



MARCH 2012

# PARK AND PATHWAY DEVELOPMENT MANUAL





# CONTENTS

---

## 1.0 INTRODUCTION

- 1.1 EXECUTIVE SUMMARY..... 3
- 1.2 BACKGROUND AND STRUCTURE..... 5
- 1.3 HOW TO USE THIS MANUAL ..... 6

## 2.0 PARK DEVELOPMENT PROCESS

- 2.1 INTRODUCTION ..... 11
- 2.2 PROCESS FOR CITY-BUILT PARK DEVELOPMENT..... 12
- 2.3 PROCESS FOR DEVELOPER FRONT-ENDED PARK DEVELOPMENT ..... 19

## 3.0 PARK AND PATHWAY CLASSIFICATION

- 3.1 INTRODUCTION ..... 29
- 3.2 PARK BLOCK SELECTION..... 29
- 3.3 DEVELOPER REQUIREMENTS FOR PARK BLOCKS ..... 30
- 3.4 PARK CLASSIFICATION ..... 31
  - 3.4.1 DISTRICT PARK..... 32
  - 3.4.2 COMMUNITY PARK ..... 34
  - 3.4.3 NEIGHBOURHOOD PARK ..... 36
  - 3.4.4 PARKETTE..... 38
- 3.5 PATHWAY CLASSIFICATION ..... 41
  - 3.5.1 MULTI-USE PATH..... 42
  - 3.5.2 RECREATIONAL PATH..... 44
  - 3.5.3 NATURE TRAIL..... 46

## 4.0 PARK AND PATHWAY STANDARDS

- 4.1 DRAWING SUBMISSION STANDARDS..... 51
  - 4.1.1 FACILITY FIT PLAN ..... 52
  - 4.1.2 CONCEPT PLAN ..... 54
  - 4.1.3 PRESENTATION PLAN ..... 56

4.1.4	FIRST SUBMISSION (60% WORKING DRAWINGS) .....	58
4.1.5	SECOND SUBMISSION (90% WORKING DRAWINGS) .....	60
4.1.6	THIRD SUBMISSION (100% WORKING DRAWINGS) .....	61
4.1.7	AS-BUILT DRAWINGS .....	62
4.1.8	TITLE SHEETS.....	62
4.2	DRAWING DESCRIPTIONS .....	63
4.3	PARK DEMONSTRATION PLANS .....	63
4.4	PARK DESIGN CRITERIA .....	72
4.5	GLOSSARY OF TERMS.....	76
4.6	CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN (CPTED) PRINCIPLES .....	80
4.7	MANUAL DEVELOPMENT TEAM.....	81
5.0	<b>APPENDIX</b>	
5.1	STANDARD DETAILS AND SPECIFICATIONS .....	85

1.0

INTRODUCTION



# 1.0 INTRODUCTION

## 1.1 EXECUTIVE SUMMARY

An initiative of the Planning and Growth Management Department (PGM), the *Park and Pathway Development Manual* was developed primarily to define, standardize and improve the park and pathway development process for both City-built and Developer-front-ended projects in the City of Ottawa.

The manual was developed with input from other City of Ottawa departments, including Infrastructure Services, Parks, Recreation and Cultural Services, and Public Works. A Stakeholder's Advisory Committee consisting of representatives from the Greater Ottawa Home Builders Association, Landscape Architecture Ottawa, the Rideau Valley Conservation Authority, the South Nation Conservation Authority, and Mississippi Valley Conservation also provided valuable input.

The *Park and Pathway Development Manual* is intended to serve as a reference tool to guide City staff, external stakeholders, the development community, and their consultants in the development of parks and pathways in the City of Ottawa. More specifically, it is designed to assist park planners and other City staff in guiding applicants through the review and approvals process for park development.

Objectives include the following:

- To ensure the timely delivery of parks and pathways in the City of Ottawa.
- To clearly define the process for park design, construction and acceptance, for both City-built and Developer front-ended park assets.
- To ensure that the size, layout, location and characteristics of dedicated parkland adequately support the active and passive recreation needs of City of Ottawa residents.
- To establish guidelines for the selection and acquisition of park and pathway blocks, and to summarize Developer responsibilities with respect to the preparation of park blocks.
- To define the City's Park and Pathway Classifications, which are to be used as a reference tool to guide City of Ottawa staff and Developers in the development of new parks and pathways.
- To establish drawing standards and submission requirements to streamline the park design and construction processes and to facilitate communication.

The *Park and Pathway Development Manual* defines **two scenarios** for the design and development of parks in the City of Ottawa.

The **first scenario** relates to the process for development of City-built parks, whereby a Developer conveys parkland to the City as part of a subdivision agreement, and completes requirements related to park blocks. The Developer is responsible for compliance with all of the subdivision approval conditions. Once the Developer has satisfied all requirements, the subdivision is registered, and the park and pathway blocks are conveyed to the City. It becomes the City's responsibility to undertake the design and construction of the park asset. Roles and responsibilities are outlined for each step of the process related to the development of City-built parks.

The **second scenario** provides the development community with the opportunity to build park assets as part of the subdivision development process. The park types that are eligible for front-ending are: Neighbourhood Parks and Parkettes. Front-ending is optional, and is subject to Council approval and the City and Developer executing a front-ending agreement. As part of the front-ending process, the Developer is still required to complete the requirements in association with park / pathway block conveyance. Roles and responsibilities are outlined for each step of the process related to Developer front-ended parks.

The front-ending of park development is subject to the terms and conditions of the City of Ottawa *Park and Trail Front-Ending Policy* (2011) and requires the approval of Council. Advantages of front-ending include more timely delivery of parks in new and growing communities, and potential development cost savings when parks are built as part of the subdivision construction process.

The *Park and Pathway Development Manual* also defines the City's Park and Pathway Classification System. The City of Ottawa has created a classification system to define park typologies designed to meet the social, recreational and environmental needs of its residents. The Park Classification establishes park typologies and outlines standards related to parkland size, location, service area radius, configuration, and amenities in order to inform the selection and subsequent design of park blocks. Parks should be of a shape and size that provide appropriate access and visibility, and offer park planners flexibility in the design of sports fields and other recreational amenities. Implementation of the Park Classification allows those responsible for design, development, construction and maintenance of parks to best meet the needs of communities. Four (4) park typologies are described, reflecting the City's parkland structure: District Parks, Community Parks, Neighbourhood Parks, and Parkettes.

City of Ottawa pathways are intended to provide for the recreational and transportation needs of residents. They provide pedestrian linkages that facilitate movement within City and community-wide networks, enhance the continuity of the open space system and provide access to recreational opportunities within each neighbourhood. With respect to pathways, the classification establishes parameters for use and location, as well as context, and path and corridor width. Pathway standards vary according to location, use and anticipated volume of usage. The Pathway Classification describes three (3) pathway typologies: Multi-Use Paths, Recreational Paths, and Nature Trails.

The *Park and Pathway Development Manual* also outlines the City's drawing standards and submission requirements, provides information regarding the circulation of drawings to City staff and other agencies, and presents park and pathway construction details and specifications. These standards are intended to facilitate communication and streamline the development of parks and associated pathways.

Finally, the *Park and Pathway Development Manual* is envisioned as a living document which shall be updated by the City when necessary, as park and pathway development evolves and new, more efficient processes and standards are developed and implemented.

# 1.0 INTRODUCTION

---

## 1.2 BACKGROUND AND STRUCTURE

In the City of Ottawa, parks and pathways play a key role in enhancing the quality of life of residents. They contribute to their physical and psychological health, enhance civic pride, and strengthen local identity. Parks and pathways also support the greenspace network, enhance the City's natural beauty, and promote active transportation. In order to achieve customer service excellence, the City of Ottawa strives to provide new and growing communities with excellent parks and pathways that meet the active and passive recreational needs of residents.

The success of parks and pathways begins in the early stages of planning, during the pre-application consultation stage and again at the subdivision review stage, when park blocks and pathways are selected and acquired. The size and shape of a park block helps to define which facilities can be accommodated, and the location of pathway blocks provides for an interconnected greenspace network. The City's annual park budgeting exercise, as well as park design and construction process, are key factors that influence the delivery of new parks. In recent years, the City has experienced rapid growth which has resulted in a greater demand for the delivery of parks. In order to ensure the more timely delivery of parks, the City has allowed Developers to 'front-end' park construction, with the understanding that they will be reimbursed at a future date. Front-ending presents an opportunity to provide parks sooner than the City is able to, usually when the first homes are being occupied. Early construction of parks is viewed as a benefit by Developers, as having attractive parks and pathways offers more complete and sustainable neighbourhoods to homeowners in new communities and subdivisions. In addition to delivering parks sooner, front-ending may allow the City to realize economies of scale, as park development costs may be lower for Developers who can complete park works with labour and equipment already on site. This manual was developed primarily to define, standardize and improve the park and pathway development process for both City-built and Developer-front-ended projects in the City of Ottawa. The manual is structured as follows:

Chapter 2.0 outlines a new process for park design, construction and acceptance that will streamline the City's activities and improve lines of communication with Developers, consultants and City staff. Two scenarios are described: City-built and Developer front-ended.

Chapter 3.0 presents guidelines for the selection and acquisition of park and pathway blocks, and summarizes park block preparation requirements. It describes the City's Park and Pathway Classification, which is intended to serve as a reference tool to guide the City of Ottawa, consultants and Developers in the development of new parks and pathways. Implementation of the Park and Pathway Classification allows those responsible for design, development, construction and maintenance of parks and pathways to best meet the needs of communities.

Chapter 4.0 outlines the City's drawing standards and submission requirements, provides information regarding the circulation of drawings to City staff and other agencies, and presents park and pathway construction details and specifications. Sample plans are provided to illustrate both drawing standards and submission requirements. They convey information related to required drawing content for all stages of design development, submissions and approvals. These plans are intended as guidelines to facilitate communication and streamline approvals. This chapter also includes park demonstration plans that provide a snapshot of typical parks in the City of Ottawa and illustrate the types of amenities that may be provided given the established park budget. Finally, Chapter 4.0 includes a set of standard details and specifications for park and pathway development.

Chapter 5.0 defines terms commonly used in the text of the manual, outlines CPTED principles, and presents a list of the organizations who've contributed to the manual's development.

### 1.3 HOW TO USE THIS MANUAL

This manual is intended to serve as a reference tool to guide City staff, the development community, and their consultants in the development of parks and pathways in the City of Ottawa. More specifically, it is intended to assist park planners and other City staff in guiding applicants through the review and approvals process for park development. The process for developing parks is detailed in Section 2.0, *Park Development Process*.

While each section of the manual has been designed to serve as a stand-alone reference, all relevant documents mentioned in this manual should be appropriately referenced to ensure that requirements are met. Examples of relevant documents include:

- Amendment to the Conditions for Draft Approval of Plan of Subdivision – Parks (2011) \*
- Amendment to the Development Charges By-Law 2009-216 with Respect to the Parks Development Service Component (2009)\*
- By-Law No. 2004-276: to Regulate and to Promote Responsible Enjoyment and Use of Parks and Facilities (2004)\*
- By-Law No. 2006-279: Respecting the Protection and Maintenance of Trees and Natural Areas on Municipal Property (2006)\*
- Cash-in Lieu of Parkland Funds Policy (2010)\*
- City of Ottawa Community Design Plans (Various)\*
- City of Ottawa Environmental Strategy (2003)\*
- City of Ottawa Greenspace Master Plan (2006)\*
- City of Ottawa Infrastructure Master Plan (2009)\*
- City of Ottawa Official Plan\*
- City of Ottawa Secondary Plans (Various)\*
- City of Ottawa Transportation Master Plan (2008)\*
- Design Guidelines for the Development of Rural Villages\*
- List of Provincially Endangered or Threatened Species in Ottawa (updated regularly)
- Maintenance Quality Standards – Parks and Sports Fields (2005)\*
- Ottawa Cycling Plan (2008)\*
- Ottawa Pedestrian Plan (Draft January 2009)\*
- Parkland Dedication By-Law (2009)\*
- Park and Pathway Lighting Policy (2003)\*
- Park and Trail Front-Ending Policy (2011)\*
- Urban Design: A Reference Guide to Creating Great Places and Great Spaces (2007)\*
- Council Approved Front-Ending Policy (June 25, 2009)
- By-Law 2009-200: Urban Tree Conservation By-Law\*
- CAN / CSA-26 / 4-07: Children's Playspaces and Equipment (2007)\*
- City of Ottawa Rink Lighting Policy
- Standard Tender Documents for Unit Price Contracts (Infrastructure Services Department)
- Accessibility for Ontarians with Disabilities Act (2005)\*
- City of Ottawa Accessibility Standards for Customer Service Policy (2009)\*
- CSA B651-04 – Accessible Design for the Built Environment
- By-Law 203-530: Parking and Traffic By-Law\*

\* Available on the City of Ottawa website ([www.ottawa.ca](http://www.ottawa.ca))

# 1.0 INTRODUCTION

---

Other federal and provincial departments and agencies may have authority over aspects related to park and pathway development, including the Department of Fisheries and Oceans, the Ontario Ministry of Natural Resources, the Ontario Ministry of Transportation, the National Capital Commission and Parks Canada. In addition, conservation authorities with jurisdiction within parts of the City of Ottawa include: the Rideau Valley Conservation Authority, South Nation Conservation, and the Mississippi Valley Conservation Authority. All organizations having authority should be consulted to obtain guidance and approvals as necessary.

The City of Ottawa is committed to providing facilities that are accessible to all its citizens. Therefore, it is imperative that universal accessibility principles be considered in the development of parks and pathways. Accordingly, this manual has placed a strong emphasis on accessibility to be incorporated in all future park designs.



2.0

PARK DEVELOPMENT  
PROCESS



## 2.0 PARK DEVELOPMENT PROCESS

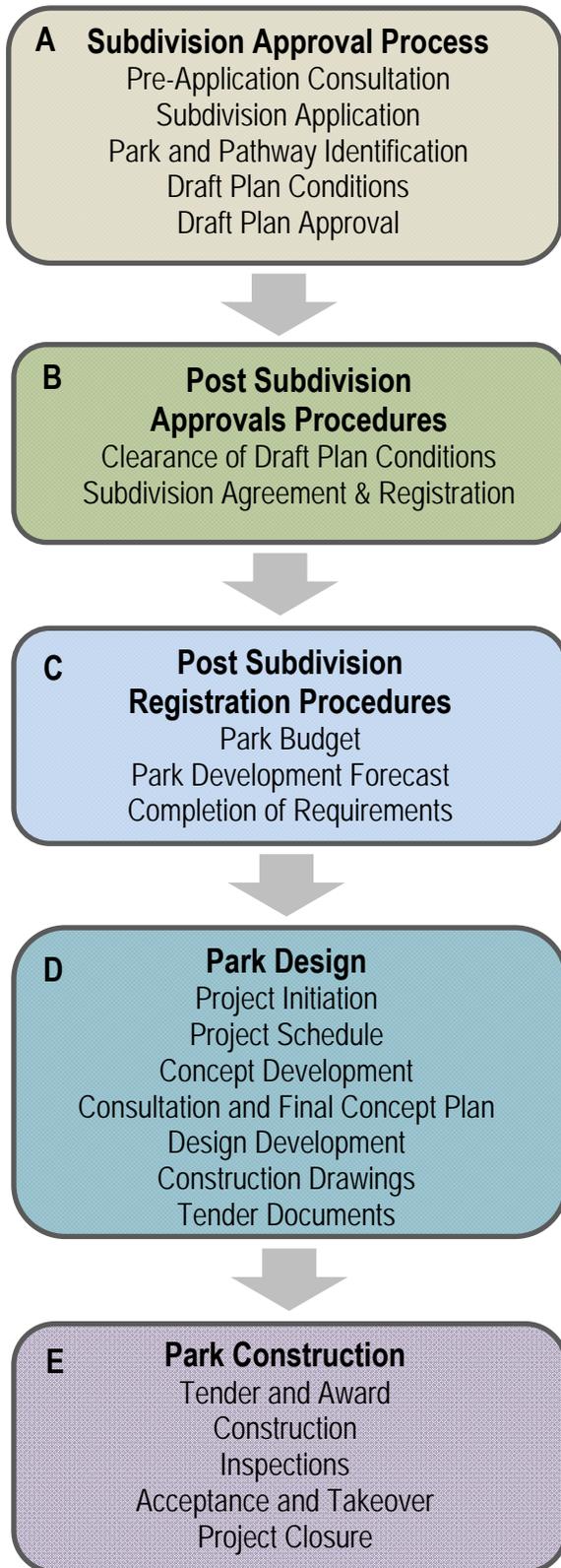
---

### 2.1 INTRODUCTION

Two scenarios are possible for the development of parks in the City of Ottawa: City-Built and Developer Front-Ended. The development process can be broken into five key phases: 1) Subdivision Approvals Process; 2) Post Subdivision Approvals Procedures; 3) Post Subdivision Registration Procedures; 4) Park Design; and 5) Park Construction.

While the first three phases encompass the same steps whether a park is City-built or Developer front-ended, each process is outlined in full, so that it may serve as a stand-alone reference. The process for City-Built Park Development is outlined in Section 2.2. The process for Developer Front-Ended Park Development is outlined in Section 2.3.

2.2 PROCESS FOR CITY-BUILT PARK DEVELOPMENT



**DESCRIPTION**

This section describes the process for development of City-built parks, whereby a Developer conveys parkland to the City as part of a subdivision agreement, and completes requirements for park block preparation.

All requirements outlined in the draft plan conditions are approved by the General Manager, Planning and Growth Management. The Developer is responsible for compliance with all of the approved draft plan of subdivision conditions.

Once the Developer has satisfied all requirements, the subdivision is registered and the parkland is conveyed, it will be the City's responsibility to undertake the design and construction of the park asset.

Roles and responsibilities for each step of the process related to City-built parks are further defined in the following pages.

## 2.0 PARK DEVELOPMENT PROCESS

---

### A SUBDIVISION APPROVAL PROCESS

#### STEP 1: PRE-APPLICATION CONSULTATION

---

- The Planning and Growth Management (PGM) file lead planner organizes a pre-application consultation meeting with the Developer and City staff to discuss requirements for a complete application prior to formal submission.
- The PGM park planner researches relevant policy documentation including: the Official Plan, Secondary Plans, Community Development Plans, the Park and Pathway Classification, and relevant master plans.
- At this stage, the PGM park planner identifies Developer responsibilities related to parkland, determining whether parkland or cash-in-lieu of parkland will be required. Pathway requirements are also identified at this time.

#### STEP 2: SUBDIVISION APPLICATION

---

- The Developer is responsible for submitting a complete subdivision application to the City.
- The PGM file lead planner, together with the development review team, reviews the application to ensure completeness.
- The PGM file lead planner circulates the subdivision application to internal and external stakeholders, including technical agencies and community organizations, as necessary.
- The PGM file lead planner sends a notice of application to the public and posts a development sign on the property.
- The PGM file lead planner holds a public meeting, as required by the Planning Act, to present the subdivision application to the public.

#### STEP 3: PARK AND PATHWAY IDENTIFICATION

---

- The PGM park planner reviews the draft plan of subdivision to determine how parkland and pathway requirements of the development are to be met. If land is to be conveyed, the PGM park planner comments on park block size, shape, and location, as well as the location of sidewalks and pathways. Park base information including aerial photos, geotechnical reports, tree conservation reports and / or environmental impact statements and topographic surveys are reviewed. Site visits are performed as required.
- The PGM park planner meets with the lead planner, urban designer and PGM forester-Planning and, if required, the environmental planner, to discuss park and pathway locations, as necessary.
- Servicing and lighting requirements are reviewed by the Infrastructure Project Manager.

#### STEP 4: DRAFT PLAN CONDITIONS

---

- The PGM park planner prepares draft conditions related to parks and pathways for inclusion in the draft plan of subdivision conditions.
- Once any issues identified in Step 3 have been resolved, the PGM file lead planner prepares a Delegated Authority Report (DAR) and draft plan of subdivision conditions.
- The DAR and draft plan of subdivision conditions are reviewed by the Program Manager.
- The PGM file lead planner forwards the DAR and draft plan of subdivision conditions to the Developer and Ward Councillor for concurrence.

## STEP 5: DRAFT PLAN APPROVAL

---

- Following concurrence by the Ward Councillor and the Developer, the DAR is signed by the PGM Development Review Manager.
- The PGM file lead planner issues a Notice of Decision, and a 20-day appeal period begins.
- If there are no appeals, the PGM file lead planner issues a 'No Appeals Received' letter with a copy of the Final Draft Plan Conditions and approved Draft Subdivision Plan attached.

## B POST SUBDIVISION APPROVALS PROCEDURES

### STEP 1: CLEARANCE OF DRAFT PLAN CONDITIONS

---

- Following draft plan of subdivision approval, the Developer submits a request for preparation of a subdivision agreement including a 4M-plan, engineering studies and drawings, as well as landscape plans, to the PGM file lead planner for review and approval.
- The PGM park planner reviews and approves park block and pathway sizes and locations on the 4M-plan, park servicing plans and composite utility plans.
- The Developer submits a park facility fit / concept plan, if required as a subdivision condition. A facility fit / concept plan can also be submitted prior to draft approval, if necessary.
- The PGM park planner reviews the landscape plans to verify fencing and pathway locations.
- The park grading is reviewed on the subdivision grading plan to ensure positive drainage of water, uniform surface, conformity to surrounding subdivision grading and preservation of trees and / or natural features, if required.

### STEP 2: SUBDIVISION AGREEMENT AND REGISTRATION

---

- The PGM file lead planner coordinates with Legal Services to have the subdivision agreement prepared. A subdivision agreement can include park and pathway conveyance, additional subdivision conditions (i.e. phased developments), an estimate of the cost of works, the land valuation for cash-in-lieu of parkland, tracking of parkland dedication for phased registrations, the 4M plan, the 4R plans, and other subdivision matters.
- The subdivision is registered.
- Title transfer occurs, and the park and pathway blocks are conveyed to the City.

## C POST SUBDIVISION REGISTRATION PROCEDURES

### STEP 1: PARK BUDGET

---

- The PGM park planner identifies the park budget based on the development charges by-law and determines where the asset falls within the short- and long-term budget forecasts.

### STEP 2: PARK DEVELOPMENT FORECAST

---

- The PGM park planner determines the timing of the park's development through a review of the annual budget envelopes and area needs. Other factors involved in the timing of park development include subdivision

## 2.0 PARK DEVELOPMENT PROCESS

---

phasing, number of parks in the subdivision, yearly budget allocation, economic downturns and negotiation with developers. All park development is subject to Council budgetary approval.

- The PGM park planner communicates the timing of park development to the Developer.

### STEP 3: COMPLETION OF REQUIREMENTS

---

- The Developer completes requirements for park and pathway block preparation in accordance with the registered subdivision agreement.
- The PGM subdivision inspector inspects the park and pathway blocks to ensure that the Developer has satisfied all requirements and reports back to the PGM park planner.

## D PARK DESIGN FOR CITY-BUILT PROJECTS

### STEP 1: PROJECT INITIATION

---

- The Financial Services Unit creates a park account in accordance with the approved park budget.
- The PGM park planner prepares a Project Initiation Form (PIF), which includes: project name, address, timeline, budget, account number and description of park.
- The PGM park planner issues the PIF to the Infrastructure Services Department (ISD), Asset Management Group and the Financial Services Unit.
- A project manager from ISD is assigned to the park project.
- The ISD project manager, in consultation with the PGM park planner, hires a consultant to design the park. The consultant must be a landscape architect who is a full member in good standing of the OALA with certificate and seal.

### STEP 2: PROJECT SCHEDULE

---

The PGM park planner, in consultation with the ISD project manager and consultant, creates a park development schedule.

### STEP 3: CONCEPT DEVELOPMENT

---

- The PGM park planner leads concept development and becomes the main contact for the consultant.
- The PGM park planner meets regularly with the ISD project manager and consultant to discuss the park concept design.
- The consultant submits a concept plan and cost estimate to the PGM park planner and copies the ISD project manager for comment.
- The PGM park planner circulates the plan to the Property, Buildings, Grounds Operations and Maintenance Department (PBGOM) and Forestry Services for review (as necessary). Special circumstances may require the circulation to other stakeholders, such as the Parks, Recreation and Cultural Services Department, PGM Natural Systems Unit, external agencies and relevant conservation authorities.
- The PGM park planner reviews the concept with the Ward Councillor.
- Comments are coordinated through the PGM park planner and sent to the consultant, who revises the concept plan accordingly.

- The consultant revises the concept plan per the PGM park planner and Ward Councillor's comments.
- The park name is established with concurrence from the Ward Councillor.

**Note:** For details related to the submission of concept plans and cost estimates, refer to Section 4.0, *Standards and Details, Drawing Submission Standards*.

### STEP 4: CONSULTATION AND FINAL CONCEPT PLAN

---

- The consultant submits coloured, bilingual presentation drawings for public consultations (the City is to provide translation of all drawing labels into French).
- The PGM park planner may hold a public open house to present the park concept to the community. The PGM park planner compiles feedback received from the community.
- The PGM park planner identifies any changes required to address comments from the public open house, and communicates them to the ISD project Manager, consultant and Ward Councillor.
- The consultant makes revisions as necessary and submits a final concept plan and cost estimate.
- The PGM park planner approves the final concept plan and forwards a copy to the ISD project manager for design and construction.

**Note:** For details related to the submission of presentation drawings, refer to Section 4.0, *Standards and Details, Drawing Submission Standards*.

### STEP 5: DESIGN DEVELOPMENT

---

- The ISD project manager leads design development and becomes the primary contact for the consultant.
- Based on the final concept plan, the consultant prepares working drawings and a cost estimate for first submission to City staff at 60% completion.
- The ISD project manager circulates the first submission to PGM, PBGOM and Forestry (as necessary) for comment.
- The ISD project manager, in consultation with the PGM park planner, reviews the drawings, cost estimate and schedule, and provides comments.

**Note:** For details related to the first submission, refer to Section 4.0, *Standards and Details, Drawing Submission Standards*.

### STEP 6: CONSTRUCTION DRAWINGS

---

- The ISD project manager leads construction drawing development and remains the primary contact for the consultant.
- The consultant revises the drawings based on received comments and submits an updated drawing set, complete with a cost estimate, to the ISD project manager at 90% completion (second submission) for review and comment.
- The ISD project manager, in consultation with the PGM park planner, reviews the drawings, cost estimate and schedule, and provides final comments.

**Note:** For details related to the second submission, refer to Section 4.0, *Standards and Details, Drawing Submission Standards*.

## 2.0 PARK DEVELOPMENT PROCESS

---

### STEP 7: TENDER DOCUMENTS

---

- The consultant revises the drawings based on City comments and submits a final drawing set to the ISD project manager, complete with a final cost estimate and specifications, at 100% completion (third submission).
- The ISD project manager compiles the tender documents and submits them to the Purchasing Department.

**Note:** For details related to the third submission, refer to Section 4.0, *Standards and Details, Drawing Submission Standards*.

## E PARK CONSTRUCTION FOR CITY-BUILT PROJECTS

### STEP 1: TENDER AND AWARD

---

- The tender is issued by the Purchasing Department, and the ISD project manager coordinates a pre-bid meeting.
- If the bids come in within budget, the project is awarded.
- If a project comes in over budget, the project is reviewed by the ISD project manager and the PGM park planner with respect to scope.

### STEP 2: CONSTRUCTION

---

- The ISD project manager notifies the PGM park planner of the start of construction, and holds a start-up meeting with the landscape contractor.
- Construction begins; the ISD project manager provides the PGM park planner with regular progress updates.
- The PGM park planner is responsible for internal and external communication related to park design, while the ISD project manager responds to inquiries regarding internal and park construction.

### STEP 3: INSPECTIONS

---

- Once any play structure construction is complete, it is inspected for CSA compliance, and an inspection report is submitted to the ISD project manager.
- The ISD project manager and consultant inspect the park works and identify deficiencies.
- The landscape contractor corrects any identified deficiencies, to the satisfaction of the ISD project manager and the consultant.
- The ISD project manager holds an inspection meeting to review general park construction, general turf construction, and sports turf construction with the consultant and landscape contractor.

### STEP 4: ACCEPTANCE AND TAKEOVER

---

- The contractor submits the play equipment maintenance kit and all other relevant documents (such as the installation and operating manuals) to the ISD project manager.
- The consultant submits final deficiency reports, deficiency plans and all inspection certificates to the ISD project manager.
- The consultant also submits a letter of compliance to the ISD project manager stating that the park has been constructed according to the working drawings and specifications.

- The ISD project manager, PGM park planner and consultant attend a park acceptance and takeover meeting with PBGOM. PBGOM evaluates the park for maintenance and takeover. The park may be taken over on a component basis.
- The landscape contractor corrects any identified outstanding deficiencies. If necessary, an additional takeover meeting is held to evaluate the park asset for takeover by the City.

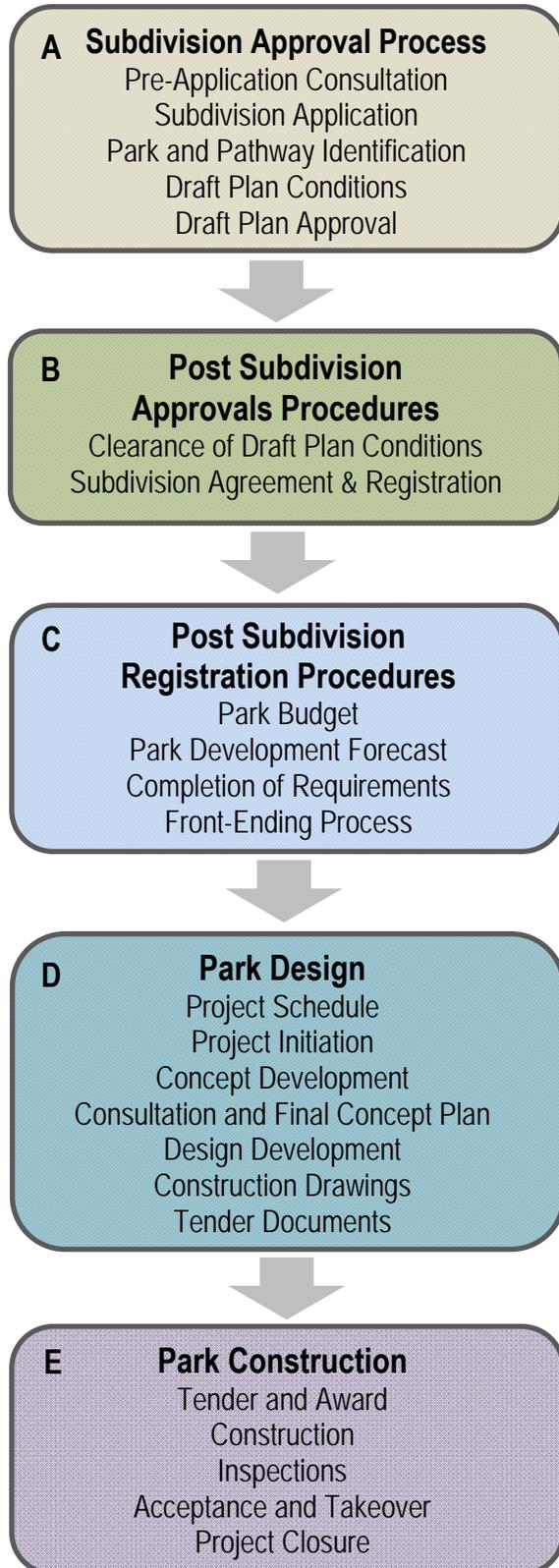
### STEP 5: PROJECT CLOSURE

---

- The consultant prepares and stamps as-built drawings for submission to the ISD project manager, who circulates the drawings to internal stakeholders and submits a copy to the CAD specialist in the Public Works Department to serve as an official corporate record.
- The ISD project manager adds the park to the City's inventory in Asset Management and turns it over to PBGOM. PBGOM turns the park over to the Parks, Recreation and Cultural Services Department for programming.
- The ISD project manager monitors plant material warranties and notifies the landscape contractor of any required replacements.

## 2.0 PARK DEVELOPMENT PROCESS

### 2.3 PROCESS FOR DEVELOPER-FRONT-ENDED PARK DEVELOPMENT



#### DESCRIPTION

The City of Ottawa provides the development community with the opportunity to build park assets as part of the subdivision development process. The park types that are eligible for front-ending are: Neighbourhood Parks and Parkettes.

The front-ending of park development is optional, and is subject to the City and Developer executing a front-ending agreement. As part of the front-ending process, the Developer is still required to complete the requirements related to the dedication of park blocks.

Roles and responsibilities for each step of the process related to Developer front-ended parks are further defined in the following pages.

## A SUBDIVISION APPROVAL PROCESS

### STEP 1: PRE-APPLICATION CONSULTATION

---

- The Planning and Growth Management (PGM) file lead planner organizes a pre-consultation meeting with the Developer and City staff to discuss requirements for a complete application prior to formal submission.
- The PGM park planner researches relevant policy documentation including: the Official Plan, Secondary Plans, Community Development Plans, the Park and Pathway Classification, and relevant master plans.
- At this stage, the PGM park planner identifies Developer responsibilities related to parkland, determining whether parkland or cash-in-lieu of parkland will be required. Pathway requirements are also identified at this time.

### STEP 2: SUBDIVISION APPLICATION

---

- The Developer is responsible for submitting a complete subdivision application to the City.
- The PGM file lead planner, together with the development review team, reviews the application to ensure completeness.
- The PGM file lead planner circulates the subdivision application to internal and external stakeholders, including technical agencies and community organizations, as necessary.
- The PGM file lead planner sends a notice of application to the public and posts a development sign on the property.
- The PGM file lead planner holds a public meeting, as required by the Planning Act, to present the subdivision application to the public.

### STEP 3: PARK AND PATHWAY IDENTIFICATION

---

- The PGM park planner reviews the draft plan of subdivision application and comments on park block size, shape, and location, as well as the location of sidewalks and pathways. Park base information including aerial photos, geotechnical reports, tree conservation reports and/or environmental impact statements and topographic surveys are reviewed. Site visits are performed as required.
- The PGM park planner meets with the lead planner, urban designer, PGM forester-Planning and, if required, the environmental planner, to discuss park location, as necessary.
- Servicing and lighting requirements are reviewed by the Infrastructure Project Manager.

### STEP 4: DRAFT PLAN CONDITIONS

---

- The PGM park planner prepares draft conditions related to parks and pathways for inclusion in the subdivision draft plan of subdivision conditions.
- Once any issues identified in Step 3 have been resolved, the PGM file lead planner prepares a Delegated Authority Report (DAR) and draft plan of subdivision conditions.
- The DAR and draft plan of subdivision conditions are reviewed by the Program Manager.
- The PGM lead planner forwards the DAR and draft plan of subdivision conditions to the Developer and Ward Councillor for concurrence.

## 2.0 PARK DEVELOPMENT PROCESS

---

### STEP 5: DRAFT PLAN APPROVAL

---

- Following concurrence by the Ward Councillor and the Developer, the DAR is signed by the PGM Development Review Manager.
- The PGM file lead planner issues a Notice of Decision, and the 20-day appeal period begins.
- If there are no appeals, the PGM file lead planner issues a 'No Appeals Received' letter with Final Draft Plan Conditions and date of draft plan approval.

### B POST SUBDIVISION APPROVALS PROCEDURES

#### STEP 1: CLEARANCE OF DRAFT PLAN CONDITIONS

---

- Following draft plan of subdivision approval, the Developer submits a request for preparation of a subdivision agreement including a 4M-plan, engineering studies and drawings, as well as landscape plans, to the PGM file lead planner for review and approval.
- The PGM park planner reviews and approves park block and pathway sizes and locations on the 4M-plan, park servicing plans and composite utility plans.
- The Developer submits a park facility fit / concept plan, if required as a subdivision condition. A facility fit / concept plan can also be submitted prior to draft approval, if necessary.
- The PGM park planner reviews the landscape plans to verify fencing and pathway locations.
- The park grading is reviewed on the subdivision grading plan to ensure positive drainage of water, uniform surface, conformity to surrounding subdivision grading and preservation of trees and / or natural features, if required.

#### STEP 2: SUBDIVISION AGREEMENT AND REGISTRATION

---

- The PGM file lead planner coordinates with Legal Services to have the subdivision agreement prepared. A subdivision agreement can include: park and pathway conveyance, an estimate of cost of works, additional subdivision conditions (i.e. phased developments), the land valuation for cash-in-lieu of parkland, tracking of parkland dedication for phased registrations, the 4M plan, the 4R plans and other subdivision matters.
- The subdivision is registered.
- Title transfer occurs and the park and pathway blocks are conveyed to the City.

### C POST SUBDIVISION REGISTRATION PROCEDURES

#### STEP 1: PARK BUDGET

---

- The PGM park planner identifies the park budget based on development charges by-law and determines where the asset falls within the short- and long term budget forecasts.
- The PGM park planner determines the timing of the park's development through a review of the annual budget and Council approval.

## STEP 2: PARK DEVELOPMENT FORECAST

---

- The PGM park planner determines the timing of the park's development through a review of the annual budget envelopes and area needs. Other factors involved in the timing of park development include subdivision phasing, number of parks in the subdivision, yearly budget allocation, economic downturns and negotiation with developers. All park development is subject to Council budgetary approval.
- The PGM park planner communicates the timing of park development to the Developer.

## STEP 3: COMPLETION OF REQUIREMENTS

---

- The Developer completes requirements for park and pathway block preparation in accordance with the registered subdivision agreement.
- The PGM subdivision inspector inspects the park and pathway block to ensure that the Developer has satisfied all requirements and reports back to the PGM park planner.

## STEP 4: FRONT-ENDING PROCESS

---

- The Developer submits a letter signaling their intent to front-end the park with complete details on park proposal.
- The PGM park planner prepares a report to the Planning Committee and Council describing the park to be front-ended and identifying the date of reimbursement of the Developer (based on the park development forecast).
- The report to Planning Committee and agreement can be brought forward prior to registration but must be post draft approval.
- Once Council approval is received, the legal agreement is prepared by Legal Services, and reviewed by the PGM park planner and the Developer. The agreement is then executed by the Developer and the City.
- The PGM park planner notifies the Infrastructure Services Department, Design and Construction (Buildings and Parks Branch) of the scope and timing of the park project.

**Note:** Refer to the Council Approved Front-Ending Policy (June 25, 2009). For front-ended parks, the design and construction of the park project may begin as soon as the front-ending agreement is executed by all parties, but reimbursement will only occur in the year specified in the front-ending agreement.

## D PARK DESIGN FOR DEVELOPER FRONT-ENDED PROJECTS

### STEP 1: PROJECT SCHEDULE

---

The Developer prepares a park development schedule for submission to the PGM park planner and ISD project manager.

### STEP 2: PROJECT INITIATION

---

- The PGM park planner prepares a Project Initiation Form (PIF), which includes: project name, address, timeline, budget, account number and description of the front-ended park.
- The PGM park planner issues the PIF to the Infrastructure Services Department (ISD), Asset Management Group and the Financial Services Unit.

## 2.0 PARK DEVELOPMENT PROCESS

---

- A project manager from ISD is assigned to the park project.

### STEP 3: CONCEPT DEVELOPMENT

---

- The PGM park planner leads concept development and becomes the main contact for the consultant.
- The Developer hires a consultant to design and manage the construction of the park. The consultant must be a landscape architect who is a full member in good standing of the OALA with stamp and certificate.
- The Developer and their consultant meet with the PGM park planner and ISD project manager to discuss the park design.
- The consultant submits a concept plan and cost estimate to the PGM park planner and copies the ISD project manager for comment.
- The PGM park planner circulates the plan to the ISD project manager, the Property, Buildings, Grounds Operations and Maintenance Department (PBGOM) and Forestry Services for review (as necessary). Special circumstances may require the circulation to other stakeholders, such as the Parks, Recreation and Cultural Services Department, the PGM Natural Systems Unit, external agencies and relevant conservation authorities.
- The PGM park planner reviews the concept with the Ward Councillor.
- Comments are coordinated through the PGM park planner and sent to the consultant who revises the concept plan accordingly.
- The consultant revises the concept plan per the PGM park planner and Ward Councillor's comments.
- The park name is established with concurrence from the Ward Councillor.

**Note:** For details related to the submission of concept plans and cost estimates, refer to Section 4.0, *Standards and Details, Drawing Submission Standards*.

### STEP 4: CONSULTATION AND FINAL CONCEPT PLAN

---

- The consultant submits coloured, bilingual presentation drawings for public consultations (the City is to provide translation of all drawing labels into French).
- The PGM park planner may hold a public open house to present the park concept to the community. The park planner compiles feedback received from the community.
- The PGM park planner identifies any changes required to address comments from the public open house and communicates revisions to the consultant, Developer and Ward Councillor.
- The consultant makes revisions as necessary and submits a final concept plan and cost estimate.
- The PGM park planner approves the final concept plan and forwards it to the ISD project manager for design and / or construction.

**Note:** For details related to the submission of presentation drawings, refer to Section 4.0, *Standards and Details, Drawing Submission Standards*.

### STEP 5: DESIGN DEVELOPMENT

---

- Based on the final concept plan, the consultant prepares working drawings and a cost estimate for first submission at 60% completion. The consultant submits the plans and cost estimates to the ISD project manager and PGM park planner.
- The ISD project manager circulates the first submission to PGM, PBGOM and Forestry Services (as necessary) for comment.

- The ISD project manager, in consultation with the PGM park planner, reviews the drawings, cost estimate and schedule, and provides comments.

**Note:** For details related to the first submission, refer to Section 4.0, *Standards and Details, Drawing Submission Standards*.

## STEP 6: CONSTRUCTION DRAWINGS

---

- The consultant revises the drawings based on received comments and submits an updated drawing set, complete with a cost estimate, to the ISD project manager, at 90% completion (second submission) for City review and comment.
- The ISD project manager, in consultation with the PGM park planner, reviews the drawings, cost estimate and schedule, and provides final comments.

**Note:** For details related to the second submission, refer to Section 4.0, *Standards and Details, Drawing Submission Standards*.

## STEP 7: TENDER DOCUMENTS

---

- The consultant revises the drawings based on received comments and submits a final drawing set to the ISD project manager complete with a final cost estimate, specifications, and tender documents at 100% completion (third submission).

**Note:** For details related to the third submission, refer to Section 4.0, *Standards and Details, Drawing Submission Standards*.

## E PARK CONSTRUCTION FOR DEVELOPER FRONT-ENDED PROJECTS

### STEP 1: TENDER AND AWARD

---

**Note:** Refer to Council Approved Front-Ending Policy (June 25, 2009) for rules for tendering.

- Once the tender documents are approved by the City, the consultant tenders the project and awards the contract.
- The tender process is to be approved by PGM. For construction, the contract is between the Developer and the contractor.

### STEP 2: CONSTRUCTION

---

- The consultant submits a construction schedule and notifies the PGM park planner and ISD project manager of the start of construction.
- The consultant holds a start-up meeting with the landscape contractor and ISD project manager.
- Construction begins; the consultant provides the PGM park planner and ISD project manager with regular updates on construction progress and communicates any schedule delays.
- The PGM park planner is responsible for external communication related to park design. The Developer and consultant are to provide the PGM park planner and ISD project manager with regular updates regarding construction status.

## 2.0 PARK DEVELOPMENT PROCESS

---

### STEP 3: INSPECTIONS

---

- Once any play structure construction is complete, it is inspected for CSA compliance, and an inspection report is submitted to the ISD project manager.
- The ISD project manager and consultant inspect the park works and identify deficiencies.
- The landscape contractor corrects any identified deficiencies, to the satisfaction of the ISD project manager and the consultant.
- The ISD project manager holds an inspection meeting to review general park construction, general turf construction, and sports turf construction with the consultant and landscape contractor.

### STEP 4: ACCEPTANCE AND TAKEOVER

---

- The contractor submits the play equipment maintenance kit and all other relevant documents (such as the installation and operating manuals) to the ISD project manager.
- The consultant submits final deficiency reports, deficiency plans and all inspection certificates to the ISD project manager.
- The consultant also submits a letter of compliance to the ISD project manager stating that the park has been constructed as per the working drawings and specifications.
- The ISD project manager, PGM park planner and consultant attend a park acceptance and takeover meeting with PBGOM. PBGOM evaluates the park asset for maintenance takeover. The park may be taken over on a component basis.
- The landscape contractor corrects any identified outstanding deficiencies. If necessary, an additional takeover meeting is held to evaluate the park / pathway asset for maintenance takeover by the City.

### STEP 5: PROJECT CLOSURE

---

- The consultant prepares and stamps as-built drawings for submission to the ISD project manager, who circulates the drawings to internal stakeholders and submits a copy to the CAD specialist in the Public Works Department to serve as an official corporate record.
- The park is added to the City's inventory in Asset Management and is turned over to the PBGOM. PBGOM turns the park over to Parks, Recreation and Cultural Services Department.
- In addition to certification by the consultant related to warranties, the ISD project manager monitors plant material warranties (1- and 2-year) and notifies the consultant of any required replacements.
- The consultant prepares, signs and stamps a letter to the City (ISD project manager) stating that the park has been constructed in accordance with the approved drawings.
- The Developer submits payment certificates and copies of invoices showing the amounts spent on park development to the PGM park planner. Refer to the Front-Ending Policy for requirements.
- In accordance with the terms set out in the front-ending agreement, the Developer is reimbursed by the City for the amount spent on park development, up to the established budget at the agreed upon time of repayment.



3.0

PARK AND PATHWAY  
CLASSIFICATION



## 3.0 PARK AND PATHWAY CLASSIFICATION

### 3.1 INTRODUCTION

In the City of Ottawa, parks and pathways are strategically acquired and located based on a diversity of park and pathway typologies to both satisfy recreational needs and respond to the context where they are located. The objective of the Park and Pathway Classification is to serve a range of individual, social, recreational and environmental needs, and provide a tool to assist in decision-making, managing park and pathway assets, delivering recreational services, and building a high-quality park and pathway network.

This chapter presents guidelines for the selection of park blocks, summarizes developer responsibilities related to the handover of park blocks, and describes the City's Park and Pathway Classification.

### 3.2 PARK BLOCK SELECTION

Parkland selection decisions set the stage for the design of parks that meet the needs of communities, create memorable experiences, and provide valuable social, recreational and environmental benefits.

Park block selection is determined by the City of Ottawa's Official Plan ([http://www.ottawa.ca/city\\_hall/ottawa2020/official\\_plan/index\\_en.html](http://www.ottawa.ca/city_hall/ottawa2020/official_plan/index_en.html)) as well as the City's *Parkland Dedication By-Law* (No. 2009-95) ([http://www.ottawa.ca/residents/bylaw/a\\_z/parkland\\_dedication/index\\_en.html](http://www.ottawa.ca/residents/bylaw/a_z/parkland_dedication/index_en.html)) and associated *Guidelines for Parkland Dedication* (January 2010). The City retains the right not to accept the conveyance of land as parkland that is considered unsuitable, including:

- hazardous or flood prone lands;
- wetlands and woodlots retained for conservation purposes;
- steep or unstable slopes;
- any land having unsuitable or unstable soil conditions;
- hydro rights-of-way or easements;
- any land containing an easement, encumbrance, or right-of-use that limits or restricts the City's use of the land;
- any land to be conveyed for stormwater management facilities, for flood plain or conservation purposes, for roadways, walkways or any other non-parkland purpose.

In addition to the lands mentioned in the above-noted Official Plan, the City, at its discretion, reserves the right not to accept the conveyance of the following lands as parkland:

- valley lands;
- watercourse corridors;
- environmental constraint lands, setbacks, or conservation buffers; and
- transportation corridors.

### 3.3 DEVELOPER REQUIREMENTS FOR PARK BLOCKS

While parks may be designed and built under different scenarios, either by the City or by the Developer under a front-ending agreement, parkland dedicated to the City must satisfy basic requirements, which are outlined in the City of Ottawa's *Amendment to the Conditions for Draft Approval of Subdivision — Parks* (January 2011). In either scenario, the Developer shall not remove or disturb any of the existing vegetation or topsoil on dedicated parkland unless such removal or disturbance forms a part of the remedial work approved by the City. The following summarizes the requirements that Developers must satisfy when providing a park block to the City. To the satisfaction of the General Manager, Planning and Growth Management, the Developer is to provide the following:

- An analysis of parkland soils as part of the geotechnical report, including bore holes, as well as digital topographic data for the park block (tied to a geodetic benchmark);
- Where natural areas are to be preserved in park blocks, the Developer is responsible for removing any hazardous vegetation that create liabilities to adjacent land/lots or proposed park amenities identified through a concept plan prior to subdivision registration, as directed by the City. The developer shall also remove any debris from the park block present until such time as the park is developed;
- Temporary bilingual signage indicating: Future Parkland, No Dumping, No Unauthorized Removal of Soil or Vegetation, and No Storage of Materials;
- Temporary fencing surrounding the park block, maintained in good repair;
- Grade areas of parkland where necessary to provide positive surface drainage, in accordance with the approved subdivision Grading Plan;
- A 1.5m chain link fence, without gates, adjacent to residential lots, ravine lands and other land uses as required. The location of fencing adjacent to hazard lands is to be determined by the City in consultation with the Conservation Authority / Partners;
- In public service areas, the Developer is to provide, at the time of site servicing, sanitary, stormwater, 50mm (minimum) water service and hydro stubbed two (2) metres inside the property line;
- In privately serviced areas, the developer must include: an open ditch, culvert and driveway in the road allowance; a well, constructed as per Ontario Regulation 903; and hydro service stubbed two (2) metres inside the property line;
- The Developer is responsible for all pathway connections to park blocks, pathway blocks, and stormwater pond blocks within the subdivision that link neighbourhoods and / or allow subdivisions to be connected by pedestrian routes. These connections do not comprise part of parkland dedication.

For further details, refer to the City of Ottawa's *Amendment to the Conditions for Draft Approval of Subdivision — Parks* (January 2011), at the following address: <http://ottawa.ca/calendar/ottawa/citycouncil/occ/2011/02-09/pec/8%20-%20ACS2011-ICS-PGM-0042%20-%20Amended%20Standard%20Subdivision%20Agreement.htm>.

## 3.0 PARK AND PATHWAY CLASSIFICATION

---

### 3.4 PARK CLASSIFICATION

The City of Ottawa has created a classification system to define park typologies designed to meet the social, recreational and environmental needs of its residents. The Park Classification described in the following pages is intended to serve as a reference tool to guide the City of Ottawa in the development of new parks. Implementation of the Park Classification allows those responsible for parkland selection, design, construction and maintenance of parks to best meet the needs of communities.

The location and programming of parks is determined by the City according to population and recreational service level requirements. Parks are distributed throughout a community, and across the City, to enable residents to have easily accessible parkland that satisfies a wide range of municipal recreational needs, while enhancing the public realm. All park and pathway locations shall take into consideration specific Community Design Plans (CDPs), Secondary Plans, Village Plans and site specific policies in the Official Plan for the area. Communities may benefit when parks are varied in their typologies and are distinctive in their design.

The Park Classification establishes park typologies and outlines standards related to parkland size, location, service area radius, configuration, and amenities in order to inform the selection and subsequent design of park blocks. Parklands should be of a shape and size that provide appropriate access and visibility, and offer park planners flexibility in the design of sports fields and other recreational amenities.

Four (4) park typologies are described, reflecting the City's parkland structure: District Parks, Community Parks, Neighbourhood Parks, and Parkettes. Park descriptions begin on the following page.

*Note: The following Park Classification applies only to new residential development / growth areas. It does not apply to existing / established communities where the delivery of parks was based on previous planning standards.*

### 3.4.1 DISTRICT PARK

District Parks are destination parks that service groups of communities, specific districts, and can be used for City wide functions. They are designed as major destinations for residents and visitors, and may have a tourism focus. The size and location of each park may vary, as determined by the park's particular focus and facilities. District Parks may have a competitive recreational focus, and similar facilities may be combined for tournament capabilities.



#### DESIGN CRITERIA

---

**Service Area Radius:** City and district wide

**Uses:** Multi-use, passive and active recreation, major sports facilities and / or tournament level fields

**Size:** 10ha minimum

**Location:** Located to serve multiple communities and, where possible, situated along an arterial street with a major transit route. Should be linked to the greenspace network and may be located in association with other open space areas.

**Amenities:** Variety of active and passive recreation opportunities which may include a community centre, pool / arena complex, indoor / outdoor rinks, active sports fields, tennis courts, multi-purpose courts, skateboard parks, splash pads, children's play areas, pedestrian walkways, seating areas, and shelters, as determined by the City.

**Implementation:** City built (Parks, Recreation and Cultural Services Department)

**Frontage:** Preferred minimum 75% continuous frontage on abutting streets

**Parking:** Parking shall be accommodated on site

**Lighting:** Walkway, parking lot, sports field and security lighting requirements shall be determined by the City.

**Vegetation Criteria:** Planting (trees, shrubs, grasses) shall comprise diverse species tolerant of urban conditions, with an emphasis on native species. Buffer and naturalization planting areas shall be provided where necessary.

**Canopy Target:** 30%

**Naturalization Target:** 20%

## 3.0 PARK AND PATHWAY CLASSIFICATION

---

### GUIDELINES

---

1. District Parks shall be designed as a centrally-located community focal point within a major district in the City of Ottawa. A mix of active and passive recreational opportunities shall be provided.
2. District Parks shall be located within the greenspace network or as extensions of the existing network.
3. District Parks shall be clearly visible and accessible from arterial roads, and appropriately located along transit routes. In rural areas, this may not apply.
4. Recreational facilities and associated lighting located within District Parks shall be positioned to minimize disturbance to residents.
5. Entry points shall be located to ensure convenient access to surrounding built form and open space networks.
6. Adjacent built-form should front onto District Parks to create visually attractive edges, improve access and provide “eyes on the park.”
7. Safe pedestrian and cyclist connections shall be provided between the park and its elements to other open space lands, local schools, other institutional uses and natural areas. These connections shall become part of the interconnected hierarchy of pathways throughout the City.
8. Efforts should be made to preserve existing trees / groups of trees on a site specific basis.
9. Natural features may be considered in the design of the park, at the City’s discretion.
10. Naturalized plantings shall be provided at the interface with existing natural features to be protected.
11. To protect natural features, park pathways and high-activity play areas should be located to minimize disruption to natural functions.
12. Deciduous trees should be planted in groups to provide opportunities for shade throughout the park, particularly near seating and children’s play areas.
13. Community centres, arenas and other significant built form shall be designed as focal points and located along street frontages to support the urban structure of the community.
14. The integration of public art or architectural landscape features that enhance the character of the site and its surroundings should be considered.
15. Crime Prevention through Environmental Design (CPTED) principles shall be considered in the design of the park. Vegetation and berms should not restrict the visibility of active play areas within the park. For information regarding CPTED principles, see Chapter 5.0, Section 5.2, *Crime Prevention through Environmental Design (CPTED) Principles*.
16. Landscaping should be used to enhance parking areas, while allowing views of cars for safety.
17. Accessibility principles shall be considered in the design of the park.

### 3.4.2 COMMUNITY PARK



Community Parks service a specific community or group of neighbourhoods, providing a range of recreational opportunities, and should be well connected to the larger community. They may range in size and types of facilities offered, and serve as a focal point within the community. Active and passive recreational opportunities shall be provided.

#### DESIGN CRITERIA

---

**Service Area Radius:** Community-wide (as determined by planning area)

**Uses:** Range of passive and active recreational uses, which may include a community building or a field house

**Size:** 3.2ha minimum to 10ha maximum

**Location:** Located along collector roads, generally at major intersections. Community Parks shall be accessible by transit and located in proximity to a transit stop. Should be linked to the greenspace network and may be located adjacent to other open space lands, such as conservation lands, valleys and stormwater management facilities, to the satisfaction of the City.

**Amenities:** Variety of active and passive recreation opportunities which may include sports fields, tennis courts, multi-purpose courts, ice rinks, skateboard parks, splash pads, children's play areas, open play spaces, pedestrian walkways, seating areas, and shelters, as determined by the City.

**Implementation:** City built (Planning and Growth Management Department)

**Frontage:** Preferred minimum 50% continuous frontage on abutting streets

**Parking:** Parking shall be accommodated on site as determined by the City.

**Lighting:** Walkway, parking lot, sports field and security lighting shall be provided as appropriate.

**Vegetation Criteria:** Planting (trees, shrubs, grasses) shall comprise diverse species tolerant of urban conditions, with an emphasis on native species. Buffer and naturalization planting areas shall be provided where necessary.

**Canopy Target:** 30%

**Naturalization Target:** 20%

## 3.0 PARK AND PATHWAY CLASSIFICATION

---

### GUIDELINES

---

1. Community Parks shall be designed as focal points within the community, making them unique to the communities where they are located. Passive and active recreation opportunities shall be provided.
2. Community Parks shall be located within the greenspace network or as extensions of the existing network.
3. As community focal points, Community Parks shall be sited with a preferred minimum of 50% continuous frontages to maintain visual and physical accessibility.
4. Recreational facilities and associated lighting located within Community Parks shall be positioned to minimize disturbance to residents.
5. Entry points shall be located to ensure convenient access to surrounding built form and open space networks.
6. Adjacent built-form should front onto Community Parks to create visually attractive edges, improve access and provide “eyes on the park.”
7. Safe pedestrian and cyclist connections shall be provided between the park and its elements to other open space lands, local schools, other institutional uses and natural areas. These connections shall become part of the interconnected hierarchy of pathways throughout the City.
8. Efforts should be made to preserve existing trees / groups of trees on a site specific basis.
9. Natural features may be considered in the design of the park, at the City’s discretion.
10. Naturalized plantings shall be provided at the interface with existing natural features to be protected.
11. To protect natural features, park pathways and high-activity play areas should be located to minimize disruption to natural functions.
12. Deciduous trees should be planted in groups to provide opportunities for shade throughout the park, particularly near seating and children’s play areas.
13. Community Parks shall be appropriately located in proximity to transit routes and stops.
14. The integration of public art or architectural landscape features that enhance the character of the site and its surroundings should be considered.
15. Crime Prevention through Environmental Design (CPTED) principles shall be considered in the design of the park. Vegetation and berms should not restrict the visibility of active play areas within the park. For information regarding CPTED principles, see Chapter 5.0, Section 5.2, *Crime Prevention through Environmental Design (CPTED) Principles*.
16. Landscaping should be used to enhance parking areas, while allowing views of cars for safety.
17. Accessibility principles shall be considered in the design of the park.

### 3.4.3 NEIGHBOURHOOD PARK

Neighbourhood Parks serve as the focal point of a neighbourhood, provide active and passive recreation opportunities, and offer a local gathering space within walking distance of local residents.



#### DESIGN CRITERIA

---

**Service Area Radius:** Approximately 10-minute (or 800m) walking distance

**Uses:** Range of passive and active recreational uses (defined in glossary)

**Size:** 1.2ha minimum to 3.2ha maximum

**Location:** Generally located along local roads (or collector roads in rural or village areas). Should be linked to the greenspace network and may be located adjacent to other open space lands, such as conservation lands, valleys and stormwater management facilities.

**Amenities:** Range of active and passive recreation opportunities which may include shade structures, seating, play equipment, a multi-purpose court, a splash pad, an outdoor rink, mini sports fields, or other facilities as determined by the City.

**Implementation:** City built (Planning and Growth Management Department) or developer front-ended

**Frontage:** Preferred minimum of 50% frontage on abutting streets

**Parking:** On street parking preferred, as these parks are intended as walk-to destinations.

**Lighting:** Sports fields are not typically lit. Walkway and security lighting shall be provided as appropriate.

**Vegetation Criteria:** Planting (trees, shrubs, grasses) shall comprise of diverse species tolerant of urban conditions, with an emphasis on native species.

**Canopy Target:** 30%

**Naturalization Target:** Site specific

## 3.0 PARK AND PATHWAY CLASSIFICATION

---

### GUIDELINES

---

1. Neighbourhood Parks shall be designed as focal points within a neighbourhood and provide a central green space allowing for a range of passive and active recreation uses that service the local neighbourhood and potentially the broader community.
2. Neighbourhood Parks shall be used to address greenspace network gaps and provide connections to facilities that are not on the network.
3. As neighbourhood focal points, Neighbourhood Parks shall be sited with a preferred minimum 50% frontage to maintain visual and physical accessibility.
4. The design of Neighbourhood Parks shall consider the interface with adjacent residential development.
5. Adjacent built-form should front onto Neighbourhood Parks to create visually attractive edges, improve access and provide “eyes on the park.”
6. Entry points shall be located to ensure convenient access to surrounding built form and adjacent open space lands.
7. Safe pedestrian and cyclist connections shall be provided between the park and its elements to other open space lands, local schools and natural areas. These connections shall become part of the interconnected hierarchy of pathways throughout the City.
8. Efforts should be made to preserve existing trees / groups of trees on a site specific basis.
9. Natural features may be considered in the design of the park, at the City’s discretion.
10. Naturalized planting shall be provided at the interface with existing natural features to be protected.
11. To protect natural features, park pathways and high-activity play areas should be located to minimize disruption to natural functions.
12. Deciduous trees should be planted in groups to provide opportunities for shade throughout the park, particularly near seating and children’s play areas.
13. The integration of public art or architectural landscape features that enhance the character of the site and its surroundings should be considered.
14. Crime Prevention through Environmental Design (CPTED) principles shall be considered in the design of the park. Vegetation and berms should not restrict the visibility of active play areas within the park. For information regarding CPTED principles, see Chapter 5.0, Section 5.2, *Crime Prevention through Environmental Design (CPTED) Principles*.
15. Accessibility principles shall be considered in the design of the park.

### 3.4.4 PARKETTE

Parkettes are small parks that are located within walking distance of residents. They provide central green space and social gathering places within neighbourhoods, and offer predominantly passive recreation and minor active recreation opportunities within a local residential or mixed-use neighbourhood. Parkettes can improve connectivity within neighbourhoods, provide interesting focal points, enhance built form and contribute to community character, providing a place for residents to interact, children to play and social events to occur.

*Note: Parkettes shall supplement a neighbourhood's park network; they will not be considered as the sole classification of parkland in a community.*



#### DESIGN CRITERIA

---

**Service Area Radius:** Approximately 2 to 5-minute (or 200 to 450m) walking distance

**Uses:** Active and passive recreational uses

**Size:** 0.4ha minimum to 1.2ha maximum

**Location:** Located along local roads and linked to the greenspace network

**Amenities:** Range of active and passive recreation opportunities may include: shade structures, seating, play equipment, and an unstructured play area, as determined by the City.

**Implementation:** City-built (Planning and Growth Management Department) or developer front-ended

**Frontage:** Preferred minimum of 50% frontage on abutting streets

**Parking:** No parking required

**Lighting:** Walkway and security lighting shall be provided as appropriate.

**Vegetation Criteria:** Planting (trees, shrubs, grasses) shall comprise diverse species tolerant of urban conditions, with an emphasis on native species.

**Canopy Target:** 30%

**Naturalization Target:** Site specific

## 3.0 PARK AND PATHWAY CLASSIFICATION

---

### GUIDELINES

---

1. Parkettes shall supplement a neighbourhood's park network and will not be considered as the sole classification of parkland in a community. Parkettes shall be planned and designed as an additional amenity space for a neighbourhood or sub-neighbourhood.
2. Proposed park features should be varied and distinguishable from other parks.
3. Adjacent built form should front onto Parkettes to create visually attractive edges, improve access and provide "eyes on the park".
4. Parkettes shall be used to address greenspace network gaps and provide connections to facilities that are not on the network.
5. Parkette facilities, design, and layout shall be coordinated with adjacent built form.
6. Hard and soft landscape elements shall be used to identify points of entry, areas of activity, circulation, and seating and gathering areas.
7. Safe pedestrian connections shall be provided between the park and the surrounding neighbourhood.
8. Parkettes shall be rectangular in shape to maximize recreational opportunities and promote good urban form within a neighbourhood or sub-neighbourhood.
9. Deciduous trees should be planted in groups to provide opportunities for shade throughout the park, particularly near seating and children's play areas.
10. The integration of public art or architectural landscape features that enhance the character of the site and its surroundings should be considered.
11. Crime Prevention through Environmental Design (CPTED) principles shall be considered in the design of the park. Vegetation and berms should not restrict the visibility of active play areas within the park. For information regarding CPTED principles, see Chapter 5.0, Section 5.2, *Crime Prevention through Environmental Design (CPTED) Principles*.
12. Accessibility principles shall be considered in the design of the park.
13. Efforts should be made to preserve existing trees / groups of trees on a site specific basis.



## 3.0 PARK AND PATHWAY CLASSIFICATION

### 3.5 PATHWAY CLASSIFICATION

City of Ottawa pathways are intended to provide for the recreational and transportation needs of residents. They should provide pedestrian linkages that facilitate movement within City and community-wide networks, enhance the continuity of the open space system and provide access to recreational opportunities within each neighbourhood. New pathways are to be incorporated into the regional and City-wide pathway network as identified in the *Pathway Network for Canada's Capital Region, 2006 Strategic Plan*, the *City of Ottawa Greenspace Master Plan* and the *Ottawa Cycling Plan*.

Pathways are not normally part of parkland dedication as per the Planning Act, the City's Official Plan and the Parkland Dedication By-law. According to Section 51 (25) of the Planning Act, pedestrian pathways, bicycle pathways and public transit rights-of-way can be dedicated as the approval authority considers necessary.

With respect to pathways, the classification establishes parameters for use and location, as well as context, and path and corridor width. Pathway standards vary according to location, uses and anticipated volume of usage. Variations in the design and location of paths will occur subject to site specific conditions. Detailed design will take place with input from the City of Ottawa, conservation authorities and stakeholder agencies such as the National Capital Commission. Mitigating potential impacts to natural areas is a primary criterion for proposed pathway locations.

The Pathway Classification describes three (3) pathway typologies: Multi-use paths, Recreational paths, and Nature trails. Pathway descriptions begin on the following page.

### 3.5.1 MULTI-USE PATH

Much of the City of Ottawa is connected by a system of multi-use paths built by the National Capital Commission (NCC) and the former municipalities. The Greenspace Master Plan (2006) describes the characteristics of multi-use paths and outlines the proposed City-wide path network. Generally speaking, multi-use paths take their character from the surrounding lands. Integration with the NCC's existing pathway system will be achieved through common construction and safety standards, with interpretive signs identifying the multi-use paths as an urban amenity.



#### USE AND LOCATION

---

**Use:** Multi-use paths are designed to accommodate the needs of pedestrians, cyclists (commuter and recreational), in-line skaters, cross-country skiers, strollers, wheelchairs, etc., allowing for a wide range of uses and large volume of users.

**Location:** Off-road or situated in boulevards within the road right-of-way

#### DESIGN CRITERIA

---

**Pathway Width:** Minimum 3.0m; wider in high-use areas

**Pathway Clearance:** 1.5m clearance on either side of path

**Pathway Corridor:** 18.0m (desired as noted in the City of Ottawa Greenspace Master Plan)

**Pathway Context:** Varies

**Vertical Clearing:** 3.0m for aesthetic and safety considerations, and to allow maintenance vehicle access.

**Desirable Grades:** 0-5%

**Additional Maintenance:** Snow clearing

**Illumination:** Site specific (based on the City of Ottawa Park and Pathway Lighting Policy)

**Implementation:** Developer built or City built

**Material:** Asphalt or concrete, with a painted centre line

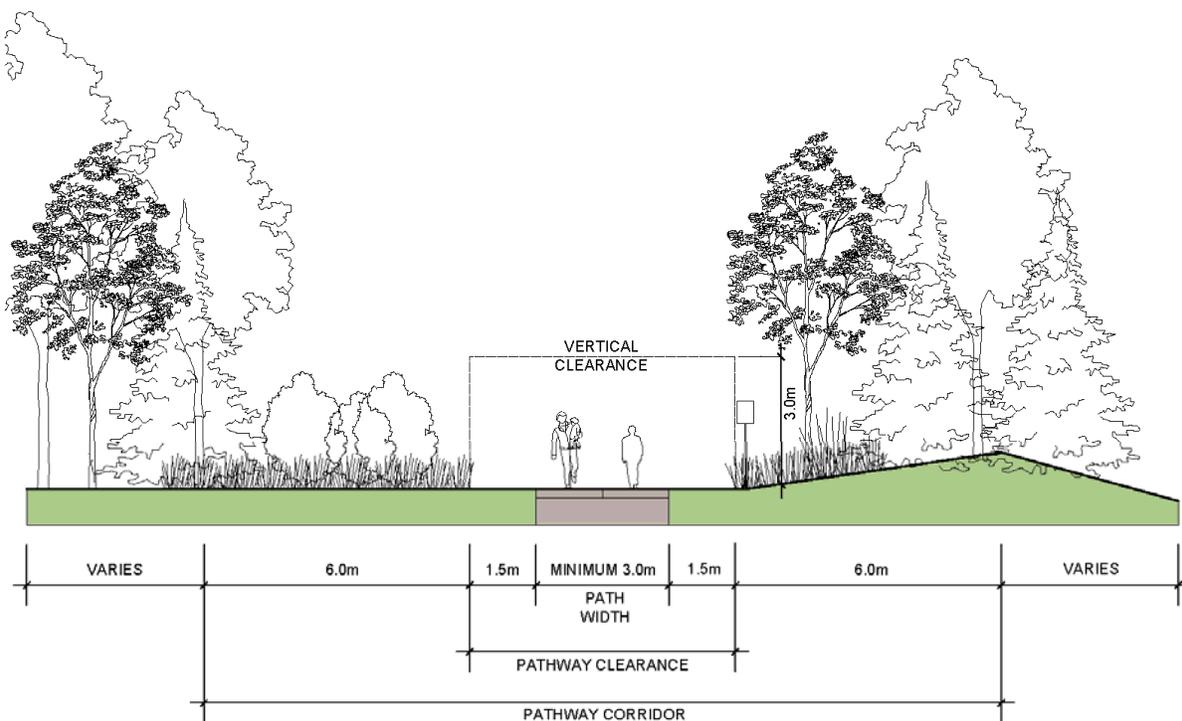
# 3.0 PARK AND PATHWAY CLASSIFICATION

## GUIDELINES

1. Multi-use paths should be designed to accommodate the needs of persons with disabilities whenever possible.
2. Bridges or boardwalks may be required in certain conditions.
3. Bilingual signage or markings indicating pedestrian and cycling use shall be provided in high-use situations.
4. Regulatory signage (such as no motor vehicles) shall be used where necessary.
5. Curb cuts and Intersection warning signs / bollards shall be provided at road intersections.
6. Safe pedestrian and cyclist connections shall be provided between the path, street and sidewalk systems.
7. The intersections of multi-use paths with street rights-of-way shall be designed as path entrances and may include site furniture and features consistent with the streetscape design.
8. Where possible, locate multi-use paths outside of the critical root zone (see glossary for definition) of mature trees to prevent root zone (see glossary for definition) compaction.

## TYPICAL PATH CROSS SECTION

*Cross Section Adapted from the Greenspace Master Plan*



### 3.5.2 RECREATIONAL PATH

Recreational paths are primarily intended for recreational purposes and provide opportunities for safe, off-street movement throughout the City of Ottawa. They are designed to accommodate the needs of a wide range of users and provide links to the City's wider pathway system as well as the on-street sidewalk system.



#### USE AND LOCATION

---

**Use:** Recreational paths address the needs of walkers, joggers, hikers, strollers, wheelchairs and cyclists (recreational).

**Location:** Off-road

#### DESIGN CRITERIA

---

**Pathway Width:** Minimum 2.0m to 3.0m; 2.4 m where possible, according to context, volume of use and maintenance requirements

**Pathway Clearance:** 4.5m to 6.0m (1.5m on either side of path)

**Pathway Corridor:** Varies

**Pathway Context:** Varies

**Vertical Clearing:** 3.0 m

**Desirable Grades:** 0-5%

**Additional Maintenance:** Snow clearing may occur on main Recreational Paths in parks

**Illumination:** Site specific (based on the City of Ottawa Park and Pathway Lighting Policy)

**Implementation:** City built or Developer built as required through the subdivision agreement. The Developer is responsible for connections to park blocks, stormwater management ponds and other paths within the subdivision that connect neighbourhoods and/or allow subdivisions to be connected by pedestrian routes.

