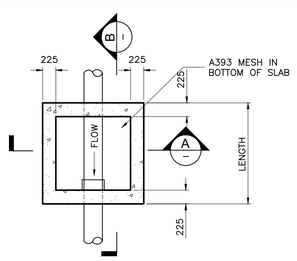
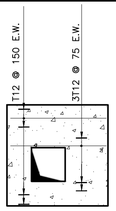
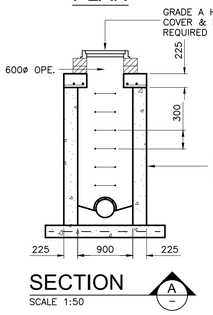


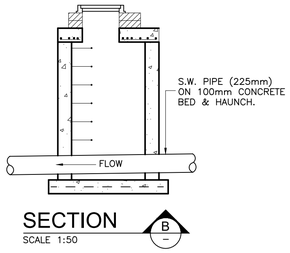

PLAN




PLAN OF ROOF SLAB




SECTION A–A
SCALE 1:50




SECTION B–B
SCALE 1:50

## DETAILS OF STANDARD MANHOLE UP TO 3000 DEEP

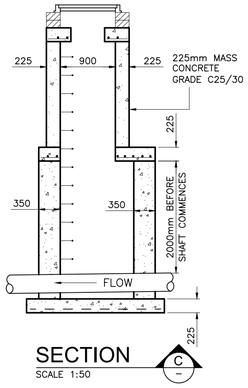
(FOR DIMENSIONS ETC. SEE TABLE 1)



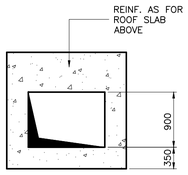

PLAN




PLAN OF ROOF SLAB




SECTION C–C
SCALE 1:50



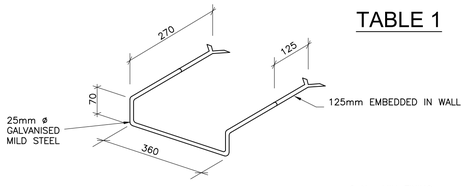

PLAN OF CHAMBER SLAB

## DETAILS OF STANDARD MANHOLE 3000-6000 DEEP

(FOR DIMENSIONS ETC. SEE TABLE 1)

