

# Suburban Assets Pack - Unreal Documentation

| By Nonsense Studio

## Introduction

This pack is designed around a **512 cm grid** to ensure seamless modular construction. It includes modular meshes, props, vegetation, and custom shaders for easy color/material variations.

## Building Workflow

### Grid Sizing

The modular assets are designed to snap directly to Unreal's grid system:

- Check **Use Power Of Two Snap Size** in your grid snapping settings
- Use a **grid size of 512 units** (or subdivisions like 64, 128, 256) for precise placement.

1. Open **Increment Snapping**
2. Set the **Move** value to the same power-of-two

This ensures modular walls, floors, and roofs align seamlessly without gaps or overlaps.

### Rotation

When placing modular pieces, make sure their **rotation values are aligned to the grid** (multiples of 90°).

- Use **Rotation Snapping** set to 90°.
- Keep walls, floors, roofs, and props rotated in **90° increments** to avoid gaps or misalignment.

This ensures all modular meshes connect seamlessly without floating edges or overlaps.

## Materials & Shaders

Most shaders are based on an **ORM texture workflow** (*Occlusion, Roughness, Metallic packed into a single texture*), which improves performance and saves texture memory.

### HSL Shader

The **Mailbox** uses a custom shader that allows you to change its color.

- To create variations, **duplicate the existing material** and adjust the shader parameters.

- You can modify:
  - **Hue**
  - **Saturation**
  - **Brightness**
  - **Contrast**

## Alpha Mask

Some wall materials (such as **plaster**, **plaster baseboard**, **plaster baseboard crown**, **paint**, **paint baseboard**,) use an **Alpha Mask Shader**.

- This shader lets you **recolor the surface** without editing the texture.
- You can adjust:
  - **Color**
  - **Color Intensity**
  - **Saturation**
  - **Brightness**

This allows you to quickly create material variations while keeping texture usage optimized.

## World Aligned Material (Triplanar)

A set of **tiling materials with Triplanar Mapping** is included in the pack.

- These materials automatically project textures based on the object's world position, ensuring **seamless continuity across modular meshes**.
- Use them when building houses with pieces such as `wall_05x1` (or other smaller modular piece) to avoid visible seams or UV stretching.

 You can find these materials in the `Materials/WorldAlign` folder.

## Folder Structure

The pack is organized to make navigation and asset usage as simple as possible. Below is an overview of the main folders:

```
SuburbanStylizedPack/  
|  
├─ MaterialLibrary/  
|   ├─ Debug/ → Base texture  
|   ├─ Meshes/ → Materials assigned to props and unique meshes  
|   ├─ Decals/ → Decals material  
|   ├─ Tiling/ → Reusable tiling materials (walls, floors)  
|   ├─ Trimsheet/ → Materials that use trimsheets for detail optimization  
|   ├─ Utility/ → Helper materials (noise, placeholder, etc.)  
|   └─ WorldAlign/ → → Materials using world-aligned (triplanar) projection
```

```
|
|— Meshes/
|   |— Architecture/ → Modular architecture meshes
|   |— Objects/ → Furniture, appliances, exterior details
|   |— Rigged/ → Rigged Mesh
|
|— Environment/
|   |— Foliages/
|   |— Landscape/
|   |— Vegetation/
|
|— Blueprint/
|   |— Variation/ → Mesh material variation
|
|— Maps/
|   |— DemoMap/ → Example scene showcasing the pack
|   |— Overview/ → Example prefab layout and usage
|
|— Documentation/
|   |— README.md → This documentation file
```

📌 *Each category is separated to help you quickly find modular pieces, props, vegetation, and materials.*

## Support & Updates

### Support

If you encounter any issues or have questions about using the Suburban House Modular Pack, **Nosense Studio** is here to help.

Email: [contact@nosense.studio](mailto:contact@nosense.studio)

### Updates

This pack is currently in **Early Access**, and more content will be added over time.

- **Planned Additions:**
  - Additional **modular pieces** for more house variation
  - New **props** for interiors and exteriors
  - Extra **materials** and shader variations
- **Free Updates:** All bug fixes, content additions, shader improvements, and compatibility updates are provided at no additional cost.
- **Changelog:** Each update includes a detailed changelog.

 *Tip:* Always back up your project before updating the pack to avoid overwriting any custom changes.