

Central Transit Corridor (CTC) Monitoring Program

Kitchener-Cambridge-Waterloo

MONITORING CHANGE IN THE CTC 2021 REPORT

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Policy, Data and Research

Planning, Development and Legislative Services

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1 Background

1.1 Summary

The Region of Waterloo recognizes the importance of monitoring the Central Transit Corridor (CTC) – the area around the Region’s light rail system, ION – in order to understand the changing nature of the demographic, social, economic, and environmental characteristics of the corridor. The CTC Monitoring Program is a multi-year project to monitor change from the baseline year of 2011. Given the sustained investment, development, and infrastructure improvements seen in Stage 1 and the anticipated development of rapid transit in Stage 2, there is an interest in continuing to monitor change along the CTC.

It is recognized that there are many factors that influence change in the CTC. The economy, policies, programs, and political decisions at many levels of government are large influences on change in the Region, both inside the CTC and more broadly.

1.2 About ION

ION, the Region of Waterloo's rapid transit service approved by Council in June 2011, is shaping our community for the future by bringing Light Rail Transit (LRT) to Waterloo Region in two stages. In its entirety, ION will connect the core areas of Cambridge, Kitchener, and Waterloo. Stage 1 is 19 km in length and connects Kitchener and Waterloo. Construction of Stage 1 ION LRT was completed in 2017 and train testing began late that year. ION Stage 1 LRT service launched on June 21, 2019. Stage 2 of ION LRT service will be an 18 km route extension to Cambridge; Waterloo Regional Council endorsed a preferred Stage 2 route alignment in June 2019.

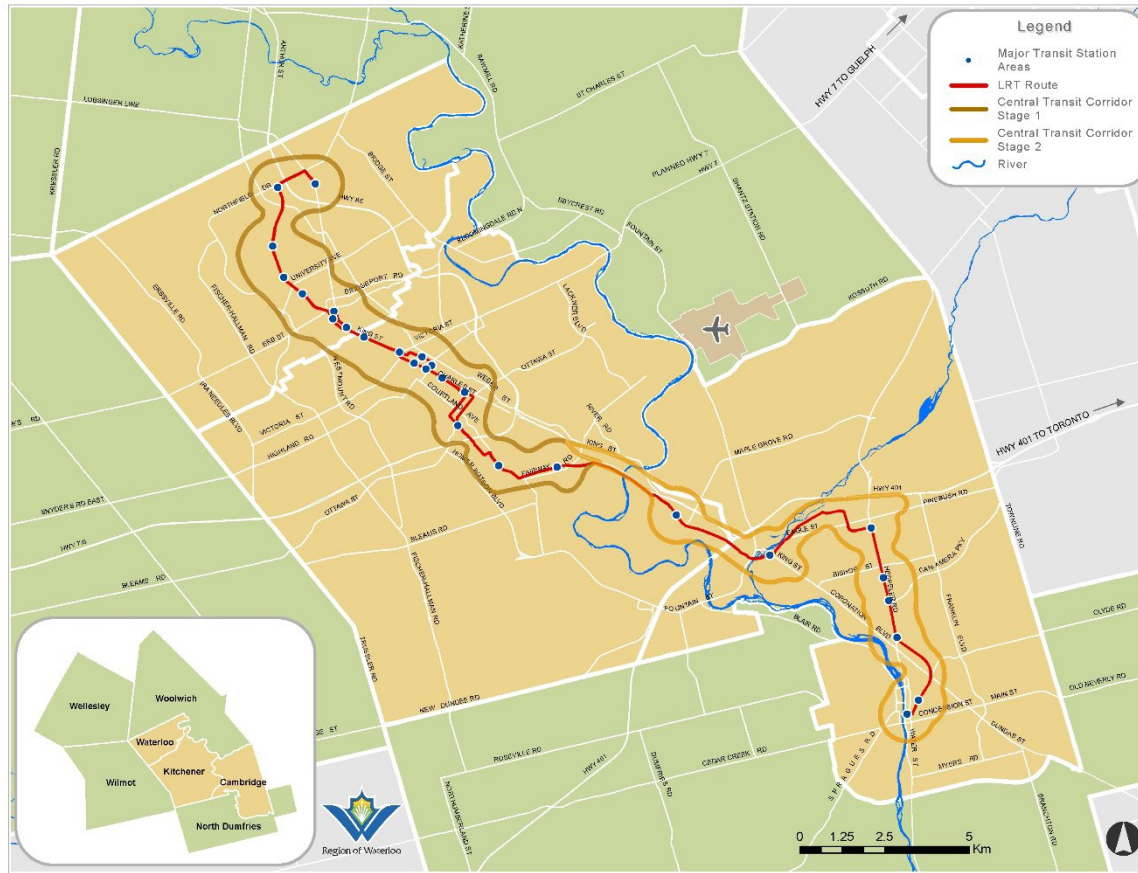
More information about ION can be found in the Region of Waterloo’s ION Story report: <https://www.grt.ca/en/about-grt/resources/ION/Why-ION.pdf> ; and at the Stage 2 ION project website: <https://www.engagewr.ca/Stage2ION>.

1.3 The ION Central Transit Corridor

The Central Transit Corridor is the area within approximately 800 metres of ION LRT stations, and the lands connecting these, to form a continuous corridor. The 800-metre distance is generally accepted as the distance people will walk (roughly ten minutes) to access rapid transit. The CTC connects the three Urban Growth Centres (UGCs) of downtown Cambridge, downtown Kitchener, and uptown Waterloo, as well as 26 rapid transit station areas. The CTC includes areas within the corridor that are expected to re-urbanize over time by incorporating the station area planning work and follows pre-established boundaries such as roads, rivers, property lines, and statistical boundaries already being used for monitoring.

The CTC is divided into Stages 1 and 2, reflecting the implementation stages of the full ION system. The alignment of the CTC around Stage 2 ION was preliminary until June 2019, when Regional Council endorsed a new preferred route through Cambridge. Subsequently, the mapping of the CTC was adjusted to accommodate the new alignment as well as to incorporate new work that was undertaken through the Regional Official Plan Review to delineate Major Transit Station Areas as required by the Provincial Growth Plan. Map 1 illustrates the current CTC, while the previous alignment is shown in Appendix A.

Map 1. Central Transit Corridor



2 The Central Transit Corridor Monitoring Program

2.1 Purpose of the Monitoring Program

Since Council's commitment to implement Light Rail Transit (LRT) in 2011, the Region of Waterloo has recognized the importance of monitoring change in the Central Transit Corridor (CTC) over time. The new rapid transit system will do more than just increase transit access throughout the Region. It also creates an opportunity to build healthy and vibrant communities along the route. The Central Transit Corridor Community Building Strategy (CBS) published on December 3, 2013, made recommendations on how the community should grow around rapid transit stations. It also included a recommendation to establish and implement baseline metrics pertaining to transit investment in the Central Transit Corridor and to report to Council with periodic updates. The CBS informed the development of the monitoring program, and continues to guide planning initiatives directed towards achieving the community-building goals of ION.

2.2 Monitoring ION's Goals

To monitor ION's two goals of moving people and building community, the monitoring program for the CTC explores the changing social, economic, and environmental state of the Region's rapid transit corridor, by using data to look at the various ways the CTC will be transformed by ION. Nine dimensions are explored, as shown in Table 1.

Table 1. Goals, Dimensions and Indicators

Goal	Dimension	Indicator	Metric
Moving People	Mobility	Transit Ridership	Number of trips made using Grand River Transit (millions)
		Daily Transit Activity	Per cent of daily average transit activity which occurred in the CTC
	Sustainable Modes of Transportation	Transit Mode Share *	Per cent of mode of travel share which was on transit across the CTC
		Active Transportation *	Per cent of mode of travel share which was pedestrian and cyclist in the CTC
		Walkability	Per cent of population living in 'high' or 'very high' walkable areas in the CTC
Building Community	Vibrant Communities	Land Use Mix	Per cent of all regional land uses which were found in the CTC
		Population	Per cent of Region's residents who live in the CTC
	Arts and Culture	Cultural Vibrancy*	Number of arts and culture establishments in the CTC
		Restaurants	Per cent of the Region's restaurants in the CTC
	Heritage	Heritage Resource Retention	Number of demolition permits on pre-1920 and designated built heritage resources in the CTC
	Investment	Building Activity	Dollar value of building permits in the CTC for new construction (millions)
		Assessment Value	Assessed value of properties in the CTC (billions)
	Environment	Emissions*	Tonnes of net air emissions per capita in Cambridge, Kitchener and Waterloo
	Crime and Safety	Perception of Safety *	Per cent of people in Cambridge, Kitchener and Waterloo who perceive that their downtowns are safe at night
		Calls for Service	Per cent of police calls for service which were related to potential public perception in the CTC
	Inclusive Community	Affordability of Home Ownership Transactions	Per cent of housing transactions which were affordable to low- and moderate-income households in the CTC
		Supply of Community Housing	Number of Community Housing units located within the CTC
		Location of Households Receiving Rent Assistance	Per cent of households receiving Portable Rental Assistance (PRA) that reside in the CTC

* These indicators have not been completed for 2021, due to limitations of data.

2.3 Baseline and Annual Indicators

For each dimension, one or more indicators have been chosen. In total, 16 indicators were developed, collected and reported as a baseline. In 2018, two additional annual indicators were added: Supply of Community Housing and Location of Households Receiving Rent Assistance. Some of the baseline indicators cannot be measured every year due to constraints in data availability. Thirteen of the 18 indicators have been updated for the 2021 reporting year.

2.4 Themed Indicators

In each monitoring year, the CTC Monitoring Program has focused on a topic area of interest and explored that area through the development of themed indicators. Due to the COVID-19 pandemic, the scheduled theme of Mobility has been postponed indefinitely. In 2022, a ten-year review of the indicators is also proposed.

2.5 Updating Indicators for the Stage 2 CTC Route Alignment Changes

Prior to 2020, monitoring reports were based on the preliminary CTC Stage 2 route. Beginning with the 2020 reporting year (2019 monitoring report), the CTC boundary was changed to reflect the preferred Stage 2 alignment that was endorsed by Council in June 2019. The 'revised' boundary has been used since the 2019 report and will continue to be used for future monitoring years. In response to the boundary change, three indicators (Population, Building Activity and Calls for Service) have been re-calculated to provide a seamless time series from 2011 to 2021. The remaining indicators were not rebased; rather, they were calculated using both the old alignment (for 2011-2019) as well as the new alignment (for 2019-2021) to show the differences. For these indicators, the statements of change over time include the effects of new activity as well as changing geography, and each is clearly stated. A table with both 2019 values according to their respective boundaries is shown in Appendix B.

3 Monitoring Results and Analysis

The CTC Monitoring Program measures change through the various stages of implementation of ION, from Council endorsement (2011-2014), through construction and testing (2015-2018), to service start (2019), and early operation (2019-2021). These stages are not discrete – for example, although ION was announced in 2011, there was anticipation of its approval by Council in the years leading up to the final decision. However, the stages are generally useful to consider in understanding the changes occurring in the corridor over time and through the progress of the project.

The first report from the monitoring program was the Monitoring Change in the Central Transit Corridor – Baseline Report, dated November 17, 2015, which described key aspects of the corridor in the post-announcement period from 2011 to 2014. As construction of ION had not yet begun, the results did not reflect the direct effects of ION infrastructure, but did show indications of change in the CTC in anticipation of ION.

Subsequent reports, published annually, provide updates on key indicators and take a deeper dive into annual themes. Results from the annual monitoring are summarized in Table 3, and results from each of the themes are summarized in Tables 4 through 7. The CTC Monitoring Program will continue to measure and report on indicators beyond 2021. These metrics are important in helping to tell the story about the different ways ION is moving people and shaping the future of our communities.

