THIS DRAWING IS BASED ON THE FOLLOWING LAYOUTS AND MEASUREMENTS				
SURVEY	.	.	DATE	.
ARCH	.	.	DATE	.

CAD REF: [...\DRAWINGS\1939C01.dwg]

RAINWATER TANK NOTES

RWT1. ALL WORK IS TO CONFORM TO AS 3500.
RWT2. RECYCLED STORMWATER OUTLET POINTS ARE TO BE LABELED "RECYCLED STORMWATER-NOT FOR DRINKING" IN ACCORDANCE WITH AS 1319.
RWT3. TANK IS TO BE PROVIDED WITH FILTRATION DEVICES TO ENSURE NO BLOCKAGE.
RWT4. TANK IS TO BE FITTED WITH A 'TOP UP' UNIT AND CONNECTED TO A POTABLE WATER MAINS.
RWT5. ALL TOILET FLUSHING, IRRIGATION AND PAVEMENT WASHING IS TO BE SOURCED FROM RAINWATER TANKS.
RWT6. RAINWATER PIPES SHALL BE CONTINUOUSLY MARKED "RAINWATER" IN ACCORDANCE WITH AS 1345.
RWT7. ALL RAINWATER SERVICES ARE TO BE SEPARATED BY MINIMUM 300mm FROM ANY PARALLEL POTABLE WATER SUPPLY.
RWT8. MOSQUITO SCREENING IS TO BE PLACED AT TANK'S INLET.

STORMWATER MANAGEMENT NOTES

SM1. ALL STORMWATER PIPELINES ARE TO BE LAID ON SAND EVENLY GRADED TO THE INVERT LEVEL AND ALL FITTINGS TO BE IN ACCORDANCE WITH AS1260. MIN PIPELINE GRADIENT IS TO BE 1:100.
SM2. SURFACE INLET GRATES ARE TO BE GALVANISED STEEL FABRICATION AT THE SPECIFIED DIMENSIONS AND INSTALLED WITH SUITABLE LOCK DOWN MECHANISM EG J-SPRING BOLT.
SM3. ALL NEW DOWNPIPES ARE TO BE LOCATED BY HYDRAULIC CONSULTANT AND ARE TO BE COLLECTED IN PVC PIPELINES, JOINT GLUE SEALED, AND CONNECTED TO THE RAINWATER TANK.
SM4. ALL DWELLING DOWNPIPES AND IMPERVIOUS/PAVED AREAS ARE TO BE COLLECTED IN PVC PIPELINES, JOINT GLUE SEALED, AND CONNECTED TO THEIR RESPECTIVE DOWNSTREAM STORMWATER DRAINAGE STRUCTURES.
SM5. ALL BUILDING ROOF AREAS ARE TO DRAIN TO THE RAINWATER TANK FOR NON-POTABLE STORAGE WATER USE, SUCH AS IRRIGATION, POOL TOPUP AND TOILET FLUSHING, IN ACCORDANCE WITH COUNCIL'S GUIDELINES.
SM6 ALL BUILDING AND DWELLING ROOF GUTTERS WILL HAVE LEAF GUARD INSTALLED.
SM7. ALL RAINWATER TANK WILL BE FITTED WITH A FIRST FLUSH DEVICE AND MAINTAINED ON A MONTHLY BASIS.
SM8. A 5,000-litre RAINWATER TANK FOR NON-POTABLE WATER USE WILL BE INSTALLED TO ALL DETACHED DWELLINGS.
SM9. ALL SITE GARDENS AND LANDSCAPE AREAS ARE TO BE IRRIGATED FROM ALL RAINWATER TANK NON-POTABLE STORAGES.
SM10. WHERE POSSIBLE, ALL STORMWATER GENERATED ON DRIVEWAYS, ROADS AND ROOFS WILL DRAIN TO THE STORMWATER MANAGEMENT BASIN VIA GPTS FOR THE PURPOSE OF REMOVING NUTRIENTS, OILS, SILTS AND SEDIMENTS FROM STORMWATER RUNOFF.
SM11. A STORMWATER MANAGEMENT BASIN WILL BE DESIGNED IN ACCORDANCE WITH THE WATER SENSITIVE URBAN DESIGN TECHNICAL GUIDELINES FOR WESTERN SYDNEY MAY 2004 AND AUSTRALIAN RUNOFF QUALITY WITH THE SYSTEM TO BE MAINTAINED ON A THREE MONTH BASIS.
SM12. ON SITE DETENTION STORAGE IS TO BE PROVIDED WITHIN THE STORMWATER MANAGEMENT BASIN AND WILL BE SIZED BASED ON COUNCIL'S DEVELOPMENT CONTROL PLAN AND IS TO CAPTURE AS MUCH OF THE DEVELOPMENT AS POSSIBLE.
SM13. SUITABLE SUBSOIL DRAINAGE SYSTEMS WILL BE PROVIDED BEHIND ALL RETAINING WALLS AND DWELLING FOOTINGS AND SEEPAGE COLLECTED WILL BE DISCHARGED INTO THE NEAREST DOWNSTREAM STORMWATER PIPED SYSTEM.
SM14. SUBSOIL DRAINAGE PIPELINE IS A 100mm DIAMETER AGRICULTURE PIPE WITH A FABRIC STOCKING THAT WHEN LAID HAS 100mm OF 10mm AGGREGATE SURROUNDING IT FULLY WITH THE TRENCH.
SM15. WHERE ANY ISOLATED PROPOSED PIPELINE IS LOCATED WITHIN 2m OF A TREE THAT IS TO BE RETAINED, THE PIPELINE WILL BE THRUST BORED OR HAND/SPADE DUG TO REDUCE THE IMPACT OF EXCAVATION ADJACENT TO THE TREE. ALL WORKS TO BE SUPERVISED BY PROJECT ARBORIST.
SM16. AN 'ONSITE DETENTION AND RAINWATER TANK MAINTENANCE SCHEDULE' IS TO BE PREPARED AND INCORPORATED INTO THE POSITIVE COVENANTS AND RESTRICTIONS ON USE OF LAND FOR THE SITE.
SM17. LEVELS & ORIENTATION OF DRAINAGE STRUCTURES ARE NOT TO BE ALTERED FROM THAT SHOWN ON THE PLAN AND IS TO BE CHECKED ON COMPLETION BY THE ENGINEER.

