

City of Surrey
PLANNING & DEVELOPMENT REPORT

File: 7918-0152-00

Planning Report Date: December 3, 2018

PROPOSAL:

- **Rezoning** from A-2 to IB-1
- **Development Permit**
- **Development Variance Permit**

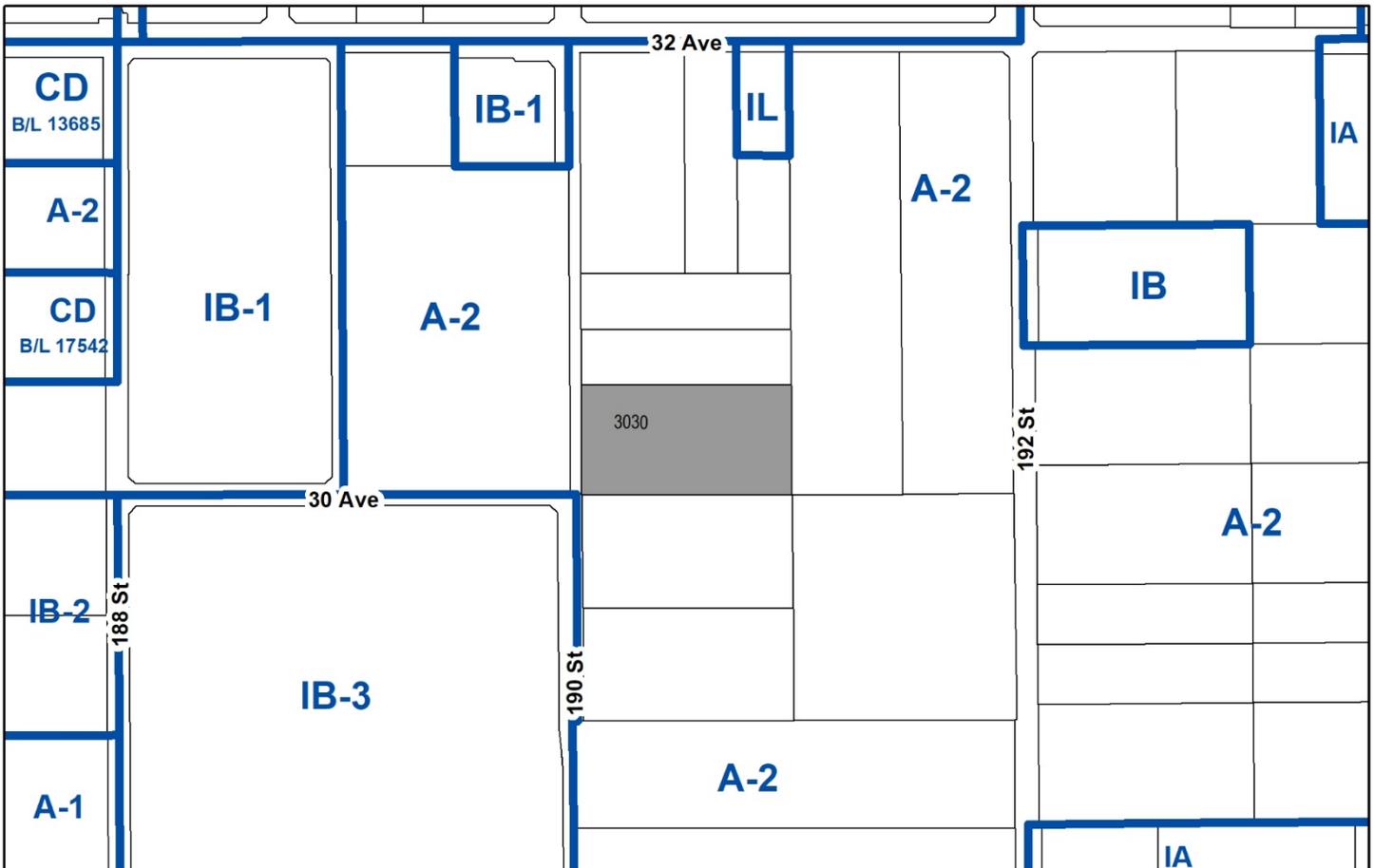
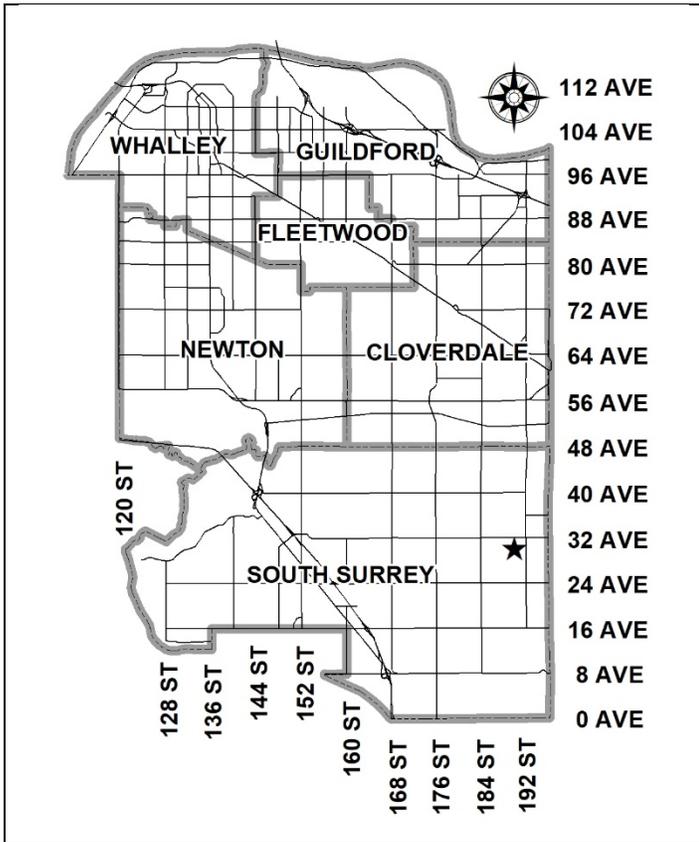
to permit the construction of a 15,250 square metre (164,148 sq.ft.) single-tenant industrial building.

LOCATION: 3030 - 190 Street

ZONING: A-2

OCP DESIGNATION: Mixed Employment

LAP DESIGNATION: Business Park



RECOMMENDATION SUMMARY

- By-law Introduction and set date for Public Hearing for Rezoning.
- Approval to draft Development Permit.

DEVIATION FROM PLANS, POLICIES OR REGULATIONS

- Seeking variance for a reduced building setback.

RATIONALE OF RECOMMENDATION

- The proposal complies with "Mixed Employment" designation in the Official Community Plan (OCP) and the "Business Park" designation in the Campbell Heights Local Area Plan.
- The proposal to rezone to the Business Park 1 Zone (IB-1) is consistent with other applications in the area that have rezoned to either the IB-1 Zone or CD Zones which are similar in nature to the IB-1 Zone. It should be noted that outdoor storage is not permitted in IB-1 Zoned areas.
- The proposed density and building form are appropriate for this part of Campbell Heights and are consistent with the design guidelines for Campbell Heights.
- The variance proposed to the south yard setback is minor (7.5 metres to 6.3 metres), and is to accommodate an architectural element at the southwest corner of the proposed building, which provides further articulation of the building.

RECOMMENDATION

The Planning & Development Department recommends that:

1. A By-law be introduced to rezone the site from "Intensive Agriculture Zone (A-2)" to "Business Park 1 Zone (IB-1)" and a date be set for Public Hearing.
2. Council authorize staff to draft Development Permit No. 7918-0152-00 generally in accordance with the attached drawings (Appendix II).
3. Council approve Development Variance Permit No. 7918-0152-00 (Appendix VI) varying the following, to proceed to Public Notification:
 - (a) to reduce the minimum south yard setback of the IB-1 Zone from 7.5 metres (25 ft.) to 6.3 metres (21 ft.).
4. Council instruct staff to resolve the following issues prior to final adoption:
 - (a) ensure that all engineering requirements and issues including restrictive covenants, dedications, and rights-of-way where necessary, are addressed to the satisfaction of the General Manager, Engineering;
 - (b) submission of a subdivision layout to the satisfaction of the Approving Officer;
 - (c) submission of an acceptable tree survey and a statement regarding tree preservation;
 - (d) submission of a finalized tree survey and a statement regarding tree preservation to the satisfaction of the City Landscape Architect;
 - (e) submission of a landscaping plan and landscaping cost estimate to the specifications and satisfaction of the Planning and Development Department;
 - (f) resolution of all urban design issues to the satisfaction of the Planning and Development Department;
 - (g) registration of a Section 219 Restrictive Covenant to adequately address the City's needs with respect to public art, to the satisfaction of the General Manager Parks, Recreation and Culture;
 - (h) registration of a Section 219 Restrictive Covenant prohibiting any business that requires a Metro Vancouver air quality permit from locating on the site;
 - (i) registration of a Section 219 Restrictive Covenant to restrict the maximum amount of mezzanine space; and
 - (j) registration of Statutory Right-of-Ways over portion of 2982 190 Street and 1916 32 Avenue to facilitate construction of a half road standard for 30 Avenue and 191 Street.

REFERRALS

Engineering: The Engineering Department has no objection to the project subject to the completion of Engineering servicing requirements as outlined in Appendix III.

SITE CHARACTERISTICS

Existing Land Use: Vacant lot which is heavily treed in portions of the site.

Adjacent Area:

Direction	Existing Use	LAP Designation	Existing Zone
North, East, South, and West (Across 190 Street):	Industrial	Business Park	A2

DEVELOPMENT CONSIDERATIONSBackground

- The subject property is 1.82 hectares (4.5 acres) in size. It is located at the northeast corner of the intersection at 30 Avenue and 190 Street in Campbell Heights and is designated "Mixed Employment" in the Official Community Plan (OCP). The Campbell Heights Land Use Plan designates the majority of the property for "Business Park".

Proposal

- The applicant is proposing to rezone the site from ""Intensive Agricultural" (A-2)" to "Business Park 1 Zone (IB-1)" and a Development Permit to permit construction of a single-tenant industrial building. A Development Variance Permit is also proposed to reduce the south yard setback from 7.5 metres (25 ft.) to 6.3 metres (21 ft.) to accommodate an architectural element at the southwest corner of the building.
- The development proposes a gross floor area of 15,250 square-metre (164,148 sq. ft.), representing a net floor area (FAR) of 0.56, which is less than the 1.0 FAR allowed under the IB-1 Zone.
- The building will house Kuzco Lighting, which is a light distributor. The building will be used for storage and distribution. The proposed second-storey office space will be used for the office operations as it relates to the distribution requirements and marketing.

DESIGN PROPOSAL AND REVIEW

Building Design

- The façade consists of simple concrete tilt-up panels, and includes considerable glazing and a metal canopy to help define the main entrances into the building. The colour scheme utilizes shades of grey and white. The proposed building incorporates high quality materials and design.
- Overall, the building is proposed to have a modern design. Architectural emphasis is placed on the main entrance to the building with the use of glazing and articulation to provide visual interest. The building will provide "eyes on the street" in accordance with Crime Prevention Through Environmental Design (CPTED) principles on 190 Street and 30 Avenue.
- 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 IB-1 Zone.

Access and Parking

- As part of the proposal, the applicants are responsible for constructing a 13.5 metre (45 ft.) half road for future 30 Avenue (along the south property line), and 13.5 metre (45 ft.) half road for future 191 Street (along the east property line). Access to the proposed development will be from both 190 Street and future 191 Street.
- Currently, the site plan proposes a 3.5 metre (11 ft.) right-of-way over property 2982 190 Street and 19116 32 Avenue for the construction of the 13.5 metre half roads. Statutory Right-of-Ways from adjacent property owners must be secured prior to Final Approval. The applicants acknowledge that should the off-site right-of-way not be secured before Final, changes to the site plan would be required which may result in a reduced building footprint.
- The proposal includes a total of 100 parking spaces for the warehouse and office use on this site, which exceeds the Zoning By-law requirement of 99 parking spaces.
- The BC Building Code permits up to 40% of the ground floor area to be constructed as second-storey mezzanine space. The applicant does not anticipate additional mezzanine space in the future and has agreed to register a Section 219 Restrictive Covenant restricting the mezzanine space to be constructed to avoid a situation where there may be insufficient parking in the future. Mezzanine space will be restricted to a maximum of 4.9% of the ground floor area based on available parking on the site.
- The proposed truck bays are located along the north side of the building away from public view. The truck bays will be screened by the proposed building and landscaping that is to be installed along the east and west property lines.
- Pedestrian access to the site will be from a path from 190 Street, a path from 191 Street, two paths from 30 Avenue, and a plaza at the corner of 30 Avenue and 191 Street.

