

Memorandum

To: Development Permit Panel

Date: May 18, 2006

From: Joyce Chang

File: 10-6525-07-04-03/2006-Vol 01

Project Manager, Major Projects Team

Re: Canada Line - Operations and Maintenance Centre Memo to Development Permit

Panel for May 24, 2006

The design of the Operations and Maintenance Centre (OMC) is scheduled for presentation to the Richmond Development Permit Panel on May 24, 2006. The Design Advisory Process (DAP) identified within the Richmond Access Agreement (RAA) exempts the Canada Line project from the normal City of Richmond Development and Building Permits process. The DAP identifies an 8 step process with a 16 week timetable that involves 2 public open houses, 1 presentation to the Richmond Advisory Design Panel (ADP) and 1 presentation to the Richmond Development Permit Panel (DPP) by Canada Line representatives (CLCO).

Richmond cannot require the Canada Line project to comply with the City's preferences regarding the design of fixed facilities for the rapid transit project but the Canada Line project will attempt to address Richmond suggestions and requests. Furthermore, Richmond has agreed to abide by a 16 week review process for proposed fixed facilities within the City in order for the Canada Line project to proceed on schedule.

In general, the design information provided by CLCO, InTransitBC and TransLink regarding the proposed fixed facilities in Richmond (i.e. OMC, Park-n-Ride Facility, Bridgeport, Aberdeen, Lansdowne and Brighouse Stations) does not provide an equivalent level of design development or detail that is normally provided by all other applicants as part of the normal development review process in the City of Richmond. With the above qualification, Richmond staff have addressed the 4 questions for the OMC that are the subject of this DPP meeting on May 24, 2006.

Operations and Maintenance Centre (OMC)

- 1. How does the Operations and Maintenance Centre (OMC) design comply with the Vision adopted by Council for the line at the Council workshop of April 2005?
 - a) Issue: Transit-Oriented Development (TOD) Direction Not Applicable
 - b) Issue: Achievement of Richmond's Best and Final Offer (BAFO) Design Guidelines: Comment: Experience has shown that the operation of other transit maintenance facilities is of interest to many individuals and the OMC is an opportunity to encourage and welcome connection with Richmond residents. However, there is no opportunity to view the train yard activities from the perimeter of the site. Provision of a visitors centre or viewing gallery within the OMC is another missed opportunity that would promote the Canada Line project within the community.
 - c) Issue: Connection Cost with Adjacent Development Not Applicable
 - d) Issue: Design Character of Stations Not Applicable



OPERATIONS AND MAINTENANCE CENTRE

DESIGN DEVELOPMENT REPORT

Architectural Expression

The architectural expression of the Canada Line Operations and Maintenance Centre building (OMC) has evolved from a desire to clearly express the distinct programmatic functions and the use of the facility overlaid with a wish to explore the expressive potential of transportation and motion. The intent is to evoke some of the speed, dynamism and elegance of the Canada Line at both the scale of building and at the scale of the detail.

The project demands a degree of straightforwardness, simplicity and legibility given its location and the manner in which it will be perceived from the surrounding context. The project will be prominent and seen from not only the new guideway structure — as it passes the site on its way to Richmond and Vancouver International Airport — it will also be prominent from the Oak Street Bridge and the Fraser River. Further, given the size of the facility, it has the potential to be a discernible, reference landmark on the westbound flight path to YVR.

The context for the OMC in the surrounding neighbourhood is very heterogeneous. There is the immediate architectural context of light industrial storage warehouses and manufacturing buildings surrounded by acres of surface parking. There is the dominant feature of the Oak Street Bridge as it sails past the site and over the Fraser river to the north. There is the working river and the maritime, industrial heritage of boats, piers and supportive buildings. And finally, there is the weird and wonderful Casino complex — a conflation of Whistler and Las Vegas — which is the hub of a burgeoning entertainment and commercial district. The proposed facility reflects the industrial nature and heritage of the site but strives to bring a degree of refinement in the architectural expression and tectonic qualities of the building not normally associated with pragmatic industrial buildings.

The design of the OMC expresses the volume of the Train repair shed as the prominent piece of the building program. The roof form is a shallow curve arcing up to the west, gesturing toward Richmond and the Airport. The curvilinear geometry evokes both the grand 19th century train halls of major European cities and the aerodynamic geometry of the train cars. The roof structure of the grand train hall is a muscular framework of steel trusses that place the project clearly within the tradition of industrial, transportation architecture.

Along side the Train Hall (immediately to the North) the project proposes a 2storey linear "tube" of space which runs east to west, creating a building form which is very "train-like" in its proportions. This element helps to order the many pieces of the programmatic puzzle into an architecturally coherent and balanced composition. The ends of the "tube" contain the main building entry (east end) and the train entry to the Maintenance of Way bay (west end) and have been configured to represent an abstracted version of the Canada Line Train. Over the length of the "train" the flanking walls are raised to create a long shallow arc from east to west. This brings the "train" into architectural dialogue with the curving roof of the Train Hall and also performs a useful programmatic function in that it provides a screen for rooftop mechanical units. Maintaining a clear, carefully composed roofscape is a key concern in a building that will be seen (most often) from above.

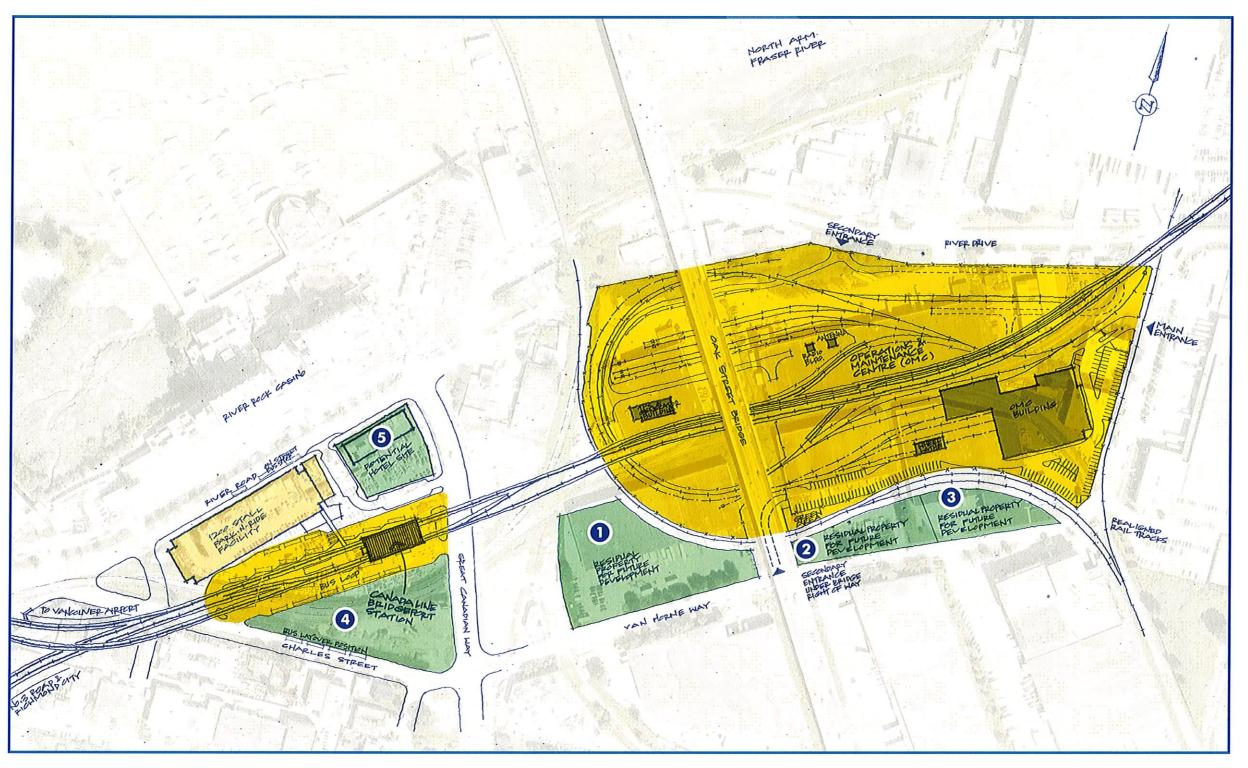
Several of the building forms — those intended to be dominant — have been treated with expressive, canted walls at the ends of the volumes. The outward leaning forms are imbued with the potential for motion and add a dynamic character to the facility. The building is proposed as predominately a metal skinned facility. There is a deliberate intent to bring the building into dialogue with the trains it is being constructed to serve through material choice and detail execution. The elegant, silver trains with their aerodynamic lines and taut skins are an image we wish to carry through into the building(s). We are proposing 3 different cladding profiles (see the section "Walls" below). Given the size of the facility, we believe it is important to vary the profile and the orientation of the cladding to reinforce the design concept of clearly expressed programmatic pieces. The "grain" of the facility (colour, texture, shadow) will be made clearer through the deployment of the variety of cladding profiles.

Finally, design decisions have been governed by a wish to create an economy, a simplicity and an elegance at the level of the large scale building form and at the level of the details. We seek the refinement of a well-designed and wellengineered object which suits its function and purpose.









