Our Ref: 239971
Council Ref: DA/2022/00538

6 March 2023

City of Newcastle
12 Stewart Avenue
PO Box 489
Newcastle NSW 2300

ATTENTION: HOLLY HUTCHENS

Dear Holly,

RE: DA/2022/00538 - COMMERCIAL PREMISES & SHOP TOP HOUSING DEVELOPMENT LOT 1 DP 1166015 - 643 HUNTER STREET, NEWCASTLE WEST

Please accept this submission as our formal response to the further comments provided by City of Newcastle's Engineering referral responses to DA2022/00538 sent via email on the 4th February 2023.

It is requested that the amended plans and documentation enclosed with this response are accepted as amended particulars as provided for by Section 37 of the *Environmental Planning and Assessment Regulation 2021* and replace those previously provided to Council.

Council Comment

Tenancies 3 & 4 evacuation to refuge

It is proposed to evacuate occupants of Tenancies 3 & 4 to seek refuge in the 1st floor parking area. Occupants will leave each tenancy out into the covered colonnade, proceed south down some steps, enter a fire door, and travel along a fire passageway to "Stair A."

The proposed evacuation route of Tenancies 3 & 4 raises some concerns:

- The route to refuge travels 40m through two doors and a long fire passageway. This route may not necessarily be self-evident to occupants of commercial tenancies, which may include guests, visitors, and customers not familiar with the building layout.
- The proposed route to refuge relies on access through one or more Fire Doors which typically cannot be accessed externally.

- The proposed route to refuge requires evacuees to descend to lower ground (from colonnade to fire door) which does not present as a self-evident route.

It is requested that the Applicant address the above issues.

Response

As requested by Council, the layout has been amended to address the concerns raised in relation to the evacuation route for Commercial Tenancies 3 and 4. Direct access into the fire passageway has been provided for Tenancies 3 and 4. Egress from Tenancy 1 has also been slightly amended to allow direct path of travel to first floor. A copy of the amended architectural plans and concept civil plans have been provided within **Appendix A** and **B**. Tenancies 3 and 4 storage, w/c's, comms room and mail room have been reconfigured to reduce travel distances and create flood evacuation path.

As a result of the proposed amendments there has been a slight GFA change to Tenancies 2, 3, 4 and the residential lobby. The overall GFA has been reduced by approximately 8.9m^2

We trust the proposed reconfiguration adequately address the concerns raised by Council.

Council Comment

Rainwater Reuse

The amended stormwater management plan estimates a likely reuse drawdown rate of 3.741kL/day if the reuse storage is reticulated to thirty-two 1–2-bedroom apartments located on levels 4-18. This equates to a 4-day drawdown of approximately 16kL.

The Applicant should consider whether it would be practicable to reuse harvested stormwater on the upper residential storeys considering the energy cost of reticulation over vertical distances via pump.

Response

As requested by Council, the proposed re-use strategy has been reassessed and access to the first four floors along with irrigational purposes has been provided given the cost of pumping to the higher levels, additional storage for the OSD has been used to ensure peak flowrates as per the original design have not been exceeded.

Council Comment

Proposed car park ramp design

The Applicant is requested to provide further detail with regard to the design of the access ramps connecting each floor of parking to address concerns a descending vehicle may have poor sightlines to vehicles egressing from car spaces directly adjacent the ramp. Building cross-sections appear to show the access ramps will have an open design (i.e. not enclosed by walls or high barriers, except on Level 3) – confirmation is requested.

Response

As shown on the amended Architectural Plans provided, the vehicle access ramps will have an open design. This has also been previously confirmed in email correspondence issued to Council on the 3rd February 2023.

Council Comment

Public Domain

It is noted that the public domain requirements for the Steel Street frontage are still under internal discussion at Council to resolve potential conflicts between the A1405 design and existing street trees.

Response

The applicant is still awaiting Council's advice in relation to this matter.

Council Comment

Awning Cut-outs

The proposed street awning will need to incorporate cut-outs to support the required new tree planting in the Hunter Street frontage. The Applicant shall amend development plans to include street tree planting in the Hunter Street frontage along with rectangular awning cut-outs to maintain a clear 3m x 3m headspace above new tree plantings.

The trees are planted 600mm offset from the face of kerb so awning cut-outs will need to be 0.9m into the awning and 3.0m in length (along the kerb).

The new trees are to be shown on plans generally in vacancy locations indicated by green tree symbols in the figure below.

Response

As shown on the amended Architectural Plans provided within **Appendix A**, the proposed street awning has been amended to incorporate cut-outs and identify the required tree clearance in accordance with the City Centre Public Domain Manual as requested by Council to support the street tree planting along Hunter Street.

CONCLUSION

We trust that the additional information provided is satisfactory and allows Council to finalise its assessment of the application.

Should you have any questions in relation to the contents of this submission or would like to arrange a meeting to discuss any of the above matters further, please do not hesitate to contact Craig Marler from ADW Johnson or the undersigned on (02) 4978 5100 or via email at zacs@adwjohnson.com.au.

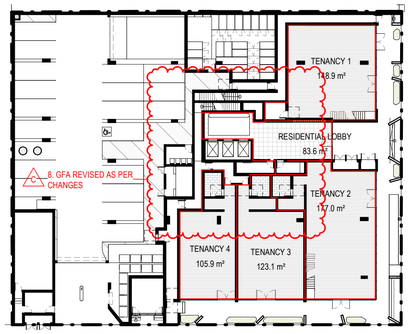
Yours sincerely,

ZAC SMURTHWAITE
SENIOR TOWN PLANNER
ADW JOHNSON PTY LTD
HUNTER OFFICE

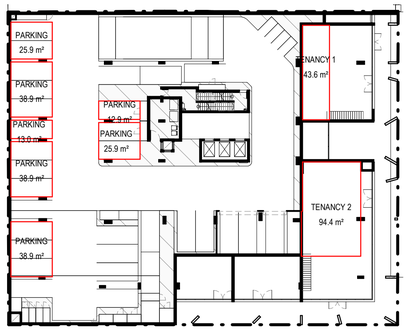
N:\239971\Planning\DA Prep\Post Lodgement\Council's Request for Information February 2023\Response to Council's Engineering Comments 643 Hunter St, Newcastle 060323.docx

Appendix A

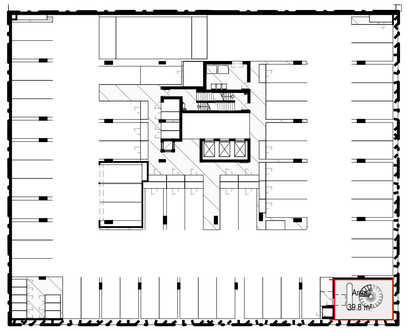
AMENDED ARCHITECTURAL PLANS (STEWART ARCHITECTURE)



GROUND FLOOR LEVEL



L-1 - P1



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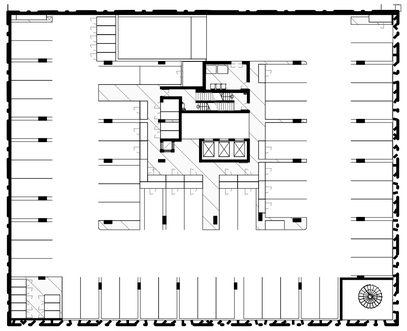

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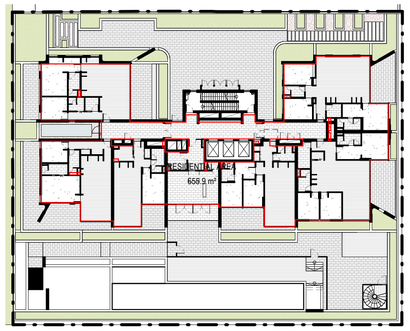
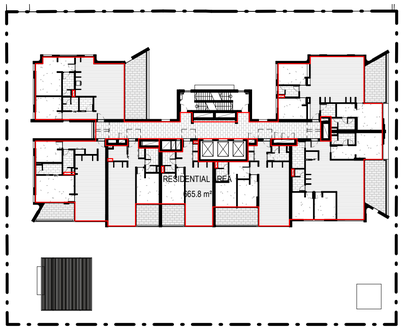


L-4 - PODIUM



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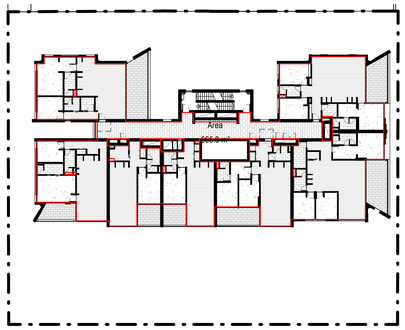

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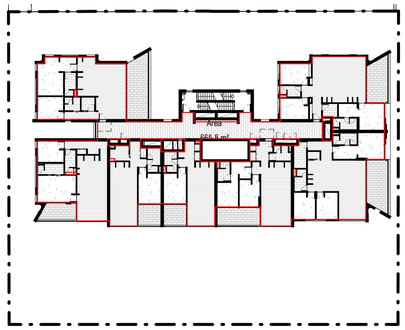

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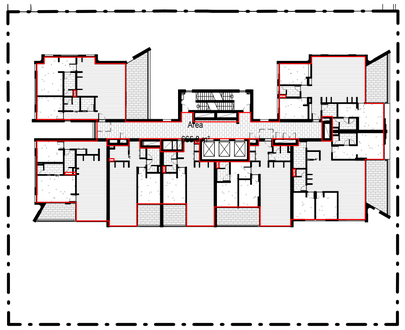

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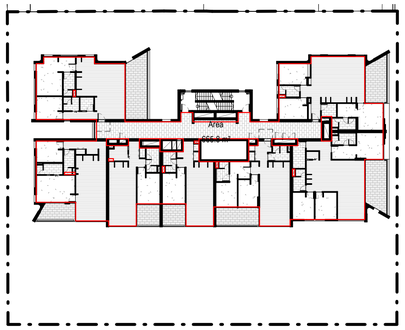
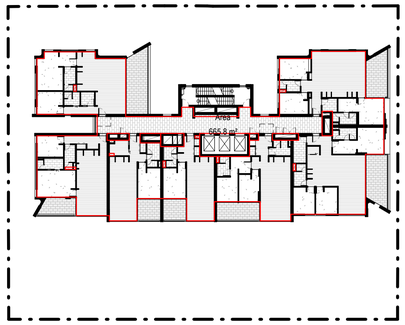


L-9

L-10



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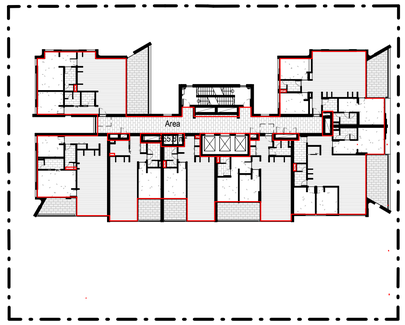
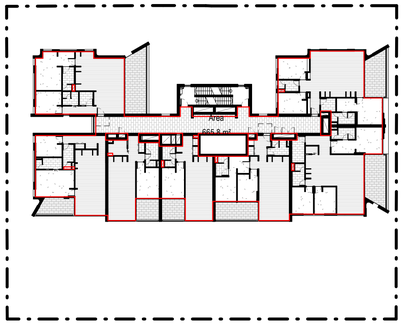


L-12

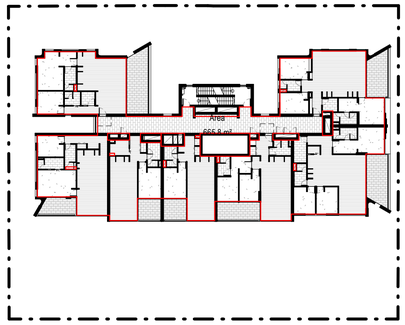
L-13

L-14



L-15

L-16



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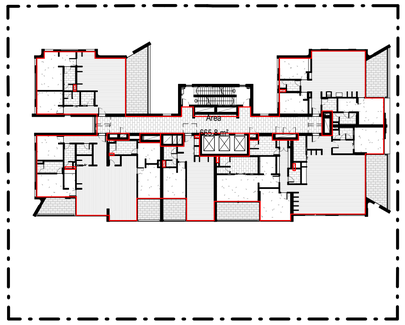

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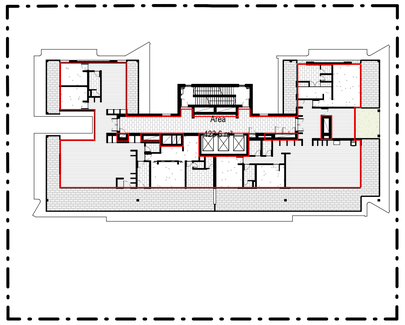

L-19

GROSS FLOOR AREA

NEWCASTLE LOCAL ENVIRONMENTAL PLAN 2012

Note: The definition is defined by the sum of the floor area of each floor of a building measured from the internal face of external walls, or from the internal face of walls separating the building from any other building, measured at a height of 1.4m above the floor, and includes:

(a) the area of a mezzanine, and
(b) habitable rooms in a basement or an attic, and
(c) any shop, auditorium, cinema, and the like, in a basement or attic,

but excludes:

(d) any area for common vertical circulation, such as lifts and stairs, and
(e) any basement:
(i) storage, and
(ii) vehicular access, loading areas, garbage and services, and
(f) plant rooms, lift towers and other areas used exclusively for mechanical services or ducting, and
(g) car parking to meet any requirements of the consent authority (including access to that car parking), and
(h) any space used for the loading or unloading of goods (including access to it), and
(i) terraces and balconies with outer walls less than 1.4m high, and
(j) voids above a floor at the level of a storey or storey above.

SITE AREA (AS PER SURVEY)

TOTAL: 2,079m²

PREVIOUSLY APPROVED DA GFA (DA2016/00564)

TOTAL: 9,899.8m²

PERMISSABLE AREAS

ALLOWABLE FSR: 5.5:1
ALLOWABLE GFA: 11,434.5m²

FSR CALCULATIONS

Level	Area
GROUND FLOOR LEVEL	638.5 m²
L-1 - P1	332.4 m²
L-2 - P2	39.8 m²
L-4 - PODIUM	655.9 m²
L-5	665.8 m²
L-6	665.8 m²
L-7	665.8 m²
L-8	665.8 m²
L-9	665.8 m²
L-10	665.8 m²
L-11	665.8 m²
L-12	665.8 m²
L-13	665.8 m²
L-14	665.8 m²
L-15	665.8 m²
L-16	665.8 m²
L-17	665.8 m²
L-18	665.8 m²
L-19	423.6 m²
	11410.9 m²

DA RFIS - 17.02.2023

1. NOTCHES IN AWNING ADDED
2. FUTURE STREET TREE CLEARANCE INDICATED
3. ADDITIONAL RAMP SECTION PROVIDED
4. RAMP EDGE CONDITION CLARIFIED
5. COMMERCIAL TENANCY STORAGE, W/C'S, COMMS ROOM, MAIL ROOM RECONFIGURED TO CREATE FLOOD EVACTUATION PATH
6. STAIRS REMOVED
7. STAIRS REMOVED RAMP ADDED
8. GFA REVISED AS PER CHANGES ABOVE

REV	DESCRIPTION	DATE
A	DRAFT DA	05.04.2022
B	ISSUE FOR DA	09.05.2022
C	DA RFIs	17.02.2023

STEWART ARCHITECTURE
10 / 285 CANBERRA AVENUE FYSHWICK 2609
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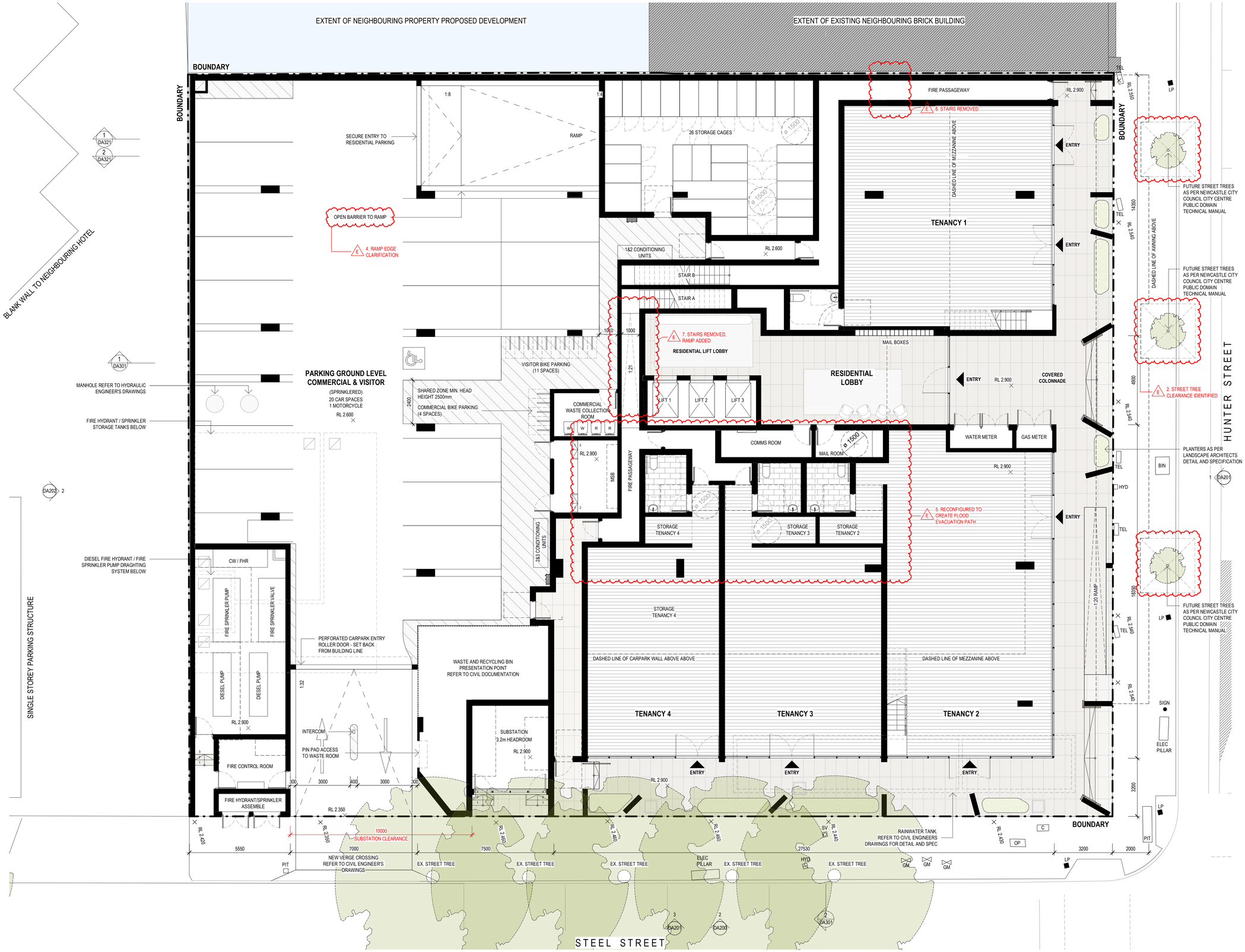
OFFICE@STEWARTARCHITECTURE.COM.AU

