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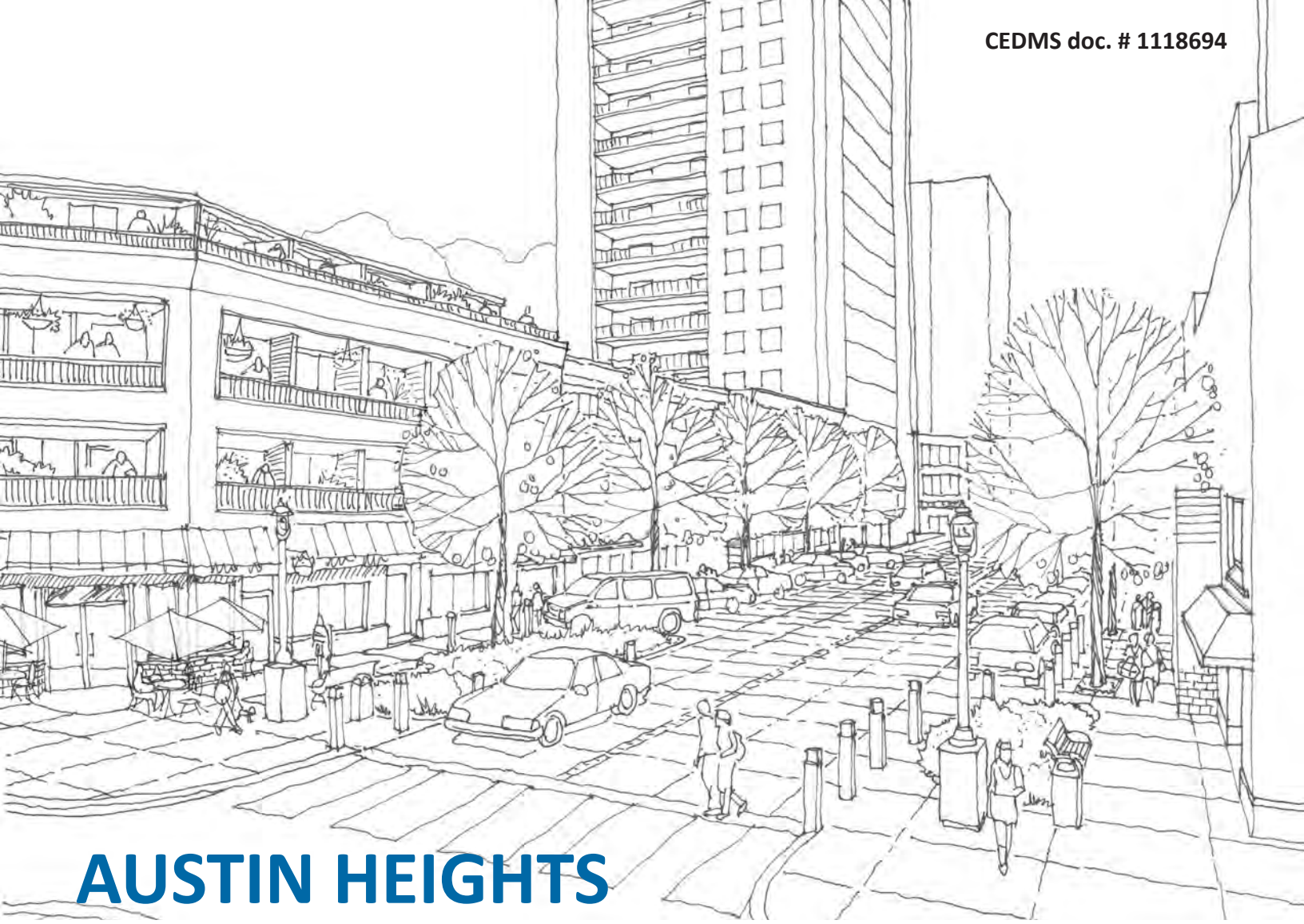

AUSTIN HEIGHTS STREETSCAPE STANDARDS

City of Coquitlam
July 30, 2012

Coquitlam
Planning & Development

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Executive Summary

The Austin Heights Streetscape Standards have been prepared to detail the improvements to the streetscape to improve the overall look and feel of the public areas in the Austin Heights commercial area; while meeting the objectives of the Austin Heights Neighbourhood Plan. These improvements include on-street parking, improved sidewalks, street furniture, public walkways and plazas, and street trees and landscaping.

The design objectives from the Austin Heights Neighbourhood Plan were used to develop specific designs for key areas of Austin Heights including:

» **Austin Avenue:** will be a high-density, mixed-use and transit oriented corridor with a range of active commercial uses including retail and office with residential located above. A strong streetwall is proposed to define the street along with an improved public realm. A contemporary built form and character that emphasizes pedestrian access while accommodating large format commercial uses is proposed for this street.

» **Ridgeway Avenue Walk:** is envisioned to be a distinct character area in the heart of the neighbourhood: a vibrant mixed-use, pedestrian focused, "shared street" with special streetscape and building character elements to distinguish it from the rest of the commercial core.

» **Central Vista Walk** and the **Secondary Pedestrian Walks:** are a series of north-south mid-block walkways and plazas to increase pedestrian connectivity through the neighbourhood. These spaces increase the opportunity for shops, cafes and restaurants to spill out into pedestrian areas. The "Walks" incorporate public art and a variety of streetscape elements, pedestrian amenities and are framed by adjacent buildings with active ground floor uses.

The majority of these streetscape improvements will be constructed at the time of development and funded by the developer. A staff interdepartmental working group determined the appropriate scope and level of design that will be required to improve the streetscapes in the Austin Heights commercial area.

Importantly the Streetscape Standards are designed to ensure high-quality urban design, functionality and a fiscally balanced program.

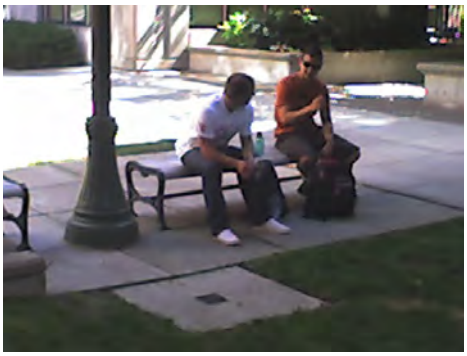
The Streetscape Standards is divided into Guiding Principles, Street Sections and Plans to provide general standards for street improvements, and Guidelines and Standards Specifications that detail all of the individual elements that contribute to improved streetscapes. Additional detailed information is provided in the Appendix.

Public Realm refers to all those parts of the built environment which allow public access. It encompasses: all streets, squares and other rights of way, open spaces and parks; and semi-public spaces

Artists impression of Central vista Walk

An artists impression of Austin Avenue

1.0 Introduction



Streets are a major component of the public space within a city. They not only facilitate the movement of vehicles, good and people but also serve an important role in the provision of public open space. If designed well, streets can promote pedestrian movement, foster investment by private businesses and ultimately define a district.

Austin Heights is a distinct neighbourhood within the City of Coquitlam and is a key element in the City's growth management strategy. These streetscape standards build on and support the implementation of the Austin Heights Neighbourhood Plan, which proposes policies to enhance the public realm in the commercial core and strengthen the existing features of the neighbourhood. These standards will help achieve distinctive and modern streets for the neighbourhood and will play an important role in fulfilling the community's desire for a vibrant and attractive public realm.

The Austin Heights Neighbourhood Plan identifies three distinct pedestrian oriented areas within the commercial core (Figure 1).

1. Ridgeway Avenue
2. Austin Avenue
3. Mid-block Pedestrian Walkways

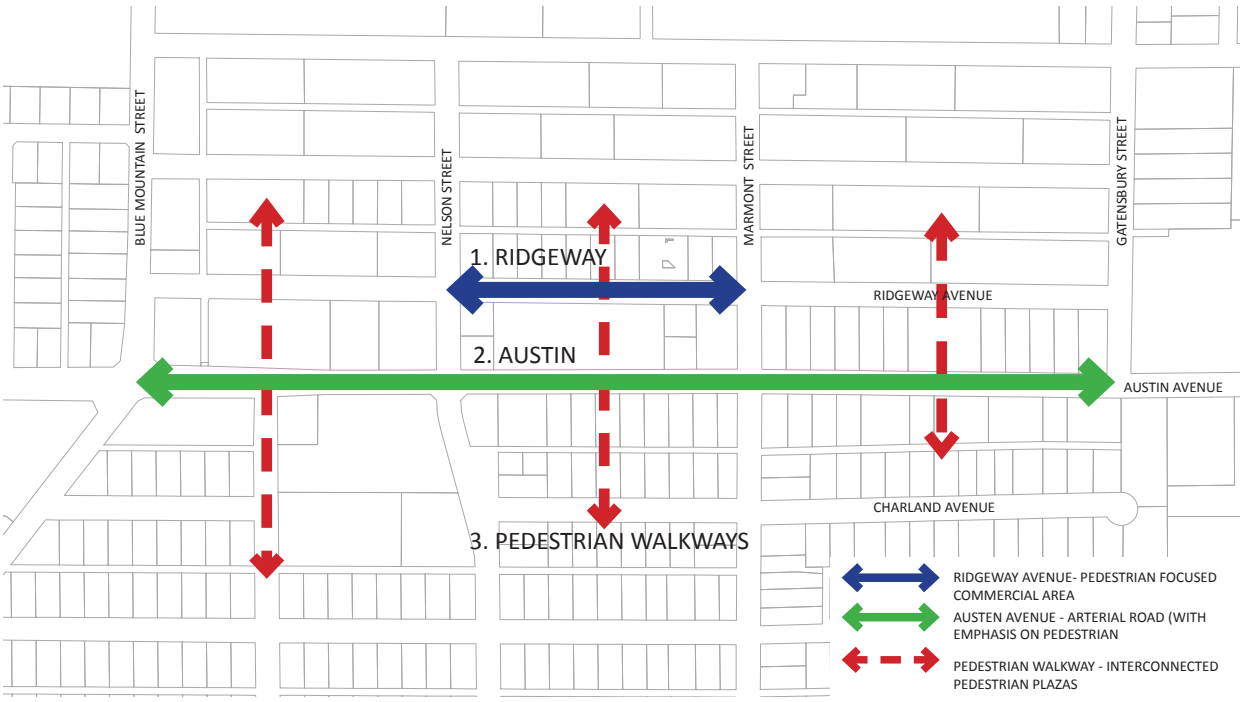


Figure 1 - Pedestrian Oriented Areas

1. **Ridgeway Avenue,** between Marmont and Nelson, will become a pedestrian focused commercial area with an intimate street experience. Although this street will accommodate vehicular traffic the majority of the time, it will be designed as a large, shared pedestrian plaza that can be closed at specific times to facilitate street fairs and neighbourhood festivals. This will be accomplished by increasing the right-of-way width, providing a continuous surface treatment and on-street parking.

2. **Austin Avenue** will be redesigned to place a greater emphasis on the pedestrian experience, while at the same time continuing to function as an arterial road with more frequent transit service. A slight widening of the right-of-way of Austin Avenue between Blue Mountain and Gatensbury Streets will provide an improved public realm while ensuring it remains a functioning, multi-modal street consistent with its role as part of the major road network. In addition, vehicle/pedestrian conflicts in the commercial core will be reduced by restricting the number of vehicle access points along Austin Avenue.

3. Mid-block **pedestrian walkways** will improve north-south pedestrian connectivity through a series of small, interconnected pedestrian plazas and will expand opportunities for retail frontage and pedestrian meeting spaces. An enhanced pedestrian experience will be provided through sidewalk cafes, outdoor seating areas, storefront displays and public art. The North-South pedestrian walkways should provide a strong visual connection to Ridgeway Avenue from the south. The pedestrian walkways are treated as an easement which pass through private development and will be designed at the time of development. The design of the walkways are to consider key design criteria, in particular:

    - Accessibility - appropriate use of ramps and stairs to accommodate the grade change;
    - Appropriate and complementary use of lights, plants and materials;
    - Building orientation - doors and windows should front onto the walkway;
    - Publicly accessible 24 hours/day.

4. **All other streets in the Neighbourhood Core Development Permit Area** will be redesigned improve the overall streetscape and provide a more pleasant environment for pedestrians. These include the flanking streets in the commercial core and streets with residential, employment living or secondary active street frontage.

Following the policies outlined in the Austin Heights Neighbourhood Plan, the streetscape standards focus on creating an overall identity for the commercial core while maintaining distinct character for Austin and Ridgeway Avenues. This will be accomplished through having consistent design elements throughout all streets to create harmony, with some unique elements in key areas to help create distinct character nodes. Refer to Appendix A for full concept plans for each area.

2.0 Context

The study area is located in the Austin Heights neighbourhood in the heart of Southwest Coquitlam. It contains the currently auto-oriented commercial strips along Ridgeway Avenue and Austin Avenue. These streets function as neighbourhood shopping areas primarily serving local residents. A large portion of Austin Heights is comprised of single family homes on large lots, with a concentration of multi-family housing north of Austin Avenue and closer to the commercial centre of the neighbourhood. Austin Heights is situated in close proximity to amenities in the community, such as schools, the Poirier Leisure Precinct, parks and sports fields.

3.0 Guiding Principles

As identified in the Austin Heights Neighbourhood Plan, a primary goal for Austin Heights is to revitalize the commercial core. This is accomplished by creating an active and vibrant public realm, with an emphasis on the pedestrian experience. As such, buildings should be sited to establish a strong street definition by using a common build-to line and maintaining a minimum 3 storey street wall. However, buildings could incorporate a break in the street wall for small plazas, where appropriate. Wider sidewalks, additional mid-block crossings and continuous, street-oriented commercial uses also contribute to the pedestrian-oriented character of the area..

The majority of the streetscape improvements will be funded by private development as they complete frontage improvements. Appendix B details a level “D” cost estimate A further breakdown of costs into City costs and private development costs is provided in the Austin Heights Servicing Strategy, which demonstrates that a cost-recovery approach is being used.

Importantly, the Servicing Strategy and Streetscape Standards are designed to ensure high-quality urban design, functionality and a fiscally balanced program.

For design purposes, the pedestrian realm of a street is typically divided into three distinct zones: The building frontage zone, the sidewalk (clear) zone and the furnishing zone (Figure 2). Each zone is defined by its function and amenities. Refer to figures 3 to 9 for zone locations and amenities on Ridgeway Avenue, Austin Avenue, the pedestrian walkways and a general layout for all other streets in the Neighbourhood Core.

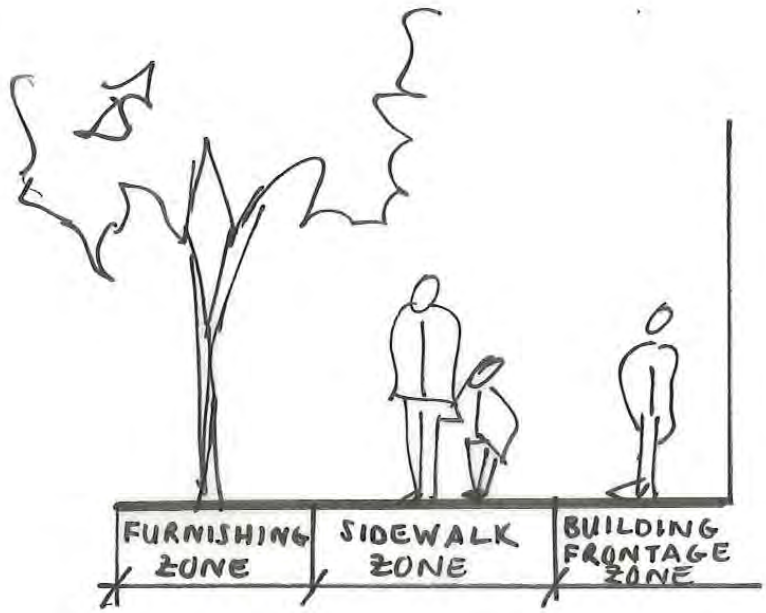


Figure 2 - Pedestrian Zones

Building Frontage Zone

The building frontage zone is located directly adjacent to the building and serves as a buffer between the sidewalk zone and the building façade. Along Ridgeway, this zone is minimal and buildings are encouraged to build close to the sidewalk edge with appropriate breaks for small plazas.

Along Austin Avenue, a common build-to line is desired to present a consistent building face. A small set-back from the front property line is recommended to provide a building frontage zone that enables street uses such as signage, fruit and vegetable stands, small patios or sidewalk cafés or other features that enhance pedestrian experience, with occasional larger setbacks allowed for small plazas, where appropriate.

Sidewalk Zone

The sidewalk zone is where the majority of pedestrian movement occurs. This area has a smooth walking surface and must be free of obstacles. Within Austin Heights, the proposed sidewalk zone width ranges from 1.5m to 2.5m.

Furnishing Zone

The furnishing zone is the area between the sidewalk and the parking. It acts as a buffer between the street and pedestrian movement and contains street furniture, street trees, lighting and signage. In Austin Heights, the proposed furnishing zone is typically 2m wide. The furnishing zone will be hard surfaced in commercial areas and either landscaped or grass in residential and employment living areas.

4.0 Street Sections and Plans

Below are custom sections and plans detailing the improvements to the streets and pedestrian walkways in Austin Heights to help achieve the plan goals of vibrancy, safety and movement. Details on the materials can be found in Section 5, and detailed plans for both Austin Avenue and Ridgeway Avenue Walk can be found in Appendix A.

