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E	ISSUED FOR DEVELOPMENT APPLICATION	11/10/2024
D	ISSUED FOR DEVELOPMENT APPLICATION	21/12/2023
C	ISSUED FOR DEVELOPMENT APPLICATION	06/12/2023
B	ISSUED FOR DEVELOPMENT APPLICATION	15/07/2022
A	ISSUED FOR DEVELOPMENT APPLICATION	21/06/2022
Rev	Revision Description	Date



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Client
BRONXX PTY LTD

Project
**277 THE GRAND PARADE
RAMSGATE BEACH**

Title	COVER SHEET LEGEND AND DRAWING LIST
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Scale:
AS SHOWN

Drawn LS	Designed LS	Checked BK	Approved HL
Project Number S220042		Drawing Number C-01-01	Revision E

3. ORIGIN OF LEVELS :- AUSTRALIAN HEIGHT DATUM (A.H.D.)
2. CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORK.
3. ALL WORK IS TO BE UNDERTAKEN IN ACCORDANCE WITH COUNCIL CONSTRUCTION SPECIFICATIONS, THE DETAILS SHOWN ON THE DRAWINGS AND THE SPECIFICATIONS AND THE DIRECTIONS OF THE PRINCIPALS REPRESENTATIVE.
4. WHERE NEW WORKS ABOUT EXISTING THE CONTRACTOR SHALL ENSURE THAT A SMOOTH, EVEN PROFILE, FREE FROM ABRUPT CHANGES IS OBTAINED.
5. THE CONTRACTOR SHALL ARRANGE ALL SURVEY SETOUT TO BE CARRIED OUT BY A REGISTERED SURVEYOR.
6. CARE IS TO BE TAKEN WHEN EXCAVATING NEAR EXISTING SERVICES. NO MECHANICAL EXCAVATIONS ARE TO BE UNDERTAKEN OVER COMMUNICATIONS OR ELECTRICAL SERVICES. HAND EXCAVATE IN THESE AREAS.
7. ALL SERVICE TRENCHES UNDER VEHICULAR PAVEMENTS SHALL BE BACKFILLED WITH AN APPROVED GRANULAR MATERIAL AND COMPACTED TO 98% STANDARD MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS.1289.5.1.1.
8. ALL TRENCH BACKFILL MATERIAL NOT IN PAVEMENTS SHALL BE COMPACTED TO THE SAME DENSITY AS THE ADJACENT MATERIAL.
9. ON COMPLETION OF PIPE INSTALLATION ALL DISTURBED AREAS MUST BE RESTORED TO ORIGINAL, INCLUDING KERBS, FOOTPATHS, CONCRETE AREAS, GRAVEL AND GRASSED AREAS AND ROAD PAVEMENTS.
10. PROVIDE 10mm WIDE EXPANDING CORK JOINTS BETWEEN CONCRETE PAVEMENTS AND ALL BUILDINGS, WALLS, FOOTPATHS, COLUMNS, KERBS, DISHDRAINS, GRATED DRAINS, BOLLARD FOOTINGS ETC
11. CONTRACTOR TO OBTAIN ALL AUTHORITY APPROVALS.
12. ALL BATTERS TO BE GRASSED LINED IN ACCORDANCE WITH COUNCIL CONSTRUCTION SPECIFICATIONS AND LANDSCAPE ARCHITECTS SPECIFICATION.
13. MAKE SMOOTH TRANSITION TO EXISTING SERVICES AND MAKE GOOD.
14. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY DIRECTION DRAINS AND MOUNDS TO ENSURE THAT AT ALL TIMES EXPOSED SURFACES ARE FREE DRAINING AND WHERE NECESSARY EXCAVATE SUMPS AND PROVIDE PUMPING EQUIPMENT TO DRAIN EXPOSED AREAS.
15. THESE PLANS SHALL BE READ IN CONJUNCTION WITH COUNCIL CONSTRUCTION SPECIFICATIONS AND APPROVED LANDSCAPE, ELECTRICAL AND TELECOMMUNICATIONS DRAWINGS AND SPECIFICATIONS.
16. TRENCHES THROUGH EXISTING ROAD AND CONCRETE PAVEMENTS SHALL BE SAWCUT TO FULL DEPTH OF CONCRETE AND A MIN 50mm IN BITUMINOUS PAVING.
17. ON COMPLETION OF WORKS ALL DISTURBED AREAS MUST BE RESTORED TO ORIGINAL INCLUDING, BUT NOT LIMITED TO, KERBS, FOOTPATHS, CONCRETE AREAS, GRASS AND LANDSCAPED AREAS.

1. EXISTING SERVICES HAVE BEEN PLOTTED FROM SUPPLIED DATA AND AS SUCH THEIR ACCURACY CANNOT BE GUARANTEED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH THE LOCATION AND LEVEL OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE SERVICE AUTHORITY.
2. THE CONTRACTOR SHALL ALLOW FOR THE CAPPING OFF, EXCAVATION, REMOVAL AND DISPOSAL, IF REQUIRED OF ALL EXISTING SERVICES IN AREAS AFFECTED BY WORKS WITHIN THE CONTRACT AREA, AS SHOWN ON THE DRAWINGS UNLESS DIRECTED OTHERWISE BY THE SERVICE AUTHORITY.
3. THE CONTRACTOR SHALL ENSURE THAT AT ALL TIMES SERVICES TO ALL BUILDINGS NOT AFFECTED BY THE WORKS ARE NOT INTERRUPTED.
4. PRIOR TO COMMENCEMENT OF ANY WORKS THE CONTRACTOR SHALL GAIN WRITTEN APPROVAL OF HIS PROGRAMME FOR THE RELOCATION/CONSTRUCTION OF TEMPORARY SERVICES.
5. EXISTING BUILDINGS, EXTERNAL STRUCTURES, AND TREES SHOWN ON THESE DRAWINGS ARE FEATURES EXISTING PRIOR TO ANY DEMOLITION WORKS.
6. CONTRACTOR SHALL CONSTRUCT TEMPORARY SERVICES TO MAINTAIN EXISTING SUPPLY TO BUILDINGS REMAINING IN OPERATION DURING WORKS TO THE SATISFACTION AND APPROVAL OF THE SERVICE AUTHORITY. ONCE DIVERSION IS COMPLETE AND COMMISSIONED THE CONTRACTOR SHALL REMOVE ALL SUCH TEMPORARY SERVICES AND MAKE GOOD TO THE SATISFACTION OF THE SERVICE AUTHORITY AND THE RELEVANT SERVICE AUTHORITY.
7. INTERRUPTION TO SUPPLY OF EXISTING SERVICES SHALL BE DONE SO AS NOT TO CAUSE ANY INCONVENIENCE TO THE PRINCIPAL. CONTRACTOR TO GAIN APPROVAL OF SERVICE AUTHORITY FOR TIME OF INTERRUPTION. THE CONTRACTOR IS RESPONSIBLE FOR ALL LIABILITIES.
8. CLEARANCE AND COVER REQUIREMENTS SHALL BE OBTAINED FROM THE COUNCIL AND RELEVANT SERVICE AUTHORITY BEFORE COMMENCEMENT OF WORKS AND SHALL BE ADHERED TO AT ALL TIMES.
9. CARE IS TO BE TAKEN WHEN EXCAVATING NEAR EXISTING SERVICES. NO MECHANICAL EXCAVATIONS ARE TO BE UNDERTAKEN OVER TELECOM OR ELECTRICAL SERVICES. HAND EXCAVATE IN THESE AREAS ONLY.

