

IMPLEMENTATION AND MAINTENANCE GUIDELINES

1.0 GENERAL

All plants shall conform to BS 3703, and be in accordance with the National Plant Specification. Supplying nurseries shall be registered under the NPL Nursery Control Scheme. All plants shall be packed and transported in accordance with the Code of Practice for Plant Handling as produced by CPSE. Planting shall not be carried out when the ground is waterlogged, frosted or during periods of cold drying winds. All bare root stock shall be root dipped in an approved water-retaining polymer.

If the formwork level is compacted it should be ripped through before topsoiling.

Topsoil depths to be 100mm for shrub beds and 150mm for grass areas.

2.0 ORNAMENTAL SHRUBS AND TREES

2.1 Ground Preparation
Where necessary treat existing weeds with a glyphosate based herbicide and allow a suitable period as recommended by the manufacturer for this to take effect. A general purpose slow release fertiliser at the rate of 75g/m² and Tree Planting and Mulching Compost at the rate of 200kg/m² are to be incorporated into the top 150mm of topsoil during final site works. All non-soil matter such as plastic, wood, metal and stones greater than 50mm in any dimension shall be removed from site.

Tree pits are to be excavated and the base broken up a further 150mm with the sides well scarified to prevent smearing. All trees up to and including selected standards are to be supported with single 30mm diameter stakes. All rootball, container grown and trees over heavy standard size shall be double staked. Any feature trees some mature in size to be secured with a below ground anchoring system back as a standard anchor. Stakes should be driven 500mm into undisturbed ground before planting the tree, taking care to avoid underground services and cables.

2.2 Planting
Shrubs and hedges are to be set out as shown on the drawing and pit planted into the prepared soil at the specified centres with minimal disturbance to the rootball or to the well structure.

Trees are to be placed into the pits and back filled with topsoil incorporating slow release fertiliser and Tree Planting and Mulching Compost as specified. Firm trees in well and secure with proprietary rubber tree ties and spacers.

Water in all trees and shrubs at the end of each day of planting.

Spread ornamental pine bark mulch to a depth of 75mm across all new planting areas, ensuring groundcover plants are not buried.

2.3 Maintenance
The landscape contractor shall maintain all areas of new planting for a period of 12 months following practical completion. All stock deemed to be dead, dying or diseased within the defects period shall be replaced by the contractor at his own cost.

The site is to be visited monthly throughout the year to undertake the following operations:

Weed clearance: All planting areas are to be kept weed free by hand weeding or herbicide treatment.

Fertiliser: All trees to be removed from planting beds.

Watering: Planting areas are to be brought up to field capacity at each visit and each tree to receive 20 gallons.

Checking: Plants are to be checked up to field capacity at each visit and each tree to receive 20 gallons.

Checking trees: All trees and stakes are to be checked and adjusted if too loose, too tight or if chaffing is occurring. Any broken stakes are to be replaced.

Formative pruning: Any damaged shoots/branches are to be pruned back to healthy wood. Plants are to be pruned in accordance with good horticultural practice to maintain healthy well-shaped specimens.

3.0 NATIVE HEDGE PLANTING

3.1 Setting Out
The hedge line shall be set out using 30x30x1200 stakes at maximum 50m intervals and all herbaceous material within 100mm of the centre line shall be sprayed out using an approved herbicide at least two weeks before planting.

3.2 Preparation
The 800mm wide hedge line shall be cultivated to 150mm incorporating Enmag or equal at 75g/m².

3.3 Planting
Plants shall be north planted in two rows 250mm apart and staggered at 300mm centres. All plants are to be protected with a 400mm proprietary shelter secured with a stake/cane and ties as recommended by the manufacturer.

3.4 Maintenance
Main approved herbicides at 800mm wide swathe control on the hedge line shall be kept weed free throughout the maintenance period.

Each Autumn after planting and until hedges to the adjoining activity, the contractor will prepare a list of all plants which are dead, dying or diseased and will replace these plants during the following planting season.

4.0 GRASS

4.1 Preparation
The areas to be seeded shall be sprayed out with a glyphosate herbicide and cultivated to a depth of 100mm removing all weeds, debris and stones over 20mm diameter. The surface shall be raked to smooth flowing contours with a fine riddle, incorporating pre-seeding fertiliser at 70 g/m².

