Abstract

“New Urbanist Intervention in Onehunga: A Transport Centre”

New Urbanism is a rapidly developing urban design movement. The movement proposes the development of “mixed-use” communities that are based around pedestrian and public transportation initiatives. New Urbanism has been very successful in the American developments of “Seaside” Florida by Andres Duany and Elizabeth Plater-Zyberk (DPZ), and the redevelopment of “Stapleton International Airport” in Denver, Colorado by Forest City Enterprises.

This project challenges and tests the application of New Urbanism based design techniques in a New Zealand environment. The Auckland suburb of Onehunga is currently subject to many large scale council driven developments. This project is aimed at integrating with the existing council driven projects such as the “Reopen Onehunga Rail Project” which proposes a long term objective of Onehunga becoming a public transport interchange in the wider Auckland community. A second long term Council objective is the development of “mixed-use” housing/retail and residential “densification” in the town centre of Onehunga. These two key future objectives coincide within some of the primary ambitions of New Urbanism theory.

The “New Urbanist” development includes the detailed analysis of the suburb with regard to its transportation issues, residential/commercial and industrial layout, public buildings and amenities such as schools/parks and community buildings. The project attempts to address both urban and architectural issues. It involves the detailed planning and allocation of functions for new/existing buildings and public space over the wider suburb. The main architectural entities to be designed are a new public transport centre with subsidiary apartment buildings and a main public square.

The investigation provides a complex analysis/example of how New Urbanist design techniques could be applied in the existing Auckland community of Onehunga integrating with the existing Council objectives of “Transport Orientated Development” (TOD) and the “densification” of the community centre.
"The sum of human happiness increases because of New Urbanism"\textsuperscript{1}
-Andres Duany

Table of Contents

1. Research Problem
   1.1 Working Title
   1.2 Summary
   1.3 Rationale
      1.3a) Introduction to New Urbanism
      1.3b) The Current Development of Onehunga
      1.3c) Architectural Problems identified in the ‘Research Problem’
      1.3d) Aims / Objectives of the Project
      1.3e) Hypothesis for the Project

2. Review of current state of knowledge in the area of the project
   2.1 New Urbanism
      2.1a) What is New Urbanism?
      2.1b) New Urbanism Ideology
      2.1c) The Benefits of New Urbanism
      2.1d) The Congress for the New Urbanism
      2.1e) Influential Figures Of New Urbanism
      2.1f) Architectural Precedents of New Urbanism based developments
   2.2 Urban Design / Town Planning
      2.2a) A definition of Town Planning and Urban Design
      2.2b) Principles of Urban Design and Town Planning
      2.2c) Influential Urban Designers / Town Planners
   2.3 Medium Density Housing
      2.3a) A Background of Medium Density Housing
      2.3b) How Medium Density Housing Relates to Onehunga
   2.4 Auckland City Council Documents
      2.4a) A Summary of the Auckland City Council
      2.4b) Auckland City Council – Draft Future Planning Framework, 12 March 2009
      2.4c) Maungakiekie Development Within the – Draft Future Planning Framework
      2.4d) Draft Future Planning Framework – Transport Choices
   2.5 Onehunga
      2.5a) A General Background of Onehunga
      2.5b) The history of Onehunga
      2.5c) Important and Historical Buildings
      2.3d) The Chosen Site
3. Methodological Approach of the Project
   3.1 Introduction
   3.2 Project Brief
      Focus A: Site and Traffic and Public Transportation Analysis
      Focus B: Analysis of Architectural Heritage
      Focus C: Council Master Plan Analysis
      Focus D: Community Analysis
      Focus E: Urban Planning
      Focus F: Detailed Design

4. Project Development
   Focus A: Site and Traffic and Public Transportation Analysis
   Focus B: Analysis of Architectural Heritage
   Focus C: Council Master Plan Analysis
   Focus D: Community Analysis
   Focus E: Urban Planning
   Focus F: Detailed Design

5. Critical appraisal
   5.1 The Design Solution and its Theoretical Framework
   5.2 Conclusion

6. The Design Solution

7. Bibliography and Precedent List
   7.1 Texts used throughout the project
   7.2 Existing New Urbanism Developments used for Precedent studies

8. Appendices
   8.1 Full Project Brief
   8.2 Terminus Project Brief
   8.3 New Zealand Herald article, “Students design Onehunga’s grand rail future” 04/11/2008
   8.4 Onehunga Railway Station and Future Development – Boffa Miskell
   8.5 Auckland City Council Mainstreet Programme
   8.6 Onehunga Mainstreet Plan – Landscape Requirements September 1997
   8.7 Scoop article, “Funding approved for Onehunga master plan development” 19/09/2008
   8.8 Auckland City Council, Onehunga Bay Reserve and Lagoon Development
   8.9 Auckland City Council, Maungakiekie Area Outcomes 2030 – Interim Draft
   8.10 The Campaign for Better Transport – Reopen Onehunga Rail Project 02/11/2006
8.11 The Campaign for Better Transport – Green Light for Onehunga Branch Line Upgrade
8.12 Scoop article, “Onehunga rail upgrade from the AK Regional Council” 9/9/2009
8.13 Area Profiles: Onehunga, census data
8.14 Onehunga Businesses – Community
8.15 Onehunga Business Association – About us
8.16 Rail and Bus specific design information
8.17 Early Map of Onehunga
8.18 Queen Street (Onehunga Mall) with tram service
8.19 Former Railway Station in service
8.20 Onehunga Locality Map
8.21 109-111 Onehunga Mall Contours Map
8.22 109-111 Onehunga Mall Aerial Photo

