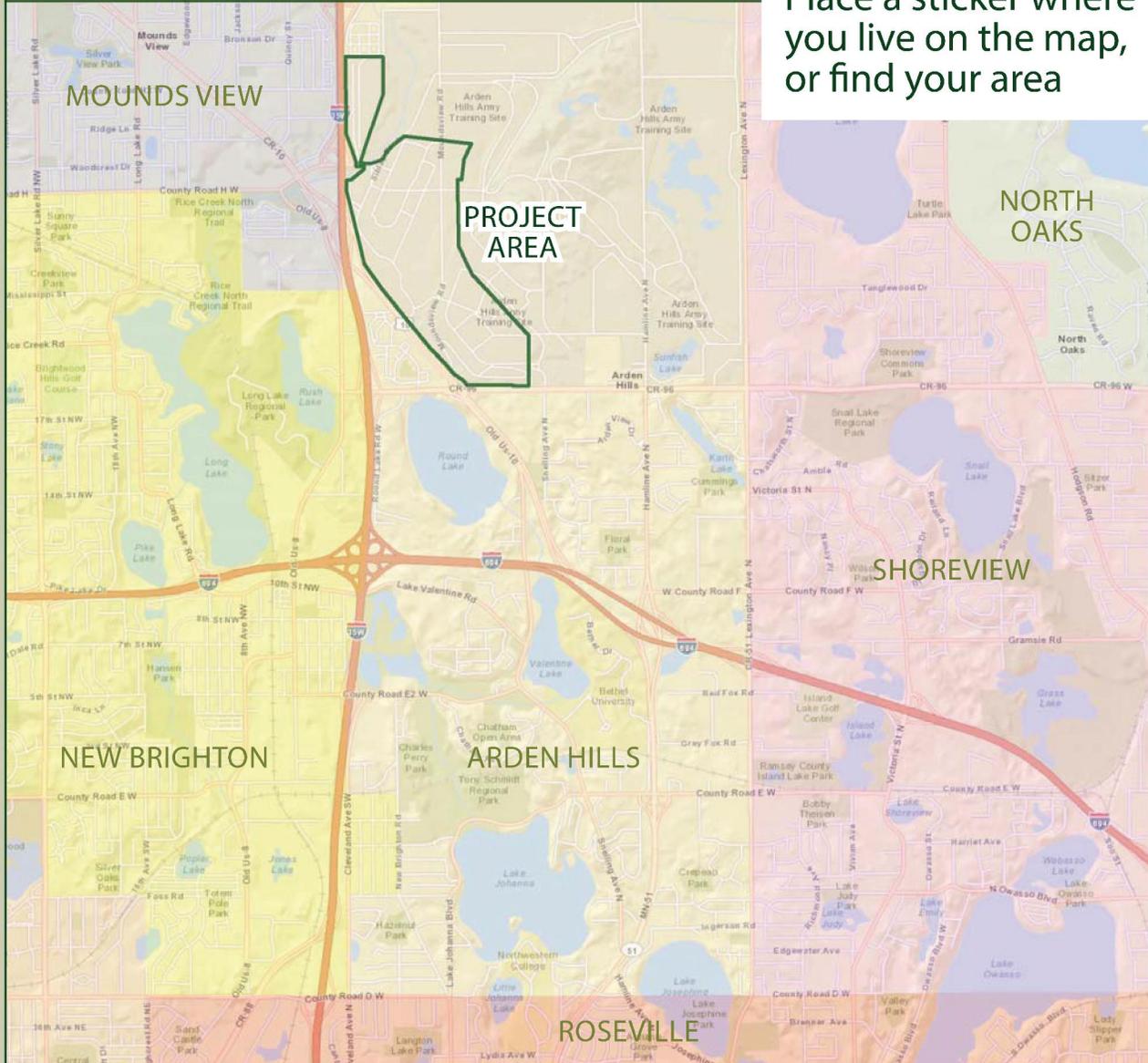


Where are you from?

