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# IKEA.R RICHMOND EXPANSION
## Development Permit Panel Booklet | February 2025

## Project overview - IKEA Store Warehouse Expansion

The proposed new warehouse addition will add a 2-storey extension to the existing IKEA retail showroom, comprised of an expanded covered loading area, retail pick-up area, and upper level warehouse.
Access to parking and loading on the site will remain as existing

The project is registered under the LEED® for Building Design and Construction:
Warehouses and Distribution Centers, green building program, and upon completion, will apply to become LEED ® certified. The considered points are as follows:

**Site Sustainability**
- Erosion and sedimentation control measures will be implemented and monitored during construction to protect waterways from sediment.
- Reducing local heat island effect by utilizing a light roof and green areas alongside the building.
- Lighting and signage are designed to prevent light pollution through downlighting of flood lights to reduced light trespass beyond project boundary.

**Health and Wellness**
- Improved indoor air quality using MERV 13 filters.
- No smoking allowed inside the building.

**Energy+GHG Emissions**
- Whole building energy model for the project is currently well above 50% improvement in energy savings performance compared to a baseline. Below are some of the energy improvement measures:
- The mechanical system comprises of Air-Source Heat Pumps (ASHPs) with electric resistance heating as backup.
- The project will primarily be 100% electric.
- Double-glazed windows and high-performing thermal envelope.
- Energy-efficient interior lighting system.
- Energy metering for performance monitoring.
- Building commissioning via a commissioning authority
- The expansion can achieve the ASHRAE 90.1-2016 performance targets. Moreover the building will also be designed to achieve LEED V4 for “BD+C: New Construction: Warehouse”.

**Water**
- Water use in the expansion is limited to 4 washrooms, drip irrigation and 1 janitor closet.
- Indoor water consumption will be reduced by incorporating water-efficient fixtures and fittings throughout the entire development.
- Water meters installed to track potable water-use.

**Waste**
- Waste will be diverted from landfill, targeting beyond 50% diversion where possible.
- The project will also track the amount of waste (lbs) per square foot, seeking to reduce the total amount of waste by 10lbs/sq.ft.
- Use of the existing building’s dedicated areas for the collection and storage of materials for re-

# VALUE OF EXPANSION

This new warehouse addition will achieve a positive monetary impact to the City of Richmond, and a significant reflection of strong investment.
The value and improvements that will be made are as follows:

- A new Click & Collect, comprehending lockers for pick up from online purchase, a customer service space and a Holding area .
- The Click & Collect will be served by 2 exit corridors for safety matters.
- Loading Bay is added and destined for 9 new large loading spaces.
- The new Loading Bay connects with the Existing Loading Area per a new connection ramp.
- Inclusion of a Handover and Staging Area plus a Conveyor Area based on the warehouse logistics .
- New Landscape Improvement along all 3 facades to animate and enhance the project feels & looks. Plus new window openings.
- There will be 3 New Areas intended for Warehouse and Conveyor System on Level 2 considering an opening to the existing one for access.
- There will be 3 connecting new stair cores for exiting Level 2 to street level (one being enclosed and 2 more outdoors as per the existing conditions).

**Proposed Flood Control Measures**

Based on model results performed by the civil consultant (Binnie & Associates LTD.) on site, the 10-year storm event is expected to remain fully within the on-site pipes ,and no surcharging or overland flooding is expected.
For the 100-year storm event, water levels on-site are expected to match the downstream water level in both the historic and climate change design scenarios. It is estimated the water level on site during a 100-year storm event to not exceed 1.59 m, which allows for approximately 110 mm of freeboard to the finished floor elevation
The mitigation measures are as follows:

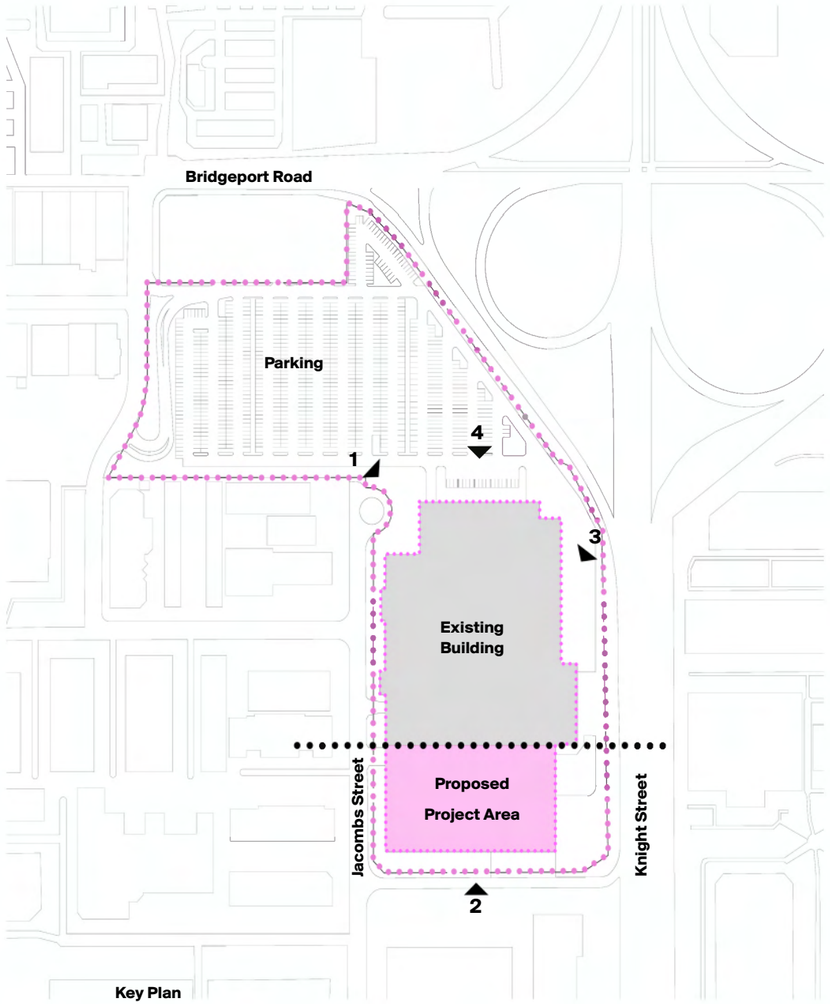
- Surge tank capable of capturing the 10-year 1 hour storm to offset a portion of excess runoff.
- Establish a berm around the south and east sides of the site to a height of 300mm above top of adjacent roadway crown.
- Alarm System in Loading Bay and Surge Tank to notify in case of flooding to begin evacuation and close the click & collect.
- Mechanical & Electrical rooms located above city FCL of 2.9m
- Emergency Signs to direct to safe exits above FCL (Flood Control Level)
- Emergeny Response Plan developed by IKEA and flood specific training for all employees at location prior to operations.
- Check valves installed to prevent backwatering and flooding of site.

