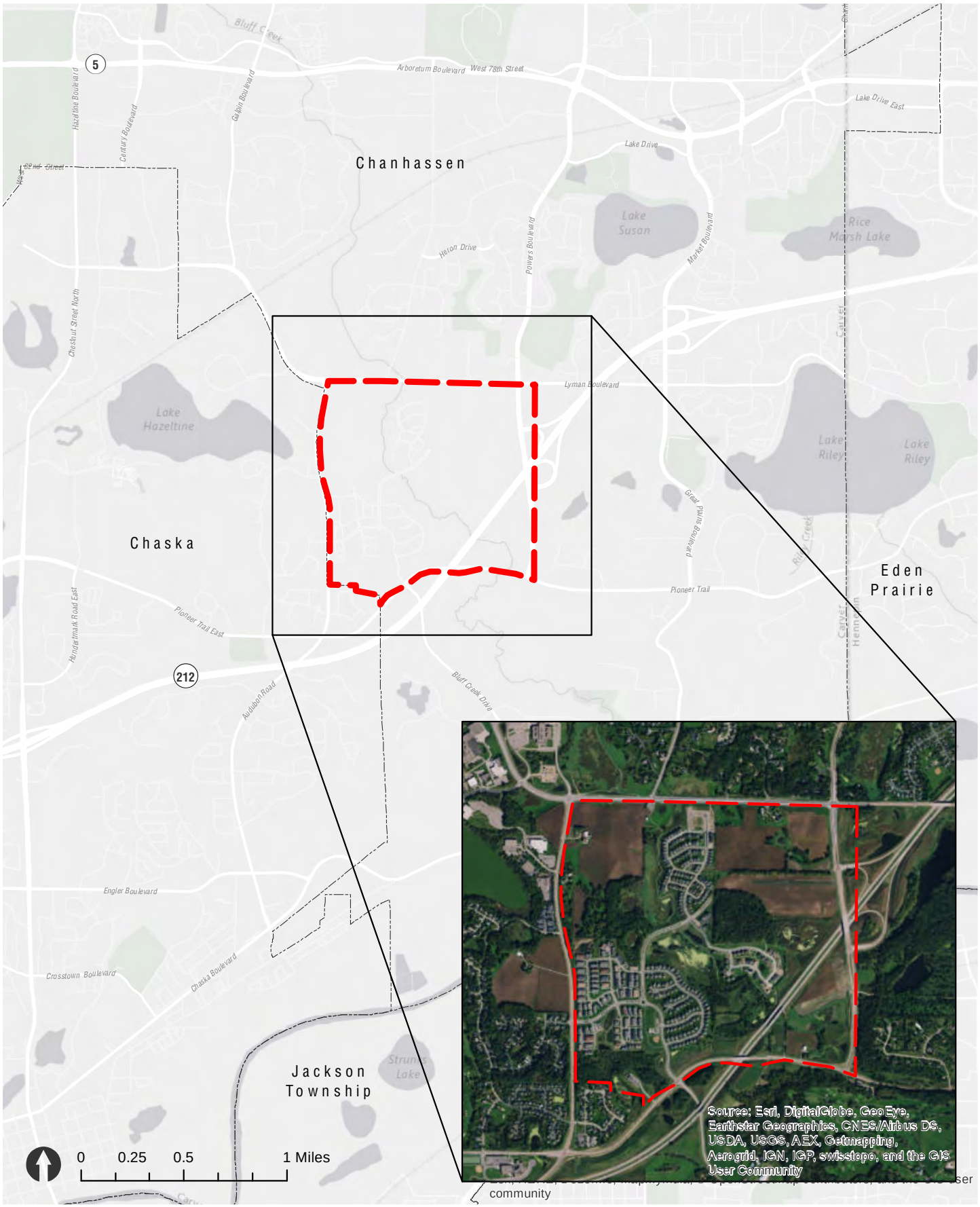
LIST OF FIGURES



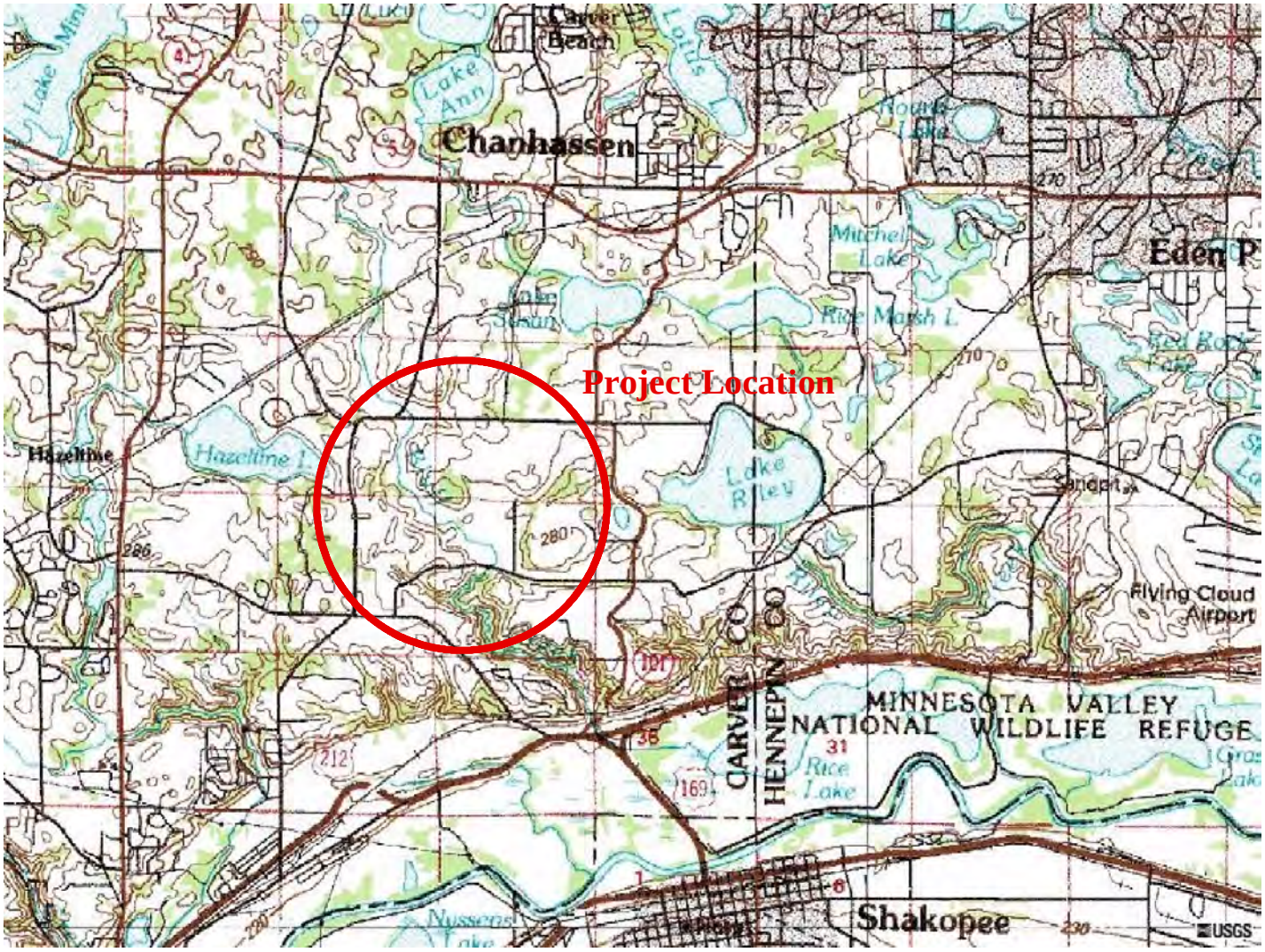
community

FIGURE 1 - PROJECT LOCATION

CHANHASSEN ALTERNATIVE URBAN AREAWIDE REVIEW UPDATE
City of Chanhassen, Minnesota

FIGURE 2 - AUAR PROJECT BOUNDARY

CHANHASSEN ALTERNATIVE URBAN AREAWIDE REVIEW UPDATE
City of Chanhassen, Minnesota



USGS Topographic Map - July 1, 1984

FIGURE 3 - USGS MAP

CHANHASSEN ALTERNATIVE URBAN AREAWIDE REVIEW UPDATE
City of Chanhassen, Minnesota

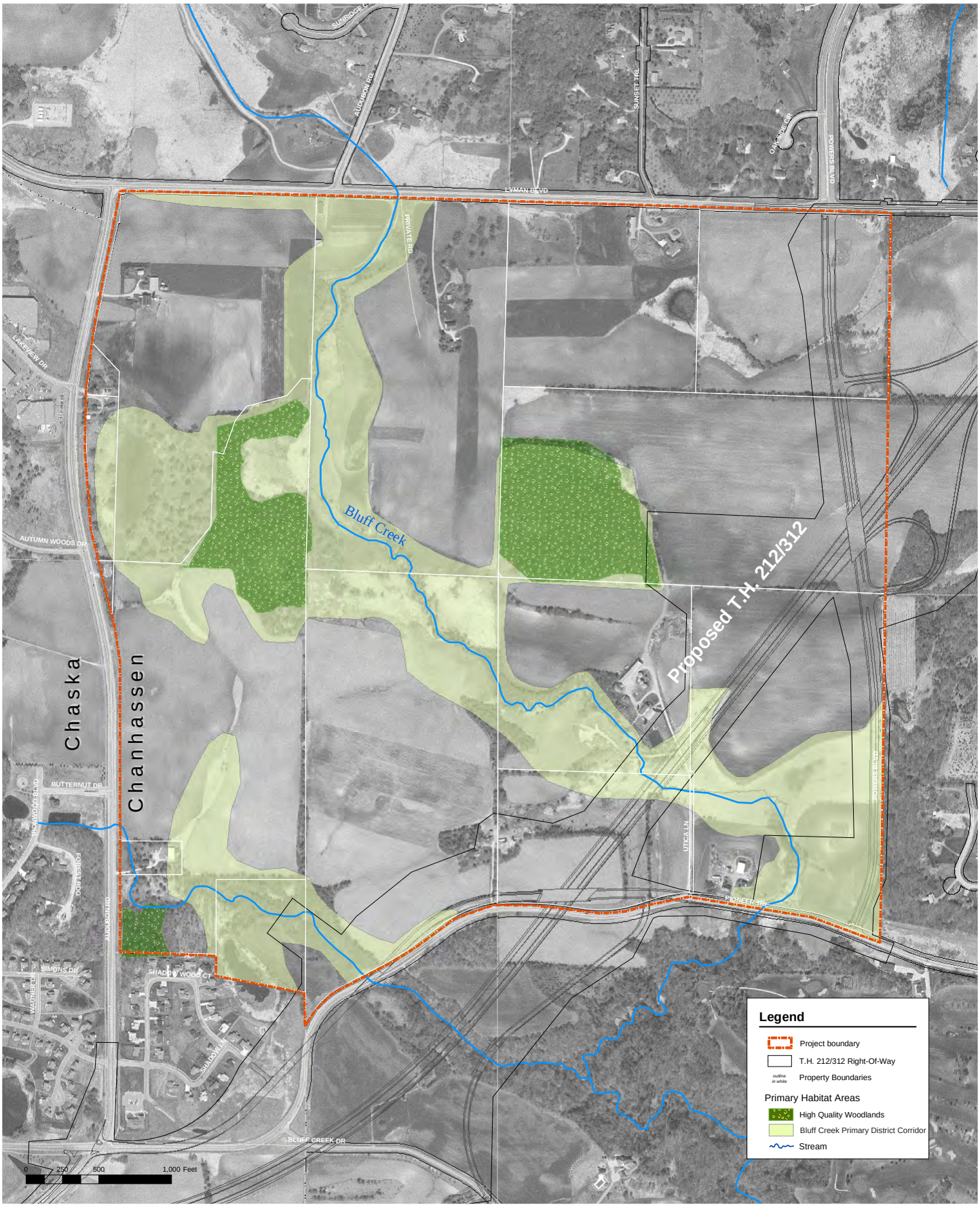


FIGURE 4 - PRIMARY HABITAT AREAS

CHANHASSEN ALTERNATIVE URBAN AREAWIDE REVIEW UPDATE
City of Chanhassen, Minnesota

