



	RAILWAY
	RETARDING BASIN OUTLET PIPE
	RISING MAIN CONNECTION
	FUTURE FREEWAY
	FUTURE ROAD
	WETLAND NWL EXTENT
	1 IN 5 YEAR ARI PIPE (INDICATIVE)
	EXISTING TREE
	LSIO EFFECTED LAND, MINIMUM FILL = 116.35 m AHD
	100YR FLOOD LEVEL EFFECTED LAND, MINIMUM FILL = 116.27 m AHD
	100YR FLOOD LEVEL EFFECTED LAND, MINIMUM FILL = 116.23 m AHD
	LAND TO BE FILLED TO GRADE TOWARDS DESIRED OUTLET (SEE SWMP REPORT, APRIL 2016)

W1
RETARDING
BASIN/WETLAND
AS PER DETAILED
PLAN 1617/SWS/2

W2
RETARDING
BASIN/WETLAND
AS PER DETAILED
PLAN 1617/SWS/3

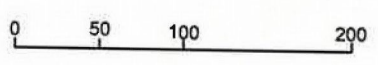
W3
RETARDING
BASIN/WETLAND
AS PER DETAILED
PLAN 1617/SWS/4

EXISTING 450 mm
DIA CULVERT
UNDER RAILWAY.
IL 115.52 m AHD.

- NOTES:**
1. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH "TOOLAMBA, STORM WATER MANAGEMENT PLAN REPORT, APRIL 2016".
 2. SYSTEMS SIZES AND DESIGN LEVELS ARE BASED ON EXISTING SITE SURVEY AND 0.1 m DESIGN CONTOURS. INFORMATION AND LEVELS SHOULD BE CHECKED AT THE FUNCTIONAL DESIGN STAGE OF THE PROJECT. THIS ESPECIALLY APPLIES TO ACCURATELY PROVING THE DOWNSTREAM 450 MM RAILWAY PIPELINE (INVERT LEVELS, PIPE SIZES AND PIPE ALIGNMENTS).
 3. ALL EMBANKMENT BATTERS ARE 1 IN 5 (MIN).
 4. ALL ROAD LOCATIONS AND EXTENTS SHOWN ARE SUBJECT TO CHANGE GIVEN COUNCIL AND DEVELOPER REQUIREMENTS IN THE FUTURE.
 5. ALL ROADS AND LOTS TO BE LOCATED BORDERING THE RETARDING BASIN SITE MUST BE CONSTRUCTED TO A MINIMUM OF FILL LEVEL AS DEFINED IN THE MARCH 2016 SWMP REPORT.
 6. DETAILED SURVEY PROVING (UNDERGROUND AND OVERHEAD) MUST BE COMPLETED AND INCORPORATED INTO THE DESIGN AT THE FUNCTIONAL DESIGN STAGE OF THE PROJECT.
 7. LOCATION OF ALL 1 IN 5 YR ARI PIPELINES INDICATIVE ONLY (YET TO BE SIZED)

APPROX. LOCATION OF
EXISTING CULVERT
UNDER RAILWAY

CONCEPT DESIGN ONLY
SUBJECT TO CHANGE



ISSUED FOR COMMENT	21 MARCH 2016
REVISION A: W1 PUMPED OUTLET	4 APRIL 2016
REVISION	DATE



DESIGNED	Michael Mag	PLAN REF.	#
CHECKED	Valerie Mag	MELWAY No.	#
AUTHORISED BY		MELB WATER REF. No.	#

