

- NOTES**
- ALL DRAWINGS TO BE CHECKED BY CONTRACTOR ON SITE AND ENGINEER INFORMED OF DISCREPANCIES BEFORE WORK COMMENCES.
  - ALL LEVELS ARE IN METRES AND ARE RELATED TO ORDNANCE DATUM.
  - ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
  - CONTRACTOR SHALL SATISFY HIMSELF AS TO THE ACCURACY OF PAVEMENT LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORKS ON SITE.
  - ALL SURFACE WATER DRAINAGE WORKS TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY'S CODE OF PRACTICE FOR DRAINAGE AND THE GDSOS.
  - ALL SURFACE WATER SEWERS TO BE CLASS H CONCRETE TO EN1516 & IS 6 2004.
  - ALL FOUL DRAINAGE WORKS TO BE IN ACCORDANCE WITH IRISH WATERS' CODE OF PRACTICE FOR WASTEWATER SUPPLY AND WASTEWATER INFRASTRUCTURE STANDARD DETAILS.
  - FOUL SEWERS TO BE THERMOPLASTIC STRUCTURED WALL PIPES (COMPLYING WITH THE PROVISIONS OF IS EN 13476 AND WIS 4-35-01 2000) AND COMPLY WITH THE REQUIREMENTS OF THE IRISH WATER CODE OF PRACTICE.
  - WATERMAIN INSTALLATION AND ALL WATER SUPPLY WORKS TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF IRISH WATERS' CODE OF PRACTICE FOR WATER SUPPLY AND WATER INFRASTRUCTURE STANDARD DETAILS.
  - WATERMANS TO BE TYPE HPPE, PE-100, SDR-17 RATED AND SHALL CONFORM TO IS EN 12201 (PART 1, PART 2 & PART 3).
  - WATERMAIN SERVICE CONNECTION PIPES TO BE HDPE (PE-80) MATERIAL WITH SDR-17 RATING.
  - RESIN MAIN PIPES AND FITTINGS TO BE POLYETHYLENE TEREPHTHALATE AND SHALL COMPLY WITH IS EN 12201.
  - 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).
  - ALL DOMESTIC PROPERTIES TO BE WITHIN 46m FROM A HYDRANT.
  - HYDRANT OUTLET TO BE 200mm BELOW GROUND LEVEL UNLESS REQUESTED OTHERWISE.
  - 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
  - 2250 1:150 PROPOSED FOUL SEWER
  - SC2 CL: 76.02 IL: 75.00 PROPOSED SURFACE WATER MANHOLE
  - 2150 1:150 PROPOSED SURFACE WATER SEWER
  - TP1 PROPOSED TREE FIT
  - RWP PROPOSED RAINWATER DOWNPIPE
  - 1500 PE100 SDR17 PROPOSED HDPE (PE100 SDR 17) WATERMAIN
  - SLICE VALVES AS PER IRISH WATER STANDARD DETAIL STD-W-14/15
  - AIR VALVES AS PER IRISH WATER STANDARD DETAIL STD-W-22/23
  - HYDRANTS AS PER IRISH WATER STANDARD DETAIL STD-W-16/18
  - METER CHAMBER AS PER IRISH WATER STANDARD STD-W-26
  - SCOUR VALVE
  - PROPOSED BOUNDARY BOX AND HDPE SERVICE CONNECTION (PE80 SDR 17)
  - BULK WATER METER AS PER IRISH WATER STANDARD STD-W-26
  - EXISTING FOUL SEWER
  - EXISTING SURFACE WATER SEWER
  - EXISTING WATERMAIN
  - SITE OUTLINED RED (0.469ha)
  - BASEMENT OUTLINE
  - PROPOSED BUILDING
  - PROPOSED BLUE ROOF ATTENUATION

