



MEMO

TO: Alex Heath, MES
SvN Architects + Planners

FROM: Jeff Axisa, MA, and Paul Bumstead, BES
Dillon Consulting Limited

cc: Melissa Ricci, M.Sc, MCIP, RPP
Town of Halton Hills

DATE: August 20, 2019

SUBJECT: Infrastructure Assessment – Transportation
Town of Halton Hills Intensification Opportunities Study

OUR FILE: 17-6497

Introduction

The Town of Halton Hills is undertaking an update to the 2010 Intensification Opportunities Study in order to understand the ability of the Town to accommodate residential intensification within the urban areas of Georgetown and Acton to the end of the 2041 planning horizon. The results of this study will be used as input into the Region of Halton Official Plan Review currently underway.

The urban areas of Acton and Georgetown are long established communities along the Highway 7 corridor. Over time the areas have developed from farming communities, to commuter shed residential areas, and to self-supporting urban areas. The areas still serve a significant proportion of commuters to other larger centers (Guelph, Milton, Oakville, Mississauga, Brampton, Vaughan, and Toronto). The infrastructure that has developed over the last 50 years has focused on the Highway 7 corridor. In the more recent 20 year period, more emphasis has been placed on north-south connections to Highway 401. A network grid has developed that not only provides multiple options for access to and egress from the communities but also supports the infrastructure necessary to support the development.

With a new emphasis on reducing single occupant vehicle demands that are straining the system, alternative modes of travel are coming to the forefront as mitigative solutions, rather than strictly infrastructure expansion. GO Transit Service through each community provides opportunities to increase density in areas around the rail line and around the Highway 7 corridor.

The purpose of this memo is to document the existing multi-modal transportation conditions and infrastructure, and to identify problems and opportunities for residential intensification within Acton and Georgetown.

Methodology

The Town of Halton Hills identified 90 parcels in Acton and 192 parcels Georgetown for possible residential intensification opportunities. These parcels were aggregated based on their geographic proximity to other parcels in combination with their context to the transportation network. The aggregated groups of parcels are referred to as Intensification Property Blocks. This aggregation was

necessary in order to reduce redundancy and simplify the analyses. The 90 parcels in Acton were aggregated into 21 Intensification Property Blocks, while the 192 parcels in Georgetown were aggregated into 41 Intensification Property Blocks. The Intensification Property Blocks for Acton and Georgetown are illustrated in *Figure 1* and *Figure 2* respectively.

Each Intensification Property Block was assessed based on four transportation criteria: Capacity, Access, Transit, and Active Transportation. *Table 1* defines each of the criteria and outlines how each criteria was assessed.

TABLE 1: TRANSPORTATION INFRASTRUCTURE ASSESSMENT CRITERIA

Criteria	Definition	Assessment
Capacity	The availability to accommodate additional vehicles under 2021 / 2031 traffic volumes and roadway conditions (timing of proposed intensification dictated horizon year)	Good: Critical roadways operating well, not experiencing capacity delays Fair: Critical roadways beginning to experience capacity related delays Poor: Critical roadways approaching or over capacity
Access	The availability and ease to access the arterial/collector road network	Good: Access directly onto arterial/collector road network Fair: Multiple options to indirectly access the arterial/collector road network Poor: Limited access the arterial/collector road network
Transit	The proximity to transit service	Good: Within 400 m walking distance to a transit stop / service Fair: Within 800 m walking distance to a transit stop /service Poor: More than 800 m walking distance to a transit stop / service
Active	The proximity to Active Transportation (AT) infrastructure and community amenities / employment	Good: Access to AT infrastructure and community amenities / employment Fair: Limited access to AT infrastructure and community amenities / employment Poor: No access to AT infrastructure and community amenities / employment

Numerical values were assigned to each of the assessment performance measures (*Good*, *Fair*, or *Poor*) in order to allow for an overall score to be calculated. The overall score for each Intensification Property Block was calculated based on the average assessment results of the four transportation criteria.

Data Sources

Table 2 summarizes the data that were utilized during this assessment and their source.

TABLE 2: DATA SOURCES

Data	Source
Residential Intensification properties	Town of Halton Hills
Road Network: Classification	Town of Halton Hills
Road Network: # of Lanes	Halton Region - Emme Model
Road Network: Capacity	Halton Region - Emme Model
Trails	Dillon Consulting & Halton Region
Bicycle Lanes	Town of Halton Hills
GO Transit Line / Route & Station / Stops	GO Transit
Transit walkability Buffer	Dillon Consulting

Results

The following sections provide overview of the assessment results of the four transportation criteria, individually and collectively, for the Intensification Property Blocks in Acton and Georgetown.

Capacity

Figure 3 and *Figure 4* display the projected PM peak hour roadway capacities (volume to capacity (V/C) ratios) for Acton in the years 2021 and 2031 respectively, while *Figure 5* and *Figure 6* display projected PM peak hour roadway capacities for Georgetown in the years 2021 and 2031 respectively.

Overall the capacity constraints in Acton are expected to be relatively minor in the future, with only a short section of Main Street (just north of Cobblehill Road) expected to be over capacity in 2031.

The capacity constraints in Georgetown are expected to be an issue on two major roadways by 2031. They include Guelph Street (north of Maple Avenue), and Trafalgar Road (south of 17 Side Road). It should be noted that these capacity forecasts do take into account planned infrastructure improvements, which notably includes the planned widening of Trafalgar Road from 2 lanes to 4 lanes between 10 Side Road and Highway 7 and Eighth Line from 2 lanes to 4 lanes between Steeles Avenue and Maple Avenue.

Access

Figure 7 and *Figure 8* display the roadway classification for Acton and Georgetown respectively. The location of the Intensification Property Blocks relative to the arterial / collector road network was reviewed to determine whether direct or indirect access was feasible.

Overall access is not a major constraint for any of the Intensification Property Blocks within Acton and Georgetown. All Intensification Property Blocks that do not front directly onto the arterial / collector road network have adequate access to the arterial / collector road network through easy local road connections.

Transit

Figure 9 and *Figure 10* display the transit service and walkability to transit stops / station for Acton and Georgetown respectively. Currently the only transit provider within Acton and Georgetown is GO Transit offering regional bus and commuter train service.

Access to transit varies significantly throughout Intensification Property Blocks. Transit stops are generally within the Highway 7 corridor in both Acton (Main Street / Mill Street/ Queen Street) and Georgetown (Guelph Street), thus the Intensification Property Blocks that are located closer to the Highway 7 corridor have better access to transit. There are a handful of Intensification Property Blocks within both Acton and Georgetown that are well removed from the Highway 7 corridor resulting in an unacceptable walking distance to transit. However, access to transit for those Intensification Property Blocks that are removed from the Highway 7 corridor could improve significantly in the future as the Town of Halton Hills recently completed a Transit Strategy. It is expected that a number of fixed local transit routes will be in operation before the year 2041 along major corridors including Trafalgar Road, Guelph Street and Mountainview Road in Georgetown and Queens Street and Mill/Main Street in Acton.

Active Transportation

Figure 11 and Figure 12 display the active transportation infrastructure within Acton and Georgetown respectively. The location of the Intensification Property Blocks relative to active transportation elements (specifically trails and Bike lanes) was reviewed to determine whether safe active transportation connects could be made to community amenities / employment areas (generally within downtown and the Highway 7 corridor) of Acton and Georgetown. It should be noted that all roads within the urban boundary of Acton and Georgetown were assumed to have a sidewalk on at least one side of the road.

