

Industrial Lands Study

A Background
Study for the
City of London
New Official
Plan Program

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i) Background

The Industrial Lands Study provides an evaluation of the vacant industrial land supply within the City's Urban Growth Area. Over recent years, in response to job losses and high unemployment rates, there has been an ongoing dialogue involving Council, the London Economic Development Corporation and others regarding the City's strategy for stimulating economic growth. Concerns have been expressed that there is an insufficient supply of serviced and available industrial land, particularly in the Highway 401 and 402 corridors, and, as a consequence, opportunities to attract new businesses are being missed. Since the City, through its Official Plan, is responsible for the adequacy of the land supply within the Urban Growth Area and, for more than twenty years, has been the primary developer of industrial land in the municipality, this is an issue of considerable significance to Council.

In September of 2011, City Council received an update to its Industrial Lands Development Strategy which reflected an overall finding that there is a scarcity of industrial lands in large, well-configured and serviced parcels and that, if this looming shortage is not addressed, the City would not be well positioned to address emergent opportunities. There were a series of recommendations in the ILDS Update that Council referred to staff for follow-up, including a direction that a short-term expansion of the Urban Growth Area to increase the supply of employment lands in the Highway 401 corridor be undertaken.

The Industrial Lands Study addresses the recommendations from the ILDS Update that relate to land use planning and it is being undertaken as a background study for the new Official Plan program. If Council concurs with the recommendation for a phased increase in the industrial land supply, it will serve as the basis for an Official Plan amendment. As such, this report includes an analysis of demand and supply factors, a summary of relevant provincial and municipal policies, an overview of the economic development priorities and initiatives that are expected to generate employment growth and a planning rationale that makes the case for a Growth Area expansion.

EXECUTIVE SUMMARY

An Official Plan amendment to expand the Urban Growth Area must be consistent with the Provincial Policy Statement (PPS). The PPS directs that projected employment growth over a twenty year time horizon be accommodated through a combination of redevelopment and infill on existing designated industrial lands combined with expansion of the settlement area within designated “greenfield” employment areas. An Official Plan amendment to expand the UGA must be based on a comprehensive review, as defined in the PPS, that is based on population and employment growth projections, and an analysis of both the existing land supply and the opportunities to accommodate growth through intensification and infill. If an expansion is warranted, considerations such as alternative directions for growth, the availability of cost-effective servicing and infrastructure, proximity to the existing built-up area and the avoidance of prime agricultural lands must be taken into account. The challenge is to achieve the appropriate balance between the efficient utilization of land in a compact urban form and the provision of a land supply that is sufficient to accommodate opportunities for a diversified economic base and to promote economic development and competitiveness.

ii) Demand Factors

The growth projections that underpin the Industrial Lands Study were prepared by Altus Group Economic Consulting for the purposes of the New Official Plan Program. The projections are for a thirty year (2011-2041) period. Based on its analysis of national, provincial, regional and local economic trends and prospects, Altus Group has projected that London’s annual population growth over the forecast period would average 0.91%. Annual employment growth would average 1.1%, 0.91% and 1.25% over the 2011-2021, 2021-2031 and 2031-2041 periods respectively, which would be marginally lower than the provincial averages. The fastest growing employment sectors are expected to be transportation, trade, education and health care while manufacturing would continue to experience slow growth despite the positive impact of economic development initiatives over recent years. Over the thirty year period, employment would increase by approximately 72,000 jobs. An alternative high growth scenario is also provided based on the premise that London’s economic development initiatives will result in growth that significantly outpaces provincial growth and exceeds





the consultant's expectations. Under this scenario, employment would increase by approximately 125,000 jobs. For the purposes of the Industrial Lands Study the more conservative base case scenario projection has been used.

The employment projection for the industrial sectors is converted to a projection of industrial space demand by applying a per employee space factor of approximately 85 sq.m. per employee. This results in a total demand for approximately 1.76 million sq. m. of industrial space to accommodate projected employment growth. The demand for floor space is converted to a demand for industrial land by applying a floor area ratio of 0.23 (suggesting that on average an industrial building would have a site coverage of 23%) which was derived from an analysis of existing industries and industrial building permits. Another consideration that is factored into the calculation of land requirements is a 25% allocation of the projected industrial space demand to the intensification of development on vacant or underutilized lands within the built-up area. This factor was carried forward from the Land Needs Study undertaken for the 2006 update of the Official Plan. The analysis undertaken for this Study, however, suggests that only 10 % of recent industrial development has occurred on sites that would not be considered as "greenfield". The intensification assumption should be revisited once a re-setting of the built area boundary is completed as part of the New Official Plan Program. Also factored into the calculation of land requirements is a 17% allowance for servicing purposes, primarily roads and storm water management, and a 10% contingency allowance which is intended to provide a buffer for higher than forecast demand and/or the potential lack of landowner interest in development. The contingency allowance conforms to Official Plan policy 2.5.5 which provides direction for the determination of land requirements to accommodate growth.

The calculated demand for industrial land, excluding the contingency and servicing factors, averages approximately 18 ha. per year over the thirty year forecast period, ranging from 15.1 ha. per year over the first ten years and increasing to 23.2 ha. per year over the 2031-2041 period. The total demand over the thirty year period is 605 ha. including the 10% contingency factor. For a twenty year projection period, which would be consistent with the PPS,

the projected demand for industrial land is 348 ha. The demand for industrial land will be met by the current supply of vacant, designated industrial lands combined with any industrial lands added through an expansion of the UGA.

The trends related to the consumption of industrial land have also been reviewed. Over the last ten years vacant industrial land sales have averaged 36 ha. per year which is approximately two times greater than the estimated demand for industrial land. While land sales do not always result in construction of new industrial space they are indicative of lands that may be set aside for a specific purpose and no longer available to accommodate businesses seeking a location in London. This is particularly true for industrial land sales by the City which are subject to provisions that the purchaser must build within a specified period of time. Land sales by the City averaged 16.4 ha. per year over the ten year period. From a land development perspective, 18 industrial plans of subdivision comprising 536 ha. of land have been approved since the UGA came into effect in 1999. From a building construction perspective, an average of approximately 56,800 sq.m. of industrial floor space has been built per year over the last ten years. If the intensification and floor area ratio factors are applied, this amount of construction activity would equate to an industrial greenfield land consumption of approximately 19 ha. per year.

iii) Supply Factors

Since the UGA came into effect there have been several amendments to the Urban Growth Boundary that have resulted in a small net increase of 27 ha. in the amount of designated industrial land. This increase has been more than offset by amendments that have re-designated industrial lands for other purposes. In total, taking into account all of the changes to and from industrial designations, there has been a net 107 ha. reduction in the amount of designated industrial land. In some instances lands have been redesignated as Open Space for environmental reasons pursuant to the completion of an area plan or plan of subdivision. In other instances the redesignations of older industrial areas to other uses has been based on their diminished viability for continued industrial use due to functionally obsolete buildings, accessibility problems or land-use conflicts. Another reduction in the amount of designated industrial land is likely to occur when the Southwest Area Plan is adopted. If the

preferred land-use concept is adopted, 345 ha. of land currently designated as Urban Reserve- Industrial Growth would be allocated for other non-industrial land uses. Taking into account the above-noted changes combined with the amount of land consumed for industrial development since the UGA came into effect, more than 635 ha. of industrial land would have to be added to the UGA to replace the amount of land that has been consumed or re-designated since the UGA came into effect.

The distribution of vacant industrial land is shown on Map No.2 attached to this report. According to the inventory of vacant industrial land maintained by City staff, the current supply of vacant industrial land in the City of London is 1276 ha. which includes 307 ha. of General Industrial land, 789 ha. of Light Industrial land, 59 ha. of Office Business Park land and 121 ha. of Urban Reserve Industrial Growth land. A more detailed inventory of City-owned industrial lands is maintained by Realty Services staff. As of the end of 2011, there were 280 ha. of vacant, City-owned and available industrial land of which 165 ha is serviced.

