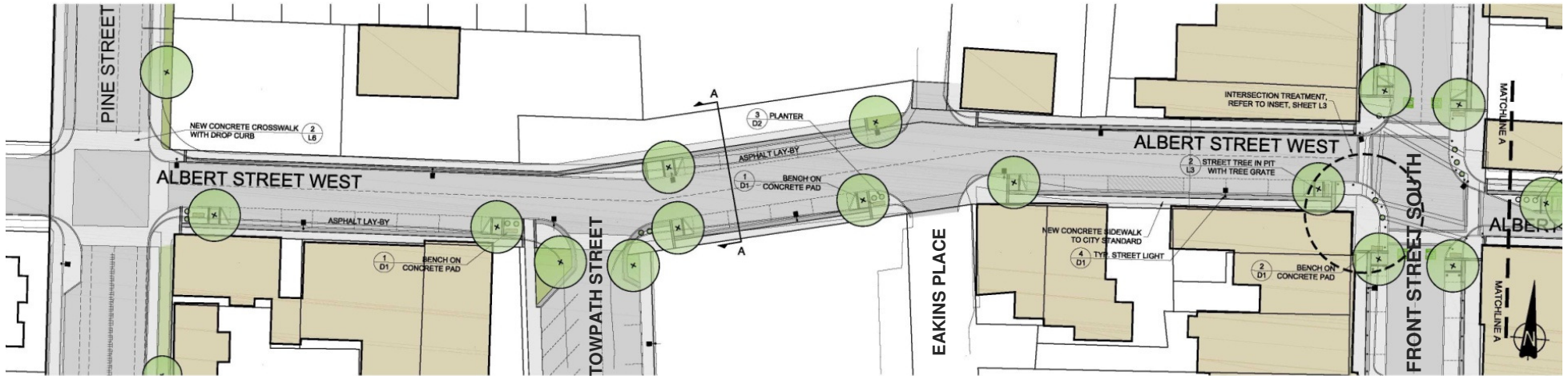


Front Street – South

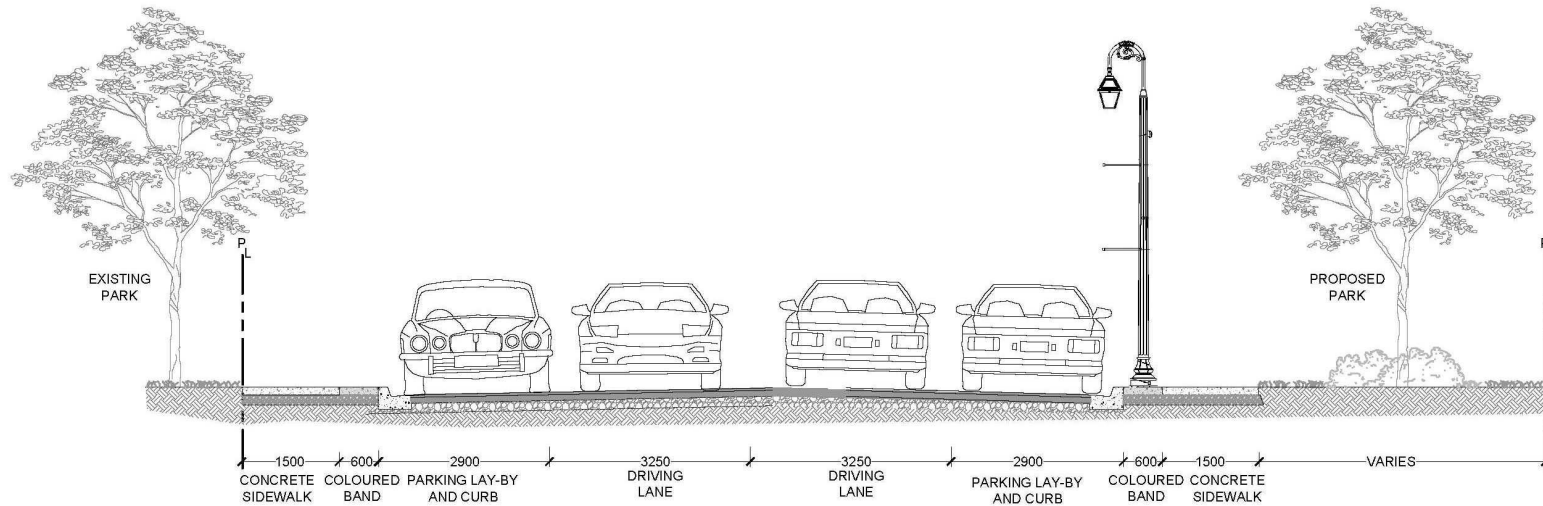
Sunken Planter / Seatwall Enlargement



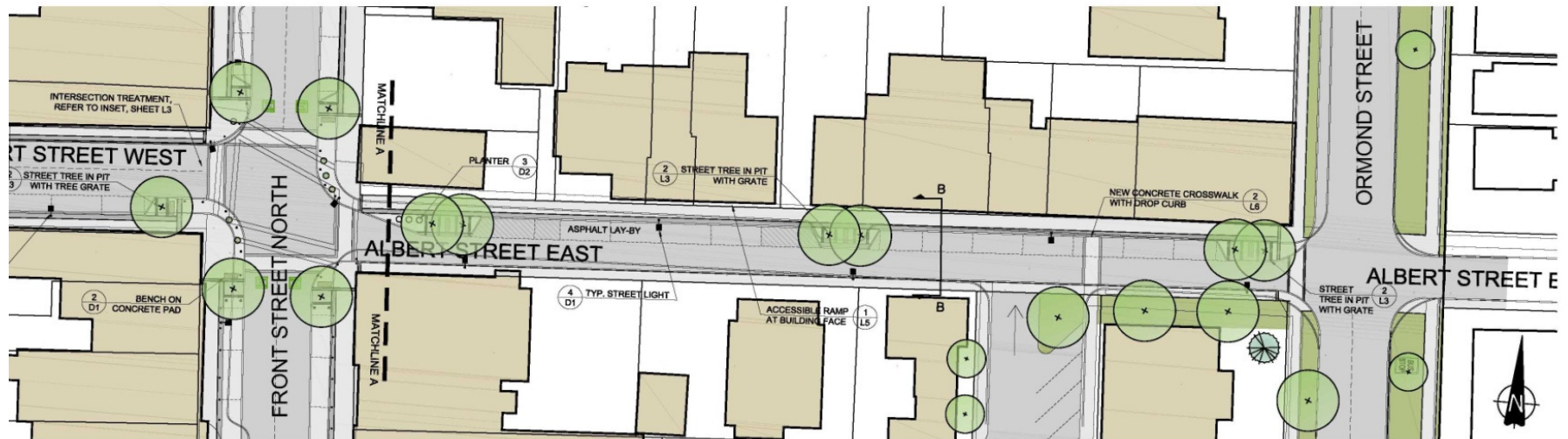
Albert Street West



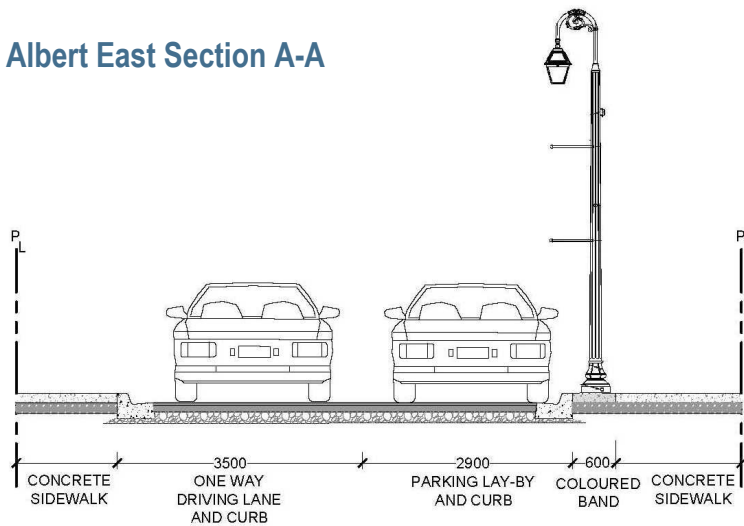
Albert Street Section A-A



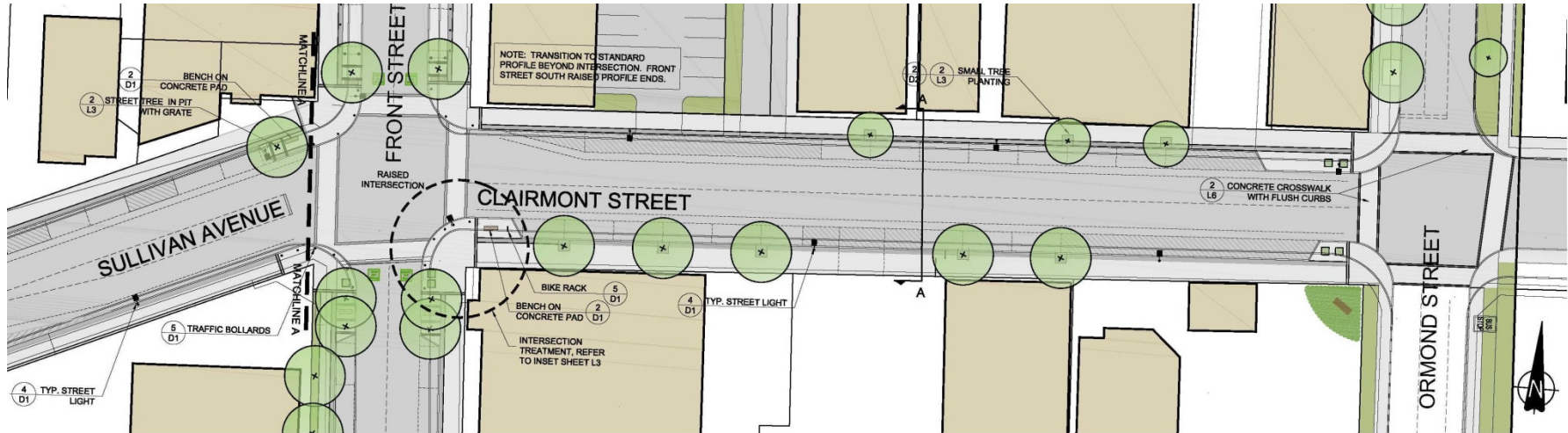
Albert Street East



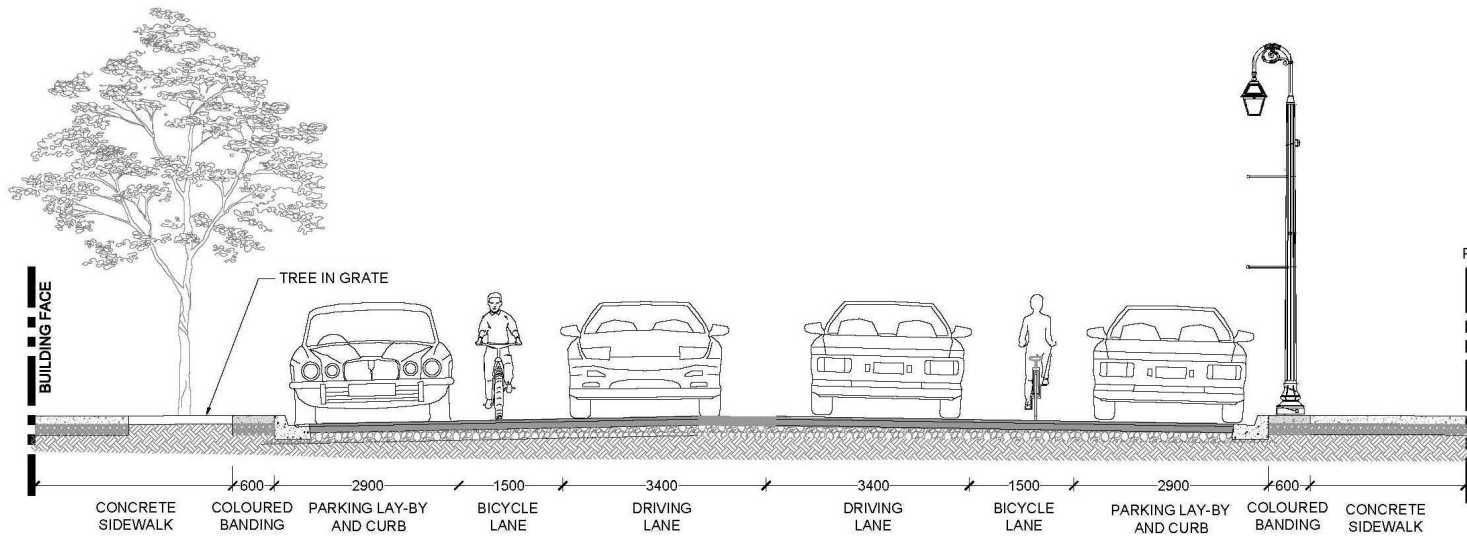
Albert East Section A-A



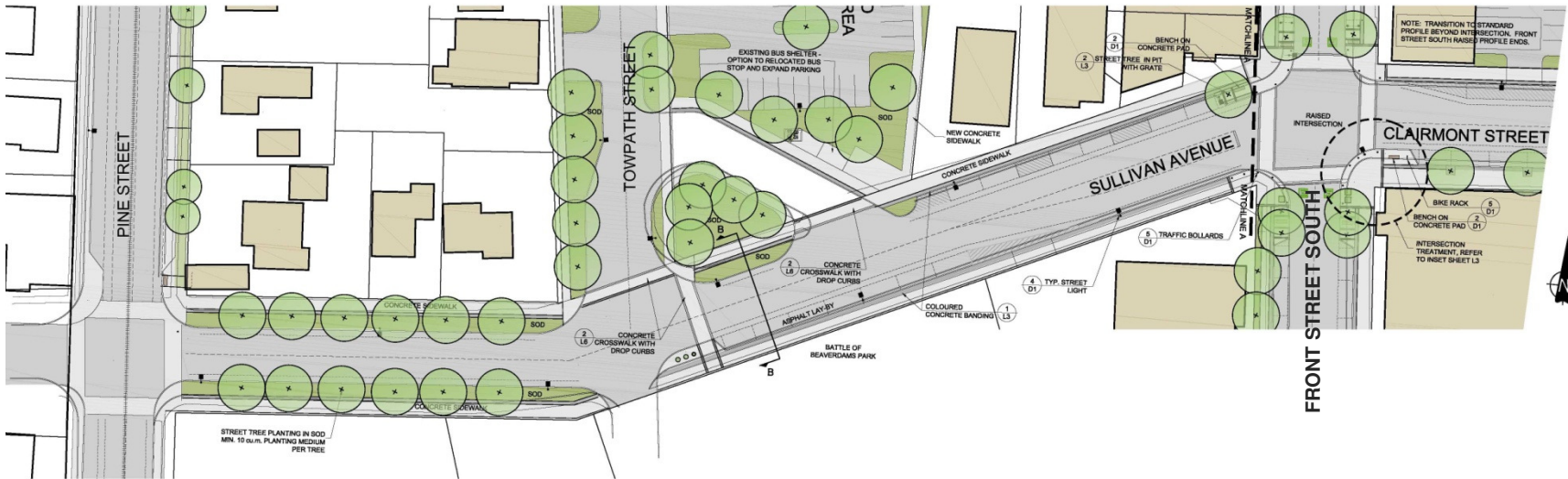
Clairmont Street



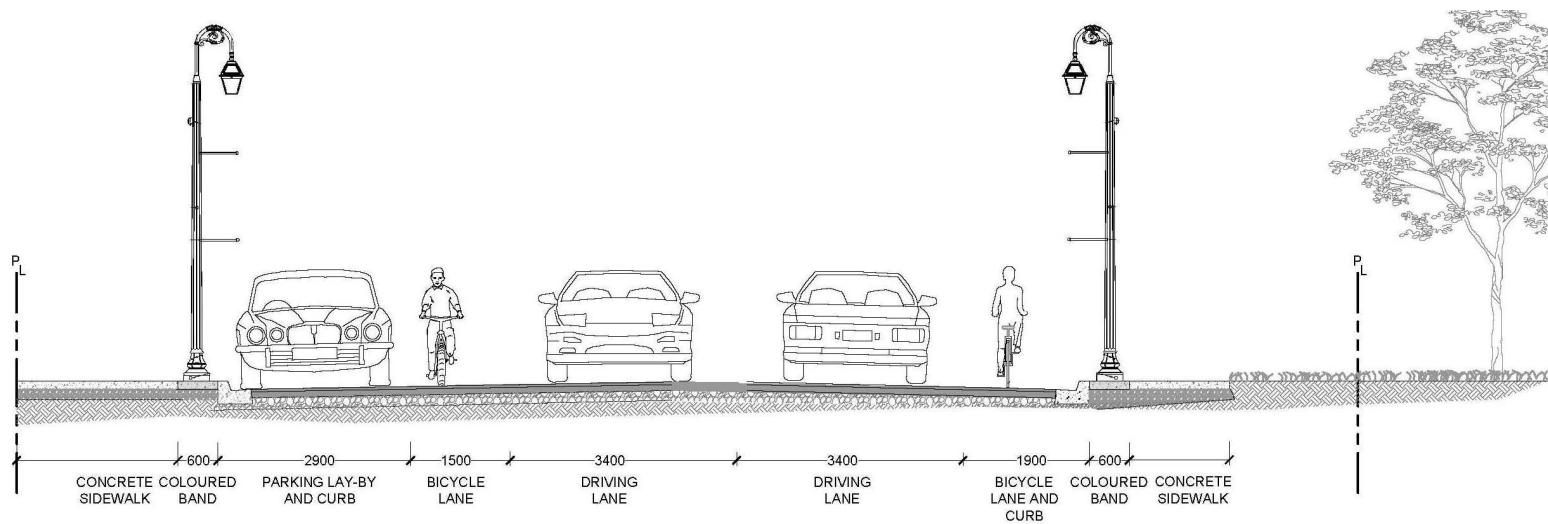
Clairmont Street Section A-A



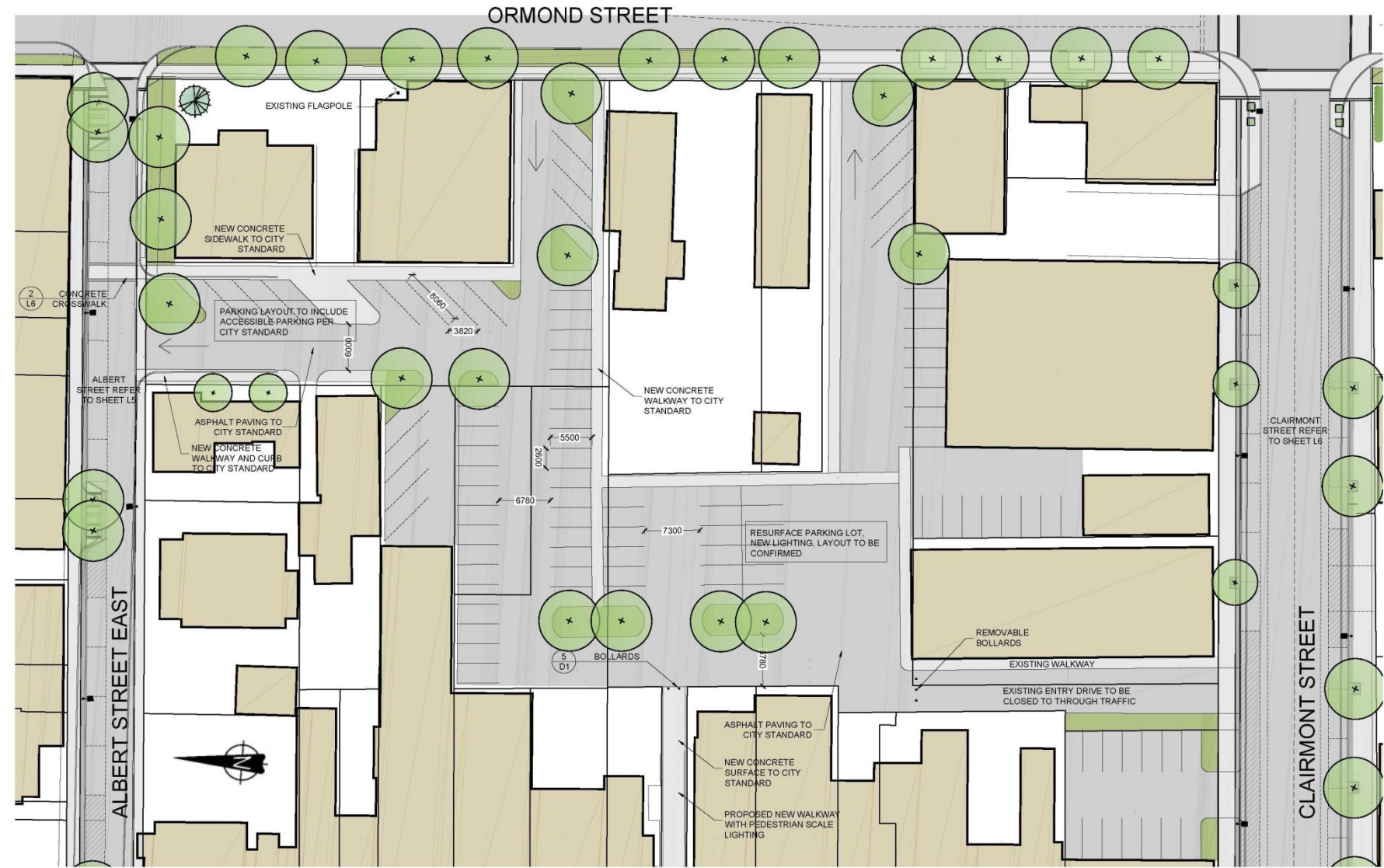
Sullivan Avenue



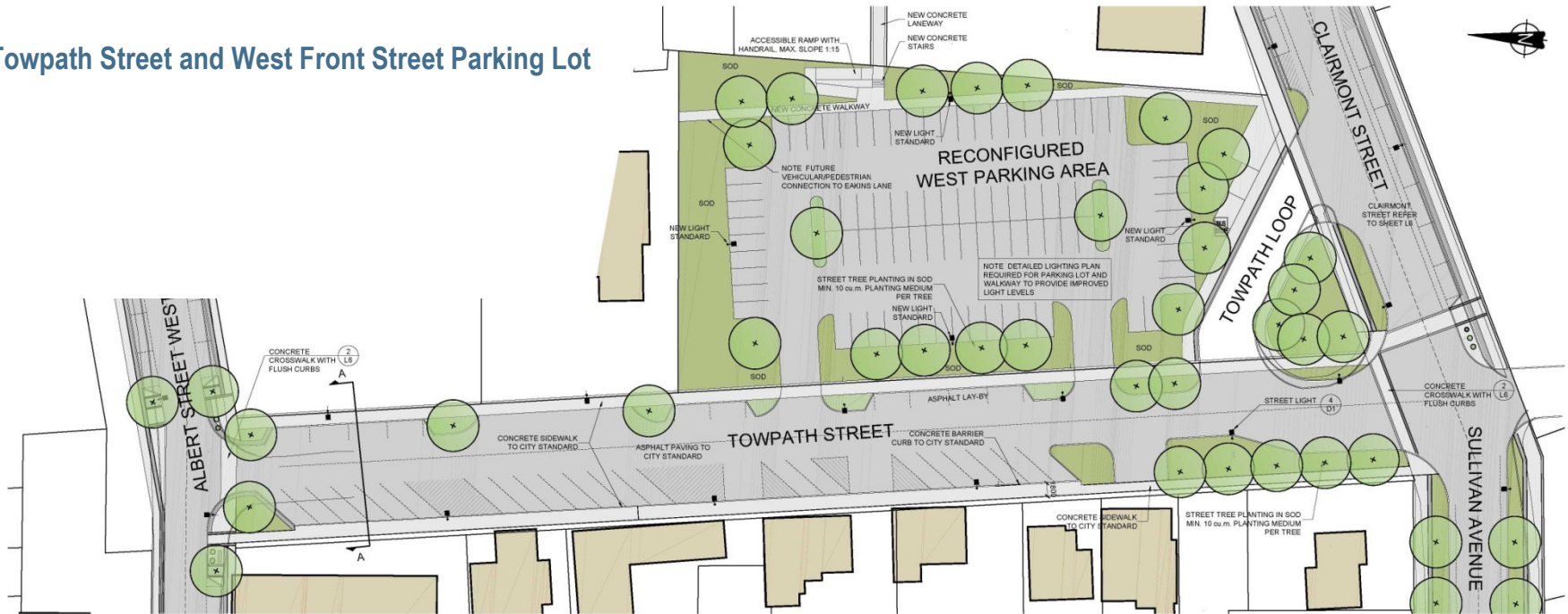
Sullivan Avenue Section A-A



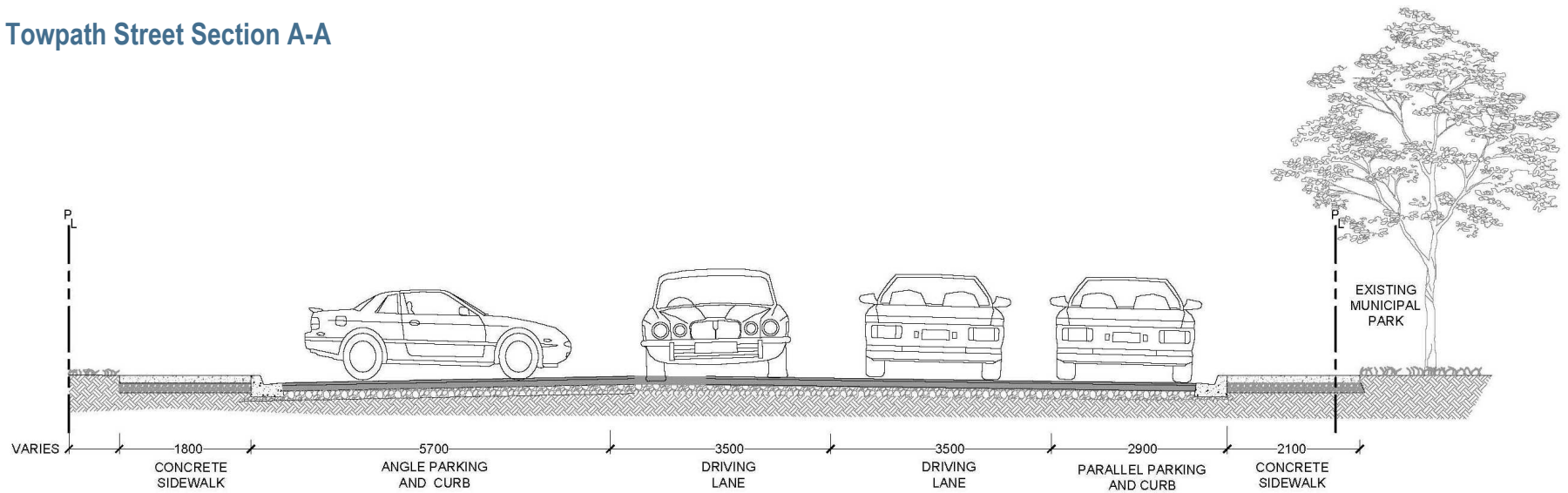
East Front Street Parking Lot



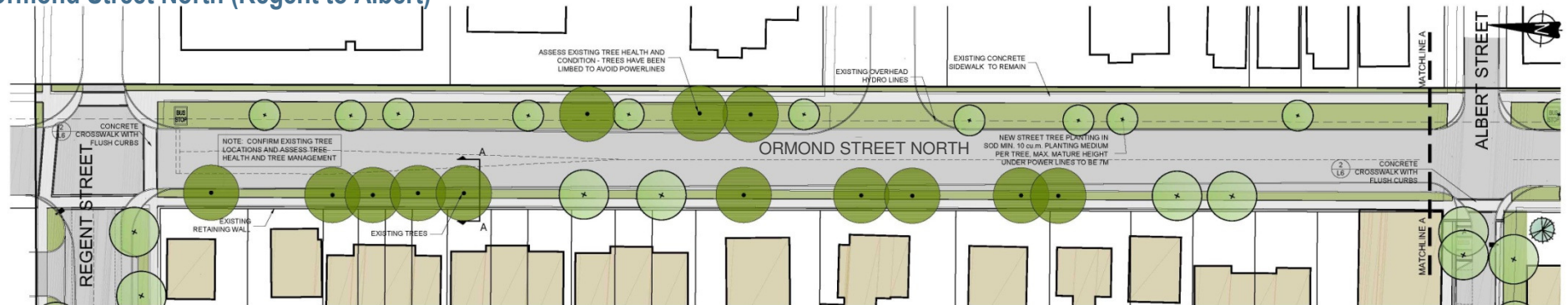
Towpath Street and West Front Street Parking Lot



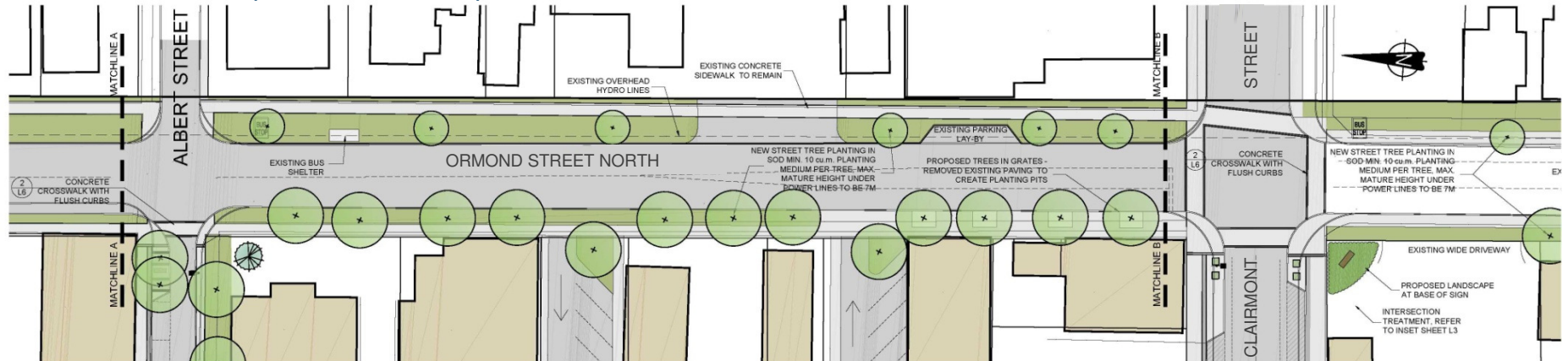
Towpath Street Section A-A



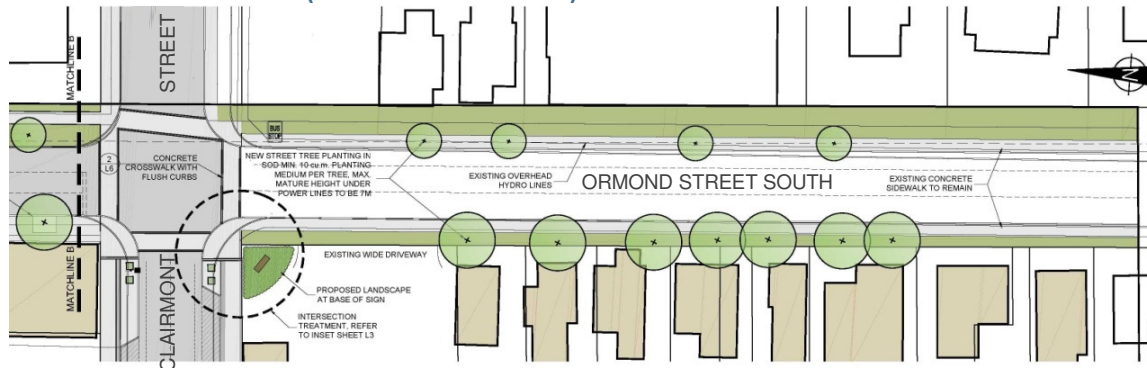
Ormond Street North (Regent to Albert)



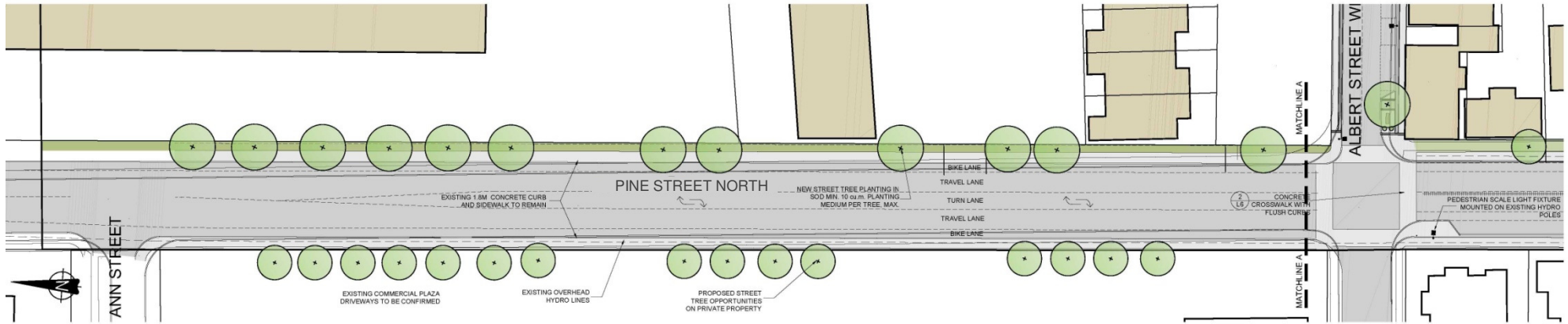
Ormond Street South (Albert to Clairmont)



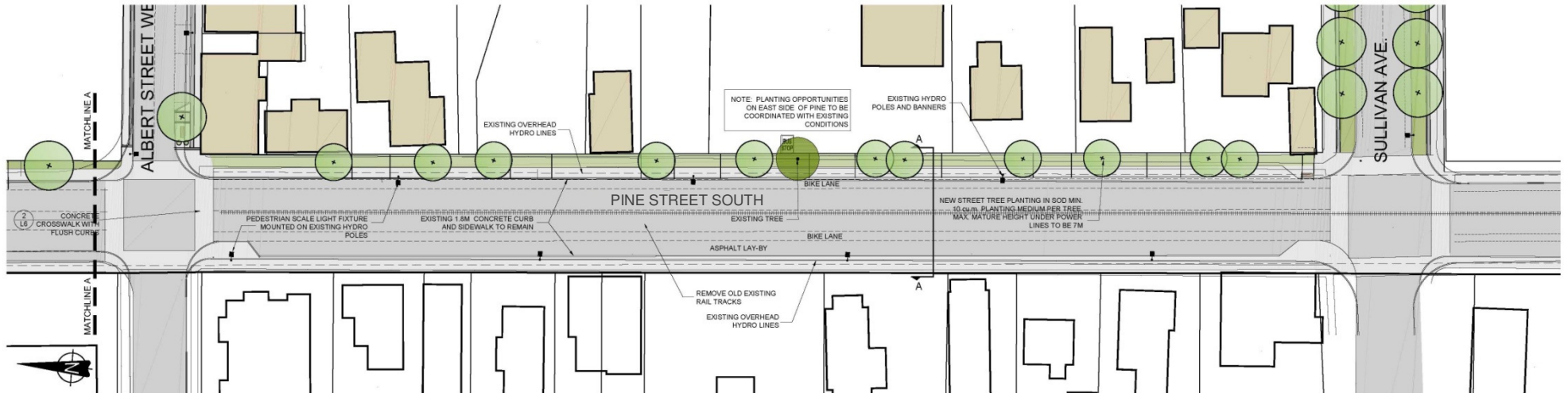
Ormond Street South (South of Clairmont)