HYDROLOGY

Parameters			Annual Exceedance Probability %						
			63.2	50	20	10	5	2	1
EXISTING CATCHMENT SCENARIO		Catchment Imperv 15% of 5.022-ha							
Site boundaries		cum/s	0.31	0.37	0.56	0.70	0.86	1.13	1.34
DEVELOPED CATCHMENT SCENARIO		Catchment Imperv 35% of 5.022-ha							
Site draining away from SMB	1.26ha	cum/s	0.06	0.09	0.14	0.17	0.21	0.28	0.33
Site inflows into SMB	3.75ha	cum/s	0.33	0.39	0.59	0.74	0.91	1.19	1.42
SMB permissible discharges		cum/s	0.24	0.28	0.42	0.53	0.64	85	1.01
Estimated detention required		cum	48	63	95	120	148	196	233
Estimated SMB TWL		AHD	751.75	751.80	751.90	751.95	752.10	752.20	752.30

* Based on Rational Method calculations to approx peak flowrates and detention storage volumes within the Stormwater Management Basin

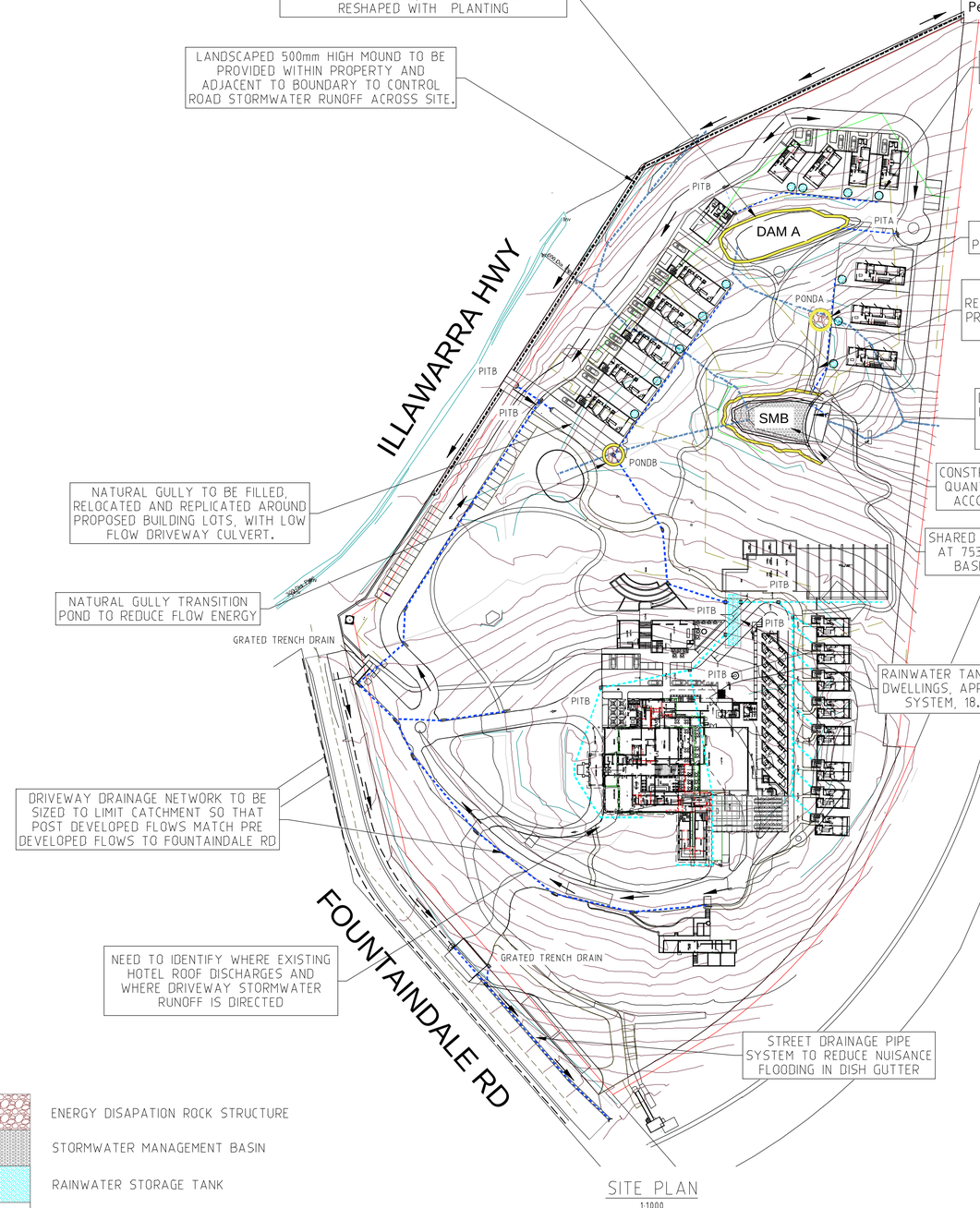
LEGEND

- EXISTING LEVEL (St 192.69)
- DESIGN LEVEL (193.30p)
- PROPOSED RAINWATER PIPELINE
- PROPOSED STORMWATER PIPELINE
- FLOWPATH/OVERFLOWS
- SURFACE FLOWS
- PROPOSED SURFACE INLET PIT
- PROPOSED KERB INLET PIT EKI1.2m
- ENERGY DISAPATION ROCK STRUCTURE
- STORMWATER MANAGEMENT BASIN
- RAINWATER STORAGE TANK
- RAINWATER TANK - 5kL

Stormwater Management Basin Specification

Breach Limit 753.00AHD [Accessway]
Top/Toe of Embankment 753.50AHD upsteam/748.50AHD downstream
TWL Areas: 751.6AHD@ 322sqm, 752.0AHD@ 346sqm, 753.0AHD 488sqm

Detention TWL 752.3AHD [subject to modelling]
Detention Storage 233cum
Permissible Basin Discharge 1.00cum/s



SITE PLAN
1:1000

SCALES
0 10 20 30 40 50m
1:1000@A1

ISSUE	DETAILS OR AMENDMENTS	DATE	ZONE
A	ORIGINAL ISSUE	17/02/20	GENERAL

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Civil, Structural, Hydraulics, Flood, Fire Services, Local Government