The current inventory of municipally-owned vacant industrial land falls short of the recommended targets in the ILDS Update in three areas. There are no serviced General Industrial lands, whereas the target is 30 ha.; there are no lands being held for Office Business Park development, whereas the target is 15 ha.; and, there are no lands that have been acquired to hold as a land bank as a hedge against rising land acquisition costs, whereas the target is 100 ha. On the other hand, the supply of serviced and available Light Industrial land at 124 ha. significantly exceeds the ILDS target of 60 ha. This supply may be quickly depleted, however, if the volume of land sales and commitments experienced over the last two years (Dr. Oetker; UWO/ Fanshawe Advanced Manufacturing and Research Park, Samsung, etc.) is maintained over the next few years. One of the factors that is contributing to an increase in the amount of land sold by the City is the tendency for purchasers to seek out larger sites that can accommodate long-term expansion plans and serve much larger market areas. Over the last five years, the average size of the parcels sold by the City was 4.3 ha. which was more than twice the average size of the parcels sold over the preceding five years (2 ha.)

The distribution of vacant industrial lands by location and parcel size is an equally important consideration



for an evaluation of the adequacy of the industrial land supply. Input from LEDC staff suggests that the concentration of serviced and available industrial land in the Veterans Memorial Parkway corridor may not be attractive to industries seeking Hwy. 401 or 402 exposure or that require, for logistical reasons, a location on the west side of the City. There are significant tracts of vacant industrial land which are difficult to service and lack the locational attributes that prospective industries typically require. Many of these areas were located within the former Town of Westminster and their industrial designations were carried over into the City's Official Plan. In other instances, lands that are designated for industrial use at strategic locations are not available for acquisition and development due to a lack of landowner interest.

iv) Comparison of Land Needs to Land Supply

From a purely quantitative perspective, the current supply of vacant industrial land is more than adequate to accommodate the projected demand for industrial land. At the end of the twenty year planning period stipulated by the PPS, at the projected rate of land consumption, there would still be over 800 ha. of vacant industrial land. From a qualitative perspective, however, it is questionable whether the supply of vacant land would continue to offer the attributes that are likely to attract new industries. As the existing well situated and serviced industrial parks are built out, the remaining inventory will be increasingly dominated by lands that are difficult to service or lack easy access to major highways and/or the airport. As a result, the City's ability to fulfill the objectives of its economic development initiatives would be constrained.

v) Economic Development Priorities

As stated in the PPS, municipalities are expected to promote economic development and competitiveness by providing suitable lands that can support a wide range of economic opportunities and contribute to a diversified economic base. This is an expressed high priority for City Council in light of London's high unemployment rate and slow growth. Council is in the process of developing a Strategic Investment and Prosperity Plan that is likely to influence the future demand for industrial land. Measures that are being

advanced to build upon London's many locational advantages and attributes include the continued acquisition, development and competitive marketing of industrial land, continued incentives to attract new industries such as the waiver of development charges, ongoing support for the initiatives of the London Economic Development Corporation, and innovative partnerships with major institutions and the private sector. A number of industrial sectors have been targeted for growth including advanced manufacturing, green technology, life sciences, agri/food processing, information technology, transportation and logistics, and research and development. Clearly, if London is to be successful in the implementation of its Strategic Investment and Prosperity Plan it will have to have an industrial land supply that offers all of the attributes that the wide range of businesses and organizations in the targeted sectors are likely to require.

vi) Planning Rationale for an Expansion of the UGA

The quantitative analysis of the projected demand for and supply of industrial land and the current land supply does not make the case for an expansion of the UGA. On the other hand, there are significant considerations related to the adequacy and suitability of the current supply that would support an argument that an expansion of the UGA is warranted and necessary if London is to be well positioned to achieve its economic development objectives. A rationale for UGA expansion can be based on the following considerations:

- approximately 183 ha. of land would have to be added just to replace the greenfield industrial sites that have built upon;
- as the most marketable designated industrial lands in the Hwy. 401 and VMP corridors are developed and built out (Forest City Industrial Park, Innovation Park), the remaining supply of vacant industrial land will be increasingly comprised of lands that lack the characteristics, such as highway accessibility or proximity to the Airport, that are likely to attract new industries;
- since the UGA came into effect there has been a net reduction of 107 ha. in the amount of designated industrial land as the result of redesignation to other uses. If the Southwest Area Plan is adopted as currently proposed the reduction will increase to over 450 ha. When combined with the land

consumed for industrial construction, this represents a significant contraction in the amount of vacant industrial land within the UGA;

- the 25% intensification allowance appears to over-value the amount of new industrial space demand that will be met through infill and redevelopment within the older industrial areas of the City. Over recent years only 10% of industrial building activity has occurred on non- "greenfield" sites;
- if Council achieves its economic development objectives, the employment growth that results is likely to exceed the employment growth rate embodied in the Altus Group base case projection. If the alternative high growth scenario is adopted as an aspirational growth target, the demand for industrial land would approximately double;
- input from agencies such as the LEDC and Chamber of Commerce as well as from a broad cross-section of business leaders has consistently promoted the expansion of the industrial land supply in the Hwy. 401 and 402 "gateway" corridors as a key component of London's economic development strategy. To not act on this advice would be perceived as a major impediment to the implementation of Council's pending Strategic Investment and Prosperity Plan.

Recommendation

An expansion of the UGA to increase the supply of industrial land up to 500 hectares is recommended. Given the time required to acquire, develop and market industrial land, an Official Plan amendment should be initiated as soon as possible. The selection of lands for inclusion in the UGA should be a public process open to proposals and comment before any decisions are made by Council.

The purpose of the Industrial Lands Study is to provide, for the consideration of City staff and Council, a review of the supply of industrial land within the Urban Growth Area as delineated in the City of London Official Plan. If the study results demonstrate, to Council's satisfaction, that an expansion of the industrial land supply is necessary to accommodate projected employment growth and support City Council's economic development strategies and priorities, the study will provide the basis for an Official Plan amendment to expand the Urban Growth Area.

This study forms part of the New Official Plan Program but is being advanced over a shorter time period in response to a shortfall in the supply of available land in the municipally developed industrial parks as identified in the recent update of the City of London Industrial Lands Development Strategy. As has been the case for the past twenty years or more, the City is the primary developer and seller of industrial land within the municipality and its continued role in the planning, acquisition, servicing and marketing of industrial lands is widely accepted as necessary to support growth and vitality in the local economy. In particular, an increase in the supply of serviced and available industrial land in the Highway 401 and Veterans Memorial Parkway corridors has been identified by Council as a priority component of its strategy for stimulating employment growth and diversification.

The outcomes of the study include:

- an analysis of the demand and supply factors that must be considered in the calculation of industrial land needs;
- a summary of the policies that a rationale for expanding the Urban Growth Area to add industrial lands must be consistent with;
- an overview of the economic development initiatives of City Council and the London Economic Development Corporation that provide insight with regard to the industrial growth opportunities that the allocation of industrial lands should accommodate;



- a recommendation for the amount of industrial land to be added to the Urban Growth Area to address long-term needs. City staff will prepare a companion report recommending a location(s) for this expansion area; and,
- a series of discussion points related to potential Official Plan policies to guide longer-term economic development and industrial growth management. These matters would be carried forward for public consultation through the New Official Plan Program.

In September of 2011, City Council received the Industrial Lands Development Strategy (ILDS) Update which included a series of recommendations related to the City's involvement in industrial land acquisition, servicing and marketing. The recommendations, in part, reflected an overall finding that the City has a scarcity of industrial lands in large, well-configured, serviced parcels that are marketable to new industry. As a consequence, the City is not well positioned to address emergent opportunities. The ILDS Update recommendations were referred to the Administration to follow-up and implement where appropriate.

The following recommendations from the ILDS Update relate to the demand and supply considerations that influence the consideration of an expansion of the industrial land supply:

- Expand the Urban Growth Area in the Highway 401 corridor to include additional employment area lands with the determination of the amount of land to be added to take account of the amount of land consumed for industrial development since the UGA came into effect, the discounting of older inner-city employment area lands that are likely to transition to other uses, a case to demonstrate that additional lands will contribute to a diversified economic base and promote the City's economic development and competitiveness, a potential reduction in the amount of industrial land resulting from the Southwest Area Plan and an analysis of the industrial land inventory to determine whether all suitable economic development opportunities are being addressed.
- Adopt the revised ILDS inventory targets for serviced and unserviced lands (as listed in the ILDS Update).
- Increase the assumed rate of municipal industrial land sales from 10 ha. to 15 ha. per year.

