WARNING

No part of this plan should be used for critical design dimensions. Confirmation of critical positions should be obtained from Harper Somers O'Sullivan Pty Ltd.

LEGEND

- Parkland / Bushland / Open Space
- Creeks
- APZ
- Level 1 Construction Standard
- Level 2 Construction Standard
- Level 3 Construction Standard

0 200 400m

TITLE: Figure 8-1 Construction Standards
Estate 3

CLIENT: Coal & Allied Operations Pty Ltd

PLANNING SURVEYING ECOLOGY

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SCALE:	1: 6100 at A3 Size	**DRAWN:** A.Saddington	**APPROVED:** M.Doherty
DATUM:	MGA Zone 56 (GDA 94)	**DATE:**	4/11/2008
CONTOUR INTERVAL:	N/A	**JOB REF:**	24530-2

LAYOUT REF:J:\JOBS\24k\24530 Hunter Valley\Drafting\Bushfire\Northern Lands\ ALL WORKSPACES\Report Figures\24530-2 Fig8-1 construction estate 3 A

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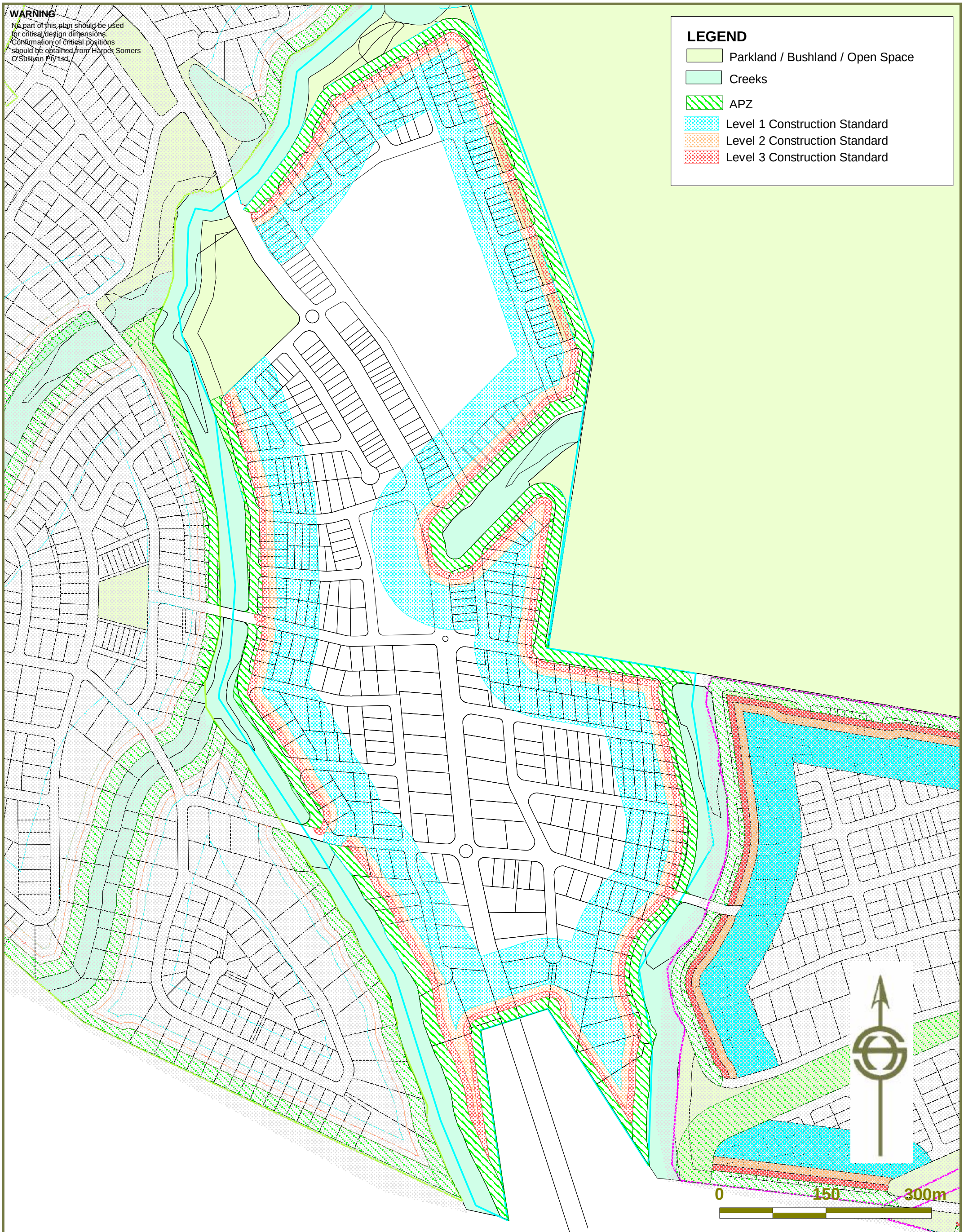

