# # Game Design Document - City Defense Z

\*\*Version 1.0\*\*

\*\*Date: [Current Date]\*\*

\*\*Document Status: Draft\*\*

---

## ## Table of Contents

### ### 1. Executive Summary

- 1.1 Game Overview

- 1.2 Target Audience

- 1.3 Platform & Technical Requirements

- 1.4 Key Features & USPs

- 1.5 Development Scope

### 2. Game Concept

- 2.1 Core Vision

- 2.2 Genre & Inspirations

- 2.3 Unique Selling Points

- 2.4 Player Experience Goals

### 3. Gameplay Overview

- 3.1 Core Gameplay Loop

- 3.2 Session Structure

- 3.3 Progression Overview

- 3.4 Victory & Defeat Conditions

### 4. Game Systems & Mechanics

- 4.1 Resource & Economy System

- 4.2 Building & Placement System

- 4.3 Merge & Upgrade Mechanics

- 4.4 Combat System

- 4.5 Wave & Enemy System

- 4.6 Boost & Power-up System

- 4.7 Dynamic Threat System

### 5. Progression Systems

- 5.1 Meta Progression Overview

- 5.2 Base Upgrade System

- 5.3 Research Tree & Upgrades

- 5.4 NPC System & Relationships

- 5.5 Expedition System

### 6. Content Design

- 6.1 Building Types & Functions

- 6.2 Unit Types & Abilities

- 6.3 Enemy Design & Behavior

- 6.4 Maps & Environments

- 6.5 Narrative & Story Elements

### 7. User Interface Design

- 7.1 UI Philosophy & Principles

- 7.2 HUD & In-Game Interface

- 7.3 Menu System & Navigation

- 7.4 Control Scheme

- 7.5 Accessibility Features

### 8. Audio & Visual Design

- 8.1 Art Direction & Visual Style

- 8.2 Audio Design Philosophy

- 8.3 Music & Sound Effects

- 8.4 Animation Requirements

### 9. Technical Design

- 9.1 Platform Requirements

- 9.2 Performance Targets

- 9.3 Save System & Data Management

- 9.4 Architecture Overview

### 10. Game Balance & Tuning

- 10.1 Resource Economy Balance

- 10.2 Combat Balance

- 10.3 Progression Curves

- 10.4 Difficulty Scaling

### 11. Player Engagement & Retention

- 11.1 Onboarding & Tutorial

- 11.2 Player Motivation Systems

- 11.3 Replay Value & Long-term Engagement

- 11.4 Social Features

### 12. Production Considerations

- 12.1 Target Audience Analysis

- 12.2 Post-Launch Content Strategy

---

## 1. Executive Summary

### 1.1 Game Overview

\*\*City Defense Z\*\* is a rogue-lite, wave-based zombie defense strategy game that combines tactical base building with dynamic combat mechanics. Players must survive increasingly difficult zombie waves while building and upgrading their defenses through an innovative card-based placement system.

\*\*Core Concept:\*\* [Describe your game's central concept - what makes it unique and compelling]

\*\*Key Gameplay Pillars:\*\*

- \*\*Strategic Building Placement:\*\* [Describe primary mechanic]

- \*\*Dynamic Combat:\*\* [Describe combat system]

- \*\*Meta Progression:\*\* [Describe advancement systems]

- \*\*Emergent Threats:\*\* [Describe unique challenge systems]

### 1.2 Target Audience

\*\*Primary Audience:\*\* [Define your core demographic - age range, gaming preferences, platform habits]

\*\*Secondary Audience:\*\* [Define additional target markets]

\*\*Platform Considerations:\*\*

- \*\*Primary Platform:\*\* [Main target platform and reasoning]

- \*\*Secondary Platform:\*\* [Additional platforms and adaptation considerations]

### 1.3 Platform & Technical Requirements

\*\*Minimum System Requirements:\*\*

- \*\*OS:\*\* [Operating system requirements]

- \*\*Processor:\*\* [CPU requirements]

