

CrossIron Common

Master Site Development Plan Sub-Cell A3



2012.03.08



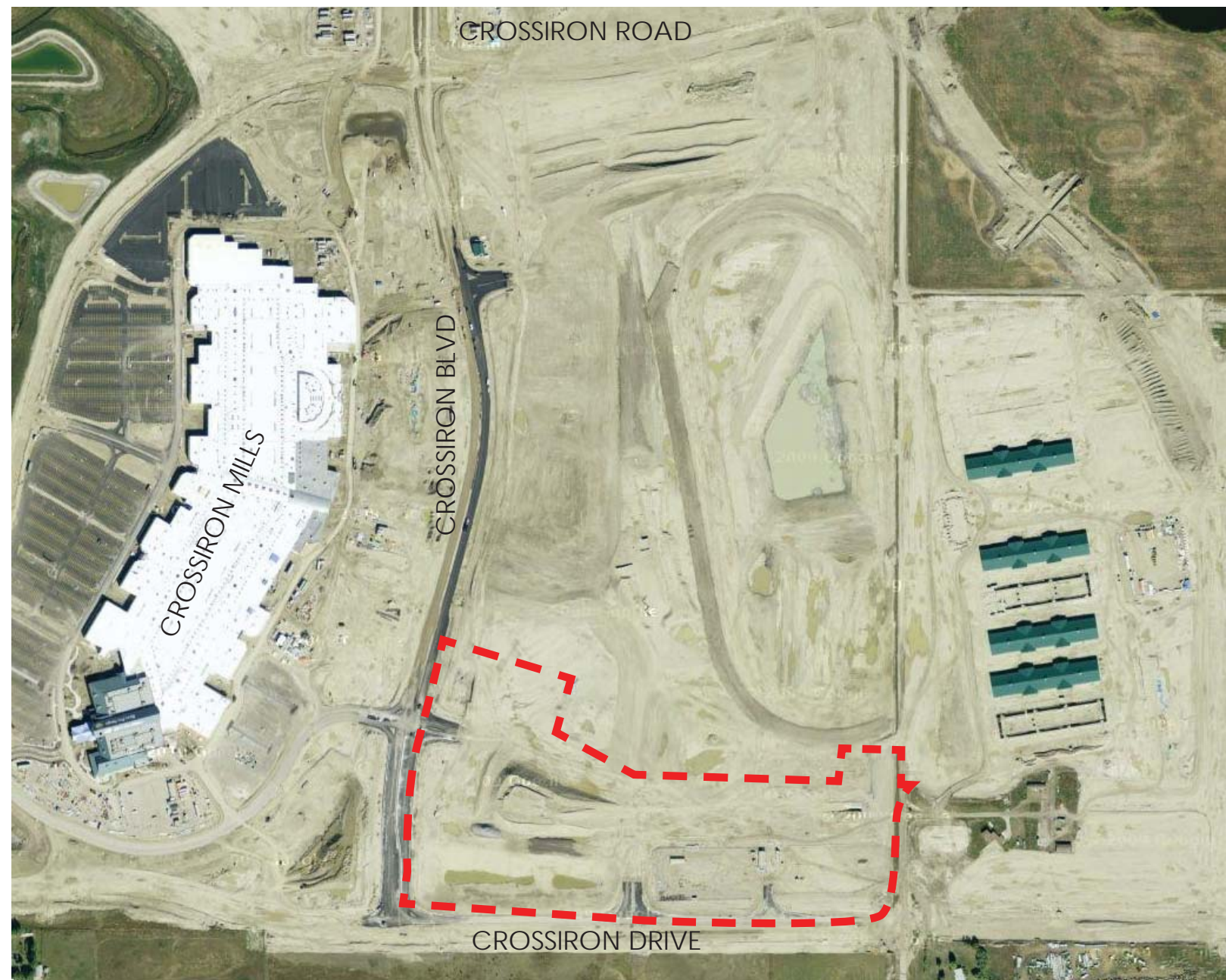
Ivanhoe
Cambridge
CDP group

DIALOG™

1. Preamble and Introduction			6. Site		
1.1 Purpose of Design Guidelines	pg. 2		6.1 Utilities	pg. 16	
1.2 Vision	pg. 3		6.2 Stormwater Management	pg. 16	
1.3 Definition of the Study Area	pg. 4		6.3 Overhead Power Lines	pg. 16	
1.4 Site Opportunities and Constraints	pg. 5		6.4 Transit	pg. 16	
			6.5 Pedestrian Linkage	pg. 16	
			6.6 Environmental Stewardship	pg. 16	
2. Master Concept Plan			7. Appendix A		
2.1 Overall Master Plan	pg. 6		Comprehensive Landscape		
2.2 Private Realm	pg. 7		Strategy, selected		
2.3 Landscaping	pg. 7		Excerpts.		
2.4 Site Access & Site Entry Magazines	pg. 8		7.1 Landscape Zone 1	pg. 17	
2.5 Subdivision & Setbacks	pg. 9		7.2 Landscape Zone 2	pg. 18	
2.6 Pedestrian Access	pg. 10		7.3 Landscape Zone 3	pg. 19	
2.7 Parking and Loading Needs Assessment	pg. 11		7.4 Landscape Zone 4	pg. 20	
			7.5 Landscape Zone 5	pg. 21	
3. Signage/Landmarks			7.6 Landscape Zone 6	pg. 22	
3.1 Signage Overview	pg. 12		7.7 Landscape Zone 7	pg. 23	
			7.8 Landscape Zone 8	pg. 24	
4. Lighting			7.9 Landscape Zone 9	pg. 25	
4.1 Hierarchy of Lighting	pg. 13		7.10 Landscape Zone 10	pg. 26	
4.2 Public Lighting	pg. 13		7.11 Landscape Zone 11	pg. 27	
4.3 Project Site Lighting	pg. 13				
			8. Appendix B		
5. Architecture			Proposed land purchaser sample projects.		
5.1 Architecture Overview	pg. 14		8.1 La-z-boy	pg. 28	
5.2 Outdoor Display and Sales	pg. 15		8.2 Shell	pg. 28	
5.3 Loading Areas	pg. 15		8.3 Leons	pg. 28	
			9. Appendix C		
			Traffic Impact Assessment Letter from Bunt &		
			Associates	pg. 29 &30	

1.1 Purpose of Design Guidelines

The purpose of this document is to govern the general design principles of the project as it is developed over time. It will be used jointly by Rocky View County (RVC) and Ivanhoe Cambridge (IC) to control all development in the common interest of achieving a high quality integrated project. A mechanism will be put in place whereby all design concepts for the shopping centre and outparcels will be fully reviewed and vetted by Ivanhoe Cambridge prior to submission to Rocky View County for its approval.