TITLE: Figure 8-1 Construction Standards
Estate 4

CLIENT: Coal & Allied Operations Pty Ltd

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SCALE: 1: 4800 at A3 Size **DRAWN:** A.Saddington **APPROVED:** M.Doherty

DATUM: MGA Zone 56 (GDA 94) **DATE:** 4/11/2008

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CONTOUR INTERVAL: N/A

JOB REF: 24530-2

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APPENDIX A Building Requirements

Appendix 4

BUILDING REQUIREMENTS FOR BUSH FIRE PROTECTION

(Incorporating key components of AS3959 Construction of Buildings in Bushfire-prone Areas)

	LEVEL 1 CONSTRUCTION	LEVEL 2 CONSTRUCTION	LEVEL 3 CONSTRUCTION	FLAME ZONE *Note; Reference to additional site requirement will be necessary for this category. For example; water supply, access, shielded egress*
Flooring systems	• Concrete slab on ground • Enclosed suspended floors - no requirements • Open subfloors; Bearer greater than 600mm above ground – no requirements Bearer less than 600mm above ground require either the floor frame to be protected by non-combustible sheets or timber floor frame to be fire retardant	As for level 1	As for level 2 except that for open subfloors timber floor framing is required to be fire retardant	All floors are to be fully enclosed with a non-combustible material
Supporting posts, columns, stumps, piers and poles	• Non-combustible • Fire retardant treated timber treated up to 400mm above finished ground level • Timber mounted on galvanised metal shoes that provide a clearance of 75mm above finished ground or paving	As for level 1	As for level 2 except that timber in unenclosed floor spaces shall be fire retardant-treated to full height	All floors are to be fully enclosed with non-combustible material All other posts on attached or adjacent structures shall be non-combustible
External Walls	Must have an external leaf with either one or a combination of; • Masonry, concrete, pise, rammed earth or stabilised earth • A frame wall that incorporates either a sarking or insulation material immediately behind the cladding • A wall of timber logs gauge planed and the space between the logs sealed to prevent burning debris and to allow for building movement Combustible leaf or cladding must be greater than 400mm above finished ground	As for level 1 except that; • PVC cladding is not permitted • External timber wall cladding shall be of fire retardant-treated timber	As for level 2	• External walls shall not include any combustible material • Additional radiant heat protection such as non-combustible fencing or shielding and or a drenching water system

Windows *Note; A vertical dormer window or clerestory is regarded as a normal window, not a rooflight*	Openable windows shall be screened with mesh max. aperture 1.8mm that remains in place while the window is open; • Aluminium • Bronze • Corrosion resistant steel	As for level 1 except that aluminium shall not be used In addition, timber shall be fire retardant-treated timber except where protected by non-combustible shutters. Leadlight windows are to be protected by shutters	As for level 2 except that where windows are not protected by non-combustible shutters they shall be glazed with toughened glass	As for level 3 except that non-combustible shutters or windows constructed to withstand 40kw/m^2 radiant heat exposure for 3 minutes shall be provided on the elevation exposed directly to the hazardous vegetation
External Doors	External doors shall be fitted with; • Draught excluders, and • Tight fitting door screens fitted with; - Aluminium - Bronze - Corrosion resistant steel	As for level 1 except that aluminium shall not be used If leadlight glazing panels are incorporated in the doors, they shall be protected by shutters constructed of a non-combustible material or of toughened glass	As for level 2 except that; • Timber doors shall be fire retardant treated timber or covered in a non-combustible covering **OR** protected with non-combustible shutters **OR** shall be solid core having a thickness of not less than 35mm • Sliding glass doors may be treated as for windows • If glazing panels are incorporated they shall be of toughened glass	As for level 3 except that non-combustible shutters or glazing constructed to withstand 40kw/m^2 radiant heat exposure for 3 minutes shall be provided on the elevation exposed directly to the hazardous vegetation