PROJECT **WATERVUE**
643-651 HUNTER STREET NEWCASTLE NSW 2300

PROJECT No. **1833**

DRAWING No. **DA011**
DRAWING TITLE **PLANNING - GFA**
SCALE **1 : 250 @ A1**
DATE **2022**



PARKING REQUIRED - RESIDENTIAL

DWELLING TYPE	QUANTITY	DCP CAR PARKING RATE	TOTAL
SMALL (<75m²)	14	0.6	8.4
MEDIUM (75m² - 100m²)	29	0.9	26.1
LARGE (>100m²)	63	1.4	88.2
VISITORS	-	1 FOR THE FIRST 3 DWELLINGS + 1 FOR EVERY 5 THEREAFTER	22
	106		144.7

BICYCLE PARKING = 1 SPACE PER DWELLING	106
BICYCLE PARKING (VISITORS) = 1 SPACE PER 10 DWELLINGS	11
MOTORCYCLE PARKING = 1 SPACE PER 20 CAR SPACES	7

PARKING REQUIRED - NON-RESIDENTIAL (OFFICE)

PROPOSED NON-RESIDENTIAL GFA = 708.5m²

PARKING TYPE	DCP RATE	TOTAL
CARPARKING IN THE NEWCASTLE CITY CENTRE	1 SPACE PER 60m² OF GFA	11.8
BICYCLE PARKING (OFFICE)	1 SPACE PER 200m² OF GFA	4
MOTORCYCLE PARKING (OFFICE)	1 SPACE PER 20 CAR SPACES	1

PARKING REQUIRED - SITE TOTAL

CARS	MOTORCYCLES	BICYCLES
156.5	8	121

PARKING PROVIDED

LEVEL	CARS	MOTORCYCLES	BICYCLES
GROUND	20	1	15
P1 (LEVEL 1)	31	6	**
P2 (LEVEL 2)	60	1	**
P3 (LEVEL 3)	61	1	**
	172*	9	121

NB: TANDEM PARKS INCLUDED IN PARKING COUNT
* OVER GENERATION OF 15 CARSPACES COUNTED IN GFA
** BICYCLE PARKING PROVIDED WITHIN STORAGE CAGES

STORAGE PROVISION

TYPE	REQ STORAGE	INTERNAL STORAGE	STORAGE CAGE	TOTAL
1A	6m³	4.5m³	1.5m³ min	6m³
1B	6m³	3m³	3m³ min	6m³
2A	8m³	4.5m³	3.5m³ min	8m³
2B	8m³	4.5m³	3.5m³ min	8m³
2C	8m³	4m³	4m³ min	8m³
3A	10m³	5m³	5m³ min	10m³
3B	10m³	5.5m³	4.5m³ min	10m³
P1	10m³	10m³	1.5m³ min	11.5m³
P2	10m³	12m³	1.5m³ min	13.5m³

DA RFIS - 17.02.2023

1. NOTCHES IN AWNING ADDED
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6. STAIRS REMOVED
7. STAIRS REMOVED RAMP ADDED

REV	DESCRIPTION	DATE
A	DRAFT DA	05.04.2022
B	ISSUE FOR DA	27.04.2022
C	DA RFIs	07.09.2022
D	DA RFI SUBMISSION	05.10.2022
E	DA RFIs	17.02.2023

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10 / 285 CANBERRA AVENUE FYSHWICK 2609
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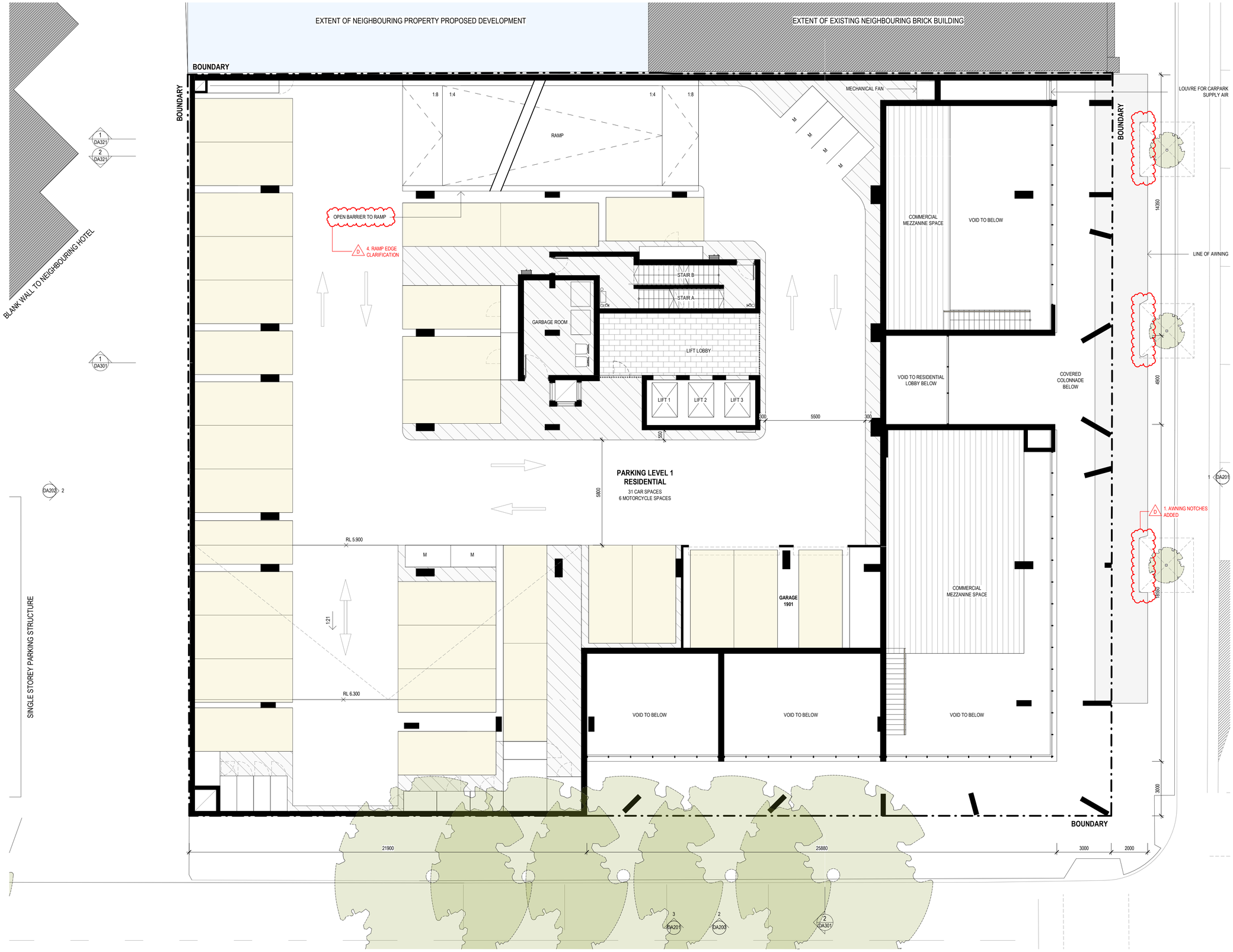
PROJECT **WATERVUE**
643-651 HUNTER STREET NEWCASTLE NSW 2300

PROJECT No. **1833**

DRAWING No. **DA101**
DRAWING TITLE **GROUND FLOOR**
SCALE **1 : 100 @ A1**
DATE **2022**



DA RFIS - 17.02.2023

1. NOTCHES IN AWNING ADDED
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6. STAIRS REMOVED
7. STIARS REMOVED RAMP ADDED

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D	DA RFIs	17.02.2023

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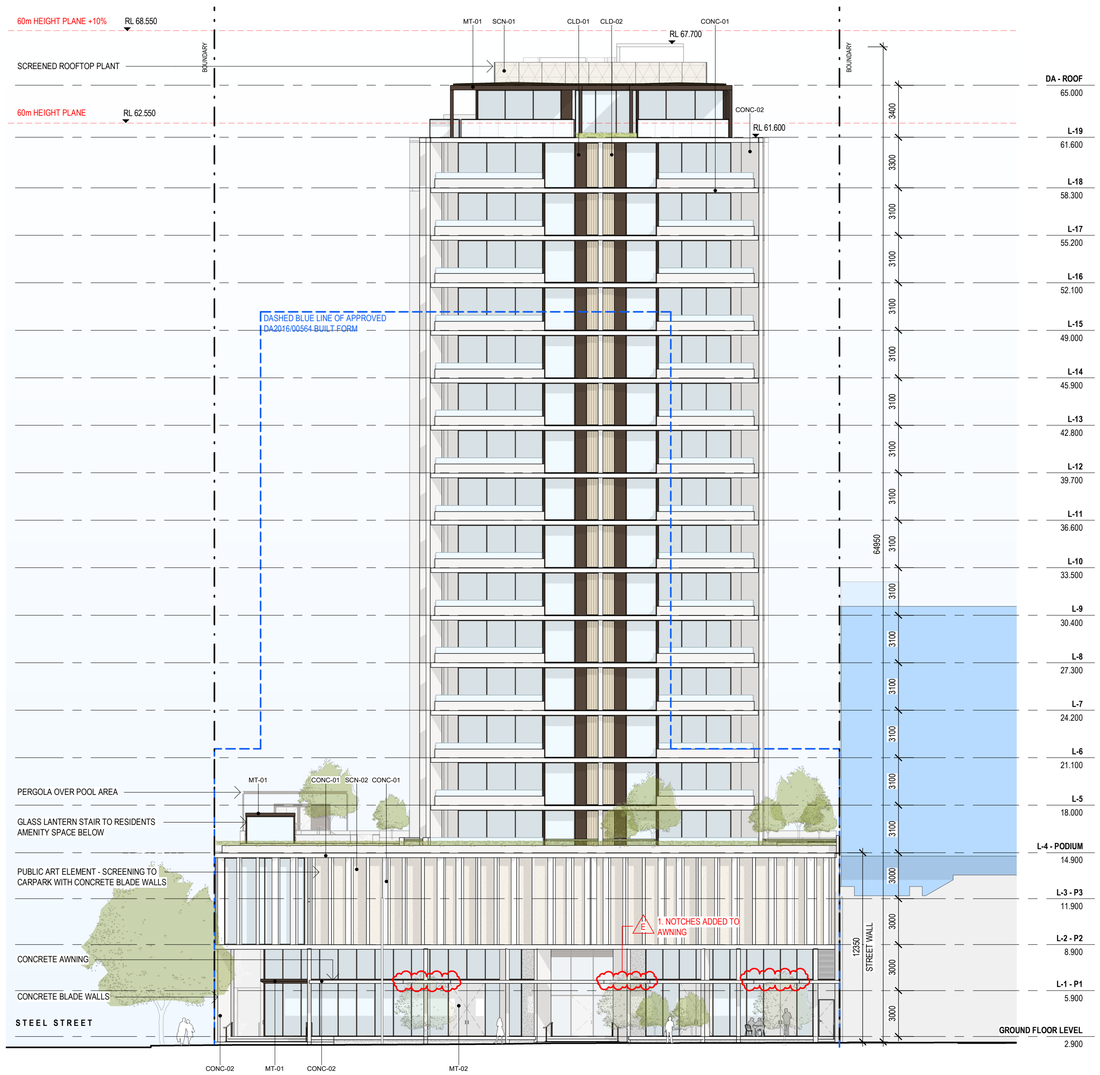
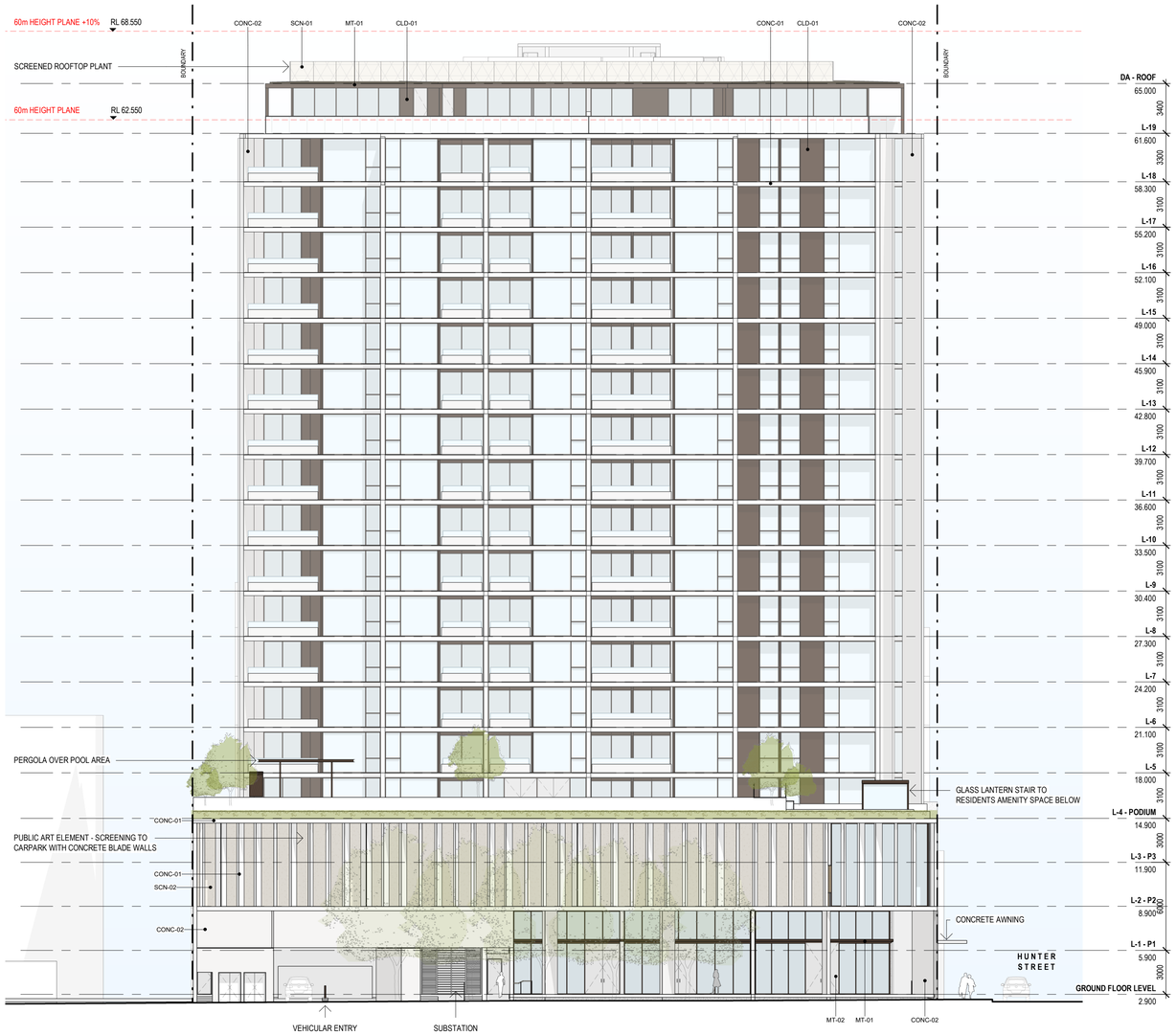
PROJECT **WATERVUE**
643-651 HUNTER STREET NEWCASTLE NSW 2300

PROJECT No. **1833**

DRAWING No. **DA102**
DRAWING TITLE **PARKING LEVEL 1**
SCALE **1 : 100 @ A1**
DATE **2022**



ELEVATION - NORTH - HUNTER STREET



ELEVATION - EAST - STEEL STREET

DA RFIS - 17.02.2023

1. NOTCHES IN AWNING ADDED
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5. COMMERCIAL TENANCY STORAGE, W/CS, COMMS ROOM, MAIL ROOM RECONFIGURED TO CREATE FLOOD EVACTUATION PATH
6. STAIRS REMOVED
7. STIARS REMOVED RAMP ADDED