| DEPTH | DIAMETER OF PIPE | ANGLE | MINIMUM DIMENSIONS | | P.C. CONCRETE CIRCULAR SHAFT INTERNAL MH ø |
|---|---|---|---|---|---|
| | | | LENGTH | WIDTH | |
| LESS THAN 1200 | 100 | 0–90° | 1200 | 750 | 1050 |
| | 150 | 0–90° | 1200 | 750 | 1050 |
| | 225 | 0–30° | 1200 | 750 | 1050 |
| | | 30°–90° | 1200 | 750 | 1050 |
| | 300 | 0–30° | 1200 | 750 | 1050 |
| | | 30°–90° | 1200 | 900 | 1050 |
| | 375 | 0–90° | 1200 | 900 | 1050 |
| | 450 | 0 | 1200 | 1050 | 1050 |
| | | 0–90° | 1200 | 1200 | 1050 |
| | 525 | 0 | 1200 | 1200 | 1050 |
| | | 0–90° | 1200 | 1200 | 1200 |
| | 600 | 0 | 1200 | 1200 | 1200 |
| | | 0–45° | 1200 | 1350 | 1200 |
| | | 45°–90° | 1200 | 1350 | 1350 |
| | 750 | 0–45° | 1200 | 1350 | 1350 |
| | | 45°–90° | 1350 | 1350 | 1350 |
| | 900 | 0–45° | 1350 | 1500 | 1500 |
| | | 45°–90° | 1500 | 1500 | 1800 |
| 1200–3500 | 100 | 0–90° | 1200 | 900 | 1200 |
| | 150 | 0–90° | 1200 | 900 | 1200 |
| | 225 | 0–90° | 1200 | 900 | 1200 |
| | 300 | 0–90° | 1200 | 900 | 1200 |
| | 375 | 0–90° | 1200 | 900 | 1200 |
| | 450 | 0 | 1200 | 1050 | 1200 |
| | | 0–45° | 1350 | 1350 | 1350 |
| | | 45°–90° | 1200 | 1350 | 1350 |
| | 525 | 0 | 1200 | 1200 | 1200 |
| | | 0–45° | 1200 | 1350 | 1350 |
| | | 45°–90° | 1350 | 1350 | 1350 |
| | 600 | 0–45° | 1200 | 1350 | 1350 |
| | | 45°–90° | 1350 | 1350 | 1350 |
| | 750 | 0–45° | 1200 | 1350 | 1350 |
| | | 45°–90° | 1350 | 1350 | 1350 |
| | 900 | 0–45° | 1350 | 1500 | 1800 |
| | | 45°–90° | 1500 | 1500 | 1800 |
| 3500–6000 | 100 | 0–90° | 1200 | 900 | 1200 |
| | 150 | 0–90° | 1200 | 900 | 1200 |
| | 225 | 0–90° | 1200 | 900 | 1200 |
| | 300 | 0–90° | 1200 | 900 | 1200 |
| | 375 | 0–90° | 1200 | 900 | 1200 |
| | 450 | 0–45° | 1200 | 1350 | 1350 |
| | | 45°–90° | 1350 | 1350 | 1350 |
| | 525 | 0–45° | 1200 | 1350 | 1350 |
| | | 45°–90° | 1350 | 1350 | 1500 |
| | 600 | 0–45° | 1200 | 1350 | 1350 |
| | | 45°–90° | 1350 | 1350 | 1500 |
| | 750 | 0–45° | 1200 | 1350 | 1500 |
| | | 45°–90° | 1350 | 1350 | 1500 |
| | 900 | 0–45° | 1350 | 1500 | 1800 |
| | | 45°–90° | 1500 | 1500 | 1800 |

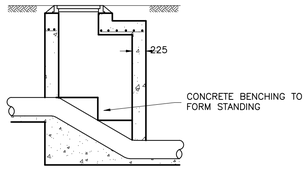
TABLE 1



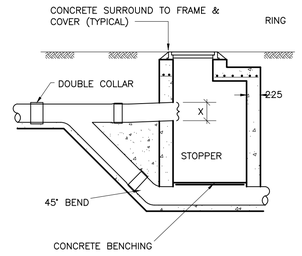

DETAIL OF STEP RUNG

| MANHOLE TYPE | DIA. OF INLET | DROP | DIA. OF DROP | X |
|---|---|---|---|---|
| TYPE A | 225 | 0–500 | 225 | – |
| B | | 500–1000 | 225 | 225 |
| C | | > 1000 | 225 | 225 |
| TYPE A | 300 | 0–600 | 300 | – |
| B | | 600–1000 | 300 | 300 |
| C | | > 1000 | 225 | 300 |
| TYPE A | 375 | 0–750 | 450 | – |
| B | | 750–1200 | 300 | 450 |
| C | | > 1200 | 300 | 300 |
| TYPE A | 450 | 0–750 | 450 | – |
| B | | 750–1200 | 300 | 450 |
| D | | > 1200 | 300 | 450 |
| TYPE A | 525 | 0–750 | 525 | – |
| B | | 750–1200 | 375 | 525 |
| D | | > 1200 | 300 | 375 |
| TYPE A | 600 | 0–750 | 600 | – |
| B | | 750–1500 | 375 | 375 |
| D | | > 1500 | 375 | 375 |
| TYPE A | 750 | 0–750 | 600 | – |
| B | 750 | 750–1500 | 450 | 450 |
| D | | > 1500 | 375 | 450 |