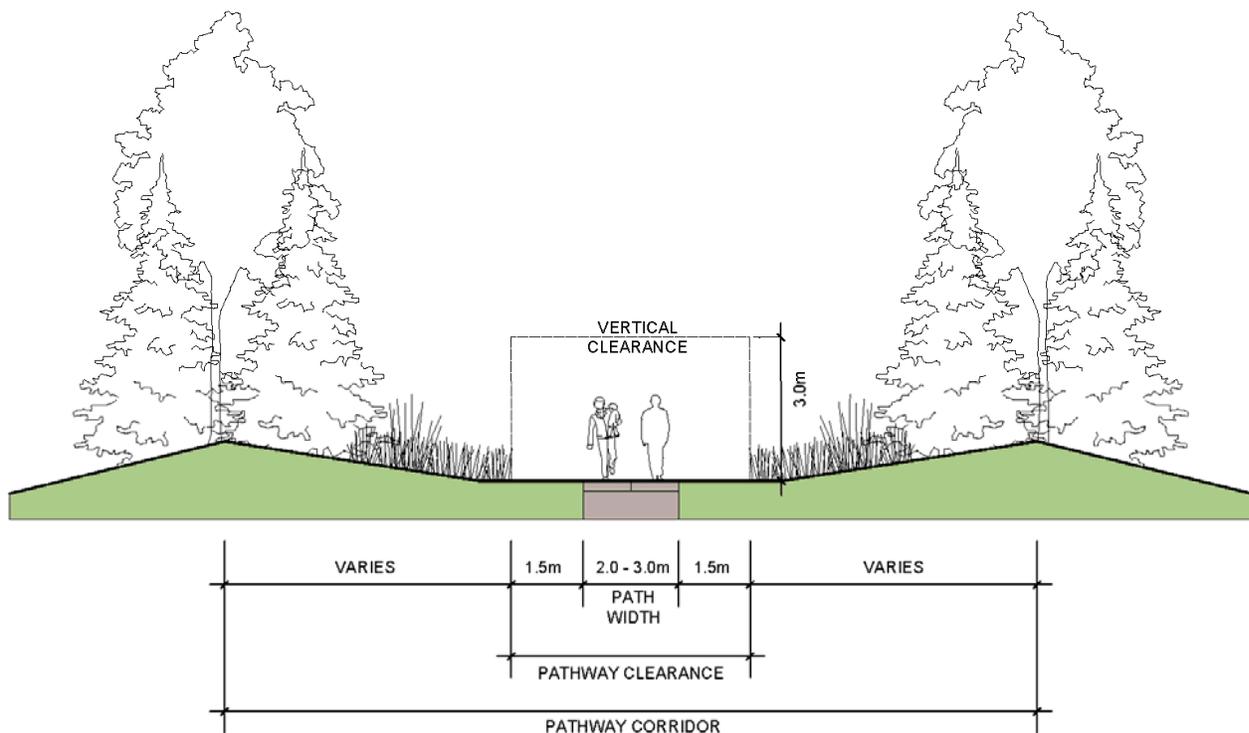
**Material:** Surfaces are either asphalt, concrete or stone dust, depending on context, volume of use and slope.

# 3.0 PARK AND PATHWAY CLASSIFICATION

## GUIDELINES

1. Recreational paths should be designed to accommodate the needs of persons with disabilities where possible.
2. Bridges or boardwalks may be required in certain conditions.
3. Bilingual signage or markings indicating pedestrian and cycling use shall be provided in high-use situations.
4. Regulatory signage (such as no motor vehicles) shall be used where necessary.
5. Curb cuts and intersection warning signs/ bollards may be provided at road intersections.
6. Safe pedestrian and cyclist connections shall be provided between the path, street and sidewalk systems.
7. The intersections of Recreational paths with street rights-of-way shall be designed as path entrances and may include site furniture and features consistent with the streetscape design.
8. Entry markers shall be provided at path entrance locations to make points of entry more identifiable.
9. A minimum width of 2.4m is required for maintenance vehicle access; at least one main route within the park must be wide enough to accommodate maintenance vehicles.
10. Pedestrian lighting shall be considered within park paths and at path entrances on a site specific basis.
11. Waste receptacles shall be located at accessible key points along pathways.
12. Asphalt or concrete paths shall be used in high-use areas within parks and for walkway blocks.
13. Stonedust paths shall be used in secondary areas and in more natural areas within parks and open spaces.
14. Where possible, locate recreational paths outside of the critical root zone (see glossary for definition) of mature trees to prevent root-zone compaction.
15. Vista locations may be incorporated at points of interest along the path.

## TYPICAL PATH CROSS SECTION



### 3.5.3 NATURE TRAIL

Nature trails are paths that serve various forms of non-vehicular movement and connect to points of interest. They are low-impact paths located in sensitive environmental areas such as forests, and adjacent to wetlands or watercourses. They accommodate the needs of a wide variety of users.



#### USE AND LOCATION

---

**Use:** Nature trails are designed to address the more passive recreation needs of pedestrians and cross-country skiers, among others.

**Location:** Off-road

#### DESIGN CRITERIA

---

**Trail Width:** Minimum 1.5m to 3.0m

**Trail Clearance:** Not applicable

**Trail Corridor:** Varies

**Trail Context:** Natural areas

**Vertical Clearing:** Varies

**Desirable Grades:** Varies; consideration shall be given to accessibility where possible.

**Additional Maintenance:** Periodic trail resurfacing, removal of fallen trees, inspection and removal of unstable trees, pruning of adjacent trees

**Illumination:** None

**Implementation:** City built or Developer built as required through the subdivision agreement.

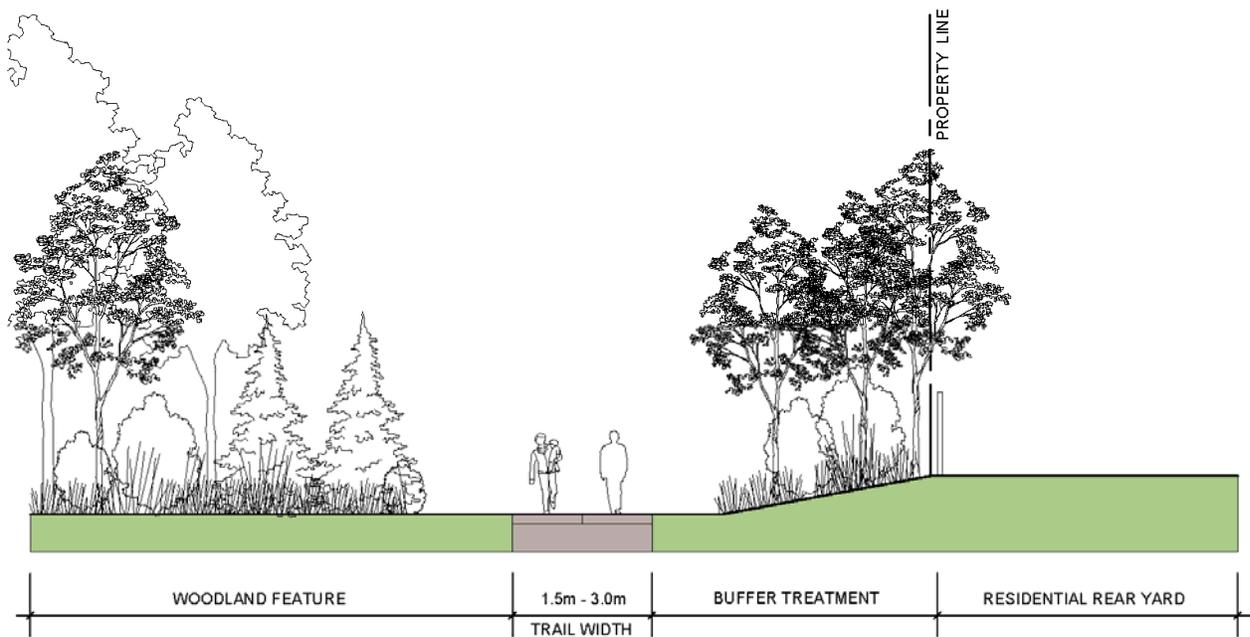
**Material:** Surfaces are stone dust, or woodchip in sensitive forested areas.

# 3.0 PARK AND PATHWAY CLASSIFICATION

## GUIDELINES

1. Trails should be designed to promote pedestrian access while protecting the surrounding natural context in which the path is located and should follow the "path of least resistance".
2. Bridges or boardwalks may be required where soils are waterlogged or susceptible to compaction.
3. Bilingual signage may include trail head, directional, regulatory, interpretive, descriptive and intersection warning signs.
4. Safe pedestrian and cyclist connections shall be provided between the trail, and street and sidewalk systems.
5. Keep trails as narrow as possible within forest areas to minimize impact and forest fragmentation.
6. Trails should not be located on erodible slopes.
7. Vista locations provide a variety of areas where trail users can access and experience natural areas while minimizing interference with natural functions.
8. To provide access to points of interest within natural areas, such as vista points or watercourses (i. e., for swimming or canoe launching), the City may, at its discretion, allow paths and access points within mandated conservation setbacks or buffers. However, any such provision of access within constraint lands is subject to the issuance of permits under the Conservation Authorities Act.

## TYPICAL TRAIL CROSS SECTION





4.0

PARK AND PATHWAY  
STANDARDS



## 4.0 PARK AND PATHWAY STANDARDS

---

### 4.1 DRAWING SUBMISSION STANDARDS

This chapter outlines design drawing standards and submission requirements for all stages of park and pathway development. Drawing submissions are made by the City's consultant unless the developer is front-ending a park.

With respect to drawing submissions, sample plans are included to illustrate both drawing standards and submission requirements. They convey information related to required drawing content for all stages of design development. These plans are intended to serve as guidelines to facilitate the approvals process.

This chapter also provides park demonstration plans that provide a snapshot of typical parks in the City of Ottawa. Demonstration plans are provided for the two park categories that are currently eligible for front-ending: Parkettes (0.4ha and 1.2ha) and Neighbourhood Parks (1.2ha and 3.2ha). The plans are accompanied by cost estimates that indicate the maximum City budget, along with itemized amenities and costs.

A glossary of terms and outline of Crime Prevention for Environmental Design principles appears at the end of the chapter.

Chapter 5.0, Appendix, presents a series of standard details and relevant specifications that are to be read in conjunction with existing City standards.

### 4.1.1 FACILITY FIT PLAN

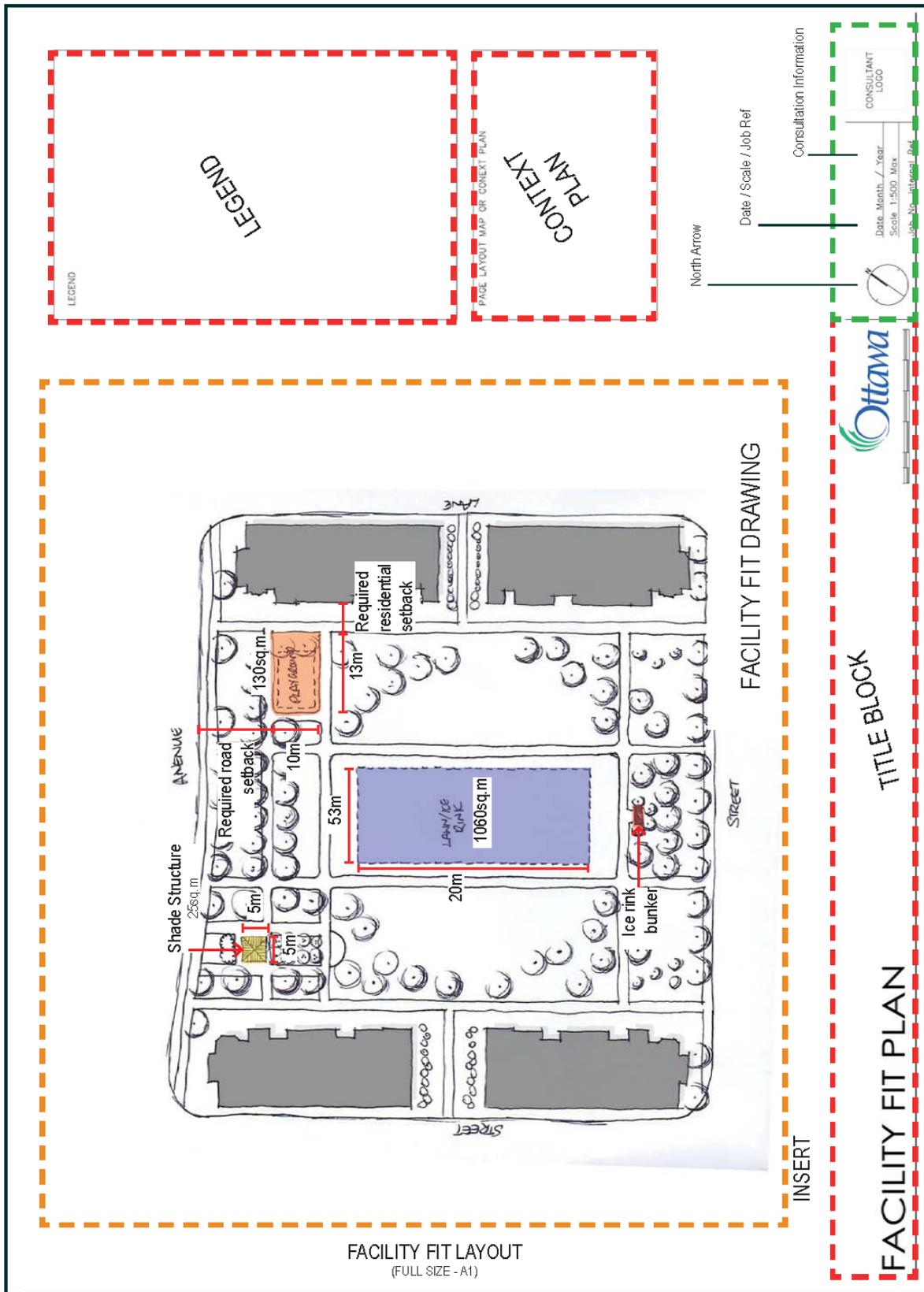
The Facility Fit Plan demonstrates that the proposed park facility program, including buffers and setbacks, can be satisfactorily achieved within the site and allocated park budget. If required as a special subdivision condition, the Facility Fit Plan is submitted by the developer's consultant to the PGM park planner at the Post Subdivision Approvals Procedures stage, Step 1: Clearance of Conditions. The facility fit plan can also be submitted prior to draft approval, if necessary.

Facility Fit Plan submissions shall be subject to the following:

- Facility Fit Plans may be hand-drawn or computer generated.
- Drawing sheet size shall be A1, minimum.
- The drawing shall be presented using an appropriate metric scale (1:500 max).
- The drawing shall contain a north arrow, legend, scale bar, date, key plan (showing location with respect to the street network), address and a concept plan title block.
- The Facility Fit Plan shall be accompanied by a preliminary cost estimate; the budget can be determined from the size of the park block.

# 4.0 PARK AND PATHWAY STANDARDS

## SAMPLE FACILITY FIT PLAN



### 4.1.2 CONCEPT PLAN

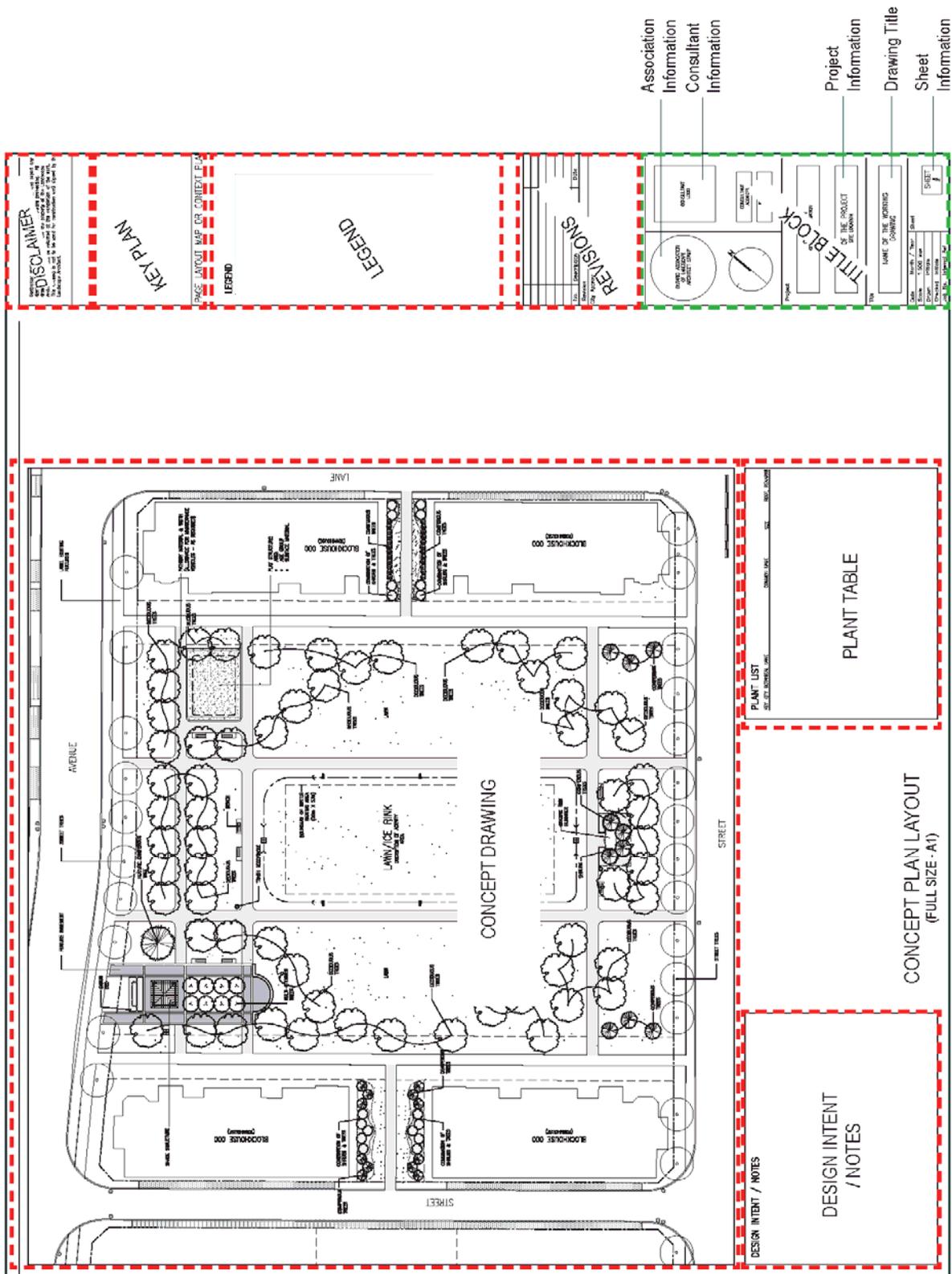
The Concept Plan represents an evolution of the Facility Fit Plan. It accurately reflects what can be built using the established park budget. The Concept Plan is submitted to the PGM park planner at the Park Design Phase, Step 3: Concept Development. The PGM park planner circulates the Concept Plan to the ISD project manager, Forestry Services (for review of proposed plantings) and PBGOM (for review of maintenance-related issues). The Concept Plan may also need to be circulated to Natural Systems (if natural features are affected) as well as to the relevant Conservation Authority and/or the Ministry of Natural Resources depending on the type of natural feature.

Concept Plan submissions shall consist of the following:

- Three (3) hard copies and one electronic copy (PDF format) of the Concept Plan to the PGM park planner.
- A Concept Plan which includes a general indication of facilities, defined play areas, target age (senior/junior play), plant material (deciduous, coniferous and multi-stemmed trees, as well as perennials [herbaceous], shrubs and grasses), pavement types and widths, active/passive areas, existing and surrounding land uses and utilities, dimensions of proposed features, distances between park features, and a general indication of grading and slopes.
- Concept Plan drawings shall be hand drawn or computer generated.
- Drawing sheet size shall be A1, minimum.
- The drawing shall be presented using an appropriate metric scale (1:500 max).
- The drawing shall contain a north arrow (oriented to top of page), legend, scale bar, revision date, key plan (showing location with respect to the street network), address and a concept plan title block.
- The Concept Plan shall be accompanied by a cost estimate, and submitted electronically (PDF format).
- The legend shall indicate any graphic symbol used on the plan.
- The Concept Plan should also contain notes or design intent to provide further detail or explanation.
- The drawing shall annotate existing plant material to be retained, removed or relocated on site and within the road allowance.
- The drawing shall indicate existing and adjacent buildings, easements, adjacent storm water facilities and public rights-of-way, if applicable.
- The drawing shall provide any dimensions and offsets from site features and landscape elements required for technical and zoning compliance.
- The Concept Plan shall indicate turf areas which require seed, sod or other treatments.

# 4.0 PARK AND PATHWAY STANDARDS

## SAMPLE CONCEPT PLAN



### 4.1.3 PRESENTATION PLAN

The Presentation Plan is an evolution of the Concept Plan. It is a coloured rendering of the Concept Plan, with City-translated bilingual labels for use during public consultations. The Presentation Plan is submitted to the PGM park planner at the Park Design Phase, Step 4: Consultation and Final Concept Plan.

Presentation Plan submissions shall consist of the following:

- Coloured rendering (by hand or computer) of the Concept Plan.
- Drawing sheet size shall be A1, minimum.
- The drawing shall be presented using an appropriate metric scale (1:500 max).
- All drawings shall contain a north arrow (oriented to top of page), legend, scale bar, date, key plan (showing location with respect to the street network), address and a concept plan title block.
- The Presentation Plan shall be accompanied by a cost estimate.
- The legend shall indicate any graphic symbol used on the plan.
- The drawings shall annotate existing plant material to be retained, removed or relocated on site and within the road allowance.
- The drawing shall display existing and adjacent buildings, easements, adjacent stormwater facilities, and public rights-of-way.
- The drawing shall provide any dimensions and offsets from site features and landscape elements required for technical and zoning compliance.
- The drawing shall indicate turf areas which require seed, sod or other treatments.
- The Presentation Plan shall display supporting images of the proposed activities, planting, surface treatment or any graphic representation to aid in the understanding of the proposed design.
- The Presentation Plan should also contain notes or design intent to provide further detail or explanation.
- The Plan shall contain submission contact information so that queries or feedback can be received from the public.

# 4.0 PARK AND PATHWAY STANDARDS

## SAMPLE PRESENTATION PLAN

**LEGEND / NOTES**

**DESIGN INTENT SUBMISSION CONTACT INFORMATION**

**PRESENTATION DRAWING**

**PRESENTATION PLAN LAYOUT (FULL SIZE - A1)**

**SUPPORTING IMAGERY**

North Arrow  
Date / Scale / Job Ref  
Consultation Information  
TITLE BLOCK  
Date, Month, Year  
Scale  
Job No., Internal Ref.

#### 4.1.4 FIRST SUBMISSION (60% WORKING DRAWINGS)

The first submission drawings translate the Concept Plan into a set of working drawings. The drawing set shall incorporate the City's comments on the conceptual design. The first submission is issued to the ISD project manager, at the Park Design Phase, Step 5: Design Development. The ISD project manager circulates the drawing set to the PGM park planner, Forestry (for review of proposed plantings) and PBGOM (for review of maintenance-related issues). The working drawings may also need to be circulated to Natural Systems (if natural features are affected) as well as to the relevant Conservation Authority and/or the Ministry of Natural Resources depending on the type of natural feature.

The first submission shall consist of the following:

- Four (4) hard copy sets (as determined by the ISD project manager) of the working drawings to the ISD project manager, and an electronic set (PDF format). The ISD project manager shall circulate the drawings to the PGM park planner.
- The first submission shall be accompanied by a Class D cost estimate in electronic format (PDF).
- First submission drawing sets shall be computer generated.
- Drawing sheet size shall be A1, minimum.
- The drawing shall be presented using an appropriate metric scale (1:500 max).
- All drawings shall contain a north arrow (oriented to top of page), legend, key plan (showing location with respect to the street network), and the City standard title block (including name of owner/applicant, name and address of the consultant, name and address of the project, drawing title and number, scale bar, date of submission, revisions, and stamp of consulting landscape architect).
- Drawings shall include: Title Sheet; Park Tree Preservation Plan (if applicable); Layout Plan; Grading, Drainage & Servicing Plan; Planting Plan; Details (for drawing descriptions, refer to section 4.2 Drawing Descriptions).
- The drawings shall annotate existing plant material and features to be retained, removed or relocated on site and within the road allowance.
- The drawings shall include any relevant notes.
- Details which require further information within the working drawings shall be referenced through a clear note or symbol.
- The drawings shall provide a table of the proposed vegetation (trees, shrubs, ground cover) to be planted on site and within the road allowance. The table should include a list of each species, common and botanical names, size and quantity.
- The drawings shall display existing and adjacent buildings and public right-of-ways.
- The drawings shall provide any dimensions and offsets from site features and landscape elements required for technical and zoning compliance. Other dimensions should be included: road corridor (ROW), parking areas with defined parking spaces, steps, terraces, fences, walkways, driveways, proposed features, seating, aisles and private approaches (driveways).
- The drawings shall indicate turf areas which require seed, sod or other treatments.
- The drawings shall display the limit of tender or property lines.
- The drawings shall contain the location of bicycle parking, site furniture, lighting, utility signs (parking, fire, and traffic), recycling and waste management enclosures, and accessible access locations.

**Note:** The City standard title block may be obtained by contacting the Infrastructure Services Department.



#### 4.1.5 SECOND SUBMISSION (90% WORKING DRAWINGS)

The second submission of working drawings incorporates revisions based on the red-line mark-up of the first submission drawings. The second submission is issued to the ISD project manager and copied to the PGM park planner, at the Park Design Phase, Step 6: Construction Drawings.

The second submission shall consist of the following:

- Four (4) hard copy sets (as determined by the ISD project manager) of the working drawings to the ISD project manager, including a red-lined markup of the previous submission, and an electronic set (PDF format). The ISD project manager shall circulate the drawings to the PGM park planner.
- The second submission shall be accompanied by a Class C cost estimate in electronic format (PDF).
- Drawing sheet size shall be A1, minimum.
- The drawing shall be presented using an appropriate metric scale (1:500 max).
- All drawings shall contain a north arrow (oriented to top of page), legend, key plan (showing location with respect to the street network), and a City standard title block (including name of owner/applicant, name and address of the consultant, address/legal description of the site, project name, drawing title and number, scale bar, date of submission, revisions and stamp of consulting Landscape Architect).
- Drawings shall include: Title Sheet; Park Tree Preservation Plan (if applicable); Layout Plan; Grading, Drainage & Servicing Plan; Planting Plan; Details (for drawing descriptions, refer to section 4.2 Drawing Descriptions).
- The drawings shall annotate existing plant material and features to be retained, removed or relocated on site and within the road allowance.
- The drawings shall include any relevant notes.
- Details which require further information within the working drawings shall be referenced through a clear note or symbol.
- The working drawings shall provide a table of the proposed vegetation (trees, shrubs, ground cover) to be planted on site and within the road allowance. The table should include a list of each species, common and botanical names, size and quantity.
- The drawings shall display existing and adjacent buildings, easements, adjacent stormwater facilities and public rights-of-way.
- The drawings shall provide any dimensions and offsets from site features and landscape elements required for technical and zoning compliance. Other dimensions should be included: road corridor (ROW), parking areas with defined parking spaces, steps, terraces, fences, walkways, driveways, proposed features, seating, aisles and private approaches (driveways).
- The drawings shall indicate turf areas which require seed, sod or other treatments.
- The drawings shall display the limit of tender or property lines.
- The drawings shall contain the location of bicycle parking, site furniture, lighting, utility signs (parking, fire, and traffic), recycling and waste management enclosures, and accessible access locations.

**Note:** The City standard title block may be obtained by contacting the Infrastructure Services Department.

## 4.0 PARK AND PATHWAY STANDARDS

### 4.1.6 THIRD SUBMISSION (100% WORKING DRAWINGS)

The third submission of working drawings consists of a final set of construction drawings and specifications for use in the tender package. The third submission is issued to the ISD project manager at the Park Design Phase, Step 7: Tender Documents.

The third submission shall consist of the following:

- Six (6) hard copy sets (as determined by the ISD project manager) of the working drawings to the ISD Project Manager, including an electronic version (PDF format) and the AutoCAD file (.dwg format).
- A memo addressing all second submission comments.
- The third submission shall be accompanied by a Class B cost estimate in electronic format (PDF).
- Drawing sheet size shall be A1, minimum.
- The drawing shall be presented using an appropriate metric scale (1:500 max)
- All drawings shall contain a north arrow (oriented to top of page), legend, key plan (showing location with respect to the street network), and the City standard title block (including name of owner/applicant, name and address of the consultant, address/legal description of the site, project name, drawing title and number, scale bar, date of submission, revisions and stamp of consulting landscape architect).
- Drawings shall include: Title sheet; Park Tree Preservation Plan (if applicable); Layout Plan; Grading, Drainage & Servicing Plan; Planting Plan; Details (for drawing descriptions, refer to section 4.2 Drawing Descriptions).
- The drawings shall annotate existing plant material and features to be retained, removed or relocated on site and within the road allowance.
- The drawings shall include any relevant notes.
- Details which require further information within the working drawings shall be referenced through a clear note or symbol.
- The drawings shall provide a table of the proposed vegetation (trees, shrubs, ground cover) to be planted on site and within the road allowance. The table should include a list of each species, common and botanical names, size and quantity.
- The drawings shall display existing and adjacent buildings, easements, adjacent stormwater facilities, and public rights-of-way.
- The drawings shall provide any dimensions and offsets from site features and landscape elements required for technical and zoning compliance. Other dimensions should be included: road corridor (ROW), parking areas with defined parking spaces, steps, terraces, fences, walkways, driveways, proposed features, seating, aisles and private approaches (driveways).
- The drawings shall indicate turf areas which require seed, sod or other treatments.
- The drawings shall display the limit of tender or property lines.
- The drawings shall contain the location of bicycle parking, site furniture, lighting, utility signs (parking, fire, and traffic), recycling and waste management enclosures, and accessible access locations.
- All of the 100% working drawing sheets are to be stamped and signed by the landscape architect (prime consultant) and any other sub-consultants used. All drawings become the property of the City of Ottawa.

**Note:** The City standard title block may be obtained by contacting the Infrastructure Services Department.

### 4.1.7 AS-BUILT DRAWINGS

As-built drawings provide an accurate as-built record of park and pathway construction for the City's records. As-built drawings and specifications are submitted by the landscape design consultant to the ISD project manager and maintained as Corporate record.

- The electronic version (.pdf format), the AutoCAD file (.dwg format) on CD and one hard copy of as-built drawings.
- As-built drawings shall be computer generated.
- Drawing sheet size shall be A1, minimum.
- The drawing shall be submitted using a City of Ottawa title block for working drawings.
- The drawing shall be presented using an appropriate metric scale (1:500 max).
- All drawings shall contain a north arrow (oriented to top of page), legend, key plan (showing location with respect to the street network), and the City Standard title block (including name of owner/applicant, name and address of the consultant, address/legal description of the site, project name, drawing title and number, scale bar, date of submission).
- Drawings shall include: Title Sheet; Park Tree Preservation Plan (if applicable); Layout Plan; Grading, Drainage & Servicing Plan; Planting Plan; Details (for drawing descriptions, refer to section 4.2 Drawing Descriptions).
- The drawings shall annotate existing plant material and features located on site and within the road allowance.
- The drawings shall include any relevant notes.
- Details which require further information within the working drawings shall be referenced through a clear note or symbol.
- The drawings shall provide a table of the planted vegetation (trees, shrubs, ground cover) to be planted on site and within the road allowance. The table should include a list of each species, common and botanical names, size and quantity.
- The drawing shall display existing and adjacent buildings and public right-of-ways.
- The drawings shall provide any dimensions and offsets from site features and landscape elements. Other dimensions should be included: road corridor (ROW), parking areas with defined parking spaces, steps, terraces, fences, walkways, driveways, proposed features, seating, aisles and private approaches (driveways).
- The drawings shall indicate turf areas.
- The drawings shall display the limit of work or property lines.
- The drawings shall contain the location of bicycle parking, utility signs (parking, fire, and traffic), recycling and waste management enclosure, and accessible access locations.
- All of the as-built drawings are to be stamped and signed by the landscape architect (prime consultant) and any other sub-consultants used. All drawings become the property of the City of Ottawa.

**Note:** The City standard title block may be obtained by contacting the Infrastructure Services Department.

### 4.1.8 TITLE SHEETS

A title sheet shall be included for all working drawings submissions. Title sheets shall contain the following:

- Name of owner / applicant / developer
- Name of municipality (City of Ottawa)
- Key plan showing location of the park
- Name of the development (include Planning Subdivision File Number and 4M-plan number)

## 4.0 PARK AND PATHWAY STANDARDS

- Name and address of park
- Name and address of consultants (designers, engineers, surveyors)
- List of drawings
- Date

### 4.2 DRAWING DESCRIPTIONS

**Park Tree Preservation Plan:** The Park Tree Preservation Plan shows all existing vegetation to be protected and any existing vegetation to be removed as part of site development. The plan shows the approved park grading as well as the location of the tree protection fence. The plan provides details of the tree protection measures to be used. The plan also indicates all proposed and existing features of the site and adjacent areas, including roads, buildings, utilities, and landscape features.

**Layout Plan:** The Layout Plan shows the features of the park design, indicating the dimensions of the features and the distances between them. The plan indicates existing features to remain, as well as all existing and future roads, buildings and other important landscape features.

**Grading, Drainage & Servicing Plan:** The Grading, Drainage and Servicing Plan shows the proposed and existing grades of the site and all underground servicing (storm water, sanitary, water and utilities). Slopes and drainage swales shall be indicated on the plan.

**Planting Plan:** The Planting Plan shows the existing vegetation to remain on site as well as any plantings proposed in the design. The plan also indicates all proposed and existing features of the site and adjacent areas, including roads, buildings, and utilities, and landscape features. Proposed plant material is itemized with corresponding notations on the drawing.

**Details:** Any details related to the proposed design are to be shown on a detail sheet. All details should reference standard City of Ottawa details, in addition to any modified or design-specific details required to accurately install the proposed works.

### 4.3 PARK DEMONSTRATION PLANS

The park demonstration plans featured on the following pages provide a snapshot of typical parks in the City of Ottawa. By no means prescriptive, the demonstration plans are intended to show the types of amenities that may be provided across a range of sizes.

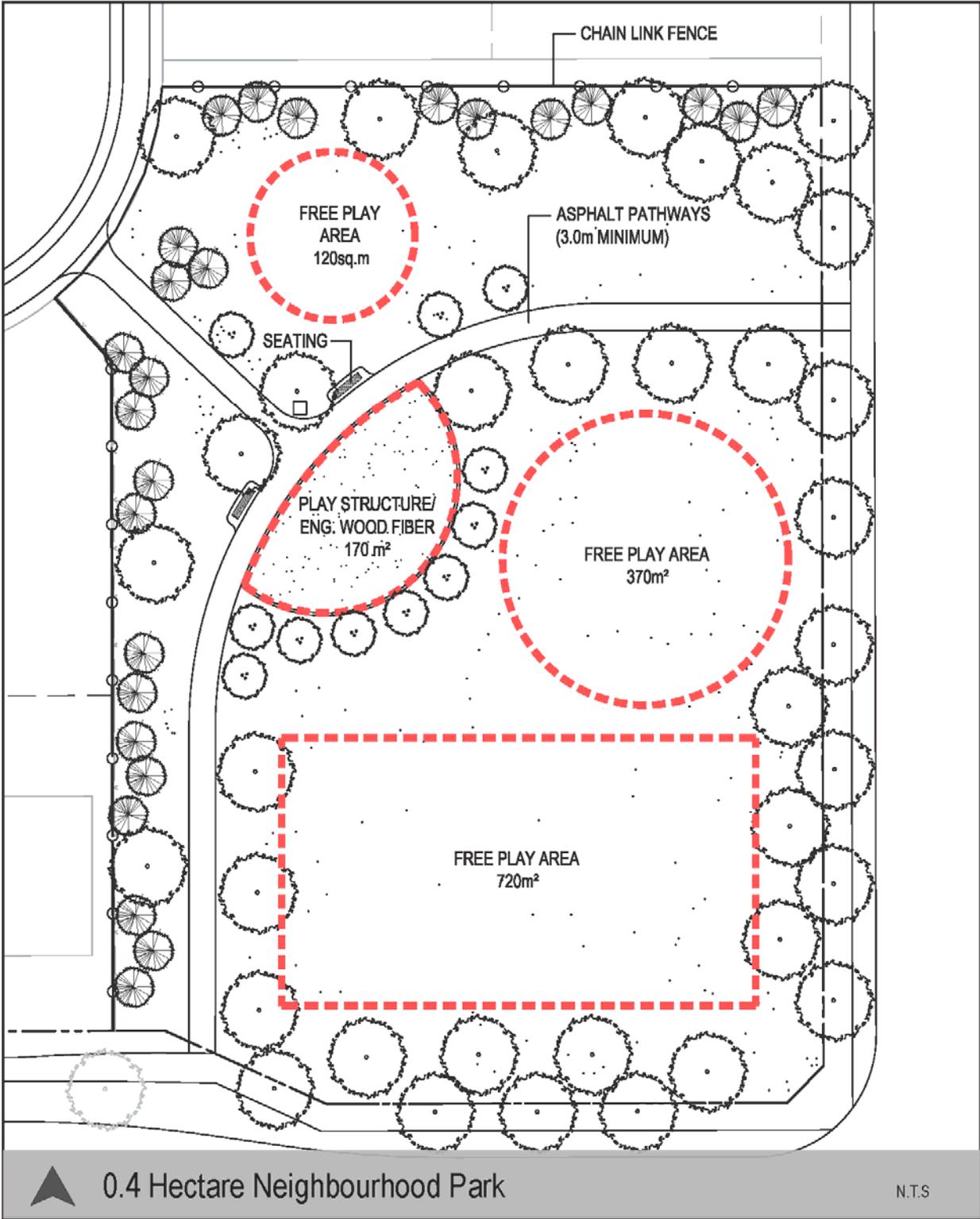
Demonstration plans are provided for the two park categories that are currently eligible for front-ending:

- Parkettes: 0.4ha and 0.8 ha
- Neighbourhood Parks: 1.2ha and 3.2 ha

For each demonstration plan, the maximum City budget is provided, along with a list of possible amenities and costs.

Park demonstration plans begin on the following page.

0.4 HECTARE PARKETTE DEMONSTRATION PLAN



# 4.0 PARK AND PATHWAY STANDARDS

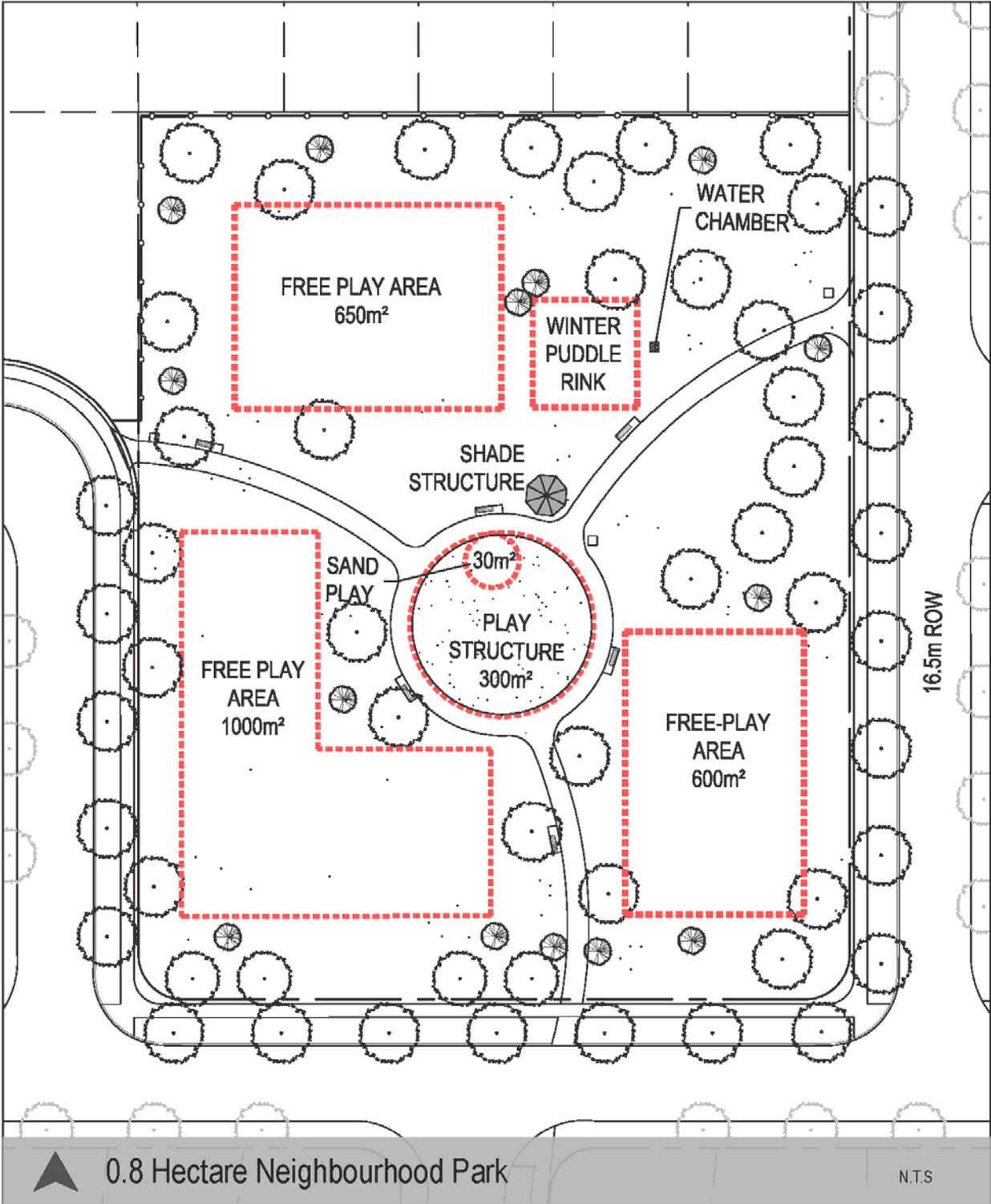
## SAMPLE 0.4 HECTARE PARKETTE COST ESTIMATE (CLASS D)

<b>Revision Date:</b>				
<b>1.0</b>	<b>Site work</b>	<b>Quantity</b>	<b>Units</b>	<b>TOTALS</b>
	Rough Grading to Park Grades	4300	m <sup>2</sup>	
	Topsoil and Fine Grading	3700	m <sup>2</sup>	
	Boulevard Topsoil & Sod	240	m <sup>2</sup>	
	Seed	3700	m <sup>2</sup>	
	Sod (1m strip at paths and amenities)	160	m <sup>2</sup>	
	Asphalt Path	220	m <sup>2</sup>	
	CIP Concrete Pads (bench, waste receptacle)	9	m <sup>2</sup>	
	<b>1.0 Subtotal</b>			<b>\$47,235.00</b>
<b>2.0</b>	<b>Site Amenities</b>			
	Junior Play Structure (installed)	1	LS	
	Engineered Wood Fiber	170	m <sup>2</sup>	
	Drainage Tile	60	lin.m	
	Concrete Curb	50	lin.m	
	Bench	2	ea	
	Waste Receptacle	1	ea	
	Park Sign (double post)	1	ea	
	<b>2.0 Subtotal</b>			<b>\$56,450.00</b>
<b>3.0</b>	<b>Planting</b>			
	Street Trees (70mm Cal)	13	ea	
	Deciduous Trees - Park (60mm Cal)	24	ea	
	Coniferous Trees - Park (200cm ht)	26	ea	
	Multistem Deciduous Trees - Park (200cm ht)	11	ea	
	<b>3.0 Subtotal</b>			<b>\$29,800.00</b>
<b>4.0</b>	<b>Consultant Fees 10%</b>			<b>\$13,348.50</b>
<b>TOTAL</b>				<b>\$146,833.50</b>

<b>PARK BUDGET</b>		
<b>Base</b>	\$451,500/ha x 0.4ha	\$180,600.00
<b>Minus</b>	<b>Deductions from Park Budget</b>	
	Contingency 10%	\$18,060.00
	Construction Administration 5%	\$9,030.00
	HST 2% (11% recoverable)	\$3,612.00
	<b>TOTAL</b>	<b>\$149,898.00</b>

*NOTE: THE SAMPLE COST ESTIMATE IS BASED ON 2011 AVERAGE COSTS*

0.8 HECTARE PARKETTE DEMONSTRATION PLAN



## 4.0 PARK AND PATHWAY STANDARDS

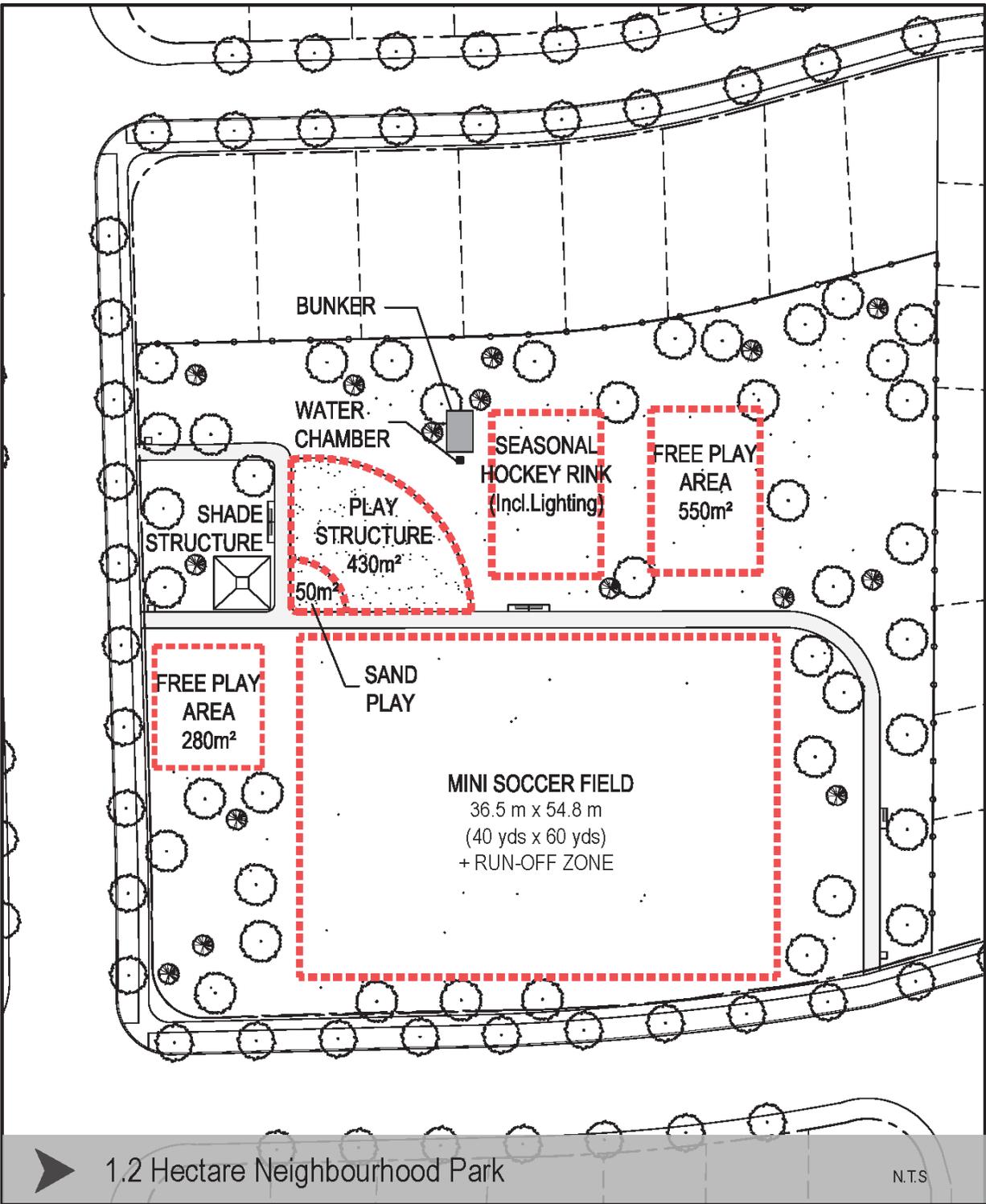
### SAMPLE 0.8 HECTARE PARKETTE COST ESTIMATE (CLASS D)

<b>Revision Date:</b>				
<b>1.0</b>	<b>Site work</b>	<b>Quantity</b>	<b>Units</b>	<b>TOTALS</b>
	Rough Grading to Park Grades	8000	m <sup>2</sup>	
	Topsoil and Fine Grading	5500	m <sup>2</sup>	
	Boulevard Topsoil & Sod	800	m <sup>2</sup>	
	Seed	5500	m <sup>2</sup>	
	Sod (1m strip at paths and amenities)	300	m <sup>2</sup>	
	Asphalt Path	450	m <sup>2</sup>	
	Hydro Kiosk	1	ea	
	Water Chamber	1	ea	
	CIP Concrete Pads (bench, waste receptacle)	15	m <sup>2</sup>	
	<b>1.0 Subtotal</b>			<b>\$124,725.00</b>
<b>2.0</b>	<b>Site Amenities</b>			
	Junior Play Structure (installed)	1	LS	
	Shade Structure - Small (installed)	1	LS	
	Engineered Wood Fiber	300	m <sup>2</sup>	
	Sand Surface	25	m <sup>2</sup>	
	Drainage Tile	50	lin.m	
	Concrete Curb	65	lin.m	
	Bench	4	ea	
	Waste Receptacle	2	ea	
	Seat Boulder	5	ea	
	Puddle Rink Light	1	ea	
	Park Sign (double post)	1	ea	
	<b>2.0 Subtotal</b>			<b>\$118,650.00</b>
<b>3.0</b>	<b>Planting</b>			
	Street Trees (70mm Cal)	20	ea	
	Deciduous Trees - Park (60mm Cal)	32	ea	
	Coniferous Trees - Park (200cm ht)	10	ea	
	<b>3.0 Subtotal</b>			<b>\$26,800.00</b>
<b>4.0</b>	<b>Consultant Fees 10%</b>			<b>\$27,017.50</b>
	<b>TOTAL</b>			<b><u>\$297,192.50</u></b>

<b>PARK BUDGET</b>		
<b>Base</b>	\$451,500/ha x 0.8ha	\$361,200.00
<b>Minus</b>	<b>Deductions from Park Budget</b>	
	Contingency 10%	\$36,120.00
	Construction Administration 5%	\$18,060.00
	HST 2% (11% recoverable)	\$7,224.00
	<b>TOTAL</b>	<b>\$299,796.00</b>

NOTE: THE SAMPLE COST ESTIMATE IS BASED ON 2011 AVERAGE COSTS

1.2 HECTARE NEIGHBOURHOOD PARK DEMONSTRATION PLAN



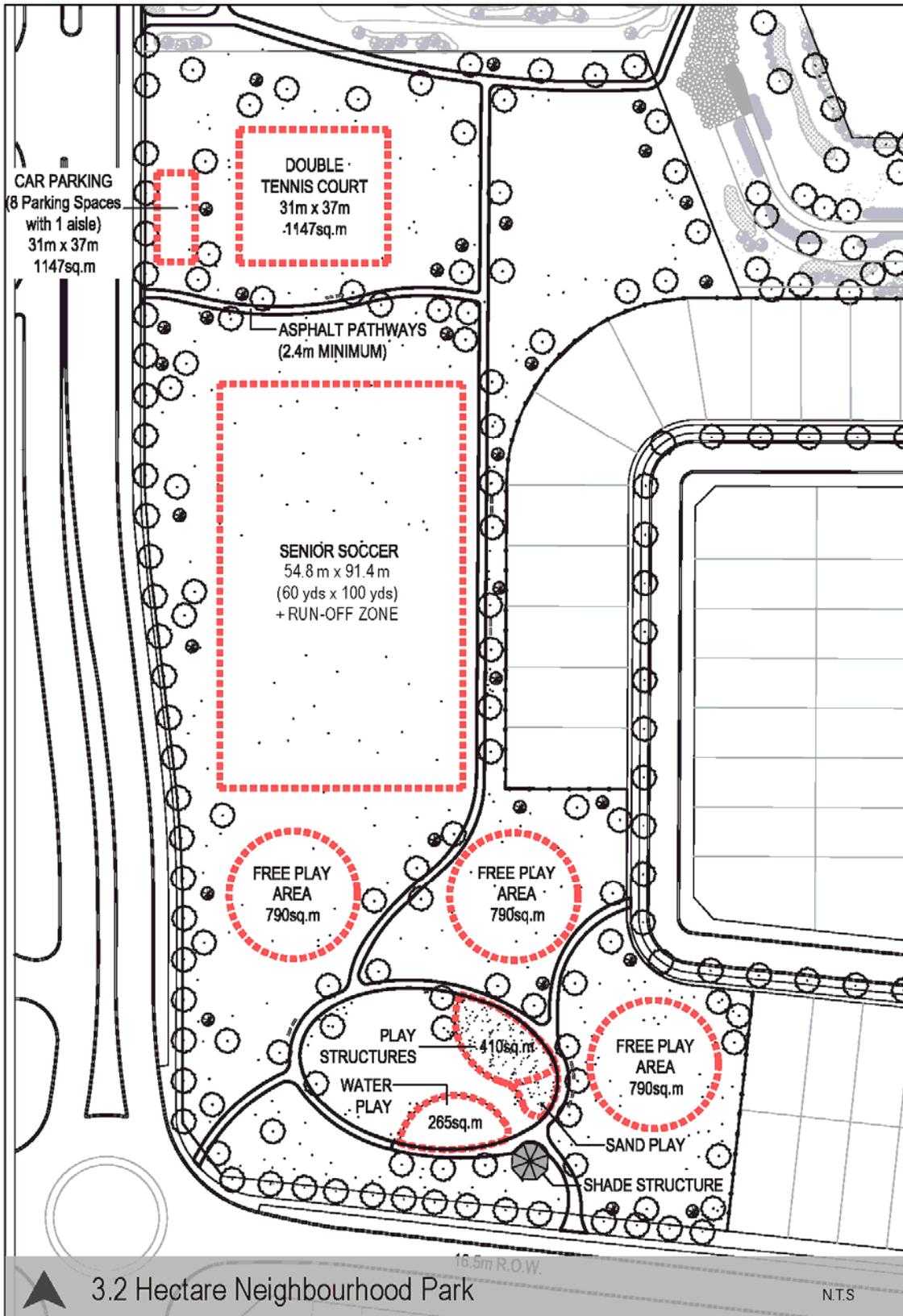
## 4.0 PARK AND PATHWAY STANDARDS

### SAMPLE 1.2 HECTARE NEIGHBOURHOOD PARK COST ESTIMATE (CLASS D)

<b>Revision Date:</b>				
<b>1.0</b>	<b>Site work</b>	<b>Quantity</b>	<b>Units</b>	<b>TOTALS</b>
	Rough Grading to Park Grades	11650	m <sup>2</sup>	
	Topsoil and Fine Grading (6")	6600	m <sup>2</sup>	
	Topsoil and Fine Grading for Mini-field (4")	3500	m <sup>2</sup>	
	Boulevard Topsoil & Sod	700	m <sup>2</sup>	
	Seed	8200	m <sup>2</sup>	
	Sod (1m strip at paths and amenities)	680	m <sup>2</sup>	
	Hydro Kiosk	1	LS	
	Water Chamber	1	LS	
	Asphalt Path	450	m <sup>2</sup>	
	CIP Concrete Pads (bench, waste receptacle)	20	m <sup>2</sup>	
	<b>1.0 Subtotal</b>			<b>\$153,420.00</b>
<b>2.0</b>	<b>Site Amenities</b>			
	Jr / Sr Play Structure (installed)	1	LS	
	Shade Structure - Small (installed)	1	LS	
	Engineered Wood Fiber	430	m <sup>2</sup>	
	Sand Surface	50	m <sup>2</sup>	
	Drainage Tile	200	lin.m	
	Concrete Curb	160	lin.m	
	Bench	4	ea	
	Waste Receptacle	3	ea	
	Seat Boulder	10	ea	
	Park Sign (double post)	1	ea	
	Temporary Rink Boards		LS	
	Skating Rink (bunker, lighting)		LS	
	<b>2.0 Subtotal</b>			<b>\$221,850.00</b>
<b>3.0</b>	<b>Planting</b>			
	Street Trees (70mm Cal)	18	ea	
	Deciduous Trees - Park (60mm Cal)	40	ea	
	Coniferous Trees - Park (200cm ht)	15	ea	
	<b>3.0 Subtotal</b>			<b>\$31,000.00</b>
<b>4.0</b>	<b>Consultant Fees 10%</b>			<b>\$40,627.00</b>
	<b>TOTAL</b>			<b><u>\$446,897.00</u></b>

<b>PARK BUDGET</b>		
<b>Base</b>	\$451,500/ha x1.2ha	\$541,800.00
<b>Minus</b>	<b>Deductions from Park Budget</b>	
	Contingency 10%	\$54,180.00
	Construction Administration 5%	\$27,090.00
	HST 2% (11% recoverable)	\$10,836.00
	<b>TOTAL</b>	<b>\$449,694.00</b>
<i>NOTE: THE SAMPLE COST ESTIMATE IS BASED ON 2011 AVERAGE COSTS</i>		

3.2 HECTARE NEIGHBOURHOOD PARK DEMONSTRATION PLAN



## 4.0 PARK AND PATHWAY STANDARDS

### SAMPLE 3.2 HECTARE NEIGHBOURHOOD PARK COST ESTIMATE (CLASS D)

<b>Revision Date:</b>				
<b>1.0</b>	<b>Site work</b>	<b>Quantity</b>	<b>Units</b>	<b>TOTALS</b>
	Rough Grading to Park Grades	32000	m <sup>2</sup>	
	Topsoil and Fine Grading	25000	m <sup>2</sup>	
	Boulevard Topsoil & Sod	1500	m <sup>2</sup>	
	Seed	25000	m <sup>2</sup>	
	Sod (1m strip at paths and amenities)	1300	m <sup>2</sup>	
	Hydro Kiosk	1	LS	
	Water Chamber	1	LS	
	Asphalt Car Parking Lot - Heavy Duty	210	m <sup>2</sup>	
	Asphalt Path	1080	m <sup>2</sup>	
<b>2.0</b>	CIP Concrete Pads (bench, waste receptacle)	45	m <sup>2</sup>	
	<b>1.0 Subtotal</b>			<b>\$356,175.00</b>
	<b>Site Amenities</b>			
	Jr / Sr Play Structure (installed)	1	LS	
	Shade Structure - Large (installed)	1	LS	
	Soccer Field (drainage, posts)	1	LS	
	Tennis Courts (fenced, asphalt)	1	LS	
	Water Play Area	1	LS	
	Engineered Wood Fiber	850	m <sup>2</sup>	
	Sand Surface	50	m <sup>2</sup>	
	Drainage Tile	200	lin.m	
	Concrete Curb	160	lin.m	
	Bench	12	ea	
	Waste Receptacle	8	ea	
	Seat Boulder	12	ea	
<b>3.0</b>	Park Sign (double post)	1	ea	
	<b>2.0 Subtotal</b>			<b>\$686,100.00</b>
	<b>Planting</b>			
	Street Trees (70mm Cal)	45	ea	
	Deciduous Trees - Park (70mm Cal)	39	ea	
	Coniferous Trees - Park (200cm ht)	14	ea	
<b>4.0</b>	<b>3.0 Subtotal</b>			<b>\$47,600.00</b>
	<b>Consultant Fees 10%</b>			<b>\$108,987.50</b>
	<b>TOTAL</b>			<b>\$1,198,862.50</b>

<b>PARK BUDGET</b>		
<b>Base</b>	\$451,500/ha x 3.2ha	\$1,444,800.00
<b>Minus</b>	<b>Deductions from Park Budget</b>	
	Contingency 10%	\$144,480.00
	Construction Administration 5%	\$72,240.00
	HST 2% (11% recoverable)	\$28,896.00
	<b>TOTAL</b>	<b>\$1,199,184.00</b>

NOTE: THE SAMPLE COST ESTIMATE IS BASED ON 2011 AVERAGE COSTS

## 4.4 PARK DESIGN CRITERIA

The following park design criteria should be considered when designing parks and pathways in the City of Ottawa.

### AMENITIES

---

- Locate shade structures central to amenities and allow sight lines to play areas.
- Group water-based amenities together and locate them close to the park's water connection.
- Provide both junior and senior play opportunities.
- Use engineered wood fibre surfacing for play structures.
- Provide sand play opportunities.
- Provide a variety of open space / free play areas.

### SEATING

---

- Provide informal seating opportunities.
- Locate seating in shaded areas.
- Provide seating both close to and apart from active amenities for different park users.
- Bench spacing should prevent pinch points (150mm minimum).

### MAINTENANCE

---

- Place conifers 4.5m and deciduous trees 1.5m away from pathway edges, park benches and access / egress points in order to reduce pruning requirements as trees mature.
- Avoid placing conifers along fence lines to facilitate maintenance access.
- Locate waste and recycle receptacles close to park entrances to facilitate maintenance.
- Maintained pathways should be a minimum of 2.4m wide.
- Provide clearance along pathways (waste receptacles, benches, trees, etc.) for maintenance vehicles.

### SAFETY

---

- Follow CPTED (Crime Prevention through Environmental Design) principles.
- Locate shade structures as feature elements along significant sight lines.
- Avoid conflicting adjacencies.
- Clear hazard trees from woodlots maintained as parkland, as directed by the City.

### ACCESSIBILITY

---

Promote universal accessibility: wheel chair access, engineered wood fiber surfacing, ramps to play structure areas.

## 4.0 PARK AND PATHWAY STANDARDS

---

### BUFFERS

---

- Include buffer space between pathways and adjacent lot lines.
- Include buffer space between high-activity zones and residential lot lines.
- Provide naturalized buffers of locally appropriate native species adjacent to natural features.

### ENVIRONMENT

---

- Where removal of hazard trees is required in natural areas, leave woody debris on site to the extent possible, while still providing safe access along pathways.
- Avoid planting non-native, invasive species in parklands adjacent to natural features.

### PROVISIONAL REQUIREMENTS – DEVELOPER COSTS

---

- Rough grading to meet approved community grading plan.
- Perimeter chain link fence at adjacent lot lines.
- Any site-specific items required by the draft conditions.
- Any additional catch basins required to meet final park grades.

### TREE PROTECTION MEASURES

---

The following protection measures must be implemented for retained trees, both on site and on adjacent sites, prior to any tree removal or site works and maintained for the duration of construction on site:

- Under the guidance of an arborist, erect a fence at the critical root zone (CRZ) of trees where the CRZ is established as being 10 centimetres from the trunk of a tree for every centimeter of trunk diameter at breast height. The CRZ is calculated as  $DBH \times 10cm$ .
- Do not place any material or equipment within the CRZ of the tree.
- Do not attach any signs, notices or posters to any tree.
- Do not raise or lower the existing grade within the CRZ without approval.
- Tunnel or bore when digging within the CRZ of a tree.
- Do not damage the root system, trunk, or branches of any tree.

### OUTDOOR RINK GUIDELINES

---

#### **Water Sources:**

- All new parks intended to have an outdoor rink must have a winterized water source and water meter located as close as possible to rink surface.
- The water source should be located as close as possible to the flat area of the park.
- Water sources should be fitted with a 1.5 inch “quick connect” male coupling, facing in the direction of the rink (to avoid kinking the hose around corners).

#### **Bunkers and Fieldhouses:**

- New parks with boarded rinks should be equipped with a minimum of a winterized bunker for storage of hose and snow blower, located as close as possible to the rink surface.
- If supervision is deemed required, the bunker should be upgraded to a field house.

**Rink Lights:**

- All boarded rinks should be equipped with adequate rink lighting (refer to the City of Ottawa Rink Lighting Policy).
- Where the budget only allows either lights or boards in any given operational year, the lights must come first, followed by boards in future years.
- All lights should be on timers and have “push buttons” located in a public place (in a locked enclosure) close to the rink (in order to keep lights off in mild weather or when building up the rink at the start of the season).
- Rink lights should be permanent, if possible, in order to save on annual installation and removal costs.
- New puddle rinks should have at least 1 light.

**Rink Boards:**

- Boarded rinks should have safety mesh installed above the boards of the short ends where required (close to parking lots, school yards, pathways, etc.).
- Rink boards should be permanent if possible to save on annual installation and removal costs.
- If temporary boards are used, the City should be responsible for their installation and removal.

**Park Amenities:**

- All new parks with boarded rinks should be equipped with permanent park benches near rinks.

**Rink Location within Park:**

- The area intended for the ice surface should not have a drain or be located on a slope. Flat areas are required to build rinks (or as flat as possible).
- Skating surfaces should be designed close to roads to facilitate maintenance (snow plowing) of emergency access routes.

**Rink Location within Neighbourhood:**

- Minimum 1.2 km radius between boarded rinks (refer to ACS2002-PEO-COM-0014 “Outdoor Rink Operational Model”).
- Minimum 0.6 km radius between “double surfaces” (2 un-boarded rinks side by side) (refer to ACS2002-PEO-COM-0014 “Outdoor Rink Operational Model”).
- New rinks and enhancements should be prioritized in wards/areas with the lowest access per capita to outdoor rinks, taking into consideration the physical layout of communities, such as major arteries that need to be crossed or high-density residential areas (high-rise buildings).

## 4.0 PARK AND PATHWAY STANDARDS

### SPORTS FIELD STANDARDS

---

**Field Sport Layout Chart** (refer to *Section 4.5, Standard Details and Specifications*)

Field Sport	Width	Length
Mini Soccer Field	36.57m 40yds	54.86m 60yds
Full-Size Soccer Field	54.86m 60yds	91.44m 100yds
Football Field	59.43m 65yds	100.58m 110yds
Ultimate Frisbee Field	33.83 - 36.58m 37 - 40yds	109.72m 100yds

- A north-south orientation along the long axis is preferred. Factors such as space constraints, grading, and prevailing winds may also affect field orientation somewhat.
- Sports fields should be set back at least 20 metres from any property lines or adjacent facilities, and at least 10 metres from any plantings.
- Drainage cross-slopes should not exceed 2%.

### SKATEBOARD PARK GUIDELINES

---

**Source:** *Timesaver Standards for Landscape Architecture: Design and Construction Data (Second Edition)*

While skateboard park designs vary, they usually range in size from 0.1 to 2ha in size. Surfaces should consist of a smooth, nonjointed material.

Skateboard park features may include:

- **Freestyle areas** of approximately 24m × 12m, with walls that are slightly banked.
- **Slalom runs** of approximately 30m in length, dropping to 3 to 4.5m, with walls that are slightly banked.
- **Snake runs** that consist of a curved channel with walls ranging from 2.4 × 3.5m in height.
- **Bowls and pools** ranging from 2.1 to 3.5m in depth, with a slight overhanging lip around the edge.
- **Half pipes** with no flat areas that vary in length, with an approximate diameter of 6.7m and some wall rise beyond vertical.
- **Full pipes** with no flat areas.

## 4.5 GLOSSARY OF TERMS

**ACTIVE PARK:** An active park is a park containing any features or facilities that encourage use by the public. These parks may include active facilities such as play structures, water play and sports fields, among others.

**AMENITIES:** Refers to the facilities, play equipment, walkways, lighting and other design features of a park or pathway.

**APPLICANT:** An applicant is an individual or organization that files a development application with the City.

**CANOPY TARGET:** Canopy cover is defined as the area of ground covered by the extension of tree foliage. According to the Official Plan, the City will maintain a canopy target for the entire city of 30 per cent. Consistent with this overall objective, a target of 30 per cent is also considered desirable for City parks.

**COMMUNITY DESIGN PLAN:** The Community Design Plan, or CDP, is a document that guides both the development of private lands and any undertakings of public works (both the City and other government agencies) within a study area. The CDP establishes the vision for a community and a means to implement that vision in ways that will satisfy both community aspirations and the relevant strategic growth management policies of the City's Official Plan.

**COMMUNITY PARK:** Community Parks service a specific community or group of neighbourhoods, and provide a range of recreational opportunities. They are well connected to the larger community. Community Parks may range in size and types of facilities offered, and serve as a focal point within the community. Active and passive recreational opportunities are provided.

**CONCEPT PLAN:** The concept plan accurately reflects what can be given on a given site using the established park budget.

**CONSERVATION AUTHORITIES:** According to Conservation Ontario, Conservation Authorities are *"local watershed management agencies that deliver services and programs that protect and manage water and other natural resources in partnership with government, landowners and other organizations."* Organized on a watershed basis, Conservation Authorities promote an integrated watershed approach balancing human, environmental and economic needs. Conservation Authorities with jurisdiction in Ottawa include Mississippi Valley Conservation, the Rideau Valley Conservation Authority and South Nation Conservation.

**CONTRACT DOCUMENTS:** Refers to the documents that are included in a contract. The contract documents comprise: the owner – contractor agreement, conditions of the contract, plans/drawings, specifications, addenda and modifications.

**CRITICAL ROOT ZONE:** The critical root zone, also called the 'tree protection zone', is usually defined as the area on the ground that corresponds to the dripline of the tree. The critical root zone is established as being 10 centimetres from the trunk of a tree for every centimetre of trunk diameter at breast height. The CRZ is calculated as Diameter at Breast Height × 10 cm.

**DEVELOPER:** The owner of the subdivision land and agents or contractors or subcontractors carrying the works on behalf of the owner or owners responsible for submitting the subdivision application.

## 4.0 PARK AND PATHWAY STANDARDS

**DISTRICT PARK:** District Parks are destination parks that service groups of communities, specific districts, and can be used for City wide functions. They are designed as major destinations for residents and visitors, and may have a tourism focus. The size and location of each park may vary, as determined by the park's particular focus and facilities. District Parks may have a competitive focus, and similar facilities may be combined for tournament capabilities.

**DRAFT PLAN OF SUBDIVISION CONDITIONS:** Conditions which form the foundation of the Subdivision Agreement and reflect a municipality's requirements as related to the draft plan of subdivision. The Developer must agree to the draft plan conditions in order for the draft plan of subdivision to be granted approval.

**ENVIRONMENTAL SERVICES DEPARTMENT (ESD):** The City of Ottawa's Environmental Services Department is responsible for the city drinking water operations, wastewater & drainage operation, strategic & environment, solid waste operation, facility maintenance and quality management.

**FACILITY FIT PLAN:** The Facility Fit Plan demonstrates that the proposed park facility program, including buffers and setbacks, can be satisfactorily achieved within the site and allocated park budget. The facility fit plan is prepared when required as a subdivision condition.

**FISHERIES AND OCEANS CANADA (DFO):** The Department of Fisheries and Oceans deliver programs and services that support sustainable use and development of Canada's waterways and aquatic resources. Local Conservation Authorities act as agents for DFO with regard to the administration of the *Fisheries Act*.

**FORESTER — PLANNING:** Planning and Growth Management Department (Natural Systems) staff member responsible for reviewing Tree Conservation Reports and implementing the Urban Tree Conservation By-Law for the preservation of trees and forest cover on privately-owned lands within the urban and suburban areas of the City.

**FORESTRY SERVICES:** Branch of the City's Public Works Department responsible for managing trees and forests on City-owned property in urban, suburban and rural areas.

**INFRASTRUCTURE SERVICES DEPARTMENT (ISD):** City department within the Infrastructure Services & Community Sustainability Portfolio that reviews and oversees park development applications.

**MINISTRY OF NATURAL RESOURCES (MNR):** The Ministry of Natural Resources promotes healthy, sustainable ecosystems and conserves biodiversity (the variety of life on Earth). The Ministry also manages Ontario's Crown land, promotes economic opportunities in the resource sector and enhances opportunities for outdoor recreation. The MNR administers the *Endangered Species Act*.

**MINISTRY OF TRANSPORTATION (MTO):** The Ministry of Transportation is a provincial department with the mandate to create a balanced and effective transportation system that supports strong communities that offer a high quality of life.

**MULTI-USE PATH:** A pathway system built by the City of Ottawa and the National Capital Commission (NCC) and described in the Greenspace Master Plan. Multi-Use Paths are designed to accommodate the needs of pedestrians, cyclists, in-line skaters, cross-country skiers, strollers, wheelchairs, etc., allowing for a wide range of uses and large volume of users.

**NATIONAL CAPITAL COMMISSION (NCC):** The NCC is a Crown corporation that was created by Parliament in 1959 as the steward of federal lands and buildings in the National Capital Region, with a mandate and mission to build the Capital region into a source of pride and unity for Canadians.

**NATIVE SPECIES:** Species that are indigenous to the Ottawa area, and are therefore adapted to the local climate and soil conditions. They typically require less maintenance and resources (such as water) than other plants and provide habitat and a source of food for the animal and insect populations with which they have evolved.

**NATURAL SYSTEMS:** Work unit within the Planning and Growth Management Department (PGM) responsible for the preservation of the City's natural features and ecological functions through environmental studies, policy development and advice to other city staff.

**NATURALIZATION:** The process of allowing vegetation to become established through a combination of natural regeneration and deliberate plantings of native species to emulate a natural area.

**NATURALIZATION TARGET:** The naturalization target refers to the percentage of a park's area that should be subject to naturalization. Naturalization targets are higher for the larger park classifications, as their larger areas generally present more opportunities for to provide vegetation cover.

