Designers

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Base Game

FPS

Communication Additions

- **Hitmarker Feedback**
  - When players shoot a zombie they get a red hitmarker indication in the center of the crosshair.
- **Changing Crosshair**
  - Adding a thinner crosshair and rewriting the logic to hide the crosshair when players are aiming down sight. This will obstruct the screen less and when Aiming down sights, the weapon won't have a crosshair distracting players from using their iron sights to aim.
- **Muzzle Flare when shooting**
  - When the player fires their weapon, if there is ammo in the magazine, I will spawn a muzzle flare particle effect at the muzzle of the gun/ bullet spawn location. This should give the guns a more impactful feel when players shoot them.
- **New Mesh and Animation Blueprint for Agile Zombie**
  - Will help to differentiate the agile zombie from the base zombie, as well as fixing issues with the agile zombie gliding across the floor.
- **Adding Weapon Icons to HUD**
  - When players switch weapons it will cycle through weapon icons at the bottom of the players screen. This should better communicate with players what weapon they currently have equipped.
- **Adding Widget pop-ups when collecting items**
  - To eliminate player confusion when grabbing power-up items, we will add a widget that pops up and pauses the game the first time players collect an item.

- ○ EX. Player overlaps a stun grenade. The game pauses and the widget pops up and tells players that when collected, the stuns will stun all zombies for a brief amount of time.
- **Zombie Audio Feedback**
  - ○ Adding moaning, death sfx, hit sfx, and any other additional sfx to express zombies state and location to players.
- **Power Drops Enhanced Visuals to Appeal to the Player**
  - ○ Adding some shades of gray to the parking garages assets to make the power drops more easily visible. Also adding light effects and a larger mesh of the power drops for better visibility. Sounds on pickup as well.
- **Knockback damage from Buff Zombie Attacks**
  - ○ When Buff zombies perform their attack, if players are within a range, a radial impulse will spawn at their location knocking the player back.
- **Add Level Assets**
  - ○ Level assets will set the scene. Filling in empty spaces in the level will both limit the player's movement choices and increase the amount of tension we can put the player through in a given level.
- **Adjustments to Gun ADS and Cameras (Visibility)**
  - ○ Making micro adjustments to the guns and cameras to feel more immersive for the player. Making the gun move according to where the player aims in a more fluid-like sequence.
- **Weapon Audio Feedback**
  - ○ Adding Audio feedback for events like reloading, shooting, shooting while the magazine is empty, and switching weapons.
- **Player Damaged Feedback**
  - ○ Whenever the player gets damaged the player hud will start to gather blood as they lose more health compared to just having the small health bar.
- **Fix Bullet Registration on Zombies During Death Animation**
  - ○ Zombies during their death animation were able to continuously block bullets until the animation ended. Now we made it where the bullets go through the zombies in a death state to harm the other zombies.
- **Stamina System and UI Bar**
  - ○ A stamina system to help balance out the sprinting and dashes while also showing the player how much stamina they have left.

- # Add Controls Widget
  - ○ Added a controls widget to the pause menu and main menu that shows players all of the controls.

- **Add Fire Rate to HUD**
    - Now when players switch weapons they will see the fire rate of the weapon.
    - Burst shows 3 bullets, semi auto shows 1 bullet, and auto shows infinity

Playtest Log

Playtest 1 (**Michael Lesko**)

Name	Austin Campbell
Description	The tester's name is Austin Campbell. He has been a friend of mine for 5 years and has an excellent knowledge of video games and mechanics. During the first play through Austin didnt know a majority of how to do things he only knew how to move. He didn't like the graphics of the meshes for the zombies; he also wanted audio for the pick up and damage. After we implemented all the changes and additions he loved it I honestly couldn't get him to stop playing. He said this is a solid foundation for a great game.
Unclear (Before)	How to change weapons, sprint, dash needed audio and visual feedback for players, major bug issues with zombies stuck in animation, add better parking structure, fix ADS, fix zombie sprinters mesh, add music, change background, add stamina bar
How it changed (After)	"Looks like a solid foundation to build upon". If an Inventory system could be introduced the game would add more complexity. Loved the fixes we implemented including the night color and gun meshes.

Playtest 2 (**Tylan Ross**)

Name	Tavis Ross
Description	The first playtest Without telling the tester anything the player immediately was confused about the layout of the level. As he continued to playtest he understood the concept of the game and knew that it was a zombie type / horror type survival game. After surviving the first 10 waves the playtester began showing boredom as the zombies were too easy to kill. As the player continued playing he noticed that there's no audio in the background and suggested something was added. As the player continues into the later rounds of the game around wave 16-17 he struggles with switching between weapons and eventually stays with the shotgun option as he believes it best for damage.

