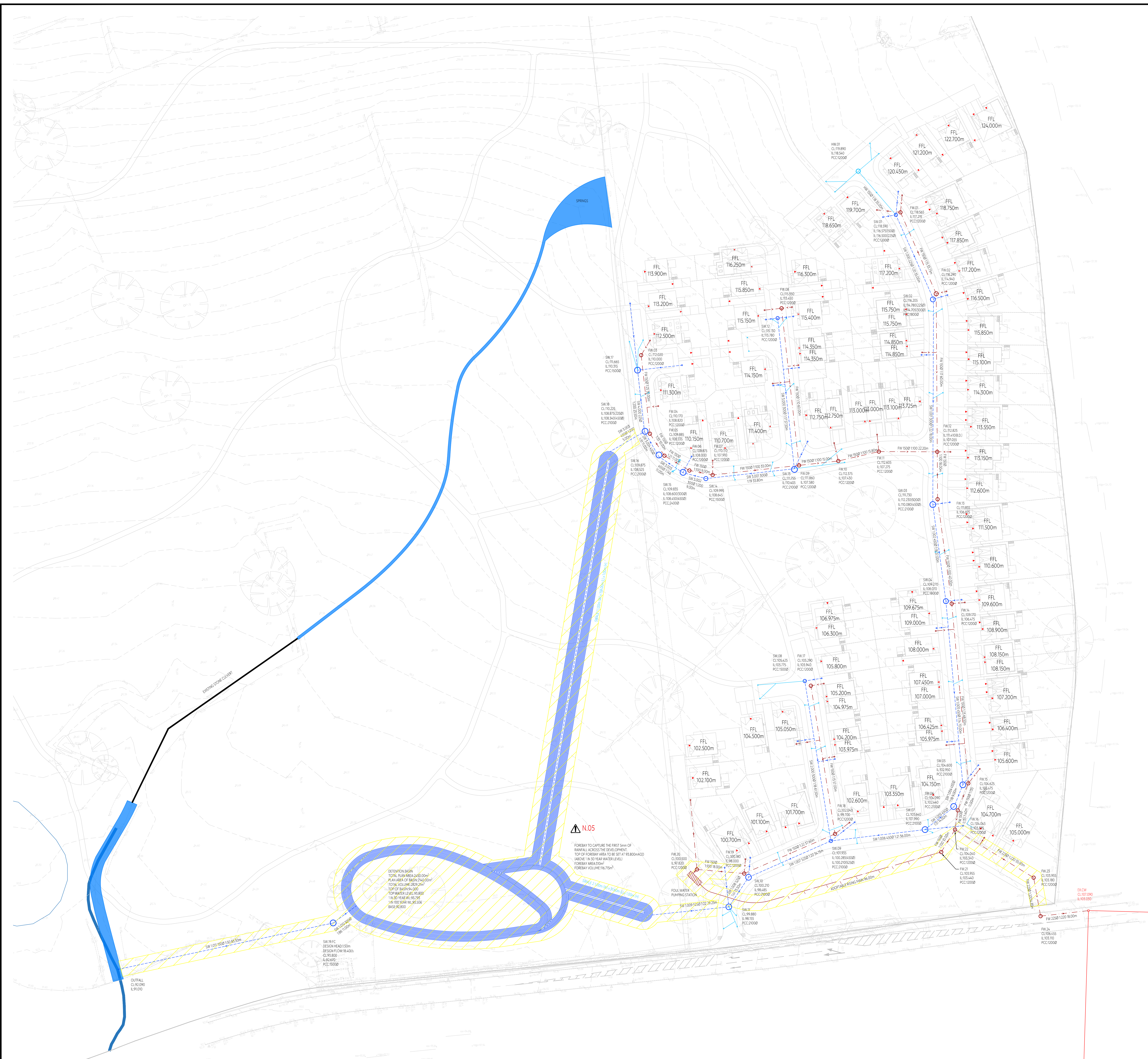