Place a sticker where you live on the map, or find your area



Metro Area

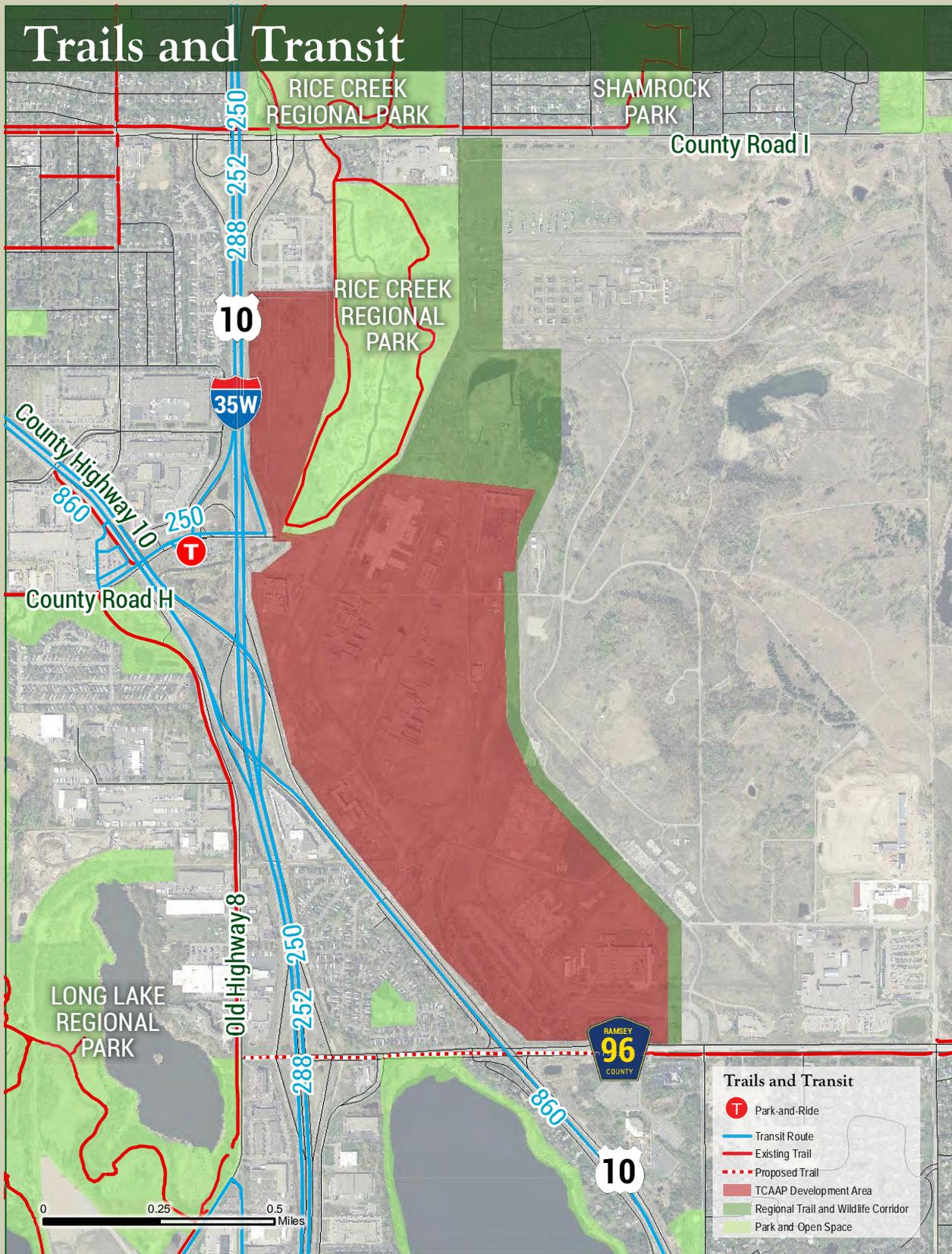
- _____
- North
- _____
- East
- _____
- South
- _____
- West
- _____
- Minneapolis/Saint Paul

Statewide and Beyond

- _____
- Northern Minnesota
- _____
- Eastern Minnesota
- _____
- Southern Minnesota
- _____
- Western Minnesota
- _____
- Outside Minnesota



Trails and Transit



How should TCAAP be like Arden Hills?

... and how should it be different?



Analysis + Design Principles



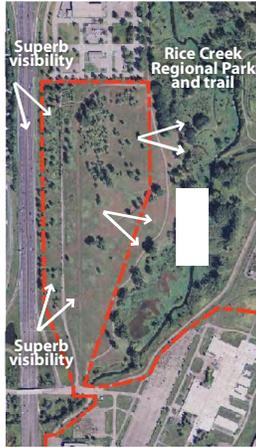
Arden Hills Neighborhoods

TCAAP should fit into the character of Arden Hills. Analysis of the city's neighborhoods indicated that Arden Hills is made up of clearly defined neighborhoods.



Planned Access Points

Roads will enter TCAAP at specific points on existing roads. To provide easy access, office buildings and stores will be located on the north and south ends of the site. This leaves the interior of the site quieter for the neighborhood residents.



TCAAP 'Thumb' Amenities

The area of TCAAP known as "the thumb" is a relatively flat 47-acre site overlooking the beautiful Rice Creek and associated regional park. Due to these unique amenities, as well as the site's isolated location and odd shape, the thumb is best-suited for a special, single use.



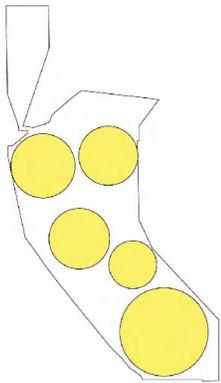
Contextual Parks and Open Space

TCAAP is uniquely located adjacent to significant and high-quality open space and natural corridors. Connecting to these amenities is a high priority.



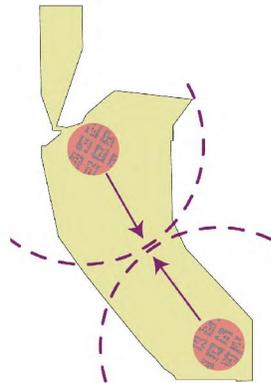
Arden Hills Water+Open Space

Arden Hills is also characterized by neighborhoods defined by open space; it's been said that every neighborhood has a view of wetlands, woods, or water. This highly-desirable quality should be continued in TCAAP.



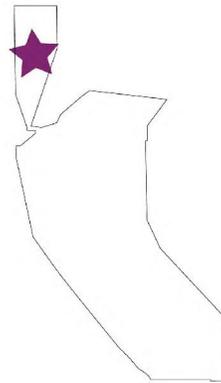
DESIGN PRINCIPLE #1

Residential use exists as identifiable neighborhoods.



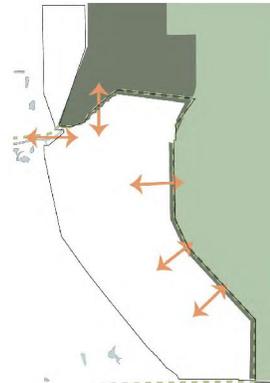
DESIGN PRINCIPLE #2

Non-residential uses are distributed towards both ends of the site.



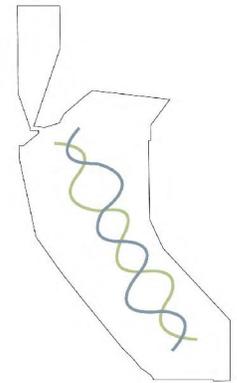
DESIGN PRINCIPLE #3

The thumb is a special site; best-suited for a single-use and a single owner.