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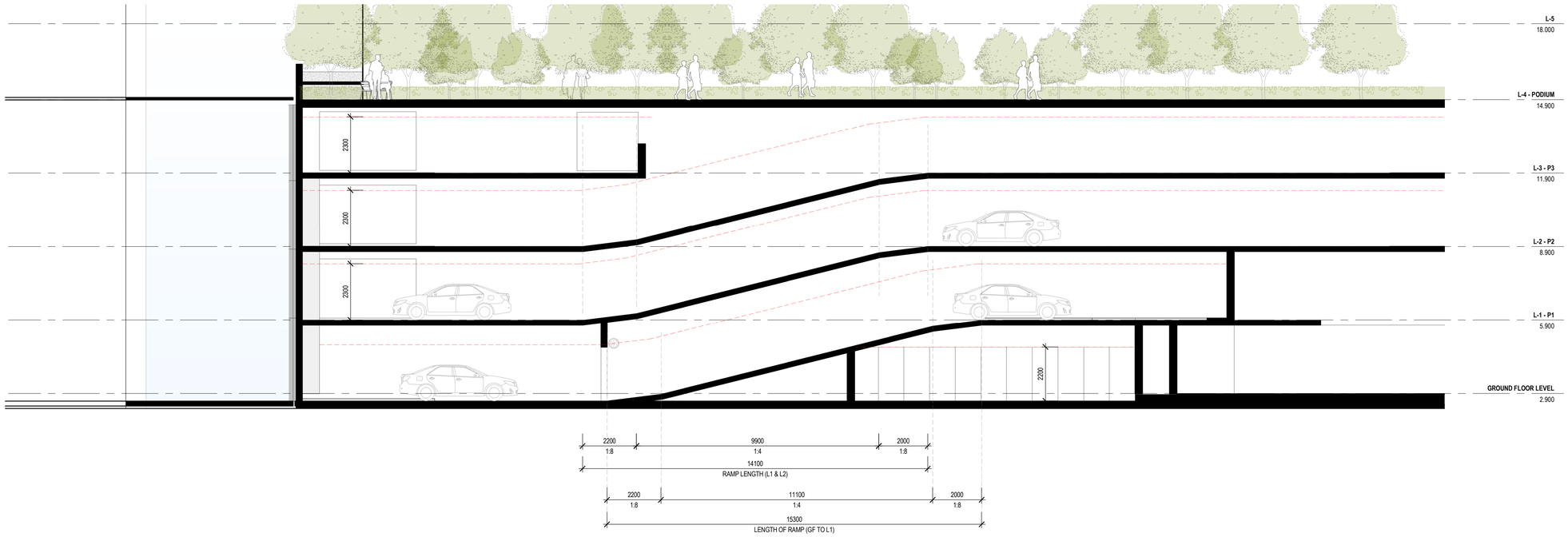
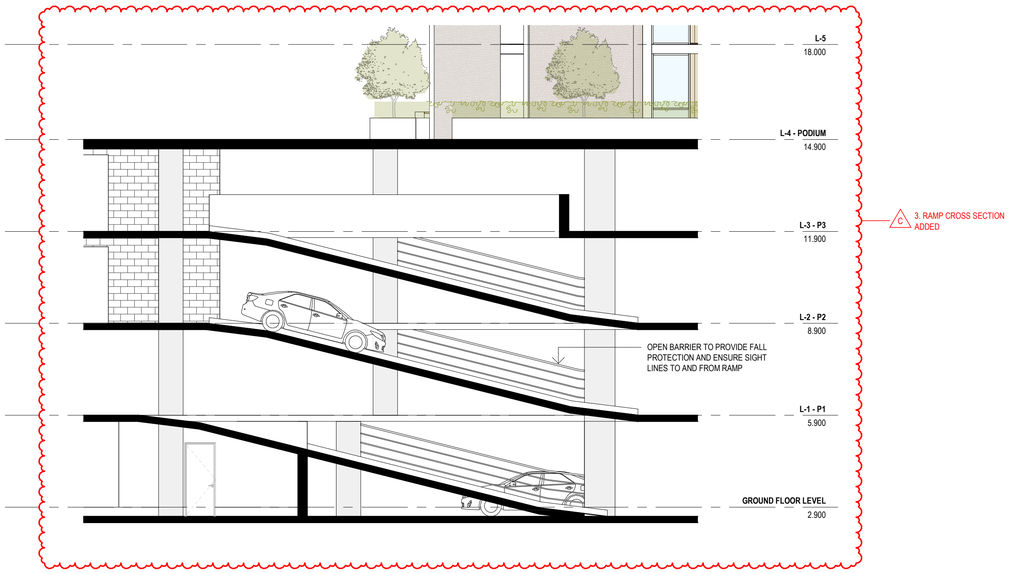
PROJECT **WATERVUE**
643-651 HUNTER STREET NEWCASTLE NSW 2300

PROJECT No. **1833**

DRAWING No. **DA201**
DRAWING TITLE **ELEVATIONS - NORTH AND EAST**
SCALE **1 : 200 @ A1**
DATE **2022**



DA - CARPARK RAMP SECTION



DA - CARPARK RAMP CROSS SECTION

DA RFIS - 17.02.2023

1. NOTCHES IN AWNING ADDED
2. FUTURE STREET TREE CLEARANCE INDICATED
3. ADDITIONAL RAMP SECTION PROVIDED
4. RAMP EDGE CONDITION CLARIFIED
5. COMMERCIAL TENANCY STORAGE, W/C'S, COMMS ROOM, MAIL ROOM RECONFIGURED TO CREATE FLOOD EVACTUATION PATH
6. STAIRS REMOVED
7. STIARS REMOVED RAMP ADDED

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C	DA RFIs	17.02.2023

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PROJECT **WATERVUE**
643-651 HUNTER STREET NEWCASTLE NSW 2300

PROJECT No. **1833**

DRAWING No. **DA321**
DRAWING TITLE **RAMP SECTION CARPARK**
SCALE **1 : 100 @ A1**
DATE **2022**

Appendix B

AMENDED CONCEPT CIVIL PLANS (INDESCO)

WATERVUE

643-651 HUNTER STREET NEWCASTLE

LOCALITY PLAN
NTS

ISSUE FOR DA APPLICATION

FEB 2023

CLIENT:

BLOC

ARCHITECT:

STEWART ARCHITECTURE

CONSULTANTS:

INDESCO
CANBERRA | SYDNEY | WOLLONGONG
www.indesco.com.au

CONSULT AUSTRALIA

7330-01-000

DRAWING SCHEDULE

NUMBER	DRAWING TITLE
7330-01-000	COVER SHEET
7330-01-001	DRAWING SCHEDULE
7330-01-002	LEGEND ABBREVIATION AND GENERAL NOTES
7330-01-003	GROUND FLOOR STORMWATER PLAN
7330-01-004	STORMWATER DETAILS
7330-01-005	SITE CALCULATIONS
7330-01-006	SITE PERMEABILITY
7330-01-007	DETAILS
7330-01-020	WASTE MANAGEMENT PLAN
7330-01-021	WASTE MANAGEMENT PLAN
7330-01-022	WASTE MANAGEMENT PLAN
7330-01-030	GROUND FLOOR SWEPT PATH ANALYSIS
7330-01-031	LEVEL 1 SWEPT PATH ANALYSIS
7330-01-032	LEVEL 2 SWEPT PATH ANALYSIS
7330-01-033	LEVEL 3 SWEPT PATH ANALYSIS
7330-01-040	PRE-DEVELOPMENT PMF STORAGE DEPTHS
7330-01-041	POST-DEVELOPMENT PMF STORAGE DEPTHS
7330-01-045	FLOOD STORAGE SECTIONS SHEET 1
7330-01-046	FLOOD STORAGE SECTIONS SHEET 2
7330-01-047	FLOOD EVACUATION PLAN

No.	AMENDMENT	APPROVED	DATE	AMENDED BY
2	RE-ISSUED FOR DA APPLICATION	M.S.	29.09.22	M.M.
1	ISSUE FOR DA APPLICATION	M.S	27.06.22	D.K.

ARCHITECT

STEWART ARCHITECTURE

CLIENT

BLOC

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APPROVED	M.S.	DATE	28.01.2022
CHECKED	M.S.	DATE	28.01.2022
DESIGNED BY	M.S.		
DRAWN BY	D.K.		
CAD FILE	H:\7330 643-651 Hunter Street Newcastle\Acad\Current Drawings\Civil\7330-01-001 DRG SHED.dwg		
SCALE	AS SHOWN	SHEET No.	

PROJECT

WATERVUE

643-651 HUNTER STREET

NEWCASTLE

DRAWING TITLE

DRAWING SCHEDULE

PROJECT No.	DRAWING No.	AMDT
7330-01	001	2

LEGEND

EXISTING

- WATERMAIN, THRUST BLOCK, FIRE HYDRANT, STOP VALVE
- WATER TIE
- STORMWATER MAIN, SUMP, MANHOLE
- STORMWATER TIE
- SEWER MAIN, MAINTENANCE HOLE
- SEWER TIE
- GAS
- CONTOURS (SURVEY)
- CONTOURS (ACTMAPi)
- ELECTRICITY SERVICE LINE UNDERGROUND
- ELECTRICITY SERVICE LINE OVERHEAD
- ELECTRICITY STREETLIGHTING UNDERGROUND
- ELECTRICITY STREETLIGHTING OVERHEAD
- ELECTRICITY LOW VOLTAGE UNDERGROUND
- ELECTRICITY LOW VOLTAGE OVERHEAD
- ELECTRICITY HIGH VOLTAGE UNDERGROUND
- ELECTRICITY HIGH VOLTAGE OVERHEAD
- LIGHTPOLE / POWERPOLE
- NBN
- ICON CABLE (PIT)
- TELSTRA CABLE WITH PIT, SHARED COMMS PIT AND MARKER
- TELSTRA FIBRE OPTIC CABLE
- TRANSACT CABLE
- OPTUS CABLE
- TREE
- TREE TO BE REMOVED
- TREE TO BE PRUNED
- TREE PROTECTION FENCE
- STORMWATER TO BE ABANDONED
- STORMWATER TO BE REMOVED
- END CAP (TYPE 1)
- END CAP (TYPE 2)
- BOLLARD

PROPOSED

- STORMWATER LINE/MANHOLE
- R-SUMP
- PROPOSED ISLAND MODIFICATION

GENERAL NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE 'MUNICIPAL INFRASTRUCTURE STANDARDS (MIS) APRIL 2019 AND ICON'S WATER SUPPLY AND SEWERAGE STANDARDS (WSSS) JULY 2018.
2. EXISTING SERVICES HAVE BEEN PLOTTED FROM SUPPLIED DATA. THE PRINCIPAL DOES NOT GUARANTEE THE ACCURACY OF THIS INFORMATION AND IT IS THE CONTRACTORS RESPONSIBILITY TO ESTABLISH THE LOCATION OF ALL EXISTING SERVICES PRIOR TO COMMENCING WORK. CLEARANCES SHALL BE OBTAINED FROM THE RELEVANT SERVICE AUTHORITIES.
3. PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL CONFIRM THE POSITION AND LEVEL OF ALL EXISTING SERVICE CONNECTION POINTS AND NOTIFY THE SUPERINTENDENT IMMEDIATELY IF A DISCREPANCY IS FOUND.
4. ALL SURVEY SET-OUT SHALL BE UNDERTAKEN BY A REGISTERED SURVEYOR.
5. ALL EXISTING AND FINISHED SURFACE LEVELS ARE TO THE AUSTRALIAN HEIGHT DATUM (AHD).
6. CARE IS TO BE TAKEN WHEN EXCAVATING NEAR EVOENERGY CABLES. NO MECHANICAL EXCAVATION IS TO BE UNDERTAKEN OVER EVOEVNERGY CABLES. HAND EXCAVATE IN THESE AREAS ONLY.
7. WHERE NEW WORK ABUTS EXISTING WORK THE CONTRACTOR SHALL ENSURE THAT A SMOOTH EVEN PROFILE, FREE FROM ABRUPT CHANGES IS OBTAINED.
8. ALL EARTHWORKS, BATTERS AND TRENCH LINES TO BE TOPSOILED WITH 100mm SITE TOPSOIL, TEMPORARY GRASSED & BITUMEN STRAW MULCHED.
9. EXISTING REFERENCE MARKS SHOWN HAVE NOT BEEN FIELD CHECKED. CO-ORDINATES AND REDUCED LEVELS TO BE CONFIRMED WITH EPD FOR ACCURACY.
10. THE CONTRACTOR SHALL NOT DISTURB ANY EXISTING BENCH MARKS WITHOUT EPD APPROVAL IN WRITING.
11. CONNECTION OF NEW STORMWATER PIPES TO EXISTING PIPES AND MANHOLES IS TO BE UNDERTAKEN BY THE CONTRACTOR.
12. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF ALL TEMPORARY SUPPORT OF EXISTING SERVICES DURING EXCAVATION OF TRENCHES TO THE SATISFACTION OF THE SERVICE OWNER/AUTHORITY.
13. WHERE SERVICES CROSS EXISTING ROADS THE PAVEMENT IS TO BE SAWCUT 300mm WIDER THAN THE REQUIRED TRENCH EXCAVATION AND THE FINISHED SURFACE REINSTATED WITH ASPHALTIC CONCRETE.
14. ALL SEWER AND STORMWATER MAINTENANCE HOLES ARE TO BE 1050DIA PRECAST OR IN SITU CONSTRUCTION WITH LIGHT DUTY COVERS (CLASS B) IN OPEN SPACES AND HEAVY DUTY COVERS (CLASS D) IN ROADWAYS UNLESS OTHERWISE SHOWN. SEWER MAINTENANCE HOLES WITH VERTICAL DROPS ARE CAST INSITU.
15. ALL STORMWATER MAINS UP TO 750DIA SHALL BE STEEL OR FIBRE REINFORCED CONCRETE PIPE RRJ WITH 100 YEAR DESIGN LIFE. PIPES GREATER THAN 750DIA SHALL BE RCP.
16. STORMWATER SERVICE TIES ARE TO BE RRJ SLOPE JUNCTIONS, UNLESS CONNECTED INTO A SWMH OR SUMP. STORMWATER TIES TO BE BRANCH END AND SEALED.
17. DESIGN LENGTHS FOR STORMWATER & SEWER PIPELINES ARE MEASURED FROM THE CENTRE OF THE MAINTENANCE HOLES AND/OR SUMP. AS CONSTRUCTED LENGTHS ARE MEASURED FROM THE INSIDE FACE OF THE MAINTENANCE HOLE/SUMP.
18. INVERT LEVELS ARE TO THE CENTRE OF MAINTENANCE HOLES & SUMPS.
19. NOMINATED MAINTENANCE HOLE/SUMP LOCATIONS REFER TO CENTRE OF MAINTENANCE HOLE/SUMP.
20. COVER LEVELS GIVEN ARE TO BE USED AS A GUIDE ONLY. ACTUAL LEVELS TO BE DETERMINED ON SITE.
21. ALL TREE PROTECTION FENCING TO BE CHAINWIRE FENCE TYPE, 1.8m HIGH AND ERECTED 2.0m-5.0m OUTSIDE THE TREE CANOPY AS AGREED WITH THE SUPERINTENDENT, UNLESS NOTED OTHERWISE.
22. CONTRACTOR TO HAVE ZINFRA IDENTIFY/MARK ALL GAS MAINS WITHIN THE VICINITY OF WORKS.
23. CONTRACTOR TO RESTORE VERGE TO EXISTING CONDITION AFTER CONSTRUCTING STORMWATER STRUCTURES/PIPES.

No.	AMENDMENT	APPROVED	DATE	AMENDED BY
1	ISSUE FOR DA APPLICATION	M.S	27.06.22	D.K.

ARCHITECT: STEWART ARCHITECTURE

CLIENT: BLOC

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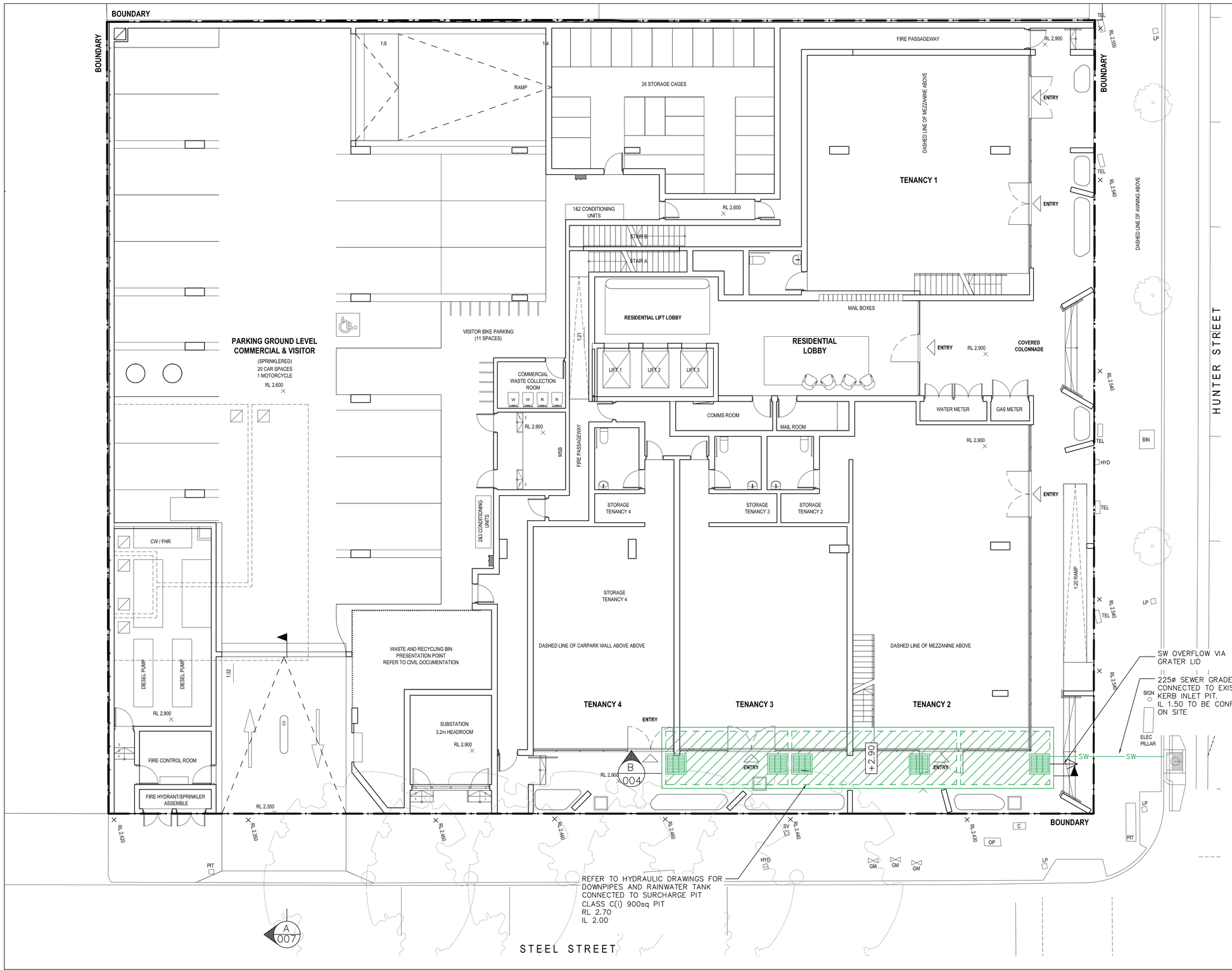
SCALE	AS SHOWN	SHEET No.	