1. PREAMBLE AND INTRODUCTION

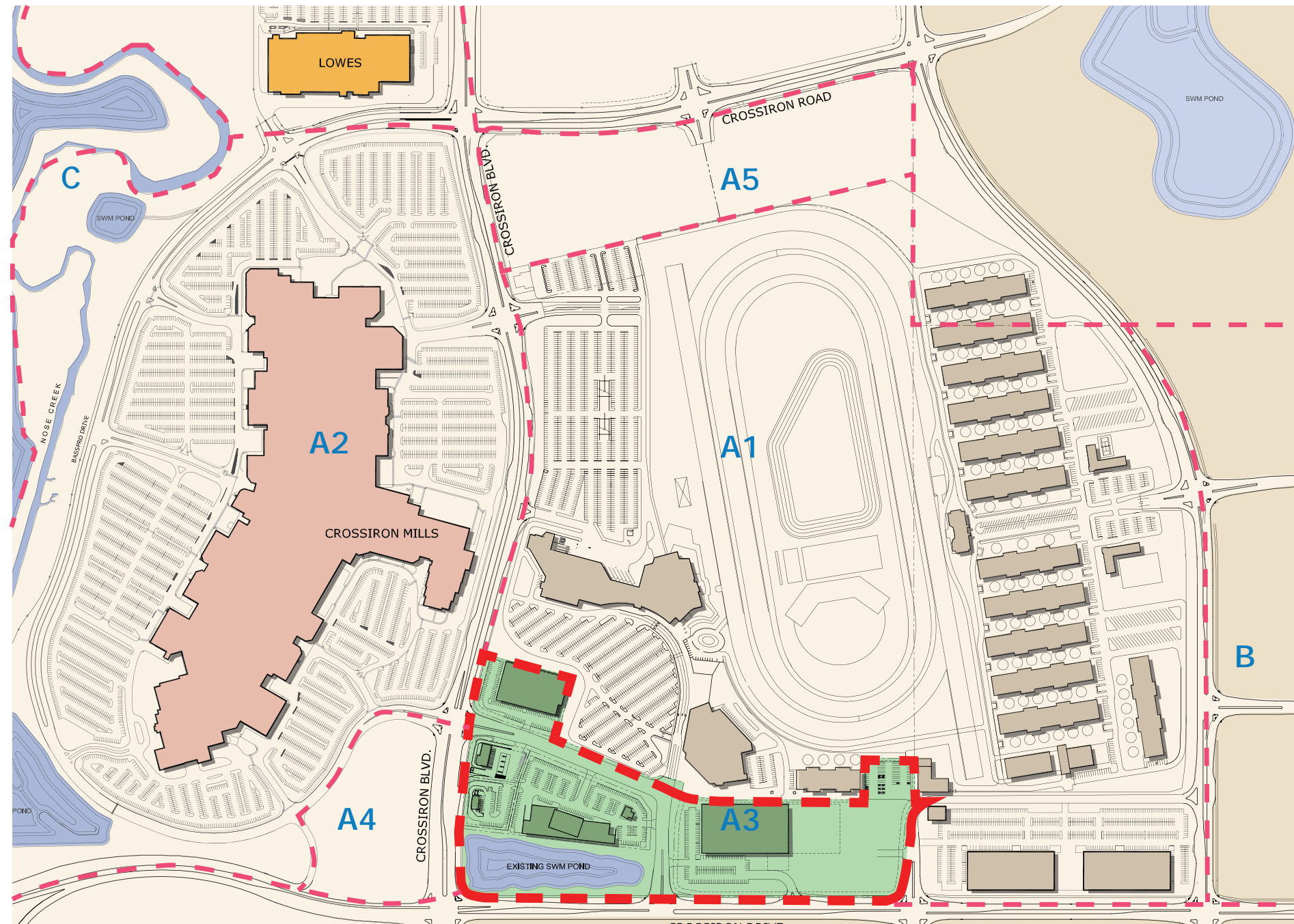
1.2 Vision

The land east of Queen Elizabeth II Highway and south of Highway 566 will be developed as a commercial zone comprised of super regional shopping centre, retail, office, light industrial uses, and a racing and entertainment centre. While the design is not final, the area allocated as sub-cell A3 will be comprised of “out parcel” development, and will consist of retail/service/hospitality/offices uses that are complementary to the principle uses within Cell-A. The property is located north and east of the City of Calgary in Rocky View County.



1.3 Definition of the Study Area

For the purposes of this Master Site Development Plan, the study area includes the area defined as Sub Cell A3, in Schedule B of DC Bylaw 109, located on the east side of Crossiron Blvd., south of Crossiron Road, north of Crossiron Drive and west of Dwight McLellan Trail (shown shaded in green this graphic).



1. PREAMBLE AND INTRODUCTION

1.4 Site Opportunities and Constraints

Among the opportunities and constraints to be addressed are existing and future road networks.

CrossIron Mills provides a physical and visual buffer between the study area and the Queen Elizabeth II Highway.

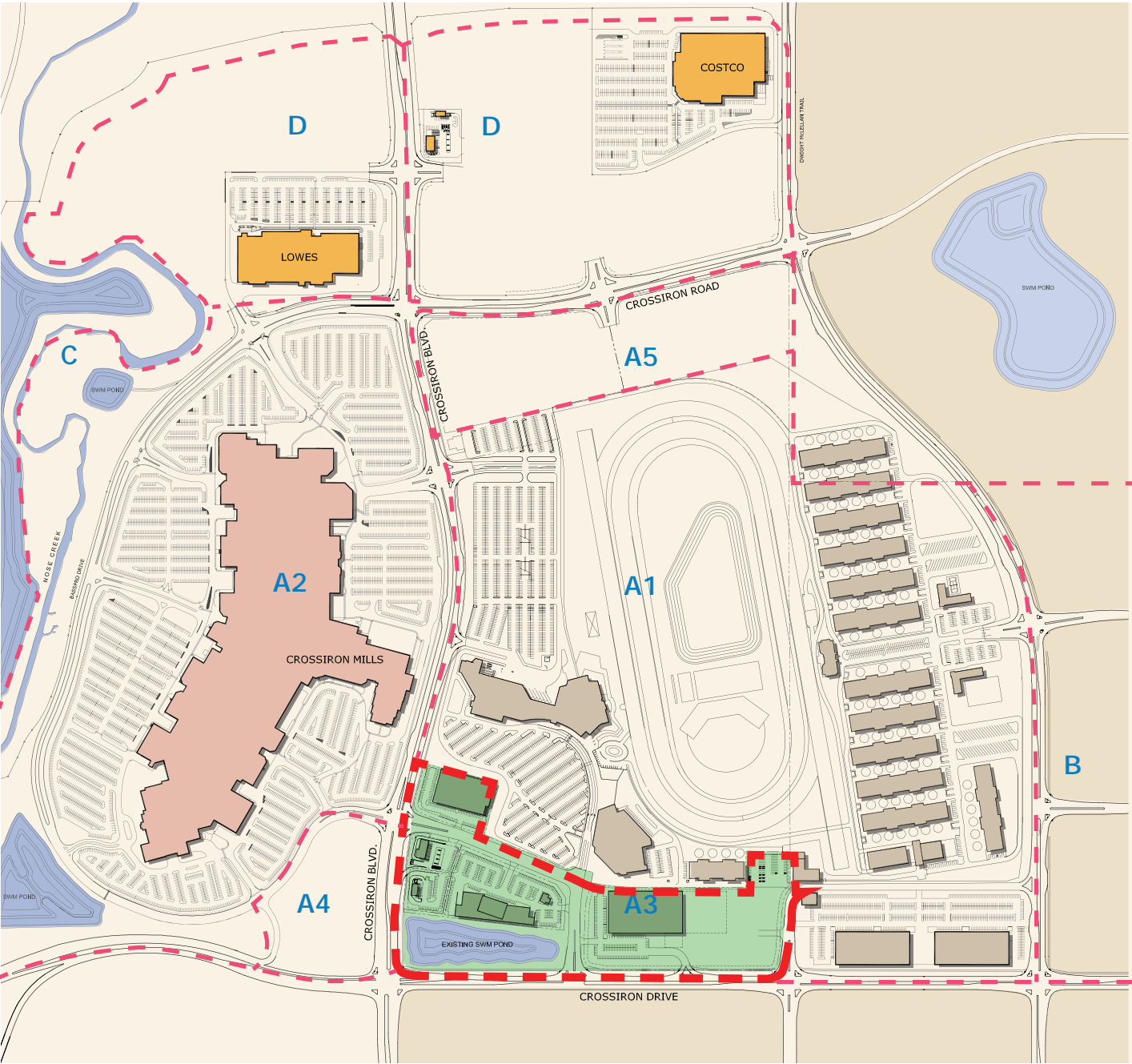
The Master Site Drainage plan prepared by Kellam Berg Engineering defines the locations of storm water retention ponds that impact the amount of developable land.

With respect to existing vegetation on site, there are no significant trees and no trees which would be suitable for transplanting to other locations. Therefore, the existing vegetation offers no constraints to development.



2.1 Overall Master Plan

The Master Plan envisions of a variety of buildings and commercial uses within each sub-cell. Unlike sub-cell D where there is a master planned site with internal road ways and pedestrian links, sub-cell A3 consists of 5 parcels of land being developed individually by separate land owners. Access to the sites will be from the surrounding public streets. These entrances will include landscaping and site identification signage, which leads to parking on each individual lot. A one acre site located on the East side of sub-cell A3 is intended for the off-site storage of boats and other recreational vehicles distributed by Bass Pro Shops.



OVERALL MASTER PLAN



2.2 Private Realm

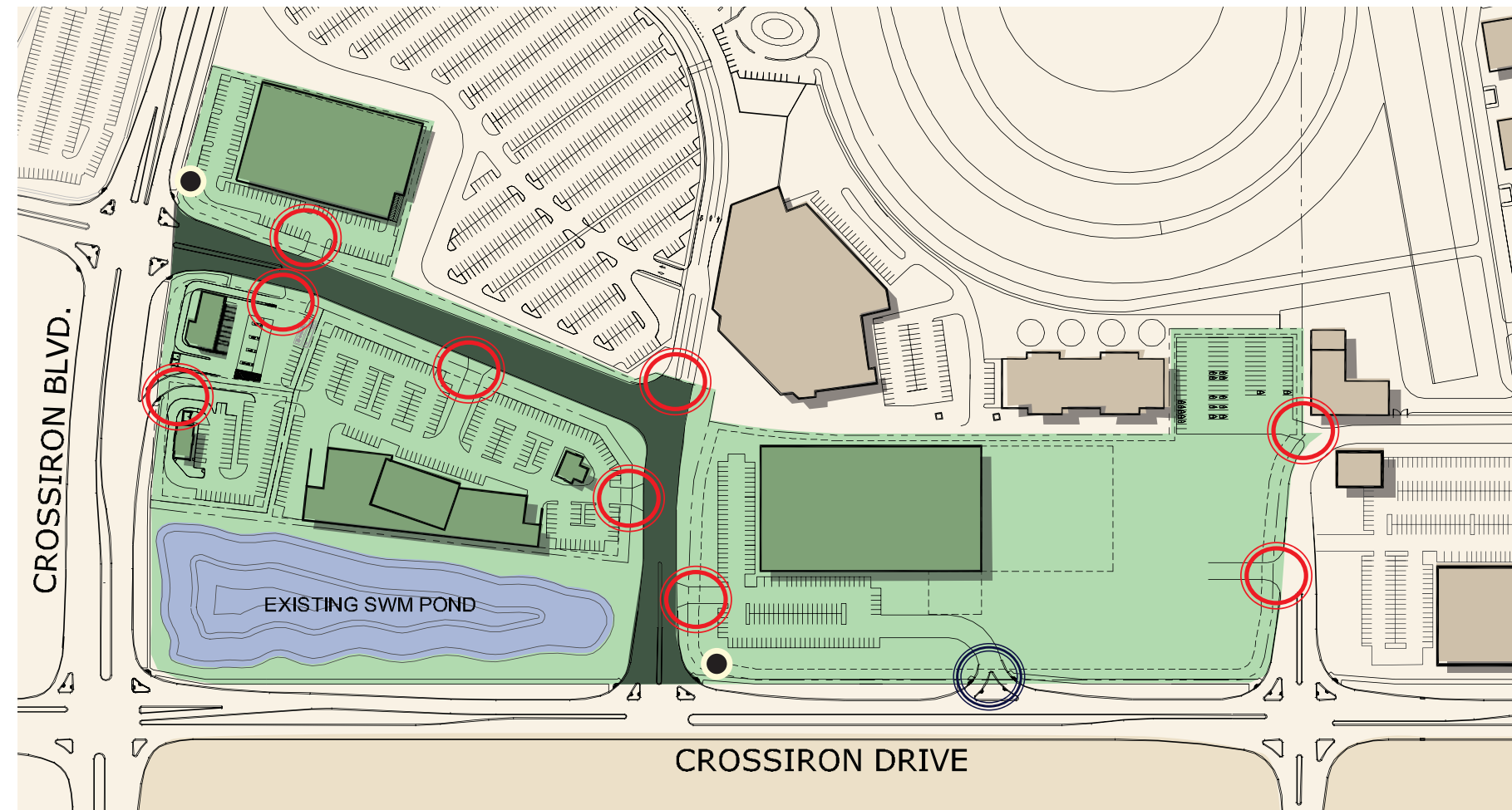
The private realm is defined as developments within outparcel blocks, entry magazines, building entrances and the perimeter treatment around the individual buildings. The layout and development of the outparcel blocks will evolve over time, and be subject to this MSDP as per the DC Bylaw and the Balzac East ASP. In addition, each development within the cells will require a development permit. The general massing and architectural arrangement of the private realm are described in 5.0 Architecture.

