

Tree and Turf Grass Planting and Landscape Plan and the Post-planting Care Plan for Xiqu Centre

Oct 2020

Prepared by:

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TREE AND TURF GRASS PLANTING AND LANDSCAPE PLAN

LANDSCAPE PLAN - GROUND FLOOR

APPENDICES

APPENDIX A PLANTING PLANS

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XIQU CENTER

TREE AND TURF GRASS PLANTING AND LANDSCAPE PLAN

Introduction

The West Kowloon Cultural District will be developed into one of the world's largest cultural quarters, blending art, education and public space. Following the selection of the Conceptual Plan in March 2011, WKCD further developed a Development Plan based on Foster + Partners' concept and submitted it to the Town Planning Board on 30 December 2011. The Development Plan was approved by Chief Executive in Council in January 2013. In December 2012, WKCD announced the appointment of two Hong Kong born architects, Bing Thom in Vancouver and Ronald Lu of Hong Kong to collaborate on the architectural design of Xiqu Centre, one of the landmark cultural venues for the WKCD. The Xiqu Centre will be a world-class arts venue specifically built for Xiqu (Chinese Opera) performances, and it is also a centre for the production, education and research of this unique art form.

WKCD has completed an Environmental Impact Assessment Report for the WKCD which was approved on 18 November 2013 with condition under the Environmental Impact Assessment Ordinance (EIAO). The approval condition requires WKCD to submit tree and turf grass planting and landscape plan as well as a post-planting care plan. Xiqu Centre being one of the WKCD core arts and cultural facilities, we therefore submit the plan which is pertained to Xiqu Centre in consultation with relevant authorities including but not limited to the Planning Department for approval by the Director of Environmental Protection.

Design Concept

The landscape design concept is to create an urban stage that weaves through the building's levels and spaces to offer a variety of places for gathering: plazas, gardens, outdoor venues for performances, entrances, and pedestrian movement. Landscaped spaces begin at the ground level and progress up to the fourth floor (Theater/highest level) which provides exciting views of the Avenue, harbor and waterfront. Elements of the landscape design reflect the opera's art forms and establish memorable experiences that bring to mind enjoyment of the performances themselves.

Project Description

Basement Level 2:

The lowest level is accessed from the north, via the subway passage. The passage is kept clear and is lined with shops.

Street Level:

Xiqu Centre's main plaza is conceived as a gently sloping plane with grand curving stairs, a hardscape central plaza and planting that gently direct pedestrian flow while enhancing visitor

experience. The flowing lines of the plaza's paving bands are constrained to the footprint of the building, and echo the traditional opera makeup "masks", evoking the character and history of the opera tradition while providing a dramatic ambiance for opera visitors, as well as contrast to the adjacent more linear footpaths bordering the site in accordance with the Xiqu Center Urban Design Guidelines.

Visitors enter the plaza from the below ground MTR to the north (B2) taking escalators to the ground floor plaza. A landscaped area wraps the northeastern edge of the site. Canopy shade trees along the perimeter provide additional screening. To further integrate the design guidelines into the landscape design, linear geometric elements were integrated into the landscape design. Formal and strong tree alignment emphasizes the linear elements, while smaller planting soften the experience and showcase a variety of planting including defining hedges, flowering ground cover, shade trees, and shrubs. 25 of the 46 ground level trees (approximately 54%) are Camphor trees, (*Cinnamomum camphora*), a species native to Hong Kong. A certified arborist on Urbis' staff, Teresa Wing Yee Wong (International Society of Arboriculture cert. #HK-0532A) has been engaged to supervise installation and monitor growth of trees and planting to ensure proper implementation of the landscape plan. A curvilinear line runs through the planting on the east side accentuating the geometry of the building and adding a whimsical element to the planting design. Granite stone benches flank the axial entries on the east side of the site present opportunities for gathering and relaxing in the seating areas positions in full shade for hot days.

