

General Notes

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- Schedule for cladding materials**
- Main cladding element to be Kingspan AWP KS1000 flat composite insulated cladding panel system. 1000mm module secret fixed laid at nominal 11 degrees incline to the vertical. Supported on secondary steel cladding rails set out in accordance with system requirements relative to specific application and site location and extent of exposure. Horizontal drip flashings to be incorporated at panel ends Colour RAL 7040.
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 - Galvanised mesh planting framework to be mechanically secured to shadow cladding, on proprietary galvanised top hat sheeting rails spacing mesh from face of cladding. Mesh panels to be fully trimmed around perimeter with edging channel.
 - Overblade aluminium louvre to projecting soffit along north elevation. PPC finish with fly screen backing Colour RAL 7043.
 - Aluminium curtain wall glazing to gable end to each side and over the top of the central solid cladding. No requirement for opening lights. Frame to receive PPC finish to standard RAL colour 7043. Double glazing to be toughened both panes, nominal 6:12:6 glass and cavity thickness. Glass to be clear polished float glass.
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 - Fair faced concrete.
 - PPC insulated panel door Colour RAL 1023.
 - PPC metal faced personnel / access doors Colour RAL 1023.
- Exhaust stack and fuel tanks to be galvanised steel

PLANNING

Revision: /

Scale: 1:125@A1

Status: P

Drawn by: PdeB

Date: 10.05.11

Client: URBASER / BALFOUR BEATTY

Project: GLOUCESTERSHIRE RESIDUAL WASTE PROJECT

Drawing Description: EAST ELEVATION

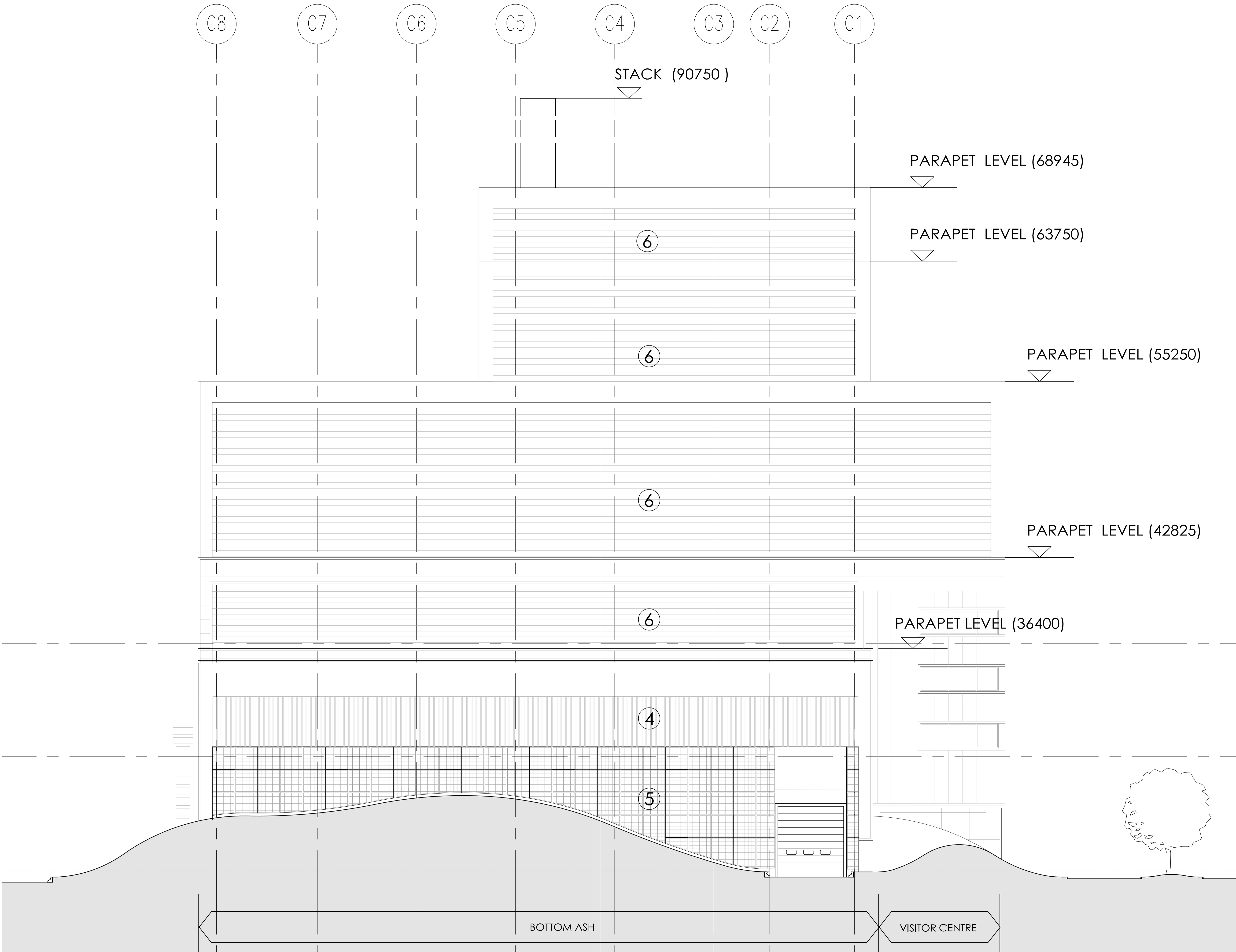
Drawing No. 11034 PL33 Rev.



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PLANNING

Revision	A	LEVELS AND HEIGHTS ADJUSTED.	05.11.13	PdeB
Scale	1:125@A1			
Status	P			
Drawn by	PdeB			
Date	10.05.11			