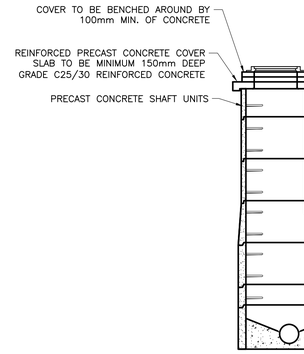
TABLE 2




MANHOLE TYPE 'A'
RAMP MANHOLE

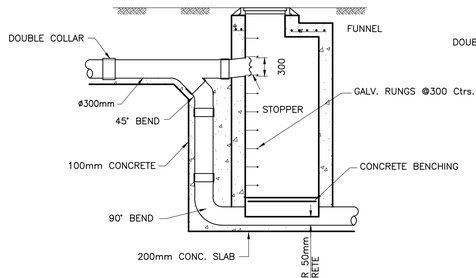



MANHOLE TYPE 'B'
INTERMEDIATE DROP MANHOLE

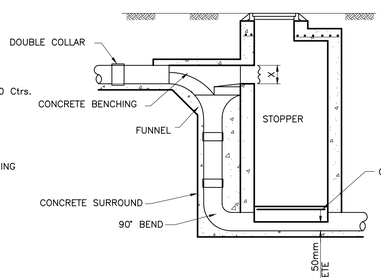



PRECAST MANHOLES SHALL HAVE 150mm GRADE C16/20 CONCRETE SURROUND UNLESS MANUFACTURER CAN SHOW, TO THE ENGINEERS SATISFACTION, THAT PERMANENTLY WATERPROOF JOINTS CAN BE ACHEIVED BY SOME OTHER METHOD