1. ALL DRAINAGE PIPES GREATER THAN Ø300mm SHALL BE CLASS 2 APPROVED SPIGOT AND SOCKET REINFORCED CONCRETE PIPES WITH RUBBER RING JOINTS (UNO).
2. WHERE DRAINAGE LINE PASS UNDER VEHICULAR PAVEMENTS PIPES SHALL BE CLASS 4 APPROVED SPIGOT AND SOCKET REINFORCED CONCRETE PIPES WITH RUBBER RING JOINTS (UNO).
3. ALL DRAINAGE PIPES LESS THAN OR EQUAL TO Ø300mm SHALL BE uPVC DWV GRADE CLASS SN8 IN ACCORDANCE WITH AS/NZS1260:2009-PVC-U PIPES AND FITTINGS FOR DRAIN, WASTE AND VENT APPLICATION WITH SOLVENT WELDED JOINTS.
4. EQUIVALENT STRENGTH REINFORCED CONCRETE OR FIBROUS REINFORCED CONCRETE MAY BE USED SUBJECT TO APPROVAL BY THE SERVICE AUTHORITY.
5. PIPES FOR SUB-SOIL DRAINS SHALL BE SLOTTED 100mm DIAMETER CLASS 1000 WRAPPED IN GEOFABRIC, UNO, COMPLYING WITH THE REQUIREMENTS OF AS 2439. ALL SUBSOIL PIPES SHALL BE FACTORY SLOTTED HDPE, MINIMUM 100mm DIAMETER SN8 CLASS, SIMILAR OR EQUAL TO VINIDEX DRAINING), CERTIFIED UPVC, IN ACCORDANCE WITH AS1260, AS2032 (PIPE) & AS3789 (JOINTING) INSTALLED ON GEOTEXTILE FABRIC WITH 150mm SURROUND OF 25MM BLUE METAL AGGREGATE. UNO
6. ALL PIPE JUNCTIONS UP TO AND INCLUDING 300 DIA. AND TAPERS SHALL BE VIA PURPOSE MADE FITTINGS.
7. ALL MILD STEEL FIXTURES INCLUDING GRATES, FRAMES, STEP IRONS, LADDERS, ETC., SHALL BE HOT DIP GALVANISED. GALVANISING SHALL COMPLY WITH THE REQUIREMENTS OF AS 1214 OR AS 1650, AS APPROPRIATE.
8. MINIMUM GRADE TO STORMWATER LINES TO BE 1%. (U.N.O.)
9. CONTRACTOR TO SUPPLY AND INSTALL ALL FITTINGS AND SPECIALS INCLUDING VARIOUS PIPE ADAPTORS TO ENSURE PROPER CONNECTION BETWEEN DISSIMILAR PIPEWORK.
10. ALL CONNECTIONS TO EXISTING DRAINAGE PITS SHALL BE MADE IN A TRADESMAN-LIKE MANNER AND THE INTERNAL WALL OF THE PIT AT THE POINT OF ENTRY SHALL BE CEMENT RENDERED TO ENSURE A SMOOTH FINISH.
11. PRECAST PITS SHALL NOT BE USED UNLESS WRITTEN APPROVAL IS OBTAINED FROM THE SERVICE AUTHORITY.
12. WHERE TRENCHES ARE IN ROCK, THE PIPE SHALL BE BEDDED ON A MIN. 50MM CONCRETE BED (OR 75MM THICK BED OF 12mm BLUE METAL) UNDER THE BARREL OF THE PIPE. THE PIPE COLLAR AT NO POINT SHALL BEAR ON THE ROCK. IN OTHER THAN ROCK, PIPES SHALL BE LAID ON A 75MM THICK SAND BED. IN ALL CASES BACKFILL THE TRENCH WITH SAND TO 200MM ABOVE THE PIPE, WHERE THE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH WITH SAND OR APPROVED GRANULAR BACKFILL COMPACTED IN 150MM LAYERS TO 98% STANDARD MAX. DRY DENSITY.
13. BEDDING SHALL BE (U.N.O.) TYPE H2 (NOT UNDER ROADWAYS) OR HS2 (UNDER ROADWAYS) IN ACCORDANCE WITH CURRENT RELEVANT AUSTRALIAN STANDARDS.
14. BACKFILL TRENCH WITH SAND OR APPROVED GRANULAR BACKFILL TO 300mm(MIN) ABOVE THE PIPE. WHERE THE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH TO PAVEMENT SUBGRADE WITH SAND OR APPROVED GRAVEL SUB-BASE COMPACTED IN 150MM LAYERS TO 98% STANDARD MAXIMUM DRY DENSITY. THE CONTRACTOR IS TO ENSURE COMPACTION EQUIPMENT IS APPROPRIATE FOR THE PIPE CLASS USED.
15. WHERE STORMWATER LINES PASS UNDER FLOOR SLABS DWV GRADE uPVC RUBBER RING JOINTS ARE TO BE USED (UNO).
16. WHERE SUBSOIL DRAINAGE LINES PASS UNDER VEHICULAR PAVEMENTS, UNSLOTTED uPVC DWV GRADE CLASS SN8 PIPE SHALL BE USED.
17. 100mm DIA. SUBSOIL DRAINAGE PIPE 3m LONG WRAPPED IN FILTER SOCK TO BE PROVIDED IN PIPE TRENCHES UPSTREAM OF ALL PITS.
18. PITS DEEPER THAN 1000mm SHALL HAVE ACCESS LADDERS OR STEP IRONS INSTALLED AND SHALL BE IN ACCORDANCE WITH THE LOCAL OR STATUTORY AUTHORITY REQUIREMENTS.
19. ALL FRAMES, COVERS AND GRATINGS FOR PITS, SLUMPS, DRAINS, GRATED DRAINS ETC MUST BE PROVIDED TO SUIT CLASS D DUTIES AND ALL GRATES SHALL BE SLIP RESISTANT AND HEELGUARD UNO IN ACCORDANCE WITH AS3996.
20. WHERE A PIT IS IDENTIFIED AS A CONFINED SPACE, PIT COVERS SHALL BE PROVIDED WITH STANDARD CONFINED SPACE SIGNAGE
21. SUBSOIL DRAINAGE LINES SHALL BE INSTALLED AT THE BASE OF ALL RETAINING WALLS AND FOR ALL STORMWATER PITS. ALL SUBSOIL LINES SHALL BE CONNECTED TO DRAIN TO THE STORMWATER DRAINAGE SYSTEM.
22. CAPPED FLUSHING POINTS MUST BE PROVIDED FOR ALL SUBSOIL AND SEEPAGE DRAINAGE SYSTEMS AT THE END OF EACH PIPE, AT 30M SPACING AND AT CHANGES IN DIRECTION.
23. INSPECTION OPENINGS AND CLEAROUTS MUST BE PROVIDED AT EVERY JUNCTION, BEND, CHANGE OF DIRECTION AND AT THE BASE OF ALL DOWNPIPES IMMEDIATELY ABOVE WHERE THE DOWNPIPE PENETRATES THE GROUND OR SLAB ON GROUND.