Air Emissions

- At the April 3, 2017 Regular Council – Land Use meeting, Council instructed staff to review the City’s business park zones and subsequently provide a report regarding the Metro Vancouver air emissions permitting process.
- At this time the review of the business park zones has not been completed. Staff are therefore recommending that the applicant register a Section 219 Restrictive Covenant prohibiting any business that requires a Metro Vancouver air quality permit from locating on the site. The applicant has agreed to register a restrictive covenant for this purpose.

TREES

- On June 6, 2018, Shan Tennyson, ISA Certified Arborist of KD Planning & Design Ltd. prepared an Arborist Assessment for the subject property. The table below provides a summary of the tree retention and removal by tree species.

Table 1: Summary of Tree Preservation by Tree Species

Tree Species	Existing	Remove	Retain
Alder and Cottonwood Trees			
Alder	1	1	0
Deciduous Trees (excluding Alder and Cottonwood Trees)			
Cherry	15	15	0
Horse Chesnut	1	1	0
Coniferous Trees			
Deodar Cedar	1	1	0
Western Red Cedar	14	14	0
Douglas Fir	55	53	2
Western Hemlock	2	2	0
Total (excluding Alder and Cottonwood Trees)	88	86	2
Total Replacement Trees Proposed (excluding Boulevard Street Trees)		46	
Total Retained and Replacement Trees		48	
Contribution to the Green City Fund		\$50,800	

- The Arborist Assessment states that there are a total of 88 By-law sized trees on the site, and one alder tree. Due to the size of the facility, the nature of the layout and the desire to maintain efficiencies on-site, only 2 of the identified trees may be retained.
- There are 64 off-site trees on the subject site, of which 51 trees are proposed to be removed due to the new proposed road construction along the east and south property lines (30 Avenue and 191 Street). There are 13 off-site trees proposed for retention.

- For those trees that cannot be retained, the applicant will be required to plant trees on a 1 to 1 replacement ratio for the Alder tree, and a 2 to 1 replacement ratio for all other trees. This will require a total of 173 replacement trees on the site. Since only 46 replacement trees can be accommodated on the site, the deficit of 127 replacement trees will require a cash-in-lieu payment of \$50,800 representing \$400 per tree, to the Green City Fund, in accordance with the City's Tree Protection By-law.
- For those off-site trees that cannot be retained with the road dedication areas for the future construction of 30 Avenue and 191 Street, the applicant will be required to plant trees on a 1 to 1 replacement ratio for the Alder tree, and a 2 to 1 replacement ratio for all other trees. This will require a total of 102 replacement trees on the site, which will require a cash-in-lieu payment of \$40,800 representing \$400 per tree, to the Green City Fund, in accordance with the City's Tree Protection By-law.

PRE-NOTIFICATION

- A development sign was posted on the site, and pre-notification letters were sent out for this project on November 20, 2018, including a referral to the Little Campbell Watershed Society for review and comments. To date, staff have received no comments on this proposal.

SUSTAINABLE DEVELOPMENT CHECKLIST

On April 23, 2018, the applicant prepared and submitted a sustainable development checklist for the development site. The table below summarizes the features of the proposal based on the seven (7) criteria listed in the Surrey Sustainable Development Checklist.

Sustainability Criteria	Sustainable Development Features Summary
1. Site Context & Location (A1-A2)	<ul style="list-style-type: none"> • The development application is consistent with the prescribed use (Land Use Designation and Zoning) and site context.
2. Density & Diversity (B1-B7)	<ul style="list-style-type: none"> • The project density is in keeping with the Zoning By-law.
3. Ecology & Stewardship (C1-C4)	<ul style="list-style-type: none"> • The project will incorporate bio-swales (on -site water management), low maintenance/drought resistant landscaping and permeable paving.
4. Sustainable Transport & Mobility (D1-D2)	<ul style="list-style-type: none"> • The project will include on-site bicycle rack parking.
5. Accessibility & Safety (E1-E3)	<ul style="list-style-type: none"> • The site will utilize CPTED (Crime Prevention through Environmental Design) principles.
6. Green Certification (F1)	<ul style="list-style-type: none"> • The building will be designed to ASHRAE 90.1 standards.
7. Education & Awareness (G1-G4)	<ul style="list-style-type: none"> • None proposed.

BY-LAW VARIANCE AND JUSTIFICATION

(a) Requested Variance:

- to reduce the minimum south yard setback of the IB-1 Zone from 7.5 metres (25 ft.) to 6.3 metres (21 ft.).

Applicant's Reasons:

- The variance is for a 6.0 metre projection of the southwest corner of the proposed building to provide visual interest and further articulation of the building.

Staff Comments:

- The variance is minor and only applies to 6.0 metre wide architectural element at the southwest corner of the building.
- Staff supports the variance.

INFORMATION ATTACHED TO THIS REPORT

The following information is attached to this Report:

Appendix I.	Lot Owners and Action Summary (Confidential) and Project Data Sheets
Appendix II.	Site Plan, Building Elevations, and Landscape Plans
Appendix III.	Engineering Summary
Appendix IV.	Summary of Tree Survey and Tree Preservation
Appendix V.	Tree Removal and Retention Plans
Appendix VI.	Development Variance Permit

original signed by Ron Hintsche

Jean Lamontagne
General Manager
Planning and Development

HS/cm

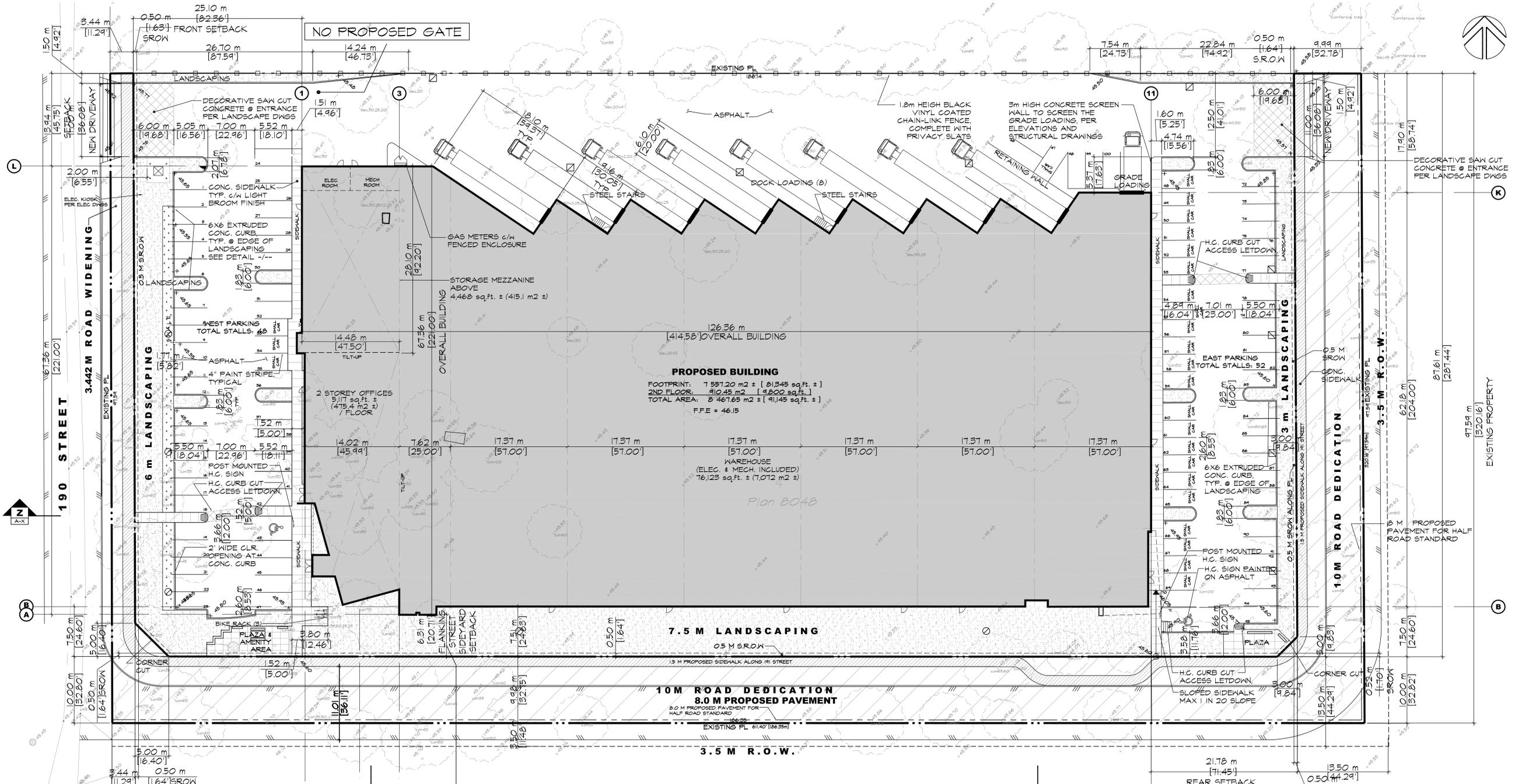
APPENDIX I HAS BEEN
REMOVED AS IT CONTAINS
CONFIDENTIAL INFORMATION

DEVELOPMENT DATA SHEET

Proposed/Existing Zoning: IB-1

Required Development Data	Minimum Required / Maximum Allowed	Proposed
LOT AREA* (in square metres)		
Gross Total		18,175
Road Widening area		2,925
Undevelopable area		
Net Total		15,250
LOT COVERAGE (in % of net lot area)	60%	50%
SETBACKS (in metres)		
West	16.0 m or 7.5 m	25.0 m
East	7.5 m	21.8 m
South	9.0 m	7.5 m
North	7.5 m	13.9 m
BUILDING HEIGHT (in metres/storeys)		
Principal	14.0 m	10.97 m
FLOOR AREA: Industrial		
TOTAL BUILDING FLOOR AREA		15,250 sq.m.
DENSITY		
FAR (net)	1.0	0.56
PARKING (number of stalls)		
Commercial		
Industrial	99	100
Residential Bachelor + 1 Bedroom		
2-Bed		
3-Bed		
Residential Visitors		
Institutional		
Total Number of Parking Spaces		100
Number of accessible stalls		2
Number of small cars		35

Heritage Site	NO	Tree Survey/Assessment Provided	YES
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PROPOSED BUILDING
 FOOTPRINT: 7 551.20 m² ± [81 345 sq.ft. ±]
 2ND FLOOR: 910.45 m² [9 800 sq.ft.]
 TOTAL AREA: 8 461.65 m² ± [91 145 sq.ft. ±]
 F.F.E. = 46.15

10M ROAD DEDICATION
8.0M PROPOSED PAVEMENT
 0.0 M PROPOSED PAVEMENT FOR HALF ROAD STANDARD

VARIANCE REQ'D
 (MIN 7.5m PROVIDE 6.30m)

SITE PLAN
 SCALE: 1" = 20'-0"

SIGNAGE INFORMATION

- ONE ON SITE SIGNS PROPOSED:
 - INFO PROVIDED IS TO SHOW GENERAL COMPLIANCE WITH SIGNAGE BYLAWS FOR THE PURPOSES OF DEVELOPMENT PERMIT
 - BUILDING TENANT RESPONSIBLE FOR SIGN PERMIT APPLICATION
 - ALL SIGNS TO COMPLY WITH SIGNAGE BYLAWS
- S1 SIGN (I) FASCIA SIGN**
 - ONE 4.0m WIDE BY 0.61m HIGH FASCIA SIGN
 - MAX SIGN AREA: 67.56 m² FRONTAGE X 1 m² = 67.56 m² SIGN AREA: 2.45 m²
 - SIGN NOT TO EXTEND BEYOND EDGE OF BUILDING OR ABOVE ROOF LINE - SEE ELEVATIONS
 - SIGN NOT TO PROJECT MORE THAN 0.5 m FROM BUILDING FACE

SITE DATA

CIVIC ADDRESS: 3030 - 190th ST, SURREY, B.C.
 LEGAL DESCRIPTION: LOT 4, SECTION 21, TOWNSHIP 7, PLAN N98048 NND
 EXISTING ZONING: A-2
 PROPOSED ZONING: IB-1

GROSS LOT AREA: 18 175.1 m² / 182 ha. [185 656 sq.ft. / 4.44 Ac.]
 NET LOT AREA: 15 249.8 m² / 1525 ha. [164 148 sq.ft. / 3.76 Ac.]