The opportunity for Active Transportation use in Acton is expected to be relatively good overall. Although Acton has limited trails and cycling infrastructure, the proximity of the Intensification Property Blocks to downtown Acton and the Highway 7 corridor (where the majority of amenities and employment tends to be located) provides good opportunity for walking and cycling on local roads.

The opportunity for Active Transportation use in Georgetown is also expected to be relatively good overall. Georgetown has an extensive network of trails and bike lanes however they tend to be recreation based and do not connect to downtown or the Highway 7 corridor. The proximity of the Intensification Property Blocks to downtown Georgetown and the Highway 7 corridor (where the majority of amenities and employment tends to be located) provides good opportunity for walking and cycling on local roads.

Overall Results

Table 3 and Table 4 summarize the assessment results of the four transportation criteria, individually and collectively, for the Intensification Property Blocks in Acton and Georgetown respectively.

TABLE 3: ACTON INTENSIFICATION PROPERTY BLOCKS – ASSESSMENT RESULTS

Intensification Property Block	Area (ha)	Capacity	Access	Transit	Active	Average
1	0.18	●	●	●*	●	●
2	2.03	●	●	●*	●	●
3	0.25	●	●	●*	●	●
4	2.23	●	●	●*	●	●
5	2.02	●	●	●*	●	●
6	0.28	●	●	●*	●	●
7	3.55	●	●	●*	●	●
8	0.90	●	●	●	●	●
9	4.60	●	●	●	●	●
10	1.48	●	●	●	●	●
11	0.41	●	●	●	●	●
12	0.58	●	●	●*	●	●
13	0.33	●	●	●*	●	●

14	0.24	●	●	●*	●	●
15	0.56	●	●	●*	●	●
16	1.43	●	●	●*	●	●
17	0.71	●	●	●	●	●
18	0.04	●	●	●	●	●
19	1.61	●	●	●	●	●
20	0.27	●	●	●	●	●
21	6.70	●	●	●	●	●
22	121.00	●	●	●	●	●

● = Good, ● = Fair, ● = Poor

*Fixed local route transit is expected to service this intensification property block before the year 2041.

TABLE 4: GEORGETOWN INTENSIFICATION PROPERTY BLOCKS – ASSESSMENT RESULTS

Intensification Property Block	Area (ha)	Capacity	Access	Transit	Active	Average
1	0.52	●	●	●*	●	●
2	3.43	●	●	●*	●	●
3	5.39	●	●	●*	●	●
4	2.07	●	●	●*	●	●
5	5.03	●	●	●*	●	●
6	1.38	●	●	●	●	●
7	0.13	●	●	●*	●	●
8	10.06	●	●	●*	●	●
9	1.32	●	●	●*	●	●
10	0.86	●	●	●*	●	●
11	1.82	●	●	●*	●	●
12	0.43	●	●	●*	●	●
13	0.62	●	●	●*	●	●
14	1.78	●	●	●	●	●
15	0.56	●	●	●*	●	●
16	0.68	●	●	●	●	●
17	0.83	●	●	●	●	●
18	0.81	●	●	●*	●	●
19	0.43	●	●	●*	●	●
20	0.44	●	●	●*	●	●

21	1.18	●	●	●*	●	●
22	0.88	●	●	●*	●	●
23	1.28	●	●	●*	●	●
24	0.49	●	●	●*	●	●
25	0.14	●	●	●*	●	●
26	4.31	●	●	●	●	●
27	2.02	●	●	●	●	●
28	2.28	●	●	●	●	●
29	1.18	●	●	●	●	●
30	5.24	●	●	●	●	●
31	1.07	●	●	●	●	●
32	4.74	●	●	●	●	●
33	7.58	●	●	●	●	●
34	4.45	●	●	●	●	●
35	0.81	●	●	●*	●	●
36	0.95	●	●	●*	●	●
37	1.25	●	●	●	●	●
38	1.70	●	●	●*	●	●
39	2.16	●	●	●*	●	●
40	1.71	●	●	●*	●	●
41	3.59	●	●	●*	●	●

● = Good, ● = Fair, ● = Poor

*Fixed local route transit is expected to service this intensification property block before the year 2041.

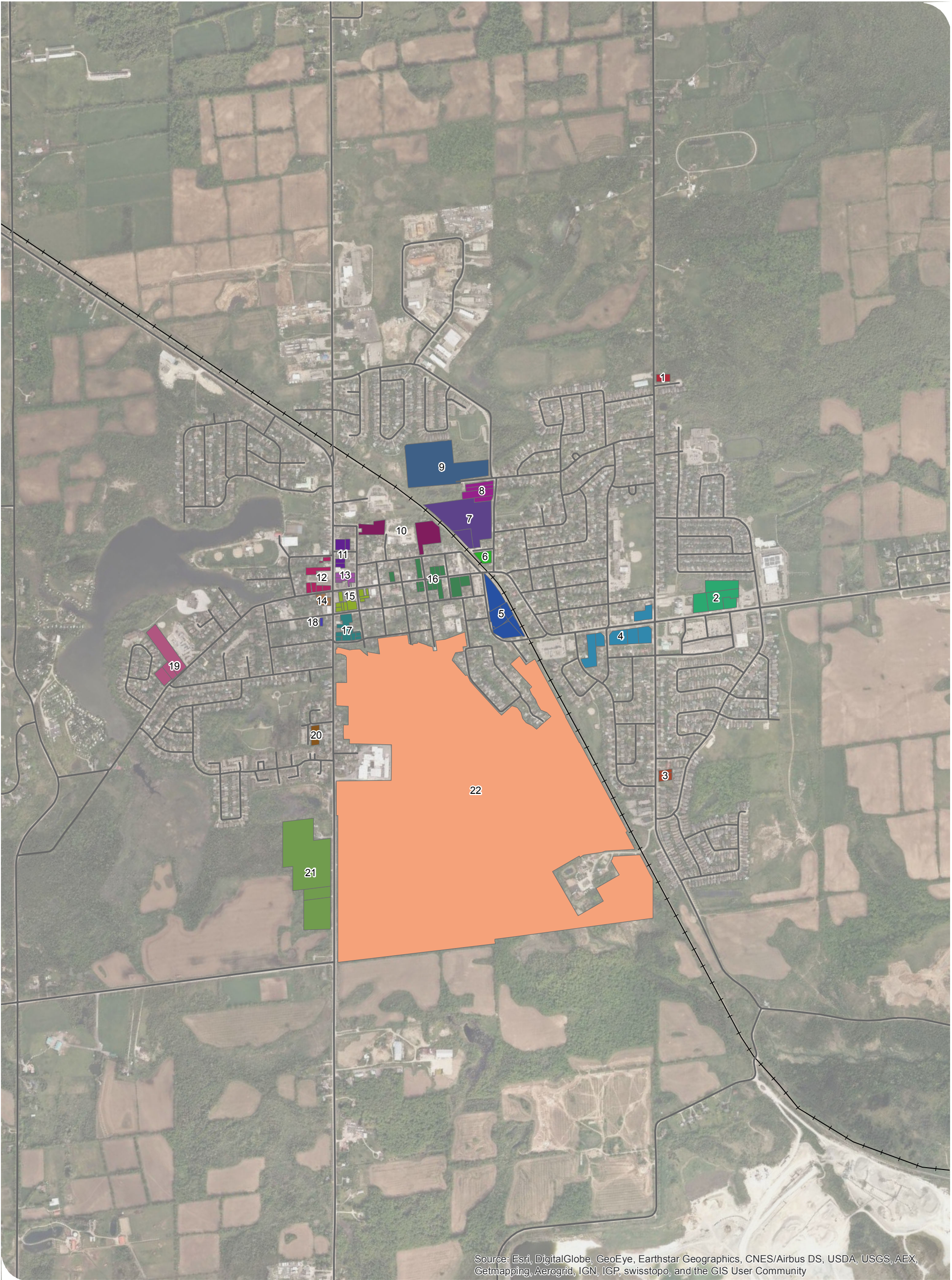
Figure 13 and Figure 14 display the overall multi-modal transportation infrastructure assessment results within Acton and Georgetown respectively.

