PROPOSED RESIDENTIAL DEVELOPMENT
TYPE: ALTERATIONS AND ADDITIONS

DRAWINGS SERIES TO BE PRINTED IN COLOUR

DEVELOPMENT APPLICATION ISSUE
NOT FOR CONSTRUCTION

ADDRESS: No.7 CRANE LODGE PLACE, PALM BEACH
TITLE: LOT 12/DP31294
DRAWING SERIES: STORMWATER MANAGEMENT PLAN

GENERAL NOTES

GN1 ALL DIMENSIONS TO BE CONFIRMED ON SITE PRIOR TO CONSTRUCTION.
GN2 THE CONTRACTOR SHALL LOCATE AND DETERMINE LEVELS OF ALL EXISTING SERVICES PRIOR TO COMMENCING EXCAVATION WORK. ALL SERVICES SHOWN ON THIS DRAWING ARE INDICATIVE AND FOR GUIDANCE ONLY.
GN3 THIS DRAWING SERIES IS TO BE READ IN CONCURRENCE WITH RELEVANT DRAWINGS SERIES FROM OTHER CONSULTANTS, COUNCIL OR RELEVANT SPECIFICATIONS. WHERE DISCREPANCIES ARE DETECTED THE DESIGN ENGINEER IS TO BE CONTACTED IMMEDIATELY FOR VALIDATION/ RECTIFICATION.
GN4 BUILDER AND CONTRACTORS IS TO ENSURE THAT ALL COUNCIL DEVELOPMENT CONSENT CONDITIONS, CONSTRUCTION CERTIFICATE AND BASIX REQUIREMENTS ARE MET.
GN5 A STRUCTURAL ENGINEER IS TO DESIGN AND DETAIL SUBSOIL DRAINAGE. UNLESS APPROVED BY OUR OFFICE, SUBSOIL DRAINAGE IS NOT TO CONNECT INTO THE STORMWATER SYSTEM DISPLAYED WITHIN THIS DRAWING SERIES.
GN6 PLANS ISSUED FOR DEVELOPMENT APPLICATION, SHALL NOT BE USED FOR OBTAINING A CONSTRUCTION CERTIFICATE.
GN7 PLANS ISSUED FOR DEVELOPMENT APPLICATION PURPOSES, SHALL NOT BE USED FOR CONSTRUCTION PURPOSES.

BEFORE YOU DIG AUSTRALIA

BEFORE YOU DIG www.byda.com.au

THE MOST UP TO DATE BEFORE YOU DIG AUSTRALIA (BYDA) PLANS MUST BE KEPT ON-SITE AT ALL TIMES. ANY PERSON ABOUT TO DIG OR EXCAVATE MUST READ BYDA PLANS PRIOR TO THE COMMENCEMENT OF WORK.

STORMWATER NOTES

SN1 ALL STORMWATER DRAINAGE PIPES AND ASSOCIATED DEVICES, ARE TO BE INSTALLED IN ACCORDANCE WITH THE RELEVANT STANDARDS, THE BUILDING CODE OF AUSTRALIA, MANUFACTURER'S RECOMMENDATIONS, SYDNEY CATCHMENT AUTHORITY RECOMMENDED PRACTICE, AND LOCAL COUNCIL, AS APPLICABLE.
SN2 ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE AS/NZS3500 AND THE REQUIREMENTS OF THE LOCAL GOVERNMENT AREAS POLICIES, CODES AND SPECIFICATIONS. ENSURE INSPECTION OPENINGS ARE INSTALLED TO DRAINAGE LINES AT REQUIRED LOCATIONS.
SN3 STORMWATER PIPES UP TO DN150 SHALL BE LAID AT A MINIMUM 1% GRADE UNLESS OTHERWISE NOTED.
SN4 WHERE NECESSARY PUBLIC UTILITY SERVICES ARE TO BE ALTERED AND AMENDED AT THE CLIENT'S EXPENSE.
SN5 ALL NEW WORK MAKE SMOOTH TRANSITIONS AND CONNECTIONS WITH EXISTING WORK.
SN6 LOCAL GOVERNMENT AREAS TREE PRESERVATION AND MANAGEMENT ORDERS TO BE ABIDED BY. A PERMIT IS REQUIRED BEFORE TREE/S CAN BE REMOVED .
SN7 ALL PITS TO BE STREAMLINED AND BENCHED IN ACCORDANCE WITH LOCAL GOVERNMENTS AREAS SPECIFICATIONS.
SN8 STEP IRONS ARE TO BE PROVIDED FOR ALL PITS OVER 1.2m DEEP IN ACCORDANCE WITH AS/NZS3500 AND LOCAL GOVERNMENT AREAS CODES AND POLICES.
SN9 DOWNPIPES, RAINWATER LINES AND STORMWATER LINES TO BE FULLY SEALED UNLESS OTHERWISE NOTED.
SN10 ALL GRATE AND INVERT LEVELS PROVIDED ON THIS DRAWING ARE EXTRACTED FROM SURVEY AND REDUCED TO AHD. FOLLOWING EARTHWORKS, PIT INSTALLATION AND BENCHING THE LEVELS ARE TO BE VERIFIED OR ADJUSTED TO MEET THE DESIGN INTENT. IF EVER IN DOUBT CONTACT DESIGN ENGINEER.
SN11 ALL SUSPENDED DRAINAGE PIPES ARE TO STRAPPED IN ACCORDANCE WITH AS/NZ 2032.
SN12 LOW POINTS OF CHARGED DRAINAGE SYSTEMS REQUIRE DEVICES FOR FLUSHING AND MAINTENANCE.
SN13 THE NUMBER AND LOCATION OF DOWNPIPES, ON THIS DRAWING SERIES, ARE SHOWN INDICATIVELY AND ARE TO BE CONFIRMED ON-SITE BY BUILDER PRIOR TO CONSTRUCTION. ROOF DRAINAGE, BY OTHERS, AND TO BE INSTALLED IN ACCORDANCE WITH AS/NZs 3500 SERIES.
SN14 NEW WORKS SHALL NOT CREATE ANY TRAPPED SURFACE AREAS. IN SUCH CASES WHERE TRAPPED AREAS EXIST, A DRAINAGE NETWORK WITH ADEQUATE CAPACITY SHALL BE REQUIRED TO DRAIN STORMWATER TO AN APPROVED DISCHARGE POINT. A PUMP-OUT SYSTEM MAY BE REQUIRED IF THE TRAPPED AREA IS BELOW THE NATURAL SURFACE LEVEL. IN EACH INSTANCE, THE DESIGN ENGINEER MUST BE CONTACTED FOR DESIGN DETAILS (AS REQUIRED) BEFORE CONSTRUCTION.
SN15 WHEN SURFACES FALL TOWARDS A BUILDING, INCLUDING LAND OUTSIDE OF THE SITE, GROUND SURFACE LEVELS ADJACENT TO THE BUILDING ARE TO BE RE-GRADED SUCH THAT THE FIRST METER HAS A MINIMUM 50MM FALL AWAY FROM THE BUILDING AS PER THE NATIONAL CONSTRUCTION CODE.
SN16 BALCONY DRAINAGE AND WATERPROOFING TO BE INSTALLED IN STRICT ACCORDANCE WITH RELEVANT AUSTRALIAN STANDARD, DESIGN IS TO BE BY OTHERS.

