



City of Richmond

Report to Committee

To General Purposes - Sept 18, 2006

To: General Purposes Committee

Date: September 6, 2006

From: Greg Scott, P. Eng., LEED A.P.
Director, Major Projects

File: 06-2052-50-05

Re: Richmond Olympic Oval – Interior Design Plan and Exterior Gable End Infill Walls
(Material Choice)

Staff Recommendation

It is recommended that:

- (1) Council endorse the interior design plan for the Richmond Olympic Oval.
- (2) Council endorse the exterior gable end infill wall material as a profiled pre-finished Metal panel (Option 1) for the Richmond Olympic Oval .

Greg Scott, P. Eng., LEED A.P.
Director, Major Projects
(4372)

Att (2)

FOR ORIGINATING DEPARTMENT USE ONLY		
CONCURRENCE OF GENERAL MANAGER		
(ACTING)		
REVIEWED BY TAG	YES <input checked="" type="checkbox"/> <i>JS</i>	NO <input type="checkbox"/>
REVIEWED BY CAO (ACTING)	YES <input checked="" type="checkbox"/> <i>JE</i>	NO <input type="checkbox"/>

Staff Report

Origin

As part of the design development for the Richmond Olympic Oval (ROO), Cannon Design has developed an interior design plan and exterior colour palette for the building. The exterior colour palette for ROO was endorsed by the Council at its July 24th, 2006 meeting, *with the exclusion of the profile metal (at the exterior gable end infill walls)*. This report brings forward both the interior design plan and the material choice for the exterior gable end infill walls.

Analysis

Interior Design

Given the significant size of the facility, some of the most important design principles operating at the Richmond Olympic Oval are lightness, transparency and translucency. These qualities mitigate the necessary large scale of the building elements, while revealing the use of the facility in this regard; the interior design is a continuation of the exterior architecture of the Richmond Olympic Oval.

The application of coloured glass to sheathe concrete members, and poly resin panels to wrap wall planes (and other translucent materials) define a layering approach that is further articulated throughout the building in other applications. Architecture and interior design together establish the main environmental quality of the building – openness, accessibility, lightness and fun.

Other organizing design principles are simplicity and contrast. Given the highly expressive and complex architecture of the building, particularly the iconic roof, it is important to contrast this with economy of means and simplicity of forms. In this way, both qualities of the environment are enhanced. The interior design is characterized by simple, regular shapes and a simple, elegant colour palette. The power of the building's architecture provides this spectacle.

One of the most significant benefits of a successful interior design is its ability to allow the user to “read” the environment. The circulation routs, circulation nodes as well as the primary program destinations must be well marked, understandable and memorable. The interior design of the Richmond Olympic Oval uses bold colours and clear continuity of spatial markers, materials and details to make the route correspond with the destination. The circulation devices are signals to users, and as such, are rendered highly visible and prominent.

The interior colour and material palette is derived from a language of contrasts and compliments, applied to key activity zones.

Vertical circulation elements, elevator towers and feature stairs are highlighted with glowing yellow and orange translucent glass to contrast with large scale structural concrete elements. The customer service desk, constructed of site harvested elm and coloured transparent inserts, is articulated as a simple rectilinear form. The expansive polished concrete floor reflects colour and light. A canopy of overlapping edge lit planes provides a transition zone from the three story entrance lobby through to the activity spaces.

The central circulation spine hallmarks a display of sports imagery, celebrating the athletic spirit of the buildings function. Bold coloured entry portals leading to key activity zones establish a rhythmic flow consistent throughout the building.

Within the locker rooms a palette of soft blues and subtle yellows is framed with a continuous ribbon of vibrant coloured tile, emphasizing the interplay of alternating ceiling volumes and corresponding floor patterns.

Each team room is energized by a single plane of vibrant coloured tiles to contrast with the neutral colour and texture of partitions and masonry. Site harvested oak benches wrap and fold into wall planes.

The finishes palette for the childminding room has been created with a playful mix of patterns, lively colours and texture in flooring, cabinetry and wall treatments to create a fun and animated environment.

Exterior Design - Exterior Gable End Infill Walls (Material Choice)

The exterior material and colour palette of the ROO reinforces an idea of synthesis through contrast. This notion, central to the concept of “fusion”, celebrates lightness and transparency and is grounded in substance and strength. The dynamic shape of the “heron wing” roof is rendered in a white PVC membrane and is contrasted at each feather seam with a grey colour PVC. The complex and dynamic roof edges are surfaced in white, pre-finished metal facings and flashings.

The form of the roof is derived from a visually complex wood deck, which is exposed on the exterior and continues, visibly, to the interior. This substantial wood surface enhances the high mass of the building with a warm, natural material with the added benefit of a high degree of detail interest.

