



## *Fallout 4: “Predator’s Ploy”*

Version 2.0

Designer: Layne Zhang  
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Intended Level Delivery Date: 4/26/2024

### Document Revisions Table

Version	Description	Requestor	Date
1.0	Initial Document	Professor Katie Wood Clark	1/28/2024
2.0	<b>Revision:</b> <ul style="list-style-type: none"><li>• Changed enemy information</li><li>• Changed map</li><li>• Adjusted SPC</li><li>• Balanced economy systems (enemy kill awards, new round awards, shop item costs, buff caps – see appendix)</li><li>• Refined on the trading system (see appendix)</li><li>• Refined on the Buff system (see appendix)</li></ul>	Professor Katie Wood Clark	5/7/2024

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# Level Design Document

## Level Summary

### Quick Summary

"Predator's Ploy" is a single-player 3D FPS level designed in **Fallout 4**, serving as a side quest that doesn't affect the main storyline. Players receive a distress note at Red Rocket Station and head to HelloWin Town in Greener Place to rescue the townsfolk, only to discover everyone in the town is dead, except for a vending robot named KhouI found in a bar. After a brief interaction, players learn that the distress signal was a ploy by nearby ghouls to lure more people into the area. Players obtain a Pipboy upgrade from KhouI, enabling them to gain buffs through defeating enemies.

The level focuses on roguelike combat in an arena, where players enhance their abilities by acquiring buffs or caps and purchasing equipment, preparing for increasingly challenging foes. It tests the player's resource management, map exploration/traverse, terrain utilization, and weapon management skills. Players are encouraged to try different combinations for a highly replayable and exhilarating combat experience.

This level takes place after the midpoint of the main storyline when players have familiarized themselves with various types of ghouls and an array of weapons and items.

### Level Feature Overview

Category	Sub-Category	Feature List
Player	Player Weapons	<ul style="list-style-type: none"><li>• Pistol (Wastelander's Friend)</li><li>• Rifle (Combat Rifle)</li><li>• Shotgun (Double-barrel shotgun)</li><li>• Pipe Weapon (Bolt-action)</li><li>• Heavy Weapon (Flamer; Missile Launcher)</li><li>• Laser (Laser Gun; Gatling Laser)</li><li>• Plasma (Plasma Gun)</li><li>• Thrown (Cryo Grenade; Molotov; Frag Grenade; Pulse Grenade)</li><li>• Melee (Shishkebab; Machete; Chinese Officer Sword)</li></ul>
	Player Skills/Abilities	<ul style="list-style-type: none"><li>• Buff Acquiring by killing enemies</li></ul>
AI	Enemies	<ul style="list-style-type: none"><li>• Ghouls – melee<ul style="list-style-type: none"><li>◦ Level 1, 2, 3, 4</li></ul></li><li>• Mirelurk – melee<ul style="list-style-type: none"><li>◦ Level 1, 2, 3, 4</li></ul></li><li>• Bloatfly – ranged<ul style="list-style-type: none"><li>◦ Level 3, 4</li><li>◦ Appear from the Round 4</li></ul></li></ul>
	Friendlies	<ul style="list-style-type: none"><li>• N/A</li></ul>

Challenges	Gameplay Themes	<ul style="list-style-type: none"> <li>• Killing &amp; Receiving buffs</li> <li>• Trading</li> <li>• Exploring &amp; Collecting</li> <li>• Resource Management</li> </ul>
	Obstacles/Hazards	<ul style="list-style-type: none"> <li>• Radiated Pool</li> </ul>
	New/Unique Gameplay	<ul style="list-style-type: none"> <li>• Killing &amp; Receiving buffs</li> </ul>
Context	Where Fits in Game	<ul style="list-style-type: none"> <li>• Standalone <ul style="list-style-type: none"> <li>○ Supplemental level to the main storyline</li> <li>○ Won't affect the main quest of the game</li> <li>○ Fictional story</li> </ul> </li> <li>• Access at Red Rocket, get here by a car</li> </ul>
	Challenge Fit	<ul style="list-style-type: none"> <li>• About half of the game (main quest) <ul style="list-style-type: none"> <li>○ When players have encountered various types of ghouls and have a basic understanding of different weapons</li> </ul> </li> </ul>
	Additional Info	<ul style="list-style-type: none"> <li>• The creator of Khoul designed an experiment in HelloWin Town in Greener Place to optimize the Pipboy Upgrade program which brought a disaster to this town (he also died due to his failure to defeat those ghouls, but Khoul kept sending distress notes out following his pre-programmed command)</li> </ul>
Aesthetics	Major Visual Themes	<ul style="list-style-type: none"> <li>• Abandoned town with forest (e.g., Concord)</li> </ul>
	Setting/Mood	<ul style="list-style-type: none"> <li>• Desolate</li> <li>• Eerie</li> <li>• Mysterious atmosphere</li> <li>• Well-equipped yet completely deserted (no lives)</li> </ul>

