



- NOTES**
1. ALL DRAWINGS TO BE CHECKED BY CONTRACTOR ON SITE AND ENGINEER INFORMED OF DISCREPANCIES BEFORE WORK COMMENCES
  2. ALL LEVELS ARE IN METRES AND ARE RELATED TO ORDNANCE DATUM
  3. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE
  4. CONTRACTOR SHALL SATISFY HIMSELF AS TO THE ACCURACY OF PAVEMENT LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORKS ON SITE
  5. ALL SURFACE WATER DRAINAGE WORKS TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY'S CODE OF PRACTICE FOR DRAINAGE AND THE CODES
  6. ALL SURFACE WATER SEWERS TO BE CLASS H CONCRETE TO EN1916 & IS 8 2004
  7. ALL FOUL DRAINAGE WORKS TO BE IN ACCORDANCE WITH IRISH WATER'S CODE OF PRACTICE FOR WASTEWATER SUPPLY AND WASTEWATER INFRASTRUCTURE STANDARD DETAILS
  8. FOUL SEWERS TO BE THERMOPLASTIC STRUCTURED WALL PIPES (COMPLYING WITH THE PROVISION OF IS EN 13476 AND WS 4-35-01 2000) AND COMPLY WITH THE REQUIREMENTS OF THE IRISH WATER CODE OF PRACTICE
  9. WATERMANS INSTALLATION AND ALL WATER SUPPLY WORKS TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF IRISH WATER'S CODE OF PRACTICE FOR WATER SUPPLY AND WATER INFRASTRUCTURE STANDARD DETAILS
  10. WATERMANS TO BE TYPE HPPE, PE-100, SDR-17 RATED AND SHALL CONFORM TO IS EN 12201 (PART 1, PART 2 & PART 3)
  11. WATERMAIN SERVICE CONNECTION PIPES TO BE HDPE (PE-80) MATERIAL WITH SDR-17 RATING
  12. RISING MAIN PIPES AND FITTINGS TO BE POLYETHYLENE PE100 AND SHALL COMPLY WITH IS EN 12201
  13. ANCHOR BLOCKS TO BE POSITIONED AT DEAD ENDS, TEES, BENDS AND AT EACH SIDE OF HYDRANTS AND VALVES IN ACCORDANCE WITH THE REQUIREMENTS OF IRISH WATER STANDARD DETAIL STD-W-28 (WATER MAIN THRUST AND SUPPORT BLOCKS)
  14. ALL DOMESTIC PROPERTIES TO BE WITHIN 46m FROM A HYDRANT
  15. HYDRANT OUTLET TO BE 200mm BELOW GROUND LEVEL UNLESS REQUESTED OTHERWISE
  16. WHERE COVER TO PIPE IS LESS THAN 900mm IN GREEN AREAS AND 1200mm IN TRAFFICKED AREAS, ENCASE PIPE IN NEW 150mm CONCRETE WITH MOVEMENT JOINTS.

- LEGEND**
- F4 CL: 76.10 IL: 74.75 PROPOSED FOUL MANHOLE
  - 225x1150 PROPOSED FOUL SEWER
  - S5.2 CL: 76.02 IL: 74.00 PROPOSED SURFACE WATER MANHOLE
  - 225x915 PROPOSED SURFACE WATER SEWER
  - TP1 PROPOSED TREE PIT
  - RWP PROPOSED RAINWATER DOWNSPE
  - 150x PE100 SDR17 PROPOSED HPPE/PE100 SDR 17 WATERMAIN
  - SV SLUCE VALVES AS PER IRISH WATER STANDARD DETAIL STD-W-14/15
  - AV AIR VALVES AS PER IRISH WATER STANDARD DETAIL STD-W-22/23
  - H HYDRANTS AS PER IRISH WATER STANDARD DETAIL STD-W-16/18
  - M METER CHAMBER AS PER IRISH WATER STANDARD STD-W-26
  - SCOUR VALVE
  - PROPOSED BOUNDARY BOX AND HOPE SERVICE CONNECTION (PE80 SDR 17)
  - BULK WATER METER AS PER IRISH WATER STANDARD STD-W-26
  - FS EXISTING FOUL SEWER
  - SW EXISTING SURFACE WATER SEWER
  - WM EXISTING WATERMAIN
  - SITE OUTLINED RED (0.468ha)
  - BASEMENT OUTLINE
  - PROPOSED BUILDING
  - PROPOSED BLUE ROOF ATTENUATION
  - PROPOSED BIO-RETENTION SYSTEM