Ridgeway Avenue Walk Section

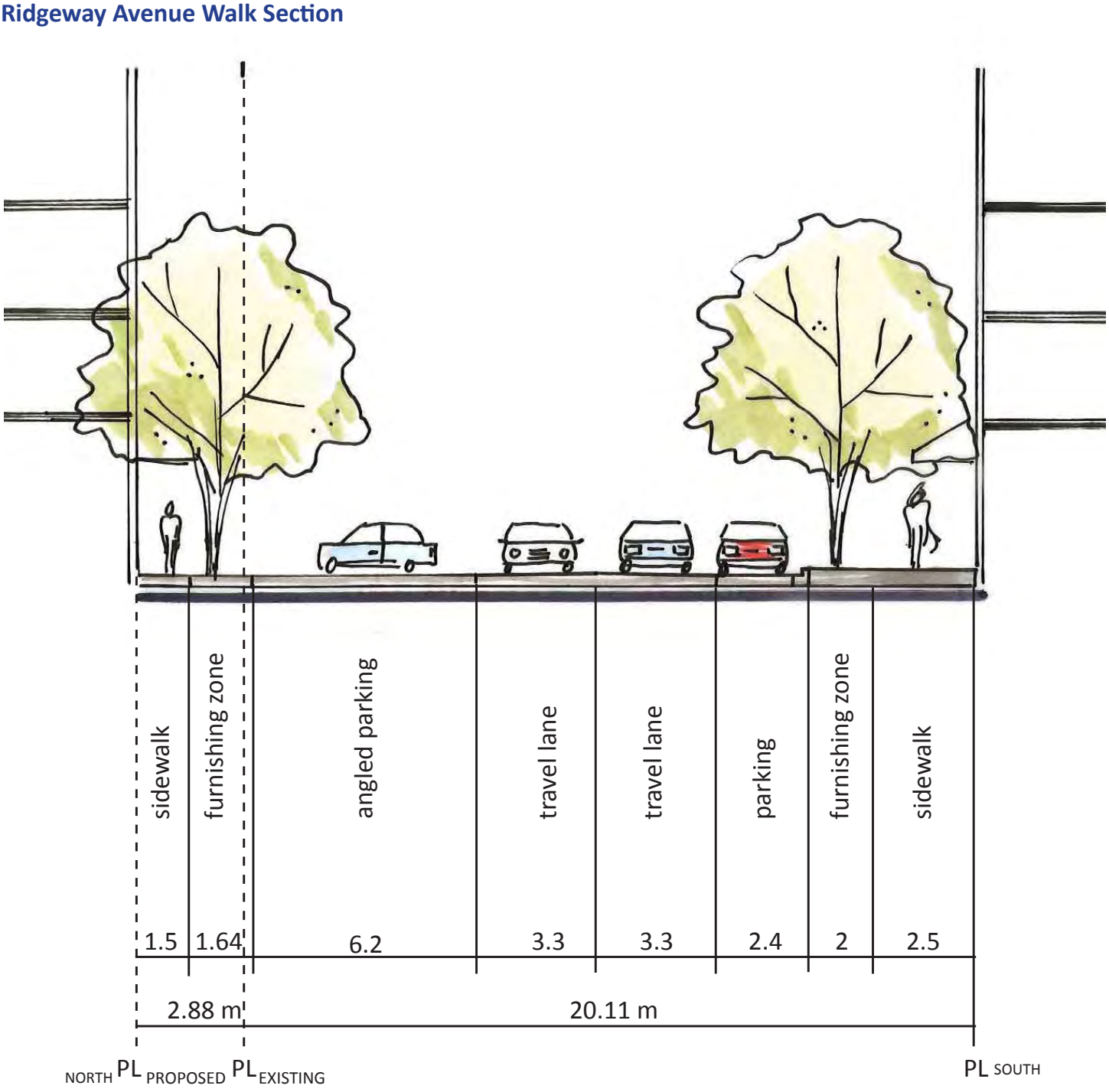


Figure 3 - Proposed Ridgeway Avenue Section

Ridgeway Avenue Walk Typical Plan

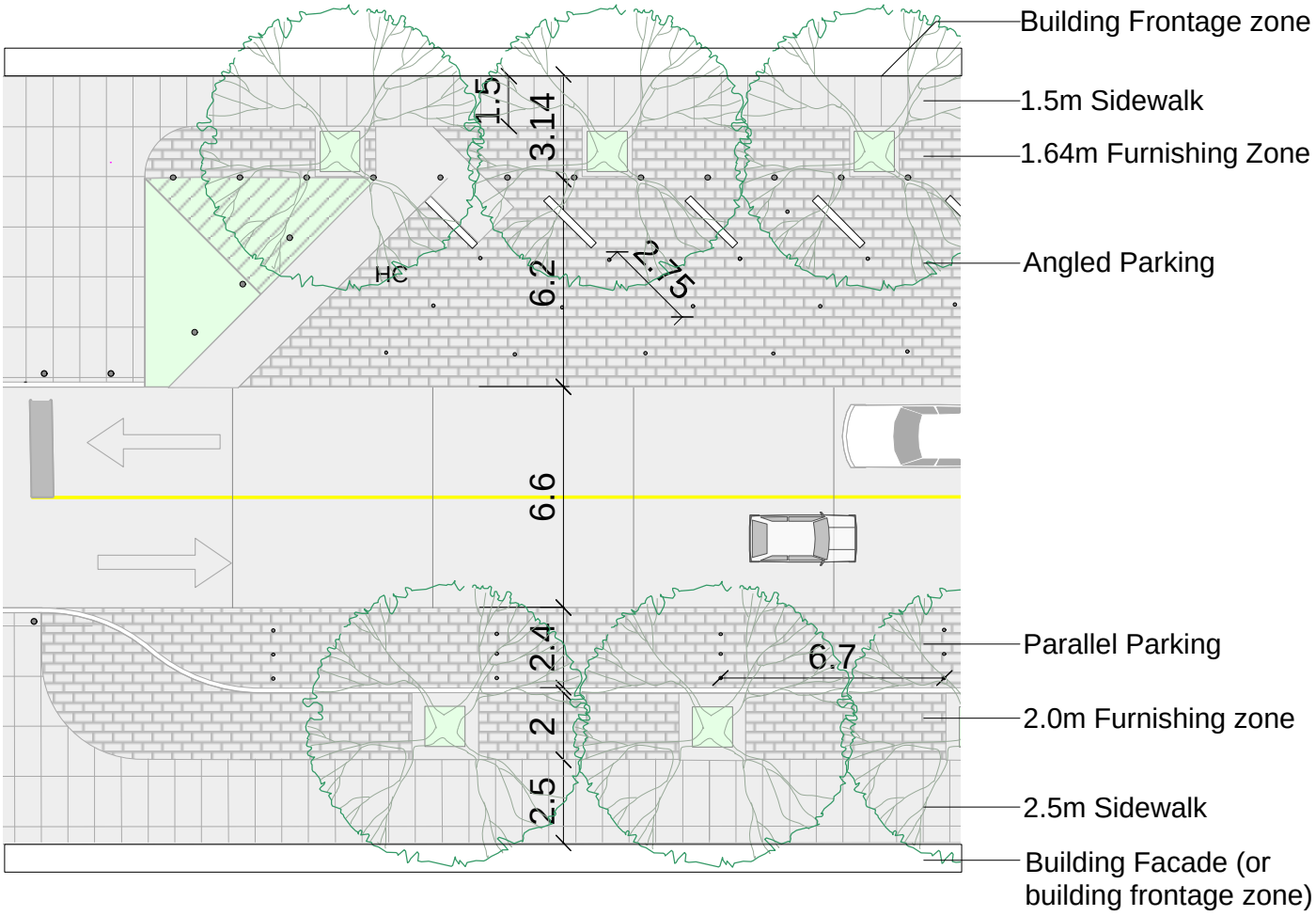


Figure 4 - Typical Ridgeway Avenue Plan

Austin Avenue Section

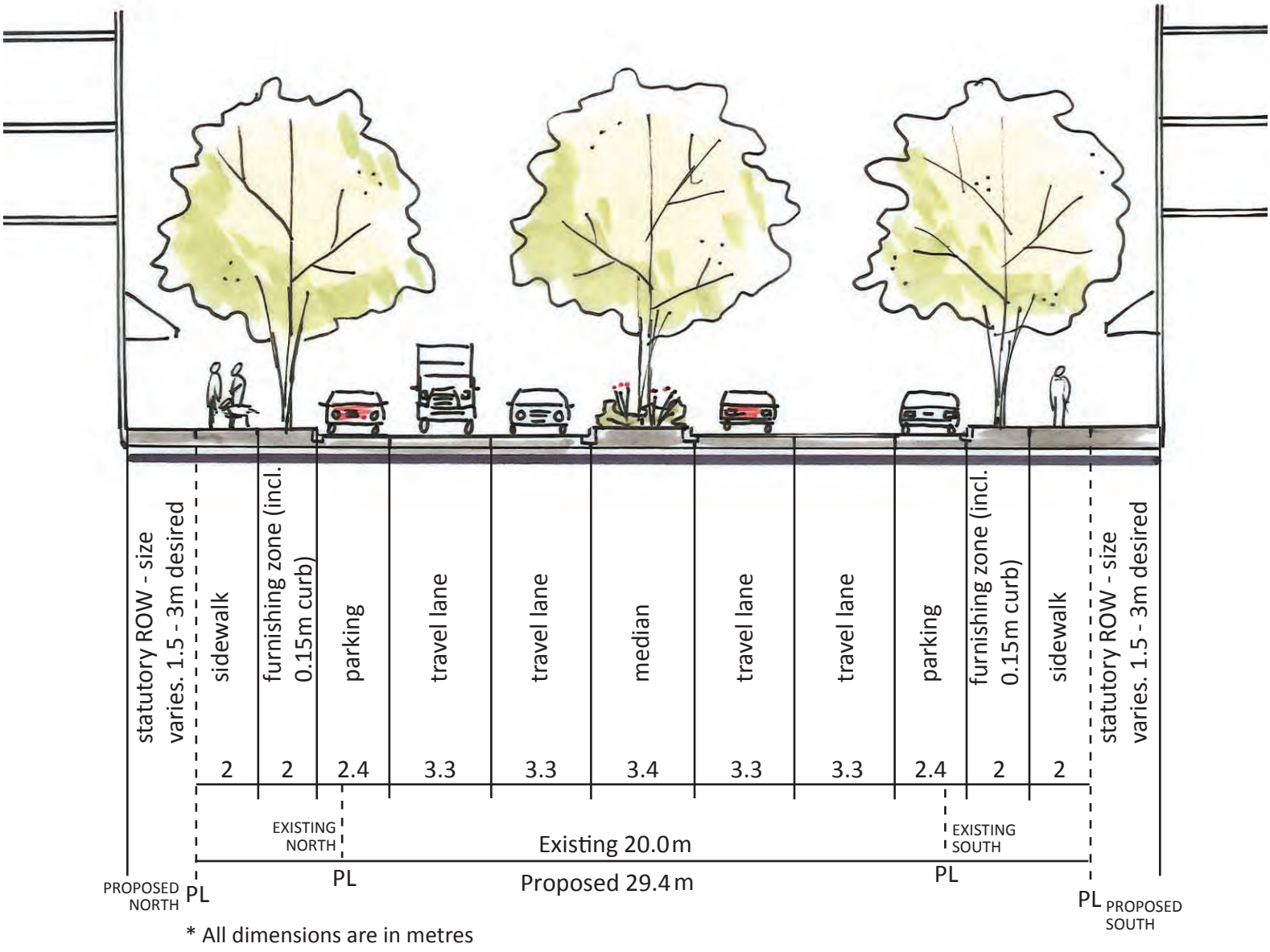


Figure 5 - Proposed Austin Avenue Section

Austin Avenue Typical Plan

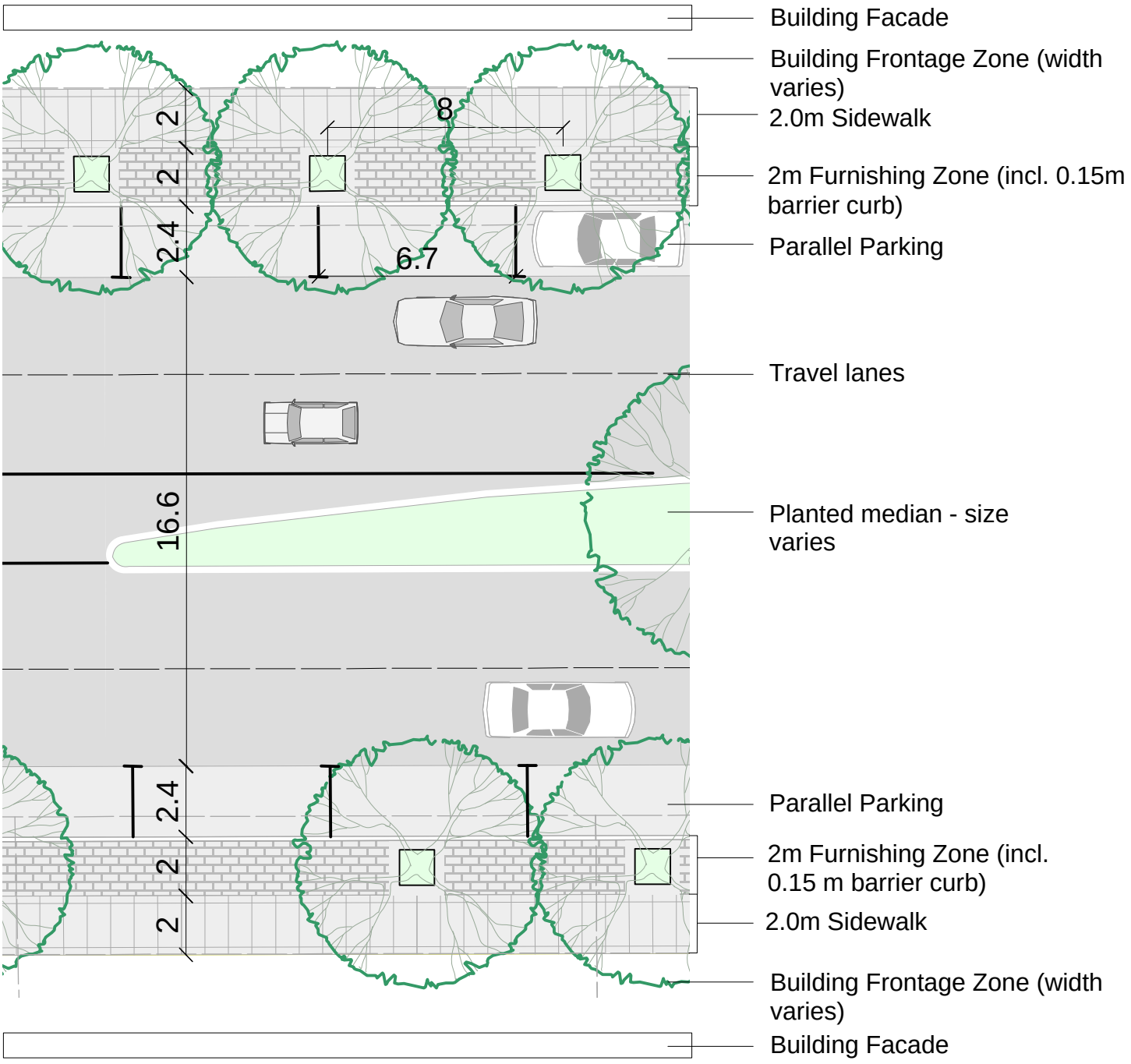
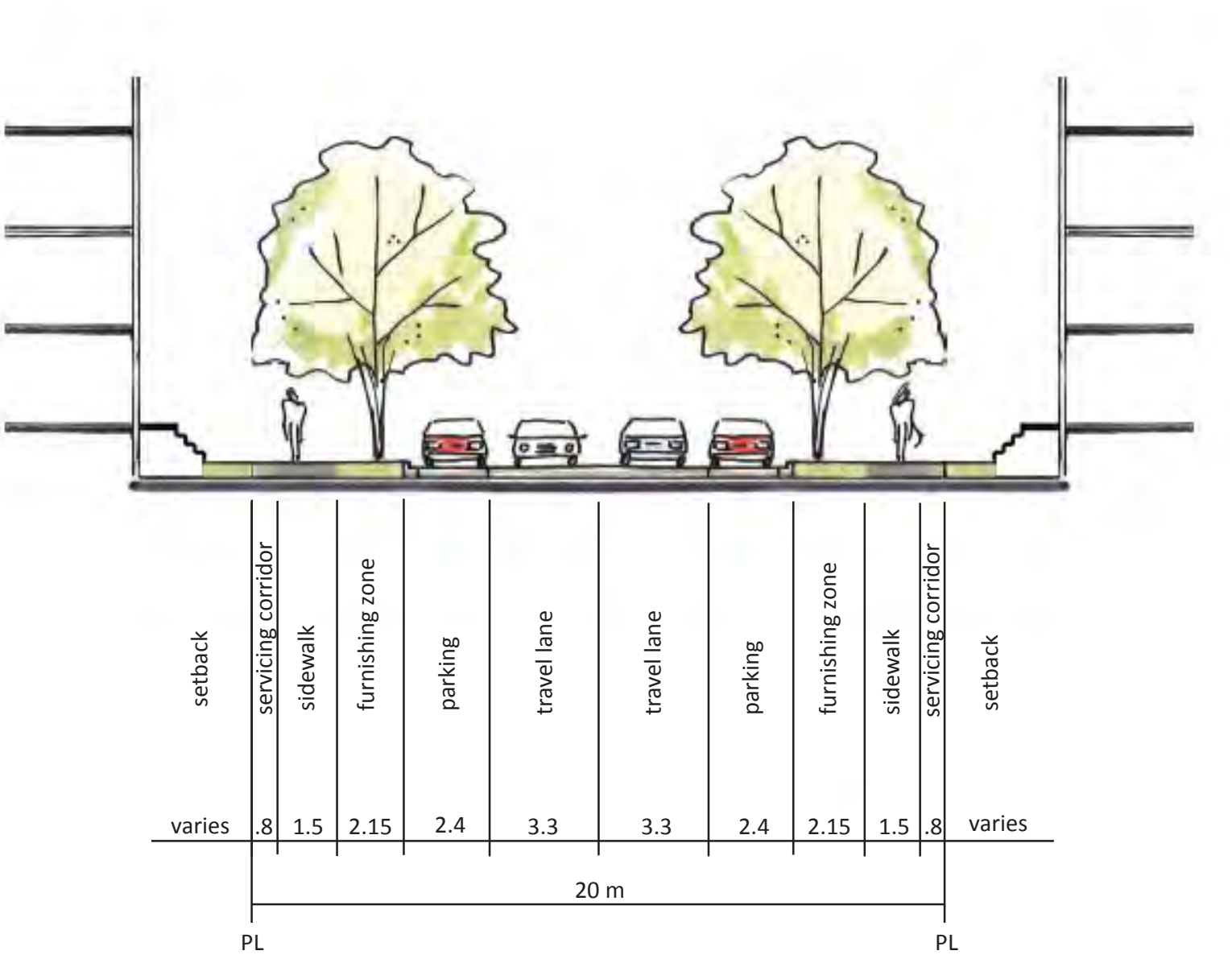


Figure 6 - Typical Austin Avenue Plan

Typical Section For All Other Streets



* All dimensions are in metres

Figure 7 - Proposed Section for all other streets in the Neighbourhood Core Development Permit Area

Typical Plan For All Other Streets

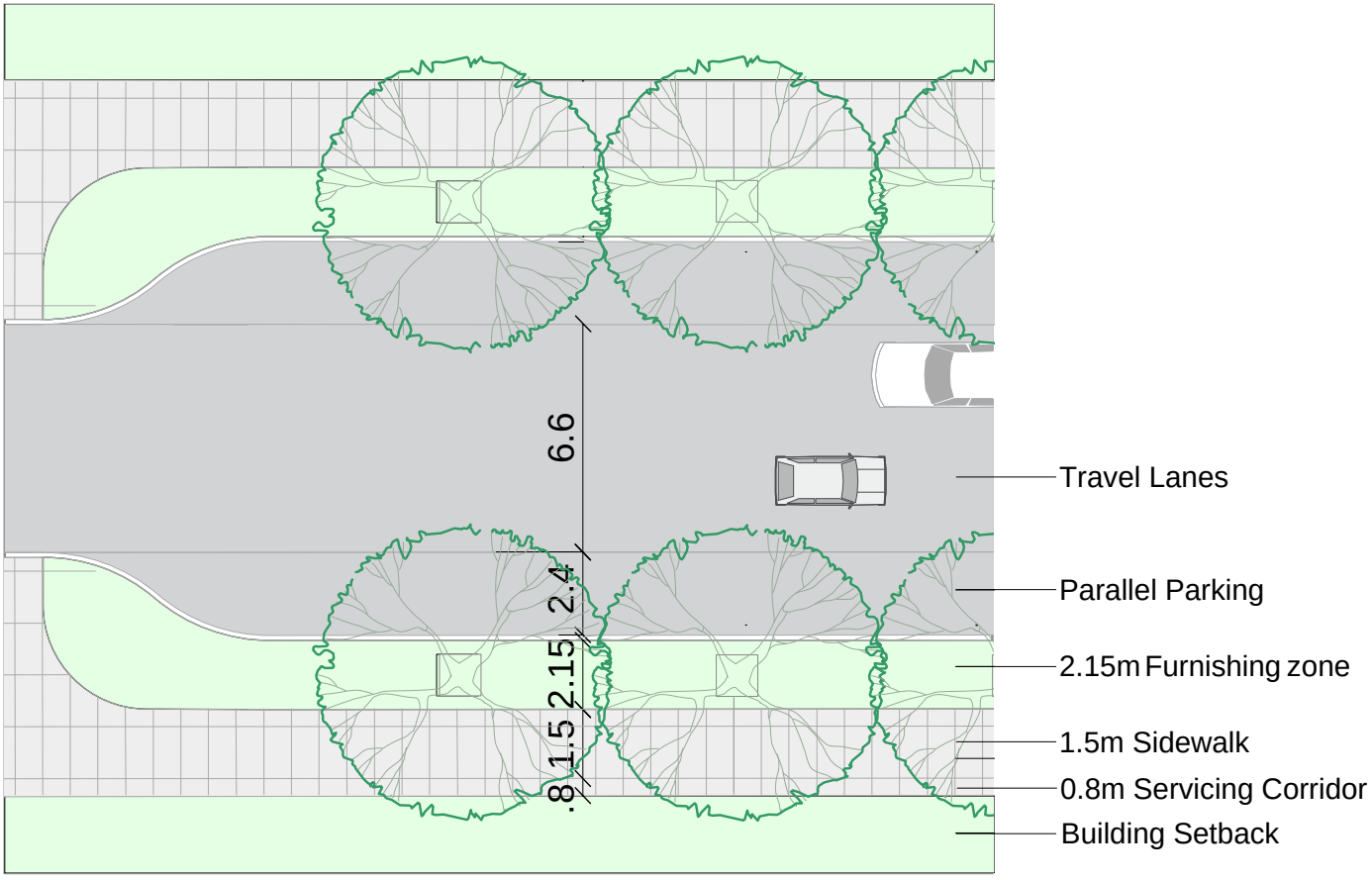


Figure 8 - Typical Plan for all other streets in the Neighbourhood Core Development Permit Area

Typical Plan For Pedestrian Walkways

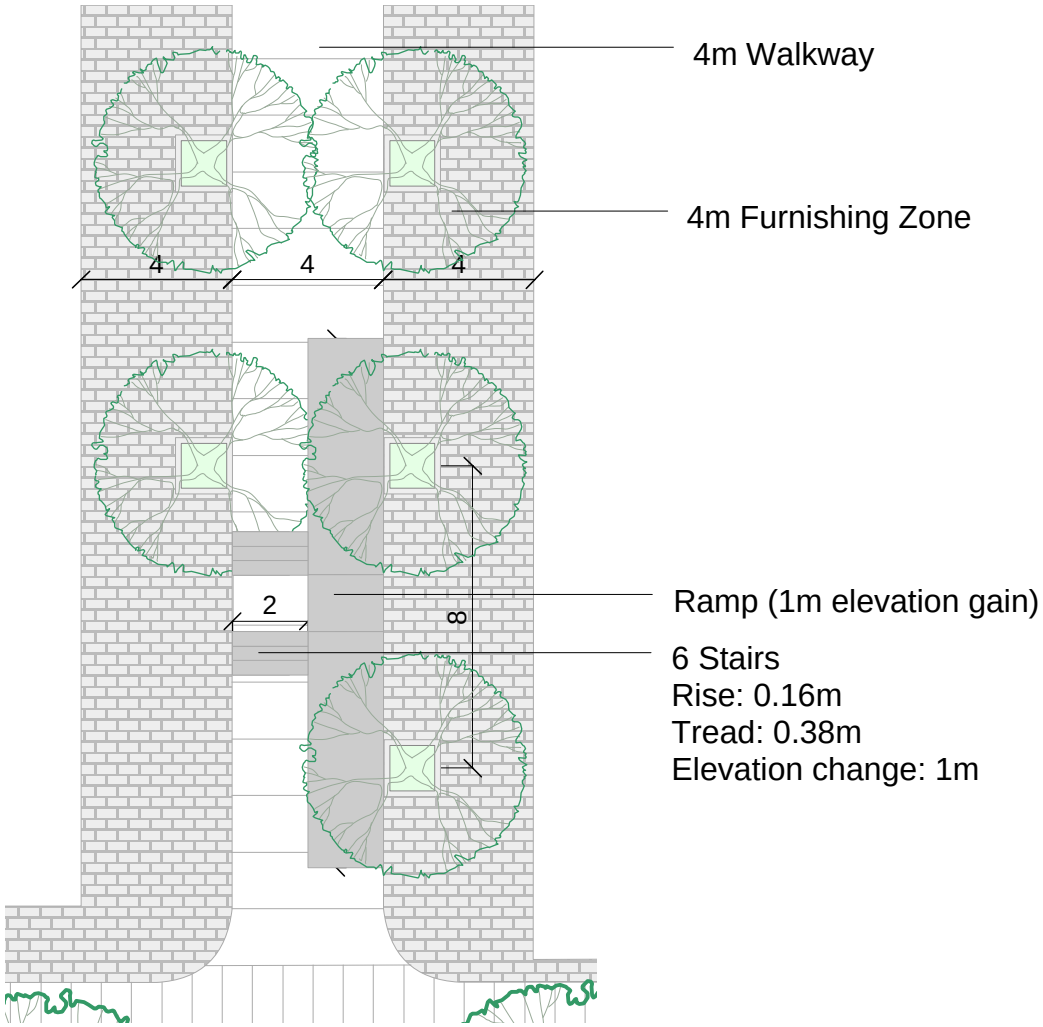


Figure 9 - Typical Dimensions for Pedestrian Walkways

5.0 Guidelines and Standard Specifications

5.1 Site Element Selection Criteria

The following design criteria will guide selection of site elements and create a sustainable, functional and well-designed space. Site elements, including paving systems, site furnishings, lighting and planting for Austin Heights are chosen according to the following draft criteria.

- Elements and materials that provide the best economic value, considering initial, operating and life cycle costs;
- Materials that help to develop a unique community identity;
- Materials with high durability and weathering in the appropriate locations;
- Materials that have a high aesthetic and design value so that the public will appreciate and value the resource;
- Landscape features that integrate other ecological objectives such as stormwater management, bio-diversity, and public art;
- Materials with a low carbon footprint and negative ecological impact.

