A New Way To Connect To Travel
Northstar Commuter Rail Community
Ryan Quast
Theoretical Premise

This thesis examines how architecture can make mass transit more accessible and desirable to the public, while also taking the considerations of the public to mould the design into a more improved form and function. Specifically, it examines how making downtown areas accessible through public transportation and creating an on-site living population would enhance the lives of those that would be using the system.

A key focus was to create a community of these on-site mass transit commuters that have ways of connecting amongst each other, while also connecting with the urban and suburban communities it neighbors and connects to. This transportation hub and multi-family living complex in the suburbs also looks to enhance the image of public transportation to that of an advanced transportation system that is both safe and reliable for the public.
Case Studies

D.A.R.T. (Dallas Area Rapid Transit)

An example of how communities connected to a major downtown center thrive and create a huge economic benefit for those cities and its citizens
The Residence at the COR

The focus of a larger Ramsey, MN community that was similarly built along the Northstar Commuter Rail line. A larger community development than this thesis, it was largely a failure due to it being disconnected from transit and commercial developments.
Union Station: Raleigh's Multi-Modal Transit Center

A redesign of a large part of an older industrial district in Raleigh, North Carolina that took a modern approach amongst these historic buildings. Many key features of the program were decided on following this open and flowing design for a station.
Apartments Along the Hiawatha Light Rail
And problems with downtown living

- Smaller amount of space
- Older layout configurations in many buildings
- Price of land and construction is much higher
- Connectivity in cheaper downtown is still an issue
- Less amenities available
- Green/open space is limited in many areas
Site Location: Coon Rapids, MN
Northstar Commuter Rail Lines

Current Northstar Line
Phase 2 - Proposed St. Cloud Line
Current Stations
Proposed Stations
Location of Thesis

Current Link Station/Proposed St. Cloud Station
Proposed Becker Station
Big Lake Station
Elk River Station
Ramsey Station
Anoka Station
Coon Rapids–Riverdale Station
Fridley Station
Target Field Station
Requirements and Process

- Connection to transit center and vehicle parking
- Additional amenities compared to downtown
- High-end finishes for upscale urban feel
- Connection to other tenants in building
- Inner community courtyard
- Outdoor green space
- Shared experience of public transportation
- Positive and powerful visual impact on site to attract attention

- Accessible to the public both visually and physically
- Open, easily redefined spaces for multi-purpose use
- Small commercial development included
- Plaza around station for outdoor use
- Connect to downtown building styles
Reinventing the Site

Promoting community living amongst like-minded individuals

Advancing the concept of mass transit and public transportation

Create an environment that mixes the positives of both downtown and suburban living
  Amount of space
  Dual park aesthetics and environment
  Connectivity to both communities
Current Site Context
Site Context

South view from NW corner of site

West view from NW corner of site
Packaged Terminal Air Conditioner Units

Pet Daycare
Child Daycare
Owner Office Space
Fitness Room
Indoor Pool
Outdoor Pool and Patio
Outdoor Firepit
Outdoor Grills and Bars

Radiant Floor Heating In Units

Apartment First Level Floor Plan

Supply Air Ducts
Return Air Ducts

Square feet per level = 53,586 ft²
Total square feet = 267,930 ft²
Total Units = 155
Apartment Two Story Unit Floor Plans
Two Story Unit View to Suburban Park

Open Concept Standard Unit to Courtyard
Inner Apartment Courtyard
Transit Center Floor Plan
Parking Structure First Floor Plan

- Weld Plate
- Cast into Beam
- Bearing Pads on Corbels
- Prestressed Tendons
- Stirrups
- Double Tees
- Sealing for Concrete Column
- Backer Rod
- Reinforcing for Concrete Column