Rev	Date	Description	SM	SJ
P1	20/04/22	ISSUED FOR PLANNING	SM	SJ
P	02/09/21	ISSUED FOR PLANNING	SM	SJ

**PLANNING**

**gdcl**  
CONSULTING ENGINEERS

Scope House, 75 Shelton Street, Cover Garden, Dublin D12 KBPP London WC2E 8JG www.gdclconsulting.com

**PROJECT**  
Silver Granite, Palmerstown

**CLIENT**  
Hollyville Investments Ltd.

**DRAWING TITLE**  
Combined Underground Services (Civil)

drn. by: SM	date: OCT20	scale: 1:200
drawing size: A1	chk: SJ	app: GD
job no:	dtg. no:	rev:
P-2012	P-2012-C-101	P1

- LIST OF IRISH WATER WASTEWATER STANDARD DETAILS BROUGHT INTO THE CONTRACT**
- STD-WW-02 TYPICAL LAYOUT FOR SEWER WITHIN NEW DEVELOPMENT
  - STD-WW-03 RAIN AND SERVICE CONNECTION PIPEWORK
  - STD-WW-04 TYPICAL SEWER/SERVICE PIPE CONNECTION
  - STD-WW-05 TYPICAL SERVICE LAYOUT INDICATING SEPARATION DISTANCES
  - STD-WW-06 RESTRICTIONS ON TREES/SHRUBS PLANTING ADJACENT TO SEWERS
  - STD-WW-07 TRENCH BACKFILL & BEDDING
  - STD-WW-08 CONCRETE BED, HAUNCH & SURROUND TO WASTEWATER PIPES
  - STD-WW-09 OBLONGWORK MANHOLE (C450mm)
  - STD-WW-10 CAST CONCRETE MANHOLE
  - STD-WW-11 11H-STU CONCRETE MANHOLE
  - STD-WW-12 BACKDROP MANHOLES
  - STD-WW-13 PRIVATE SIDE INSPECTION CHAMBER
  - STD-WW-14 TRUST BLOCKS FOR RISING MAINS
  - STD-WW-15 SCOUR VALVE CHAMBER (FOUL RISING MAIN <200mm)
  - STD-WW-16 ISOLATION VALVE DETAILS FOR RISING MAINS DUCTILE IRON (D.I.) PIPE (<200mm) (SHEET 1 OF 2)
  - STD-WW-17 SLUCE VALVE DETAILS FOR RISING MAIN POLYETHYLENE (P.E.) PIPE (<200mm) (SHEET 2 OF 2)
  - STD-WW-18 BAR VALVE CHAMBER (FOUL RISING MAIN <200mm)
  - STD-WW-19 DUCT CHAMBER
  - STD-WW-20 EMERGENCY OVERFLOW STRUCTURE
  - STD-WW-21 TYPICAL DITCH/STREAM CROSSING FOR GRAVITY MAIN (SHEET 1 OF 2)
  - STD-WW-22 TYPICAL DITCH/STREAM CROSSING FOR RISING MAIN (SHEET 2 OF 2)
  - STD-WW-23 TYPICAL BRIDGE CROSSING FOR RISING MAIN (SHEET 1 OF 2)
  - STD-WW-24 TYPICAL BRIDGE CROSSING FOR RISING MAIN (SHEET 2 OF 2)
  - STD-WW-25 SECURITY GATE & FENCING
  - STD-WW-26 SUBMERSIBLE PUMPING STATION LAYOUT
  - STD-WW-27 LOW METER CHAMBER (FOUL RISING MAIN <200mm)
  - STD-WW-28 SUBMERSIBLE PUMPING STATION
  - STD-WW-29 INDICATIVE PRE-CAST CONCRETE SUBMERSIBLE PUMPING STATION
  - STD-WW-30 PRESSURE REDUCING / SUSTAINING VALVE (P.R.V./P.S.V.) CHAMBER
  - STD-WW-31 METER CHAMBER (500MM DIA.)
  - STD-WW-32 METER CHAMBER (500MM DIA.)
  - STD-WW-33 WATER MAIN THRUST & SUPPORT BLOCKS
  - STD-WW-34 SCOUR CHAMBER & HEAD WALL ARRANGEMENTS
  - STD-WW-35 WASHOUT HYDRANT
  - STD-WW-36 TYPICAL DITCH / STREAM CROSSING FOR WATER MAIN