The application of the proposed mitigation measures above will allow the site to operate safely with an MBE of 1.70 m

# LOCATION, ZONING + SITE AREA

**1.0 Site details**

| | |
|---|---|
| Project civic addres: | 3320 Jacombs Rd, Richmond BC V6V 1Z6 |
| Legal description: | South Portion of Lot 1, Sections 29 and 30, Block 5, North Range 5 West, NWD Plan BCP 49535 |
| Zoning | IR1 |
| Site area | 79931.00 sqm (19.75 acres) |
| Land Use | Retail Showroom + Warehouse |



Key Plan

1 Existing Entry View (Photos taken from Google Earth)

2 Existing South View (Photos taken from Google Earth)


3 Existing West Loading Area View (Photos taken from Google Earth)

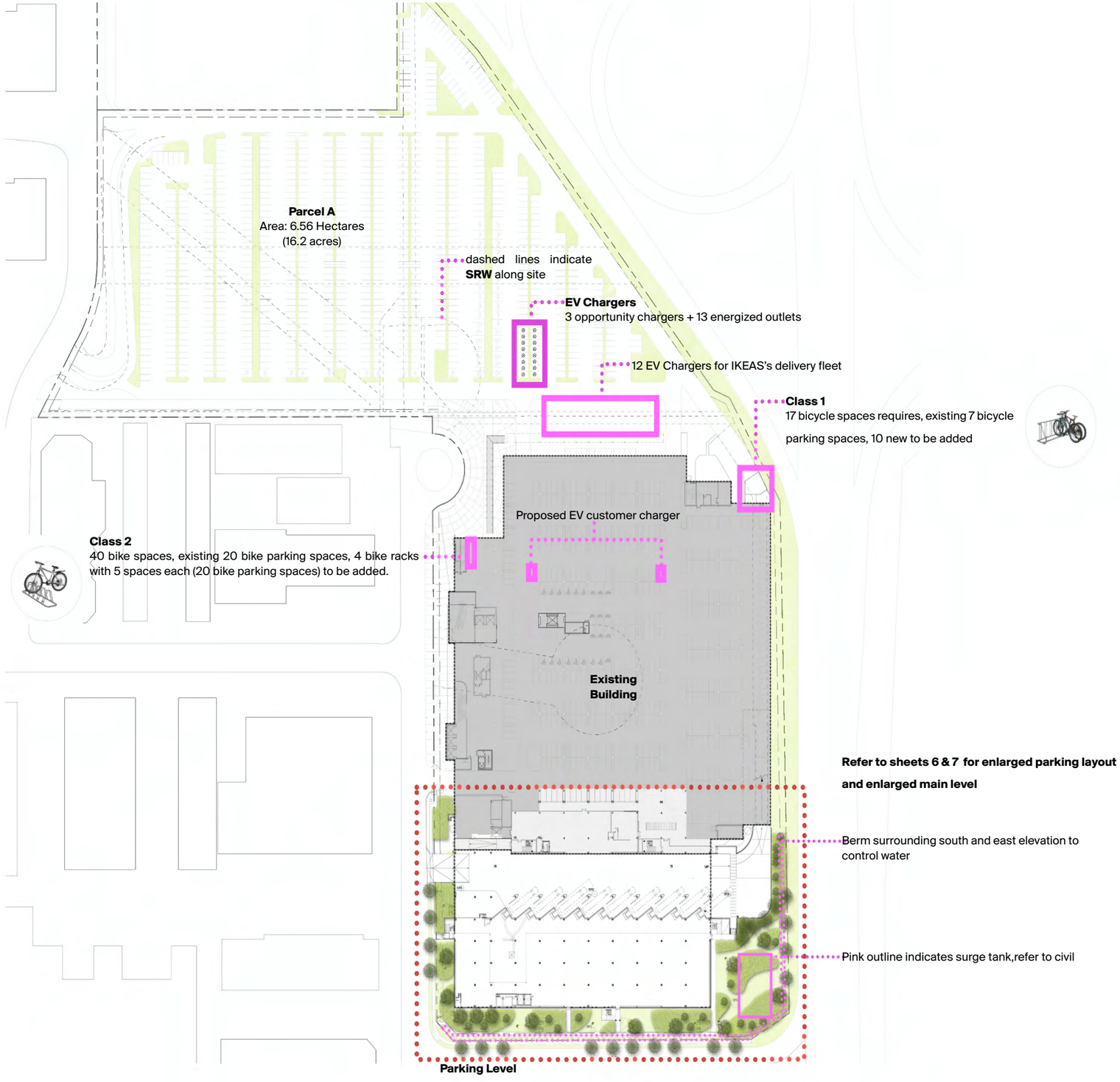
4 Existing North Exterior Parking View (Photos taken from Google Earth)

# PROJECT STATISTICS

| 1.0 Building Height | required | proposed |
|---|---|---|
| | 16.00m | 21.60m |
| **2.0 Lot Coverage** | **Max. Bylaw** | **proposed** |
| | 75% | 36% (29160.00)m2 |