DRAWING LEGEND

	INDICATES INDICATIVE EXTENT OF EXISTING DWELLING
	INDICATES INDICATIVE EXTENT OF PROPOSED EXTENSION
	INDICATES INDICATIVE EXTENT OF PROPOSED DRIVEWAY
	INDICATES ON-SITE DETENTION TANK
	INDICATES RAINWATER TANK
	INDICATES ABSORPTION SYSTEM
DP	INDICATES PROPOSED DOWNPIPE/RISER
e.DP	INDICATES EXISTING DOWNPIPE/RISER
I.O.	INDICATES INSPECTION OPENING WITH SCREW DOWN LID
RWO	INDICATES RAINWATER OUTLET
PBO	INDICATES PLANTER BOX OUTLET
	INDICATES EAVE OPENING
	INDICATES PIPE DROPPER
	BOX GUTTER SUMP/RAINWATER HEAD SUMP
EG1	INDICATES EAVE TYPE AND DIRECTION
OR	INDICATES DOWNPIPE SPREADER
	INDICATES GRATED BOX DRAIN WITH OUTLET
	INDICATES DRAINAGE PIT GRATED OPENING
	INDICATES DRAINAGE PIT SEALED COVER
SW SW IL.XX.XXX	INDICATES STORMWATER PIPE INVERT LEVELS. UNLESS OTHERWISE NOTED PIT BASE IS TO EQUAL PIPE BASE
RW	INDICATES DN100 RAINWATER PIPE.
SW	INDICATES DN100 STORMWATER PIPE.
e.SW	INDICATES EXISTING STORMWATER PIPE.
s.SW	INDICATES DN100 SEWER GRADE CHARGED STORMWATER PIPE.
w.RM	INDICATES INDICITIVE LOCATION OF RISING MAIN BY OTHERS.
DN150 RW	INDICATES SIZE AND DIRECTION OF RAINWATER PIPE GREATER THAN DN100.
DN150 SW	INDICATES SIZE AND DIRECTION OF STORMWATER PIPE GREATER THAN DN100.
DN150 e.SW	INDICATES SIZE AND DIRECTION OF EXISTING STORMWATER PIPE GREATER THAN DN100.
DN150 s.SW	INDICATES SIZE AND DIRECTION OF SEWER GRADE CHARGED STORMWATER PIPE.
	INDICATES SITE BOUNDARY
	INDICATES EASEMENT WITHIN SITE, REFER TO DETAILED SURVEY
	INDICATES INDICATIVE ROOF OUTLINE
PAGE S??	PIPE LINE CONTINUES TO REFERENCED PAGE
	PENETRATION DIRECTION
DP-RW	SERVICE TYPE
100	SIZE
	PENETRATION DIRECTION

SITE SUMMARY OF COUNCIL SPECIFICATION

1. COUNCIL: NORTHERN BEACHES COUNCIL
2. RELEVANT DOCUMENTS:
   2.1. NORTHERN BEACHES COUNCIL WATER MANAGEMENT FOR DEVELOPMENT POLICY (FEB 2021)
   2.2. AS/NZS 3500.3
3. ENGINEERING COMMENTS:

- STORMWATER DISCHARGE
  DEVELOPMENT PROPOSES ALTERATIONS AND ADDITIONS AND IS EXPECTED TO MAINTAIN THE EXISTING GRAVITY STORMWATER SYSTEM (WHERE POSSIBLE). THE SITE DRAINS TO AN EXISTING KERB OUTLET AT CRANE LODGE PLACE. REFER TO PAGE S2 FOR EXPECTED OUTLET LOCATION.

