

PROJECT ALBERTA

MASTER SITE DEVELOPMENT PLAN
CELL A-2



07.04.06

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1.1 Purpose of Design Guidelines

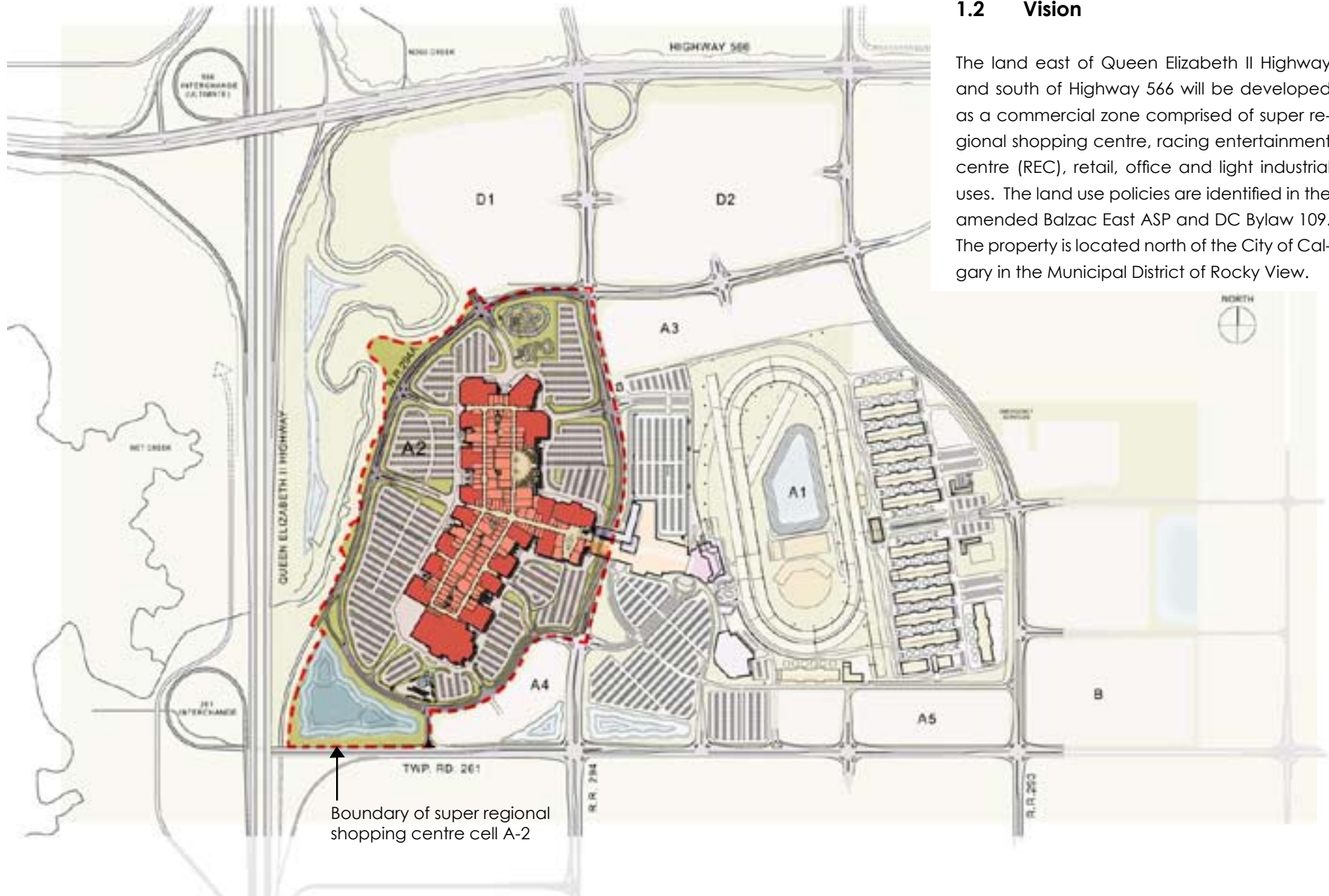
The purpose of this document is to govern the general design principles of the project as it is developed over time. It will be used jointly by the Municipal District of Rockyview (MD) Ivanhoe Cambridge (IC) and United Horsemen of Alberta (UHA) to control all development in the common interest of achieving 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 the Municipal District of Rockyview for its approval.



1. PREAMBLE AND INTRODUCTION

1.2 Vision

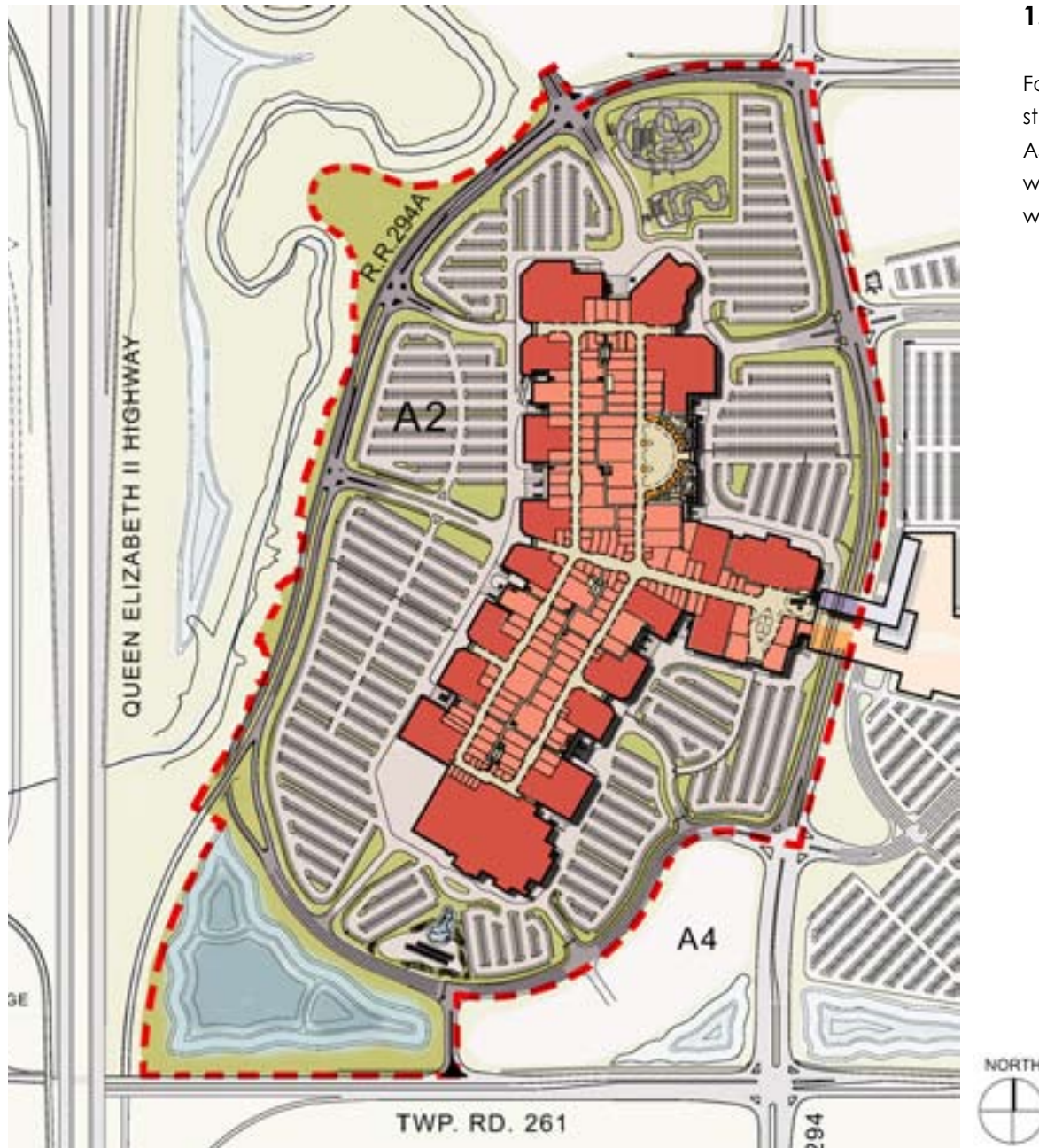
The land east of Queen Elizabeth II Highway and south of Highway 566 will be developed as a commercial zone comprised of super regional shopping centre, racing entertainment centre (REC), retail, office and light industrial uses. The land use policies are identified in the amended Balzac East ASP and DC Bylaw 109. The property is located north of the City of Calgary in the Municipal District of Rocky View.



1. PREAMBLE AND INTRODUCTION

1.3 Definition of the Study Area

For the purposes of the Master Site Development Plan, the study area shall be defined as subcell A2 in the Balzac East ASP, located on the east side of Queen Elizabeth II Highway, south of Highway 566, north of Township road 261 and west of Range road 294.



1.4 Site Opportunities and Constraints

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

Nose Creek and its surrounding setbacks provide a physical and visual buffer between the development 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 Master Plan

The Preliminary Master Plan consists of the shopping centre building itself centred within subcell A2 in adjacent REC subcell A1 and is ultimately surrounded by outparcel developments which will define the edge of the project in the remaining subcells and cells B&D. Access to the mall site will be from the four surrounding public streets and will be defined by gateways identified as “Entry Magazines”. These entrances will include landscaping and site identification signage, which leads to parking and the shopping centre building.



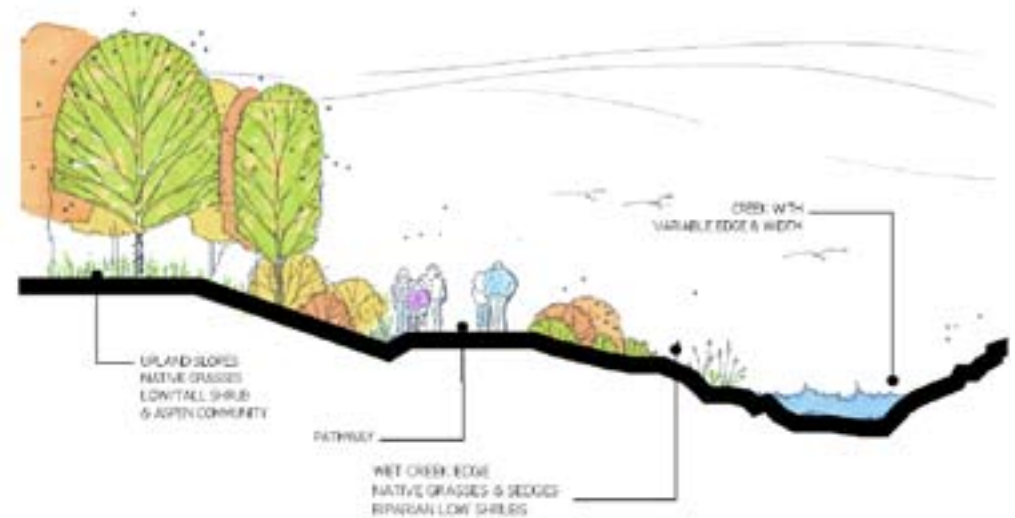
2.2 Private Realm

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

2.3 Landscaping

Landscaping of Cell A2 will follow the requirements of the Balzac East ASP and the DC Bylaw. 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, irrigation, storm water features and plant material.

Detailed landscape and irrigation plans will be submitted with the Development Permit.