PROJECT: WATERVUE
643-651 HUNTER STREET
NEWCASTLE

DRAWING TITLE: LEGEND ABBREVIATION AND GEN NOTES

PROJECT No.	DRAWING No.	AMDT
7330-01	002	1



LEGEND

EXISTING SERVICES

- SITE BOUNDARY
- SW — EXISTING STORMWATER
- SW — EXISTING STORMWATER TO BE REMOVED
- 558.0 — MAJOR CONTOURS
- 558.2 — MINOR CONTOURS
- TREE
- exSEW — EXISTING SEWER LINE

PROPOSED

- TREE TO BE REMOVED
- TREE PROTECTION FENCE
- CD — CATCHMENT DRAIN
- SW — STORMWATER (SUMP, GRATED PIT)
- AGG — AGG — AGI PIPE
- STORMWATER STRIP DRAIN
- HDG — HEAVY DUTY GRADE
- LDG — LIGHT DUTY GRADE
- ODP — DOWN PIPE

GROUND FLOOR STORMWATER PLAN NOTES:

1. ALL PIPES SHOWN MIN. 100ø WITH 1% FALL UNLESS OTHERWISE SPECIFIED
2. GRADE ALL PREVIOUS AREAS AWAY FROM BUILDINGS.
3. PROVIDE OVERFLOW PATHS THRU LANDSCAPING BEDS AS REQUIRED OR AS DIRECTED BY ENGINEER ON SITE.
4. GEOFABRIC MATERIAL TO BE FITTED TO ALL OUTLET PIPES FOR ALL PITS. THIS IS REQUIRED TO STOP SEDIMENT FROM EXISTING THE PROPERTY.

CLASS OF GRATE AS3996.2006		
CLASS	DESIGN LOAD	TYPICAL USER
CLASS A	10kN	PEDESTRIAN
CLASS B	80kN	LIGHT VEHICLES
CLASS C(i)	150kN	LIGHT TRUCK
CLASS C(ii)	150kN	SLOW TRUCK
CLASS D	210kN	HIGHWAY VEHICLES

MINIMUM 26K LT RAINWATER TANK REQUIRED

ON-SITE RETENTION DESIGNED TO REDUCE THE DISCHARGE OF STORM WATER AND IMPACT TO THE PUBLIC DRAINAGE SYSTEM.

STORMWATER OSD/RETENTION SYSTEM

RWT – 2.75 W X 1.50 D X 6.3 L = 26m³
RETENTION VOLUME: 11.8kL FOR IRRIGATION
1.40kL FOR COMMERCIAL USE (20 DAY DRAW DOWN)
8.7kL FOR RESIDENTIAL (LVL 4 ONLY)
RTW CAPACITY DESIGNED TO ACCOMMODATE 4 DAY PERIOD TO FILL TANK

OSD – 2.75 W X 1.2 D X 8.5 L = 28m³
TOTAL ONSITE RETENTION/DETENTION SYSTEM = 54m³

100% IMPERVIOUS
VOLUME REQUIREMENT OF 13mm
STORAGE REQUIRED = 54m³
TWL = RL 2.40
INVERT = 1.2m AHD

A1 PLOT 2000 — 0 20 40 60 80 — 40 20 — A3 PLOT 4000

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3	UPDATED OSD	M.S.	24.02.23	M.M.
2	RE-ISSUED FOR DA APPLICATION	M.S	28.09.22	M.M.
1	ISSUE FOR DA APPLICATION	M.S	27.06.22	D.K

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643-651 HUNTER STREET
NEWCASTLE

DRAWING TITLE
GROUND FLOOR STORMWATER PLAN

PROJECT No.	DRAWING No.	AMDT
7330-01	003	1

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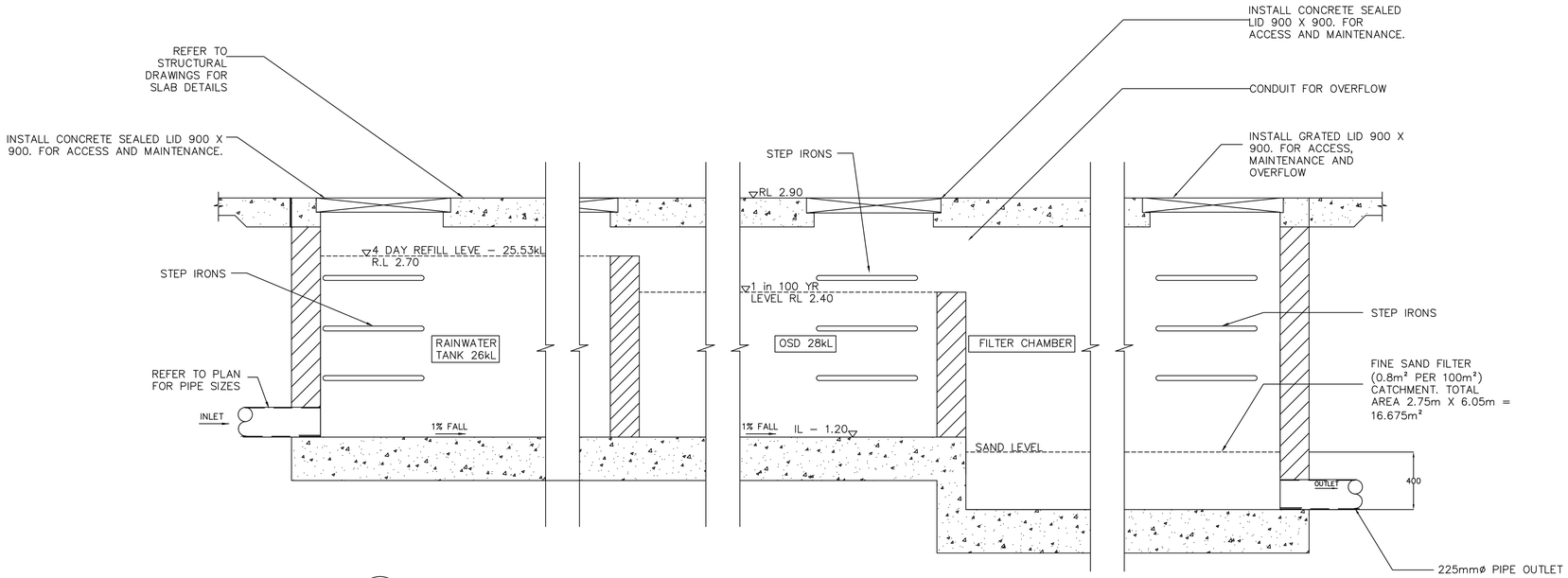
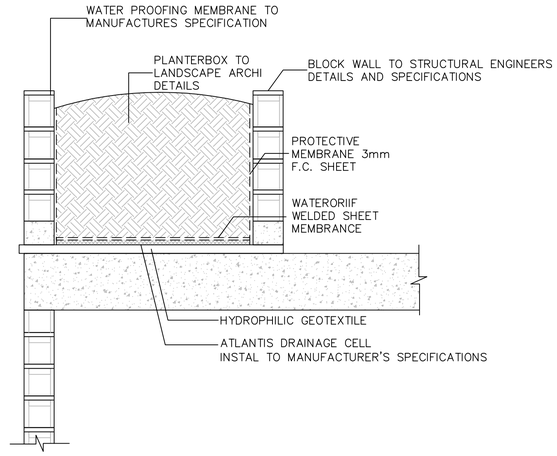


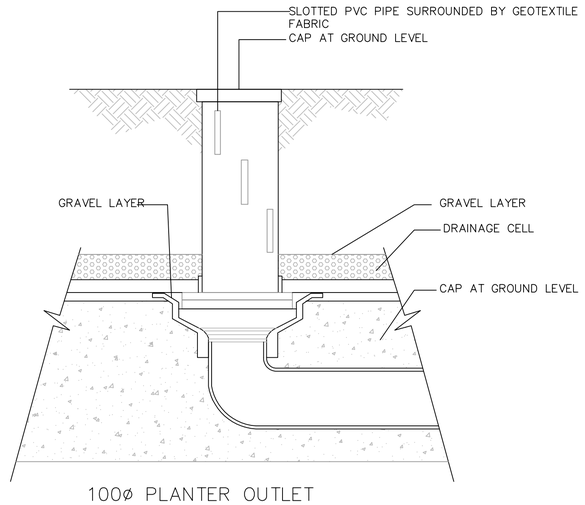
B 003 TYPICAL SECTION THROUGH STORMWATER RETENTION TANK

(NOT TO SCALE)



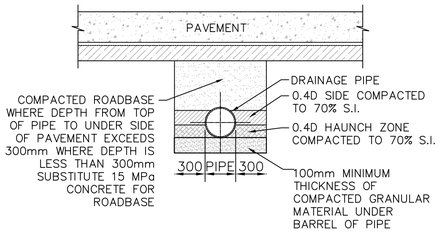
TYPICAL RAISED PLANTER BOX

(NOT TO SCALE)



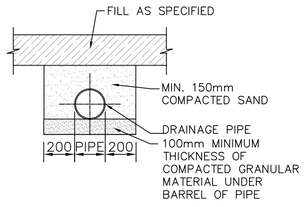
100ø PLANTER OUTLET

(NOT TO SCALE)



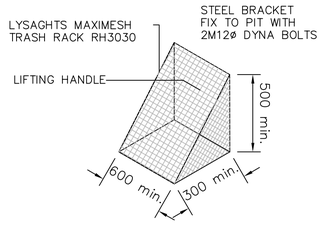
SECTION THROUGH STORMWATER DRAIN UNDER PAVEMENT

(NOT TO SCALE)



SECTION THROUGH STORMWATER DRAIN UNDER GROUND

(NOT TO SCALE)



MESH SCREEN DETAIL

(NOT TO SCALE)
GALVANISED LYSAGHT RH3030MAXI MESH SCREEN IN GALVANISED STEEL FRAME WITH LIFTING HANDLES

A1 PLOT 2000 — 0 20 40 60 80 — A3 PLOT 4000 — 40 20

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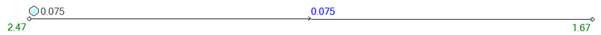
WATERVUE
643-651 HUNTER STREET
NEWCASTLE

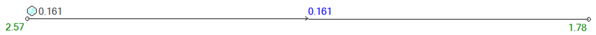
DRAWING TITLE
STORMWATER DETAILS

PROJECT No.	DRAWING No.	AMDT
7330-01	004	1



1 IN 5 YEAR PRE CONSTRUCTION CONDITIONS

1 IN 5 YEAR POST CONSTRUCTION CONDITIONS



1 IN 100 YEAR PRE CONSTRUCTION CONDITIONS

1 IN 100 YEAR POST CONSTRUCTION CONDITIONS

PRE CONSTRUCTION SITE CONTRIBUTIONS

AREA = 2078m²
IMPERVIOUS AREA = 100%
PERVIOUS AREA = 0%

POST CONSTRUCTION SITE CONTRIBUTIONS

AREA = 2078m²
IMPERVIOUS AREA = 100%
PERVIOUS AREA = 0%
ONSITE RETENTION = 56kL

TANK DESIGNED TO REDUCE THE DISCHARGE RATE TO LESS THAN 7.2/s/100m2. HARVESTED RAINWATER PROPOSED FOR RE-USE CALCULATED TO SATISFY NEWCASTLE MUSLIC-link PARAMETERS. THE DAILY EXPECTED DRAWDOWN OF WATER TO FOUR (4) 1-2 BED APARTMENTS AND TWO (2) 3 BED APARTMENTS LOCATED ON LEVEL 4, IN ACCORDANCE WITH TABLE 4.1, VOLUME THAT CAN BE DISPOSED THROUGH CONNECTED USES, IS PROJECTED TO BE 2.175 kL/day. DESIGN AND ANALYSIS HAS CONSIDERED A MINIMUM 25.53kL TO BE MAINTAINED TO SATISFY DRAWDOWN REQUIREMENTS FOR RE-USE. RESIDENTIAL USE TO BE CONNECTED TO THE TANK VIA SEPARATE RETICULATION SYSTEM TO MAINS. REMAINING VOLUME OF TANK (28m³) TO BE USED AS ON SITE DETENTION.

RESIDENTIAL

APARTMENT	1-2 BED	3 BED
REUSE	TOILET + LAUNDRY (25%)	TOILET + LAUNDRY (25%)
VOLUME	4 APARTMENTS	2 APARTMENTS
4 DAY RE-USE VOL.*	5.50kL	3.20kL

COMMERCIAL – 0.1kL/DAY/1000m²

TOTAL FLOOR AREA	692m²
20 DAY REUSE	0.1x20x.6929 = 1.4kL
4 DAY REFILL VOL.**	25.53kL

IRRIGATION – TOTAL AREA x 10L / DURATION

TOTAL GARDEN AREA	294m²
TOTAL VOLUME***	(294 x 10)/1 = 2940L
4 TIMES A WEEK	11.8kL

* +10% OF 4 DAY RE-USE TO ALLOW FOR PEAK DEMAND DURING TOP UP
** REFILL = (MEAN ANNUAL RAINFALL/365) x TOTAL SITE AREA x 4
*** DURATION ASSUMED TO BE ONE HOUR

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3	UPDATED CALCULATIONS	M.S	24.02.23	M.M.
2	RE-ISSUE FOR DA	M.S	28.09.22	M.M.
1	ISSUE FOR DA APPLICATION	M.S	27.06.22	D.K.

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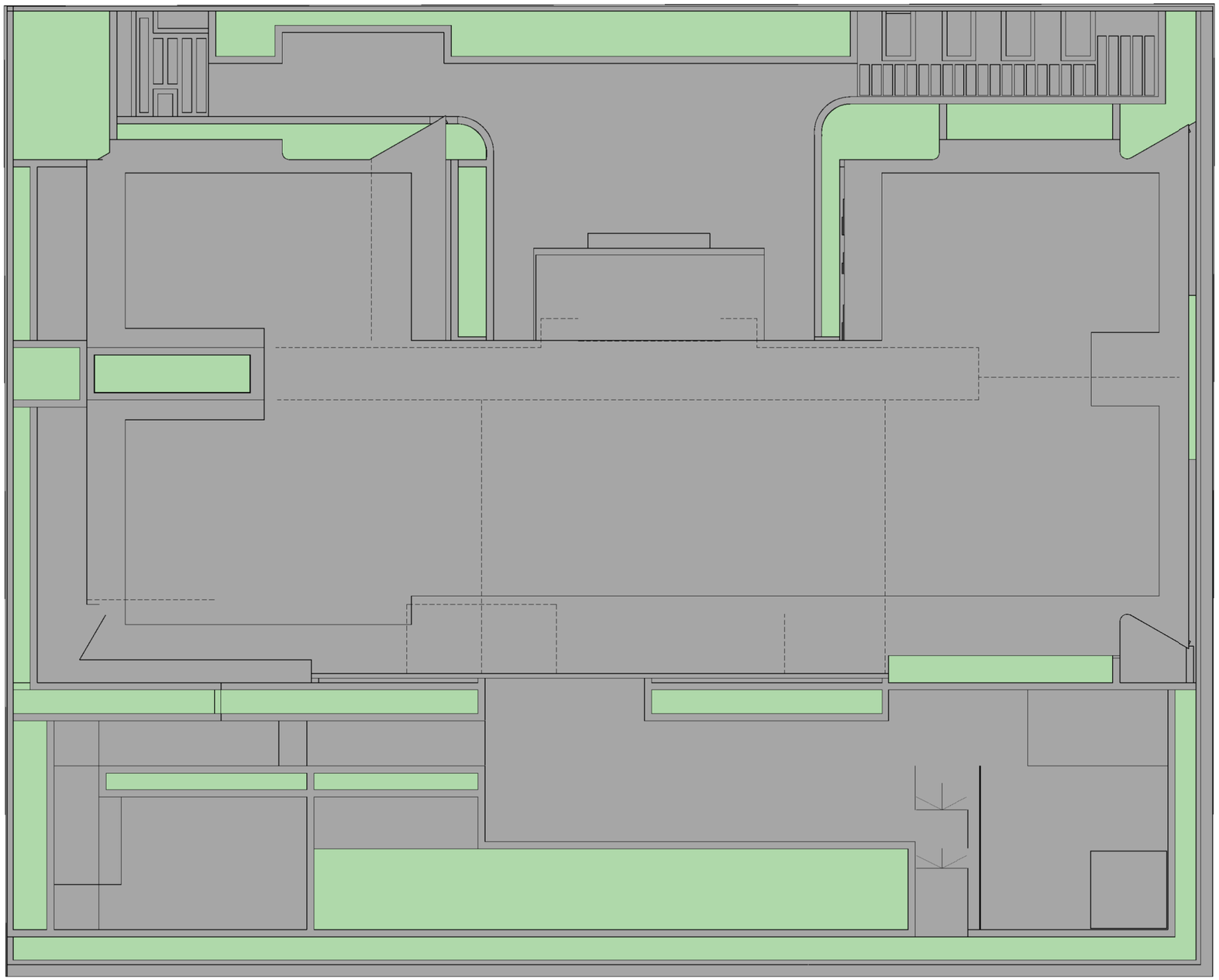
PROJECT
WATERVUE
643-651 HUNTER STREET
NEWCASTLE

DRAWING TITLE
SITE CALCULATIONS

PROJECT No.	DRAWING No.	AMDT
7330-01	005	2



SITE				
643–651 HUNTER STREET, NEWCASTLE				
SITE	AREA (m^2)	AREA (%)	mm/m	STORAGE REQ (m^3).
TOTAL	2078.25	100	N/A	48
GREEN SPACE	371.1	17.86	12mm	5
IMPERVIOUS	1707.15	82.14	25mm	43