The discussion points and proposed policy changes resulting from this study relate to other ILDS recommendations as follows:

- Revise the Official Plan economic development goals, objectives and strategies so that they more closely align with Council's current priorities.
- Identify an area of long-term economic development interest for inclusion in the Official Plan and establish criteria for the future inclusion of these lands in the Urban Growth Area.
- Consider policies to provide greater opportunity for "dry industrial" uses at strategic locations in the Highway 401/402 corridors that are not readily serviceable.
- Consider the opportunity to accommodate waste management, green energy and other environmentally-related uses in a corridor linking the W12A facility to Hwy. 401.
- Review the allocation and mix of uses in the industrial land use designations with the intent of increasing the supply of General Industrial lands.

The full list of ILDS Update recommendations is attached as Appendix I.



Any action taken by Council to expand the Official Plan Urban Growth Area to increase the supply of industrial land must be consistent with the Provincial Policy Statement (PPS). The PPS is based on the following principles:

- focus growth within settlement areas;
- optimize the use of land and resources through efficient development patterns and the cost effective provision of municipal services and facilities;
- support the financial well-being of the province and municipalities over the long-term;
- promote the protection of natural heritage features and the conservation of natural resources; and
- plan for growth on a comprehensive, long-term basis.

The PPS directs that an appropriate range and mix of employment opportunities is to be accommodated through intensification and redevelopment and, if necessary, within greenfield areas designated for expansion of the settlement area. The determination of the amount of land required to accommodate growth is to be based on a time horizon of twenty years. Opportunities for accommodating growth through redevelopment, the use of vacant buildings or the intensification of underutilized sites are to be taken into account. New areas that are designated for growth are to be located adjacent to the existing built-up area and make efficient use of land and infrastructure.

While the implication of the above-noted policies is that a conservative approach should be taken to the determination of an Urban Growth Area expansion, consideration must also be given to the importance that the PPS attaches to the promotion of economic development and competitiveness. Accordingly, municipalities are expected to provide opportunities for a diversified economic base and an employment mix that is appropriate for local circumstances. This is to be achieved by maintaining a choice of suitable sites which can support a wide range of economic opportunities, protecting viable employment areas and providing the necessary infrastructure to support industrial development.

The PPS requires that an Official Plan amendment to expand the Urban Growth Area must be based on a comprehensive review and demonstrate that opportunities for infill and intensification within existing designated industrial areas are not sufficient to accommodate projected needs. “Comprehensive review” is defined in the PPS as an Official Plan review, based on population and growth projections, that considers alternative directions for growth, opportunities to accommodate growth through intensification, the integration of land use and infrastructure planning, the avoidance of specialty crop areas and the consideration of alternatives to avoid the use of prime agricultural lands.

The intent of the Industrial Lands Study is to satisfy the PPS requirements for a comprehensive review. It draws on the following sources of information to achieve this:

- updated 30 year growth projections for the City of London prepared by the Altus Group for the New Official Plan Program. As described later in this report, the Altus work includes an industrial employment growth projection, and, based on this projection, an estimation of the demand for new industrial space required to accommodate industrial employment growth. The demand for industrial space is converted to an estimation of industrial land requirements through the application of the following factors:
 - a floor area ratio to convert floor space requirements to site area requirements;
 - an allocation for industrial employment growth through intensification;
 - an allowance for servicing infrastructure land requirements (principally roads and storm water management facilities); and
 - a contingency allowance to offset the potential for higher than forecast demand and lack of landowner interest in development;
- input from the London Economic Development Corporation regarding the critical factors influencing the opportunities for diversifying and strengthening the local economy and its strategies for realizing these opportunities. Related information from various forums and task forces has also been considered;
- City Council’s expression of its current strategic priorities for economic development;

- the previously referenced Industrial Land Development Strategy Update;
- updated information from City Realty Services staff relating to the supply and availability of municipally and privately owned industrial land as well as data on land sales over the last ten years. Land sales information, both quantitative and qualitative, provides a useful measure of the adequacy of the current supply of industrial lands;
- a compilation of statistics from industrial building permits, industrial subdivision activity and approved or proposed Official Plan amendments involving the re-designation of industrial lands. This information contributes to an understanding of industrial land consumption since the Urban Growth Area was created through the adoption of OPA 88.

Current Official Plan policies also provide for the consideration of an Urban Growth Area expansion. Consistent with the PPS, the Official Plan promotes compact urban form, infill and intensification, sustainable development, optimization of infrastructure use and allowances for choice. The current forecast of employment growth (47,000 employees over the 2001-2031 period) is to be accommodated through a combination of intensification; the development of designated, vacant industrial land; and, if necessary, through expansion of the Urban Growth Area to add industrial lands to accommodate any residual demand. The land requirements calculation is to include a contingency allowance for higher than forecast demand, a lack of landowner interest in development, forecast assumptions not being met, and the implementation of policies and growth strategies not otherwise accounted for. The targeted range for industrial land is a 15 to 20 year supply.

The consideration of an Urban Growth Area expansion is to have regard for cost-efficient servicing, compact urban form, integration with the road network, suitability for the extension of transit services, financial implications for the City, potential impacts on existing communities, the impacts on the natural heritage system and the distribution of growth areas to provide choice. The rationale for an expansion of the UGA onto prime agricultural lands must demonstrate that there are no reasonable alternatives that avoid prime agricultural areas or utilize lower priority agricultural lands.



5.1 Projected Growth

Altus Group Economic Consulting was retained in 2011 to update the projection of employment, population, housing and non-residential construction growth for the purposes of preparing a new Official Plan for the City of London. The projection is for a 30 year period extending to 2041 and takes into account the trends and circumstances that have significantly impacted the national, provincial and local economies over recent years.

The following components of the Altus Group's study are relevant to the Industrial Land Study:

- the underlying economic outlook;
- the revised employment growth forecast; and
- the revised non-residential space requirements.

5.2 Prospects for the Local Economy

Economic factors considered by Altus Group in the preparation of its employment forecast include macroeconomic conditions in Canada and Ontario, the historical trends and changes in London's economy by industrial sector, and a review of the ongoing and proposed economic development initiatives undertaken by the City and London Economic Development Corporation. To briefly summarize, Altus Group characterizes the national and provincial economic outlook as subject to considerable uncertainty over the short term due to the European debt crisis, related austerity measures in Europe and the U.S., and declining prospects for Canadian exports to these areas. Over the longer term (10+ years), there is a more optimistic prospect of a return to an average national economic growth of 2.5% per year which is in keeping with the average growth over the past twenty-five years. When productivity increases are factored in, the employment growth rate reduces to 1.5 % per year.

Altus Group notes that the Southwestern Ontario economy was reasonably robust over the first half of the last decade. From 2007 to 2009, however, the combined effects of a strong currency and recession-induced cutbacks in the manufacturing sector resulted in a net loss of employment. In 2010 and 2011, employment growth recovered

to 1.8% and 2.5% respectively. Over the foreseeable future, Altus points to the following factors as having a positive impact on the prospects for economic growth in Southwestern Ontario:

- escalating commercial and industrial land prices in the Greater Golden Horseshoe (GGH) resulting from supply constraints related to the Greenbelt Act;
- high employment density requirements in the Growth Plan for the GGH municipalities which are likely to push less labour intensive industries to areas outside of the GGH; and,
- federal and provincial initiatives to create and fund economic development agencies to promote economic growth and diversification in Southwestern Ontario.

For the City of London, over the last ten years employment growth, which includes both industrial and non-industrial sectors, averaged only 0.6%, a rate that was lowered considerably by significant job losses (8,000) in the manufacturing sector in 2008-2009. Over the past two years of recovery, 6,500 manufacturing jobs were added back into the economy.

Economic development initiatives being undertaken by the City in collaboration with the LEDC and major local institutions are expected to have a positive impact on London's economic outlook over the growth projection period. These initiatives include:

- the expansion of cargo handling and transshipment facilities at London International Airport related to its designation as duty-free zone;

- provincially-funded interchange improvements on Highway 401 at Veterans Memorial Parkway and at Wonderland Road, both of which, when combined with municipal investments in service infrastructure and the potential expansion of the industrial land supply at these strategic "gateway" locations, will improve London's ability to attract new business and establish itself as a logistics hub;
- the advanced manufacturing and research park under development in the Veterans Memorial Parkway corridor as a joint venture involving the City, University of Western Ontario and Fanshawe College;
- the International Water Excellence Centre planned for a location adjacent to the Greenway Pollution Control Plant as a joint venture of the City, UWO and Trojan Technologies;
- the Downtown campus that Fanshawe College is developing for its School of Applied and Performing Arts and the probability that UWO will continue to increase its presence in the Downtown;
- the LEDC's strategy to further strengthen the City's position as a leading centre for the development and production of medical devices; and
- The City's continued investment in its Industrial Land Development Strategy.