- ON-SITE DETENTION
  THE DEVELOPMENT PROPOSES ALTERATIONS AND ADDITIONS WITH A NET IMPERVIOUS AREA INCREASE OF 29m^2. THE IMPERVIOUS AREA INCREASE IS LESS THAN 50m2 AND IT IS ASSUMED THAT THERE HAS BEEN NO CHANGE TO THE IMPERVIOUS AREA SINCE 1996. BASED ON THE ABOVE OSD IS NOT RECOMMENDED FOR THE DEVELOPMENT. REFER TO COUNCIL CHECKLIST ON PAGE S7

THIS DRAWING SERIES HAS BEEN PREPARED IN GENERAL ACCORDANCE WITH THE ABOVE DOCUMENTS.

PAGE DIRECTORY

AMUNA CIVIL ENGINEERING

Revision	Drawn	Date	Description	Checked	Approved
2	SSD	04.04.24	ISSUED FOR DEVELOPMENT APPLICATION	SC	SSD
1	SSD	28.02.24	ISSUED FOR CLIENT REVIEW	SC	SSD

North

Architect
STEPHEN VARADY ASSOCIATES
Client: MAZIN

Project
PROPOSED ALT'S AND ADD'S
No. 7 CRANE LODGE PLACE
PALM BEACH

Drawing Title
TITLE PAGE & NOTES

Project No. ACE23136
Scale: A1 AS NOTED
Page No. S1
Revision 2

IMAGE 1 - EXISTING OUTLET

FOR DETAILS REGARDING THE EASEMENT, REFER TO THE SURVEY PRODUCED BY C.M.S SURVEYORS PTY LTD, REFERENCE 7695B DATED 24.06.2021

JUNCTION PIT - SIP1
SIZE: 450 SQUARE
GRATE: CLASS A GRATED INLET
GRATE SL: 33.75 NOM.
OUTLET IL: 33.30 NOM.

THE ARBORIST MUST VERIFY THE FINAL PLACEMENT OF THE PIPE, WHERE NECESSARY.

SUBSOIL AND SUBFLOOR DRAINAGE (I.E SPOON DRAINS) TO STRUCTURAL ENGINEERS DETAIL. SPOON DRAIN EXTENT INDICATIVE AND SIGNIFIED AS:

PROPOSED SUSPENDED PARKING PLATFORM (BY OTHERS)

LEVEL 0
RL.39.98

MODIFICATION TO EXISTING GARAGE
RL.35.86 NOM

REFER TO PAGE S3

THE EXISTING STORMWATER LINE SHALL BE DIRECTED TOWARDS THE KERB AND GUTTER AS ILLUSTRATED IN IMAGE 1. BEFORE PROCEEDING, THE BUILDER/PLUMBER MUST CONFIRM THE ADEQUACY OF THE EXISTING STORMWATER LINE AND PERFORM HYDRAULIC TESTING TO GUARANTEE IT FULFILLS THE DESIGN REQUIREMENTS. IF THE LINE IS INADEQUATE, THE OUTLET MATERIAL MUST BE REPLACED IN COMPLIANCE WITH COUNCIL SPECIFICATIONS.
OUTLET MATERIAL: SEWER GRADE uPVC DN100
OUTLET IL: 25.15 NOM.
LEVELS TO BE CONFIRMED ON-SITE PRIOR TO CONSTRUCTION

STRAP AND ANCHOR EXISTING PIPE THEN CONNECT TO PROPOSED PIT SIP1.

THE RESPONSIBILITY FOR DESIGNING THE VEHICULAR ACCESS, LAYBACK, AND DRIVEWAY IN ACCORDANCE WITH AS/NZs2890 SERIES AND COUNCIL SPECIFICATIONS SHALL BE BY OTHERS

EXISTING GRATED BOX DRAIN (GBD) TO REMAIN AND EXTENDED TO SUIT MODIFICATION. PLUMBER TO CLEAN-OUT AND PERFORM HYDRAULIC TESTING TO GUARANTEE IT FULFILLS THE DESIGN REQUIREMENT

ESTIMATED LOCATION OF EXISTING STORMWATER SYSTEM. BEFORE PROCEEDING, THE BUILDER/PLUMBER MUST CONFIRM THE ADEQUACY OF THE EXISTING STORMWATER LINE AND PERFORM HYDRAULIC TESTING TO GUARANTEE IT FULFILLS THE DESIGN REQUIREMENTS. IF THE LINE IS INADEQUATE, THE OUTLET MATERIAL MUST BE REPLACED IN COMPLIANCE WITH COUNCIL SPECIFICATIONS.
SIGNIFIED AS: e.SW

FOR ALL DOWNPIPES LOCATED ON THIS DRAWING REFER TO NOTE SN13 ON PAGE S1.

