

REMU
LIMTED

Lighting Assignment 2020



Global expertise, Local presence

 legrand®

Project background

- Remix Ltd is planning to build a new building/ studio in Melbourne

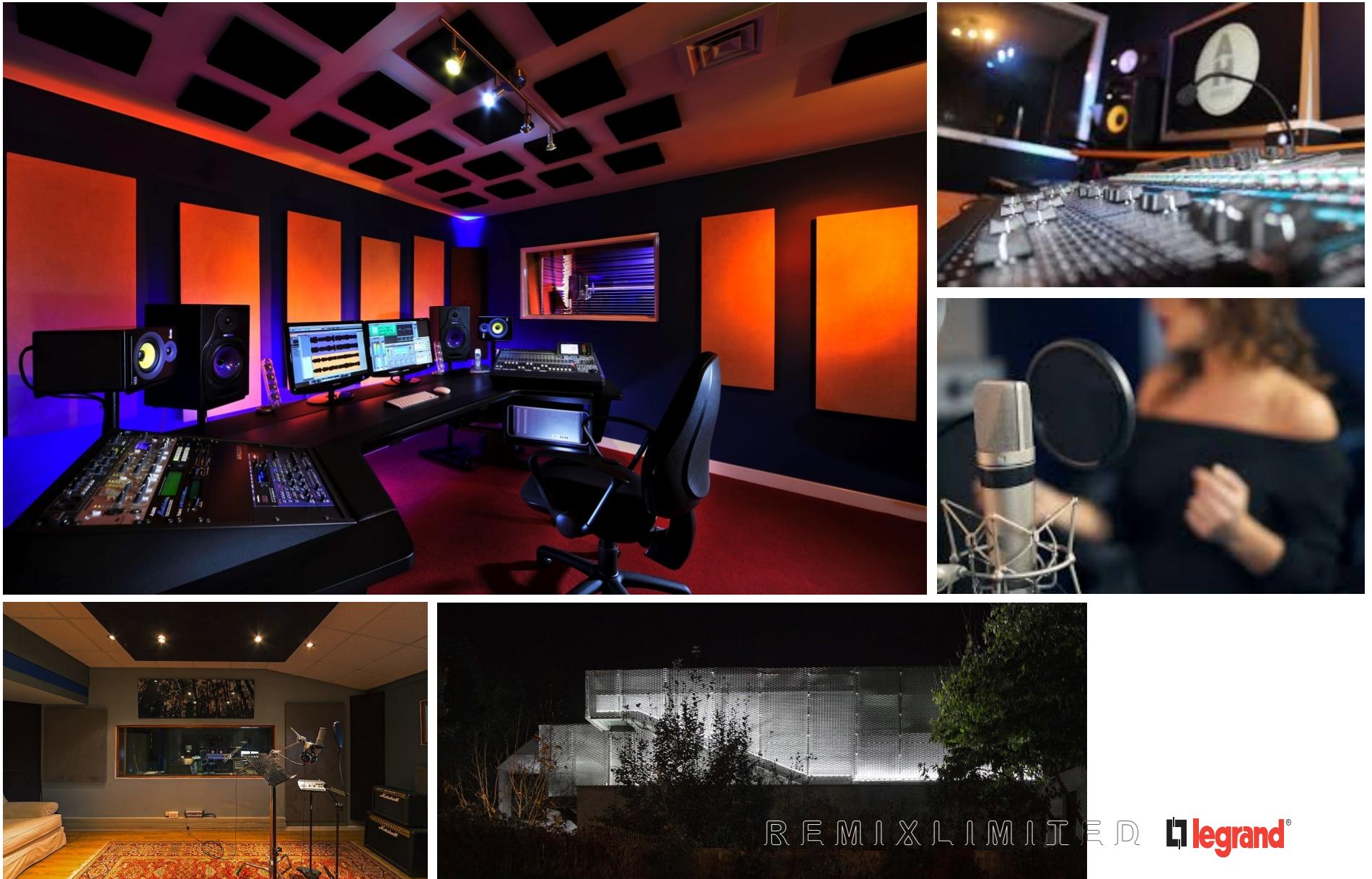


Where we started



Basics

Project background



RE MIX LIMITE D

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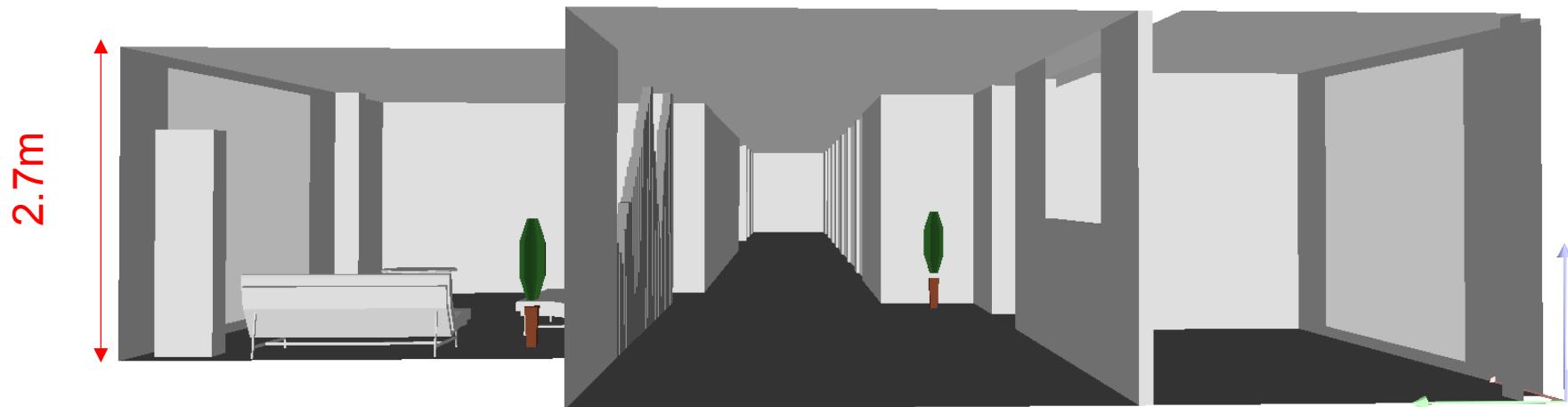
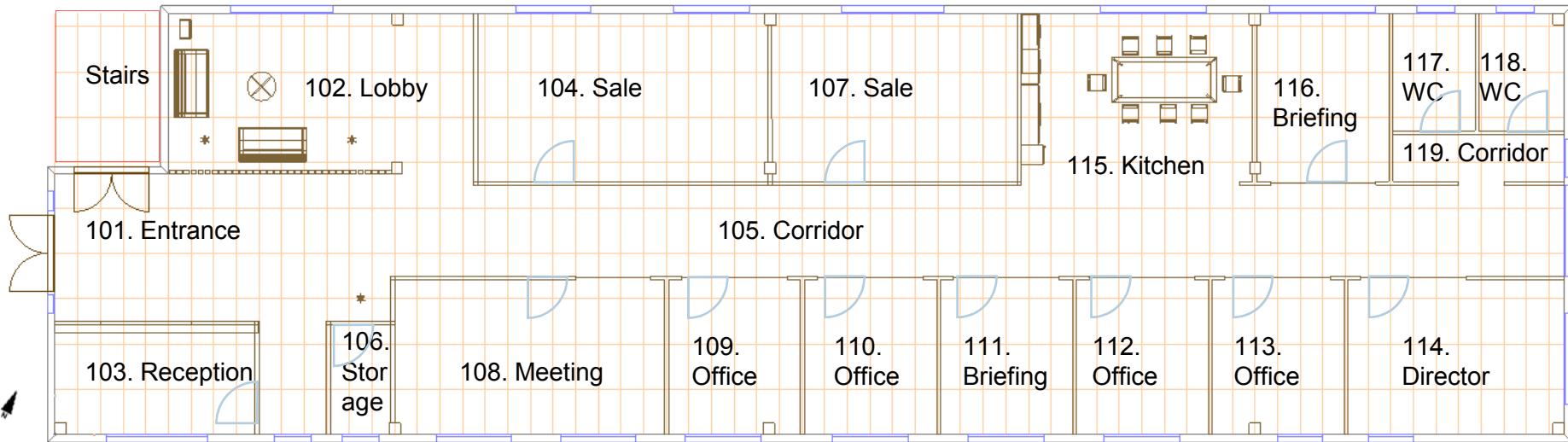
Project background