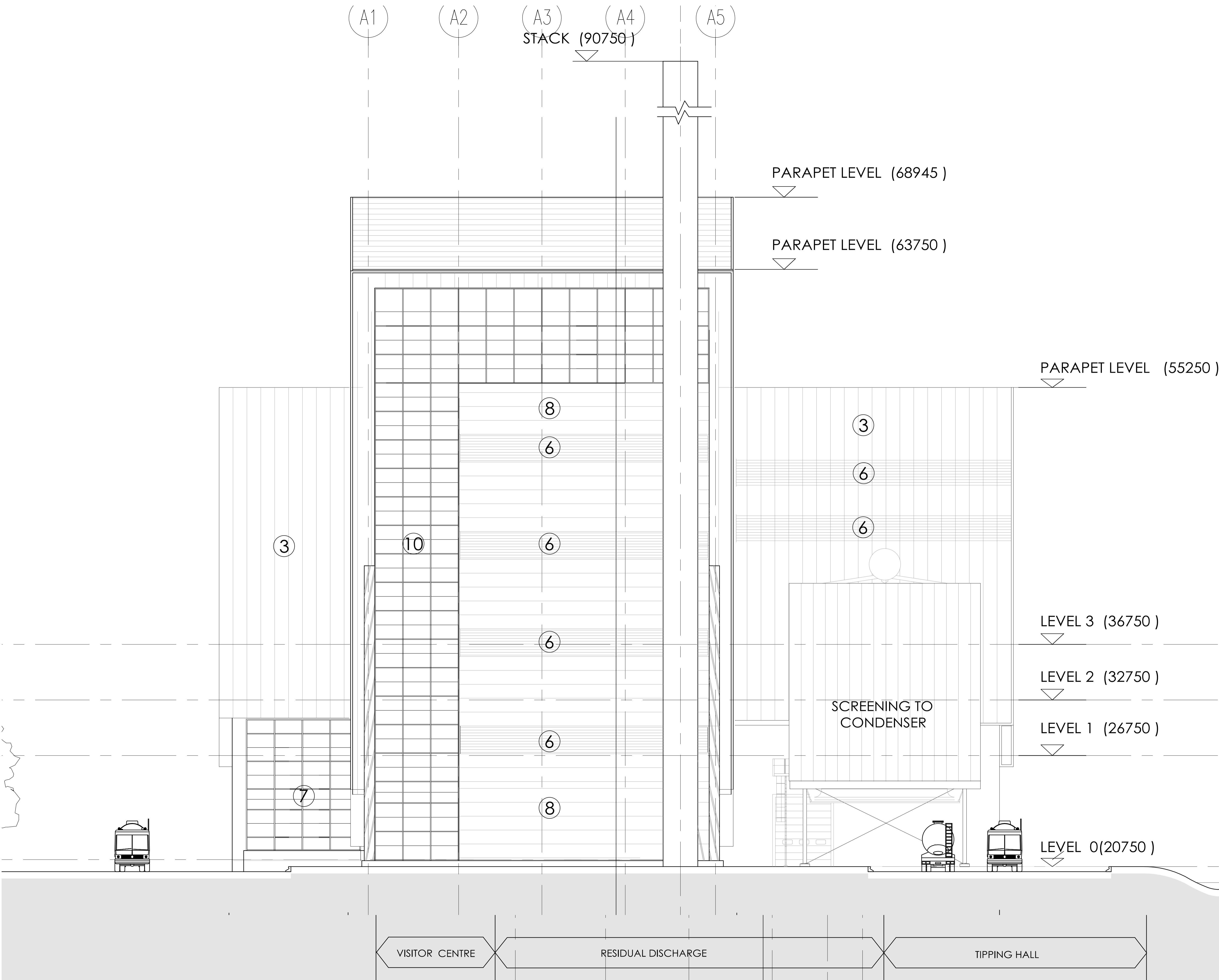
Client
URBASER / BALFOUR BEATTY

Project
GLOUCESTERSHIRE RESIDUAL WASTE PROJECT
 Drawing Description
EAST ELEVATION

Drawing No. **11034 PL33** Rev. **A**



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PLANNING

Revision	A	LEVELS AND HEIGHTS ADJUSTED.	05.11.13	PdeB
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Scale: 1:125@A1
 Status: P
 Drawn by: PdeB
 Date: 10.05.11

Client: URBASER / BALFOUR BEATTY

Project: GLOUCESTERSHIRE RESIDUAL WASTE PROJECT
 Drawing Description: WEST ELEVATION

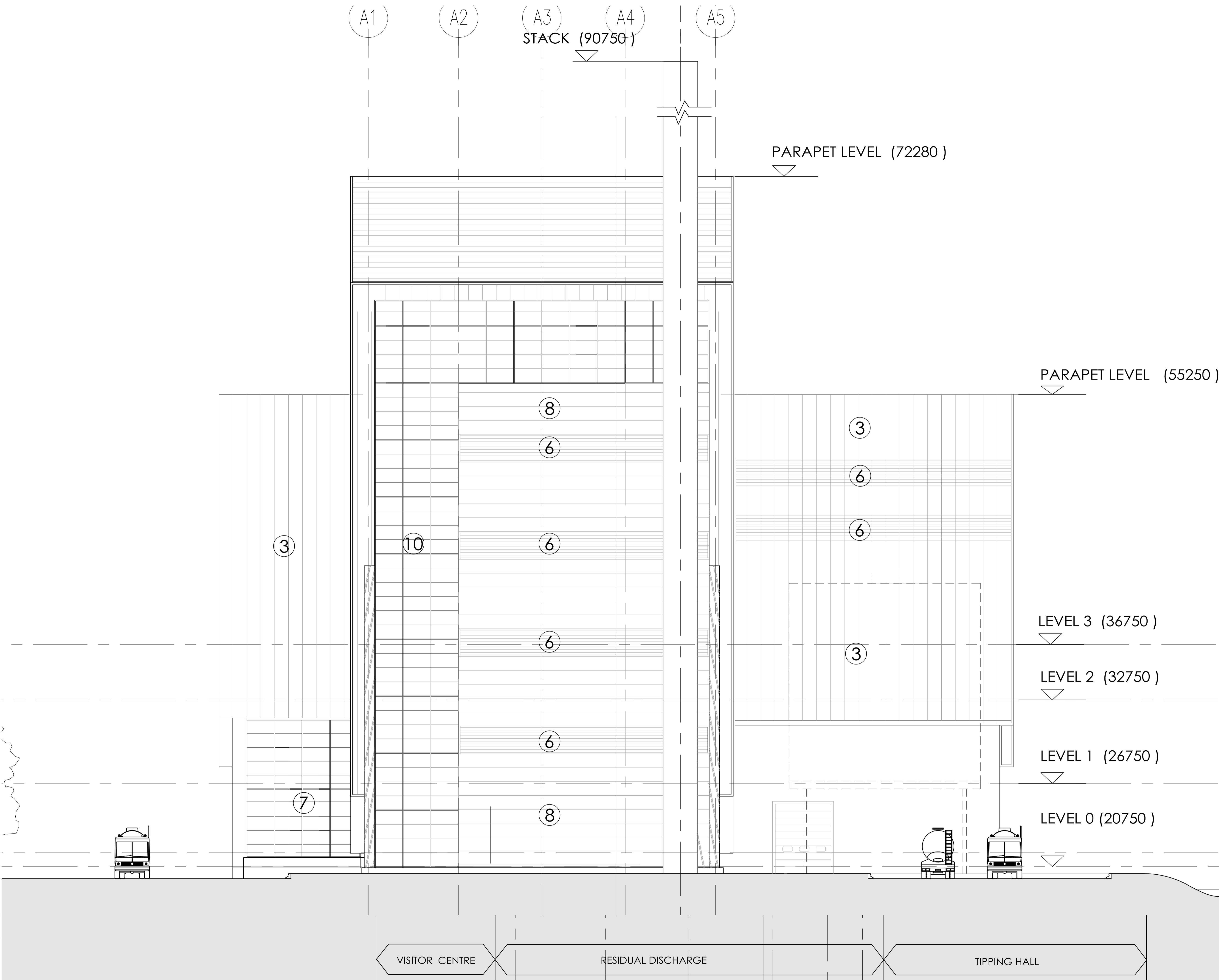
Drawing No. 11034 PL34 Rev. A



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- BS / RAL COLOURS FOR CLADDING TO BE AGREED WITH THE PLANNING AUTHORITY