AS DEPICTED, CONNECT THE PROPOSED ROOF DRAINAGE TO THE EXISTING STORMWATER SYSTEM. ROOF DRAINAGE TO BE DESIGNED AT CC STAGE

BENCH MARK
NAIL IN CONCRETE
RL.35.88

MANAGEMENT OF STORMWATER PLAN - LEVEL 0
SCALE - 1:50/A1, 1:100/A3
0 1m 2m 3m 4m 5m

PLACE LODGE CRANE

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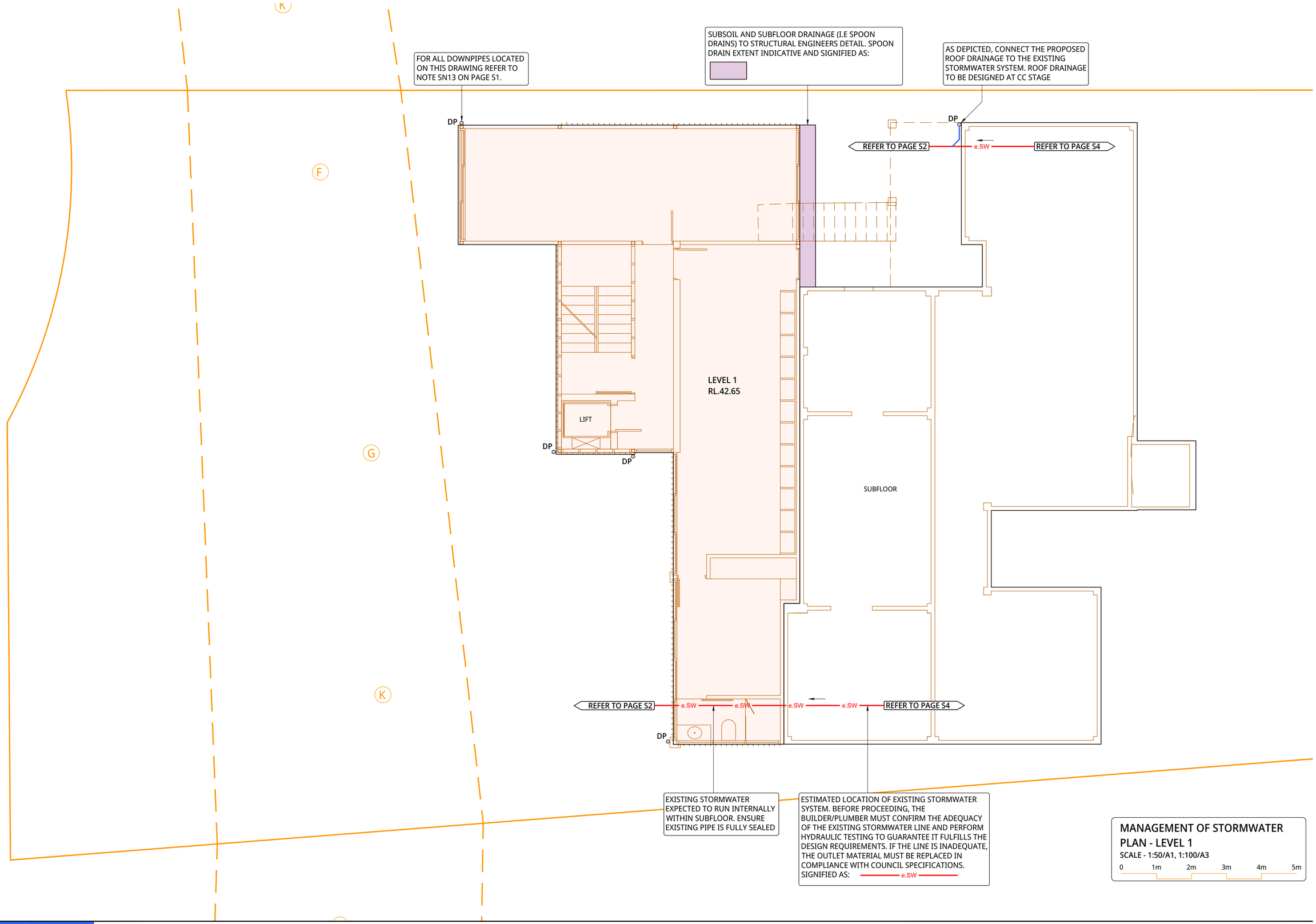
North

Architect
STEPHEN VARADY ASSOCIATES
Client: MAZIN

Project
PROPOSED ALT'S AND ADD'S
No. 7 CRANE LODGE PLACE
PALM BEACH

Drawing Title
MANAGEMENT OF STORMWATER PLAN - LEVEL 0

Project No. ACE23136
Scale: A1 AS NOTED
Page No. S2
Revision 2



MANAGEMENT OF STORMWATER PLAN - LEVEL 1

SCALE - 1:50/A1, 1:100/A3

0 1m 2m 3m 4m 5m

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Project
PROPOSED ALT'S AND ADD'S