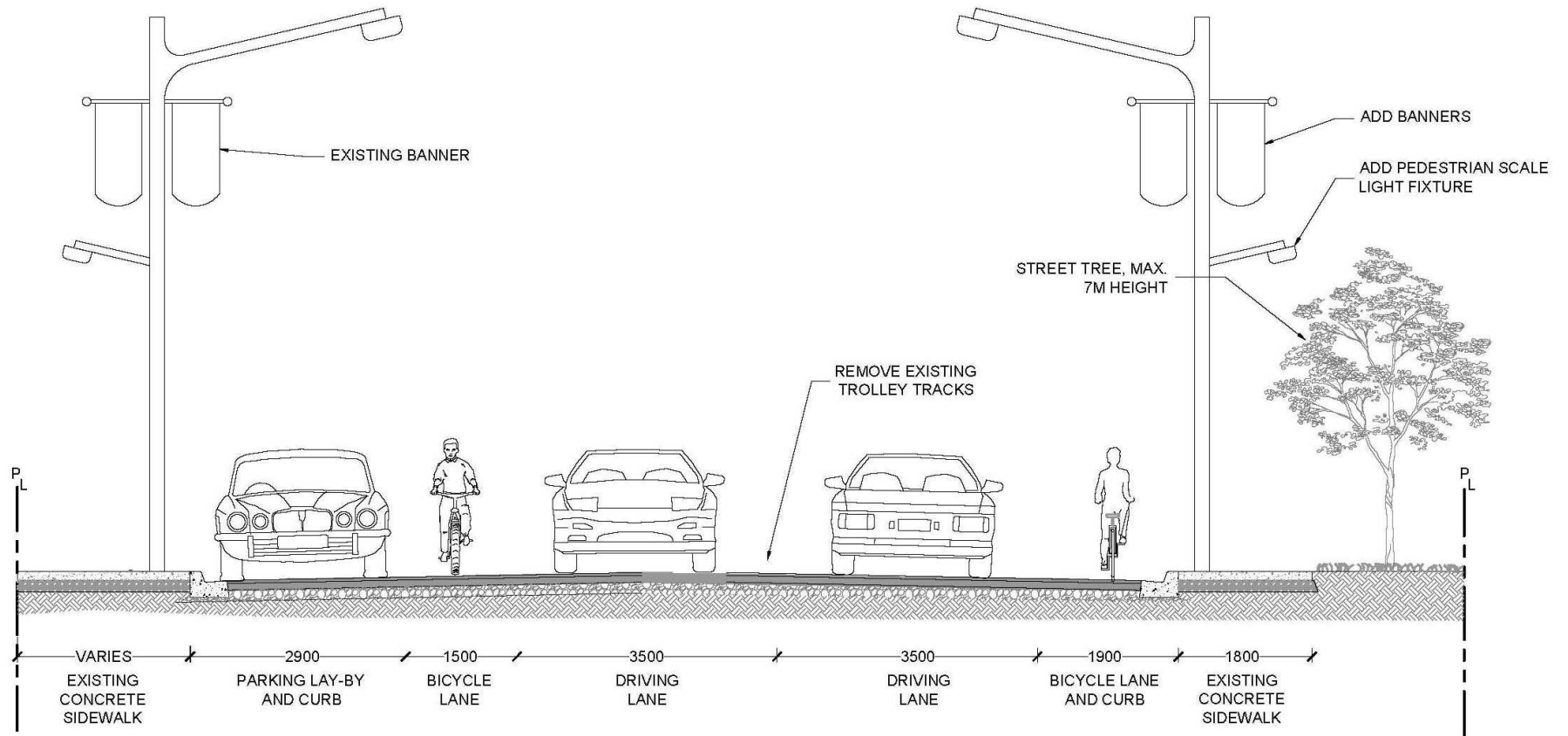
Pine Street North (North of Albert)



Pine Street South (Albert to Sullivan)



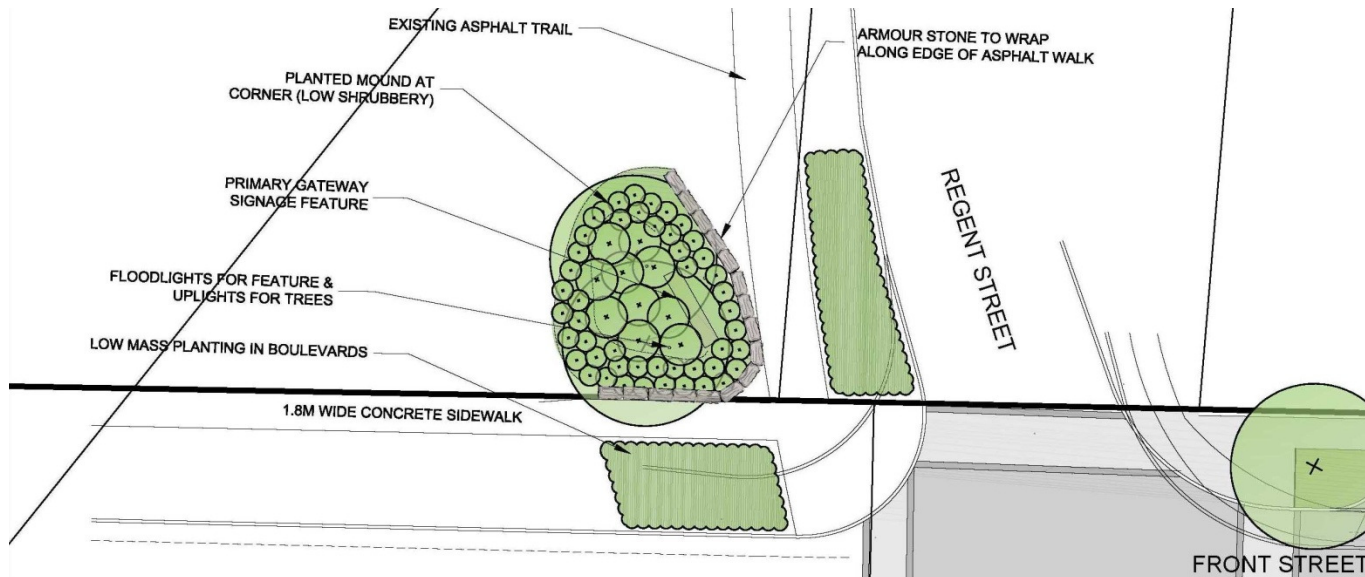
Pine Street Section A-A



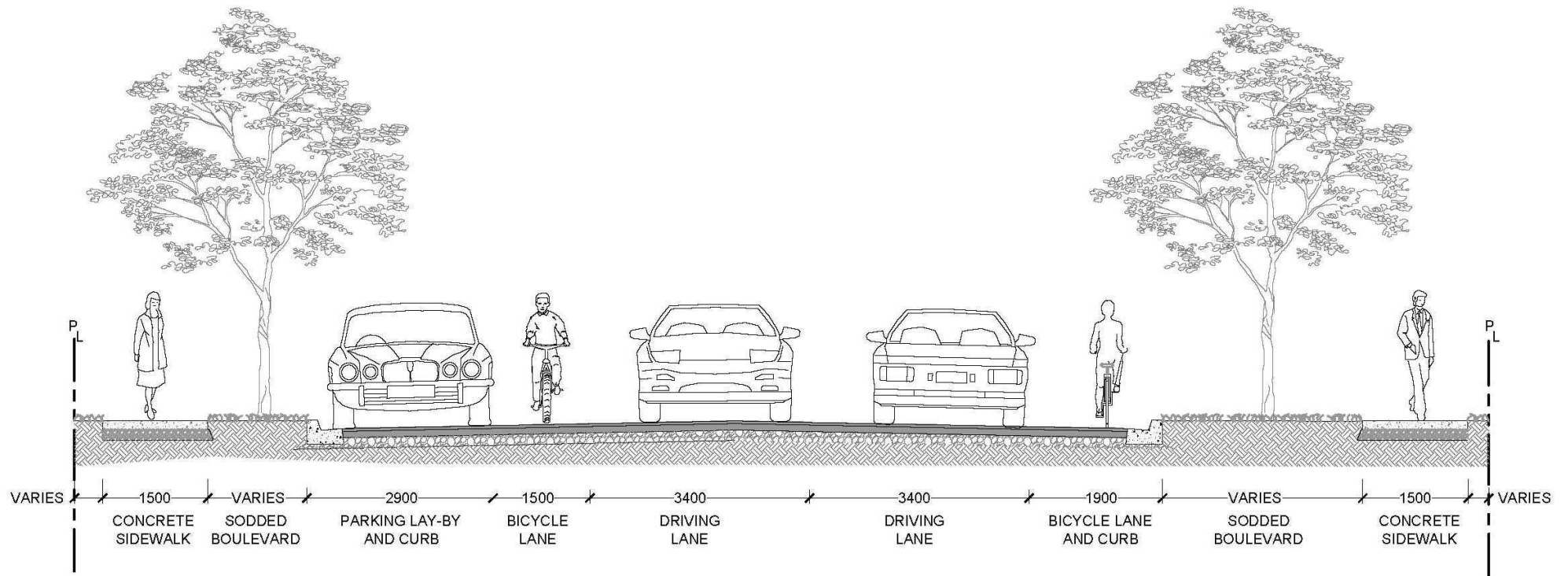
Regent Street



Regent Street – Gateway Enlargement



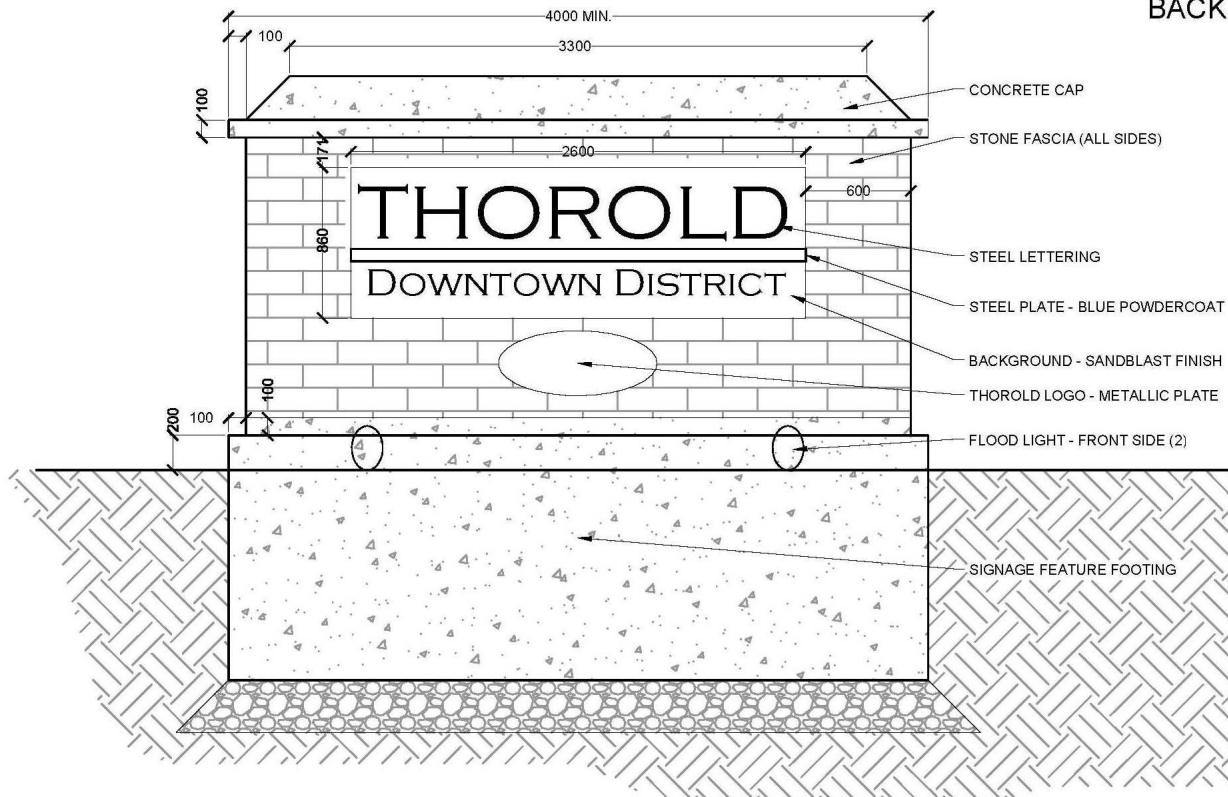
Regent Street Section A-A



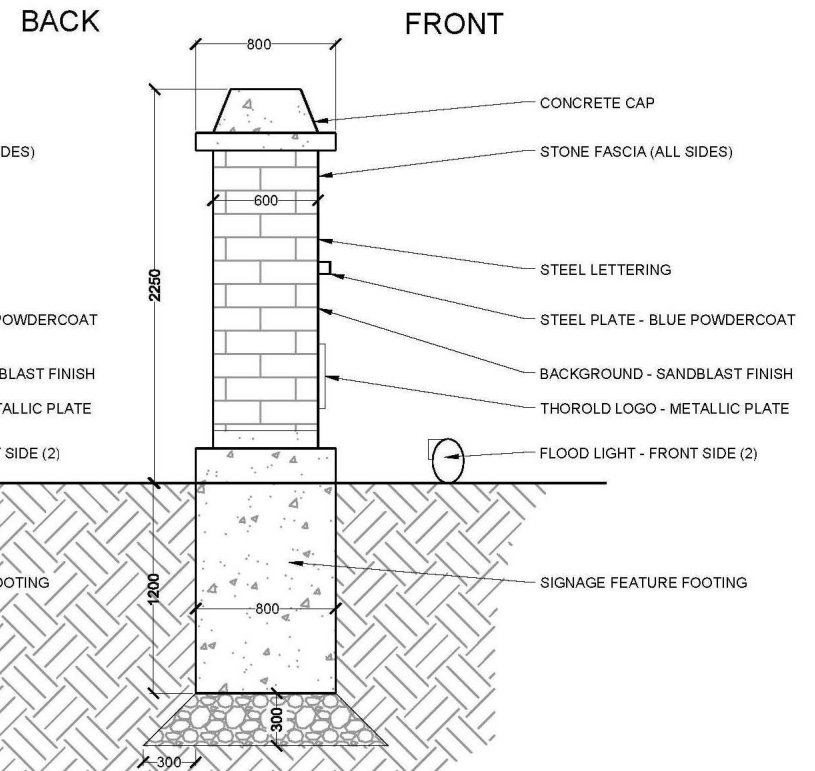
Gateway Signage Details

Primary Gateways

PROFILE

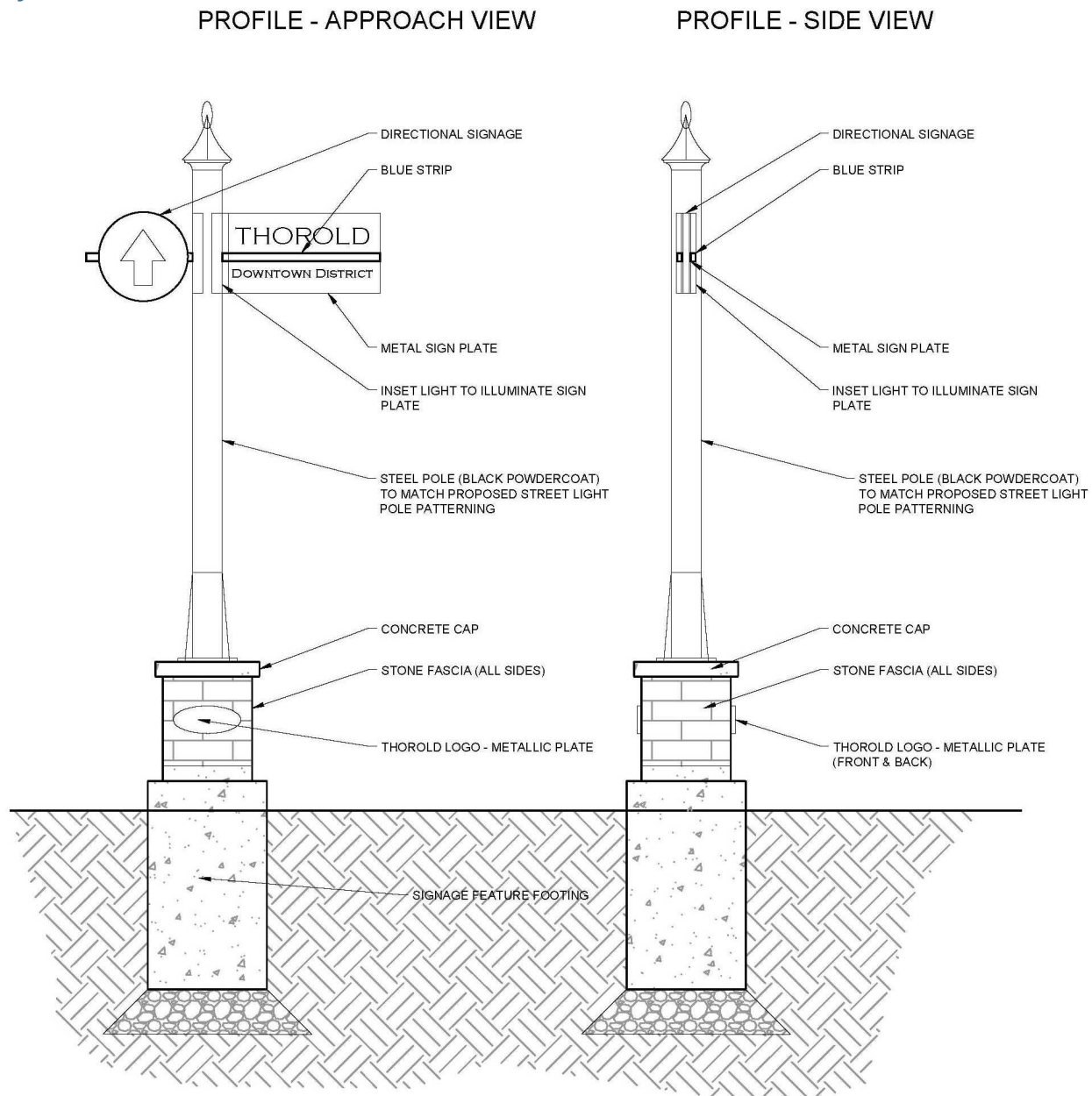


SECTION

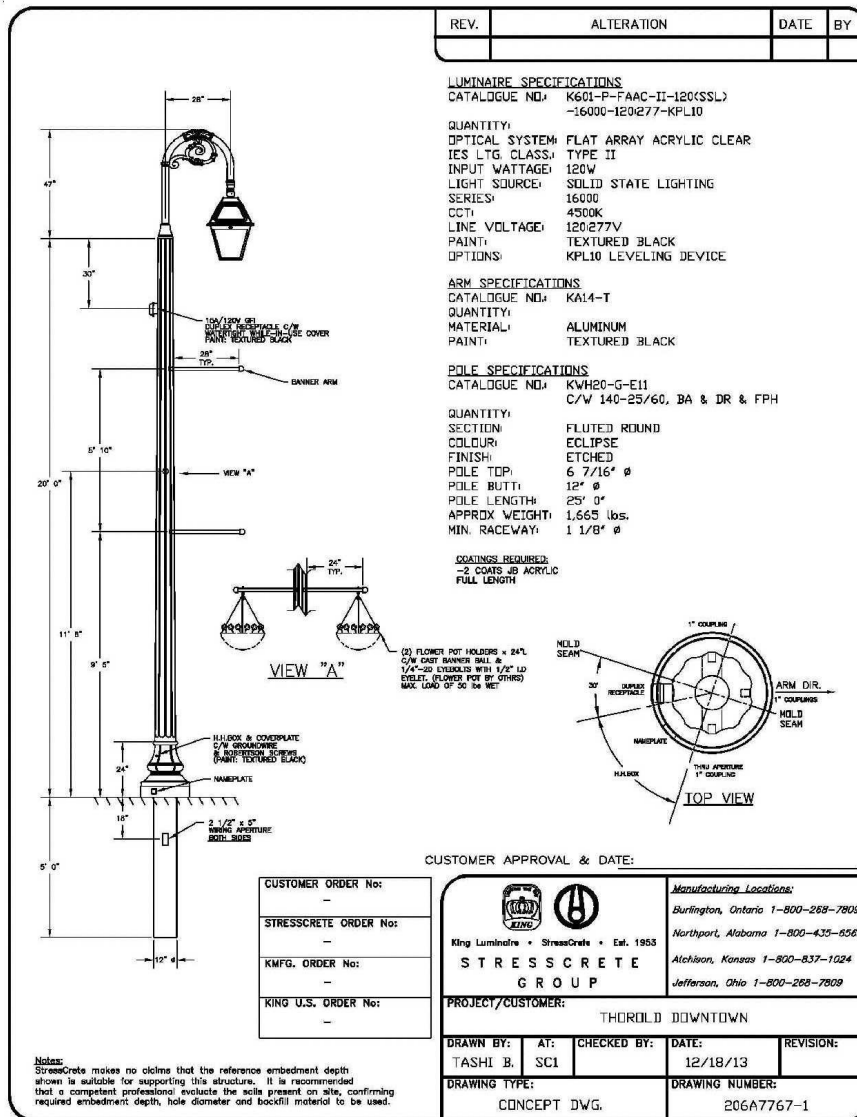


Gateway Signage Details

Secondary Gateways



Streetscape Furnishing Details – Lighting

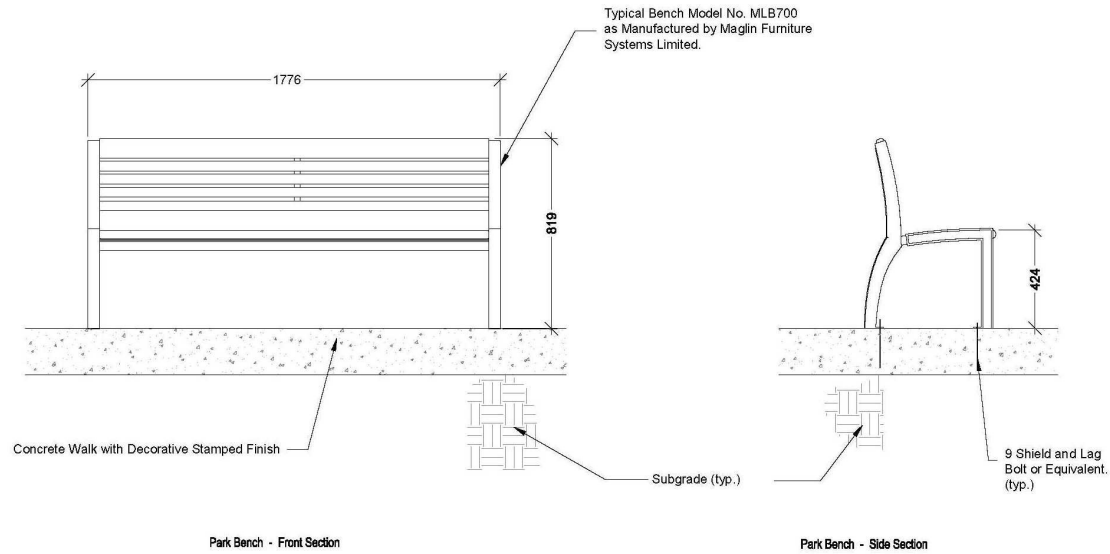


LED Luminaire

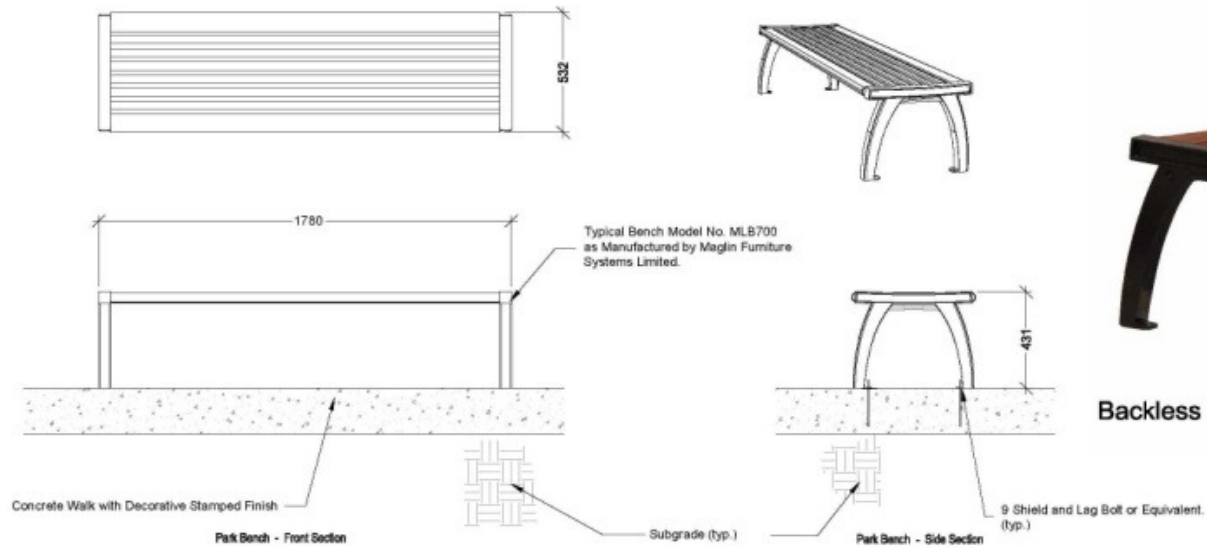


Pole with hanging baskets.

Streetscape Furnishing Details – Benches

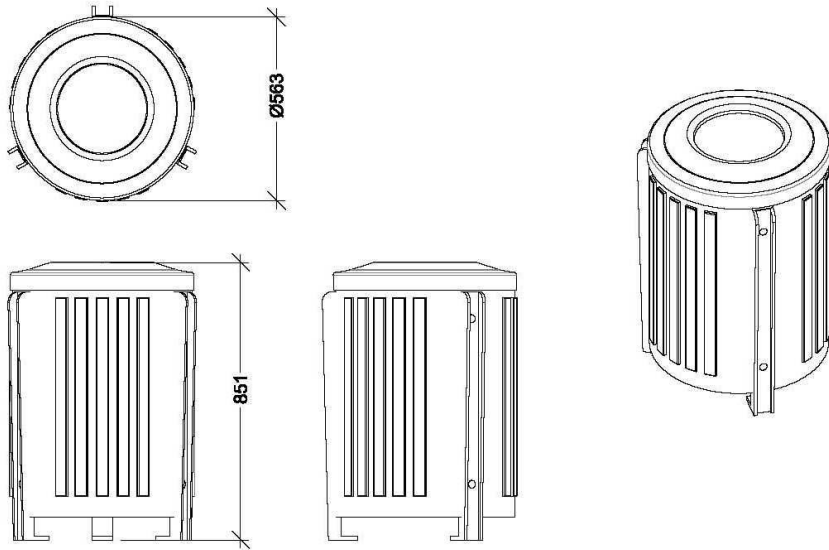


Bench with back - Maglin Site Furnishings



Backless bench option - Maglin Site Furnishings

Streetscape Furnishing Details – Garbage



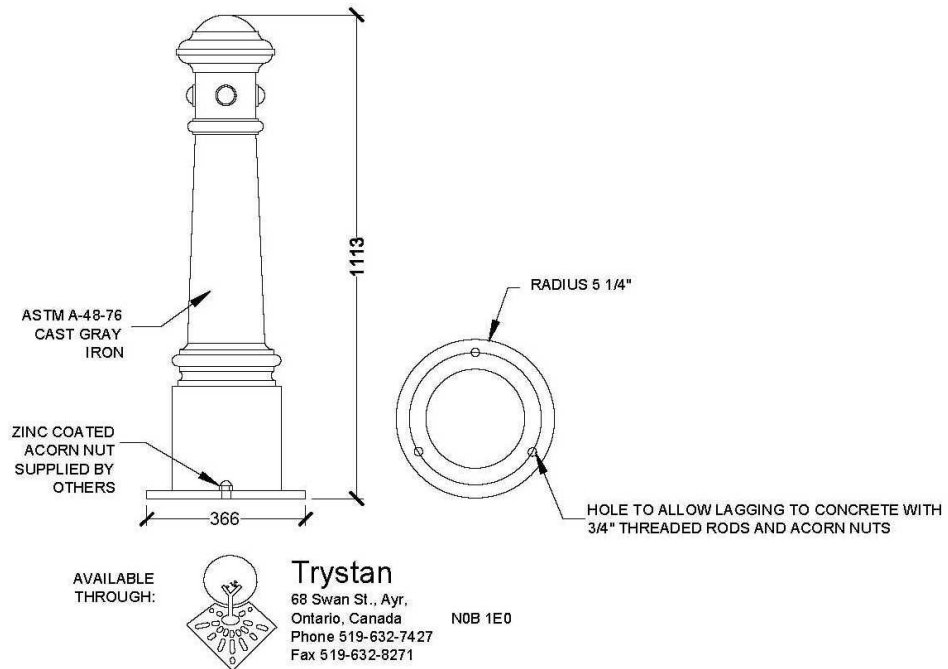
Notes:

1. All dimensions are in mm
2. All steel components are maglin powder coated as per manufacturers specifications.
3. Receptacle colour to be indicated
4. The receptacle is delivered pre-assembled. Holes (8mm) are provided in each foot for securing to base. Contractor to provide hardware for installation



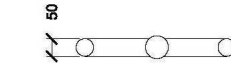
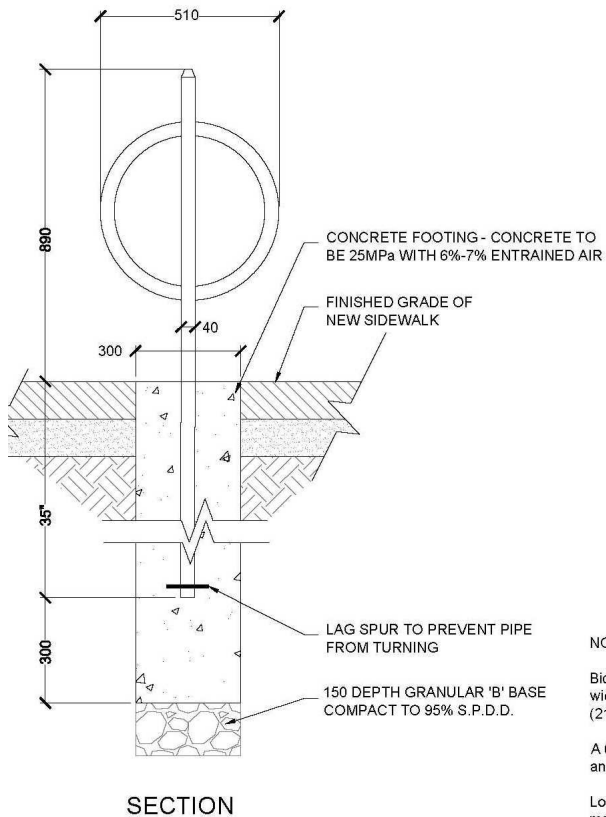
Waste receptacle supplied by Maglin Site Furnishings

Streetscape Furnishing Details – Bollards



Windsor series bollard - Trystan Site Furnishings

Streetscape Furnishing Details – Bike Racks



PLAN VIEW

NOTES:

- Materials:** Steel tubing (1.6" diam.) and flatbar mounting plate.
- Dimensions:**
- Height: 36" standard
 - Circle Width: 20"
 - Frame: 1.625 diam. round tubing
- Weight:** 25lbs
- Finish:** Powdercoated. All steel components are rustproofed prior to powdercoating.
- Colour:** Black
- Installation:** May be set in concrete or bolted down to surface with an optional mounting plate.

NOTES:

Bicycle parking spaces should be atleast 6' (1800mm) long and 2' (600mm) wide, and overhead clearance in covered spaces should be atleast 6'-10" (2100mm).

A 6' (1800mm) min. Wide aisle for bicycle maneuvering should be provided and maintained beside or between each row of bicycle parking.

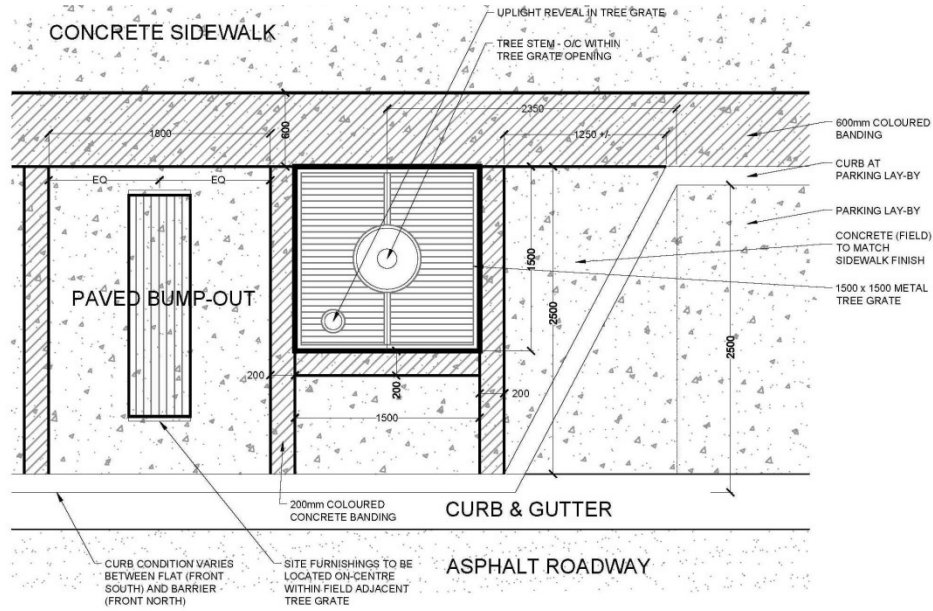
Locate bicycle parking in a well-lit, secure location within 15 meters of the main entrance to building.

Allow for 1800mm width pedestrian passage within public right-of-way.

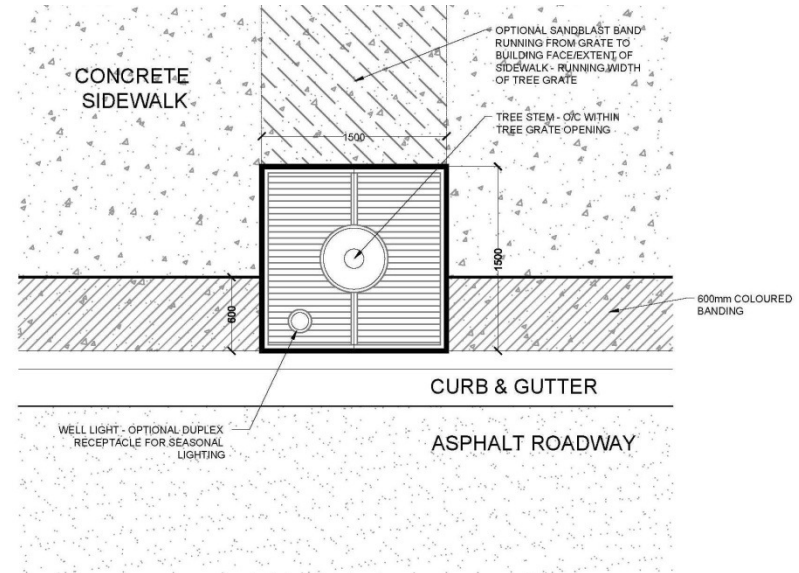


Post & ring rack supplied by Maglin Site Furnishings

Streetscape Furnishing Details – Tree Grates



1 TREE GRATE DETAIL - FRONT & ALBERT STREET
Scale 1:30



2 TREE GRATE DETAIL - CLAIRMONT STREET
Scale 1:30



Steel tree grate - Trystan Site Furnishings



Steel tree grate (precedent)



Concrete tree grate (alternative)

Streetscape Furnishing Details – Pavement Treatment



**Banding
Charcoal Colour**



**Field
Broom Finish**



Front Street South - Flat Street Precedent (Top)

Front Street North - Lay-By & Curb Precedent (Bottom)



**Banding (Alternative)
Sandblast Finish**

Streetscape Furnishing Details – Planters



Contempra Series Planters
Size Varies - Round or Square
Colour Options Available

Manufactured & Supplied by:
BARKMAN CONCRETE

Streetscape Furnishing Details



Metal Bench - MLB310M Maglin Site Furnishings



Traffic Bollard - Maglin Site Furnishings



Cluster Bike Rack - Trystan Site Furnishings



MLWR250 Supplied by
Maglin Site Furnishings

Streetscape Furnishing Details – Options



Tree guard option where tree grates are proposed



Street names in concrete banding at corners

Front Street South - Flat Street Concept - view looking north from Clairmont Street

Recommended Planting List

Trees:

Acer x freemanii	(Red Maple Cultivar)
Acer rubrum 'Bowhall'	(Red Maple)
Celtis occidentalis	(Hackberry)
Platanus x acerifolia 'Bloodgood'	(Planetree)
Quercus macrocarpa	(Burr Oak)
Quercus rubra	(Red Oak)
Quercus robur 'Fastigiata'	(Pyramidal Oak)
Pyrus calleryana	(Ornamental Pear)
Tilia americana 'Redmond'	(Linden)
Ulmus x 'Homestead'	(Homestead Elm)

Perennials:

Echineacea	(Coneflower)
Hemerocallis sp.	
Hosta sp.	
Rudbeckia	(Black Eyed Susan)
Sedum sp.	(Sedum)

Groundcovers:

Hedera sp.	(Baltic Ivy)
Vinca minor	(Periwinkle)

Shrubs:

Buddleja	(Butterfly Bush)
Cornus	(Dogwood)
Euonymus alatus	(Burning Bush)
Hypericum	(Pot " Gold)
Myrica	(Bayberry)
Potentilla	(Cinquefoil)
Prunus x cistena	(Purple Sandcherry)
Spiraea	(Spirea)
Juniperus sp.	(Juniper)

Ornamental Grasses:

Bouteloua gracilis	(North Sea Oats)
Calamagrostis x acutiflora	(Feather Reed Grass)
Helictorichon sp.	(Blue Oat Grass)
Pennistenum sp.	(Fountain Grass)
Deschampia sp.	(Tufted Hair Grass)

6. LINEAR PARK

As well as design recommendations for streetscape improvements, the Streetscape Master Plan also provides a conceptual vision for the linear park corridor that runs north-south through the area along the alignment of the former Welland Canal. The City currently contains significant landholdings within this corridor, which generally runs between Regent/Front to the north and Ormond/Lymond to the south, and Pine Street to the west and Front Street to the east. These landholdings include the properties associated with the utility buildings, fire hall, Towpath parking lot, and Battle of Beaverdams Park.

