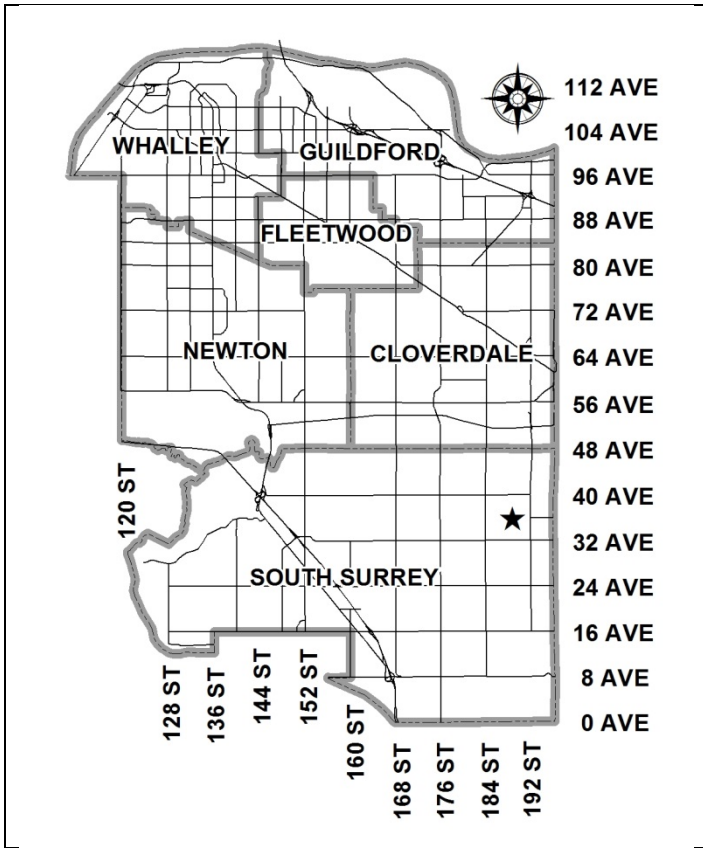


City of Surrey  
**PLANNING & DEVELOPMENT REPORT**

File: 7916-0109-00

Planning Report Date: June 13, 2016



**PROPOSAL:**

- **Development Permit**  
to permit the development of an industrial building.

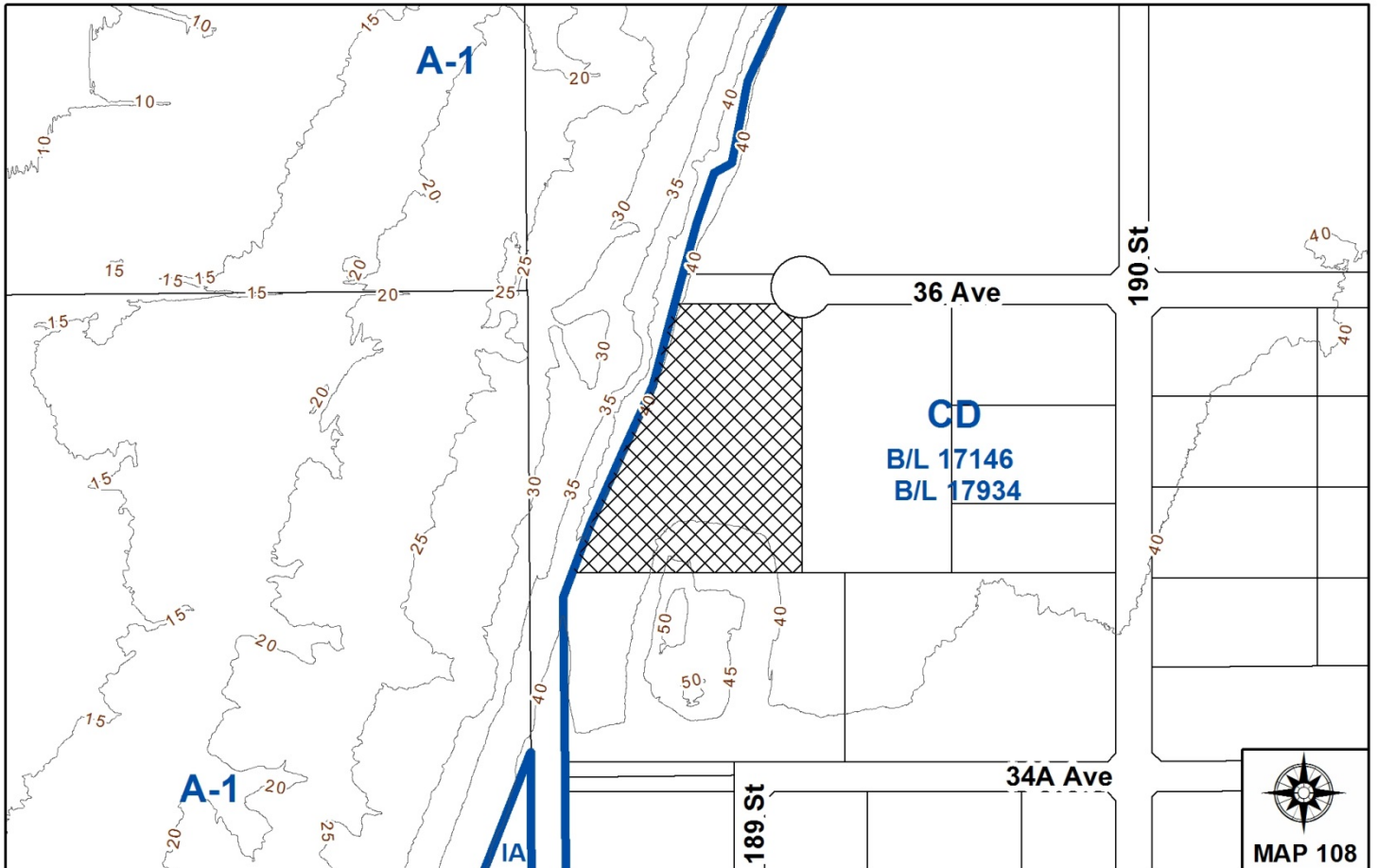
**LOCATION:** 18920 - 36 Avenue

**OWNER:** Garaventa (Canada) Ltd.

**ZONING:** CD (By-law Nos. 17146 & 17934)

**OCP DESIGNATION:** Mixed Employment

**LAP DESIGNATION:** Business Park



RECOMMENDATION SUMMARY

- Approval to draft Development Permit.

DEVIATION FROM PLANS, POLICIES OR REGULATIONS

- None.

RATIONALE OF RECOMMENDATION

- Complies with the "Mixed Employment" designation in the Official Community Plan (OCP) and the "Business Park" designation in the Campbell Heights Land Use Plan (LAP).
- The proposed density and building form are appropriate for this part of Campbell Heights and are consistent with the design guidelines outlined in the general Development Permit and Design Guidelines for Campbell Heights North.

RECOMMENDATION

1. Council authorize staff to draft Development Permit No. 7916-0109-00 generally in accordance with the attached drawings (Appendix II).
2. Council instruct staff to resolve the following issues prior to final approval:
  - (a) submission of a finalized landscaping plan and landscaping cost estimate to the specifications and satisfaction of the Planning and Development Department.

REFERRALS

Engineering:	The Engineering Department has no objection to the project subject to the completion of Engineering servicing requirements as outlined in Appendix III prior to the issuance of a Building Permit.
Surrey Fire Department:	The proposed development will need to conform to the requirements as stipulated in By-law No. 15740 for Public Safety E-COMM Radio Amplification.
Parks, Recreation and Culture Department:	Grading is not permitted on parkland. If grading changes are proposed adjacent to parkland, they will need to be reviewed and approved by the Parks, Recreation and Culture Department.

SITE CHARACTERISTICS

Existing Land Use: Vacant industrial land.

Adjacent Area:

<b>Direction</b>	<b>Existing Use</b>	<b>OCP/LAP Designation</b>	<b>Existing Zone</b>
North:	Parkland	Mixed Employment/ Business Park	CD (Bylaw Nos. 17146 and 17934)
East:	Vacant industrial land	Mixed Employment/ Business Park	CD (Bylaw Nos. 17146 and 17934)
South:	Vacant industrial land; Site is approved for a 10,657 sq.m. (114,715 sq.ft.) warehouse/light manufacturing facility with outdoor storage in the western side yard under Development Application No. 7914-0312-00.	Mixed Employment/ Business Park	CD (Bylaw Nos. 17146 and 17934)
West:	Forested parkland	Conservation and Recreation	A-1

DEVELOPMENT CONSIDERATIONSContext

- The site is designated "Mixed Employment" in the Official Community Plan (OCP) and "Business Park" in the Campbell Heights Local Area Plan (LAP).
- In June 2012, the site was rezoned from "General Agricultural Zone (A-1)" to "Comprehensive Development Zone (CD)" under By-law No. 17146 (Application No. 7910-0032-00). In June 2013, CD By-law No. 17146 was amended (under By-law No. 17934) to adjust the outdoor storage area boundaries. The site was subdivided as part of the Campbell Heights North phased development (Application No. 7912-0160-00).
- CD By-law No. 17146, as amended by By-law 17934, permits light impact industry, warehouse uses, distribution centres, transportation industry, office uses, and other accessory uses, forming part of a comprehensive design.
- The site was cleared and serviced for development under the original rezoning and subdivision applications. There are no trees or vegetation on the site.

### Proposal

- The applicant, Garaventa Lift, is proposing a Development Permit (DP) that will permit a 10,346 square metre (111, 368 square feet) industrial building on the subject site.
- Garaventa Lift is an international company that specializes in the design and fabrication of accessibility products and compact elevators. For approximately 40 years, Garaventa Lift's Canadian Division has operated multiple facilities in the Newton area and currently employs approximately 165 people. Garaventa Lift seeks to move to a new, concrete tilt-up facility that will allow its operations to be consolidated "under one roof" and will allow for future growth.
- The new facility will be home to its local head office that handles product sales, customer service, accounting, design and engineering and other operational functions. The warehouse portion of the new facility will allow for materials and finished product storage, electronics and controls assembly, elevator and other accessibility products assembly. Dock and grade loading doors are planned to handle the flow of incoming materials supply and outgoing finished product. No retail sales are planned for this location.
- The proposed development includes a total floor area of 10,346 square metres (111, 368 square feet) and a proposed building height of 10.4 metres (34 feet).
- The form, character and density of the proposed development complies with the Campbell Heights Local Area Plan (LAP) and the proposed development meets the requirements of the CD By-law No. 17146, as amended by By-law No. 17934, including floor area, lot coverage, building height and building setbacks.

### Access and Parking

- The proposal includes a total of 142 parking spaces, which exceeds the Zoning By-law requirement for 124 spaces.
- One (1) vehicular access is proposed to the site from the cul de sac on 36 Avenue. The proposed access meets the requirements of the Engineering Department.
- The proposed truck bays are located on the Western side of the building, away from street view.

### Agricultural Interface

- The Southwestern portion of the subject site falls within 50 metres (164 feet) of the Agricultural Land Reserve (ALR) boundary. It was determined that the site is exempt from a Farming Protection Development Permit since there is adequate buffering in place already between the ALR boundary and the proposed industrial development consisting of a forested, natural park area that is owned by the City. This environmental area was secured under Development Application No. 7908-0266-00.

### Hazard Lands- Steep Slope Interface

- The Western side of the subject site is adjacent to a Hazard Lands Development Permit Area for steep slopes located within the parkland to the West. A geotechnical report was prepared

as part of Development Application File No. 7908-0266-00, whereby a 5 metre (16 feet) setback area was established from the property line. A restrictive covenant is registered on title protecting the 5 metre (16 feet) area from the construction of any drainage infiltration works in, on or under the covenant area. In addition, CD By-law No. 17146 requires that all buildings be setback at least 5 metres (16 feet) from this lot line. As part of this development proposal, the setback area is being protected in accordance with the CD By-law and the restrictive covenant registered on title. As proposed development will be setback sufficiently from the steep slopes, staff has no concerns from a hazard lands perspective.

### PRE-NOTIFICATION

- A development proposal sign was posted on the site and the project was referred to the Little Campbell Watershed Society (LCWS) for review and comment. The LCWS indicated that they do not have any concerns with the proposal.

### DESIGN PROPOSAL AND REVIEW

- The proposed building is consistent with the design guidelines outlined in the Campbell Heights North Design Guidelines and the Official Community Plan (OCP), and is reflective of the existing standards within the area. The development concept behind Campbell Heights is a high quality, sustainable industrial business park.
- Overall, the building is proposed to have a modern linear appearance. Architectural emphasis is placed on the main entrance facing 36 Avenue with the use of glazing and articulation to provide visual interest. The main entrances will provide "eyes on the street" in accordance with Crime Prevention Through Environmental Design (CPTED) principles on 36 Avenue.
- The proposed building construction is a combination of concrete tilt up and tinted glazing as the main cladding materials with pre-finished metal flashing and steel canopy and collards as accent materials. The colour scheme proposed is grey and blue.

### Pedestrian Circulation

- Two pedestrian linkages are proposed on the site with one connecting the main entrance to the building to 36 Avenue and the second one connecting the pathway on the Western edge of the property with the parkland to the North.

### Landscaping

- Landscaping is proposed in accordance with the Zoning By-law requirements and will consist of a 1.5 metre (5 feet) wide landscaped area on the North, East and South property lines. A varying landscaped area between 1.5 metres (5 feet) and 3 metres (10 feet) wide is proposed on the West property adjacent to the Biodiversity Conservation Area (BCS). The proposed landscaping will consist of: Red Maple, Pacific Dogwood and Cherry trees. This will be complemented by a variety of shrubs, and ground cover including Boxwood, Lilac, Heather and Lavender.
- The applicant has also indicated that they are not proposing any fencing on the site, and that the garbage and recycling will be stored inside of the building. If any fencing is proposed in the future, it will require separate review and approval from the City.

### Signage

- No signage is proposed at this time. The applicant has indicated that signage will be dealt with through a separate permitting process.

### SUSTAINABLE DEVELOPMENT CHECKLIST

The applicant prepared and submitted a sustainable development checklist for the subject site on April 13, 2016. The table below summarizes the applicable development features of the proposal based on the seven (7) criteria listed in the Surrey Sustainable Development Checklist.

<b>Sustainability Criteria</b>	<b>Sustainable Development Features Summary</b>
1. Site Context & Location (A1-A2)	<ul style="list-style-type: none"> <li>• The site is located in the Campbell Heights LAP and the proposed development is reflective of the land use designation.</li> </ul>
2. Density & Diversity (B1-B7)	<ul style="list-style-type: none"> <li>• The proposed density and FAR is in keeping with the Zoning By-law.</li> </ul>
3. Ecology & Stewardship (C1-C4)	<ul style="list-style-type: none"> <li>• Low impact development standards (LIDs) are incorporated in the design of the project including:               <ul style="list-style-type: none"> <li>○ Absorbent soils (minimum 300 mm in depth);</li> <li>○ Roof downspout disconnection;</li> <li>○ On lot infiltration trenches or sub-surface chambers;</li> <li>○ Cisterns and rain barrels; and</li> <li>○ Permeable pavement.</li> </ul> </li> </ul>
4. Sustainable Transport & Mobility (D1-D2)	<ul style="list-style-type: none"> <li>• Bicycle parking will be provided on site.</li> </ul>
5. Accessibility & Safety (E1-E3)	<ul style="list-style-type: none"> <li>• Crime Prevention Through Environmental Design (CPTED) principles have been incorporated in the following manner:               <ul style="list-style-type: none"> <li>○ Natural access control by clearly defining entries to the building; and</li> <li>○ Exterior lighting of the building providing visibility on the site.</li> </ul> </li> </ul>

6. Green Certification (F1)	• N/A
7. Education & Awareness (G1-G4)	• N/A

### ADVISORY DESIGN PANEL

- The application was not referred to the Advisory Design Panel (ADP), but was reviewed by City Staff and found to be satisfactory. The proposed development was evaluated based on compliance with the design guidelines for Campbell Heights North and the OCP.

