



Figure 1: Cover Image [1]

Half-Life 2: Antlion Rescue

Version 2.0

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 Document Date: 12/11/2024
 Level Delivery Date: 12/8/2024

Document Revisions Table

Version	Description	Requestor	Date
1.0	Initial Document		11/3/2024
2.0	Final Document 1. Updated Level Summary 2. Updated the Level Feature Overview and make it more specific 3. Updated the Walkthrough level to the Launch Version 4. Updated the SPC, the level's sections have been subdivided, and more categories have been added		12/11/2024

	<ol style="list-style-type: none">5. Added two real world aesthetics reference images for the Visual Theme6. Removed the Bio-pod Puzzle in Appendix A7. Made the location of the level in the HL2 more specific in the Appendix B8. Added more details in the Appendix E about the risks9. Added some potential solutions for the material issues in Appendix F		
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Level Summary

Quick Summary

Antlion Rescue is a single-player level of Half-Life 2, set in the sixth chapter of Half-Life 2, after Gordon Freeman acquires the Pheropod.

Today, Antlion has become a solid ally of the Resistance. Gordon Freeman and an Antlion are sent by the Resistance to the coast to eliminate enemies in a Combine facility. Players need to use the Pheropod to control a trained Antlion in the level, which can help the player defeat enemies, clear rock obstacles in the way, and reach areas that the player cannot access by flying. As the player, you can use the gravity gun to pick up objects to create pathways, operate buttons on panels to disable Thumpers or Combine Fence to allow yourself and the Antlion to infiltrate the facility successfully.

Level Feature Overview

Category	Sub-Category	Feature List
Gameplay Themes	AI Control (Antlion Commander)	<ul style="list-style-type: none"> • Command the Antlion for killing enemies
		<ul style="list-style-type: none"> • Command the Antlion to clear obstacles
		<ul style="list-style-type: none"> • Command the Antlion to get to some high place that the players can't reach to by themselves and solve puzzles there
Player	Player Weapons	Start With: <ul style="list-style-type: none"> • Pheropod • Shotgun • MP7 • Gravity Gun
	Player Skills/Abilities	<ul style="list-style-type: none"> • Controlling the Antlion • Using Gravity Gun to pick up objects • Using the Button on the Combine Interface to control the Thumpers or Combine Fences
AI	Enemies	<ul style="list-style-type: none"> • Combine Soldier with MP7 • Metropolice with MP7 and Manhack • Manhack
	Friendlies	<ul style="list-style-type: none"> • Antlions
Challenges	Obstacles/Hazards	<ul style="list-style-type: none"> • Thumpers • Water • Wooden barricades • Breakable Glass
		<ul style="list-style-type: none"> • Shut down Thumper so that the Antlion can pass through • Build bridge above water so that the Antlion can pass through • Command Antlions to clear obstacles
Context	Location in Game	<ul style="list-style-type: none"> • After Chapter 6 Sandtraps when Gordon Freeman got the Pheropod and was able to control the Antlion Soldiers
	Challenge Fit in Game	<ul style="list-style-type: none"> • Considering the challenge, this level can be set between Sandtraps and Nova Prospekt, after the player has mastered the use of the Pheropod
	Narrative Fit	<ul style="list-style-type: none"> • This level can be set before Freeman and Alyx use the teleporter to escape Nova Prospekt, because after that, the game transitions to the city scene, with no sand for Antlions to spawn.
	Basic Backstory / Results Info	<ul style="list-style-type: none"> • Freeman teams up with a trained Antlion to infiltrate and destroy a Combine facility
Aesthetics	Major Visual Themes	<ul style="list-style-type: none"> • Abandoned Port • Coast • Combine Storage and Garage
	Setting/Mood	<ul style="list-style-type: none"> • The lighting is Dim and the atmosphere is cold • A dilapidated, rusty, abandoned port that has

been occupied and transformed by the Combine.

Development Schedule

Milestone	Date
LDD	11/3/2024
Whitebox	11/10/2024
Initial Gameplay	11/17/2024
Gameplay Complete	11/24/2024
Aesthetics	12/1/2024
Launch	12/8/2024