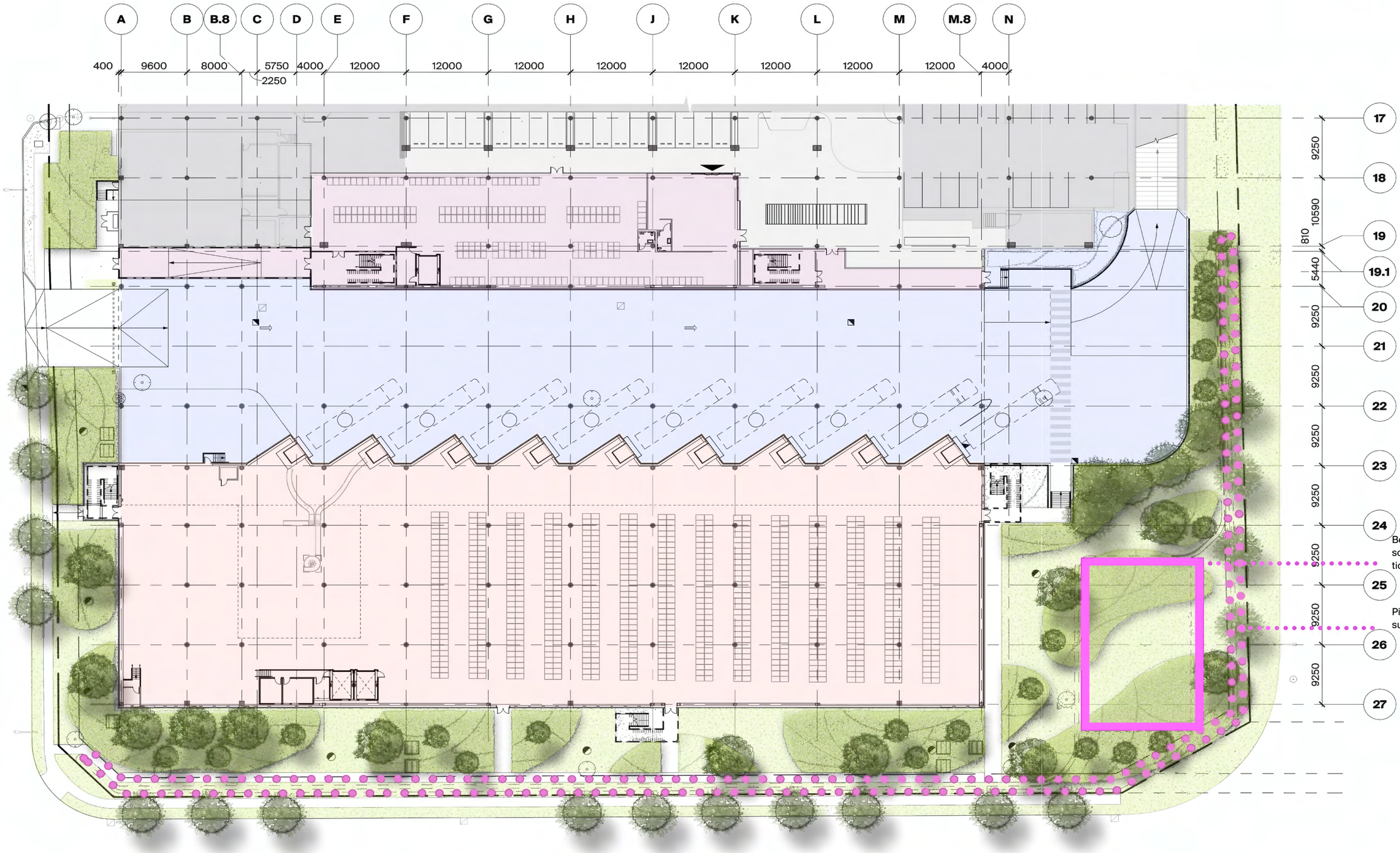
| 3.0 Setbacks | required | proposed |
|---|---|---|
| Front setback | 3.00m | 3.00m |
| Side setback (south) | 3.00m | 3.00m |
| Side setback (north) | 3.00m | 3.00m |
| Rear setback (east) | 3.00m | 3.00m |

| 4.0 Parking | required | proposed |
|---|---|---|
| Parking Stalls | 748 | 1311 |
| Accessible Spaces | 15 | 27 |
| *Loading* | | |
| Medium Size | 12 | 4 |
| Large Size | 10 | 13 |
| *Bicycle Stalls* | | |
| Class 1 | 42 | 17 |
| Class 2 | 62 | 40 |



