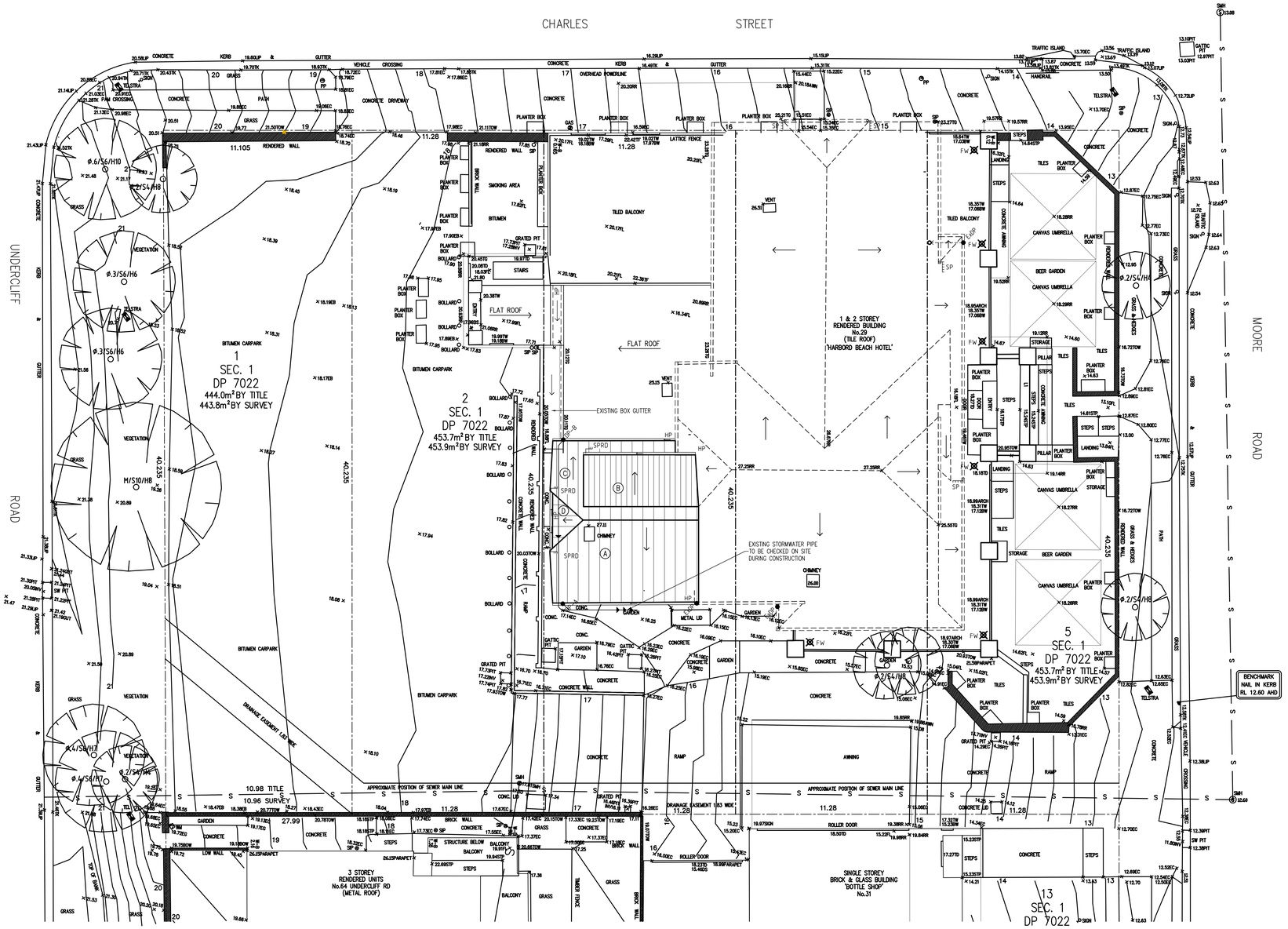


SITE DRAINAGE CONCEPT PLAN

1:100

LEGEND

VERTICAL DOWN PIPE	=	●
DOWN PIPE	=	DP
SURFACE RUN OFF		
EXISTING FLOOR WASTE		FW
EXISTING SPREADER	=	SP
EXISTING SPREADER	=	SPRD

SUBCATCHMENT AREAS FOR GUTTERS & DOWNPIPES (ARI 20 YEARS)				
VERTICAL DOWNPIPE	SUB-CATCHMENT			
	PLAN AREA (m2)	CATCHMENT AREA (m2)	EFFECTIVE GUTTER CROSS-SECT. AREA (mm2)	DP CROSS-SECT. AREA (mm2)
A	40.6	45.1	8500	100 x 75
B	20.1	22.3	8500	100 x 75
C	20.5	22.7	8500	100 x 75
D	3.5	3.9	8500	100 x 75

EAVES GUTTER SPECIFICATION

EAVES GUTTER GRADIENTS TO BE 1:500 OR GREATER.
EAVES GUTTER TO HAVE AN EFFECTIVE CROSS SECTIONAL AREA AS PER TABLE ABOVE.
DOWNPIPES CROSS-SECTION TO BE AS PER TABLE ABOVE.
FASCIA TO BE A MINIMUM OF 14mm ABOVE GUTTER OVERFLOW.