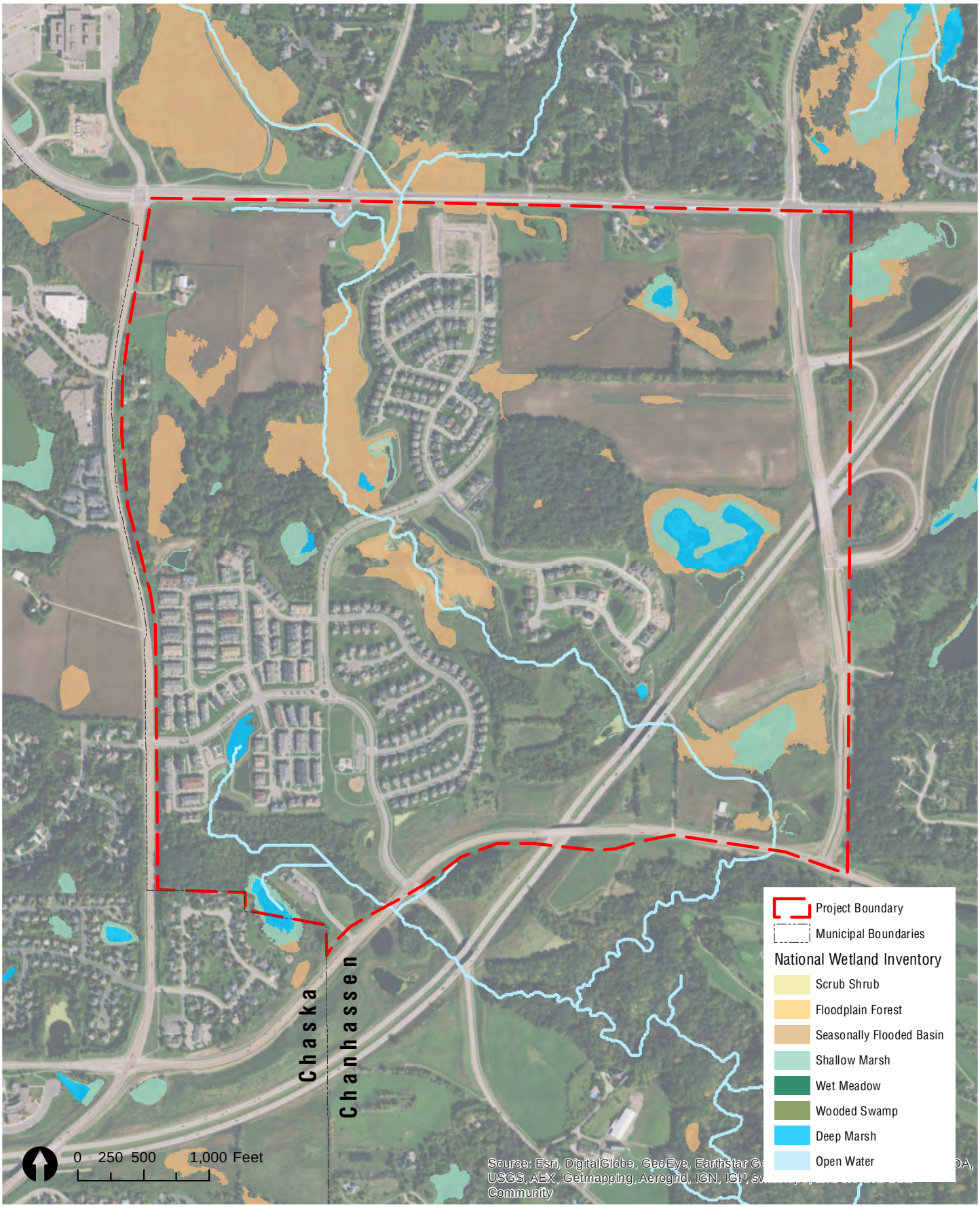


FIGURE 5 - NWI WETLANDS BY TYPE

CHANHASSEN ALTERNATIVE URBAN AREAWIDE REVIEW UPDATE
City of Chanhassen, Minnesota

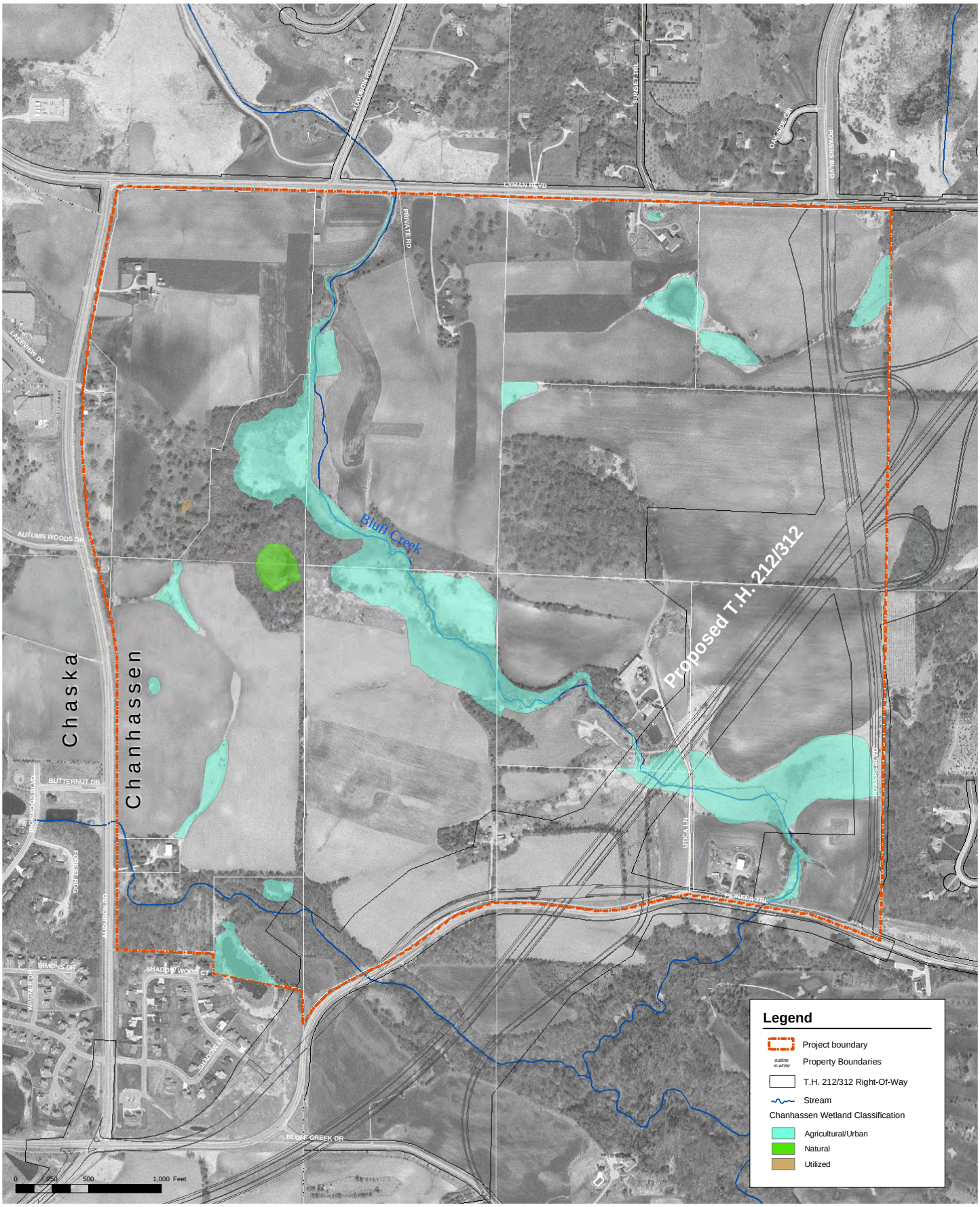


FIGURE 6 - CHANHASSEN WETLAND CLASSIFICATION

CHANHASSEN ALTERNATIVE URBAN AREAWIDE REVIEW UPDATE
City of Chanhassen, Minnesota

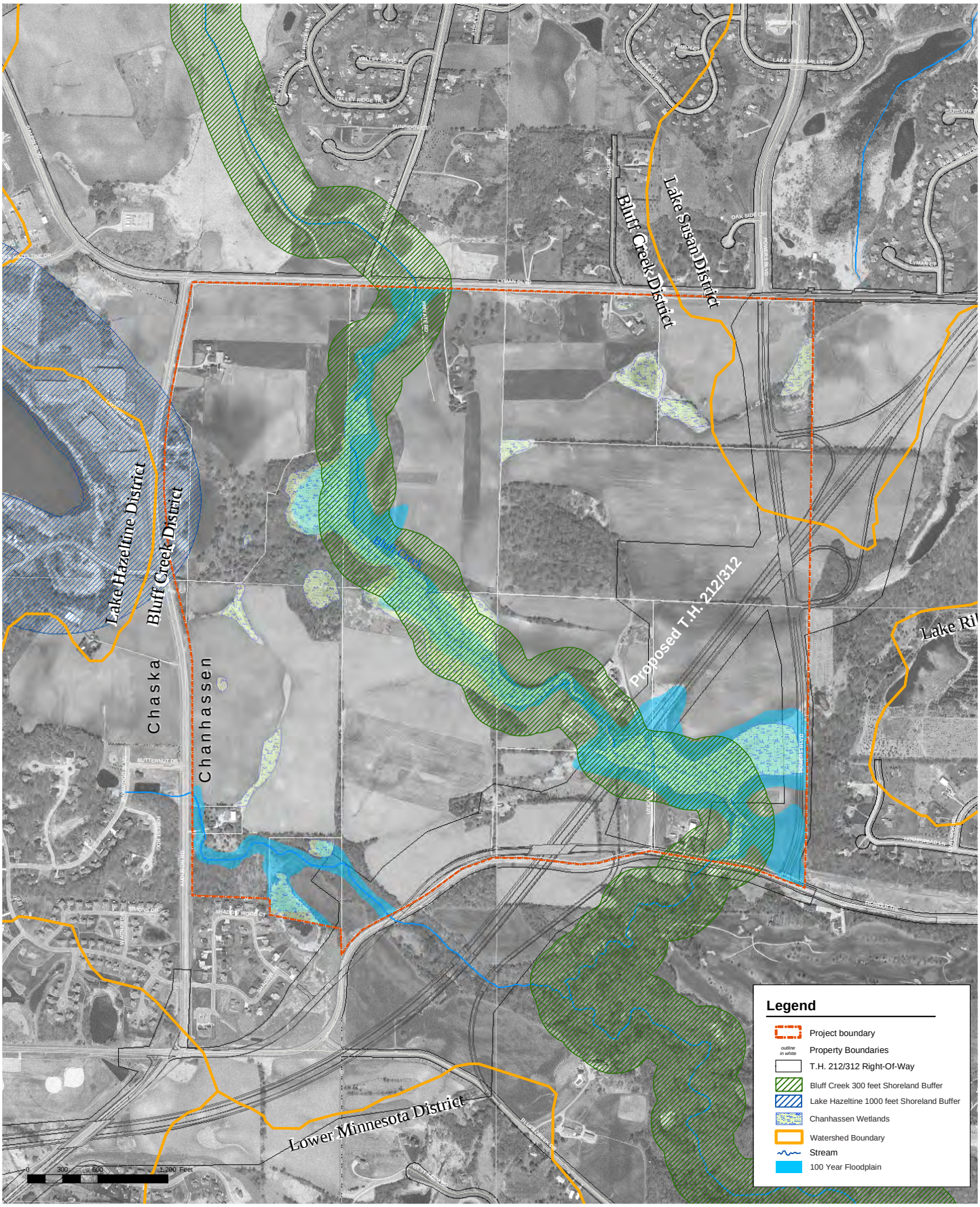


FIGURE 7 - SURFACE WATER

CHANHASSEN ALTERNATIVE URBAN AREAWIDE REVIEW UPDATE
City of Chanhassen, Minnesota