No. 7 CRANE LODGE PLACE
PALM BEACH

Drawing Title
MANAGEMENT OF STORMWATER PLAN - LEVEL 1

Project No.
ACE23136

Scale: A1
AS NOTED

Page No.
S3

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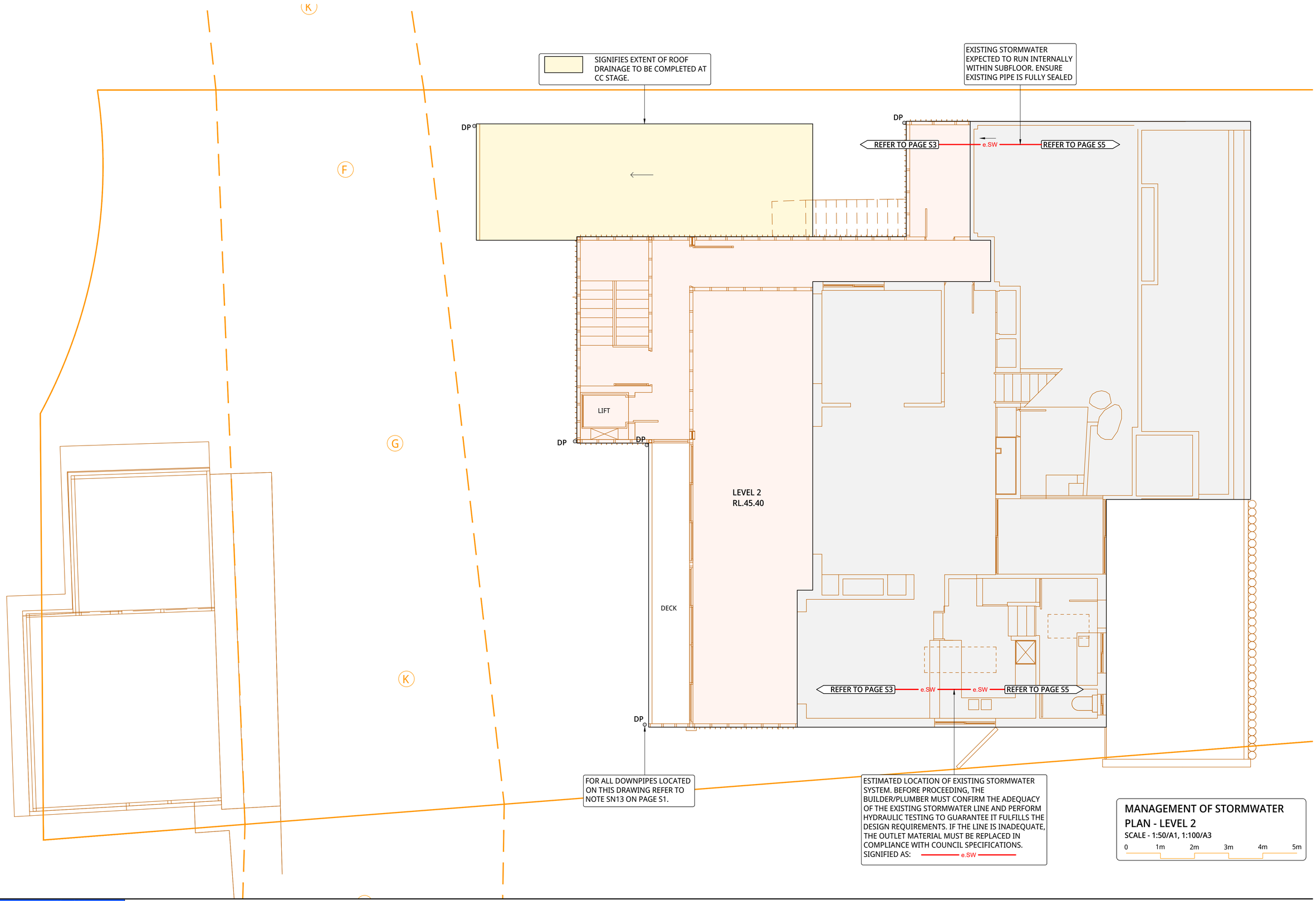
2



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PROPOSED ALT'S AND ADD'S
No. 7 CRANE LODGE PLACE
PALM BEACH

Drawing Title
MANAGEMENT OF STORMWATER PLAN - LEVEL 2

Project No.
ACE23136

Scale: A1
AS NOTED

Page No.
S4

Revision
2

SIGNIFIES LOWER ROOF AREA
REFER TO PAGE S4

EXISTING STORMWATER EXPECTED TO RUN INTERNALLY WITHIN SUBFLOOR. ENSURE EXISTING PIPE IS FULLY SEALED

AS DEPICTED, CONNECT THE PROPOSED ROOF DRAINAGE TO THE EXISTING STORMWATER SYSTEM. ROOF DRAINAGE TO BE DESIGNED AT CC STAGE

ENTIRE LENGTH OF EXISTING RETAINING WALL IS CLEANED OUT OF DEBRIS AND BE FULLY FUNCTIONAL. ENSURE OVERLAND FLOW IS DIRECTED AROUND WALL AS PER EXISTING CONDITIONS.