### INFORMATION ATTACHED TO THIS REPORT

The following information is attached to this Report:

- Appendix I. Lot Owners, Action Summary and Project Data Sheets
- Appendix II. Site Plan, Building Elevations, Landscape Plans and Perspective
- Appendix III. Engineering Summary

*original signed by Ron Hintsche*

Jean Lamontagne  
General Manager  
Planning and Development

CL/ar

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# DEVELOPMENT DATA SHEET

Existing Zoning: CD (Bylaw Nos. 17146 and 17934)

Required Development Data	Minimum Required / Maximum Allowed	Proposed
<b>LOT AREA*</b> (in square metres)		
Gross Total		
Road Widening area		
Undevelopable area		
Net Total		21,634 sq.m.
<b>LOT COVERAGE</b> (in % of net lot area)		
Buildings & Structures		
Paved & Hard Surfaced Areas		
Total Site Coverage	60%	48%
<b>SETBACKS</b> ( in metres)		
Front (36 Avenue)	16 m	16 m
Rear	7.5 m	13.7 m
Side Yard East	7.5 m	15.2 m
Side Yard West	7.5 m	14.2 m
Side Yard North	7.5 m	12.1 m
<b>BUILDING HEIGHT</b> (in metres/storeys)		
Principal	14 m	10.4 m
Accessory		
<b>NUMBER OF RESIDENTIAL UNITS</b>		
Bachelor		
One Bed		
Two Bedroom		
Three Bedroom +		
Total		
<b>FLOOR AREA: Residential</b>		
<b>FLOOR AREA: Commercial</b>		
Retail		
Office		1,354 sq.m.
Total		
<b>FLOOR AREA: Industrial</b>		9,669 sq. m.
<b>FLOOR AREA: Institutional</b>		
<b>TOTAL BUILDING FLOOR AREA</b>		10,346 sq.m.

*\* If the development site consists of more than one lot, lot dimensions pertain to the entire site.*

**Development Data Sheet cont'd**

<b>Required Development Data</b>	<b>Minimum Required / Maximum Allowed</b>	<b>Proposed</b>
DENSITY		
# of units/ha /# units/acre (gross)		
# of units/ha /# units/acre (net)		
FAR (gross)		
FAR (net)	1.0	0.48
AMENITY SPACE (area in square metres)		
Indoor		
Outdoor		
PARKING (number of stalls)		
Commercial	34	42
Industrial	90	100
Residential Bachelor + 1 Bedroom		
2-Bed		
3-Bed		
Residential Visitors		
Institutional		
Total Number of Parking Spaces	124	142
Number of disabled stalls		2
Number of small cars	31	11
Tandem Parking Spaces: Number / % of Total Number of Units		
Size of Tandem Parking Spaces width/length		

Heritage Site	NO	Tree Survey/Assessment Provided	NO
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3	2016/03/18		ISSUED FOR DP
2	2016/03/16		ISSUED FOR CLIENT REVIEW
1	2016/03/03		I.F. CITY PRELIM MEETING

ISSUES AND REVISIONS

SEAL

larry podhora / **architect**  
 1802 BRIDGMAN BLVD, NORTH BURNABY, B.C. V5A 0G2

PROJECT NAME  
**PROPOSED BUILDING FOR GARAVENTA LIFT**

PROJECT ADDRESS  
**18920 36 AVENUE, SURREY, BC**

DRAWING TITLE  
**PERSPECTIVES**

SCALE

DRAWN NA

CHECKED SAD

PROJECT NO. 180016

DRAWING NO.

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3	2018/03/19		ISSUED FOR DP
2	2016/03/18		ISSUED FOR CLIENT REVIEW
1	2016/03/03		IF CITY PRELIMINARY REVIEW

NO.	DATE	YARD	DESCRIPTION
1	2016/03/03		IF CITY PRELIMINARY REVIEW

ISSUES AND REVISIONS

larry podhora / architect  
180 BRADSHAW BLVD NORTH SUITE 200 B.C. V6L 6L2

PROJECT NAME  
**PROPOSED BUILDING FOR GARAVENTA LIFT**

PROJECT ADDRESS  
18920 36 AVENUE, SURREY, BC

DRAWING TITLE  
**SITE PLAN**

SCALE	As indicated
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PROJECT NO.	180016
DRAWING NO.	

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**PROJECT DATA**  
CIVIC ADDRESS: 18958 36 AVENUE, SURREY BC (LOT 21)  
LEGAL ADDRESS: LOT 21, PLAN EPP41342  
ZONING: COMPREHENSIVE DEVELOPMENT (CD)  
BUILDING USE: LIGHT INDUSTRIAL  
GROSS BUILDING AREA: 104,080 SQ FT ( 9,669 S.M.)

**ZONING BYLAW ANALYSIS (CITY OF SURREY)**  
1. ZONING: CD (COMPREHENSIVE DEVELOPMENT) NUMBERS 17146 & 17304  
2. SITE AREA: 2.1614 / 5.35 ACRES = 232,869 S.F. (21,634 S.M.)

**3. SITE COVERAGE:**  
FLOOR SPACE RATIO:  
PROPOSED FLOOR SPACE RATIO = 0.48  
PERMITTED FLOOR SPACE RATIO = 1.0

**4. DENSITY**  
TOTAL FLOOR AREA:  
MAIN FLOOR: 104,078 S.F. (9,669 S.M.)  
SECOND FLOOR: 7,290 S.F. (677 S.M.)  
NET FLOOR SPACE: 111,368 S.F. (10,346 S.M.)  
FLOOR SPACE RATIO: (TOTAL FLOOR AREA) / (SITE AREA) = %  
111,368 S.F. / 232,869 S.F. = 0.48  
ALLOWABLE SITE COVERAGE: 60% (139,721 SQ FT ( 12,880 S.M.))  
PROPOSED SITE COVERAGE: (BUILDING AREA) / (SITE AREA) = %  
104,080 SQ FT / 232,869 SQ FT = 44.7%

**5. BUILDING HEIGHT:**  
MAXIMUM HEIGHT: 14.00 M (45'-11")  
PROPOSED HEIGHT: 10.36 M (34'-0")

**6. REQUIRED SETBACKS:**

REQUIRED	PROVIDED
FRONT YARD (NORTH-EAST): OR IF LANDSCAPED (NO PARKING)	16.0 M (52'-6") 16.0 M (52'-6")
INTERIOR SIDE YARD (WEST):	7.5 M (24'-7") 14.18 M (46'-6")
OR IF ONE SIDE ABUTS INDUSTRIAL:	0.0 M (0'-0") 15.25 M (50'-0")
REAR YARD (SOUTH):	7.5 M (24'-7") 13.72 M (45'-0")

**7. LANDSCAPING REQUIREMENTS:**  
ALL LANDSCAPING TO SURREY ZONING BYLAW  
SEE LANDSCAPE ARCHITECT'S DRAWINGS

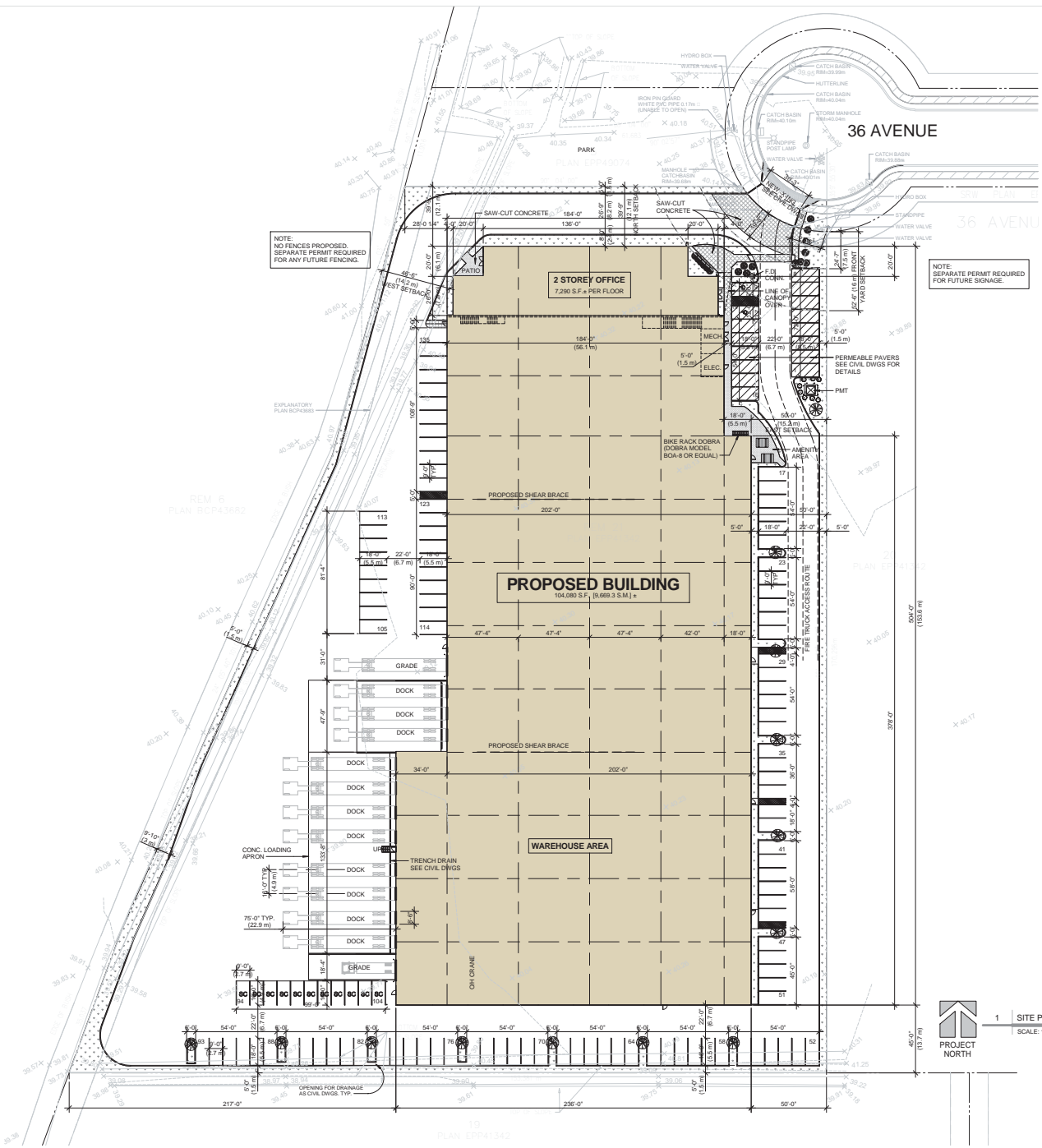
**8. PARKING AND LOADING:**  
**STALL DIMENSIONS:**  
STANDARD STALL DIMENSIONS: 9'-0" (2.75 M) WIDE, 18'-0" (5.5 M) LONG  
ACCESSIBLE STALL DIMENSIONS: 12'-0" (3.7 M) WIDE, 18'-0" (5.5 M) LONG  
SMALL CAR STALL DIMENSIONS: 9'-0" (2.75 M) WIDE, 16'-0" (4.9 M) LONG  
DRIVE AISLE: 22'-0" (6.7 M)  
LOADING STALL: 15'-0" (4.6 M) WIDE, 30'-0" (9.2 M) LONG  
**PARKING STALL REQUIRED:**  
OFFICE MAIN FLOOR: 1 STALL / 369 S.F.  
OFFICE SECOND FLOOR: 1 STALL / 638 S.F.  
INDUSTRIAL SPACE: 1 STALL / 1,076 S.F.  
INDUSTRIAL: 96,784 / 1,076 SQ.FT = 90.0  
OFFICE MAIN FLOOR: 7,290 / 369 SQ.FT = 20.3  
OFFICE 2ND FLOOR: 7,290 / 638 SQ.FT = 11.6  
TOTAL STALLS REQUIRED = 124 (123.9)

**TOTAL STALLS PROVIDED:**  
122 STANDARD STALLS  
2 ACCESSIBLE STALLS  
11 SMALL CAR STALLS  
TOTAL STALLS PROVIDED = 136



PROJECT NORTH  
2 CONTEXT PLAN  
SCALE: 1" = 400'-0"

PROJECT NORTH  
1 SITE PLAN  
SCALE: 1/32" = 1'-0"



C:\Users\larry.podhora\OneDrive\Projects\18920 36 Avenue\18920 36 Avenue - Contextual - Job 41

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5	2016/06/01		RE ISSUED FOR DP
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2	2016/03/16		ISSUED FOR CLIENT REVIEW

ISSUES AND REVISIONS

SEAL

larry podhora / architect  
1903 BRIDGMAN BLVD. NORTH SUITE 200, S.C. V1L 5L2

PROJECT NAME

**PROPOSED BUILDING FOR GARAVENTA LIFT**

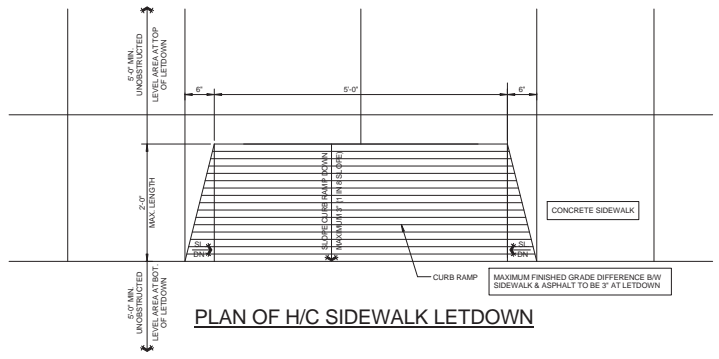
PROJECT ADDRESS  
**18920 36 AVENUE, SURREY, BC**

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**SITE DETAILS**

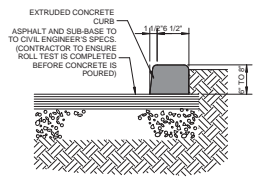
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PROJECT NO.	180016
DRAWING NO.	

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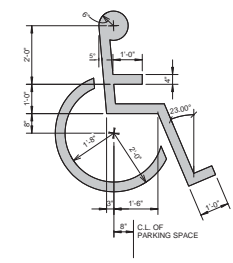
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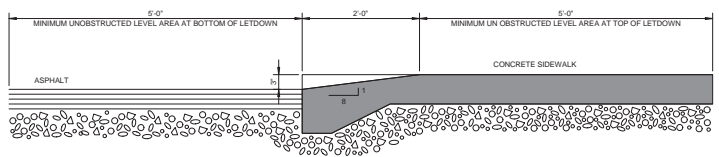
1 H/C SIDEWALK LETDOWN  
SCALE: 1" = 1'-0"



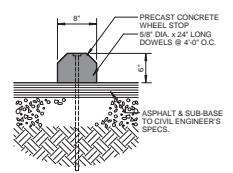
2 EXTRUDED CURB  
SCALE: 1" = 1'-0"



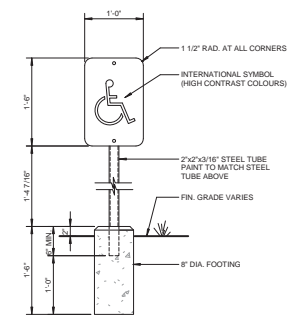
5 H/C SYMBOL  
SCALE: 1/2" = 1'-0"



1 H/C SIDEWALK LETDOWN  
SCALE: 1" = 1'-0"

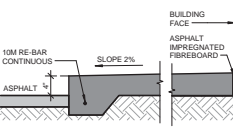


3 PRECAST WHEEL STOP  
SCALE: 1" = 1'-0"

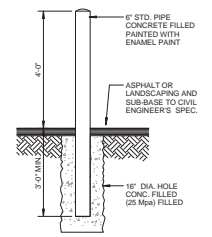


NOTE:  
1. SIGNS SHOULD BE PROPERLY CENTERED AT FRONT OF PARKING SPACE.  
2. SIGN FACE SHOULD BE LOCATED NO FURTHER THAN 6" FROM THE FRONT OF PARKING SPACE WITH A MINIMUM OF 3'-0" CLEAR.  
3. MOUNT SIGN ON COLUMN OR WALL AT SIM. CONDITION.  
4. WHERE SIGN IS PLACED IN PAVED AREA AT PARKING STALLS, PROVIDE PRE-CAST BUMPERS.