Bedrock Geology and Structure

Legend

T.H. 212/312 Right-Of-Way

Property Boundaries

Project boundary

Description of Map Units

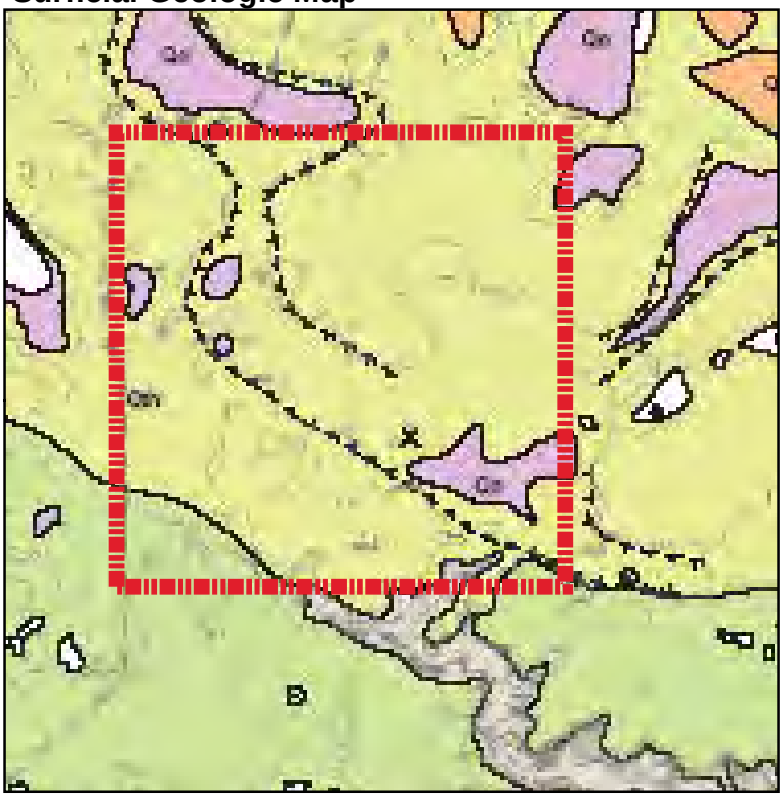
Prairie du Chien Group (Lower Ordovician)—Dominantly dolostone interlayered with lesser amounts of quartz sandstone. The group is divided into two formations (Shakopee Formation and Oneota Dolomite) that are not separated on this map.
The Shakopee Formation is light-brown to pale-yellow-brown, thin- to medium-bedded dolostone interlayered with thin beds of fine- to medium-grained quartz sandstone and greengray shale. The dolostone contains stromatolite layers and locally fossiliferous chert nodules.
The Shakopee Formation is separated from the underlying Oneota Dolomite by a disconformity.
The Oneota Dolomite is light-brown to grayish-orange, medium- to thick-bedded dolostone. Commonly oolitic or sandy in the lower 12–13 feet, although this basal sandy layer is missing in some places of eastern Washington County and northeastern Dakota County.
The upper part of the Prairie du Chien where exposed at the bedrock surface is rubbly and contains karst solution features.
In eastern Dakota and southern Washington Counties, Prairie du Chien dolostone is exposed along river bluffs, in quarries, and in many flat, low outcrops where bedrock is near the land surface. The Prairie du Chien also is exposed along low bedrock terraces of the Minnesota River in northeastern Scott County. It is as thick as 308 feet in southeastern Dakota County but thinner in the northwestern part of Hennepin County, where it was removed before deposition of overlying St. Peter Sandstone. The Prairie du Chien also thins significantly beneath the St. Peter Sandstone in northern Washington County.

Jordan Sandstone (Late Cambrian)—Dominantly light-gray sandstone; includes numerous coarsening-upward sequences consisting of two interlayered facies. The two facies are not portrayed separately on the map. They are (1) medium- to coarse-grained, cross-bedded, generally friable quartz sandstone and (2) very fine grained, structureless, commonly bioturbated feldspathic sandstone and lenses of siltstone and shale. Some calcite, mostly as nodular concretions, is present near the top of the formation. The Jordan is 66–125 feet thick in the metropolitan area.
Jordan Sandstone is exposed along the Mississippi River in Washington and northeastern Dakota Counties, along the St. Croix River in Washington County, and along the Minnesota River in northwestern Scott County.

St. Lawrence Formation and Franconia Formation, undivided (Upper Cambrian)—Variably colored red-brown to gray-green or light-gray dolomitic shale, siltstone, and dolostone that overlie fine- to coarse-grained quartz sandstone, very fine grained to fine-grained glauconitic sandstone, and fine-grained nonglauconitic sandstone, dolostone, siltstone, and shale.
The St. Lawrence Formation is composed of silty, very finely crystalline, generally thin bedded, tan to pink dolostone interlayered with thin intervals of siltstone or, rarely, beds of very fine grained glauconitic sandstone or maroon to green shale. The formation is fossiliferous and contains trilobites and graptolites. In Scott and Carver Counties, the St. Lawrence is as much as 75 feet thick; thickness decreases to 34–59 feet in Ramsey and Washington Counties. It is exposed along steep tributary valleys in the St. Croix valley, mainly by waterfalls. A few small outcrops are present in St. Lawrence Township (T. 114 N., R. 24 W.) in west-central Scott County.
The upper 40–50 feet of the Franconia Formation north of Stillwater in northern Washington County, Anoka County, and in northern Hennepin County is light-gray, thin-bedded and crossbedded (ripple cross-laminated), fine- to coarse-grained, dolomite-cemented quartz sandstone.
The quartz sandstone overlies and interfingers with greenish-gray, medium-bedded, very fine grained to fine-grained, dolomite-cemented, glauconitic and feldspathic sandstone. In the southern and central parts of the map area, where the quartz sandstone is absent, the glauconitic and feldspathic sandstone is as thick as 100 feet. The lower part of the formation consists of greengray to light-green interbedded shale, siltstone, and lesser amounts of very fine grained feldspathic sandstone as thick as 30 feet, which overlie dark-green, very fine grained to fine-grained, medium to thick beds of highly glauconitic sandstone interlayered with thin beds of gray-orange to pink sandy glauconitic dolostone, also as thick as 30 feet.
The quartz sandstone beds in the upper part of the Franconia Formation crop out extensively along bedrock terraces of the St. Croix River in northern Washington County—for example, Boom hollow north of Stillwater and around Marine on St. Croix. The lower glauconitic beds rarely crop out in the map area, although some formerly did near Afton in Washington County. The contact with the underlying Ironton Sandstone is sharply defined but apparently conformable. The Franconia Formation is as thick as 165 feet and is generally thickest in the northeastern part of the map area. The St. Lawrence and Franconia Formations have a combined thickness of 180–240 feet.

Geologic data source information provided by the Minnesota Geologic Survey "Bedrock Geology and Structgure of the Seven-County Twin Cities Metropolitan Area, Minnesota, John h. Mossler and Robert G. Tipping, 2000.

Surficial Geologic Map



Legend

Generalized Project Boundary Location

Description of Map Units

PALUSTRINE DEPOSITS
Organic deposits (Holocene)—Palustrine sediments consisting of darkbrown to black, drained and undrained peat and muck. Commonly found in depressions between hills, in collapsed channels, and in the floodplain. In the floodplain this unit consists partly of overbank and slackwater sediments. Where mapped on alluvial fans (secs. 34 and 35, T. 116 N., R. 23 W.), this unit includes material deposited in a calcareous seepage fen.

SLOPEWASH DEPOSITS
Colluvial deposits (Holocene)—Reworked sediments consisting of a friable mixture of sand, silt, clay, and pebbles; resembles till and buried sand and gravel from which it is derived; may contain disseminated organic debris. Unit includes the till that forms steep bluffs, sediment that accumulates at the base of steep slopes, and alluvial sediment that is deposited along small streams.

GLACIAL DEPOSITS
[Sediment deposited by the northwest-source Des Moines lobe. Deposits contain abundant shale fragments. Color of till is variable but is typically yellow-brown to gray-brown where oxidized.]

High-relief deposits—Till as above; forms poorly developed circular flat-topped hills; hummocky; overall relief about 100 feet (30 meters); many collapsed channels.

Low-relief deposits—Till as above; level to rolling surface topography; overall relief about 10 ft (3 meters); steep gullies are as deep as 180 feet (55 meters); underlain in many places by thick deposits of sand and gravel.

Scarp—Hachures point down scarp; dashed where discontinuous or obscure. Marks flank of former fluvial channel.

Sample location—Includes soil borings 3–26 feet (1–8 meters) deep, outcrops, and excavations (construction sites, gravel pits).

Pits (sand and gravel or crushed rock)—Active, inactive. Areal extent indicated by outline.

Geologic data source information provided by the Minnesota Geologic Survey "Surficial Geologic Map of the Shakopee Quadrangle, Carver, Scott, and Hennepin Counties, Minnesota, Barbara A. Lusardi, 1997.

FIGURE 8 - GEOLOGIC INVENTORY

CHANHASSEN ALTERNATIVE URBAN AREAWIDE REVIEW UPDATE
City of Chanhassen, Minnesota

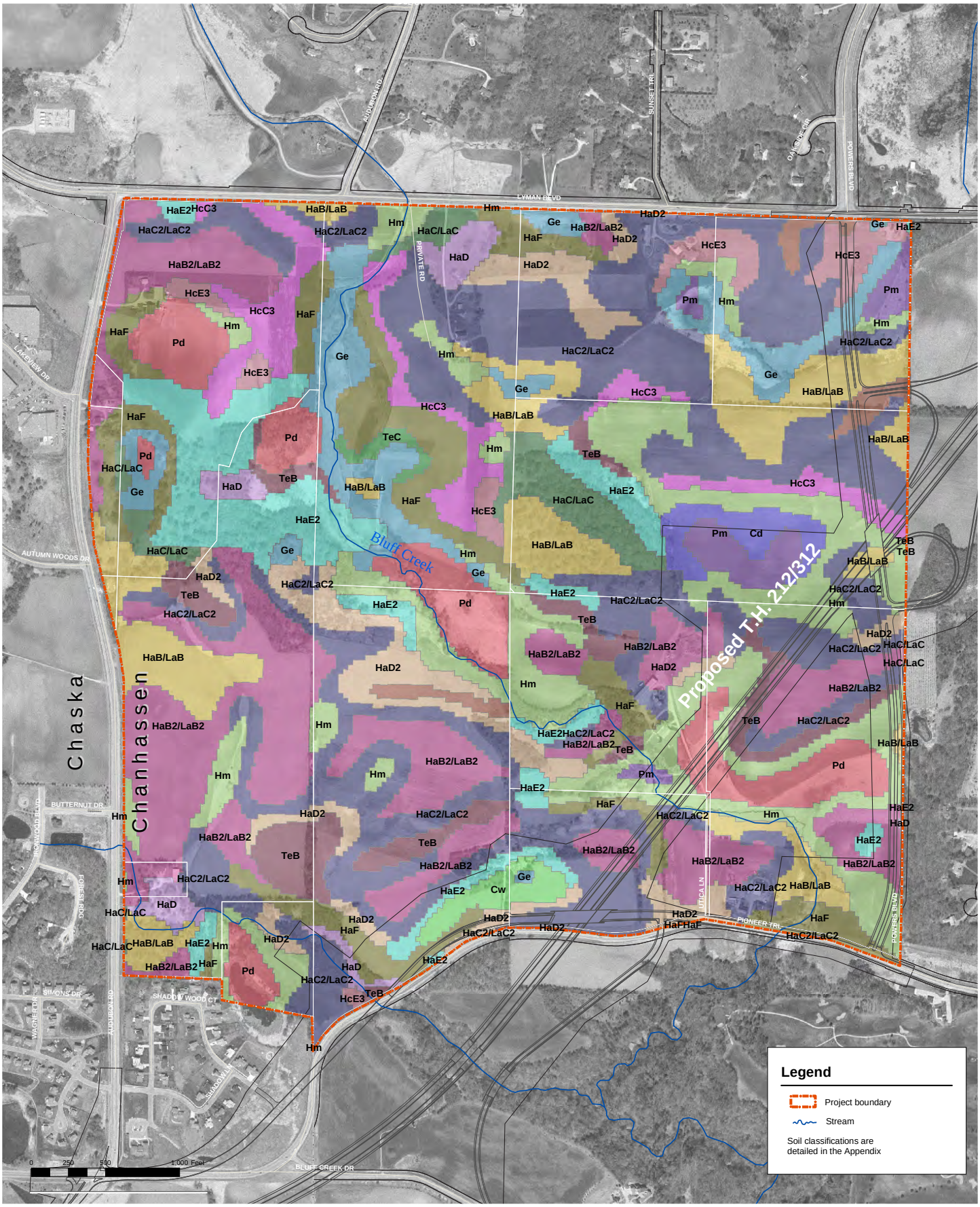


FIGURE 9 - SOILS

CHANHASSEN ALTERNATIVE URBAN AREAWIDE REVIEW UPDATE
City of Chanhassen, Minnesota

