



City of
Richmond

Report to Development Permit Panel
Planning and Development Department

To: Development Permit Panel

Date: October 22, 2012

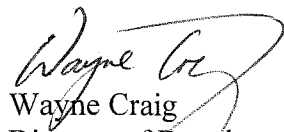
From: Wayne Craig
Director of Development

File: DP 10-535726

Re: Application by The South Coast British Columbia Transportation Authority
("Translink") for a Development Permit at 4111 Boundary Road

Staff Recommendation

That a Development Permit be issued which would permit the construction of a new bus operations and maintenance facility at 4111 Boundary Road on a site zoned Light Industrial (IL).



Wayne Craig

Director of Development

WC:dcb

Att. 3

Staff Report

Origin

The South Coast British Columbia Transportation Authority (“Translink”) has applied to the City of Richmond for permission to develop a new bus operations and maintenance facility at 4111 Boundary Road on a site zoned Light Industrial (IL). The only remaining operation on the property is the Canadian Fibre plant near Boundary Road which holds a lease good through June 30, 2014. The balance of the site is vacant.

The site was Rezoned to “Light Industrial (IL)” under RZ 09-484669 (adopted November 8, 2010). A further rezoning is not required to accommodate the proposed use.

Off-site improvements that will be addressed through several Servicing Agreements associated with this development include raising and upgrading of the existing foreshore dike, upgrading of frontage storm sewer and water lines, upgrading of the traffic signals at the corner of Boundary Road and Westminster Highway as well as additions such as a frontage sidewalk, landscaping, curbing and a bike lane along Westminster Highway.

Development Information

Translink is constructing a new Transit Centre Facility at 4111 Boundary Road in Hamilton that will ultimately be operated by The Coast Mountain Bus Company. The site is just north of Westminster Highway along the west side of Boundary Road and is approximately 73,343 m² (18.12 acres) in area. The facility will provide operation and maintenance support for approximately 300 buses with the basic functions being bus dispatch, bus service (i.e. fuel and wash) as well as maintenance. These functions are reflected in the site planning and design with separate buildings for maintenance, bus wash, refuelling, waste water treatment and service delivery. Approximately 13,048 m² (3.22 acres) of the site will be under cover with the largest building, the maintenance building, being approximately 10,090 m² (108,611 ft²) in area.

Employee/visitor parking and access are separated from bus parking and access both spatially and in terms of site grading. The site of the service delivery building and its associated employee/visitor parking areas are to be filled to an elevation of 4.3m GSC as a portion of this area also accommodates a new dike along the northern property boundary. The raised grade makes this area more useable as the dike area can also be used for parking. The grades for the maintenance building, bus parking and drive aisles associated with bus movement and servicing will also be filled but to a lower elevation of 3.5m GSC. These grades will result in portions of the site being approximately 1.5 m above the adjacent existing grade of Westminster Hwy. and approximately 1.7 m above the existing grade of Boundary Road.

Please refer to the attached Development Application Data Sheet (**Attachment 1**) for a comparison of the proposed development data with the relevant Bylaw requirements.

Background

Development surrounding the subject site is as follows:

- **To the North:** A blind channel of the Fraser River and a 37.7 acre parcel zoned Industrial (I) owned by Tree Island Industries Ltd. A City dike lies between the subject parcel and the Fraser River. A second dike lies along the northern property line between

the subject site and property currently owned by Tree Island Industries Ltd (3933 Boundary Road).

- **To the East:** Boundary Road and the New Westminster (Queensborough) Starlight Casino.
- **To the South:** Westminster Highway, Highway 91A and single-family residential dwellings on large lots zoned Single Detached (RS1/F) both south of Highway 91A and immediately adjacent to the southwest corner of the subject site.
- **To the West:** Single-family residential dwellings on large deep lots zoned Single Detached (RS1/F).

Rezoning and Public Hearing Results

During the rezoning process, staff identified the following design issues to be resolved at the Development Permit stage:

- A detailed parking review, including bicycle and loading space provisions, to be undertaken;
- Green Roof Bylaw compliance;
- Landscape compensation and enhancement plans, including tree replacement plans to be reviewed;
- Site planning and building appearance;
- Location for an emergency fire access.

The Public Hearing for the rezoning of this site was held on January 18, 2010. At the Public Hearing, the following concerns about rezoning the property were expressed:

- Tree Island Industries identified concerns about the loss of access to their properties.
- City of New Westminster staff indicated support for the land use but raised concerns about the impact on traffic patterns at the Westminster Highway and Howes Street intersection and the functional design of Boundary Road.
- The Hamilton Community Association (HCA) expressed support for the development but raised questions regarding the location of the childcare facility.
- The President of the Queensborough Residents Association stated the development would be positive for the community but expressed concerns regarding increased traffic congestion, increased air pollution and the impact of oil and fuel waste on fish habitat.
- A resident from New Westminster agreed that an additional transit facility was needed but expressed concern that the facility would increase traffic flow through New Westminster and exacerbate existing congestion on local bridges.

Staff worked with the applicant to address these issues in the following ways:

- Working with the City and Tree Island Industries, Translink has agreed to relocate the access and a weigh scale on the Tree Island Industries site to restore full access to that property.

- Staff and Translink continue to work with the City of New Westminster to resolve concerns related to the intersection improvements at Boundary Road and Westminster Highway. These efforts are on-going and will be reviewed as part of the Servicing Agreement process.
- Translink has incorporated a waste water treatment facility on-site to reduce any oil and fuel discharges from the site to current standards or better.

Staff Comments

The proposed scheme attached to this report has satisfactorily addressed the significant urban design issues and other staff comments identified as part of the review of the subject Development Permit application. In addition, it complies with the intent of the applicable sections of the Official Community Plan and is generally in compliance with the Light Industrial (IL) Zoning Schedule.

Advisory Design Panel Comments

The Advisory Design Panel was supportive of the application but did make a number of design recommendations. A copy of the relevant excerpt from the Advisory Design Panel Minutes from June 6, 2012 is attached for reference (**Attachment 2**). The design response from the applicant has been included immediately following the specific Design Panel comments and is identified in '***bold italics***'. Although Translink has indicated that it is not able to fully address all of the Design Panel's recommendations because of operational concerns (e.g. use of permeable pavers in the bus movement areas) it has modified the site design plans in significant ways to respond to the Panel.

Analysis

Adjacency:

- The overall form and massing of buildings on site complies with OCP Guidelines.
- As the site grades will be above surrounding grade elevations, light barriers (i.e. walls) have been placed at selected locations to minimize impacts to passing vehicles particularly adjacent to Westminster Highway.
- A 30m wide landscape strip has been retained between the Transit Centre Facility, the residential properties and the Hamilton Daycare (under construction) providing a buffer between the different land uses. The landscape strip was dedicated to the City through Rezoning (RZ 09-484669) and is now addressed as 23751 Westminster Highway.
- Portions of the perimeter fencing are combined with short solid walls placed at an angle to the property line along Westminster Highway to provide see-through permeability rather than being entirely blocked keeping the site visually more open to the public and adding interest to that long side of the site exposed to direct views.
- Landscaping treatments are used to soften the frontage interfaces with both Boundary Road and Westminster Highway.

Urban Design and Site Planning:

- Site planning clearly differentiates the bus service and parking area from the employee/visitor parking areas.

- Grade elevation changes (i.e. visitor and staff parking area is at 4.3m GSC while the main bus maintenance centre and bus movement area is at 3.5m GSC) allow for better use of the site despite having a dike right of way along the northern property boundary and reduce the visual impact of the large paved area.
- Regular staff/visitor and bus access is entirely off Boundary Road.
- Emergency access points have been provided off both Westminster Highway and Boundary Road.
- Accommodation is made for approximately 300 buses and 295 staff and visitor vehicle parking stalls plus an additional 6 motorcycle stalls. A detailed analysis of the parking requirements was undertaken. Staff and visitor parking provided exceeds the City's Parking Bylaw requirements by 186 spaces. The number of parking stalls provided reflects the nature of the business and Translink's operational needs for the site.
- Bicycle parking stalls provided fully meet the Zoning Bylaw requirements (i.e. 25 Class 1 stalls and 25 Class 2 stalls provided).
- Transportation Demand Management (TDM) measures incorporated into the above provisions have reduced parking demand by 42 spaces. TDM measures include reservation of 20 parking stalls for carpools and car share, provision of fleet cars for employee use, free transit passes for employees and secure bicycle parking spaces plus shower and locker facilities.
- The location of the maintenance building (the largest building on the development site) is exposed to views from Westminster Highway and Boundary Road. In addition to the Waste Water Treatment building which anchors the south-west corner of the site at Westminster Highway and the Boundary Road intersection, these two buildings fill a good portion of this site minimizing and screening views toward the large paved bus parking area that occupies more than half of the 73,000 m² site.
- An outdoor amenity area is provided near the service delivery building for employee use.
- Garbage and recycling will be handled by private contractors. The site will have a trash compactor and bins for cardboard and plastic products. Given the nature of the maintenance centre operations provisions have been made for the proper disposal of special wastes such as tires, oils, antifreeze and other similar products. Permanent on-site tanks will be located in the Maintenance building for collection of antifreeze and oil. The site will also have programs for proper disposal of batteries, scrap metal and large garbage items such as broken seats, etc.
- Both Boundary Road and Westminster Highway frontages will be well landscaped creating a green edge. Portions of the fencing along Westminster Highway will allow for framed views through to the buildings within the site.
- Wheelchair accessible access points are provided to the site from Boundary Road and six handicapped parking stalls are located near the entrance to the Service Delivery Building.

Architectural Form and Character:

- Building form, material use and colour combine to provide an interesting and attractive facility. The paint palette was revised following suggestions by the Advisory Design Panel to add a bit more vibrancy to the overall appearance.
- Touches of green and yellow have been added to help create a more cheerful expression of the buildings, especially the large dominant maintenance building.
- The primary buildings typically use smooth face concrete blocks at lower levels and a pre-finished insulated metal panel system for upper levels. Glazing elements are well

dispersed across all the buildings providing internal natural lighting and visual enhancement to the building exterior.

- Roof lines on the primary buildings mainly flat behind parapets with elevated and sloped roof elements providing clerestory natural light to the interior of the Maintenance and Service Delivery buildings. Roof pitches are also carried through to the Waste Water Treatment building as a unifying design element.
- The street facing side of the Waste Water Treatment Facility is being designed with see through glazing to provide a view to the interior of the structure from the street. The building will also display the facility's name and the company logos for both Translink and Coast Mountain Bus Company. This building anchors the south west corner of the site and is intended as an urban landmark.

Landscape and Open Space Design:

- Translink dedicated a 7547 m² (1.86 acre) treed parcel of land to the City for park purposes as part of site's Rezoning (RZ 09-484669 adopted November 8, 2010). After removal of 33 hazard trees a total of 141 bylaw sized trees were retained on the park land.
- 233 bylaw sized trees have been removed from the development site through a tree removal permit issued in October, 2011. Bonding for replacement trees was secured as part of that permit. The tree replacement plan provides for 100 trees to be installed on site and an estimated 25 trees off-site. After applying credit for the 141 bylaw sized trees retained on the area transferred to the City the development will result in a shortfall of 59 trees based on the OCP objective of two for one replacements. This shortfall will be addressed through either the cashing of part of the bond or additional tree planting in the City Park or other acceptable locations via the Servicing Agreement.
- Landscaping nodes have been incorporated into the employee/visitor parking area. No planting is proposed over the east-west dike area. Gravel infiltration strips have also been added to the employee/visitor parking area to reduce storm water runoff.
- Landscaping has also been incorporated onto the sloping grade change area between the bus operations and the employee/visitor parking area.
- The balance of the landscaping occurs in the perimeter off-site areas due to the operational needs of the facility.
- Plant selections have been purposely chosen to ensure low maintenance and low to no watering requirements.
- A bioswale strip, rain garden and mass vegetation planting is proposed along the street boulevard interface slopes. The details of these features will be addressed through the Servicing Agreements for the project. Slopes between the frontage boulevards and the site will be no more than 1 in 3 slope. Trees will be clustered to provide a more natural appearance. A variety of shrubs and groundcovers will be planted in large masses to establish a large natural landscaped area between the rain-garden and the property line. Under the Boulevard Maintenance Bylaw, Translink and their associates, will be responsible for maintaining the bioswale / rain garden and associated vegetation along their frontage with Westminster Highway. The City's Engineering Department will be reviewing the Servicing Agreement plans and will work with Translink to clarify the maintenance role with them.
- An outdoor patio amenity for employees is provided adjacent to the Service Delivery building's lunchroom.

- A combination of black welded mesh fencing and short staggered board formed concrete walls that have been placed in an angle extending from the north-east corner of the site to the extreme south-west corner of the dedicated park allow views from the street at some locations and prevent headlight distractions from reaching the adjacent roadways in other locations. The light barrier fencing will extend around the corner approximately 4 metres from the intersection of the southern property line and Westminster Highway. A black non-climbable chain link fencing will be used along the west and north boundaries as well as between the bus access off Boundary Road and the staff/visitor parking lot.

Crime Prevention Through Environmental Design:

- The welded wire mesh fencing employed from the north-east corner of the site to the extreme south-west corner of the dedicated park as well a black chain link fence between the two halves of the site (i.e. between employee/visitor parking area and the bus operations area) will all be non-climbable inhibiting unauthorized access to the site.
- The wire mesh fencing provides visual observation into the site from portions of the adjacent streets.
- Closable gates are located at the main entrances to both the Service Delivery area and the Bus Maintenance facility allowing for closure at night time or as required. The gates are setback from the frontage road to prevent traffic backing up or queuing on the road.
- Outside downward yard lighting will be sufficient to provide a safe working environment while also controlling excessive stray lighting from off site areas.
- Space differentiation between public and private space is reinforced by landscaping, fencing elements, entrance gateways and grade differentials. Frontage improvements via the Servicing Agreement will result in street lighting upgrades along both Westminster Highway and Boundary Road.

Green Roof Bylaw Compliance

- Consistent with Richmond's Green Roofs & Other Options Involving Industrial & Office Buildings Outside the City Centre (Bylaw 8385), the applicant has elected to address the Bylaw requirements through the Deemed Compliance pathway under Section 8 of the regulation by a combination of building and site features and systems. The proponent's approach will include:
 - Direct discharge to the Fraser River for 100% of the site's surface storm water resulting in no discharge to the City's storm system;
 - Building designs aimed at meeting LEED Silver ratings (refer to the project's preliminary LEED checklist provided in **Attachment 3**); and
 - Both off-site and on-site landscaping enhancements that result in a minimum doubling of the landscaping required for the site. Enhancements will include frontage vegetation enhancements, a bioswale and amenity area and additional planting within the adjacent dedicated park.

The approach will be finalized with the building permit plan submission. Planning and Development Staff and Building Approval Staff are supportive of the above approach and believe that it will fully address the City's Green Roof Bylaw requirements.

Dike Improvements

- Dike improvements are being undertaken both off-site and on-site in response to Rezoning Considerations and will be designed under one or more Servicing Agreements. Two areas of dikes (i.e. one segment along the northern property line running east-west

and a second segment in parallel to the blind channel along the Fraser River) will be raised to 4.3m GSC and have the ability to be raised to 5.0m if required in the future. Translink's obligations toward the foreshore dike improvements are limited to a financial commitment of \$957,200 under their agreement with the City. Since the agreement was struck with Translink, the Provincial Diking Authority has subsequently changed the requirements for dikes in the lower mainland to address seismic requirements. Translink, the Ministry and City Staff are working together to evaluate the best approach for addressing the approximately 274m length of foreshore dike that will need to be upgraded. A final determination on which approach to take will be made through the Servicing Agreement once the options have been evaluated.

- The on-site dike is being integrated into the staff/visitor parking lot that runs along the northern property line and is being designed to the same 4.3m GSC elevation. Trees within the parking lot will be located outside of the dike right-of-way.

Environmentally Sensitive Area (ESA) Designation

- A thirty metre wide ESA buffer area from the high water mark of the Fraser River to the north of the subject property. The designation encroaches into the site along the north-west property boundary that parallels the foreshore by approximately 15 to 18 metres. Most of the area within the designated ESA was paved or gravel and contained no significant vegetation. A single on-site mature cottonwood tree within the ESA was identified along with 3 other mature cottonwood trees located within the City's dike right of way. All of these trees will be removed to accommodate the dike improvements and grade changes to the site. The single on-site tree will be replaced as part of the tree replacement planting plan for the site. With the site's redevelopment, the on-site area within the 30m ESA buffer from the Fraser River will be paved to accommodate bus parking. The area of encroachment was more than offset by the 7,547 m² (1.86 acre) treed parcel of land that was dedicated to the City as part of site's Rezoning (RZ 09-484669).

Communications Towers

- Two communications towers are proposed for the site – one owned and operated by Translink and a second owned and operated by Telus.
- The Translink communications towers will be for private communications purposes and will be within the heights permitted under the site's "Light Industrial (IL)" zoning maximum of 20m.
- The Telus tower is a pre-existing cellular communications tower that is being relocated on the site and heightened. The existing tower is approximately 30m high. Telus is proposing to increase the height to approximately 37.5m. A separate Development Variance Permit will be sought for this cellular communications tower in accordance with the City's Telecommunication Antenna Consultation and Siting Protocol Policy No. 5045. It is anticipated that one or more public consultation processes will occur as part of that review process.

Servicing Capacity Analysis

- A servicing capacity analysis was undertaken as part of the Rezoning review (RZ 09-484669).
- The capacity analysis concluded that frontage storm sewer lines must be upgraded to a minimum 600mm diameter and frontage water lines must be upgraded to 150mm in

locations where this standard has not already been met. No requirements were made for sanitary line improvements.

- An existing on-site water main is to be abandoned as it has been determined that the line is no longer required.
- A portion of the site storm drainage in the vicinity of the bus parking lot will be directly discharged through the dike out to the Fraser River. The necessary legal agreements will be prepared as part of the Servicing Agreement for the site.
- Oil and grease from the maintenance operations will be treated on site in the waste water treatment building before being discharged to the City's sanitary system.

Ministry of Environment (MOE) Approval

- Under the Rezoning (RZ 09-484669) several locations on the property were identified as requiring environment remediation due to contamination. To date, the MOE has issued four Certificates of Compliance (CoC) for the site however none provide a release to the local government to allow a Development Permit to be issued. Translink's consultants are working with MOE to resolve the remaining concerns and have the final releases issued. The issuance of either a final CoC or an instrument of release from MOE will be required prior to the Development Permit being issued.

Conclusions

Staff are recommending that the Hamilton Transit Centre Development Permit application at 4111 Boundary Road be supported. This is a significant facility for Translink, Coast Mountain Bus Company and the City of Richmond. The proposed design is high quality and well laid out providing a number of significant benefits to the Hamilton area and the greater region.



David Brownlee
Planner 2

DCB:cas

The following are to be met prior to forwarding this application to Council for approval:

- Receipt of a Letter-of-Credit for landscaping in the amount of \$371,649.60 (based on the estimate provided by Durante Kreuk dated Sept. 13, 2012), plus an additional \$29,500.00 as compensation/bonding for the shortfall of 59 replacement trees removed from the site under the tree removal permit as noted in the staff report.
- Proof of issuance of a final Certificate of Compliance or an acceptable instrument of release by the Ministry of Environment for the development site.
- Discharge of No Build Covenant (Charge No. 1717321) registered on Title subject to the following being resolved to the satisfaction of the City:
 - a. The owner entering into servicing agreement(s) with the City for works including but not limited to frontage works along Boundary Rd and Westminster Hwy, intersection improvements at Westminster Hwy and Boundary Rd, dike upgrades and site service connections as identified in the rezoning considerations for the site;
 - b. The owner entering into a legal agreement(s) ensuring that all sediment and oil separation facilities installed, either for direct discharge of surface storm water to the Fraser River or for discharge via the City's storm sewer system, will be maintained in good working condition and allowing the City to enter onto the property to undertake such maintenance should the property owner fail to do so;
 - c. The city receiving confirmation from the Ministry of Environment that it has no restrictions against any building/demolition permit being issued for the site;

- d. The city has received both the waiver of latecomer agreements and the “prime contractor” letter from the owner.

Prior to future Building Permit issuance, the developer is required to complete the following:

- The applicant is required to obtain a Building Permit for any construction hoarding associated with the proposed development. If construction hoarding is required to temporarily occupy a street, or any part thereof, or occupy the air space above a street or any part thereof, additional City approvals and associated fees may be required as part of the Building Permit. *For further information on the Building Permit, please contact Building Approvals Division at 604-276-4285.*
- Confirmation of Green Roof Bylaw Compliance.
- Submission of a construction traffic and parking management plan to the satisfaction of the City's Transportation Division (<http://www.richmond.ca/services/ttp/special.htm>)
- The Owner has satisfied all the Rezoning Considerations and the Lands have been rezoned.
- The Owner has satisfied all building permit requirements (including, submission of a Construction Parking and Traffic Management Plan to the Transportation Division which shall include location for parking for services, deliveries, workers, loading, application for any lane closures, and proper construction traffic controls as per Traffic Control Manual for works on Roadways (by Ministry of Transportation) and MMCD Traffic Regulation Section 01570).



City of Richmond

Development Application Data Sheet

Development Applications Division

DP 10-535726

Attachment 1

Address: 4111 Boundary Road

The South Coast British Columbia Transportation

Applicant: Authority ("Translink")

Owner: Translink

Planning Area(s): Hamilton

	Existing	Proposed
Site Area:	73,343.3 m ²	73,343.3 m ²
Land Uses:	Vacant	Bus Operations and Maintenance Facility
OCP Designation:	Business and Industry	Same
Zoning:	Light Industrial (IL)	Same
Other Designations:	Environmentally Sensitive Area Designation 30m buffer from the High Water Mark of the Fraser River. The area under designation is mostly paved.	Same

	Bylaw Requirement	Proposed	Variance
Floor Area Ratio:	Max. 1.0	0.21	none permitted
Lot Coverage:	Max. 60%	17.8%	none
Setback – Front Yard (m):	Min. 3.0 m	Min 3.0 m	none
Setback – Side Yards – Exterior (m):	Min. 3.0 m	Min. 3.0 m	none
Setback – Side Yards – Interior (m):	0 m	Min. 3.0 m	none
Setback – Rear Yards (m):	0 m	Min. 0 m	none
Height Buildings (m):	12.0 m	12.0 m	none
Height Structures (m):	20.0 m	20.0 m	none
Lot Size:	No Minimums	73,343.3 m ²	none
Off-street Parking Spaces – Total:	Employee/Visitor: 127 Bus Storage: none	Employee/Visitor: 295 Bus Storage: 300	none
Accessible Spaces	3	6	none
Bicycle Parking Stalls	Class 1: 25 Class 2: 25	Class 1: 25 Class 2: 25	none
Loading Spaces for Non-Residential	Medium Size: 3 Large Size: 2	Dedicated Spaces: Medium Size: 4 Large Size: 2 Un-dedicated Spaces: Large Size: 3	none

Other: Tree replacement compensation required for loss of Bylaw sized trees removed.

Excerpt from the Minutes from
The Design Panel Meeting

Wednesday, June 6, 2012 – 4:00 p.m.
Rm. M.1.003
Richmond City Hall

3. **DP 10-535726 – TRANSLINK BUS OPERATIONS AND MAINTENANCE FACILITY**

APPLICANT: South Coast British Columbia Transportation Authority
(Translink)

PROPERTY 4111 Boundary Road
LOCATION:

Applicant's Presentation

Joe Malmead, Translink Representative, Sean Kennedy, Genivar, Architect Ian McKay, Principal, PBK Architects, Inc. and Landscape Architect Dan van Maastrecht, Durante Kreuk Ltd., presented the project on behalf of the applicant.

Panel Discussion

Comments from the Panel were as follows [*Translink's responses are provided in bold italics*]:

1. Size of the project is considerable; drawings show good provision for access to all categories of staff, including people with disabilities; note that administration building provides accessible washrooms;

Acknowledged.