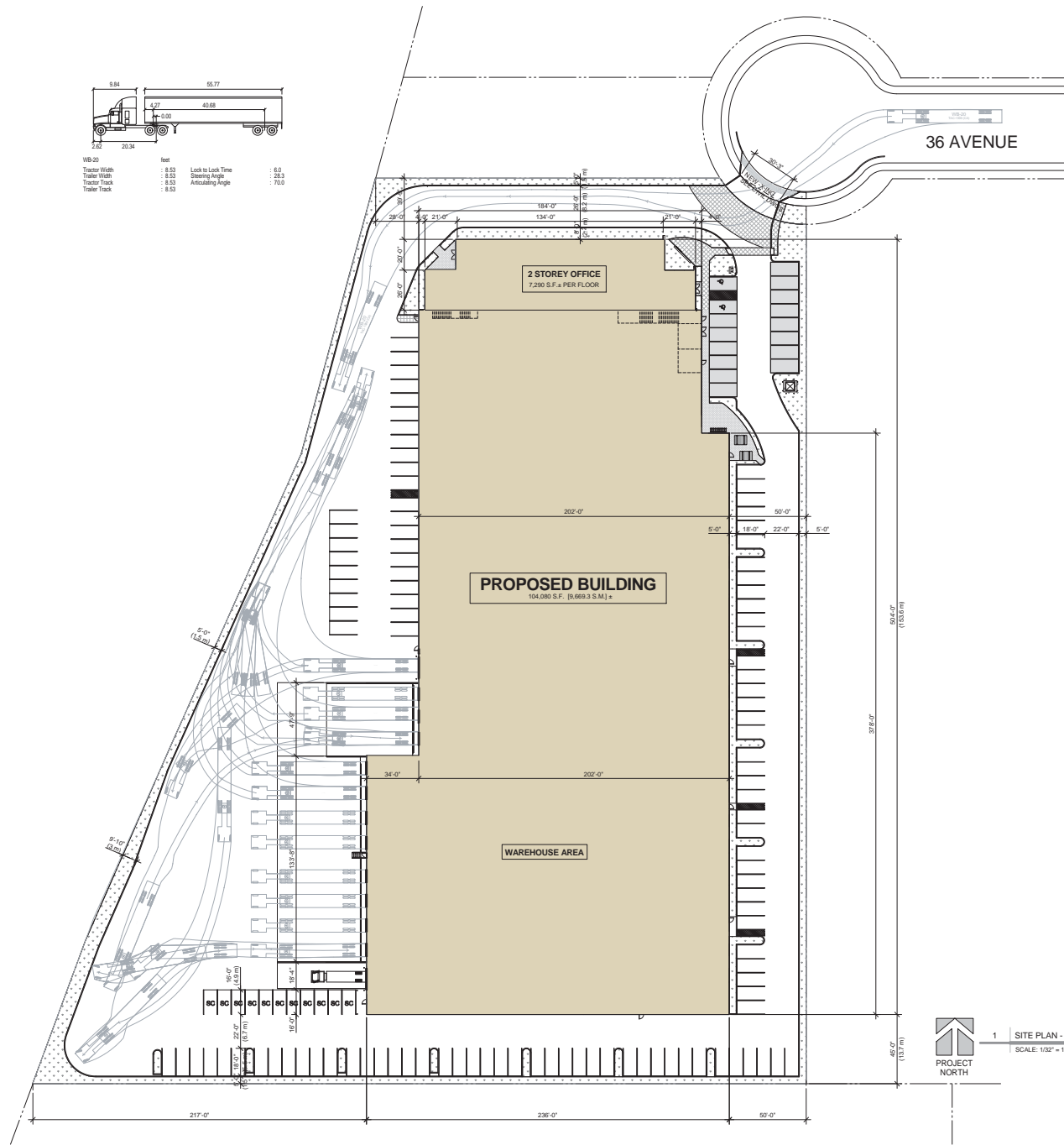
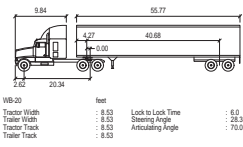
6 POST MOUNTED H/C SIGN  
SCALE: 1" = 1'-0"



4 SIDEWALK EDGE DETAIL  
SCALE: 1" = 1'-0"



7 CONCRETE FILLED STEEL BOLLARD  
SCALE: 1/2" = 1'-0"



36 AVENUE



1 SITE PLAN - TRUCK TURNING  
SCALE: 1/32" = 1'-0"



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3	2018/05/18		ISSUED FOR DP

ISSUES AND REVISIONS

larry podhora / architect  
1803 BRADSHAW BLVD NORTH SUITE 201 V1N 4L2

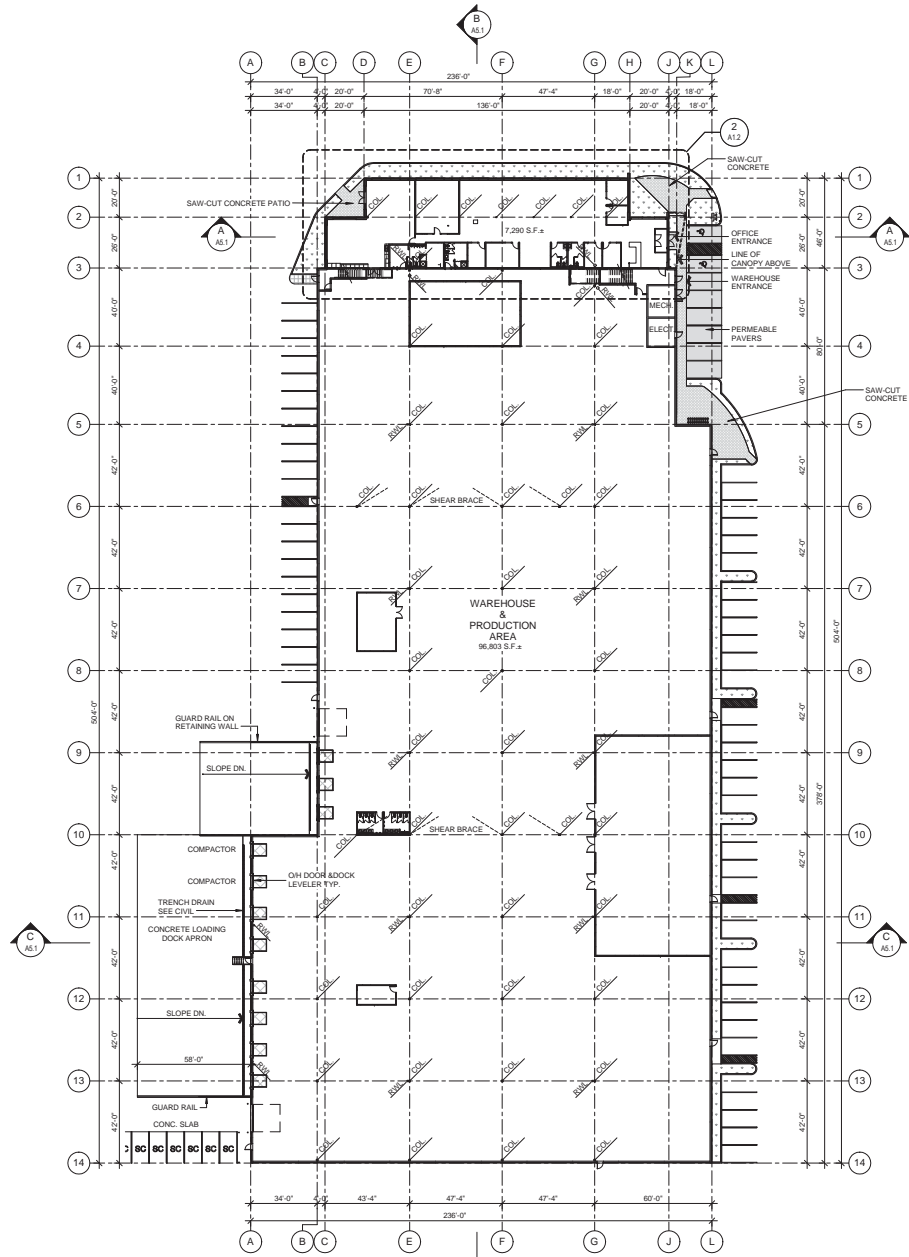
PROJECT NAME  
**PROPOSED BUILDING FOR GARAVENTA LIFT**

PROJECT ADDRESS  
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DRAWING TITLE  
**SITE PLAN - TRUCK TURNING**

SCALE	As indicated
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1 MAIN FLOOR PLAN  
SCALE: 1" = 30'-0"



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5	2016/06/01		RE ISSUED FOR DP
4	2016/05/30		RE ISSUED FOR DP
3	2016/03/18		ISSUED FOR DP
2	2016/03/18		ISSUED FOR CLIENT REVIEW
1	2016/03/03		I.F. CITY PRELIM MEETING

ISSUES AND REVISIONS  
SEAL

**larry podhora / architect**  
1952 BRIDGMAN BLVD, NORTH BURNABY, B.C. V5L 4L3

PROJECT NAME  
**PROPOSED BUILDING FOR GARAVENTA LIFT**

PROJECT ADDRESS  
**18920 36 AVENUE, SURREY, BC**

DRAWING TITLE  
**MAIN FLOOR PLAN**

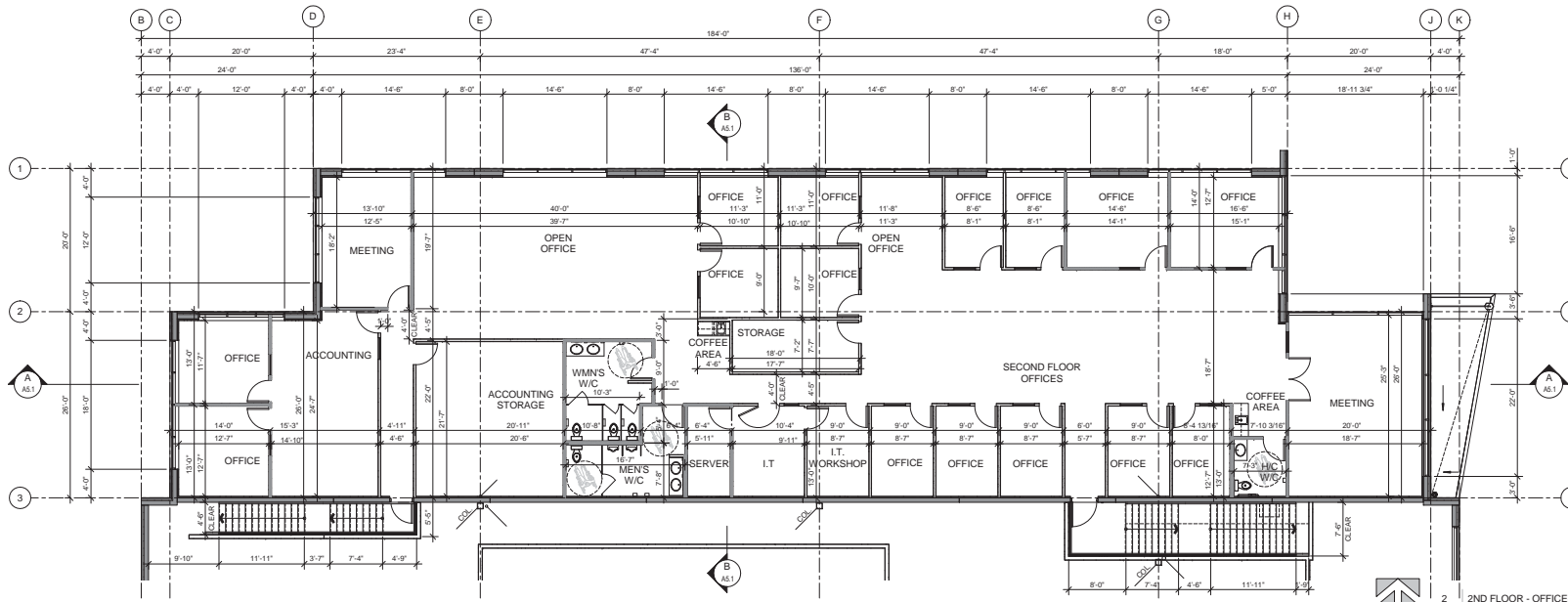
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DRAWN	NA
CHECKED	SAD
PROJECT NO.	180016
DRAWING NO.	

**A3.1**

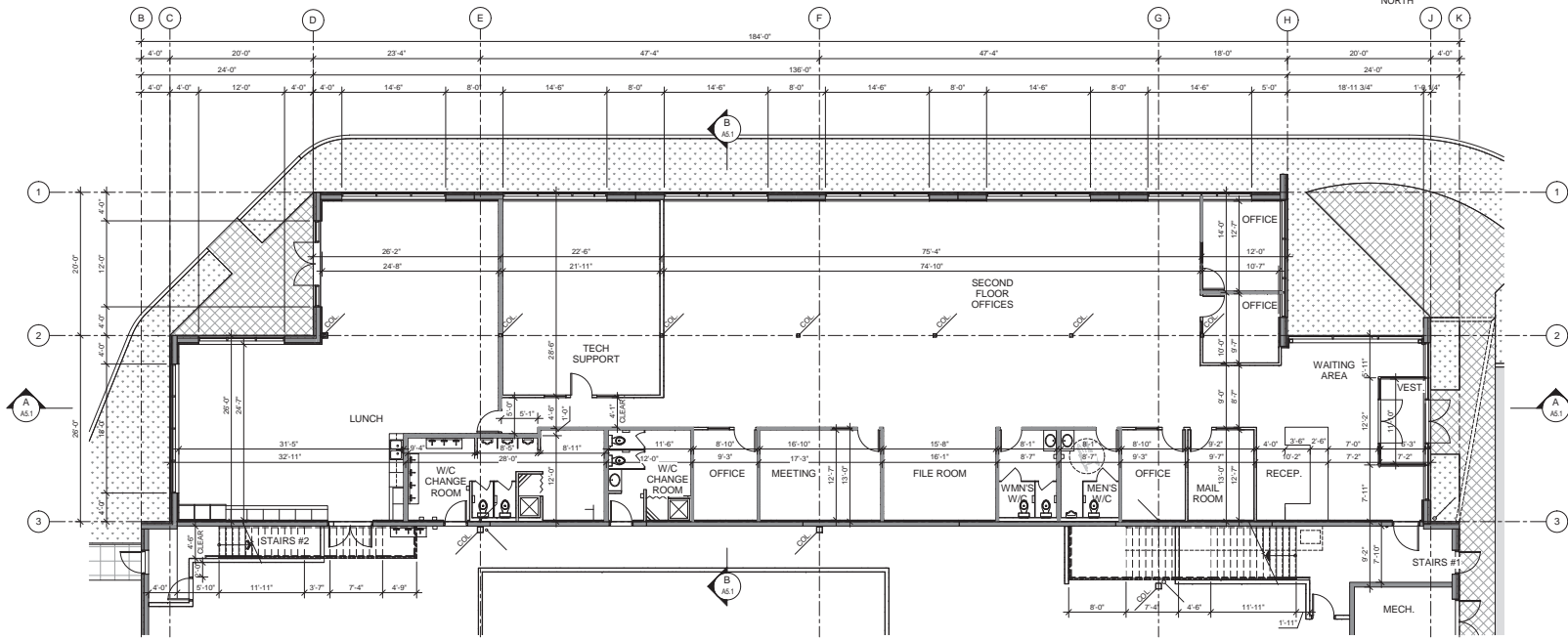
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2 2ND FLOOR - OFFICES  
SCALE: 1/8" = 1'-0"



1 MAIN FLOOR - OFFICES  
SCALE: 1/8" = 1'-0"



**ABBOTSFORD OFFICE**  
100-10000 100TH AVENUE, ABBOTSFORD, B.C. V2S 2B4  
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**EDMONTON OFFICE**  
1000, 10217 JARDINE AVENUE, EDMONTON, AB, T5J 1B5  
TEL: 780-482-8888 WWW.KRAHN.COM

**VANCOUVER OFFICE**  
111 GORDON STREET, VANCOUVER, B.C. V6K 4Y3  
TEL: 604-244-8882 FAX: 604-244-8888 WWW.KRAHN.COM



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NO.	DATE	YMD	DESCRIPTION
5	20160601		RE ISSUED FOR DP
4	20160509		RE ISSUED FOR DP
3	20160318		ISSUED FOR DP
2	20160316		ISSUED FOR CLIENT REVIEW
1			

ISSUES AND REVISIONS

SCALE

**larry podhora / architect**  
1800 BRIMMAR HWY NORTH SUITE 200, S.C. V3L 5L2

PROJECT NAME  
**PROPOSED BUILDING FOR GARAVENTA LIFT**

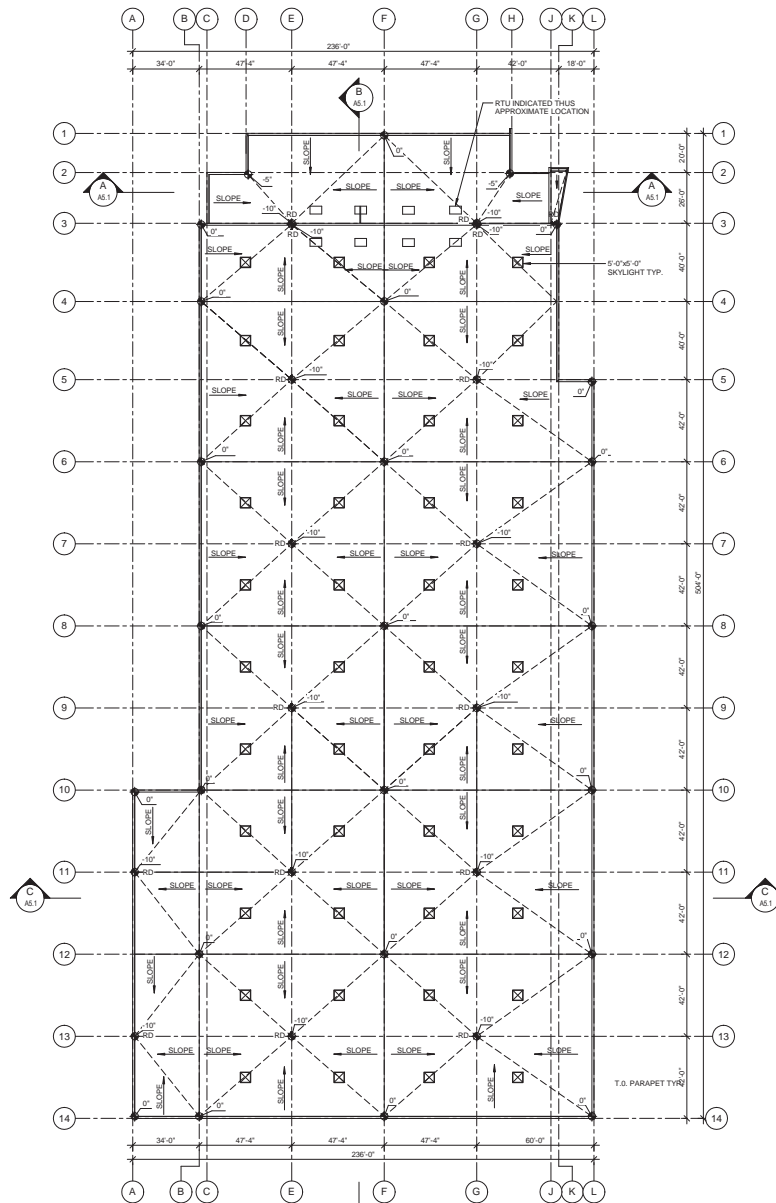
PROJECT ADDRESS  
**18920 36 AVENUE, SURREY, BC**

DRAWING TITLE  
**OFFICE - MAIN & 2ND FLOOR PLANS**

SCALE	1/8" = 1'-0"
DRAWN	LH
CHECKED	SAD
PROJECT NO.	180016
DRAWING NO.	