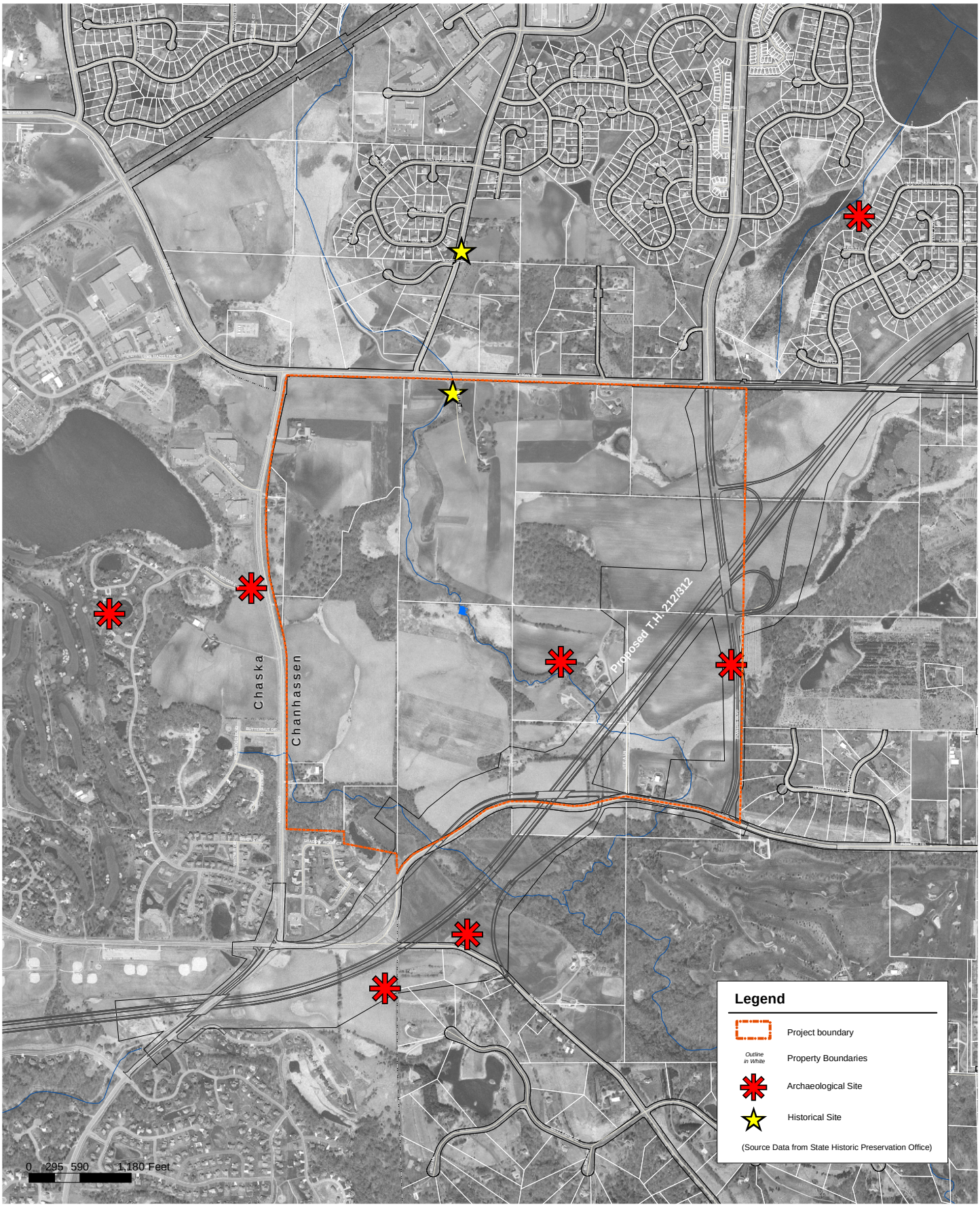


FIGURE 10 - CULTURAL & HISTORIC RESOURCES

CHANHASSEN ALTERNATIVE URBAN AREAWIDE REVIEW UPDATE
City of Chanhassen, Minnesota

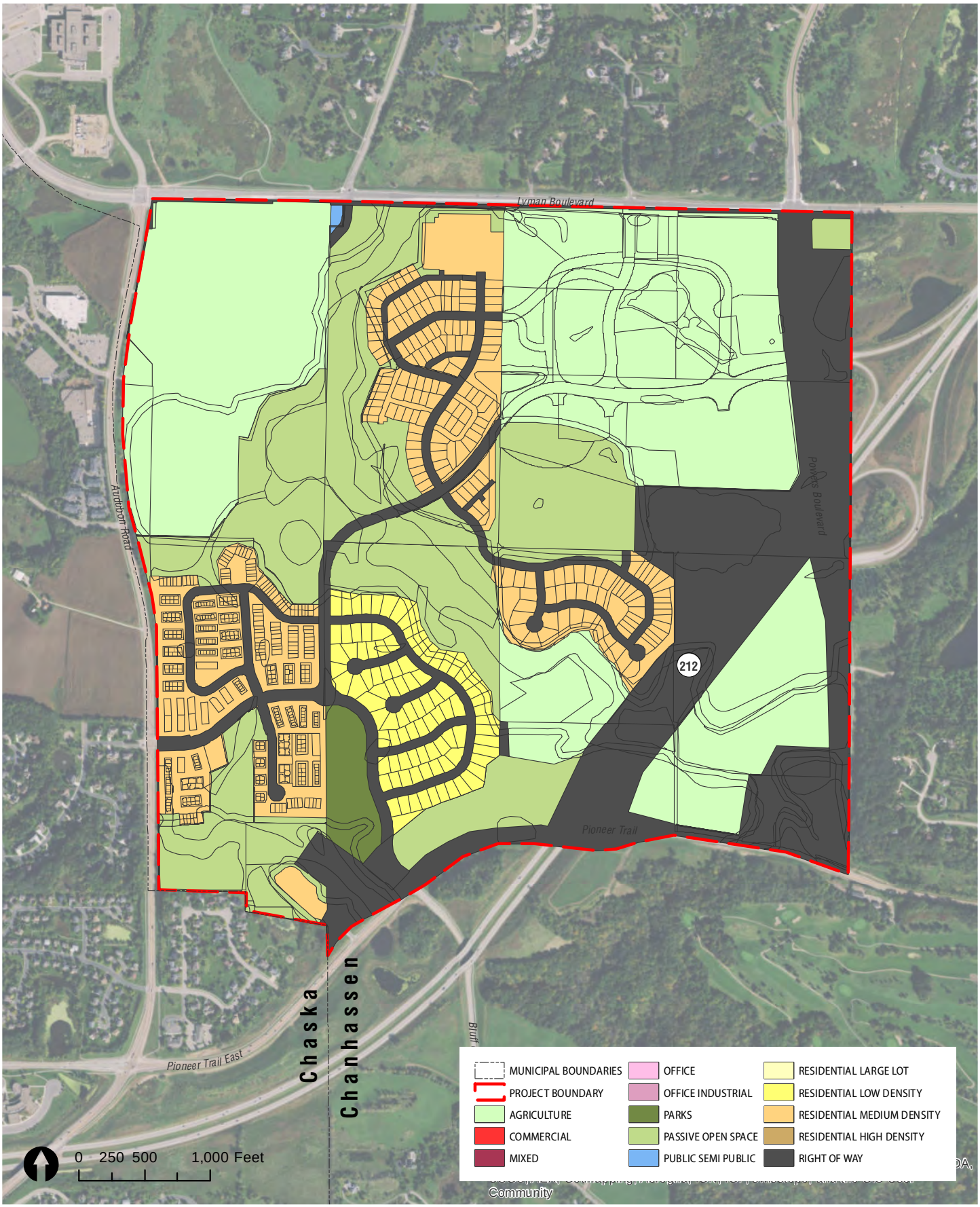


FIGURE 11 - EXISTING LAND USE

CHANHASSEN ALTERNATIVE URBAN AREAWIDE REVIEW UPDATE
City of Chanhassen, Minnesota

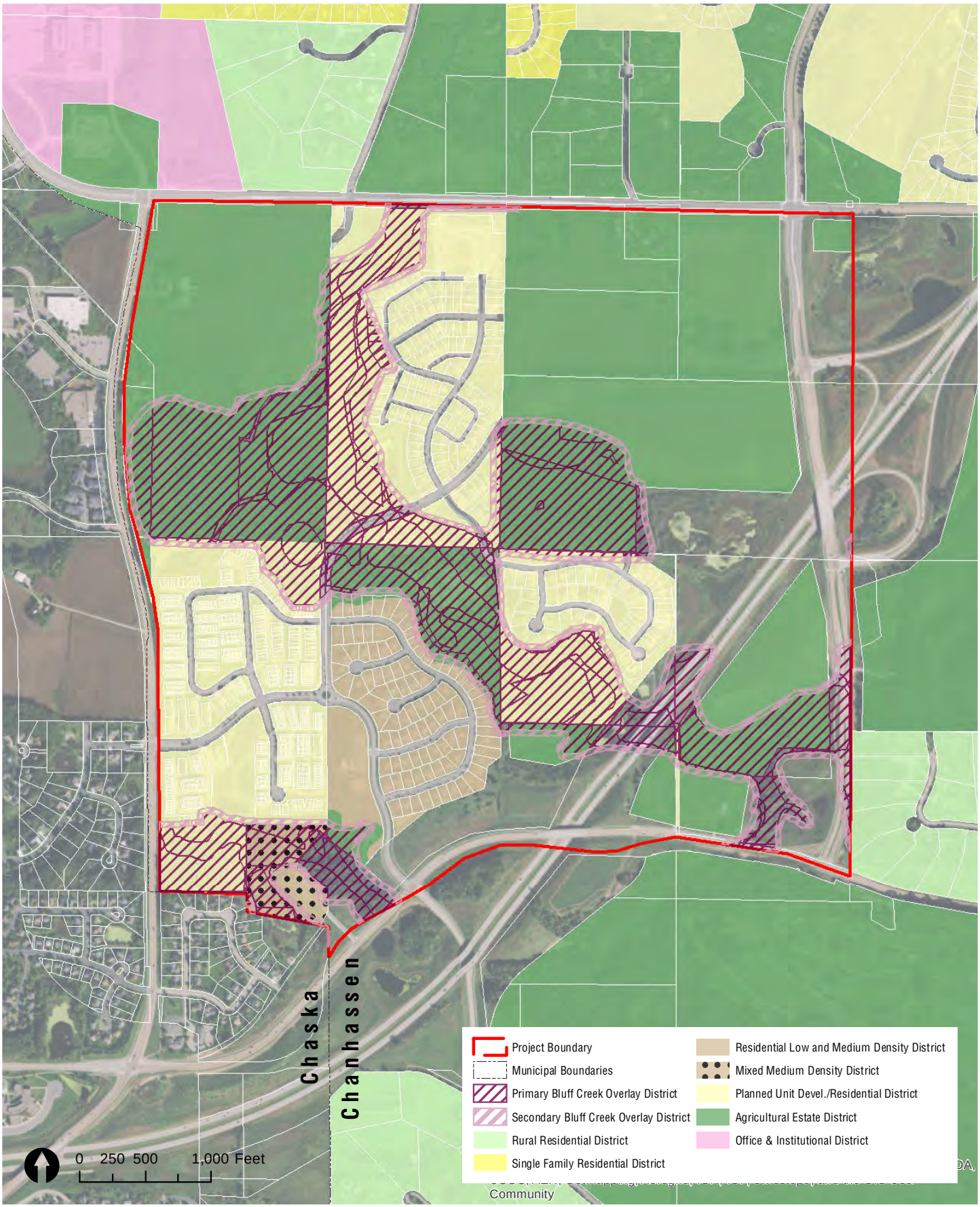


FIGURE 12 - ZONING

CHANHASSEN ALTERNATIVE URBAN AREAWIDE REVIEW UPDATE
City of Chanhassen, Minnesota