PLANNING

Revision /

Scale 1:125@A1

Status P

Drawn by PdeB

Date 10.05.11

Client
URBASER / BALFOUR BEATTY

Project
GLOUCESTERSHIRE RESIDUAL
WASTE PROJECT
Drawing Description
WEST ELEVATION

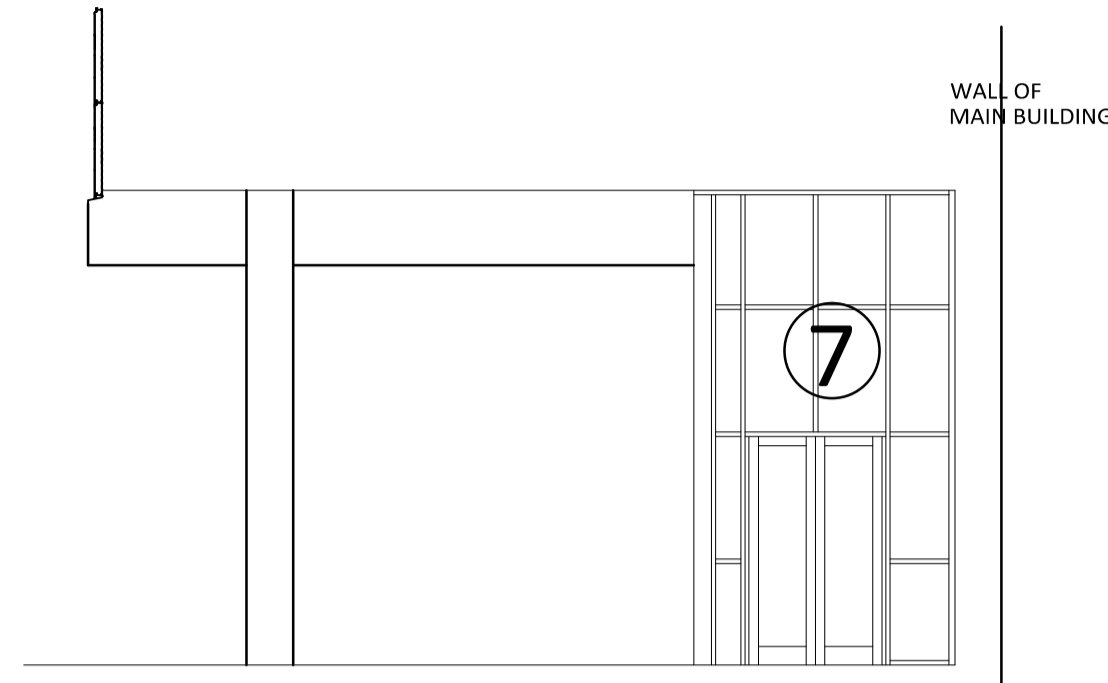
Drawing No. 11034 PL34 Rev.