Image List

1. Research Problem
Figure 1.1) The Onehunga Town Centre Logo
Figure 1.2) Aerial view of Onehunga

2. Review of current state of knowledge in the area of the project
Figure 2.1) Illustrates a pedestrian street encouraging walking
Figure 2.2) Shows a typical mixed-use building with retail at ground level and apartments above
Figure 2.3) A positive/negative space map showing connecting public spaces, pedestrian streets and roads
Figure 2.4) A New Urbanism development incorporating public space and densified low-rise residential architecture
Figure 2.5) Plans showing traditional neighborhood structure with axial relationships between main roads and civic spaces/buildings
Figure 2.6) Transect Diagram
Figure 2.7) This diagram shows a densified development with communal recreation space that is vibrant and “self-policed”
Figure 2.8) Léon Krier
Figure 2.9) Architecture Choice or Fate
Figure 2.10) Axonometric of Poundbury
Figure 2.11) Andres Duany & Elizabeth Plater Zyberk
Figure 2.12) The New Civic Art
Figure 2.13) Suburban Nation
Figure 3.14) Seaside Housing
Figure 2.15) Seaside Aerial Photo
3. Methodological Approach of the Project  N/A

4. Project Development
Figure 4.1) Aerial Map showing chosen site of the research project in relationship to the existing suburb
Figure 4.2) Site at 109 – 111 Onehunga Mall
Figure 4.3) Site from Onehunga Mall
Figure 4.4) Site from the Onehunga Branch Line
Figure 4.5) Site from the Onehunga Branch Line
Figure 4.6) Site from Prices Street and Onehunga Mall intersection
Figure 4.7) Former Post Office located at the Princes street and Onehunga Mall intersection
Figure 4.8) Carnegie Free Library located on Princes Street
Figure 4.9) Onehunga Branch Line and problematic town houses
Figure 4.10) Onehunga Branch Line and problematic town houses
Figure 4.11) Onehunga Branch Line and Site on right hand side
Figure 4.12) Onehunga Branch Line with Neilson Street Bridge and Site on right
Figure 4.13) Onehunga Branch Line and Neilson Street Bridge
Figure 4.14) Under Neilson Street Bridge
Figure 4.15) Looking down Princes Street and in view of the Former Post Office
Figure 4.16) Looking down Princes Street with Site on right and Onehunga Mall façade.
Figure 4.17) Looking down Onehunga Mall with Site on left and RSA on right.
Figure 4.18) Looking down Princes Street in view of Carnegie Library and RSA
Figure 4.19) Onehunga Bay Reserve
Figure 4.20) Onehunga Bay Reserve
Figure 4.21) Onehunga Mall with Former Post Office in distance
Figure 4.22) Onehunga Mall
Figure 4.23) Onehunga Mall
Figure 4.24) Onehunga Mall
Figure 4.25) Site on lower Municipal Road
Figure 4.26) Site on lower Municipal Road
Figure 4.27) Site on Waller Street
Figure 4.28) Site on Waller Street
Figure 4.29) Mechanic Shop on Neilson Street and Onehunga Mall
Figure 4.30) Old Service Station on Neilson Street
Figure 4.31) Fabrication warehouse on Onehunga Mall
Figure 4.32) Carpet warehouse on Onehunga Mall
Figure 4.33) Onehunga Bay Reclamation Project Map, illustrating proposed changes and development works in the area.
Figure 4.34) The Transpower Lines Project in relation to the Onehunga Bay Reserve
Figure 4.35) Auckland City Council Spatial Framework 2050 Transport Choices Map
Figure 4.36) The Gloucester Park Interchange Project connecting Onehunga with State Highway 20
Figure 4.37) The Reopen Onehunga Rail Project logo
Figure 4.38) Train Passenger Boardings Graph
Figure 4.39) Auckland Region Train Network Diagram
Figure 4.40) Auckland Region Train Network Diagram proposed for 2030. Note: This does not include the Onehunga to Avondale connection between the Western and Southwestern lines.
Figure 4.41) Auckland City Airport
Figure 4.42) International Transit Hotel
Figure 4.43) Brick Façade on Onehunga Mall
Figure 4.44) Brick Façade of the new Public Library
Figure 4.45) Traditional wooden weatherboard villa
Figure 4.46) Modern wooden weatherboards
5. **Critical appraisal**  
N/A

6. **The Design Solution**  
N/A