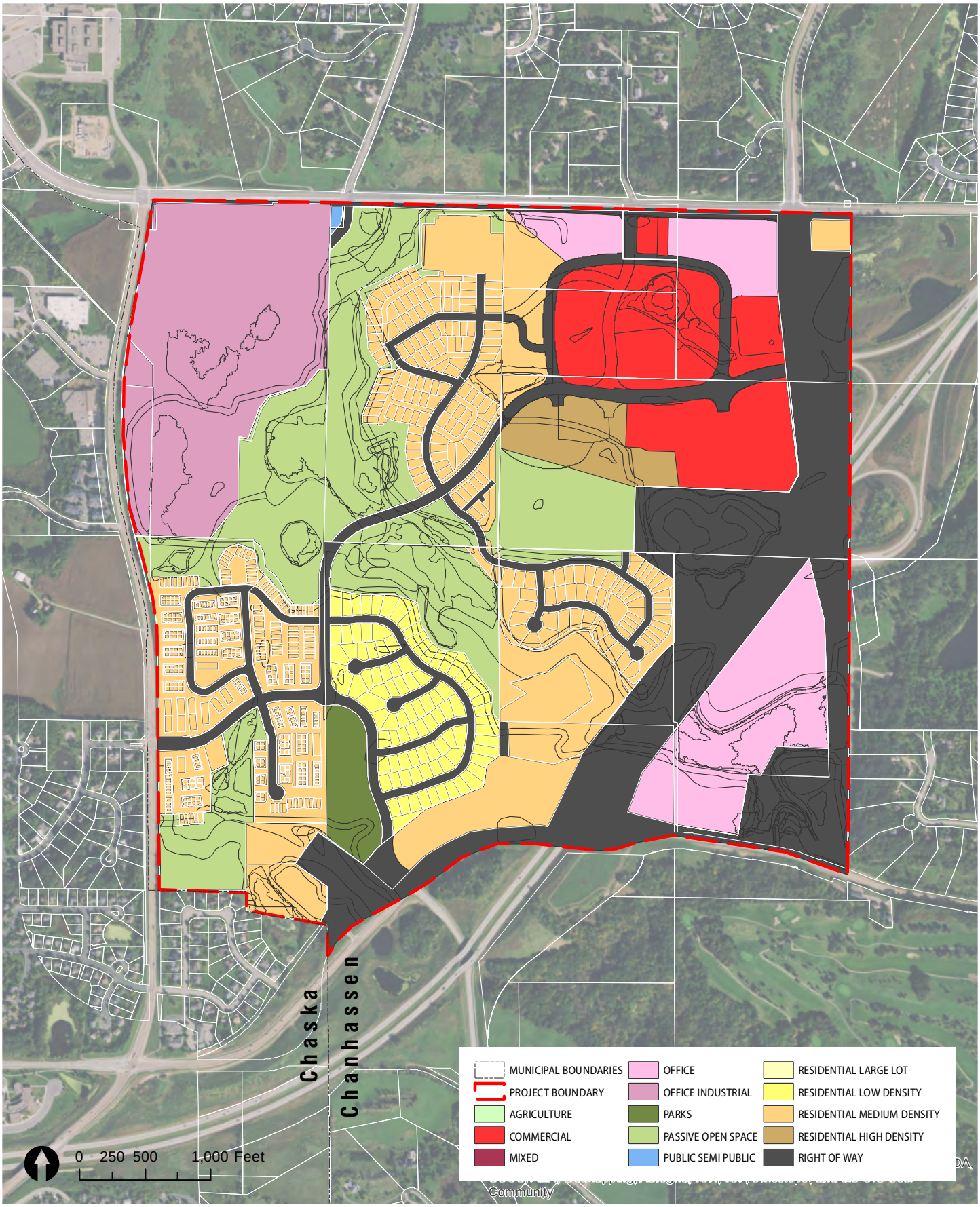


FIGURE 13A - LAND USE PLAN (CONCEPT A)

CHANHASSEN ALTERNATIVE URBAN AREAWIDE REVIEW UPDATE
City of Chanhassen, Minnesota

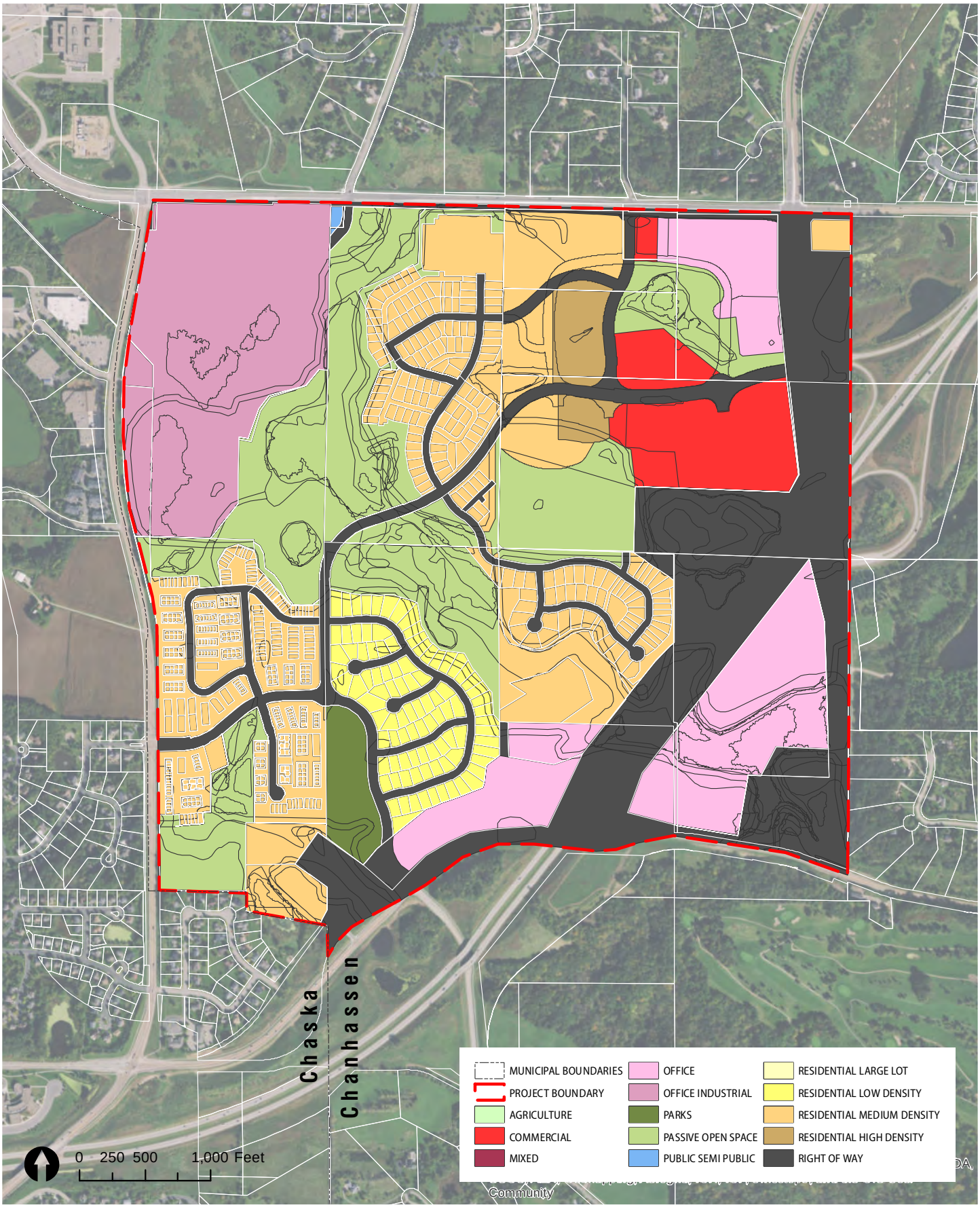


FIGURE 13B - LAND USE PLAN (CONCEPT B)

CHANHASSEN ALTERNATIVE URBAN AREAWIDE REVIEW UPDATE
City of Chanhassen, Minnesota

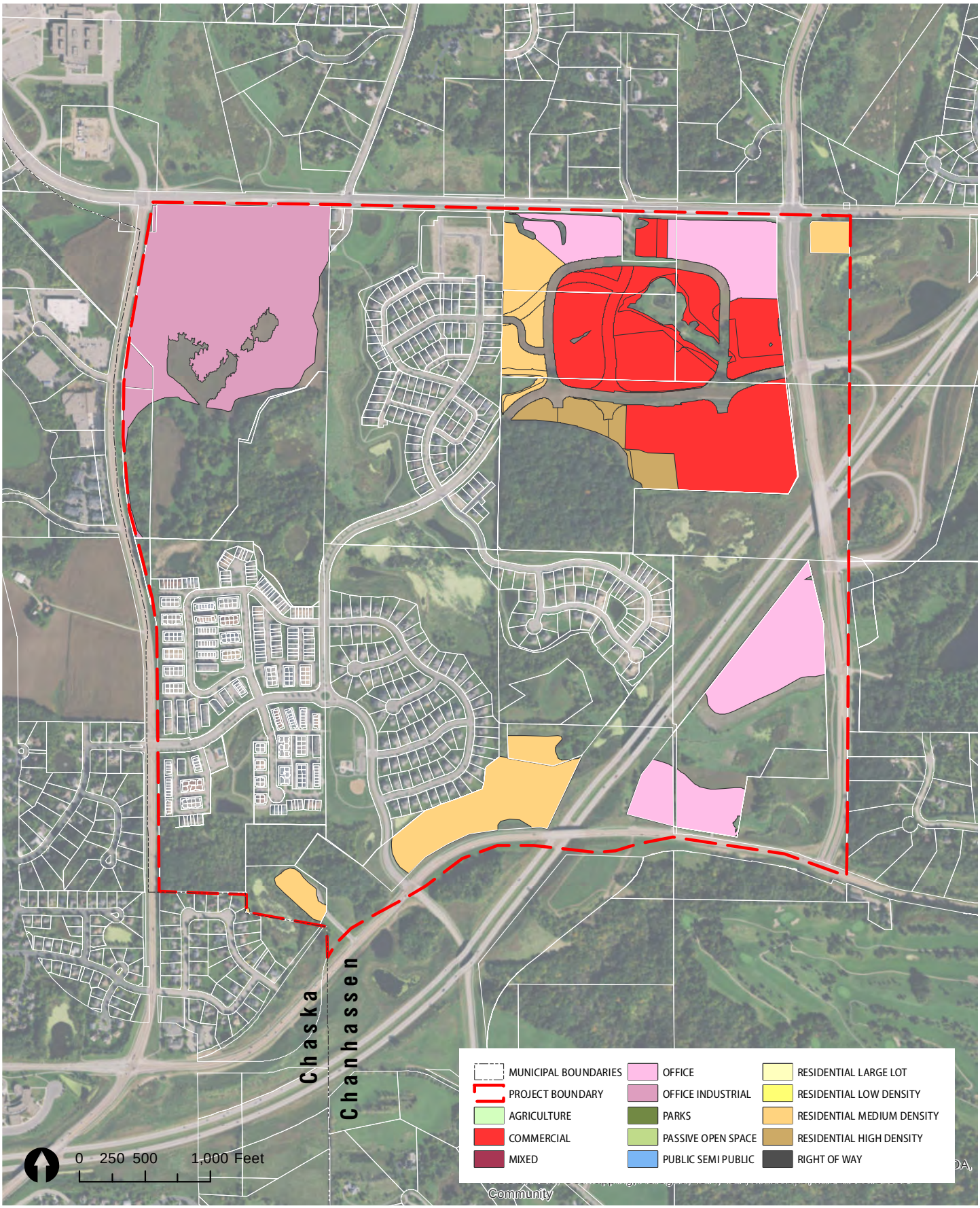


FIGURE 14A - AUAR DEVELOPMENT PLAN (CONCEPT A)

CHANHASSEN ALTERNATIVE URBAN AREAWIDE REVIEW UPDATE
City of Chanhassen, Minnesota