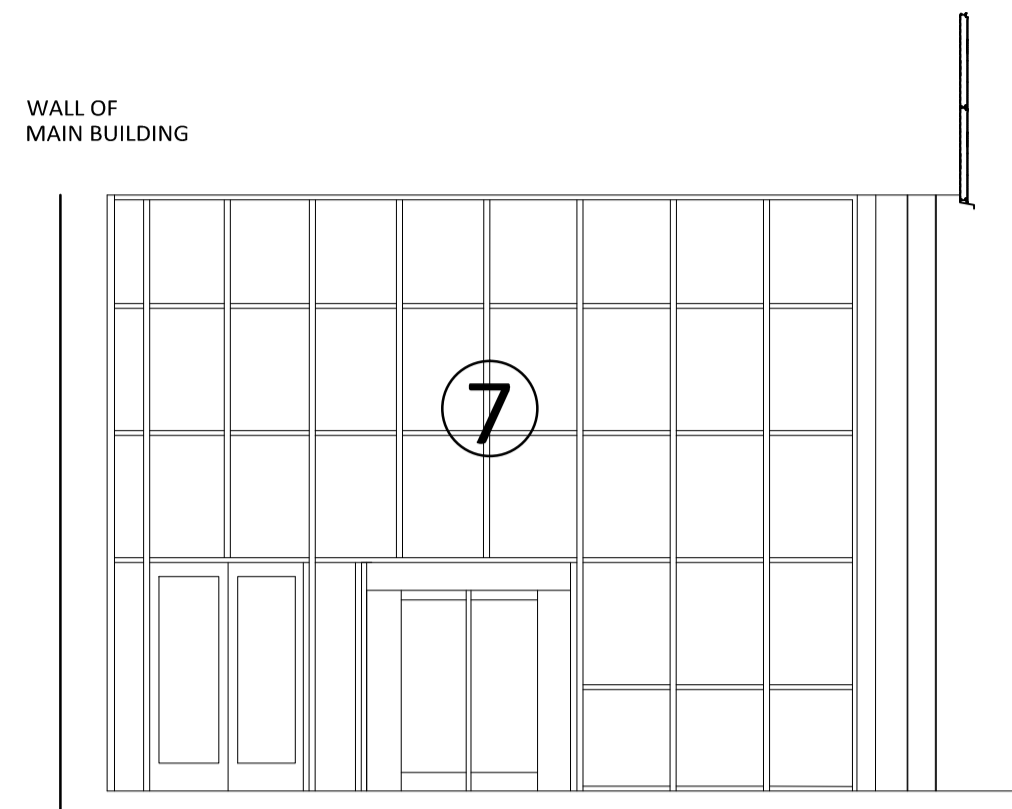
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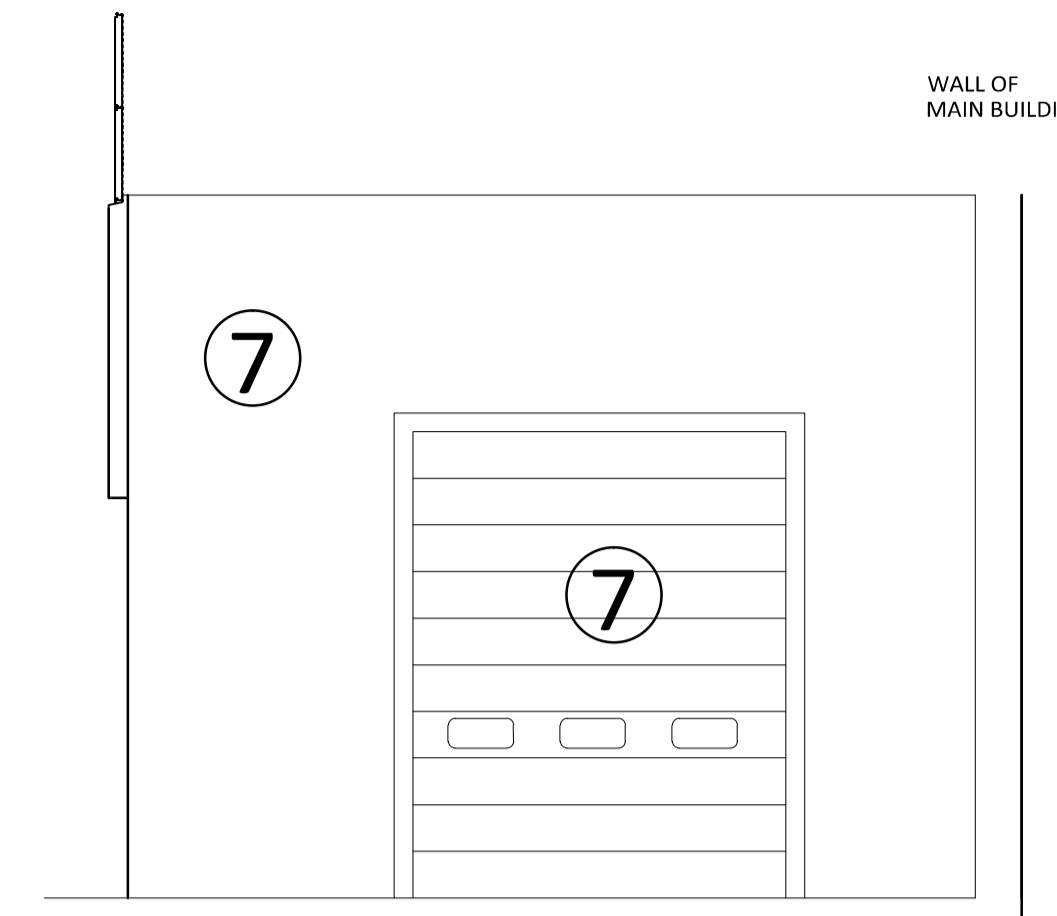
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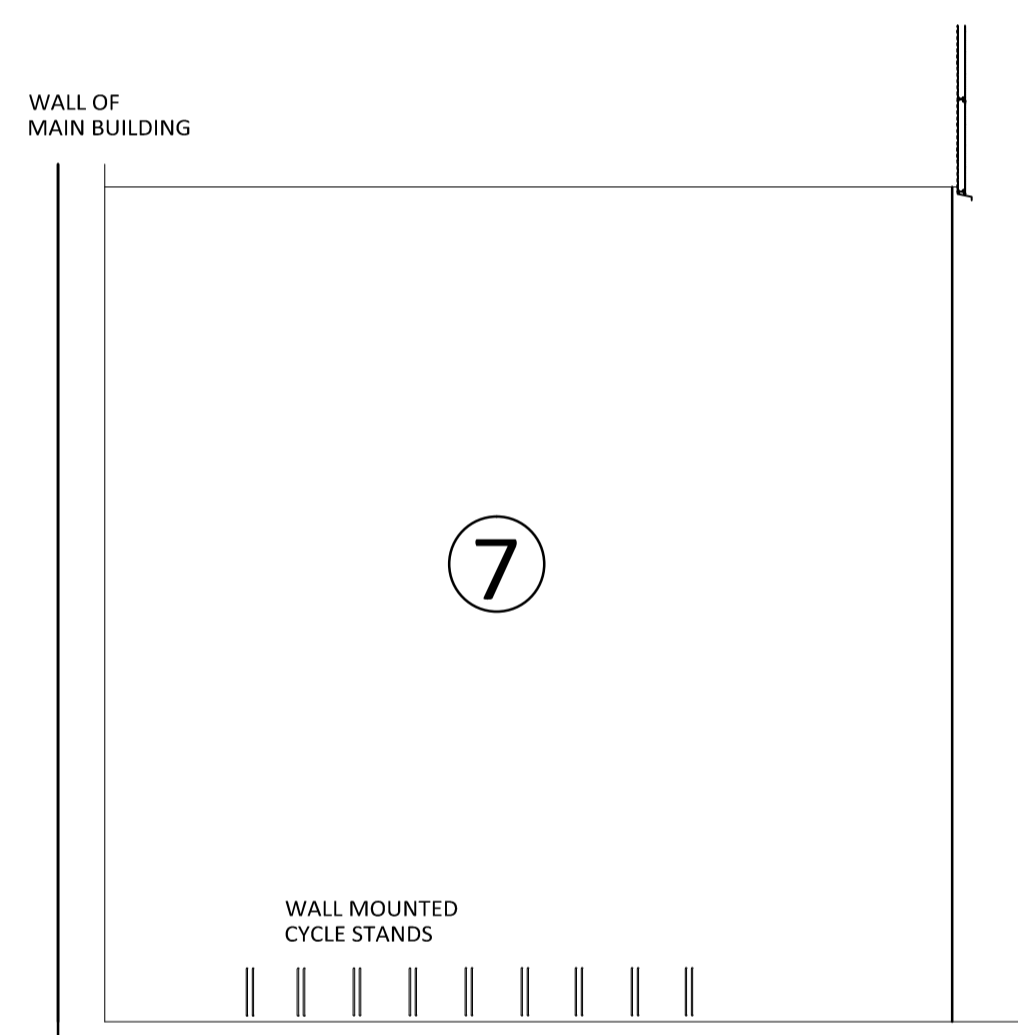
ELEVATION A



