



- GENERAL**
- Read in conjunction with all relevant Architect's and Engineer's drawings.
  - Do not set out from this drawing. Setting out to be done from Architect's drawings.
  - All houses to have individual 100mm diameter foul and surface water connections.
  - Adjust foundation depths as necessary to avoid being undermined by foul and surface water service connections.
  - Where cover to pipes is less than 1.2m in roads, refer note 2 STD-WW-07. Surround to be in accordance with standard detail STD-WW-08, depth of cover to foul sewer pipes in accordance with standard detail STD-WW-07.
  - Record drawings of the as constructed work shall be made available to POGA at the end of the project.
  - All connections to existing foul and surface water must be determined by the main contractor prior to any construction on site. All existing invert levels to be confirmed to the engineers and all discrepancies notified to POGA before any construction commences.
  - Pipe materials for the proposed gravity sewer and rising main shall be in compliance with Section 3.13 of the Wastewater Code of Practice.
- SURFACE WATER**
- Surface Water manhole and road gully details to comply with Greater Dublin Regional Code of practice for Drainage Works.
  - Please ensure that the external face of proposed manhole chambers are a minimum of 0.5m from kerb line and external face of sewers are a minimum of 1m from kerb line.
  - All surface water pipes due to be taken in charge by the local authority to be S&S concrete with rubber rings. Twin-wall high density polyethylene pipes (up to 375mm dia.) may be acceptable. The contractor must confirm with the local authority that twin-wall pipes are acceptable to the Local Authority before use.
  - Bedding and surround as per Greater Dublin Regional Code of Practice for Drainage Works.
  - Manhole covers and frames shall comply with the LA standard pattern with min opening of 675mm & with closed keyways. All Manholes covers to comply with IS EN 124:1994 - Group 4 (min. class D400) manholes in all trafficked areas. Minimum Group 2 (min. class B125) to be used in footways, pedestrian areas and comparable areas. Class D400 should be

- used in footpaths where heavy vehicles have the potential to access or mount footpaths and these covers should be free of trip hazards, removable parts and be lockable Group 1 (min. class A15) may be used in enclosed private gardens only.
  - Manholes on house drains to be in private property. House drains shall not pass through property they do not serve.
  - Double gullies, with separate connections to main, to be provided at low points and at the ends of Cul de Sacs. Maximum run of pipe 15m. Minimum pipe diameter 150mm. Maximum gully spacing for roads up to 7m wide to be 50m UNO. All Road gullies to be closed in the direction of traffic flow.
  - All Gully tops shall comply with the LA standard. Group 3 (min. class C250) where gully are located in the kerbside channels of roads which when measured from the kerb, extend a maximum of 0.5m into the carriageway and a maximum of 0.2m into the footway. Group 4 (min. class D400) to be used elsewhere. All gully covers to comply with IS EN 124:1994.
  - No ponding is acceptable. All levels to be dashed to gullies.
  - Final connections to be made by Irish Water or agents acting on their behalf. Connections are not to be made by the contractor without Irish Water written agreement in place.
- FOUL**
- There are summary notes, refer to Irish Wastewater Code of Practice and Standard Details for full notes and details. Where discrepancy between these and Irish Water publication are identified, Irish Water publications take precedence. All discrepancies should be reported to POGA.
  - All foul manholes to comply with Irish Wastewater standard details.
  - Please ensure that the external face of proposed manhole chambers (not cover) are a minimum of 0.5m from kerb line and external face of sewers are a minimum of 1m from kerb line.
  - All foul pipes due to be taken in charge by the Irish Wastewater Code of Practice to be S&S concrete with rubber rings or Wavin OSMA UltraRib with a stiffness classification of SN8. Pipe materials for the proposed gravity sewer and rising main shall be in compliance with Section 3.13 of the Wastewater Code of Practice. Backfill and bedding shall comply with Irish Water Standard Detail STD-WW-07. Concrete bed, Haunch and

- surround to wastewater pipes shall comply with standard detail STD-WW-08.
- Where cover to pipes is less than 1.2m in roads, 0.9m in public areas where access is limited to a gross weight of 7.5 tonne vehicles, and 0.8m in grassed/landscaped areas, surround the pipe in 150mm concrete to IW detail STD-WW-08. Absolute Minimum Cover above the external crown of the pipe 750mm.
- All foundations to be taken below sewer depths.
- Manhole covers and frames shall comply with the Irish Wastewater Code of Practice standard pattern with min opening of 600mm & with closed keyways. All Manholes covers to be circular and comply with IS EN 124:1994 - Group 4 (min. class D400) manholes in all trafficked areas. Minimum Group 2 (min. class B125) to be used in footways, pedestrian areas and comparable areas. Class D400 should be used in footpaths where heavy vehicles have the potential to access or mount footpaths and these covers should be free of trip hazards, removable parts and be lockable.
- From finished ground level to the first step shall be a maximum of 675mm. Stainless Steel ladder to be provided where depth of manhole exceeds 3m.
- Manholes and inspection chambers on house drains to be in private property. Provide inspection chambers on individual service connections within 1m of the boundary. See section 3.11.13 of Wastewater Code of Practice and STD-WW-03 of Wastewater Infrastructure Standard Details.
- Final connections to be made by the Local Authority as agents acting for Irish Water. Connections are not to be made by the contractor without the Irish Water written agreement in advance.

