Appendix D

Parks Development Standards

City of Peterborough

2019

Final Draft

peterborough

Introduction

The Parks Development Standards document is prepared to assist City staff, Landscape Architects, the development industry, City Council members and the general public with understanding and moving forward with the planning and design of new or redeveloped existing parks and open spaces that contribute to the City's overall park and open space system. The Park Development Standards represent current best practices for parkland planning and design and were vetted thorough a stakeholder and First Nations engagement process and guided by a Municipal Review Committee.

The Parks Standards document is a living document that should be updated on a regular basis to keep pace with changes to Peterborough's demographics, new recreation and park trends or to address changes to standards of practice within the broader realm of Park Planning and Design.

Executive summary

The Parks Development Standards are presented in three sections that include Section 1 – Planning for Parks, Section 2 – Design for Parks and Section 3 – Construction Details for Parks. A summary of each section is provided below.

Section 1 | **Planning for Parks**

This section combines current best practices around planning for parks with findings and planning recommendations from the Assessment of Parks and Open Space document (prepared in conjunction with these Standards). It was also coordinated with the City of Peterborough's new 2019 Official Plan sections that pertain to Parkland and Open Space. Recommendations from the Vision 2025 Report (2016) were also used as a guiding document.

Section 1 outlines the five-tiered park classification system consisting of:

1. Regional Parks and Other Open Spaces
2. Community Parks and Other Open Spaces
3. Neighbourhood Parks and Other Open Spaces
4. Pocket Parks
5. Urban Park Spaces (ranging from Urban Community Parks to Connecting Links)

The park classification system (in particular, the five types of Urban Park Spaces) responds to future park needs as future development intensifies in the Downtown and along mixed-use corridors beyond the City core.

Within Section 1, the purpose of each park classification is generally described in terms of the use it serves and the type of typical activities and features within that type of park.

Typical size guidelines are provided along with provision standards that are reflected in ha/1000 of population. For Neighbourhood Parks and Pocket Parks, a service area radius is also identified based on a reasonable walking distance or time to reach a park from residential areas.

The remainder of Section 1 provides planning guidance pertaining to the establishment of new parks within residential areas, using Secondary Plans as a tool for planning and integrating new development "around" predetermined parks, open space systems and natural heritage lands. Planning guidance is also provided in association with sharing park facilities with schools and institutions, green infrastructure, tree and woodlot preservation, parks and storm water ponds and open space management plans.

Section 2 | **Design for Parks**

The Design and Development Standards section focuses on requirements and expectations under two important processes for parkland development. The first is developer requirements for the condition, pre-servicing and physical requirements of lands to be conveyed to the City for the establishment of new Neighbourhood parks. The second area of requirements is associated with types of park features, spatial needs for park features, design process and an implementation framework for design and construction of parks. The design features for each classification of park set out minimum requirements that will bring Peterborough parks to a level of standard that ensures that accessibility, recreational, environmental, community health, and social needs are met in each new or refurbished park. Since the requirements are minimum in nature, flexibility within the design process allows for the addition of other design features that may be deemed appropriate based on the community and/or physical context of a park.

Some key aspects of the Design for Parks section include:

a) The formulation of design features associated with each Park Classification as either anticipated typical features such as in Regional and Community Parks or minimum requirements as identified under the Neighbourhood Parks classification.
b) Developer requirements prior to the conveyance of new parkland that include topsoil, fill and grading needs, storm water and/or sanitary sewer stubs, perimeter fencing, design and construction agreements, and sequencing and timing of construction.
c) Requirements and responsibilities for development, a process for design and construction and established minimum requirements for park features will allow the City to better forecast, budget and manage parkland capital expenditures.
d) The establishment of a design process to ensure that parks are suitably sized and located early in land development phases through to a series of facility fit, conceptual and detailed design plans.
e) A defined community engagement opportunity within the design process.
f) A set of park design criteria and design strategies that will contribute to universal accessibility, crime prevention, sustainability and public health. Technical design criteria

are also included for sport field sizes, orientation and setbacks, parking, playgrounds, water play, surface grading, provisions for shade, tree and shrub planting and walkways and pedestrian circulation.

Section 3 | **Construction Details for Parks**

The intent of Section 3 is to provide a library of standard details that can be used by developers, consultants and City staff during the preparation of tender drawings for new or renovated parks. It is expected that as individual park designs move forward, adaptations and modifications to these details will occur to serve site-specific conditions or expanded design expectations.

There are 71 details that are numbered and labeled for easy access within the document. They may be copied and attached to construction drawings if modification of such details is not required. They are intended to set out the minimum requirements for construction of park features. Any modifications to the details that minimizes dimensions, use of materials, sizes or volumes and types of materials must be approved by the City prior to change.

Examples of typical details include various sport field layouts and associated apparatus, multi-purpose courts, tennis courts, plantings, paving surfaces, curbs, fences and site furnishings.

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Section 1 | **Planning for Parks**

1.0 General Planning and Provision Standards

1.0.1 A Five-Tiered Classification System

City parkland and other public and publicly available open space have been organized into five categories that represent a hierarchy of parks and other open space for the City of Peterborough. Placement in the hierarchy is based principally on:

1. the distance that most visitors travel to make use of/appreciate facilities and features,
2. the level/scale of outdoor and indoor facilities,
3. the degree of uniqueness and/or specialty of facilities, features and other assets (including geological features, built heritage and natural heritage features), and
4. location within the suburban or urban part of the City.

The five categories are:

1. Regional Parks and Other Open Space,
2. Community Parks and Other Open Space,
3. Neighbourhood Parks and Other Open Space,
4. Pocket Parks, and
5. Urban Park Spaces.

The fifth category (Urban Park Spaces) has been developed to respond to the trend toward significantly increasing residential density within Strategic Growth areas – the Central Area and Mixed Use Corridors, as identified on Schedule A – Urban Structure (Peterborough Official Plan). The pedestrian realm network within Strategic Growth Areas will contain a hierarchy of Urban Park Spaces that is unique to these areas.

1.1 Regional Parks and Other Open Space

1.1.1 Purpose of Regional Parks

Regional Parks are intended to accommodate a wide array of opportunities that appeal to people of all ages, abilities and cultures. The unique natural and man-made features and the higher scale of culture and recreation facilities found in Regional Parks attract visitors from across the City and beyond. They can contain museums, clusters of outdoor sport facilities, culture and recreation centres, specialized recreation facilities, venues for large public gatherings and events, marinas, campgrounds, display gardens, beaches, waterplay facilities, playgrounds, and other facilities of a scale and purpose suitable for a Regional Park.

Some Regional Parks assist in protecting and enhancing the image of Peterborough as a 'city in the

country'. They protect natural and historic features from the impacts of development. They act as a buffer for a high-value natural heritage feature, where required. Regional Parks can contribute to the linked open space system, recreational trail network and active transportation system. Regional Parks can restrict development from occurring in areas that are hazardous and in doing so, provide naturally vegetated amenity space for passive recreation and nature appreciation. Typically, this level of park and other open space attracts day-use activities but could include a campground or marina.

Examples include: Del Crary, Beavermead, Ashburnham Memorial, Morrow and Millennium parks.

This category of open space includes: City parkland and other public and publicly available open space with a similar purpose and draw (e.g., County, provincial and federal parkland; post-secondary education lands; Conservation Authority lands; golf courses; the Canadian Canoe Museum; etc.).

Provision Standard for Regional Parks: 1.5 hectares/1,000 population (including natural heritage lands).

Size Guideline for Regional Parks: Generally, these are large parks, but can also be small properties, depending on the focus, features and functions associated with each site.

1.1.2 Planning Guidelines for Regional Parks and Other Open Space

- If the focus of a Regional Park is 'active' recreation, it should be predominantly prime/table land.
- All or part of a Regional park or other 'regional'-scale open space may include a storm water retention feature, steeply sloping (hazardous) lands, waterfront and other natural heritage features – including environmentally sensitive features.
- If a Regional Park is principally or entirely comprised of environmentally sensitive features, the property may be called a nature reserve or similar name (e.g., Loggerhead Marsh, Downers Corners Wetland and Harper Park).
- If a Regional Park is not considered a nature reserve, people should have access to it, it should be appealing to all ages and abilities, and be usable year round.
- Generally, Regional Parks should be highly visible and people should have access to the full range of transportation modes, including public transit and active transportation. Directional signage should be provided on arterial streets throughout the City to indicate appropriate street access to these parks. Where possible, secondary access should be provided along linked public lands for cyclist and pedestrians complete with directional signage.
- New Regional Parks should be designed with a minimum of 25% of the perimeter exposed to arterial or collector streets. Variations will only be considered on the basis of the specific role or focus of the park identified by the Arenas, Parks and Recreation Advisory Committee and/or the 10-Year Strategic Plan for Recreation, Parks, Arenas and Culture.

- Special focus parks should be designed to ensure that activities in certain parts of the park do not detract from the primary focus of the park.
- Where Regional Parks incorporate riverbanks, wetlands, significant woodlots and other environmentally sensitive features, the design of the park should be respectful of and sensitive to these natural features – and prohibit access where appropriate.
- Regional Parks may celebrate and/or acknowledge indigenous placemaking/history.
- Regional Parks that accommodate large public gatherings and sport tournaments should include public washroom facilities, as well as off-street parking facilities, wherever possible.

1.2 Community Parks and Other Open Space

1.2.1 Purpose of Community Parks

Positioned between Regional and Neighbourhood parkland, Community Parks attract visitors from neighbourhoods, across the City, and beyond. Although the focus of Community Parks is typically on higher level outdoor sports facilities (lit and unlit 'intermediate' and 'senior' in scale), they can also accommodate a wide variety of other active and passive culture and recreation facilities and features. They can be partially or completely comprised of natural heritage features. They can also contain large-scale landscape features to enhance urban aesthetics in high profile locations.

Note: Urban Community Parks are primary park spaces within the Urban Park Spaces category. If an existing Community Park is located within the Central Area or a Mixed Use Corridor, it could also be categorized as an Urban Community Park or an Urban Square. Examples include: Confederation Square, Fleming Park and Louis Street Park.

Examples of Community Parks include: Kawartha Heights, Burnham Point, Goose Pond, Hamilton, Jackson, Rogers Cove, Corrigan Hill, King Edward, Inverlea, Nicholls Oval, Sherbrook Woods and Cedar Grove parks.

This category of open space includes: City parkland and other public and publicly available open space with a similar draw (e.g., a secondary school).

Provision Standard for Community Parks: 2.5 hectares/1,000 population

Size Guideline for Community Parks: size can vary from very small to 40 hectares (and larger), depending on role and characteristics. If a Community Park is principally a sports park, the minimum size should be 10 hectares.

1.2.2 Planning Guidelines for Community Parks and Other Open Space

- Generally, Community Parks should be highly visible and people should have access to the full range of transportation modes, including public transit and active transportation.

- New Community Parks should be designed with a minimum of 25% of the perimeter exposed to public streets, preferably arterial or collector roads. Variations will only be considered on the basis of the specific role or focus of the park identified by the Arenas, Parks and Recreation Advisory Committee and/or the 10-Year Strategic Plan for Recreation, Parks, Arenas and Culture.
- It is appropriate for a Community Park to be located adjacent to a secondary school, elementary school or post-secondary education campus - with the sites planned and developed into a joint park/school open space campus where facilities are shared with the community. Sometimes, it is appropriate to similarly share with a place of worship or other compatible land use.
- Community Parks that accommodate public gatherings and sport tournaments should include public washroom facilities, as well as off-street parking facilities, either on-site or in conjunction with adjacent lands, wherever possible.
- Although most Community Parks should be predominantly or entirely prime/table land to support the primary focus on active recreation, some sites (or parts of sites) can incorporate a storm water retention feature, steeply sloping lands and other natural heritage features.
- Ideally, Community Parks should be linked to the municipal and regional trail network, greenway system and the transit system.
- Community Parks should be appealing, people should have access to them, and be useable year-round.
- If a Community Park is not focused on a natural heritage feature or an historic entity, the location should be influenced by criteria such as: direct access to high traffic roads and public transit, as well as being a high visibility property.
- Community Parks can celebrate arts, history and culture.
- Community Parks may celebrate and/or acknowledge indigenous placemaking/history.

1.3 Neighbourhood Parks and Other Open Space

1.3.1 Purpose of Neighbourhood Parks

Neighbourhood Parks are intended to serve the close-to-home social and recreation needs of a neighbourhood or part of a neighbourhood – and to be 'a gathering place for the neighbourhood'. The scale, size and appeal of Neighbourhood Parks and other open spaces and associated facilities should provide opportunities for less organized/structured, passive leisure and social activities, contribute to the aesthetics of the neighbourhood and enhance the connectivity of parkland and other open space.

Examples of Neighbourhood Parks include: Applewood, Barnardo, Brinton Carpet, Chelsea Gardens, Dixon, Edmison Heights, Grove, Mapleridge, Redwood, Roper, Stewart, Wallis Heights

and Wentworth.

This category of open space includes: City parkland; elementary schools; places of worship with usable open space; open space linkages/walkways; and other open space that is similar in scale and draw to Neighbourhood parks - and would complement Neighbourhood parkland.

Provision Standard for Neighbourhood Parks: 1 hectare/1,000 population (principally prime/table land)

Size Guideline for Neighbourhood Parks: 0.5 - 1.5 hectares. Parks of less than 0.5 hectares may be established or retained only where:

- the property may potentially form part of a linear park;
- the property could be merged with an adjacent schoolyard; or
- no alternative public open space opportunities exist within a service radius of 400 metres.

Service Area for Neighbourhood Parks: 400-metre radius (see planning guidelines below)

1.3.2 Planning Guidelines for Neighbourhood Parks and Other Open Space

- Pedestrians (especially vulnerable pedestrians such as children, older adults, and people with disabilities) should not have to cross a busy street (high capacity arterial road) to access a Neighbourhood Park.
- Neighbourhood Parks should incorporate outdoor facilities and features that suit the scale and role of this category of park; therefore unlit, smaller-scale and unscheduled facilities are preferred.
- Neighbourhood Parks should be appealing to all age groups, people should have access to them, and be functional in all seasons.
- Neighbourhood parks should be located so that residents are within 5 to 10 minute walking distance (300-600 metres, depending on walking speed) and not impeded by a significant barrier to safe pedestrian movement. (Note: This point is not included in Draft Official Plan, but will be recommended)
- Neighbourhood Parks shall be linked to the municipal trail and sidewalk systems where provided - and some can be linear in shape.
- For new Neighbourhood Parks, ensure that a minimum of 25% of the perimeter fronts onto a street, and most of the park is visible from the street(s). Variations will only be considered on the basis of the specific role of the park identified by the Arenas, Parks and Recreation Advisory Committee and/or the 10-Year Strategic Plan for Recreation, Parks, Arenas and Culture.
- Although most or all of the Neighbourhood Park site should be prime/table land, preservation and rejuvenation of natural heritage features is encouraged.
- In some cases, it is preferred that a Neighbourhood Park be located adjacent to an elementary or secondary school or high-density residential development and jointly

planned, developed and used as a park-school campus or high-density development amenity.

- Off-street parking is not generally required within Neighbourhood Parks. The City will give consideration for accessible parking, where appropriate, especially in areas where no active transportation network exists or in areas where there is a known high density of accessible housing or older adult population.
- Some Neighbourhood Parks may be able to incorporate low impact development stormwater management features. (Note: This point is not included in Draft Official Plan)
- Neighbourhood Parks may celebrate and/or acknowledge indigenous placemaking/history.

1.4 Pocket Parks

1.4.1 Purpose of Pocket Parks

Pocket parks are small, intensively developed public spaces generally located outside of the Central Area and Mixed Use Corridors, as identified on Schedule A – Urban Structure (Peterborough Official Plan). Note that Pocket Parks within these Strategic Growth Areas are referred to as 'Urban' Pocket Parks.

Pocket Parks located within suburban areas of the City have the following principle purposes:

- To augment the role of Neighbourhood Parks in existing residential neighbourhoods, and
- To improve the public use and appearance of curb extensions and road islands (green streets).
- To serve as traffic calming measures.
- Capitalize on opportunities where other Park spaces are lacking.

Examples of Pocket Parks include: Barnardo and Wolsely (community garden), Oriole Crescent Park, Parkhill and Stewart (Smith Town Hill), Peace Crescent Park and Royal Crescent Park.

This category of open space includes: small City parks; well-developed boulevards and medians (green streets); and other publicly available commercial open spaces within mixed-use areas.

Provision Standard for Pocket Parks: No specific provision standard.

Size Guideline for Pocket Parks: Small, variable sizes based on the urban fabric.

Service Area for Pocket Parks: Generally, within a 2 to 5 minute walk (approximately 150-400 metres) of residents.

1.4.2 Planning Guidelines for Pocket Parks

- Pocket Parks are small spaces, of variable scale based on the adjacent urban form.
- Designed, developed and maintained to support more intensive levels of use than Regional, Community and Neighbourhood parks.
- Pocket Parks should be:
    - attractive and welcoming – and draw people in,
    - useable by all age groups,
    - active or passive in purpose, and
    - usable in all seasons.
- These spaces can celebrate arts, history and culture.
- Pocket Parks may celebrate and/or acknowledge indigenous placemaking/history.
- Pocket Parks should be highly visible, intensively developed and contain facilities and features that complement other nearby parks - and align with the needs and interests of nearby residents.

1.5 Urban Park Spaces

Urban Park Spaces are to be located within Strategic Growth Areas which include the Central Area and Mixed-Use Corridors as identified on Schedule A – Urban Structure (Peterborough Official Plan) where intensified development forms are to be promoted. Urban Park Spaces are pedestrian-friendly spaces that accommodate socializing in a dense urban area. They include both hard and soft landscape elements and are equipped with ample amenities that respond to the needs of the adjacent mixed-use community. It is expected that all of the Urban Park Spaces be acquired, owned, developed and maintained by the City, notwithstanding that there may be opportunities where private ownership options are appropriate. There are two categories of Urban Park Spaces – Primary and Secondary.

1.5.1 Primary Urban Park Spaces

Primary Urban Park Spaces comprise Urban Community Parks and Urban Squares.

1.5.1.1 Urban Community Parks

Purpose

Urban Community Parks are the largest and highest profile component of the Urban Park Spaces hierarchy. They are intended to be the primary focal point of a Strategic Growth Area. They are expected to provide multifunctional flexible space and programming for large-scale social

gatherings, festivals and civic functions, and to accommodate facilities for the entire community. Urban Community Parks may include concert venues, public markets, water play, playgrounds and organized or unorganized sporting activities for all age groups and abilities and are to be developed with the following criteria in mind.

Provision Standard: No Specific provision standard

Size Guideline: Expected to be greater than 8,000 square metres and can be much larger.

Service Area: No specific service area.

Planning Guidelines for Urban Community Parks

- Have frontage on at least two public streets but may be surrounded by public streets where the scale of the park is appropriate.
- Be designed such that they provide 40% of the area of the park in tree canopy by the end of the tenth year after its opening.
- Be primarily soft surfaced and green but may include hard surface elements.
- Some Urban Community Parks may be able to incorporate low impact development stormwater management features. (Note: This point is not included in Draft Official Plan)
- Include substantial programmable spaces such as performance venues, sports fields, courts and playful elements for children.
- Include seating and a full furniture program (e.g., lighting, facilities for dogs, facilities for people of all abilities including older adults, facilities for children and youth, water play features and public art).
- Urban Community Parks may celebrate and/or acknowledge indigenous placemaking/history.

1.5.1.2 Urban Squares

Purpose

Urban Squares are moderately-scaled components of the Pedestrian Realm Network. Urban Squares may provide multifunctional space and programming for social gatherings, festivals and civic functions. Urban Squares are community focal points that should accommodate special features such as public art that adds visual, auditory and textural interest and contributes to placemaking. They are expected to develop with the following criteria in mind.

Provision Standard: Generally, one Urban Square per Strategic Growth Area, but there could be more.

Size Guideline: Expected to be greater than 1,000 metres in size but generally less than 8,000 square metres.

Service Area: Expected to serve the residential population and/or local business community within approximately a ten-minute walk or 800 metres of residents.

Planning Guidelines for Urban Squares

- Have frontage on at least one public street but may be surrounded by public streets where the scale of the square is appropriate.
- Require that adjacent built form have primary and active frontages facing the Urban Square.
- Be designed such that they provide 40% of the area of the square in tree canopy by the end of the tenth year after its opening, with immediate shade at seating areas.
- Be primarily hard surfaced but shall include some soft surface elements. Soft surface elements may include navigational aids, walkway edging, and landscape techniques to delineate between clear path of travel an static zones.
- Include community and civic spaces, as well as performance venues and playful elements for people of all ages and ability.
- Include seating and a full furniture program (e.g., lighting, opportunities for outdoor cafes and restaurants, facilities for people of all ages and abilities, water play features and public art).
- Have regard for universal design, older adults and accessibility for people with disabilities.
- Urban Squares may celebrate and/or acknowledge indigenous placemaking/history.

1.5.2 Secondary Urban Park Spaces

Secondary Urban Park Spaces are to be located within Strategic Growth Areas - the Central Area and Mixed-Use Corridors as identified on Schedule A – Urban Structure (Peterborough Official Plan) where intensified development forms are to be promoted. Secondary Park Urban Spaces are typically smaller than Primary Urban Park Spaces and are generally wholly integrated within/adjacent to buildings. It is the intent that Secondary Urban Park Spaces may be publicly or privately owned.

Secondary Urban Park Spaces are important connectors within the Public Realm Network and provide diversity and interest within the Central Area and Mixed-Use Corridors. Secondary Urban Park Spaces include: Urban Pocket Parks, Sliver Parks, Courtyards and Connecting Links.

Privately owned Urban Park Spaces will only be considered as part of the required parkland dedication of the Planning Act, where the City is satisfied that the park space component can be accesses by all people, has been designed to Provincial and City standards, and is to be maintained to Provincial and City standards. Legal agreements to ensure the long-term satisfaction of these requirements will need to be established.

1.5.2.1 Urban Pocket Parks

Purpose

Urban Pocket Parks are small, pedestrian-friendly spaces that accommodate socializing in dense

urban areas. Urban Pocket Parks are key elements of the inter-connected Public Realm Network. They provide social spaces animated by their adjacent uses such as cafes and shops. Urban Pocket Parks are expected to develop with the following criteria in mind. They are similar to Pocket Parks located with the suburban part of the City but may be developed to a higher standard and intensity to support more intensive use.

Provision Standard: No specific provision standard.

Size Guideline: Urban Pocket Parks are expected to be less than 1,000 square metres in size, but generally greater than 75 square metres.

Service Area: Generally, within a 2 to 5 minute walk (approximately 150-400 metres) of residents, visitors and business within a high density, mixed-use neighbourhood.

Planning Guidelines for Urban Pocket Parks

- Have frontage on at least one public street but may be surrounded by public streets where the scale of the park is appropriate.
- Require that adjacent built form have primary and active frontages facing the park, where appropriate.
- Be designed such that they provide 50% of the area of the park in tree canopy by the end of the tenth year after its opening, with immediate shade at seating areas,
- Be primarily soft surfaced but may include hard surface elements.
- Some Urban Pocket Parks may be able to incorporate low impact development stormwater management features.
- Have regard for universal design, older adults and accessibility for people with disabilities.
- Urban Pocket Parks may celebrate and/or acknowledge indigenous placemaking/history.

1.5.2.2 Sliver Parks

Purpose

Sliver Parks are narrow linear spaces that often front retail spaces and function as a substantially widened sidewalk, creating plazas or forecourts between the face of the adjacent building and street right-of-way. They are extensions of the public sidewalk system. Sliver Parks should be established adjacent to building frontage, wherever possible. Transparent and accessible at-grade uses adjacent to Sliver Parks will help to animate the space, improve safety and encourage use. Sliver Parks are expected to develop with the following criteria in mind.

Provision Standard: No specific provision standard.

Size Guideline: Small, variable sizes based on the urban fabric.

Service Area: No specific service area. Sliver Parks will be provided where appropriate.

Planning Guidelines for Sliver Parks

- Require that adjacent built form have primary and active frontages facing these open spaces.
- Be primarily hard surfaced, with limited planting and soft surface elements.
- Be flexible to accommodate spill out retail space, as well as outdoor cafes and restaurants.
- Have regard for walkway clear path of travel and edge detection on the sidewalk zone for people with disabilities.
- Sliver Parks may celebrate and/or acknowledge indigenous placemaking/history.

1.5.2.3 Courtyards

Purpose

Courtyards are interior or exterior spaces that are surrounded by buildings, and are lined with small stores, restaurants and outdoor cafes. They promote a high standard of quality and pedestrian comfort. Courtyards should contribute to the logical wayfinding system and help to establish a fine-grained Pedestrian Realm Network.

Indoor and outdoor Courtyards are sometimes public spaces but are often privately owned and can be accessed by the public. Although they enable pedestrians to travel through the community quickly and easily, many are destinations unto themselves with seating, restaurants and retail frontages, and public art. They provide valuable opportunities to improve connections between the public sidewalk system and the other components of the Pedestrian Realm Network. Courtyards are expected to develop with the following criteria in mind.

Provision Standard: No specific provision standard.

Size Guideline: Small, variable sizes based on the urban fabric.

Service Area: No specific service area. Courtyards will be provided where appropriate.

Planning Guidelines for Courtyards

- Have several egress opportunities to the public sidewalk system, building walkway network, and multi-use trail network, where applicable.
- Require that adjacent built form have primary and active frontages facing the courtyard space.
- Have a combination of high quality landscaping and hard surfaces.
- Have regard for older adults and accessibility for people with disabilities. A majority of a courtyard surface area may be static zones for pedestrian realm, but shall include a walkway network that ensures a clear path of travel is maintained, through use of surface patterns, colours, textures and edge detection as appropriate.
- Courtyards may celebrate and/or acknowledge indigenous placemaking/history.

1.5.2.4 Connecting Links

Purpose

Connecting links are outdoor walkways that may be linked with small stores, restaurants and outdoor cafes. These spaces are sometimes public spaces but are often privately owned spaces that the public can access. Although they enable pedestrians to travel through the community quickly and easily, many are destinations unto themselves with seating, restaurants and retail frontages, and unique public art. Connecting Links provide valuable opportunities to improve connections between the public sidewalk system and other components of the Pedestrian Realm Network. They will play an important role in creating a logical wayfinding system and assist in the establishment of a more beautiful and inviting Pedestrian Realm Network within Growth Areas. Connecting Links are expected to develop with the following criteria in mind.

Provision Standard: No specific provision standard.

Size Guideline: No specific size guideline. See Planning guidelines below.

Service Area: No specific service area. Connecting Links will be provided where appropriate.

Planning Guidelines for Connecting Links

- Be provided in high pedestrian volume areas, for easy of movement, as well as the creation of unique urban spaces.
- Be located between pedestrian destinations and may become destinations themselves.
- Have opportunities for retail along their length, or alternatively, a green, soft landscape treatment with plantings and lighting.
- Be safe and secure with adequate lighting.
- Width should consider scale of adjacent buildings.
- Connecting Links may celebrate and/or acknowledge indigenous placemaking/history.

1.6 Parkland Within Residential Developments

1.6.1 Secondary Planning for Parks and Other Open Spaces

Secondary Plans are prepared and administered by the City or their consulting representative. They are required under the Official Plan and provide more specific policies allowing for a comprehensive study of the land uses in a secondary plan area.

They are essential to a coordinated planning approach for the secondary plan area and initiating detailed policy guidance around Parks and Open Spaces. Secondary Plans may be prepared for new developments in the outlying areas of the City, as well as in older neighbourhoods, the Central Area and Mixed Use Corridors.

It is widely recognized that public health, ecological diversity, environmental, social and cultural systems within cities are all benefactors of a well-planned and connected Park System. For the purposes of park planning and development, Secondary Plans shall provide a structure and plan for important parkland requirements such as improving City-wide green space linkages, parkland connectivity and equity, natural heritage preservation, historical recognition, recreation and culture facilities and appropriate distribution of all the City's Parkland Classifications.

During the initiation of Secondary Planning, the City shall prioritize the establishment of a land-based framework of Natural Heritage features (if present), potential parkland linkages external to the Secondary Planning area and effective community connectivity to parkland within the Secondary Planning area. Road systems, commercial areas, educational facilities and other land uses shall be laid out respecting the Parks and Natural Heritage framework in a way that may further contribute to open space linkages, trails and active transportation.

1.6.2 Development Dedication

Developers will convey parkland to the City in accordance with provisions of the Planning Act and Official Plan. There shall be no physical encumbrances on the land. Easements in favour of and under the control of Utility Companies or Commissions present limitations on the land within the easement for park uses and as such shall not be considered as a part of the calculation of land dedication for park purposes.

Parkland sites shall be of appropriate shape, configuration, size and topography to accommodate the intent of the use for each parkland classification. Parkland shall be of sufficient size and configuration so as to satisfy the standards for grading, drainage, facility setback, fencing and other requirements needed to supply the recreation and cultural facilities required by the City within the development area.

In specific cases within subdivision and site plan development, condominiums and consents, the City at its option and discretion may negotiate an alternative of cash-in-lieu of parkland dedication (in accordance with the provisions of the Official Plan, the Planning Act, the City's Cash-in-lieu of Parkland By-law, or any future Community Benefit By-law) for the acquisition of lands for park purposes elsewhere within the City.

1.6.3 Location of Parkland and Spatial Layout for Parks

Parkland will be consolidated a location deemed most equitable and appropriate by the City for the population it is intended to serve, in the interest of good community planning and the preservation and integration of the natural environment regardless of the disposition of land ownership. Parkland as a result may become a joint conveyance from two or more ownerships. In such instances where multiple landowners are involved in the conveyance of a park, the owners are to attempt to reach agreement as to their cost-sharing and performance obligations under the development agreements or other planning requirements of the City with regard to the

conveyance; thereby avoiding the need for mediation from the City in this regard.

1.6.4 Acquisition of Parkland

If land required for a park and its anticipated program exceeds the available parkland dedication from development under policy, the City may choose to acquire the balance of land needed, ensuring that the park location and configuration satisfies the City's standards for facility layout, setbacks, and orientation. Such land will be subject to the same performance standards as the surrounding conveyance and developers shall be responsible to ensure the lands are free of encumbrances, fully prepared as described herein and in a condition acceptable to the City. The City will acquire such lands in fair and reasonable manner in consideration of policy, market value for un-serviced developable land and open negotiations with ownerships.

1.6.5 Conveyance and Registration

The timing of conveyance of parkland in accordance with the Planning Act will be stipulated in the Development Agreement. The City will typically require conveyance be made to the City during registration of the first phase of a subdivision. Condition of the land to be conveyed shall be as described herein or as stipulated in the Development Agreement. If as a matter of necessity, and with the agreement of the City, conveyance is to occur later in the development process, the City will secure a letter-of-credit for the value of lands to be conveyed. Where possible, the Development Agreement is to identify development sequencing and the developer shall to the best of their ability, supply the City with an approximate schedule of timing for the development to allow the City to forecast capital investments and manage expenditures and updating of financial planning under the Development Charges By-law.

1.7 Schools and Park Development

1.7.1 Sharing of Facilities

Where deemed advantageous and appropriate in community planning, the City will endeavour to site parks and schools together in a campus layout for the benefit of continuity of public land uses, efficiency in layout of structured recreational facilities, parkland and green space connectivity, and for the purposes of integrating or sharing facilities wherever practicable. The City will consider the size of applicable parkland in the potential relationship with adjoining school facilities.

The City promotes the efficient utilization of publicly controlled parks and open spaces. In recognition of the efficiencies of joint use and campus design, the City encourages avoiding the installation of boundary fencing or other physical barriers at park/school boundaries; except trees and/or other naturally occurring features, where appropriate. Design of such campuses through site plan control and park design shall be developed to avoid unnecessary duplication of drainage

and grading features between adjoining sites; creating an integration of design for structured recreational facilities and site features and amenities. In such planned campuses, consideration shall be given to allow the park to be developed independently should the applicable School Board decide not to develop a school at its option. Such parks may be reconsidered by the City as to their role and function within the community area upon clear notice that a school shall not be developed. Planning for parks is to anticipate this eventuality and the disposition of school sites within a plan of subdivision may include options for full or partial acquisition by the City contingent upon conditions and terms of the development agreement. Costs for such land will be determined based on the market value of the land at the time of executing the development agreement.

1.7.2 Relationships and Layout

To further the objectives for efficient utilization of publicly controlled land and open spaces, the City encourages its agency partners to consider joint use of public lands and assets. Where deemed to be in the best interest of the parties, the City and School Board may choose to share facilities across a common boundary within a park/school campus to provide operational and program advantages to each agency. In such instances, the City and School Board may establish a mutual agreement for the purposes of negotiating the costs of capital development and future maintenance of such shared facilities. Such agreements shall ensure clarity for the parties with regard to land dedication and capital investments as they may pertain to Development Charge funding and park development. The City will encourage joint use of park/school facilities where there is no obvious interference with normal site function for either party. Joint use is considered as an advantage to the community as a whole; increasing usable green space for residents while limiting the need for repetitive facilities, particularly in paved areas for parking and recreational play-court facilities. In principle, no permit cost will be charged between the parties for shared facility usage except if the costs of grounds maintenance and repair are unduly affected for one of the agencies. Such mutual agreements shall consider insurances and liabilities and the maintenance implications of the campus. It is suggested that such agreements be reviewed and modified from time to time as may be required to ensure fairness for the parties and the reasonable management of operating costs.

1.8 Green Infrastructure

1.8.1 Function of Green Infrastructure

Green Infrastructure Ontario defines green infrastructure as “natural vegetation and vegetative technologies that collectively provide society with a broad array of products and services for healthy living”. Green infrastructure takes on many forms and includes such things as urban forests, greenways, wetlands, storm water facilities, bio-swales, rain gardens, green roofs and

permeable paving. Unlike traditional "grey infrastructure", green infrastructure provides economic, social and environmental benefits to a community and helps to reduce costs and the growing maintenance pressure placed upon traditional infrastructure.

1.8.2 Park Features as Green Infrastructure

By their nature, most municipal parks form an important component of green infrastructure. Beyond the presence of trees and open-space, park designs can contribute a greater role to a community's green infrastructure system. Planning and design for new parkland will take into consideration green infrastructure opportunities associated with reducing storm water flows away from the site and diverting such flows into infiltration trenches, rain gardens, permeable paving, etc.

1.9 Tree Preservation

1.9.1 Intent

Draft Approved Plans of Subdivision may contain tree preservation in conjunction with a Park Block or Open Space. Tree preservation measures shall ensure significant trees and woodlot units that hold value to the community through their inherent ecology, species diversification or potential contribution to future park designs, are not put at risk prior to preparation of Park Plans.

1.9.2 Tree Survey and Preservation Plan

The City's Tree Bylaw will govern lands subject to development. Owners of such lands shall be required to submit a Tree Preservation Plan and Arborist's Report for tableland forest units, or individual trees, within or adjoining the park lands. Tree Preservation Plans and Arborist's reports shall clearly indicate the specific measures and practices required from the owner and its agents for the effective preservation of trees and forest units identified for practical preservation in the post development scenario.

Tree Preservation Plans are to be produced prior to engineering grading and servicing designs for the lands in order that engineering for the lands does not unduly prejudice the ability to effectively preserve trees and woodland units of significant value to the community. Tree Preservation Plans shall be produced in accordance with applicable City policy documents and the requirements and conditions of the Draft Plan of Subdivision or Site Plan Approval processes and any applicable policies of the Conservation Authority. Pre-servicing or construction activity within a development plan may proceed only with approved Tree Preservation Plans in place and shall be conducted with regard to and in conformity with the approved Tree Preservation Plans.

Prior to the start of any type of construction activity for the development of the lands, tree

preservation measures as described by the approved Tree Preservation Plan shall be installed, and inspected and approved by the City. Preservation measures and fencing are to be routinely inspected and repaired/replaced as required for the duration of the construction process.

1.9.3 Tree Loss Compensation

The City will require compensation for the removal or damage to trees identified for preservation or in compensation for development where clear cutting of tableland forest units is required. Compensation will be provided under the in accordance with applicable City By-laws.

Compensation for tree removal that enables the development of a property will be evaluated on a case-by case basis, reasonably considering variables of density, species, area in question and quality of trees affected. The City may request or require that trees removed or damaged be compensated within public initiatives for re-forestation and rehabilitation of natural landscape areas within the City.