The Altus Group considers London's prospects for employment growth on a sector by sector basis. The results of this analysis for the industrial employment sectors are shown in Table 1 which is taken from Figure 10 in the Altus report.

Table No. 1: Employment Growth by Industrial Sector, City of London, 2001-2041

Industrial Sector	Number of Persons Employed [000's]; (% Annual Growth)				
	2001	2011 (%)	2021 (%)	2031 (%)	2041 (%)
Manufacturing	23.3	19.3 (-1.85)	20.3 (0.5)	21.5 (0.56)	23.5 (0.89)
Construction	8.9	10.8 (1.96)	42.3 (-0.5)	11.7 (0.79)	12.7 (0.84)
Trans./Comm.	12.2	12.2 (0.04)	14.7 (1.84)	16.1 (0.94)	18.6 (1.44)
Total	44.4	42.3 (-0.5)	45.8 (0.8)	49.3 (0.8)	54.8 (1.1)

Source: Altus Economic Consulting (2012), "Employment, Population, Housing and Non-Residential Construction Projections, City of London, 2011 Update"



The key conclusions from the employment growth component of the Altus Group report are as follows:

- the City's average annual employment growth rate (1.1%) is expected to be marginally lower than the provincial average (1.5%);
- throughout the projection period, the fastest growing employment sectors in the City are forecast to be transportation, trade, education and health care;
- manufacturing will continue to experience slow growth during the forecast period as a consequence of the restructuring currently underway in local industries and the challenges ahead in the pursuit of targeted investment in advanced manufacturing.

Altus identifies this projection as the base scenario for employment growth over the forecast period. Employment growth could be significantly higher depending on the City's success in attracting new business investment and the current efforts through the London Prosperity Plan. On the other hand, employment growth could be lower if the current economic crisis in Europe and slow growth in the US persists over a longer period than anticipated.

5.3 Projection of Demand for Industrial Space

The Altus Group projects the demand for industrial space by applying a space requirement factor to the employment growth projection for the industrial sectors. The space factor is based on historical statistics with adjustments for industry consensus on current conditions and expectations for changes in future years. For industrial employment, a space factor of 84 sq.m. (900 sq.ft.) per employee for the first ten years of the projection (2011-2021) and 85 sq. m. (910 sq. ft.) per employee over the longer term (2021-2041) was used. The Altus industrial space requirements model includes the application of the industrial space factor to the industrial employment growth projection resulting in a projected demand for 1,685,200 sq.m. (18,120,000 sq. ft.) of industrial floor space over the 2011-2041 period. This calculation, as shown in Table No. 2, includes an allowance for the take-up of vacant industrial space carried over from the recession-impacted 2006-2011 period.

Table No. 2: Projected Demand for Industrial Space

Period	Industrial Floor Space Req'd (sqm)
TOTAL DEMAND	
2011-2016	280,900
2016-2021	260,400
2021-2026	231,900
2026-2031	276,500
2031-2036	339,300
2036-2041	374,300
Total	1,763,300
ALTERNATIVE SUPPLY¹	
2011-2016	39,400
2016-2021	39,400
2021-2026	-
2026-2031	-
2031-2036	-
2036-2041	-
Total	78,800
REQUIRED NEW SUPPLY	
2011-2016	241,800
2016-2021	221,300
2021-2026	231,600
2026-2031	276,200
2031-2036	339,500
2036-2041	374,800
Total	1,685,200

¹ Alternative supply represents space not absorbed during the 2006-2011 period. It is assumed to be absorbed over the ten year period of 2011-2021. Alternative supply does not represent replacement supply.

Source: Altus Economic Consulting (2012), "Employment, Population, Housing and Non-Residential Construction Projections, City of London, 2011 Update"

5.4 High and Low Growth Scenarios

The Altus Group study refers to the above-noted projections as the base growth scenario. For comparison and discussion purposes, it also includes high and low growth scenarios. The high growth scenario assumes an annual average population growth of 1.5% over the forecast period, compared to the 0.91% identified as the base case scenario derived



from Altus' economic model. The high growth scenario would see London's population grow by 206,000 over the next thirty years compared to a base case scenario growth of 114,000 over the same period. Employment growth would increase significantly from 69,897 in the base case scenario to 125,720 in the high scenario, and the resulting industrial space requirements would approximately double from 1,685,200 sq.m. (18,133,000 sq. ft.) to 3,376,800 sq.m. (36,338,600 sq. ft.).

The low growth scenario, which is based on a more pessimistic economic outlook, would see population growth slow to an annual rate of 0.75% and industrial space requirements decrease to 1,267,211 sq.m. (13,640,000 sq. ft.).

For the purposes of this study, the determination of industrial land requirements is derived from the base case scenario. It should be noted that even the base case scenario represents an increase from the 0.8% annual employment growth rate that the current Official Plan growth forecast is based on. Nevertheless, City Council may target the high growth scenario as a measure of the hoped-for success of its economic development initiatives.

5.5 Demand for Industrial Land

The conversion of the demand for industrial floor space to a demand for industrial land is determined by applying a floor area ratio. In the Land Needs Study completed for the 2006 Official Plan Update, a floor area ratio of .23 (suggesting that on average an industrial building would cover 23% of its site) was used. An extension of the analysis through 2011, as shown in Table No. 3, confirms the relevance of the ratio which was determined on the basis of a thorough review of existing industrial sites and building permits. While this ratio has been characteristic of past industrial development, more recent experience with municipal industrial land sales indicates that industries choosing locations in London are acquiring significantly larger sites to accommodate the potential for future expansion. Over the past five years (2006-2011), 8 of the 22 industrial land sales by the City of London have exceeded 4 hectares (10 ac.) in size. The average parcel size of all municipal land sales was 4.3 ha. (10.6 ac.). Over the preceding five year period only 5 of 34 parcels sold exceeded 4 ha. (10 ac.) and the average size was 2 ha. (5 ac.). This trend towards larger sites to accommodate future expansion, which

is supported by municipal industrial land sales data compiled by LEDC and Realty Services staff, suggests that a 0.23 floor area ratio may be high over the short to mid-term. Since 2001, the 52 parcels of industrial land sold by the City have resulted in a constructed floor area ratio of 0.19. Over the longer term, as future phases of new industries are built, the floor area ratio will likely approach the 0.23 measure. As expected, manufacturing industries resulted in a higher floor area ratio (0.22) than other types of industries. For the purposes of this study the 0.23 floor space ratio will be retained; however, the above-noted trend supports the continued application of a 10% contingency factor.

Table No. 3: Industrial Building Construction: Floor Area Ratio Analysis (1999-2011)

Year	Number of Permits	Average Floor Area Ratio
1999	14	0.21
2000	5	0.18
2001	6	0.21
2002	15	0.24
2003	12	0.20
2004	6	0.26
2005	7	0.21
2006	4	0.18
2007	8	0.29
2008	11	0.19
2009	7	0.26
2010	7	0.18
2011	10	0.18
Total/Average	112	0.21

Source: Planning Division, City of London

The previous Land Requirements Study included a scenario that allocated 25% of the demand for industrial space to the intensification of development on vacant or underutilized lands within the built-up area of the city. While some industrial growth will take the form of expansions to businesses on their existing sites or through the conversion of existing vacant buildings, the viability or capacity of some of the older industrial areas to support intensification is questionable. Areas characterized by aging,

functionally obsolete buildings, constrained accessibility and/or land use compatibility problems should not be expected to attract new businesses or encourage existing businesses to expand. To better understand whether the 25% allocation of industrial space demand to intensification continues to be a valid assumption, the location and size of industrial building permits over the last five years was analyzed.

Table No. 4: Industrial Building Construction by Geographic Location, 2002-2011

Year	Floor Area (m ² /%)	Intensification (m ² /%)	Non-Intensification (m ² /%)
2007	118,000 (100%)	12,100 (10%)	105,900 (90%)
2008	76,500 (100%)	2600 (3%)	73,900 (97%)
2009	27,500 (100%)	1600 (6%)	25,900 (96%)
2010	29,800 (100%)	2300 (8%)	27,500 (92%)
2011	64,600 (100%)	11,800 (18%)	52,800 (82%)
Total	316,400 (100%)	30,400 (10%)	286,000 (90%)

Source: Planning Division, City of London

As noted in Table 4, approximately 10% of the constructed industrial space was located on sites that would not be construed as “greenfield” development. Although the intensification allocation has not been achieved, the consideration of any change to this assumption should be deferred pending a re-setting of the built area boundary as part of the New Official Plan program. When this is done care should be taken to ensure that parcels listed in the Vacant Land Inventory are not double-counted, in other words, that they are not counted as both sites for intensification as well as being part of the VLI that will accommodate the demand for industrial space after intensification has been factored in.