DESIGN PRINCIPLE #4

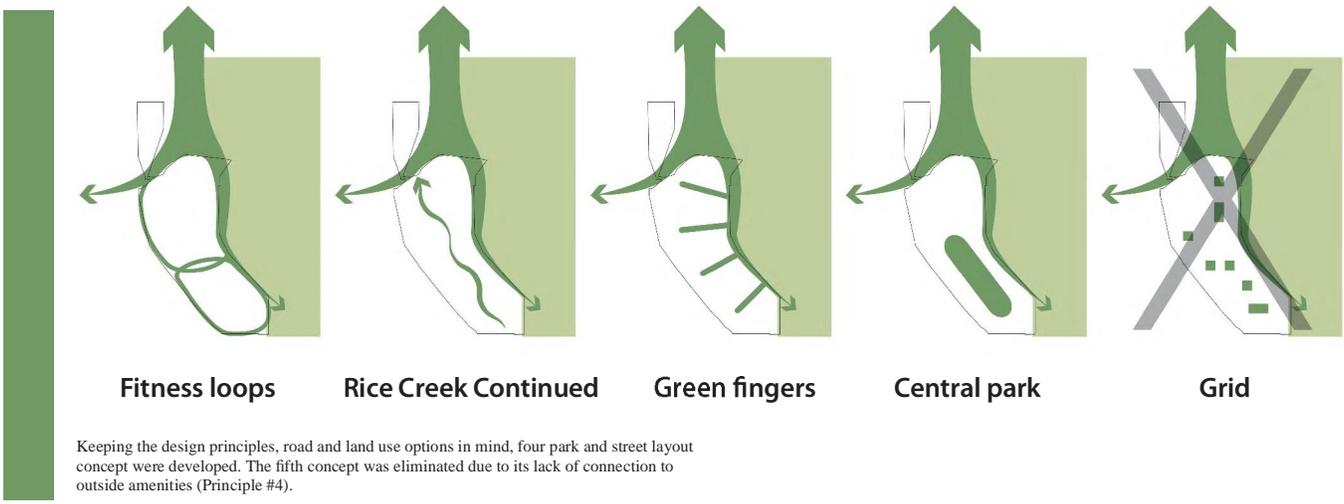
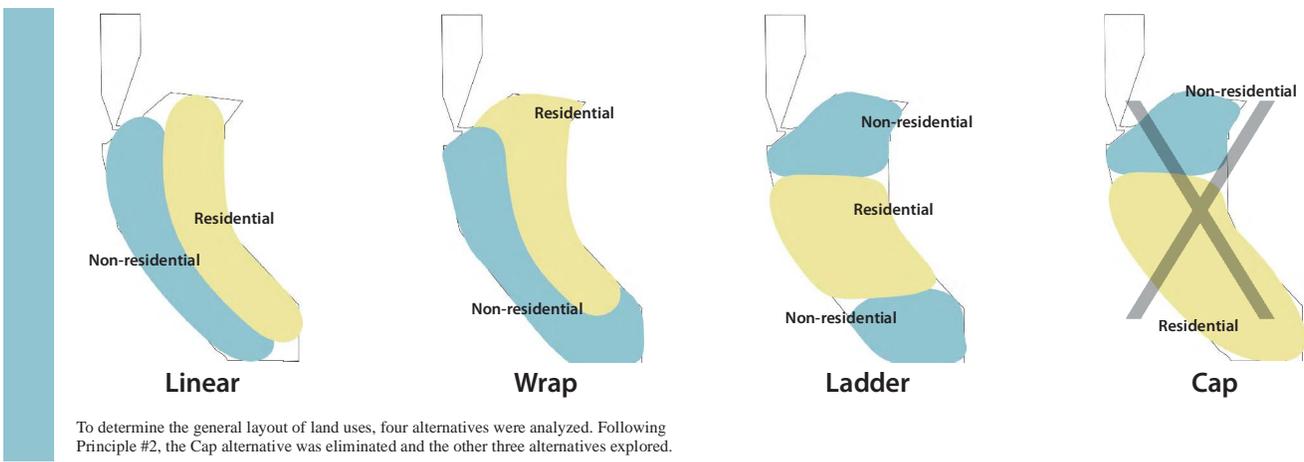
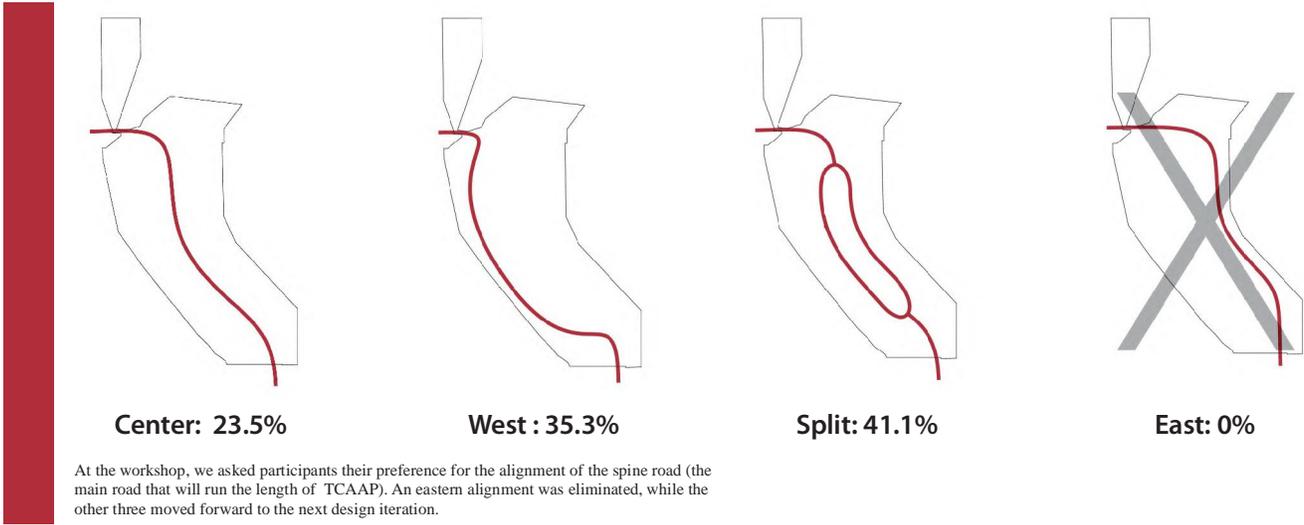
Site is connected to external and adjacent amenities.