PROJECT THE ROBERTSON HOTEL
1 FOUNTAINDALE RD ROBERTSON

TITLE STORMWATER MANAGEMENT PLAN

CLIENT AEA GRAND HOTEL PTY LTD

DRAWING No. 1939C01-101A | SHT 1/3 | DRAWN-DESIGN-VERIFY SS-DS-DS | A1

DEVELOPMENT APPLICATION SUBMISSION

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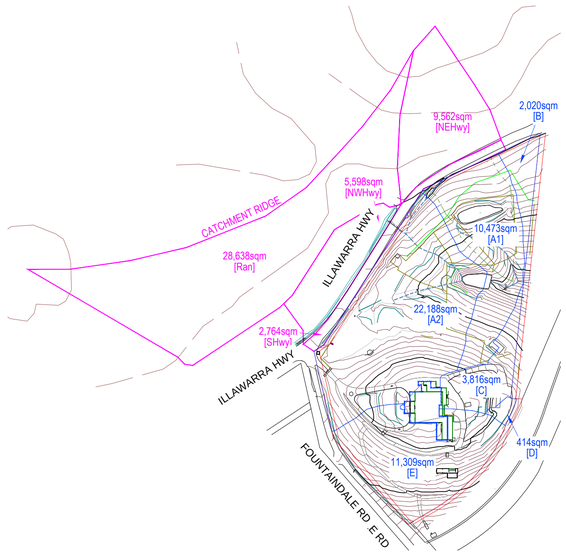