5.2 Paving Materials

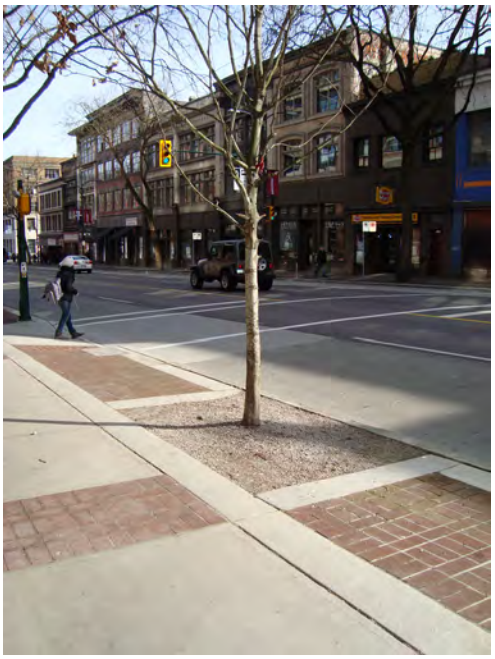
There are a variety of paving materials that can be used to enhance and define a street. Within Austin Heights, the following materials will be used:

Concrete: There are numerous forms of concrete that can be used to define different zones of a sidewalk or street. These include brushed, stamped, coloured or scored. In Austin Heights, scored concrete will primarily be used for sidewalks.

Pavers: Similar to concrete, pavers can be used on an entire surface or as an accent to define or enhance a particular space. Pavers are available in various materials, including brick, concrete and stone and are typically installed by a certified installer. For Austin Heights, concrete pavers will be used as an accent material, primarily in the furnishing zone & Ridgeway parking areas.

Asphalt: Asphalt is the least expensive paving material, but its low aesthetic values make it inappropriate for the pedestrian realm. It is used on road surfaces that will experience a significant volume of vehicular traffic, such as Austin Avenue.

Scored concrete sidewalk



Pavers used as an accent within the furnishing zone

Asphalt Driving Surface

5.2.1 Concrete

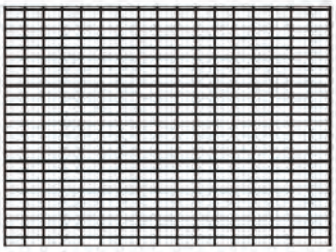
- **Product:** Scored Concrete
- **Locations: All** sidewalk areas, and the pedestrian mid-block walkways, the road surface on Ridgeway and the parking areas on Austin (Refer to Figures 11-14 for specific locations).
- **Score Pattern:** All concrete on the pedestrian surfaces will be scored in a 0.8m x 1.5 m rectangular pattern. Scores are to be cut using either a tool joint with a deep control joint and no visible collar or a saw cut. This is to ensure a smooth, universally accessible surface.
- **Specification:** City of Coquitlam Supplementary Specifications to MMCD 2000 Edition and MMCD 2000 Edition for concrete installation.

Scored concrete can be used to define areas or create a specialty paving look.

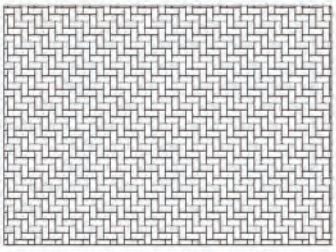
5.2.2 Concrete Unit Pavers

- **Product:** Abbotsford Concrete Standard Paver – Aquapave or Sandset. Charcoal and natural colour.
- **Locations:** Furnishing zones on Ridgeway, Austin and pedestrian walkways and all parking on Ridgeway.
- **Ridgeway Paving Pattern** (Refer to Figure 10):

Paving Pattern	Location
Random 90 degree herringbone pattern with soldier course border. Mixture of charcoal and natural colour. Refer to figure 10 for layout.	Ridgeway Avenue angled parking Ridgeway Avenue parallel parking
Traditional 90 degree herringbone pattern with soldier course border. Charcoal colour.	Furnishing zone along the pedestrian walkways
Stacked bond pattern. Charcoal colour with single row of natural pavers between stacked bond and soldier course border.	Furnishing zones on Austin Avenue, Ridgeway Avenue and other areas with commercial frontage.



Stacked bond paving pattern



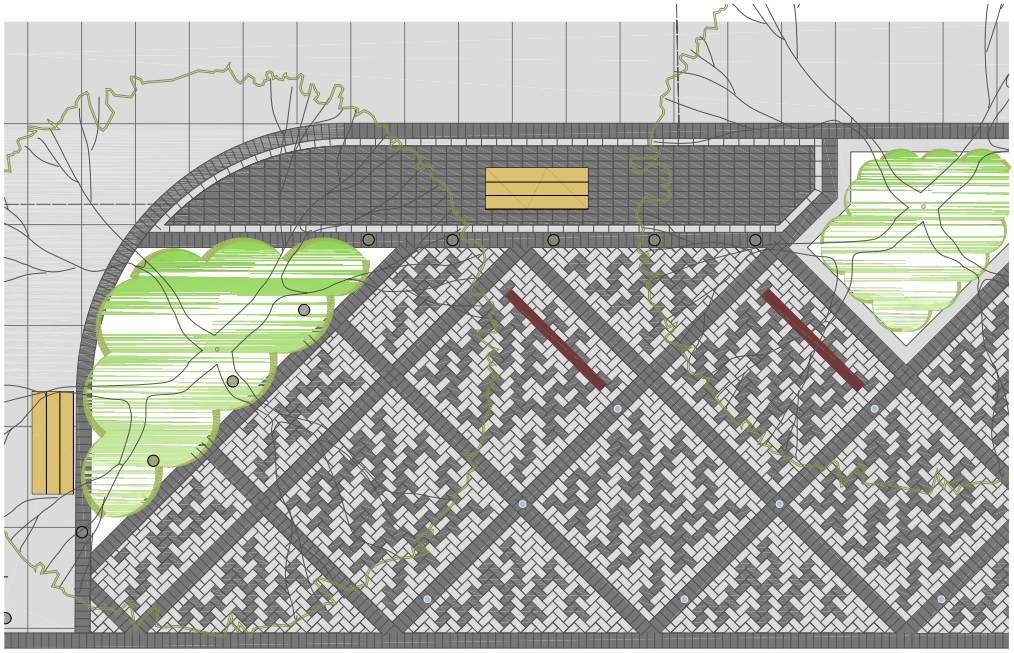
90 degree herringbone paving pattern

- **Specification:** MMCD 200 Edition 02515 Unit Paving. Must use a certified installer.

NOTE: Due to heavy loads on the paving areas on Ridgeway Avenue, all pavers must be installed to be vehicle rated.

5.2.3 Asphalt

- **Product:** Standard Asphalt
- **Locations:** Austin Avenue road lanes
- **Specifications:** City of Coquitlam Supplementary Specifications to MMCD 2000 Edition and MMCD 2000 Edition for asphalt installation.



Plan enlargement

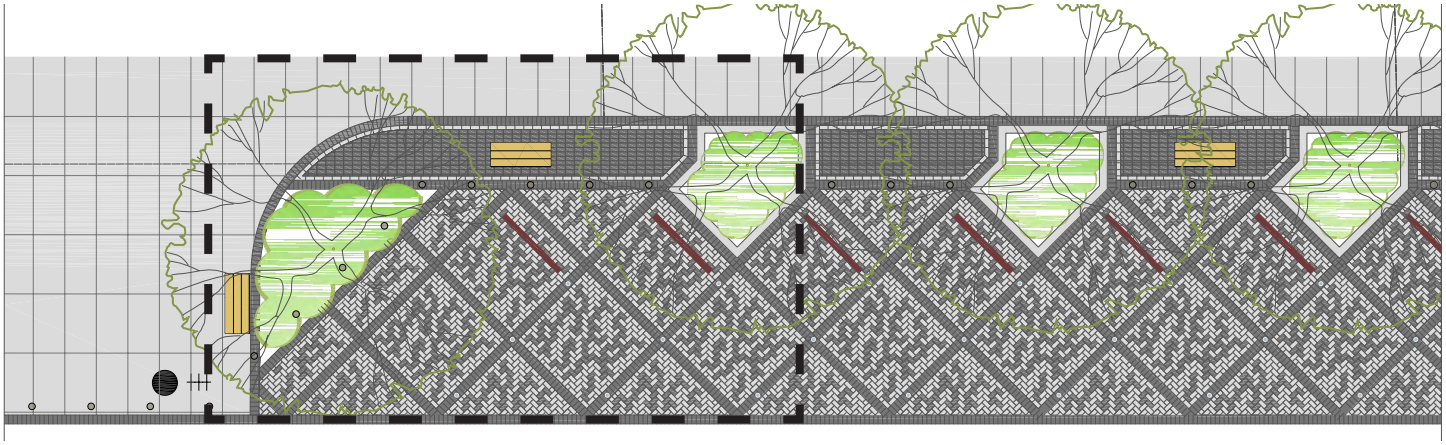


Figure 10 - Ridgeway Avenue Paving Pattern detail

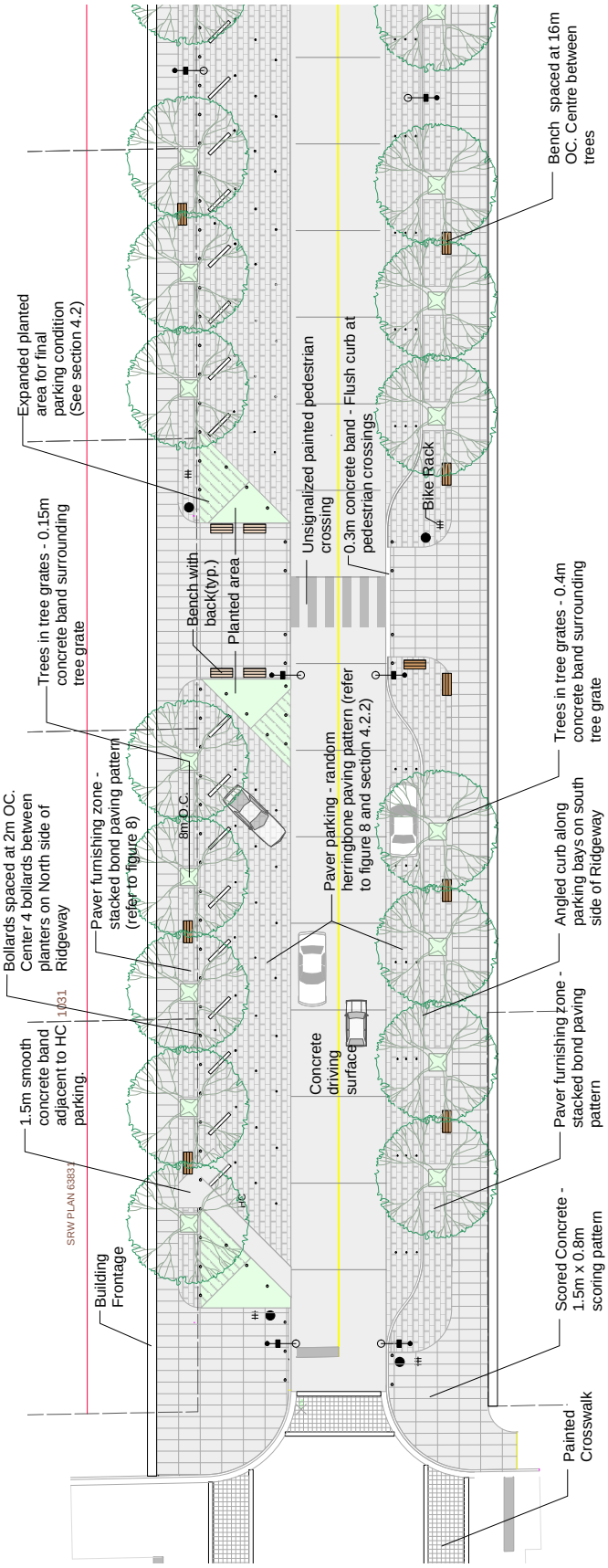


Figure 11 - Materials on Ridgeway Avenue

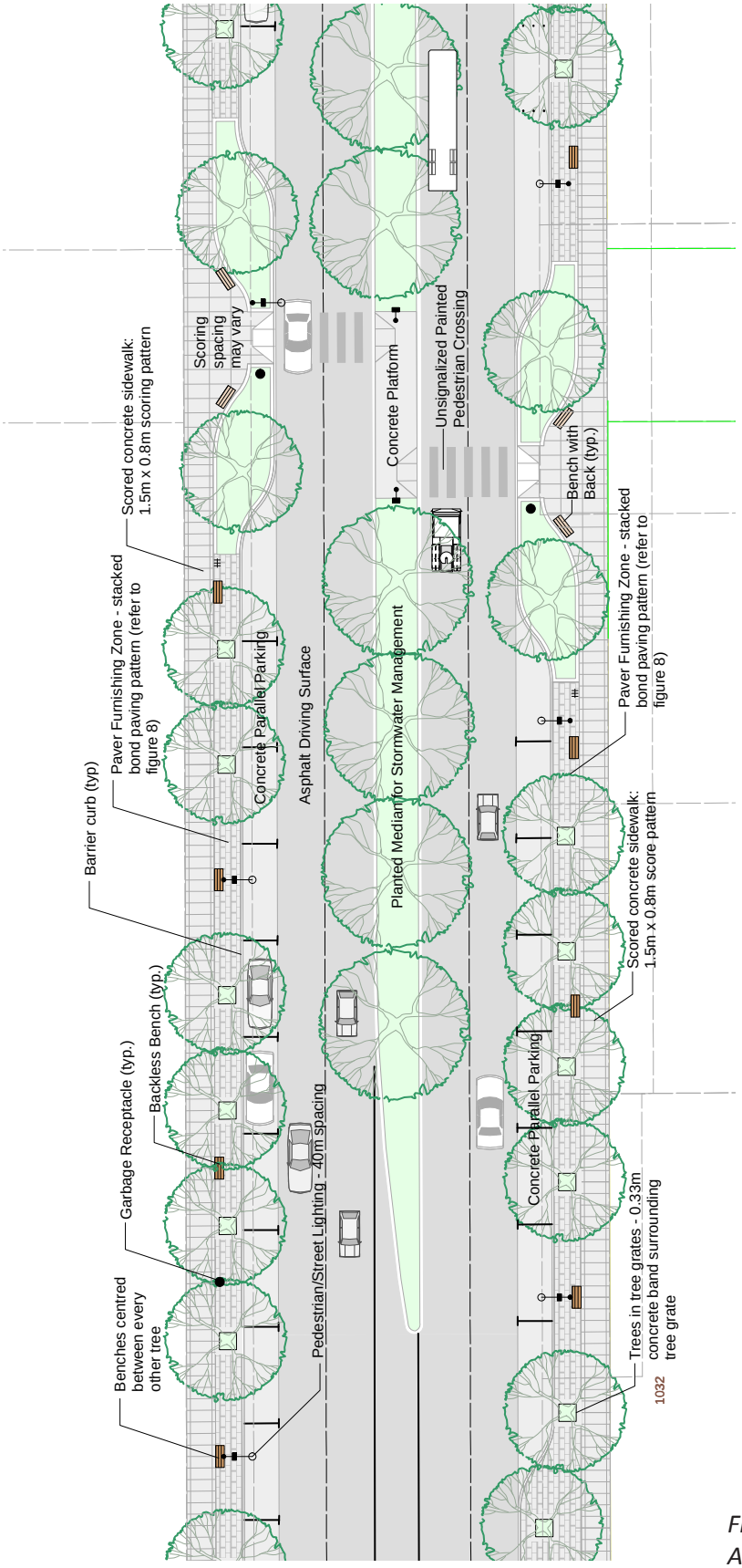


Figure 12 - Materials on Austin Avenue

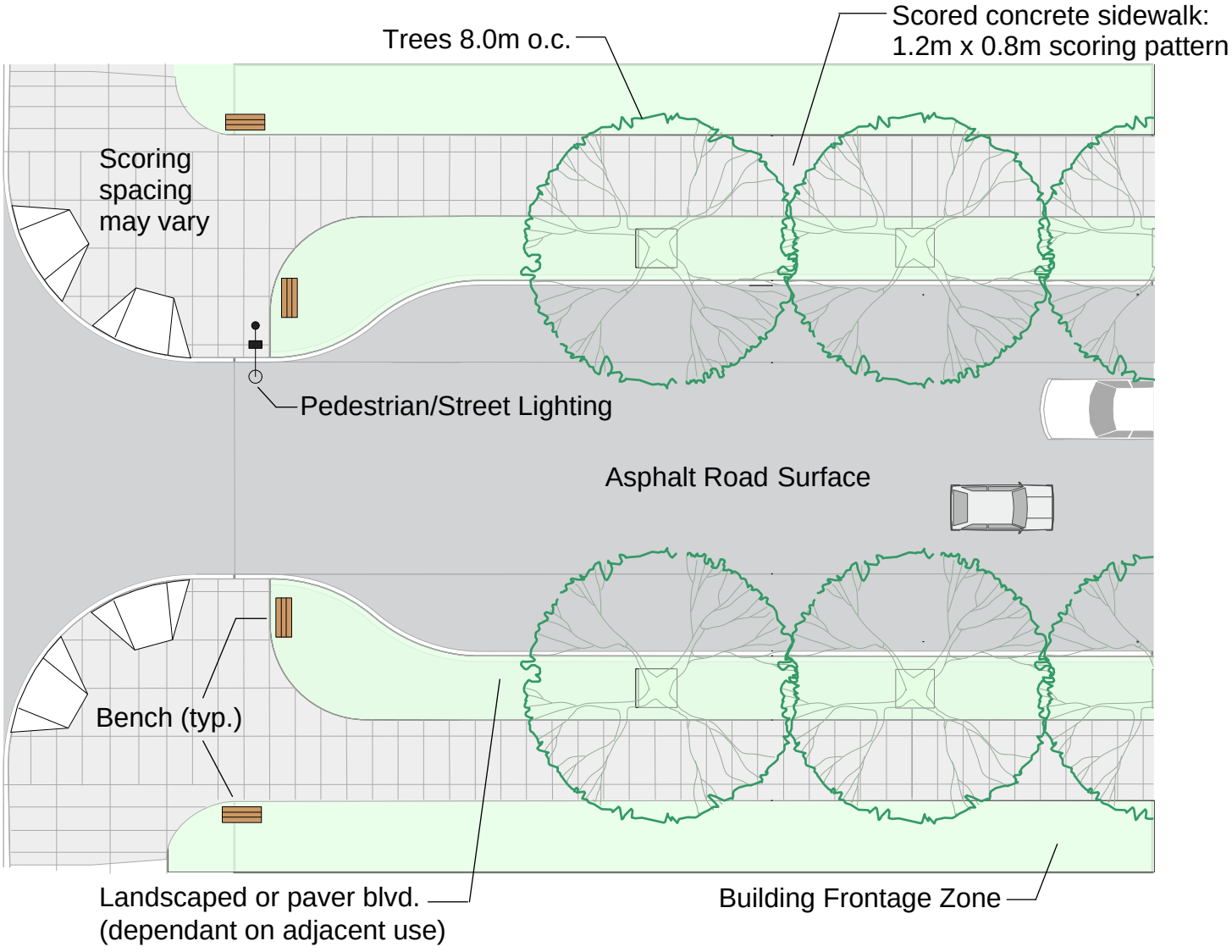


Figure 13 - Typical Materials for all other streets in the Neighbourhood Core Development Permit Area

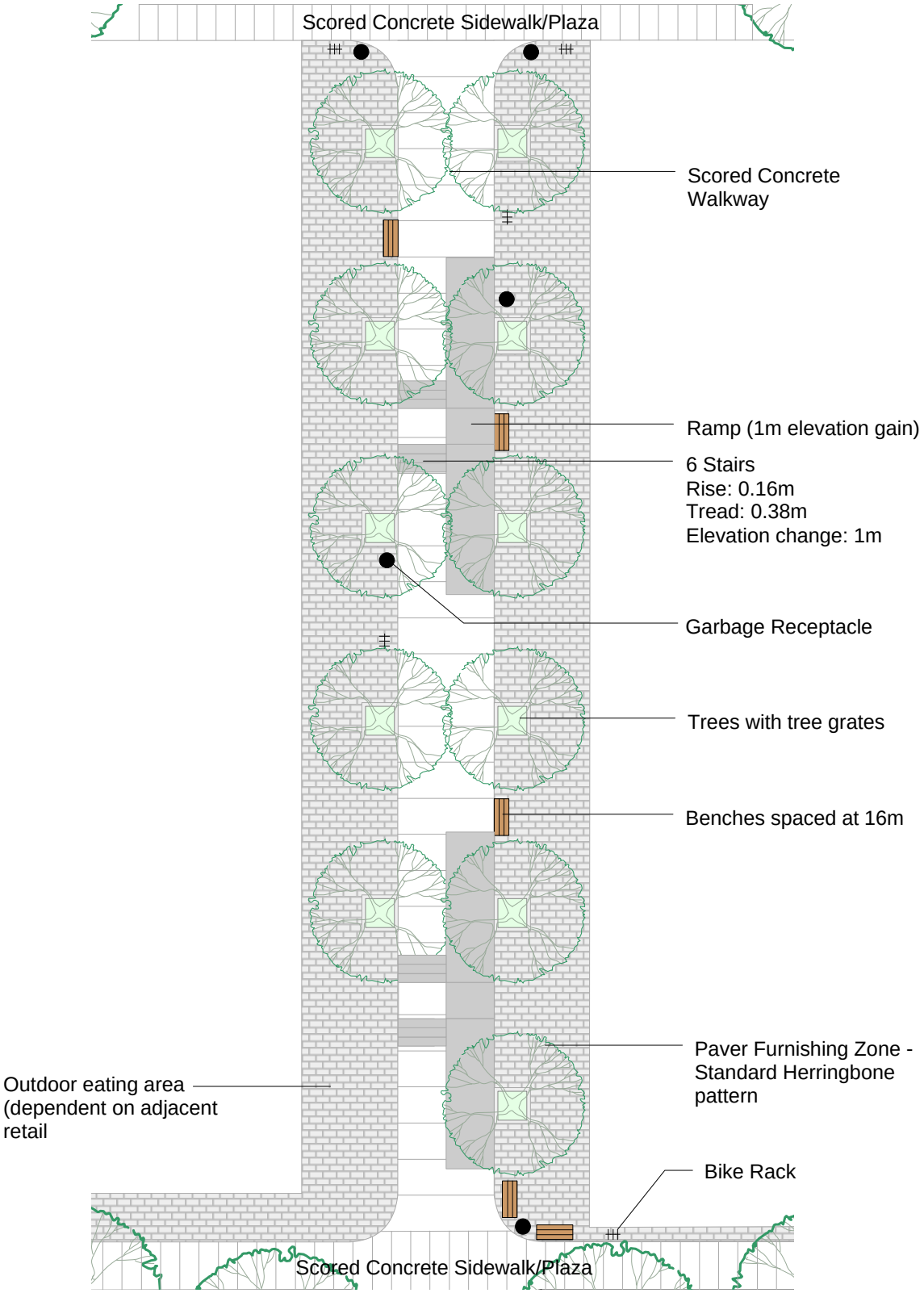


Figure 14 - Typical Materials for Pedestrian Walkways

5.3 Parking

As Ridgeway Avenue will be developed in a phased manner, interim parking will need to be front end to avoid operational issues with existing parking. Final parking configuration will be angled reverse in (Figure 15).