# ENLARGED PARKING LEVEL

Click & Collect+Exit Corridors
Loading Bay
New Warehouse

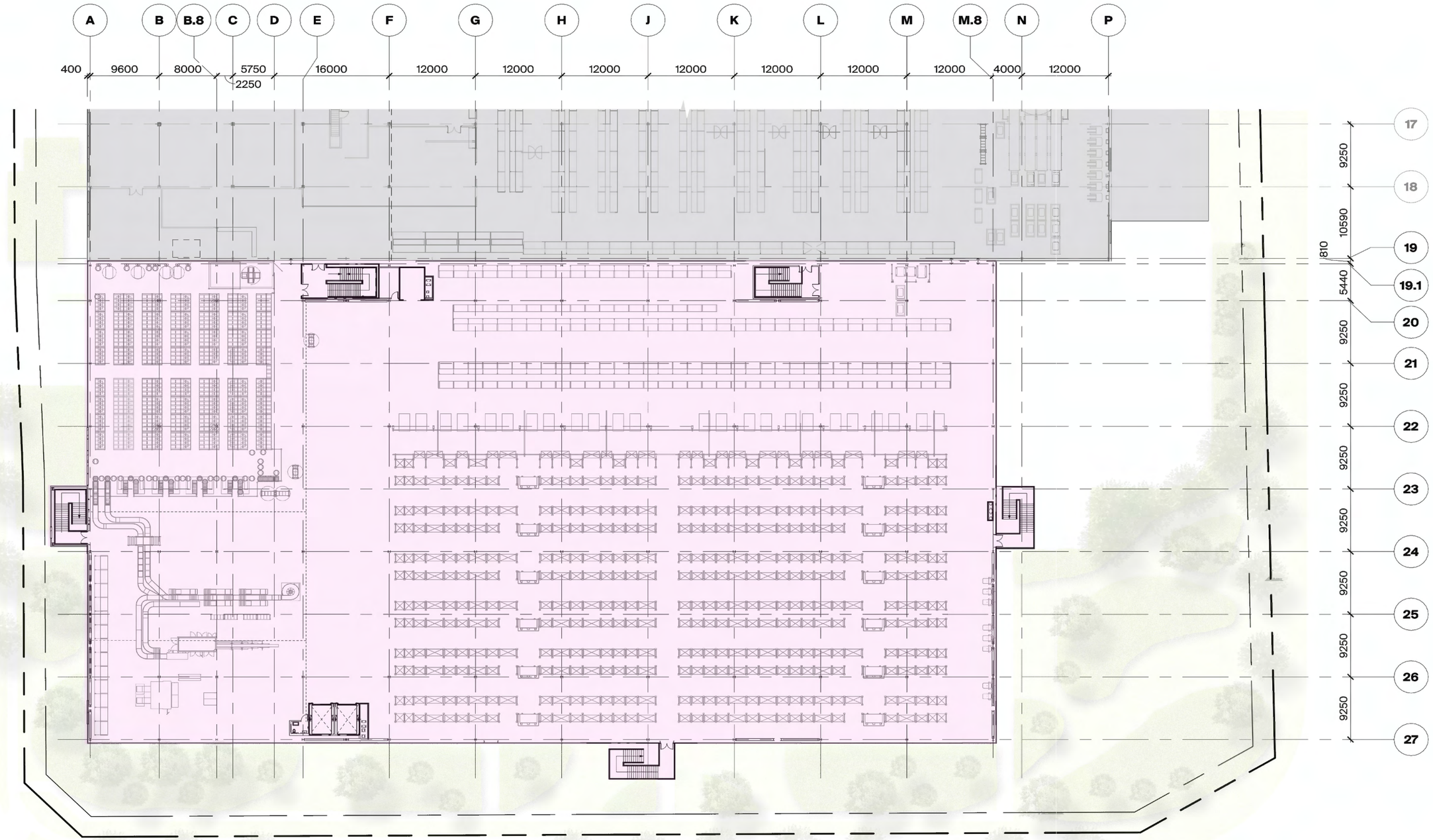



Berm surrounding south and east elevation to control water

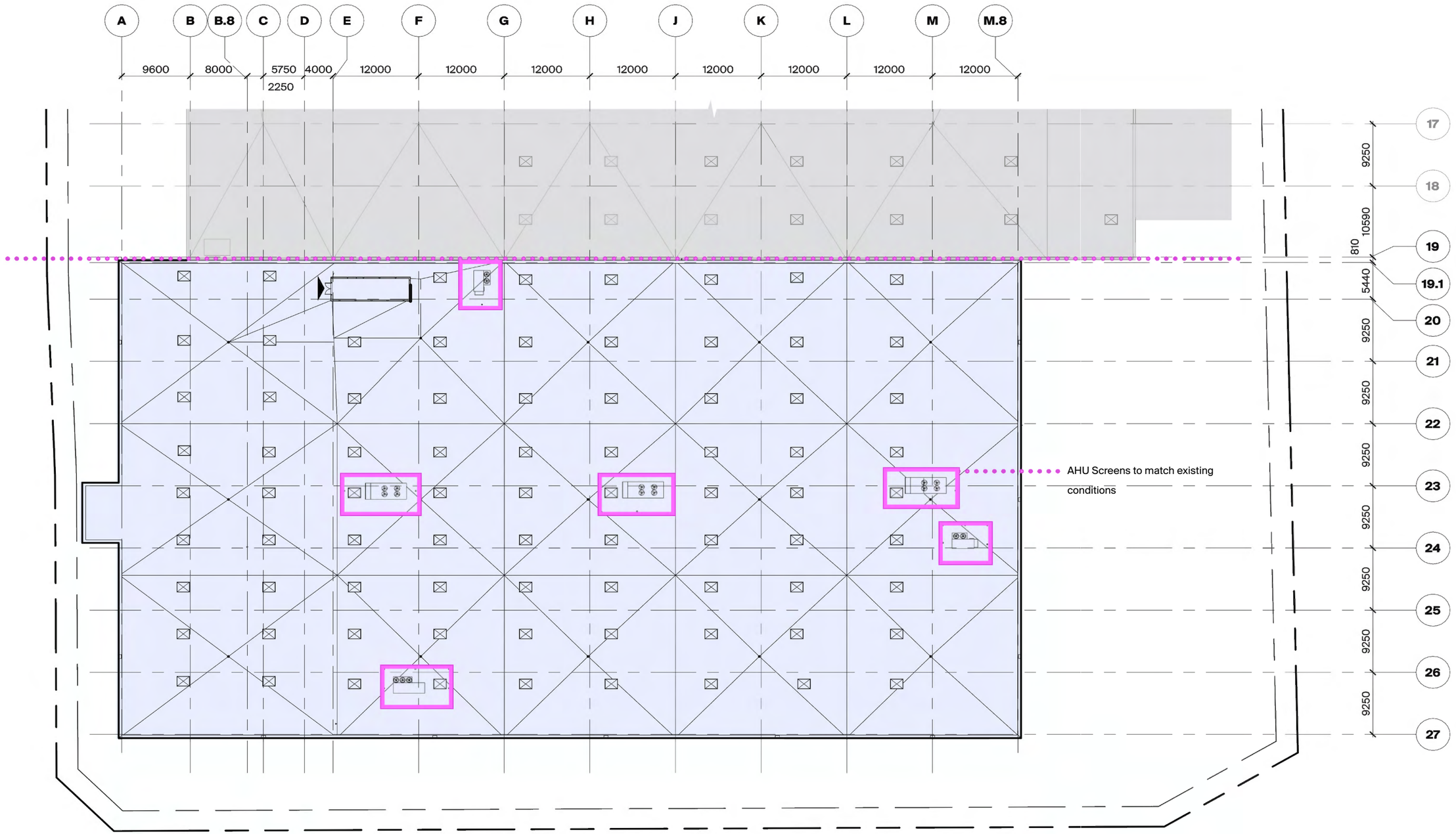
Pink outline indicates surge tank,refer to civil

New Warehouse

# ENLARGED MAIN LEVEL



# ROOF LEVEL


Roof Area
A
B
B.8
C
D
E
F
G
H
J
K
L
M
M.8
9600
8000
5750
2250
4000
12000
12000
12000
12000
12000
12000
12000
12000
17
18
19
19.1
20
21
22
23
24
25
26
27
9250
10590
810
5440
9250
9250
9250
9250
9250
AHU Screens to match existing conditions

# ELEVATIONS-MATERIALS

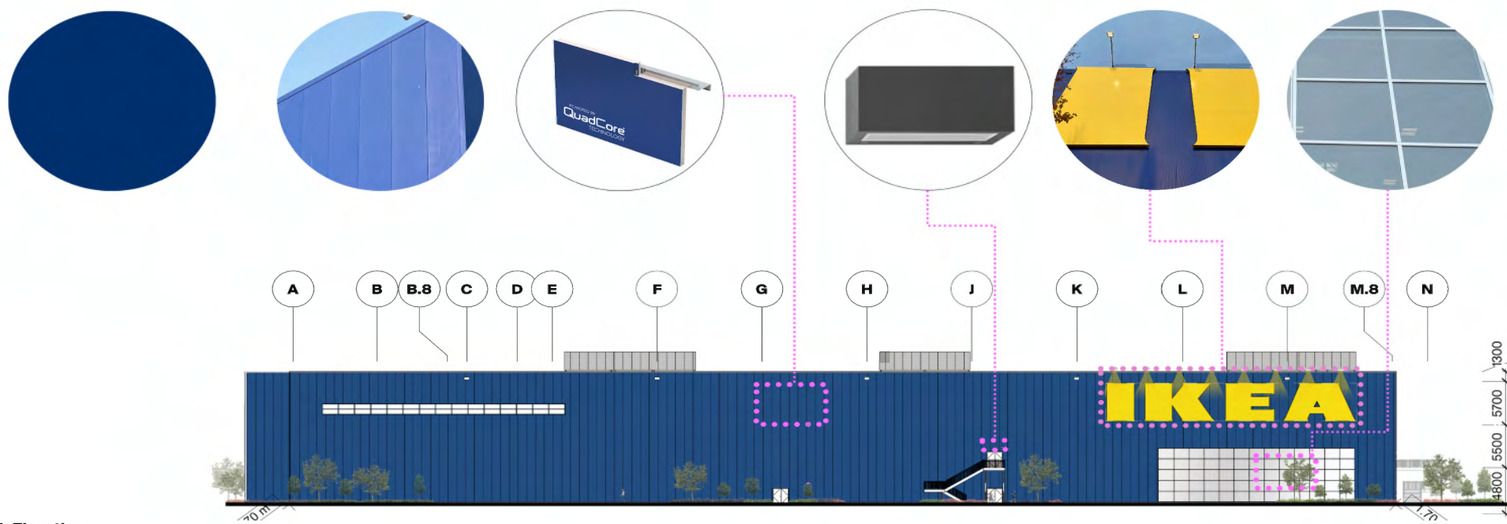
**Color**
IKEA Blue NCS
S4550-R80B
Coil Coating by SW