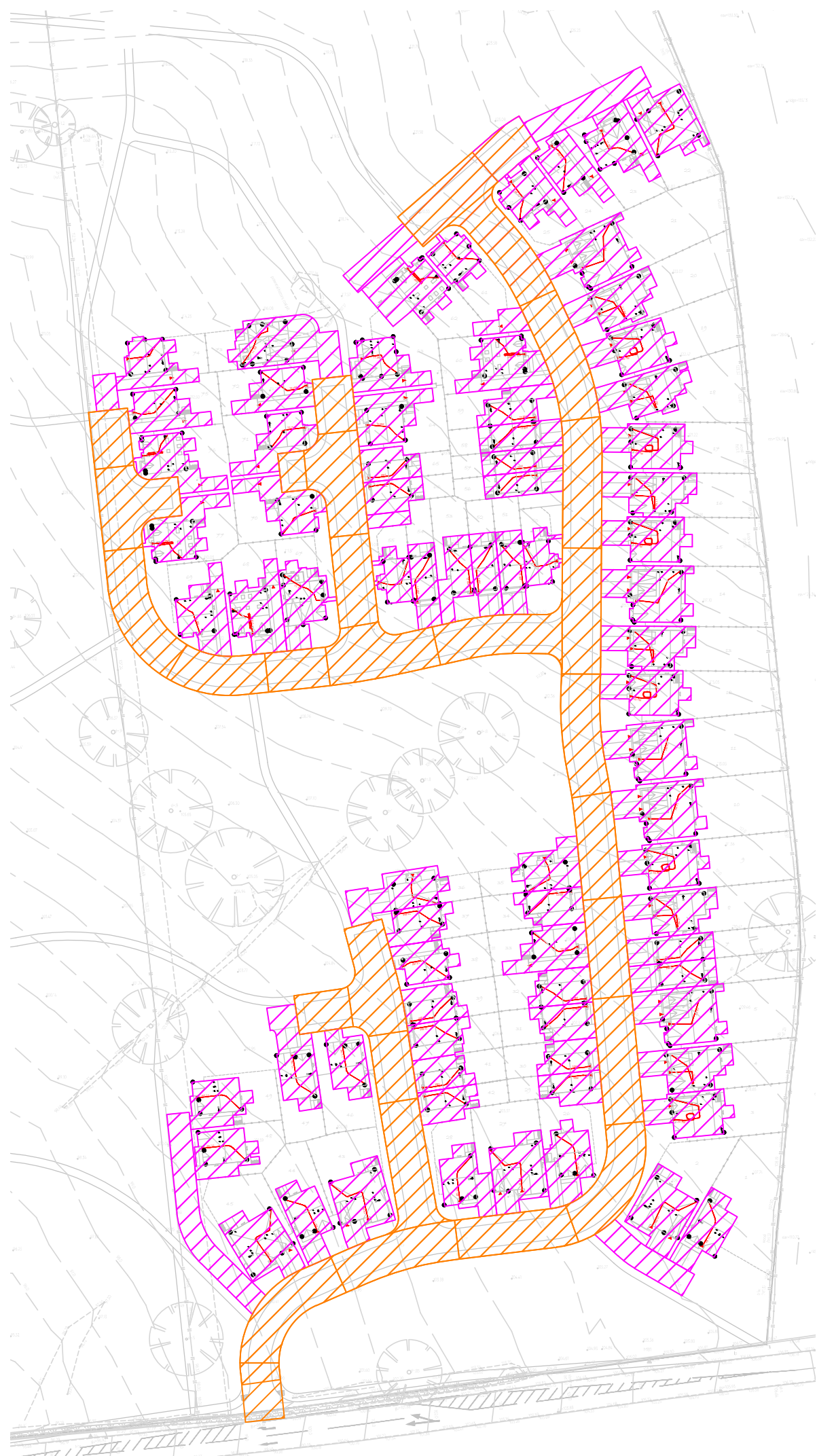