Table 2. Annual Indicators for the CTC Monitoring Program¹

Goal	Dimension	Indicator	Metric	2011	2015	2016	2017	2018	2019	2020	2021
Moving People	Mobility	Transit Ridership	Number of trips made using Grand River Transit (millions)	19.7	20.3	19.7	19.7	21.1	22.0	11.4	9.7
		Daily Transit Activity	Per cent of daily average transit activity in the CTC	67%	63%	62%	60%	60%	59%	63%	58%
	Sustainable Modes of Transportation	Transit Mode Share	Per cent of mode of travel share on transit across the CTC	-	5%	-	-	-	-	-	-
		Active Transportation	Per cent of mode of travel share which was pedestrian and cyclist in the CTC	5%	-	9%	-	-	-	-	-
		Walkability	Per cent of population living in 'high' or 'very high' walkable areas in the CTC	55%	56%	57%	57%	57%	57%	57%	58%

¹ Results for 2012 to 2014 have been removed from this table to improve legibility; to view results for these years, refer to the 2020 Monitoring Report (DOCS # 3868173, or https://www.regionofwaterloo.ca/en/regional-government/resources/LandUse_BuildingActivity/3868173-PDL-CPL-22-02_Attachment_1_Monitoring_Change_in_the_CTC_2020_Report.ACCESS.pdf).

Goal	Dimension	Indicator	Metric	2011	2015	2016	2017	2018	2019	2020	2021
Building Community	Vibrant Communities	Land Use Mix	Per cent of all Regional land uses found in the CTC	69%	69%	70%	70%	70%	70%	69%	70%
		Population	Per cent of the Region's residents who live in the CTC	18%	19%	19%	19%	19%	20%	19%	20%
	Arts and Culture	Cultural Vibrancy	Number of arts and culture establishments in the CTC	241	-	318	-	336	-	-	-
		Restaurants	Per cent of the Region's restaurants in the CTC	50%	52%	52%	53%	53%	54%	-	51%
	Heritage	Heritage Resource Retention	Number of demolition permits on pre-1920 and designated built heritage resources in the CTC	13	12	17	16	7	21	11	25
	Investment	Building Activity	Dollar value of building permits in the CTC for new construction (millions, adjusted to 2011)	\$489	\$257	\$303	\$215	\$211	\$682	\$619	\$416
		Assessment Value	Assessed value of properties in the CTC (billions)	\$10.0	\$12.8	\$13.6	\$14.7	\$15.3	\$17.0	\$18.3	\$18.5
	Environment	Emissions	Tonnes of net air emissions per capita in Cambridge, Kitchener and Waterloo	2.52	-	-	2.66	-	-	-	-
	Crime and Safety	Perception of Safety	Per cent of people in the Tri-Cities who perceive that their downtowns are safe at night	65%	-	-	62%	58%	-	-	-
		Calls for Service	Per cent of police calls for service related to potential public perception in the CTC	41%	44%	45%	46%	47%	47%	43%	44%
	Inclusive Community	Affordability of Home Ownership Transactions	Per cent of housing transactions which were affordable to low and moderate income households in the CTC	55%	57%	57%	33%	38%	30%	24%	16%
		Supply of Community Housing	Number of community housing units in the CTC	2,687	2,633	2,645	2,645	2,701	2,758	2,758	2,766
		Location of Households Receiving Rent Assistance	Per cent of households receiving Portable Rental Assistance (PRA) that reside in the CTC	-	50%	60%	56%	57%	56%	60%	52%

Table 3. The Environment (2016)

Dimension	Indicator	Metric	Indicator Value
Environment	Trails and Pathways	Length of trails and pathways in the CTC	78 kilometres
	Public Greenspaces	Area of public greenspaces in the CTC	398 hectares

Table 4. Investment (2017)

Dimension	Indicator	Metric	2011	2012	2013	2014	2015	2016
Investment	Transaction Values	Dollar value of transactions in the CTC (millions, adjusted to 2011)	\$619	\$764	\$821	\$916	\$898	\$1,030
	Building Improvements	Dollar value of building permits for property improvements in the CTC (millions, adjusted to 2011)	\$74	\$80	\$93	\$80	\$96	\$166

Table 5. Inclusive Community (2018)

Dimension	Indicator	Metric	2011	2012	2013	2014	2015	2016	2017
Inclusive Community	Renter Affordability	Per cent of renters spending less than 30 per cent of their household income on shelter-related costs in the CTC	64%	-	-	-	-	61%	-

Table 6. Urban Vibrancy (2019)

Dimension	Indicator	Metric	2011	2012	2013	2014	2015	2016	2017	2018
Vibrant Communities	Surface Parking	Area of land dedicated to surface parking in the CTC (hectares)	-	543	-	-	-	-	-	533
	Vacant Land	Area of land assessed as vacant land in the CTC (hectares)	293	285	276	274	280	272	268	268
	Grocery Stores	Number of grocery stores in the CTC	-	-	-	-	-	-	-	28
	Demographic Shifts	Number of families with children in the CTC	9,384	-	-	-	-	9,539	-	-
	Festivals/Events	Event attendance in the CTC (thousands)	609	624	675	730	818	803	781	810

3.1 Goal: Moving People

ION officially launched on June 21, 2019 and, together with public sector investments in the active transportation network and improvements to service levels and the regional transit network, the ION rapid transit system has greatly enhanced mobility within and between Cambridge, Kitchener, and Waterloo.

The COVID-19 pandemic hindered progress toward this goal, with widespread interruption to regular commuting and travel patterns and a shift to remote work and e-commerce for many employees and businesses, respectively. Despite this setback, 2021 saw the beginning of a gradual return to pre-pandemic activity.

Monitoring of the mobility indicators will track any shifts in travel behaviour in the CTC since ION was announced and opened for service, as well as changes related to COVID-19.

3.1.1 Mobility: Transit Ridership

9,741,109 trips were made across Waterloo Region using Grand River Transit in 2021

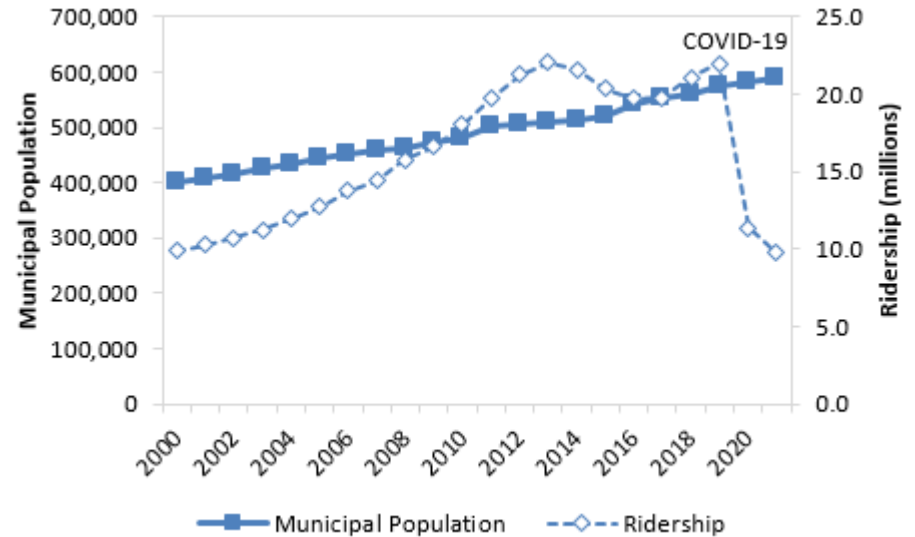
The COVID-19 pandemic continued to contribute to lower overall ridership across the entire GRT network in 2021 (Table 1; Figure 1). Service reductions across many core routes continued through most of the year. The pandemic lead transit ridership to fall nearly 50 per cent in 2020, when compared to 2019 figures. In the fall of 2021, service levels returned to about 94 per cent of pre-pandemic levels as some post secondary students started to participate in more on-campus activities. This would have contributed to some growth both inside and outside of the CTC in 2021 compared to 2020. Generally, more growth was seen outside of the CTC with workplace trips (industrial and manufacturing) continuing to be notable.

Table 1. Total Transit Ridership per capita within the Transit Service Area, 2011-2021

Year	Total Transit Ridership	Municipal Population *	Transit Service Area Population	Total Transit Ridership per capita in Service Area
2011	19,721,966	500,700	432,266	45.6
2012	21,274,042	505,920	438,563	48.5
2013	22,000,737	509,445	435,780	50.5
2014	21,596,989	514,611	434,437	49.7
2015	20,327,109	520,670	434,988	46.7
2016	19,691,267	541,395	452,684	43.5
2017	19,742,606	551,598	460,104	42.9
2018	21,066,847	559,695	488,257	43.1
2019	21,964,989	575,413	483,811	45.3
2020	11,383,805	580,839	486,926	23.4
2021	9,741,109	589,273	493,728	19.7
Change 2011-2021	-9,980,857	88,573	61,462	-25.9
Change 2020-2021	-1,642,696	8,434	6,802	-3.6
% Change 2011-2021	-50.6%	17.7%	14.2%	-56.7%
% Change 2020-2021	-14.4%	1.5%	1.4%	-15.6%
Average Annual % Change	-7.7%	3.2%	2.1%	-9.7%

* For Settlements with Bus Service

Figure 1. Relationship Between Municipal Population and Ridership, 2000-2021



3.1.2 Mobility: Daily Transit Activity

58 per cent of the daily average transit activity in the Region occurred within the CTC in 2021

The COVID-19 pandemic drastically impacted transit ridership within Waterloo Region in 2020. As COVID-19 restrictions were lifted and many returned to hybrid or in-person work, 2021 saw the beginning of a slow return to pre-pandemic transit numbers. In 2021, an average of 63,663 people per day boarded or alighted a GRT vehicle within the CTC, including conventional bus, express bus, and ION light rail train. Compared to the previous year, 2021 saw a 26 per cent increase in daily boardings and alightings within the CTC and 38 per cent in the Region as a whole. Of the 63,663 boardings and alightings in the CTC, 23 per cent of trips were taken using ION. Moreover, in 2021, nearly 58 per cent of the total daily activity in the Region occurred within the CTC, indicating that almost six out of every ten riders travelling on transit in the Region had gotten on or off a GRT vehicle within the CTC (Table 1).

Table 1. Total Daily Transit Activity, 2011-2021

Year	CTC		Outside CTC		Region Total
	Daily Boardings and Alightings	% Within CTC	Daily Boardings and Alightings	% Outside CTC	Daily Boardings and Alightings
2011	108,291	66.8%	53,839	33.2%	162,130
2012	114,917	65.2%	61,243	34.8%	176,160
2013	122,199	67.4%	59,133	32.6%	181,332
2014	119,248	63.6%	68,371	36.4%	187,619
2015	115,678	62.8%	68,654	37.2%	184,331
2016	119,654	62.3%	72,333	37.7%	191,987
2017	127,571	60.5%	83,416	39.5%	210,986
2018	133,607	60.0%	88,928	40.0%	222,535
YOY Growth	+4,318		+6,710		+11,029
2019 (Original Stage 2)	137,925	59.1%	95,638	40.9%	233,563
CTC Stage 2 Realignment	+420		-420		0
2019 (Revised Stage 2)	138,345	59.2%	95,218	40.8%	233,563
2020	50,481	63.1%	29,535	36.9%	80,016
2021	63,663	57.5%	47,015	42.5%	110,678
Change 2011-2021	-44,628		-6,824		-51,452
Change 2020-2021	13,182		17,480		30,662
% Change 2011-2021	-41.2%		-12.7%		-31.7%
% Change 2020-2021	26.1%		59.2%		38.3%
Average Annual % Change	-1.2%		5.1%		1.0%

Due to improvements implemented in 2015 to the method of calculating boardings and alightings by station, data is not comparable between the 2011-2014 data points and the 2015-2021 data.

The above change calculations utilize the original Stage 2 boundary for 2011 and the revised boundary for 2019 to 2021.

3.1.3 Sustainable Modes of Transportation: Walkability

58 per cent of the population living in the CTC lived in 'very high' or 'high' walkable areas in 2021

Approximately 126,000 people lived in the Central Transit Corridor in 2021, of which 72,823 were in 'very high' or 'high' walkable areas (Table 1). More than half (58 per cent) of the population within the CTC lived in 'very high' or 'high' walkable areas while 37,949 (30 per cent) lived in 'moderate' walkable areas, and 15,213 (12 per cent) were in 'low' or 'very low' walkable areas.