**NATURE TRAIL:** Nature Trails are paths that serve various forms of non-vehicular movement and connect to points of interest. They are low-impact paths located in sensitive environmental areas such as forests, and adjacent to wetlands or watercourses. Nature trails are designed to address the more passive recreation needs of pedestrians, and cross-country skiers, among other users.

**NEIGHBOURHOOD PARK:** Neighbourhood Parks serve as the focal point of a neighbourhood, provide active and passive recreation opportunities, and offer a local gathering space within walking distance of local residents.

**PARK BUDGET:** The total sum of money allocated to be spent on a park over a set period of time.

**PARK TREE PRESERVATION PLAN:** Plan illustrating all existing vegetation to be protected and any existing vegetation to be removed as part of a site development. The plan should include information such as tree preservation measures, the location of the tree protection fence and the approved park grading.

**PARKETTE:** Parkettes are small parks that are located within walking distance of residents. They provide central green space and social gathering places within neighbourhoods, and offer predominantly passive recreation and minor active recreation opportunities within a local residential or mixed-use neighbourhood. Parkettes can improve connectivity within neighbourhoods, provide interesting focal points, enhance built form and contribute to community character, providing a place for residents to interact, children to play and social events to occur.

**PARKS, RECREATION AND CULTURAL SERVICES (PRCS) DEPARTMENT:** City of Ottawa department within the City Operations portfolio that is responsible for the planning and development of recreational and cultural programs which enable the physical, emotional and social well-being of members of the community.

**PASSIVE PARK:** A passive park is a park that includes amenities designed for more passive use, such as pathways, trails, and benches.

## 4.0 PARK AND PATHWAY STANDARDS

**PLAN OF SUBDIVISION:** The plan of subdivision clearly outlines all details that are required to develop a parcel of land into a subdivision with individual properties. These lots or blocks can be used for residential, industrial, commercial, institutional (e.g. school) or open space/parks depending on the designation of the land within the Official Plan and Zoning By-law. A registered plan of subdivision is required in order for the lots and blocks to be sold or conveyed separately. Once the subdivision plan is registered, it becomes a legal document that outlines all the details and conditions required to develop a parcel of land.

**PLANNING AND GROWTH MANAGEMENT DEPARTMENT (PGM):** City department within the Infrastructure Services & Community Sustainability portfolio. Planners for new parks are within the Development Review Branch, and are responsible for new Park development from concept to construction.

**PRE-APPLICATION CONSULTATION:** A two-step pre-application process to help promote the exchange of information and development considerations early in the planning process. A key outcome of this process is a customized list of the studies and plans required in support of a development application. Topics for discussion may include land use policies and guidelines, zoning information, public consultation, engineering requirements, development review, application fees, and so forth.

**RECREATIONAL PATH:** Recreational Paths are primarily intended for recreational purposes and provide opportunities for safe, off-street movement throughout the City of Ottawa. They are designed to accommodate the needs of a wide range of users and provide links to the City's wider pathway system as well as the on-street sidewalk system. Recreational Paths address the needs of walkers, joggers, hikers, cyclists, strollers and wheelchairs.

**SECONDARY PLAN:** A secondary plan is a plan for a detailed geographic area that covers the policies that will guide future development. Secondary plans form the basis for amendments to an official plan.

**SERVICE AREA RADIUS:** The service area radius refers to the general area (expressed as a distance or walking time) from which a park draws the majority of its users.

**SITE PLAN:** A graphical plan of a proposed development illustrating all the features of the development, including dwellings, commercial establishments, roads and other public infrastructure. The site plan usually accompanies all major development applications.

**STORMWATER MANAGEMENT FACILITY:** Refers to any structural stormwater management measure, including stormwater management basins, filtration or other treatment systems.

**SUBDIVISION AGREEMENT:** A legally binding contract that sets out all of the subdivision requirements for the various stages of the proposed draft plan of subdivision. It outlines all documents, conditions and monetary contributions to be paid by an owner for the implementation of the works to be carried out by the Developer.

**TENDER DOCUMENTS:** Tender documents are prepared in addition to the contract documents in order to manage the bidding process for a project's construction.

**TREE CONSERVATION REPORT:** A report written to ensure that trees will be retained in development scenarios, where feasible, and that new trees will be planted to contribute to the City's forest cover target and to address a site's tree loss. According to the Official Plan, a Tree Conservation Report (TCR) is required in support of all applications for subdivision and condominiums affecting vegetation cover on site, or site plan approval.

**WARRANTY:** A legal document that guarantees the quality of work performed or the duration of a product.

**WORKING DRAWINGS:** Working drawings contain the information necessary to construct a landscape, structure or object. They are intended for use by a contractor, subcontractor or fabricator, and form part of the contract documents.

## 4.6 CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN (CPTED) PRINCIPLES

### APPLICABILITY AND BACKGROUND

---

The acronym CPTED denotes Crime Prevention through Environmental Design. An emerging theory in the 1970s, CPTED evolved into a foundational design model that maintains appropriate design and effective use of a built environment can reduce the fear and incidence of crime and improve quality of life.

The efficacy of CPTED can be measured by its global recognition. Within the City of Ottawa, the application CPTED principles for the design of parks and pathways is considered desirable.

### DESIGN STRATEGIES

---

Three interrelated design strategies are characteristic of CPTED. These strategies aim to exploit 'natural' forms of surveillance and access control associated with routine use and enjoyment of a property.

**Natural Surveillance** is a design strategy with the objective of keeping intruders under observation. Spaces must be designed to facilitate this by increasing 'visual permeability.' Personal safety is privileged and limited sightlines and privacy are managed carefully. 'Vulnerable activities' such as child's play, are positioned in well-monitored spaces. Potential for 'eyes on the street' is cultivated by aligning activity generators, such as windows, towards areas of 'vulnerable activities.' Finally, each phase of a project must improve and balance the natural surveillance opportunities established in the design phase. The considered use and placement of street frontage, landscape, lighting and benches are essential examples.

**Natural Access Control** is a design strategy aimed at minimizing the opportunity for crime by denying access to potential targets and generating a perception of risk in potential offenders. The design must guide and influence movement by giving users a sense of direction as well as a natural indication as to where they are and are not permitted. This is accomplished by directing normal access to observable spaces, preventing entry to spaces not visually accessible and of course, developing potential for 'eyes on the street.' Access routes are limited but allow for some flexibility in circulation. Natural Access Control opportunities must also improve and balance natural surveillance targets. The calculated use of distance and topographical features to direct and/or buffer activities are important examples of how this can be achieved.

**Territorial Reinforcement** is a design strategy that effectually motivates users of a property to develop a sense of proprietorship over it. A feeling of ownership is strengthened by underscoring existing natural surveillance and natural access control strategies with symbolic or psychological barriers. This is enacted by delineating public, semi-public and private space, usually achieved with signage and bollards, resulting in a protective response from users in the event of an intrusion. Another tactic involves minimizing the creation of ambiguous space by developing 'leftover spaces,' stimulating a feeling of responsibility for them from users. Spaces should be designed for their intended purpose and ongoing use, be resilient and minimize maintenance. The foundational concept guiding this strategy

## 4.0 PARK AND PATHWAY STANDARDS

---

impacts that design should provide behavioural and environmental cues that only particular behaviours will be tolerated.

### 5.3 MANUAL DEVELOPMENT TEAM

This manual was developed by the Planning and Growth Management Department and NAK Design Strategies with input from the following internal City departments and external agencies:

- Planning and Growth Management Department (City of Ottawa)
- Infrastructure Services Department (City of Ottawa)
- Parks, Recreation and Cultural Services Department (City of Ottawa)
- Public Works Department (City of Ottawa)
- Greater Ottawa Home Builders Association
- Landscape Architecture Ottawa
- Rideau Valley Conservation Authority (RVCA)
- South Nation Conservation (SNC)
- Mississippi Valley Conservation (MVC)



5.0

APPENDIX



## 5.0 APPENDIX

### 5.1 STANDARD DETAILS AND SPECIFICATIONS

All parks and pathways shall comply with the standard details set out in this section. The City of Ottawa's Infrastructure Services Department publishes a two-volume CD entitled *Standard Tender Documents for Unit Price Contracts*. Volume No. 1: Construction Specifications, includes a number of relevant Ontario Provincial Standard Specifications. Volume 2: Material Specifications and Standard Detail Drawings outlines the products approved for the construction of infrastructure which the City of Ottawa will own and operate. It also includes the City's standard detail drawings which are to be added to contract drawings as appropriate. The landscape design consultant retained by the City or the Developer is responsible for obtaining the CD and referencing its content as necessary. The CD is available by contacting the Infrastructure Services Department.

The following outlines the standard details that are used in park and pathway development projects. The list is organized by category. The two columns on the far right indicate the location of the detail. PPDM refers to this *Park and Pathway Development Manual*, and ISD refers to Infrastructure Services Department. Details whose reference number appears in the PPDM column are located at in this manual, following the list below, while those whose number appears in the ISD column can be found on ISD's *Standard Tender Documents for Unit Price Contracts* CD.

DETAIL CATEGORY	DETAIL NAME	PPDM	ISD
<b>Park Infrastructure</b>			
<b>Drainage &amp; Sewers</b>	Installation of Catch Basin with Curb and Gutter		S1
	Ditched Pipe Storm Sewer Installation		S9
	Heavy Duty "Fish" Type Round Catch Basin Cover		S19
	Catch Basin "T" for Rear Yard, Ditched Pipe and Landscaping Applications		S30
	Catch Basin – Elbow for Rear Yard, Ditched Pipe and Landscaping Applications		S31
	Walkway Culvert Plan and Section	PN-01	
	Bioswale	PN-02	
<b>Servicing</b>	Typical Service Line 19 & 25mm (Nominal) Diameter		W26
	Typical Park Water Meter Installation 50mm		W31.1
	Park or Garden Meter Installation 25mm (City Use Only)		W31.2
	Service Line 40 & 50 (Nominal) Diameter		W33
	Service Post Assembly for Services Up to 50mm		W35
<b>Structures</b>	Outdoor Rink Storage (Bunker)	PS-01	
	Standard Gazebo	PS-02	
<b>Electrical and Lighting</b>	Distribution Enclosure (Type A)	PE-01	
	Opening / Receptacle Mounting Detail	PE-02	
	Distribution Enclosure Section	PE-03	
	Push Button Mounting Detail	PE-04	
	Electrical Fit-Up and Schematic	PE-05	
	Typical Direct Buried Pole Detail – Outdoor Rink	PE-06	
	Typical Direct Buried Pole Detail – Pathway	PE-07	

DETAIL CATEGORY	DETAIL NAME	PPDM	ISD
<b>Paving and Surfacing</b>			
	Asphalt Walkway	PP-01	
	Asphalt Walkway / Service Access Heavy Duty	PP-02	
	Light Duty Concrete Paving	PP-03	
	Heavy Duty Concrete Paving	PP-04	
	Interlocking Paving Stones Installation Procedure		SC9
	Sidewalk Construction Joints		SC5
	Concrete Barrier Curb for Granular Base Pavement		SC1.1
	Traditional Vehicle Access Crossing		SC8
	Wood Chip Path	PP-05	
	Stonedust Path	PP-06	
	Turf Stone Unit Paving	PP-07	
	Permeable Paving	PP-08	
	Unit Paving – Standard on Concrete Base	PP-09	
	Accessible Engineered Wood Fiber Path	PP-10	
<b>Play Area Details</b>			
	Play Area Concrete Edge w/ Engineered Wood Fiber (with Drainage Pipe)	PL-01	
	Sand Play Area / Spade Edge (with Drainage Pipe)	PL-02	
	Sand Play Area w/ Asphalt Rolled Edge (with Drainage Pipe)	PL-03	
	Engineered Wood Fiber Play Area / Spade Edge (with Drainage Pipe)	PL-04	
	Engineered Wood Fiber Play Area with Asphalt Rolled Edge (with Drainage Pipe)	PL-05	
	Play Area – Concrete Access Ramp	PL-06	
<b>Planting</b>			
<b>Woody Plants</b>			
	Planting Trench / Well Drained Soils		L1
	Planting Trench / Well Drained Soils (Lots)		L2
	Planting Pit, Well Drained Soils ( Road Allowance)		L3
	Shrub Bed Planting		L4
	Shrub Bed Planting		L5
	Planting Pit Poorly Drained Soils		L6
	Coniferous Tree Planting on Slope	PA-01	
	Multi-Stem Tree Planting	PA-02	
	Deciduous Tree Planting on Slope	PA-03	
	Continuous Shrub Bed Planting	PA-04	
	Deciduous Bare Root Whip Planting for Naturalized Area	PA-05	
	Deciduous Bare Root Shrub Planting for Naturalized Area	PA-06	
<b>Site Furnishings</b>			
<b>Bench</b>			
	City of Ottawa Standard Bench Detail	PF-01	
	Accessible Concrete Pad For Benches	PF-02	
	Concrete Pad for Benches	PF-03	

## 5.0 APPENDIX

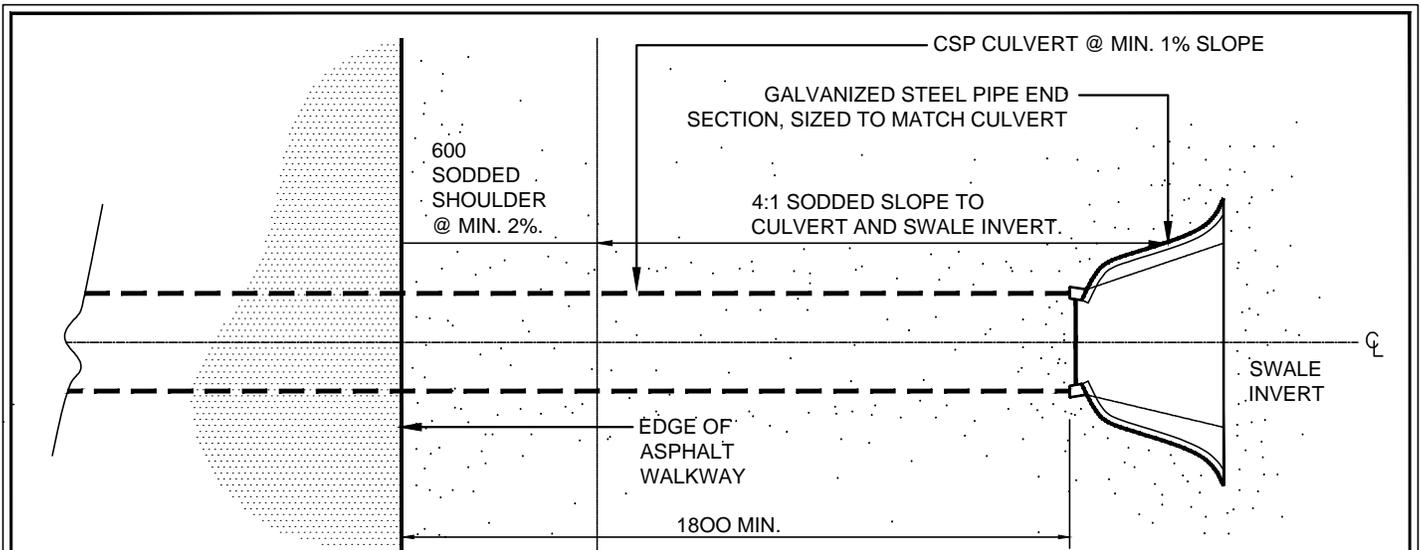
DETAIL CATEGORY	DETAIL NAME	PPDM	ISD
<b>Waste Receptacle</b>	City of Ottawa Standard Waste Receptacle	PF-04	
	Waste Receptacle Concrete Base	PF-05	
<b>Bicycle Rack</b>	City of Ottawa Standard Bike Rack	PF-06	
	Concrete Pad for City of Ottawa Standard Bike Rack	PF-07	
<b>Walls</b>	Boulder Wall on Asphalt	PW-01	
	Typical Armour Stone Retaining Wall		L7
	Typical Timber Retaining Wall		L8
<b>Signage – Parks</b>	F3 – Local Parks – Single Post Sign – Assembly	PI-01	
	F4 – Local Parks – Single Post Sign – Parts Detail	PI-02	
	F5 – Local Parks – Two-Post Small General Assembly	PI-03	
	F6 – Local Parks – Two-Post Large General Assembly	PI-04	
	F7 – Local Parks – Two-Post Section Detail	PI-05	
	F8 – Regional Post and Panel Sign General Assembly	PI-06	
	F9 – Regional Post and Panel Sign Section	PI-07	
	F10 – Regional Concrete Base Sign Assembly	PI-08	
	F11 – Precast Concrete Base	PI-09	
	F12 – Regional Concrete Base Sign – Sign Box	PI-10	
	G2 – Local Parks – Single Post Graphics	PI-11	
	G3 – Local Parks – Two-Post – Small	PI-12	
	G4 – Local Parks – Two-Post Large – Graphics	PI-13	
	G5 – Regional – Two-Post Large – Graphics	PI-14	
	G6 – Regional – Concrete Base – Graphics	PI-15	
	S2 – Local Parks – Single Post Sign – Installation	PI-16	
S3 – Local Parks – Post and Panel Sign Installation	PI-17		
S4 – Regional – Post and Panel Sign Installation	PI-18		
<b>Signage – Trails</b>	TS-01 – Two-Post Sign – Small	PI-19	
	TS-02 – Two-Post Sign – Large	PI-20	
	TS-03 – One-Post Angled Interpretive Sign	PI-21	
	TS-04 – Two-Post Angled Interpretive Sign	PI-22	
	TS-05 – One-Post Directional – Regulatory Sign	PI-23	
	TS-06 – Typical Panel Attachment Detail	PI-24	
	TS-07 – Typical Footing Bracket	PI-25	
	TS-08 – One-Post Interpretive – Panel Bracket	PI-26	
	TS-09 – Two-Post Interpretive – Panel Bracket	PI-27	
	TS-10 – Typical Footing Detail	PI-28	
	TS-11 – Graphic Spec. – Two-Post Sign – Narrow	PI-29	
	TS-12 – Graphic Spec. – Two-Post Sign – Wide	PI-30	
	TS-13 – Graphic Spec. – Angled Interpretation – Single Post	PI-31	
	TS-14 – Graphic Spec. – Angled Interpretation – Two Post	PI-32	
	TS-15 – Graphic Spec. – One Post Regulatory, Directional & Interpretive	PI-33	

DETAIL CATEGORY	DETAIL NAME	PPDM	ISD
<b>Fencing and Barriers</b>			
	Tree Preservation Protection Fence	PB-01	
	Typical Post and Rail Fence		F2
	Two-Rail Post and Rail Fence	PB-02	
	Precast Concrete Bollard and Base		F3
	200mm Diameter Steel Bollard Installation for Road Closure		F4
	100mm Diameter Steel Bollard Installation for Parking Lots/Park		F5
	Chain Link Fence	PB-03	
	P-Gate Detail	PB-04	
	Removable Bollard	PB-05	
<b>Sports Facilities</b>			
<b>Field Sports</b>			
	Soccer Field Layout Mini Field	PD-01	
	Soccer Field Layout Full-Size	PD-02	
	Full-Size and Mini-Field Soccer Goal	PD-03	
	Football Field Layout	PD-04	
	Standard Ultimate Frisbee Field Layout	PD-05	
<b>Bat and Ball Sports</b>			
	Senior Softball (16 Yrs. And Over) Field Layout	PT-01	
	Senior Softball (16 Yrs. And Over) Infield and Backstop Layout	PT-02	
	Junior Softball (Under 16 Yrs.) Field Layout	PT-03	
	Junior Softball (Under 16 Yrs.) Infield and Backstop Layout	PT-04	
	Senior Baseball (Hardball) (16 Yrs. And Over) Field Layout	PT-05	
	Senior Baseball (Hardball) (16 Yrs. And Over) Infield and Backstop Layout	PT-06	
	Junior Baseball (Hardball) (Under 16 Yrs.) Field Layout	PT-07	
	Junior Baseball (Hardball) (Under 16 Yrs.) Infield and Backstop Layout	PT-08	
	Softball Backstop: Section 'A' & Front Elevation	PT-09	
	Softball Backstop: Plan View and Footing Detail	PT-10	
	Baseball Backstop: Plan View and Details	PT-11	
	Baseball Backstop: Section 'A'	PT-12	
	Baseball Dugout Plan	PT-13	
	Baseball Dugout Plan Front and Side Elevation	PT-14	
	Foul Line Post Detail	PT-15	
	Baseball Outfield and Linefence	PT-16	
	T-Ball Field Layout	PT-17	
	T-Ball Backstop	PT-18	
<b>Court Sports</b>			
	Basketball Court (Full Size)	PC-01	
	Basketball Key	PC-02	
	Tennis Court Layout	PC-03	
	Tennis Court Fencing and Gate	PC-04	
	Tennis Court Surface Section	PC-05	
	Volleyball Court Layout	PC-06	
	Shuffleboard Layout	PC-07	

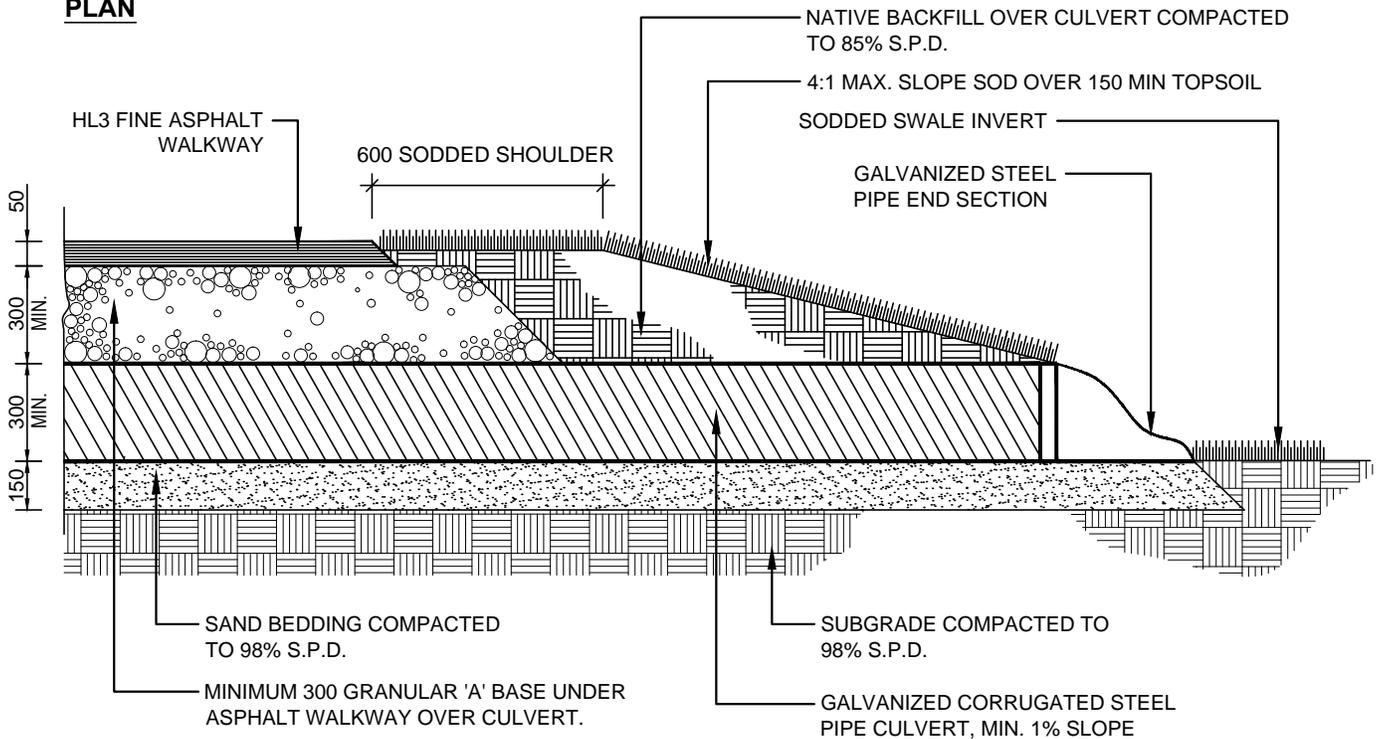
# 5.0 APPENDIX

---

DETAIL CATEGORY	DETAIL NAME	PPDM	ISD
<b>Outdoor Rinks</b>	Puddle Surface Layout	PR-01	
	Community Ice Surfaces Layout 'Double Puddle'	PR-02	
	Community Rink Layout	PR-03	
<b>Sports Seating</b>	Sports Fields Spectators Bleachers	PG-01	



**PLAN**



**SECTION**

**NOTES:**

1. CORRUGATED STEEL PIPE CULVERT SHALL BE GALVANIZED, 1:6MM (16ga) THICK, COMPLETE WITH PREFABRICATED GALVANIZED STEEL END SECTIONS. INSTALL WITH COLLAR BOLTS BURIED IN GRADE.
2. CULVERT TO BE 300 O.D. MINIMUM SIZE.
3. ALL DIMENSIONS ARE IN MILLIMETRES.



TITLE:

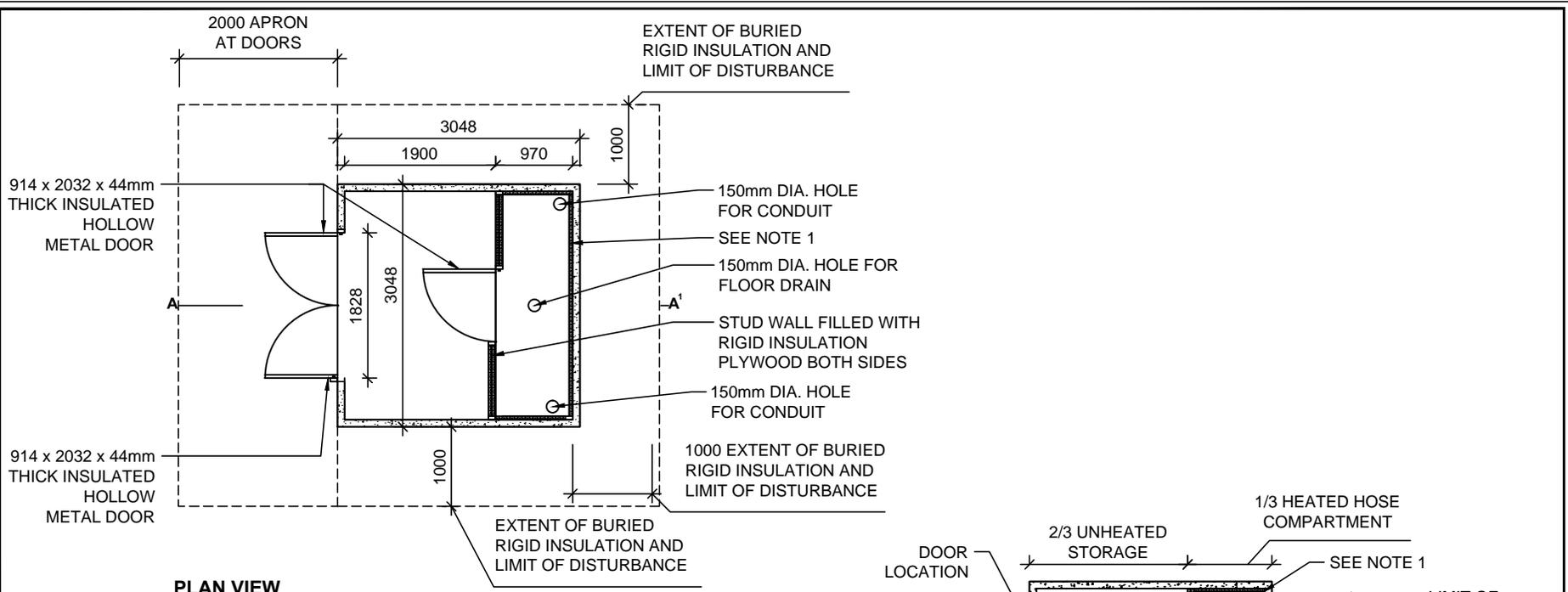
**WALKWAY CULVERT  
PLAN AND SECTION**

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PN-01

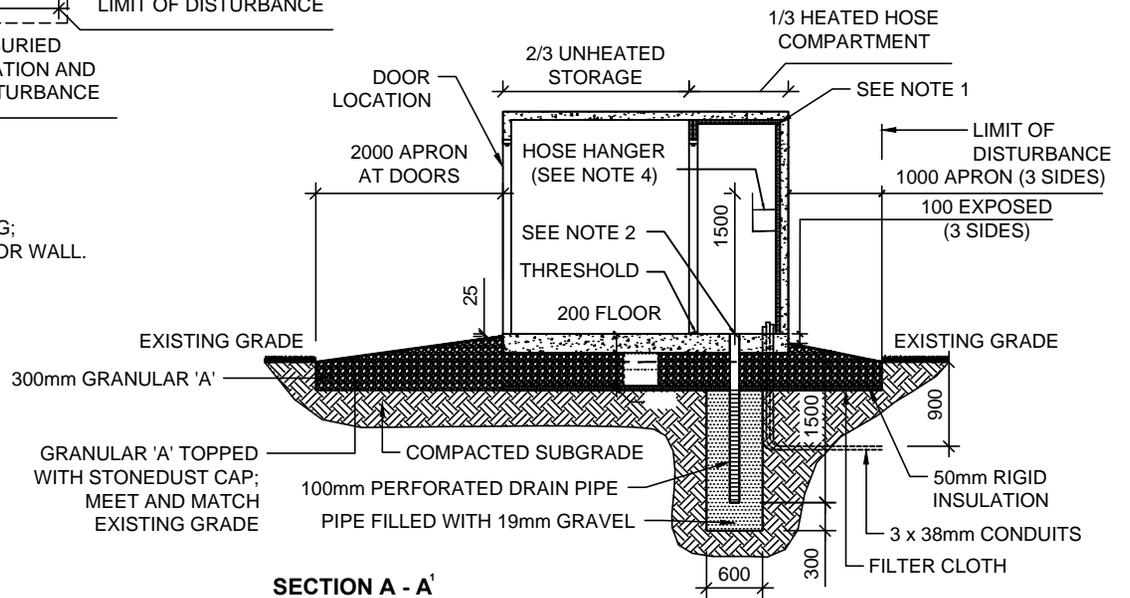




**PLAN VIEW**

**NOTES:**

1. GLUE RIGID INSULATION TO CONCRETE WALLS AND CEILING; COVER WITH PLYWOOD AND FASTEN THROUGH TO EXTERIOR WALL.
2. FIT PVC DRAIN CAP OVER PIPE END, FLUSH WITH FLOOR.
3. ELECTRICAL PANEL, HEATER, ETC. BY OTHERS (N.I.C.)
4. HOSE HANGER (PROVIDE SHOP DRAWINGS).



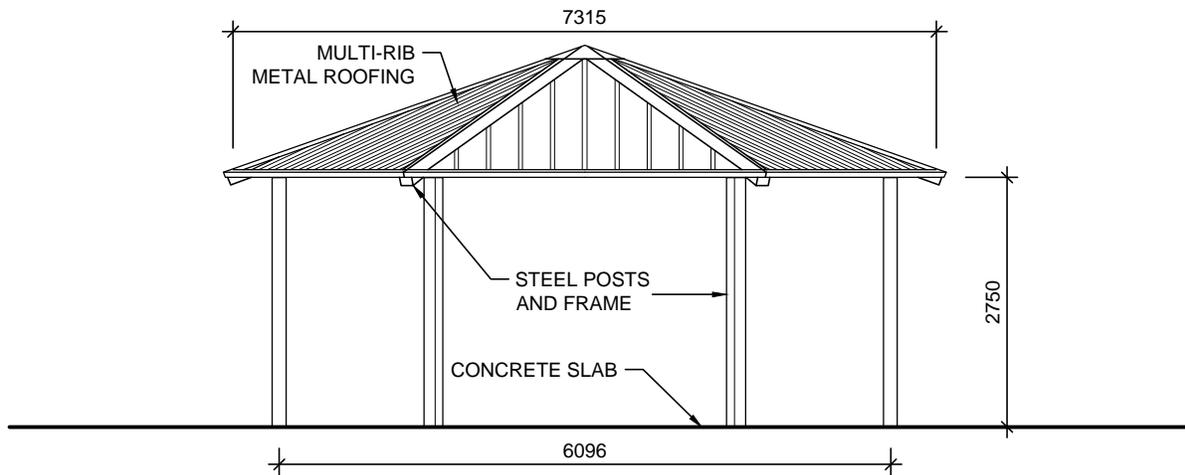
TITLE:

**OUTDOOR RINK STORAGE (BUNKER)**

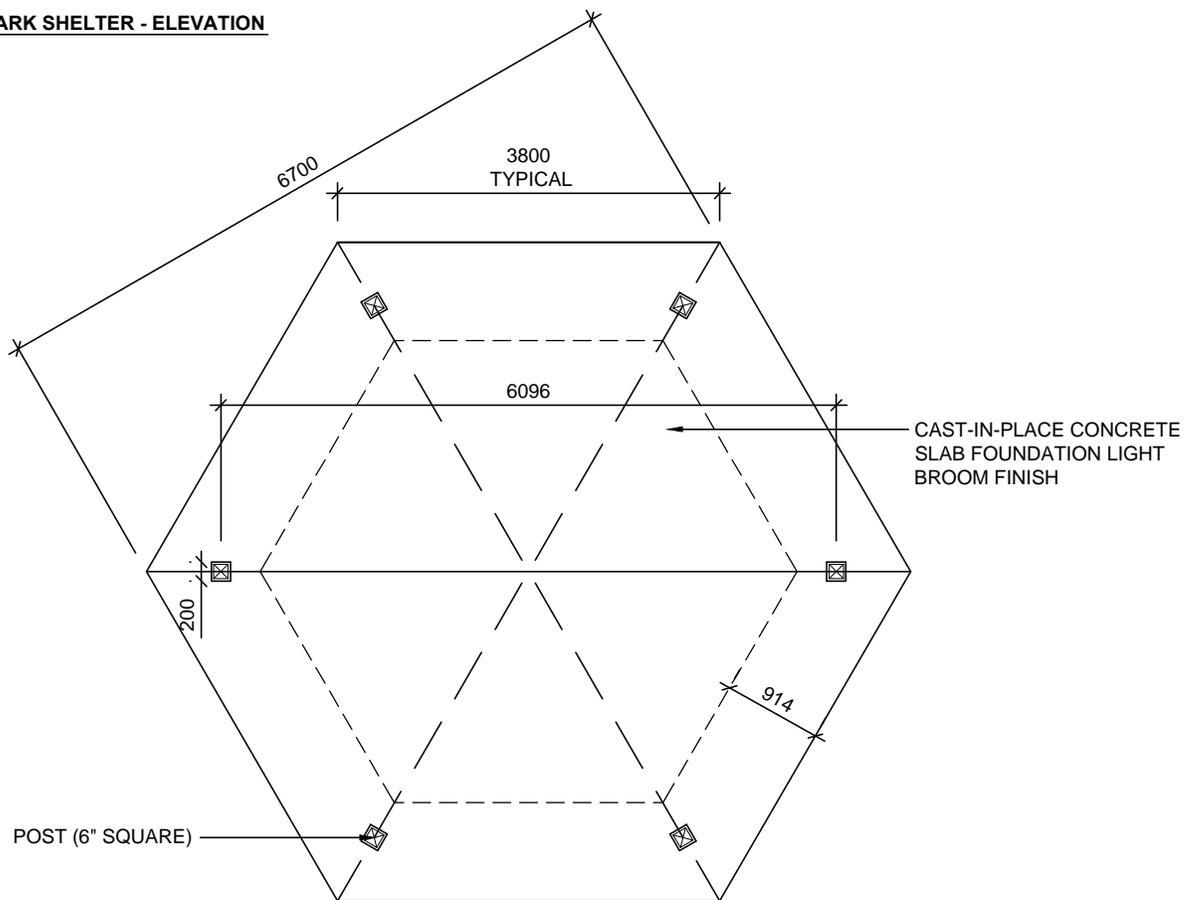
DATE: MAR 2012

SCALE N.T.S.

DWG No: **PS-01**



**PARK SHELTER - ELEVATION**



**CONCRETE SLAB PLAN c/w POST LOCATIONS**

**NOTES:**

1. BUILDING PERMIT REQUIRED
2. SHOP DRAWINGS AND ALL PERMIT FEES REQUIRED
3. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED



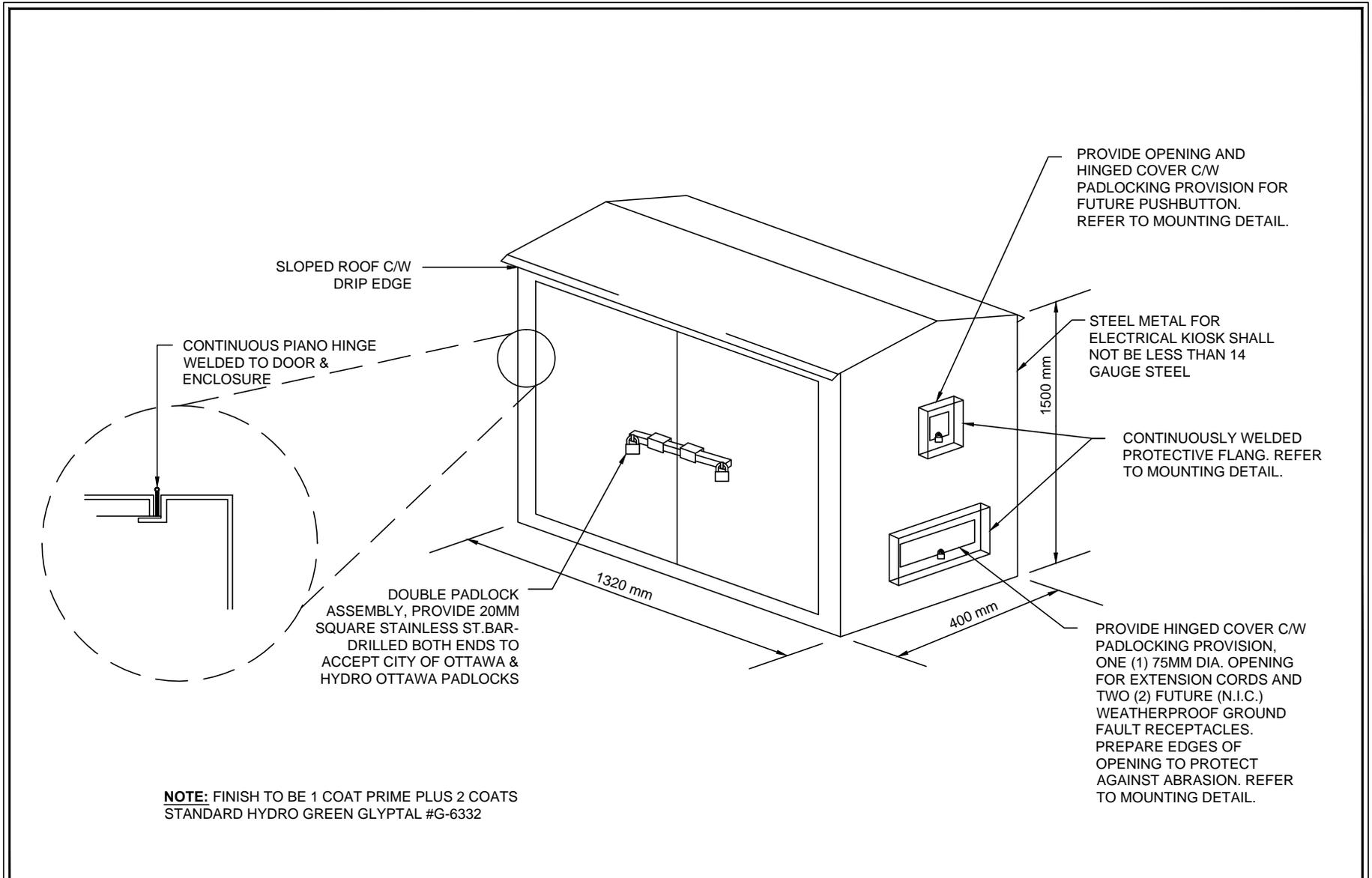
TITLE:

**STANDARD GAZEBO**

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PS-02



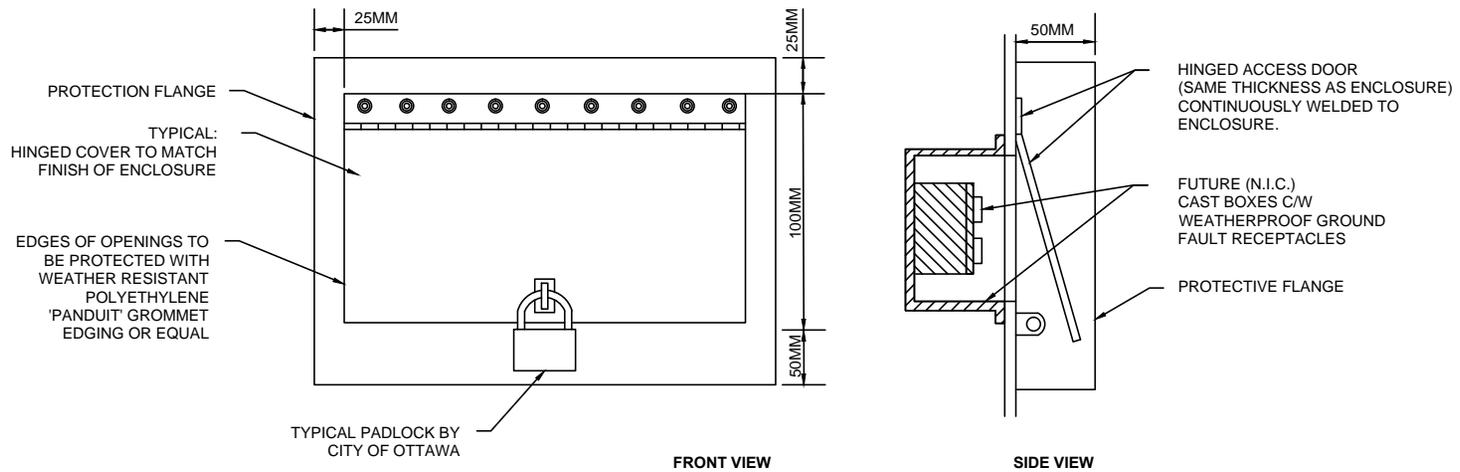
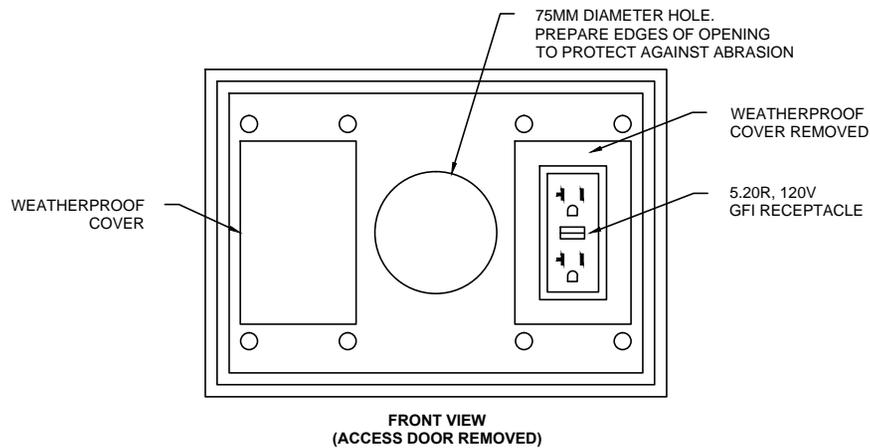
TITLE:

**DISTRIBUTION ENCLOSURE (TYPE A)**

DATE: MAR 2012

SCALE: N.T.S.

DWG No: **PE-01**



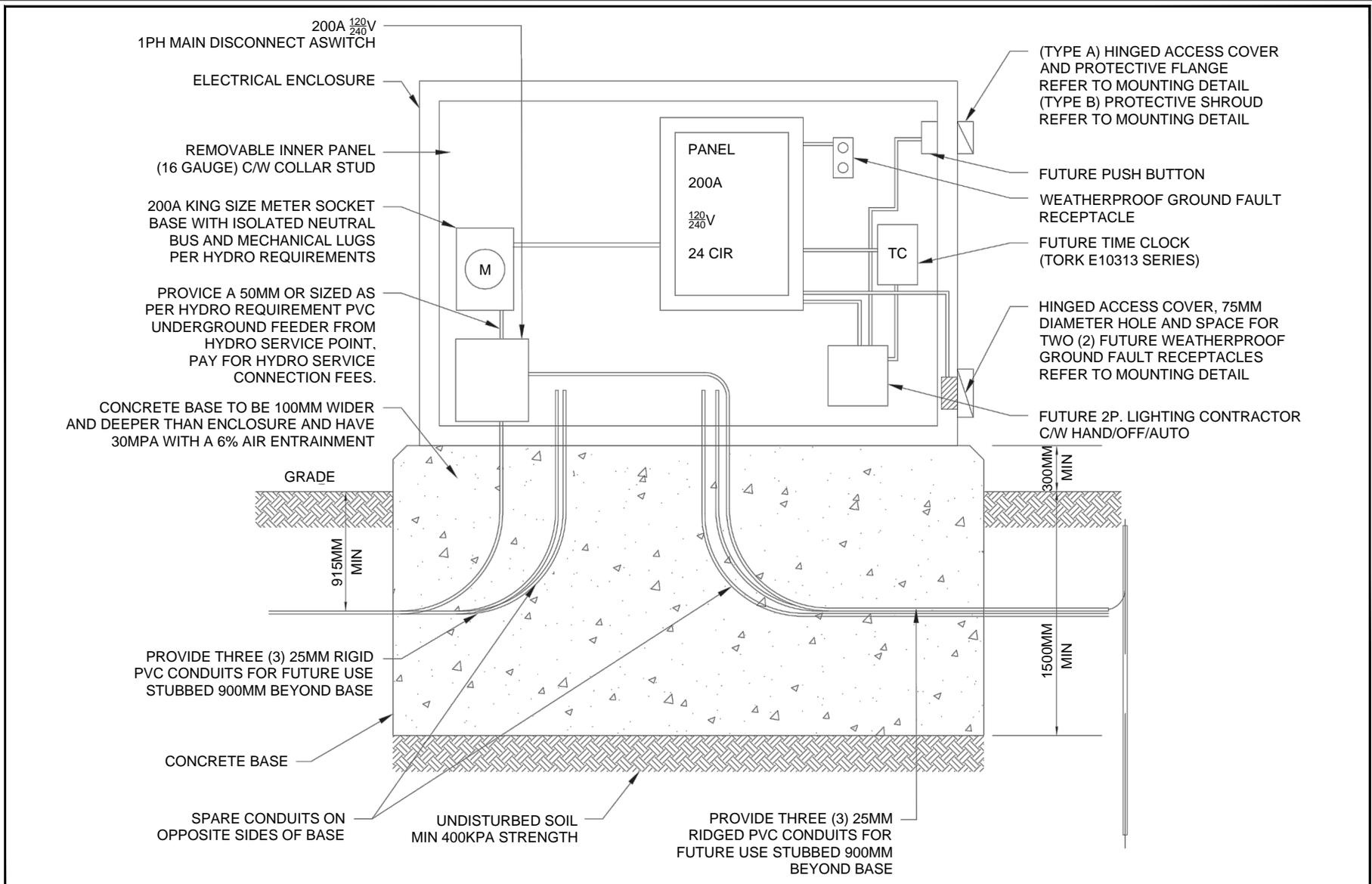
TITLE:

**OPENING / RECEPTACLE  
MOUNTING DETAIL**

DATE: MAR 2012

SCALE N.T.S.

DWG No: PE-02



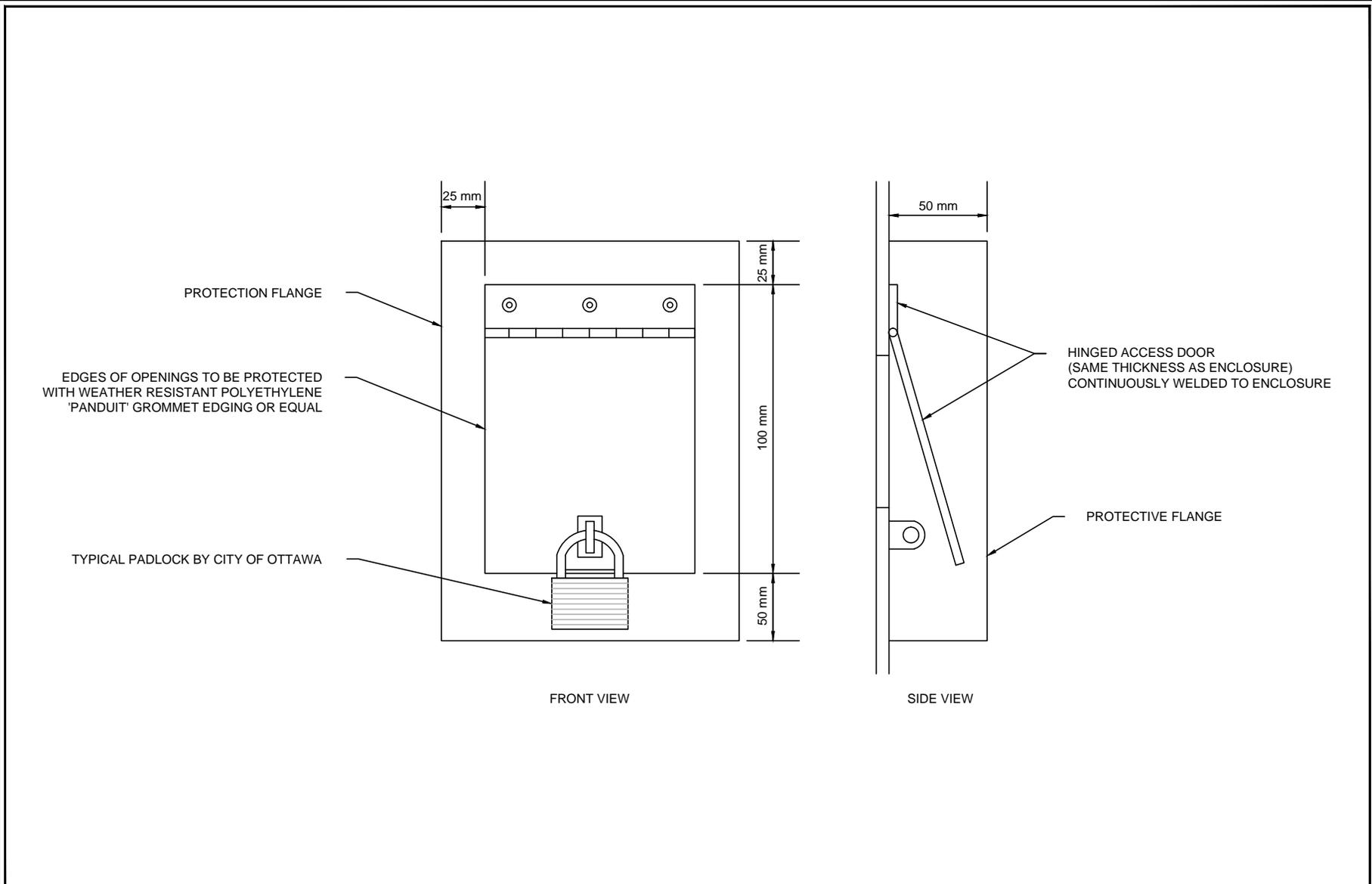
TITLE:

DISTRIBUTION ENCLOSURE SECTION

DATE: MAR 2012

SCALE N.T.S.

DWG No: PE-03



TITLE:

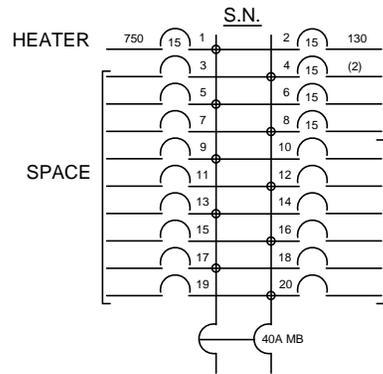
PUSH BUTTON MOUNTING DETAIL

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PE-04

PANEL B 120/240 VOLT, 1 PH, 3 W.  
100 AMP. MAINS  
SURFACE MOUNTED

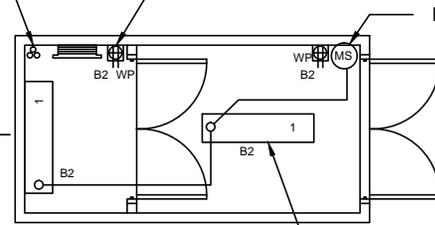


LIGHTING  
RECEPTACLES  
SPARE  
SPARE  
SPACE

THREE (3) 38 MM PVC  
CONDUITS STUBBED OUT  
900 MM BEYOND BUNKER



TYPICAL:  
WEATHERPROOF GROUND FAULT DUPLEX RECEPTACLE  
MOUNTED 900 MM ABOVE FINISHED FLOOR

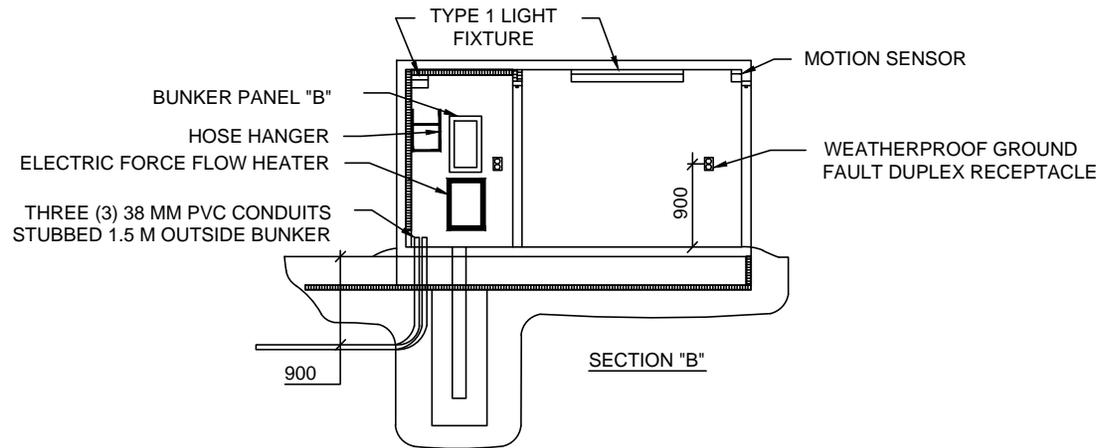


MOTION SENSOR

ALL ELECTRICAL EQUIPMENT  
INCLUDING PANEL, HEATER  
AND RECEPTACLE TO BE  
MOUNTED ON SAME WALL

PLAN VIEW

TYPE 1 LIGHT FIXTURE



MOTION SENSOR

WEATHERPROOF GROUND  
FAULT DUPLEX RECEPTACLE

SECTION "B"



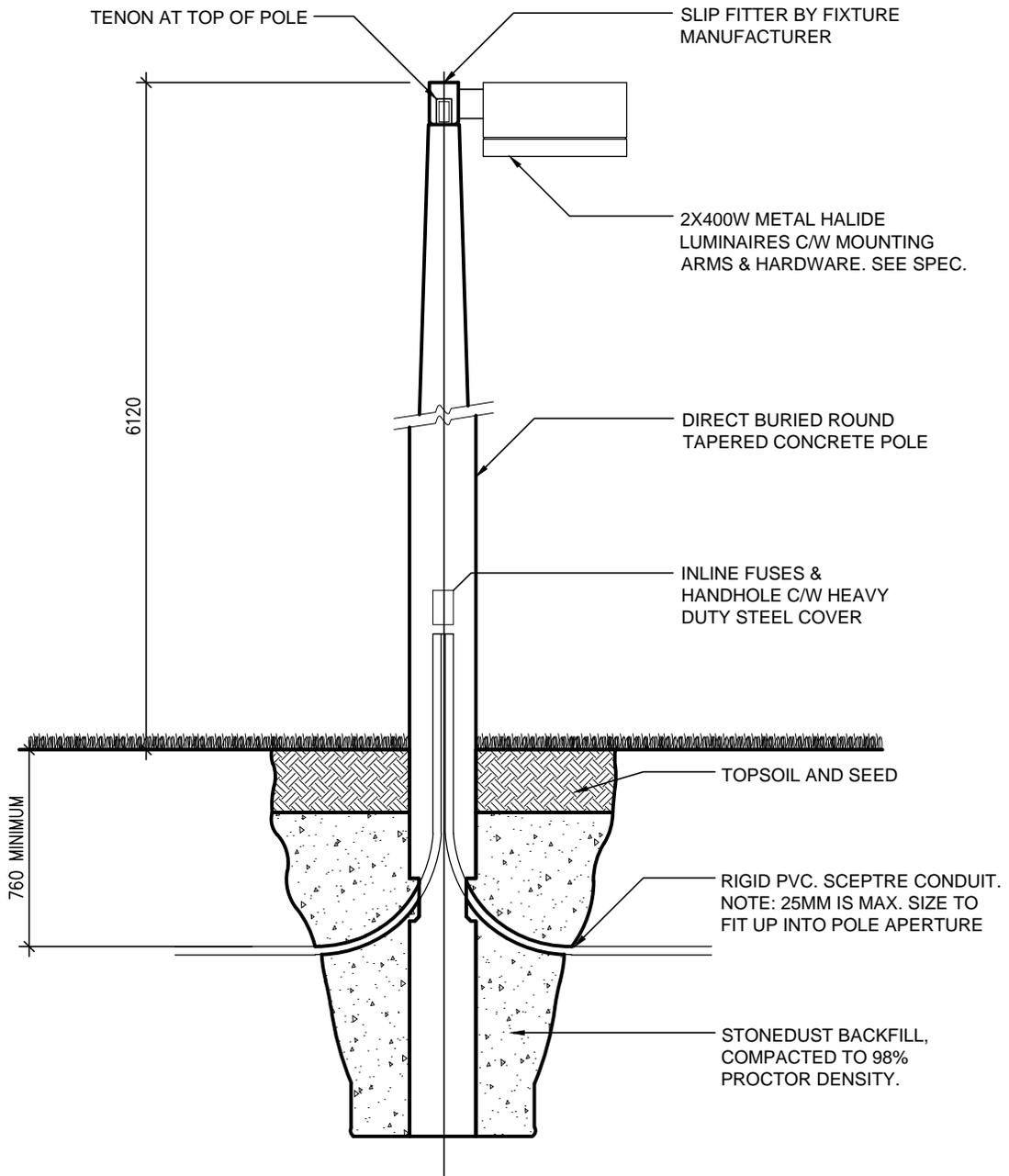
TITLE:

ELECTRICAL FIT-UP AND SCHEMATIC

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PE-05



**NOTES:**

1. NEW 120V OR 240V, 2 x 400W METAL HALIDE LIGHT STANDARD (TYP. OF 6).
2. CONCRETE POLE (UTILITIES STRUCTURES HA-250-A-1PG-10) 20 FEET ABOVE FINISH GRADE.
3. LIGHT FIXTURE OPTIONS:  
 LITHONIA LIGHTING: KSE2 AREA LIGHT - KSE2 400M R4W  
 RUDD LIGHTING: AC AREA CUT-OFF LIGHT (ACI-16) - AC1440-M  
 KEENE: SILHOUETTE AREA LIGHT - SR2B404MA



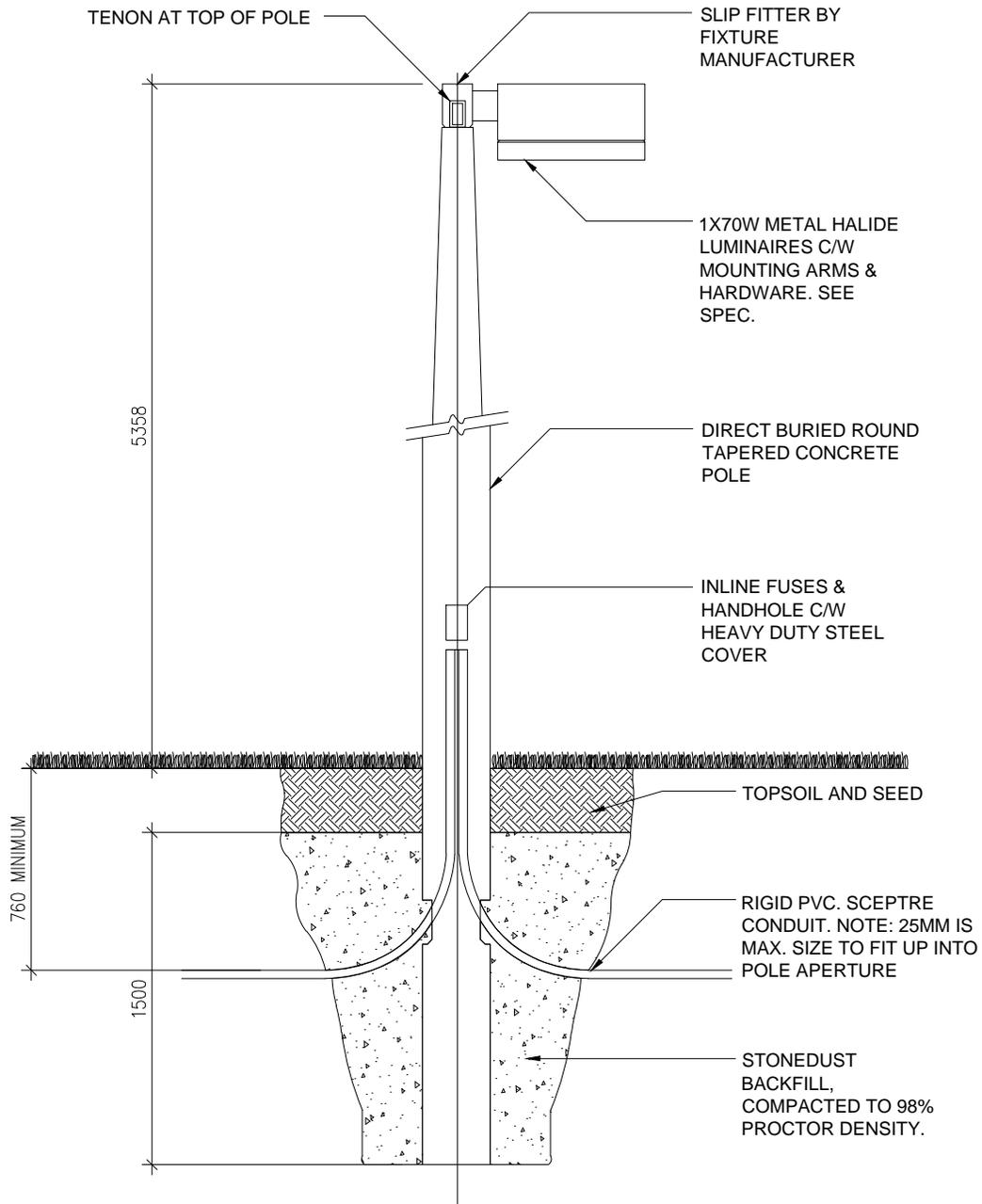
TITLE:

**TYPICAL DIRECT BURIED POLE  
DETAIL - OUTDOOR RINK**

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PE-06



**NOTES:**

1. NEW 120V OR 240V, 1X70W METAL HALIDE LIGHT STANDARD. (TYPE 'A' MCGRAW EDISON CIRRUS SERIES CIM-AM-70-MH-120-2F-AP-L) AND CONCRETE POLE (UTILITIES STRUCTURES HA-225-A-1PG-10) 17 1/2 FEET ABOVE FINISH GRADE.

2. PHOTOMETRICS: THE QUALITY AND QUANTITY OF LIGHT WILL MEET THE ILLUMINATION ENGINEERING SOCIETY (IES) STANDARDS FOR PARK PATHWAYS. SPECIFICALLY, THE LIGHT SOURCE WILL BE OF SUFFICIENT DESIGN TO ENSURE A MINIMUM 5-LUX COVERAGE ALONG THE ENTIRE LENGTH OF THE PATHWAY AND A UNIFORMITY LEVEL RATIO OF 5:1. ALL PARK AND PATHWAYS ADJACENT TO RESIDENTIAL PROPERTIES ARE TO USE LIGHT FIXTURES THAT EMPLOY CURVILINEAR CUT-OFF.



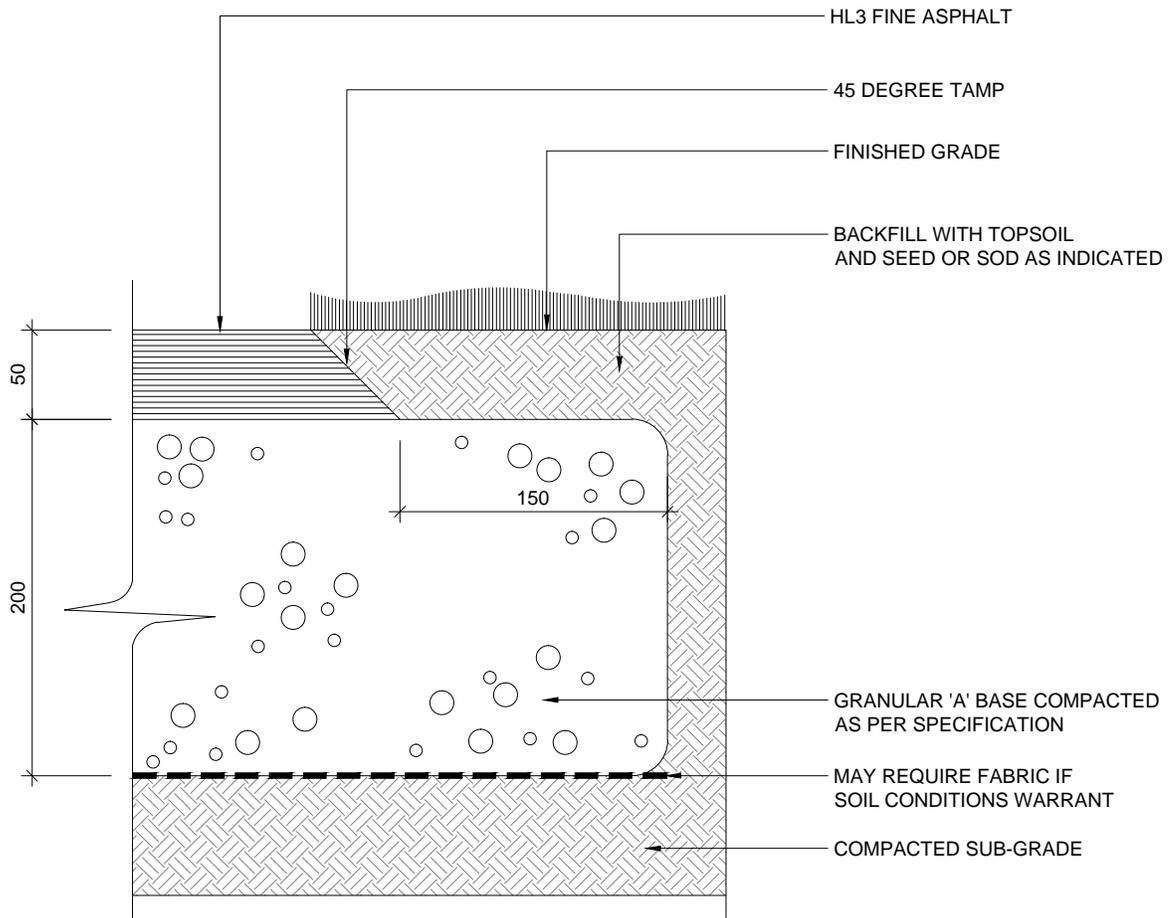
TITLE:

**TYPICAL DIRECT BURIED POLE  
DETAIL - PATHWAY**

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PE-07



**NOTE:**  
 CROSS SLOPE SIDEWALK IN DIRECTION OF NATURAL DRAINAGE TO PROVIDE POSITIVE DRAINAGE OFF ALL WALKS.



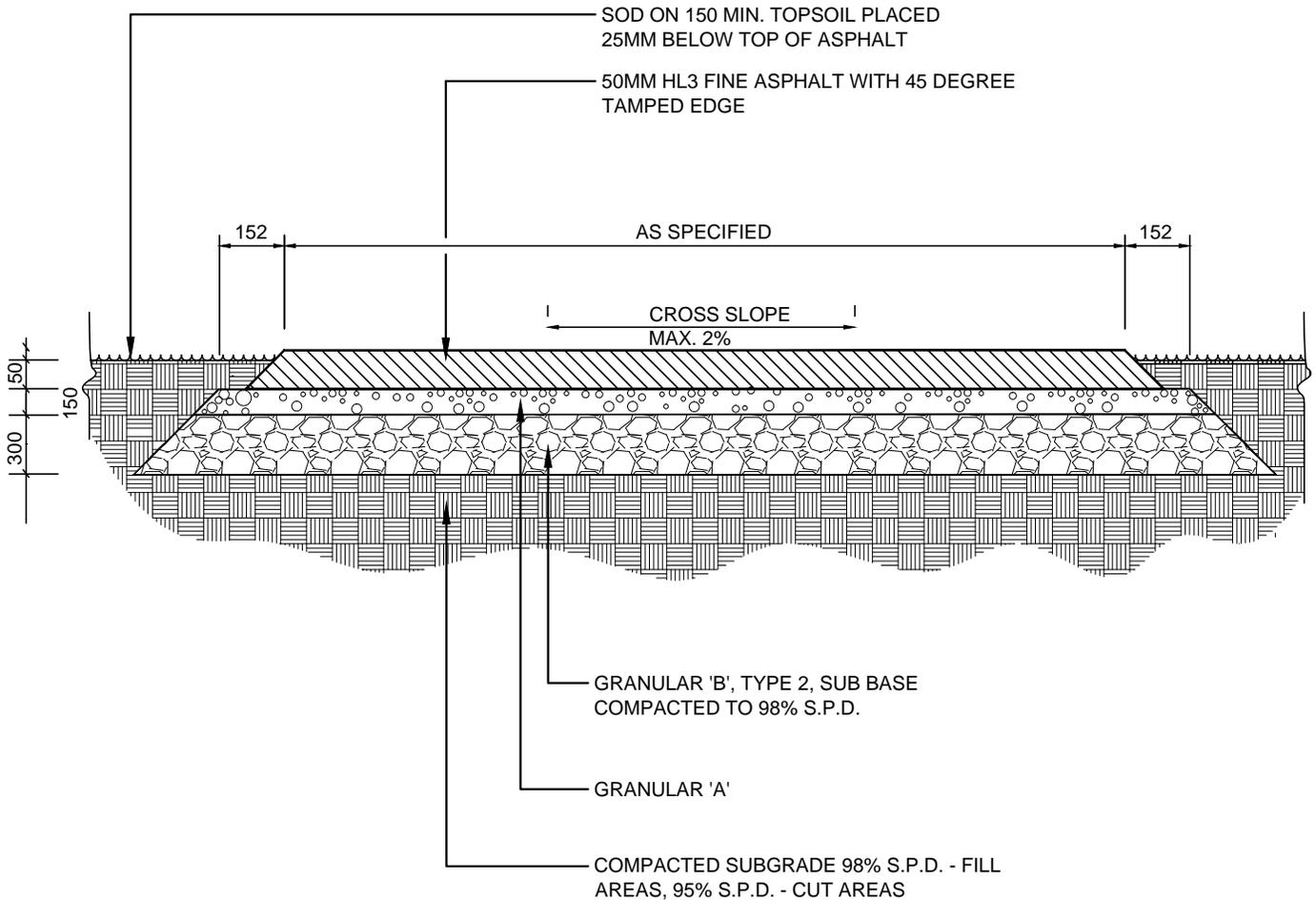
TITLE:

ASPHALT WALKWAY

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PP-01



**NOTES:**

**EXCAVATION:** EXCAVATE TO 500 MINIMUM DEPTH OR DEEPER, AS REQUIRED. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF ANY UNSUITABLE SUBGRADE MATERIAL SUCH AS TOPSOIL. ALL SOFT SPOTS AND/OR ORGANIC MATTER AND REPLACEMENT WITH CLEAN SUBSOIL FILL. SUBGRADE SHALL BE CONSOLIDATED TO A 98% S.P.D. REMOVE EXCAVATED MATERIAL OFF SITE UNLESS OTHERWISE DIRECTED.

**GRANULAR BASE:** GRANULAR 'A' - 100% STANDARD PROCTOR DENSITY MIN., GRANULAR B, TYPE 2, SUB BASE

**ASPHALT:** 50MM TOP SURFACE LAYER (AFTER COMPACTION) OF HOT MIX HL3 FINE IN ACCORDANCE WITH O.P.S.S. STANDARDS.

**EDGE TREATMENT:** ASPHALT EDGE TO BE 45 DEGREES WELL TAMPED TO FORM UNIFORMLY SMOOTH, CLEAN EDGES WITHOUT LATERAL DEVIATIONS. SOD TO FEATHER IN WITH EXISTING SOD AND GRADES AT A MAXIMUM SLOPE OF 4:1. ALL SODDED AREAS SHALL BE 25 BELOW THE ASPHALT SURFACE. REPLACE ALL TOPSOIL AND SOD AS DIRECTED IN CUT AND FILL SITUATIONS.