2.3.1 Site Entry Magazines

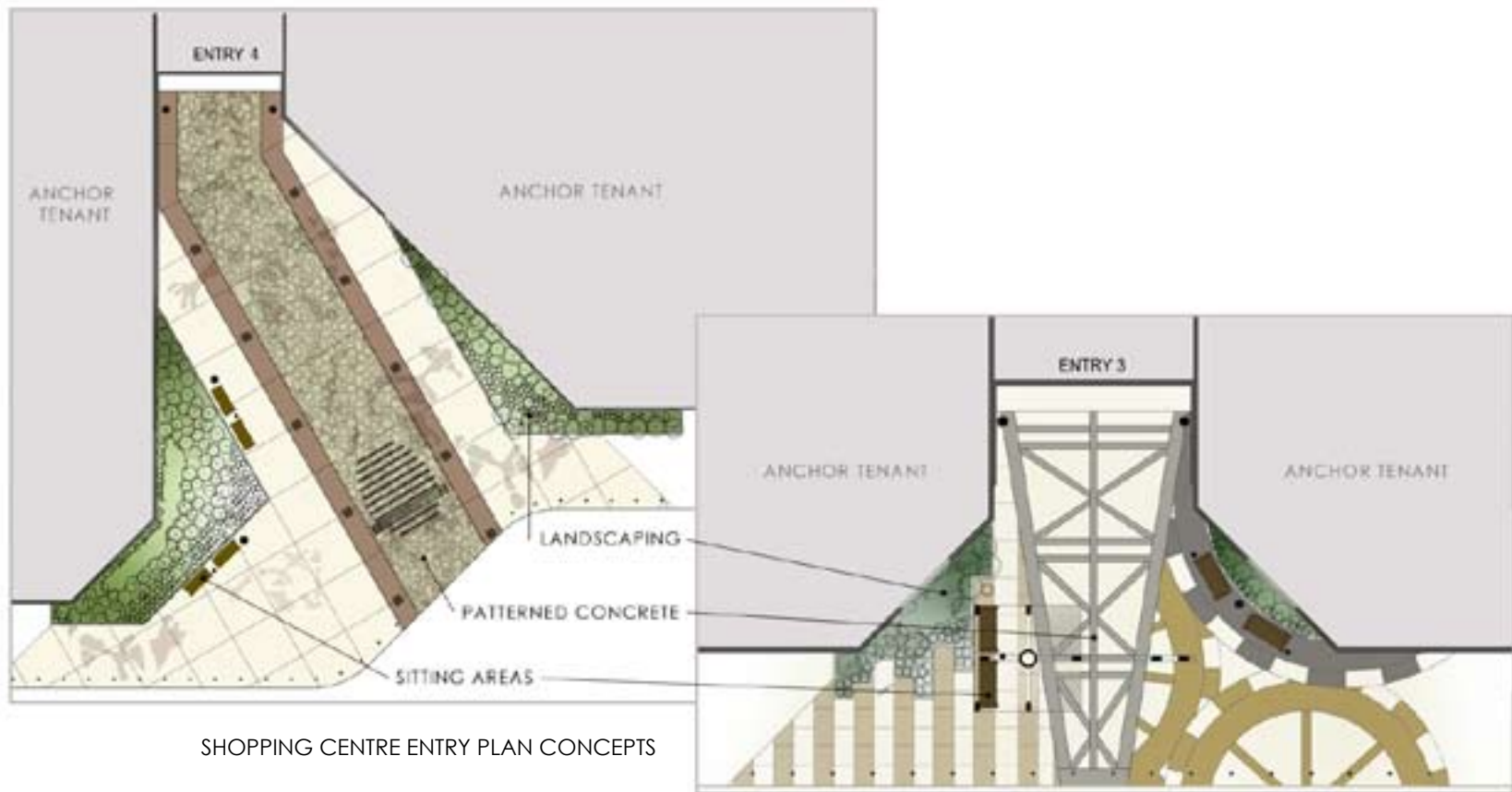
The major access points to the mall are through the Entry Magazines along Range Road (RR) 294A, RR 294 and Township Road (TWP) 261. These gateway features will be landscaped to include planting, lighting, and identification signage. The corners will be treated with enhanced hardscape and may include an architectural gateway element. Where a public sidewalk exists, the pedestrian links will extend to the building entrances.

2.4 Parking and Loading Needs Assessment

Refer to Appendix A for a parking and loading needs assessment prepared by Bunt & Associates. This assessment along with the landscape strategies and regional pedestrian circulation will guide the layout and approach to the parking design for the shopping centre.

2.3.2 Major Mall Entrances

In addition to Major Tenant entrances, there are numerous Major Mall Entrances around the building. Because of the scale of the project, these entrances are defined by the major signage and architectural elements. Typical treatment includes enhanced paving, lighting elements, tree, shrub and groundcover plantings, and site furnishing such as benches and waste receptacles. To reinforce the location and identification of these entrances, Clusters of trees in landscaped islands extend into the parking lot opposite each of the major entrances.

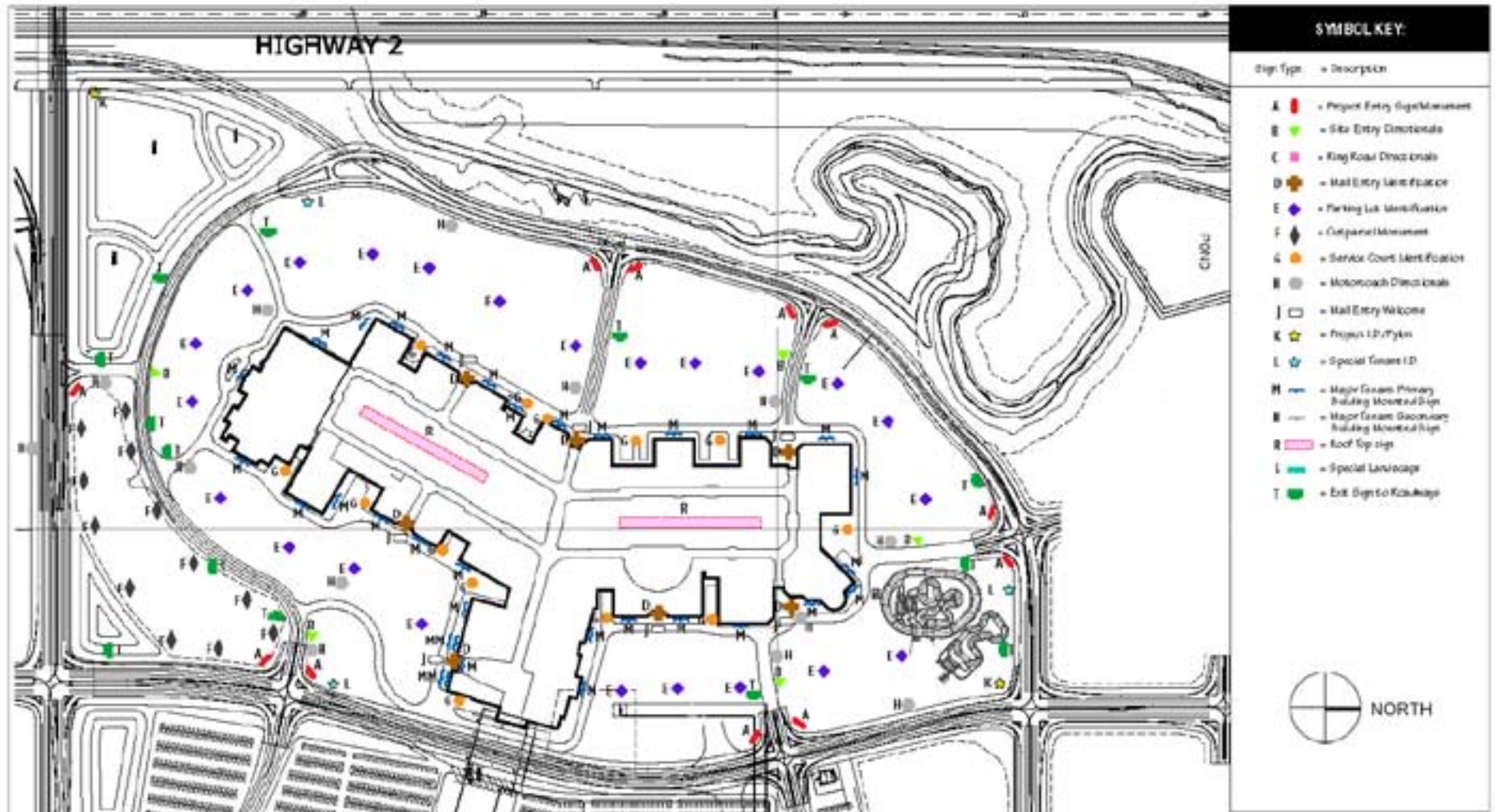


3.1 Signage Overview

All public realm and mall signage addressing the various hierarchies of orientation will be located throughout the site. The signage documentation is intended to be a Master Plan and template for detailed signage approvals. This is a guide and the final sign locations are subject to refinement. When the Project Alberta name and logo are developed, it will be an integral part of the signage imagery. Examples of the types of signs that could be installed are shown on the following pages.



TYPICAL ENTRANCE AT VAUGHAN MILLS



ALBERTA EXTERIOR SIGN SUMMARY

	SIGN CATEGORY	LOCATION	MAX. QUANTITY	MAX. HEIGHT (m)	STRUCTURAL SUPPORT	SINGLE/DOUBLE FACE	MAX. SQ. FT. PER FACE (m ²)	ILLUMINATION (L=Internally Luminous/E=Externally Illuminated)	SETBACK FROM F.O.W.	SIGN COPY
A	Entry Sign - Type A1 or A2	Entry Magnet	TBD	13 (8.5m)	Ground Mounted	Double	525(46m ²)	LE	T.B.D.	Project Name/Logo
B	Site Entry Directional	Entry Magnet - @ External Ring Road	TBD	14 (8.2m)	Ground Mounted	Single	190(17.2m ²)	E	5'	Major Tenant Name
C	Ring Road Directional	Inside of external Ring Road	TBD	14 (8.2m)	Ground Mounted	Double	525(46.3m ²)	E	5'	Major Tenant Name
D	Mail Entry Identification	Mail Building Exterior	TBD	40 (12.3m)	Ground Building Mounted	Single	500(46.5m ²)	LE	N/A	Project Name/Logo and Entry Number
E	Parking Lot Identification	Parking Lot Light Pole	TBD	25 (1)(7.92m)	Pole Mounted	Double	35(3.25m ²)	N/A	N/A	Parking Lot Identification
F	Outparcel Movement Sign	Road or Access Frontage of Outparcel	TBD	12 (3.66m)	Ground Mounted	Double	120(12m ²)	LE	10'	Outparcel Name/Logo
G	Service Identification	Building Service Screen Walls or Access Drive	TBD	12 (1)(3.66m)	Pole/Wall Mounted	Single	40(9m ²)	N/A	N/A	Service Area Identification
H	Motorcoach Directional	Along External Ring Road/Along Travel Route	TBD	12 (1)(3.66m)	Pole Mounted	Single/Double	15(1.4m ²)	N/A	5'	Motorcoach Arrival/Departure and Parking Areas
K	Project Ryan Sign	Along Highway 402	1	120 (36.3m)	Pole Mounted	Double	1500(7)(1.39m ²)	LE (2)	T.B.D.	Mail Name/Logo/ Mail Enrolment or Tenant Name
L	Special Tenant ID: Ryan Sign		TBD	60 (15.24m)	Ground Mounted	Double	1000(93m ²)	LE (2)	T.B.D.	Major Tenant Name/Screen/Logo/ Mailgun/Linking of Sites
M	Major Tenant (Primary)	Wall Mounted Above Exterior Entry or Display Board on Wall Mounted Sign for Tenant	1 per Major Tenant	Believe Perpet	Wall Mounted	Single	300(7)(2.79m ²)	L	N/A	Tenant Name/Logo
N	Major Tenant (Secondary)	Believe on other than Entry or Display Board	1 per Major Tenant	Believe Perpet	Wall Mounted	Single	300(7)(2.79m ²)	L	N/A	Tenant Name/Logo
O	Outparcel Tenant Sign (S)	On Building for tenants less than 3 acres	TBD	Believe Perpet	Wall Mounted	Single	200(7)(1.86m ²)	L	N/A	Outparcel Name/Logo
P	Outparcel Tenant Sign (S)	On building for tenants of 3 to 5 acres	TBD	Believe Perpet	Wall Mounted	Single	225(7)(2.0m ²)	L	N/A	Outparcel Name/Logo
Q	Outparcel Tenant Sign (S)	On building for tenants more than 5 acres	TBD	Believe Perpet	Wall Mounted	Single	300(7)(2.79m ²)	L	N/A	Outparcel Name/Logo
R	Roof Top Sign	Mail Roof	TBD	Maximum letter height is 50"	N/A	Single	3500(32.5m ²)	N/A	N/A	Mail Name/Logo
T	Exit Sign to Roadways	Outer Ring Road and Entry Magnet	TBD	13 (8.5m)	Pole Mounted	Single/Double	15(1.4m ²)	N/A	2'	Mail Exit Information

(1) Dimension from finished grade at base to top of sign

(2) May include an electronic readerboard or billboard

(3) Major Tenant is defined as a tenant that exceeds 20,000 sq. ft. in area and has attractive exterior wall

(4) Sign shall not be larger than 1/5 the length of the wall on which it is mounted

(5) Maximum letter height is 50"

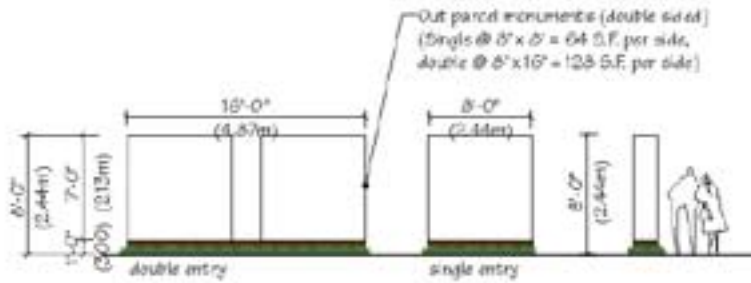
(6) Maximum letter height is 40"