Level Overview

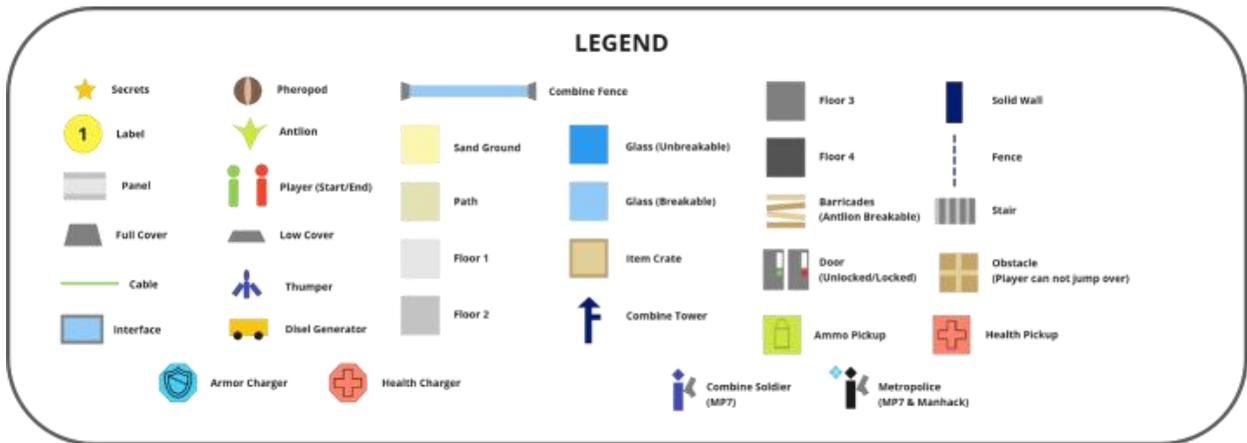
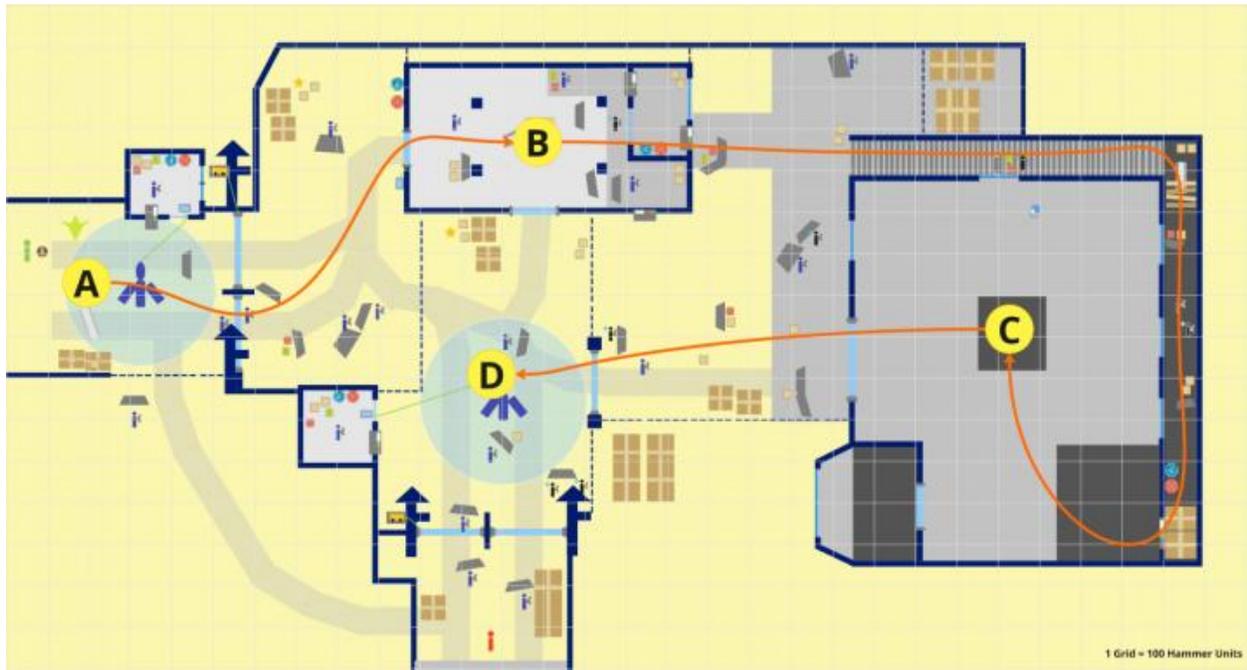


Figure 2: Overview Map Walkthrough [2,3]

Overview Map

Map Label	Gameplay Summary
A	The Player spawns on the beach by a Combine Facility, and they start with a Pheropod. The player clears the enemies by the gate of the facility, after that, they turn off the Combine Fence and command the Antlion to shut down the Combine Fence for them, which gives them the access to the garage at B

B	The players move forward and get to the gate of a garage; after killing all the enemies in the garage, they command the Antlion to clear the rocks pressing on a panel, and use this panel to set up a ramp for them to get to the second floor of the garage, after that, they get to the exit of the garage
C	After exiting the garage, the player will see a white Combine building and a stair on the left side of it. The player successfully entered the building, collaborated with Antlion to eliminate the enemies inside, and successfully escaped the building after closing the exit with a Combine Fence
D	After getting out of the building, the players see the beach again. They turn off the Thumper and Combine Fence and manage to get to the tunnel