- The building comprises of various spaces (offices, music production, storage, etc...)
- EED role is to:
 - **Design base lighting**
 - Base build
 - Functional
 - Fit for purpose
 - Compliance
 - Creativity
 - Design Emergency lighting
 - Evaluate daylight control savings

GROUND FLOOR

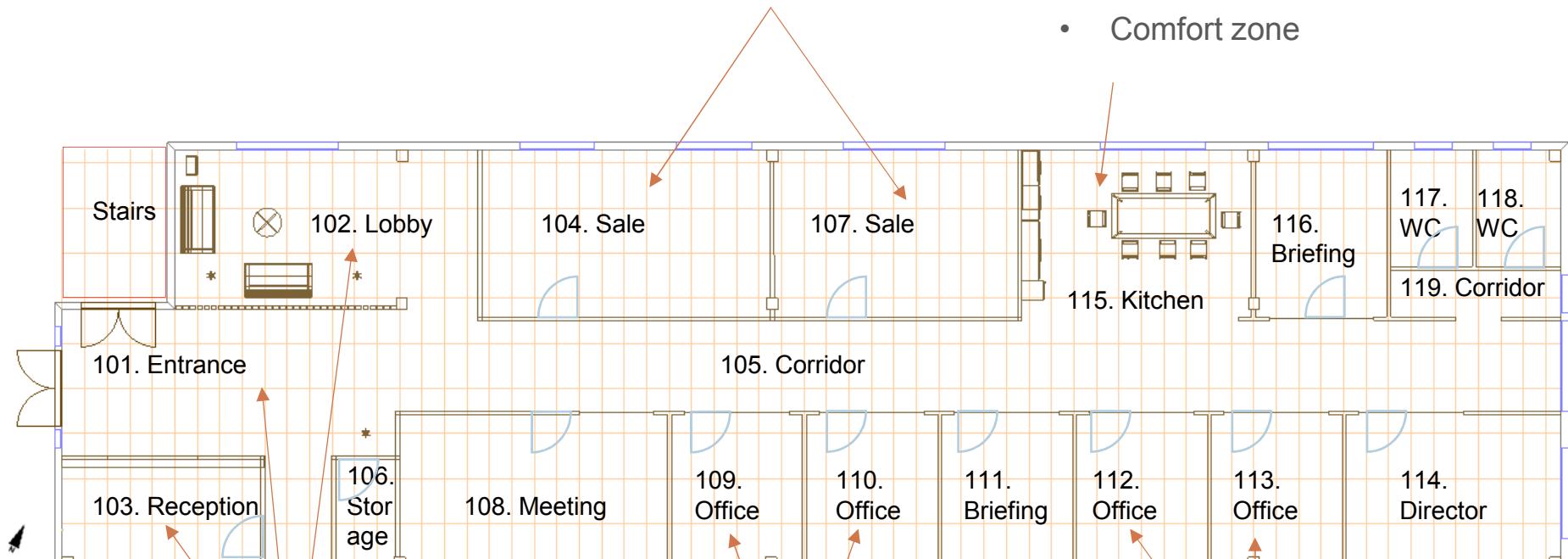
Ground Floor

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Ground Floor

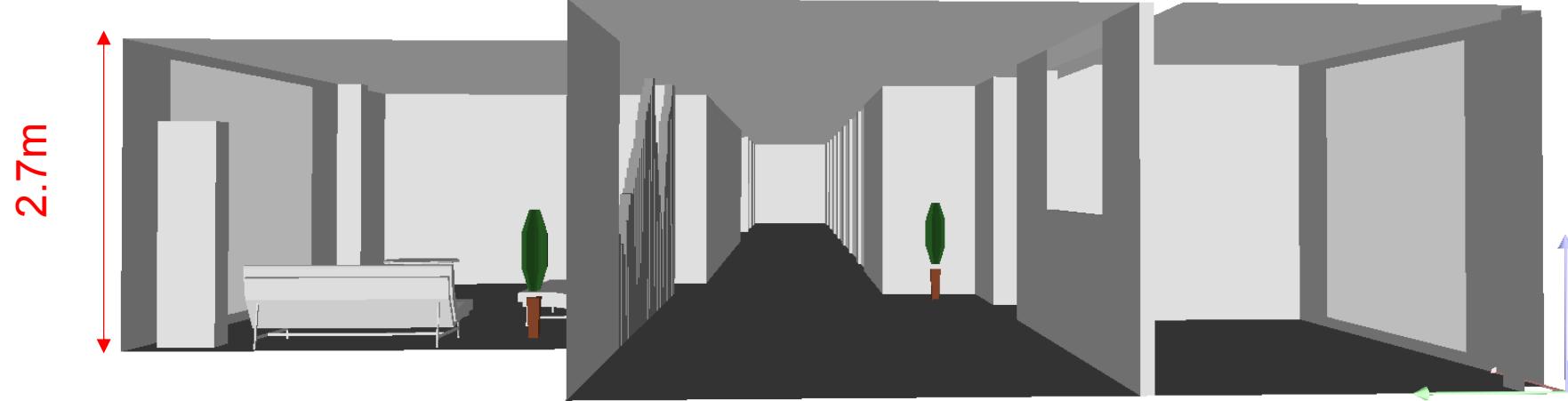
REMI X LIMITE D 



- Financial
- Revenue
- Negotiation
- Time out
- Socialisation
- Break out
- Comfort zone

- First impressions
- Branding
- Gatekeeper
- Administration
- Accounts payable
- Accounts receivable
- Agents

Ground Floor



Daytime
Ground Floor



Night time
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Design consideration



Requirements for cylindrical illuminance

Good visual communication and recognition requires a sufficient level of brightness on objects and, above all, on people's faces.