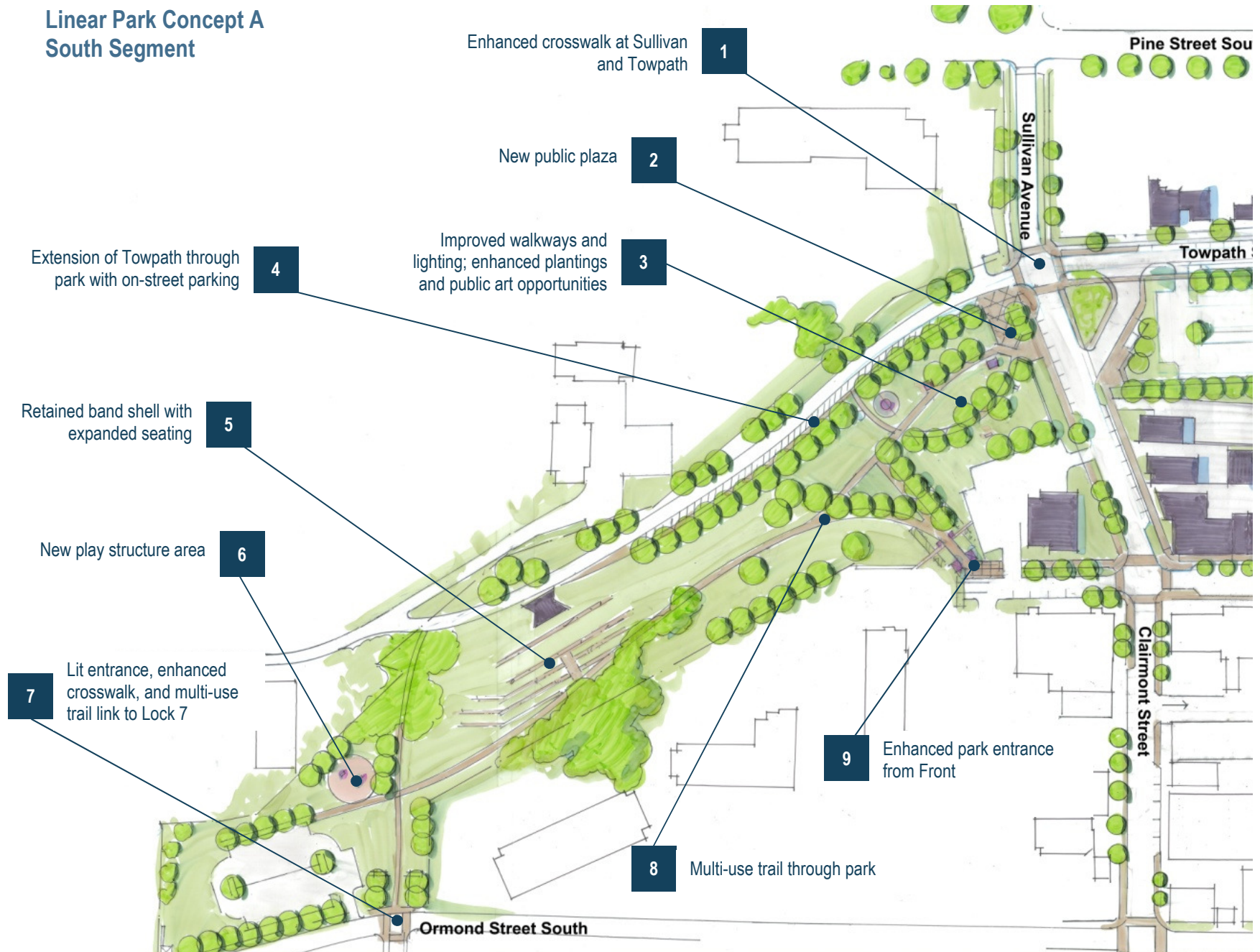
Two concepts for the linear park provide different options as to how this linear corridor could be redesigned and redeveloped over time. The concepts are divided into three segments: (1) the north segment between Regent and Albert; (2) the central segment between Albert Street and Sullivan Avenue; and (3) the southern segment south of Sullivan Avenue, corresponding to the existing Park. As per the “Supporting Initiatives” section of the Streetscape Master Plan below, the City is recommended to undertake a detailed master plan for the linear park to identify preferred elements and technical considerations in coming to a detailed plan for this space.



Linear Park Concept A (L10)



Linear Park Concept A South Segment



Linear Park Concept A Central Segment



Linear Park Concept A North Segment

New public plaza with all-season programming (skating markets, informal seating, gateway elements)

1

New multi-use trail through area

2

Terraced public plaza with Escarpment theme

3

Pine Street North

Albert Street West

Front Street North

Albert Street East

Ormond Street North

4

Extension of Regent to Albert

5

New public parking area accessed off Regent extension

6

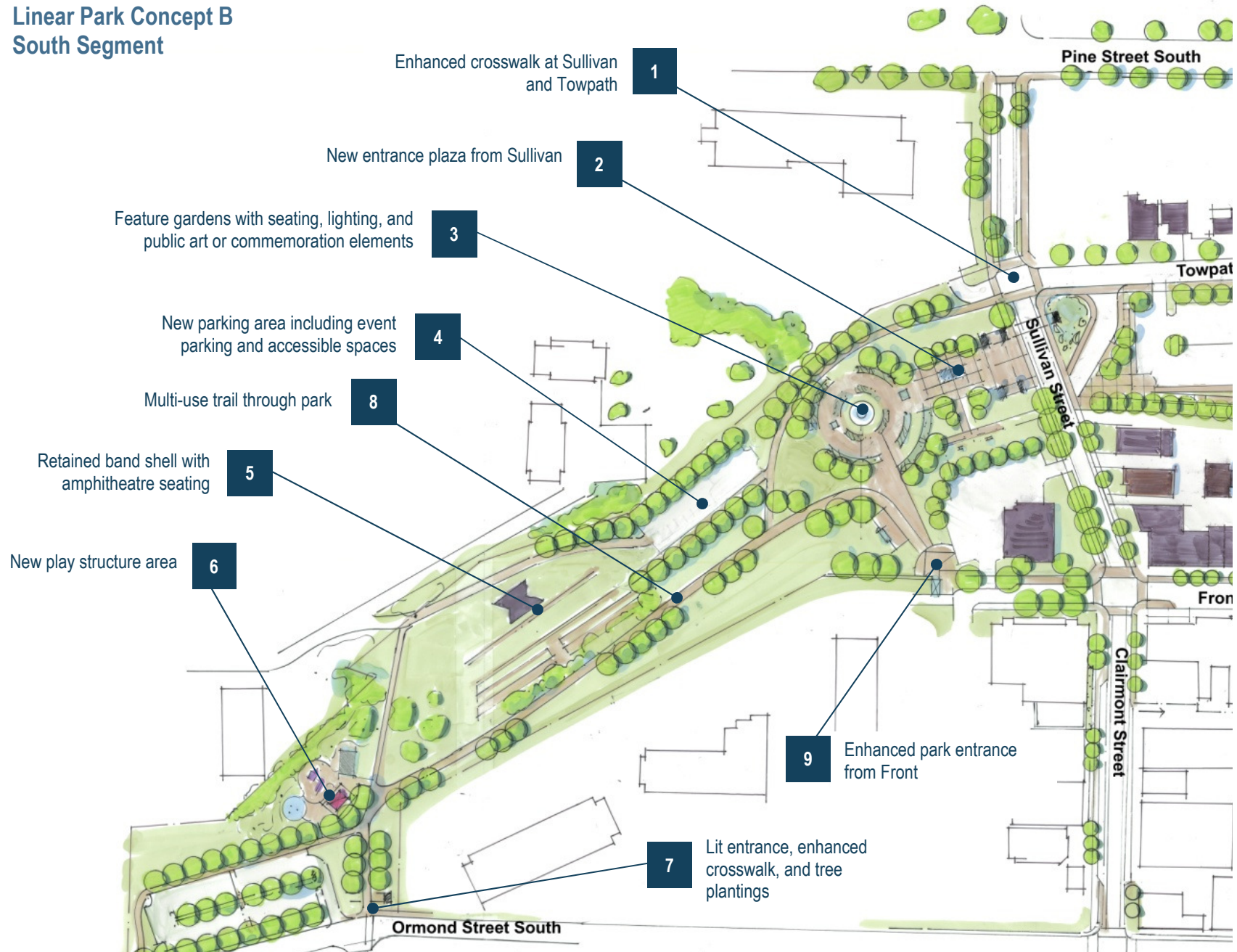
New "gateway" building at Front and Regent

Regent Street

Linear Park Concept B (L11)



Linear Park Concept B South Segment



Linear Park Concept B Central Segment



Linear Park Concept B – North Segment



Linear Park Precedents

Enhanced planted areas



Water play features



Gathering spaces



Water features



Heritage commemoration



Programmable open spaces

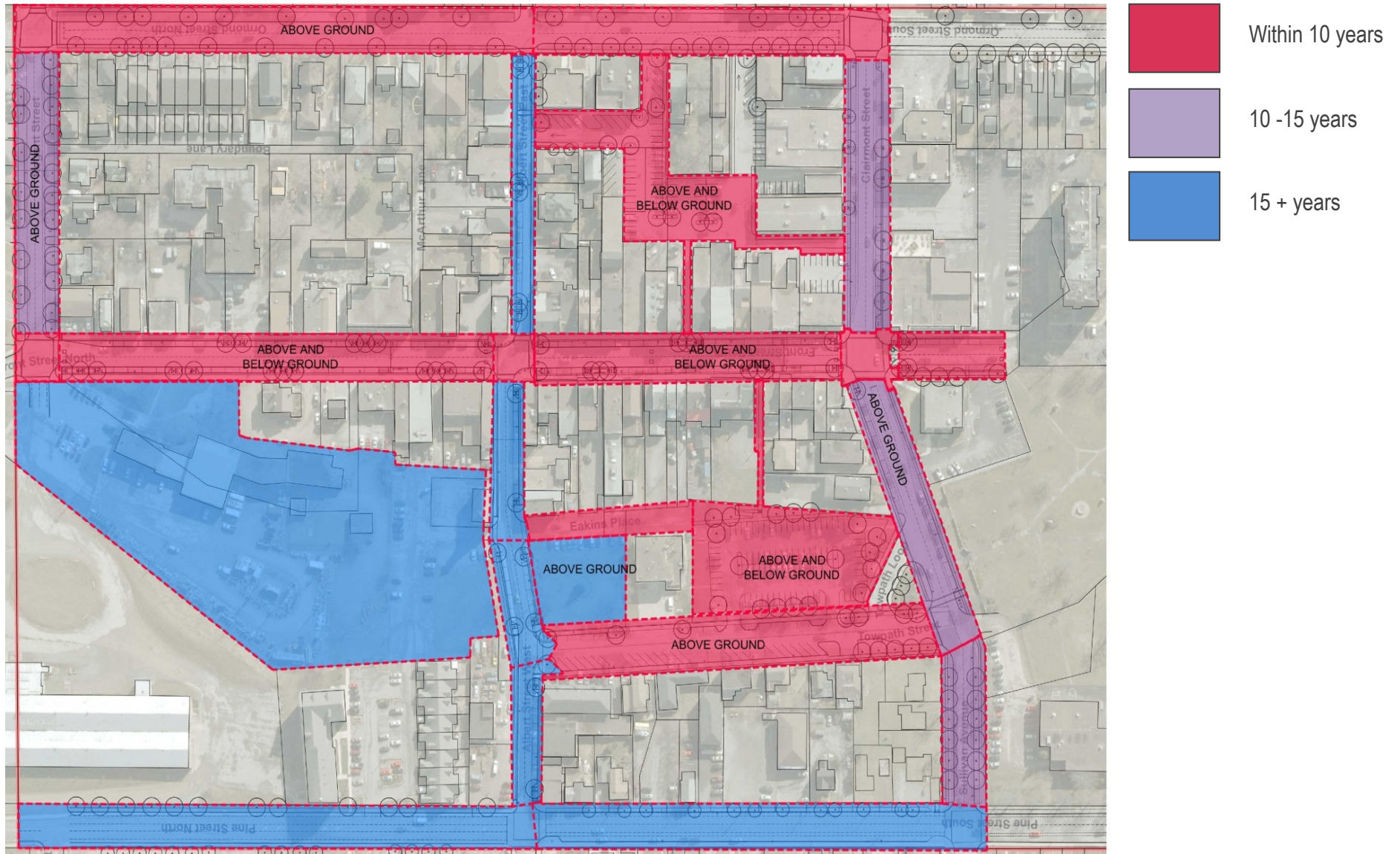


Entrance elements



7. PHASING AND COSTING

Proposed Phasing Schedule



Cost Estimate: Within 10 Years

Streetscape: Within 10 year forecast for reconstruction		
Preliminary cost estimate for above ground streetscape improvements only (N.I.C. infrastructure replacement, or removals of underground utilities)		
1)	Front Street South - Clairmont Street to the Park	\$ 148,581
2)	Front Street South, Albert Street to Clairmont Street	\$ 651,123
3)	Front Street North, Albert Street to Regent Street	\$ 822,528
4)	Intersection of Front Street and Clairmont/Sullivan Street	\$ 96,344
5)	Intersection of Front Street and Albert Street	\$ 75,097
6)	Intersection of Front Street and Regent Street	\$ 77,952
<i>Note: Front Street-In the 10 year forecast to be fully reconstructed above and below ground</i>		
7)	Ormond Street	\$ 709,645
<i>Note: Ormond Street-In the 10 year forecast for reconstruction above ground only</i>		
8)	Municipal Parking Lot A and Pedestrian Laneway	\$ 335,398
9)	Municipal Parking Lot B, walkways and accessible pedestrian ramp	\$ 343,591
10)	Towpath Street - Sullivan Street to Albert Street (includes option to remove bus loop)	\$ 345,527
<i>Note: Recently resurfaced but parking encroaching into R.O.W. Propose urbanizing street and removing bus loop-rerouting bus route down Front Street.</i>		
Phase 1-10 Year Streetscape Total		\$ 3,605,785

Cost Estimate: 10 – 15 Years

Streetscape: 10 -15 year forecast for reconstruction - Above Ground		
Preliminary cost estimate for above ground streetscape improvements only		
11)	Regent Street - Front Street to Ormond Street	\$ 169,081
	<i>Note: Underground is relatively new, thus only above ground works are proposed</i>	
12)	Clairmont Street - Front Street to Ormond Street	\$ 295,131
13)	Sullivan Avenue - Towpath Street to Front Street	\$ 240,635
14)	Sullivan Avenue - Pine Street to Towpath Street	\$ 106,865
Phase 10-15 year Streetscape Total		\$ 811,712

Cost Estimate: 15+ Years

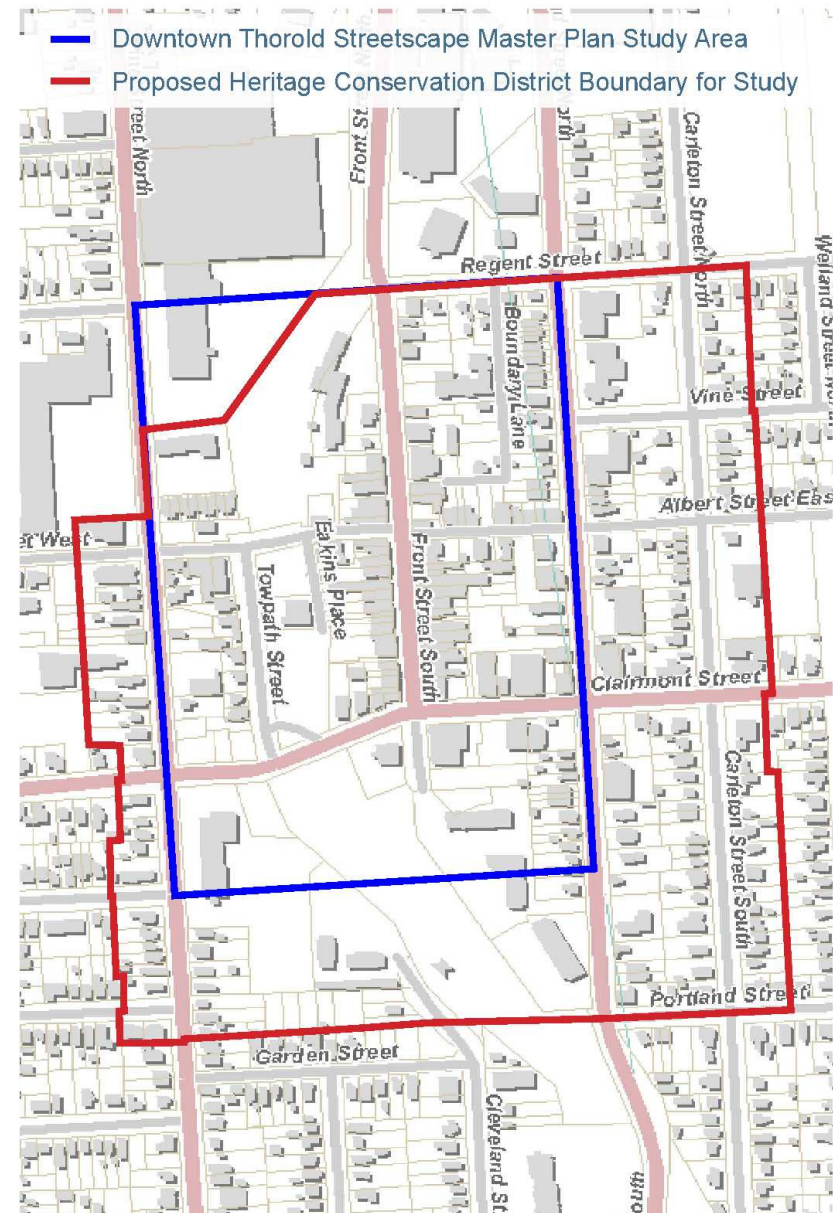
Streetscape: 15-20 year forecast for reconstruction above ground		
<i>Preliminary cost estimate for above ground streetscape improvements only</i>		
15)	Albert Street - Pine Street to Towpath Street	\$ 105,006
16)	Albert Street - Towpath Street to Eakins Place	\$ 75,000
17)	Albert Street - Eakins Place to Front Street	\$ 85,000
<i>Note: Recently Reconstructed, thus proposed streetscape improvements are above ground works only</i>		
18)	Pine Street - Sullivan Avenue to Albert Street	\$ 354,319
19)	Pine Street - Albert Street to Ann Street	\$ 275,000
<i>Note: Propose removal of abandoned rail way in road. Proposed bike lanes.</i>		
Phase 15-20 Year Streetscape Total		\$ 894,325

Linear Park (Concept A): 15-20 year forecast for reconstruction above ground		
<i>Note: N.I.C. Proposed Gateway building, site remediation, infrastructure-(existing Regional Trunk Sanitary Sewer and large storm sewer)</i>		
	Battle of Beaverdams Park Improvements	\$ 699,776
	Plaza at Albert and Towpath Streets	\$ 262,625
	North Park	\$ 1,175,004
Phase 15-20 Year Park Improvements Total		\$ 2,137,405

8. SUPPORTING INITIATIVES

Heritage Conservation District Study

Martindale Planning Services was engaged as part of the Downtown Thorold Streetscape Master Plan study to explore the merits of designating the downtown as a heritage conservation district (HCD) in accordance with Part V of the *Ontario Heritage Act*. The assessment investigated the potential benefits and drawbacks of heritage conservation districts; common characteristics of heritage districts; the existing inventory and description of heritage resources in Downtown Thorold; and, a potential boundary for a heritage conservation district. While not a detailed or comprehensive examination of the advantages and disadvantages of designating downtown Thorold as a heritage conservation district, the assessment recommended that the City proceed with a heritage conservation district study to: a) examine the suitability of establishing a heritage conservation district and (b) determine the appropriate boundaries for such a district. The proposed study area for the heritage conservation district study is bounded by Regent Street to the north and Portland Street to the south, and Pine Street and Carleton Street to the west and east, respectively (including the properties on both sides of the streets).



Business Improvement Area Boundary Expansion

Exploring the merits of expanding the Thorold Business Improvement Area (BIA) boundary was also a component of the Downtown Streetscape Master Plan study. Section 209 of the Municipal Act, 2001 provides that the City may alter the boundaries of an improvement area by passing a by-law. Notice of the City's intent to pass such a by-law must be sent to the board of management and to every person who is assessed for rateable property that is in a prescribed business property class which is located in the existing and the proposed expanded area. Written objections to the proposed by-law which are signed by at least one-third of the persons entitled to notice representing at least one-third of the taxes levied for purposes of the general local municipality levy on rateable property in all prescribed business property classes in the improvement area or the expansion area prevents passage of the by-law.

Based on review of the study area, the City together with the Thorold BIA should further examine the interests for expanding the BIA boundary. Currently the BIA boundary is generally comprised of portions of Front Street and Ormond Street and the side streets extending from these two streets. The starting point for discussion of boundary expansion should be the boundaries of the "Core Area" designation in the Thorold Official Plan and the commercial properties within that boundary. Specifically, two notable areas that should be considered for inclusions are additional commercial properties along Pine Street as well as the north portions of Front Street.

Additionally, it suggested that any consideration of the BIA boundary expansion should be coordinated with consideration of expansion of incentive programs as part of the Community Improvement Plan.

Linear Corridor Master Plan

The alignment of the former Welland Canal through Downtown Thorold presents a unique opportunity for the City and the community to create a distinct signature element for the area. This opportunity is largely the result of a number of factors: the land is largely owned by the City; the existing Battle of Beaverdams Park at the south end of this linear corridor; and, the presence abutting the Front Street commercial corridor. While the Downtown Streetscape Master Plan provides two conceptual design concepts for the future improvement of this linear corridor, further detailed study would be required to implement any design. Thus, the City should undertake a master plan process for the linear corridor that provides a more detailed plan, including consideration of parking needs, recreation needs, technical matters (such as grading and soil conditions), pedestrian and cyclist connections, heritage aspects, and community preferences.

Parking Capacity and Management Study

A successful Downtown requires a parking supply that is of a sufficient quantity to support businesses, is appropriately distributed to support activities, and, is accessible and convenient for customers. While there were no glaring evidence that this was not the case in Downtown Thorold, the City should undertake a parking capacity and management study to assess the parking conditions in further detail prior to significant capital expenditures for public realm improvement, as well given interests of residential intensification in Downtown Thorold. Such a parking study for Downtown Thorold would be expected to inventory existing supply of parking (off-street and on-street); analyze utilization rates of existing supply; identify any areas that may have parking deficiencies (quantity or quality of parking); review and evaluate alternatives to address any identified deficiencies; and, review and evaluate alternatives for management and operation (parking enforcement, permit parking, cash-in-lieu of parking rates, and other similar matters of parking control).

Development Design Guidelines

Preparation of Development Design Guidelines was a component of the Downtown Streetscape Master Plan study, which were prepared to express the City's design expectations for development review and are intended to facilitate high quality design within Downtown Thorold. As a flexible guide, the design guidance is focused on the design and development of commercial and mixed-use buildings, rather than residential or other land use types. The overall intent of the Guidelines is to raise the standard for high quality, well-designed projects that support the small scale and pedestrian-oriented developments that complement, and enhance, the existing nature and character of Downtown Thorold.

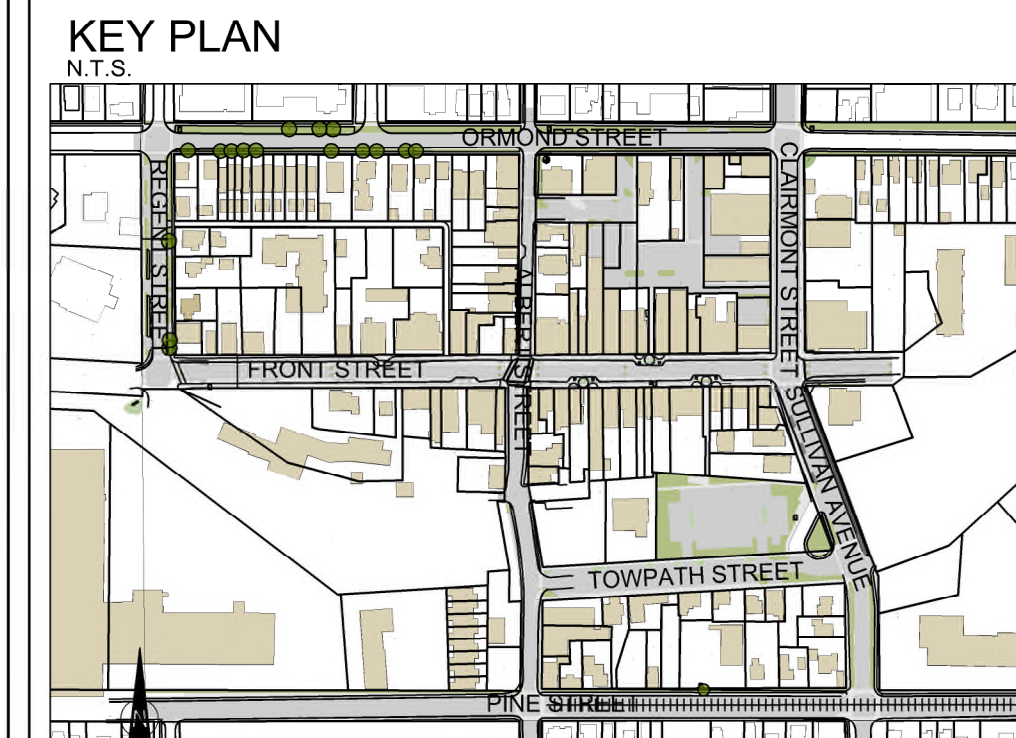
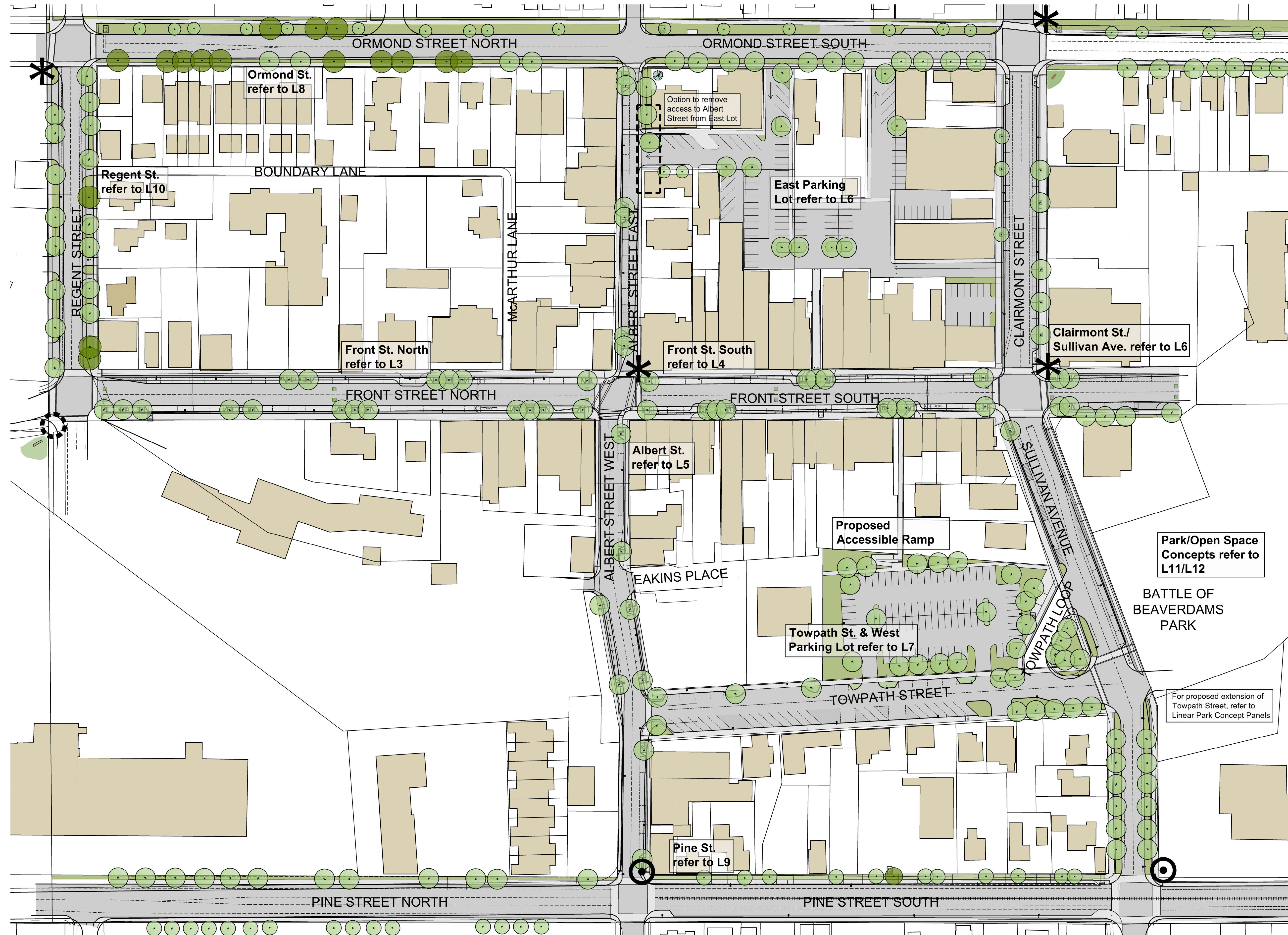
A set of design objectives form the foundation of the Guidelines, which strives for:

1. Existing buildings that are restored to reveal the original heritage character;
2. New buildings that take cues from the existing heritage stock;
3. New buildings that are scaled and massed to reinforce the street;
4. Transparent ground floor façade oriented to the pedestrian;
5. Upper storey facades that complement the ground floor;
6. New facades with complementary materials and colours;
7. Attractive signage designed to embrace a traditional character;
8. Parking areas that are attractive and comfortable for users;
9. Public art that enhances the “sense of place” in the community;
10. Utilities and service areas that are hidden from view.

The City should formally adopt these Guidelines concurrently with the endorsement of the Downtown Streetscape Master Plan for use by City staff in the review of planning and development applications in Downtown Thorold.

