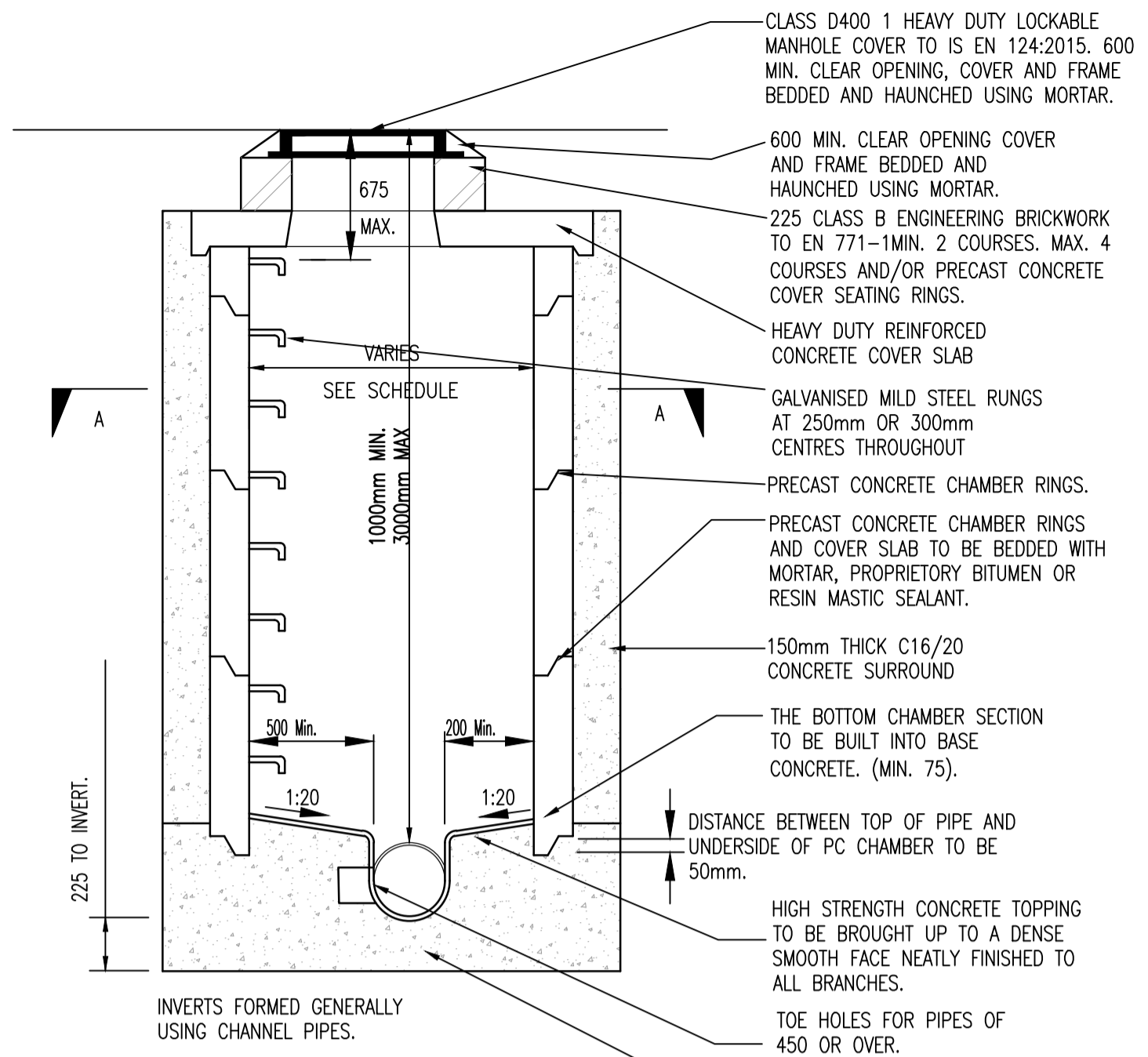
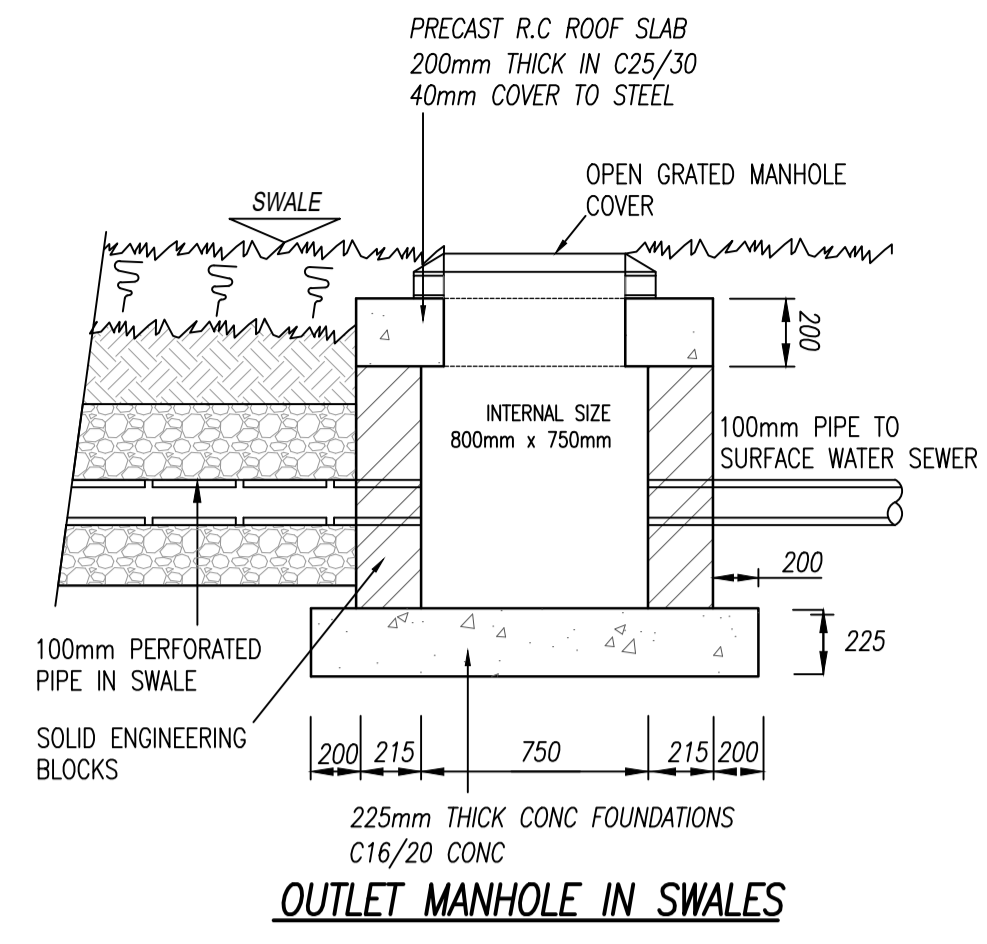