SITE AREAS

Operations and Maintenance Centre (OMC)

OMC site

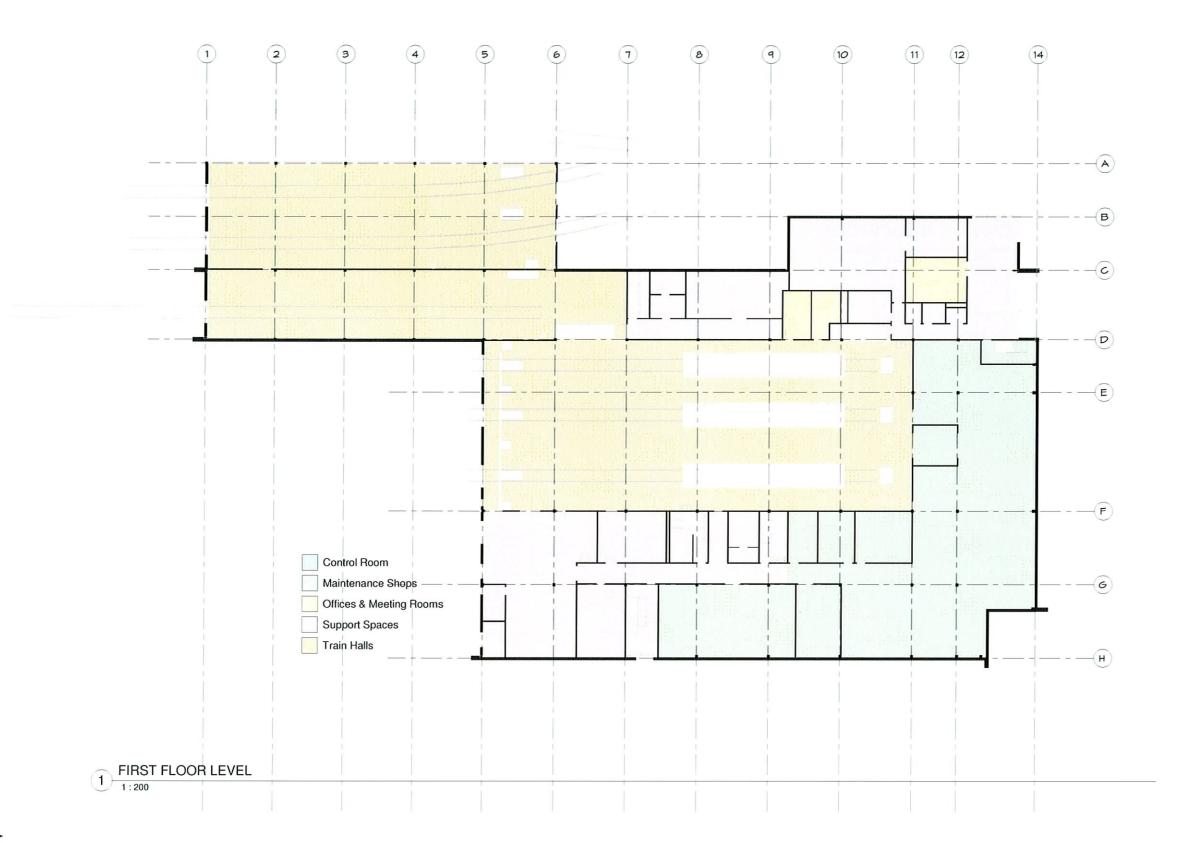
6.95 ha Residual parcel 1 0.95 ha Residual parcel 2 0.23 ha 0.34 ha Residual parcel 3

Bridgeport Station

Station and bus loop 0.83 ha 0.49 ha Residual parcel 4 0.70 ha Residual parcel 5 0.30 ha

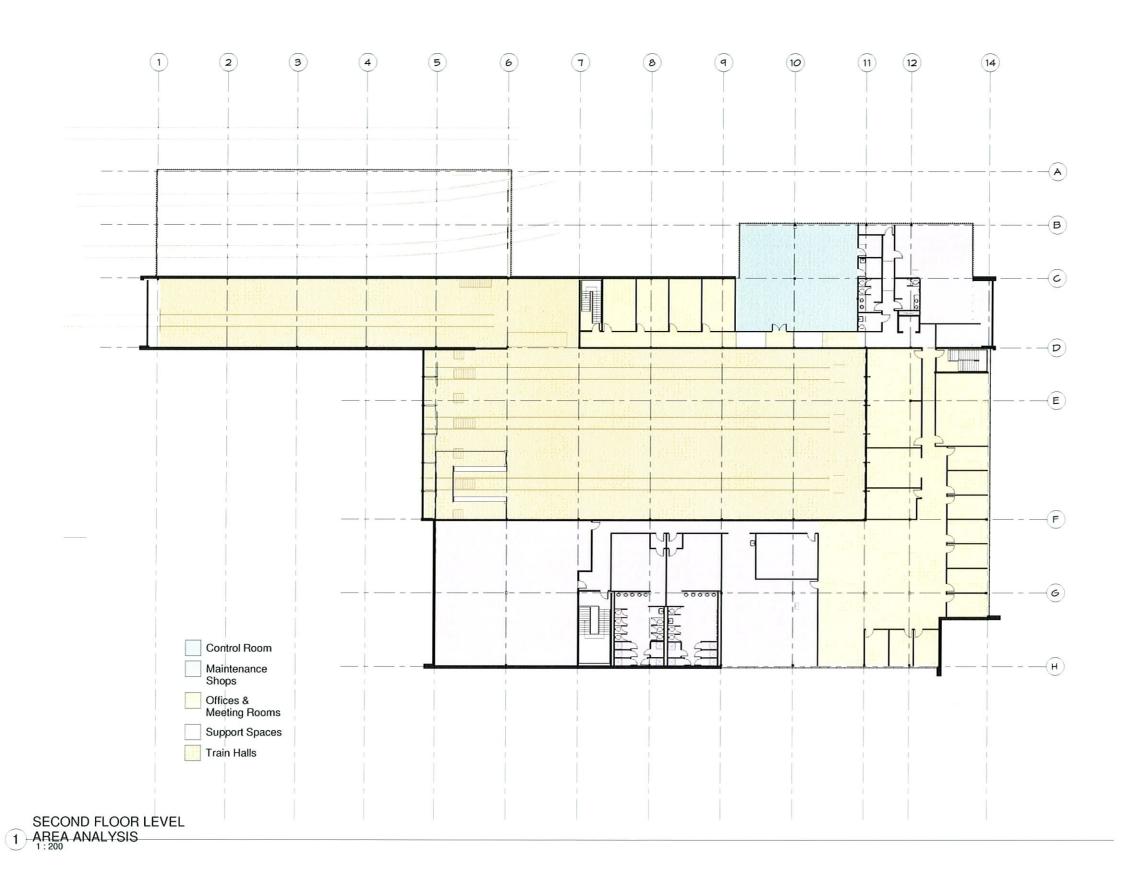










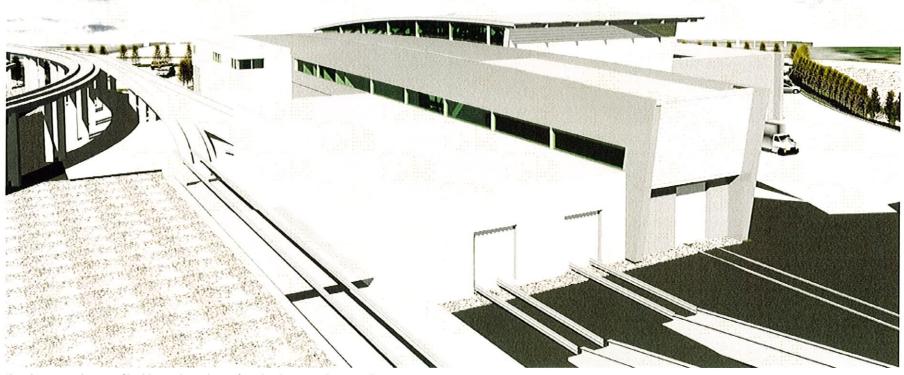










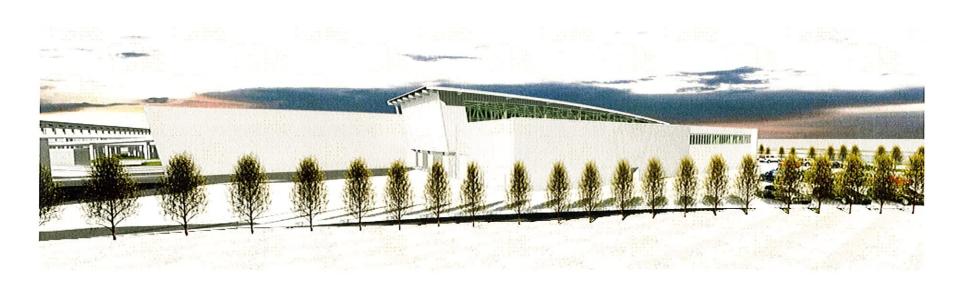


Graphics are indicative of building only, and not of site landscape and surrounding context.







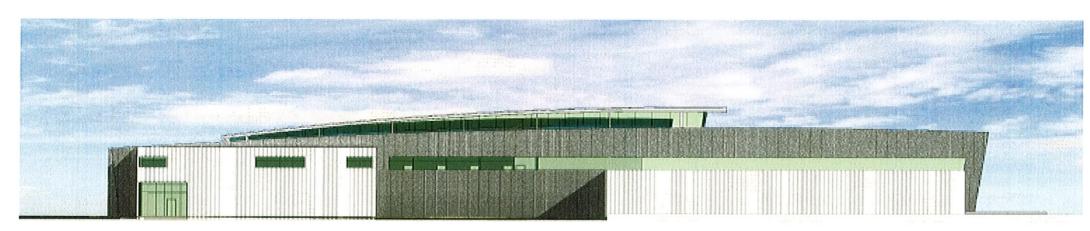




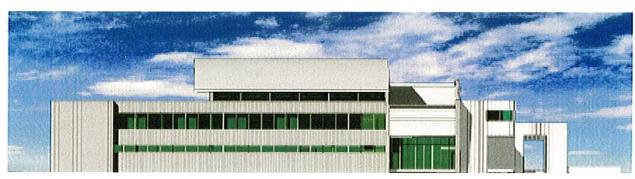
Graphics are indicative of building only, and not of site landscape and surrounding context.