Summary

Each of the Intensification Property Blocks within Acton and Georgetown was assessed based on four transportation criteria: Capacity, Access, Transit, and Active Transportation. The results of the four transportation criteria were then assessed to understand the overall multi-modal transportation opportunities and/or constraints for each Intensification Property Block.

Overall, the majority of the Intensification Property Blocks within Acton and Georgetown can be reasonably well served from a transportation perspective. Of the 63 Intensification Property Blocks that were assessed within Acton and Georgetown only 2 blocks received an overall average score of *Poor*, while 25 blocks received overall average score of *Good*. Although there are no major vulnerabilities that

can't be overcome / mitigated, significant upgrades to infrastructure and/or service would be necessary to make the *Poor* Intensification Property Blocks desirable for residential intensification.



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

TOWN OF HALTON HILLS
INTENSIFICATION OPPORTUNITIES
STUDY UPDATE

FIGURE 1:
INTENSIFICATION PROPERTY
BLOCKS
ACTON

- Road
- +— Railway
- Intensification Property
- 17** Intensification Property Block ID

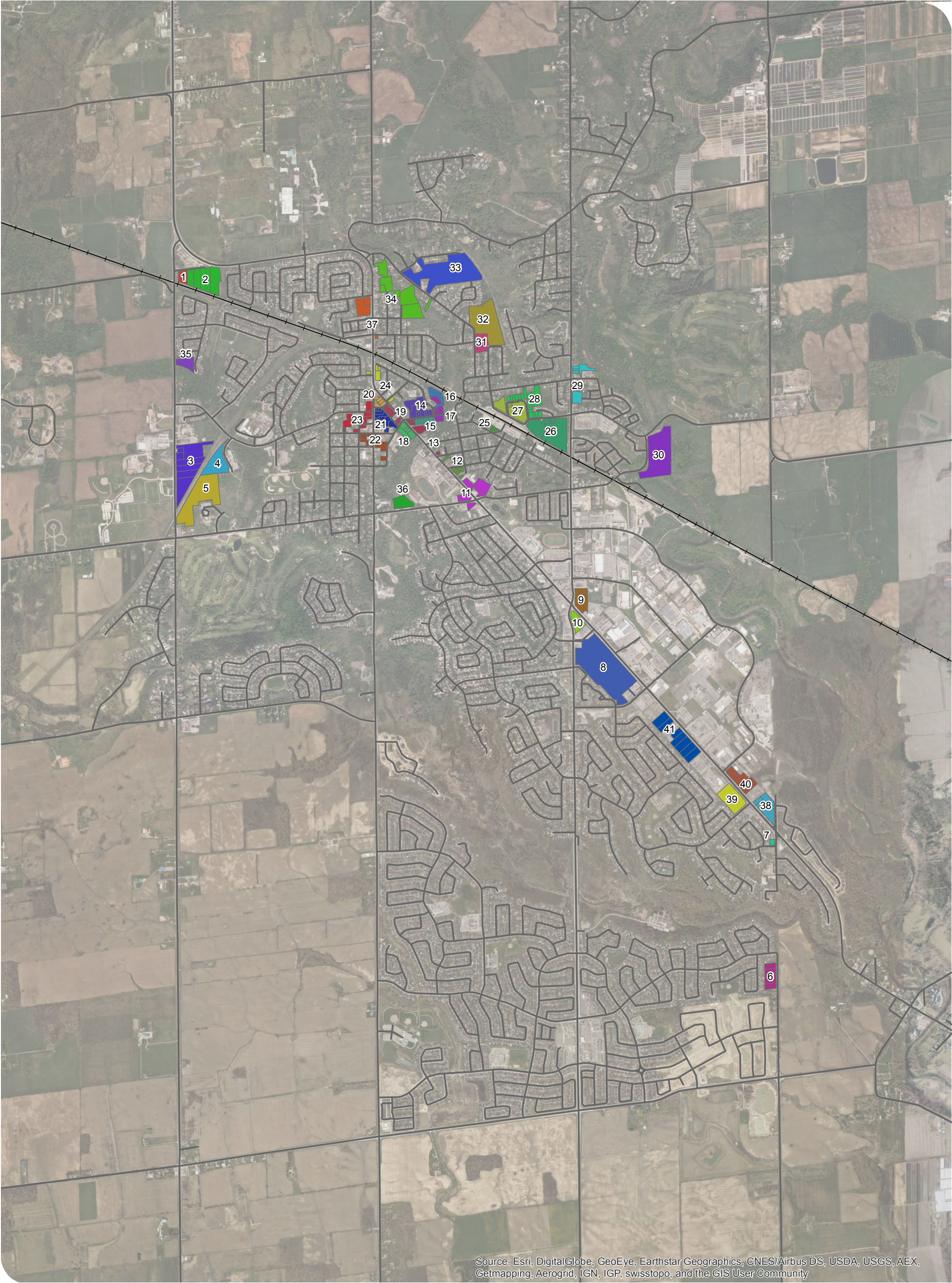


MAP DRAWING INFORMATION:
DATA PROVIDED BY THE TOWN OF HALTON HILLS

MAP CREATED BY: JJA
MAP CHECKED BY: PB
MAP PROJECTION: NAD 1983 UTM Zone 17N



PROJECT: 17-6497 STATUS: FINAL DATE: 9/25/2019



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

TOWN OF HALTON HILLS
INTENSIFICATION OPPORTUNITIES
STUDY UPDATE

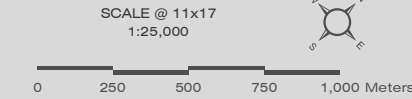
FIGURE 2:
INTENSIFICATION PROPERTY
BLOCKS
GEORGETOWN

- Road
- +— Railway
- Intensification Property
- 17** Intensification Property Block ID



