

## **GRANULAR BEDDING** FOR PIPES UNDER GRASSED AREA

SCALE 1:10@A1 1:20@A3

## TRENCH BACKFILL AND BEDDING - FOUL SEWER

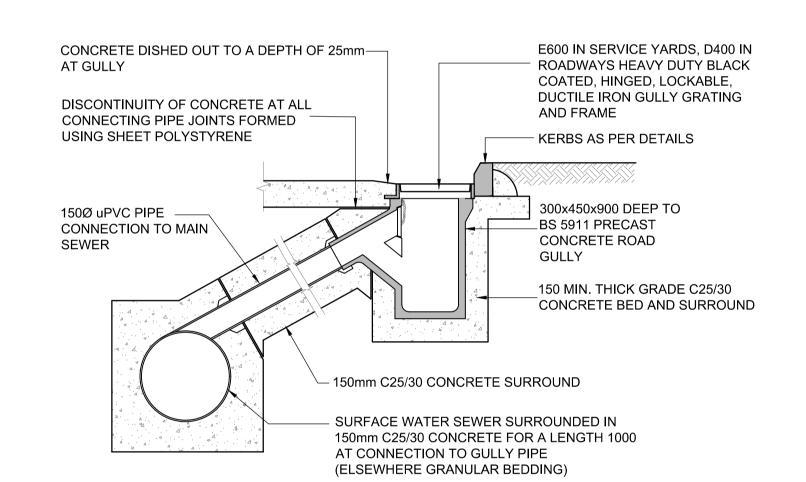
IN ACCORDANCE WITH IW STD-WW-07 REV2

FOR PIPES UNDER ROADS/PAVED AREAS

SCALE 1:10@A1 1:20@A3

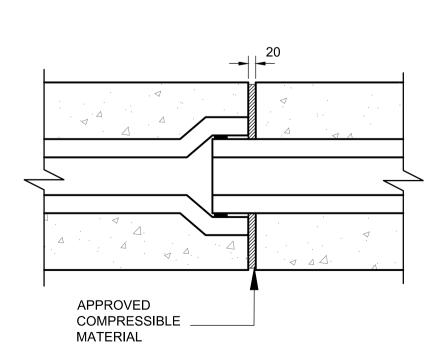
SCALE 1:10@A1

1:20@A3



# PRECAST TRAPPED ROAD GULLY

SCALE 1:25@A1 1:50@A3

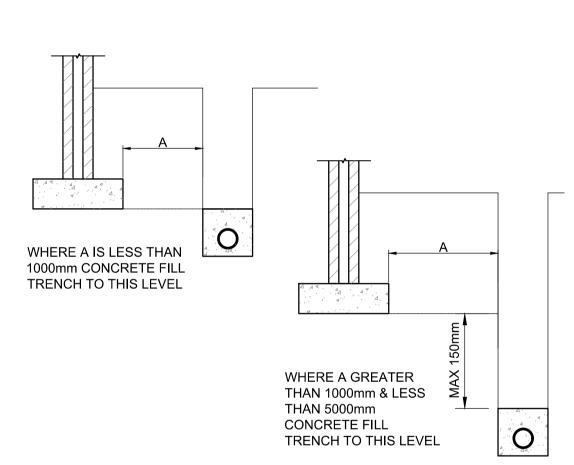


## JOINT IN CONCRETE SURROUND TO FLEXIBLE **JOINTED SPIGOT & SOCKET PIPES**

SCALE 1:10@A1 1:20@A3

| PIPE DIAMETER<br>'A' (mm) | TRENCH WIDTH<br>'B' (mm) |  |
|---------------------------|--------------------------|--|
| ≤ 80 RISING MAIN          | SEE NOTE 12              |  |
| 100                       | 500                      |  |
| 150                       | 600                      |  |
| 200                       | 600                      |  |
| 250                       | 750                      |  |
| 300                       | 750                      |  |
| 350                       | 750                      |  |
| 400                       | 900                      |  |
| 450                       | 900                      |  |

| PIPE DIAMETER<br>'A' (mm) | DEPTH OF BEDDING<br>'C' (mm) |
|---------------------------|------------------------------|
| ≤ 100                     | 100                          |
| 150-450                   | 200                          |
|                           |                              |