PROPOSED BUILDING AREA (FOOTPRINT):
 BUILDING: 7 666.4 m² ± [82 520.9 sq.ft. ±]
 SITE COVERAGE (NET): 60% MAX. 7 666.4 / 15 249.8 = 50.2 %
 F.A.R. (NET): 0.25205 sq.ft. FOOTPRINT + 4125 sq.ft. 2ND FLR / 164148 sq.ft. = 0.596

SETBACKS: MIN. PROPOSED
 SIDE (NORTH): 7.5 m [25'0"] 15.83 m [49'12"]
 FRONT (WEST): 16 m [52'5"] or 7.5m 25.04 m [82'16"]
 REAR (EAST): 7.5 m [25'0"] 21.78 m [71'45"]
 SIDE (SOUTH): 4.0 m [13'0"]*** 7.5 m [25'0"]

*** THE SIDE YARD SETBACK ON A FLANKING STREET MAY BE REDUCED TO 1.5 METRES (5 FEET) IF THE AREA BETWEEN THE FLANKING STREET FACE OF ANY BUILDING OR STRUCTURE AND A HIGHWAY IS NOT USED FOR PARKING AND IS LANDSCAPED.

HEIGHT: 14.0 m [45'0"] MAX. 10.97 m [36'0"]

PARKING REQUIRED:
 GROUND WAREHOUSE @ 1 PER 100 M² 7 072 m² / 100 x 1.0 = 70.72
 GROUND FLOOR OFFICE @ 2.5 PER 100 M² 475.4 m² / 100 x 2.5 = 11.89
 2ND FLOOR OFFICE @ 2.5 PER 100 M² 475.4 m² / 100 x 2.5 = 11.89
 2ND FLOOR STORAGE @ 1 PER 100 M² 415.1 m² / 100 x 1.0 = 4.15
 = 98 STALLS (98.6)

PARKING PROVIDED:
 = 100 STALLS
 (35% SMALL CAR ALLOWED = 35 STALLS / 26 PROVIDED)

GENERAL NOTES:

- SERVICES SHOWN ARE APPROXIMATE ONLY, SEE CIVIL DRAWINGS FOR FINAL LOCATIONS
- ASPHALT & SUBBASE DESIGN PER SOILS REPORT
- CONTRACTOR TO PROVIDE FOOTING & WALL SURVEYS (BY REGISTERED A.L.S.) DURING CONSTRUCTION, SUBMIT COPIES TO CITY BUILDING DEPT.
- SEE MECHANICAL ENGINEERS DRAWINGS FOR FINAL LOCATION OF FIRE DEPARTMENT CONNECTION & HOSE BIBS
- SEE ELECTRICAL DRAWINGS FOR LOCATION OF ALARM PANEL
- ALL CONSTRUCTION PRODUCTS AND MATERIALS TO CONFORM FULLY WITH ALL ASPECTS OF THE CURRENT BUILDING CODE, ALL OTHER APPLICABLE CODES, REGULATIONS, TESTS, LISTINGS, AS WELL AS ALL REQUIREMENTS OF AUTHORITY HAVING JURISDICTION.
- SUBCONTRACTORS ARE SOLELY RESPONSIBLE TO ENSURE THEIR SUPPLIED PRODUCTS FULLY CONFORM TO ALL APPLICABLE CODES AND TEST REQUIREMENTS AND ARE TO HAVE SUPPORTING DOCUMENTATION AVAILABLE, DEMONSTRATING FULL COMPLIANCE WITH ALL APPLICABLE CODES AND TESTS.
- THE CONTRACTOR MUST CONFIRM ALL DIMENSIONS AND OTHERWISE ASSURE HIMSELF OF THE ADEQUACY OF THE PLANS AND REPORT ALL DISCREPANCIES AND ANY PROPOSED CHANGES IN THE WORK IMMEDIATELY TO THE ARCHITECT.
- ALL DIMENSIONS SHOWN ON THESE DRAWINGS FOR MANUFACTURED COMPONENTS ARE NOMINAL, THE CONTRACTOR SHALL CONFIRM ACTUAL DIMENSIONS WITH THE SUPPLIER/ MANUFACTURER.
- ALL MATERIALS IN THE CONSTRUCTION TO BE USED FOR THEIR INTENDED PURPOSE AND TO BE APPROVED BY THE AUTHORITY HAVING JURISDICTION, ALL EQUIPMENT AND FITTINGS MUST BE CSA (CANADIAN STANDARDS ASSOCIATION) APPROVED.
- VAPOUR BARRIERS SHALL BE CONTINUOUS AND INSTALLED SO THAT ALL JOINTS ARE SEALED OR LAPPED 150 MM AND OCCUR AT FRAMING MEMBERS, FURRING OR BLOCKING. ALL HOLES THROUGH VAPOUR BARRIERS SUCH AS THOSE CUT FOR THE INSTALLATION OF ELECTRICAL BOXES OR DUCTWORK SHALL BE SEALED TO MAINTAIN THE INTEGRITY OF THE VAPOUR BARRIER OVER THE ENTIRE SURFACE.
- THE DESIGNER/ENGINEER IS NOT RESPONSIBLE FOR CHANGES IN CONSTRUCTION FROM WHAT IS SHOWN BY ANY PARTY.
- THE DESIGNER/ENGINEER IS NOT RESPONSIBLE FOR SOIL CONDITIONS, CHARACTERISTICS AND CAPACITY TO SUPPORT THE STRUCTURE SHOWN ON THESE DRAWINGS.
- ALL CONSTRUCTION WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH GOOD BUILDING PRACTICES BASED ON THE CONTRACT DOCUMENTS.
- THERE SHALL BE SHOP DRAWINGS PRODUCED FOR ALL MAJOR BUILDING COMPONENTS, THEY SHALL BE ISSUED IN TIME FOR ADEQUATE CHECKING BY THE COORDINATING ARCHITECT/ENGINEER AND OTHER CONSULTANTS APPROVED.
- ANY PROPOSED SUBSTITUTION OF MATERIALS MUST BE APPROVED IN ADVANCE OF ORDERING.
- SAMPLES OF ALL INTENDED PRODUCTS, COLOURS, MATERIALS AND FINISHES SHOULD BE PROVIDED AS SOON AS CONSTRUCTION COMMENCES TO ALLOW ADEQUATE TIME FOR REVIEW.
- ROOF TO BE CONSTRUCTED IN CONFORMANCE WITH R.C.A.B.C. OR EQUAL METHODS AND PRACTICES. PROVIDE ROOF WARRANTY TO COORDINATING ARCHITECT/ENGINEER.
- PROVIDE SEALED SHOP DRAWINGS FOR ALL DOORS, WINDOWS/GLAZING, GROUNDRAILS, HANDRAILS, STAIRS, RATED ASSEMBLIES (IE JOINTS), FIRE SHUTTERS (IF APPLICABLE).
- ALL PROPERTY LINE DIMENSIONS & BEARING ANGLES ARE PROPOSED & ARE REQUIRED TO BE CONFIRMED BY SURVEY

CHIP BARRETT ARCHITECT
 1162-2228 PH: 604-556-1272
 2652 ALLIANCE STREET, ABBOTSFORD, B.C. V2S 3J9
 TEL: (604) 607-5655 EMAIL: DARYL@DFORCE.CA

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9	OCT.19.18	REISSUED FOR DP
8	OCT.17.18	ISSUED FOR CONSULTANT USE
7	OCT.05.18	ISSUED FOR CLIENT REVIEW
6	JUL.27.18	ISSUED FOR CLIENT REVIEW
5	JUL.25.18	ISSUED FOR CLIENT REVIEW
4	JUN.26.18	ISSUED FOR D.P.
3	MAR.28.18	ISSUED FOR D.P.
2	MAR.29.18	REVISED SETBACKS
1	FEB.26.18	CONSULTANT USE

Integrated CONSTRUCTION
 I C C Integrated Construction Concepts Ltd
 12960 84 Ave, Surrey, BC V3V 1K7
 Phone: (604) 599-0706

PROJECT: PROPOSED BUILDING FOR:
KUZCO

SITE PLAN

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		CHECKED
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		OCT.22.18
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		REV.
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PROPOSED:



ADDRESS: 3030 190 Street, Surrey, B.C.



MAIN ENTRANCE VIEW - 1



SOUTH-WEST VIEW



OVERALL VIEW



SOUTH-EAST VIEW

ARCHITECTURAL DRAWING LIST

COVER SHEET	_____	A-0
SITE PLAN	_____	A-1
CONTEXT PLAN	_____	A-1a
AMENITY/PLAZA DETAILS	_____	A-1b
SIGHT LINE SECTIONS	_____	A-1c
BASE PLAN	_____	A-1d
OVERALL FLOOR PLAN	_____	A-2
ROOF PLAN	_____	A-3
OVERALL BUILDING COLORED ELEVATIONS	_____	A-4

CHIP BARRETT ARCHITECT

1162-228 18 ST. SURREY, B.C. V3Z 6P4
PH: (604) 536-1272

D.FORCE DESIGNING

2625 ALHAMBRA STREET, ANNEBORO, B.C. V2S 2J9
TEL: (604) 607-5655

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3	OCT.05.18	ISSUED FOR CLIENT REVIEW
2	JUN.05.18	ISSUED FOR D.P.
1	APR.20.18	ISSUED FOR D.P.

NO.	DATE	DESCRIPTION

PROJECT MANAGERS / CONTRACTORS:

Integrated
I C C Integrated Construction Concepts Ltd
12960 84 Ave, Surrey, BC V3W 1K7
Phone: (604) 599-0706

