



Free-For-All Shopping Mall

Fortnite CTF Map

Level Design Document

By Simran Baria

Changelist

Date	Author	Description
March 26th, 2025	Simran Baria	Document created Headings and formatting added Added story jot notes Added references Added program Added a sketch diagram
April 13th, 2025	Simran Baria	Added headings for the metrics, comparative screenshots, and schedule Added a proximity matrix and a level flowchart to the diagrams
April 15th, 2025	Simran Baria	Updated story into prose from jot notes Updated program
April 17th	Simran Baria	Added a cover image Added metrics Added comparative screenshots Added schedule

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Story

The Free-For-All Shopping Mall is a mall in 1990s America, the most popular one in the city. It is complete with multiple stores, decorations on each floor, a spacious parking lot, and a delightful little fountain at the centre.

Every year, the mall sees its greatest surge in shoppers on one specific day: Black Friday. It's always a huge ruckus that causes the mall to need a greater increase in security. Unfortunately, hiring more security guards requires a larger budget. Armed with weapons and whatever they can find in the mall and its stores, the mall employees are up to the task instead, defending the building from the town's shoppers.

Unfortunately, again, the employees may underestimate just how badly the town wants goods and items at great deals and savings. The shoppers are equally armed with weapons and scouring the mall and its stores for equipment as well, determined to take over the mall and buy everything they can at low costs.

In the end, there's no telling which team will come out on top: the mall employees trying to keep their jobs or the deal-crazy shoppers?

Reference

Environment

General Environment		
		
<p>Figure 1.1 - 1990s movie theatre</p>	<p>Figure 1.2 - City in the 1990s</p>	<p>Figure 1.3 - Building from the 1990s</p>
Art Style		
		
<p>Figure 2.1 - Plants in a simple cartoon art style, shape reference</p>	<p>Figure 2.2 - Cartoon illustration of a mall using simple shapes</p>	<p>Figure 2.3 - Illustration of a mall, colour palette reference</p>

Setting

Mall		
		
<p>Figure 3.1 - 1990s shopping mall</p>	<p>Figure 3.2 - Interior of Oakville Place mall in Oakville</p>	<p>Figure 3.3 - Fountain in mall</p>
		
<p>Figure 3.4 - Statue in a mall</p>	<p>Figure 3.5 - Coconut Mall from Mario Kart Wii</p>	
Parking Lot		
		
<p>Figure 4.1 - Outside the Yorkdale Mall in Toronto</p>	<p>Figure 4.2 - Fountain in mall parking lot</p>	<p>Figure 4.3 - Cars in a parking lot</p>

Characters

Red Team		
		
<p>Figure 5.1 - A suburban family</p>	<p>Figure 5.2 - Shoppers at the mall</p>	<p>Figure 5.3 - Crowd of shoppers at a mall</p>
Blue Team		
		
<p>Figure 6.1 - Supermarket employees</p>	<p>Figure 6.2 - A mall employee</p>	<p>Figure 6.3 - Mall security guards</p>

Program

Red and Blue Sides

Base spawn store - Three at each team's side of the mall, players respawn here, has a pistol

Flag stores - One at each team's side for the flag drop off

Centre Shopping Area

Fountain - One at the centre of the map, has a grenade launcher

Potted plants - Provide cover in the mall

Merchandise stands - Has items to loot and provides cover

Escalators - Allow players to gain the high ground and head up to the second floor

Second Floor

Centre bridge - Goes above the centre of the map, leads to the centre balcony, has a chug jug at the end where the balcony is, connected to escalators on either side

Stores - Three at each team's side, players can head inside for cover, has item pick-ups

Flag stores - One at each team's side for the flag pick-up

Parking Lot

Cars - Provide cover

Balconies - Connected to the second floor, look out to the parking lot and give players a vantage point