(7) Area limited to text and logo only

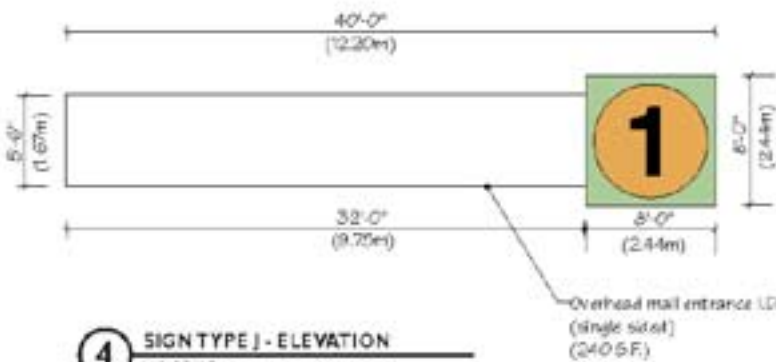
(8) Refer to outparcel handbook for complete guidelines

*Not shown on plan

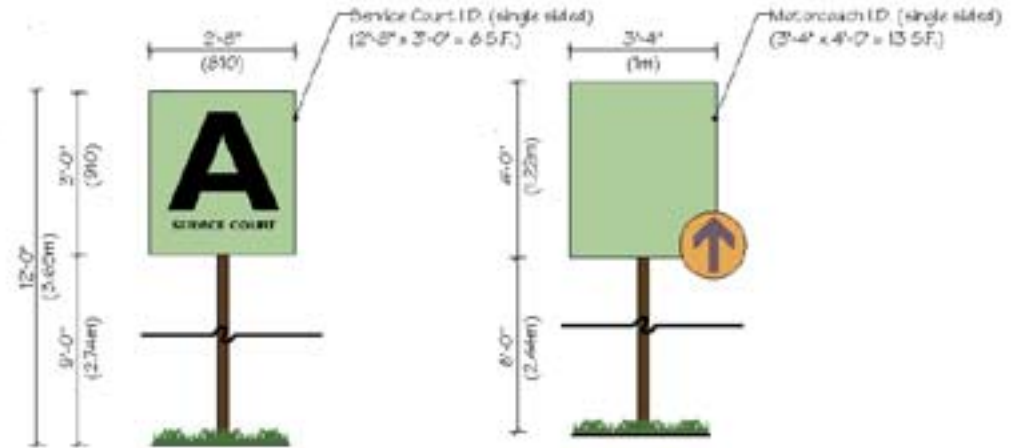
3. SIGNAGE / LANDMARKS



7 SIGN TYPE F - ELEVATION
NO SCALE

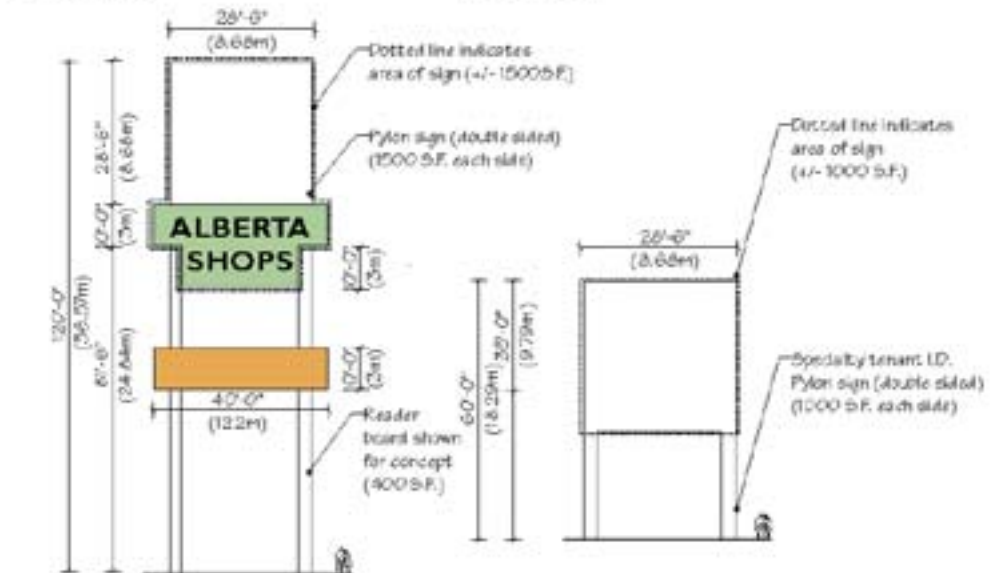


4 SIGN TYPE J - ELEVATION
NO SCALE



6 SIGN TYPE G - ELEVATION
NO SCALE

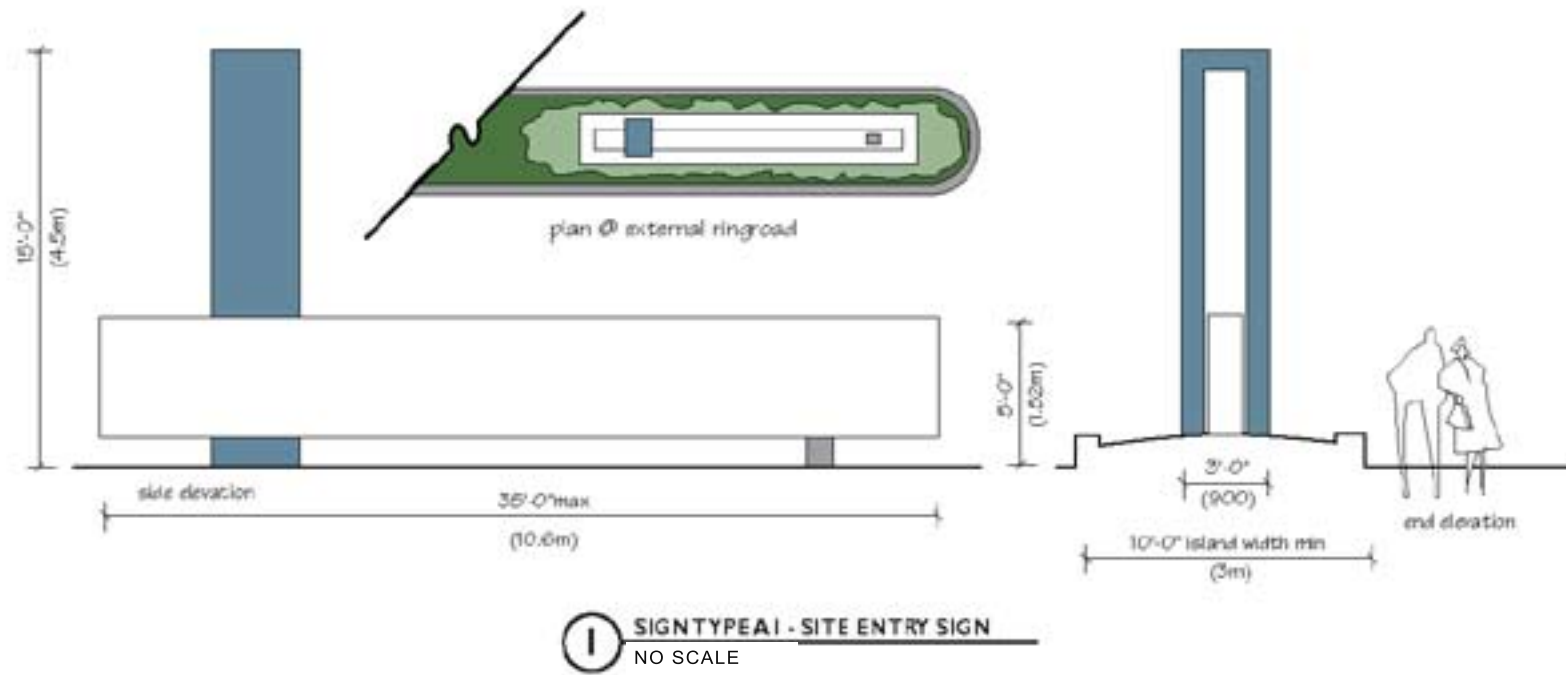
5 SIGN TYPE H - ELEVATION
NO SCALE



2 SIGN TYPE K - ELEVATION
NO SCALE

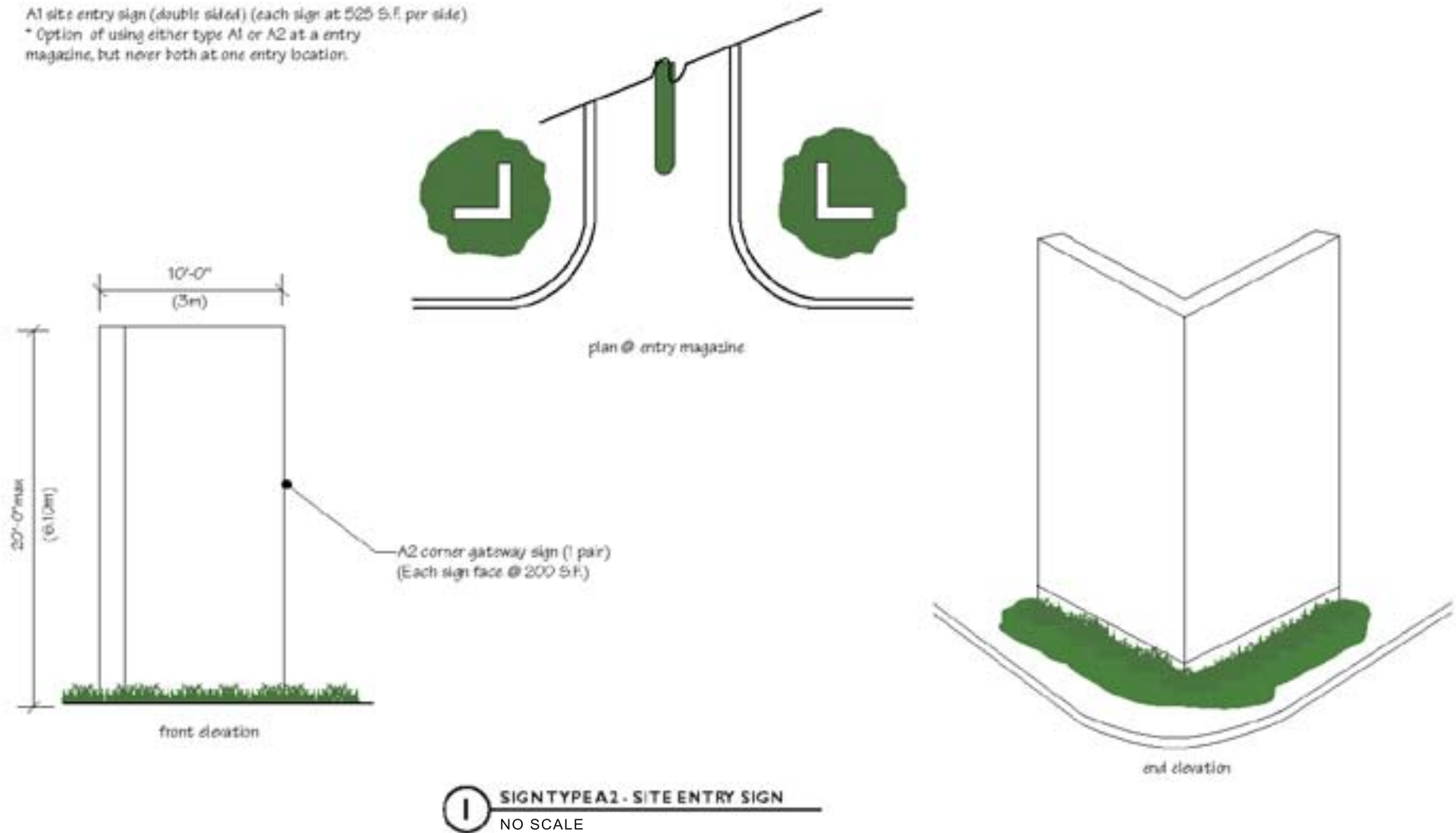
1 SIGN TYPE L - ELEVATION
NO SCALE

A1 site entry sign (double sided) (each sign at 525 S.F. per side)
 * Option of using either type A1 or A2 at a entry magazine, but never both at one entry location.