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TOWN OF HALTON HILLS
INTENSIFICATION OPPORTUNITIES
STUDY UPDATE

FIGURE 3:
2021 LINK CAPACITY
PM PEAK HOUR
ACTON

- Volume Capacity Ratio

>1.00 V/C

<1.00 V/C

<0.85 V/C
- <0.50 V/C

<0.25 V/C

0.00 V/C
- 427 Peak Hour Traffic Volume

Railway

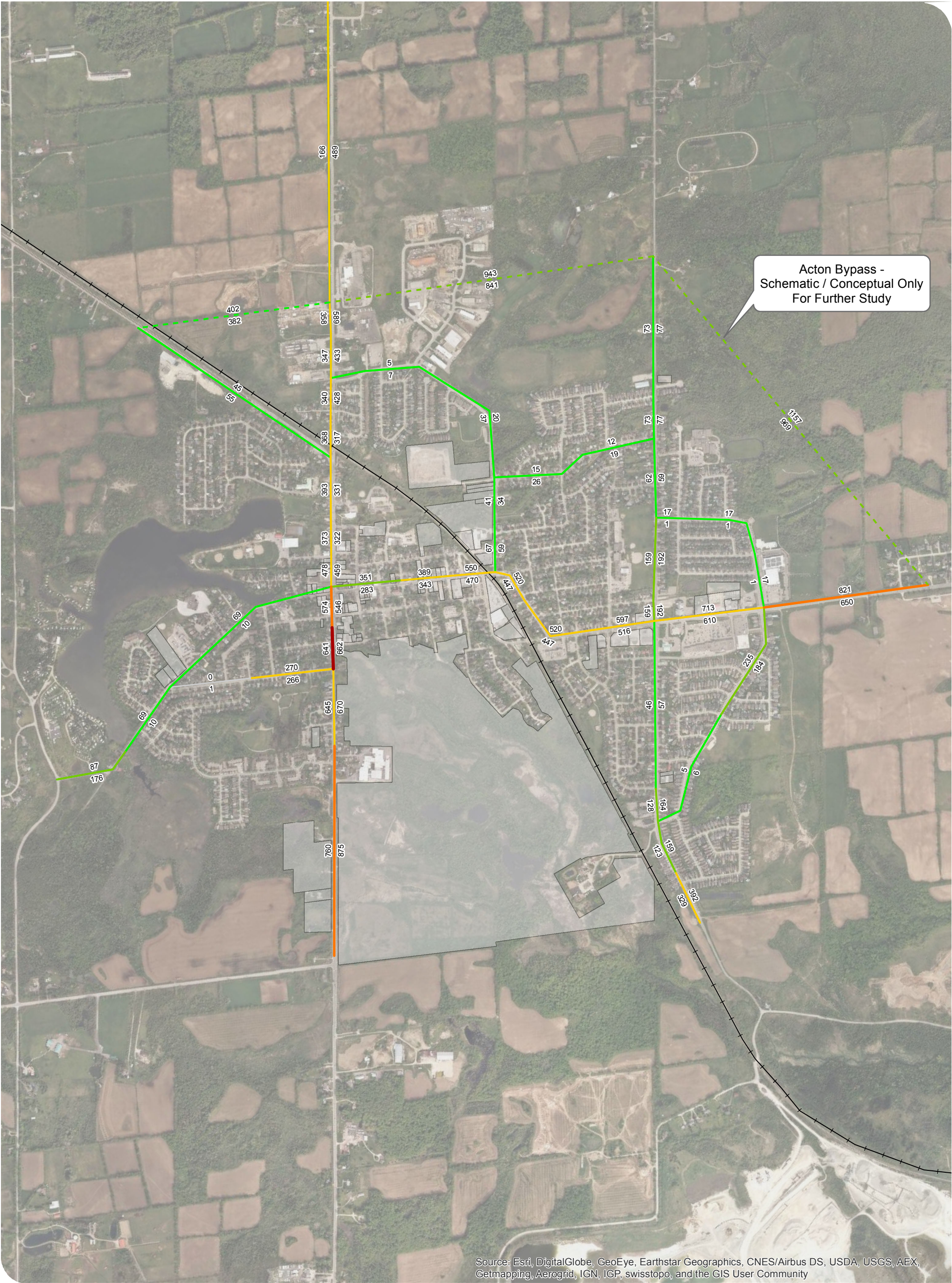
Intensification Property



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Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

TOWN OF HALTON HILLS
INTENSIFICATION OPPORTUNITIES
STUDY UPDATE

FIGURE 4:
2031 LINK CAPACITY
PM PEAK HOUR
ACTON

- Volume Capacity Ratio**
- | | | |
|---|---|------------------------------|
| — >1.00 V/C | — <0.50 V/C | 427 Peak Hour Traffic Volume |
| — <1.00 V/C | — <0.25 V/C | — Railway |
| — <0.85 V/C | — 0.00 V/C | □ Intensification Property |

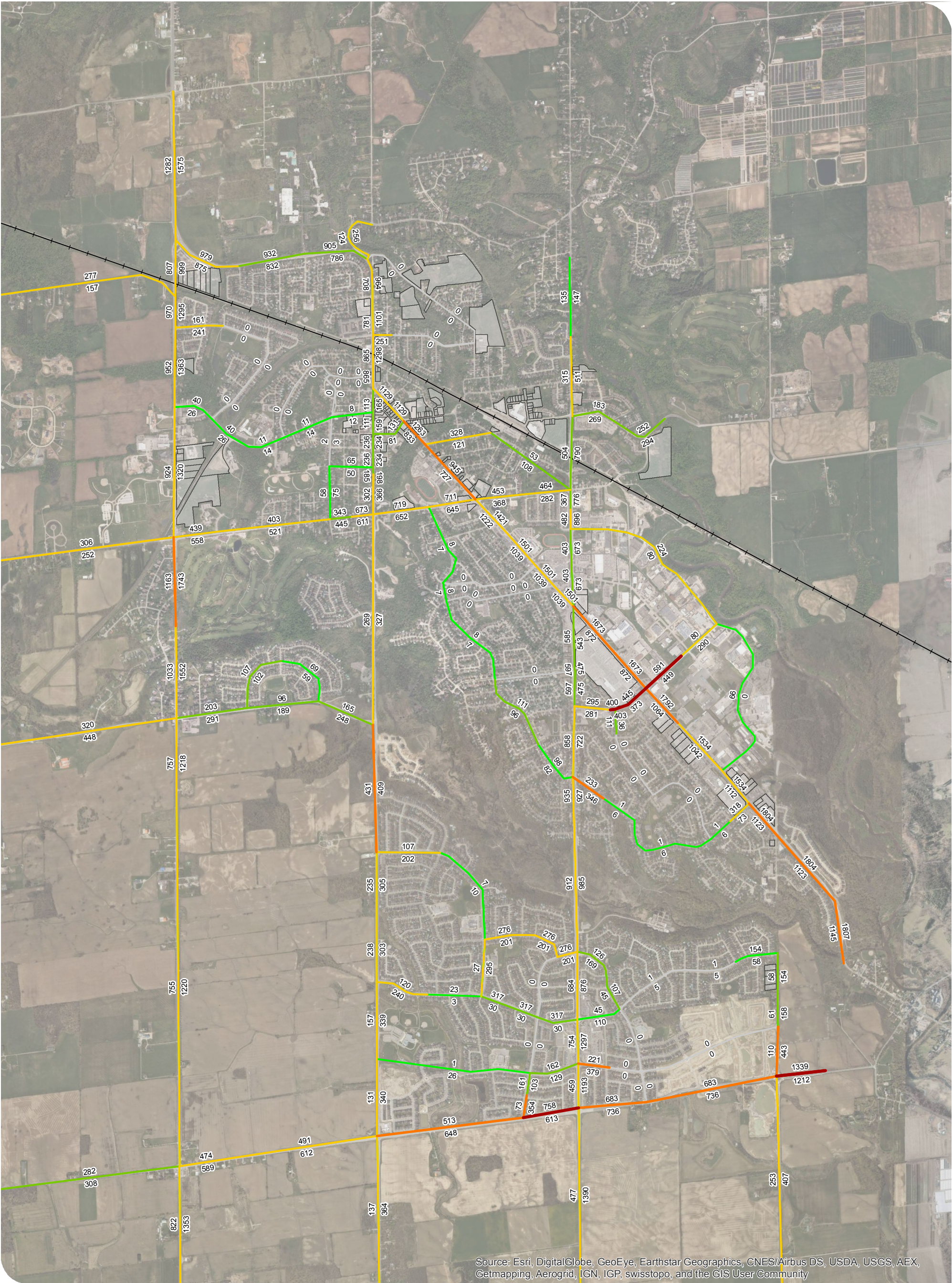


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MAP PROJECTION: NAD 1983 UTM Zone 17N