Statue - Landmark, provides cover

Hedges - Provide cover

Metrics

Character

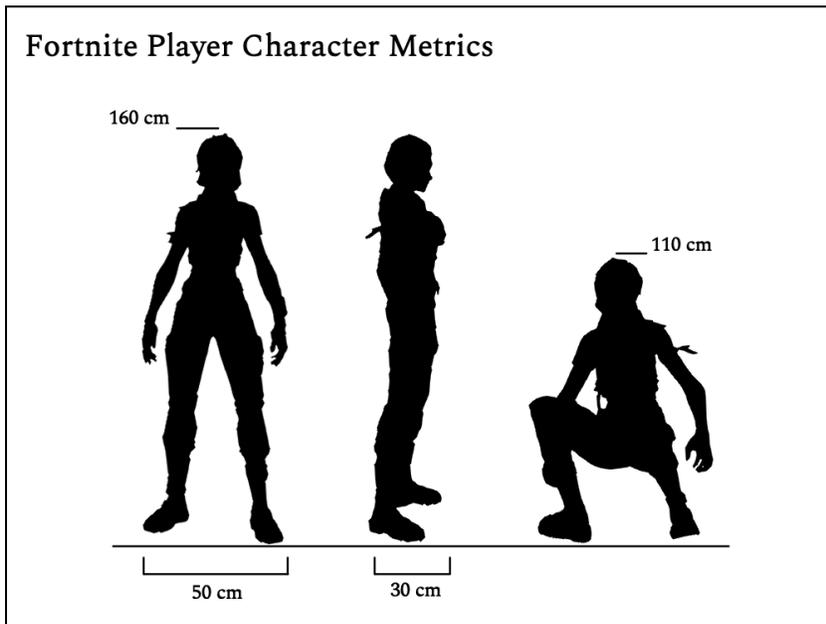


Figure 7.1 - Character metrics sheet of the Fortnite player character

Controls

Jumping

Jump Height - 390 cm

Jump Distance - 300 cm

Dashing

Max dash time - 8 seconds

Max dash distance - 2900 cm

Dash recovery - 6 seconds

Dash jump distance - 800 cm

Sliding

Sliding height - 90 cm

Max slide time - 3 seconds

Max slide distance - 1300 cm

Environment

Object	Width (cm)	Length (cm)	Height (cm)
Wall	500	30	400
Doorway	130	250	30
Archway	450	30	300
Half Arch	340	30	310
Floor	500	500	30
Stairs	300	500	500
Rectangle Planter	170	60	150
Circle Planter	60	60	200
Backrest Bench	200	100	130
Bench	250	70	60
Store Rack	250	50	170
Cashier Counter	260	180	120
Merchandise Stand	400	240	400
Railing	500	20	130
Fountain	1000	1000	500
Outdoors Planter	520	260	100
Hedge	400	180	210
Car	520	200	140
Statue Base	340	340	90
Statue	180	180	400