**A3.3**

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1 ROOF PLAN  
SCALE: 1" = 30'-0"

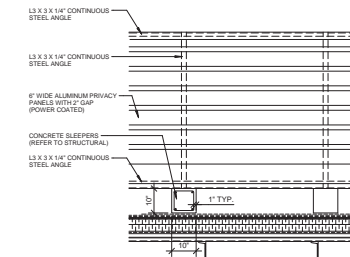
**ROOF NOTES**

SEE SCHEDULE DRAWING FOR ALL FLOOR, WALL, CEILING, AND ROOF ASSEMBLIES.

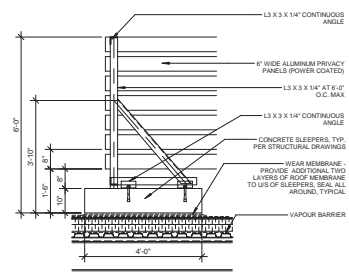
**DRAINAGE**  
 - ALL ROOF DRAINS PER MECHANICAL DRAWINGS.  
 - ROOF SANWATERS TO BE DRAINED TO STORM SYSTEM PER MECHANICAL AND CIVIL DRAWINGS AND SPECIFICATIONS.  
 - POSITIVE DRAINAGE IS GENERALLY PROVIDED BY SLOPING OF STRUCTURE. ROOFING CONTRACTOR TO PROVIDE SLOPED INSULATION OR CRICKETS AT ANY LOCATIONS WHERE ASSISTANCE TO POSITIVE DRAINAGE IS REQUIRED.  
 - OVERFLOW SCUPPERS AS REQUIRED AS NOTED ON PLANS. CONTRACTOR TO CONFIRM DETAILS.

**SCREENING**  
 - CONTRACTOR TO CONFIRM ALL ASPECTS OF ROOF DESIGN WITH QUALIFIED ROOFING CONTRACTOR/CONSULTANT.  
 - WARRANTY FOR ROOFING MEMBRANE TO BE PROVIDED BY MANUFACTURER. COPY OF WARRANTY DOCUMENTATION TO BE PROVIDED TO KRAHN GROUP OF COMPANIES.  
 - ELEVATIONS SHOWN ON ROOF PLANS INDICATE ELEVATION OFFSET FROM US DECK ELEVATION IN ITS RESPECTED AREA.

**ROOF OPENINGS FOR MECHANICAL EQUIPMENT**  
 ALL SIZES, LOCATIONS AND CURBING ASSOCIATED WITH EQUIPMENT SHOWN ON THIS PLAN TO BE CONFIRMED WITH MECHANICAL DRAWINGS AND SUPPLIER'S SPECIFICATIONS. SUPPORTS AROUND OPENINGS TO BE CONFIRMED WITH AND PER STRUCTURAL DRAWINGS.



NOTE: POSITION SLEEPERS ON TOP OF STRUCTURAL SUPPORTS (INSTALL L3 X 3 X 3/8\"/>



2 ROOF TOP UNIT SCREENING @ ROOF DECK  
SCALE: 1/2\"/>



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 70-10250 101ST AVENUE, ABBOTSFORD, B.C. V2S 2B9  
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 T: 780.766.0000 WWW.KRAHN.COM

VANCOUVER OFFICE  
 11111 COTTRELL STREET, VANCOUVER, B.C., V6K 4Y3  
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NO.	DATE	YAMD	DESCRIPTION
5	2016/06/01	RE	ISSUED FOR DP
4	2016/05/20	RE	ISSUED FOR DP
3	2016/03/18	ISS	ISSUED FOR DP
2	2016/03/16	ISS	ISSUED FOR CLIENT REVIEW
NO.	DATE	YAMD	DESCRIPTION

ISSUES AND REVISIONS

SCALE

larry podhora / architect  
 180 BROADWAY EAST, NORTH BURNABY, B.C. V5L 6L3

PROJECT NAME  
**PROPOSED BUILDING FOR GARAVENTA LIFT**

PROJECT ADDRESS  
 18920 36 AVENUE, SURREY, BC

DRAWING TITLE  
**ROOF PLAN**

SCALE	As indicated
DRAWN	LH
CHECKED	SAD
PROJECT NO.	180016
DRAWING NO.	

A3.7

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**NOT FOR CONSTRUCTION**

NO.	DATE	BY	DESCRIPTION
5	2018/05/01	RE	ISSUED FOR DP
4	2018/05/30	RE	ISSUED FOR DP
3	2018/05/18	RE	ISSUED FOR DP
2	2018/03/16	RE	ISSUED FOR CLIENT REVIEW
1	2018/03/03	RE	CITY PRELIM MEETING

ISSUES AND REVISIONS

SCALE:

**larry podhora / architect**  
 1952 BRIDGMAN HWY. NORTH BURNABY, B.C. V5L 5L3

**PROPOSED BUILDING FOR GARAVENTA LIFT**

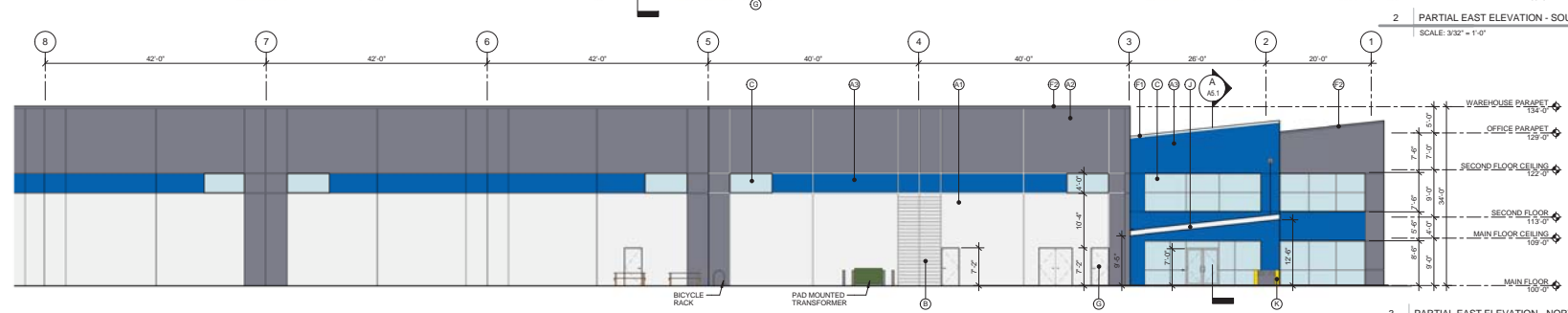
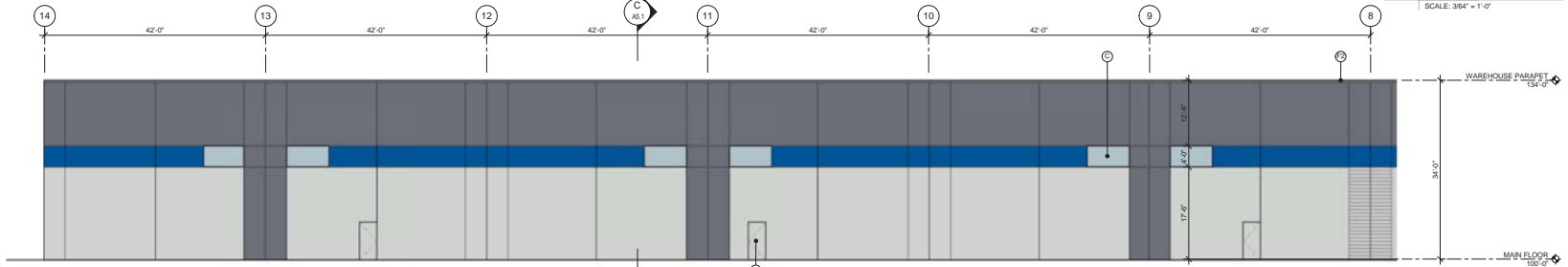
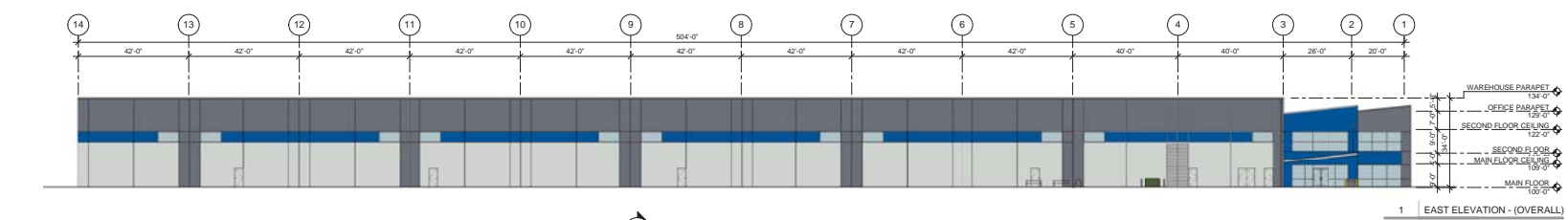
PROJECT ADDRESS  
 18920 36 AVENUE, SURREY, BC

DRAWING TITLE  
**EAST & NORTH ELEVATIONS**

SCALE	As indicated
DRAWN	LH
CHECKED	SAD
PROJECT NO.	180916
DRAWING NO.	

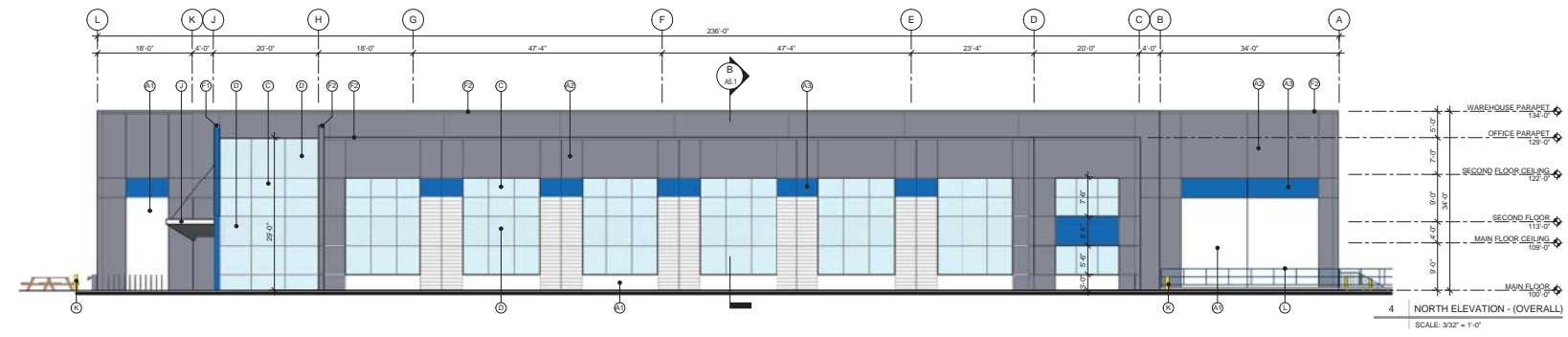
**A4.1**

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EXTERIOR FINISH LEGEND	
C1/P CONCRETE ADDRESS PEDESTAL	PAINTED COLOUR C3
A1 CONCRETE TILT-UP PANEL	PAINTED COLOUR C1
A2 CONCRETE TILT-UP PANEL	PAINTED COLOUR C2
A3 CONCRETE TILT-UP PANEL	PAINTED COLOUR C3
B 3/4" DEEP REVEAL	SAME AS PANEL
C CLEAR VISION GLAZING	CLEAR GLAZING IN CLEAR ANODIZED FRAMING
D SPANREL GLAZING	SPRAY GRIND COAT
F STEEL MAN DOOR	COLOUR C1
F1 PRE-FINISHED METAL FLASHINGS	HIGH GLOSS WHITE
F2 PRE-FINISHED METAL FLASHINGS	COLOUR TO MATCH ADJACENT MATERIAL
G STEEL MAN DOOR	PAINTED COLOUR C1
H STEEL OHN DOOR	PAINTED COLOUR C1
J STEEL CANOPY	PAINTED COLOUR C1
K STEEL BOLLARD	PAINTED WITH ENAMEL PAINT

COLOR LEGEND		
C1 BENJAMIN MOORE WEDDING VEIL	2125-70	
C2 BENJAMIN MOORE SEA LIFE	21-1840	
C3 BENJAMIN MOORE DARK ROYAL BLUE	2065-20	



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**NOT FOR CONSTRUCTION**

NO.	DATE	YAMD	DESCRIPTION
5	2018/08/01	RE-ISSUED FOR DP	
4	2018/05/30	RE-ISSUED FOR DP	
3	2018/03/18	ISSUED FOR DP	
2	2018/03/18	ISSUED FOR CLIENT REVIEW	
1	2018/03/03	IF: CITY PRELIMINARY MEETING	