PROPOSED DRAINAGE STRATEGY (1:500)

PROPOSED DRAINAGE IS PRELIMINARY
ONLY AND IS SUBJECT TO DETAILED
DESIGN.

REFER TO PWA DOCUMENT
24028-PWA-00-XX-LTR-1001 FOR THE
PROPOSED DRAINAGE STRATEGY
PRINCIPLES.



PROPOSED IMPERMEABLE AREA (1:1250)

	SITE LOCATION	
	OS X (EASTINGS)	376807
	OS Y (NORTHINGS)	436565
	NAT GRID	5076307 34565
	POSTCODE	BB12 7RH

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KEY	
	EXISTING COMBINED WATER SEWER
	EXISTING COMBINED WATER MANHOLE
	PROPOSED SURFACE WATER SEWER
	PROPOSED SURFACE WATER MANHOLE
	PROPOSED SURFACE WATER FLOW CONTROL MANHOLE
	PROPOSED SURFACE WATER INSPECTION CHAMBER
	PROPOSED GULLY
	PROPOSED POND
	PROPOSED FOWL WATER SEWER
	PROPOSED FOWL WATER MANHOLE
	PROPOSED FOWL WATER INSPECTION CHAMBER
	SITE BOUNDARY

AREA	TOTAL AREA m ² (ha)
PROPOSED IMPERMEABLE	20,618m ² (2.062ha)
PRIVATE IMP. + 10%	14,886m ² (1.489ha)
SHARED IMP.	7,086m ² (0.709ha)
TOTAL	21,972m ² (2.197ha)

*TOTALS FOR HECTARES (ha) AND METERS SQUARED (m²) DIFFER SLIGHTLY DUE TO ROUNDING AND ACCUMULATION OF INDIVIDUAL AREAS.

GREENFIELD RUNOFF RATES	
RETURN PERIOD (YEARS)	FLOW RATE (l/s)
1 IN 1 YEAR	16.0l/s
1 IN 30 YEAR	31.20l/s
1 IN 100 YEAR	38.30l/s
1 IN 2.33 YEAR (QBAR)	18.40l/s

TABLE 1: DESIGNER'S RISK ASSESSMENT		
RISK REFERENCE	RISK DESCRIPTION	RISK CONSIDERATION/ MITIGATION
R.01	LOCATION AND LEVELS OF EXISTING PUBLIC SEWER	SURVEY SHOULD BE UNDERTAKEN TO DETERMINE ACTUAL LOCATION AND LEVELS OF EXISTING PUBLIC SEWER BEFORE SITE WORKS COMMENCE
R.02	DRAINAGE LESS THAN 1.2m COVER TO CROWN IN ROAD	CONCRETE SLAB PROTECTION SHOULD BE INTRODUCED WHERE DRAINAGE HAS INSUFFICIENT COVER OR HIGHWAY AREAS
R.03	ADAPTABLE PUMPING STATION	LOCATION, ACCESS AND LAYOUT TO BE CONFIRMED WITH UNITED UTILITIES
R.04	REDUCTION OF FLOOD RISK ACROSS THE SITE	INTRODUCTION OF OPENING CULVERT WORKS TO THE WEST OF THE DEVELOPMENT SITE COULD REDUCE FLOOD RISK
R.05	EXISTING OFFSITE CULVERT	CULVERT DOWNSTREAM OF WATERCOURSE CONNECTION SHOULD BE INVESTIGATED TO ENSURE POSITIVE OUTFALL.

TABLE 2: NOTE TO DEVELOPER	
NOTE REFERENCE	NOTE DESCRIPTION
N.01	SVP AND RWP LOCATIONS TBC BY ARCHITECT. LATERAL LOCATIONS INDICATIVE UNTIL FULL DESIGN OF PRIVATE DRAINAGE IS PROGRESSED
N.02	CHANNING, DRAINAGE AND GULLIES DRAINING PRIVATE AREAS TO CONNECT INTO PRIVATE DRAINAGE SYSTEM
N.03	SECTION 106 APPROVAL TO BE OBTAINED BEFORE CONNECTION INTO EXISTING PUBLIC SEWER IS MADE
N.04	LAND DRAINAGE CONSENT APPROVAL TO BE OBTAINED BEFORE CONNECTION INTO WATERCOURSE IS MADE
N.05	THE FIRST 5mm OF RAINFALL IS TO BE CONTAINED ON SITE VIA THE EXISTING FOREBAY. 21,972m ² * 0.005m = 109.86m ³ FOREBAY VOLUME = 109.86m ³
N.06	ALL PLOTS ARE TO HAVE RAINWATER BUTTS FITTED TO THE REAR RAINWATER PIPES FOR THE REUSE WITHIN THE INTERNAL AREAS OF THE PROPERTY.

REV	1	10/07/20	POUND DESIGN UPDATED TO MANAGE EVERYDAY RAINFALL	DES	1
REV	2	11/05/20	FIRST ISSUE	DES	2
REV	3	DATE	REMARKS	DES	3

PWA / GROUP		
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Client		APPLETHWAITE									
Project		PROPOSED RESIDENTIAL DEVELOPMENT WHALLEY ROAD READ									
Title		DRAINAGE STRATEGY									
Drawn	A1	Scale	1:500	Designed	JLE	Checked	LS	Date	MAR 26		
Drawing Status		PRELIMINARY									
Job Number	24028	Originator	PWA	Zone	00	XX	DR	C	1002	Rev	P02