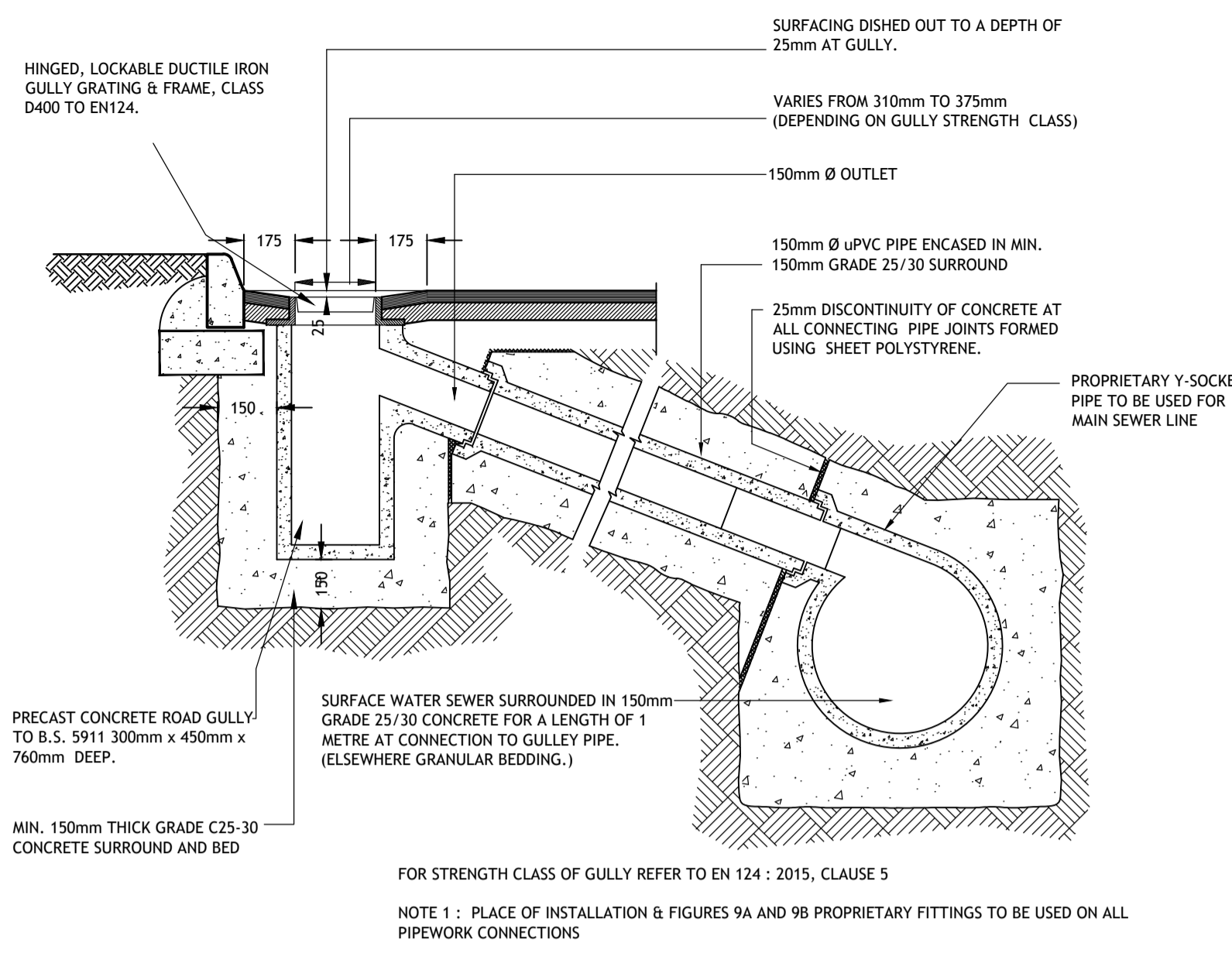


IRISH WATER WASTEWATER DETAILS	
Drawing No.	Drawing Title
N	STD-WW-01 Water service connection maintenance responsibility
N	STD-WW-02 Typical layout for sewer within developments
Y	STD-WW-03 Drain & service connection pipework
Y	STD-WW-04 Typical sewer/service pipe connection
Y	STD-WW-05 Typical service layout indicating separation distances
Y	STD-WW-05A Watermeter service connection vertical separation distances
Y	STD-WW-06 Restrictions on wastewater infrastructure works adjacent to trees
Y	STD-WW-06A Restrictions on wastewater infrastructure works adjacent to sewers
Y	STD-WW-07 Trench backfill & bedding
Y	STD-WW-08 Concrete protection slab, bed, haunch & surround to wastewater pipes
Y	STD-WW-09 Blockwork manhole (450mm dia.)