1. DN100 SLOTTED uPVC SUBSOIL DRAINAGE WRAPPED IN GEOFABRIC SHALL BE PROVIDED IN THE FOLLOWING LOCATIONS AND CONNECTED TO THE SITE STORMWATER DRAINAGE SYSTEM (U.N.O):

- UNDER KERBS ADJACENT TO ALL PAVEMENTS
- AT THE BASE OF THE HIGH SIDE OF ALL RETAINING WALLS
- WITHIN LANDSCAPED AREAS

1. ALL WORK SHALL COMPLY WITH COUNCIL CONSTRUCTION SPECIFICATIONS AND AS3798 (2007) - GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS.
2. ALL WORK SHALL COMPLY WITH THE PROJECT GEOTECHNICAL REPORT
3. AFTER DEMOLITION STRIP REMAINING TOPSOIL THROUGHOUT TO EXPOSE NATURALLY OCCURRING AND ENGINEERING MATERIAL AND STOCKPILE ON SITE FOR REUSE AS DIRECTED BY THE SERVICE AUTHORITY.
4. EXCAVATE TO SUBGRADE LEVELS, SEGREGATING AND STOCKPILING MATERIALS FOR LATER REUSE.
5. PROOF ROLL ALL SOFT OR WET AREAS SHALL BE DRIED TO OPTIMUM MOISTURE AND RE-COMPACTED TO 95% MMD, WHERE MATERIAL IS DEEMED UNSUITABLE BY THE SERVICE AUTHORITY AND CANNOT BE USED ON SITE SHALL REMOVED FROM SITE.
6. ALL FILL MATERIAL SHALL BE FROM A SOURCE APPROVED BY THE SERVICE AUTHORITY AND SHALL COMPLY WITH THE FOLLOWING -
 - a. FREE FROM ORGANIC AND PERISHABLE MATTER,
 - b. MAXIMUM PARTICLE SIZE 75mm,
 - c. PLASTICITY INDEX - BETWEEN 2% AND 15%.
7. ALL FILL MATERIAL SHALL BE PLACED IN MAXIMUM 200mm THICK LAYERS AND COMPACTED AT OPTIMUM MOISTURE CONTENT (+ OR - 2%) TO ACHIEVE A DRY DENSITY DETERMINED IN ACCORDANCE WITH AS1289.5.1.1-2003-METHODS OF TESTING SOILS FOR ENGINEERING PURPOSES OF NOT LESS THAN THE FOLLOWING STANDARD MINIMUM DRY DENSITY -

<u>LOCATION</u>	<u>STANDARD DRY DENSITY (MMD)</u>
UNDER BUILDING SLABS	98%
VEHICULAR PAVED AREAS	100%
NON-VEHICULAR PAVED AREAS	98%
LANDSCAPED AREAS	95%
8. THE CONTRACTOR SHALL PROGRAM THE EARTHWORKS OPERATION SO THAT THE WORKING AREAS ARE ADEQUATELY DRAINED DURING THE PERIOD OF CONSTRUCTION. THE SURFACE SHALL BE GRADED AND SEALED OFF TO REMOVE DEPRESSIONS, ROLLER MARKS AND SIMILAR WHICH WOULD ALLOW WATER TO POND AND PENETRATE THE UNDERLYING MATERIAL. ANY DAMAGE RESULTING FROM THE CONTRACTOR NOT OBSERVING THESE REQUIREMENTS SHALL BE RECTIFIED BY THE CONTRACTOR AT THEIR OWN EXPENSE.
9. TESTING OF THE FILL MATERIAL SHALL BE CARRIED OUT BY AN APPROVED NATA REGISTERED LABORATORY AT THE CONTRACTORS EXPENSE.
10. ROCK LEVELS SHOWN ON BULK EARTHWORKS PLANS AND SECTIONS ARE INFERRED. CONTRACTOR TO CONFIRM DEPTH ON SITE. TYP. INFERRED ROCK LEVELS BASED ON GEOTECHNICAL INVESTIGATION.
11. PROPOSED BULK EARTHWORKS SURFACE LEVEL SHOWN DOES NOT INCLUDE THE LANDSCAPE TOPSOIL SETDOWNS.
12. EXISTING SURFACE LEVEL SHOWN DOES NOT INCLUDE STRIPPING.

1. SEDIMENT FENCES WILL BE INSTALLED AS SHOWN ON THE PLAN AND ELSEWHERE AT THE DISCRETION OF THE SITE SERVICE AUTHORITY TO CONTAIN SOIL AS NEAR AS POSSIBLE TO THEIR SOURCE.
2. SEDIMENT FENCES WILL NOT HAVE CATCHMENT AREAS EXCEEDING 900 SQUARE METRES AND HAVE A STORAGE DEPTH OF AT LEAST 0.6 METRES.
3. SEDIMENT REMOVED FROM ANY TRAPPING DEVICES WILL BE RELOCATED WHERE FURTHER POLLUTION TO DOWNSLOPE LANDS AND WATERWAYS CANNOT OCCUR.
4. STOCKPILES ARE NOT TO BE LOCATED WITHIN 5 METRES OF HAZARD AREAS INCLUDING AREAS OF HIGH VELOCITY FLOWS SUCH AS WATERWAYS, PAVED AREAS AND DRIVEWAYS.
5. WATER WILL BE PREVENTED FROM DIRECTLY ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS THE CATCHMENT AREA HAS BEEN PERMANENTLY LANDSCAPED AND/OR WATER HAS BEEN TREATED BY AN APPROVED DEVICE. 6. TEMPORARY SEDIMENT TRAPS WILL REMAIN IN PLACE UNTIL AFTER THE LANDS THEY ARE PROTECTING ARE COMPLETELY REHABILITATED.
6. ACCESS TO SITES SHOULD BE STABILISED TO REDUCE THE LIKELIHOOD OF VEHICLES TRACKING SOIL MATERIALS ONTO PUBLIC ROADS AND ENSURE ALL-WEATHER ENTRY/EXIT.

1. EARTH BATTERS WILL BE CONSTRUCTED WITH AS LOW A GRADIENT AS PRACTICABLE BUT NOT STEEPER, UNLESS OTHERWISE NOTED, THAN:
 - a. 2(H):1(V) WHERE SLOPE LENGTH LESS THAN 12 METRES
 - b. 2.5(H):1(V) WHERE SLOPE LENGTH BETWEEN 12 AND 16 METRES.
 - c. 3(H):1(V) WHERE SLOPE LENGTH BETWEEN 16 AND 20 METRES.
 - d. 4(H):1(V) WHERE SLOPE LENGTH GREATER THAN 20 METRES.
2. ALL WATERWAYS, DRAINS, SPILLWAYS AND THEIR OUTLETS WILL BE CONSTRUCTED TO BE STABLE IN AT LEAST THE 1:20 YEAR, TIME OF CONCENTRATION STORM EVENT.
3. WATERWAYS AND OTHER AREAS SUBJECT TO CONCENTRATED FLOWS AFTER CONSTRUCTION ARE TO HAVE A MAXIMUM GROUND-COVER C-FACTOR OF 0.05 (70% GROUND COVER) WITHIN 10 WORKING DAYS FROM COMPLETION OF FORMATION. FLOW VELOCITIES ARE TO BE LIMITED TO THOSE SHOWN IN TABLE 5-1 OF "MANAGING URBAN STORMWATER - SOILS AND CONSTRUCTION", DEPT OF HOUSING 1998 (BLUE BOOK). FOOT AND VEHICULAR TRAFFIC WILL BE PROHIBITED IN THESE AREAS.
4. STOCKPILES AFTER CONSTRUCTION ARE TO HAVE A MAXIMUM GROUND-COVER C-FACTOR OF 0.1 (60% GROUND-COVER) WITHIN 10 WORKING DAYS FROM COMPLETION OF FORMATION.
5. ALL LANDS, INCLUDING WATERWAYS AND STOCKPILES, DURING CONSTRUCTION ARE TO HAVE A MAXIMUM GROUND-COVER C-FACTOR OF 0.15 (50% GROUND COVER) WITHIN 20 WORKING DAYS FROM INACTIVITY EVEN THOUGH WORKS MAY CONTINUE LATER.
6. FOR AREAS OF SHEET FLOW USE THE FOLLOWING GROUND COVER PLANT SPECIES FOR TEMPORARY COVER: JAPANESE MILLET 20 KG/HA AND OATS 20 KG/HA.
7. PERMANENT REHABILITATION OF LANDS AFTER CONSTRUCTION WILL ACHIEVE A GROUND-COVER C-FACTOR OF LESS THAN 0.1 AND LESS THAN 0.05 WITHIN 60 DAYS. NEWLY PLANTED LANDS WILL BE WATERED REGULARLY UNTIL AN EFFECTIVE COVER IS ESTABLISHED AND PLANTS ARE GROWING VIGOROUSLY. FOLLOW-UP SEED AND FERTILISER WILL BE APPLIED AS NECESSARY.
8. RE-VEGETATION SHOULD BE AIMED AT RE-ESTABLISHING NATURAL SPECIES. NATURAL SURFACE SOILS SHOULD BE REPLACED AND NON-PERSISTANT ANNUAL COVER CROPS SHOULD BE USED.