UNDERGROUND SERVICES

DIAL 1100 BEFORE YOU DIG FOR LOCATION OF UNDERGROUND SERVICES PRIOR TO ANY CONSTRUCTION WORKS.

CONTACT TELSTRA FOR WRITTEN PERMISSION TO MAINTAIN OR RELOCATE ANY EXISTING SERVICE PIT.

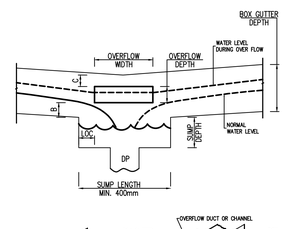
ALL SERVICES ARE TO MATCH INTO THE NEW FOOTPATH LEVELS CONTACT THE RELEVANT AUTHORITY FOR ADJUSTMENT TO SERVICES.

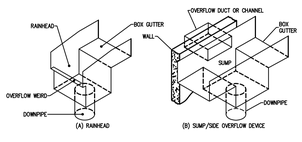
THIS STORMWATER MANAGEMENT PLAN IS SUBJECT TO NORTHERN BEACHES COUNCIL APPROVAL

EXISTING STORMWATER SYSTEM TO BE CHECKED AND UPGRADED AS REQUIRED

DRAINAGE LINES LOCATIONS ARE INDICATIVE ONLY AND MAY VARY DUE TO SITE CONSTRAINTS. FINAL PIPES LOCATIONS TO BE COORDINATED ON SITE WITH OTHER SERVICES & BUILDERS.

MINIMAL INTERNAL DIMENSIONS FOR STORMWATER PITS (mm)		
DEPTH TO INVERT OF OUTLET	WIDTH	LENGTH
<600	450	450
>600 <900	600	600
>900 <1200	600	900
>1200	900	900





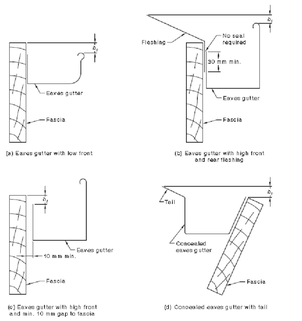


FIGURE G1 EAVES GUTTER OVERFLOW METHODS

GENERAL NOTES

ALL PLUMBING WITHIN THE SITE MUST BE CARRIED OUT IN ACCORDANCE WITH RELEVANT PROVISIONS OF AUSTRALIAN STANDARD AS/NZS 3500.3–2018 PLUMBING AND DRAINAGE – STORMWATER DRAINAGE.

ALL LEVELS ARE TO AUSTRALIAN HEIGHT DATUM. (AHD)

DO NOT SCALE FROM THE DRAWINGS.

THE CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORKS, REPORT ANY DISCREPANCIES TO THE SUPERINTENDENT OR DESIGN ENGINEER.

ALL WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH THE DETAILS SHOWN ON THE DRAWINGS AND SPECIFICATION.

READ THESE PLANS IN CONJUNCTION WITH APPROVED ARCHITECTURAL, STRUCTURAL, HYDRAULIC AND MECHANICAL DRAWINGS AND SPECIFICATION.

WHERE NEW WORK ABUTS EXISTING, THE CONTRACTOR SHALL ENSURE THAT A SMOOTH EVEN PROFILE, FREE FROM ABRUPT CHANGES, IS OBTAINED.

DESIGN LEVELS GIVEN ARE TO FINISHED SURFACE LEVEL AND INCLUSIVE OF TOPSOIL. (TOPSOIL DEPTH VARIES).

THE CONTRACTOR SHALL ARRANGE ALL SURVEY SETOUT TO BE CARRIED OUT BY A REGISTERED SURVEYOR.

CARE IS TO BE TAKEN WHEN EXCAVTING NEAR EXISTING SERVICES.
NO MECHANICAL EXCAVATIONS ARE TO BE UNDERTAKEN OVER TELECOM OR ELECTRICAL SERVICES. HAND EXCAVTE IN THESE AREAS.