- \*\*Memory:\*\* [RAM requirements]

- \*\*Graphics:\*\* [GPU requirements]

- \*\*Storage:\*\* [Storage space needed]

\*\*Recommended System Requirements:\*\*

- \*\*OS:\*\* [Recommended operating system]

- \*\*Processor:\*\* [Recommended CPU]

- \*\*Memory:\*\* [Recommended RAM]

- \*\*Graphics:\*\* [Recommended GPU]

- \*\*Storage:\*\* [Recommended storage space]

### 1.4 Key Features & USPs (Unique Selling Points)

\*\*Innovation Points:\*\*

1. \*\*[Unique Feature 1]:\*\* [Detailed description of innovation]

2. \*\*[Unique Feature 2]:\*\* [Detailed description of innovation]

3. \*\*[Unique Feature 3]:\*\* [Detailed description of innovation]

\*\*Core Features:\*\*

- \*\*[Core Feature 1]:\*\* [Description and impact]

- \*\*[Core Feature 2]:\*\* [Description and impact]

- \*\*[Core Feature 3]:\*\* [Description and impact]

### 1.5 Development Scope

\*\*Development Timeline:\*\*

- \*\*Phase 1:\*\* [Timeframe and major milestones]

- \*\*Phase 2:\*\* [Timeframe and major milestones]

- \*\*Target Release:\*\* [Release date and platform]

\*\*Development Team:\*\*

- \*\*Team Size:\*\* [Number of developers and roles]

- \*\*Key Personnel:\*\* [Important team members and responsibilities]

---

## 2. Game Concept

### 2.1 Core Vision

[Describe the fundamental vision for your game - what experience you want to create for players]

\*\*Design Philosophy:\*\*

- \*\*"[Key Principle 1]":\*\* [Explanation of design principle]

- \*\*"[Key Principle 2]":\*\* [Explanation of design principle]

- \*\*"[Key Principle 3]":\*\* [Explanation of design principle]

### 2.2 Genre & Inspirations

\*\*Primary Genre:\*\* [Main genre classification]

\*\*Secondary Elements:\*\* [Additional genre elements]

\*\*Key Inspirations:\*\*

- \*\*[Inspiration Game 1]:\*\* [What you're taking from this game]

- \*\*[Inspiration Game 2]:\*\* [What you're taking from this game]

- \*\*[Inspiration Game 3]:\*\* [What you're taking from this game]

### 2.3 Unique Selling Points

\*\*[USP 1 Name]\*\*

- [Detailed description of unique feature]

- [Why it's innovative and compelling]

\*\*[USP 2 Name]\*\*

- [Detailed description of unique feature]

- [Why it's innovative and compelling]

\*\*[USP 3 Name]\*\*

- [Detailed description of unique feature]

- [Why it's innovative and compelling]

### 2.4 Player Experience Goals

\*\*Moment-to-moment Experience:\*\*

- \*\*[Experience Type 1]:\*\* [Description of immediate gameplay feel]

- \*\*[Experience Type 2]:\*\* [Description of immediate gameplay feel]

\*\*Session-level Experience:\*\*

- \*\*[Session Goal 1]:\*\* [What players accomplish in one session]

- \*\*[Session Goal 2]:\*\* [What players accomplish in one session]

\*\*Long-term Experience:\*\*

- \*\*[Long-term Goal 1]:\*\* [What keeps players engaged over time]

- \*\*[Long-term Goal 2]:\*\* [What keeps players engaged over time]

---

## 3. Gameplay Overview

### 3.1 Core Gameplay Loop

\*\*Primary Gameplay Cycle:\*\*

\*\*Phase 1: [Phase Name]\*\*

- \*\*[Activity 1]:\*\* [Description of player activity]

- \*\*[Activity 2]:\*\* [Description of player activity]

- \*\*[Activity 3]:\*\* [Description of player activity]

\*\*Phase 2: [Phase Name]\*\*

- \*\*[Activity 1]:\*\* [Description of player activity]