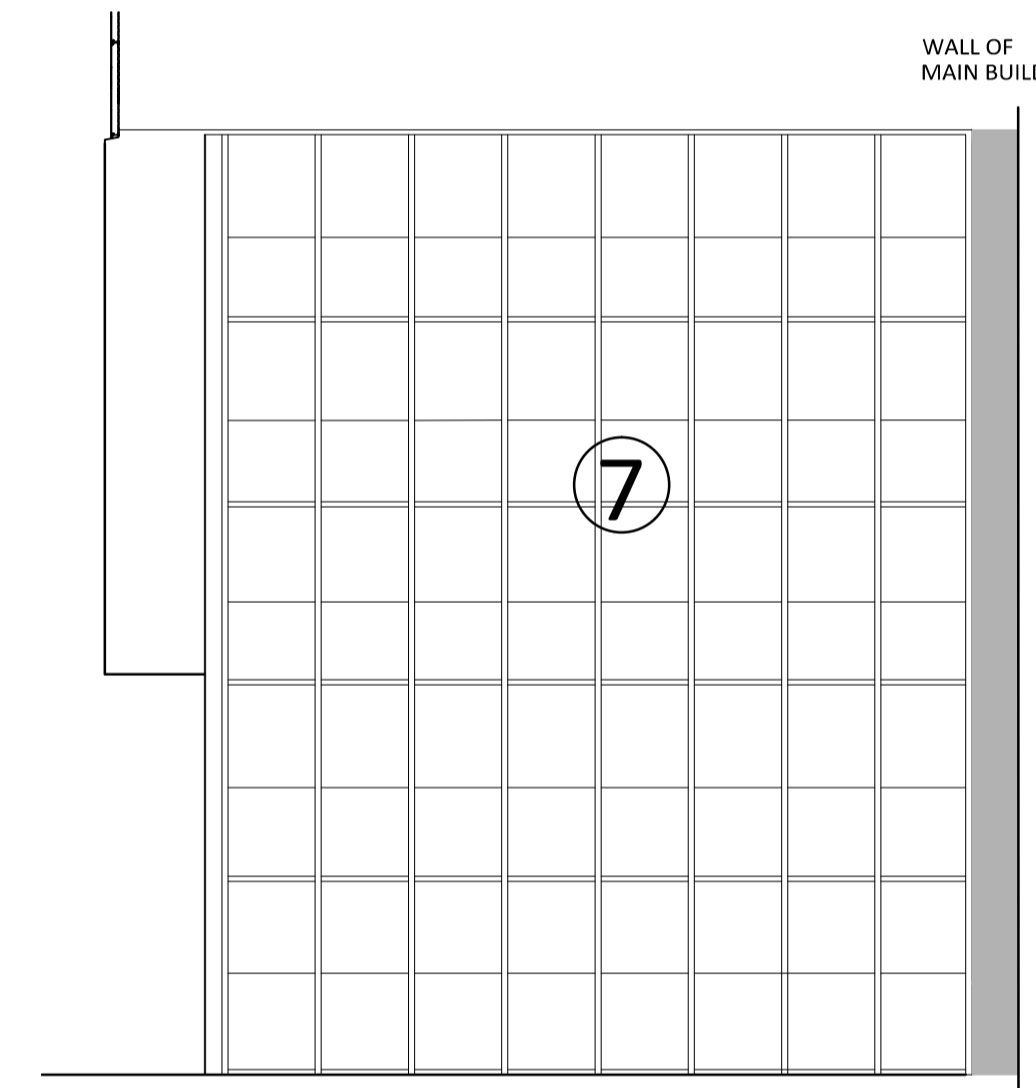
ELEVATION B



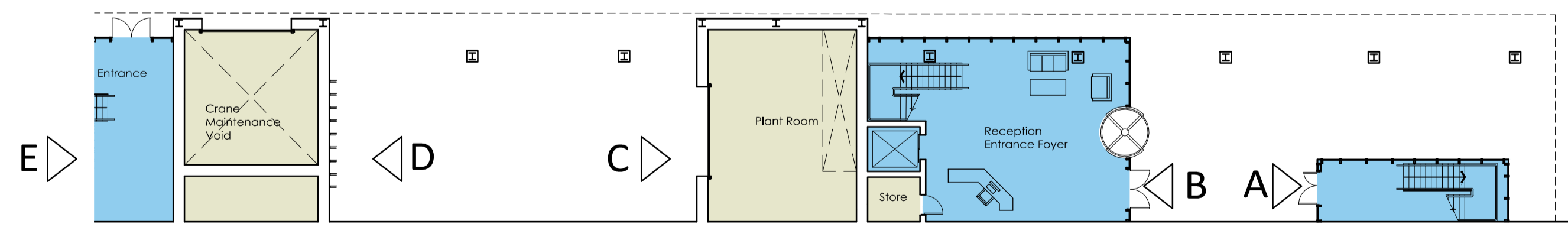
ELEVATION C



ELEVATION D



ELEVATION E



KEY PLAN

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SEE DRAWING 11034 PL35 FOR MAIN ELEVATION

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PLANNING

Revision / / /

Scale 1:100@A1

Status P

Drawn by PdeB

Date 30.09.11

Client
URBASER / BALFOUR BEATTY

Project
GLOUCESTERSHIRE RESIDUAL
WASTE PROJECT
Drawing Description
ADMINISTRATION BLOCK
ELEVATIONS

Drawing No. 11034 PL45 Rev. /



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Surface Water Drainage Principles/Notes