1.9.4 Maintenance, Acceptance and Conveyance of Trees and Woodlots

Prior to acceptance of a tree preservation area by the City, the developer will convene site inspections with City Staff to ascertain the extent of required arboriculture work, hazard tree removals and what general maintenance work is required for acceptance. This may include hiring the professional services of a Certified Arborist for pruning of dead branches, removal of hazard trees identified as risks to people or property, site clean-up of all debris and garbage, and removal of any other hazards identified. Completion of such works shall be considered in the release of letters-of-credit for a Subdivision or Site Plan. The tree preservation area will be conveyed and assumed by the City only after inspections and acceptance for compliance with City standards.

These arboriculture standards are to also be applied to preserved vegetation that will be retained in private ownership through site plan or subdivision plan development. The continued maintenance and monitoring of such private preservation areas shall not be the responsibility of the City at any time before, during or after the development process.

1.10 Parks and Storm Water Management Facilities

1.10.1 Stormwater Ponds, Detention and Attenuation Features

Stormwater management facilities required for new developments shall not be acceptable as parkland dedication under the Planning Act and Official Plan. As such, stormwater ponds or extended detention facilities shall not be located within the boundaries of lands conveyed as tableland parks. Stormwater facilities are a function of the civil engineering of land development and shall occur on lands intended specifically for such purposes. Engineering requirements of the

City and Conservation Authority shall define the land requirements and location for such facilities. Ponds are commonly located in close proximity to residential lands and as such may form part of a continuous open space system adjoining park facilities. In such instances, care shall be taken in the design and sizing of pond blocks to assure that any required grade transition areas do not offer undue risk to park users.

1.10.2 Overland Flows and Utility Easements

If no other stormwater management alternatives are available, and at the developer's expense, storm water controls such as overland flow routes may be accommodated within parks with the approval of the City. Such requirements will be accommodated where they will not compromise the full use of the park program as planned by the City, and offer no risks to park users in the routine use of the park and its facilities. All recreational facilities must be uninterrupted and outside of regulated hazard and flood plain lands. If overland flow routes cannot be accommodated without compromising the use of the park, the developer will be required to amend the plan of subdivision to consolidate additional lands with the park to satisfy both requirements. Should there be no other engineering design solutions; and underground sewer systems or other utilities be required to pass through the vicinity of the parkland, alignments will be reviewed and approved by the City for conformity with the park design program. Where amendment to the plan of subdivision proves unworkable, such lands encumbered by the presence of the utility or easement shall be deducted from the calculation of dedicated parkland and compensation provided to the City based upon the market value of serviced land.

1.10.3 Passive Recreational Uses

Stormwater ponds adjacent to parks should be integrated into the park development with a trail network that incorporated shade, rest areas, and interpretive panels as appropriate. Stormwater management facilities are viewed as open space assets to the community and are to be designed as an integral part of the public land system of open spaces.

1.10.4 Natural Areas and Stormwater Ponds

Ponds are to be designed as naturalistic landscapes utilizing native plant materials and planting designs that emulate the natural environment of local plant communities. Where ponds are a continuation of adjacent natural landscapes, they shall be designed to extend any readily apparent natural system of forest or meadow community. Where the edges of an existing habitat are dominated with invasive or exotic species of plants the development of the pond shall ensure the removal of such species and the replacement of foreign vegetation communities with native or a non-invasive horticultural varieties for the purpose of rehabilitation of the land.

1.10.5 Urban Park Spaces and Stormwater Ponds

When stormwater ponds are situated within an urban area of high visibility within the streetscape, their design will provide a complementary design with high quality of aesthetics and present a visual benefit to the community. The shared boundary of the pond and street shall feature a safe and manageable grading with slope steepness of 5:1 or less. Designs of this type of pond shall still be dominated by native selections of plants and will provide the opportunity for the integration of streetscape features, community theme elements and trail connections within the Urban Park Spaces Category.

1.10.6 Stormwater Ponds and Park Maintenance

All pond designs are to be developed with an emphasis on sustainable design utilizing locally available and recycled materials wherever possible. Staking and fasteners for tree support shall be of wood and biodegradable materials. Ponds are intended to appear and function as a natural landscape and are to be designed to minimize maintenance requirements for the City. While the recreational use of any parkland surrounding stormwater ponds are considered a public resource, recreational use of the ponds themselves will be discouraged for public safety reasons. The interface between parkland and storm water ponds will be clearly defined in park designs in a way that separates traditional park maintenance practices such as lawn mowing from the management of the natural landscape features of the storm water pond. City approved warning signage will be supplied by the developer and posted upon the initial excavation of the pond.

1.11 Open Space Management Plans

1.11.1 Characterization of Open Spaces and Natural Heritage Features

Natural Heritage features may occupy a part of a park or open space area. Where identified such information will be utilized during the preparation of the Park and Open Space components of a Secondary Plan. When such Natural Heritage features fall within a Secondary Plan, the identified feature and any connecting open space shall be further analyzed and characterized by an independent Ecologist or environmental firm to determine the presence of species at risk, the ecological function, contribution and value of the Natural Heritage Feature and/or the open space. This analysis will be used to inform the extent of open space and/or Natural Heritage Features to be retained and protected within a Secondary Plan.

1.11.2 Preparation of Management Plans

When a Secondary Planning process determines open space areas to have high ecological value or

Natural Heritage designation, the City should retain an independent Ecologist or environmental firm to prepare a Management Plan for the open space. The management plan would identify the rationale for management, delineated area for management, and a management work plan and tasks over a prescribed period of time. The management plan would identify protection measures to be carried out by developers during construction activity and post development protection and monitoring measures to be administered by the City. Open Space Management Plans should be prepared prior to any development plans to inform the planning of draft plans of subdivision and site plan applications regarding preservation, protection and management measures during and after land development.

Section 2 | **Design for Parks**

2.0 Design and Development Standards for Parks

The following section describes the general requirements of the developer regarding the condition, pre-servicing and physical development of lands to be conveyed for parkland. These requirements are further to any conditions and requirements identified in development agreements and their schedules, site plan agreements, Zoning By-laws, along with those required as a component part of the Development Charges By-law. If requirements overlap or vary, the City will determine what requirements will be required for development on a case-by case basis.

2.1 Design Features by Park Classification

As general conditions for all Parks and open spaces designed by, or on behalf of the City each park classification will include common elements associated with the City's image and approach to park design. Common elements will include park identification signage, trail markers and information and regulation signs as identified in the City's sign by-laws. At a minimum, all parks will include low impact design (LID) solutions and sustainable design practices for energy consumption, bio-diversity and storm water management, where appropriate.

Parks may include, some or all of the features identified in the following park categories. At the discretion of the City, additional features may be added to parks as deemed appropriate, and therefore, features may not necessarily be limited to the following:

2.1.1 Regional Parks and Other Open Spaces

Any features or facilities described under the sub-sections for Neighbourhood and Community Parks may apply to a Regional Park depending upon the nature of the park and its purpose within the overall parks and open space system. Regional Parks can be a variety of sizes and have varying purposes depending upon their context and intended use. Facility requirements, features and design standards will be determined on a case-by case basis at the beginning of the park design process.

Since Regional Parks are intended to attract visitors from across the City and beyond, many of their facilities, features and attributes will be widely appealing; higher and larger in scale; specialized in nature; and specific to their location, history and the physical characteristics of each site.

2.1.2 Community Parks and Other Open Spaces

1. Sports fields for Senior and Junior Play - including soccer pitches, cricket pitches, softball or baseball diamonds complete with features and furnishings such as backstops and boundary fences, goal posts, players benches and spectator bleachers.

2. Any combination of 2 or more major athletic facilities including: baseball, softball, soccer pitches, lacrosse, tennis courts, bowling greens, cricket pitches or other structured sport facility.
3. Public art or historical display features.
4. Shaped landforms, berms and drainage swales.
5. Areas of tree or natural heritage preservation or rehabilitation planting.
6. Planting design of trees and shrubs to provide: a target of 30% shade, buffering views and activities, defining activity areas, bolstering bio-diversity, and celebration of the Indigenous peoples landscape values.
7. Junior (18 months to 5 years) and senior (6 years to 12 years) playground elements or adult exercise equipment with a clear emphasis on barrier-free design.
8. Water splash pad or other water play feature to serve a broader community area.
9. Basketball, pickleball and hard surface multi-purpose courts.
10. Gazebos, picnic shelters or other seasonal structures.
11. Field houses/washroom buildings.
12. Indoor Recreation Facilities and required parking facilities.
13. Parking on site and/or in combination with an adjoining school or other compatible facility.
14. Three-Phase Electrical Supply.
15. Walkway lighting and lighting for security at park structures.
16. Floodlighting of major athletic facilities.
17. 150mm water supply line, utility building for irrigation and water play infrastructure.
18. Sanitary sewer service to park buildings.
19. Landmark features of park architecture.
20. Large areas of unstructured parkland or natural landscapes linked to the surrounding community and open space system
21. Trail heads and trail connections to the interconnected trail network
22. Walkway network to link buildings, amenities, trails, sidewalks, transit stops, and parking lots, where applicable.
23. Bottle filling stations may be provided.
24. Regards for older adults and accessibility for people with disabilities.

2.1.3 Neighbourhood Parks and Other Open Spaces

Neighbourhood Parks are smaller than most of the Regional and Community Park, but are the most frequent park type throughout the City. Due to the quantity and wide distribution throughout the City, Neighbourhood Parks are also the most visible and easy to access. Since

these parks have evolved over time as new housing and Neighbourhoods are developed, they are subject to great variation in design, type of facilities and overall quality and appeal. The City of Peterborough has recognized the need for identifying consistent minimum design and facility requirements for both new and existing Neighbourhood Parks. Establishing minimum design requirements for this category of park will help the City deliver accessible, high quality and inclusive Neighbourhood Parks. To achieve this, the Neighbourhood Park Category has the following set of minimum requirements for design and facilities:

1. Park pathway linkages to park features from existing or proposed sidewalks and trails - with accessibility compliant hard surfaces.
2. Junior (18 months to 5 years)/senior (6 years to 12 years) play area(s) with accessibility features.
3. Nature-inspired play areas.
4. Passive open grassed areas for unstructured multi-use activities
5. Low impact stormwater infrastructure design features.
6. Preservation of pre-existing significant natural areas or Natural Heritage Features.
7. Shade tree and low shrub planting with an overall target of 50% shade cover within the park. Include the use of some species with significance to local First Nation Peoples.
8. Shaded play and play observation seating areas
9. Sitting / seating / socializing area with accessibility features.
10. Multi-generational design features.
11. Park sign visible from street.
12. Municipal fence between park and residential properties.
13. Garbage / recycling and needle drop containers located along pathways.
14. Shade structure.
15. Min. 25% street frontage.
16. Single-phase electrical supply source.
17. 50mm diameter water service stub.
18. Sub-surface storm and sanitary sewer system stub.

In addition to the above minimum requirements, Neighbourhood Parks may also contain the following variable park features and facilities:

1. Walkway lighting
2. Adult outdoor exercise equipment
3. Multi-purpose sport pad for basketball and other sports
4. Natural skating rink
5. Community garden (vegetable or sensory)
6. Areas of tree preservation and/or rehabilitation

7. Entrance / gateway feature
8. Small-scale water play feature (with optional accessible parking)
9. Public art / historical / interpretive features
10. Shaped landforms, berms, and drainage swales
11. Reinforced turf maintenance access
12. Minimum 20% accessible picnic tables (where tables exist)
13. Mobility aid charging stations

2.1.4 Pocket Parks

Pocket Parks are typically small areas of land typically located within a road right-of-way and comprised of traffic islands or remnant, irregular areas of land near road intersections and trail corridors. They are spaces that can contribute to the quality of a streetscape, enhancement of the urban tree canopy and opportunities for community gardens for either food production or beautification.

Features and design standards will be determined on a case-by case basis at the beginning of the design process with the following design standards as a guide:

1. Placement of features shall not encumber roadway safety and visibility.
2. Emphasis shall be placed on green infrastructure opportunities to support source-control stormwater management through rainwater infiltration.
3. Planting designs to help bolster the urban tree canopy.
4. Designs will be low maintenance.
5. Accessible benches and small paved areas may be introduced in locations that are safe from automobile traffic and snow clearing activities.
6. Community-initiated gardens may be permitted in Pocket Parks with approval by the City.
7. Public art may be located in Pocket Parks.

2.1.5 Urban Park Spaces

Urban Park Spaces includes a broad range of park sizes and conditions all with the common context of being located in the Central Area and Mix Use Corridors. Urban Park Spaces include urban community parks, urban squares, urban pocket parks, courtyards, sliver parks and connecting links. Some Urban Park Spaces may be owned in whole or in part by a private entity based on development agreements with the City. As population grows in the Central Area and Mix Use Corridors, the demand and need for Urban Park Spaces will necessitate land and development agreements that generate vibrant, social, cultural and environmental pedestrian realm spaces.

Features and design standards will be contextually and functionally specific and determined on a

case-by-case basis at the beginning of the park design process. Some basic design features and approaches for Urban Park Spaces include the following:

1. Emphasis shall be placed on green infrastructure opportunities to support source control stormwater management through rainwater infiltration.
2. Planting designs to help bolster the urban tree canopy and diversity.
3. Accessibility-compliant decorative paved areas that provide seating, socializing and gathering areas.
4. Lighting for safety, aesthetics and evening use of Urban Park Spaces.
5. Pedestrian linkages that support easy and safe movement through the urban environment.
6. Public art installations and water features.
7. Wayfinding signage and interpretive opportunities.
8. Provision of bicycle parking and bike share opportunities.

2.2 Developer Requirements and Condition of Land Allocated for Parks

1. Lands designated for future open space or parkland will not be used for the purposes of temporary stockpiling or storage of earth, construction supplies or trailers, debris or any other materials without express permission of the City.
2. The developer will ensure that over the course of development, lands allocated for parks or open space will possess suitable soil conditions for development purposes and be free from compaction, contamination and buried debris or garbage.
3. Future parkland and open space will not be used for the erection of advertising signage.
4. When designated parklands have been pre-graded and pre-serviced, they shall be defined and protected at their boundary with a post and wire fence and signage approved by the City.
5. At completion of pre-grading, the developer is to provide a survey plan to demonstrate that the park pre-grades conform to the geodetic elevations of the subdivision engineer's grading and drainage plans.
6. The survey will be prepared by a registered Ontario Land Surveyor and will identify the as-built topographic condition of the park complete with 0.25 meter contour lines and a local benchmark.
7. The City and developer shall coordinate subdivision and park construction activity to minimize disturbances to the park and adjacent residents.
8. Every effort should be made to ensure that park design, development and construction occurs immediately upon completion of the developers pre-grading.

2.2.1 Topsoil, Fill and Grading Requirements

As a condition of the Development Agreement, the developer will provide adequate and suitable topsoil for park grading as described in this section. Prior to pre-grading of the park by the developer, the full depth of existing topsoil will be stripped. Topsoil stripping is to occur in a logical sequence with the balance of the subdivision or phase. Topsoil, in the quantities required to re-establish the entire park to depths of not less than 200 mm and up to 300mm shall be conserved and made available for the final grading during park construction. Topsoil conserved for the park is to be tested and submitted to the City by the developer to ensure suitable fertility and composition. The developer will be responsible to ensure that sufficient quantities of approved topsoil are available within 2km of the site for construction of the park. The developer is to provide a final sub-grade profile to match the subdivision Grading Plan with sufficient stockpiled topsoil for future park construction.

Topsoil and Grading requirements for developers of Urban Park Spaces will be identified on a case-by-case basis, taking into consideration the local context, proposed development and the proposed park use.

2.2.2 Requirement for Services

Stormwater inlet drop structures shall be provided at each road frontage of the park block. These structures shall meet the most recent Ontario Provincial Standard Details (O.P.S.D.) for the construction of manholes or manhole/catch basins. Invert elevations for these structures and the connections to the local storm sewer system shall provide efficient drainage for the entire block of parkland below frost levels. The park, in its pre-grade condition, will be drained with inlet structures as needed for each catchment area within the park block. If pre-grade drainage structures are not sufficient to drain the parkland, additional drainage structures and connections shall be the responsibility and cost of the developer. The developer will also be responsible for providing service for sanitary, electrical and water supply 1.5 metres into the park property for each park classification as follows:

1. Regional Park: a sanitary sewer manhole chamber and stub; a 150mm diameter water supply line and 3-phase electrical power. If the City Park has more than one street frontage, service locations will be confirmed with the City.
2. Community Park: a sanitary sewer manhole chamber and stub; a 150mm diameter water supply line with curb-stop and 3-phase electrical power. If the Community Park has more than one street frontage, service locations will be confirmed with the City.
3. Neighbourhood Park: a 50mm diameter water supply line and a single-phase electrical supply line from a local transformer. Services will be stubbed and marked on site with a permanent monument.
4. Pocket Parks: a 50mm diameter water supply line and a single-phase electrical supply line from a local transformer. Services will be stubbed and marked on site with a permanent monument.

5. Urban Park Spaces: Services for Urban Park Spaces will be considered on a case-by-case basis taking into consideration the local context, the development conditions that support the park and the intended park uses. When such information is not available, the servicing requirements shall align with the equivalent Regional, Community, Neighbourhood or Pocket park categories.

The above servicing for parks is to be considered part of the overall subdivision or development servicing plan. Detailed drainage requirements within parks will be determined during the park design stage. Costs for such stormwater engineering works are to be entirely attributable to the developer in the development of the lands.

If detailed servicing designs are complete for a park block and the developer has not yet constructed services around the parkland, the City and developer will explore the potential cost efficiencies for the municipal services related to final park construction. The developer may be requested to co-ordinate construction of the entire services system and construct the park-related servicing work in conjunction with general subdivision or development servicing - if considered cost-effective for the City. The costs for such City works are to be submitted to the City for approval prior to the specific construction activity. The City will reimburse the developer for the parkland portion of servicing costs that are the City's responsibility after inspection and acceptance of those services by the City.

2.2.3 Perimeter Fencing

Beyond the installation of temporary protective fencing around park and open space blocks, the developer shall as a minimum pay for and provide a 1.8 metre (6 ft) high black vinyl coated chain-link fence to the specifications set out in detail CPD-303 of this document. The fence shall be installed around the perimeter of the park along shared property lines with adjoining residential or commercial properties.

If needed, the type of perimeter fencing in any categories of Urban Park Spaces will be determined on a case-by-case basis.

2.2.4 Letter of Credit and Acceptance of Parkland

As a guarantee of performance to complete the above-referenced requirements, such work will be identified in the provisions of the subdivision or development agreement and the value of the works described in the applicable schedule/section of the agreement. The City shall secure from the developer a letter of credit for the value of all work described above in this section and for any additional requirements identified in the development agreement. The letter of credit will be based on a cost estimate prepared by the developer's consultants and reviewed and approved by the City. The City will assume responsibility for the park at such time as the parkland is ready to be constructed by the City.

2.2.5 Agreement to Design and Construct by Developer

It is the intent of the City to retain consultants for park design drawings and to issue tenders for construction of parks. Under certain circumstances, the City may wish to enter into an agreement for the early delivery of parkland if it is deemed mutually advantageous to both the subdivision developer and the City. In such cases, park construction will be treated as any other Municipally-approved subdivision construction. The developer will be expected to deliver a park plan to the approval of the City and complete the construction to a set of City-approved technical drawings, specifications and standards. The construction tender and contract process shall be open, and the City reserves the right to review and approve the award of the park construction tender. An agreement will be prepared, and a letter-of-credit will be secured from the developer to ensure a timely completion and an acceptable level of workmanship suitable to the City.

2.2.6 Construction Budgets for Parks

The City will develop capital budget forecasts for park construction based upon conceptual designs and projected costs for new parks to be created. Budget forecasts will be updated as necessary to reflect the most current construction costs.

Municipal parks will be assigned individual capital budgets for construction based upon the desired facilities for the park and anticipated revenue from Development Charges or other sources. If the developer wishes to expand on the planned facilities for a park, for marketing or community design purposes, the costs associated with the additional features shall be the responsibility of the developer and will not be subject to reimbursement under the Development Charges By-law.

2.2.7 Timing of Construction

Parks will generally be constructed when the development has reached 50% occupancy, or in the case of a phased development, 50% of the first phase has reached occupancy. If servicing availability or other factors limit the developer's ability to reach 50% occupancy, the City at its option, may construct the park on an accelerated schedule to ensure service to the local community area. If the park is to be constructed by the developer subject to the conditions outlined in section 2.2.5, the project must adhere to the same construction schedule and benchmarks.

2.3 Park Design

2.3.1 Facility Fit Plan

Working from staff consultation and the relevant Secondary plan documents, the Developer shall

engage the professional services of a qualified, OALA registered Landscape Architect to prepare a Facility Fit Plan during the preliminary stages of engineering design and master servicing for the development or Draft Plan of Subdivision. The facility fit plan will be submitted to City Staff for review and approval prior to Draft Plan approval. The plan will demonstrate that the park size, location, configuration and proposed grades will accommodate the major park features desired as determined by the City.

2.3.2 Conceptual Park Plan

After approval of the Draft Plan of Subdivision or Development Plan complete with a park facility fit plan, at the City's discretion, the developer or the City will engage the services of a qualified OALA registered Landscape Architect to prepare a landscape concept plan for the park.

The Concept Plan shall identify that:

1. The Park layout and all features including walkways and tree plantings are properly located on the site.
2. Sufficient setbacks as described below are possible to buffer residents from active recreational uses.
3. Setbacks for active facilities shall generally be a minimum of 20 metres from residential property to the edge of the recreational use and from the street line of neighbouring roads.
4. General setbacks are guides and should not limit the flexibility of the City to adjust setbacks as may be necessary for the specific design conditions.
5. Orientation and layout of facilities meets City standards.
6. Tree preservation requirements will be addressed in accordance with the approved Tree Preservation Plans and related documents as submitted for the subdivision.
7. The park grading and drainage to the surrounding subdivision conforms to City requirements.
8. Required services for the future construction of the park are verified and generally located.
9. Surface and sub-surface stormwater and sanitary drainage systems are available and will accommodate the predicted needs of the park development.
10. Relevant approvals from all agencies (hydro, pipelines, etc.) that may be affected by the plan.
11. Universal design, regard for older adults and accessibility for people with disabilities has been incorporated into the design.

2.3.3 Community Engagement

At the City's discretion, concept plans will be presented through an effective community

engagement process. At least 2 concept plans and image boards shall be presented to determine the preferred plan.

As an alternative to, or in conjunction with the public process, on-line postings of concepts with a scheduled time frame to provide input and feedback may be considered. The City will consult with the Accessibility Advisory Committee, as required by the AODA, to obtain advice on the requirements of accessibility standards and universal design practices as they relate to:

- New or redeveloped recreational trails to help determine slope and the need for ramps, rest areas, passing areas, viewing areas, amenities, and any other related features.
- The needs of children and caregivers with various disabilities for new or redeveloped outdoor play spaces.
- Design and placement of rest areas along new or redeveloped exterior paths of travel.

2.3.4 Detailed Design, Construction Drawings and Specifications

The City or the Developer (if the Developer is authorized to prepare designs) shall engage the professional services of an OALA registered Landscape Architect to prepare detail design, technical drawings and specifications to fully describe the construction of all park features. Detailed design shall include up to three municipal reviews by City staff. Design and construction drawings will be submitted for review at 50%, 75% and 95% completion.

As a minimum, the following plans will be prepared for all parks to be constructed, whether by the City or the developer:

1. Existing Conditions Plan: Plans and construction drawings are to be prepared utilizing current engineering base information completed for the subdivision or development design along with current OLS survey information for existing pre-design conditions, legal boundaries, survey monuments, topographic features, spot elevations and contours, existing vegetation and geodetic elevations at the base of individual existing trees.
2. Layout Plan: The plan shall display an accurate representation of all works to be constructed for the park, complete with dimensions and offsets tied to known or temporary lines. Park facilities are to be in conformance with the minimum standards and details identified in this document. All materials and finishes for the park development are to be labeled and construction details cross referenced to Peterborough City standards or other technical standards.
3. Grading Plan: The plan shall show current geodetic information of the existing grades and conditions at the completion of pre-servicing and grading of the park. Grading plans shall show the ultimate finished grades for all facilities, landforms and features of the proposed park. Grades shall be shown for all sports fields and shall illustrate currently accepted standards for field grading and drainage. The grading plan shall show all areas requiring additional engineered fill for construction of the park facilities. Spot elevations and contour lines shall be shown to adequately describe all pathway construction, curbs, walls

and edges and drainage swales through soft landscape areas. The grades to be achieved at drainage inlets are to be clearly shown on the plans.

4. **Servicing Plan:** The plan shall show all necessary underground servicing to allow for the function of park facilities in accordance with current codes and best industry practices. The servicing plan shall show all services, connections and crossings within the park in context to each other, and the development of the park and its features. Sewer systems shall be illustrated complete with descriptions of pipe materials, dimensions, rim and invert elevations of structures. Local sub-drains required for park facilities shall identify their location and connection to the main system of drainage. Water supply systems shall be illustrated with all necessary pipe dimensions, backflow prevention devices, chambers, meters, pipe reducers and appurtenances. All cross references for details and OPSDs are to be clearly identified on the plans and/or specifications.
5. **Planting Plan:** Plans will be prepared illustrating all trees, shrub and groundcover plantings proposed for the park. Plantings shall accurately show the extent of planting beds and the location of specimen trees relative to park features, servicing and paving. The planting plan shall include the contour grades of the proposed park development to ensure accuracy of context for planting. Plant selections shall be based on the inclusion of native and indigenous species and/or non-invasive horticultural varieties. Tree plantings shall include species of cultural significance to the indigenous people of the region. Planting plans should largely emphasize tree planting and limited use of shrubs and perennials that require ongoing maintenance. All shrub plantings should be placed in continuous planting beds for ease of mowing. Planting plans shall not contain species known to carry or spread pests. Seeding of parkland for turf establishment is not acceptable and all proposed parkland should receive sod. Proposed naturalization areas will be sodded then overseeded with a native seed mix, or at the discretion of the City they may be seeded only with appropriate seed mix to suit the site.
6. **Irrigation Plans and Details:** Where irrigation Plans for sports fields are required they shall be produced by a Certified Irrigation Designer and coordinated with City Recreation staff. The irrigation plan is to be reviewed with City operations staff to ensure the proposed equipment and controllers are complementary to existing systems and represent current technology for water conservation. The City encourages the design of irrigation systems to both conserve potable water and utilize rainwater or water that is generated by other park facilities.
7. **Electrical Plans:** Plans are to be prepared by an independent electrical consultant with established municipal experience in the design of lighting and mechanical systems for parks. The plan shall be prepared detailing the location and type of all park and sports field lighting poles and fixtures. Plans and details shall be in conformance with current electrical standards and codes. Electrical designs are to promote energy conservation and where appropriate, utilize LED lighting systems. All lighting shall be dark-sky compliant and be able to provide sharp light cut-offs near residential areas.

8. Construction Details: Detail drawings are to be provided to fully explain the methods of construction for all features of the park. The details shall, at a minimum, comply with the Standard Construction Details for Parks (Section 3 of this document). Other details as may be necessary to explain the full extent of the park construction shall be included and reviewed by the appropriate City departments. Any overhead structures and load-bearing foundations shall be reviewed and certified by a Structural Engineer. Drawings shall be prepared at a maximum metric scale of 1:400 in DWG and PDF files suitable for storage and viewing by the City. At the completion of construction, the contractor shall provide "As-Built" drawings prepared as a record for the City. For larger park categories that may include a more complex storm drainage system, the services of a professional engineer will be retained to perform storm sewer design for the park including sizing of pipe, catch basin elevations and inverts, and co-ordination with the grading plans of the subdivision. Professional fees associated with the engineering component of the detail design will be the responsibility of the City or Developer depending on the designated responsibility for park design.

2.3.5 Construction Cost Estimates

Cost estimates shall be prepared to a level of detail that is compatible with the design stage of the park. At a minimum, a high level order of magnitude cost estimate will be prepared during the facility fit stage. Budget costing will be prepared for emerging concept plans and detailed construction budgets will be prepared prior to tendering the park plans.

2.4 Park Design Criteria and Site Strategies

2.4.1 Accessibility of Ontarians with Disabilities Act (AODA)

All parks shall meet the Accessibility for Ontarians with Disabilities Act (AODA). Landscape Architects and their sub-consultants will be required to demonstrate training and certification through a recognized accessibility training company. All plans and details will meet the Design of Public Spaces Standards of the Integrated Accessibility Standards Regulation, including requirements for recreational trails and beach access routes, outdoor public use eating areas, outdoor play spaces, exterior paths of travel, and accessible parking. Playgrounds shall comply with CSA Z614-14 Children's Playspaces and Equipment as well as CSA Annex H. Where conflicting information arises between City Standards and AODA, the City's Accessibility Compliance Coordinator will determine and direct the consultants accordingly.

2.4.2 Crime Prevention Through Environmental Design Strategies (CPTED)

Design of park features and recreational facilities shall conform to local, provincial and national

regulations and recommendations for the health and safety of park users and those who maintain park systems. Contemporary standards for playground safety as well as current accepted standards for setbacks and run-out areas for active sports facilities are to be applied to the design of parks. Park designs shall have regard for the inclusion of the recognized approaches and principles of Crime Prevention Through Environmental Design (CPTED).

2.4.3 Sustainability and Public Health Strategies

The City encourages all consultants involved with the design of City parks to apply innovative approaches to park design that promote guidelines for sustainable land design, construction and maintenance practices. Current guidelines such as those identified in the Green Building Councils LEED ND program and the American Sustainable Sites Initiatives should be incorporated into all Peterborough City park plans to help support the adaptation to climate change by reducing energy and maintenance costs, conserving water, promoting bio-diversity and fostering community pride among residents.

Public health agencies in Ontario are mandated through the Healthy Environments Standard of the Ontario Public Health Standard, "to reduce exposure to health hazards and promote the development of healthy built and natural environments that support health and mitigate existing and emerging risks, including the impacts of a changing climate." (Ontario Ministry of Health and Long-term Care. (2018). Ontario Public Health Standard: Requirements for Programs, Services, and Accountability. Toronto, ON: Author, p. 33.)

Parks, especially those in neighbourhoods, are a key element in a community's infrastructure that contributes to the health and well-being of its citizens. A considerable body of evidence shows that exposure to the natural environment has physical, mental, and social health benefits for all age categories, which include (World Health Organization. (2017). Urban green spaces: A brief for action. World Health Organization Regional Office for Europe, Copenhagen, Denmark. Retrieved on July 17, 2019 from http://www.euro.who.int/__data/assets/pdf_file/0010/342289/Urban-Green-Spaces_EN_WHO_web3.pdf?ua=1):

- enabling stress alleviation and relaxation,
- increasing physical activity and improves physical fitness,
- improving social interaction and community cohesiveness,
- improving levels of mental health,
- improving cognitive and immune function,
- lowering mortality rates, and
- providing equitable access to recreation.

These benefits are not only valuable to each individual but, in turn, contribute to the overall health of the community - including access and parkland equity.

2.4.4 Sports Fields

Sports fields will be sited in their most favourable orientation and with symmetrical grading design. Design is to consider configurations that will minimize the disturbance to adjacent residents. Field dimensions may vary with classification and use but must always include the required clearance from neighbouring properties and adjacent park uses.

The relationship and foul ball risks associated with the placement of backstops will be carefully considered to avoid risk impacts on other park facilities. Lighted sports fields may be provided only in Regional and Community Parks, with shielded dark sky compliant lighting provided to prevent spillage onto adjacent residential properties. Activation circuits and timers for automatic shut-off at park closing hours will control lights.

Ball Diamonds:

1. Field measurements are to be in accordance with the appropriate City standard detail for the level of play provided.
2. Run-out area shall be 6 metres around perimeter containing no grade changes or obstacles.
3. The perimeter of the outfield is to be assumed as extending from the line of the backstop and line fence.
4. Home run fence in outfield allows run-off distance to be reduced to perimeter line.
5. Home run fence to be 2.4m minimum in height.
6. Optimum orientation should place home plate facing to the north-east.
7. Grading to be crowned at centre-line or sheet draining from infield to outfield.
8. Infield should be center-crowned from the pitching location at 2%.
9. Outfield is to be center-crowned at minimum 1.5% consistently from infield to outfield fence to avoid grade separation of outfield positions.
10. Engineered fill is required under entire infield to sub-grade level to accept infield mixture depths, and for backstop and bleacher sitting areas.
11. Topsoil depth in outfield to be a minimum of 200mm in uniform consistent depth with no isolated topsoil pockets.
12. Backstop and line fence footings are to be founded in suitable soils. Size and dimension of footings for structure bearing posts and supports are to be reviewed by a Structural Engineer based upon soils testing for the site.

Rectangle Fields (soccer, football, etc.):

1. Field measurements are to be in accordance with the appropriate City standard detail for the level of play provided with a 5 metre run-out areas for field perimeters.
2. Orientation of north-south direction between goals is considered optimal for sun orientation.
3. Grading – centre-crowned and sloping to sides at maximum and minimum 1.5 % slope for natural turf fields.
4. Non-crowned fields are not acceptable for senior play.
5. Senior competitive fields are to be irrigated and sub-drained. Fields may be constructed of specialty sand/soil mixes where recommended and directed by the City.
6. Perimeter line markings are to be provided using environmentally safe paint.

2.4.5 Hard Surface Courts

Tennis courts, basketball courts and other multi-purpose hard surface play areas will be provided in Regional and Community parks where sufficient space separation is available to minimize noise impacts from bouncing balls on adjacent residential neighbourhoods and where a reasonable space separation is possible from children's playground equipment. Small half courts and multi-purpose hard surfaces may be provided in Neighbourhood parks only where park size and sufficient space separation is available to minimize noise impacts. Lighted tennis courts may be provided in Regional and Community Parks only with a timer for light shut off at park closing hours.

1. Tennis, Basketball, Pickleball and Multi-purpose Courts - Asphalt surfaces to be of fine grade HL3A draining at maximum 2% slope. Sub-base materials to be as required by details and soil conditions. Where budget allows, concrete underlay to court surfaces or flush concrete curbs are recommended.
2. Tennis court fencing to be 3 metre high, black chain link with terminal posts and gates as detailed in Section 3.
3. Tennis nets will be installed for seasonal use only. Net posts shall utilize a sleeve and cap system for removal and storage of the nets seasonally or for multi-use court play on the surface.
4. Line painting provided by 50mm wide white or yellow durable traffic paint.
5. Colour coatings are an optional feature where deemed appropriate for competitive tournament play or where design suggests.

2.4.6 Playgrounds

Article 31 in the United Nations Convention of the Rights of the Child clearly stipulates that children have the right to recreation, play and cultural activities (OHCHR. (2019). Convention on

the Rights of the Child. Retrieved on July 17, 2019 from (https://www.ohchr.org/en/professionalinterest/pages/crc.aspx). Park spaces are an excellent venue to provide these experiences. Whether structured (e.g., sport) or unstructured (i.e., child-led, child-directed with no clear goal), play is an essential part of child development. When considering the design of play spaces, various elements are needed to encourage different kinds of play - including active and creative play, as well as quiet spaces.

Playgrounds are to be set back 20 metres at their perimeter from any residential property lines. Junior play-spaces may be set back at 10 metres where approved by the City. Play areas are to be set back from street lines of local roads by a minimum of 15 metres and 20 metres from the street line of a collector road where the boulevard will also act as a buffer. Grading around playground areas is to be designed to allow visual surveillance into the play area from the road and surroundings. No dense evergreens will be planted near playground areas where views may be obstructed, and safety of users be affected.

1. Playground equipment design will suit the age group intended to be served.
2. Playgrounds shall include safety signage indicating the appropriate age range for the use of the equipment and contact information for the City with regard to maintenance and security.
3. Manufactured equipment that is incorporated into play areas must conform to CSA standards for materials, fasteners, safety zones and surfacing needs, and CSA Annex H for accessibility.
4. Play equipment and resilient surfacing is to be enclosed within a zero step concrete curbed area, set to level to prevent the drifting of materials.
5. Loose resilient surfacing shall be a fiber mulch to conform to CSA Standards for the fall-heights included in the equipment provided. Sub-surface drainage will be provided.
6. Resilient surfacing shall be fixed rubberized resilient surfacing to CSA conformance in response to designed fall heights and to be at finished grade below equipment and flush with adjacent surfaces. Sub-surface drainage will be provided in conformance with manufacturers recommendations. Where a playground is located in the same park and in close proximity to a water play feature only fixed resilient surfacing shall be used to avoid transfer of materials into the drainage system.
7. Sitting areas are to be provided with hard surfacing and connected to pathways and sidewalks to allow for accessibility and ease of supervision for the entire play area.
8. Shade is to be provided through a structure or shade trees within easy reach of the play areas.
9. Create separate play zones that are connected to walkways: 1. Active space; 2. Creative space; and 3. Quiet Space. Natural play environments are to be inclusive, gender-neutral accessible and equitable, and should be considered when designing play environments.

