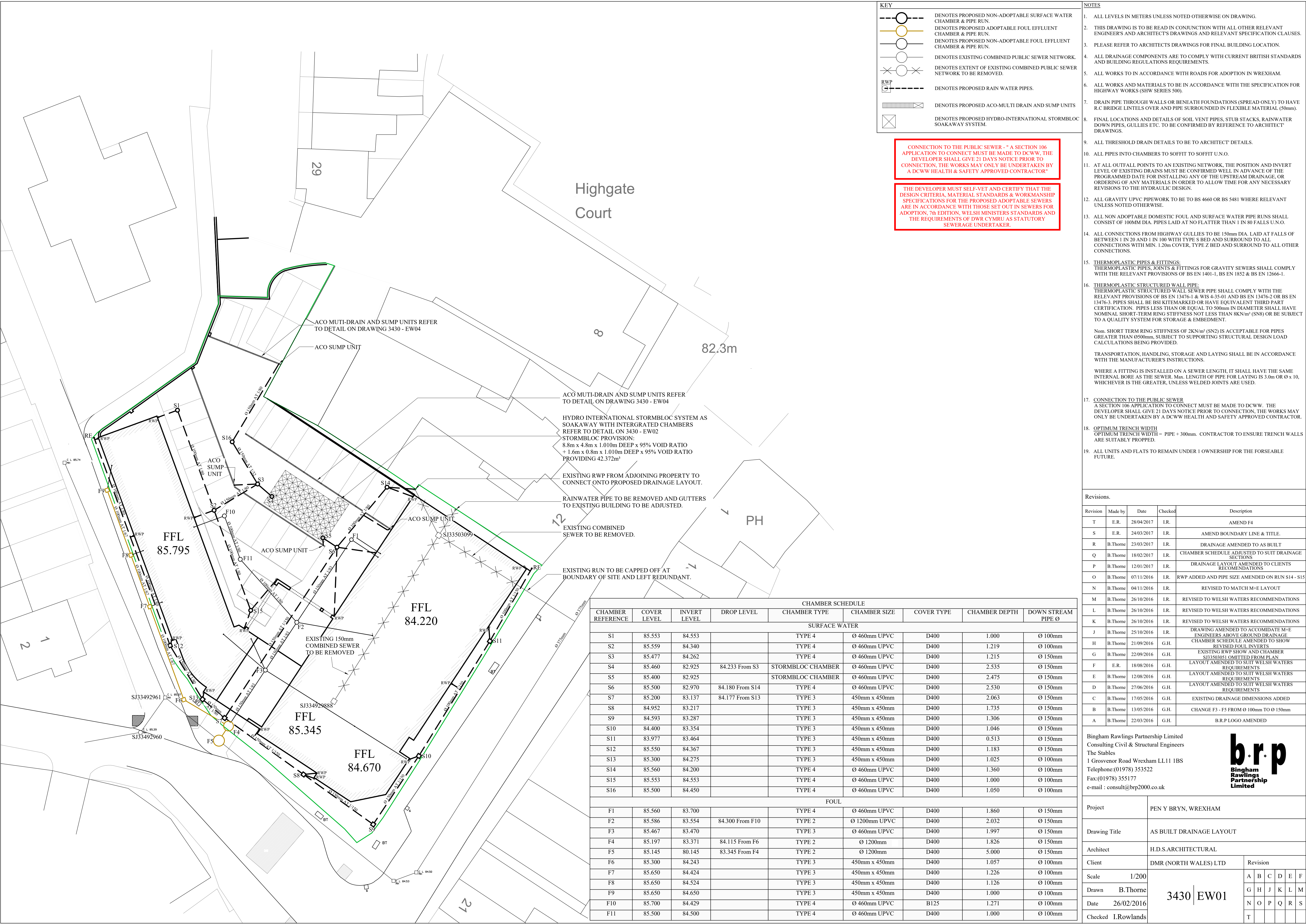




KEY

- DENOTES PROPOSED NON-ADOPTABLE SURFACE WATER CHAMBER & PIPE RUN.
- DENOTES PROPOSED ADOPTABLE FOUL EFFLUENT CHAMBER & PIPE RUN.
- DENOTES PROPOSED NON-ADOPTABLE FOUL EFFLUENT CHAMBER & PIPE RUN.
- DENOTES EXISTING COMBINED PUBLIC SEWER NETWORK.
- DENOTES EXTENT OF EXISTING COMBINED PUBLIC SEWER NETWORK TO BE REMOVED.
- RWP --- DENOTES PROPOSED RAIN WATER PIPES.
- DENOTES PROPOSED ACO-MULTI DRAIN AND SUMP UNITS
- DENOTES PROPOSED HYDRO-INTERNATIONAL STORMBLOC SOAKAWAY SYSTEM.