Another factor in the determination of the demand for industrial land is the 10% contingency allowance. This has been a component of the process for determining land requirements since the initial land needs study completed for the Vision’96 Official Plan program. The contingency allowance is based on the uncertainty inherent in the calculation of growth forecasts and is intended to provide a small buffer against a potential under-supply of land resulting from a higher than projected demand as well as constraints on the availability of designated land for development due to a lack of landowner interest. The application of the contingency allowance conforms to Official Plan policy 2.5.5 which provides direction for the determination of land requirements to accommodate growth.

Table No. 5: Projected Demand For Industrial Land

Period	Floor Space Required [sqm]	Allowance for Intensification (25%) [sqm]	Floor Space on Vacant Lands [sqm]	Greenfield Land Area Required (0.23 FAR) [sqm]	Greenfield Land Required [ha]	Contingency (10%) [ha]
2011-2016	241,800	60,500	181,300	788,300	78.8	86.7
2016-2021	221,300	55,300	166,000	721,700	72.1	79.3
2021-2026	231,600	57,900	173,700	755,200	75.5	83.1
2026-2031	276,200	69,100	207,100	900,400	90.0	99.0
2031-2036	339,500	84,900	254,600	1,107,000	110.7	121.8
2036-2041	374,800	93,700	281,100	1,222,200	122.2	134.4
Total	1,685,200	421,300	1,263,900	5,495,200	549.5	604.5



For the purposes of the 2007 Land Needs Study, the newer industrial parks were studied to determine the amount of land area required for servicing purposes, primarily roads and storm water management. It was found that, on average, 17% of the gross land area of an industrial subdivision development is required for servicing purposes. This factor was then applied to the inventory of vacant, unserviced industrial land to determine the capacity of the available land supply. In other words, the vacant, unserviced industrial land supply was discounted by 17% to determine the net land area that would be available for new industrial development. For the purposes of this study, the servicing requirements allowance is also applied to the projected demand for industrial space that exceeds the capacity of the current supply of vacant, serviced land. In this way the calculation of “net” industrial land can be converted to a “gross” land area requirement.

The industrial land area requirements calculation, excluding adjustments for the contingency and servicing requirements allowances, is shown in Table No. 5. Over the 30 year forecast period, the demand for industrial land averages approximately 18 ha. (44 ac.) per year ranging from 15.1 ha. (37 ac.) per year over the first 10 years and increasing to 23.2 ha. (57 ac.) per year over the last 10 year (2031-2041) period. The total demand over the forecast period is 550 ha. (1359 ac.). When a 10% contingency is applied, the land requirement increases to 605 ha. (1494 ac.). Over a twenty year (2011-2031) period, which would be consistent with the Provincial Policy Statement, the projected industrial Land requirement, including the 10% contingency, is 348 ha. (860 ac.) This total includes an allocation of industrial space demand to intensification but does not account for growth that will be accommodated by the current supply of vacant greenfield industrial land within the Urban Growth Area. Supply considerations are dealt with in Section 6 of this report.

5.6 Industrial Land Consumption

Another consideration in the determination of industrial land requirements is the rate at which industrial land has been consumed over the years since the Industrial growth area was first established in 1996 through the adoption of Official Plan Amendment No.88 (the Vision '96 OPA). For

the purposes of this study, two measures of land consumption were compiled. The first relates to vacant industrial land sales on the premise that a parcel is no longer available to accommodate a new business or industry once it has been sold and set aside for a specific purpose. Both City of London and private sector land sales over the past ten years have been compiled as shown in Table No.6. The premise that a sold parcel is committed to development holds more accurately for municipal land sales than private sales. Municipal land sales are subject to conditions that a buyer must build within a reasonable time period whereas the buyer of a private land sale may be making the purchase for speculative purposes.

Table No. 6: Industrial Land Sales

Year	Number of Sales		Area (ha)		Total Area (ha)
	City	Private	City	Private	
2002	10	9	14.6	19.6	34.2
2003	10	3	31.8	10.3	42.1
2004	9	1	17.3	0.8	18.1
2005	2	7	2.7	20.3	23.0
2006	8	7	3.9	38.9	42.8
2007	8	6	35.2	30.8	66.0
2008	2	1	10.0	3.2	13.2
2009	0	2	0	2.6	2.6
2010	5	1	7.8	64.3	72.1
2011	6	7	41.1	3.6	44.7
Total	60	44	164.4	194.4	358.8

Source: Realty Services, City of London

Over the last ten years industrial land sales have totaled 359 hectares (887 acres). It is worth noting that, at 36 ha. (88 ac.), the average annual industrial land sales over this period are roughly two times greater than the annual forecast of land demand as previously described in this report.

The second set of measures of industrial land consumption relate to industrial development activity including both subdivision development and the construction of industrial floor space. Since the Urban Growth Area came into effect, there have been 18 industrial plans of subdivision approved in the City of London totaling 536 ha. (1325 ac.). With regard to the consumption of industrial land by construction

activity, as compiled from building permit data for the last ten years, an average of 56,810 sq.m. (611,276 sq. ft.) of industrial building space has been built per year. Assuming a floor area ratio of 0.23 and an allocation of 25 % of this building activity to sites that would represent intensification, this amount of floor space construction would convert to a site area take-up of approximately 19 ha. (47 ac.) of greenfield vacant industrial land per year. Table No. 7 provides the data for industrial construction activity over the last ten years. While subdivision development and building construction activity, on their own, may not be reliable measures of how much land will be required in the future, it does indicate that the historical rate of consumption is significantly higher than the forecast of demand and should allay any concerns that the forecast is overly optimistic or that the contingency factor is unwarranted.

Table No. 7: Industrial Building Activity, 2002-2011

Year	Floor Area (m ²)
2002	62,000
2003	87,800
2004	31,000
2005	50,600
2006	20,300
2007	118,000
2008	76,500
2009	27,500
2010	29,800
2011	64,600
Total	568,100
10 Year Average	56,810

Source: Planning Division, City of London

6.1 Changes in the Amount of Designated Industrial Land

There have been three Official Plan amendments that have changed the Urban Growth Area (UGA) to add or delete industrial lands since the UGA came into effect:

- OPA # 232- added 17 ha. (42 ac.) of serviceable industrial land on the west side of Cheese Factory Road to allow for the logical extension of the Forest City Industrial Park to this boundary road.
- OPA # 364- as a follow-up to the 2001 Official Plan update, 130 ha.(321 ac.) of industrial land was added along the north side of Hwy. 401 and Dingman Drive east of White Oak Road. An Area Plan was completed for this area and much of it is subject to industrial plans of subdivision at various stages of approval and development.
- OPA # 370- approximately 120 ha. (296 ac.) of Urban Reserve Industrial Growth land on the east side of Crumlin Road south of Trafalgar Street was removed from the UGA, largely to address long-term servicing constraints and the land use compatibility concerns of area residents and landowners.

The net effect of these changes increased the amount of land within the UGA by a small amount (27 ha. (67 ac.)); however, this increase has been more than offset by other Official Plan changes which have re-designated industrial lands for other purposes. These re-designations have been predominantly to Open Space and Environmental Review (mostly resulting from area planning processes), and various service commercial designations mostly at locations along major arterial roads. In total, 348 ha. (860 ac.) of land have been re-designated from General Industrial, Light Industrial or Urban Reserve - Industrial Growth to another land use designation. On the other hand, 241 ha. (595 ac.) have been re-designated from some other land use designation to an industrial designation since the UGA came into effect. The net result is a reduction in the total amount of designated industrial land of 107 ha. (264 ac.). In aggregate these numbers are significant and may generate some concern that London has not done enough to protect its industrial land supply. It should be noted however, that all of the Official Plan amendments resulting

in these changes were carefully reviewed against planning principles and objectives and determined to be appropriate on their merits. In many cases the changes came about as the result of more detailed area planning processes. In other cases the changes were warranted on the basis that the lands had a diminished viability for industrial use and were more appropriate for uses that were better suited to the changed circumstances in the area. Apart from changes to Open Space or Environmental Review to protect environmental features in the industrial parks, none of the changes to re-designate industrial lands have occurred in the corridors that offer the best opportunity to attract and support industrial growth both now and well into the future.