- Facial recognition
- Express emotions
- Inspire
- Collaboration
- Perspective on environment



Requirements for contrast lighting

- For visual comfort
- Assist with focal points



Requirements for good colour rendering

- For visual experience
- performing a visual task and assessing colours
- colours on surfaces, objects and skin should be reproduced in a natural and accurate way.
- affects our safety and well-being
- colour rendering Ra index work task under EN 12464-1



Ground Floor – 3D view

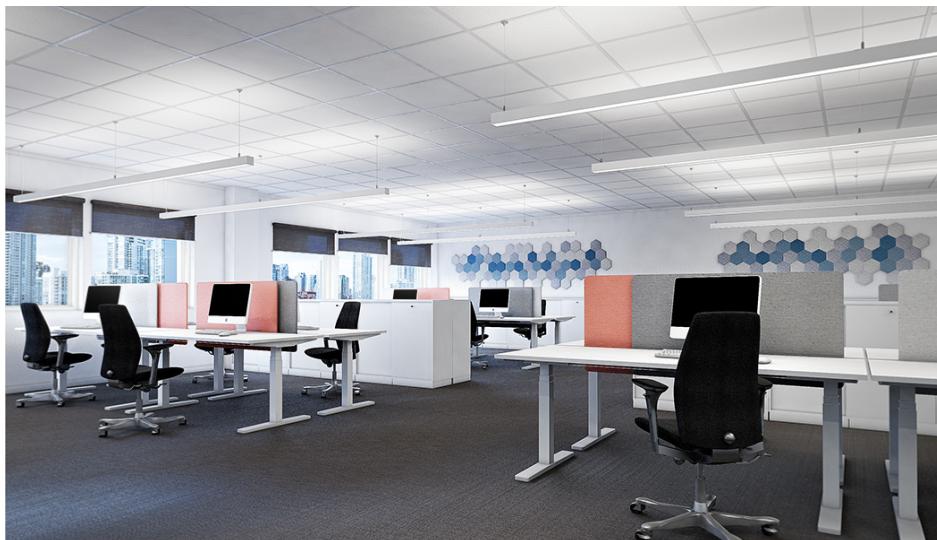
REMXLIMITED 

Concept



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Concept

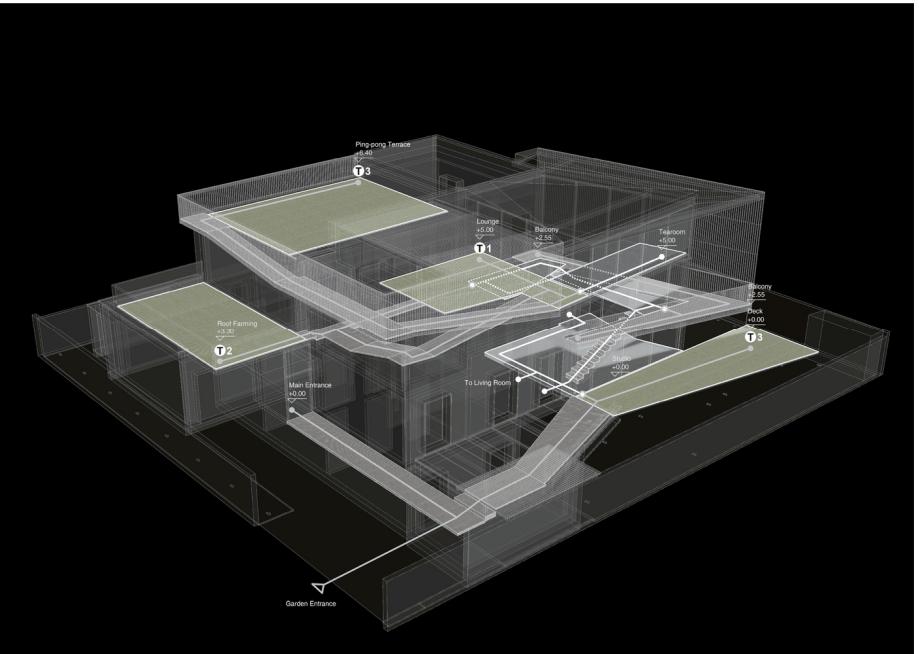


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Concept



REMX LIMITE D  **legrand®**



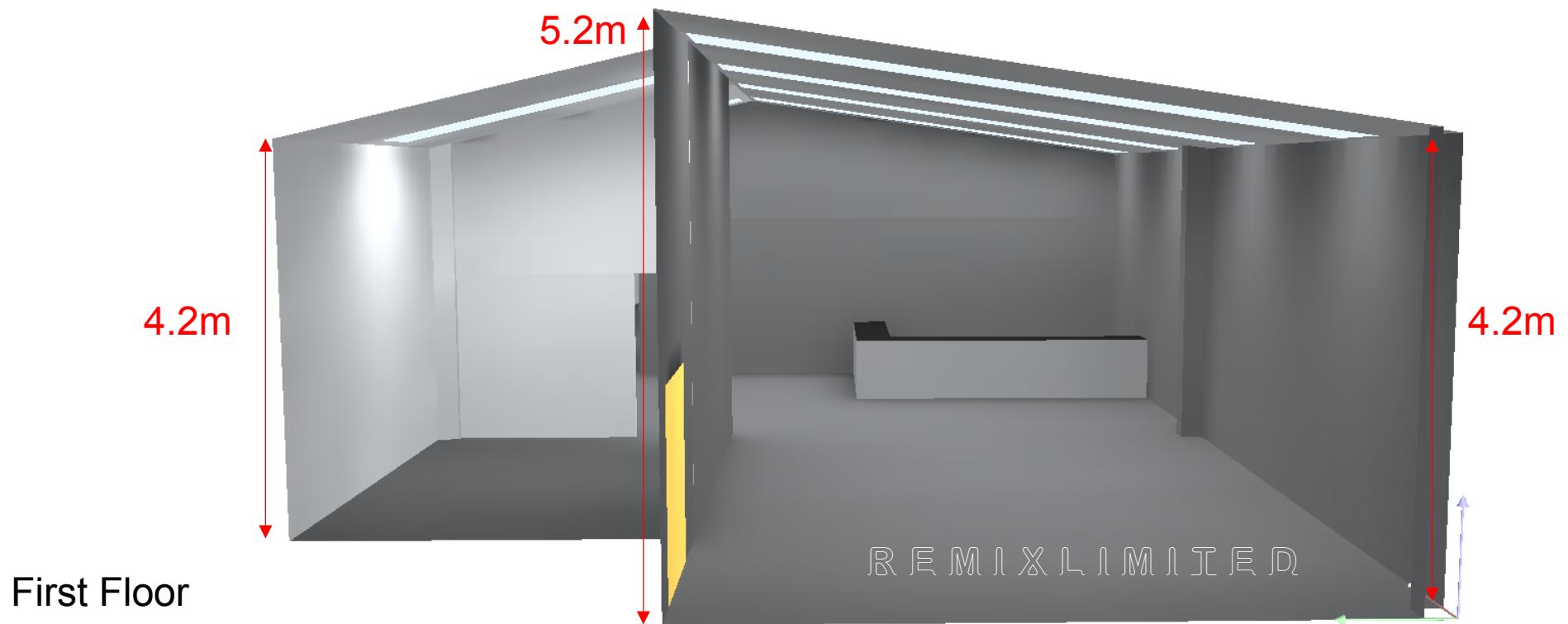
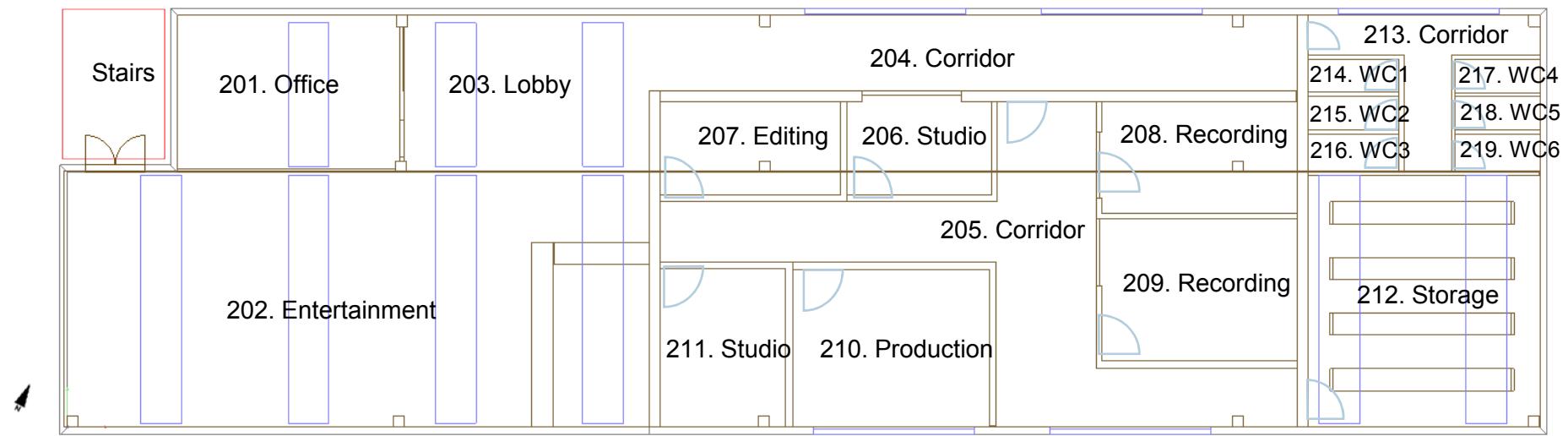
Ground Floor