| INLET DIA. (mm) | DROP DIA. (mm) |
|-----------------|----------------|
| 225 | 300 |
| 300 | 375 |
| 375 | 375 |
| 450 | 450 |
| 525 | 450 |
| 600 | 450 |
| 750 | 600 |
| 900 | 600 |

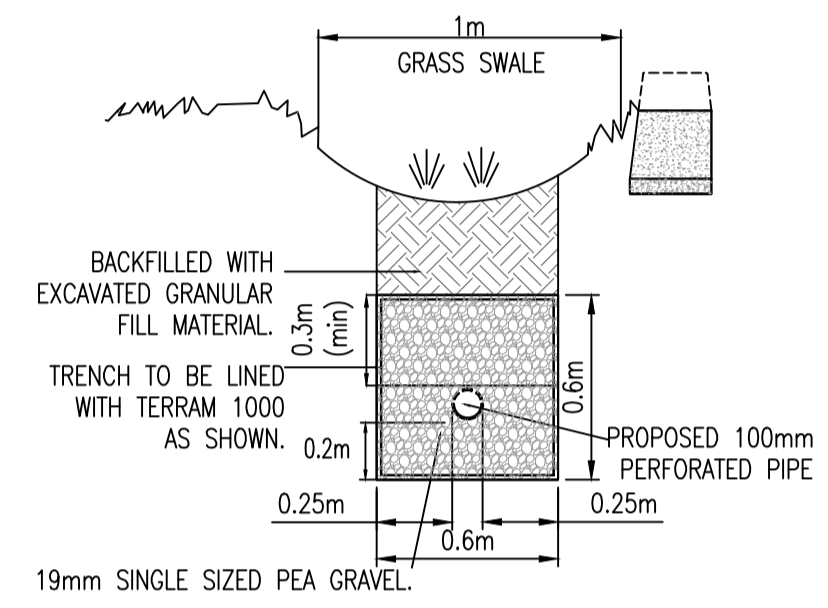


PRECAST CONCRETE RING MANHOLE DETAIL TYPE J (GSDS)