Level Details

Detail Maps

Section 1: Coast Beach

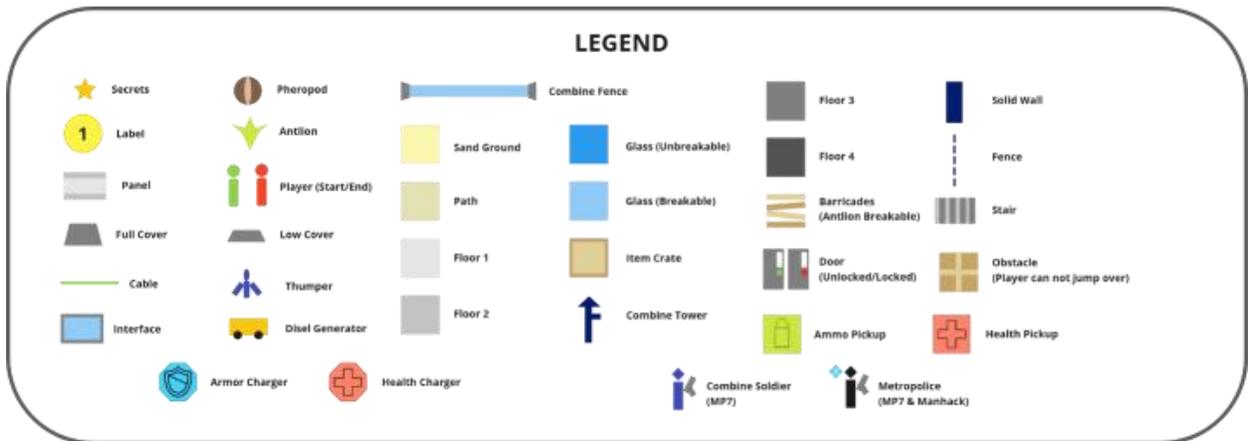
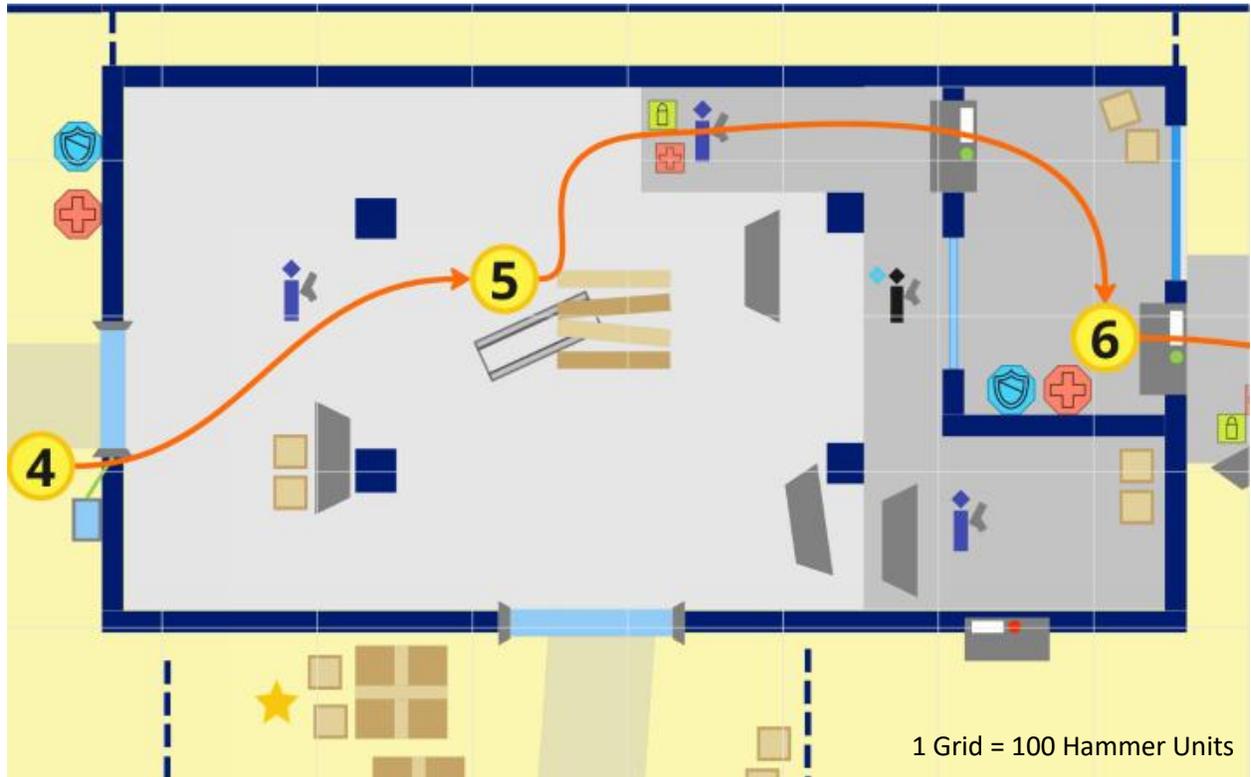


