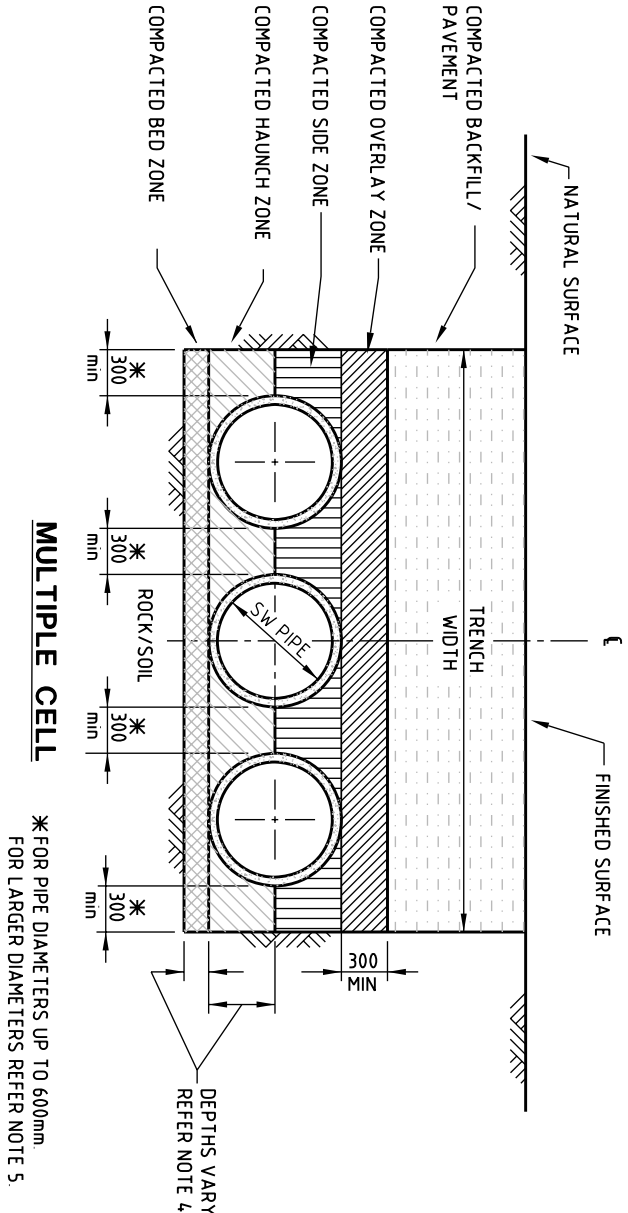
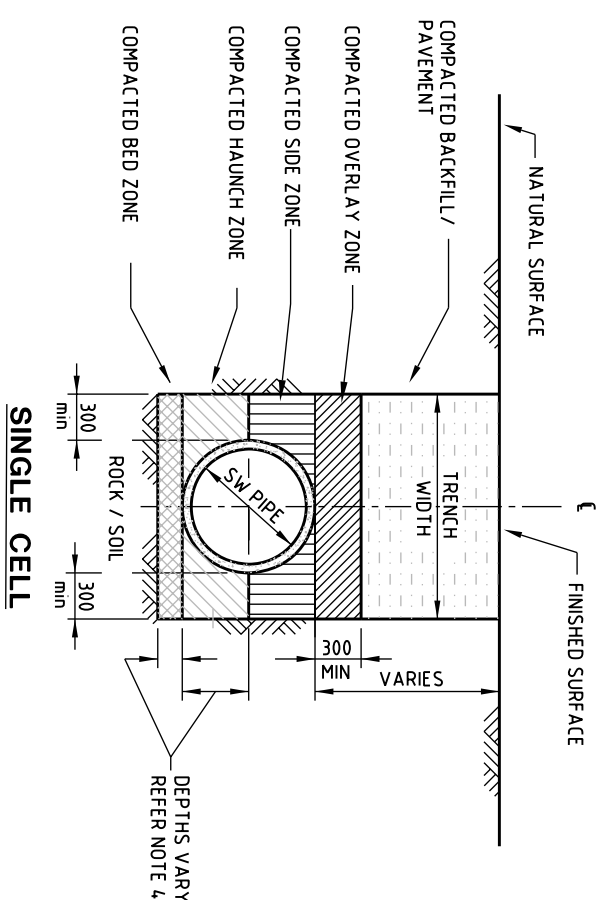


NOTES:

1. REFER TO STANDARD SPECIFICATION SSS FOR GRADING, COMPACTION AND SPECIFICATION FOR BACKFILL, OVERLAY ZONE, HAUNCH ZONE AND BED ZONE MATERIALS.
2. ALL MATERIAL IN THE ABOVE ZONES TO BE COMPACTED OVER THE FULL WIDTH OF THE TRENCH.
3. IN AREAS OF POOR GROUND CONDITIONS OR HIGH WATER TABLES ALTERNATIVE BEDDING REQUIREMENTS MAY BE REQUIRED AS DIRECTED BY THE SUPERINTENDENT.
4. FOR TRENCH WIDTH, BED AND HAUNCH ZONE DEPTHS, REFER TO A.S. 3725. PIPES ARE TO BE DESIGNED AND INSTALLED TO THE REQUIREMENTS OF AS 3725 WITH RESPECT TO THEIR STRENGTH CLASS FOR ALL CONSTRUCTION LOADS, DEAD LOADS AND IN SERVICE LOADS.
5. FOR SPACING OF MULTIPLE CELL PIPES GREATER THAN 600mm DIA REFER QUEENSLAND MAIN ROADS DEPARTMENT - ROAD DRAINAGE DESIGN MANUAL.
6. DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.

TABLE OF BEDDING AND HAUNCH MATERIAL DETAILS

A.S. SIEVE (mm)	PERCENTAGE PASSING BY WEIGHT		
	CRUSHED ROCK NOM SIZE 10.0mm (STANDARD BEDDING)	CRUSHED ROCK NOM SIZE 20.0mm (ADDITIONAL BEDDING)	CRUSHED ROCK NOM SIZE 30.0mm (ADDITIONAL BEDDING)
37.5	-	-	100
26.5	-	100	80-100
19.0	100	90-100	70-90
13.2	80-100	50-80	60-80
9.5	30-4.5	30-4.0	50-7.0
6.7	-	0-5	
4.75	15-25		
2.36	2-8		



* FOR PIPE DIAMETERS UP TO 600mm.
FOR LARGER DIAMETERS REFER NOTE 5.

THIS DRAWING IS NOT TO BE AMENDED WITHOUT REFERENCE TO STANDARDS COMMITTEE

CONTROLLED DOCUMENT

DO NOT SCALE TAKE FIGURED DIMENSIONS ONLY

STANDARD DRAWING

MICROFILMED



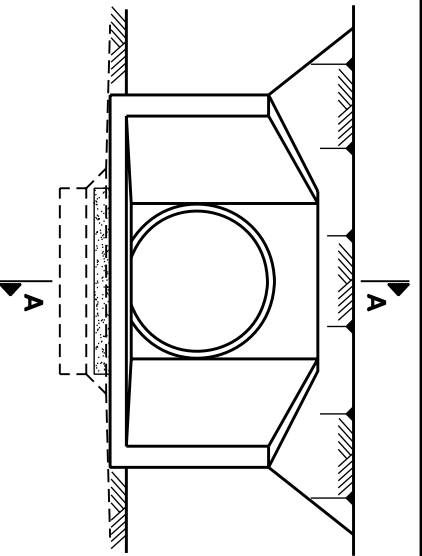
No.	AMENDMENT	APPROVED	DATE	ISSUED

DRAWN BY TECHNICAL SERVICES BRANCH

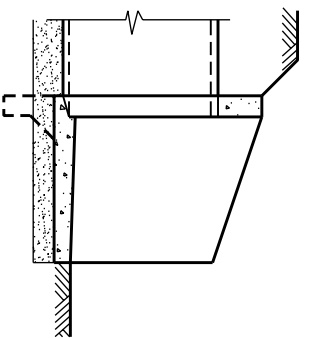
18/03/04
18/03/04

EXCAVATION & BEDDING OF CONCRETE STORMWATER PIPES

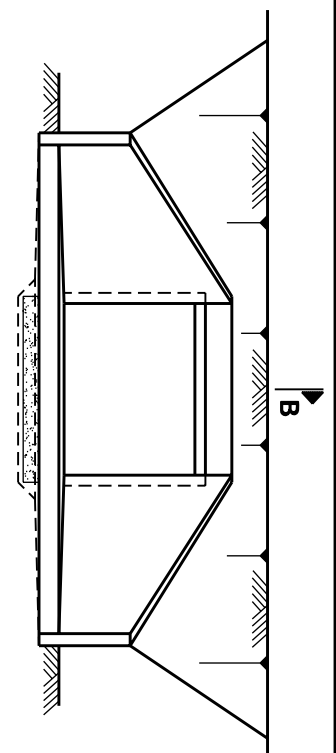
STANDARD DRAWING No. 05-03-201
ISSUE 2005 EDITION