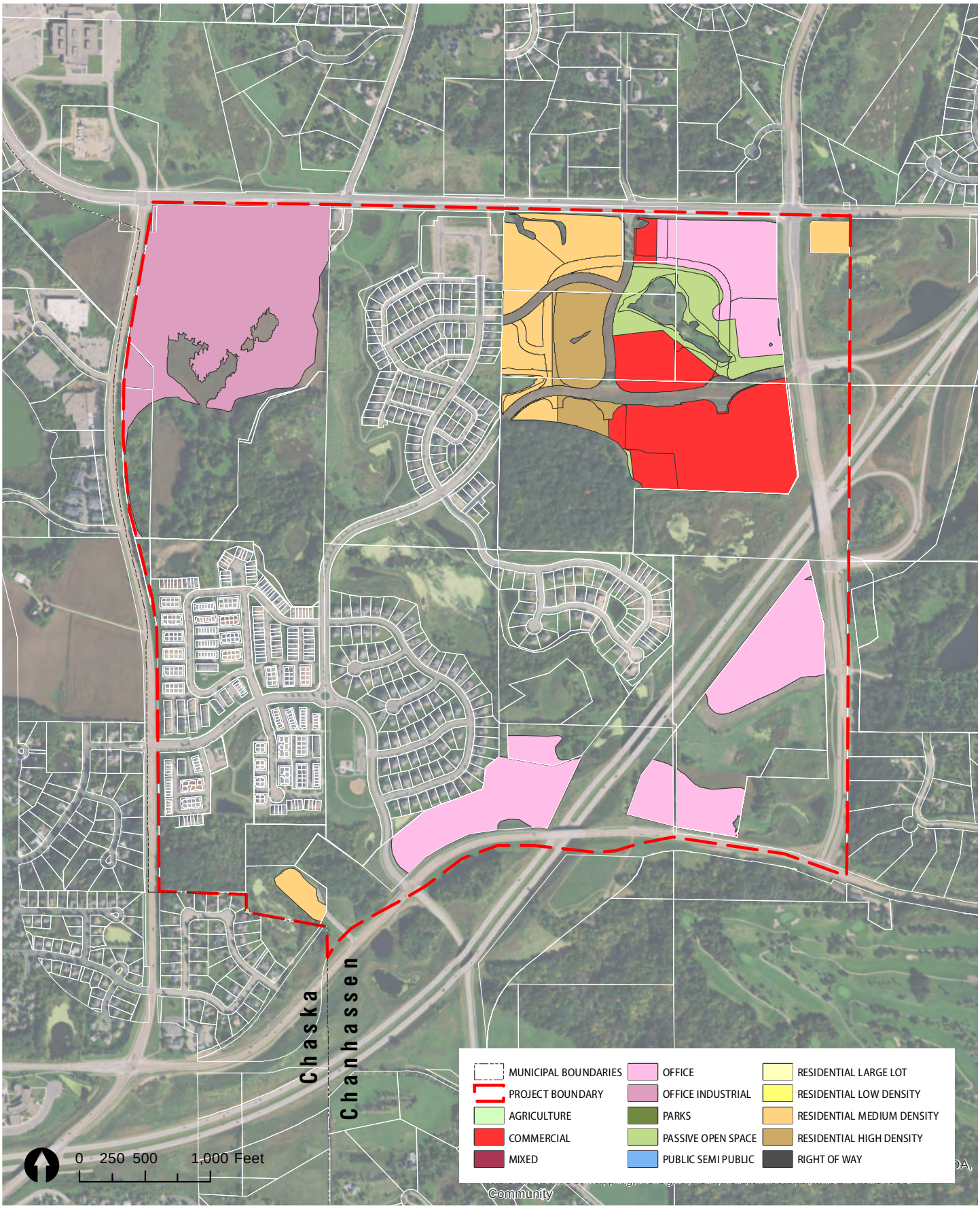
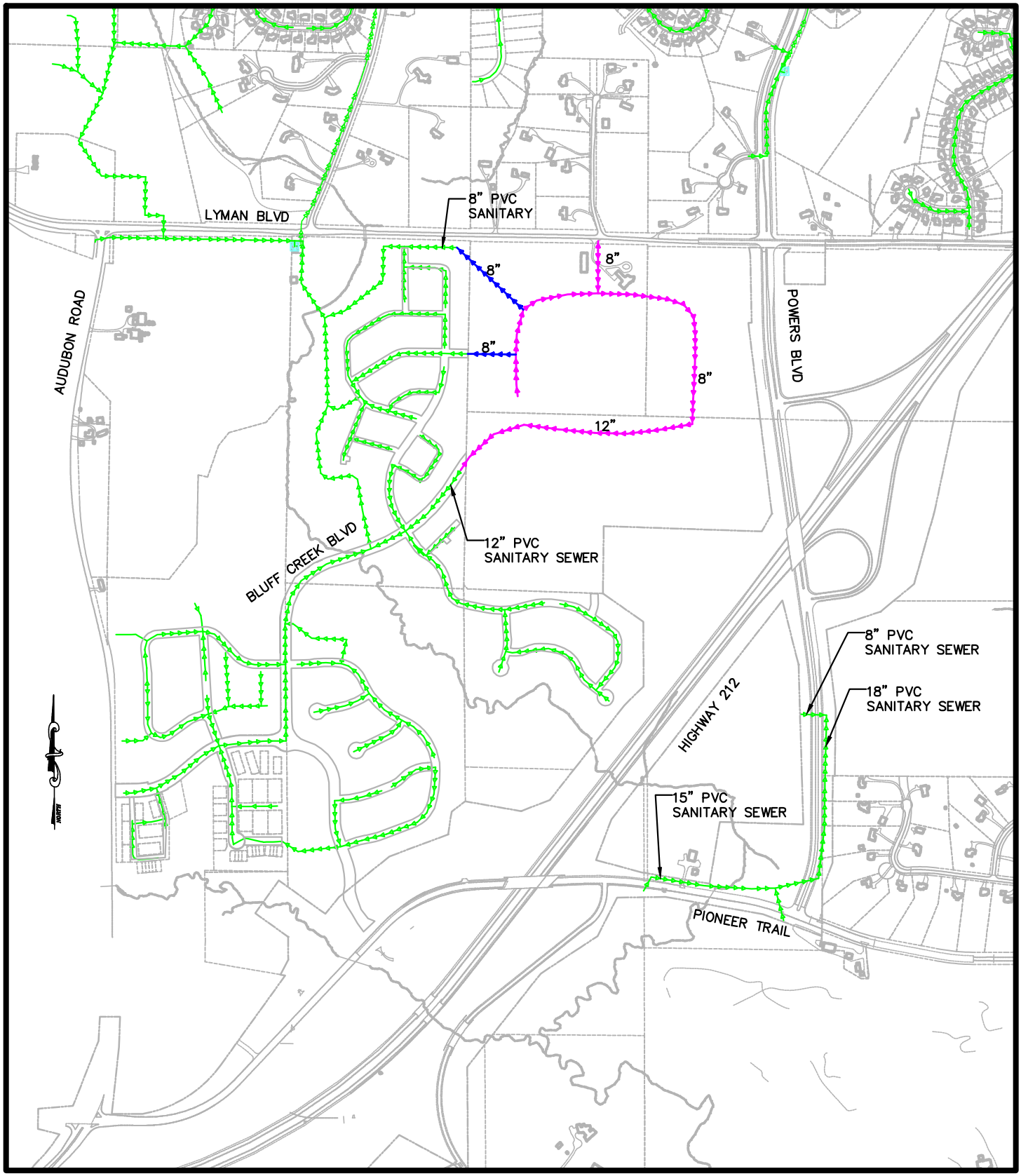


FIGURE 14B - AUAR DEVELOPMENT PLAN (CONCEPT B)

CHANHASSEN ALTERNATIVE URBAN AREAWIDE REVIEW UPDATE
City of Chanhassen, Minnesota