ESTIMATED LOCATION OF EXISTING STORMWATER SYSTEM. BEFORE PROCEEDING, THE BUILDER/PLUMBER MUST CONFIRM THE ADEQUACY OF THE EXISTING STORMWATER LINE AND PERFORM HYDRAULIC TESTING TO GUARANTEE IT FULFILLS THE DESIGN REQUIREMENTS. IF THE LINE IS INADEQUATE, THE OUTLET MATERIAL MUST BE REPLACED IN COMPLIANCE WITH COUNCIL SPECIFICATIONS.
SIGNIFIED AS: e.SW

FOR ALL DOWNPIPES LOCATED ON THIS DRAWING REFER TO NOTE SN13 ON PAGE S1.

SIGNIFIES EXTENT OF ROOF DRAINAGE TO BE COMPLETED AT CC STAGE.

IN THE EVENT OF BLOCKAGE ENSURE OVERLAND FLOW CAN DRAIN AROUND BUILDING

REFER TO PAGE S4

REFER TO PAGE S4

LEVEL 3
RL.47.58

EXISTING COURTYARD

DP

e.DP

e.SW

SW

MANAGEMENT OF STORMWATER PLAN - LEVEL 3

SCALE - 1:50/A1, 1:100/A3

0 1m 2m 3m 4m 5m

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Architect
STEPHEN VARADY ASSOCIATES
Client: MAZIN