4.2 Turf
Turfing operations shall be in accordance with BS 4438.

Whole turves shall be laid around the perimeter of the area to be turfed. The central area shall be laid in rows with staggered joints, well butted together, working from planks positioned on turves already laid. The turf shall be watered on completion. Any unevenness shall be made good by lifting the turf and adjusting the levels. Should shrinkage occur, the topsoil shall be brushed into the joints.

4.3 Seeding
Grass seed shall be sown in April during calm weather and not when the ground is too hard or waterlogged. Seed shall be sown in two equal rows in transverse directions at 20 g/m². After sowing the contractor shall lightly rake the seed into the substrate with the soil. All seed mixers to be specified in accordance with those set out in the approved management plan.

4.4 Initial cut
When newly sown areas reach 50mm they should be cut back to a height of 50mm and then cut twice annually in early Spring and late Summer. All wastings shall be removed or spread evenly across grassland. Any bare patches shall be made good at the time.

5.0 TOPSOIL

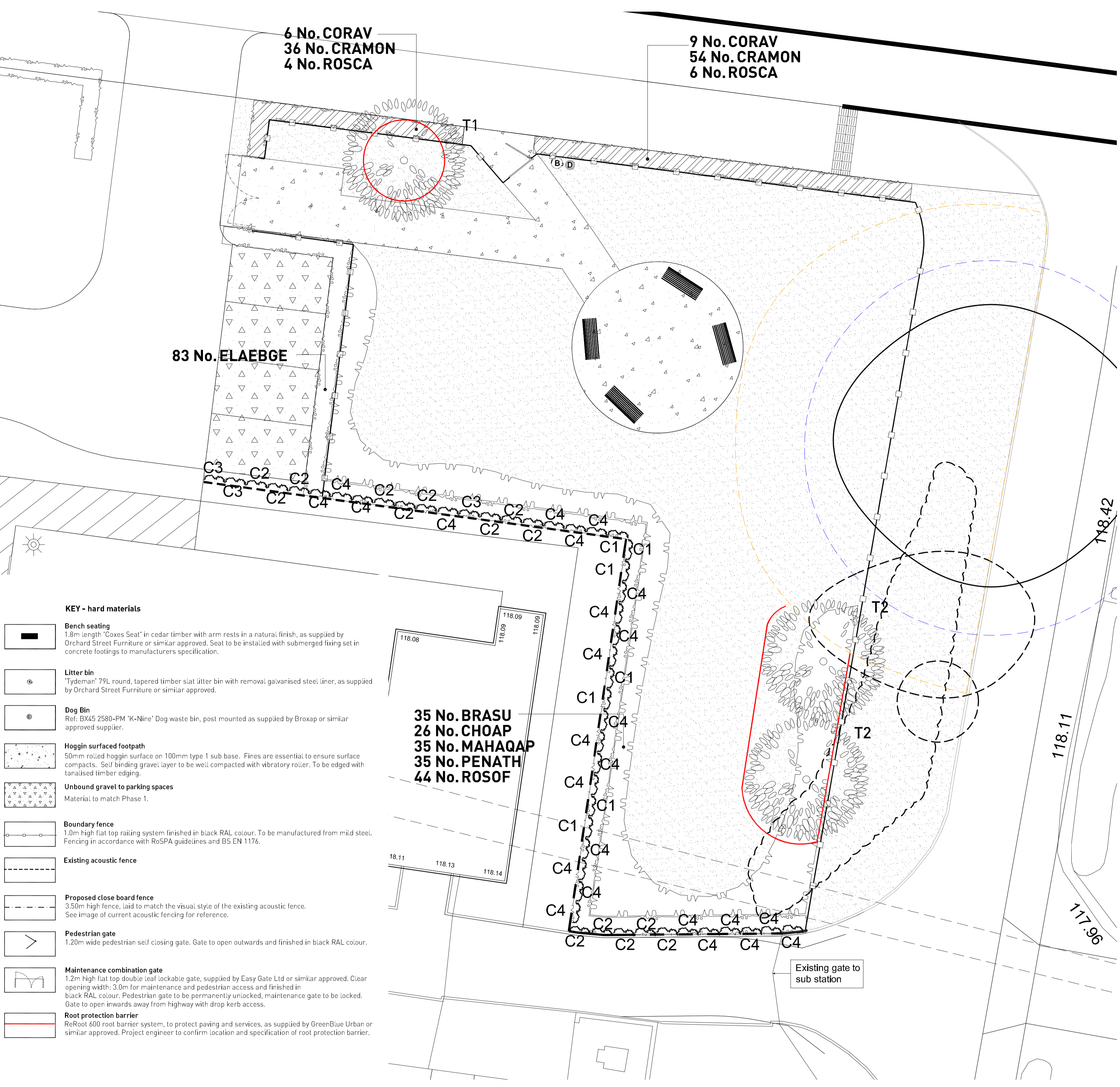
5.1 Existing Topsoil
Pre-planting herbicide application:
Apply by suitable spraying apparatus, an approved translocated systemic herbicide to the manufacturer's instructions and to 1997 Control of Pesticides Regulations and 2002 COSHH regulations on all beds, except those which are both weed free and are to receive agricultural sheet mulch. Spray immediately if any weeds are present. If none are showing, but there may be a delay before planting, or the areas to be seeded, spray after one month following cultivation, to allow dormant seed to germinate. All spraying shall be carried out by skilled and qualified operators using protective clothing. In suitable weather (no wind and any damage caused by spray drift, from incorrect usage or spillage, shall be notified at the contractor's own cost, insofar as necessary to ensure complete kill and make up of all dead material from site.