Figure 3: Section 1 Coast Beach Map Walkthrough [2,3]

Map Label / Stage	Event Summary	Event Details
1	<ul style="list-style-type: none"> Puzzle The player spawns on the beach and managed to attack	The player spawns on the beach, initially equipped with a Pheropod, Shotgun, SMG1 and Gravity Gun.

	enemies	
2	<ul style="list-style-type: none">• Puzzle The player helps the Antlions to close the thumper	The player tries to command the Antlion, but it does not have any reaction because of the Thumper, so the player turns off the thumper on an interface with a button in the security booth at 2, after that, the Antlion stops fearing the Thumper
3	<ul style="list-style-type: none">• Puzzle The Antlion helps the player to destroy the Diesel Generator at a higher place that the player cannot reach to by themselves	The player guides the Antlion to destroy the generator on the platform at 3, hence the Combine Fence turns off and the player gets access to 4 (Garage entrance)

Section 2: Combine Garage



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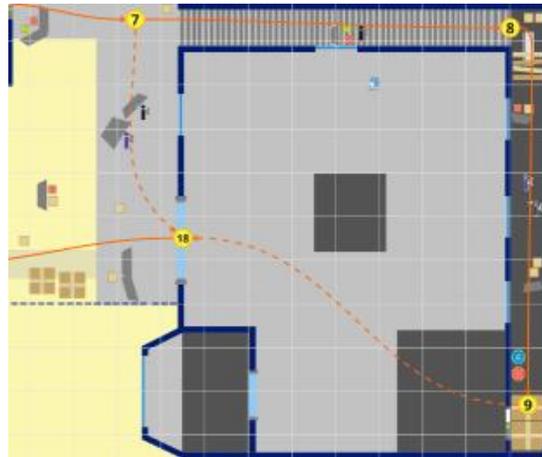
Secrets	Pheropod	Combine Fence	Floor 3	Solid Wall
Label	Antlion	Sand Ground	Floor 4	Fence
Panel	Player (Start/End)	Path	Barricades (Antlion Breakable)	Stair
Full Cover	Low Cover	Floor 1	Door (Unlocked/Locked)	Obstacle (Player can not jump over)
Cable	Thumper	Floor 2	Ammo Pickup	Health Pickup
Interface	Diesel Generator	Combine Tower	Armor Charger	Health Charger
			Combine Soldier (MP7)	Metroplice (MP7 & Manhack)

Figure 4: Section 2 Garage Walkthrough [2,3]

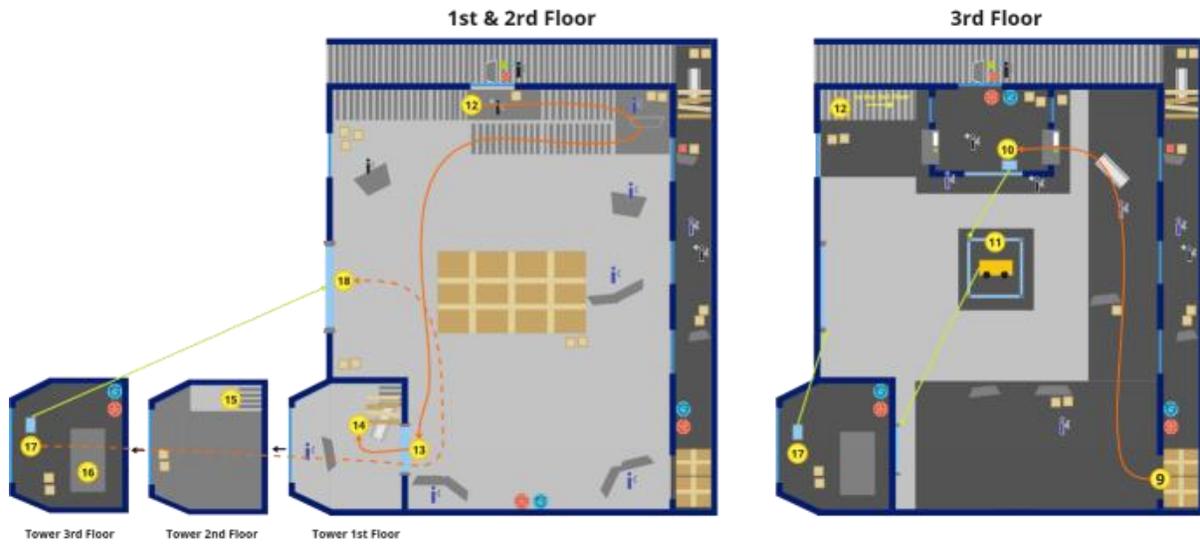
Map Label / Stage	Event Summary	Event Details
4	<ul style="list-style-type: none"> Encounter Puzzle <p>The player turns off the Combine Fence with the button on the interface at 4, after that, the player</p>	<p>A warning occurs, with more enemies coming from the facility to prevent players from entering the building. After clearing them all, the player turns off the Combine Fence with the button on the interface and enters the garage</p>