SCALE 1:25

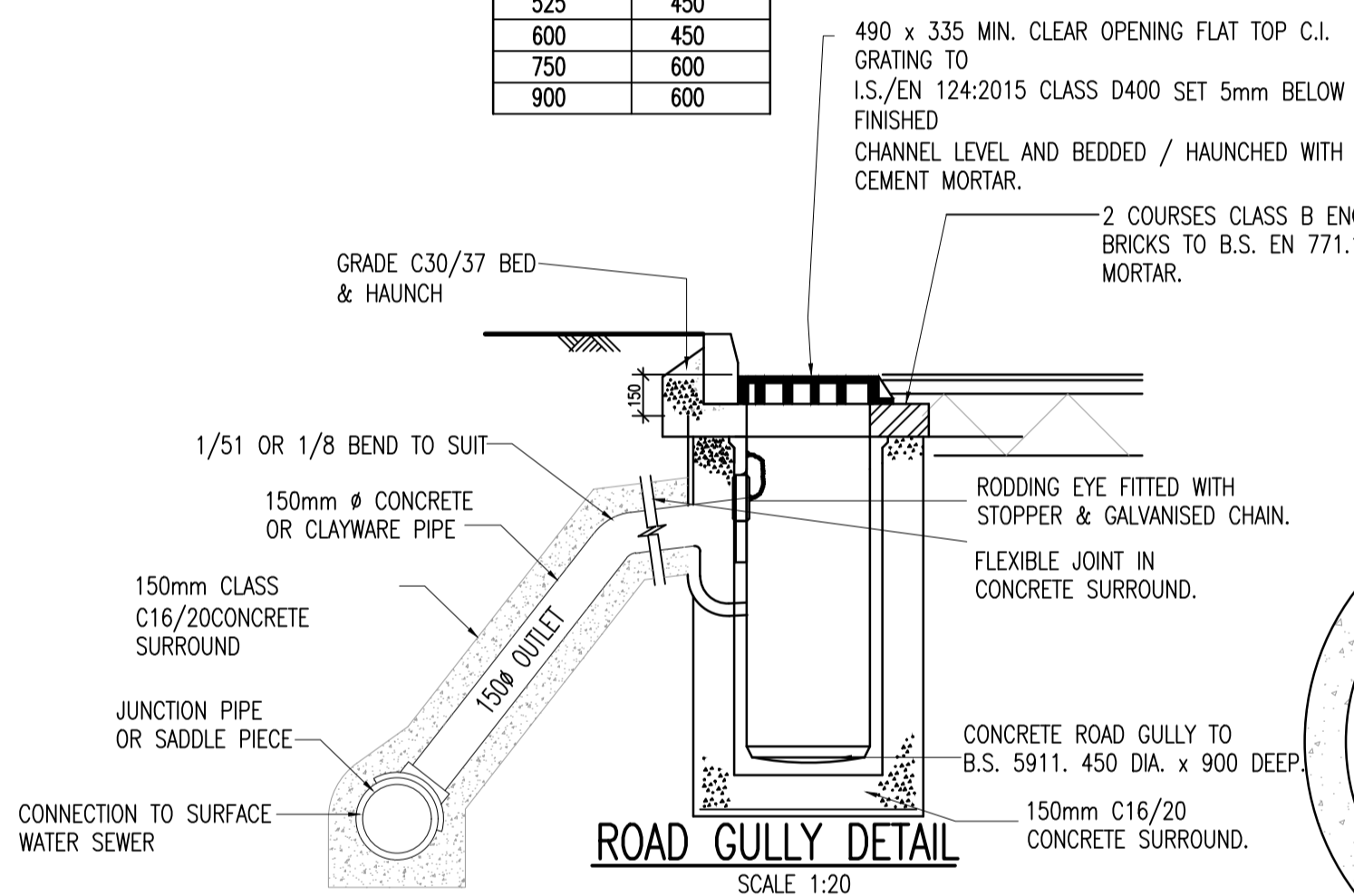


OUTLET MANHOLE IN SWALES



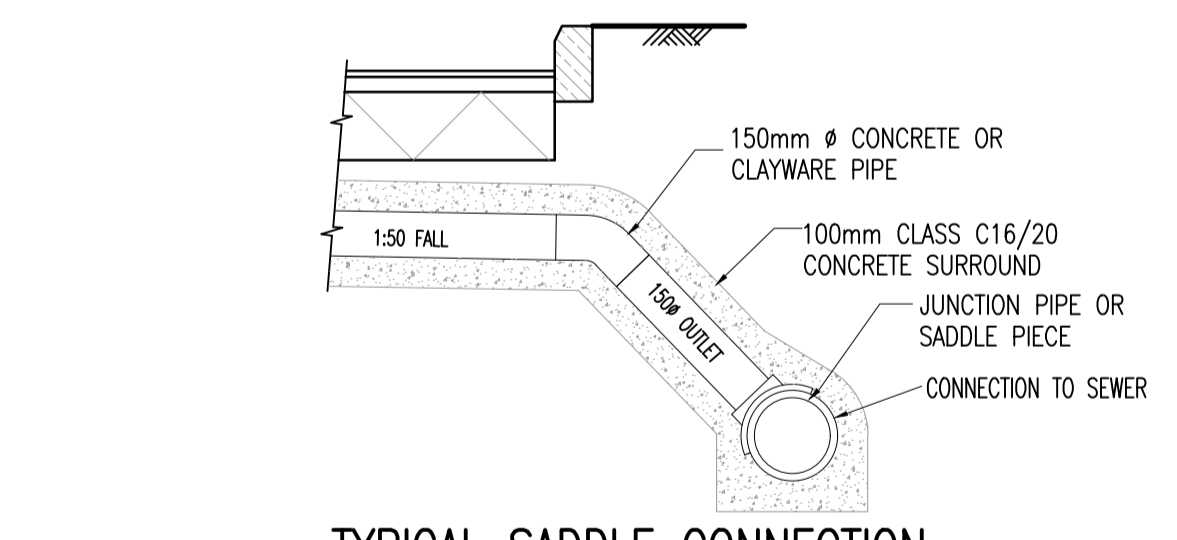
TYPICAL SECTION THROUGH PROPOSED SWALE

SCALE 1:25 @A1



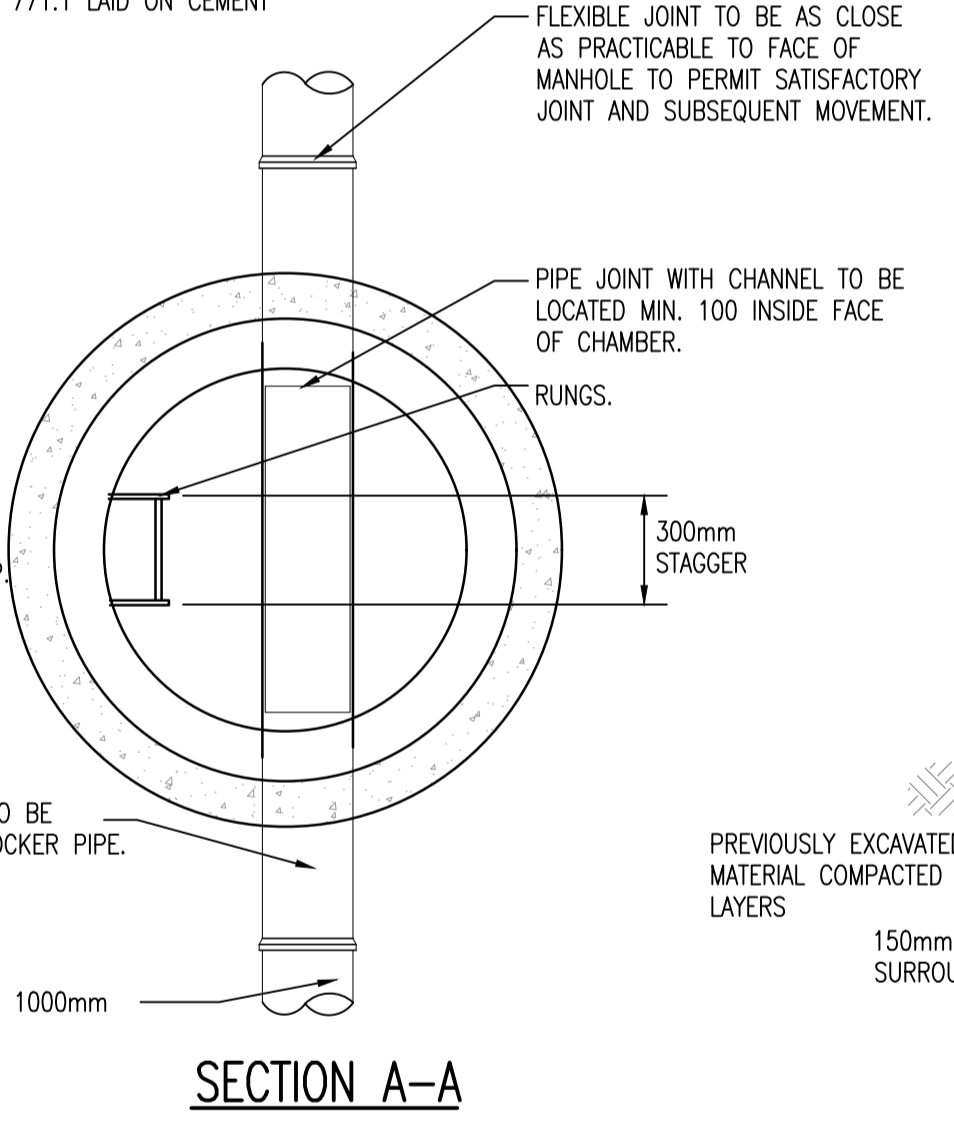
ROAD GULLY DETAIL

SCALE 1:20



TYPICAL SADDLE CONNECTION

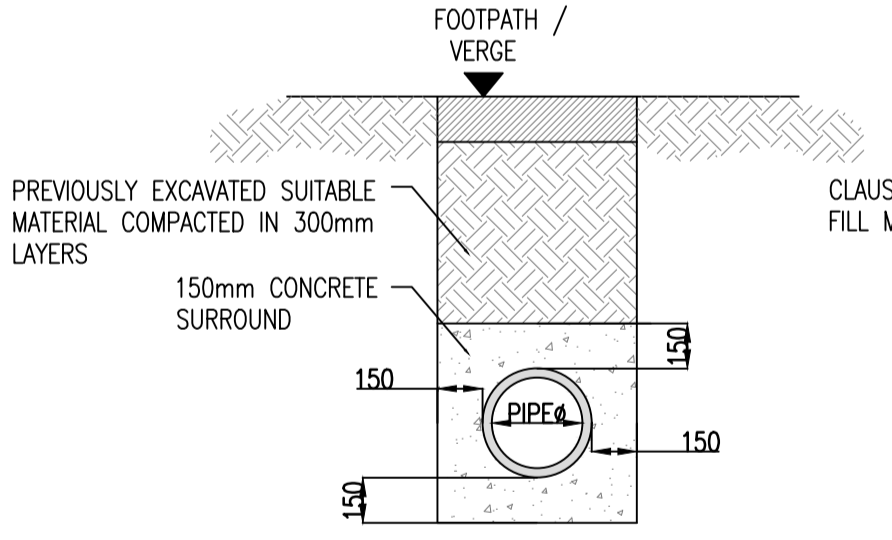