2. Very unfortunate that the applicant did not provide Panel with information regarding dyke public realm/park trail landscape including trail alignment and possible amenities in park or on waterfront that contributes to the public realm; this information is critical in view of the importance of this public space and the anticipated densification and improvements in Hamilton neighbourhood;

The Blind Channel Dike is on City of Richmond property, and does not form part of our Development Permit Application. Any discussion with respect to opportunities for amenities on the Blind Channel Dike should not be made in reference to this application. TransLink has made a contribution of the parkland itself in fee simple, as well as a cash contribution for trail development within the parkland. The City of Richmond may use these contributions as they see fit. {Staff note: Staff identified the fact that the park dedication occurred under the Rezoning and as such the park design was not part of the Translink Development Permit application.}

3. Concern on southeast corner in terms of separation between pedestrian movement and busy arterial road with high-velocity traffic; encourage redesign of Westminster Highway public realm to accommodate wider boulevard and sidewalk to protect pedestrians; slope in that edge may also be increased to accommodate suggested increase in separation;

The current speed limit on Westminster Highway in the vicinity of the HTC Development is 50km/h. The intersection of Boundary Road and Westminster Highway, at the southeast corner of the HTC site, will be modernized and improved by TransLink to include a traffic signal to control automobile, pedestrian and cycle traffic at this location. The City of Richmond is also developing a Day Care Centre to the west of this intersection, adjacent to the south limit of the TransLink property, and may wish to further restrict Westminster Highway traffic below the current speed limit. The boulevard between the sidewalk and the road at the corner of Westminster Highway and Boundary Road will be widened as far as possible without losing the bioswale water feature at that location.

4. Agree with staff comments to provide solid screening where glare or headlights from buses conflict with highway traffic;

TransLink agrees to improve screening, but does not agree to solid screening. The echelon layout of solid walls at the south-west corner is designed to screen westbound traffic on Westminster Highway from bus headlights while providing a sense of openness as viewed from other directions. {Staff note: Translink has extended the solid wall further west thereby ensuring that headlights from the buses at this critical point will not be an issue for motorists using Westminster Highway.}

5. Consider street tree planting in the boulevard between the sidewalk and the curb; standard servicing agreement would be needed as part of the roadway improvement;

Street trees will be added within the boulevard where width permits.

6. Functionality and operational efficiency of the facility is the driving force of the planning of the site; proposed development does little to improve the whole area because of the huge paved area; look at some pockets of areas which need not be paved and consider opportunities for landscaping;

Without the paved areas, this site would become redundant. It should be noted that significant contributions are being made to green space, including the 2.5 acres parkland contribution as well as perimeter and site green space.

7. Consider green roofs to improve the environment of the proposed development which looks dry and harsh;

The roofs of the buildings are designed to meet the requirements of LEED Credit SS7.2 Heat Island Effect: Roof. In lieu of a green roof, the project aims to comply with the City of Richmond Bylaw 8385 (Green Roofs and Other Options involving Industrial & Office Buildings Outside the City Centre) through direct compliance with paragraphs 6 and 7, as follows:

Paragraph 6

Provision of a stormwater management system that reduces the volume of stormwater entering the City's storm system by 100%. The system will use a combination of infiltration, collection and treatment, with the outflow being

discharged directly to the Fraser River. A preliminary system design has received approval from FREMP, which includes DFO in the review process.

Paragraph 7

Provision of landscaped area greater than double that required by the City's Zoning and Development Bylaw. Approximately two thirds of the landscaping will be provided on the project site. The remainder will be provided immediately south of the site, on the Westminster Highway Right of Way and will include a bioswale and public amenity space.

8. Building character is appropriate to the use of the building; proposed development is not really intended to improve the streetscape; however consider using different coloured materials for the light screens to enhance visual appeal to pedestrians and motorists;

Agreed. It is proposed that narrow bands of colour be incorporated into the concrete screen walls, reflecting a colour (or colours) used on the building.

9. Consider permeable pavers and some greens inside the yard to mitigate the harshness of the huge paved area;

See response to Item 6. For operational reasons, TransLink cannot agree to incorporating permeable pavers in the bus parking and circulation areas.

10. Good layout except for narrow landscape strip along the southwest portion of site along Westminster Highway; agree with planning staff that this landscaped strip needs to be widened;

The width of landscaping at the south-west corner of the site is constrained by operational requirements such as the radii of buses turning through 180 degrees out of the parking lanes. However, it has been determined that inner edge of the landscape strip can be straightened without compromising this movement significantly. This will increase the width of the landscape strip from its narrowest point at the south-west corner, allowing the path to be moved further from the highway edge.

11. Sections on dyke appear to show visual buffers; non-transparent and fully transparent fences need more work;

TransLink do not propose to block views of the development from the Blind Channel Dike although some screening will be provided in the form of climbing vines on the boundary fence. The building architecture, as well as the use of the site should not be considered offensive, given that the facility is on property zoned for Light Industrial use. The top of the Blind Channel Dike will be 800mm higher than the grade at which the buses circulate. In the future, this elevation difference will increase to 1.5M.

12. Building design and character are appropriate for an industrial building; massing is broken up through roof articulation;

Acknowledged.

13. Exterior finishes are appropriate;

Acknowledged.

14. Like the placement of the water treatment building as a signage element for the project; consider using more wood on the water treatment building; look at Wood First Act which requires buildings using public funds to incorporate wood first principles in the design of the buildings;

It is not TransLink's preference to feature wood in the exterior treatment of the WWTP; however, the CLT roof deck of this building, exposed at the eaves and partly visible through glazing, is intended to reference the sloped roof features of the main buildings on site.

15. Landscaping is generally good but very limited; should be more intensive along the edge;

Some intensification of planting can be considered. However, the green space contributions made in the form of the parkland should also be taken into consideration.

16. Applicant has done a good job in a challenging project considering its size and budget parameters;

Acknowledged.

17. Appreciate splashes of yellow; whimsical and good;

Acknowledged.

18. Use of gravel, troughs, bioswales and skylights are good environmental features;

Acknowledged.

19. Use brighter colours instead of gray particularly in buildings fronting the street to provide visual interest to pedestrians and motorists passing by the proposed facility;

A revised elevational treatment is proposed featuring bolder use of contrasting silver and grey tones complemented by brighter accent colours.

20. Site is in a key location and a gateway to Richmond; also visible from Westminster Highway and Highway 91; buildings should not be monotone but should stand out more; look at opportunity for signage at the corner of Boundary Road and Westminster Highway;

Acknowledged. With regard to tone, please refer to the response to item 19 above. TransLink is offering signage on the Wastewater Treatment Plant at the corner of Westminster Highway and Boundary Road.

21. Reconsider use of chain link fence; not visually appealing and exposes parked buses inside the facility; treatment of fences along the eastern half of Westminster Highway could be carried along to improve pedestrian and motorist experience along Westminster Highway; and

The fencing, used in conjunction with solid wall elements, along the site perimeter from the north-east corner of the site to the extreme south-west corner of the dedicated park (i.e. along the entire length of Boundary Road, Westminster Highway and both sides of the L-shaped park) will be visually more appealing

coated, welded wire mesh. The aim of the wall/fence combination is to provide a certain amount of screening while allowing the opportunity to observe or glimpse the buildings and on-site activity, enhancing natural surveillance, feelings of security and the overall experience of passing pedestrians, cyclists and motorists.

22. Landscaping is a bit skimpy; consider increasing green areas and adding some shading in the huge parking lot, particularly in the staff parking area.

The landscape islands within the staff parking area will be reconfigured and consolidated to maximize their area, allowing for the planting and growth to maturity of larger tree species without reducing the number of parking spaces or compromising the minimum widths required for vehicle movement and fire truck access.

Panel Decision

It was moved and seconded

That DP 10-535726 be supported to move forward to the Development Permit Panel subject to the applicant giving consideration to the comments of the Panel.

CARRIED

Opposed: Joe Fry



September 10, 2012

Project: **Hamilton Transit Centre (HTC)**
Subject: **LEED SILVER REPORTING**

PROJECT DESCRIPTION

The HTC project is a transit facility for Translink and operated by Coast Mountain, located at 4111 Boundary Road, Richmond and comprising 7 buildings and auxiliary buildings for a total of 14,761 s.m.

PROJECT SUSTAINABILITY GOALS

This project is pursuing a LEED® Silver certification under the LEED®-Canada NC 2009 rating system for the design and construction of this new facility. This work involves documenting LEED prerequisites and credits as required by the Canada Green Building Council (CaGBC) for an adequate number of credits to achieve a LEED Silver certification.

For this project a Green Building Consultant is overseeing the green building reporting. Recollective Consulting Inc, a leading sustainable design consulting firm, has been contracted to do this work.

LEED STATUS

The attached project's LEED scorecard outlines which credits are being pursued for this project at this time. The credits marked as "Yes" indicate credits for which the requirements are met or on track for being met. Those marked as either "?Y" or "?No" indicate credits that are being pursued, but for which feasibility and relevance is still being evaluated.

Yours truly,

RECOLLECTIVE

Sébastien Garon, MAIBC, LEED AP BD+C

Associate Member, Recollective Consulting Inc.

Recollective Consulting
T 604-669-4940
F 604-669-4945

www.recollective.ca
info@recollective.ca

109 – 5 West Pender Street
Vancouver BC Canada
V6B 1R3



Target LEED Rating: Silver
Current Rating: Certified
Latest Update: 2012-10-09

Material & Resources						
	Yes	TY	TN	No	Required	Required
Storage and Collection of Excesses					49P-1	1
Building Reuse: Maintain Existing Walls, Floors, and Roof					49P-1.1	1
Building Reuse: Maintain Interior Non-Structural Elements					49P-2.1	1
Construction Waste Management					MR-2	1
Materials Reuse					MR-3	1
Recycled Content					MR-4	1
Regional Materials					MR-5	1
Rapidly Renewable Materials					MR-6	1
Certified Wood					MR-7	1

Energy & Performance						
	Yes	TY	TN	No	Required	Required
Minimum Indoor Air Quality Performance					E0-1	1
Environmental Tobacco Smoke (ETS) Control					E0-2	1
Outdoor Air Delivery Monitoring					E0-3	1
Increased Ventilation					E0-4	1
Construction IAQ Management Plan: During Construction					E0-5.1	1
Construction IAQ Management Plan: Before Occupancy					E0-5.2	1
Low-Emitting Materials: Adhesives and Sealants					E0-6.1	1
Low-Emitting Materials: Paints and Coatings					E0-6.2	1
Low-Emitting Materials: Flooring Systems					E0-6.3	1
Low-Emitting Materials: Composite Wood and Agrifibre Products					E0-6.4	1
Indoor Chemical and Pollutant Source Control					E0-8	1
Controllability of Systems: Lighting					E0-9.1	1
Thermal Comfort: Design					E0-9.2	1
Thermal Comfort: Verification					E0-9.3	1
Daylight and Views: Daylight					E0-10.1	1
Daylight and Views: Views					E0-10.2	1

Innovation in Design						
	Yes	TY	TN	No	Required	Required
Innovation in Design: Water Treatment to 0 ppm					D0-1	1
Innovation in Design: Green Building Education					D0-1.2	1
Innovation in Design: Green Cleaning					D0-1.3	1
Innovation in Design: Reduced Mercury					D0-1.4	1
Innovation in Design: Green Exterior Management or Utility Bills Sharing					D0-1.5	1
LEED® Accredited Professional					D0-2	1

Regional Priority						
	Yes	TY	TN	No	Required	Required
Durable Building					RP-1	1
Regional Priority Credits: SS6-1					RP-1.1	1
Regional Priority Credits: WE3 (2-5%)					RP-2.1	1
Regional Priority Credits: MR2 (2-5%)					RP-2.2	1

Hamilton Transit Centre

LEED Canada-NC 2009 Summary Scorecard

Project Totals (un-certification estimates)										110 Possible Points									
Certified 44-47 points Silver 50-59 points Gold 60-75 points Platinum 80 points and above																			
Sustainable Sites										25 Points									
Construction Activity Pollution Prevention										Required									
Site Selection										1									
Development Density and Community Connectivity										3, 5									
Stormwater Management										3, 6									
Alternative Transportation: Public Transportation Access										3, 1									
Alternative Transportation: Bicycle Storage & Changing Rooms										3, 6									
Alternative Transportation: Low-Emitting & Fuel-Efficient Vehicles										3, 2									
Alternative Transportation: Parking Capacity										2, 1									
Site Development: Protect and Restore habitat										1									
Site Development: Maximize Open Space										1									
Stormwater Design: Quantity Control										1									
Stormwater Design: Quality Control										1									
Heat Island Effect: Roof										1									
Heat Island Effect: Pavement										1									
Light Pollution Reduction										1									
Water Efficiency										10 Points									
Water Use Reduction										Required									
Water Efficient Landscaping										2, 4									
Innovative Wastewater Technologies										2									
Water Use Reduction										2, 4									
Energy & Atmosphere										35 Points									
Fundamental Commissioning of Building Energy Systems										Required									
Minimum Energy Performance										Required									
Fundamental Refrigerant Management										1-19									
Optimize Energy Performance										1-7									
On-Site Renewable Energy										2									
Enhanced Commissioning										3									
Energy Performance Management										3									
Measurement and Verification										3									
Green Power										3									



City of Richmond

Development Permit

No. DP 10-535726

To the Holder: THE SOUTH COAST BRITISH COLUMBIA TRANSPORTATION
AUTHORITY ("TRANSLINK")

Property Address: 4111 BOUNDARY ROAD

Address: 1600 - 4720 KINGSWAY
BURNABY, BC V5H 4N2

1. This Development Permit is issued subject to compliance with all of the Bylaws of the City applicable thereto, except as specifically varied or supplemented by this Permit.
2. This Development Permit applies to and only to those lands shown cross-hatched on the attached Schedule "A" and any and all buildings, structures and other development thereon.
3. Subject to Section 692 of the Local Government Act, R.S.B.C.: buildings and structures; off-street parking and loading facilities; roads and parking areas; and landscaping and screening shall be constructed generally in accordance with Plans #1 to #12 attached hereto.
4. Sanitary sewers, water, drainage, highways, street lighting, underground wiring, and sidewalks, shall be provided as required.
5. As a condition of the issuance of this Permit, the City is holding the security in the amount of \$401,149.60 to ensure that development is carried out in accordance with the terms and conditions of this Permit. Should any interest be earned upon the security, it shall accrue to the Holder if the security is returned. The condition of the posting of the security is that should the Holder fail to carry out the development hereby authorized, according to the terms and conditions of this Permit within the time provided, the City may use the security to carry out the work by its servants, agents or contractors, and any surplus shall be paid over to the Holder. Should the Holder carry out the development permitted by this permit within the time set out herein, the security shall be returned to the Holder. The City may retain the security for up to one year after inspection of the completed landscaping in order to ensure that plant material has survived.
6. If the Holder does not commence the construction permitted by this Permit within 24 months of the date of this Permit, this Permit shall lapse and the security shall be returned in full.

Development Permit

No. DP 10-535726

To the Holder: THE SOUTH COAST BRITISH COLUMBIA TRANSPORTATION
AUTHORITY ("TRANSLINK")

Property Address: 4111 BOUNDARY ROAD

Address: 1600 - 4720 KINGSWAY
BURNABY, BC V5H 4N2

7. The land described herein shall be developed generally in accordance with the terms and conditions and provisions of this Permit and any plans and specifications attached to this Permit which shall form a part hereof.

This Permit is not a Building Permit.

AUTHORIZING RESOLUTION NO.
DAY OF , .

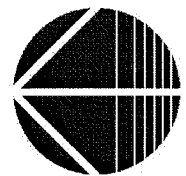
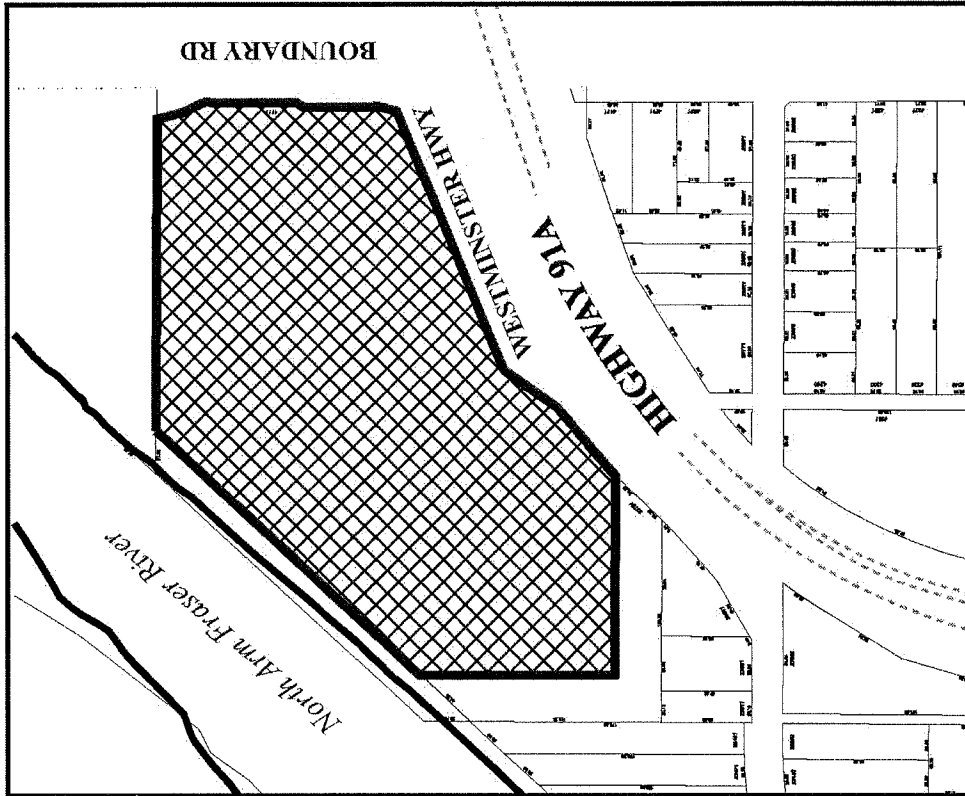
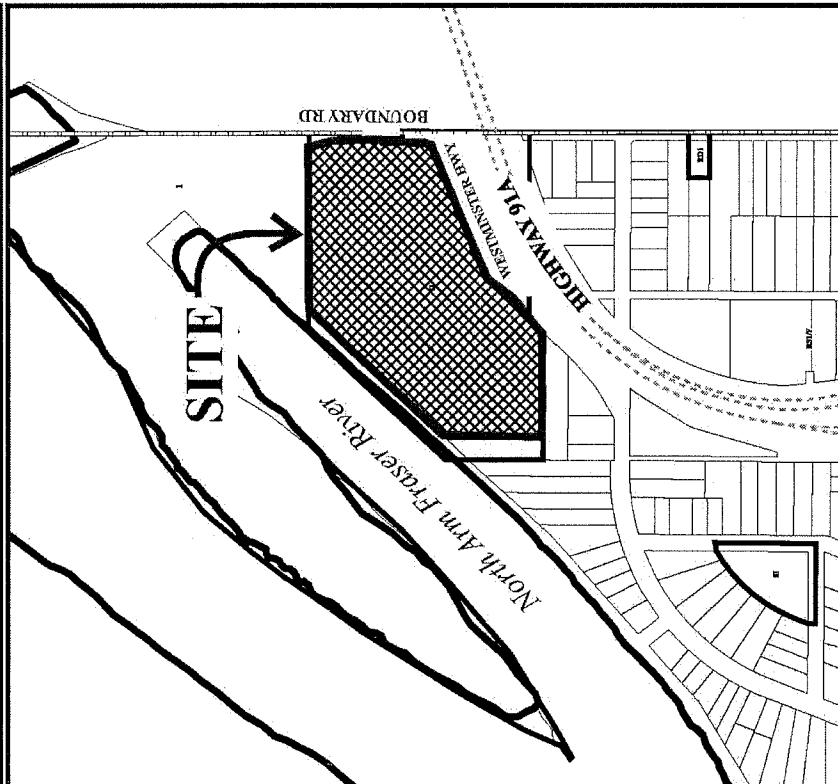
ISSUED BY THE COUNCIL THE

DELIVERED THIS DAY OF , .

MAYOR



City of Richmond



DP 10-535726 SCHEDULE "A"

Original Date: 06/30/10

Revision Date: 08/08/12

Note: Dimensions are in METRES



HAMILTON TRANSIT CENTRE



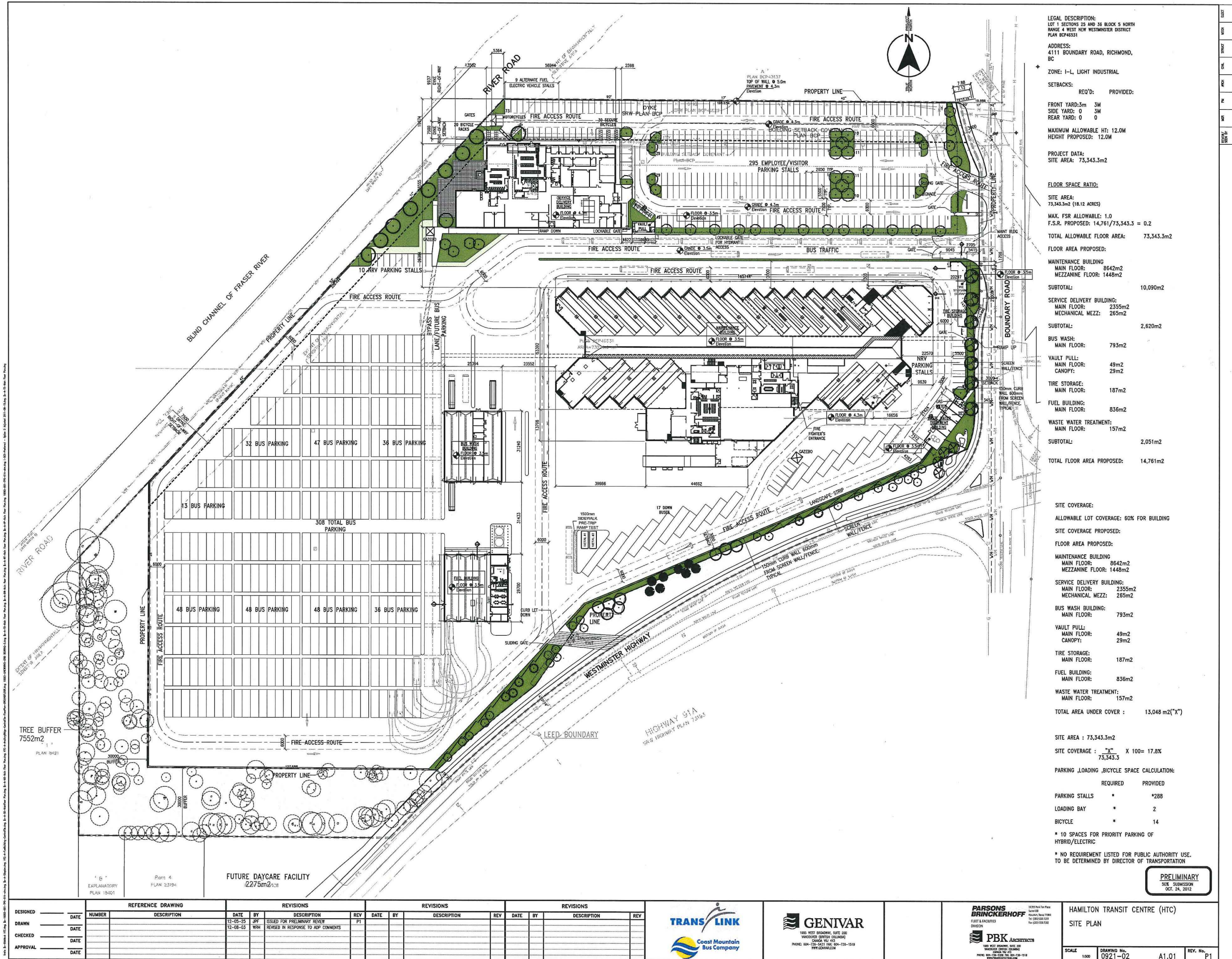
GENIVAR
1985 WEST BROADWAY, SUITE 200
VANCOUVER (BRITISH COLUMBIA)
CANADA V6J 4Y3
PHONE: 604-736-5421 FAX: 604-736-1519
WWW.GENIVAR.COM