Table 1. Estimated Population in Walkability Ratings within the CTC, 2011-2021

Year	Very High	High	High and Very High	Moderate	Low	Very Low	Low and Very Low	Total
2011	22,676	30,900	53,576	33,151	4,417	5,563	9,980	96,707
2012	22,543	30,971	53,514	33,023	4,026	5,402	9,427	95,964
2013	22,752	31,980	54,731	33,914	4,107	5,576	9,683	98,329
2014	23,348	32,446	55,794	34,294	3,993	5,693	9,686	99,774
2015	23,463	33,550	57,013	34,242	4,392	5,756	10,149	101,404
2016	24,265	36,109	60,374	34,680	5,124	6,313	11,437	106,491
2017	25,327	38,997	64,324	35,363	6,197	6,366	12,563	112,250
2018	26,377	39,344	65,722	36,084	6,567	6,364	12,931	114,737
YOY Growth	+521	+2,434	+2,954	+179	+197	+37	+233	+3,366
2019 (Original Stage 2)	26,898	41,778	68,676	36,263	6,764	6,401	13,165	118,103
CTC Stage 2 Realignment	0	+777	+777	+1,300	+1,572	+142	+1,715	+3,792
2019 (Revised Stage 2)	26,898	42,555	69,453	37,563	8,336	6,543	14,879	121,895
2020	27,141	39,038	66,179	36,928	7,877	4,819	12,697	115,804
2021	29,821	43,003	72,823	37,949	8,425	6,788	15,213	125,985
Change 2011-2021	7,145	12,103	19,247	4,798	4,008	1,225	5,233	29,278
Change 2020-2021	2,680	3,964	6,644	1,021	548	1,968	2,516	10,181
% Change 2011-2021	31.5%	39.2%	35.9%	14.5%	90.7%	22.0%	52.4%	30.3%
% Change 2020-2021	9.9%	10.2%	10.0%	2.8%	7.0%	40.8%	19.8%	8.8%
Average Annual % Change	2.8%	3.5%	3.2%	1.4%	7.2%	3.1%	4.8%	2.7%
% of CTC Population (2011)	23.4%	32.0%	55.4%	34.3%	4.6%	5.8%	10.3%	100.0%
% of CTC Population (2021)	23.7%	34.1%	57.8%	30.1%	6.7%	5.4%	12.1%	100.0%

The above change calculations utilize the original Stage 2 boundary for 2011-2018 and the revised boundary for 2019-2021.

Since 2011, the proportion of the CTC population living in 'high' or 'very high' walkable areas has increased from 55 per cent to 58 per cent; this shift resulted from population growth of 19,247 people in more walkable areas, compared to 4,798 people in 'moderate' and 5,233 in less walkable areas of the CTC. A significant share of students attending the Region's post-secondary institutions live within the CTC, and because of the COVID-19 pandemic, many of those students were not present in 2020. As students returned to the Region and resumed in-person learning in 2021, the CTC saw significant year-over-year population growth of nine per cent, or approximately 10,200 residents, compared to 2020.

Walkable areas are characterized by residential land use near a variety of destinations (retail, schools, etc.) and small block sizes that are conducive to walking. Studies show that residents living in more walkable neighborhoods tend to walk, cycle, and use transit more and own fewer cars than those living in less walkable areas of Waterloo Region. Population growth in highly walkable areas is helpful in creating safer, more vibrant communities.

3.2 Goal: Building Community

ION is a catalyst for building community in the CTC. Indicators that monitor the 'building community' goal of ION strive to tell a story about how the ION LRT system may influence social, economic, and environmental aspects in the CTC and contribute to change in the community. Measuring these dimensions provides snapshots of the ways people and the market may be adapting to a new higher-order transit service over the pre-and-post implementation phases of ION.

3.2.1 Vibrant Communities: Land Use Mix

70 per cent of Waterloo Region's land uses were found within the CTC in 2021

In 2021, there were 199 unique land uses within Waterloo Region, of which 140 were found within the CTC. In other words, of all the types of land uses existent in the Region, 70 per cent can be found within the CTC. The number of land uses throughout the corridor has been relatively stable since the monitoring program began in 2011, with a net increase of nine from 131 in 2011 to 140 in 2021 (Table 1).

Table 1. Land Use Mix in the CTC and Waterloo Region, 2011-2021

Year	Number of Unique Property Codes		
	CTC	Region	% Within CTC
2011	131	191	68.6%
2012	132	192	68.8%
2013	131	190	68.9%
2014	132	190	69.5%
2015	135	196	68.9%
2016	136	194	70.1%
2017	135	193	69.9%
2018	137	196	69.9%
YOY Growth	+1	+3	--
2019 (Original Stage 2)	138	199	69.3%
CTC Stage 2 Realignment	+2	0	--
2019 (Revised Stage 2)	140	199	70.4%
2020	139	201	69.2%
2021	140	199	70.4%
Change 2011-2021	9	8	--
Change 2020-2021	1	-2	--

The above change calculations utilize the original Stage 2 boundary for 2011-2018 and the revised boundary for 2019-2021.

3.2.2 Vibrant Communities: Population

20 per cent of the Region's residents were living in the CTC in 2021

Approximately 126,000 people lived in the CTC in 2021, representing one-fifth of Waterloo Region's population (Table 1). Between 2020 and 2021, the population within the CTC increased at a faster rate (9 per cent) than the population outside the CTC (2 per cent). A significant share of students attending the Region's post-secondary institutions live within the CTC, and because of the COVID-19 pandemic, many of these students were not present in 2020. As students returned to the Region and resumed in-person learning in 2021, the CTC saw significant population growth of nine per cent, or approximately 10,000 residents, compared to 2020.

Table 1. Population Living Within the CTC, Including Students, 2011-2021

Year	CTC			Outside CTC	Region Total	% Within CTC
	Stage 1	Stage 2	Total			
2011	71,018	28,660	99,678	451,922	551,600	18.1%
2012	72,287	28,730	101,016	455,884	556,900	18.1%
2013	74,932	28,904	103,836	459,164	563,000	18.4%
2014	77,160	28,914	106,074	462,926	569,000	18.6%
2015	79,006	29,026	108,032	466,668	574,700	18.8%
2016	82,465	29,379	111,844	474,056	585,900	19.1%
2017	86,313	29,743	116,056	484,644	600,700	19.3%
2018	88,730	29,817	118,546	491,354	609,900	19.4%
2019	91,856	30,042	121,898	495,902	617,800	19.7%
2020	85,437	30,367	115,804	496,166	611,970	18.9%
2021	94,714	31,271	125,985	506,245	632,230	19.9%
Change 2011-2021	23,696	2,611	26,307	54,323	80,630	--
Change 2020-2021	9,278	904	10,181	10,079	20,260	--
% Change 2011-2021	33.4%	9.1%	26.4%	12.0%	14.6%	--
% Change 2020-2021	10.9%	3.0%	8.8%	2.0%	3.3%	--
Average Annual % Change	3.8%	1.1%	3.0%	1.4%	1.7%	--

3.2.3 Arts and Culture: Restaurants

51 per cent of restaurants in the Region were located within the CTC in 2021

In 2021, there were 858 restaurants located within the CTC, 635 were located within Stage 1 and the other 223 were within Stage 2 (Table 1). The restaurant sector was significantly impacted in 2021 due to a number of COVID-19 related restrictions, ranging from a mandatory reduction of service capacity to a total ban on indoor dining. As a result, the number of restaurants in the Region declined by 64 since 2019. Restaurants in the CTC were impacted to a greater extent than outside the CTC, losing 86 restaurants when compared to pre-pandemic levels (2019). However, since 2011, the number of restaurants located in the CTC has increased by 127, from 731 in 2011 to 858 in 2021. The number of restaurants has grown at a faster rate in the CTC (17.4 per cent since 2011) than restaurants outside the CTC (13.2 per cent since 2011).

Table 1. Geographic Distribution of Restaurants, 2011-2021

Year	CTC						Outside CTC		Region Total
	Stage 1		Stage 2		Total		Number of Restaurants	% Outside CTC	Number of Restaurants
	Number of Restaurants	% Within Stage 1	Number of Restaurants	% Within Stage 2	Number of Restaurants	% Within CTC			
2011	525	36.2%	206	14.2%	731	50.4%	720	49.6%	1,451
2012	547	36.0%	234	15.4%	781	51.4%	737	48.6%	1,518
2013	587	37.0%	236	14.9%	823	51.9%	762	48.1%	1,585
2014	611	37.6%	237	14.6%	848	52.2%	777	47.8%	1,625
2015	645	37.9%	244	14.4%	889	52.3%	811	47.7%	1,700
2016	643	37.5%	242	14.1%	885	51.6%	831	48.4%	1,716
2017	648	39.3%	229	13.9%	877	53.2%	771	46.8%	1,648
2018	664	39.2%	229	13.5%	893	52.8%	799	47.2%	1,692
2019	691	39.8%	253	14.6%	944	54.3%	793	45.7%	1,737
2020*									
2021	635	38.0%	223	13.3%	858	51.3%	815	48.7%	1,673
Change 2011-2021	110		17		127		95		222
Change 2019-2021	-56		-30		-86		22		-64
% Change 2011-2021	21.0%		8.3%		17.4%		13.2%		15.3%
% Change 2019-2021	-8.1%		-11.9%		-9.1%		2.8%		-3.7%
Average Annual % Change	2.2%		1.1%		1.9%		1.4%		1.6%

*2020 Restaurants data is unavailable

3.2.4 Heritage: Heritage Resource Retention

25 demolition permits were issued for built heritage structures in the Central Transit Corridor in 2021

In 2021, 25 demolition permits were issued for formally recognized or pre-1920 heritage structures in the CTC (Table 1). These 25 permits represent 48 per cent of the total demolition permits issued for heritage structures across the Region and 44 per cent of the total demolitions (including non-heritage) that took place within the CTC in 2021. The number of heritage structure demolitions in the CTC in 2021 was a significant 127 per cent increase over 2020. Moreover, 2021 saw the second-highest number of heritage buildings demolished in the corridor since Regional Council approved ION in 2011, and the year was well above the annual average for the CTC monitoring program (16 per year).

Table 1. Number of Formally Recognized and Pre-1920 Heritage Buildings Demolished, 2011-2021

Year	Stage 1	Stage 2	CTC Total	Formally Recognized (Registered/Designated)
2011	13	0	13	5
2012	34	2	36	2
2013	11	0	11	0
2014	9	0	9	1
2015	11	1	12	3
2016	17	0	17	1
2017	14	2	16	2
2018	3	4	7	2
2019 *	19	2	21	2
2020	7	4	11	1
2021	23	2	25	1
Average 2011-2021	15	2	16	2
Total 2011-2021	161	17	178	20

* 2019 results for this indicator were not affected by the CTC Stage 2 realignment.

Of the 25 permits issued:

- One permit was for a formally recognized structure (i.e., listed on the Municipal Heritage Register or designated under the Ontario Heritage Act). This number is in line with the average number of formally recognized structures lost in the CTC since 2011 (two per year).
- 23 permits were for heritage structures located in Stage 1 of the CTC, and two were found within Stage 2. This trend reflects the greater trend experienced across the whole CTC and is related to the differing of approvals of the Stage 1 and Stage 2 ION LRT project.

- Nine demolition permits were issued in the CTC where the planned or constructed replacement structure did not significantly increase the density of the site. This trend is observed in heritage demolitions outside of the CTC as well, and occurs when a heritage house is demolished and replaced with a structure of similar density, such as a single detached house, or two semi-detached houses. This can be seen as a negative finding; as increasing density in the CTC and conserving built heritage are often competing interests, a positive outcome for demolishing heritage resources in the CTC would therefore be a resultant significant increase in density.
- Another emerging trend of concern is the number of heritage demolitions that are also located in municipally identified, but yet to be designated, Cultural Heritage Landscapes. In total, 16 heritage structures were demolished in the CTC which were also located within municipally identified Cultural Heritage Landscapes in 2021. It is recommended that this trend be monitored moving forward.

3.2.5 Investment: Building Activity

\$416 million in new building permits were issued within the CTC in 2021

In 2021, building permit activity for new residential and employment uses within the CTC was estimated at \$416 million – approximately 29 per cent of the total new construction value in Waterloo Region (Table 1; Figure 1). Of the building activity² in the CTC, \$348 million in construction value was for 2,369 new residential units, representing 39 per cent of the total 6,009 residential units built across the Region (Table 2; Appendix C). In the non-residential sector, \$68 million was invested in industrial, commercial, and institutional (ICI) projects in the corridor, creating 406,000 square feet of new floor space – one-quarter of the total non-residential square footage added across the Region (Table 3; Appendix C). The total cumulative building permit value in the CTC for both residential and ICI uses from 2011 to 2021 was \$4.2 billion (Table 1).