**Core**
Kingspan Quadcore Insulated Panel
Vertical - Blue (match IKEA blue) - Micro-rib

Wall Light distributed on each stair core for proper ilumination

IKEA sign ilumination to be handled by spot-lights above, similar to existing conditions

Glazing proposed below IKEA sign to align with design intetion and proper animation of the facade.



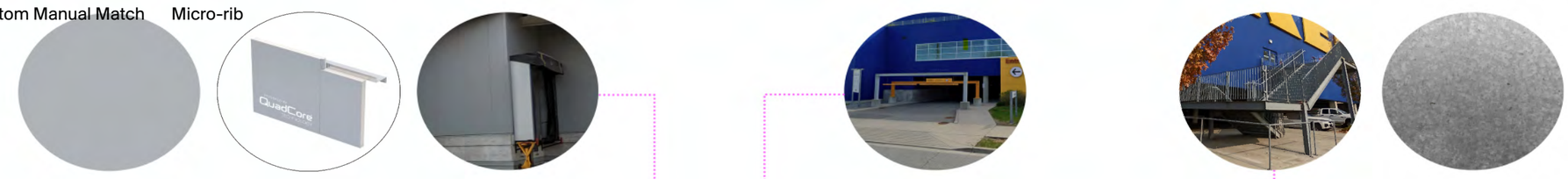

**South Elevation**

**Color**
IKEA Medium Grey
Superpaint Exterior Satin
SW Custom Manual Match

**Core**
Kingspan Quadcore Insulated Panel
Vertical - Grey (match IKEA medium grey)
Micro-rib

Steel Guard to Control Vehicle Height

Galvanized Steel Frame for Stair Cores



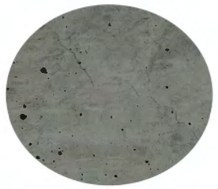

**West Elevation**

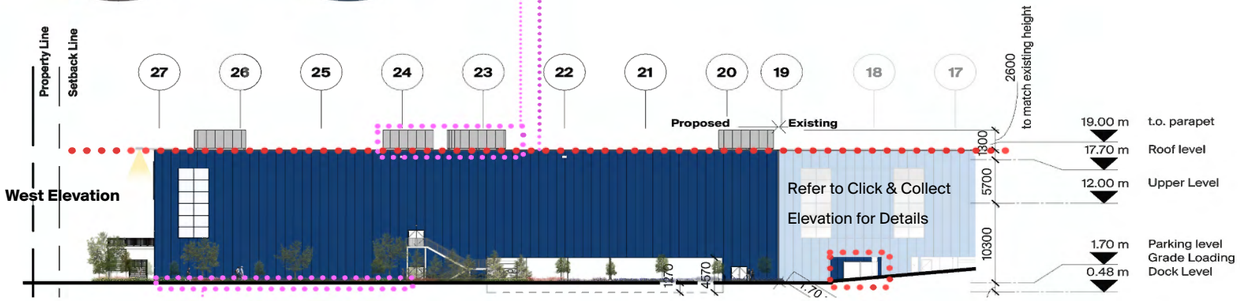
# ELEVATIONS-MATERIALS

Horizontal Corrugated Metal for AHU screens
to match existing conditions

Red line indicates indicates max height proposed of building, similar to existing building height