2.3 Landscaping

Landscaping of sub-cell A3 will follow the requirements of the Balzac East ASP, the DC Bylaw and subsequent council policy regarding the restriction of potable water for irrigation purposes. In addition, the strategies outlined in the Comprehensive Landscape Strategy prepared by Carson McCulloch will be applied. These strategies include approaches to perimeter landscaping, parking lot treatments, building edge landscaping and plant material.





Detailed landscape plans will be submitted with the Development Permit for each lot by the respective land owners. The irrigation and landscape concepts have been modified to incorporate the MD's policy regarding no potable water for irrigation. Refer to Appendix A for additional landscape concepts.





2.4 Site Access & Site Entry Magazines

The major access points to each lot are through the proposed roadways leading from Crossiron Boulevard and Crossiron Drive. These entrances will be landscaped to include planting, lighting, and identification signage. Where a public sidewalk exists, the pedestrian links will extend to the building entrances, shown in each landowner's individual development permit. All proposed access points must be in accordance with Road Access Control Policy and are subject to County approval at the subdivision and/or development permit stage. Site entry magazines will be landscaped and may include an architectural gateway element.

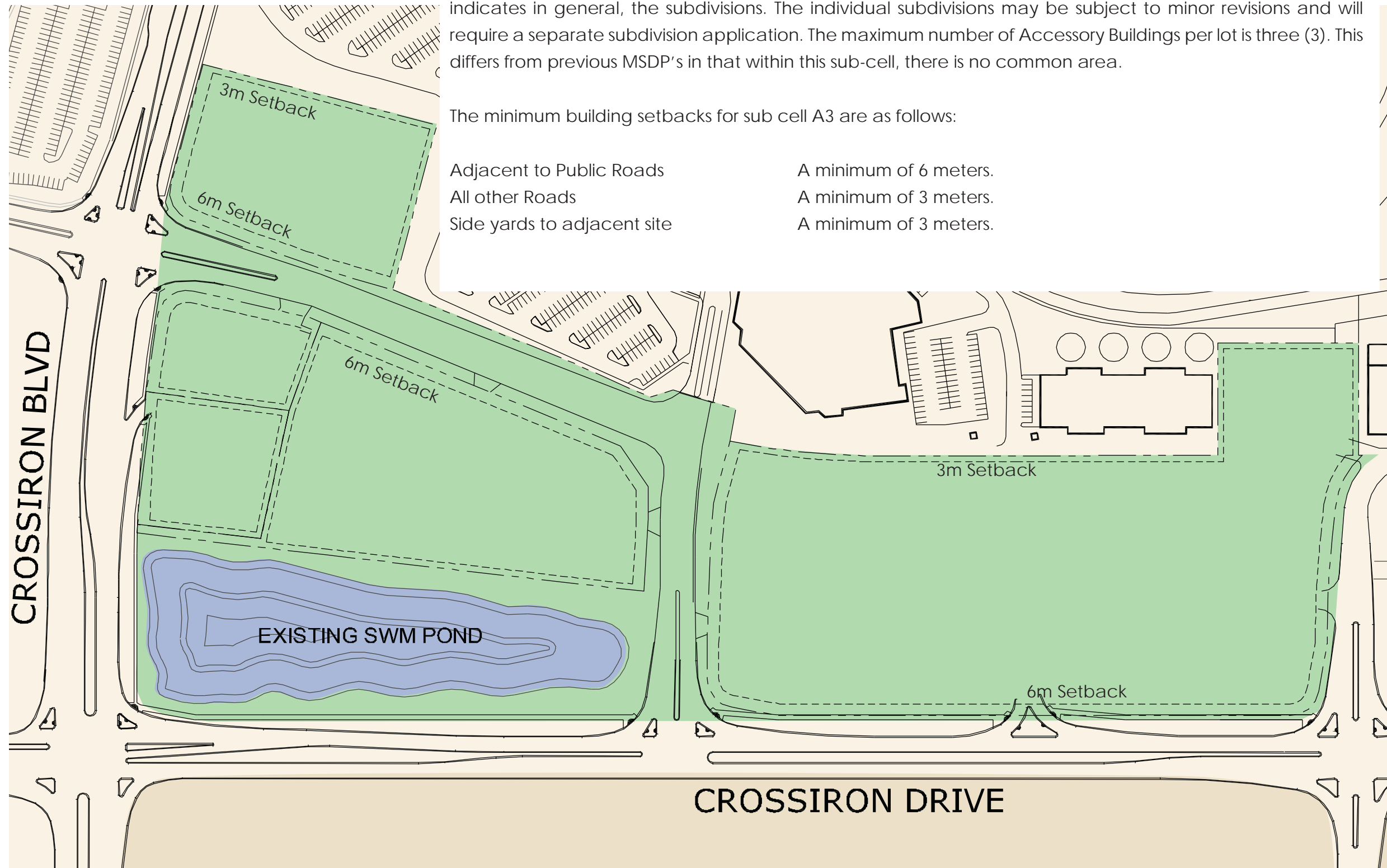
-  Potential Future Access
-  Existing Right in/Right out Access
-  Proposed Roadway
-  Proposed Site Entry Magazines

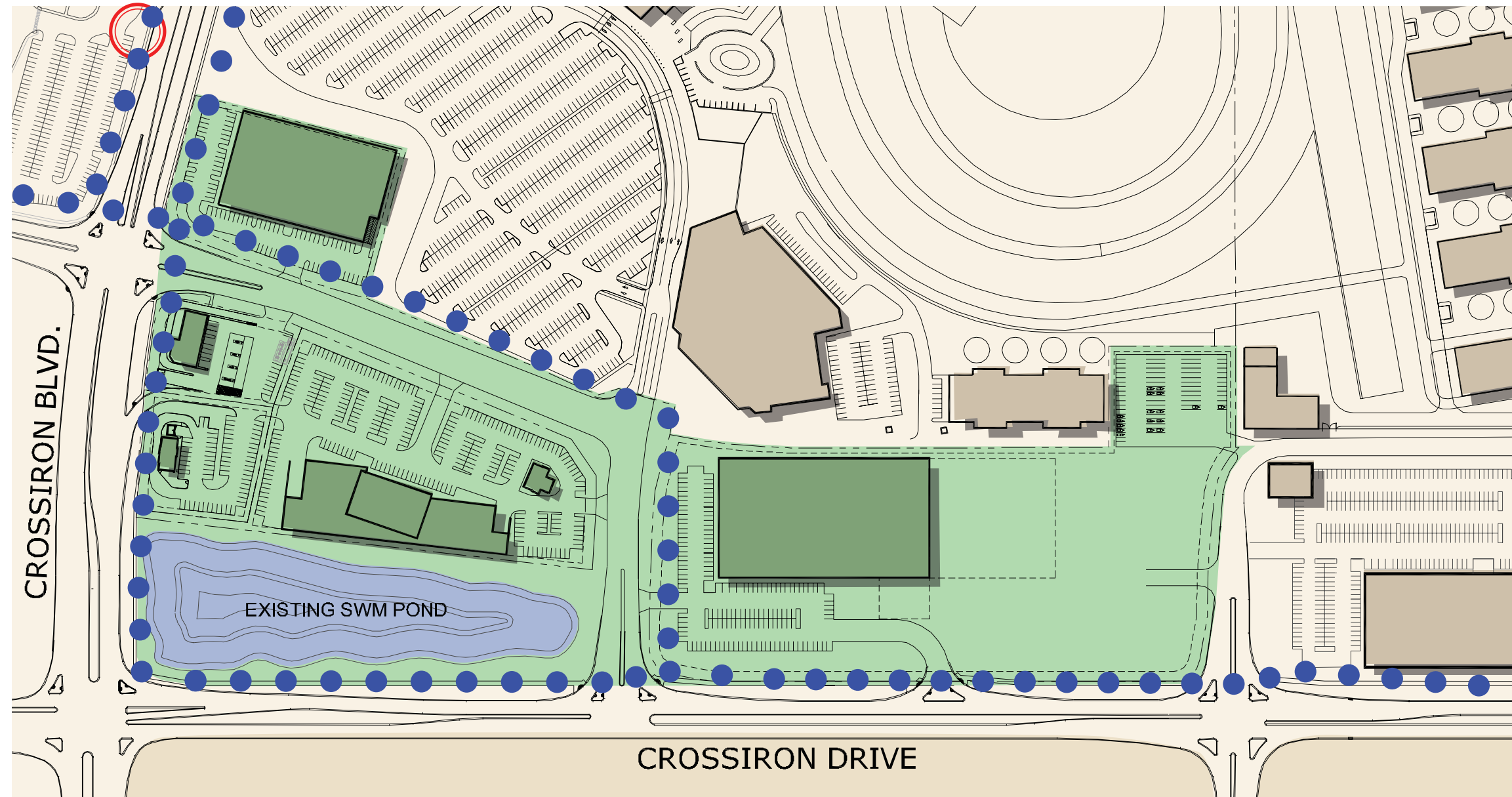
2.5 Subdivision & Setbacks

Individual parcels within this sub-cell are subdivided into separate parcels (lots). The attached drawing indicates in general, the subdivisions. The individual subdivisions may be subject to minor revisions and will require a separate subdivision application. The maximum number of Accessory Buildings per lot is three (3). This differs from previous MSDP's in that within this sub-cell, there is no common area.