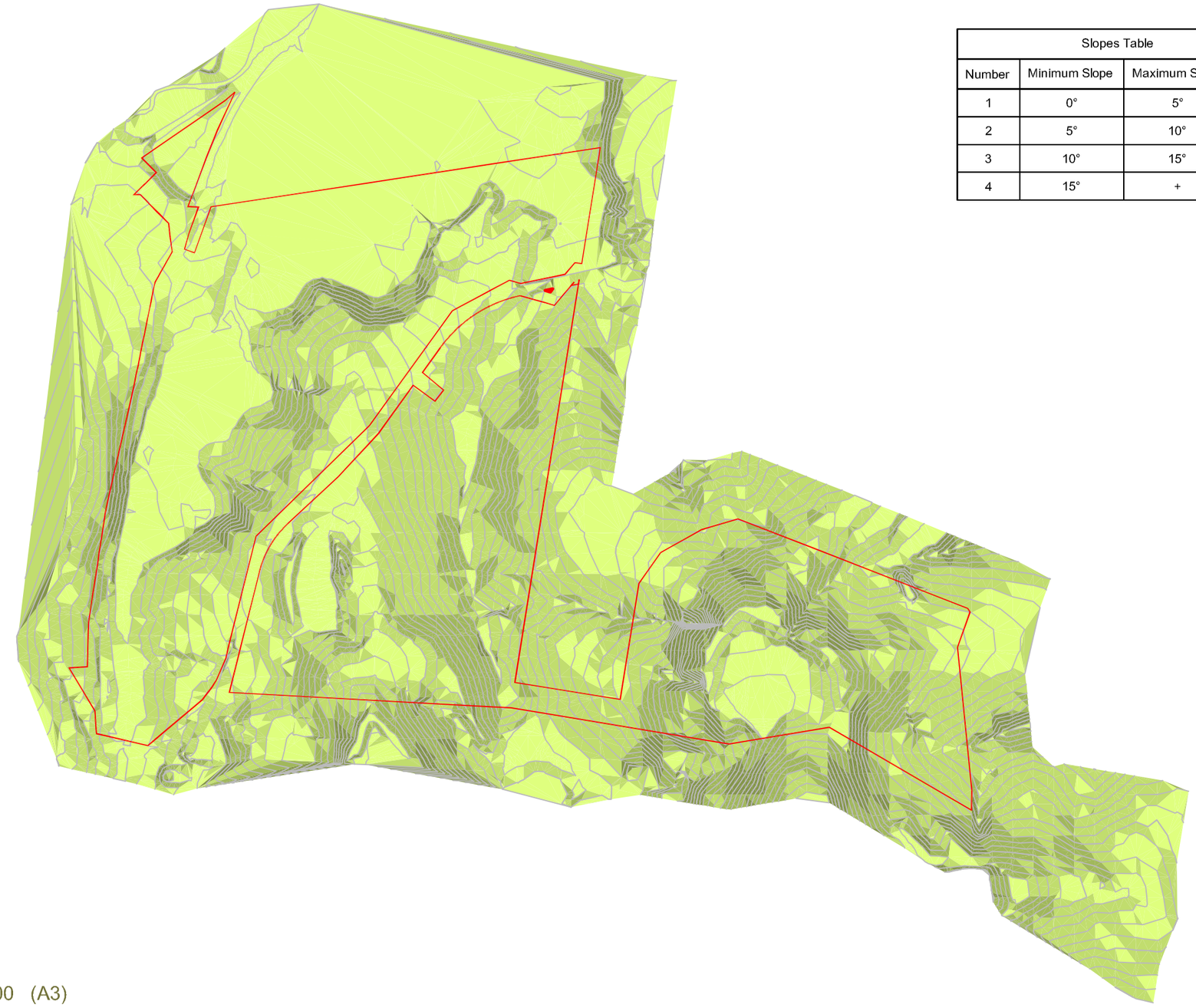
	LEVEL 1 CONSTRUCTION	LEVEL 2 CONSTRUCTION	LEVEL 3 CONSTRUCTION	FLAME ZONE *Note; Reference to additional site requirement will be necessary for this category. For example; water supply, access, shielded egress*
Vents and Weepholes	Vents and weepholes shall be protected with spark guards made from 1.8mm mesh that is either; • Aluminium • Bronze • Corrosion resistant steel	As for level 1 except that aluminium shall not be used	As for level 1 except that aluminium shall not be used	As for level 3
Roofs	Sheeted roofs –Only metal or fibre-cement sheet shall be used. Gaps to be sealed or protected by; • Fully sarking the roof with sarking with a flammability index of not more than 5 or • Providing corrosion resistant steel or bronze mesh, profiled metal sheet, neoprence seal, compressed mineral wool or similar material • Rib caps and ridge caps shall be sealed using methods outlined in the AS3959 • Tiled roofs shall be provided with sarking • Shingles and shakes shall not be used • All roofing shall be non-combustible	As for level 1 construction except that all roof sheeting shall be non-combustible and sarked	As for level 2 construction except that fibre-reinforced cement or aluminium shall not be used.	As for level 3
Roof lights *Note; A vertical dormer window or clerestory window is regarded as a normal window, not a rooflight*	All penetrations of the roof space for the installation of roof lights and associated shafts shall be sealed with a non-combustible sleeve or lining Thermoplastic sheet in a metal frame may be used for a roof light, but in a diffuser installed at ceiling level shall be wired or toughened glass in a metal frame. Vented rooflights shall be provided with corrosion resistant steel or bronze mesh.	As for level 1 except that rooflight glazing shall be of wired glass Thermoplastic or toughened glazing shall not be used	As for level 2	As for level 2 except that glazing shall be required to withstand 40kw/m^2 radiant heat exposure for 3 minutes