The iconic roof of the Richmond Olympic Oval “flies” over the clear glazing curtain wall at the north and is visibly supported there by slender, tapering wood struts, rising from 15 massive concrete buttresses. These powerful grounding elements will feature Salish art motifs to reduce the scale and provide attractive detail. On the south, the roof overlaps a translucent polycarbonate clearstory, separated above each concrete buttress.

The south elevation incorporates a 200 meter long polycarbonate surface, which is integrally colour-tinted. This surface shows a dynamic colour variation across its length, which enhances the idea of “flow” and livens the character of its large surface area. The south polycarbonate wall is punctuated with an irregular pattern of windows and louvers. It is also interrupted with a three story, clear glazed, lobby. This element, covered with an extension of the main roof, showcases the internal workings of the building and highlighted by strong interior accent colours. The lobby is visually supported on structural wood struts, springing from reduced scale concrete buttresses, reminiscent of the north elevation treatment. Also alluding to the north elevation, are the lobby vestibules clad in warm silver metal panels. The building “base” under the polycarbonate surfaces is a ribbon of clear, storefront glazing in silver metallic frames, incorporating most of the building entrances and exits.

The east and west elevations incorporate large, curved surfaces of the polycarbonate material, enclosing the interior program and shaped in a “billow” form. The lightness and delicacy of the polycarbonate material is contrasted with an infill wall, which fills the area between the polycarbonate billow and the arch and concrete buttresses.

Three material finishes are being explored for this infill wall area. Each option achieves the primary goal of providing a warm colour and textural contrast to the foreground polycarbonate wall.

Option 1: Profiled Pre-finished Metal (Recommended)

The champagne metallic finish of the profiled steel provides a low maintenance, cost effective wall cladding which is applied in overlapping horizontal sections, incorporating profiled seams, with no visible reveals. This material mimics the texture and warm tone of wood plank cladding. This option has been carried in the 50% cost estimate.

Option 2: Composite Panels

Panels are installed in a grid pattern with a horizontal emphasis. The panels (approximately 2.5 x 1.2 m) are attached using stainless steel rivets, which add a secondary texture to the wall. The panels are low maintenance and are available in integrally coloured warm wood tones. Cost is greater than the option 1 cladding by \$340,000.

Option 3: Solid Wood Planks

This concept was initially proposed for the project. Solid cedar or fir planks are installed over a steel support grid and attached by stainless steel bolts. The planks are installed in a horizontal pattern. They are finished first with a fire retardant coating, then with a UV blocking sealer. Over time the wood will grey and will need to be refinished approximately every 5 years. This option carries the highest cost and most complex maintenance. Incremental cost over option 1 is approximately \$800,000.

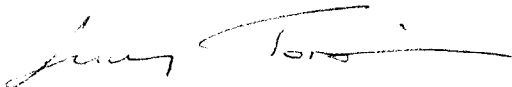
Financial Impact


The recommendations to implement (1) the Interior Design Plan and (2) Option 1 as the exterior gable end wall infill material, are included within the Capital Budget for the Oval Building and there is thus no additional financial impact.

Conclusion

The Interior Design Plan proposed for the Richmond Olympic Oval reflects the key design principles for the building as a whole, being lightness, transparency and translucency. The interior design is characterized by simple, regular shapes and a simple, elegant colour palette. The power of the building's architecture provides this spectacle.

The east and west elevations of the Richmond Olympic Oval incorporate large, curved surfaces of polycarbonate material, which is contrasted with the infill wall. The recommended option for the exterior gable end infill wall (Option 1: profiled pre-finished metal) achieves the goal of providing a warm colour and textural contrast to the foreground polycarbonate wall. The champagne metallic finish of the profiled steel mimics the texture and warm tone of wood plank cladding.



 Greg Scott, P. Eng., LEED A.P.
Director, Major Projects
(4372)

ATTACHMENTS

(1) **EXTERIOR GABLE END INFILL WALLS (MATERIAL CHOICE)**. Computer rendering of Option 1: Profiled pre-finished metal.