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Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

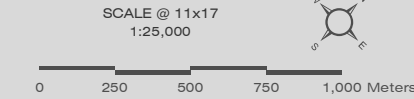
TOWN OF HALTON HILLS
INTENSIFICATION OPPORTUNITIES
STUDY UPDATE

FIGURE 5:
2021 LINK CAPACITY
PM PEAK HOUR
GEORGETOWN

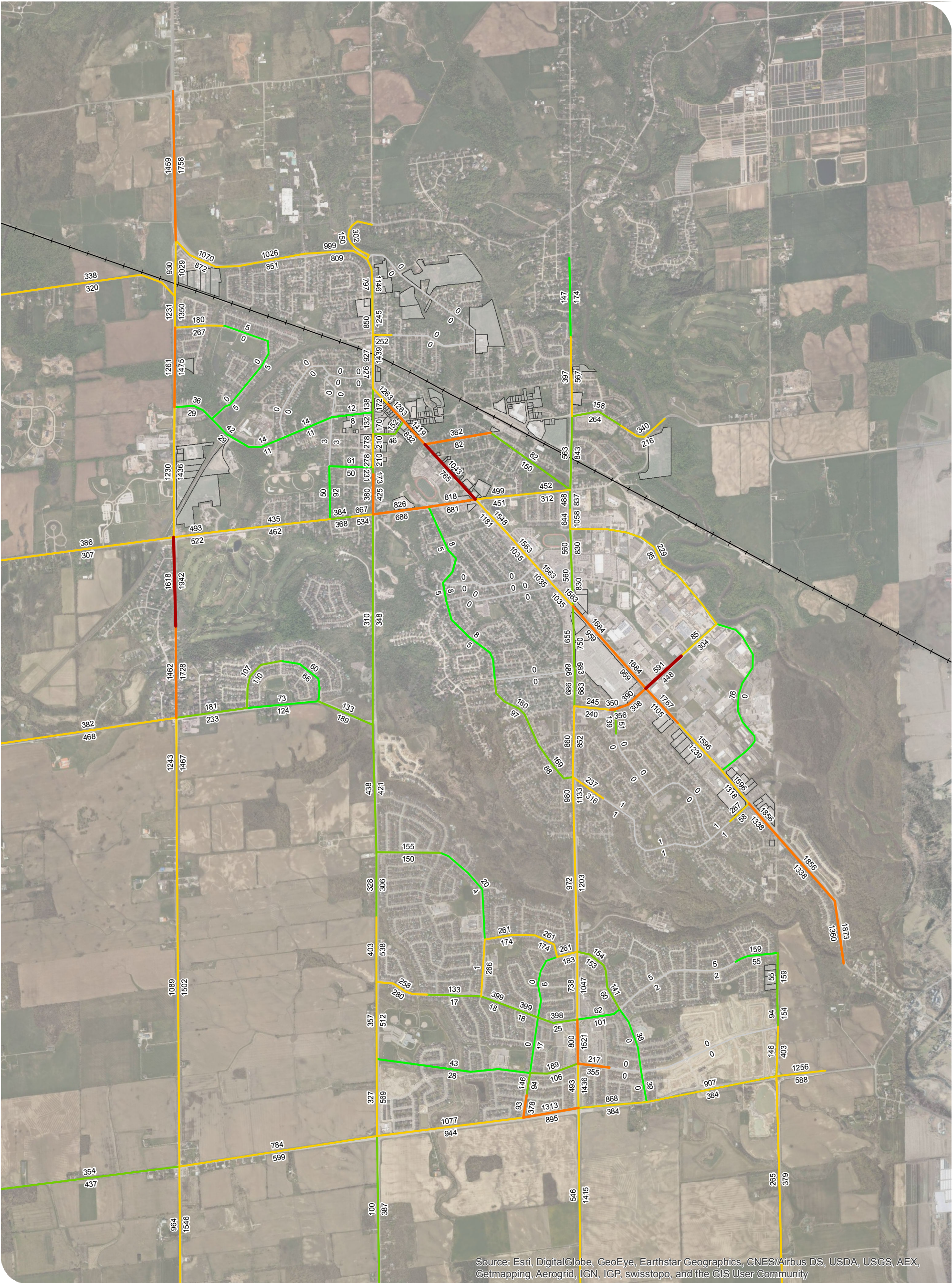


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TOWN OF HALTON HILLS
INTENSIFICATION OPPORTUNITIES
STUDY UPDATE

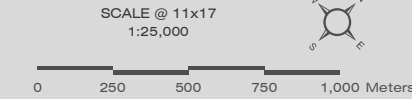
FIGURE 6:
2031 LINK CAPACITY
PM PEAK HOUR
GEORGETOWN

- Volume Capacity Ratio**
- >1.00 V/C
 - <1.00 V/C
 - <0.85 V/C
 - <0.50 V/C
 - <0.25 V/C
 - 0.00 V/C
- 427 Peak Hour Traffic Volume
Railway
Intensification Property



MAP DRAWING INFORMATION:
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TOWN OF HALTON HILLS
INTENSIFICATION OPPORTUNITIES
STUDY UPDATE

FIGURE 7:
ROADWAY CLASSIFICATION
ACTON

Roadway Classification

- | | |
|--|--|
| — Highway | —+— Railway |
| — Arterial | Intensification Property |
| — Collector | |
| — Local | |