Ventilators	All components must be non-combustible and shall be protected against the entry of sparks and embers with corrosion resistant steel or bronze mesh.	As for level 1	As for level 2	As for level 3 except that roof ventilators shall not be permitted on the plane of the roof nearest to the unmanaged vegetation
Roof mounted evaporative cooling units	Roof mounted evaporative cooling units shall only be used if openings to the cooling unit are encased in corrosion resistant steel or bronze mesh	As for level 1 except that the case of the evaporative cooler shall be of non-combustible material	As for level 2	As for level 3 except that roof mounted evaporative cooling units shall not be permitted on the plane of the roof nearest to hazardous vegetation
Eaves	Eaves shall be enclosed and the fascias or the gaps between the rafters shall be sealed	As for level 1 except that all timber eaves lining and joining strips shall be of fire-retardant treated timber	As for level 2 except that aluminium shall not be used	As for level 3 except that all materials shall be non-combustible
Fascias	No requirements	Fascias are to be either non-combustible or fire-retardant treated timber	As for level 2 except that no fibre-reinforced cement or aluminium sheet shall be used.	As for level 3 except that all materials shall be non-combustible
Gutters and Downpipes	Any materials or devices used to stop leaves collecting in the gutters shall have a flammability index of not greater than 5 when tested in accordance with AS1530.2	As for level 1	As for level 2	As for level 3
Service Pipes (Water and Gas)	All exposed piping, for water and gas supplies, shall be of metal. Pipes of other materials shall be buried to a depth of at least 300mm below finished ground level	As for level 1	As for level 2	As for level 3