enters the garage		
5	<ul style="list-style-type: none">• Encounter• Skill Challenge• Puzzle <p>The player tries to pick up a panel with the gravity gun, but it does not have any reaction. So, the player commands the Antlion to clear some rocks pressing on the panel</p>	After clearing all the enemies in the garage, the player guides Antlion to destroy the rocks at 5, which makes the panel under them pickable for the player
6	<ul style="list-style-type: none">• Skill Challenge <p>The player builds a ramp with the panel</p>	The player picks up the panel and builds a bridge to get to the second floor and exits from this garage from the Door at 6

Section 3: Building



1 Grid = 100 Hammer Units



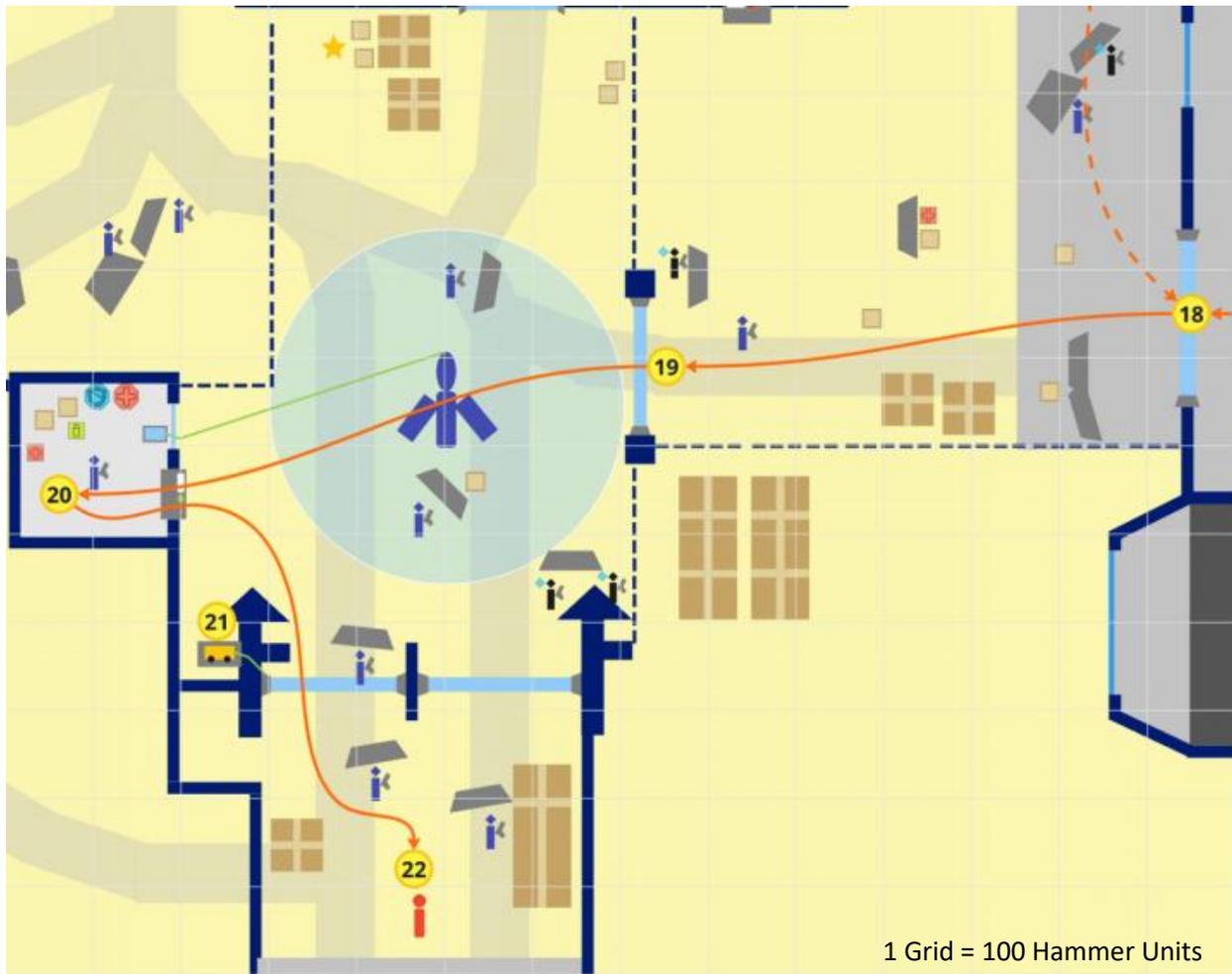
LEGEND

★ Secrets	☉ Pheropod	— Combine Fence	■ Floor 3	■ Solid Wall
① Label	★ Antlion	■ Sand Ground	■ Floor 4	- - - Fence
■ Panel	♂♀ Player (Start/End)	■ Path	■ Barricades (Antlion Breakable)	■ Stair
■ Full Cover	■ Low Cover	■ Floor 1	■ Door (Unlocked/Locked)	■ Obstacle (Player can not jump over)
— Cable	⚡ Thumper	■ Floor 2	■ Ammo Pickup	■ Health Pickup
■ Interface	🚚 Diesel Generator	↑ Combine Tower	🛡️ Armor Charger	🏥 Health Charger
			👤 Combine Soldier (MP7)	👤 Metropolis (MP7 & Manhack)

Figure 5: Section 3 Combine Building Walkthrough [2,3]

Map Label / Stage	Event Summary	Event Details
7	<ul style="list-style-type: none"> • Encounter • Narrative beat <p>The player follows the stair to reach the back of the building</p>	The player gets out of the garage and clears some enemies defending the building. After that, the player tries to enter the building, however, they find that the front gate has a Combine Fence which blocks their way, so they look around and find a stair to get to the back of the building
8	<ul style="list-style-type: none"> • Puzzle • Encounter <p>The player gets to the back of the building and command the Antlion to clear obstacles for them</p>	The player commands the Antlion to clear the rocks that block the door. After that, they clear some enemies on the balcony
9	<ul style="list-style-type: none"> • Encounter • Puzzle <p>The player successfully steals into the building with the Ventilation Duct</p>	At the end of the balcony, the player picks up the panel (or the bin) to set up as a ramp or stepping rock to get to the platform. The player goes through the ventilation duct to get inside of the building
10	<ul style="list-style-type: none"> • Encounter • Skill Challenge • Puzzle <p>The player turns off the fence around generator, which makes it possible for the Antlion to destroy the diesel generator</p>	The player enters the room, clears enemies on the 2nd floor of the building. After that, the player finds a security room at the end of the grate way, they enter the monitoring room at 10 where they turn off the fence around generator
11	<ul style="list-style-type: none"> • Puzzle <p>The player turns off the fence at 13 by commanding the Antlion to destroy the diesel generator connects to it</p>	The player commands the Antlion to destroy the generator at 11, which turns off the fence at 13 (tower entrance). After that, some enemies come from the tower