Table 1. Total Building Permit Value, 2011-2021, in Millions (Adjusted to 2011 Dollars)

Year	CTC			Outside CTC	Region Total	% in CTC
	Stage 1	Stage 2	Total			
2011	\$428	\$61	\$489	\$810	\$1,299	37.6%
2012	\$228	\$34	\$263	\$585	\$848	31.0%
2013	\$211	\$17	\$228	\$526	\$754	30.2%
2014	\$370	\$194	\$563	\$667	\$1,231	45.8%
2015	\$231	\$26	\$257	\$724	\$981	26.2%
2016	\$284	\$19	\$303	\$1,063	\$1,366	22.2%
2017	\$178	\$37	\$215	\$742	\$957	22.4%
2018	\$196	\$14	\$211	\$719	\$929	22.7%
2019	\$543	\$140	\$682	\$853	\$1,535	44.4%
2020	\$580	\$39	\$619	\$808	\$1,427	43.4%
2021	\$276	\$140	\$416	\$1,005	\$1,420	29.3%
Total 2011-2021	\$3,525	\$722	\$4,246	\$8,502	\$12,749	33.3%

² Only building permits that are for new residential units or employment space are monitored in this indicator. Other building activity such as renovation of existing space, façade improvements, or ancillary buildings/structures is in addition to these figures.

Figure 1. Total Building Permit Value, 2011-2021, in Millions (Adjusted to 2011 Dollars)

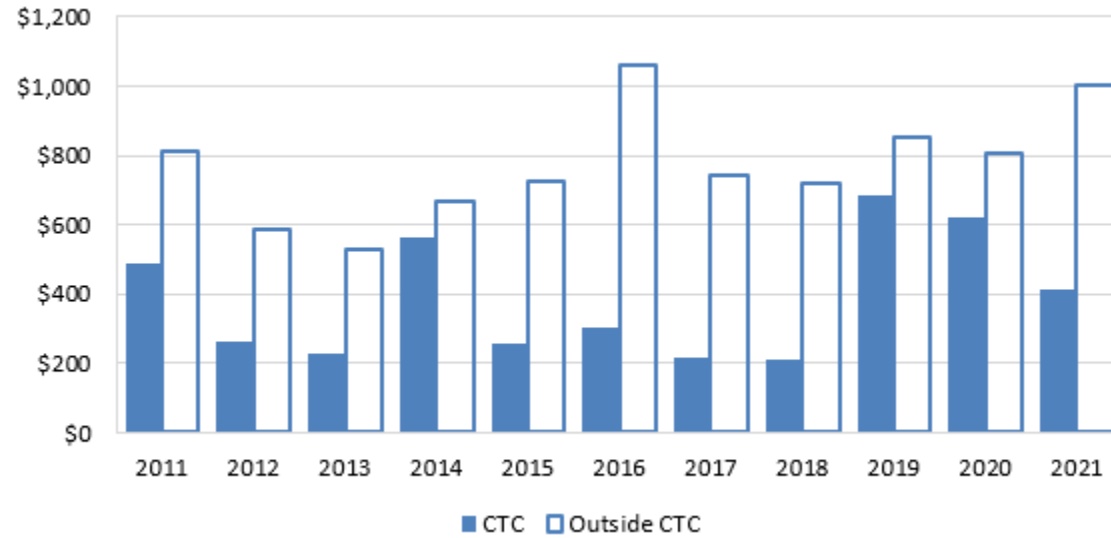


Table 2. Residential Building Activity in the CTC, 2011-2021 (Adjusted to 2011 Dollars)

Year	Units Built					Total Value (\$M)
	Single-detached	Semi-detached	Townhouses	Apartments	Total	
2011	13	1	44	1,146	1,204	\$209
2012	13	7	179	624	823	\$127
2013	12	6	48	624	690	\$140
2014	11	6	92	1,831	1,940	\$337
2015	7	2	50	1,096	1,155	\$116
2016	8	5	55	1,793	1,861	\$252
2017	14	3	26	1,076	1,119	\$93
2018	18	16	69	847	950	\$151
2019	11	13	109	3,274	3,407	\$587
2020	6	72	20	2,252	2,350	\$436
2021	14	10	532	1,813	2,369	\$348
Total 2011-2021	127	141	1,224	16,376	17,868	\$2,796

Table 3. Non-Residential Building Activity in the CTC, 2011-2021 (Adjusted to 2011 Dollars)

Year	Square Footage Added				Total Value (\$M)
	Industrial	Commercial	Institutional	Total	
2011	3,600	311,980	122,095	437,675	\$280
2012	20,909	392,408	269,053	682,370	\$135
2013	28,757	77,723	236,186	342,666	\$88
2014	8,818	173,994	317,777	500,589	\$227
2015	115,696	528,584	155,164	799,444	\$141
2016	3,335	138,152	16,824	158,311	\$52
2017	8,534	292,260	228,047	528,841	\$121
2018	9,616	273,358	6,519	289,493	\$60
2019	2,045	576,674	17,684	596,403	\$95
2020	11,562	447,253	61,505	520,320	\$183
2021	1,640	398,526	5,833	405,999	\$68
Total 2011-2021	214,512	3,610,912	1,436,687	5,262,111	\$1,450

Waterloo Region has continued to see strong residential growth during the COVID-19 pandemic, as rapidly rising house prices in the Greater Toronto Area and a widespread shift toward working remotely have allowed many workers to move further afield to more affordable mid-size cities and rural areas. ION’s successful opening in 2019, in conjunction with the housing market’s continued strength and low interest rates, ensured that the CTC saw a large share of this growth – 2021 saw the second-highest residential construction value and number of new units in the CTC since monitoring began in 2011.

In 2021, there were eight residential building permits in the CTC worth at least \$10 million each. The associated projects are a marker of continued intensified forms of housing within the CTC. In contrast to previous years, which saw larger residential projects distributed geographically into several clusters, the eight permits are located along the entire length of the corridor.

The City of Waterloo saw three permits valued at more than \$10 million:

- \$37 million for 611 Davenport Rd., a nine-storey, 161-unit apartment building located near Conestoga Mall.
- \$57 million for Society 145, with two residential towers (15 and 20 storeys, 435 units) on a shared six-storey podium with one level of underground parking at 145 Columbia Street West in the university district.
- \$19 million for Spur Line Common (Building A), a six-storey, 90-unit residential building with one level of underground parking at 103 Roger Street, along the Kitchener-Waterloo municipal boundary.

There were also three permits greater than \$10 million in Kitchener:

- \$38 million for The Bright Building, an 18-storey, 228-unit condominium apartment building with ground floor retail and two levels of underground parking at 741 King Street West, in midtown Kitchener.
- \$14 million for 225 Victoria, a six-storey, 94-unit apartment building with an underground parking garage located east of the downtown core at 225 Victoria Street South.
- \$24 million for 169 Borden, a six-storey, 166-unit apartment building with one level of underground parking at 169 Borden Avenue North, near the Kitchener Memorial Auditorium Complex.

Finally, Cambridge saw two permits in the \$10 million-plus category:

- \$50 million for two eight-storey residential towers (284 units) with a shared amenity link at 140 Hollywood Court, adjacent to SmartCentres Cambridge on Pinebush Road.
- \$13 million for a six-storey, 55-unit apartment building located north of downtown Cambridge at 195 Hespeler Road.

On the non-residential side, 2021 was a below-average year for ICI construction value and square footage in the CTC. There were only two permits valued at more than \$10 million in the CTC; both were located in downtown Kitchener:

- \$41 million for a 2,100 square foot addition and interior/exterior alterations to the future Waterloo Regional Police Service Central Division headquarters at 200 Frederick Street.
- \$13 million for a 209,000 square foot open-air parking garage for Google at 2 Stewart Street.

Over the past decade, there has been rapid growth in accessory dwelling units³ in Waterloo Region (Table 4). In 2011, 26 new accessory units were added throughout the Region, of which, two (eight per cent) were in the CTC. By 2021, the number built Region-wide reached 546, with 54 (ten per cent) located in the CTC. Accessory apartments comprised nine per cent of the new housing stock built in the Region in 2021, compared to just two per cent in the CTC, as there is more opportunity to build such units within the larger homes that are more typical outside the CTC. With housing prices continuing to reach record highs and the ION corridor seeing greater development pressure each year, these units are certain to gain increased momentum as a useful – and perhaps a more affordable – addition to the Regional housing stock, both within and outside the CTC.

³ Accessory dwelling units, or accessory apartments, are new units added within existing dwelling units, such as basement suites or duplex conversions. These include detached secondary dwelling units built in addition to, but separate from, an existing primary dwelling structure (e.g., tiny homes or garden suites).

Table 4. New Accessory Dwelling Units, 2011-2021

Year	CTC			Outside CTC			Region Total			% of Accessory Units in CTC
	Accessory Units	Total Units	% of Total Units	Accessory Units	Total Units	% of Total Units	Accessory Units	Total Units	% of Total Units	
2011	2	1,204	0.2%	24	2,395	1.0%	26	3,599	0.7%	7.7%
2012	9	823	1.1%	58	1,589	3.7%	67	2,412	2.8%	13.4%
2013	12	690	1.7%	76	1,956	3.9%	88	2,646	3.3%	13.6%
2014	18	1,940	0.9%	56	2,073	2.7%	74	4,013	1.8%	24.3%
2015	19	1,155	1.6%	89	2,449	3.6%	108	3,604	3.0%	17.6%
2016	14	1,861	0.8%	72	3,859	1.9%	86	5,720	1.5%	16.3%
2017	19	1,119	1.7%	79	2,121	3.7%	98	3,240	3.0%	19.4%
2018	25	950	2.6%	132	1,983	6.7%	157	2,933	5.4%	15.9%
2019	30	3,407	0.9%	205	2,901	7.1%	235	6,308	3.7%	12.8%
2020	43	2,350	1.8%	355	2,845	12.5%	398	5,195	7.7%	10.8%
2021	54	2,369	2.3%	492	3,640	13.5%	546	6,009	9.1%	9.9%
Total 2011-2021	245	17,868	1.4%	1,638	27,811	5.9%	1,883	45,679	4.1%	13.0%

3.2.6 Investment: Assessment Value

\$18.5 billion worth of assessed property value in the CTC in 2021

Assessment values have been on the rise in the CTC since 2011 (Table 1). An increase in property assessment values in the CTC may indicate a relationship between the investment in ION and economic growth within the corridor. There have been a number of new high-value and high-quality developments as well as renovations of existing buildings, which is evident in the growth in assessment value from \$10 billion in 2011 to \$18.5 billion in 2021. This is an average annual increase of \$890 million (6.4 per cent) from 2011 to 2021, although annual growth between 2020 and 2021 was well below the average, at just one per cent.