The minimum building setbacks for sub cell A3 are as follows:

Adjacent to Public Roads	A minimum of 6 meters.
All other Roads	A minimum of 3 meters.
Side yards to adjacent site	A minimum of 3 meters.





2.6 Pedestrian Access

The pedestrian connection between adjacent sub-cells is through the existing sidewalk infrastructure. Each lot can be accessed from the public sidewalk and from there, each individual development permit will address pedestrian movements within their lots.

Pedestrian Crossing ● ● ● ● ● ● ● ●

Potential Bus Stop



2.7 Parking and Loading Needs Assessment

Bunt & Associates has prepared a report to address the specific parking and loading needs for each proposed lot and use. They have also confirmed that these new proposed uses are well within the required parameters of the original traffic impact assessment report for the overall CrossIron development. Refer to Appendix C.



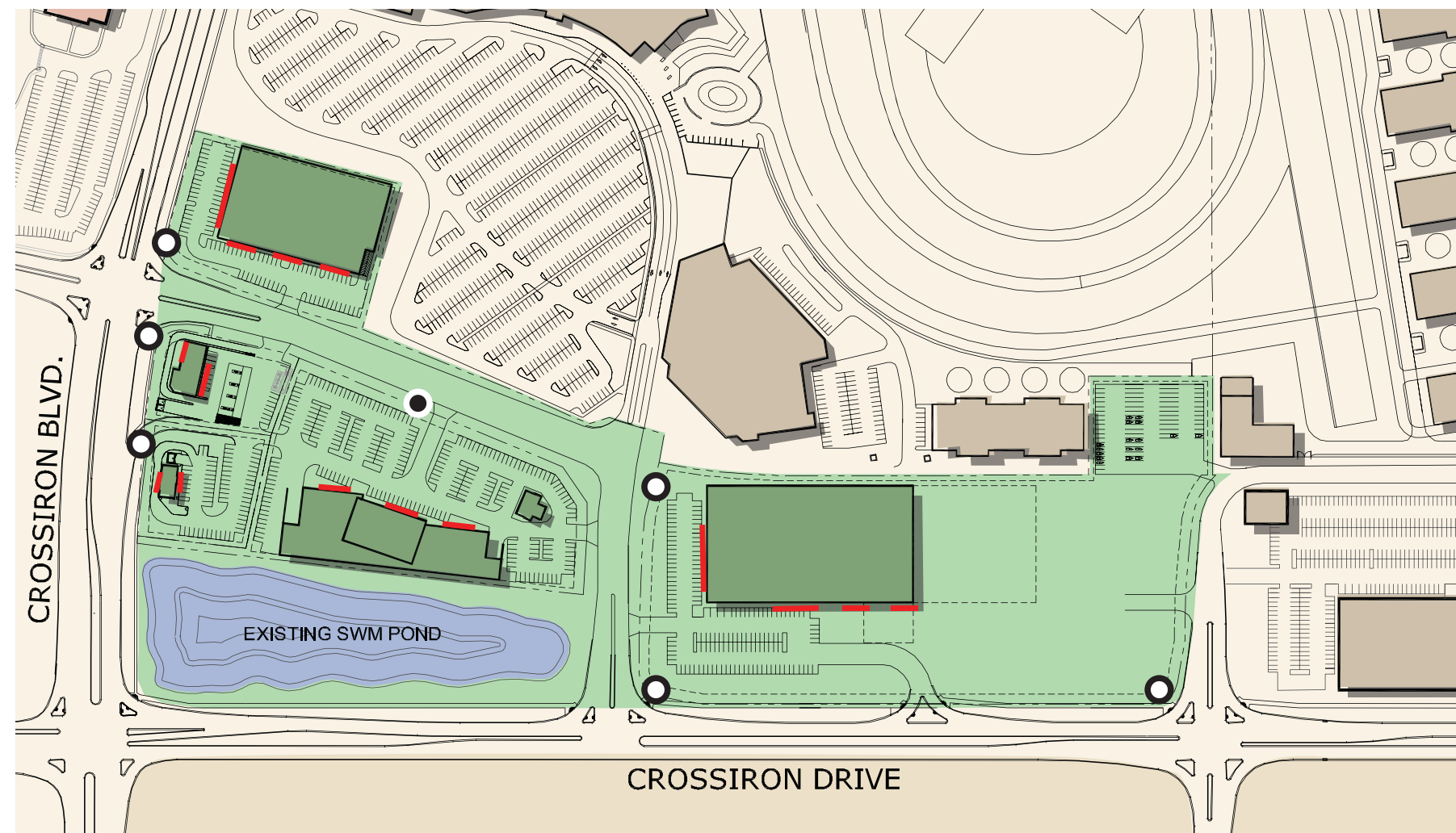
3.1 Signage Overview

Signage addressing the various hierarchies of orientation may be located throughout the site. The signage documentation is intended to be a Master Plan and template for future detailed signage approvals. This is a guide and the final sign locations are subject to refinement. Types of signs that may be installed include:

- Tenant pylon signs
- Multi-tenant pylon signs
- Tenant identification signs located on building facades

Each new landowner will be required to apply for their own signage permits and subject to county approval. The maximum number of freestanding signs per lot is four (4).

- Potential Tenant Pylon Sign Locations
- Potential Multi-tenant Pylon Sign Locations
- Potential Building Sign Locations



4.1 Hierarchy of Lighting

A hierarchy of lighting is established, scaled to the particular needs of the varied zones within the CrossIron project area, including both the public lighting and project site lighting.

4.2 Public Lighting

Public lighting refers primary to street lights along public streets. This street lighting shall conform to the design standards at the time of installation. Lighting along the project corridors is designed to provide a cohesive project identity.

4.3 Project Site Lighting

Site lighting refers to the illumination of on-site areas for the purpose of safety, security, and night time ambience, and includes parking areas, peripheral parcel parking areas, entries, pedestrian walkways and amenities, outparcel building entries and plazas, graphics and signage, architectural and landscape features and service areas. Within these zones, site lighting fixtures are intended to be from the same family of fixtures with respect to design, material, color and color of light.

The general parking area lighting consists of pole mounted fixtures located within the parking areas. The height and intensity of these fixtures is designed to provide consistent illumination while reducing the actual quantity of freestanding fixtures needed. The light source is typically designed to provide a natural color while reducing glare and light trespass and will be dark sky compliant.

Along pedestrian movement corridors within sites, the use of low mounted lighting which reinforces pedestrian scale will be encouraged.

Service area lighting is to be provided with surface mounted wall fixtures with concealed lighting sources.

Materials will be metal i.e. aluminum or steel painted, colors will be to suit the theme when determined and the pole foundation shall be poured in place concrete.

All lighting will be designed to minimize light “pollution” and direct the light to the surface.

In general, the following minimum light levels will be achieved:

- Site Entry - 3 foot candles
- Parking lot – 2 foot candles
- Entrances – 5 foot candles

A detailed lighting plan will be submitted with the Development Permit for each parcel and/or building.

5.1 Architecture Overview

Building elevations facing public roads shall be treated as front yards and architecturally treated in a manner to break up the building mass. Treatments may include building articulation, variety of building heights, variety of building materials and integration of landscape features and berms.

Loading facilities are encouraged to be on the sides of buildings and when facing public roads shall be appropriately screened in a manner that is consistent with the architectural treatment of the adjacent building elevation, or with landscaping.

A pedestrian circulation system has been developed to provide links to the adjacent roads and regional pathway. This system allows for connectivity throughout the site and encourages pedestrian activity to the buildings.

All buildings will be architecturally designed, articulated and

incorporate a variety of building materials. The building materials may include: concrete masonry units, masonry, stone (natural or artificial), EIFS, prefinished metal, precast concrete, aluminum framed glazing and wood.

Wherever possible the main building façade should incorporate pedestrian oriented design elements such as wide sidewalks, articulated facades, canopies, glazing and a variety of building materials.



5.2 Outdoor Display and Sales

Exterior display areas will be properly sited and landscaped. Details will be provided at the development permit stage.

5.3 Loading Areas

Loading areas shall be screened with either landscaping or screen walls to ensure that principal view lines and vistas will focus on building entrance and major tenant areas. The treatment of screen walls shall be consistent with the adjacent architectural façade.

6.1 Utilities

Gas meters, pad mounted transformers, pad mount generators and other physical elements affecting Urban Design shall be appropriately screened with landscaping.