Carry out the following works to the existing topsoil on site to ensure it conforms to BS 3882:2015, being free from roots larger than 20mm diameter, concrete, all roots, wire, brick, and more than 20% clay. Allow for pre-application of herbicide as above. Fertilise with 100g per meter square of 18-4-12 NPK slow release fertilizer, in accordance with the manufacturer's instructions. For beds less than 5 meters in width, fork over thoroughly or machine rotavate soil to a depth of 300mm, ensuring that the substrate and topsoil are completely broken up and free draining, ridding any compaction. For beds greater than 5 meters in width, break up the substrate and topsoil using a tractor mounted subsoiler or ripper at 300mm centres to a depth of 300mm, except where there are services or within 10 meters of tree stems or 2 meters of existing hedges. Do not rip areas where roots greater than 10mm diameter are encountered.

5.2 Imported Topsoil
Any imported topsoil for making up ground, shall conform to BS 3882:2015, and be free from roots over 20mm diameter, concrete, roots, wire and brick, and have less than 20% clay.



Current acoustic fencing



- KEY - hard materials**
- Bench seating**
1.8m length 'Coxes Seat' in cedar timber with arm rests in a natural finish, as supplied by Orchard Street Furniture or similar approved. Seat to be installed with submerged fixing set in concrete footings to manufacturers specification.
 - Litter bin**
'Tydeman' 79L round, tapered timber slat litter bin with removal galvanised steel liner, as supplied by Orchard Street Furniture or similar approved.
 - Dog Bin**
Ref: EX45 2580-PM 'K-Nine' Dog waste bin, post mounted as supplied by Broxap or similar approved supplier.
 - Hoggin surfaced footpath**
50mm rolled hoggin surface on 100mm type 1 sub base. Fines are essential to ensure surface compacts. Self binding gravel layer to be well compacted with vibratory roller. To be edged with tanalised timber edging.
 - Unbound gravel to parking spaces**
Material to match Phase 1.
 - Boundary fence**
1.0m high flat top railing system finished in black RAL colour. To be manufactured from mild steel. Fencing in accordance with RoSPA guidelines and BS EN 1176.
 - Existing acoustic fence**
 - Proposed close board fence**
3.50m high fence, laid to match the visual style of the existing acoustic fence. See image of current acoustic fencing for reference.
 - Pedestrian gate**
1.20m wide pedestrian self closing gate. Gate to open outwards and finished in black RAL colour.
 - Maintenance combination gate**
1.2m high flat top double leaf lockable gate, supplied by Easy Gate Ltd or similar approved. Clear opening width: 3.0m for maintenance and pedestrian access and finished in black RAL colour. Pedestrian gate to be permanently unlocked, maintenance gate to be locked. Gate to open inwards away from highway with drop kerb access.
 - Root protection barrier**
ReRoot 600 root barrier system, to protect paving and services, as supplied by GreenBlue Urban or similar approved. Project engineer to confirm location and specification of root protection barrier.

- KEY**
- Soft landscape proposals**
See plant schedule for details.
 - Existing trees/vegetation to be removed**
 - Existing trees/vegetation to be retained**
Root protection area (blue) and adjusted root protection area (yellow) to compensate for paving. Levels to be retained unchanged within RPAs.
 - Areas of grass seed**
Amenity grass seed mix to informal areas.