1. ACCEPTABLE BINS WILL BE PROVIDED FOR ANY CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHING, LIGHTWEIGHT WASTE MATERIALS AND LITTER. CLEARANCE SERVICES WILL BE PROVIDED AT LEAST WEEKLY. DISPOSAL OF WASTE WILL BE IN A MANNER APPROVED BY THE SITE SERVICE AUTHORITY.
2. ALL POSSIBLE POLLUTANT MATERIALS ARE TO BE STORED WELL CLEAR OF ANY POORLY DRAINED AREAS, FLOOD PRONE AREAS, STREAMBANKS, CHANNELS AND STORMWATER DRAINAGE AREAS. STORE SUCH MATERIALS IN A DESIGNATED AREA UNDER COVER WHERE POSSIBLE AND WITHIN CONTAINMENT BUNDS.
3. ALL SITE STAFF AND SUB-CONTACTORS ARE TO BE INFORMED OF THEIR OBLIGATION TO USE WASTE CONTROL FACILITIES PROVIDED.
4. 4. ANY DE-WATERING ACTIVITIES ARE TO BE CLOSELY MONITORED TO ENSURE THAT WATER IS NOT POLLUTED BY SEDIMENT, TOXIC MATERIALS OR PETROLEUM PRODUCTS.
5. PROVIDE DESIGNATED VEHICULAR WASHDOWN AND MAINTENANCE AREAS WHICH ARE TO HAVE CONTAINMENT BUNDS.



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D	ISSUED FOR DEVELOPMENT APPLICATION	11/10/2024
C	ISSUED FOR DEVELOPMENT APPLICATION	6/12/2023
B	ISSUED FOR DEVELOPMENT APPLICATION	15/07/2022
A	ISSUED FOR DEVELOPMENT APPLICATION	21/06/2022
Rev	Revision Description	Date



Client
BRONXX PTY LTD

Title
SPECIFICATION NOTES

Scale:
AS SHOWN

Drawn LS	Designed LS	Checked BK	Approved HL
Project Number S220042		Drawing Number C-01-02	Revision D



D	ISSUED FOR DEVELOPMENT APPLICATION	11/10/2024
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Project	277 THE GRAND PARADE RAMSGATE BEACH
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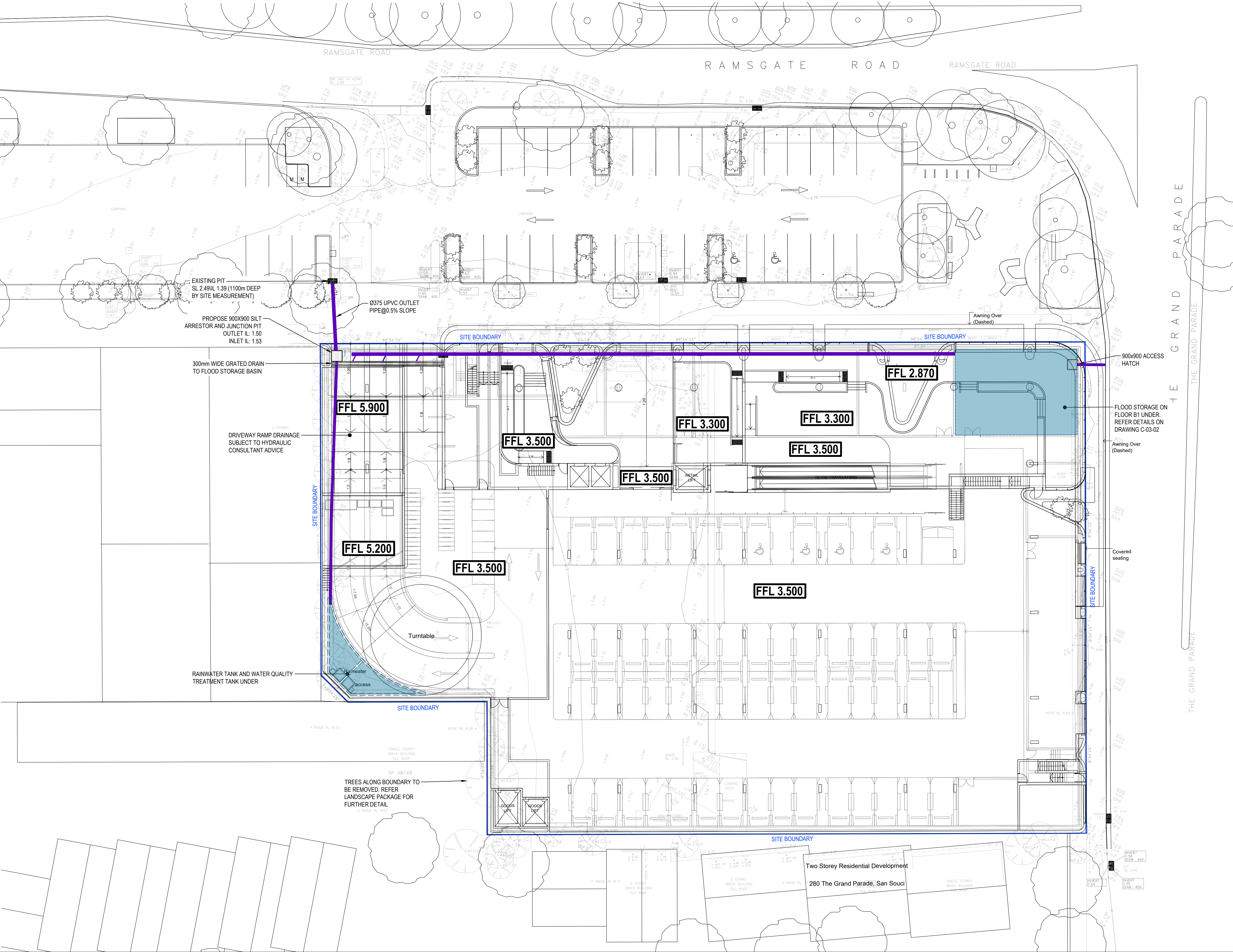
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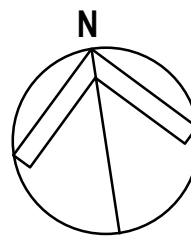
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Drawn LS	Designed LS	Checked BK	Approved HL
Project Number S220042		Drawing Number C-01-11	Revision D