Project
PROPOSED ALT'S AND ADD'S
No. 7 CRANE LODGE PLACE
PALM BEACH

Drawing Title
MANAGEMENT OF STORMWATER PLAN - LEVEL 3

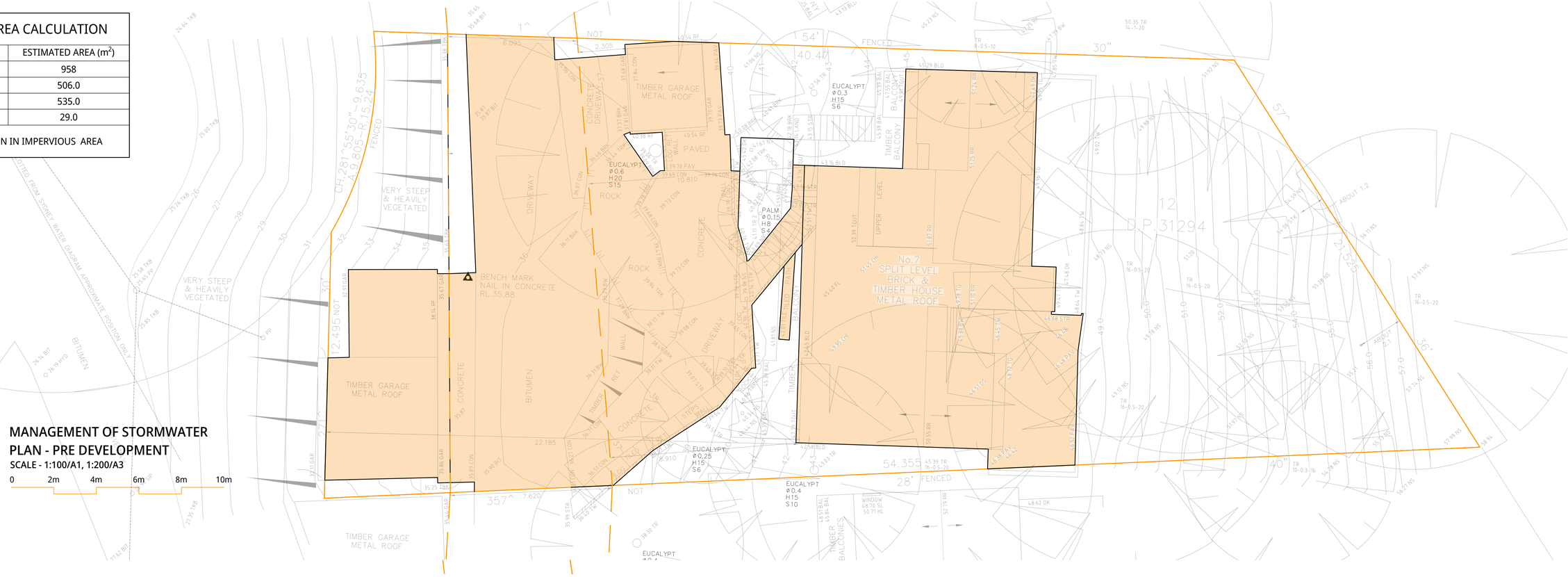
Project No. ACE23136

Scale: AS NOTED A1

Page No. S5

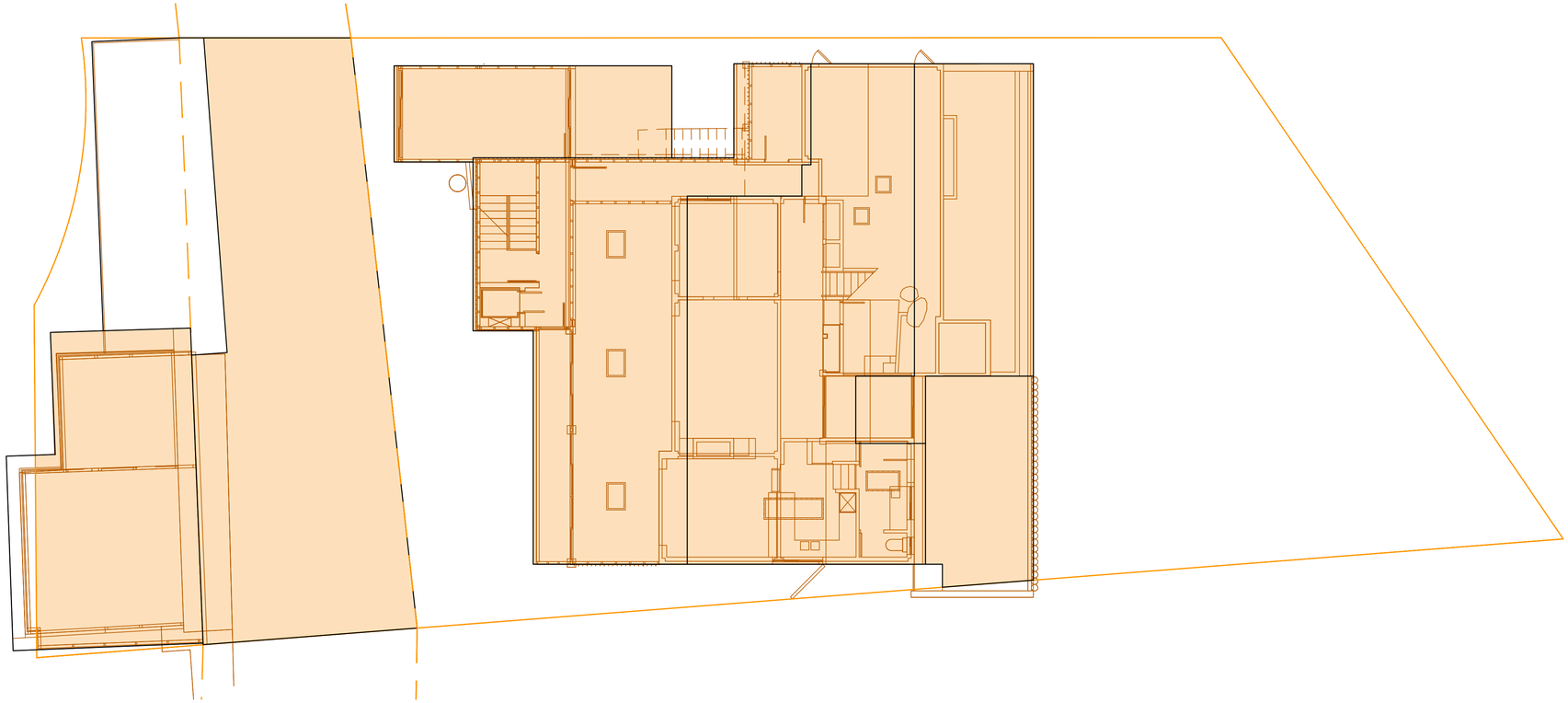
Revision 2

IMPERVIOUS AREA CALCULATION	
DEVELOPMENT	ESTIMATED AREA (m^2)
SITE AREA	958
PRE-DEVELOPMENT	506.0
POST-DEVELOPMENT	535.0
ESTIMATED RESULT	29.0
ESTIMATED ADDITION IN IMPERVIOUS AREA	



MANAGEMENT OF STORMWATER
PLAN - PRE DEVELOPMENT
SCALE - 1:100/A1, 1:200/A3

0 2m 4m 6m 8m 10m



MANAGEMENT OF STORMWATER
PLAN - POST DEVELOPMENT
SCALE - 1:100/A1, 1:200/A3

0 2m 4m 6m 8m 10m

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STEPHEN VARADY ASSOCIATES
Client: MAZIN

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PROPOSED ALT'S AND ADD'S
No. 7 CRANE LODGE PLACE
PALM BEACH

Drawing Title
MANAGEMENT OF STORMWATER CALCULATIONS

Project No. ACE23136
Scale: A1 AS NOTED
Page No. S6
Revision 2

Appendix 16 – On-site Detention Checklist

This checklist is to be used to determine the on-site stormwater disposal requirement for developments and must be completed and included with the submission of any development application for these works. Please read this form carefully for its notes, guidelines, definition and relevant policies.

For assistance and support, please contact Council's Development Engineering and Certification team on 1300 434 434.

Part 1 Location of the Property REFER TO TITLE			
House Humber		Legal Property Description	
Street		Lot	
Suburb		Section	
Postcode		DP	

Part 2 Site Details			
Northern Beaches Stormwater Regions (refer to Map 2 of Northern Beaches Council's Water Management for Development policy)	1	Total Site Area	958 m^2
Pre-Development Impervious Area	506m^2	Post-Development Impervious Area	535m^2
Is the site of the development located within an established Flood Prone Land as referred to Council's Local Environmental Plans? If yes, On-site stormwater Detention system (OSD) is not required and please proceed to part 5 of this checklist If no, please proceed to part 3 of this checklist.			Yes ☐ No ■

Part 3: Northern Beaches Stormwater Regions (refer to Map 2 of Northern Beaches Council's Water Management for Development policy)
If the site of the development located within Region 1, please proceed to the part 4.1 of this checklist
If the site of the development located within Region 2, please proceed to the part 4.2 of this checklist
If the site of the development located within Region 3, please proceed to the part 4.3 of this checklist
If the site of the development located within Region 4, please refer to Council's Warriewood Valley Water Management Specification.