SCALE 1:25 @ A1



SECTION A-A

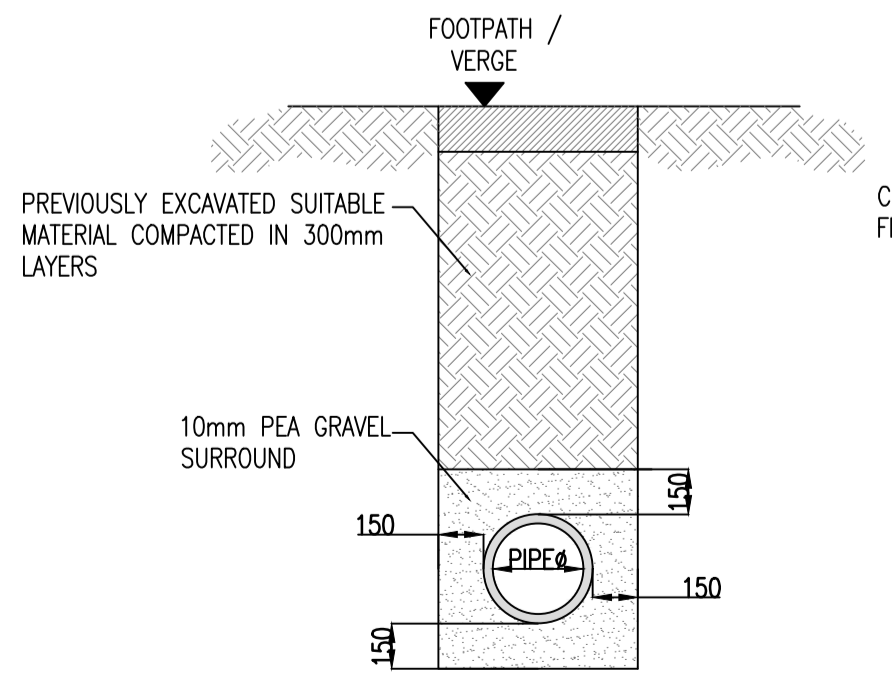
| PIPE DIAMETER | ROCKER PIPE LENGTH |
|---------------|--------------------|
| 150 - 450 | 0.5 - 0.75 |
| 451 - 750 | 0.75 - 1.0 |
| 750 > | SEEK GUIDANCE |

| DIAMETER OF LARGEST PIPE IN MANHOLE | PRECAST CONCRETE RING SIZE |
|-------------------------------------|----------------------------|
| LESS THAN 375mm | 1200mm DIA |
| 375mm TO 450mm | 1350mm DIA |
| 450mm TO 500mm | 1500mm DIA |
| 500mm TO 700mm | 1800mm DIA |
| 700mm TO 900mm | 2100mm DIA |
| 900mm TO 1200mm | 2400mm DIA |
| 1200mm AND ABOVE | 2400mm DIA |