Table 1. Assessment Value and Taxes Generated, 2011-2021, in Millions

Year	CTC						Outside CTC		Region Total	
	Stage 1		Stage 2		Total		Assessment Value	Taxes Generated	Assessment Value	Taxes Generated
	Assessment Value	Taxes Generated	Assessment Value	Taxes Generated	Assessment Value	Taxes Generated				
2011	\$6,901	\$89	\$3,082	\$45	\$9,983	\$134	\$44,331	\$489	\$54,314	\$623
2014	\$8,486	\$95	\$3,559	\$45	\$12,045	\$139	\$53,602	\$548	\$65,646	\$687
2015	\$9,030	\$105	\$3,720	\$51	\$12,750	\$155	\$56,351	\$582	\$69,102	\$737
2016	\$9,805	\$112	\$3,816	\$52	\$13,621	\$164	\$58,969	\$603	\$72,589	\$767
2017	\$10,710	\$122	\$3,991	\$54	\$14,701	\$176	\$61,829	\$627	\$76,530	\$803
2018	\$11,466	\$130	\$3,803	\$51	\$15,269	\$181	\$65,875	\$659	\$81,144	\$841
YOY Growth	+\$957	+\$9	+\$187	+\$2	+\$1,143	+\$11	+\$3,540	+\$27	+\$4,683	+\$38
2019 (Original Stage 2)	\$12,423	\$139	\$3,990	\$53	\$16,413	\$192	\$69,415	\$687	\$85,828	\$879
CTC Stage 2 Realignment	N/A	N/A	+\$606	+\$7	+\$606	+\$7	-\$606	-\$7	\$0	\$0
2019 (Revised Stage 2)	\$12,423	\$139	\$4,595	\$61	\$17,018	\$200	\$68,809	\$679	\$85,828	\$879
2020	\$13,380	\$149	\$4,915	\$64	\$18,295	\$213	\$71,974	\$709	\$90,269	\$922
2021	\$13,552	\$153	\$4,923	\$64	\$18,475	\$217	\$73,213	\$728	\$91,687	\$946
Change 2011-2021	\$6,650	\$64	\$1,842	\$20	\$8,492	\$84	\$28,882	\$239	\$37,374	\$323
Change 2020-2021	\$172	\$4	\$8	\$0	\$180	\$4	\$1,238	\$20	\$1,418	\$24
% Change 2011-2021	96.4%	72.4%	59.8%	43.8%	85.1%	62.8%	65.2%	48.9%	68.8%	51.9%
% Change 2020-2021	1.3%	2.7%	0.2%	0.3%	1.0%	2.0%	1.7%	2.8%	1.6%	2.6%
Average Annual Change	\$699	\$8	\$190	\$2	\$890	\$10	\$2,838	\$25	\$3,727	\$35
Average Annual % Change	7.0%	6.5%	5.0%	4.9%	6.4%	6.0%	4.9%	4.1%	5.2%	4.5%

The above change calculations utilize the original Stage 2 boundary for 2011-2018 and the revised boundary for 2019-2021.

Municipal taxes (regional and area municipal) generated on properties within the CTC were estimated at \$217 million in 2021. These taxes were 62.8 per cent higher than in 2011, resulting in a yearly average rate of change of 6.0 per cent. This rate of increase significantly outpaces the 48.9 per cent increase outside the CTC for this period. Stage 1 saw the highest growth in taxes generated between 2011 and 2021, increasing by 72.4 per cent. Conversely, Stage 2 saw the lowest growth in taxes generated between 2011 and 2021 (43.8 per cent). Taxes generated in the CTC increased by \$4 million in 2021, which is less than half the average annual increase of \$10 million. It is important to note that, due to the COVID-19 pandemic, the Region of Waterloo levied a tax increase that was lower than most years. This is likely a contributing factor in the reduced growth of the taxes generated in 2021.

While assessment value is a good indicator of the change in value of properties, not all changes in assessment result in an increase in taxes generated. Reassessments and the resulting assessment phase-ins are included in the year-to-year assessment change; however, reassessments do not generate additional property taxes. Additionally, several of these new or improved buildings (such as hospitals or municipal buildings) will not generate taxes due to their tax-exempt status. Of the \$18.5 billion total assessment value in the CTC in 2021, \$1.8 billion was on tax-exempt properties. This affects the taxes generated in the CTC as 9.9 per cent of the assessed value comes from tax-exempt properties.

3.2.7 Crime and Safety: Calls for Service

44 per cent of police calls for service related to potential public perception of safety occurred within the CTC in 2021⁴

Almost 49,000 calls for police service occurred within Waterloo Region in 2021 that were identified as being related to public perception of safety (Table 1). Of those calls, 21,570 occurred within the CTC, comprising 44 per cent of the Regional total; this has increased from 41 per cent in 2011. The majority of calls for service that police respond to are not criminal in nature. However, the selected calls for service are tracked in this report as they may affect public perceptions of safety. Examples of calls related to public perception of safety are graffiti, intoxicated person, or break and enter. Appendix D lists the types of police calls that are included in this analysis.

Table 1. Police Calls for Service Related to Potential Public Perception, 2011-2021

Year	CTC		Outside CTC		Region Total
	Number of Calls	% Within CTC	Number of Calls	% Outside CTC	Number of Calls
2011	18,568	41.3%	26,345	58.7%	44,912
2012	19,160	42.2%	26,238	57.8%	45,398
2013	19,002	43.6%	24,581	56.4%	43,583
2014	18,880	43.7%	24,341	56.3%	43,220
2015	20,768	43.7%	26,772	56.3%	47,540
2016	22,504	44.5%	28,025	55.5%	50,528
2017	24,167	46.2%	28,146	53.8%	52,313
2018	26,548	46.8%	30,152	53.2%	56,699
2019	24,457	46.6%	28,074	53.4%	52,531
2020	21,908	43.2%	28,810	56.8%	50,717
2021	21,570	44.2%	27,270	55.8%	48,840
Change 2011-2021	3,003		926		3,928
Change 2020-2021	-338		-1,540		-1,877
% Change 2011-2021	16.2%		3.5%		8.7%
% Change 2020-2021	-1.5%		-5.3%		-3.7%
Average Annual % Change	1.5%		0.7%		0.8%

⁴ Due to the release timing of the occurrence data, there is usually a one-year lag between the data for this indicator and the year of monitoring. For example, the 2021 CTC Monitoring Report would typically utilize 2020 occurrence data. As the report was written later this year, 2021 data were available, so both 2020 and 2021 calls are included.

The number of calls for service made within the CTC has been increasing by an average of 1.5 per cent per year since 2011 – more than double the growth experienced outside the CTC. The growth in calls for service in the CTC may be due to factors such as population growth and increases in citizen engagement and reporting. An increase is to be expected with more activity and people living in the corridor; however, on a per capita basis, there were 17.1 calls per 100 people living in the CTC in 2021, representing a decrease over recent years (Table 2).

Table 2. Police Calls for Service Related to Potential Public Perception per 100 People, 2011-2021

Year	CTC			Outside CTC			Region Total		
	Number of Calls	Calls per 100 people	Population	Number of Calls	Calls per 100 people	Population	Number of Calls	Calls per 100 people	Population
2011	18,568	18.6	99,678	26,345	5.8	451,922	44,912	8.1	551,600
2012	19,160	19.0	101,016	26,238	5.8	455,884	45,398	8.2	556,900
2013	19,002	18.3	103,836	24,581	5.4	459,164	43,583	7.7	563,000
2014	18,880	17.8	106,074	24,341	5.3	462,926	43,220	7.6	569,000
2015	20,768	19.2	108,032	26,772	5.7	466,668	47,540	8.3	574,700
2016	22,504	20.1	111,844	28,025	5.9	474,056	50,528	8.6	585,900
2017	24,167	20.8	116,056	28,146	5.8	484,644	52,313	8.7	600,700
2018	26,548	22.4	118,546	30,152	6.1	491,354	56,699	9.3	609,900
2019	24,457	20.1	121,898	28,074	5.7	495,902	52,531	8.5	617,800
2020	21,908	18.9	115,804	28,810	5.8	496,166	50,717	8.3	611,970
2021	21,570	17.1	125,985	27,270	5.4	506,245	48,840	7.7	632,230
Change 2011-2021	3,003	-1.5	26,307	926	-0.4	54,323	3,928	-0.4	80,630
Change 2020-2021	-338	-1.8	10,181	-1,540	-0.4	10,079	-1,877	-0.6	20,260
% Change 2011-2021	16.2%	-8.1%	26.4%	3.5%	-7.6%	12.0%	8.7%	-5.1%	14.6%
% Change 2020-2021	-1.5%	-9.5%	8.8%	-5.3%	-7.2%	2.0%	-3.7%	-6.8%	3.3%
Average Annual % Change	1.5%	-0.8%	2.4%	0.3%	-0.8%	1.1%	0.8%	-0.5%	1.4%

For 2021, calls for service data were further examined by occurrence type. An occurrence type is the recorded incident for each call. The number of calls of each type has been identified for each reported year (2011-2021) to identify trends. One call type that has seen an upward trend is unwanted person calls. In Stage 1, there were 1,345 calls in 2011 and 2,900 in 2021 (a 116 per cent increase or 12 per cent per year on average). In Stage 2, there were 463 calls in 2011 and 1,509 in 2021 (a 226 per cent increase or 27 per cent per year on average). Unwanted person calls increased outside the CTC as well, with 1,848 calls in 2011 to 2,956

calls in 2021 (a 60 per cent increase or 6 per cent per year on average). On top of this, there were also significant increases in mentally ill and suspicious person's calls.

Although the long-term trend shows increases in unwanted person calls across all geographies, this call type actually saw a 15 per cent decrease in the CTC, and a 20 per cent decrease outside the CTC between 2020 and 2021. Calls for unwanted persons were one of the call types that saw the biggest year over decrease, along with drugs, intoxicated person, and theft under 5000.

One call type that has seen a downward trend is intoxicated person calls. In Stage 1, there were 939 calls in 2011 and 189 calls in 2021 (an 80 per cent decrease or 8 per cent per year on average). In Stage 2, there were 223 calls in 2011 and 60 calls in 2021 (a 73 per cent decrease or 7 per cent per year on average). Intoxicated person calls also decreased outside the CTC as well, with 900 calls in 2011 to 246 calls in 2021 (a 73 per cent decrease or 7 per cent per year on average). Further, this call type saw an 11 per cent decrease in the CTC and a 24 percent decrease outside the CTC between 2020 and 2021.

3.2.8 Inclusive Community: Affordability of Home Ownership Transactions

16 per cent of resale housing transactions were affordable to low- and moderate-income households within the CTC in 2021

In 2021, there were 1,595 residential resale transactions within the CTC, with 16 per cent (257 transactions) at a price below the affordability cut-off⁵ while 84 per cent (1,338 transactions) exceeded the cut-off of \$385,500 (Table 1). The number of transactions below the threshold had remained relatively stable in the CTC from 2011 to 2016; however, by 2017, upward pressure in the housing market decreased the number of affordable transactions both inside the corridor and across the Region. The 2021 analysis shows a decrease in affordability both within and outside the CTC compared to 2020.

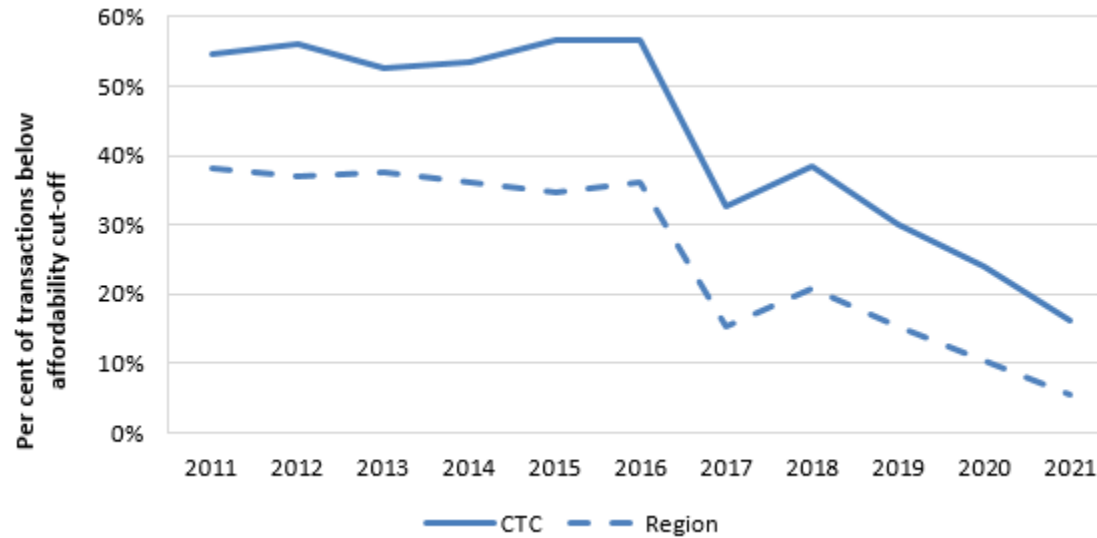
Table 1. Residential Units under the Affordability Cut-off (Resale Transactions over \$10,000), 2011-2021

