

PRELIMINARY M&E SPECIFICATION

Fire detection & alarm
Fire detection and alarm system to be provided as per IS:3218-2013. System to be grade D system i.e. An installation of self-contained mains-powered smoke & heat alarms each provided with an integral standby power supply. Where multiple units are provided all devices shall be interconnected so that detection of fire by any one unit will provide an audible alarm from each unit. Installation interconnections may be by radio or wiring. Where radio interconnection is used, manufacturer's recommendations on testing of signal strength/reception at each device shall be carefully followed and records kept.

Smoke heat alarms should be sited according to the following provisions:
(a) In circulation areas, no door to a habitable room should be further than 7.5 m from the nearest smoke alarm.
(b) Smoke and heat alarms should preferably be fixed to the ceiling, at least 300 mm from any wall or light fitting. The method of fixing and location/spacing should take into account instructions provided by the manufacturer of the alarms.
(c) It should be possible to reach all smoke and heat alarms to carry out, easily and safely, routine maintenance such as testing and cleaning. Instructions on maintenance requirements should be provided with all smoke alarm systems.
(d) A heat detector is to be provided in kitchen areas in accordance with the relevant provisions of I.S. 3218: 2013.
(e) All smoke detectors to be mains powered with battery back-up. All batteries to be "10 year" type

Heating
Space and water heating to be provided by air to water heat pump (to be sized and specified by BER assessor/M&E Engineer) with integrated hot water cylinder. Space heating to be supplied by low temperature, Aluminium, radiators at first floor level. Under floor heating on ground floor level. Heating controls to be full time and temperature zone controls with minimum of 3 heating zones (generally hot water, bedrooms and living areas.)

GENERAL NOTES

1. Provide level access at the front and rear of house and include min. 1m wide clear opening.
2. Provide capped electrical points for future installation of front door illumination adjacent to internal doors, above and beside window heads and at skirting level (for future automatic devices such as assisted door openings, ceiling hoists and automatic curtain/blind opening.)
3. Ensure sockets and switching (and window sils) are further 500mm from an internal corner and are at levels that are within easy reach and view for everyone should be allowed.
4. Provide a minimum of CAT 5 Cabling and ducting to every room.
5. Consider easy control and use of systems and the capability to integrate smart technology, energy efficient and security system or assistive technology.
6. In the entry level toilet, ensure that it is sufficient for future installation of a level access walk in shower including walls of adequate strength to take future fittings such as handrails and shower seat. Below floor drainage, level access, moisture resistance plaster board and light fittings and tanking of floor and walls up to height of 2m will also be necessary. Ensure that provision is made for future adaptation to a shower room including the features listed for the entry level toilet.
7. Provide a soft spot for future installation of access door to a bedroom or to a walk in shower/toilet.
8. Provide hard spots in the ceiling for future hoist installation.
9. Ensure that all fixtures and fittings are age friendly such as lever door handles and lever taps.
10. Provide a beam at ceiling level ground floor as part of the rear wall to allow future extension in exceptional cases where design layouts cannot incorporate a future downstairs walk in shower and a future room for conversion to bedroom.
11. All electrical installations to comply with NSAI: 5th Edition National Rules for Electrical Installations, IS 10101:2020.

CAR PARK SPECIFICATION

Sub-base foundation to car park
Foundations shall be constructed using hard, clean, crushed frost-resistant aggregates, laid on geotextile material. The grading of the sub-base material must be such as to provide stability. The material laid in layers not exceeding 150mm, each layer being compacted before the next is laid. The minimum compacted thickness of sub-base stone should be 200mm. Upon completion there should be no detectable movement under the roller. The sub-base material should be compacted to the requirements of BS 5835- 1:1980 - Recommendations for testing of aggregates. Compaction test for graded aggregates The surface level tolerance should be within ±10mm of the design level, and, when checked with a 3000mm straight edge, there should be no deviation greater than 10mm.