- \*\*[Activity 2]:\*\* [Description of player activity]

- \*\*[Activity 3]:\*\* [Description of player activity]

### 3.2 Session Structure

\*\*Individual Run Architecture:\*\*

\*\*Run Initiation:\*\*

- \*\*[Setup Element 1]:\*\* [Description]

- \*\*[Setup Element 2]:\*\* [Description]

\*\*Early Game ([Timeframe]):\*\*

- \*\*[Early Game Activity 1]:\*\* [Description]

- \*\*[Early Game Activity 2]:\*\* [Description]

\*\*Mid Game ([Timeframe]):\*\*

- \*\*[Mid Game Activity 1]:\*\* [Description]

- \*\*[Mid Game Activity 2]:\*\* [Description]

\*\*Late Game ([Timeframe]):\*\*

- \*\*[Late Game Activity 1]:\*\* [Description]

- \*\*[Late Game Activity 2]:\*\* [Description]

### 3.3 Progression Overview

\*\*[Progression Type 1]: [Description]\*\*

- \*\*[Progression Element 1]:\*\* [How players advance]

- \*\*[Progression Element 2]:\*\* [How players advance]

\*\*[Progression Type 2]: [Description]\*\*

- \*\*[Progression Element 1]:\*\* [How players advance]

- \*\*[Progression Element 2]:\*\* [How players advance]

### 3.4 Victory & Defeat Conditions

\*\*Victory Conditions:\*\*

- \*\*[Victory Type 1]:\*\* [Description of how to win]

- \*\*[Victory Type 2]:\*\* [Description of how to win]

\*\*Defeat Conditions:\*\*

- \*\*[Defeat Type 1]:\*\* [Description of failure state]

- \*\*[Defeat Type 2]:\*\* [Description of failure state]

---

## 4. Game Systems & Mechanics

### 4.1 Resource & Economy System

\*\*Currency Architecture:\*\*

\*\*[Resource Type 1]\*\*

- \*\*Primary Function:\*\* [What this resource is used for]

- \*\*Generation:\*\* [How players obtain this resource]

- \*\*Expenditure:\*\* [What players spend this resource on]

- \*\*Strategic Role:\*\* [Why this resource matters strategically]

\*\*[Resource Type 2]\*\*

- \*\*Primary Function:\*\* [What this resource is used for]

- \*\*Generation:\*\* [How players obtain this resource]

- \*\*Expenditure:\*\* [What players spend this resource on]

- \*\*Strategic Role:\*\* [Why this resource matters strategically]

### 4.2 Building & Placement System

\*\*[Building System Name]:\*\*

- \*\*Mechanics:\*\* [How the building system works]

- \*\*Player Interaction:\*\* [How players interact with buildings]

- \*\*Strategic Elements:\*\* [Why building placement matters]

### 4.3 Merge & Upgrade Mechanics

\*\*[Merge System Name]:\*\*

- \*\*Requirements:\*\* [What's needed to merge]

- \*\*Process:\*\* [How merging works]

- \*\*Benefits:\*\* [What players gain from merging]

- \*\*Strategic Considerations:\*\* [Planning and timing elements]

### 4.4 Combat System

\*\*[Combat Element 1]:\*\*

- \*\*Mechanics:\*\* [How this combat element works]

- \*\*Player Control:\*\* [What players can control]

- \*\*Strategic Impact:\*\* [Why this matters for strategy]

\*\*[Combat Element 2]:\*\*

- \*\*Mechanics:\*\* [How this combat element works]

- \*\*Player Control:\*\* [What players can control]

- \*\*Strategic Impact:\*\* [Why this matters for strategy]

### 4.5 Wave & Enemy System

\*\*Enemy Types:\*\*

\*\*[Enemy Type 1]\*\*

- \*\*Characteristics:\*\* [Enemy abilities and behavior]

- \*\*Threat Level:\*\* [Difficulty and challenge]

- \*\*Counter Strategy:\*\* [How to defeat this enemy]