Part 4 Determination of OSD Requirements

Part 4.1 Northern Beaches Stormwater Region 1	
Is the additional impervious area of the development more than 50 m^2 on a cumulative basis since February 1996?	Yes ☐ No ■
If yes, OSD is required and please refer to section 9.3.1 of Council's Water Management for Development Policy If no, OSD is not required and please proceed to the part 5 of this checklist OSD NOT REQUIRED	

Part 4.2 Northern Beaches Stormwater Region 2	
Part 4.2.1 Description of Work	
Residential flat building, commercial, industrial, multiple occupancy development and subdivisions resulting in the creation of three lots or more, will require OSD in all case. Please provide a design in accordance with the section 9.3.2 of Council's Water Management for Development Policy. Any single residential building development, please proceed to part 4.2.2 of this checklist.	
Part 4.2.2 Exemption	
Is the site area less than 450m²?	Yes ☐ No ☐
Does the site of the development drain directly to the ocean without the need to pass through a drainage control structure such as pipe, bridge, culvert, kerb and gutter or natural drainage system?	Yes ☐ No ☐
Is it an alternation and addition development to the existing dwellings?	Yes ☐ No ☐
If yes to any of the above questions, OSD is not required. If no to all the above questions, proceed to part 4.2.3	
Part 4.2.3 Determination of OSD Requirements	
Calculation	a) Site area m^2 x 0.40 (40%) = ... m^2 b) Post- development impervious area = ... m^2 **OSD will not be required when (a) is greater than (b)** Is OSD required for this development (tick one only) Yes ☐ No ☐ If yes, provide a design in accordance with the section 9.3.2 of Council's Water Management for Development Policy. If no, OSD is not required and please proceed to part 5 of this checklist.

Part 4.3 Northern Beaches Stormwater Region 3		
Part 4.3.1 Stormwater Zone		
In the region, the method of stormwater control to be applied shall depend on the location of the site. Please refer to Map 3 of Northern Beaches Council's Water Management for Development policy.		
If the site of the development located within stormwater zone 1, please proceed to the part 4.3.2 of this checklist		
If the site of the development located within stormwater zone 2, please provide a design in accordance with the section 9.3.3.3 of Council's Water Management for Development Policy.		
If the site of the development located within stormwater zone 3, please provide a design in accordance with the section 9.3.3.4 of Council's Water Management for Development Policy.		
If the site of the development located within stormwater zone 4, please provide a design in accordance with the section 9.3.3.5 of Council's Water Management for Development Policy.		
Part 4.3.2 Determination of OSD requirements in Stormwater Zone 1		
Part 4.3.2.1 For A New Building		
1) Exemption	a) Is the site area less than 400? Yes ☐ No ☐ b) Is the post-development impervious area less than 190 m^2? Yes ☐ No ☐ If yes to both questions, OSD is not required. If no to any of the above questions, please process to calculation	
2) Calculation	a) Site area _____m^2 x 0.35 = _____m^2 + 50 = _____m^2 b) Post- development impervious area _____m^2 OSD will not be required when (b) is less than 250 m^2 and (a) is greater than (b) Is OSD required for this development? Yes ☐ No ☐ If yes, provide a design in accordance with the section 9.3.3.2 of Council's Water Management for Development Policy. If no, OSD is not required and please proceed to part 5.	
Part 4.3.2.2 For Alterations and Additions		
If the current impervious area of the site is more than 60% of the site area, OSD will be required. Alternatively, please proceed to the next calculation section.		
1) Calculation	Is the post development impervious area increased by less than 50 m^2? Yes ☐ No ☐ Is the post development impervious area less than 60% of the site area? Yes ☐ No ☐ If yes to both questions, OSD is not required. If no to any of the above questions, provide a design in accordance with section 9.3.3.2 of Council's Water Management for Development Policy	

Part 5 Disposal of Stormwater
Does the site fall naturally towards the street? Yes ■ No ☐ If yes, provide a design in accordance with section 5.1 of Council's Water Management for Development Policy. If no, provide a design in accordance with section 5.5 of Council's Water Management for Development Policy.

Definitions	
Designed to help you fill out this application	**Site area:** This refers to the area of the land bounded by its existing or proposed boundaries. **Impervious area:** This refers to driveways, parking spaces, pathways, paved areas, hardstand areas, roofed areas, garages and outbuildings. **Pre Development Impervious area**: This refers all impervious areas of the site before the development. **Post Development Impervious areas**: This refers all the impervious areas within the site after the development is completed.

AMUNA CIVIL ENGINEERING

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North

Architect
STEPHEN VARADY ASSOCIATES
Client: MAZIN

Project
PROPOSED ALT'S AND ADD'S
No. 7 CRANE LODGE PLACE
PALM BEACH

Drawing Title
MANAGEMENT OF STORMWATER CHECKLIST

Project No. ACE23136
Scale: A1 AS NOTED
Page No. S7
Revision 2