ISSUES AND REVISIONS

SEAL

larry podhora / architect  
180 BRIMCOMB WAY, NORTH BURNABY, B.C. V5L 6J3

PROJECT NAME  
**PROPOSED BUILDING FOR GARAVENTA LIFT**

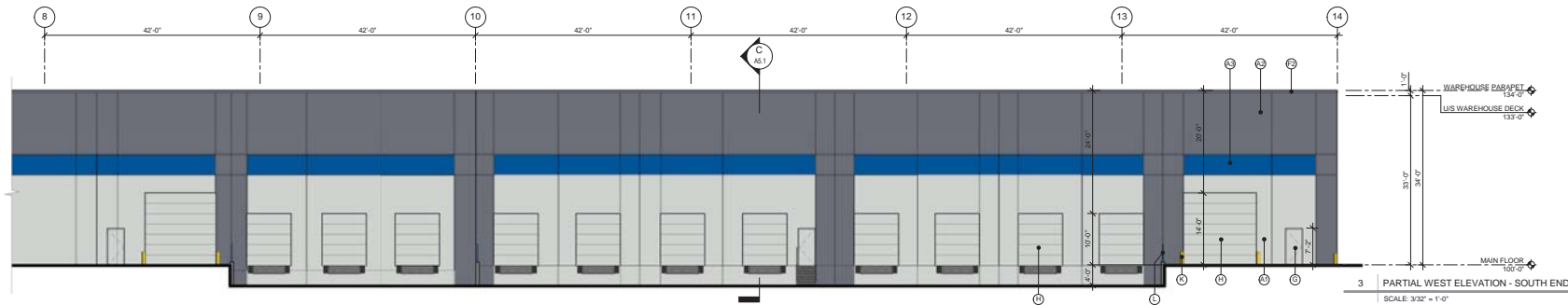
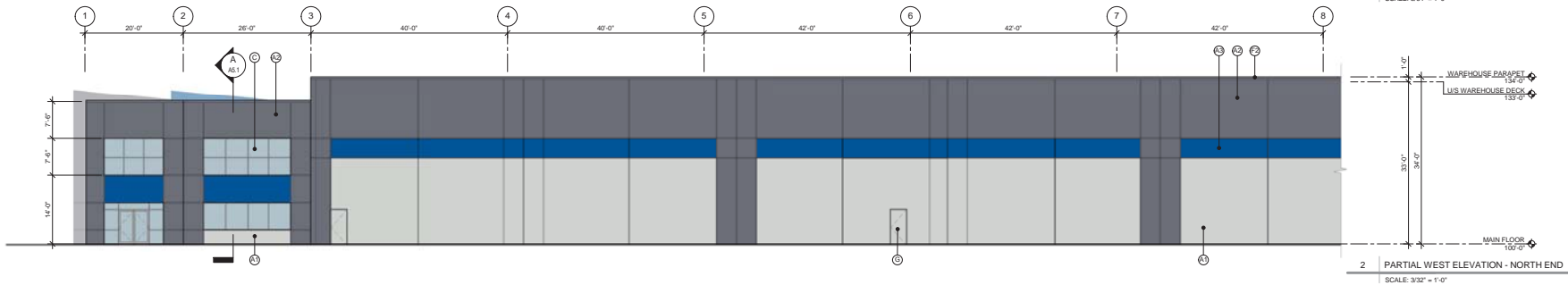
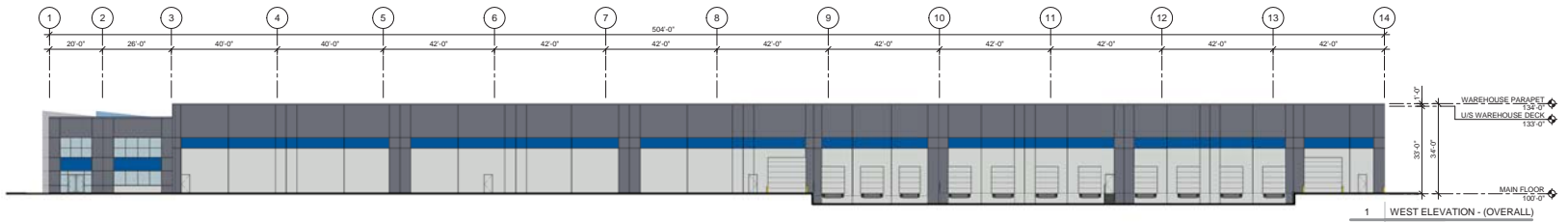
PROJECT ADDRESS  
**18920 36 AVENUE, SURREY, BC**

DRAWING TITLE  
**WEST & SOUTH ELEVATIONS**

SCALE	As indicated
DRAWN	LH
CHECKED	SAD
PROJECT NO.	100016
DRAWING NO.	

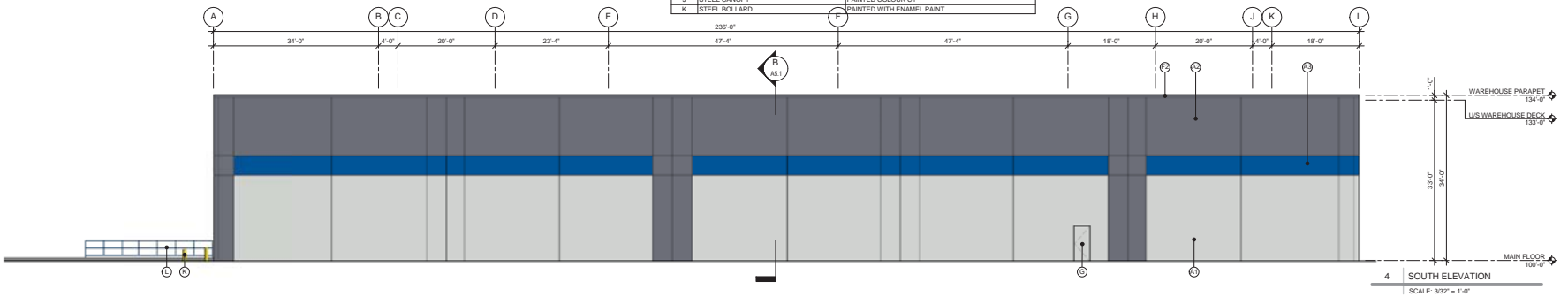
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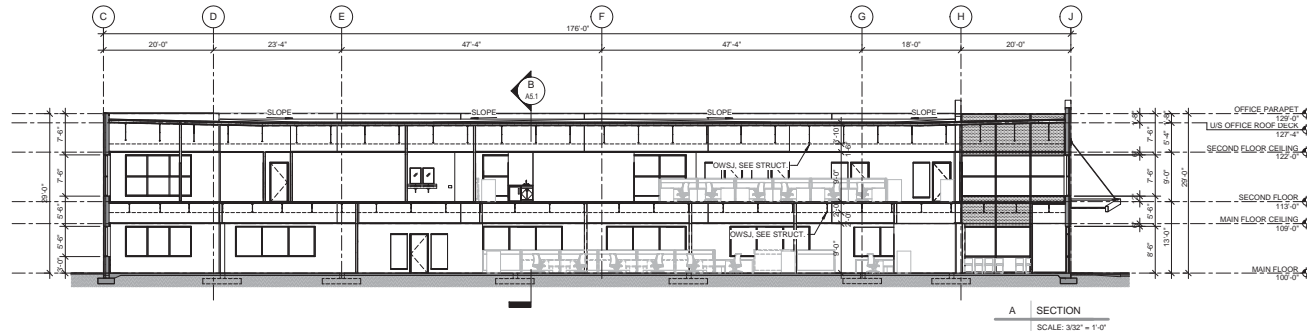


EXTERIOR FINISH LEGEND	
C.I.P CONCRETE ADDRESS PEDESTAL	PAINTED COLOR C3
A1 CONCRETE TILT-UP PANEL	PAINTED COLOR C1
A2 CONCRETE TILT-UP PANEL	PAINTED COLOR C2
A3 CONCRETE TILT-UP PANEL	PAINTED COLOR C3
B 3/4" DEEP REVEAL	SAME AS PANEL
C CLEAR YBISON GLAZING	CLEAR GLAZING IN CLEAR ANODIZED FRAMING
D SPANDREL GLAZING	GRAY OPACI COAT
F STEEL MAN DOOR	COLOR C1
F1 PRE-FINISHED METAL FLASHING	HIGH GLOSS WHITE
F2 PRE-FINISHED METAL FLASHING	COLOR TO MATCH ADJACENT MATERIAL
G STEEL MAN DOOR	PAINTED COLOUR C1
H STEEL MAN DOOR	PAINTED COLOUR C1
J STEEL CANOPY	PAINTED COLOUR C1
K STEEL BOLLARD	PAINTED WITH ENAMEL PAINT

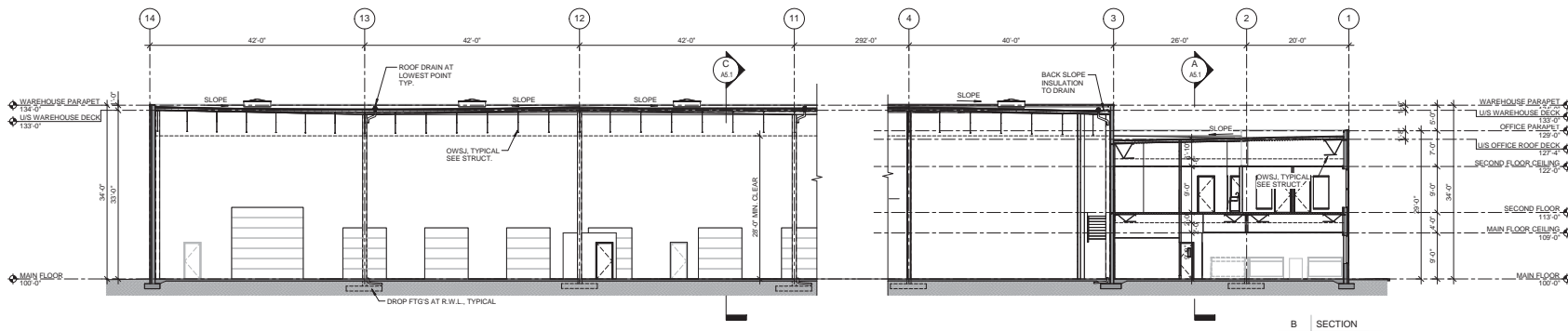
COLOR LEGEND		
C1	BENJAMIN MOORE WEDDING VEIL	2125-70
C2	BENJAMIN MOORE SEA LIFE	21-1840
C3	BENJAMIN MOORE DARK ROYAL BLUE	2065-20



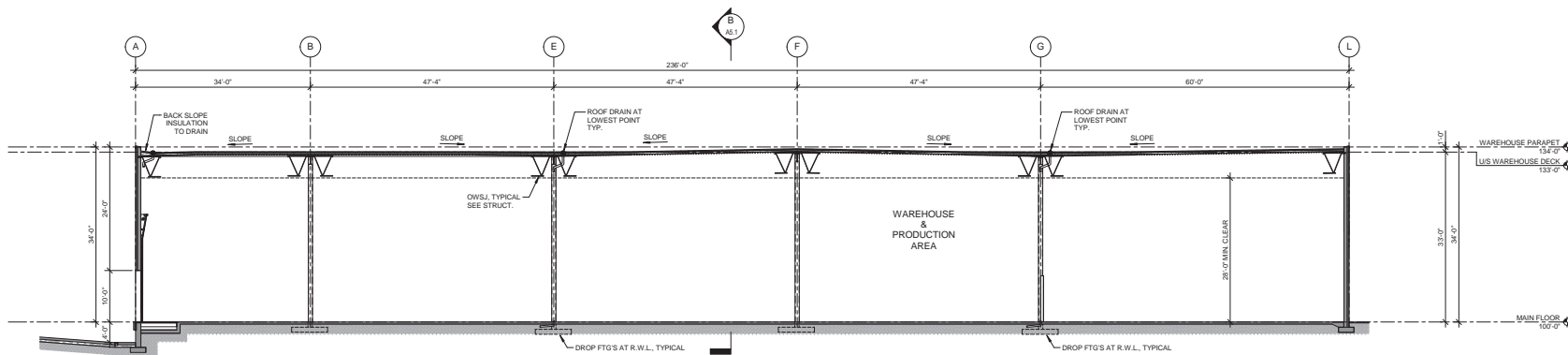
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A SECTION  
SCALE: 3/32" = 1'-0"



B SECTION  
SCALE: 3/32" = 1'-0"



C SECTION  
SCALE: 3/32" = 1'-0"



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1	2016/06/01	RE ISSUED FOR DP	
2	2016/06/03	RE ISSUED FOR DP	
3	2016/03/18	ISSUED FOR DP	
4	2016/03/18	ISSUED FOR DP	
5	2016/03/18	ISSUED FOR DP	
6	2016/03/18	ISSUED FOR DP	
7	2016/03/18	ISSUED FOR CLIENT REVIEW	
8	NO. DATE	ISSUED FOR	DESCRIPTION

ISSUES AND REVISIONS  
SCALE

**larry podhora / architect**  
180 BRADSHAW HALL NORTH SUITE 200, S.C. V3L 5L3

**PROPOSED BUILDING FOR GARAVENTA LIFT**

18920 36 AVENUE, SURREY, BC

**BUILDING SECTIONS**

SCALE	3/32" = 1'-0"
DRAWN	NA
CHECKED	SAD
PROJECT NO.	180016
DRAWING NO.	

**A5.1**

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36 AVENUE



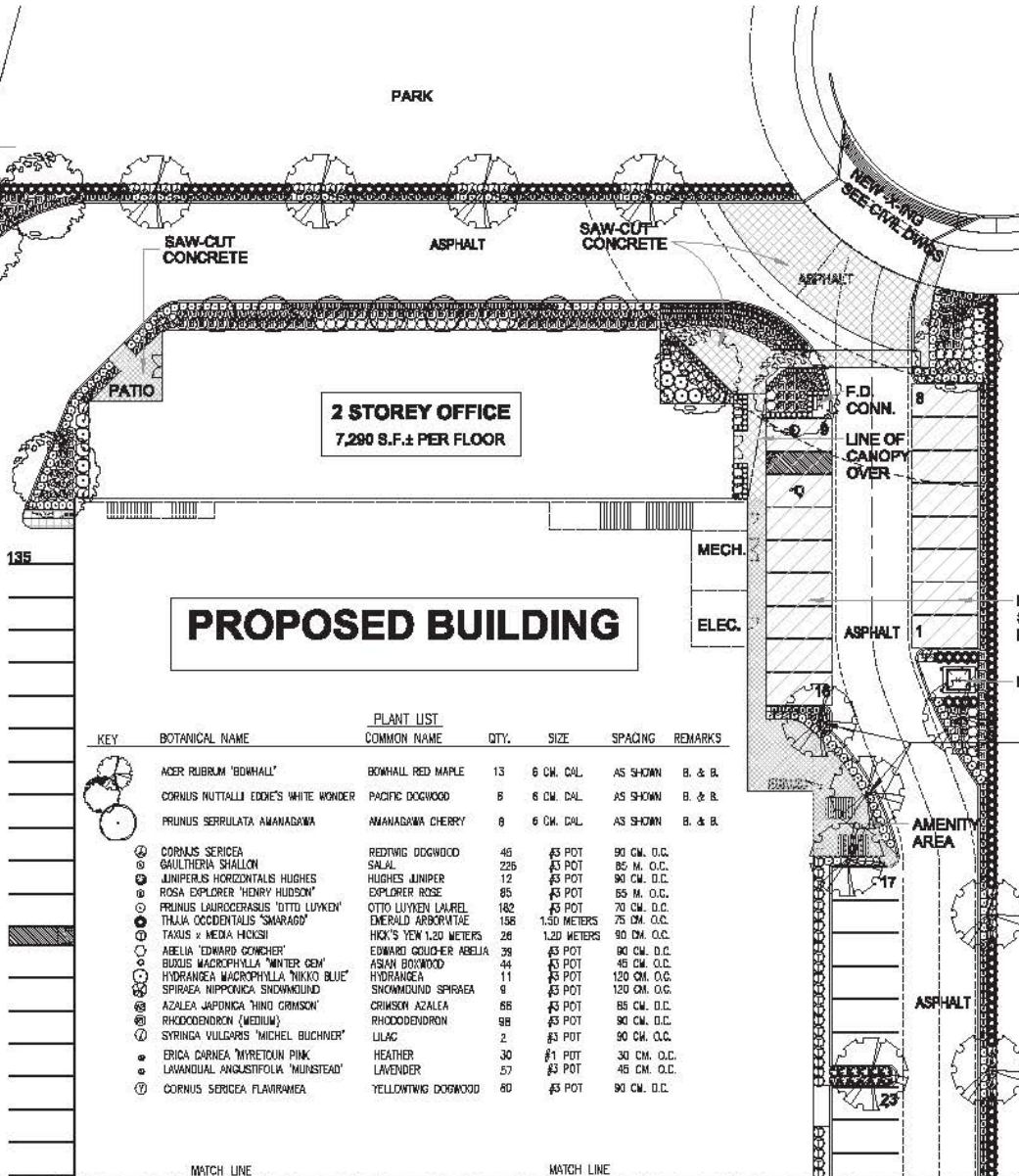
REGISTERED OFFICE  
 437 - 3487 ELGIN ST. #200 TORONTO, ON M4G 1S8  
 416-463-8821 F 416-463-1000 info@krahn.com  
 VICTORIA OFFICE  
 214 - 1211 LINDSEY ST. WASSAHEL, BC V8W 0G3  
 250-626-1842 F 250-626-0855 victoria@krahn.com



C. Karolins & Associates Inc.  
 Landscape Architects Urban Planning  
 1488 (Angus) Court, Abbotsford, BC V3C 2H8  
 604-855-5444 (ext. 200) F 604-855-5444  
 New 604-855-1000 | Email: info@ckj.ca

1	PROPOSED	PROPOSED PLANTING
2	PROPOSED	PROPOSED PLANTING
3	PROPOSED	PROPOSED PLANTING
4	PROPOSED	PROPOSED PLANTING
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98	PROPOSED	PROPOSED PLANTING
99	PROPOSED	PROPOSED PLANTING
100	PROPOSED	PROPOSED PLANTING

NOTE:  
 NO FENCES PROPOSED.  
 SEPARATE PERMIT REQUIRED  
 FOR ANY FUTURE FENCING.