Year	Affordability Cut-off	Number of Affordable Transactions				Number of Transactions				% of Transactions Below Cut-off			
		Stage 1	Stage 2	CTC Total	Region Total	Stage 1	Stage 2	CTC Total	Region Total	Stage 1	Stage 2	CTC	Region
2011	\$261,565	202	156	358	2,364	373	282	655	6,209	54.2%	55.3%	54.7%	38.1%
2012	\$268,715	240	139	379	2,322	442	233	675	6,296	54.3%	59.7%	56.1%	36.9%
2013	\$280,159	195	141	336	2,416	384	256	640	6,421	50.8%	55.1%	52.5%	37.6%
2014	\$288,899	202	154	356	2,289	397	268	665	6,354	50.9%	57.5%	53.5%	36.0%
2015	\$299,574	216	176	392	2,384	409	284	693	6,883	52.8%	62.0%	56.6%	34.6%
2016	\$336,517	247	205	452	2,727	481	319	800	7,532	51.4%	64.3%	56.5%	36.2%
2017	\$349,500	128	131	259	1,218	478	318	796	7,890	26.8%	41.2%	32.5%	15.4%
2018	\$350,200	228	161	389	1,525	615	397	1,012	7,379	37.1%	40.6%	38.4%	20.7%
YOY Growth	--	-24	-68	-92	-339	+31	-48	-17	+412	--	--	--	--
2019 (Original Stage 2)	\$357,200	204	93	297	1,186	646	349	995	7,791	31.6%	26.6%	29.8%	15.2%
CTC Stage 2 Realignment	--	N/A	+16	+16	0	N/A	+46	+46	0	N/A	--	--	--
2019 (Revised Stage 2)	\$357,200	204	109	313	1,186	646	395	1,041	7,791	31.6%	27.6%	30.1%	15.2%
2020	\$368,000	188	85	273	844	675	466	1,141	8,196	27.9%	18.2%	23.9%	10.3%
2021	\$385,500	210	47	257	552	984	611	1,595	10,020	21.3%	7.7%	16.1%	5.5%

Although transactions have become increasingly unaffordable over the past five years, the data show that, in general, housing is still more affordable in the CTC compared to the Region as a whole (Figure 1). In 2021, 16 per cent of transactions within the CTC were deemed affordable for low- to moderate-income earners, and only six per cent of transactions were affordable across the Region.

⁵ The affordability cut-off is defined as housing for which the purchase price results in annual accommodation costs that do not exceed 30 per cent of gross annual household income for low- and moderate-income households.

Figure 1. Affordable Home Ownership Transactions for Low- to Moderate-Income Earners, 2011-2021



The relative stability of the number of affordable transactions in the CTC until 2016 suggests that low- and moderate-income households had been able to obtain affordable home ownership within the CTC. However, the increase in the number of transactions in the CTC that are ‘unaffordable’ – especially between 2016 and 2021 – shows that it has become increasingly difficult for low- to moderate-income households to secure affordable housing; and for some households the reality is that either they must spend, or they choose to spend, more than 30 per cent of their income on housing.

There were more transactions in 2021 in Stage 1 (984) than in Stage 2 (611), which is not surprising given the greater supply of units within stage 1 compared to Stage 2. There was also a greater percentage of affordable transactions in Stage 1 (21 per cent) than in Stage 2 (eight per cent). This is a reversal from 2011-2018, when a greater percentage of affordable transactions occurred in Stage 2.

In 2021, the median residential transaction value⁶ of \$542,500 within Stage 1 was over the affordability cut-off by \$157,000 (Table 2). In Stage 2, the median transaction value of \$622,000 was \$236,500 more than the affordability cut-off. A median transaction value of \$735,000 was found outside the CTC, which is \$349,500 higher than the affordability cut-off.

The median value of housing transactions is influenced by the mix of housing types sold. A housing mix that includes a greater proportion of large single detached houses will have a higher median value than a mix with more apartment units. Of the 2,012 condominium units sold in the Region in 2021, 32 per cent

⁶ The median is the value at which half of the transactions were higher and half were at a lower value.

(650 units) were located in the CTC, and of the singles sold in the Region, only 12 per cent were in the CTC. This housing mix explains, in part, the greater affordability in the CTC compared to the Region as a whole. However, when looking at single detached homes specifically, of all singles sold within the CTC, two per cent were considered affordable. This is compared to one per cent of singles being considered affordable across the Region as a whole. This tells us that the CTC remains slightly more affordable when compared with the Region as a whole.

Table 2. Median Resale Transaction Values, 2011-2021

Year	CTC			Outside CTC	Region Total
	Stage 1	Stage 2	CTC		
2011	\$257,300	\$235,500	\$248,000	\$288,500	\$284,000
2012	\$263,500	\$245,000	\$256,000	\$299,900	\$294,950
2013	\$280,500	\$257,750	\$274,625	\$205,000	\$304,900
2014	\$290,000	\$267,500	\$283,000	\$322,500	\$318,250
2015	\$299,000	\$275,000	\$288,000	\$335,625	\$330,000
2016	\$331,200	\$300,000	\$322,950	\$375,000	\$370,000
2017	\$400,000	\$363,750	\$385,000	\$460,000	\$450,300
2018	\$385,000	\$370,000	\$378,750	\$459,900	\$449,900
YOY Growth	+\$30,000	+\$48,000	+\$36,250	+\$35,100	+\$35,100
2019 (Original Stage 2)	\$415,000	\$418,000	\$415,000	\$495,000	\$485,000
CTC Stage 2 Realignment	N/A	+\$2,000	\$0	+\$1,000	\$0
2019 (Revised Stage 2)	\$415,000	\$420,000	\$415,000	\$496,000	\$485,000
2020	\$475,000	\$480,000	\$477,500	\$580,000	\$566,000
2021	\$542,500	\$622,000	\$585,000	\$735,000	\$715,000

3.2.9 Inclusive Community: Supply of Community Housing

2,766 Community housing units were located within the CTC in 2021

In 2021, there were 2,766 Community Housing units located within the CTC (Table 1) – an addition of eight units over 2020. The Region saw 37 new Community Housing units in the same period. From the LRT announcement in 2011 to the end of 2021, there has been a net gain of 223 Community Housing units in Waterloo Region, of which 79 (35 per cent) have been in the CTC. The proportion of Community Housing units located within the CTC remains at 30 per cent.

Table 1. Number of Community Housing Units, 2011-2021

Year	CTC		Outside CTC		Region Total
	Number of Units	% Within CTC	Number of Units	% Outside CTC	Number of Units
2011	2,687	30.0%	6,258	70.0%	8,945
2012	2,610	29.4%	6,260	70.6%	8,870
2013	2,631	29.6%	6,265	70.4%	8,896
2014	2,631	29.4%	6,305	70.6%	8,936
2015	2,633	29.5%	6,305	70.5%	8,938
2016	2,645	29.7%	6,259	70.3%	8,904
2017	2,645	29.5%	6,306	70.5%	8,951
2018	2,701	29.8%	6,371	70.2%	9,072
YOY Growth	0		+7		+7
2019 (Original Stage 2)	2,701	29.7%	6,378	70.3%	9,079
CTC Stage 2 Realignment	+57		-57		0
2019 (Revised Stage 2)	2,758	30.4%	6,321	69.6%	9,079
2020	2,758	30.2%	6,373	69.8%	9,131
2021	2,766	30.2%	6,402	69.8%	9,168
Change 2011-2021	79		144		223
Change 2020-2021	8		29		37
% Change 2011-2021	2.9%		2.3%		2.5%
% Change 2020-2021	0.3%		0.5%		0.4%
Average Annual % Change	0.3%		0.2%		0.2%

The above change calculations utilize the original Stage 2 boundary for 2011-2018 and the revised boundary for 2019-2021.

Community Housing, defined as housing in which rents are supported by government funding, became the responsibility of the Region in 2001 when the province transferred to municipalities a number of funding responsibilities, including social housing. The inherited properties of that time, many of which still

exist today, pre-date the LRT. Since the ION's approval in 2011, Region-issued requests for proposals for new Community Housing projects have placed a greater weight on projects with proposed locations in the CTC or along major transit routes, thereby recognizing the value of having affordable units in proximity to public transportation.

The supply of Community Housing can increase as private and non-profit developers build new units. The Community Housing stock can decrease as non-profit housing providers with federal housing agreements reach the end of their contracts. Once they reach the end of their agreement, they are no longer obligated to provide their housing at affordable rents, although most continue to do so as providing affordable housing is part of their non-profit mandate. Some housing providers choose to sell their properties at this time if they are no longer interested or able to provide affordable housing.

3.2.10 Inclusive Community: Location of Households Receiving Rent Assistance

52 per cent of households receiving rent assistance found housing in the CTC in 2021

In 2021, the percentage of households receiving rent assistance who were living within the CTC decreased to 52 per cent from 60 per cent in 2020 (Table 1). This considerable decline is due to the addition of 17 households outside of the CTC since 2020. Of the 60 households receiving Portable Rental Assistance (PRA)⁷ and living within the CTC, 40 reside within Stage 1, while the other 20 households live in Stage 2 (Table 2).

The Region provides flexible rent assistance for up to 124 households through the PRA program. The focus for this rent assistance program is to house those who are, or are at risk of becoming, chronically homeless. Participants, with the help of their support workers, are required to find housing in the private rental market for which they will receive a monthly allowance. Rental units are only eligible if they are below a certain threshold. With costs for rental housing continuing to increase across the Region in 2021, tracking this indicator as participants change is important in order to see if program participants continue to be able to find rental units within the CTC. Although this is currently a small sample of just 115 households, it represents the most vulnerable households when it comes to housing stability.

Table 1. Location of PRA Households, 2015-2021

Year	CTC			Outside CTC	Region Total
	Stage 1	Stage 2	Total		
2015	44.0%	6.0%	50.0%	50.0%	100.0%
2016	54.0%	6.0%	60.0%	40.0%	100.0%
2017	40.0%	16.0%	56.0%	44.0%	100.0%
2018	38.5%	18.8%	57.3%	42.7%	100.0%
2019 *	39.1%	17.2%	56.3%	43.7%	100.0%
2020	38.5%	21.9%	60.4%	39.6%	100.0%
2021	34.8%	17.4%	52.2%	47.8%	100.0%

** 2019 results for this indicator were not affected by the CTC Stage 2 realignment.*

Table 2. Number of PRA Households, 2021

Year	CTC			Outside CTC	Region Total
	Stage 1	Stage 2	Total		
2021	40	20	60	55	115

⁷ In approximately 2018, the Housing Assistance with Supports (HAWS) program was renamed to Portable Rental Assistance (PRA); this change was not implemented in the CTC Monitoring Report until the current (2021) report.

4 Updates to Indicators

4.1 CTC Stage 2 Realignment

Beginning with the 2019 monitoring report (published in 2020), the CTC boundary was adjusted to reflect the newly approved alignment of ION Stage 2, and to incorporate work on delineating the Major Transit Station Areas (MTSAs).

To calculate indicators using the revised CTC Stage 2 boundary, the following methodology was adopted:

- Three indicators (Population, Building Activity, and Calls for Service) were recalculated from 2011 to 2019 using the new CTC geography. Rebasings these indicators to 2011 provides a consistent series with which we can show total change back to the baseline year, as if the new boundary had always been in place, allowing seamless calculations of growth.
- For most indicators, change was measured using the original CTC boundary for 2011 to 2018 and both the original and revised CTC Stage 2 boundaries for 2019. This approach was used for indicators for which raw data were not available for all previous years. Therefore, change from the baseline of 2011 to 2019 includes both temporal and geographic change. Since it is important to ensure transparency between ‘real’ change versus change that is a result of the boundary change, each of those two components has been separated out for each indicator, and described both in the text and data tables.

Appendix B shows all indicators measured for 2011 to 2018 with the original CTC geography, and the values for 2019 with both the original CTC boundary as well as the revised boundary. Some indicators (e.g., heritage) did not change regardless of which Stage 2 boundary is used. Results for years beyond 2019 will be shown for the revised boundary only.

4.2 Adjustments and Corrections in Data and Definitions

Over time, various refinements are made to data and calculations to incorporate corrections as detected. Aside from such refinements, none of the indicators in this year’s report have had significant adjustments to methodology or definitions.

5 Data Sources

The data presented in this report is the best available at the time of publication. Data is typically acquired from external agencies, and occasionally changes over time. All such changes to indicators over the course of the monitoring program are fully documented.

Indicator: Transit Ridership

Scale: Regional

Measurement Interval: Annual

Data Source: GRT ridership indicator is calculated based on daily data obtained from the electronic fare boxes on buses, as well as the sales of various passes, and published on GRT's website at: <http://www.grt.ca/en/about-grt/performance-measures.aspx>.