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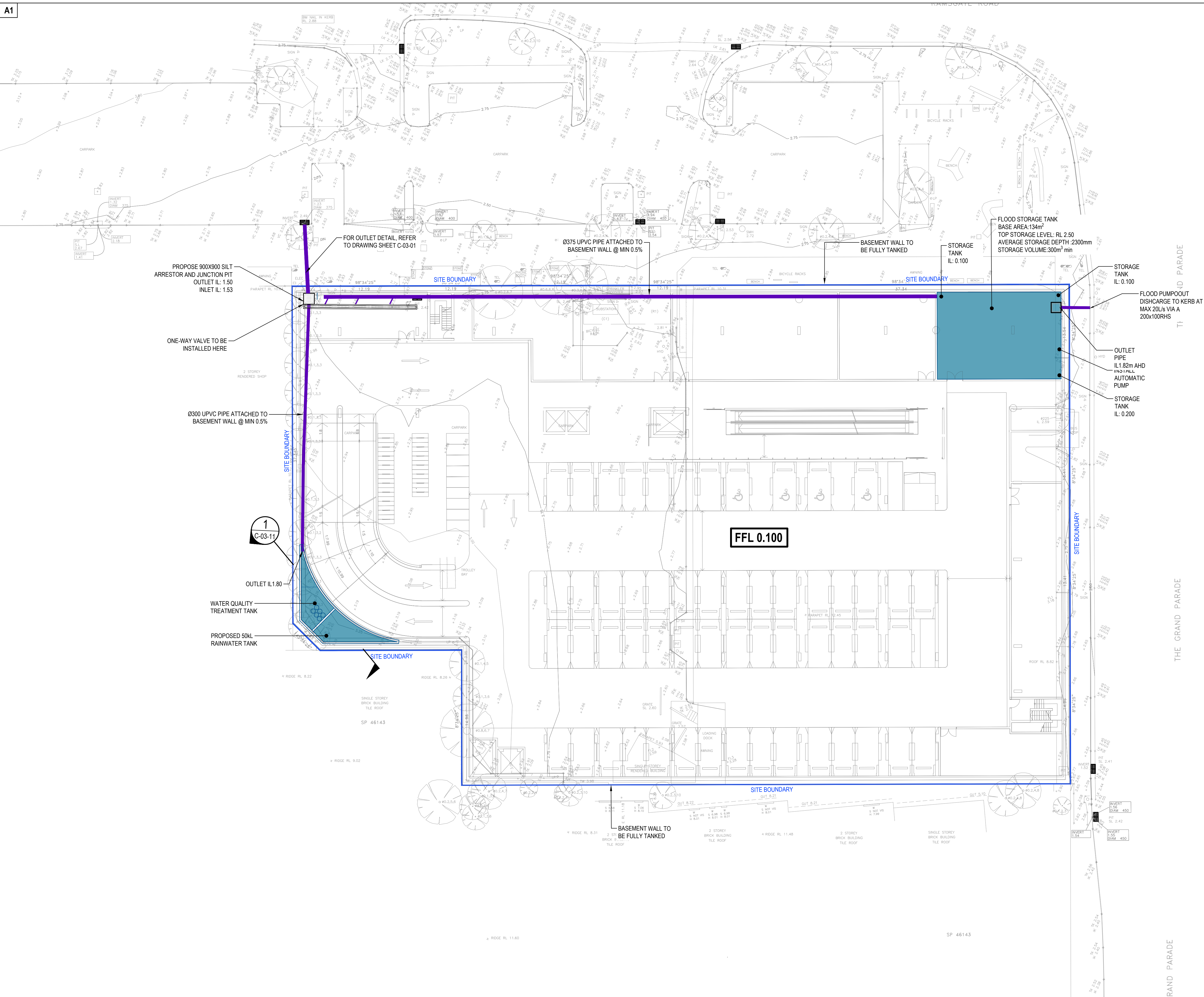
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Project
277 THE GRAND PARADE
RAMSGATE BEACH

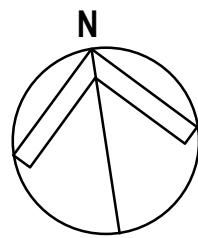
Title
STORMWATER DRAINAGE CONCEPT PLAN
GROUND FLOOR

Scale:
AS SHOWN 0 2 4 6 8 10m
1:200

Drawn LS	Designed LS	Checked BK	Approved HL
Project Number S220042	Drawing Number C-03-01	Revision E	



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engineers
and development
consultants

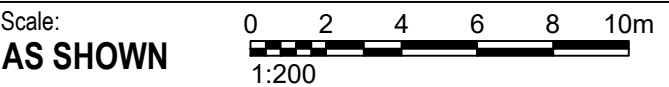
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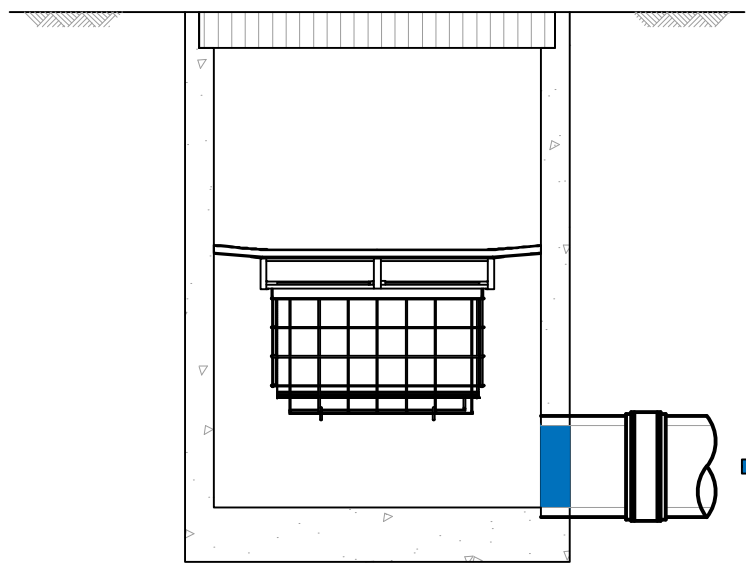
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Project
277 THE GRAND PARADE
RAMSGATE BEACH

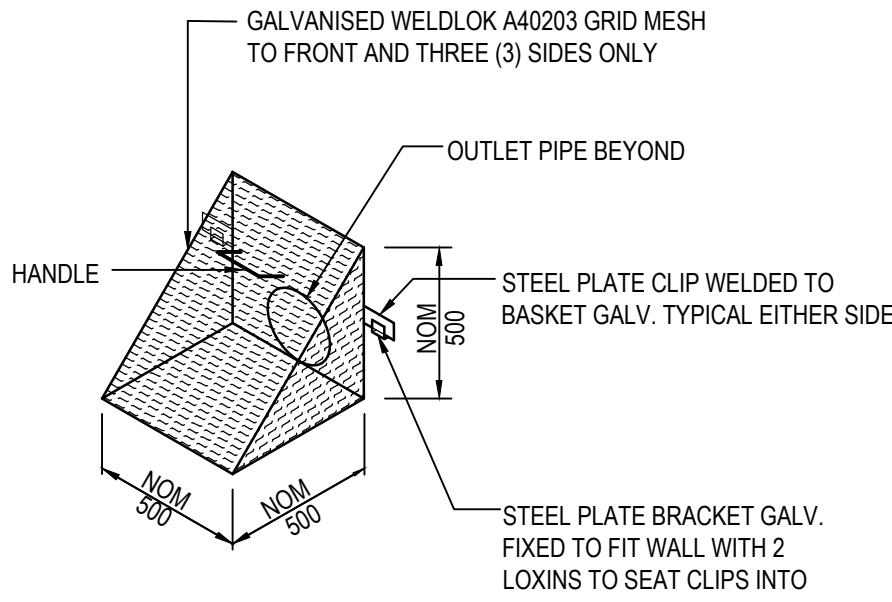
Title
STORMWATER DRAINAGE CONCEPT PLAN
FLOOR B1



Drawn LS	Designed LS	Checked BK	Approved HL
Project Number S220042	Drawing Number C-03-02	Revision E	