Concrete Curb below Insulated Panels

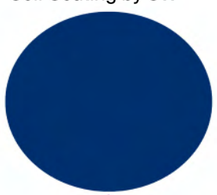





**East Elevation**

Automatic Sliding, Glazed Aluminum Doors

**Color**
IKEA Blue NCS
S4550-R80B
Coil Coating by SW



**Core**
Kingspan Quadcore Insulated Panel
Vertical - Blue (match IKEA blue) - Micro-rib

Custom Click & Collect
IKEA Lockers

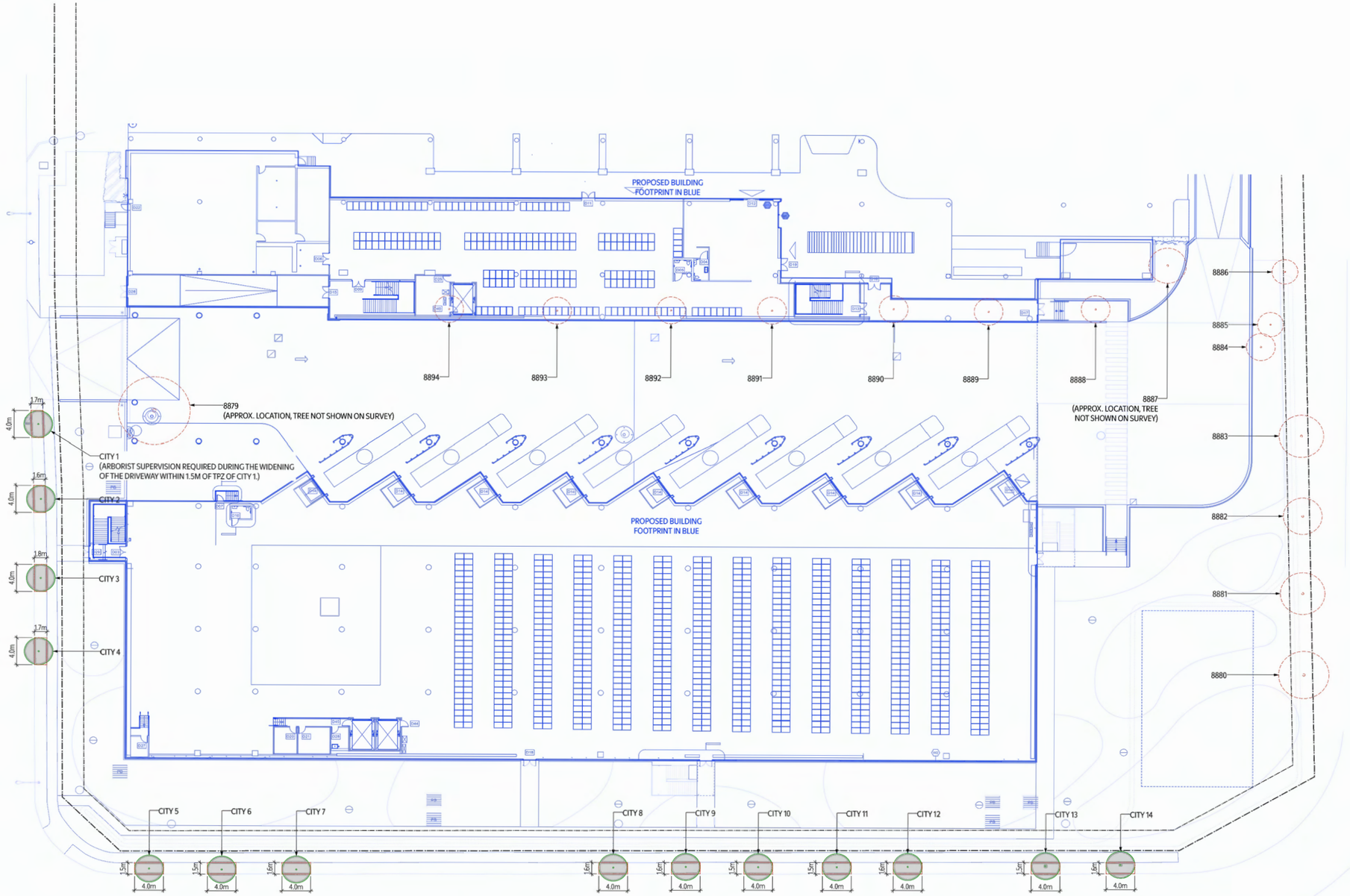


**Click & Collect Elevation**

# LANDSCAPE PLANS

**Tree Symbols Legend**

- Existing Conifer Tree
- Existing Deciduous Tree
- Tree to be removed
- Proposed Deciduous Tree
- Proposed Conifer Tree
- Planting
- Lawn
- Tree Protection Fencing




**Tree Management Plan**

# LANDSCAPE PLANS

**Tree Symbols Legend**

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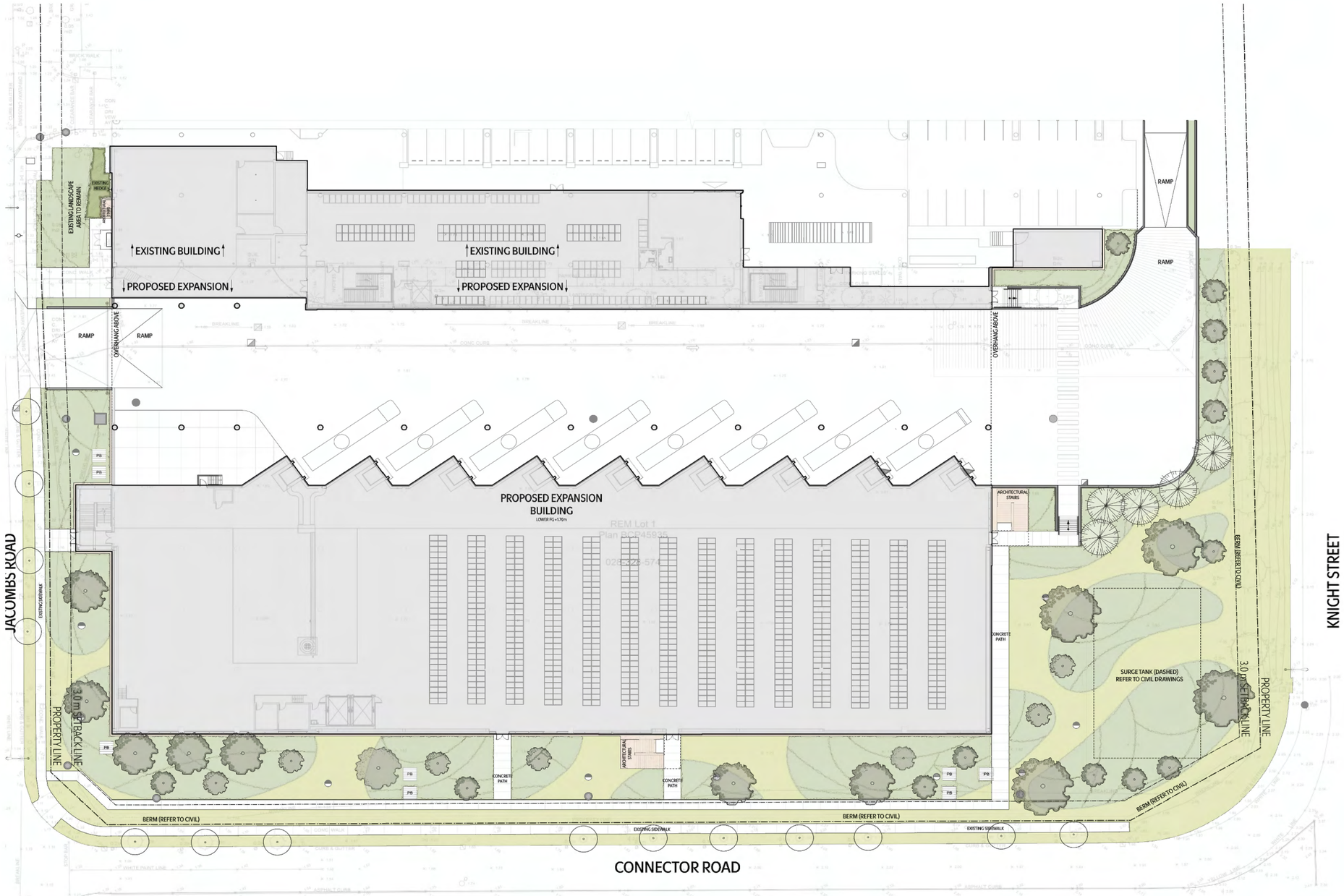
- Tree Protection Fencing