- Please refer to the most up to date Irish Water (IW) documents, IW-CDS-5030-01 for Wastewater Infrastructure Standard Details. These details superseded all previously issued POGA wastewater details and should be used on all new and part constructed developments from the December 2017.
- | Drawing No. | Drawing Title   | Rev |
|-------------|---|-----|
| STD-WW-01   | Waste water service connection responsibility   | 1   |
| STD-WW-02   | Typical layout for sewer within new developments  | 1   |
| STD-WW-03   | Drain & service connection pipework   | 1   |
| STD-WW-04   | Typical sewer / service pipe connection   | 1   |
| STD-WW-05   | Typical service layout indicating separation distances                                      | 1   |
| STD-WW-06   | Restrictions on wastewater infrastructure adjacent to trees                                 | 2   |
| STD-WW-06A  | Restrictions on trees/shrubs planting adjacent to sewers                                    | 0   |
| STD-WW-07   | Trench backfill & bedding   | 1   |
| STD-WW-08   | Concrete bed, haunch & surround to wastewater pipes   | 0   |
| STD-WW-09   | Blockwork manhole (<450mm dia.)   | 2   |
| STD-WW-10   | Pre-cast concrete manhole   | 2   |
| STD-WW-11   | In-situ concrete manhole  | 2   |
| STD-WW-12   | Backdrop manholes   | 2   |
| STD-WW-13   | Private side inspection chamber   | 2   |
| STD-WW-14   | Thrust blocks for rising mains  | 1   |
| STD-WW-15   | Scour valve chamber (foul rising main <200mm dia.)  | 2   |
| STD-WW-16   | Sluice valve details for rising mains ductile iron (D.I.) pipe (<200mm dia.) (sheet 1 of 2) | 3   |
| STD-WW-17   | Sluice valve details for rising mains polyethylene (P.E.) pipe (<200mm dia.) (sheet 2 of 2) | 2   |
| STD-WW-18   | Air valve chamber (foul rising main <200mm dia.)  | 2   |
| STD-WW-19   | Duct chamber  | 2   |
| STD-WW-20   | Emergency overflow structure  | 1   |
| STD-WW-21   | Typical ditch/stream crossing for gravity main (sheet 1 of 2)                               | 1   |
| STD-WW-22   | Typical ditch/stream crossing for rising main (sheet 2 of 2)                                | 1   |
| STD-WW-23   | Typical bridge crossing for rising main (sheet 1 of 2)                                      | 1   |
| STD-WW-24   | Typical bridge crossing for rising main (sheet 2 of 2)                                      | 1   |
| STD-WW-25   | Security gate & fencing   | 2   |
| STD-WW-26   | Indicative pumping station layout   | 0   |
| STD-WW-27   | Flow meter chamber (foul rising main <200mm dia.)   | 2   |
| STD-WW-28   | Indicative submersible pumping station  | 2   |
| STD-WW-28A  | Indicative pre-cast concrete submersible pumping station                                    | 1   |
| STD-WW-29   | Rising main discharge manhole   | 2   |

STD-WW-30	Kiosk type 1 pumping station & wet kiosk (sheet 1 of 2)	2
STD-WW-31	Kiosk type 2 + 3 pumping station & wet kiosk (sheet 2 of 2)	2
STD-WW-32	Handstanding area pumping station (permeable & impermeable)	1
STD-WW-33	Lamp bollard & lamp standard	1
STD-WW-34	Vent stack	1

The above applied to wastewater only, refer to POGA Standard Details for Surface Water Infrastructure.

**DRAINAGE LEGEND**

- SITE BOUNDARY
- LINE OF BASEMENT
- PROPOSED SURFACE WATER SEWER
- EXISTING PUBLIC SURFACE WATER SEWER
- EXISTING PRIVATE SURFACE WATER SEWER
- PROPOSED FOUL WATER SEWER WITH INSPECTION CHAMBER IN ACCORDANCE WITH STANDARD DETAIL STD-WW-03
- EXISTING FOUL WATER SEWER
- PROPOSED FOUL RISING MAIN
- PROPOSED Ø150mm SURFACE WATER SLUNG DRAINAGE WITH DOUBLE LEVEL GULLY SYSTEM
- PROPOSED ROAD GULLY
- PROPOSED RAINWATER PIPE

Rev.	Date	Description	By
P6	14/01/20	REVISED AS PER UPDATED ARCHITECTURAL & LANDSCAPE LAYOUT	AL
P5	20/12/19	REVISED AS PER UPDATED LANDSCAPE LAYOUT	NMM
P4	10/12/19	REVISED AS PER UPDATED ARCHITECTURAL LAYOUT	TB
P3	06/12/19	REVISED AS PER UPDATED ARCHITECTURAL LAYOUT	AL
P2	04/11/19	AMENDED AS PER IRISH WATER COMMENTS	TB
P1	29/10/19	AMENDED AS PER IRISH WATER COMMENTS	TB

Date	By	Checked	Scale @ A1
JAN 2020	AL   TB	PM	1:250

Project Title	Drawing Title		
DOCKLANDS INOVATIONS PARK EAST WALL ROAD, DUBLIN 3	SLUNG DRAINAGE LAYOUT UNDER PODIUM LEVEL		
Architect	Drawing Status		
MCORM	PLANNING		
Date	Job No.	Drawing No.	Issue
JAN 2020	1731	105	P6

**poga** CONSULTING ENGINEERS  
STRUCTURAL & CIVIL  
Pat O'Gorman & Associates

Unit C2, Nutgrove Office Park  
Rathfarnham  
Dublin 14  
D14 CR20  
Tel +353 (0)1 205 1101  
www.poga.ie

Ordnance Survey Ireland Licence No. EN 0005618  
© Ordnance Survey Ireland / Government of Ireland  
This drawing is Copyright and must only be used for the project named