PBK ARCHITECTS
1985 WEST BROADWAY, SUITE 200
VANCOUVER (BRITISH COLUMBIA)
CANADA V6J 4Y3
PHONE: 604-736-5329 FAX: 604-736-1519
WWW.PBKARCHITECTSINC.COM

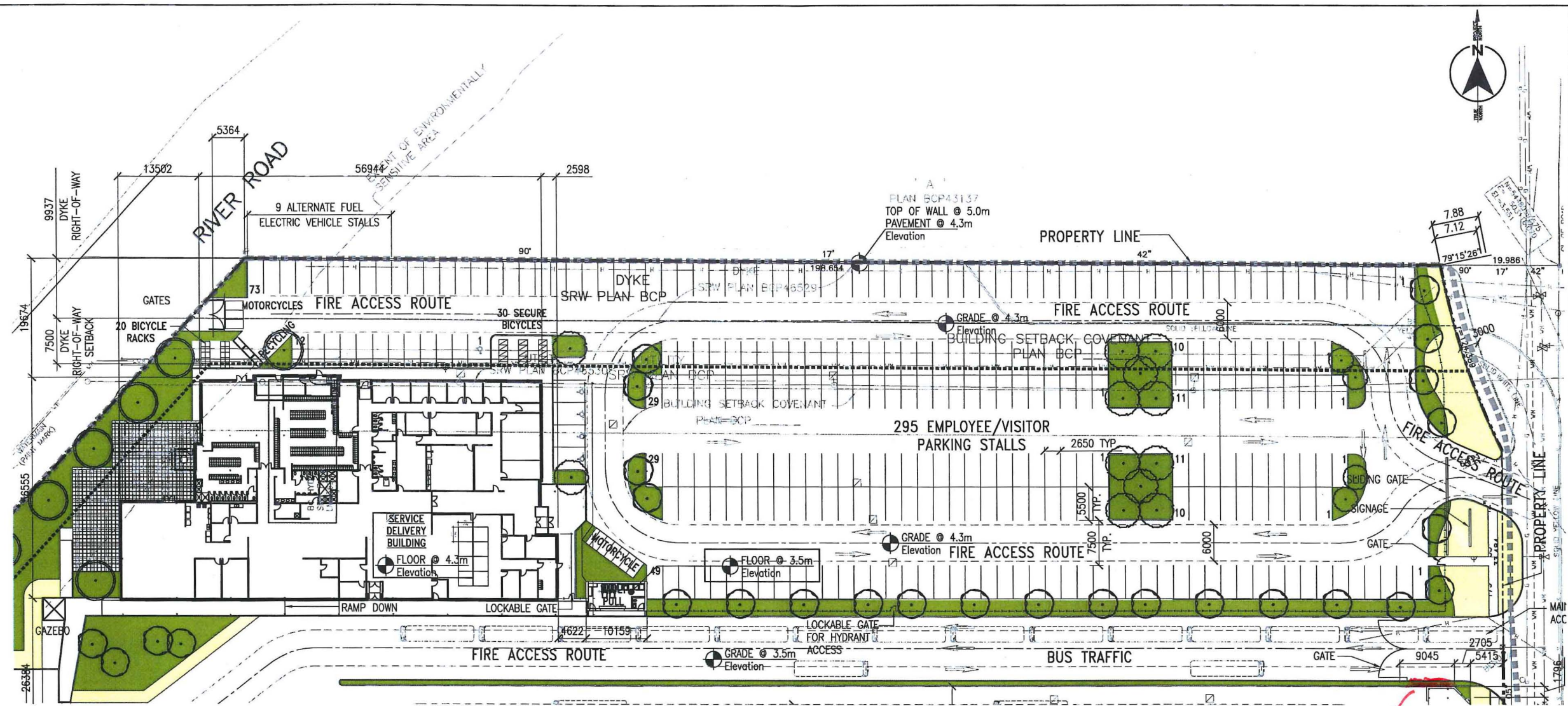
**PARSONS
BRINCKERHOFF**
FLEET & FACILITIES
DIVISION
16285 Park Ten Place
Suite 400
Houston, Texas 77084
Tel: (281) 558-7273
Fax: (281) 558-7282

durante kreuk
Durante Kreuk Ltd.
102 - 1637 West 5th Ave.
Vancouver BC V6J 1N5
t: 604 684 4611
f: 604 684 0577
www.dkl.bc.ca

DP APPLICATION
DP10-535726



DP 10535726
Plan #1
NOV 14 2012



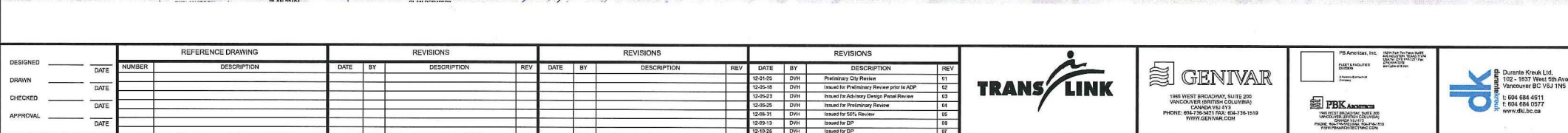
053726

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OCT 10 2012

PLANTING NOTES:

1. All work shall meet or exceed the requirements as outlined in the Current Edition of the B.C. Landscape Standard.
2. Plant sizes and related container classes are specified according to the B.C. Landscape Standard Current Edition. For container classes #3 and smaller, plant sizes shall be as shown in the plant list and the Standard; for all other plants, both plant size and container class shall be as shown in the plant list. Specifically, when the plant list call for #5 class containers, these shall be as defined in the BCNTA (ANSI) Standard.



		REFERENCE DRAWING		REVISIONS			REVISIONS			REVISIONS					
DESIGNED	DATE	NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION	REV	DATE	BY	DESCRIPTION	REV	DATE	BY	DESCRIPTION	REV
DRAWN	DATE											12-31-25	DWH	Preliminary City Review	01
CHECKED	DATE											12-29-25	DWH	Issued for Preliminary Review prior to ADP	02
	DATE											12-29-25	DWH	Issued for Machinery Design Final Review	03
	DATE											12-29-25	DWH	Issued for Preliminary Review	04
APPROVAL	DATE											12-28-31	DWH	Issued for SCA Review	05
	DATE											12-29-13	DWH	Issued for DP	06
	DATE											12-28-26	DWH	Issued for DP	07



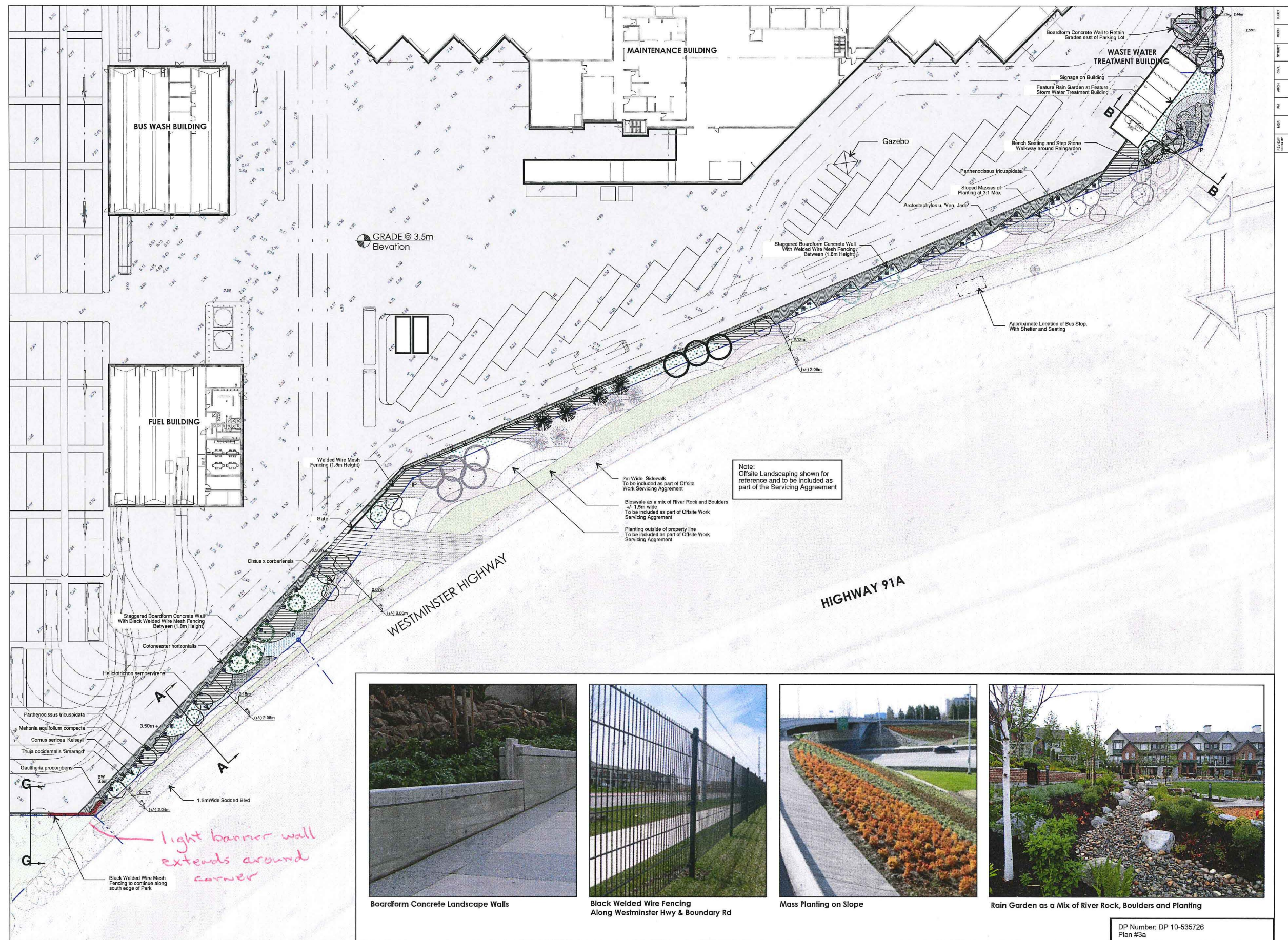
DP Number: DP 10-535726
Plan #3

HAMILTON TRANSIT CENTRE (HTC)

OVERALL LANDSCAPE PLAN

SCALE 1:500	DRAWING No. L-1	REV. No.
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DP 1035726 #3 P-2



Boardform Concrete Landscape Walls



Black Welded Wire Fencing Along Westminister Hwy & Boundary Rd



Mass Planting on Slope



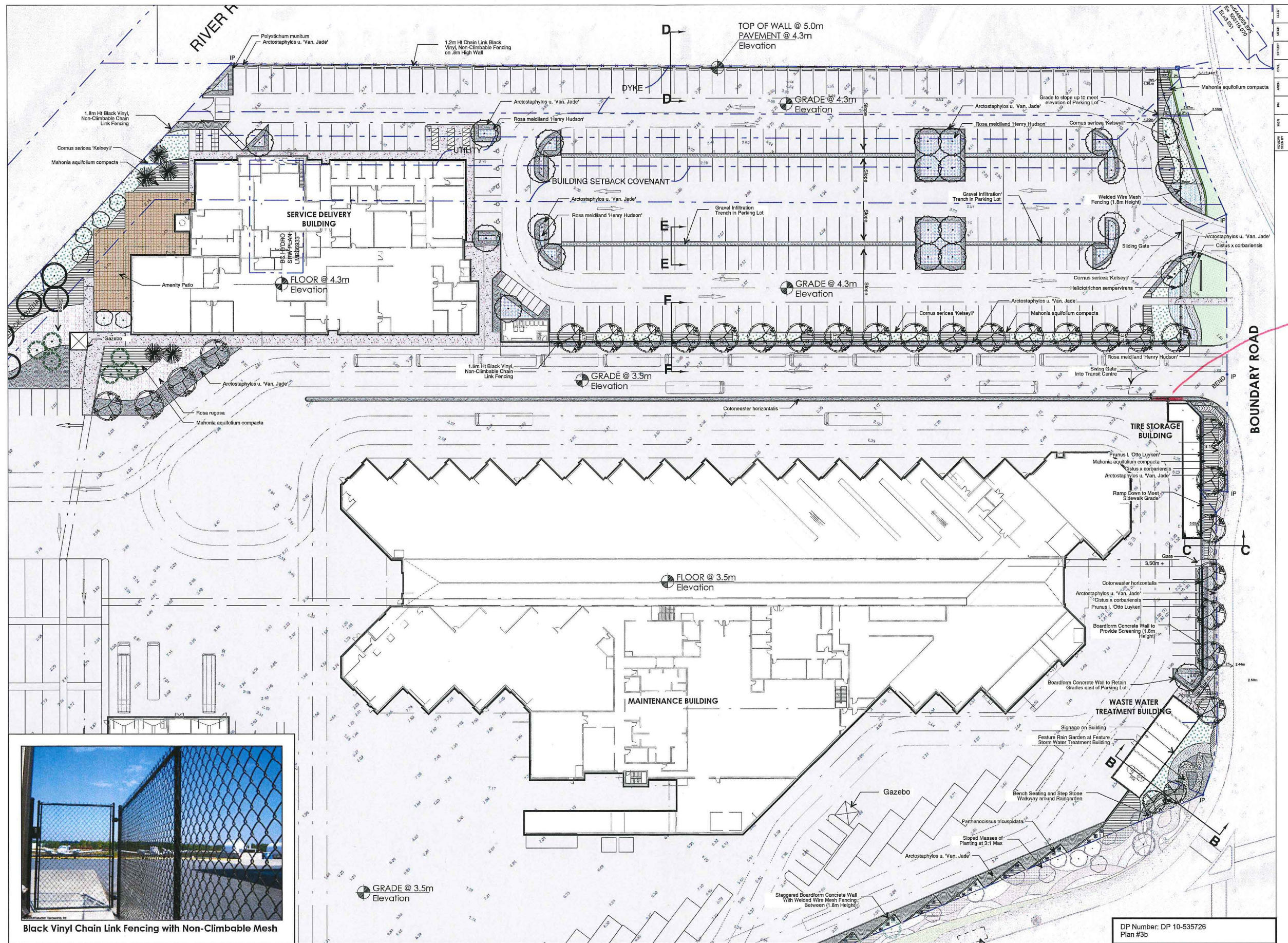
Rain Garden as a Mix of River Rock, Boulders and Planting

DESIGNED	DATE	NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION	REV	DATE	BY	DESCRIPTION	REV	DATE	BY	DESCRIPTION	REV
DRAWN	DATE														
CHECKED	DATE														
APPROVAL	DATE														



DP Number: DP 10-535726 Plan #3a
HAMILTON TRANSIT CENTRE (HTC)
LANDSCAPE PLAN
SOUTH
SCALE: 1:250
DRAWING NO: L-2
REV. No.

DP 10535726
Plan #3a
NOV 14 2012



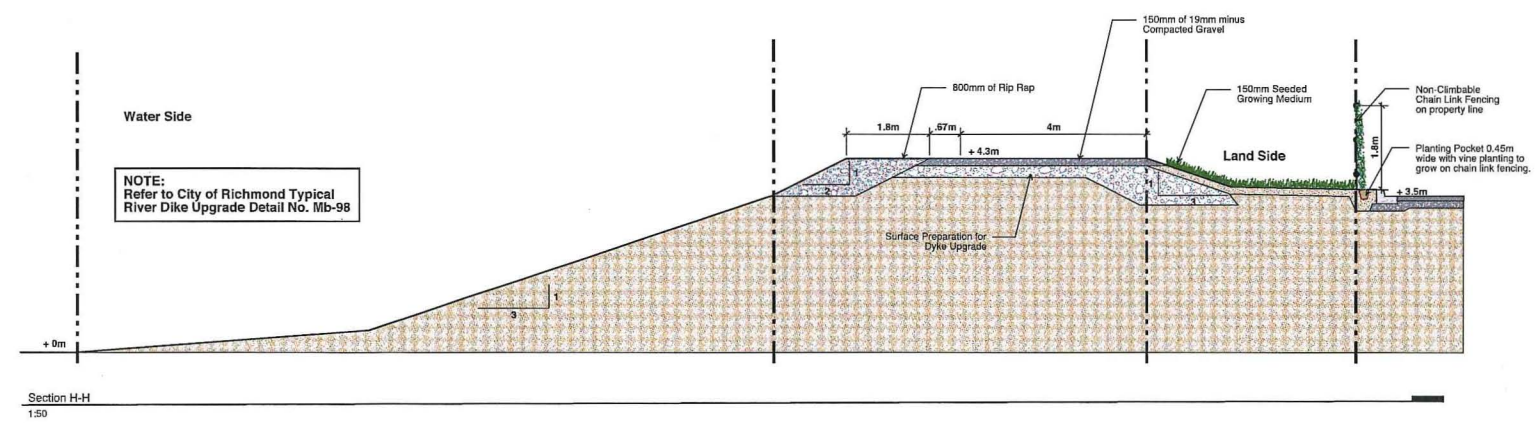
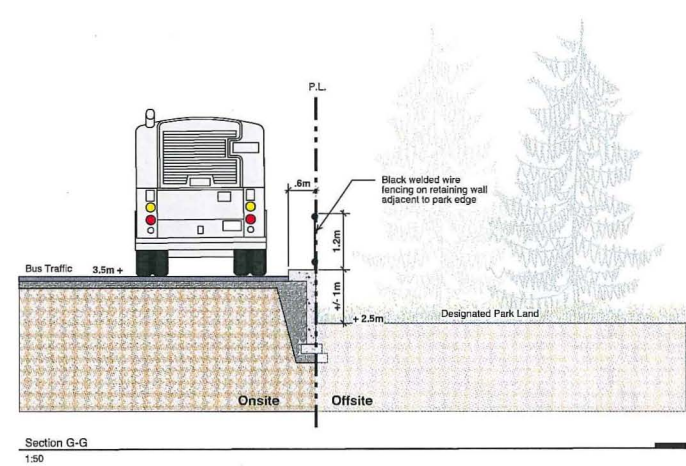
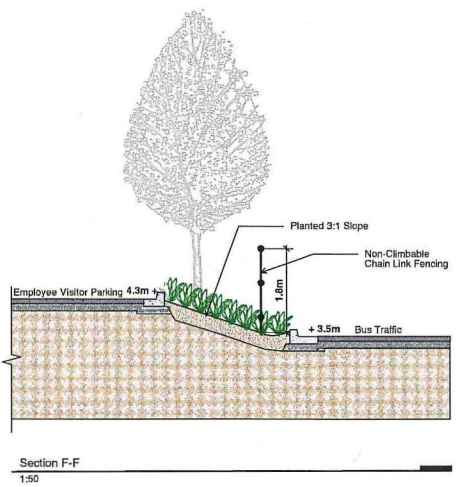
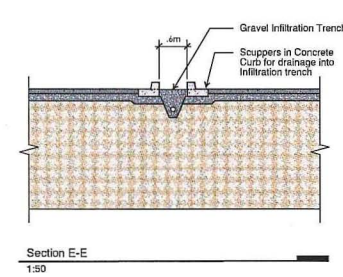
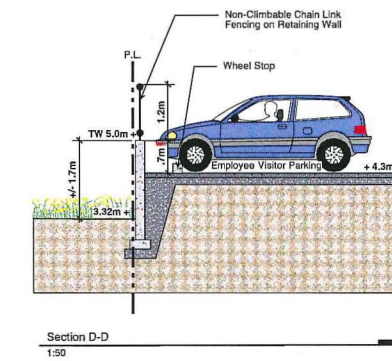
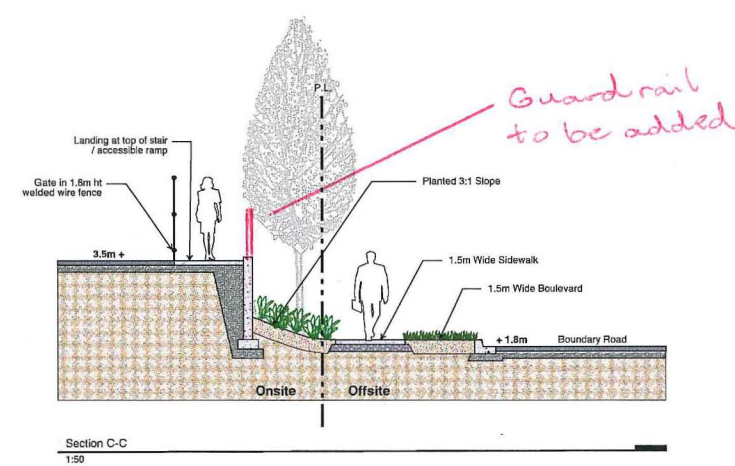
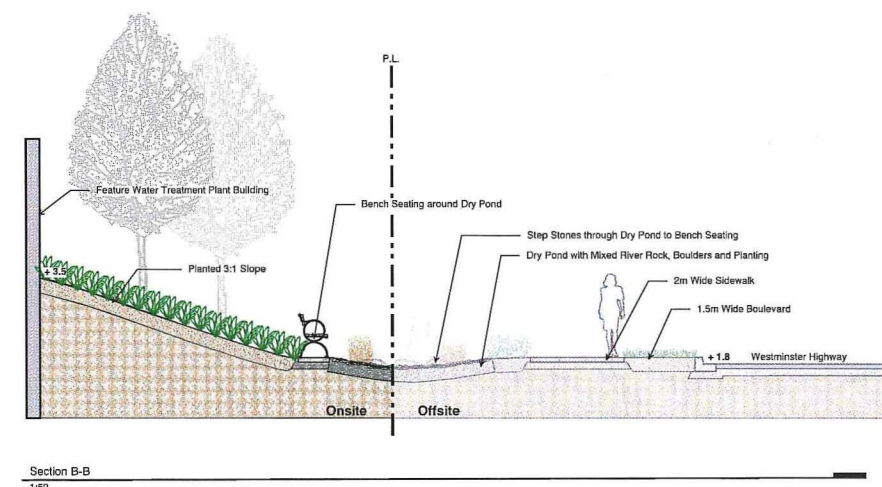
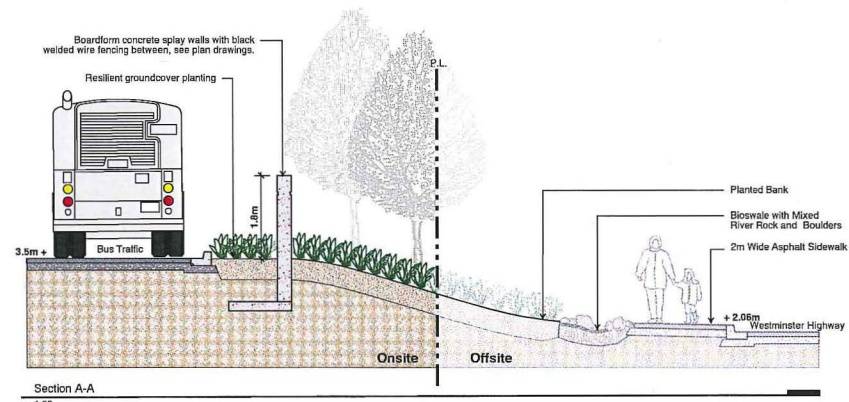
Black Vinyl Chain Link Fencing with Non-Climbable Mesh

DESIGNED	DATE	NUMBER	REFERENCE DRAWING	DESCRIPTION	DATE	BY	REVISIONS	REV	DATE	BY	REVISIONS	REV	DATE	BY	REVISIONS	REV
DRAWN	DATE															
CHECKED	DATE															
APPROVAL	DATE															



DP Number: DP 10-535726 Plan #3b
HAMILTON TRANSIT CENTRE (HTC)
LANDSCAPE PLAN
NORTH
SCALE: 1:250
DRAWING No: L-3
REV. No:

DP 10535726
Plan #3b
NOV 14 2012



DESIGNED	REFERENCE DRAWING		REVISIONS			REVISIONS			REVISIONS		
	NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION	REV	DATE	BY	DESCRIPTION	REV	DATE
DRAWN	DATE										
CHECKED	DATE										
APPROVAL	DATE										



DP Number: DP 10-535726 Plan #3c	
HAMILTON TRANSIT CENTRE (HTC) LANDSCAPE SECTIONS	
SCALE: 1:50	DRAWING NO: L-4
REV. NO.	