Y	STD-WW-10 Pre-cast concrete manhole with cast in-situ base
Y	STD-WW-10A Pre-cast concrete manhole with pre-cast base
N	STD-WW-10B Pre-cast concrete manhole with cast in-situ concrete base
N	STD-WW-10C Pre-cast concrete manhole with pre-cast concrete base
N	STD-WW-11 Brickwork manhole
N	STD-WW-12 Backfill and cascade manholes
Y	STD-WW-13 Private site inspection chambers
N	STD-WW-14 Floor blocks for rising mains
N	STD-WW-15 Flow valve chamber (flow rising main < 200mm dia.)
N	STD-WW-16 Sluice valve details for rising mains ductile iron (D.I.) pipe (< 200mm dia.) (Sheet 1 of 2)
N	STD-WW-17 Sluice valve details for rising mains polyethylene (P.E.) pipe (< 200mm dia.) (Sheet 1 of 2)
N	STD-WW-18 Flow valve chamber (flow rising main < 200mm dia.)
N	STD-WW-19 Fluct chamber
N	STD-WW-20 Emergency overflow structure & emergency overflow to storm sewer
N	STD-WW-21 Typical ditch/stream crossing for gravity sewer (Sheet 1 of 2)
N	STD-WW-22 Typical ditch/stream crossing for ductile iron rising main (Sheet 1 of 2)
N	STD-WW-22A Typical ditch/stream crossing for polyethylene rising main
N	STD-WW-23 Typical bridge crossing for rising main (Sheet 1 of 2)
N	STD-WW-24 Typical bridge crossing for rising main (Sheet 1 of 2)
N	STD-WW-24A Typical culvert and services crossing details for rising main
N	STD-WW-25 Security gate & fencing passade option (preferred)
N	STD-WW-25A Security gate & fencing wire mesh option
N	STD-WW-26 Indicative pumping station site layout - access via lay-by
N	STD-WW-26A Indicative pumping station site layout - direct access from public road
N	STD-WW-27 Flow meter chamber (flow rising main < 200mm dia.) cast in-situ concrete option
N	STD-WW-27A Flow meter & valve chamber (flow rising main < 200mm dia.) cast in-situ concrete option
N	STD-WW-27B Flow meter & valve chamber (flow rising main < 200mm dia.) pre-cast concrete option
N	STD-WW-28 Cast in-situ structure for storm sewer arrangements
N	STD-WW-28A Indicative pre-cast concrete submersible pumping station and cast in-situ valve chamber