	LEVEL 1 CONSTRUCTION	LEVEL 2 CONSTRUCTION	LEVEL 3 CONSTRUCTION	FLAME ZONE *Note; Reference to additional site requirement will be necessary for this category. For example; water supply, access, shielded egress*
Verandas and Decks	No timbers shall be allowed to directly connect with the remainder of the dwelling **Slab** SUSPENDED SLAB; supported by posts, columns, stumps, piers and poles that are protected by- • Non-combustible material • Fire retardant treated timber treated up to 400mm above finished ground level • Timber mounted on galvanised metal shoes that provide a clearance of 75mm above finished ground or paving • **OR** Enclosed against the entry of embers. The enclosure shall be non-combustible within 400mm of the finished ground level	As for level 1, except that if spaced decking is used, it shall be non-combustible or fire-retardant-treated timber	As for level 2 except that all materials shall be non-combustible or where timber is used, it shall be fire-retardant-treated including any balustrades	As for level 3 except all materials shall be non-combustible including, treads risers, balustrade and any other attachments on the side of the dwelling exposed to the unmanaged vegetation
	SHEET OR TONGUE AND GROOVE FLOOR; is acceptable where bearer is greater than 600mm above ground (see protection for supports above) A sheet or tongue and groove floor that is less than 600mm above finished ground at any point shall be enclosed. This enclosure shall be non-combustible where it is within 400mm of the finished ground level. SPACED DECKING; shall have a clearance of at least 5mm between adjacent timbers. The external perimeter of the decking shall not be enclosed nor shall access to the space beneath the decking be impeded. (see protection for supports above)	As for level 1, except that if spaced decking is used it shall be non-combustible or fire-retardant-treated timber.	As for level 2 except that all materials shall be non-combustible or where timber is used, it shall be fire-retardant-treated including any balustrades	As for level 3 except all materials shall be non-combustible including, treads risers, balustrade and any other attachments on the side of the dwelling exposed to the unmanaged vegetation

source: Infill Development in Bush Fire Prone Areas, Blue Mountains City Council

APPENDIX B Slope Assessment Maps for Development Estates



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2	5°	10°	
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MGA

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TITLE: SLOPE CLASS MAP
SITE
HUNTER VALLEY

CLIENT:

SCALE: 1 : 8000 (A3)

DATE: 5TH AUGUST 2008

DATUM:
ORIGIN:

DRAWN: E.CHESTERSON APPROVED: S.BISHOP

SURVEYOR:

CONTOUR INTERVAL: 2m SHEET 1 OF 1

AUTOCAD REF: 24530-SLOPE SITE
LAYOUT REF:

JOB REF: 24530

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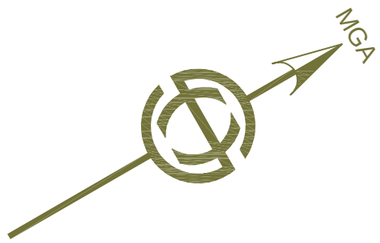