6.2 Stormwater Management

A Master Storm Water Management study has been established for the entire area. Stormwater management for the individual sites will conform to the overall study.

6.3 Overhead Power Lines

Whereas there may be overhead power lines in the road, all power lines within the site will be buried.

6.4 Transit

Allowances have been made in the Municipal Road network for the provision of bus laybys to accommodate future public transit to the area.

6.5 Pedestrian Linkage

An internal pedestrian system will link the perimeter sidewalks and future transit nodes to the individual buildings, as shown on page 10.

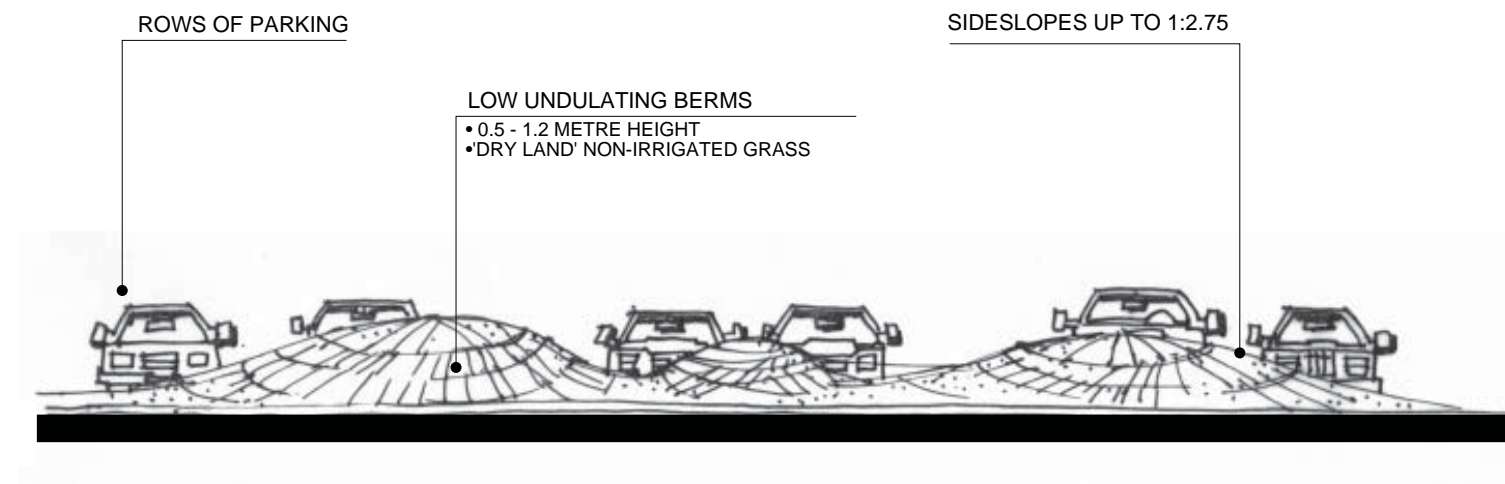
6.6 Environmental Stewardship

Where ever practical and feasible, building methods and systems may be implemented to minimize the impact of CrossIron Common on the environment. The landscape strategy encourages a landscape methodology that eliminates irrigation water. In addition the principles of LEED (Leadership in Environmental and Energy Design) developed by the United States Green Building Council, and other environmentally friendly strategies may be implemented where feasible.

Landscape

7.1 LANDSCAPE ZONE 1: **LOW PERIMETER**

Low perimeter landscape zones abut major internal roads and provide a physical separation between the public roadway and internal functions. These zones are located to afford viewing to and from the site while screening adjacent parked vehicles with a series of low, undulating berms.



Landscape

7.2 LANDSCAPE ZONE 2: **TALL PERIMETER**

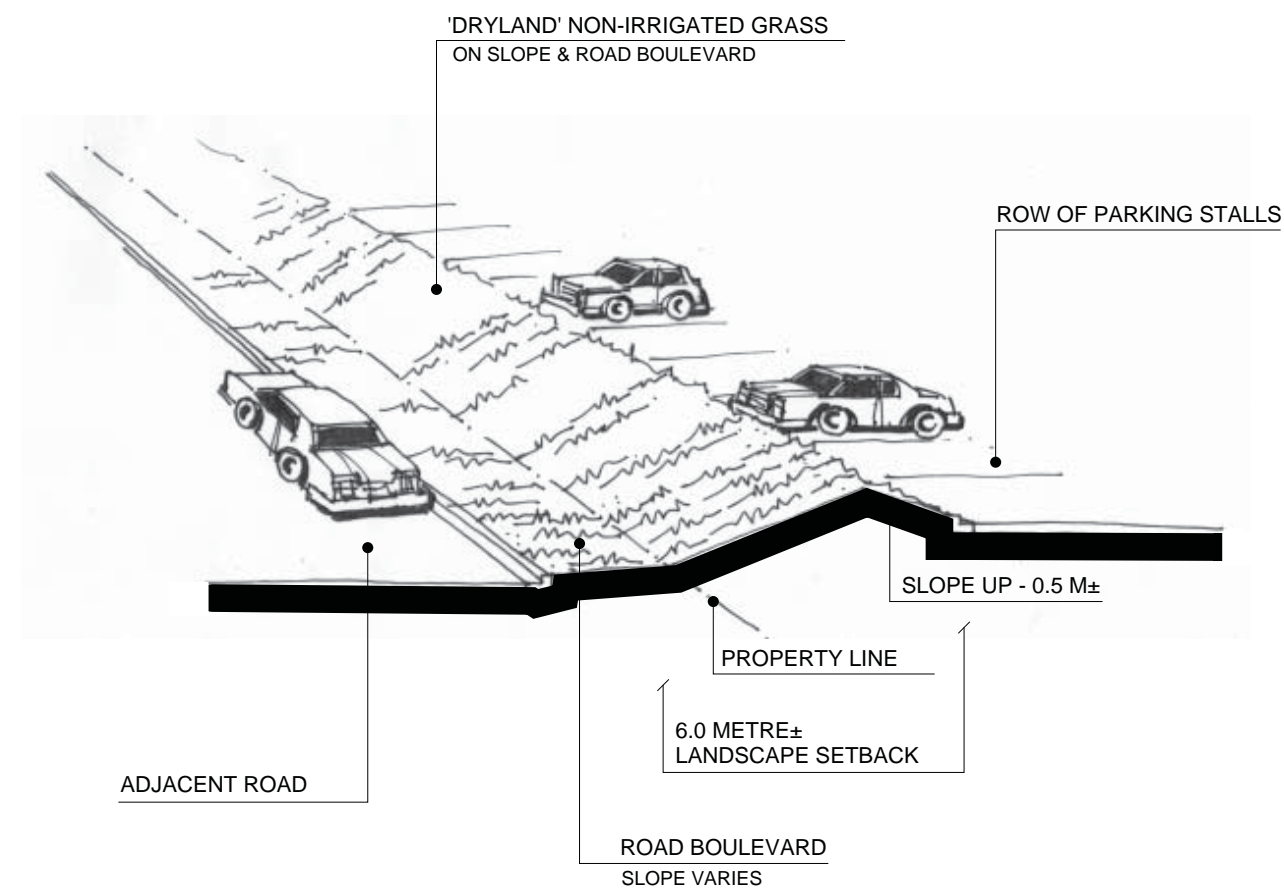
The zones are located in perimeter areas to provide an alternative landscape form to the grassed 'Low Perimeter' zones. The proposed landscape – a double row of deciduous trees reflects the prairie shelterbelt form. Views to and from the site are of less importance in 'Tall Perimeter' zones.