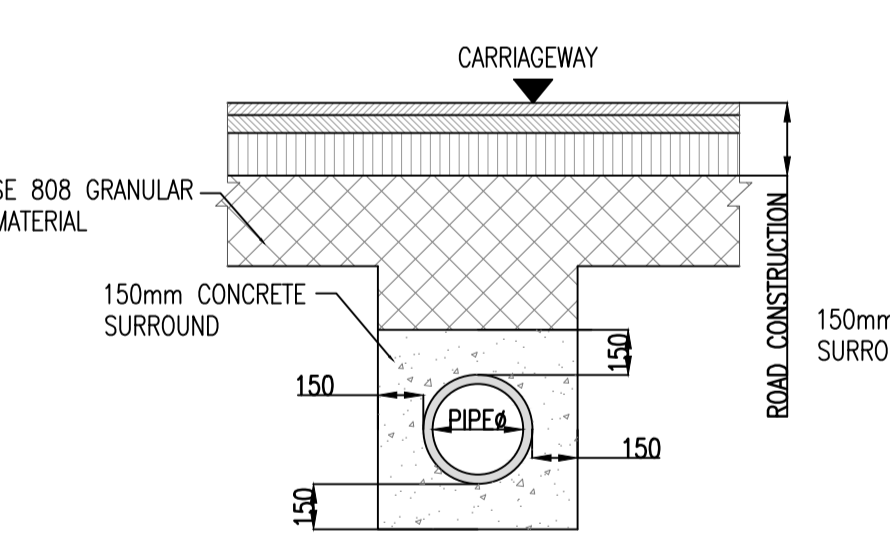
TYPICAL PIPE BEDDING DETAILS NON TRAFFICKED AREAS LESS THAN 900mm TO PIPE CROWN

SCALE 1:25



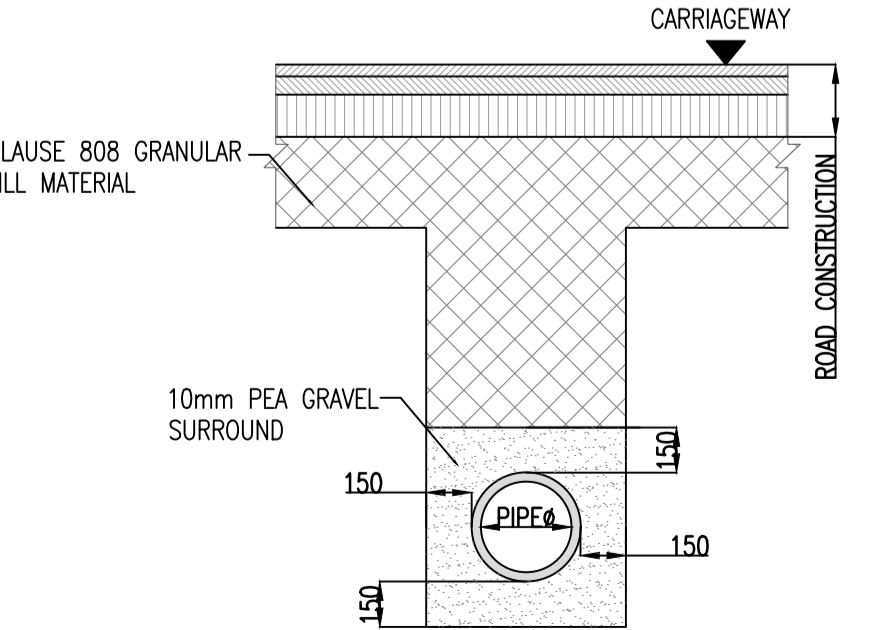
TYPICAL PIPE BEDDING DETAILS NON TRAFFICKED AREAS GREATER THAN 900mm TO PIPE CROWN