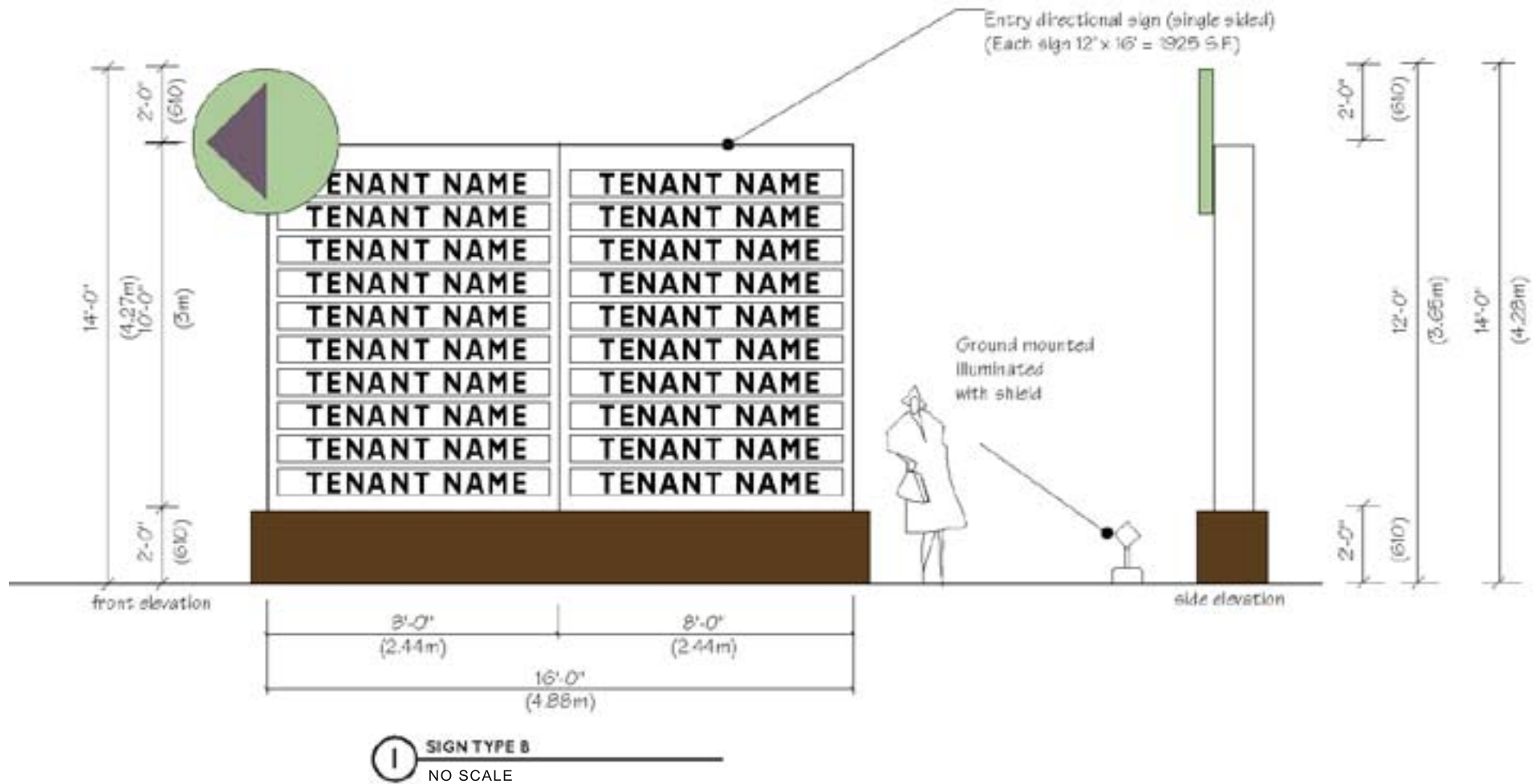


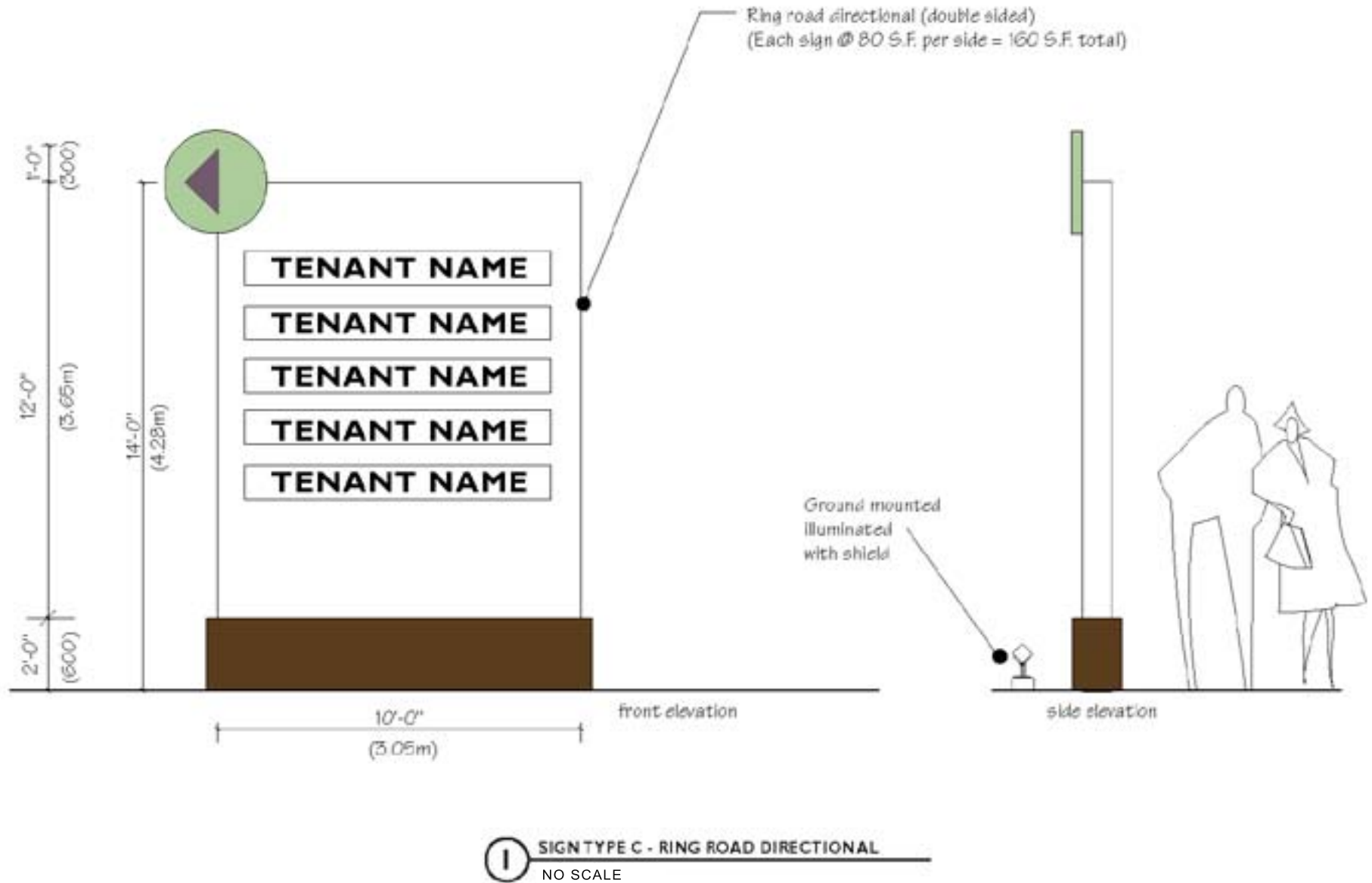
A1 site entry sign (double sided) (each sign at 525 S.F. per side)

* Option of using either type A1 or A2 at a entry magazine, but never both at one entry location.