Landscape

7.3 LANDSCAPE ZONE 3: **SLOPED LOW PERIMETER**

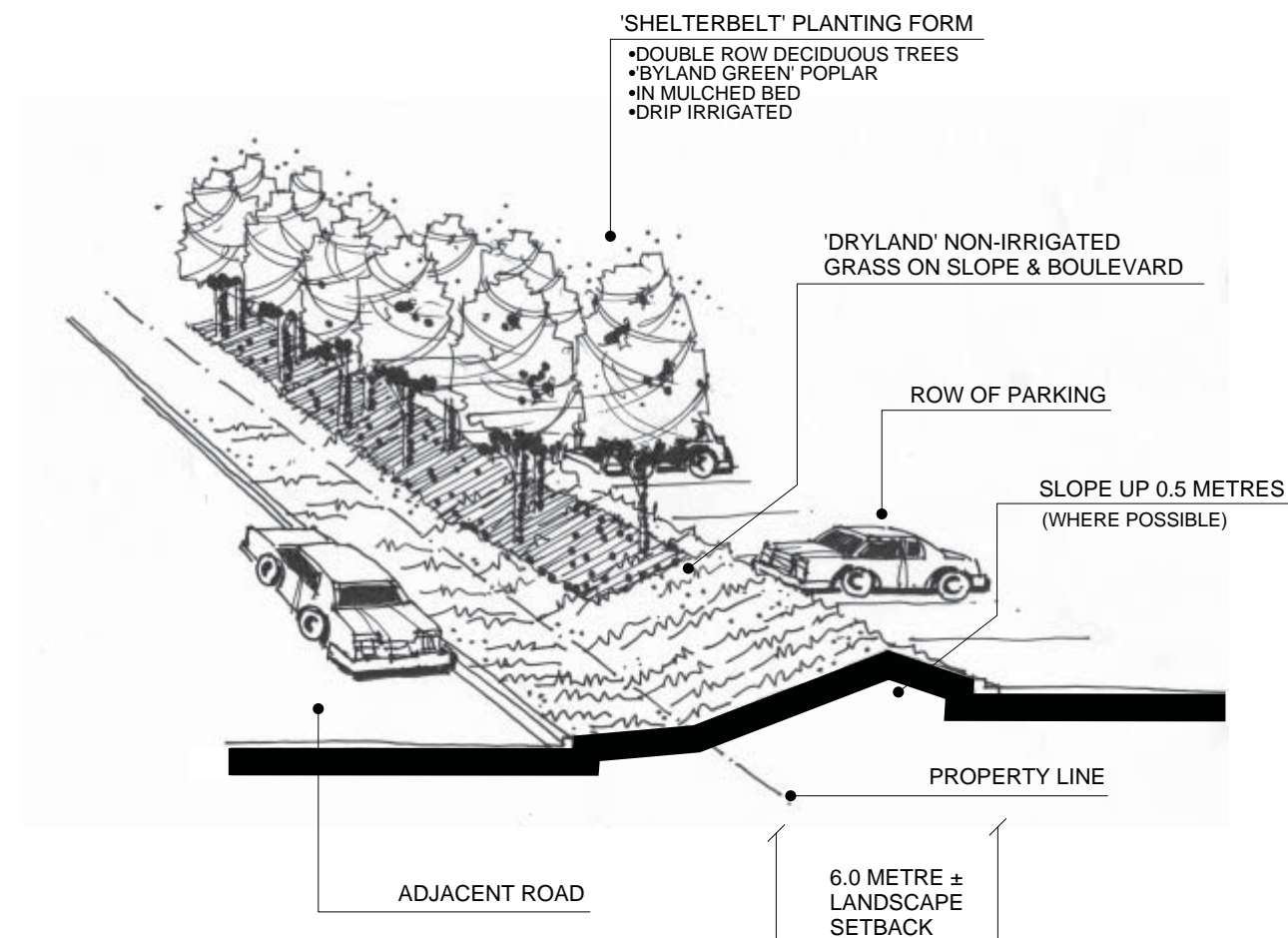
Sloped low perimeter landscapes are generally characterized by a slope up from the abutting road. This slope visually 'extends' the landscape for adjacent road users. Where grades permit, it is desirable to berm up slightly from abutting parking rows to obscure the fronts of parked vehicles.



Landscape

7.4 LANDSCAPE ZONE 4: SLOPED TALL PERIMETER

This zone is similar to Zone 2 – ‘Tall Perimeter’, except the provided landscape setback will be sloped in response to site grading conditions.

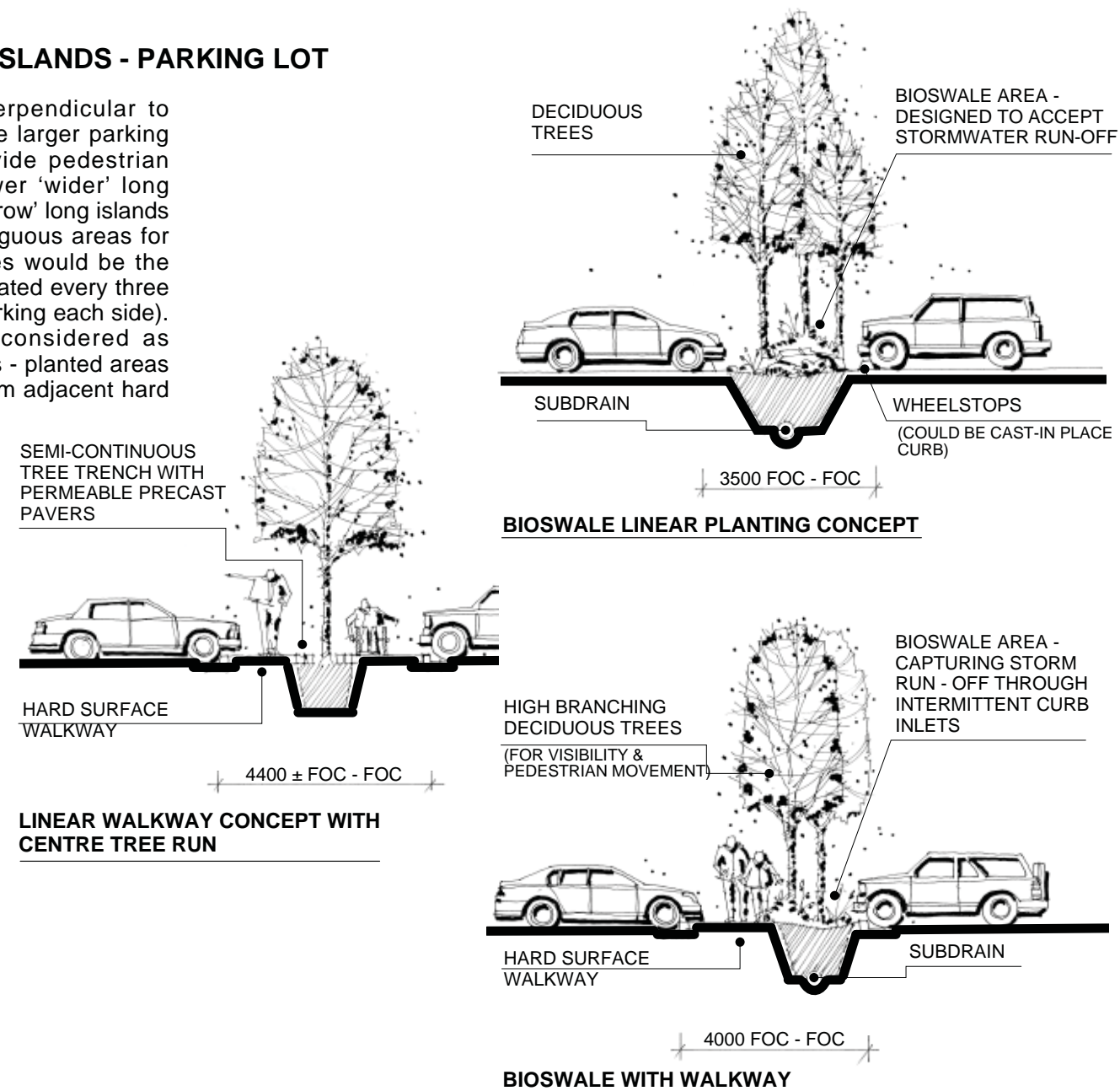


Landscape

7.5

LANDSCAPE ZONE 5: LONG ISLANDS - PARKING LOT

Long parking lot islands orient perpendicular to parking stalls and serve to subdivide larger parking cells and, where appropriate provide pedestrian connections to the buildings. Fewer 'wider' long islands rather than more frequent 'narrow' long islands are preferable to provide more contiguous areas for planting. As a guideline, 4.0 metres would be the preferred width, with a long island located every three parking modules (driving lane with parking each side). Long parking islands should be considered as opportunities to implement bio-swailes - planted areas designed to capture storm run-off from adjacent hard surfaces.



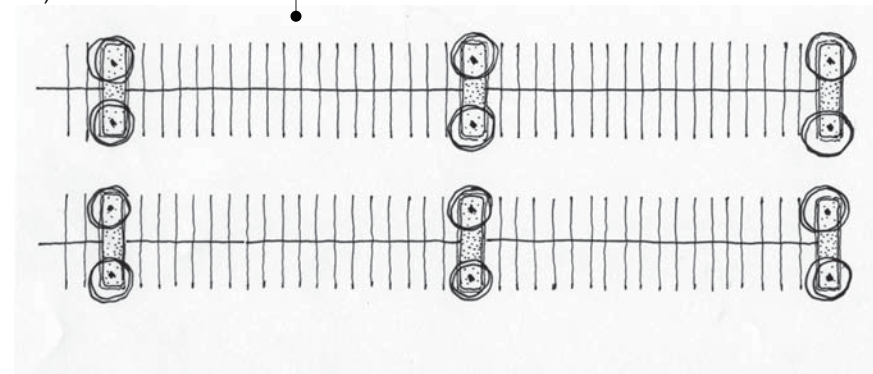
Landscape

7.6 LANDSCAPE ZONE 6: **PARKING ISLANDS - GENERAL**

The 'consolidation' of several 'small' (less than 2.0 m width) parking lot islands into larger, more contiguous landscape elements is desirable, particularly within the context of limited water availability for irrigation purposes. Larger intensively planted islands will be more viable, and have a greater visual presence within larger surface parking areas. Diverting storm water run-off to the parking islands should be considered.