Sub-base foundation to footpaths
Footpath foundations shall be constructed using hard, clean, crushed frost resistant aggregates, laid on geotextile material. The grading of the subbase material must be such as to provide stability. The minimum compacted thickness of sub-base stone should be 100mm. Upon completion there should be no detectable movement under the roller. The sub-base material should be compacted to the requirements of BS 5835-1:1980 - as above The surface level tolerance should be within ±10mm of the design level, and, when checked with a 3000mm straight edge, there should be no deviation greater than 10mm.

Perimeter Edging
Excavate for, supply and lay 125mm x 150mm bullnosed hydraulically pressed pre-cast concrete kerbs to outer edge of area, allowing for a 25mm upstand above wearing course. They shall be haunched in concrete. The maximum gap between the outer kerb face and any adjacent perimeter fencing shall be 10mm. The haunching shall incorporate movement joints at appropriate spacing. Tolerance on pre-cast concrete kerbs to be within +/- 3mm to design level and +/- 3mm to line, under a 3000mm straight edge, gaps not to exceed 3mm.

Base construction
Design the base of the Car Park to meet the following criteria.
□ It should be capable of supporting – and transmitting – the loads of all vehicles, plant, machines and materials to be used in the construction, without causing deformation of the site.
□ On completion, the base should be capable of supporting and transmitting all loads on the surface without permanent or long-term deformation of the surface.
□ Ensure that water, whether rainwater or natural ground water, will drain away freely, either into the natural subsoil or into the drainage. Engineered bases are the traditional form of road construction consisting of a single course or two courses of open-textured bituminous macadam to BS EN 13108 .

Asphalt base construction
A base course consisting of 60mm nominal compacted thickness (minimum compacted thickness not less than 40mm at any point) of 14mm or 20mm nominal-sized aggregate plus a binder course consisting of 30mm nominal compacted thickness (minimum compacted thickness not less than 20mm at any point) of 6mm nominal sized aggregate, both to BS EN 13108 and PD 6691:2010 - Guidance on the use of BS EN 13108 Bituminous mixtures. Material specifications shall be laid to the whole of the car park, all to design levels and design tolerances of +/- 3mm under a 3000mm straight edge. Bitumen binder grade no softer than 300 penetration, preferably 200 penetration, is to be used. Laying in cold, wet or windy weather conditions should therefore be avoided and any double handling. The tolerance of the surface shall not exceed +/- 3mm under a 3000mm straight edge.

Wearing Course
Asphalt wearing course to be provided at a gradient of 3° towards storm water outlets. Wearing course to be min 25mm thick with a combined basecourse and wearing course depth of min 40mm. Bitumen content of 70% required

Line Marking
Allow for the marking of parking bays and any IN and OUT arrows and text, in WHITE thermoplastic paint in. VISITORS ONLY and DISABLED bays should be clearly marked in appropriate colours.

Reinstatement generally
The Contractor shall carry out the work while soil and weather conditions are suitable and leave the site in a clean and tidy condition. All damage caused to surrounding areas and surfaces shall be reinstated in full to the satisfaction of the Architect. All hard areas shall be reinstated using similar materials to the existing, and to the satisfaction of the Architect.

On grass areas the ground shall be prepared by ridge roller or other means, approved by the Architect. Difficulties can arise when topsoil stored is poor quality and has not been protected from heavy rainfall. Supervision of groundworks during the final very busy stages of a project is critical.