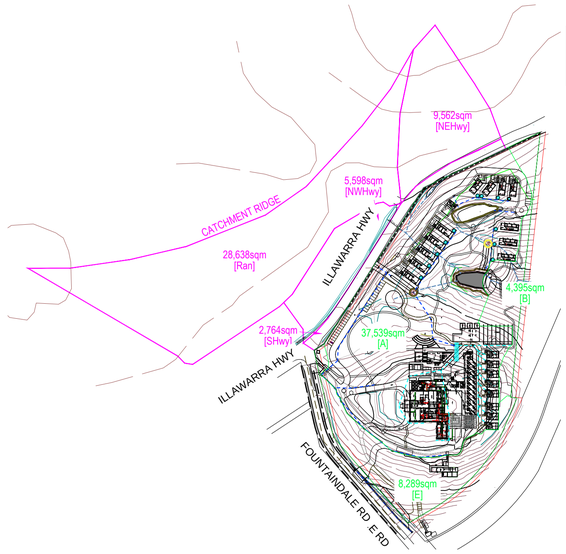
ARCH	,	,	DATE	,

CAD REF: [...\DRAWINGS\1939C01.dwg]



EXISTING CATCHMENT PLAN

1:3000



DEVELOPED CATCHMENT PLAN

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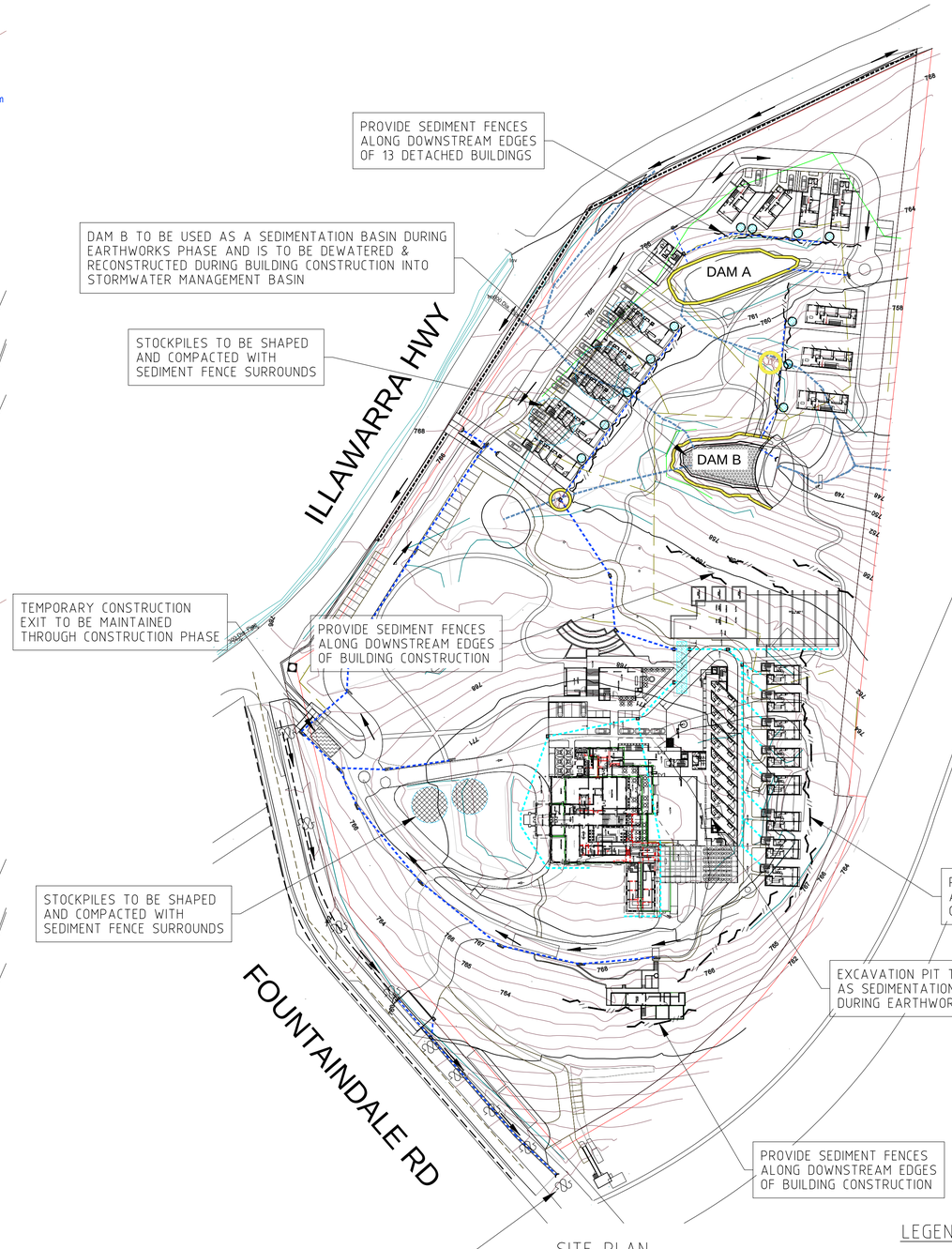