Rev	Date	Description	SM	SJ	By	CHK
P	02/09/21	ISSUED FOR PLANNING				

**PLANNING**

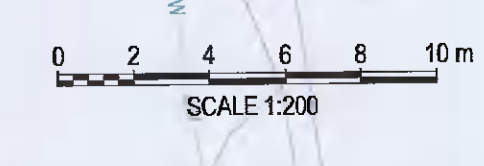
**gdcl**  
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PROJECT		Silver Granite, Palmerstown	
CLIENT		Hollyville Investments Ltd.	
DRAWING TITLE			
Combined Underground Services		(Civil)	
drn. by: SM	date: OCT'20	scale: 1:200	
drawing size: A1	chk: SJ	app: GD	
job no: P-2012	drg. no: P-2012-C-101	rev: P	

- LIST OF IRISH WATER WASTEWATER STANDARD DETAILS BROUGHT INTO THE CONTRACT**
- STD-WW-02 TYPICAL LAYOUT FOR SEWER WITHIN NEW DEVELOPMENT
  - STD-WW-03 DRAIN AND SERVICE CONNECTION PIPEWORK
  - STD-WW-04 TYPICAL SEWER/SERVICE PIPE CONNECTION
  - STD-WW-05 TYPICAL SERVICE LAYOUT INDICATING SEPARATION DISTANCES
  - STD-WW-06 TYPICAL SERVICE LAYOUT INDICATING SEPARATION DISTANCES
  - STD-WW-07 TRENCH BACKFILL & BEDDING
  - STD-WW-08 CONCRETE BED, HAUNCH & SURROUND TO WASTEWATER PIPES
  - STD-WW-09 BLOCKWORK MANHOLE (<450mm)
  - STD-WW-10 PRE-CAST CONCRETE MANHOLE
  - STD-WW-11 IN-SITU CONCRETE MANHOLE
  - STD-WW-12 BACKDROP MANHOLES
  - STD-WW-13 SPRIATE SIDE INSPECTION CHAMBER
  - STD-WW-14 THRUST BLOCKS FOR RISING MAINS
  - STD-WW-15 SCOUR VALVE CHAMBER (FOUL RISING MAIN <200mm)
  - STD-WW-16 SLUICE VALVE DETAILS FOR RISING MAINS DUCTILE IRON (D.I.) PIPE (<200mm) (SHEET 1 OF 2)
  - STD-WW-17 SLUICE VALVE DETAILS FOR RISING MAIN POLYETHYLENE (P.E.) PIPE (<200mm) (SHEET 1 OF 2)
  - STD-WW-18 AIR VALVE CHAMBER (FOUL RISING MAIN <200mm)
  - STD-WW-19 CHECK 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 INDICATIVE PUMPING STATION LAYOUT
  - STD-WW-27 FLOW METER CHAMBER (FOUL RISING MAIN <200mm)
  - STD-WW-28 INDICATIVE SUBMERSIBLE PUMPING STATION
  - STD-WW-29 INDICATIVE PRE-CAST CONCRETE SUBMERSIBLE PUMPING STATION
  - STD-WW-30 RISING MAIN DISCHARGE MANHOLE
  - STD-WW-31 KIOSK TYPE 1 PUMPING STATION & WET KIOSK (SHEET 1 OF 2)
  - STD-WW-32 KIOSK TYPE 2 + 3 PUMPING STATION & WET KIOSK (SHEET 2 OF 2)
  - STD-WW-33 HARDSTANDING AREA PUMPING STATION (PERMEABLE & IMPERMEABLE)
  - STD-WW-34 LAMP ROLLER & LAMP STANDARD
  - STD-WW-35 WET STACK

- 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 SLUICE VALVE FOR DUCTILE IRON (D.I.) PIPE (<350MM DIA.) (SHEET 1 OF 2)
  - STD-W-15 SLUICE 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 MARKER POSTS / PLATES
  - STD-W-27 WATER MAIN THRUST & SUPPORT BLOCKS
  - STD-W-28 SCOUR CHAMBER & HEAD WALL ARRANGEMENTS
  - STD-W-29 WASHOUT HYDRANT
  - STD-W-30 TYPICAL DITCH / STREAM CROSSING FOR WATER MAIN



**NOT FOR CONSTRUCTION**