RE MIX LIMITE D 

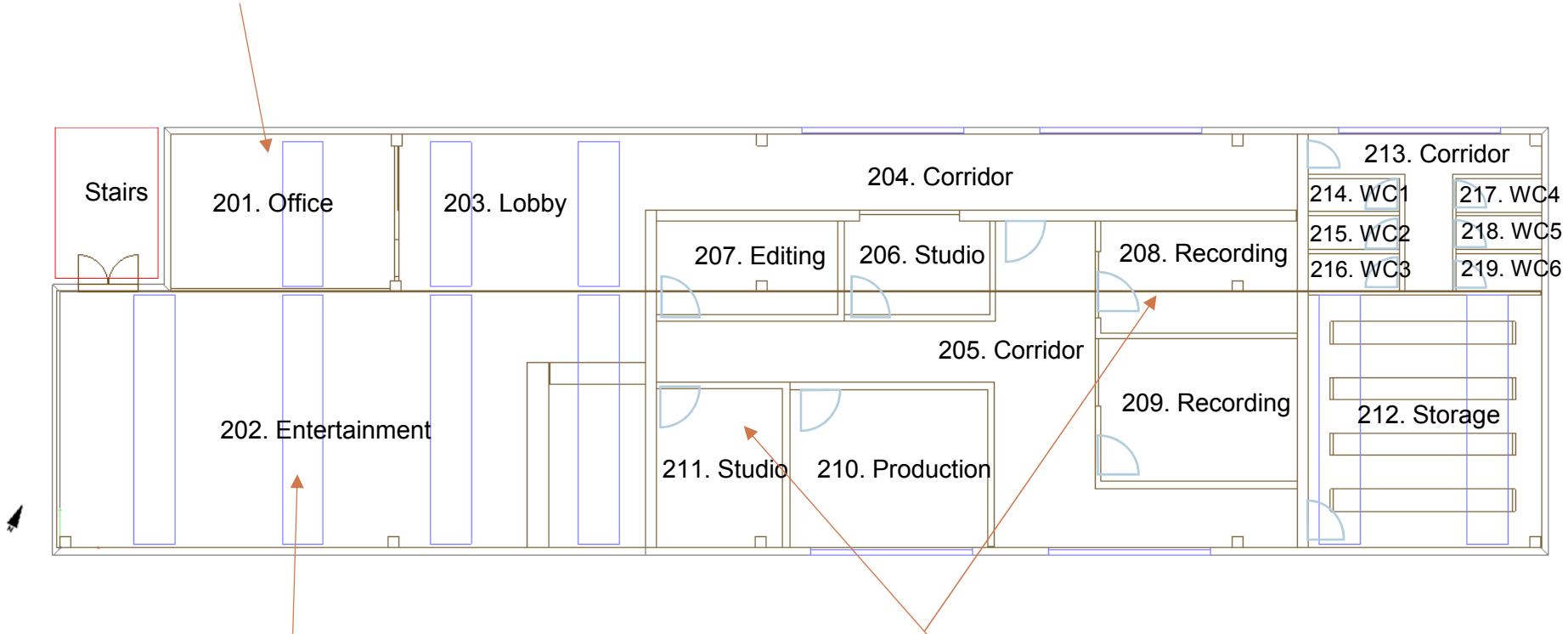
FIRST FLOOR

Ground Floor

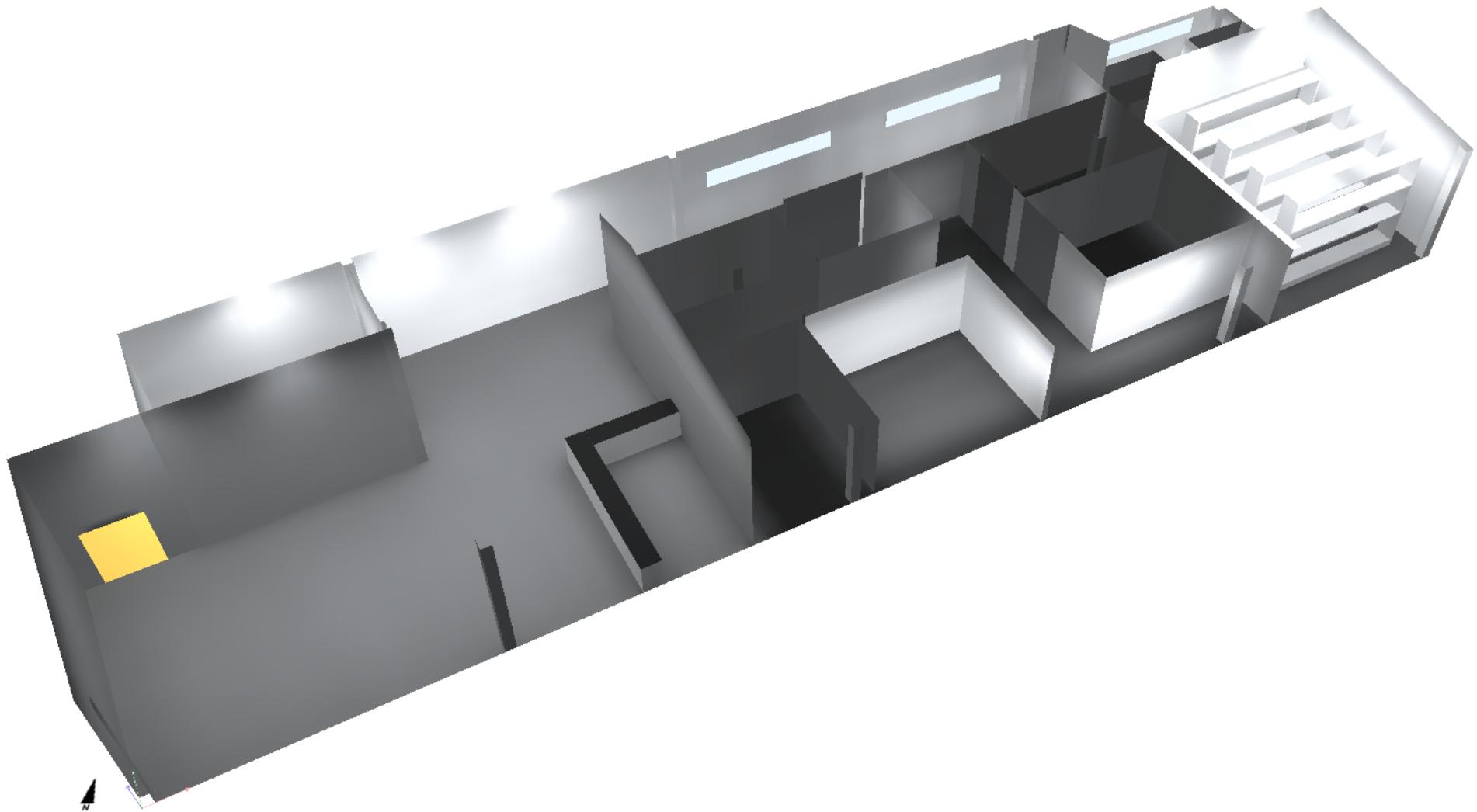