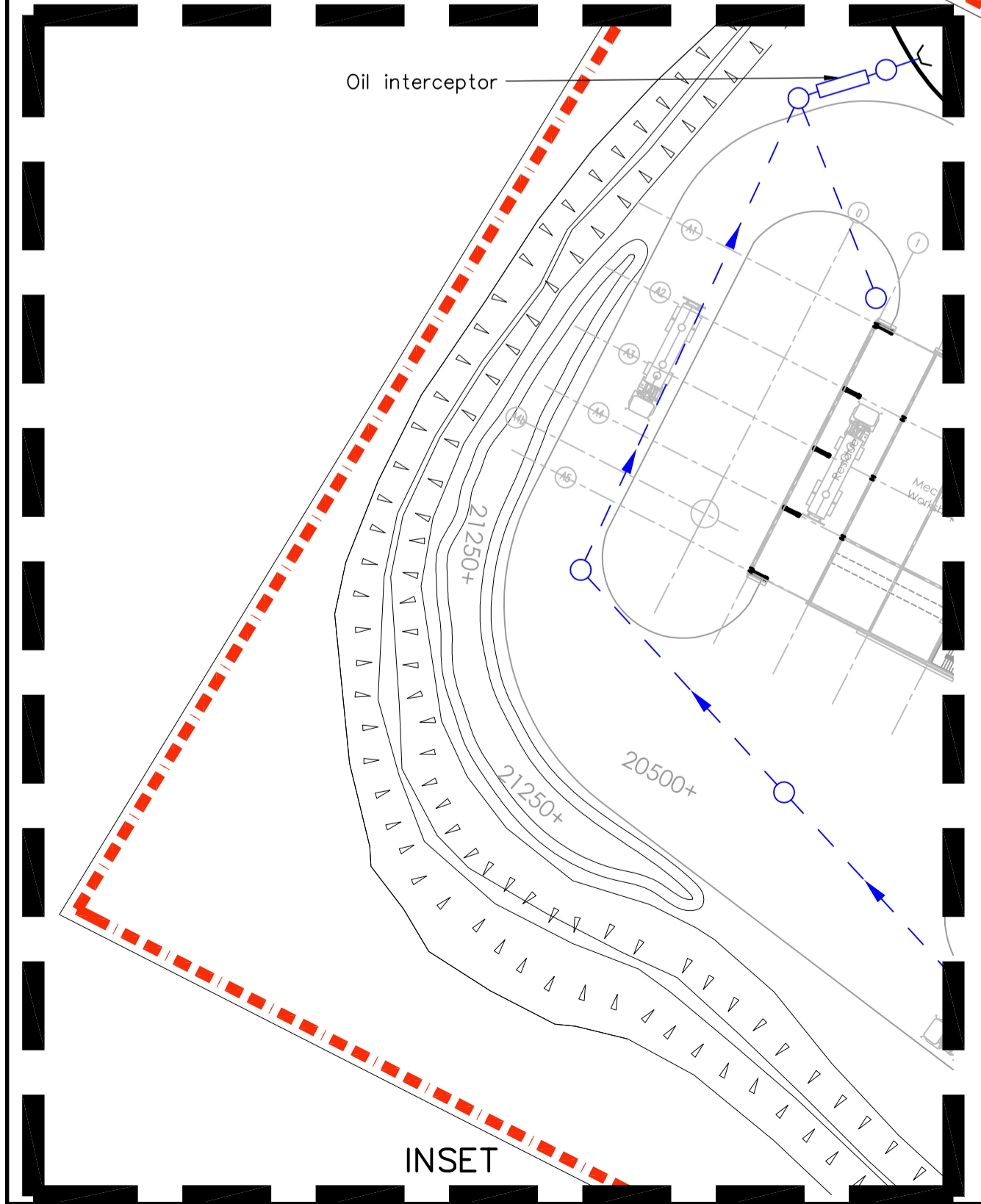
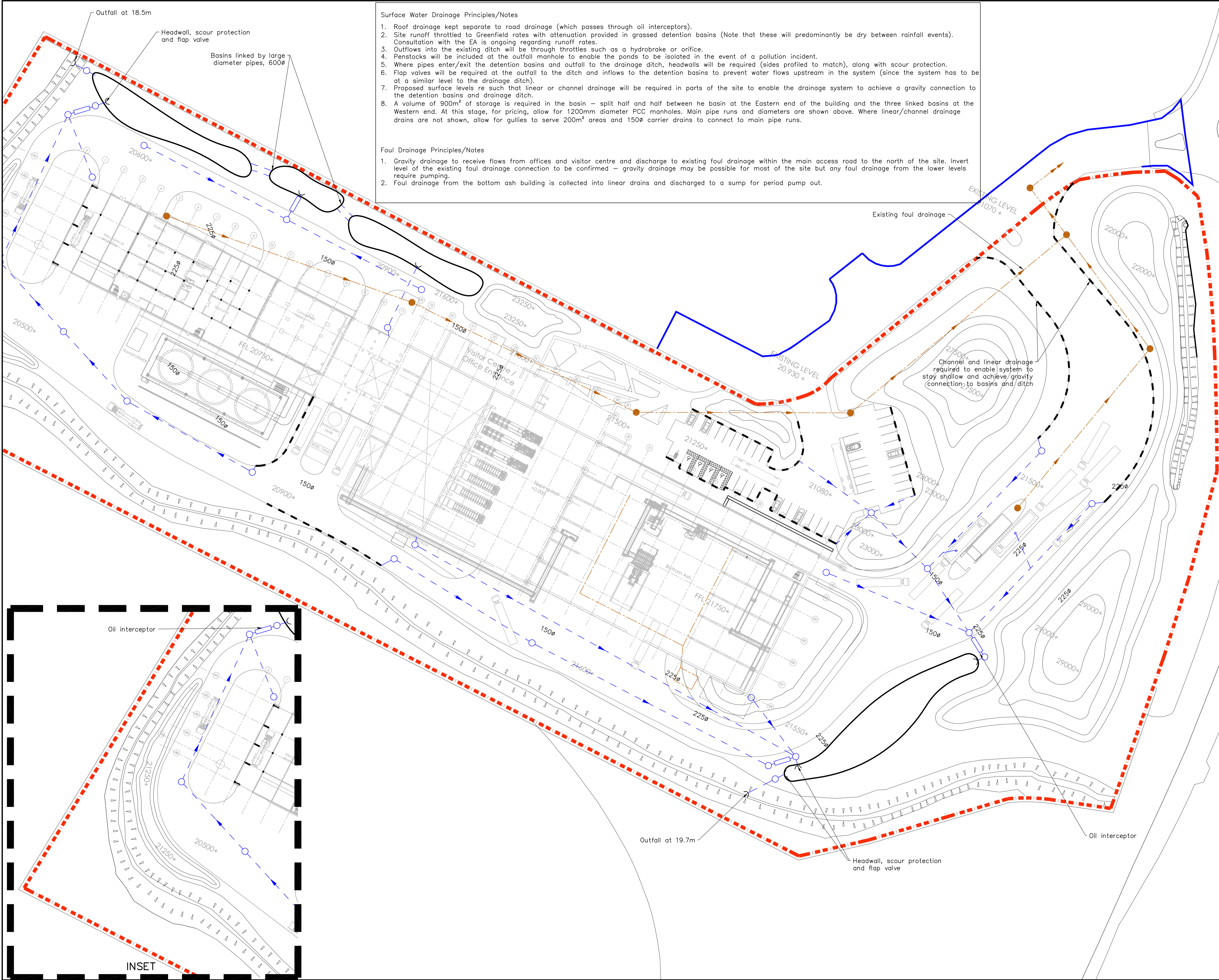
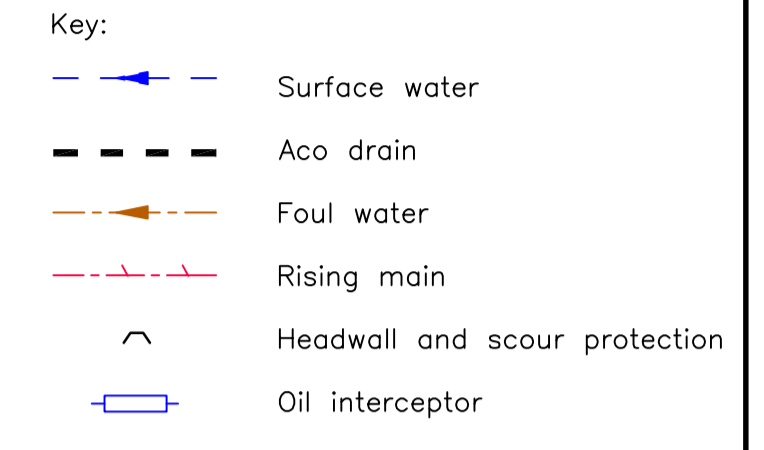
1. Roof drainage kept separate to road drainage (which passes through oil interceptors).
2. Site runoff throttled to Greenfield rates with attenuation provided in grassed detention basins (Note that these will predominantly be dry between rainfall events). Consultation with the EA is ongoing regarding runoff rates.
3. Outflows into the existing ditch will be through throttles such as a hydrobrake or orifice.
4. Penstocks will be included at the outfall manhole to enable the ponds to be isolated in the event of a pollution incident.
5. Where pipes enter/exit the detention basins and outfall to the drainage ditch, headwalls will be required (sides profiled to match), along with scour protection.
6. Flap valves will be required at the outfall to the ditch and inflows to the detention basins to prevent water flows upstream in the system (since the system has to be at a similar level to the drainage ditch).
7. Proposed surface levels re such that linear or channel drainage will be required in parts of the site to enable the drainage system to achieve a gravity connection to the detention basins and drainage ditch.
8. A volume of 900m³ of storage is required in the basin - split half and half between the basin at the Eastern end of the building and the three linked basins at the Western end. At this stage, for pricing, allow for 1200mm diameter PCC manholes. Main pipe runs and diameters are shown above. Where linear/channel drainage drains are not shown, allow for gullies to serve 200m² areas and 150Ø carrier drains to connect to main pipe runs.

