ATTACHMENT C.2

OUTFALL DESIGN AND CONSTRUCTION

CONTENTS:

- Drawing No. 1158-2413
- Drawing No. 1158-2414
- Drawing No. 1158-2415
- Drawing No. 1158-2416
- Drawing No. 1158-2417
- Drawing No. 1158-2418
- Drawing No. 1158-2419
- Outline Description of Outfall Design and Construction
1. All levels shown refer to Ordnance Datum L.M. (Irish National Grid)

2. ALL DIMENSIONS ARE TO BE CHECKED ON SITE BY THE CONTRACTOR ON 20TH AUGUST 2010

3. ALL LEVELS SHOWN REFER TO ORDNANCE DATUM L.M.

4. ALL LEVELS SHOWN REFER TO ORDNANCE DATUM L.M.

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STORM WATER OVERFLOW DISCHARGE POINTS

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OUTLINE DESCRIPTION OF OUTFALL DESIGN AND CONSTRUCTION

1.0 PRIMARY DISCHARGE POINT

Location: Boyne Estuary Marsh Road (approximately 2km east of the WWTP)
Diffuser - 4 no. Outlet Points:
- 312565E-275882N
- 312515E-275863N
- 312523E-275947N
- 312497E-275938N
Receiving Water: Boyne Estuary
Originates: Final Treated Effluent WWTP, Marsh Road, Drogheda
Invert Level: -2.71m
Pipe Size:
- 1000mmØ pipe from WWTP
- 700mmØ pipe Across River
- 4 x 500mmØ pipe - Diffusers
Design Criteria: Continuous Flow of Treated Effluent from WWTP
Construction Detail: Diffusers Supported on Timber Piles

2.0 SECONDARY DISCHARGE POINT

Location: 310245E-275473N
Originates: Emergency Overflow Newtown Pumping Station, South Bank River Boyne, Drogheda
Invert Level: -
Pipe Size: 1600mmØ
Design Criteria: Penstock Controlled Emergency/Safety Overflow Only to Operate in Case of Pump Failure
Construction Detail: On Concrete Apron / Gabion Mattress

3.0 STORM WATER OVERFLOW DISCHARGE POINTS

3.1 SWO-1
Location: 312502E-275858N
Originates: Storm Water Holding Tanks WWTP, Marsh Road, Drogheda
Invert Level: -
Pipe Size: 700mmØ
Design Criteria: To Relieve Surge Charges on Storm Water Holding Tank, Due to Heavy Precipitation Conditions
Construction Detail: Concrete Apron on Timber Piles
3.2 SWO-2
Location: 309745E-275465N (North Bank River Boyne, Drogheda)
Receiving Water: River Boyne
Originates: Manhole, North Bank River Boyne, Drogheda
Invert Level: Unknown - Old Sewer Pipe to River
Pipe Size: 375mmØ
Design Criteria: To Relieve Surge Charges in Sewer Network, Due to Heavy Precipitation Conditions
Construction Detail: Unknown - Old Sewer Pipe to River

3.3 SWO-3
Location: 309270E-275159N (North Bank River Boyne, Drogheda)
Receiving Water: River Boyne
Originates: Manhole, North Bank River Boyne, Drogheda
Invert Level: Unknown - Old Sewer Pipe to River
Pipe Size: Unknown - Old Sewer Pipe to River
Design Criteria: To Relieve Surge Charges in Sewer Network, Due to Heavy Precipitation Conditions
Construction Detail: Unknown - Old Sewer Pipe to River

3.4 SWO-4
Location: 309055E-275029N (North Bank River Boyne, Drogheda)
Receiving Water: River Boyne
Originates: Manhole, North Bank River Boyne, Drogheda
Invert Level: Unknown - Old Sewer Pipe to River
Pipe Size: 900mmØ
Design Criteria: To Relieve Surge Charges in Sewer Network, Due to Heavy Precipitation Conditions
Construction Detail: Unknown - Old Sewer Pipe to River