SITE PLAN

1:1000

LEGEND

GRAVEL BAG SEDIMENT TRAP

SEDIMENT FENCE

TEMPORARY CONSTRUCTION ACCESS

STOCKPLIES

SCALES

0 10 20 30 40 50m

1:1000@A1

EROSION AND SEDIMENT NOTES

ES1. ALL WORK SHALL BE GENERALLY CARRIED OUT IN ACCORDANCE WITH 'MANAGING URBAN STORMWATER SOILS AND CONSTRUCTION' PREPARED BY THE DEPARTMENT OF HOUSING, INCLUDING REVEGETATION AND STORAGE OF SOIL AND TOPSOIL.

ES2. EROSION AND SEDIMENT DEVICES TO BE INSTALLED PRIOR TO COMMENCEMENT OF WORK.

ES3. MAINTAIN ALL EROSION AND SEDIMENT CONTROL DEVICES TO THE SATISFACTION OF THE SUPERINTENDENT AND THE LOCAL AUTHORITY.

ES4 WHEN STORMWATER PITS ARE CONSTRUCTED PREVENT SITE RUNOFF ENTERING UNLESS SILT FENCES ARE ERECTED AROUND PITS.

ES5. MINIMISE THE AREA OF SITE BEING DISTURBED AT ANY ONE TIME.

ES6. ALL SOIL AND WATER CONTROL MEASURES ARE TO BE PUT BACK IN PLACE AT THE END OF EACH WORK DAY, AND MODIFIED TO BEST SUIT CONDITIONS.

ES7. STORMWATER FROM UPSTREAM OF THE SITE MUST BE CONTROLLED SUCH THAT IT DOES NOT ENTER THE DISTURBED SITE.

ES8. ALL CONSTRUCTION VEHICLES SHALL BE INSPECTED BEFORE LEAVING THE SITE.

ES9. SOIL EROSION CONTROL WILL INVOLVE THE COLLECTION AND TREATMENT OF ALL STORMWATER RUNOFF, CONSTRUCTION AND WASHDOWN WATER PRIOR TO IT DRAINING TO THE COUNCIL'S STREET DRAINAGE SYSTEM

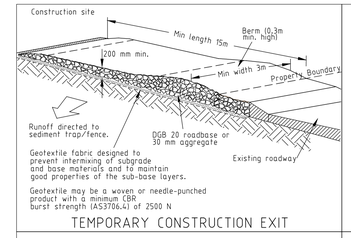
ES10. INSPECT ALL SEDIMENTATION CONTROL DEVICES AFTER EACH STORM EVENT AND AT THE END OF EACH WEEK. DAMAGE TO ANY OF THE STRUCTURES IS TO BE REPAIRED IMMEDIATELY.