Foul Drainage Principles/Notes

1. Gravity drainage to receive flows from offices and visitor centre and discharge to existing foul drainage within the main access road to the north of the site. Invert level of the existing foul drainage connection to be confirmed - gravity drainage may be possible for most of the site but any foul drainage from the lower levels require pumping.
2. Foul drainage from the bottom ash building is collected into linear drains and discharged to a sump for period pump out.

NOTES

1. This drawing should only be read in relation to subject of the title. Other information shown on drawing is to be considered indicative only. Reference should be made to appropriate drawing series for other information.
2. Do not scale from this drawing.



B	JW/LS/PAS	02.08.2011	FOR INFORMATION
A	JW/LS/PAS	25.07.2011	FOR INFORMATION
-	LS	JULY 2011	FOR INFORMATION
Rev	drawn/Chk/ app	Date	Description



Project
Gloucestershire County Council Residual Waste Project

Drawing Title
SCHEMATIC DRAINAGE LAYOUT



Scale (at A1)	Date	Drawn
1:500	JULY 2011	JW

Drng. no. **18917-SK-500-01** Rev. **B**

OVERVIEW SPECIFICATION:

All tree pits to be excavated to 900mm depth below proposed finished level and made available for inspection by landscape architect prior to backfilling. Bases and sides of tree pit excavations must be free draining.
 Tree pits shall be minimum 1500 x 1500mm in plan and backfilled with approved imported topsoil.
 Trees situated within lawn areas shall be surrounded by a 1500mm diameter circular grass free area covered with 75mm depth bark mulch.
 Ornamental and hedgerow planting areas shall be excavated to 400mm below proposed finished level and made available for inspection by landscape architect prior to backfilling with topsoil. Bases and sides of excavation must be free draining.
 Areas indicated as close mown amenity lawn shall have a minimum 150mm depth topsoil.
 Areas of woodland and scrub planting shall be planted in loose tipped soil material of minimum 400mm depth. Soils to be created by mixing appropriate site sourced subsoils with suitable organic products (eg. green waste compost) or through import of natural soil material. Composition of proposed soil material shall be subject to approval by project landscape architect in advance of soiling.
 Areas of conservation grassland shall be established on prepared site won material or imported low fertility soil material. Material to be subject to approval by project landscape architect.

All newly soiled areas (excepting conservation grassland) shall be ameliorated with 50mm depth approved organic material e.g. spent mushroom compost / green waste compost. Material shall be fine grade & must be well composted. Compost to be applied shortly prior to cultivation and incorporated evenly into top 150mm of soil.

All plant material shall consist of healthy stock with well balanced branch structures and well developed fibrous root systems. Planting generally shall accord with CPSE 'Handling and establishing landscape plants' (obtainable from the Horticultural Trades Association) Part III, paragraphs 6.2 to 6.6.
 Plant handling, storage and transport shall accord with CPSE 'Handling and establishing landscape plants' (obtainable from the Horticultural Trades Association) Part I, Part II and Part III, paragraphs 1.3.3 to 1.3.6, 3.0, and 4.0.

Lightly firm soil around plants and fork and/or rake soil, without damaging roots, to a fine tilth with gentle cambers and no hollows.
 Immediately after planting and prior to mulching, water all planting areas thoroughly to field capacity, without damaging or displacing plants or soil.

After watering, apply 75mm settled depth of Amenity grade bark mulch to all ornamental and hedgerow planting areas. (Sample to be provided for approval in advance of ordering)

Any plants that fail to thrive (unless due to theft or malicious damage after completion) during the period of 12 months following Practical Completion, will be regarded as defects due to materials or workmanship and shall be replaced with equivalent plants to match size of adjacent or nearby plants of same species or match original specification, whichever is the greater.