APPENDIX A

Streetscape Drawings



- Legend**
- Proposed Primary Gateway
 - Proposed Secondary Gateway

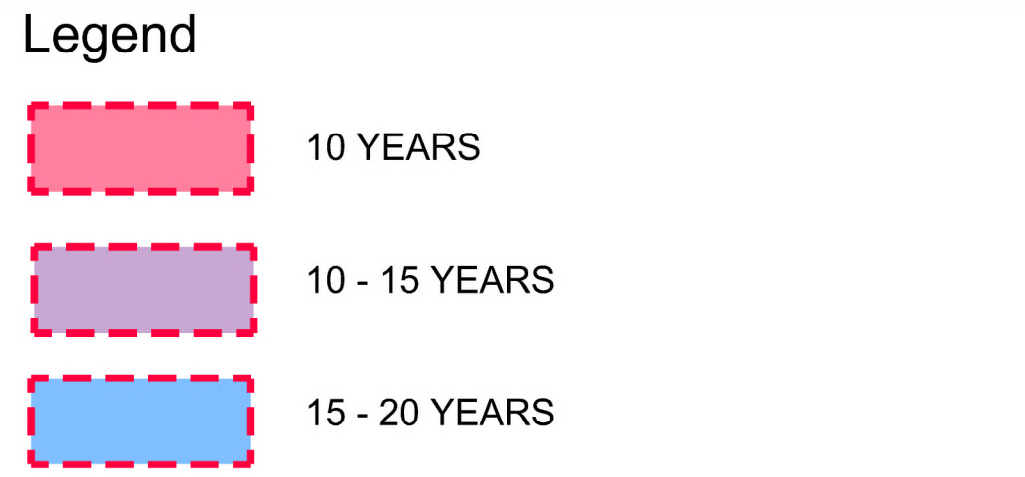
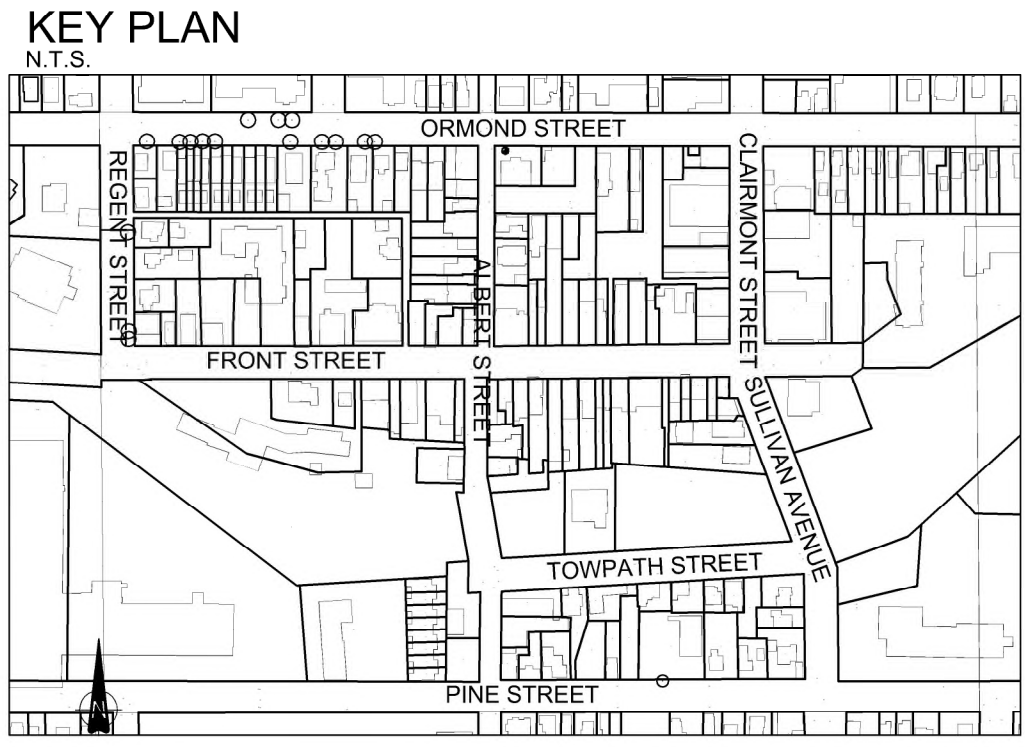
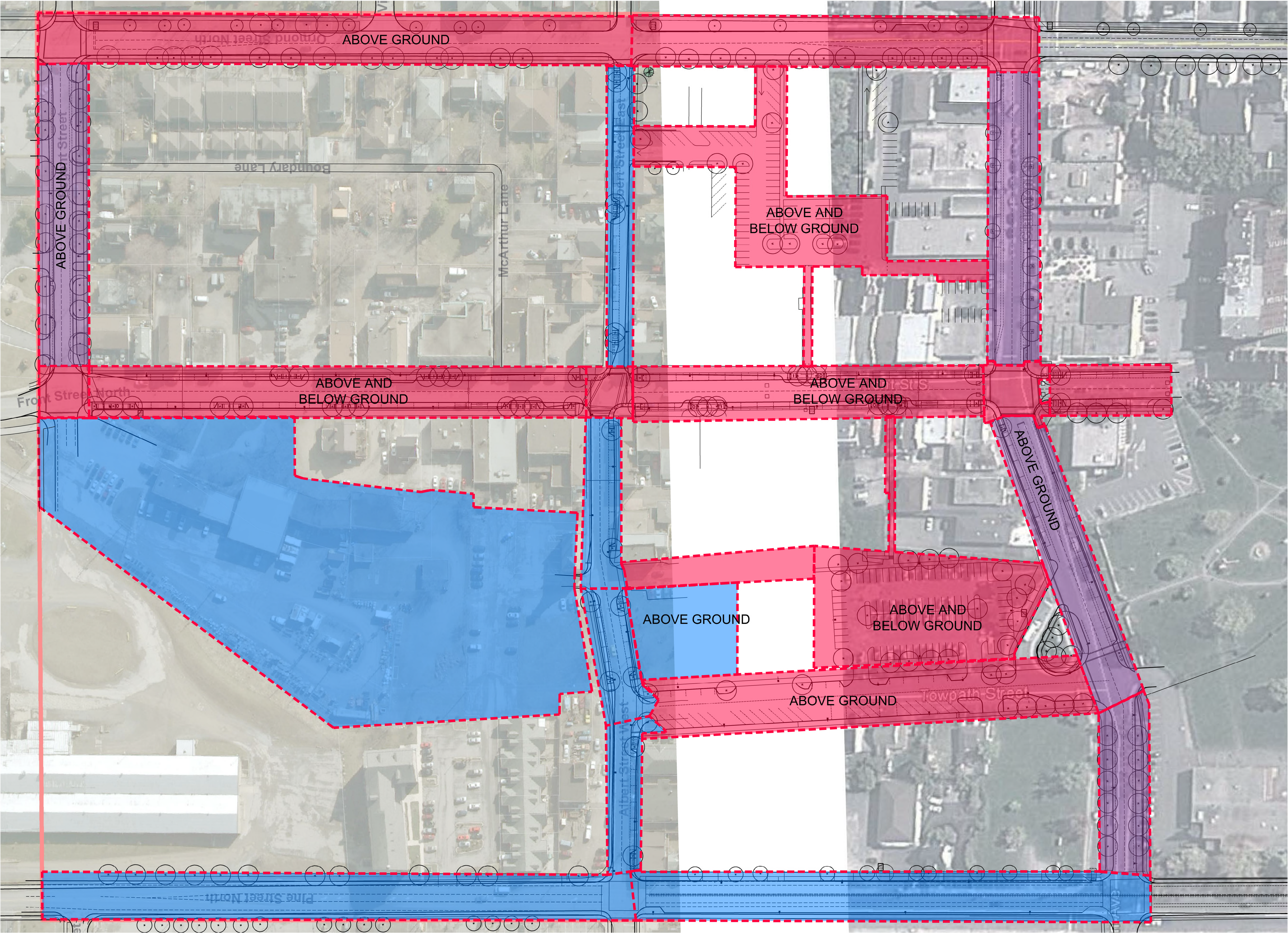
OVERALL STUDY AREA PLAN

Thorold, ON



Date: February 2014
Scale: 1: 400
Drawn By: MZ, CZ
Project No.: 13059

L1

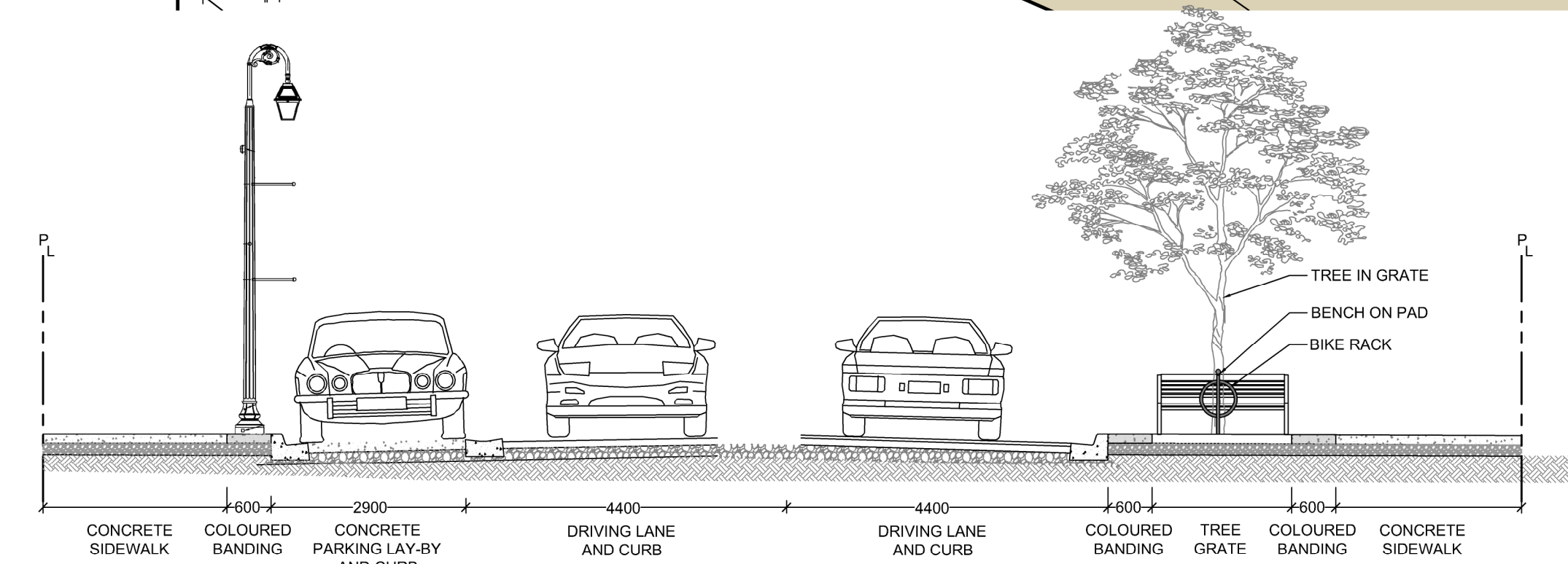
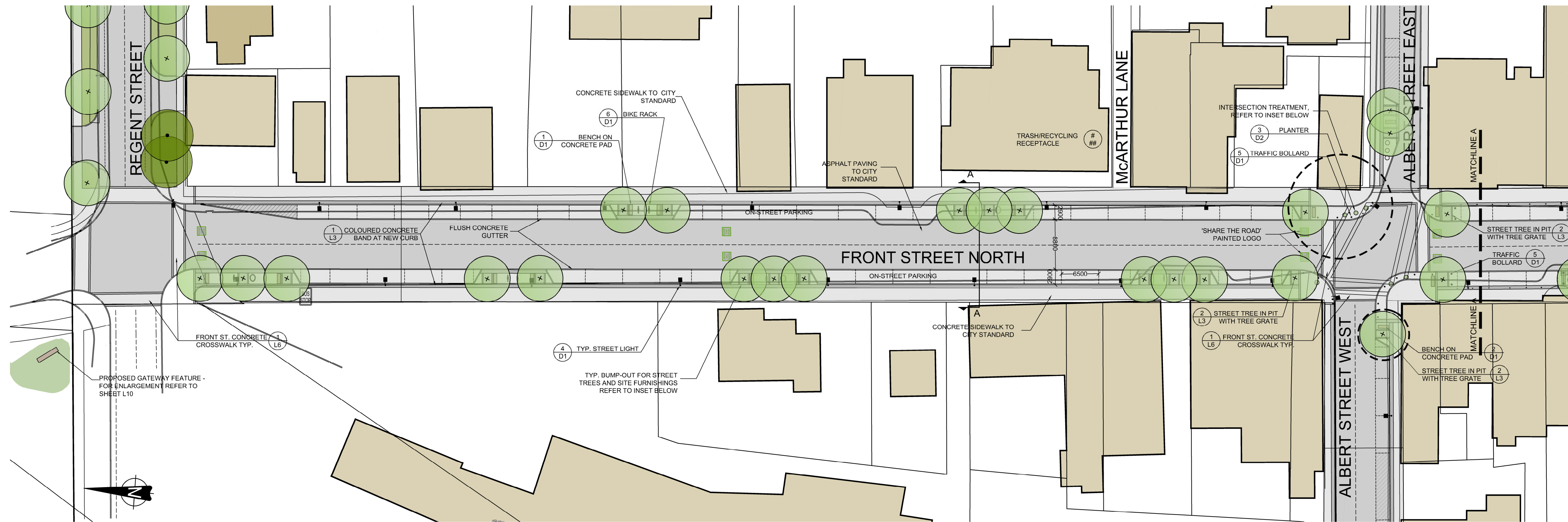


**PHASING
PLAN**
Thorold, ON

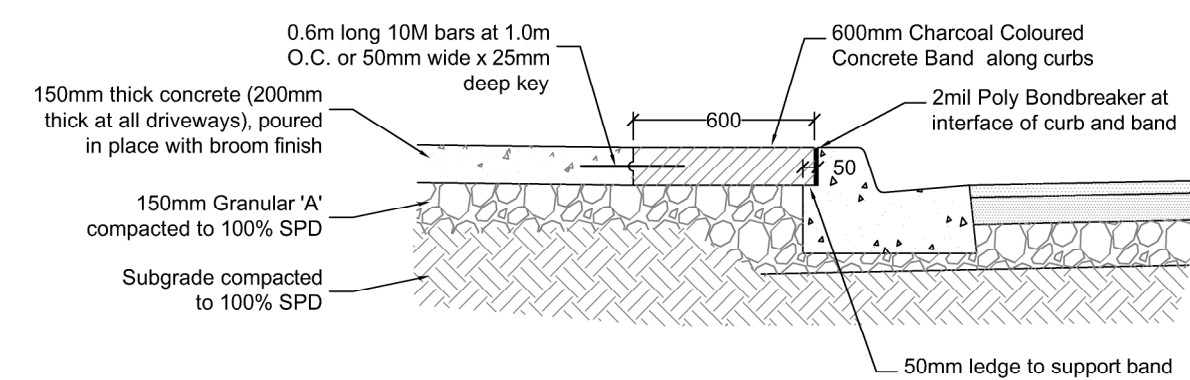


Date: February 2014
Scale: 1: 400

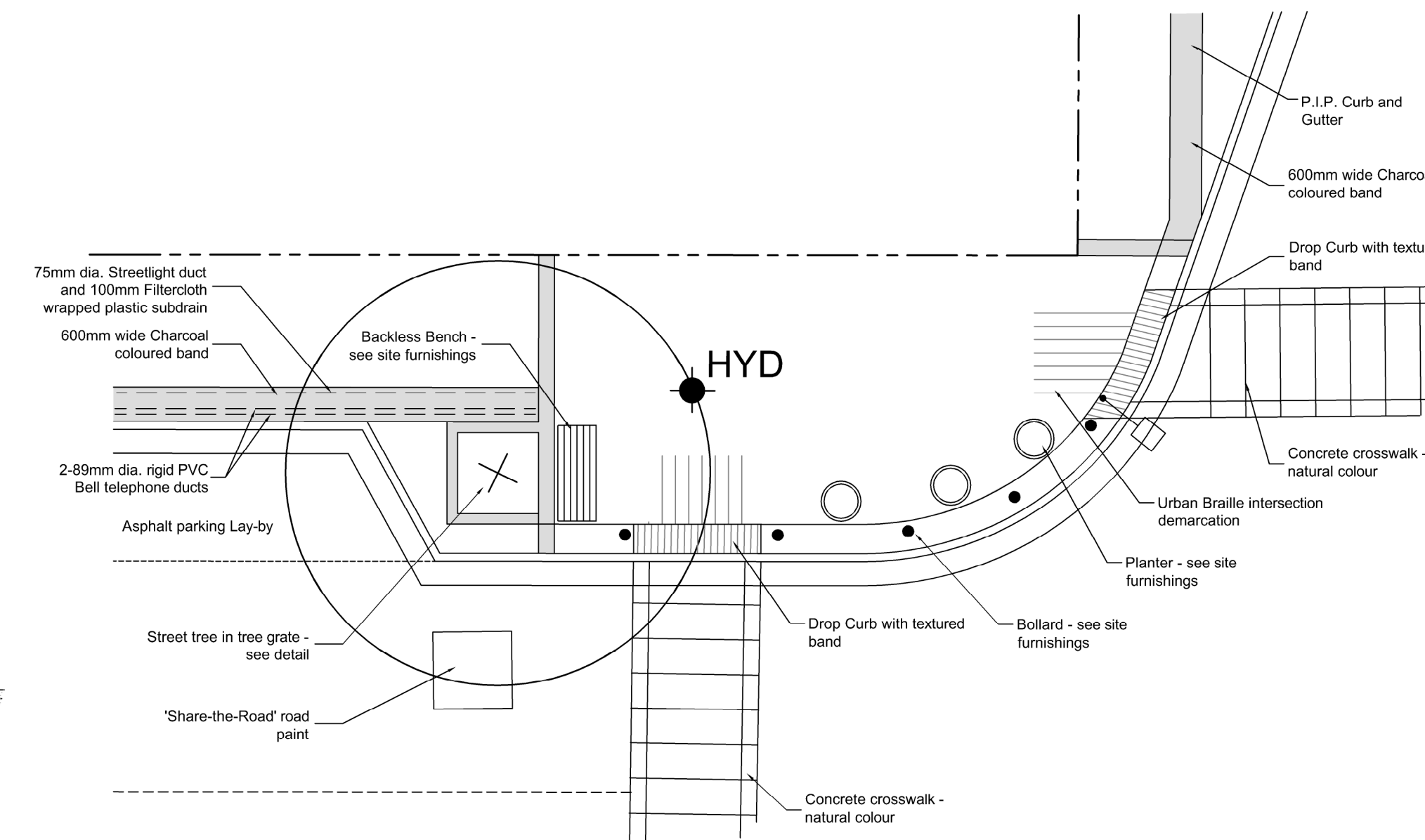
Drawn By: MZ, CZ
Project No.: 13059



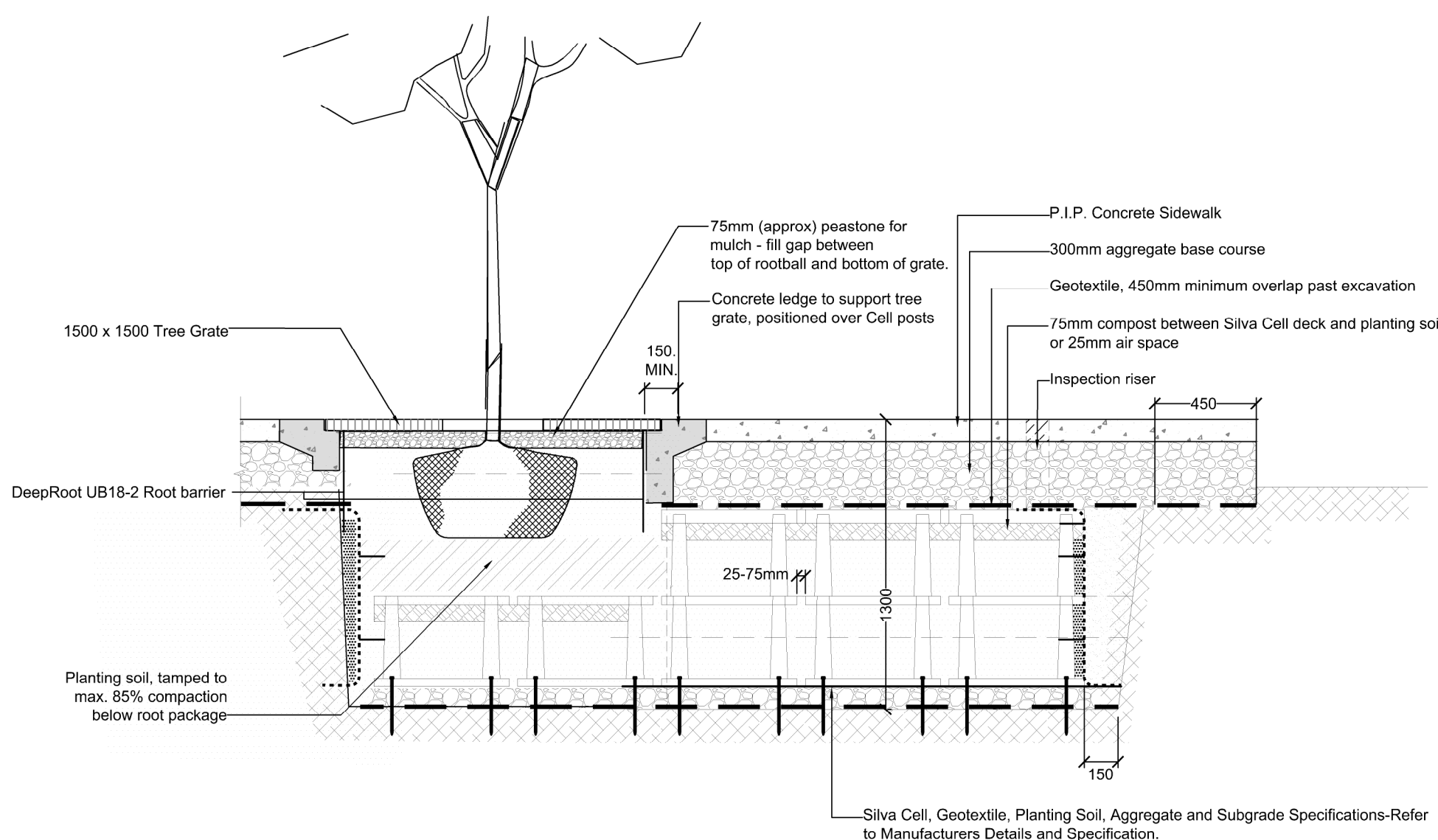
SECTION A-A, FRONT STREET NORTH
1:75



1 COLOURED CONCRETE BAND AT NEW CURB
1:25

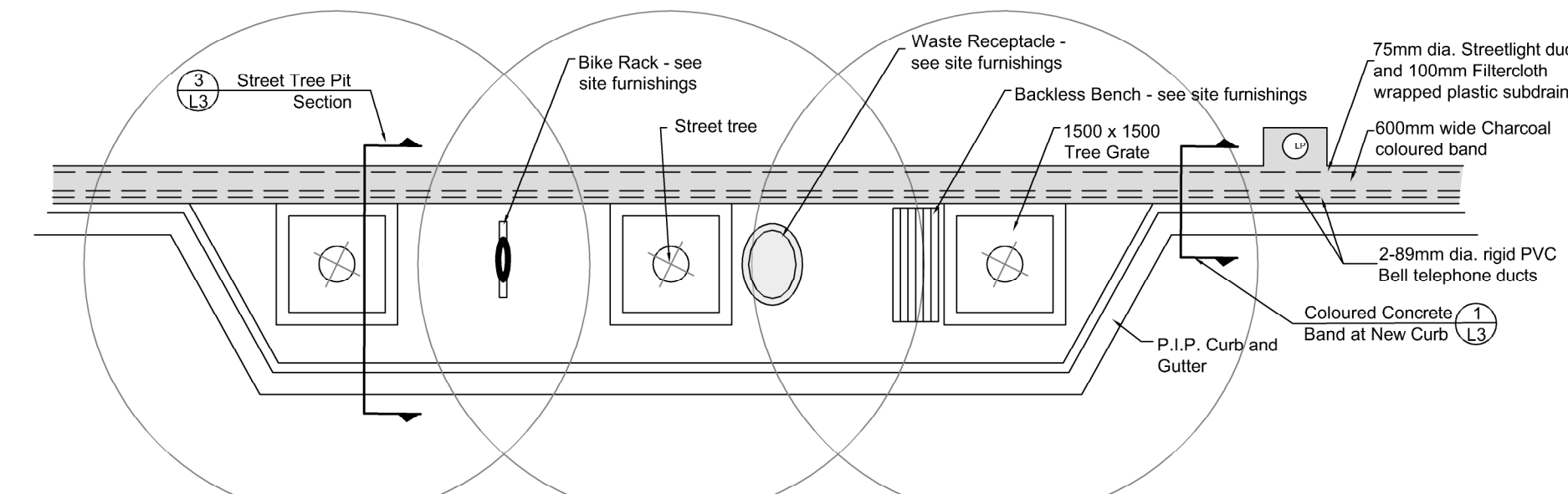


TYPICAL INTERSECTION TREATMENT
1:100

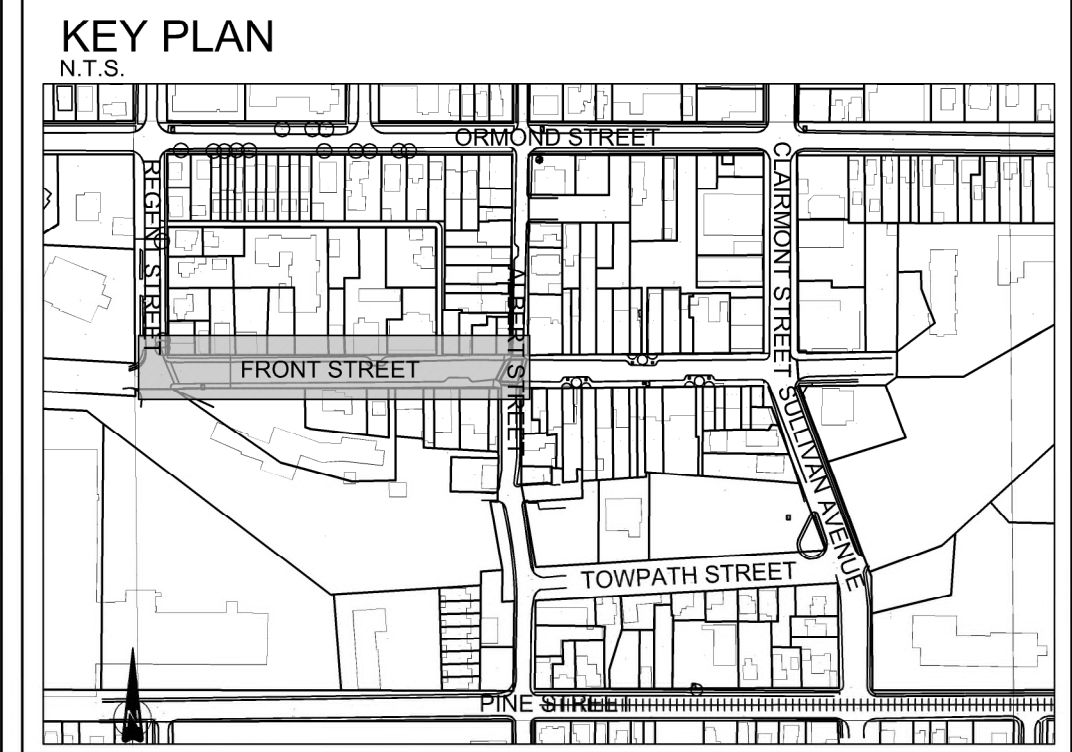


2 SILVA CELL ROOTING SYSTEM AT STREET TREE PIT
Scale: 1:25

Deep Root Canada Corp.
mjames@deeproot.com
Tel: 604 687 0899 Toll Free: 800 561 3883



FRONT STREET NORTH BUMP-OUT
1:100



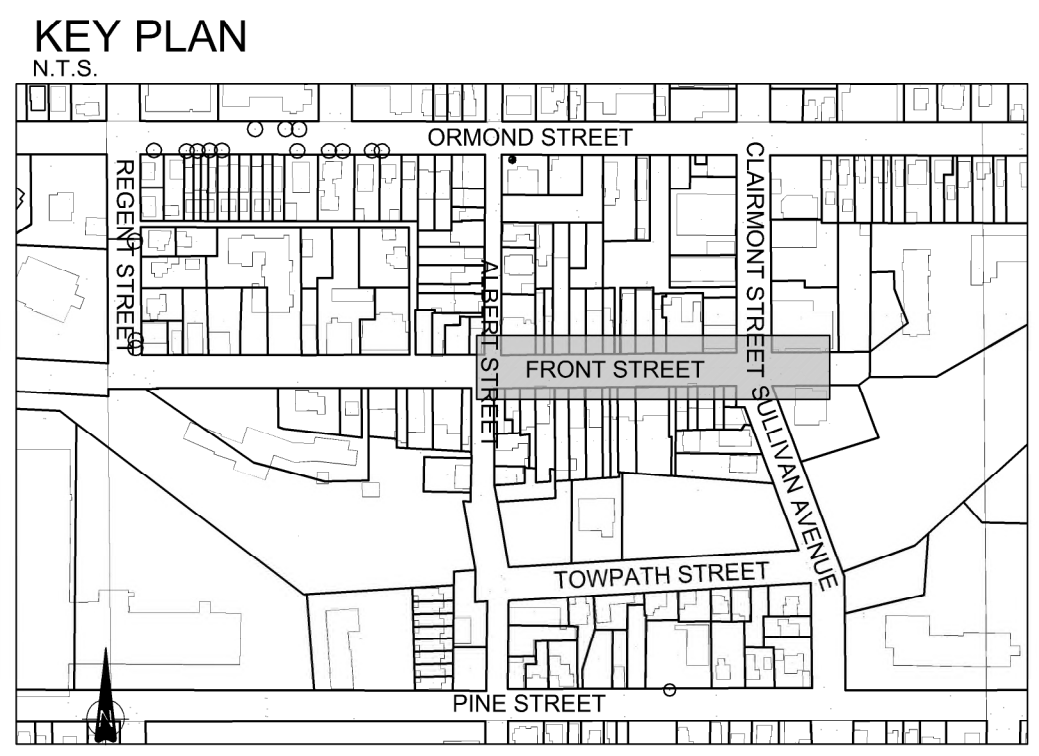
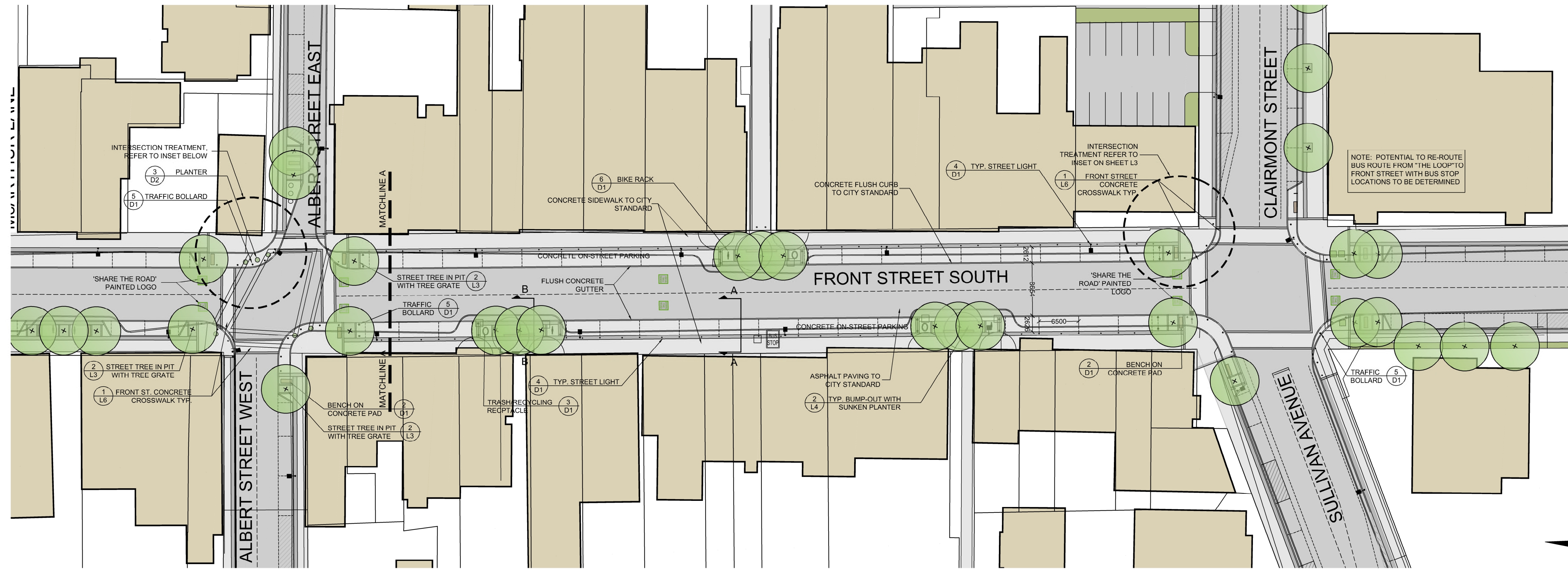
- Legend**
- TRASH/RECYCLING RECEPTACLE
 - BENCH ON CONCRETE PAD
 - TRAFFIC BOLLARD
 - PLANTER
 - ! BIKE RACK
 - ! STREET LIGHT
 - 'SHARE THE ROAD' PAINT
 - - - PROPERTY LINE

STREETSCAPE PLAN FRONT STREET NORTH Thorold, ON



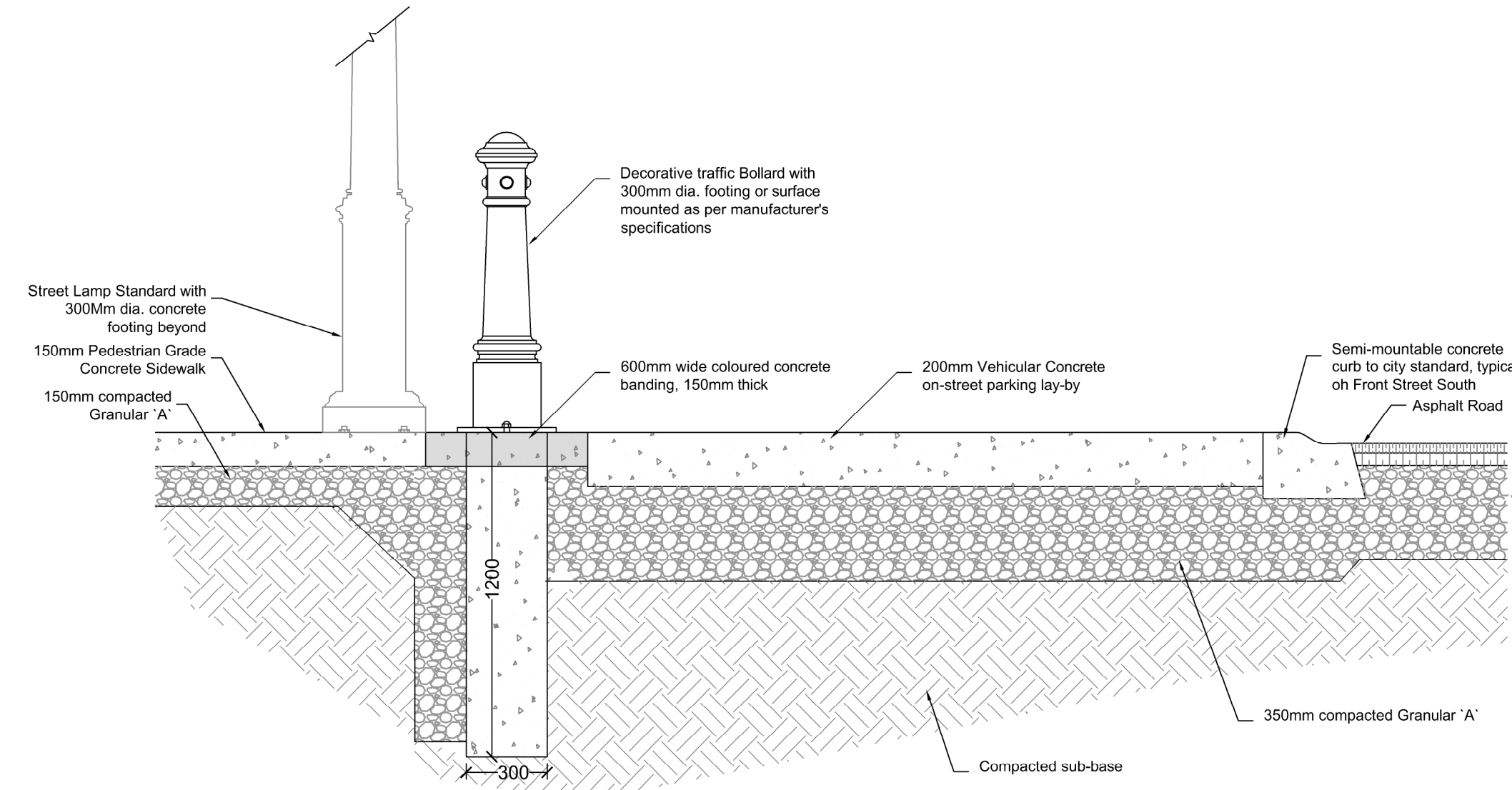
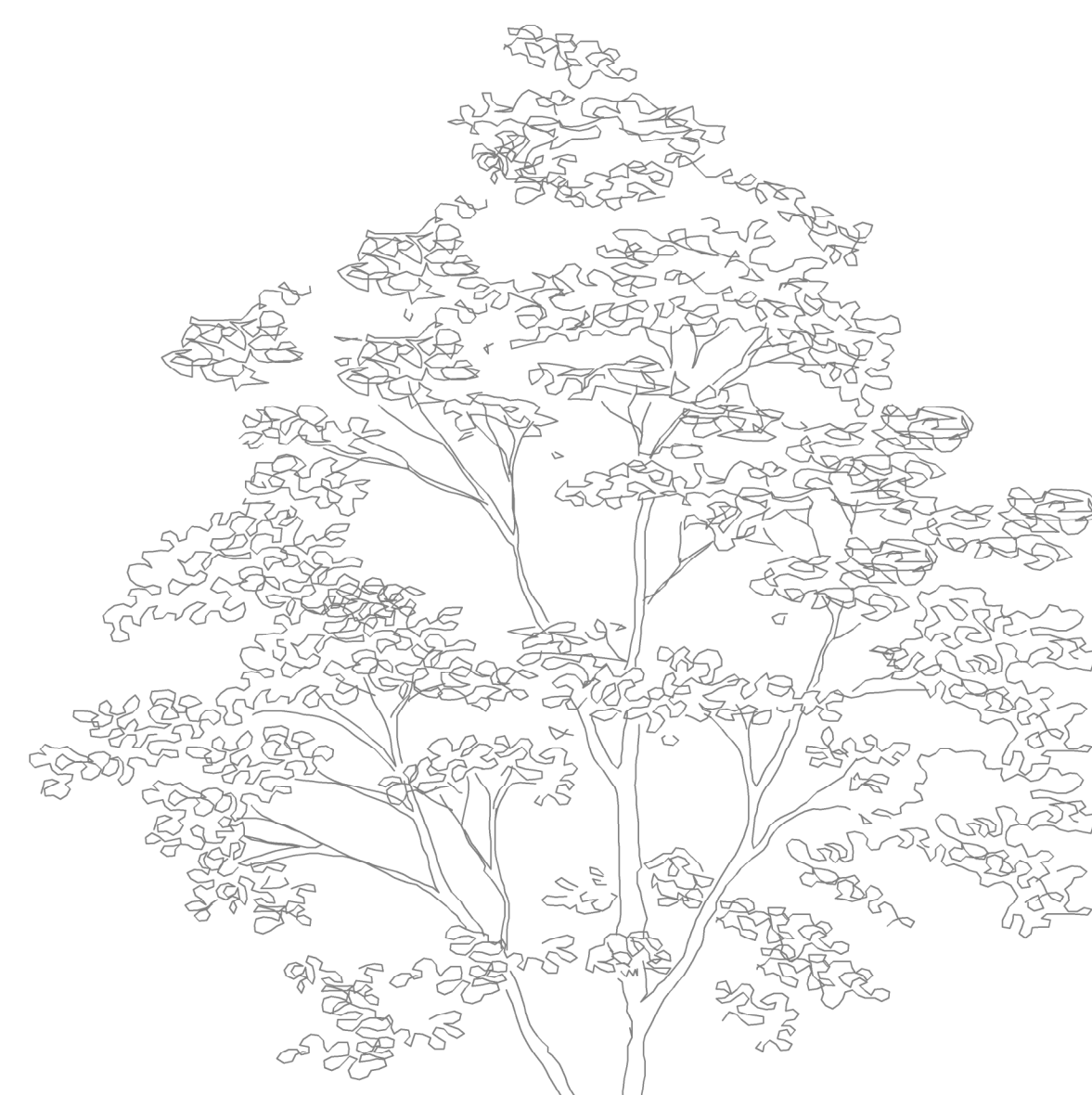
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Drawn By: MZ, CZ
Project No.: 13059