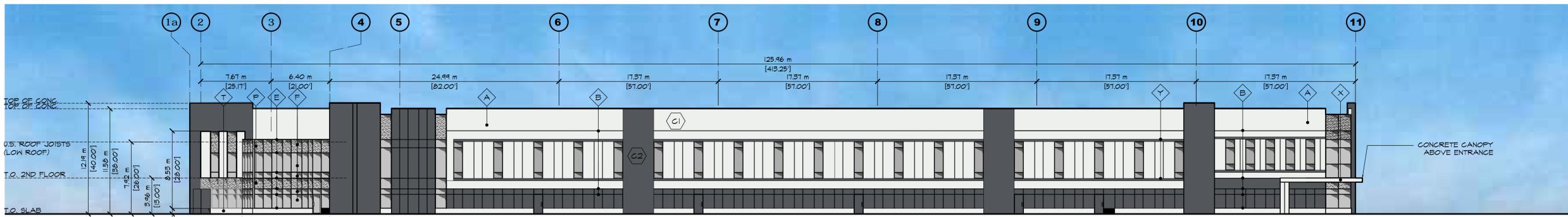
PROJECT: PROPOSED BUILDING FOR:
KUZCO

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DRAWING
COVER SHEET

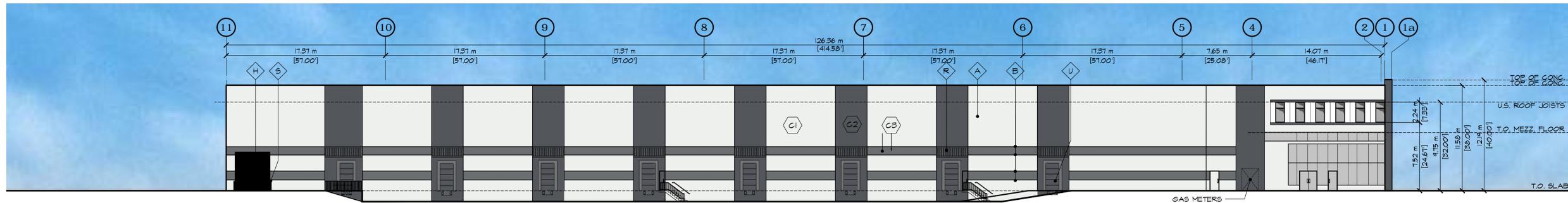
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PROJECT - DRAWING NUMBER
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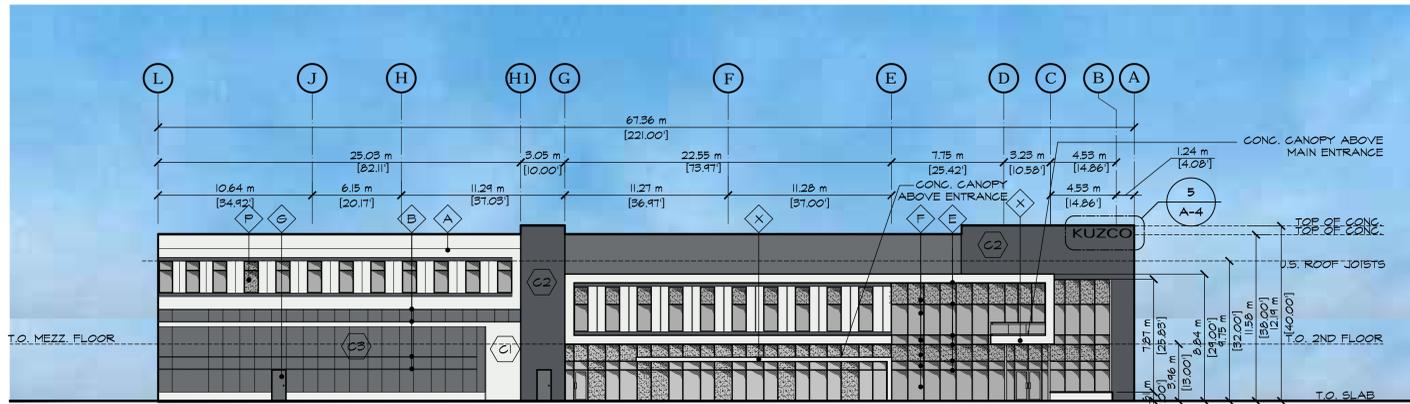
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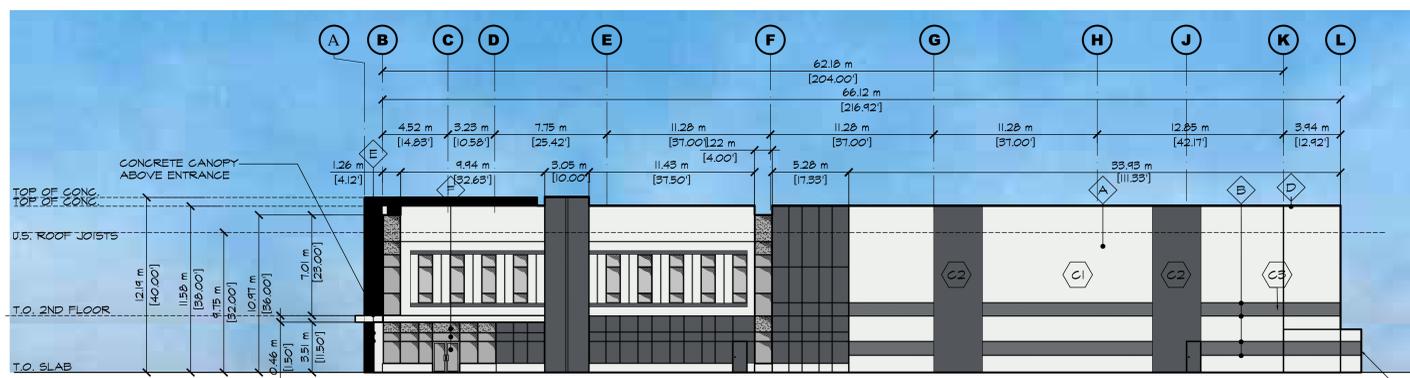
1 SOUTH ELEVATION
SCALE: 1/16"=1'-0"



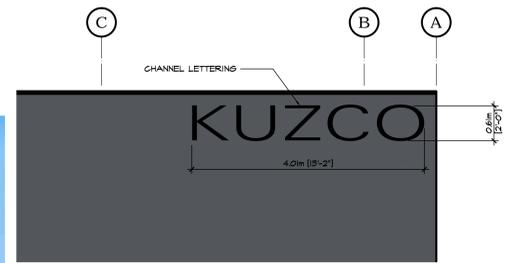
2 NORTH ELEVATION
SCALE: 1/16"=1'-0"



3 WEST ELEVATION
SCALE: 1/16"=1'-0"



4 EAST ELEVATION
SCALE: 1/16"=1'-0"



5 SIGNAGE DETAIL
SCALE: 1/4"=1'-0"

PAINTING:
ALL MATERIALS AND WORK SHALL CONFORM TO THE STANDARDS OF THE CANADIAN PAINTING CONTRACTORS ASSOCIATION.
FOR THE PAINTING OF CONCRETE SURFACES THE MAXIMUM MOISTURE CONTENT OF THE CONCRETE SURFACE SHALL BE 4% FOR ANY EPOXY PAINT.
IT IS THE RESPONSIBILITY OF THE PAINTING CONTRACTOR TO ENSURE COMPATIBILITY BETWEEN CONCRETE BOND BREAKER AND PAINT OR PRIMERS. IT IS ALSO THE PAINTING CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL APPLICATIONS & PREPARATION PROCEDURES AS ADVISED BY THE BOND BREAKER MANUFACTURER.
THE PAINTING CONTRACTOR IS TO EXAMINE ALL SURFACES TO BE PAINTED BEFORE COMMENCING WORK AND REPORT ALL DEFECTS TO THE GENERAL CONTRACTOR. DO NOT PAINT SURFACES UNTIL ACCEPTED BY THE GENERAL CONTRACTOR. REMOVE ALL LOOSE MATERIAL, FOREIGN MATTER, REMOVE OIL OR GREASE WITH TSP, WASH, RINSE AND LET DRY.
PROTECT ALL OTHER SURFACES DURING PAINTING.
ALL EXTERIOR PAINT COLOURS PER LEGEND ON ELEVATIONS, AND TO BE APPROVED BY THE GENERAL CONTRACTOR OR OWNER, PAINTING SUBCONTRACTOR TO PAINT A 20'X20' TEST PATCH ON WALL FOR APPROVAL BEFORE PAINTING REMAINDER OF BUILDING.
ALL INTERIOR COLOURS BY INTERIOR DESIGNER OR OWNER EXCEPT AS NOTED FOR SAFETY). PAINTING CONTRACTOR TO CONFIRM COLOURS BEFORE COMMENCING WORK. PAINT SURFACES AS FOLLOWS:
1) CONCRETE TILT-UP WALLS - PAINT EXTERIOR FACE ONLY WITH 2 COATS OF ACRYLIC LATEX APPLIED PER MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS.
2) DRYWALL SURFACES - TO BE PAINTED WITH 2 COATS LATEX PAINT.
3) METAL DOORS AND FRAMES, AND OTHER METAL SURFACES - 1 COAT ALKYD PRIMER, 2 COATS OF ALKYD ENAMEL.
4) WOODWORK - 1 COAT SEALER, 2 COATS SEMI GLOSS FINISH.
ALL PAINT TO BE BENJAMIN MOORE OR APPROVED EQUAL.
ALL EXTERIOR SURFACES AND ALL EXPOSED INTERIOR SURFACES IN FINISHED AREA TO BE PAINTED. CONFIRM WITH GENERAL CONTRACTOR AS REQUIRED.
OWNER TO CONFIRM IF INTERIOR SIDE OF WAREHOUSE WALLS AND OR JOISTS AND DECK TO BE PAINTED.

6 REVEAL DETAIL
SCALE: 1"=3/4"

MATERIAL LEGEND

- CONCRETE SANDWICH TILT-UP WALL PANEL, TYP. - PAINTED
- REVEAL IN CONCRETE - PAINTED
- PANEL JOINT
- PANEL JOINT
- PRE-FINISHED METAL GAP FLASHING
- STOREFRONT FRAMES - CLEAR ANODIZED ALUMINUM
- STOREFRONT GLASS - CLEAR
- STEEL MANDOORS - PAINTED
- STEEL SECTIONAL OVERHEAD DOORS - PAINTED
- STEEL GUARDRAILS - PAINTED
- CONCRETE RETAINING WALLS - NATURAL FINISH UNPAINTED TYP.
- LIGHT FIXTURE - SEE ELECTRICAL DWG'S
- ALUMINUM FRAME WITH 4" EXTENDED COVER/CAP, SEE DETAILS
- 3/4" RECESS IN CONCRETE
- SPANDREL GLAZING (OBSCURE, TO MATCH VISION GLASS)
- SCUPPER
- METAL CLAD CANOPY
- STEEL BOLLARD - PAINTED
- CONCRETE CURB UNDER, PAINTED
- STEEL SECTIONAL DOCK DOORS - PAINTED
- LONGBOARD SIDING / SOFFIT - CORDOBA CHERRY
- HORIZONTAL METAL CLADDING
- CONCRETE CANOPY
- PAINT STRIPE (NO REVEAL)

NOTE:
- NOT ALL MATERIALS ARE APPLICABLE

- SPANDREL GLAZING
- HORIZONTAL METAL CLADDING VIGNEST 7/8" CORRUGATED METAL GLAZING, GALVALUM FINISH - OR APPROVED EQUAL

PROJECT COLOURS

- ALL COLOURS BENJAMIN MOORE:
- (C1) MAIN FIELD COLOUR 1: 2121-60 (WHITE-DIAMOND)
 - (C2) FIELD ACCENT COLOUR 1: 2125-20 (DEEP SPACE)
 - (C3) FIELD ACCENT COLOUR 2: 2124-20 (TROUT GRAY)
- EXTERIOR GUARDRAILS: POWDER COAT BLACK VELVET
ALUMINUM STOREFRONT MULLIONS: BLACK ANODIZED ALUMINUM
(SEE ELEVATIONS FOR LOCATIONS)
TYPICAL GLAZING: CLEAR (LOW E, ASHRAE 90.1 2010 COMPLIANT)
TYPICAL METAL GAP FLASHING: ● C2-CHARCOAL GC8306
● C1-POLAR WHITE GC1820-R
2124-20 (TROUT GRAY)
SPANDREL: 2124-20 (TROUT GRAY)

* NOTE: CONFIRM ALL COLOURS & FINISHES WITH THE OWNER PRIOR TO FABRICATION &/OR PAINTING.

GLAZING NOTES:
- ALL GLAZING TO BE ASHRAE 90.1 2010 COMPLIANT, PROVIDE ALL REQUIRED DOCUMENTATION.
- EXTERIOR GUARDRAILS TO BE GUARDIAN S/NX 62/21 OR APPROVED EQUAL IN THERMALLY BROKEN, CLEAR ANODIZED ALUMINUM FRAMES. THE LOW E SEALED GLAZING WILL BE FILLED WITH ARGON.