PLANT SCHEDULE

REF	TREES SPECIES	SUPPLY	SIZE(cm)	GIRTH(cm)	CTRS(m)
T1	Fagus sylvatica f. purpurea	SM	500	20/25	as shown
T2	Carpinus betulus 'Frans Fontaine'	EHStd	450/650	18/20	as shown

All trees to be planted in accordance with the implementation and maintenance guidelines. The tree planting schedule and landscape proposals must be referred to by the Structural Engineer during foundation design. No tree species, size or location should be altered without prior approval from the Landscape Architect.

NATIVE HEDGE MIX

ABBR	SPECIES	SUPPLY	SIZE(cm)
CORAV	Corylus avellana	T 1-1	60/80
CRAMON	Crataegus monogyna	2x Fthd	125/150
ROSCA	Rosa canina	T 1-1	60/80

Hedgerow shrubs to be supplied as bareroot stock unless stated and to be planted in accordance with the implementation and maintenance guidelines. The landscape proposals must be referred to by the Structural Engineer during foundation design. No hedgerow shrub species, size or location should be altered without prior approval from the Landscape Architect. Hedgerow shrubs to be planted on a double staggered row, 250mm apart with no less than 6 per linear metre within a 50cm wide bed and mulched in accordance with implementation and maintenance guidelines. The leaved Hawthorn is to have a upright central stem furnished with evenly spread and balanced lateral growth the full length of the stem. Shrubs to be attached to a double line support (one for leaved Hawthorn at 1m high and one for hazel and dog rose at 60cm high) fence using an approved clip tie and cut back to 1m in height at time of planting.

SINGLE SPECIES HEDGEROWS - for screening

ABBR	SPECIES	SUPPLY	SIZE(cm)	HABIT	CTRS(m)
ELAEBGE	Elaeagnus ebbingei 'Gilt Edge'	3L	40/60	Bushy	0.70

All hedgerow shrubs to be planted in accordance with the implementation and maintenance guidelines. The landscape proposals must be referred to by the Structural Engineer during foundation design. No hedgerow shrub species, size or location should be altered without prior approval from the Landscape Architect. Hedgerow shrubs to be planted in a single row within a 50cm wide bed and mulched in accordance with implementation and maintenance guidelines.

LAP SHRUB MIX

ABBR	SPECIES	SUPPLY	SIZE(cm)	HABIT	CTRS(m)
BRASU	Brachyglottis 'Sunshine'	2L	20/30	Bushy	0.70
CHOAP	Chaioya 'Aztec Pearl'	2L	20/30	Bushy	0.70
MAHAQAP	Mahonia aquifolium 'Apollo'	2L	20/30	Bushy	0.70
PENATH	Pennisetum alopecuroides 'Haremin'	2L	-	Bushy	0.70
ROSOF	Rosmarinus officinalis	2L	20/30	Bushy	0.70

All shrubs to be planted in accordance with the implementation and maintenance guidelines. No shrub species, size or location should be altered without prior approval from the Landscape Architect. Individual species to be planted in groups of 3-7.

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CLIMBERS - To electric sub station buffer

ABBR	SPECIES	SUPPLY	SIZE(cm)	HABIT
C1	Hydrangea anomala subsp. petiolaris	2L	150/175	Trellis Framework
C2	Jasminum nudiflorum	25L	60/100	Trellis Framework
C3	Lonicera x heckrottii 'Gold Flame'	25L	60/80	Trellis Framework
C4	Ceanothus thyrsiflorus 'Concha'	20L	150/175	Trellis Framework

All feature climbers to be planted in accordance with the implementation and maintenance guidelines. No feature shrub species, size or location should be altered without prior approval from the Landscape Architect.

M-118/03/2019 JBI Amendments to plant specifications and gates/railings.
L-11/02/2019 API Updated to client comments.
K-12/11/2018 JBI Updated to client comments.
J-12/02/2018 LBI Updated to suit latest Arb report at client request.
H-18/01/2018 LBI Updated to suit client comments.
G-17/01/2018 LBI Updated to suit client comments.
F-15/01/2018 LBI Updated to suit client comments.
E-13/11/2017 LBI Drawing title change at client request.
D-10/11/2017 LBI Close board fence information updated as client request.
C-10/11/2017 LBI Updated to suit client comments.
B-12/10/2017 LBI Updated to suit client comments.
A-12/10/2017 LBI Updated to suit client comments and latest layout.
Revisions:
First Issue-31/08/2017 LB