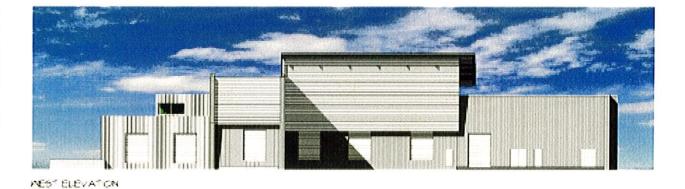




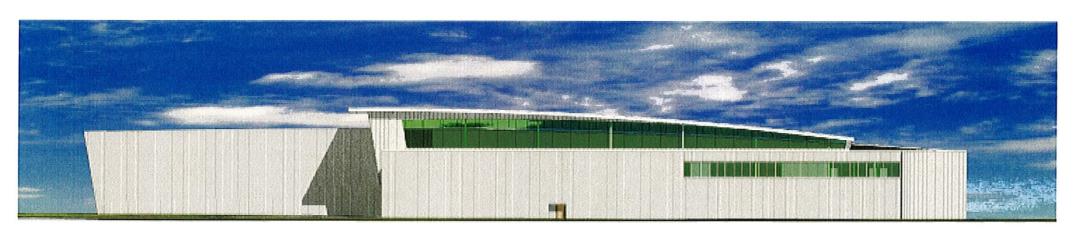


NORTH ELEVATION





EAST SLEVATION

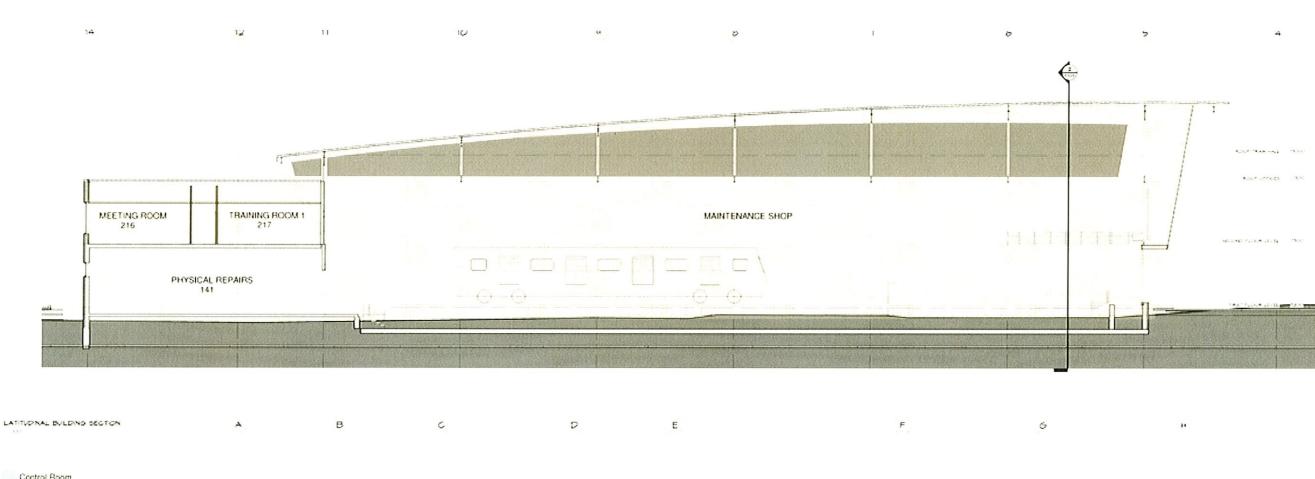


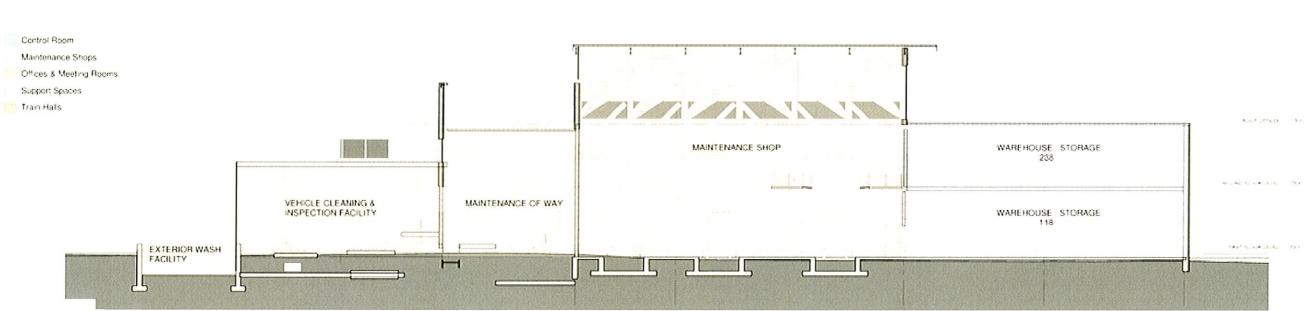
SOUTH ELEVATION





OPERATIONS AND MAINTENANCE CENTRE