Landscape of the northwest edge of the site along Austin Road includes ground-level planting only in the form of grass, the grass coverage is about 443 m² which is equal to 20% of the total planting area. Trees are absent in order to allow for flexible use of the space for possible temporary events. The location for temporary events allows the main pedestrian entrance and plaza to remain open and permits the perimeter to remain as permanent landscape through all phases. Manila grass (*Zoysia matrella*) is the species of grass, selected according to the specifications recommended in section 25.46e, of the *General Specification 2012 for Building* (produced by the Architectural Services Department of the Government of Hong Kong Special Administrative Region). Manila grass tolerates both sunny and shady conditions and is a durable grass. Please note that *Axonopus* genus grasses will not be planted in this development area.

In the future, the north-south Market Street corridor along the western edge of the site will be a cobblestone street lined with trees, as discussed and confirmed with Foster + Partners, to ensure it supports future development of adjacent sites.

Grass and Planting Area Calculation

The grass coverage is about 443m² which is equal to 20% of the total planting area. The grass coverage is equal to 3.3% of the total site area.

The summaries are shown in below tables:

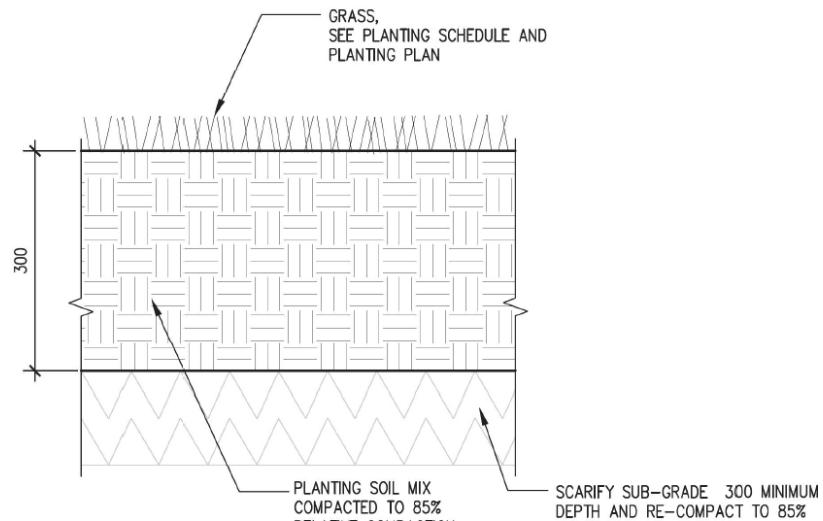
Item	Figure
Total Grass Area	443m ²
Total Planting Area	2185m ²
Total Site Area	13570m ²

Item	Figure	Percentage %
Total Grass Area / Total Planting Area	443 / 2185	20%
Total Grass Area / Total Site Area	443 / 13570	3.3%

References

The layout of trees, shrubs and grass are shown in the Landscape Plan - Ground Floor. For details, please refer to Appendix A - Planting Plans.

Furthermore, the composition of the tree species is shown in Appendix B - Planting Schedule. The post-planting care plan is given in Appendix C - Post planting Care Plan.