MAP DRAWING INFORMATION:
DATA PROVIDED BY THE TOWN OF HALTON HILLS

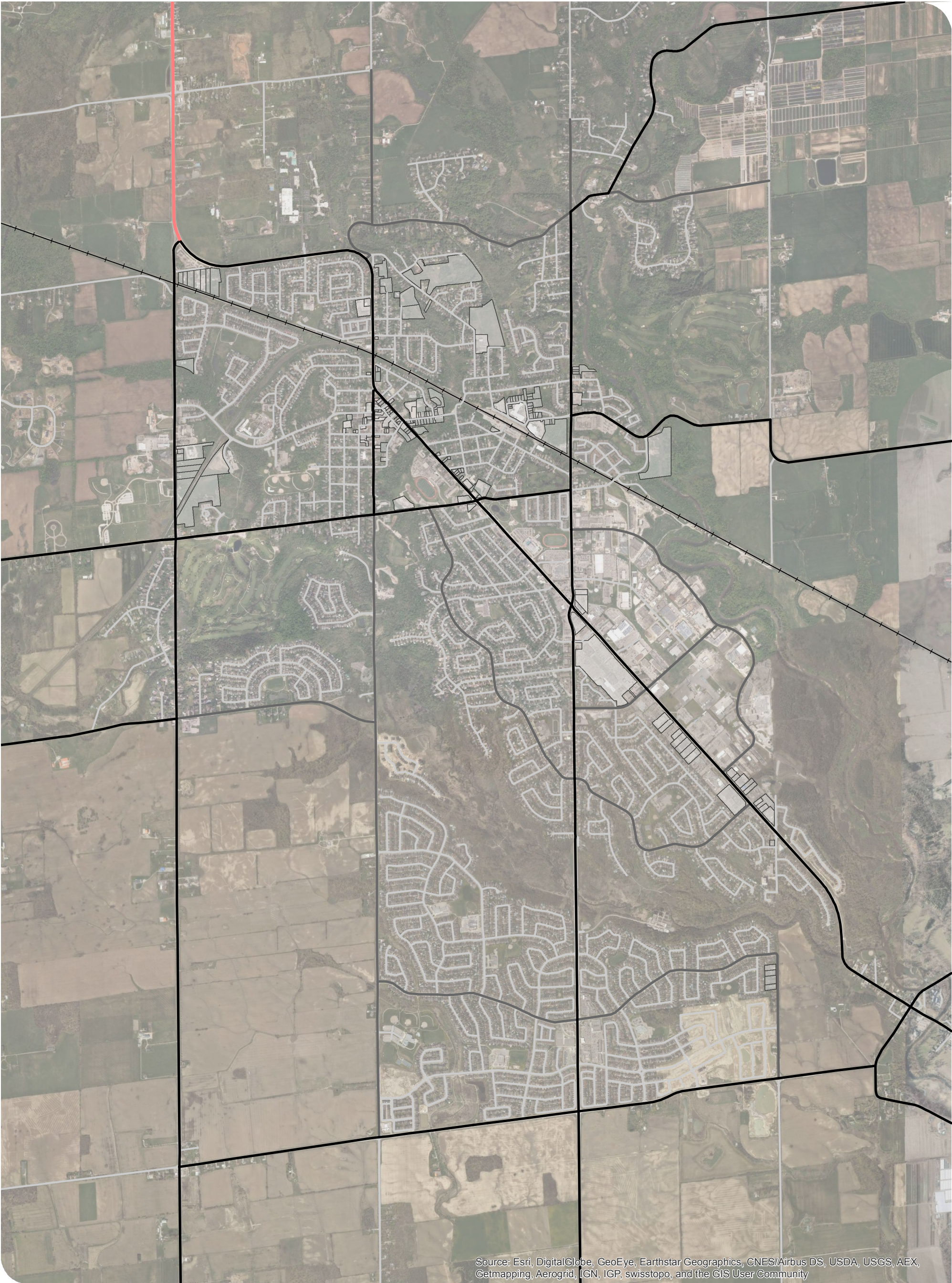
MAP CREATED BY: JJA
MAP CHECKED BY: PB
MAP PROJECTION: NAD 1983 UTM Zone 17N

SCALE @ 11x17
1:15,000

0 200 400 600 Meters



PROJECT: 17-6497 STATUS: FINAL DATE: 9/25/2019



TOWN OF HALTON HILLS
INTENSIFICATION OPPORTUNITIES
STUDY UPDATE

FIGURE 8:
ROADWAY CLASSIFICATION
GEORGETOWN

- Roadway Classification**
- | | |
|--|--|
| — Highway | -+ - Railway |
| — Arterial | Intensification Property |
| — Collector | |
| — Local | |

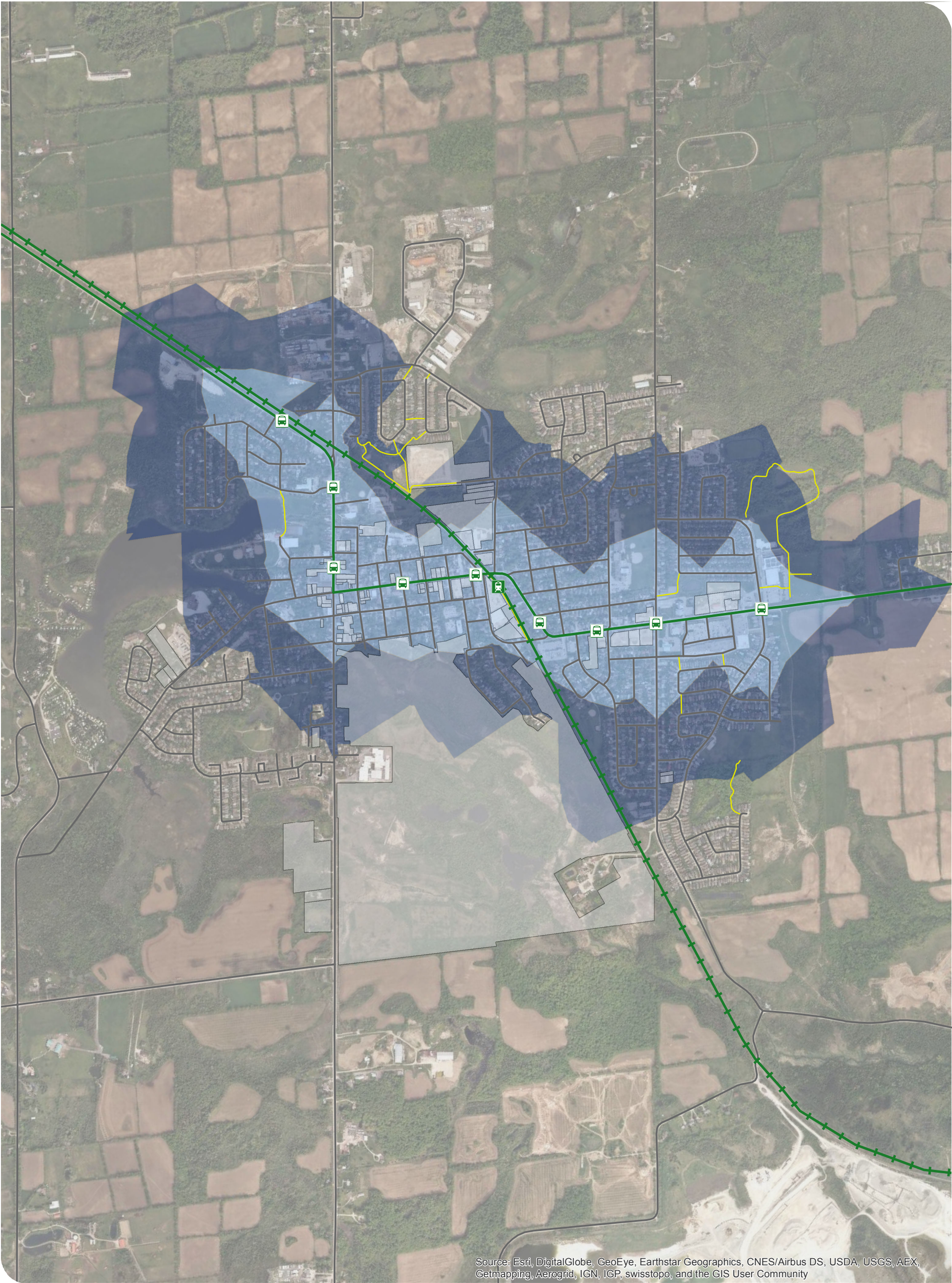


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TOWN OF HALTON HILLS
INTENSIFICATION OPPORTUNITIES
STUDY UPDATE

FIGURE 9:
TRANSIT SERVICE AND
WALKABILITY
ACTON

-  GO Bus Stop
-  GO Train Station
-  GO Bus Route (31 & 33)
-  GO Train Line (Kitchener)