2.4.7 Water Play

Spray pads or similar water play features may be provided in Regional Parks, Community Parks and Neighbourhood Parks that are intended for intensified use. Water supply, plumbing and drainage will conform to requirements of the City of Peterborough Engineering and Public Works, and will be housed in an above-grade utility building.

1. Water supply to be potable water only. Custom-designed water recycling plants may be included with review and instruction from the City for major facilities.
2. Water meter, backflow prevention device and all appropriate valves as required are to be housed in an above grade utility building whenever feasible. As an alternative, the City may accept an above grade Valve Chamber inside the park property.
3. Drainage to be connected to storm sewer system or grey-water recycling system where applicable.
4. Standing water is not to be a feature of the water play facility. The facility shall drain freely to an inlet structure.
5. Activated by timer with manual activation and shut-off capabilities.
6. Non slip pavement of concrete or rubberized surface.

2.4.8 Skate Places

Small scale skate place features may be provided in Regional and Community Parks, as well as larger Neighbourhood Parks that are intended for intensified use. They shall be small areas designed to accommodate local skateboard, BMX bike, scooter, and in-line skate use. They will form part of the greater selection of park features but not large enough to be considered a community skateboard park. Skate places shall be set back a minimum of 30 metres at their perimeter from any residential property lines.

2.4.9 Setbacks and Locations for Park Features

All recreation sport field facilities including run-out areas, playgrounds, play courts and skate places will be sited so as to ensure a minimum setback from the facility perimeter to adjacent residential property lines of 30 metres for ball diamonds and skate places and 20 metres for all other facilities. This space may contain grading, drainage and buffer planting as required to ensure the performance of the facility and the protection of adjoining facilities or properties. Athletic facilities shall be designed in consideration of the impacts of the activity of the game-play, and will generally not be sited directly adjacent to roads where this setback must be increased to 40 metres or 2.4 metre high fencing provided to prevent conflict with traffic. Destination park features such as play areas, shade structures, exercise equipment and hard surface courts shall be connected with accessible walkways and rest areas. A main pathway of suitable width for

maintenance vehicles will be provided.

2.4.10 Grading and Drainage

Responsibility for site grading and subsurface drainage design is shared between the developer and the City. Grading and drainage are to be undertaken in accordance with construction drawings and specifications as prepared by a qualified Landscape Architect. Standards to which earthworks are undertaken shall respond to the structural integrity requirements of facilities and the future maintenance requirements of the City.

1. Subsurface drainage and sewer works will be installed complete with the required catch basins, manholes and connection to developer-provided storm and sanitary sewer stubs located in the park at the lot line. Drainage stub requirements for the park will be determined early in the development engineering design process in order to service the number of drainage districts in the park
2. Grading design is to be developed to afford sheet drainage of water wherever feasible in order to facilitate infiltration for surrounding soils. Sheet drainage shall be designed in a reasonable and sensible fashion within sub-drainage areas of the park block. It is not the intent to avoid a sewer system but to achieve balance between the use of overland flow and piped systems. Grading shall ensure that drainage is contained within the park block and is not directed onto neighbouring private properties.
3. General park drainage will be determined early in the design process of the park to reduce or eliminate the use of culverts at walkways. Drainage structures will be placed at sufficient intervals and in sufficient quantity to ensure that there are no areas of trapped drainage within the park, and to avoid deep swales with steep side slopes.
4. Engineered fill, free of topsoil organics is required underneath all paved surfaces, playgrounds and ball diamond infields. Fill is to be placed and compacted to 95% SPMDD in 200mm lifts. Completed filling works are to be tested and the results submitted to the City.
5. Turf-grass swales will be graded to a 2% slope along their length whenever possible unless associated with a low impact design LID feature. 1.5% slopes may be accepted over short distances to avoid overly steep side slopes for swales.
6. Slopes and berms will be graded to a maximum 4:1 slope for ease of maintenance. Level turf-grass areas (except purpose-designed athletic fields) will have a minimum slope of 2% for drainage purposes.
7. Natural turf sport fields will be graded to 1.5% slopes and crowns as described by technical drawings.
8. Minimum 150mm topsoil layer is required under all grassed areas. Topsoil may be thicker in uniform compacted layers. A balanced grading program of topsoil stripping and sub-grade cutting and filling is to be undertaken for a park development. Trapped pockets of

organic material are not to be created. Deeply excavated, isolated areas and areas of significant grade change are not to be filled using topsoil.

9. All park areas are to be finished with fine grade and sod with the exception of preserved natural areas and areas of environmental rehabilitation.

2.4.11 Seating and Socialization Areas

Benches, waste receptacles, bicycle racks, and picnic and game tables will be provided along pathways and at activity locations in support of uses within the park. Park furniture will be selected and approved on a site-by-site basis, and in response to specific urban design and community design policies for the area. Furnishings for general use are to be cost-effective, durable and vandal-resistant, using recycled materials wherever possible. Site furniture for high profile sites and historical areas shall be selected in response to the specific design theme and historical reference of the area where they are installed. No site furnishings will be provided in secluded or remote locations where social gathering is deemed undesirable.

1. Seating areas will be provided in association with active and intensive park uses.
2. Trees and or shade structures will be provided near seating areas to provide shade for comfort of users.
3. Benches selected will be comfortable, durable, low maintenance and vandal resistant. Accessible benches will be provided wherever rest stops or other seating areas are provided.
4. Waste receptacles and recycling stations will be sufficiently large to minimize the need for excessive pickup requirements.
5. Site furniture will be permanently mounted onto a concrete slab or concrete footing for both security and accessibility.
6. Picnic tables be will provided with barrier free access.

2.4.12 Provision for Shade

The shade targets for parkland is established under Section 2.1 for each park category and is intended to provide increased protection from ultra-violet radiation. Trees using their mature canopy size for calculations will largely accommodate shade target provisions. Shade structures may be provided in all categories of parkland and shall range in size according to the use and associated activities. Structures should be located near playground and park activity areas for the benefit of park users and observers. At the discretion of the City, structures may be prefabricated or custom designed. In either case, construction shall be of durable, vandal resistant materials. Connections between posts, roof lines and soffits, etc. will be designed in such a way to prevent nesting of birds. Column detailing and roof heights shall be designed to deter access to the roof. All shade structures will include a morality light with timer or photocell for nighttime security. All custom designed structures will be designed and certified by a registered structural engineer.

2.4.13 Tree and Shrub Planting

In addition to protecting the existing vegetation that is designated for preservation within parkland, new tree planting will be provided to support existing natural landscapes, remediate and recover existing landscapes, enhance community aesthetics and design objectives for the park, provide shade cover and shelter for park users, define space and to generally support environmental quality and public health. A mixture of deciduous and coniferous trees will be provided, in consideration of the facilities being accommodated and the intent of the park design.

1. Emphasis is to be given to the planting of native trees, indigenous to the area and non-invasive horticultural varieties that provide maximum shade coverage. Consideration shall be given to tree selections that hold significance to Indigenous Peoples.
2. Tree planting will be designed to allow visibility and surveillance into the park from the street and surrounding neighbourhood. Public safety will be considered through the principles of Crime Prevention Through Environmental Design (CPTED).
3. Shade trees will be provided adjacent to sitting areas, parking lots and in other locations where comfort zones are desirable.
4. Parkland will focus on accommodating a diversity of native trees, flowering species and specimens which may not be typically used for street tree planting.
5. Trees shall generally be a minimum 60mm caliper for deciduous shade trees, 40-50mm caliper for ornamental trees and multi-stem varieties, and 1.8 metres height for coniferous trees. Trees sizes will not be less that the prescribed sizes within the City of Peterborough's Urban Forestry Standards
6. At the completion of construction warranty periods, the City shall replace dead trees in accordance with available budgets approved for such activity.
7. Extensive shrub planting and floral displays requiring high levels of maintenance are to generally be avoided: except where approved as appropriate as features in Regional and Community Regional Parks; or as gateway features approved in accordance with the City's ability to maintain them.
8. Trees planted in urban areas with confined root zone space shall include design features such as structural soil or silva cell systems for oxygen exchange and either a manual or drip irrigation system depending on site specific conditions.

2.4.14 Parking Areas

Parking lots will be paved in asphalt with a cast-in-place concrete barrier curb or defined by precast/recycled concrete bumper curbs. The use of permeable paving and designs promoting storm water infiltration for parking area construction is encouraged by the City. Granular parking lots may be provided in natural parkland settings and open spaces where free-draining natural characteristics are desired. Parking stalls shall generally be 2.7m x 5.7m with a 6.4m wide driving lane.

1. Parking lots within parks will not be maintained in winter except if associated with a specific trail head area, other year round facilities such as a school or community centre.
2. Subsurface drainage and connection to storm sewer is typically required for all parking lots enclosed by a poured concrete curb, with surface draining toward the inlet structures at 2% minimum slope.
3. The City promotes the use of low impact design features to support or replace traditional drainage systems. Features such as bio-swales, infiltration trenches and rain gardens are encouraged.
4. Curb ramps and depressed curbs are to be a minimum of 1.5 metres width and shall be provided for barrier free access to the park features. They shall be located where walkways transition to vehicular zones, including access aisles serving accessible parking spaces. Provide tactile attention indicators as required.
5. Grass or planted parking islands with large canopy shade trees shall be incorporated into parking lots that exceed 20 car parking spaces.
6. Type A accessible parking spaces will measure 3.4m wide x 5.7m long. Type B accessible parking spaces will measure 2.7m wide x 5.7m long. Provide accessible parking signs in compliance with section 11 of Ontario Regulation 581 Accessible Parking for Persons with Disabilities. The sign shall include a no parking icon, the international symbol of access, a "Van Accessible" tag for the Type A spaces, and meet the colour scheme outlined in the regulation. Access aisles must have a minimum width of 1.5m for the full length of the parking space. Provide high tonal contrast diagonal lines to demarcate the access aisle. The access aisle may be shared by two accessible parking spaces. Accessible parking spaces shall be located in a manner that does not require pedestrians to navigate along drive aisles or behind parked vehicles.
7. Accessible parking spaces will be provided at a rate of 2 spaces for each Regional and Community Park, and at Neighbourhood Parks on an as-needed basis, or as a required by the AODA or the City's Zoning By-Law. The highest standard shall apply. Line painting (100mm wide) will be provided on asphalt surfaces to identify each parking stall using white OPS standard traffic paint. Accessible parking spaces shall have a maximum running and cross slope of 2%.
8. Granular parking lots shall have pre-cast concrete or recycled plastic bumper curbs, each to identify one parking space.
9. Curb units are to be pinned in place 300mm inside of perimeter of the parking area to afford ease of edge maintenance and grass cutting.
10. Granular parking lots will be graded to sheet drain at minimum 2% slope to drainage swales, infiltration features or directly to the surrounding landscape.
11. Granular and paved parking lots will be constructed as detailed in the standard details section of this document.
12. Compaction and materials testing are to be carried out, and all base material and paving is to be certified by an accredited testing agency.

2.4.15 Walkways and Pedestrian Circulation

Walkways will be provided within parks to connect recreation facilities and to provide amenity and access to passive areas in a convenient, safe and barrier-free manner. Parks should have a defined entrance visible within the streetscape. The park entrance should be visible and convenient with regard to access to the site and the likely desire lines expected from park users.

Park users should have a clear view of approaching pedestrian and vehicular traffic on adjacent roadways. Proper connections will be made to municipal sidewalks, roadways, parking lots and open space trail linkages where appropriate. Seating areas and other pedestrian pavement surfaces may be of asphalt, concrete, unit paving or combination thereof, as dictated by site conditions and design intent. The design of all surfaces shall have regard for accessibility for people with disabilities.

1. Typically, park walkways shall be paved and are to be 2.0 metres in width for secondary pedestrian use and 3.0 metres wide for primary route areas where they also serve to provide access for park maintenance service vehicles.
2. Walkways will be paved as per standard duty asphalt paving detail in the standard details section of this document.
3. Pedestrian walkways that also serve as primary maintenance routes shall be heavy-duty pavement as detailed in this document.
4. Compaction and materials testing are to be carried out, and all base material and paving certified by an accredited testing agency.
5. Walkways will be crowned or cross sloped at 1% minimum drainage.
6. Asphalt edges will be tamped to a 45 degree angle, and adjacent sod will be installed 25mm below finished surface of walkway so as not to trap water on the pathway surface.
7. Walkways will meet flush with sidewalks and other pavement surfaces with no tripping hazards and to provide barrier-free access for strollers, bicycles and mobility aids such as wheelchairs.
8. P-gates with a clear opening width of a minimum 1100mm will be installed to restrict vehicular access onto pedestrian pathways, yet permit accessibility for strollers, bicycles and mobility aids such as wheelchairs.
9. Site drainage across pedestrian walkways will be permitted but designs are to ensure that no areas of trapped drainage are created on the site, causing water to pond and icing of the walkways.
10. Site grading and sub-surface drainage systems will be utilized to minimize the use of culverts underneath walkways.
11. Park pathways are not maintained in the winter unless they act as part of the active transportation network. Municipal roads and sidewalks are to be the primary winter season access for the surrounding neighbourhood area.

12. All walkways and pedestrian circulation shall meet the AODA requirements. Where conflicting information arises between the City Standards and the AODA, the City's Accessibility Compliance Coordinator will determine the direct the consultants accordingly.
13. Parking lots shall include a walkway network that serves the:
    - Parked vehicles,
    - Accessible parking spaces, in a manner that does not require people to navigate behind parked vehicles or along a drive aisle,
    - Building entrances and emergency exists,
    - Active transportation network,
    - Conventional transit network,
    - Specialized transit and accessible taxi with a drop-off / pick-up zone.
14. Parking Lots shall include lighting.

Section 3 | **Construction Details for Parks**

3.1 Intent and Use of Standard Details

The standard details contained in this section are intended to serve as guides for parks staff, developers and park design consultants. They are to serve as minimum standards for detailing and designing features of a new or renovated park. It is expected that as individual park designs move forward, adaptations and modifications to these details will occur to serve site-specific conditions or design expectations by the City to exceed the standards herein.

3.1.1 Using of Details

Details are numbered and labeled for easy access within the document. They may be copied and attached to construction drawings if modification of such details is not required. It is recommended that park design consultants carefully determine if details can be used without alteration, as doing so does not absolve the consultant from their responsibility as set out in the terms and conditions of their consulting agreement with the City.

3.1.2 Modification of Details

Details are intended to set out the minimum requirements for construction of park features. Any modifications to the details that minimizes dimensions, use of materials, sizes or volumes and types of materials must be approved by the City prior to change.

3.1.3 Updating of Details

Over the life of this document, updates and modification will occur to certain details and construction practices. It is the responsibility of the consultants to the City or developer, to ensure that the most current version of the document is being referenced and used.

3.2 Standard Details

3.2.1 Standard Details - Table of Contents

Sports and Recreation	Dwg. #	Plot Scale
Senior Baseball Diamond	101	1:750
Baseball Field Backstop Fence – Detail (1 of 3)	102	1:250
Baseball Field Backstop Fence – Section (2 of 3)	103	1:75
Baseball Field Backstop Fence – Elevation (3 of 3)	104	1:200

Sports and Recreation	Dwg. #	Plot Scale
Baseball Players Enclosure Detail	105	1:150
Baseball Players Enclosure – Roof Enlargement Detail	106	1:100
Baseball/Softball Outfield Fence	107	1:25
Baseball/Softball 1st and 3rd Line Fence	108	1:25
Baseball/Softball Foul Line Post	109	1:25
Baseball/Softball Chain Link Single Swing Gate	110	1:25
Baseball/Softball Chain Link Double Swing Gate	111	1:25
Baseball/Softball Warning Track	112	1:25
Baseball Bullpen	113	1:150
Baseball Pitcher's Mound and Home Plate	114	1:100
Baseball Players Bench	115	1:10
Senior Baseball Diamond Typical Irrigation Layout	116	1:750
Senior Softball Field Typical Layout	117	1:750
Senior Softball Field Backstop Fence-Detail (1 of 3)	118	1:250
Senior Softball Field Backstop Fence-Section (2 of 3)	119	1:75
Senior Softball Field Backstop Fence-Elevation (3 of 3)	120	1:200
Senior Softball Field Typical Irrigation Layout	121	1:750
Junior Softball Field Typical Layout	122	1:500
Junior Softball Field Backstop Fence – Detail	123	1:200
Senior Soccer Pitch	124	1:750
Senior Soccer Pitch Typical Irrigation Layout	125	1:750
Intermediate Soccer Pitch	126	1:500
Junior Soccer Pitch	127	1:500
Multi-Tier Metal Bleacher with Guardrail	128	1:25
Basketball Court Layout	129	1:150
Basketball Hoop Footing Detail	130	1:20
Multi-Purpose Court Asphalt Paving	131	1:10
Tennis Court Layout Plan	132	1:250
Tennis Court Fence and Gate	133	1:25
Tennis Court Asphalt Surfacing	134	1:10

Planting	Dwg. #	Plot Scale
Deciduous Tree Planting	201	1:10
Coniferous Tree Planting	202	1:10
Continuous Shrub Planting Bed	203	1:10
Tree Planting in Hard Landscape	204	1:20
Multi-Stemmed Tree Guying	205	1:10
Naturalization Stake	206	1:20

Paving	Dwg. #	Plot Scale
Typical Walking and Cycling Trail Width and Clearance Requirements	301	1:40
Standard Duty Asphalt Paving	302	1:10
Heavy Duty Asphalt Paving	303	1:10
Standard Duty Concrete Paving	304	1:10
Heavy Duty Concrete Paving	305	1:10
Unit Paving on Concrete Base	306	1:10
Limestone Screening Path	307	1:10
Concrete Curb	308	1:10
Flush Curb Edge Adjacent Unit Paving on Concrete Base	309	1:10
Playground Subsurface Drainage	310	1:10
Playground Rubberized Surfacing and Flush Curb	311	1:10

Site Furnishings	Dwg. #	Plot Scale
'P' Gate Barrier	401	1:20
Permanent Bollard	402	1:20
Urban Streetscape Bollard	403	1:20
Urban Streetscape Bicycle Rack	404	1:20
Urban Streetscape Bench on Concrete Pad	405	1:20
Standard Park Bench on Concrete Pad	406	1:20
Trash Container on Concrete Pad	407	1:20
2-Unit Recycling Container on Concrete Pad	408	1:20
In-Ground Waste Management Container	409	1:20
Park Light Detail	410	1:40
Community Sign	411	N.T.S.
City Park Sign	412	N.T.S.
Parkette Sign	413	N.T.S.

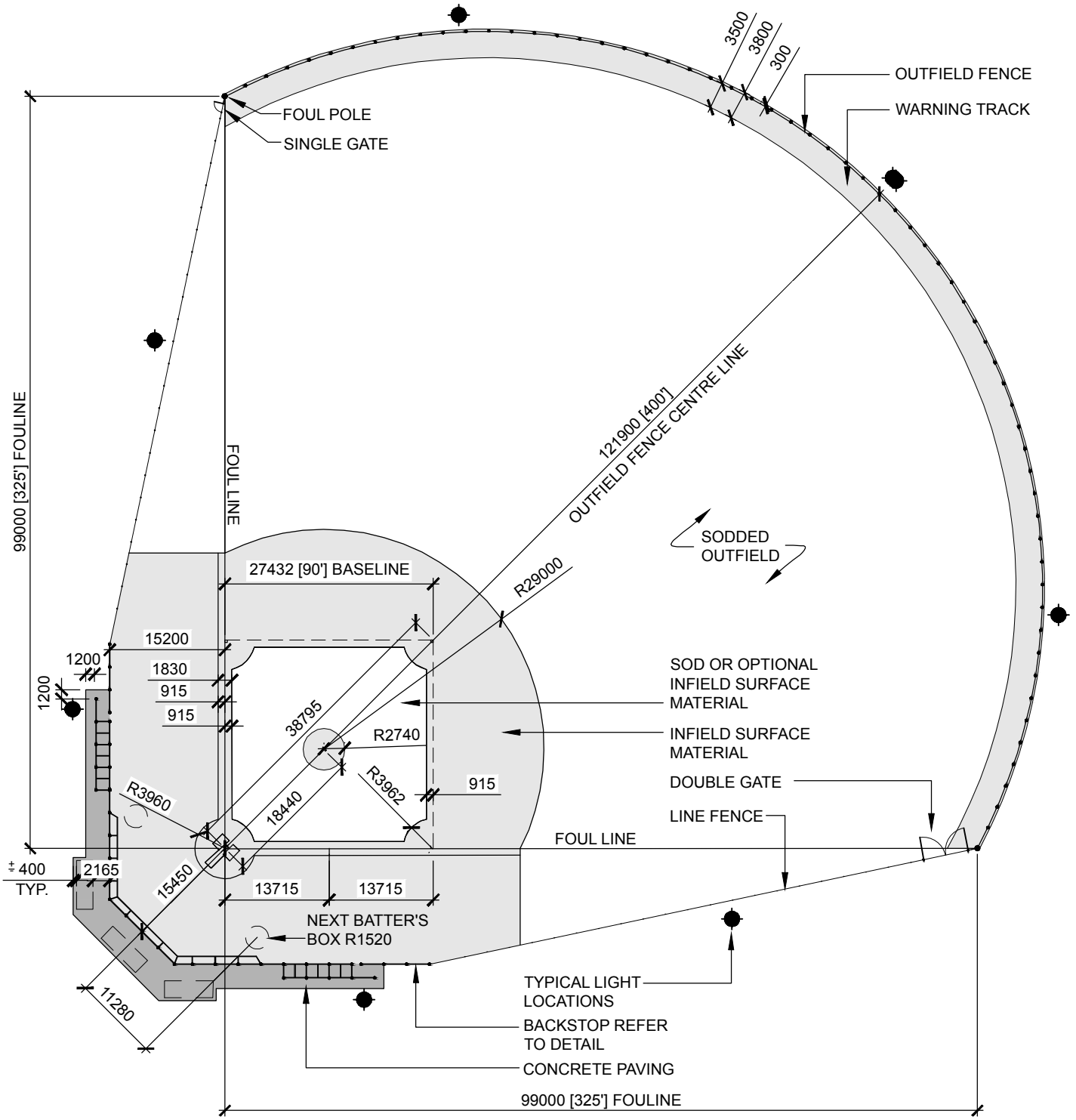
Fencing	Dwg. #	Plot Scale
Chain Link Fence	501	1:25
Chain Link Security Gate – Single	502	1:25
Chain Link Security Gate – Double	503	1:25
Wood Fence	504	1:25
Wood Acoustic Fence	505	1:25
Siltation Control Perimeter Fencing	506	1:20
Tree Preservation Protection Fence	507	1:10

peterborough

CITY OF PETERBOROUGH

STANDARD DETAILS

SPORTSFIELDS AND RECREATION



NOTES:

1. ALL DIMENSIONS IN MILLIMETRES, UNLESS STATED OTHERWISE.
2. PREFERRED ORIENTATION: A LINE RUNNING FROM HOME PLATE TO 2ND BASE SHOULD POINT 10 DEGREES EAST OF NORTH.
3. REFER TO APPROPRIATE DETAILS FOR INFIELD SURFACE MATERIAL, WARNING TRACK MATERIAL, AND BACKSTOP/ FENCING COMPONENTS.

DWG. TITLE

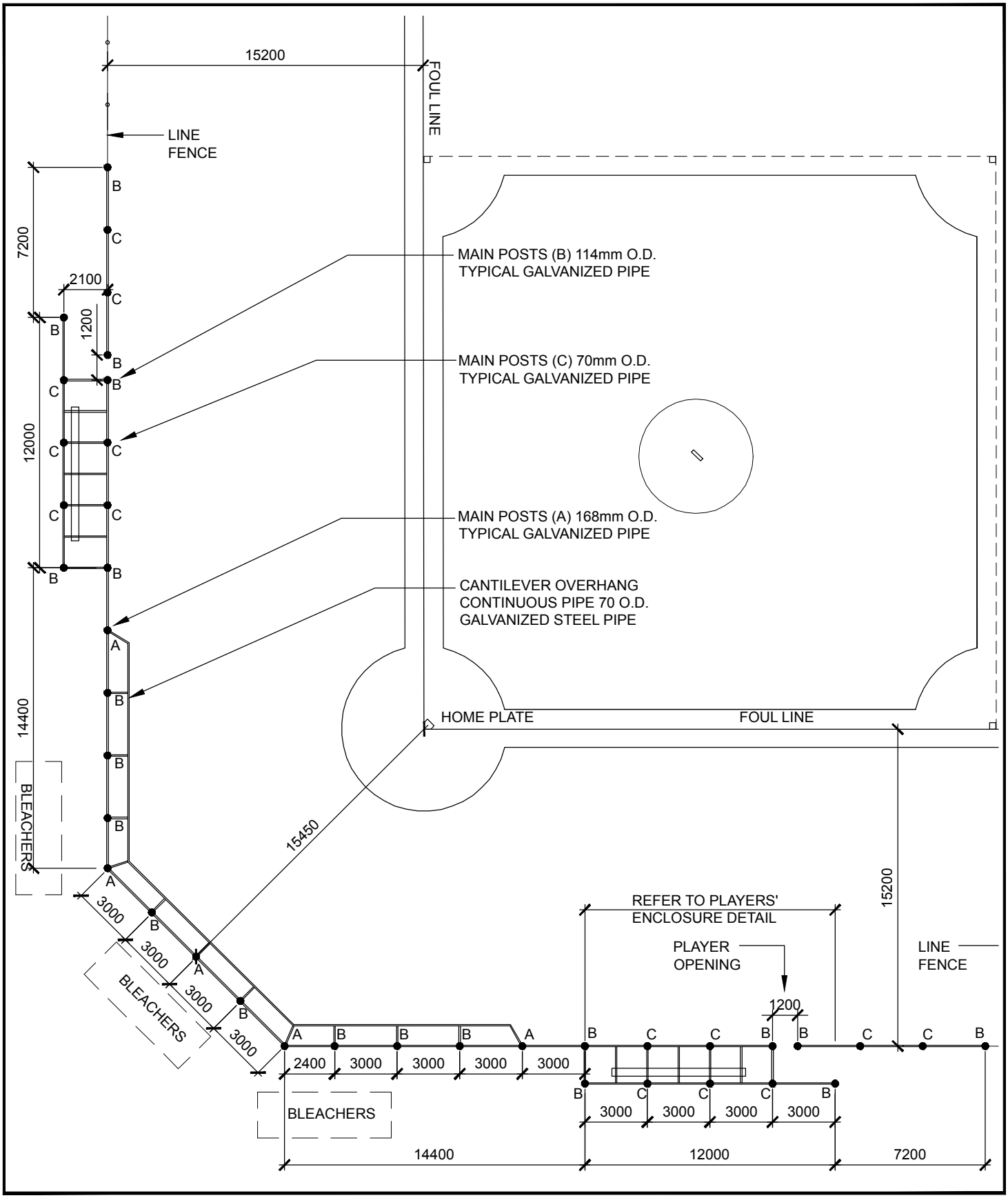
SENIOR BASEBALL DIAMOND

peterborough

CITY OF PETERBOROUGH

STANDARD DETAIL

DATE	DWG. No.
SEPTEMBER 2019	**CPD-101**
SCALE: N.T.S.	
REVISION No.	



DWG. TITLE

BASEBALL FIELD BACKSTOP FENCE DETAIL (1 OF 3)

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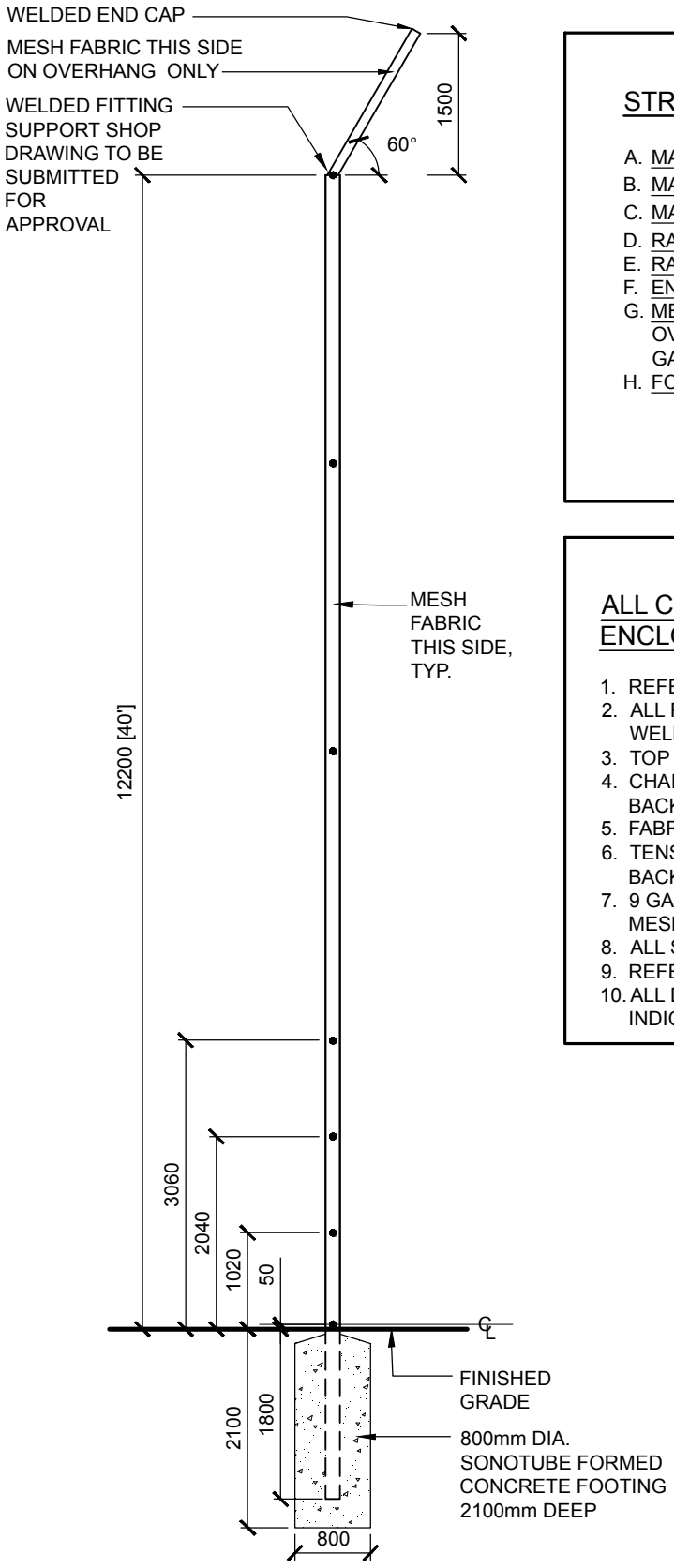
CITY OF PETERBOROUGH

STANDARD DETAIL

DATE	SEPTEMBER 2019
SCALE	N.T.S.
REVISION No.	

DWG. No.

CPD-102



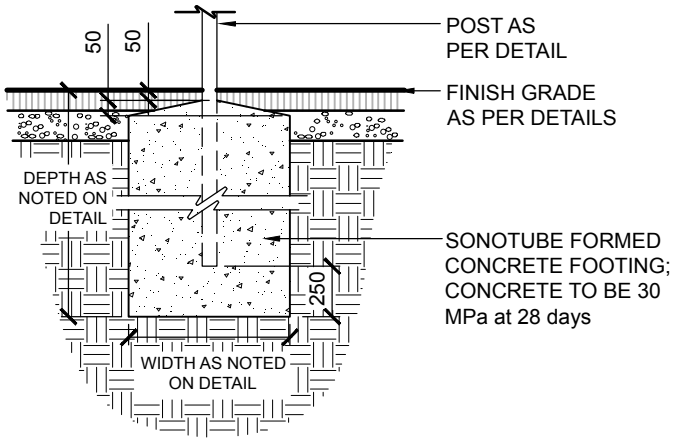
SECTION AT BACKSTOP

STRUCTURAL NOTES:

A. MAIN POSTS: 168mm (6-$\frac{1}{2}$") OD GALVANIZED STEEL PIPE
B. MAIN POSTS: 114mm (4-$\frac{1}{2}$") OD GALVANIZED STEEL PIPE
C. MAIN POSTS:90mm (3-$\frac{1}{2}$") OD GALVANIZED STEEL PIPE
D. RAILS: 64mm (2-$\frac{1}{2}$") OD GALVANIZED STEEL PIPE
E. RAILS: 48mm (2") OD GALVANIZED STEEL PIPE
F. END CAPS: ALL END CAPS MUST BE WELDED IN PLACE
G. MESH: CHAIN LINK FABRIC FOR BACKSTOP, WINGS AND OVERHANG PLAYERS ENCLOSURE TO BE 50mm (2") MESH OF GALVANIZED STEEL, 6 GAUGE WIRE, EDGES KNUCKLED UNDER
H. FOUL POLE: TO BE WHITE; SHOP DRAWINGS TO BE APPROVED

ALL CHAIN LINK FENCE, BACKSTOP, PLAYERS' BENCH ENCLOSURE, GATES AND BULLPEN NOTES:

1. REFER TO STRUCTURAL NOTES FOR ALL POSTS, RAILS AND MESH
2. ALL POSTS, RAILS, CAPS, ELBOWS AND OTHER JOINTS MUST BE WELDED.
3. TOP RAIL OF OVERHANG MUST BE CONTINUOUS PIPE
4. CHAIN LINK FABRIC TO BE ATTACHED TO INSIDE (PLAYING SIDE) OF BACKSTOP SCREEN AND FENCES AND THE TOP OF OVERHANG.
5. FABRIC OF OVERHANG TO EXTEND 25mm BEYOND PIPE FRAME.
6. TENSION BANDS TO BE 400mm O/C. BOLT ENDS TO BE AT BACK OF BACKSTOP SCREEN AND FENCES.
7. 9 GAUGE WIRE TIES TO BE 300mm O/C. WRAPPED TWICE THROUGH MESH AND TWISTED TWICE.
8. ALL STEEL PIPE TO BE SCHEDULE 40 GALVANIZED
9. REFER TO TYPICAL FOOTING DETAIL.
10. ALL DIMENSIONS SHOWN IN MILLIMETRES, UNLESS OTHERWISE INDICATED.



TYPICAL FOOTING DETAIL

DWG. TITLE

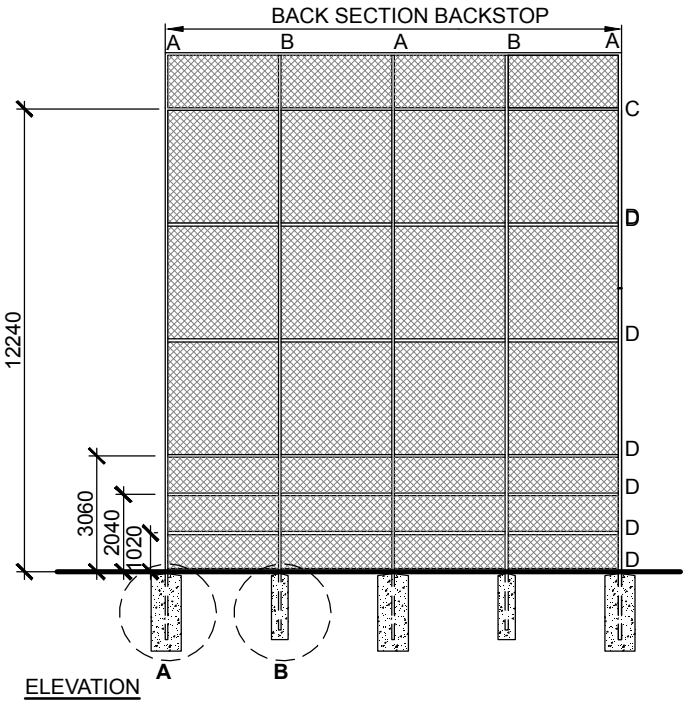
BASEBALL FIELD BACKSTOP FENCE - SECTION (2 OF 3)

peterborough

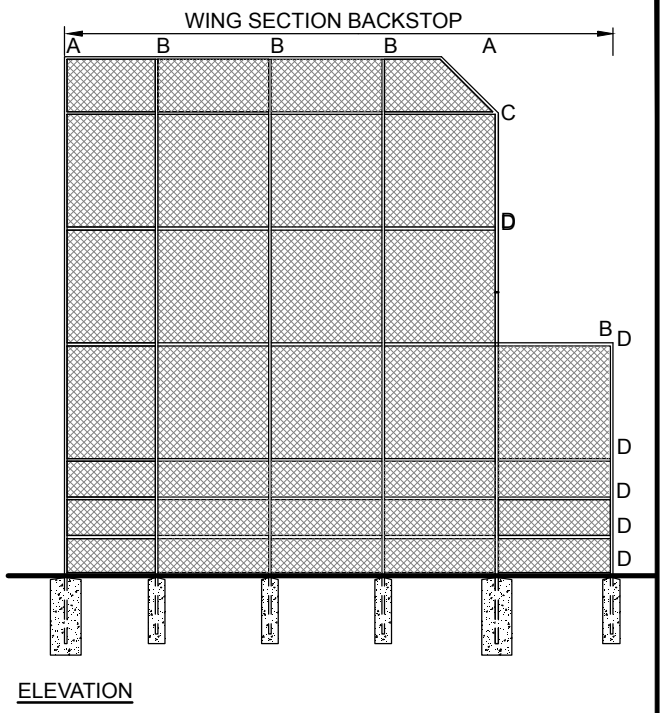
CITY OF PETERBOROUGH

STANDARD DETAIL

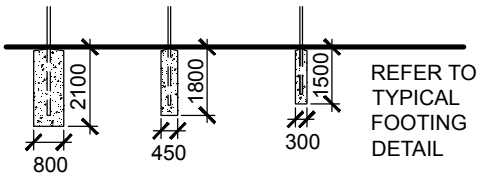
DATE	DWG. No.
SEPTEMBER 2019	**CPD-103**
SCALE: N.T.S.	
REVISION No.	