DP 10535726
Plan #3c
NOV 14 2012



SITE AERIAL VIEW



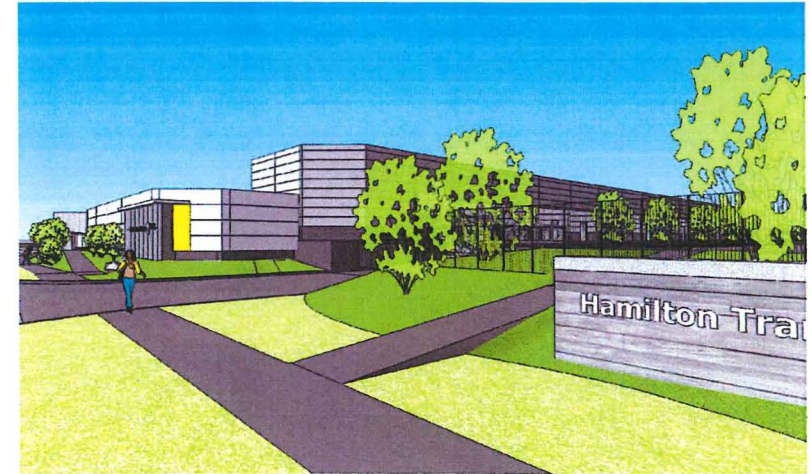
WASTE WATER TREATMENT BUILDING



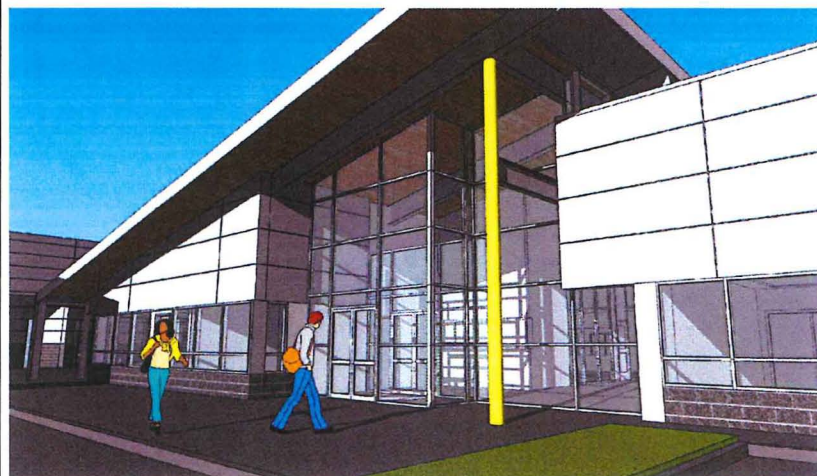
WESTMINSTER HIGHWAY LOOKING EAST



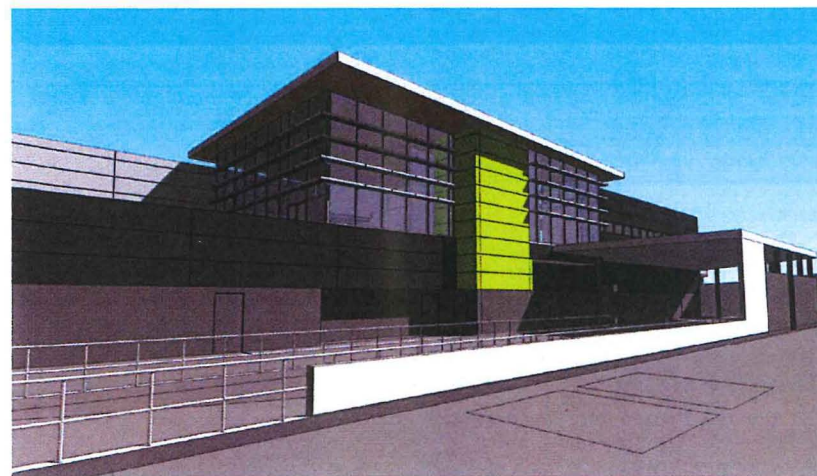
WESTMINSTER HIGHWAY LOOKING EAST



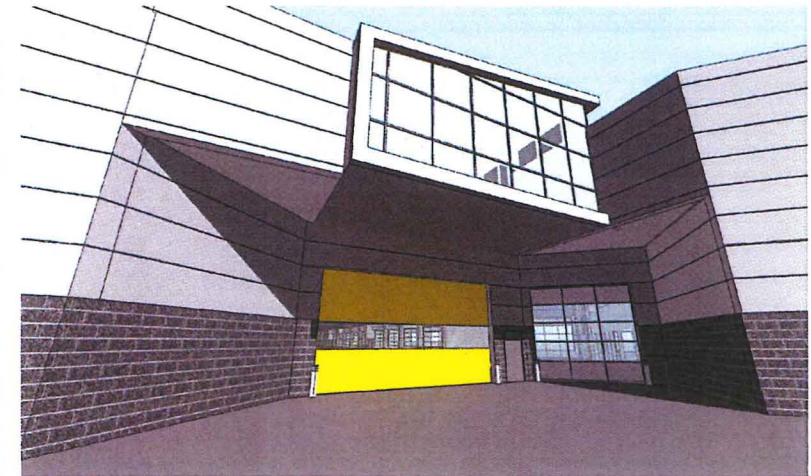
BOUNDARY ROAD MAIN GATE - BUS ENTRY/EXIT



SERVICE DELIVERY BUILDING MAIN ENTRANCE



MAINTENANCE BUILDING VIEW FROM SOUTH-WEST



MAINTENANCE BUILDING VIEW FROM EAST

DESIGNED	DATE	REFERENCE DRAWING		REVISIONS			REVISIONS			REVISIONS			REVISIONS		
		NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION	REV	DATE	BY	DESCRIPTION	REV	DATE	BY	DESCRIPTION	REV
DRAWN				12-06-10		ISSUED FOR PRELIMINARY REVIEW FROM TO ADP									
CHECKED				12-09-13	KC	ISSUED FOR DEVELOPMENT PERMIT	P2								
APPROVAL															



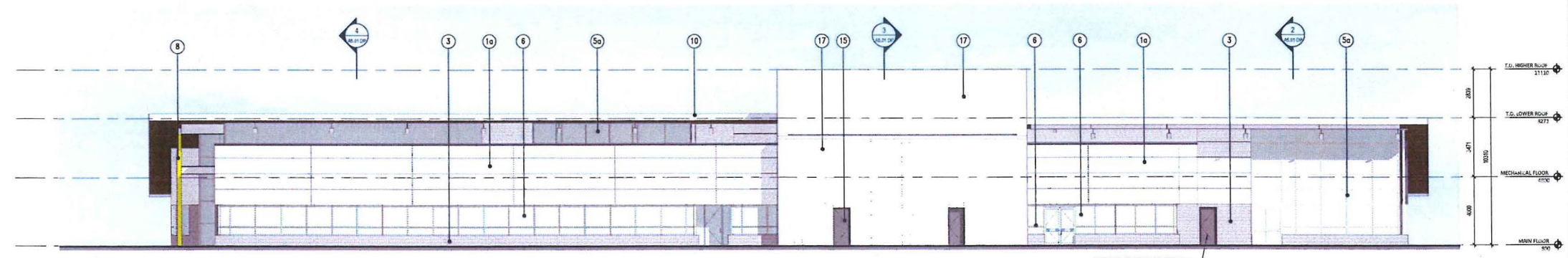
HAMILTON TRANSIT CENTRE (HTC)			
SITE PERSPECTIVES			
SCALE	N/A	DRAWING No.	0921-02 A1.03
REV. No.			P2

DP APPLICATION
DP10-335726
PLAN #4

DP 10535726

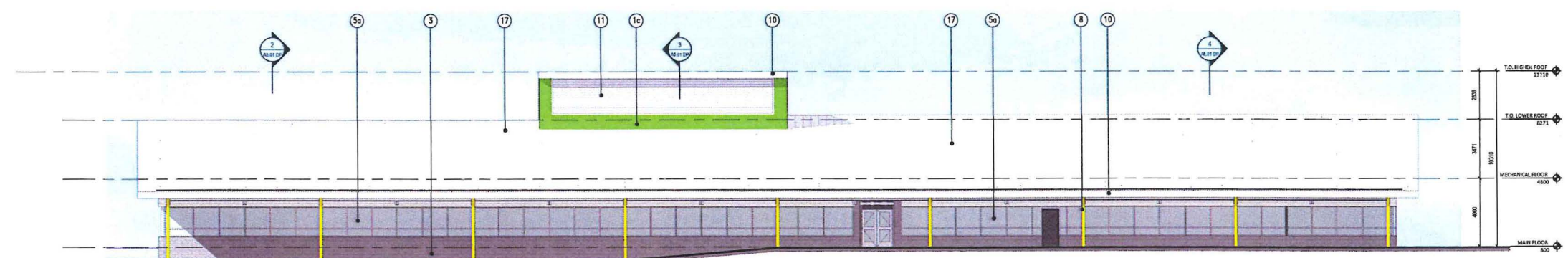
Plan #4

OCT 10 2012

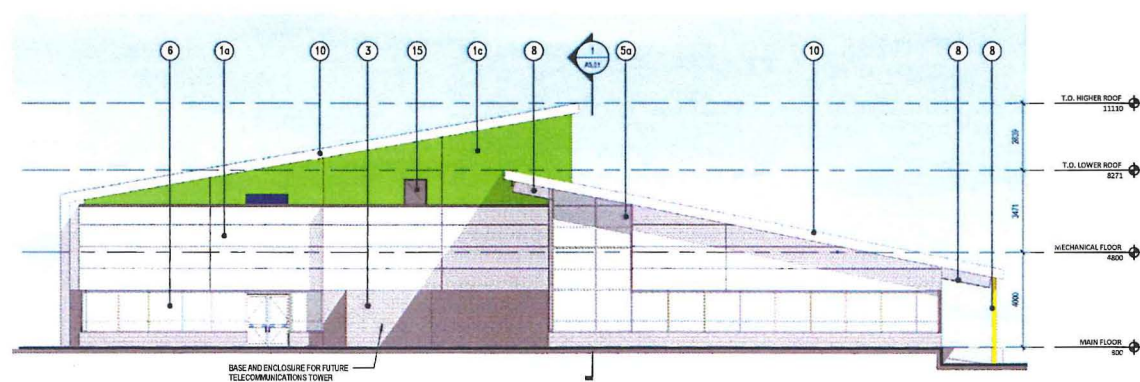


1 NORTH ELEVATION
1:100

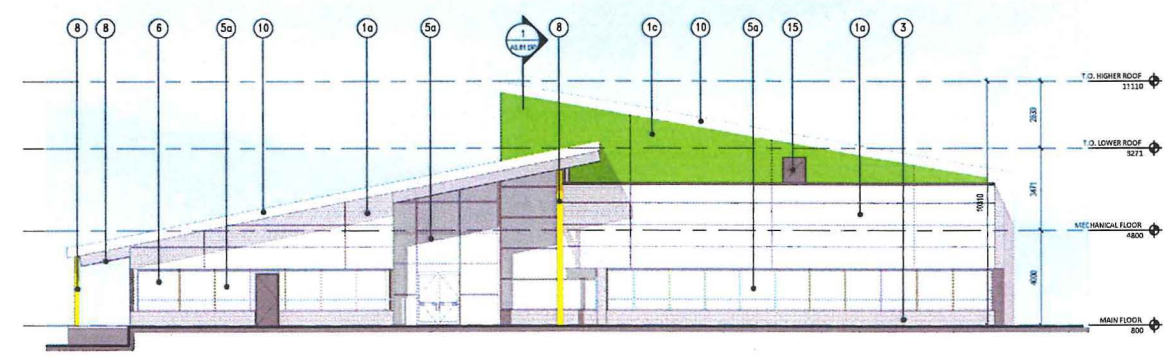
- MATERIAL LEGEND**
- 1a PRE-FINISHED METAL - COLOUR: LIGHT GREY
 - 1c PRE-FINISHED METAL - COLOUR: GREEN
 - 3 SPLIT FACE CONCRETE BLOCK
 - 5a PRE-FINISHED DOUBLE GLAZED ALUMINUM CURTAIN WALL
 - 8 PRE-FINISHED DOUBLE GLAZED ALUMINUM WINDOW
 - 10 PAINTED METAL STRUCTURE - COLOUR: YELLOW
 - 11 METAL FLASHING
 - 15 PRE-FINISHED METAL LOUVER
 - 17 PAINTED METAL DOOR & FRAME
 - 17 STANDING SEAM METAL ROOFING (GALVANLUME)



2 SOUTH ELEVATION
1:100



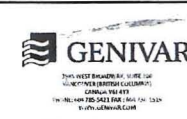
3 WEST ELEVATION
1:100



4 EAST ELEVATION
1:100

DE APPLICATION
Plan 66

DESIGNED		REFERENCE DRAWING		REVISIONS		REVISIONS		REVISIONS		REVISIONS	
DATE	NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION	REV	DATE	BY	DESCRIPTION	REV	DATE
			2012-05-18		ISSUED FOR PRELIMINARY REVIEW PRIOR TO ADP	P1					
			2012-05-23		ISSUED FOR ADVISORY DESIGN PANEL REVIEW	P2					
			2012-08-13		ISSUED FOR DEVELOPMENT PERMIT	P3					



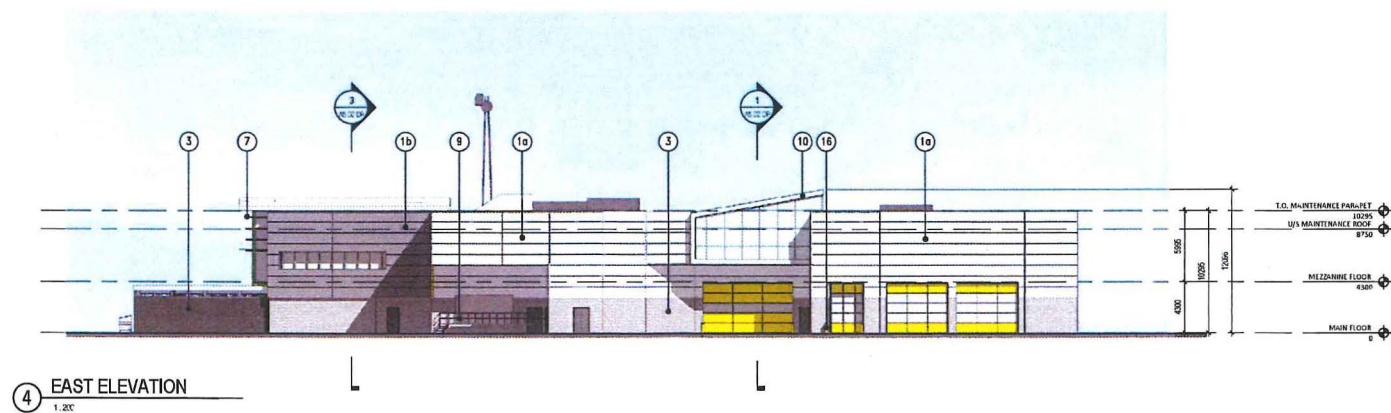
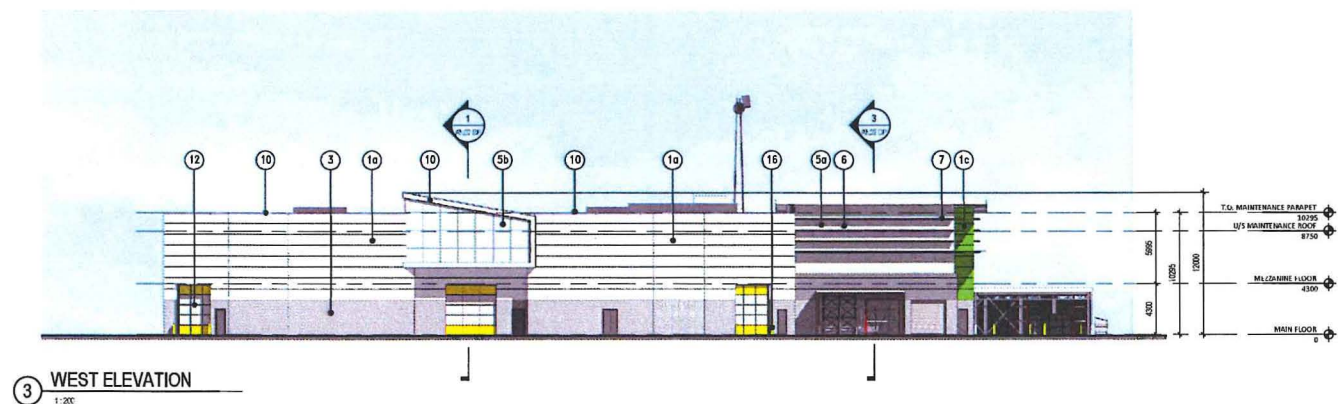
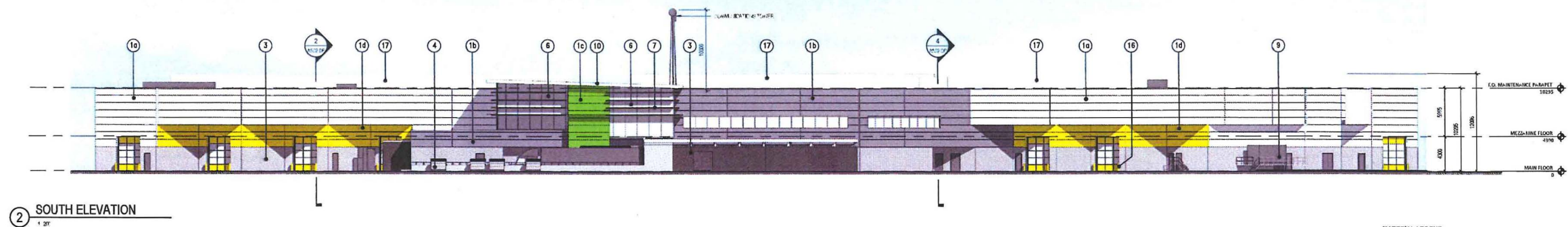
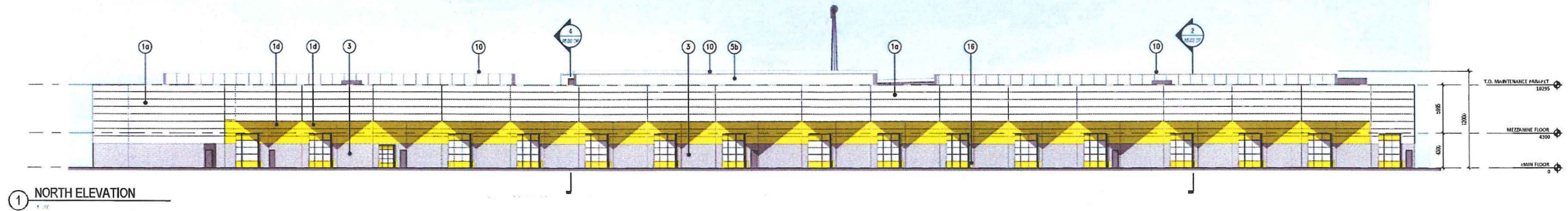
HAMILTON TRANSIT CENTRE (HTC)
SERVICE DELIVERY BUILDING -
ELEVATIONS

Scale: 1:100
Date: 0921-02 A4.01 DP
Rev: P3

DP 10535726

Plan #6

OCT 10 2012



- MATERIAL LEGEND**
- 1a PRE-FINISHED METAL - COLOUR: LIGHT GREY
 - 1b PRE-FINISHED METAL - COLOUR: DARK GREY
 - 1c PRE-FINISHED METAL - COLOUR: GREEN
 - 1d PRE-FINISHED METAL - COLOUR: YELLOW
 - 3 SPLIT FACE CONCRETE BLOCK
 - 4 CAST-IN-PLACE CONCRETE
 - 5a PRE-FINISHED DOUBLE GLAZED ALUMINUM CURTAIN WALL
 - 5b PRE-FINISHED ALUMINUM CURTAIN WALL - LIGHT DIFFUSING GLASS
 - 6 PRE-FINISHED DOUBLE GLAZED ALUMINUM WINDOW
 - 7 PRE-FINISHED ALUMINUM SUN SHADE
 - 9 PRINTED METAL RAILING
 - 10 METAL FLASHING
 - 12 SECTIONAL OVERHEAD DOOR WITH GLAZED PANELS
 - 16 PAINTED STEEL BOLLARD
 - 17 STANDING SEAM METAL ROOFING (GALVANIZED)

DP APPLICATION
10535726
PLAN #7

DESIGNED	DATE	NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION	REV	DATE	BY	DESCRIPTION	REV	DATE	BY	DESCRIPTION	REV	DATE	BY	DESCRIPTION	REV
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CHECKED				2012-05-13		ISSUED FOR ARCHITECTURAL PANEL REVIEW	P2												
APPROVAL				2012-09-13		ISSUED FOR DEVELOPMENT PERMIT	P3												