**DRAINAGE:** SLOPE TO BE A MINIMUM OF 2% ON CROWNED OR CROSS SLOPED PATHS AS DIRECTED ON SITE OR AS SHOWN IN DRAWINGS.

**SODDING:** ALL DISTURBED AREAS ALONG ASPHALT WALKWAYS SHALL BE SODDED OVER 150 TOPSOIL FOR A MINIMUM DISTANCE OF 900.

ALL DIMENSIONS ARE IN MILLIMETRES.

\*NOTE: TO BE CONFIRMED WITH SOIL INVESTIGATIONS AND MODIFIED ACCORDINGLY.



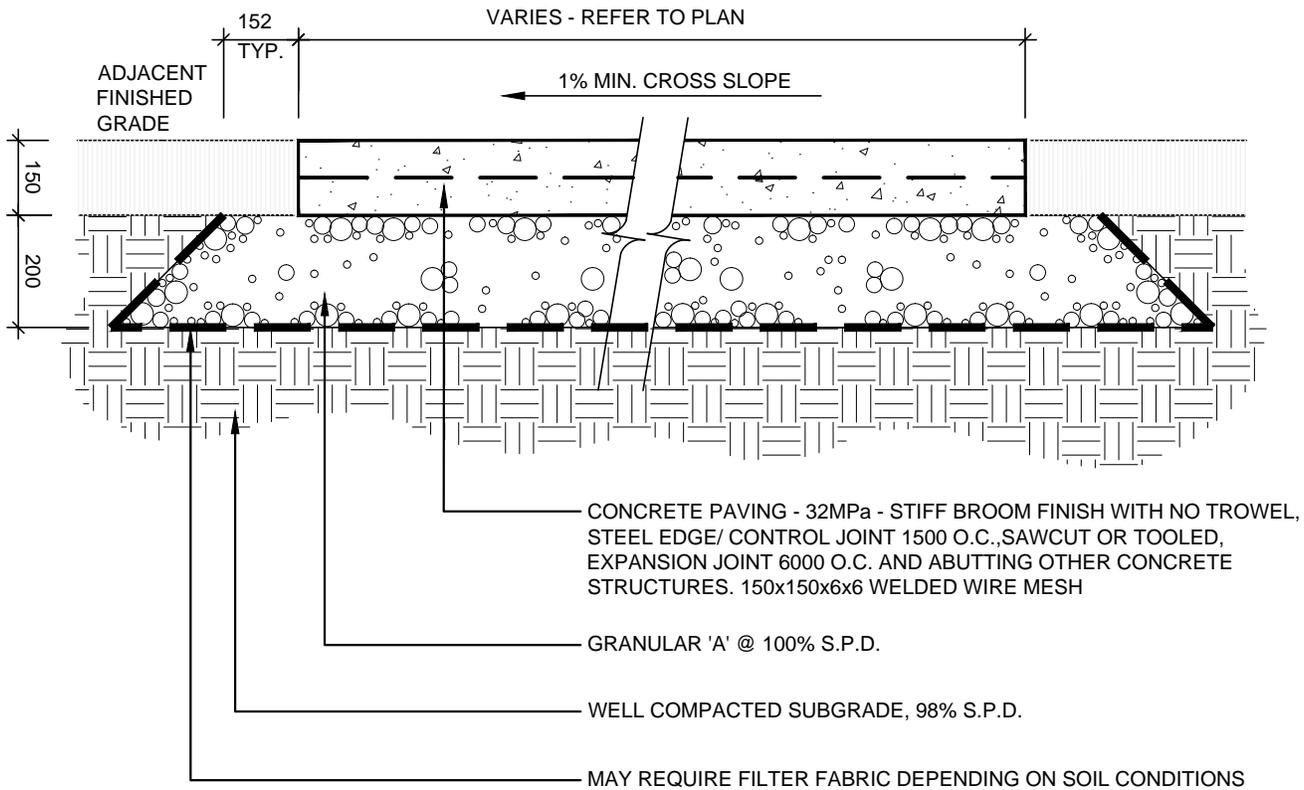
TITLE:

**ASPHALT WALKWAY/  
SERVICE ACCESS  
HEAVY DUTY**

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PP-02



**NOTES:**

1. CONCRETE TO BE 32 MPa. SEE SPECIFICATIONS.
2. CONCRETE INSTALLATION TO MATCH CITY OF OTTAWA SPECIFICATIONS.
3. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.



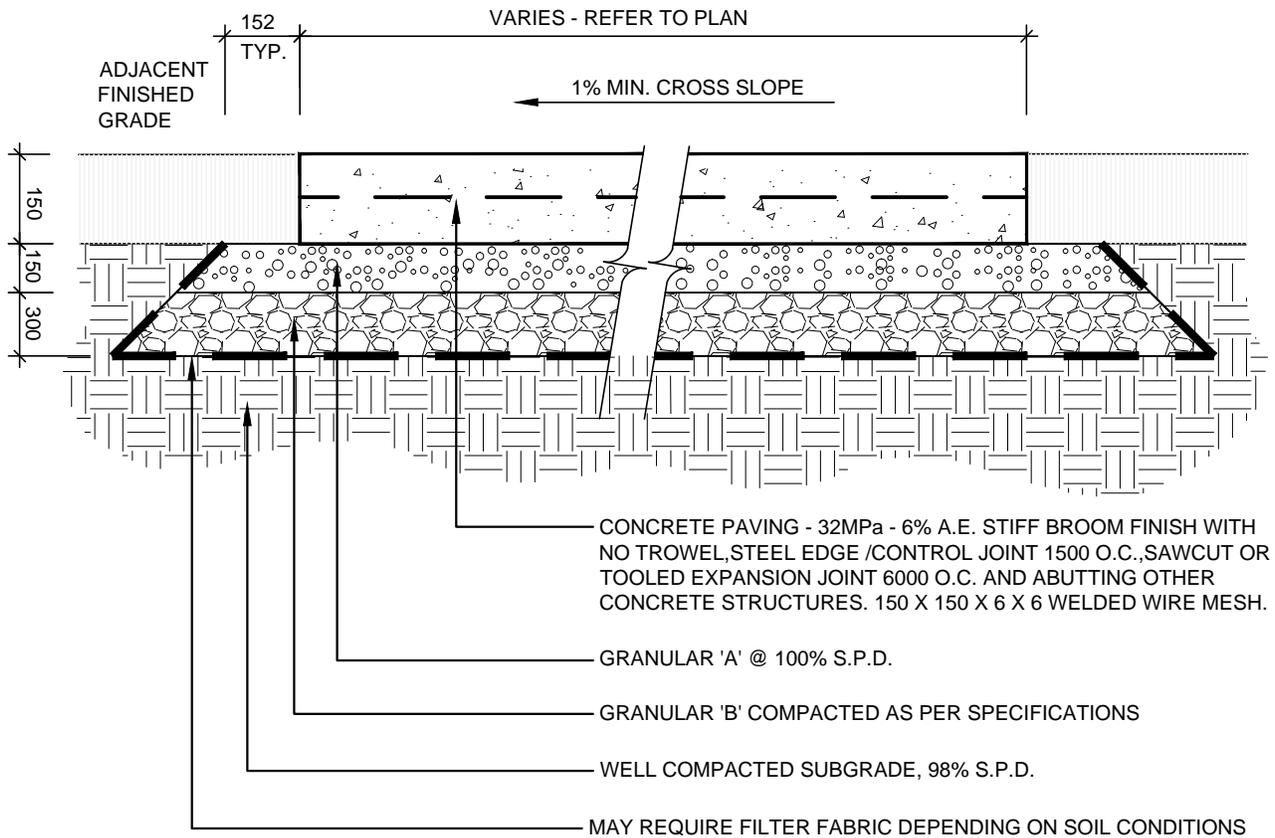
TITLE:

**LIGHT DUTY  
CONCRETE PAVING**

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PP-03



**NOTES:**

1. CONCRETE TO BE 32 MPa. SEE SPECIFICATIONS.
2. CONCRETE INSTALLATION TO MATCH CITY OF OTTAWA CONCRETE SPECIFICATIONS.
3. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.



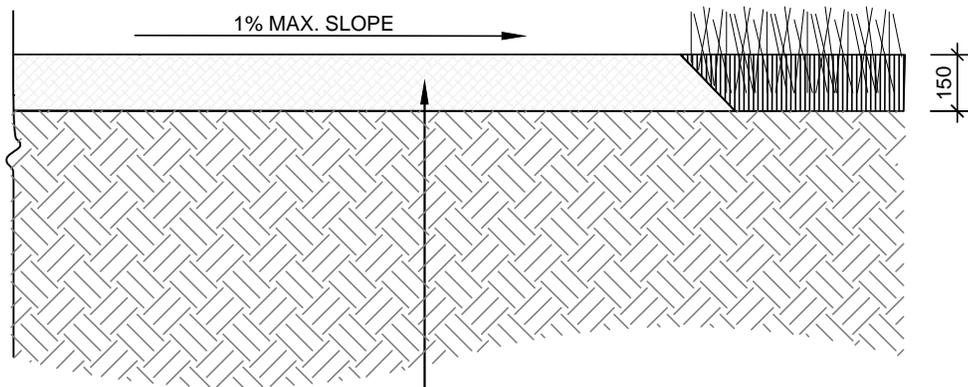
TITLE:

**HEAVY DUTY  
CONCRETE PAVING**

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PP-04



WOOD CHIPS ON TOP OF EXISTING GROUND  
COMPACTED AS PER SPECIFICATIONS

**NOTES:**

1. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.
2. DO NOT DISTURB ROOTS OF ADJACENT TREES.



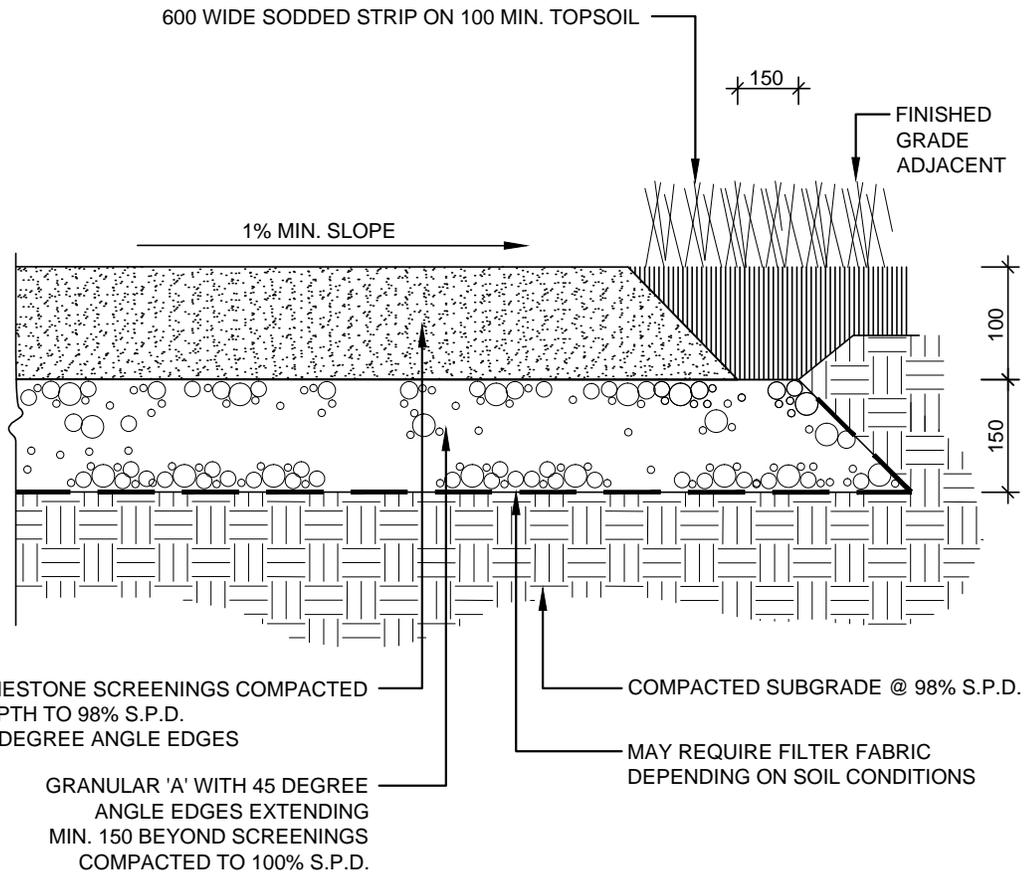
TITLE:

WOOD CHIP PATH

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PP-05



**NOTE:**

1. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.



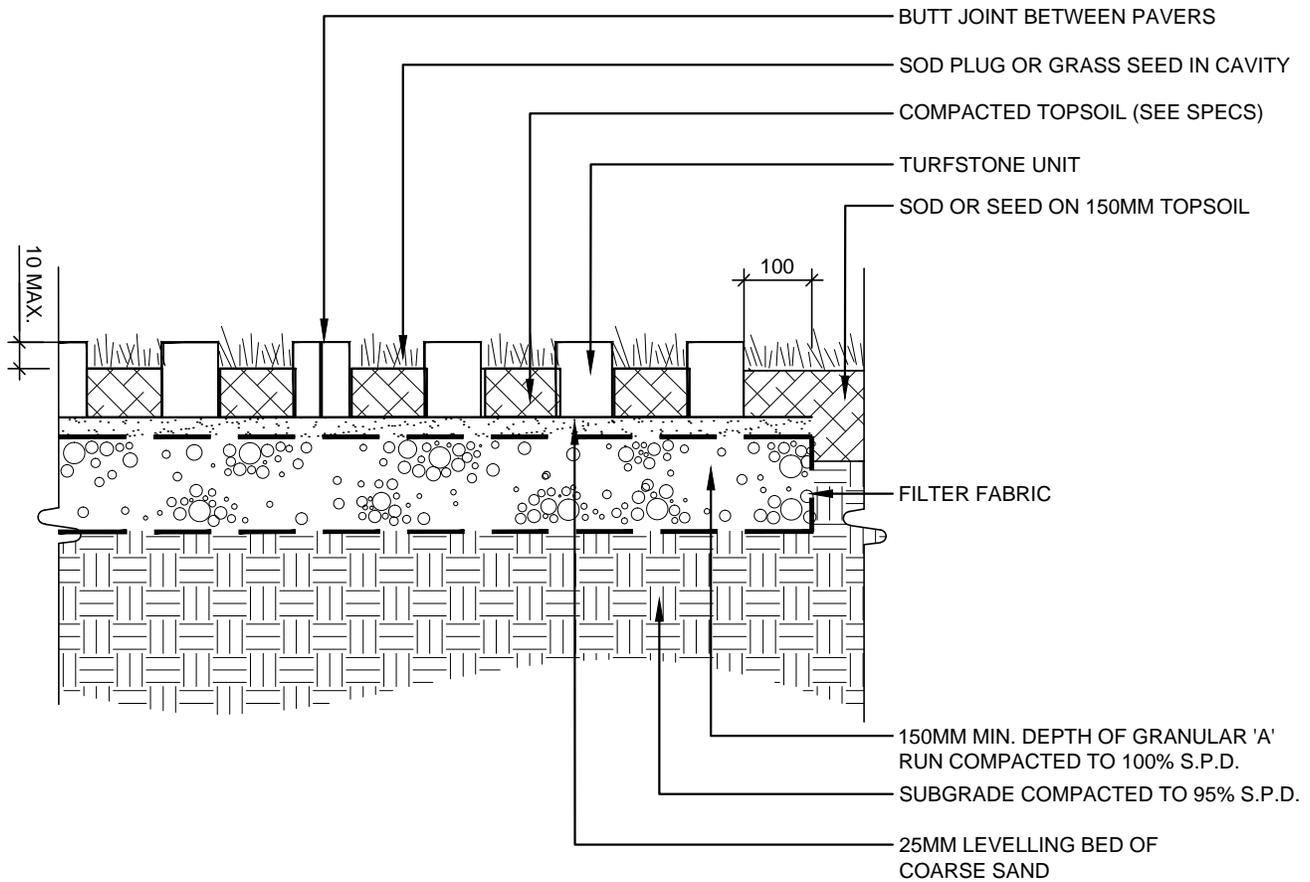
TITLE:

STONEDUST PATH

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PP-06



**WORKMANSHIP**

TURFSTONE PAVERS BY UNILOCK LIMITED OR APPROVED EQUAL. PAVERS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS WITH TIGHT BUTT JOINTS OF APPROXIMATELY 3MM, ON A SAND BASE. SAW CUT PAVERS AS REQUIRED. USE AN APPROVED VIBRATORY COMPACTOR IN A CIRCULAR PATTERN. ALL DAMAGED OR CHIPPED PAVERS MUST BE REPLACED AT THE CONTRACTOR'S COST.

**PREPARATION**

EXCAVATE AND REMOVE ALL TOPSOIL AND UNSTABLE MATERIALS OFF SITE. SUBGRADE TO BE GRADED TO SIMILAR CONTOURS AS FINISH GRADE. COMPACT SUBGRADE TO 95% S.P.D. PLACE 150MM LAYER OF GRANULAR 'A'. COMPACT TO 100% S.P.D. PLACE MAXIMUM 25MM UNCOMPACTED SAND FOR LEVELLING COURSE.

INSTALL TURFSTONE, UNITS IN THE PATTERN SPECIFIED ON THE PLAN DRAWING OR PER MANUFACTURER'S PATTERN RECOMMENDATION.

ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.



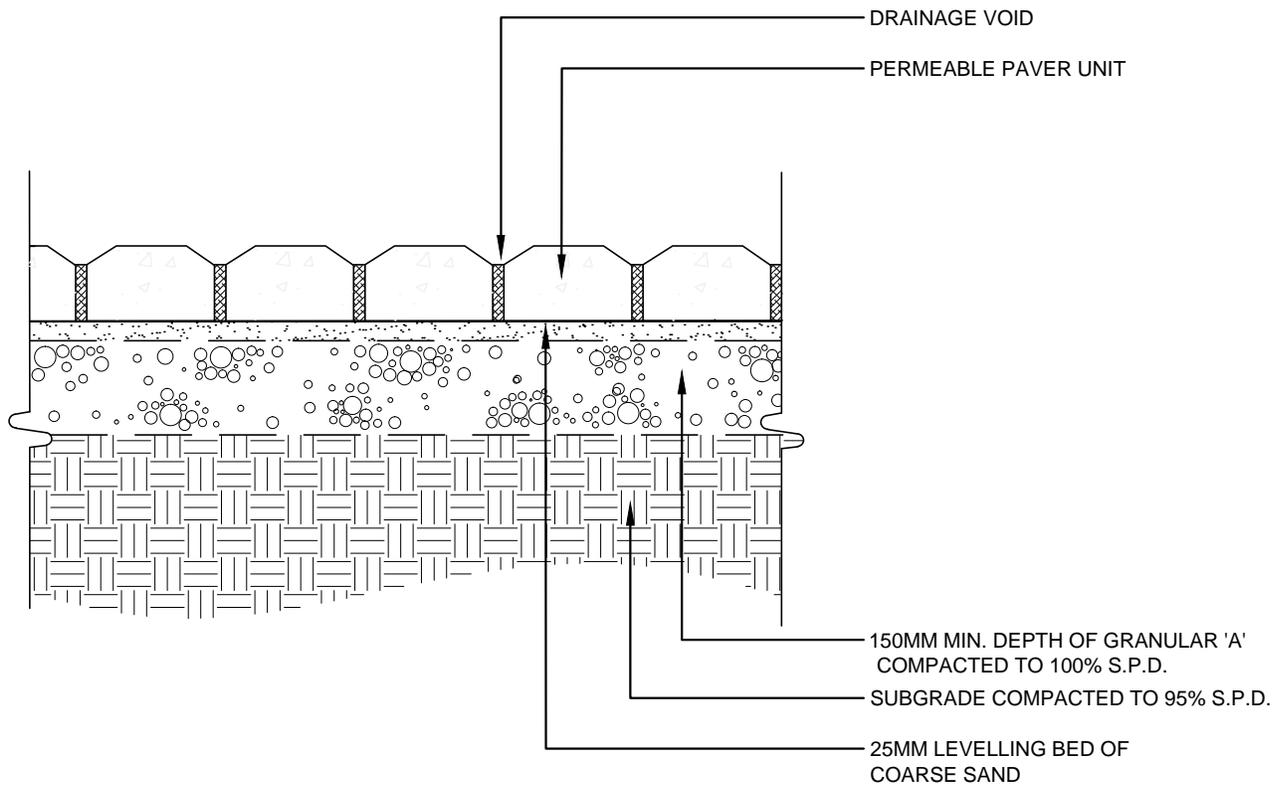
TITLE:

**TURF STONE UNIT PAVING**

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PP-07



**WORKMANSHIP**

PERMEABLE PAVERS BY UNILOCK LIMITED OR APPROVED EQUAL. PAVERS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS WITH TIGHT BUTT JOINTS OF APPROXIMATELY 3MM, ON A SAND BASE. SAW CUT PAVERS AS REQUIRED. USE AN APPROVED VIBRATORY COMPACTOR IN A CIRCULAR PATTERN. ALL DAMAGED OR CHIPPED PAVERS MUST BE REPLACED AT THE CONTRACTOR'S COST.

**PREPARATION**

EXCAVATE AND REMOVE ALL TOPSOIL AND UNSTABLE MATERIALS OFF SITE. SUBGRADE TO BE GRADED TO SIMILAR CONTOURS AS FINISH GRADE. COMPACT SUBGRADE TO 95% S.P.D. PLACE 150MM LAYER OF GRANULAR 'A' COMPACTED TO 100% S.P.D. PLACE MAXIMUM 25MM UNCOMPACTED SAND FOR LEVELLING COURSE.

INSTALL PERMEABLE UNITS IN THE PATTERN SPECIFIED ON THE PLAN DRAWING OR PER MANUFACTURER'S PATTERN RECOMMENDATION.

ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.



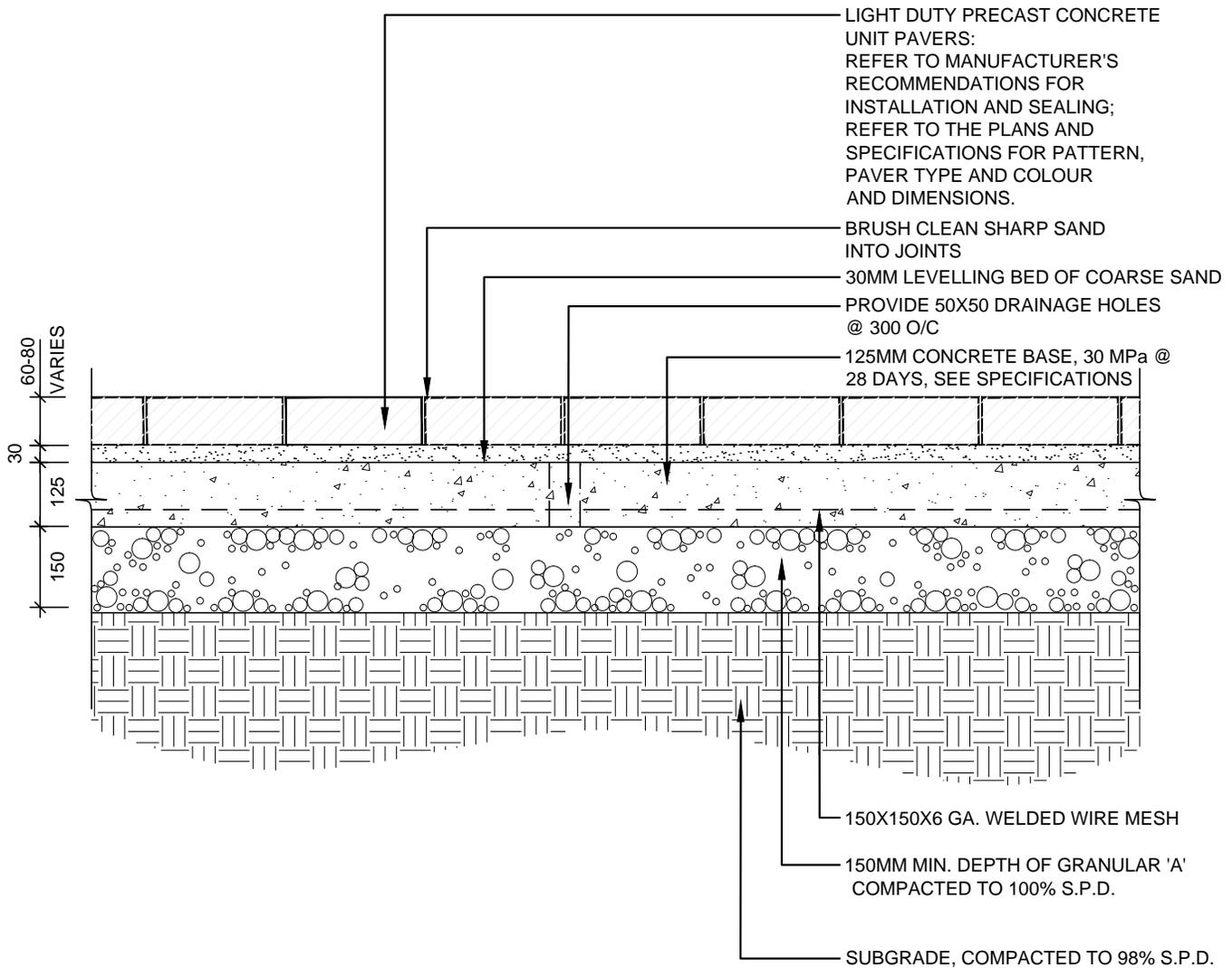
TITLE:

PERMEABLE PAVING

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PP-08



**WORKMANSHIP**

PAVERS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS WITH TIGHT BUTT JOINTS OF APPROXIMATELY 3MM, ON A SAND BASE. SAW CUT PAVERS AS REQUIRED. USE AN APPROVED VIBRATORY COMPACTOR IN A CIRCULAR PATTERN. SPRINKLE SAND OVER AREA TO PREVENT CHIPPING FOR HEAVIER VIBRATORY COMPACTION. ALL DAMAGED OR CHIPPED PAVERS MUST BE REPLACED AT THE CONTRACTOR'S COST. BRUSH SAND INTO JOINTS AND SPRINKLE WITH WATER UNTIL JOINTS ARE FILLED.

**EDGE RESTRAINT**

REFER TO SPECIFICATIONS. EDGE RESTRAINT MUST BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO COMMENCING WORK.

**PREPARATION**

EXCAVATE AND REMOVE ALL TOPSOIL AND UNSTABLE MATERIALS OFF SITE. SUBGRADE TO BE GRADED TO SIMILAR CONTOURS AS FINISH GRADE. COMPACT SUBGRADE TO 95% SPD. PLACE 150MM LAYER OF GRANULAR 'A' COMPACTED TO 100% S.P.D.

PLACE MAXIMUM 30MM UNCOMPACTED SAND FOR LEVELLING COURSE.

ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.



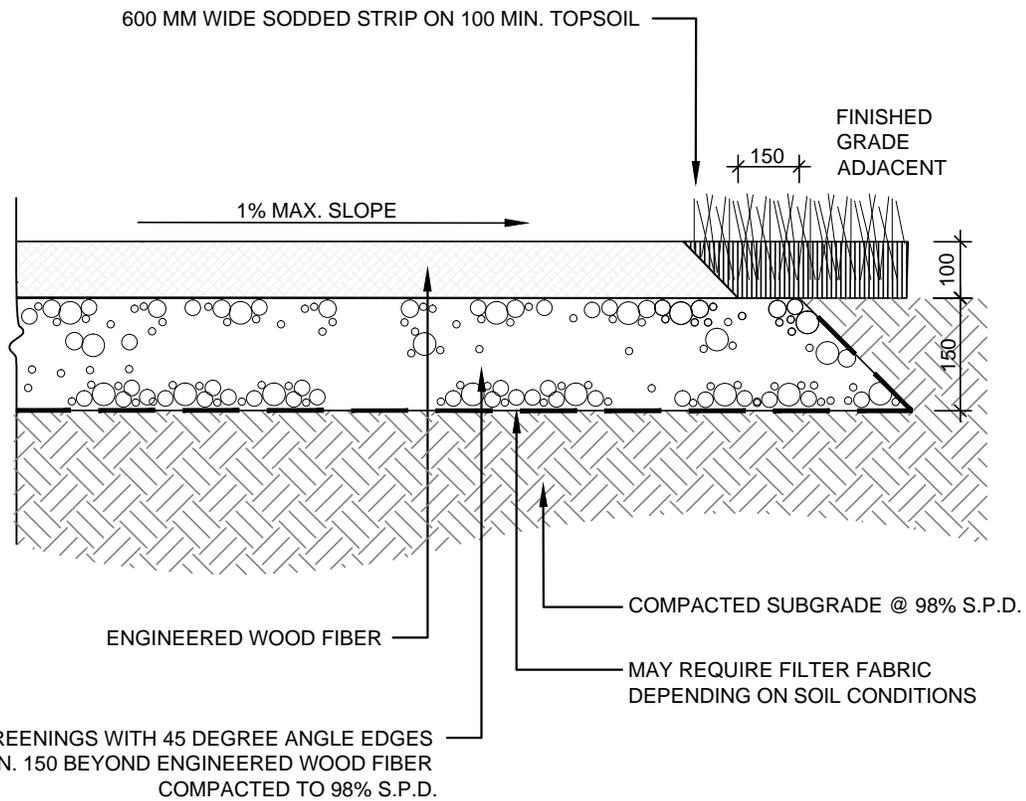
TITLE:

**UNIT PAVING - STANDARD  
ON CONCRETE BASE**

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PP-09



**NOTES:**

1. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.
2. DO NOT DISTURB ROOTS OF ADJACENT TREES.



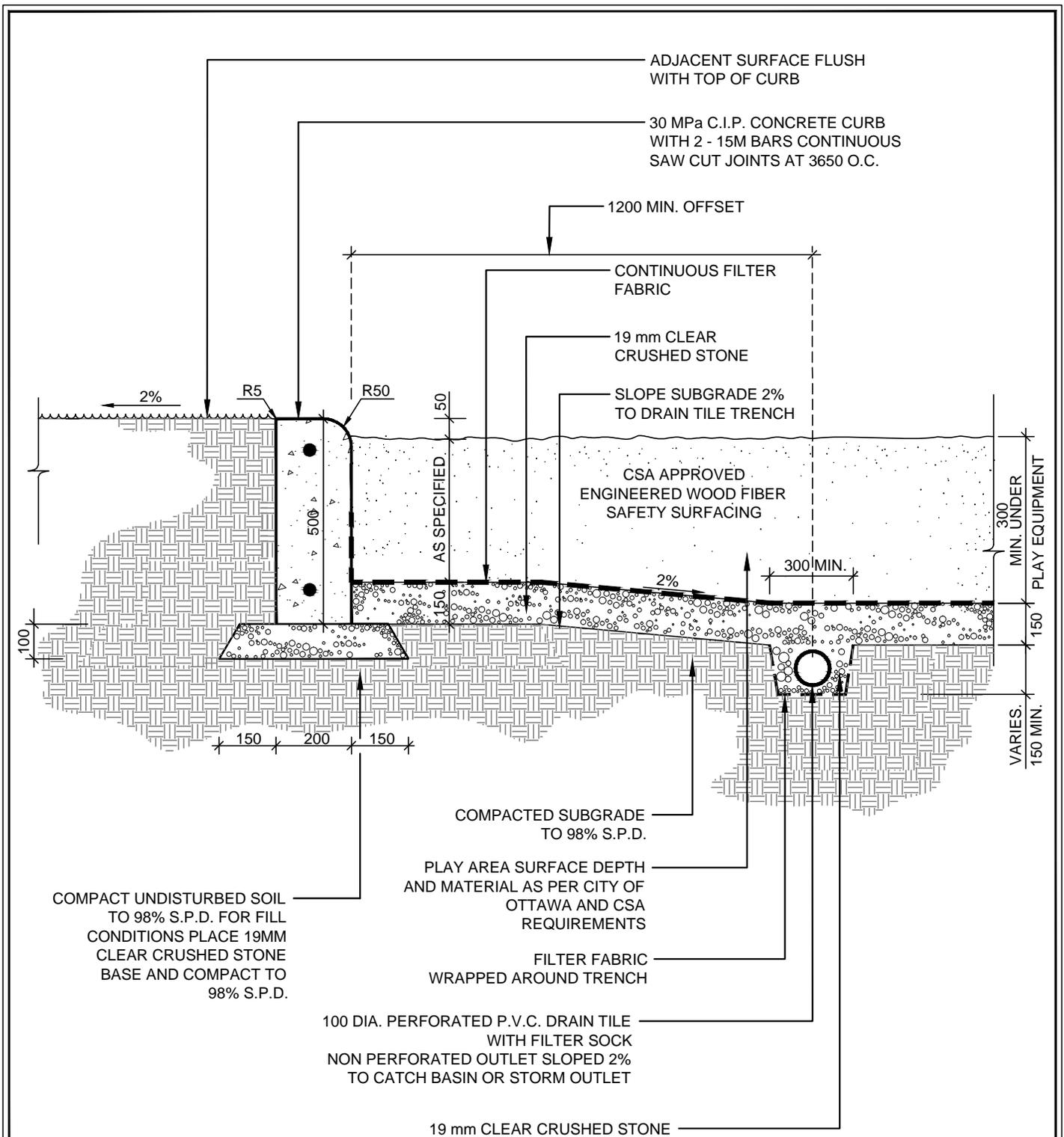
TITLE:

**ACCESSIBLE ENGINEERED  
WOOD FIBER PATH**

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PP-10



**NOTES:**

1. 100 DIA. RIGID P.V.C. PIPE CONNECTION FROM PLAYGROUND CURB TO C.B.
2. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.



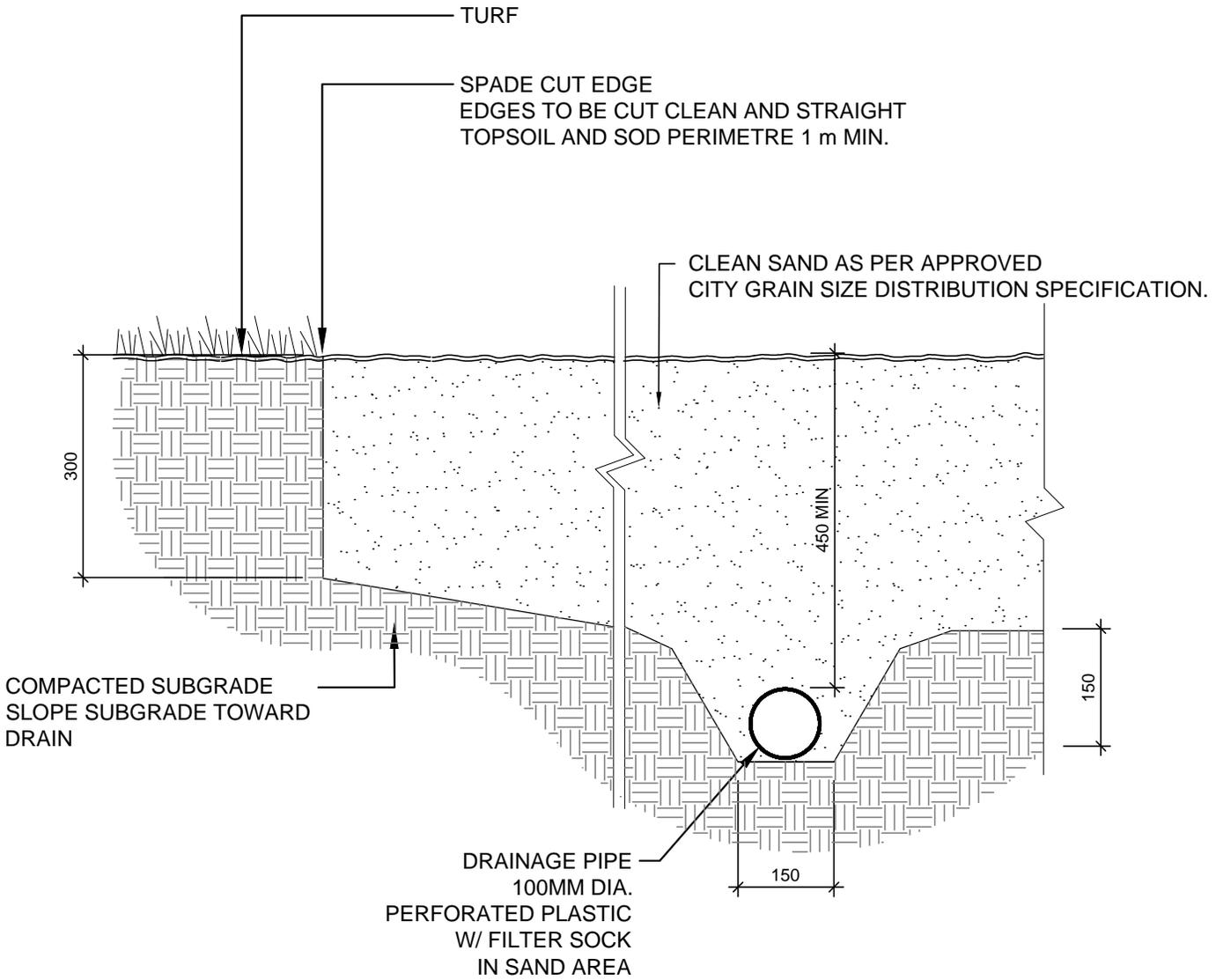
TITLE:

**PLAY AREA CONCRETE EDGE  
WITH ENGINEERED WOOD FIBER  
(WITH DRAINAGE PIPE)**

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PL-01



**NOTE:**

ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.



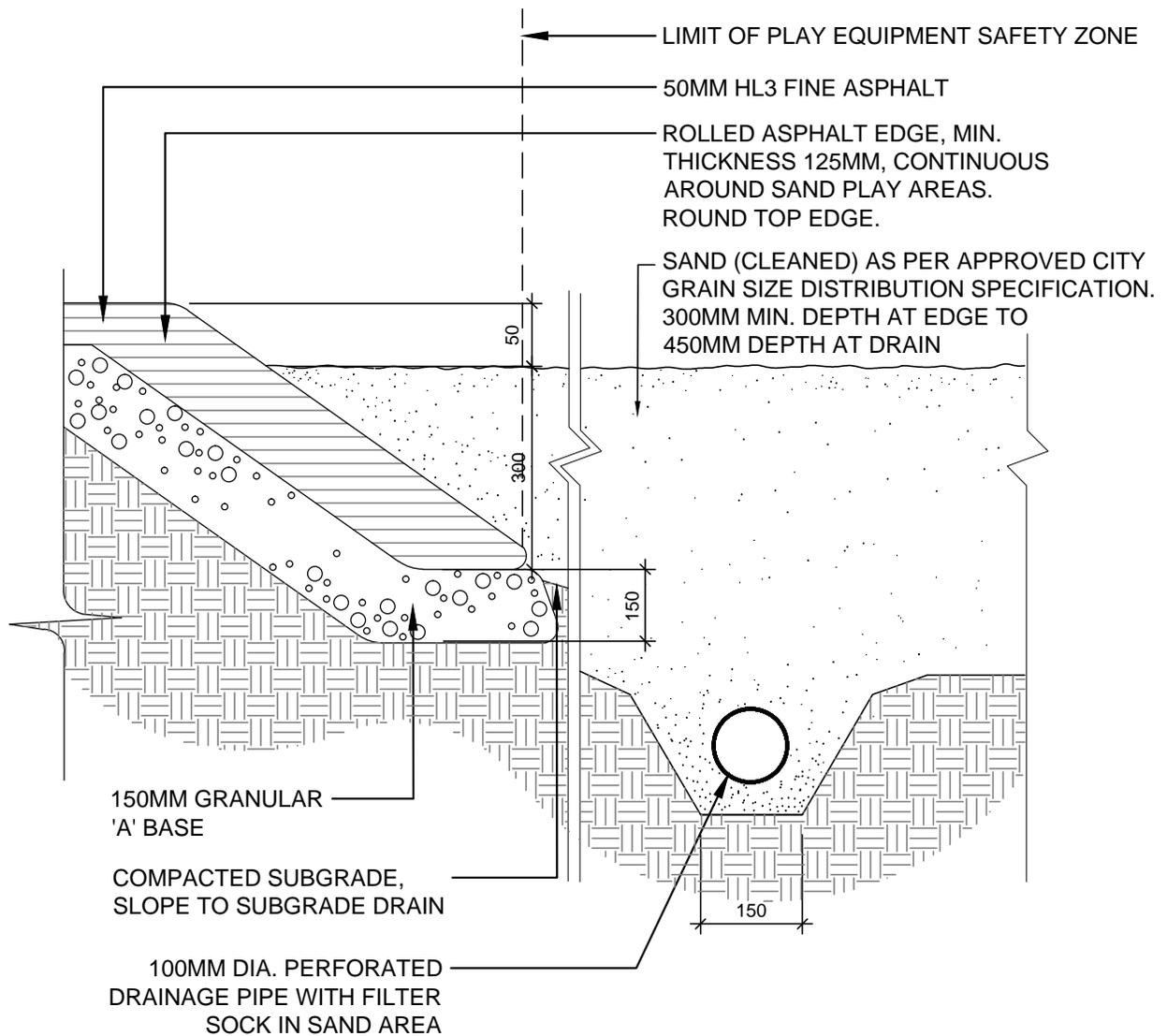
TITLE:

**SAND PLAY AREA/ SPADE EDGE  
(WITH DRAINAGE PIPE)**

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PL-02



**NOTE:**

ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.



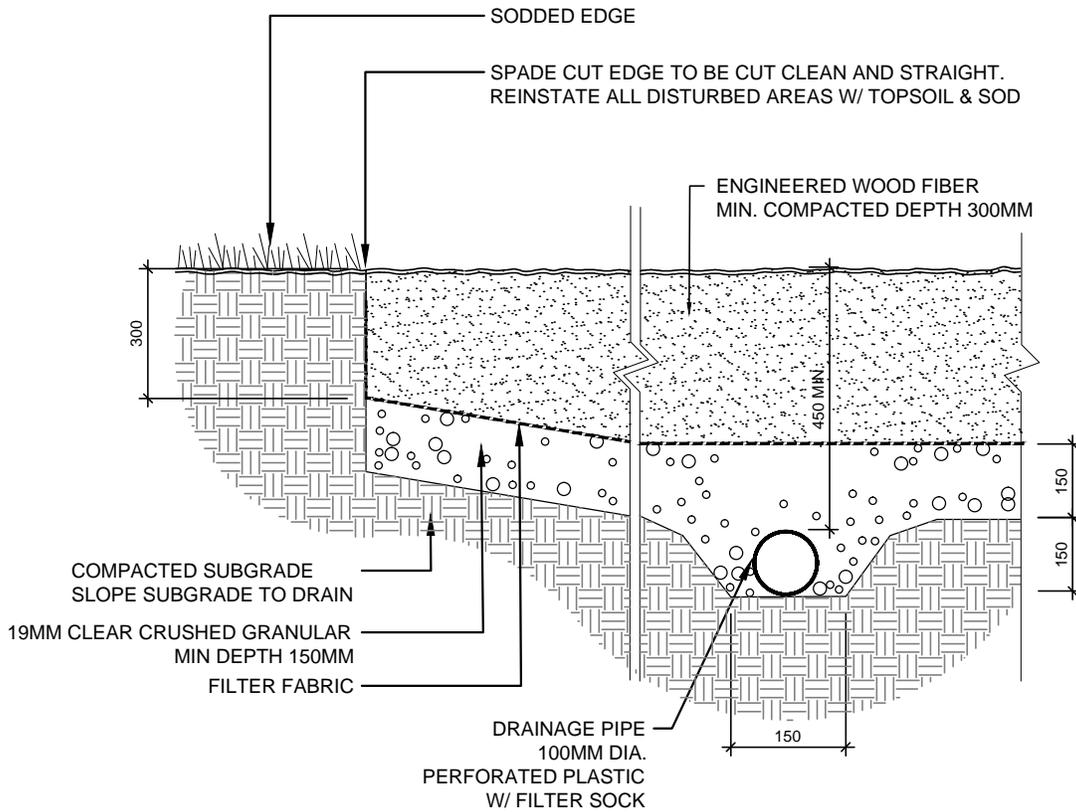
TITLE:

SAND PLAY AREA WITH  
 ASPHALT ROLLED EDGE  
 (WITH DRAINAGE PIPE)

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PL-03



**NOTE:**

ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.



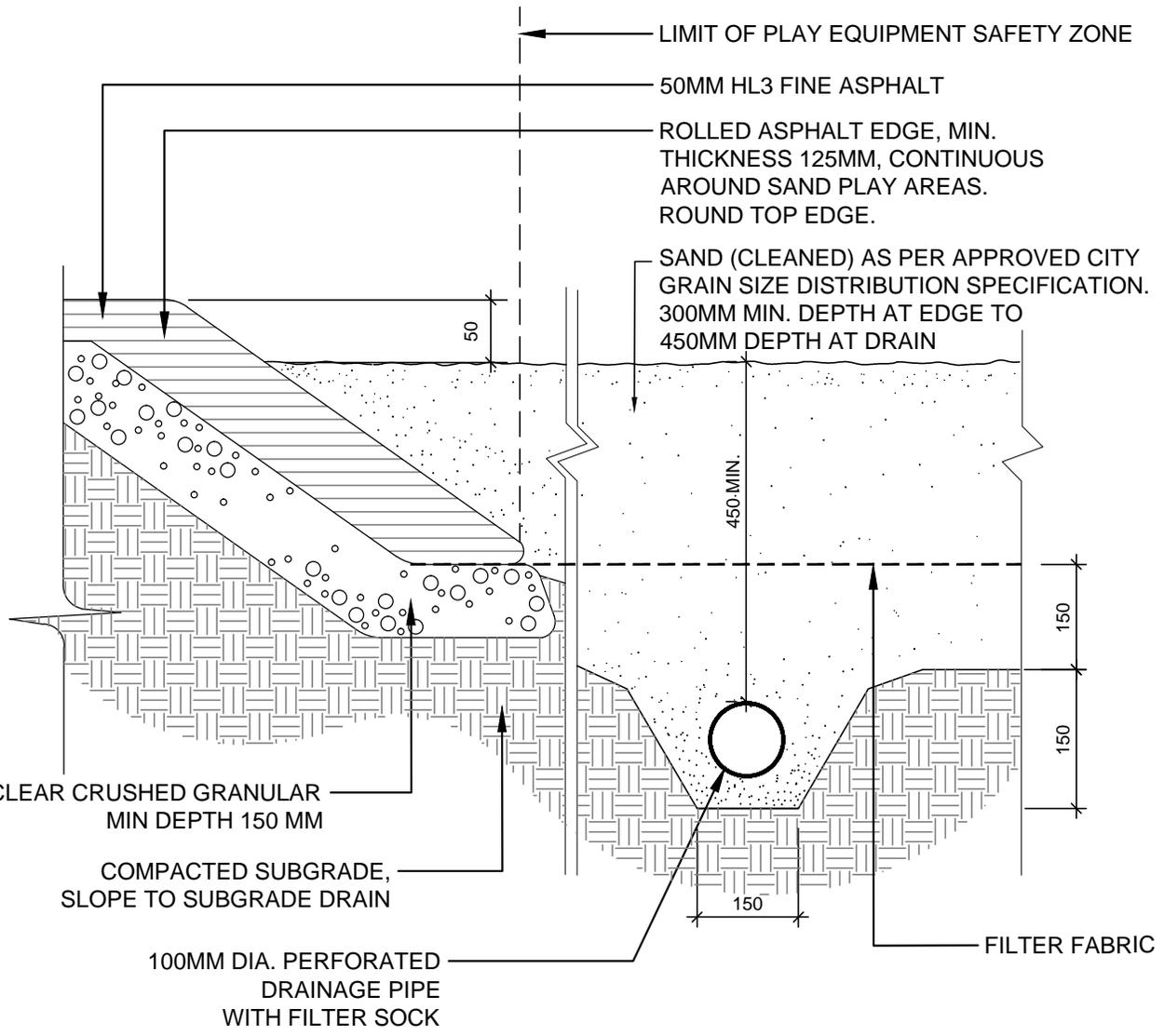
TITLE:

ENGINEERED WOOD FIBER  
PLAY AREA / SPADE EDGE  
(WITH DRAINAGE PIPE)

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PL-04



**NOTE:**

ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.



TITLE:

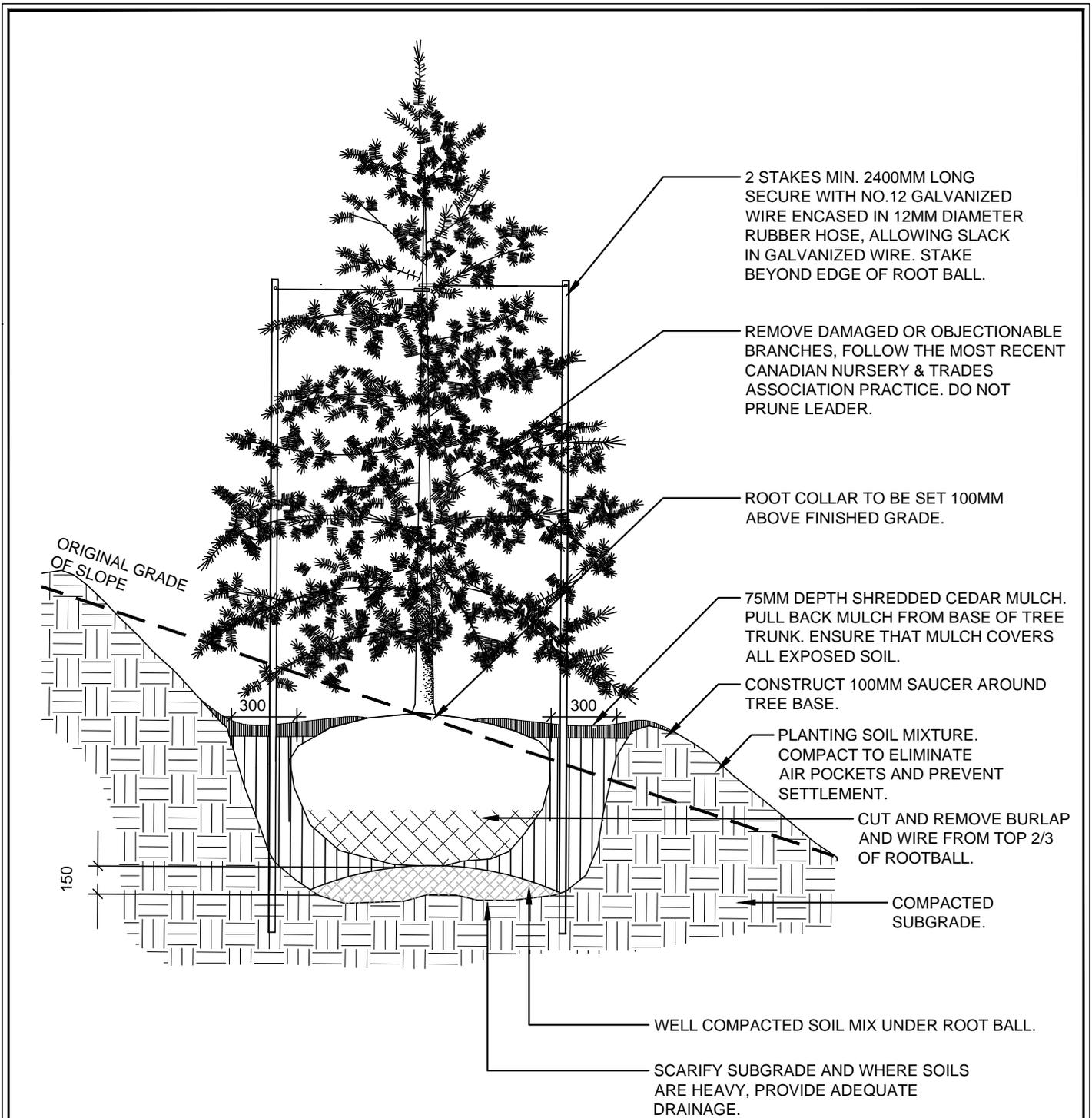
ENGINEERED WOOD FIBER PLAY AREA  
WITH ASPHALT ROLLED EDGE  
(WITH DRAINAGE PIPE)

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PL-05





**NOTES:**

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.
2. PLANTING SOIL MIXTURE AS PER SPECIFICATION.
3. STAKES TO BE REMOVED AT COMPLETION OF TWO YEAR WARRANTY PERIOD.



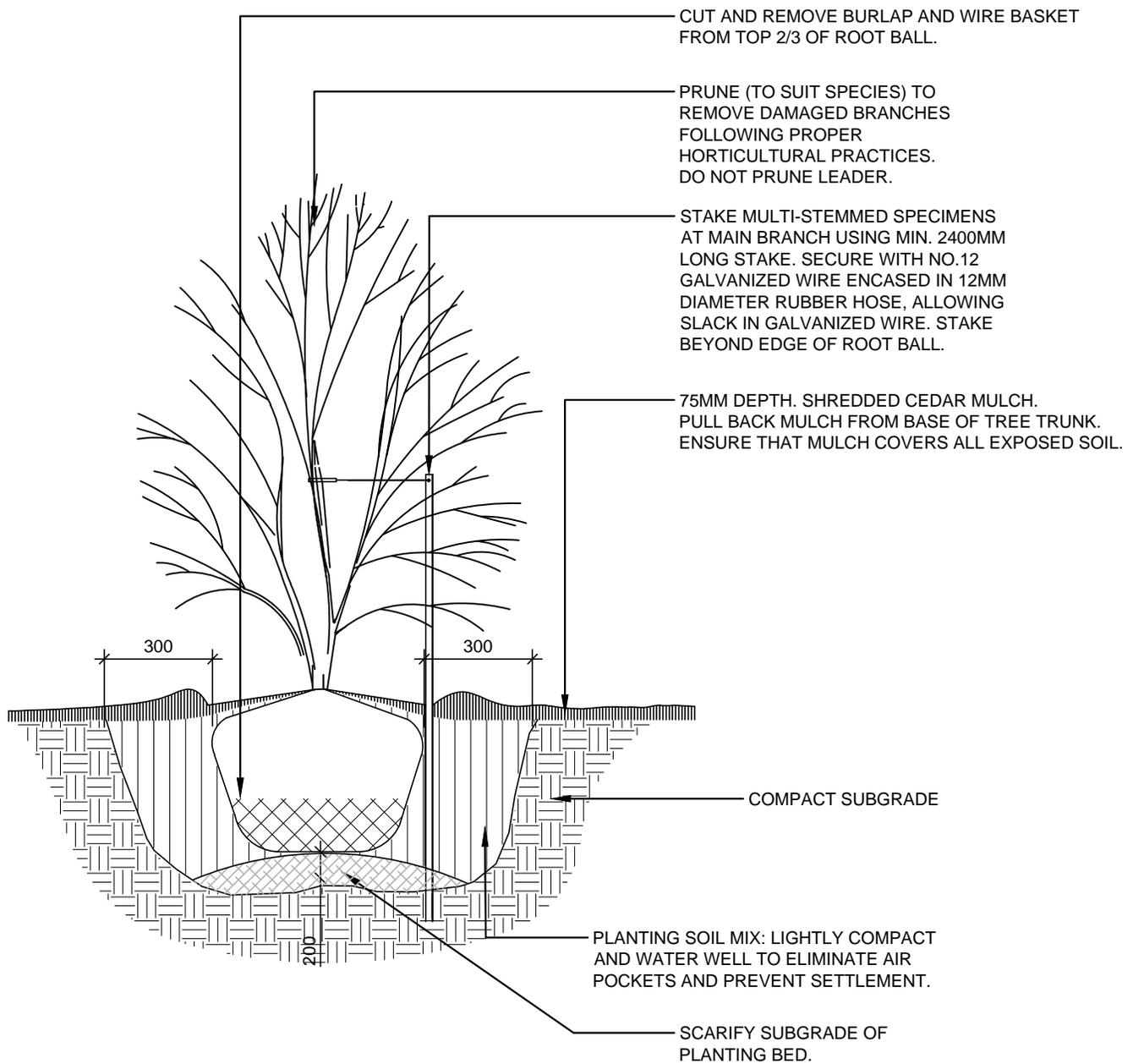
TITLE:

**CONIFEROUS TREE  
PLANTING ON SLOPE**

DATE: MAR 2012

SCALE N.T.S.

DWG No: PA-01



**NOTES:**

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.
2. PLANTING SOIL MIXTURE AS PER SPECIFICATION.
3. STAKES TO BE REMOVED AT COMPLETION OF TWO YEAR WARRANTY PERIOD.



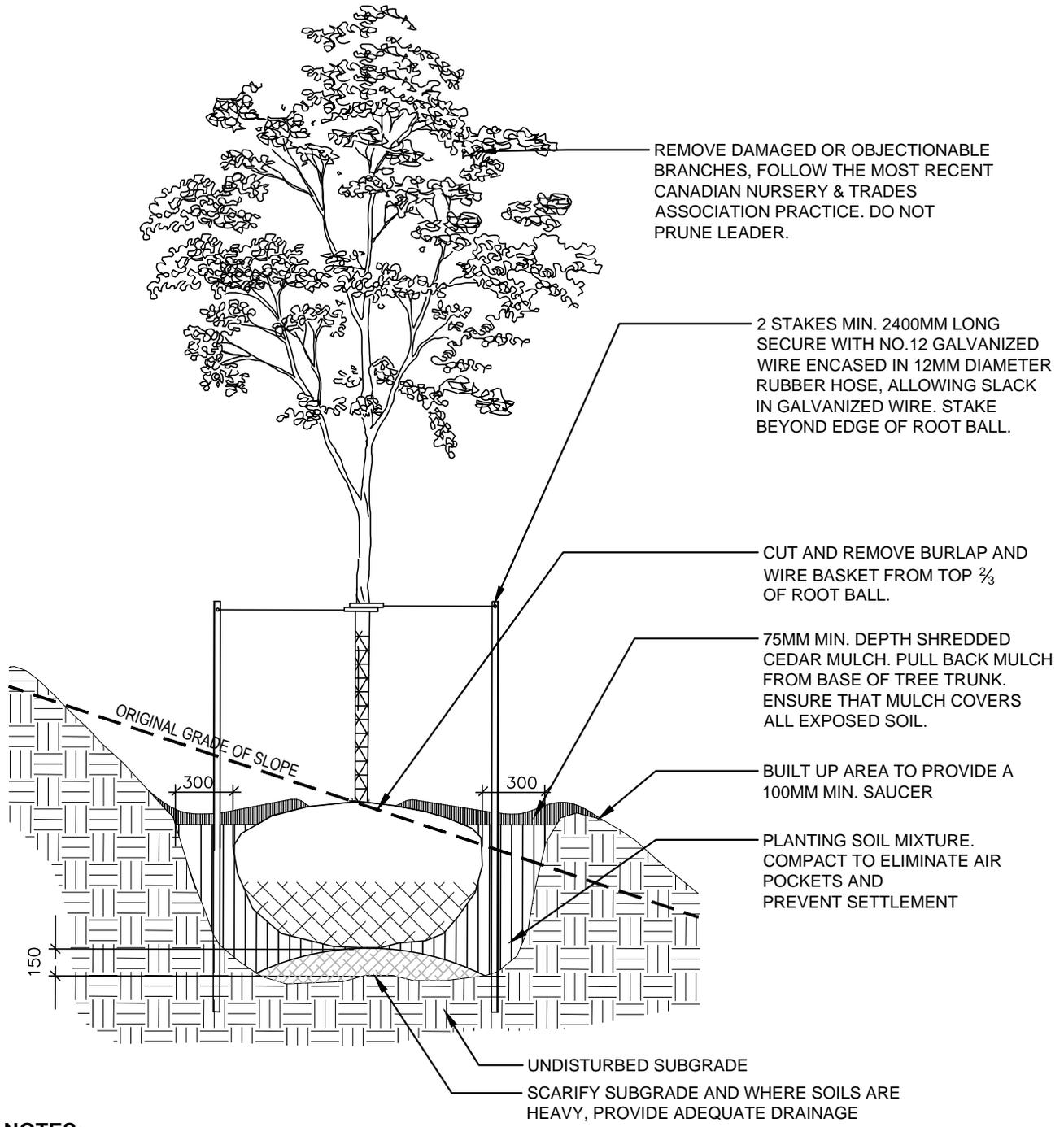
TITLE:

**MULTI-STEM TREE PLANTING**

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PA-02



**NOTES:**

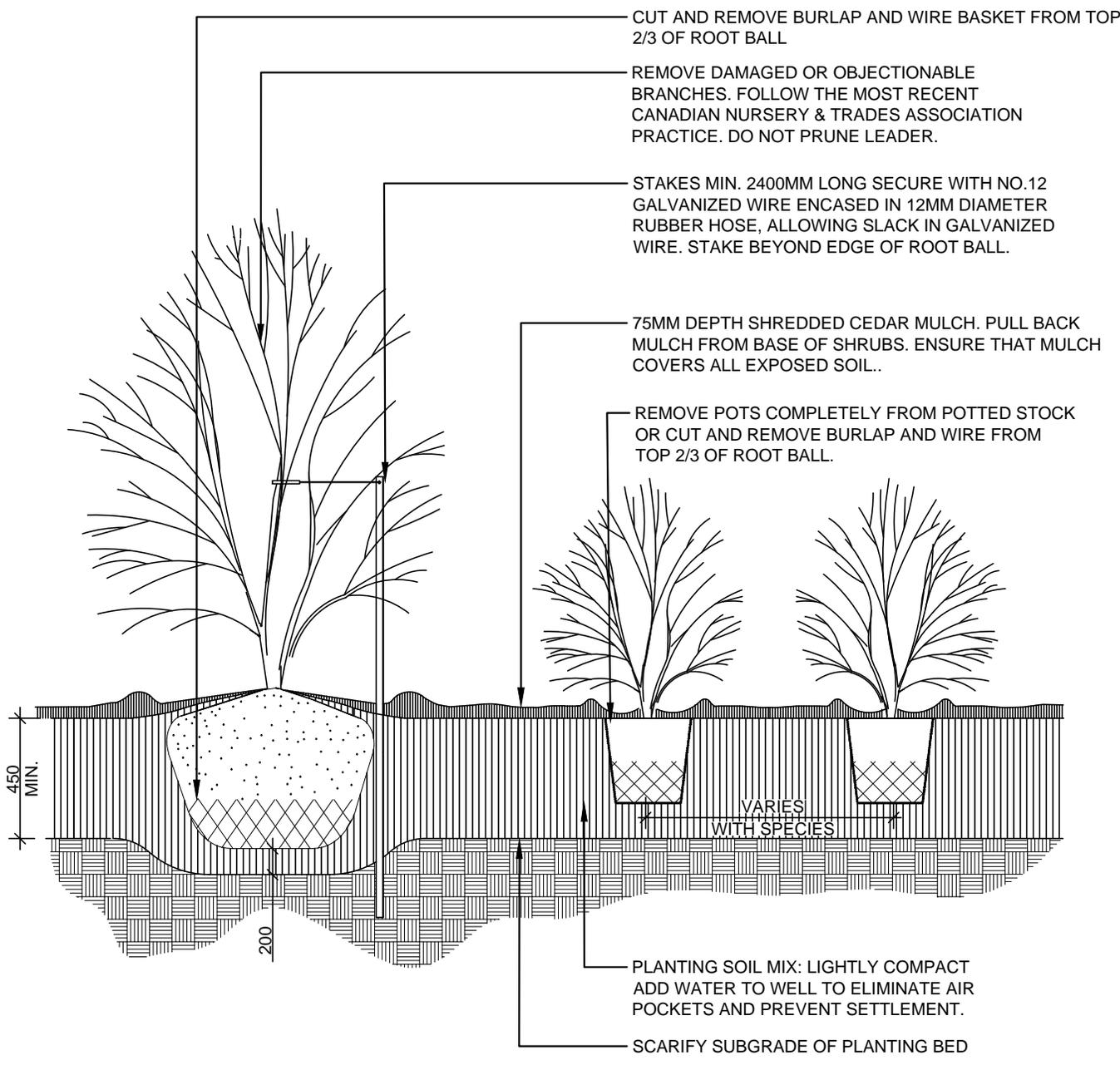
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.
2. PLANTING SOIL MIXTURE AS PER SPECIFICATION.
3. STAKES TO BE REMOVED AT COMPLETION OF TWO YEAR WARRANTY PERIOD.



TITLE:

**DECIDUOUS TREE PLANTING  
ON SLOPE**

DATE:	MAR 2012
SCALE:	N.T.S.
DWG No:	PA-03



**NOTES:**

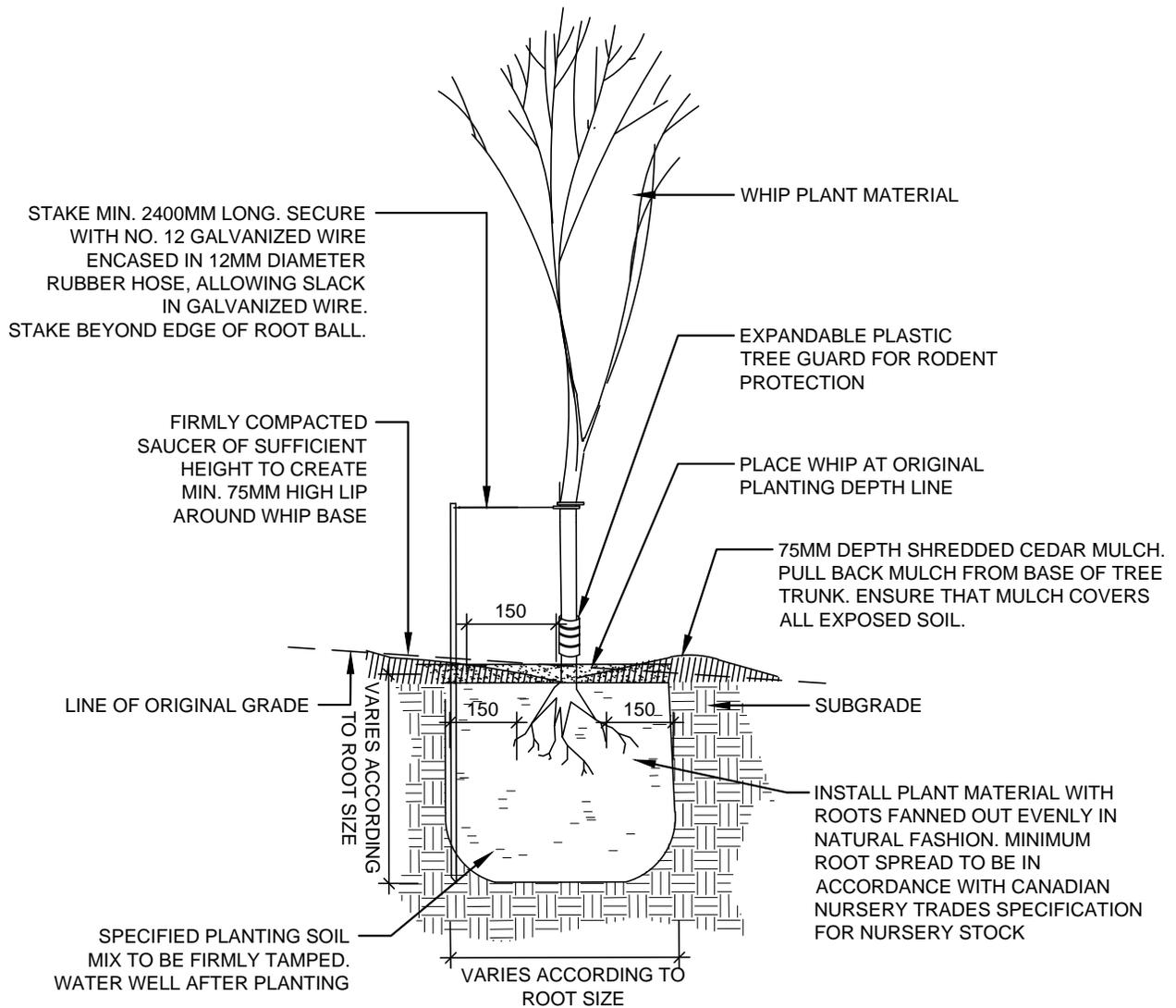
1. PLANTING SOIL MIXTURE AS PER SPECIFICATION.
2. SHRUBS SPECIFIED BARE ROOTS (B.R.) TO BE PLANTED SO THAT ROOTS ARE FULLY EXTENDED IN PLANTING HOLE WITH SOIL MIX BACKFILLED CAREFULLY TO PREVENT ROOT DAMAGE.
3. PROVIDE 100 HIGH EARTH SAUCER AROUND SHRUB BED.
4. STAKES TO BE REMOVED AT COMPLETION OF TWO YEAR WARRANTY PERIOD.



TITLE:

**CONTINUOUS SHRUB BED  
PLANTING**

DATE:	MAR 2012
SCALE:	N.T.S.
DWG No:	PA-04



**NOTES:**

1. ALL MEASUREMENTS AND DIMENSIONS ARE IN MILLIMETERS.
2. PLANTING SOIL MIXTURE AS PER SPECIFICATION.
3. STAKES TO BE REMOVED AT COMPLETION OF TWO YEAR WARRANTY PERIOD.



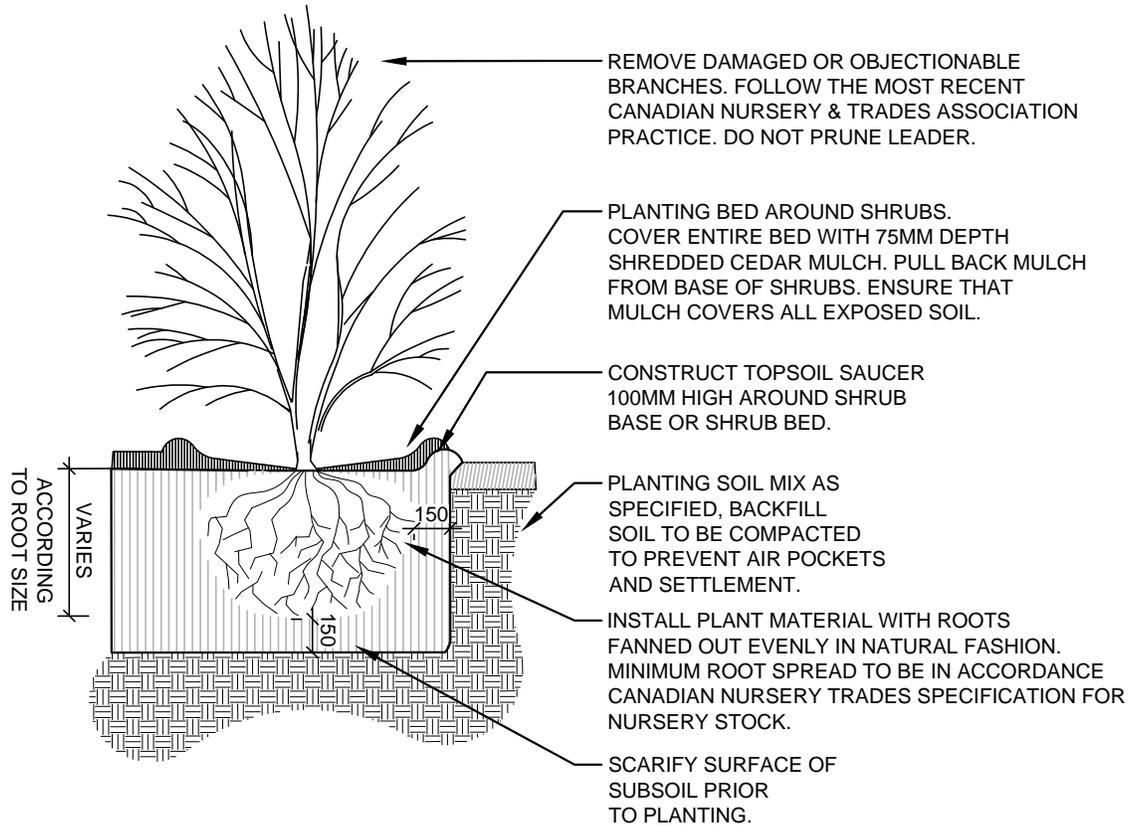
TITLE:

**DECIDUOUS BARE ROOT WHIP  
PLANTING FOR NATURALIZED AREA**

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PA-05



**NOTES:**

1. SET SHRUBS 50mm HIGHER THAN SURROUNDING GRADE TO ALLOW FOR SETTLEMENT.
2. SHRUBS PLANTED IN GROUPS SHALL BE SET IN CONTINUOUS BEDS.
3. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
4. PLANTING SOIL MIXTURE AS PER SPECIFICATION.