DOOR NOTES:
- EXTERIOR METAL DOORS TO BE FLUSH METAL, WITH FLUSH HARDWARE PANELS
- DOOR CASINGS TO BE FULLY INTEGRATED WITH THE REVEALS
- DOORS TO BE PAINTED TO MATCH ADJACENT WALLS PER ELEVATION

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6	OCT.19.18	REISSUED FOR DP
5	OCT.17.18	ISSUED FOR CONSULTANT USE
4	OCT.05.18	ISSUED FOR CLIENT REVIEW
3	JUN.05.18	ISSUED FOR D.P.
2	APR.20.18	ISSUED FOR D.P.
1	APR.10.18	FOR CLIENT REVIEW
NO.	DATE	DESCRIPTION

PROJECT MANAGERS / CONTRACTORS:
Integrated
1 C C Integrated Construction Concepts Ltd
12960 84 Ave. Surrey, BC V3W 1K7
Phone: (604) 599-0706

PROJECT: PROPOSED BUILDING FOR:
KUZCO

CIVIC ADDRESS: 3030 190 Street, Surrey, B.C.

OVERALL BUILDING COLORED ELEVATIONS

SEAL	JOB NO. 18-001	DRAWN D.F.
	DESIGNED	
	CHECKED C.B.	
	PLOT DATE OCT.22.18	

PROJECT - DRAWING NUMBER **A-4** REV. 6

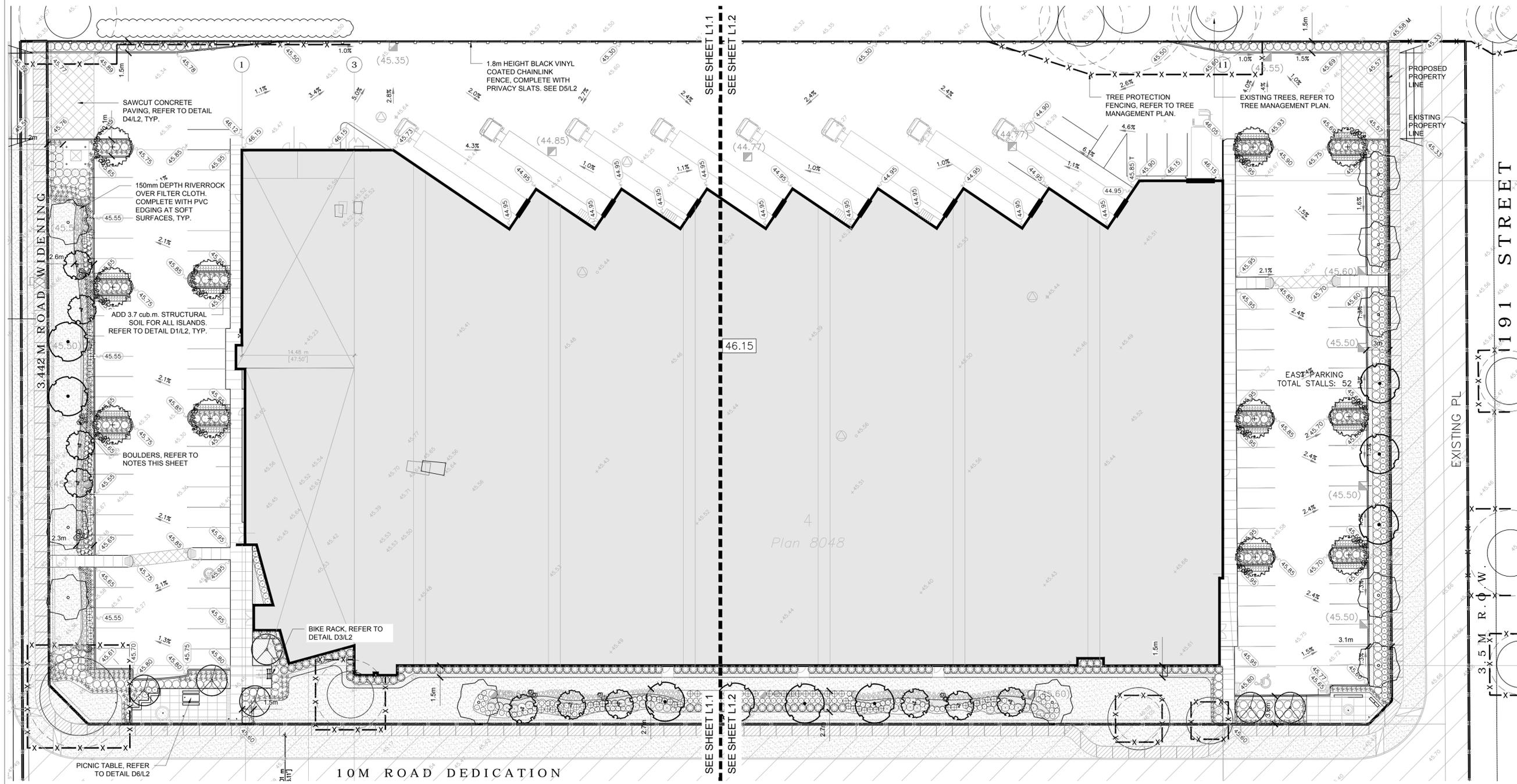
LEGEND

	TURF GRASS
	SAWCUT CONCRETE
	CONCRETE SIDEWALK
	EXISTING TREE TO REMAIN

4	25/10/18	REISSUED FOR DP
3	07/06/18	REISSUED FOR DP
2	19/04/18	ISSUED FOR DP
1	16/03/18	ISSUED FOR DRG

NO: DATE: (dm/y) DESCRIPTION:
ISSUES & REVISIONS:

SEAL:
B.C.S.L.A. #565



PLANT LIST

Symbol	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	CONDITION
DECIDUOUS TREES						
	6	<i>Prunus x yedoensis</i>	Yoshino Cherry	60mm cal.	As Shown	W.B.
	11	<i>Zelkova serrata</i>	Japanese Zelkova	60mm cal.	As Shown	W.B.
	10	<i>Ginkgo biloba</i>	Maidenhair Tree	60mm cal.	As Shown	W.B.
	9	<i>Acer freemanii 'Jeffersred'</i>	Freeman's Maple	60mm cal.	As Shown	W.B.
	10	<i>Acer circinatum</i>	Vine Maple	60mm cal.	As Shown	W.B.
SHRUBS						
	110	<i>Rhododendron 'Bubble Gum'</i>	Bubble Gum Rhododendron	40cm ht.	0.65m	#2 Pot
	151	<i>Ilex glabra</i>	Ink Berry	60cm ht.	0.7m	#3 Pot
	88	<i>Kalmia latifolia 'Elf'</i>	Dwarf Mountain Laurel	40cm ht.	0.7m	#2 Pot
	97	<i>Viburnum davidii</i>	David's Viburnum	60cm ht.	0.8m	#3 Pot
	24	<i>Escallonia 'Newport Dwarf'</i>	Newport Dwarf Escallonia	30cm ht.	0.7m	#3 Pot
	109	<i>Lonicera nitida</i>	Boxleaf Honeysuckle	40cm ht.	0.8m	#2 Pot
	89	<i>Cornus sericea</i>	Redosier Dogwood	60cm ht.	0.6m	#2 Pot
	7	<i>Thuja occidentalis 'Smaragd'</i>	Emerald Green Cedar	1.5m ht.	1m	B & B
PERENNIALS, GROUND COVERS, AND GRASSES						
	39	<i>Iris missouriensis</i>	Rocky Mountain Iris	1 gal.		#1 Pot
	451	<i>Festuca idahoensis 'Siskiyou Blue'</i>	Idaho Blue Fescue	1 gal.		#1 Pot
	99	<i>Veronica spicata 'Glori'</i>	Spiked Speedwell	1 gal.		#1 Pot
	285	<i>Hemerocallis 'Stella D'Oro'</i>	Stella D'Oro Daylily	1 gal.		#1 Pot
	50	<i>Eutrochium purpureum</i>	Joe Pye Weed	1 gal.		#1 Pot

FOR ALL TREES TO BE RETAINED WITH IMPACTS TO THE TPZ, ADD 3 INCHES OF ORGANIC, COMPOSTED MULCH WITHIN SOFT TPZ AREAS.

BOULDERS, bury average of 0.15-0.25m below surface, size at minimum:
3 L = LARGE AT 1m l. x 1m w. x 1m ht., 0.75m showing above surface, 2 tonne each
12 S = SMALL AT 0.5m l. x 0.5m w. x 0.5m ht., 0.4m showing above surface, 8 tonne each
CONTRACTOR TO PROVIDE SAMPLE FOR CLIENT/PROJECT MANAGER APPROVAL BEFORE PURCHASING AND INSTALLING



PROJECT NAME:
KUZCO - WAREHOUSE BUILDING

PROJECT ADDRESS:
**3030 190 STREET
SURREY, BC**

DRAWING TITLE:
LANDSCAPE PLAN

SCALE: 1:250
DRAWN: RM
CHECKED: ST
PROJECT NO: 180037-L

DRAWING NO:
L1

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LEGEND

- TURF GRASS
- SAWCUT CONCRETE
- CONCRETE SIDEWALK
- EXISTING TREE TO REMAIN

Symbol	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	CONDITION
DECIDUOUS TREES						
	6	<i>Prunus x yedoensis</i>	Yoshino Cherry	60mm cal.	As Shown	W.B.
	11	<i>Zelkova serrata</i>	Japanese Zelkova	60mm cal.	As Shown	W.B.
	10	<i>Ginkgo biloba</i>	Maidenhair Tree	60mm cal.	As Shown	W.B.
	9	<i>Acer freemanii 'Jeffersred'</i>	Freeman's Maple	60mm cal.	As Shown	W.B.
	10	<i>Acer circinatum</i>	Vine Maple	60mm cal.	As Shown	W.B.
SHRUBS						
	110	<i>Rhododendron 'Bubble Gum'</i>	Bubble Gum Rhododendron	40cm ht.	0.65m	#2 Pot
	151	<i>Ilex glabra</i>	Ink Berry	60cm ht.	0.7m	#3 Pot
	88	<i>Kalmia latifolia 'Elf'</i>	Dwarf Mountain Laurel	40cm ht.	0.7m	#2 Pot
	97	<i>Viburnum davidii</i>	David's Viburnum	60cm ht.	0.9m	#3 Pot
	24	<i>Escallonia 'Newport Dwarf'</i>	Newport Dwarf Escallonia	30cm ht.	0.7m	#3 Pot
	109	<i>Lonicera nitida</i>	Boxleaf Honeysuckle	40cm ht.	0.8m	#2 Pot
	89	<i>Cornus sericea</i>	Redosier Dogwood	60cm ht.	0.6m	#2 Pot
	7	<i>Thuja occidentalis 'Smaragd'</i>	Emerald Green Cedar	1.5m ht.	1m	B & B
PERENNIALS, GROUND COVERS, AND GRASSES						
	39	<i>Iris missouriensis</i>	Rocky Mountain Iris	1 gal.		#1 Pot
	451	<i>Festuca idahoensis 'Siskiyou Blue'</i>	Idaho Blue Fescue	1 gal.		#1 Pot
	99	<i>Veronica spicata 'Glory'</i>	Spiked Speedwell	1 gal.		#1 Pot
	285	<i>Hemerocallis 'Stella D'Oro'</i>	Stella D'Oro Daylily	1 gal.		#1 Pot
	50	<i>Eutrochium purpureum</i>	Joe Pye Weed	1 gal.		#1 Pot

4	25/10/18	REISSUED FOR DP
3	07/06/18	REISSUED FOR DP
2	19/04/18	ISSUED FOR DP
1	16/03/18	ISSUED FOR DRG

NO: DATE: (dm/ny) DESCRIPTION:
ISSUES & REVISIONS:

SEAL:
B.C.S.L.A. #565



PROJECT NAME:
KUZCO - WAREHOUSE BUILDING

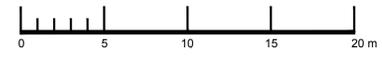
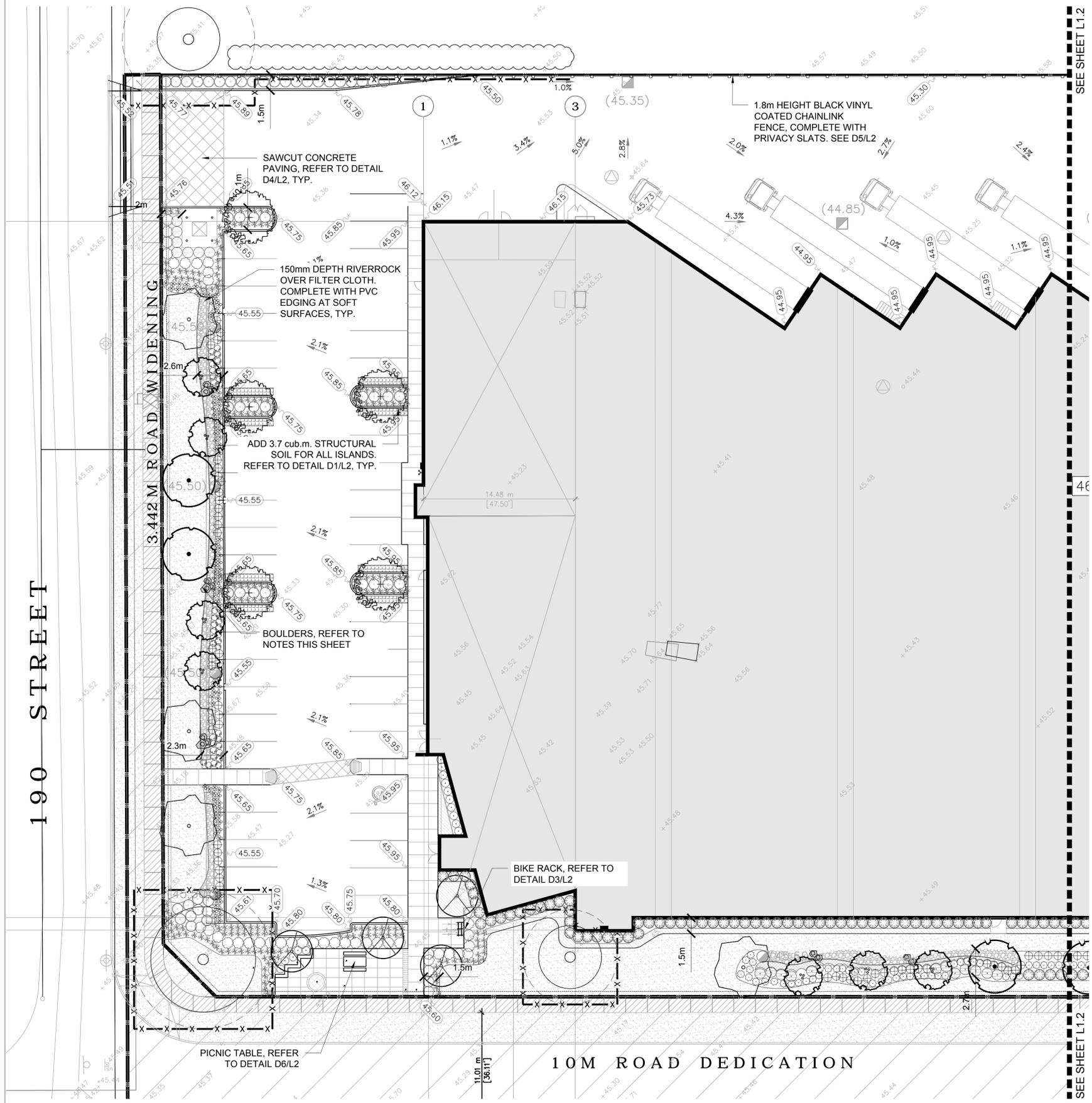
PROJECT ADDRESS:
**3030 190 STREET
SURREY, BC**

DRAWING TITLE:
ENLARGEMENT PLAN

SCALE: **1/200**
DRAWN: **RM**
CHECKED: **ST**
PROJECT NO: **180037-L**

DRAWING NO:
L1.1

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190 STREET

SEE SHEET L1.2

SEE SHEET L1.2

10M ROAD DEDICATION

PICNIC TABLE, REFER TO DETAIL D6/L2

BIKE RACK, REFER TO DETAIL D3/L2

ADD 3.7 cub.m. STRUCTURAL SOIL FOR ALL ISLANDS. REFER TO DETAIL D1/L2, TYP.

150mm DEPTH RIVERROCK OVER FILTER CLOTH. COMPLETE WITH PVC EDGING AT SOFT SURFACES, TYP.

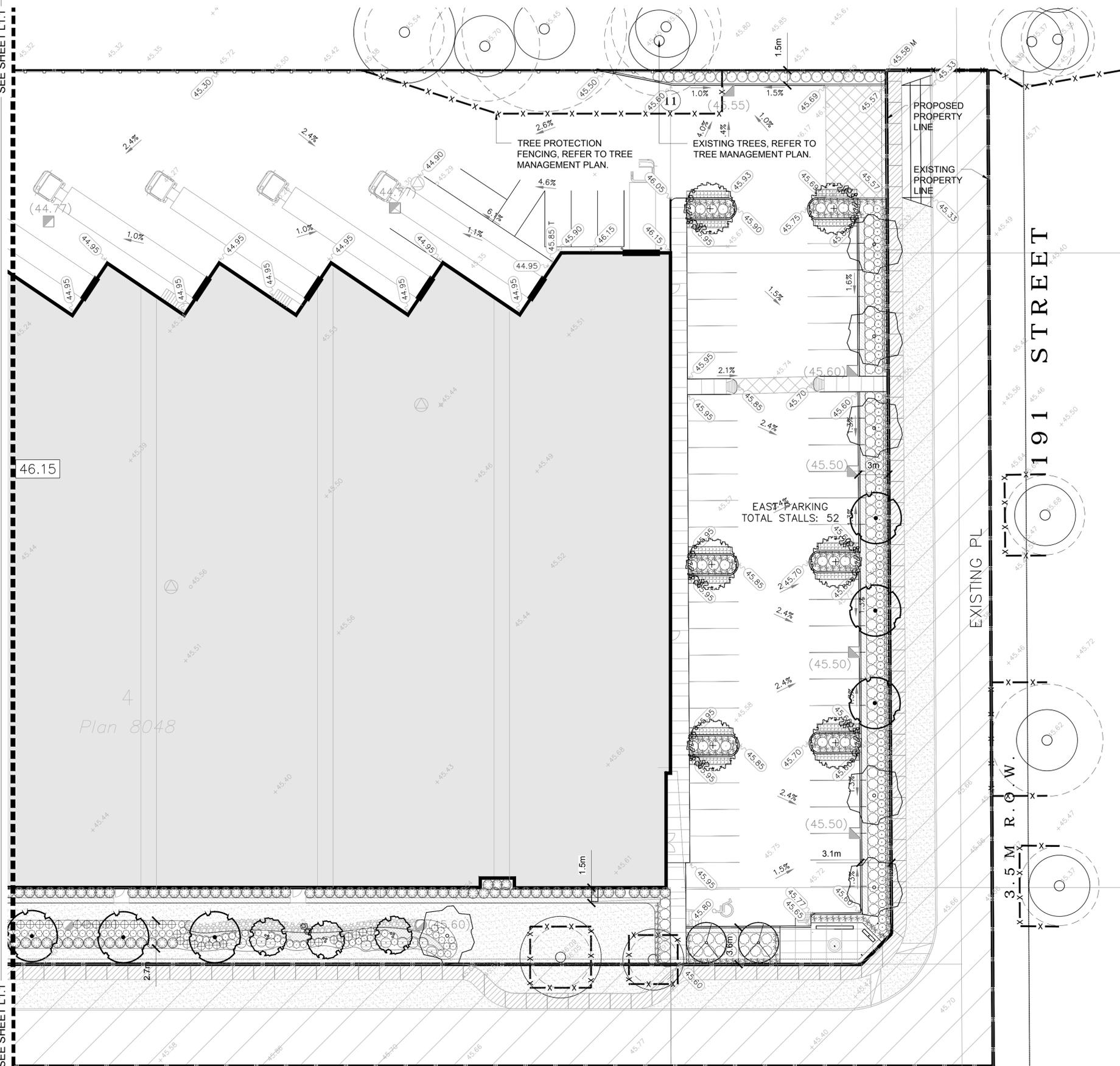
SAWCUT CONCRETE PAVING, REFER TO DETAIL D4/L2, TYP.

1.8m HEIGHT BLACK VINYL COATED CHAINLINK FENCE, COMPLETE WITH PRIVACY SLATS. SEE D5/L2

3.442M ROAD WIDENING

SEE SHEET L1.1

SEE SHEET L1.1



Symbol	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	CONDITION
DECIDUOUS TREES						
	6	<i>Prunus x yedoensis</i>	Yoshino Cherry	60mm cal.	As Shown	W.B.
	11	<i>Zelkova serrata</i>	Japanese Zelkova	60mm cal.	As Shown	W.B.
	10	<i>Ginkgo biloba</i>	Maidenhair Tree	60mm cal.	As Shown	W.B.
	9	<i>Acer freemanii</i> 'Jeffersred'	Freeman's Maple	60mm cal.	As Shown	W.B.
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SHRUBS						
	110	<i>Rhododendron</i> 'Bubble Gum'	Bubble Gum Rhododendron	40cm ht.	0.65m	#2 Pot
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	7	<i>Thuja occidentalis</i> 'Smaragd'	Emerald Green Cedar	1.5m ht.	1m	B & B
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	50	<i>Eutrochium purpureum</i>	Joe Pye Weed	1 gal.		#1 Pot



ABBOTSFORD OFFICE
400 - 34077 GLADYS AVE. ABBOTSFORD, BC V2S 2E8
T: 604.853.8831 F: 604.850.1580 www.krahn.com
VANCOUVER OFFICE
210 - 1311 KOOTENAY ST. VANCOUVER, BC V5K 4Y3
T: 604.294.6662 F: 604.294.6665 www.krahn.com



LEGEND

- TURF GRASS
- SAWCUT CONCRETE
- CONCRETE SIDEWALK
- EXISTING TREE TO REMAIN

4	25/10/18	REISSUED FOR DP
3	07/06/18	REISSUED FOR DP
2	19/04/18	ISSUED FOR DP
1	16/03/18	ISSUED FOR DRG

NO: DATE: (dm/yy) DESCRIPTION:
ISSUES & REVISIONS:

SEAL:
B.C.S.L.A. #565



PROJECT NAME:
KUZCO - WAREHOUSE BUILDING

PROJECT ADDRESS:
**3030 190 STREET
SURREY, BC**

DRAWING TITLE:
ENLARGEMENT PLAN

SCALE: 1/200
DRAWN: RM
CHECKED: ST
PROJECT NO: 180037-L

DRAWING NO:
L1.2

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

FROM: Development Services Manager, Engineering Department

DATE: Nov 23, 2018 **PROJECT FILE: 7818-0152-00**

**RE: Engineering Requirements (Commercial/Industrial)
Location: 3030-190 Street**

Property and Right-of-Way Requirements

- dedicate 3.442 metres for 190 Street.
- dedicate 13.5 metres for 191 Street.
- dedicate 13.5 metres for 30 Avenue.
- dedicate 6.0m x 6.0m corner cut at the intersections of 30 Avenue and 190 Street.
- dedicate 6.0m x 6.0m corner cut at the intersections of 30 Avenue and 191 Street.
- provide 0.5 metre ROWs fronting 30 Avenue, 190 and 191 Streets.

Works and Services

- construct the east side of 190 Street to a 24.0 metre collector standard complete with 14.0m of asphalt pavement, barrier curb, grassed boulevard, concrete sidewalk, streetlights and street trees.
- construct the north side of 30 Avenue to a 20.0 metre through local standard complete with 8.0 metre asphalt pavement, barrier curb, grassed boulevard, concrete sidewalk, street lights and street trees.
- construct the west side of 191 Street to a 20.0 metre through local standard complete with 8.0 metre asphalt pavement, barrier curb, grassed boulevard, metre concrete sidewalk, street lights and street trees.
- construct storm, sanitary, and water infrastructure to support development.

A Servicing Agreement is required prior to Rezone.