Grass Paving Detail

XIQU CENTER LANDSCAPE PLAN - GROUND FLOOR

← 戲曲中心 首層景觀平面圖

日日京首

AUSTIN ROAD

LEGEND 圖例



- 1- EVERGREEN CANOPY TREE 常綠遮陰樹木
 - 2- SEATWALL 座牆
 - 3- EVA ROUTE- PROPOSED 規劃消防通道
 - 4- PEDESTRIAN SIDEWALK 人行步道
 - 5- CANTILEVER DECK 懸挑平臺
 - 6- (NOT USED) (不使用)
 - 7- COBBLE STONE PAVING AT MARKET STREET- 10X10CM
市場街10X10公分方石鋪裝
 - 8- TACTILE BAND 盲人道
 - 9- TEMPORARY STREET TREES 臨時種植街道樹木
 - 10- PARKING STALLS 停車位
 - 11- COVERED PLANTING AREA 遮蓋種植區域
 - 12- PLANTING AREA 種植區域
 - 13- LIFT PLATFORM 升降臺
 - 14- BOLLARD 檻車柱
 - 15- TRUCK UNLOADING AREA 貨車落貨區
 - 16- (NOT USED) (不使用)
 - 17- GRASS 草地
 - 18- BAMBOO THEATRE - 13.2 × 28.8M 13.2 × 28.8米竹戲臺
 - 19- PROPOSED STAIRCASE TO NOISE DECK 規劃樓梯上至隔音平臺
 - 20- NOISE MITIGATION DECK 隔音平臺
 - 21- (NOT USED) (不使用)
 - 22- FSD FENCE 消防局圍牆
 - 23- SECURITY GUARD BOOTH 保安檢查站
 - 24- BOOM GATE 檻車欄
 - 25- METAL CRASH GATE 金屬防撞欄