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PROJECT

WATERVUE

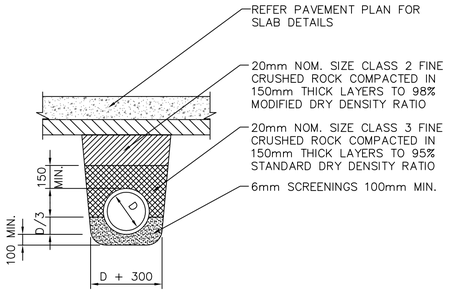
643-651 HUNTER STREET

NEWCASTLE

DRAWING TITLE

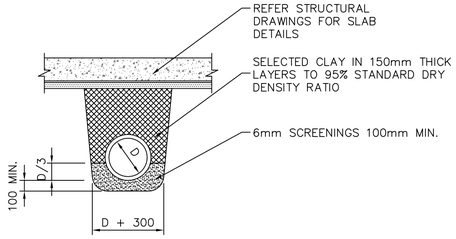
SITE PERMEABILITY CALCULATIONS

PROJECT No.	DRAWING No.	AMDT
7330-01	006	1



PIPE BEDDING – UNDER CONCRETE PAVEMENTS

NOT TO SCALE



PIPE BEDDING – UNDER FLOOR SLAB

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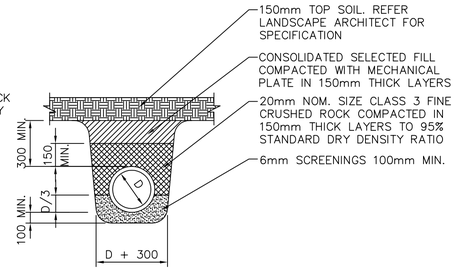
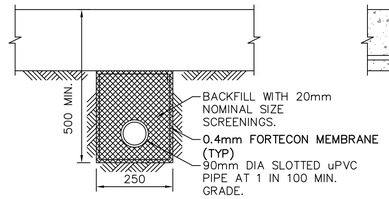


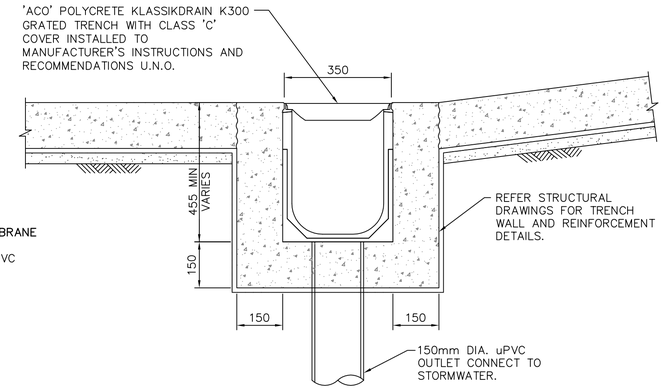
PIPE BEDDING – IN LANDSCAPING

NOT TO SCALE



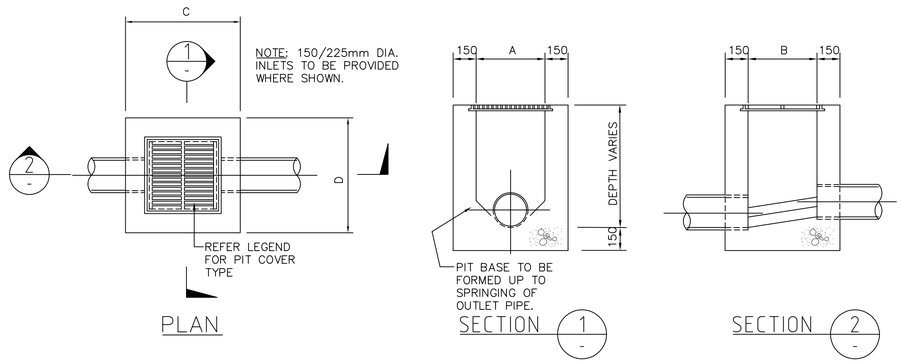
AGRICULTURAL DRAIN (AG) DETAIL

NOT TO SCALE



GRATED TRENCH DETAIL

GRATE HEAVY–DUTY – CLASS 'C'
UNLESS NOTED OTHERWISE
NOT TO SCALE



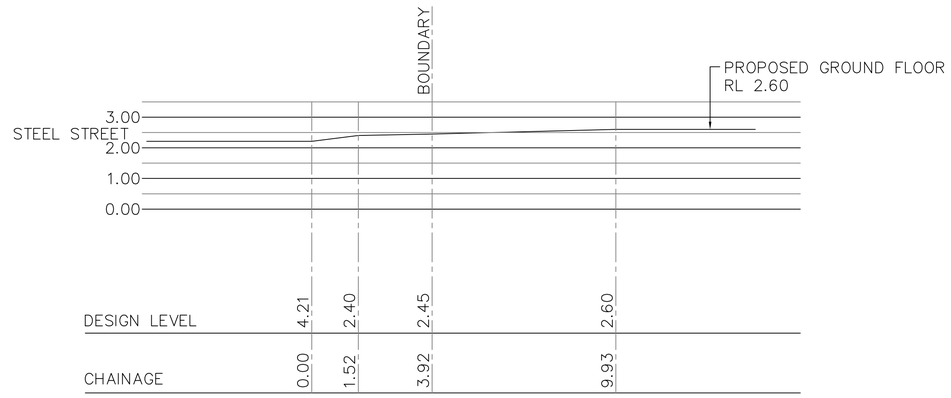
PLAN

SECTION 1 / -

SECTION 2 / -

GRATED AND JUNCTION PIT DETAIL

NOT TO SCALE



DRIVEWAY LONG SECTION

SCALE 1:100 @ A1

NOTES:

1. ALL PITS IN VEHICLE PAVEMENT AREAS SHALL BE CLASS 'C' GATIC CAST IRON GRATE OR COVER OR EQUAL APPROVED TYPE UNLESS NOTED OTHERWISE.
2. ALL GRATED PITS IN FOOTPATH AND PEDESTRIAN PAVEMENTS SHALL BE APPROVED TYPE HEEL GUARD DDA COMPLIANT GRATES.
3. INSTALL HOT–DIPPED GALVANISED STEEL STEP IRONS AT 300 mm INTERVAL IN ALL PITS OF 900x900 IN EXCESS OF 1.0 METRE DEPTH.
4. ALL MILD STEEL GRATES AND FRAMES SHALL BE HOT–DIPPED GALVANISED IN ACCORDANCE WITH AS1650–1981.
5. TOP OF PITS SHALL MATCH SLOPE AND LEVEL OF ADJOINING FINISHED SURFACE LEVELS.
6. CONCRETE F'c = 40 MPa SULPHATE RESISTANT CEMENT QUARRY MIXED WITH XYPEX. OR APPROVED TYPE PRECAST PITS WITH 2% CEMENT STABILISED SAND BACK FILLING.

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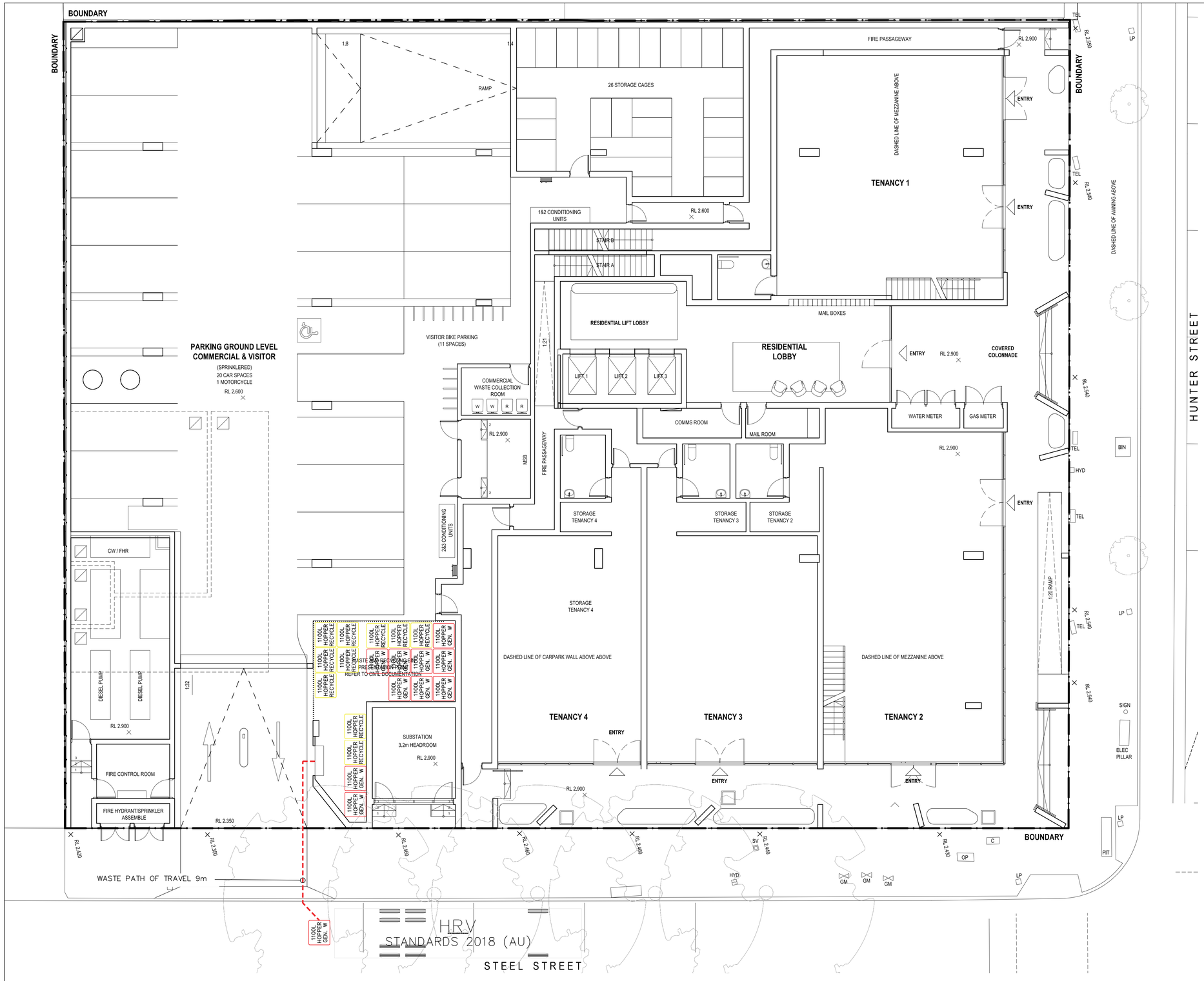
PROJECT

WATERVUE
643-651 HUNTER STREET
NEWCASTLE

DRAWING TITLE

DETAILS

PROJECT No.	DRAWING No.	AMDT
7330-01	007	1



WASTE MANAGEMENT PLAN

LEGEND

- 1100L HOPPER GEN. W — DENOTES GENERAL WASTE HOPPER
- 1100L HOPPER RECYCLE — DENOTES RECYCLING HOPPER
- 1100L HOPPER FOGO — DENOTES FOGO WASTE HOPPER
- DENOTES PATH OF TRAVEL

GENERAL WASTE PER WEEK

RESIDENTIAL

APARTMENT SIZE	Est. Lts/WEEK	No. OF UNITS	TOTAL SITE
1 BED	80	29	2320
2 BED	100	45	4500
3+ BED	120	32	3840
TOTAL		106	10660
NUMBER 660lts			0
NUMBER 1100lts			10

CO–MINGLED RECYCLING PER WEEK

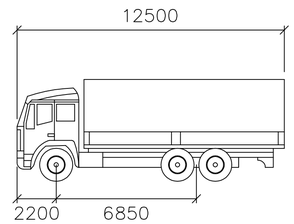
RESIDENTIAL

APARTMENT SIZE	Est. Lts/WEEK	No. OF UNITS	TOTAL SITE
1 BED	80	29	2320
2 BED	100	45	4500
3+ BED	120	32	3840
TOTAL		106	10660
NUMBER 660lts			0
NUMBER 1100lts			10

COMMERCIAL WASTE REQUIREMENTS

OFFICE

UNIT	FLOOR AREA (m^2)	WASTE/UNIT(m^2)/ DAY (LITRES) 10L/100m^2/DAY	TOTAL WASTE (LITRES) MON–FRI	BIN SIZE	NO. OF COLLECTIONS PER WEEK	WEEKLY CAPACITY (LITRES)
TENANCY 1	182.7	18.27	91.35	2 x 240	1	480L
TENANCY 2	264.2	26.42	132.1			
TENANCY 3	149.1	14.91	74.55			
TENANCY 4	125	12.5	62.5			
TOTAL	721	72.1	360.5			



HRV

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Width	: 2500
Track	: 2500
Lock to Lock Time	: 6.0
Steering Angle	: 36.7

A1 PLOT 0 20 40 60 80 A3 PLOT
2000 40 20 4000

No.	AMENDMENT	APPROVED	DATE	AMENDED BY
2	RE–ISSUED FOR DA APPLICATION	M.S	27.09.22	M.M.
1	ISSUE FOR DA APPLICATION	M.S	27.06.22	D.K

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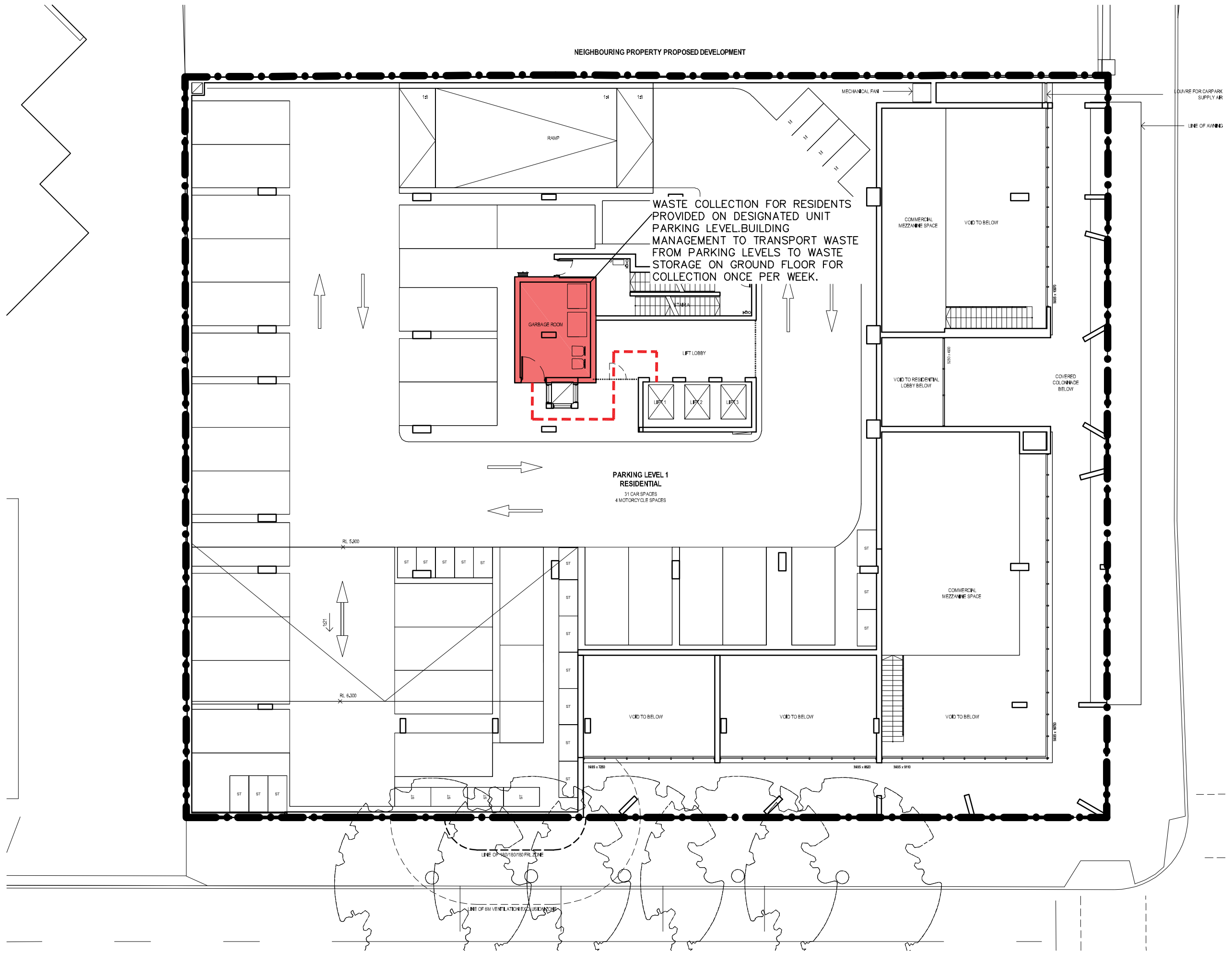
APPROVED	M.S	DATE
CHECKED	M.S	DATE
DESIGNED BY	D.K	
DRAWN BY	D.K	
CAD FILE	H:\7330 643–651 Hunter Street Newcastle\Acad\Current Drawings\Civil\7330–01–020 WASTE MANAGEMENT PLAN.dwg	
SCALE	AS SHOWN	SHEET No.