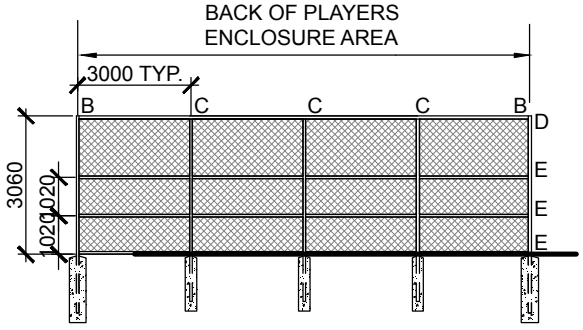
ELEVATION



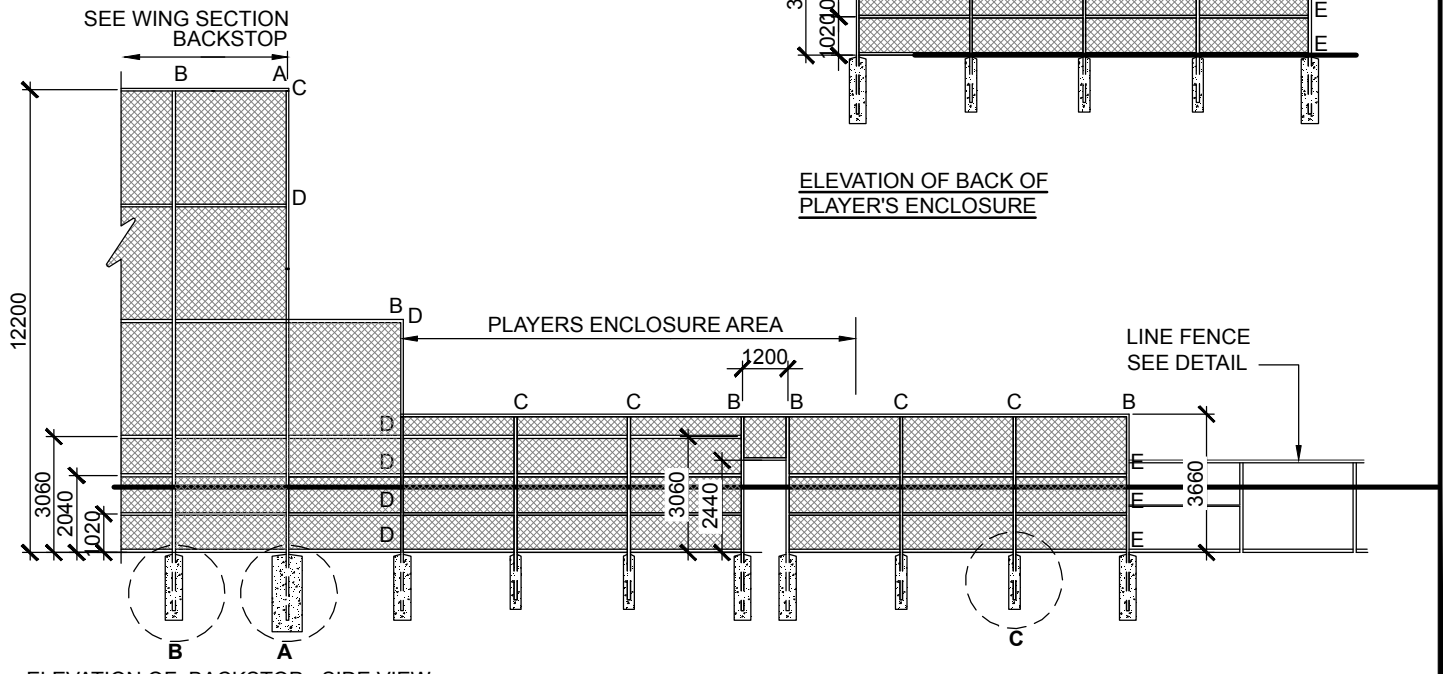
ELEVATION



FOOTING TYPE 'A' | FOOTING TYPE 'B' | FOOTING TYPE 'C'



ELEVATION OF BACK OF PLAYER'S ENCLOSURE



ELEVATION OF BACKSTOP - SIDE VIEW

DWG. TITLE

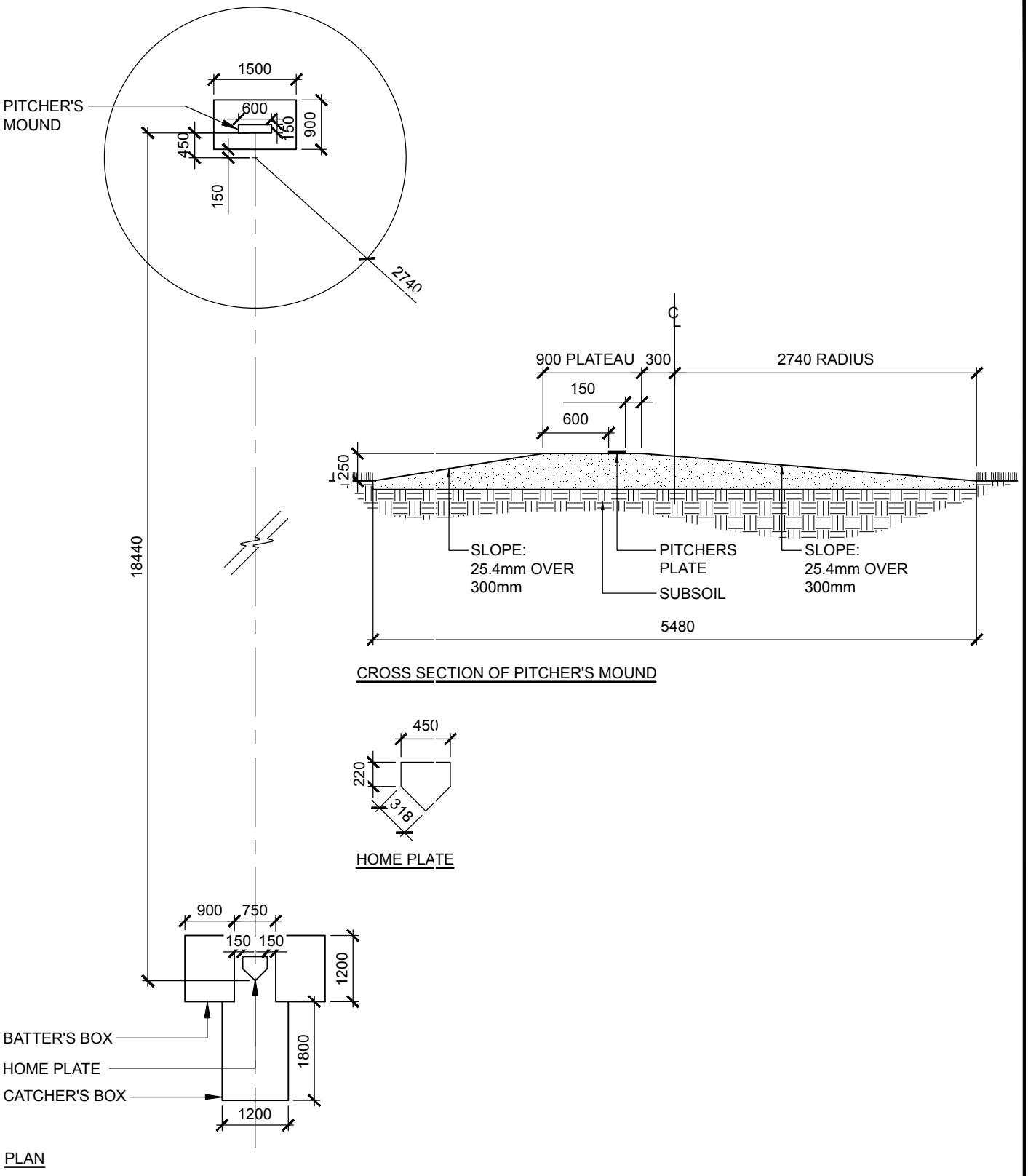
BASEBALL FIELD BACKSTOP FENCE - ELEVATION (3 OF 3)

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STANDARD DETAIL

DATE	SEPTEMBER 2019	DWG. No.
SCALE	N.T.S.	**CPD-104**
REVISION No.		



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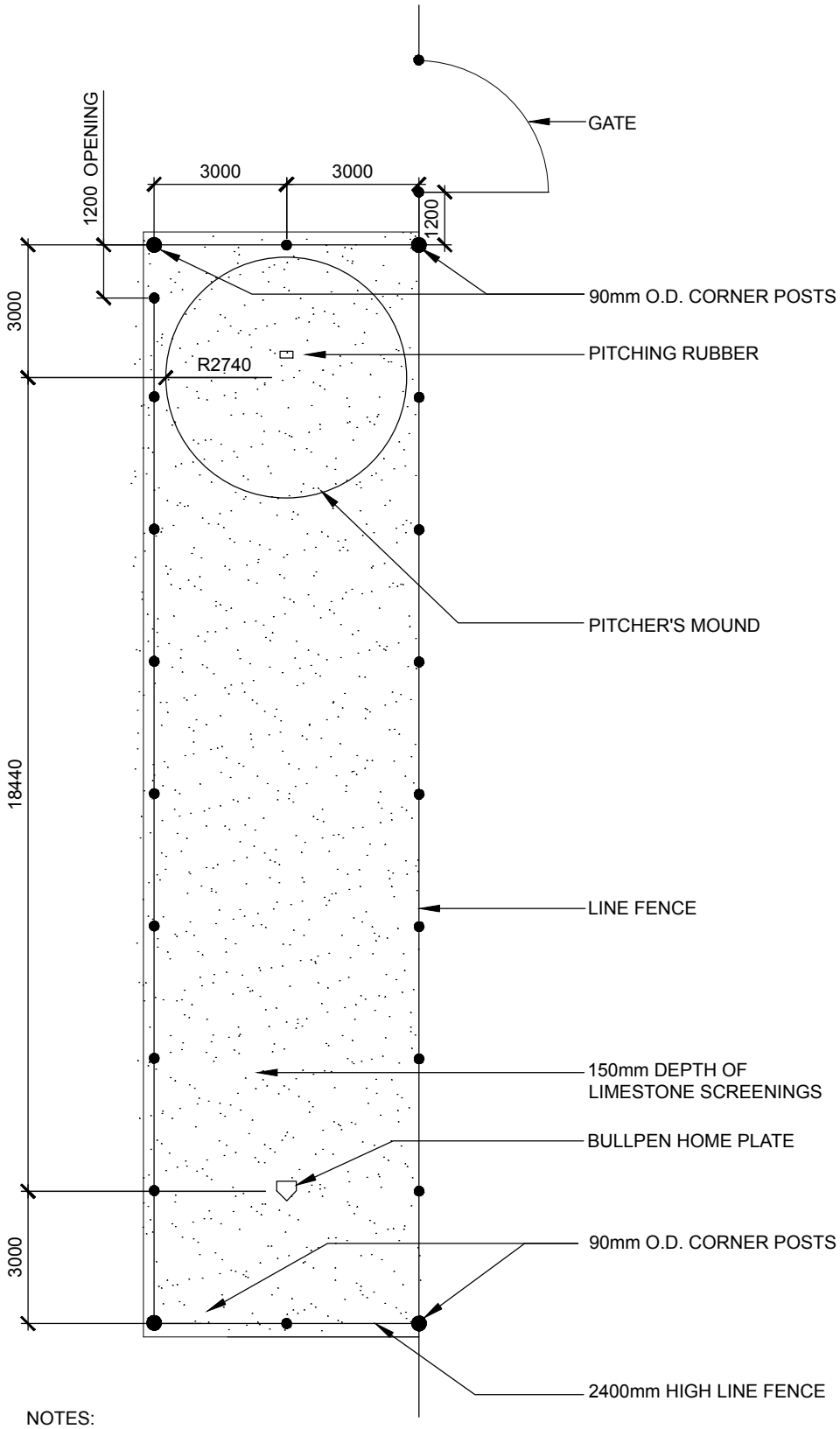
BASEBALL - PITCHER'S MOUND AND HOME PLATE

peterborough

CITY OF PETERBOROUGH

STANDARD DETAIL

DATE	DWG. No.
SEPTEMBER 2019	**CPD-105**
SCALE: N.T.S.	
REVISION No.	



NOTES:
1. ALL DIMENSIONS IN MILLIMETRES, UNLESS STATED OTHERWISE.

DWG. TITLE

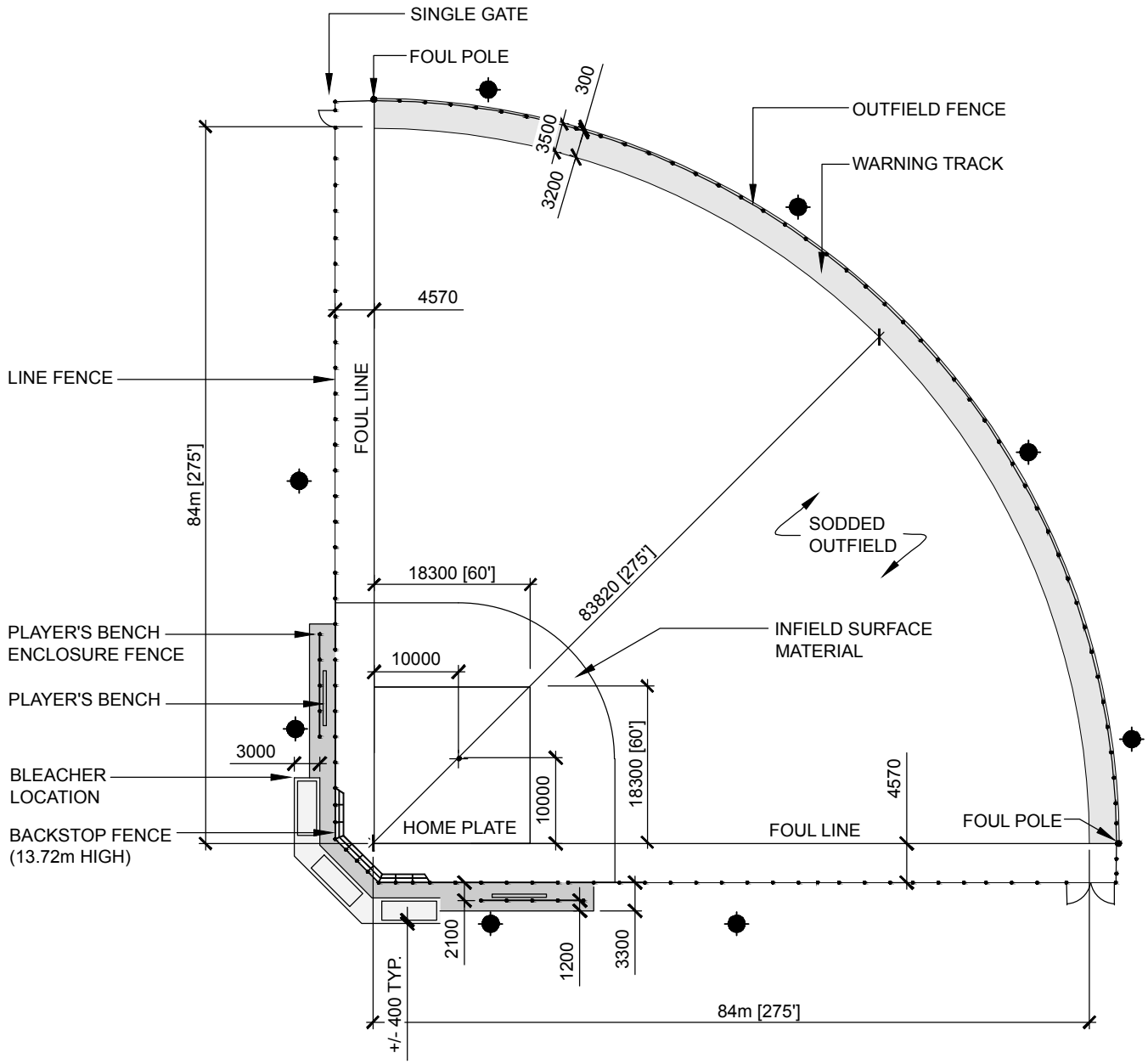
BASEBALL BULLPEN

peterborough

CITY OF PETERBOROUGH

STANDARD DETAIL

DATE	DWG. No.
SEPTEMBER 2019	CPD-106
SCALE: N.T.S.	
REVISION No.	



NOTES:
1. ALL DIMENSIONS IN MILLIMETRES, UNLESS OTHERWISE STATED.
2. PREFERRED ORIENTATION: A LINE RUNNING FROM HOME PLATE TO 2ND BASE SHOULD POINT 10 DEGREES EAST OF NORTH.
3. REFER TO APPROPRIATE DETAILS FOR INFIELD SURFACE MATERIAL, WARNING TRACK MATERIAL, AND BACKSTOP/ FENCING COMPONENTS.

DWG. TITLE

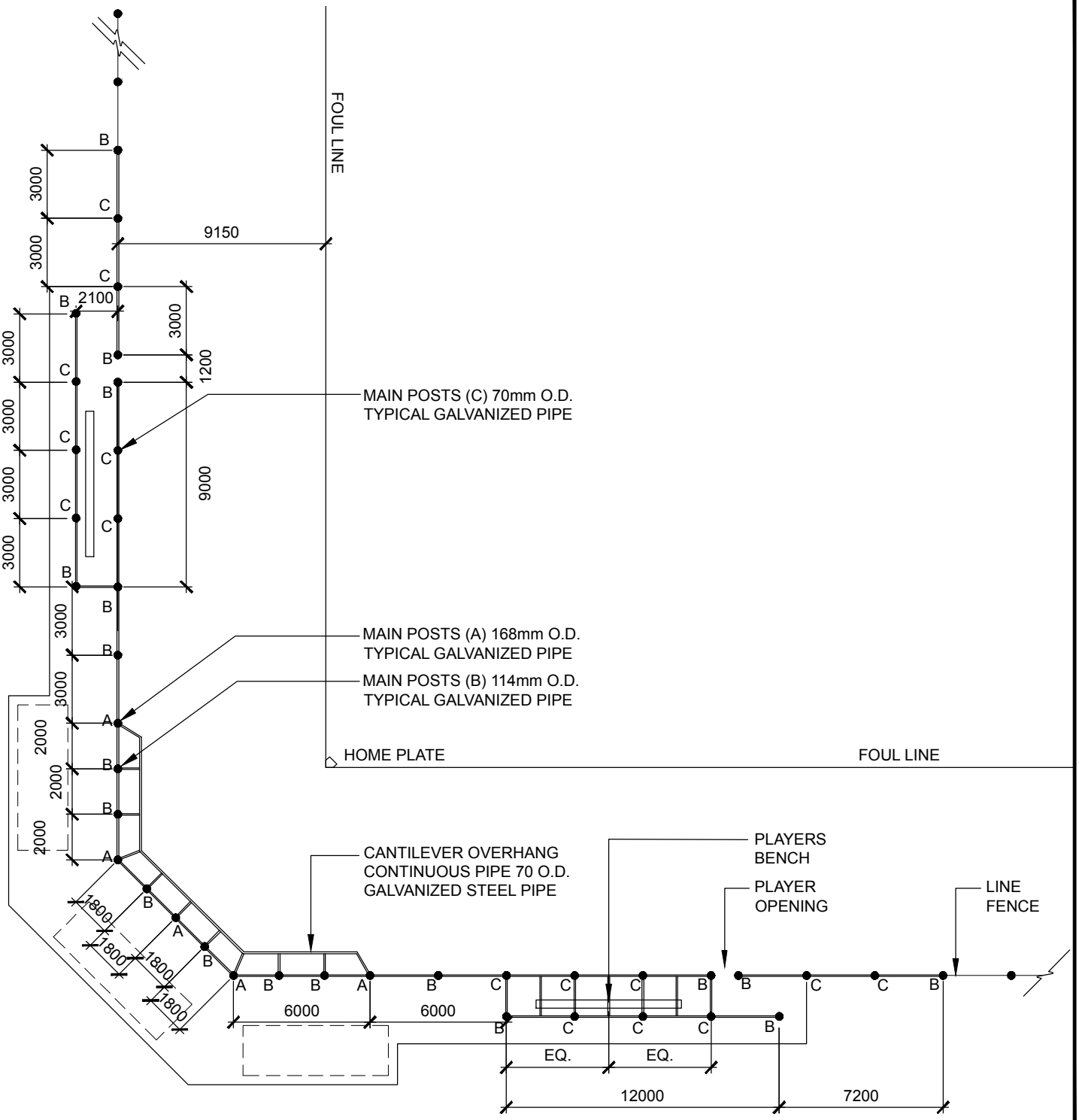
SENIOR SOFTBALL FIELD TYPICAL LAYOUT

peterborough

CITY OF PETERBOROUGH

STANDARD DETAIL

DATE	DWG. No.
SEPTEMBER 2019	CPD-107
SCALE: N.T.S.	
REVISION No.	



DWG. TITLE

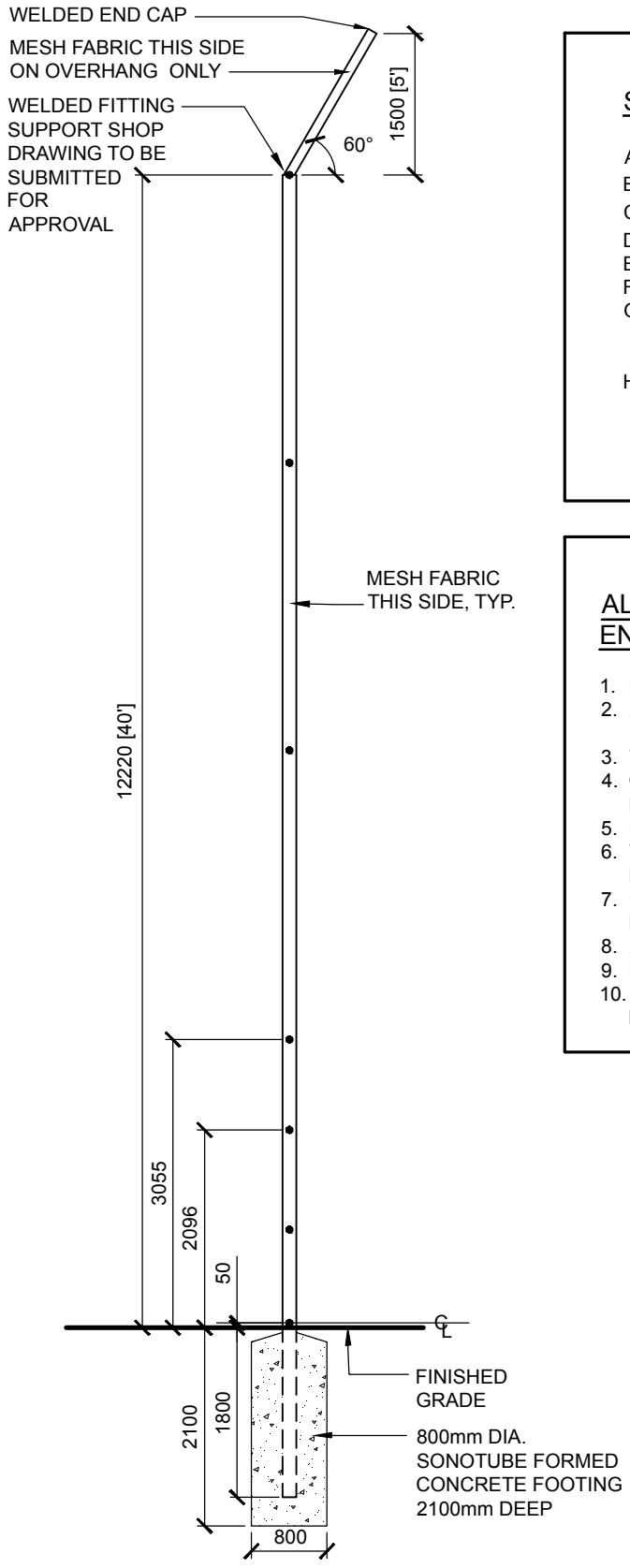
SENIOR SOFTBALL FIELD BACKSTOP FENCE - DETAIL (1 OF 3)

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CITY OF PETERBOROUGH

STANDARD DETAIL

DATE	SEPTEMBER 2019	DWG. No.
SCALE	N.T.S.	CPD-108
REVISION No.		



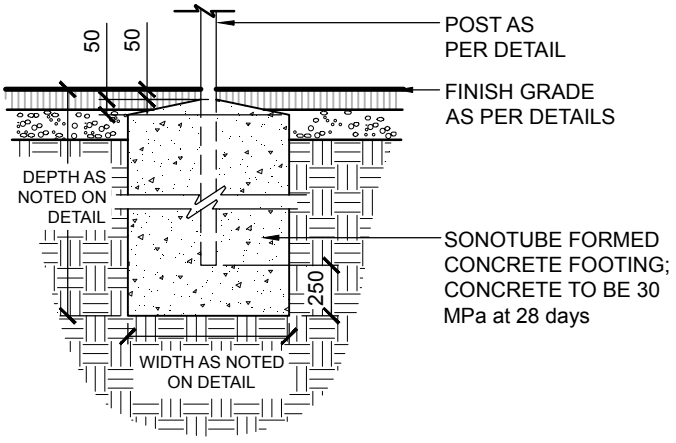
SECTION AT BACKSTOP

STRUCTURAL NOTES:

A. MAIN POSTS: 168mm (6-½") OD GALVANIZED STEEL PIPE
B. MAIN POSTS: 114mm (4-½") OD GALVANIZED STEEL PIPE
C. MAIN POSTS:90mm (3-½") OD GALVANIZED STEEL PIPE
D. RAILS: 64mm (2-½") OD GALVANIZED STEEL PIPE
E. RAILS: 48mm (2") OD GALVANIZED STEEL PIPE
F. END CAPS: ALL END CAPS MUST BE WELDED IN PLACE
G. MESH: CHAIN LINK FABRIC FOR BACKSTOP, WINGS AND OVERHANG PLAYERS ENCLOSURE TO BE 50mm (2") MESH OF GALVANIZED STEEL, 6 GAUGE WIRE, EDGES KNUCKLED UNDER
H. FOUL POLE: TO BE WHITE; SHOP DRAWINGS TO BE APPROVED

ALL CHAIN LINK FENCE, BACKSTOP, PLAYERS' BENCH ENCLOSURE, GATES AND BULLPEN NOTES:

1. REFER TO STRUCTURAL NOTES FOR ALL POSTS, RAILS AND MESH
2. ALL POSTS, RAILS, CAPS, ELBOWS AND OTHER JOINTS MUST BE WELDED.
3. TOP RAIL OF OVERHANG MUST BE CONTINUOUS PIPE
4. CHAIN LINK FABRIC TO BE ATTACHED TO INSIDE (PLAYING SIDE) OF BACKSTOP SCREEN AND FENCES AND THE TOP OF OVERHANG.
5. FABRIC OF OVERHANG TO EXTEND 25mm BEYOND PIPE FRAME.
6. TENSION BANDS TO BE 400mm O/C. BOLT ENDS TO BE AT BACK OF BACKSTOP SCREEN AND FENCES.
7. 9 GAUGE WIRE TIES TO BE 300mm O/C. WRAPPED TWICE THROUGH MESH AND TWISTED TWICE.
8. ALL STEEL PIPE TO BE SCHEDULE 40 GALVANIZED
9. REFER TO TYPICAL FOOTING DETAIL.
10. ALL DIMENSIONS SHOWN IN MILLIMETRES, UNLESS OTHERWISE INDICATED.



TYPICAL FOOTING DETAIL

DWG. TITLE

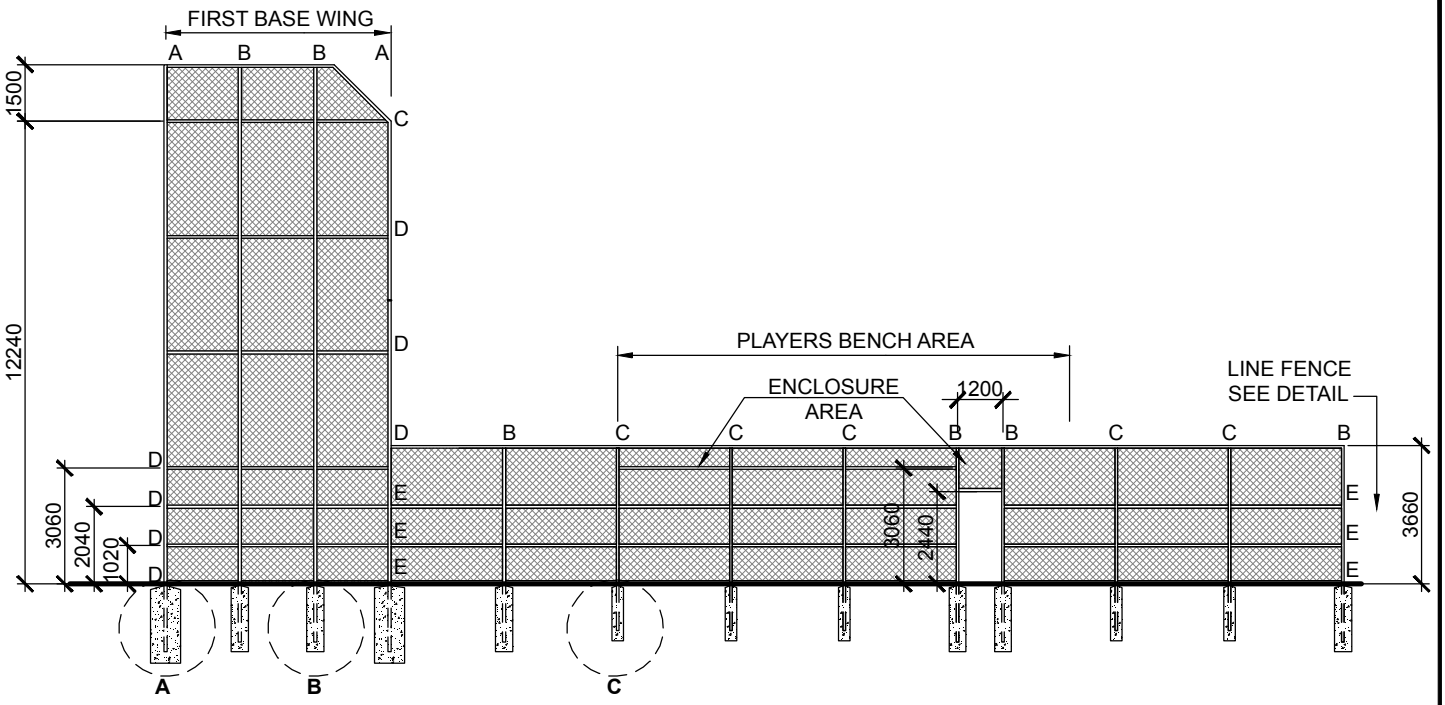
SENIOR SOFTBALL FIELD BACKSTOP FENCE - SECTION (2 OF 3)

peterborough

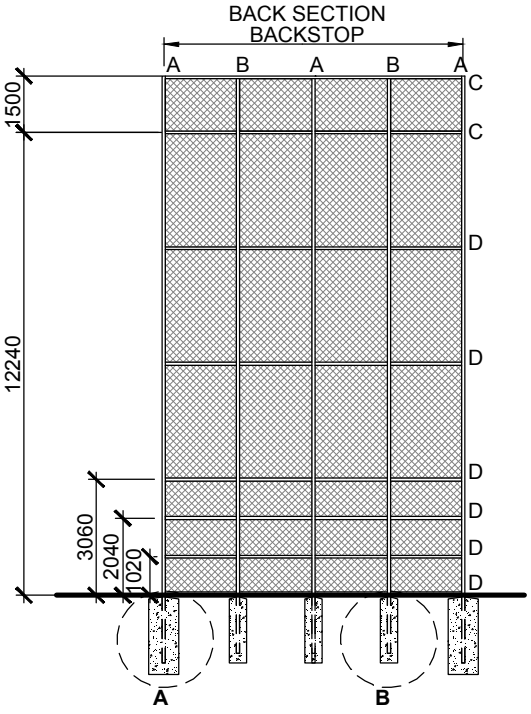
CITY OF PETERBOROUGH

STANDARD DETAIL

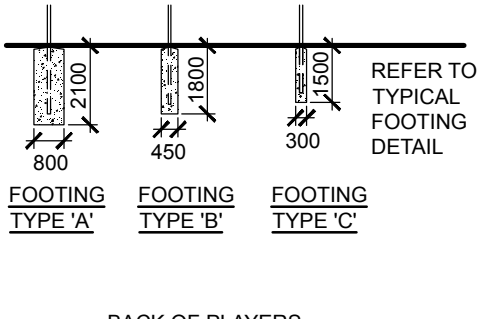
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SEPTEMBER 2019	**CPD-109**
SCALE: N.T.S.	
REVISION No.	