EXISTING SANITARY SEWER

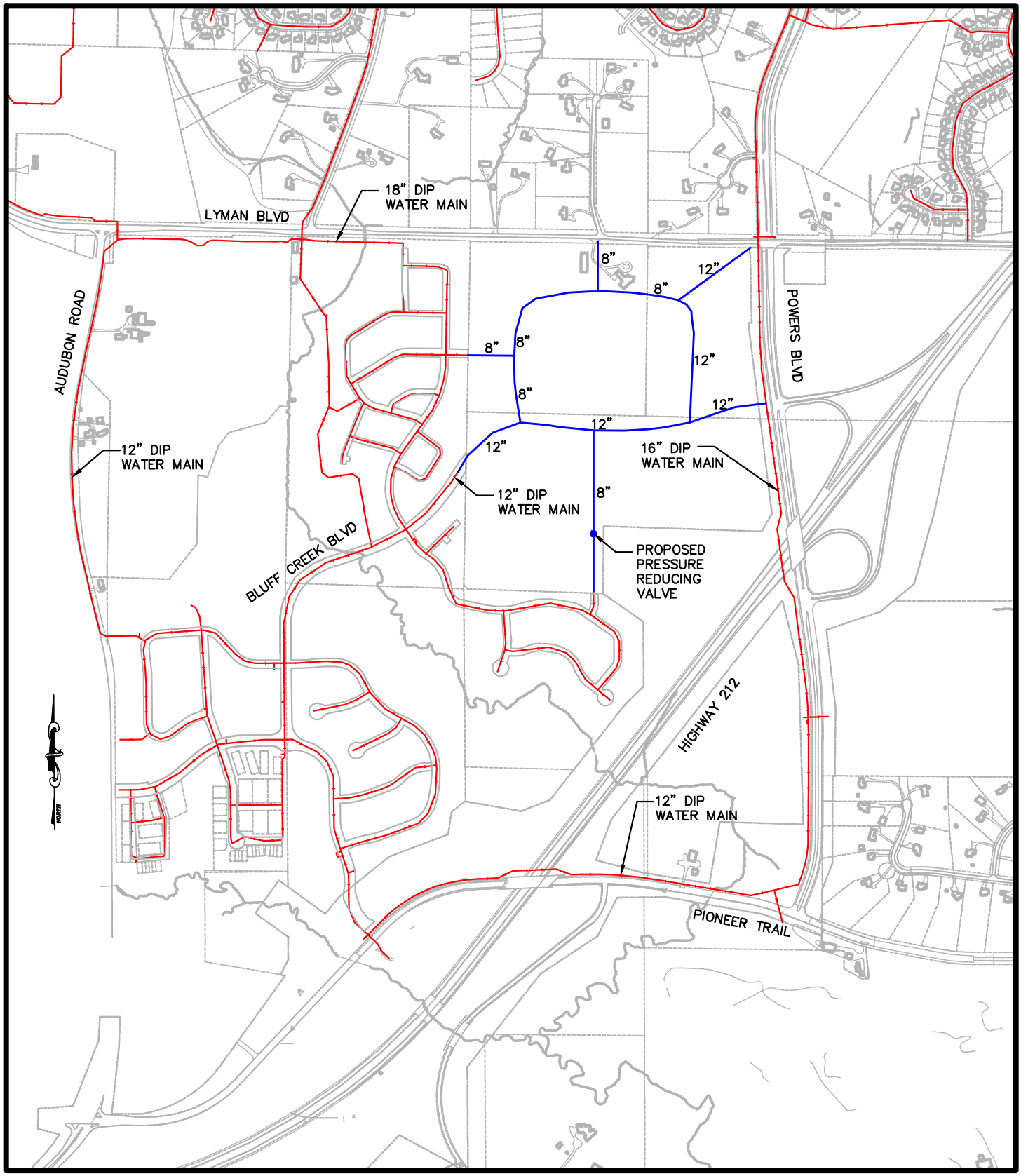
PROPOSED SANITARY SEWER

OPTIONAL SANITARY SEWER CONNECTION

Kimley»Horn

CITY OF CHANHASSEN

CHANHASSEN 2005 AUAR UPDATE
FIGURE 15
EXISTING AND PROPOSED SANITARY SEWER



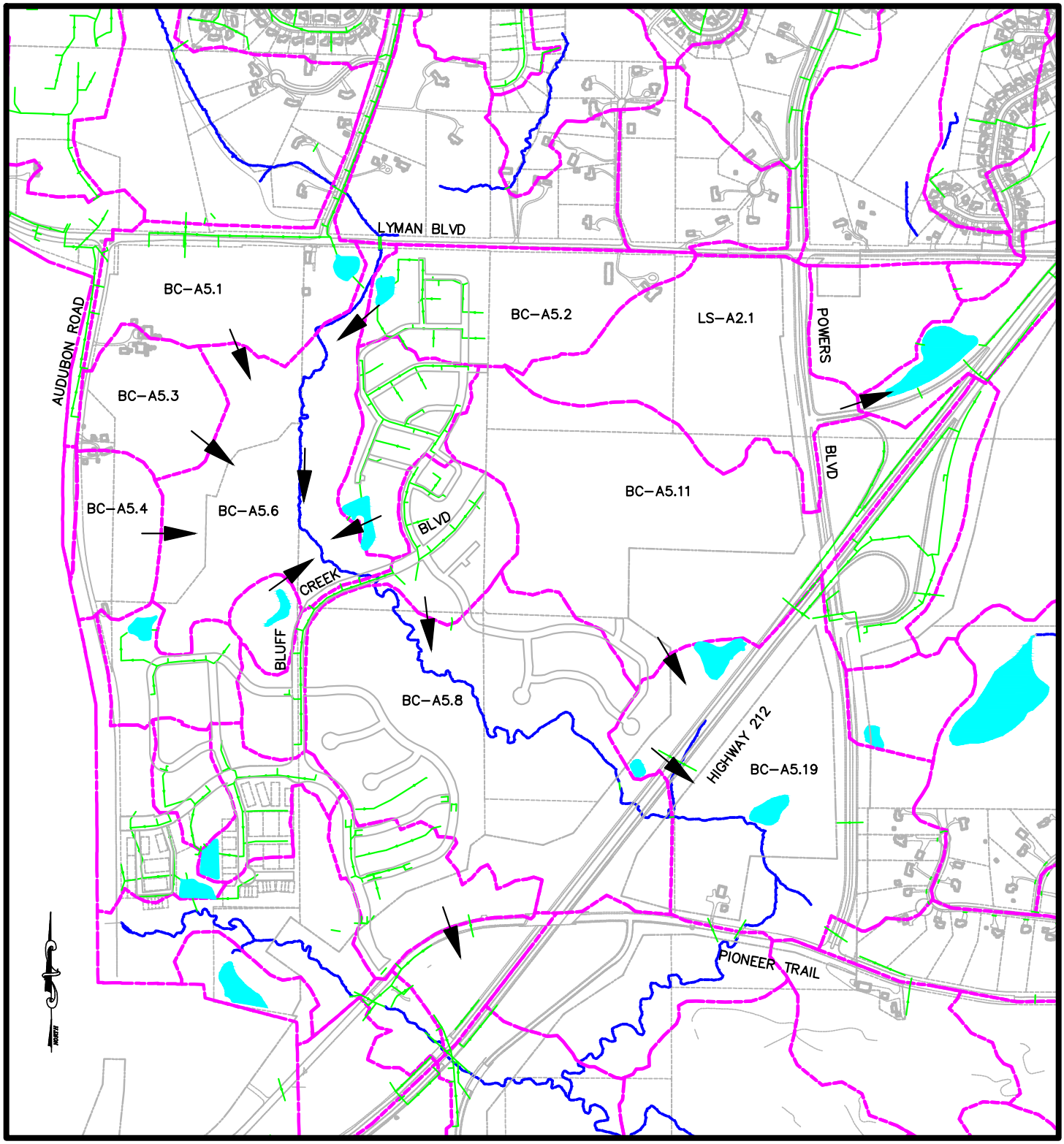
EXISTING WATERMAIN

PROPOSED WATERMAIN

Kimley»Horn

CITY OF CHANHASSEN

CHANHASSEN 2005 AUAR UPDATE
FIGURE 16
EXISTING AND PROPOSED WATERMAIN



Kimley»Horn

CITY OF CHANHASSEN

CHANHASSEN 2005 AUAR UPDATE
FIGURE 17
SURFACE WATER MANAGEMENT PLAN

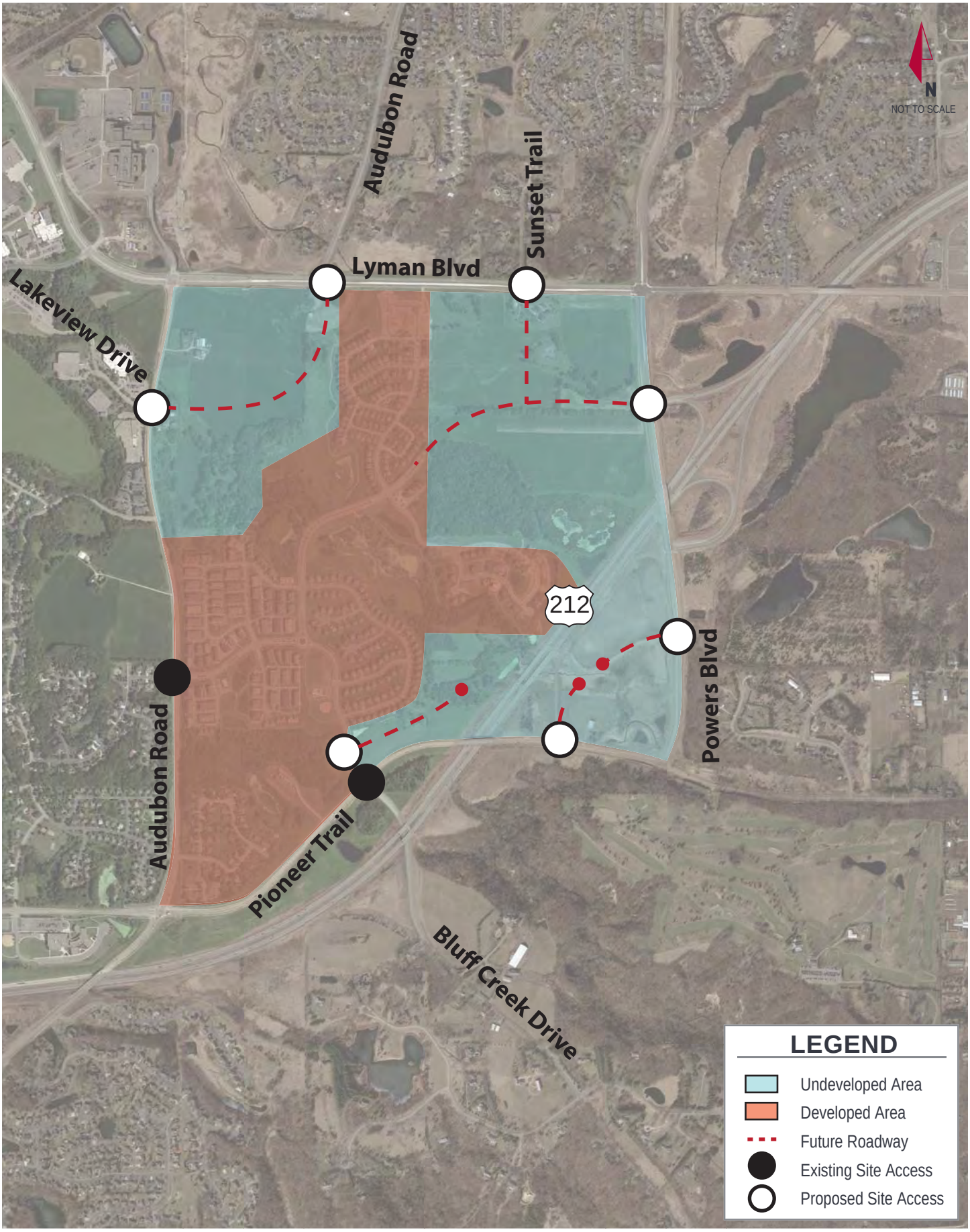


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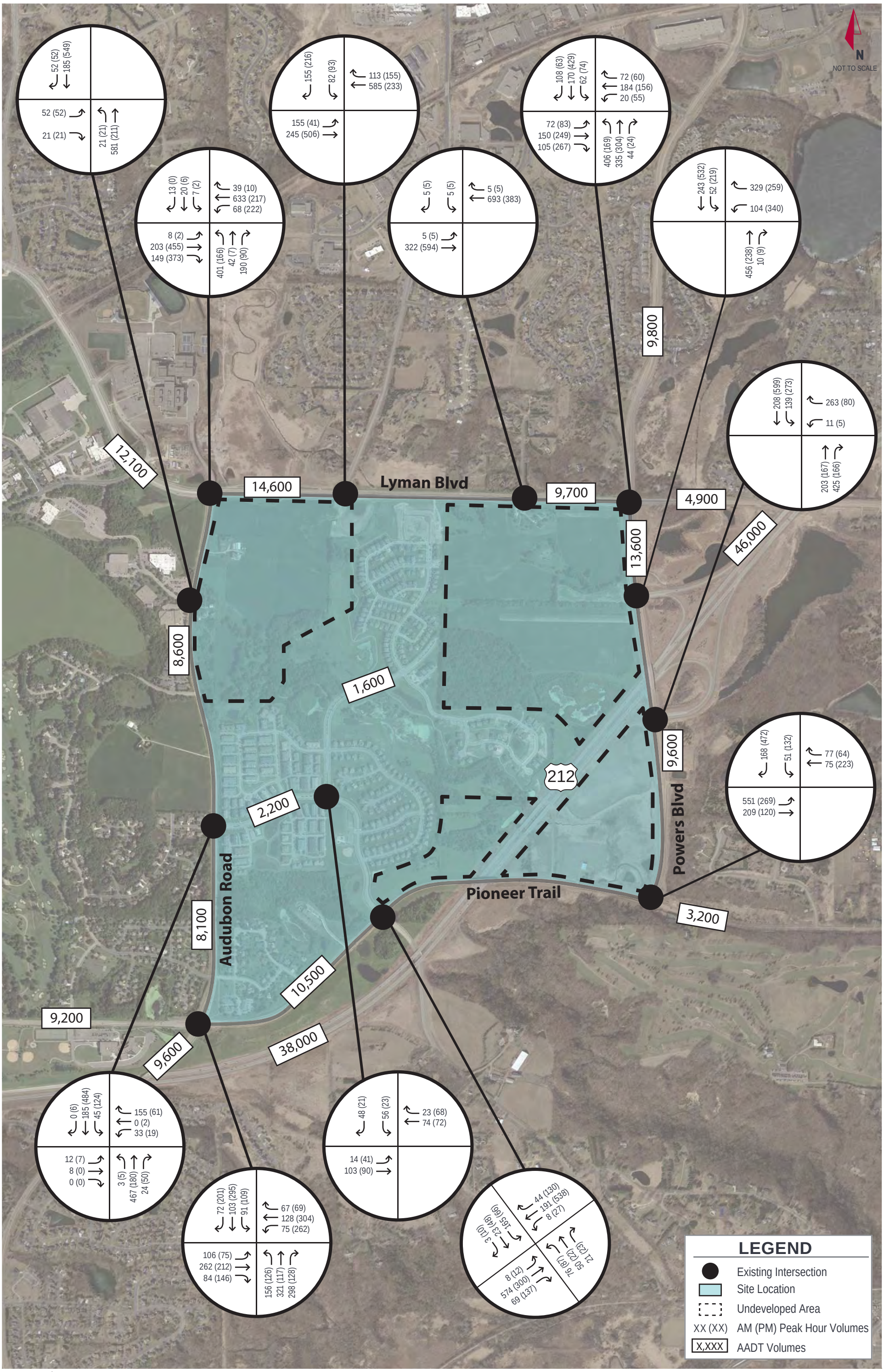
FIGURE 18

EXISTING AND FUTURE AUAR DEVELOPMENT AREAS



Kimley»Horn

FIGURE 19

EXISTING CONDITIONS
PEAK HOUR TRAFFIC VOLUMES

N
NOT TO SCALE

Lyman Blvd
Audubon Road
Pioneer Trail
Powers Blvd
212
2,100
2,400
4,000
4,100
1,100
2,000
1,200
1,200
5,300
4,100
5,400
2,100
3,200
2,400
2,100
1,100
2,100

LEGEND
Existing Intersection
Site Access
Site Location
Undeveloped Area
XX (XX) AM (PM) Peak Hour Volumes