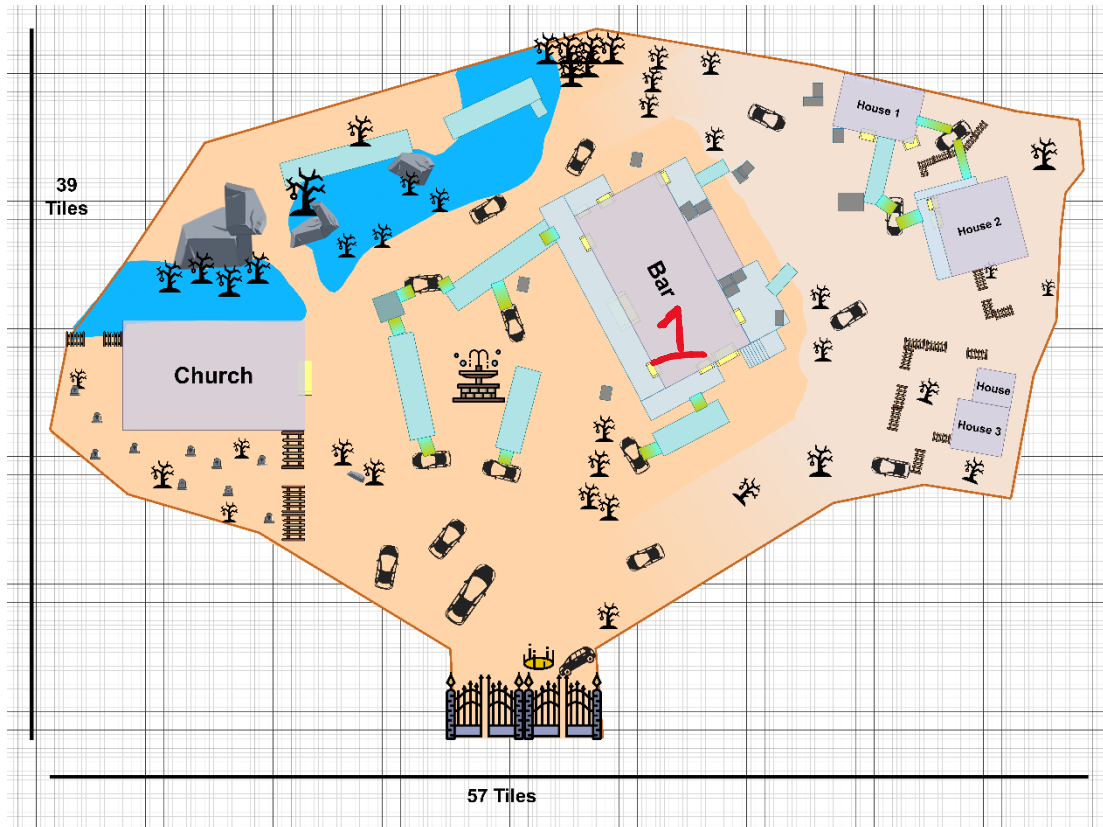
## Development Schedule

Milestone	Date
LDD	1/30/2024
Whitebox	2/13/2024
Initial Gameplay	3/5/2024
Gameplay Complete	4/2/2024
Aesthetics	4/16/2024
Launch	4/26/2024

## Level Details

### Level Map

#### Overview



Legend [2]		One tile (4 x 4) = 256 x 256 CK units	
	Player start		Feral Ghoul (where they come out each round)
	Cover (similar to Rock)		Mirelurk
	Opening		Bloatfly
	Unlocked Chest		Explosive
	Locked Chest		Ramp
	Chest (see interior)		Radiated Pool
			Bridge

\*\* The higher the lighter \*\*

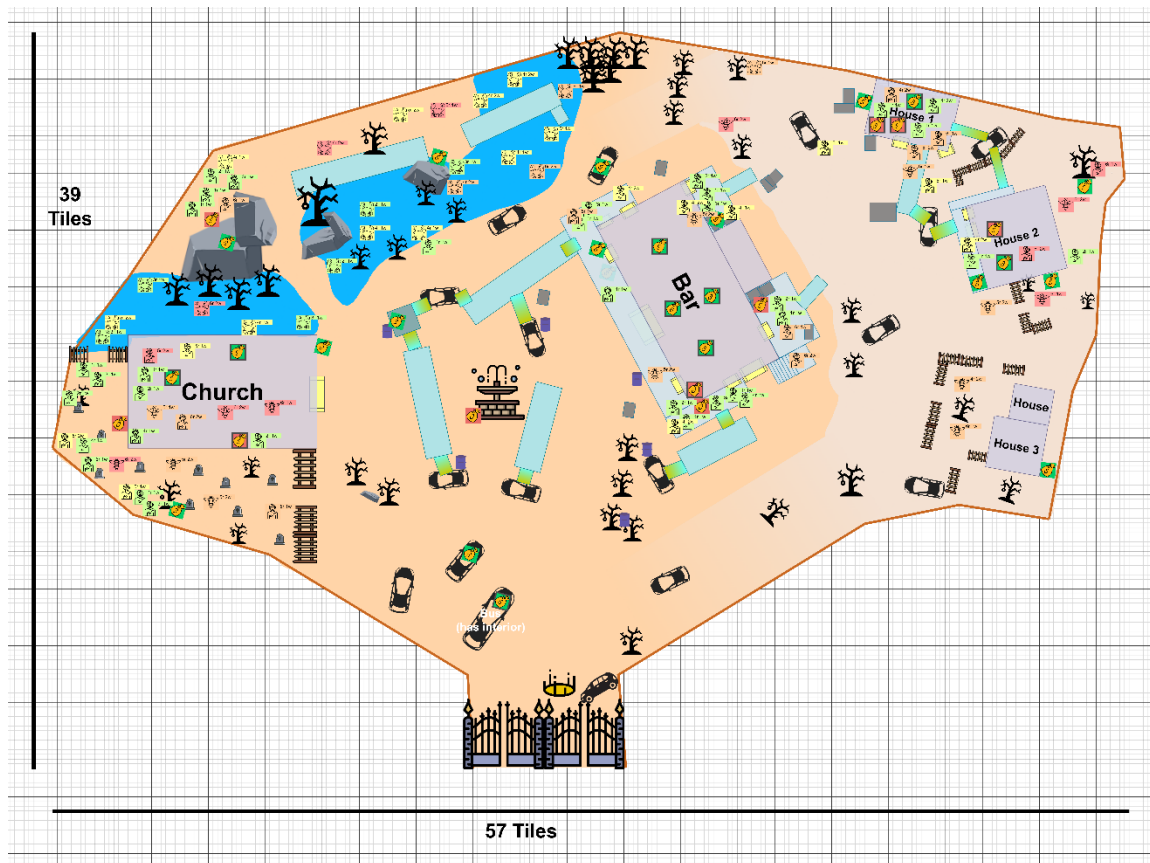
Note: Some intuitive icons (e.g., car, fence, gate) will not be captured here. (All from [2])

Figure 1: Overview Map [1]

### Gameplay Summary

Map Label	Gameplay Summary	Other Notes
1	<ul style="list-style-type: none"><li>Find Khoul in the bar. After talking with it, players understand the overall background story about the town (except the experiment part), and</li><li>Khoul warns players predators are coming, tasks players to kill them and offers caps as rewards.</li><li>Players obtain a Pipboy upgrade program (test version, only usable in the town) and are told to kill enemies to upgrade their abilities.</li><li>Waves start (six rounds and nine waves in total).</li></ul>	<ul style="list-style-type: none"><li>Between waves there is a “Rest” Stage, when players can visit Khoul to trade caps with it to get items and weapons.</li></ul>

## Detailed Map - Exterior



Legend [2]		One tile (4 x 4) = 256 x 256 CK units	
	Player start		Feral Ghoul (where they come out each round)
	Cover (similar to Rock)		Mirelurk
	Opening		Bloaterfly
	Unlocked Chest		Explosive
	Locked Chest		Ramp
	Chest (see interior)		Radiated Pool
			Bridge
			Patio
			Column / Cover
			Higher ground
			Lower ground