ES11. ALL TOPSOIL OR LOAM THAT IS REMOVED AS A RESULT OF BULK EXCAVATION SHALL BE STOCKPILED AND LATER RESPREAD AT A MINIMUM THICKNESS OF 100mm TO ASSIST REVEGETATION.

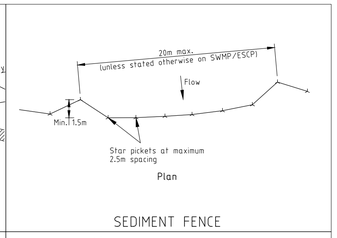
ES12. SPOIL AND TOPSOIL STOCKPILES SHALL BE LOCATED AWAY FROM DRAINAGE LINES AND AREAS WHERE WATER MAY CONCENTRATE.

ES13. IF STOCKPILES ARE TO BE IN PLACE FOR LONGER THAN 30 DAYS THEN THEY SHALL BE STABILISED BY COVERING WITH A MULCH OR WITH TEMPORARY VEGETATION.

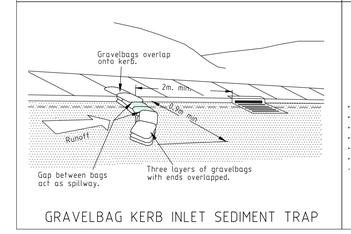
ES14. ALL DRAINAGE WORKS SHALL BE CONSTRUCTED AND STABILISED AS EARLY AS POSSIBLE AFTER EXCAVATION.



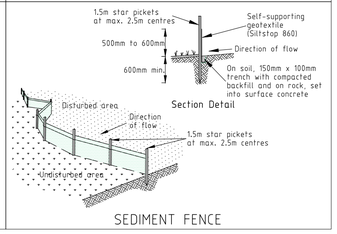
TEMPORARY CONSTRUCTION EXIT



SEDIMENT FENCE



GRAVELBAG KERB INLET SEDIMENT TRAP



SEDIMENT FENCE

NOTE THESE TYPICAL DETAILS ARE PROVIDED FOR THE ASSISTANCE OF THE CONTRACTOR. THE CONTRACTOR WILL BE RESPONSIBLE FOR THEIR IMPLEMENTATION TO SUIT THE STAGING OF THE WORKS AND TO COMPLY WITH THE PROVISIONS OF THE SPECIFICATION AND DIRECTIVES OF THE EPA AND\OR SUPERINTENDANT.

ISSUE	DETAILS OR AMENDMENTS	DATE	ZONE
A	ORIGINAL ISSUE	17/02/20	GENERAL

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Civil, Structural, Hydraulics, Flood, Fire Services, Local Government

PROJECT THE ROBERTSON HOTEL
1 FOUNTAINDALE RD ROBERTSON

TITLE EROSION & SEDIMENT CONTROL PLAN

CLIENT AEA GRAND HOTEL PTY LTD

DRAWING No. 1939C01-102A | SHT 2/3 | DRAWN-DESIGN-VERIFY SS-DS-DS | A1

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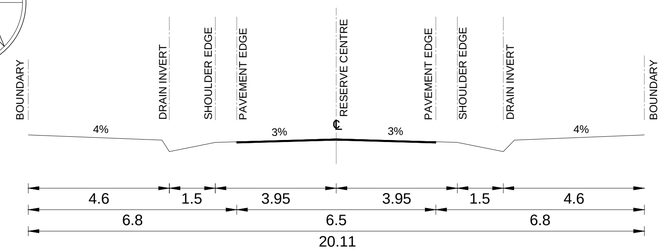
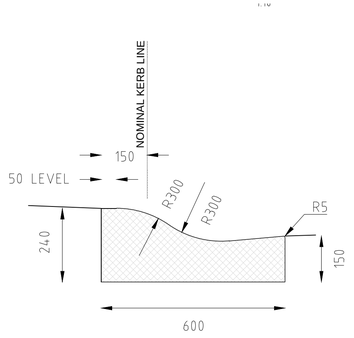


FOUNTAINDALE RD CARRIAGEWAY

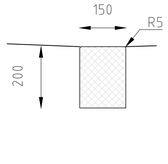
RURAL ROAD WIDENING

SCALE 1:100



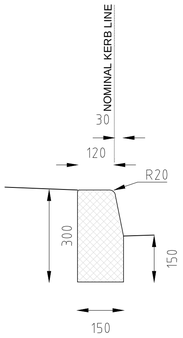
ROLL KERB & GUTTER (RK)