The ongoing Southwest Area Planning Study is also likely to result in the re-designation of lands from their current Urban Reserve -Industrial Growth designation to other non-industrial uses. If the preferred land use concept from the public consultation process is approved, 345 ha. (852 ac.) of land would be removed from the industrial land supply.

Taking into account the net change in the amount of designated industrial land, the estimated consumption of land for industrial construction, and the anticipated re-designation of lands resulting from the Southwest Area Plan, it could be argued that 637 ha. (1,573 ac.) of industrial land would have to be added to the UGA to replace the amount of land that has been consumed or re-designated since the UGA came into effect.

6.2 Supply of Vacant Industrial Land

The distribution of industrial land use designations across the City is shown on Map No. 1. It depicts the concentration of industrial lands in the London Airport area and along the Veterans Memorial Parkway, Highway 401, Oxford Street East and Exeter/ White Oak Road corridors; as well as the nodes of older industrial areas clustered along the rail lines at inner-city locations. The total amount of city-wide designated industrial land as shown on Map No. 1, is 3978 ha. (9,826 ac.).

The distribution of vacant industrial land by land use designation is shown on Map No.2. An inventory of vacant industrial land categorized by its land use designation, location, parcel size and servicing status is maintained by City staff. As shown in Table No. 8, the current supply of vacant industrial land in the City

of London is 1276 ha. (3152 ac.) which includes 307 ha. (759 ac.) of General Industrial land, 789 ha. (1950 ac.) of Light Industrial land, 59 ha. (146 ac.) of Office Business Park land and 121 ha. (299 ac.) of Urban Reserve- Industrial Growth land.

In addition to the industrial Vacant Land Inventory,

Table No. 8: Vacant Industrial Land Inventory

Land Use Designation	Area (ha)	Serviced (ha)	Unserviced (ha)
Urban Reserve Industrial Growth	121	0	121
General Industrial	307	218	89
Light Industrial	789	428	361
Office Business Park	59	13	46
Total	1276	659	617

Source: Planning Division, City of London

Realty Services maintains an inventory of vacant municipally-owned industrial lands in support of its land sales functions and the marketing initiatives of the London Economic Development Corporation. This inventory is shown in Table No. 9. As of the end of 2011, there were 280 ha. (692 ac.) of vacant, City-owned and available industrial land, of which 165 ha. (408 ac.) is serviced.

The 2007 Land Needs Study indicated that the supply



Table No. 9: Vacant City-Owned Industrial Land Inventory

Land Use Designation	Area (ha)	Serviced (ha)	Unserviced (ha)
Urban Reserve	0	0	0
Industrial Growth	87	0	87
General Industrial	193	165	28
Office Business Park	0	0	0
Total	280	165	115

Source: Realty Services, City of London

of vacant industrial land at the end of 2006 was 1935 ha. (4780 ac.), therefore the 2011 inventory represents a reduction of 660 ha. (1630 ac.), or 34%, over the last five year period. This decline can be partially attributed to refinement of the inventory data; however, it also reflects the preceding information concerning industrial land consumption and the loss of industrial land through re-designation.

The current inventory of municipally-owned industrial land falls short of the inventory targets recommended in the recent update of the Industrial Land Development Strategy in three areas. There are no serviced General Industrial lands, whereas the target is 30 ha. (74 ac.); there are no lands being held for Office Business Park development, whereas the target is 15 ha.(37 ac.); and there are no lands that have been acquired to hold as a land bank as a hedge against rising land acquisition costs, whereas the target is 100 ha. (247 ac.). The supply of serviced Light Industrial lands at 124 ha. (306 ac.) significantly exceeds the ILDS target of 60 ha.(148 ac.); however, as noted in the following section, there are deficiencies in the distribution of this inventory by location and parcel size.

6.3 Distribution and Suitability of the Vacant Industrial Land Supply

The distribution of vacant industrial lands by parcel size and location must be considered in an evaluation of the adequacy of the existing industrial land supply. Over recent years LEDC staff and other economic development proponents have expressed concerns that the current inventory of vacant industrial land does not align very well with the location and size criteria sought after by many of the prospective land purchasers who they have dealt with. They have noted instances when an industry has preferred London but has located elsewhere because a suitable site with ready access to Hwy. 401 or with open storage capability was not available. With regard to these concerns the ILDS Update report noted that, “From a location perspective... almost all of the inventory is in the Veterans Memorial Parkway corridor and may not be attractive to businesses that are insistent on Hwy. 401 or 402 exposure. Anecdotal input from LEDC staff suggests that this has been the case from time to time. The current inventory also does not provide the opportunity for prospective businesses to choose industrial locations in the west end of the City that may better suit their needs for logistical reasons“. The ILDS Update also questioned the adequacy of the municipal industrial land inventory in light of the sales activity in 2011 and potential sales carrying over to 2012. “ Over the past year, the scenario has changed significantly. The commitment of lands to the UWO/ Fanshawe Advanced Manufacturing and Research Park, the sale of land for the Dr. Oetker food processing plant, the potential sale of land for the Samsung solar panel facility (10 to 15 ha.) and for other prospective industries that the LEDC is pursuing would result in a depletion of the municipal industrial land supply. There is a trend towards the sale of much larger sites as industries secure their plans for future expansion so that they can serve much larger centralized markets. Whereas lot sales in the Forest City Industrial Park averaged 2 to 4 ha. (with the exception of Brose), more recent sales and inquiries in Innovation Park are typically for 10 to 20 ha. sites. Smaller parcels that are scattered through the older industrial parks will not accommodate this type of demand and proactive monitoring, land acquisition, planning and servicing will be required to ensure that the inventory of available industrial land is sufficient to accommodate large sites in a variety of locations.”

The distribution of city and privately owned vacant industrial land by parcel size is shown in Table No. 10 and by industrial land use designation in Table No. 11.

Table 10: Vacant Industrial Land by Parcel Size

Lot Size (ha)	Number of Parcels	Number of Serviced Parcels	Number of Unserviced Parcels
< 1.0	162	161	1
1.0 – 1.9	45	43	2
2.0 – 4.9	69	61	8
5.0 – 9.9	21	18	3
10.0 – 14.9	16	12	4
15.0 – 19.9	6	3	3
20.0 +	10	3	7
Total	329	301	28

Source: Planning Division, City of London

As shown on Map No. 1, industrial lands are not widely distributed through all areas of the City; rather they are concentrated in five major clusters which have varying opportunities and constraints for accommodating new industrial development as summarized below:

- The London International Airport area. There are sizable tracts of vacant General Industrial land on the north side of Huron Street and west side of Veterans Memorial Parkway that can offer larger sites in close proximity to the Airport and with rail access. These lands are not serviced however, and are far enough removed from Highway 401 that they may not be suitable for companies seeking ready access to a 400 series highway. Vacant parcels to the south of the Airport between Dundas Street and the rail line east of Crumlin Road are not serviced and are subject to development restrictions due to their proximity to the Airport runway. The parcel on the west side of Crumlin Road, north of Dundas Street, is subject to a current application for re-designation to allow the development of an auto mall and is unlikely to be available for future industrial development.
- The Veterans Memorial Parkway corridor. The City of London has developed three industrial parks in this corridor comprising most of the industrially designated land between Dundas

Table 11: Vacant Industrial Parcels by Land Use Designation

Lot Size (ha)	Urban Reserve Industrial Growth	General Industrial	Light Industrial	Office Business Park	Total
<1.0	0	5	154	3	162
1.0 – 1.9	0	11	29	5	45
2.0 – 4.9	3	12	52	2	69
5.0 – 9.9	0	9	11	1	21
10.0 – 14.9	1	7	8	0	16
15.0 – 19.9	0	1	3	2	6
20.0 +	1	3	6	0	10
Total	5	48	263	13	329

Source: Planning Division, City of London



Street and Highway 401. The Trafalgar and River Road Industrial Parks are mostly built-out with only nine small parcels totaling 13.6 ha. (34 ac.) available for sale and development. Innovation Industrial Park has been the City's flagship industrial development over the last six years and 88% of the City's inventory of available serviced land is located within it. Large tracts of vacant, privately owned land on the east side of the VMP to the north and south of Innovation Park also have the capacity to accommodate industries seeking large sites, however these lands are not serviced and the existing owners have not listed their properties for sale or shown any interest in developing these lands for industrial purposes. These areas have significant potential for acquisition by the City for the future extension of Innovation Park and would represent a cost effective alternative for growth given the extent of public infrastructure investment that has already occurred to accommodate growth in the VMP corridor. There are also vacant Office Business Park lands located on the west side of the VMP north of Hamilton Road and between Gore Road and Trafalgar Street.