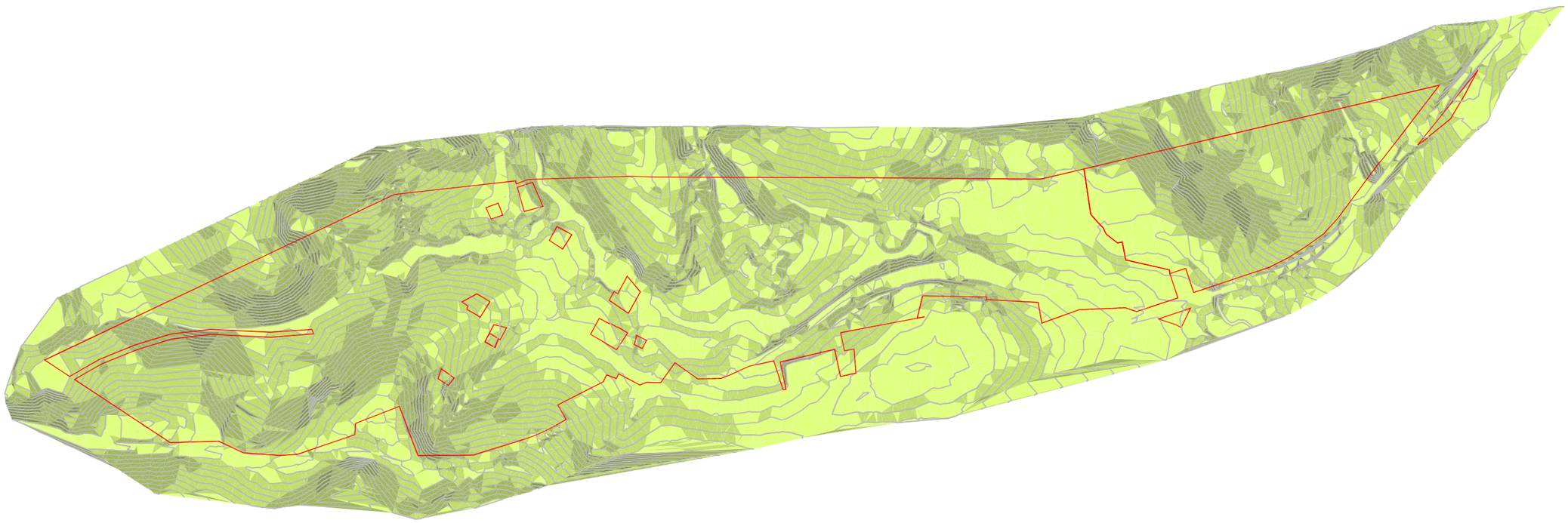

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TITLE: SLOPE CLASS MAP
SITE 2
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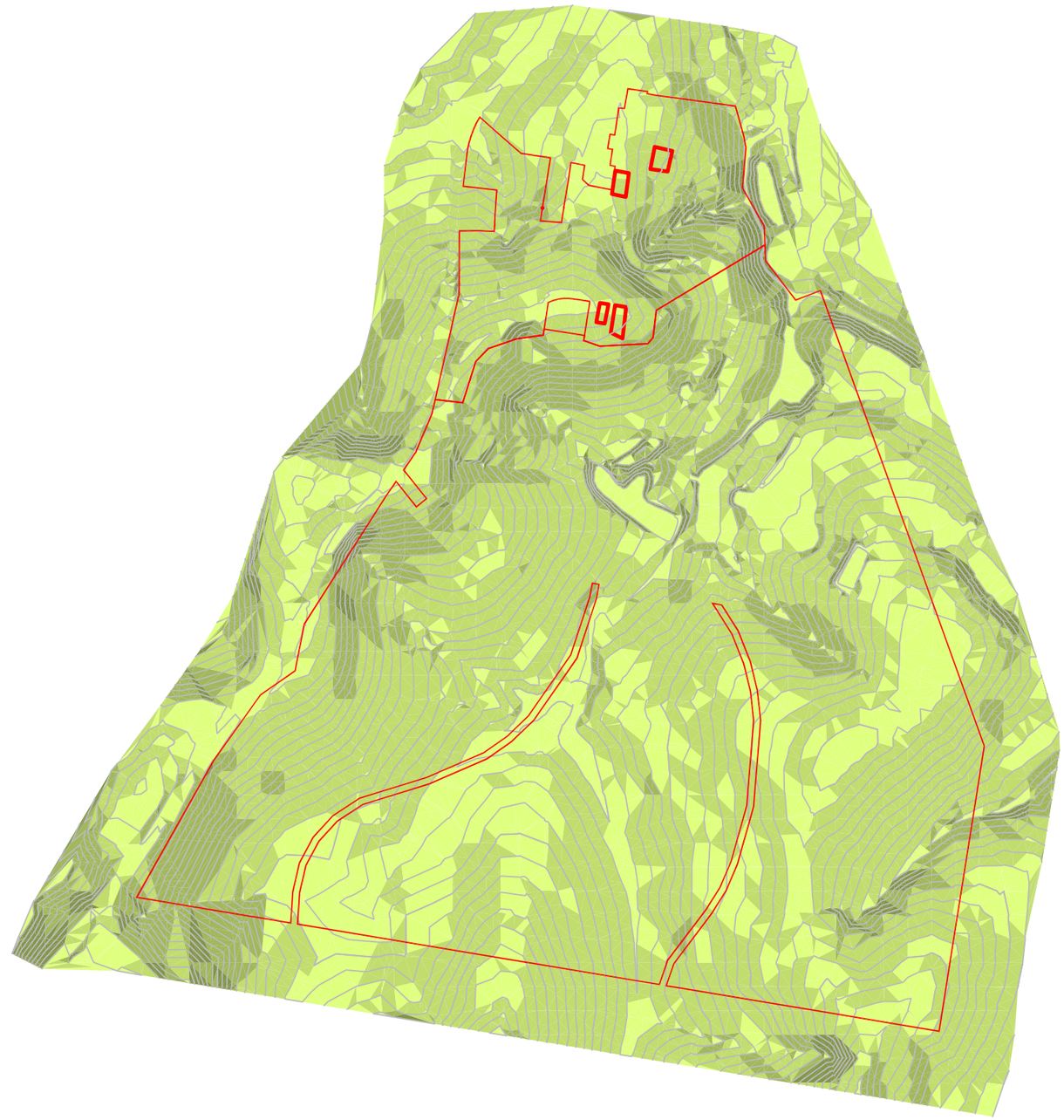