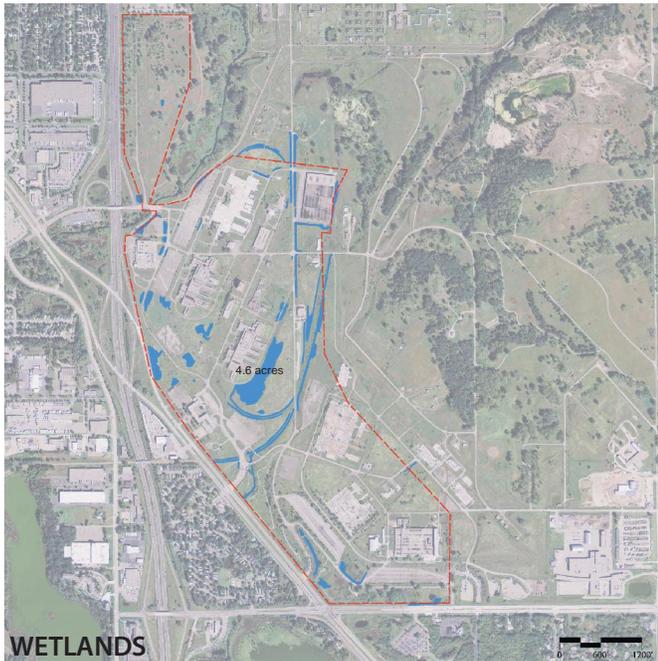
DESIGN PRINCIPLE #5

All neighborhoods will have views of wetland, water, or woods.

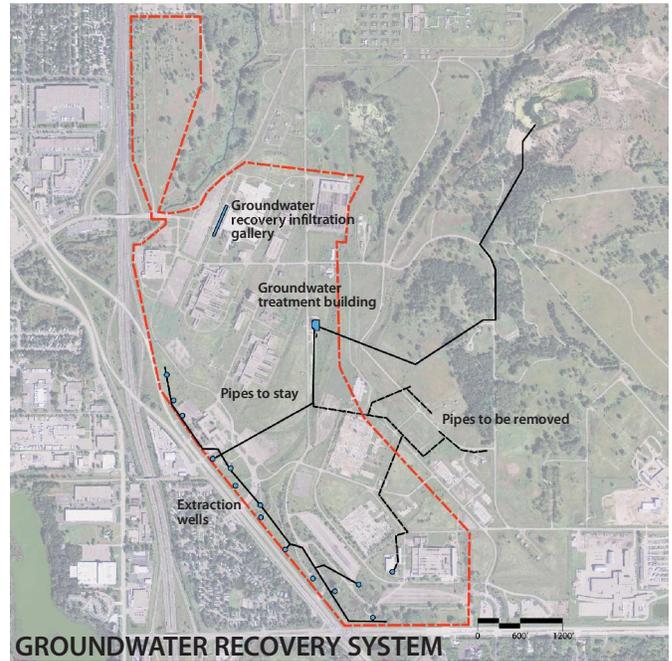
Design Process



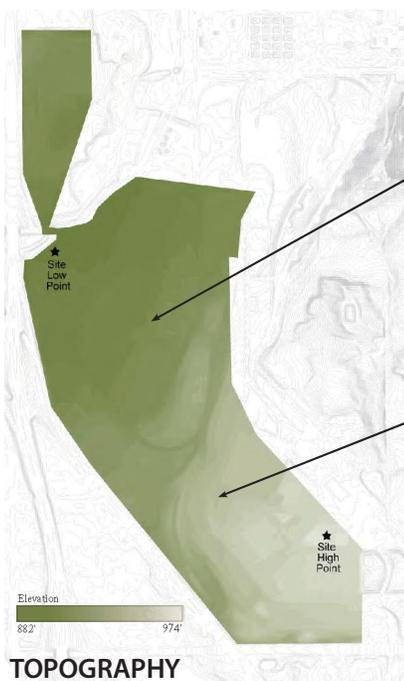
Opportunities and Constraints



There are almost 12 acres of existing wetlands on the TCAAP property. The majority of these wetlands are incidental and developed along rail beds built by the Army. The largest wetland (4.6 acres) found in the center of the site appears to have existed prior to Army development, meaning that it may be a higher quality wetland. The watershed district requires a 2:1 replacement of wetlands that are drained or filled. This means that if the 12 acres of wetlands are removed, 24 acres of new wetlands must be created. This will be a great benefit to the new community; wetlands filter and cleanse surface water, reduce flooding, provide wildlife habitat, and create opportunity for outdoor recreation/education.