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- Collaboration
- Ideas

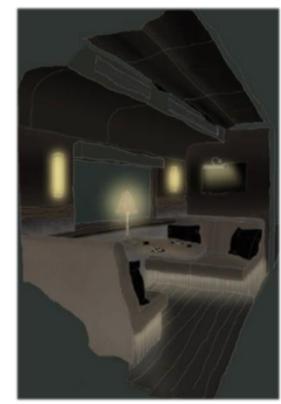
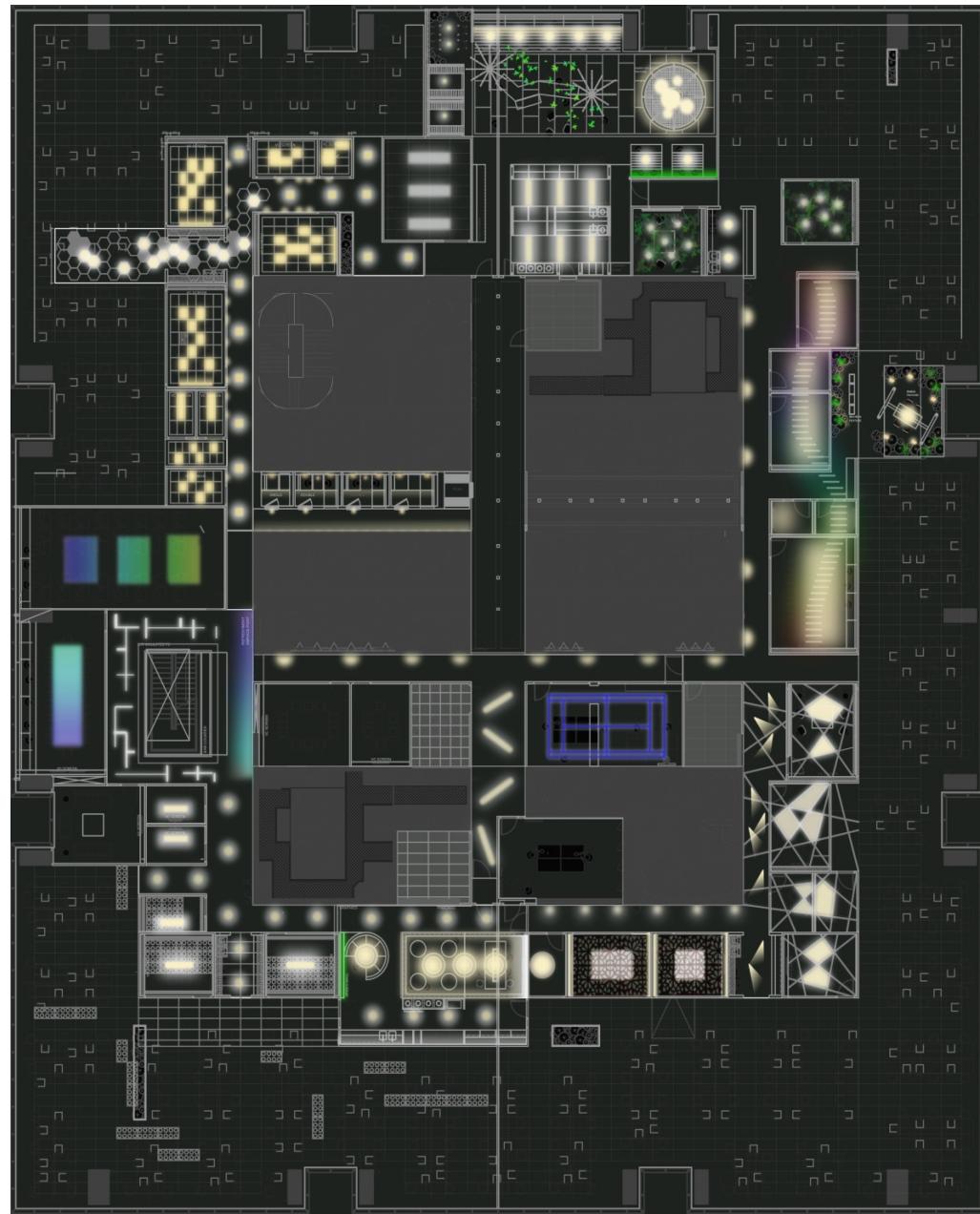