Diagrams

Sketch Diagram

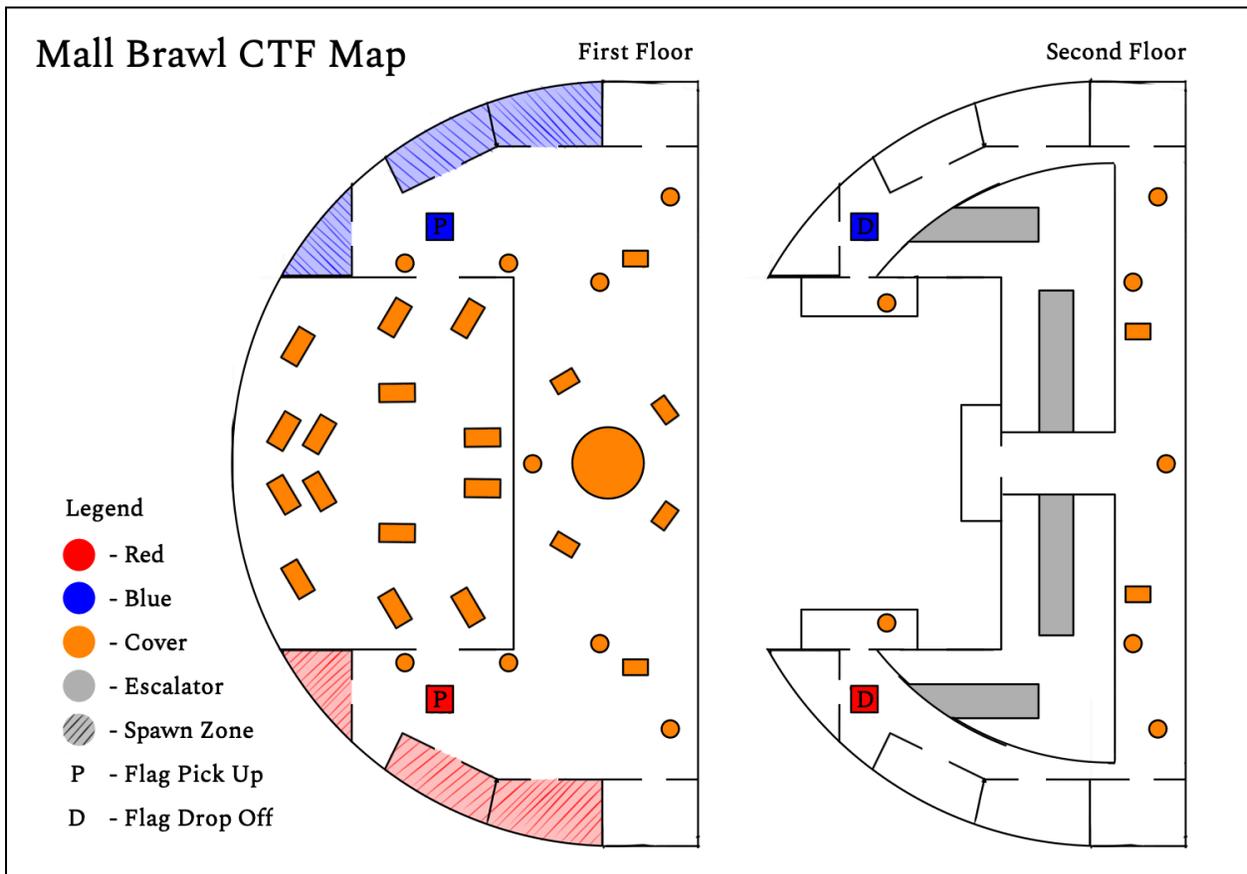


Figure 7.1 - Sketch diagram displaying the geometry and layout of the map

Adjacency Matrix

Rooms	Downstairs Stores	Fountain Area	Downstairs Hallways	Parking Lot	Escalators	Upstairs Hallways	Upstairs Stores	Balconies					
Downstairs Stores	Major	None	None	None	None	None	None	None					
Fountain Area	None	Major	None	None	None	None	None	None					
Downstairs Hallways	None	None	Major	None	None	None	None	None					
Parking Lot	None	None	None	Major	None	None	None	None					
Escalators	None	None	None	None	Major	None	None	None					
Upstairs Hallways	None	None	None	None	None	Major	None	None					
Upstairs Stores	None	None	None	None	None	None	Major	None					
Balconies	None	None	None	None	None	None	None	Major					