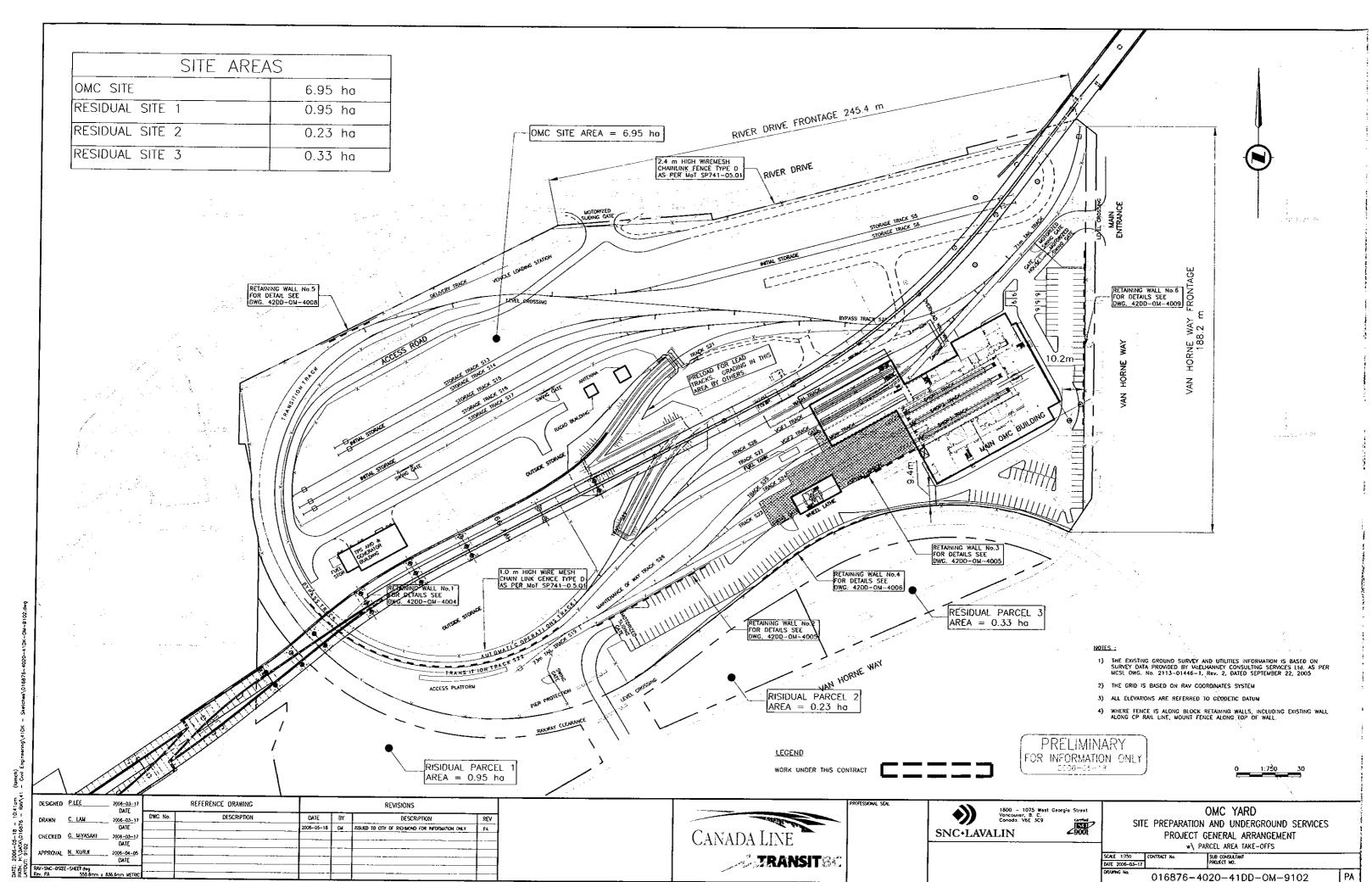


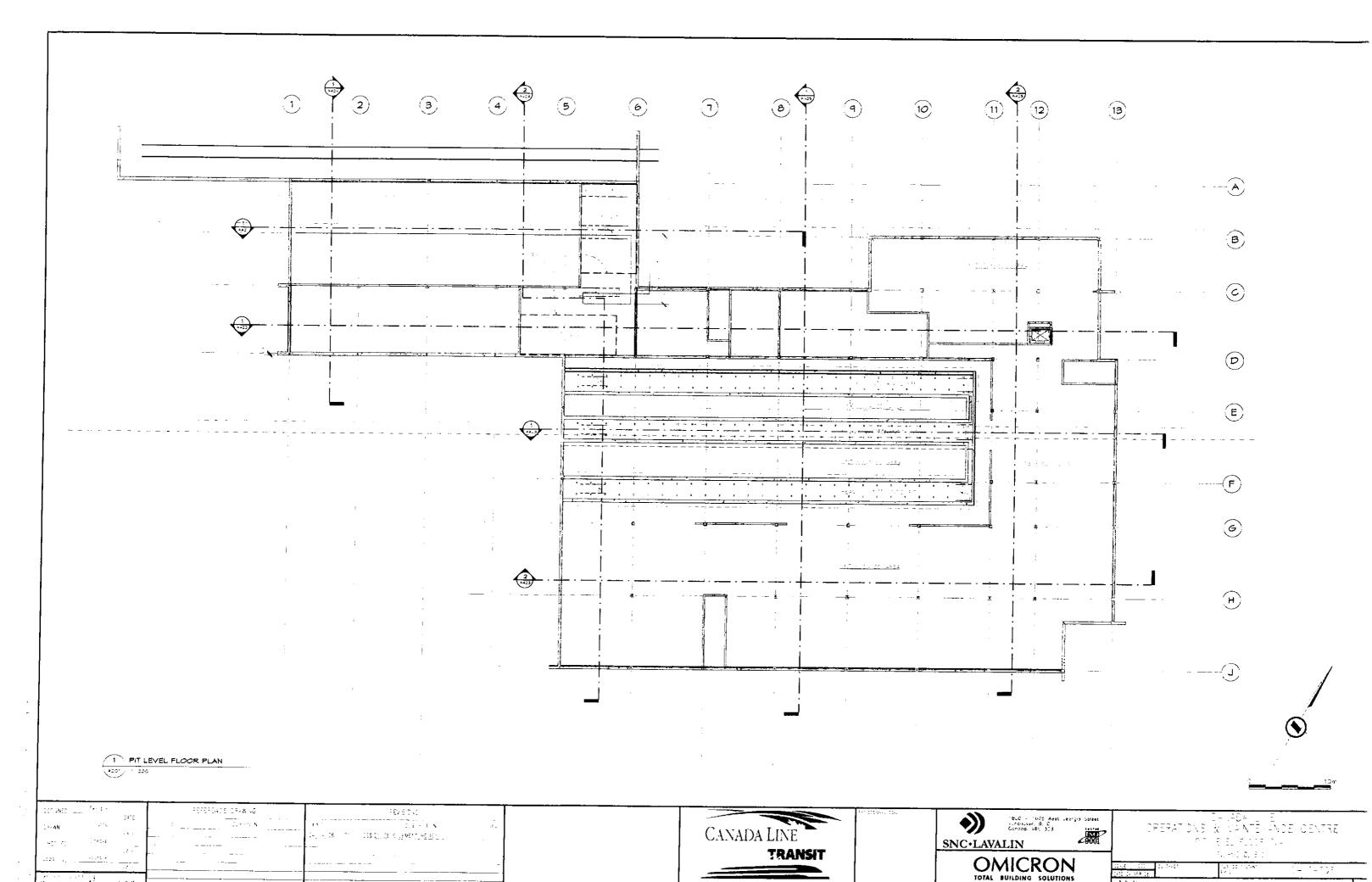


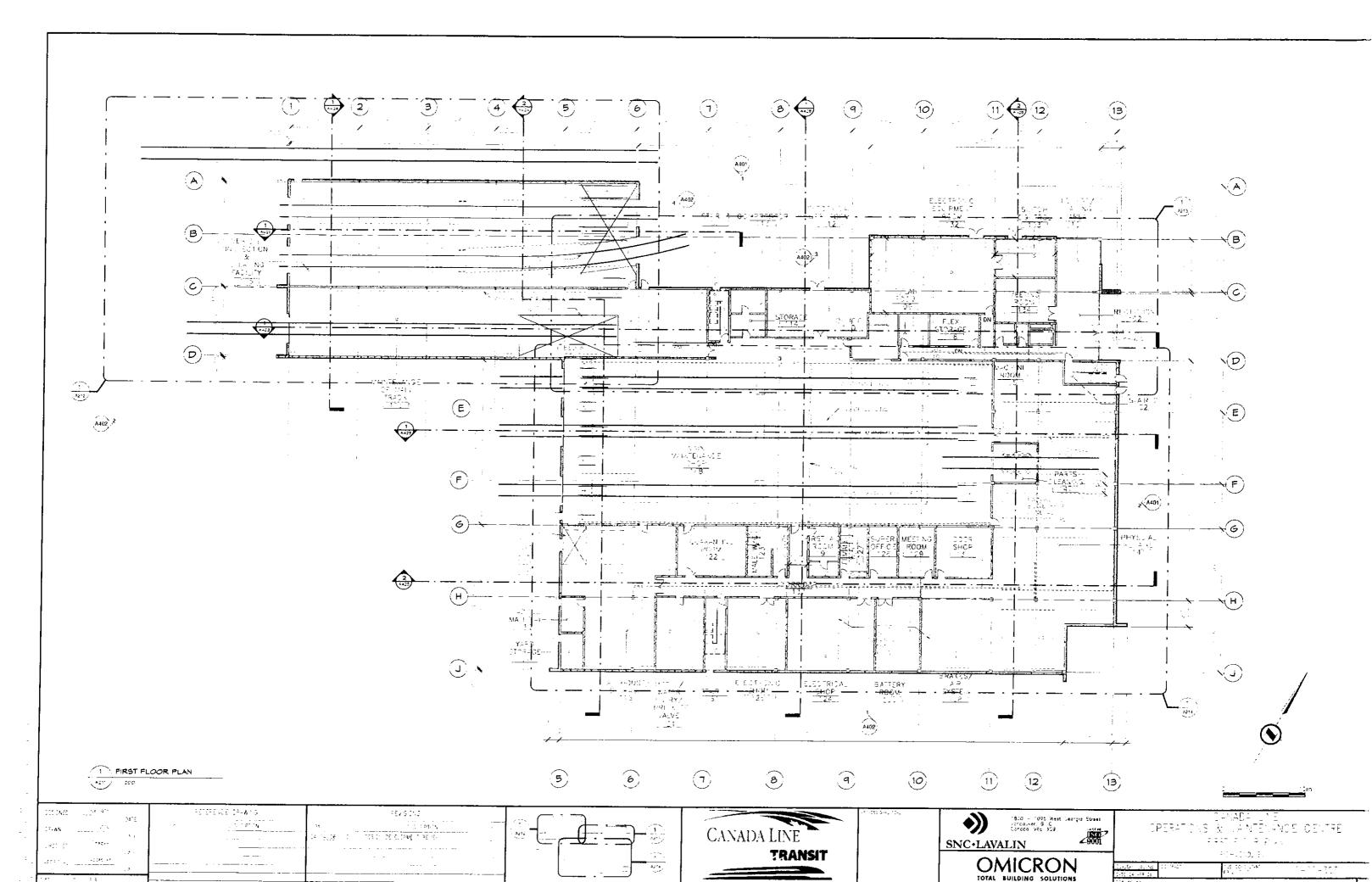


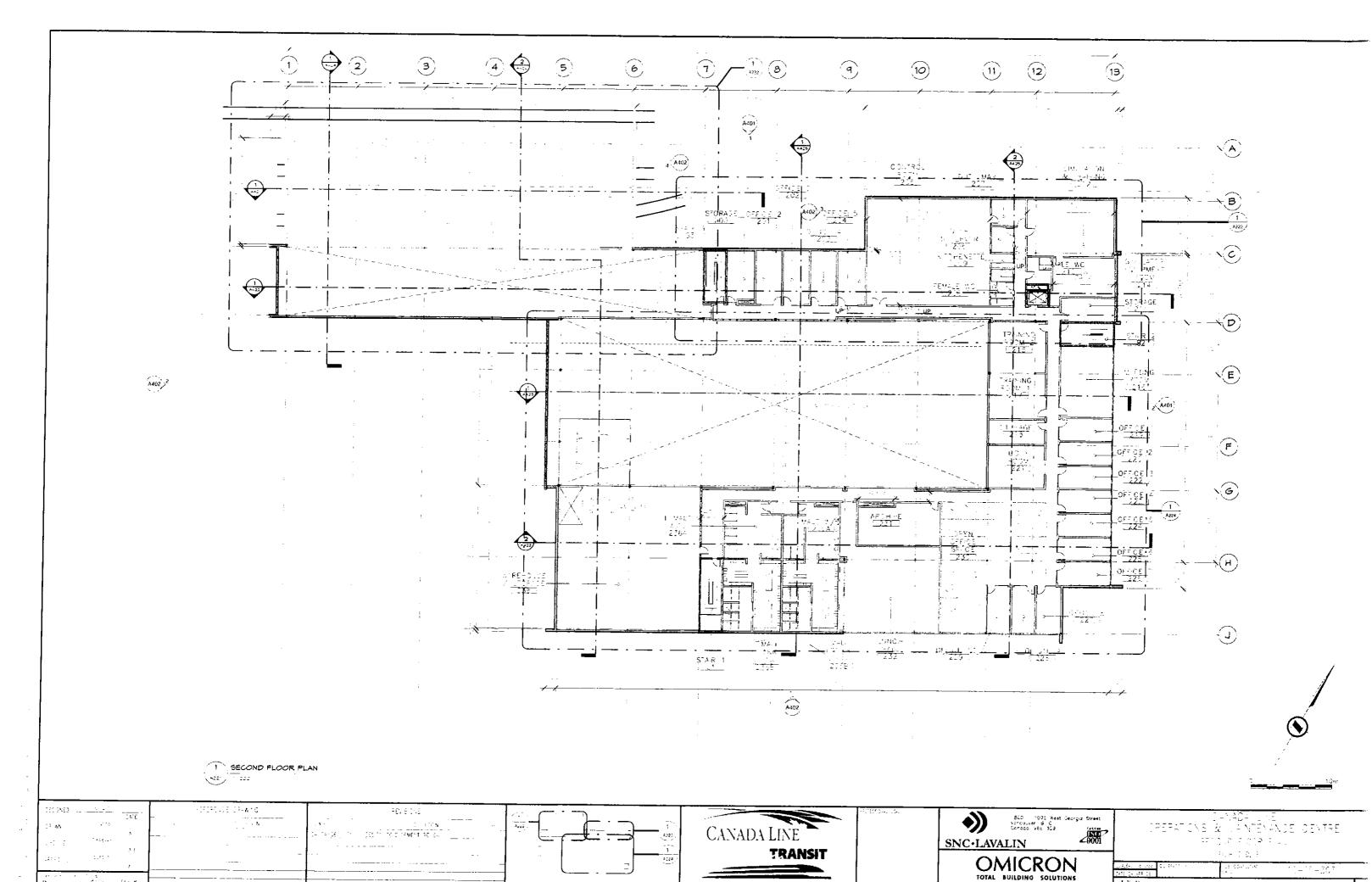


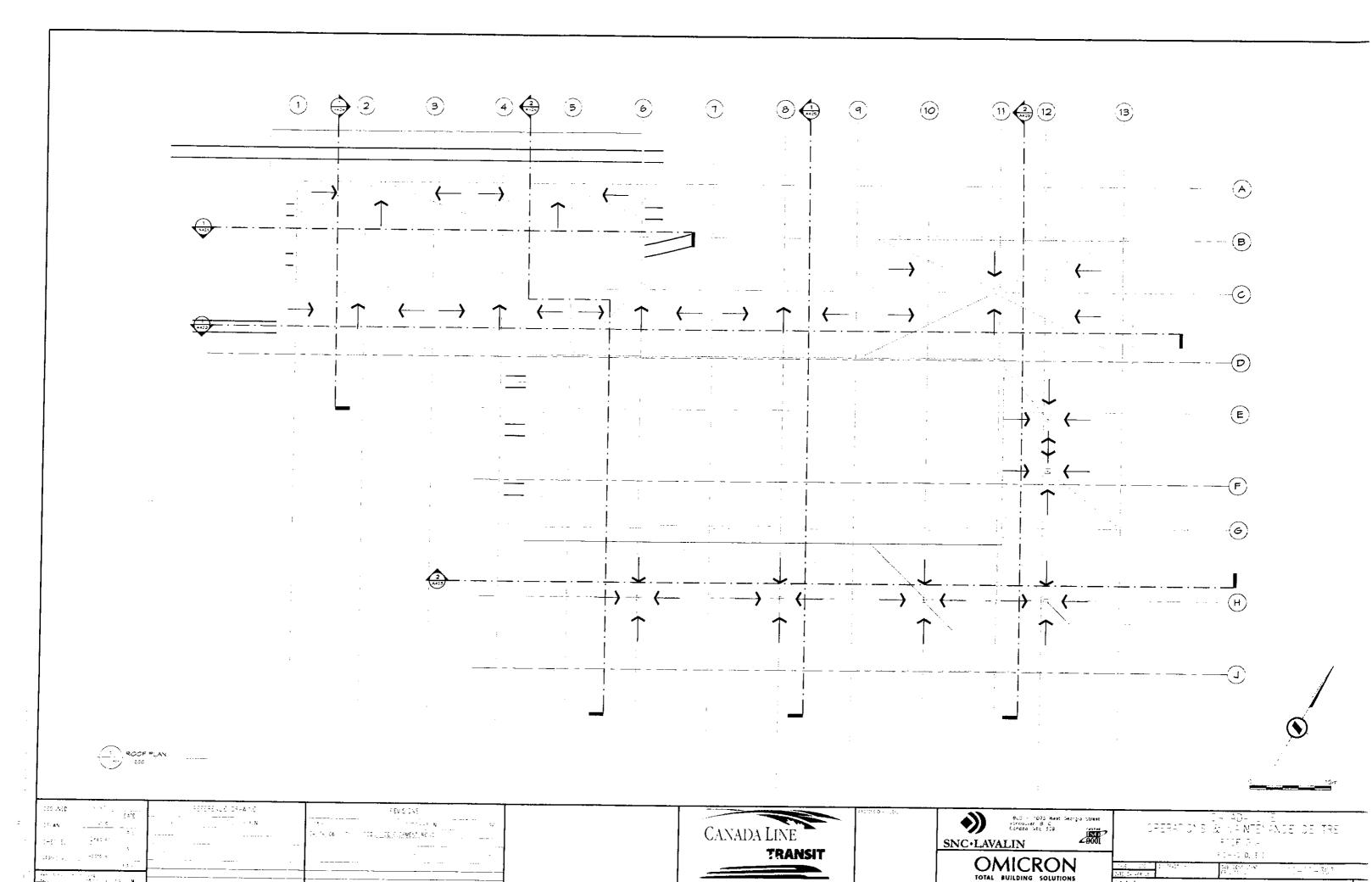


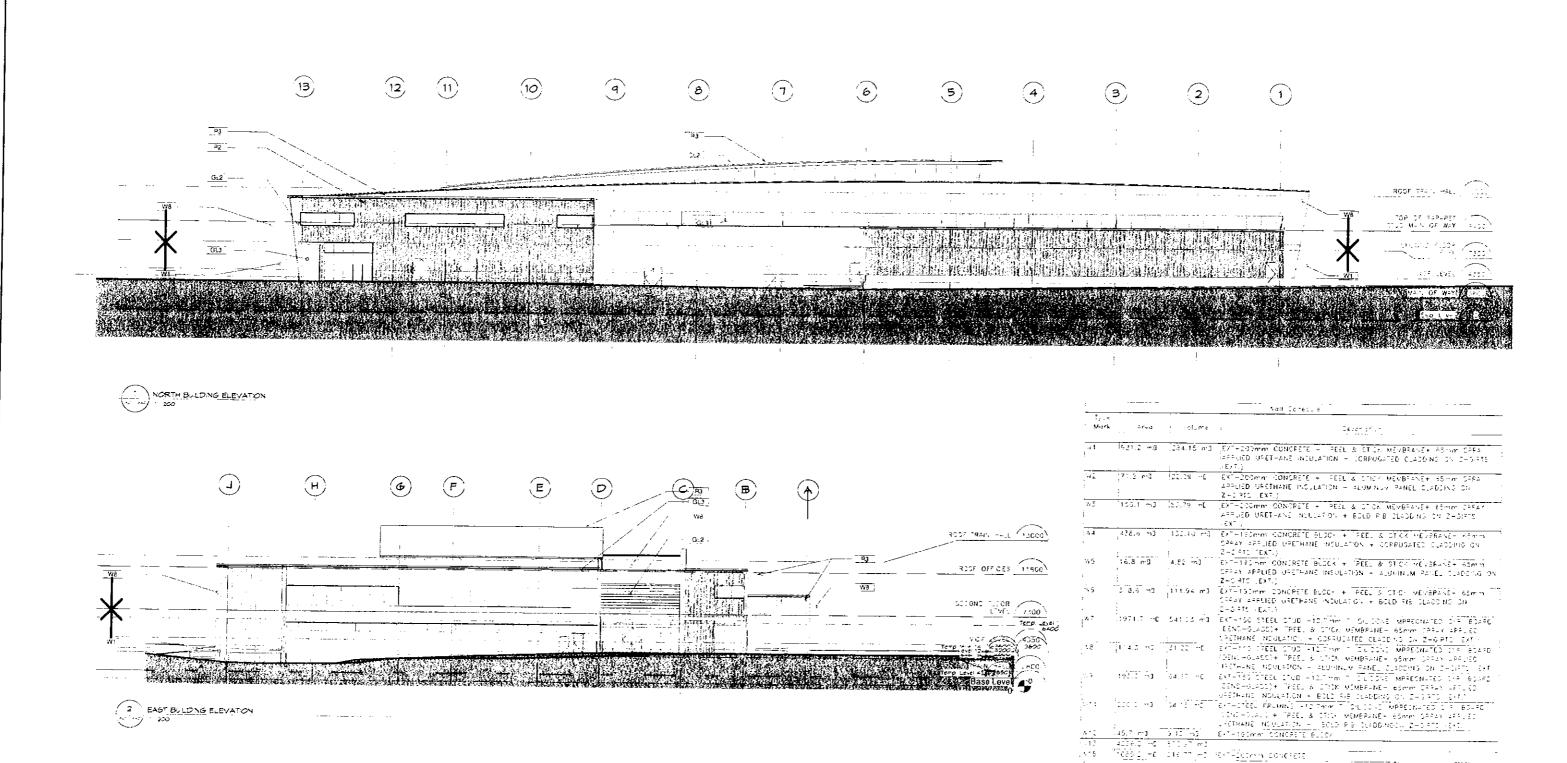