\*\* The higher the lighter \*\*

Note:  
Some intuitive icons (e.g., car, fence, gate) will not be captured here. (All from [2])

Figure 2: Detailed Exterior Map [1]



## Detailed Map - Bar 1F

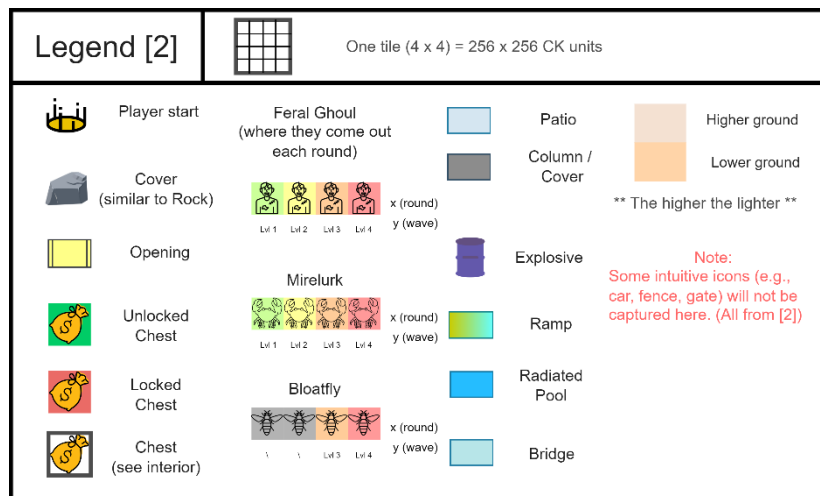
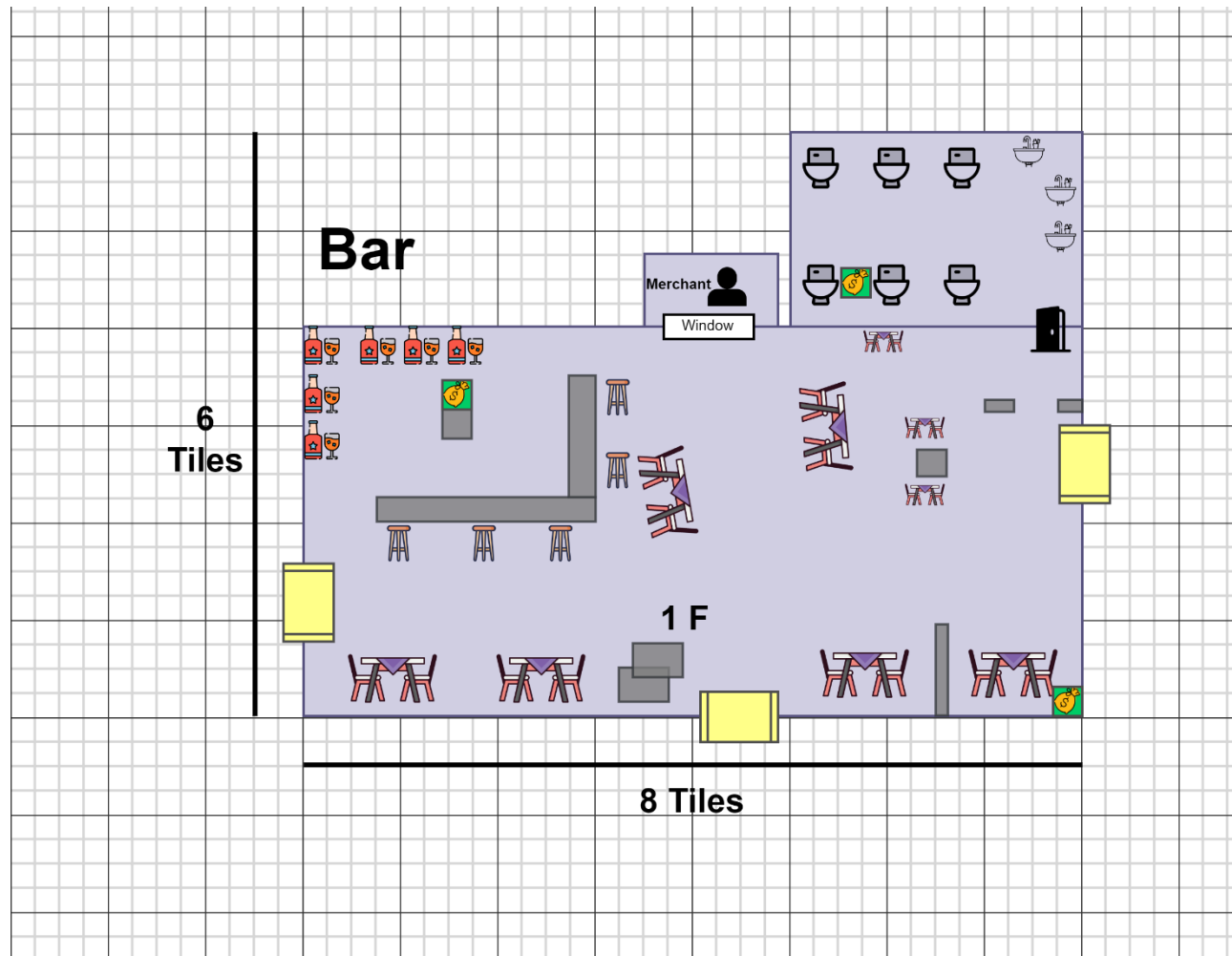
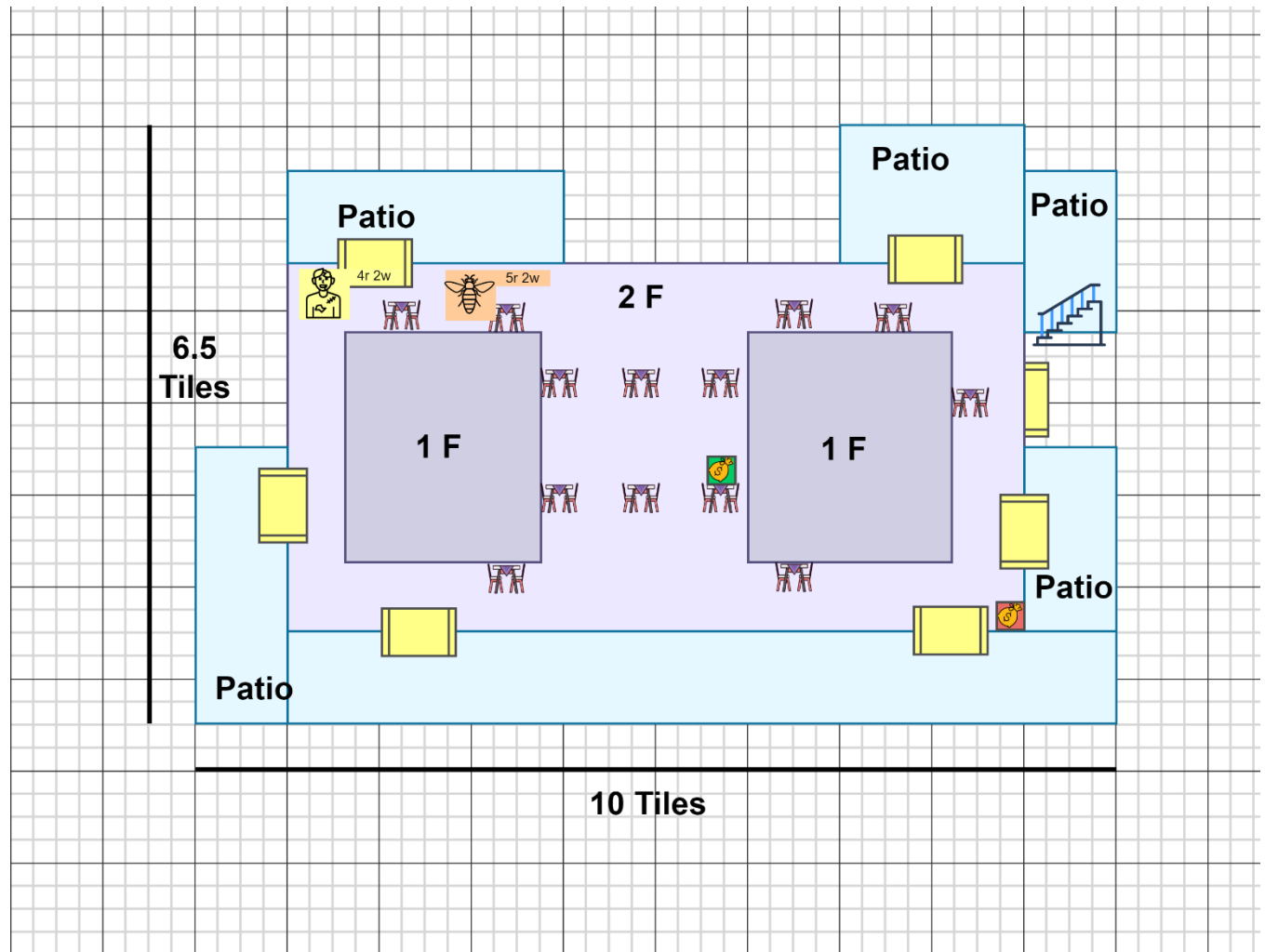