12	<ul style="list-style-type: none"> • Encounter <p>The player goes down to the 1st floor</p>	The player goes down to the 1st floor by the stairs and clears the enemies on the 1st floor and on the stairs
13	<ul style="list-style-type: none"> • Encounter <p>The player enters the tower</p>	The player enters the tower, clears all the enemies defending the tower entrance. After that, the player finds that they could not use the ladder because of the rocks
14	<ul style="list-style-type: none"> • Skill Challenge • Puzzle <p>The player gets to the 2nd floor of the tower</p>	The player guides the Antlion to destroy the rocks pressing on the panel, hence makes the panel pickable and make the ladder usable. After that, the player climbs to the 2 nd floor of the tower
15-16	<ul style="list-style-type: none"> • Skill Challenge • Puzzle <p>The player set up a ramp to get to the control interface at 17</p>	The player uses the gravity gun to pick up a panel to set up a ramp to connect the 2nd floor and 3rd floor of the tower and gets to the control interface at 17
17	The player turns off the Combine	The player turns off the power of the exit of the building

	Fence at the exit	with the button on the interface and has access to the exit of the building
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Secrets	Pheropod	Combine Fence	Floor 3	Solid Wall
Label	Antlion	Sand Ground	Floor 4	Fence
Panel	Player (Start/End)	Path	Barricades (Antlion Breakable)	Stair
Full Cover	Low Cover	Floor 1	Door (Unlocked/Locked)	Obstacle (Player can not jump over)
Cable	Thumper	Floor 2	Ammo Pickup	Health Pickup
Interface	Diesel Generator	Combine Tower	Armor Charger	Health Charger
Armor Charger	Health Charger	Combine Soldier (MP7)	Metropolice (MP7 & Manhack)	

Figure 6: Building Exit to Facility Exit Walkthrough [2,3]

Section 4: Facility Exit Gate

Map Label / Stage	Event Summary	Event Details
18	<ul style="list-style-type: none"> • Encounter • Narrative beat The player leaves the building	The player leaves the building and tries to get to the tunnel to escape from the facility, however, more enemies come out to defend the beach.
19	<ul style="list-style-type: none"> • Encounter • Puzzle The player turns off the thumper	The player clears all the enemies defending the beach and turns off the thumper with the button on the interface in the security booth at 18
20	<ul style="list-style-type: none"> • Encounter The player eliminates the last wave of enemies coming from the tunnel	After the player turns off the Thumper, more enemies come from the tunnel at 20. The player eliminates all the enemies
21	<ul style="list-style-type: none"> • Puzzle The player turns off the Combine Fence by commanding the Antlion	The player commands the Antlion to destroy the generator at 19, which turns off the Combine Fence and the player finally have the access to the tunnel
22	<ul style="list-style-type: none"> • Narrative beat The player leaves the facility and meets Alyx at the tunnel	The player enters the tunnel and leaves the facility