\*\*[Enemy Type 2]\*\*

- \*\*Characteristics:\*\* [Enemy abilities and behavior]

- \*\*Threat Level:\*\* [Difficulty and challenge]

- \*\*Counter Strategy:\*\* [How to defeat this enemy]

### 4.6 Boost & Power-up System

\*\*[Boost Type 1]\*\*

- \*\*Effect:\*\* [What the boost does]

- \*\*Duration:\*\* [How long it lasts]

- \*\*Strategic Use:\*\* [When and how to use it]

\*\*[Boost Type 2]\*\*

- \*\*Effect:\*\* [What the boost does]

- \*\*Duration:\*\* [How long it lasts]

- \*\*Strategic Use:\*\* [When and how to use it]

### 4.7 Dynamic Threat System

\*\*[Dynamic System Name]:\*\*

- \*\*Mechanics:\*\* [How the dynamic threat works]

- \*\*Player Response:\*\* [What players must do]

- \*\*Strategic Impact:\*\* [How this affects gameplay]

---

## 5. Progression Systems

### 5.1 Meta Progression Overview

\*\*Progression Philosophy:\*\*

- \*\*[Progression Principle 1]:\*\* [Core principle of advancement]

- \*\*[Progression Principle 2]:\*\* [Core principle of advancement]

\*\*[Progression Tier 1]: [Description]\*\*

- \*\*[Advancement Type 1]:\*\* [How players progress]

- \*\*[Advancement Type 2]:\*\* [How players progress]

### 5.2 Base Upgrade System

\*\*[Upgrade Category 1]\*\*

- \*\*Function:\*\* [What this upgrade affects]

- \*\*Levels:\*\* [How many upgrade levels exist]

- \*\*Benefits:\*\* [What players gain from upgrading]

- \*\*Cost:\*\* [What upgrades cost]

\*\*[Upgrade Category 2]\*\*

- \*\*Function:\*\* [What this upgrade affects]

- \*\*Levels:\*\* [How many upgrade levels exist]

- \*\*Benefits:\*\* [What players gain from upgrading]

- \*\*Cost:\*\* [What upgrades cost]

### 5.3 Research Tree & Upgrades

\*\*Research Categories:\*\*

\*\*[Research Tree 1]\*\*

- \*\*Focus:\*\* [What this tree specializes in]

- \*\*Key Upgrades:\*\* [Important upgrades in this tree]

- \*\*Strategic Value:\*\* [Why players would invest here]

\*\*[Research Tree 2]\*\*

- \*\*Focus:\*\* [What this tree specializes in]

- \*\*Key Upgrades:\*\* [Important upgrades in this tree]

- \*\*Strategic Value:\*\* [Why players would invest here]

### 5.4 NPC System & Relationships

\*\*NPC Types:\*\*

\*\*[NPC Type 1]\*\*

- \*\*Specialization:\*\* [What this NPC is good at]

- \*\*Benefits:\*\* [What benefits they provide]

- \*\*Personality:\*\* [Character traits and dialogue]

\*\*[NPC Type 2]\*\*

- \*\*Specialization:\*\* [What this NPC is good at]

- \*\*Benefits:\*\* [What benefits they provide]

- \*\*Personality:\*\* [Character traits and dialogue]

### 5.5 Expedition System

\*\*Expedition Types:\*\*

\*\*[Expedition Type 1]\*\*

- \*\*Duration:\*\* [How long it takes]

- \*\*Risk Level:\*\* [Danger to NPCs]

- \*\*Rewards:\*\* [What players can gain]

- \*\*Requirements:\*\* [What's needed to launch]

---

## 6. Content Design

### 6.1 Building Types & Functions

\*\*[Building Category 1]:\*\*

| Building Type | Function | Production | Merge Levels | Strategic Role |

|---------------|----------|------------|--------------|----------------|

| [Building 1] | [Purpose] | [Output] | [1-5] | [Strategy] |

| [Building 2] | [Purpose] | [Output] | [1-5] | [Strategy] |

### 6.2 Unit Types & Abilities

\*\*[Unit Category 1]:\*\*

\*\*[Unit Type 1]\*\*

- \*\*Role:\*\* [Combat function]