- The industrial lands located along the north and south sides of Hwy. 401 between Wellington Road and the Urban Growth Boundary to the east of Highbury Avenue are largely built-out with the exception of unserviced Urban Reserve- Industrial Growth lands located east of Highbury Avenue and south of Bradley Avenue and to the east and west of Wellington Road south of Dingman Drive. These lands require an area planning process prior to their re-designation and development for industrial purposes. Given the successful marketing of the Forest City Industrial Park, the lands on the north side of Hwy. 401 opposite the FCIP should have considerable potential to attract businesses seeking Hwy. 401 exposure or accessibility; however, these lands are constrained by significant wetland features and by a hydro corridor that traverses the area.
- The industrial lands along the north and south sides of Exeter Road between Wonderland Road and Hwy. 401 include substantial vacant, privately-owned parcels; however, most of the vacant Urban Reserve- Industrial Growth land west of White Oak Road may be re-designated for residential or commercial purposes through the completion and adoption of the Southwest Area Plan. Non-industrial use of these lands would be a better

fit with the overall development concept for the southwest area. If the preferred land use plan for the Southwest area is approved, the resulting loss of vacant industrial land would total 345 ha. (852 ac.).

- Most of the older industrial lands in London are clustered along the CN and CP rail lines east of the Downtown. The areas west of Highbury Avenue include pockets of vacant and functionally obsolete buildings that have limited viability for future industrial use. In some cases a re-designation to other uses may be warranted; however, the rationale for this type of change would have to be established through an area planning process. This is the likely scenario for the industrially designated lands north of Dundas Street and west of Highbury Avenue where the McCormick Area Planning Study is already underway. For the purposes of the Industrial Land Needs Study, these older, inner-city industrial lands should not be attributed any potential for accommodating industrial space demand through intensification.

Much of the discussion over recent years regarding the City's supply of industrial land has focused on the perceived need for more land having frontage on Highway 401. There is no doubt that proximity to this major transportation corridor is likely to be a prerequisite for many industries considering a location in London; however, this strategic factor is not limited to lands that abut the highway. Proximity should be considered in terms of quick and convenient access, particular for truck traffic. Ideally a five minute travel time under normal traffic conditions would be a good measure of the type of proximity to Hwy. 401 that industries are typically seeking. While Highway 401 frontage may be attractive to some businesses for marketing purposes, this should not be an over-riding factor in the determination of lands that are the most suitable for inclusion in the Urban Growth Area.

COMPARISON OF LAND NEEDS TO SUPPLY

Table No. 12 provides an indication of how the projected demand for industrial land would impact the inventory of vacant industrial land. For the purposes of this analysis, the 10% contingency factor has been added in and the inventory of vacant industrial land has been adjusted to remove the amount of land that is likely to be re-designated for non-industrial use through the Southwest Area Plan. The vacant industrial land supply has also been reduced to account for the amount of unserviced vacant land that will be required for servicing purposes.

Table No. 12: Projected Supply of Vacant Industrial Land

Year	Projected Demand for Industrial Land (ha)	Remaining Vacant Industrial Land (ha)
2011	-	1171
2016	87	1084
2021	79	1005
2026	83	922
2031	99	823
2036	122	701
2041	134	567

This demand/ supply analysis suggests that, from a simple quantitative perspective, the current inventory of industrial lands is sufficient to accommodate the projected demand for industrial land over the forecast period. There are, however, other considerations that should be taken into account in an evaluation of the adequacy of the current inventory of industrial land. These considerations are summarized in Section 9 which provides a planning rationale for a limited expansion of the UGA to add industrial lands.



City Council is in the process of developing a Strategic Investment and Economic Prosperity Plan that will provide the foundation for the actions that will shape industrial growth for the foreseeable future. The Plan will align with the following strategic direction which the Investment and Economic Prosperity Committee adopted in August of 2011:

“Accelerate the growth of a strong vibrant economy and foster private sector investment in the City.”

The Plan will provide a focus for the setting of economic development priorities, guide the alignment of resources, position the City to take advantage of senior government funding and create a positive context for private sector investment. The City will promote economic growth by:

- creating municipal financial stability;
- attracting a quality labour force;
- delivering municipal infrastructure;
- growing London International Airport;
- acquiring, developing and marketing competitively priced industrial land;
- seeking out partnerships with major institutions and the private sector;
- continuing to offer incentives to attract new industrial businesses such as the waiver of development charges; and
- supporting the initiatives of the London Economic Development Corporation.

London has a number of strengths and advantages for industrial growth that the Prosperity Plan will build upon:

- its location at the convergence of Hwys. 401/402 and CN/CP rail lines;
- its proximity to major US border crossings and population centres;
- the accessibility and affordability of air freight services through London International Airport;
- the capacity and reliability of the municipal water supply and other service infrastructure;
- the extent and productivity of its agricultural hinterland;

- a diverse and well-qualified workforce; and
- the strength of local institutions and agencies involved in research and development activities.

Based on these assets, the LEDC has targeted the following industrial sectors that have a strong presence in London and a significant potential for expansion:

- advanced manufacturing ;
- green technology;
- life sciences;
- agri/food processing;
- information technology;
- alternative energy technology;
- regional head offices:
- enhanced transportation equipment and logistics; and
- research and development, particularly as it relates to the above-noted sectors.

A more detailed description of these sectors is contained in Appendix 1, “LEDC & City Strategic Overview” appended to the Jan. 13, 2012 report to the IEPC, “Developing a Strategic Investment and Economic Prosperity Plan”.



PLANNING RATIONALE FOR
EXPANSION OF THE UGA

The quantitative analysis of the projected demand for industrial land and the current vacant land supply does not make the case for an expansion of the UGA. On the other hand, as documented in this study, there are significant considerations related to the adequacy and suitability of the industrial land inventory that would suggest that an expansion of the UGA is warranted and necessary to ensure that London is positioned to take advantage of potential economic development opportunities. These considerations include:

- the amount of industrial land that has been “consumed” since the UGA was established in 1996. Approximately 185 ha. (457 ac.) of greenfield land has been taken up as site area for the construction of industrial buildings and industrial land sales have totaled 355 ha. (877 ac.) over the intervening years, yet the supply of industrially designated land has diminished over the same period. As the prime industrial land locations are developed, the vacant land inventory is increasingly comprised of lands that lack the characteristics (accessibility to Hwy. 401, proximity to London Airport, a large (10 ha.+) site, etc.) that are likely to be sought after by new industries. The City, in its necessary role as the primary developer of industrial lands in the municipality, needs to pursue the acquisition and development of lands at locations that experience indicates are most attractive to the types of industries that are being targeted through its economic development strategy. This will get harder and harder to do over time if there is no expansion of the UGA.
- a related consideration to the amount of land consumed is the loss of industrial lands through their re-designation for non-industrial purposes. The net effect of the re-designation of lands to and from industrial use since the UGA was established, including the anticipated changes resulting from the Southwest Area Plan, is a net reduction of approximately 452 ha. (1,116 ac.) in the total amount of industrially designated land. These changes have been warranted on their individual merits and, other than re-designations for Open Space or Environmental Review for environmental purposes, have not included any lands in the areas that are key to the City’s industrial growth.

- the 25% intensification allowance appears to over-value the contribution that older industrial areas in the City are likely to make to the accommodation of the projected demand for industrial space. Some of these areas are characterized by functionally obsolete buildings, constrained accessibility and land use compatibility issues. Over the long term it is likely that these areas will transition to other uses if “brownfield” issues can be addressed. A 10% allocation of the projected demand for industrial floor space to intensification may be more realistic; however, this determination should await the upcoming exercise to adjust the “built boundary” for the purposes of the New Official Plan Program.
- the “base” scenario that the growth projections are based on results from the application of a well researched and widely accepted economic model. The growth rates for London over the past ten years would suggest that the scenario is reasonable and likely to be accurate unless transformative change in the local economy occurs. Conversely, if Council’s commitment to economic development initiatives produces the hoped-for results, the alternative high growth scenario may be achieved in which case the demand for industrial land would approximately double. An aspirational growth target is appropriate given the opportunities created by adding industrial lands at strategic locations that would align with Council’s pending Strategic Investment and Economic Prosperity Plan. If the City has to limit its economic development strategy to a diminishing supply of industrial land that has deficiencies when compared to the requirements of targeted industries, the base case scenario may become the best case scenario.
- Council has previously endorsed the recommendation in the Industrial Land Development Strategy Update to expand the UGA to add industrial lands in the Hwy. 401 corridor. Such action is necessary for the success of the I.L.D.S. and has been frequently advocated by economic development proponents.