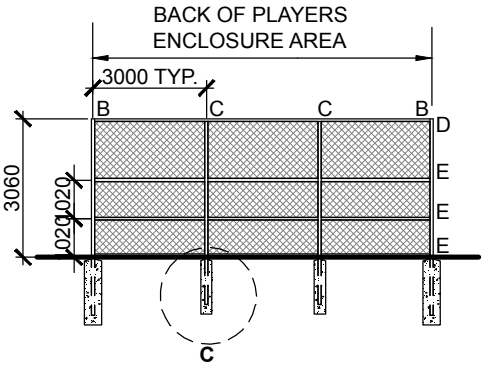


ELEVATION OF BACKSTOP - SIDE VIEW



ELEVATION OF BACK SECTION OF BACKSTOP





ELEVATION OF BACK OF PLAYER'S ENCLOSURE

DWG. TITLE

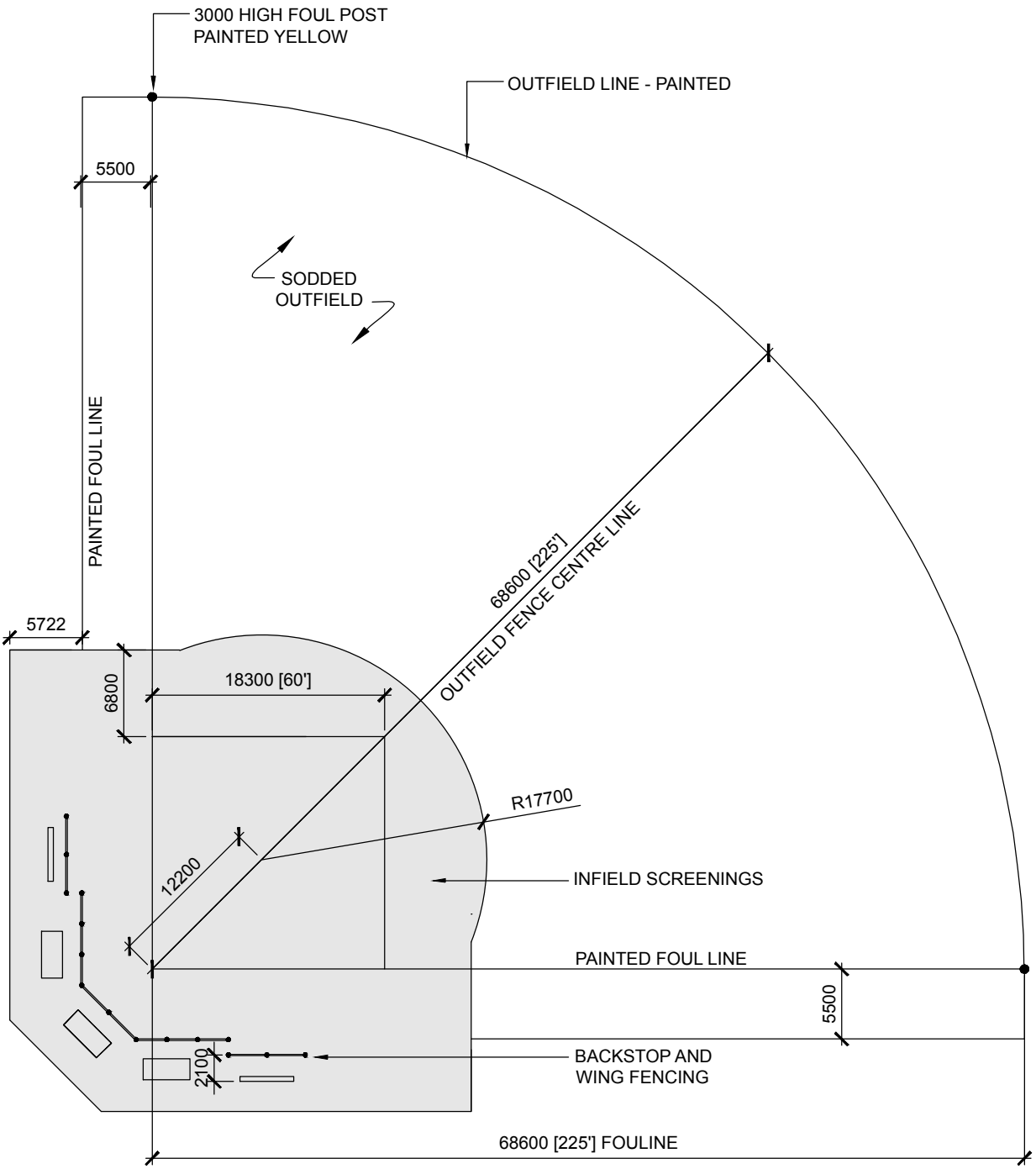
SENIOR SOFTBALL FIELD BACKSTOP FENCE - ELEVATION (3 OF 3)

peterborough

CITY OF PETERBOROUGH

STANDARD DETAIL

DATE	DWG. No.
SEPTEMBER 2019	**CPD-110**
SCALE: N.T.S.	
REVISION No.	



DWG. TITLE

JUNIOR SOFTBALL FIELD TYPICAL LAYOUT

peterborough

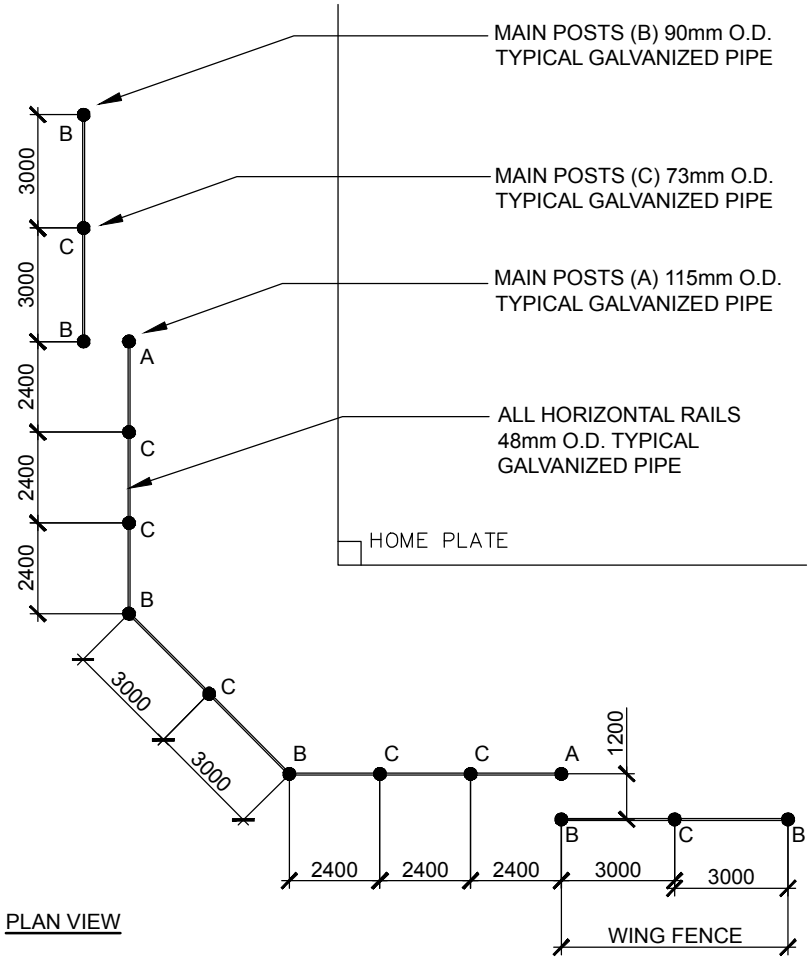
CITY OF PETERBOROUGH

STANDARD DETAIL

DATE	SEPTEMBER 2019
SCALE	N.T.S.
REVISION No.	

DWG. No.

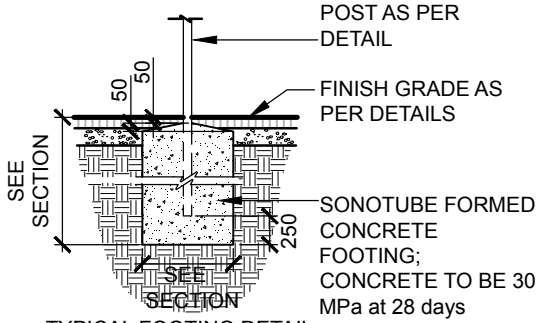
CPD-111



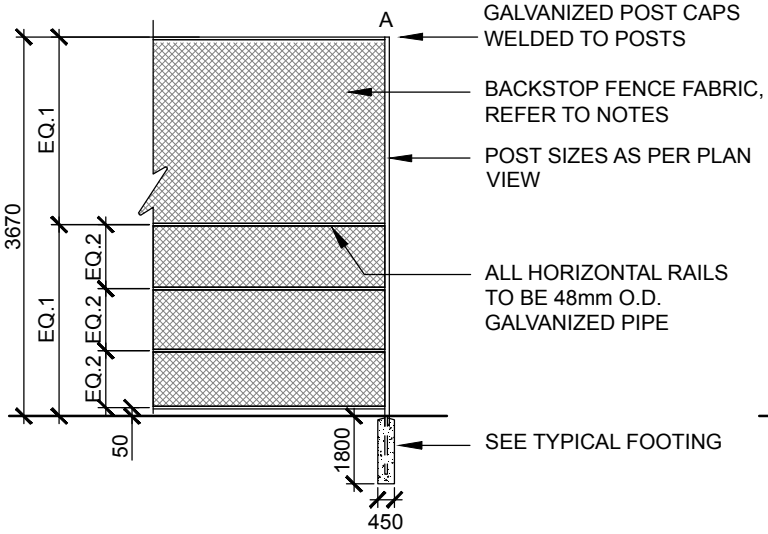
PLAN VIEW

NOTES:

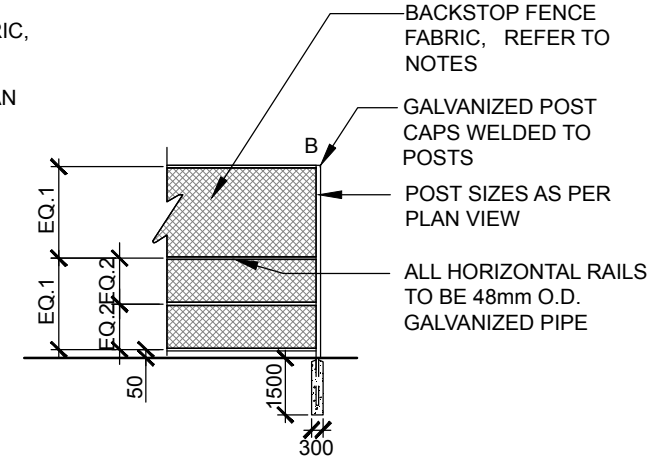
1. ALL DIMENSIONS SHOWN IN MILLIMETRES, UNLESS STATED OTHERWISE.
2. ALL FABRIC TO BE 9 GAUGE GALVANIZED CHAINLINK WOVEN IN A 50mm MESH.
2. ALL POSTS, RAILS, CAPS, ELBOWS AND OTHER JOINTS MUST BE WELDED.
3. TOP RAIL OF OVERHANG MUST BE CONTINUOUS PIPE.
4. CHAIN LINK FABRIC TO BE ATTACHED TO INSIDE (PLAYING SIDE) OF BACKSTOP SCREEN AND FENCES.
5. TENSION BANDS TO BE 400mm O/C. BOLT ENDS TO BE AT BACK OF BACKSTOP SCREEN AND FENCES.
6. 9 GAUGE WIRE TIES TO BE 300mm O/C. WRAPPED TWICE THROUGH MESH AND TWISTED TWICE.
7. ALL STEEL PIPE TO BE SCHEDULE 40 GALVANIZED.



TYPICAL FOOTING DETAIL



ELEVATION OF BACKSTOP FENCING (N.T.S.)



ELEVATION OF WING FENCING (N.T.S.)

DWG. TITLE

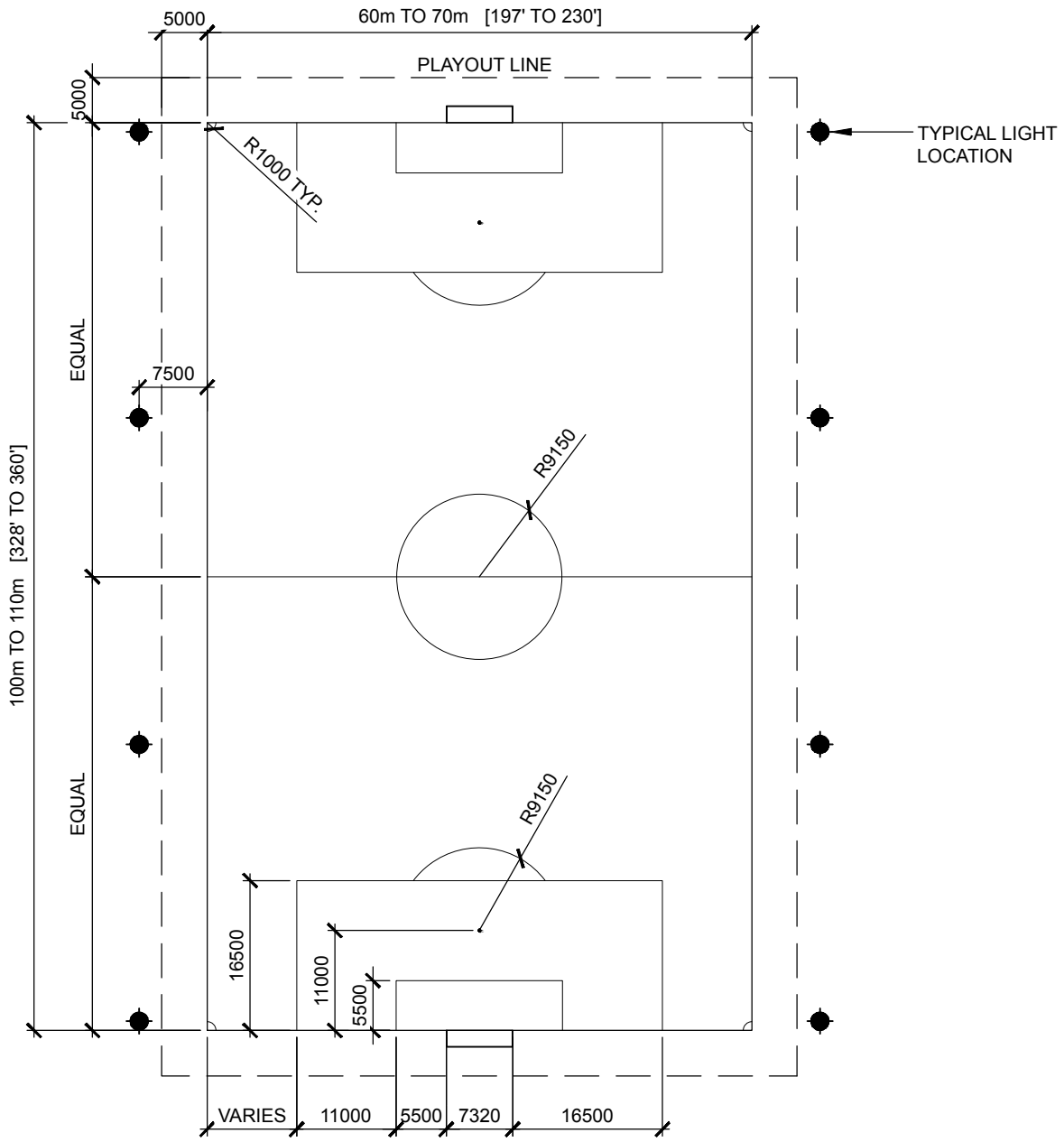
JUNIOR SOFTBALL FIELD BACKSTOP FENCE - DETAIL

peterborough

CITY OF PETERBOROUGH

STANDARD DETAIL

DATE	DWG. No.
SEPTEMBER 2019	CPD-112
SCALE: N.T.S.	
REVISION No.	



NOTES:

1. ALL DIMENSIONS SHOWN IN MILLIMETRES, UNLESS OTHERWISE INDICATED.
2. PREFERRED ORIENTATION: NORTH/SOUTH
3. SOCCER PITCHES TO BE CENTRE CROWNED WITH MIN. 1% GRADE.
4. GOALS TO BE 2440mm HIGH BY 7320mm LONG [8'x24'].
5. GOALS TO BE ANCHORED AT ALL TIMES.
6. EXISTING SOIL CONDITIONS TO BE TESTED AND AMENDED TO ENSURE THE FERTILITY AND COMPOSITION IS SUITABLE FOR OPTIMUM TURF PERFORMANCE.

DWG. TITLE

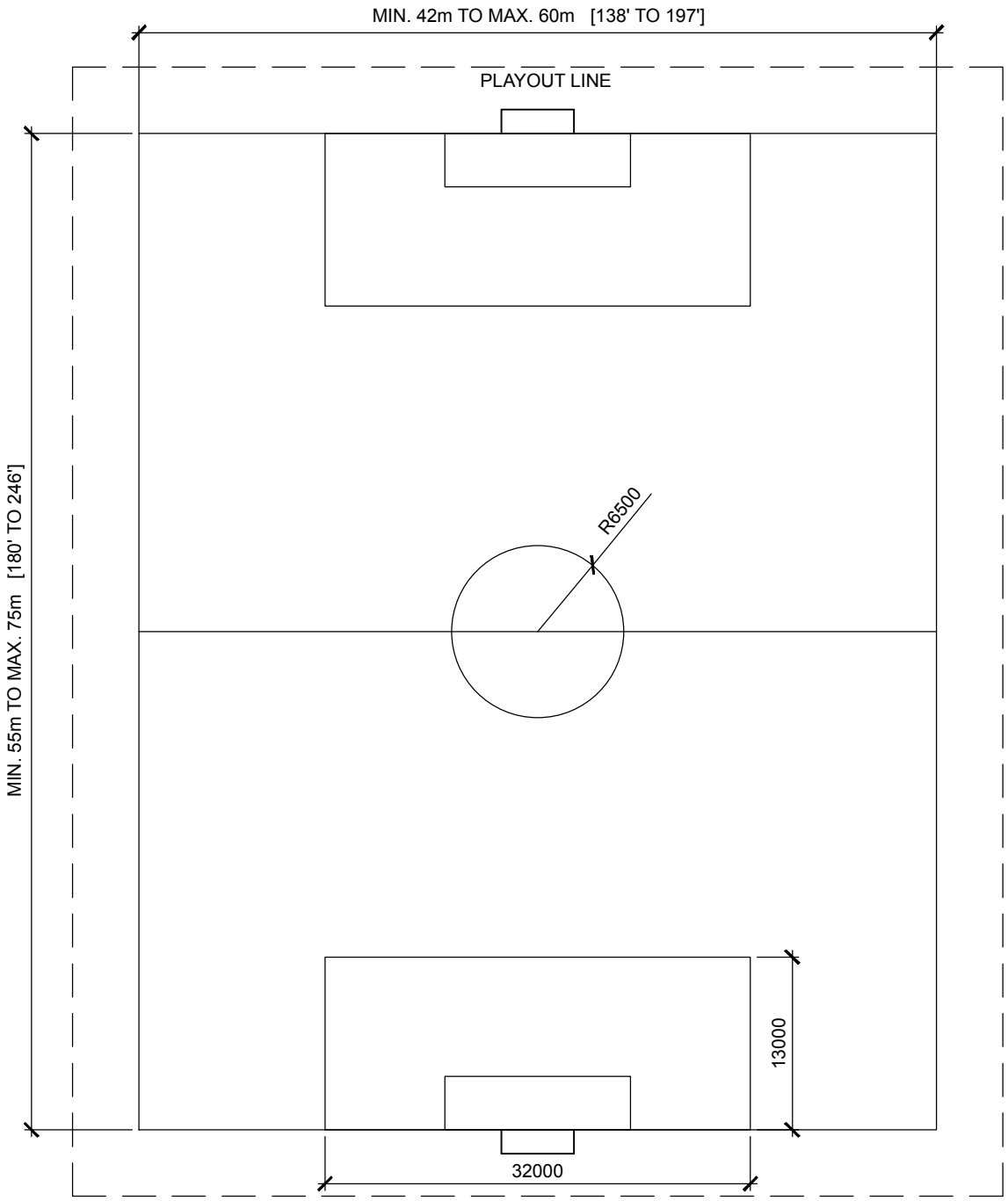
SENIOR SOCCER PITCH

peterborough

CITY OF PETERBOROUGH

STANDARD DETAIL

DATE	DWG. No.
SEPTEMBER 2019	CPD-113
SCALE: N.T.S.	
REVISION No.	



NOTES:

1. ALL DIMENSIONS SHOWN IN MILLIMETRES, UNLESS OTHERWISE INDICATED.
2. PREFERRED ORIENTATION: NORTH/SOUTH
3. SOCCER PITCHES TO BE CENTRE CROWNED WITH MIN. 1% GRADE.
4. INTERMEDIATE GOALS (9v9) TO BE 1830mm HIGH BY 5485mm LONG [6'x18'].
5. GOALS TO BE ANCHORED AT ALL TIMES.
6. EXISTING SOIL CONDITIONS TO BE TESTED AND AMENDED TO ENSURE THE FERTILITY AND COMPOSITION IS SUITABLE FOR OPTIMUM TURF PERFORMANCE.

DWG. TITLE

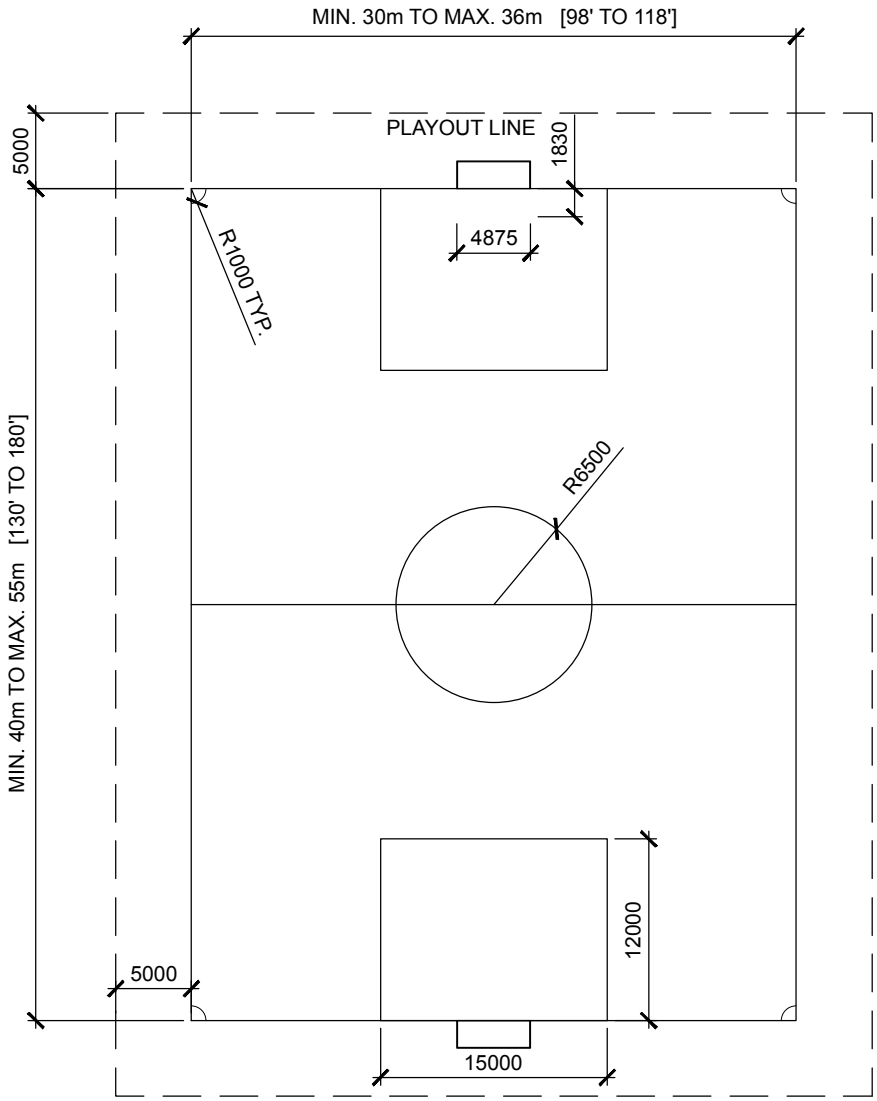
INTERMEDIATE SOCCER PITCH

peterborough

CITY OF PETERBOROUGH

STANDARD DETAIL

DATE	DWG. No.
SEPTEMBER 2019	CPD-114
SCALE: N.T.S.	
REVISION No.	



NOTES:

1. ALL DIMENSIONS SHOWN IN MILLIMETRES, UNLESS OTHERWISE INDICATED.
2. PREFERRED ORIENTATION: NORTH/SOUTH.
3. SOCCER PITCHES TO BE CENTRE CROWNED WITH MIN. 1% GRADE.
4. JUNIOR GOALS (7v7) TO BE 1830mm HIGH X 4875mm LONG [6' X 16'].
5. GOALS TO BE ANCHORED AT ALL TIMES.
6. EXISTING SOIL CONDITIONS TO BE TESTED AND AMENDED TO ENSURE THE FERTILITY AND COMPOSITION IS SUITABLE FOR OPTIMUM TURF PERFORMANCE.

DWG. TITLE

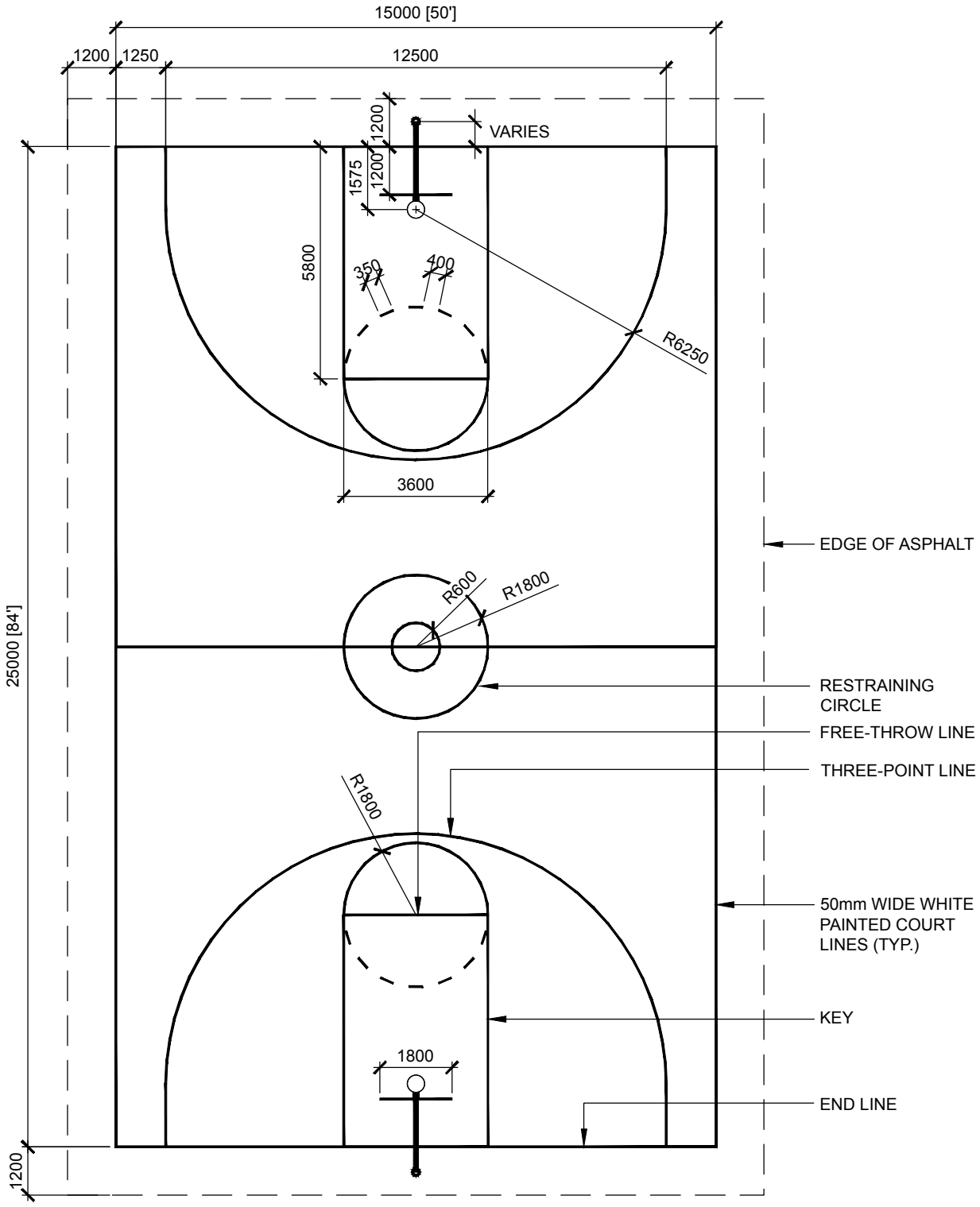
JUNIOR SOCCER PITCH

peterborough

CITY OF PETERBOROUGH

STANDARD DETAIL

DATE	DWG. No.
SEPTEMBER 2019	CPD-115
SCALE: N.T.S.	
REVISION No.	



NOTES:
1. ALL DIMENSIONS SHOWN IN MILLIMETRES, UNLESS OTHERWISE INDICATED.
2. WHEN MASKING OFF LINES WITH TAPE, DO NOT CUT TAPE ON ASPHALT SURFACE.

DWG. TITLE

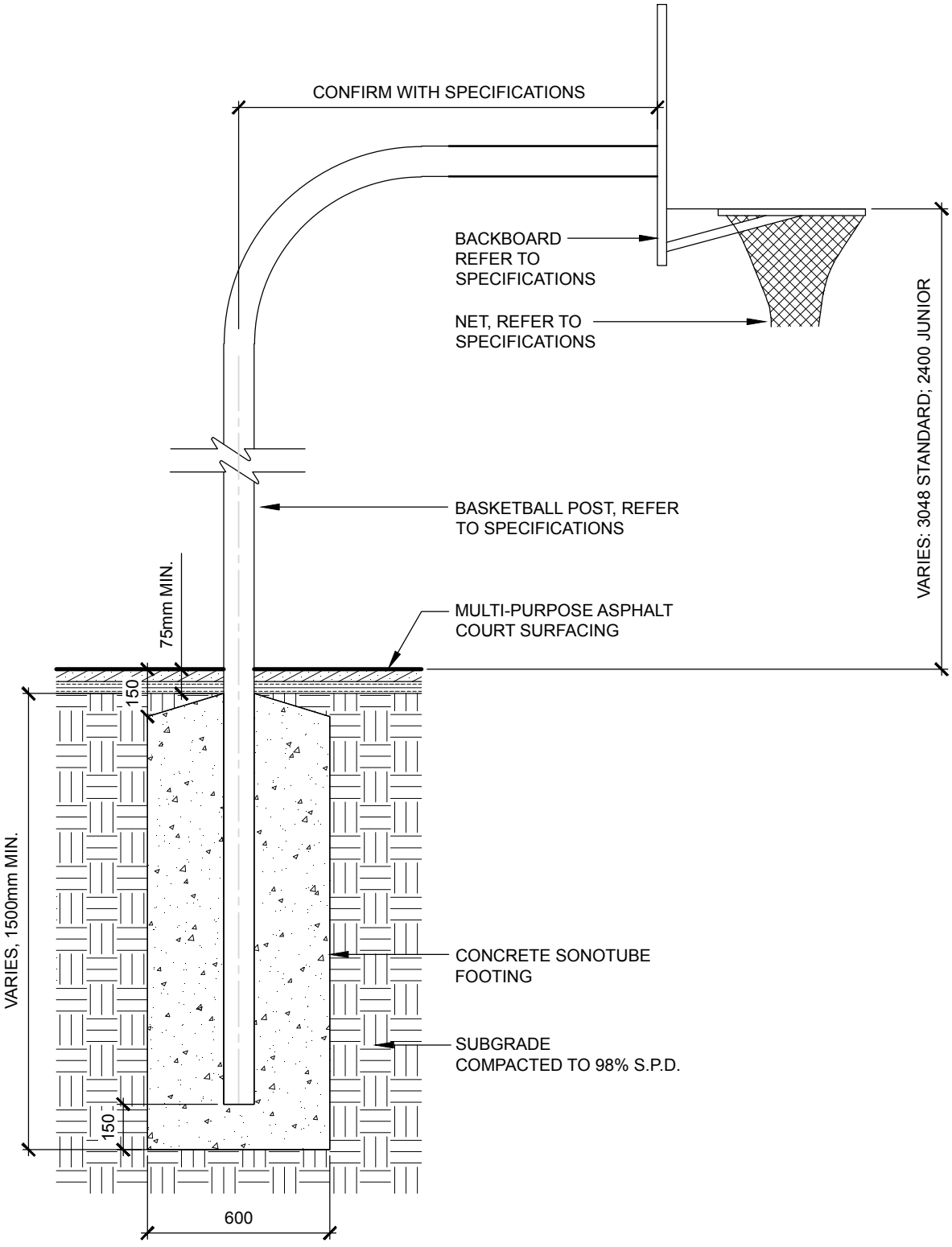
BASKETBALL COURT LAYOUT

peterborough

CITY OF PETERBOROUGH

STANDARD DETAIL

DATE	DWG. No.
SEPTEMBER 2019	CPD-116
SCALE: N.T.S.	
REVISION No.	



NOTES:

1. ALL DIMENSIONS IN MILLIMETRES, UNLESS STATED OTHERWISE.CONCRETE MIX TO BE 32 MPa AT 28 DAYS.

DWG. TITLE

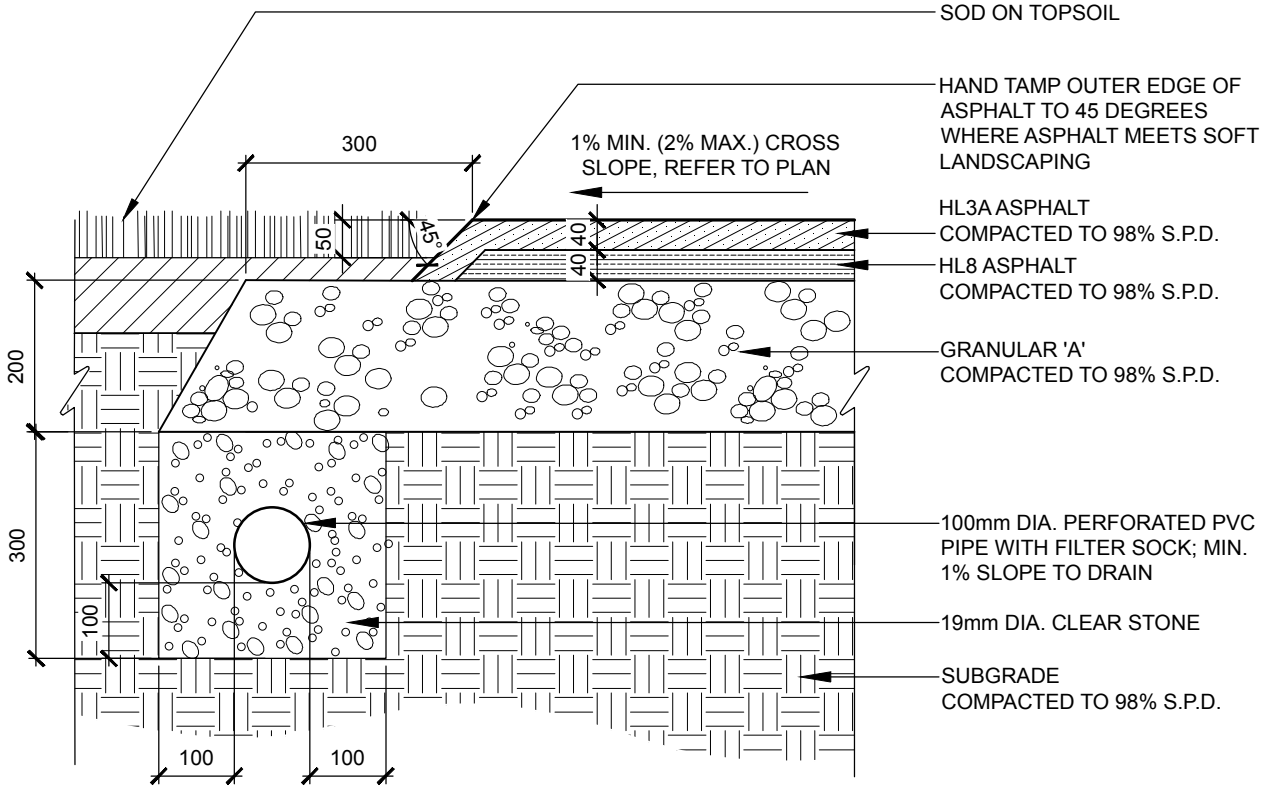
BASKETBALL HOOP FOOTING DETAIL

peterborough

CITY OF PETERBOROUGH

STANDARD DETAIL

DATE	DWG. No.
SEPTEMBER 2019	CPD-117
SCALE: N.T.S.	
REVISION No.	



NOTES:

1. ALL DIMENSIONS IN MILLIMETRES, UNLESS STATED OTHERWISE.
2. MULTI-PURPOSE COURT MAY INCLUDE THE INSTALLATION OF SINGLE BASKETBALL HOOP OR OTHER HARD SURFACE SPORTS FEATURES AS DETERMINED BY PARKS PROGRAM.
3. DIMENSIONS OF MULTI-PURPOSE COURTS WILL VARY BUT TYPICAL COURT SIZE TO BE APPROXIMATELY 12500mm X 15000mm.