Residual space that results from the transition from the interim angled parking condition (front in) to the final angled parking condition (back in) should be used for landscaping. All parking will be delineated by raised pavement markers.

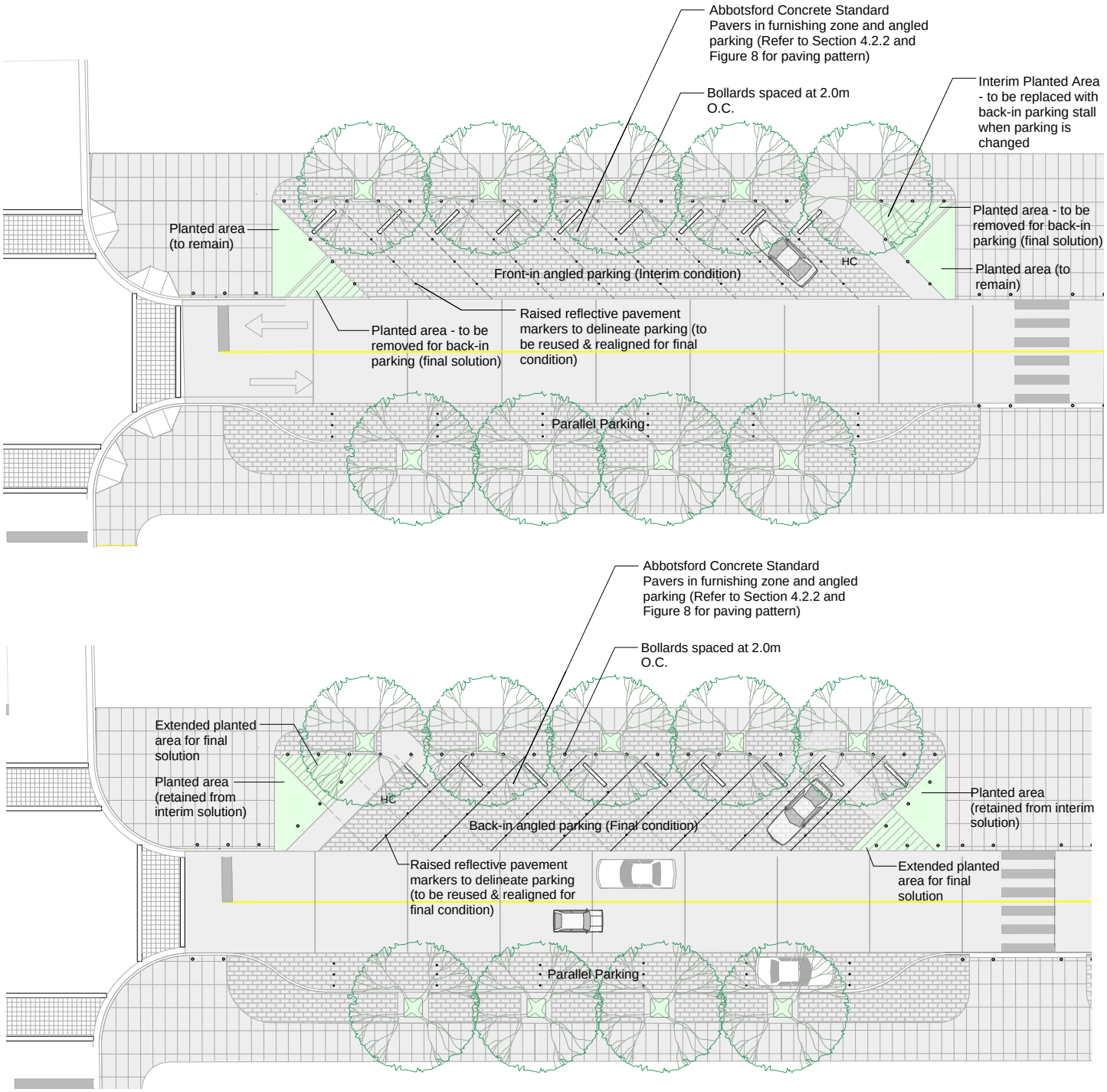


Figure 15 - Interim (above) and Final (below) parking layout for Ridgeway Avenue

5.4 Site Furnishings

The site furnishings were chosen by the interdepartmental staff working group, in consultation with the urban design consultant to balance providing a unique community identity with capital, operational and life-cycle costs.

5.4.1 Benches

Benches are to be typically spaced 16m apart, centered between every other tree (Figure 13). Refer to plans in Appendix A for recommended bench locations.

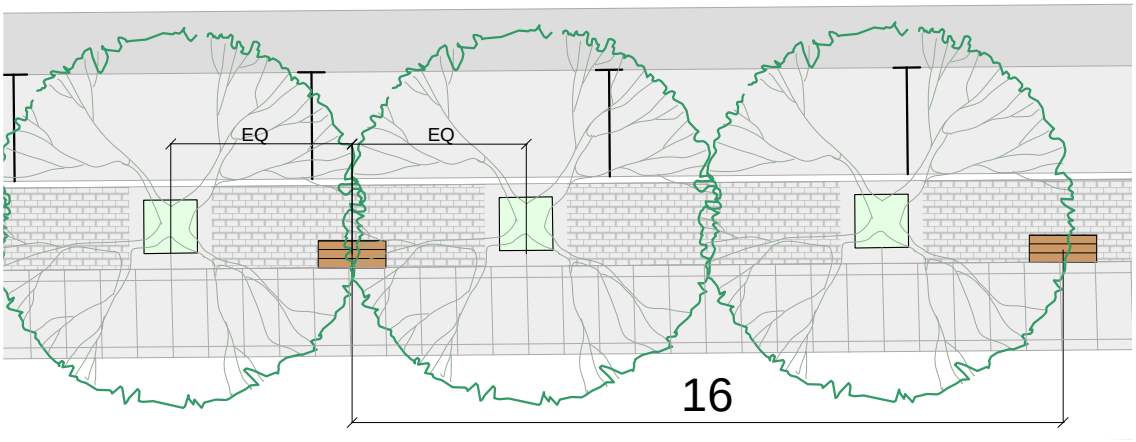


Figure 16 - Bench spacing

Recommended Model: TENAJ Park Bench

Supplier	Wishbone Site Furnishings
Colour	Walnut Plastic with Textured Silver Metal Finishes. (with of without back)
Environmental Benefits	95% recycled content by weight 100% recyclable Locally produced

TENAJ Park Bench

5.4.2 Bicycle Rack

Bike racks will be placed at key nodes throughout the site. Where possible, racks will be located close to pedestrian light. Refer to plans in Appendix A for recommended bike rack locations.

Recommended Model: TENAJ Bike Rack

Supplier	Wishbone Site Furnishings
Colour	Textured silver metal finish
Environmental Benefits	95% recycled content by weight 100% recyclable Locally produced

TENAJ Bike Rack

Maglin Litter Receptacle

Maglin Dome Lid

5.4.3 Litter Receptacle

Litter receptacles will be placed at key nodes throughout the site. Refer to plans in Appendix A for locations.

Recommended Model: MLWR250S-32 Trash Container

Supplier	Maglin
Colour	Black
Product Specifications	Include dome lid MDL-32
Environmental Benefits	Aluminum casting contains 95% recycled content. E-coating uses lead-free paint and chrome free sealers in a closed system. They also contain no heavy metals, low VOC's, no hazardous air pollutants and produces minimal solid waste. Plastic container liners contain 100% pre consumer recycled content

Note: All waste receptacles are to be equipped with a wire recycling basket.

5.4.4 Bollards

Bollards are to be spaced at 2.0m O.C in locations where vehicle and pedestrian traffic require separation. Refer to plans in Appendix A for recommended bollard locations.

Maglin Bollard

Recommended Model: MTB650 Series Bollard

Supplier	Maglin
Colour	Black
Product Specifications	Base type 3 is to be used for mounting. Refer to product sheet in Appendix D
Environmental Benefits	Decorative top & base cast aluminum (95% Recycled content - 57% post consumer; 38% post industrial), Solvent-free powdercoating, Metal is 100% recyclable

5.4.5 Tree Grates

Provide tree grates for street trees that are within the boulevards and are surrounded by hard surface (Refer to Figures 14, 15 and 16). Trees within the planted areas, such as the street bulges and medians, will not require a tree grate.

ST Series Tree Grate

Recommended Model: ST-48 Series Tree Grate

Supplier	Dobney Foundry Ltd.
Colour	Black tar dipped
Product Specifications	48” size 16” Standard hole Two piece set Expandable
Environmental Benefits	Manufactured in BC

***Note:** For all products: Confirmation of model and pricing information will be required at the time of detailed design and implementation.*

Refer to Appendix B for a Class ‘D’ cost estimate

Refer to Appendix D for additional product information

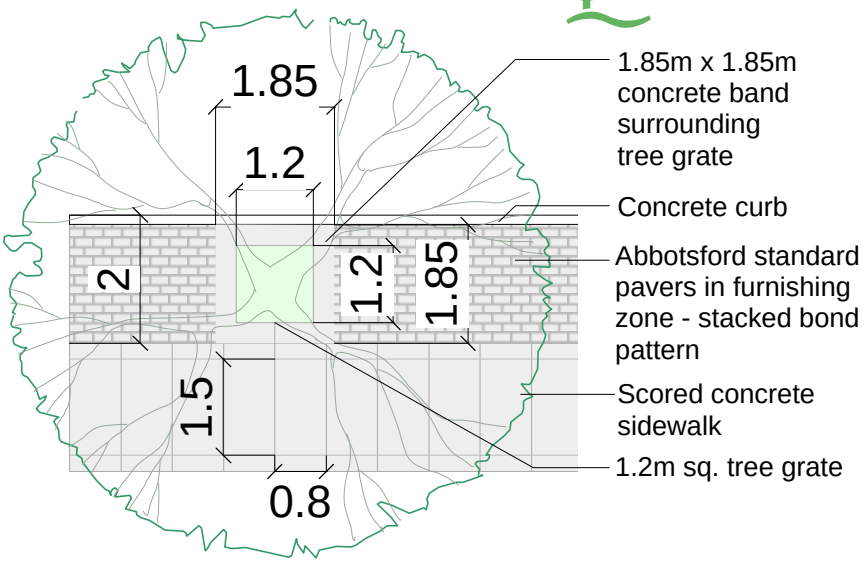


Figure 17 - Tree Grate Detail - Austin Avenue

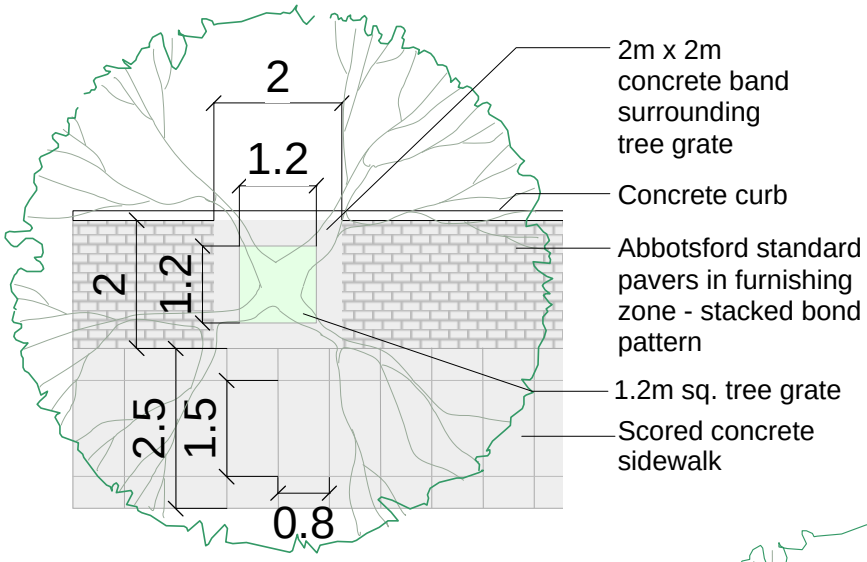


Figure 18 - Tree Grate Detail - Ridgeway Avenue (South Side)

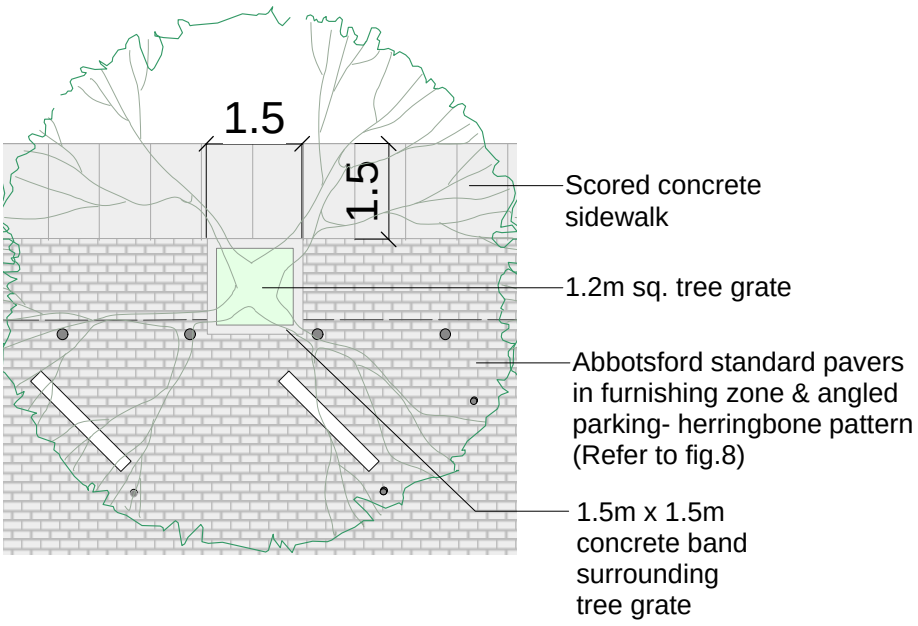


Figure 19 - Tree Grate Detail - Ridgeway Avenue (North Side) and pedestrian walkway

5.5 Lighting

5.5.1 Street and Pedestrian Lighting

The City of Coquitlam has specified the Capella Series light standard to be used in the Austin Heights area (Figure 20). Suggested spacing is 40m per side with a roadway and pedestrian luminaire on every pole. This spacing is dictated to achieve appropriate lighting levels for the area, however, exact spacing is to be verified by a qualified electrical engineer at the time of development. Additional pedestrian level lights shall be placed at all crosswalks and may be required between the roadway lights. If necessary, pedestrian lights should be installed on traffic signal poles to ensure that the intersections are adequately lit. Pedestrian light spacing along the mid-block pedestrian walkways is to be determined at the time of development by a qualified electrical engineer.

In addition, the City of Coquitlam standards requires that all light standards be set back a minimum of 6.0m from trees (Figure 21). Tree spacing is to meet this setback.

Recommended Light Standard:

Supplier	Lumec Capella Series Luminaire
Colour	Powdercoat to area colour (black) *
Style	PC-6 Arm; 30' SSM8 Pole Pedestrian and Roadway light – mounted on single pole with corresponding arms.
Product Specifications	Banner fixtures from Lumec to coordinate with recommended pole. Light Standards to be outfitted for hanging baskets and irrigation.
Environmental Benefits	The Capella Series Luminaire is capable of using Lumec's LifeLED LED light engine.
Lamp	As per City Standards

* Note: All traffic poles and infrastructure should be powdercoated black.

Photo Credit: Phillips Lumec

Figure 20 - Capella Light Standard

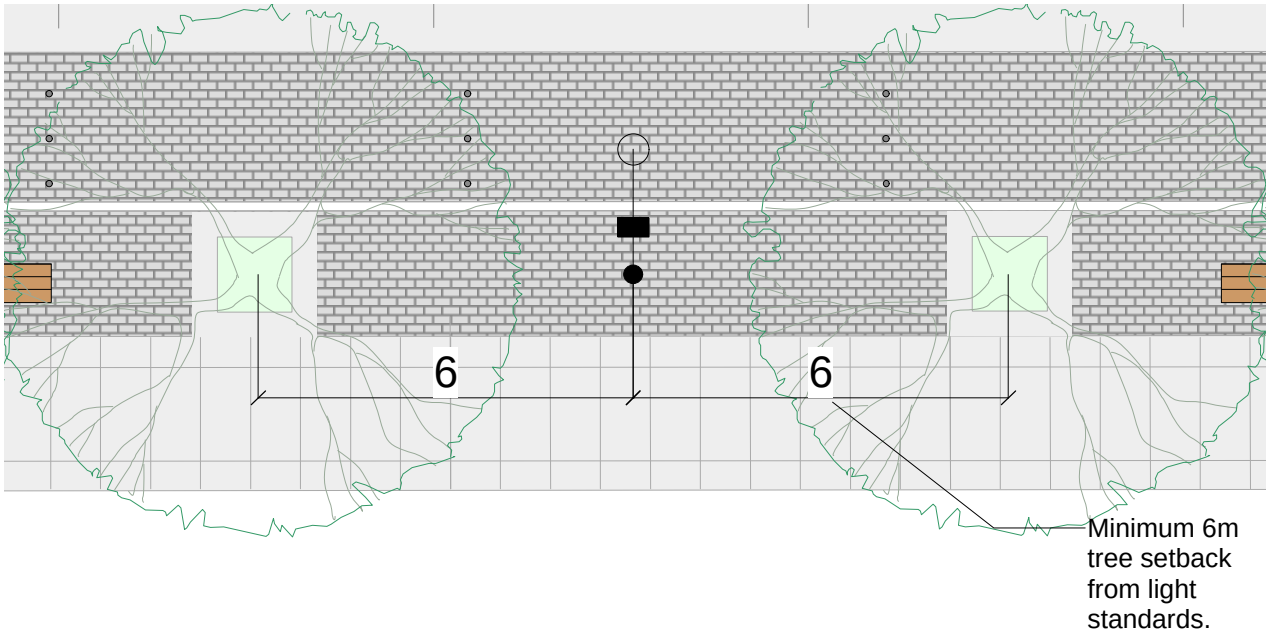


Figure 21 - Tree setback from light standards

Refer to Appendix C for lighting details.

5.5.2 Seasonal Lighting

Trees on Austin Avenue and Ridgeway Avenue Walk are to be supplied with a junction box and conduit for lighting. Refer to the City of Coquitlam's current City standard for seasonal lighting receptacles.

5.6 Planting

5.6.1 Site Preparation

Refer to City of Coquitlam Supplementary Specifications and Detailed Drawings to MMCD 2000 Edition and MMCD 2000 Edition section 1561 and 2210.

5.6.2 Finish Grading

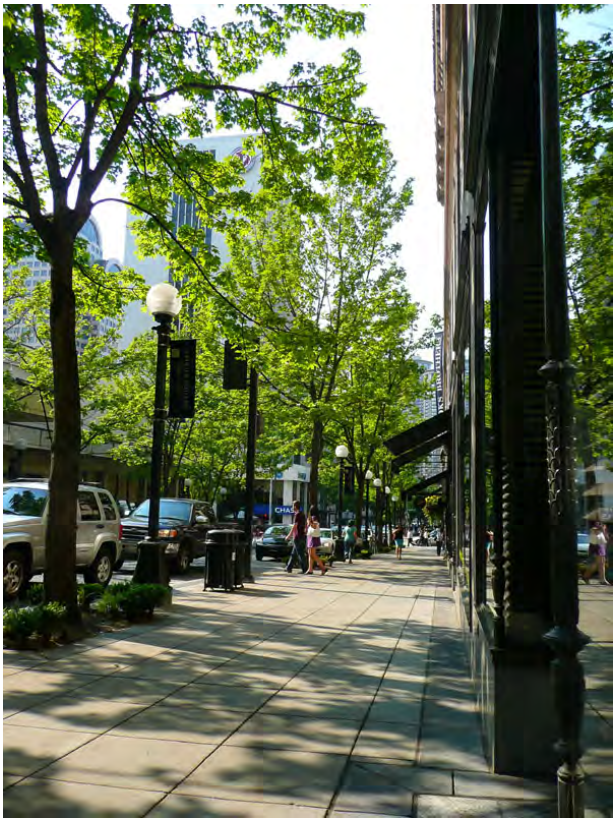
Refer to City of Coquitlam Supplementary Specifications and Detailed Drawings to MMCD 2000 Edition and MMCD 2000 Edition section 2921.

5.6.3 Growing Medium

Trees shall have, at the minimum, the growing medium volume as specified in the most current tree planting detail in the City of Coquitlam Supplementary Specifications and Detailed Drawings to MMCD 2000 Edition.

5.6.4 Planting

Plant trees as per the most current tree planting detail in the City of Coquitlam Supplementary Specifications and Detailed Drawings to MMCD 2000 Edition. Supply each tree with a junction box and conduit for lighting, irrigation and drainage unless otherwise indicated.



Acer platanoides

Cercidiphyllum japonicum

Fraxinus americana

Fraxinus oxycarpa

5.6.5 Plant List

Street Tree List: Refer to Table 1 for specifications

Street trees are chosen based on form and structure, size, urban tolerance, aesthetic value and habit. Although the trees are urban tolerant with no prominent constraints, not all trees are suitable for every location. Therefore, consideration must be given to location, overhead restrictions, visibility and other restrictions. The majority of the recommended trees fall within the City of Coquitlam's preferred street tree list. No trees are unacceptable species (Refer to Appendix E for City of Coquitlam's preferred street tree list and unacceptable species).

Botanical Name	**Common Name**
Acer platanoides	Norway Maple
Cercidiphyllum japonicum	Katsura Tree
Fraxinus americana 'Autumn Purple'	Autumn Purple White Ash
Fraxinus oxycarpa 'Raywood'*	Raywood Ash
Gleditsia tricanthos var. inermis	Thornless Honeylocust
Parrotia persica	Persian Ironwood
Pyrus calleryana 'Chanticleer' *	Flowering Pear
*Quercus rubra**	Red Oak
Quercus robur	English Oak

* Species or variety not within the City of Coquitlam's preferred street tree list.