Indicator: Daily Transit Activity

Scale: CTC

Measurement Interval: Annual

Data Source: The data for the ridership information comes from MOBILEstatistics, which allows Automatic Passenger Counter (APC) data queries to be made and downloaded by GRT.

Indicator: Walkability

Scale: CTC

Measurement Interval: Annual

Data Source: The five walkability categories were determined from the NEWPATH study that was performed in 2009, which assessed the walkability of Kitchener, Waterloo and Cambridge.

Indicator: Land Use Mix

Scale: CTC

Measurement Interval: Annual

Data Source: The Municipal Property Assessment Corporation (MPAC) provides data on each land parcel within the Region, including land use information.

Indicator: Population

Scale: CTC

Measurement Interval: Annual

Data Source: The total resident population of Waterloo Region is estimated annually, based on Census of Canada results, building activity, vacancy rates, and long-term changes in the average number persons per units for various dwelling types. The year-end estimates include usual residents in both private and

collective dwellings, temporary postsecondary students not counted by the Census, other foreign and temporary residents, as well as an adjustment for the net undercount of the population.

Indicator: Heritage Resource Retention

Scale: CTC

Measurement Interval: Annual

Data Source: An inventory of formally recognized (listed and/or designated) and pre-1920 built heritage resources is compared to demolition permits acquired from Area Municipalities.

Indicator: Building Activity

Scale: CTC

Measurement Interval: Annual

Data Source: Figures on building activity in both the residential and non-residential sectors are compiled annually by Regional staff, based on building permit data supplied by the Area Municipalities.

Indicator: Assessment Value

Scale: CTC

Measurement Interval: 2011, 2014 to 2021

Data Source: The most updated parcels for the fourth quarter of 2021 were sourced from MPAC (Municipal Property Assessment Corporation) under license, and used to determine the total assessment of parcels within the CTC.

Indicator: Calls for Service

Scale: CTC

Measurement Interval: Annual

Data Source: The annual Waterloo Regional Police Service (WRPS) occurrence data is obtained through open source data from the WRPS website.

Indicator: Affordability of Home Ownership Transactions

Scale: CTC

Measurement Interval: Annual

Data Sources: Average re-sale residential prices are obtained through the MLS® System provided by the Waterloo Region Association of REALTORS®. Transaction data is obtained under license from Teranet.

Indicator: Supply of Community Housing

Scale: CTC

Measurement Interval: Annual

Data Source: Region of Waterloo Community Housing

Indicator: Location of Households Receiving Rent Assistance

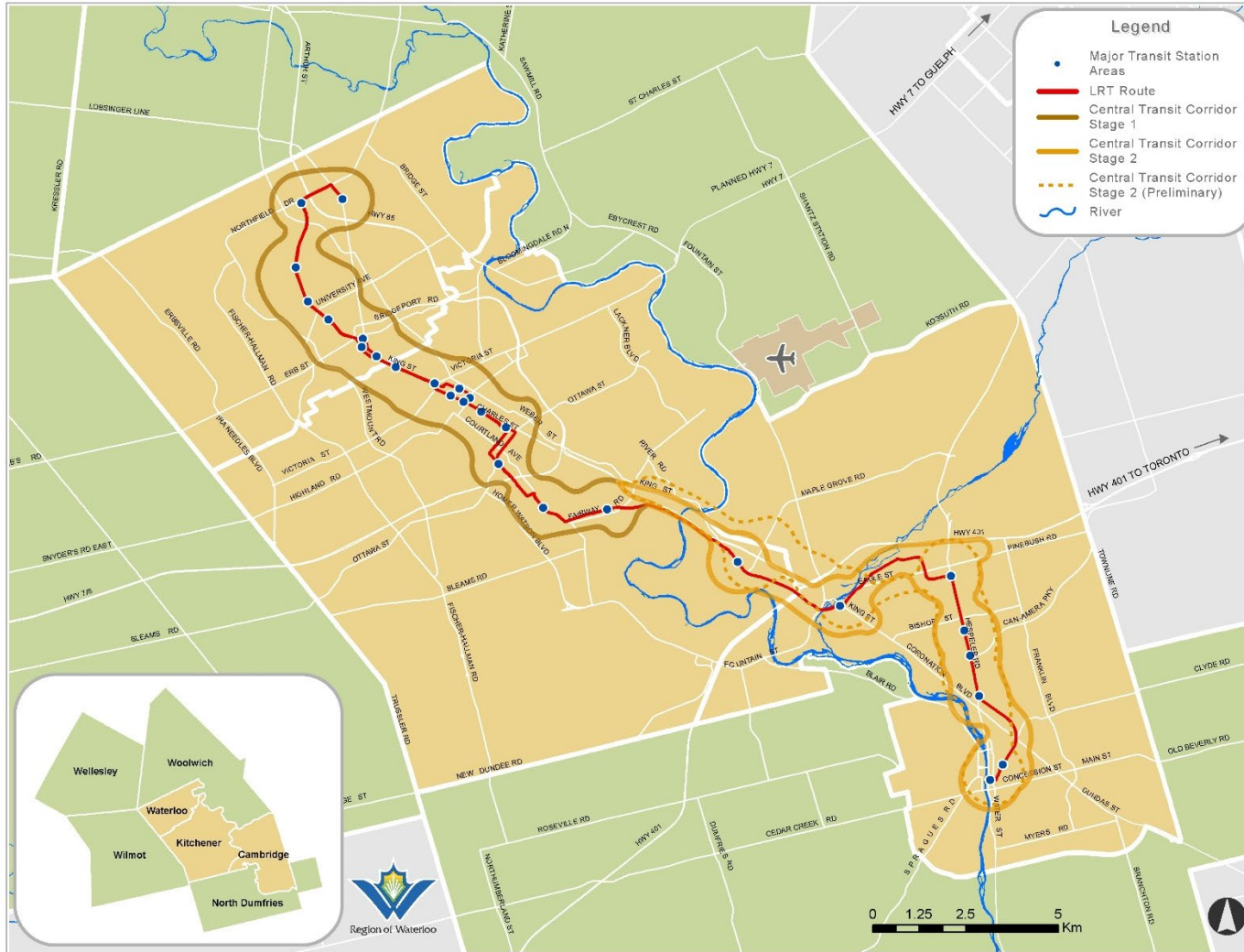
Scale: CTC

Measurement Interval: Annual since 2015

Data Source: Region of Waterloo Community Housing

For a more comprehensive explanation of the use of data and methodology for each indicator, please read the Baseline Monitoring report.

Appendix A: Map of CTC Stage 2 Alignment⁸



⁸ Prior to 2019, CTC monitoring utilized the preliminary CTC Stage 2 route. Beginning with the 2020 reporting year (2019 monitoring report), the CTC boundary was changed to reflect the preferred Stage 2 alignment that was endorsed by Council in June 2019.

Appendix B: Annual Indicators for the CTC Monitoring Program, with Results for Original and Revised Stage 2 Boundaries⁹

Dimension	Indicator	Metric	2011	2015	2016	2017	2018	2019		2020	2021
								Original Stage 2	Revised Stage 2		
Mobility	Transit Ridership	Number of trips made using Grand River Transit (millions)	19.7	20.3	19.7	19.7	21.1	22.0	22.0	11.4	9.7
	Daily Transit Activity	Per cent of daily average transit activity in the CTC	67%	63%	62%	60%	60%	59%	59%	63%	58%
Sustainable Modes of Transportation	Transit Mode Share	Per cent of mode of travel share on transit across the CTC	-	5%	-	-	-	-	-	-	-
	Active Transportation	Per cent of mode of travel share which was pedestrian and cyclist in the CTC	5%	-	9%	-	-	-	-	-	-
	Walkability	Per cent of population living in 'high' or 'very high' walkable areas in the CTC	55%	56%	57%	57%	57%	58%	57%	57%	58%
Vibrant Communities	Land Use Mix	Per cent of all regional land uses found in the CTC	69%	69%	70%	70%	70%	69%	70%	69%	70%
	Population	Per cent of the Region's residents who live in the CTC	18%	18%	18%	19%	19%	19%	20%	19%	20%
Arts and Culture	Cultural Vibrancy	Number of arts and culture establishments in the CTC	241	-	318	-	336	-	-	-	-
	Restaurants	Per cent of the Region's restaurants in the CTC	50%	52%	52%	53%	53%	53%	54%	-	51%
Heritage	Heritage Resource Retention	Number of demolition permits on pre-1920 and designated built heritage resources in the CTC	13	12	17	16	7	21	21	11	25
Investment	Building Activity	Dollar value of building permits in the CTC for new construction (millions, adjusted to 2011)	\$491	\$259	\$308	\$222	\$213	\$697	\$682	\$619	\$416
	Assessment Value	Assessed value of properties in the CTC (billions)	\$10.0	\$12.8	\$13.6	\$14.7	\$15.3	\$16.4	\$17.0	\$18.3	\$18.5
Environment	Emissions	Tonnes of net air emissions per capita in Cambridge, Kitchener and Waterloo	2.52	-	-	2.66	-	-	-	-	-

⁹ Results for 2012 to 2014 have been removed from this table to improve legibility; to view results for these years, refer to the 2020 Monitoring Report (DOCS # 3868173, or https://www.regionofwaterloo.ca/en/regional-government/resources/LandUse_BuildingActivity/3978310-PDL-CPL-22-07_Appendix_A_2021_Building_Permit_Activity_and_Growth_Monitoring.ACCESS.pdf).

Dimension	Indicator	Metric	2011	2015	2016	2017	2018	2019		2020	2021
								Original Stage 2	Revised Stage 2		
Crime and Safety Crime and Safety	Perception of Safety	Per cent of people in the Tri-Cities who perceive that their downtowns are safe at night	65%	-	-	62%	58%	-	-	-	-
	Calls for Service	Per cent of police calls for service related to potential public perception in the CTC	2011	2015	2016	2017	2018		2019	2020	2021
							Original Stage 2	Revised Stage 2			
			40%	43%	44%	45%	46%	47%	47%	43%	44%
Dimension	Indicator	Metric	2011	2015	2016	2017	2018	2019		2020	2021
								Original Stage 2	Revised Stage 2		
Inclusive Community	Affordability of Home Ownership Transactions	Per cent of housing transactions which were affordable to low and moderate income households in the CTC	55%	57%	57%	33%	38%	30%	30%	24%	16%
	Supply of Community Housing	Number of community housing units in the CTC	2,687	2,633	2,645	2,645	2,701	2,701	2,758	2,758	2,766
	Location of Households Receiving Rent Assistance	Per cent of households receiving Portable Rental Assistance (PRA) that reside in the CTC	-	50%	60%	56%	57%	56%	56%	60%	52%