Kimley»Horn

FIGURE 20
FUTURE YEAR (2022)
NET NEW SITE TRIP ASSIGNMENT - CONCEPT A

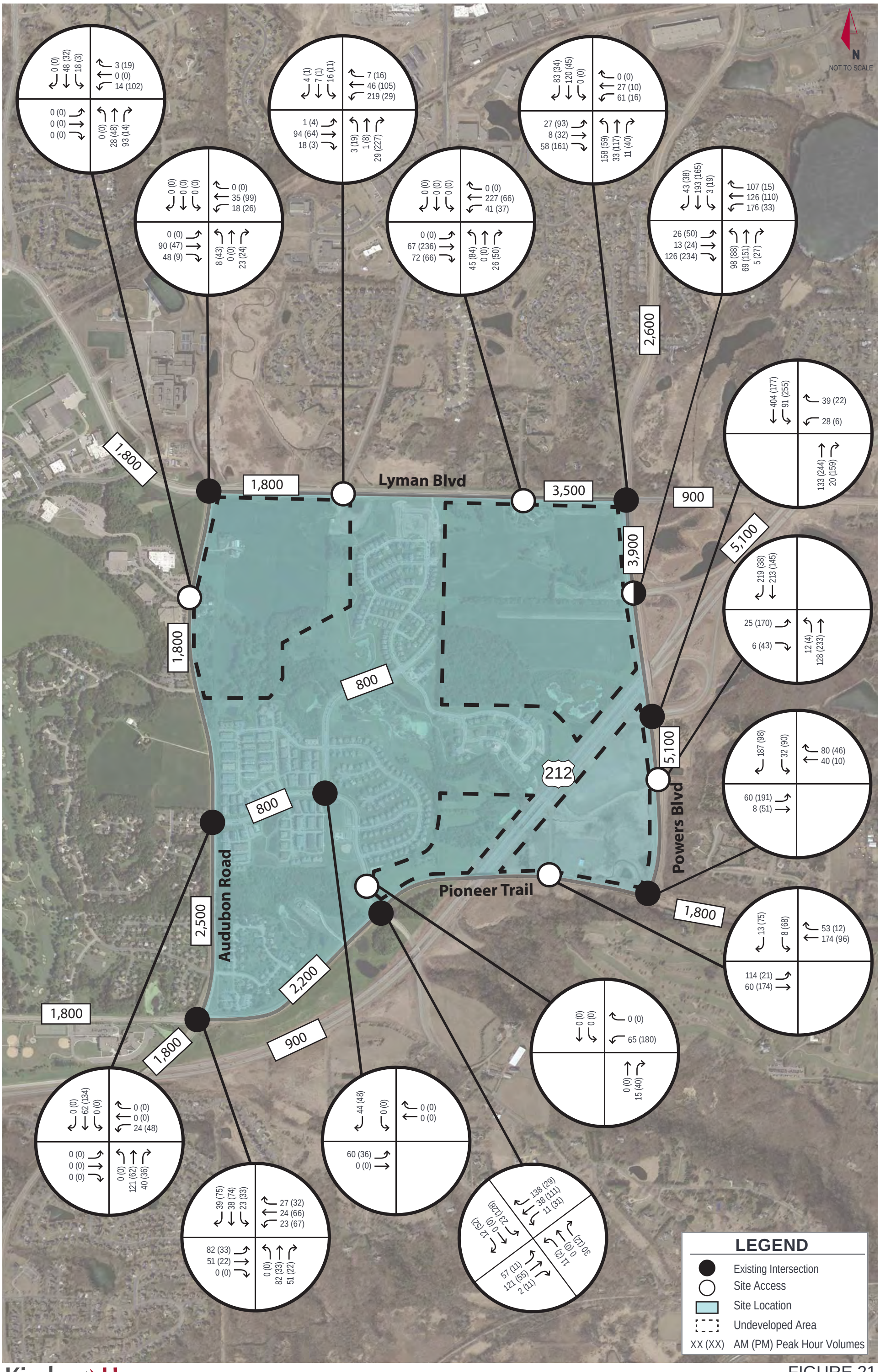


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FIGURE 21

FUTURE YEAR (2022)

NET NEW SITE TRIP ASSIGNMENT - CONCEPT B

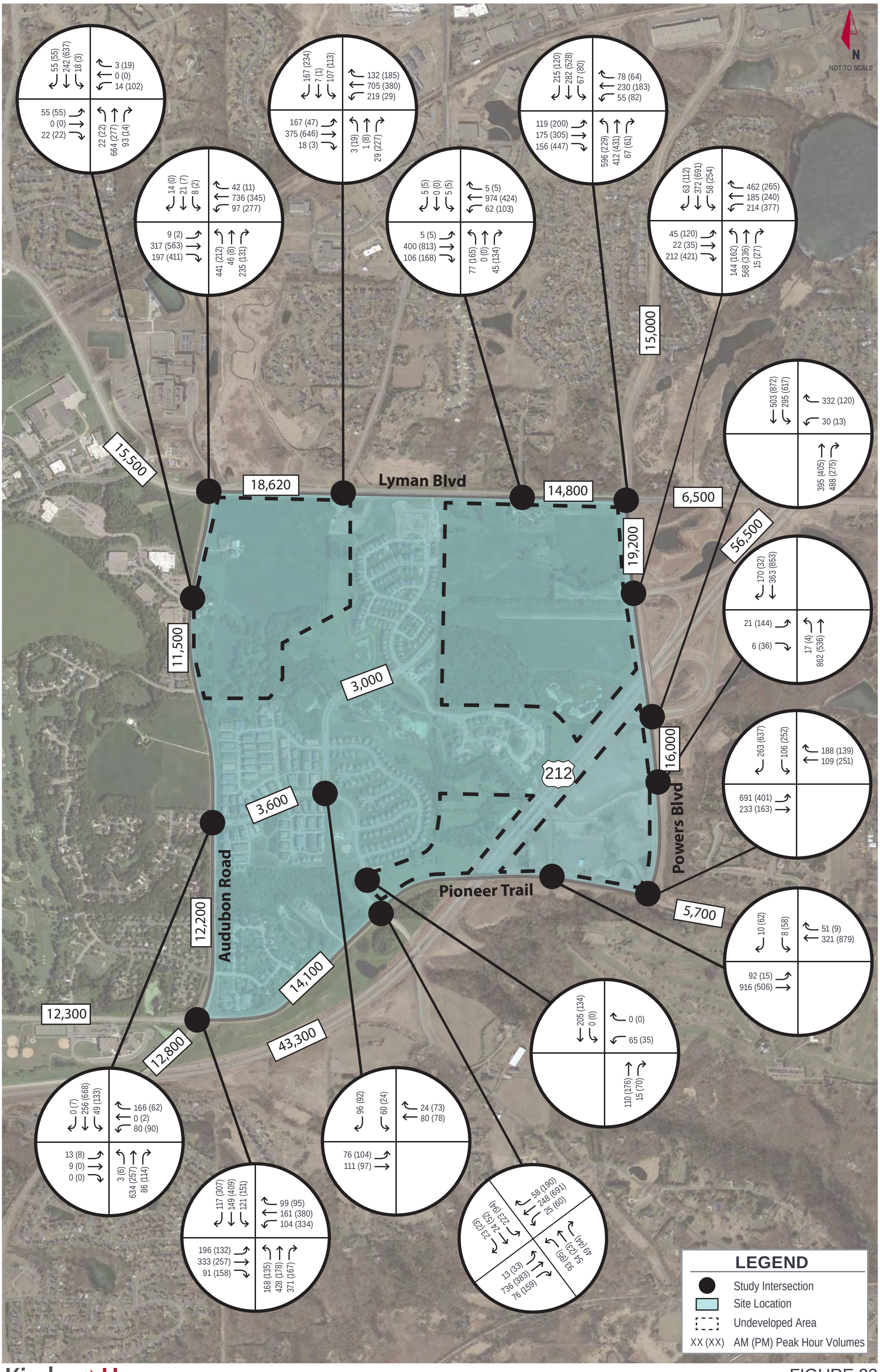

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FIGURE 22

FUTURE YEAR (2022)

PEAK HOUR TOTAL TRAFFIC VOLUMES - CONCEPT A

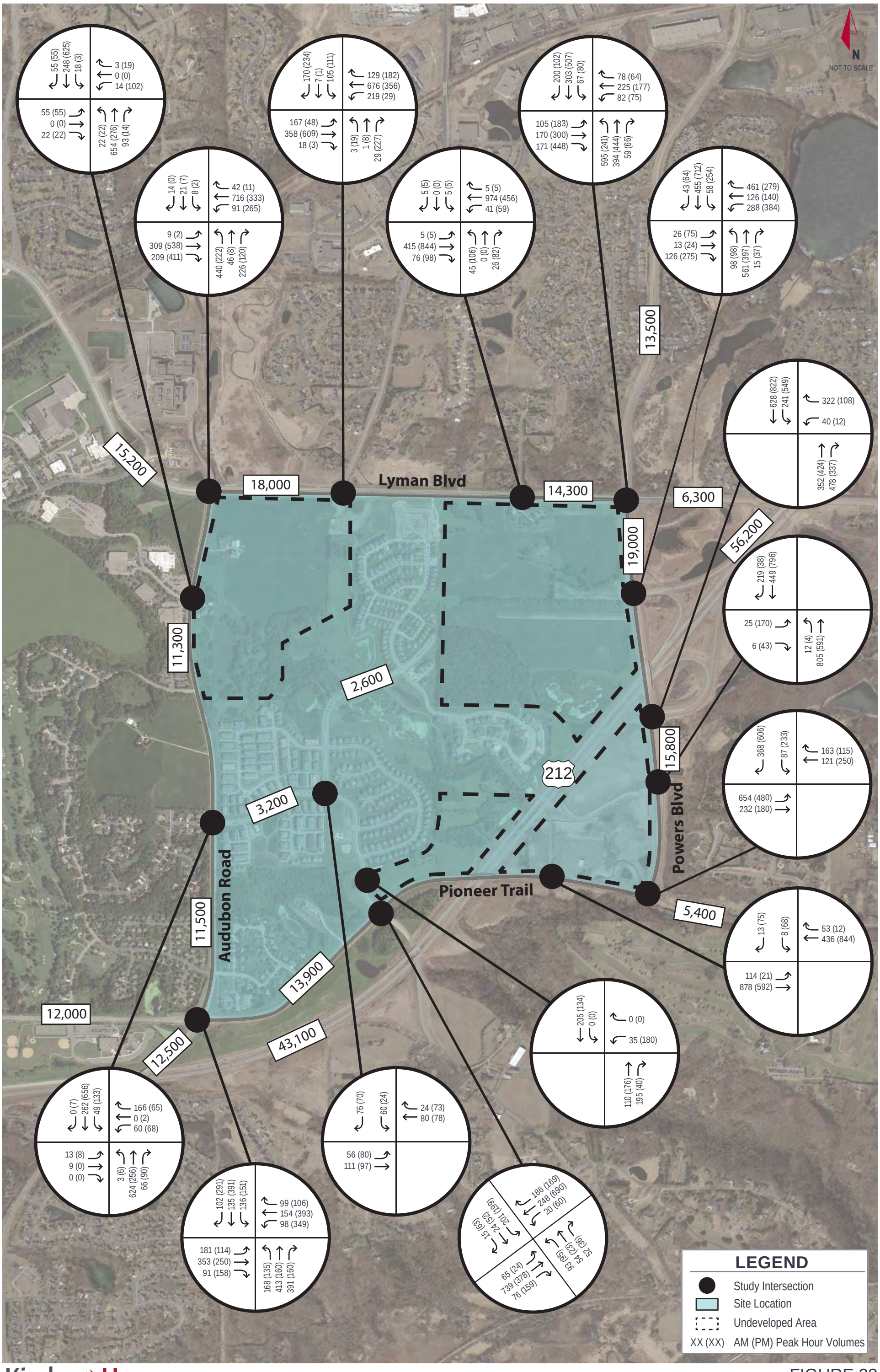

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FIGURE 23

FUTURE YEAR (2022)

PEAK HOUR TOTAL TRAFFIC VOLUMES - CONCEPT B

Kimley»Horn

FIGURE 24

FUTURE INTERSECTION CONTROL AND LANE ASSIGNMENTS