- \*\*Abilities:\*\* [Special capabilities]

- \*\*Strengths:\*\* [What they're good against]

- \*\*Weaknesses:\*\* [What they struggle against]

### 6.3 Enemy Design & Behavior

\*\*[Enemy Category 1]:\*\*

\*\*[Enemy Type 1]\*\*

- \*\*Behavior:\*\* [How they act]

- \*\*Abilities:\*\* [Special attacks or traits]

- \*\*Difficulty:\*\* [Challenge level]

- \*\*Counter Strategy:\*\* [How to defeat them]

### 6.4 Maps & Environments

\*\*[Map 1]: [Map Name]\*\*

- \*\*Theme:\*\* [Environmental setting]

- \*\*Objective:\*\* [Victory condition]

- \*\*Challenges:\*\* [Unique difficulties]

- \*\*Narrative:\*\* [Story context]

### 6.5 Narrative & Story Elements

\*\*Story Structure:\*\*

- \*\*Opening:\*\* [How the story begins]

- \*\*Progression:\*\* [How story develops]

- \*\*Resolution:\*\* [How story concludes]

\*\*Character Development:\*\*

- \*\*[Character Type 1]:\*\* [Role in story]

- \*\*[Character Type 2]:\*\* [Role in story]

---

## 7. User Interface Design

### 7.1 UI Philosophy & Principles

\*\*Design Philosophy:\*\*

- \*\*"[UI Principle 1]":\*\* [Explanation]

- \*\*"[UI Principle 2]":\*\* [Explanation]

### 7.2 HUD & In-Game Interface

\*\*Core Interface Elements:\*\*

- \*\*[Interface Element 1]:\*\* [Function and placement]

- \*\*[Interface Element 2]:\*\* [Function and placement]

- \*\*[Interface Element 3]:\*\* [Function and placement]

### 7.3 Menu System & Navigation

\*\*Menu Structure:\*\*

- \*\*[Menu Type 1]:\*\* [Purpose and contents]

- \*\*[Menu Type 2]:\*\* [Purpose and contents]

### 7.4 Control Scheme

\*\*Primary Controls:\*\*

- \*\*[Control Action 1]:\*\* [Input method and function]

- \*\*[Control Action 2]:\*\* [Input method and function]

### 7.5 Accessibility Features

\*\*Accessibility Support:\*\*

- \*\*[Accessibility Feature 1]:\*\* [How it helps players]

- \*\*[Accessibility Feature 2]:\*\* [How it helps players]

---

## 8. Audio & Visual Design

### 8.1 Art Direction & Visual Style

\*\*Visual Style:\*\* [Overall aesthetic direction]

\*\*Art Direction Pillars:\*\*

- \*\*[Visual Pillar 1]:\*\* [Design approach]

- \*\*[Visual Pillar 2]:\*\* [Design approach]

### 8.2 Audio Design Philosophy

\*\*Audio Philosophy:\*\* [Approach to sound design]

\*\*Audio Categories:\*\*

- \*\*[Audio Type 1]:\*\* [Purpose and style]

- \*\*[Audio Type 2]:\*\* [Purpose and style]

### 8.3 Music & Sound Effects

\*\*Music Strategy:\*\*

- \*\*[Music Type 1]:\*\* [When it plays and style]

- \*\*[Music Type 2]:\*\* [When it plays and style]

\*\*Sound Effects:\*\*

- \*\*[SFX Category 1]:\*\* [Types of sounds needed]

- \*\*[SFX Category 2]:\*\* [Types of sounds needed]

### 8.4 Animation Requirements

\*\*Animation Categories:\*\*

- \*\*[Animation Type 1]:\*\* [What needs animation]

- \*\*[Animation Type 2]:\*\* [What needs animation]