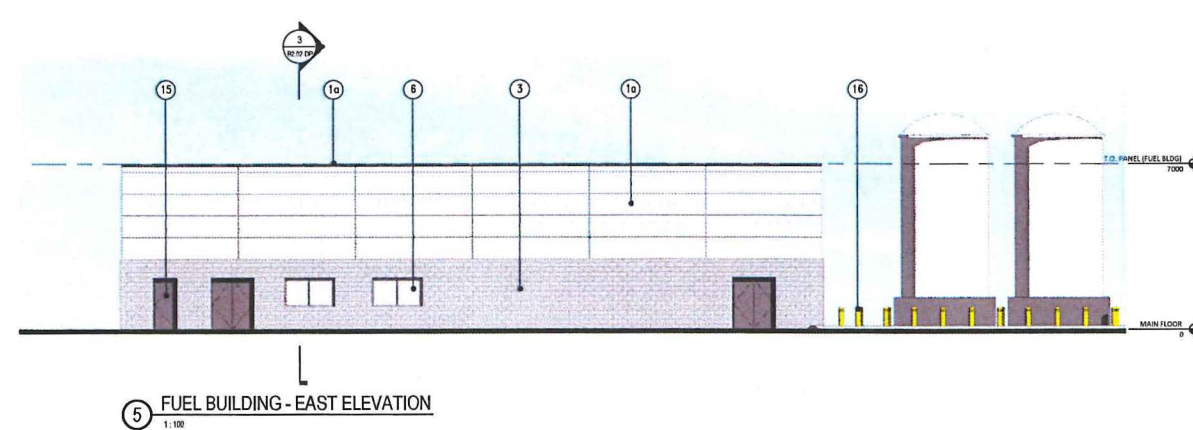
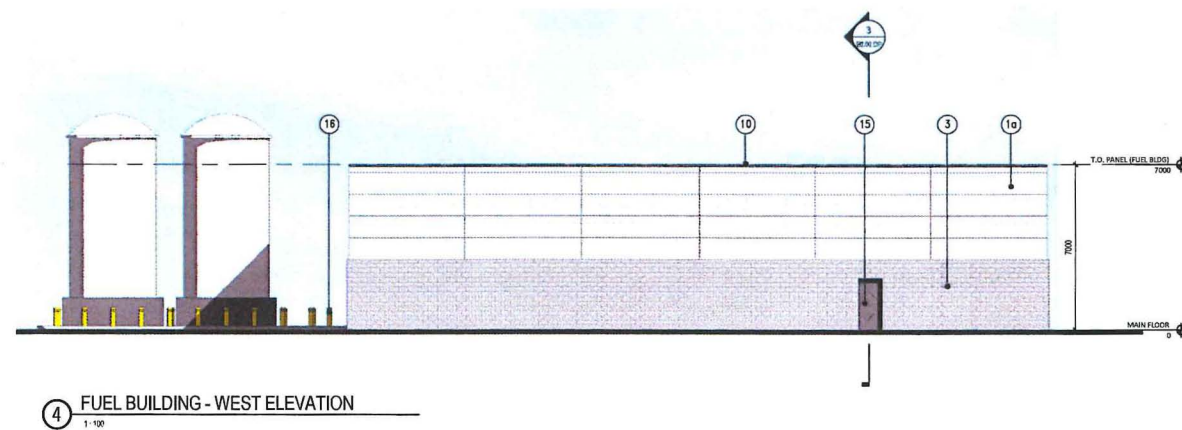
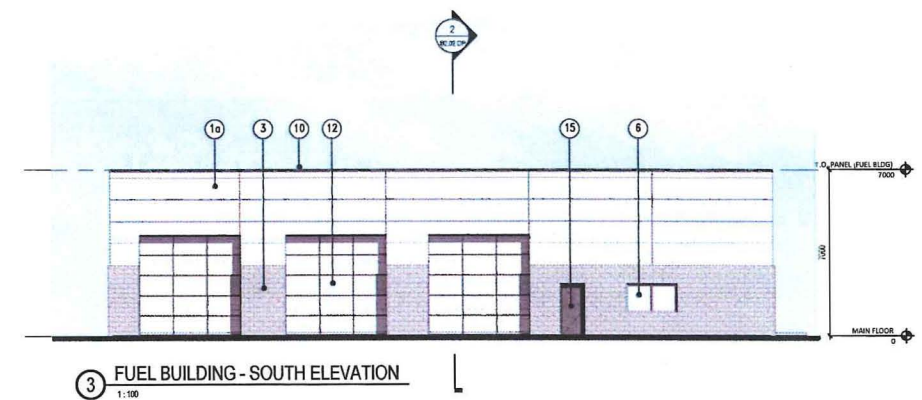
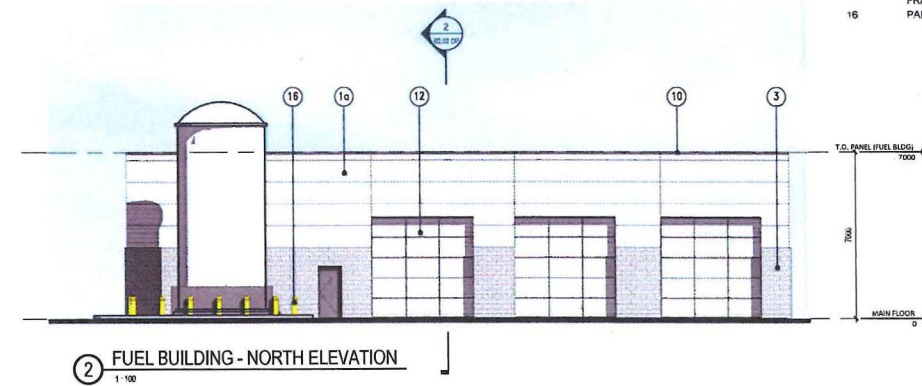
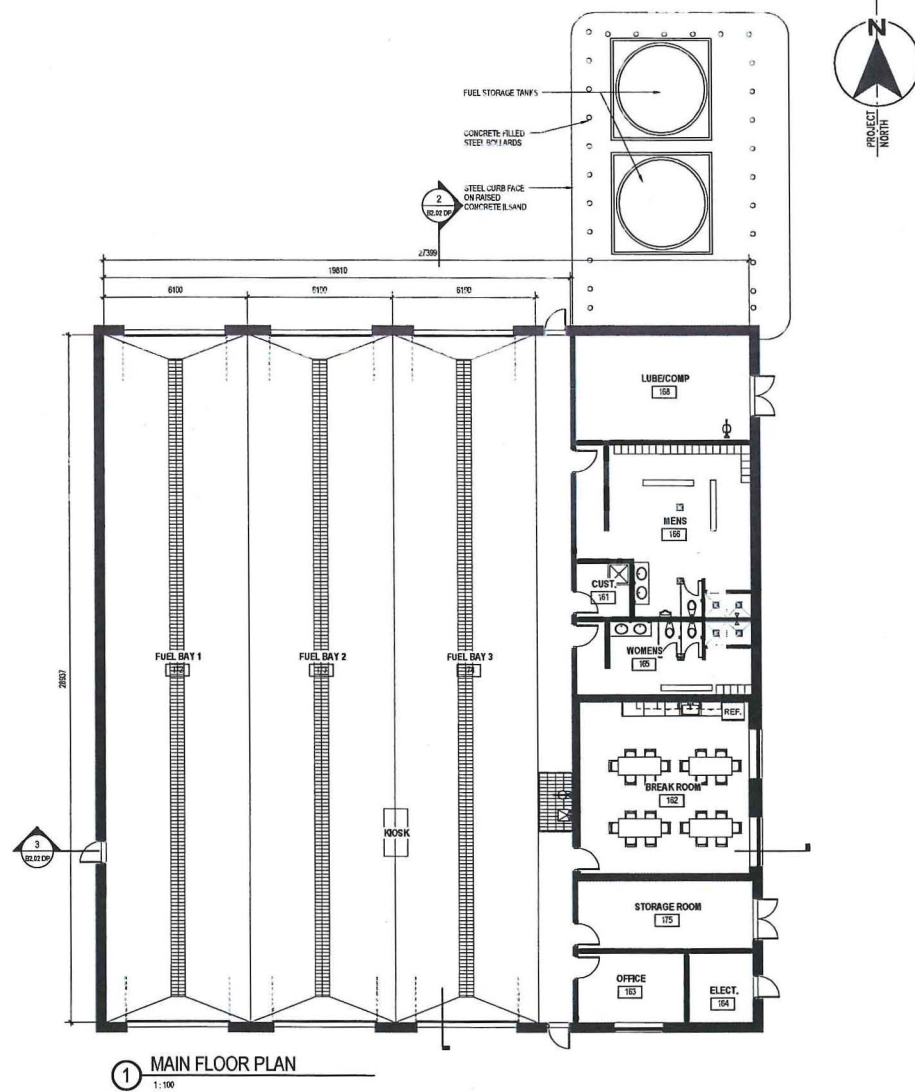
HAMILTON TRANSIT CENTRE (HTC)
MAINTENANCE BUILDING -
BUILDING ELEVATIONS

SCALE: 1:200
DATE: 0921-02 A4.02 DP
REV: P3

DP 10535726

Plan #7

OCT 10 2012



- MATERIAL LEGEND**
- 1a PRE-FINISHED METAL - COLOUR: LIGHT GREY
 - 3 SPLIT FACE CONCRETE BLOCK
 - 5 PRE-FINISHED DOUBLE GLAZED ALUMINUM WINDOW
 - 10 METAL FLASHING
 - 12 SECTIONAL OVERHEAD DOOR WITH GLAZED PANELS
 - 15 PAINTED METAL DOOR & FRAME
 - 16 PAINTED STEEL BOLLARD

DP APPLICATION
PLAN #8

DESIGNED	DATE	NUMBER	DESCRIPTION	DATE	BY	REVISIONS	DATE	BY	REVISIONS	DATE	BY	REVISIONS	DATE	BY	REVISIONS
DRAWN	DATE			2011-05-18		ISSUED FOR PRELIMINARY REVIEW PRIOR TO ADP									
CHECKED	DATE			2012-05-23		ISSUED FOR ADVISORY DESIGN PANEL REVIEW									
APPROVAL	DATE			2012-06-23		ISSUED FOR DEVELOPMENT PERMIT									

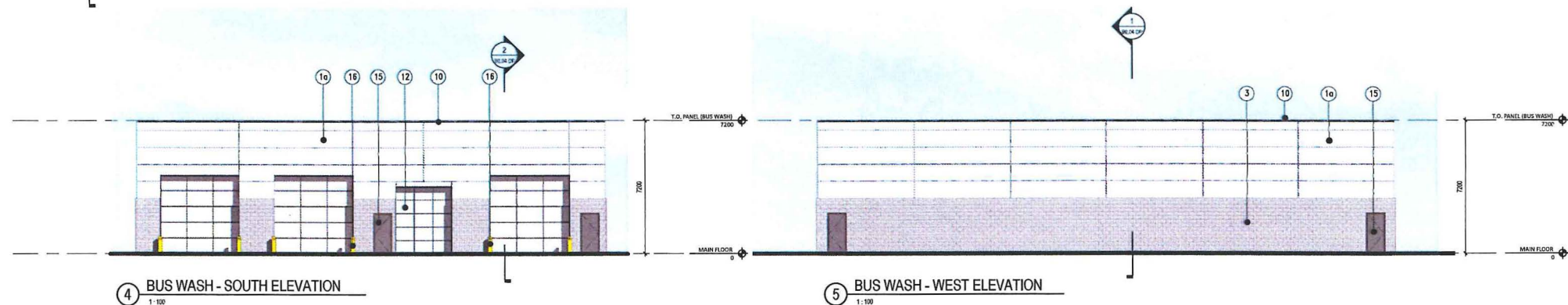
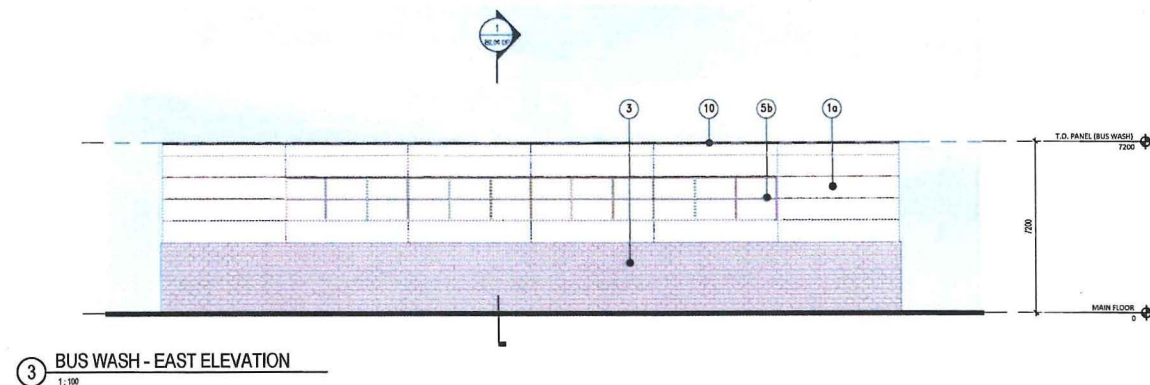
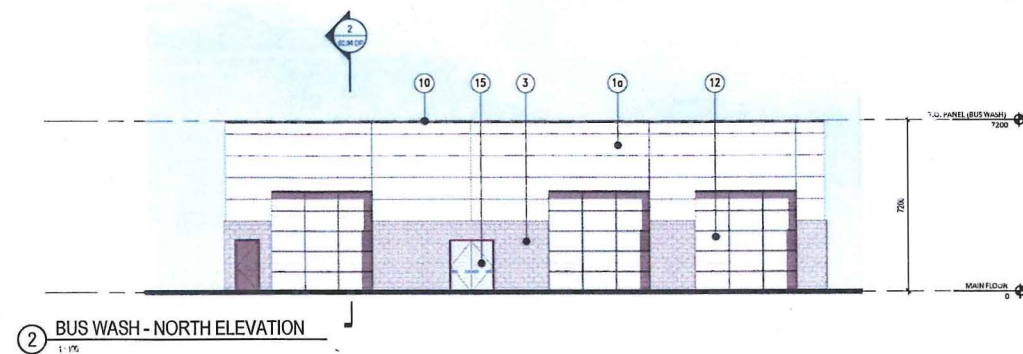
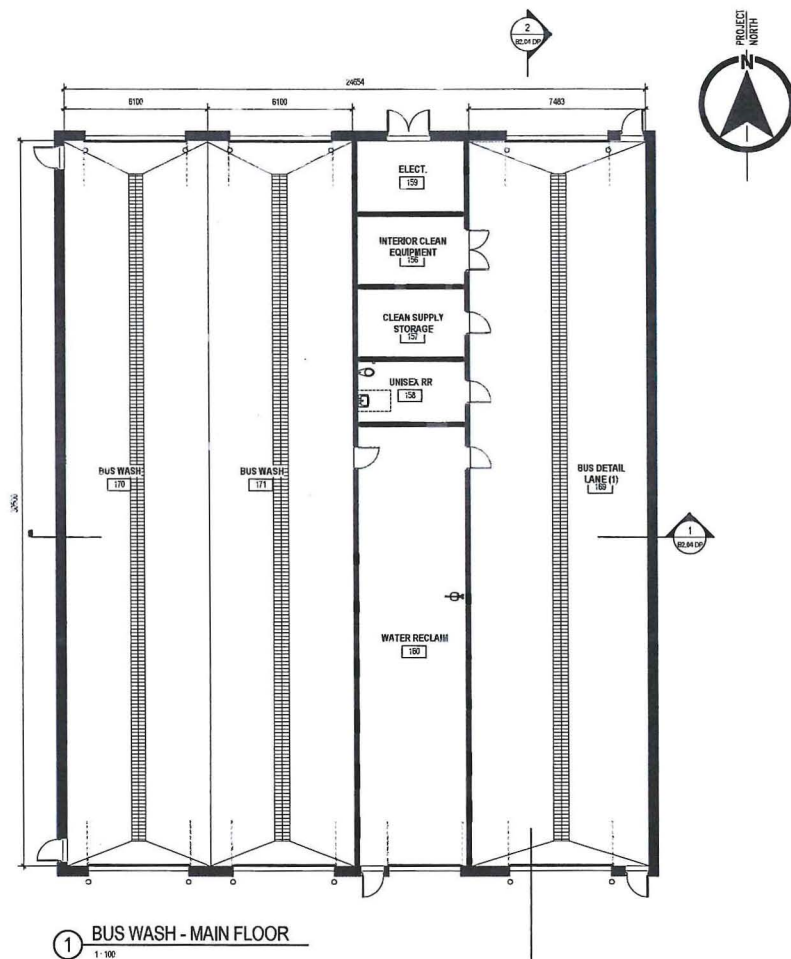


HAMILTON TRANSIT CENTRE (HTC)
FUEL BUILDING - FLOOR PLAN
AND ELEVATIONS

0921-02 B2.01 DP

DP 10535726
Plan #8

OCT 10 2012



- MATERIAL LEGEND**
- 1a PRE-FINISHED METAL - COLOUR: LIGHT GREY
 - 3 SPLIT FACE CONCRETE BLOCK
 - 5b PRE-FINISHED ALUMINUM CURTAIN WALL - LIGHT DIFFUSING GLASS
 - 6 PRE-FINISHED DOUBLE GLAZED ALUMINUM WINDOW
 - 10 METAL FLASHING
 - 12 SECTIONAL OVERHEAD DOOR WITH GLAZED PANELS
 - 15 PAINTED METAL DOOR & FRAME
 - 16 PAINTED STEEL BOLLARD

DE APPLICATION
PLAN #9

DESIGNED	DATE	REFERENCE DRAWING		REVISIONS				REVISIONS				REVISIONS			
		NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION	REV	DATE	BY	DESCRIPTION	REV	DATE	BY	DESCRIPTION	REV
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CHECKED				2012-05-23		ISSUED FOR ADVISORY DESIGN PANEL REVIEW	P2								
APPROVED				2012-06-13		ISSUED FOR DEVELOPMENT PERMIT	P3								



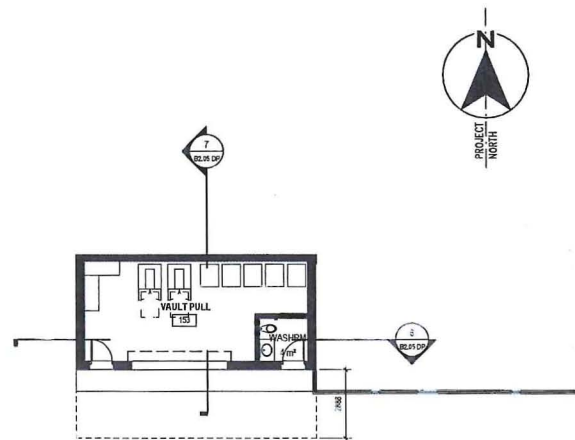
HAMILTON TRANSIT CENTRE (HTC)
BUS WASH BUILDING

DATE: 0921-02 B2.03 DP REV: P3

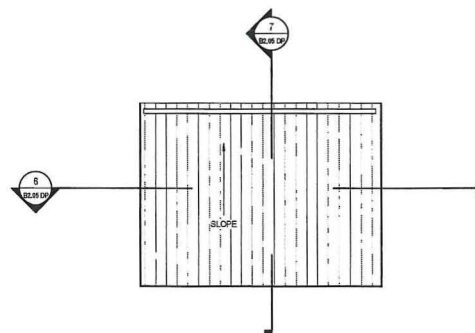
DP 10535726

Plan #9

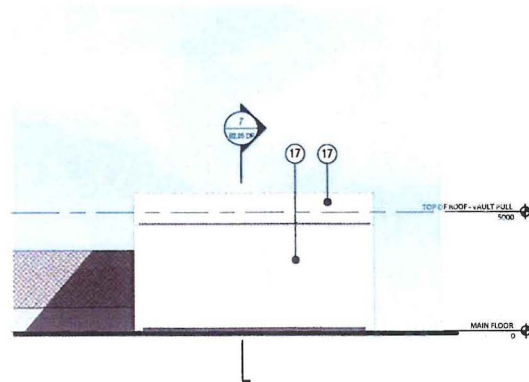
OCT 10 2012



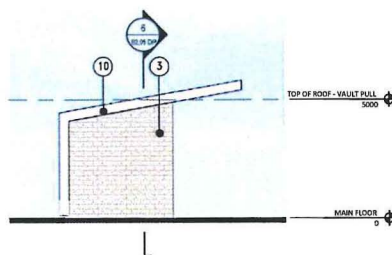
1 VAULT PULL - MAIN FLOOR
1:100



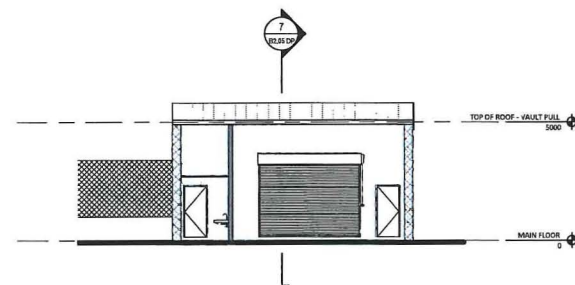
8 TOP OF ROOF - VAULT PULL
1:100



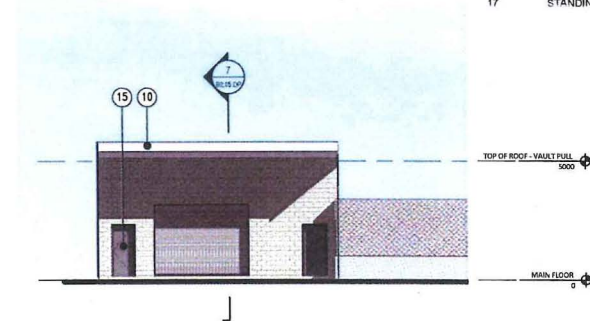
2 VAULT PULL - NORTH ELEVATION
1:100



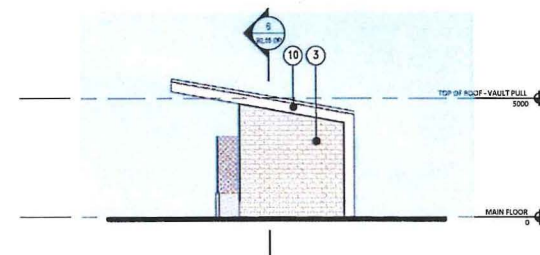
4 VAULT PULL - WEST ELEVATION
1:100



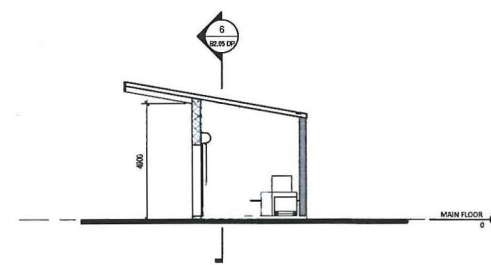
6 VAULT PULL - LONG. SECTION
1:100



3 VAULT PULL - SOUTH ELEVATION
1:100



5 VAULT PULL - EAST ELEVATION
1:100



7 VAULT PULL - CROSS SECTION
1:100

- MATERIAL LEGEND**
- 3 SPLIT FACE CONCRETE BLOCK
 - 10 METAL FLASHING
 - 13 ROLLING SERVICE DOOR
 - 15 PAINTED METAL DOOR & FRAME
 - 17 STANDING SEAM METAL ROOFING (GALVANLUME)

DP APPLICATION
PLAN 812

DESIGNED	DATE	NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION	REV	DATE	BY	DESCRIPTION	REV	DATE	BY	DESCRIPTION	REV
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CHECKED	DATE			2012-05-23		ISSUED FOR ADVISORY DESIGN PANEL REVIEW	P-2								
APPROVAL	DATE			2012-06-13		ISSUED FOR DEVELOPMENT PERMIT	P-3								



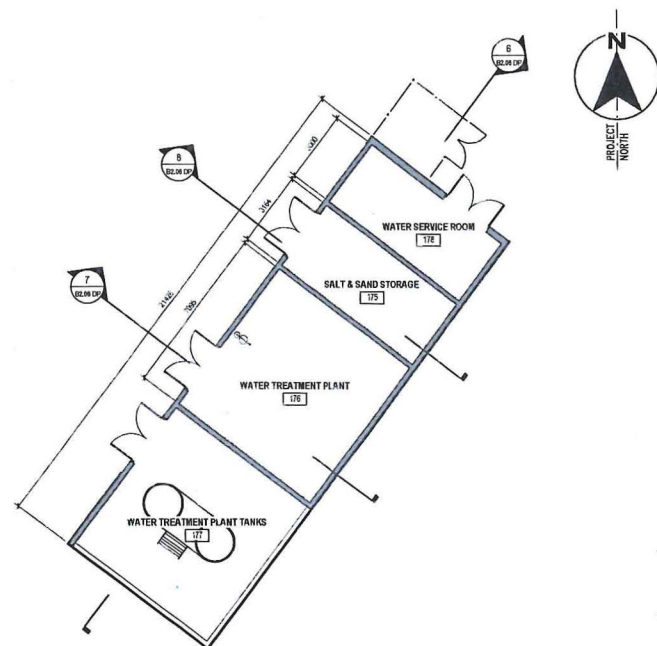
HAMILTON TRANSIT CENTRE (HTC)
VAULT PULL BUILDING - FLOOR
PLANS, ELEVATIONS AND
SECTIONS