TYPICAL 'CONVENTIONAL' LAYOUT

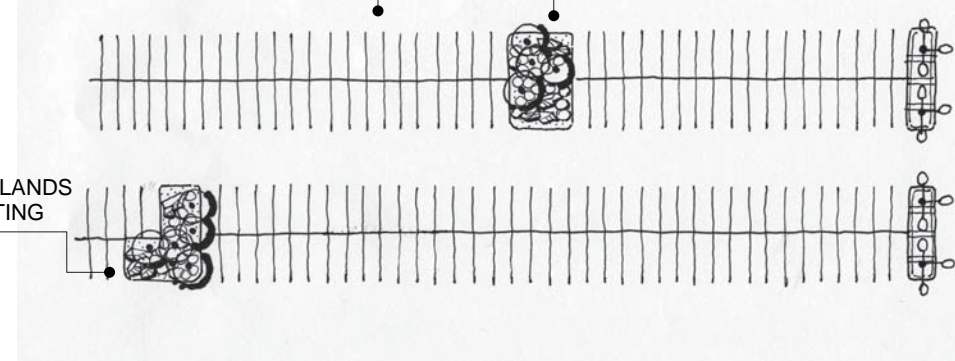
NARROW ISLANDS (<2.0 M)



ALTERNATIVE LAYOUT

FEWER BUT LARGER ISLANDS

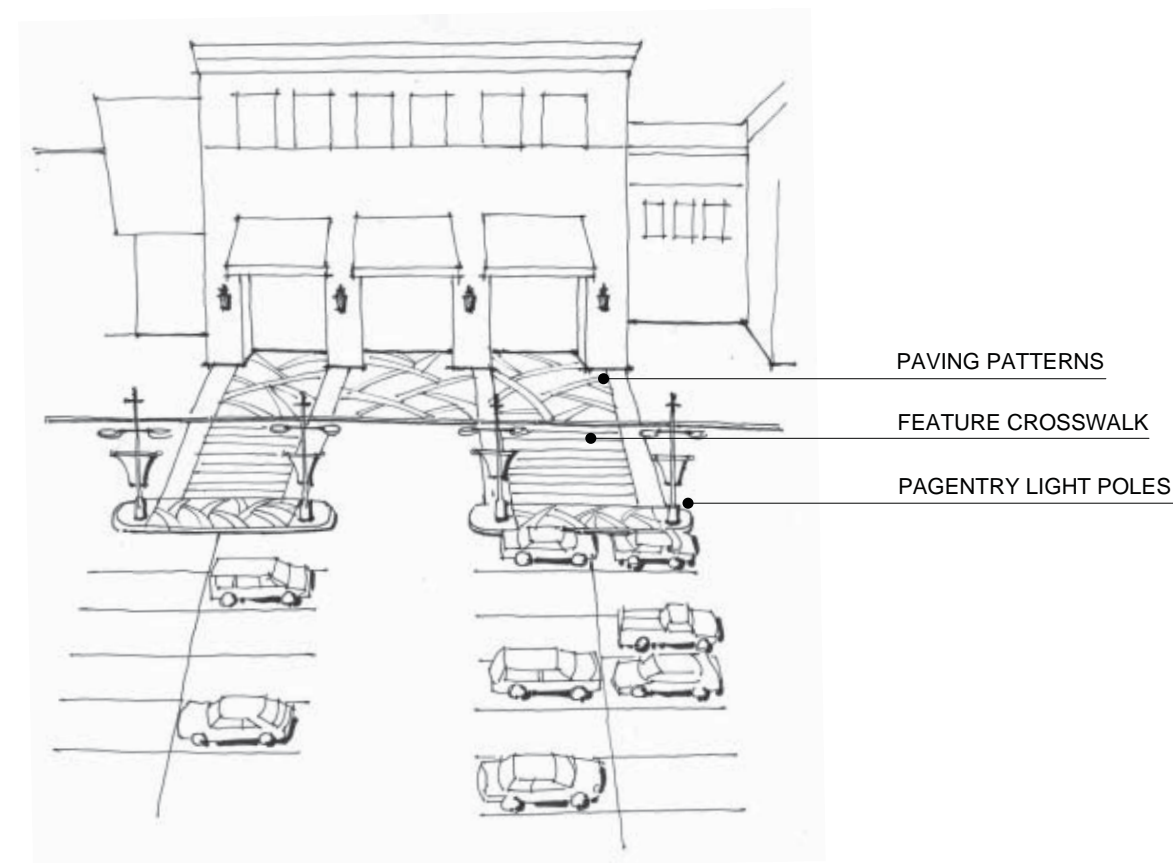
LARGER ISLANDS FOR PLANTING

LARGER ISLANDS
FOR PLANTING

Landscape

7.7 LANDSCAPE ZONE 7: **PARKING ISLANDS - NARROW**

These zones include 'small' parking bulbs (2.0 metres and less in width) where significant soft landscape installations are not viable. Smaller islands may be hard landscaped only, where appropriate, using boulders, cobbles, stones, gravels and architectural pavements. Islands may be enhanced with light poles and pagentry elements.



Landscape

7.8 LANDSCAPE ZONE 8: MAIN ENTRY ROADS



TYPICAL ENTRY TREATMENT - SCHEMATIC PLAN



Page 16

July 12, 2006

East Balzac - RETAIL & RACING ENTERTAINMENT CENTRE

Carson • McCulloch Associates Ltd.



Landscape

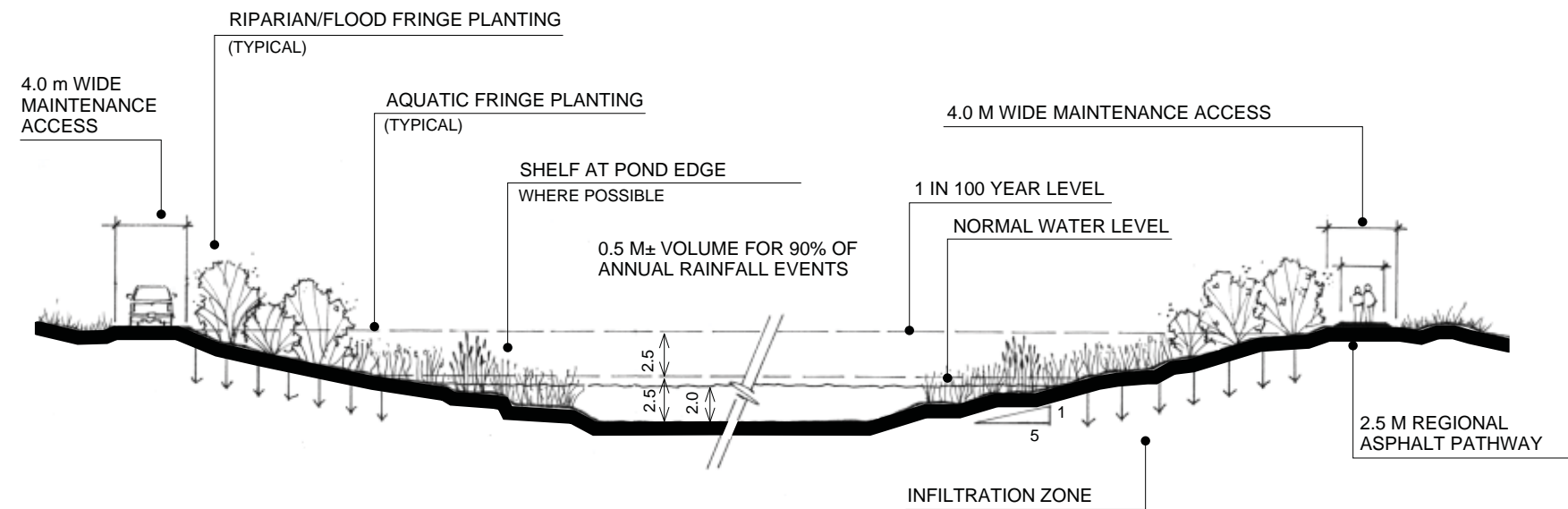
7.9 LANDSCAPE ZONE 9: **BUILDING EDGES**

Spaces near and abutting buildings may be more intensively landscaped and appear more 'urban' than outlying perimeter landscapes.



7.10 LANDSCAPE ZONE 10: ENHANCED STORM WATER FEATURES

Storm water ponds within the development cells and within the Nose Creek lands will be enhanced to provide characteristics consistent with 'constructed wetlands'. Side slopes will be moderated to a maximum of 1:5, and where possible level 'shelves' will be created at the water edge to sustain aquatic and riparian plants.