- LIST OF IRISH WATER STANDARD DETAILS BROUGHT INTO THE CONTRACT**
- STD-W-04 GENERAL PIPE CONNECTIONS (SHEET 1 OF 7)
  - STD-W-05 GENERAL PIPE CONNECTIONS (SHEET 2 OF 7)
  - STD-W-06 GENERAL PIPE CONNECTIONS (SHEET 3 OF 7)
  - STD-W-07 GENERAL PIPE CONNECTIONS (SHEET 4 OF 7)
  - STD-W-08 GENERAL PIPE CONNECTIONS (SHEET 5 OF 7)
  - STD-W-09 GENERAL PIPE CONNECTIONS (SHEET 6 OF 7)
  - STD-W-10 GENERAL PIPE CONNECTIONS (SHEET 7 OF 7)
  - STD-W-11 TYPICAL SERVICE LAYOUT INDICATING SEPARATION DISTANCES
  - STD-W-12 RESTRICTIONS ON TREES / SHRUBS PLANTING ADJACENT TO WATERMANS
  - STD-W-13 TRENCH BACKFILL & BEDDING
  - STD-W-14 SLUCE VALVE FOR DUCTILE IRON (D.I.) PIPE (<350MM DIA.) (SHEET 1 OF 2)
  - STD-W-15 SLUCE VALVE FOR POLYETHYLENE (P.E.) PIPE (<350MM DIA.) (SHEET 2 OF 2)
  - STD-W-16 ON-LINE HYDRANT FOR DUCTILE IRON (D.I.) PIPE (SHEET 1 OF 4)
  - STD-W-17 OFF-LINE HYDRANT FOR DUCTILE IRON (D.I.) PIPE (SHEET 2 OF 4)
  - STD-W-18 ON-LINE HYDRANT FOR POLYETHYLENE (P.E.) PIPE (SHEET 3 OF 4)
  - STD-W-19 OFF-LINE HYDRANT FOR POLYETHYLENE (P.E.) PIPE (SHEET 4 OF 4)
  - STD-W-20 ON-LINE AIR VALVE FOR DUCTILE IRON (D.I.) PIPE (SHEET 1 OF 4)
  - STD-W-21 OFF-LINE AIR VALVE FOR DUCTILE IRON (D.I.) PIPE (SHEET 2 OF 4)
  - STD-W-22 ON-LINE AIR VALVE FOR POLYETHYLENE (P.E.) PIPE (SHEET 3 OF 4)
  - STD-W-23 OFF-LINE AIR VALVE FOR POLYETHYLENE (P.E.) PIPE (SHEET 4 OF 4)
  - STD-W-24 PRESSURE REDUCING / SUSTAINING VALVE (P.R.V./P.S.V.) CHAMBER
  - STD-W-25 METER CHAMBER (500MM DIA.)
  - STD-W-26 METER CHAMBER (500MM DIA.)
  - STD-W-27 MARKER POSTS / PLATES
  - STD-W-28 WATER MAIN THRUST & SUPPORT BLOCKS
  - STD-W-29 SCOUR CHAMBER & HEAD WALL ARRANGEMENTS
  - STD-W-30 WASHOUT HYDRANT
  - STD-W-31 TYPICAL DITCH / STREAM CROSSING FOR WATER MAIN

PLEASE REFER TO ARCHITECTS DRAWING 525-001-PL-613 FOR TREE PIT DETAILS

**NOT FOR CONSTRUCTION**