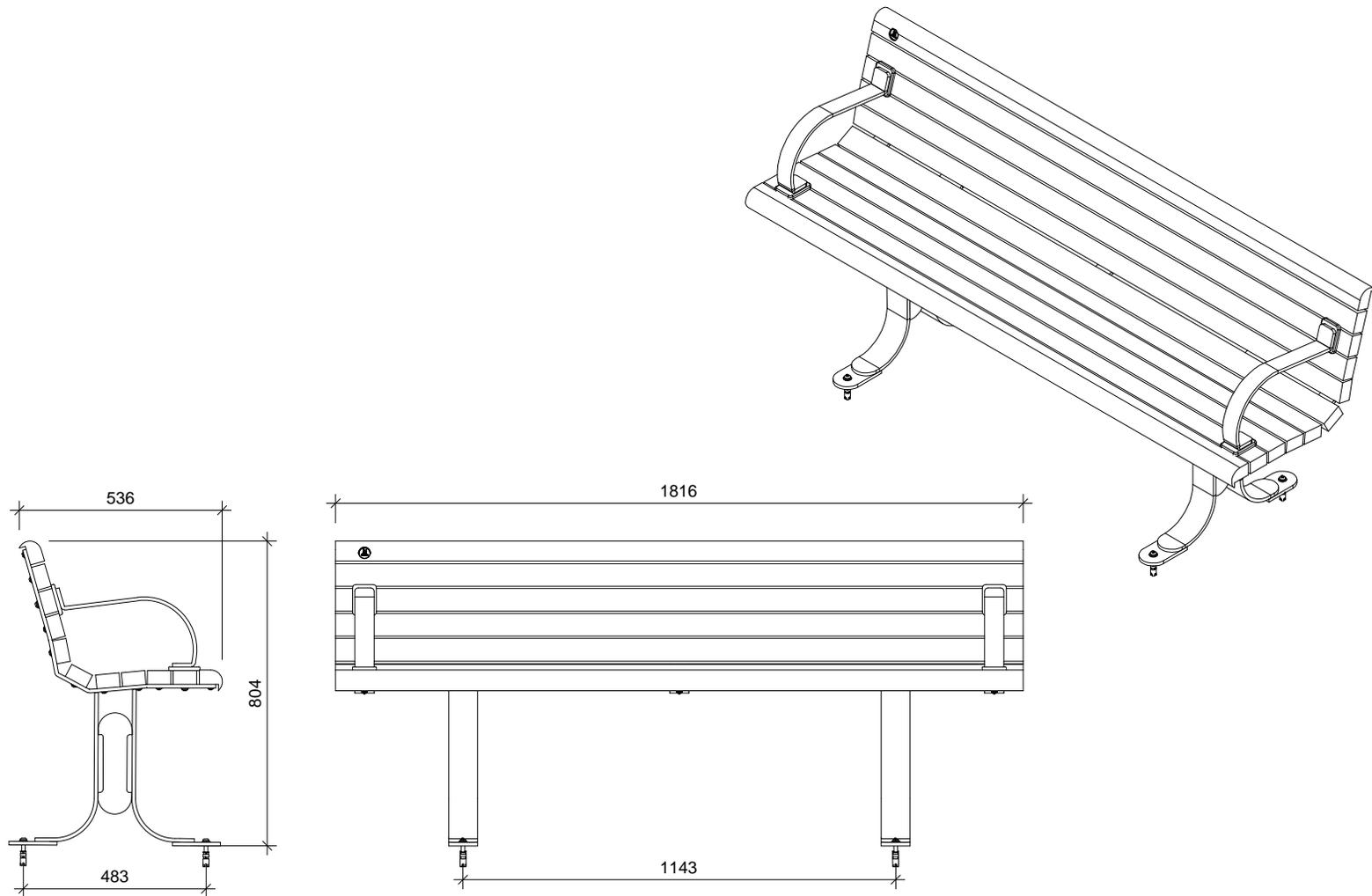
TITLE:

**DECIDUOUS BARE ROOT SHRUB  
PLANTING FOR NATURALIZED AREA**

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PA-06



**NOTE:** AS PER CITY OF OTTAWA STANDING OFFER



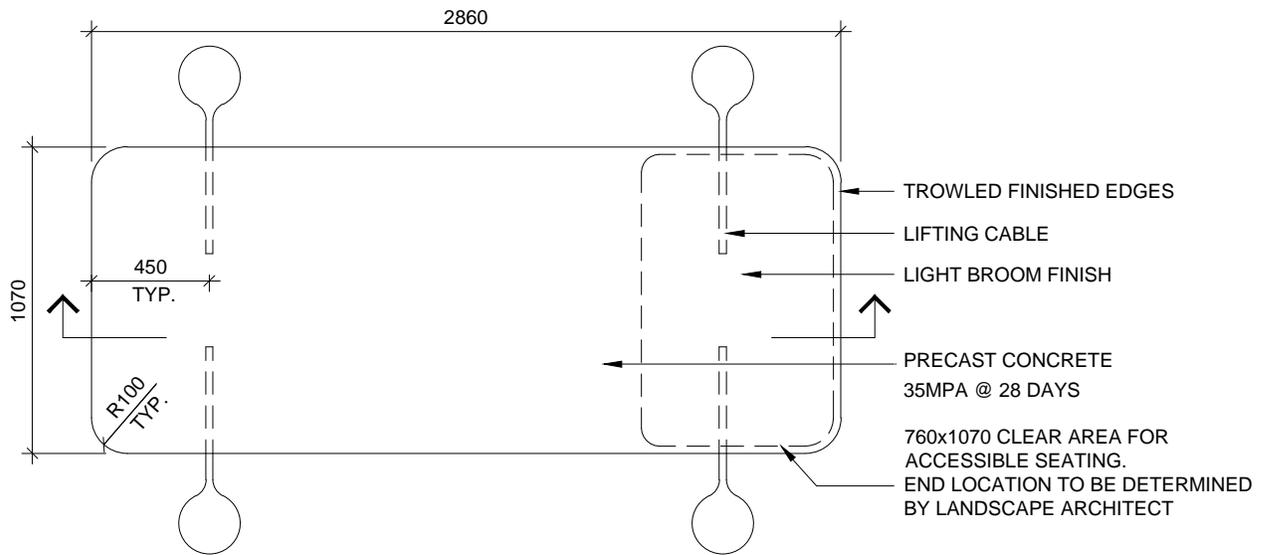
TITLE:

**CITY OF OTTAWA STANDARD  
BENCH DETAIL**

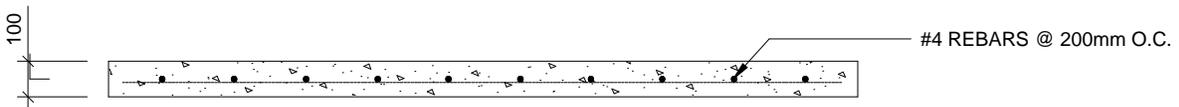
DATE: MAR 2012

SCALE: N.T.S.

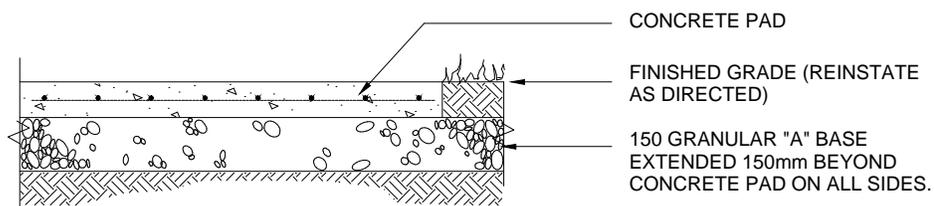
DWG No: **PF-01**



PLAN VIEW



SECTION



INSTALLATION



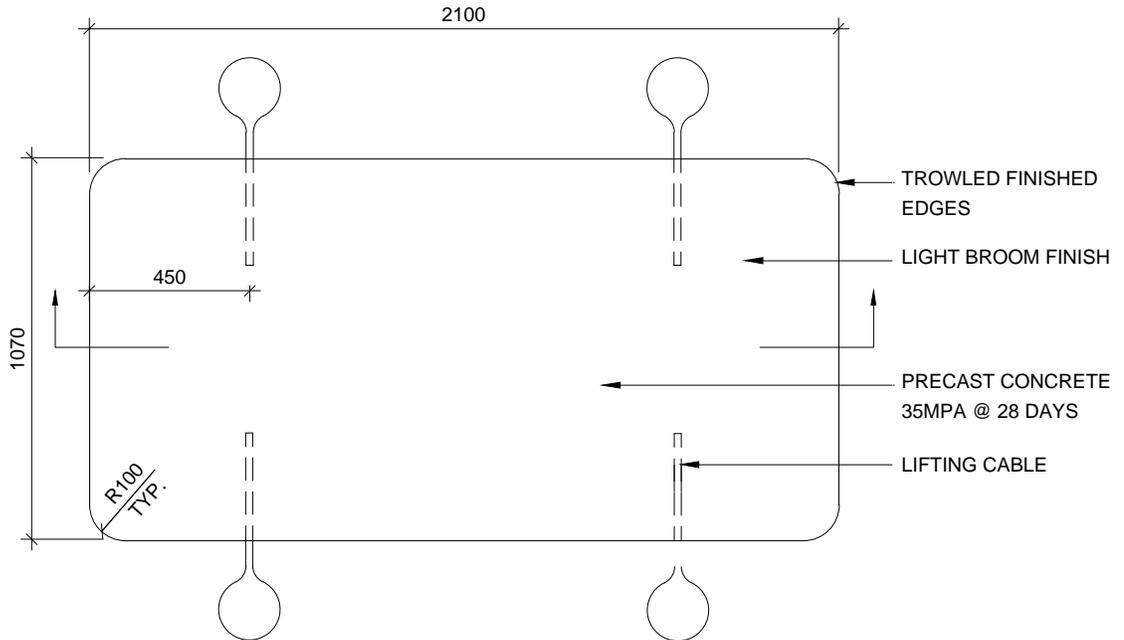
TITLE:

ACCESSIBLE CONCRETE PAD  
FOR BENCHES

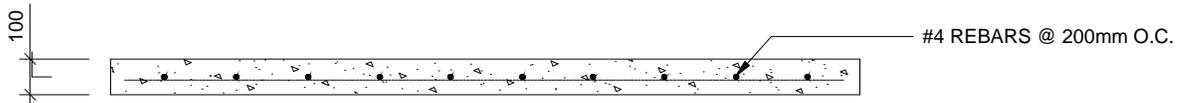
DATE: MAR 2012

SCALE: N.T.S.

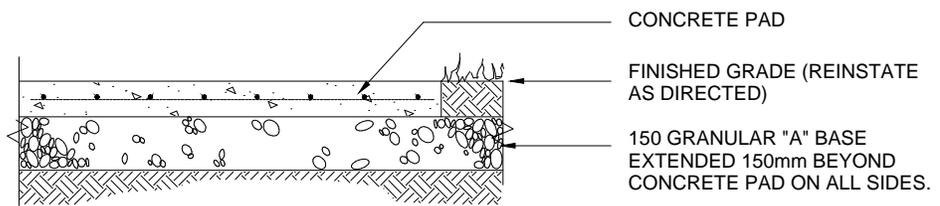
DWG No: PF-02



PLAN VIEW



SECTION



INSTALLATION



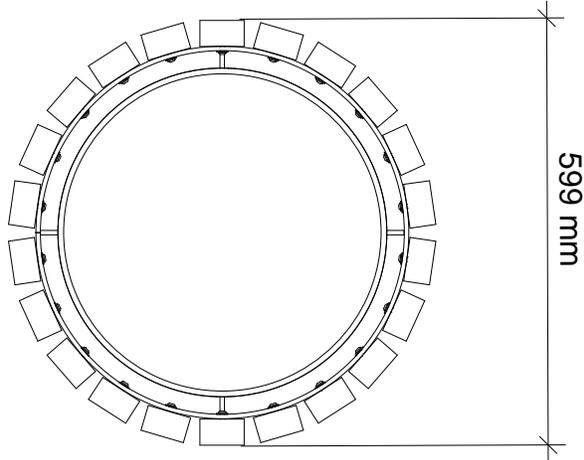
TITLE:

CONCRETE PAD FOR BENCHES

DATE: MAR 2012

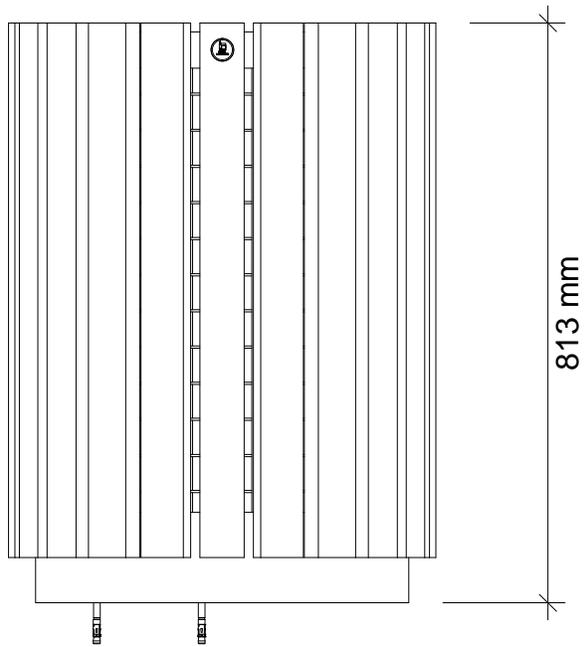
SCALE: N.T.S.

DWG No: PF-03

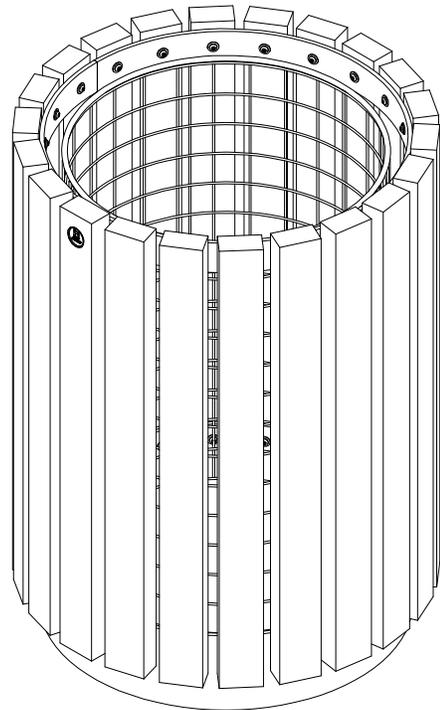


599 mm

SURFACE MOUNTED



813 mm



**NOTE:** AS PER CITY OF OTTAWA STANDING OFFER



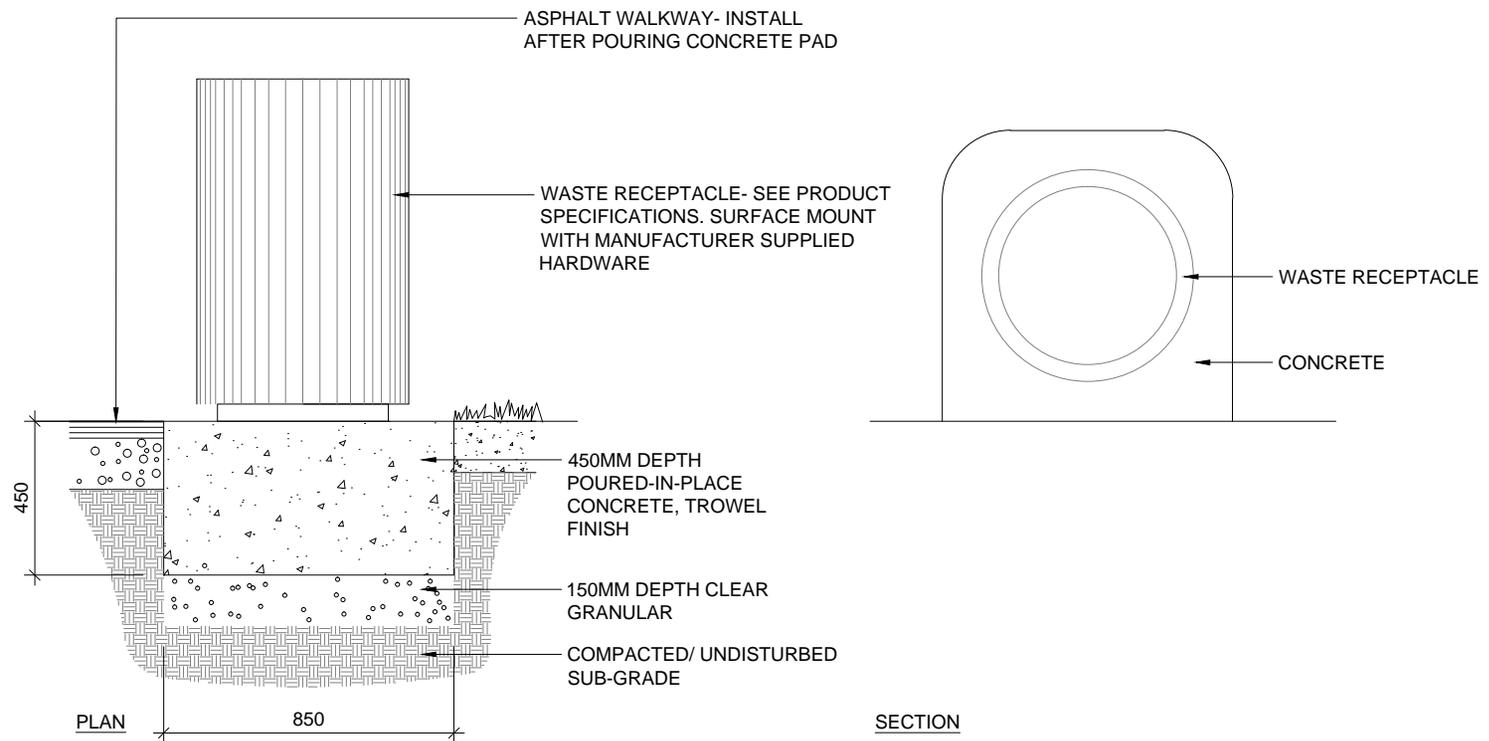
TITLE:

CITY OF OTTAWA  
STANDARD WASTE RECEPTACLE

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PF-04



TITLE:

WASTE RECEPTACLE CONCRETE BASE

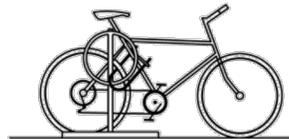
DATE: MAR 2012

SCALE N.T.S.

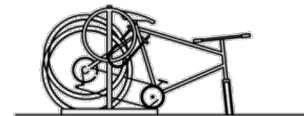
DWG No: PF-05

(PATENT PROTECTED)

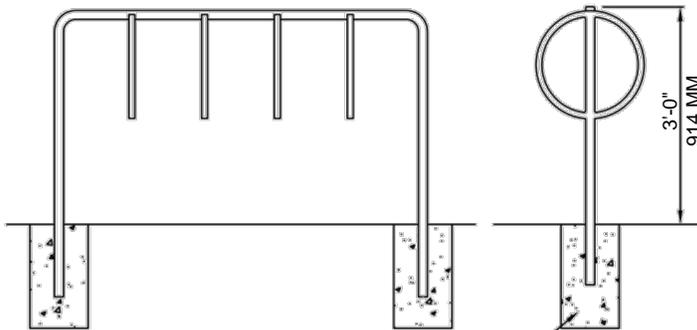
CYCLISTS' FIRST CHOICE IN SURVEYS,  
SINGLE-RING, WALL-MOUNT AND OTHER  
MODELS ARE AVAILABLE



U-LOCK OPTION #1

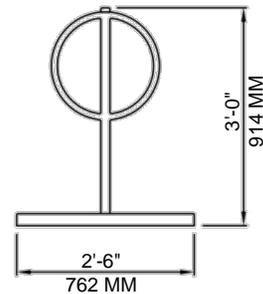
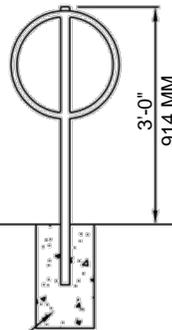


U-LOCK OPTION #2



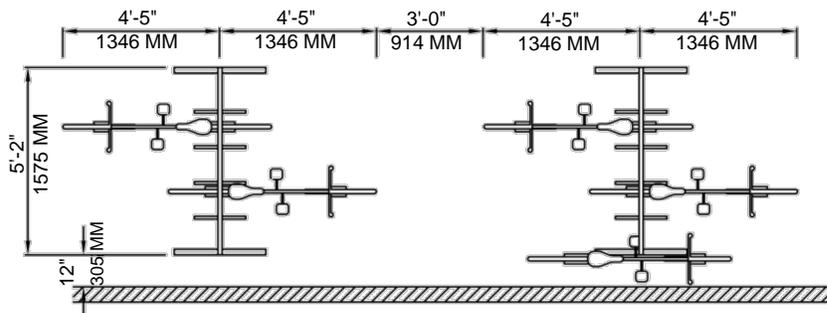
IN-GROUND MODEL

CONCRETE FOOTINGS  
24" (610 MM) X 16" (406 MM) MIN  
36" (914 MM) DEPTH



FREESTANDING MODEL

$\frac{1}{2}$ " (12.7 MM) HOLES (FOUR PLACES)  
BOLT SIZE: 0.43" (11 MM) X 6" (150 MM) MIN.



EIGHT-STATION (NINE CAPACITY) MODEL

PLAN VIEW

NOTES:

1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWINGS.



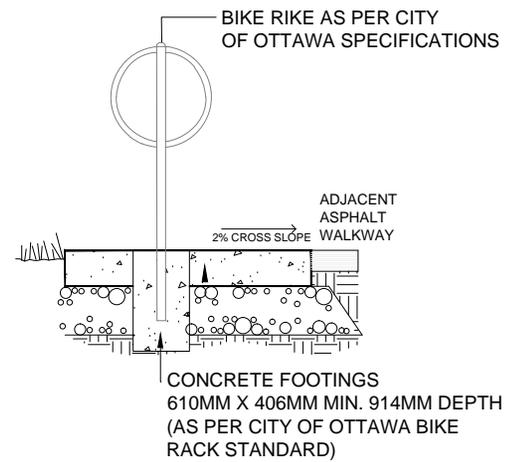
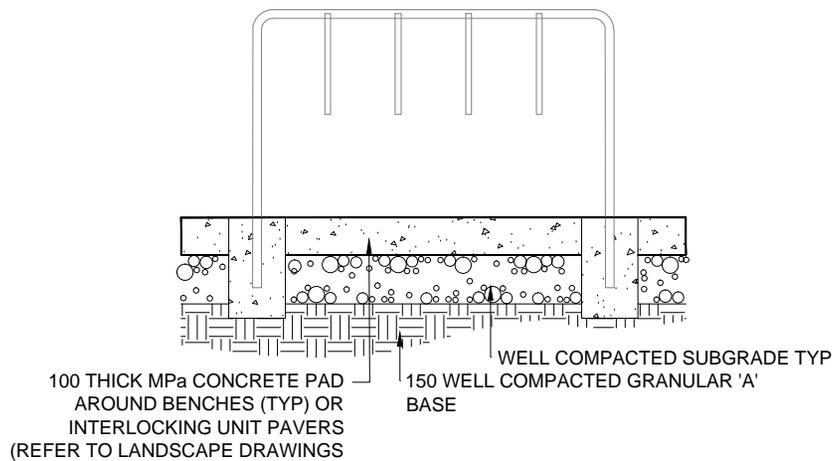
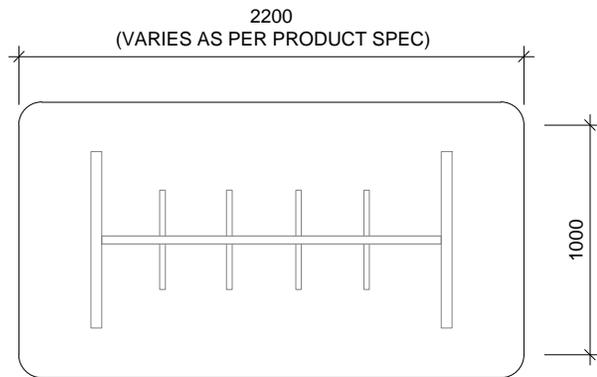
TITLE:

CITY OF OTTAWA  
STANDARD BIKE RACK

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PF-06



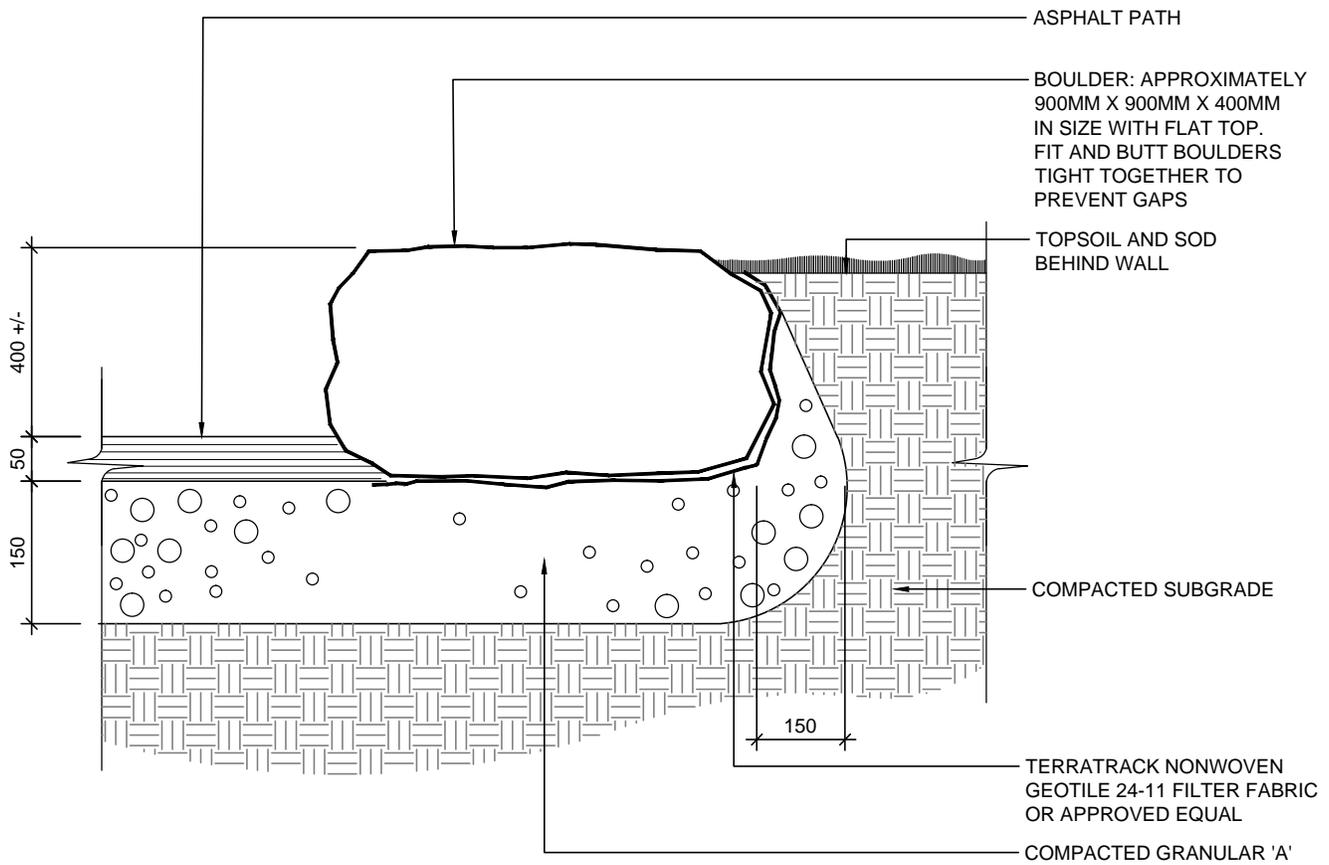
TITLE:

CONCRETE PAD FOR CITY OF OTTAWA  
STANDARD BIKE RACK

DATE: MAR 2012

SCALE N.T.S.

DWG No: PF-07



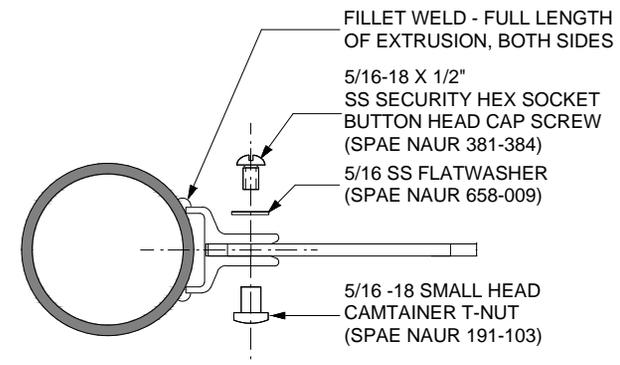
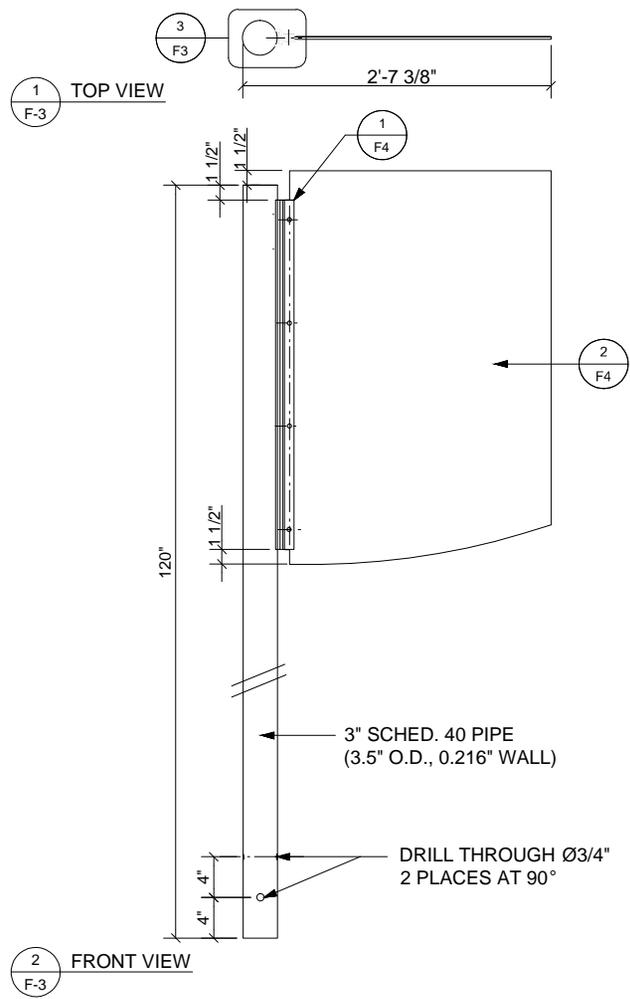
TITLE:

BOULDER WALL ON ASPHALT

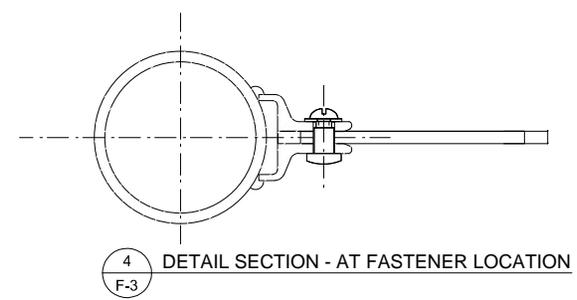
DATE: MAR 2012

SCALE: N.T.S.

DWG No: PW-01



3 F-3  
DETAIL - TOP OF POST

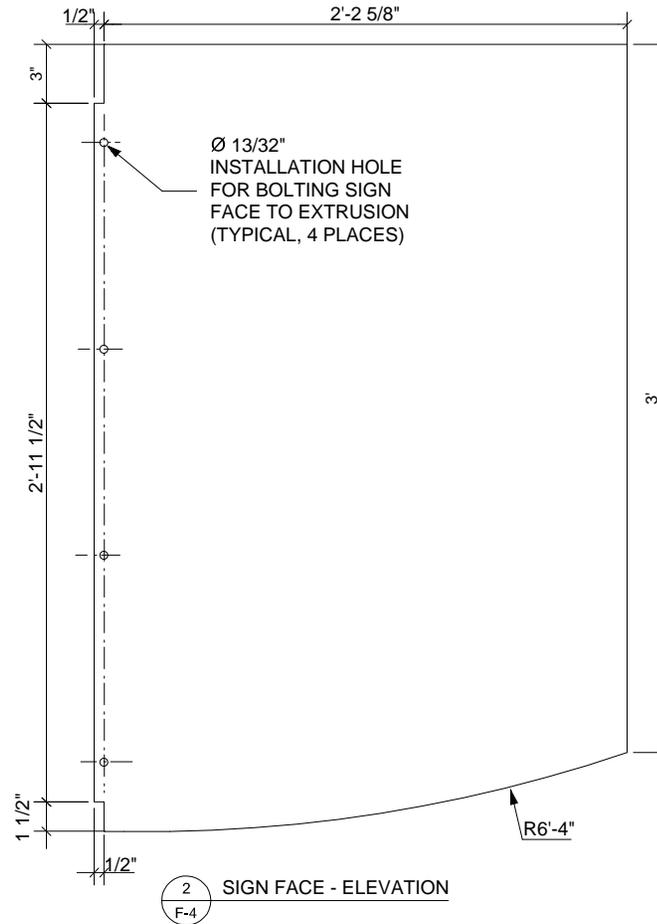
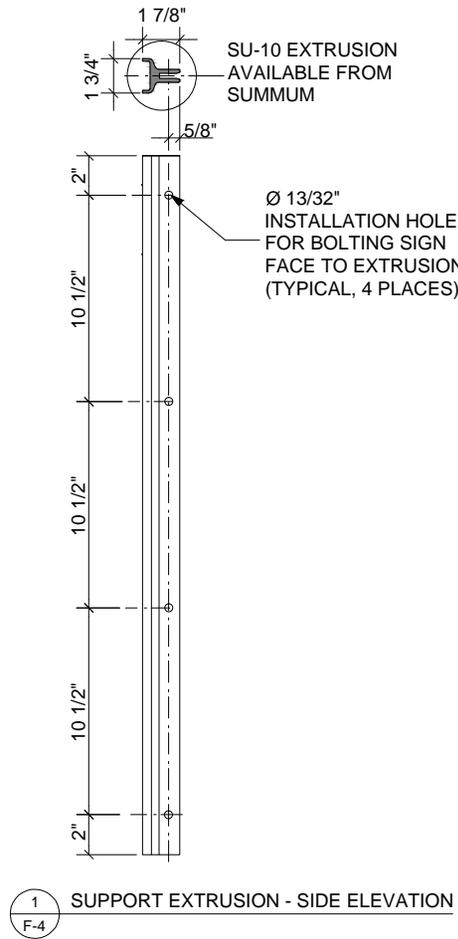


TITLE:

CITY OF OTTAWA PARK SIGNAGE  
F3 - LOCAL PARKS - SINGLE POST SIGN - ASSEMBLY

ORIGINAL  
DESIGN BY  
STEWART  
BAILEY, INTU  
DESIGN

DATE:	MAR 2012
SCALE	N.T.S.
DWG No:	PI-01



NOTES

- 1) SIGN PANEL TO BE FABRICATED OF 1/4" ALUMINUM SHEET.
- 2) ALL EDGES TO BE EASED.
- 3) ALL PARTS TO BE PRIMED AND PAINTED AS INDICATED ON DRAWING G-2.



TITLE:

CITY OF OTTAWA PARK SIGNAGE  
F4 - LOCAL PARK - SINGLE POST SIGN - PARTS DETAIL

ORIGINAL  
DESIGN BY  
STEWART  
BAILEY, INTU  
DESIGN

DATE: MAR 2012

SCALE N.T.S.

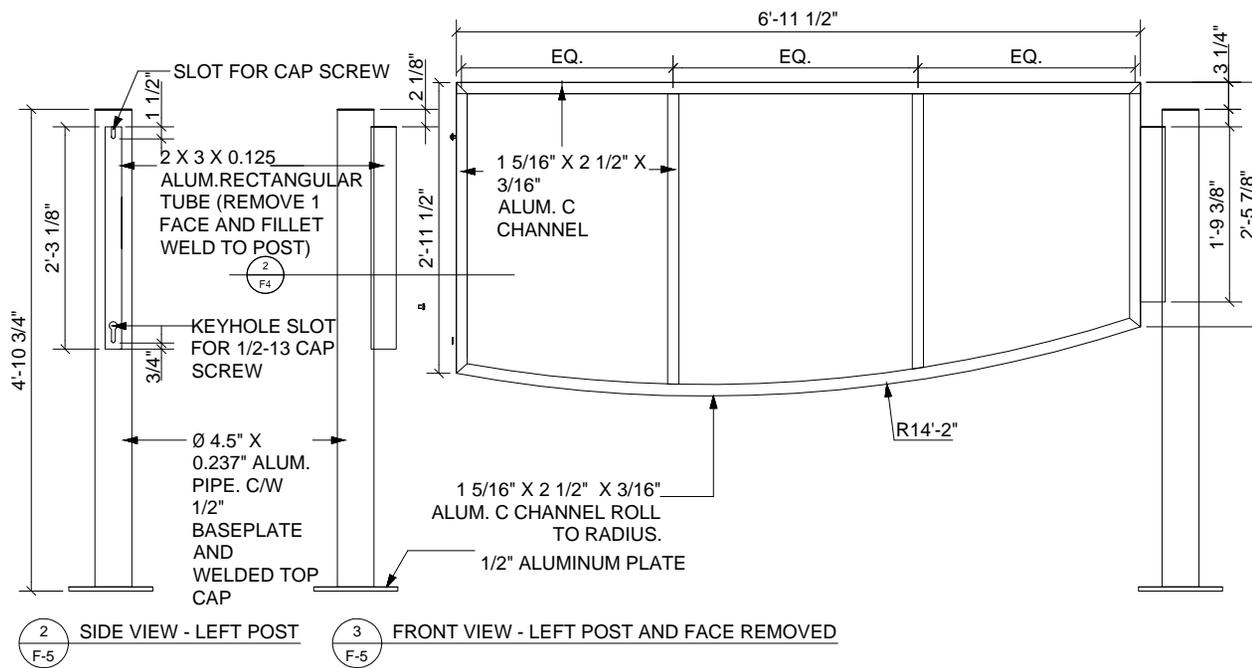
DWG No: PI-02



1 HORIZONTAL SECTION  
F-5

NOTES

1.) CONTRACTOR RESPONSIBLE FOR ALL PERMITS, LOCATES AND CERTIFICATIONS.

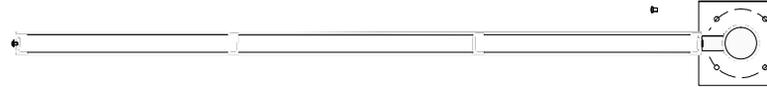


TITLE:

CITY OF OTTAWA PARK SIGNAGE  
F5 - LOCAL PARK - 2 POST SMALL GENERAL ASSEMBLY

ORIGINAL DESIGN BY STEWART BAILEY, INTU DESIGN

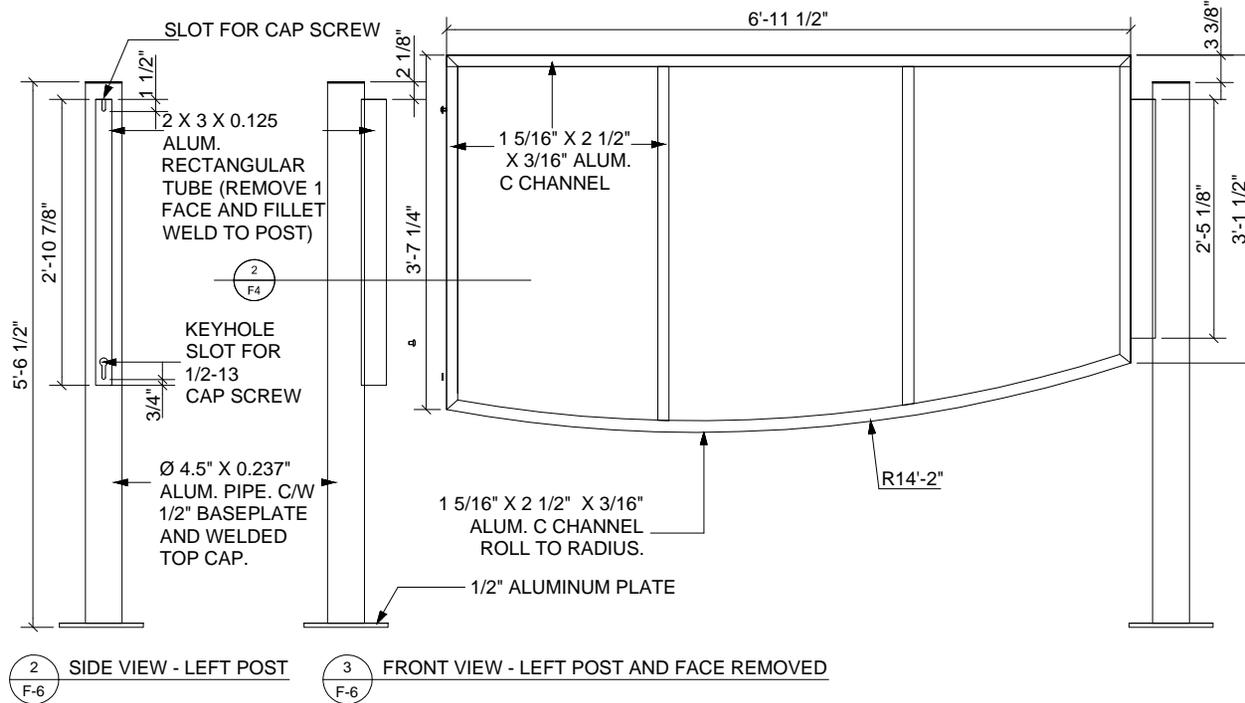
DATE:	MAR 2012
SCALE:	N.T.S.
DWG No:	PI-03



1 HORIZONTAL SECTION  
F-6

NOTES

1.) CONTRACTOR RESPONSIBLE FOR ALL PERMITS, LOCATES AND CERTIFICATIONS.

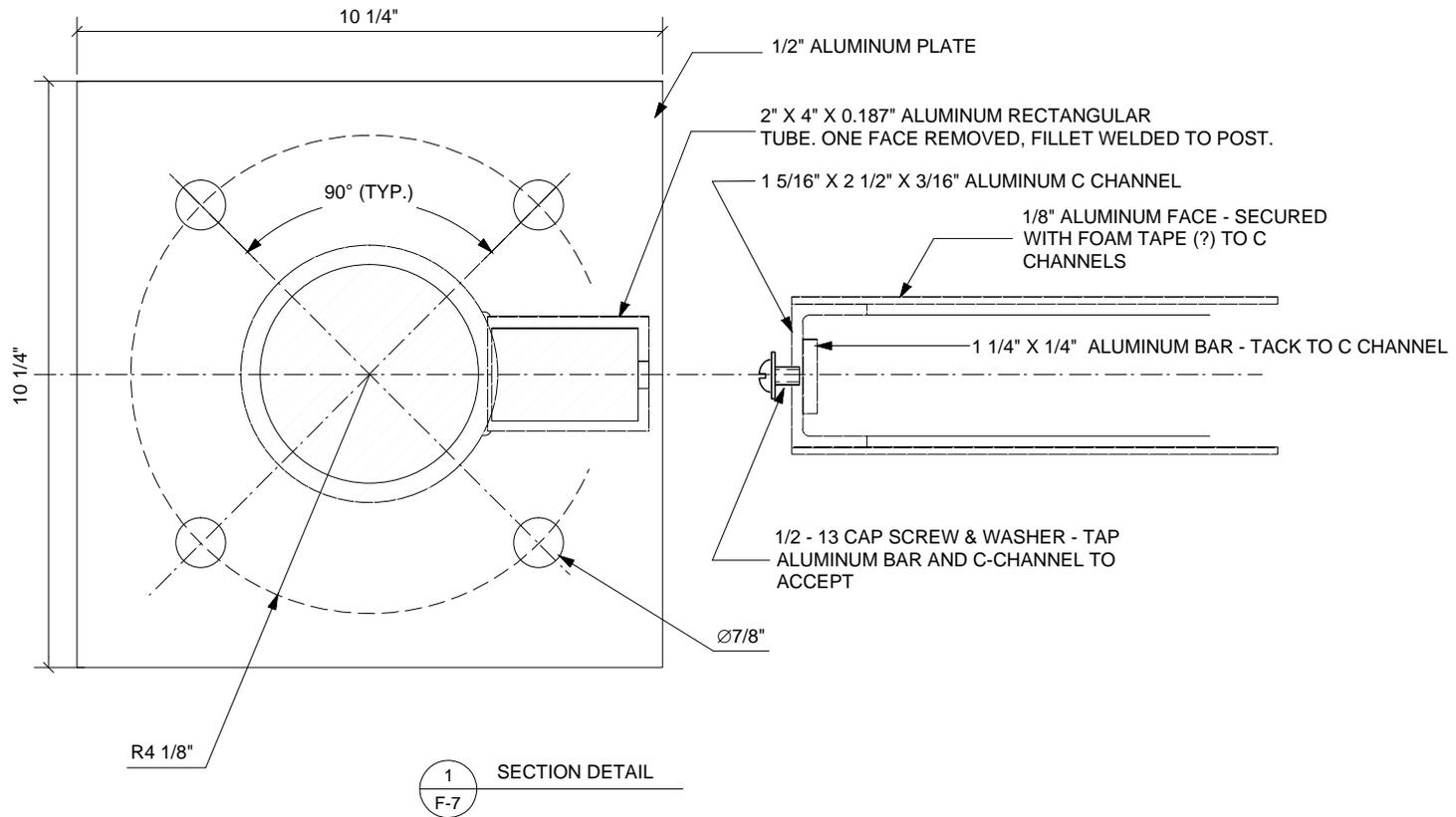


TITLE:

CITY OF OTTAWA PARK SIGNAGE  
F6 - LOCAL PARK - 2 POST LARGE GENERAL ASSEMBLY

ORIGINAL DESIGN BY STEWART BAILEY, INTU DESIGN

DATE:	MAR 2012
SCALE:	N.T.S.
DWG No:	PI-04



TITLE:

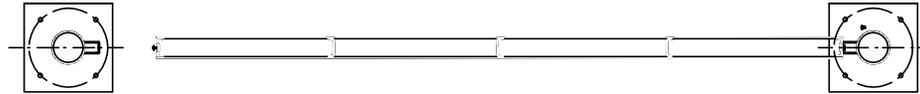
CITY OF OTTAWA PARK SIGNAGE  
F7 - LOCAL PARK - 2 POST SECTION DETAIL

ORIGINAL  
DESIGN BY  
STEWART  
BAILEY, INTU  
DESIGN

DATE: MAR 2012

SCALE N.T.S.

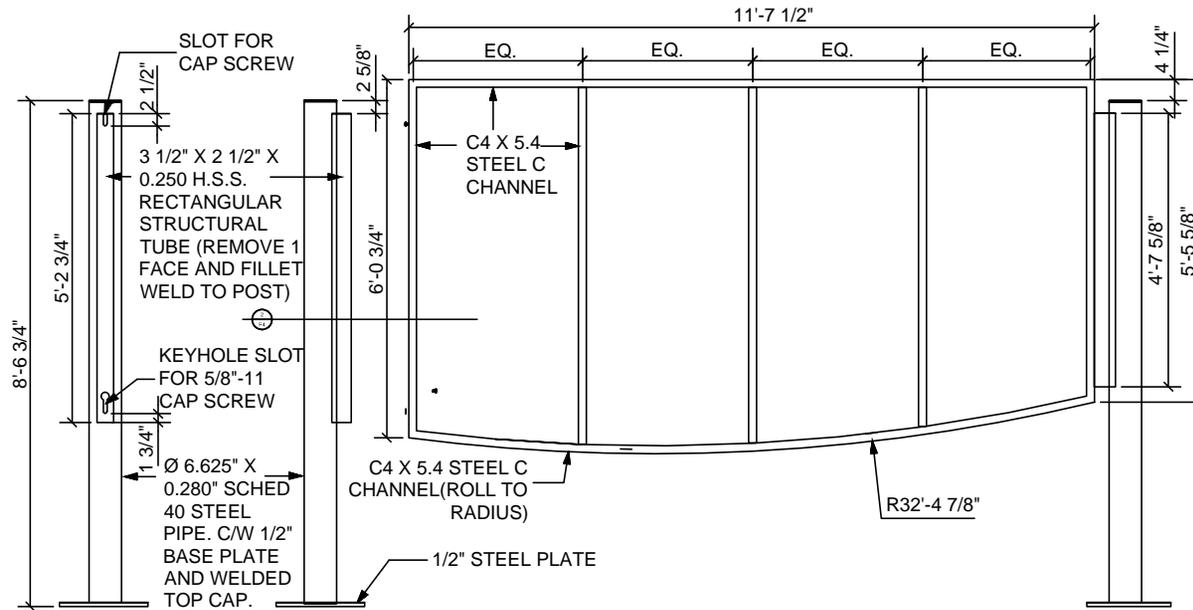
DWG No: PI-05



1 HORIZONTAL SECTION  
F-8

NOTES

1.) CONTRACTOR RESPONSIBLE FOR ALL PERMITS, LOCATES AND CERTIFICATIONS.



2 SIDE VIEW - LEFT POST  
F-8

3 FRONT VIEW - LEFT POST AND FACE REMOVED  
F-8

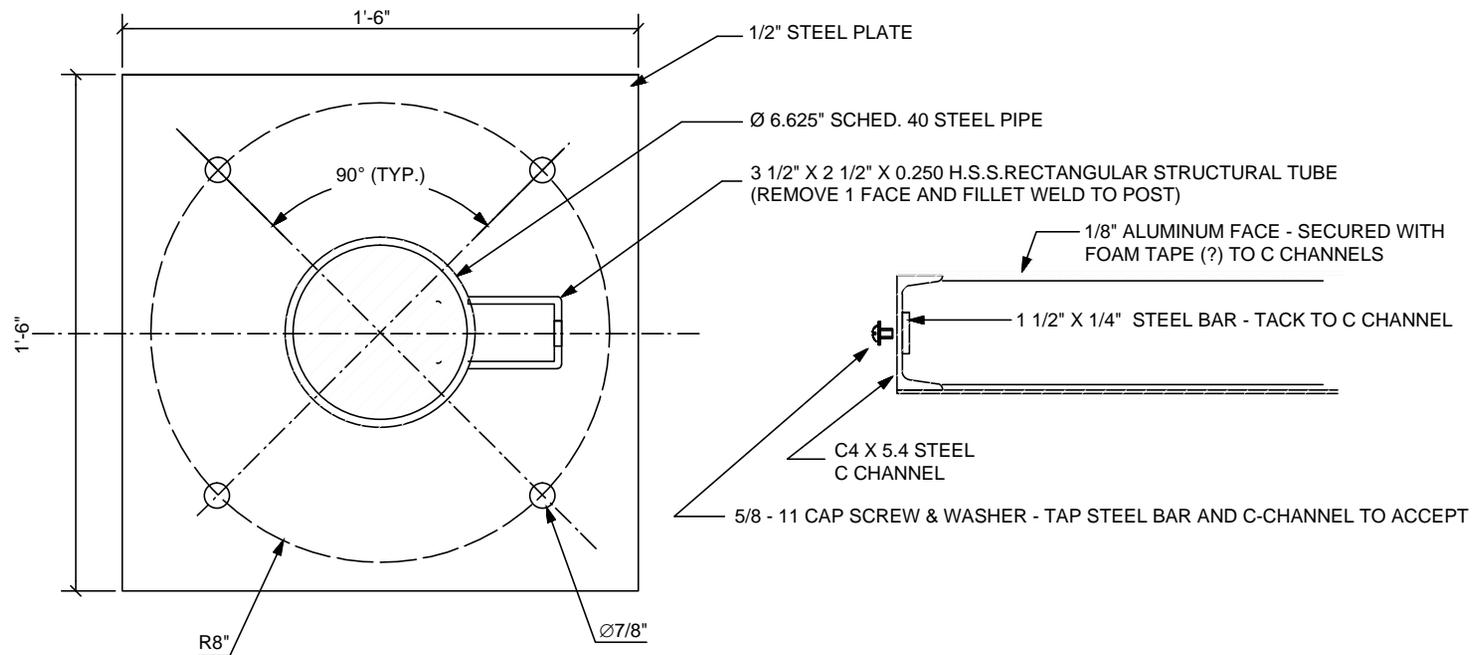


TITLE:

CITY OF OTTAWA PARK SIGNAGE  
F8 - REGIONAL POST & PANEL SIGN GENERAL ASSEMBLY

ORIGINAL DESIGN BY STEWART BAILEY, INTU DESIGN

DATE:	MAR 2012
SCALE:	N.T.S.
DWG No:	PI-06



1  
F-9

DETAIL SECTION



TITLE:

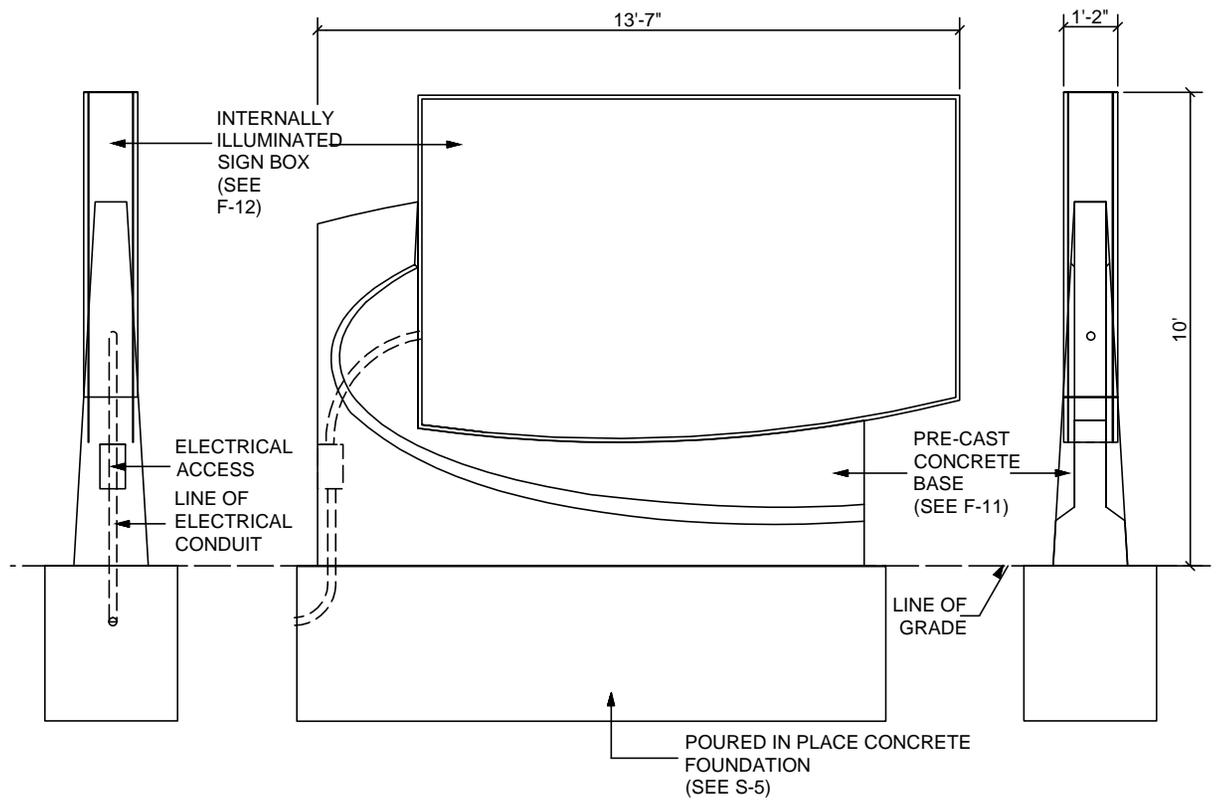
CITY OF OTTAWA PARK SIGNAGE  
F9 - REGIONAL POST AND PANEL SIGN SECTION

ORIGINAL  
DESIGN BY  
STEWART  
BAILEY, INTU  
DESIGN

DATE: MAR 2012

SCALE N.T.S.

DWG No: PI-07



- NOTES
- 1.) ELECTRICAL FEED BY OTHERS.
  - 2.) CONTRACTOR TO SPECIFY ELECTRICAL REQUIREMENTS TO CLIENT.
  - 3.) CONTRACTOR RESPONSIBLE FOR ALL PERMITS, LOCATES AND CERTIFICATIONS.

1 LEFT SIDE ELEVATION  
2 FRONT ELEVATION  
3 RIGHT SIDE ELEVATION

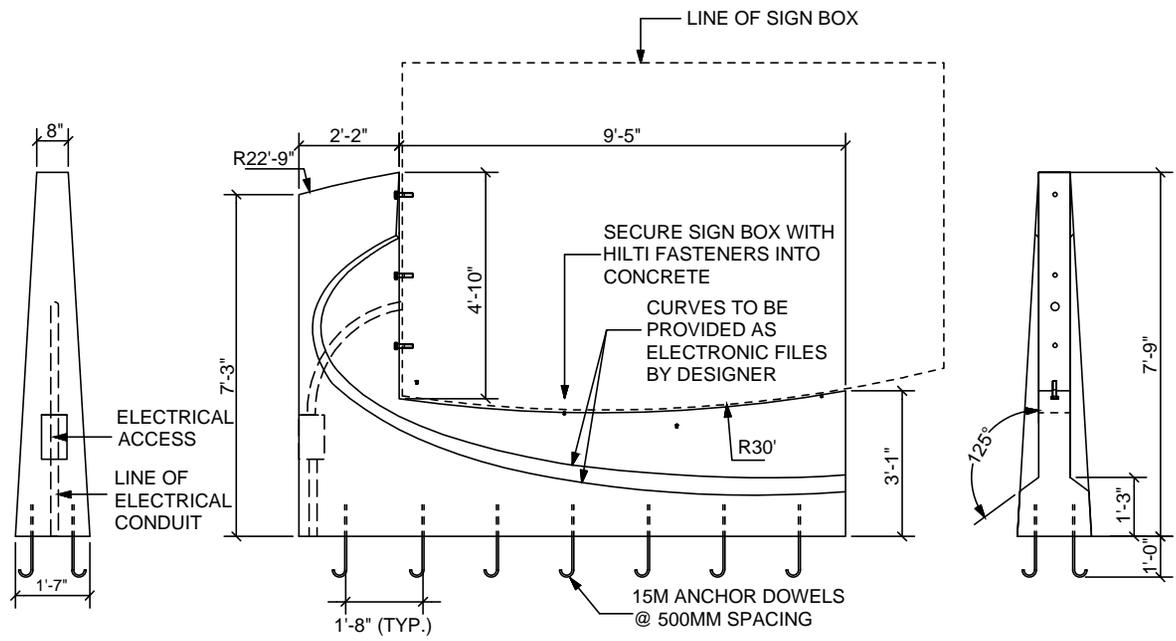


TITLE:

**CITY OF OTTAWA PARK SIGNAGE**  
**F10 - REGIONAL CONCRETE BASE SIGN ASSEMBLY**

ORIGINAL DESIGN BY STEWART BAILEY, INTU DESIGN

DATE:	MAR 2012
SCALE:	N.T.S.
DWG No:	PI-08



1 LEFT SIDE ELEVATION  
F-11

2 FRONT ELEVATION  
F-11

3 RIGHT SIDE VIEW  
F-11

NOTES

- 1.) CONCRETE TO BE FINISHED WITH MEDIUM BLAST ON ALL VISIBLE SURFACES.
- 2.) CONCRETE SHALL BE 30MPA, AIR-ENTRAINED 7-9%, SLUMP MAXIMUM 75MM.
- 3.) REINFORCING STEEL SHALL BE GRADE 400.
- 4.) CLEAR COVER TO REINFORCING BARS SHALL BE 50MM UNLESS OTHERWISE NOTED.
- 5.) FOUNDATION SHALL BE PLACED ON UNDISTURBED SOIL WITH MINIMUM BEARING CAPACITY OF 96 KPA.

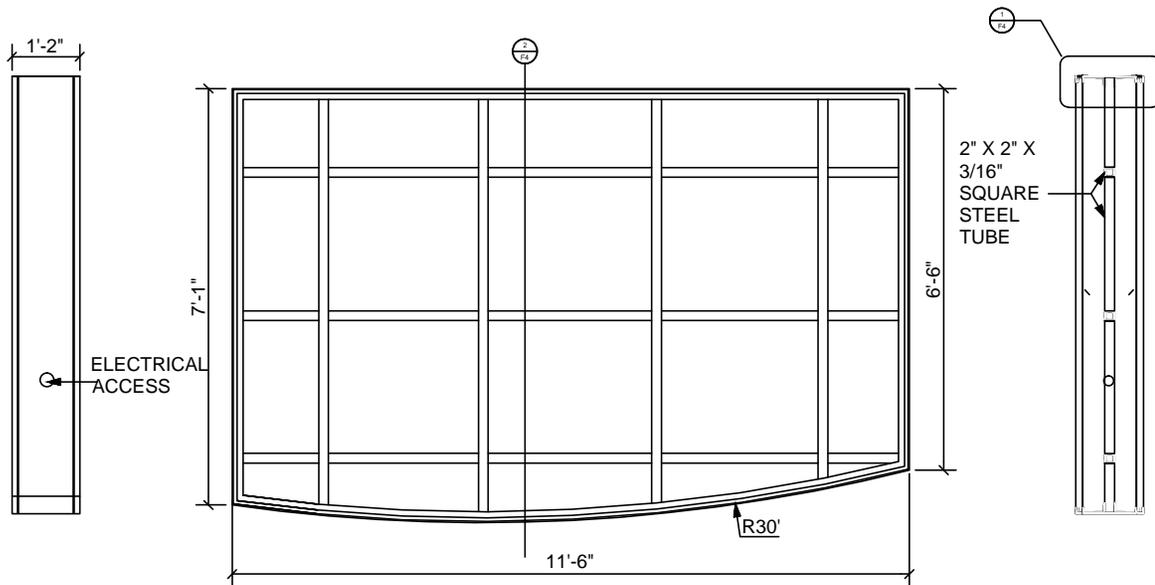


TITLE:

CITY OF OTTAWA PARK SIGNAGE  
F11 - PRECAST CONCRETE BASE

ORIGINAL DESIGN BY STEWART BAILEY, INTU DESIGN

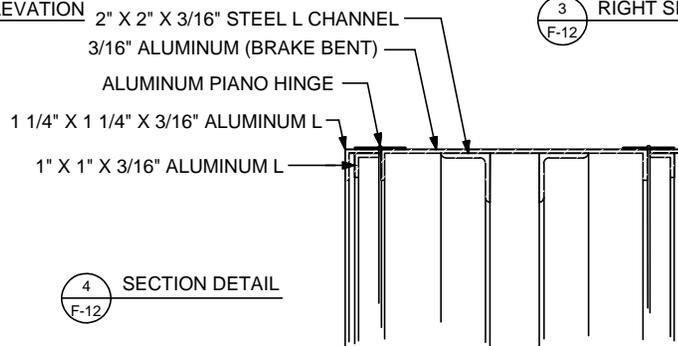
DATE:	MAR 2012
SCALE:	N.T.S.
DWG No:	PI-09



1 LEFT SIDE ELEVATION  
F-12

2 FRONT ELEVATION  
F-12

3 RIGHT SIDE ELEVATION  
F-12



TITLE:

CITY OF OTTAWA PARK SIGNAGE  
F12 - REGIONAL CONCRETE BASE SIGN - SIGN BOX

ORIGINAL DESIGN BY STEWART BAILEY, INTU DESIGN

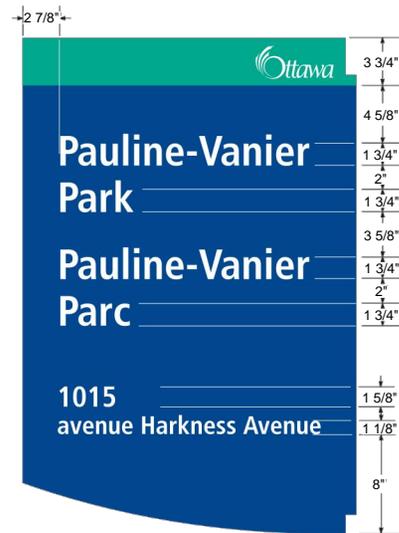
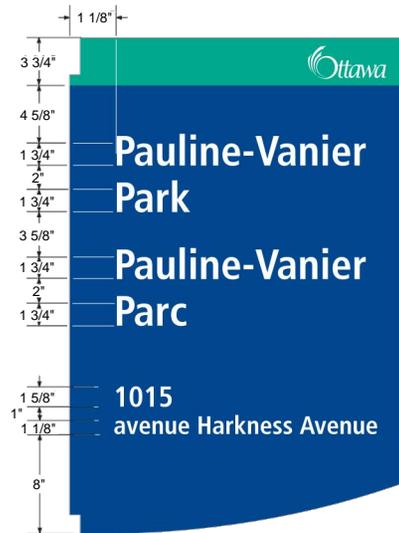
DATE:	MAR 2012
SCALE:	N.T.S.
DWG No:	PI-10

LIGHT GREEN -  
PAINT TO MATCH  
PMS 3278C

DARK BLUE -  
PAINT TO MATCH  
PMS 280C

GREY -  
PAINT TO MATCH  
PMS COOL  
GRAY 7C

CITY OF OTTAWA LOGO, PARK NAME AND  
ADDRESS LINE TO BE VINYL-CUT WHITE  
USING 3M 2 MIL VINYL. (220-20)



**NOTES:**

- 1) ALL FINISHES SPECIFIED AS "PAINT" TO BE PRIMED AND SPRAY FINISHED USING SEMI-GLOSS SIGN ENAMEL PAINT.
- 2) ENTIRE SIGN FACE TO BE OVERLAMINATED WITH 3M 1160 ANTI-GRAFFITI FILM.
- 3) DESIGNER TO SUPPLY ELECTRONIC ARTWORK IN ADOBE ILLUSTRATOR.
- 4) SIGN IS DOUBLE SIDED UNLESS OTHERWISE INDICATED.
- 5) ALL TRANSLATION TO BE PROVIDED BY CITY OF OTTAWA.
- 6) ALL GRAPHIC LAYOUT TO BE APPROVED BY CITY OF OTTAWA.

PARK NAME AND ADDRESS ARE SET IN FRUTIGER 67 ( BOLD CONDENSED)

1 FRONT ELEVATION - ASSEMBLY  
G-2

2 FRONT ELEVATION - SIGNFACE  
G-2

3 REAR ELEVATION - SIGNFACE  
G-2



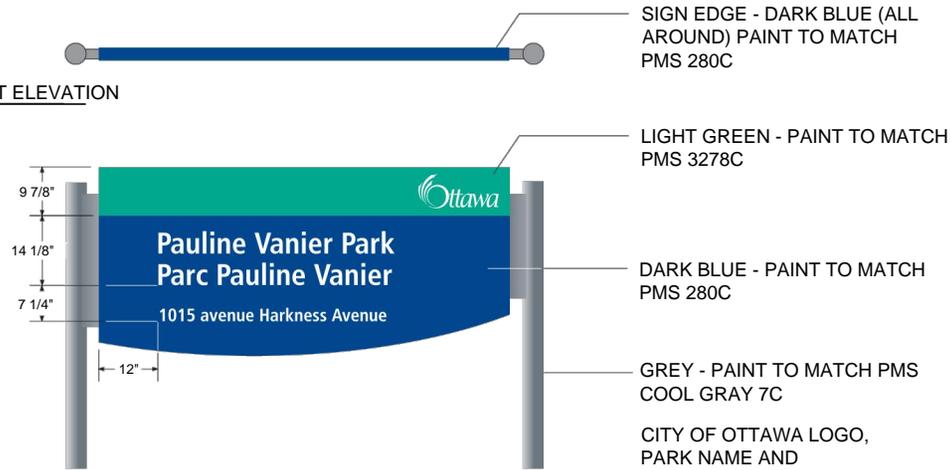
TITLE:

CITY OF OTTAWA PARK SIGNAGE  
G2 - LOCAL PARKS - SINGLE POST GRAPHICS

ORIGINAL  
DESIGN BY  
STEWART  
BAILEY, INTU  
DESIGN

DATE:	MAR 2012
SCALE	N.T.S.
DWG No:	PI-11

1 FRONT ELEVATION  
G-3



2 FRONT ELEVATION  
G-3



3 REAR ELEVATION  
G-3



**NOTES**

- 1) ALL FINISHES SPECIFIED AS "PAINT" TO BE PRIMED AND SPRAY FINISHED USING SEMI-GLOSS SIGN ENAMEL PAINT.
- 2) ENTIRE SIGN FACE TO BE OVERLAMINATED WITH 3M 1160 ANTI-GRAFFITI FILM.
- 3) DESIGNER TO SUPPLY ELECTRONIC ARTWORK IN ADOBE ILLUSTRATOR.
- 4) SIGN IS DOUBLE SIDED UNLESS OTHERWISE INDICATED.
- 5) ALL TRANSLATION TO BE PROVIDED BY CITY OF OTTAWA.
- 6) ALL GRAPHIC LAYOUT TO BE APPROVED BY CITY OF OTTAWA.



4 G-3



5 G-3

PARK NAME AND ADDRESS ARE SET IN FRUTIGER 67 (BOLD CONDENSED)

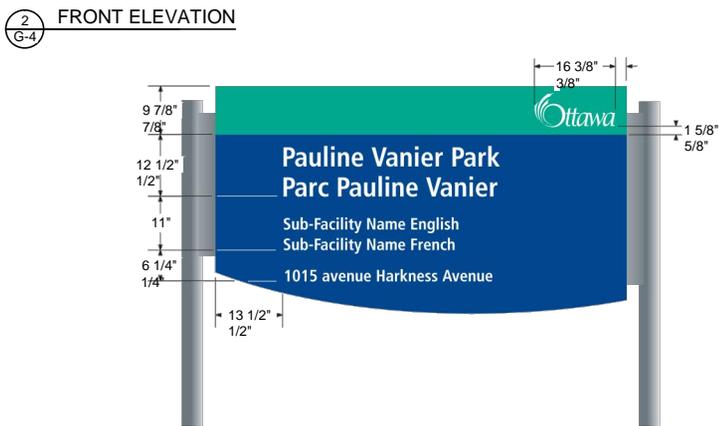


TITLE:

CITY OF OTTAWA PARK SIGNAGE  
G3 - LOCAL PARKS - 2 POST - SMALL

ORIGINAL DESIGN BY STEWART BAILEY, INTU DESIGN

DATE:	MAR 2012
SCALE:	N.T.S.
DWG No:	PI-12



PARK NAME, SUB-FACILITY AND ADDRESS ARE SET IN FRUTIGER 67 (BOLD CONDENSED)

**NOTES:**

- 1) ALL FINISHES SPECIFIED AS "PAINT" TO BE PRIMED AND SPRAY FINISHED USING SEMI-GLOSS SIGN ENAMEL PAINT.
- 2) ENTIRE SIGN FACE TO BE OVERLAMINATED WITH 3M 1160 ANTI-GRAFFITI FILM.
- 3) DESIGNER TO SUPPLY ELECTRONIC ARTWORK IN ADOBE ILLUSTRATOR.
- 4) CITY OF OTTAWA LOGO, PARK NAME AND ADDRESS LINE TO BE VINYL-CUT WHITE USING 3M 2 MIL VINYL. (220-20)
- 5) SIGN IS DOUBLE SIDED UNLESS OTHERWISE INDICATED.
- 6) ALL TRANSLATION TO BE PROVIDED BY CITY OF OTTAWA.
- 7) ALL GRAPHIC LAYOUT TO BE APPROVED BY CITY OF OTTAWA.