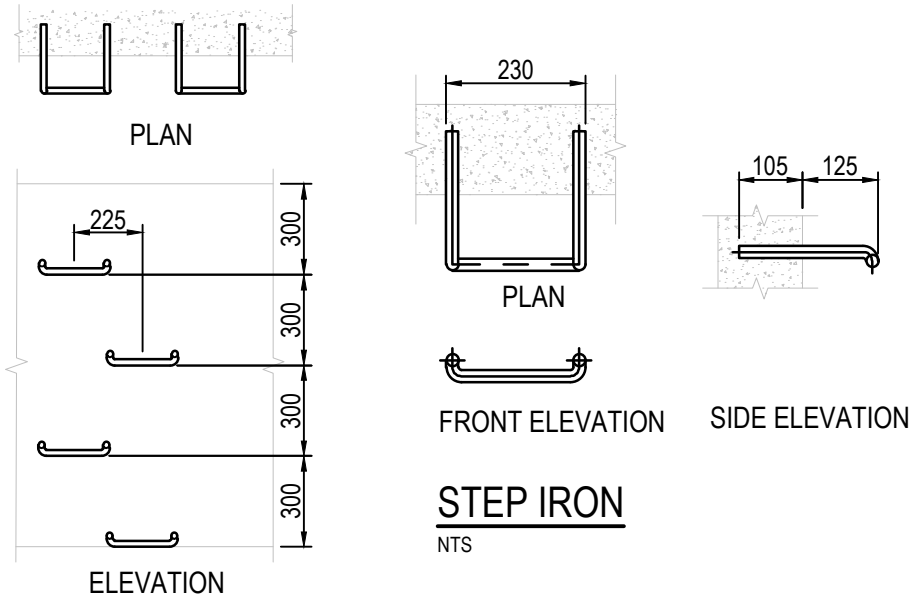


TYPICAL OCEAN GAURD DETAIL

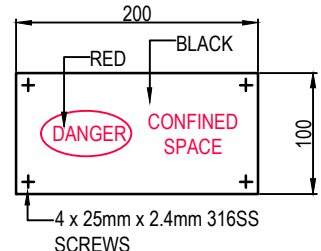


TRASH SCREEN DETAIL

SCALE NTS
NOTE: ALL ITEMS TO BE HOT DIPPED GALVANISED.
ALL FIXING ITEMS TO BE 316SS GRADE.
ENSURE ALL DISSIMILAR METALS AVOID CONTACT
UNLESS CATHODIC PROTECTION IS PROVIDED



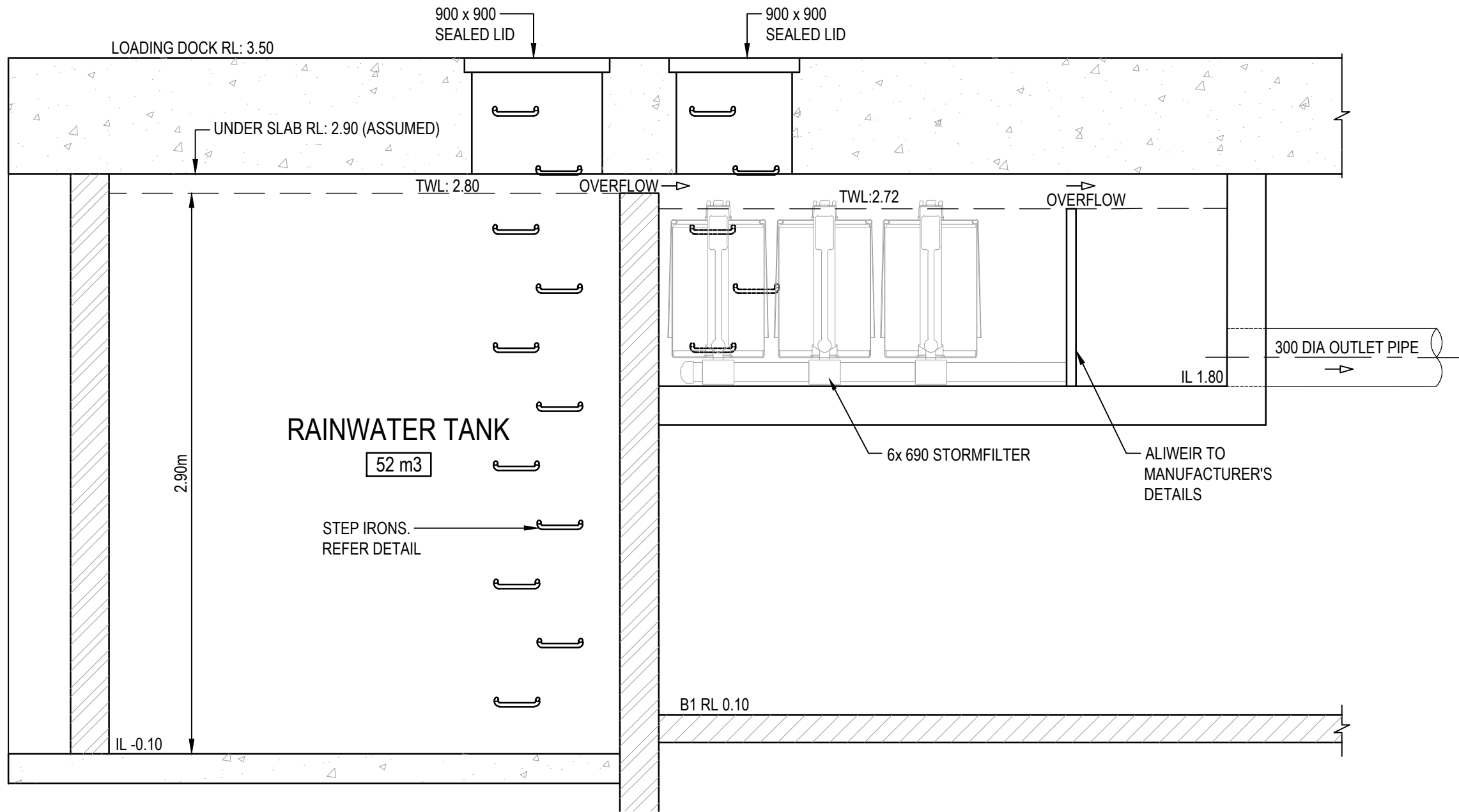
STEP IRON PLACEMENT TO PIT WALL



CONFINED SPACES SIGN

STORMGUARD GENERAL NOTES

1. THE MINIMUM CLEARANCE DEPENDS ON THE CONFIGURATION (SEE NOTE 2) AND THE LOCAL COUNCIL REQUIREMENTS.
2. CLEARANCE FOR ANY PIT WITHOUT AN INLET PIPE (ONLY USED FOR SURFACE FLOW) CAN BE AS LOW AS 50mm. FOR OTHER PITS, THE RECOMMENDED CLEARANCE SHOULD BE GREATER OR EQUAL TO THE PIPE OBVERT SO AS NOT TO INHIBIT HYDRAULIC CAPACITY.
3. OCEAN PROTECT PROVIDES TWO FILTRATION BAG TYPES:- 200 MICRON BAGS FOR HIGHER WATER QUALITY FILTERING AND A COARSE BAG FOR TARGETING GROSS POLLUTANTS.
4. DRAWING NOT TO SCALE.