## **CONCRETE SURROUND TO** PIPE NEAR BUILDING SCALE NTS

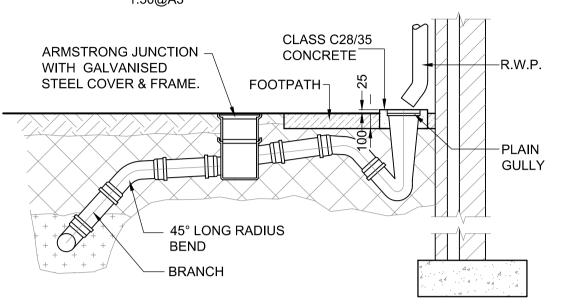
# **CONCRETE BED & SURROUND**

SCALE 1:10@A1 1:20@A3

## ARMSTRONG JUNCTION SEE ARCHITECTS DRG. WITH GALVANISED 150mm Ø FOR S.V.P. OR STEEL COVER & FRAME 100mm Ø FOR R.W.P. PRECAST CONCRETE LINTELS 87.5° LONG RADIUS 45° LONG RADIUS BEND - BRANCH

# CONNECTION OF S.V.P. TO DRAIN

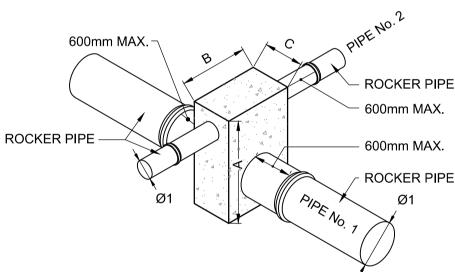
SCALE 1:25@A1 1:50@A3



## CONNECTION OF R.W.P. TO GULLY

SCALE 1:25@A1 1:50@A3

- $A = 150 \text{mm MIN.} + \emptyset 1 + 300 \text{mm MIN.} + \emptyset 2 + 150 \text{mm MIN.}$
- B = 150mm MIN. + Ø1 + 150mm MIN.
- C = 150mm MIN. + Ø2 + 150mm MIN. Ø1 = Ø OF PIPE No.1 + 2 x THICKNESS OF PIPE WALL No.1 Ø1 = Ø OF PIPE No.2 + 2 x THICKNESS OF PIPE WALL No.2



# —GULLY ∕<del>√</del>—WALL

FOOTPATH

25mm HIGH

50mm WIDE CLASS C28/35

CONCRETE UPSTAND RING,

SURFACE WATER GULLIES "PROTECTED" TO PREVENT CASUAL SURFACE WATER ENTRY

#### WATERMAIN BEDDING NOTES:

- 1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE
- 2. THE MINIMUM DEPTH OF COVER FROM THE FINISHED GROUND LEVEL TO THE EXTERNAL CROWN OF THE PIPE SHALL BE 900mm WHERE THE PIPE IS TO BE LOCATED IN HOUSING ESTATE ROADS. GREATER DEPTHS OF COVER AND/OR PIPE STRENGTH AND/OR A HIGHER CLASS OF BEDDING MATERIAL MAY BE REQUIRED WHERE HIGH TRAFFIC LOADING IS ANTICIPATED. THE DESIRABLE COVER FOR A WATERMAIN SHOULD BE 1200mm, WHERE PRACTICABLE & SHOULD NOT EXCEED 3.0m.
- 3. SELECTED EXCAVATED MATERIAL MAY BE USED IN GREEN-FIELD AREAS ABOVE GRANULAR PIPE SURROUND MATERIAL SUBJECT TO REVIEW BY IRISH
- 4. PIPES SHALL NOT BE SUPPORTED ON STONES, ROCKS OR ANY HARD OBJECTS AT ANY POINT ALONG THE TRENCH. ROCK SHALL BE EXCAVATED TO A DEPTH OF 150mm BELOW THE ACTUAL DEPTH OF THE TRENCH WITH THE VOID FILLED WITH CLAUSE 808 MATERIAL IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS. THE GRANULAR MATERIAL SHALL BE LAID ABOVE THIS VOID BACKFILL MATERIAL.
- 5. ALL PIPELINES ARE TO BE TESTED IN ACCORDANCE WITH THE SPECIFIED WATER OR AIR TEST.
- 6. MARKER TAPE TO BE 400mm WIDE BLUE POLYETHYLENE MATERIAL IN ACCORDANCE WITH EN 12163, PLASTIC PIPES SHALL HAVE WARNING TAPE INCORPORATED A REINFORCED BAND BRACING WIRE SERVICE PIPES SHALL HAVE 200mm WIDE MESH TAPE MARKER TAPE TO BE LAID AT TOP OF PIPE BEDDING LAYER.
- 7. IN SOFT GROUND CONDITIONS (CBR < 5) THE MATERIAL SHOULD BE EXCAVATED until CBR > 5 AND DISPOSED OF IN ACCORDANCE WITH THE WASTE MANAGEMENT ACT AND CLAUSE 808 MATERIAL IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS SHALL REPLACE THE EXCAVATED MATERIAL, WRAPPED IN GEO-TEXTILE WRAPPING. ALTERNATIVELY, SPECIAL PIPE SUPPORT ARRANGEMENTS, INCLUDING PILING ETC MAY BE PROPOSED SUBJECT TO APPROVAL
- CLAUSE 808 MATERIAL IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS IS TO BE USED AS BACKFILL MATERIAL WHERE THE SEWER MAIN IS LOCATED IN ROADS, FOOTPATHS OR WHEN THE NEAREST PART OF THE TRENCH IS WITHIN 1m OF THE PAVED EDGE OF THE ROADWAY. CLAUSE 808 IS TO BE COMPACTED AS PER CLAUSE 802 OF TH NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS.