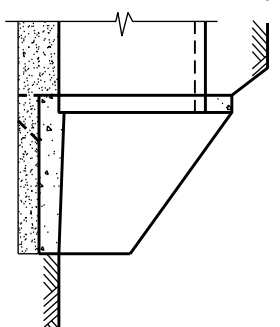
ELEVATION



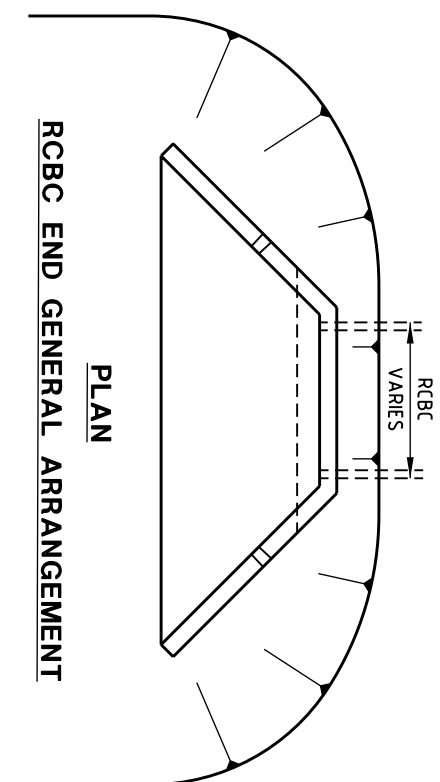
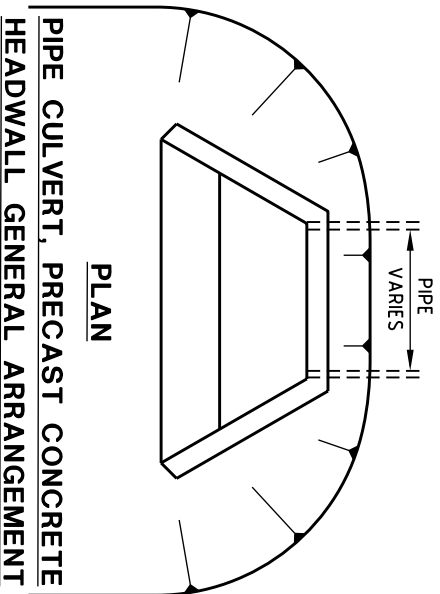
SECTION A-A



ELEVATION



SECTION B-B






NOTES:

1. PRECAST HEADWALLS SHALL BE PROPRIETARY PRODUCTS APPROVED BY COUNCIL.
2. IN FILL LOCATIONS PRIOR TO PLACING THE BED ZONE MATERIAL THE FILL SHALL BE COMPACTED TO THE STANDARD SPECIFIED IN SPECIFICATION S55.
3. THE BED ZONE MATERIAL UNDER THE PIPE SHALL BE CONTINUED TO THE END OF THE HEADWALL APRON. MINIMUM THICKNESS 50mm.

4. TRANSITION UNIFORMLY FROM CONCRETE APRON TO OPEN CHANNEL OVER 5m TO 10m.
5. PROVIDE DOWNSTREAM SILTATION DEVICES AND/OR ROCK SCOUR PROTECTION AS DIRECTED BY THE SUPERINTENDENT.
6. FOR ENDS TO PIPE CULVERTS REFER TO MAIN ROADS STANDARD DRAWING Nos.1304, 1305, AND 1306.

7. FOR RCBC ENDS AND BASE SLAB DETAILS REFER TO MAIN ROADS STANDARD DRAWING Nos. 1174, 1303, 1316, 1317, 1318, 1319, AND 1320.
8. ALL PIPE AND RCBC ENDS SHALL HAVE HEADWALLS WINGWALLS AND APRONS.
9. ALL HEADWALLS TO HAVE FENCING WHERE VERTICAL DROP EXCEEDS 900mm.