L3

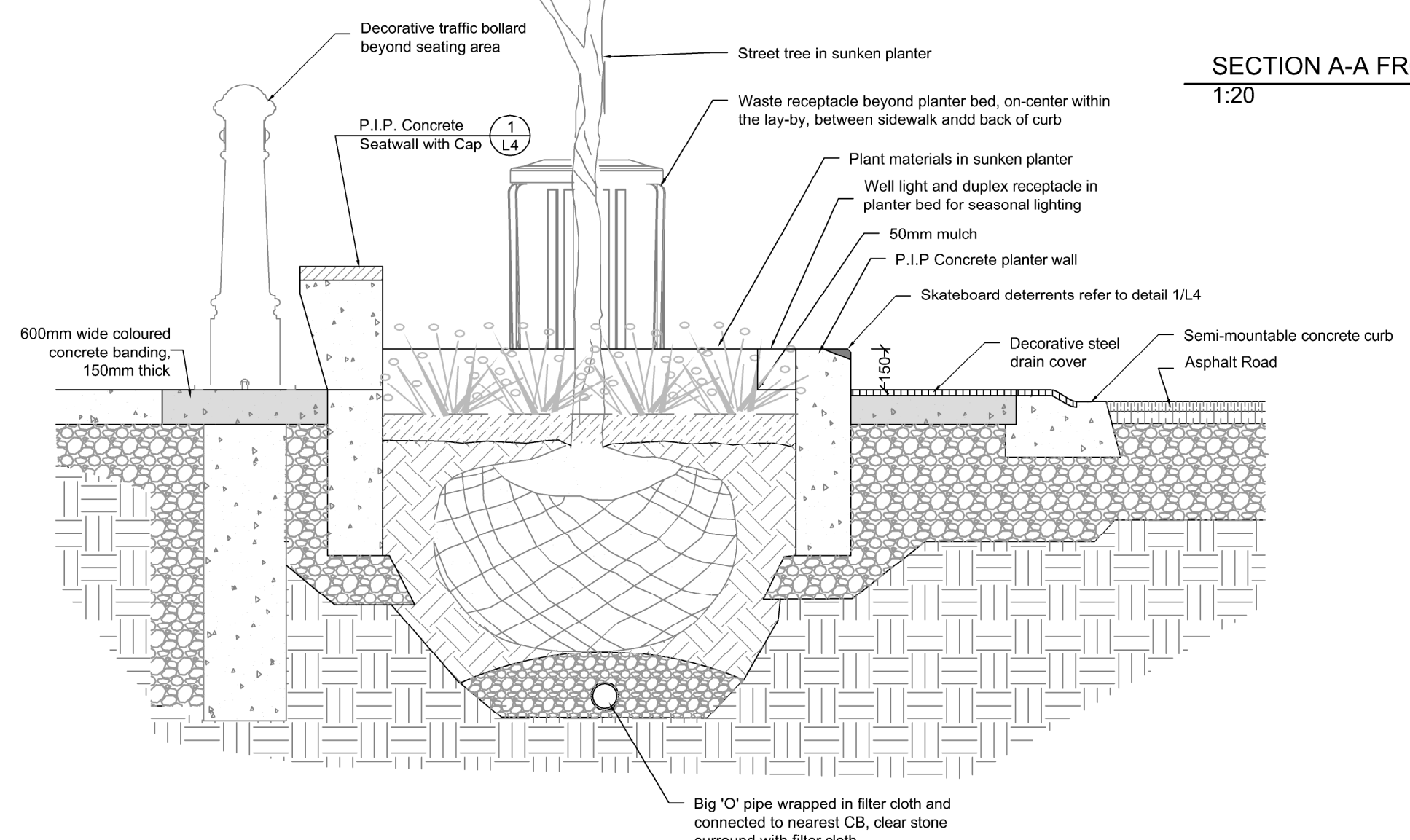


- Legend**
- TRASH/RECYCLING RECEPTACLE
 - BENCH ON CONCRETE PAD
 - TRAFFIC BOLLARD
 - PLANTER
 - BIKE RACK
 - STREET LIGHT
 - 'SHARE THE ROAD' PAINT
 - PROPERTY LINE

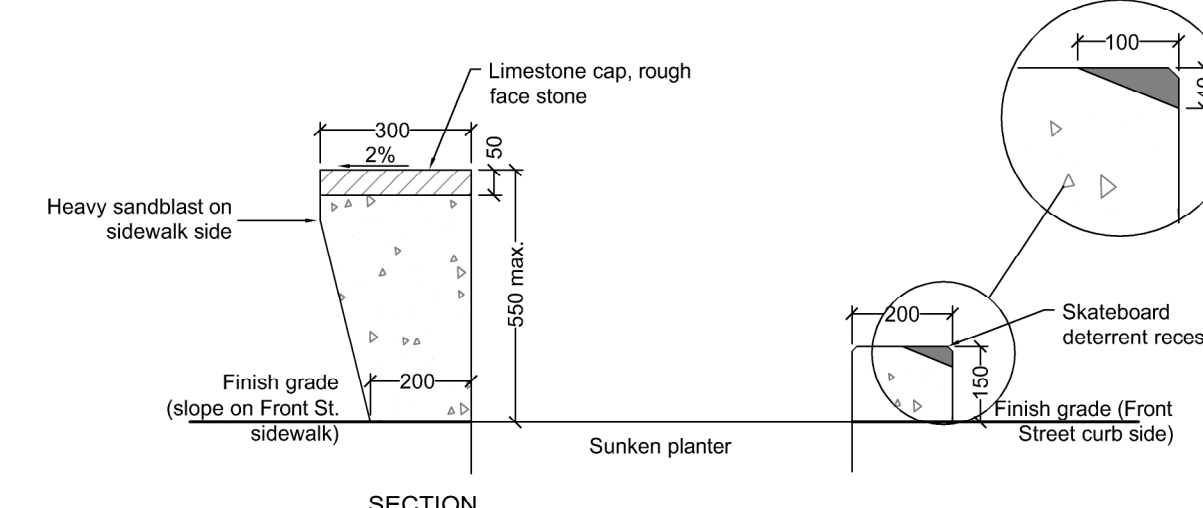
NOTE: FRONT STREET SOUTH AS A "FLAT STREET" WITH MOUNTABLE CURBS FROM CLAIRMONT TO ALBERT STREET. SEE SECTION AA AND BB THIS SHEET



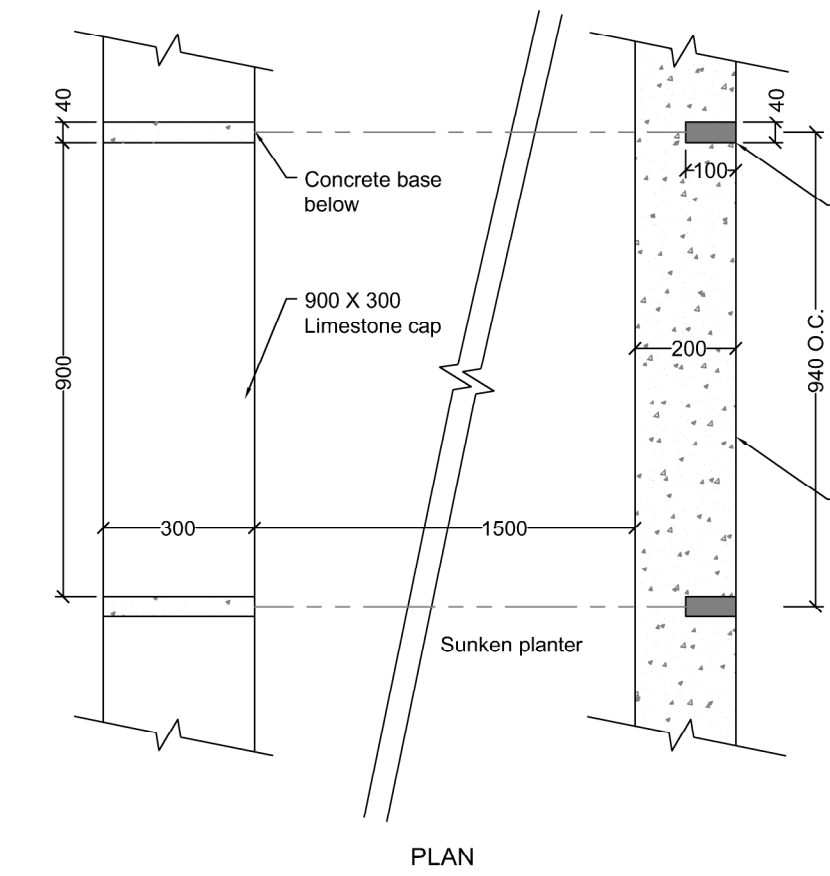
SECTION A-A FRONT STREET SOUTH AT PARKING LAY-BY
1:20



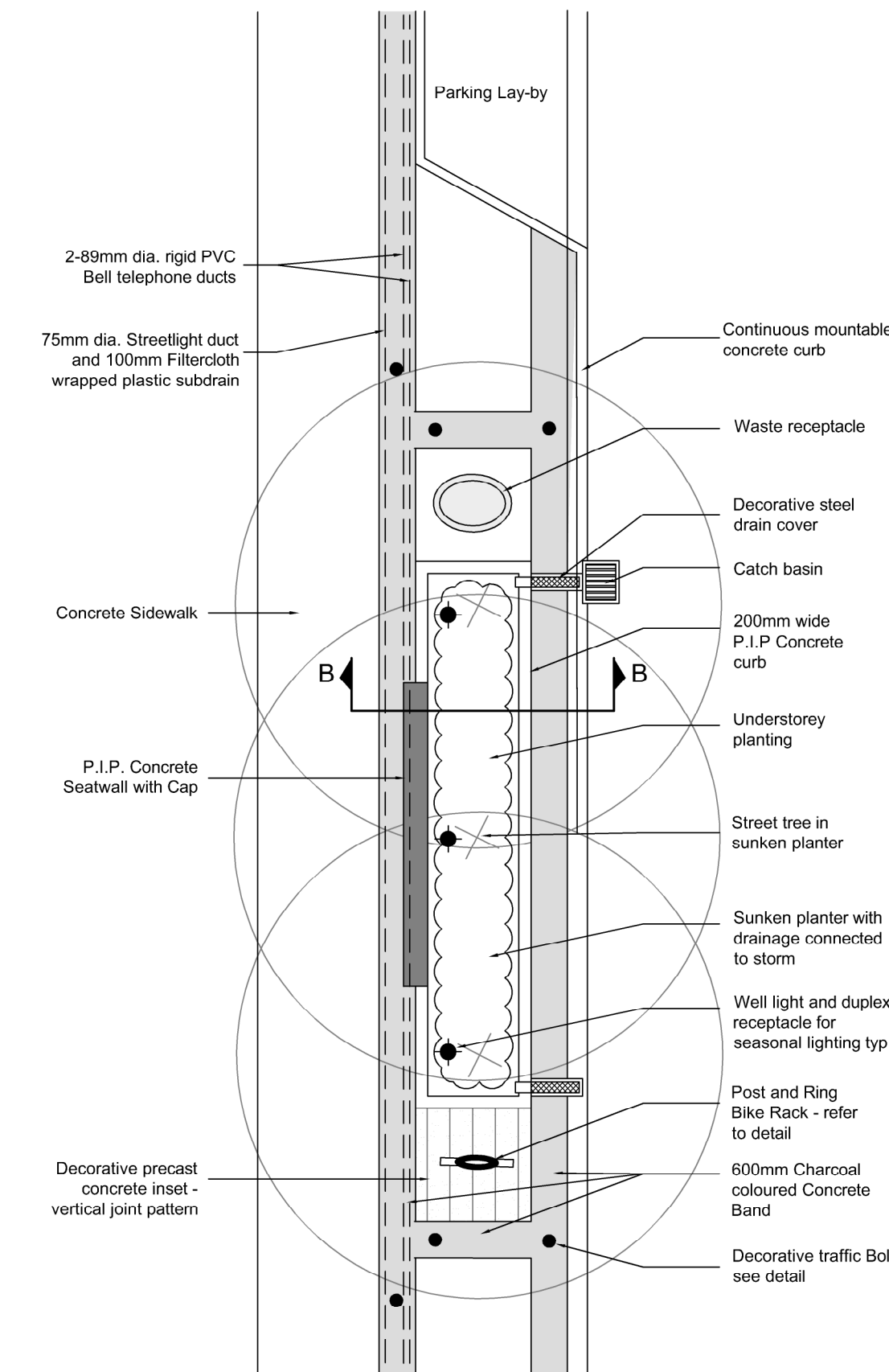
SECTION B-B FRONT STREET SOUTH AT SUNKEN PLANTER
1:20



1 SEATWALL AND CURB WALL
1:15



PLAN



2 SUNKEN PLANTER/SEATWALL ENLARGEMENT - PLAN
1:100

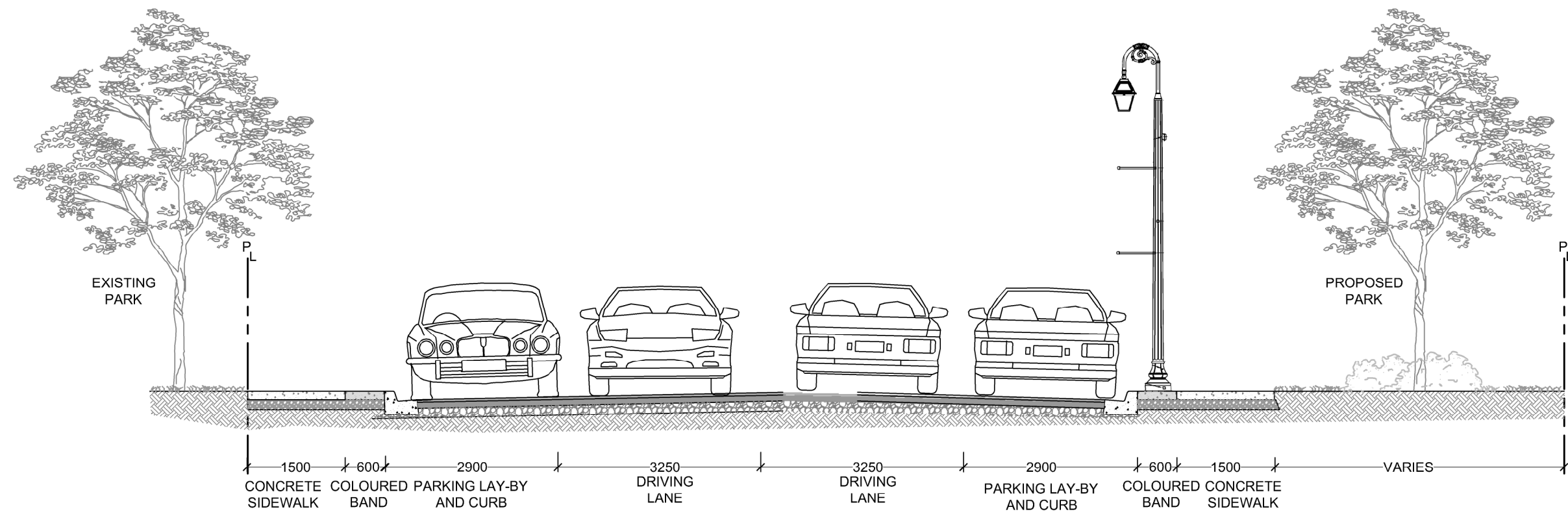
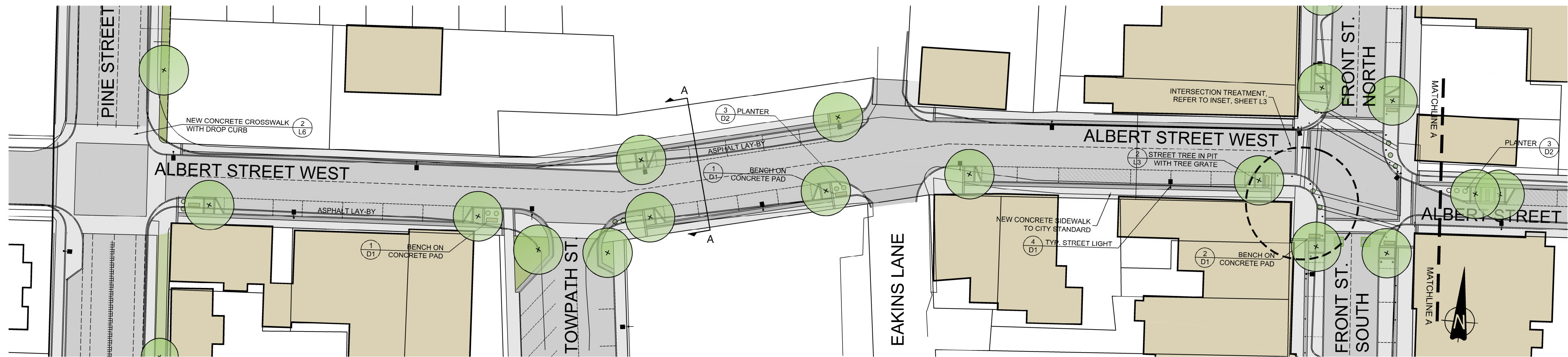
STREETSCAPE PLAN

FRONT STREET SOUTH Thorold, ON

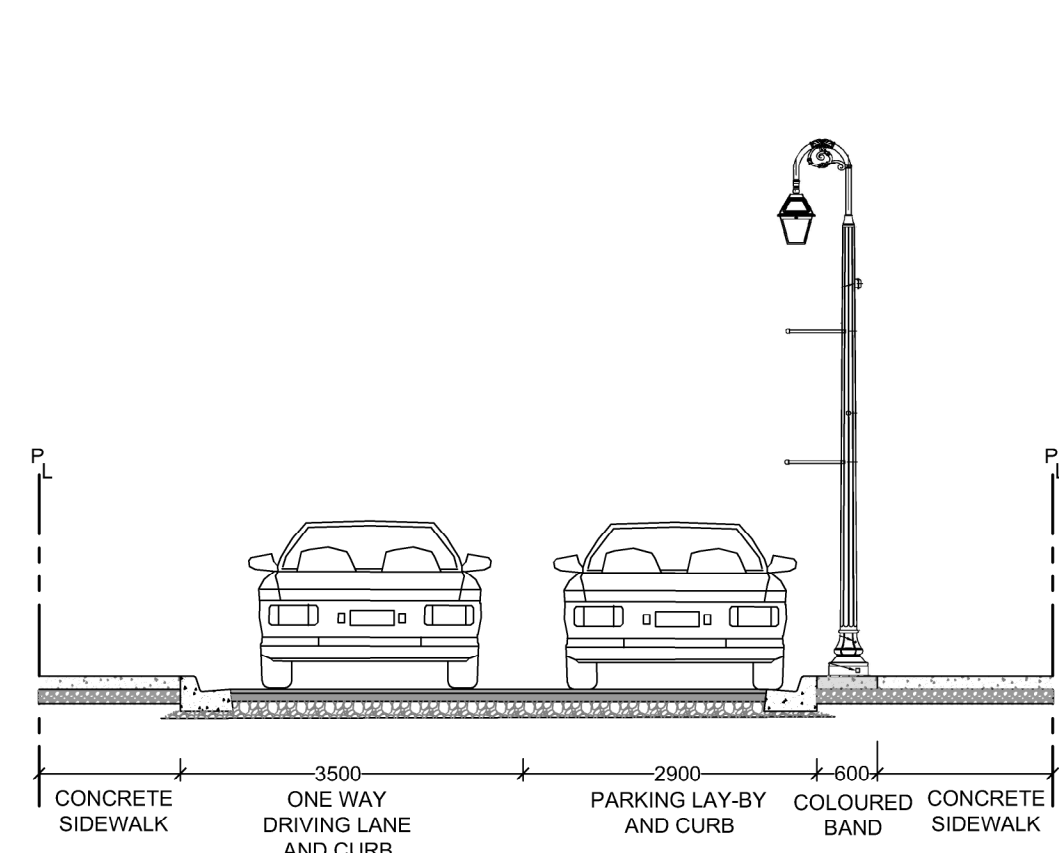
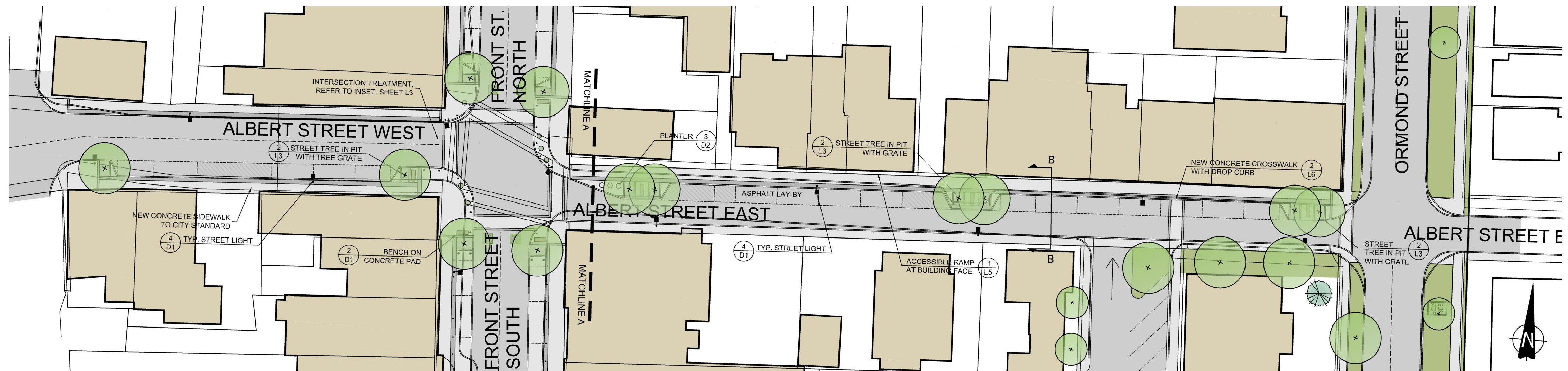


Date: February 2014
Scale: 1: 400
Drawn By: MZ, CZ
Project No.: 13059

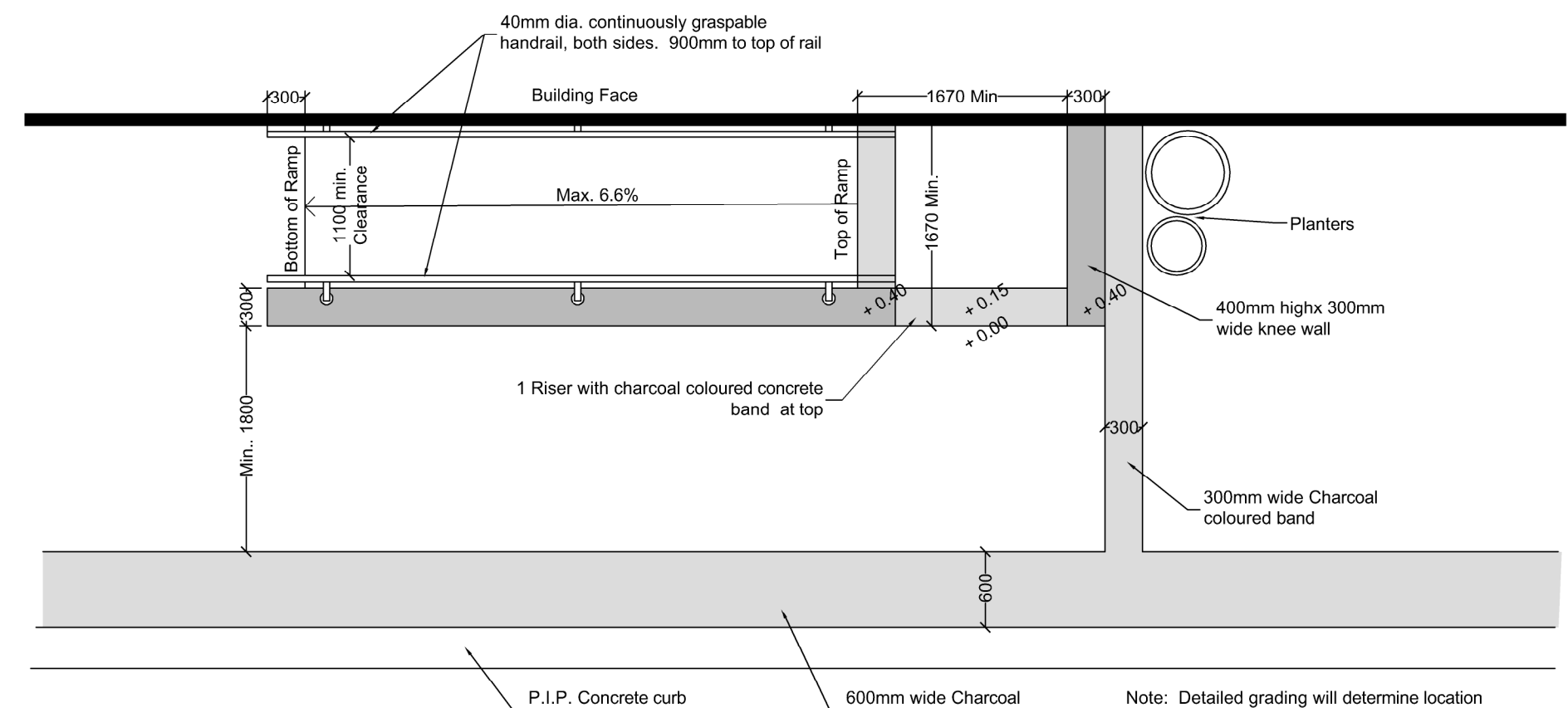
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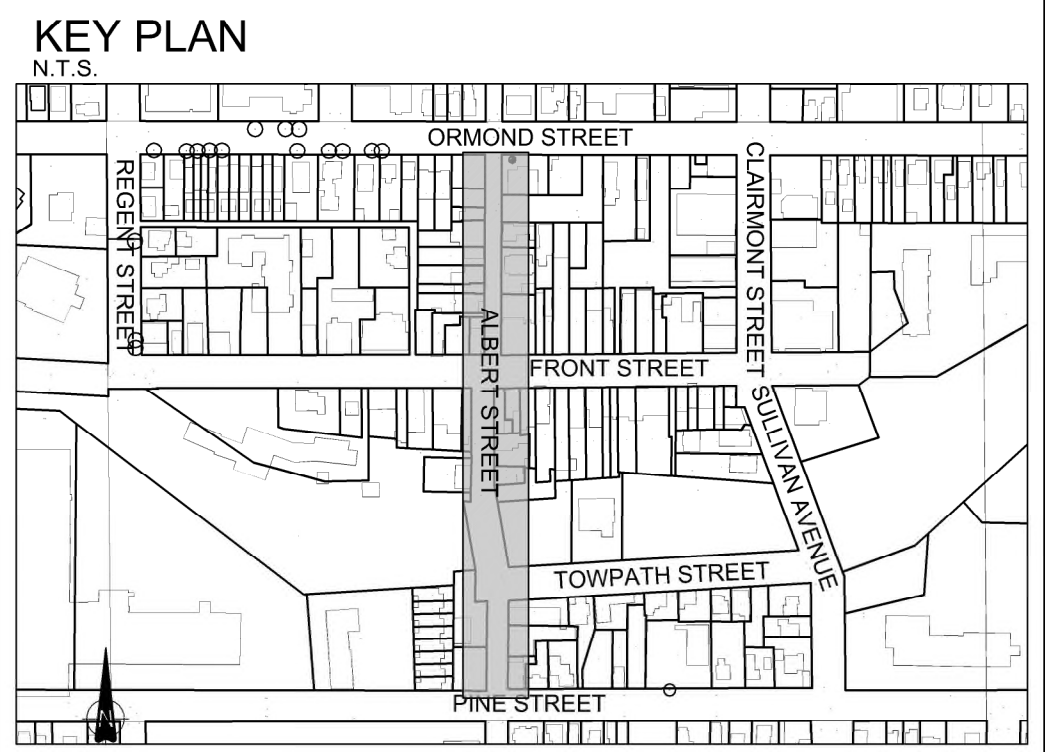
SECTION A-A, ALBERT STREET WEST
1:75



SECTION B-B, ALBERT STREET EAST
1:75



① ACCESSIBLE RAMP AT BUILDING FACE - TYPICAL
1:50



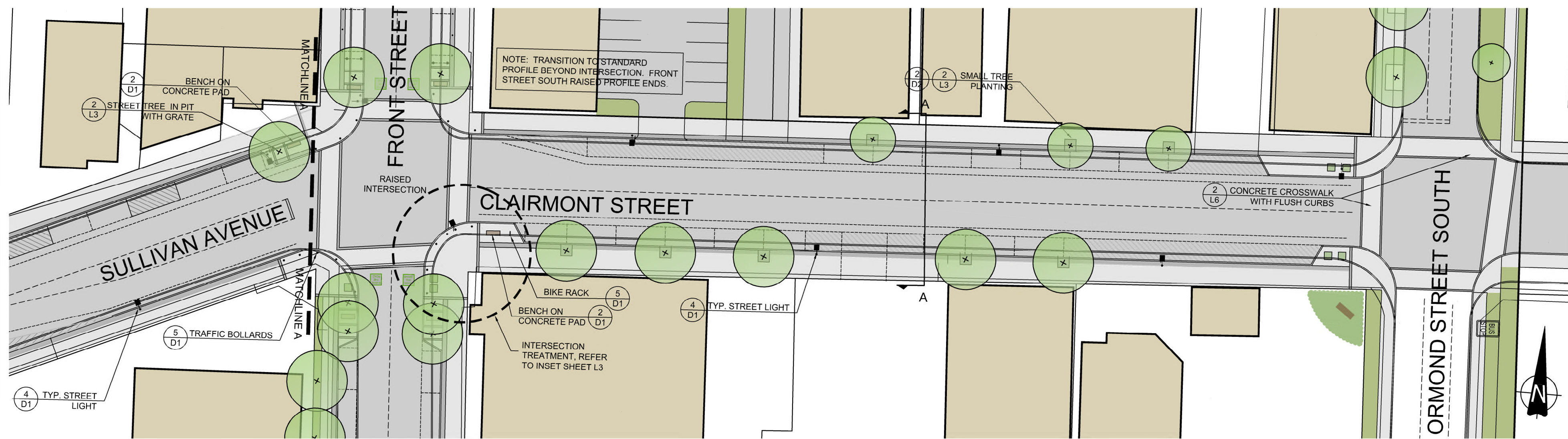
STREETSCAPE PLAN

ALBERT STREET
Thorold, ON



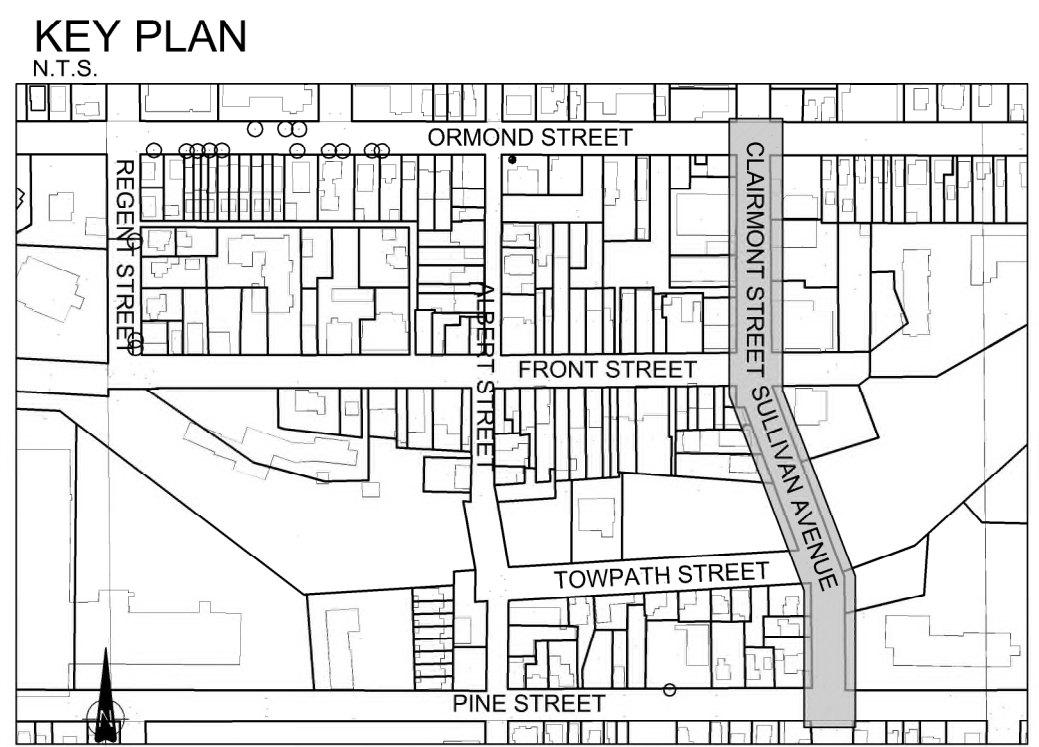
Date: February 2014
Scale: 1: 400
Drawn By: MZ, CZ
Project No.: 13059

L5



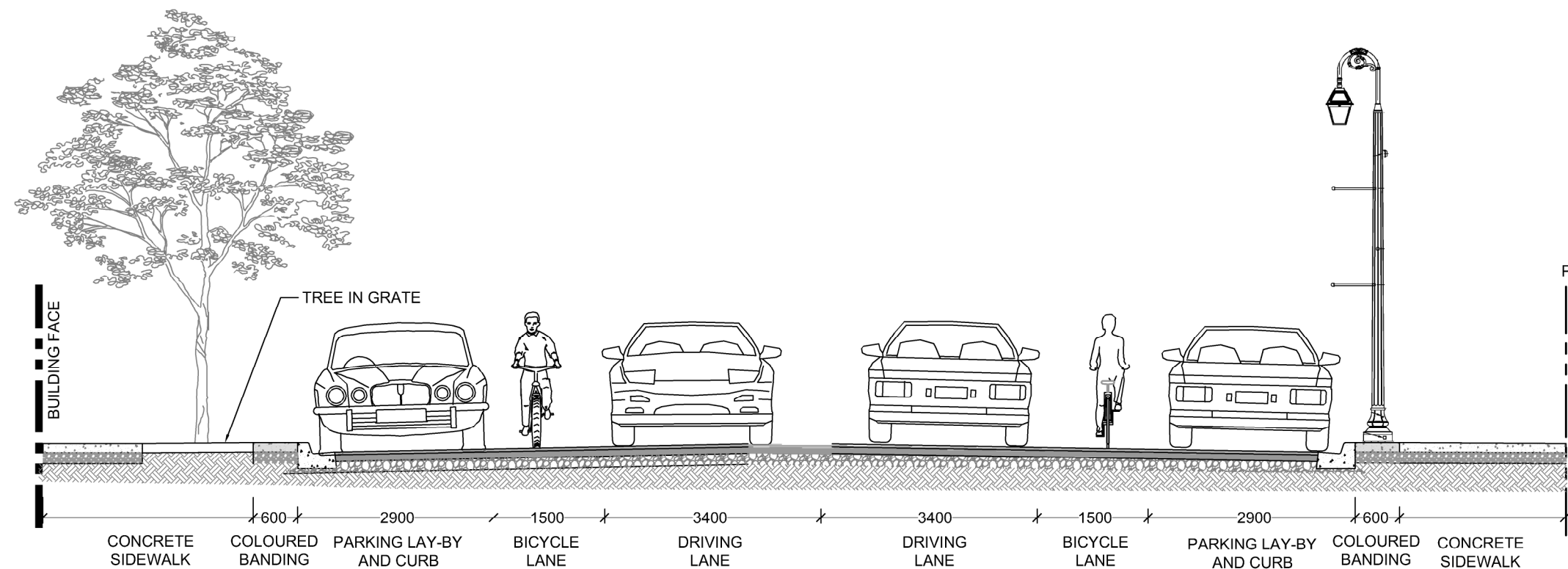
Recommended Plant List

TREES:		SHRUBS:	
Acer x freemanii	(Red Maple Cultivar)	Buddleja	(Butterfly Bush)
Acer rubrum 'Bowhall'	(Red Maple)	Cornus	(Dogwood)
Celtis occidentalis	(Hackberry)	Euonymus alatus	(Burning Bush)
Platanus x acerifolia 'Bloodgood'	(Planetree)	Hypericum	(Pot 'O' Gold)
Quercus macrocarpa	(Bur Oak)	Myrica	(Bayberry)
Quercus rubra	(Red Oak)	Potentilla	(Cinquefoil)
Quercus robur 'Fastigiata'	(Pyramidal Oak)	Prunus x cistena	(Purple Sandcherry)
Pyrus calleryana	(Ornamental Pear)	Spiraea	(Spirea)
Tilia americana 'Redmond'	(Linden)	Juniperus sp.	(Juniper)
Ulmus x 'Homestead'	(Homestead Elm)	Taxus sp.	(Yew)
PERENNIALS:		ORNAMENTAL GRASSES:	
Echinacea	(Coneflower)	Bouteloua gracilis	(North Sea Oats)
Hemerocallis sp.		Calamagrostis x acutiflora	(Feather Reed Grass)
Hosta sp.		Helictorichon sp.	(Blue Oat Grass)
Rudbeckia	(Black Eyed Susan)	Pennisetum sp.	(Fountain Grass)
Sedum sp.	(Sedum)	Deschampia sp.	(Tufted Hair Grass)
GROUNDCOVERS:			
Hedera sp.	(Baltic Ivy)		
Vinca minor	(Periwinkle)		