DWG. TITLE

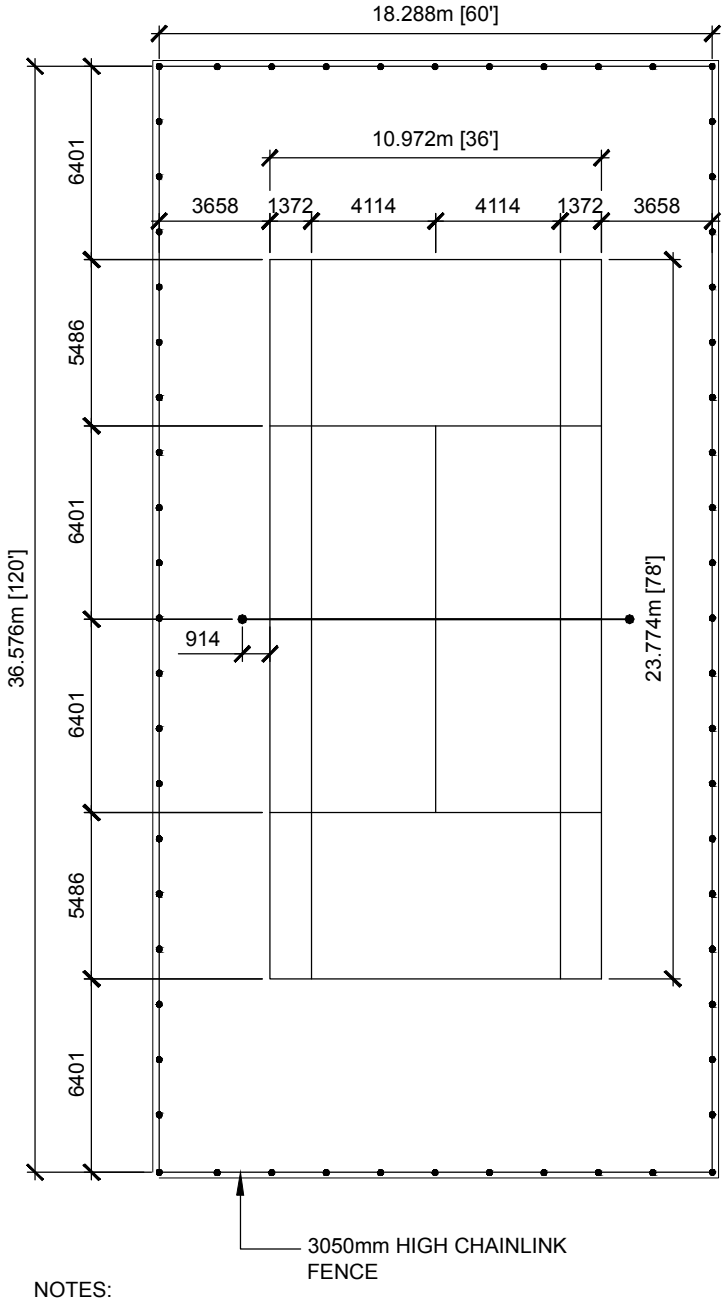
MULTI-PURPOSE COURT ASPHALT PAVING

peterborough

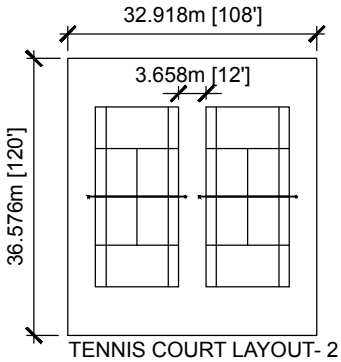
CITY OF PETERBOROUGH

STANDARD DETAIL

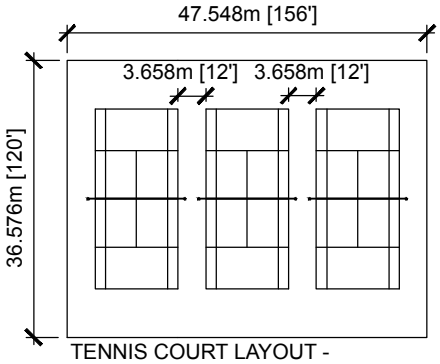
DATE	DWG. No.
SEPTEMBER 2019	**CPD-118**
SCALE: N.T.S.	
REVISION No.	



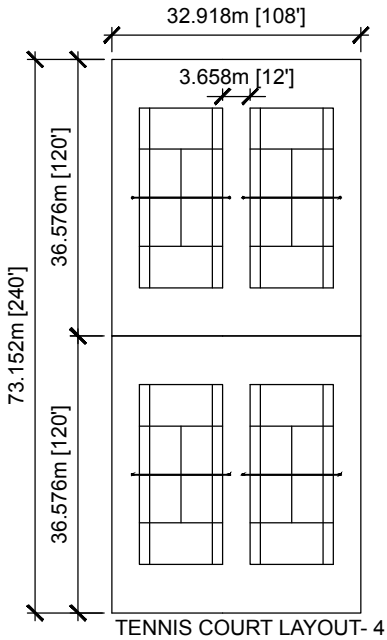
NOTES:
1. ALL DIMENSIONS SHOWN IN MILLIMETRES, UNLESS OTHERWISE INDICATED.
2. COURT ORIENTATION NORTH/SOUTH LENGTHWISE.



TENNIS COURT LAYOUT- 2 IN BATTERY



TENNIS COURT LAYOUT - 3 IN BATTERY



TENNIS COURT LAYOUT- 4 IN BATTERY

DWG. TITLE

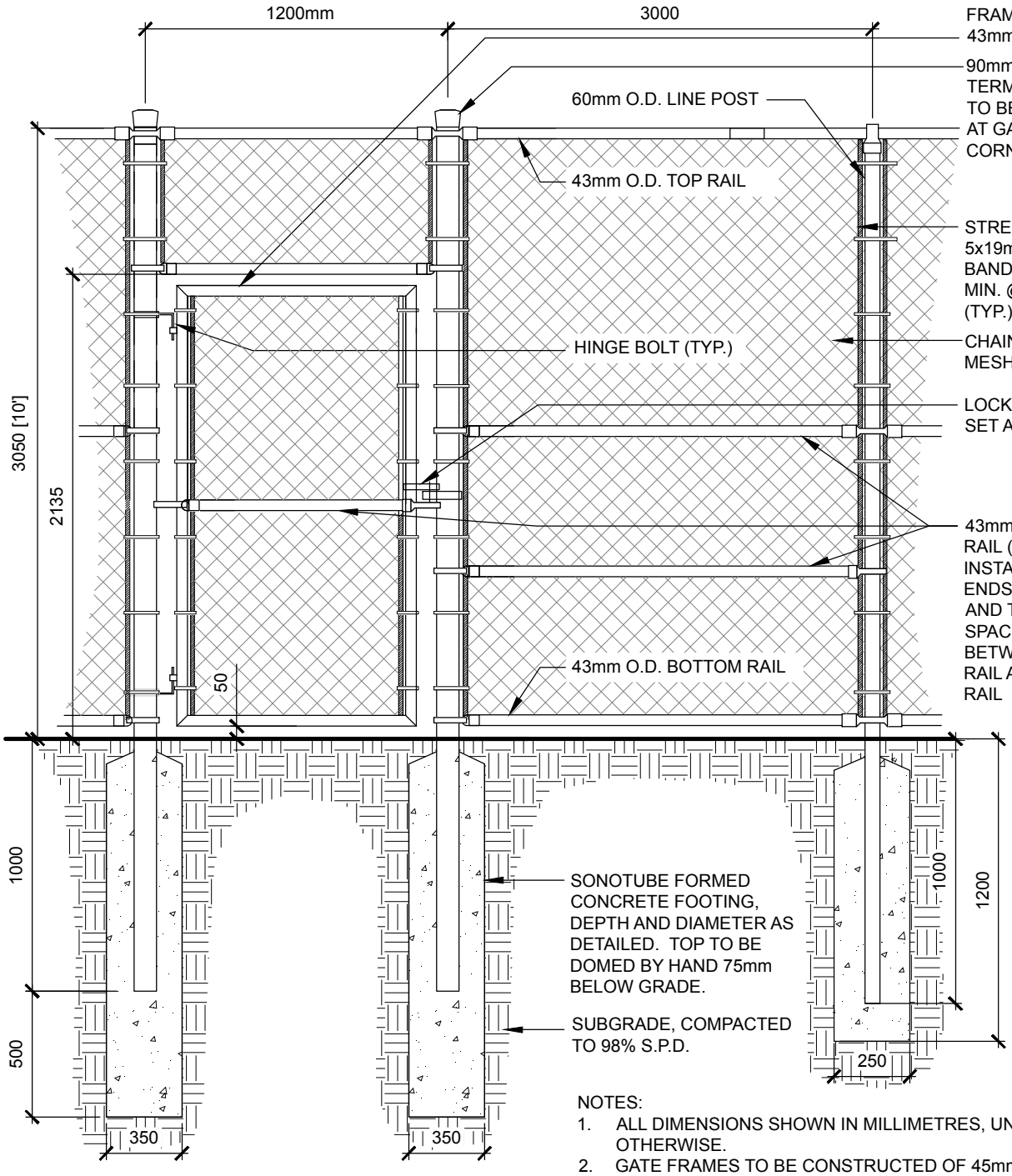
TENNIS COURT LAYOUT PLAN

peterborough

CITY OF PETERBOROUGH

STANDARD DETAIL

DATE	DWG. No.
SEPTEMBER 2019	CPD-119
SCALE: N.T.S.	
REVISION No.	



NOTES:

1. ALL DIMENSIONS SHOWN IN MILLIMETRES, UNLESS STATED OTHERWISE.
2. GATE FRAMES TO BE CONSTRUCTED OF 45mm O.D. GALVANIZED STEEL PIPE, SHOP BENT, WELDED AND GROUND SMOOTH. WELD ALL JOINTS.
3. ALL CHAIN LINK FABRIC TO BE BLACK VINYL COATED WOVEN 40mm MESH, No.9 GAUGE GALVANIZED STEEL CORE; SECURE TO FRAME, STRETCHER BAR AND BRACE RAIL WITH 9 GAUGE WIRE TIES AT 300mm O.C., KNUCKLED.
4. BOLT ENDS TO BE AT BACK OF GATE.
5. ALL STEEL PIPE TO BE SCHEDULE 40 GALVANIZED PIPE.
6. ALL GATE AND FENCE COMPONENTS SHALL BE FINISHED WITH BLACK GLOSS ENAMEL ELECTROSTATICALLY APPLIED.
7. CONCRETE FOOTINGS TO BE 30 MPa AT 28 DAYS.

DWG. TITLE

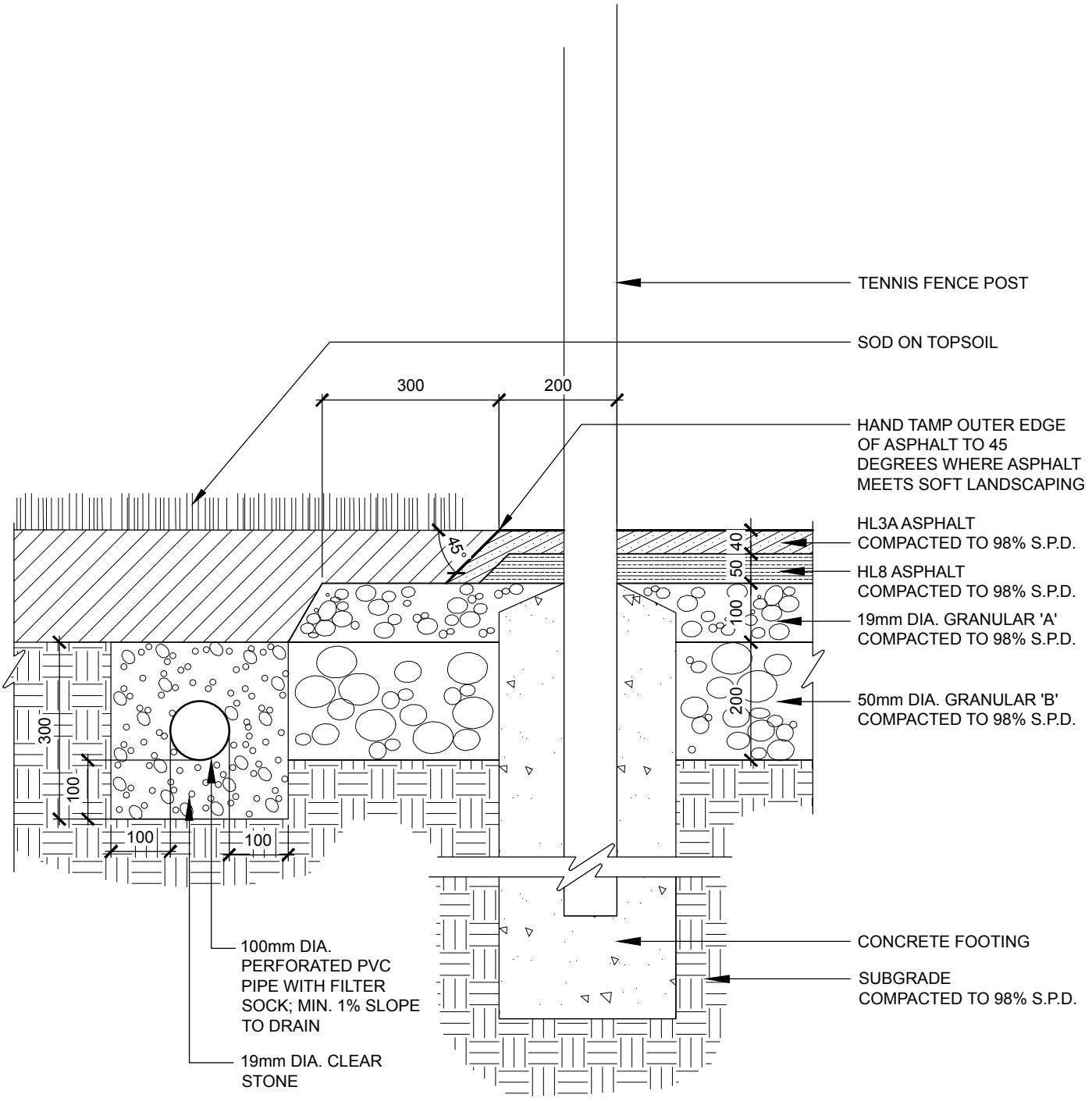
TENNIS COURT FENCE AND GATE

peterborough

CITY OF PETERBOROUGH

STANDARD DETAIL

DATE	DWG. No.
SEPTEMBER 2019	CPD-120
SCALE: N.T.S.	
REVISION No.	



NOTES:
1. ALL DIMENSIONS IN MILLIMETRES, UNLESS STATED OTHERWISE.
2. TENNIS NET SPECIFICATIONS AND MANUFACTURER'S INSTALLATION DETAILS TO BE REVIEWED AND APPROVED BY CITY.
3. CONCRETE FOOTINGS TO BE 30 MPa AT 28 DAYS.

DWG. TITLE

TENNIS COURT ASPHALT SURFACING

peterborough

CITY OF PETERBOROUGH

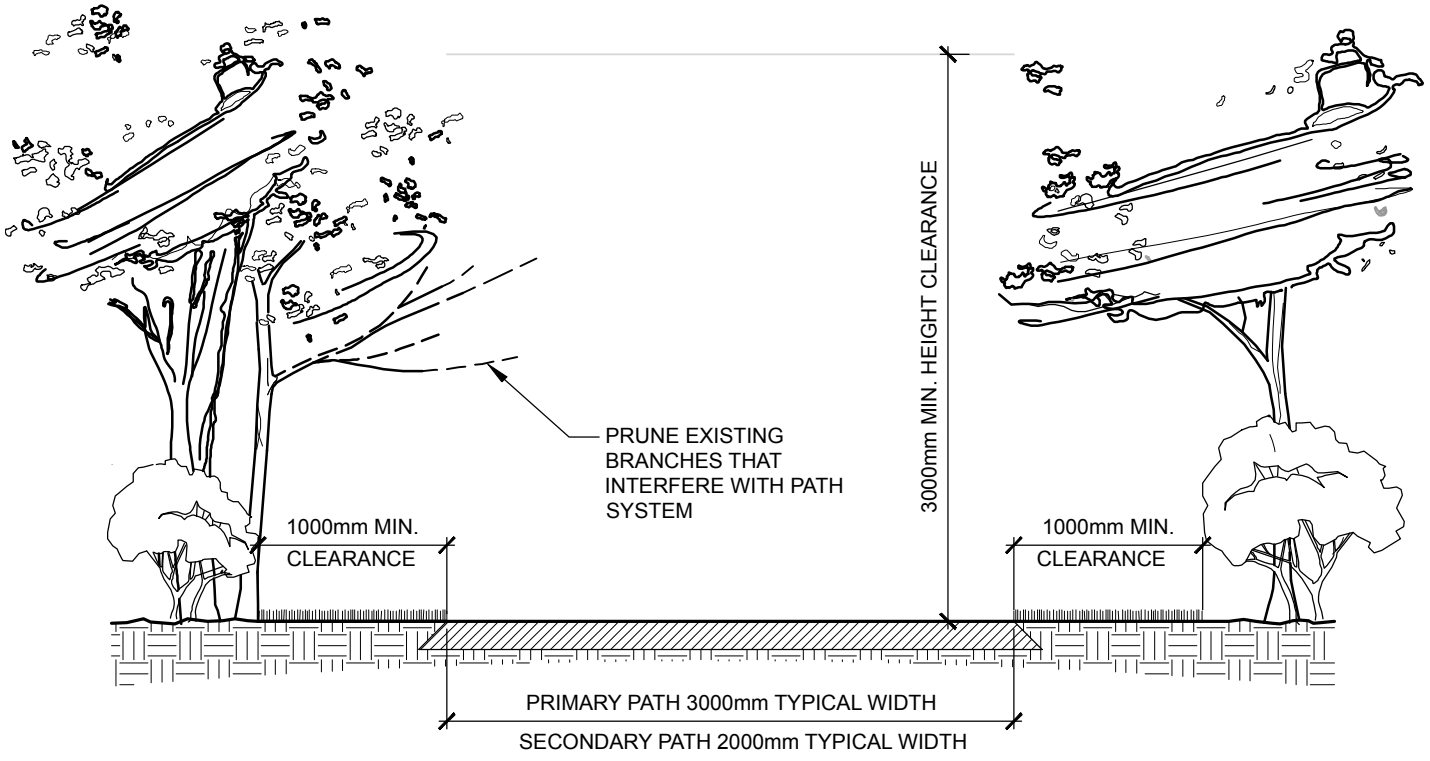
STANDARD DETAIL

DATE	DWG. No.
SEPTEMBER 2019	CPD-121
SCALE: N.T.S.	
REVISION No.	

CITY OF PETERBOROUGH

STANDARD DETAILS

PAVING



DWG. TITLE

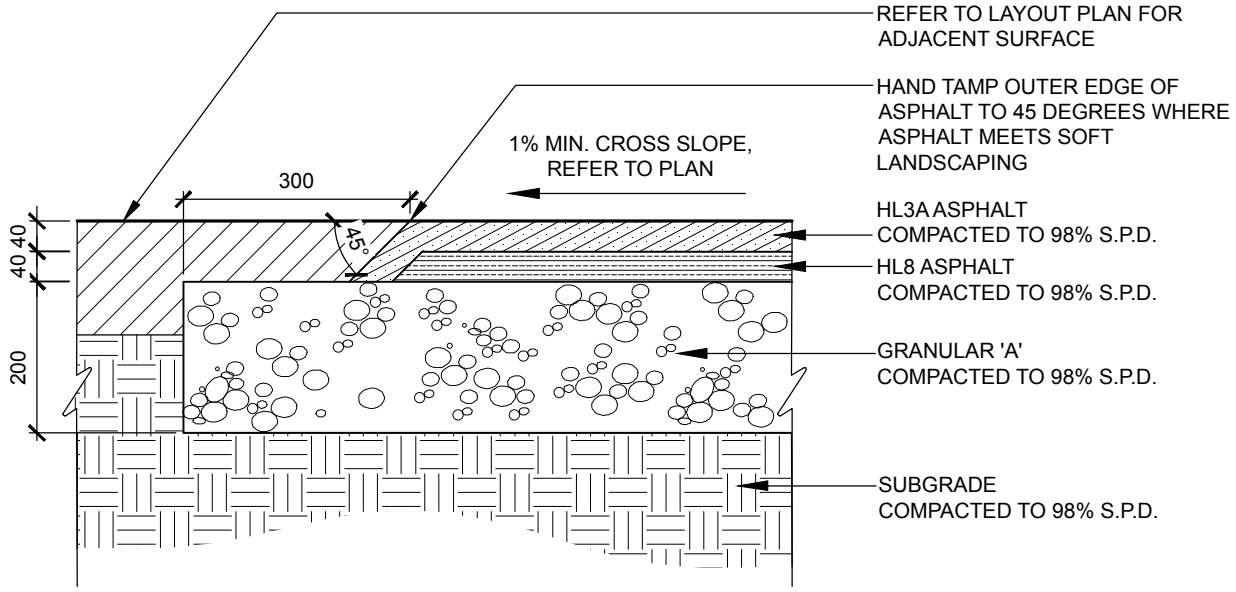
TYPICAL WALKING AND CYCLING TRAIL WIDTH AND CLEARANCE REQUIREMENTS

peterborough

CITY OF PETERBOROUGH

STANDARD DETAIL

DATE	DWG. No.
SEPTEMBER 2019	**CPD-201**
SCALE: N.T.S.	
REVISION No.	



NOTES:

1. ALL DIMENSIONS IN MILLIMETRES, UNLESS STATED OTHERWISE.
2. REFER TO DETAIL CPD-201 FOR TYPICAL WALKWAY WIDTHS AND CLEARANCES.
3. WHERE ASPHALT PAVING PROVIDES AN ACCESSIBLE ROUTE, CROSS SLOPE SHALL NOT EXCEED 4%.

DWG. TITLE

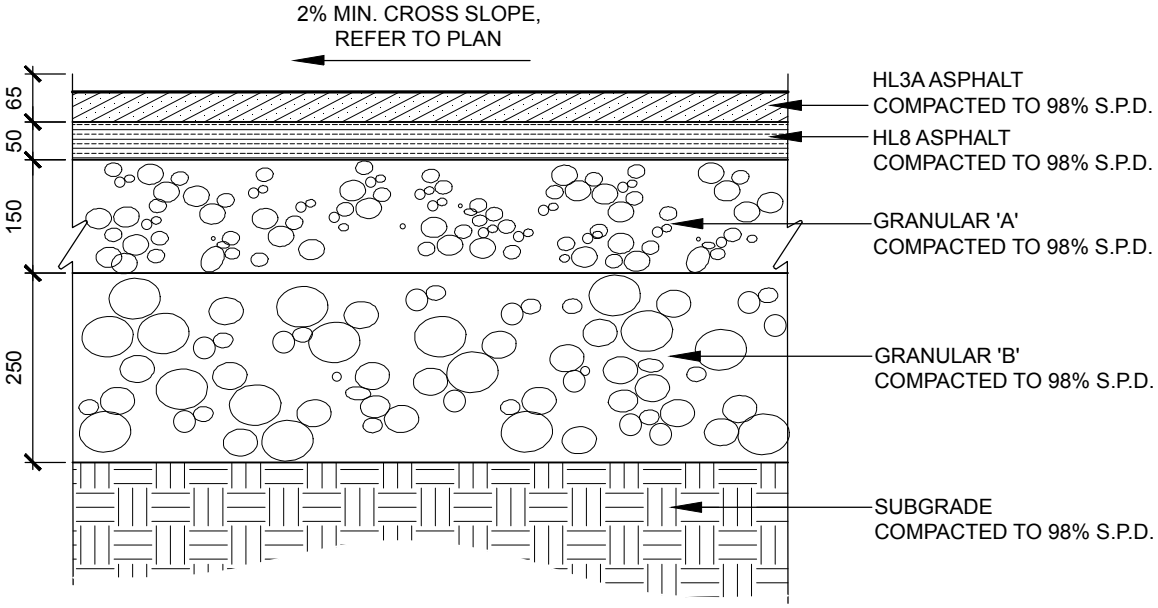
STANDARD DUTY ASPHALT PAVING

peterborough

CITY OF PETERBOROUGH

STANDARD DETAIL

DATE	DWG. No.
SEPTEMBER 2019	CPD-202
SCALE: N.T.S.	
REVISION No.	



NOTES:

1. ALL DIMENSIONS IN MILLIMETRES, UNLESS STATED OTHERWISE.
2. REFER TO DETAIL CPD-201 FOR TYPICAL WALKWAY WIDTHS AND CLEARANCES.
3. GRANULAR BASE TO EXTEND MIN. 150mm BEYOND PAVED EDGE.
4. WHERE ASPHALT PAVING PROVIDES AN ACCESSIBLE ROUTE, CROSS SLOPE SHALL NOT EXCEED 4%.

DWG. TITLE

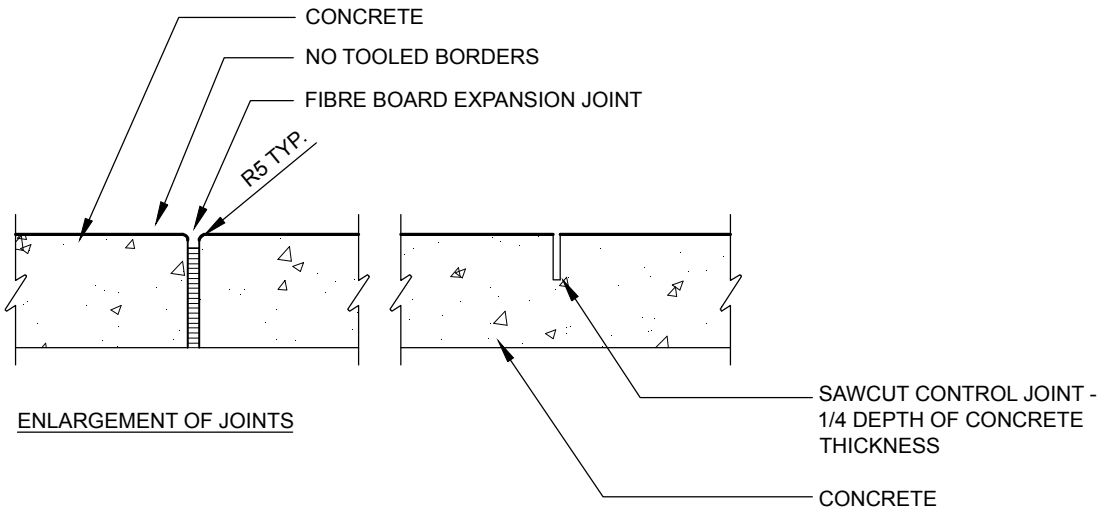
HEAVY DUTY ASPHALT PAVING

peterborough

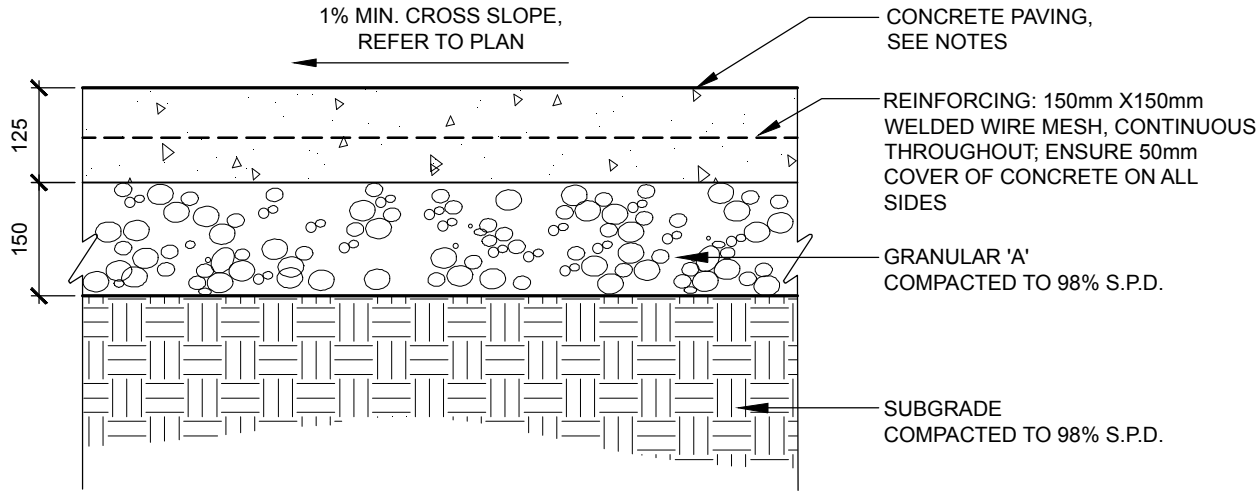
CITY OF PETERBOROUGH

STANDARD DETAIL

DATE	DWG. No.
SEPTEMBER 2019	**CPD-203**
SCALE: N.T.S.	
REVISION No.	



ENLARGEMENT OF JOINTS



NOTES:

1. ALL DIMENSIONS IN MILLIMETRES, UNLESS STATED OTHERWISE.
2. REFER TO DETAIL CPD-201 FOR TYPICAL WALKWAY WIDTHS AND CLEARANCES.
3. CONCRETE MIX TO BE 30 MPa AT 28 DAYS.
4. GRANULAR BASE TO EXTEND MIN. 150mm BEYOND PAVED EDGE.
5. LIGHT BROOM FINISH.
6. PROVIDE CLEAN STRAIGHT ASPHALT IMPREGNATED FIBRE BOARD EXPANSION JOINT BETWEEN NEW CONCRETE PAVING AND EXISTING STRUCTURES. NO MARGINS AND LIGHTLY TOOLED EDGES ONLY.
7. EXPANSION JOINTS AT MAX. 6.0m INTERVALS
8. CONTROL JOINTS AT MAX. 3.0m INTERVALS.
9. WHERE CONCRETE PAVING PROVIDES AN ACCESSIBLE ROUTE, CROSS SLOPE SHALL NOT EXCEED 4%.

DWG. TITLE

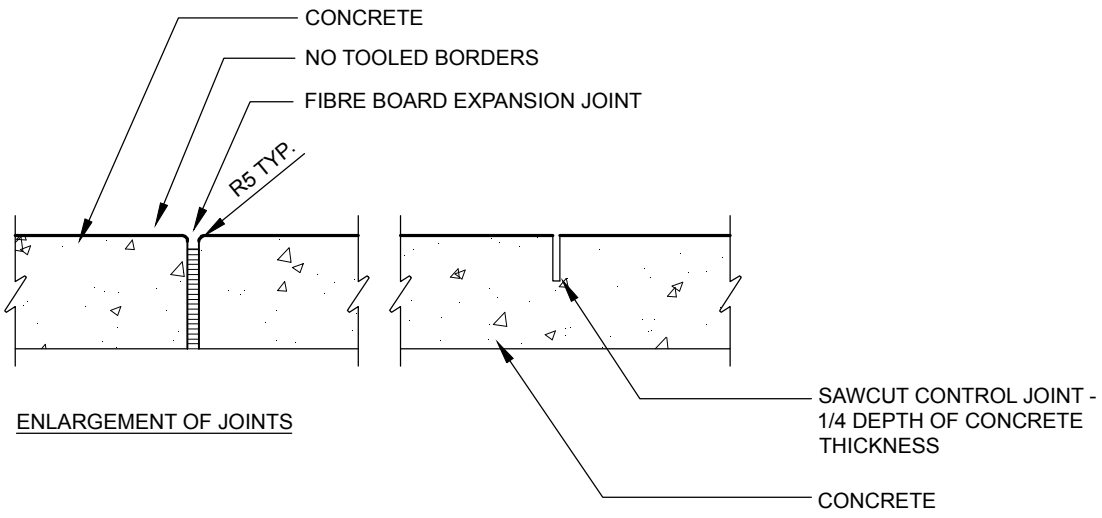
STANDARD DUTY CONCRETE PAVING

peterborough

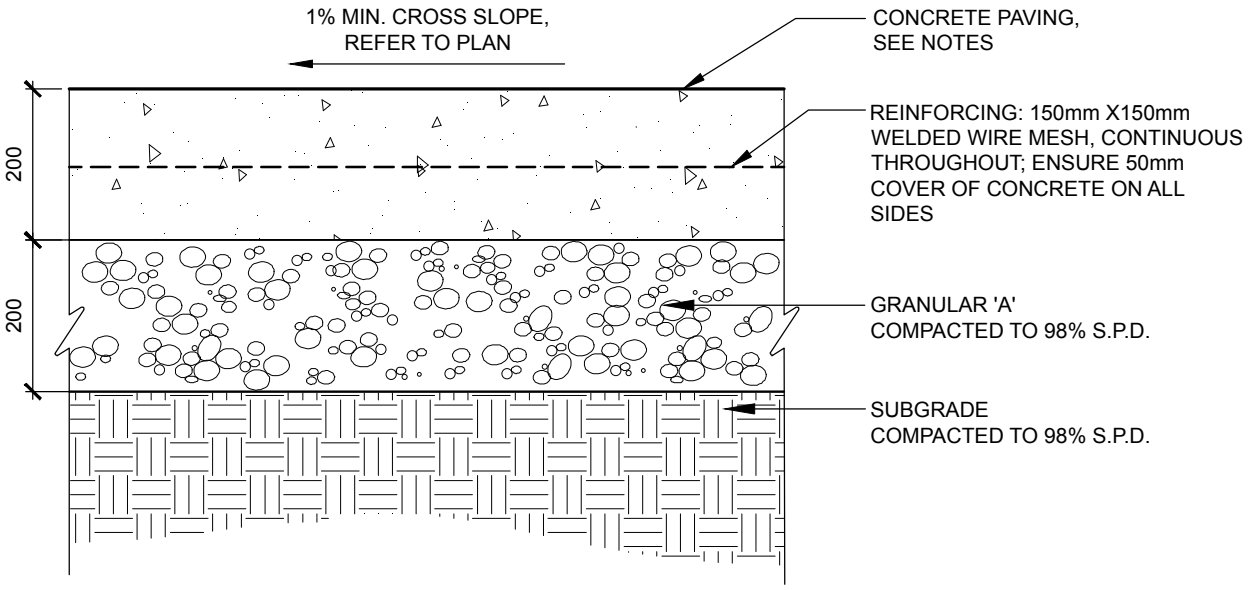
CITY OF PETERBOROUGH

STANDARD DETAIL

DATE	SEPTEMBER 2019	DWG. No.
SCALE	N.T.S.	CPD-204
REVISION No.		



ENLARGEMENT OF JOINTS



NOTES:

1. ALL DIMENSIONS IN MILLIMETRES, UNLESS STATED OTHERWISE.
2. REFER TO DETAIL CPD-201 FOR TYPICAL WALKWAY WIDTHS AND CLEARANCES.
3. CONCRETE MIX TO BE 30 MPa AT 28 DAYS.
4. GRANULAR BASE TO EXTEND MIN. 150mm BEYOND PAVED EDGE.
5. LIGHT BROOM FINISH.
6. PROVIDE CLEAN STRAIGHT ASPHALT IMPREGNATED FIBRE BOARD EXPANSION JOINT BETWEEN NEW CONCRETE PAVING AND EXISTING STRUCTURES. NO MARGINS AND LIGHTLY TOOLED EDGES ONLY.
7. EXPANSION JOINTS AT MAX. 6.0m INTERVALS
8. CONTROL JOINTS AT MAX. 3.0m INTERVALS.
9. WHERE CONCRETE PAVING PROVIDES AN ACCESSIBLE ROUTE, CROSS SLOPE SHALL NOT EXCEED 4%.

DWG. TITLE

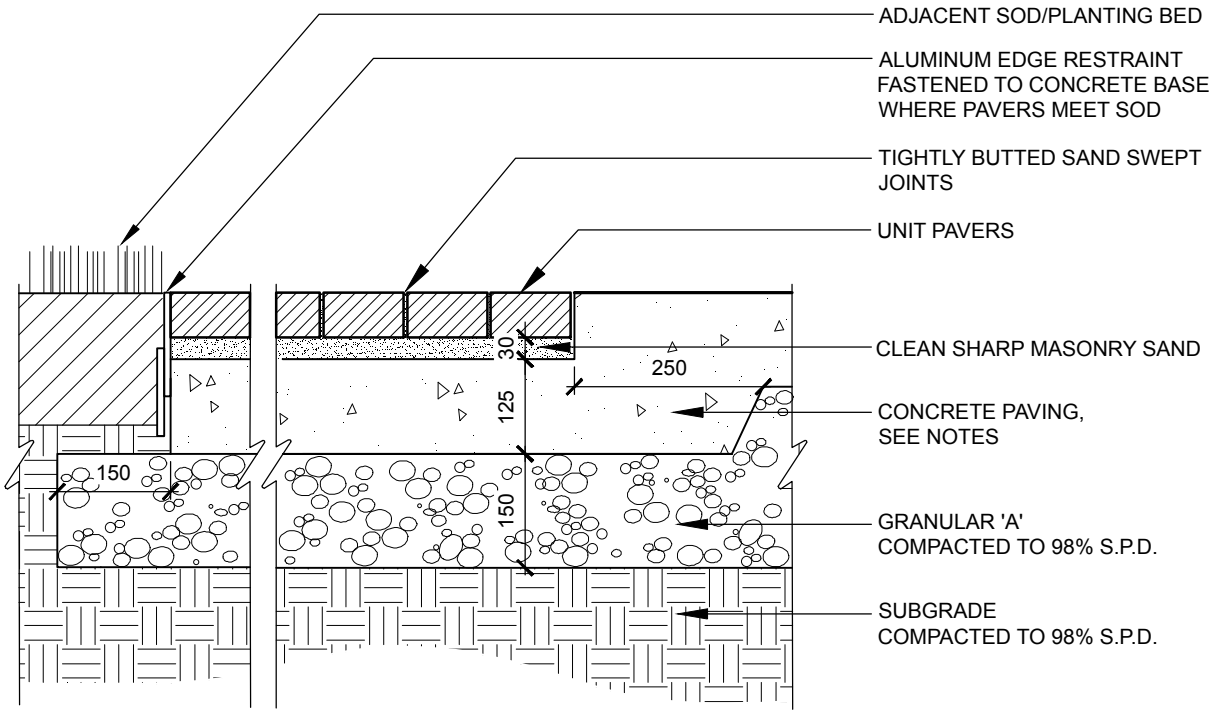
HEAVY DUTY CONCRETE PAVING

peterborough

CITY OF PETERBOROUGH

STANDARD DETAIL

DATE	DWG. No.
SEPTEMBER 2019	**CPD-205**
SCALE: N.T.S.	
REVISION No.	



