

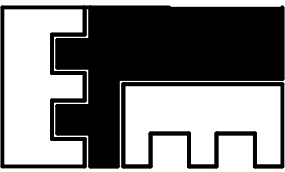
- GENERAL:**
- G1 - THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS.
  - G2 - ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE S.A.A CODES AND THE BUILDING CODE OF AUSTRALIA & COUNCIL.
  - G3 - THE CONTRACTOR IS RESPONSIBLE FOR ALL COUNCIL ROAD OPENING/ WORK PERMITS & ASSOCIATED TRAFFIC MANAGEMENT PLANS.
  - G4 - THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING ALL COUNCIL INSPECTIONS FOR CIVIL WORKS WITHIN THE ROAD RESERVE.
  - G5 - DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THE CIVIL WORKS DRAWINGS.
  - G6 - ALL DIMENSIONS ARE IN mm UNLESS NOTED OTHERWISE.
  - G7 - SETTING OUT DIMENSIONS SHOWN ON THE DRAWINGS SHALL BE VERIFIED BY THE BUILDER.
  - G8 - ALL ABBREVIATIONS ARE IN ACCORDANCE WITH AS1100  
ADDITIONAL ABBREVIATIONS USED:-
- | AHD | AUSTRALIAN HEIGHT DATUM  | O/A   | OVER ALL                         |
|-----|--------------------------|-------|----------------------------------|
| EX  | EXISTING                 | U.N.O | UNLESS OTHERWISE STATED          |
| FFL | FINISHED FLOOR LEVEL     | UPVC  | UNPLASTICISED POLYVINYL CHLORIDE |
| FSL | FINISHED SURFACE LEVEL   |       |                                  |
| GAL | HOT DIPPED GALVANISED    |       |                                  |
| HW  | HEAD WALL                |       |                                  |
| IL  | INVERT LEVEL             |       |                                  |
| RL  | REDUCED LEVEL TO AHD     |       |                                  |
| RCP | REINFORCED CONCRETE PIPE |       |                                  |
| SIP | SURFACE INLET PIT        |       |                                  |
| TK  | TOP OF KERB              |       |                                  |
- G9- DISCREPANCIES SHALL BE REFERRED TO THE PROJECT MANAGER OR SUPERVISING ENGINEER
  - G10- MAKE SMOOTH CONNECTION WITH ALL EXISTING ENGINEERING WORK.
  - G11- THE CONTRACTOR SHALL LOCATE AND LEVEL ALL EXISTING SERVICES PRIOR TO COMMENCING CONSTRUCTION AND MAKE ALL NECESSARY ARRANGEMENTS WITH THE RELEVANT AUTHORITIES TO RELOCATE OR ADJUST IF NECESSARY.
  - G12- SURVEY MARKS SHOWN THUS ▲ SHALL BE MAINTAINED AT ALL TIMES, WHERE RETENTION IS NOT POSSIBLE, THE SUPERINTENDENT SHALL BE NOTIFIED PRIOR TO REMOVAL.

- DRAINAGE:**
- D1 - ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS3500 CURRENT EDITION WITH AMMENDMENTS EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
  - D2 - ALL DRAINAGE WORKS WITHIN THE ROAD RESERVE SHALL BE TO COUNCIL SPECIFICATIONS.
  - D3 - PITS 1m OR DEEPER TO HAVE STEP IRONS.
  - D4 - PITS TO BE BENCHED & STREAMLINED.
  - D5 - PITS IN TRAFFICABLE AREAS TO BE CAST IN-SITU OR PRECAST CONCRETE (GRC) CLASS C.
  - D6 - PITS IN NON-TRAFFICABLE AREAS TO BE CAST IN-SITU, PRECAST CONCRETE (GRC) OR PLASTIC.
  - D7 - PITS IN THE ROAD RESERVE SHALL BE TO COUNCIL SPECIFICATION.
  - D8 - ALL GRATES EXCEPT IN THE ROAD RESERVE & LANDSCAPING SHALL BE HEEL GUARD.
  - D9 - ALL GRATES SHALL BE HOT DIPPED GALVANISED U.N.O.
  - D10- MINIMUM PIPE GRADE IS 1% U.N.O.

| DESCRIPTION           | EXISTING | PROPOSED |
|-----------------------|----------|----------|
| CONTOURS              |          |          |
| BATTERS               |          |          |
| DRAINAGE PIPES & PITS |          |          |
| 90mmØ SUBSOIL PIPE    |          |          |
| 100 WIDE GRATED DRAIN |          |          |
| VEHICULAR CROSSING    |          |          |
| PRAM RAMP             |          |          |
| BENCH MARK            |          |          |
| SURFACE LEVELS        |          |          |
| SEWER                 |          |          |
| WATER                 |          |          |
| ELECTRICITY           |          |          |
| TELEPHONE             |          |          |

|     |                 |    |         |  |
|-----|-----------------|----|---------|--|
|     |                 |    |         |  |
|     |                 |    |         |  |
|     |                 |    |         |  |
|     |                 |    |         |  |
|     |                 |    |         |  |
| B   | FLOOR PLAN REV. | KM | SEPT'18 |  |
| A   | DA SUBMISSION   | DE | JULY'18 |  |
| REV | REVISION        | BY | DATE    |  |

THE CONCEPTS AND INFORMATION CONTAINED IN THIS DOCUMENT ARE THE INTELLECTUAL PROPERTY OF EM CONSULTING ENGINEERS. USE OR COPYING IN WHOLE OR PART WITHOUT AUTHORITY IS A BREACH OF COPYRIGHT.



**EM CONSULTING**  
**CIVIL & STRUCTURAL ENGINEERS**

156 LINDESAY STREET CAMPBELLTOWN NSW 2560  
P.O. Box 1062 Campbelltown 2560  
P.O. Box 275 Corralim 2518  
www.emconsulting.com.au  
P: 02 46206181  
engineer@emconsulting.com.au

CLIENT  
**MR & MRS PEACH**

PROJECT  
**PROPOSED ADDITIONS & ALTERATIONS - 33 BEATTY ST. BALGOWLAH**

DRAWN  
DE

DESIGNED  
KM

CHECKED

TITLE  
**DRAINAGE CONCEPT PLAN**

|                 |                             |                      |                      |                         |
|-----------------|-----------------------------|----------------------|----------------------|-------------------------|
| DATE<br>JULY'18 | DRAWING NO<br><b>4487E1</b> | SHEET NO<br><b>1</b> | REVISION<br><b>B</b> | SHEET SIZE<br><b>A1</b> |
|-----------------|-----------------------------|----------------------|----------------------|-------------------------|