1:10



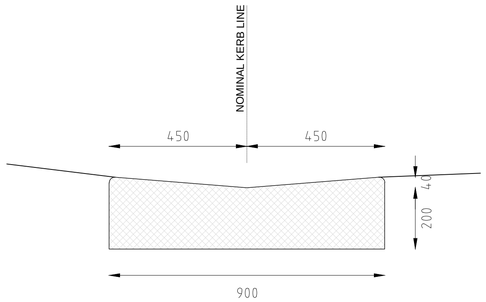
FLUSH KERB (FK)

1:10



KERB ONLY (KO)

1:10



DISH GUTTER |DG|

1:10

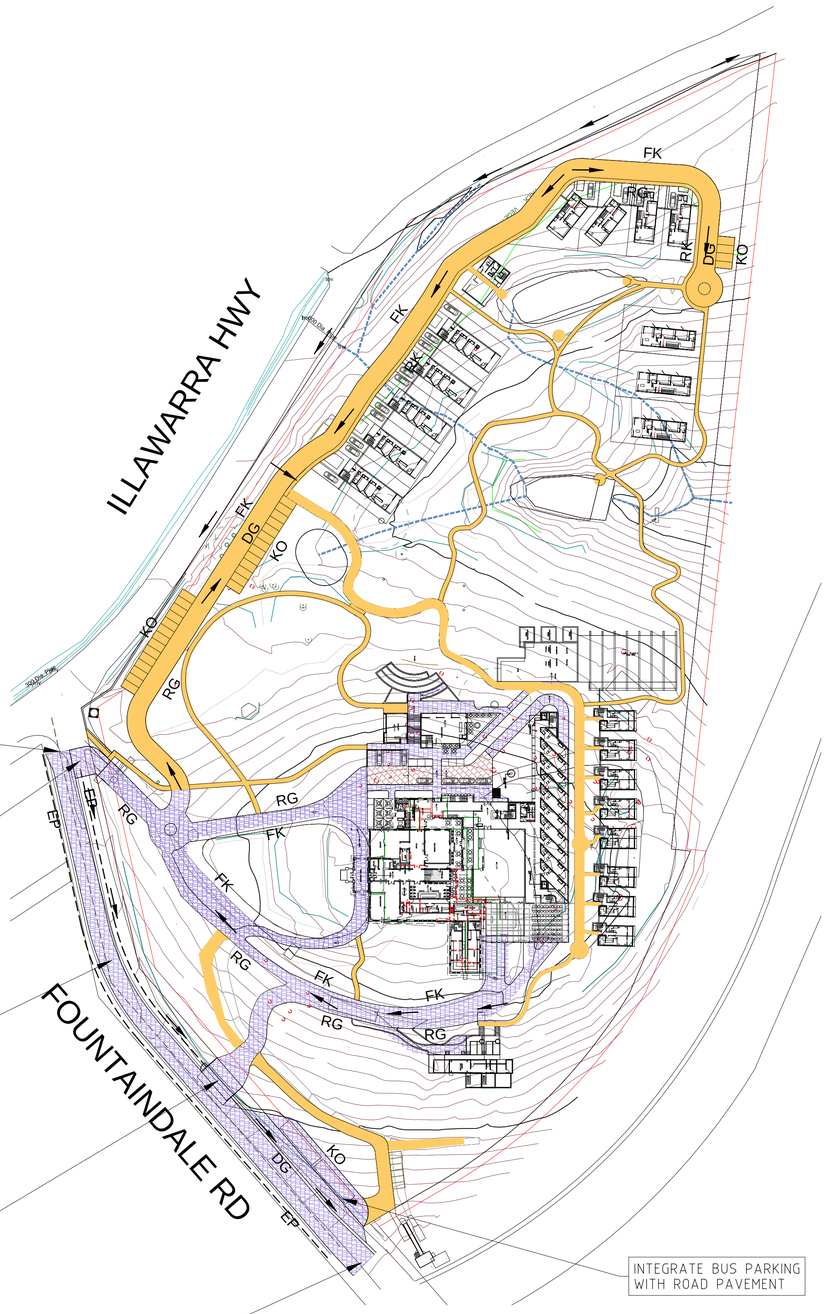
RETAIN EXISTING ASPHALT PAVEMENT AND TRANSITION INTO EXISTING PAVEMENT CONFIGURATION

DRIVEWAY 1 TO BE REALIGNED OUT OF INTERSECTION WITH 7.0m WIDE HEAVY DUTY PAVEMENT AND 4% FALL TO PAVEMENT EDGE IN ACCORDANCE WITH COUNCIL STANDARDS.