NOTES:
1. ALL DIMENSIONS IN MILLIMETRES, UNLESS STATED OTHERWISE.
2. GRANULAR BASE TO EXTEND MIN. 150mm BEYOND PAVED EDGE.
3. PROVIDE CONTRAST BETWEEN CLEAR PATH OF TRAVEL AND AMENITY AREAS.

DWG. TITLE

UNIT PAVING ON CONCRETE BASE

peterborough

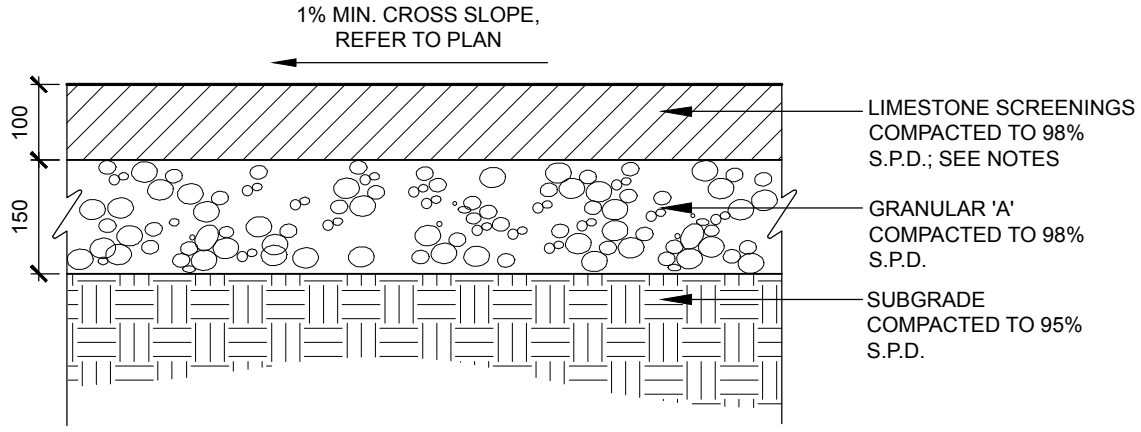
CITY OF PETERBOROUGH

STANDARD DETAIL

DATE	SEPTEMBER 2019
SCALE	N.T.S.
REVISION No.	

DWG. No.

CPD-206



NOTES:

1. ALL DIMENSIONS IN MILLIMETRES, UNLESS STATED OTHERWISE.
2. REFER TO CPD-201 FOR TYPICAL WALKWAY WIDTHS AND CLEARANCES.
3. GRANULAR BASE TO EXTEND MIN. 150mm BEYOND FINISHED GRANULAR COURSE.
4. WHERE LIMESTONE SCREENINGS PROVIDES AN ACCESSIBLE ROUTE, CROSS SLOPE SHALL NOT EXCEED 4%.

DWG. TITLE

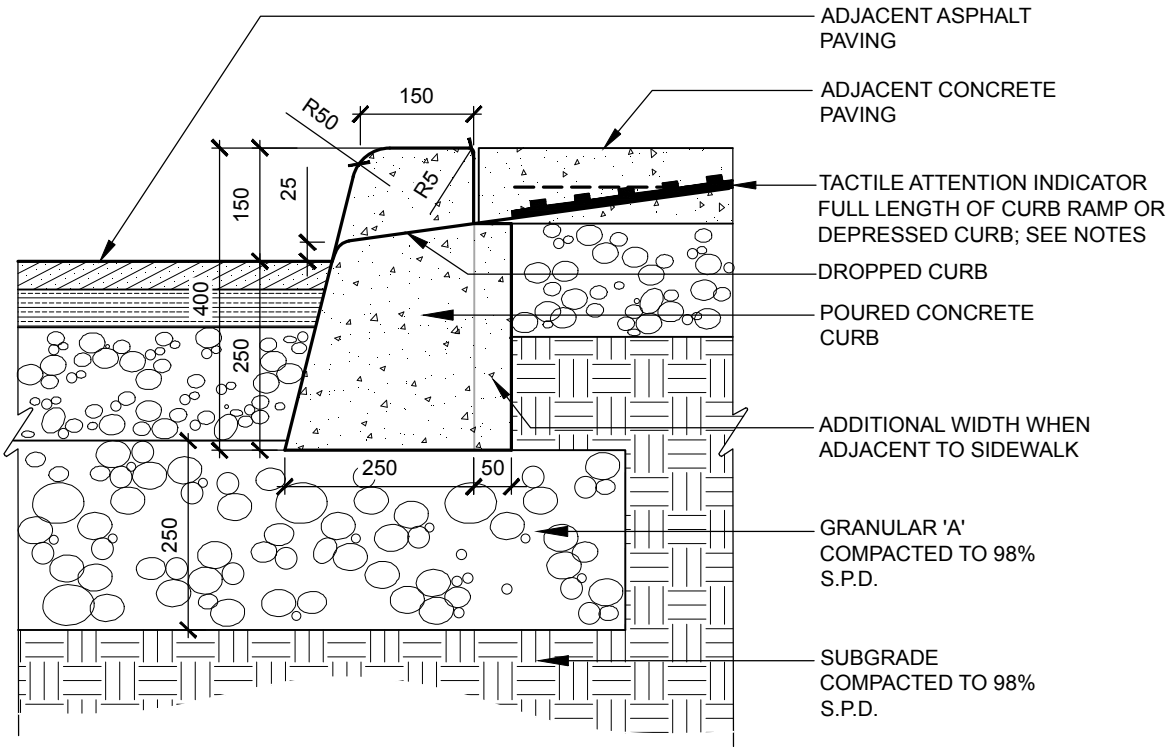
LIMESTONE SCREENING PATH

peterborough

CITY OF PETERBOROUGH

STANDARD DETAIL

DATE	DWG. No.
SEPTEMBER 2019	CPD-207
SCALE: N.T.S.	
REVISION No.	



NOTES:

1. ALL DIMENSIONS IN MILLIMETRES, UNLESS STATED OTHERWISE.
2. CONCRETE MIX TO BE 30 MPa AT 28 DAYS.
3. GRANULAR BASE TO EXTEND MIN. 150mm BEYOND PAVED EDGE.
4. EXPANSION JOINTS AT MAX. 6000mm INTERVALS.
5. CURB SHALL BE FORMED WITH WOOD OR STEEL.
6. DETECTABLE WARNING PLATES TO BE CAST IRON PLATES BY NEENAH ENTERPRISES INC. www.nfco.com 1-800-558-5075 OR APPROVED EQUAL.
   - 6.1 DO NOT POWDER COAT
   - 6.2 WIDTH TO BE 610mm MAX.
   - 6.3 PROVIDE SHOP DRAWINGS FOR APPROVAL COMPLETE WITH LOCATION KEY.
   - 6.4 INSTALL AS PER MANUFACTURER'S INSTRUCTIONS AND SPECIFICATIONS

DWG. TITLE

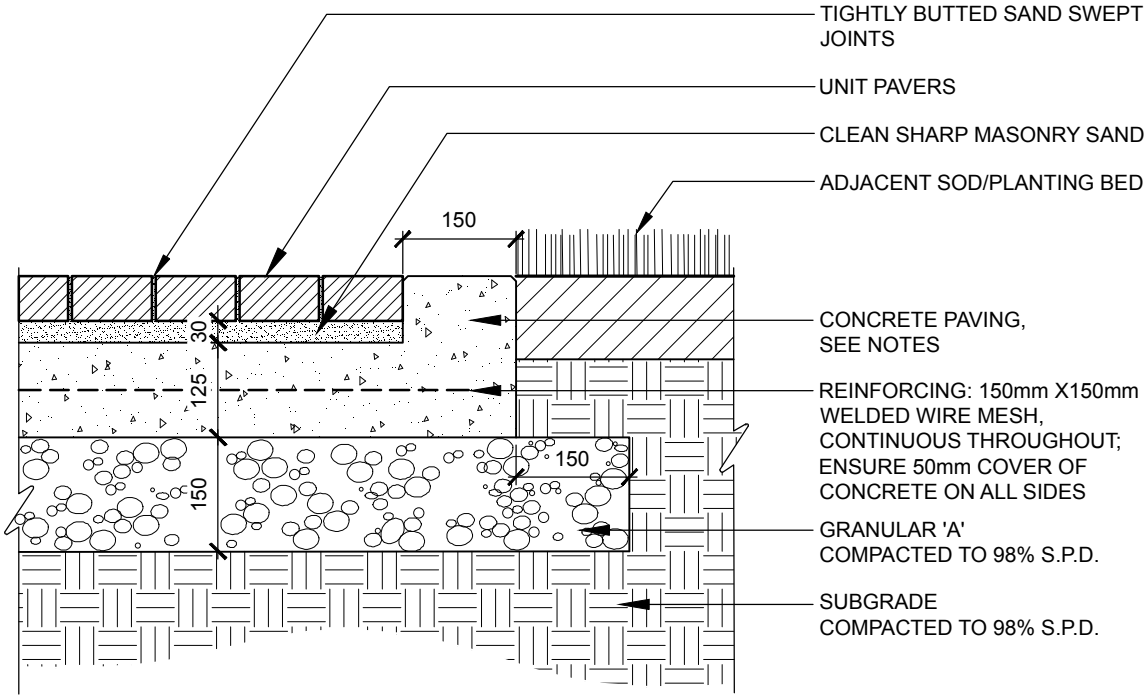
CONCRETE CURB

peterborough

CITY OF PETERBOROUGH

STANDARD DETAIL

DATE	DWG. No.
SEPTEMBER 2019	CPD-208
SCALE: N.T.S.	
REVISION No.	



NOTES:
1. ALL DIMENSIONS IN MILLIMETRES, UNLESS STATED OTHERWISE.
2. CONCRETE MIX TO BE 30 MPa AT 28 DAYS.
3. GRANULAR BASE TO EXTEND MIN. 150mm BEYOND PAVED EDGE.
4. PROVIDE CONTRAST BETWEEN CLEAR PATH OF TRAVEL AND AMENITY AREAS.

DWG. TITLE

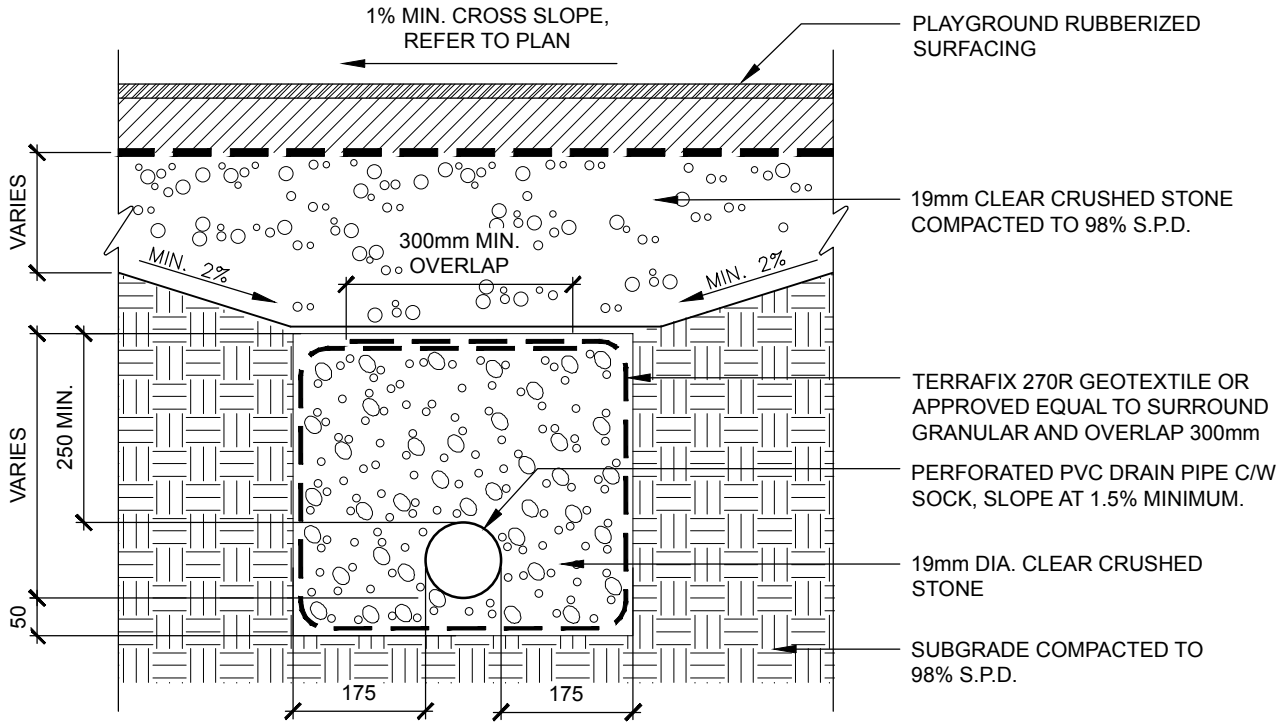
FLUSH CURB EDGE ADJACENT UNIT PAVING ON CONCRETE BASE

peterborough

CITY OF PETERBOROUGH

STANDARD DETAIL

DATE	DWG. No.
SEPTEMBER 2019	**CPD-209**
SCALE: N.T.S.	
REVISION No.	



NOTES:

1. ALL DIMENSIONS IN MILLIMETERS, UNLESS STATED OTHERWISE.
2. REFER TO GRADING PLAN FOR DRAIN PIPE LOCATION, LAYOUT, AND INVERT ELEVATIONS.
3. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
4. WHERE PLAYGROUND RUBBERIZED SURFACING PROVIDES AN ACCESSIBLE ROUTE, CROSS SLOPE SHALL NOT EXCEED 4%.
5. PROVIDE CONTRAST BETWEEN CLEAR PATH OF TRAVEL, PLAYGROUND PLAY AREAS, AND ADJACENT WALKWAYS.

DWG. TITLE

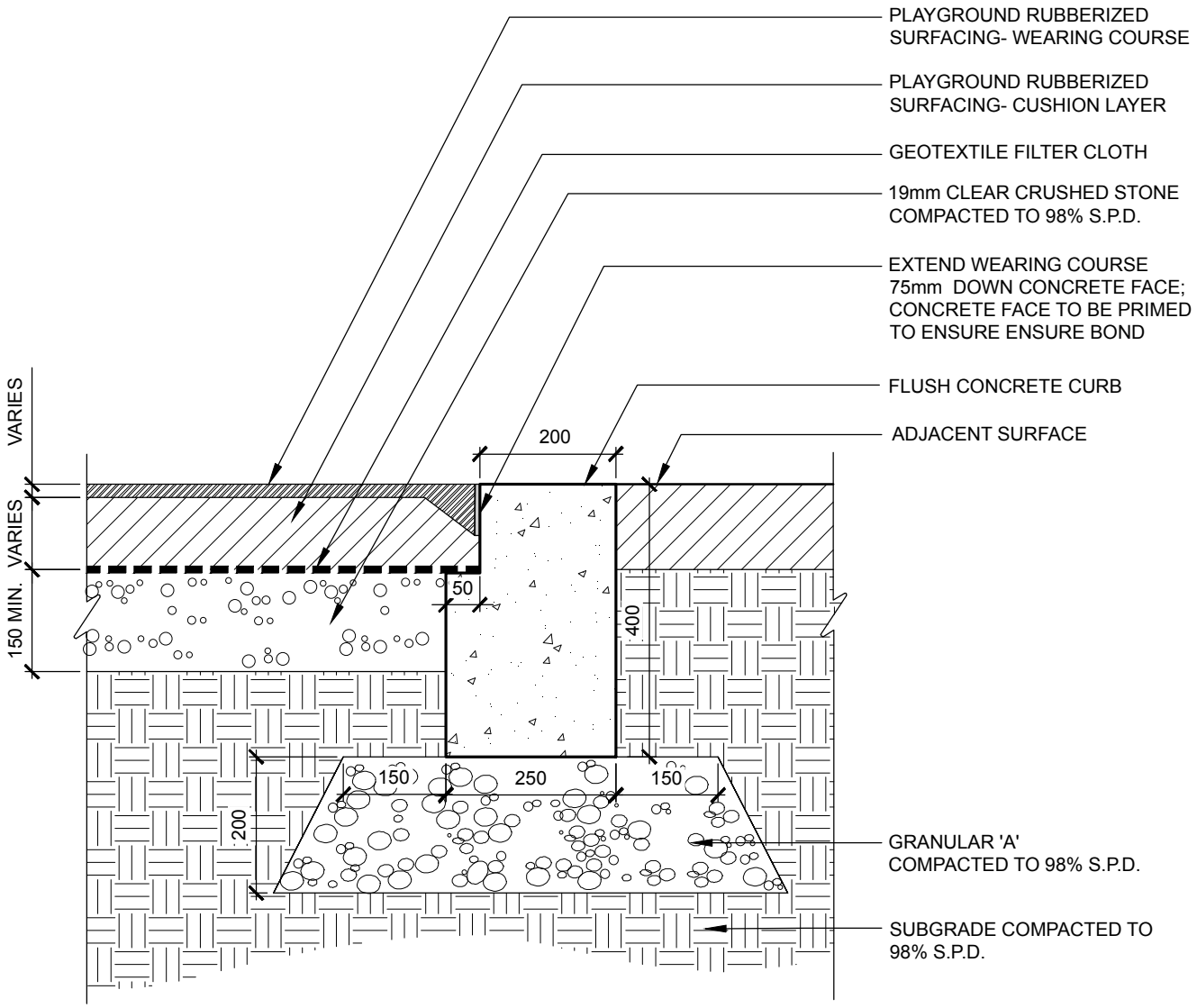
PLAYGROUND SUBSURFACE DRAINAGE

peterborough

CITY OF PETERBOROUGH

STANDARD DETAIL

DATE	DWG. No.
SEPTEMBER 2019	**CPD-210**
SCALE: N.T.S.	
REVISION No.	



NOTES:

1. ALL DIMENSIONS IN MILLIMETERS, UNLESS STATED OTHERWISE.
2. CUSHION LAYER THICKNESS IS DEPENDENT ON CRITICAL FALL HEIGHT OF PLAY STRUCTURES.
3. BACKFILL PLAYGROUND POSTS WITH GRANULAR. COMPACT TO 98% S.P.D.
4. INSTALLATION OF RUBBERIZED SURFACING TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
5. CONCRETE MIX TO BE 30 MPa AT 28 DAYS.
6. GRANULAR BASE TO EXTEND MIN. 150mm BEYOND PAVED EDGE.
7. EXPANSION JOINTS AT MAX. 6000mm INTERVALS.
8. CURB SHALL BE FORMED WITH WOOD OR STEEL.
9. PROVIDE CONTRAST BETWEEN CLEAR PATH OF TRAVEL, PLAYGROUND PLAY AREAS, AND ADJACENT WALKWAYS.

DWG. TITLE

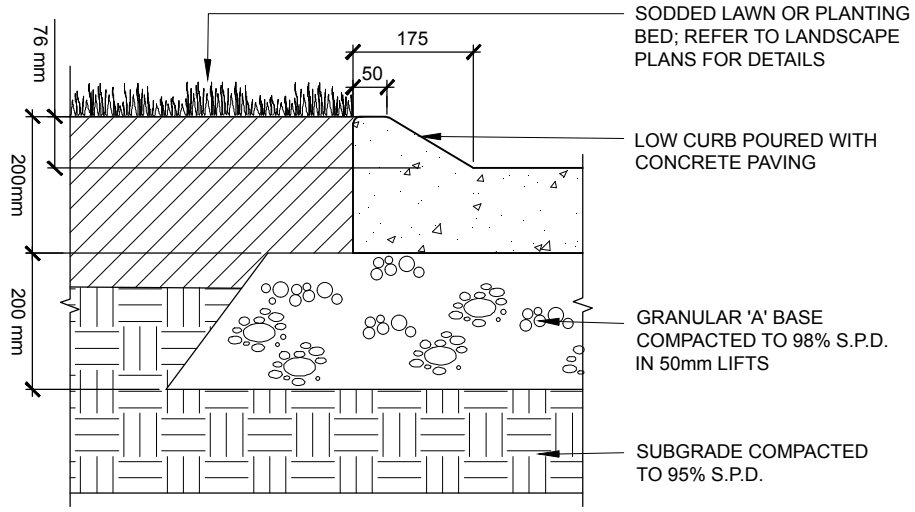
PLAYGROUND RUBBERIZED SURFACING AND FLUSH CURB

peterborough

CITY OF PETERBOROUGH

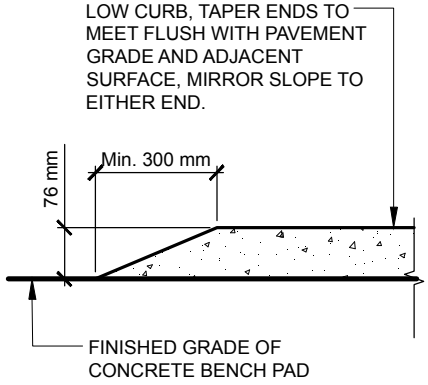
STANDARD DETAIL

DATE	DWG. No.
SEPTEMBER 2019	**CPD-211**
SCALE: N.T.S.	
REVISION No.	

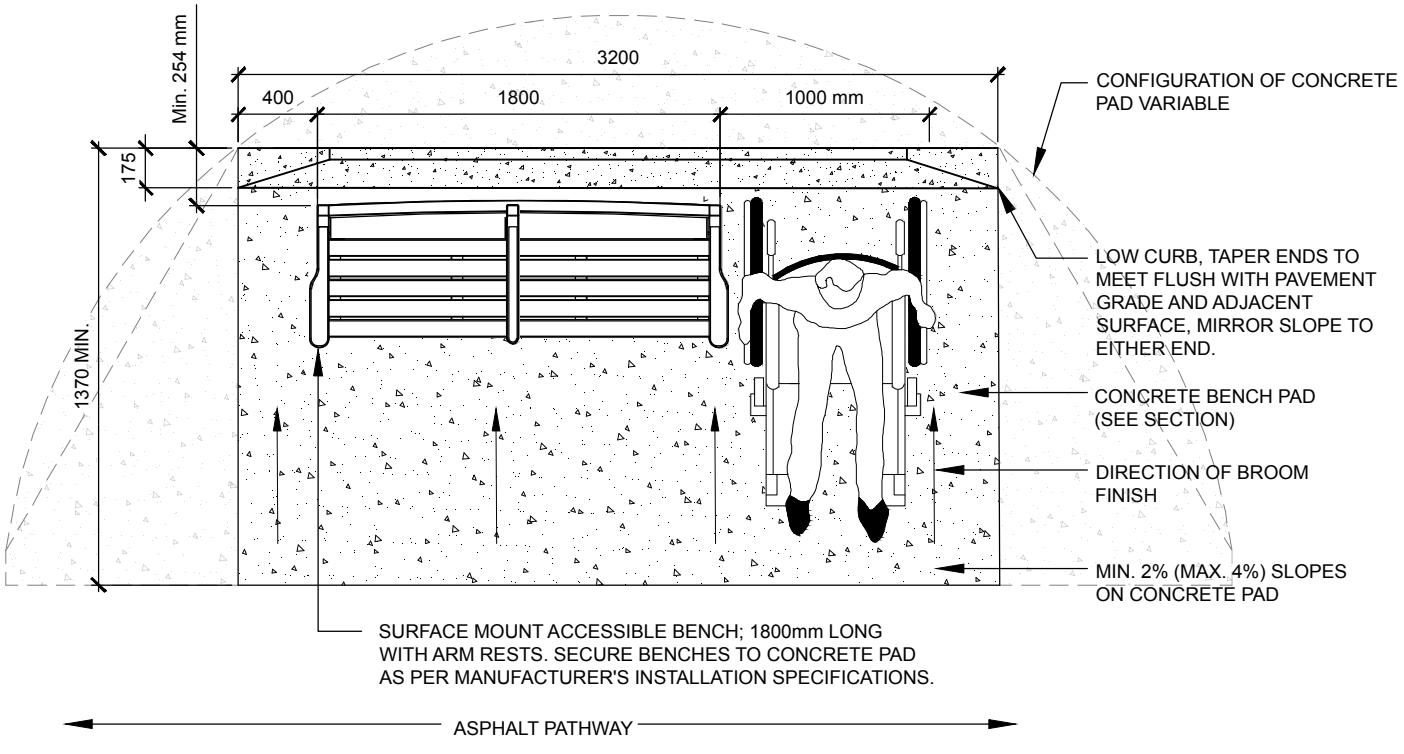


NOTES:
1. CONCRETE MIX TO BE TYPE 10, CLASS C2, 32 MPa. REFER TO SPECIFICATIONS.
2. REFER TO GRADING PLAN FOR TOP AND BOTTOM OF CURB ELEVATIONS.

CURB AT BACK OF CONCRETE PAVING SEATING AREAS



TAPERED CURB SECTION



DWG. TITLE

SINGLE BENCH SEATING LAYOUT

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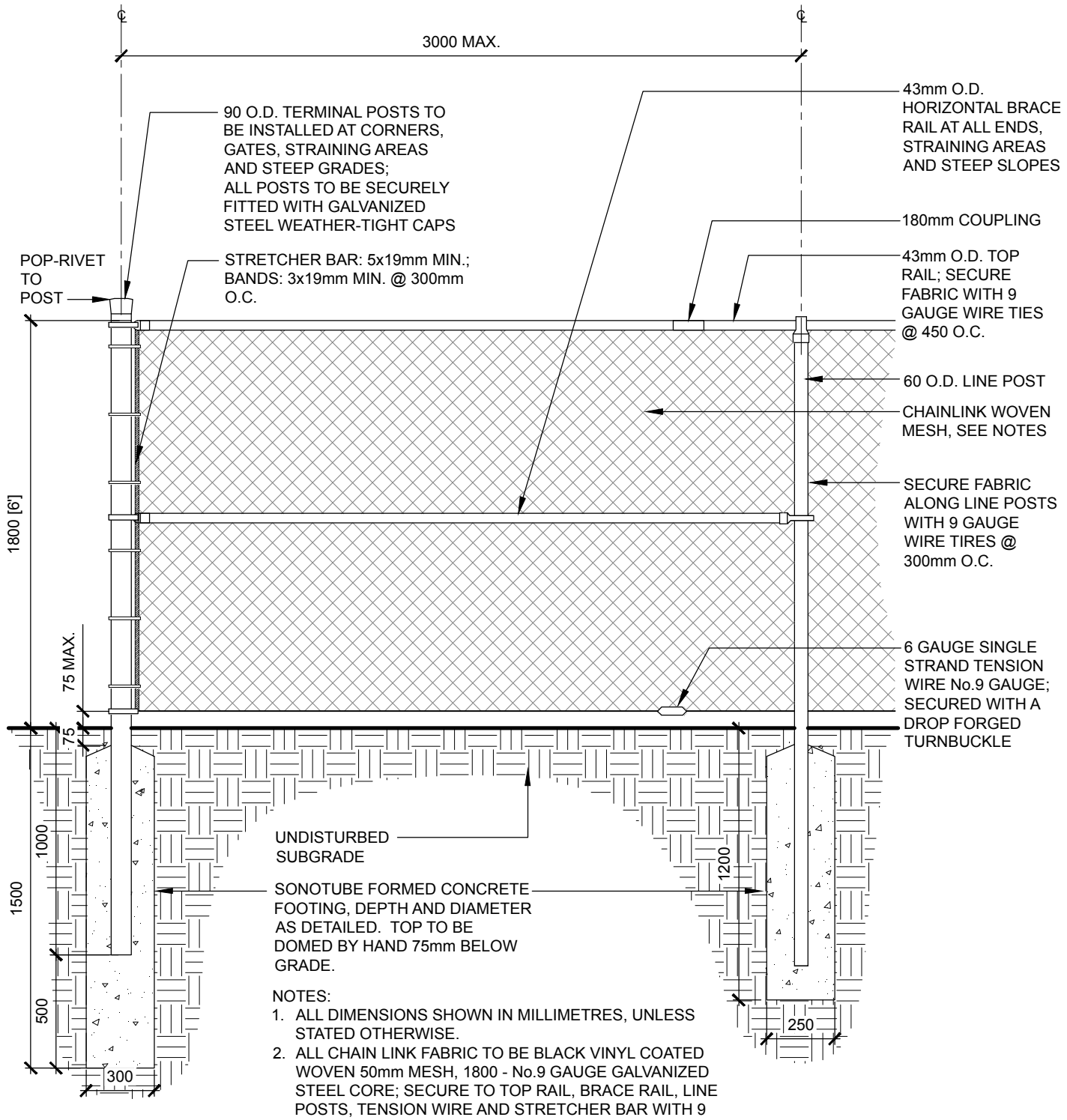
STANDARD DETAIL

DATE	DWG. No.
SEPTEMBER 2019	CPD-212
SCALE: N.T.S.	
REVISION No.	

CITY OF PETERBOROUGH

STANDARD DETAILS

FENCING



NOTES:

1. ALL DIMENSIONS SHOWN IN MILLIMETRES, UNLESS STATED OTHERWISE.
2. ALL CHAIN LINK FABRIC TO BE BLACK VINYL COATED WOVEN 50mm MESH, 1800 - No.9 GAUGE GALVANIZED STEEL CORE; SECURE TO TOP RAIL, BRACE RAIL, LINE POSTS, TENSION WIRE AND STRETCHER BAR WITH 9 GAUGE WIRE TIES, KNUCKLED.
3. ALL FENCE POSTS AND PIPE TO BE SCHEDULE '40' GALVANIZED PIPE.
4. ALL FENCE COMPONENTS TO BE FINISHED WITH BLACK GLOSS ENAMEL ELECTROSTATICALLY APPLIED.
5. NO PLASTIC FITTINGS OR COMPONENTS TO BE USED.
6. CONCRETE FOOTINGS TO BE 30 MPa AT 28 DAYS.

DWG. TITLE

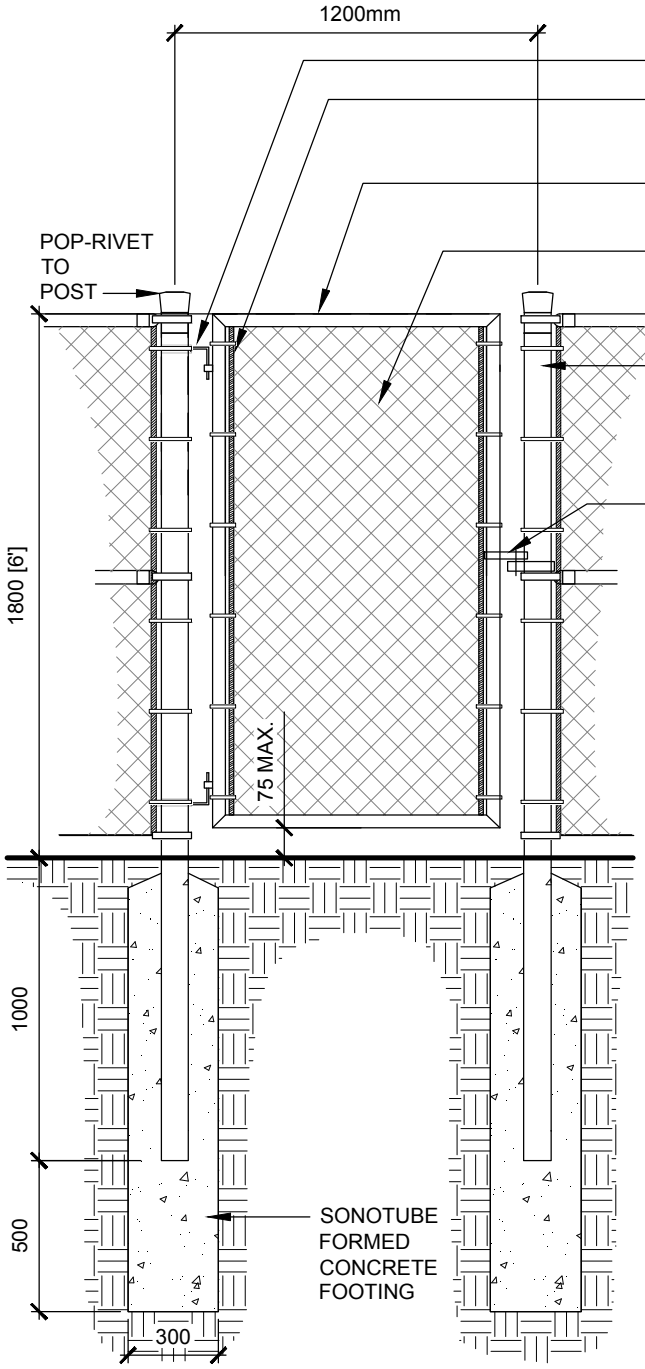
CHAIN LINK FENCE

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CITY OF PETERBOROUGH

STANDARD DETAIL

DATE	DWG. No.
SEPTEMBER 2019	CPD-301
SCALE: N.T.S.	
REVISION No.	