SCALE: 1:100
QUANTITY: 0921-02 B2.05 DP
REV. NO. P3

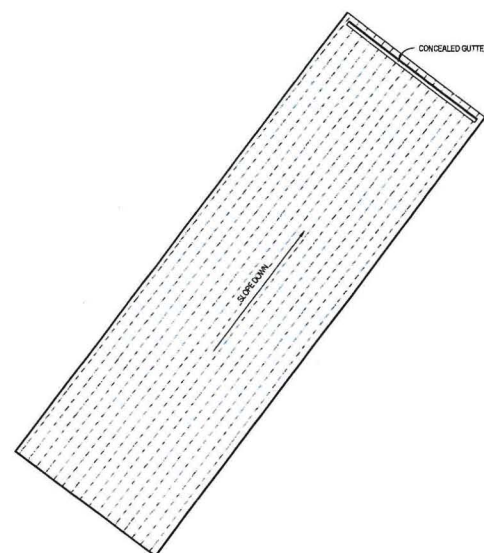
DP 10585726

Plan #10

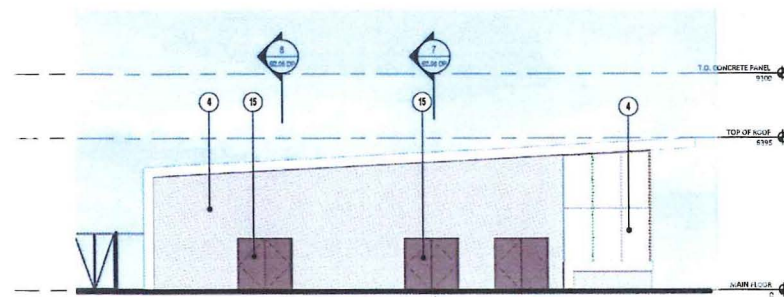
OCT 10 2012



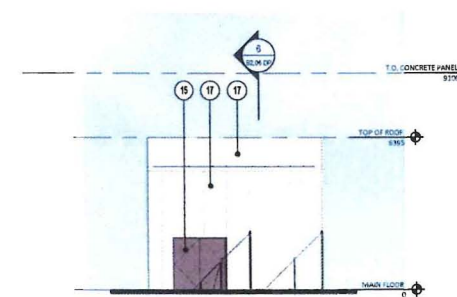
1 FLOOR PLAN
1:100



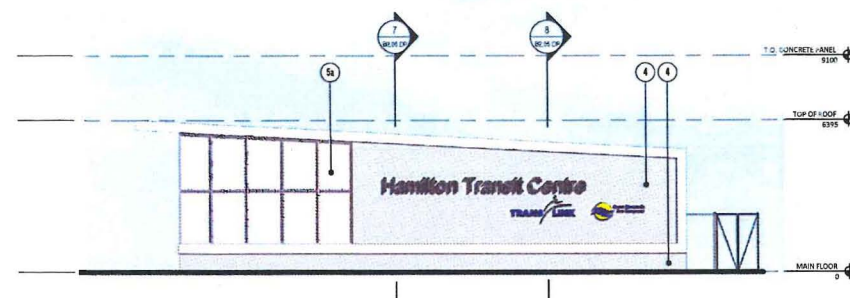
9 ROOF PLAN
1:100



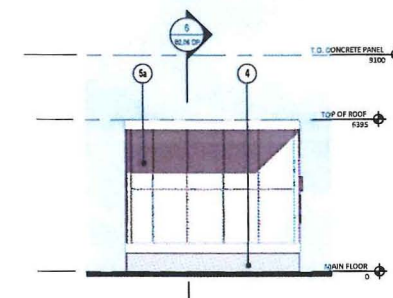
2 WWTP - WEST ELEVATION
1:100



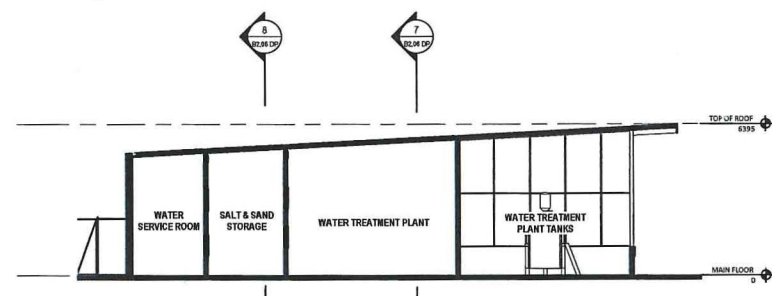
3 WWTP - NORTH ELEVATION
1:100



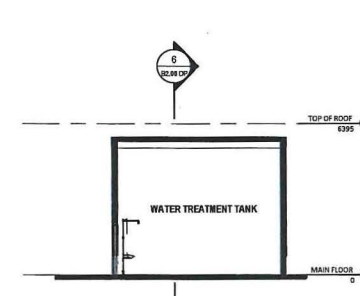
4 WWTP - EAST ELEVATION
1:100



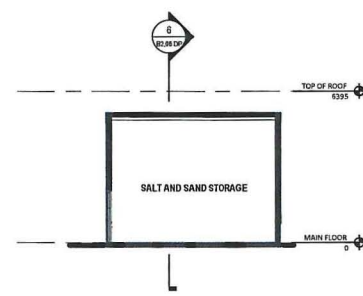
5 WWTP - SOUTH ELEVATION
1:100



6 WWTP - LONGITUDINAL SECTION
1:100



7 SECTION THROUGH WWTP ROOM
1:100



8 SECTION THROUGH TANK AREA
1:100

- MATERIAL LEGEND**
- 4 CAST-IN-PLACE CONCRETE
 - 50 PRE-FINISHED DOUBLE GLAZED ALUMINUM CURTAIN WALL
 - 15 PAINTED METAL DOOR & FRAME
 - 17 STANDING SEAM METAL ROOFING (GALVANALUME)

DP APPLICATION
PLAN #11

DESIGNED	DATE	REFERENCE DRAWING		REVISIONS				REVISIONS				REVISIONS			
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CHECKED				2012-05-23		ISSUED FOR ADVISORY DESIGN PANEL REVIEW	P2								
APPROVAL				2012-06-13		ISSUED FOR DEVELOPMENT PERMIT	P3								

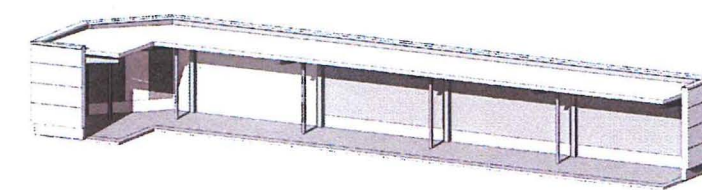
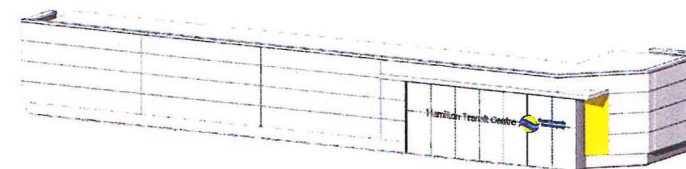
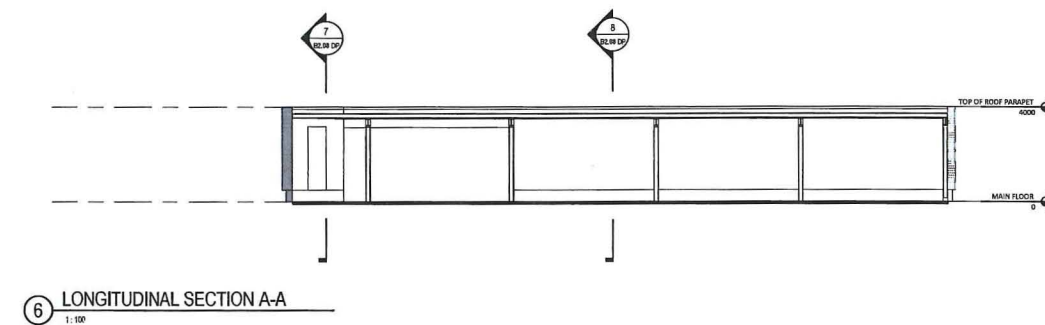
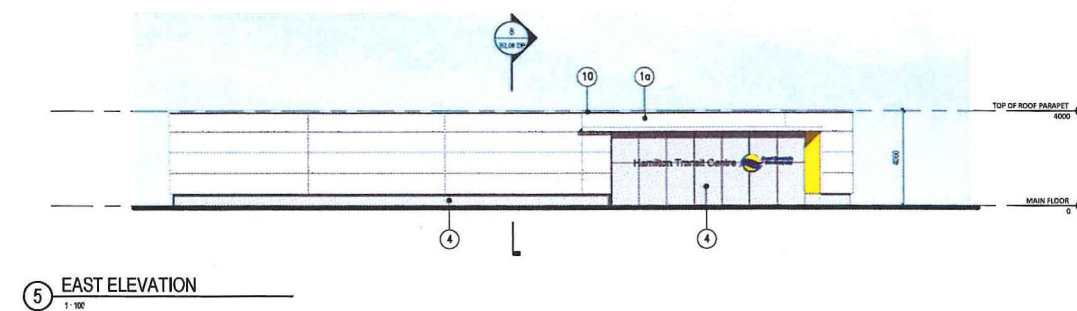
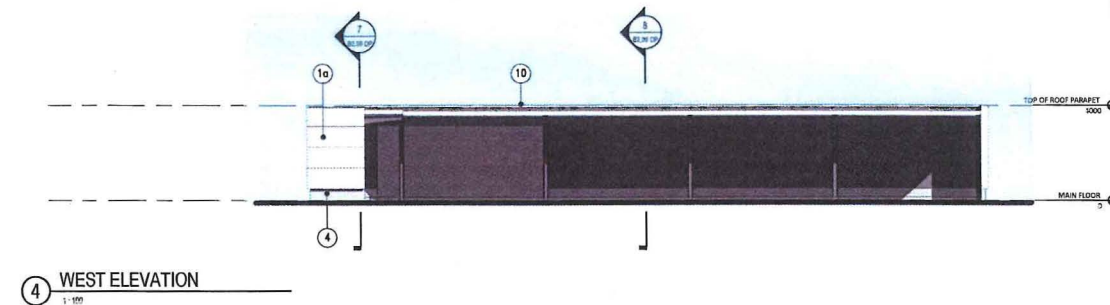
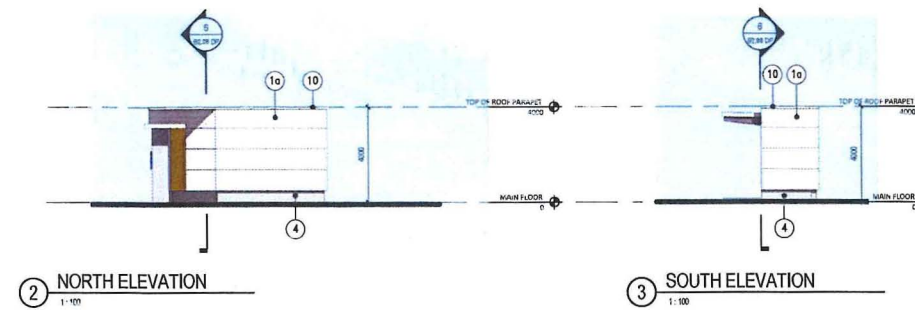
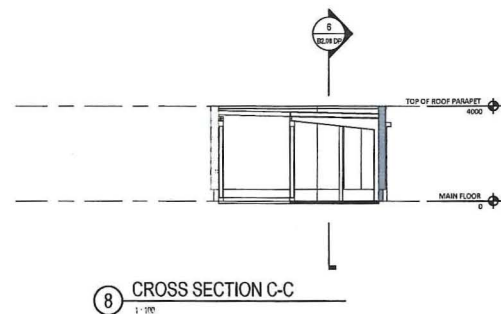
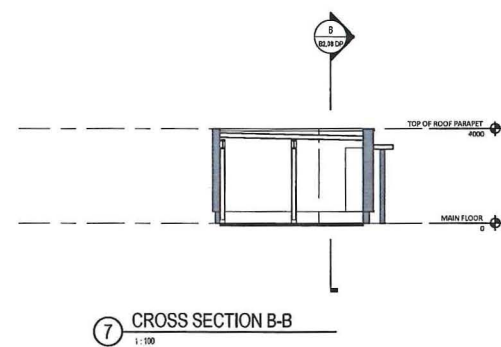
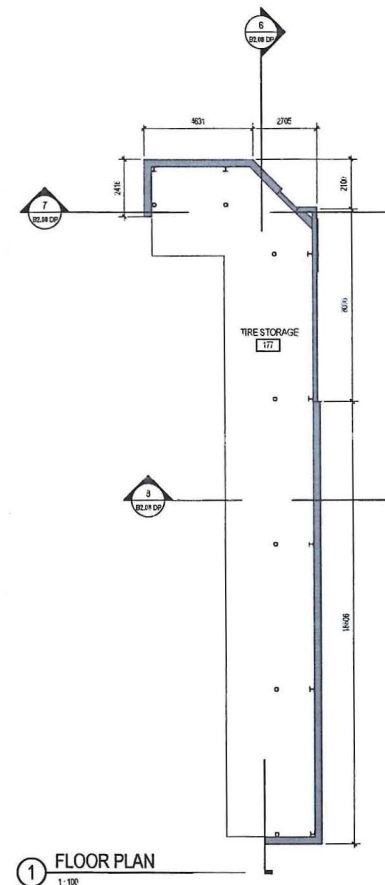


HAMILTON TRANSIT CENTRE (HTC)
WWTP - FLOOR PLAN,
ELEVATIONS, AND SECTIONS

DATE: 2012-02-28
DRAWING: 0921-02 82.06 DP
REV: P3

DP 10535726
Plan # 11

OCT 10 2012



MATERIAL LEGEND

1a	PRE-FINISHED METAL - COLOUR: LIGHT GREY
4	CAST-IN-PLACE CONCRETE
10	METAL FLASHING

[illegible]

HAMILTON TRANSIT CENTRE (HTC)
TIRE STORAGE BUILDING -
FLOOR PLANS, ELEVATIONS,
SECTIONS AND PERSPECTIVES

DP APPLICATION
NO. 42-10000
PLAN #32

26 27 28 29 30 31

P103 #12

OCT 10 2012

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DRAFT



2
EUB
DRAFT



3
EUB
DRAFT



4
EUB
DRAFT



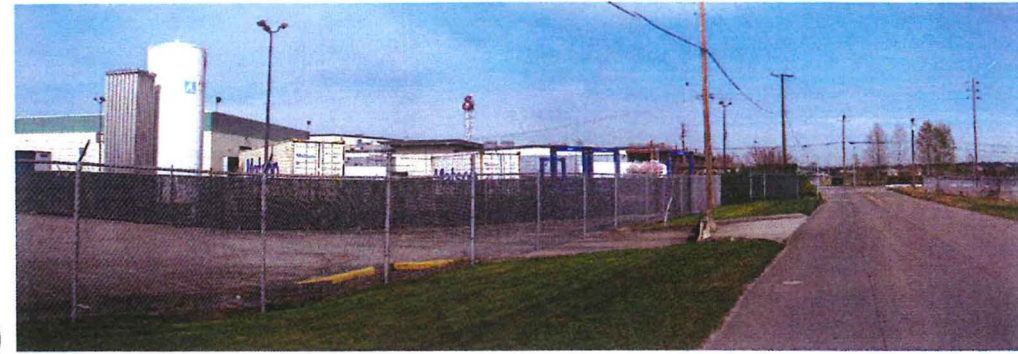
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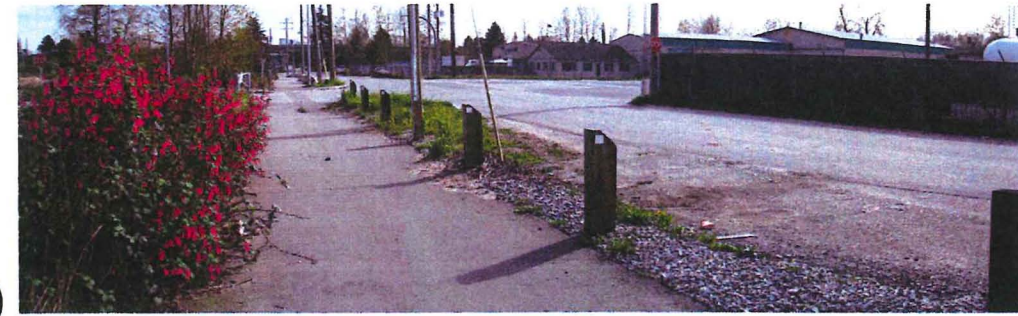
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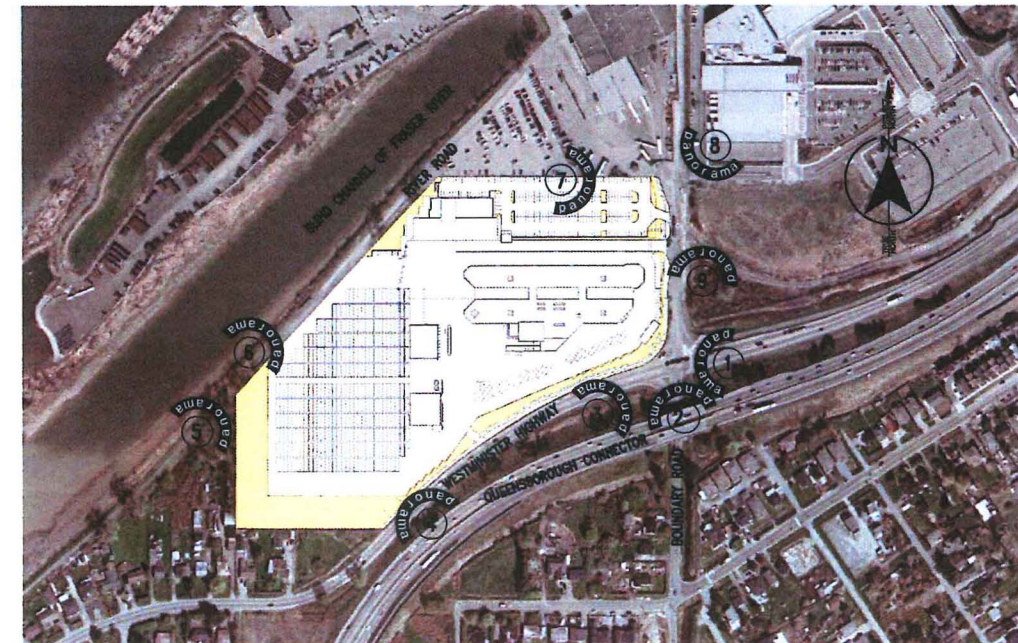
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KEY PLAN

DP APPLICATION
DP10-530728
PLAN #1a

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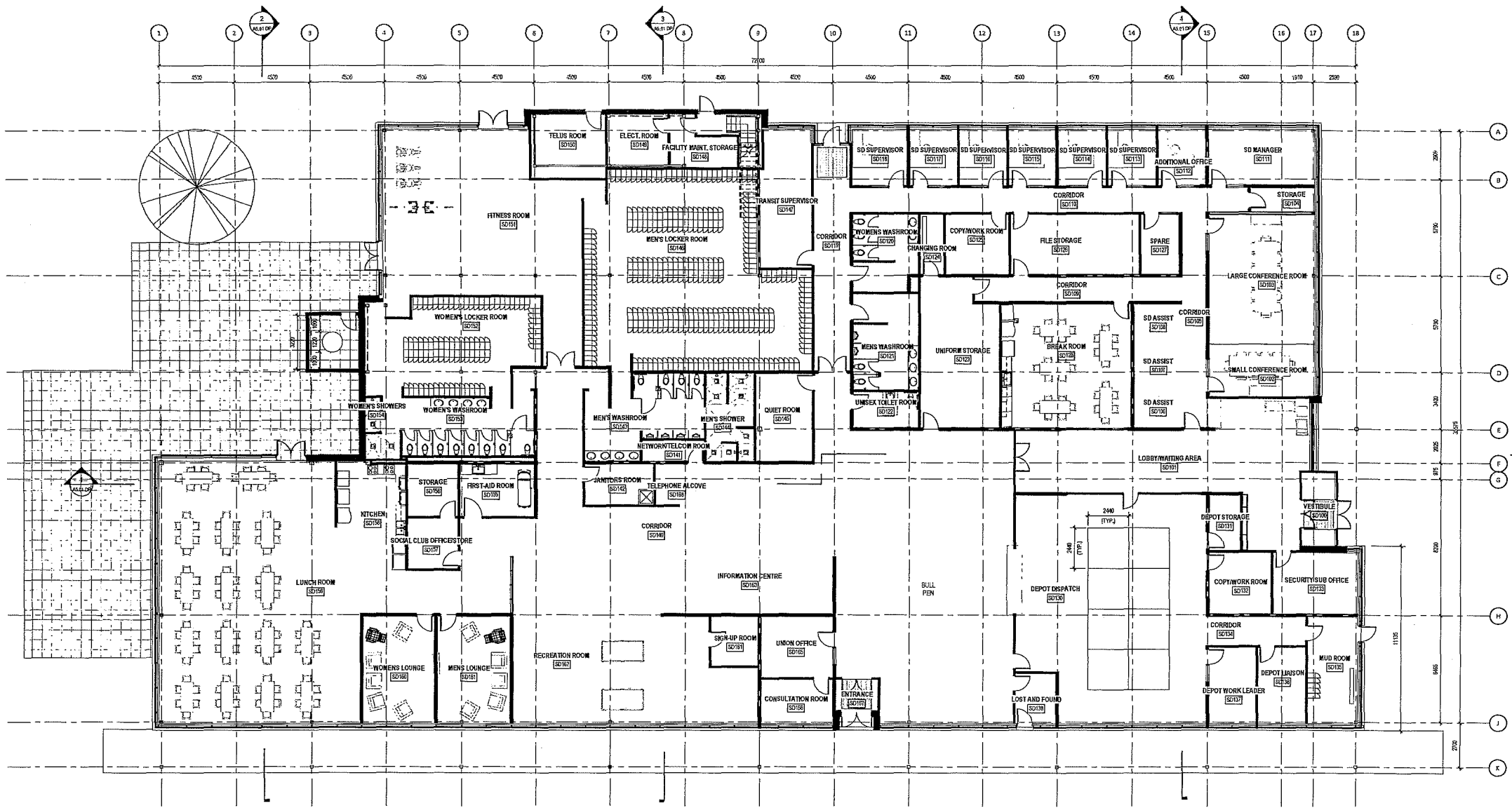
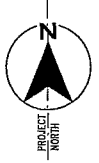
HAMILTON TRANSIT CENTRE (HTC)
SITE PLAN - CONTEXT

SCALE 1:500 DRAWING No. 0921-02 A1.02 REV. No. P2

DR 10535726

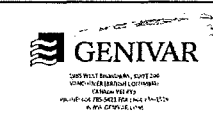
Reference

OCT 10 2012



DP APPLICATION
FOR REFERENCE

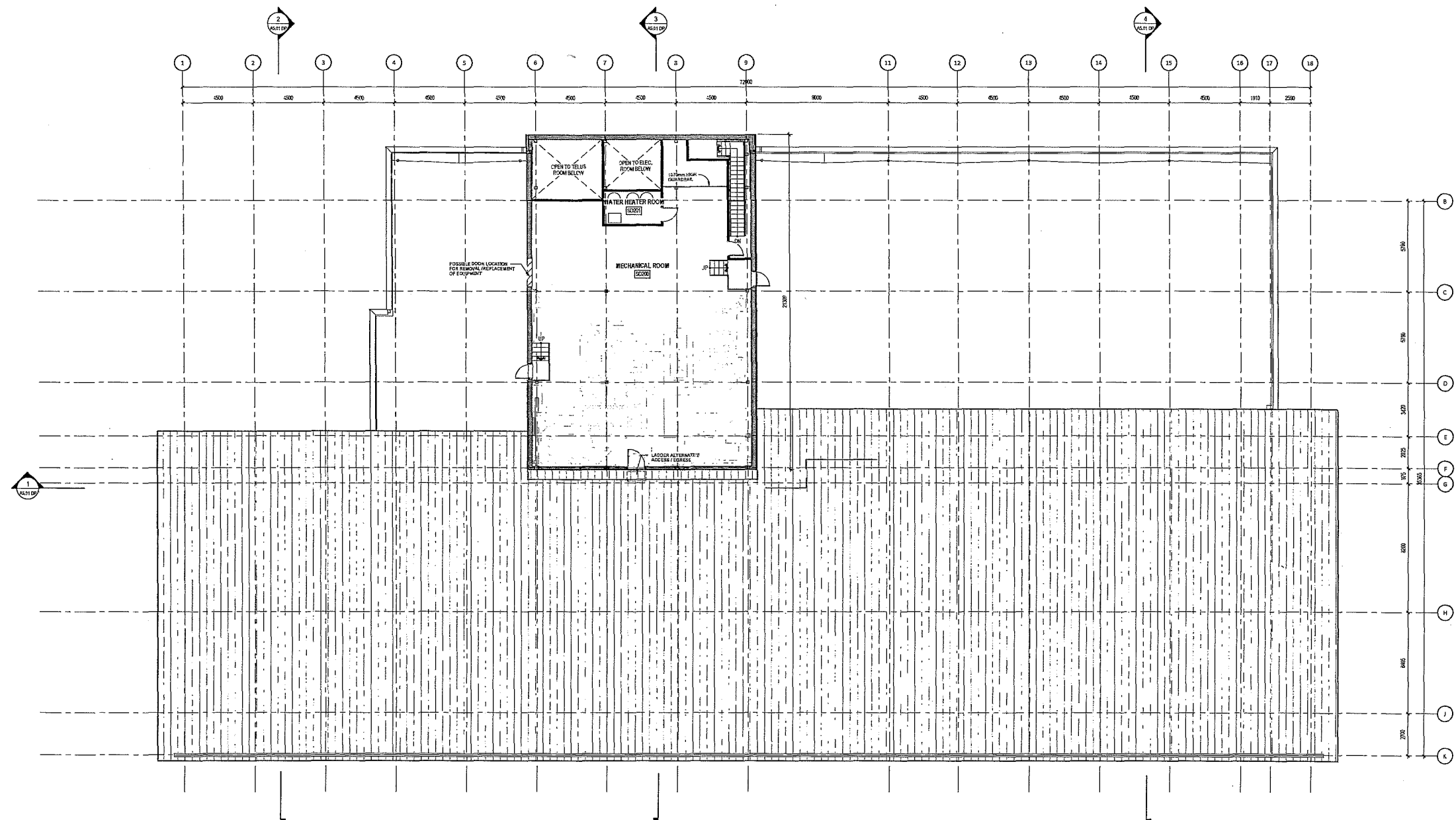
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CHECKED				2012-05-23		ISSUED FOR ADVISORY DESIGN PANEL REVIEW	P2										
APPROVAL				2012-06-11		ISSUED FOR DEVELOPMENT PERMIT	P3										