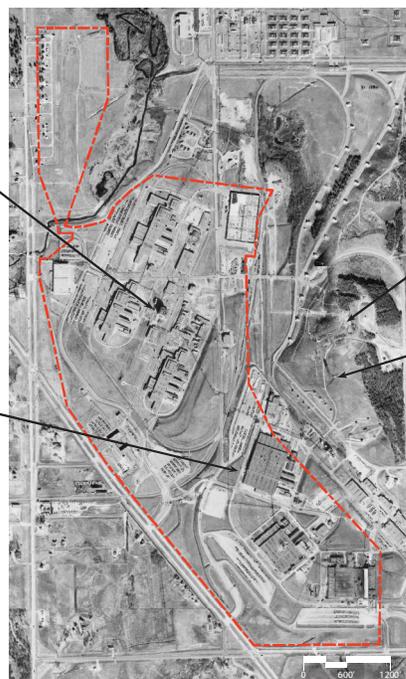
As a Superfund site, TCAAP contains groundwater mitigation infrastructure that must stay in place for the duration of the clean-up process. Some infrastructure, such as the treatment building, the extraction wells, and the infiltration gallery (blue) cannot be moved from their current locations. Other infrastructure, such as the underground pipes (black), can be relocated with cost.



TCAAP is not a flat site, as one might assume from a quick view. Site visits and topography analysis indicate that TCAAP in fact contains a grade change of about 90 feet from the top of the moderate hill on the south side to the creek flood plain on the north side.

Rails run the length of the flat areas

Buildings and roads oriented with ridge lines



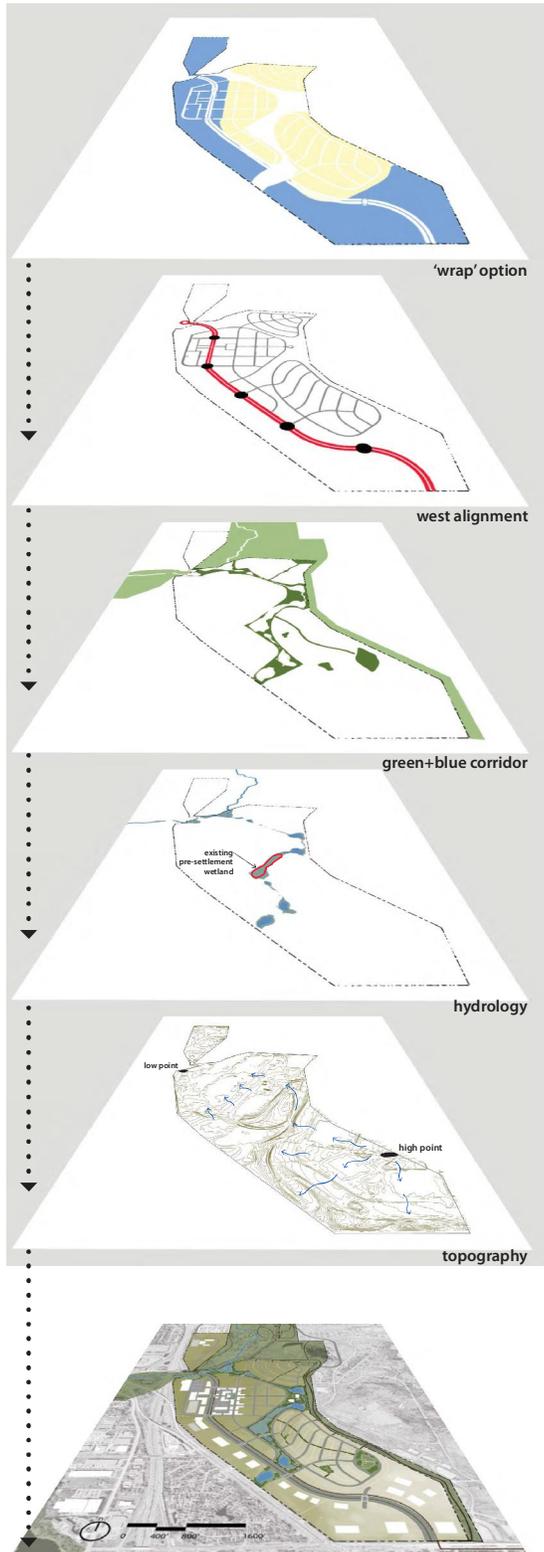
East View to AHATS Hills

East View to a landmark water tower



TCAAP is surrounded by unique features that can guide design and become part of the story of the site. The hills of the AHATS, as well as Rice Creek, are beautiful green spaces, providing unique views and amenities. The water tower on the AHATS can be seen from the entire TCAAP site and can become a prominent landmark.

Design Process - A Systems Approach



LAYER 5: LAND USE

Four alternative land use patterns were analyzed, and it was determined that the 'Wrap' option was best suited to the site. Residential areas are located away from the highway edge and adjacent to the wildlife corridor and new trail head. Non-residential uses along the western edge of the site provide a buffer to the busy highway. They are focused around the north and south access points at County Road H and Highway 96 to minimize traffic into the central site and residential areas.

LAYER 4: VEHICULAR CIRCULATION

The western alignment of the county spine road will focus high traffic, commercial uses along the western corridor of the site, while creating pockets of quieter residential areas in the east. Signalled intersections spaced 1/4 mile apart prevent traffic back-ups and begin to set up the major entry points and street networks of the town center and neighborhoods.

LAYER 3: GREEN OPEN SPACE

The open space options explored during the early design process were combined to fit with Design Principles #4 (*connect the site to external and adjacent amenities*) and #5 (*all neighborhoods will have a view of wetlands, water, or woods*). The 'green spine' is aligned to intercept the majority of surface water flows across the site (see topography diagram, below), while the green-ways build connections between the green spine, neighborhood parks, and the wildlife corridor.

LAYER 2: HYDROLOGY AND WETLANDS

The green spine will connect a series of constructed ponds and wetlands that will treat storm water, support wildlife habitat, reduce flood risk, and create opportunities for outdoor recreation. The spine also includes an existing 4.6-acre wetland that pre-dates settlement of land by the Army. This continuous green-blue armature was aligned to intercept and cleanse the majority of the surface storm water from across the site (see topography diagram, below) before entering Rice Creek in the Northwest corner.