(2) **INTERIOR DESIGN PALETTE**



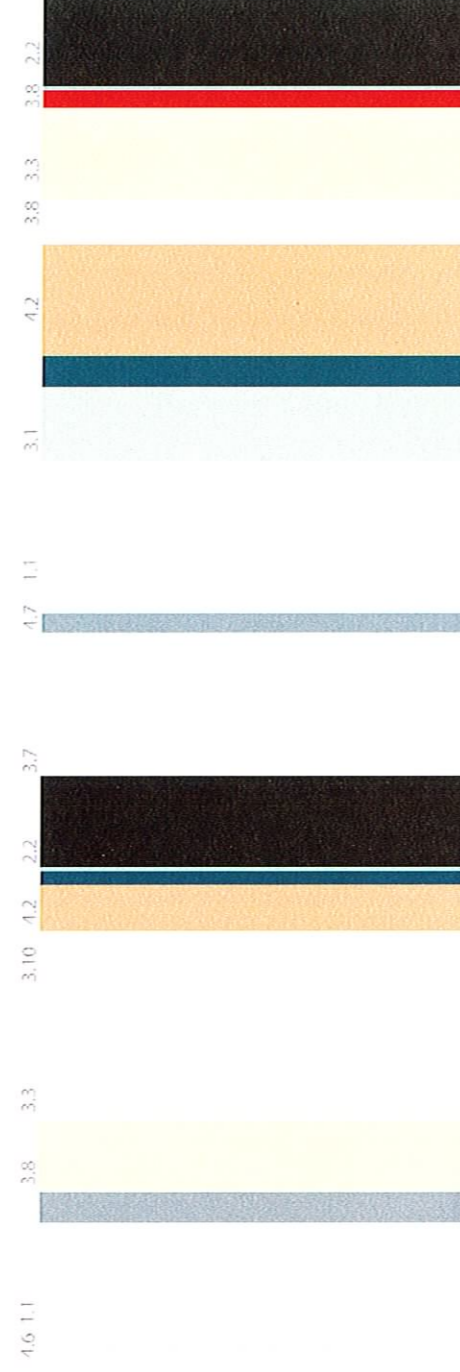
EXTERIOR GABLE-END INFILL MATERIAL

SOUTHEAST VIEW

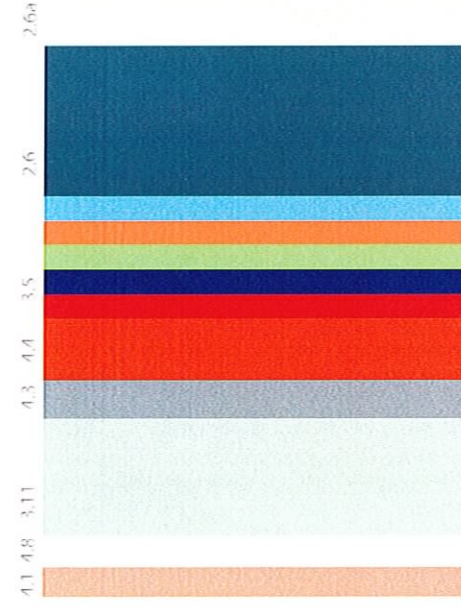
CANNONDESIGN

AUG. 2006

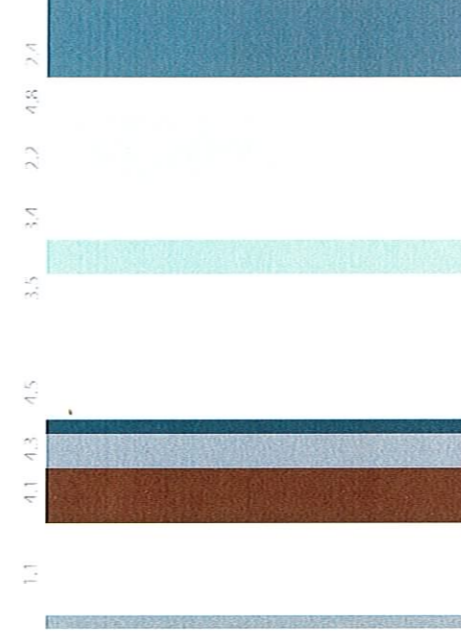
INTERIOR COLOUR CONCEPT



administration



multipurpose rooms



team rooms

- ceiling reference
- 1.1 major ceiling material painted gwb or acoustic ceiling tile
- 1.2 feature ceiling-acoustical panels
- flooring reference
- 2.1 major flooring material polished concrete
- 2.2 major flooring material carpet
- 2.3 major flooring material sprung wood floor or carpet
- 2.4 major flooring material porcelain tile
- 2.5 accent flooring material porcelain tile
- 2.6 major flooring material rubber skate flooring
- 2.7 major flooring material non-pvc tile
- 2.8 accent flooring material non-pvc tile