SECTION 1 - RAINWATER TANK AND STORMFILTER CHAMBER DETAIL

SCALE - NTS

STORMFILTER GENERAL NOTES

1. PRECAST STRUCTURE SUPPLIED WITH CORE HOLES TO SUIT OUTER DIAMETER OF NOMINATED PIPE SIZE / MATERIAL.
2. PRECAST STRUCTURE SHALL MEET W80 WHEEL LOAD RATING ASSUMING A MAXIMUM EARTH COVER OF 2.0m AND A GROUND WATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. CERTIFYING ENGINEER TO CONFIRM ACTUAL GROUNDWATER ELEVATION. PRECAST STRUCTURE SHALL BE IN ACCORDANCE WITH AS3600.
3. IF THE PEAK FLOW RATE, AS DETERMINED BY THE SITE CERTIFYING ENGINEER, EXCEEDS THE PEAK HYDRAULIC CAPACITY OF THE SYSTEM, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.
4. ALL WATER QUALITY TREATMENT DEVICES REQUIRE PERIODIC MAINTENANCE. REFER TO OPERATION AND MAINTENANCE MANUAL FOR GUIDELINES AND ACCESS REQUIREMENTS.
5. SITE SPECIFIC PRODUCTION DRAWING WILL BE PROVIDED ON PLACEMENT OF ORDER.
6. DRAWING NOT TO SCALE.

INSTALLATION NOTES

1. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY CERTIFYING ENGINEER.
2. CONTRACTOR TO PROVIDE ALL EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMFILTER STRUCTURE (LIFTING DETAIL PROVIDED SEPARATELY).
3. CONTRACTOR TO APPLY SEALANT TO ALL JOINTS AND TO PROVIDE, INSTALL AND GROUT INLET AND OUTLET PIPES.

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E	ISSUED FOR DEVELOPMENT APPLICATION	11/10/2024
D	ISSUED FOR DEVELOPMENT APPLICATION	21/12/2023
C	ISSUED FOR DEVELOPMENT APPLICATION	6/12/2023
Rev	Revision Description	Date



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Client
BRONXX PTY LTD

Project
277 THE GRAND PARADE
RAMSGATE BEACH

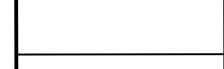
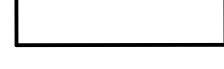
Title
STORMWATER DRAINAGE DETAILS

Scale:
AS SHOWN

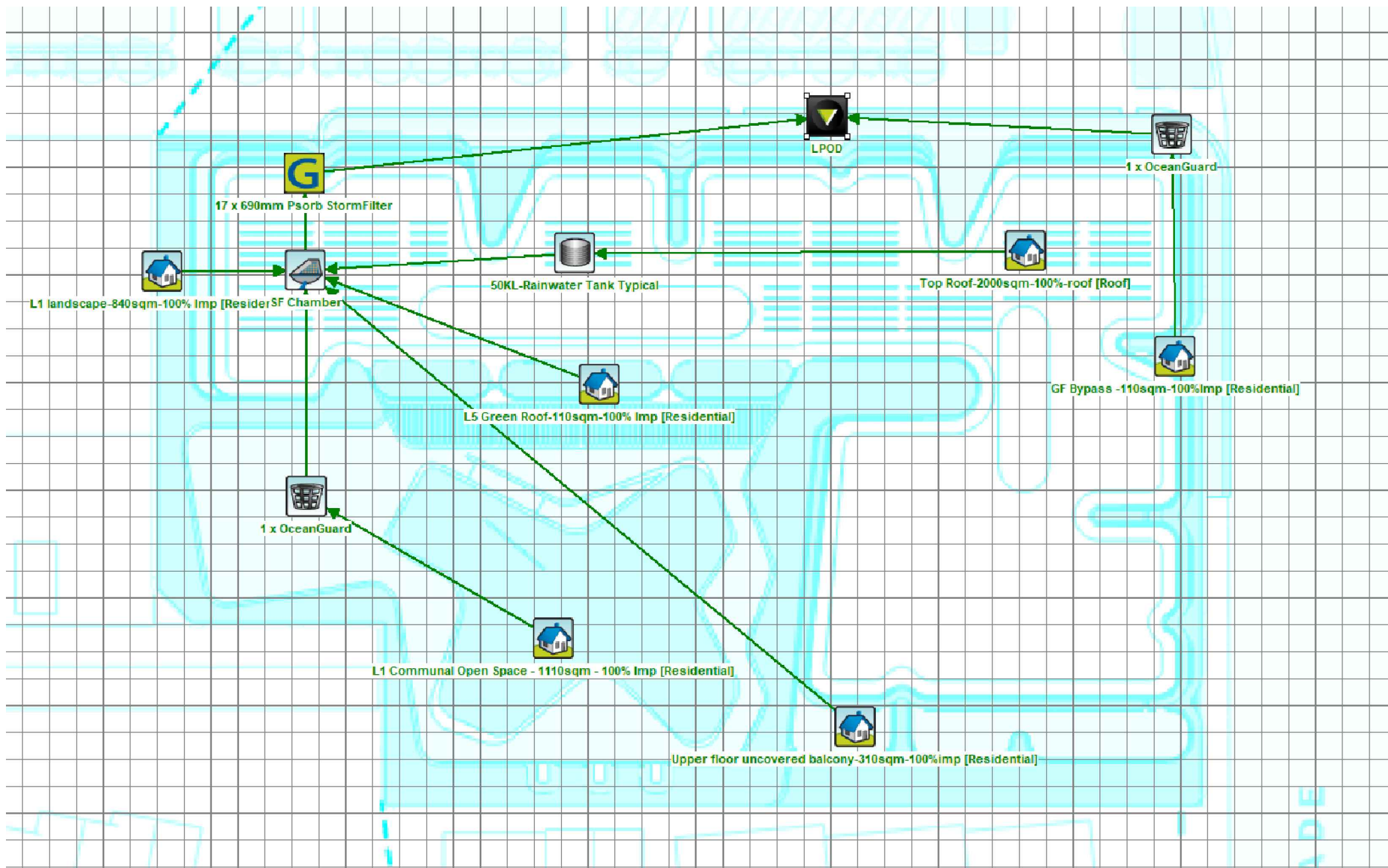
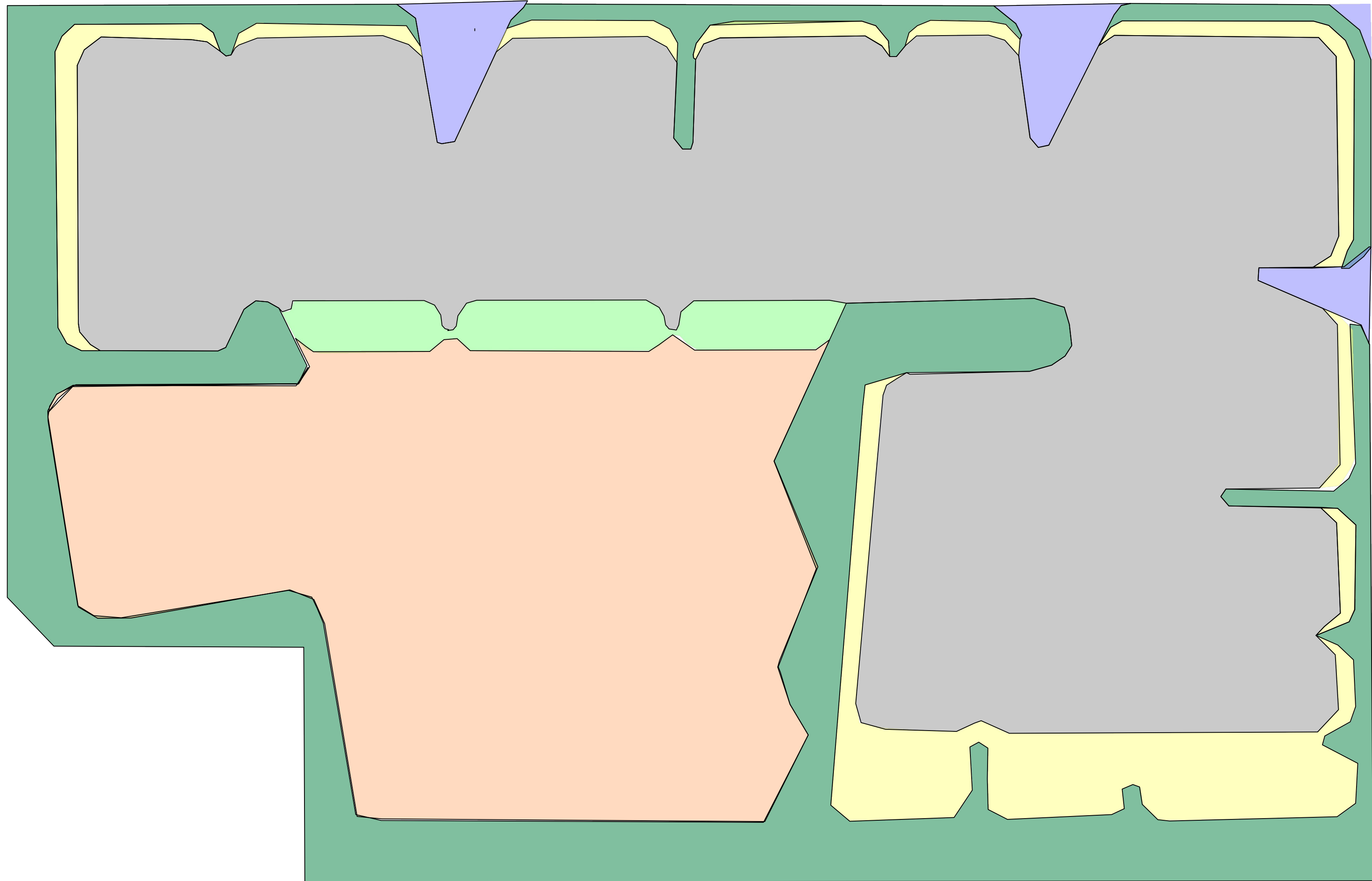
Drawn LS	Designed LS	Checked BK	Approved HL
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Project Number S220042	Drawing Number C-03-11	Revision E
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WATER TREATMENT CATCHMENT