- Time out
- Socialisation
- Break out
- Entertain
- VIP



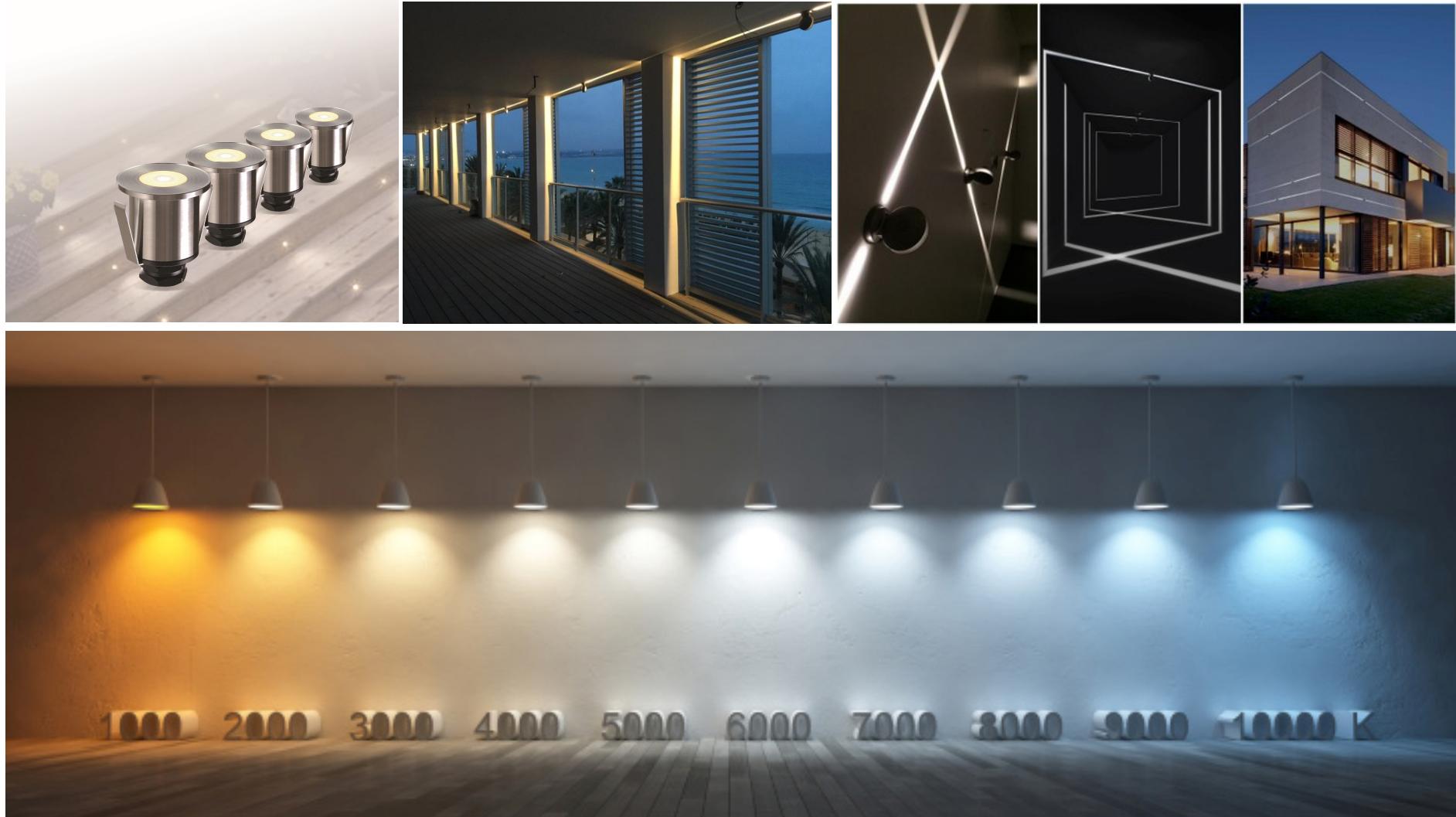
First Floor – 3D View

REMX LIMITEE 



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Concept

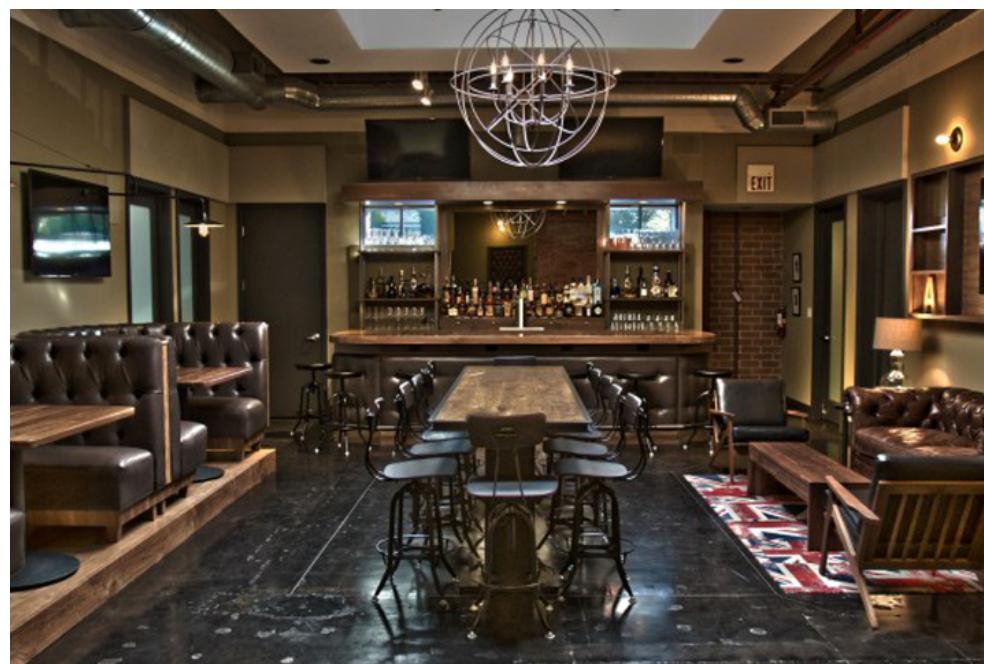


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First Floor