CONNECTION TO THE PUBLIC SEWER - " A SECTION 106 APPLICATION TO CONNECT MUST BE MADE TO DCWW, THE DEVELOPER SHALL GIVE 21 DAYS NOTICE PRIOR TO CONNECTION, THE WORKS MAY ONLY BE UNDERTAKEN BY A DCWW HEALTH & SAFETY APPROVED CONTRACTOR"

THE DEVELOPER MUST SELF-VET AND CERTIFY THAT THE DESIGN CRITERIA, MATERIAL STANDARDS & WORKMANSHIP SPECIFICATIONS FOR THE PROPOSED ADOPTABLE SEWERS ARE IN ACCORDANCE WITH THOSE SET OUT IN SEWERS FOR ADOPTION, 7th EDITION, WELSH MINISTERS STANDARDS AND THE REQUIREMENTS OF DWR CYMRU AS STATUTORY SEWERAGE UNDERTAKER.

- NOTES**
- ALL LEVELS IN METERS UNLESS NOTED OTHERWISE ON DRAWING.
 - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ENGINEER'S AND ARCHITECTS DRAWINGS AND RELEVANT SPECIFICATION CLAUSES.
 - PLEASE REFER TO ARCHITECTS DRAWINGS FOR FINAL BUILDING LOCATION.
 - ALL DRAINAGE COMPONENTS ARE TO COMPLY WITH CURRENT BRITISH STANDARDS AND BUILDING REGULATIONS REQUIREMENTS.
 - ALL WORKS TO IN ACCORDANCE WITH ROADS FOR ADOPTION IN WREXHAM.
 - ALL WORKS AND MATERIALS TO BE IN ACCORDANCE WITH THE SPECIFICATION FOR HIGHWAY WORKS (SHW SERIES 500).
 - DRAIN PIPE THROUGH WALLS OR BENEATH FOUNDATIONS (SPREAD ONLY) TO HAVE R.C BRIDGE LINTELS OVER AND PIPE SURROUNDED IN FLEXIBLE MATERIAL (50mm).
 - FINAL LOCATIONS AND DETAILS OF SOIL VENT PIPES, STUB STACKS, RAINWATER DOWN PIPES, GULLIES ETC. TO BE CONFIRMED BY REFERENCE TO ARCHITECT DRAWINGS.
 - ALL THRESHOLD DRAIN DETAILS TO BE TO ARCHITECT DETAILS.
 - ALL PIPES INTO CHAMBERS TO SOFFIT TO SOFFIT U.N.O.
 - AT ALL OUTFALL POINTS TO AN EXISTING NETWORK, THE POSITION AND INVERT LEVEL OF EXISTING DRAINS MUST BE CONFIRMED WELL IN ADVANCE OF THE PROGRAMMED DATE FOR INSTALLING ANY OF THE UPSTREAM DRAINAGE, OR ORDERING OF ANY MATERIALS IN ORDER TO ALLOW TIME FOR ANY NECESSARY REVISIONS TO THE HYDRAULIC DESIGN.
 - ALL GRAVITY UPVC PIPEWORK TO BE TO BS 4660 OR BS 5481 WHERE RELEVANT UNLESS NOTED OTHERWISE.
 - ALL NON ADOPTABLE DOMESTIC FOUL AND SURFACE WATER PIPE RUNS SHALL CONSIST OF 100MM DIA. PIPES LAID AT NO FLATTER THAN 1 IN 80 FALLS U.N.O.
 - ALL CONNECTIONS FROM HIGHWAY GULLIES TO BE 150mm DIA. LAID AT FALLS OF BETWEEN 1 IN 20 AND 1 IN 100 WITH TYPE S BED AND SURROUND TO ALL CONNECTIONS WITH MIN. 1.20m COVER, TYPE Z BED AND SURROUND TO ALL OTHER CONNECTIONS.
 - THERMOPLASTIC PIPES & FITTINGS:**

THERMOPLASTIC PIPES, JOINTS & FITTINGS FOR GRAVITY SEWERS SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN 1401-1, BS EN 1852 & BS EN 12666-1.