LAYER 1: TOPOGRAPHY

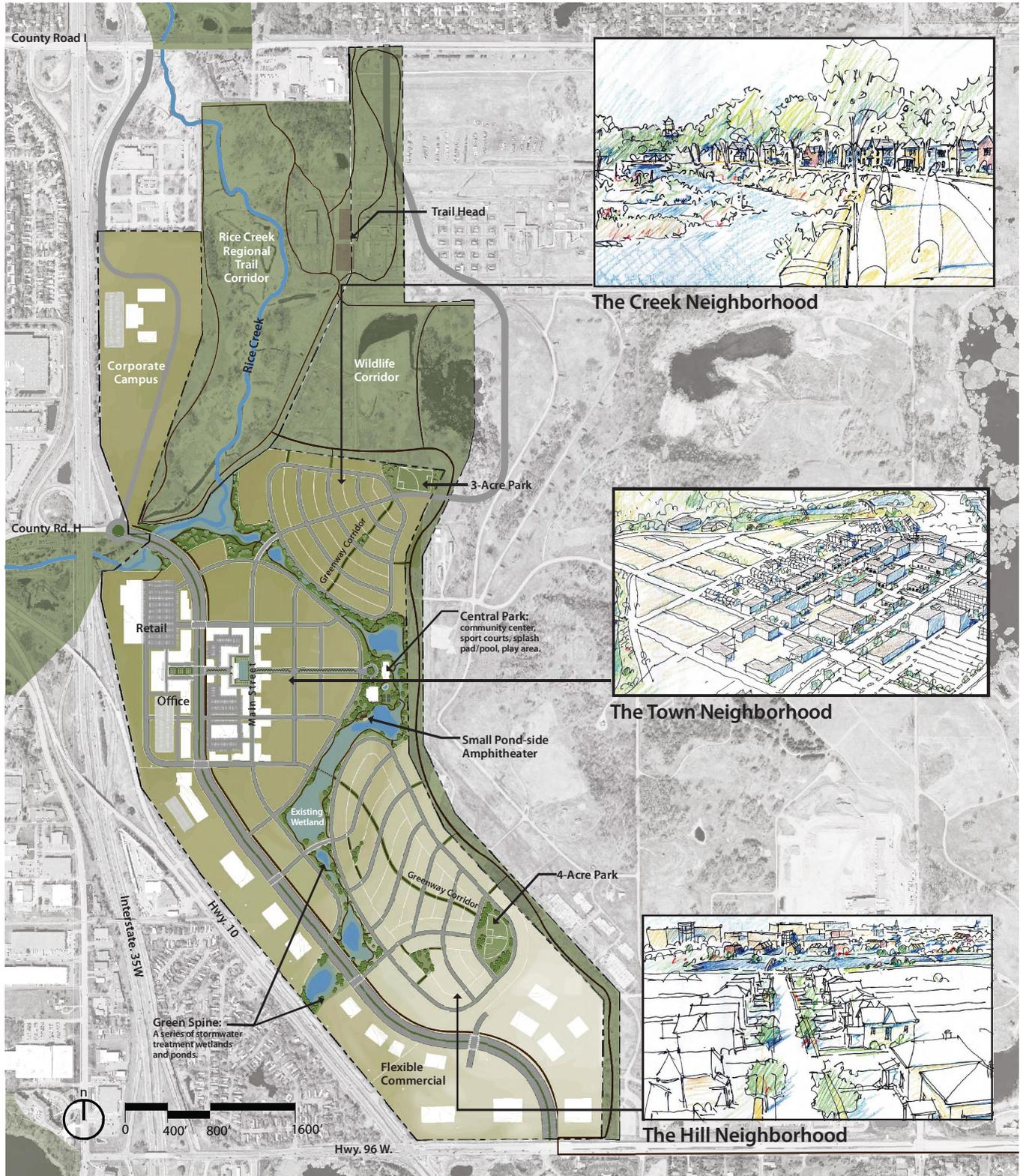
There is 90' of grade change from the site high point to the low point at Rice Creek. Much of the slope is located in the proposed Hill Neighborhood, where the street and lot alignment were designed to follow existing ridge lines. This will yield down-slope views towards the town center, and opportunities to intercept and treat storm water at the toe of the hill.