HATCH	CATCHMENT NAME	AREA (m ²)
	TOP ROOF	2000
	L5 GREEN ROOF	88
	UNCOVERED BALCONY	310
	L1 COMMUNAL SPACE	1110
	L1 LANDSCAPE	840
	GF BYPASS	110
TOTAL AREA		4480

CATCHMENT TABLE



MUSIC MODEL RESULT

- f) The development requires the use of a Water Sensitive Urban Design Approach (WSUD) to the design of the drainage system. Bayside Technical Specification Stormwater Management Section 7.1.1 requires the development to confirm the targets for the stormwater pollution reduction. The MUSIC Model results does not comply as the minimum pollution reduction target is 85% for the TSS and the current design only on 80%. The design is to be revised to comply and must comply with all reduction targets as per Bayside Technical Specification Stormwater. The plans are to be revised to comply with the pollution reduction targets specified in section 7.1.1.
- g) A WSUD catchment plan to be provided to clearly show the survey and architectural in the background. The catchment areas in the catchment plan are to be accurately reflected in the MUSIC Model. Planter boxes to be modelled as 100% impervious and the MUSIC Model to be provided to Council for assessment.

INITIAL COUNCIL ENGINEER'S COMMENTS

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D	ISSUED FOR DEVELOPMENT APPLICATION	11/10/2024
C	ISSUED FOR DEVELOPMENT APPLICATION	6/12/2023
B	ISSUED FOR DEVELOPMENT APPLICATION	15/07/2022
A	ISSUED FOR DEVELOPMENT APPLICATION	21/06/2022
Rev	Revision Description	Date

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Client
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Project
277 THE GRAND PARADE
RAMSGATE BEACH

Title
STORMWATER TREATMENT CATCHMENT
PLAN

Scale: 0 2 4 6 8 10m
AS SHOWN 1:200

Drawn LS	Designed LS	Checked BK	Approved HL
Project Number S220042	Drawing Number C-03-21	Revision D	



1. REFER TO APPROVED PLANS FOR LOCATION AND INSTALLATION DETAILS. IF THERE ARE QUESTIONS OR PROBLEMS WITH THE LOCATION, DIMENSIONS, OR METHOD OF INSTALLATION, CONTACT THE ENGINEER OR RESPONSIBLE ON-SITE OFFICER FOR ASSISTANCE.
2. ENSURE THAT THE INSTALLATION OF THE SEDIMENT TRAP WILL NOT CAUSE UNDESIRABLE SAFETY OR FLOODING ISSUES.
3. INSTALL SEDIMENT TRAP IN ACCORDANCE WITH STANDARD DRAWING SUPPLIED WITH THE APPROVED PLAN, OR AS DIRECTED BY THE SITE SUPERVISOR.
4. ENSURE THE SEDIMENT TRAP IS CONSTRUCTED UP-SLOPE OF AN ON-GRASS KERB INLET. THE SEDIMENT TRAP MUST NOT SURROUND THE KERB INLET UNLESS SPECIFICALLY DIRECTED BY THE SITE SUPERVISOR.
5. ENSURE THE SEDIMENT TRAP FULLY ENCLOSES THE KERB INLET. USE APPROPRIATE SPACERS TO ENSURE THE SEDIMENT TRAP DOES NOT BLOCK THE SIDE-ENTRY INLET.
6. TAKE ALL NECESSARY MEASURE TO MINIMISE THE SAFETY RISK CAUSED BY THE STRUCTURE



NTS

1. MAINTAIN THE TRENCH FREE OF WATER AND RECOMPACT THE MATERIALS WITH EQUIPMENT AS SPECIFIED IN THE SWMP TO 95% STANDARD PROCTOR DENSITY.
2. SELECT FILL FOLLOWING THE SWMP THAT IS FREE OF ROOTS, WOOD, ROCK LARGE STONE OR FOREIGN MATERIAL.
3. SPREAD THE FILL IN 100mm TO 150mm LAYERS AND COMPACT IT AT OPTIMUM MOISTURE CONTENT FOLLOWING THE SWMP.

NTS

-
- 1.5m STAR PICKETS MAX.
2.5m CENTRES
- 500mm
TO 600mm
- 500mm MIN.
- SELF-SUPPORTING
GEOTEXTILE
- ON SOIL, 150mm x 100mm TRENCH WITH
COMPACTED BACKFILL AND ON ROCK, SET
INTO SURFACE CONCRETE

1. CONTRACTOR SHALL CONDUCT A DIAL BEFORE YOU DIG SCHEDULE PRIOR TO COMMENCEMENT OF ANY WORK.
2. ENSURE THAT ALL COUNCIL AND PUBLIC UTILITY ASSETS ARE MAINTAINED AND PROTECTED AT ALL TIMES IN THE VICINITY OF THE TEMPORARY CONSTRUCTION EXIT.
3. STRIP TOPSOIL AND LEVEL SITE.
4. COMPACT SUBGRADE.
5. COVER AREA WITH NEEDLE-PUNCHED GEOTEXTILE.
6. CONSTRUCT 200mm THICK PAD OVER GEOTEXTILE USING ROADBASE OR 30mm AGGREGATE.
7. CONSTRUCT HUMP IMMEDIATELY WITHIN BOUNDARY TO DIVERT WATER TO A SEDIMENT FENCE OR OTHER SEDIMENT TRAP WHERE THE SEDIMENT IS COLLECTED AND REMOVED.

THE EXIT SHALL BE MAINTAINED IN A CONDITION WHICH PREVENTS TRACKING OR FLOWING OF SEDIMENT OFF THE CONSTRUCTION SITE. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL GRAVEL AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED OFF THE CONSTRUCTION SITE MUST BE REMOVED IMMEDIATELY.



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Project Number	Drawing Number	Revision
S220042	C-06-11	C