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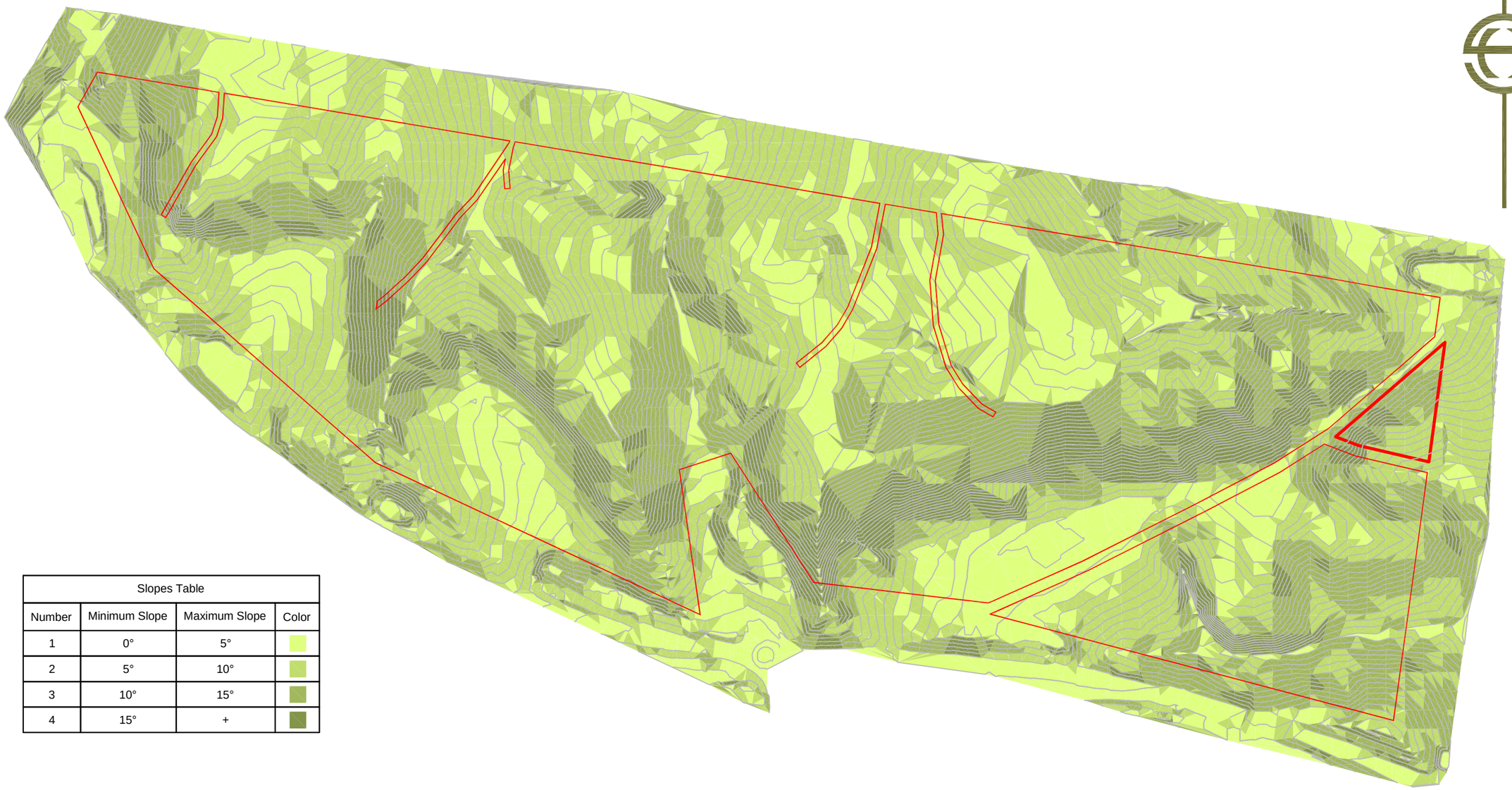