- 1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS Notes :-**NOTED OTHERWISE**
- 2. THE MINIMUM DEPTH OF COVER FROM THE FINISHED SURFACE TO THE CROWN OF GRAVITY PIPES WITHOUT PROTECTION SHOULD BE AS FOLLOWS: a. GARDENS AND PATHWAYS WITHOUT ANY POSSIBILITY OF VEHICULAR ACCESS - 0.5 m.

WATERMAIN BEDDING NOTES

- b. DRIVEWAYS, PARKING AREAS AND YARDS WITH HEIGHT RESTRICTIONS TO PREVENT ENTRY BY VEHICLES WITH A GROSS VEHICLE WEIGHT IN EXCESS OF 7.5 TONNES - 0.75m.
- c. DRIVEWAYS, PARKING AREAS AND NARROW STREETS WITHOUT FOOTWAYS (E.G. MEWS DEVELOPMENTS) WITH LIMITED ACCESS FOR VEHICLES WITH A GROSS VEHICLE WEIGHT IN EXCESS OF 7.5 TONNES - 0.9 m.
- d. DEPTHS OF SEWERS IN GATED ESTATES SHALL BE SIMILAR TO THAT OUTLINED ABOVE. e. AGRICULTURAL LAND AND PUBLIC OPEN SPACE -
- f. OTHER HIGHWAYS AND PARKING AREAS WITH UNRESTRICTED ACCESS TO VEHICLES WITH A GROSS VEHICLE WEIGHT IN EXCESS OF 7.5
- B. WHERE COVER TO PIPES DOES NOT MEET MINIMUM DEPTHS STATED IN NOTE 2. PROVIDE 120mm OF C16/20 CONCRETE SURROUND WITH 18MM VERTICAL MOVEMENT JOINT AT MAX INTERVAL OF 6m.

TONNES - 1.2m.

- 4. SELECTED FILL SHOULD BE FREE FROM STONES LARGER THAN 37mm, LUMPS OF CLAY OVER 75mm, TIMBER, FROZEN MATERIAL AND VEGETABLE OR FOREIGN MATTER AND MAY BE USED WHEN THE PIPE IS LOCATED GREATER THAN 1M FROM THE PAVED EDGE OF THE ROADWAY.
- 5. PIPES SHALL NOT BE SUPPORTED ON STONES, ROCKS OR ANY HARD OBJECTS AT ANY POINT ALONG THE TRENCH. ROCK SHALL BE EXCAVATED TO A DEPTH OF 150mm BELOW THE ACTUAL DEPTH OF THE TRENCH WITH THE VOID FILLED WITH CLAUSE 808 MATERIAL IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS. THE GRANULAR MATERIAL SHALL BE LAID ABOVE THIS VOID BACKFILL MATERIAL.
- 6. ALL PIPELINES ARE TO BE TESTED IN ACCORDANCE WITH THE SPECIFIED WATER OR AIR TEST.
- 7. NON DEGRADABLE MARKER TAPE SHOULD BE INSTALLED AT TOP OF PIPE BEDDING LAYER. IN THE CASE OF NON METAL PIPE MATERIAL, THE MARKER TAPE SHOULD INCORPORATE A TRACE WIRE WHICH IS LINKED TO FITTINGS AND TERMINATED AT THE WASTE WATER PUMPING STATION AND THE DISCHARGE MANHOLE. REFER TO CHAPTER 6 OF THE 'GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS' FOR GUIDANCE ON MARKER TAPE COLOUR AND DUCT TYPE / COLOUR TO BE USED ON SITE.
- 8. IN GREEN FIELD AREAS, TYPE B BACKFILL (SELECTED EXCAVATED MATERIAL COMPLYING WITH THE REQUIREMENTS OF "ACCEPTABLE MATERIAL" AS OUTLINED ON CLAUSE 601 OF THE TII SPECIFICATION FOR ROADWORKS, TABLE 6/1, CLASS 8, CLASS 2.) WILL BE ALLOWED ABOVE THE SIDE HAUNCH GRANULAR MATERIAL IN THE CASE OF RIGID PIPES. A GRANULAR SURROUND OF A MINIMUM, DEPTH OF 150mm ABOVE THE CROWN OF THE PIPE IS REQUIRED FOR FLEXIBLE PIPES AND TYPE B MATERIAL MAY BE USED AS BACKFILL ABOVE THIS. ALL RISING MAINS IN GREENFIELD AREAS SHALL HAVE A MINIMUM COVER OF 300mm OF GRANULAR MATERIAL ABOVE THE EXTERNAL CROWN OF THE PIPE.
- 9. CLAUSE 808 MATERIAL IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS IS TO BE USED AS BACKFILL MATERIAL WHERE THE SEWER MAIN IS LOCATED IN ROADS, FOOTPATHS OR WHEN THE NEAREST PART OF THE TRENCH IS WITHIN 1m OF THE PAVED EDGE OF THE ROADWAY. CLAUSE 808 IS TO BE COMPACTED AS PER CLAUSE 802 OF THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS.