Median and sidewalk "bulges"

Landscaping within the median and sidewalk bulges are chosen for stormwater management purposes.

Shrubs	
Botanical Name	**Common Name**
Cornus stolonifera	Red Osier Dogwood
Gaultheria shallon	Salal
Euonymus fortunel 'Emerald 'N Gold'	Euonymus 'Emerald 'N Gold'
Lonicera pileata	Privet Honeysuckle
Mahonia nervosa	Longleaf Mahonia
Ribes sanguineum	Red flowering currant
Symphoricarpos albus	Snowberry
Hamemalis x intermedia 'Arnold Promise'	Witch-Hazel

Groundcovers & Perennials	
Botanical Name	**Common Name**
Ajuga reptans 'Atropurpurea'	Ajuga 'Atropurpurea'
Blechnum spicant	Deer Fern
Carex lyngbyei	Lyngby's Sedge
Carex obnupta	Slough Sedge
Carex stipata	Sawbeak Sedge
Camassia quamas	Common Camas
Viola adunca	Early Blue Violet
Iris germanica	Iris
Juncus effuses	Common Rush
Lupinus polyphullus	Large-leaved Lupine
Rudbeckia hirta	Black-eyed Susan
Crocus spp.	Mixed spring crocuses
Polystichum munitum	Western Sword Fern
Asarum caudatum	Wild ginger
Viola glabella	Yellow Wood Violet
Pennisetum alopecuroides 'Hameln'	Dwarf Fountain Grass
Pennisetum alopecuroides 'Little Bunny'	Little Bunny Fountain Grass

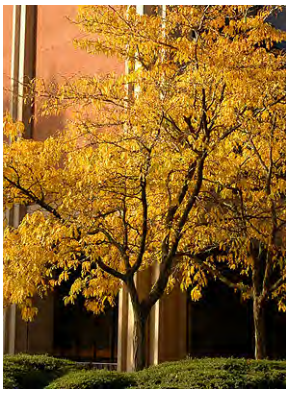
Seasonal Perennials

Seasonal perennials are to be planted in planters and planting beds throughout the site. Recommended season planting are as follows:

Spring – Tulipa (Tulip), Narcissus (daffodil), Crocus , Lamium 'White Nancy', Nepeta x fassennii (Walker's Low Catmint)

Summer – annual planting (by city and BIA)

Fall – Stonecrop Sedum 'Autumn Joy', Chrysanthemum, Aster novi-beligii (Michaelmas Daisy)



Gleditsia tricanthos var. inermis

Quercus rubra

Quercus robur

Parrotia persica

Pyrus calleryana 'Chanticleer'

5.6.6 Planting Techniques

Trees will be planted in a manner that ensures the best tree health in an urban context and should be supplied with at least 10 m³ of growing medium. Refer to the most current tree planting detail in the City of Coquitlam Supplementary Specifications and Detailed Drawings to MMCD 2000 Edition for preferred planting techniques.

5.6.7 Street tree Spacing and Location

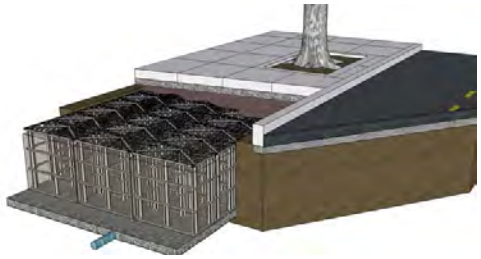
Trees shall be spaced at 8m on centre (O.C.) and of uniform size if planted in a boulevard/median row. Locate as per plans in Appendix A.

5.6.8 Median Landscape

Trees will be spaced at 8m O.C. and planted as per the most current tree planting detail in the City of Coquitlam Supplementary Specifications and Detailed Drawings to MMCD 2000 Edition. Landscaping around the trees will include groundcovers and perennials selected for stormwater management purposes (Refer to Section 4.6.5).

5.6.9 Boulevard Landscape

The boulevard treatment will be hard surface with unit pavers in commercial areas and grass or otherwise landscaped in residential and employment living areas. Street trees will be planted 8m apart within the hard surface as per the most current tree planting detail in the City of Coquitlam Supplementary Specifications and Detailed Drawings to MMCD 2000 Edition.



Section showing possible Silva Cell Planting Technique

Photo Credit: DeepRoot

5.7 Irrigation

Refer to City of Coquitlam Supplementary Specifications and Detailed Drawings to MMCD 2000 Edition and MMCD 2000 Edition Section 2960 for additional information.

General Notes:

- Boulevard trees are to be irrigated with deep root bubblers, medians to be irrigated with drip or spray heads.
- Hanging baskets are to be irrigated – each light standard shall be equipped for irrigation distribution.

5.8 Stormwater Management

A stormwater management plan for Austin Heights is currently underway. As such, the Streetscape Guidelines should conform to stormwater management processes proposed within the plan. Current techniques within the Streetscape Guidelines include:

Pervious Paving: AquaPave pervious paving is recommended to be used wherever pavers are proposed, however, the most important areas for pervious paving are on the south side of the street. The AquaPave system captures, infiltrates and filters stormwater by allowing runoff to infiltrate through the permeable pavers into a crushed aggregate base before overflowing into a rock retention trench under the south side of the road. The retention trench would overflow into the existing storm sewer and discharge to Como Creek.

Pervious paver installation

Photo Credit: Lanarc Consultants

Infiltration Swales: An infiltration swale shall be installed along the Austin Avenue median (Refer to Stormwater Management Plan). Curb cuts should be placed every 10 m along the median to direct runoff into the swale without concentrating flows and adversely affecting the swale. Plants will be selected for stormwater management purposes.

Infiltration Swales shall meet the specifications within the Stormwater Management Plan.

Flush curb (left) to grass filter to vegetated swale.

5.9 Public Wayfinding & Signage

5.9.1 Signage

Standard City of Coquitlam sign blades will be adapted to include the Austin Heights logo (Figure 22). Specifications for the standard sign blades will remain the same. Four pedestrian level street signs (two per direction) are to be included per intersection in the commercial core and two per intersection (one per direction) on other streets. Street signs should also be provided for the pedestrian walkways.

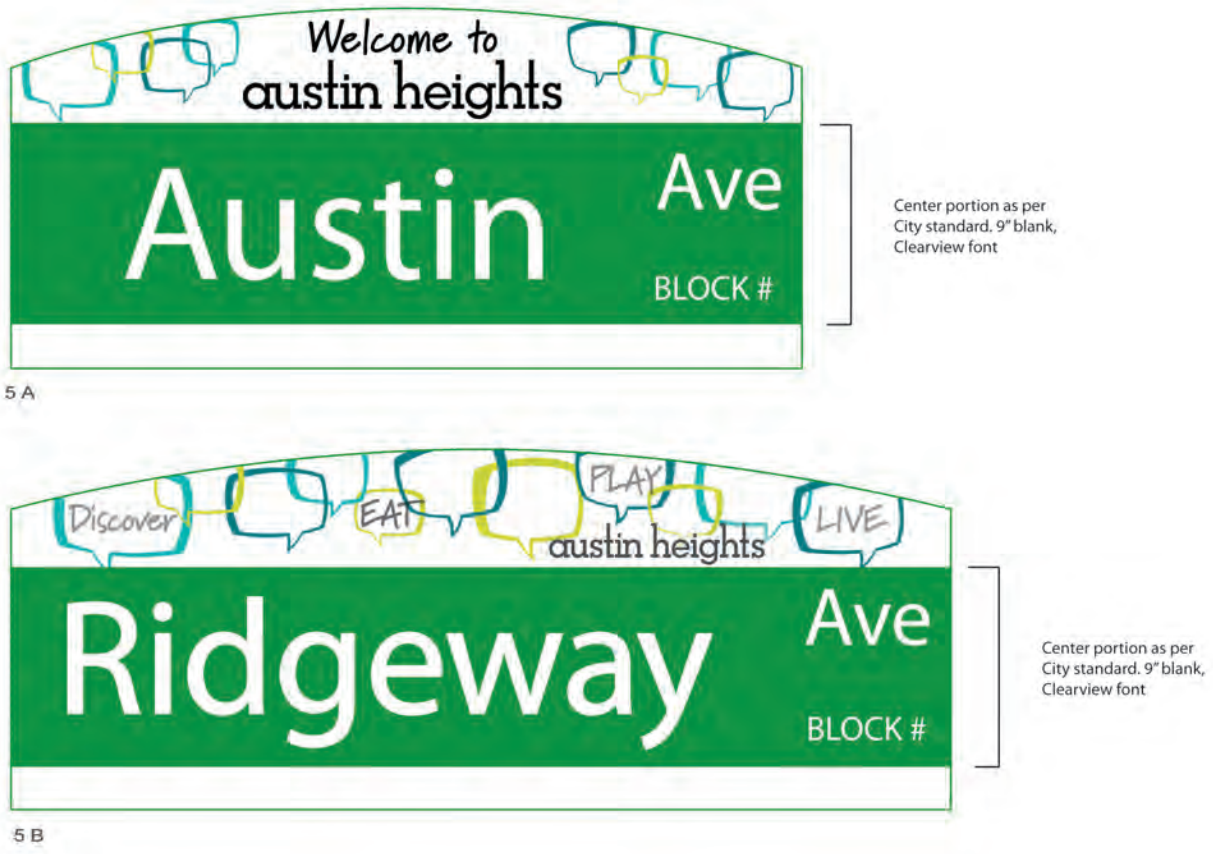


Figure 22 - Proposed Austin Heights Street Signs

Directional signs direct people to community amenities

A sign indicating parking is an example of an identifier

Banners on street lights can highlight special events

5.9.2 Wayfinding

Wayfinding allows individuals to easily enter a community and navigate through it once there. The process involves using primarily visual clues from the natural and built environment which can be improved by signage. Various types of signs relay information to the general public:

- **Directional** signs can be used to direct people towards community amenities such as parking facilities, community destinations and services.
- **Identifiers** act as place markers and identify a feature or amenity once you get there. They can be located in areas such as at the entrance to a community or at community services such as parking.
- **Interpretive** signs can be used to describe the significance of a site or building and are placed outside amenity facilities or features.
- **Seasonal** signs highlight special events happening in the area at a given time and include banners or temporary signage on sandwich boards or store windows.

All of these signs should be located to most effectively communicate necessary information. Refer to table 2 for information on the various sign types.

Purpose	Possible locations	How do they look?
Directional		
Providing directions	Directions to parking, bike lock-ups Directions to community amenities, services, etc.	Pole mounted
Identifiers		
Welcome/gateway	Entrances to community	Large, free standing pylon
Locating amenities and/or facilities	Entrances to parkades/lots Community facilities and services	Pole/bollard/face mounted
Interpretive		
Identifying unique features or sites	Outside buildings/amenity facilities/features	Free standing pylon Plaque Pole mounted sign
Seasonal		
Promote a special event	Anywhere and everywhere	Pole mounted banners, temporary signage, sandwich boards, store windows.

Table 2 – Sign types

The Austin Heights Business Improvement Association is actively involved in branding and promoting the area as a thriving and unique commercial district within a well established neighbourhood. As such, this message should be consistent in all forms of communication, including gateway signage, streetsigns, brochures and websites.

5.10 Public Art

Explore opportunities for public art in partnership with the local community and/or new development in Austin Heights as a means to further develop the sense of place and/or reflect local history and culture. Public art should follow the guidelines as set out in the City's Public Art Program Guide.

Generally, public art should be sited in highly visible areas. Within Austin Heights this includes corner bulges, areas where the sidewalk widens for street crossings, and various locations along pedestrian walkways. Public art should not be placed in the sidewalk zone or in areas where it will interfere with pedestrian traffic flow

APPENDIX A – DETAILED PLANS

Ridgeway Avenue

245
PLAN

246

247

1031

SRW PLAN 63831

HC

MATCHLINE

- Pedestrian Lighting
- Pedestrian/Roadway Combination Lighting
- Bench (w/ back)
- Bench (backless)
- Garbage Receptacle
- Bike Rack
- Bollard

PAGE 1 of 3

1:200 when printed on 11x17

248

249

250
1714

250
PLAN

251
1714

SRW PLAN 63831

SRW PLAN 63831

HC

MATCHLINE

MATCHLINE

- Pedestrian Lighting
- Pedestrian/Roadway Combination Lighting
- Bench (w/ back)
- Bench (backless)
- Garbage Receptacle
- Bike Rack
- Bollard

353
PLAN 64080

1:200 when printed on 11x17

PLAN BCP21430
REM. STR. PLAN NWS770

CP

254
PLAN

255
1714

SRW PLAN 63831

MATCHLINE

1062

PLAN 50812
AERIAL POWER

E. PLAN 68134

SRW PLAN LMP6004

1
PLAN LMP6003

280
PLAN 43611

- Pedestrian Lighting
- Pedestrian/Roadway Combination Lighting
- Bench (w/ back)
- Bench (backless)
- Garbage Receptacle
- Bike Rack
- Bollard

1:200 when printed on 11x17

Austin Avenue

955

1001

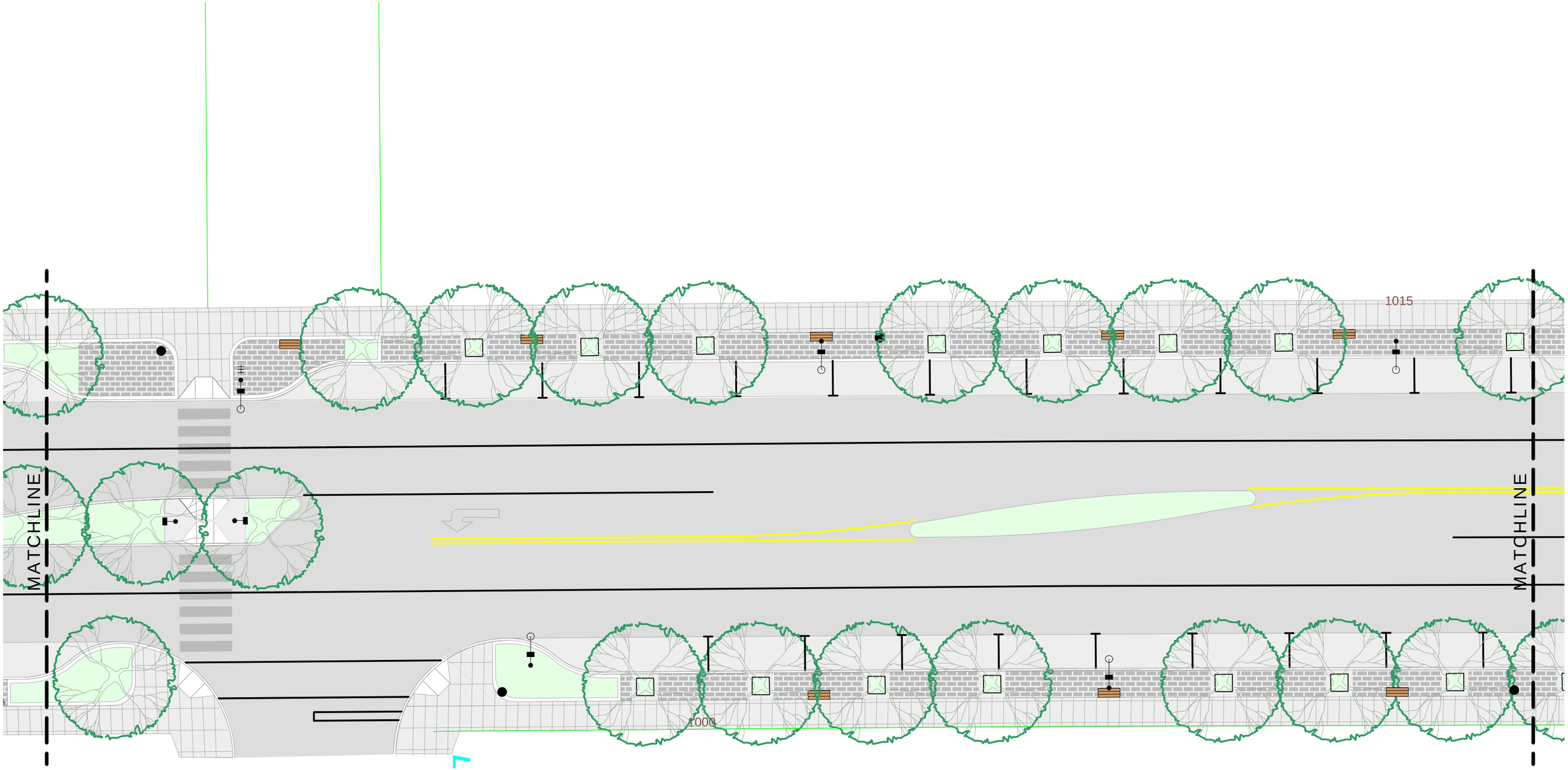
MATCHLINE

948

455

Pedestrian Lighting
Pedestrian/Roadway Combination Lighting
Bench (w/ back)
Bench (backless)
Garbage Receptacle
Bike Rack

1:250 when printed on 11x17



- Pedestrian Lighting
- Pedestrian/Roadway Combination Lighting
- Bench (w/ back)
- Bench (backless)
- Garbage Receptacle
- Bike Rack

1:250 when printed on 11x17

NELSON STREET

1025

MATCHLINE

MATCHLINE

1020

Bus Stop
Platform

AUSTIN AVENUE

- Pedestrian Lighting
- Pedestrian/Roadway Combination Lighting
- Bench (w/ back)
- Bench (backless)
- Garbage Receptacle
- Bike Rack

1:250 when printed on 11x17

MATCHLINE

MATCHLINE

1032

- Pedestrian Lighting
- Pedestrian/Roadway Combination Lighting
- Bench (w/ back)
- Bench (backless)
- Garbage Receptacle
- Bike Rack

1:250 when printed on 11x17

MATCHLINE

MATCHLINE

- Pedestrian Lighting
- Pedestrian/Roadway Combination Lighting
- Bench (w/ back)
- Bench (backless)
- Garbage Receptacle
- Bike Rack

1:250 when printed on 11x17

MARMONT STREET

1101

1109

1111

1115

MATCHLINE

MATCHLINE

1102

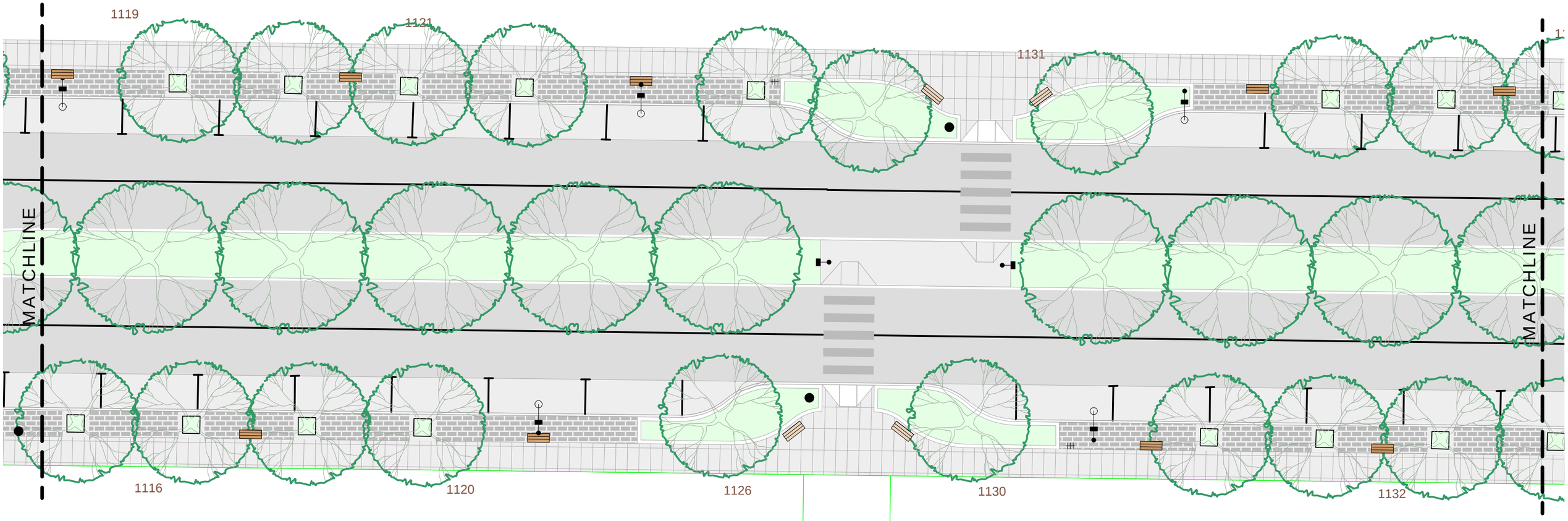
1106

1108

1112

- Pedestrian Lighting
- Pedestrian/Roadway Combination Lighting
- Bench (w/ back)
- Bench (backless)
- Garbage Receptacle
- Bike Rack

1:250 when printed on 11x17



AUSTIN AVENUE

- Pedestrian Lighting
- Pedestrian/Roadway Combination Lighting
- Bench (w/ back)
- Bench (backless)
- Garbage Receptacle
- Bike Rack

1:250 when printed on 11x17

GATENSBURY STREET

1135

1139

1143

1147

1199

MATCHLINE

1140

1150

1206

1300

- Pedestrian Lighting
- Pedestrian/Roadway Combination Lighting
- Bench (w/ back)
- Bench (backless)
- Garbage Receptacle
- Bike Rack