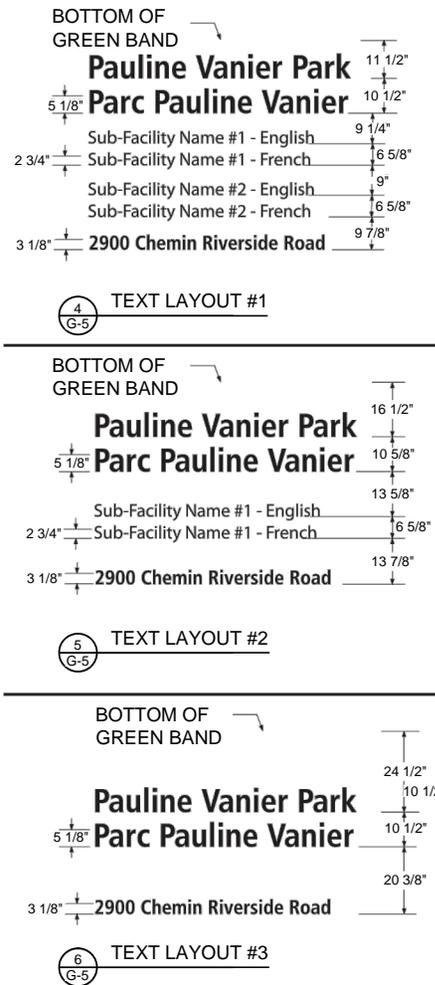
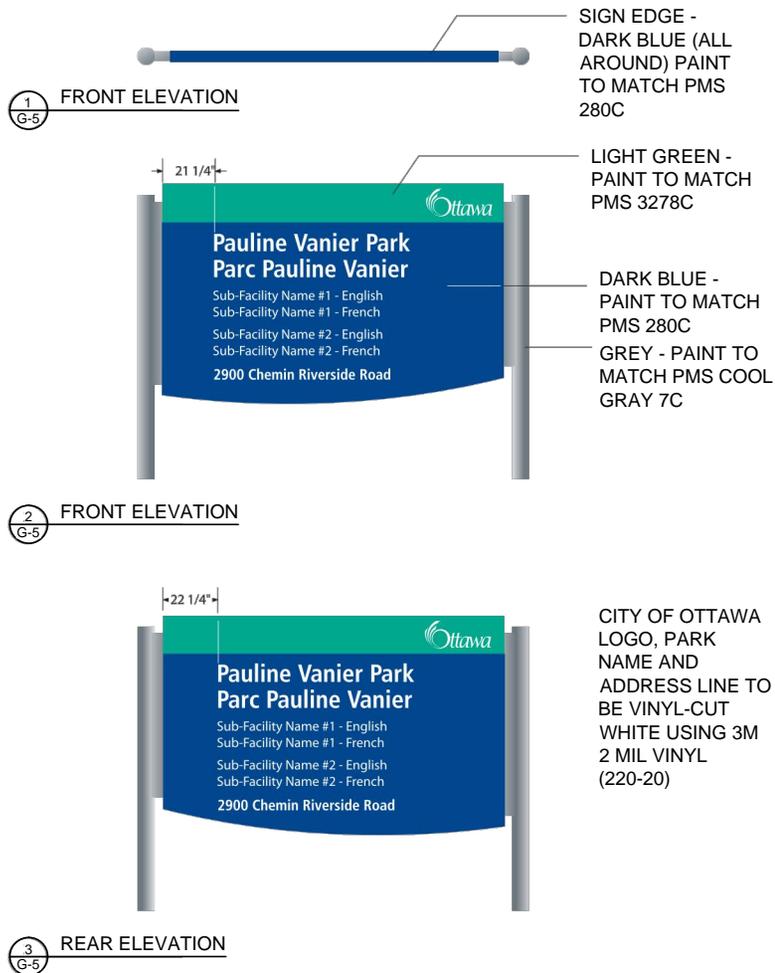


TITLE:

CITY OF OTTAWA PARK SIGNAGE  
G4 - LOCAL PARKS - 2 POST LARGE - GRAPHICS

ORIGINAL DESIGN BY STEWART BAILEY, INTU DESIGN

DATE:	MAR 2012
SCALE:	N.T.S.
DWG No:	PI-13



**NOTES:**

- 1) ALL FINISHES SPECIFIED AS "PAINT" TO BE PRIMED AND SPRAY FINISHED USING SEMI-GLOSS SIGN ENAMEL PAINT.
- 2) ENTIRE SIGN FACE TO BE OVERLAMINATED WITH 3M 1160 ANTI-GRAFFITI FILM.
- 3) DESIGNER TO SUPPLY ELECTRONIC ARTWORK IN ADOBE ILLUSTRATOR.
- 4) PARK NAME AND ADDRESS ARE SET IN FRUTIGER 67 (BOLD CONDENSED).
- 5) SUB-FACILITY NAME IS SET IN FRUTIGER 57 (CONDENSED).
- 6) SIGN IS DOUBLE SIDED UNLESS OTHERWISE INDICATED.
- 7) ALL TRANSLATION TO BE PROVIDED BY CITY OF OTTAWA.
- 8) ALL GRAPHIC LAYOUT TO BE APPROVED BY CITY OF OTTAWA.



TITLE:

**CITY OF OTTAWA PARK SIGNAGE  
G5 - REGIONAL - 2 POST LARGE - GRAPHICS**

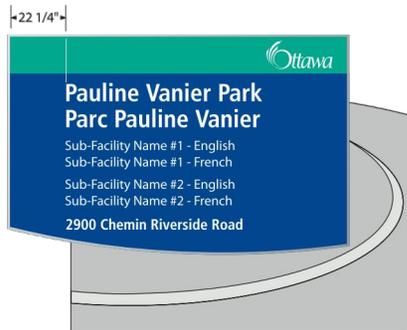
ORIGINAL DESIGN BY STEWART BAILEY, INTU DESIGN

DATE: MAR 2012  
SCALE: N.T.S.  
DWG No: **PI-14**

1 FRONT ELEVATION  
G-6



2 FRONT ELEVATION  
G-6



3 REAR ELEVATION  
G-6

SIGN EDGE - NATURAL ALUMINUM ANODIZED - SATIN FINISH.

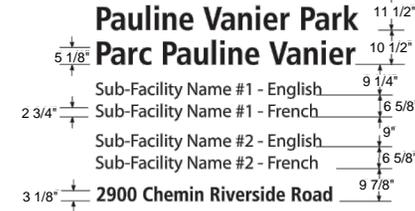
LIGHT GREEN - BACK-SCREEN ACRYLIC SHEET WITH TRANSLUCENT INKS TO MATCH PMS 3278C. CITY OF OTTAWA LOGO DROPS OUT WHITE.

DARK BLUE - BACK-SCREEN ACRYLIC SHEET WITH TRANSLUCENT INKS TO MATCH PMS 280C. TEXT DROPS OUT WHITE.

SIGN BORDER - NATURAL ALUMINUM ANODIZED - SATIN FINISH.

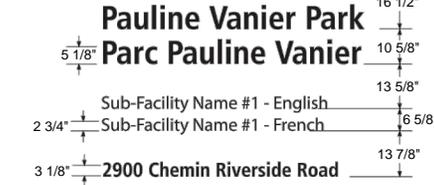
BASE - NATURAL CONCRETE.

BOTTOM OF GREEN BAND



4 TEXT LAYOUT #1  
G-6

BOTTOM OF GREEN BAND



5 TEXT LAYOUT #2  
G-6

BOTTOM OF GREEN BAND



6 TEXT LAYOUT #3  
G-6

**NOTES:**

- 1) ENTIRE SIGN FACE TO BE OVERLAMINATED WITH 3M 1160 ANTI-GRAFFITI FILM.
- 2) DESIGNER TO SUPPLY ELECTRONIC ARTWORK IN ADOBE ILLUSTRATOR.
- 3) PARK NAME AND ADDRESS ARE SET IN FRUTIGER 67 (BOLD CONDENSED).
- 4) SUB-FACILITY NAME IS SET IN FRUTIGER 57 (CONDENSED).
- 5) SIGN IS DOUBLE SIDED UNLESS OTHERWISE INDICATED.
- 6) ALL TRANSLATION TO BE PROVIDED BY CITY OF OTTAWA.
- 7) ALL GRAPHIC LAYOUT TO BE APPROVED BY CITY OF OTTAWA.



TITLE:

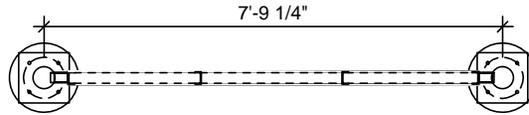
CITY OF OTTAWA PARK SIGNAGE  
G6 - REGIONAL - CONCRETE BASE - GRAPHICS

ORIGINAL DESIGN BY STEWART BAILEY, INTU DESIGN

DATE: MAR 2012  
SCALE: N.T.S.  
DWG No: PI-15



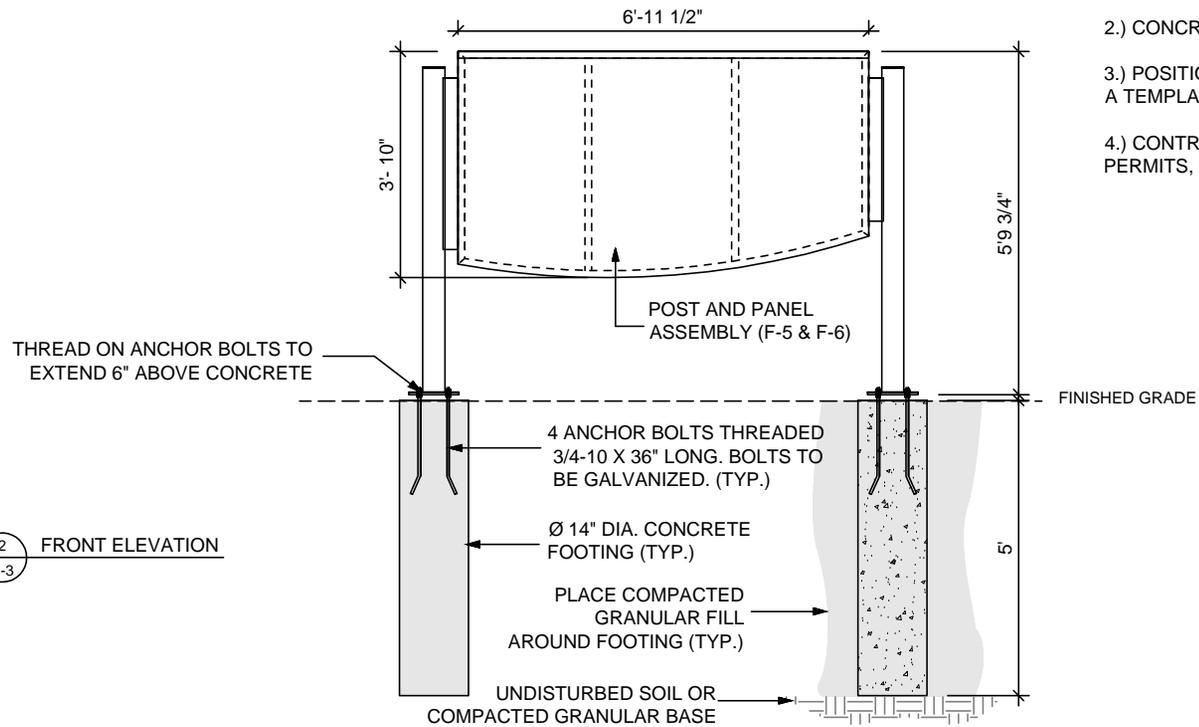
1 PLAN VIEW  
S-3



**NOTES:**

- 1.) FOUNDATION TO BE PLACED ON UNDISTURBED SOIL WITH A MINIMUM BEARING CAPACITY OF 96 KPA.
- 2.) CONCRETE IN FOOTING TO BE 30 MPA.
- 3.) POSITION ANCHOR BOLTS USING A TEMPLATE.
- 4.) CONTRACTOR RESPONSIBLE FOR ALL PERMITS, LOCATES AND CERTIFICATIONS.

2 FRONT ELEVATION  
S-3



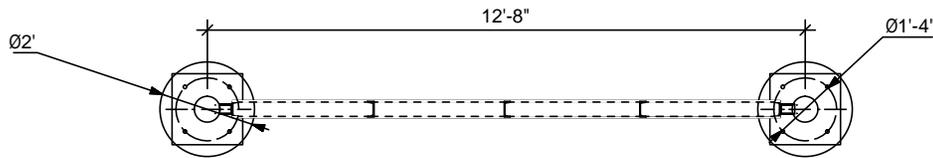
TITLE:

CITY OF OTTAWA PARK SIGNAGE  
S3 - LOCAL PARKS - POST AND PANEL SIGN INSTALLATION

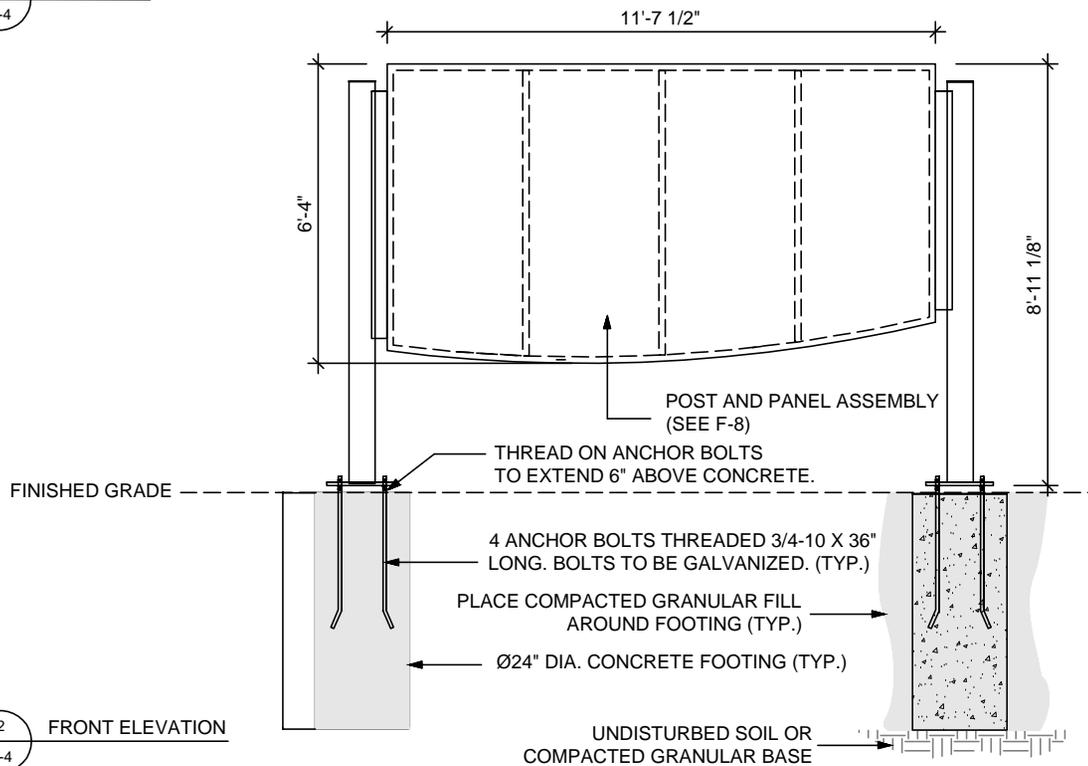
ORIGINAL DESIGN BY STEWART BAILEY, INTU DESIGN

DATE:	MAR 2012
SCALE:	N.T.S.
DWG No:	PI-17

1 PLAN VIEW  
S-4



2 FRONT ELEVATION  
S-4



NOTES

- 1.) FOUNDATION TO BE PLACED ON UNDISTURBED SOIL WITH A MINIMUM BEARING CAPACITY OF 96 KPA
- 2.) CONCRETE IN FOOTING TO BE 30 MPA
- 3.) POSITION ANCHOR BOLTS USING A TEMPLATE
- 4.) CONTRACTOR RESPONSIBLE FOR ALL PERMITS, LOCATES AND CERTIFICATIONS.

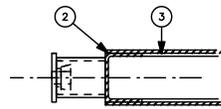


TITLE:

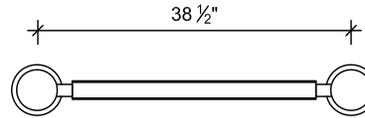
CITY OF OTTAWA PARK SIGNAGE  
S4 - REGIONAL - POST AND PANEL SIGN INSTALLATION

ORIGINAL  
DESIGN BY  
STEWART  
BAILEY, INTU  
DESIGN

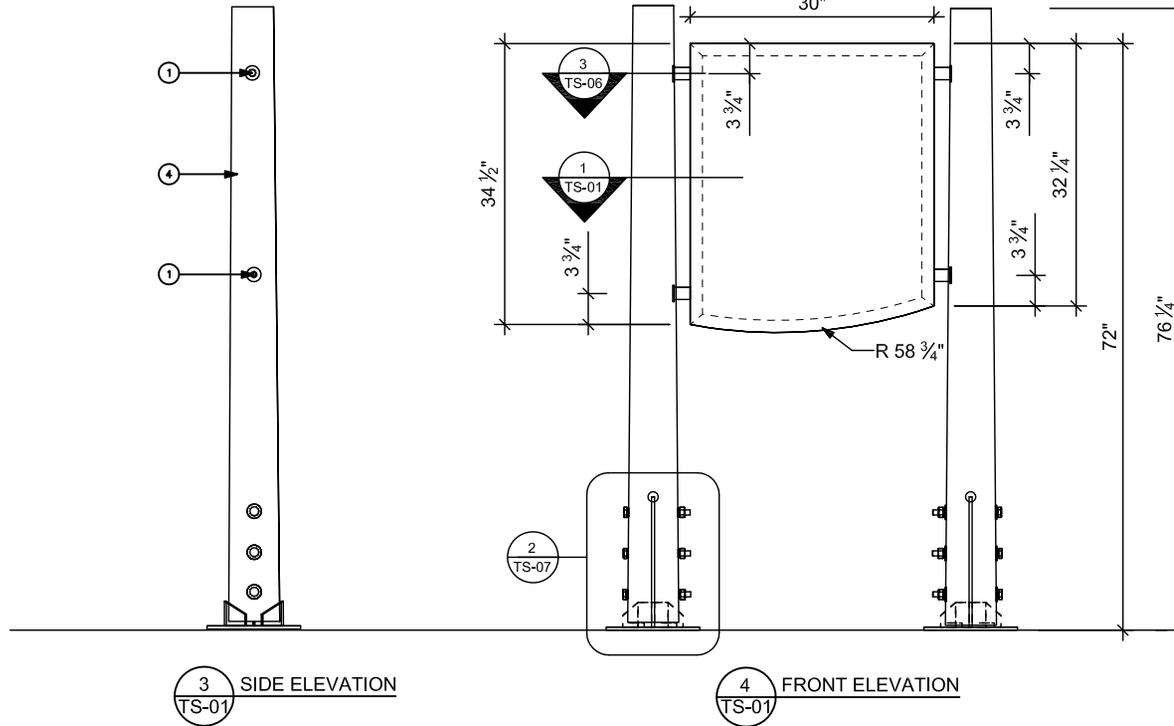
DATE:	MAR 2012
SCALE:	N.T.S.
DWG No:	PI-18



1  
TS-01  
DETAIL SECTION - PANEL CONSTRUCTION



2  
TS-01  
PLAN VIEW



3  
TS-01  
SIDE ELEVATION

4  
TS-01  
FRONT ELEVATION

**NOTES:**

- ① 1/2" UNC X 7" GALVANIZED BOLT C/W LOCK WASHERS, FLAT WASHERS AND NUT (2 PLACES PER POST)
- ② 2" X 1 1/2" ALUMINUM C CHANNEL, ROLL TO CREATE LOWER CURVE. MITRE, WELD AND GRIND SMOOTH ALL VISIBLE AND FACE MOUNTING SURFACES.
- ③ 1/8" ALUMINUM SHEET, SECURE TO FRAME USING OUTDOOR GRADE VHB TAPE.
- ④ LOCAL CEDAR ROUND POST - PEELED. POSTS ARE TO BE SOUND, WITH NO EVIDENCE OF ROT OR INSECT INFESTATION. BUTT DIAMETER IS TO BE 6 1/4" +/- 1/2", WITH TAPERING TO 5" +/- 1/2" AT THE TOP. TOP IS TO BE TRIMMED AT A 5 TO 10 DEGREE ANGLE TO SHED WATER. NO COATINGS OR PRESERVATIVES ARE TO BE APPLIED.
- ⑤ PREP, PRIME AND PAINT ALL ALUMINUM FRAME PARTS (EXCEPT FASTENERS) TO MATCH PMS COOL GREY 7C.  
  
PREP, PRIME AND PAINT 1/8" ALUMINUM SIGN FACES TO MATCH PMS 280C, BLUE.

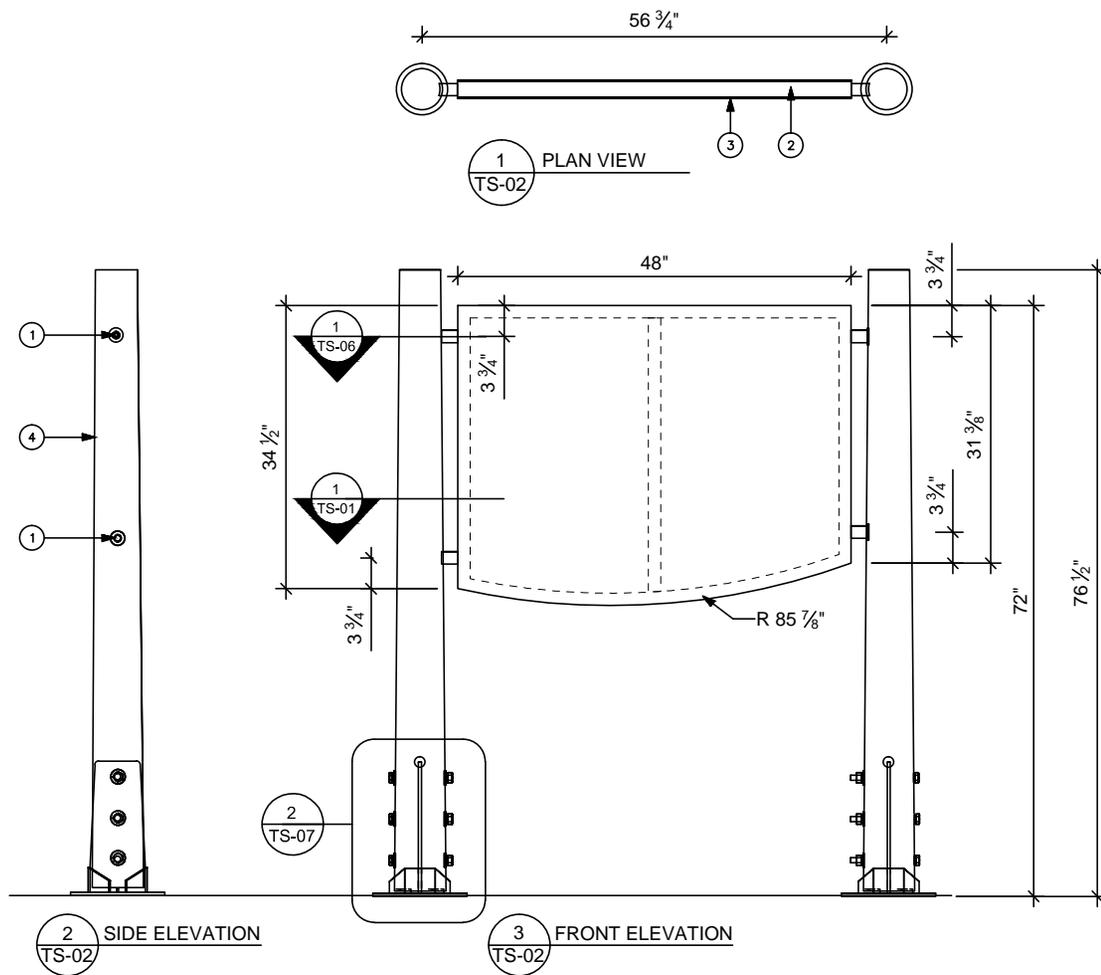


TITLE:

CITY OF OTTAWA TRAIL SIGNAGE  
TS-01 - TWO-POST SIGN - SMALL

ORIGINAL DESIGN BY STEWART BAILEY, INTU DESIGN

DATE:	MAR 2012
SCALE	N.T.S.
DWG No:	PI-19



NOTES:

- ① 1/2" UNC X 7" GALVANIZED BOLT C/W LOCK WASHERS, FLAT WASHERS AND NUT (2 PLACES PER POST)
- ② 2" X 1 1/2" ALUMINUM C CHANNEL, ROLL TO CREATE LOWER CURVE. MITRE, WELD AND GRIND SMOOTH ALL VISIBLE AND FACE MOUNTING SURFACES.
- ③ 1/8" ALUMINUM SHEET, SECURE TO FRAME USING OUTDOOR GRADE VHB TAPE.
- ④ LOCAL CEDAR ROUND POST - PEELED. POSTS ARE TO BE SOUND, WITH NO EVIDENCE OF ROT OR INSECT INFESTATION. BUTT DIAMETER IS TO BE 6 1/4" +/- 1/2", WITH TAPERING TO 5" +/- 1/2" AT THE TOP. TOP IS TO BE TRIMMED AT A 5 TO 10 DEGREE ANGLE TO SHED WATER. NO COATINGS OR PRESERVATIVES ARE TO BE APPLIED.

PREP, PRIME AND PAINT ALL ALUMINUM FRAME PARTS (EXCEPT FASTENERS) TO MATCH PMS COOL GREY 7C.

PREP, PRIME AND PAINT 1/8" ALUMINUM SIGN FACES TO MATCH PMS 280C, BLUE.

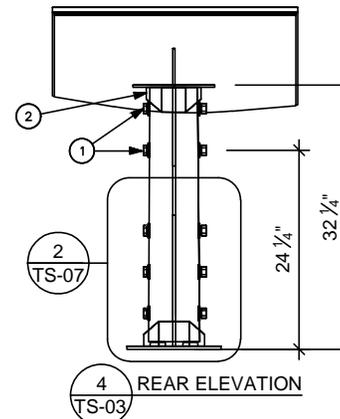
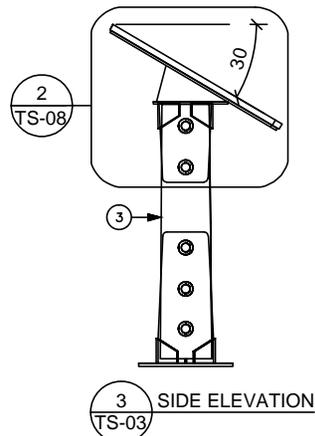
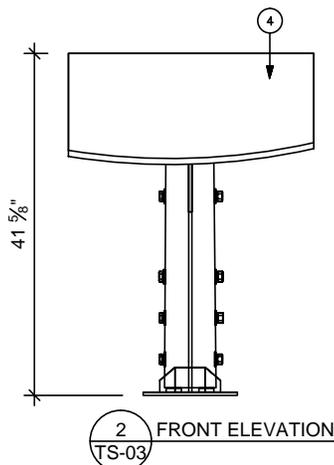
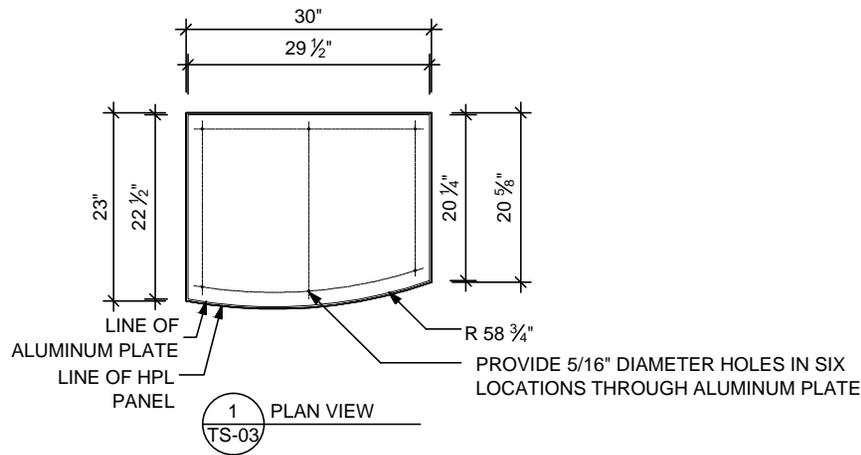


TITLE:

CITY OF OTTAWA TRAIL SIGNAGE  
TS-02 - TWO-POST SIGN - LARGE

ORIGINAL DESIGN BY STEWART BAILEY, INTU DESIGN

DATE:	MAR 2012
SCALE:	N.T.S.
DWG No:	PI-20



NOTES

- ① 1/2" UNC X 7" GALVANIZED BOLT C/W LOCK WASHERS, FLAT WASHERS AND NUT (2 PLACES PER POST)
- ② ONE POST INTERPRETIVE PANEL BRACKET - SEE DRAWING TS-08
- ③ LOCAL CEDAR ROUND POST-PEELED. POSTS ARE TO BE SOUND, WITH NO EVIDENCE OF ROT OR INSECT INFESTATION. BUTT DIAMETER IS TO BE 6" +/- 1/2", WITH MINIMAL OR NO TAPER (MAX. LESS THAN 1/2") TO THE TOP. NO COATINGS OR PRESERVATIVES ARE TO BE APPLIED.
- ④ 1/2" EXTERIOR GRADE HIGH PRESSURE LAMINATE (HPL) EMBEDDED GRAPHIC PANEL (FOLIA OR EQUIVALENT). PROVIDE 1/4-20 THREADED INSERTS ON THE REAR SURFACE IN 6 LOCATIONS AS INDICATED ON THE DRAWING. EASE EDGES AND CORNERS TO APPROXIMATE R1/8".



TITLE:

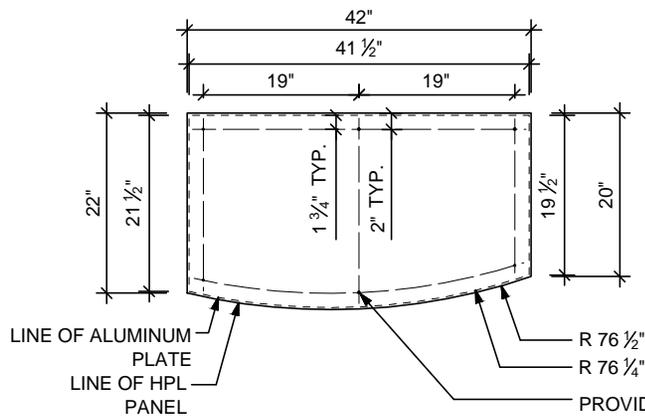
CITY OF OTTAWA TRAIL SIGNAGE  
TS-03 ONE-POST ANGLED INTERPRETIVE SIGN

ORIGINAL DESIGN BY STEWART BAILEY, INTU DESIGN

DATE: MAR 2012

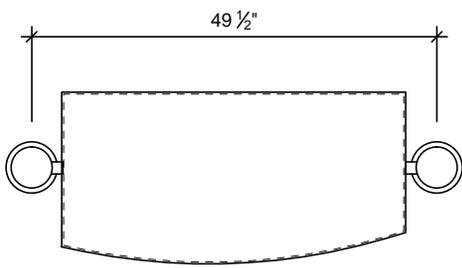
SCALE N.T.S.

DWG No: PI-21

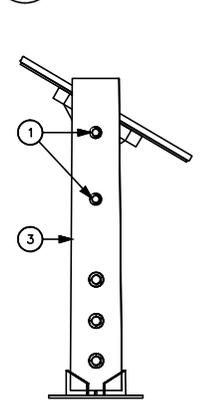


1 PANEL TRUE (PLAN) VIEW  
TS-04

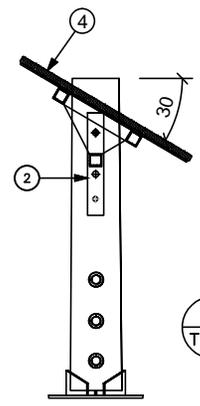
PROVIDE 5/16" DIAMETER HOLES IN SIX LOCATIONS THROUGH ALUMINUM PLATE



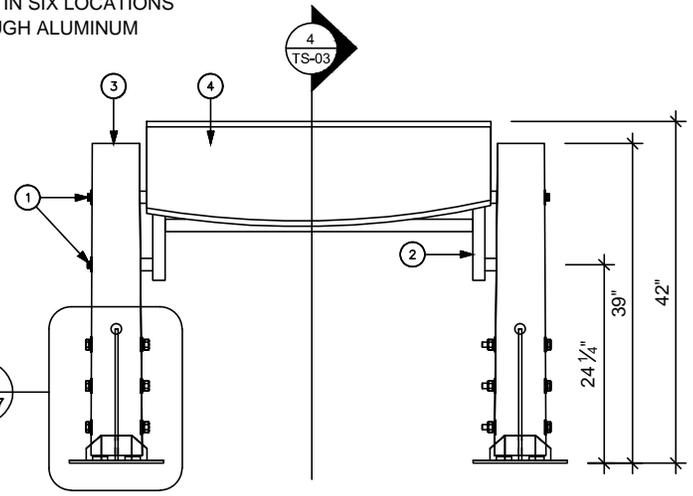
2 PLAN VIEW  
TS-04



3 SIDE ELEVATION  
TS-04



4 VERTICAL SECTION  
TS-04



5 FRONT ELEVATION  
TS-04

NOTES

- ① 1/2" UNC X 7" GALVANIZED BOLT C/W LOCK WASHERS, FLAT WASHERS AND NUT (2 PLACES PER POST)
- ② TWO POST INTERPRETIVE PANEL BRACKET - SEE DRAWING TS-09
- ③ LOCAL CEDAR ROUND POST - PEELED. POSTS ARE TO BE SOUND, WITH NO EVIDENCE OF ROT OR INSECT INFESTATION. BUTT DIAMETER IS TO BE 6" +/- 1/2", WITH TAPERING TO 5 1/2" +/- 1/2" AT THE TOP. TOP IS TO BE TRIMMED AT A 5 TO 10 DEGREE ANGLE TO SHED WATER. NO COATINGS OR PRESERVATIVES ARE TO BE APPLIED.
- ④ 1/2" EXTERIOR GRADE HIGH PRESSURE LAMINATE (HPL) EMBEDDED GRAPHIC PANEL (FOLIA OR EQUIVALENT). PROVIDE 1/4-20 THREADED INSERTS ON THE REAR SURFACE IN 6 LOCATIONS AS INDICATED ON THE DRAWING. EASE EDGES AND CORNERS TO APPROXIMATE R1/8".

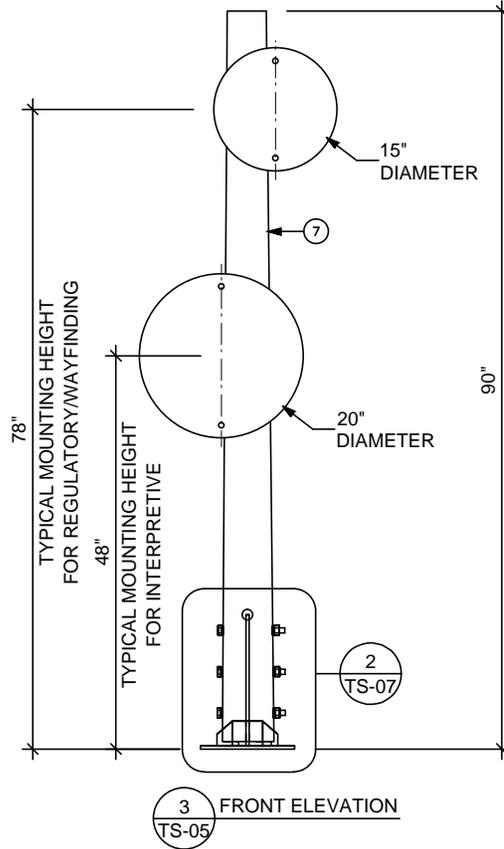
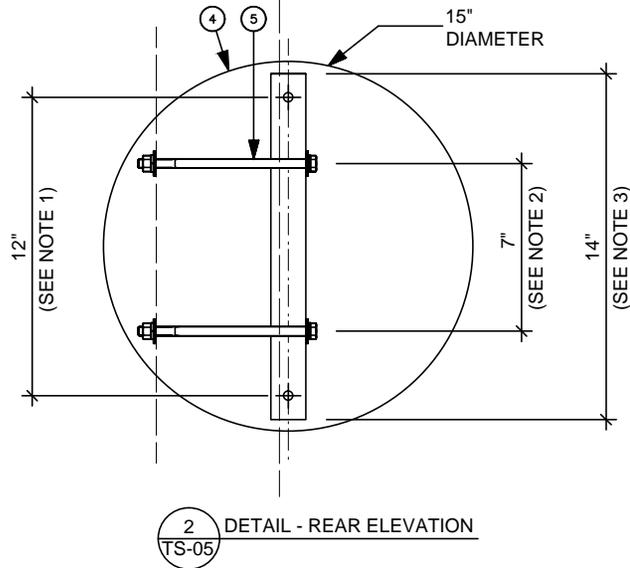
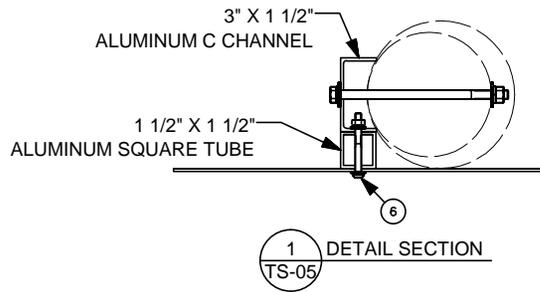


TITLE:

CITY OF OTTAWA TRAIL SIGNAGE  
TS-04 TWO-POST ANGLED INTERPRETIVE SIGN

ORIGINAL DESIGN BY STEWART BAILEY, INTU DESIGN

DATE:	MAR 2012
SCALE:	N.T.S.
DWG No:	PI-22



NOTES

- ① DIMENSION = SIGN HEIGHT, LESS 3"
- ② DIMENSION = SIGN HEIGHT, LESS 8"
- ③ DIMENSION = SIGN HEIGHT, LESS 1"
- ④ 1/8" ALUMINUM FACE, COVER BACK WITH BLACK 2 MIL. SELF-ADHESIVE VINYL.
- ⑤ 3/8" UNC X 7" GALVANIZED BOLT C/W LOCK WASHERS, FLAT WASHERS AND NUT (2 PLACES PER BRACKET)
- ⑥ 1/4" UNC X 2" SS BUTTON HEAD SCREW C/W LOCK WASHERS, FLAT WASHERS AND NUT (2 PLACES PER SIGNFACE)
- ⑦ LOCAL CEDAR ROUND POST - PEELED. POSTS ARE TO BE SOUND, WITH NO EVIDENCE OF ROT OR INSECT INFESTATION. BUTT DIAMETER IS TO BE 6" +/- 1/2", WITH TAPERING TO 5" +/- 1/2" AT THE TOP. TOP IS TO BE TRIMMED AT A 5 TO 10 DEGREE ANGLE TO SHED WATER. NO COATINGS OR PRESERVATIVES ARE TO BE APPLIED.

PREP, PRIME AND PAINT ALL ALUMINUM FRAME PARTS (EXCEPT FASTENERS) TO MATCH PMS COOL GREY 7C.

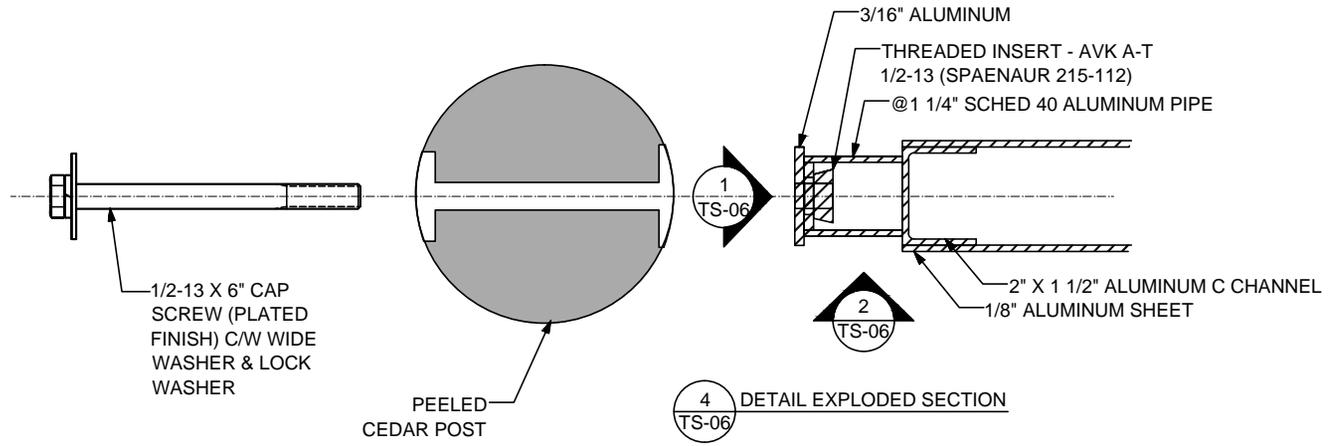
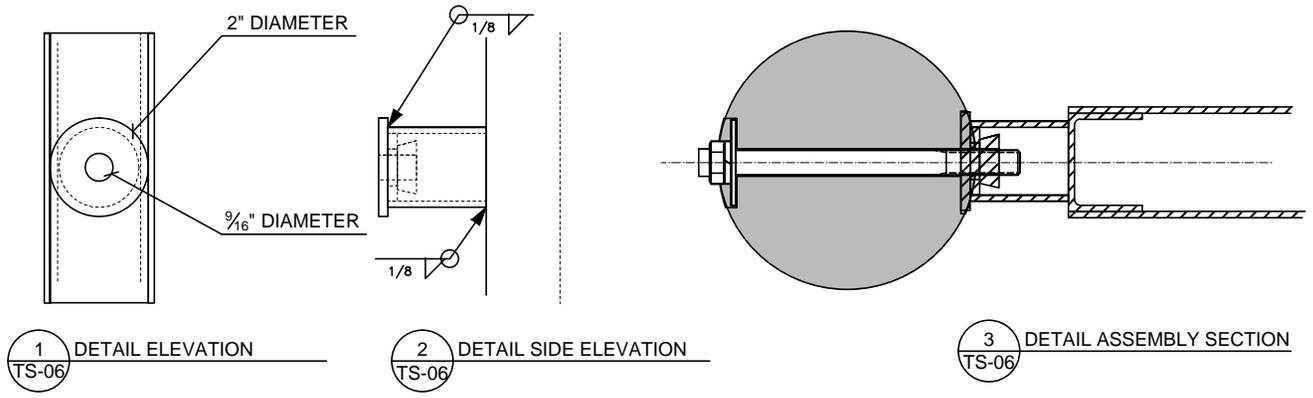


TITLE:

CITY OF OTTAWA TRAIL SIGNAGE  
 TS-05 ONE-POST DIRECTIONAL - REGULATORY SIGN

ORIGINAL DESIGN BY STEWART BAILEY, INTU DESIGN

DATE:	MAR 2012
SCALE:	N.T.S.
DWG No:	PI-23



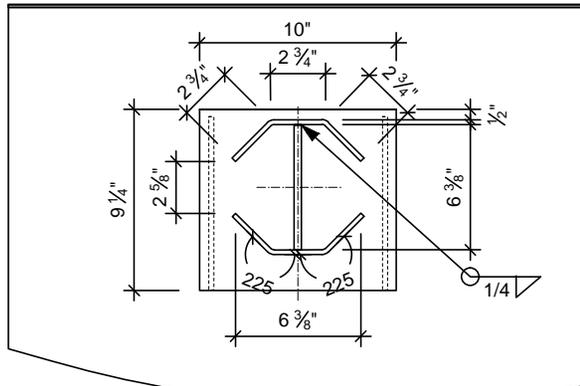
TITLE:

CITY OF OTTAWA TRAIL SIGNAGE  
 TS-06 TYPICAL PANEL ATTACHMENT DETAIL

ORIGINAL  
 DESIGN BY  
 STEWART  
 BAILEY, INTU  
 DESIGN

DATE:	MAR 2012
SCALE	N.T.S.
DWG No:	PI-24



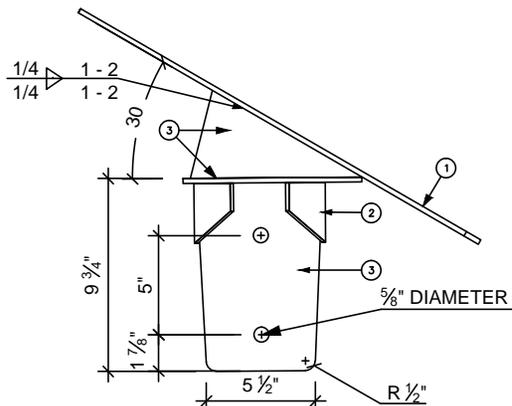


1 BOTTOM VIEW  
TS-08

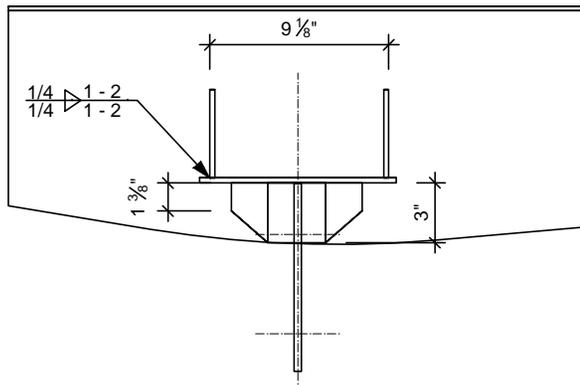
NOTES

- ① 3/16" ALUMINUM GRAPHIC MOUNTING PLATE - SEE DRAWING TS-03 DIMENSIONS AND MOUNTING HOLES
- ② 1/4" ALUMINUM, BRAKE BENT
- ③ 3/16" ALUMINUM

PREP, PRIME AND PAINT ALL ALUMINUM FRAME PARTS (EXCEPT FASTENERS) TO MATCH PMS COOL GREY 7C.



2 SIDE ELEVATION  
TS-08



3 REAR ELEVATION  
TS-08

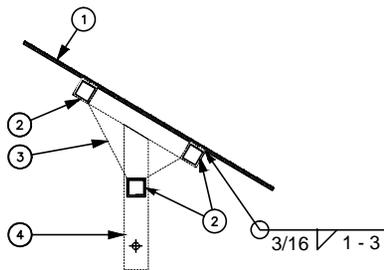


TITLE:

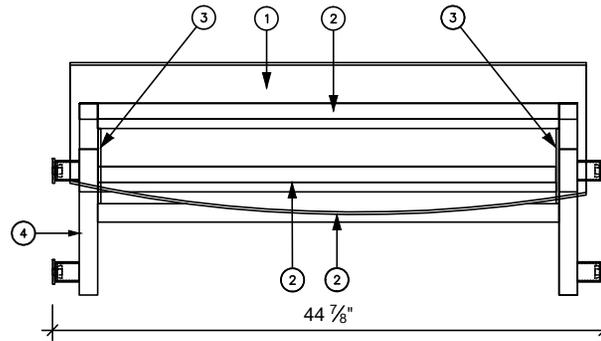
CITY OF OTTAWA TRAIL SIGNAGE  
TS-08 ONE-POST INTERPRETIVE - PANEL BRACKET

ORIGINAL DESIGN BY STEWART BAILEY, INTU DESIGN

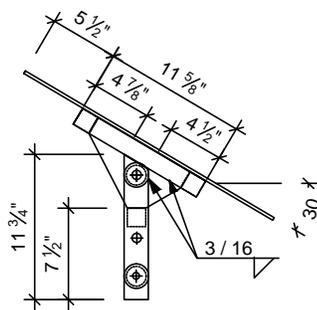
DATE:	MAR 2012
SCALE:	N.T.S.
DWG No:	PI-26



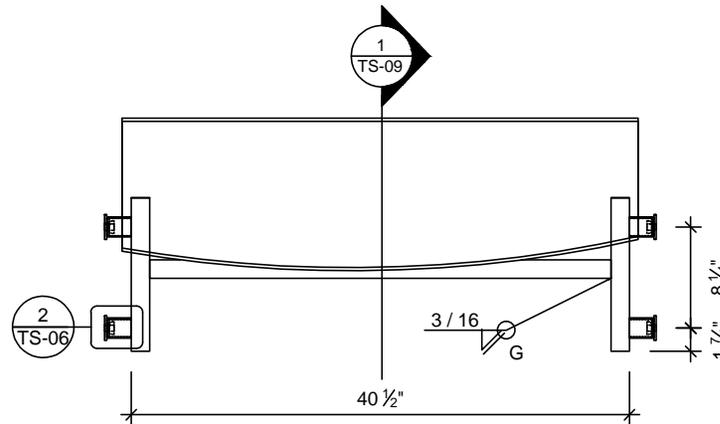
1  
TS-09  
VERTICAL SECTION



2  
TS-09  
REAR ELEVATION



3  
TS-09  
SIDE ELEVATION



4  
TS-09  
FRONT ELEVATION

NOTES

- ① 3/16" ALUMINUM GRAPHIC MOUNTING PLATE - DRILL MOUNTING HOLES AS DESCRIBED ON DRAWING TS-04
- ② 1 1/2" X 1 1/2" X 0.120" SQUARE ALUMINUM TUBE
- ③ 3/16" ALUMINUM GUSSET
- ④ 1 1/2" X 2" X 0.120" RECTANGULAR ALUMINUM TUBE

PREP, PRIME AND PAINT ALL ALUMINUM FRAME PARTS (EXCEPT FASTENERS) TO MATCH PMS COOL GREY 7C.

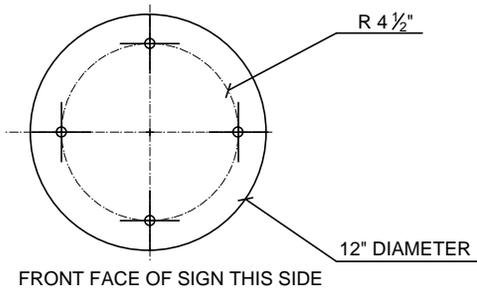


TITLE:

CITY OF OTTAWA TRAIL SIGNAGE  
TS-09 TWO-POST INTERPRETIVE - PANEL BRACKET

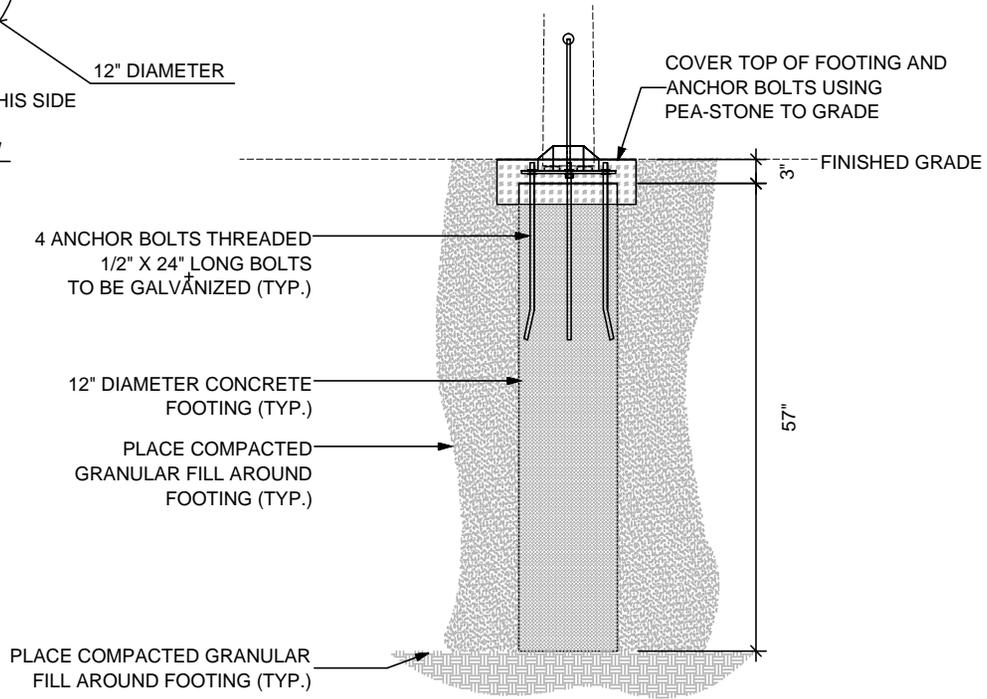
ORIGINAL DESIGN BY STEWART BAILEY, INTU DESIGN

DATE:	MAR 2012
SCALE:	N.T.S.
DWG No:	PI-27



1 PLAN VIEW  
TS-10

NOTE: FOR TWO POST INSTALLATIONS, USE THE FOLLOWING CENTRE-TO-CENTRE DIMENSIONS FOR FOOTING SEPARATIONS:  
 TWO POST ANGLED INTERPRETATION PANEL - 49 1/2"  
 TWO POST VERTICAL SIGN - NARROW - 38 1/2"  
 TWO POST VERTICAL SIGN - WIDE - 56 3/4"



2 VERTICAL SECTION  
TS-10

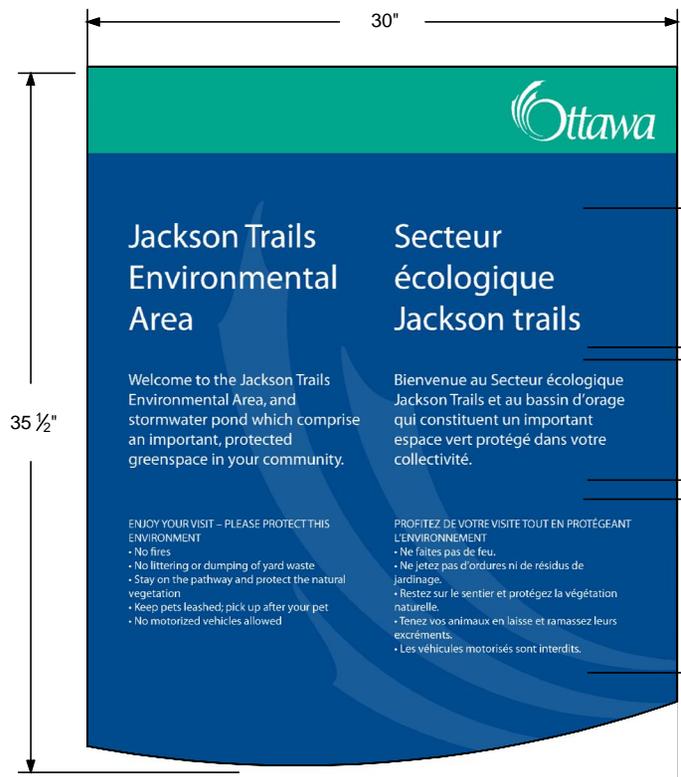


TITLE:

CITY OF OTTAWA TRAIL SIGNAGE  
 TS-10 TYPICAL FOOTING DETAIL

ORIGINAL DESIGN BY STEWART BAILEY, INTU DESIGN

DATE:	MAR 2012
SCALE:	N.T.S.
DWG No:	PI-28



TITLE TEXT - FONT: FRUTIGER 67 BOLD CONDENSED  
 SIZE: 125 PT. (1" X-HEIGHT)  
 LEADING: 150 PT.

BODY TEXT - FONT: FRUTIGER 67 BOLD CONDENSED  
 SIZE: 60 PT. (1/2" X-HEIGHT)  
 LEADING: 72.5 PT.

SECONDARY TEXT - FONT: FRUTIGER 67 BOLD CONDENSED  
 SIZE: 42 PT. (3/8" X-HEIGHT)  
 LEADING: 50.5 PT.

**NOTES:**

- 1) GRAPHICS ARE OUTDOOR-GRADE INK-JET PRINTS ON 3M 2 MIL VINYL C/W ANTI-GRAFITTI OVERLAMINATE.
- 2) GRAPHICS ARE TO BE APPLIED DIRECTLY TO THE ALUMINUM SIGNFACE.
- 3) MESSAGES SHOWN ARE EXAMPLES ONLY
- 4) ELECTRONIC ARTWORK WILL BE PROVIDED AS ADOBE ILLUSTRATOR CS3 FILES
- 5) ALL TRANSLATION TO BE PROVIDED BY CITY OF OTTAWA.
- 6) ALL GRAPHIC LAYOUT TO BE APPROVED BY CITY OF OTTAWA.

1 TWO POST VERTICAL - NARROW - GRAPHICS  
 TS-11

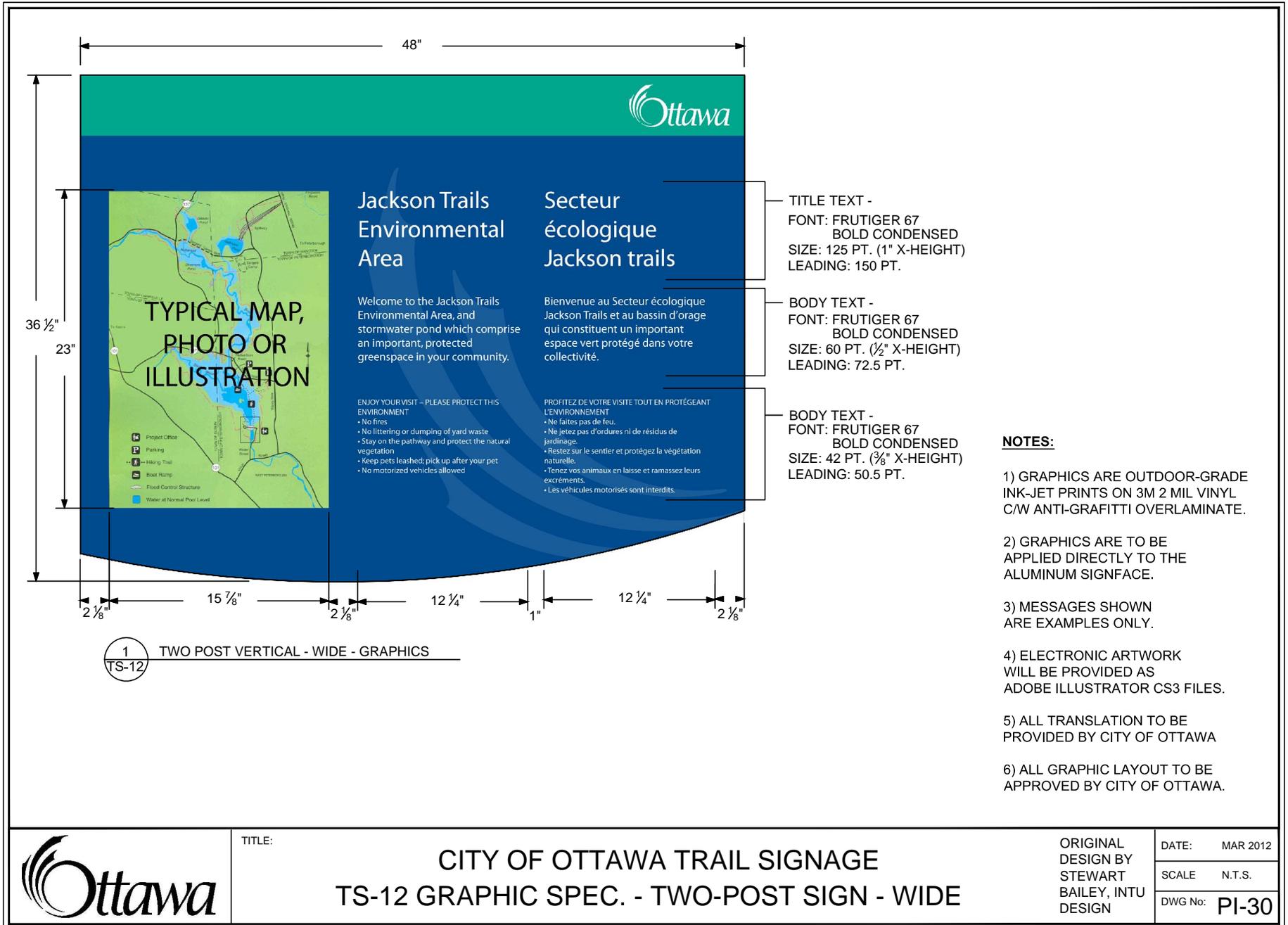


TITLE:

CITY OF OTTAWA TRAIL SIGNAGE  
 TS-11 GRAPHIC SPEC. - TWO-POST SIGN - NARROW

ORIGINAL DESIGN BY STEWART BAILEY, INTU DESIGN

DATE:	MAR 2012
SCALE	N.T.S.
DWG No:	PI-29



TITLE:

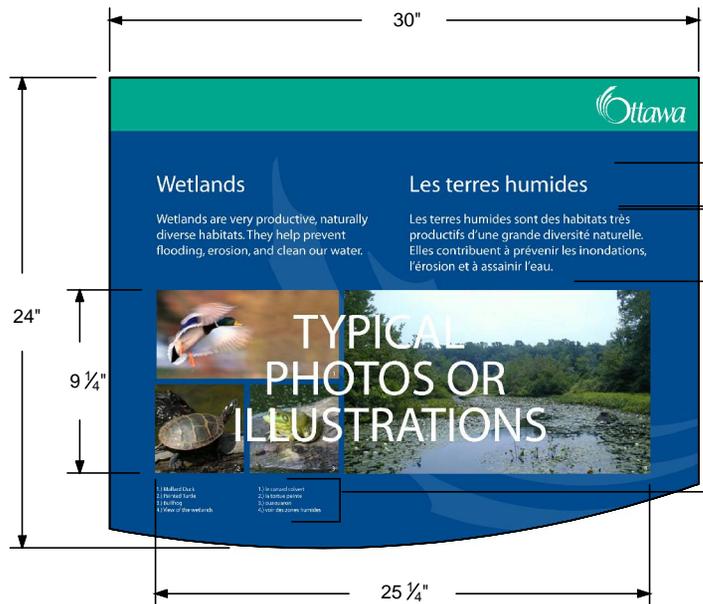
CITY OF OTTAWA TRAIL SIGNAGE  
 TS-12 GRAPHIC SPEC. - TWO-POST SIGN - WIDE

ORIGINAL DESIGN BY STEWART BAILEY, INTU DESIGN

DATE:	MAR 2012
SCALE:	N.T.S.
DWG No:	PI-30

**NOTES:**

- 1) GRAPHICS ARE 1/2" OUTDOOR-GRADE HIGH PRESSURE LAMINATE (FOLIA OR EQUIVALENT).
- 2) MESSAGES SHOWN ARE EXAMPLES ONLY.
- 3) ELECTRONIC ARTWORK WILL BE PROVIDED AS ADOBE ILLUSTRATOR CS3 FILES.
- 4) ALL TRANSLATION TO BE PROVIDED BY CITY OF OTTAWA.
- 5) ALL GRAPHIC LAYOUT TO BE APPROVED BY CITY OF OTTAWA.



TITLE TEXT - FONT: FRUTIGER 67 BOLD CONDENSED  
 SIZE: 84 PT. (3/8" X-HEIGHT)  
 LEADING: 102 PT.

BODY TEXT - FONT: FRUTIGER 67 BOLD CONDENSED  
 SIZE: 48 PT. (3/8" X-HEIGHT)  
 LEADING: 57.5 PT.

CAPTION TEXT - FONT: FRUTIGER 67 BOLD CONDENSED  
 SIZE: 21 PT. (3/16" X-HEIGHT)  
 LEADING: 25 PT.

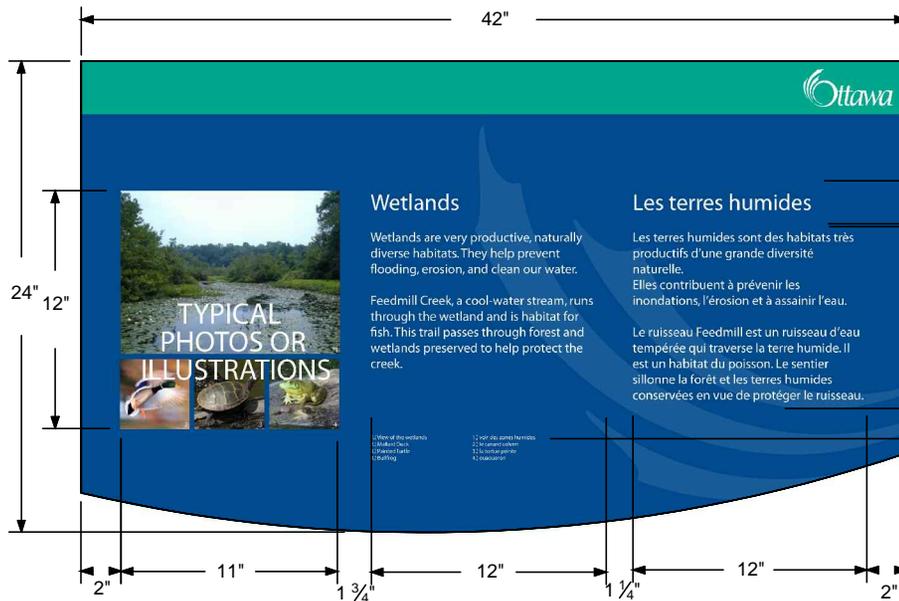
1 SINGLE POST ANGLED - GRAPHICS



TITLE: CITY OF OTTAWA TRAIL SIGNAGE  
 TS-13 GRAPHIC SPEC. - ANGLED INTERPRETATION - SINGLE POST

ORIGINAL DESIGN BY  
 STEWART BAILEY,  
 INTU DESIGN

DATE:	MAR 2012
SCALE:	N.T.S.
DWG No:	PI-31



TITLE TEXT - FONT: FRUTIGER 67 BOLD CONDENSED  
SIZE: 84 PT. (5/8" X-HEIGHT)  
LEADING: 102 PT.

BODY TEXT - FONT: FRUTIGER 67 BOLD CONDENSED  
SIZE: 48 PT. (3/8" X-HEIGHT)  
LEADING: 57.5 PT.

CAPTION TEXT - FONT: FRUTIGER 67 BOLD CONDENSED  
SIZE: 21 PT. (3/16" X-HEIGHT)  
LEADING: 25 PT.

**NOTES:**

- 1) GRAPHICS ARE 1/2" OUTDOOR-GRADE HIGH PRESSURE LAMINATE (FOLIA OR EQUIVALENT)
- 2) MESSAGES SHOWN ARE EXAMPLES ONLY.
- 3) ELECTRONIC ARTWORK WILL BE PROVIDED AS ADOBE ILLUSTRATOR CS3 FILES.
- 4) ALL TRANSLATION TO BE PROVIDED BY CITY OF OTTAWA.
- 5) ALL GRAPHIC LAYOUT TO BE APPROVED BY CITY OF OTTAWA.

1  
TS-14 TWO POST ANGLED - GRAPHICS



TITLE:

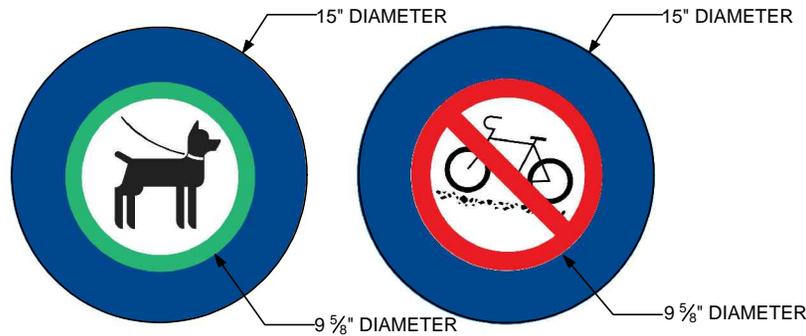
CITY OF OTTAWA TRAIL SIGNAGE  
TS-14 GRAPHIC SPEC. - ANGLED INTERPRETATION - TWO POST

ORIGINAL DESIGN BY  
STEWART BAILEY,  
INTU DESIGN

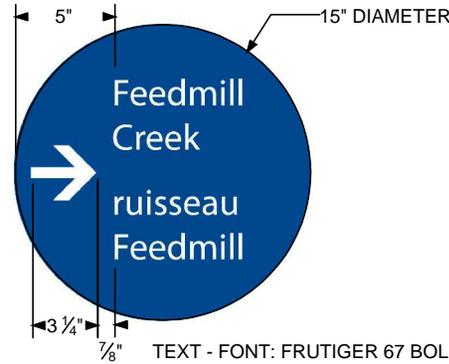
DATE: MAR 2012

SCALE N.T.S.

DWG No: PI-32

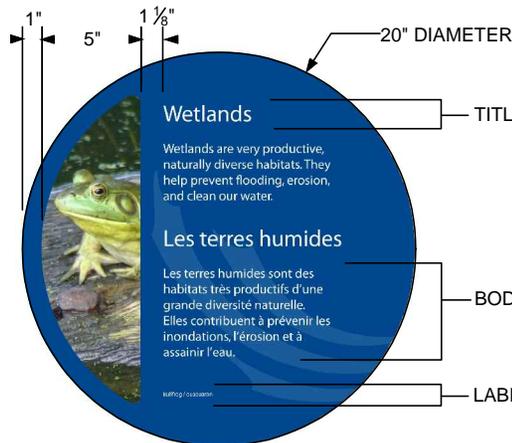


1 REGULATORY - GRAPHICS  
TS-15



TEXT - FONT: FRUTIGER 67 BOLD CONDENSED  
SIZE: 135 PT. (1.1" X-HEIGHT)  
LEADING: 162 PT.

2 DIRECTIONAL - GRAPHICS  
TS-15



3 INTERPRETIVE - GRAPHICS  
TS-15

TITLE TEXT - FONT: FRUTIGER 67 BOLD CONDENSED  
SIZE: 84 PT. (5/8" X-HEIGHT)  
LEADING: 102 PT.

BODY TEXT - FONT: FRUTIGER 67 BOLD CONDENSED  
SIZE: 48 PT. (3/8" X-HEIGHT)  
LEADING: 57.5 PT.

LABEL TEXT - FONT: FRUTIGER 67 BOLD CONDENSED  
SIZE: 21 PT. (3/16" X-HEIGHT)  
LEADING: 25 PT.

**NOTES:**

- 1) GRAPHICS ARE OUTDOOR-GRADE INK-JET PRINTS ON 3M 2 MIL VINYL C/W ANTI-GRAFITTI OVERLAMINATE.
- 2) GRAPHICS ARE TO BE APPLIED DIRECTLY TO THE ALUMINUM SIGNFACE.
- 3) MESSAGES SHOWN ARE EXAMPLES ONLY.
- 4) ELECTRONIC ARTWORK WILL BE PROVIDED AS ADOBE ILLUSTRATOR CS3 FILES.
- 5) ALL TRANSLATION TO BE PROVIDED BY CITY OF OTTAWA.
- 6) ALL GRAPHIC LAYOUT TO BE APPROVED BY CITY OF OTTAWA.



TITLE:

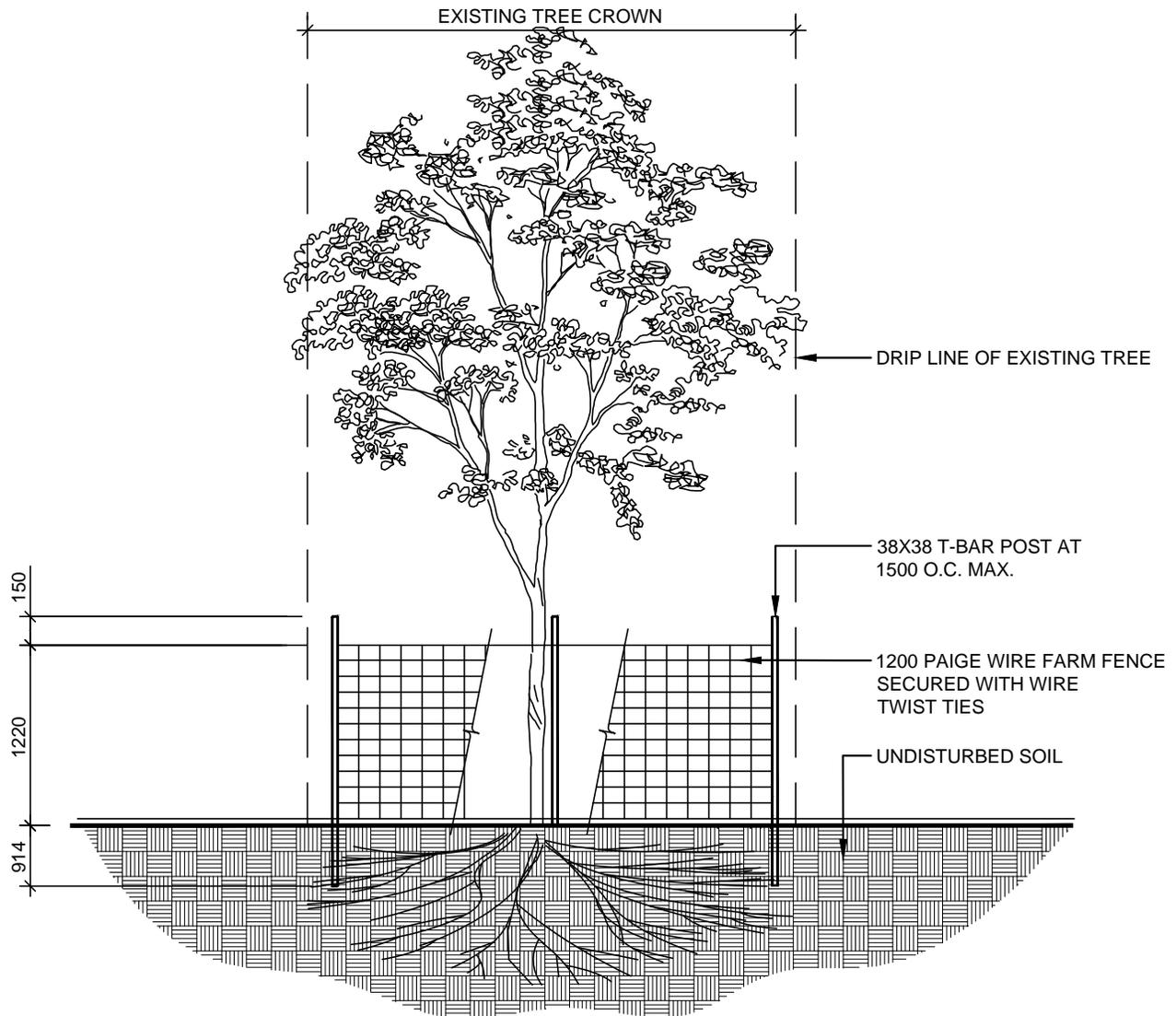
CITY OF OTTAWA PARK SIGNAGE  
TS -15 ONE POST REGULATORY, DIRECTIONAL & INTERPRETIVE

ORIGINAL DESIGN BY  
STEWART BAILEY,  
INTU DESIGN

DATE: MAR 2012

SCALE N.T.S.