DEPTH OF BEDDING 'C' (mm)

150

200

PIPE DIAMETER

'A' (mm)

≤ 200

≥ 250

SHALL BE SITE CHECKED. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES BEFORE WORK PROCEEDS

NO DIMENSION SHALL BE SCALED FROM THIS DRAWING, ALL DIMENSIONS

- 1. If this drawing has been received electronically it is the recipients responsibility to print the document to the correct scale.
- 2. All dimensions are in (mm.) unless otherwise noted.
- 3. All levels are in meters above datum unless otherwise
- 4. This drawing is to be read in conjunction with all the relevant Engineers', Services Engineers, Manufacturers & Architects drawings and specifications.

| Client            |
|-------------------|
| Serendale Limited |
|                   |
|                   |
|                   |
| Architect         |
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| JSA Architects    |
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12.08.22| LL | EC

PL2



| Project             |
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PL2 PLANNING ISSUE

PL1 PLANNING ISSUE

Rev Description

**Planning** 

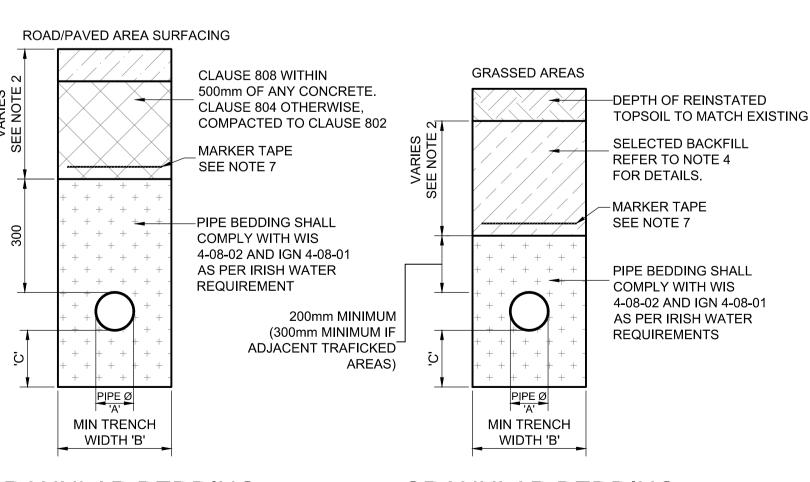
**CONSTRUCTION DETAILS** SHEET 4

| ob No. (Eir Eng) |            | Drg Status  | Scale @ A1   |          |
|------------------|------------|-------------|--------------|----------|
| 201121           |            |             | 1:25@A1      |          |
| 201121           |            |             | 1:50@A       | 3        |
| Drawn By         | Checked By | Approved By | Checked Date |          |
| L Lonergan       | T Byrne    | E Deasy     | 25.06.2021   |          |
| rawing Number    |            |             | -            | Revision |

201121-ECE-ZZ-XX-DR-C-0010

## CONCRETE ENCASEMENT AT CROSS OVER DETAIL

SCALE NTS



## **GRANULAR BEDDING** FOR PIPES UNDER ROADS/PAVED AREAS

SCALE 1:10@A1 1:20@A3

### **GRANULAR BEDDING** FOR PIPES UNDER GRASSED AREA SCALE 1:10@A1 1:20@A3

### TRENCH BACKFILL AND BEDDING - WATERMAIN IN ACCORDANCE WITH IW STD-W-13 REV2

SCALE 1:10@A1 1:20@A3

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