ALL BUILDING SURROUND SHOULD BE GRADED TO ENSURE OVERLAND FLOW FROM UPSTRAM AREAS CAN DRAIN AROUND THE FOUNDATIONS, WALLS OF BUILDING.

ALL EXCAVTION SHORING OF EXCAVATION ANS STABILITY OF ADJACENT STRUCTURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

DURING CONSTRUCTION, THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED.

WORKMANSHIP AND MATERIALS SHALL CONFORM WITH THE REQUIREMENTS OF THE RELEVANT SAA CODES, BCA REQUIREMENTS AND THE SPECIFICATION, BY–LAWS AND ORDINANCIES OF THE RELEVANT AUTHORITIES.

PROPRIETARY PRODUCTS USED SHALL BE INSTALLED TO MANUFACTURERS SPECIFICATION AND TO THE SATISFACTION OF THE SUPERINTENDENT.

OVERALL EXISTING STORMWATER SYSTEM HAS NOT BEEN CHECKED FOR COMPLIANCE AND NEEDS TO BE VERIFIED AN UPGRADED AS REQUIRED DURING CONSTRUCTION TO COMPLY WITH AS/NZS 3500.3–2018 AND COUNCIL REQUIREMENTS.

EXTERNAL WORKS

ALL ACTIVITIES AND WORKS EXTERNAL TO THE SITE, OR THAT AFFECT PUBLIC ROADS, ARE TO BE CARRIED OUT IN ACCORDANCE WITH COUNCIL'S CODES AND STANDARDS.

PUBLIC FOOTPATHS SHALL BE RECONSTRUCTED TO THE SATISFACTION OF COUNCIL'S DIRECTOR OF ENGINEERING SERVICES. A ROAD OPENING PERMIT SHALL BE OBTAINED FOR ALL WORKS CARRIED OUT IN A PUBLIC OR COUNCIL CONTROLLED LAND. RESTORATION OF LANDSCAPING, ROADS AND PATHS SHALL BE TO COUNCIL'S REQUIREMENTS. ALL OTHER RESTORATION SHALL BE TOTHE SATISFACTION OF THE AFFECTED PARTIES.

WHERE WORKS ARE UNDERTAKEN ON PUBLIC ROADS, ADEQUATE TRAFFIC CONTROL AND DIRECTIONS TO MOTORISTS SHALL BE PROVIDED.

DRAINAGE PITS

PITS DEEPER THAN 1200mm TO BE FITTED WITH STEP IRONS AT 300mm CENTRES AND STAGGERED.

APPROVED PRECAST PITS MAY BE USED.

DIAMETER 100mm HOLE FOR SUBSOIL DRAINAGE OUTLET TO BE LOCATED 100mm ABOVE INVERT OF ALL INLET PIPES. DIAMETER 100mm SUBSOIL DRAINAGE TO EXTEND FOR A DISTANCE OF 3.0m UPSTREAM OF PIT (AT EACH INLET PIT) WITH THE UPSTREAM END SEALED.

ALL CONNECTIONS TO THE EXISTING DRAINAGE PITS SHALL BE MADE IN A TRADESMAN LIKE MANNER AND THE INTERNAL WALLL OF THE PIT AT THE POINT OF ENTRY SHALL BE CEMENT RENDERED TO ENSURE A SMOOTH FINISH.

PIT GRATES AND SOLID COVERS SHALL BE CLASS 'B' IN NON TRAFFIC AREAS AND CLASS 'D' IN TRAFFIC AREAS IN ACCORDANCE WITH AS 3996.

DRAINAGE PIPES

EXISTING PIPES WHICH FORM NO PART OF THE DRAINAGE SYSTEM SHALL BE REMOVED OR SANDFILLED AS INDICATED ON THE PLANS.

PIPE LENGTHS MEASURED ARE BETWEEN PIT CENTRES.

ALL DRAINAGE PIPES LESS THAN 300mm DIAMETER SHALL BE SEWER GRADE uPVC WITH SOLVENT WELDED JOINTS (U.N.O.). ALL PIPE JUNCTIONS AND TAPERS SHALL BE MA. PURPOSE MADE FITTINGS.

MINIMUM GRADE TO DRAINAGE PIPES TO BE 1.5% U.N.O.

MINIMUM PIPE SIZE TO BE 100mm DIAMETER U.N.O.

THE CONTRACTOR IS TO SUPPLY AND INSTALL ALL FITTINGS AND SPECIALS INCLUDING VARIOUS PIPE ADAPTORS TO ENSURE PROPER CONNECTION BETWEEN DISSIMILAR PIPEWORK.