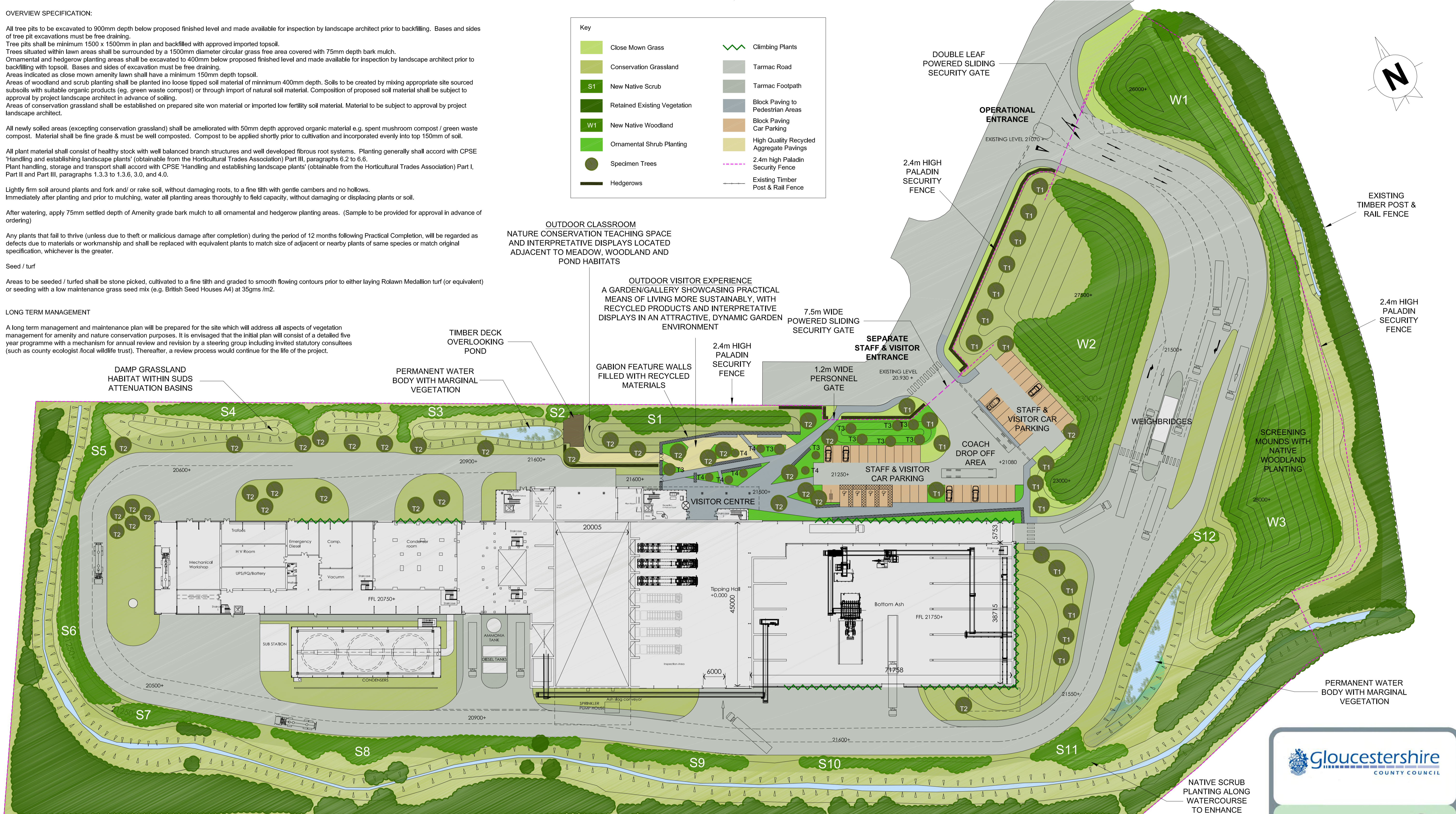
Seed / turf

Areas to be seeded / turfed shall be stone picked, cultivated to a fine tilth and graded to smooth flowing contours prior to either laying Rolawn Medallion turf (or equivalent) or seeding with a low maintenance grass seed mix (e.g. British Seed Houses A4) at 35gms /m2.

LONG TERM MANAGEMENT

A long term management and maintenance plan will be prepared for the site which will address all aspects of vegetation management for amenity and nature conservation purposes. It is envisaged that the initial plan will consist of a detailed five year programme with a mechanism for annual review and revision by a steering group including invited statutory consultees (such as county ecologist / local wildlife trust). Thereafter, a review process would continue for the life of the project.

Key	
	Close Mown Grass
	Conservation Grassland
	S1 New Native Scrub
	Retained Existing Vegetation
	W1 New Native Woodland
	Ornamental Shrub Planting
	Specimen Trees
	Hedgerows
	Climbing Plants
	Tarmac Road
	Tarmac Footpath
	Block Paving to Pedestrian Areas
	Block Paving Car Parking
	High Quality Recycled Aggregate Pavings
	2.4m high Paladin Security Fence
	Existing Timber Post & Rail Fence



SCRUB MIX		AREA												TOTALS		
		213	62	122	211	142	258	153	340	139	160	147	148	2095		
Tree Species (Density 1/5m²)	AGE / TYPE	ROOT	HEIGHT(cm)	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	TOTALS
40.0%	Acer campestre	fthd	BR	150-175	17	5	10	17	11	21	12	27	11	13	12	168
60.0%	Betula pendula	fthd	BR	150-175	26	7	15	25	17	31	18	41	17	19	18	251
Total Trees					43	12	24	42	28	52	31	68	28	32	29	419
Shrub Species (Density 1/1m²)	AGE / TYPE	ROOT	HEIGHT(cm)	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	TOTALS
25.0%	Crataegus monogyna	1+0	BR	60-80	43	12	24	42	28	52	31	68	28	32	29	419
15.0%	Salix caprea	0+1	BR	60-80	26	7	15	25	17	31	18	41	17	19	18	251
5.0%	Rosa canina	0+1	BR	60-80	9	2	5	8	6	10	6	14	6	6	6	84
5.0%	Ilex aquifolium	2L	C	40-60	9	2	5	8	6	10	6	14	6	6	6	84
40.0%	Corylus avellana	1+0	BR	40-60	68	20	39	68	45	83	49	109	44	51	47	670
10.0%	Cornus sanguinea	1+0	BR	40-60	17	5	10	17	11	21	12	27	11	13	12	168
Total Shrubs					170	50	98	169	114	206	122	272	111	128	118	1676

WOODLAND MIX		AREA				TOTALS		
		955	1636	1861	4452			
Tree Species (Density 1/5m²)	AGE / TYPE	ROOT	HEIGHT(cm)	W1	W2	W3	TOTALS	
25.0%	Fraxinus excelsior	fthd	BR	150-175	48	82	93	223
45.0%	Betula pendula	fthd	BR	150-175	86	147	167	401
15.0%	Quercus robur	fthd	BR	150-175	29	49	56	134
15.0%	Acer campestre	fthd	BR	150-175	29	49	56	134
Total Trees				191	327	372	890	
Shrub Species (Density 1/1m²)	AGE / TYPE	ROOT	HEIGHT(cm)	W1	W2	W3	TOTALS	
20.0%	Crataegus monogyna	1+0	BR	60-80	153	262	298	712
20.0%	Salix caprea	1+0	BR	60-80	153	262	298	712
6.0%	Rosa canina	1+0	BR	60-80	46	79	89	214
36.0%	Corylus avellana	1+0	BR	60-80	275	471	536	1282
12.0%	Ilex aquifolium	2L	C	40-60	92	157	179	427
6.0%	Viburnum opulus	1+1	BR	60-80	46	79	89	214
Total Shrubs				764	1309	1489	3562	

Specimen Trees & Shrubs & climbing & hedge plants		AREA				TOTALS
		955	1636	1861	4452	
Specimens	AGE / TYPE	ROOT	Height / Girth(cm)	Quantity		
T1	Carpinus betulus	EHS	RB	18-20 (g)	21	
T2	Betula emmanii	fthd	RB	250-300 (h)	33	
T3	Amelanchier lamarkii	fthd	RB	150-175(h)	9	
T4	Hamamelis mollis	fthd	BR	125-150(h)	6	
Total				69		
Hedges	length (m)	Quantity (5/m)	Linear length of hedge			
	Carpinus betulus	1+2	BR	80-100	650	130
Climbers				Linear length of 'living wall'		
	Hedera colchica Dentata	2L	40/60	100	200	
	Parthenocissus quinquefolia	2L	60/80	100	200	

Ornamental planting (indicative planting palette)		Quantity	
Asteria sp.			
Aquilegia sp.			
Carex sp.			
Dryopteris sp.			
Euphorbia sp.			
Geranium phaeum album			
Heuchera sp.			
Matteuccia struthiopteris			
Polystichum sp.			
Total number of plants			c. 3900-6500

CONSERVATION GRASSLAND SEEDING
 Supplier: Emorsgate Seeds or similar approved.
 Mixture reference: General purpose wildflower mix modified as appropriate in consultation with project ecologist and consultees to maximise potential to support and increase invertebrate population. SUDS basins to be seeded with damp meadow species

Gloucestershire COUNTY COUNCIL

Balfour Beatty urbaser

Gloucestershire County Council Residual Waste Project

Title: PROPOSED LANDSCAPE PLAN
Drawing No: GCC-ISRS-LAN-942-03-01
Scale: 1:500@A1