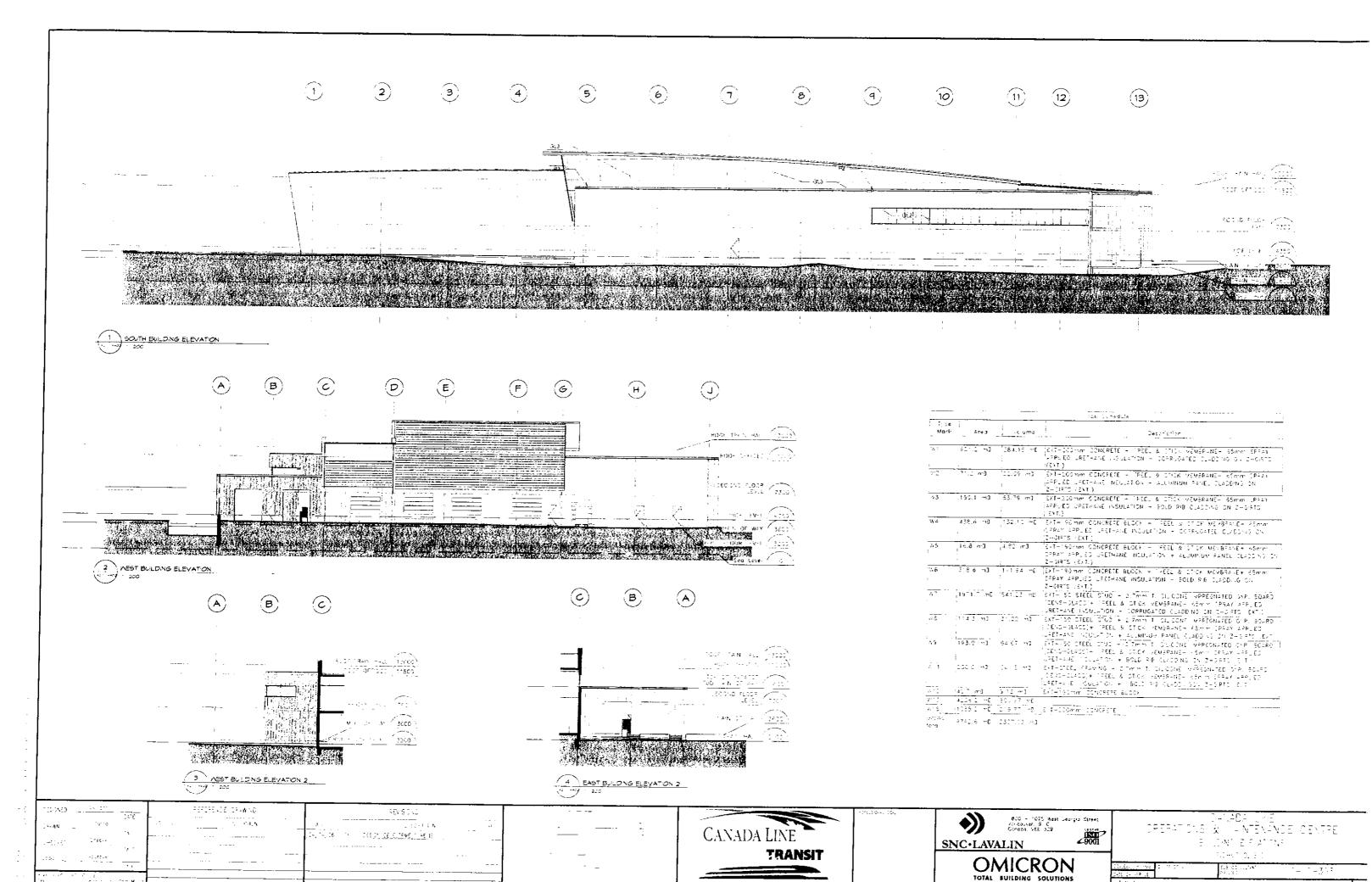


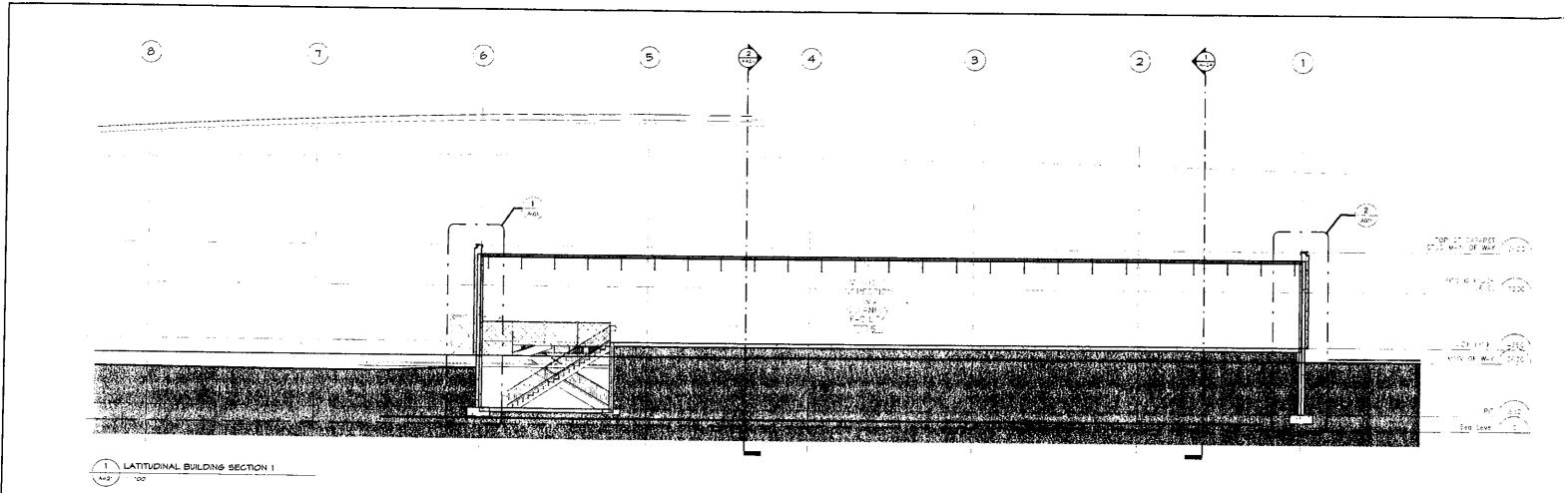




-	1115NED L 115 .	PEFEFENCE CR-WING	1979173			ent sow tak		
	75-45 75-45	See A	2.8 (1.29)		Cavabalar		1800 - 1075 West Georgia Street Conducer S. C Condon. (86, 509 Cested	CPERATIONS & NAMED ANDERORNTHE
	ration <u>reserve</u>	···	The Arter of Control of F <u>irevent rest.</u>	ř.	CANADA LINE		SNC·LAVALIN 29001	FULTAL EFATINE
-	47 - 47 m s		· ··	:	TRANSIT		OMICRON	Fig. 6, 10, 10
	4.7.4 4-11-11-11-1						TOTAL BUILDING SOLUTIONS	