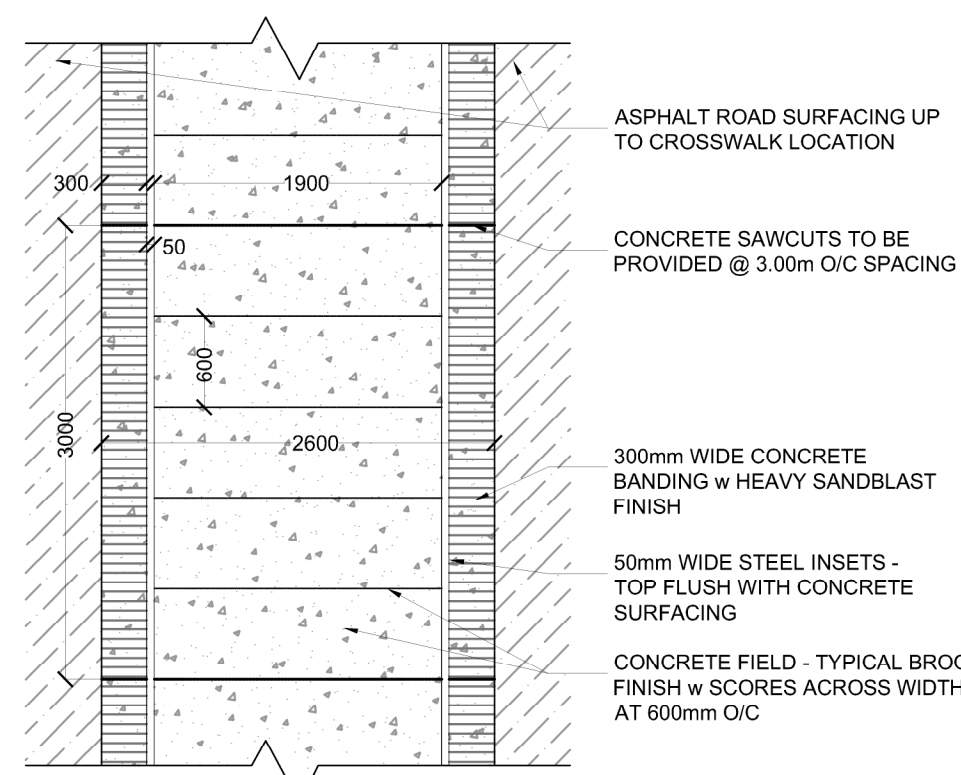


Legend

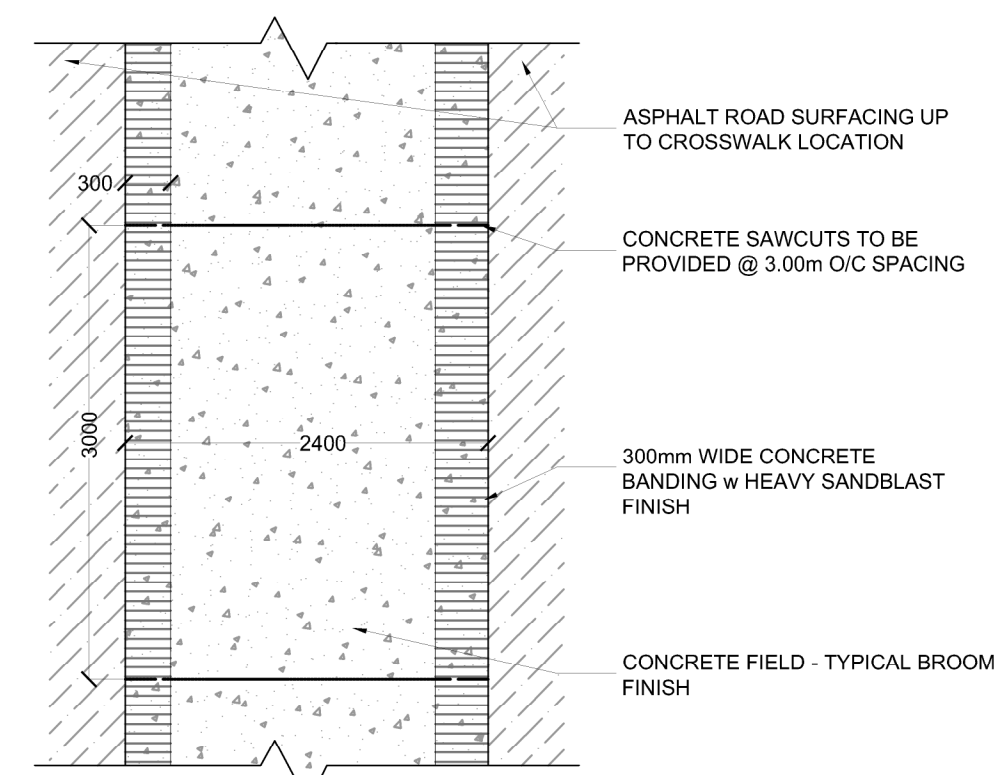
- TRASH/RECYCLING RECEPTACLE
- BENCH ON CONCRETE PAD
- TRAFFIC BOLLARD
- PLANTER
- BIKE RACK
- STREET LIGHT
- 'SHARE THE ROAD' PAINT
- PROPERTY LINE



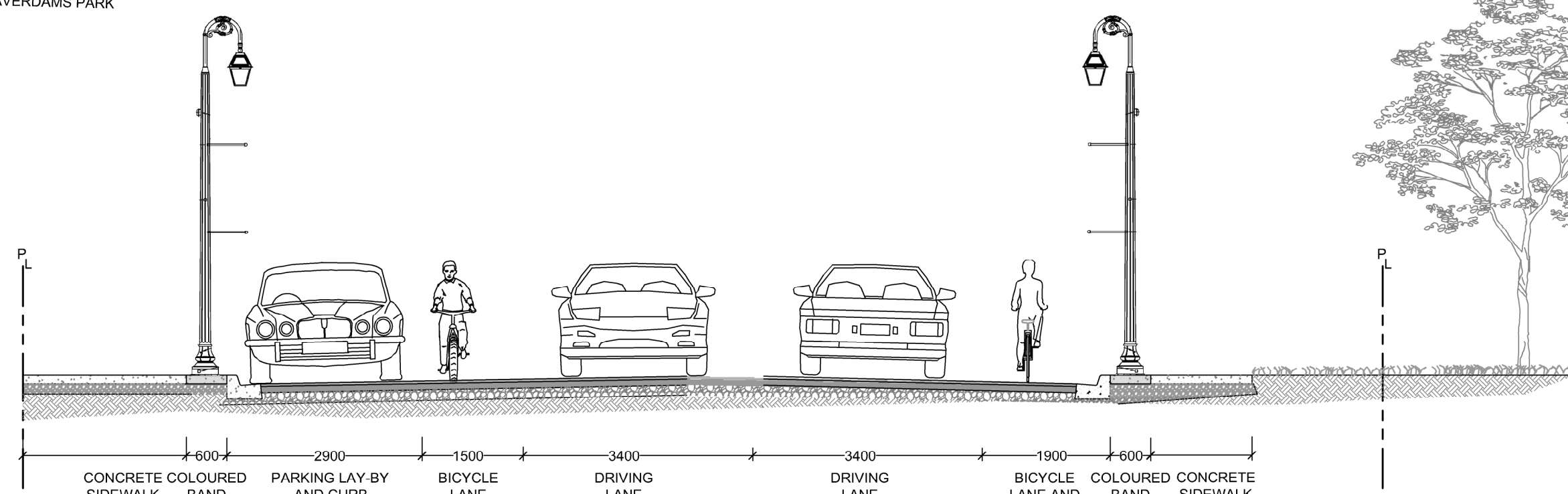
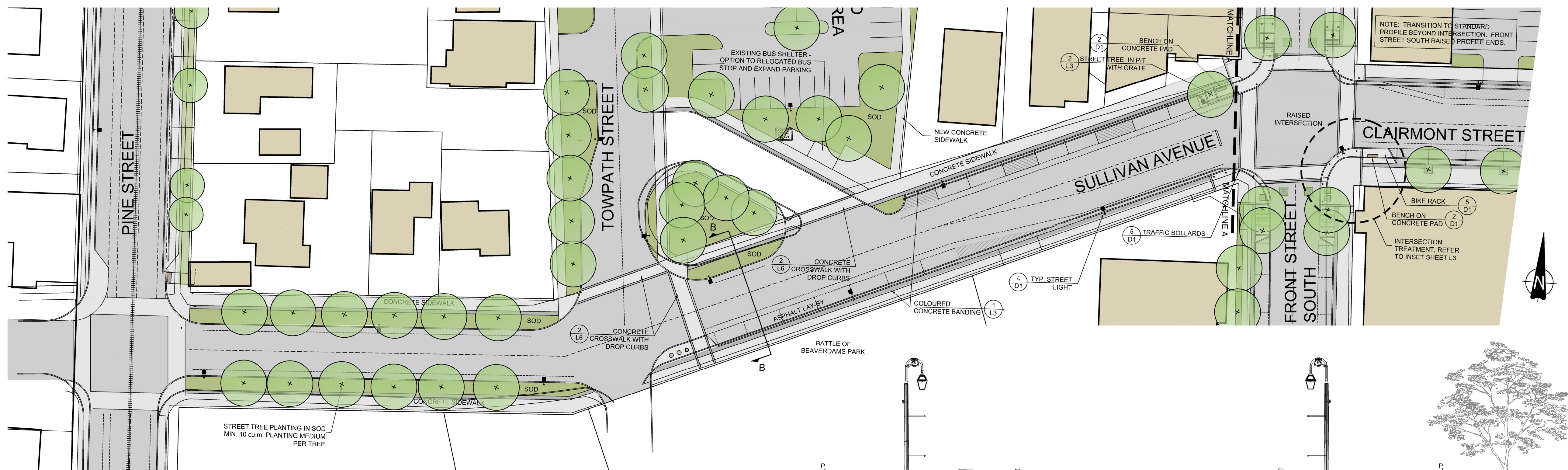
SECTION A-A, CLAIRMONT STREET
1:75



1 CROSSWALK PAVING - FRONT STREET - 2.60m WIDTH
1:50



2 CROSSWALK PAVING - TYPICAL DETAIL - 2.40m WIDTH
1:50



SECTION B-B, SULLIVAN AVENUE
1:75

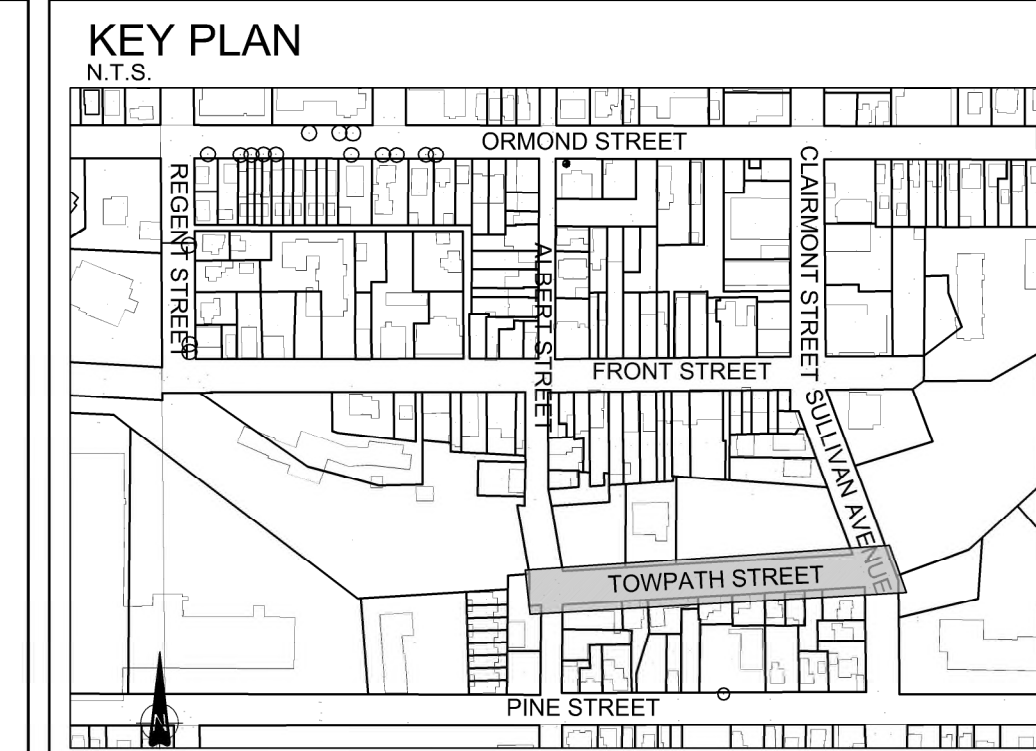
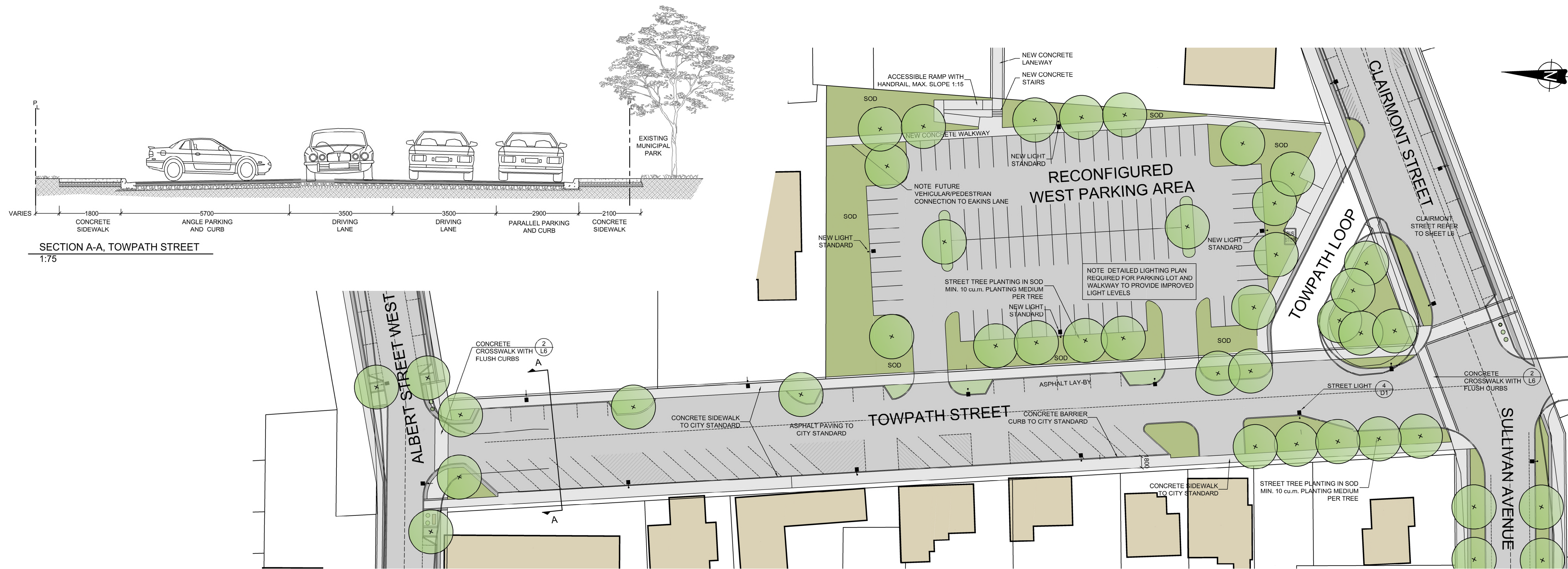
STREETSCAPE PLAN

CLAIRMONT STREET AND SULLIVAN AVE.
Thorold, ON

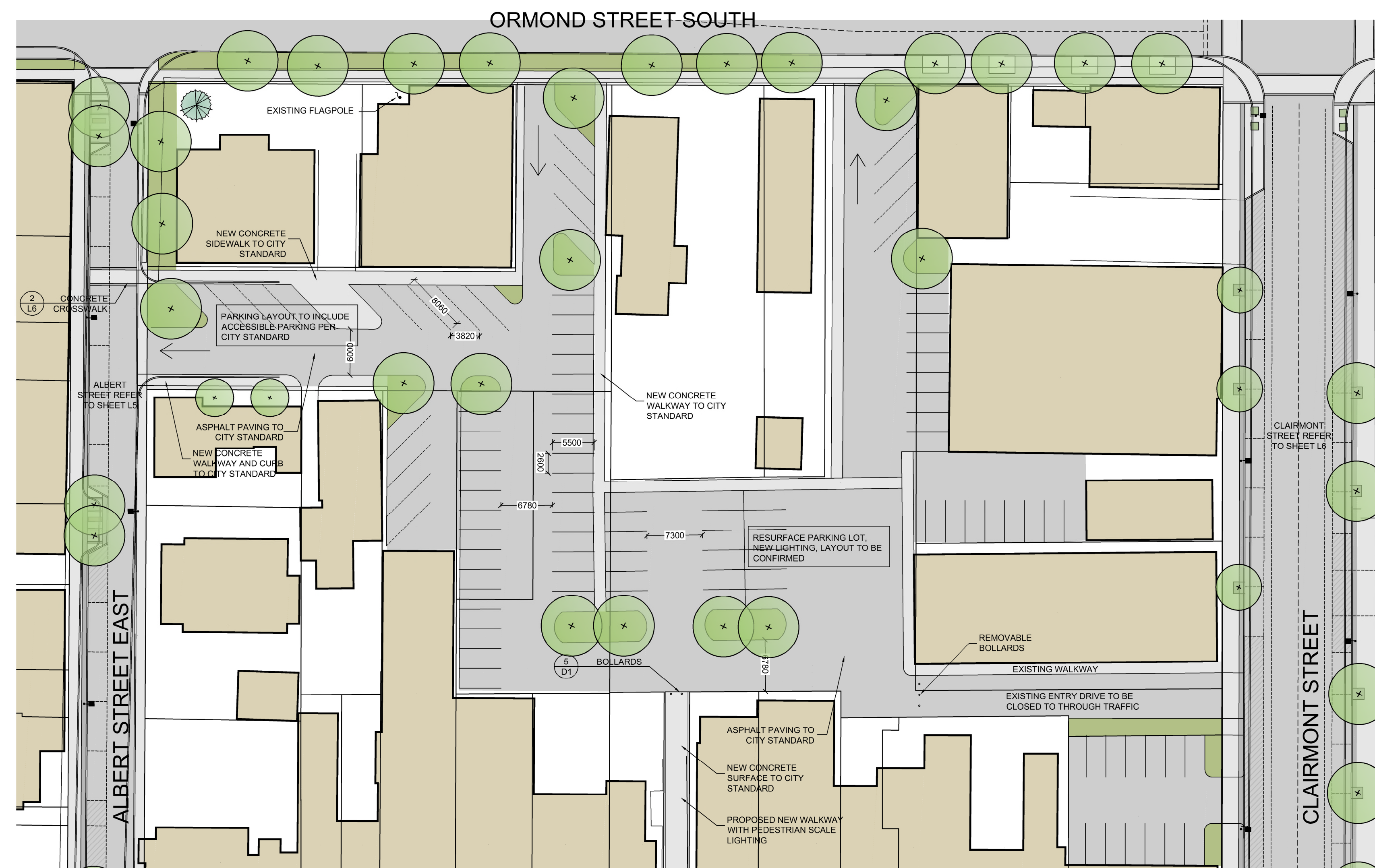


Date: February 2014
Scale: 1: 400
Drawn By: MZ, CZ
Project No.: 13059

L6



- Legend**
- TRASH/RECYCLING RECEPTACLE
 - BENCH ON CONCRETE PAD
 - TRAFFIC BOLLARD
 - PLANTER
 - ⚡ BIKE RACK
 - STREET LIGHT
 - 'SHARE THE ROAD' PAINT
 - PROPERTY LINE



STREETSCAPE PLAN

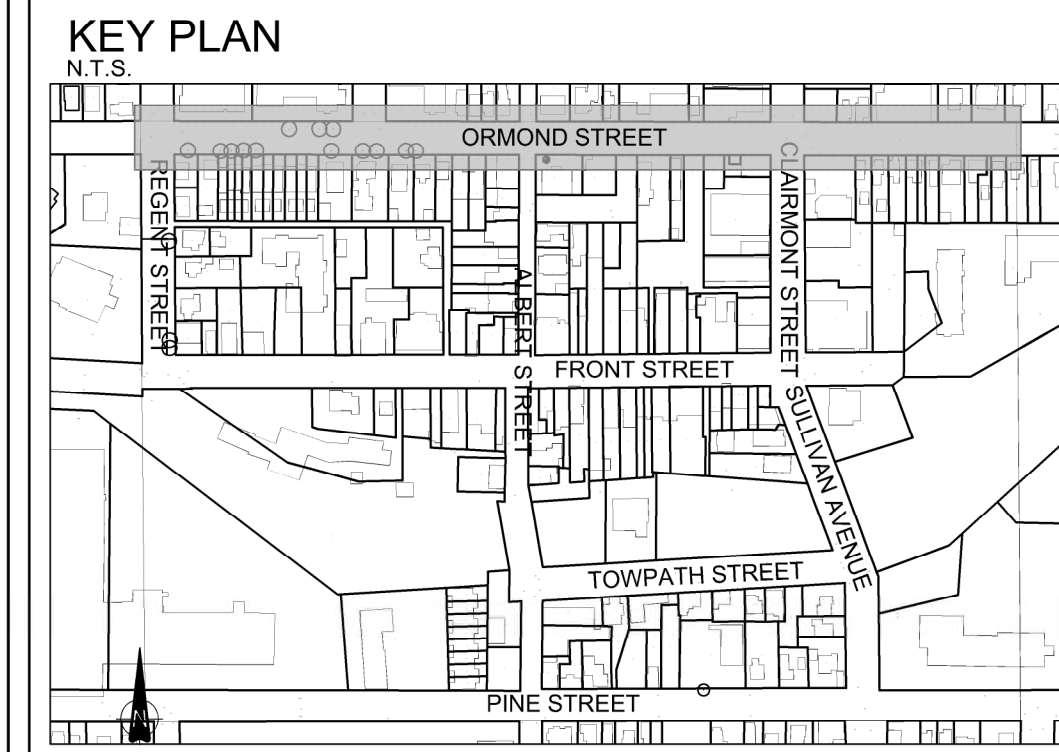
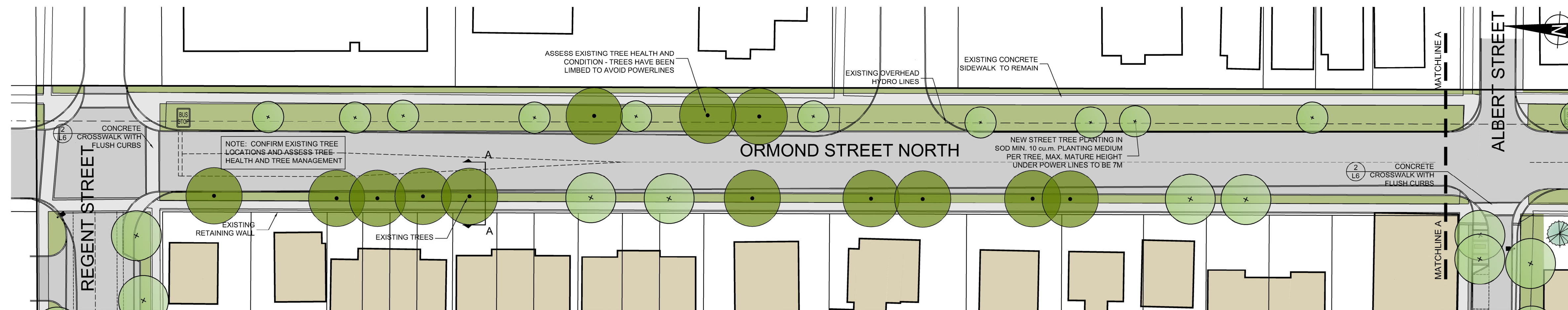
TOWPATH STREET AND PARKING AREAS
Thorold, ON



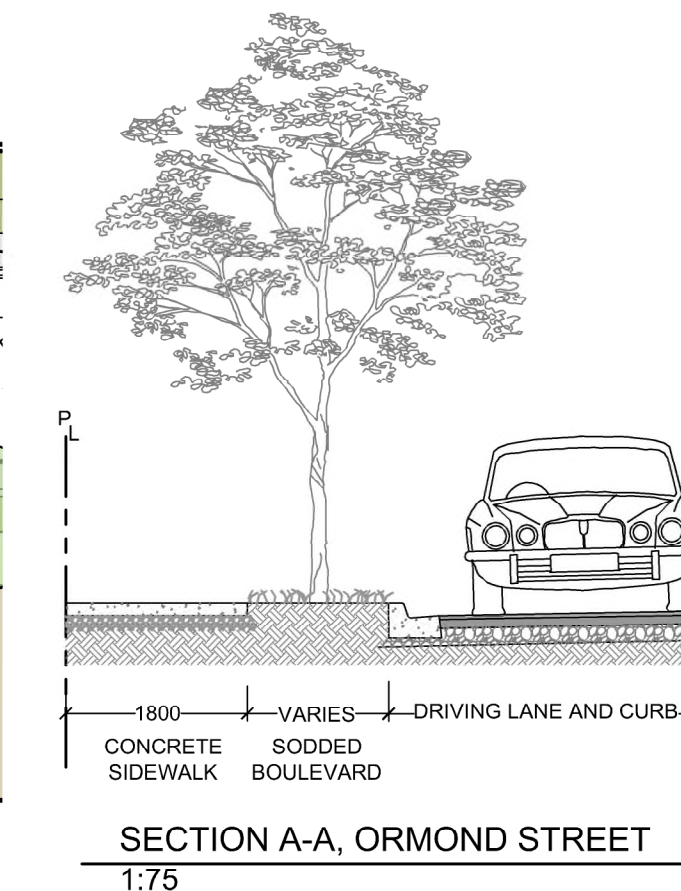
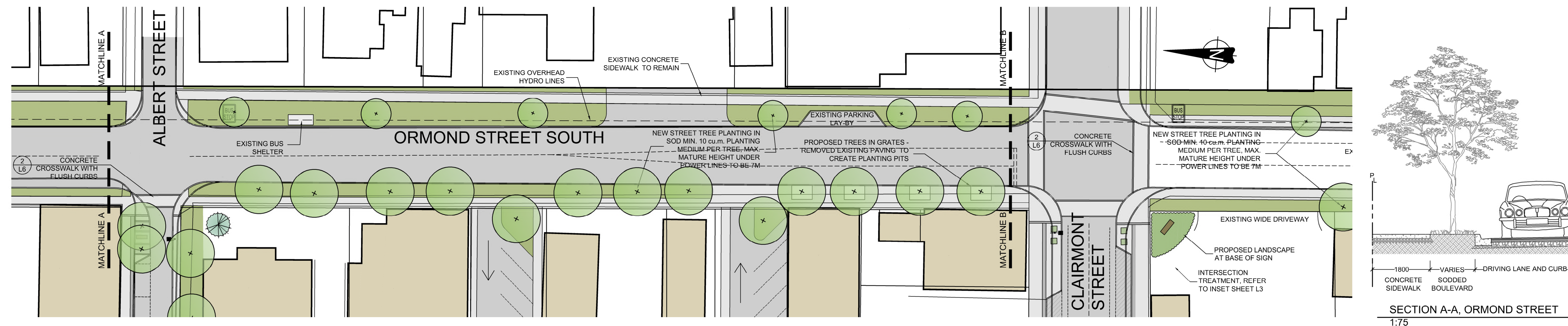
Date: February 2014
Scale: 1:400

Drawn By: MZ, CZ
Project No.: 13059

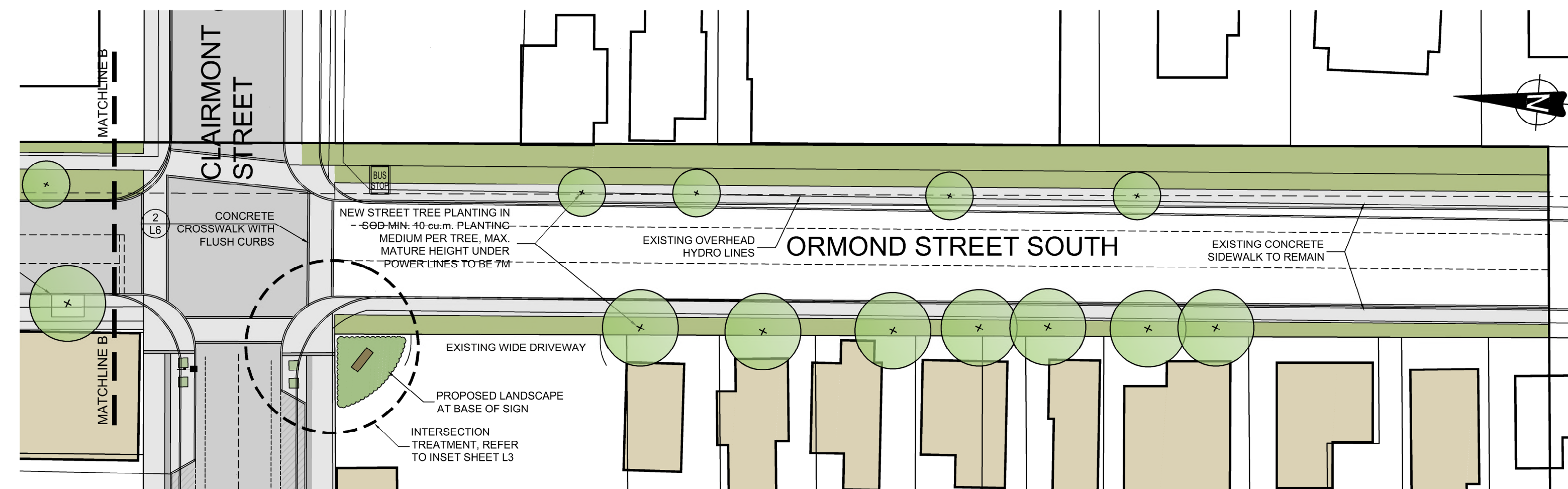
L7



- Legend**
- TRASH/RECYCLING RECEPTACLE
 - BENCH ON CONCRETE PAD
 - TRAFFIC BOLLARD
 - PLANTER
 - BIKE RACK
 - STREET LIGHT
 - 'SHARE THE ROAD' PAINT
 - PROPERTY LINE



NOTE: LOCATION OF EXISTING DRIVEWAYS, UTILITIES AND EXISTING TREES TO BE CONFIRMED. INFILL PLANTING LOCATIONS TO BE CONFIRMED



STREETSCAPE PLAN

ORMOND STREET

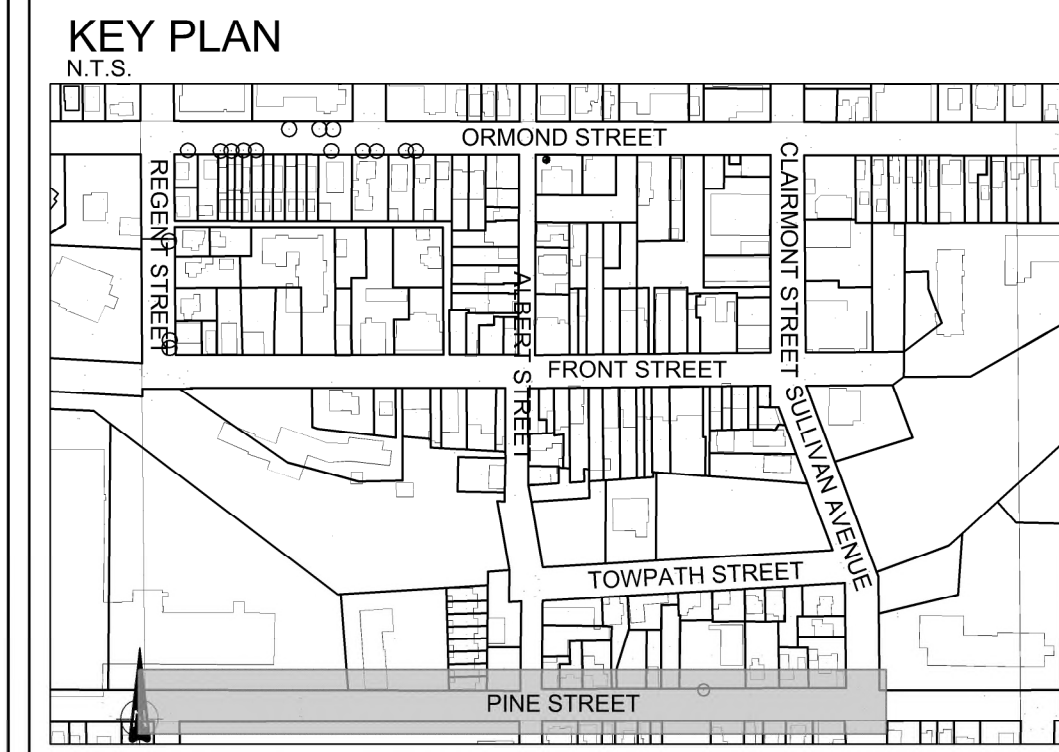
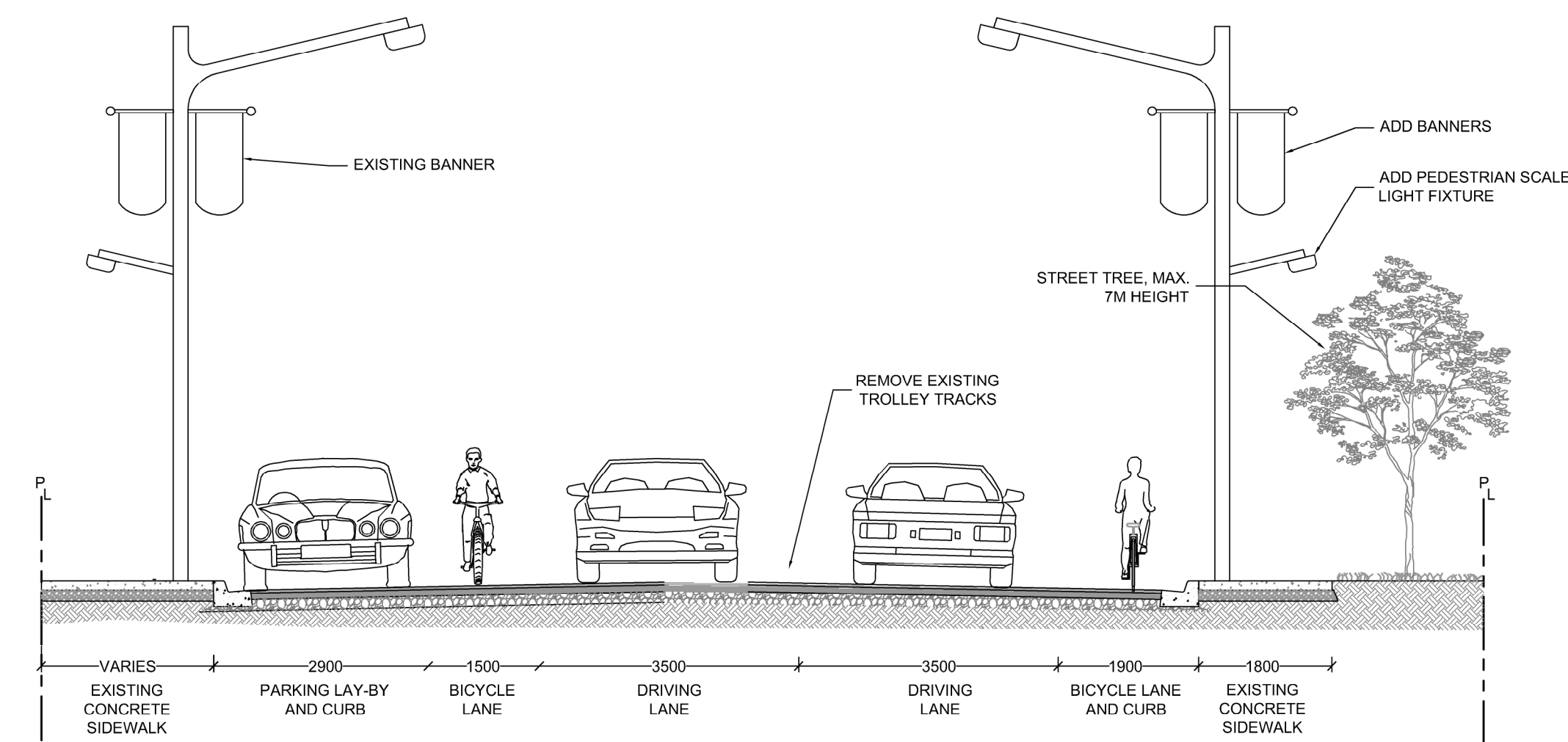
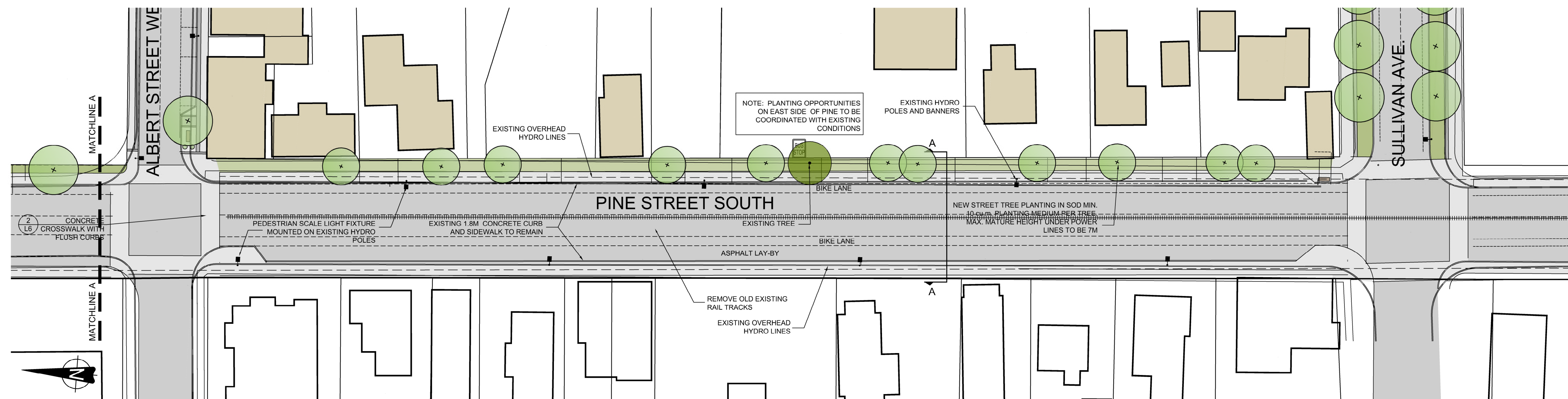
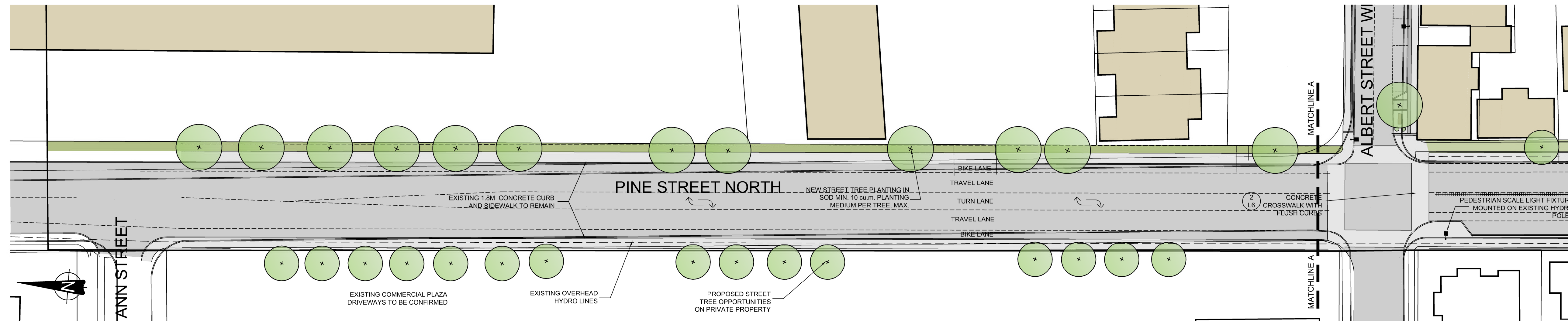
Thorold, ON



