

Reference Drawings
17T2239-100 - External Works Plan
17T2239-101 - Drainage Plan
17T2239-102 - Drainage Diversion Plan
17T2239-103 - External Works Details
17T2239-104 - Drainage Details
17T2239-105 - Site Specific Manholes S1 & S2

- DO NOT SCALE**
- Notes**
- All works to be carried out in accordance with:
 - "Sewers for Adoption" The contractor should note the new changes regarding adoption of sewers and construction methods.
 - BS EN 752, "Drain and sewer system outside buildings".
 - All levels shown are in metres and are relative to ordnance datum (m AOD).
 - Invert levels of all existing chambers and connection points are to be confirmed and engineer advised prior to commencement of any Drainage Works
 - Concrete bed and surround is required to all gully leads and to all pipes in highways/hardstanding where cover to pipe <1200mm
 - All pipes to be either extra strength V.C. to BS 65 or PVC to BS 4660 or BS 5481 'UPONOR ULTRARIB' or concrete pipes Class 120 to BS 5911
 - All PU & RWP positions are indicative and accurate positions should be taken from the Architects drawings.
 - Existing sewer positions are indicative and are not to be used in conjunction with design.
 - Architect to confirm Rainwater pipe size before drainage installation.
 - Gradients shown on pipes are approximate. contractor must carry out his own checks based on inverts and distances between points.
 - All Proposed FW sewers between manholes to be 1000 unless noted otherwise.

S.H.E
Do not excavate until all underground services have been identified and marked out. Refer to service providers drawings and to the utilities survey drawings. Unknown underground services may exist. Check for services by carrying out a scan with a cable avoidance tool.

- Legend:**
- Proposed Foul Drainage
 - Proposed Surface Water Drainage
 - Proposed Culvert 1200x600 PCC Culvert
 - Existing U.U Surface Water Drainage
 - Existing U.U Foul Water Drainage
 - Existing U.U Combined Drainage
 - Existing Culvert 600x1200 (Egg shaped) to remain
 - Existing Culvert 600x1200 (Egg shaped) to be broken out and removed
 - Birco Slot Drain with Outlet Unit U.N.O

New Pipe/Existing Culvert Note

- Contractor to allow for continuous over pumping during construction. Method statements and safe methods of work to be detailed and agreed upon prior to construction.

Note: Proposed chambers and positions of culverts shown indicatively. Survey required to determine accurate line and level of Existing Culvert. This action is to be carried out prior to construction. BGP to be informed of survey findings.

New Pop Up's Added - see	JJH	C7	NB	20.02.2020
New Pop Up's Added - see	JJH	C6	NB	04.02.2020
Issued for Construction	JJH	C5	NB	29.01.2020
Issued for Construction	JJH	C4	NB	18.12.2019
Issued for Construction	JJH	C3	NB	10.12.2019
Issued for Construction	JJH	C2	NB	31.10.2019
Issued for Construction	SR	C1	NB	19.07.2019
Issued for Tender	JJH	T1	NB	28.11.2018
Issued for Comment	JJH	P1	NB	29.10.2018
AMENDMENT	BY	REV	CHK	DATE
Rev P = Preliminary T = Tender C = Construction LCI = Last Construction Issue				

In instances where this drawing completes or partly completes a contract, Billingshurst George & Partners will consider that it's product has been validated, unless in a period not exceeding 90 working days, the client advises to the contrary.