Figure 3: Detailed Bar 1F [1]

## Detailed Map - Bar 2F



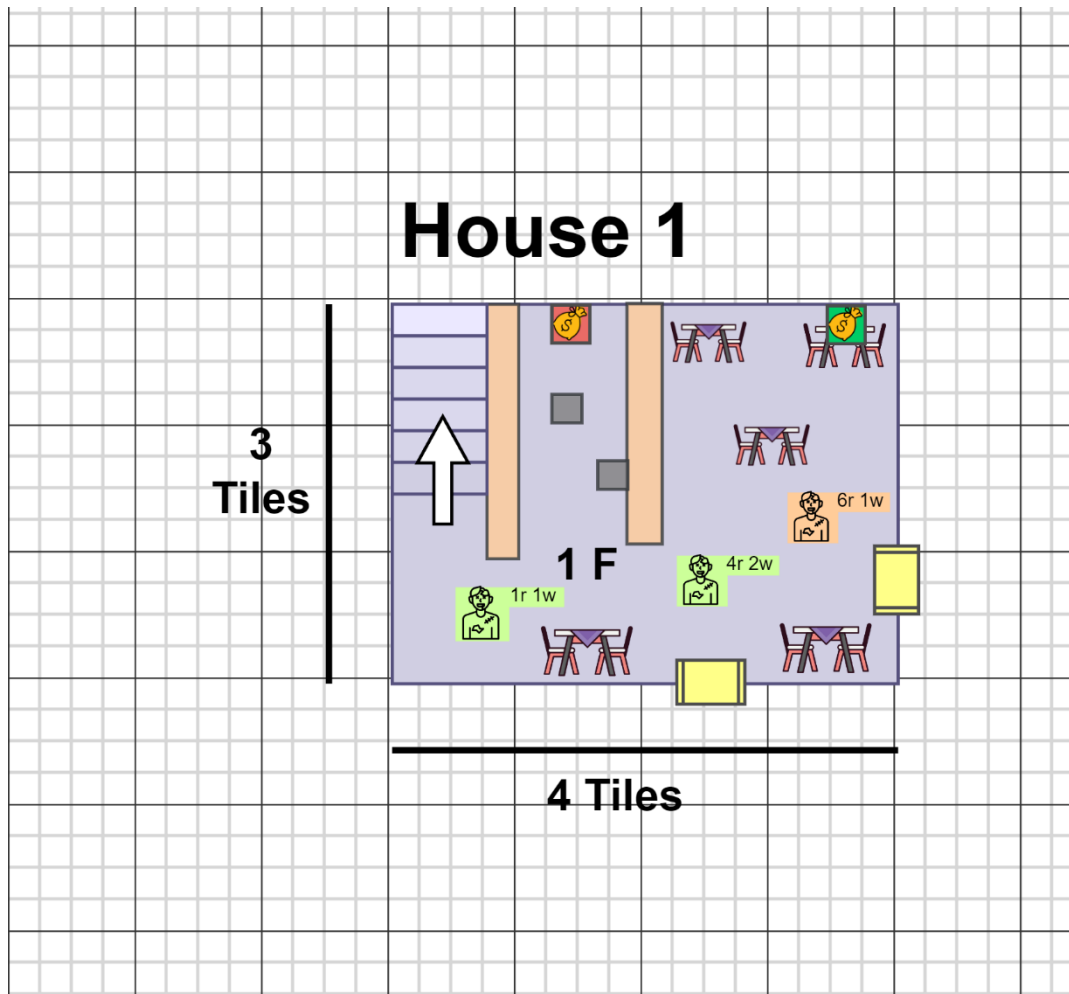
Legend [2]		One tile (4 x 4) = 256 x 256 CK units	
	Player start		Feral Ghoul (where they come out each round)
	Cover (similar to Rock)		Mirelurk
	Opening		Bloatfly
	Unlocked Chest		Explosive
	Locked Chest		Ramp
	Chest (see interior)		Radiated Pool
			Bridge
			Higher ground
			Lower ground