DEVELOPMENT PERMIT/DEVELOPMENT VARIANCE PERMIT

There are no engineering requirements relative to issuance of the Development Permit/
Development Variance Permit



Tommy Buchmann, P.Eng.
Acting Development Services Manager
LR1

Tree Preservation Summary

Surrey Project No:

Address: 3030 190 Street, Surrey BC

Registered Arborist: Shan Tennyson ON-0969A

On-Site Trees	Number of Trees
Protected Trees Identified (on-site and shared trees, including trees within boulevards and proposed streets and lanes, but excluding trees in proposed open space or riparian areas)	89
Protected Trees to be Removed	87
Protected Trees to be Retained (excluding trees within proposed open space or riparian areas)	2
Total Replacement Trees Required: <ul style="list-style-type: none"> - Alder & Cottonwood Trees Requiring 1 to 1 Replacement Ratio $1 \text{ } \underline{\hspace{1cm}} \times \text{ one (1) } = 1$ - All other Trees Requiring 2 to 1 Replacement Ratio $86 \text{ } \underline{\hspace{1cm}} \times \text{ two (2) } = 172$ 	173
Replacement Trees Proposed	46
Replacement Trees in Deficit	127
Protected Trees to be Retained in Proposed [Open Space / Riparian Areas]	0

Off-Site Trees	Number of Trees
Protected Off-Site Trees to be Removed	51
Total Replacement Trees Required: <ul style="list-style-type: none"> - Alder & Cottonwood Trees Requiring 1 to 1 Replacement Ratio $0 \text{ } \underline{\hspace{1cm}} \times \text{ one (1) } = 0$ - All other Trees Requiring 2 to 1 Replacement Ratio $51 \text{ } \underline{\hspace{1cm}} \times \text{ two (2) } = 102$ 	102
Replacement Trees Proposed	0
Replacement Trees in Deficit	152

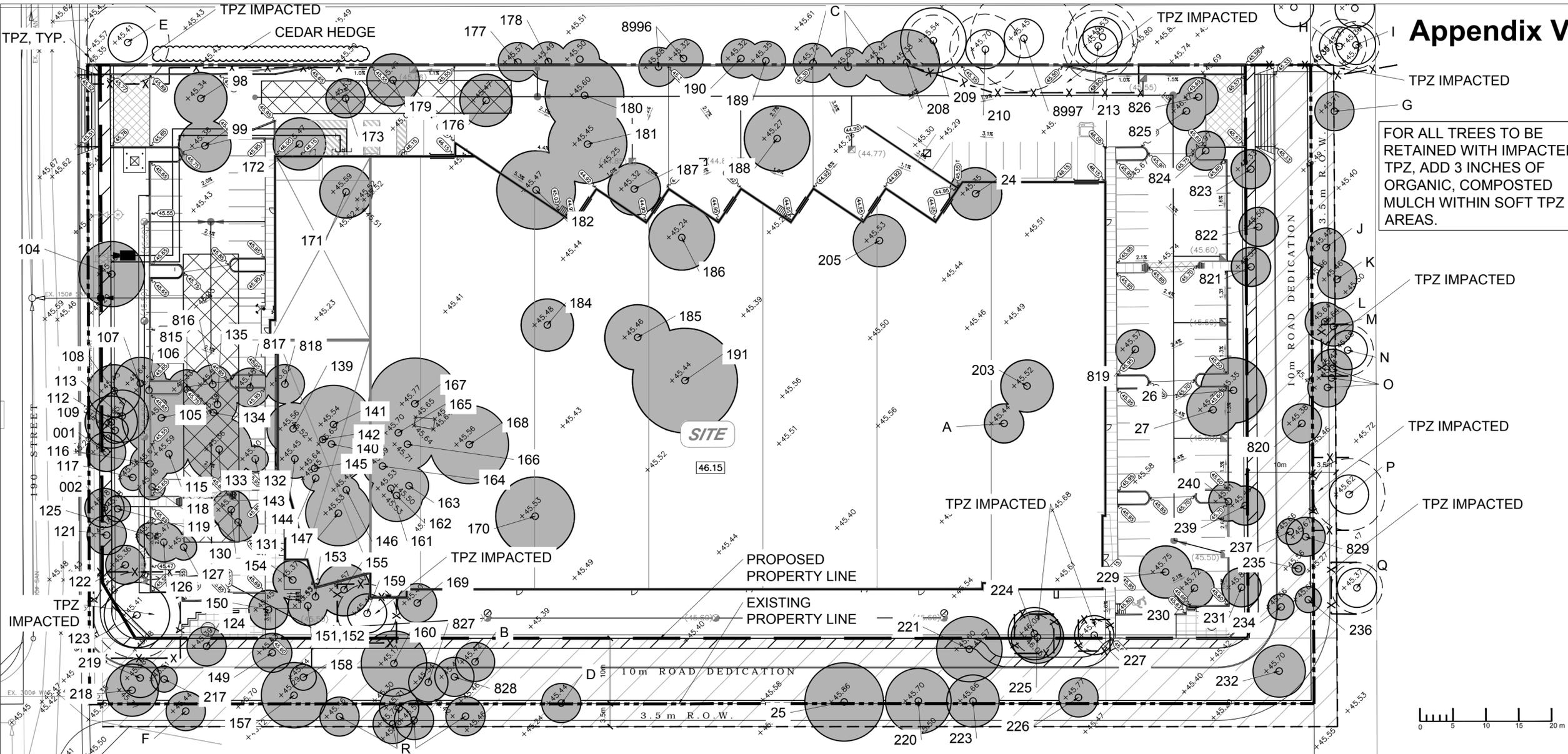
Summary, report and plan prepared and submitted by:


 (Signature of Arborist)


 Date

Appendix V

FOR ALL TREES TO BE RETAINED WITH IMPACTED TPZ, ADD 3 INCHES OF ORGANIC, COMPOSTED MULCH WITHIN SOFT TPZ AREAS.



- LEGEND**
- EXISTING TREE PROPOSED FOR REMOVAL
 - EXISTING TREE TO BE RETAINED
 - TREE PROTECTION FENCING
 - TREE TAG/NO.
 - TPZ ZONE (REQUIRED DISTANCE PER STEM SIZE PLUS 1.5m OFFSET)
 - CANOPY

NO.	DATE: (mm/yy)	DESCRIPTION:
1	27/11/18	ISSUED FOR BP
2	07/06/18	REISSUED FOR DP
3	17/04/18	ISSUED FOR DP
4	16/03/18	ISSUED FOR DRG

ISSUES & REVISIONS:

SEAL:
Assessment Done March 7, 2018
By Shan Tennyson,
I.S.A. # ON-0969A

PROTECTING AND MANAGING TREES DURING CONSTRUCTION

- Upon receiving the necessary approvals and prior to the commencement of tree removals, all areas designated for preservation must be flagged in the field. All designated preservation areas must be left standing and undamaged during the removals work. All tree removals must be felled into the development area. The removals are to be completed outside of the migratory bird/ nesting season which is generally between mid-March to Mid-April. A Qualified Environmental Professional must provide a report indicating the presence or absence of bird nests for any permit submissions for tree removals during this time of the year.
- Upon completion of the tree removals, all felled trees are to be removed from the site, and all brush chipped and removed, unless otherwise directed by the Project Manager. No lumber or brush from the clearing is to be stored on the site, all brush, roots and wood debris must be shredded into pieces.
- Tree Protection Fencing will be installed along retained tree areas adjacent to areas where construction will encroach into the adjacent tree edge. Refer to detail provided by Arborist and/or Municipality.
- Areas within the drip line of the trees designated for preservation are not to be used for any type of storage (e.g. storage of debris, construction material, surplus soils, and construction equipment). No trenching or tunneling for underground services shall be located within the tree protection zone or drip line of trees designated for preservation within or adjacent to construction zone.
- Trees shall not have any rigging cables or hardware of any sort attached or wrapped around them, nor shall any contaminants be dumped within the protective areas. Further, no contaminants shall be dumped or flushed where they may come into contact with the feeder roots of the trees.
- In the event that it is necessary to remove additional limbs or portions of trees, after construction has commenced, to accommodate construction, the Consulting Arborist or project administrator is to be informed and the removal is to be executed carefully and in full accordance with arboricultural techniques, by a certified and licensed Arborist.
- During excavation operations in which roots are affected, the Contractor is to prune all exposed roots cleanly. Pruned root ends shall point obliquely downwards. The exposed roots should not be allowed to dry out. The Contractor shall discuss watering of the roots with the Owner and Contract Administrator prior to pruning to ensure that so that optimum soil moisture is maintained during construction and backfilling operations. Backfilling must be completed with clean, uncontaminated native topsoil.

SUMMARY: SURREY
153 PROTECTED TREES ASSESSED

138 TREES PROPOSED FOR REMOVAL: 6 FOR POOR OR FAIR-POOR HEALTH
132 FOR DEVELOPMENT

15 TREES PROPOSED FOR RETENTION

CONSTRUCTION MITIGATION AND MANAGEMENT

POTENTIAL CONSTRUCTION IMPACTS TO TREES
Trees are living organisms that react to changes in their environment. Trees can be damaged during construction without showing signs of damage until some years later. Many of the problems relate to the roots and result in slow death of the tree through its inability to absorb sufficient water and nutrients.

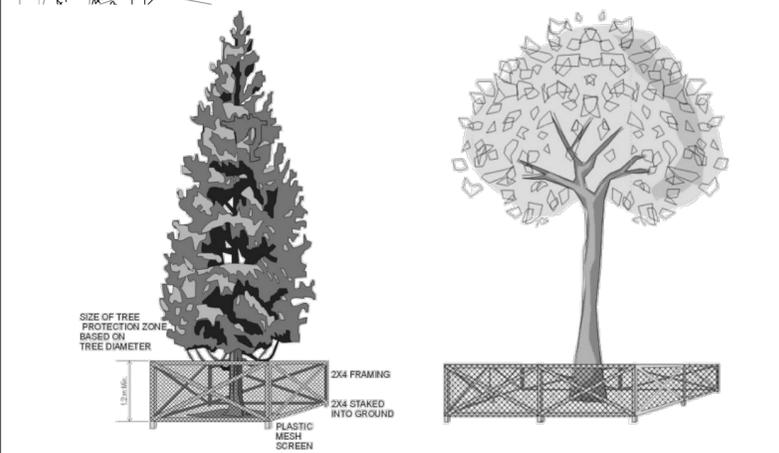
SOIL COMPACTION
The leading cause of construction damage to trees is compaction of the soil around the roots. Equipment entering into a preservation zone compresses the air pockets around the roots inhibiting the tree from absorbing nutrients and water. This damage ultimately reduces the health of the tree. Accordingly, during the removal stage, equipment use within the preservation zones should be restricted to ensure that the tree's roots are not disturbed, thereby assisting to maintain their continued health.

MECHANICAL DAMAGE
Equipment can also physically damage the trees through striking the trunk, limbs and/or roots. Felled trees can also cause damage during the tree removal stage of development. Some damage is unavoidable due to the density of the trees, however, through the use of proper equipment and best management practices the damage can be minimized. The contractor should be held responsible for all avoidable damage to the trees during all stages of development.

ROOT DAMAGE
Tree preservation is dependent not only on protecting the root zone from compaction and damage, but it is also critical to ensure that the structural roots within the root plate are not disturbed. Impacts to this area may result in a failure of the trees.

During construction, there are situations where work must be completed within a protection zone that will have an impact to the roots of the preserved trees. The most common root injury is cutting typically caused by trenching for utilities. The feeder roots of a tree are typically situated within the upper 30 cm of the soil profile. Any trenching or excavation within this zone will damage roots. Roots play a critical role in anchoring a tree. If major support roots are severed the tree is more susceptible to wind throw damage and could pose a hazard to adjacent structures and people.

SMOTHERING ROOTS WITHIN THE TREE PROTECTION ZONE
Tree roots require space and air to absorb water and minerals. When grades are increased the feeder roots are no longer able to effectively function. Grade changes of only ten centimeters can kill the fine roots of some trees.