N	STD-WW-28B Indicative pre-cast concrete submersible pumping station and pre-cast valve chamber
N	STD-WW-29 Rising main discharge area off manhole
N	STD-WW-30 Type 1 pumping station control knob
N	STD-WW-30A Type 2 and type 3 pumping station control knob
N	STD-WW-31 Pumping station wet block
N	STD-WW-31A Pumping station wet block water service connection arrangement
N	STD-WW-32 Hardstanding area pumping station (downfalls & repairable)
N	STD-WW-33 Lamp buffer & lamp standard
Y	STD-WW-34 Vent stack
N	STD-WW-35 Rising chamber in-situ concrete option
N	STD-WW-35A Rising main rodding chamber pre-cast concrete option
N	STD-WW-36 Marker posts/plates
N	STD-WW-37 Section showing wastewater services separation details in high density developments 2.5m wide footpaths with 6.0m wide carriageways
N	STD-WW-38 Section showing wastewater services separation details in high density developments 1.8m wide footpaths, 2.45m wide parallel parking bays with 6.0m wide carriageways
N	STD-WW-39 Section showing wastewater services separation details in high density developments 1.8m wide footpaths, 2.5m wide parallel parking bays with 6.0m wide carriageways
N	STD-WW-40 Section plan showing below ground services separation details in high density developments 1.8m wide footpaths, 2.5m wide parallel parking bays with 6.0m wide carriageways

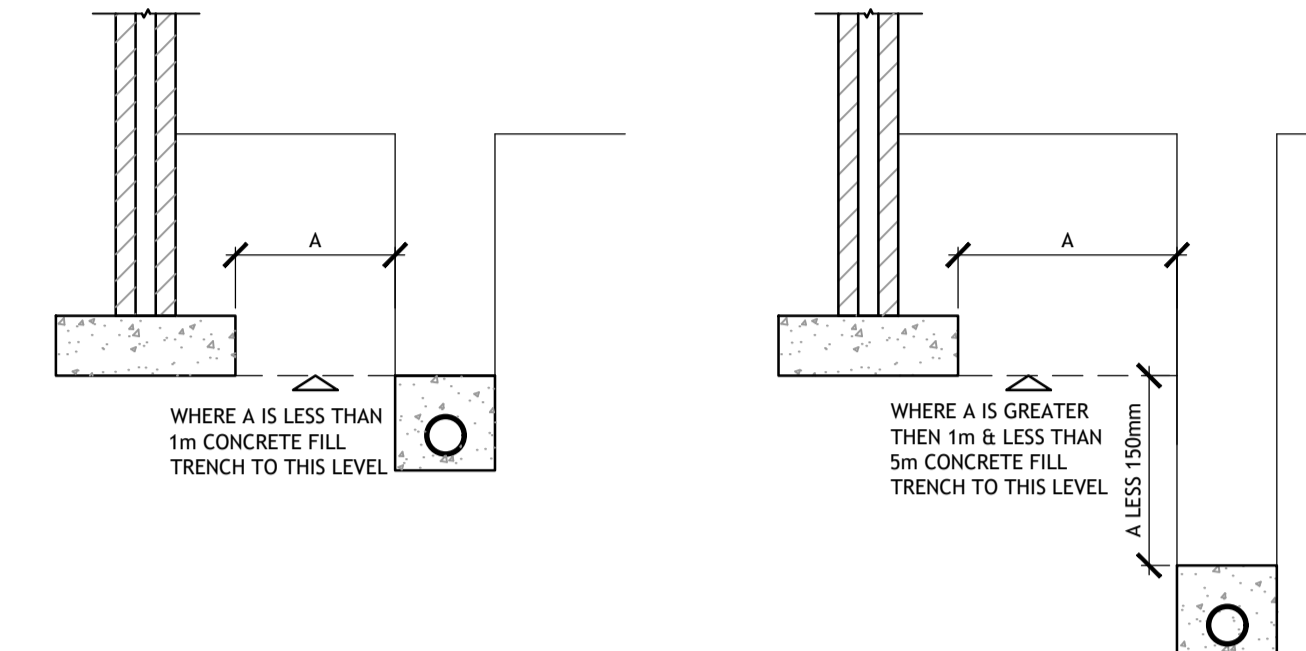
*DETAILS ABOVE TO BE USED FOR SURFACE WATER NETWORK

SCHEDULE OF IRISH WATER WATERMAIN DETAILS	
Drg No.	Drawing Title
N	STD-W-01 Water service connection responsibility
N	STD-W-02 Typical layout for water mains within developments
Y	STD-W-03 Customer connection and boundary box (25mm OD pipe)
Y	STD-W-04 General pipe connections (Sheet 1 of 7)
Y	STD-W-05 General pipe connections (Sheet 2 of 7)
Y	STD-W-06 General pipe connections (Sheet 3 of 7)
Y	STD-W-07 General pipe connections (Sheet 4 of 7)
Y	STD-W-08 General pipe connections (Sheet 5 of 7)
Y	STD-W-09 General pipe connections (Sheet 6 of 7)