PRECAST CONCRETE MANHOLE

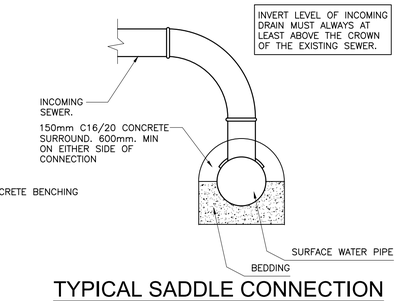



MANHOLE TYPE 'C'
BACK DROP MANHOLE

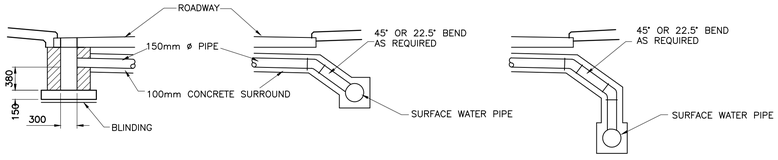



MANHOLE TYPE 'D'
BACK DROP MANHOLE

NOTE:
FOR DIMENSIONS ETC. TO MANHOLES TYPE 'A','B','C', & 'D' SEE TABLE 2

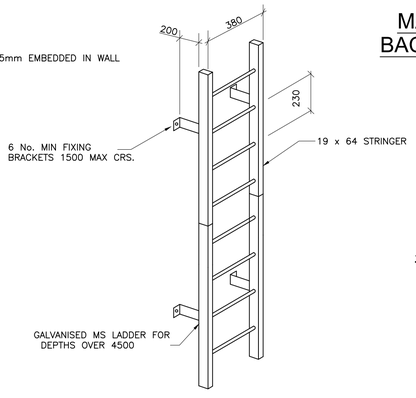



TYPICAL SADDLE CONNECTION
SCALE 1:20

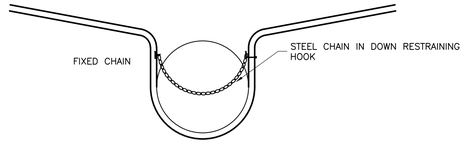



GULLY CONNECTION TO S.W. SEWER ACROSS ROADWAY




DETAIL OF ACCESS LADDER




TYPICAL DETAIL OF SAFETY CHAIN

NOTES

1. PRECAST MANHOLES SHALL HAVE 150mm GRADE C16/20 CONCRETE SURROUND UNLESS MANUFACTURER CAN SHOW, TO THE ENGINEERS SATISFACTION, THAT PERMANENTLY WATERPROOF JOINTS CAN BE ACHEIVED BY SOME OTHER METHOD
2. FOR 750mm ø PIPES OR GREATER, USE A SAFETY CHAIN AND PROVIDE 25mm ø GALVANISED SOLID BAR HANDRAILS AT EDGES OF BENCHING
3. STEP RUNGS TO BE PROVIDED IN MANHOLES MORE THAN 1m DEEP
4. MANHOLE COVERS & FRAMES SHALL BE IN ACCORDANCE WITH EN 124. WATERWORKS (SLUICE VALVES, HYDRANTS ETC.) SHALL BE IN ACCORDANCE WITH IS261
6. IN MANHOLES WHOSE PIPE DIAMETER IS GREATER THAN 375, ONE BENCHING SHOULD BE AT LEAST 400 WIDE
7. BENCHING TO BE OF CLASS C16/20 CONCRETE FINISHED WITH 2:1 SAND/CEMENT MORTAR
8. ALL MANHOLE COVERS & GULLIES TO BE LOCKABLE
9. PRECAST CONCRETE RINGS TO BE ENCASED IN 150mm MIN. MASS CONCRETE.
10. ALL DRAINAGE WORK TO BE IN ACCORDANCE WITH IRISH WATER CODE OF PRACTICE FOR WASTE WATER INFRASTRUCTURE AND STANDARD DETAILS AND GREATER DUBLIN REGIONAL CODE OF PRACTICE.

NO PART OF THIS DRAWING MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR STORED IN ANY RETRIEVAL SYSTEM OF ANY NATURE WITHOUT THE WRITTEN PERMISSION OF MALONE O'REGAN CONSULTING ENGINEERS AS COPYRIGHT HOLDER EXCEPT AS AGREED FOR USE ON THE PROJECT FOR WHICH THE DRAWING WAS ORIGINALLY CREATED.

THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS, SPECIFICATIONS AND THE PRELIMINARY HEALTH & SAFETY PLAN.

ALL DIMENSIONS ARE IN mm UNLESS NOTED OTHERWISE. DO NOT SCALE DIMENSIONS.

THE CONTRACTOR SHALL CHECK ALL DIMENSIONS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ALL DISCREPANCIES SHALL BE REPORTED TO THIS OFFICE IN WRITING.

NOTES

LOCAL AUTHORITY / COUNTY COUNCIL GUIDELINES FOR THE DESIGN AND CONSTRUCTION OF HOUSING MANUAL TO TAKE PRECEDENCE WHERE ANY CONFLICT OCCURS.
GREATER DUBLIN REGIONAL CODE OF PRACTICE TO TAKE PRECEDENCE WHERE ANY CONFLICT OCCURS.

ALL EXCAVATIONS/FORMATIONS TO BE SUBJECT TO PLATE TESTS AT LOCATIONS TO BE AGREED ON SITE

| REV | DESCRIPTION | DATE | BY | CHK |
|---|---|---|---|---|
| 0 | ISSUED FOR PLANNING | 02.08.24 | KD | FM |

STATUS
P3 – PLANNING

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CLIENT
NDFA ON BEHALF OF DUN LAOGHAIRE–RATHDOWN COUNTY COUNCIL

JOB NAME
PPP SHB 4&5 – BALALLY

DRG. NAME
SITE DEVELOPMENT DETAILS
SHEET 1
DRAINAGE DETAILS

| JOB REF | SHEET | SCALE | DATE | BY | ENG | APP | REV. |
|---|---|---|---|---|---|---|---|
| 23006 | A1 | 1:250 | JULY'2024 | KD | KA | FM | 0 |

DRG. NO.
SHB5–BDR–DR–MOR–CS–P3–137