SCALE 1:25



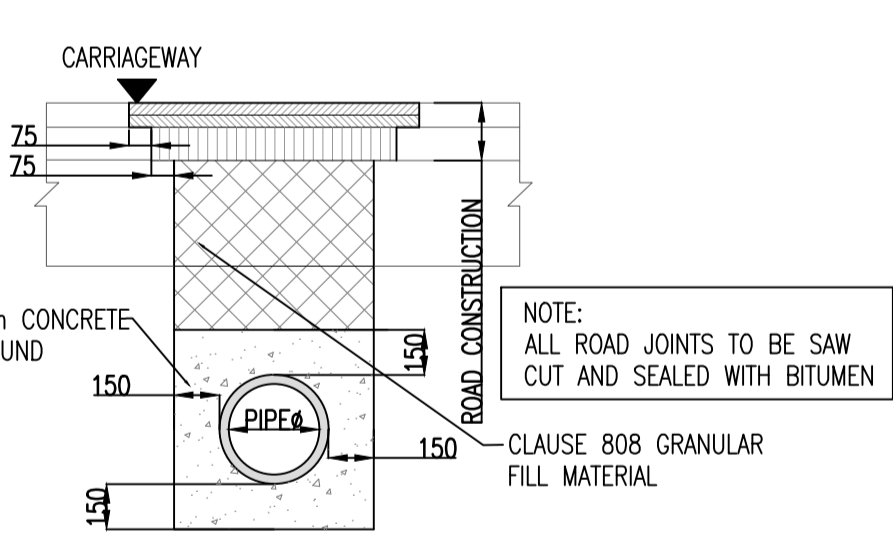
TYPICAL PIPE BEDDING DETAILS TRAFFICKED AREAS LESS THAN 1200mm TO PIPE CROWN

SCALE 1:25



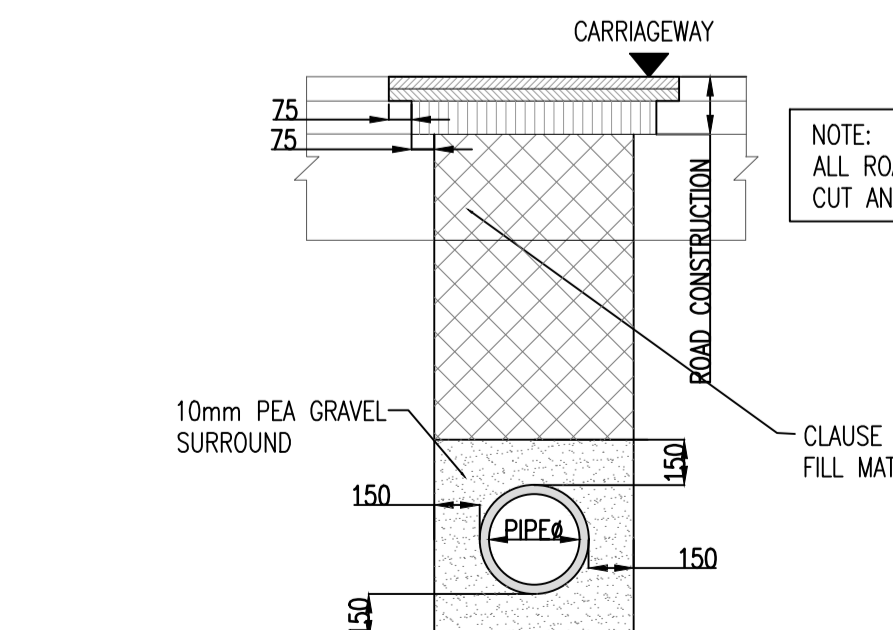
TYPICAL PIPE BEDDING DETAILS TRAFFICKED AREAS GREATER THAN 1200mm TO PIPE CROWN

SCALE 1:25



TYPICAL PIPE BEDDING AND REINSTATEMENT DETAILS TRAFFICKED AREAS (ROADWAY) LESS THAN 1200mm TO PIPE CROWN

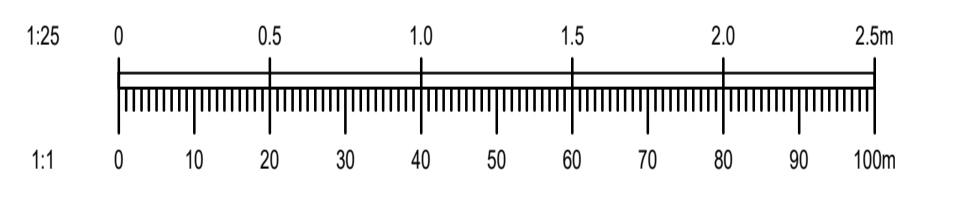
SCALE 1:25



TYPICAL PIPE BEDDING AND REINSTATEMENT DETAILS TRAFFICKED AREAS (ROADWAY) GREATER THAN 1200mm TO PIPE CROWN

SCALE 1:25

- NOTES:
- DO NOT SCALE. USE FIGURED DIMENSIONS ONLY.
 - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ARCHITECTURAL AND ENGINEERING DRAWINGS.
 - TYPE A GRANULAR FILL SHALL CONSIST OF WASHED PEA GRAVEL. ALL MATERIAL SHALL PASS A 19mm B.S. SIEVE TEST AND SHALL BE RETAINED BY A 4.75mm B.S. SIEVE TEST.
 - SELECTED FILL SHALL BE FREE FROM STONES GREATER THAN 25mm IN SIZE, BUILDERS RUBBLE, VEGETABLE MATTER AND LUMPS OF CLAY GREATER THAN 75mm IN SIZE AND SHALL BE COMPACTED IN 150mm LAYERS.
 - IN OPEN SPACES BACKFILL SHALL CONSIST OF SUITABLE SELECTED EXCAVATED MATERIAL. UNDER PAVED AREAS BACKFILL SHALL CONSIST OF SUITABLE APPROVED GRANULAR FILL. GENERAL BACKFILL SHALL BE COMPACTED IN LAYERS NOT EXCEEDING 300mm THICK.
 - CONCRETE BED AND SURROUND SHALL BE USED ON ALL PIPES WHERE COVER TO THE SOFFIT OF THE PIPE IS LESS THAN 1.2m IN ROADS, FOOTPATHS AND GRASS MARGINS AND 0.9m IN OPEN SPACES AND FIELDS.
 - ALL CONCRETE FOR PIPE BEDDING, HAUNCHING AND SURROUNDS SHALL BE GRADE 20N/20.
 - ALL MANHOLES SHALL BE WATERTIGHT TO THE SATISFACTION OF THE ENGINEER.
 - FORMWORK TO REINFORCED CONCRETE AND MASS CONCRETE SHALL BE CLASS F2.
 - CLASS U2 FINISH TO THE TOP OF SLABS. REINFORCEMENT TO SLABS TO ENGINEERS DETAILS.