PROJECT
WATERVUE
643-651 HUNTER STREET
NEWCASTLE

DRAWING TITLE
WASTE MANAGEMENT PLAN

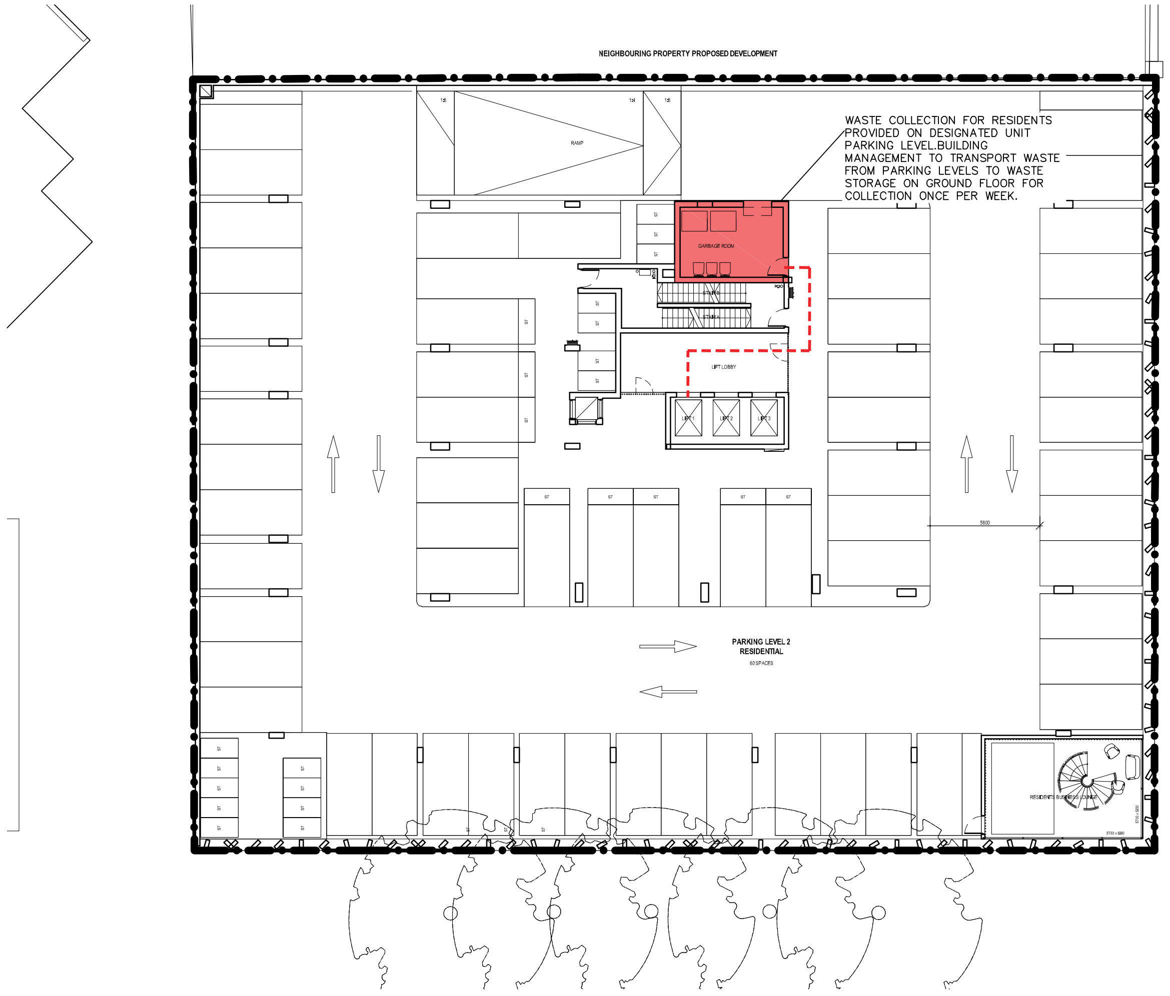
PROJECT No.	DRAWING No.	AMDT
7330-01	020	2



WASTE COLLECTION FOR RESIDENTS PROVIDED ON DESIGNATED UNIT PARKING LEVEL.BUILDING MANAGEMENT TO TRANSPORT WASTE FROM PARKING LEVELS TO WASTE STORAGE ON GROUND FLOOR FOR COLLECTION ONCE PER WEEK.

LEVEL 1 GARBAGE ROOM LOCATION

SCALE 1:200 AT A1



WASTE COLLECTION FOR RESIDENTS PROVIDED ON DESIGNATED UNIT PARKING LEVEL.BUILDING MANAGEMENT TO TRANSPORT WASTE FROM PARKING LEVELS TO WASTE STORAGE ON GROUND FLOOR FOR COLLECTION ONCE PER WEEK.

LEVEL 2 GARBAGE ROOM LOCATION

SCALE 1:200 AT A1

WASTE MANAGEMENT PLAN

LEGEND

240L GEN. W	DENOTES GENERAL WASTE HOPPER
240L RECYCLE	DENOTES RECYCLING HOPPER
240L HOPPER FOGO	DENOTES FOGO WASTE HOPPER
- - - -	DENOTES PATH OF TRAVEL
🟥	DENOTES GARBAGE ROOM

A1 PLOT 2000 40 20 0 20 40 60 80 4000 A3 PLOT

No.	AMENDMENT	APPROVED	DATE	AMENDED BY
1	ISSUE FOR DA APPLICATION	M.S	29.09.22	M.M

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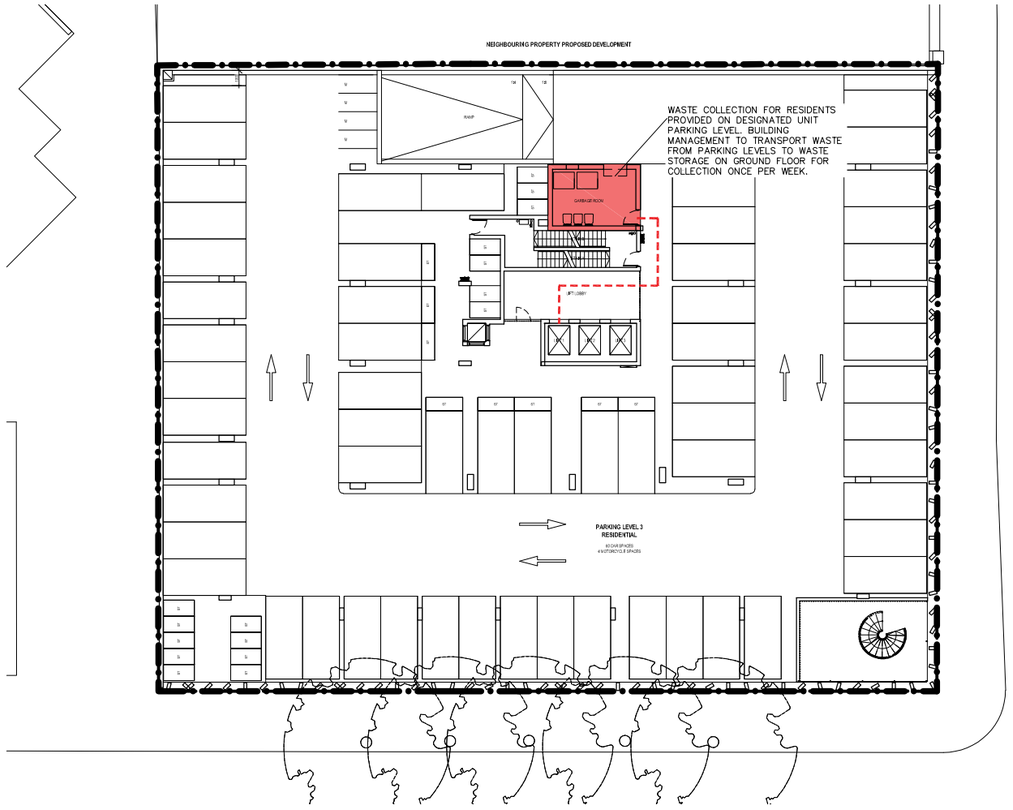
APPROVED M.S DATE
CHECKED M.S DATE
DESIGNED BY D.K
DRAWN BY D.K
CAD FILE H:\7330 643-651 Hunter Street Newcastle\Acad\Current Drawings\Civil\7330-01-031 LEVEL 1 WASTE STORAGE.dwg
SCALE AS SHOWN
SHEET No.

PROJECT
WATERVUE
643-651 HUNTER STREET
NEWCASTLE

DRAWING TITLE
LEVEL 1 & 2
GARBAGE AND BIN STORAGE

PROJECT No. 7330-01
DRAWING No. 021
AMDT 1



LEVEL 3 GARBAGE ROOM LOCATION

SCALE 1:200 AT A1

WASTE MANAGEMENT PLAN

LEGEND

- 240L GEN. W — DENOTES GENERAL WASTE HOPPER
- 240L RECYCLE — DENOTES RECYCLING HOPPER
- 240L HOPPER FOGO — DENOTES FOGO WASTE HOPPER
- DENOTES PATH OF TRAVEL
- DENOTES GARBAGE ROOM

A1 PLOT 2000 — 0 20 40 60 80 — 40 20 — A3 PLOT 4000

No.	AMENDMENT	APPROVED	DATE	AMENDED BY
1	ISSUE FOR DA APPLICATION	M.S	29.09.22	M.M.

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CHECKED	M.S	DATE
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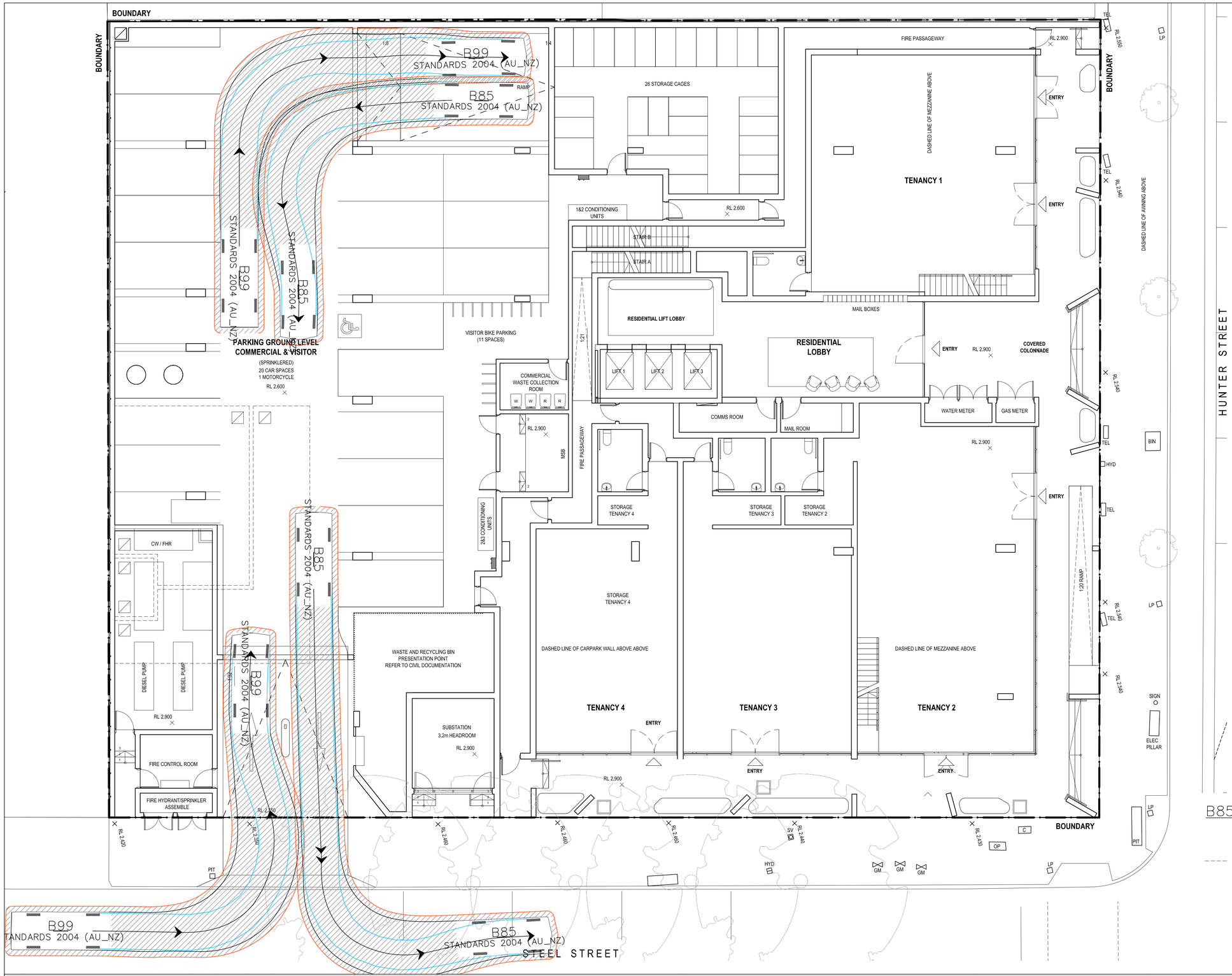
DRAWN BY	D.K	
CAD FILE	H:\7330 643-651 Hunter Street Newcastle\Acad\Current Drawings\DA\7330-01-033 LEVEL 3 WASTE STORAGE.dwg	
SCALE	AS SHOWN	SHEET No.

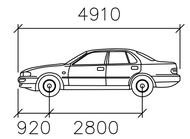
PROJECT: WATERVUE
643-651 HUNTER STREET
NEWCASTLE

DRAWING TITLE: LEVEL 3
GARBAGE AND BIN STORAGE

PROJECT No.	DRAWING No.	AMDT
7330-01	022	1



LEGEND



B85

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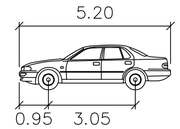
Steering Angle	: 34.1



B99

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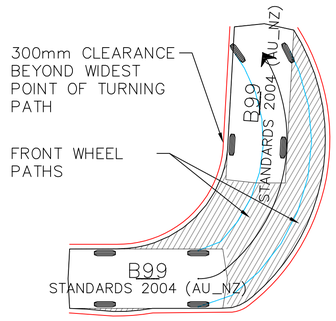

TURNING TEMPLATES B85 TURNS

B85 PASSING B99, B85 ENTERING AND EXITING

SCALE 1:100 AT A1

A1 PLOT 2000 40 20 0 20 40 60 80 4000 A3 PLOT

No.	AMENDMENT	APPROVED	DATE	AMENDED BY
1	ISSUE FOR DA APPLICATION	M.S	27.06.22	D.K

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DRAWN BY	D.K	
CAD FILE	H:\7330 643-651 Hunter Street Newcastle\Acad\Current Drawings\Civil\7330-01-030 GROUND FLOOR SWEPT PATH.dwg	
SCALE	AS SHOWN	SHEET No.

PROJECT

WATERVUE

643-651 HUNTER STREET

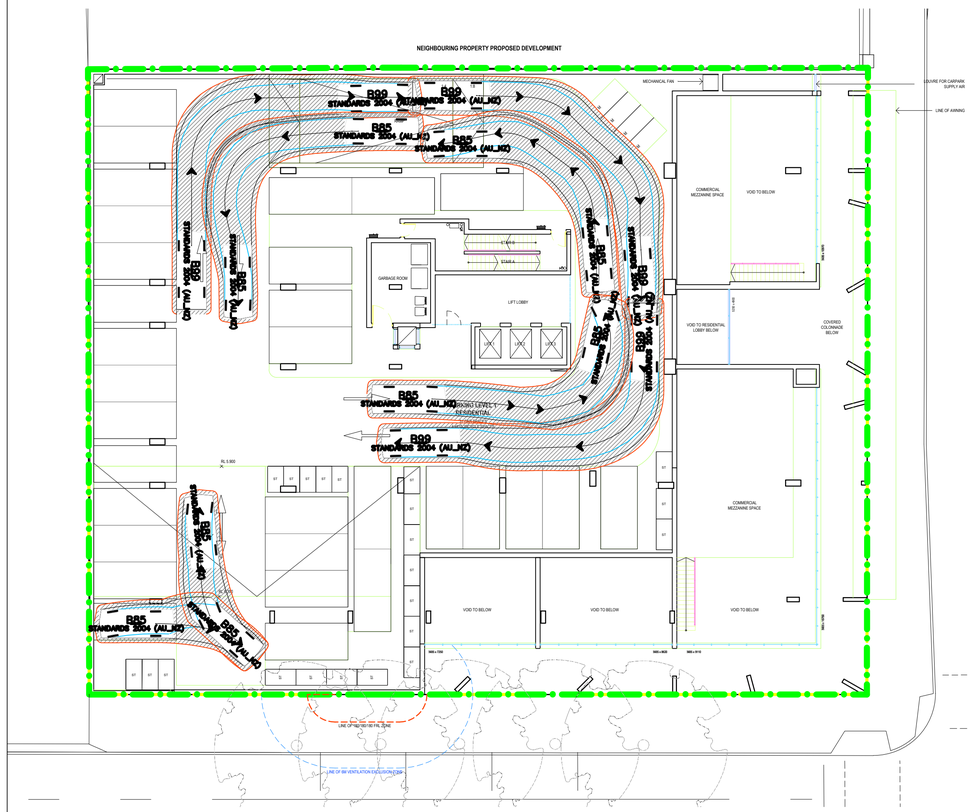
NEWCASTLE

DRAWING TITLE

GROUND FLOOR

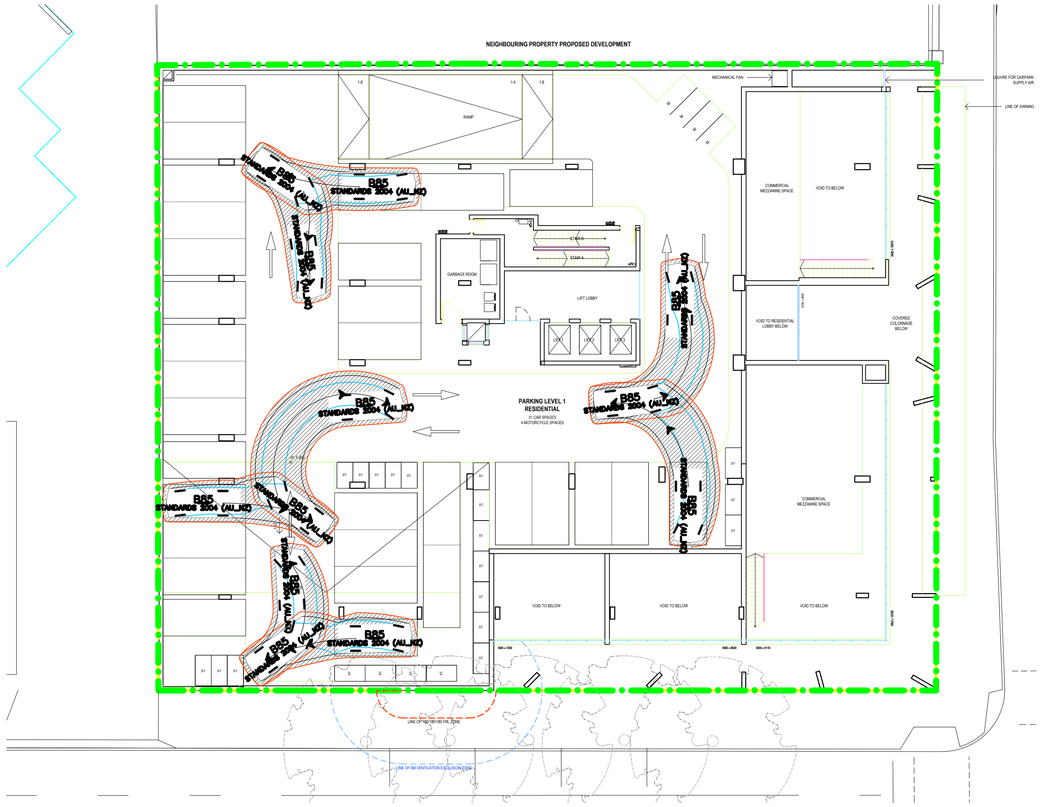
SWEPT PATH ANALYSIS

PROJECT No.	DRAWING No.	AMDT
7330-01	030	1



B85 PASSING B99

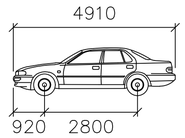
SCALE 1:200 AT A1



B85 ENTERING AND EXITING SPACES

SCALE 1:200 AT A1

LEGEND



B85

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Width	: 1870
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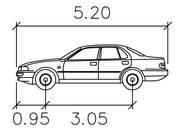
Lock to Lock Time	: 6.0
Steering Angle	: 34.1



B99

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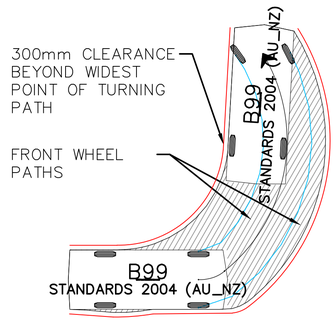

TURNING TEMPLATES B85 TURNS

A1 PLOT 2000 0 20 40 60 80 40 20 A3 PLOT 4000

No.	AMENDMENT	APPROVED	DATE	AMENDED BY
1	ISSUE FOR DA APPLICATION	M.S	27.06.22	D.K

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DRAWN BY	D.K	
CAD FILE	H:\7330 643-651 Hunter Street Newcastle\Acad\Current Drawings\Civil\7330-01-031 LEVEL 1 SWEPT PATH.dwg	
SCALE	AS SHOWN	SHEET No.