LEGEND

-  FINISHED SURFACE LEVEL
-  PIPE BED ZONE LAYER
-  BATTER

THIS DRAWING IS NOT TO BE AMENDED WITHOUT REFERENCE TO STANDARDS COMMITTEE CONTROLLED DOCUMENT

DO NOT SCALE TAKE FIGURED DIMENSIONS ONLY

STANDARD DRAWING

MICROFILMED



Gold Coast City Council
GOLD COAST CITY COUNCIL
GOLD COAST QC 9729

No.	AMENDMENT	APPROVED	DATE	ISSUED

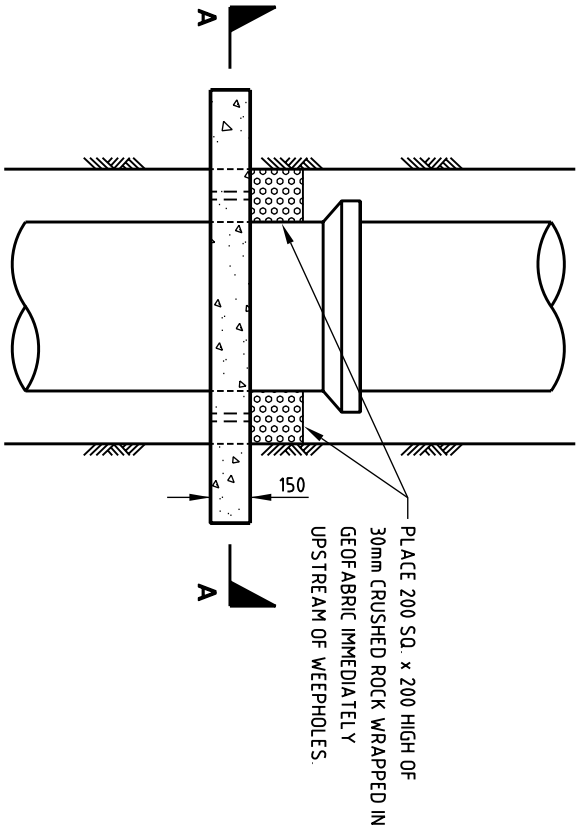
DRAWN BY	TECHNICAL SERVICES BRANCH	DO NOT SCALE TAKE FIGURED DIMENSIONS ONLY
PASSED	18/03/04	
APPROVED	18/03/04	

CONCRETE HEADWALL GENERAL ARRANGEMENT

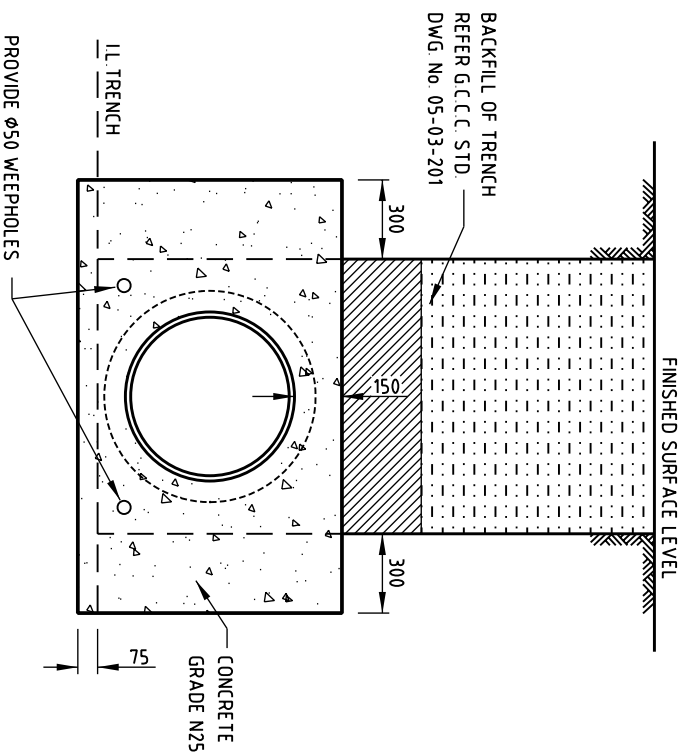
STANDARD DRAWING No. **05-03-202**
ISSUE 2005 EDITION

NOTES:


1. CONCRETE BULKHEADS TO BE LOCATED AT MAXIMUM INTERVALS OF 10m WHERE PIPE GRADES EXCEED 15%.
2. WHERE SPECIFIED SCOUR BULKHEADS TO EXTEND TO THE TOP OF THE TRENCH.
3. DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.