Slopes Table			
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4	15°	+	

SCALE 1 : 8000 (A3)

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TITLE: SLOPE CLASS MAP
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AUTOCAD REF: 24530-SLOPE SITE 4 & 5
LAYOUT REF:
JOB REF: 24530

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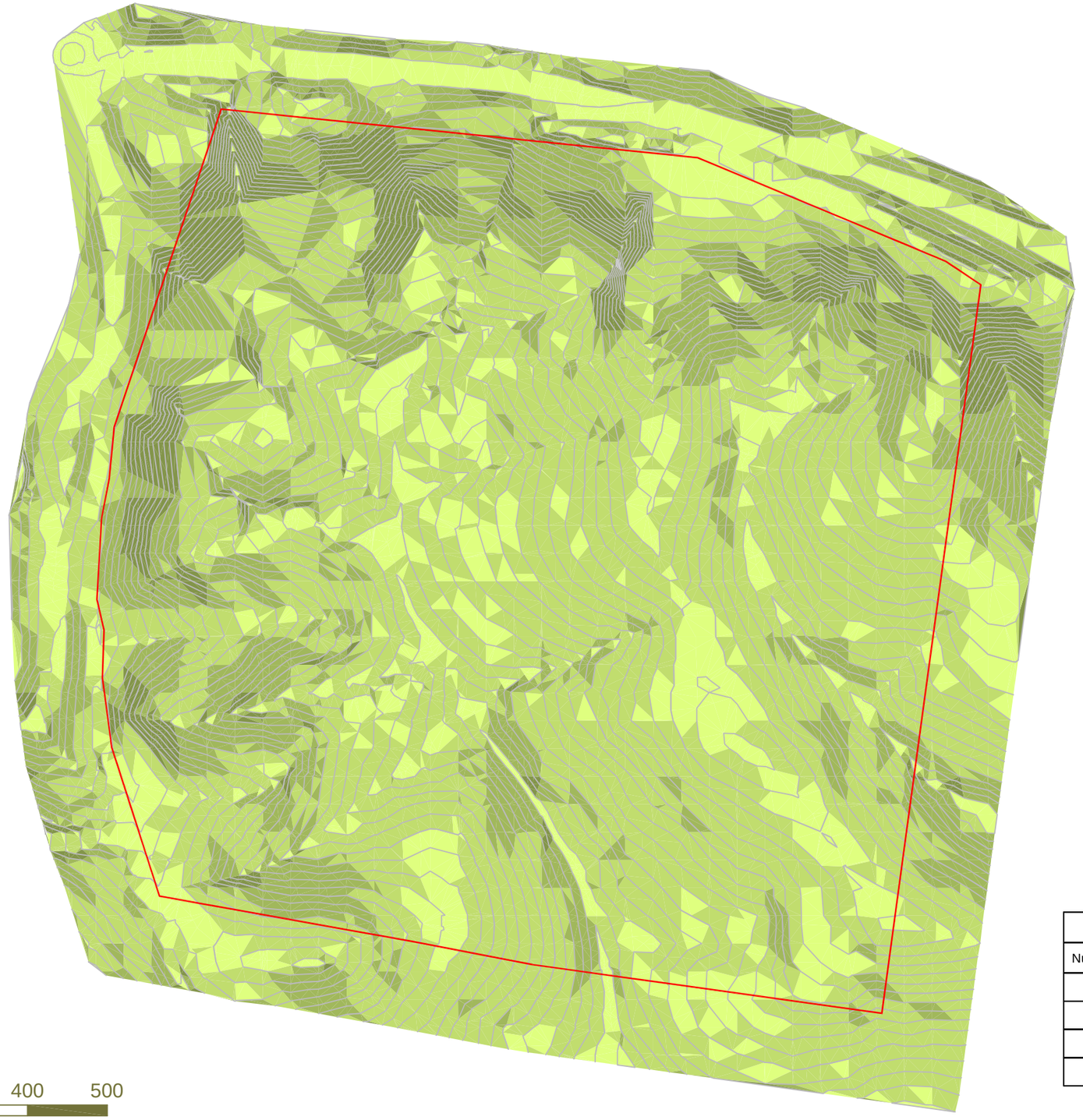

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LAYOUT REF:
JOB REF: 24530

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