NOTES:

1. ALL DIMENSIONS SHOWN IN MILLIMETRES, UNLESS STATED OTHERWISE.
2. GATE FRAMES TO BE CONSTRUCTED OF 45mm O.D. GALVANIZED STEEL PIPE, SHOP BENT, WELDED AND GROUND SMOOTH.
3. ALL CHAIN LINK FABRIC TO BE BLACK VINYL COATED WOVEN 50mm MESH, 1800 - No.9 GAUGE GALVANIZED STEEL CORE; SECURE TO FRAME, STRETCHER BAR AND BRACE RAIL WITH 9 GAUGE WIRE TIES AT 300mm O.C., KNUCKLED.
4. BOLT ENDS TO BE AT BACK OF GATE.
5. ALL STEEL PIPE TO BE SCHEDULE 40 GALVANIZED PIPE.
6. ALL GATE COMPONENTS SHALL BE FINISHED WITH BLACK GLOSS ENAMEL ELECTROSTATICALLY APPLIED.
7. EACH GATE TO BE COMPLETE WITH WHEELS.
8. WELD ALL JOINTS.
9. CONCRETE FOOTINGS TO BE 30 MPa AT 28 DAYS.
10. FOR LINE POST CAP DETAIL REFER TO OPSD 972.132

DWG. TITLE

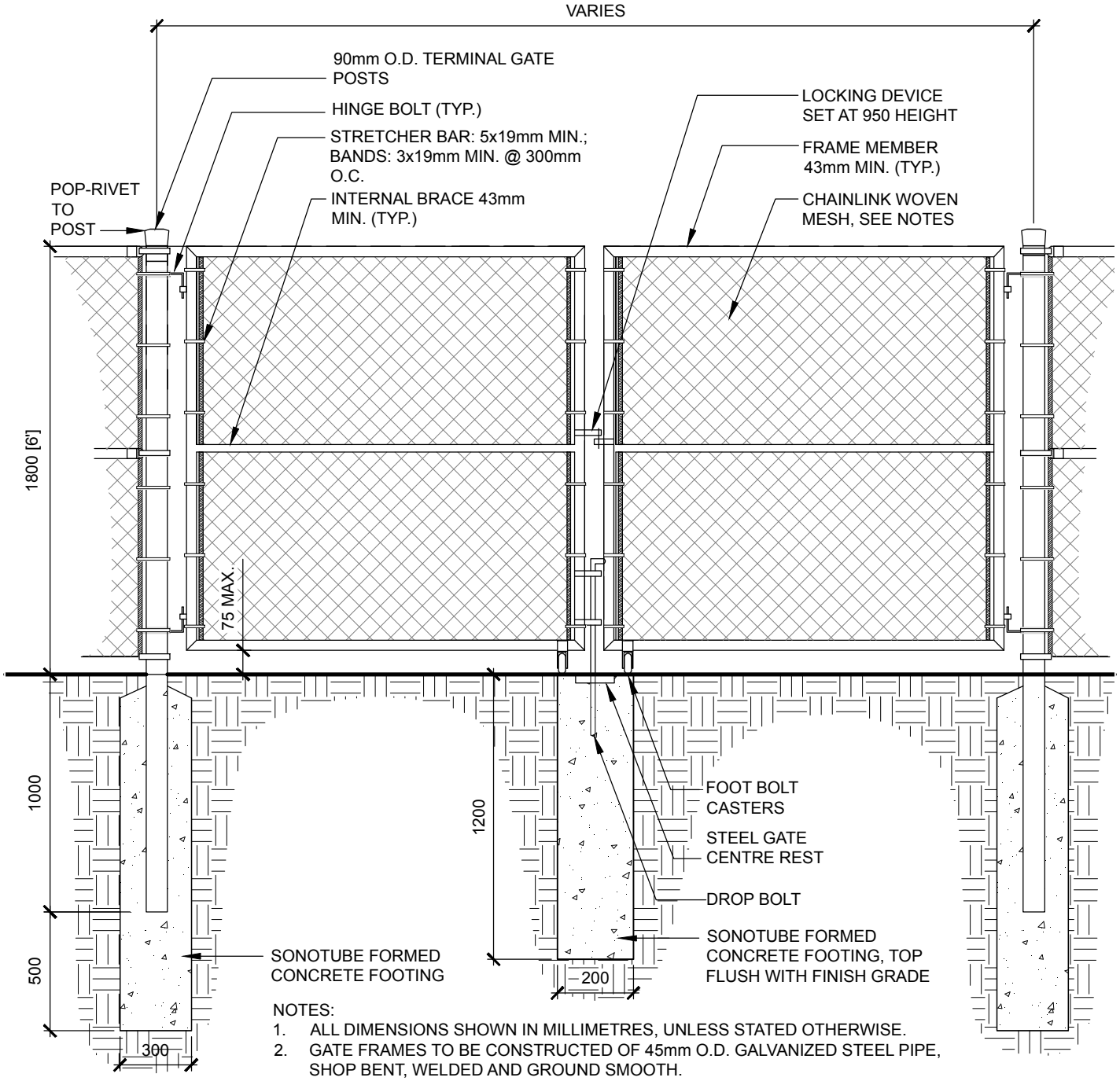
CHAIN LINK SECURITY GATE - SINGLE

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CITY OF PETERBOROUGH

STANDARD DETAIL

DATE	DWG. No.
SEPTEMBER 2019	CPD-302
SCALE: N.T.S.	
REVISION No.	



NOTES:

1. ALL DIMENSIONS SHOWN IN MILLIMETRES, UNLESS STATED OTHERWISE.
2. GATE FRAMES TO BE CONSTRUCTED OF 45mm O.D. GALVANIZED STEEL PIPE, SHOP BENT, WELDED AND GROUND SMOOTH.
3. ALL CHAIN LINK FABRIC TO BE BLACK VINYL COATED WOVEN 50mm MESH, 1800 - No.9 GAUGE GALVANIZED STEEL CORE; SECURE TO FRAME, STRETCHER BAR AND BRACE RAIL WITH 9 GAUGE WIRE TIES AT 300mm O.C., KNUCKLED.
4. BOLT ENDS TO BE AT BACK OF GATE.
5. ALL STEEL PIPE TO BE SCHEDULE 40 GALVANIZED PIPE.
6. ALL GATE COMPONENTS SHALL BE FINISHED WITH BLACK GLOSS ENAMEL ELECTROSTATICALLY APPLIED.
7. EACH GATE TO BE COMPLETE WITH WHEELS.
8. WELD ALL JOINTS.
9. CONCRETE FOOTINGS TO BE 30 MPa AT 28 DAYS.
10. FOR LINE POST CAP DETAIL REFER TO OPSD 972.132

DWG. TITLE

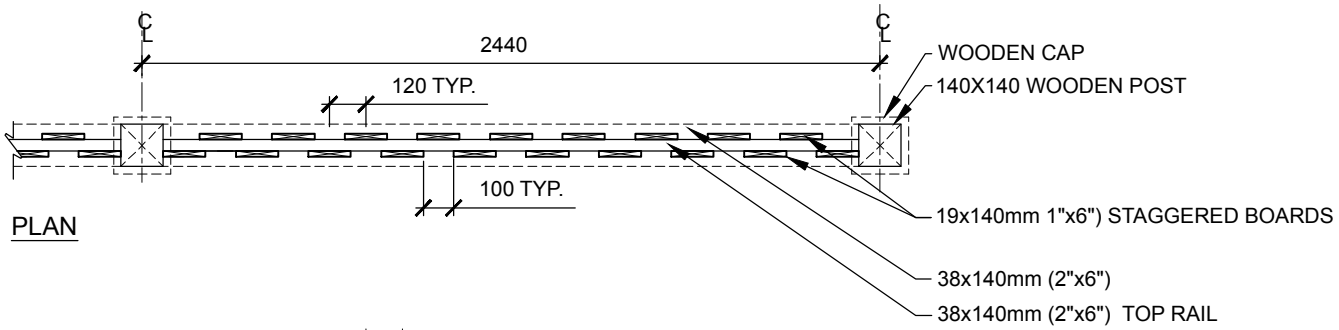
CHAIN LINK SECURITY GATE - DOUBLE

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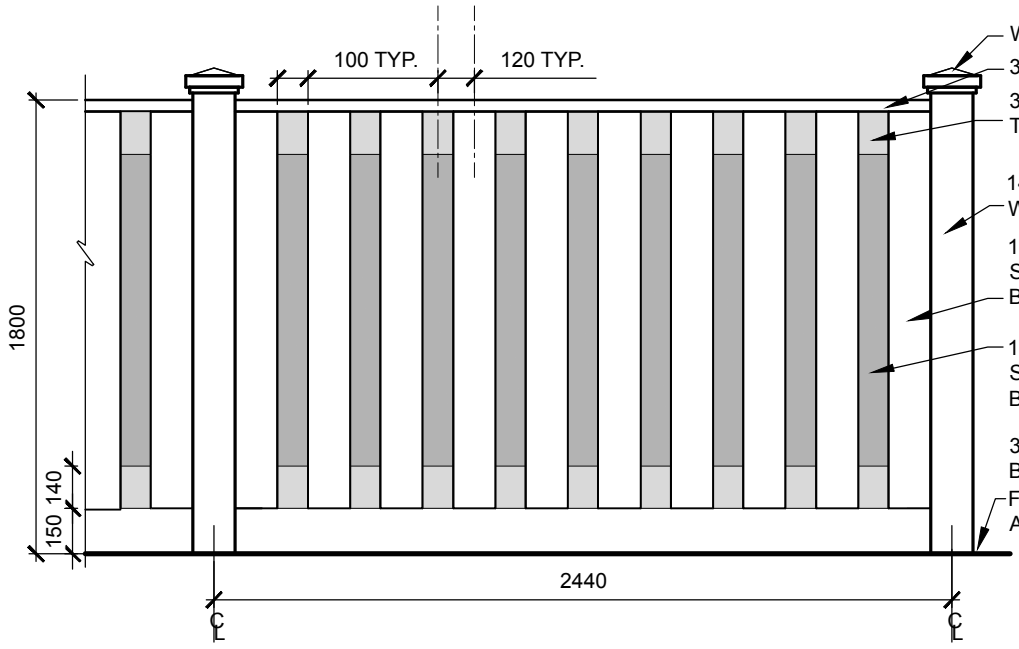
CITY OF PETERBOROUGH

STANDARD DETAIL

DATE	DWG. No.
SEPTEMBER 2019	CPD-303
SCALE: N.T.S.	
REVISION No.	



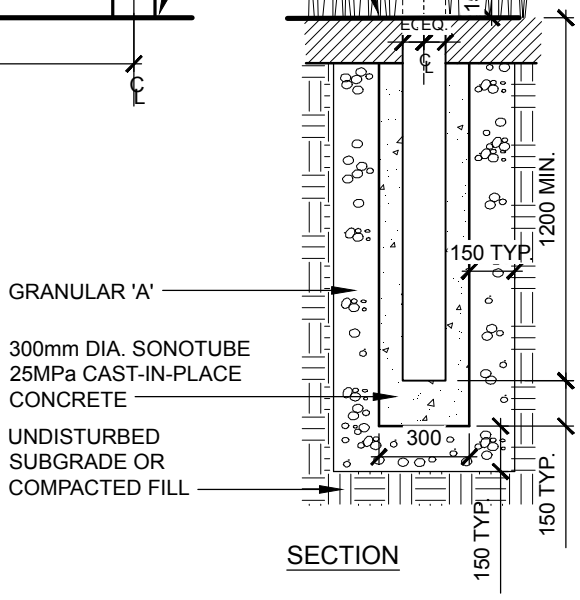
PLAN



ELEVATION

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.
2. ALL WOOD TO BE CONSTRUCTION GRADE PRESSURE TREATED WOOD.
3. ALL NAILS TO BE GALVANIZED SPIRAL NAILS
4. EACH HORIZONTAL BOARD IS TO BE NAILED WITH TWO NAILS PER RAIL.
5. ON SLOPES STEP FENCE PANELS A MINIMUM OF 50mm TO A MAXIMUM OF 150mm AT EACH POST.
6. CONCRETE FOOTINGS TO BE 25 MPa AT 28 DAYS.



SECTION

DWG. TITLE

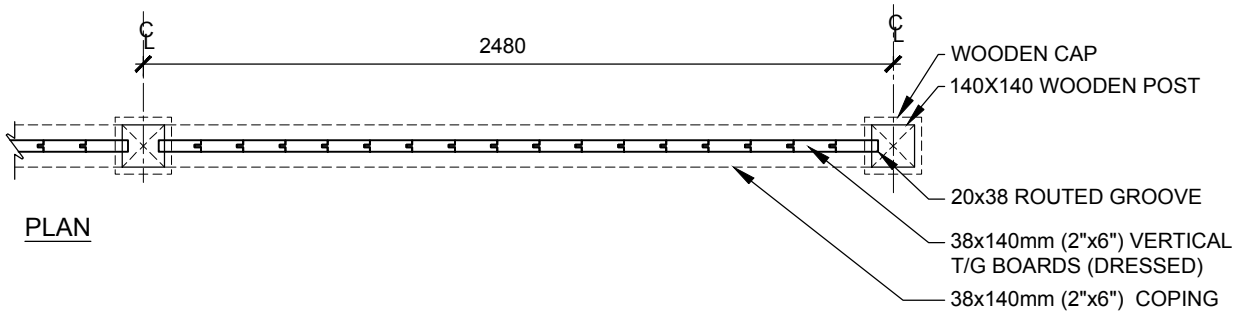
WOOD FENCE

peterborough

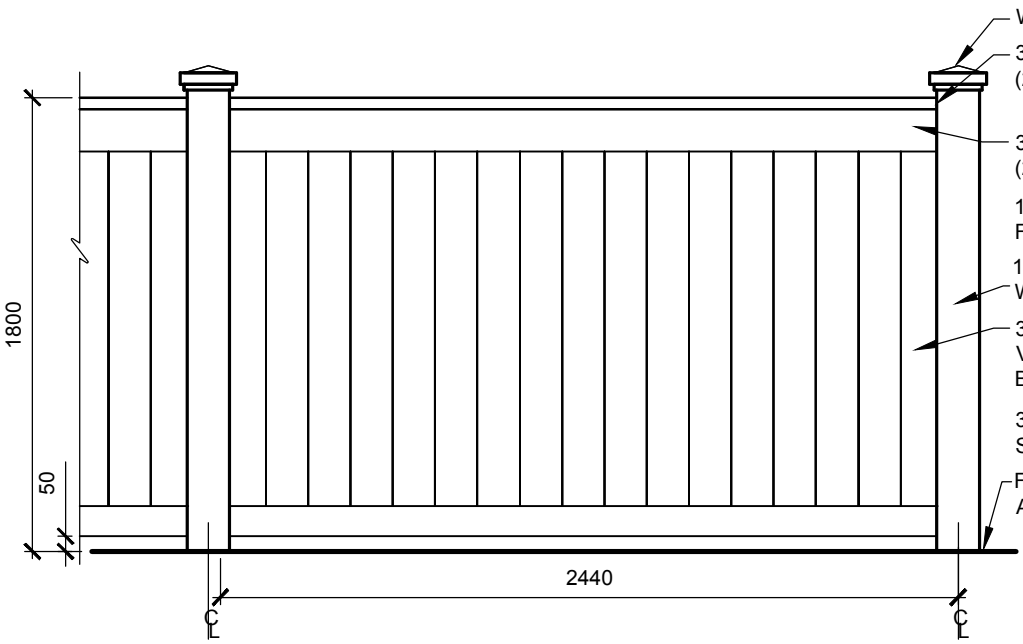
CITY OF PETERBOROUGH

STANDARD DETAIL

DATE	DWG. No.
SEPTEMBER 2019	CPD-304
SCALE: N.T.S.	
REVISION No.	



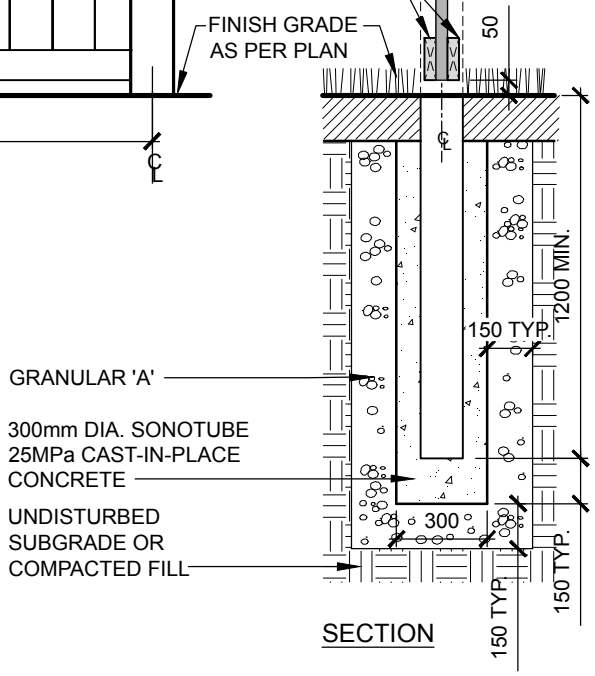
PLAN



ELEVATION

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.
2. ALL WOOD TO BE CONSTRUCTION GRADE PRESSURE TREATED WOOD.
3. ALL NAILS TO BE GALVANIZED SPIRAL NAILS
4. EACH HORIZONTAL BOARD IS TO BE NAILED WITH TWO NAILS PER RAIL.
5. ON SLOPES STEP FENCE PANELS A MINIMUM OF 50mm TO A MAXIMUM OF 150mm AT EACH POST.
6. CONCRETE FOOTINGS TO BE 25 MPa AT 28 DAYS.



SECTION

DWG. TITLE

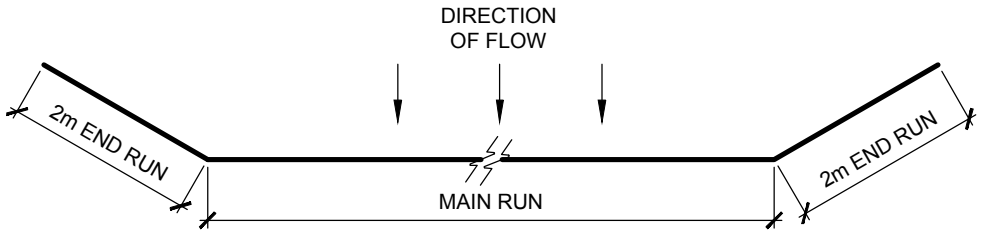
ACOUSTIC FENCE

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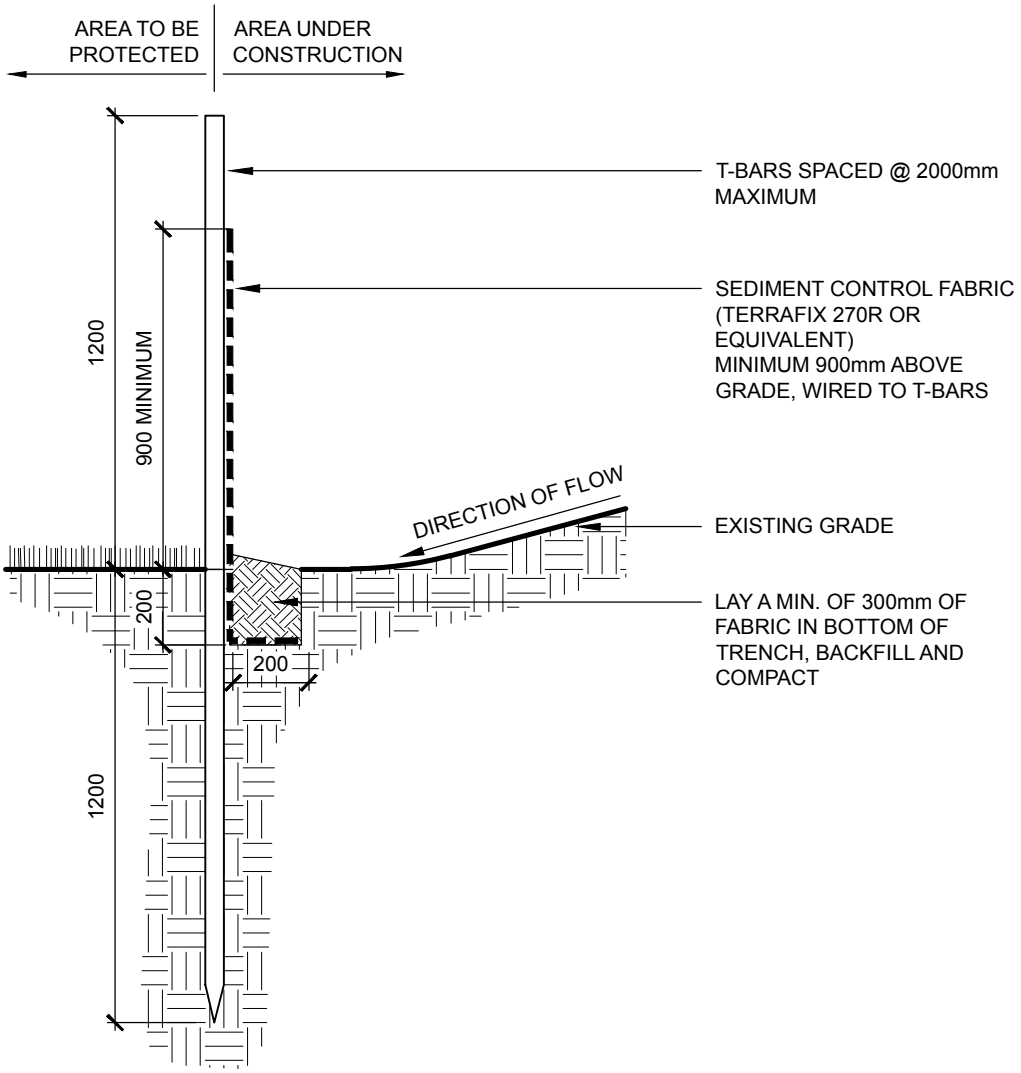
CITY OF PETERBOROUGH

STANDARD DETAIL

DATE	SEPTEMBER 2019	DWG. No.
SCALE	N.T.S.	CPD-305
REVISION No.		



PLAN VIEW



NOTES:
1. ALL DIMENSIONS IN MILLIMETRES, UNLESS OTHERWISE STATED.

DWG. TITLE

SILTATION CONTROL PERIMETER FENCING

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CITY OF PETERBOROUGH

STANDARD DETAIL

DATE	DWG. No.
SEPTEMBER 2019	**CPD-306**
SCALE: N.T.S.	
REVISION No.	

SPECIFICATION FOR THE PROTECTION AND PRESERVATION OF EXISTING TREES

1. ALL EXISTING TREES WHICH ARE TO REMAIN, SHALL BE FULLY PROTECTED WITH HOARDING, I.E.. 1200MM (4') SNOW FENCING, ERECTED BEYOND THEIR "DRIP LINE". GROUPS OF TREES AND OTHER EXISTING PLANTINGS TO BE PROTECTED, SHALL BE DONE IN A LIKE MANNER WITH HOARDING AROUND THE ENTIRE CLUMP(S). AREAS WITHIN THE PROTECTIVE FENCING SHALL REMAIN UNDISTURBED AND SHALL NOT BE USED FOR THE STORAGE OF BUILDING MATERIALS OR EQUIPMENT;

2. NO RIGGING CABLES SHALL BE WRAPPED AROUND OR INSTALLED IN TREES AND SURPLUS SOIL, EQUIPMENT, DEBRIS OR MATERIALS SHALL NOT BE PLACED OVER ROOT SYSTEMS OF THE TREES WITHIN THE PROTECTIVE FENCING. NO CONTAMINANTS WILL BE DUMPED OR FLUSHED WHERE FEEDER ROOTS OF TREES EXIST;

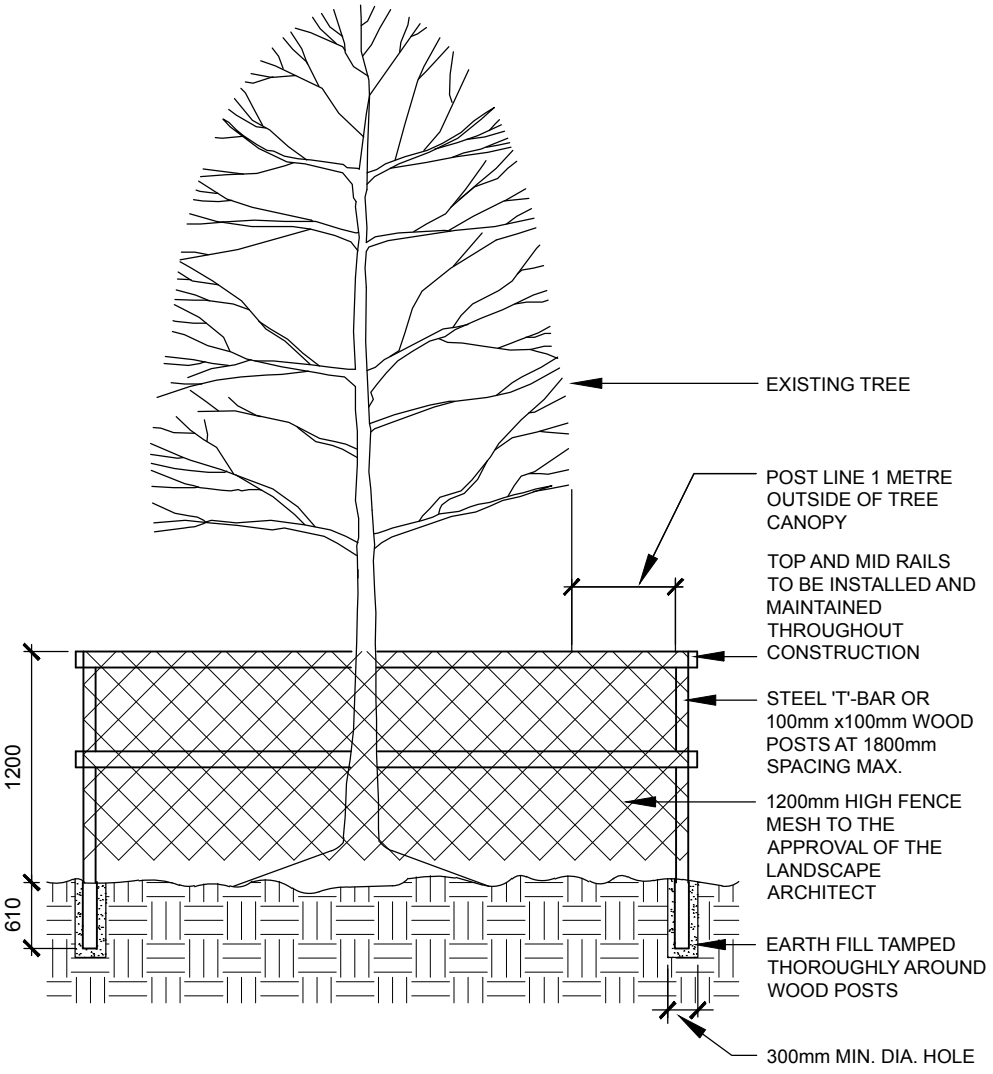
3. WHERE LIMBS OR PORTIONS OF TREES ARE REMOVED TO ACCOMMODATE CONSTRUCTION WORK, THEY WILL BE REMOVED CAREFULLY BY ACCEPTED HORTICULTURAL PRACTICES;

4. WHERE ROOT SYSTEMS OF PROTECTED TREES ARE EXPOSED DIRECTLY ADJACENT TO OR DAMAGED BY CONSTRUCTION WORK, THEY SHALL BE TRIMMED NEATLY AND THE AREA BACKFILLED WITH APPROPRIATE MATERIAL TO PREVENT DESICCATION;

5. WHERE NECESSARY, THE TREES WILL BE GIVEN AN OVERALL PRUNING TO RESTORE THE BALANCE BETWEEN ROOTS AND TOPGROWTH OR TO RESTORE THE APPEARANCE OF THE TREE;

6. IF GRADES AROUND TREES TO BE PROTECTED ARE LIKELY TO CHANGE, TAKE SUCH PRECAUTIONS AS DRY WELLING AND ROOT FEEDING TO MAINTAIN THE HEALTH OF THE TREES;

7. TREE PROTECTION ZONES SHALL BE ESTABLISHED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITY ON SITE, AND SHALL REMAIN FOR THE DURATION OF WORK, MAINTAINED IN GOOD CONDITION AT ALL TIMES.



DWG. TITLE

TREE PRESERVATION PROTECTION FENCE

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STANDARD DETAIL

DATE	DWG. No.
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CITY OF PETERBOROUGH

STANDARD DETAILS

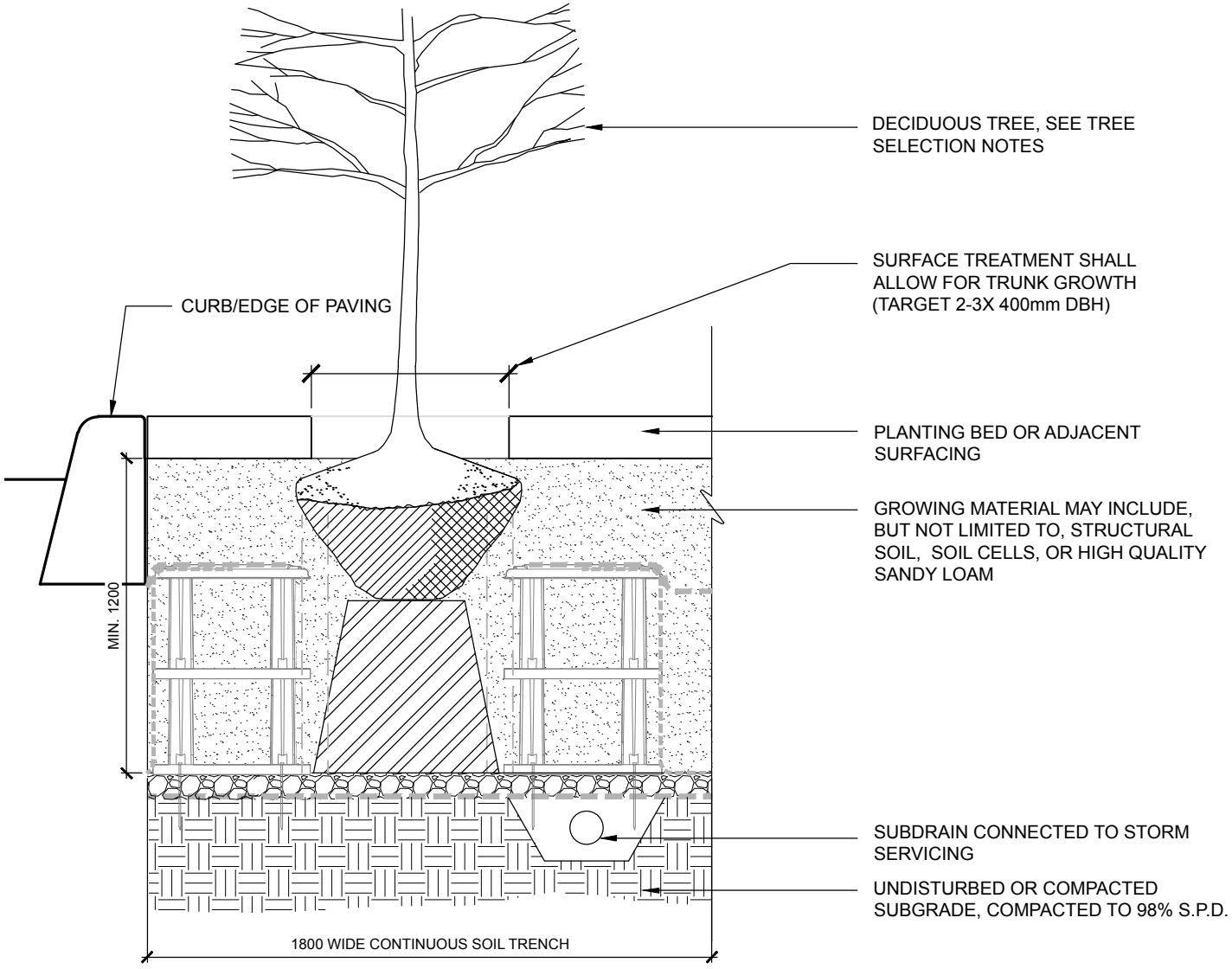
SUPPLEMENTAL PLANTING

DESIGN CONSIDERATIONS:

- DESIGN OPTIONS FOR TREE PLANTING IN HARD LANDSCAPES IN THE ORDER OF OPTIMAL CONDITIONS FOR TREE HEALTH INCLUDE:
  1. OPEN PLANTING BED
  2. RAISED PLANTER
  3. PLANTER COVER
- WHERE SPACE ALLOWS TREES TO BE PLANTED IN 1800mm WIDE CONTINUOUS TREE TRENCH.
- TARGET SIZE FOR HARD LANDSCAPE TREE TRENCH TO BE MINIMUM 400mm DBH FOR REASONABLE ENVIRONMENTAL BENEFIT
- 15 CU.M. OF HIGH QUALITY SOIL SHOULD BE PROVIDED PER TREE AND EACH TREE SHOULD HAVE DIRECT ACCESS TO AT LEAST 30 CU.M. OF HIGH QUALITY GROWING MATERIAL

TREE SELECTION:

- SELECT TREES THAT ARE FREE OF DISEASES, DAMAGE AND GIRDLED ROOTS. REVIEW NURSERY STOCK PRIOR TO DELIVERY.
- PLANTING TO BE IN ACCORDANCE WITH CANADIAN NURSERY AND LANDSCAPE ASSOCIATION CANADIAN STANDARDS FOR NURSERY STOCK, THE LANDSCAPE ONTARIO HORTICULTURAL TRADES ASSOCIATION LANDSCAPE GUIDELINES AND STANDARDS, AND THE INTERNATIONAL SOCIETY OF ARBORICULTURE FOR TREES AND SHRUBS.
- SELECT TREES WITH A BRANCHING STRUCTURE STARTING 1800mm ABOVE GRADE.
- REFER TO SOFT LANDSCAPE PLANTING DETAILS FOR FURTHER PLANTING INSTALLATION INSTRUCTIONS.



DWG. TITLE

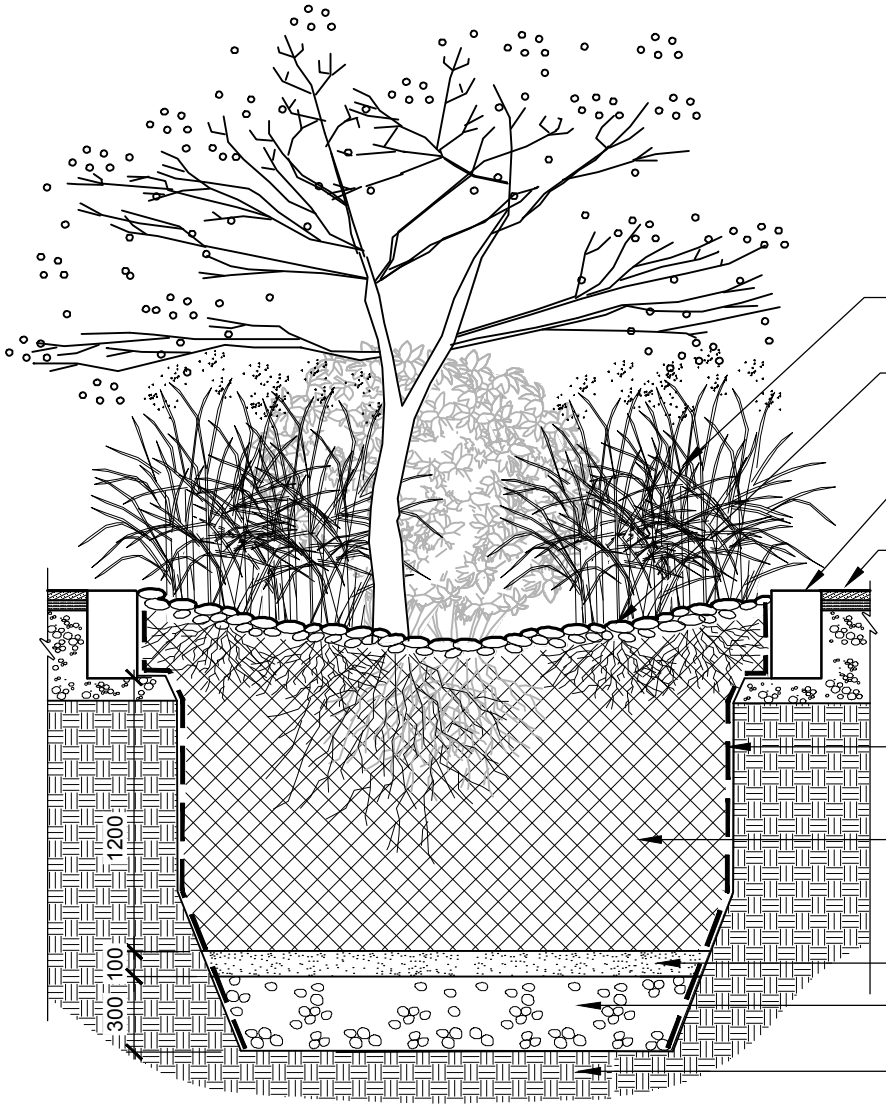
TREE PLANTING IN HARD LANDSCAPE

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STANDARD DETAIL

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NOTE:

TEST SOIL POROSITY DURING EXCAVATION AND NOTIFY LANDSCAPE ARCHITECT OF RESULTS

PLANTING AS PER PLAN

GRANITE COBBLE MULCH TO MEET FLUSH WITH ADJACENT TOPS OF CURBS (25-50mm DIAM. AT 150mm DEEP)

C.I.P. CONCRETE CURB FLUSH WITH ADJACENT PAVING

ASPHALT PAVING

EPDM LINER (BOTH SIDES), FULL DEPTH OF EXCAVATION, BUT NOT ON BOTTOM OF PIT

1.2m DEPTH OF AMENDED SOIL FILTER MEDIUM (REFER TO SOIL COMPOSITION NOTES , BELOW)

100mm PEA GRAVEL CHOKING LAYER

300mm DEPTH OF 50mm DIAMETER CLEAR STONE

UNDISTURBED SUBGRADE

SECTION

AMENDED SOIL FILTER MEDIUM SOIL COMPOSITION:

1. SAND: 2 TO 0.05mm, 85-88% by weight
2. FINES: less than 0.05mm, 8-12% by weight
3. ORGANIC MATTER - leaf compost(or approved alternative), 3-5% by weight
4. SOILS TO HAVE AN INFILTRATION RATE OF APPROXIMATELY 12 TO 30 MM/HR

DWG. TITLE

INFILTRATION PLANTER

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CITY OF PETERBOROUGH

STANDARD DETAIL

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SEPTEMBER 2019	CPD-402
SCALE: N.T.S.	
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