HAMILTON TRANSIT CENTRE (HTC) SERVICE DELIVERY BUILDING - MAIN FLOOR PLAN			
SCALE	1:100	DATE	0921-02 A2.01 DP
REV	P3		

DP 10535726
Reference

OCT 10 2012



		REFERENCE DRAWINGS		REVISIONS			REVISIONS			REVISIONS					
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CHECKED	DATE			2012-09-23		SUED FOR ADVISORY DESIGN PANEL REVIEW	P-2								
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APPROVAL	DATE														



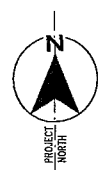
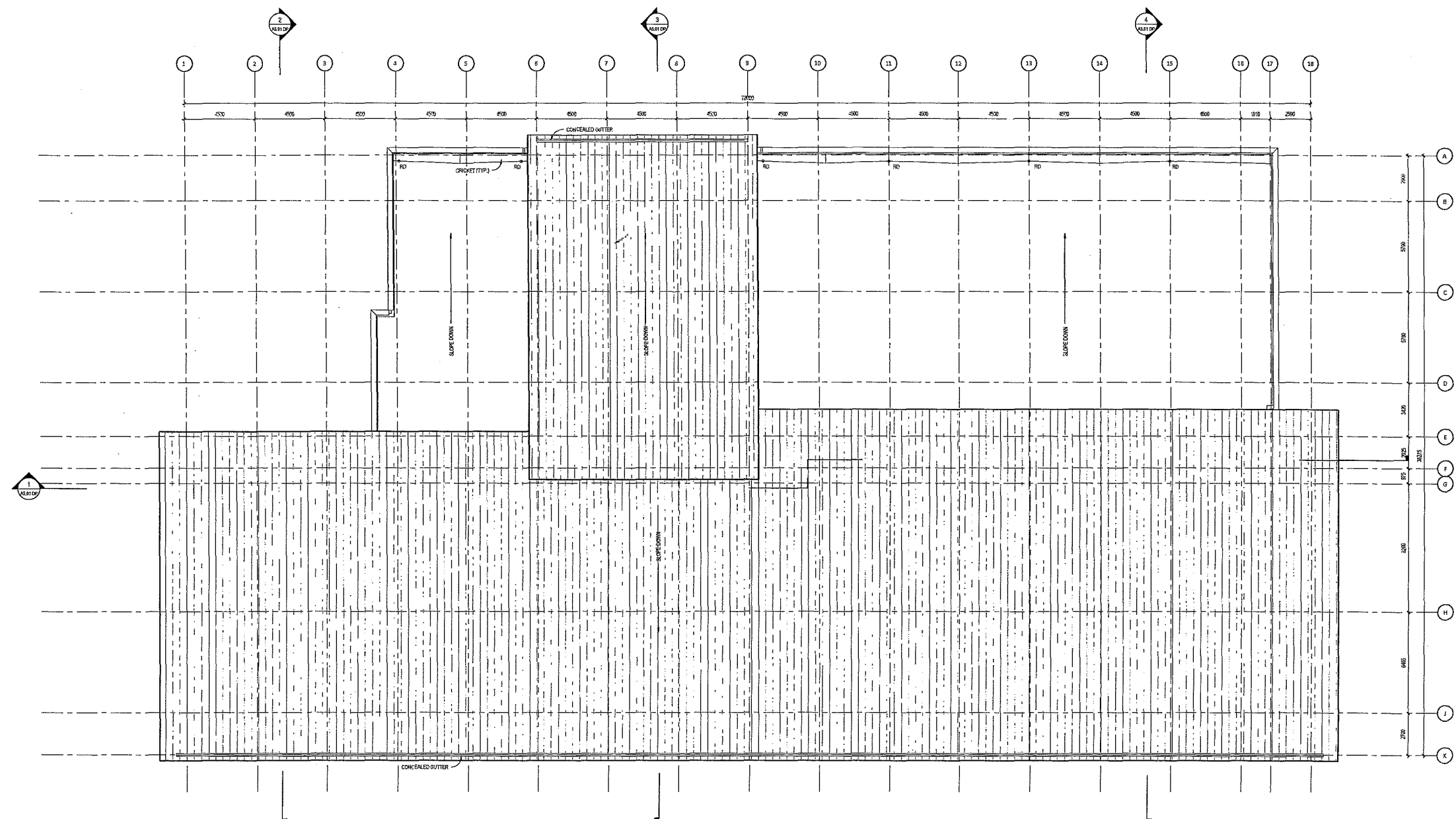
HAMILTON TRANSIT CENTRE (HTC)
SERVICE DELIVERY BUILDING -
MECHANICAL LEVEL

SC-1E 1:100	PL-11 (M) 40 0921-02 A2.02 DP	REV 40 P3
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1050726

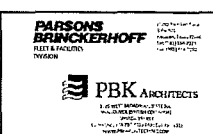
Reference

OCT 10 2012



DP APPLICATION
FOR REFERENCE

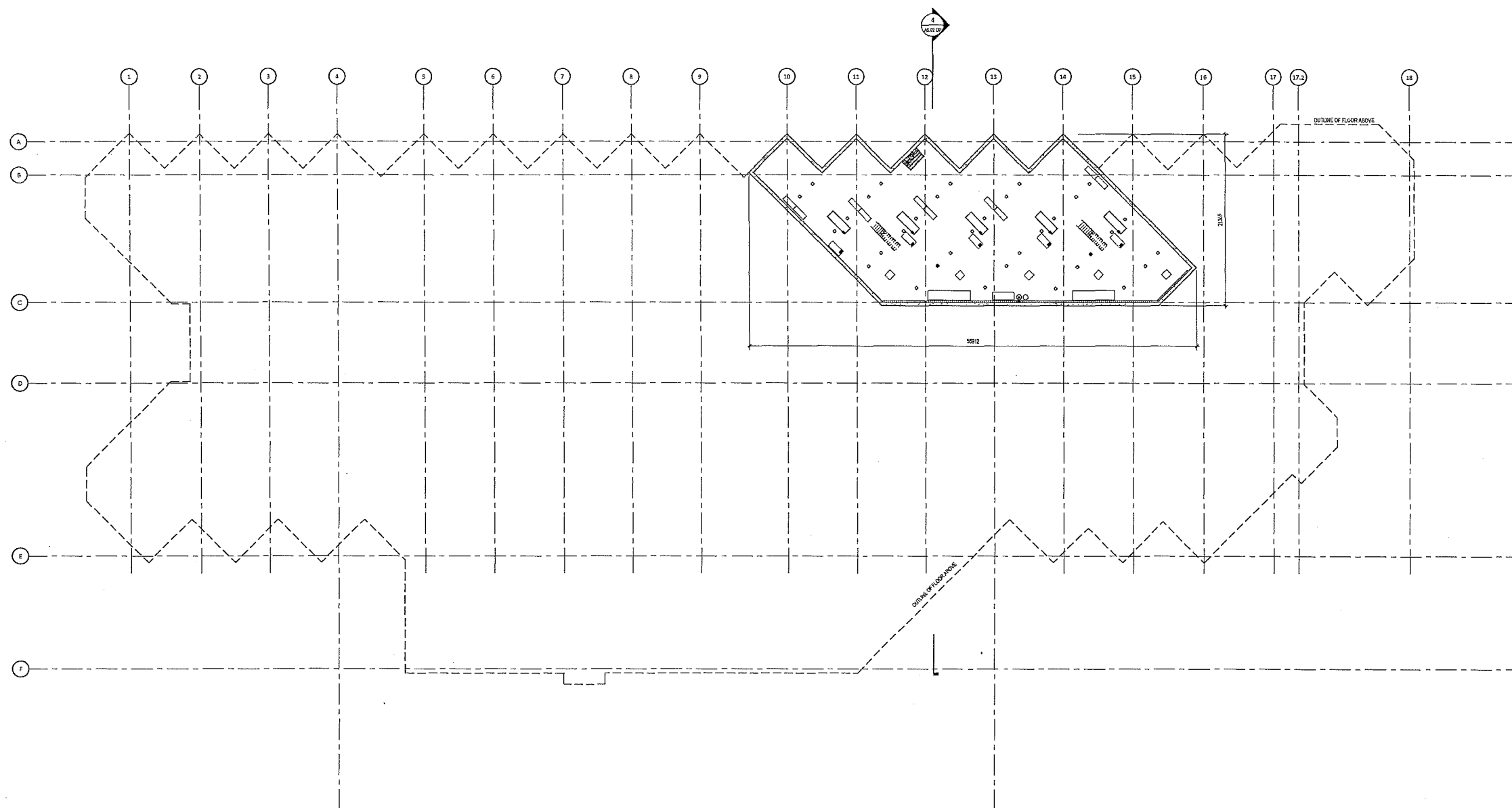
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DRAWN				2012-05-23		ISSUED FOR ADVISORY DESIGN PANEL REVIEW	P2										
CHECKED				2012-06-13		ISSUED FOR DEVELOPMENT PERMIT	P3										
APPROVAL																	



HAMILTON TRANSIT CENTRE (HTC) SERVICE DELIVERY BUILDING - ROOF PLAN			
SCALE 1:1200	DRAWING NO. 0921-02_A2.03 DP	REV. NO. P3	

DP 10535726
Reference

OCT 10 2012



1 BASEMENT PLAN
1:200

DP APPLICATION
FOR REFERENCE

DESIGNED	DATE	REFERENCE DRAWING				REVISIONS				REVISIONS				REVISIONS			
		NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION	REV	DATE	BY	DESCRIPTION	REV	DATE	BY	DESCRIPTION	REV	DATE	BY
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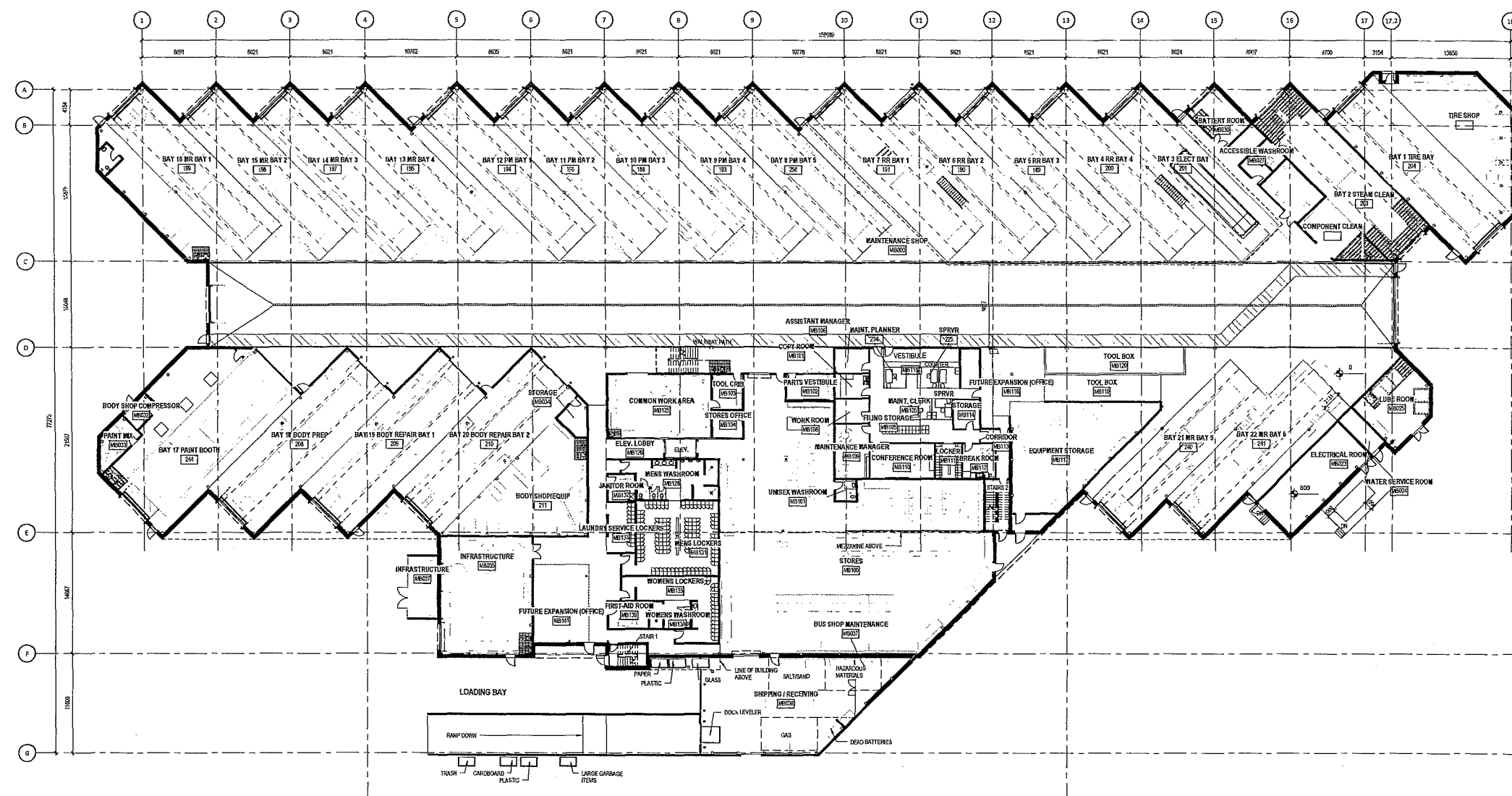
HAMILTON TRANSIT CENTRE (HTC)
MAINTENANCE BUILDING
GENERAL ARRANGEMENT -
BASEMENT LEVEL PLAN

Scale: 1:200
Drawing No: 0921-02 A2.04 DP
Rev No: P3

DP 10535726

Reference

OCT 10 2012



CLASS
DATE
BY
REVISION
DATE
BY
REVISION
DATE
BY
REVISION

DP APPLICATION
FOR REFERENCE

DESIGNED	DATE	REFERENCE DRAWING				REVISIONS				REVISIONS				REVISIONS			
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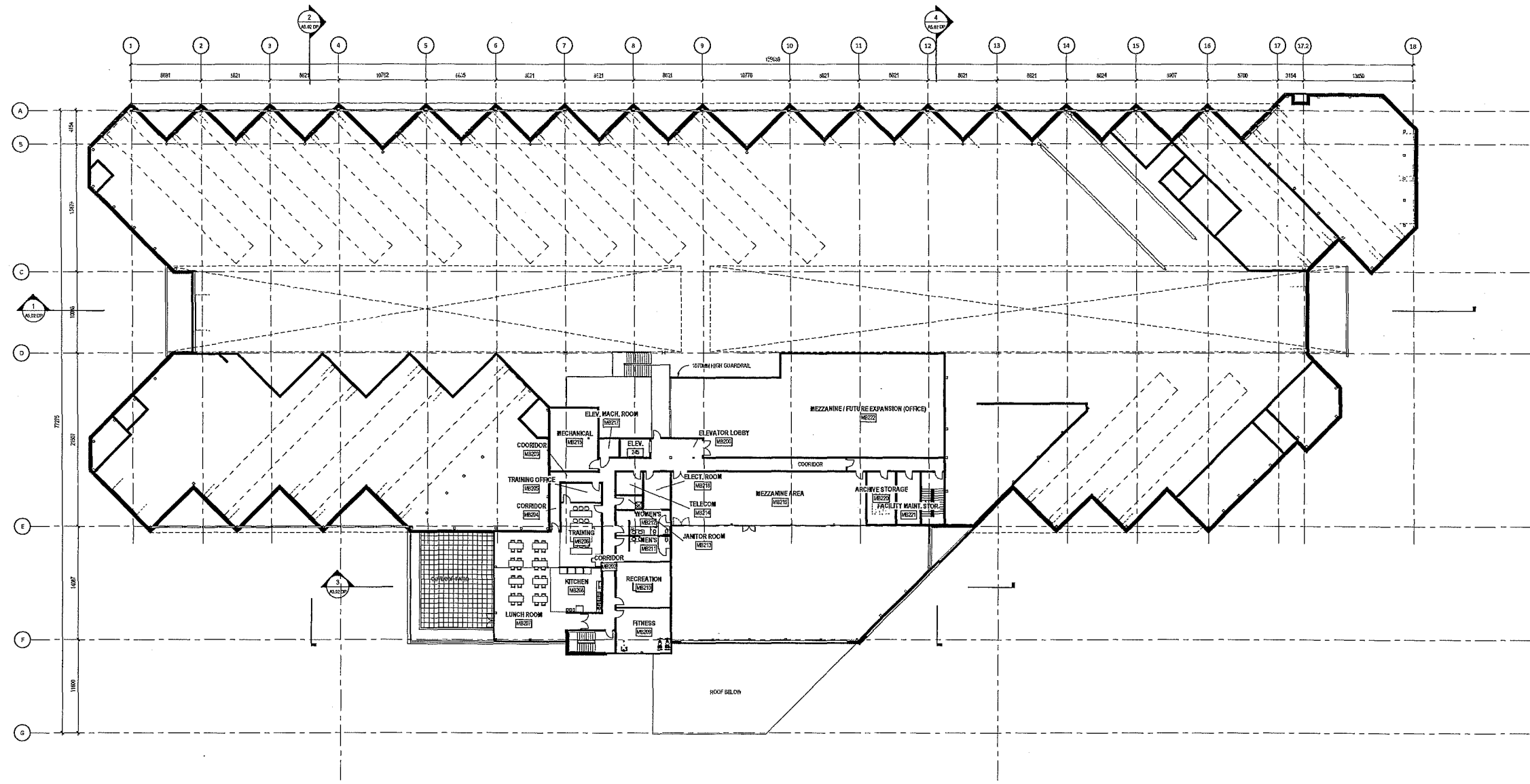


HAMILTON TRANSIT CENTRE (HTC)
MAINTENANCE BUILDING
GENERAL ARRANGEMENT -
MAIN FLOOR PLAN

P3

DP 10535726
Reference

OCT 10 2012



① MEZZANINE LEVEL FLOOR PLAN
1:200

DP APPLICATION
FOR REFERENCE

	DESIGNED	DATE	REFERENCE DRAWINGS		REVISIONS				REVISIONS				REVISIONS			
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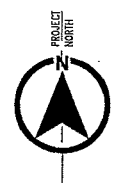
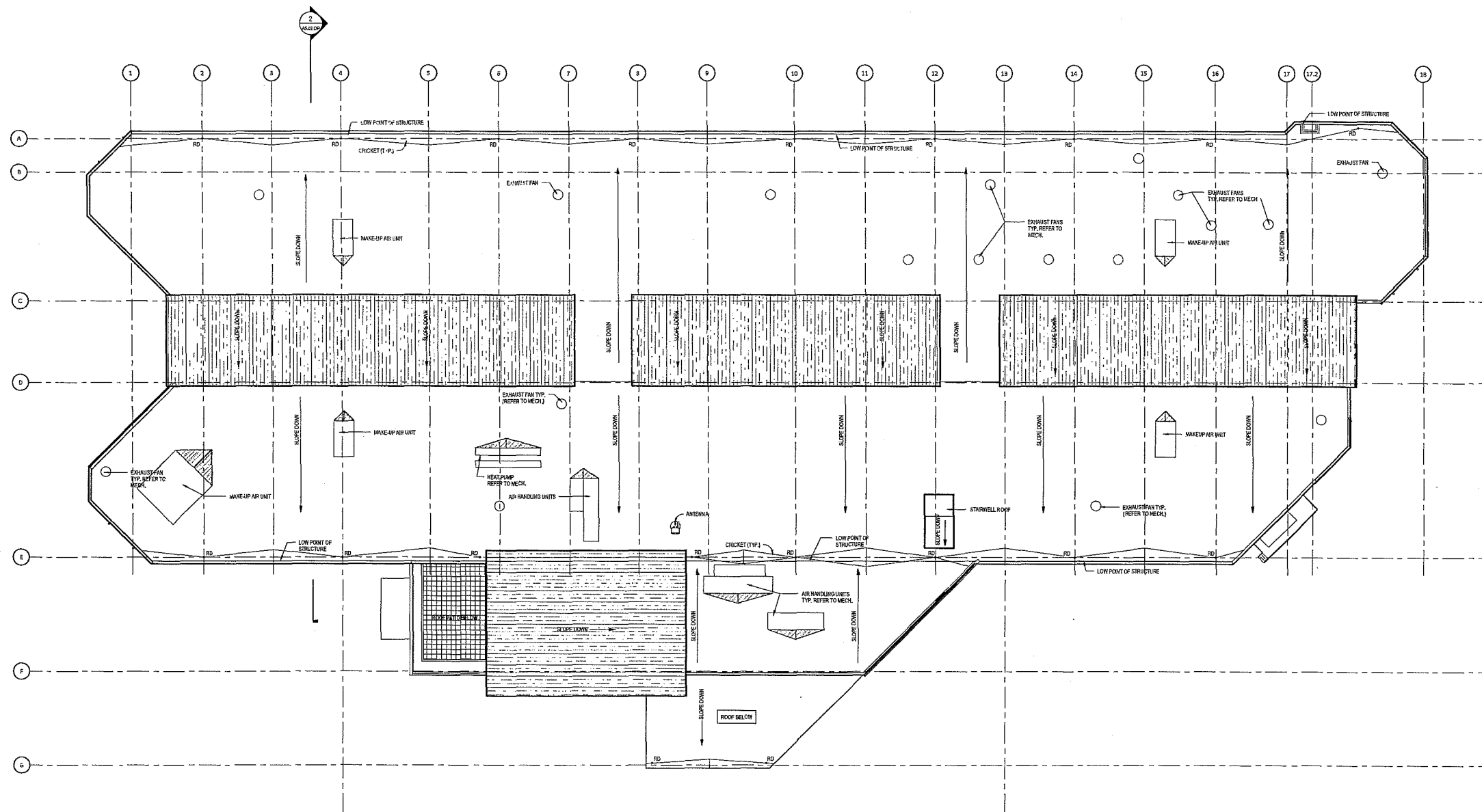


HAMILTON TRANSIT CENTRE (HTC)
MAINTENANCE BUILDING
GENERAL ARRANGEMENT -
MEZZANINE FLOOR PLAN
SCALE: 1:200
0921-02_A2.06 DP
P3

DP 10535726

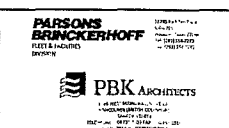
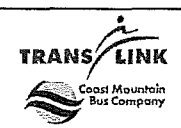
Reference

OCT 10 2012



DP APPLICATION
FOR REFERENCE

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CHECKED				2012-06-13		ISSUED FOR DEVELOPMENT PERMIT	P.3								
APPROVAL															