Appendix C: Building Activity

Residential Building Activity in the CTC, 2011-2021

Year	Single Detached			Semi Detached			Townhouses			Apartments			Total Residential		
	Units	Value	Value (Adj) *	Units	Value	Value (Adj) *	Units	Value	Value (Adj) *	Units	Value	Value (Adj) *	Units	Value	Value (Adj) *
2011	13	\$4,167,241	\$4,167,241	1	\$23,000	\$23,000	44	\$6,192,614	\$6,192,614	1,146	\$198,675,843	\$198,675,843	1,204	\$209,058,698	\$209,058,698
2012	13	\$3,755,184	\$3,699,643	7	\$900,000	\$886,689	179	\$27,243,704	\$26,840,757	624	\$97,507,250	\$96,065,072	823	\$129,406,138	\$127,492,161
2013	12	\$3,743,962	\$3,655,546	6	\$1,337,000	\$1,305,426	48	\$8,015,900	\$7,826,599	624	\$130,206,450	\$127,131,542	690	\$143,303,312	\$139,919,113
2014	11	\$3,807,000	\$3,645,841	6	\$1,389,000	\$1,330,200	92	\$15,353,000	\$14,703,073	1,831	\$331,034,537	\$317,021,094	1,940	\$351,583,537	\$336,700,208
2015	7	\$2,066,332	\$1,956,976	2	\$500,000	\$473,539	50	\$6,121,112	\$5,797,167	1,096	\$114,144,187	\$108,103,381	1,155	\$122,831,631	\$116,331,063
2016	8	\$2,389,122	\$2,230,964	5	\$1,222,000	\$1,141,104	55	\$5,719,000	\$5,340,406	1,793	\$260,239,837	\$243,012,122	1,861	\$269,569,959	\$251,724,596
2017	14	\$5,096,894	\$4,686,485	3	\$1,055,600	\$970,602	26	\$3,166,000	\$2,911,069	1,076	\$91,965,580	\$84,560,376	1,119	\$101,284,074	\$93,128,531
2018	18	\$6,960,910	\$6,256,470	16	\$4,981,460	\$4,477,339	69	\$9,523,800	\$8,559,997	847	\$146,199,461	\$131,404,163	950	\$167,665,631	\$150,697,970
2019	11	\$4,367,500	\$3,850,465	13	\$4,432,500	\$3,907,770	109	\$25,916,880	\$22,848,779	3,274	\$631,360,128	\$556,618,230	3,407	\$666,077,008	\$587,225,245
2020	6	\$2,511,640	\$2,198,143	72	\$13,038,320	\$11,410,909	20	\$6,100,000	\$5,338,613	2,252	\$476,506,100	\$417,029,791	2,350	\$498,156,060	\$435,977,457
2021	14	\$7,323,000	\$6,200,761	10	\$3,789,000	\$3,208,341	532	\$104,378,979	\$88,383,048	1,813	\$295,224,301	\$249,981,594	2,369	\$410,715,280	\$347,773,743
Total	127	\$46,188,785	\$42,548,535	141	\$32,667,880	\$29,134,919	1,224	\$217,730,989	\$194,742,122	16,376	\$2,773,063,674	\$2,529,603,209	17,868	\$3,069,651,328	\$2,796,028,785

* Value adjusted to 2011 dollars

Residential Building Activity in the Region, 2011-2021

Year	Single Detached			Semi Detached			Townhouses			Apartments			Total Residential		
	Units	Value	Value (Adj) *	Units	Value	Value (Adj) *	Units	Value	Value (Adj) *	Units	Value	Value (Adj) *	Units	Value	Value (Adj) *
2011	1,334	\$381,768,896	\$381,768,896	72	\$10,406,129	\$10,406,129	306	\$43,663,458	\$43,663,458	1,887	\$297,517,043	\$297,517,043	3,599	\$733,355,526	\$733,355,526
2012	928	\$286,286,276	\$282,051,968	54	\$10,495,676	\$10,340,440	476	\$76,178,275	\$75,051,563	954	\$139,919,388	\$137,849,915	2,412	\$512,879,615	\$505,293,885
2013	846	\$265,001,286	\$258,743,112	38	\$8,436,800	\$8,237,560	524	\$83,890,009	\$81,908,893	1,238	\$195,435,150	\$190,819,825	2,646	\$552,763,245	\$539,709,390
2014	947	\$312,650,761	\$299,415,545	70	\$12,608,400	\$12,074,658	675	\$109,685,956	\$105,042,701	2,321	\$401,061,410	\$384,083,571	4,013	\$836,006,527	\$800,616,474
2015	1,092	\$384,057,878	\$363,732,540	48	\$9,874,000	\$9,351,442	688	\$119,321,866	\$113,007,044	1,776	\$207,333,858	\$196,361,213	3,604	\$720,587,602	\$682,452,239
2016	1,698	\$594,904,341	\$555,522,044	106	\$21,934,024	\$20,482,005	955	\$151,617,150	\$141,580,189	2,961	\$446,160,788	\$416,625,222	5,720	\$1,214,616,303	\$1,134,209,461
2017	1,008	\$391,136,208	\$359,641,345	50	\$14,579,585	\$13,405,615	654	\$118,036,545	\$108,532,069	1,528	\$155,686,382	\$143,150,285	3,240	\$679,438,720	\$624,729,314
2018	918	\$335,152,912	\$301,235,638	66	\$17,696,060	\$15,905,229	572	\$100,470,952	\$90,303,352	1,377	\$269,339,960	\$242,082,918	2,933	\$722,659,884	\$649,527,137
2019	806	\$300,094,425	\$264,568,541	113	\$33,338,600	\$29,391,898	1,266	\$247,342,882	\$218,061,850	4,123	\$750,510,870	\$661,663,627	6,308	\$1,331,286,777	\$1,173,685,916
2020	970	\$411,550,656	\$360,181,924	186	\$50,764,096	\$44,427,848	729	\$154,173,052	\$134,929,554	3,310	\$685,279,865	\$599,744,933	5,195	\$1,301,767,669	\$1,139,284,259
2021	1,101	\$525,586,381	\$445,041,010	66	\$23,788,524	\$20,142,966	1,432	\$289,817,732	\$245,403,574	3,410	\$534,798,023	\$452,840,981	6,009	\$1,373,990,660	\$1,163,428,532
Total	11,648	\$4,188,190,020	\$3,871,902,564	869	\$213,921,894	\$194,165,791	8,277	\$1,494,197,877	\$1,357,484,246	24,885	\$4,083,042,737	\$3,722,739,533	45,679	\$9,979,352,528	\$9,146,292,133

* Value adjusted to 2011 dollars

Non-Residential Building Activity in the CTC, 2011-2021

Year	Industrial			Commercial			Institutional			Total Non-Residential		
	Sq. ft	Value	Value (Adj) *	Sq. ft	Value	Value (Adj) *	Sq. ft	Value	Value (Adj) *	Sq. ft	Value	Value (Adj) *
2011	3,600	\$8,500,000	\$8,500,000	311,980	\$44,212,500	\$44,212,500	122,095	\$227,234,856	\$227,234,856	437,675	\$279,947,356	\$279,947,356
2012	20,909	\$2,470,000	\$2,433,468	392,408	\$46,128,551	\$45,446,288	269,053	\$88,689,000	\$87,377,248	682,370	\$137,287,551	\$135,257,004
2013	28,757	\$3,755,000	\$3,666,323	77,723	\$21,991,500	\$21,472,157	236,186	\$64,339,248	\$62,819,836	342,666	\$90,085,748	\$87,958,316
2014	8,818	\$15,100,194	\$14,460,969	173,994	\$41,622,514	\$39,860,539	317,777	\$180,100,389	\$172,476,331	500,589	\$236,823,097	\$226,797,838
2015	115,696	\$8,769,316	\$8,305,221	528,584	\$83,980,713	\$79,536,236	155,164	\$56,060,000	\$53,093,160	799,444	\$148,810,029	\$140,934,617
2016	3,335	\$7,500,000	\$7,003,505	138,152	\$42,742,475	\$39,912,950	16,824	\$5,142,000	\$4,801,603	158,311	\$55,384,475	\$51,718,057
2017	8,534	\$11,772,000	\$10,824,101	292,260	\$57,911,920	\$53,248,767	228,047	\$62,322,869	\$57,304,540	528,841	\$132,006,789	\$121,377,408
2018	9,616	\$5,695,200	\$5,118,849	273,358	\$58,042,244	\$52,168,404	6,519	\$2,885,000	\$2,593,040	289,493	\$66,622,444	\$59,880,293
2019	2,045	\$300,000	\$264,485	576,674	\$101,348,153	\$89,350,320	17,684	\$6,319,920	\$5,571,753	596,403	\$107,968,073	\$95,186,558
2020	11,562	\$1,500,000	\$1,312,774	447,253	\$176,458,000	\$154,432,950	61,505	\$31,650,000	\$27,699,526	520,320	\$209,608,000	\$183,445,250
2021	1,640	\$395,000	\$334,467	398,526	\$38,336,769	\$32,461,713	5,833	\$41,376,400	\$35,035,525	405,999	\$80,108,169	\$67,831,705
Total	214,512	\$65,756,710	\$62,224,161	3,610,912	\$712,775,339	\$652,102,824	1,436,687	\$766,119,682	\$736,007,417	5,262,111	\$1,544,651,731	\$1,450,334,402

* Value adjusted to 2011 dollars

Non-Residential Building Activity in the Region, 2011-2021

Year	Industrial			Commercial			Institutional			Total Non-Residential		
	Sq. ft	Value	Value (Adj) *	Sq. ft	Value	Value (Adj) *	Sq. ft	Value	Value (Adj) *	Sq. ft	Value	Value (Adj) *
2011	435,198	\$82,589,285	\$82,589,285	689,686	\$102,518,894	\$102,518,894	552,995	\$380,991,856	\$380,991,856	1,677,879	\$566,100,035	\$566,100,035
2012	328,556	\$43,003,250	\$42,367,212	856,445	\$112,437,349	\$110,774,348	725,845	\$192,080,261	\$189,239,304	1,910,846	\$347,520,860	\$342,380,864
2013	394,662	\$38,736,185	\$37,821,405	383,040	\$64,357,595	\$62,837,750	534,528	\$116,637,748	\$113,883,273	1,312,230	\$219,731,528	\$214,542,428
2014	1,015,515	\$91,691,662	\$87,810,146	679,103	\$110,988,989	\$106,290,573	489,450	\$246,487,230	\$236,052,866	2,184,068	\$449,167,881	\$430,153,586
2015	534,583	\$49,417,835	\$46,802,515	778,228	\$116,866,961	\$110,682,059	467,636	\$149,125,300	\$141,233,203	1,780,447	\$315,410,096	\$298,717,777
2016	766,816	\$88,934,500	\$83,047,092	756,374	\$96,245,966	\$89,874,543	325,449	\$63,220,740	\$59,035,566	1,848,639	\$248,401,206	\$231,957,201
2017	978,749	\$134,395,252	\$123,573,548	655,287	\$98,793,920	\$90,838,888	573,082	\$128,147,869	\$117,829,214	2,207,118	\$361,337,041	\$332,241,650
2018	1,085,229	\$147,003,760	\$132,127,068	676,026	\$112,862,881	\$101,441,225	216,646	\$51,420,000	\$46,216,327	1,977,901	\$311,286,641	\$279,784,620
2019	1,169,419	\$177,969,614	\$156,901,152	957,919	\$162,957,480	\$143,666,190	155,869	\$69,316,920	\$61,111,020	2,283,207	\$410,244,014	\$361,678,362
2020	298,984	\$41,913,307	\$36,681,792	524,452	\$194,551,133	\$170,267,743	310,471	\$92,851,000	\$81,261,569	1,133,907	\$329,315,440	\$288,211,104
2021	916,500	\$140,228,348	\$118,738,552	649,597	\$104,579,560	\$88,552,890	71,354	\$58,382,200	\$49,435,210	1,637,451	\$303,190,108	\$256,726,652
Total	7,924,211	\$1,035,882,998	\$948,459,767	7,606,157	\$1,277,160,728	\$1,177,745,103	4,423,325	\$1,548,661,124	\$1,476,289,409	19,953,693	\$3,861,704,850	\$3,602,494,279

* Value adjusted to 2011 dollars

Appendix D: WRPS Call Type Codes

A list of the WRPS call type codes used to count the total number of police calls for service in the CTC. This table is a subset consisting of the most relevant police calls for service. The call types were chosen to reflect the type of police activity that may affect a person’s perception of safety within their downtown area. The selected call types are grouped under three categories: Public Order Maintenance, Police Reported Violent Occurrences Against a Person, and Police Reported Non-Violent Occurrences. A sum of the selected call types within each category was taken to arrive at the total percentage of police calls for service that occurred within the CTC.

Public Order Maintenance		Police Reported Violent Occurrences Against a Person		Police Reported Non-Violent Occurrences	
9190	Prostitution	9000	Bomb Threat	9110	Break and Enter
9200	Gaming and Betting	9010	Homicide	9120	Theft over \$5000
9210	Drugs	9040	Sex Offence	9130	Motor Vehicle Theft
9290	Unwanted Contact	9050	Indecent Act	9180	Property Damage
9350	Intoxicated Person	9060	Threatening	9790	Theft Under \$5000
9360	Unwanted Person	9070	Assault	9920	Graffiti
9370	Mentally Ill	9080	Abduction		
9380	Public Mischief	9090	Robbery		
9470	Suspicious Person	9100	Extortion		
9480	Suspicious Vehicle	9170	Offensive Weapon		
9600	Abandoned Vehicle	9300	Disturbance		
9610	Liquor Offence	9310	Dispute		
9650	Youth Complaint	9460	Prowler		
		9850	Human Trafficking		
		9900	Criminal Harassment		