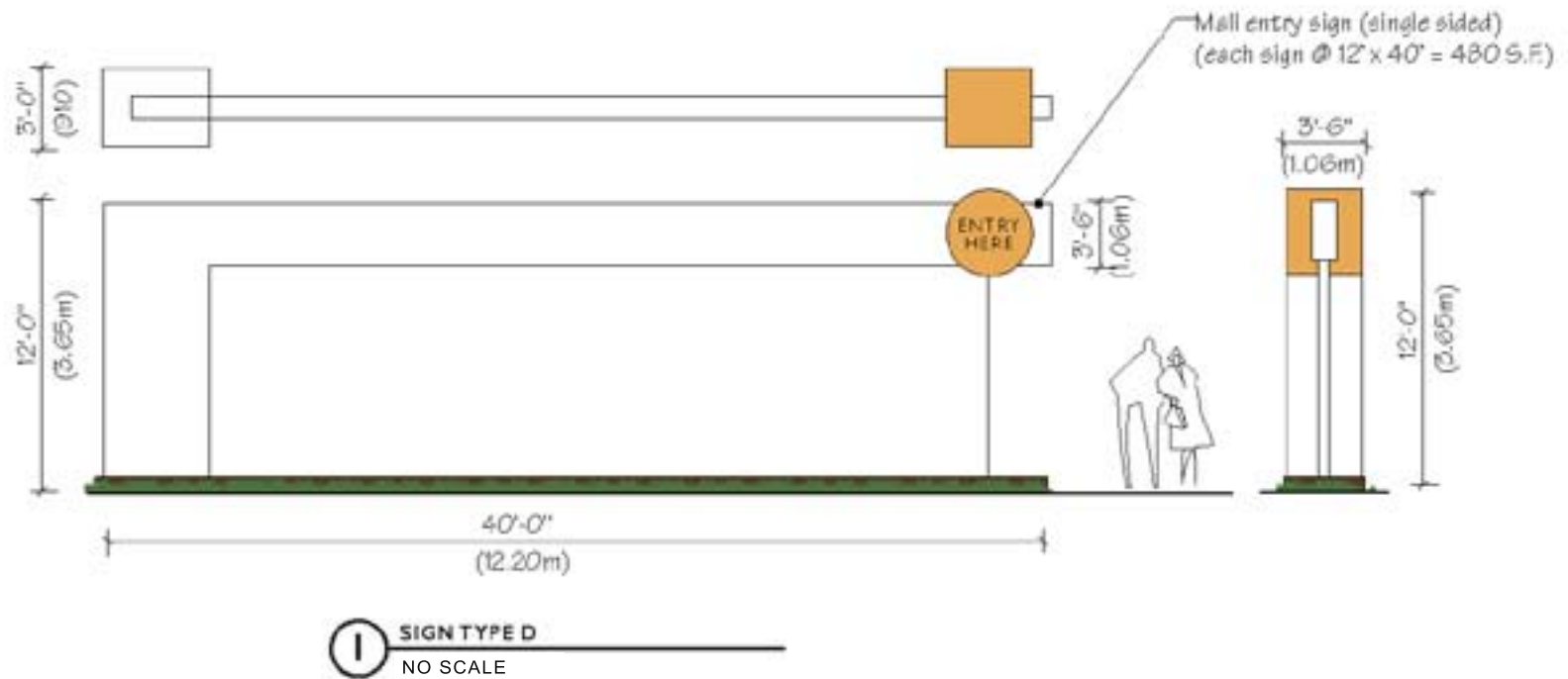


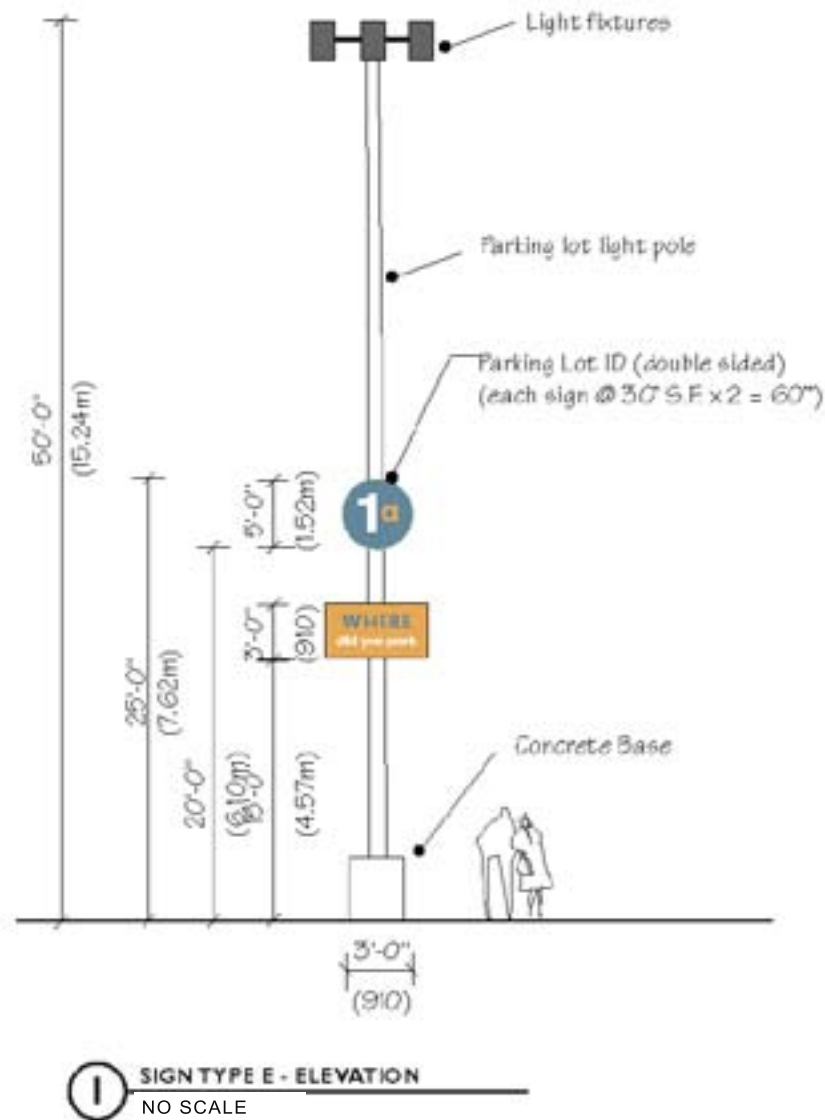
3. SIGNAGE / LANDMARKS

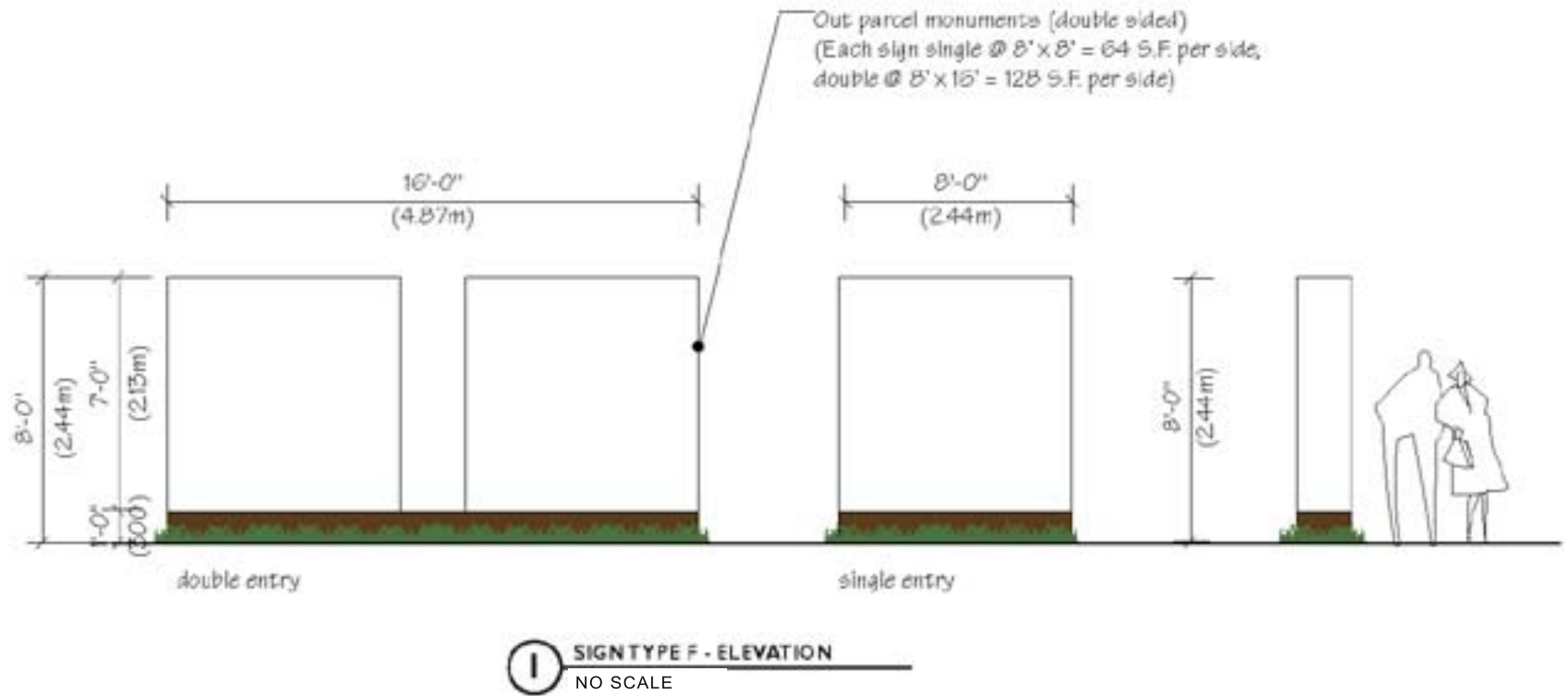


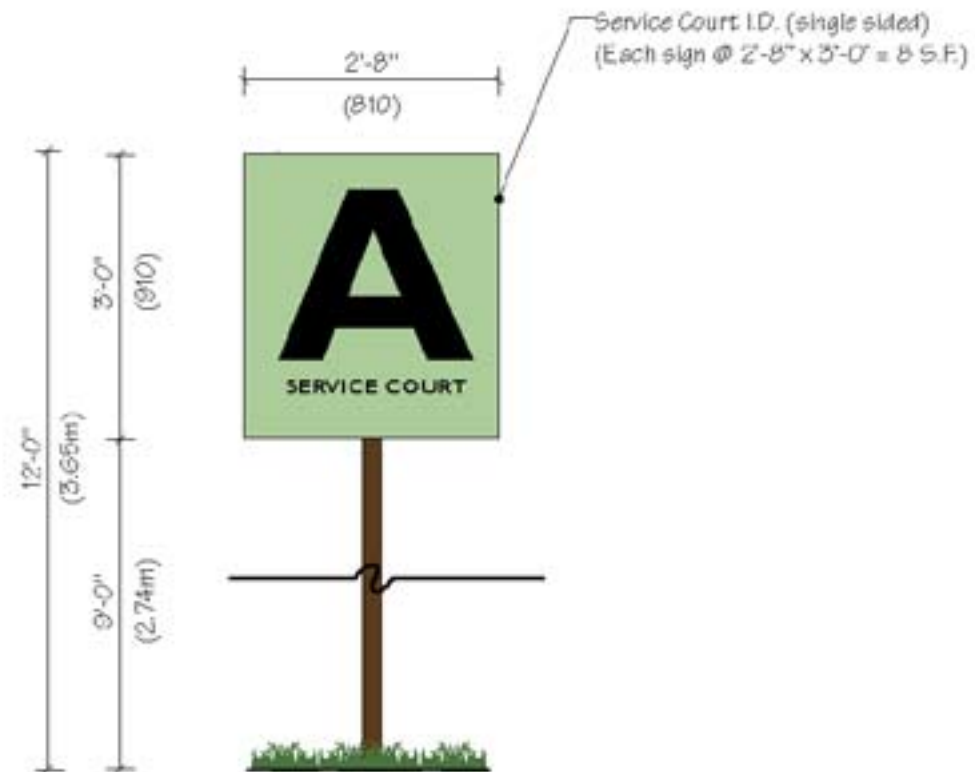


3. SIGNAGE / LANDMARKS

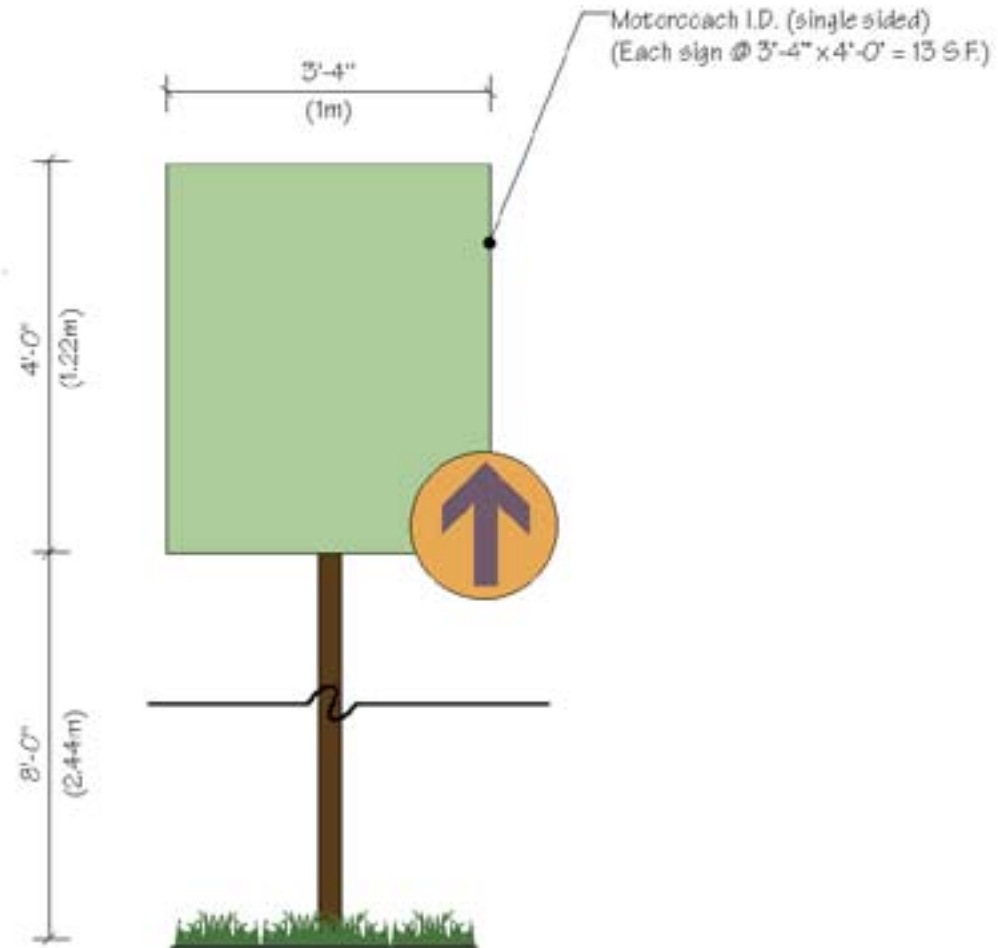




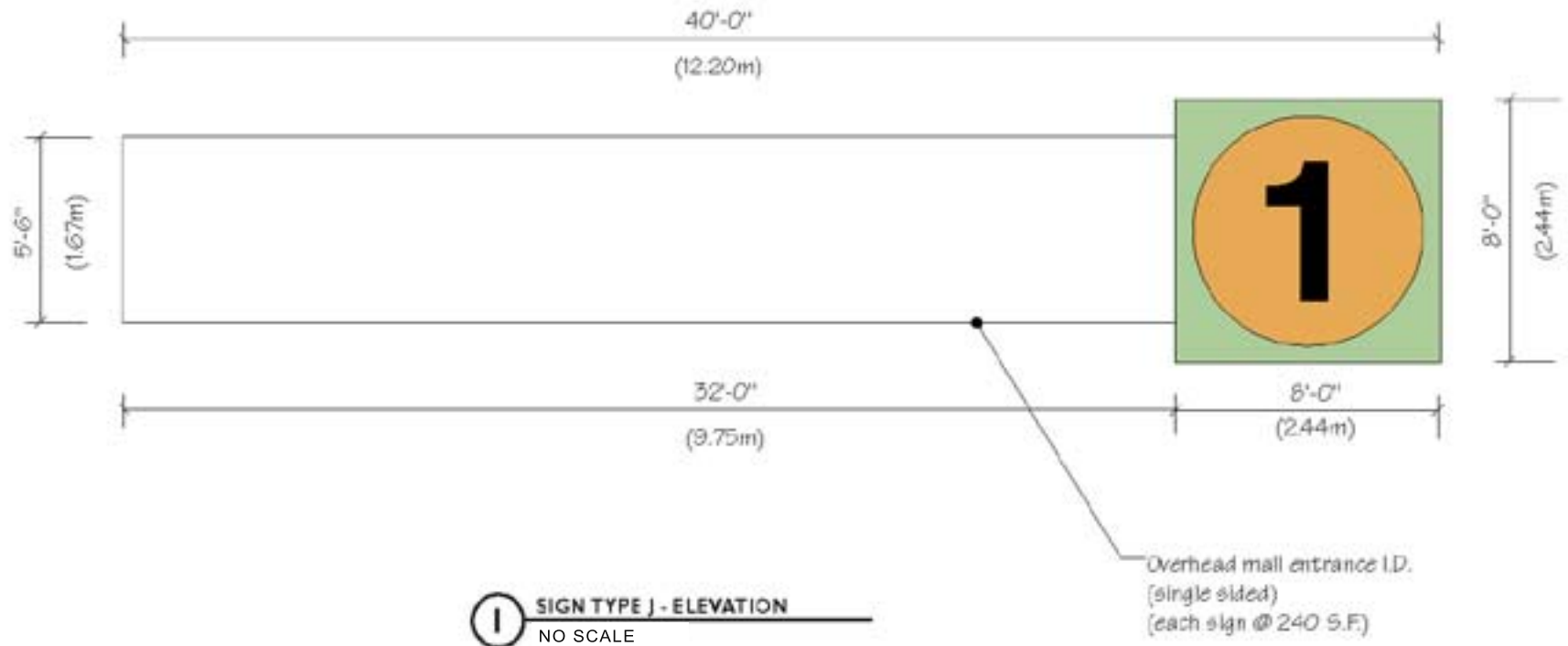


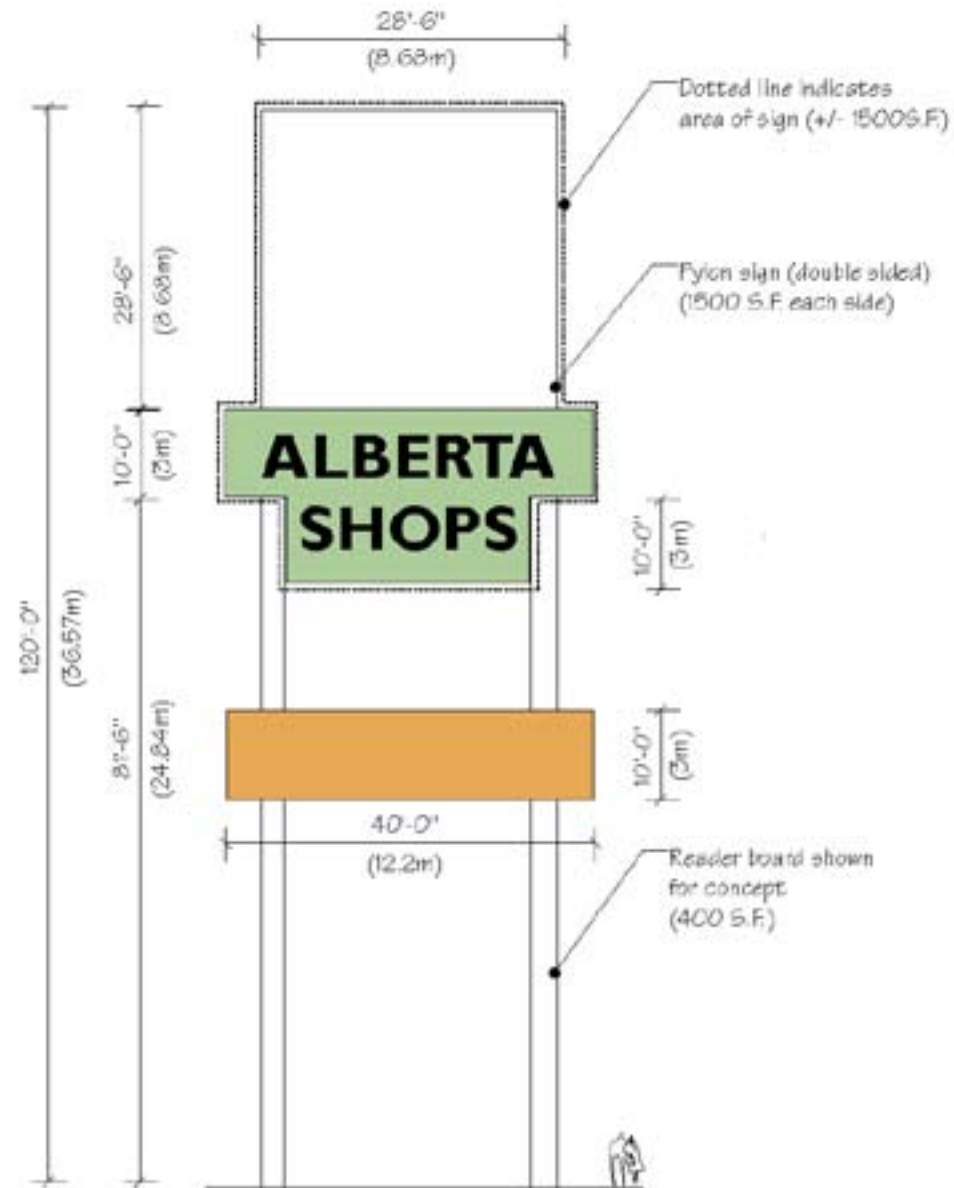


1 SIGN TYPE G - ELEVATION
NO SCALE

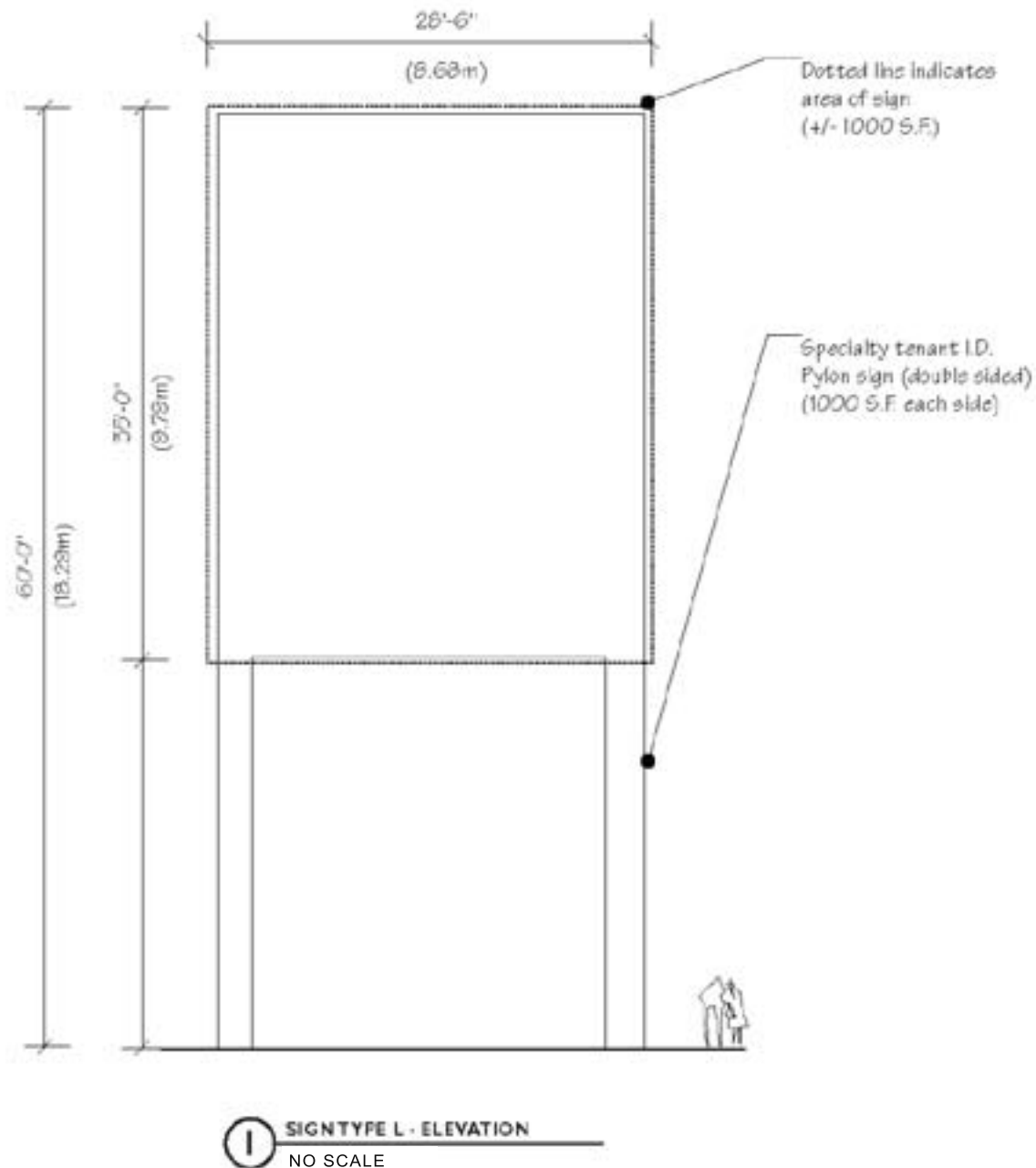


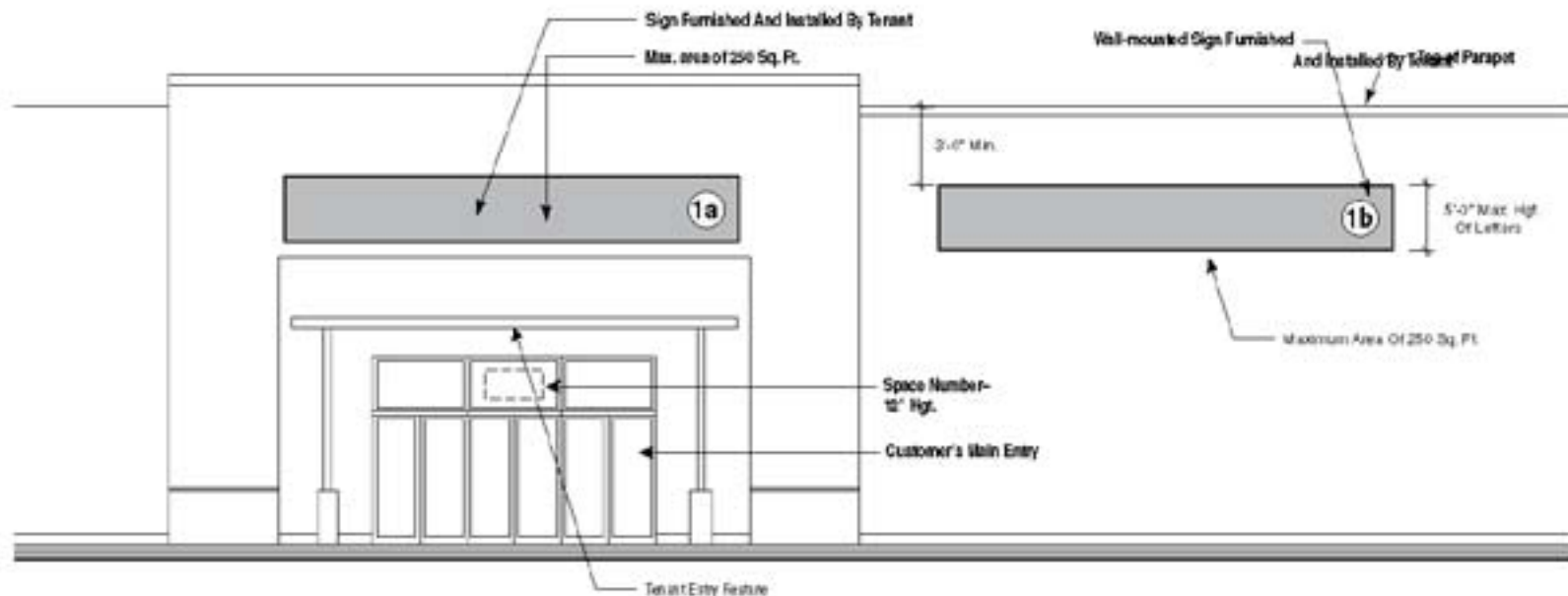
1 SIGNTYPE H - ELEVATION
NO SCALE



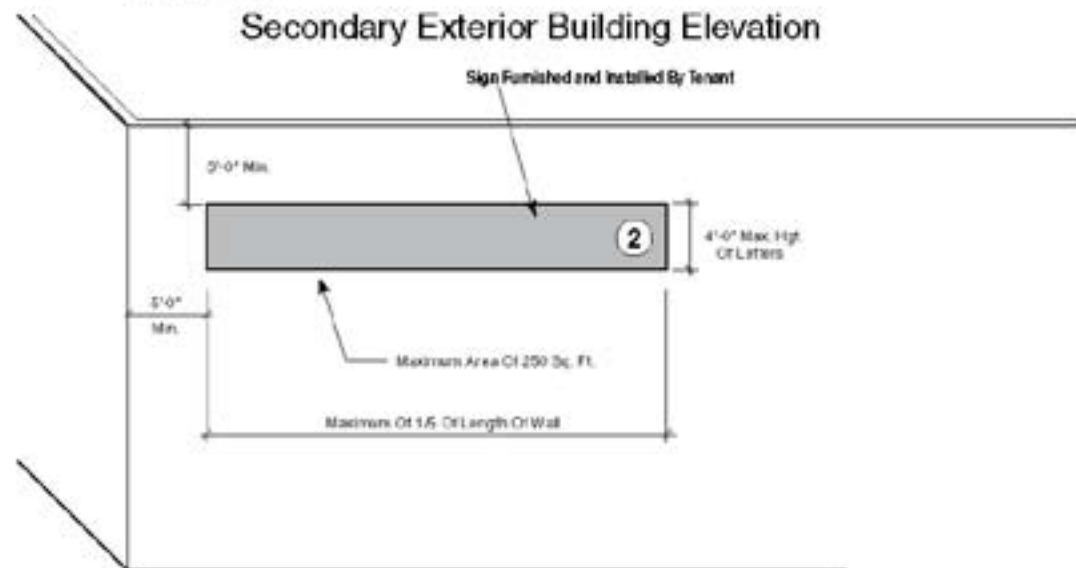


1 SIGNTYPE K - ELEVATION
NO SCALE

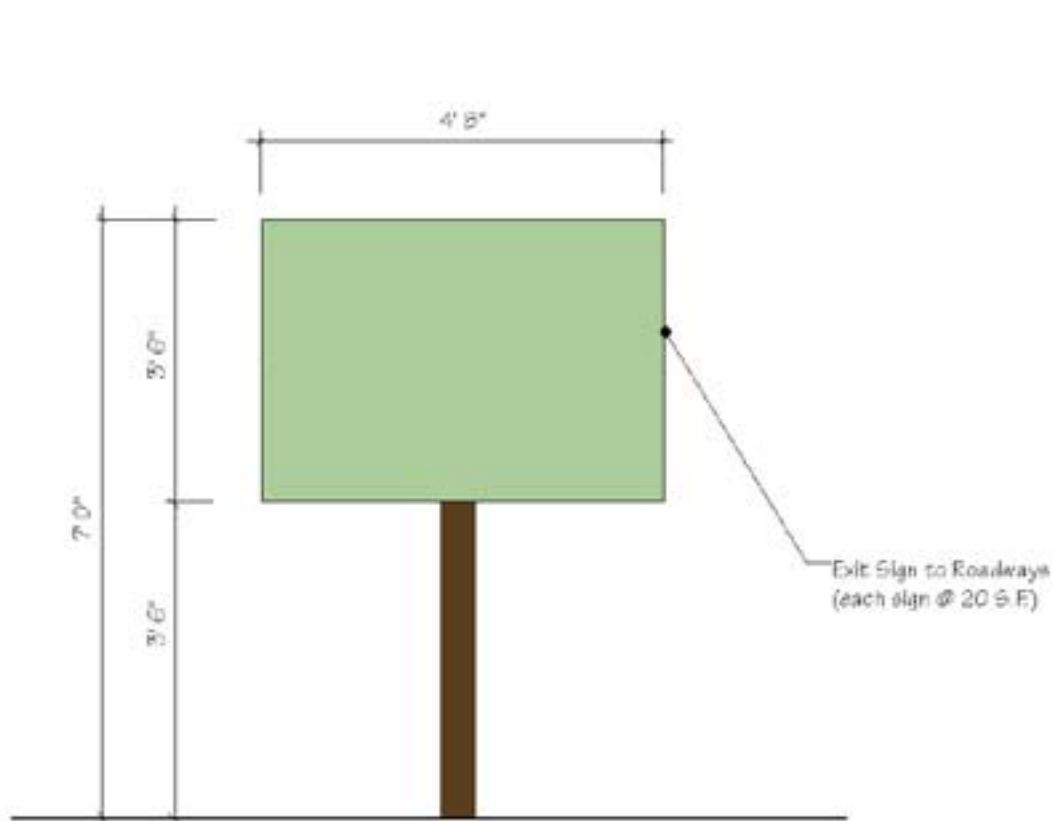




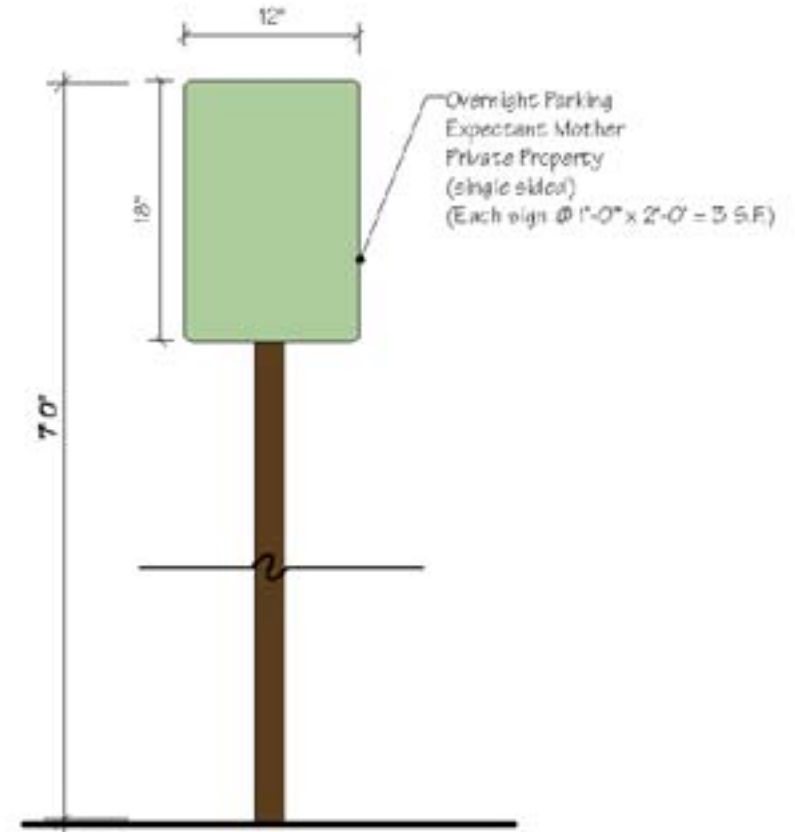
Secondary Exterior Building Elevation



I SIGN TYPE M - ELEVATION
NO SCALE



I **SIGN TYPE T - ELEVATION**
NO SCALE



I **SIGN TYPE U, V, W - ELEVATION**
NO SCALE



TYPICAL ENTRANCE AT VAUGHAN MILLS

4.1 Hierarchy of Lighting

A hierarchy of lighting is established, scaled to the particular needs of the varied zones within the Project Alberta (PA) project area, including both the public lighting and project site lighting.

4.2 Public Lighting

Public lighting refers primarily to street lights along public streets. This street lighting shall conform to the design standards at the time of installation, unless, by mutual agreement, 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 services areas. Within these zones, site lighting fixtures are intended to all be from the same family of fixtures with respect to design, materials, colour, and colour of light. A graphic indicating the anticipated family of fixtures and poles is attached. The fixtures will be select-