1:250 when printed on 11x17

APPENDIX B – CLASS ‘D’ COST ESTIMATE

City of Coquitlam - Austin Heights Streetscape Standards			DATE	August 12, 2011	
Class 'D' Cost Estimate			HB Lanarc-Golder		
RIDGEWAY AVENUE					
ITEM	UNIT	QUANTITY	UNIT-COST	TOTALS	
I. HARD LANDSCAPE					
Concrete Drive Aisle - 200mm thick	sq.m.	1475	$110.00	$162,250.00	
Concrete Sidewalk (incl. excavation & base gravel)	sq.m.	1419	$75.00	$106,425.00	
Angled Curb and Gutter	l.m.	230	$80.00	$18,400.00	
Abbotsford Paver (Supply & Install) *Standard Paver- Aquapave OPTION 1*	sq.m.	2195	$165.00	$362,175.00	
Abbotsford Paver (Supply & Install) *Standard Paver- Sandset Paver - OPTION 2*	sq.m.	2195	$110.00	$241,450.00	
SUBTOTAL, HARD LANDSCAPING OPTION 1 (Aquapave)				**$649,250.00**	
SUBTOTAL, HARD LANDSCAPING OPTION 2 (Sandset)				**$528,525.00**	
II. SOFT LANDSCAPE					
Growing Medium, 0.8m depth - planted areas	cu.m.	120	$55.00	$6,600.00	
Silva Cells	per tree	37	$5,940.00	$219,780.00	**Based on 10 cu.m growing medium per tree*
Structural Soil	per tree	37	$7,500.00	$277,500.00	**Based on 50 cu.m SS (10 cu.m growing medium)* **Assume 20% void space for growing medium in SS*
Deciduous Trees (6m caliper)	each	37	$750.00	$27,750.00	
Shrubs and Groundcover (landscape bulges)	sq.m.	150	$75.00	$11,250.00	
Mulch, 75mm depth	cu.m.	113	$55.00	$6,187.50	
SUBTOTAL, SOFT LANDSCAPE - STRUCTURAL SOIL				**$329,287.50**	
SUBTOTAL, SOFT LANDSCAPE - SILVA CELLS				**$271,567.50**	
III. IRRIGATION					
Irrigation (Point of Connection)	allow	1	$2,500.00	$2,500.00	
Irrigation (landscape areas)	sq.m.	150	$15.00	$2,250.00	
Irrigation (2 bubblers per tree)	each	37	$120.00	$4,440.00	
SUBTOTAL, IRRIGATION				**$9,190.00**	

City of Coquitlam - Austin Heights Streetscape Standards			DATE	August 12, 2011	
Class 'D' Cost Estimate			HB Lanarc-Golder		
IV. SITE FURNISHINGS *					
Lighting - Pedestrian/Roadway combination (incl. installation & elec)	each	12	$9,490.00	$113,880.00	
Benches *TENAJ Park Bench*	each	8	$1,465.00	$11,720.00	
Benches *TENAJ Park Bench- backless*	each	24	$955.00	$22,920.00	
Bike Rack *TENAJ Series*	each	8	$277.00	$2,216.00	
Waste Receptacles *Maglin MLWR250S-32*	each	12	$1,145.00	$13,740.00	
Dome Lid for Waste Receptacle *Maglin*	each	12	$225.00	$2,700.00	
Bollards *Maglin MTB650 Series*	each	159	$565.00	$89,835.00	
Tree Grates *Canadian Lamp Post Products*	each	22	$717.00	$15,774.00	
SUBTOTAL, SITE FURNISHINGS				**$272,785.00**	
SUB-TOTAL OPTIONS - RIDGEWAY AVENUE					
SUB-TOTAL,PROJECT COSTS - STRUCTURAL SOIL & AQUAPAVE				**$1,260,512.50**	
H.S.T. (12.0%)				**$151,261.50**	
Plus Contingency (30%)				**$378,153.75**	
OPINION OF PROBABLE COST (Note: Accuracy is +/-30%)				**$1,789,927.75**	
SUB-TOTAL,PROJECT COSTS - STRUCTURAL SOIL & SANDSET PAVER				**$1,139,787.50**	
H.S.T. (12.0%)				**$136,774.50**	
Plus Contingency (30%)				**$341,936.25**	
OPINION OF PROBABLE COST (Note: Accuracy is +/-30%)				**$1,618,498.25**	
SUB-TOTAL,PROJECT COSTS - SILVA CELLS & AQUAPAVE				**$1,202,792.50**	
H.S.T. (12.0%)				**$144,335.10**	
Plus Contingency (30%)				**$360,837.75**	
OPINION OF PROBABLE COST (Note: Accuracy is +/-30%)				**$1,707,965.35**	
SUB-TOTAL,PROJECT COSTS - SILVA CELLS & SANDSET PAVER				**$1,082,067.50**	
H.S.T. (12.0%)				**$129,848.10**	
Plus Contingency (30%)				**$324,620.25**	
OPINION OF PROBABLE COST (Note: Accuracy is +/-30%)				**$1,536,535.85**	

City of Coquitlam - Austin Heights Streetscape Standards			DATE	August 12, 2011	
Class 'D' Cost Estimate			HB Lanarc-Golder		
AUSTIN AVENUE					
ITEM	UNIT	QUANTITY	UNIT-COST	TOTALS	
I. HARD LANDSCAPE					
Asphalt Drive Aisle (incl. excav., 500mm SB, 150 Base, 100mm asph)	sq.m.	13200	$85.00	$1,122,000.00	
Concrete Sidewalk (incl. excav. & base gravel)	sq.m.	3812	$75.00	$285,900.00	
Concrete Parking - 200mm thick	sq.m.	2548	$110.00	$280,269.00	
Barrier curb and gutter	l.m.	2279	$70.00	$159,530.00	
Abbotsford Paver (Supply & install) *Standard Paver- Aquapave OPTION 1*	sq.m.	2355	$165.00	$388,575.00	
Abbotsford Paver (Supply & install) *Standard Paver- Sandset Paver OPTION 2*	sq.m.	2355	$110.00	$259,050.00	
SUBTOTAL, HARD LANDSCAPING - OPTION 1 (Aquapave)				**$2,236,274.00**	
SUBTOTAL, HARD LANDSCAPING - OPTION 2 (Sandset)				**$2,106,749.00**	
II. SOFT LANDSCAPE					
Growing Medium, 0.8m depth - Tree trench (median)	cu.m.	628	$55.00	$34,540.00	
Silva Cells (Boulevard Trees)	per tree	124	$5,940.00	$736,560.00	**Based on 10 cu.m growing medium per tree*
Structural Soil (Boulevard trees)	per tree	124	$7,500.00	$930,000.00	**Based on 50 cu.m SS (10 cu.m growing medium)* **Assume 20% void space for growing medium in SS*
Deciduous Trees (6m caliper) - BOULEVARD	each	124	$750.00	$93,000.00	
Deciduous Trees (6m caliper) - MEDIAN	each	23	$750.00	$17,250.00	
Shrubs and Groundcover (medians & landscape bulges)	sq.m.	989	$75.00	$74,175.00	
Mulch, 75mm depth	cu.m.	742	$55.00	$40,796.25	
SUBTOTAL, SOFT LANDSCAPE - STRUCTURAL SOIL				**$1,189,761.25**	
SUBTOTAL, SOFT LANDSCAPE - SILVA CELLS				**$996,321.25**	
III. IRRIGATION					
Irrigation (Point of Connection)	allow	1	$2,500.00	$2,500.00	
Irrigation (spray heads in medians)	sq.m.	989	$15.00	$14,835.00	
Irrigation (2 bubblers/boulevard tree)	each	124	$120.00	$14,880.00	
SUBTOTAL, IRRIGATION				**$32,215.00**	

City of Coquitlam - Austin Heights Streetscape Standards			DATE	August 12, 2011	
Class 'D' Cost Estimate			HB Lanarc-Golder		
IV. SITE FURNISHINGS*					
Lighting - Pedestrian/Roadway combination (incl. installation & elec.)	each	41	$9,490.00	$389,090.00	
Lighting - Pedestrian only (incl. installation & elec.)	each	6	$6,036.00	$36,216.00	
Benches *TENAJ Park Bench*	each	20	$1,465.00	$29,300.00	
Benches *TENAJ Park Bench- backless*	each	65	$955.00	$62,075.00	
Bike Rack *TENAJ Series*	each	16	$277.00	$4,432.00	
Waste Receptacles *Maglin MLWR250S-32*	each	29	$1,145.00	$33,205.00	
Dome Lid for Waste Receptacle *Maglin*	each	29	$225.00	$6,525.00	
Tree Grates *Canadian Lamp Post Products*	each	108	$717.00	$77,436.00	
SUBTOTAL, SITE FURNISHINGS				**$638,279.00**	
SUB-TOTAL OPTIONS - AUSTIN AVENUE					
SUB-TOTAL,PROJECT COSTS - STRUCTURAL SOIL & AQUAPAVE				**$4,096,529.25**	
H.S.T. (12.0%)				**$491,583.51**	
Plus Contingency (30%)				**$1,228,958.78**	
OPINION OF PROBABLE COST (Note: Accuracy is +/-30%)				**$5,817,071.54**	
SUB-TOTAL,PROJECT COSTS - STRUCTURAL SOIL & SANDSET PAVER				**$3,967,004.25**	
H.S.T. (12.0%)				**$476,040.51**	
Plus Contingency (30%)				**$1,190,101.28**	
OPINION OF PROBABLE COST (Note: Accuracy is +/-30%)				**$5,633,146.04**	
SUB-TOTAL,PROJECT COSTS - SILVA CELLS & AQUAPAVE				**$3,903,089.25**	
H.S.T. (12.0%)				**$468,370.71**	
Plus Contingency (30%)				**$1,170,926.78**	
OPINION OF PROBABLE COST (Note: Accuracy is +/-30%)				**$5,542,386.74**	
SUB-TOTAL,PROJECT COSTS - SILVA CELLS & SANDSET PAVER				**$3,773,564.25**	
H.S.T. (12.0%)				**$452,827.71**	
Plus Contingency (30%)				**$1,132,069.28**	
OPINION OF PROBABLE COST (Note: Accuracy is +/-30%)				**$5,358,461.24**	

City of Coquitlam - Austin Heights Streetscape Standards			**DATE**	August 12, 2011	
Class 'D' Cost Estimate			HB Lanarc-Golder		
Notes:					
For site furnishings, unit costs do not include shipping or installation costs. Unit costs are provided for information only and it should be expected that these costs will change over time. Confirmation of model and pricing information will be required at the time of detailed design and implementation.					
Excavation, demolition & engineering roadwork costs have not been factored in.					
This cost estimate is based on historical cost data.					
Actual costs can vary widely depending on industry labour and material availability					
Figures represent 2011 dollars					
ORDER of MAGNITUDE ESTIMATE (Note: Accuracy is +/-30%)					
Issued for discussion only - does not guarantee actual costs of construction					

APPENDIX C – LIGHTING INFORMATION

(PRODUCT INFORMATION & LAYOUT PLANS)

METROLUME
LIGHTING SYSTEM INC.
PO Box 12009 RPO Murrayville
Langley BC V3A 9J5
t : 778-278-3515
f: 778-278-3516

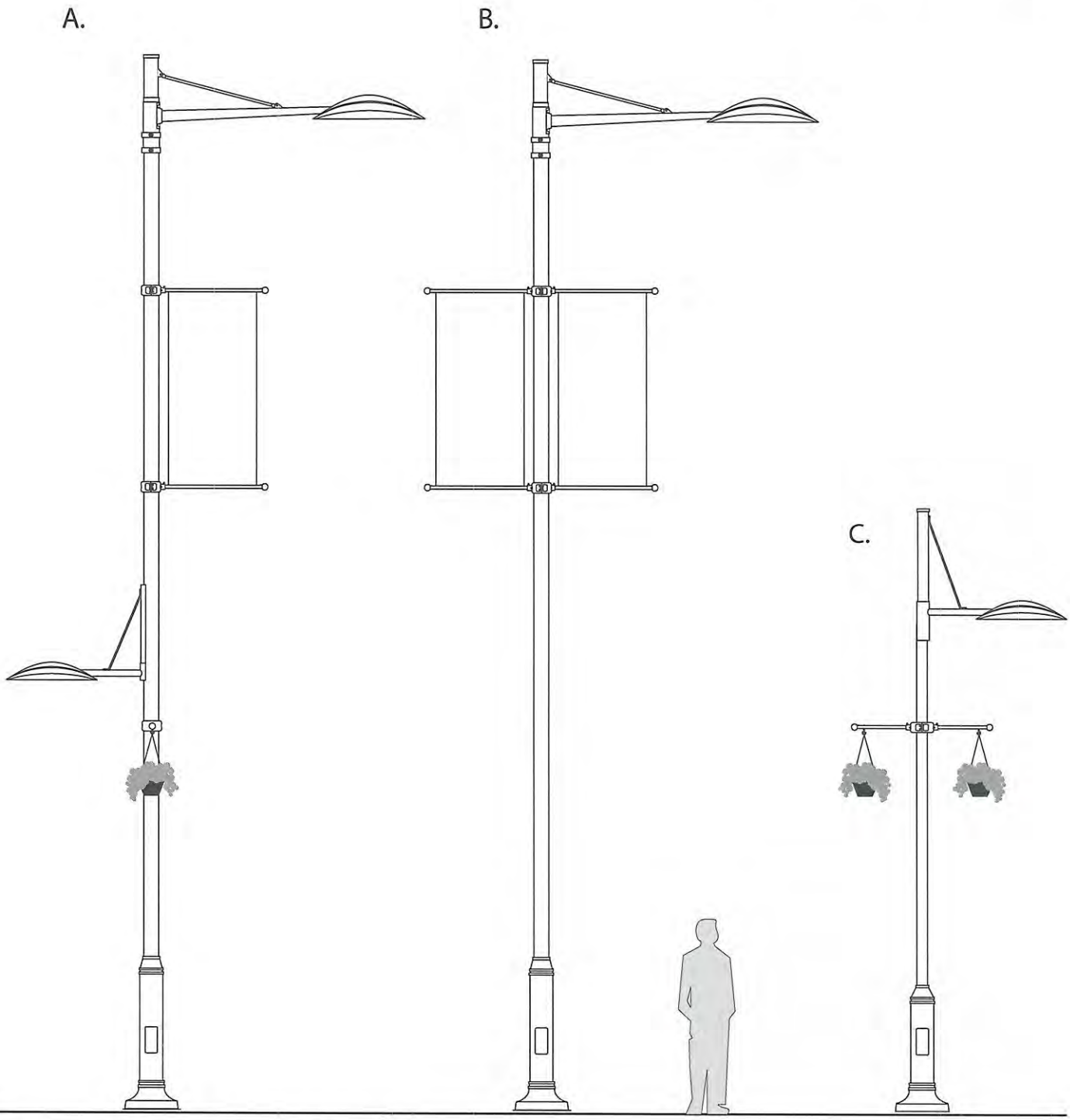
Attn: Amy Gore - HB Lanarc

Fax/E-Mail:

From: Randy Hanson Date: June 3, 2011

Presentation Drawing

THIS DRAWING CONTAINS COMPONENTS MANUFACTURED BY: PHILIPS LUMEC



Project: Coquitlam Austin Heights

Detail: Roadway - Lumec Large Capella Luminaire on PC-6 Arm and 30' SSM8 pole
Pedestrian - Lumec Small Capella Luminaire on PC Arm and 15' SM8 pole

NOTE: THIS IS A PRESENTATION DRAWING ONLY. PRESENTATION DRAWINGS ARE NOT FOR APPROVAL DRAWING PURPOSES

METROLUME
LIGHTING SYSTEM INC.
PO Box 12009 RPO Murrayville
Langley BC V3A 9J5
t : 778-278-3515
f: 778-278-3516

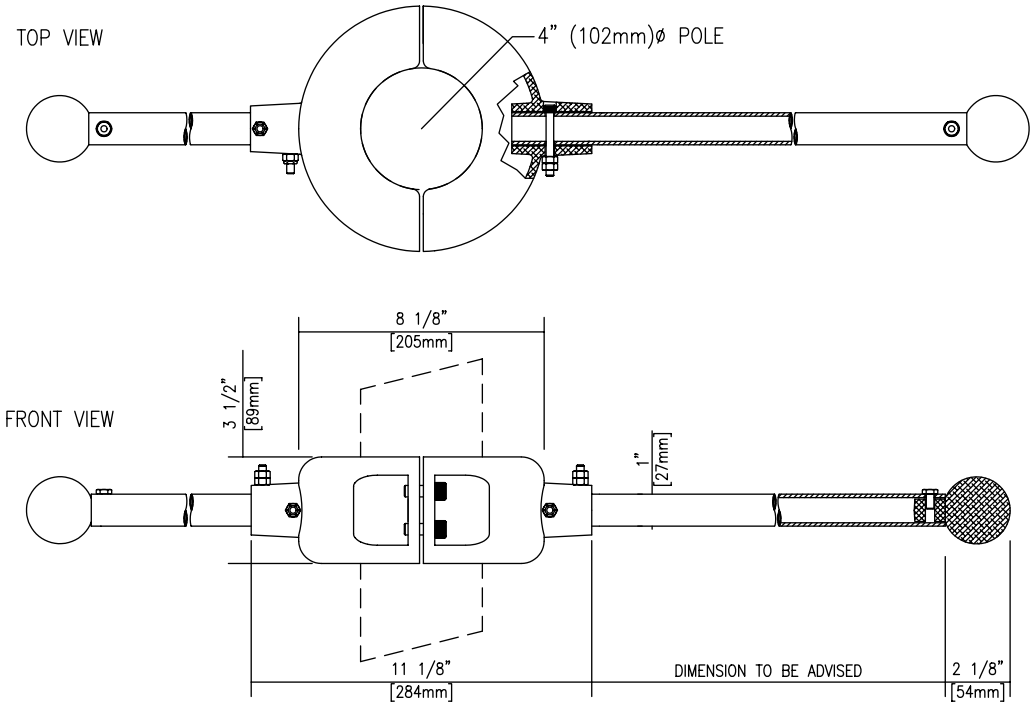
Attn: Amy Gore - HC Lanarc

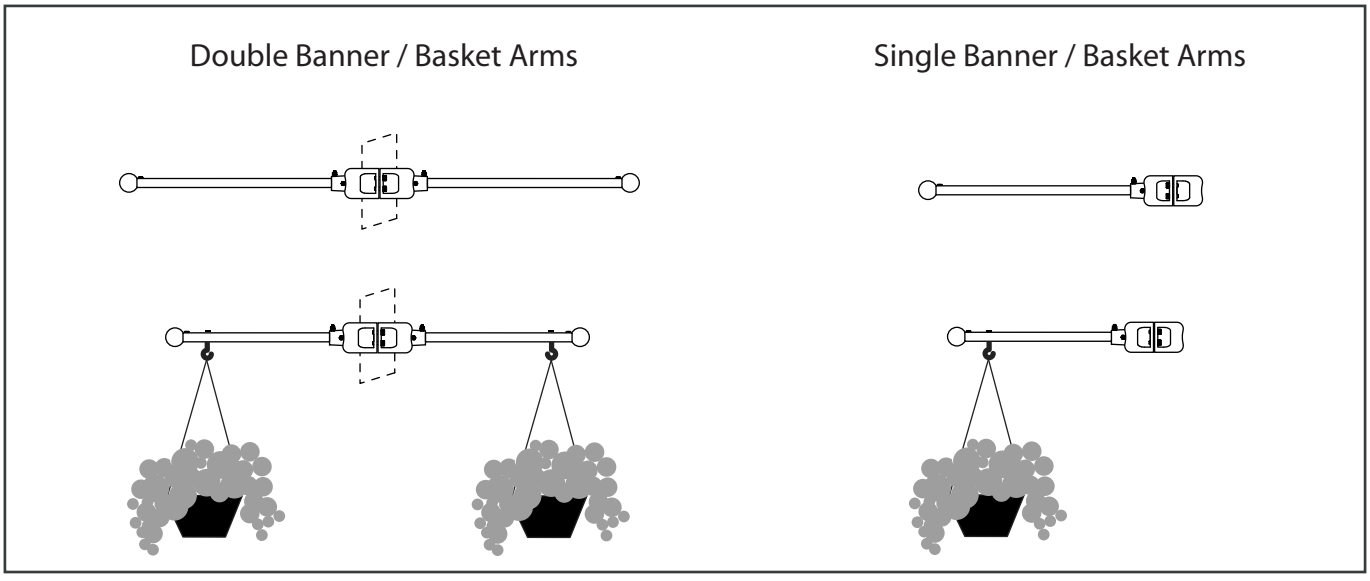
Fax/E-Mail:

From: Randy Hanson Date: July 11, 2011

Presentation Drawing

THIS DRAWING CONTAINS COMPONENTS MANUFACTURED BY: PHILIPS LUMEC





Project: Coquitlam

Detail: Lumec Double and Single Clamp-on Banner Arms and Plant Support Arms

NOTE: THIS IS A PRESENTATION DRAWING ONLY. PRESENTATION DRAWINGS ARE NOT FOR APPROVAL DRAWING PURPOSES

Luminaire Schedule										
Project: Coquitlam Austin Heights (63616) DI (MAV) v7										
Symbol	Qty	Label	Arrangement	Total Lamp Lumens	Lum. Lumens	LLF	Description	Filename	Arm	BUG Rating
	12	A	SINGLE	16000	12126	0.800	CPLM-150HPS-TH3F	CPLM-250HPS-TH3F (S0710022).ies	0.61	B3-U0-G3
	12	B	SINGLE	9500	7360	0.800	CPLM-100HPS-TH2F	CPLM-250HPS-TH2F (S0710021).ies	0.61	B2-U0-G2

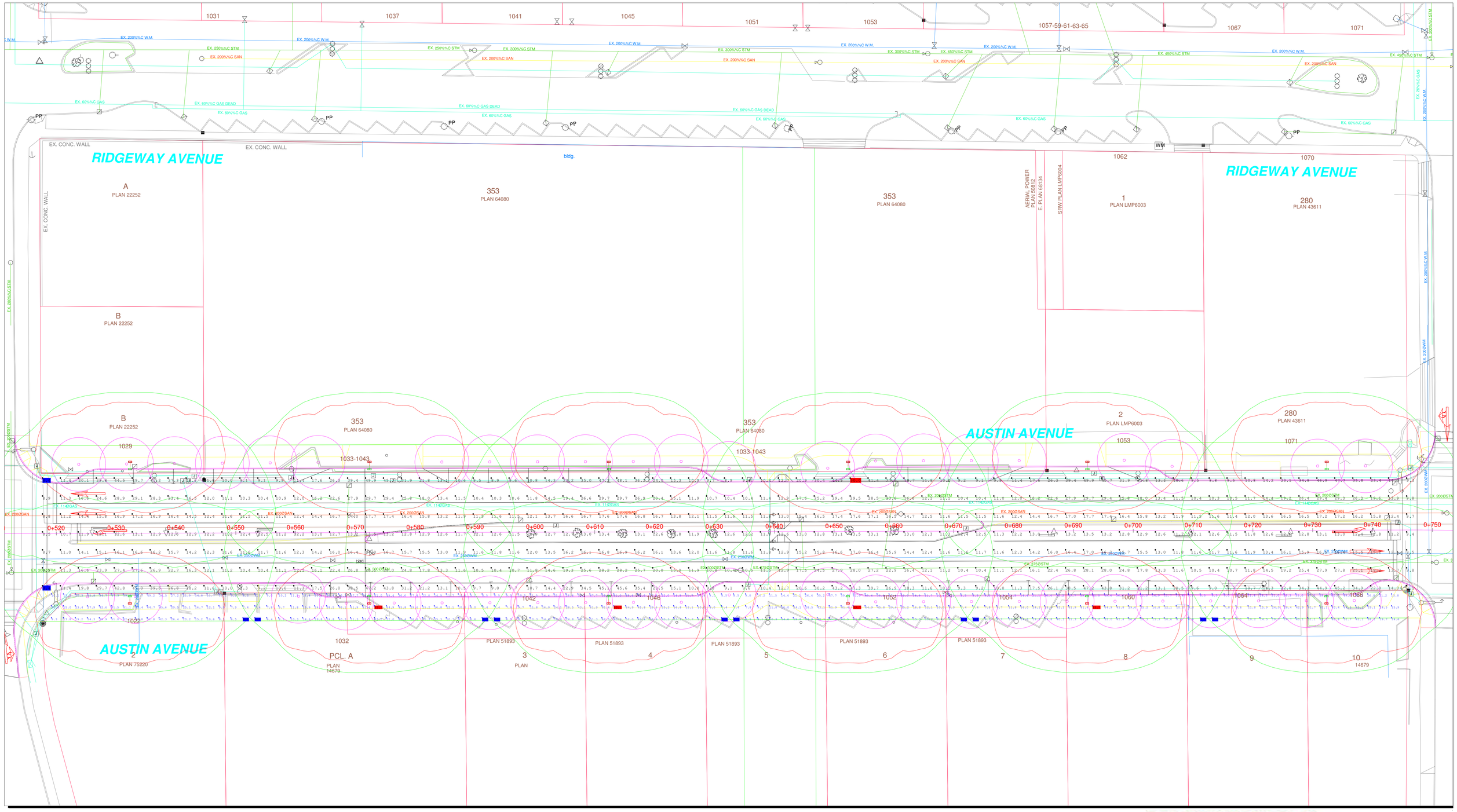
Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Austin Roadway	Illuminance	Lux	17.38	50.0	8.4	2.07	5.95
Austin Sidewalk	Illuminance	Lux	27.44	83.7	6.2	4.43	13.50

lumec.photo@philips.com

450-430-7040 ext. 501

PHILIPS

LUMEC



lumec.photo@philips.com

450-430-7040 ext. 501

Filename: Coquitlam Austin Heights_7.AGI HPS

Photometric department / Département photométrique
640 Curé-Boivin
Boisbriand (Québec) J7G 2A7 Canada

PHILIPS

LUMEC

Les valeurs sous la colonne Z représentent les centre lumineux et non les hauteurs de fût. Une différence de 6" et moins dans la réalité ne modifiera pas la photométrie.