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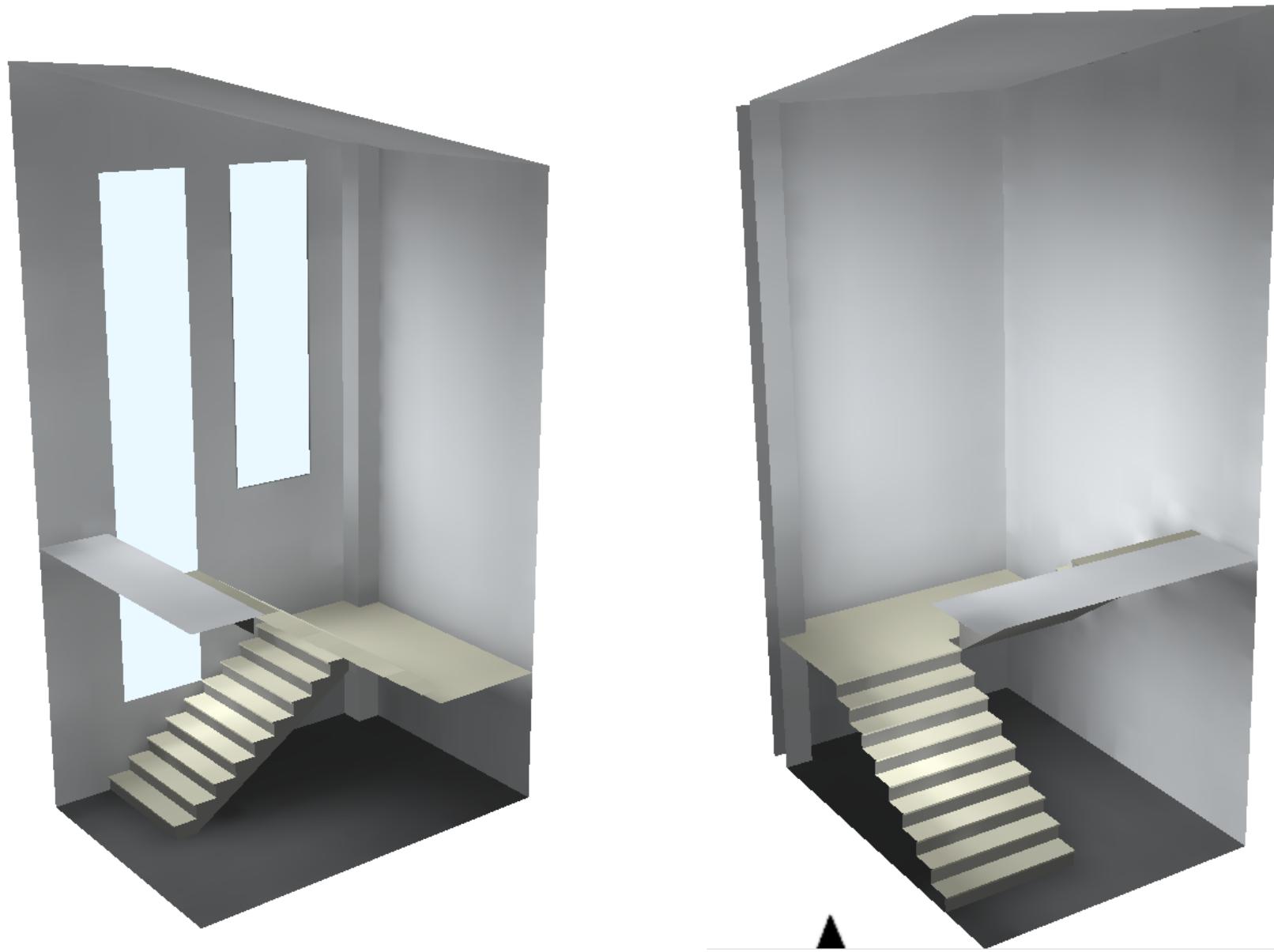


First Floor

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STAIRS

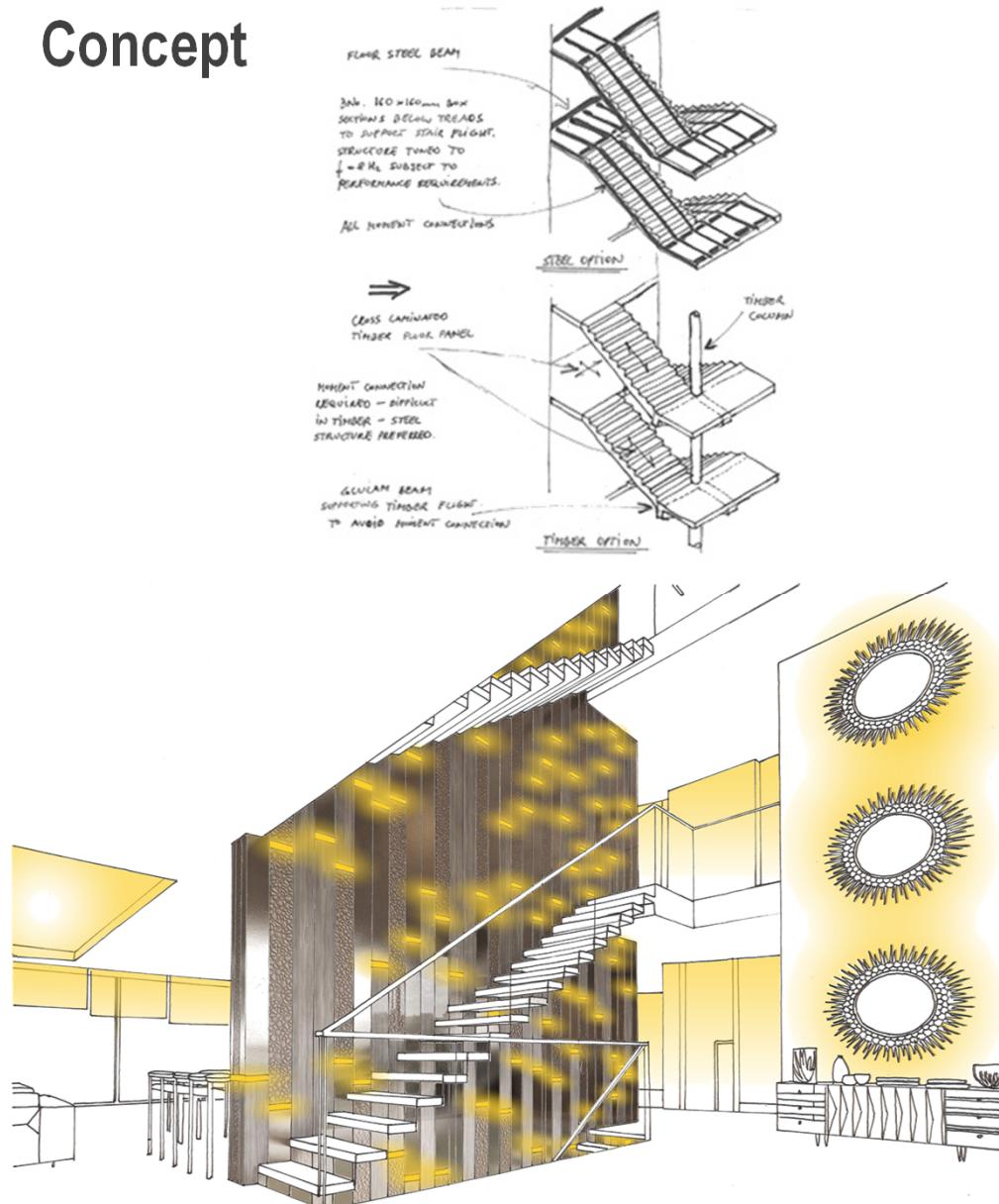
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Stairs