THE HYBRID MASTER PLAN

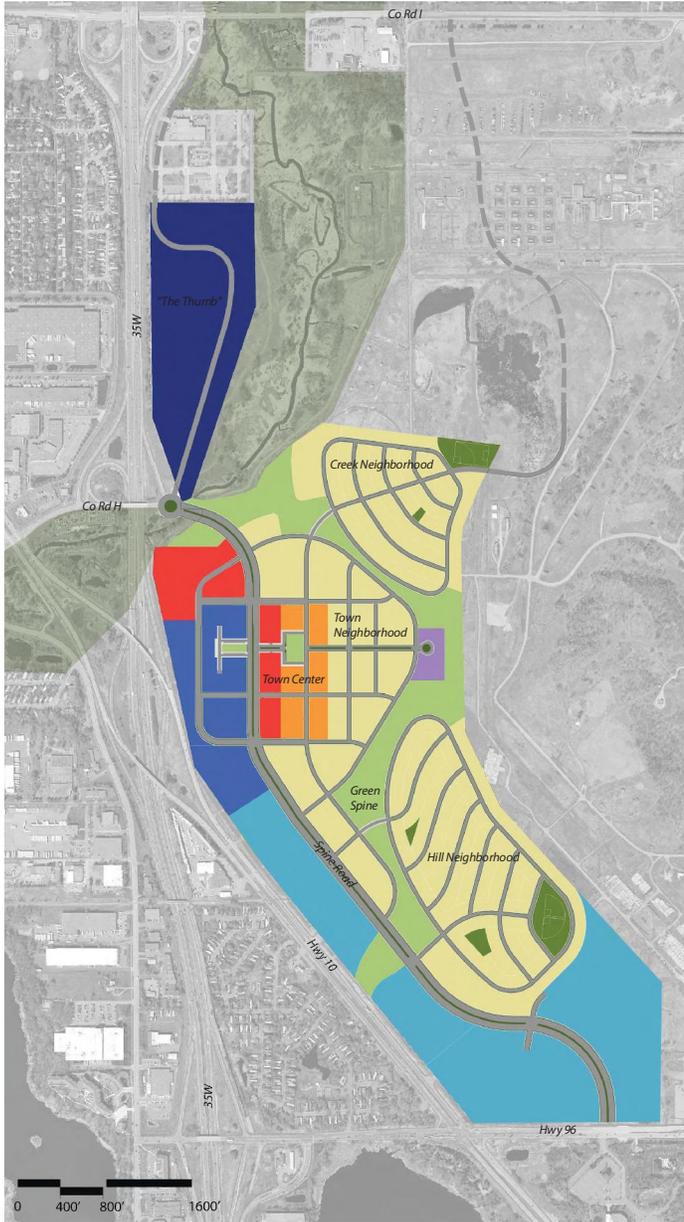
The hybrid master plan is a product of the design principles, circulation and land use design explorations, and site-specific environmental characteristics such as topography, hydrology, wetlands, and habitat. By layering these cultural and natural systems together we begin to build a Master Plan that:

- is unique to the TCAAP site,
- fits and connects with the context of Arden Hills,
- is responsive and sensitive to the unique environmental amenities that add value to this place.

Illustrative Master Plan



Land Use Plan



Residential



There will be a range of housing types, from large single family homes to apartments and condominiums in 5 story buildings

Retail



TCAAP will offer a wide variety of shopping experiences, from small walkable shops to mid-size stores, to large retail.

Mixed Use



The Town Center is made up of buildings that house more than one use, such as retail on the first floor, offices above, and apartments on the top floors.

Office



Office in the Town Center will be multi-story (left). The thumb area of the site will likely house a corporate campus (right).

Flexible Business



The flexible business area allows TCAAP to be flexible to meet market demands. They could be multi-story office buildings or attractive one-story buildings for uses such as research and light production.

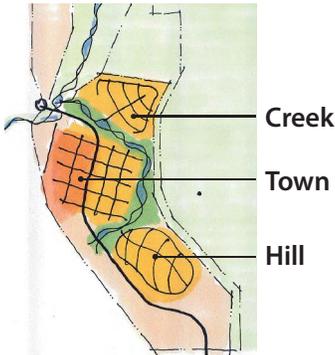
Civic



The civic area is a place for the community to gather. This outdoor space could include a recreational building, small amphitheater, and other amenities.



Neighborhood Housing



Like current Arden Hills neighborhoods, the three neighborhoods in TCAAP will each have their own unique identity. Together they will offer a range of housing choices from senior housing to cottages to larger homes. This will help create a more complete community where you can choose your living arrangement according to your preference and phase of life.

| Types of Housing in the Neighborhoods | | | | |
|---------------------------------------|-------|---------------------------|----------------------|------|
| | Creek | Town: East of Main St. | Town: Main Street | Hill |
| Single family large | ✓ | | | ✓ |
| Single family medium | ✓ | | | ✓ |
| Single family small | ✓ | ✓ | | ✓ |
| Townhouse | ✓ | ✓ | ✓ | ✓ |
| Apartment/condo | | ✓ | ✓ | |
| Senior housing | | ✓ | ✓ | |

✓ predominant

In TCAAP

In Arden Hills

Single Family Large



4 to 6 units per acre

Single Family Medium



6 to 8 units per acre

Single Family Small (Cottages)



8 to 12 units per acre

Townhouse



12 to 20 units per acre

Senior housing



25 to 35 units per acre

Apartments / Condos



25 to 35 units per acre



4 units per acre



6 units per acre



12 units per acre



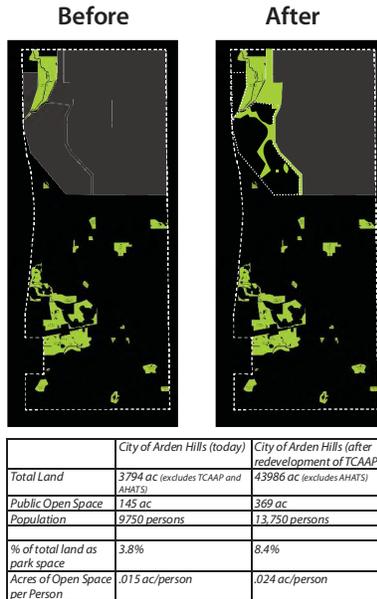
Twin Cities Army Ammunition Plant (TCAAP) Alternative Areawide Urban Review (AUAR), Master Plan, and Regulations & Policies

Open Space

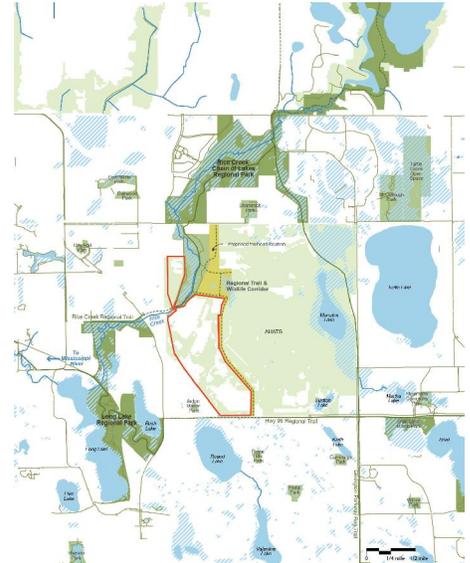
Parks and open space will not only be a defining feature at TCAAP, it will serve as the heart of the community. The showpiece of the TCAAP park system is the "green spine", a beautiful and high-functioning open space that weaves through the entire site, connecting neighborhoods, collecting and treating stormwater, and offering plenty of trails, habitat, and recreation.