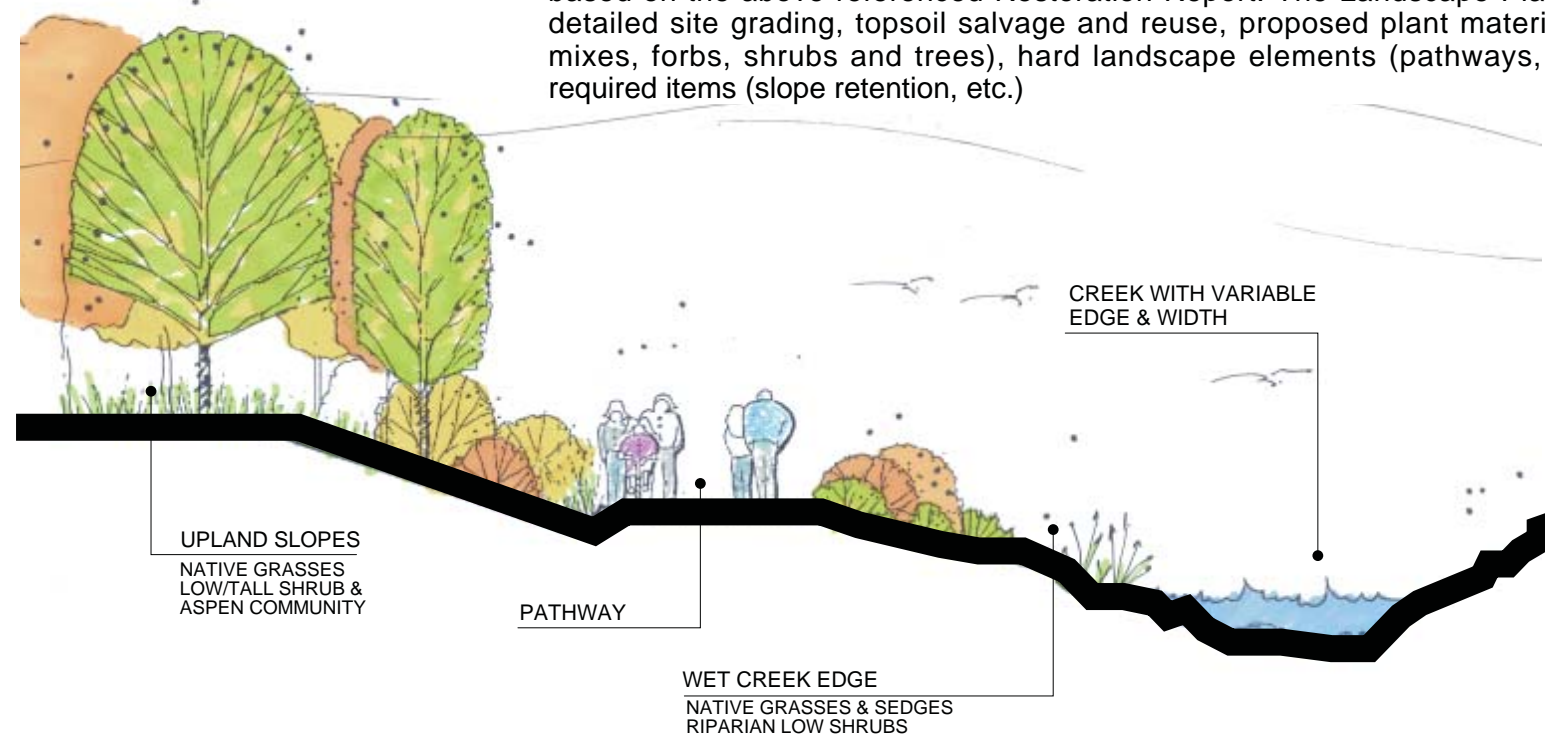
Landscape

7.11 LANDSCAPE ZONE 11: NOSE CREEK

All lands in and adjacent to the Nose Creek corridor that are disturbed as a result of the construction activities of the development shall be restored in accordance with Alberta Environmental Protection regulations. Other areas abutting Nose Creek that are unaffected by the construction of the development shall remain 'as is', except for necessary improvements related to creek hydrology and creek bank stabilization related to public safety. At the Development Permit level a 'Restoration Plan' shall be prepared for the Nose Creek lands. This Plan shall include two components, developed in a collaborative manner:

A Restoration Report prepared by a qualified 'Natural Areas Restoration' consultant (ecologist, botanist, biologist, etc.) documenting, among other things existing soils, wildlife habitat, plant communities, rare and endangered plants, etc. The report shall recommend methods for salvaging organic soils for reuse in restoration activities, and provide recommended plant species lists for restoration purposes. In addition, the report shall address maintenance activities required for successful establishment of the restoration plan.

A Restoration Landscape Plan prepared by a qualified landscape architect. The Landscape Plan shall be prepared at a detailed design level (construction working documents), and be based on the above referenced Restoration Report. The Landscape Plan shall describe detailed site grading, topsoil salvage and reuse, proposed plant materials (grass seed mixes, forbs, shrubs and trees), hard landscape elements (pathways, etc.) and other required items (slope retention, etc.)



8.1 Proposed Land Purchaser
Sample Projects : La-z-boy



8.2 Proposed Land Purchaser
Sample Projects : Shell



8.3 Proposed Land Purchaser
Sample Projects: Leons



TRANSPORTATION PLANNERS AND ENGINEERS



February 14th, 2012
1038-17

Mr. Ben Mercer
Rocky View County
911 32nd Avenue NE
Calgary, AB T2E 6X6.

Dear Mr. Mercer,

Re: Rocky View County Furniture Store – Proposed Parking Supply Summary

As requested by Ivanhoe Cambridge, Bunt & Associates has reviewed parking demands related to large format furniture stores. This was precipitated by the proposed development of a Leon’s and La-Z-Boy furniture stores on a land parcel located just east of the existing CrossIron Mills regional shopping centre in Rocky View County, Alberta.

The purpose for this letter is to summarize Bunt & Associates’ findings as a result of the review, and to recommend an appropriate parking supply ratio for the sites. As we understand it, the initial phase of the site development program will see a Leon’s furniture store developed with a floor area of approximately 90,000 square feet. Expansion in the future may occur, for a total floor area of up to approximately 150,000 square feet. The La-Z-Boy as proposed will have a gross floor area of 50,000 square feet.

METHODOLOGY

Large format furniture stores are not large generators of parking. Durations of stay for customers tend to be shorter than for uses such as regional shopping centres where multiple destinations are often part of every trip. That said, it is still vital that appropriate parking stalls be available to accommodate peak demand.

In assessing the appropriate ratio for parking to be provided at the proposed Leon’s and La-Z-Boy sites, Bunt & Associates reviewed several data sources, as follows:

- Institute of Transportation Engineers (ITE) Parking Generation Manual (4th Edition).
- Existing parking by-laws from a variety of other municipalities.

The results of this review are outlined in the following sections.

ANALYSIS OF ITE PARKING GENERATION MANUAL

A review of the ITE Parking Generation Manual revealed that there are several described land uses that are similar in their characteristics to furniture stores. These included a hardware/paint store (use code 816), toy/children’s superstore (use code 864), furniture store (use code 890), and carpet store (use code 892). The parking supply ratios identified in the ITE manual are summarized here in **Table 1**. All ratios have been seasonally adjusted to reflect pre-Christmas conditions or 85th percentile values. In all cases GFA refers to gross floor area.

Table 1: ITE Parking Generation Summary

Use	ITE Code	ITE Parking Ratio (stalls per 1000 sqft GFA)
Hardware/Paint Store	816	2.87
Toy/Children’s Superstore	864	2.90
Pet Supply Superstore	866	1.17 ¹
<i>Furniture Store</i>	<i>890</i>	<i>1.34²</i>
Carpet Store	892	3.00 ³
Average	-	2.3
High	-	3.00
Low	-	1.17

Although by no means exhaustive, the data contained in the ITE manual did provide some insight into the parking characteristics of furniture stores and other lower impact big box stores. This data set suggested that a stand alone furniture store would be expected to generate parking demand at a ratio of 1.34 stalls per 1000 square feet GFA, and that the average of other similar uses would be in the order of 2.3 stalls per 1000 square feet GFA.

ANALYSIS OF BY-LAW REQUIREMENTS

A series of sources were assessed in terms of by-laws. These included the Parking Standards report as prepared by the American Planning Association, which contained information for furniture stores in five different cities in the United States, including Columbia NC, Boca Raton Fla, Eugene OR, Gresham OR, and

¹ No seasonal information available.

² 85th percentile value.

³ 85th percentile value.

Des Moines Iowa. As well, Bunt & Associates researched the by-laws for the County of Rocky View, City of Calgary and City of Edmonton. None of these by-law ratios specifically targeted furniture stores. Rather, all were related to generic retail uses. A summary is outlined here in **Table 2**.

Table 2: By-law Summary

Municipality	Use	Parking Ratio (stalls per 1000 sqft GFA)
Rocky View County	Retail	3.0 (3.2 per 100 square metres)
City of Calgary (CR-1)	Retail	4.2 (4.5 per 100 square metres)
City of Red Deer	Retail	5.1
City of Lethbridge	Retail	3.7 (1 per 25 square metres)
City of Toronto	Retail	3.0 ⁴
Columbia, NC	Furniture Store	2.5
Boca Raton, FLA	Furniture Store	1 per employee, plus 2 per 1000 up to 5000 sqft, plus 1 per 1000 above 5000 sqft.
Eugene, OR	Furniture Store	1.52
Gresham, OR	Furniture Store	1.00
Des Moines, IOWA	Furniture Store	1.67
Average (Furniture Stores)	-	1.7
Average (Overall)	-	2.9 ⁵

Although also not exhaustive, the information collected from the by-law check provided additional insight into the parking characteristics of furniture stores. This data set suggested that a stand alone furniture store would be expected to provide a parking supply at a ratio of 1.7 stalls per 1000 square feet, while the blended by-law summary including other generic retail requirements, resulted in an average of 2.9 stalls per 1000 square feet GFA.

Of these two averages, the furniture store clearly suggests that the needs of the site would be less than 2.0 stalls per 1000 square feet. However, the potential to re-lease the site at a later date suggests that it would be prudent to provide more parking than the minimum so as to cover for the potential of a new user (of a similar nature) requiring more parking than a furniture store.

⁴ Interpreted based on a variety of requirements by location.
⁵ Due to the complexity of the calculation and the absence of employee information for the proposed Leon’s site, the Boca Raton data point was not included in the calculation of the average by-law ratio here.

CONCLUSION

Based on this limited exercise, a stand alone furniture store (and any subsequent re-lease user of similar characteristics) would be expected to require parking in the order of 1.34 to 1.7 stalls per 1000 square feet GFA. Other similar uses, including the furniture store itself, could be expected to require a supply of 2.3 to 2.9 stalls per 1000 square feet.

In Bunt & Associates' opinion, based on the data collected, a threshold of 2.0 to 2.5 stalls per 1000 square feet GFA would represent a reasonable, yet secure balance between the supply necessary to accommodate the expected demand associated with the site, while at the same time protecting for future conditions should the site be re-leased to a different user with similar characteristics in the future. It is therefore suggested that the ratio of no less than 2.0 stalls per 1000 square feet GFA and no more than 2.5 stalls per 1000 square feet GFA be considered for this site in the absence of any specific by-law requirement imposed by Rocky View County.

This concludes our review of parking requirements for the stand-alone furniture stores in Rocky View County. Please call if you have any questions or wish to discuss any issue in further detail.

Yours truly,
Bunt & Associates



Glen Pardoe, P.Eng.
Principal