ed and located to reduce glare and confine the illuminated area within the project boundaries.

The general parking area lighting around Project Alberta 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 free-standing fixtures needed. The light source is typically designed to provide a natural colour while reducing glare and light trespass.

Peripheral parcel parking areas utilize fixtures on the same style and light source as the Project Alberta parking areas, but lower in height due to the reduced scale of development. These fixtures will be mounted at a height of lower intensity, thereby complimenting the smaller scale of outparcel development, while conveying a sense of safety and providing clear direction. Lighting will be selected and located to confine the area of illumination within parcel boundaries.

Entries in Project Alberta will receive special lighting, designed to enhance visibility and architectural expression. The types of fixtures and mounting will vary depending on the architectural theme of each entry, and the use of adjacent outdoor spaces. Similar considerations will apply to the entries of major stores.

Along pedestrian movement corridors and plaza areas, the use of low mounted lighting which reinforce pedestrian scale will be encouraged.

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

Material will be metal i.e. aluminium or steel painted, colours 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.

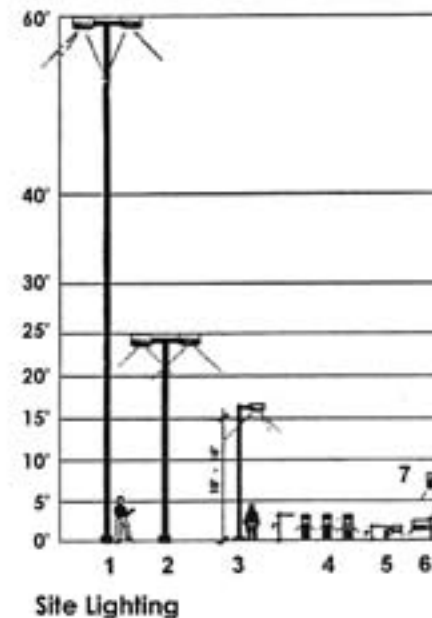
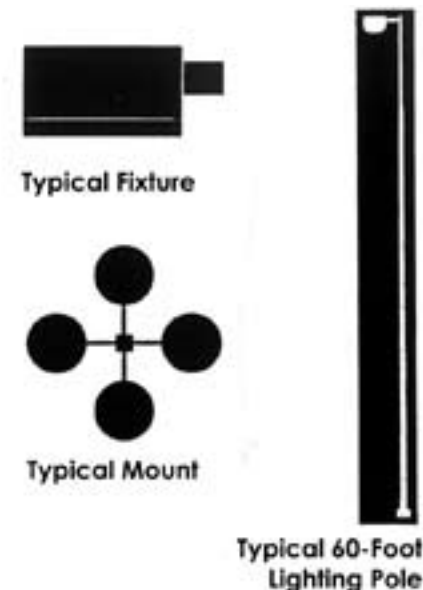
In general, the following light levels will be achieved:

Parking lot - 2 foot candles.
Entrance Magazines - 3 foot candles.
Entrances - 5 foot candles.

A detailed lighting plan will be submitted with the Development Permit.

- 1 Mall parking
- 2 Parking lot lighting
- 3 Pedestrian walkways
- 4 Bollard
- 5 Low level walkway
- 6 Recessed wall fixture
- 7 Wall mounted fixture

This graphic illustrates lighting heights only, not lighting style.
Source: Planning Network, 1991.





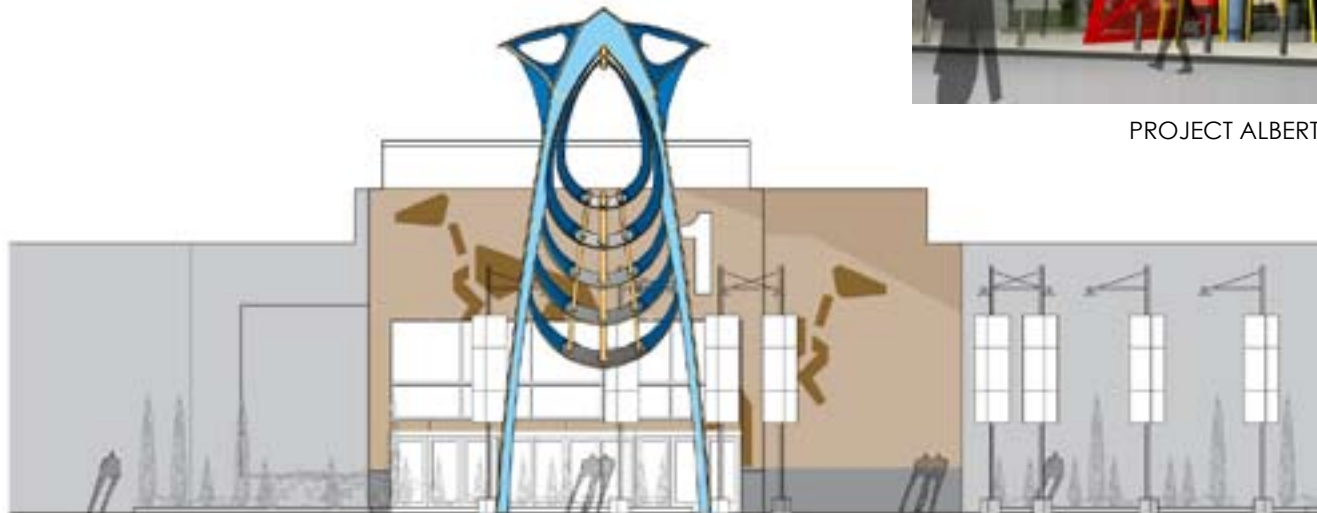
PROJECT ALBERTA ENTRANCE CONCEPT (SPORTS)

5.1 Mall Entries

The design of the mall entries, building elevations, major tenants exteriors and entrances will be in keeping with the range of design concepts shown in this document. Specific design for each of these elements will be submitted for Development Permit.



PROJECT ALBERTA ENTRANCE CONCEPT PERSPECTIVE (RESOURCES)



PROJECT ALBERTA ENTRANCE CONCEPT ELEVATION (FOSSILS)

5.2 Massing

Building massing and architecture will be in general accordance with the photographic images in this section.



5.3 Outdoor Display and Sales

Exterior display areas will be properly sited and landscaped in character with the enclosed photography.

5.4 Loading Areas

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



TYPICAL BASS PRO SHOPS EXTERIOR DISPLAY

6.1 Utilities

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

6.2 Stormwater Management

The Master Storm Water Management study has established that there will be ponds on site. Stormwater management ponds will be landscaped with appropriate fringe planting/vegetation with an informal character as outlined in the comprehensive landscape strategy.