KEY	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	SPACING	REMARKS
1	ACER RUBRUM 'BOWHALL'	BOWHALL RED MAPLE	13	6 CM. CAL.	AS SHOWN	B. & B.
2	CORNUS NUTTALLII 'EDDIE'S WHITE WONDER'	PACIFIC DOGWOOD	6	6 CM. CAL.	AS SHOWN	B. & B.
3	PRUNUS SERRULATA 'AMANAGAWA'	AMANAGAWA CHERRY	6	6 CM. CAL.	AS SHOWN	B. & B.
4	CORNUS SERICEA	REDTIG DOGWOOD	46	3/8 POT	90 CM. O.C.	
5	GAULTHERIA SHALLOX	SALAL	226	3/8 POT	85 M. O.C.	
6	JUNIPERUS HORIZONTALIS 'HUGHES'	HUGHES JUNIPER	12	3/8 POT	90 CM. O.C.	
7	ROSA EXPLORER 'HENRY HUDSON'	EXPLORER ROSE	66	3/8 POT	65 M. O.C.	
8	PRUNUS LAUROCESTRIS 'OTTO LUYKEN'	OTTO LUYKEN LAUREL	182	3/8 POT	70 CM. O.C.	
9	THUNIA OCCIDENTALIS 'SMARAGD'	EMERALD ARBOVITAE	156	1.50 METERS	75 CM. O.C.	
10	TAXUS x MEDIA 'HICKSI'	HICK'S YEW 1.20 METERS	26	1.20 METERS	90 CM. O.C.	
11	ABELIA 'EDWARD GONCHER'	EDWARD GONCHER ABELIA	39	3/8 POT	90 CM. O.C.	
12	BUXUS MACROPHYLLA 'WINTER GEM'	ASIAN BOXWOOD	44	3/8 POT	45 CM. O.C.	
13	HYDRANGEA MACROPHYLLA 'NIKKO BLUE'	HYDRANGEA	11	3/8 POT	120 CM. O.C.	
14	SPIRAEA NIPPONICA 'SNOWMOUND'	SNOWMOUND SPIRAEA	9	3/8 POT	120 CM. O.C.	
15	AZALEA JAPONICA 'HINO GRIMSON'	CRIMSON AZALEA	66	3/8 POT	85 CM. O.C.	
16	RHODODENDRON (MEDIUM)	RHODODENDRON	98	3/8 POT	90 CM. O.C.	
17	SYRINGA VULGARIS 'MICHEL BUCHNER'	LILAC	2	3/8 POT	90 CM. O.C.	
18	ERICA CARNEA 'MYRETOUN PINK'	HEATHER	30	1/1 POT	30 CM. O.C.	
19	LAVANDULA ANGLUSTIFOLIA 'MUNSTEAD'	LAVENDER	57	3/8 POT	45 CM. O.C.	
20	CORNUS SERICEA 'FLAVIRAMEA'	YELLOWTONG DOGWOOD	60	3/8 POT	90 CM. O.C.	



larry podhora / architect

PROJECT NAME  
 PROPOSED BUILDING FOR GARAVENTA LIFT BC

PROJECT ADDRESS  
 18920 36 Ave.  
 SURREY, B.C.

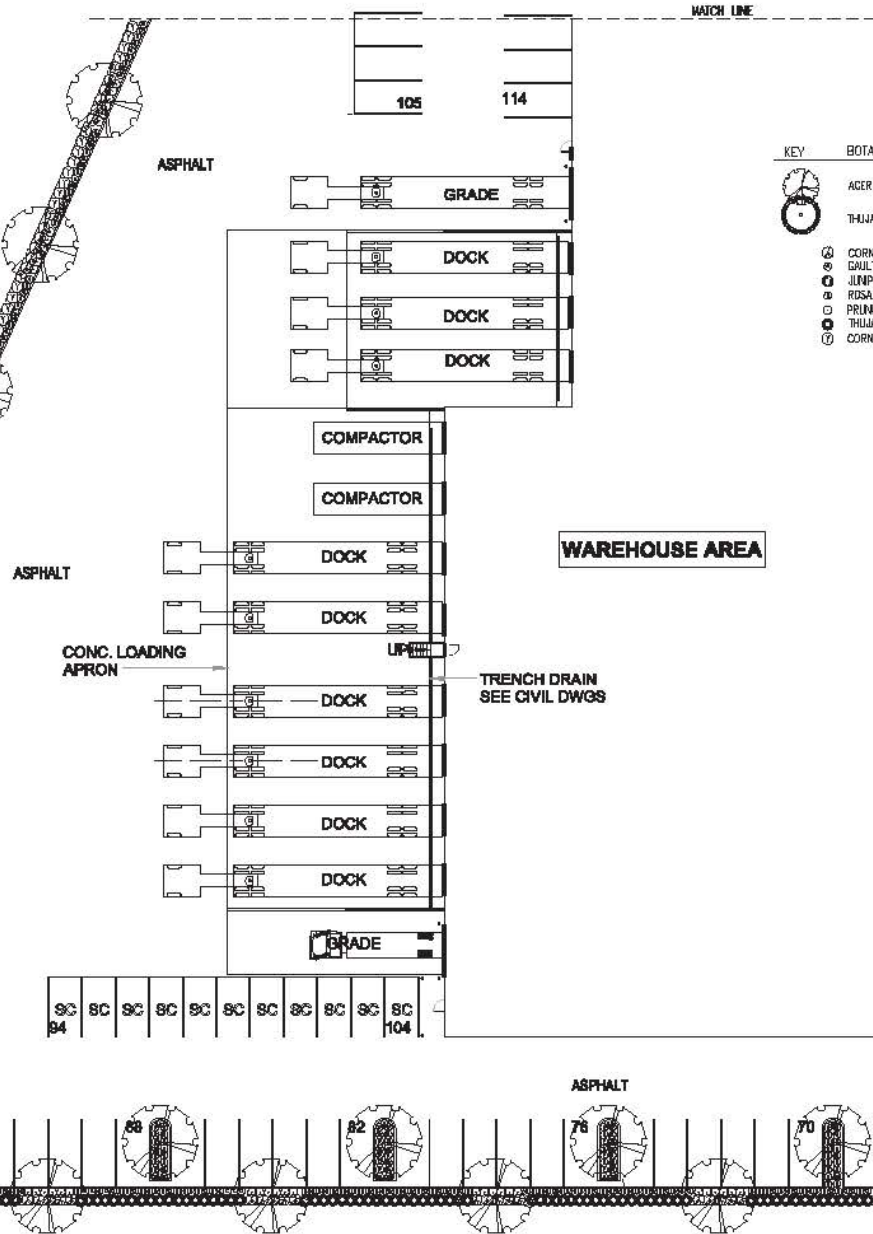
DRAWING TITLE  
 LANDSCAPE PLAN

SCALE:	AS SHOWN
DATE:	2024
DESIGNER:	BT
PROJECT NO.:	202404

DATE: 2024

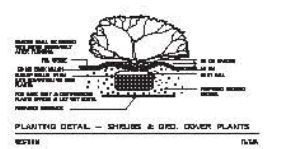
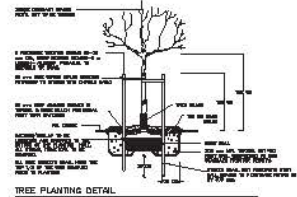
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KEY	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	SPACING	REMARKS
⊙	ACER RUBRUM 'BONHALL'	BONHALL RED MAPLE	17	5 CM. CAL.	AS SHOWN	B. & B.
⊙	THUJA PLICATA	WESTERN RED CEDAR	3	3.00 METERS	AS SHOWN	B. & B.
⊙	CORNUS SERICEA	REDTWIG DOGWOOD	88	⊘ POT	80 CM. O.C.	
⊙	GAULTHERIA SHALLOON	SALAL	280	⊘ POT	65 M. O.C.	
⊙	JUNIPERUS HORIZONTALIS HUGHES	HUGHES JUNIPER	51	⊘ POT	90 CM. O.C.	
⊙	ROSA EXPLORER 'HENRY HUGSON'	EXPLORER ROSE	123	⊘ POT	65 M. O.C.	
⊙	PRUNUS LAUROCEARUS 'DITTO LUYKEN'	DITTO LUYKEN LAUREL	82	⊘ POT	70 CM. O.C.	
⊙	THUJA OCCIDENTALIS 'SMARAGO'	EMERALD ARBORVITAE	73	1.50 METERS	75 CM. O.C.	
⊙	CORNUS SERICEA FLAMMAREA	YELLOWTWIG DOGWOOD	88	⊘ POT	90 CM. O.C.	

- DETAILS:**
- PLANT JOBS IN THIS SET ARE IDENTICAL UNLESS OTHERWISE SPECIFIED. TREE JOBS IDENTIFIED BY THE LETTERS A THROUGH J ARE IDENTICAL UNLESS OTHERWISE SPECIFIED. PLANT JOBS IDENTIFIED BY THE LETTERS K THROUGH N ARE IDENTICAL UNLESS OTHERWISE SPECIFIED. PLANT JOBS IDENTIFIED BY THE LETTERS O THROUGH R ARE IDENTICAL UNLESS OTHERWISE SPECIFIED. PLANT JOBS IDENTIFIED BY THE LETTERS S THROUGH T ARE IDENTICAL UNLESS OTHERWISE SPECIFIED. PLANT JOBS IDENTIFIED BY THE LETTERS U THROUGH V ARE IDENTICAL UNLESS OTHERWISE SPECIFIED. PLANT JOBS IDENTIFIED BY THE LETTERS W THROUGH X ARE IDENTICAL UNLESS OTHERWISE SPECIFIED. PLANT JOBS IDENTIFIED BY THE LETTERS Y THROUGH Z ARE IDENTICAL UNLESS OTHERWISE SPECIFIED.
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1	CONTRACTOR	PROPOSED PLANTING MATERIALS
2	CONTRACTOR	PROPOSED PLANTING
3	CONTRACTOR	CONTRACTOR'S RESPONSIBILITIES
4	CONTRACTOR	CONTRACTOR'S RESPONSIBILITIES
5	CONTRACTOR	CONTRACTOR'S RESPONSIBILITIES
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9	CONTRACTOR	CONTRACTOR'S RESPONSIBILITIES
10	CONTRACTOR	CONTRACTOR'S RESPONSIBILITIES



**larry podhora / architect**

18920 36 Ave.  
SURREY, B.C.

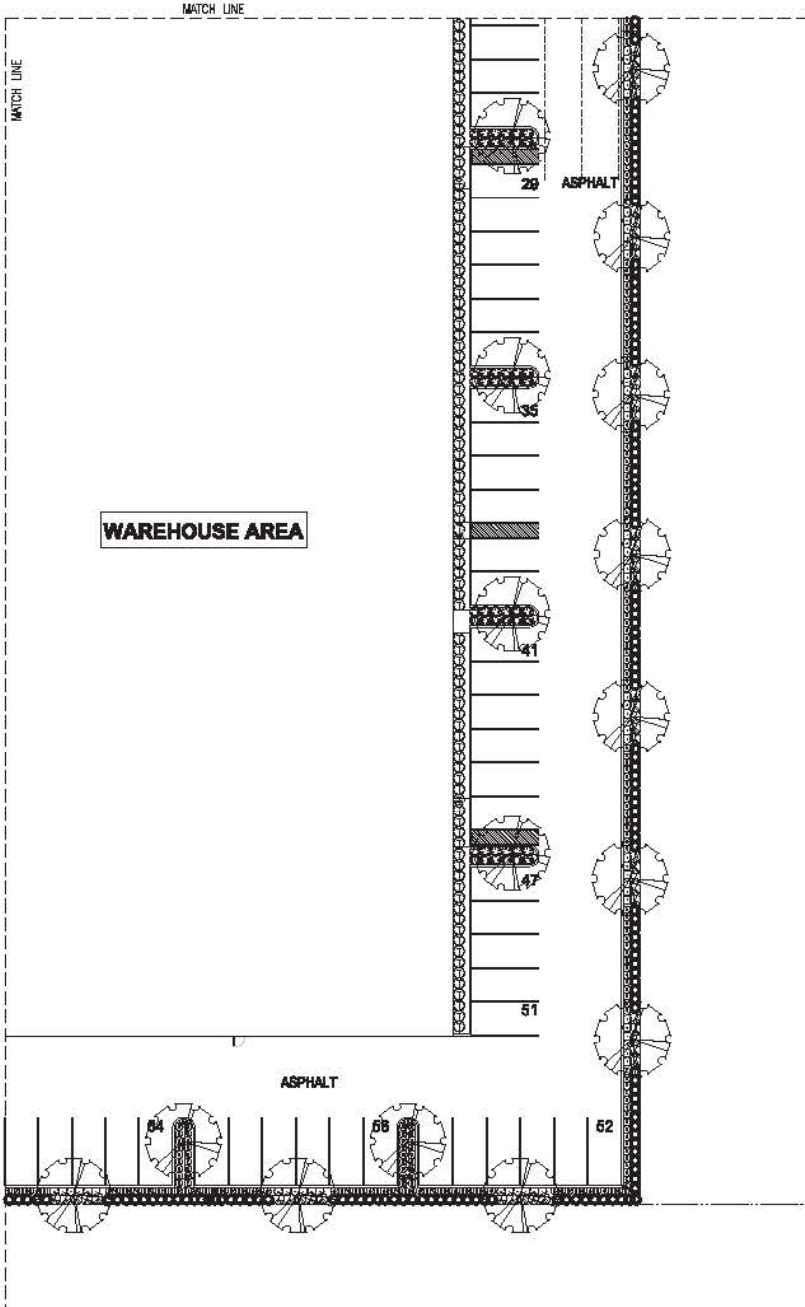
**PROJECT NAME**  
PROPOSED BUILDING FOR GARAVENTA LIFT BC

**PROJECT ADDRESS**  
18920 36 Ave.  
SURREY, B.C.

**DRAWING TITLE**  
LANDSCAPE PLAN

DATE:	0808
DESIGN:	CLB
CHECKED:	BT
PROJECT NO.:	080804

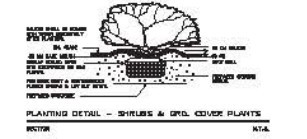
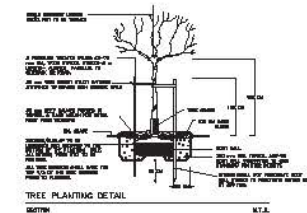




PLANT LIST						
KEY	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	SPACING	REMARKS
(Symbol)	ACER RUBRUM 'BONHALL'	BONHALL RED MAPLE	16	6 CM. CAL.	AS SHOWN	B. & B.
(Symbol)	CORNUS SERICEA	REDTIG DOGWOOD	50	3/3 POT	90 CM. O.C.	
(Symbol)	GAULTHERIA SHALLOM	SALAL	108	3/3 POT	85 CM. O.C.	
(Symbol)	PRUNUS LAURICERCASUS 'OTTO LUYKEN'	OTTO LUYKEN LAUREL	60	3/3 POT	70 CM. O.C.	
(Symbol)	THUJA OCCIDENTALIS 'SMARAGD'	EMERALD ARBORVITAE	162	1.50 METERS	75 CM. O.C.	
(Symbol)	JUNIPERUS HORIZONTALIS HUGHES	HUGHES JUNIPER	48	3/3 POT	80 CM. O.C.	
(Symbol)	TAXUS x MEDIA HICKSI	HICK'S YEW 1.20 METERS	92	1.20 METERS	90 CM. O.C.	
(Symbol)	ROSA EXPLORER 'HENRY HUDSON'	EXPLORER ROSE	38	3/3 POT	65 M. O.C.	