Values under Z column represent luminous center, not pole height. 6" or less difference in reality will not modify the photometric resuslts.

Luminaire Location Summary						
LumNo	Label	X	Y	Z	Orient	Tilt
1	A	510233.8	5457207.	9.1	270.153	0
2	A	510273.8	5457207.	9.1	270.153	0
3	A	510313.8	5457207.	9.1	270.153	0
4	A	510113.8	5457207.	9.1	270.153	0
5	A	510153.8	5457207.	9.1	270.153	0
6	A	510193.8	5457207.	9.1	270.153	0
7	A	510113.8	5457185.	9.1	90	0
8	A	510153.8	5457185.	9.1	90	0
9	A	510193.8	5457185.	9.1	90	0
10	A	510233.8	5457185.	9.1	90	0
11	A	510273.8	5457185.	9.1	90	0
12	A	510313.8	5457185.	9.1	90	0
13	B	510113.8	5457185.	4.6	270	0
14	B	510113.8	5457207.	4.6	90	0
15	B	510153.8	5457185.	4.6	270	0
16	B	510193.8	5457185.	4.6	270	0
17	B	510233.8	5457185.	4.6	270	0
18	B	510273.8	5457185.	4.6	270	0
19	B	510313.8	5457185.	4.6	270	0
20	B	510153.8	5457207.	4.6	90	0
21	B	510193.8	5457207.	4.6	90	0
22	B	510233.8	5457207.	4.6	90	0
23	B	510273.8	5457207.	4.6	90	0
24	B	510313.8	5457207.	4.6	90	0

Luminaire Schedule										
Project: Coquitlam Austin Heights (63616) DI (MAV) v8										
Symbol	Qty	Label	Arrangement	Total Lamp Lumens	Lum. Lumens	LLF	Description	Filename	Arm	BUG Rating
	12	A	SINGLE	N.A.	5662	0.850	CPLM-90W49LED4K-LE3F	DMS50-90W49LED4K-LE3F (S1104062).ies	0.61	B1-U0-G1
	12	B	SINGLE	N.A.	4866	0.850	CPLS-65W49LED4K-LE2F	DMS50-65W49LED4K-LE2F-SCALED (S1104122r0).ies	0.61	B1-U0-G1

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Austin Roadway	Illuminance	Lux	9.32	29.5	4.5	2.07	6.56
Austin Sidewalk	Illuminance	Lux	18.39	65.6	2.1	8.76	31.24

lumec.photo@philips.com

450-430-7040 ext. 501

PHILIPS

LUMEC

lumec.photo@philips.com

450-430-7040 ext. 501

Filename: Coquitlam Austin Heights_8.AGI LED

Photometric department / Département photométrique
640 Curé-Boivin
Boisbriand (Québec) J7G 2A7 Canada

Date:2011-07-04 | **Page 2 of 3**

PHILIPS

LUMEC

Les valeurs sous la colonne Z représentent les centre lumineux et non les hauteurs de fût. Une différence de 6" et moins dans la réalité ne modifiera pas la photométrie.

Values under Z column represent luminous center, not pole height. 6" or less difference in reality will not modify the photometric resuslts.

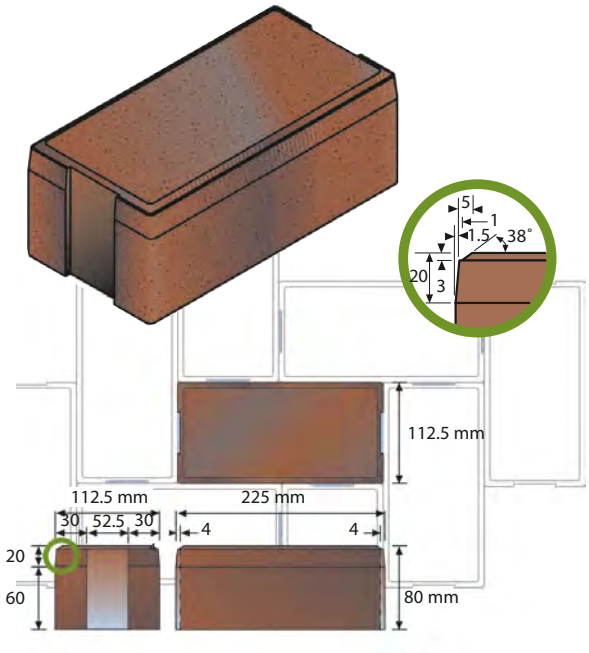
Luminaire Location Summary						
LumNo	Label	X	Y	Z	Orient	Tilt
1	A	510233.8	5457207.	9.1	270.153	0
2	A	510273.8	5457207.	9.1	270.153	0
3	A	510313.8	5457207.	9.1	270.153	0
4	A	510113.8	5457207.	9.1	270.153	0
5	A	510153.8	5457207.	9.1	270.153	0
6	A	510193.8	5457207.	9.1	270.153	0
7	A	510113.8	5457185.	9.1	90	0
8	A	510153.8	5457185.	9.1	90	0
9	A	510193.8	5457185.	9.1	90	0
10	A	510233.8	5457185.	9.1	90	0
11	A	510273.8	5457185.	9.1	90	0
12	A	510313.8	5457185.	9.1	90	0
13	B	510113.8	5457185.	4.6	270	0
14	B	510113.8	5457207.	4.6	90	0
15	B	510153.8	5457185.	4.6	270	0
16	B	510193.8	5457185.	4.6	270	0
17	B	510233.8	5457185.	4.6	270	0
18	B	510273.8	5457185.	4.6	270	0
19	B	510313.8	5457185.	4.6	270	0
20	B	510153.8	5457207.	4.6	90	0
21	B	510193.8	5457207.	4.6	90	0
22	B	510233.8	5457207.	4.6	90	0
23	B	510273.8	5457207.	4.6	90	0
24	B	510313.8	5457207.	4.6	90	0

APPENDIX D – SITE FURNISHINGS PRODUCT INFORMATION

AQUAPave®

Permeable On-Site Stormwater Source Control System

Standard



Standard Colors


Shadow *


Charcoal


Red


Red/Black *


Indian Summer *


Desert Sand *


Sand/Brown *


Brown

The Standard Series is the ultimate in adaptive design. The large selection of colors can be used individually or in combination to create a wide variety of patterns to reflect your personal style, from the understated to the dramatic.

More information at aquapave.com

A Paving System We Can All Live With®

ABBOTSFORD CONCRETE PRODUCTS

TENAJ Straight Park Bench

Model Number: TJSB-5

PRODUCT SPECIFICATIONS

Ultraplast ™ Recycled Plastic Slats

- This product will not rot, splinter, or warp reducing maintenance costs over the life of the product.
- Colors Available: Sand, Grey, Brown, Redwood, Green, Black and Walnut

Durable Powder Coated Cast Aluminum Frame

- Standard colors: Semi-gloss Black, Textured Black, Metallic Silver, Phantom Bronze, Gloss white, Rideau Brown, Beige, Fence Green

Long Lasting Stainless Steel Hardware

Surface Mountable

CUSTOMIZED SOLUTIONS

- Custom Powder Coating
  (Setup Charges May Apply)
- Custom Cast Lettering on the Leg Ends
- LED Lighting
- Custom lengths 2-6 ft

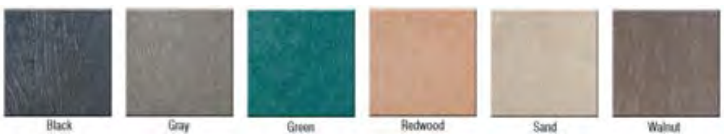
PRODUCT DIMENSIONS

Height:	19 inches / 483mm
Seat Height	17.5 inches / 444mm
Depth:	24 inches / 610mm
Total Length:	5 feet/1520mm
Weight:	70lbs / 32kg

RECYCLED CONTENT

- Recycled Content by Weight: 95%
- 100% Recyclable

Available Seating Colors:



Wishbone provides an extended 10 year limited warranty from the date of invoice.

100% Canadian Made

"Solutions for the Future...from Pieces of the Past"

Wishbone Site Furnishings | #109-27090 Gloucester Way | Langley, BC CANADA V4W 3Y5
866 626 0476 sales@wishboneltd.com wishboneltd.com

TENAJ

TENAJ Park Bench

Model Number: TJB-5

PRODUCT SPECIFICATIONS

Ultraplast ™ Recycled Plastic Slats

- This product will not rot, splinter, or warp reducing maintenance costs over the life of the product.
- Colors Available: Sand, Grey, Brown, Redwood, Green, Black and Walnut

Durable Powder Coated Cast Aluminum Frame

- Standard colors: Semi-gloss Black, Textured Black, Metallic Silver, Phantom Bronze, Gloss white, Rideau Brown, Beige, Fence Green

Long Lasting Stainless Steel Hardware

Surface Mountable

5 ft. Bench

CUSTOMIZED SOLUTIONS

- Custom Powder Coating (Setup Charges May Apply)
- Custom Cast Lettering on the Leg Ends
- LED Lighting
- Custom lengths 2-6 ft

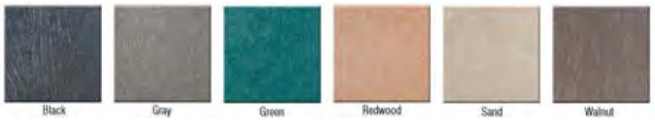
PRODUCT DIMENSIONS

Height:	32.5 inches / 826 mm
Seat Height	19 inches / 368 mm
Seat Depth:	14.5 inches / 444 mm
Total Depth:	27 inches / 686 mm
Weight:	120 lbs / 54 kg

RECYCLED CONTENT

- Recycled Content by Weight: 95%
- 100% Recyclable

Available Seating Colors:



Wishbone provides an extended 10 year limited warranty from the date of invoice.

100% Canadian Made

"Solutions for the Future...from Pieces of the Past"

TENAJ 2 Space Bike Rack

Model Number: TJBR-34

PRODUCT SPECIFICATIONS

Durable Powder Coated Galvanized Frame

- Standard colors: Semi-gloss Black, Textured Black, Metallic Silver, Phantom Bronze, Gloss white, Rideau Brown, Beige, Fence Green

Surface Mountable

CUSTOMIZED SOLUTIONS

- Custom Powder Coating
  (Setup Charges May Apply)
- In-ground Mounting
- Custom Cast lettering on sides
- LED Lighting

PRODUCT DIMENSIONS

Height:	33.5 inches /850mm
Depth:	1.5 inches/38mm
Width:	19 inches/483mm
Weight:	20 lbs/ 9kg

RECYCLED CONTENT

- Recycled Content by Weight: 100%
- 100% Recyclable

Available Recycled Plastic Colors

Wishbone provides an extended 10 years limited warranty from the date of invoice.

100% Canadian Made

"Solutions for the Future...from Pieces of the Past"

Wishbone Site Furnishings | #109-27090 Gloucester Way | Langley, BC CANADA V4W 3Y5
866 626 0476 sales@wishboneltd.com wishboneltd.com

MAGLIN™
making sense of public space

trash containers

TOSS IT HERE

MLWR250S-32 TRASH CONTAINER

ADD TO QUICK QUOTE

DOWNLOAD FILES
PDF / DWG / SKETCHUP / JPEG / CSI SPEC

MATERIALS
The MLWR250S-32 side opening trash container frame is constructed using heavy-duty steel flat bar and H.S. steel tube. A 32 imperial gallon commercial grade black plastic liner, spun metal lid and self closing slam latch are provided.

DIMENSIONS
Height: 34.00" (86.4cm)
Diameter: 25.50" (63.5cm)

WEIGHT
200lbs (90kg.)

FINISHES
All steel components are protected with E-Coat Rust Proofing. The Maglin Powdercoat System provides a durable finish on all metal surfaces.

INSTALLATION
The MLWR250S-32 side opening trash containers are delivered pre-assembled. Holes (0.5") are provided in each mounting foot for securing to base.

COMPLEMENTARY PRODUCTS


Recycle Unit
MRC252


Ash Receptacle
MLAU201


Planter
MLP200


Bench
MLB590M

PRODUCT OPTIONS


Dome Lid
MDL-32


Dome Lid/Door
MDLD-32


Side Ash Tray
MAT100


Ash Receptacle
MLAU101

Toll Free: 1.800.716.5506 | Fax: 1.877.260.9393

BLOCK IT HERE

MTB650 SERIES BOLLARD

ADD TO QUICK QUOTE

DOWNLOAD FILES
PDF / DWG / SKETCHUP / VECTORWORKS / JPEG / CSI SPEC

MATERIALS
The MTB650 Series Bollard is constructed of 6-5/8" (16.8cm) diameter H.S. steel tube. Decorative top and base are cast aluminum. Forged steel eye bolts are optional.

DIMENSIONS
Height: 33.00" (83.8cm)
Diameter: 6.63" (16.8cm)
Wall Thickness: 0.25" (0.6cm)

WEIGHT
MTB651 & MTB654 - 80lbs (36.2kg.)
MTB652 & MTB653 - 55lbs (25.0kg.)

FINISHES
All steel components are protected with E-Coat Rust Proofing. The Maglin Powdercoat System provides a durable finish on all metal surfaces.

INSTALLATION
The MTB650 Series Bollards are available in four different installation types. Details are provided in the PDF download.

COMPLEMENTARY PRODUCTS

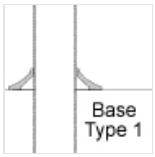

Bench
MLB590M


Backless Bench
MLB590BM

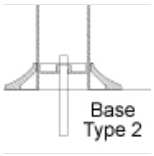

Trash Container
MLWR550-32


Ash Receptacle
MLAU550

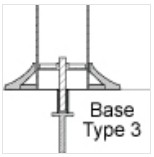
PRODUCT OPTIONS



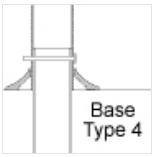
Base Type 1
MTB651



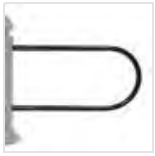
Base Type 2
MTB652



Base Type 3
MTB653

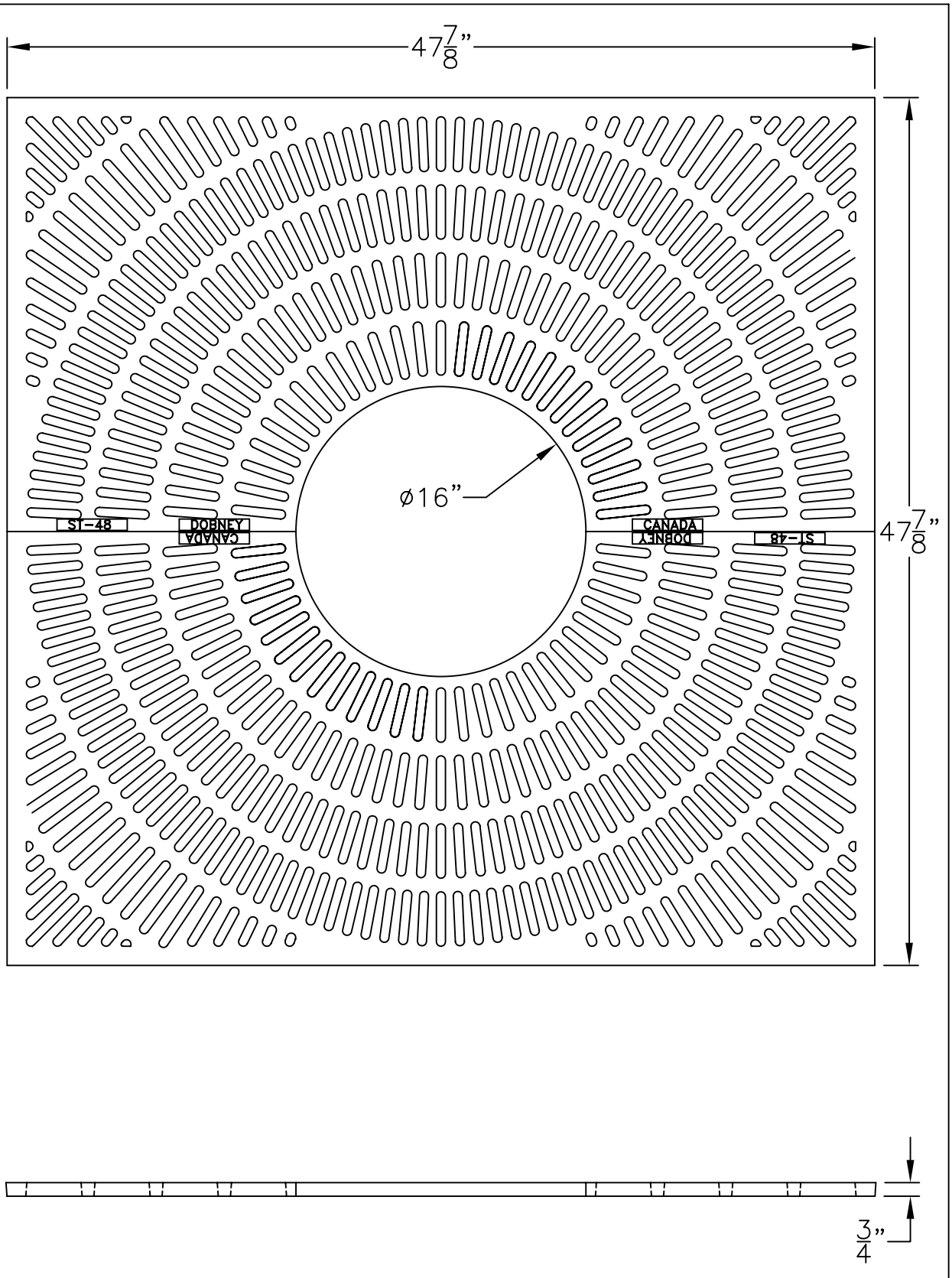


Base Type 4
MTB654


Swing Gate
MSG-28

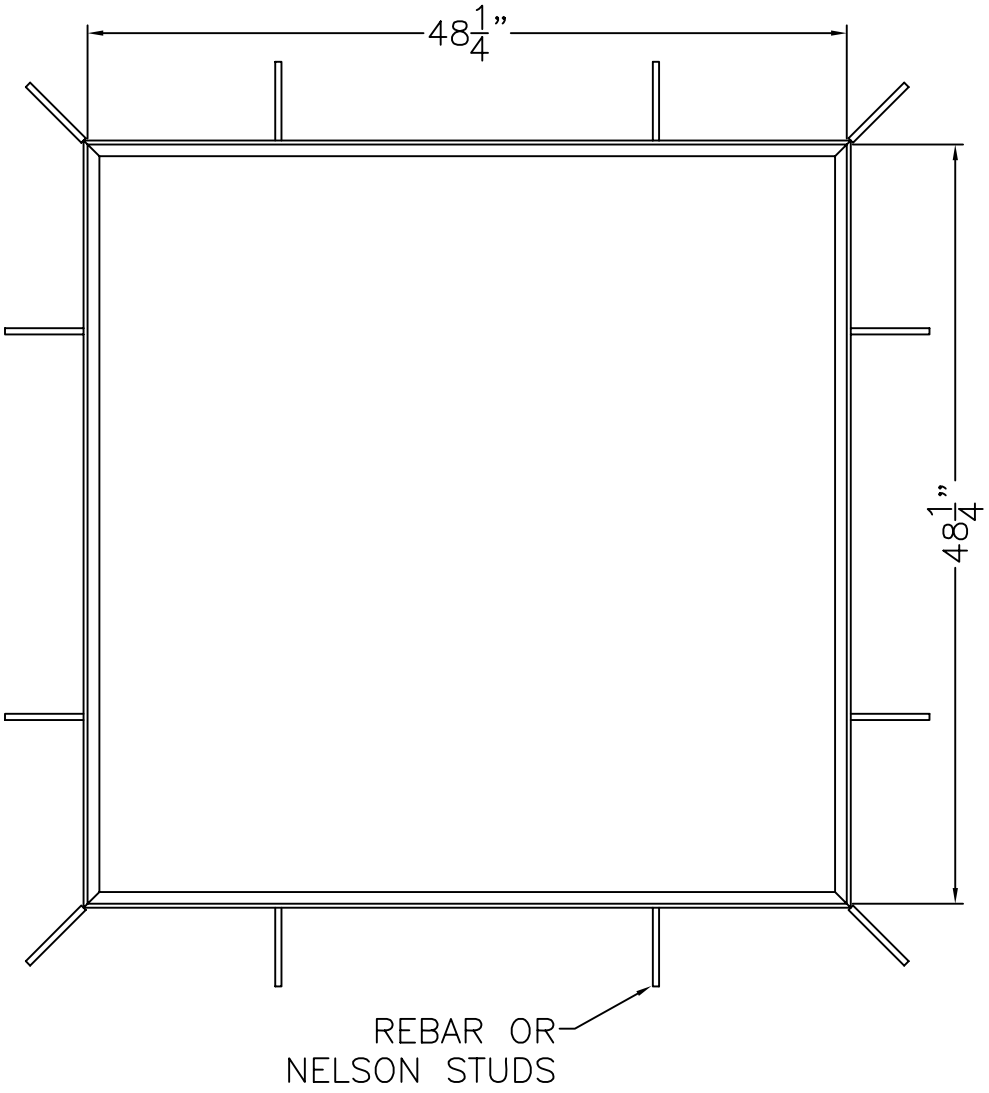

Eye Bolts
MEB100

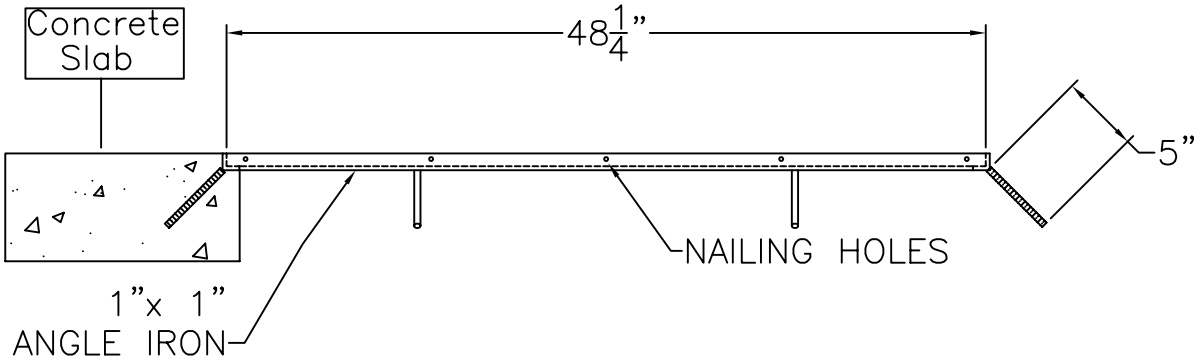
Toll Free: 1.800.716.5506 | Fax: 1.877.260.9393