\*\* The higher the lighter \*\*

Note:  
Some intuitive icons (e.g., car, fence, gate) will not be captured here. (All from [2])

Figure 4: Bar 2F [1]

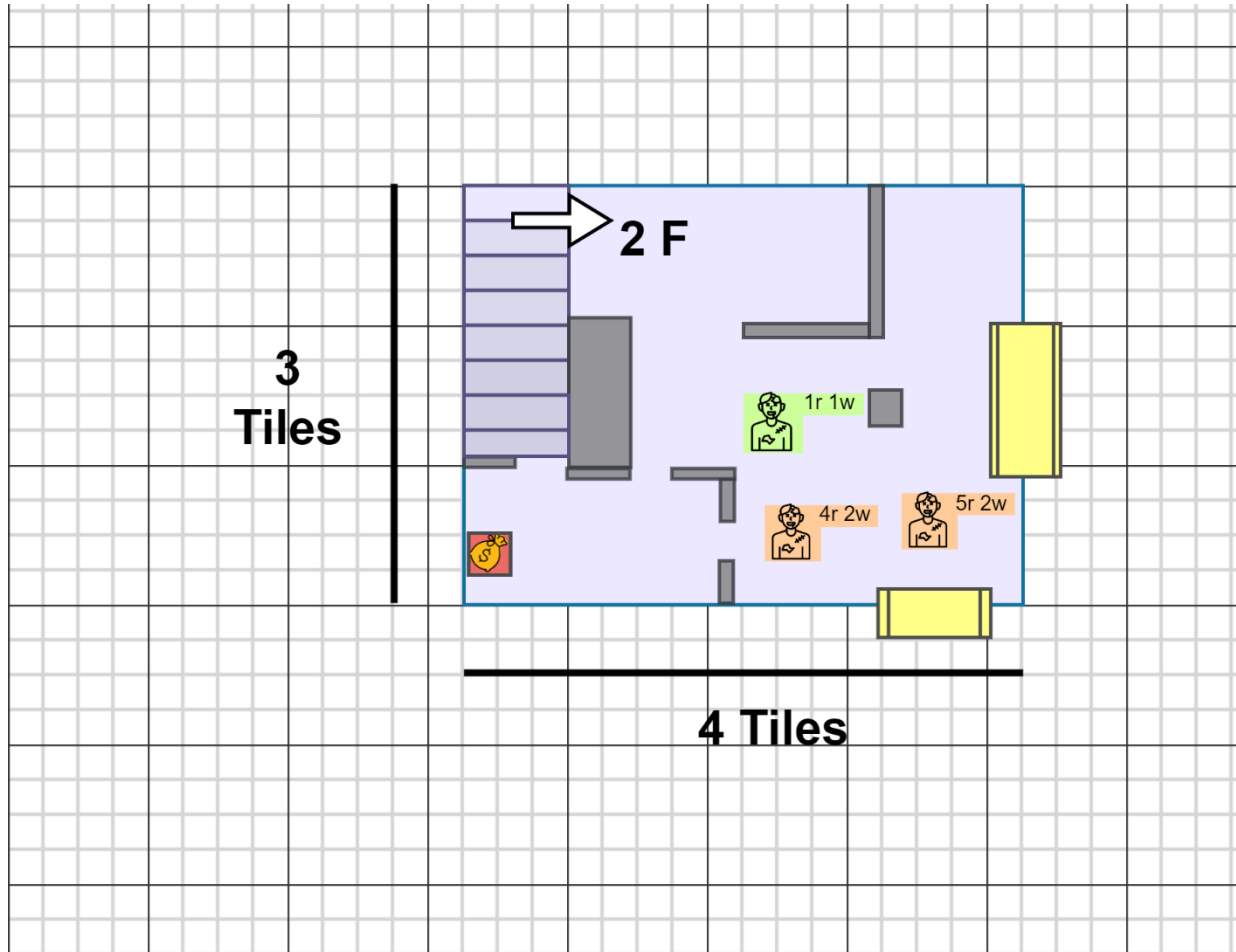
## Detailed Map - House1 1F



Legend [2]		One tile (4 x 4) = 256 x 256 CK units	
	Player start		Feral Ghoul (where they come out each round)
	Cover (similar to Rock)		Mirelurk
	Opening		Bloatlfly
	Unlocked Chest		Explosive
	Locked Chest		Ramp
	Chest (see interior)		Radiated Pool
			Bridge
			Note: Some intuitive icons (e.g., car, fence, gate) will not be captured here. (All from [2])

Figure 5: House1 1F [1]