3.5 SWO-5
Location: 308783E-274989N (North Bank River Boyne, Drogheda)
Receiving Water: River Boyne
Originates: Manhole, North Bank River Boyne, Drogheda
Invert Level: Unknown - Old Sewer Pipe to River
Pipe Size: 450mmØ
Design Criteria: To Relieve Surge Charges in Sewer Network, Due to Heavy Precipitation Conditions
Construction Detail: Unknown - Old Sewer Pipe to River

3.6 SWO-6
Location: 308576E-275079N (North Bank River Boyne, Drogheda)
Receiving Water: River Boyne
Originates: Manhole, North Bank River Boyne, Drogheda
Invert Level: Unknown - Old Sewer Pipe to River
Pipe Size: 750mmØ
Design Criteria: To Relieve Surge Charges in Sewer Network, Due to Heavy Precipitation Conditions
Construction Detail: Unknown - Old Sewer Pipe to River
3.7 **SWO-7**  
Location: 308151E-275361N (North Bank River Boyne, Drogheda)  
Receiving Water: River Boyne  
Originates: Manhole, North Bank River Boyne, Drogheda  
Invert Level: Unknown - Old Sewer Pipe to River  
Pipe Size: Unknown - Old Sewer Pipe to River  
Design Criteria: To Relieve Surge Charges in Sewer Network, Due to Heavy Precipitation Conditions  
Construction Detail: Unknown - Old Sewer Pipe to River

3.8 **SWO-8**  
Location: 307648E-275426N (North Bank River Boyne, Drogheda)  
Receiving Water: River Boyne  
Originates: Manhole, North Bank River Boyne, Drogheda  
Invert Level: Unknown - Old Sewer Pipe to River  
Pipe Size: 450mm∅  
Design Criteria: To Relieve Surge Charges in Sewer Network, Due to Heavy Precipitation Conditions  
Construction Detail: Unknown - Old Sewer Pipe to River

3.9 **SWO-9**  
Location: 308625E-274998N  
Receiving Water: River Boyne  
Originates: Manhole, South Bank River Boyne, Drogheda  
Invert Level: Unknown  
Pipe Size: Unknown  
Design Criteria: To Relieve Surge Charges in Sewer Network, Due to Heavy Precipitation Conditions  
Construction Detail: Unknown

3.10 **SWO-10**  
Location: 308847E-274949N  
Receiving Water: River Boyne  
Originates: Manhole, South Bank River Boyne, Drogheda  
Invert Level: Unknown  
Pipe Size: Unknown  
Design Criteria: To Relieve Surge Charges in Sewer Network, Due to Heavy Precipitation Conditions  
Construction Detail: Unknown

3.11 **SWO-11**  
Location: 309064E-275000N  
Receiving Water: River Boyne  
Originates: Manhole, Bull Ring, South Bank River Boyne, Drogheda  
Invert Level: Unknown  
Pipe Size: 450mm∅  
Design Criteria: To Relieve Surge Charges in Sewer Network, Due to Heavy Precipitation Conditions  
Construction Detail: Unknown
3.12  SWO-12
Location: 309232E-275087N
Receiving Water: River Boyne
Originates: Manhole, Mary Street, South Bank River Boyne, Drogheda
Invert Level: Unknown
Pipe Size: 450mmØ
Design Criteria: To Relieve Surge Charges in Sewer Network, Due to Heavy Precipitation Conditions
Construction Detail: Unknown

3.13  SWO-13
Location: 309671E-275280N
Receiving Water: River Boyne
Originates: Manhole, Carmelite Cottages, South Bank River Boyne, Drogheda
Invert Level: Unknown
Pipe Size: 375mmØ
Design Criteria: To Relieve Surge Charges in Sewer Network, Due to Heavy Precipitation Conditions
Construction Detail: Unknown