FUTURE WKCD BUILDING

FUTURE WKCD BUILDING

SITE BOUNDARY - LOW

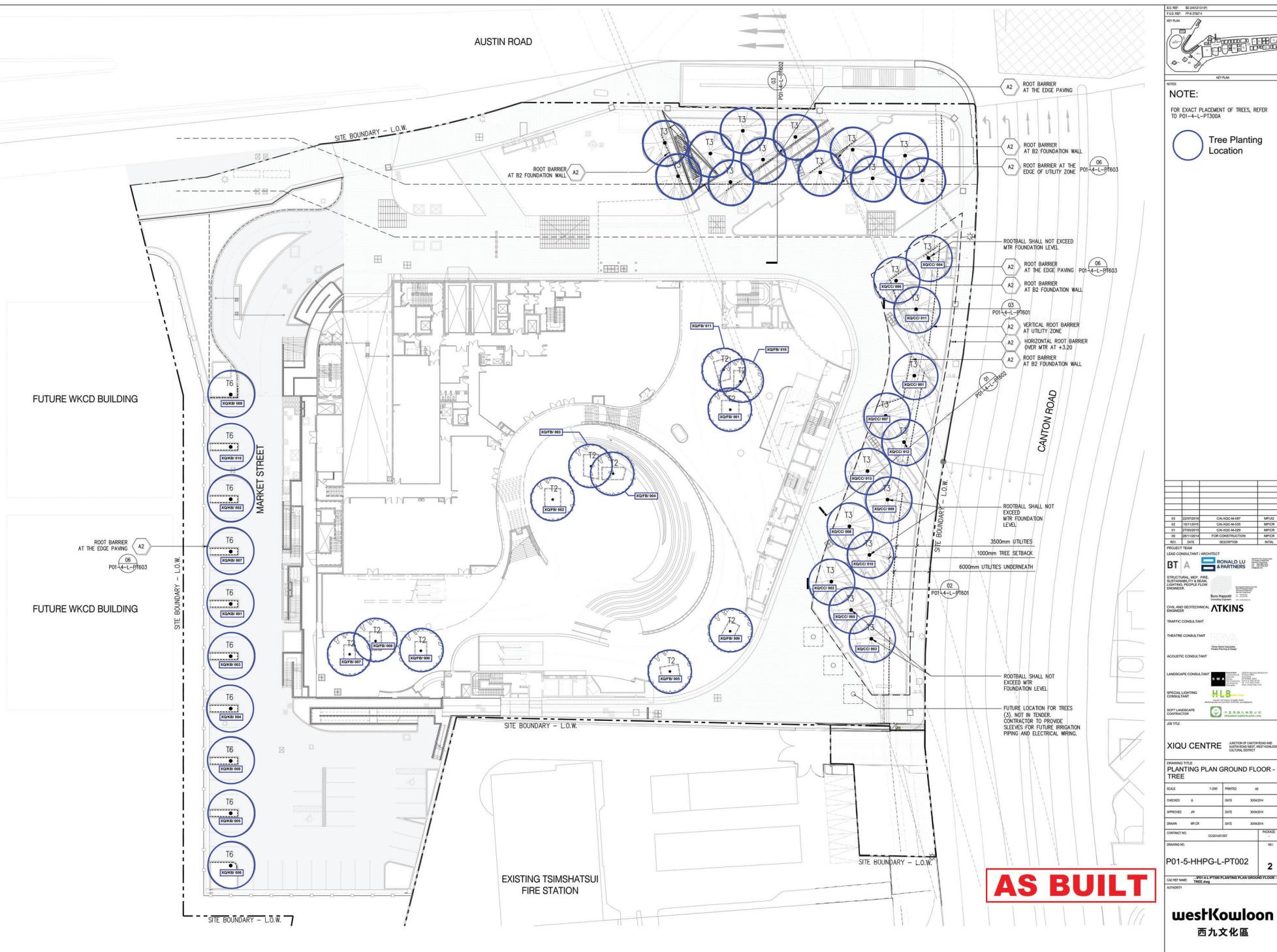
EXISTING TSIMSHATSU FIRE STATION

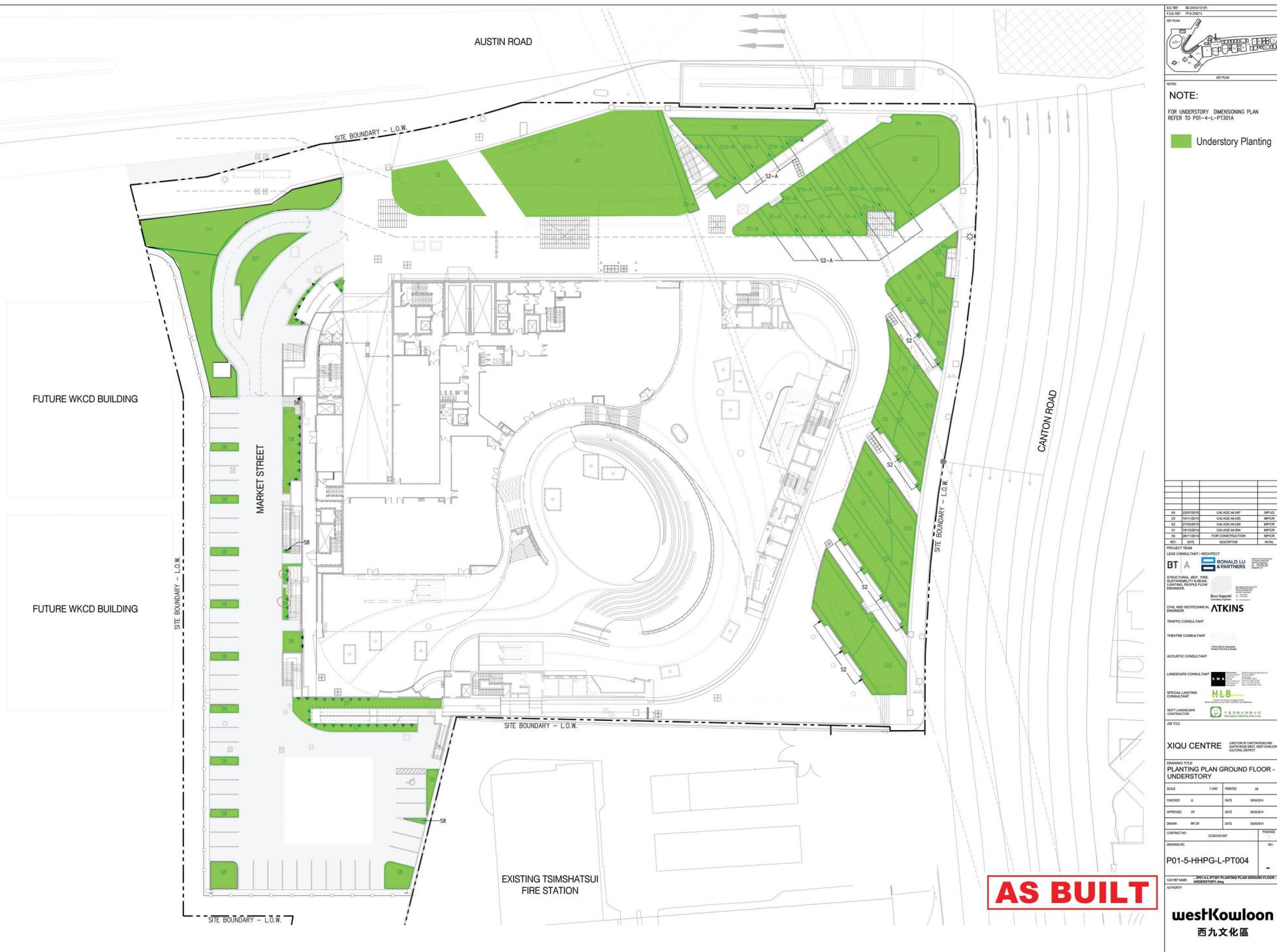
Updated on 28 Aug 2020



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APPENDIX A- PLANTING PLANS





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APPENDIX B- PLANTING SCHEDULE