executive locker rooms

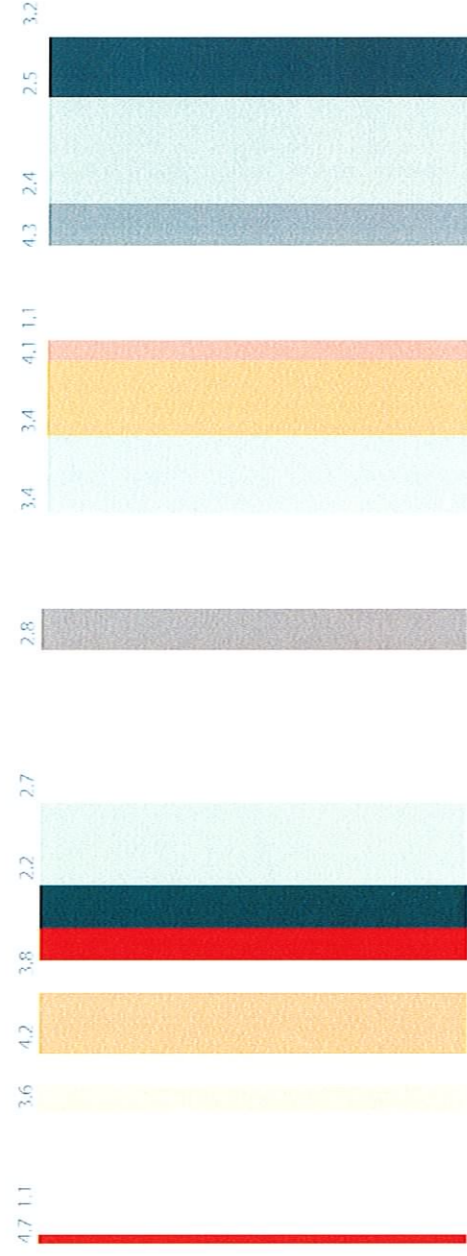
- wall finish reference
- 3.1 major wall finish exposed concrete
- 3.2 major wall finish exposed concrete block
- 3.3 major wall finish paint on gwb
- 3.4 major wall finish porcelain wall tile
- 3.5 accent porcelain wall tile
- 3.6 accent tackable panel
- 3.7 accent wallcovering
- 3.8 accent paint colour
- 3.9 glass cladding
- 3.10 glass screen
- miscellaneous finishes
- 4.1 millwork site harvested wood
- 4.2 millwork / floors maple
- 4.3 washroom partitions
- 4.4 abuse-resistant wall panels
- 4.5 lockers
- 4.6 hardware
- 4.7 millwork laminate
- 4.8 solid surfacing- vanity



RICHMOND OLYMPIC OVAL

CANNONDESIGN

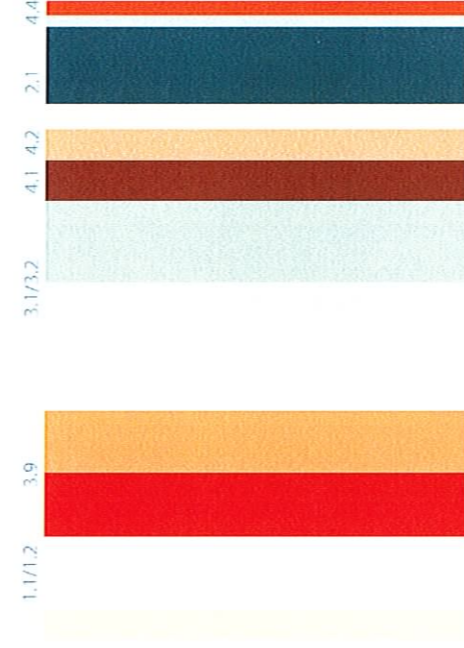
INTERIOR COLOUR CONCEPT



child minding room



typical washrooms



locker rooms

- ceiling reference
- 1.1 major ceiling material painted gwb or acoustic ceiling tile
 - 1.2 feature ceiling - acoustical panels
- flooring reference
- 2.1 major flooring material polished concrete
 - 2.2 major flooring material carpet
 - 2.3 major flooring material sprung wood floor or carpet
 - 2.4 major flooring material porcelain tile
 - 2.5 accent flooring material porcelain tile
 - 2.6 major flooring material rubber skate flooring
 - 2.7 major flooring material non-pvc tile
 - 2.8 accent flooring material non-pvc tile

main lobby + circulation

- wall finish reference
- 3.1 major wall finish exposed concrete
 - 3.2 major wall finish exposed concrete block
 - 3.3 major wall finish paint on gwb
 - 3.4 major wall finish porcelain wall tile
 - 3.5 accent porcelain wall tile
 - 3.6 accent tackable panel
 - 3.7 accent wallcovering
 - 3.8 accent paint colour
 - 3.9 glass cladding
 - 3.10 glass screen
- miscellaneous finishes
- 4.1 millwork site harvested wood
 - 4.2 millwork / doors maple
 - 4.3 washroom partitions
 - 4.4 abuse resistant wall panels
 - 4.5 lockers
 - 4.6 hardware
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RICHMOND OLYMPIC OVAL

CANNONDESIGN