## Detailed Map - House1 2F



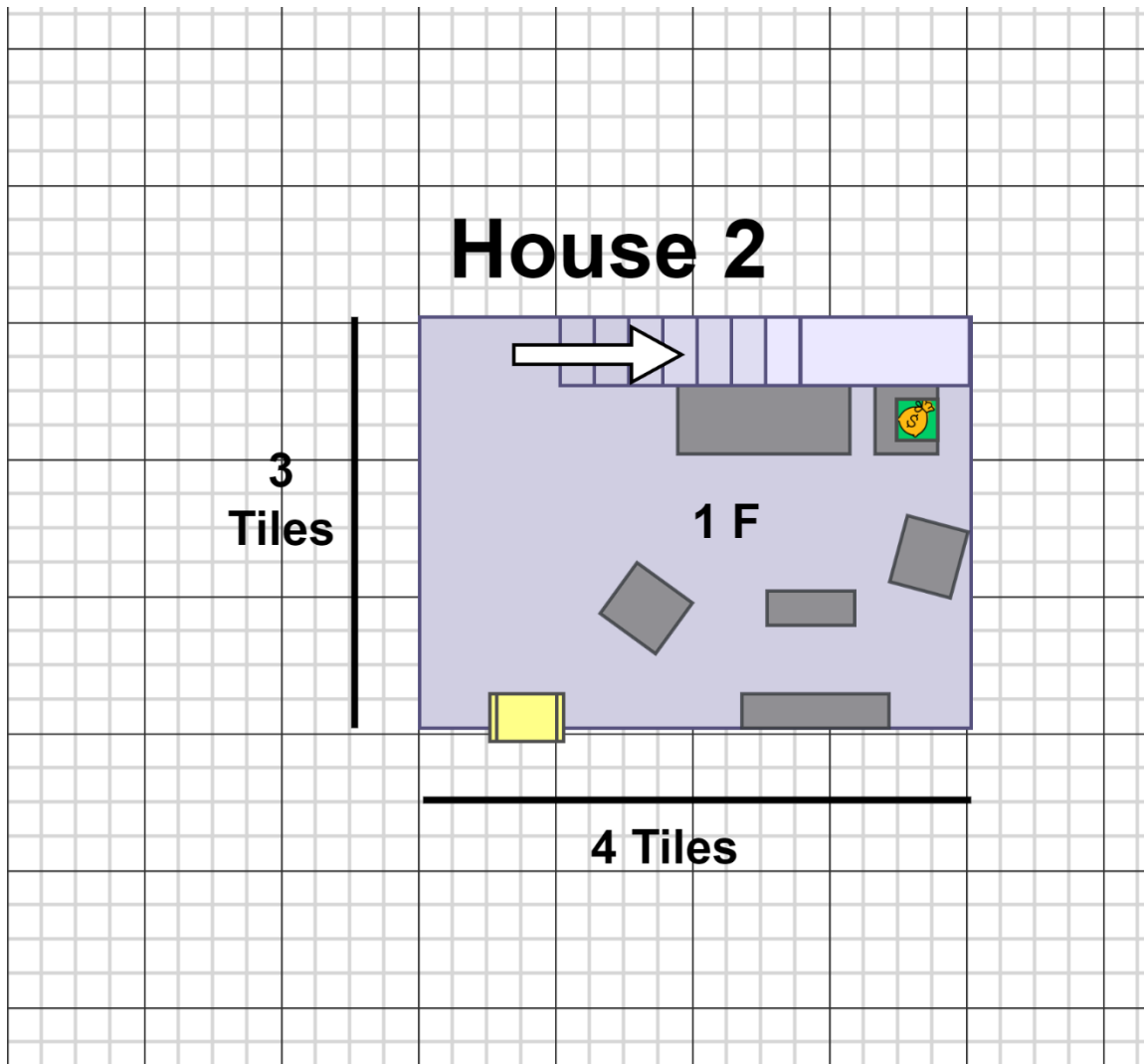
Legend [2]		One tile (4 x 4) = 256 x 256 CK units	
	Player start		Feral Ghoul (where they come out each round)
	Cover (similar to Rock)		Mirelurk
	Opening		Bloatfly
	Unlocked Chest		Explosive
	Locked Chest		Ramp
	Chest (see interior)		Radiated Pool
			Bridge

**Note:**  
Some intuitive icons (e.g., car, fence, gate) will not be captured here. (All from [2])

**\*\* The higher the lighter \*\***

Figure 6: House1 2F [1]

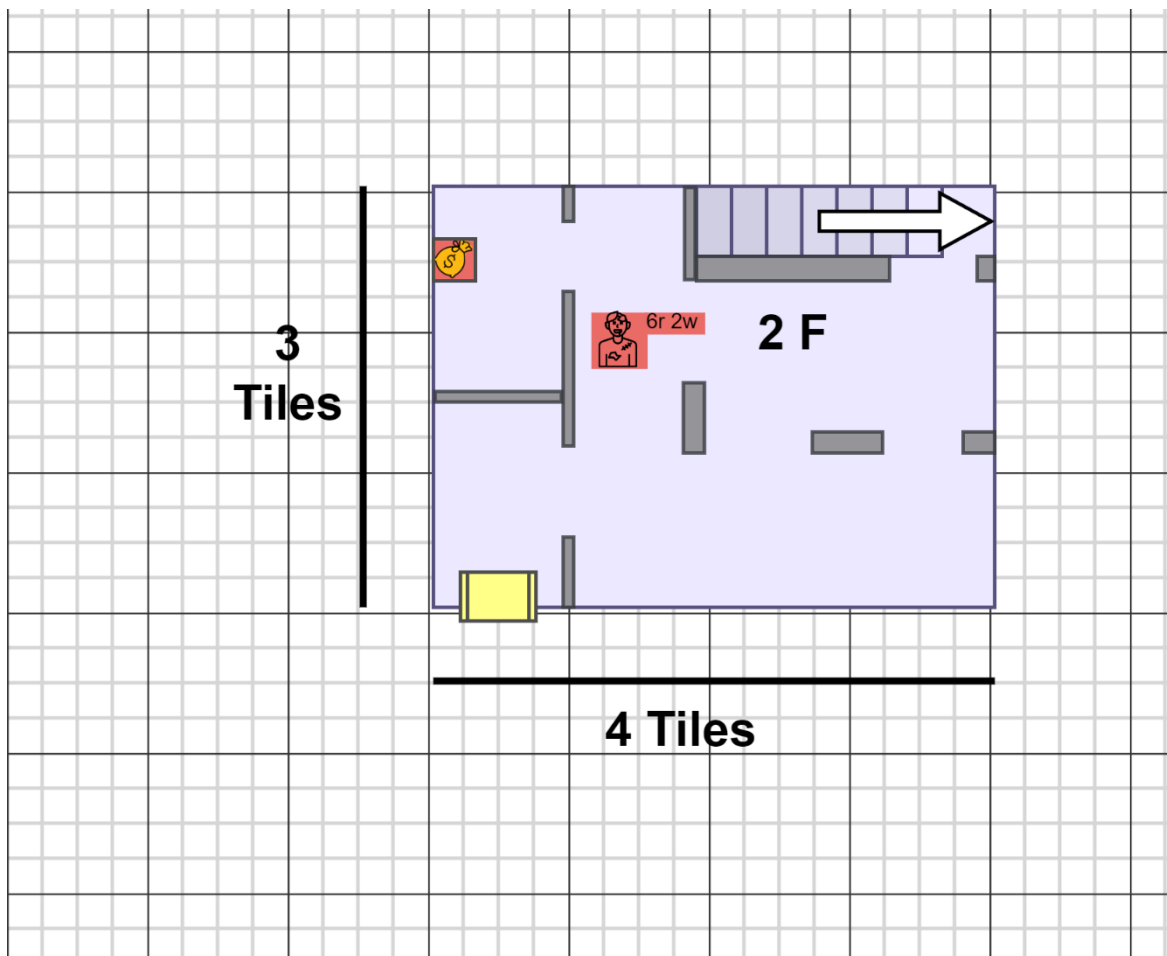
## Detailed Map - House2 1F



Legend [2]		One tile (4 x 4) = 256 x 256 CK units	
	Player start		Feral Ghoul (where they come out each round)
	Cover (similar to Rock)		Patio
	Opening		Column / Cover
	Unlocked Chest		Explosive
	Locked Chest		Ramp
	Chest (see interior)		Radiated Pool
			Bridge
			Higher ground
			Lower ground
			** The higher the lighter **
			Note: Some intuitive icons (e.g., car, fence, gate) will not be captured here. (All from [2])