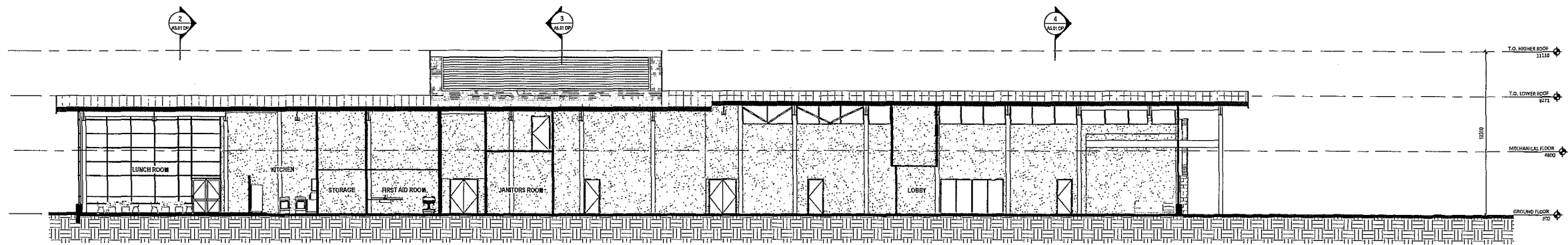


HAMILTON TRANSIT CENTRE (HTC)
MAINTENANCE BUILDING
GENERAL ARRANGEMENT -
ROOF PLAN
Scale: 1:200
Sheet: 0921-02 A2.07 DP
Page: P3

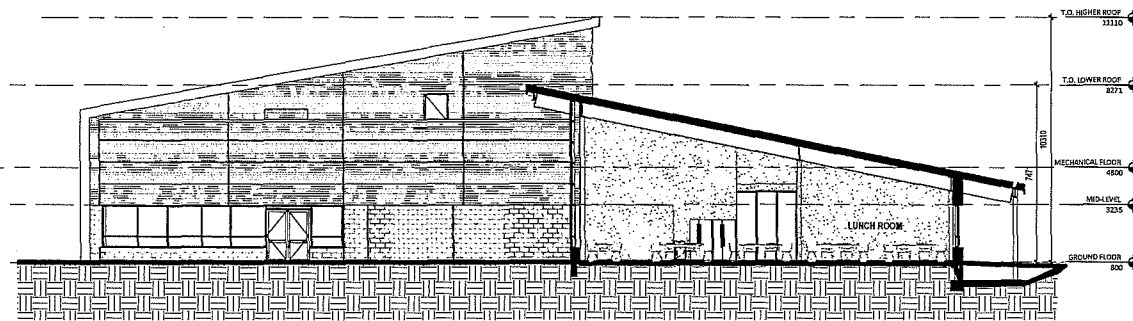
DP 10535726

Reference

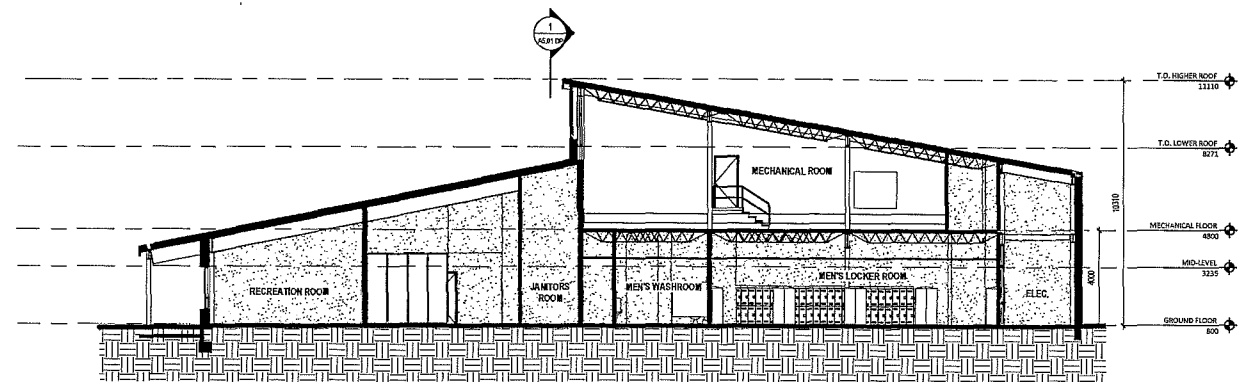
OCT 10 2012



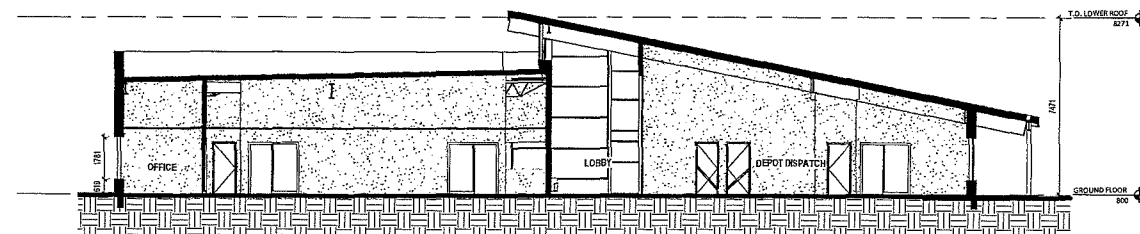
① LONGITUDINAL SECTION
1:100



② CROSS SECTION A-A
1:100



③ CROSS SECTION B-B
1:100



④ CROSS SECTION C-C
1:100

DP APPLICATION
FOR REFERENCE

DESIGNED	DATE	NUMBER	REFERENCE DRAWING	DATE	BY	DESCRIPTION	REV	DATE	BY	DESCRIPTION	REV	DATE	BY	DESCRIPTION	REV	DATE	BY	DESCRIPTION	REV
DRAWN	DATE			2012-05-18		ISSUED FOR PRELIMINARY REVIEW PRIOR TO FSP	P1												
CHECKED	DATE			2012-05-18		ISSUED FOR ADVISORY DESIGN PANEL REVIEW	P2												
APPROVAL	DATE			2012-08-13		ISSUED FOR DEVELOPMENT PERMIT	P3												

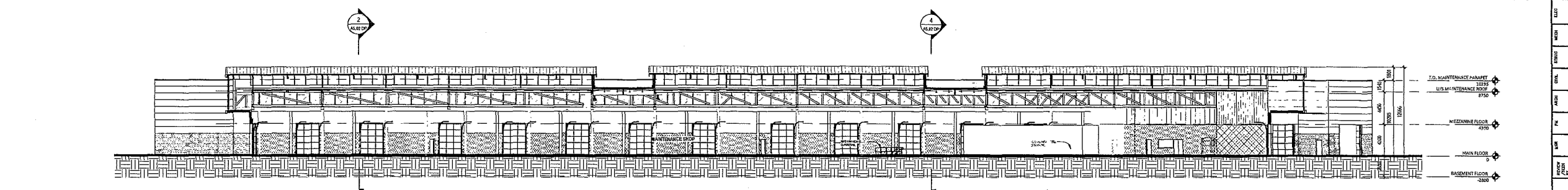


HAMILTON TRANSIT CENTRE (HTC)
SERVICE DELIVERY BUILDING -
BUILDING SECTIONS

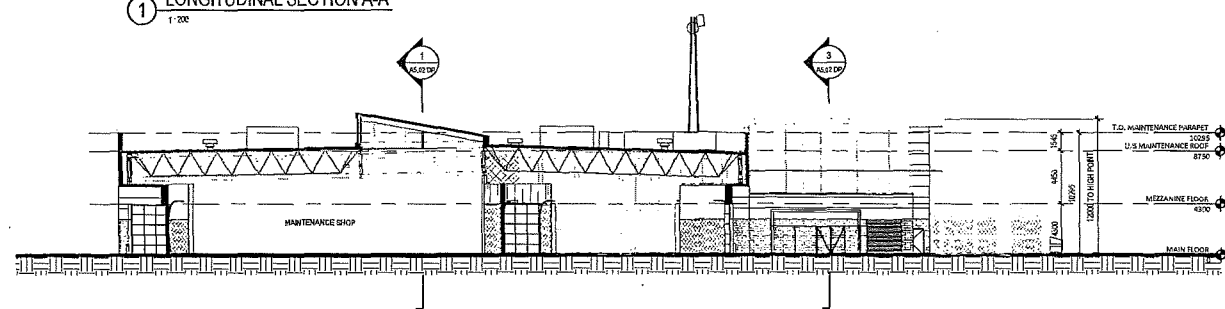
DP 10535726

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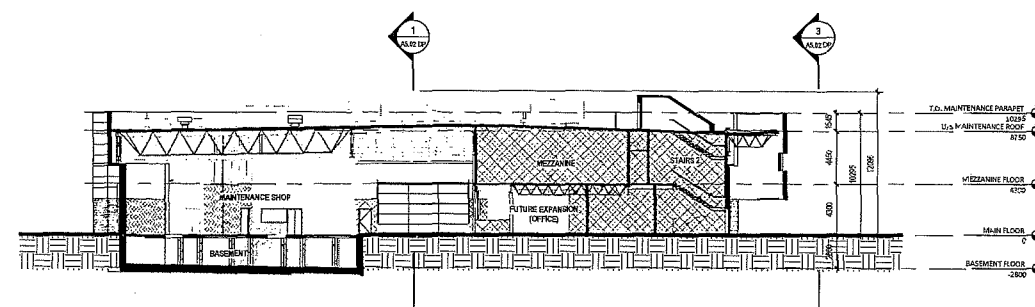
OCT 10 2012



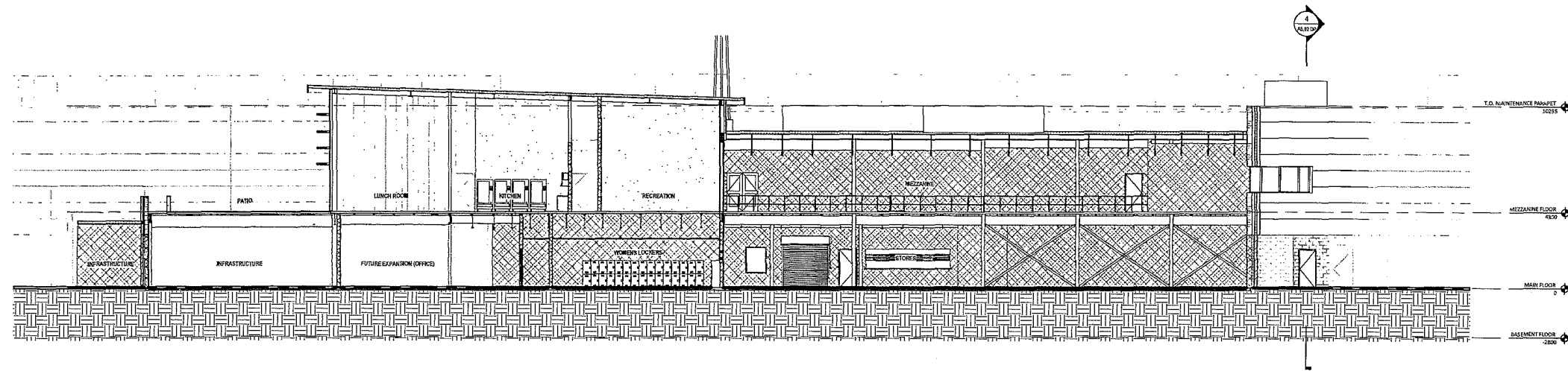
1 LONGITUDINAL SECTION A-A
1:200



2 CROSS SECTION THROUGH MAINTENANCE BUILDING A-A
1:200



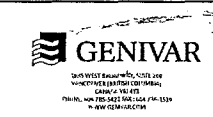
4 CROSS SECTION C-C
1:200



3 BUILDING CROSS SECTION D-D
1:200

DP APPLICATION
FOR REFERENCE

REFERENCE DRAWING				REVISIONS				REVISIONS				REVISIONS			
DESIGNED	DATE	NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION	REV	DATE	BY	DESCRIPTION	REV	DATE	BY	DESCRIPTION	REV
DRAWN	DATE			2012-05-18		ISSUED FOR PRELIMINARY REVIEW PRIOR TO ADP	P1								
CHECKED	DATE			2012-05-23		ISSUED FOR ADVISORY DESIGN PANEL REVIEW	P2								
APPROVAL	DATE			2012-05-31		ISSUED FOR DEVELOPMENT PERMIT	P3								

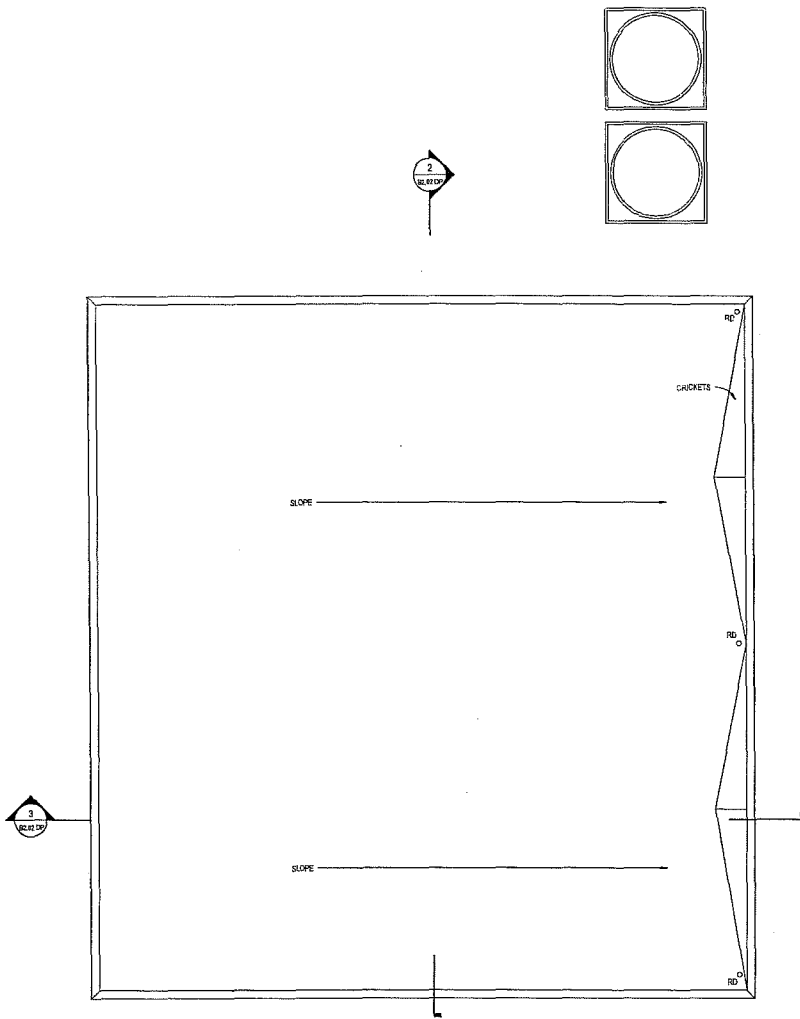


HAMILTON TRANSIT CENTRE (HTC) MAINTENANCE BUILDING - BUILDING SECTIONS			
Scale	0921-02 A5.02 DP	REV. NO.	P3

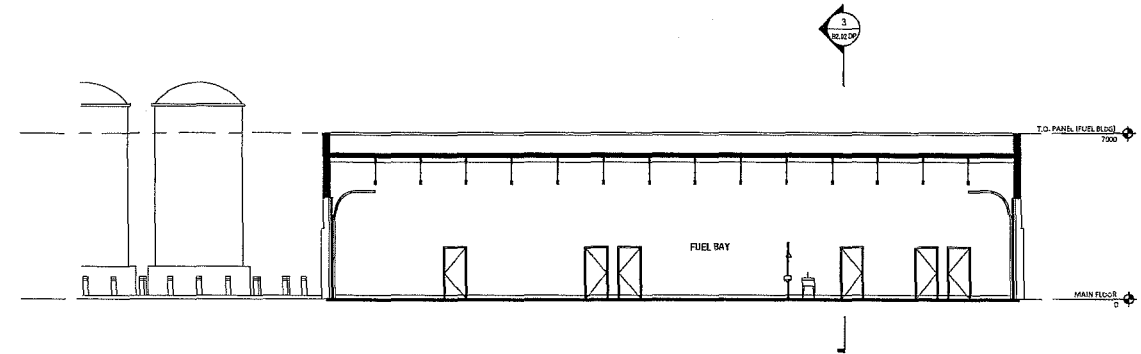
DP 10535726
Reference

OCT 10 2012

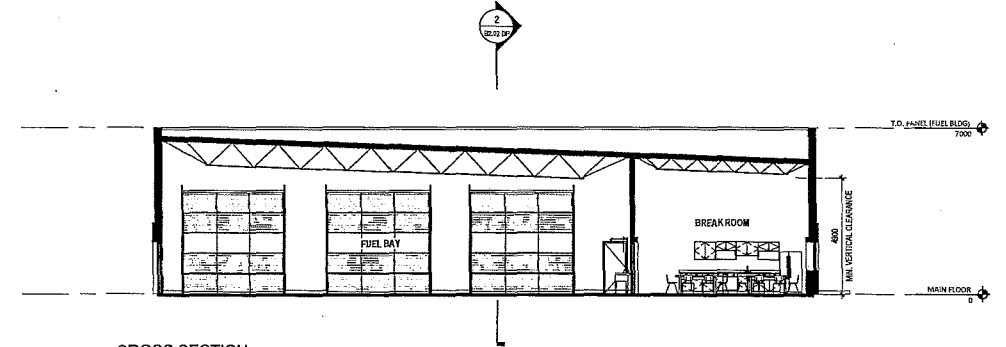
① TOP OF ROOF - FUEL BUILDING
1:100



② LONGITUDINAL SECTION
1:100

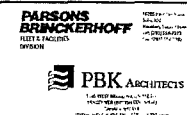


③ CROSS SECTION
1:100



DP APPLICATION
FOR REFERENCE

	DATE	REFERENCE DRAWING		REVISIONS				REVISIONS				REVISIONS			
		NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION	REV	DATE	BY	DESCRIPTION	REV	DATE	BY	DESCRIPTION	REV
DESIGNED				2012-09-18		ISSUED FOR PRELIMINARY REVIEW PRIOR TO ADP	P1								
DRAWN				2012-09-22		ISSUED FOR ADVISORY DESIGN PANEL REVIEW	P2								
CHECKED				12-09-18		ISSUED FOR DEVELOPMENT PERMIT	P3								
APPROVAL															



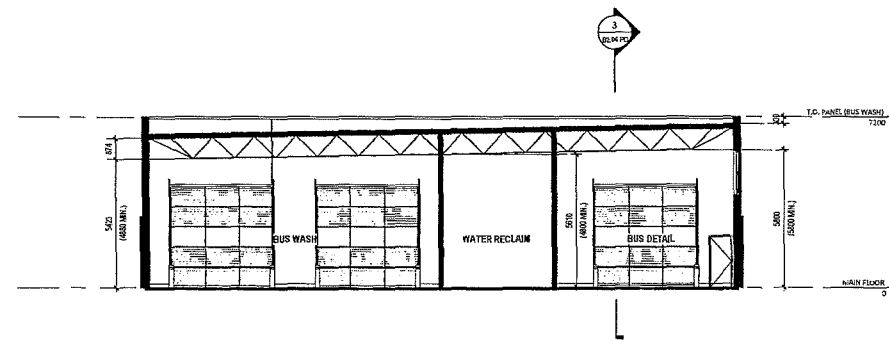
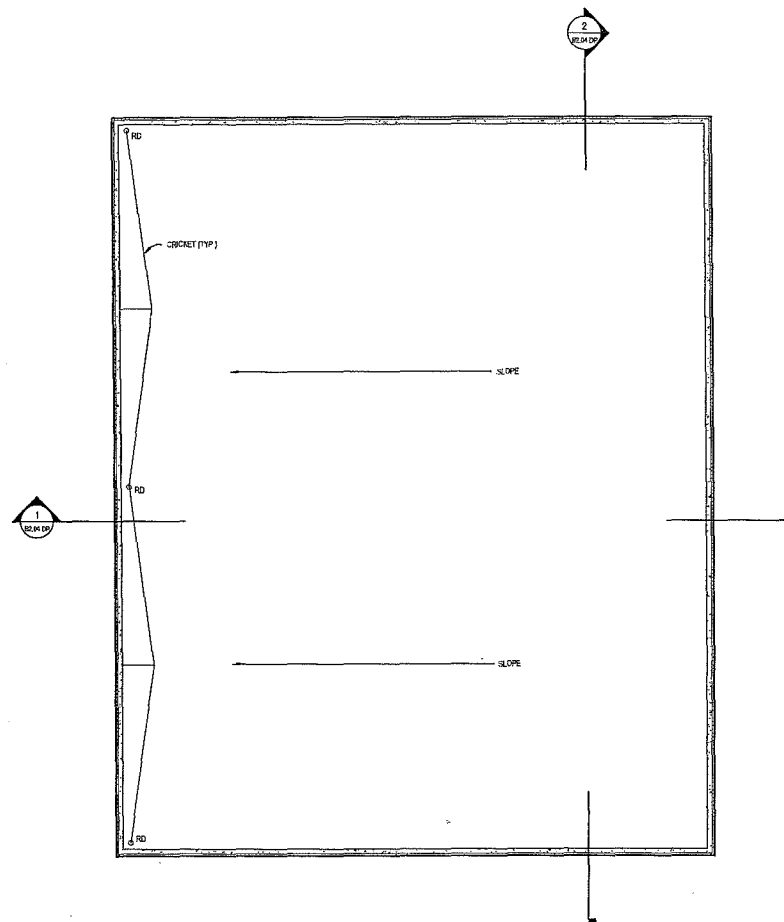
HAMILTON TRANSIT CENTRE (HTC)
FUEL BUILDING - ROOF PLAN
AND BUILDING SECTIONS

Scale: 1:100
Drawing No: 0921-02 B2.02 DP
Rev: P3

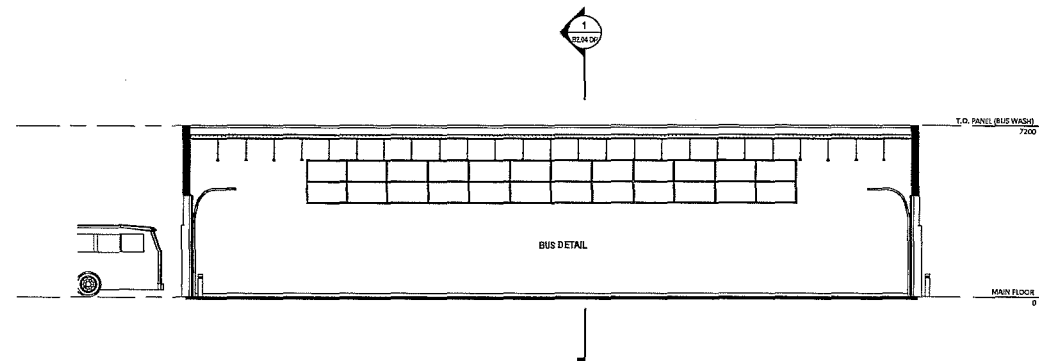
DP 10535726

Reference

OCT 10 2012



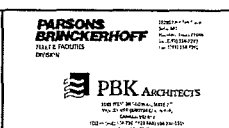
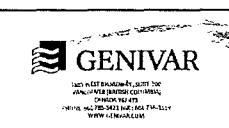
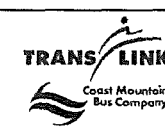
① BUS WASH - CROSS SECTION
1:100



② LONGITUDINAL SECTION
1:100

DP APPLICATION
FOR REFERENCE

DESIGNED	DATE	REFERENCE DRAWING		REVISIONS				REVISIONS				REVISIONS			
		NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION	REV	DATE	BY	DESCRIPTION	REV	DATE	BY	DESCRIPTION	REV
DRAWN	DATE			2012-05-18		ISSUED FOR PRELIMINARY REVIEW PRIOR TO ADP	P-1								
CHECKED	DATE			2012-05-23		ISSUED FOR ADVISORY DESIGN PANEL REVIEW	P-2								
APPROVAL	DATE			2012-06-23		ISSUED FOR DEVELOPMENT PERMIT	P-3								



HAMILTON TRANSIT CENTRE (HTC) BUS WASH BUILDING - BUILDING SECTIONS			
SCALE 1:100	PROJECT NO. 0921-02 B2.04 DP	SHEET NO. P3	

DP 10535726

Reference

OCT 10 2012