Adjacency	
Major	Green
Minor	Yellow
None	Red

Figure 7.2 - Adjacency matrix depicting the accessibility between sections

Level Flowchart

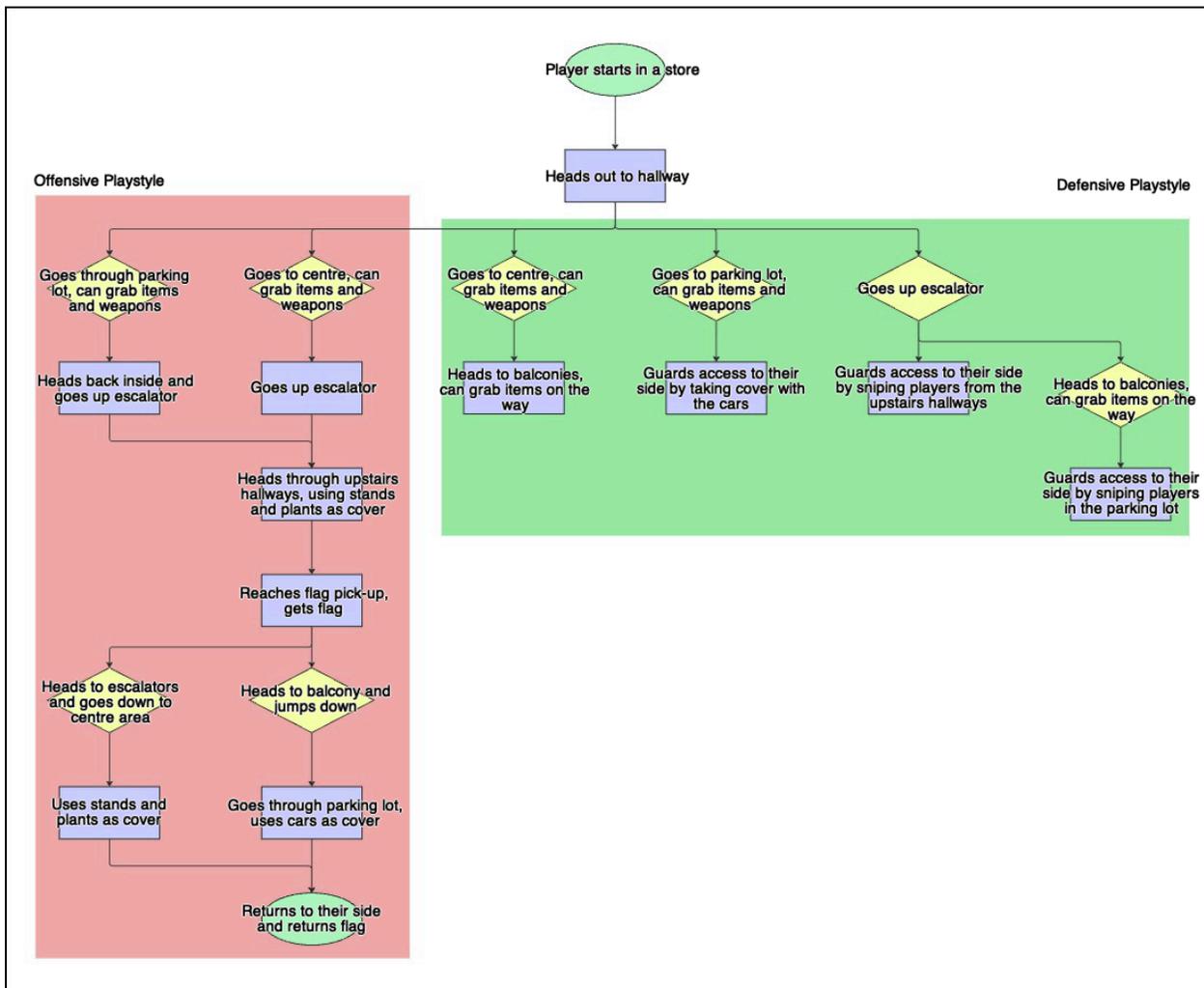


Figure 7.3 - Flowchart detailing the different routes players can take depending on their playstyle