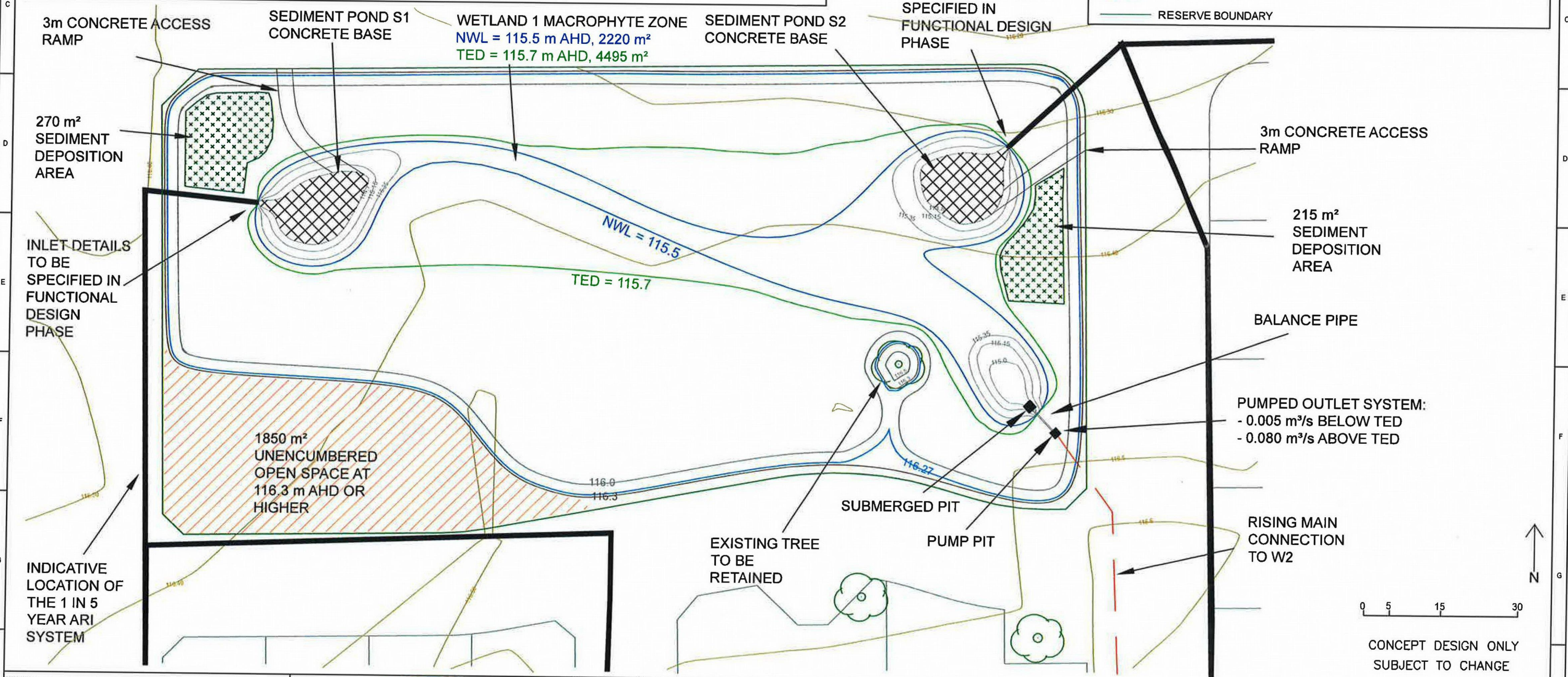
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TOOLAMBA
STORM WATER MANAGEMENT PLAN