THERMOPLASTIC STRUCTURED WALL PIPE:

THERMOPLASTIC STRUCTURED WALL SEWER PIPE SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN 13476-1 & BS EN 13476-2 OR BS EN 13476-3. PIPES SHALL BE BSI KITEMARKED OR HAVE EQUIVALENT THIRD PART CERTIFICATION. PIPES LESS THAN OR EQUAL TO 500mm IN DIAMETER SHALL HAVE NOMINAL SHORT-TERM RING STIFFNESS NOT LESS THAN 8kN/m² (SN8) OR BE SUBJECT TO A QUALITY SYSTEM FOR STORAGE & EMBEDMENT.

Nom. SHORT TERM RING STIFFNESS OF 2kN/m² (SN2) IS ACCEPTABLE FOR PIPES GREATER THAN Ø500mm, SUBJECT TO SUPPORTING STRUCTURAL DESIGN LOAD CALCULATIONS BEING PROVIDED.

TRANSPORTATION, HANDLING, STORAGE AND LAYING SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

WHERE A FITTING IS INSTALLED ON A SEWER LENGTH, IT SHALL HAVE THE SAME INTERNAL BORE AS THE SEWER. Max. LENGTH OF PIPE FOR LAYING IS 3.0m OR Ø x 10, WHICHEVER IS THE GREATER, UNLESS WELDED JOINTS ARE USED.
 - CONNECTION TO THE PUBLIC SEWER**

A SECTION 106 APPLICATION TO CONNECT MUST BE MADE TO DCWW. THE DEVELOPER SHALL GIVE 21 DAYS NOTICE PRIOR TO CONNECTION, THE WORKS MAY ONLY BE UNDERTAKEN BY A DCWW HEALTH AND SAFETY APPROVED CONTRACTOR.
 - OPTIMUM TRENCH WIDTH**

OPTIMUM TRENCH WIDTH = PIPE + 300mm. CONTRACTOR TO ENSURE TRENCH WALLS ARE SUITABLY PROPPED.
 - ALL UNITS AND FLATS TO REMAIN UNDER 1 OWNERSHIP FOR THE FORSEABLE FUTURE.

Revisions.				
Revision	Made by	Date	Checked	Description
T	E.R.	28/04/2017	I.R.	AMEND F4
S	E.R.	24/03/2017	I.R.	AMEND BOUNDARY LINE & TITLE.
R	B.Thorne	23/03/2017	I.R.	DRAINAGE AMENDED TO AS BUILT
Q	B.Thorne	18/02/2017	I.R.	CHAMBER SCHEDULE ADJUSTED TO SUIT DRAINAGE SECTIONS
P	B.Thorne	12/01/2017	I.R.	DRAINAGE LAYOUT AMENDED TO CLIENTS RECOMMENDATIONS
O	B.Thorne	07/11/2016	I.R.	RWP ADDED AND PIPE SIZE AMENDED ON RUN S14 - S15
N	B.Thorne	04/11/2016	I.R.	REVISED TO MATCH M+E LAYOUT
M	B.Thorne	26/10/2016	I.R.	REVISED TO WELSH WATERS RECOMMENDATIONS
L	B.Thorne	26/10/2016	I.R.	REVISED TO WELSH WATERS RECOMMENDATIONS
K	B.Thorne	26/10/2016	I.R.	REVISED TO WELSH WATERS RECOMMENDATIONS
J	B.Thorne	25/10/2016	I.R.	DRAWING AMENDED TO ACCOMMODATE M+E ENGINEERS ABOVE GROUND DRAINAGE
H	B.Thorne	21/09/2016	G.H.	CHAMBER SCHEDULE AMENDED TO SHOW REVISED FOUL INVERTS
G	B.Thorne	22/09/2016	G.H.	EXISTING RWP SHOW AND CHAMBER S13/S10/S11 OMITTED FROM PLAN
F	E.R.	18/08/2016	G.H.	LAYOUT AMENDED TO SUIT WELSH WATERS REQUIREMENTS
E	B.Thorne	12/08/2016	G.H.	LAYOUT AMENDED TO SUIT WELSH WATERS REQUIREMENTS
D	B.Thorne	27/06/2016	G.H.	LAYOUT AMENDED TO SUIT WELSH WATERS REQUIREMENTS
C	B.Thorne	17/05/2016	G.H.	EXISTING DRAINAGE DIMENSIONS ADDED
B	B.Thorne	13/05/2016	G.H.	CHANGE F3 - F5 FROM Ø 100mm TO Ø 150mm
A	B.Thorne	22/03/2016	G.H.	B.R.P LOGO AMENDED