---

## 9. Technical Design

### 9.1 Platform Requirements

\*\*Target Platforms:\*\*

- \*\*[Platform 1]:\*\* [Specifications and considerations]

- \*\*[Platform 2]:\*\* [Specifications and considerations]

### 9.2 Performance Targets

\*\*Performance Goals:\*\*

- \*\*Frame Rate:\*\* [Target FPS]

- \*\*Loading Times:\*\* [Target load times]

- \*\*Memory Usage:\*\* [Target memory footprint]

### 9.3 Save System & Data Management

\*\*Save System Features:\*\*

- \*\*[Save Feature 1]:\*\* [How saving works]

- \*\*[Save Feature 2]:\*\* [Data management approach]

### 9.4 Architecture Overview

\*\*System Architecture:\*\*

- \*\*[System Component 1]:\*\* [Purpose and function]

- \*\*[System Component 2]:\*\* [Purpose and function]

---

## 10. Game Balance & Tuning

### 10.1 Resource Economy Balance

\*\*Economic Principles:\*\*

- \*\*[Balance Principle 1]:\*\* [Approach to resource balance]

- \*\*[Balance Principle 2]:\*\* [Approach to resource balance]

### 10.2 Combat Balance

\*\*Combat Balance Framework:\*\*

- \*\*[Balance Element 1]:\*\* [How combat is balanced]

- \*\*[Balance Element 2]:\*\* [How combat is balanced]

### 10.3 Progression Curves

\*\*Progression Design:\*\*

- \*\*[Progression Curve 1]:\*\* [How advancement is paced]

- \*\*[Progression Curve 2]:\*\* [How advancement is paced]

### 10.4 Difficulty Scaling

\*\*Difficulty Philosophy:\*\*

- \*\*[Difficulty Approach 1]:\*\* [How challenge increases]

- \*\*[Difficulty Approach 2]:\*\* [How challenge increases]

---

## 11. Player Engagement & Retention

### 11.1 Onboarding & Tutorial

\*\*Tutorial Structure:\*\*

- \*\*[Tutorial Phase 1]:\*\* [What players learn]

- \*\*[Tutorial Phase 2]:\*\* [What players learn]

### 11.2 Player Motivation Systems

\*\*Motivation Elements:\*\*

- \*\*[Motivation System 1]:\*\* [How it engages players]

- \*\*[Motivation System 2]:\*\* [How it engages players]

### 11.3 Replay Value & Long-term Engagement

\*\*Replay Factors:\*\*

- \*\*[Replay Element 1]:\*\* [What encourages replaying]

- \*\*[Replay Element 2]:\*\* [What encourages replaying]

### 11.4 Social Features

\*\*Social Elements:\*\*

- \*\*[Social Feature 1]:\*\* [How players interact]

- \*\*[Social Feature 2]:\*\* [How players interact]

---

## 12. Production Considerations

### 12.1 Target Audience Analysis

\*\*Primary Audience:\*\*

- \*\*Demographics:\*\* [Age, platform, spending habits]

- \*\*Preferences:\*\* [What they want in games]

- \*\*Pain Points:\*\* [What frustrates them]

### 12.2 Post-Launch Content Strategy

\*\*Content Plan:\*\*

- \*\*[Content Type 1]:\*\* [Planned additions]

- \*\*[Content Type 2]:\*\* [Planned additions]

\*\*Timeline:\*\*

- \*\*Month 1-3:\*\* [Early post-launch plans]

- \*\*Month 4-6:\*\* [Medium-term plans]

- \*\*Year 1+:\*\* [Long-term vision]

---

## Document Guidelines

- Each section should be comprehensive but concise

- Include diagrams, flowcharts, and tables where appropriate

- Reference specific examples from similar games

- Provide clear specifications for implementation

- Include placeholder sections for iteration and updates

---

\*Document Version: 1.0\*

\*Last Updated: [Current Date]\*

\*Next Review: [Future Date]\*