Skill Progression Chart

Skill	Section 1		Section 2		Section 3		Section 4	
	Coast Beach	Facility Entrance	Garage	Stairs & Balcony	Warehouse & Workshop	Tower	Beach	Security Booth
Shooting	X	X	X	X	X	X	X	X
Interaction (Using Gravity Gun to pick up objects)	X	X	X	X	X	X	X	X
Movement	X	X	X	X	X	X	X	X
Weapons								
SMG1	M	H	H	H	H	H	H	H
Shotgun	M	H	H	H	H	H	H	H
Gravity Gun	M	H	H	H	H	H	H	H
Antlion (Pheropod)	E	M	H	H	H	H	H	H
Skills								
Accurately throw the Pheropod	E	M	H	H	H	H	H	H
Thumper & Button	E	M	H	H	H	H	H	H
Diesel Generator & Combine Fence	E	M	H	H	H	H	H	H
Set up ramp with a panel			E	M	H	H	H	H
Command the antlion to destroy obstacles			E	M	H	H	H	H
Enemies								
Combine Soldier (MP7)	E	M	H	H	H	H	H	H
Metropolice (MP7 & Manhack)	E	M	H	M	H	H	H	H

	Legend			
	E	M	H	X
New skills	Intro	Reinforce	Master	
Starting Skills (START)	Beginner	Advanced	Expert	Master
Challenges	Easy	Medium	Hard	Legendary

Figure 7: Antlion Rescue Level Skill Progression Chart [4]

Aesthetic References

The level begins on a desolate beach, which is like Sandtraps chapters from HL2. From section 2, it changes to the Combine facility. The environment is both organic and mechanical, creating spaces that blend natural landscapes with alien (Combine) architecture.

The overall lighting is dim and cold, with the beach enveloped in a gloomy atmosphere reminiscent of the bleak shores in Death Stranding.

Visual Theme 1: Coast Light source and Layout



Figure 8: Coast Beach Scene Contact Sheet [5,6,7]

Visual Theme 2: Military Facility

Upon entering the Combine facility, the scene becomes slightly brighter. Different materials are used in the interior of the building to distinguish functions. The walls of the building use a deep blue material in the Combine style, and there is a vehicle under repair inside the building, along with a main control room (the tower)