SCALE: AS SHOWN
SHEET 1 OF 4
DRAWING No. 1617/SWS/1

- NOTES:
1. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH "TOOLAMBA, STORM WATER MANAGEMENT PLAN REPORT, APRIL 2016".
 2. SYSTEM SIZES, LOCATIONS IN RELATION TO PROPERTY BOUNDARIES, ACTUAL PROPERTY BOUNDARY LOCATIONS AND DESIGN LEVELS ARE BASED ON SURVEY FROM VARIOUS SOURCES. INFORMATION AND LEVELS SHOULD BE CHECKED AT THE DETAILED DESIGN STAGE OF THE PROJECT.
 3. SEDIMENT PONDS INCORPORATE ALL APPLICABLE 2015 DESIGN REQUIREMENTS AS DETAILED IN THE ABOVE REPORT.
 4. ALL ROAD LOCATIONS AND EXTENTS SHOWN ARE SUBJECT TO CHANGE GIVEN COUNCIL AND DEVELOPER REQUIREMENTS IN THE FUTURE.
 5. ALL ROADS AND LOTS TO BE LOCATED BORDERING THE RETARDING BASIN SITE MUST BE CONSTRUCTED TO A MINIMUM FILL LEVEL OF 116.27 m AHD, OR AS REQUIRED BY THE G.B. CMA.
 6. PLANTING ZONES:- OPEN WATER - LOWER THAN NWL MINUS 350 mm
- DEEP MARSH/MARSH - NWL MINUS 350 mm TO NWL MINUS 150 mm
- SHALLOW MARSH - NWL MINUS 150 mm TO NWL