Client
Energy Coast

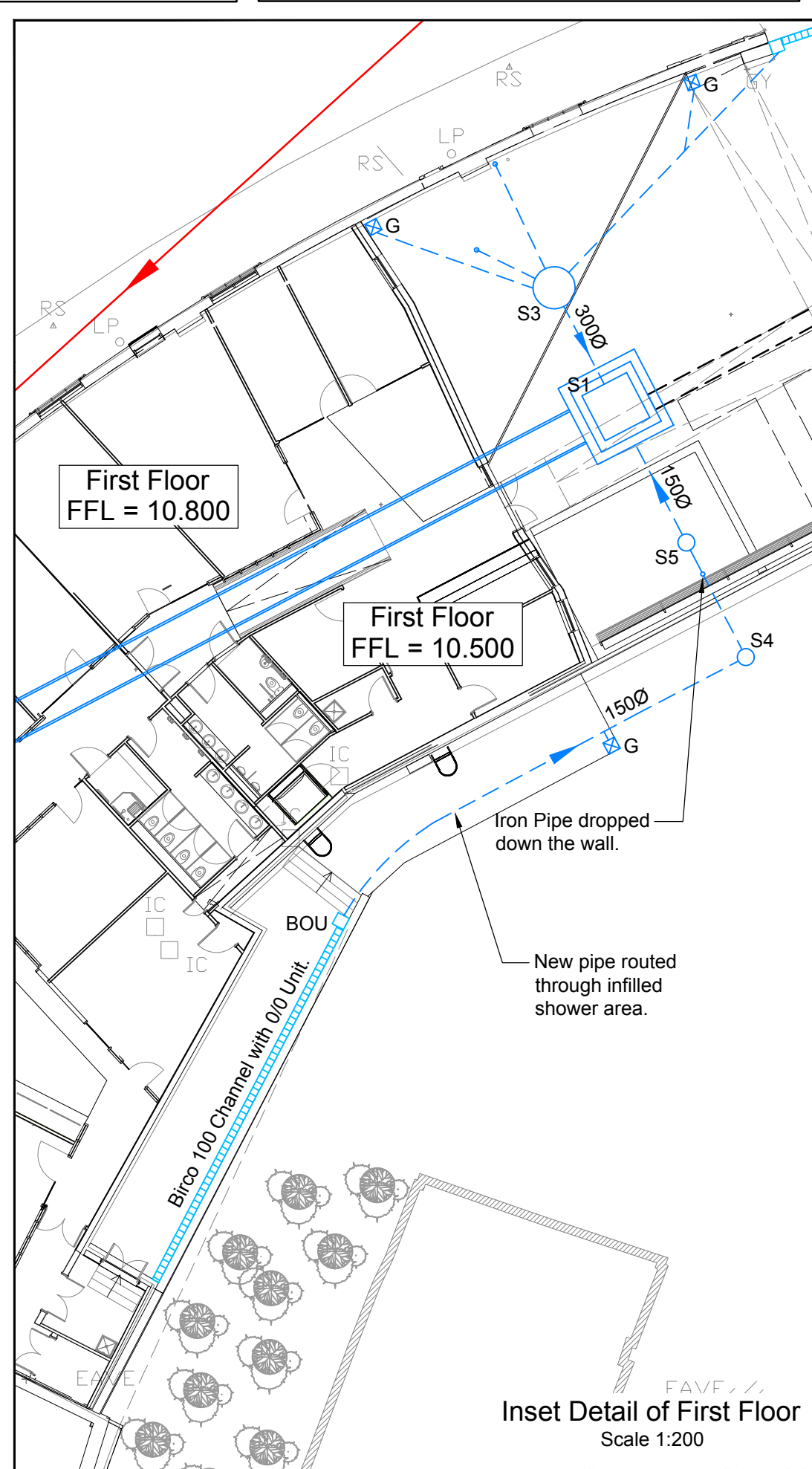
Project
BEC Innovation Warehouse

Drawing Title
Proposed Drainage Plan

Drawn	J. Herbert	Date	October 2018
Checked	N. Baines	Date	October 2018
Scale	1:200	Original Size	A1

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Drg. No. **17T2239-101** Rev. **C7**



Note: Allowance made for Office Block RWP's & PU's. Architect to confirm final positions & contractor to investigate and advise if existing drainage to office block can be utilised.

PROPOSED SURFACE WATER DRAINAGE						
REF.	COVER LEVEL	INVERT LEVEL	TYPE	DIA	COVER TYPE	COMMENTS
S1	10.300	5.850 (Inlet)	Conc.	1800x1800	D400	
S2	7.450	5.180 (Inlet)	Conc.	1800x1800	D400	
S3	10.150	8.400	Conc.	1500	D400	Break chamber with Vent pipe
S4	11.500	10.900	PPIC	450	D400	
S5	10.500	9.600	PPIC	450	D400	
S6	7.600	7.000	PPIC	450	B125	
S7	7.450	6.575	PPIC	450	B125	

PROPOSED FOUL WATER DRAINAGE						
REF.	COVER LEVEL	INVERT LEVEL	TYPE	DIA	COVER TYPE	COMMENTS
F1	7.300	6.700	PPIC	450	B125	Cover to be recessed, air tight sealed and lockable.
F2	7.300	6.530	PPIC	450	B125	Cover to be recessed, air tight sealed and lockable.
F3	7.300	6.350	PPIC	450	B125	Cover to be recessed, air tight sealed and lockable.
F4	7.300	6.305	PPIC	450	B125	Cover to be recessed, air tight sealed and lockable.
F5	7.100	6.055	PPIC	450	D400	
F6	7.300	6.175	PPIC	450	B125	Cover to be recessed, air tight sealed and lockable.
F7	7.450	6.720	PPIC	450	B125	
F8	7.300	TBC	PPIC	600	B125	Foul Water Submersible Pump Foul Water to be Pumped at a Discharge Rate of 0.5l/s. Secondary back up pump to be installed. Cover to be recessed, air tight sealed and lockable.

- Cover levels are approximate only and may vary on site. Covers to suit finished levels.
- Contractor is responsible for positioning MHs so they do not compromise line or level of kerbing or other delineation at the juncture of two surface materials.
- PPIC manhole diameters may vary and are dependant on manufactures specification and diameter of incoming / outgoing pipes.
- Concrete manhole diameters are dependant on nominal internal diameter of largest pipe in manhole. See Table A on Typical Manhole Details drawing.