Figure 7: House2 1F [1]

## Detailed Map - House2 2F



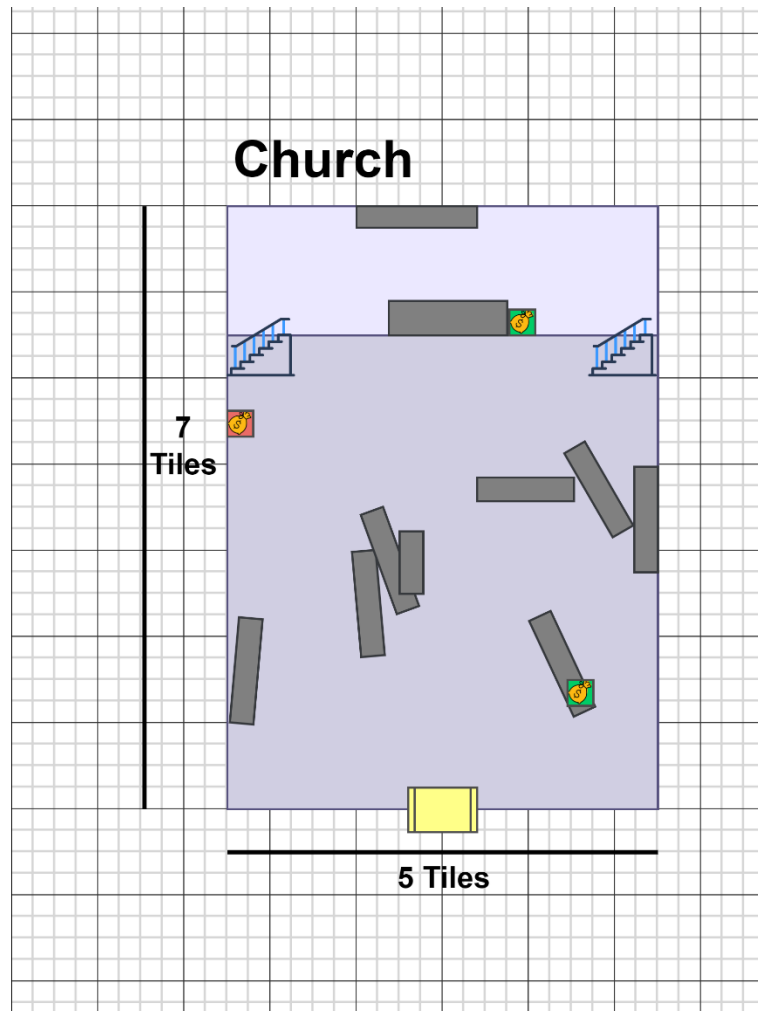
Legend [2]		One tile (4 x 4) = 256 x 256 CK units	
	Player start		Feral Ghoul (where they come out each round)
	Cover (similar to Rock)		Mirelurk
	Opening		Bloatlfly
	Unlocked Chest		Explosive
	Locked Chest		Ramp
	Chest (see interior)		Radiated Pool
			Bridge
			Patio
			Column / Cover
			Higher ground
			Lower ground

\*\* The higher the lighter \*\*

Note:  
Some intuitive icons (e.g.,  
car, fence, gate) will not be  
captured here. (All from [2])

Figure 8: House2 2F [1]

## Detailed Map - Church



Legend [2]		One tile (4 x 4) = 256 x 256 CK units	
	Player start		Feral Ghoul (where they come out each round)
	Cover (similar to Rock)		Mirelurk
	Opening		Bloatlly
	Unlocked Chest		Explosive
	Locked Chest		Ramp
	Chest (see interior)		Radiated Pool
			Bridge
			Higher ground
			Lower ground

**Note:**  
Some intuitive icons (e.g., car, fence, gate) will not be captured here. (All from [2])

\*\* The higher the lighter \*\*

Figure 9: Church [1]

## Skill Progression Chart

	Start	Round 1 Wave 1	Round 2 Wave 2	Round 3 Wave 3	Round 4 Wave 4	Round 4 Wave 5	Round 5 Wave 6	Round 5 Wave 7	Round 6 Wave 8	Round 6 Wave 9	Notes
Basics (Challenge / Proficiency)											
Move	E	E	E	M	M	M	M	H	H	H	Progresses as player gets familiar with the map
Jump	E	E	E	M	M	M	M	H	H	H	Progresses as player gets familiar with the map
Shoot	E	E	E	M	M	M	M	M	H	H	Progresses as player gets familiar with the map & combat
Interact (Acquire buffs, trade, etc.)	E	E	E	M	M	M	H	H	H	H	Players get more buffs & builds as level progresses
Actions & Skills (Challenge / Proficiency)											
Find objects (e.g., chest, pickups)	E	E	E	M	M	M	M	M	M	H	Progresses as player gets familiar with the map
Find the way / Locate positions	E	E	E	E	M	M	M	M	M	H	Progresses as player gets familiar with the map
Move between vantage points	E	E	E	E	E	M	M	M	H	H	Progresses as player gets familiar with the map
Dodge (& fight back)	E	E	E	M	M	M	M	M	H	H	Progresses as player gets familiar with enemies
Predict and locate enemies	E	E	E	E	E	M	M	H	H	H	Progresses as player gets familiar with enemies
Cover shooting	E	E	E	E	M	M	M	H	H	H	Progresses as player gets familiar with the map
Defend	E	E	E	M	M	M	H	H	H	H	Progresses as player gets familiar with the map & combat
Resource Management	E	E	E	E	M	M	M	H	H	H	Progresses as player gets familiar with the map & combat
Weapon (Proficiency)											
Pistol	E	E	E	M	M	M	M	H	H	H	1. Based on players' choices (players can trade caps with the merchant to get certain equipment).
Combat Rifle	E				E	E	E	M	M	H	
Shotgun	E	E	E	M	M	M	M	M	M	H	
Pipe Weapon	E				E	M	M	M	H	H	
Heavy Weapon	E				E	M	M	M	M	H	
Laser	E				E	M	M	M	H	H	
Plasma	E				E	M	M	M	M	H	
Throw	E	E	E	E	E	M	M	M	M	H	
Melee	E	E	E	M	M	M	H	H	H	H	
Enemies (Challenge)											
Feral Ghoul	E	E	E	M	M	M	M	H	H	H	
Mirelurk	E		E	E	M	M	M	M	H	H	
Bloatfly	E					E	E	M	M	H	
Pickups (Supply)											
Caps	E	E	E	E	E	M	M	M	M	M	1. Pickups are stored in chests in the map. 2. Unlocked chests will be refilled after Round 3. 3. Can trade with merchant to get bobby pins, which are require to open the locked chests.
Ammo	E	E	E	M	M	M	M	H	H	H	
Health	E	E	E	E	M	M	M	M	H	H	
	0:00	1:30	5:00	8:00	12:00	17:00	22:30	26:00	30:00	35:00	Didn't count "Rest" Stages between rounds