- EPHEMERAL MARSH - NWL TO TED
- LITTORAL PLANTING - ABOVE TED
 7. PLANTING TO BE SPECIFIED AT THE DETAILED DESIGN STAGE OF THE PROJECT
 8. BATTERS AT LEAST 1 IN 5 ABOVE NWL AND 1 IN 8 BELOW NWL (TO NWL MINUS 350 mm)
 9. DETAILED SERVICE PROVING (UNDERGROUND AND OVERHEAD) MUST BE COMPLETED AND INCORPORATED INTO THE DESIGN AT THE FUNCTIONAL DESIGN STAGE OF THE PROJECT.

- NORMAL WATER LEVEL (NWL) EXTENT - 115.5 m AHD, 2220 m²
- TOP OF EXTENDED DETENTION (TED) EXTENT - 115.7 m AHD, 4495 m²
- RETARDING BASIN EXTENT
- 100 YEAR ARI FLOOD EXTENT - 116.27 m AHD
- WETLAND/RETARDING BASIN BATTERS DESIGN CONTOURS AND LEVELS
- CONCRETE BASE IN SEDIMENT POND
- 3 m WIDE ACCESS TRACKS
- SEDIMENT POND DE-WATERING AREA
- BALANCE PIPE
- INDICATIVE LOCATION OF THE 1 IN 5 YEAR ARI PIPE
- UNENCUMBERED OPEN SPACE
- RESERVE BOUNDARY



0 5 15 30

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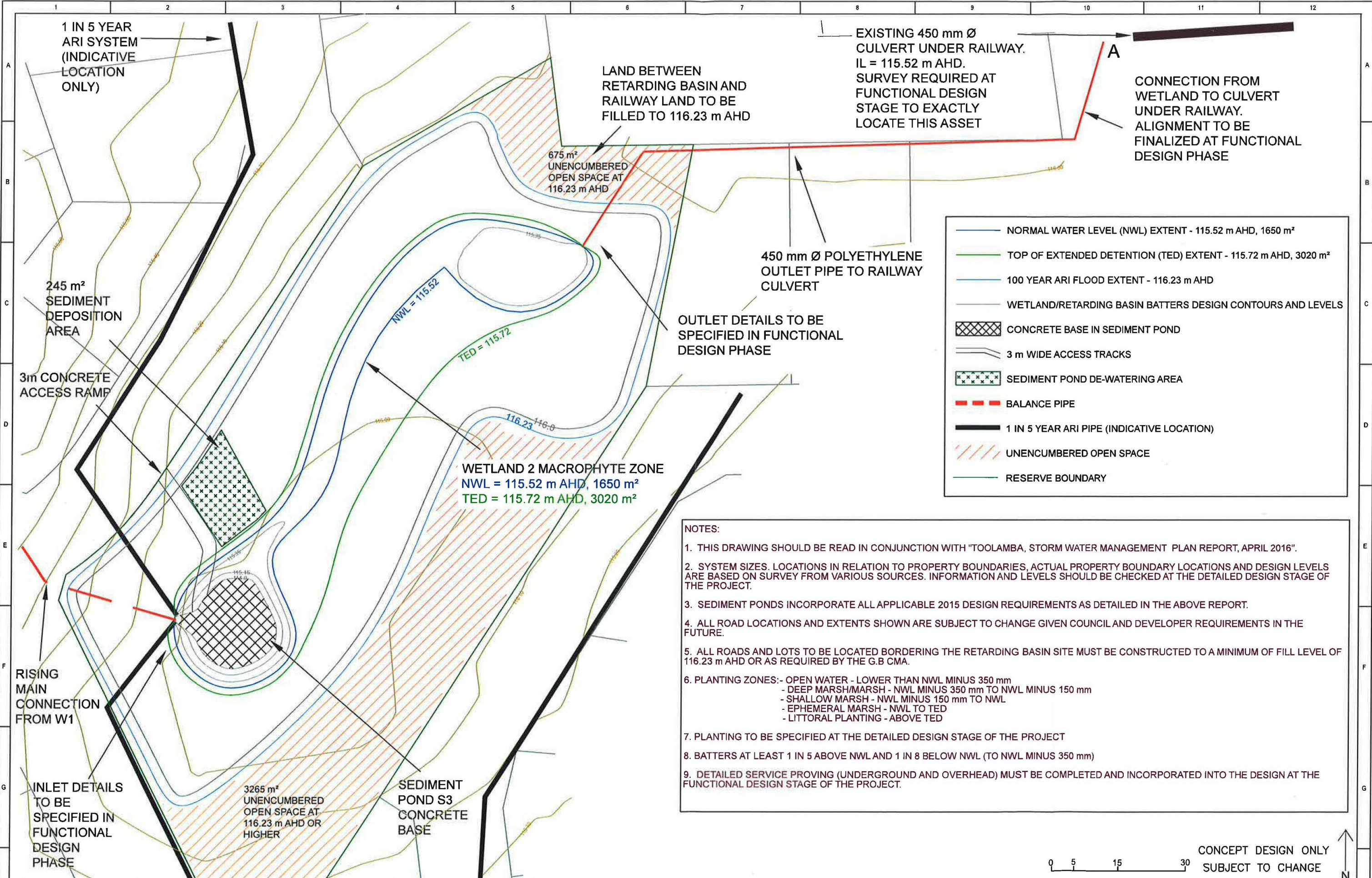