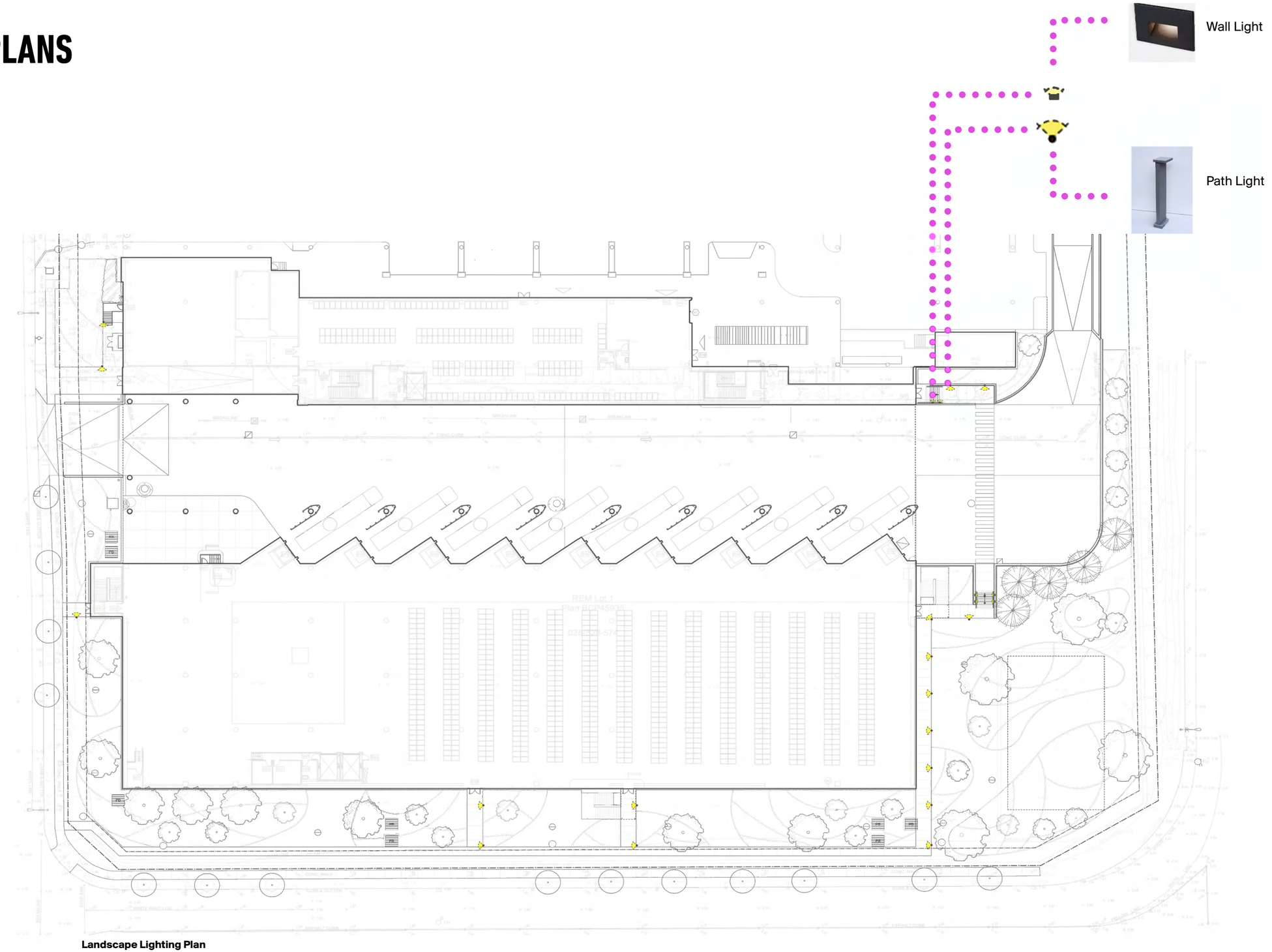



**Landscape Master Plan**

# LANDSCAPE PLANS

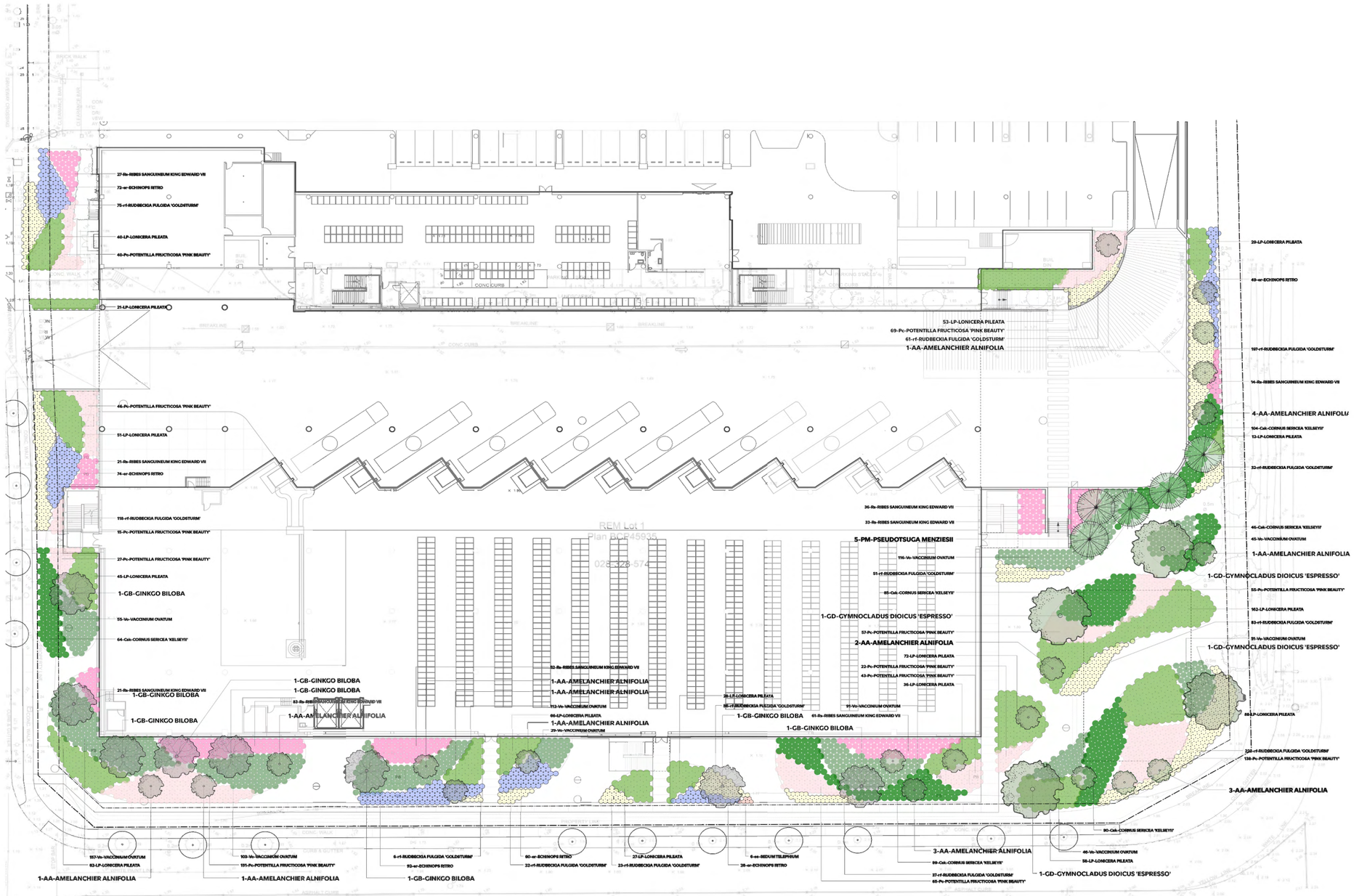
**Tree Symbols Legend**

- Existing Conifer Tree
- Existing Deciduous Tree
- Tree to be removed
- Proposed Deciduous Tree
- Proposed Conifer Tree
- Planting
- Lawn
- Tree Protection Fencing




**Landscape Lighting Plan**

# LANDSCAPE PLANS




**Tree and Planting Plan**

## TREES


AMELANCHIER ALNIFOLIA

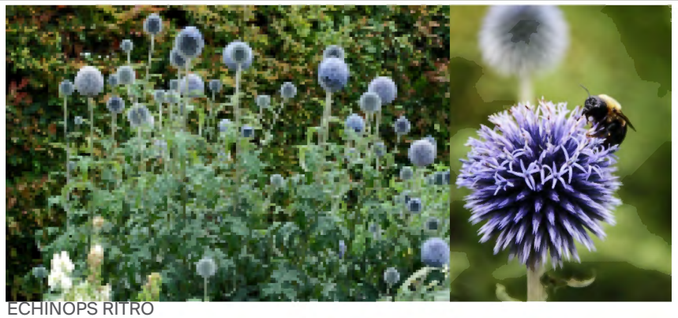

GINKGO BILOBA


GYMNOCLADUS DIOICUS ‘ESPRESSO’


PSEUDOTSUGA MENZIESII

## SHRUBS, GROUND COVERS, AND PERENNIALS


CORNUS SERICEA ‘KELSEYII’


ECHINOPS RITRO


LONICERA PILEATA


POTENTILLA FRUTICOSA ‘PINK BEAUTY’


RIBES SANGUINEUM KING EDWARD VII


RUDBECKIA FULGIDA ‘GOLDSTURM’


SEDUM TELEPHIUM


VACCINIUM OVATUM

## PLANTING DESIGN RATIONALE

The proposed planting palette is selected to satisfy the CPTED requirements, include native plants, and thrive under a low maintenance regime, while being resilient to climate extremes.
All species will thrive with low amounts of water, and survive extreme cold periods in winter, while being incorporated into a design that is simple and distinctive.
Native trees include Amelanchier (Serviceberry) and Pseudotsuga (Douglas fir), both of which will thrive in dry compacted soils and full sun.
An eastern native, Gymnocladus dioicus is also proposed, as it is known to need little water in summer but will over time develop a broad canopy, providing shade and cooling the surrounding area. Ginkgo biloba is also proposed for its tolerance of many different environmental conditions, and its ability to be long-lived and slowly grow to a large size.

An emphasis has been put on selecting trees that can grow to a large mature size. It is increasingly uncommon to plant big trees in urban parts of the Lower Mainland, as space is rarely available with most types of developments. Therefore, as there is an opportunity to do so in this landscape, large trees are proposed for their ability to sequester carbon, provide habitat, and contribute to heat island cooling.

The shrub layer includes two species that are tough cultivars of native plants: Potentilla (Cinquefoil) and Cornus (Kelsey Dogwood). Both have been selected because they are quick to establish and have demonstrated hardiness in challenging conditions and because they are low-growing to satisfy CPTED requirements while providing year-round interest. The other two species are Rudbeckia ‘Goldsturm’ (Black - Eyed Susan) which has a very long blooming period and is liked by pollinators, and Lonicera (Box Honeysuckle) which is extremely durable and provides year-round interest and ease of maintenance.