Comparative Screenshots

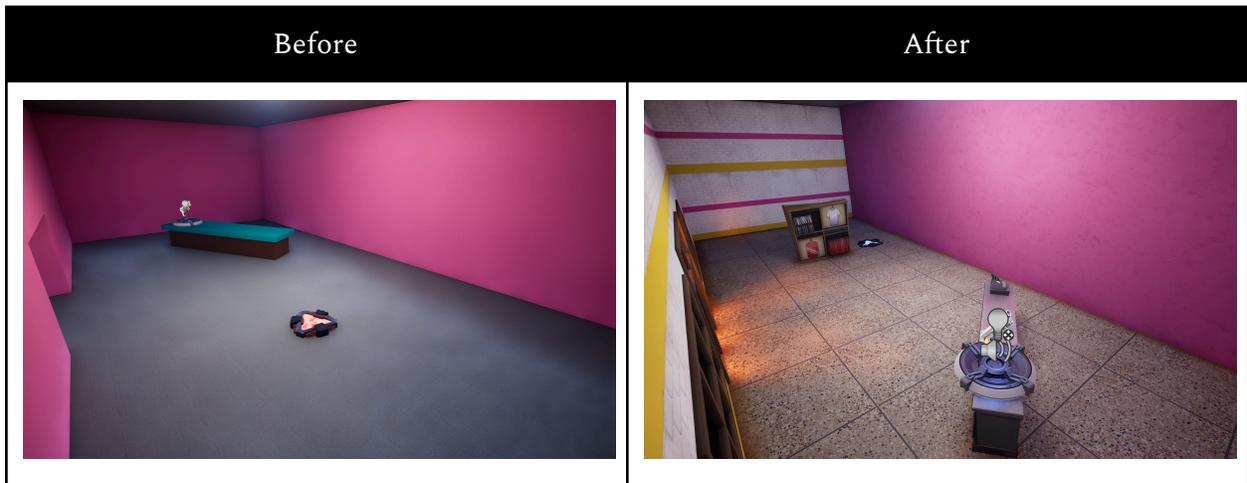


Figure 8.1 - Player spawn shop, counter has been art'd and clothes rack added

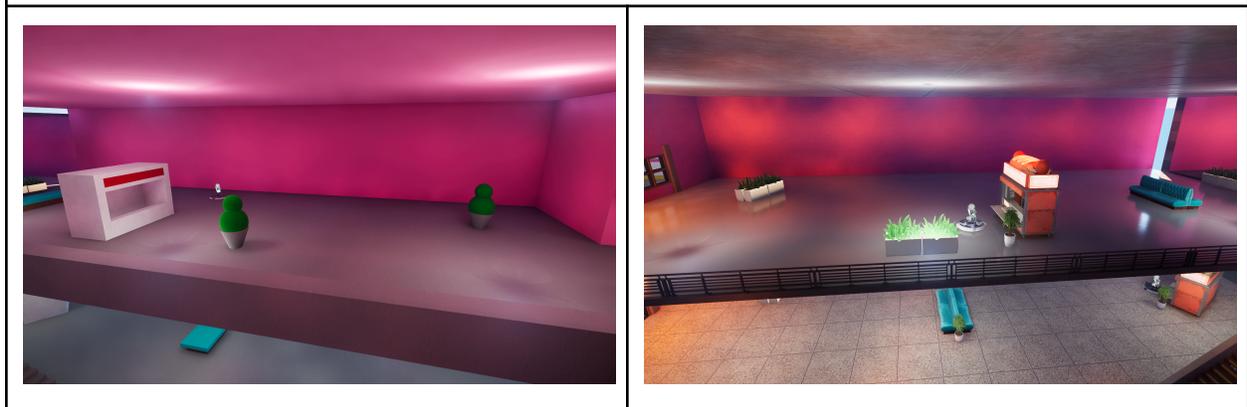


Figure 8.2 - Second floor, plants and stands art'd, pick-up moved



Figure 8.3 - Shop entrances, doorways art'd, added signs

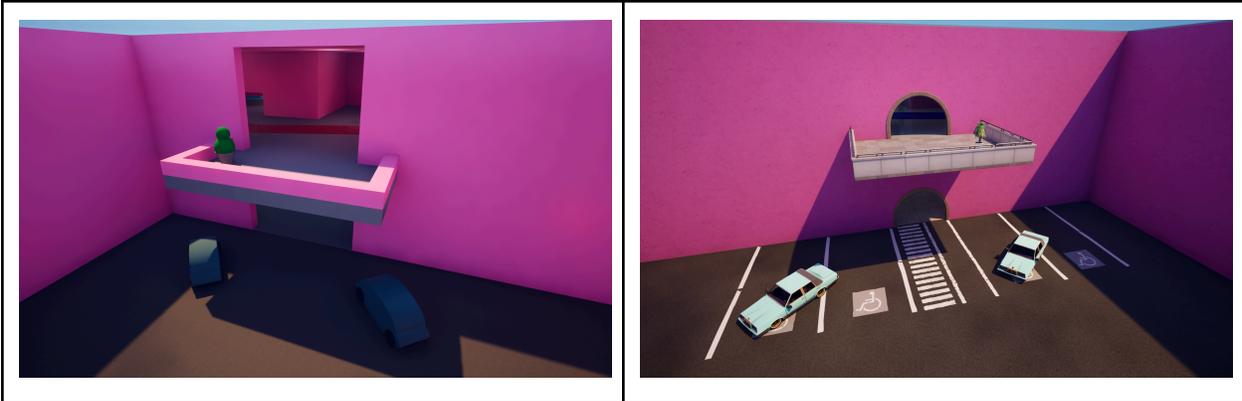


Figure 8.4 - Balconies and mall entrances, added more floor details, cars and balcony art'd