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Project	PEN Y BRYN, WREXHAM										
Drawing Title	AS BUILT DRAINAGE LAYOUT										
Architect	H.D.S.ARCHITECTURAL										
Client	DMR (NORTH WALES) LTD					Revision					
Scale	1/200					A	B	C	D	E	F
Drawn	B.Thorne					G	H	J	K	L	M
Date	26/02/2016					N	O	P	Q	R	S
Checked	I.Rowlands					T					

CHAMBER SCHEDULE								
CHAMBER REFERENCE	COVER LEVEL	INVERT LEVEL	DROP LEVEL	CHAMBER TYPE	CHAMBER SIZE	COVER TYPE	CHAMBER DEPTH	DOWN STREAM PIPE Ø
SURFACE WATER								
S1	85.553	84.553		TYPE 4	Ø 460mm UPVC	D400	1.000	Ø 100mm
S2	85.559	84.340		TYPE 4	Ø 460mm UPVC	D400	1.219	Ø 100mm
S3	85.477	84.262		TYPE 4	Ø 460mm UPVC	D400	1.215	Ø 150mm
S4	85.460	82.925	84.233 From S3	STORMBLOC CHAMBER	Ø 460mm UPVC	D400	2.535	Ø 150mm
S5	85.400	82.925		STORMBLOC CHAMBER	Ø 460mm UPVC	D400	2.475	Ø 150mm
S6	85.500	82.970	84.180 From S14	TYPE 4	Ø 460mm UPVC	D400	2.530	Ø 150mm
S7	85.200	83.137	84.177 From S13	TYPE 3	450mm x 450mm	D400	2.063	Ø 150mm
S8	84.952	83.217		TYPE 3	450mm x 450mm	D400	1.735	Ø 150mm
S9	84.593	83.287		TYPE 3	450mm x 450mm	D400	1.306	Ø 150mm
S10	84.400	83.354		TYPE 3	450mm x 450mm	D400	1.046	Ø 150mm
S11	83.977	83.464		TYPE 3	450mm x 450mm	D400	0.513	Ø 150mm
S12	85.550	84.367		TYPE 3	450mm x 450mm	D400	1.183	Ø 150mm
S13	85.300	84.275		TYPE 3	450mm x 450mm	D400	1.025	Ø 100mm
S14	85.560	84.200		TYPE 4	Ø 460mm UPVC	D400	1.360	Ø 100mm
S15	85.553	84.553		TYPE 4	Ø 460mm UPVC	D400	1.000	Ø 100mm
S16	85.500	84.450		TYPE 4	Ø 460mm UPVC	D400	1.050	Ø 100mm
FOUL								
F1	85.560	83.700		TYPE 4	Ø 460mm UPVC	D400	1.860	Ø 150mm
F2	85.586	83.554	84.300 From F10	TYPE 2	Ø 1200mm UPVC	D400	2.032	Ø 150mm
F3	85.467	83.470		TYPE 3	Ø 460mm UPVC	D400	1.997	Ø 150mm
F4	85.197	83.371	84.115 From F6	TYPE 2	Ø 1200mm	D400	1.826	Ø 150mm
F5	85.145	80.145	83.345 From F4	TYPE 2	Ø 1200mm	D400	5.000	Ø 150mm
F6	85.300	84.243		TYPE 3	450mm x 450mm	D400	1.057	Ø 100mm
F7	85.650	84.424		TYPE 3	450mm x 450mm	D400	1.226	Ø 100mm
F8	85.650	84.524		TYPE 3	450mm x 450mm	D400	1.126	Ø 100mm
F9	85.650	84.650		TYPE 3	450mm x 450mm	D400	1.000	Ø 100mm
F10	85.700	84.429		TYPE 4	Ø 460mm UPVC	B125	1.271	Ø 100mm
F11	85.500	84.500		TYPE 4	Ø 460mm UPVC	D400	1.000	Ø 100mm