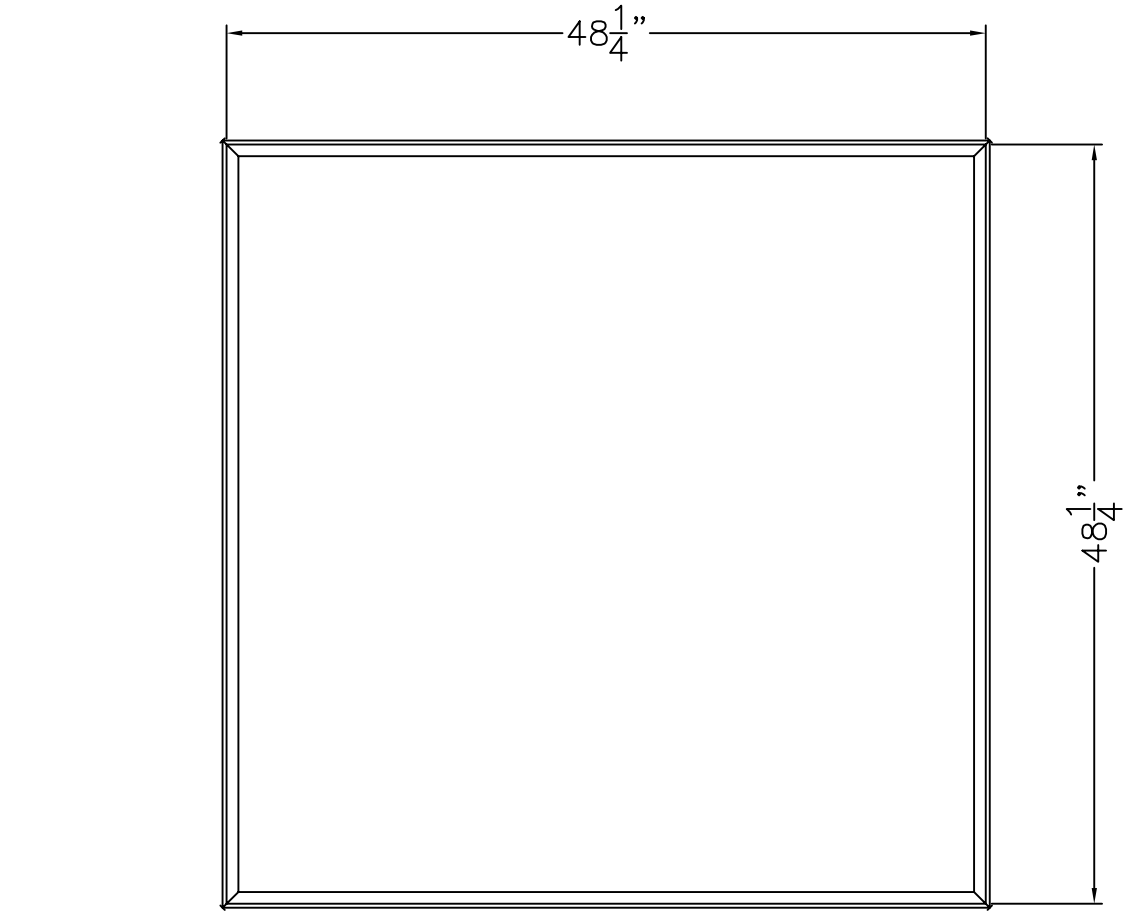
APPROX. WEGHT – 240 LBS

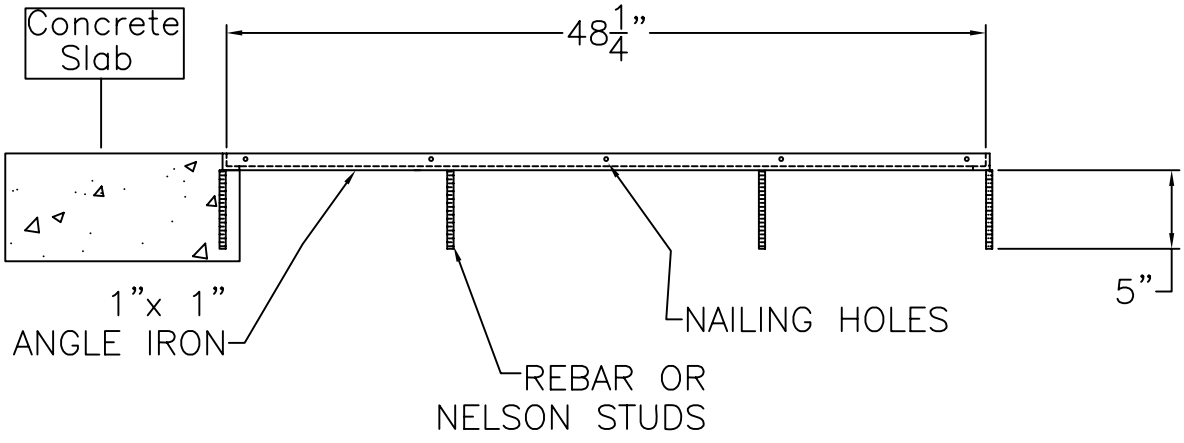
DOBNEY FOUNDRY LTD. SURREY B.C.	
RATING– DUCTILE IRON	
TREE GRATE	NO. ST–48





DOBNEY FOUNDRY LTD. SURREY B.C.	
48" TREE GRATE FRAME FOR SP-48, 2 PIECE UNIT	NO. 48FRAME





DOBNEY FOUNDRY LTD. SURREY B.C.	
48" TREE GRATE FRAME FOR A 2 PIECE UNIT	NO. 48FRAME-2

APPENDIX E – CITY OF COQUITLAM PREFERRED STREET TREES

Created January 2011

CITY OF COQUITLAM PREFERRED STREET TREE LIST

UTILITY TREES (UP TO 9m HEIGHT)

These small trees are only to be used where there are overhead or other obstructions that restrict growth

Botanical Name	Common Name	Height
Acer ginnala 'Red November'	Red November Maple	7m
Acer griseum	Paperbark Maple	8m
Amelanchier grandiflora 'Autumn Brillance'	Autumn Brillance Serviceberry	7m
Amelanchier grandiflora 'Coles Select'	Coles Select Serviceberry	7m
Amelanchier grandiflora 'Princess Diana'	Princess Dianna Serviceberry	7m
Carpinus betulus 'Globosa' *	Globe Hornbeam *	6m
Crataegus crusgalli 'Inermis'	Cockspur Hawthorn	8m
Fraxinus pennsylvanica 'Leprechaun'	Leprechaun Ash	6m
Magnolia 'Galaxy'	Magnolia Galaxy	7m
Parrotia persica	Persian Ironwood	9m
Parrotia persica "Inges Ruby Vase'	Ruby Vase Persian Ironwood	9m
Stewartia monadelpha	Orangebark Stewartia	8m
Stewartia pseudocamellia	Japanese Stewartia	8m
Styrax japonica 'Pink Chimes'	Pink Chimes Japanese Snowbell	8m
Styrax japonica Snowcone'	Snowcone Japanese Snowbell	8m

*** Nursery must be licensed to sell this variety. Contact City to confirm source.**

Trees shall be 7 cm caliper minimum and single trunked. This list is not intended to be exclusionary, species not included on list may be deemed acceptable by the City. Every species in each category will not necessarily be suitable for every planting situation. Consideration must be given to location, overhead or other restrictions, and growth habit of tree.

CITY OF COQUITLAM PREFERRED STREET TREE LIST

MEDIUM TREES (9m TO 15m HEIGHT)

Botanical Name	Common Name	Height
Acer campestre 'Queen Elizabeth'	Queen Elizabeth Maple	10m
Acer campestre 'Panacek'	Metro Gold Maple	10m
Acer cappadocicum 'Rubrum'	Coliseum Maple	13m
Acer freemanii 'Autumn Blaze'	Autumn Blaze Maple	15m
Acer freemanii 'Scarlet Sentinel'	Scarlet Sentinel Maple	14m
Acer platanoides 'Crimson King'	Crimson King Maple	11m
Acer platanoides 'Deborah'	Deborah Maple	14m
Acer platanoides 'Emerald Queen'	Emerald Queen Maple	15m
Acer platanoides 'Superform'	Superform Maple	14m
Acer truncatum 'Pacific Sunset'	Pacific Sunset Maple	9m
Acer truncatum 'Norwegian Sunset'	Norwegian Sunset Maple	9m
Carpinus betulus	European Hornbeam	13m
Cercidiphyllum japonicum	Katsura	12m
Fagus sylvatica 'Asplenifolia'	Fernleaf Beech	15m
Fagus sylvatica 'Roseomarginata'	Tricolour Beech	10m
Fagus sylvatica 'Swat Magret'	Swat Magret Purple Beech	15m
Fraxinus americana 'Autumn Applause'	Autumn Applause Ash	14m
Fraxinus americana 'Autumn Purple'	Autumn Purple Ash	14m
Fraxinus excelsior 'Golden Desert'	Golden Desert Ash	9m
Fraxinus ornus 'Aire Peters'	Manna Ash	10m
Fraxinus pennsylvanica 'Cimmzam'	Cimmaron Ash	15m
Fraxinus pennsylvanica 'Summit'	Summit Ash	15m
Gleditsia triacanthos 'Halka'	Halka Honey Locust	12m
Gleditsia triacanthos 'Skyline'	Skyline Honey Locust	12m
Magnolia kobus	Kobus Magnolia	10m
Nyssa sylvatica	Black Gum	12m
Parrotia persica	Persian Ironwood	9m
Parrotia persica 'Inges Ruby Vase'	Ruby Vase Persion Ironwood	9m
Quercus accutissima	Sawtooth Oak	14m
Styrax obassia	Fragrant Snowbell	10m
Tilia cordata 'Chancellor' **	Chancellor Littleeaf Linden **	12m
Tilia cordata 'Glenleven' **	Glenleven Littleleaf Linden **	14m
Tilia cordata 'Greenspire' **	Greenspire Littleleaf Linden **	12m
Tilia euchlora **	Crimean Linden **	15m
Tillia tomentosa 'Green Mountain'	Green Mountain Linden	13m
Tillia tomentosa 'Sterling'	Sterling Linden	13m
Zelcova serrata	Japanese Zelcova	15m
Zelcova serrata 'Green Vase'	Green Vase Japanese Zelcova	15m
Zelcova serrata 'Village Green'	Village Green Japanese Zelcova	15m

*** Not acceptable on streets that accommodate street parking*

Trees shall be 7 cm caliper minimum and single trunked. This list is not intended to be exclusionary, species not included on list may be deemed acceptable by the City. Every species in each category will not necessarily be suitable for every planting situation. Consideration must be given to location, overhead or other restrictions, and growth habit of tree.

CITY OF COQUITLAM PREFERRED STREET TREE LIST

LARGE TREES (LARGER THAN 15m HEIGHT)

Botanical Name	Common Name	Height
Acer freemanii 'Marmo'	Marmo Maple	18m
Fagus sylvatica	European Beech	20m
Fagus sylvatica 'Atropurpurea'	Copper Beech or Purple Beech	17m
Quercus coccinea	Scarlet Oak	16m
Quercus robur	English Oak	18m
Quercus rubra	Red Oak	18m
Tilia americana 'Redmond' **	Redmond Linden	16m
Ulmus americana 'Brandon'	Brandon Elm	16m
Ulmus 'Morton Glossy'	Triumph Elm	16m

*** Not acceptable on streets that accommodate street parking*

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CITY OF COQUITLAM PREFERRED STREET TREE LIST

COLUMNAR TREES

These trees are only to be used where conditions restrict broad growth habit

Botanical Name	Common Name	Height
Acer platanoides 'Columnare'	Columnar Maple	9m
Acer platanoides 'Conquest'	Conquest Maple	9m
Acer platanoides 'Fairview'	Fairview Maple	13m
Carpinus betulus 'Fastigiata'	Pyramidal European Hornbeam	11m
Carpinus betulus 'Frans Fontaine'	Frans Fontaine Hornbeam	10m
Fagus sylvatica 'Dawyck'	Dawyck Beech or Columnar Beech	15m
Fagus sylvatica 'Dawyck Gold'	Gold Dawyck Beech or Gold Columnar Beech	15m
Fagus sylvatica 'Dawyck Purple'	Purple Dawyck Beech or Purple Columnar Beech	15m
Fagus sylvatica 'Rotundifolia'	Roundleaf Beach	13m
Populus tremula 'Erecta'	Columnar European Aspen	13m
Quercus palustris 'Green Pillar'	Green Pillar Oak	14m
Quercus robur 'Regal Prince'	Regal Prince Oak	14m

Trees shall be 7 cm caliper minimum and single trunked. This list is not intended to be exclusionary, species not included on list may be deemed acceptable by the City. Every species in each category will not necessarily be suitable for every planting situation. Consideration must be given to location, overhead or other restrictions, and growth habit of tree.

CITY OF COQUITLAM PREFERRED STREET TREE LIST

UNACCEPTABLE SPECIES

Botanical Name	Common Name
Acer negundo	Manitoba Maple
Acer rubrum	All varieties
Acer saccharinum	Silver Maple
Aesculus hippocastanum	Horse Chestnut
Ailanthus altissima	Tree of Heaven
Betula spp.	Birch
Catalpa bignonoides	Indian Bean Tree
Catalpa speciosa	Western Catalpa
Cornus kousa	Japanese Flowering Dogwood
Cornus nuttallii	Pacific Dogwood
Crataegus oxycantha	Hawthorn
Laburnum watereri 'Vossii'	Vossii Laburnum
Liquidambar styraciflua	Sweet Gum
Liriodendron tulipifera	Tulip Tree
Liriodendron chinensis	Chinese Tulip Tree
Magnolia grandiflora	Evergreen Southern Magnolia
Magnolia soulangiana	Saucer Magnolia
Platanus acerifolia	London Plane Tree
Prunus spp.	Flowering Cherries and Flowering Plums
Salix spp.	Willow
Sorbus aucuparia	European Mountain Ash

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Coquitlam
Planning &
Development

3000 Guildford Way, Coquitlam, BC, V3B 7N2
www.coquitlam.ca

Coquitlam

Memo

November 19, 2013

Our File: 13-6480-20/09/1
Doc #: 1574068.v1

To: Jason Cordoni, Supervisor Development Servicing

From: Andrew Merrill, Community Planner

Subject: **Austin Heights Streetscape Standards ADDENDUM**
Streetlight Types

Further to the Austin Heights Streetscape Standards, and in order to reduce ambiguity regarding decorative streetlight configurations in Austin Heights, please see the attached map for clarification on the locations of various streetlight treatments. There are four streetlight treatment configurations:

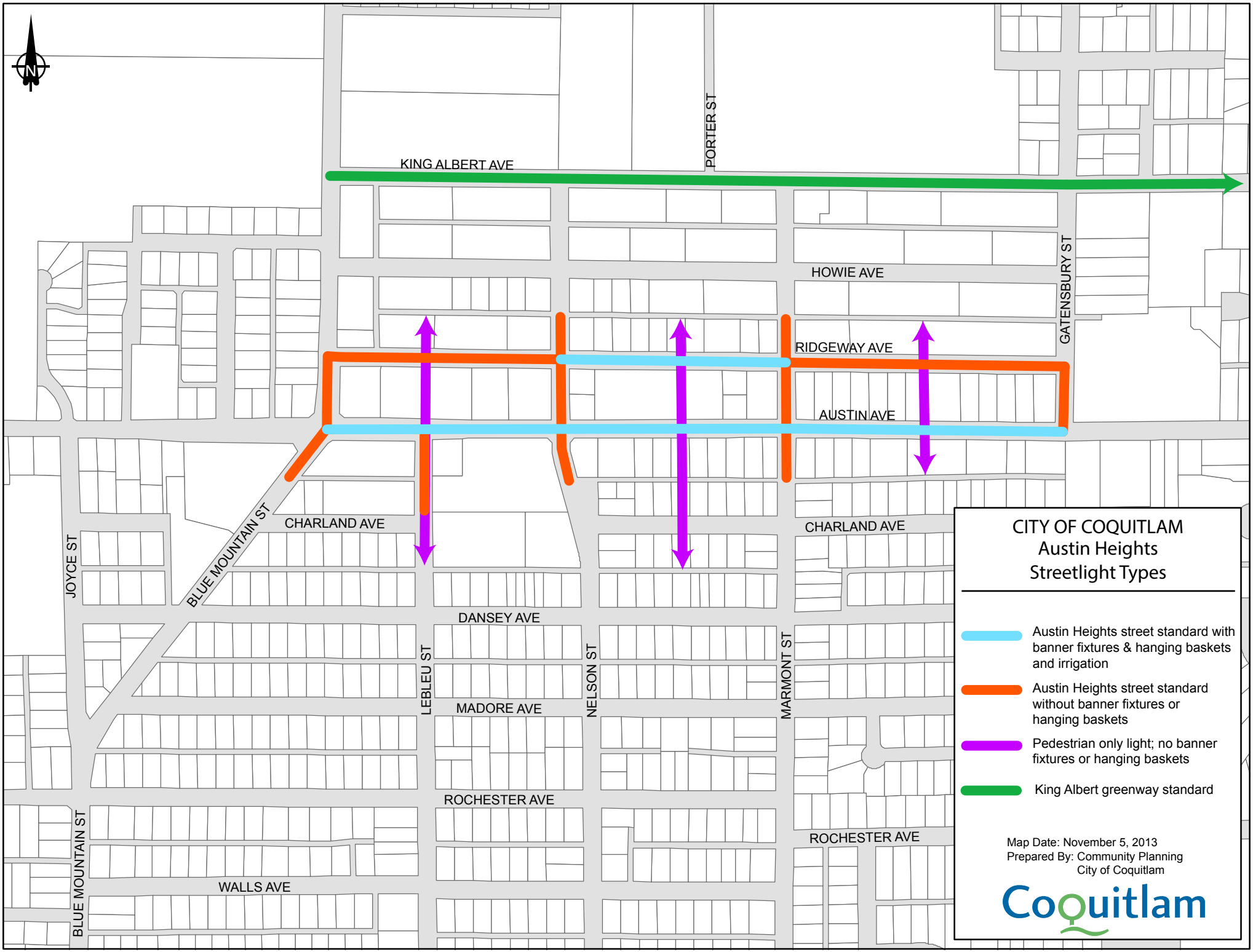
1. **Commercial Core** – The Austin Heights streetlight standard with pedestrian-level lighting, banner fixtures, hanging basket arms, irrigation and receptacles for seasonal lighting.
2. **Commercial Core Flanking Streets** – The Austin Heights Streetlight standard without banner fixtures, hanging basket arms, irrigation or receptacles for seasonal lighting.
3. **Pedestrian Walkways** – Austin Heights standard pedestrian-level lighting only.
4. **King Albert Greenway** – Follow the streetlight standard used for the King Albert greenway.

Please refer to the map (Doc.# 1574120) for specific streetlight locations.

For reference the Austin Heights Streetscape Standards are Doc. # 1118694.

Andrew Merrill, Community Planner

c – Carl Johannsen, Manager Community Planning


N
KING ALBERT AVE
PORTER ST
HOWIE AVE
GATENSBURY ST
RIDGEWAY AVE
AUSTIN AVE
CHARLAND AVE
CHARLAND AVE
JOYCE ST
BLUE MOUNTAIN ST
DANSEY AVE
LEBLEU ST
NELSON ST
MARMONT ST
MADORE AVE
ROCHESTER AVE
ROCHESTER AVE
BLUE MOUNTAIN ST
WALLS AVE
CITY OF COQUITLAM
Austin Heights
Streetlight Types
Austin Heights street standard with banner fixtures & hanging baskets and irrigation
Austin Heights street standard without banner fixtures or hanging baskets
Pedestrian only light; no banner fixtures or hanging baskets
King Albert greenway standard
Map Date: November 5, 2013
Prepared By: Community Planning
City of Coquitlam
Coquitlam

Doc. # 1574120