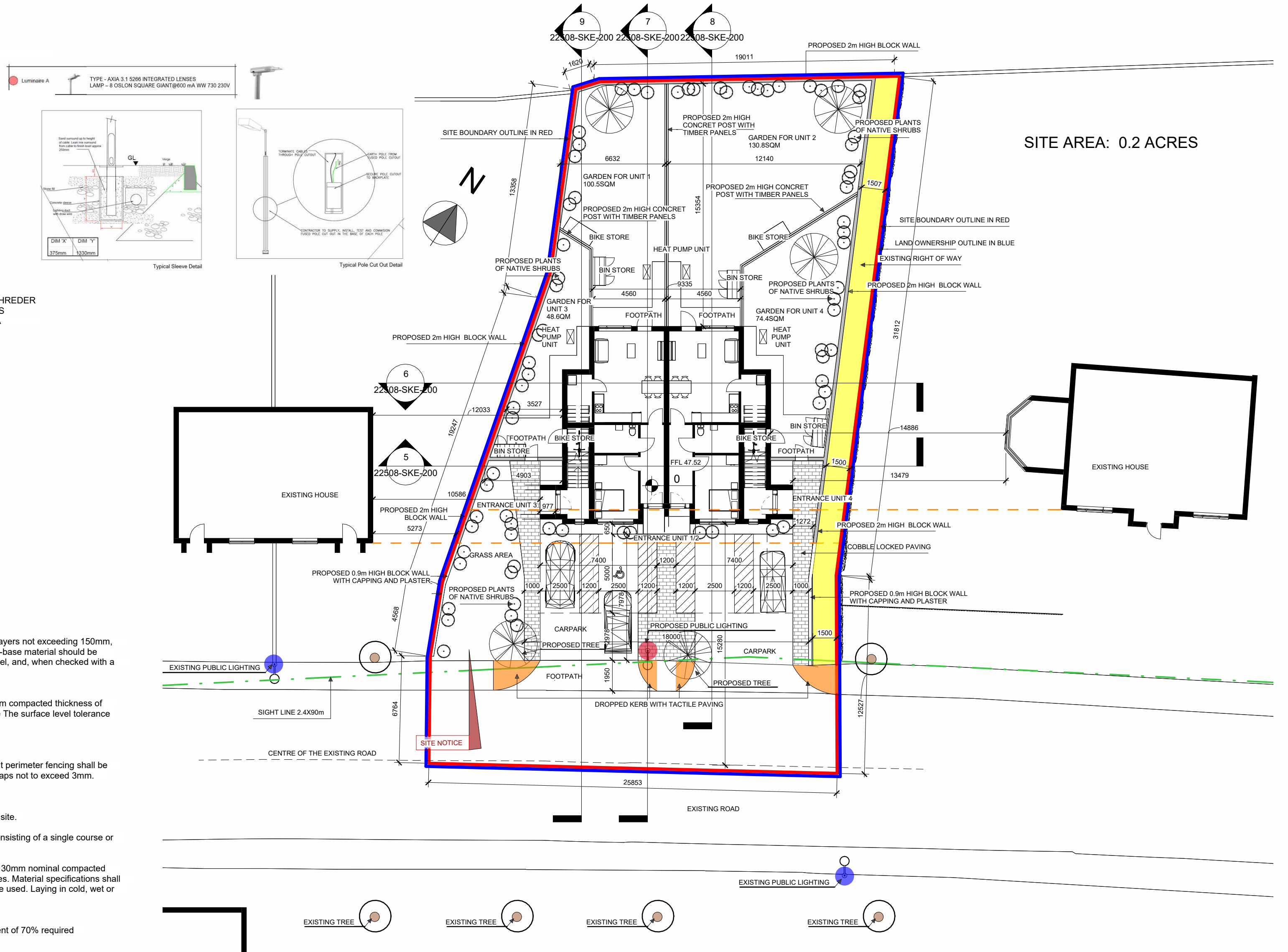
Seeding
□ Break up compacted topsoil to full depth.
□ Reduce top 100 mm of topsoil to a tith suitable for blade grading, particle size 10 mm (maximum).
□ For the reinstatement of disturbed ground allow for carrying out a thorough stone picking before seeding. Remove stones and clay balls larger than permissible maximum stone size of 50 mm in any dimension together with roots, tufts of grass, rubbish and debris
Following rolling, the ground shall be lightly harrowed in order to produce an acceptable tith and a mixture of Chewing Fescue Highlight 20% or equivalent and Majestic Perennial Rye Grass 80% shall be sown at a rate of 28g/m² and worked into the soil by harrowing or raking as appropriate. Following seeding the ground shall be lightly flatter rolled until the surface is firm and then watered. The Contractor shall retain responsibility for watering the ground, as required to establish the sward, until handover. Consideration needs to be given to the support of seeding by carrying out turfing at edges.