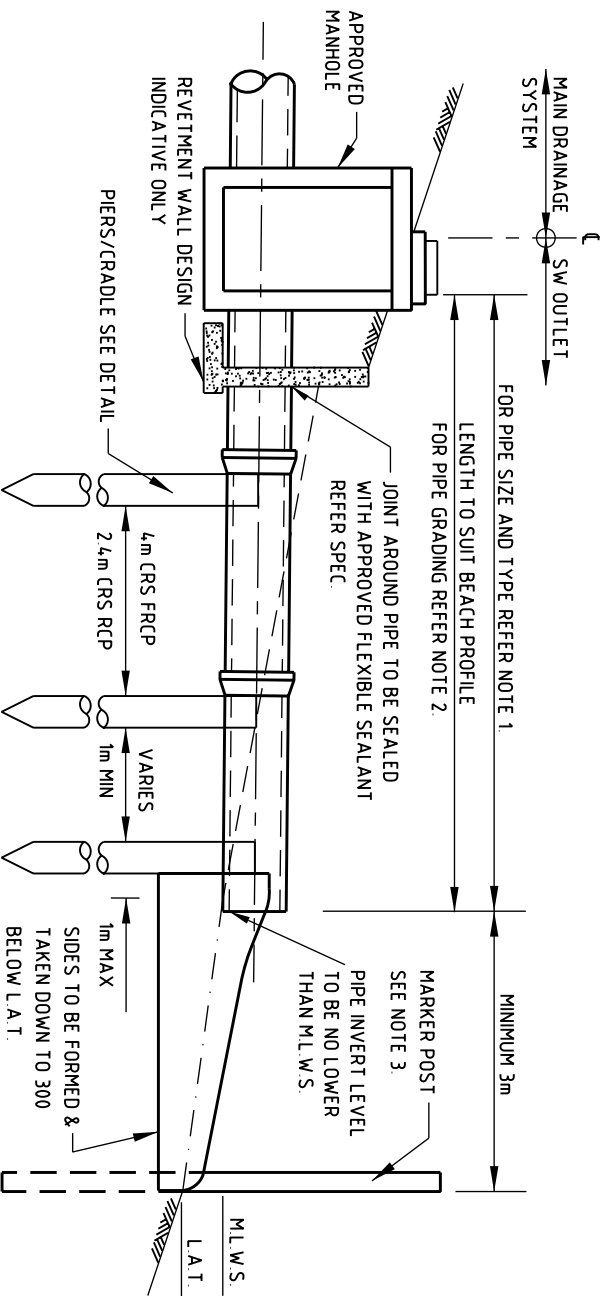


PLAN

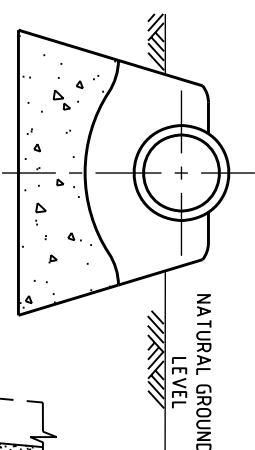


SECTION A-A

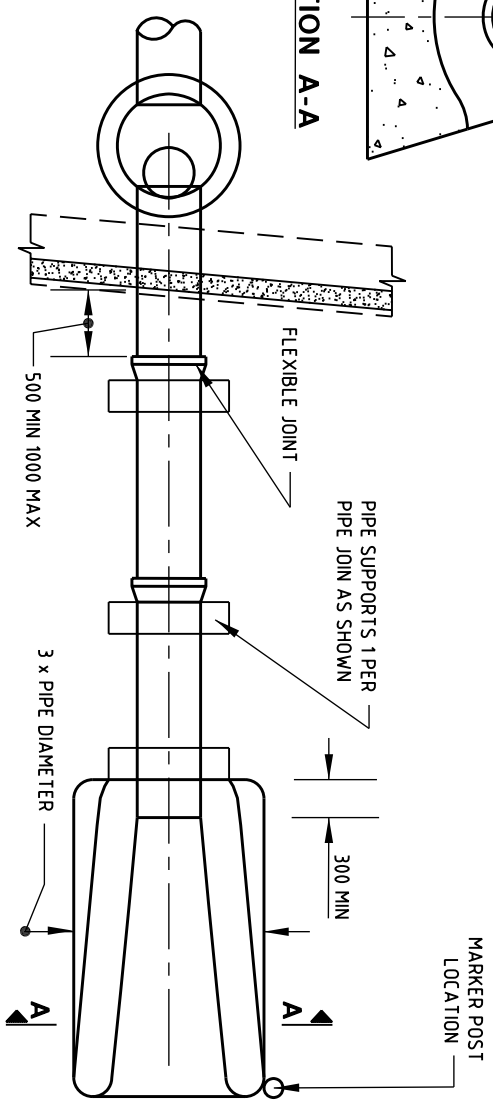
 <p>Gold Coast City Council GOLD COAST CITY COUNCIL GOLD COAST, QC 9729</p>		<p>THIS DRAWING IS NOT TO BE AMENDED WITHOUT REFERENCE TO STANDARDS COMMITTEE</p>		<p>CONTROLLED DOCUMENT</p>		<p>DO NOT SCALE TAKE FIGURED DIMENSIONS ONLY</p>		<p>STANDARD DRAWING</p>		<p>MICROFILMED</p>	
No.	AMENDMENT	APPROVED	DATE	ISSUED	DRAWN BY	TECHNICAL SERVICES BRANCH	18/03/04	<p>SCOUR PROTECTION BULKHEAD</p>	<p>STANDARD DRAWING No. 05-03-203</p>		<p>ISSUE</p> <p>2005 EDITION</p>
					APPROVED		18/03/04		<p>05-03-203</p>		