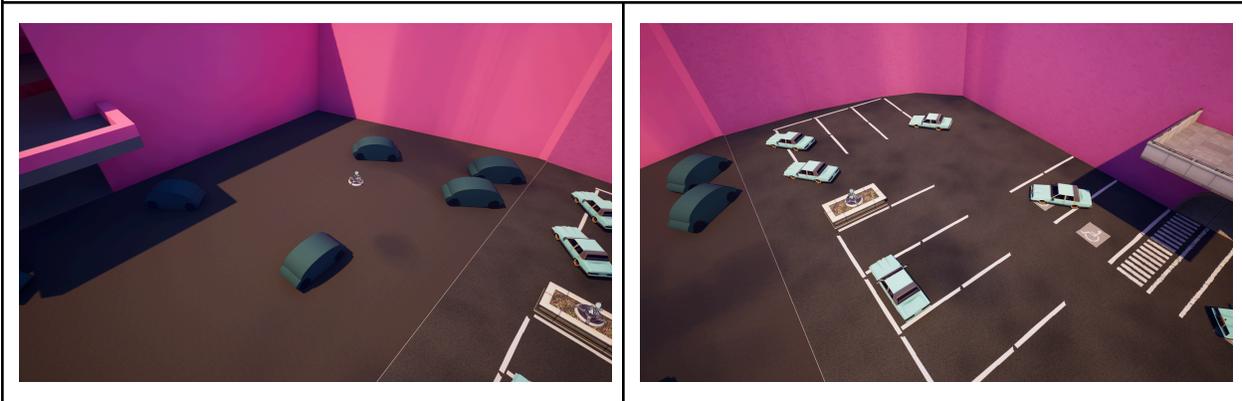


Figure 8.5 - Parking lot, cars art'd, floor details, added planters and moved pick-up

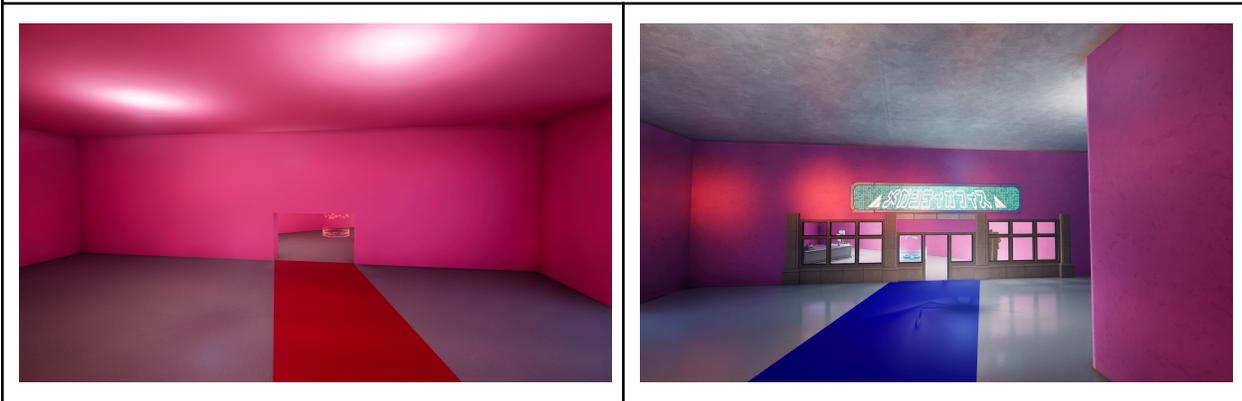


Figure 8.6 - Flag store entrances, art'd doorway and added a sign

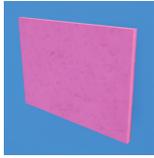


Figure 8.7 - Centre area, art'd and added more plants, art'd the fountain, stands, and benches