-  Road
-  Trail
-  Intensification Property

- Transit Walkability
(Network Distance
from Transit Stop)**
-  400 m
 -  800 m

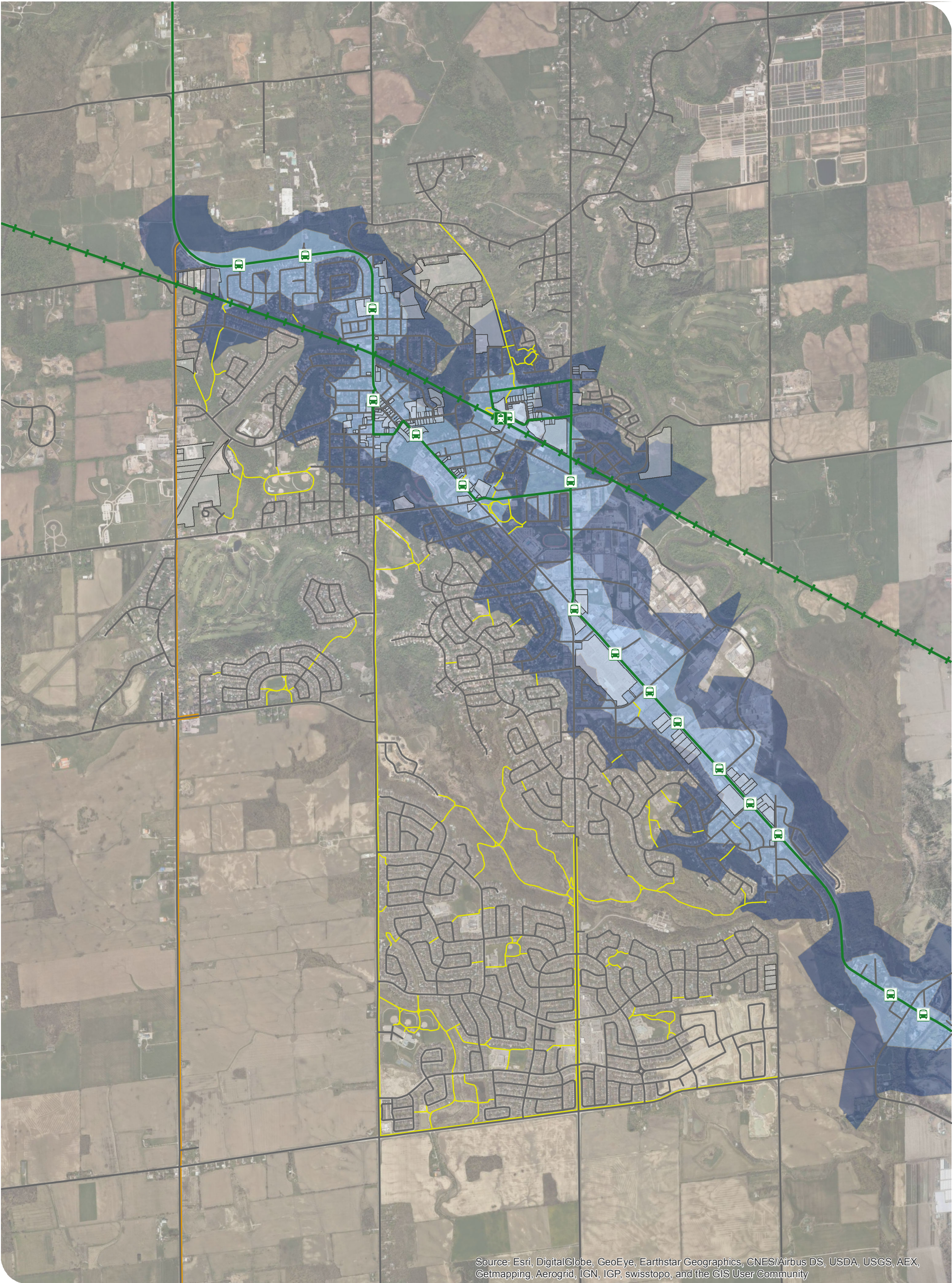


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




PROJECT: 17-6497 STATUS: FINAL DATE: 9/25/2019





Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

TOWN OF HALTON HILLS
INTENSIFICATION OPPORTUNITIES
STUDY UPDATE

FIGURE 10:
TRANSIT SERVICE AND
WALKABILITY
GEORGETOWN

- | | |
|---|--|
|  GO Bus Stop |  Road |
|  GO Train Station |  Trail |
|  GO Bus Route (31 & 33) |  Future Trail |
|  GO Train Line (Kitchener) |  Intensification Property |

Transit Walkability
(Network Distance
from Transit Stop)

- | | |
|---|-------|
|  | 400 m |
|  | 800 m |



MAP DRAWING INFORMATION:
DATA PROVIDED BY THE TOWN OF HALTON HILLS

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MAP CHECKED BY: PB
MAP PROJECTION: NAD 1983 UTM Zone 17N

SCALE @ 11x17
1:25,000

0 250 500 750 1,000 Meters



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Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