-7916 MB 12317 03 MG





| Total | Tota





CANADA LITE

DEFENDES & HANTE LANCE CENTRE

EN 100 MC 100 COMB SECTIONS

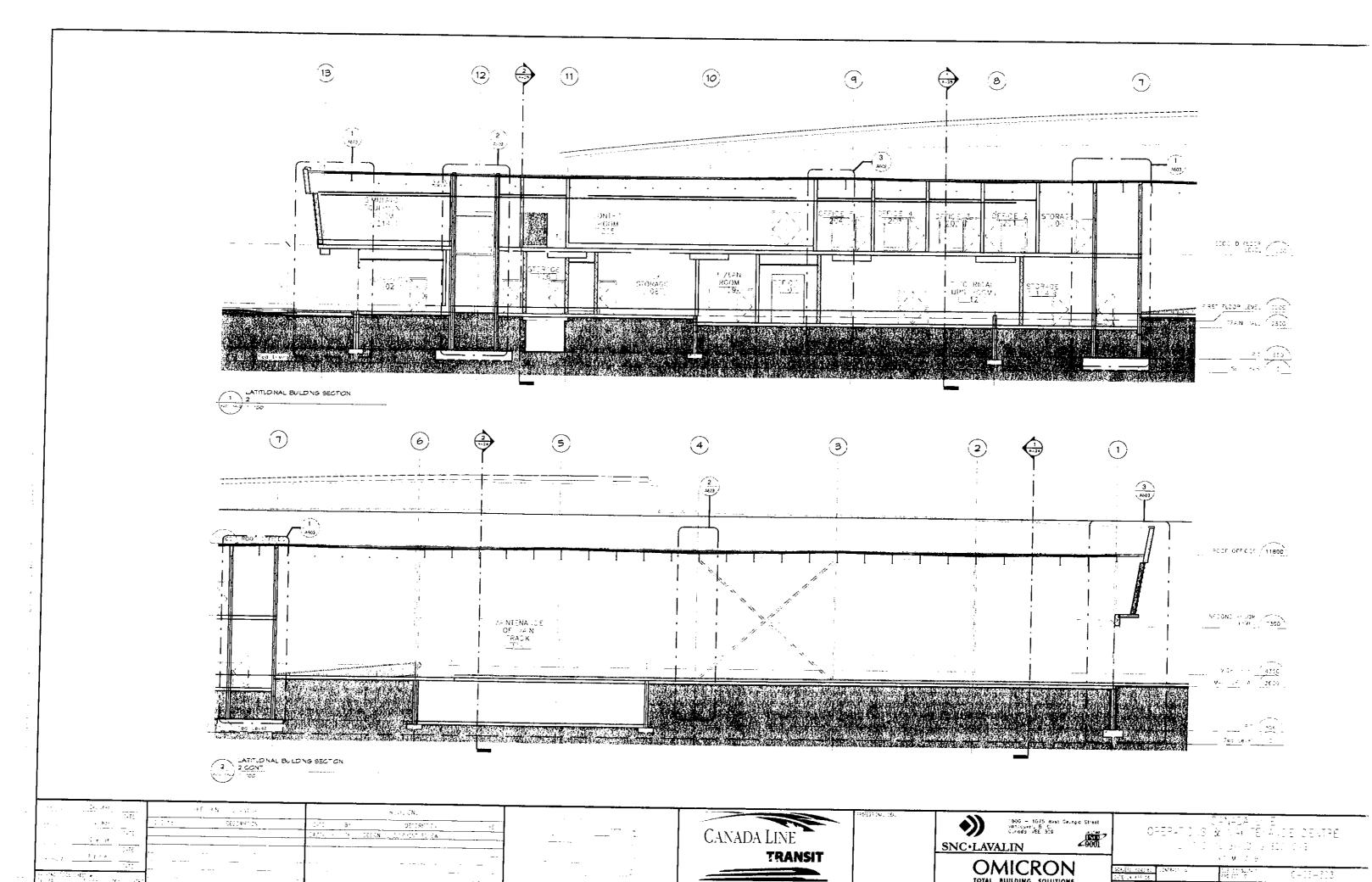
KNOWN TO

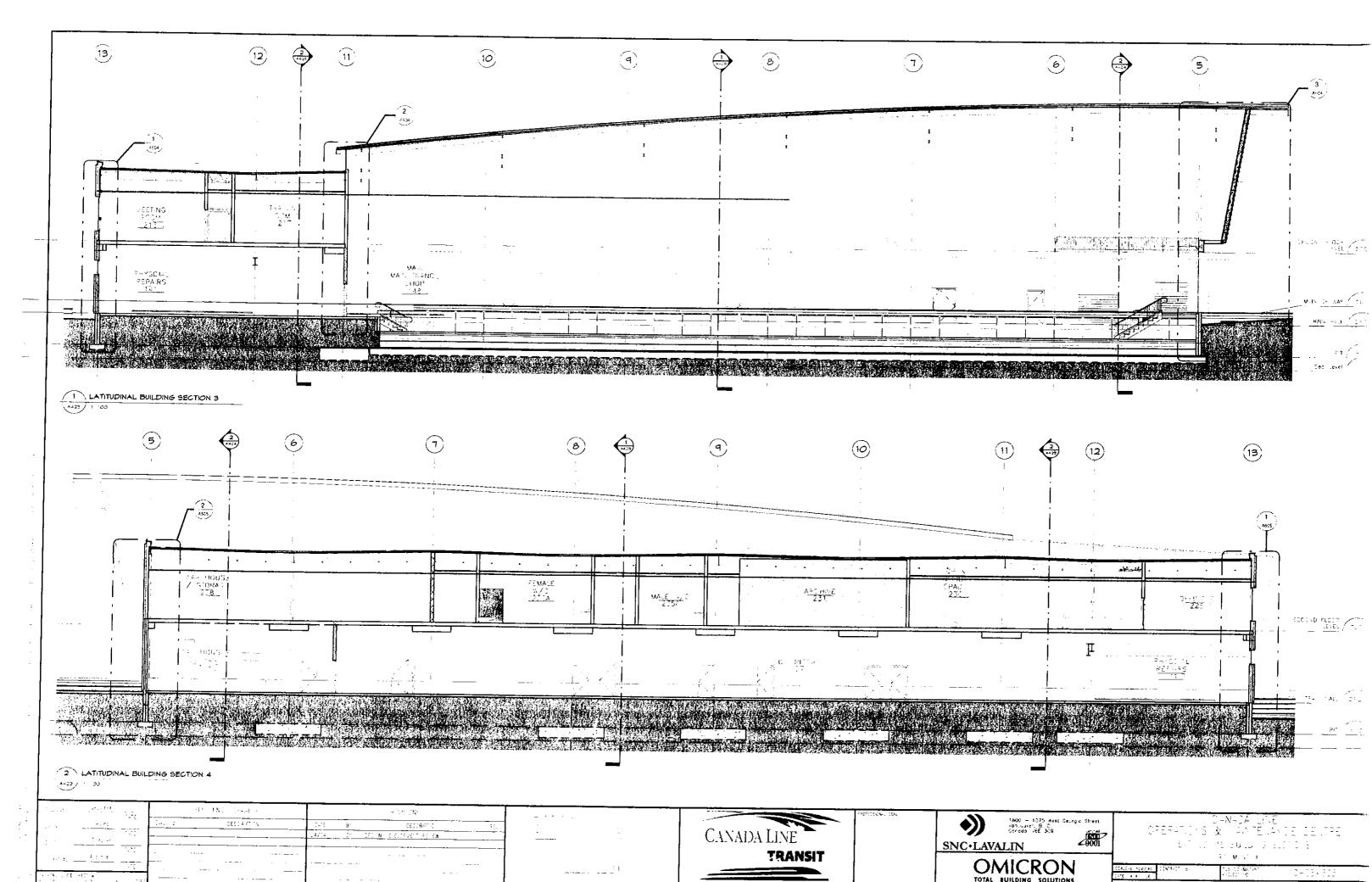
AN ENERGY SECTIONS

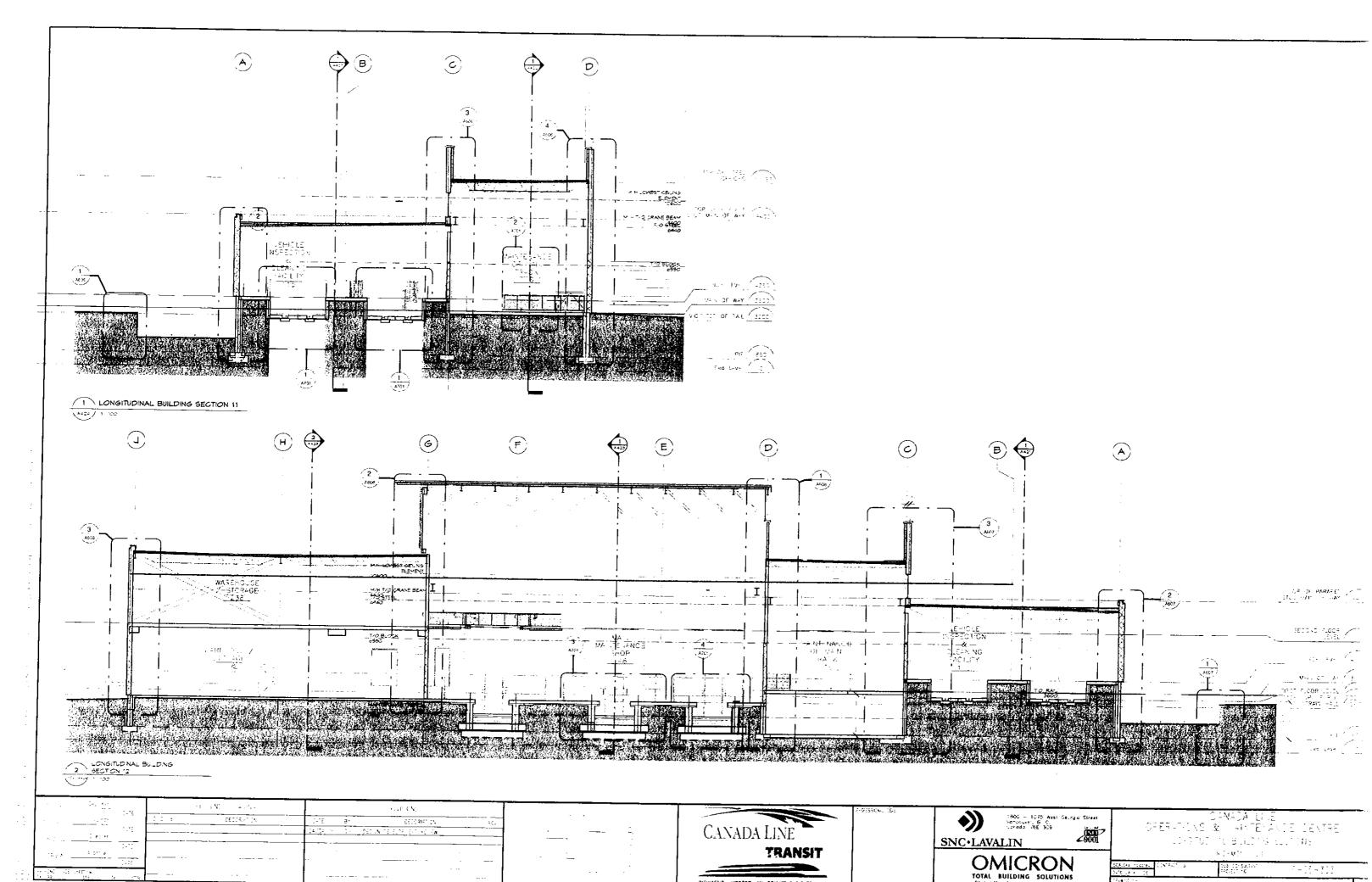
KNOWN TO

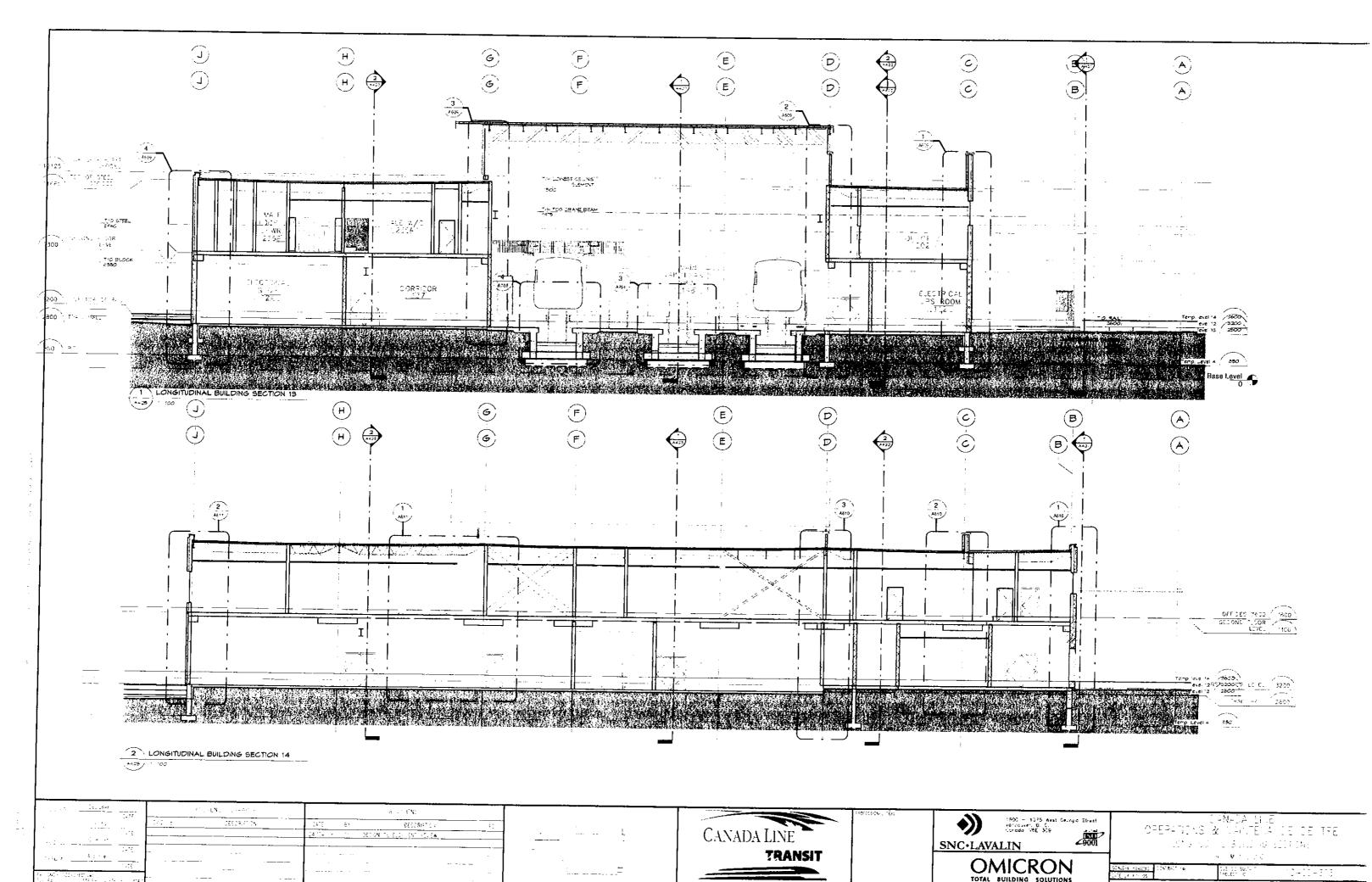
AN ENERGY SECTIONS

AND THE SECTION S





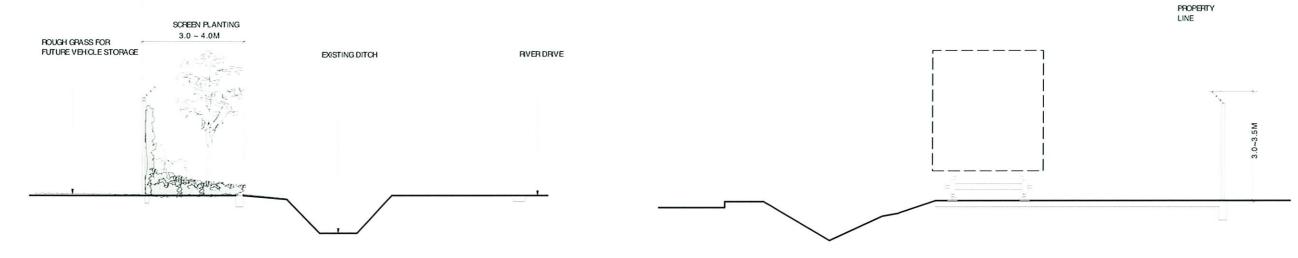






PROPERTY LINE

SECTION :NORTH PROP. LINE



VINE TRAINED ON CHAIN LINK FENCE ON RETAINING WALL APPROX. 1.0

SECTION : EAST PROP. LINE

SECTION: WEST PROP. LINE

DESIGNED 10	- 11	R	EFERENCE DRAWING	REVISIONS				
DBAWN 12	DATE	DWG No.	DESCRIPTION	DATE	BY	DESCRIPTION	FEV	
DRAWN 12	DATE			APR26/06	MIL	ISSUED FOR INFORMATION	A	
CHECKED 14	15			MAY 17/06	MIL	ISSUED FOR DP PANSL REVIEW	В	
	DATE							
APPROVAL 16	17							
	DATE							
FAVS COSZESHET cong Fev. PC 555 E	THE SECTION AND ADDRESS OF THE PARTY OF THE				-		-	



THE CONTRACTOR SHALL WANTAN ACCORDANCE TO THE LANDSCAPE STANDARDS UNTIL THE WORK IS TURNED OVER TO THE OWNER.



DESCRIPTION
RCHMOND / AIRPORT / VANCOUVER
LANDSCAPE SECTIONS
LINE3

SCALE 1 50	CONTRACT No	SUB COPABILITANT	
DATECE C4 25		PROJECT NO	
DFAW74G16	0168	76-4020-4LK-OM-3001	Α

e) Issue: Transit Plaza Design

Comment: The proposed maintenance building is huge in scale with little variation of facade materials and an expensive roof with very subtle articulation. Since it is suspected that this large relatively flat roof will be visible from the Highway 99 viaduct, concern has been expressed that it will attract birds and quickly become an unsightly maintenance issue.

- f) Issue: Station Location Not Applicable
- g) Issue: Site Planning

Comment: Chain link fencing with either barred or razor wire is unacceptable as a perimeter treatment and more sophisticated security provisions should be incorporated into the design. The design of the OMC does not provide for a continuous, perimeter landscape treatment and frontage improvements along adjacent road are minimal. The majority of this 7-acre site is to be covered in ballast material (i.e. gravel) and little attention has been given to aesthetic appearance and treatment of the ground plane. The OMC main entry and arrival sequence should consider visitors as well as employees and provide for significant tree planting, landscaped parking areas, pedestrian walkways and bicycle connections to the facility.

h) Issue: Construction Timing / Capstan Station - Not Applicable

2. What OMC design changes have already been made by CLCO and InTransitBC, as result of discussions with Richmond staff?

- Straddle Bents have been eliminated in the West Bridgeport Area.