Signage to be posted on each tree protection barrier (weather-proof, 11x17" minimum size)

NO ENTRY
TREE PROTECTION ZONE
No grade change storage of material or equipment is permitted within this fenced area.
Tree protection barrier must remain in place for the duration of construction.
For information call Trees & Landscape Section
(604) 591-4675

TREE PROTECTION FENCE DETAIL



PROJECT NAME:
KUZCO 2 WAREHOUSE BUILDING

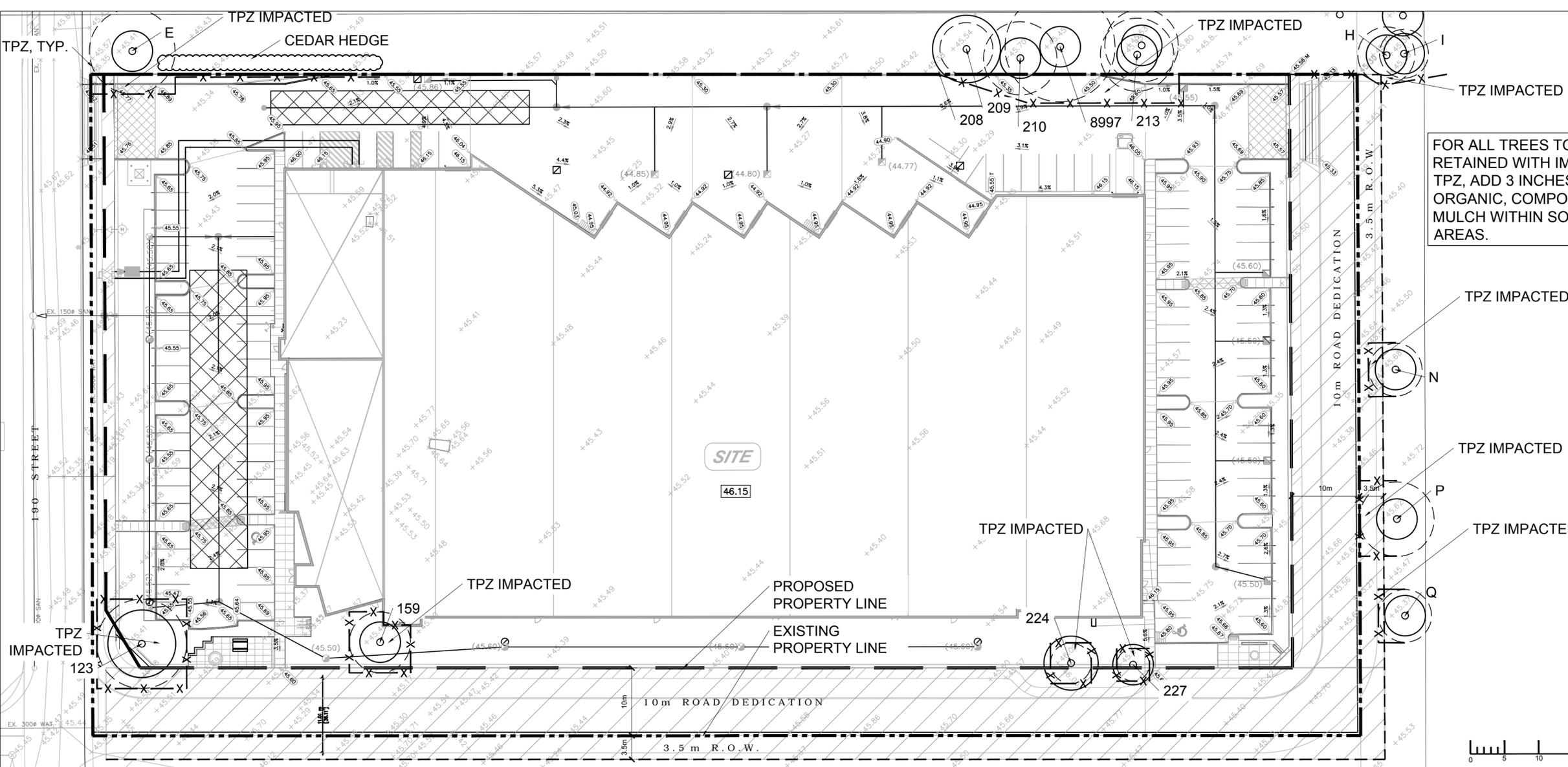
PROJECT ADDRESS:
3030 190 STREET
SURREY, BC

DRAWING TITLE:
TREE MANAGEMENT PLAN, INVENTORY AND NOTES

SCALE: 1:450 AT ARCH C SIZE
DRAWN: RM
CHECKED: ST
PROJECT NO: 190037-L

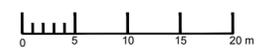
DRAWING NO:
T1

FOR ALL TREES TO BE RETAINED WITH IMPACTED TPZ, ADD 3 INCHES OF ORGANIC, COMPOSTED MULCH WITHIN SOFT TPZ AREAS.



- LEGEND**
- EXISTING TREE PROPOSED FOR REMOVAL
 - EXISTING TREE TO BE RETAINED
 - TREE PROTECTION FENCING
 - TREE TAG/NO.
 - TPZ ZONE (REQUIRED DISTANCE PER STEM SIZE PLUS 1.5m OFFSET)
 - CANOPY

3	27/11/18	ISSUED FOR BP
3	07/06/18	REISSUED FOR DP
2	17/04/18	ISSUED FOR DP
1	16/03/18	ISSUED FOR DRG
NO. DATE: (mm/yy) DESCRIPTION:		
ISSUES & REVISIONS:		



SEAL:
Assessment Done March 7, 2018
By Shan Tennyson,
I.S.A. # ON-0969A

PROTECTING AND MANAGING TREES DURING CONSTRUCTION

- Upon receiving the necessary approvals and prior to the commencement of tree removals, all areas designated for preservation must be flagged in the field. All designated preservation areas must be left standing and undamaged during the removals work. All tree removals must be felled into the development area. The removals are to be completed outside of the migratory bird/ nesting season which is generally between mid-March to Mid-April. A Qualified Environmental Professional must provide a report indicating the presence or absence of bird nests for any permit submissions for tree removals during this time of the year.
- Upon completion of the tree removals, all felled trees are to be removed from the site, and all brush chipped and removed, unless otherwise directed by the Project Manager. No lumber or brush from the clearing is to be stored on the site, all brush, roots and wood debris must be shredded into pieces.
- Tree Protection Fencing will be installed along retained tree areas adjacent to areas where construction will encroach into the adjacent tree edge. Refer to detail provided by Arborist and/or Municipality.
- Areas within the drip line of the trees designated for preservation are not to be used for any type of storage (e.g. storage of debris, construction material, surplus soils, and construction equipment). No trenching or tunneling for underground services shall be located within the tree protection zone or drip line of trees designated for preservation within or adjacent to construction zone.
- Trees shall not have any rigging cables or hardware of any sort attached or wrapped around them, nor shall any contaminants be dumped within the protective areas. Further, no contaminants shall be dumped or flushed where they may come into contact with the feeder roots of the trees.
- In the event that it is necessary to remove additional limbs or portions of trees, after construction has commenced, to accommodate construction, the Consulting Arborist or project administrator is to be informed and the removal is to be executed carefully and in full accordance with arboricultural techniques, by a certified and licensed Arborist.
- During excavation operations in which roots are affected, the Contractor is to prune all exposed roots cleanly. Pruned root ends shall point obliquely downwards. The exposed roots should not be allowed to dry out. The Contractor shall discuss watering of the roots with the Owner and Contract Administrator prior to pruning to ensure that so that optimum soil moisture is maintained during construction and backfilling operations. Backfilling must be completed with clean, uncontaminated native topsoil.

CONSTRUCTION MITIGATION AND MANAGEMENT

POTENTIAL CONSTRUCTION IMPACTS TO TREES
Trees are living organisms that react to changes in their environment. Trees can be damaged during construction without showing signs of damage until some years later. Many of the problems relate to the roots and result in slow death of the tree through its inability to absorb sufficient water and nutrients.

SOIL COMPACTION
The leading cause of construction damage to trees is compaction of the soil around the roots. Equipment entering into a preservation zone compresses the air pockets around the roots inhibiting the tree from absorbing nutrients and water. This damage ultimately reduces the health of the tree. Accordingly, during the removal stage, equipment use within the preservation zones should be restricted to ensure that the tree's roots are not disturbed, thereby assisting to maintain their continued health.

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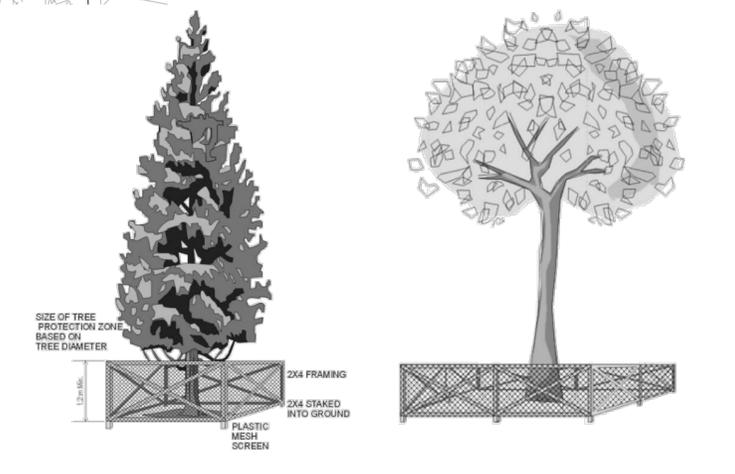
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SUMMARY: SURREY
153 PROTECTED TREES ASSESSED

138 TREES PROPOSED FOR REMOVAL: 6 FOR POOR OR FAIR-POOR HEALTH
132 FOR DEVELOPMENT

15 TREES PROPOSED FOR RETENTION



Signage to be posted on each tree protection barrier (weather-proof, 11x17" minimum size)

NO ENTRY
TREE PROTECTION ZONE
No grade change storage of material or equipment is permitted within this fenced area.
Tree protection barrier must remain in place for the duration of construction.
For information call Trees & Landscape Section
(604) 591-4675

TREE PROTECTION FENCE DETAIL



PROJECT NAME:
KUZCO 2 WAREHOUSE BUILDING

PROJECT ADDRESS:
3030 190 STREET
SURREY, BC

DRAWING TITLE:
TREES TO BE RETAINED

SCALE:	1:450 AT ARCH C SIZE
DRAWN:	RM
CHECKED:	ST
PROJECT NO.:	190037-L

CITY OF SURREY

(the "City")

DEVELOPMENT VARIANCE PERMIT

NO.: 7918-0152-00

Issued To:

(the "Owner")

Address of Owner:

1. This development variance permit is issued subject to compliance by the Owner with all statutes, by-laws, orders, regulations or agreements, except as specifically varied by this development variance permit.

2. This development variance permit applies to that real property including land with or without improvements located within the City of Surrey, with the legal description and civic address as follows:

Parcel Identifier: 011-310-189
 Lot 4 Section 21 Township 7 New Westminster District Plan 8048
 3030 - 190 Street

(the "Land")

3. (a) As the legal description of the Land is to change, the City Clerk is directed to insert the new legal description for the Land once title(s) has/have been issued, as follows:

Parcel Identifier:

- (b) If the civic address(es) change(s), the City Clerk is directed to insert the new civic address(es) for the Land, as follows:

4. Surrey Zoning By-law, 1993, No. 12000, as amended is varied as follows:

To reduce the minimum south yard setback of the IB-1 Zone from 7.5 metres (25 ft.) to 6.3 metres (21 ft.)

5. This development variance permit applies to only that portion of the buildings and structures on the Land shown on Schedule A which is attached hereto and forms part of this development variance permit. This development variance permit does not apply to additions to, or replacement of, any of the existing buildings shown on attached Schedule A, which is attached hereto and forms part of this development variance permit.

6. This development variance permit shall lapse if the Owner does not substantially start any construction with respect to which this development variance permit is issued, within two (2) years after the date this development variance permit is issued.

7. The terms of this development variance permit or any amendment to it, are binding on all persons who acquire an interest in the Land.

8. This development variance permit is not a building permit.

AUTHORIZING RESOLUTION PASSED BY THE COUNCIL, THE DAY OF , 20 .
ISSUED THIS DAY OF , 20 .

Mayor – Doug McCallum

City Clerk – Jane Sullivan