PLANTING SCHEDULE – UNDERSTORY								
SYMBOL	BOTANICAL NAME	COMMON NAME	BLOOMING SEASON	BLOOMING COLOR	HEIGHT	WIDTH	SPACING	EXPOSURE / COMMENTS
SHRUB/GROUNDCOVER/VINE								
S1	IXORA CHINENSIS 'RED'	CHINESE IXORA 'RED' 星花(紅色)	SPRING TO FALL	RED MULTICLUSTER	0.60m	0.45m	0.40m D.C. TRIANGULAR SPACING	FULL SUN TO SHADE TOLERANT UPRIGHT SHRUB TO BE MAINTAINED AS A SMALL HEDGE
S1-A	IXORA CHINENSIS 'RED'	CHINESE IXORA 'RED' 星花(紅色)	SPRING TO FALL	RED MULTICLUSTER	0.25m	0.10m	0.08m D.C. TRIANGULAR SPACING	FULL SUN TO SHADE TOLERANT UPRIGHT SHRUB TO BE MAINTAINED AS A SMALL HEDGE S1-A TO BE INSTALLED WITHIN THE UTILITY (UU) ZONE
S2	MURRAYA PANICULATA	ORANGE JESSAMINE 九里香	SUMMER TO FALL	WHITE	0.60m	0.45m	0.40m D.C. TRIANGULAR SPACING	PARTIAL SUN EVERGREEN TO BE MAINTAINED AS A SMALL HEDGE
S2-A	MURRAYA PANICULATA	ORANGE JESSAMINE 九里香	SUMMER TO FALL	WHITE	0.25m	0.10m	0.08m D.C. TRIANGULAR SPACING	PARTIAL SUN EVERGREEN O BE MAINTAINED AS A SMALL HEDGE S2-A TO BE INSTALLED WITHIN THE UTILITY (UU) ZONE
S3	AUCUBA JAPONICA	JAPANESE LAUREL 青木	-	-	0.75m	0.60m	0.40m D.C. TRIANGULAR SPACING	PARTIAL SHADE EVERGREEN
S4	SCHEFFLERA ARBORICOLA 'TRINETTE'	黃金鵝掌藤	FALL TO WINTER	SMALL WHITE	0.75m	0.60m	0.55m D.C. TRIANGULAR SPACING	PARTIAL SHADE EVERGREEN
S5	OPHIOPOGON JAPONICUS	MONDO GRASS 山麥草	SUMMER	WHITE TO PALE LILAC	0.2m	0.2m	0.15m TRIANGULAR SPACING	SHADE TOLERANT CONTRACTOR TO VERIFY SHADE CONDITION
S6	LIROPE SPICATA	CREEPING LIROPE 穿鬚冬	APR TO AUG	PURPLE	0.2m	0.2m	0.15m TRIANGULAR SPACING	SHADE TOLERANT CONTRACTOR TO VERIFY SHADE CONDITION
S7	FIJUS MICROCARPA 'CRASSIFOLIA'	FIJUS 觀葉樹	-	-	2m	0.85m	0.80m D.C. GRID SPACING	FULL SUN EVERGREEN TO BE FULLY GROWN AND MAINTAINED AT DIFFERENT LEVEL PER PLANTING PLAN
S8	IXORA CHINENSIS 'YELLOW'	CHINESE IXORA (YELLOW) 龍船花(黃色)	SPRING TO FALL	YELLOW	0.60m	0.45m	0.40m D.C. TRIANGULAR SPACING	FULL SUN TO SHADE TOLERANT UPRIGHT SHRUB
S10	BRUNFELSIA PAUCIFLORA 'FLORIBUNDA'	BRUNFELSIA 大花倒垂茉莉	SPRING	DARK BLUE, LILAC AND WHITE	0.75m	0.6m	0.55m TRIANGULAR SPACING	LIGHT SHADE TO FULL SUN EVERGREEN SHRUB
S10-A	BRUNFELSIA PAUCIFLORA 'FLORIBUNDA'	BRUNFELSIA 大花倒垂茉莉	SPRING	DARK BLUE, LILAC AND WHITE	0.25m	0.10m	0.08m TRIANGULAR SPACING	LIGHT SHADE TO FULL SUN EVERGREEN SHRUB A SMALL HEDGE S10-A TO BE INSTALLED WITHIN THE UTILITY (UU) ZONE
S11	HAMELIA PATENS	FIREBUSH 亂麻木	SPRING	RED ORANGE	0.6m	0.45m	0.40m TRIANGULAR SPACING	FULL SUN PERENNIAL SHRUB
GRASS								
G1	ZOYSIA MARELLA	MANILA GRASS 馬尼沙草	-	-	-	-	-	SUN AND SHADE TOLERANT EVERGREEN SOD
HYDROSOD MIX								
SYMBOL	BOTANICAL NAME	COMMON NAME	DENSITY					
BETWEEN APRIL AND AUGUST								
H1	CYNODON DACTYLON PASPALUM NOTATUM CHLORIS GAYANA	BERMUDA GRASS BAHIA GRASS RHODES GRASS	13-15 g/sq m 8-10 g/sq m 1-4 g/sq m					
	BETWEEN SEPTEMBER AND MARCH							
	CYNODON DACTYLON PASPALUM NOTATUM LUDLUM PERENNIE	BERMUDA GRASS BAHIA GRASS PERENNIAL RYEGRASS	15 g/sq m 10 g/sq m 5 g/sq m					

NOTE

1. SWA TO REVIEW ALL PLANT MATERIAL AT THE NURSERY AND ON SITE PRIOR TO INSTALLATION.
 2. SIZES ARE SHOWN FOR REFERENCE AND MAY VARY. ALL PLANTS OF THE SAME SPECIES SHALL MATCH IN SIZE. ALL SIZES SHALL BE APPROVED PRIOR TO INSTALLATION.



S1 IXORA CHINENSIS 'RED' - CHINESE IXORA 'RED'



S2 MURRAYA PANICULATA - ORANGE JESSAMINE



02 AUGUSTA, U.S.A.—JAPANESE LAUREL



9.4 CONHECERÁ APROPIACIÓN INSTITUCIONAL



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A close-up photograph showing several blades of green grass in sharp focus. The blades are slightly curved and have distinct vertical stripes of different shades of green.