In addition, the Hill and Creek neighborhoods will each have its own tot lot and a 4-5 acre park with playing fields and other forms of active recreation. Greenways (trail corridors) will allow convenient off-road walking and biking access to the Town Center, as well as to the greater regional open space and trail system.

The Town Neighborhood will have a Town Square, an open space that can be used in all seasons for community events and recreation, such as ice skating, movies in the park, and farmers markets.



Regional Parks and Trails



Parks at TCAAP



TCAAP Parks Compared to Arden Hills Parks



Valentine Park is similar in size to the **Creek Neighborhood park**

- 3 acres
- 1 "informal field"
- 1 basketball court
- Playground
- Picnic shelter



Royal Hills Park is similar in size to the **Hill Neighborhood park**

- 4.5 acres
- 1 soft ball field
- 1 tennis court
- 1 basketball court
- Playground
- Picnic shelter

Neighborhood Greenway



Town Square



Wetland Chain in Green Spine



Because TCAAP is a Superfund site with contaminated groundwater, surface water should not be infiltrated into the ground. The chain of wetlands within the central community park would be designed to filter (clean) and convey surface water to Rice Creek. To maintain the surface water and ground water as two separate systems and to keep water in the park as an amenity, the wetlands can be lined with clay. While the system would not be intended for open water recreation, trails and boardwalks throughout the park could provide access for fishing, birdwatching, and educational activities. Emergent wetlands and other native landscapes also provide critical habitat and stormwater management.

The Town Center

The plan proposes a modest Main Street which is focused around a town square. The Main Street would have small scale shops and restaurants. The buildings around the town square should have multiple floors with offices or housing on upper floors. The remainder of Main Street will be built out according to market demands and may or may not have retail on the ground floor. Main Street will have street parking as well as convenient and ample surface parking in the rear. The walkable Town, Creek, and Hill neighborhoods will enable most residents to get to town on foot or bike.



Retail on Main Street is part of a broader retail strategy that ensures a variety of sizes and formats. The Plan proposes larger scale retail, primarily accessed by car, on the west side of the spine road. Medium scale and outparcel retail, including a potential grocery store is located on the east edge of the Spine Road. Smaller scale, pedestrian scaled retail is located on Main Street.

Mixed Use on Main Street



Saint Louis Park, MN



Huntersville, NC



Maple Grove, MN

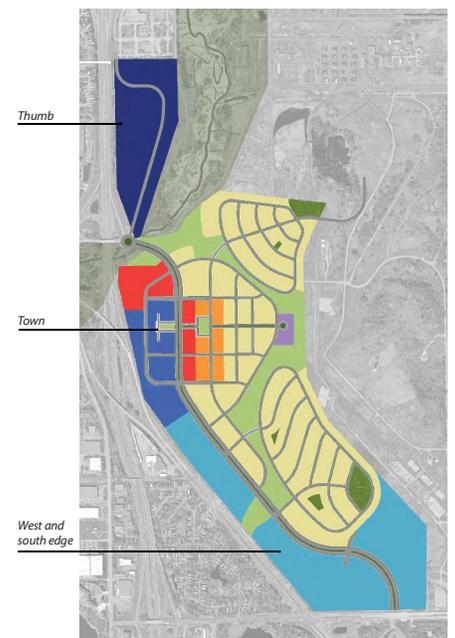
Vertical mixed-use is proposed around the Town Square, in 4 buildings. Vertical mixed-use is complex and challenging. However it is a small proportion of the development - approximately 5-8% of the non-residential square footage on the Plan.

Ultimately the market will determine the final format. The Plan will require a small amount of vertical mixed-use on the plaza, but will be flexible throughout the remainder of Main Street.

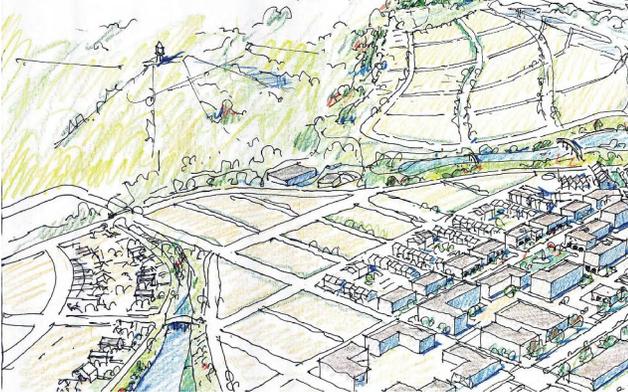
Economic Development

Job creation is a primary goal of TCAAP redevelopment. The Draft Plan proposes approximately half of the land to be allocated for economic development - offices, commercial and retail.

The Thumb offers an opportunity to create a 40 acre corporate campus housing up to 550,000 sf and 1,200 jobs. The site has regional access and is visible from the highway. The Town neighborhood will have multi-story multi-tenant office buildings anchoring the area with a strong daytime population. The areas south of Town, will house single tenant employers in one and two story buildings.



TCAAP will be **like** Arden Hills because



Nighborhoods will be unique and distinct - each with their own identity and character.



Everyone will have a view of and access to water, wetlands or woods.



It will be balanced - it will have approximate similar number of jobs and residents.

TCAAP will be **different** from Arden Hills because



Residents will be able to walk or bike to town.



There will be a variety of activities and housing types - allowing people to stay for a day and a lifetime.



Residents will be able to hop on a bike and access the entire region on protected trails.