For the second playtest The playtester was presented with an updated build of the game that has been heavily updated and |

	adjusted by the team. The playtester immediately noticed the updated visuals and was eager to play more. The Player noticed that they zombies were harder to kill this time around and was happy to take on the challenge in his own words I appreciate the challenging but fair difficulty level of this game, which keeps me motivated to improve my skills and progress further.As the player was engaging the zombies he was spooked by the girl zombie as we added audio for when she was eliminated. As he continued to play he was also met with some dark and eerie noise and music. When the playtester finished his play session he was overall impressed with the work.
Unclear (Before)	● Zombies are too easy to kill ● Player was able to get outside of the level ● Struggled with switching weapons ● Audio was lacking background music and noises
How it changed (After)	● Audio made the game feel more polished ● Zombies are harder to kill which increases challenge ● Increased visuals and feedback made gameplay more enjoyable

Playtest 3 (**Thomas Morin**)

Name	Blase Morin
Description	The first playtest was the basic build of the game before all the additions were added to the design. During this playtest, figuring out the basic controls was quick but the playtester did not utilize some mechanics that involved keyboard inputs like the dash as he did not know about it. The playtester was able to get outside of the map and the zombies were unable to follow, while the player was unable to get back inside. The playtester felt the zombies were too easy to kill even on the higher rounds of the game. The tester also mentioned a lot of the time the zombies were overlapping and inside each other. The second playtest is of the latest build after the additions were added in. During this playtest, the playertester was able to fully understand the controls using the menu before playing the game. The playtester was also able to play through the waves while always being aware of their health and zombies through the added visual and audio feedback.
Unclear (Before)	● Unutilized mechanics not told to the player like dash ● Able to escape map while unable to re-enter

	● Zombies difficulty was too low ● Zombies overlapping and inside each other
How it changed (After)	● The controls menu helped the playtester understand the controls and they figured out about different mechanics like the dash ● The playtester now knew better when they were getting attacked by zombies ● The playtester understood better if their bullet shots were hitting the zombies or not ● The playtester already understood the power drops except the stun grenade but now figured out what it did in the latest playtest

Playtest 4 (**Adrian Reeves**)

Name	Braydon Willis
Description	My playtester struggled to understand core mechanics because they weren't listed on screen. After accidentally pressing tab my playtester was shocked to find a pause menu, he looked through the keys and resumed playing. After interacting with the menu during round 5, the "Wave 5" UI appeared and never left the player screen, the weapon position stopped updating as well which made the aim mechanic simply unusable due to the player not knowing where the gun is currently pointing. My playtester also made note that the enemies leave behind broken collisions for a few seconds after dying, and the player camera runs wild which he feels breaks player immersion. Finally, the biggest issue my playtester noted was the bullet and muzzle flash for weapons. There were many instances in which the bullet or the muzzle flash would appear, but they would rarely appear at the same time, and when they did spawn simultaneously they were often in opposing directions. My playtester was even able to shoot enemies behind him at times, but had difficulty replicating this.
Unclear (Before)	● Some controls not shown on screen ● Was not aware of pause screen ● Glitches with the pause screen ● Zombies blocking collision shortly before death ● Not sure if the bullets were working properly ● Unstable UI for bullets and vfx ● Aiming not user friendly
How it changed (After)	● On screen UI helped explain Power Ups ● Pause Screen didn't restrict players movement

	● Bullets and Guns updated properly adding to player immersion ● Player enjoyed new restrictions to Player Camera

Playtest 5 (**Caleb Wharton**)

Name	Chelsie Endicott
Description	My playtester struggled to complete rounds on the first playtest because she didn't know any of the controls and couldn't figure out how to reload. She would eventually run out of ammo and die from not knowing how to reload. She was also unsure of how to switch weapons for a while and complained of the weapon aiming being inaccurate. I didn't notice any substantial bugs while she was testing the build besides the aiming not translating properly.
Unclear (Before)	● Player was unsure about controls ● Player didn't know the difference between weapons and fire rates ● Couldn't hear the zombies approaching ● Didn't understand some of the pickups
How it changed (After)	● Player knew how to reload ● Player was able to aim properly and use Aim Down Sights feature ● Heard more enemy feedback for enemies approaching and attacking ● Pickups were more understandable ● Fast zombie was easier to differentiate ● Understood switching between weapons and basic controls