FOUNTAINDALE RD CARRIAGEWAY TO BE UPGRADED TO 6.0m WIDE RURAL RD PAVEMENT WITH ASSOCIATED TABLE DRAIN IN ACCORDANCE WITH COUNCIL STANDARDS. ESTIMATED PAVEMENT WIDENING AREA 450sqm. REFER THIS SHEET

DRIVEWAY 2 TO BE 12.6m WIDE HEAVY DUTY PAVEMENT, ABOVE PIPE CROSSING WITH 4% FALL TO PAVEMENT EDGE IN ACCORDANCE WITH COUNCIL STANDARDS.

RETAIN EXISTING ASPHALT PAVEMENT AND TRANSITION INTO EXISTING PAVEMENT CONFIGURATION



SITE PLAN

1:1000

INTEGRATE BUS PARKING WITH ROAD PAVEMENT

PAVEMENT NOTES

P1 ALL DRIVEWAY AREAS TO BE IN ASPHALT PAVEMENT IN ACCORDANCE WITH LANDSCAPE SPECIFICATION

P2 ALL PAVEMENT MATERIAL TO BE PLACED IN LAYERS NOT EXCEEDING 150mm COMPACTED THICKNESS AND COMPACTED TO NOT LESS THAN, UNLESS ADVISED OTHERWISE;

i. SUBGRADE MINIMUM DRY DENSITY RATIO OF 100% STANDARD IN ACCORDANCE WITH AS1289;

ii. SUBBASECOURSE MINIMUM DRY DENSITY RATIO OF 95% MODIFIED IN ACCORDANCE WITH AS1289; AND

iii. BASECOURSE MINIMUM DRY DENSITY RATIO OF 98% MODIFIED IN ACCORDANCE WITH AS1289.

P3 A MINIMUM 50mm APPROVED GRANULAR BEDDING TO BE PROVIDED UNDER ALL CONCRETE.

P4 ALL CONCRETE TO HAVE A MINIMUM 28 DAY COMPRESSIVE STRESS GRADE OF 32MPa OR UNLESS OTHERWISE NOTED.

LEGEND

	ASPHALTIC CONCRETE PAVEMENT
	GRAVEL OR SOFT PAVEMENT
	PAVERS OR TEXTURED PAVEMENT
	OVERLAND FLOWS
EP	PROPOSED ASPHALT PAVEMENT EDGE
KO	PROPOSED KERB ONLY
FK	PROPOSED FLUSH KERB
RK	PROPOSED ROLL KERB AND GUTTER
DK	PROPOSED DISH GUTTER

SCALES

0 10 20 30 40 50m

1:1000@A1

CAUTION:

1. UTILITY SERVICES SHOWN HEREON HAVE BEEN LOCATED WHERE POSSIBLE BY FIELD SURVEY. IF NOT ABLE TO BE LOCATED, SERVICES HAVE BEEN PLOTTED FROM THE RECORDS OF RELEVANT AUTHORITIES WHERE AVAILABLE. PRIOR TO EXCAVATION OR CONSTRUCTION ON THE SITE, THE RELEVANT AUTHORITY SHOULD BE CONTACTED FOR CONFIRMATION OF LOCATION OF SERVICES. **** DIAL BEFORE YOU DIG (CALL 1100) ****
2. THE BOUNDARIES SHOWN HEREON ARE APPROXIMATE ONLY. FOR ANY CONSTRUCTION ACTIVITIES PROPOSED IN CLOSE PROXIMITY TO THE BOUNDARIES, IT IS RECOMMENDED THAT THOSE BOUNDARIES BE MARKED TO AVOID POSSIBILITY OF ENCROACHMENT.

DIAL1100 BEFORE YOU DIG

ISSUE	DETAILS OR AMENDMENTS	DATE	ZONE
A	ORIGINAL ISSUE	17/02/20	GENERAL

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Civil, Structural, Hydraulics, Flood, Fire Services, Local Government

PROJECT THE ROBERTSON HOTEL
1 FOUNTAINDALE RD ROBERTSON

TITLE ROAD & SITE PAVEMENT PLAN

CLIENT AEA GRAND HOTEL PTY LTD

DRAWING No. 1939C01-103A | SHT 3/3 | DRAWN-DESIGN-VERIFY SS-DS-DS | A1

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