Figure 10: Skill Progression Chart



# Appendices

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## Appendix A: Aesthetic References

### Visual Theme – Concord

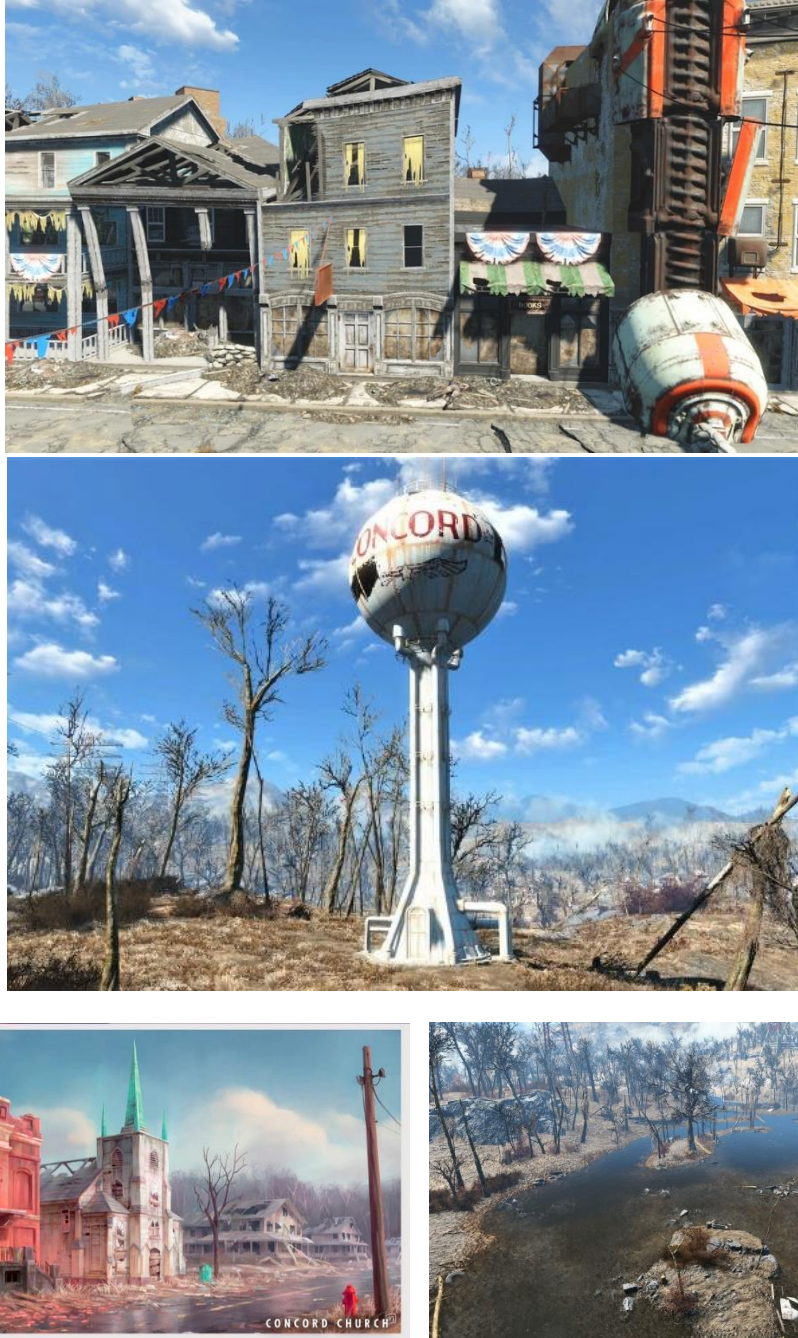


Figure 11: Contact Sheet for Concord [3]

## Appendix B: New Skills/Gameplay Mechanics

### Killing & Acquiring Buffs

- **Description:**
  - During combat, after killing a certain number of enemies, a window with three choices will pop up and allow the player to choose one of the rewards.
  - Those rewards include:
    - 2 different buffs (under the same category) + currency (the amount may vary in each round)
  - Buffs can be categorized as: Attack, Defense, Utility, Health, and Movement.
    - Attack buffs primarily increase damage output.
    - Defense buffs provide defensive capabilities for the player.
    - Utility buffs alter skill forms or grant players additional abilities (such as teleportation or weapon enchantments).
    - Health buffs offer means for player recovery.
    - Movement buffs provide additional abilities related to player movement.
- **Conveyance:**
  - Give debug information (text on the top left corner) to track the progress of upgrade (e.g., “1/10 enemies killed”; “6 more enemies need to be killed to earn an upgrade”).
  - Once the condition is met, a message box with choices will show up and ask players to choose one.
- **Other Notes:**
  - The buff system is level-based; the higher the level, the more powerful the buffs available to the player.
  - Players can spend caps at the merchant to upgrade the level of the buff system.

## Appendix C: Systems

\*Please see the Excel sheet file "ZhangX\_DFS2\_LDD\_2.0\_Appendix\_C" in the folder.

## References

[Cover Image] "Predator: Hunting Grounds Review," DASHGAMER.com, May 01, 2020.  
<https://dashgamer.com/predator-hunting-grounds-review/> (accessed Jan. 28, 2024).

[1] Zhang, Layne, diagram made in draw.io, May 7, 2024

[2] Iconfinder, "3,875,000+ free and premium vector icons. SVG, PNG, AI, CSH and PNG format.,"  
Iconfinder, 2019. <https://www.iconfinder.com/>

[3] "Concord," Fallout Wiki, 2019. <https://fallout.fandom.com/wiki/Concord>