PROJECT

WATERVUE

643-651 HUNTER STREET

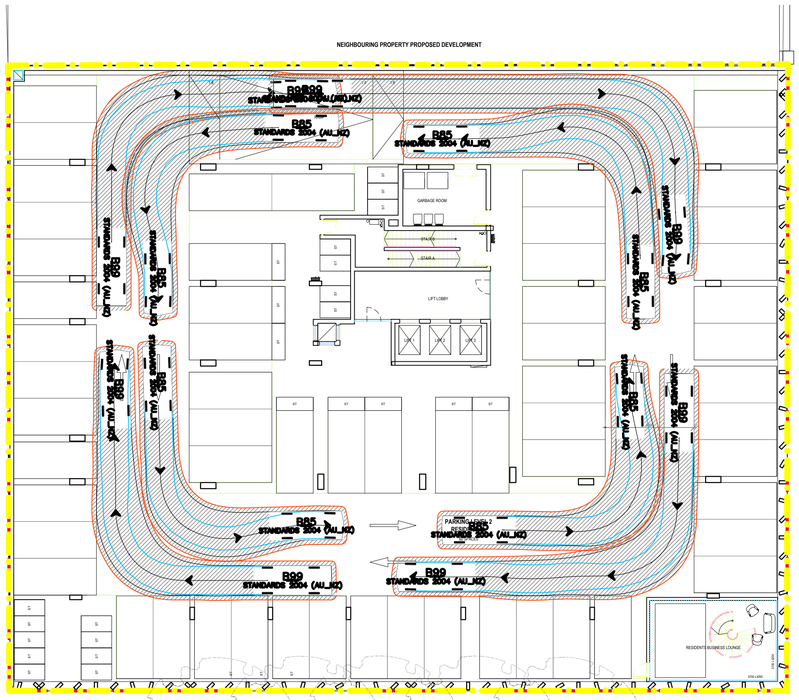
NEWCASTLE

DRAWING TITLE

LEVEL 1

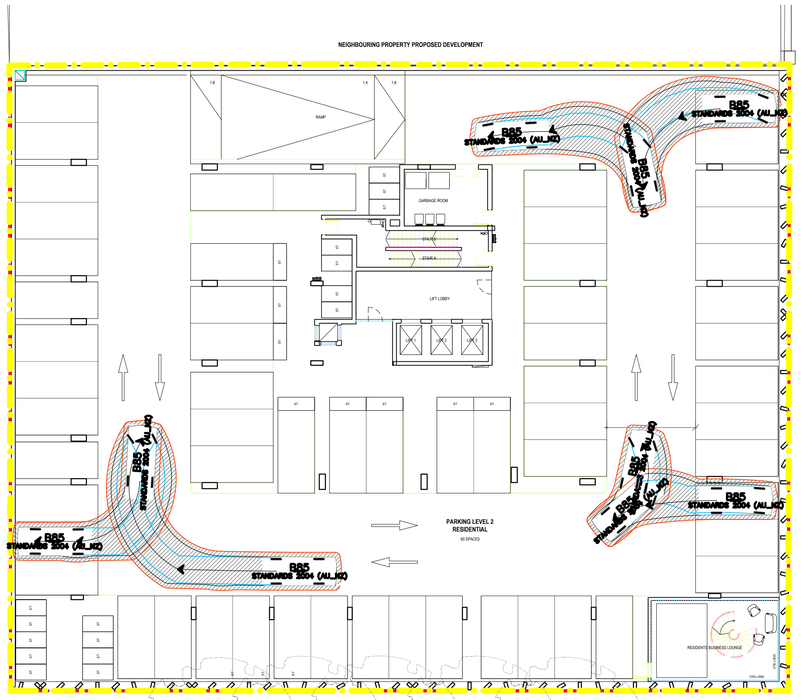
SWEPT PATH ANALYSIS

PROJECT No.	DRAWING No.	AMDT
7330-01	031	1



B85 PASSING B99

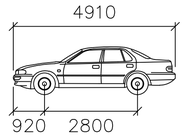
SCALE 1:200 AT A1



B85 ENTERING AND EXITING SPACES

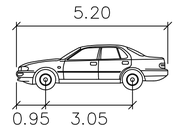
SCALE 1:200 AT A1

LEGEND



B85

	mm
Width	: 1870
Track	: 1770
Lock to Lock Time	: 6.0
Steering Angle	: 34.1



B99

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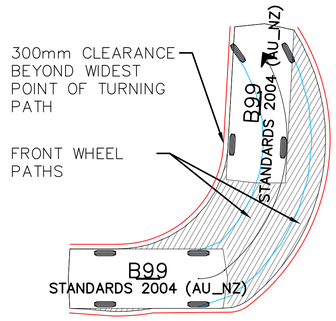

TURNING TEMPLATES B85 TURNS

A1 PLOT 2000 40 20 0 20 40 60 80 4000 A3 PLOT

No.	AMENDMENT	APPROVED	DATE	AMENDED BY
1	ISSUE FOR DA APPLICATION	M.S	27.06.22	D.K

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DRAWN BY	D.K	
CAD FILE	H:\7330 643-651 Hunter Street Newcastle\Acad\Current Drawings\Civil\7330-01-032 LEVEL 2 SWEPT PATH.dwg	
SCALE	AS SHOWN	SHEET No.

PROJECT

WATERVUE

643-651 HUNTER STREET

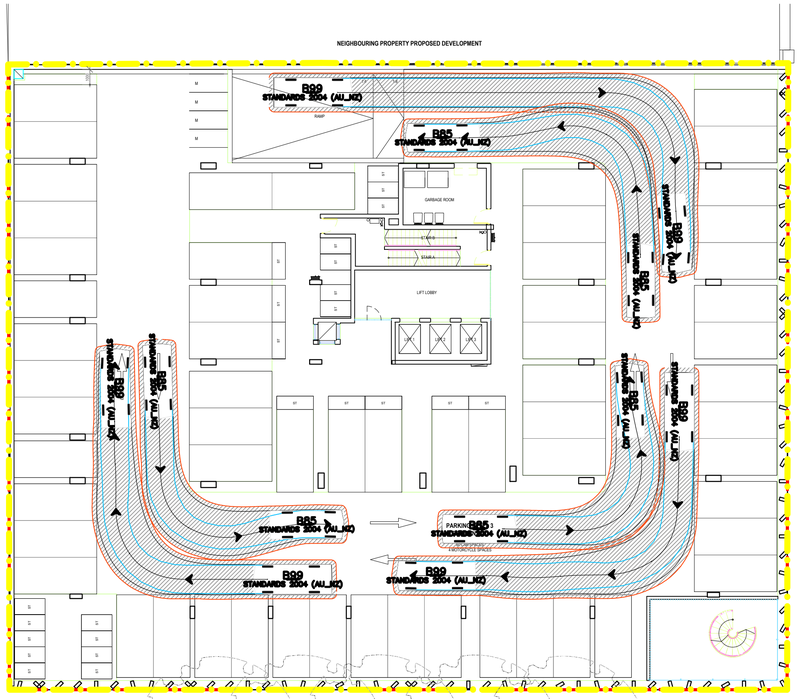
NEWCASTLE

DRAWING TITLE

LEVEL 2

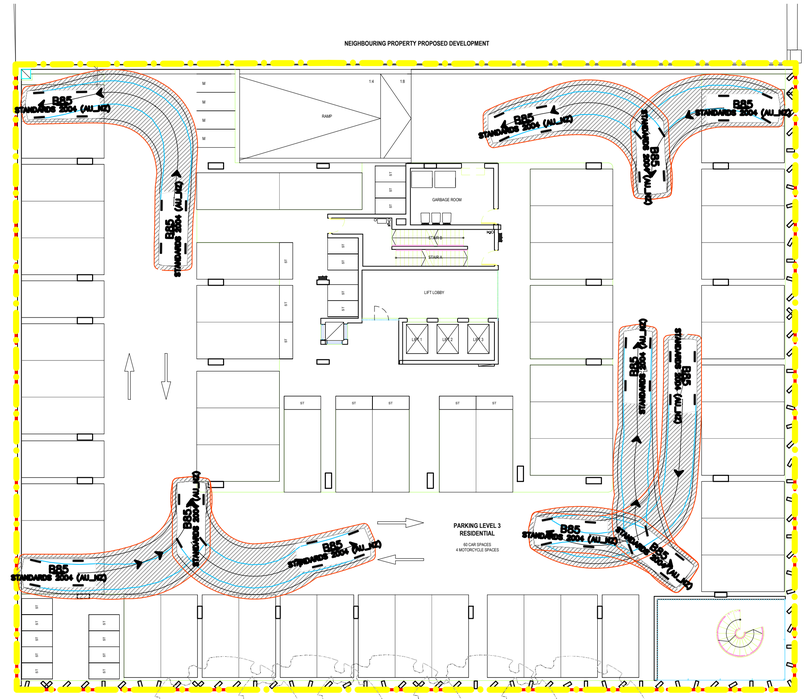
SWEPT PATH ANALYSIS

PROJECT No.	DRAWING No.	AMDT
7330-01	032	1



B85 PASSING B99

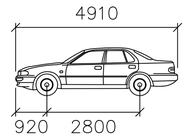
SCALE 1:200 AT A1



B85 ENTERING AND EXITING SPACES

SCALE 1:200 AT A1

LEGEND



B85

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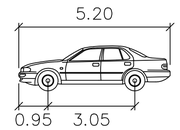
Steering Angle	: 34.1



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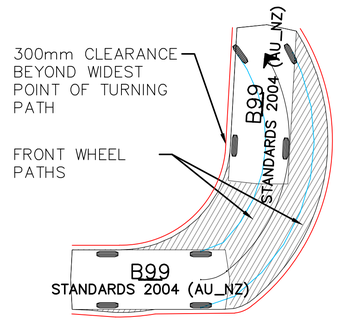

TURNING TEMPLATES B85 TURNS

A1 PLOT 2000 40 20 0 20 40 60 80 4000 A3 PLOT

No.	AMENDMENT	APPROVED	DATE	AMENDED BY
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DRAWN BY	D.K	
CAD FILE	H:\7330 643-651 Hunter Street Newcastle\Acad\Current Drawings\Civil\7330-01-033 LEVEL 3 SWEPT PATH.dwg	
SCALE	AS SHOWN	SHEET No.

PROJECT

WATERVUE

643-651 HUNTER STREET

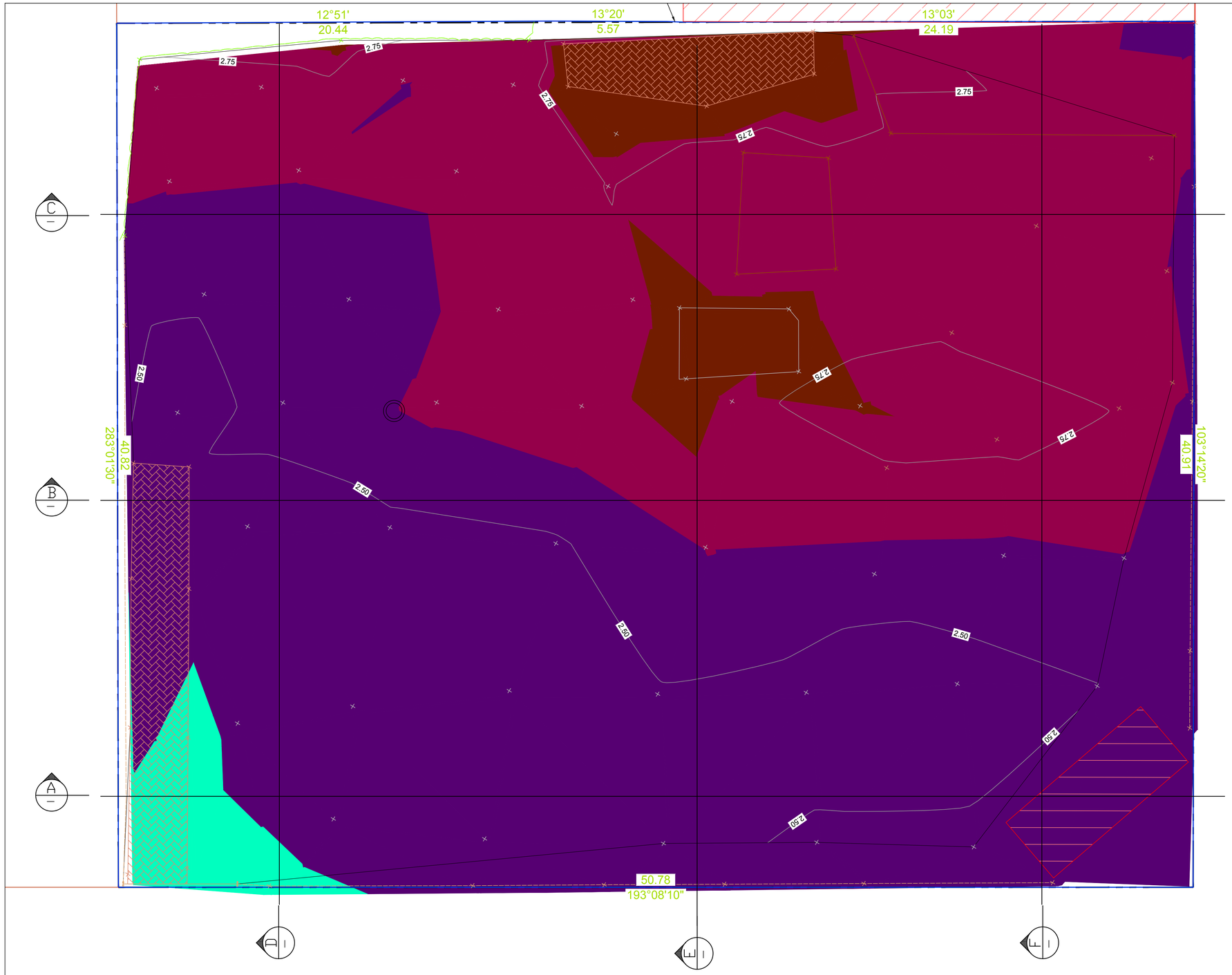
NEWCASTLE

DRAWING TITLE

LEVEL 3

SWEPT PATH ANALYSIS

PROJECT No.	DRAWING No.	AMDT
7330-01	033	1



PRE–DEVELOPMENT PMF STORAGE

FILL DEPTHS Lower_value		Upper_value	Colour
0	to	0.2	
-0.2	to	0	
-0.4	to	-0.2	
-0.6	to	-0.4	
-0.8	to	-0.6	
-1	to	-0.8	
-1.2	to	-1	
-1.4	to	-1.2	
-1.6	to	-1.4	
-1.8	to	-1.6	
-2	to	-1.8	