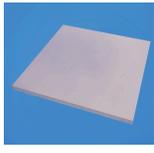
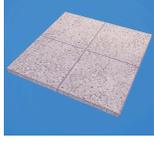
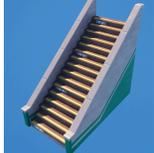


Figure 8.8 - Staircase, art'd the stairs and railings

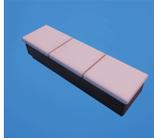
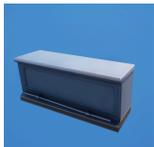
Schedule

Region	Sub	Object	Uses	Image
Mall Interior	Base	Business Wall A A (Version 1)	96	
Mall Interior	Base	Business Wall A A (Version 2)	212	
Mall Interior	Base	Business Residential Window A	12	
Mall Interior	Base	Business Shop B Doorway A	6	
Mall Interior	Base	Business Shop A Window B	4	
Mall Interior	Base	Business Shop A Doorway Sign A	2	
Mall Interior	Base	Business Wall A Archway A	2	

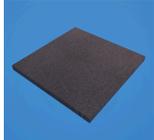
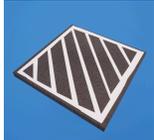
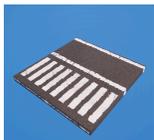
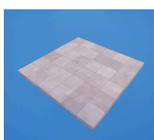
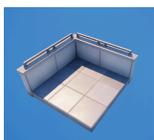
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Mall Interior	Base	Coliseum Wall 04	1	
Mall Interior	Base	Coliseum Arch 01 Half	1	
Mall Interior	Base	Lair Floor Base A A (Version 1)	306	
Mall Interior	Base	Lair Floor Base A A (Version 2)	172	
Mall Interior	Base	Blockout Stairs Rail A D	8	
Mall Interior	Detail	Agency Planter A	36	
Mall Interior	Detail	Planter 04	12	
Mall Interior	Detail	FastFood Bench 01	8	

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Mall Interior	Detail	Commerce BedBench A A	4	
Mall Interior	Detail	Shelves Tshirt	16	
Mall Interior	Detail	Commerce Counter 04	16	
Mall Interior	Detail	Commerce CashRegister	8	
Mall Interior	Detail	AlleyTown HotdogStand A A A	5	
Mall Interior	Detail	Agency Railing full	25	
Mall Interior	Detail	CozyTea Text Sign A B ConvenienceStore	6	
Mall Interior	Detail	Asteria NeonCity SignFrame E44	2	
Mall Interior	Hero	Mall Fountain Whole NoFX	1	

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Parking Lot	Base	Sidewalk 1x1 Street b (Version 1)	31	
Parking Lot	Base	Sidewalk 1x1 Street b (Version 2)	6	
Parking Lot	Base	Sidewalk 1x1 Street b (Version 3)	28	
Parking Lot	Base	Sidewalk 1x1 Street b (Version 4)	4	
Parking Lot	Base	Sidewalk 1x1 Street b (Version 5)	2	
Parking Lot	Base	Blockout Floor A A	2	
Parking Lot	Base	CozyTea Balcony Rail A A	5	
Parking Lot	Base	CozyTea Balcony Corner Rail B A	3	
Parking Lot	Detail	Planter Rectangle	3	

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Parking Lot	Detail	Hedge Straight IntegratedBase	2	
Parking Lot	Detail	Car Stocker	6	
Parking Lot	Hero	Agency Statue	1	
Parking Lot	Hero	Brimstone StatuePedestal A	1	