Turf edging to seeded areas
Before sowing lay turfs to BS 3969: 1998 - Recommendations for turf for general purposes, with no perennial ryegrass and of a similar seed composition to the seeded area.
□ Prepare and rake back a 750 mm wide margin around prepared seed beds
□ Seed bed level to be married in with turf
□ Place a single row laid end to end and trimmed to a line
□ Water on completion

Turfing on banks exceeding 30° slope
□ Configuration of turfs to be Diagonal or horizontal
□ Secure turfs with fixings of either:
Pointed softwood pegs, 200 mm long x 25 mm square,
or
Galvanized wire pins, bent or hairpin pattern, 200 mm long x 4 mm diameter
□ Fixings to be every fourth row, slopes greater than 1 in 3 to be secured every second row
□ When turf is thoroughly self anchored by its roots, remove fixings and make good any damage to grass until area is accepted

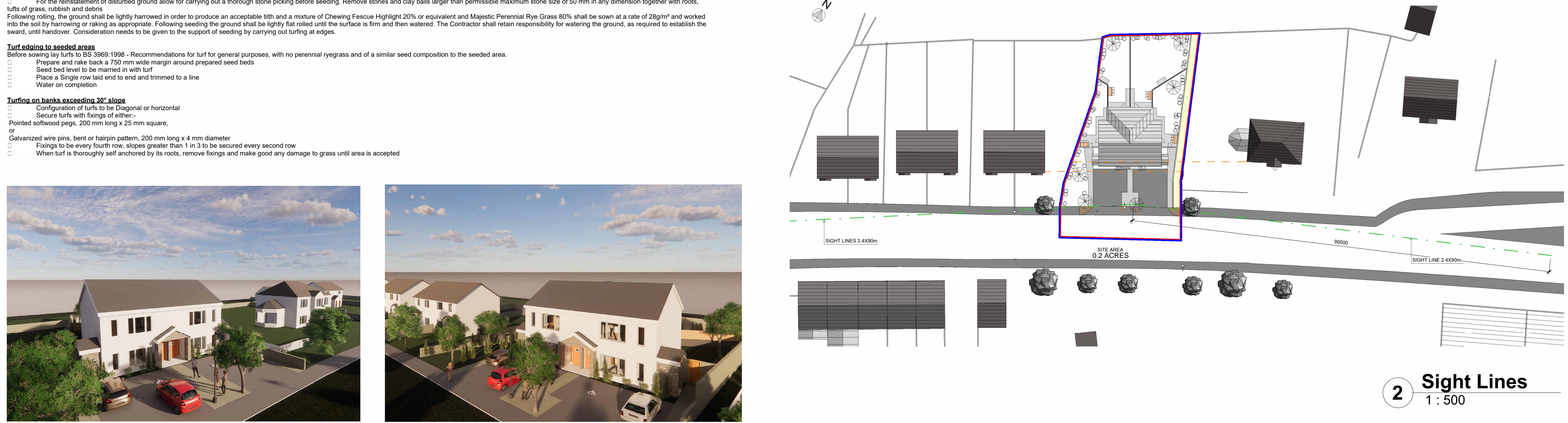
LANDSCAPING LEGEND

- EXISTING TREE TO BE RETAINED
- PROPOSED NATIVE TREE
- PROPOSE PLANTS OF NATIVE SHRUBS
- EXISTING HEDGE
- EXISTING PUBLIC LIGHTING
- PROPOSED PUBLIC LIGHTING - URBSIS SCHREDER
TYPE - AXIA 3.1 5266 INTEGRATED LENSES
LAMP - 8 OSLOL SQUARE GIANT@600 mA
WW 730 230V



SITE AREA: 0.2 ACRES

1 Site Layout
1 : 200



2 Sight Lines
1 : 500

Rev	Description	Date

CODE	SUITABILITY DESCRIPTION
STATUS	PURPOSE OF ISSUE



PROJECT
**Residential Units
Drumsna Co. Leitrim**

TITLE
Site Layout & Sight Lines

CLIENT
Leitrim County Council

DRAWN BY Janine	CHECKED BY XXXX	DATE 09/19/22
SCALE (@ A1) As indicated	PROJECT NUMBER 22508	
DRAWING NUMBER 22508-SKE-300	REV	