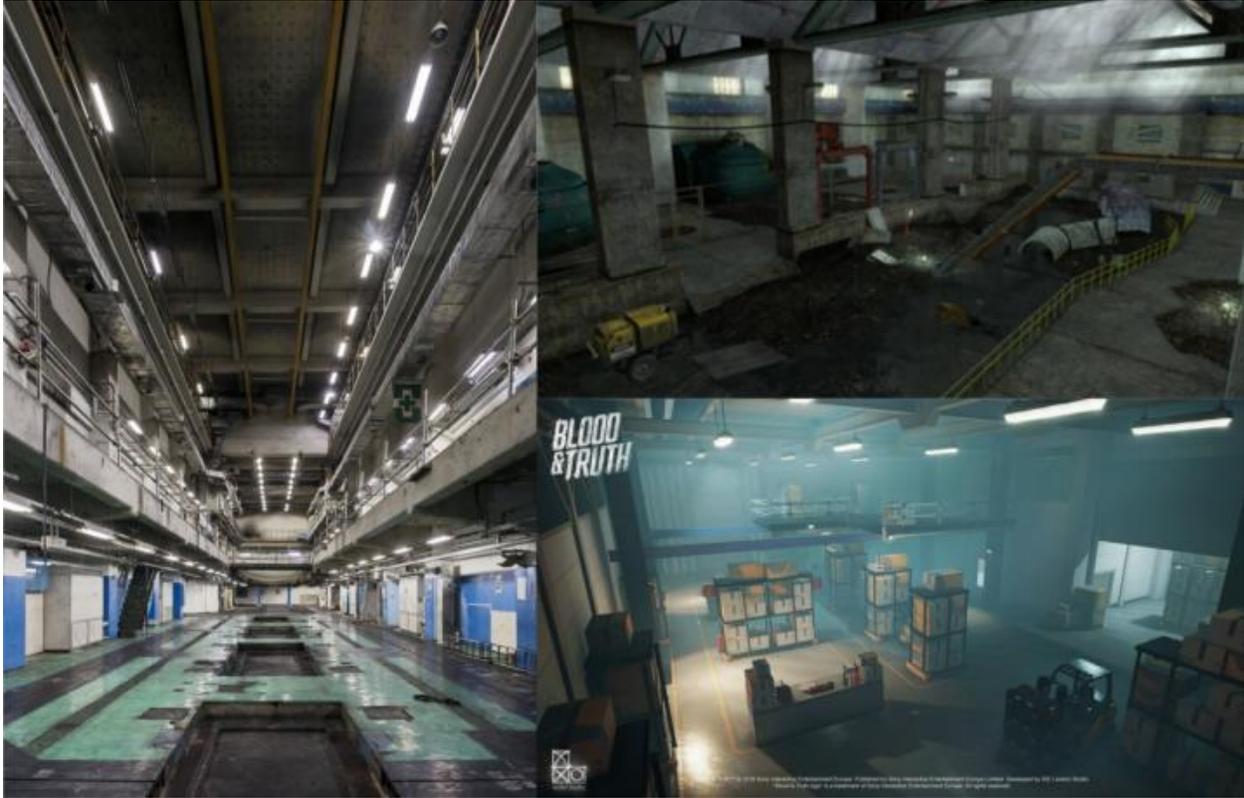


Figure 9: Interior of the building Contact Sheet [8,9,10]

References

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- [9] *Abandoned warehouse, now a home for Xenian wildlife*. (2023, September 17). LambdaGeneration. <https://community.lambdageration.com/half-life/post/c0fjdoevg8g>
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Appendices

Appendix A: New Skills / Gameplay Mechanics

Command the Antlion to destroy the Diesel Generator and Obstacles

Antlions will not only serve as allies helping the player eliminate enemies but will also assist in removing obstacles along the way. This includes:

1. Destroying (shutting down) diesel generators to disable the Combine Fence.
2. Destroying rock or sand obstacles to allow the player to pass through.

The player needs to throw the Pheropod toward the desired location (such as behind the obstacle, or near the Diesel Generator). The Antlions will then proactively clear the obstacles on the path or the Diesel Generator on a platform.

Appendix B: Context Detail

General Context

Plot Location: This level is set in the world of "Half-Life 2," following the "Sandtraps" chapter and before Freeman and Alyx use the teleporter to escape Nova Prospekt. At that stage, the player has learned to use the Pheropod to control Antlions.

Challenge: The levels Combine combat, puzzle-solving, and strategic use of Antlion's abilities, adding depth and difficulty to the game. Players need to cleverly utilize the environment and Antlion to fight against Combines. Due to the varying abilities of players and Antlions, this level requires players to collaborate with Antlions to solve puzzles in addition to combat.

Aesthetics: The level presents a gloomy, desolate beach environment (darker than the coast in the game) and a Combine Facility. The overall lighting is dim, creating a tense atmosphere that aligns with the game's overall aesthetic style.

Backstory

Under the rule of the Combine, living beings suffered brutal oppression. The Combine had established many secret laboratories to conduct cruel experiments on Antlions, attempting to transform them into more lethal biological weapons.

According to the intelligence from Resistance, a Combine facility on the coast has preserved relevant confidential documents. To weaken the Combine's power and prepare for the upcoming battle, Gordon decides to infiltrate the facility at dawn.

Aftermath

After intercepting the relevant documents from the facility, the Resistance located the related laboratories and destroyed them one by one. More and more trained Antlions became allies of the Resistance, providing strong support against the Combine.

Appendix C: Character Descriptions

NPC 1

N/A

Appendix D: Dialog Flow

NPC 1

N/A

Appendix E: Development Risks



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★ Secrets	☪ Pheropod	▬ Combine Fence	■ Floor 3	■ Solid Wall
① Label	★ Antlion	■ Sand Ground	■ Floor 4	▬ Fence
■ Panel	■ Player (Start/End)	■ Path	▬ Barricades (Antlion Breakable)	▬ Stair
■ Full Cover	■ Low Cover	■ Floor 1	■ Door (Unlocked/Locked)	■ Obstacle (Player can not jump over)
■ Cable	■ Thumper	■ Floor 2	■ Ammo Pickup	■ Health Pickup
■ Interface	■ Diesel Generator	■ Combine Tower	■ Armor Charger	■ Health Charger
			■ Combine Soldier (MP7)	■ Metropolice (MP7 & Manhack)

Map Label	Description/Mitigation	Type	Priority
5	If the panel at 5 is thrown out of the room, it may cause a Showstopper. So, it needs a respawn mechanic to make sure that the player could always have it in the room.	Scripts	High

Appendix F: Key Asset Needs

Description	Type	Priority
To make it reasonable for the Antlion to respawn in the interior scenes of the building, some pits need to be set up on the ground. Therefore, it is necessary to find the corresponding model, and the material of the model needs to match the material of the ground. (Maybe you can refer to the Nova Prospekt chapter in the game.)	Mesh/Texture	Medium