 - 200mm THICK CL. 30/20 MASS CONCRETE FOUNDATIONS. 225 THICK PRECAST R.C. ROOF SLAB IN CL. 30/20 CONCRETE. COVER TO STEEL TO BE 40mm.
 - TOE HOLES TO BE PROVIDED IN BENCHING OF SEWERS GREATER THAN 450mm DIAMETER FOR ACCESS TO INVERT. SAFETY CHAIN ON SEWERS 600mm. DIAM. OR GREATER MILD STEEL SAFETY CHAIN SHALL BE 10mm. NOMINAL SIZE GRADE M(H) NON CALIBRATED CHAIN, TYPE 1, COMPLYING WITH BS4942 PART 2.
 - WHEN DEPTH OF MANHOLES TO INVERT IS GREATER THAN 3.5m, LADDERS SHALL BE USED INSTEAD OF RUNGS. FIXED LADDERS SHOULD MEET THE DIMENSIONAL REQUIREMENTS OF BS4211 EXCEPT THAT STRINGERS SHOULD NOT BE LESS THAN 65 X 20mm IN SECTION AND RUNGS 25mm IN DIAMETER.
 - LADDER STRINGERS SHOULD BE ADEQUATELY SUPPORTED FROM THE MANHOLE WALL AT INTERVALS OF NOT MORE THAN 3.0m. STRINGERS SHOULD BE BOLTED TO CLEATS TO FACILITATE RENEWAL.
 - ALL LADDERS, RUNGS, HANDRAILS, SAFETY CHAIN, ETC. SHALL BE HOT DIPPED GALVANISED TO BS729.
 - ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF LOCAL COUNTY COUNCIL.



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|-----------|---------------------|-----|------|
| 02/08/22 | ISSUED FOR PLANNING | MS | JG |
| REV. DATE | AMENDMENT | DRN | APPD |

STATUS **FOR PLANNING ONLY NOT FOR CONSTRUCTION**

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|-----------|--|
| CLIENT | GRAFTON ISSUER DAC |
| ARCHITECT | OMP ARCHITECTS |
| PROJECT | RESIDENTIAL DEVELOPMENT AT CARRICKMINES GREAT GLENAMUCK ROAD SOUTH DUBLIN 18 |
| TITLE | PUBLIC SURFACE WATER DRAINAGE DETAILS |

| | | | |
|----------|----------|----------|-----------|
| DRAWN | DESIGNED | APPROVED | DATE |
| G.Byrne | IW | JG | JULY 2022 |
| SCALE | JOB NO. | DRG. NO. | REVISION |
| 1:25 @A1 | 21-111 | P025 | |