TOWN OF HALTON HILLS
INTENSIFICATION OPPORTUNITIES
STUDY UPDATE

FIGURE 11:
ACTIVE TRANSPORTATION
ACTON

- Road
- +— Railway
- Trail
- Bike Lane
- Intensification Property



MAP DRAWING INFORMATION:
DATA PROVIDED BY THE TOWN OF HALTON HILLS

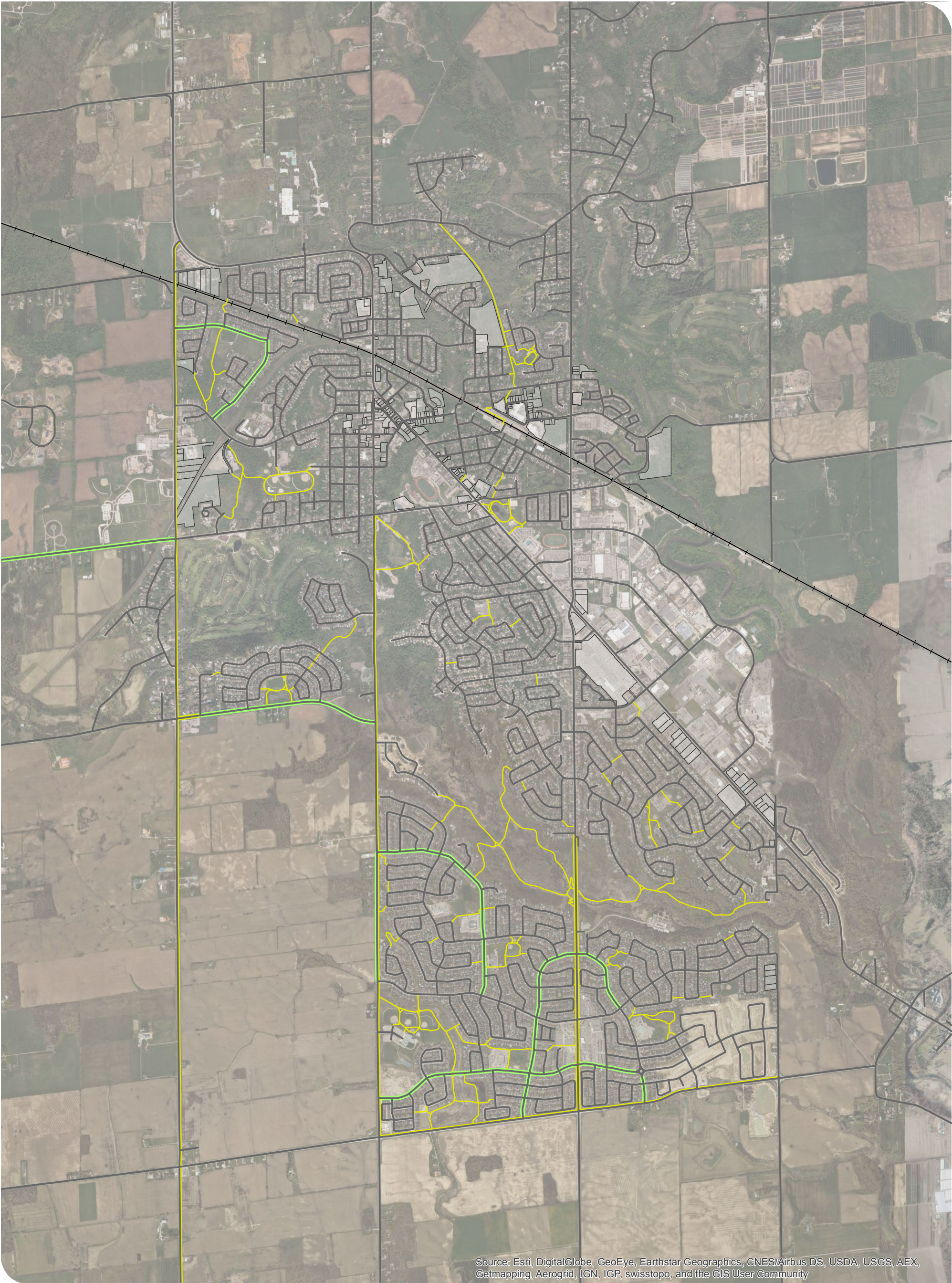
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SCALE @ 11x17
1:15,000

0 200 400 600 Meters



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Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

TOWN OF HALTON HILLS
INTENSIFICATION OPPORTUNITIES
STUDY UPDATE

FIGURE 12:
ACTIVE TRANSPORTATION
GEORGETOWN

- Road
- +— Railway
- Trail
- Bike Lane
- Intensification Property



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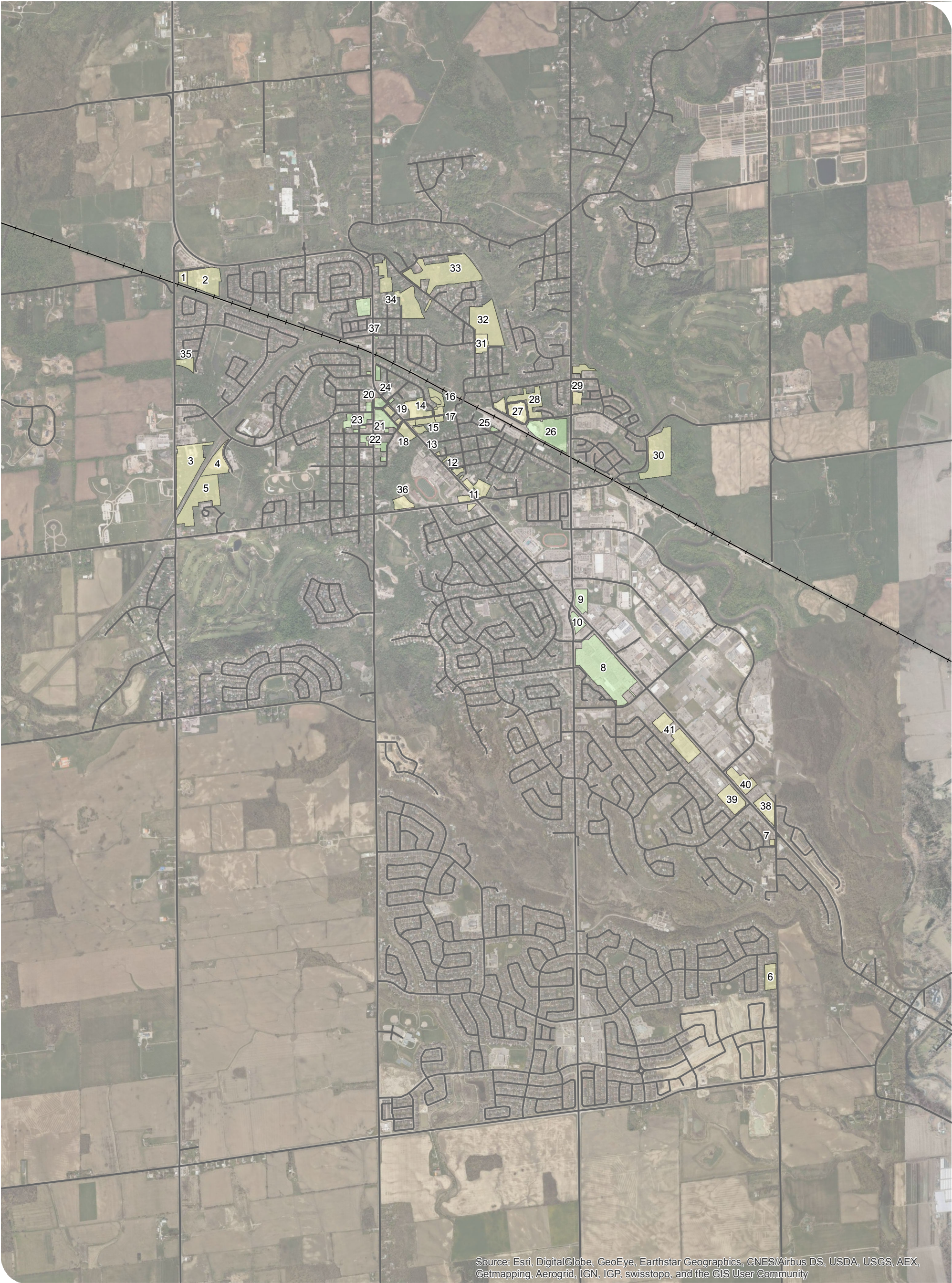
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SCALE @ 11x17
1:25,000

0 250 500 750 1,000 Meters



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TOWN OF HALTON HILLS
INTENSIFICATION OPPORTUNITIES
STUDY UPDATE

FIGURE 14:
INTENSIFICATION PROPERTY
BLOCKS - OVERALL SCORE
GEORGETOWN

- Road
- +— Railway

**Intensification Property
Average Score**

- Good
- Fair
- Poor

17 Intensification Property Block ID



MAP DRAWING INFORMATION:
DATA PROVIDED BY THE TOWN OF HALTON HILLS

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SCALE @ 11x17
1:25,000

0 250 500 750 1,000 Meters



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