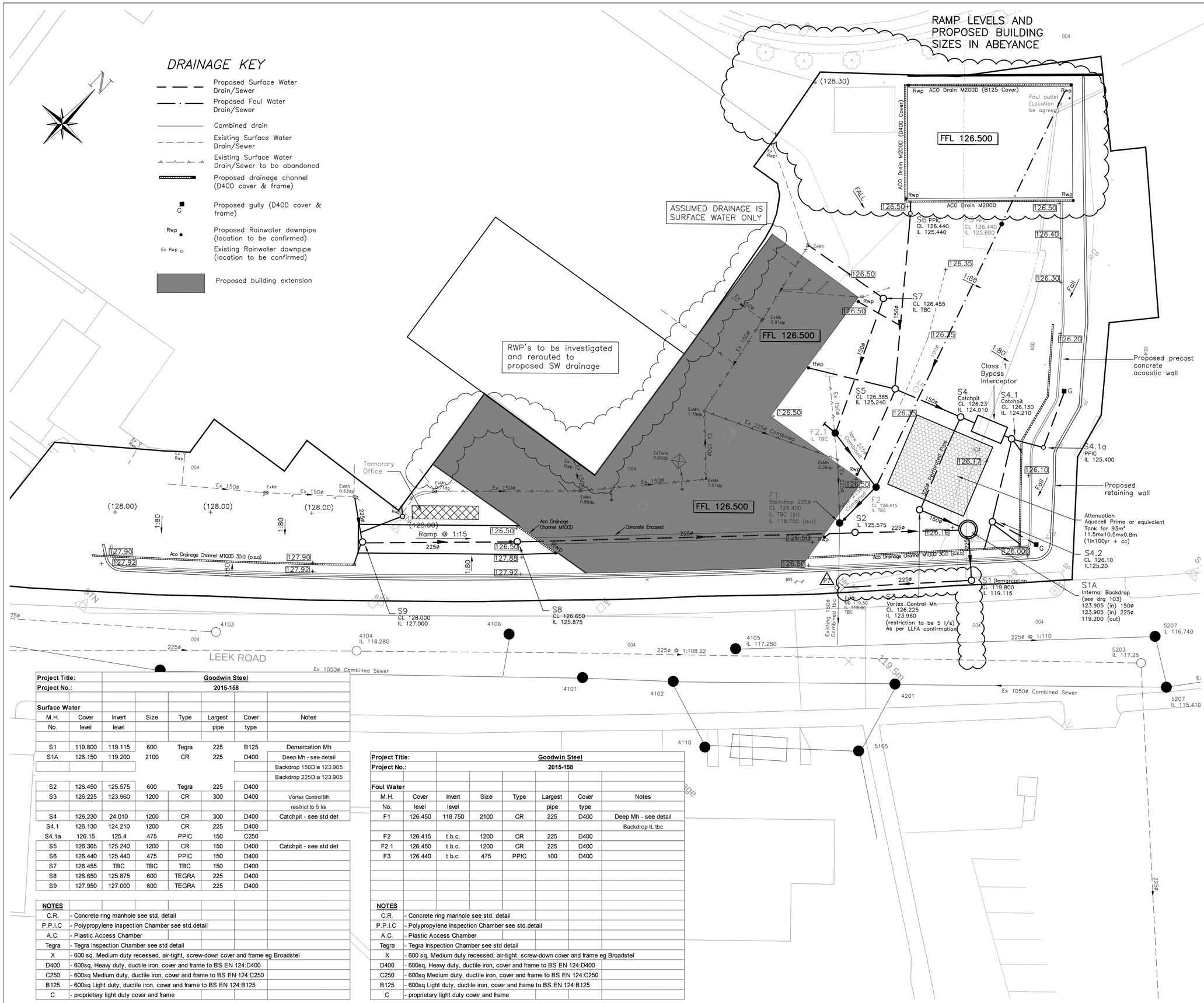

NOTES.

1. This drawing is to be read in conjunction with all relevant Architect's, Engineer's, Specialists details and the Specification.
2. All surface water pipes sizes as stated.
3. All foul water pipes sizes as stated.
4. All drainage pipes to BS EN 295 (clayware) or BS EN 1401 (plastic) U.N.O. Other materials may be permitted subject to the approval of the Engineer.
5. Pipes to BS EN 295 with more than 900mm cover between pipe soffit and finished surface to be in Type 'B' bedding. Pipes to BS EN 1401 with more than 900mm between pipe soffit and finished surface to be in Type 'S' bedding.
6. All pipes under external paved areas with less than 900mm cover to be in Type 'A5' bedding.
7. All manholes, trenches, culverts etc to be backfilled with imported granular fill to Class 6F1 (capping material) compacted to a maximum of 95% of maximum dry density of BS.1377: Part 4 (Vibrating Hammer method).
8. The Contractor is responsible for ensuring that full and adequate temporary works are provided to maintain safety and stability of the existing structure whilst the new works are being carried out. The propping is to remain in position until such time that the new works can adequately sustain the intended loads. Details of the proposed temporary works are to be forwarded to the Engineer for comment prior to commencement of works being carried out. Reference should also be made to Nolan Associates Standard detail – Pipes near buildings. (D22)
9. Polypropylene Access Chambers (denoted A.C.) are to be no deeper than 600,mm.
10. Pipe Gradients:

    Pipes are to be laid to the levels and gradients shown. Pipe branches are to be laid no flatter than the following table:

	100ø	150ø
Gullies, sinks and basins	1:40	1:40
Pipes draining 1 or more WC's	1:80	–
Pipes draining 5 or more WC's	1:80	1:150

11. For Manhole covers see schedule.
12. The Contractor is to enter into all necessary legal agreements with the drainage authority for all connections to the Public Sewer Network.
13. The Contractor is to survey all drainage outfalls and determine the levels of any Utility Apparatus that might affect the levels of drainage connections, prior to commencing any drainage works on site.
14. The Contractor is to obtain the consent of the Highway Authority to any works within the highway and enter into any necessary legal agreements.
15. Existing and proposed inverts to be confirmed.

© This drawing and the building works depicted are the copyright of the Engineers and may not be reproduced except by written permission.

NOLAN ASSOCIATES

PRELIMINARY DRAWING

NOT TO BE USED FOR CONSTRUCTION

REV	DESCRIPTION	BY	CHKD	DATE
P7	S1 to existing Manhole added.	S.M.	GW	01.11.16
P6	Mh S1A 225ø Incoming IL.	R.S.	GW	27.07.16
P5	SW re–routed as shown clouded.	R.S.	GW	06.07.16
P4	Redrawn to suit revised yard levels.	R.S.	GW	11.05.16
P3	Redrawn.	R.S.	GW	25.11.15
P2	Preliminary.	R.S.	GW	03.08.15
P1	Preliminary.	R.S.	GW	21.07.15

Goodwin Steel Castings Ltd
Hanley, Stoke on Trent

Indicative Drainage Layout

Goodwin Steel Castings Ltd

NOLAN ASSOCIATES
CONSULTING CIVIL & STRUCTURAL ENGINEERS
54 HAGLEY ROAD, EDGBASTON, BIRMINGHAM B16 8PE
TEL: 0121–454 3099 FAX: 0121–454 3059
E–MAIL: enquiries@nolanassociates.co.uk

Drawn by	Date	Plot Date	Scale
R.S.	21.07.15	21.07.15	1:250@A1
Checked by	Project No		Dwg No
GW	2015–158		100 P7

Project Title:	Goodwin Steel						
Project No.:	2015-158						
Surface Water							
M.H. No.	Cover level	Invert level	Size	Type	Largest pipe	Cover type	Notes
S1	119.800	119.115	600	Tegra	225	B125	Demarcation Mh
S1A	126.150	119.200	2100	CR	225	D400	Deep Mh - see detail
							Backdrop 150Dia 123.905
							Backdrop 225Dia 123.905
S2	126.450	125.575	600	Tegra	225	D400	
S3	126.225	123.960	1200	CR	300	D400	Vortex Control Mh
							restrict to 5 l/s
S4	126.230	24.010	1200	CR	300	D400	Catchpit - see std det
S4.1	126.130	124.210	1200	CR	225	D400	
S4.1a	126.15	125.4	475	PPIC	150	C250	
S5	126.365	125.240	1200	CR	150	D400	Catchpit - see std det
S6	126.440	125.440	475	PPIC	150	D400	
S7	126.455	TBC	TBC	TBC	150	D400	
S8	126.650	125.875	600	TEGRA	225	D400	
S9	127.950	127.000	600	TEGRA	225	D400	

NOTES	
C.R.	- Concrete ring manhole see std. detail
P.P.I.C	- Polypropylene Inspection Chamber see std.detail
A.C.	- Plastic Access Chamber
Tegra	- Tegra Inspection Chamber see std detail
X	- 600 sq. Medium duty recessed, air-tight, screw-down cover and frame eg Broadstel
D400	- 600sq, Heavy duty, ductile iron, cover and frame to BS EN 124:D400
C250	- 600sq Medium duty, ductile iron, cover and frame to BS EN 124:C250
B125	- 600sq Light duty, ductile iron, cover and frame to BS EN 124:B125
C	- proprietary light duty cover and frame

Project Title:	Goodwin Steel						
Project No.:	2015-158						
Foul Water							
M.H. No.	Cover level	Invert level	Size	Type	Largest pipe	Cover type	Notes
F1	126.450	118.750	2100	CR	225	D400	Deep Mh - see detail
							Backdrop IL tbc
F2	126.415	t.b.c.	1200	CR	225	D400	
F2.1	126.450	t.b.c.	1200	CR	225	D400	
F3	126.440	t.b.c.	475	PPIC	100	D400	

NOTES	
C.R.	- Concrete ring manhole see std. detail
P.P.I.C	- Polypropylene Inspection Chamber see std.detail
A.C.	- Plastic Access Chamber
Tegra	- Tegra Inspection Chamber see std detail
X	- 600 sq. Medium duty recessed, air-tight, screw-down cover and frame eg Broadstel
D400	- 600sq, Heavy duty, ductile iron, cover and frame to BS EN 124:D400
C250	- 600sq Medium duty, ductile iron, cover and frame to BS EN 124:C250
B125	- 600sq Light duty, ductile iron, cover and frame to BS EN 124:B125
C	- proprietary light duty cover and frame