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Concept

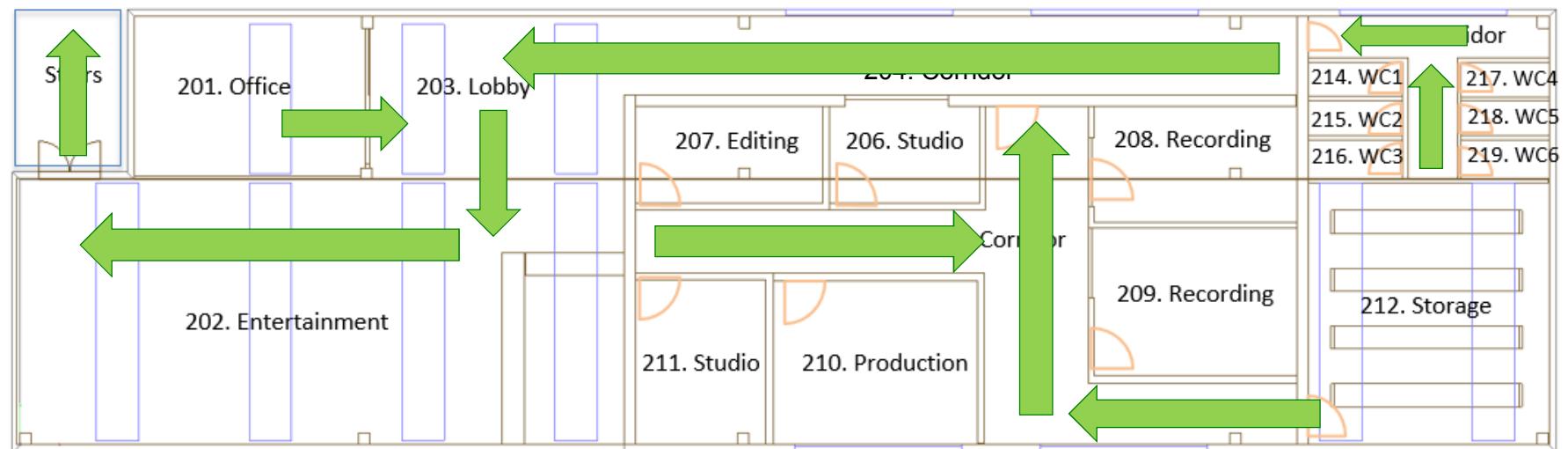
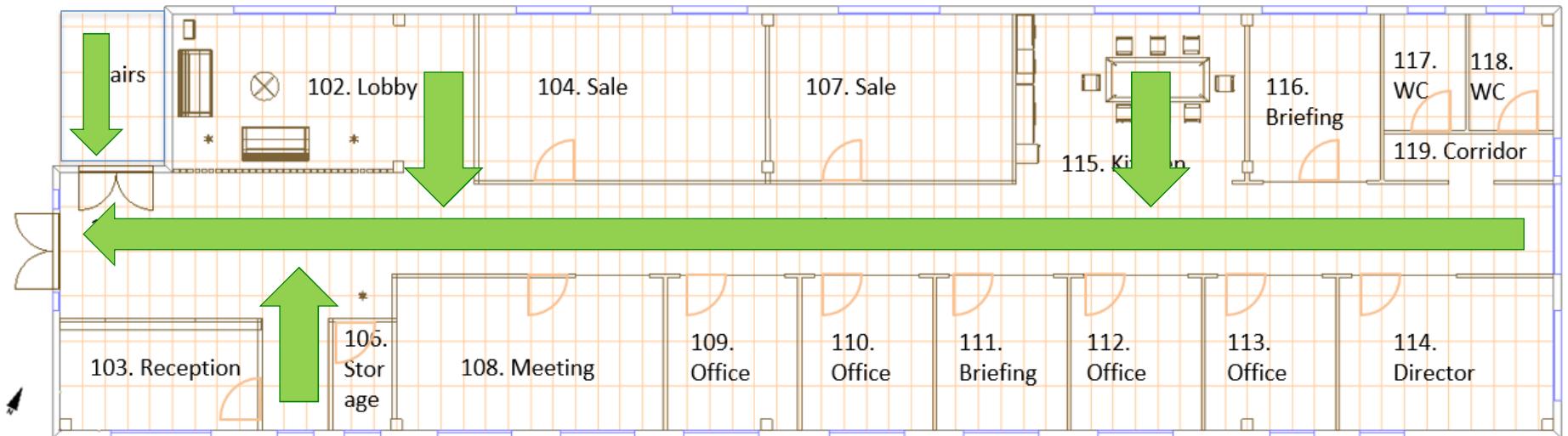


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EMERGENCY LIGHTING

Ground Floor

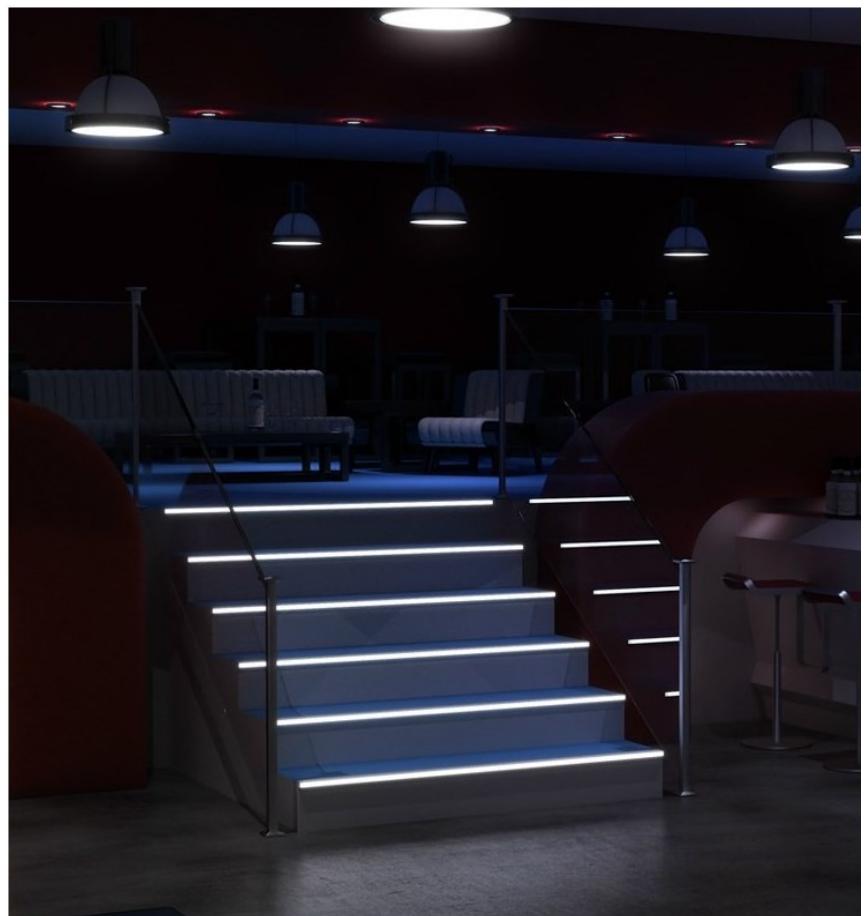
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Concept



FOR EXTENDED
BATTERY LIFE



Project Goals

- High comfort for personnel
- Minimum Total Cost of Ownership (TCO) for the period of 10 years
- Minimum annual CO₂ emission
- Design emergency lighting
- Daylight savings
- Creativity

Design Parameters

- Maintained illuminance to be as per Table D1 of AS/NZS 1680.2.1, and Table E1 of AS/NZS 1680.2.2.
- Minimum uniformity to be as per Table 3.2 of AS/NZS 1680.1.
- Illuminance in emergency mode to be as per 1.3 section of Clause F6 - Compliance Document for New Zealand Building Code.
- Light Loss Factors calculated at 50,000 hours.

Other parameters

- Luminaires operate 12 hours a day, 5 days per week, 50 weeks a year
- Energy price: \$0.2 / kWh
- Luminaire cost: \$300 (installed) – fixed price for all luminaires
- LED lifetime: 50,000 hours
- Average daylight factor based overcast sky, day 31 March, time 10am.

Suppliers

- Legrand
 - www.legrand.co.nz
 - www.rethinkelectrical.co.nz
 - www.hpm.co.nz
- ETAP
 - <http://www.etaplighting.com>