Y	STD-W-10 General pipe connections (Sheet 7 of 7)
Y	STD-W-11 Typical service layout indicating separation distances
Y	STD-W-12 Restrictions on Water Infrastructure works adjacent to existing trees
Y	STD-W-12A Restrictions on new trees/shrubs planting adjacent to Water mains
Y	STD-W-13 Trench Backfill/bedding & reduced cover protection slab detail
Y	STD-W-15 Sluice valve for polyethylene (P.E.) pipe (< 350mm dia.) (Sheet 2 of 2)
N	STD-W-16 On-line hydrant for ductile iron (D.I.) pipe (Sheet 1 of 4)
N	STD-W-17 Off-line hydrant for ductile iron (D.I.) pipe (Sheet 2 of 4)
N	STD-W-18 On-line hydrant for polyethylene (P.E.) pipe (Sheet 1 of 4)
Y	STD-W-19 Off-line hydrant for polyethylene (P.E.) pipe (Sheet 2 of 4)
N	STD-W-20 On-line air valve for ductile iron (D.I.) pipe (Sheet 1 of 4)
N	STD-W-21 On-line air valve for ductile iron (D.I.) pipe (Sheet 2 of 4)
N	STD-W-22 On-line air valve for polyethylene (P.E.) pipe (Sheet 1 of 4)
N	STD-W-23 Off-line air valve for polyethylene (P.E.) pipe (Sheet 1 of 4)
N	STD-W-24 Pressure reducing/sustaining valve chamber in-situ R.C. option
N	STD-W-25 Booster pump arrangement
N	STD-W-26 Electromagnetic meter chamber (dn30 - dn270mm Dia.)
N	STD-W-26A Chamber for flanged meter, meter without strainer (dn40 - dn250mm Dia.)
N	STD-W-26B Chamber for flanged meter, meter (dn40 - dn250mm Dia.) with separate strainer chamber
N	STD-W-26C Throttled rotary piston flow meter chamber (dn30 - dn40mm Dia.) in-situ Concrete option
N	STD-W-26D Throttled rotary piston flow meter chamber (dn30 - dn40mm Dia.) Pre-cast Concrete option
N	STD-W-26E Throttled rotary piston flow meter chamber (dn30 - dn40mm Dia.) Blockwork option
N	STD-W-26F By-pass flow meter chamber (25-32mm O.D. Dia) For developments with < 20m ³ /day water use
N	STD-W-26G Flow meter chamber (25-32mm O.D. Dia)
Y	STD-W-27 Marker posts/plates
Y	STD-W-28 Watermain thrust and support blocks
N	STD-W-29 Fluct chamber
N	STD-W-30 scour chamber and head wall arrangements
N	STD-W-30A Washout hydrant