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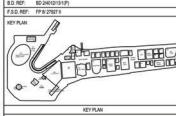
Figure 1



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BT A	RONALD LU & PARTNERS
STRUCTURAL, M.P., FIRE ENGINEER	Buro Happold
CIVIL AND GEOTECHNICAL ENGINEER	ATKINS
TRAFFIC CONSULTANT	MVA
THEATRE CONSULTANT	
ACOUSTIC CONSULTANT	SCANDI SPACE DESIGN
LANDSCAPE CONSULTANT	HLB
SPECIAL LIGHTING CONSULTANT	
FAÇADE CONSULTANT	Front
JOB TITLE	
XIU CENTRE	
SECTION OF CASTRO ROAD AND HORNBY ROAD WEST, WEST KOWLOON, SPECIAL DISTRICT	
DRAWN BY : [Signature]	
CHECKED BY : [Signature]	
APPROVED BY : [Signature]	
DRAWN : MP/20 DATE : 30/04/2014	
CONTRACT NO. : CC2014R10007	
DRAWING NO. : P01-4-L-PT201	
REF ID : P01-4-L-PT201 PLANTING SCHEDULE UNDERSTORY.dwg	
CATEGORY : 01	

PLANTING SCHEDULE – TREE										
SYMBOL	BOTANICAL NAME	COMMON NAME	BLOOMING SEASON	BLOOMING COLOR	HEIGHT	WIDTH, (CANOPY)	TRUNK CALIPER	SPACING	SUN	REMARKS/ COMMENTS
TREES										
	FICUS BENJAMINA	WEEPING FIG 垂葉榕	-	-	7-8m	6m	150-200mm	AS SHOWN	FULL SUN TO PARTIAL SHADE	EVERGREEN
	CINNAMOMUM CAMPHORA	CAMPHOR TREE 樟樹	SPRING	WHITE	7-8m	6m	150-200mm	AS SHOWN	FULL SUN	EVERGREEN
	SOPHORA JAPONICA	JAPANESE PAGODA TREE 槐樹	AUGUST	PALE YELLOW TO CREAMY WHITE	7-8m	6m	150mm	AS SHOWN	PARTIAL SHADE	FRAGRANT EVERGREEN
BAMBOO										
	PHYLLOSTACHYS VIRIDIS	TIMBER BAMBOO 剛竹	-	-	8-10m	-	-	450mm TRIANGULAR SPACING	-	EVERGREEN SEE NOTE BELOW



T2 FICUS BENJAMINA - WEEPING FIG



T3. CINNAMOMUM CAMPHORA—CAMPHOR TREE



A small white rectangular plaque is mounted on a dark wooden post. The plaque has some faint, illegible markings.



BAMBOO INSTALLATION NOTES

1. BAMBOO SHALL BE TIED OFF HORIZONTALLY WITH A BAMBOO POLE PLACED AT 3m FROM FINISH GRADE. POLE TO BE FASTENED WITH NURSERY TYPE TWINE OR ROPE.

00	28/11/2014	FOR CONSTRUCTION	MAP/C
REV.	DATE	DESCRIPTION	INITIAL
LEAD CONSULTANT/ARCHITECT			
BT A	RONALD LU & PARTNERS		
STRUCTURAL, MECH, ELEC, SUSTAINABILITY & REAL ESTATE, LANDSCAPE, PEDESTRIAN, PLANT ENGINEERS			
Buro Happold			
CIVIL AND GEOTECHNICAL			
ATKINS			
TRAFFIC CONSULTANT			
THEATRE CONSULTANT			
ACOUSTICS CONSULTANT			
LANDSCAPE CONSULTANT			
SPECIAL LIGHTING CONSULTANT			
FAIRY			
Front			
FAIRY			
Front			
XIU CENTRE			
JUNCTION OF MONTON ROAD AND WELLINGTON AVENUE, WEST KOWLOON, KOWLOON DISTRICT			
PLANTING SCHEDULE - TREE			
SCALE	PRINTED		A0
CHECKED	DATE	30/04/2014	
APPROVED	DATE	30/04/2014	
SIGNED	DATE	30/04/2014	
CONTRACT NO.	CC001-A0007		PACKAGES
DRAWING NO.			REV.
P01-4-L-PT200			
00			
DRAWING NO.: P01-4-L-PT200 PLANTING SCHEDULE - TREE.dwg			
AUTHORITY			
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APPENDIX C- POST-PLANTING CARE PLAN