All the above considerations have been incorporated into a design which is playful and graphic to reflect Ikea’s design sensibility, while being easy to maintain over the long term.

## CPTED PRINCIPLES IN PLANTING

The following points from section 14.2.11 in the COR OCP were found to be relevant to this development:

a) Distinguish public and semi-public spaces from private spaces and design symbolic barriers through building siting, design and landscape such as changes in paving, vegetation, grade or through architectural features (e.g., low wall, bollards, raised planters, rather than continuous solid fences or walls).
-A grouping of large native trees, Douglas firs (Pseudotsuga menziesii) is used to delineate publicly accessible space from the truck parking, while providing a moderate amount of screening for the parking lot. It should be noted as well that Douglas fir develops a naturally tall standard over time, which will open up visual access.

b) Make all exterior public or semi-public spaces visible and defensible, so that residents can control their own surroundings.
-Clear visual access is provided to all building entrances, with lighting and planting to emphasize pedestrian entrances.
-Eliminate entrapment spots, and incorporate barriers that permit visual access without loss of privacy, (e.g., glazing in lobby doors and stair-wells).
-Open sightlines have been incorporated into the design to ensure clear visual access to all building entrances and visual access to from building entrances to the the sidewalk.

p) Carefully select the types and locations of planting to maintain visibility and surveillance and minimize opportunities for intruders to hide.
-All shrubs and perennials are selected to be less than 30” tall at maturity. Small trees (Amelanchier) are specified with a minimum 6’-0” standard, and larger trees (Ginkgo and Gymnocladus) are specified with an 8’-0” tall standard to allow clear sightlines throughout the landscape.

# RENDERS ( LOADING BAY EAST VIEW)

# RENDERS (SOUTH EAST VIEW)

# RENDERS (ZOOM IN SOUTH VIEW)

# RENDERS (SOUTH-WEST VIEW)

# RENDERS (ROOF AERIAL VIEW)