RAINWATER RE–USE NOTES AND SPECIFICATIONS

ROOF WATER ONLY TO BE DRAINED TO THE RAINWATER STORAGE TANKS.

THE RAINWATER STORAGE TANKS ARE TO BE CONNECTED FOR RE–USE AS REQUIRED BY THE BASIX CERTIFICATE.

RAINWATER STORAGE TANKS TO BE CONFIGURED IN ACCORDANCE WITH SYDNEY WATER SPECIFICATIONS 'GUIDELINES FOR RAINWATER TANKS ON RESIDENTIAL PROPERTIES'.

PROVIDE MAINS "TOP–UP" SUPPLY TO RAINWATER TANKS. MAINS TOP–UP ZONE TO BE BASED ON THE DAILY NON–POTABLE USAGE THAT MAY BE EXPECTED FROM THE TANK.

PROVIDE A MECHANICAL PUMPING ARRANGEMENT (IN 'SOUND–PROOF' HOUSING) TO PUMP SUPPLIERS SPECIFICATION TO SUIT INTENDED USAGE OF RAINWATER STORAGE. PUMPING ARRANGEMENTS MUST COMPLY WITH EPA GUIDELINES.

INLETS TO RAINWATER TANKS MUST BE SCREENED TO PREVENT THE ENTRY OF FOREIGN MATTER, ANIMALS OR INSECTS.

A SIGN MUST BE AFFIXED TO THE RAINWATER TANKS AND HOSE TAPS AS PER AS3500.1 CLEARLY STATING THAT THE WATER IN THE TANK IS RAINWATER AND IS NOT TO BE USED FOR HUMAN CONSUMPTION.

'FIRST FLUSH' DEVICE TO BE PROVIDED TO EACH DOWNPIPE OR IF PREFERRED A SINGLE DEVICE TO BE PROVIDED ON THE UPSTREAM SIDE OF STORAGE TANK FOR EACH PIPED INLET TO STORAGE TANK. A SINGLE FIRST FLUSH DEVICE MAY BE PROVIDED IN LIEU OF EACH DOWNPIPE.

RAINWATER TANKS TO BE PLACED ON A STRUCTURALLY ADEQUATE BASE IN ACCORDANCE WITH THE MANUFACTURER'S OR STRUCTURAL ENGINEER'S DETAILS.

THE TANK MUST NOT BE INSTALLED OVER ANY MAINTENANCE STRUCTURE OR FITTINGS USED BY A PUBLIC AUTHORITY.

RAINWATER TANKS AND ASSOCIATED PLUMBING WORKS TO BE INSTALLED AND CONFIGURED BY A LICENSED PLUMBER. PUMP TO BE INSTALLED BY A LICENSED ELECTRICIAN.

BOX GUTTERS SPECIFICATION

THE MINIMUM WIDTH OF BOX GUTTERS USED FOR COMMERCIAL CONSTRUCTION IS 300 MM. BOX GUTTERS 200 MM WIDE MAY BE USED FOR DOMESTIC CONSTRUCTION, BUT THEY ARE MORE PRONE TO BLOCKAGES AND SHOULD BE SUBJECT TO FREQUENT INSPECTIONS AND MAINTENANCE. ADDITIONAL HEIGHT IS RECOMMENDED WHERE POSSIBLE.

BOX GUTTERS SHALL:
(I) BE STRAIGHT (WITHOUT CHANGE IN DIRECTION);
(II) IN A CROSS–SECTION HAVE A HORIZONTAL CONSTANT WIDTH BASE (SOLE) WITH VERTICAL SIDES;
(III) HAVE A CONSTANT LONGITUDINAL SLOPE BETWEEN 1:200 AND 1:40;
(IV) DISCHARGE AT THE DOWNSTREAM END WITHOUT CHANGE OF DIRECTION (I.E., NOT TO THE SIDE); AND
(V) BE SEALED TO THE RAINHEADS AND SUMPS.

3.7.6 DOWNPIPES
DOWNPIPES SHALL BE FITTED VERTICALLY TO THE BASE OF A RAINHEAD OR SUMP

Revision	Amendment or reason for issue	Issue date	Drawing Completed by	Designed & dwg. checked by
2	ISSUE FOR DEVELOPMENT APPLICATION ONLY	02/06/21	RH	RH
1	ISSUE FOR DEVELOPMENT APPLICATION ONLY	14/04/21	MK	RH

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Drawing Title: STORMWATER MANAGEMENT PLAN

Client: ALEXANDER & Co. , 63 Brisbane Street, Bondi Junction

Scales: AS NOTED , AO SHEET

Client Project No.: 0487

Architect / Project Manager: SOPHIE HARRIS

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Sheet: 1 of 1

Revision: 2

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