DWG No: PI-33



**NOTES:**

1. THE AREA WITHIN THE DRIPLINE OF ALL EXISTING TREES SHALL BE PROPERLY PROTECTED WITH TEMPORARY FENCING AS PER THE APPROVED LANDSCAPE PLAN.
2. THE SURVEY SHALL SHOW EXISTING ELEVATION AT BASE OF ALL TREES TO BE PRESERVED AS SHOWN BY "+".
3. THE AREA WITHIN THE PROTECTED FENCING SHALL REMAIN UNDISTURBED AND SHALL NOT BE USED FOR THE STORAGE OF BUILDING MATERIALS OR EQUIPMENT. REMOVE ALL DEBRIS.
4. PRUNE BRANCHES TO REMOVE DAMAGED OR OBJECTIONABLE BRANCHES. DO NOT PRUNE LEADERS.
5. TREE PROTECTION SHALL REMAIN UNTIL SUBSTANTIAL PERFORMANCE OF THE PROJECT.
6. IF CUTTING OF ROOTS OR CHANGING OF GRADES AROUND EXISTING TREES IS CALLED FOR, FOLLOW APPROPRIATE DETAILS AS DIRECTED BY LANDSCAPE ARCHITECT.
7. IF TREES ARE BEING AFFECTED BY CONSTRUCTION, A WATER AND FERTILIZING PROGRAM WILL BE REQUIRED TO THE SATISFACTION OF THE CITY.



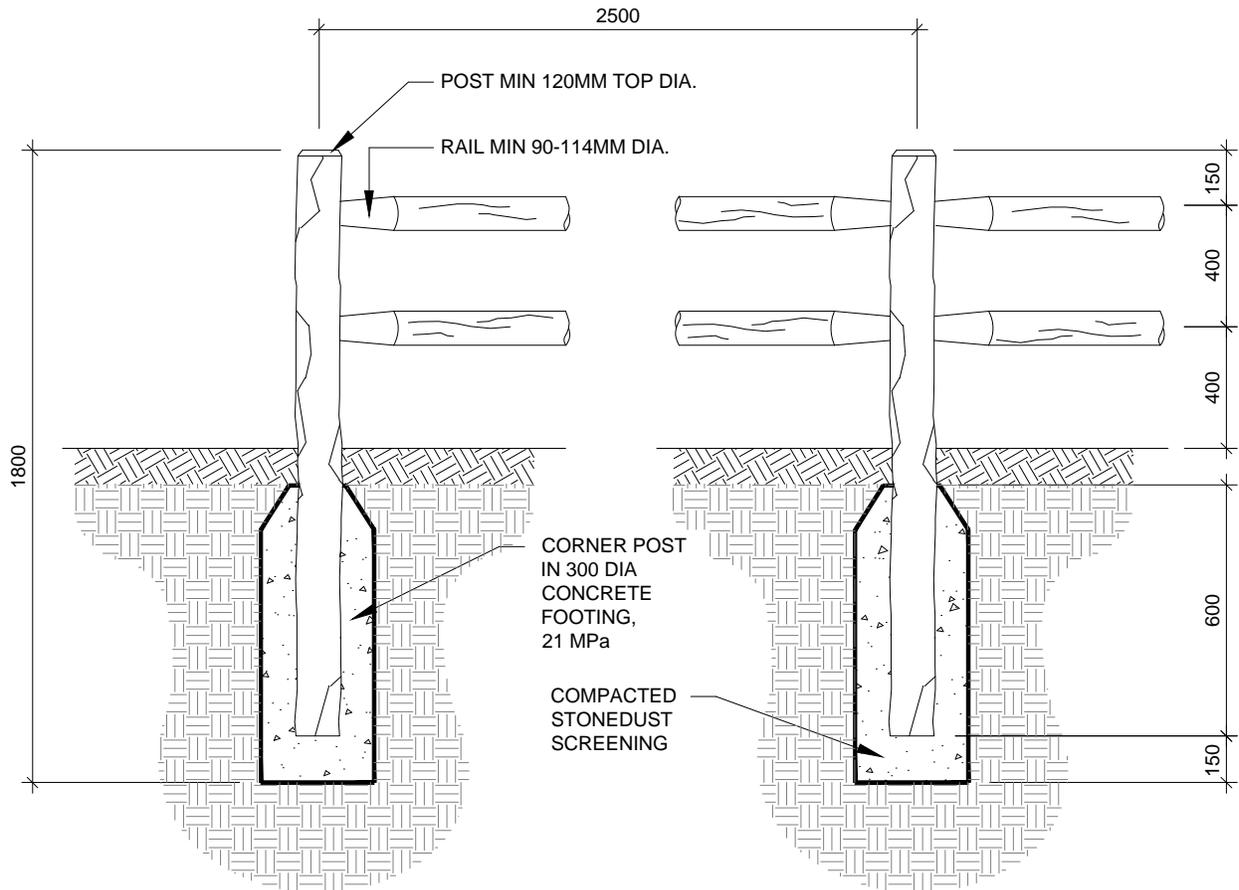
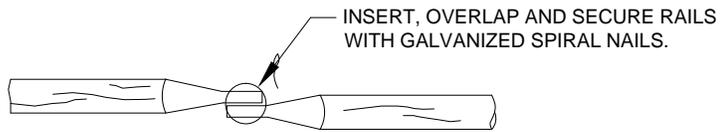
TITLE:

**TREE PRESERVATION  
PROTECTION FENCE**

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PB-01



**NOTES:**

1. POST AND RAILS TO BE WELL PEELED CEDAR, WITH NO PEELER MARKS
2. CORNER AND END POSTS TO HAVE MINIMUM 25X100MM OBLONG HOLES FOR RAILS. LINE POSTS TO HAVE MINIMUM 64X100 OBLONG HOLES FOR RAILS.
3. SOURCE OF WOOD FENCING TO BE APPROVED BY THE CITY OF OTTAWA.
4. ALL DIMENSIONS ARE SHOWN IN MILLIMETRES UNLESS OTHERWISE NOTED.



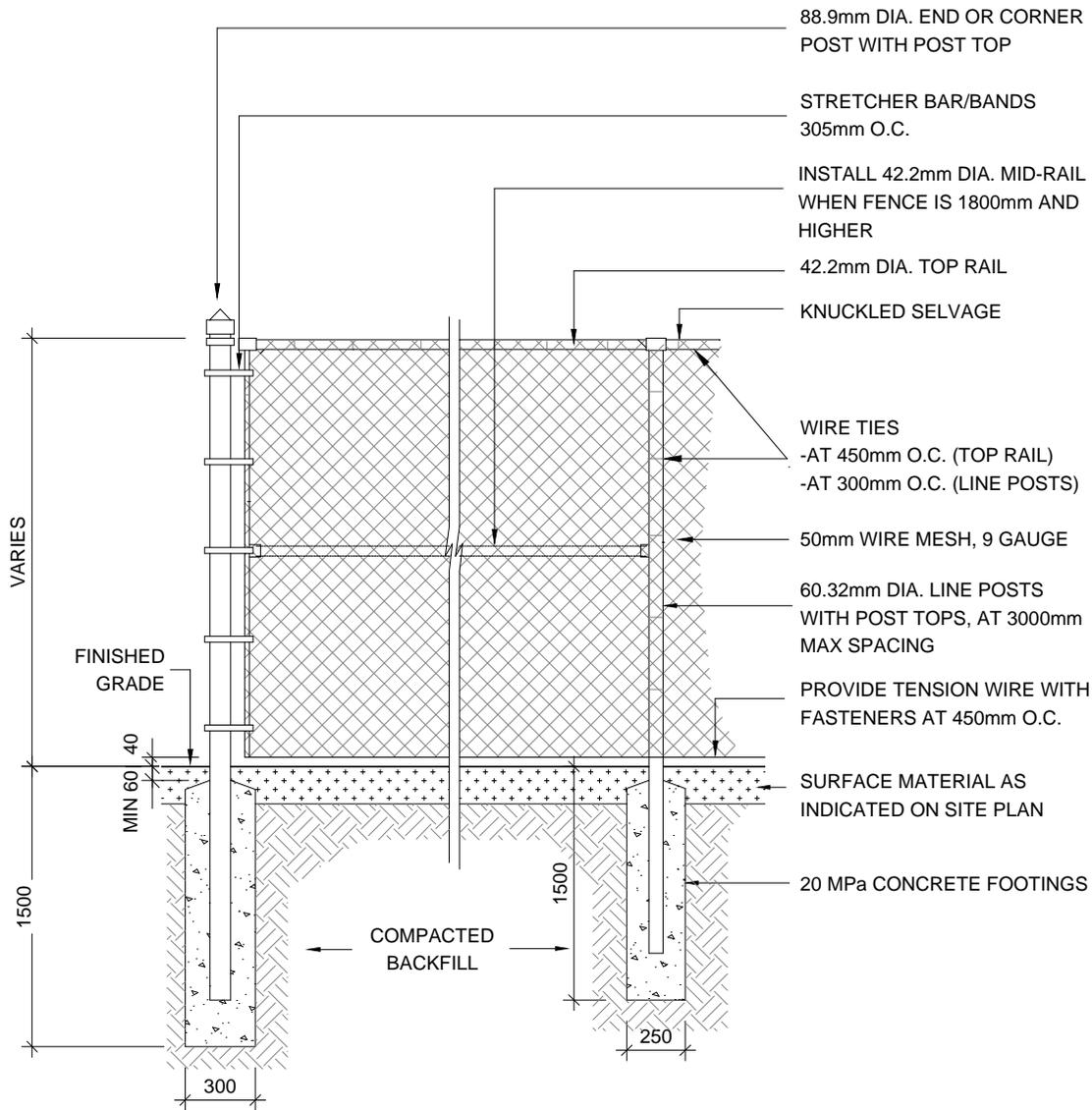
TITLE:

**TWO-RAIL POST  
AND RAIL FENCE**

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PB-02



**NOTES:**

1. IF FENCE IS TO BE BLACK VINYL, THE FENCE SHOULD BE 9 GAUGE WIRE WITH BLACK VINYL FINISH.
2. POSTS, RAILS AND ALL OTHER HARDWARE SHOULD BE ELECTRO STATIC PAINTED



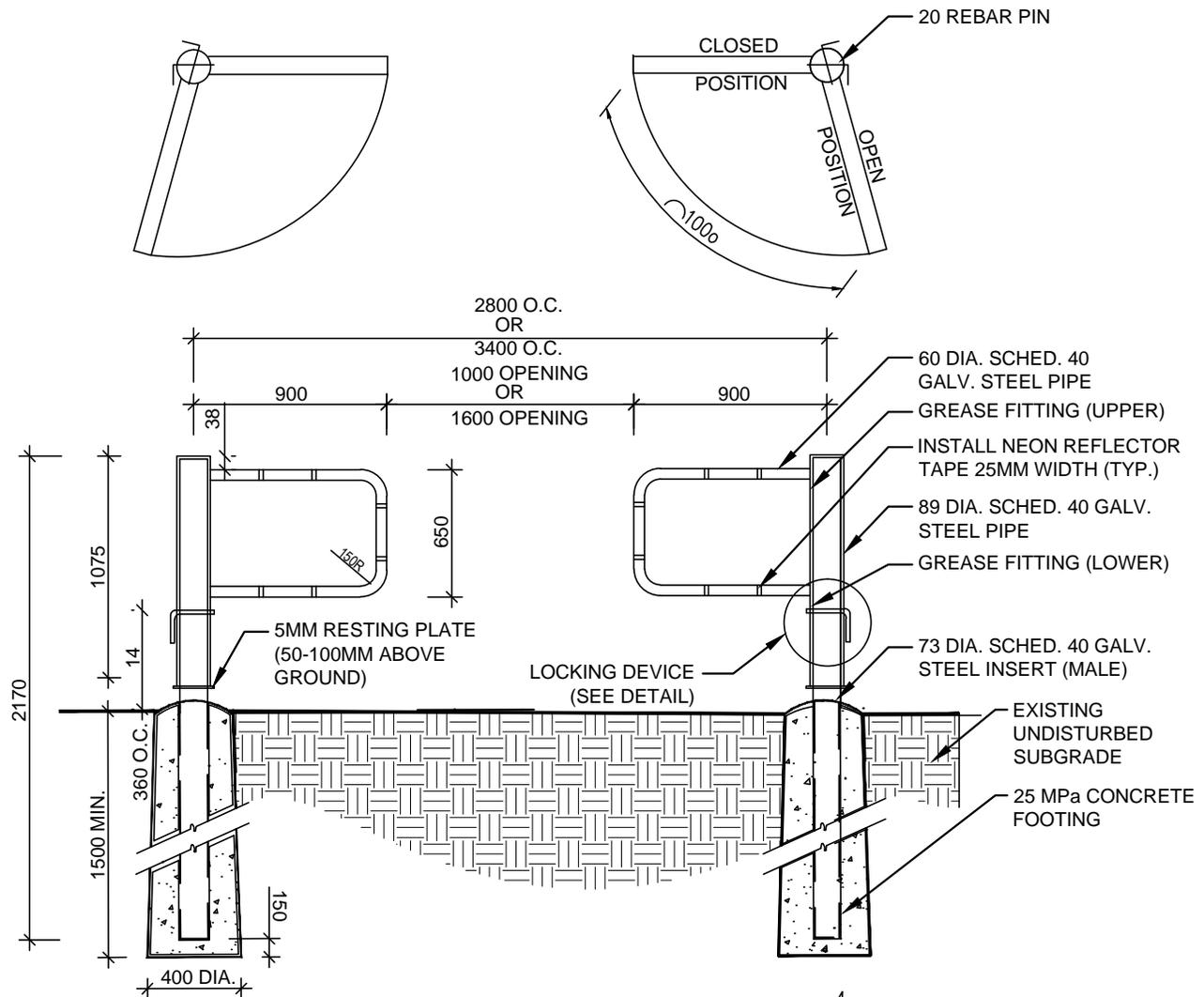
TITLE:

**CHAIN LINK FENCE**

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PB-03



**NOTES:**

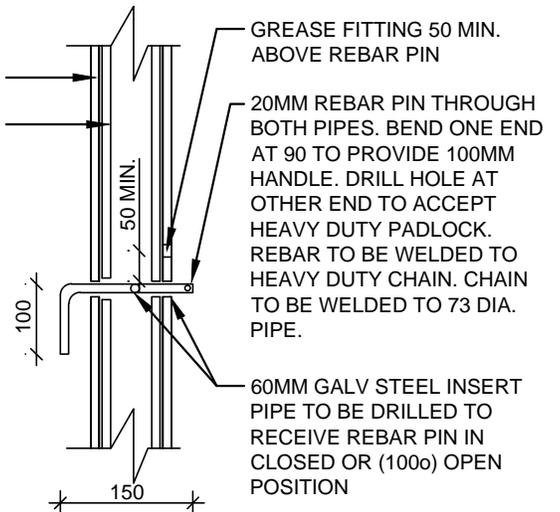
1. ALL PIPE AND COMPONENTS SHALL BE GALVANIZED AFTER FABRICATION.
2. ALL PIPE SHALL BE SCHEDULE 40. STEEL.
3. ALL JOINTS TO BE CONTINUOUS WELDS (MIN .6 THICK) AND BE GROUND SMOOTH.
4. CONTRACTOR TO SUPPLY HEAVY DUTY PADLOCK AS REQUIRED.
5. 5MM RESTING PLATE TO BE WELDED TO INSERT.
6. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.

**LOCKING DEVICE**

1. LOCKING PIN TO BE GALVANIZED AFTER BENDING.

89 DIA. STEEL PIPE (GATE)

73 DIA. STEEL PIPE (FIXED)



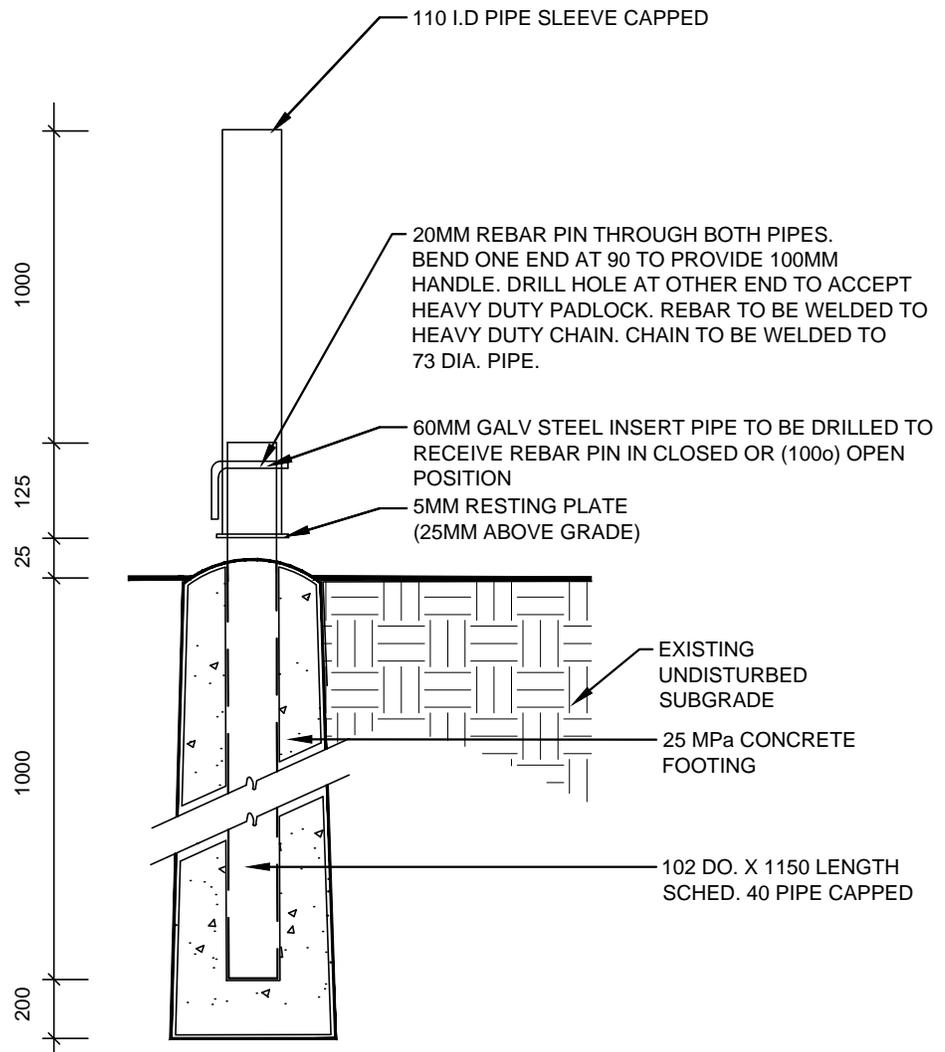
TITLE:

**P-GATE DETAIL**

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PB-04



**NOTES:**

1. ALL PIPE AND COMPONENTS SHALL BE GALVANIZED AFTER FABRICATION.
2. CONTRACTOR TO SUPPLY HEAVY DUTY PADLOCK AS REQUIRED.
3. 5MM RESTING PLATE TO BE WELDED TO INSERT.
4. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.

**LOCKING DEVICE**

LOCKING PIN TO BE GALVANIZED AFTER BENDING.



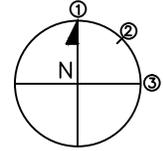
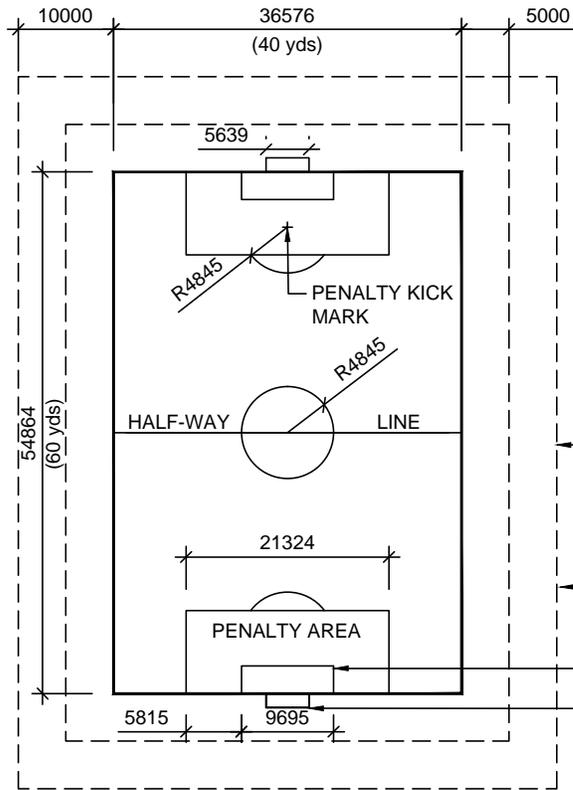
TITLE:

**REMOVABLE BOLLARD**

DATE: MAR 2012

SCALE N.T.S.

DWG No: PB-05



FIELD ORIENTATION

MINIMUM SETBACK TO PROPERTY LINES AND OTHER FACILITIES

PLANTING SETBACK AND PLAYOUT LINES

GOAL AREA

GOAL POSTS

**NOTE:**

ALL DIMENSIONS ARE IN MILLIMETRES, UNLESS OTHERWISE STATED.



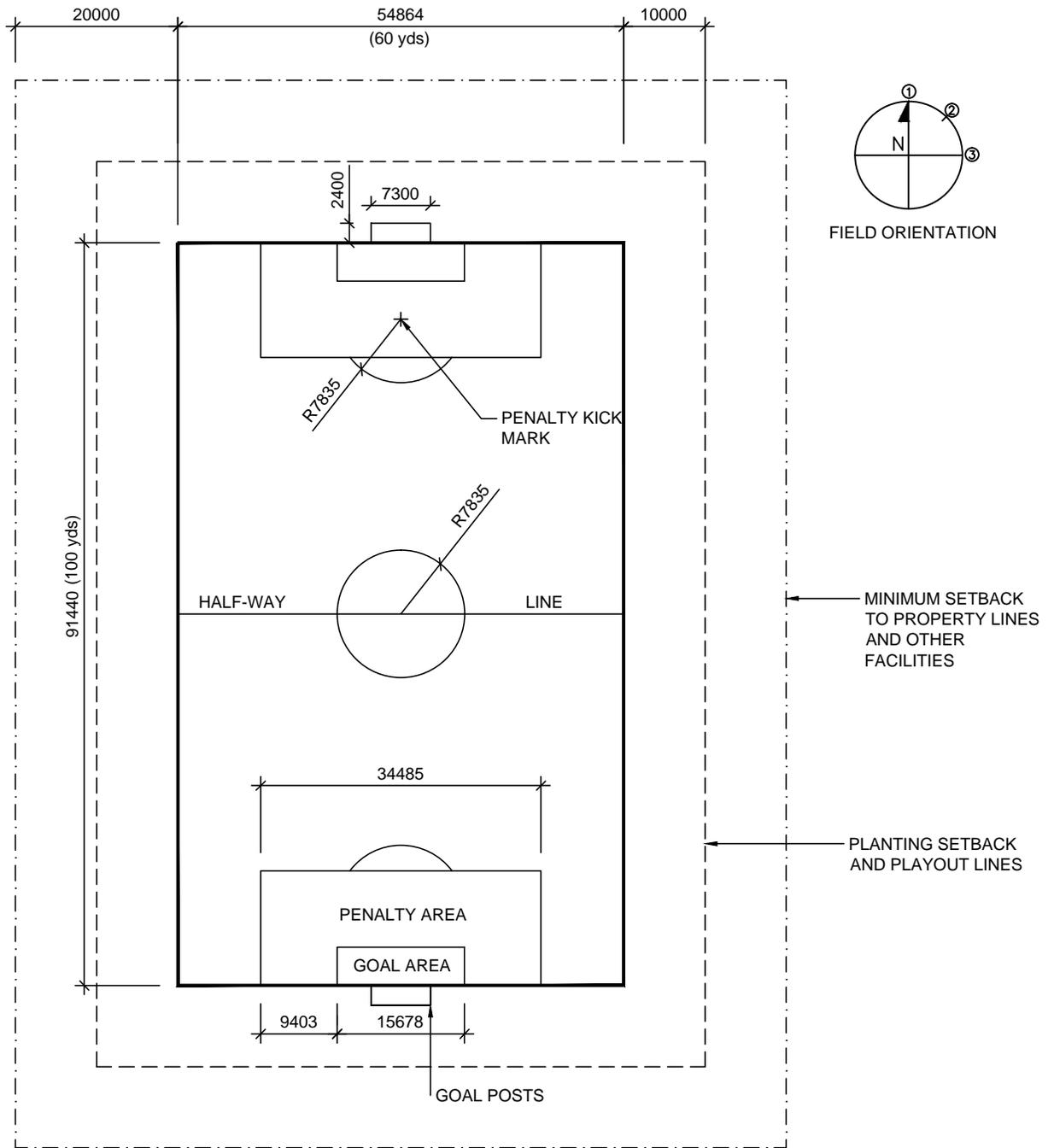
TITLE:

**SOCCER FIELD LAYOUT  
MINI FIELD**

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PD-01



**NOTE:**  
ALL DIMENSIONS ARE IN MILLIMETRES, UNLESS OTHERWISE STATED.



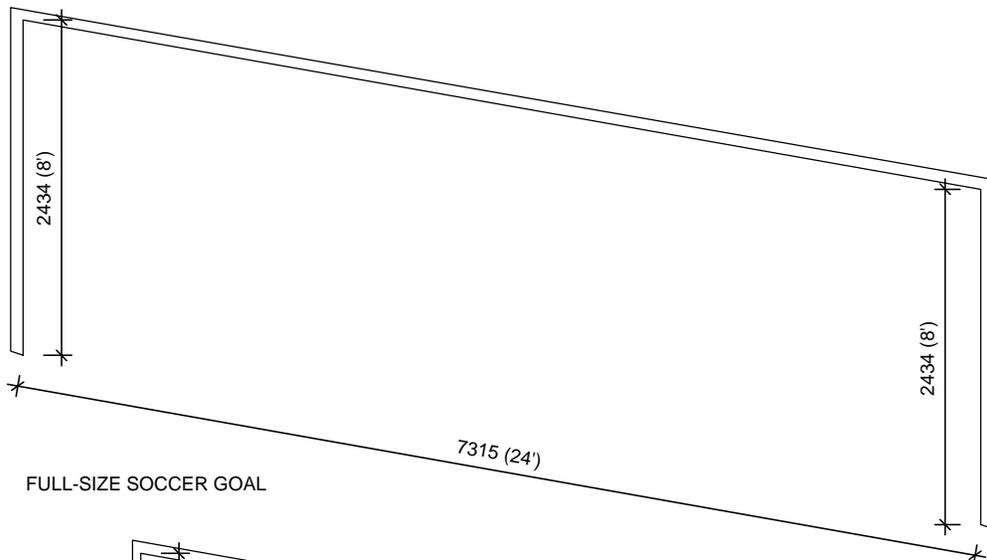
TITLE:

**SOCCER FIELD LAYOUT  
FULL SIZE**

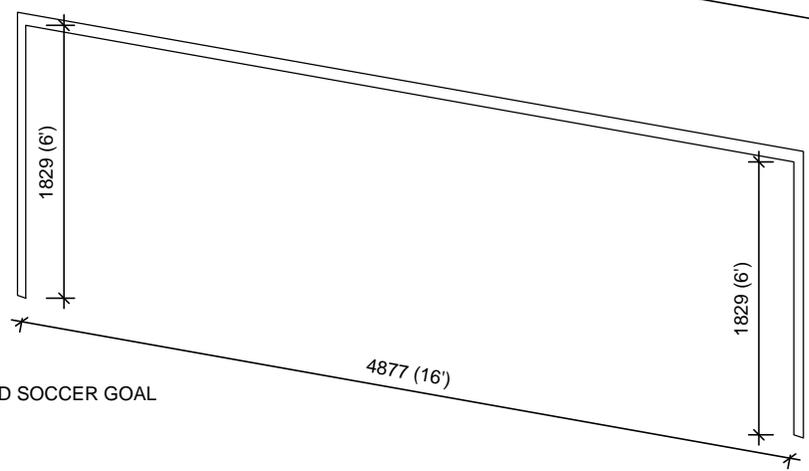
DATE: MAR 2012

SCALE: N.T.S.

DWG No: PD-02



FULL-SIZE SOCCER GOAL



MINI-FIELD SOCCER GOAL



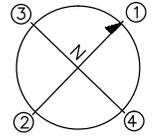
TITLE:

FULL-SIZE AND MINI-FIELD SOCCER GOAL

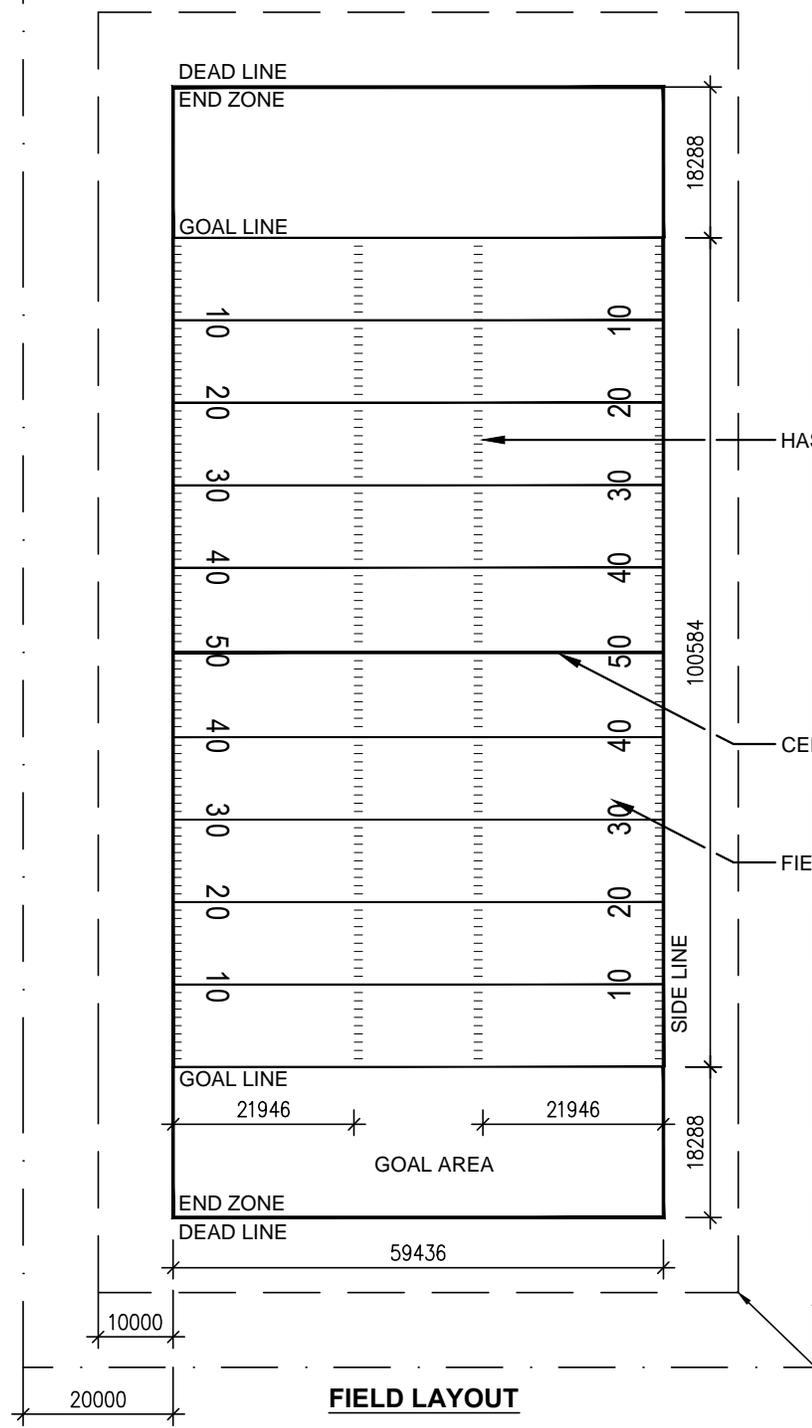
DATE: MAR 2012

SCALE N.T.S.

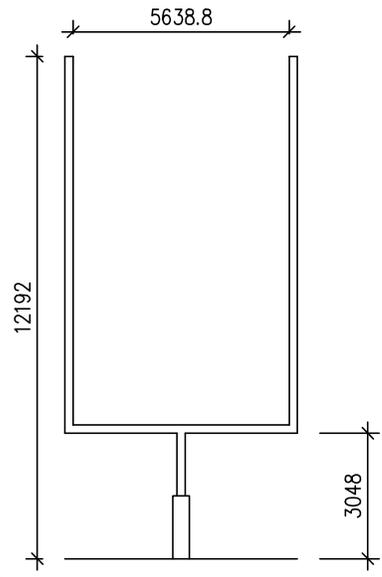
DWG No: PD-03



FIELD ORIENTATION



**GOAL POST DETAIL**



**NOTES:**

- 1. ALL DIMENSIONS ARE IN MILLIMETERS
- 2. SEE SPECIFICATIONS FOR GRADING & CONSTRUCTION INFORMATION

MINIMUM SETBACK TO PROPERTY LINES AND OTHER FACILITIES

PLANTING SETBACK AND PLOUTY LINES

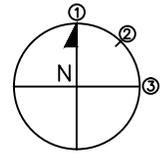
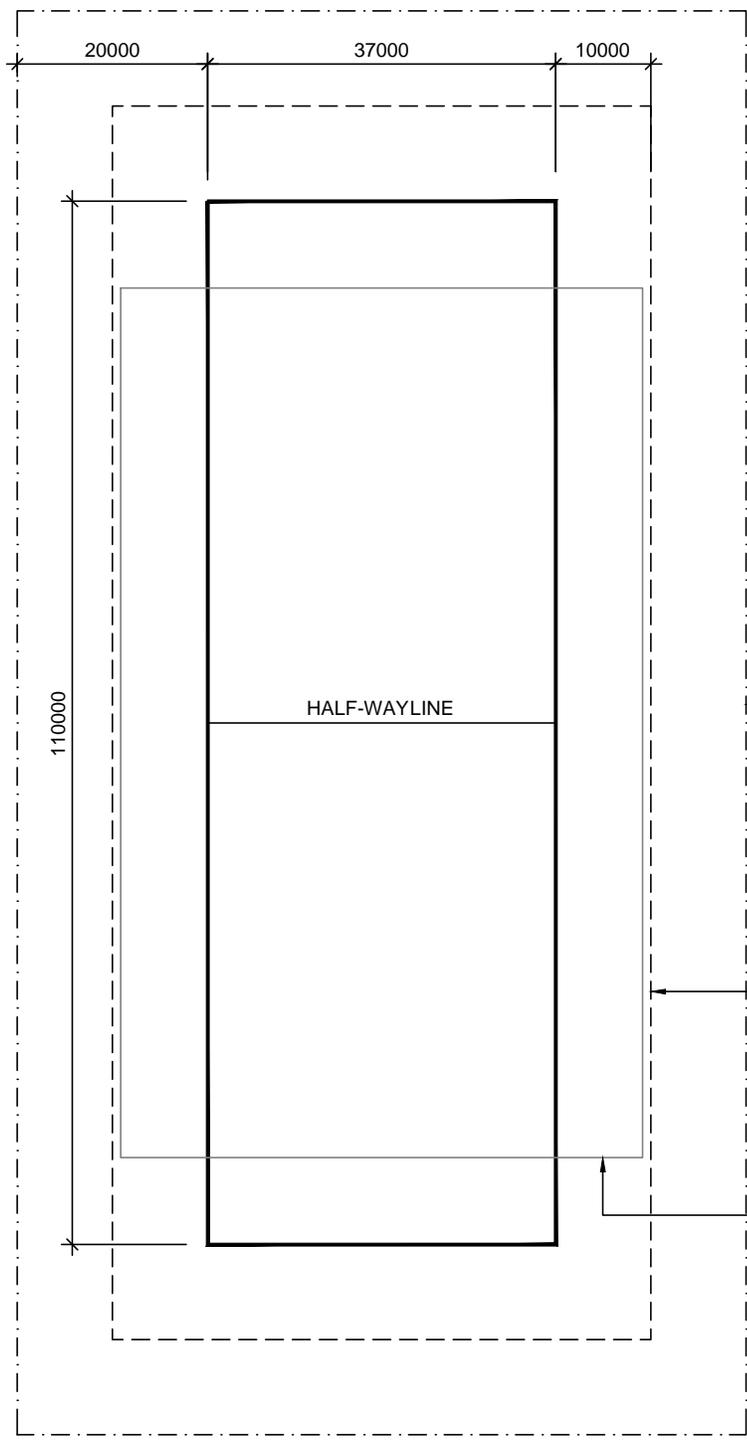
**FIELD LAYOUT**



TITLE:

**FOOTBALL FIELD LAYOUT**

DATE:	MAR 2012
SCALE:	N.T.S.
DWG No:	PD-04



FIELD ORIENTATION

MINIMUM SETBACK TO PROPERTY LINES AND OTHER FACILITIES

PLANTING SETBACK AND PAYOUT LINES

LINE OF EXISTING FULL SIZE SOCCER FIELD

**NOTES:**

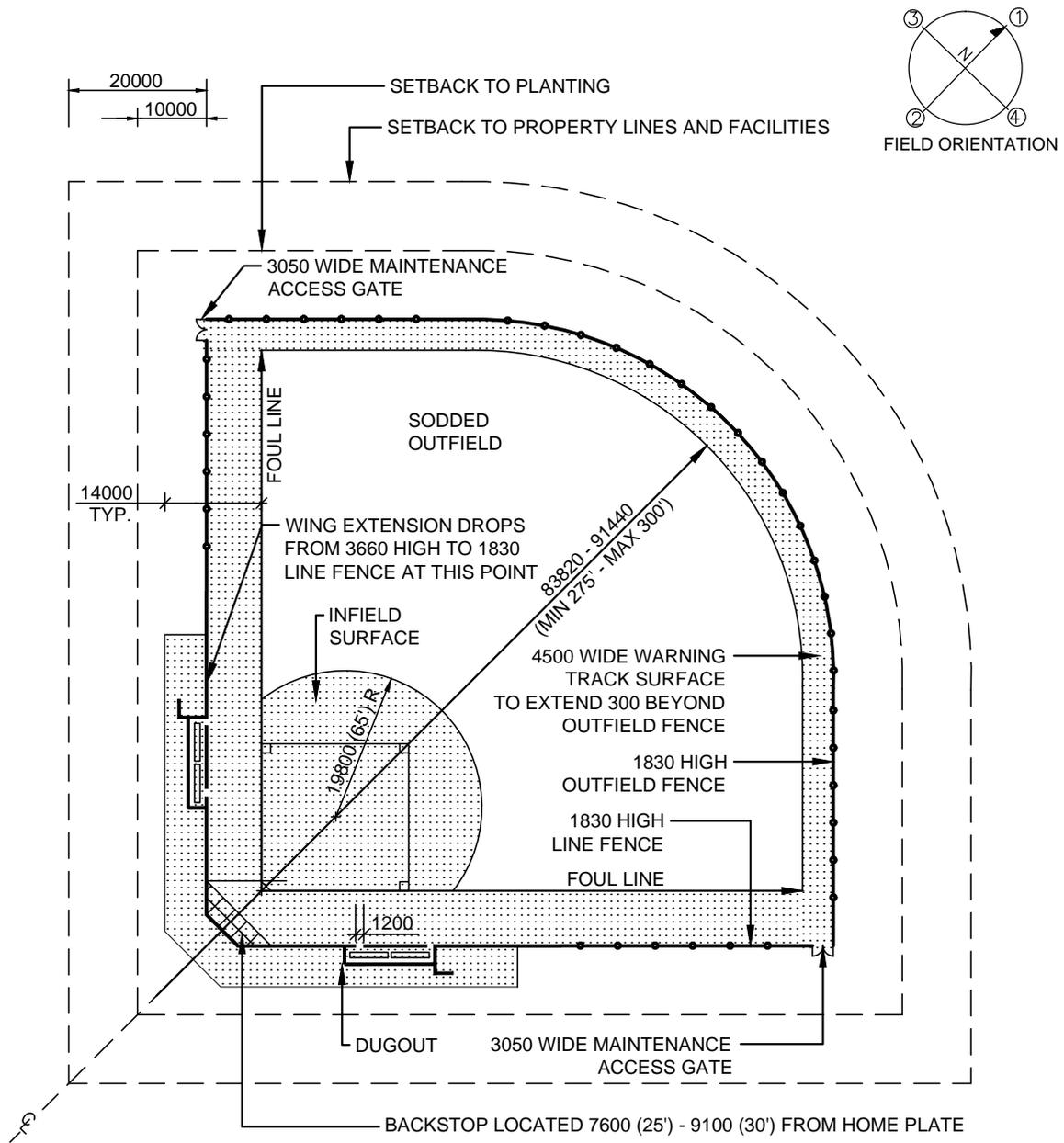
1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. AVOID SWALES, CATCH BASINS AND PLANTING WITHIN 6000 OF LIGHT POLES.
3. GRADE WITHIN 6000R OF LIGHT POLES NOT TO EXCEED 5% SLOPE FOR VEHICULAR ACCESS.



TITLE:

**STANDARD ULTIMATE FRISBEE  
FIELD LAYOUT**

DATE:	MAR 2012
SCALE:	N.T.S.
DWG No:	PD-05



**NOTES:**

1. INFIELD AND WARNING TRACK SURFACES TO CONSIST OF CITY APPROVED MIX.
2. DUGOUT OPTIONAL AS DETERMINED BY THE CITY OF OTTAWA.
3. REFER TO SENIOR SOFTBALL INFIELD AND BACKSTOP LAYOUT.
4. ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE SPECIFIED.



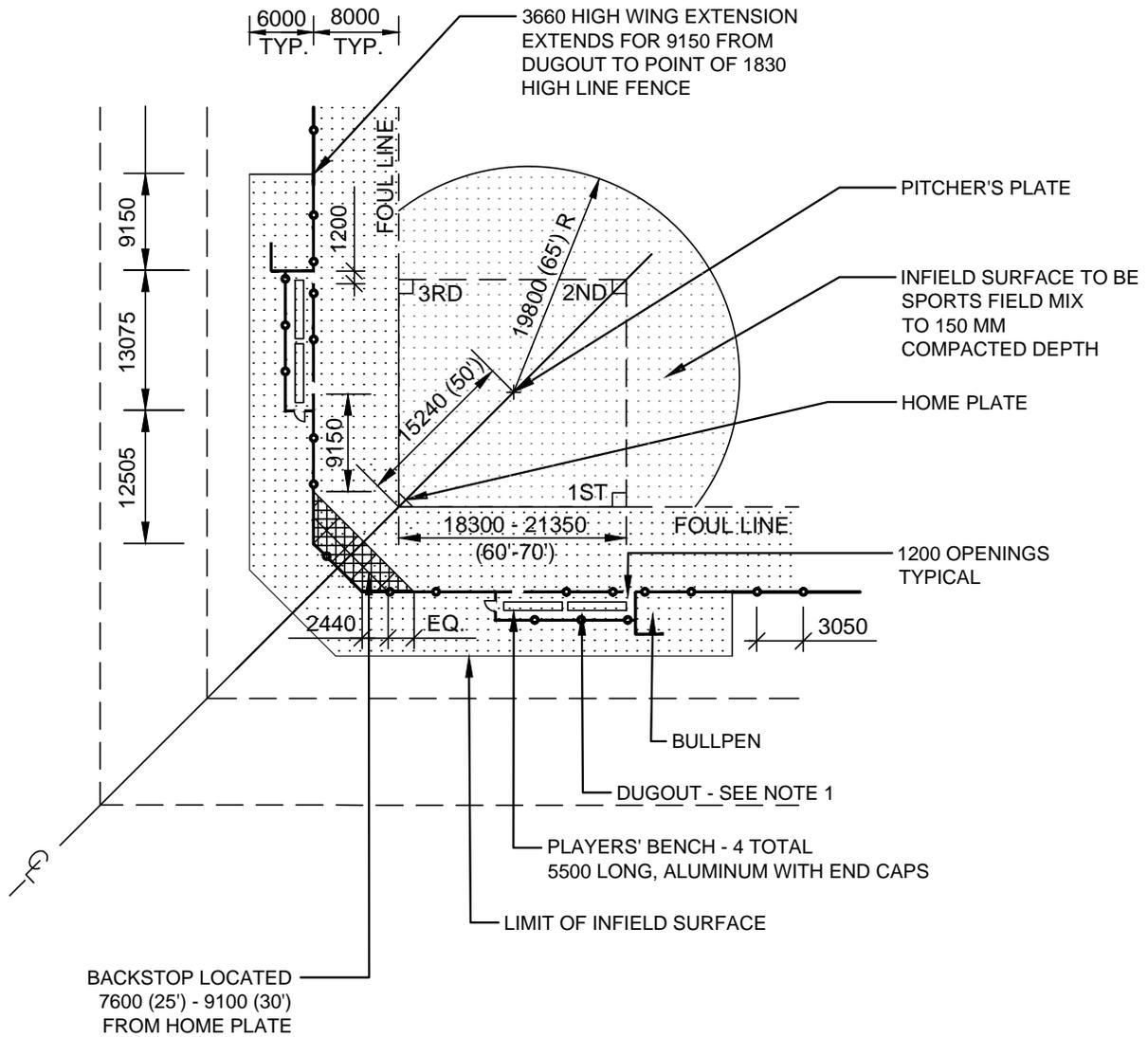
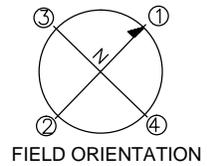
TITLE:

**SENIOR SOFTBALL  
(16 YRS. AND OVER)  
FIELD LAYOUT**

DATE: MAR 2012

SCALE N.T.S.

DWG No: PT-01



**NOTES:**

1. DUGOUT OPTIONAL FOR SENIOR SOFTBALL, AS DETERMINED BY CITY OF OTTAWA.
2. ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE SPECIFIED.



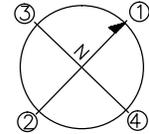
TITLE:

**SENIOR SOFTBALL  
(16 YRS. AND OVER)  
INFIELD & BACKSTOP LAYOUT**

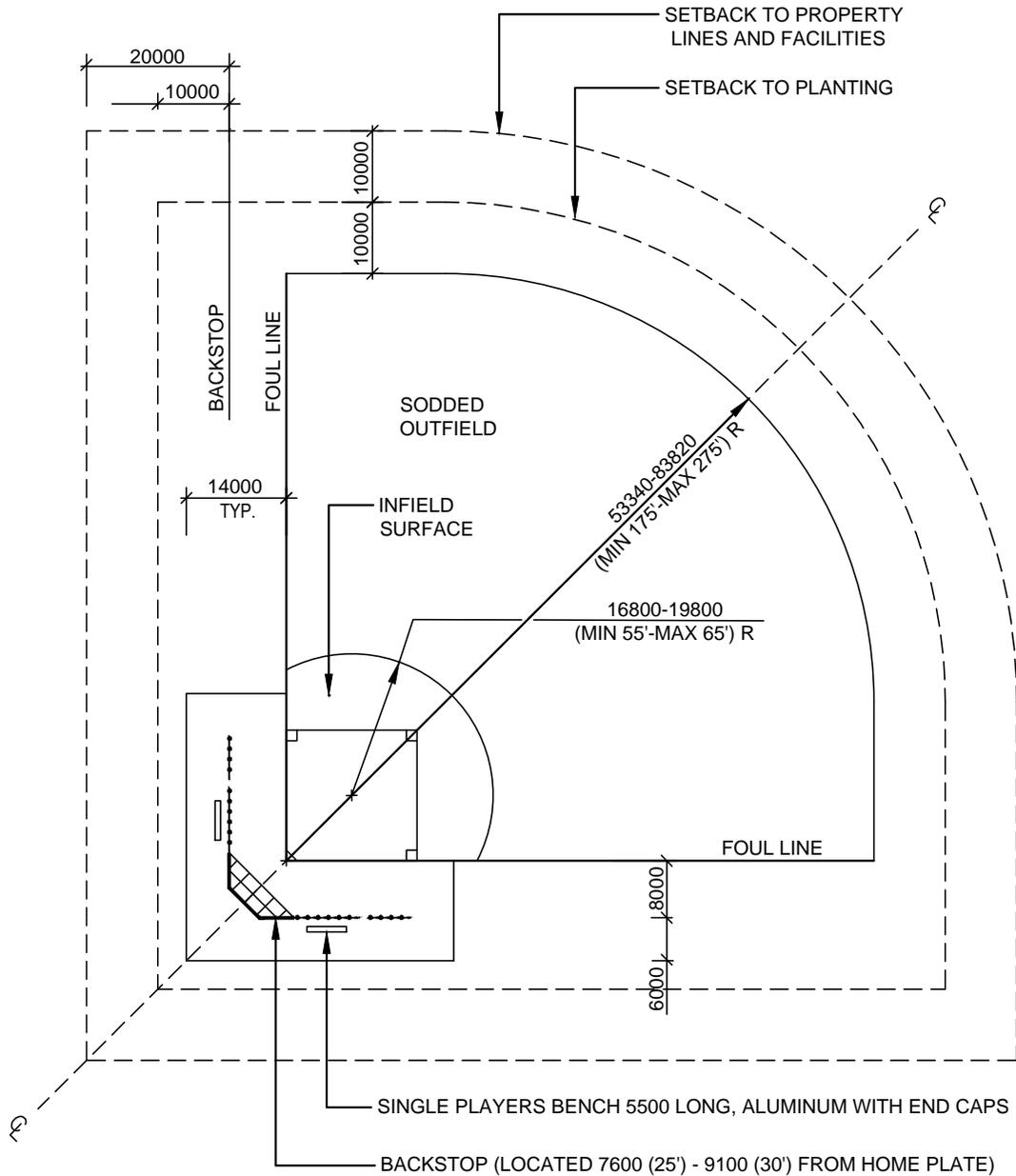
DATE: MAR 2012

SCALE: N.T.S.

DWG No: PT-02



FIELD ORIENTATION



**NOTES:**

1. INFIELD SURFACE TO CONSIST OF OTTAWA SPORTS FIELD MIX, REFER TO SPECIFICATIONS.
2. REFER TO JUNIOR SOFTBALL INFIELD AND BACKSTOP LAYOUT.
3. ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE SPECIFIED.



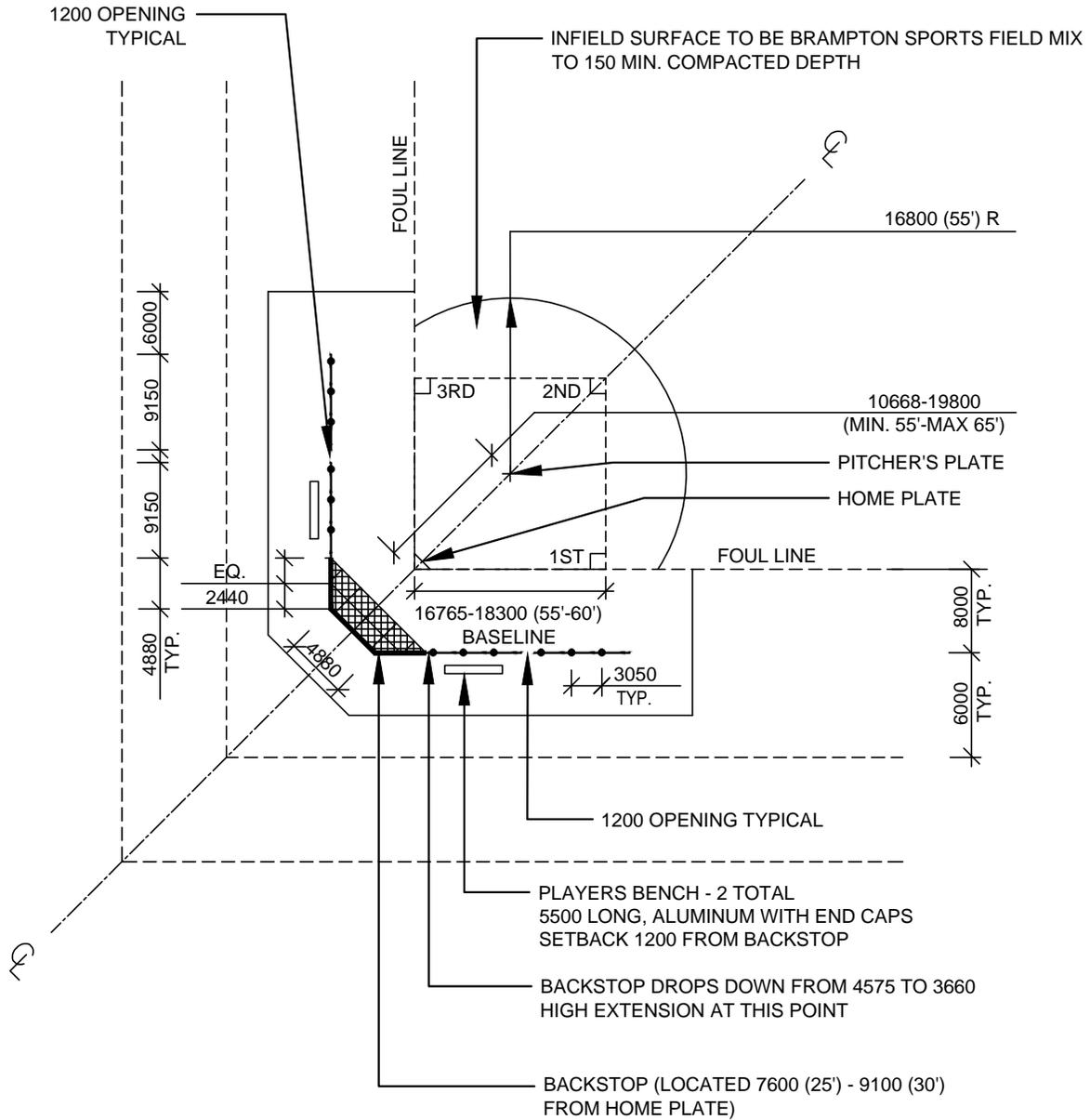
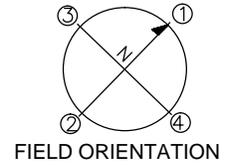
TITLE:

JUNIOR SOFTBALL (UNDER 16 YRS.)  
FIELD LAYOUT

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PT-03



**NOTE:**

1. ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE SPECIFIED.



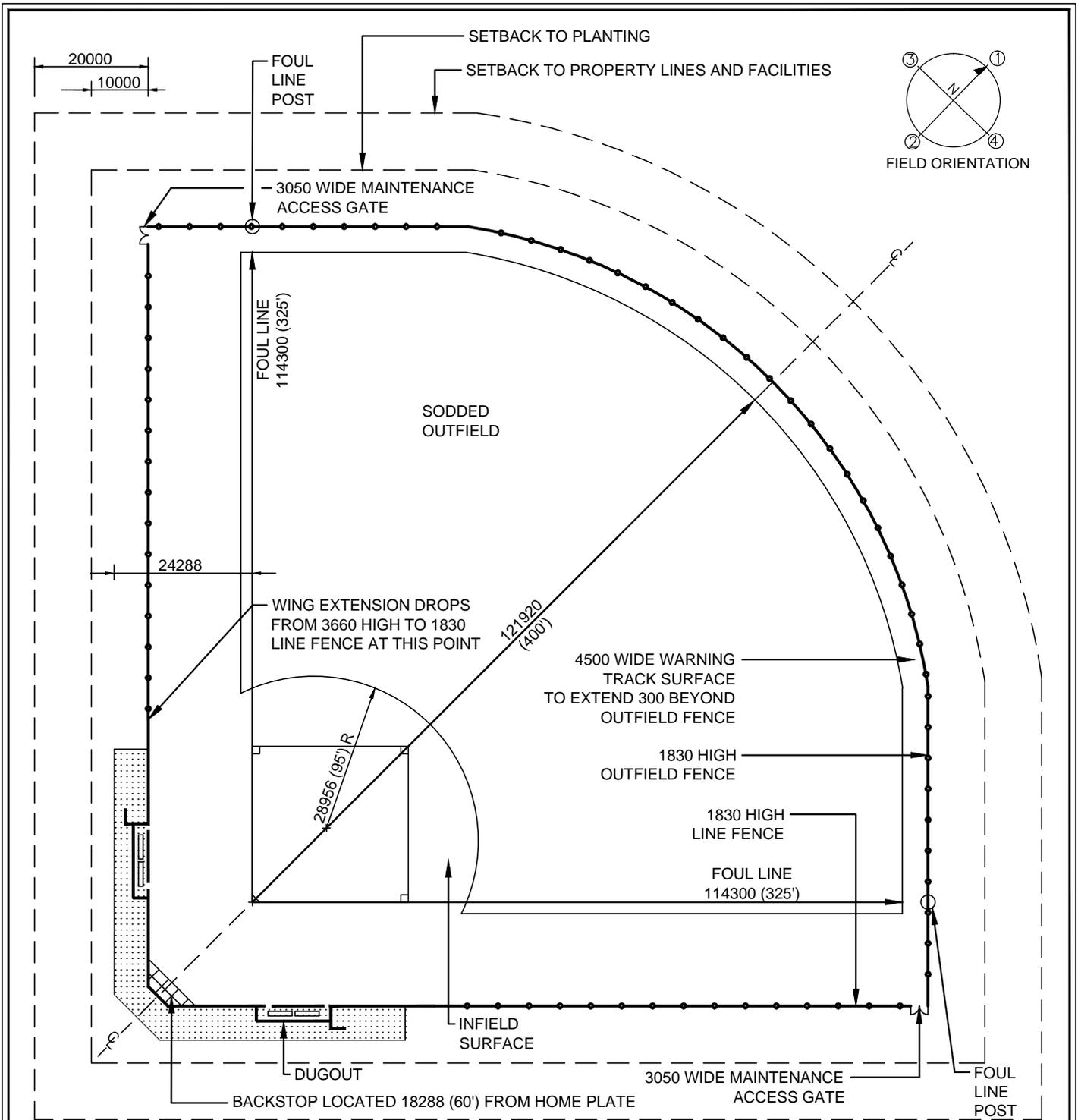
TITLE:

JUNIOR SOFTBALL (UNDER 16 YRS.)  
INFIELD AND BACKSTOP LAYOUT

DATE: MAR 2012

SCALE N.T.S.

DWG No: PT-04



**NOTES:**

1. INFIELD AND WARNING TRACK SURFACES TO CONSIST OF CITY APPROVED MIX.
2. REFER TO SENIOR BASEBALL - HARDBALL INFIELD & BACKSTOP LAYOUT.
3. ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE SPECIFIED.
4. SPECIFIC SIZE TO BE DETERMINED BY COMMUNITY CONSULTATION.



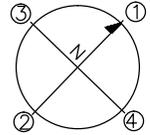
TITLE:

**SENIOR BASEBALL (HARDBALL)  
(16 YRS. AND OVER)  
FIELD LAYOUT**

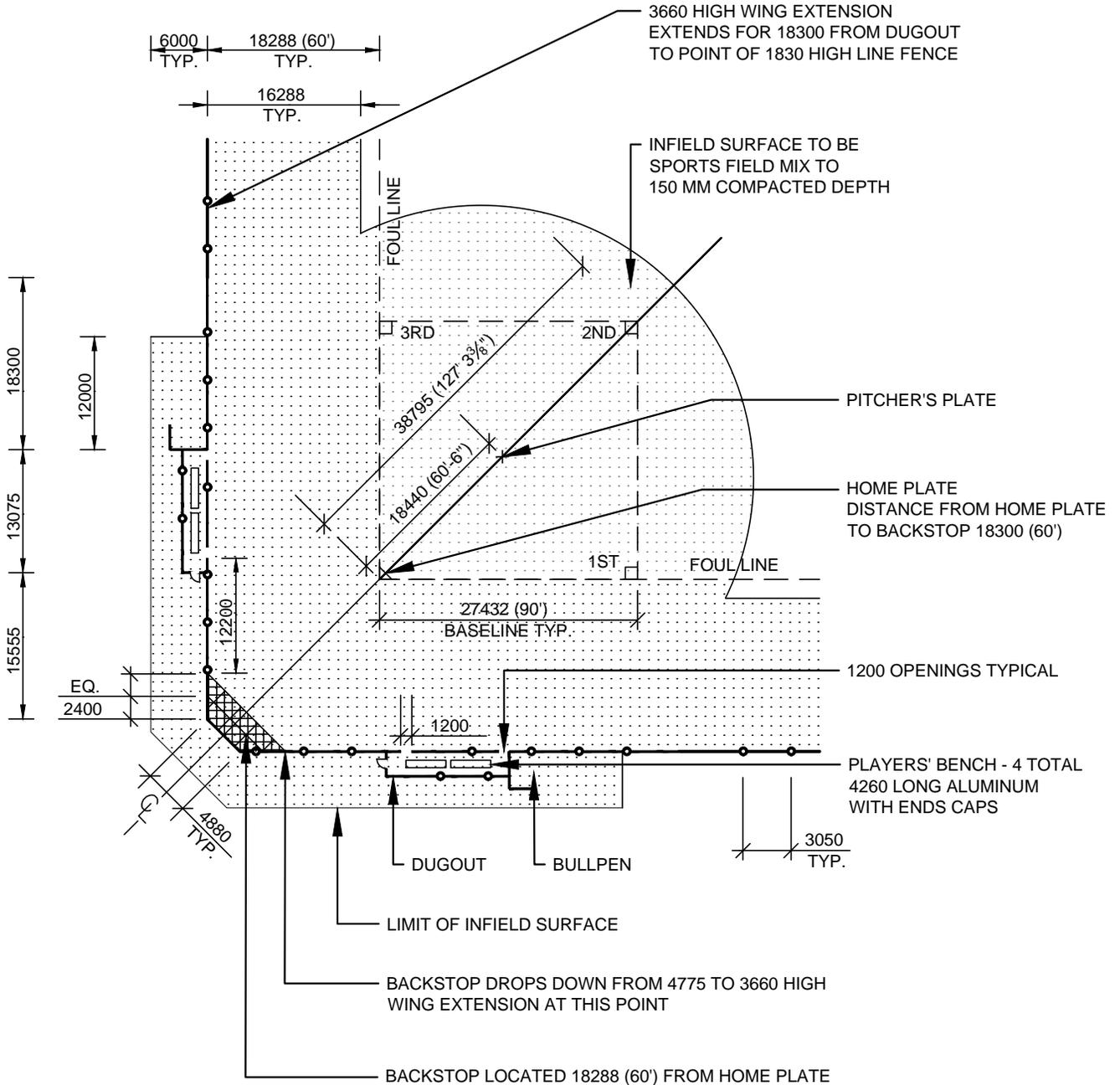
DATE: MAR 2012

SCALE N.T.S.

DWG No: PT-05



FIELD ORIENTATION



**NOTE:**

1. ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE SPECIFIED.



TITLE:

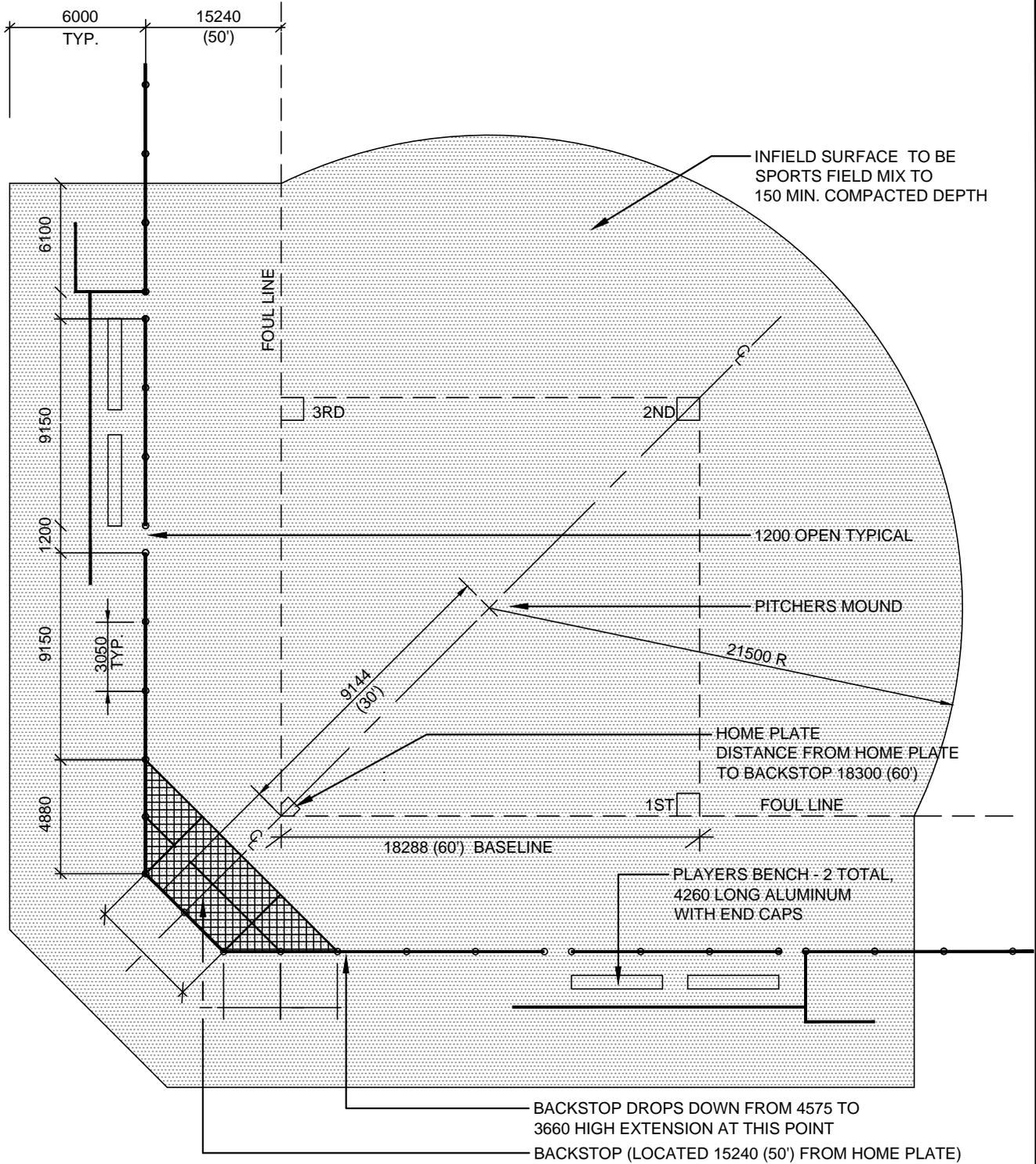
SENIOR BASEBALL (HARDBALL)  
(16 YRS. AND OVER)  
INFIELD & BACKSTOP LAYOUT

DATE: MAR 2012

SCALE N.T.S.

DWG No: PT-06





NOTE: ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE SPECIFIED.



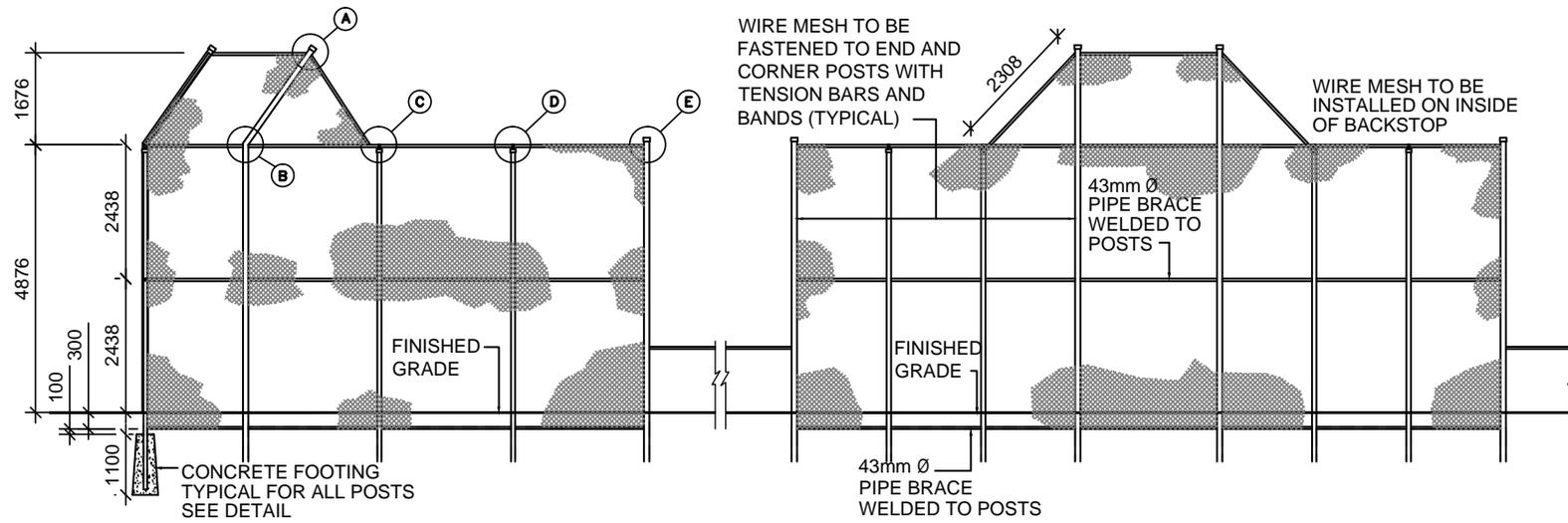
TITLE:

JUNIOR BASEBALL (HARDBALL)  
(UNDER 16 YRS.)  
INFIELD & BACKSTOP LAYOUT

DATE: MAR 2012

SCALE N.T.S.