**NOTES:**

- PLANT SPECIES TO BE USED ARE THOSE LISTED IN THE PLANT LIST. PLANT SPECIES NOT LISTED ARE TO BE USED AT THE DISCRETION OF THE LANDSCAPE ARCHITECT. PLANT SPECIES TO BE USED ARE THOSE LISTED IN THE PLANT LIST. PLANT SPECIES NOT LISTED ARE TO BE USED AT THE DISCRETION OF THE LANDSCAPE ARCHITECT.
- ALL PLANT MATERIAL SHALL BE PROVIDED FROM A REPUTABLE NURSERY. ALL PLANT MATERIAL SHALL BE PROVIDED FROM A REPUTABLE NURSERY. ALL PLANT MATERIAL SHALL BE PROVIDED FROM A REPUTABLE NURSERY.
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REGISTERED OFFICE  
437 - 3047 ELGIN ST. ABERTON, BC V2L 3G8  
TEL: 250.486.1111 FAX: 250.486.1112  
LANDSCAPE OFFICE  
214 - 1011 DUFFIN ST. WAGWAGAN, BC V2V 4G3  
TEL: 250.486.1111 FAX: 250.486.1112



C. Kravitz & Associates Inc.  
Landscape Architects Urban Planning  
3482 Joseph Camp, Abbotsford, BC V3K 0K8  
C/O: 1011 Duffin St. W. Wagwagan, BC V2V 4G3  
Tel: 250.486.1111 Fax: 250.486.1112

1	OWNER	PROPOSED PROJECT
2	DESIGNER	PROPOSED PROJECT
3	DESIGNER	PROPOSED PROJECT
4	DESIGNER	PROPOSED PROJECT
5	DESIGNER	PROPOSED PROJECT
6	DESIGNER	PROPOSED PROJECT
7	DESIGNER	PROPOSED PROJECT
8	DESIGNER	PROPOSED PROJECT
9	DESIGNER	PROPOSED PROJECT
10	DESIGNER	PROPOSED PROJECT



**larry podhora / architect**  
18920 36 Ave. SURREY, B.C.

PROJECT NAME  
PROPOSED BUILDING FOR GARAVENTA LIFT BC

PROJECT ADDRESS  
18920 36 Ave. SURREY, B.C.

CONTRACT TITLE  
LANDSCAPE PLAN

DESIGNER	CJK
OWNER	RAM
DATE	07
PROJECT NO.	000004

CONTRACT NO.  
L-3

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May 31, 2016  
KM Civil File: 160016-C

The City of Surrey  
Development Engineering  
13450 – 104 Avenue  
Surrey, BC V3T 1V8

**Re: Site Drainage Sustainable Design – 18920 – 36 Avenue**

The proposed development project at the above-noted address is located within Phase 4 of the Campbell Heights North business park. The in-situ soils underlying this area of the City are generally granular in nature, and as such provide for good opportunity to incorporate sustainable drainage measures into the Civil engineering design. In keeping with the principles of sustainability, we have incorporated the following measures into our grading and drainage design:

**Stormwater Quantity Control (LEED item SSc 6.1):**

The site stormwater system collects rainwater runoff from all finished surfaces and conveys them to two (2) large infiltration galleries located at the southwestern portion of the project site. The infiltration system has been designed to dispose of rainwater volumes up to and including the 100 year return period event. As such, except in the most extreme rainfall conditions, stormwater runoff from the site will be zero.

**Stormwater Quality Control (LEED item SSc 6.2):**

To facilitate capture and treatment of 90% of the average annual rainfall, the stormwater servicing design incorporates two (2) treatment devices, including a type 2 oil-water interceptor, and a STC750 Stormceptor hydrodynamic separator. All stormwater surface runoff is routed through these units to ensure that oils and other contaminants are removed from runoff prior to infiltration into the subgrade soils, through the infiltration galleries.

Please call or email should you require any additional information, or should you have any questions regarding the above.

Regards,

**KM Civil Consultants Ltd.**

**Stuart McGregor, P.Eng.**  
[stuartm@krahn.com](mailto:stuartm@krahn.com)

**A. CITY GENERAL NOTES**

1. FOR THE PURPOSE OF CONSTRUCTION AND ACCOUNTABILITY THE DEVELOPER MUST ADVISE THE SURREY CITY INSPECTOR, IN WRITING, WHICH OF THE CITY NOTES IS GOING TO BE THE RESPONSIBILITY OF THE DEVELOPER'S CONTRACTOR.

2. CONSTRUCTION IS TO BE IN ACCORDANCE WITH THE CITY OF SURREY HIGHWAY AND TRAFFIC BYLAW NO. 13007, SUBDIVISION BYLAW NO. 8830 AND THE APPLICABLE MUNICIPAL MASTER SPECIFICATIONS AND STANDARD DETAIL DRAWINGS, CITY OF SURREY STANDARD CONSTRUCTION DOCUMENTS, SUPPLEMENTARY SPECIFICATIONS & STANDARD DRAWINGS AND CITY DESIGN CRITERIA.

3. TRAFFIC CONTROL IS THE RESPONSIBILITY OF THE DEVELOPER AND THE DEVELOPER SHALL COMPLY WITH SECTION 52 OF THE INDUSTRIAL HEALTH AND SAFETY REGULATIONS OF THE WORKERS' COMPENSATION BOARD OF B.C. AND THE INSTRUCTIONS OUTLINED ON THE CITY ROAD AND RIGHT-OF-WAY PERMIT AND TRAFFIC OBSTRUCTION PERMIT ISSUED BY THE CITY.

THE DEVELOPER IS TO HAVE, ON SITE, A COPY OF THE CURRENT "B.C. TRAFFIC CONTROL MANUAL FOR WORK ON ROADWAYS" AS PUBLISHED BY THE MINISTRY OF TRANSPORTATION AND HIGHWAYS.

4. THE DEVELOPER SHALL BE RESPONSIBLE FOR OBTAINING ALL CITY PERMITS FOR WORK WITHIN THE CITY ROAD ALLOWANCE.

5. WHERE UTILITY OR SERVICE CROSSINGS ARE REQUIRED ACROSS EXISTING PAVEMENTS, AN UNDERGROUND METHOD OF INSTALLATION IS REQUIRED UNLESS SPECIAL APPROVAL IS GIVEN FROM THE CITY FOR AN OPEN CUT OPERATION. ALL EXISTING PAVEMENTS, BOULEVARDS, DRIVEWAYS, ETC., ARE TO BE REINSTATED TO ORIGINAL OR BETTER CONDITION AND IN ACCORDANCE WITH CITY SPECIFICATIONS AND THE PAVEMENT CUT POLICY.

6. SURREY'S ISA MONUMENT(S) ARE TO BE PROTECTED AND SHOULD THEY REQUIRE RAISING OR RELOCATING, THE DEVELOPER WILL NOTIFY SURREY'S SURVEY DEPARTMENT AT (604)991-4253 FORTY-EIGHT (48) HOURS IN ADVANCE OF SCHEDULING WORK AFFECTING THEM. AN ISA MONUMENT SHALL BE CONSIDERED TO BE DISTURBED OR DESTROYED, BY THE DEVELOPER, IF THE CONSTRUCTION FOR THE PROJECT:

- (1) LOWERS THE GRADE OF THE ROAD AT THE LOCATION OF AN ISA MONUMENT(S),
- (2) RAISES THE GRADE OF THE ROAD AT THE LOCATION OF AN ISA MONUMENT(S) OR
- (3) INSTALLS ANY UNDERGROUND UTILITIES (INCLUDING BC GAS, BC HYDRO, BC TELEPHONE, CWRD WATERS/SANITARY SEWER/DRAINAGE ETC.) WITHIN 1.500 METRE RADIUS OF THE ISA MONUMENT(S).

THE CITY WILL INVOICE THE DEVELOPER A NON REFUNDABLE FLAT RATE FEE OF -\$1,750.00 FOR EACH ISA MONUMENT DISTURBED OR DESTROYED  
 -\$3,150 FOR EACH HIGH PRECISION SECONDARY BENCHMARK DISTURBED OR DESTROYED  
 -\$7,250 FOR EACH HIGH PRECISION NETWORK BENCHMARK DISTURBED OR DESTROYED

7. ALL STREET, TRAFFIC, AND ADVISORY SIGNS, PAVEMENT MARKINGS AND NO-POST GUARDRAILS REQUIRED BUT NOT NECESSARILY SHOWN ON THE DRAWINGS, SHALL BE INSTALLED BY THE CITY AT THE DEVELOPER'S COST.

8. WHERE INFILLING OF EXISTING DITCHES IS REQUIRED OR WHERE SERVICES ARE CONSTRUCTED IN A FILL SECTION, FILL MATERIAL IS TO BE IN ACCORDANCE WITH CITY SPECIFICATIONS AND IS TO BE COMPACTED TO 95 % OF MODIFIED PROCTOR DENSITY.

9. DRIVEWAY BOULEVARD CROSSINGS TO EACH OF THE PROPOSED LOTS ARE TO BE INSTALLED IN ACCORDANCE WITH THE CITY STANDARD DRAWINGS.

10. RESIDENTS DIRECTLY AFFECTED BY CONSTRUCTION OF THIS PROJECT MUST BE GIVEN 48 HOURS WRITTEN NOTICE OF THE PROPOSED START OF CONSTRUCTION.

THE DEVELOPER WILL REQUIRE WRITTEN AUTHORIZATION FROM A PRIVATE PROPERTY OWNER, WITH A COPY TO THE CITY, PRIOR TO ANY ENTRY ONTO PRIVATE PROPERTY AND A WRITTEN RELEASE, FROM THE PROPERTY OWNER, WHEN COMPLETED.

11. WHEN NATIVE SITE GRANULAR BACKFILL IS PROPOSED FOR USE IN TRENCHES THE DEVELOPER SHALL EMPLOY A PROFESSIONAL ENGINEER WITH EXPERIENCE IN GEOTECHNICAL ENGINEERING FOR PERFORMANCE OF IN PLACE DENSITY AND SIEVE TESTING. SELECTION OF THE PROFESSIONAL ENGINEER AND USE OF THE SITE MATERIAL IS TO BE APPROVED BY THE CITY. THE SITE MATERIAL MUST FALL WITHIN ONE OF THE GRANULAR BACKFILL MATERIAL SPECIFICATIONS. RIVER SAND IS NOT ACCEPTABLE AS TRENCH BACKFILL MATERIAL.

12. THE DEVELOPER SHALL FACILITATE AND SUPPLY ALL NECESSARY SAFETY EQUIPMENT REQUIRED UNDER THE WCB REGULATIONS FOR THE CITY OR ITS REPRESENTATIVES OR THE ENGINEER OF RECORD TO INSPECT THE SANITARY SEWER AND STORM SEWER SYSTEMS. THE EQUIPMENT SHALL BE SUPPLIED UNTIL SUCH TIME AS A CERTIFICATE OF COMPLETION IS ISSUED BY THE CITY.

13. DEVELOPER IS TO VERIFY THE LOCATION AND ELEVATION OF ALL PIPES, OR OTHER UTILITY CROSSINGS, PRIOR TO CONSTRUCTION AND SHALL NOTIFY THE ENGINEER OF RECORD OF ANY CONFLICTS.

14. THE DEVELOPER SHALL EMPLOY A PROFESSIONAL ENGINEER TO DESIGN A SEDIMENT AND EROSION CONTROL SYSTEM IN THE DEVELOPMENT IN ORDER TO PREVENT SILT DISCHARGES TO THE STORM DRAINAGE SYSTEM AND WATERCOURSES.

15. THE "TREE CUTTING AND PRESERVATION BYLAW NO. 1280" REQUIRES THAT A CUTTING PERMIT BE OBTAINED BEFORE ANY TREES ARE REMOVED FROM THE SITE. OTHER PROVISIONS OF THE BYLAW MAY ALSO BE APPLICABLE.

**B. CITY ROADWORK NOTES**

1. THE DEVELOPER SHALL EMPLOY A PROFESSIONAL ENGINEER WITH EXPERIENCE IN GEOTECHNICAL ENGINEERING FOR PERFORMANCE OF IN PLACE TESTING DURING THE PREPARATION OF THE SUB-GRADE AND CONSTRUCTION OF THE ROAD STRUCTURE TO VERIFY THE ADEQUACY OF THE PROPOSED AND EXISTING ROAD STRUCTURE AND SUB-GRADE. SELECTION OF THE PROFESSIONAL ENGINEER IS TO BE APPROVED BY THE CITY.

2. EXISTING VALVE BOXES, MANHOLES, ETC. WITHIN THE ROAD ALLOWANCE MUST BE ADJUSTED TO SUIT THE PROPOSED FINISHED GRADE.

3. ALL LOOSE, ORGANIC, OTHERWISE DELETERIOUS MATERIALS OR SOFT SPOT(S) ARE

TO BE EXCAVATED AND REMOVED FROM THE ROADWAY AND UTILITY TRENCHES IN THE ROADWAY AS PER THE GEOTECHNICAL CONSULTANT'S REPORT OR AS DIRECTED BY THE CITY.

**C. CITY SANITARY SEWER AND STORM SEWER NOTES**

1. UNLESS PRIOR APPROVAL IS GIVEN TO THE DEVELOPER BY THE CITY, TIE-INS AND CONNECTIONS TO EXISTING SANITARY SEWERS ARE TO BE PERFORMED BY THE CITY AT THE DEVELOPER'S COST.

2. ALL SERVICE CONNECTIONS SHALL BE MADE TO THE MAIN WHEREVER POSSIBLE. SHOULD A CONNECTION HAVE TO BE MADE TO A MANHOLE, THE CONNECTION INVERT SHALL BE AT THE SAME ELEVATION AS THE CROWN OF THE HIGHEST SEWER MAIN.

3. ALL MANHOLES ARE TO BE A MINIMUM OF 1050 MM DIAMETER UNLESS OTHERWISE NOTED.

4. ALL SANITARY SEWER AND STORM SEWER SERVICE CONNECTIONS ARE TO BE A MINIMUM 100 MM DIAMETER.

5. ALL GRANULAR PIPE BEDDING SHALL BE EITHER TYPE 1 OR TYPE 2 ONLY AS PER THE CITY SPECIFICATIONS.

**D. CITY WATER WORKS NOTES**

1. THE DEVELOPER SHALL SUPPLY ALL MATERIALS AND FITTINGS REQUIRED FOR THE TIE-IN OF THE NEW WATER MAINS BY THE CITY.

2. ALL NEW WATER MAINS, AT TIE-IN POINTS, ARE TO BE CAPPED 1.5 M FROM THE EXISTING WATER MAIN. THE PROPOSED WATER MAIN IS TO BE SET AT THE LINE AND GRADE TO MEET THE EXISTING WATER MAIN.

3. TIE-INS TO EXISTING WATER MAINS AND FINAL TESTING AND CHLORINATION OF NEW MAINS IS TO BE PERFORMED BY THE CITY AT THE DEVELOPER'S COST.

4. ALL DOMESTIC SERVICE CONNECTIONS WILL BE A MINIMUM OF 19 MM DIAMETER UNLESS OTHERWISE SPECIFIED.

5. WHERE 100 MM DIAMETER PIPE IS USED IT WILL BE DUCTILE IRON (D.I.) AND SHALL CONFORM TO THE CITY SPECIFICATIONS.

6. NO MCAVITY FITTINGS OR VALVES ETC. ARE TO BE USED.

7. NO CAST IRON VALVES ON FITTINGS.

DRAWING INDEX	
SHEET NO.	DRAWING TITLE
1	LOCATION PLAN AND GENERAL NOTES
2	SITE GRADING PLAN
3	SITE SERVICING PLAN
4	WATER METER DESIGN AND LOCATION PLAN

**LEGEND**

PROPOSED	EXISTING	DESCRIPTION
		BENCH MARK - GEODETIC DATUM
		GRAVEL SURFACE TREATMENT
		EDGE OF PAVEMENT
		CURB AND GUTTER
		SANITARY SEWER
		SANITARY FORCE MAIN
		SANITARY SEWER SERVICE (c/w INSPECTION CHAMBER)
		STORM SEWER
		STORM SEWER SERVICE (c/w INSPECTION CHAMBER)
		CATCH BASIN - TOP INLET
		CATCH BASIN - SIDE INLET
		LAWN DRAIN
		SWALE
		DITCH
		SIDEWALK (ASPHALT)
		SIDEWALK (CONCRETE)
		WATERMAIN
		WATER SERVICE CONNECTION
		WATER VALVE
		AIR VALVE
		HYDRANT AND VALVE ASSEMBLY
		CAPPED END
		BLOW-OFF
		TEMPORARY BLOW-OFF
		JUNCTION BOX
		UNDERGROUND HYDRO/TELEPHONE
		GAS MAIN
		UTILITY POLE
		UTILITY POLE WITH LIGHT
		STREET LIGHT

**A. CONSULTANT'S SUPPLEMENTARY GENERAL NOTES**

- 1. FIGURED DIMENSIONS SHALL GOVERN OVER SCALED DIMENSIONS.
- 2. ALL DIMENSIONS AND ELEVATIONS ARE METRIC.
- 3. THE CONTRACTOR SHALL REFERENCE THE ARCHITECTURAL DRAWINGS FOR THE SITE TO CONFIRM BUILDING AND CURB ALIGNMENTS/AYOUT.
- 4. THE LOCATION OF EXISTING UNDERGROUND SERVICES IS NOT GUARANTEED, AND HAS BEEN COMPILED FROM A COMBINATION OF 'AS-CONSTRUCTED' DRAWINGS AND GROUND SURVEYS. THE CONTRACTOR SHALL LOCATE ALL EXISTING UNDERGROUND SERVICES BY HAND EXCAVATION OR HYDRO-VACUUM EXCAVATION TO CONFIRM THEIR LINE AND GRADE PRIOR TO COMMENCEMENT OF SITE SERVICING. ANY AND ALL DISCREPANCIES SHALL BE COMMUNICATED TO KM CIVIL CONSULTANTS LTD. IMMEDIATELY.
- 5. SHOP DRAWINGS, IF REQUIRED, SHALL BE SUBMITTED TO THE CONSULTANT FOR REVIEW AND COMMENT PRIOR TO ORDERING MATERIALS. COMMENTS PROVIDED BY THE CONSULTANT REFER TO GENERAL ARRANGEMENT OF SHOP DRAWING COMPONENTS (DIMENSIONS AND ELEVATIONS) ONLY AND DO NOT CONSTITUTE A DETAILED DESIGN REVIEW OF INDIVIDUAL COMPONENT DETAILS, WHICH IS THE RESPONSIBILITY OF THE MANUFACTURER.
- 6. THE CONTRACTOR SHALL ENSURE THAT THEY ARE WORKING FROM A CERTIFIED COPY OF THE 'ISSUED FOR CONSTRUCTION' DRAWINGS PRIOR TO COMMENCING CONSTRUCTION. ANY DRAWINGS NOT BEARING THE 'ISSUED FOR CONSTRUCTION' REVISION NOTE SHALL NOT BE USED FOR CONSTRUCTION.