SITE PMF VOLUME CALCULATION

EXISTING SITE VOLUME = 3220m³ – PMF RL 4.2AHD

A1 PLOT 2000 40 20 0 20 40 60 80 4000 A3 PLOT

No.	AMENDMENT	APPROVED	DATE	AMENDED BY
1	ISSUE FOR DA APPLICATION	M.S	27.06.22	D.K

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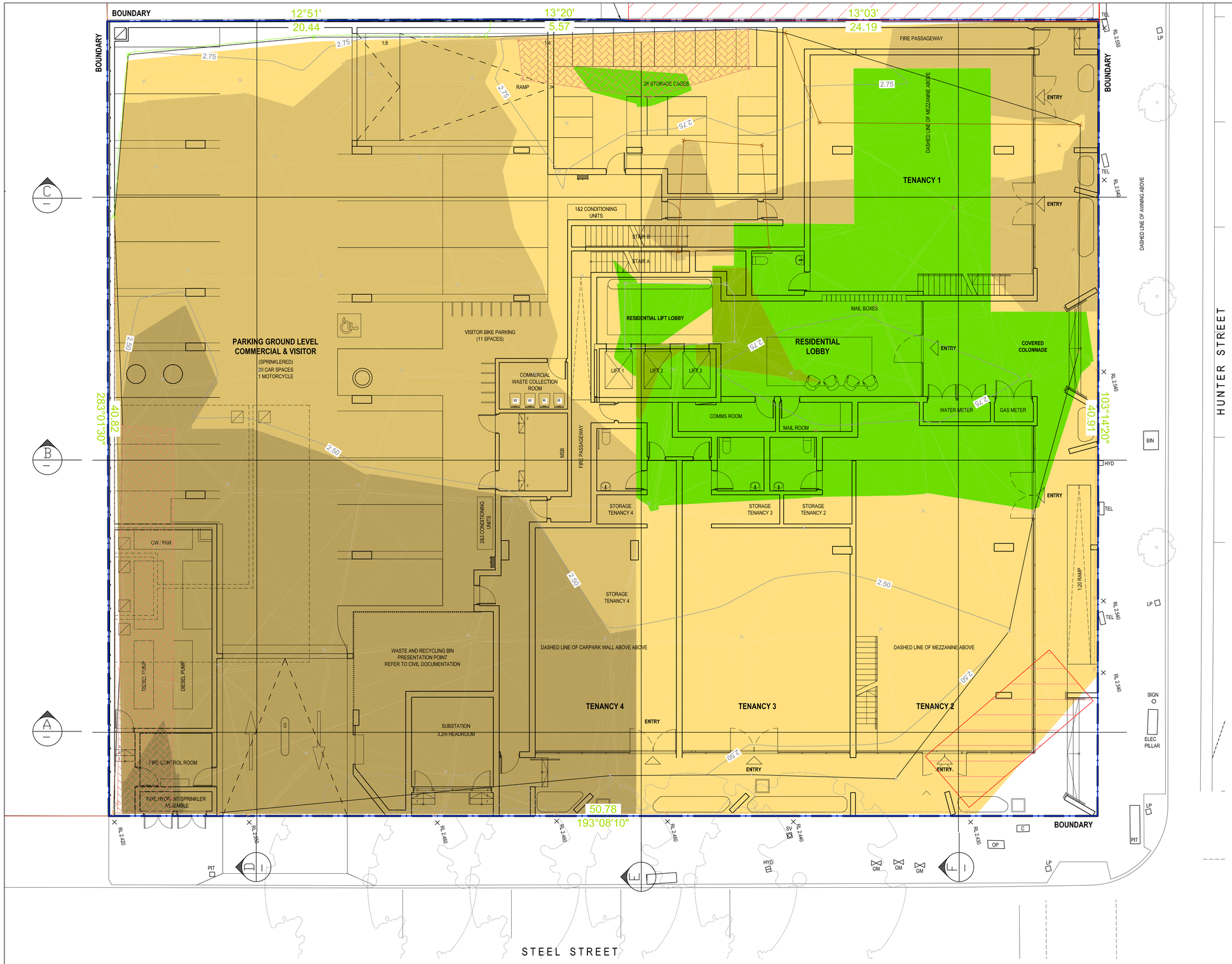
DESIGNED BY	D.K	
DRAWN BY	D.K	
CAD FILE	H:\7330 643-651 Hunter Street Newcastle\Acad\Current Drawings\Civil\7330-01-040 PRE CONSTRUCTION PMF STORAGE.dwg	
SCALE	AS SHOWN	SHEET No.

PROJECT
WATERVUE
643-651 HUNTER STREET
NEWCASTLE

DRAWING TITLE
PRE-DEVELOPMENT
PMF STORAGE DEPTHS

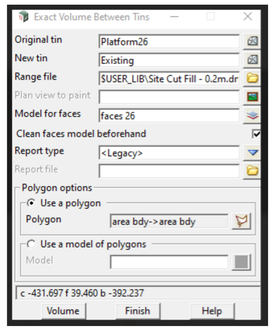
PROJECT No.	DRAWING No.	AMDT
7330-01	040	1



POST–DEVELOPMENT PMF STORAGE

FILL DEPTHS

Lower_value		Upper_value	Colour
0	to	0.2	
-0.2	to	0	
-0.4	to	-0.2	
-0.6	to	-0.4	
-0.8	to	-0.6	
-1	to	-0.8	
-1.2	to	-1	
-1.4	to	-1.2	
-1.6	to	-1.4	
-1.8	to	-1.6	
-2	to	-1.8	



SITE PMF VOLUME CALCULATION

EXISTING SITE VOLUME = 3220m³ – PMF RL 4.2AHD
ALLOWABLE SITE REDUCTION (PROPOSED DEVELOPMENT) = 20%
ALLOWABLE DEVELOPMENT FILL VOLUME = 644m³
PROPOSED DEVELOPMENT FILL VOLUME = 431.7m³

A1 PLOT 2000 — 0 20 40 60 80 — 4000 A3 PLOT
40 20

No.	AMENDMENT	APPROVED	DATE	AMENDED BY
1	ISSUE FOR DA APPLICATION	M.S	27.06.22	D.K

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APPROVED	M.S	DATE
CHECKED	M.S	DATE
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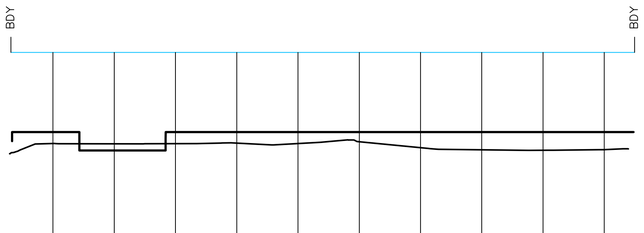
DRAWN BY	D.K	
CAD FILE	H:\7330 643-651 Hunter Street Newcastle\Acad\Current Drawings\Civil\7330-01-041 POST CONSTRUCTION PMF STORAGE.dwg	
SCALE	AS SHOWN	SHEET No.

PROJECT
WATERVUE
643-651 HUNTER STREET
NEWCASTLE

DRAWING TITLE
POST-DEVELOPMENT
PMF STORAGE DEPTHS

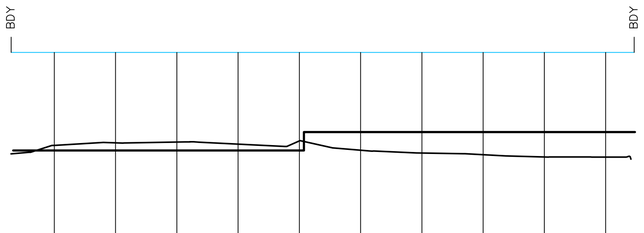
PROJECT No.	DRAWING No.	AMDT
7330-01	041	1



DATUM RL.1.000

PRE DEVELOP LEVEL (EXIST)		2.712	2.708	2.711	2.719	2.712	2.742	2.645	2.611	2.602	2.613	
4.2m AHD LEVEL		4.200	4.200	4.200	4.200	4.200	4.200	4.200	4.200	4.200	4.200	
POST DEVELOP LEVEL		2.900	2.600	2.900	2.900	2.900	2.900	2.900	2.900	2.900	2.900	
PEGGED CHAINAGE	0.000	5.000	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000	53.112

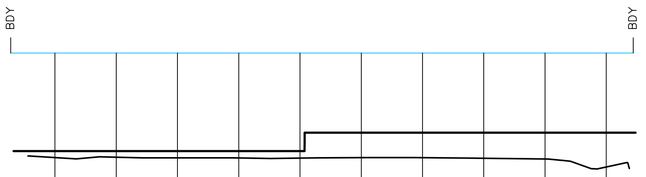
H 1:250
V 1:50 LONGITUDINAL SECTION - SECTION A-A



DATUM RL.1.000

PRE DEVELOP LEVEL (EXIST)		2.682	2.724	2.736	2.702	2.756	2.604	2.557	2.530	2.494	2.492	
4.2m AHD LEVEL		4.200	4.200	4.200	4.200	4.200	4.200	4.200	4.200	4.200	4.200	
POST DEVELOP LEVEL		2.600	2.600	2.600	2.600	2.600	2.900	2.900	2.900	2.900	2.900	
PEGGED CHAINAGE	0.000	5.000	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000	53.112

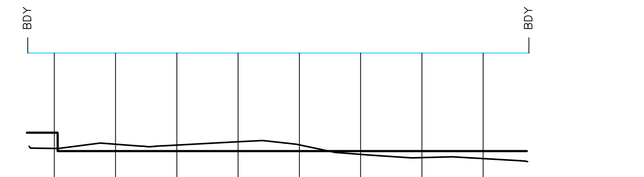
H 1:250
V 1:50 LONGITUDINAL SECTION - SECTION B-B



DATUM RL.1.000

PRE DEVELOP LEVEL (EXIST)		2.495	2.500	2.490	2.489	2.486	2.493	2.493	2.482	2.471	2.342	
4.2m AHD LEVEL		4.200	4.200	4.200	4.200	4.200	4.200	4.200	4.200	4.200	4.200	
POST DEVELOP LEVEL		2.600	2.600	2.600	2.600	2.600	2.900	2.900	2.900	2.900	2.900	
PEGGED CHAINAGE	0.000	5.000	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000	53.112

H 1:250
V 1:50 LONGITUDINAL SECTION - SECTION C-C



DATUM RL.1.000

PRE DEVELOP LEVEL (EXIST)		2.643	2.713	2.699	2.753	2.702	2.547	2.493	2.478		
4.2m AHD LEVEL		4.200	4.200	4.200	4.200	4.200	4.200	4.200	4.200		
POST DEVELOP LEVEL		2.900	2.600	2.600	2.600	2.600	2.600	2.600	2.600		
PEGGED CHAINAGE	0.000	5.000	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	46.726

H 1:250
V 1:50 LONGITUDINAL SECTION - SECTION D-D

A1 PLOT 2000 40 20 0 20 40 60 80 4000 A3 PLOT

No.	AMENDMENT	APPROVED	DATE	AMENDED BY
1	ISSUE FOR DA APPLICATION	M.S	27.06.22	D.K

ARCHITECT
STEWART ARCHITECTURE

CLIENT
BLOC

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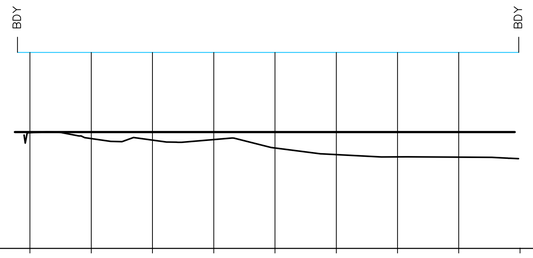
APPROVED	M.S	DATE
CHECKED	M.S	DATE
DESIGNED BY	D.K	
DRAWN BY	D.K	
CAD FILE	H:\7330 643-651 Hunter Street Newcastle\Acad\Current Drawings\Civil\7330-01-045 FLOOD STORAGE SECTIONS SHEET 1.dwg	
SCALE	AS SHOWN	SHEET No.

PROJECT
WATERVUE
643-651 HUNTER STREET
NEWCASTLE

DRAWING TITLE
FLOOD STORAGE SECTIONS
SHEET 1

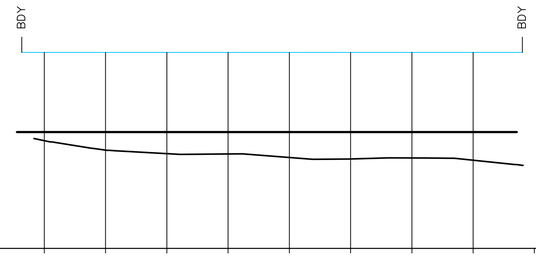
PROJECT No.	DRAWING No.	AMDT
7330-01	045	1



DATUM RL.1.000

PRE DEVELOP LEVEL (EXIST)		2.888	2.793	2.769	2.777	2.639	2.532	2.495	2.491		
4.2m AHD LEVEL		4.200	4.200	4.200	4.200	4.200	4.200	4.200	4.200		
POST DEVELOP LEVEL		2.900	2.900	2.900	2.900	2.900	2.900	2.900	2.900		
PEGGED CHAINAGE	0.000	5.000	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	46.726

H 1:250
V 1:50 LONGITUDINAL SECTION - SECTION E-E



DATUM RL.1.000

PRE DEVELOP LEVEL (EXIST)		2.758	2.605	2.547	2.541	2.485	2.461	2.477	2.439		
4.2m AHD LEVEL		4.200	4.200	4.200	4.200	4.200	4.200	4.200	4.200		
POST DEVELOP LEVEL		2.900	2.900	2.900	2.900	2.900	2.900	2.900	2.900		
PEGGED CHAINAGE	0.000	5.000	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	46.726

H 1:250
V 1:50 LONGITUDINAL SECTION - SECTION F-F

A1 PLOT 2000 40 20 0 20 40 60 80 4000 A3 PLOT

No.	AMENDMENT	APPROVED	DATE	AMENDED BY
1	ISSUE FOR DA APPLICATION	M.S	27.06.22	D.K

ARCHITECT
STEWART ARCHITECTURE

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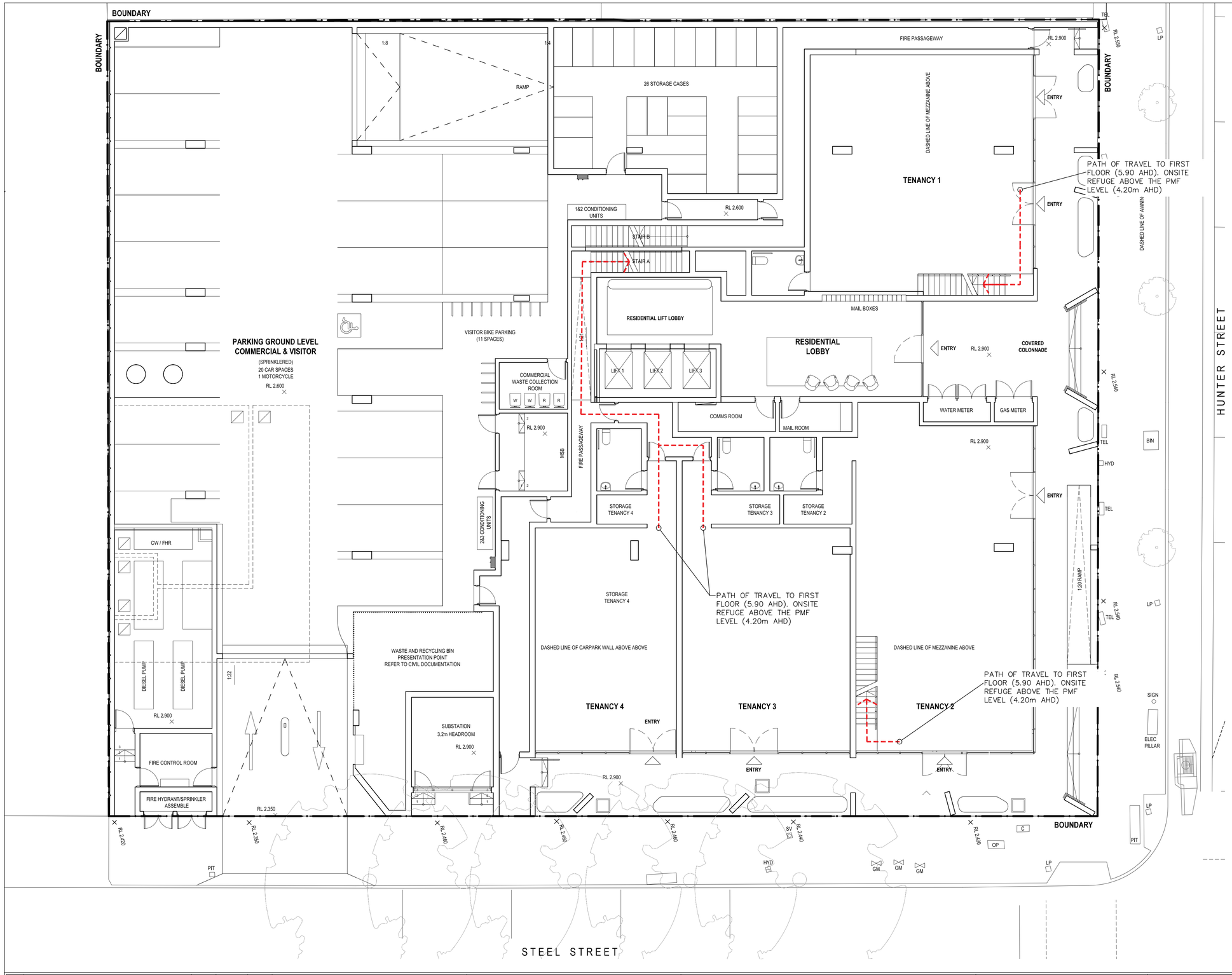
APPROVED	M.S	DATE
CHECKED	M.S	DATE
DESIGNED BY	D.K	
DRAWN BY	D.K	
CAD FILE	H:\7330 643-651 Hunter Street Newcastle\Acad\Current Drawings\Civil\7330-01-046 FLOOD STORAGE SECTIONS SHEET 2.dwg	
SCALE	AS SHOWN	SHEET No.

PROJECT
WATERVUE
643-651 HUNTER STREET
NEWCASTLE

DRAWING TITLE
FLOOD STORAGE SECTIONS
SHEET 2

PROJECT No.	DRAWING No.	AMDT
7330-01	046	1



FLOOD MANAGEMENT PLAN

LEGEND

DENOTES PATH OF TRAVEL

A1 PLOT 1:200 A3 PLOT

No.	AMENDMENT	APPROVED	DATE	AMENDED BY
1	ISSUE FOR DA APPLICATION	M.S	29.09.22	M.M.

ARCHITECT
STEWART ARCHITECTURE

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APPROVED	M.S	DATE
CHECKED	M.S	DATE
DESIGNED BY	D.K	
DRAWN BY	D.K	
CAD FILE	H:\7330 643-651 Hunter Street Newcastle\Acad\Current Drawings\Civil\7330-01-047 FLOOD EVACUATION GROUND FLOOR.dwg	
SCALE	AS SHOWN	SHEET No.

PROJECT
WATERVUE
643-651 HUNTER STREET
NEWCASTLE

DRAWING TITLE
GROUND FLOOR
EVACUATION PLAN

PROJECT No.	DRAWING No.	AMDT
7330-01	047	1