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

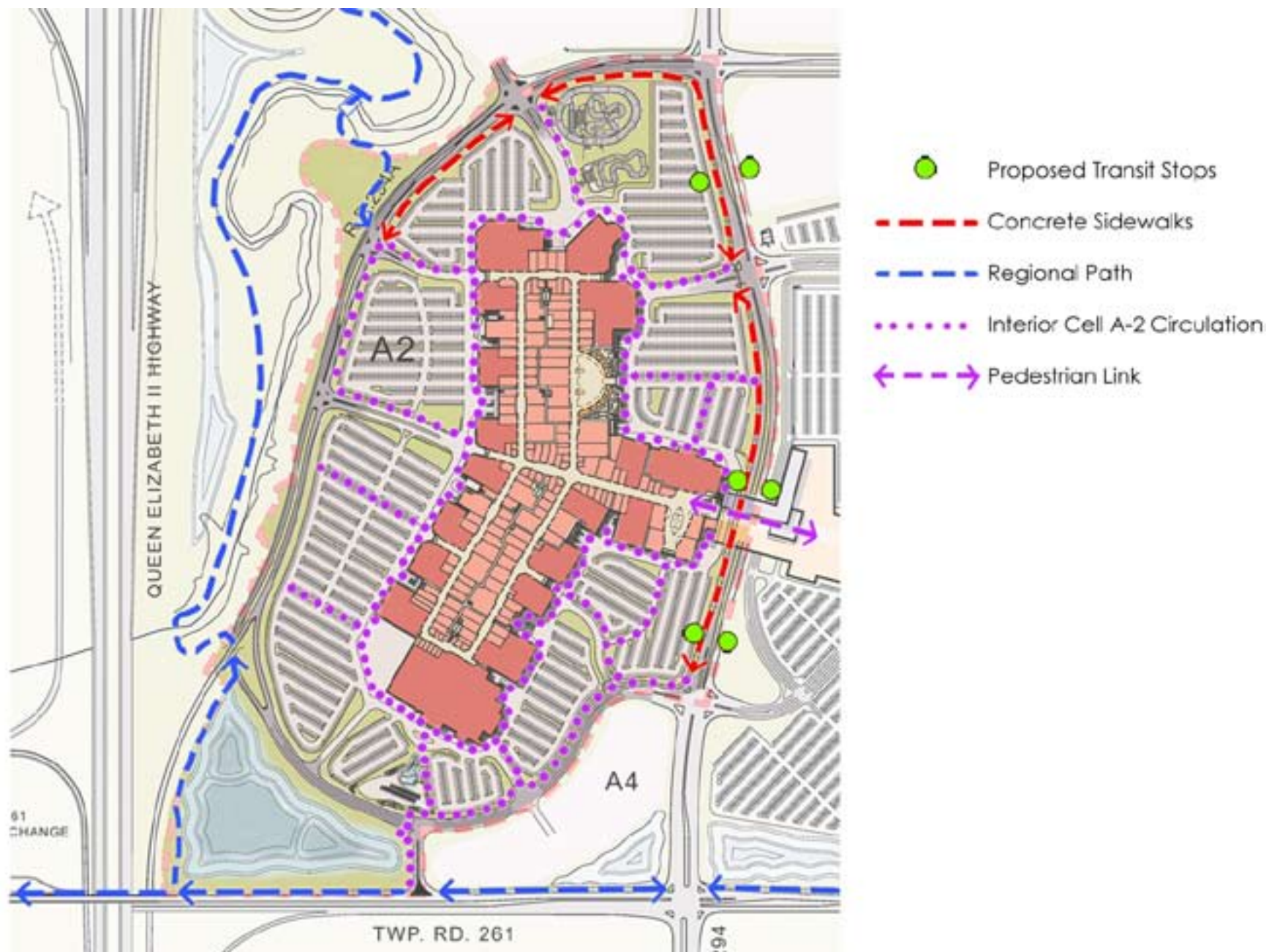
Allowances have been made in the Municipal Road network for the provision of bus laybys to accommodate future public transit to the area. Private transit and motor coaches will be accommodated on the shopping centre site.

6.5 Pedestrian Linkage

An internal pedestrian system will link the regional pathway system, perimeter sidewalks and future transit nodes to Project Alberta and the mall entrances. The system is conceptually illustrated on the following page.

6.6 Environmental Stewardship

Where ever practical and feasible, building methods and systems will be implemented to minimize the impact of Project Alberta on the environment. The comprehensive landscape strategy encourages a landscape methodology that seeks to reduce the amount if irrigation water required. 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 will be implemented where feasible.





June 15th, 2006

Ref: File 1038.09

Cohos Evansy
#200, 902 - 11th Avenue SW
Calgary, AB T2R 0E7

Attention: Mr. David Miner

Dear Dave:

Re: Parking Summary – Project Alberta Super Regional Shopping Centre

As requested, we have completed a review of appropriate parking supply figures for the above noted Ivanhoe/Cambridge shopping centre proposed for the East Balzac area. The purpose for this exercise was to assess the proposed parking supply for the site in the context of expected demand and existing MD policy. As we understand it, the MD requirement for parking is 7.0 stalls per 1000 sqft. gross leasable area (GLA). The current proposed site parking supply is in the order of 5.0 to 5.4 stalls per 1000 sqft. GLA.

Overview

The proposed site is approximately 1,100,000 square feet GLA, and would normally be categorized as a super-regional shopping centre. In this case, the Mills concept of providing several large category dominating anchors and fewer smaller tenants alters the nature of the development and promotes a more wide ranging market area. Considerable industry research has been undertaken over the years in an effort to determine how to assess parking needs for large shopping centres. The information available in this regard has been summarized in this report.

Design Hour

An appropriate parking ratio for regional shopping centres is normally based on the notion of a Design Hour, because the demand at this type of land use varies widely. Typically, the busiest shopping period is the six-week pre-Christmas season, and Saturdays are the busiest days. The parking lot can be expected to be most occupied during the three or four hours in the mid-afternoon on the six Saturdays immediately preceding Christmas. Shopping centre parking demand in December is 25% higher than the average month over the year, and Saturdays are typically 25% higher than the average day. While there are other times and days that are also busy, particularly for some specific tenants in the centre, the peak Saturday hours at Christmas usually represent the busiest 20 to 30 hours of the year for the centre as a whole.

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Mr. David Miner
June 15th, 2006
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Previous Studies

Selecting an appropriate Design Hour, given this highly peaked demand pattern, has been the subject of considerable study. The first such study was conducted in 1965 for the Urban Land Institute (ULI). At that time, a parking ratio corresponding to the 10th highest parking hour of the year was set as the standard. The recommended ratio for large regional centres was 5.5 stalls per 1000 SF GLA. Later, a study by Barton-Aschman Associates in 1977 established that increasing competition and other factors had reduced the level of parking demand at the regionals over the intervening 12 year period, and recommended a new standard of 5.0 stalls per 1000 SF GLA, also set at the 10th highest hour.

In 1980, the ULI commissioned another study that generally confirmed the Barton-Aschman findings. For centres over 600,000 SF in size the 5.0 standard was adopted, but a sliding scale from 4.0 to 5.0 was recommended for smaller regional centres between 400,000 and 600,000 SF. Wilbur Smith Associates, who conducted the study for the ULI, also recommended that the 20th highest hour is a better Design Hour given the spread in shopping patterns associated with longer operating hours, etc. that have taken place since the 1960's.

Current Research

In 1998, the ULI and the International Council of Shopping Centres (ICSC) hired Walker Parking Consultants to provide an update on the 1980 ULI study. The new study report was published in late 1999, and responded to many of the current issues in the shopping centre industry that have affected parking. Two key points were that (a) regional shopping centres are getting substantially bigger, and (b) cinemas and other entertainment uses are becoming more common in large regional centres.

The parking implications of these and other changes in the industry in the 20 years since the last comprehensive parking review were examined in detail and compared with the earlier ULI studies. Walker Parking Consultants received questionnaire responses from more than 490 shopping centres across the USA and Canada. In addition, detailed parking count studies during the peak Christmas season were conducted at 169 individual regional shopping centres. The key findings and recommendations of the study were as follows:

- The 20th highest parking hour in the year remains the appropriate Design Hour.
- Recommended parking ratios for shopping centres under 400,000 SF GLA in size have not changed.

Mr. David Miner
June 15th, 2006
Page 3



- Larger centres require lower parking ratios compared with the rates recommended in the 1980's and earlier. This is particularly true for centres larger than 600,000 SF GLA.
- Parking ratios for shopping centres with small amounts of cinema and entertainment space (less than 20%) are not materially altered by these uses. Over 20%, parking requirements should be calculated using a Shared Parking approach.

Table 1, below, is taken from the *Summary Report (Parking Requirements for Shopping Centres: Second Edition – Summary Recommendations and Research Study Report, ULI and ICSC, 1999)*. It describes the main recommendations regarding parking ratios.

Table 1: ULI/ICSC Recommended Parking Ratios

Centre Size (GLA in Sq. Ft.)	% of GLA in Restaurant, Entertainment, and/or Cinema Space		
	0 - 10%	10 - 20%	>20%
Less than 400,000	4.0	4.0	Shared parking
400,000-599,999	4.0 - 4.5	4.0 - 4.5	Shared parking
600,000 and over	4.5	4.5	Shared parking

Notes:

- Ratio refers to parked cars per 1,000 square feet of gross leasable area.
- Between 10% and 20%, for each percent above 10%, a linear increase of 0.03 spaces per 1,000 sq. ft. should be calculated.
- In the range 4.0-4.5, the recommended ratio increases/decreases proportionally with centre's square footage.
- Shared parking is defined as parking spaces that can be used to serve two or more individual land uses without conflict or encroachment.

In addition to the ULI research, the Institute of Transportation Engineers (ITE) publish a parking generation manual based on data compiled from members throughout the world, though the majority of the data sets are North American in origin. *The ITE Parking Generation Manual* (3rd Edition) refers to regional and super regional shopping centres as those being greater than 400,000 SF and 800,000 SF respectively. In terms of parking supply ratios, the manual identified the 21 super regional sites surveyed as having an average of 5.1 stalls per 1000 SF GLA as the on-site supply. December Saturday demand ratios were observed to

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be between 4.48 and 5.00 stalls per 1000 SF GLA (for all shopping centres). At the super regional level, application of the stated formula as identified in the document yielded an expected requirement of 4.66 stalls per 1000 SF GLA for the Balzac site.

Vaughn Mills Centre, Ontario

Perhaps the best example of the format for the proposed site is the existing Vaughn Mills Centre in Vaughn, Ontario. This centre is 1,114,982 square feet GLA in size and is located north of Toronto, Ontario. The site is bounded on one side by a Provincial highway and on the north and south sides by major roadways. The similarities are therefore considerable both in terms of style of centre, geographic location, size and access.

The Vaughn Mills site provides a total of 6480 parking stalls, corresponding to a supply ratio of 5.8 stalls per 1000 square feet GLA. Discussions with the developers of that site confirm that this supply has proven to be sufficient to accommodate parking demand for the mall since it opened in 2004.

In terms of loading, the Vaughn Mills site provides a total of 37 loading bays which satisfies the needs of the site in terms of both absolute demand and lease requirements for anchor tenants. A similar loading supply would therefore be appropriate for the Balzac site.

Bunt & Associates Experience - BC Lower Mainland

During the last two decades, a parking ratio of 5.0 stalls per 1000 SF for regional shopping centres has been generally accepted as the industry standard throughout Canada in planning for regional centres. In the BC Lower Mainland, there are nine regional shopping centres over 600,000 SF in size, eight of which are located outside the downtown. As shown in **Table 2**, however, while the average supply ratio among the suburban centres is very near this standard, half of the centres actually provide a supply ratio of less than 5.0. In most cases, the move to a supply ratio below 5.0 has taken place when the centre has been expanded and experience in the initial phases has shown that the 5.0 supply number is not really required.

Bunt & Associates has conducted pre-Christmas parking count studies at most of these regional centres, as well as many other smaller centres, over the last few years. All of these studies consistently show that a peak Christmas parking demand ratio of less than 5.0 is the norm in the BC Lower Mainland. The average observed Design Hour parking demand ratio among the six regional centres where comparable data is available is 4.60. This data is entirely consistent with the findings of the recent ULI/CSC study.

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These lower parking ratios are now used regularly in planning expansions to the existing centres in this area. For example, an expansion to Coquitlam Centre now under construction was planned with a supply ratio of 4.75 stalls per 1000 SF GLA.

Table 2: Parking Supply and Demand - BC Lower Mainland Regionals

Centre	GLA (SF)	Supply		Demand	
		# Stalls	Ratio	Ratio	Year
Guildford Town Centre	943,809	5,193	5.50	4.92	1999
Metrotown Centre	910,000	4,018	4.41	-	-
Park Royal	904,974	4,788	5.29	4.67	1996
Eaton Centre Metrotown	763,166	3,662	4.80	4.31	1996
Coquitlam Centre	754,042	3,975	5.27	4.58	1996
Richmond Centre	743,200	3,396	4.57	4.56	1993
Surrey Place	628,772	2,816	4.48	4.58	1995
Lansdowne Centre	610,608	3,442	5.64	-	-
Average	-	-	5.00	4.60	-

Application to Balzac Site

Based on the recent research conducted by the ULVICSC, Bunt & Associates' specific experience with large regional shopping centres, and ITE guidelines, it is our opinion that the proposed supply ratio of 5.0 to 5.4 stalls per 1000 SF GLA at the Balzac site will indeed be sufficient to accommodate typical pre-Christmas design level parking demand associated with 20th highest hour conditions.

In fact, a ratio of less than 5.0 could technically be supported based on the data identified in this review. However, given the unique type nature of the mall and the expected increase in market area, and trend for increased parking ratios as size increases, it is recommended that the ratio of 5.0 not be reduced further at this time. Future study (once the site has been operational for some time) may support a lower ratio, but that should be assessed at that time and not supposed as part of the planning process. This, combined with the opportunities to apply principles or shared parking as outlined in this document, suggest that future revisions to the site may be supportable should the ratio be found to be less than expected as outlined here.

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It is noted that the design period reflects the 20th highest hour, and does not include specific crush conditions such as the last Saturday before Christmas and Boxing Day. However, the 20th highest hour has and should continue to be used as the tool by which the design level is measured. This is consistent with industry practice throughout North America.

* * * * *

This concludes Bunt & Associates' review of expected parking demand related to the Balzac site. Please call if you have any questions or wish to discuss any issue in further detail.

Sincerely,

Bunt & Associates

Per:

A handwritten signature in black ink, appearing to read "Glen Pardoe", is written over a horizontal line.

Glen Pardoe, P.Eng.
Principal
GAP/gap