**B. CONSULTANT'S SUPPLEMENTARY ROADWORKS NOTES:**

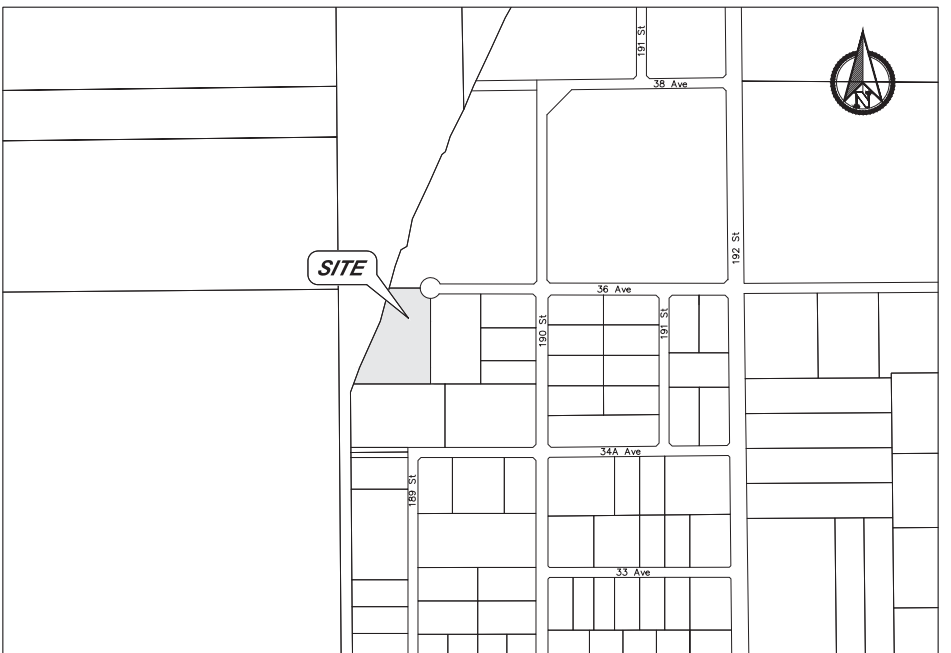
- 1. THE CONTRACTOR SHALL COORDINATE ALL COMPACTION/DENSITY TESTING WITH THE DEVELOPER'S GEOTECHNICAL ENGINEER DURING PREPARATION OF ROAD SUBGRADE, AND PLACEMENT OF SUB BASE FILLS AND PAVEMENT STRUCTURE GRAVELS.
- 2. ALL CHANGES IN GRADE SHALL BE FORMED USING SMOOTH VERTICAL CURVES.
- 3. COMPACTED ROAD SUB BASE AND BASE MATERIALS SHALL EXTEND A MINIMUM OF 0.30m BEYOND THE SIDEWALK AND/OR CURB AND GUTTER.
- 4. CONDITIONS FOR PLACEMENT OF ASPHALT OR PORTLAND CEMENT CONCRETE SHALL CONFORM TO THE SPECIFICATIONS DETAILED UNDER THE MMCD SPECIFICATIONS AND THE CITY SUPPLEMENTARY SPECIFICATIONS.

**C. CONSULTANT'S SUPPLEMENTARY SANITARY AND STORM SEWER NOTES:**

- 1. ALL ON-SITE PIPEWORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE BC BUILDING CODE, PART 7, PLUMBING SERVICES.
- 2. ALL STORM MAIN PIPE SHALL BE PVC DR35 (150mm TO 250mm DIAMETER) OR PVC RIBBED (300mm DIAMETER AND GREATER), WHERE STORM MAINS ARE TO BE INSTALLED UNDER BUILDINGS, ALL PIPE SHALL BE PVC DWV.
- 3. ALL SANITARY MAIN PIPE SHALL BE PVC DR28 (150mm DIAMETER) OR PVC DR35 (200mm DIAMETER AND GREATER). WHERE SANITARY MAINS ARE TO BE INSTALLED UNDER BUILDINGS, ALL PIPE SHALL BE PVC DWV.
- 4. ALL STORM SEWER PIPES WITH LESS THAN 1.0m COVER TO BE CONCRETE ENCASED OR DWV PIPE IN ACCORDANCE WITH BRITISH COLUMBIA BUILDING CODE, 2006, PLUMBING SERVICES (PART 7).
- 5. STORM AND SANITARY SERVICE CONNECTIONS SHALL BE INSTALLED TO WITHIN 1.0m OF BUILDING FOUNDATIONS. THE CONTRACTOR SHALL COORDINATE WITH THE BUILDING PLUMBING CONTRACTOR TO ENSURE THAT SERVICE CONNECTIONS ARE INSTALLED AT A LINE AND GRADE THAT WILL FACILITATE CONNECTION TO THE BUILDING DRAINAGE/SANITARY SYSTEM.
- 6. ALL CLEANOUTS INSTALLED WITHIN THE TRAVELLED PORTION OF THE ROADWAY SHALL BE COMPLETE WITH LIDS CAPABLE OF SUPPORTING H20 TRAFFIC LOADING.

**D. CONSULTANT'S SUPPLEMENTARY WATERWORKS NOTES:**

- 1. ALL WATERMANS SHALL BE INSTALLED WITH MINIMUM 1.2m COVER FROM TOP OF PIPE TO FINISHED GRADE, UNLESS OTHERWISE NOTED. FOR INSTALLATIONS WITH LESS THAN 1.2m COVER, A CONCRETE PIPE CAP, PER MMCD STD G7 - ALTERNATIVE 2 SHALL BE UTILIZED.
- 2. ALL WATERMANS SHALL BE PVC C-900 OR DUCTILE IRON PC350, UNLESS OTHERWISE NOTED.
- 3. WATERMAIN SERVICE CONNECTIONS SHALL BE INSTALLED TO WITHIN 1.0m OF BUILDING FOUNDATIONS. THE CONTRACTOR SHALL COORDINATE WITH THE BUILDING PLUMBING CONTRACTOR TO ENSURE THAT SERVICE CONNECTIONS ARE INSTALLED AT A LINE AND GRADE THAT WILL FACILITATE CONNECTION TO THE BUILDING WATER SYSTEM.
- 4. ON-SITE WATER SYSTEM PRESSURE, DISINFECTION, AND BACTERIOLOGICAL TESTING SHALL BE PERFORMED BY A CERTIFIED TESTING FIRM, RETAINED BY THE CONTRACTOR AT THE CONTRACTOR'S COST, UNDER WITNESS BY THE CONSULTANT. WATERMAIN TEST RESULTS SHALL BE FORWARDED TO THE CONSULTANT IMMEDIATELY UPON RECEIPT FOR REVIEW AND DISTRIBUTION TO THE CITY.
- 5. PRESSURE TESTING OF BOTH DOMESTIC AND FIRE WATER SYSTEMS SHALL BE CONDUCTED IN ACCORDANCE WITH AWWA C600 STANDARDS, DISINFECTION AND BACTERIOLOGICAL TESTING OF BOTH DOMESTIC AND FIRE WATER SYSTEMS SHALL BE CONDUCTED IN ACCORDANCE WITH AWWA C651 STANDARDS.
- 6. TIE-IN OF ON-SITE WATER SYSTEM TO MUNICIPAL SYSTEM TO BE COMPLETED BY THE CITY.



**LOCATION PLAN**  
SCALE 1:5000

PLOT DATE: 14/02/2016

No.	DATE	REVISION	DRN	TECH	ENG
6					
5					
4					
3	2016.05.27	RE-ISSUED FOR DEVELOPMENT PERMIT	NWP	SJB	SIM
2	2016.04.25	REVISED GRADING AND INFILTRATION	NWP	SJB	SIM
1	2016.03.18	ISSUED FOR DEVELOPMENT PERMIT	NWP	SJB	SIM

LEGAL DESCRIPTION LOT 21, SEC 28, TWP 7, PLAN EPP41342, NWD, EXCEPT PLAN EPP49074	BENCHMARK
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ABBOTSFORD OFFICE  
# 400 - 34077 Grand Avenue  
Abbotsford, BC V2S 2E8  
Tel: 604-853-8831 Fax: 604-853-1580  
VANCOUVER OFFICE  
# 210 - 1311 Kootenay Street  
Vancouver, BC V5K 4Y3  
Tel: 604-294-6662 Fax: 604-294-6665

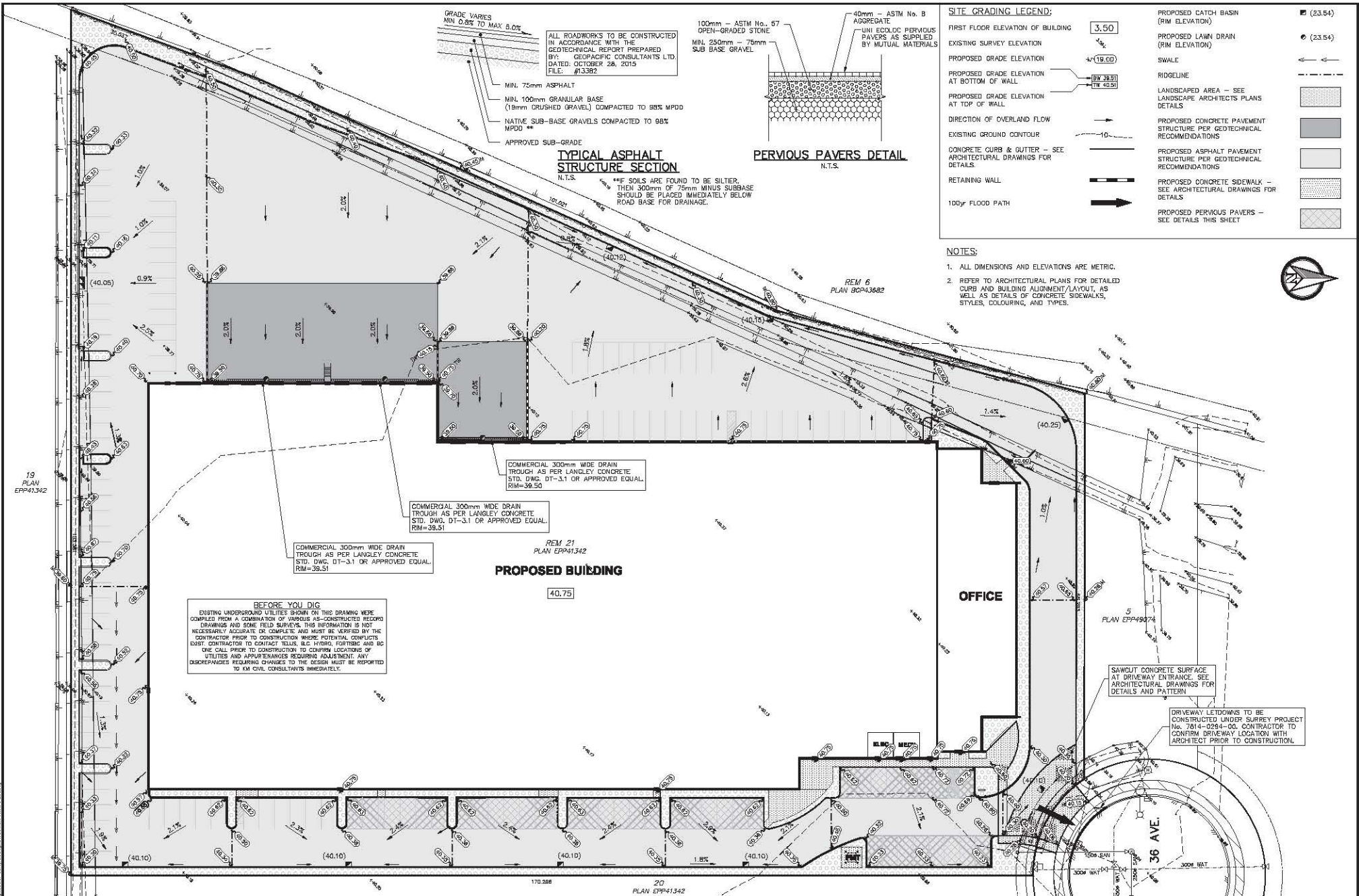
**RAM CONSTRUCTION INC.**  
#101 - 8369 RIVER WAY  
DELTA, BC  
ATTENTION: JEFF KNOBLAUCH  
(604) 940-5265

**LOCATION PLAN AND GENERAL NOTES**  
18920 - 36 AVENUE  
DESIGNED DRAWN REVIEWED APPROVED SCALE: HORIZ 1:5000 VERT.

SURREY PROJECT NUMBER	DRAWING NO.
SURREY DRAWING NUMBER	<b>1</b>
KM CIVIL PROJECT NO.	160016-C
DATE	FEBRUARY 2016
REVISION NO.	3

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LEGAL DESCRIPTION: LOT 21, SEC 28, TWP 7, PLAN EPP41342, NWD, EXCEPT PLAN EPP49074

MARKING:

**KM Civil CONSULTANTS LTD.**

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**RAM CONSTRUCTION INC.**

#101 - 8369 RIVER WAY  
DELTA, BC  
ATTENTION: JEFF KNOBLAUCH  
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**SITE GRADING PLAN**

18920 - 36 AVENUE

DESIGNED: SJB DRAWN: NWP REVIEWED: SIM APPROVED: SIM SCALE: HORIZ: 1:300 VERT: 1:300

DATE: FEBRUARY 2016 REVISION No. 3

SURVEY PROJECT NUMBER: DRAWING No. 2

160016-C

of 4





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TO: **Manager, Area Planning & Development  
- South Surrey Division  
Planning and Development Department**

FROM: **Development Services Manager, Engineering Department**

DATE: **May 11, 2016** PROJECT FILE: **7816-0109-00**

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RE: **Engineering Requirements (Commercial/Industrial)  
Location: 18920-36 Ave**

#### DEVELOPMENT PERMIT

There are no engineering requirements relative to issuance of the Development Permit. The following are to be addressed prior to issuance of the **Building Permit (BP)**:

- Evaluate services (e.g. driveways, water connections, sanitary sewer connections, storm water drainage) provided to the site by 7812-0159-00 and relocate/modify through the BP process. This will also include abandonment of redundant service connections as required;
- Relocate and/or construct curb letdowns for 11 m driveway to proposed location and complete associated modifications to drainage features if required;
- Submitted preliminary sketches indicating infiltration/detention of runoff up to the 100 year Return Period as per Campbell Heights Land Use Plan requirements. An emergency overland flow path should be included in the lot grading design to direct flows for safe conveyance of flows in excess of 100 year Return Period.; and
- Design/Construct onsite infiltration and water treatment features as per Campbell Heights Land Use Plan requirements and as described in servicing plans under City project 7812-0160-00 and Restrictive Covenants on title.

The applicant is advised to review the registered sustainable drainage, water quality control and Geo-tech restrictive covenants prior to submitting building permit application.



Rémi Dubé, P.Eng.  
Development Services Manager

LR