ELEVATION



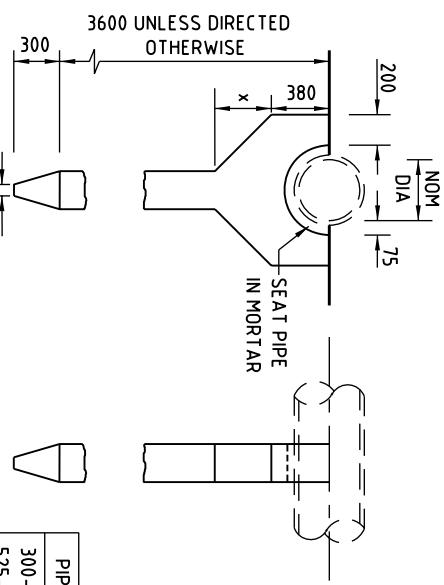
SECTION A-A



PLAN

NOTES:

1. PIPE DETAILS ARE AS FOLLOWS:
 - (a) 375 TO 750 DIA. - FRCP CLASS 2. SUPERTRITE JOINTS
 - (b) GREATER THAN 750 DIA. - RCP CLASS 2. RRJ & SMC HDPE. MAY BE SUBSTITUTED AS DIRECTED BY THE SUPERINTENDENT
2. TO MINIMISE VISUAL IMPACT THE PIPE GRADING IS TO FOLLOW THE FINAL BEACH PROFILE
3. MARKER POST TO COMPLY WITH THE FOLLOWING:
 - (a) MINIMUM ϕ 150 UPVC PIPE INFILLED WITH CONCRETE
 - (b) PAINTED APPROVED YELLOW
 - (c) EXTEND 10m ABOVE MEAN HIGH WATER LEVEL (MHW)
 - (d) A BAND OF APPROVED YELLOW REFLECTIVE TAPE TO BE PLACED AROUND EXPOSED TOP OF PIPE (NOMINAL 25 WIDTH)
4. MINIMUM COVER TO REINFORCEMENT TO BE 50
5. ALL CONCRETE TO BE GRADE S4.0 FIBREESH; (POLYPROPYLENE FIBRES TO BE ADDED) AT NOT LESS THAN 0.90kg/m^3
6. ALL CONCRETE EDGES TO HAVE MIN 25 RADIUS. NO SQUARE EDGES PERMITTED
7. PIER/GRADLE TO BE DESIGNED AND APPROVED BY COUNCIL.
8. DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE SHOWN



PIPE ϕ	x
300-450	350
525-600	400
675-750	500
825-900	600

**PIER/GRADLE ELEVATIONS
INDICATIVE ONLY**

STANDARD DRAWING

**STORMWATER OUTLET
BEACH PROFILE - NEW WORKS**

Gold Coast City Council
GOLD COAST CITY COUNCIL
C/O B. COASTAL MC 9729

THIS DRAWING IS NOT TO BE AMENDED WITHOUT REFERENCE TO STANDARDS COMMITTEE		CONTROLLED DOCUMENT		DO NOT SCALE TAKE FIGURED DIMENSIONS ONLY	
No.	AMENDMENT	APPROVED	DATE	ISSUED	
DRAWN BY TECHNICAL SERVICES BRANCH			PASSED 18/03/04		
APPROVED			18/03/04		

MICROFILMED

STANDARD DRAWING No. **05-03-204**

ISSUE 2005 EDITION