DWG No: PT-08

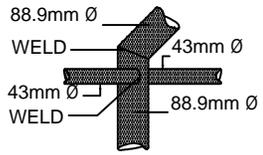


SECTION 'A'

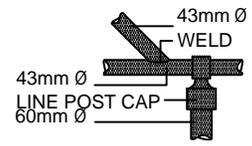
FRONT ELEVATION



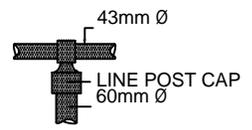
DETAIL 'A'



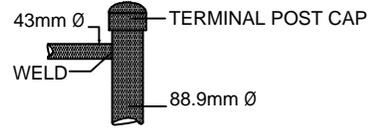
DETAIL 'B'



DETAIL 'C'



DETAIL 'D'



DETAIL 'E'



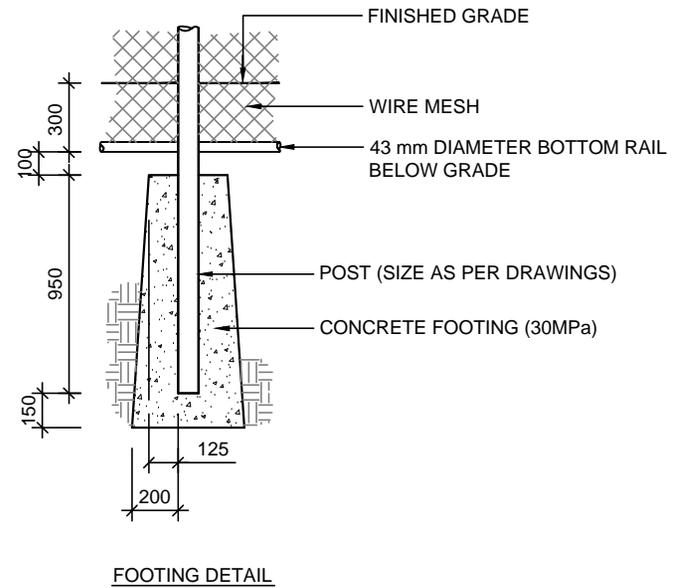
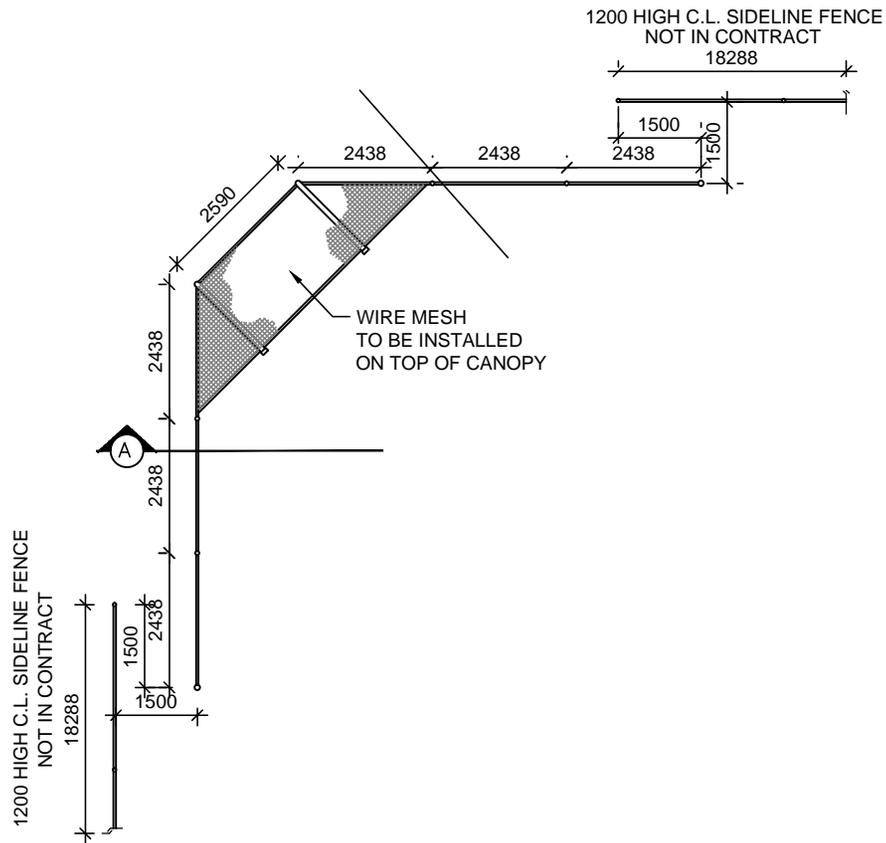
TITLE:

**SOFTBALL BACKSTOP  
SECTION 'A' & FRONT ELEVATION**

DATE: MAR 2012

SCALE: N.T.S.

DWG No: **PT-09**



TITLE:

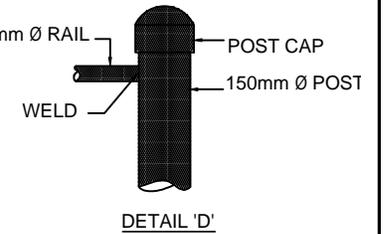
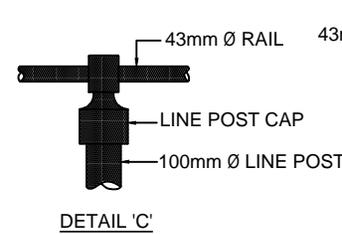
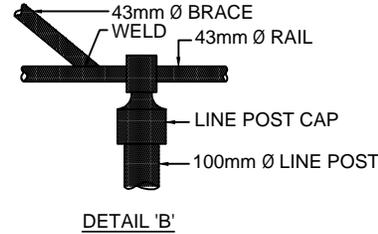
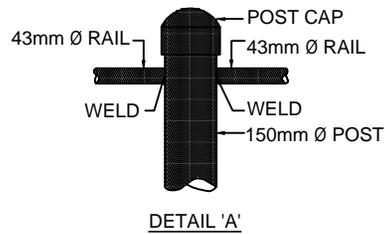
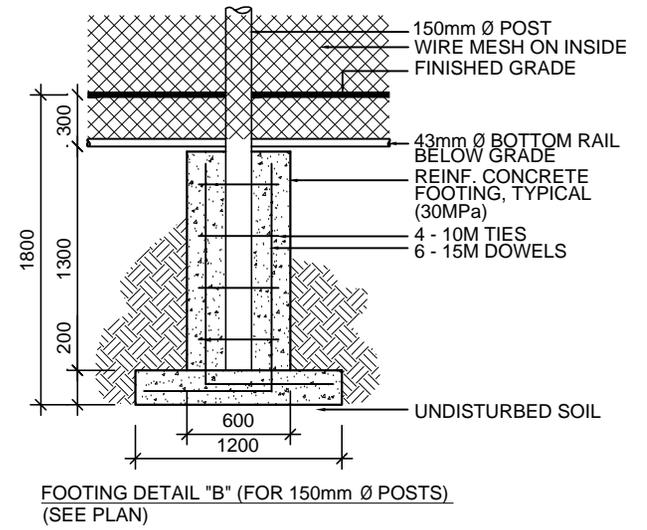
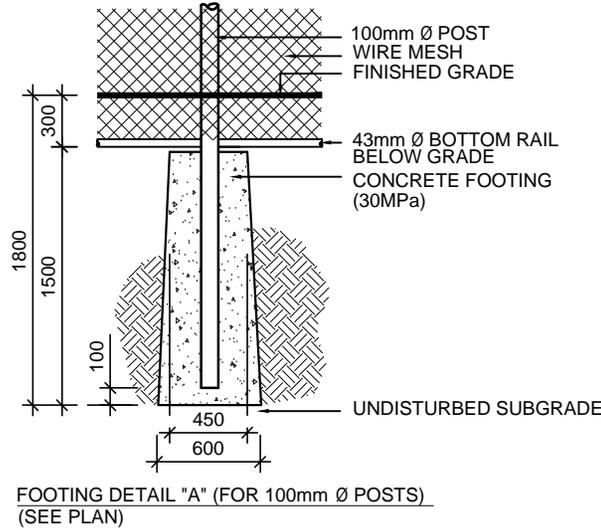
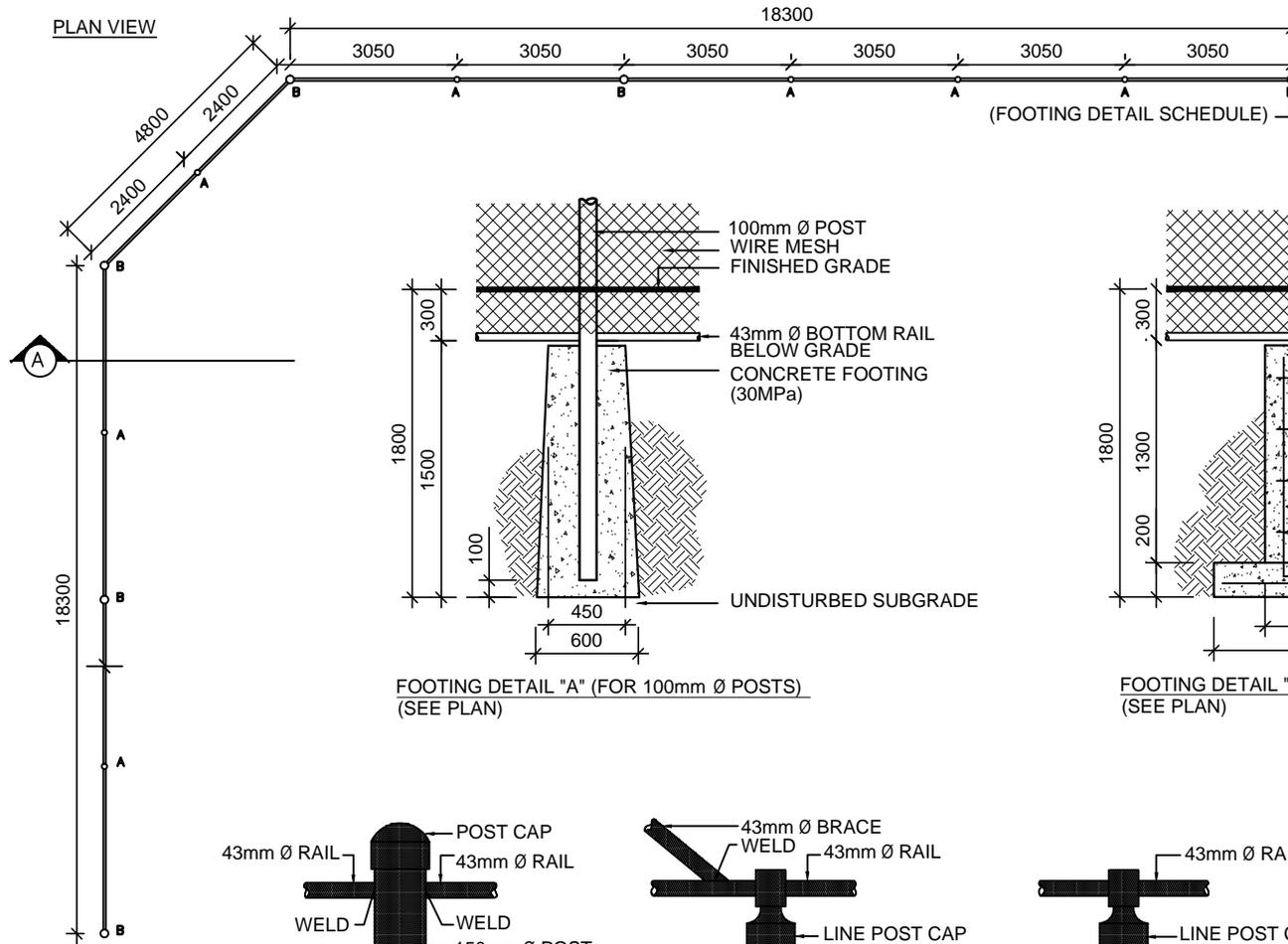
SOFTBALL BACKSTOP  
PLAN VIEW & FOOTING DETAIL

DATE: MAR 2012

SCALE N.T.S.

DWG No: PT-10

PLAN VIEW



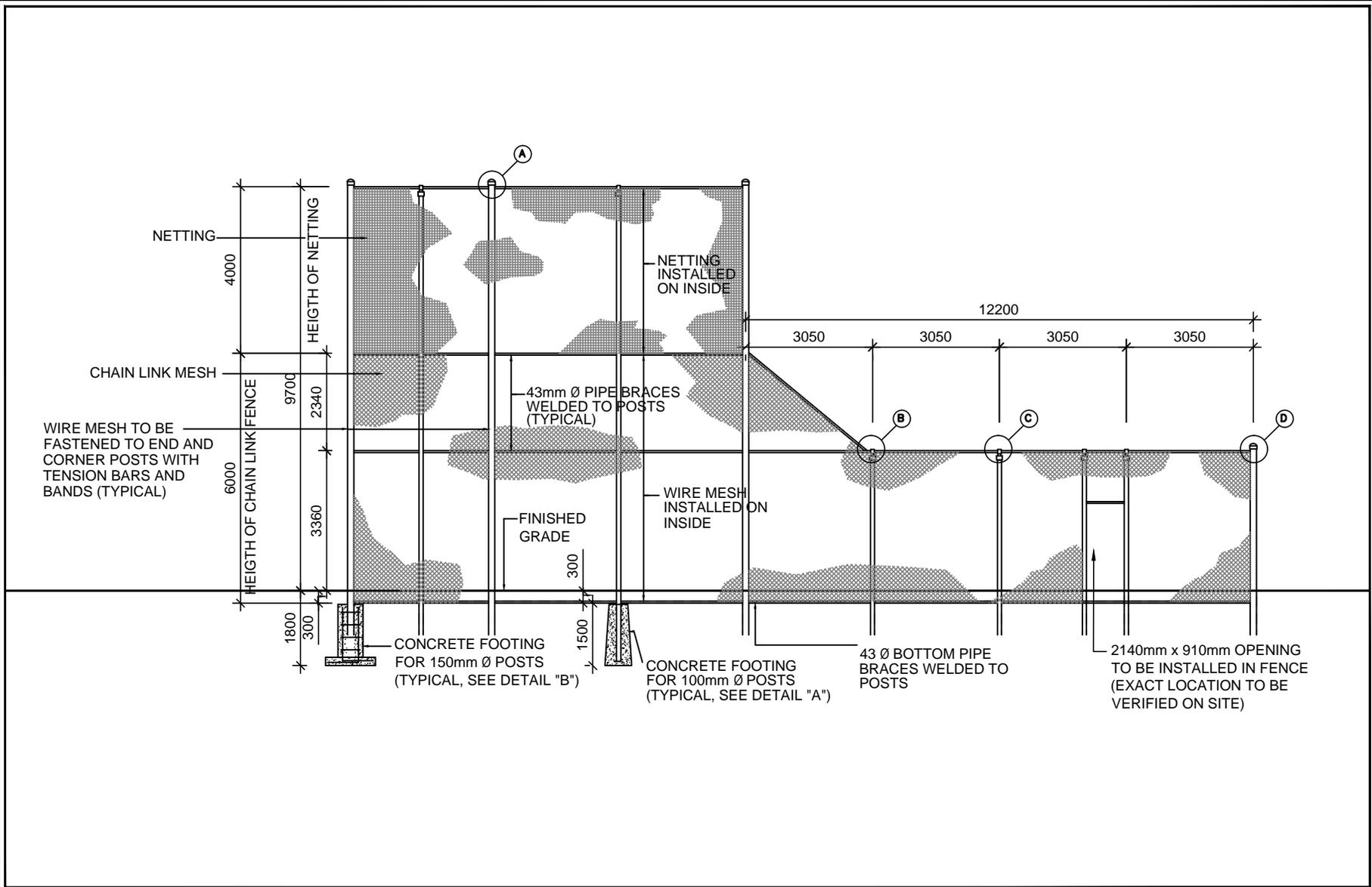
TITLE:

BASEBALL BACKSTOP  
PLAN VIEW & DETAILS

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PT-11



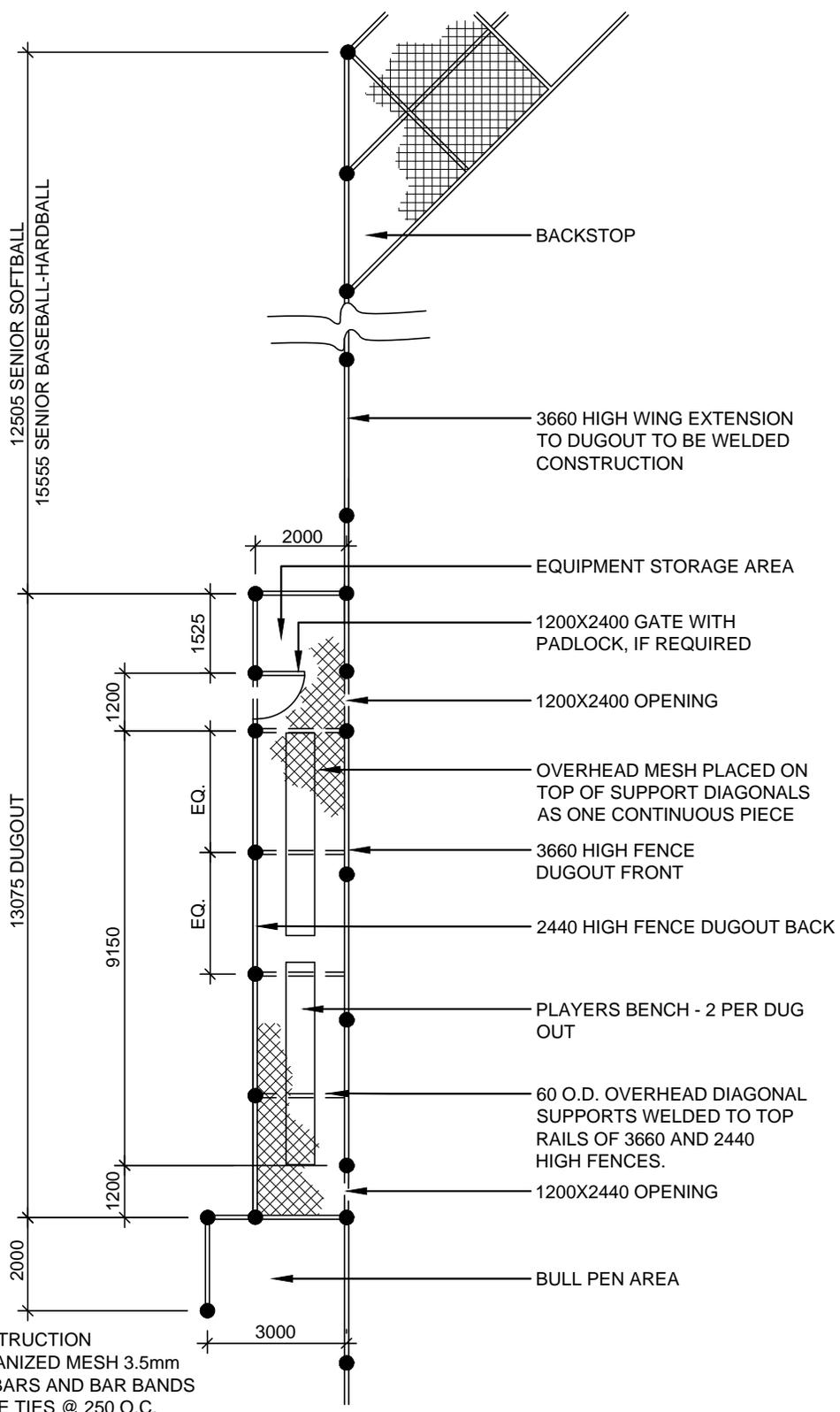
TITLE:

BASEBALL BACKSTOP  
SECTION 'A'

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PT-12



**NOTES:**

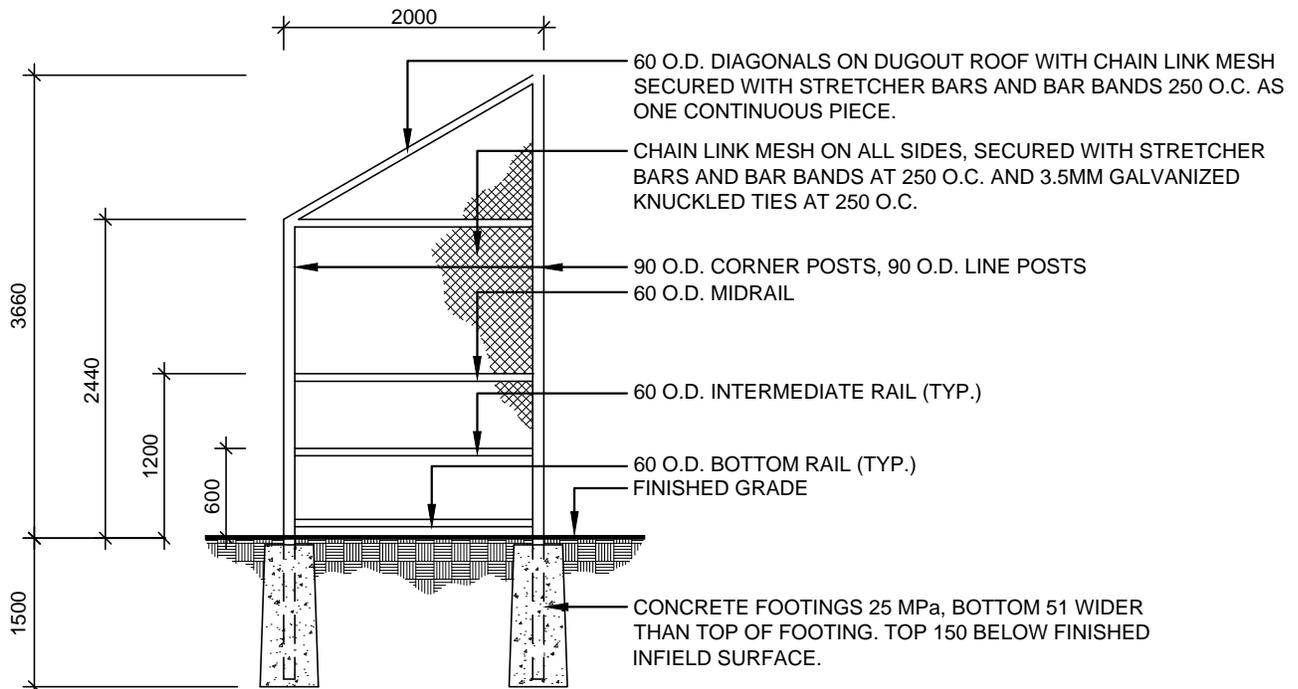
1. DUGOUT TO BE OF ALL WELDED CONSTRUCTION
2. CHAIN LINK FABRIC TO BE 38x38 GALVANIZED MESH 3.5mm (9 GAUGE) SECURED WITH STRETCHER BARS AND BAR BANDS @ 250 O.C., AND 3.5mm GALVANIZED WIRE TIES @ 250 O.C.
3. ALL DIMENSIONS ARE IN MILLIMETERS



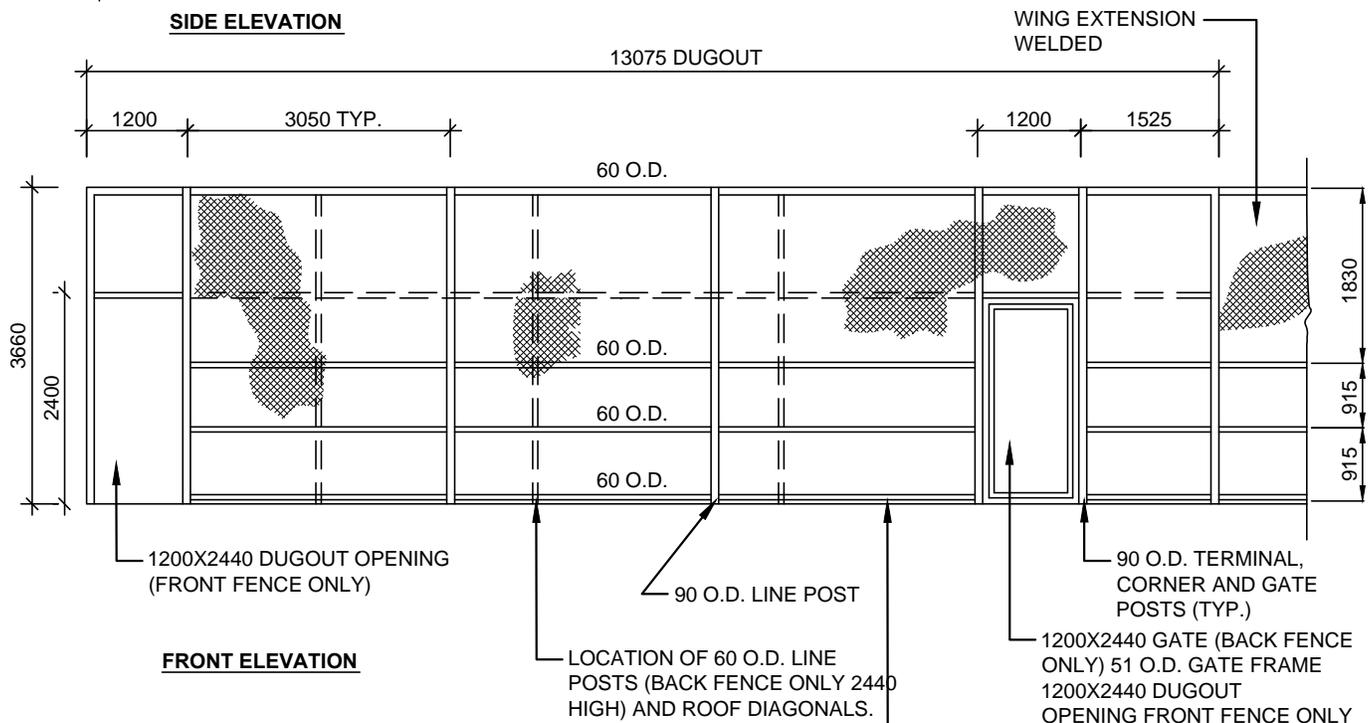
TITLE:

**BASEBALL DUGOUT PLAN**

DATE:	MAR 2012
SCALE:	N.T.S.
DWG No:	<b>PT-13</b>



**SIDE ELEVATION**



**FRONT ELEVATION**

**NOTES:**

1. DUGOUT TO BE OF ALL WELD CONSTRUCTION
2. MESH SHALL BE 38 GALVANIZED CHAIN LINK 3.5mm (9 GAUGE) SECURED WITH STRETCHER BARS AT POSTS AND BAR BANDS @250 O.C. AND KNUCKLED FASTENERS 3.5mm O.D. @250 O.C.



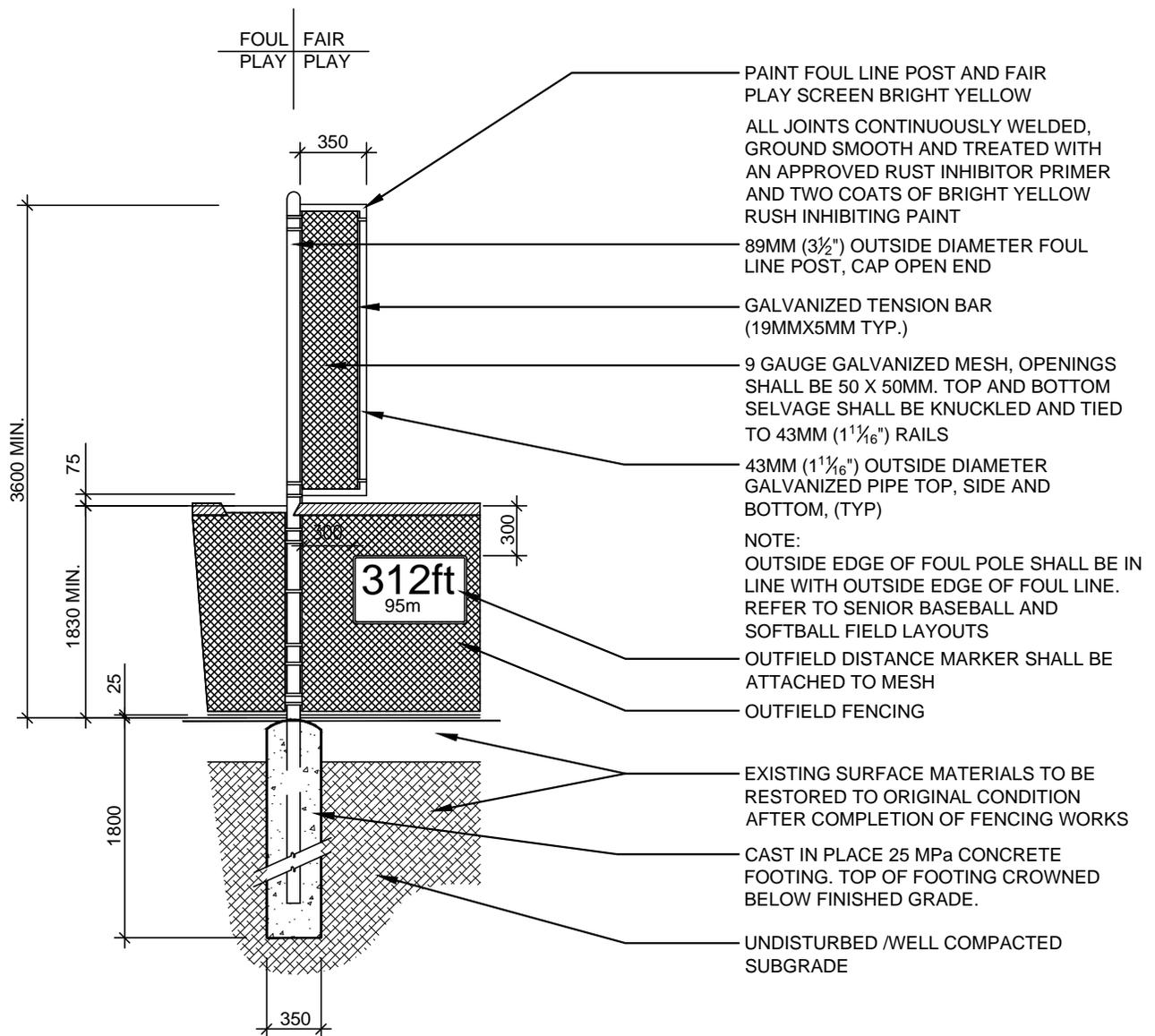
TITLE:

**BASEBALL DUGOUT PLAN  
FRONT AND SIDE ELEVATION**

DATE: MAR 2012

SCALE N.T.S.

DWG No: PT-14



**NOTES:**

1. OBTAIN ALL UTILITY LOCATES AND CLEARANCES PRIOR TO DIGGING ANY FOOTINGS.
2. HAND DIG ANY FOOTING WITHIN 1000MM OF A UTILITY LOCATION.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.



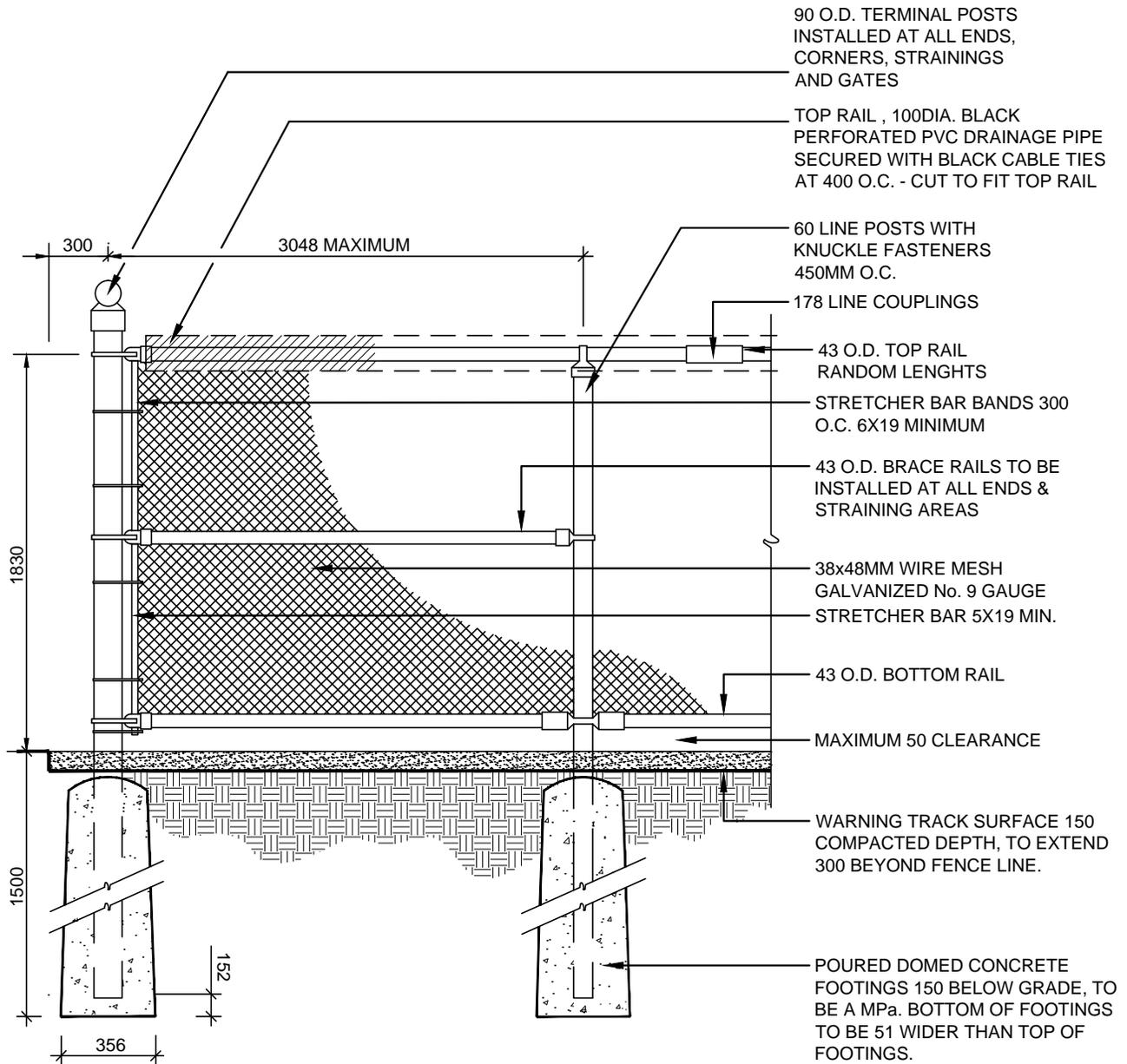
TITLE:

FOUL LINE POST DETAIL

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PT-15



**NOTES:**

1. CHAIN LINK FABRIC TO BE, 38 WOVEN MESH 1830 HIGH OF 3.5 (9 GAUGE) HEAVY GALVANIZED WIRE FASTENED TO TOP RAIL, BRACE RAIL, LINE POST, STRETCHER BAR AND BOTTOM RAIL WITH 3.5 (9 GAUGE) GALVANIZED KNUCKLED WIRE TIES @300 O.C.
2. ALL FENCE POSTS AND RAILS TO BE GALVANIZED SCHEDULE "40" PIPE.
3. NO PLASTIC FITTING OR COMPONENTS ARE TO BE USED.
4. ALL DIMENSIONS ARE IN MILLIMETRES.



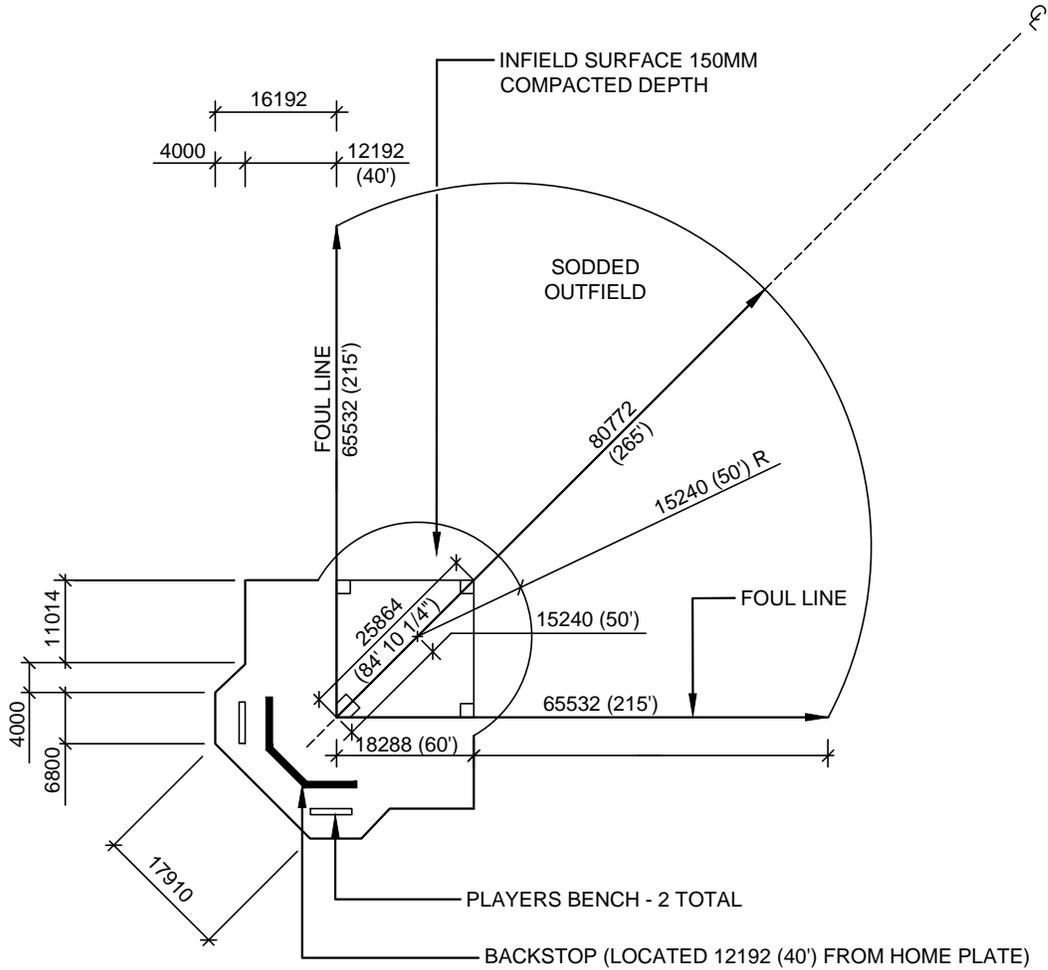
TITLE:

**BASEBALL OUTFIELD AND  
LINE FENCE**

DATE: MAR 2012

SCALE N.T.S.

DWG No: PT-16



**NOTES:**

1. INFIELD SURFACE TO CONSIST OF CITY APPROVED MIX.
2. REFER TO T-BALL BACKSTOP LAYOUT.
3. ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE SPECIFIED.



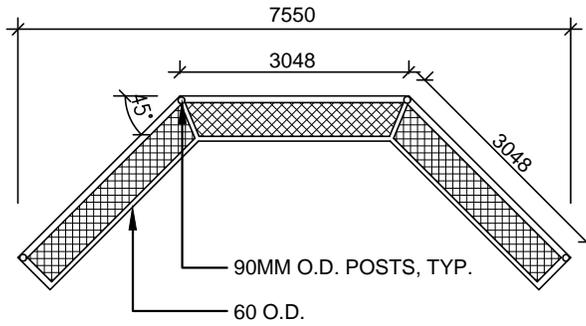
TITLE:

**T-BALL FIELD LAYOUT**

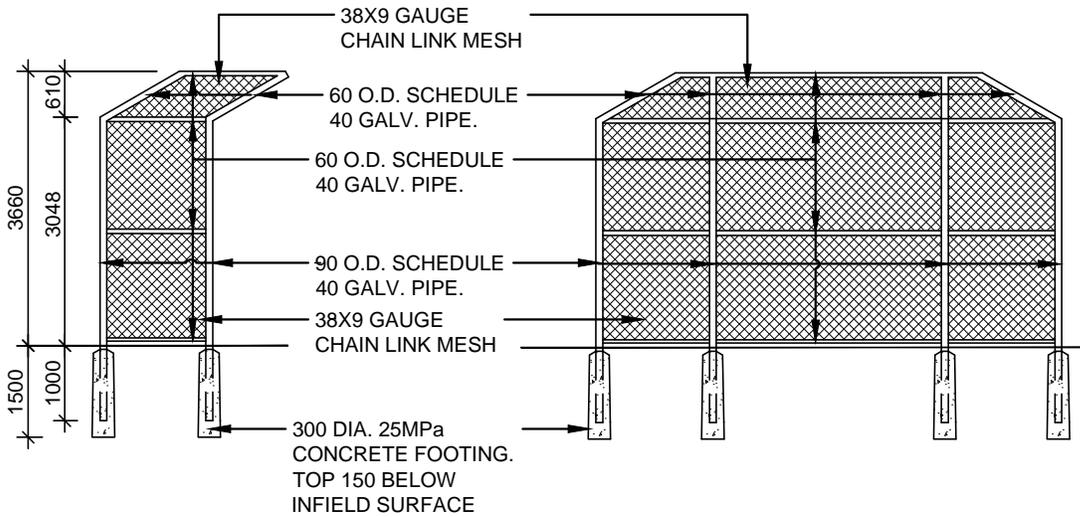
DATE: MAR 2012

SCALE: N.T.S.

DWG No: PT-17



**PLAN**



**SIDE ELEVATION**

**REAR ELEVATION**

**NOTES:**

1. OVERHEAD CAGE PIPE TO HAVE ALL WELDED JOINTS AND 38mm X 9 GAUGE CHAIN LINK ROOF MESH.
2. BACK WALL TO HAVE ALL WELDED JOINTS AND 38mm X 9 GAUGE CHAIN LINK MESH.
3. BACKSTOP WALLS TO HAVE ALL WELDED JOINTS.
4. ALL MESH TO BE FASTENED TO INSIDE OF BACKSTOP FRAME WITH STRETCHER BARS AND BAR BANDS @250 O.C. SECURE MESH TO RAILS WITH 3.5mm KNUCKLED TIES @250 O.C.
5. CHAIN LINK FABRIC TO BE GALVANIZED PRIOR TO WEAVING MESH.



TITLE:

**T-BALL BACKSTOP**

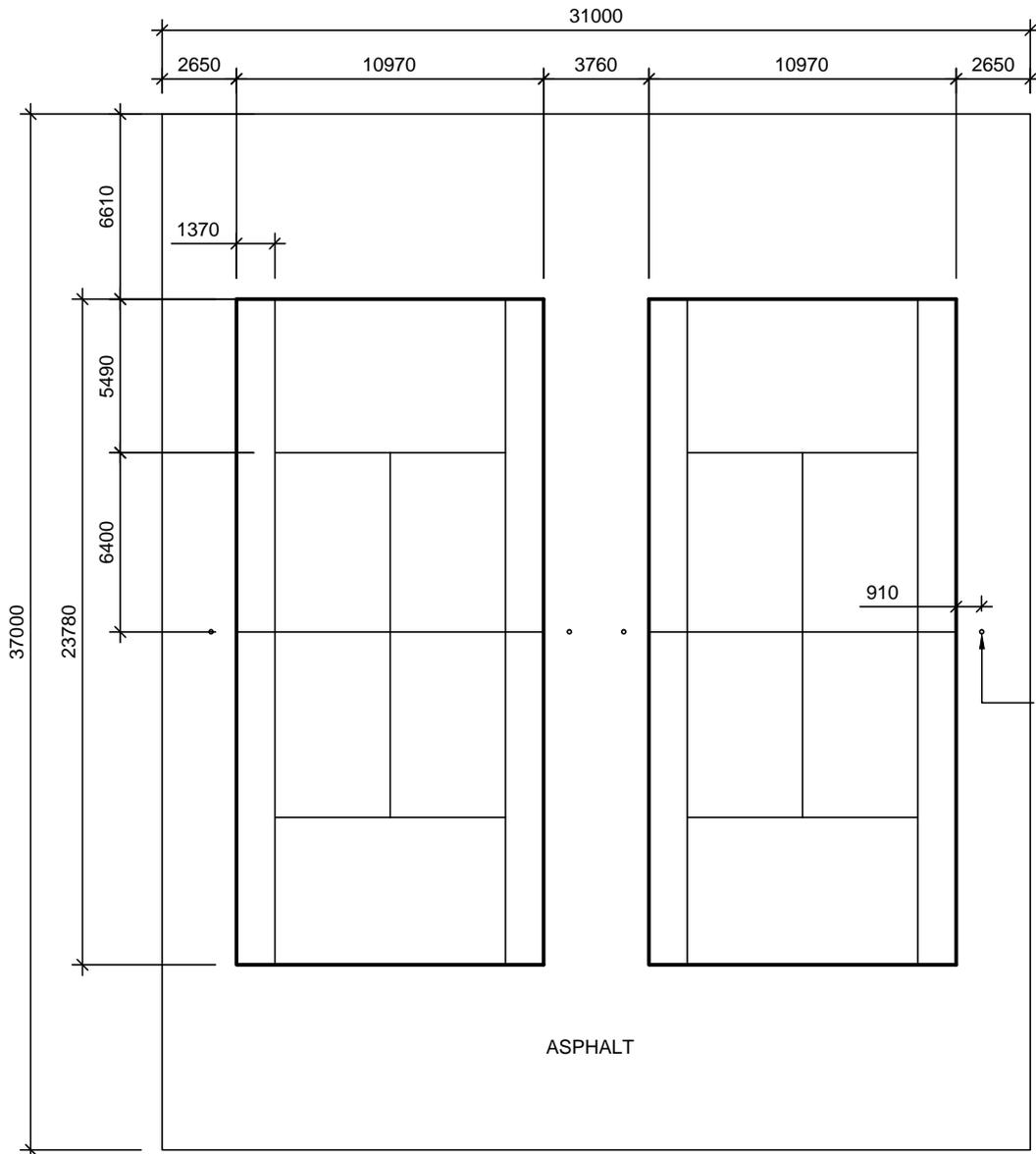
DATE: MAR 2012

SCALE: N.T.S.

DWG No: **PT-18**







**NOTES:**

1. COURT LINE TO BE PAINTED WHITE (2") 50MM WIDE
2. ALL DIMENSIONS ARE IN MILLIMETERS
3. NET POST AND INSTALLATION AS APPROVED BY CITY OF OTTAWA
4. CENTRE OF NET TO BE ANCHORED TO COURT SURFACE



TITLE:

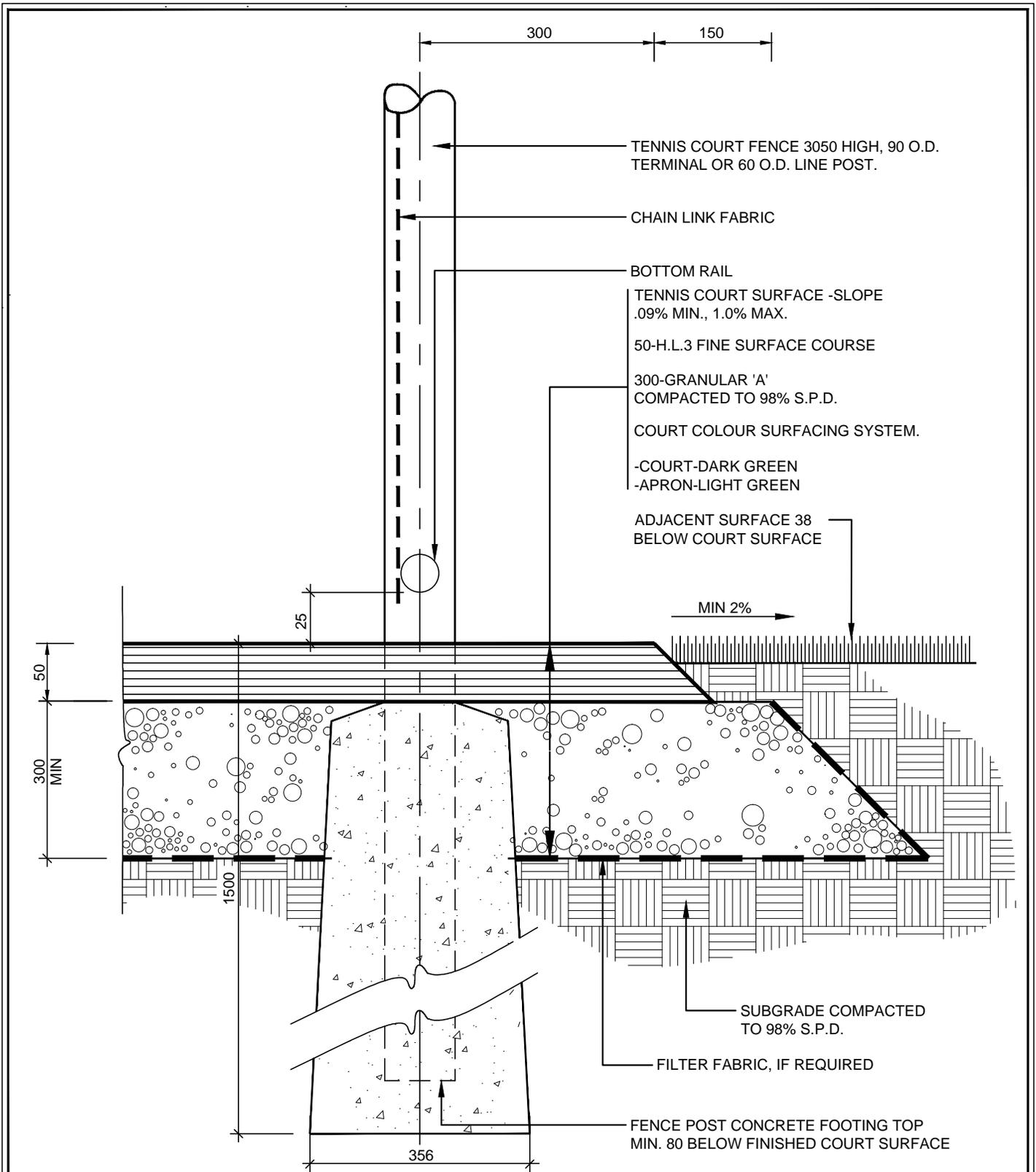
**TENNIS COURT LAYOUT**

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PC-03





**NOTE:** ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED



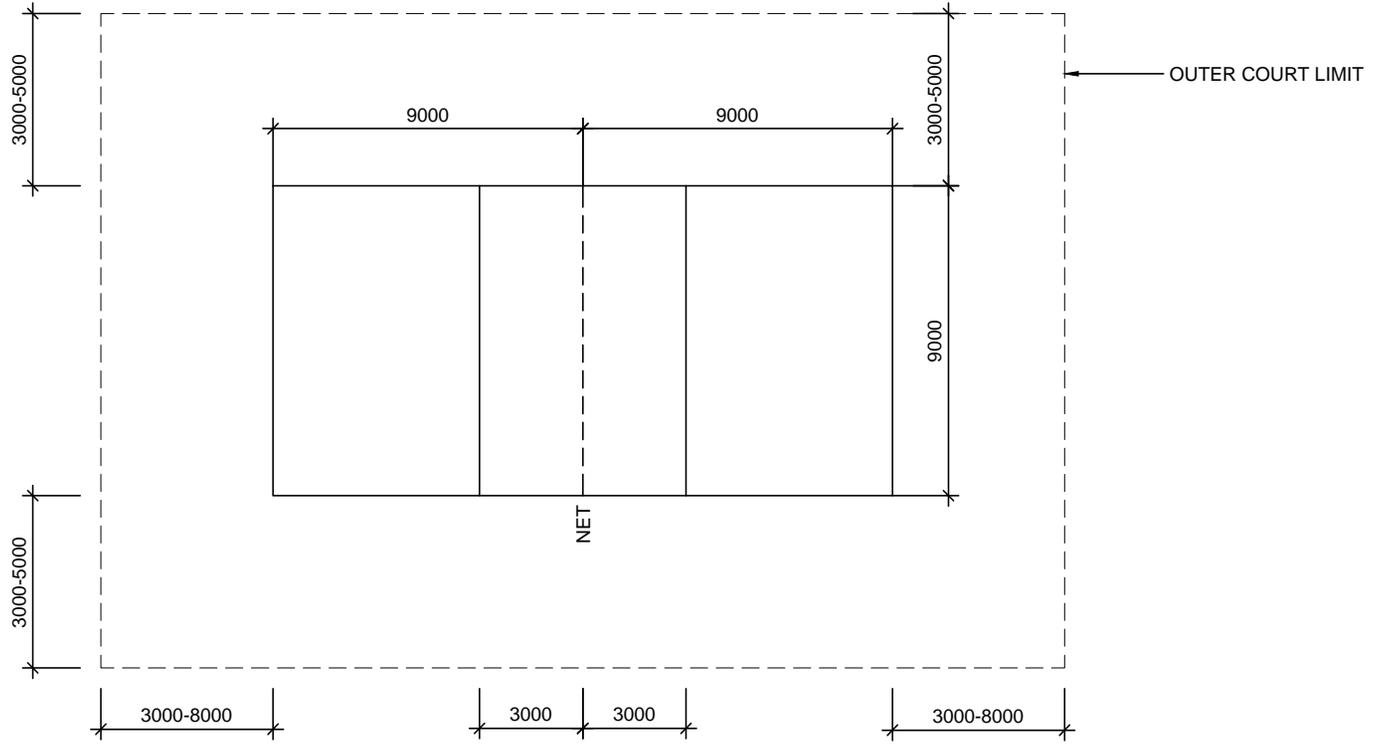
TITLE:

TENNIS COURT  
SURFACE SECTION

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PC-05



NOTE: ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED



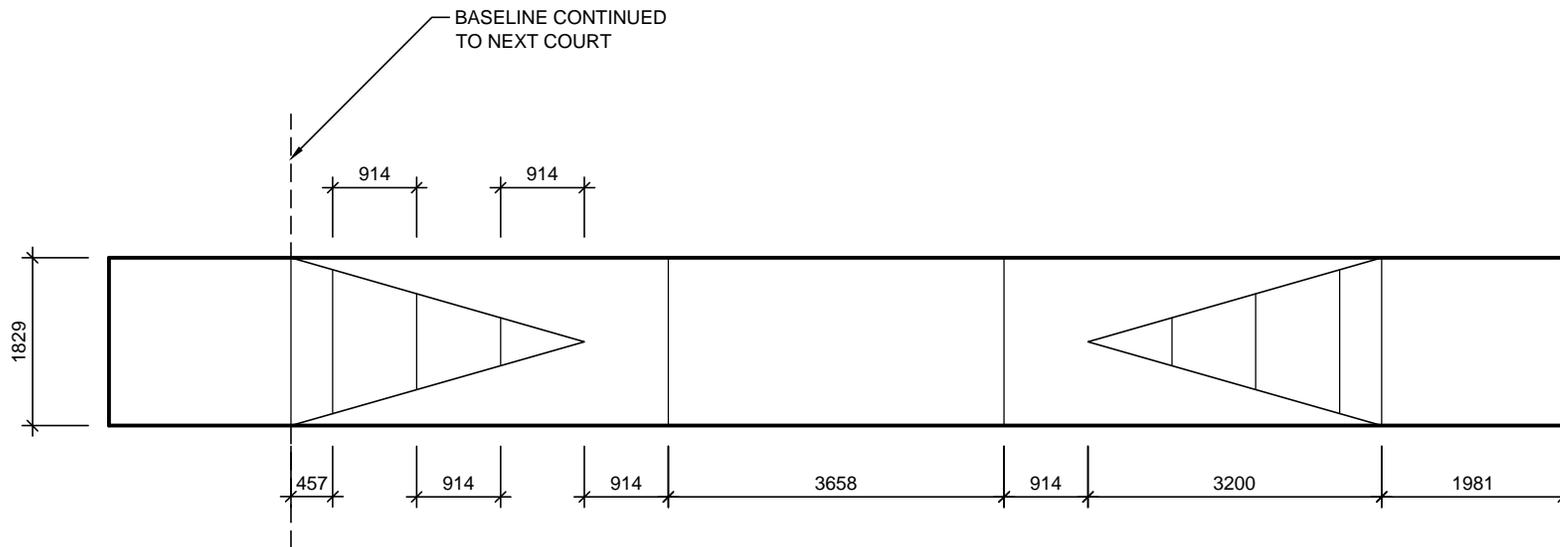
TITLE:

VOLLEYBALL COURT LAYOUT

DATE: MAR 2012

SCALE N.T.S.

DWG No: PC-06



**NOTE:** ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED



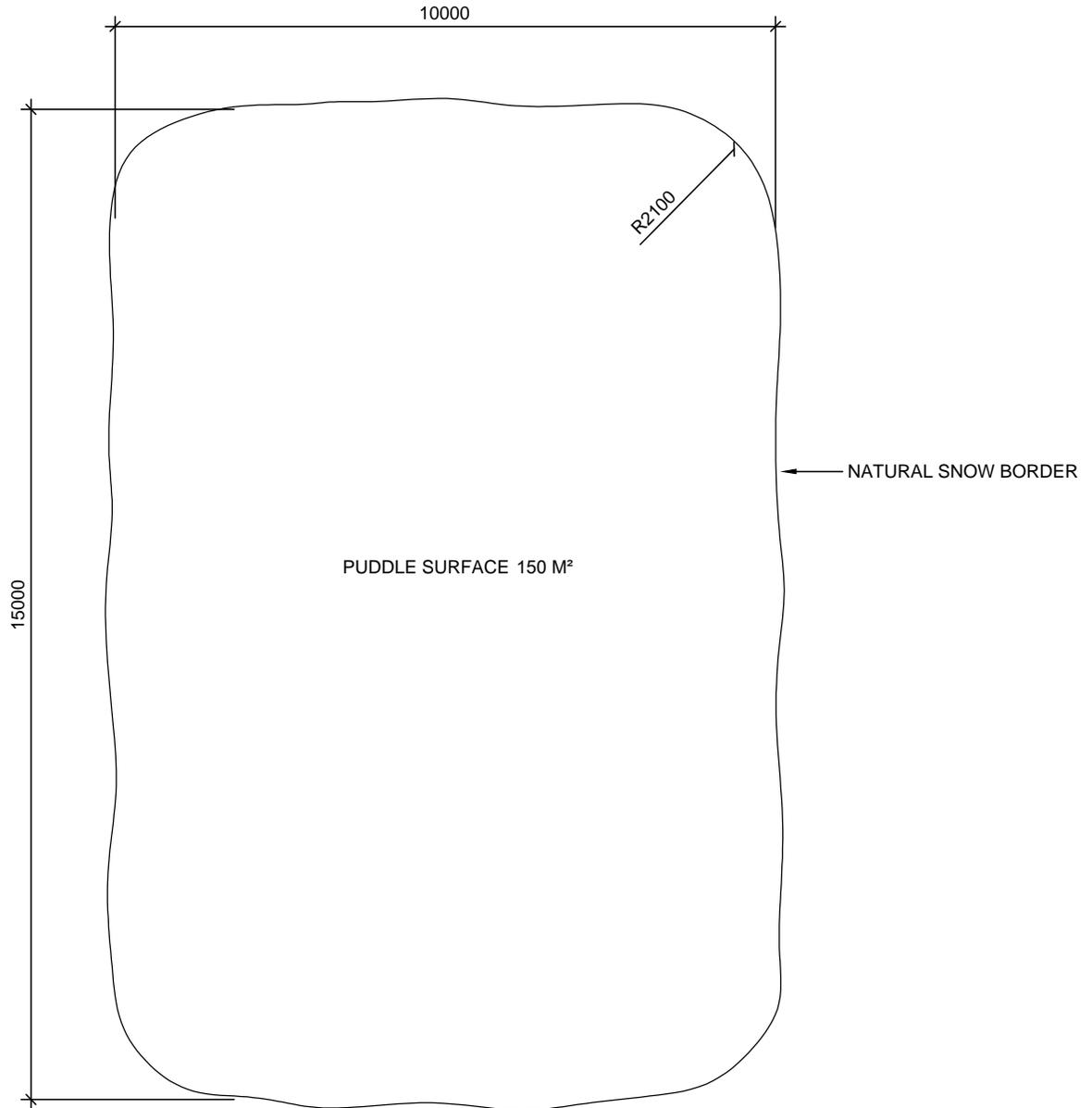
TITLE:

SHUFFLEBOARD  
LAYOUT

DATE: MAR 2012

SCALE N.T.S.

DWG No: PC-07



**NOTES:**

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. AVOID SWALES, CATCH BASINS AND PLANTING WITHIN 6000 OF LIGHT POLES.
3. GRADE WITHIN 6000R OF LIGHT POLES NOT TO EXCEED 5% SLOPE FOR VEHICULAR ACCESS.
4. PUDDLE SURFACE TO BE 150 M<sup>2</sup> MINIMUM.
5. PUDDLE SURFACE MUST HAVE ONE LIGHT SOURCE MINIMUM FOR MAINTENANCE PURPOSES; IT CAN SHARE A SINGLE PERMANENT LIGHT FIXTURE WITH A SOCCER OR BASEBALL FIELD.



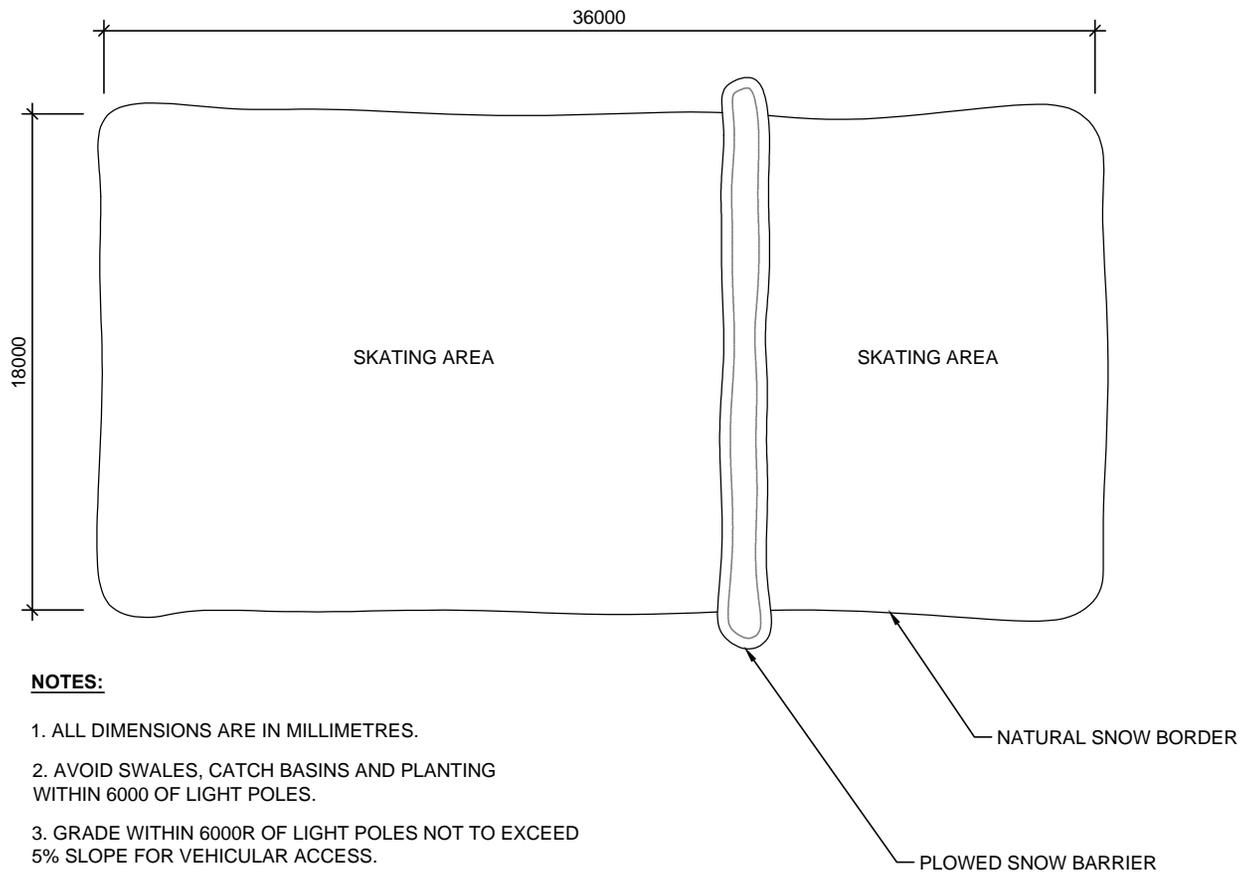
TITLE:

PUDDLE SURFACE LAYOUT

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PR-01



**NOTES:**

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. AVOID SWALES, CATCH BASINS AND PLANTING WITHIN 6000 OF LIGHT POLES.
3. GRADE WITHIN 6000R OF LIGHT POLES NOT TO EXCEED 5% SLOPE FOR VEHICULAR ACCESS.
4. COMMUNITY ICE SURFACE TO BE A TOTAL OF 650 m<sup>2</sup>.
5. PUDDLE SURFACE MUST HAVE ONE LIGHT SOURCE MINIMUM FOR MAINTENANCE PURPOSES; IT CAN SHARE A SINGLE PERMANENT LIGHT FIXTURE WITH A SOCCER OR BASEBALL FIELD.



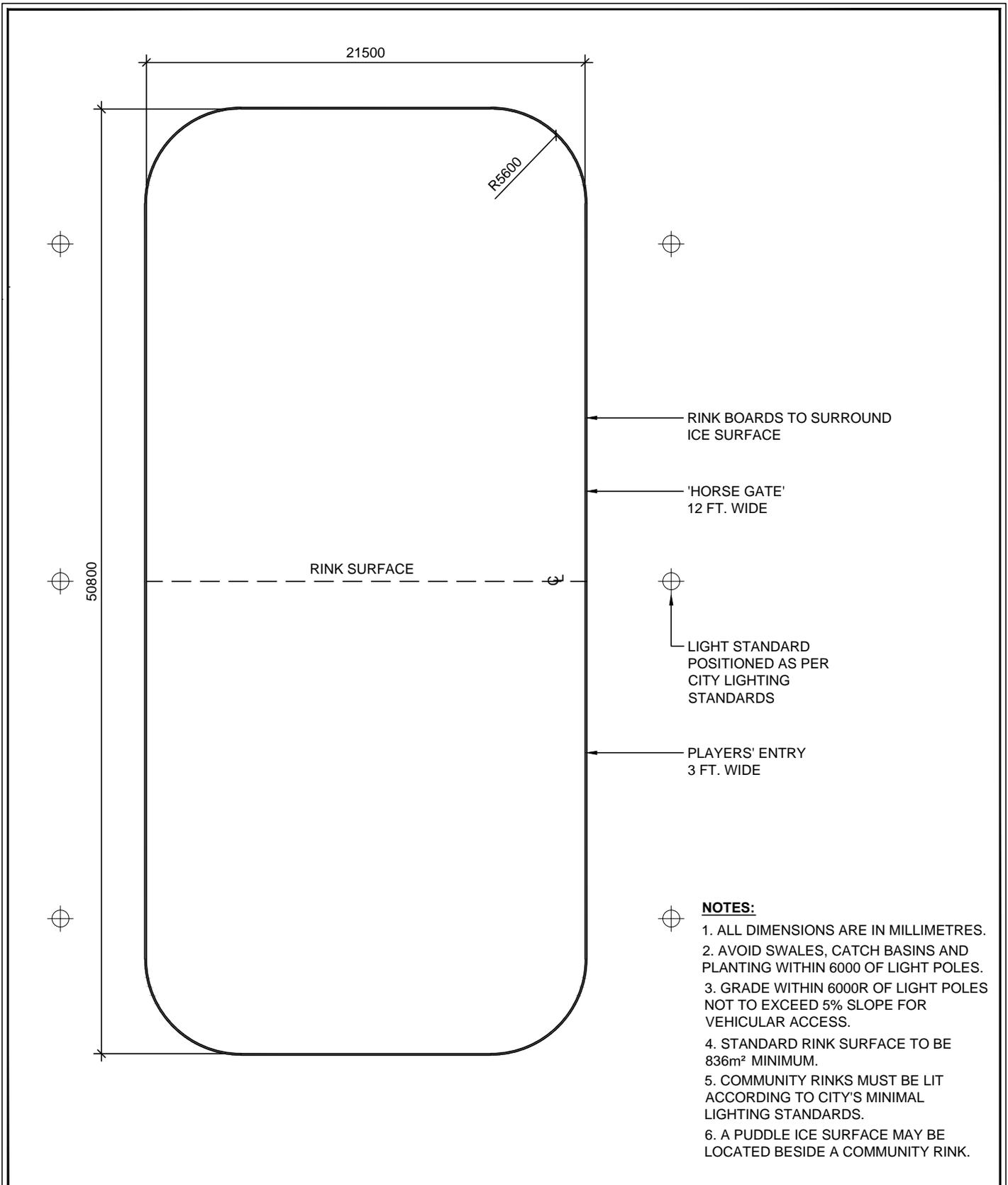
TITLE:

**COMMUNITY ICE SURFACE  
LAYOUT 'DOUBLE PUDDLE'**

DATE: MAR 2012

SCALE: N.T.S.

DWG No: PR-02



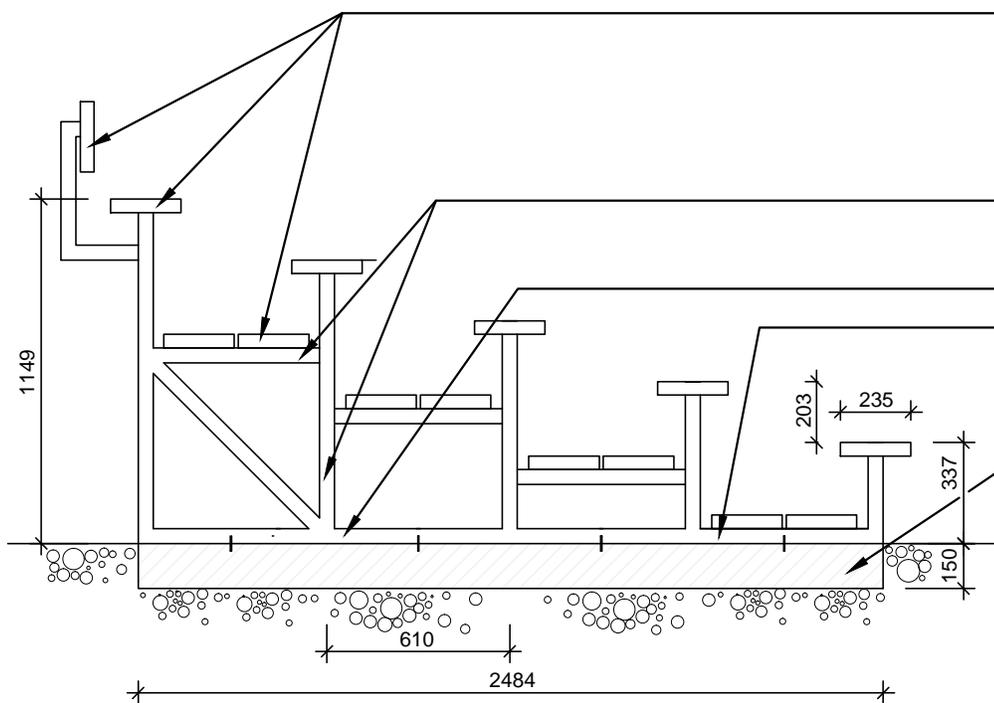
TITLE:

# COMMUNITY RINK LAYOUT

DATE: MAR 2012

SCALE: N.T.S.

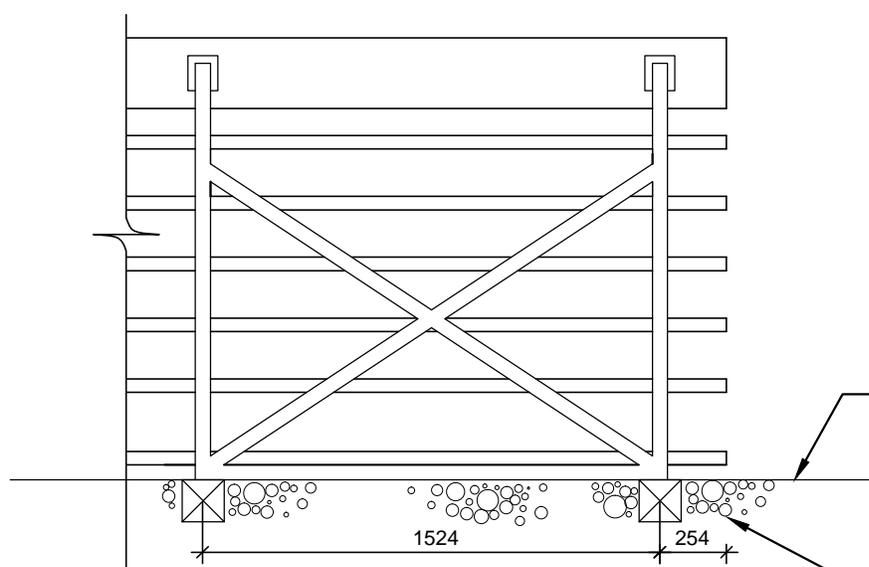
DWG No: PR-03



- 45MMX235MMX25MM WALL THICKNESS HEAVY DUTY EXTRUDED ALUMINUM SEATS, FOOTBOARDS, AND BACKREST COMPLETE WITH HEAVY DUTY CAST ALUMINUM END CAPS
- 5 TIER GALVANIZED 51MMX51MMX3MM WELDED ANGLE MAIN FRAME
- LAG BOLT ASSEMBLY
- BLEACHERS TO BE INSTALLED PLUMB AND TRUE ON EXISTING GRANULAR BASE
- 140X140 PRESSURE TREATED TIMBER BELOW (TYPICAL), BURIED FLUSH TO GRADE
- ALL WELDS GROUND SMOOTH AND HOT DIPPED GALVANIZED PRIOR TO DELIVERY TO SITE
- ALL FASTENERS SHALL BE GALVANIZED
- GRANULAR BASE

**SIDE ELEVATION**

OVERALL DIMENSIONS  
 LENGTH: 3660MM (12')  
 WIDTH: 2740 (9')  
 HEIGHT: 1727.2 MM



- FINISHED GRADE
- 140X140 PRESSURE TREATED TIMBER BELOW (TYPICAL), BURIED FLUSH TO GRADE

**REAR ELEVATION**

- NOTES:**
1. ALL DIMENSIONS IN MILLIMETRES.
  2. DEPTH OF COMPACTION OF GRANULAR AS PER MANUFACTURER DETAILS.



TITLE: **SPORTS FIELD SPECTATORS BLEACHERS**

DATE:	MAR 2012
SCALE:	N.T.S.
DWG No:	PG-01