N	STD-W-30B scum chamber to storm sewer arrangements
N	STD-W-31 Typical ditch/stream crossing for watermain ductile iron option
N	STD-W-31A Typical ditch/stream crossing for watermain polyethylene option
N	STD-W-32 Typical bridge crossing for watermain (Sheet 1 of 2)
N	STD-W-33 Typical bridge crossing for watermain (Sheet 2 of 2)
N	STD-W-33A Typical culvert and services crossing details for watermain
N	STD-W-34 security gate and fencing passade option (preferred)
N	STD-W-34A security gate and fencing wire mesh option
Y	STD-W-35 Pipe repair to existing mains
N	STD-W-36 flow meter knob
N	STD-W-36A PREVIPSY control knob
N	STD-W-37 lamp bollard and lamp standards
N	STD-W-38 Watermain loop detail ductile iron option
N	STD-W-39 Watermain loop detail polyethylene option
N	STD-W-40 section showing wastewater services separation details in high density developments 2.5m wide footpaths with 6.0m wide carriageways
N	STD-W-41 Layout plan showing below ground services separation details in high density developments 2.5m wide footpaths with 6.0m wide carriageways
N	STD-W-42 Section showing wastewater services separation details in high density developments 1.8m wide footpaths, 2.45m wide parallel parking bays with 6.0m wide carriageways
N	STD-W-43 Layout plan showing below ground services separation details in high density developments 1.8m wide footpaths, 2.5m wide parallel parking bays with 6.0m wide carriageways

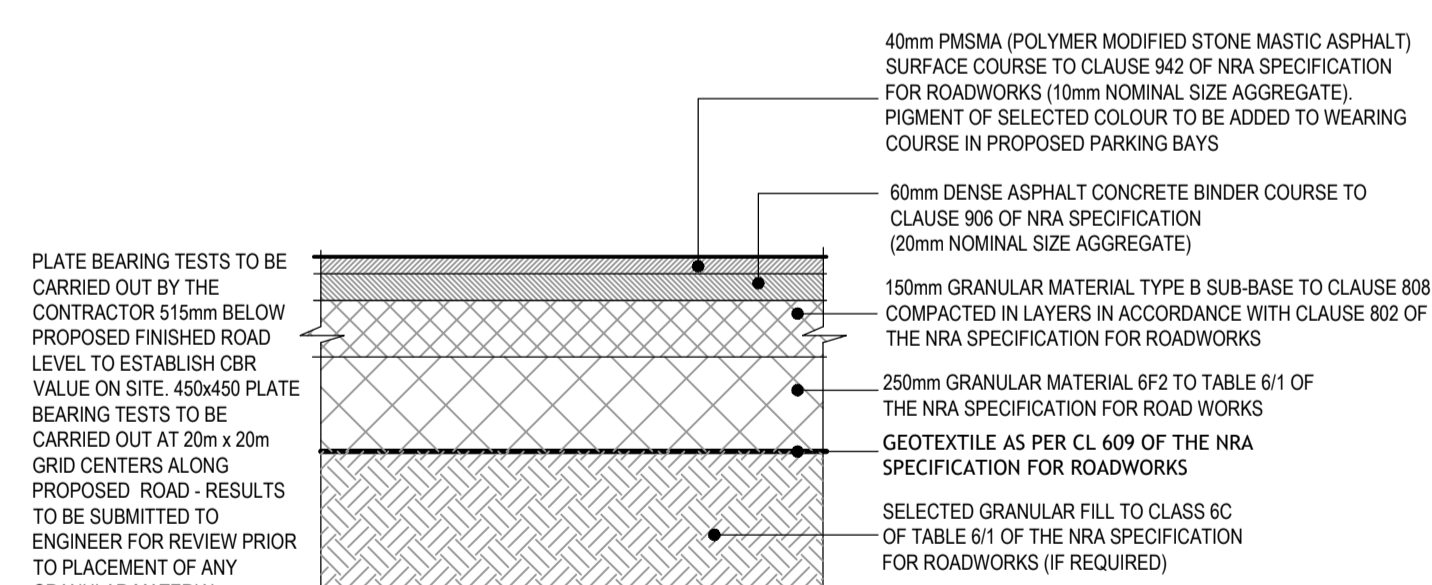


PRECAST CONCRETE GULLY IN MACADAM AREA
SCALE 1:20

FOR STRENGTH CLASS OF GULLY REFER TO EN 124 : 2015, CLAUSE 5
NOTE 1 : PLACE OF INSTALLATION & FIGURES 9A AND 9B PROPRIETARY FITTINGS TO BE USED ON ALL PIPEWORK CONNECTIONS
NOTE 2 :
GROUP 1 - MIN. CLASS A15 GROUP 4 - MIN. CLASS D400
GROUP 2 - MIN. CLASS B125 GROUP 5 - MIN. CLASS E600
GROUP 3 - MIN. CLASS C250 GROUP 6 - MIN. CLASS F900



8: Concrete Surround To Pipe Run Near Building
Scale - NTS



Road Build To Be Used Where CBR Values Are Greater Than 5%
Scale - 1:20