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POST-PLANTING CARE PLAN

1. Plant Material Maintenance

1.1 Tree and Shrub Maintenance

Maintain trees and shrubs by pruning, cultivating, watering, weeding, fertilizing, restoring planting saucers, tightening and repairing stakes and guy supports, and resetting to proper grades or vertical position, as required to establish healthy, viable planting. Spray as required to keep trees and shrubs free of insects and disease. Restore or replace damaged tree wrappings. Maintain trees and shrubs for the following period:

- Maintenance period: 24 months following substantial completion.

1.2 Ground Cover and Plant Maintenance

Maintain ground cover and plants by watering, weeding, fertilizing, and other operations as required to establish healthy, viable planting for the following period:

- Maintenance period: 24 months following substantial completion.

1.3 Lawn Maintenance

- Begin maintenance of lawns immediately after each area is planted and continue until acceptable lawn is established, but for not less than the following periods:

- Seeded lawns: 60 days after date of substantial completion.
 - ◊ When full maintenance period has not elapsed before end of planting season, or if lawn is not fully established at that time, continue maintenance during next planting season.
- Sodded lawns: 30 days after date of substantial completion.
- Plug-sodded lawns: 30 days after date of substantial completion.
- Sprigged lawns: 30 days after date of substantial completion.
- Maintain and establish lawns by watering, fertilizing, weeding, mowing, trimming, replanting, and other operations. Roll, regrade, and replant bare or eroded areas and remulch to produce a uniformly smooth lawn.
- Watering: provide and maintain the permanent irrigation system (piping, hoses, and lawn-watering equipment) to convey water from sources and to keep lawns uniformly moist to a depth of 100mm.
 - Water lawn at the minimum rate of 25mm per week (to be confirmed during the construction document phase).
- Mow lawns as soon as there is enough top growth to cut with mower set at specified height for principal species planted. Repeat mowing as required to maintain specified height without cutting more than 40 percent of the grass height. Remove no more than 40 percent of grass-leaf growth in initial or subsequent mowings. Do not delay mowing until grass blades bend over and become matted. Do not mow when grass is wet.
- Post-fertilization: apply fertilizer to lawn after first mowing and when grass is dry.
 - Use fertilizer that will provide actual nitrogen of at least 0.5 Kg per 100m² of lawn area.

1.4 Tree and Lawn Monitoring

- A certified arborist on Urbis' staff, Teresa Wing Yee Wong (International Society of Arboriculture cert. #HK-0532A) has been engaged to supervise installation and monitor growth of trees and planting to ensure proper implementation of the landscape plan.

2. Tree and Shrub Pruning

2.1 Prune, thin, and shape trees and shrubs as directed by landscape architect.

2.2 Prune, thin, and shape trees and shrubs according to standard horticultural practice. Prune trees to retain required height and spread. Unless otherwise directed by architect, do not cut tree leaders; remove only injured or dead branches from flowering trees. Prune shrubs to retain natural character. Shrub sizes indicated are size after pruning.

3. Disposal of Surplus and Waste Materials

Disposal: remove surplus soil and waste material, including excess subsoil, unsuitable soil, trash, and debris, and legally dispose of it off the owner's property.

4. Pest Control

Additionally, a pest control company must be hired to inspect the site on a quarterly basis (4 times per year).