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TOOLAMBA
STORM WATER MANAGEMENT PLAN
WETLAND/RETARDING BASIN W1

SCALE: AS SHOWN
SHEET 2 OF 4
DRAWING No. 1617/SWS/2



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REVISION A: W1 PUMPED OUTLET	4 APRIL 2016
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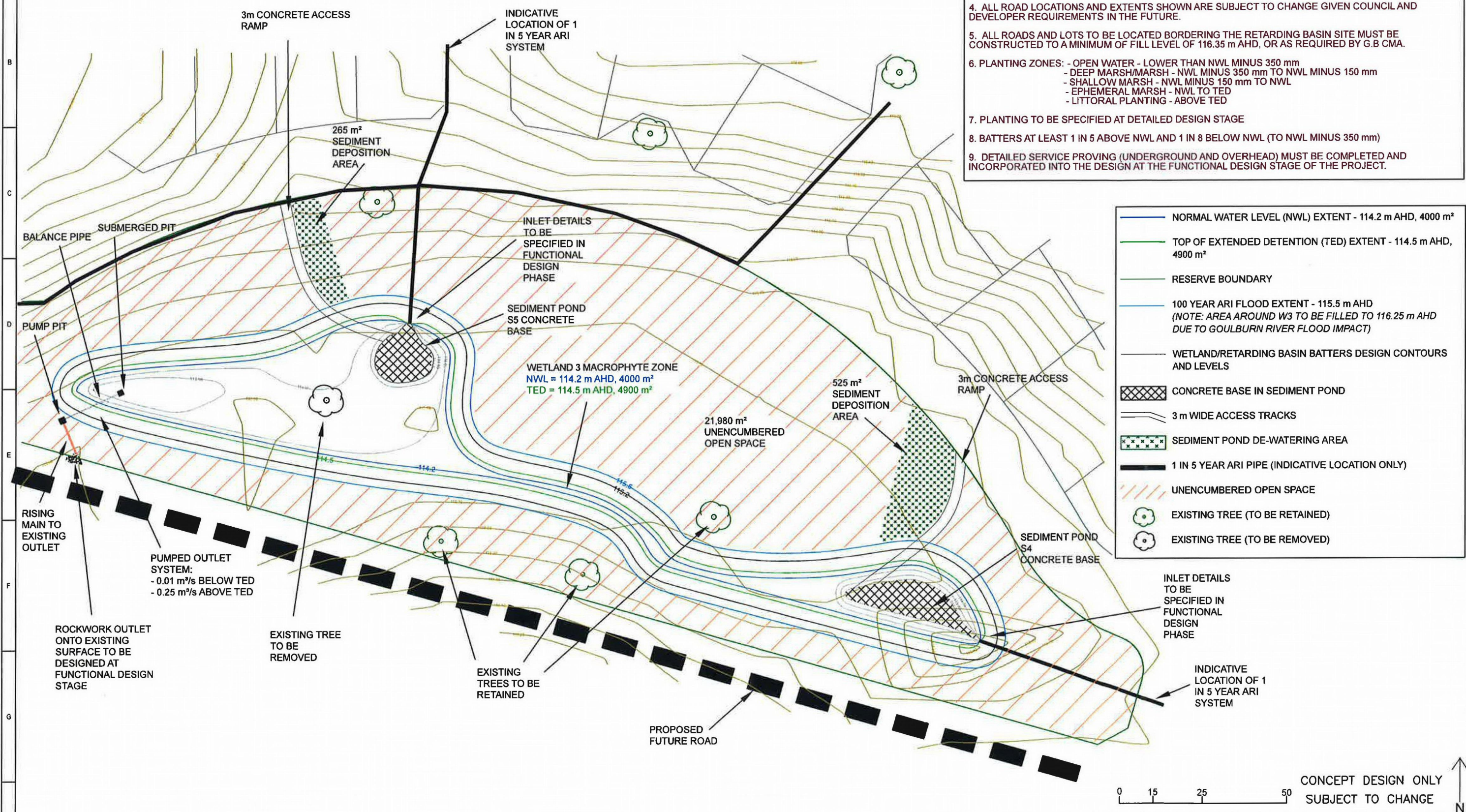
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TOOLAMBA
STORM WATER MANAGEMENT PLAN
WETLAND/RETARDING BASIN W2

SCALE: AS SHOWN
SHEET 3 OF 4
DRAWING No.
1617/SWS/3

- NOTES:
- THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH "TOOLAMBA, STORM WATER MANAGEMENT PLAN REPORT, APRIL 2016".
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 - SEDIMENT PONDS INCORPORATE ALL APPLICABLE 2015 DESIGN REQUIREMENTS AS DETAILED IN THE ABOVE REPORT.
 - ALL ROAD LOCATIONS AND EXTENTS SHOWN ARE SUBJECT TO CHANGE GIVEN COUNCIL AND DEVELOPER REQUIREMENTS IN THE FUTURE.
 - ALL ROADS AND LOTS TO BE LOCATED BORDERING THE RETARDING BASIN SITE MUST BE CONSTRUCTED TO A MINIMUM OF FILL LEVEL OF 116.35 m AHD, OR AS REQUIRED BY G.B CMA.
 - PLANTING ZONES:
 - OPEN WATER - LOWER THAN NWL MINUS 350 mm
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 - SHALLOW MARSH - NWL MINUS 150 mm TO NWL
 - EPHEMERAL MARSH - NWL TO TED
 - LITTORAL PLANTING - ABOVE TED
 - PLANTING TO BE SPECIFIED AT DETAILED DESIGN STAGE
 - BATTERS AT LEAST 1 IN 5 ABOVE NWL AND 1 IN 8 BELOW NWL (TO NWL MINUS 350 mm)
 - DETAILED SERVICE PROVING (UNDERGROUND AND OVERHEAD) MUST BE COMPLETED AND INCORPORATED INTO THE DESIGN AT THE FUNCTIONAL DESIGN STAGE OF THE PROJECT.



0 15 25 50
CONCEPT DESIGN ONLY
SUBJECT TO CHANGE

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1	
2	
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TOOLAMBA	SCALE: AS SHOWN
STORM WATER MANAGEMENT PLAN	SHEET 4 OF 4
WETLAND/RETARDING BASIN W3	DRAWING No.
	1617/SWS/4