Date: February 2014
Scale: 1: 400

Drawn By: MZ, CZ
Project No.: 13059

L8



- Legend**
- TRASH/RECYCLING RECEPTACLE
 - BENCH ON CONCRETE PAD
 - TRAFFIC BOLLARD
 - PLANTER
 - ⚡ BIKE RACK
 - STREET LIGHT
 - 'SHARE THE ROAD' PAINT
 - PROPERTY LINE

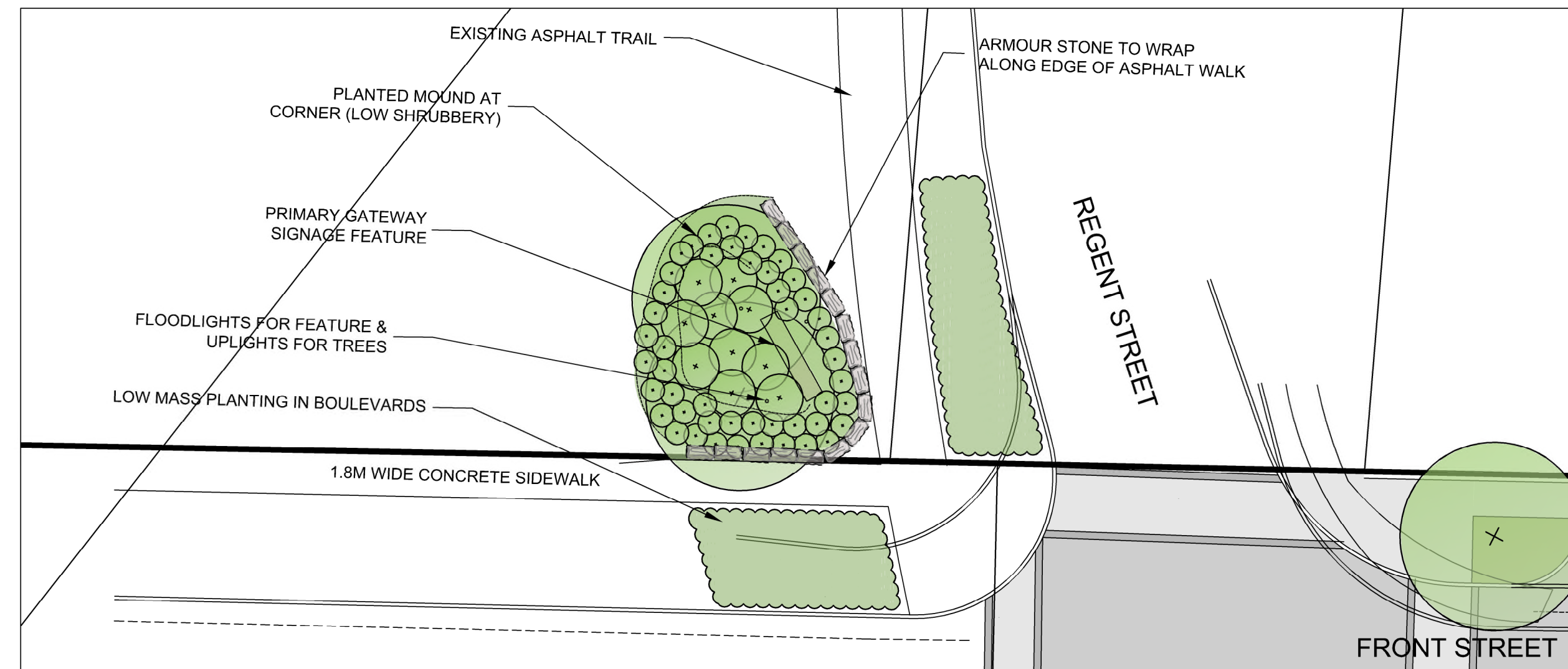
STREETSCAPE PLAN

PINE STREET
Thorold, ON

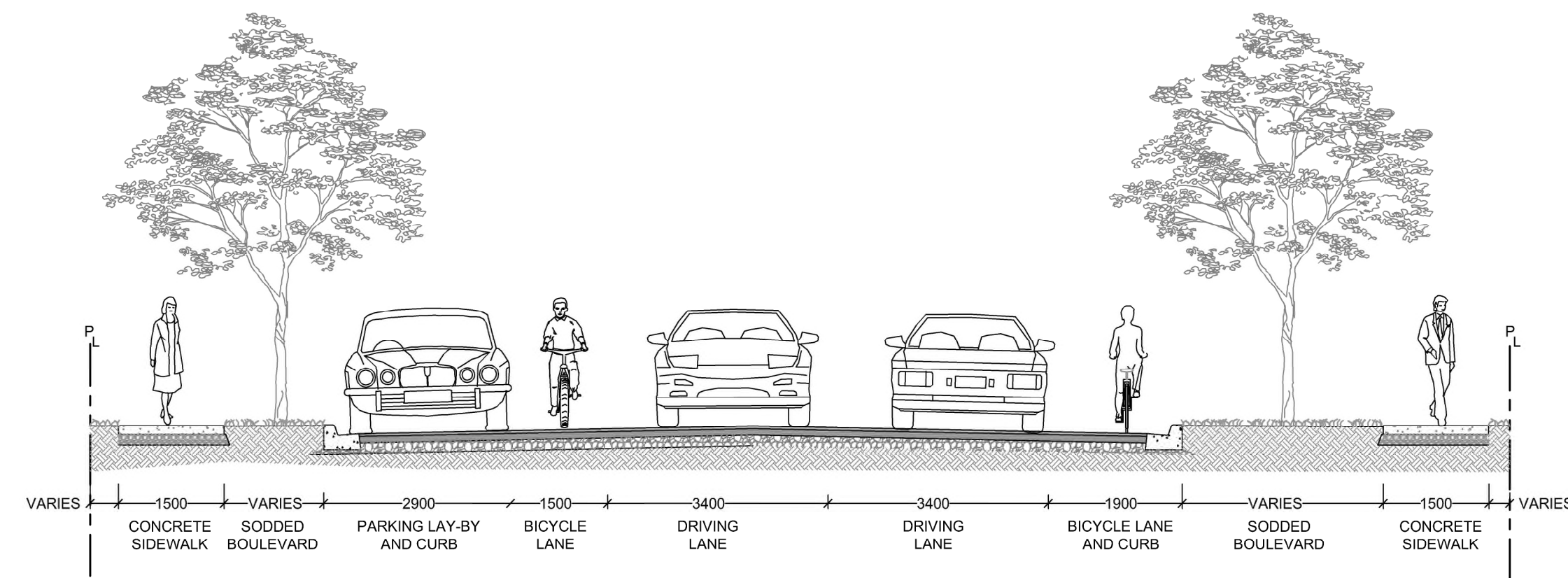


Date: February 2014
Scale: 1: 400
Drawn By: MZ, CZ
Project No.: 13059

L9



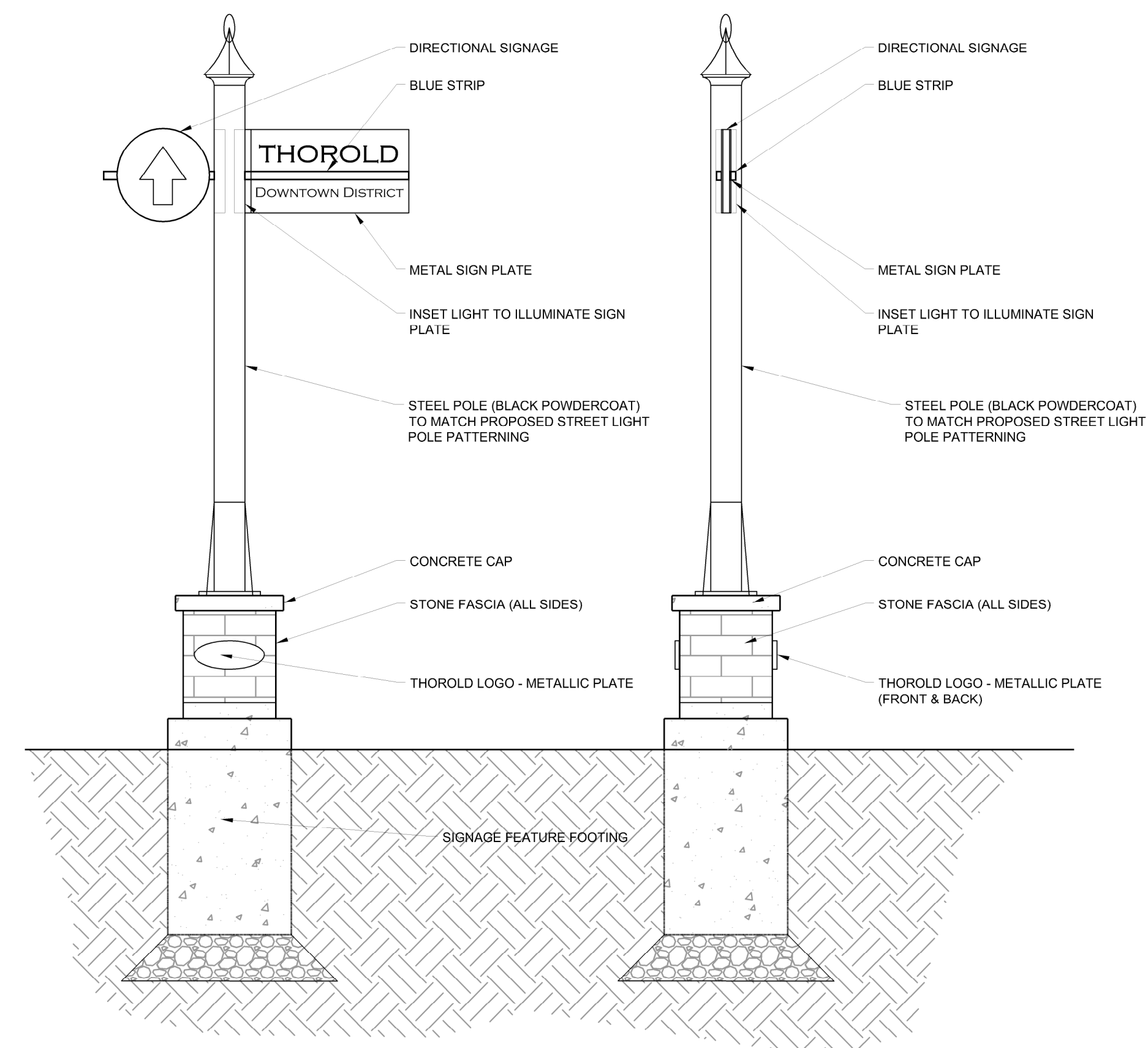
GATEWAY PLANTING ENLARGEMENT 1:200



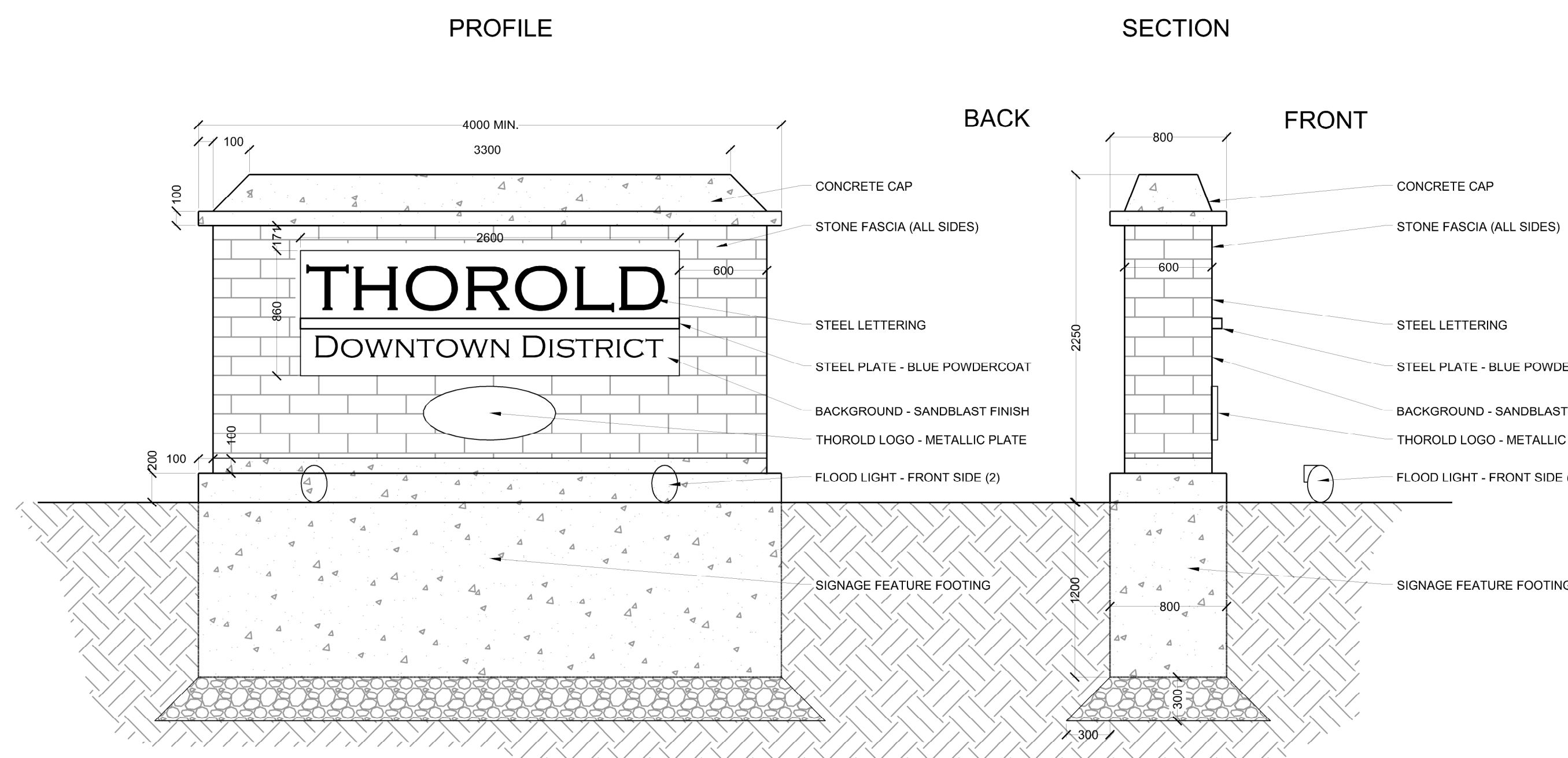
SECTION A-A, REGENT STREET
1:75

PROFILE - APPROACH VIEW

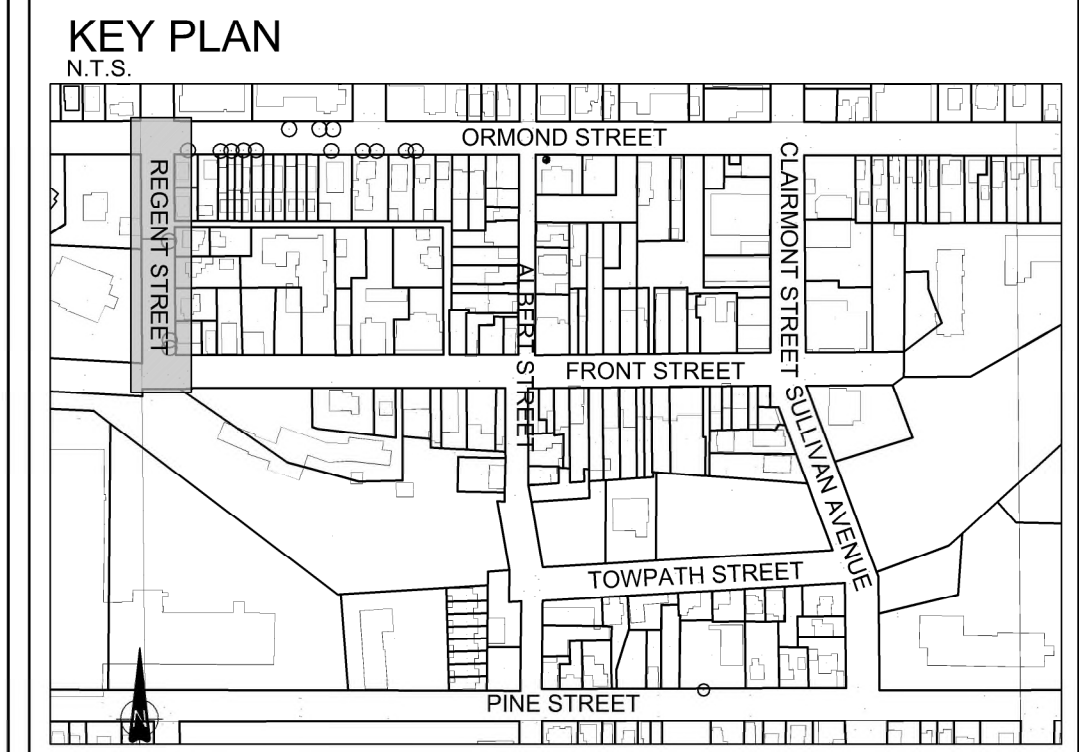
PROFILE - SIDE VIEW



2 SECONDARY GATEWAY FEATURE - CONCEPT
Scale 1:30



1 PRIMARY GATEWAY FEATURE - CONCEPT
Scale 1:30



Legend

- TRASH/RECYCLING RECEPTACLE
- BENCH ON CONCRETE PAD
- TRAFFIC BOLLARD
- PLANTER
- BIKE RACK
- STREET LIGHT
- 'SHARE THE ROAD' PAINT
- PROPERTY LINE

STREETSCAPE PLAN AND GATEWAY FEATURES REGENT STREET Thorold, ON



Date: February 2014
Scale: 1: 400
Drawn By: MZ, CZ
Project No.: 13059

L10

APPENDIX B

Detailed Cost Estimates

Phasing: 10 year forecast for reconstruction of Front Street North-Above and Below Ground

Preliminary Cost Estimate for Above Ground Streetscape Improvements only-N.I.C. infrastructure replacement, or removals of underground utilities and traffic control

Front Street North, Albert Street to Regent Street

1. SITE PREPARATION & REMOVALS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
1.1	Asphalt removals	m ²	\$ 14.00	2,825	\$ 39,550.00
1.2	Concrete curb removals	lin.m.	\$ 10.00	396	\$ 3,960.00
1.3	Unit Paver sidewalk removals	m ²	\$ 15.00	1,270	\$ 19,050.00
Section Subtotal:					\$ 62,560.00
2. ROAD AND SIDEWALK TREATMENT					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
2.1	Vehicular Asphalt Paving	m ²	\$ 60.00	2457	\$ 147,420.00
2.2	Concrete On-Street Parking	m ²	\$ 140.00	625	\$ 87,500.00
2.3	Concrete curbing -full curb	lin.m.	\$ 60.00	415	\$ 24,900.00
2.4	Concrete gutter	lin.m.	\$ 60.00	400	\$ 24,000.00
2.5	Concrete Sidewalk-125mm	m ²	\$ 70.00	1388	\$ 97,160.00
2.6	Concrete Banding in Concrete Sidewalk (600mm wide)	lin.m.	\$ 80.00	559	\$ 44,720.00
2.7	Line painting (center line)	lin.m.	\$ 3.00	198	\$ 594.00
2.8	Line painting (on-street parking deliniation)	lin.m.	\$ 3.00	108	\$ 324.00
2.9	Road painting (share-the-road)	ea	\$ 175.00	6	\$ 1,050.00
2.10	Road painting (no parking)	m ²	\$ 25.00	21	\$ 525.00
2.11	Subdrain (to run under all proposed gutter/curb and gutter)	lin.m.	\$ 20.00	815	\$ 16,300.00
Section Subtotal:					\$ 444,493.00
3. SITE FURNISHINGS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
3.1	Benches	ea.	\$ 2,400.00	13	\$ 31,200.00
3.2	Trash Receptacles	ea.	\$ 1,000.00	3	\$ 3,000.00
3.3	Bike Rings	ea.	\$ 1,000.00	9	\$ 9,000.00
3.4	Bollards	ea.	\$ 1,000.00	3	\$ 3,000.00
3.5	Tree Pits with Grates and Silva Cells	ea.	\$ 5,000.00	18	\$ 90,000.00
Section Subtotal:					\$ 136,200.00
4. PLANT MATERIALS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
4.1	Street Trees (in pits)	ea.	\$ 450.00	18	\$ 8,100.00
Section Subtotal:					\$ 8,100.00
5. LIGHTING					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
5.1	Street Lights	ea.	\$ 5,125.00	16	\$ 82,000.00
5.2	Recessed Uplights	ea.	\$ 18.00	800	\$ 14,400.00
Section Subtotal:					\$ 96,400.00
SECTION SUBTOTAL					\$ 747,753
10% CONTINGENCY					\$ 74,775
SECTION TOTAL					\$ 822,528

Phasing: 10 year forecast for reconstruction of Front Street -Above and Below Ground

Preliminary Cost Estimate for Above Ground Streetscape Improvements only-N.I.C. infrastructure replacement, or removals of underground utilities and traffic control

Intersection of Front Street and Albert Street

1. SITE PREPARATION & REMOVALS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
1.1	Asphalt removals	m ²	\$ 14.00	375	\$ 5,250.00
1.2	Concrete curb removals	lin.m.	\$ 10.00	37	\$ 370.00
1.3	Unit Paver sidewalk removals	m ²	\$ 15.00	106	\$ 1,590.00
Section Subtotal:					\$ 7,210.00

2. ROAD AND SIDEWALK TREATMENT					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
2.1	Vehicular Asphalt Paving	m ²	\$ 60.00	174	\$ 10,440.00
2.2	Concrete Sidewalk	m ²	\$ 70.00	106	\$ 7,420.00
2.3	Concrete curbing	lin.m.	\$ 60.00	45	\$ 2,700.00
2.4	Crosswalks	m ²	\$ 150.00	88	\$ 13,200.00
2.5	Subdrain (to run under all proposed gutter/curb and gutter)	lin.m.	\$ 20.00	45	\$ 900.00
Section Subtotal:					\$ 34,660.00

3. SITE FURNISHINGS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
3.1	Benches	ea.	\$ 2,400.00	1	\$ 2,400.00
3.2	Bollards	ea.	\$ 1,000.00	10	\$ 10,000.00
3.3	Planter Pots	ea.	\$ 750.00	5	\$ 3,750.00
Section Subtotal:					\$ 16,150.00

5. LIGHTING					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
5.1	Street Lights	ea.	\$ 5,125.00	2	\$ 10,250.00
Section Subtotal:					\$ 10,250.00

SECTION SUBTOTAL \$ 68,270

10% CONTINGENCY \$ 6,827

SECTION TOTAL \$ 75,097

Phasing: 10 year forecast for reconstruction of Front Street -Above and Below Ground

Preliminary Cost Estimate for Above Ground Streetscape Improvements only-N.I.C. infrastructure replacement, or removals of underground utilities and traffic control

Intersection of Front Street and Regent Street

1. SITE PREPARATION & REMOVALS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
1.1	Asphalt removals	m ²	\$ 14.00	340	\$ 4,760.00
1.2	Concrete curb removals	lin.m.	\$ 10.00	55	\$ 550.00
1.3	Concrete/Unit paver sidewalk removals	m ²	\$ 15.00	70	\$ 1,050.00
Section Subtotal:					\$ 6,360.00
2. ROAD AND SIDEWALK TREATMENT					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
2.1	Vehicular Asphalt Paving	m ²	\$ 60.00	200	\$ 12,000.00
2.2	Concrete Sidewalk	m ²	\$ 70.00	69	\$ 4,830.00
2.3	Concrete curbing	lin.m.	\$ 60.00	55	\$ 3,300.00
2.4	Crosswalks	m ²	\$ 150.00	121	\$ 18,150.00
2.5	Subdrain (to run under all proposed gutter/curb and gutter)	lin.m.	\$ 20.00	55	\$ 1,100.00
Section Subtotal:					\$ 39,380.00
3. PRIMARY GATEWAY					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
3.1	Signage Feature, Lighting, Planting, Stone	L.S.			\$ 20,000.00
Section Subtotal:					\$ 20,000.00
4. LIGHTING					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
4.1	Street Lights	ea.	\$ 5,125.00	1	\$ 5,125.00
Section Subtotal:					\$ 5,125.00
SECTION SUBTOTAL					\$ 70,865
10% CONTINGENCY					\$ 7,087
SECTION TOTAL					\$ 77,952

Phasing: 10 year forecast for reconstruction of Front Street -Above and Below Ground

Preliminary Cost Estimate for Above Ground Streetscape Improvements only-N.I.C. infrastructure replacement, or removals of underground utilities and traffic control

Intersection of Front Street and Clairmont/Sullivan Street

1. SITE PREPARATION & REMOVALS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
1.1	Asphalt removals	m ²	\$ 14.00	350	\$ 4,900.00
1.2	Concrete curb removals	lin.m.	\$ 10.00	55	\$ 550.00
1.3	Unit Paver sidewalk removals	m ²	\$ 15.00	75	\$ 1,125.00
Section Subtotal:					\$ 6,575.00
2. ROAD AND SIDEWALK TREATMENT					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
2.1	Vehicular Asphalt Paving	m ²	\$ 60.00	233	\$ 13,980.00
2.2	Concrete Sidewalk	m ²	\$ 70.00	154	\$ 10,780.00
2.3	Concrete curb	lin.m.	\$ 60.00	65	\$ 3,900.00
2.4	Crosswalks	m ²	\$ 150.00	140	\$ 21,000.00
2.5	Subdrain (to run under all proposed gutter/curb and gutter)	lin.m.	\$ 20.00	65	\$ 1,300.00
Section Subtotal:					\$ 50,960.00
3. SITE FURNISHINGS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
3.1	Bollards	ea.	\$ 1,000.00	18	\$ 18,000.00
3.2	Planter Pots	ea.	\$ 900.00	2	\$ 1,800.00
Section Subtotal:					\$ 19,800.00
4. LIGHTING					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
4.1	Street Lights	ea.	\$ 5,125.00	2	\$ 10,250.00
Section Subtotal:					\$ 10,250.00
SECTION SUBTOTAL					\$ 87,585
10% CONTINGENCY					\$ 8,759
SECTION TOTAL					\$ 96,344

Phasing: 10 year forecast for reconstruction of Front Street -Above and Below Ground

Preliminary Cost Estimate for Above Ground Streetscape Improvements only-N.I.C. infrastructure replacement, or removals of underground utilities and traffic control

Front Street South - Clairmont Street to the Park

1. SITE PREPARATION & REMOVALS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
1.1	Asphalt removals	m ²	\$ 14.00	750	\$ 10,500.00
1.2	Concrete curb removals	lin.m.	\$ 10.00	100	\$ 1,000.00
1.3	Unit Paver sidewalk removals	m ²	\$ 15.00	125	\$ 1,875.00
Section Subtotal: \$					13,375.00
2. ROAD AND SIDEWALK TREATMENT					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
2.1	Vehicular Asphalt Paving	m ²	\$ 60.00	450	\$ 27,000.00
2.2	Concrete Sidewalk-125mm	m ²	\$ 70.00	198	\$ 13,860.00
2.3	Concrete On-Street Parking	m ²	\$ 140.00	128	\$ 17,920.00
2.4	Concrete Banding in Concrete Sidewalk (600mm wide)	lin.m.	\$ 80.00	90	\$ 7,200.00
2.5	Concrete curbing -full curb	lin.m.	\$ 60.00	90	\$ 5,400.00
2.6	Concrete gutter	lin.m.	\$ 60.00	95	\$ 5,700.00
2.7	Line painting (center line)	lin.m.	\$ 3.00	52	\$ 156.00
2.8	Line painting (on-street parking deliniation)	lin.m.	\$ 3.00	771	\$ 2,313.00
2.9	Road painting (share-the-road)	ea	\$ 175.00	4	\$ 700.00
2.10	Subdrain (to run under all proposed gutter/curb and gutter)	lin.m.	\$ 20.00	90	\$ 1,800.00
Section Subtotal: \$					82,049.00
3. SITE FURNISHINGS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
3.1	Benches	ea.	\$ 2,400.00	2	\$ 4,800.00
3.2	Bike Rings	ea.	\$ 1,000.00	1	\$ 1,000.00
3.3	Tree Pits with Grates	ea.	\$ 5,000.00	4	\$ 20,000.00
Section Subtotal: \$					25,800.00
4. PLANT MATERIALS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
4.1	Street Trees (in pits)	ea.	\$ 450.00	4	\$ 1,800.00
4.2	Street Trees	ea.	\$ 450.00	4	\$ 1,800.00
Section Subtotal: \$					3,600.00
5. LIGHTING					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
5.1	Street Lights	ea.	\$ 5,125.00	2	\$ 10,250.00
Section Subtotal: \$					10,250.00
SECTION SUBTOTAL					\$ 135,074
10% CONTINGENCY					\$ 13,507
SECTION TOTAL					\$ 148,581

Phasing: 10-15 year forecast for reconstruction of Regent Street -Above Ground

Preliminary Cost Estimate for Above Ground Streetscape Improvements only-N.I.C. infrastructure replacement, or removals of underground utilities and traffic control

Regent Street - Front Street to Ormond Street

1. SITE PREPARATION & REMOVALS						
Item No.	Description	Unit	Unit Price	Qty.	Total Cost	
1.1	Asphalt removals	m ²	\$ 14.00	200	\$	2,800.00
1.2	Concrete curb removals	lin.m.	\$ 10.00	120	\$	1,200.00
1.3	Concrete sidewalk removals	m ²	\$ 15.00	150	\$	2,250.00
Section Subtotal:					\$	6,250.00
2. ROAD AND SIDEWALK TREATMENT						
Item No.	Description	Unit	Unit Price	Qty.	Total Cost	
2.1	Vehicular Asphalt Paving including bike lanes	m ²	\$ 60.00	1200	\$	72,000.00
2.2	Concrete Sidewalk	m ²	\$ 70.00	383	\$	26,810.00
2.3	Concrete curbing	lin.m.	\$ 60.00	150	\$	9,000.00
2.4	Line painting (center line)	lin.m.	\$ 3.00	360	\$	1,080.00
2.5	Line painting (on-street parking deliniation)	lin.m.	\$ 3.00	465	\$	1,395.00
2.6	Subdrain (to run under all proposed gutter/curb and gutter)	lin.m.	\$ 20.00	150	\$	3,000.00
Section Subtotal:					\$	113,285.00
3. PLANT MATERIALS						
Item No.	Description	Unit	Unit Price	Qty.	Total Cost	
3.1	Street Trees	ea.	\$ 450.00	19	\$	8,550.00
Section Subtotal:					\$	8,550.00
4. LIGHTING						
Item No.	Description	Unit	Unit Price	Qty.	Total Cost	
4.1	Street Lights	ea.	\$ 5,125.00	5	\$	25,625.00
Section Subtotal:					\$	25,625.00
SECTION SUBTOTAL					\$	153,710
10% CONTINGENCY					\$	15,371
SECTION TOTAL					\$	169,081

Phasing: 15-20 year forecast for reconstruction of Albert Street -Above Ground

Preliminary Cost Estimate for Above Ground Streetscape Improvements only-N.I.C. infrastructure replacement, or removals of underground utilities and traffic control

Albert Street - Pine Street to Towpath Street

1. SITE PREPARATION & REMOVALS

Item No.	Description	Unit	Unit Price	Qty.	Total Cost
1.1	Asphalt removals	m ²	\$ 14.00	200	\$ 2,800.00
1.2	Concrete curb removals	lin.m.	\$ 10.00	60	\$ 600.00
1.3	Concrete sidewalk removals	m ²	\$ 15.00	160	\$ 2,400.00
Section Subtotal:					\$ 5,800.00