- Dual guideway has been restored between Bridgeport and Cambie Stations.
- InTransitBC has engaged a landscape architect for the OMC.
- CLCO has realigned the CPR rail line east of Great Canadian Way around the OMC site, which will eliminate the need for the CPR tracks to extend across Great Canadian Way in the future once the spur line to Ebco Industries is retired after 2010.
- CLCO/InTransitBC has transplanted all affected street trees in the West Bridgeport Area or will provide 2 new trees for each tree that is removed.

3. What changes are Richmond staff still seeking to improve the OMC design that could be accommodated easily?

- A landscape plan for the OMC.
- Enhanced landscape improvements around the entire perimeter of the OMC.
- More sophisticated security measures including surveillance cameras, security patrols, higher quality perimeter fencing and a continuous perimeter landscape treatment that incorporates layers of plant material as screening to the rail yard.
- A visitor's viewpoint of the transit rail yard complete with an adequate amount of parking, appropriate pedestrian amenities and landscape treatment.
- Celebrate the Canada Line project and the importance of this facility by paying greater attention to the level of detail design in the sequence of entry and arrival experience for both employees and visitors including the parking area and the pedestrian connections to the main entrance.
- 4. What changes are Richmond staff still seeking to the OMC design that may be more difficult to accommodate?

- The West Bridgeport Area is an area in transition that could encompass a wide variety of land uses in close proximity. The OMC site will likely represent the largest industrial development in this precinct and should set an appropriately high standard of development to act as a good neighbour and catalyst for subsequent nearby industrial redevelopment.
- Break the building massing down to smaller modules, which will relate better to a human scale at the main entry.
- Improve the visual interest of the building through further design development of the building façade and the incorporating more diversity of higher quality cladding materials.
- Advance the roof design to create a more attractive roofscape through addition articulation and address long-term maintenance issues in the design.
- A visitor centre or viewing gallery overlooking the train barn and the ongoing maintenance activities would provide a public amenity of significant value to the community and help to promote and popularise the Canada Line project.

Joyce Chang Project Manager, Major Projects Team (247-4681)

JC:bg

Attachments