2. ROAD AND SIDEWALK TREATMENT

Item No.	Description	Unit	Unit Price	Qty.	Total Cost
2.1	Vehicular Asphalt Paving	m ²	\$ 60.00	350	\$ 21,000.00
2.2	Concrete Sidewalk-125mm	m ²	\$ 70.00	127	\$ 8,890.00
2.3	Concrete Banding in Concrete Sidewalk (600mm wide)	lin.m.	\$ 80.00	165	\$ 13,200.00
2.4	Concrete curbing and gutter	lin.m.	\$ 60.00	80	\$ 4,800.00
2.5	Line painting (center line)	lin.m.	\$ 3.00	66	\$ 198.00
2.6	Line painting (on-street parking deliniation)	lin.m.	\$ 3.00	24	\$ 72.00
2.7	Road painting (share-the-road)	ea	\$ 175.00	4	\$ 700.00
2.8	Subdrain (to run under all proposed gutter/curb and gutter)	lin.m.	\$ 20.00	80	\$ 1,600.00
Section Subtotal:					\$ 50,460.00

3. SITE FURNISHINGS

Item No.	Description	Unit	Unit Price	Qty.	Total Cost
3.1	Benches	ea.	\$ 2,400.00	2	\$ 4,800.00
3.2	Tree Pits with Grates	ea.	\$ 5,000.00	2	\$ 10,000.00
3.3	Planter Pots	ea.	\$ 750.00	4	\$ 3,000.00
Section Subtotal:					\$ 17,800.00

4. PLANT MATERIALS

Item No.	Description	Unit	Unit Price	Qty.	Total Cost
4.1	Street Trees	ea.	\$ 450.00	2	\$ 900.00
Section Subtotal:					\$ 900.00

5. LIGHTING

Item No.	Description	Unit	Unit Price	Qty.	Total Cost
5.1	Street Lights	ea.	\$ 5,125.00	4	\$ 20,500.00
Section Subtotal:					\$ 20,500.00

SECTION SUBTOTAL \$ 95,460

10% CONTINGENCY \$ 9,546

SECTION TOTAL \$ 105,006

Phasing: 15-20 year forecast for reconstruction of Albert Street -Above Ground

Preliminary Cost Estimate for Above Ground Streetscape Improvements only-N.I.C. infrastructure replacement, or removals of underground utilities and traffic control

Albert Street - Towpath Street to Eakins Place

1. SITE PREPARATION & REMOVALS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
1.1	Asphalt removals	m ²	\$ 14.00	717	\$ 10,038.00
1.2	Concrete curb removals	lin.m.	\$ 10.00	106	\$ 1,060.00
1.3	Concrete sidewalk removals	m ²	\$ 15.00	192	\$ 2,880.00
Section Subtotal:					\$ 13,978.00
2. ROAD AND SIDEWALK TREATMENT					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
2.1	Vehicular Asphalt Paving (on-street parking)	m ²	\$ 60.00	154	\$ 9,240.00
2.2	Concrete Sidewalk-125mm	m ²	\$ 70.00	150	\$ 10,500.00
2.3	Concrete Banding in Concrete Sidewalk (600mm wide)	lin.m.	\$ 80.00	122	\$ 9,760.00
2.4	Concrete curbing and gutter	lin.m.	\$ 60.00	113	\$ 6,780.00
2.5	Line painting (on-street parking deliniation)	lin.m.	\$ 3.00	25	\$ 75.00
2.6	Subdrain (to run under all proposed gutter/curb and gutter)	lin.m.	\$ 20.00	113	\$ 2,260.00
Section Subtotal:					\$ 38,615.00
3. SITE FURNISHINGS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
3.1	Benches	ea.	\$ 2,400.00	1	\$ 2,400.00
3.5	Tree Pits with Grates	ea.	\$ 5,000.00	3	\$ 15,000.00
3.6	Planter Pots	ea.	\$ 750.00	4	\$ 3,000.00
Section Subtotal:					\$ 20,400.00
4. PLANT MATERIALS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
4.1	Street Trees (in pits)	ea.	\$ 450.00	3	\$ 1,350.00
4.2	Street Trees	ea.	\$ 450.00	1	\$ 450.00
Section Subtotal:					\$ 1,800.00
5. LIGHTING					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
5.1	Street Lights	ea.	\$ 5,125.00	3	\$ 15,375.00
Section Subtotal:					\$ 15,375.00
SECTION SUBTOTAL					\$ 90,168
10% CONTINGENCY					\$ 9,017
SECTION TOTAL					\$ 99,185

Phasing: 15-20 year forecast for reconstruction of Albert Street -Above Ground

Preliminary Cost Estimate for Above Ground Streetscape Improvements only-N.I.C. infrastructure replacement, or removals of underground utilities and traffic control

Albert Street - Ekins Place to Front Street

1. SITE PREPARATION & REMOVALS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
1.1	Asphalt removals	m ²	\$ 14.00	596	\$ 8,344.00
1.2	Concrete curb removals	lin.m.	\$ 10.00	132	\$ 1,320.00
1.3	Concrete sidewalk removals	m ²	\$ 15.00	387	\$ 5,805.00
Section Subtotal: \$					15,469.00
2. ROAD AND SIDEWALK TREATMENT					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
2.1	Vehicular Asphalt Paving (including on-street parking)	m ²	\$ 60.00	664	\$ 39,840.00
2.2	Concrete Sidewalk-125mm	m ²	\$ 70.00	212	\$ 14,840.00
2.3	Concrete Banding in Concrete Sidewalk (600mm wide)	lin.m.	\$ 80.00	60	\$ 4,800.00
2.4	Concrete curbing and gutter	lin.m.	\$ 60.00	113	\$ 6,780.00
2.5	Line painting (center line)	lin.m.	\$ 3.00	68	\$ 204.00
2.6	Line painting (on-street parking deliniation)	lin.m.	\$ 3.00	15	\$ 45.00
2.7	Subdrain (to run under all proposed gutter/curb and gutter)	lin.m.	\$ 20.00	113	\$ 2,260.00
Section Subtotal: \$					68,769.00
3. SITE FURNISHINGS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
3.1	Benches	ea.	\$ 2,400.00	1	\$ 2,400.00
3.2	Tree Pits with Grates	ea.	\$ 5,000.00	2	\$ 10,000.00
Section Subtotal: \$					12,400.00
4. PLANT MATERIALS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
4.1	Street Trees (in pits)	ea.	\$ 450.00	2	\$ 900.00
Section Subtotal: \$					900.00
5. LIGHTING					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
5.1	Street Lights	ea.	\$ 5,125.00	3	\$ 15,375.00
Section Subtotal: \$					15,375.00
SECTION SUBTOTAL					\$ 112,913
10% CONTINGENCY					\$ 11,291
SECTION TOTAL					\$ 124,204

Phasing: 15-20 year forecast for reconstruction of Albert Street -Above Ground

Preliminary Cost Estimate for Above Ground Streetscape Improvements only-N.I.C. infrastructure replacement, or removals of underground utilities and traffic control

Albert Street - Front Street to Ormond Street

1. SITE PREPARATION & REMOVALS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
1.1	Asphalt removals	m ²	\$ 14.00	833	\$ 11,662.00
1.2	Concrete curb removals	lin.m.	\$ 10.00	226	\$ 2,260.00
1.3	Unit paver sidewalk removals	m ²	\$ 15.00	383	\$ 5,745.00
Section Subtotal:					\$ 19,667.00
2. ROAD AND SIDEWALK TREATMENT					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
2.1	Vehicular Asphalt Paving (on-street parking)	m ²	\$ 60.00	707	\$ 42,420.00
2.2	Concrete Sidewalk-125mm	m ²	\$ 70.00	506	\$ 35,420.00
2.3	Concrete Banding in Concrete Sidewalk (600mm wide)	lin.m.	\$ 80.00	156	\$ 12,480.00
2.4	Concrete curbing and gutter	lin.m.	\$ 60.00	244	\$ 14,640.00
2.5	Line painting (center line)	lin.m.	\$ 3.00	120	\$ 360.00
2.6	Line painting (on-street parking deliniation)	lin.m.	\$ 3.00	28	\$ 84.00
2.7	Road painting (no parking)	m ²	\$ 25.00	46	\$ 1,150.00
2.8	Subdrain (to run under all proposed gutter/curb and gutter)	lin.m.	\$ 20.00	244	\$ 4,880.00
Section Subtotal:					\$ 111,434.00
3. SITE FURNISHINGS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
3.1	Benches	ea.	\$ 2,400.00	3	\$ 7,200.00
3.2	Tree Pits with Grates	ea.	\$ 5,000.00	6	\$ 30,000.00
3.3	Planter Pots	ea.	\$ 750.00	3	\$ 2,250.00
Section Subtotal:					\$ 39,450.00
4. PLANT MATERIALS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
4.1	Street Trees (in pits)	ea.	\$ 450.00	6	\$ 2,700.00
Section Subtotal:					\$ 2,700.00
5. LIGHTING					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
5.1	Street Lights	ea.	\$ 5,125.00	5	\$ 25,625.00
Section Subtotal:					\$ 25,625.00
SECTION SUBTOTAL					\$ 198,876
10% CONTINGENCY					\$ 19,888
SECTION TOTAL					\$ 218,764

Phasing: 10-15 year forecast for reconstruction of Sullivan Avenue -Above Ground

Preliminary Cost Estimate for Above Ground Streetscape Improvements only-N.I.C. infrastructure replacement, or removals of underground utilities and traffic control

Sullivan Avenue - Pine Street to Towpath Street					
1. SITE PREPARATION & REMOVALS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
1.1	Asphalt removals	m ²	\$ 14.00	650	\$ 9,100.00
1.2	Concrete curb removals	lin.m.	\$ 10.00	130	\$ 1,300.00
1.3	Concrete/Unit Paver sidewalk removals	m ²	\$ 15.00	156	\$ 2,340.00
Section Subtotal:					\$ 12,740.00
2. ROAD AND SIDEWALK TREATMENT					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
2.1	Vehicular Asphalt Paving	m ²	\$ 60.00	650	\$ 39,000.00
2.2	Concrete Sidewalk	m ²	\$ 70.00	195	\$ 13,650.00
2.3	Concrete curbing	lin.m.	\$ 60.00	130	\$ 7,800.00
2.4	Line painting (center line and bike lanes)	lin.m.	\$ 3.00	195	\$ 585.00
2.5	Subdrain (to run under all proposed gutter/curb and gutter)	lin.m.	\$ 20.00	130	\$ 2,600.00
Section Subtotal:					\$ 63,635.00
3. PLANT MATERIALS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
3.1	Street Trees	ea.	\$ 450.00	12	\$ 5,400.00
Section Subtotal:					\$ 5,400.00
4. LIGHTING					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
4.1	Street Lights	ea.	\$ 5,125.00	3	\$ 15,375.00
Section Subtotal:					\$ 15,375.00
SECTION SUBTOTAL					\$ 97,150
10% CONTINGENCY					\$ 9,715
SECTION TOTAL					\$ 106,865

Phasing: 10-15 year forecast for reconstruction of Sullivan Avenue -Above Ground

Preliminary Cost Estimate for Above Ground Streetscape Improvements only-N.I.C. infrastructure replacement, or removals of underground utilities and traffic control

Sullivan Avenue - Towpath Street to Front Street

1. SITE PREPARATION & REMOVALS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
1.1	Asphalt removals	m ²	\$ 14.00	1,500	\$ 21,000.00
1.2	Concrete curb removals	lin.m.	\$ 10.00	200	\$ 2,000.00
1.3	Concrete sidewalk removals	m ²	\$ 15.00	600	\$ 9,000.00
Section Subtotal:					\$ 32,000.00
2. ROAD AND SIDEWALK TREATMENT					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
2.1	Vehicular Asphalt Paving (on-street parking)	m ²	\$ 60.00	1300	\$ 78,000.00
2.2	Concrete Sidewalk	m ²	\$ 70.00	405	\$ 28,350.00
2.4	Concrete Banding in Concrete Sidewalk (600mm wide)	lin.m.	\$ 80.00	209	\$ 16,720.00
2.5	Concrete curbing	lin.m.	\$ 60.00	200	\$ 12,000.00
2.6	Crosswalks	m ²	\$ 150.00	96	\$ 14,400.00
2.7	Line painting (center line and bike lanes)	lin.m.	\$ 3.00	300	\$ 900.00
2.8	Line painting (on-street parking)	lin.m.	\$ 3.00	38	\$ 114.00
2.9	Subdrain (to run under all proposed gutter/curb and gutter)	lin.m.	\$ 20.00	200	\$ 4,000.00
Section Subtotal:					\$ 154,484.00
3. SITE FURNISHINGS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
3.1	Benches	ea.	\$ 2,400.00	1	\$ 2,400.00
3.2	Trash Receptacles	ea.	\$ 1,000.00	1	\$ 1,000.00
3.3	Bike Rings	ea.	\$ 1,000.00	1	\$ 1,000.00
3.4	Planter Pots	ea.	\$ 750.00	3	\$ 2,250.00
Section Subtotal:					\$ 6,650.00
4. LIGHTING					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
4.1	Street Lights	ea.	\$ 5,125.00	5	\$ 25,625.00
Section Subtotal:					\$ 25,625.00
SECTION SUBTOTAL					\$ 218,759
10% CONTINGENCY					\$ 21,876
SECTION TOTAL					\$ 240,635

Phasing: 10-15 year forecast for reconstruction of Clairmont Street -Above Ground

Preliminary Cost Estimate for Above Ground Streetscape Improvements only-N.I.C. infrastructure replacement, or removals of underground utilities and traffic control

Clairmont Street - Front Street to Ormond Street

1. SITE PREPARATION & REMOVALS

Item No.	Description	Unit	Unit Price	Qty.	Total Cost
1.1	Asphalt removals	m ²	\$ 14.00	1,500	\$ 21,000.00
1.2	Concrete curb removals	lin.m.	\$ 10.00	225	\$ 2,250.00
1.3	Concrete sidewalk removals	m ²	\$ 15.00	400	\$ 6,000.00
Section Subtotal:					\$ 29,250.00

2. ROAD AND SIDEWALK TREATMENT

Item No.	Description	Unit	Unit Price	Qty.	Total Cost
2.1	Vehicular Asphalt Paving (on-street parking)	m ²	\$ 60.00	1500	\$ 90,000.00
2.2	Concrete Sidewalk-125mm	m ²	\$ 70.00	500	\$ 35,000.00
2.3	Concrete Banding in Concrete Sidewalk (600mm wide)	lin.m.	\$ 80.00	225	\$ 18,000.00
2.4	Concrete curbing	lin.m.	\$ 60.00	250	\$ 15,000.00
2.5	Line painting (center line)	lin.m.	\$ 3.00	342	\$ 1,026.00
2.6	Line painting (on-street parking)	lin.m.	\$ 3.00	50	\$ 150.00
2.7	Subdrain (to run under all proposed gutter/curb and gutter)	lin.m.	\$ 20.00	250	\$ 5,000.00
Section Subtotal:					\$ 164,176.00

3. SITE FURNISHINGS

Item No.	Description	Unit	Unit Price	Qty.	Total Cost
3.1	Benches	ea.	\$ 2,400.00	1	\$ 2,400.00
3.2	Bike Rings	ea.	\$ 1,000.00	1	\$ 1,000.00
3.3	Street Trees (in pits with metal tree grates)	ea.	\$ 5,000.00	8	\$ 40,000.00
3.4	Planter Pots	ea.	\$ 750.00	3	\$ 2,250.00
Section Subtotal:					\$ 45,650.00

4. PLANT MATERIALS

Item No.	Description	Unit	Unit Price	Qty.	Total Cost
4.1	Street Trees	ea.	\$ 450.00	8	\$ 3,600.00
Section Subtotal:					\$ 3,600.00

5. LIGHTING

Item No.	Description	Unit	Unit Price	Qty.	Total Cost
5.1	Street Lights	ea.	\$ 5,125.00	5	\$ 25,625.00
Section Subtotal:					\$ 25,625.00

SECTION SUBTOTAL \$ 268,301
10% CONTINGENCY \$ 26,830

SECTION TOTAL \$ 295,131

Phasing: 10-15 year forecast for reconstruction of Ormond Street -Above Ground

Preliminary Cost Estimate for Above Ground Streetscape Improvements only-N.I.C. infrastructure replacement, or removals of underground utilities and traffic control

Ormond Street - Clairmont Street to Albert Street (including Clairmont Intersection)					
1. SITE PREPARATION & REMOVALS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
1.1	Asphalt removals	m ²	\$ 14.00	1,694	\$ 23,716.00
1.2	Concrete curb removals	lin.m.	\$ 5.00	324	\$ 1,620.00
1.3	Concrete sidewalk removals	m ²	\$ 15.00	513	\$ 7,695.00
Section Subtotal:					\$ 33,031.00
2. ROAD AND SIDEWALK TREATMENT					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
2.1	Vehicular Asphalt Paving (on-street parking)	m ²	\$ 60.00	1694	\$ 101,640.00
2.2	Concrete Sidewalk-125mm	m ²	\$ 70.00	526	\$ 36,820.00
2.3	Concrete curbing and gutter	lin.m.	\$ 60.00	324	\$ 19,440.00
2.4	Crosswalks	m ²	\$ 150.00	132	\$ 19,800.00
2.5	Line painting (center line)	lin.m.	\$ 3.00	214	\$ 642.00
2.6	Subdrain (to run under all proposed gutter/curb and gutter)	lin.m.	\$ 20.00	324	\$ 6,480.00
Section Subtotal:					\$ 184,822.00
4. PLANT MATERIALS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
4.1	Street Trees	ea.	\$ 450.00	17	\$ 7,650.00
4.2	Sod repair	m ²	\$ 5.00	220	\$ 1,100.00
Section Subtotal:					\$ 8,750.00
5. LIGHTING					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
5.1	Street Lights	ea.	\$ 5,125.00	7	\$ 35,875.00
Section Subtotal:					\$ 35,875.00
SECTION SUBTOTAL					\$ 262,478
10% CONTINGENCY					\$ 26,248
SECTION TOTAL					\$ 288,726

Phasing: 10-15 year forecast for reconstruction of Ormond Street -Above Ground

Preliminary Cost Estimate for Above Ground Streetscape Improvements only-N.I.C. infrastructure replacement, or removals of underground utilities and traffic control

Ormond Street - Albert Street to Regent Street (including Regent Intersection)

1. SITE PREPARATION & REMOVALS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
1.1	Asphalt removals	m ²	\$ 14.00	2,512	\$ 35,168.00
1.2	Concrete curb removals	lin.m.	\$ 10.00	461	\$ 4,610.00
1.3	Concrete sidewalk removals	m ²	\$ 15.00	802	\$ 12,030.00
Section Subtotal:					\$ 51,808.00

2. ROAD AND SIDEWALK TREATMENT					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
2.1	Vehicular Asphalt Paving	m ²	\$ 60.00	2512	\$ 150,720.00
2.2	Concrete Sidewalk-125mm	m ²	\$ 70.00	802	\$ 56,140.00
2.5	Concrete curbing and gutter	lin.m.	\$ 60.00	461	\$ 27,660.00
2.6	Crosswalks	m ²	\$ 150.00	155	\$ 23,250.00
2.7	Line painting (center line)	lin.m.	\$ 3.00	272	\$ 816.00
2.6	Subdrain (to run under all proposed gutter/curb and gutter)	lin.m.	\$ 20.00	461	\$ 9,220.00
Section Subtotal:					\$ 267,806.00

3. PLANT MATERIALS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
3.1	Street Trees	ea.	\$ -	21	\$ -
3.2	Sod repair in boulevard	m ²	\$ 5.00	308	\$ 1,540.00
Section Subtotal:					\$ 1,540.00

5. LIGHTING					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
5.1	Street Lights	ea.	\$ 5,125.00	12	\$ 61,500.00
Section Subtotal:					\$ 61,500.00

SECTION SUBTOTAL \$ 382,654
10% CONTINGENCY \$ 38,265

SECTION TOTAL \$ 420,919

Phasing: 10 year forecast for reconstruction of Towpath Street-Above Ground

Preliminary Cost Estimate for Above Ground Streetscape Improvements only-N.I.C. infrastructure replacement, or removals of underground utilities and traffic control

Towpath Street - Sullivan Street to Albert Street (& removal of bus loop)

1. SITE PREPARATION & REMOVALS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
1.1	Asphalt removals	m ²	\$ 14.00	500	\$ 7,000.00
Section Subtotal:					\$ 7,000.00
2. ROAD AND SIDEWALK TREATMENT					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
2.1	Vehicular Asphalt Paving	m ²	\$ 60.00	2250	\$ 135,000.00
2.2	Concrete Sidewalk/Multi-Use Trail	m ²	\$ 70.00	550	\$ 38,500.00
2.3	Concrete curbing	lin.m.	\$ 60.00	420	\$ 25,200.00
2.4	Line painting (center-line)	lin.m.	\$ 3.00	200	\$ 600.00
2.5	Line painting (on-street parking)	lin.m.	\$ 3.00	180	\$ 540.00
2.6	Subdrain (to run under all proposed gutter/curb and gutter)	lin.m.	\$ 20.00	420	\$ 8,400.00
Section Subtotal:					\$ 208,240.00
4. PLANT MATERIALS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
4.1	Street Trees	ea.	\$ 450.00	20	\$ 9,000.00
4.2	Shrubs/Perennials or Sod in Bump-outs	m ²	\$ 95.00	150	\$ 14,250.00
Section Subtotal:					\$ 23,250.00
5. LIGHTING					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
5.1	Street Lights	ea.	\$ 5,125.00	5	\$ 25,625.00
Section Subtotal:					\$ 25,625.00
6. Removal of Bus loop					
6.1	Removals (asphalt, concrete, walkway), expand parking lot and streetscape along Sullivan	Allowance			\$ 50,000.00
					]
SECTION SUBTOTAL					\$ 314,115
10% CONTINGENCY					\$ 31,412
SECTION TOTAL					\$ 345,527

Phasing: 10 year forecast for reconstruction of Towpath Street-Above Ground

Preliminary Cost Estimate for Above Ground Streetscape Improvements only-N.I.C. infrastructure replacement, or removals of underground utilities and traffic control

Pine Street - Sullivan Avenue to Albert Street (east side only)

1. SITE PREPARATION & REMOVALS

Item No.	Description	Unit	Unit Price	Qty.	Total Cost
1.1	Asphalt removals	m ²	\$ 14.00	2,000	\$ 28,000.00
1.2	Concrete curb removals	lin.m.	\$ 10.00	300	\$ 3,000.00
1.3	Concrete sidewalk removals	m ²	\$ 15.00	550	\$ 8,250.00
Section Subtotal:					\$ 39,250.00

2. ROAD AND SIDEWALK TREATMENT

Item No.	Description	Unit	Unit Price	Qty.	Total Cost
2.1	Vehicular Asphalt Paving (on-street parking)	m ²	\$ 60.00	2275	\$ 136,500.00
2.2	Concrete Sidewalk	m ²	\$ 70.00	618	\$ 43,260.00
2.3	Concrete curbing	lin.m.	\$ 60.00	364	\$ 21,840.00
2.4	Crosswalks	m ²	\$ 150.00	120	\$ 18,000.00
2.5	Line painting (center line & bike lanes)	lin.m.	\$ 3.00	546	\$ 1,638.00
2.6	Line painting (on-street parking)	lin.m.	\$ 3.00	50	\$ 150.00
2.7	Subdrain (to run under all proposed gutter/curb and gutter)	lin.m.	\$ 20.00	461	\$ 9,220.00
Section Subtotal:					\$ 230,608.00

3. SITE FURNISHINGS

Item No.	Description	Unit	Unit Price	Qty.	Total Cost
3.1	Benches	ea.	\$ 2,400.00	1	\$ 2,400.00
3.2	Trash Receptacles	ea.	\$ 1,000.00	1	\$ 1,000.00
3.3	Bike Rings	ea.	\$ 1,000.00	2	\$ 2,000.00
Section Subtotal:					\$ 5,400.00

4. PLANT MATERIALS

Item No.	Description	Unit	Unit Price	Qty.	Total Cost
4.1	Street Trees	ea.	\$ 450.00	13	\$ 5,850.00
Section Subtotal:					\$ 5,850.00

5. LIGHTING

Item No.	Description	Unit	Unit Price	Qty.	Total Cost
5.1	Street Lights	ea.	\$ 5,125.00	8	\$ 41,000.00
Section Subtotal:					\$ 41,000.00

SECTION SUBTOTAL \$ 322,108

10% CONTINGENCY \$ 32,211

SECTION TOTAL \$ 354,319

Phasing: 10 year forecast for reconstruction of Towpath Street-Above Ground

Preliminary Cost Estimate for Above Ground Streetscape Improvements only-N.I.C. infrastructure replacement, or removals of underground utilities and traffic control

Pine Street - Albert Street to Ann Street

1. SITE PREPARATION & REMOVALS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
1.1	Asphalt removals	m ²	\$ 14.00	3,816	\$ 53,424.00
1.2	Concrete curb removals	lin.m.	\$ 10.00	75	\$ 750.00
1.3	Concrete sidewalk removals	m ²	\$ 15.00	800	\$ 12,000.00
Section Subtotal:					\$ 66,174.00
2. ROAD AND SIDEWALK TREATMENT					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
2.1	Vehicular Asphalt Paving (including on-street parking)	m ²	\$ 60.00	2357	\$ 141,420.00
2.2	Concrete Sidewalk	m ²	\$ 60.00	800	\$ 48,000.00
2.3	Concrete curbing and gutter	lin.m.	\$ 90.00	343	\$ 30,870.00
2.4	Line painting (center line)	lin.m.	\$ 3.00	180	\$ 540.00
2.5	Line painting (on-street parking)	lin.m.	\$ 3.00	234	\$ 702.00
2.6	Road painting (no parking)	m ²	\$ 25.00	161	\$ 4,025.00
2.7	Subdrain (to run under all proposed gutter/curb and gutter)	lin.m.	\$ 20.00	343	\$ 6,860.00
Section Subtotal:					\$ 232,417.00
3. PLANT MATERIALS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
3.1	Street Trees	ea.	\$ 450.00	34	\$ 15,300.00
Section Subtotal:					\$ 15,300.00
SECTION SUBTOTAL					\$ 313,891
10% CONTINGENCY					\$ 31,389
SECTION TOTAL					\$ 345,280

Phasing: 10 year forecast for reconstruction of Municipal Park Lot 'A' -Above and Below Ground

Preliminary Cost Estimate for Above Ground Streetscape Improvements only-N.I.C. infrastructure replacement, or removals of underground utilities

Parking Lot A and Pedestrian Laneway

1. SITE PREPARATION & REMOVALS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
1.1	Asphalt removals	m ²	\$ 12.00	2,500	\$ 30,000.00
1.2	Unit Paver sidewalk removals	m ²	\$ 15.00	145	\$ 2,175.00
Section Subtotal:					\$ 32,175.00
2. ROAD AND SIDEWALK TREATMENT					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
2.1	Vehicular Asphalt Paving-Repair	m ²	\$ 60.00	2000	\$ 120,000.00
2.2	Concrete Sidewalk	m ²	\$ 60.00	791	\$ 47,460.00
2.3	Concrete curbing	lin.m.	\$ 70.00	490	\$ 34,300.00
2.4	Line painting	lin.m.	\$ 6.00	347	\$ 2,082.00
Section Subtotal:					\$ 203,842.00
3. SITE FURNISHINGS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
3.1	Bike Rings	ea.	\$ 1,000.00	2	\$ 2,000.00
3.2	Bollards	ea.	\$ 1,000.00	4	\$ 4,000.00
Section Subtotal:					\$ 6,000.00
4. PLANT MATERIALS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
4.1	Green Islands	m ²	\$ 85.00	194	\$ 16,490.00
4.2	Street Trees	ea.	\$ 450.00	12	\$ 5,400.00
Section Subtotal:					\$ 21,890.00
5. LIGHTING					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
5.1	Street Lights	ea.	\$ 5,125.00	8	\$ 41,000.00
Section Subtotal:					\$ 41,000.00
SECTION SUBTOTAL					\$ 304,907
10% CONTINGENCY					\$ 30,491
SECTION TOTAL					\$ 335,398

Phasing: 10 year forecast for reconstruction of Municipal Park Lot 'B' -Above and Below Ground

Preliminary Cost Estimate for Above Ground Streetscape Improvements only-N.I.C. infrastructure replacement, or removals of underground utilities

Parking Lot B, walkways and accessible pedestrian ramp					
1. SITE PREPARATION & REMOVALS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
1.1	Asphalt removals	m ²	\$ 12.00	1,200	\$ 14,400.00
1.2	Concrete removals-curb, sidewalk	lin.m.	\$ 20.00	300	\$ 6,000.00
1.3	Unit Paver sidewalk removals	m ²	\$ 15.00	165	\$ 2,475.00
Section Subtotal:					\$ 22,875.00
2. ROAD AND SIDEWALK TREATMENT					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
2.1	Vehicular Asphalt Paving	m ²	\$ 60.00	2000	\$ 120,000.00
2.2	Concrete Sidewalk	m ²	\$ 60.00	353	\$ 21,180.00
2.3	Concrete curbing	lin.m.	\$ 70.00	285	\$ 19,950.00
2.4	Line painting	lin.m.	\$ 5.00	435	\$ 2,175.00
2.5	Concrete Stairs (1.8m wide x 5 risers) w/curb walls	m3	\$ 900.00	20	\$ 18,000.00
2.6	Concrete Accessible Ramp (1.8m wide x 23m)	m3	\$ 900.00	24	\$ 21,600.00
Section Subtotal:					\$ 202,905.00
3. SITE FURNISHINGS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
3.1	Benches	ea.	\$ 1,200.00	1	\$ 1,200.00
3.2	Trash Receptacles	ea.	\$ 1,000.00	2	\$ 2,000.00
3.3	Bike Rings	ea.	\$ 1,000.00	6	\$ 6,000.00
Section Subtotal:					\$ 9,200.00
4. PLANT MATERIALS					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
4.1	Green Islands	m ²	\$ 500.00	45	\$ 22,500.00
4.2	Street Trees	ea.	\$ 450.00	18	\$ 8,100.00
4.3	Sod	m ²	\$ 5.50	1050	\$ 5,775.00
Section Subtotal:					\$ 36,375.00
5. LIGHTING					
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
5.1	Lights	ea.	\$ 5,125.00	8	\$ 41,000.00
Section Subtotal:					\$ 41,000.00
SECTION SUBTOTAL					\$ 312,355.00
10% CONTINGENCY					\$ 31,235.50
SECTION TOTAL					\$ 343,591

Park Concept A-Above ground park development

Battle of Beaverdams Park Renovations

Item No.	Description	Unit	Unit Price	Qty.	Total Cost
1.	ROAD AND SIDEWALK TREATMENT				
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
1.1	Vehicular Asphalt Paving	m ²	\$ 60.00	1662	\$ 99,720.00
1.2	Concrete Sidewalk/Plaza	m ²	\$ 95.00	352	\$ 33,440.00
1.3	Gravel Parking Lot	m ²	\$ 45.00	1650	\$ 74,250.00
1.4	Asphalt Pedestrian Paths - 2.4m wide	lin.m.	\$ 70.00	615	\$ 43,050.00
Section Subtotal:					\$ 250,460.00
2.	SITE FURNISHINGS				
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
2.1	Benches	ea.	\$ 2,400.00	8	\$ 19,200.00
2.2	Trash Receptacles	ea.	\$ 1,000.00	3	\$ 3,000.00
2.3	Bike Rings	ea.	\$ 1,000.00	8	\$ 8,000.00
2.4	Bollards	ea.	\$ 1,200.00	4	\$ 4,800.00
2.5	Stone Veneer Seatwalls	lin.m.	\$ 750.00	177	\$ 132,750.00
2.6	Stone Veneer Columns	ea.	\$ 3,000.00	2	\$ 6,000.00
Section Subtotal:					\$ 173,750.00
3.	PLANT MATERIALS				
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
3.1	Trees	ea.	\$ 450.00	50	\$ 22,500.00
3.2	Sod	m ²	\$ 6.00	1,200	\$ 7,200.00
Section Subtotal:					\$ 29,700.00
4.	PLAY AREA				
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
4.1	Play Structure	L.S.	\$ 50,000.00	1	\$ 50,000.00
4.2	Base Material	m ²	\$ 65.00	300	\$ 19,500.00
Section Subtotal:					\$ 69,500.00
5.	LIGHTING				
Item No.	Description	Unit	Unit Price	Qty.	Total Cost
5.1	Street Lights	ea.	\$ 5,125.00	22	\$ 112,750.00
Section Subtotal:					\$ 112,750.00
SECTION SUBTOTAL					\$ 636,160
10% CONTINGENCY					\$ 63,616
SECTION TOTAL					\$ 699,776

Plaza at Albert and Towpath Streets

1. Plaza

Item No.	Description	Unit	Unit Price	Qty.	Total Cost
1.1	Concrete Sidewalk/Plaza	m ²	\$ 70.00	1100	\$ 77,000.00
Section Subtotal:					\$ 77,000.00

2. SITE FURNISHINGS

Item No.	Description	Unit	Unit Price	Qty.	Total Cost
2.1	Benches	ea.	\$ 2,400.00	2	\$ 4,800.00
2.2	Trash Receptacles	ea.	\$ 1,000.00	1	\$ 1,000.00
2.3	Bike Rings	ea.	\$ 1,000.00	3	\$ 3,000.00
2.4	Bollards	ea.	\$ 1,000.00	2	\$ 2,000.00
2.5	Stone Veneer Columns	ea.	\$ 2,500.00	2	\$ 5,000.00
Section Subtotal:					\$ 15,800.00

3. PLANT MATERIALS

Item No.	Description	Unit	Unit Price	Qty.	Total Cost
3.1	Trees	ea.	\$ 350.00	14	\$ 4,900.00
3.2	Planting Beds with shrubs and perennials/ornamental grasses	m ²	\$ 75.00	750	\$ 56,250.00
3.3	Sod	m ²	\$ 7.00	400	\$ 2,800.00
Section Subtotal:					\$ 63,950.00

4. LIGHTING

Item No.	Description	Unit	Unit Price	Qty.	Total Cost
4.1	Street Lights	ea.	\$ 5,125.00	16	\$ 82,000.00
Section Subtotal:					\$ 82,000.00

SECTION SUBTOTAL \$ 238,750

10% CONTINGENCY \$ 23,875

SECTION TOTAL \$ 262,625

North Park Development Concept

1. ROAD AND SIDEWALK TREATMENT

Item No.	Description	Unit	Unit Price	Qty.	Total Cost
1.1	Vehicular Asphalt Paving at drive and parking lot	m ²	\$ 60.00	5135	\$ 308,100.00
1.2	Concrete Sidewalk/Plaza	m ²	\$ 95.00	700	\$ 66,500.00
1.3	2.4m wide Asphalt Pedestrian Path	lin.m.	\$ 70.00	88	\$ 6,160.00
Section Subtotal:					\$ 380,760.00

2. SITE FURNISHINGS

Item No.	Description	Unit	Unit Price	Qty.	Total Cost
2.1	Benches	ea.	\$ 2,400.00	12	\$ 28,800.00
2.2	Trash Receptacles	ea.	\$ 1,000.00	4	\$ 4,000.00
2.3	Bike Rings	ea.	\$ 1,000.00	12	\$ 12,000.00
2.4	Bollards	ea.	\$ 1,500.00	6	\$ 9,000.00
2.5	Stone Veneer Seatwalls	lin.m.	\$ 850.00	150	\$ 127,500.00
2.6	Stone Veneer Columns	ea.	\$ 25,000.00	3	\$ 75,000.00
Section Subtotal:					\$ 256,300.00

3. PLANT MATERIALS

Item No.	Description	Unit	Unit Price	Qty.	Total Cost
3.1	Trees	ea.	\$ 450.00	70	\$ 31,500.00
3.2	Planting Beds with shrubs and perennials/ornamental grasses	m ²	\$ 75.00	200	\$ 15,000.00
3.3	Sod	m ²	\$ 6.00	3,000	\$ 18,000.00
Section Subtotal:					\$ 64,500.00

4. WATER FEATURE

Item No.	Description	Unit	Unit Price	Qty.	Total Cost
4.1	Terraced Water Feature	L.S.	\$ 100,000.00	1	\$ 100,000.00
4.2	Ice rink/Spray Jets	L.S.	\$ 100,000.00	1	\$ 200,000.00
Section Subtotal:					\$ 300,000.00

5. LIGHTING

Item No.	Description	Unit	Unit Price	Qty.	Total Cost
5.1	Street Lights	ea.	\$ 5,125.00	13	\$ 66,625.00
Section Subtotal:					\$ 66,625.00

SECTION SUBTOTAL \$ 1,068,185

10% CONTINGENCY \$ 106,819

SECTION TOTAL \$ 1,175,004