Council is currently engaged in the process of assessing various proposals for municipal investment in projects that would contribute to economic growth. Increased funding for the acquisition and servicing of land to implement the Industrial Land Development Strategy should be identified as a high priority through this process given

the resulting benefits in terms of direct and indirect job creation, the increased demand for local goods and services, and growth in the City’s assessment base. Over the last ten years municipal industrial land sales have resulted in a direct employment yield averaging approximately 55 jobs per hectare and relevant studies have shown that 20 to 30 indirect jobs would also be created. Expanding the supply of industrially designated land at locations that will be attractive to industries will facilitate this type of investment.

1. Expand the Urban Growth Area to add up to 500 ha. of industrial lands. An expansion of up to 500 ha. would replace the net reduction in the amount of designated industrial land resulting from changes in land use designations (452 ha.) and account for a portion of industrial lands that have been consumed through construction over the past 10 years. The ongoing “ReThink London” new Official Plan program will engage a broad range of Londoners in a discussion about the City’s plans and prospects for economic development. Any proposal to significantly expand the UGA for industrial purposes should be scrutinized through this program. One of the discussion points appended to this report sets out a number of criteria that should be considered in the process of identifying lands for inclusion in an expansion of the Urban Growth Area for industrial development purposes. Once the new industrial lands have been identified, Staff should prepare a confidential report for Council’s consideration evaluating alternative locations and outlining a land acquisition strategy which could include a request for Council direction to proceed with the negotiation of purchase options where possible.

2. Identify an area of long-term economic development interest. Official Plans contain land use allocations and growth management policies that are typically based on a twenty year time horizon which is consistent with the Provincial Policy Statement. While a twenty year projection may suffice for plan development and implementation, there is merit in adopting a significantly longer range view for strategic planning purposes. A fifty year growth concept would facilitate the preparation of infrastructure master plans (Transportation, Water and Sewer, Stormwater, etc.) and strategies for the protection of natural heritage and agricultural resources. With regard to economic development, a long-term growth concept would provide a preliminary indication of where employment areas are likely to expand so that the supporting infrastructure can be planned accordingly. It would also serve as a consideration for Council in its deliberations on land use changes or development proposals that would be inconsistent with the economic development concept. Potential highway interchanges, transportation corridors, or the creation of industrial nodes in the Highway 401/402 corridors would be put at risk if Council

lacks some basis for declaring its long-term economic development interests.

There isn't an explicit provincial policy that would provide municipalities with the authority to protect strategically located long-term employment lands beyond a twenty year planning horizon. There are, however, provisions in the PPS which direct municipalities to avoid development and land use patterns that would prevent the efficient expansion of settlement areas or that would interfere with the protection of long-term transportation corridors.

The following proposed policy pertaining to the identification of an "Area of Long-Term Economic Development Interest" is provided for discussion purposes in the course of the Rethink London Official Plan Program:

"City Council may identify, as part of its Economic Development Strategy, an area of long-term economic development interest that extends beyond the limits of the Urban Growth Area. The identification of this extended area, which will be shown as an appendix to the Official Plan, is intended to facilitate the co-ordination of the City's economic development strategy and the master planning of its transportation and service infrastructure, and to discourage the transition of these strategically located lands to uses that would be inconsistent with their future development for employment area purposes. Future expansions of the Urban Growth Area for employment area purposes, where warranted through a comprehensive Official Plan review process, would be located within the area of long-term economic development interest and Council may acquire lands within this area to hold for future industrial park development or for infrastructure purposes. Council will have regard for the protection of its long-term economic development interests in the consideration of any applications for land use changes within the subject area."

3. Consider Expanded Official Plan Provisions for Dry Industrial Uses. There are "gateway" locations within the Highway 401 and 402 corridors that offer significant highway accessibility and visibility; however, they are also subject to servicing constraints that are likely to limit their potential for industrial development beyond the ten year capital budget forecast. While such areas have strategic importance, servicing to allow a full range of





industrial uses would be either cost prohibitive until intervening lands are developed, or contingent on a major servicing project, such as the Southside Sewage Treatment Plant, being completed.

There are some types of industrial uses that have a minimal requirement for water usage and can be adequately serviced by an on-site waste water treatment system. Smaller-scale “dry industrial uses” such as warehousing, distribution centres, transportation terminals and other uses of a logistics nature are attracted to these gateway locations and generate a minimal demand for water usage and waste water disposal. Over recent years there have been instances where logistics related businesses have considered locating in London but have been unable to find available, “shovel-ready” sites that meet their location and size requirements. Since such uses are typically space extensive and generate a lower employment yield they are not part of the target market for sites in the municipal industrial parks. Furthermore, they are more likely to be attracted to sites with easy access to Highway 401 or 402 and a price that reflects a lower investment in servicing costs.

While the Provincial Policy Statement promotes development on full municipal services, it also contains provisions which would allow on-site sewage and water services where municipal services are not available, all regulatory requirements can be met, and human health and the natural environment can be protected.

The Official Plan already contains two provisions for dry industrial uses. According to Policy 2.6.4.2 (Sanitary Sewerage Policies):

iii) Individual wastewater treatment systems may be permitted for proposed “dry” commercial or industrial development on lands that were designated for commercial or industrial use before they were annexed to the City of London on January 1, 1993 provided certain criteria as set out in Section 17.2 are met. Lands not serviced by municipal sanitary sewerage facilities will be subject to a holding zone limiting uses to “dry” uses until the services are available.

Section 17.2.6 of the Official Plan deals with individual wastewater treatment systems. It elaborates on the conditions attached to the allowance for the development of dry industrial uses such that:

- the development of on-site services will not detract from the long-term viability of providing full municipal services;
- the use does not involve a significant number of employees, require significant amounts of water for its operations or produce significant amounts of water for its operations or produce significant amounts of effluent;
- there are no viable options for a connection to municipal services and municipal services will not be available within a reasonable time frame;
- the proposed wastewater treatment system can meet all applicable requirements for approval;
- the proponent agrees to connect the proposed use to the municipal sanitary sewerage system at no cost to the municipality when sewers are extended to the area.

There is one area in the City where provisions to allow dry industrial uses already apply. The “Tempo Area” special policies (Official Plan policy 10.1.3 xlii) allow a limited range of dry industrial uses within a defined area in the Colonel Talbot Road corridor north and south of Hwy. 401.. Although these lands are designated as “Agriculture”, the special policies permit:

(a) a limited range of dry industrial uses including assembling, fabricating and repair activities within enclosed buildings, warehouse and wholesale establishments, transportation terminals and any other use that is required to locate in this area because of its proximity with Ford Talbotville.

The Tempo policies should be reviewed to determine whether an industrial land use designation should be applied given the present character of the area, whether the boundaries of the special policy area should be expanded, and whether adjustments should be made to better define the range of permitted dry industrial uses. In doing so, the City’s objective should be to support and build upon the reuse of the recently vacated Ford Talbotville Plant.

Other strategic locations that would warrant consideration for dry industrial uses given their proximity to an existing or planned interchange on Hwy. 401 or 402 include Wonderland Road and Hwy.

401, Wonderland Road and Hwy. 401, and Colonel Talbot Road and Hwy. 402. Although expanded provisions for dry industrial uses in one or more of these areas would better align the supply of industrial land with economic development objectives targeted to logistics uses, care should be taken to not over-extend this approach. The principal means of supporting industrial development in the City should continue to be through the provision of full municipal services and the criteria for dry industrial uses currently in the Official Plan should be carried over to the new Official Plan.

The potential contribution of expanded dry industrial use provisions to the city’s long-term economic development should be considered as part of the Strategic Investment and Economic Prosperity Plan process and then brought forward for public review and discussion through the New Official Plan program.

A. Eco-Industrial Park

The concept of an eco-industrial park focused on waste management and recovery and green energy uses, located along the Manning Drive corridor between the W12A facility and the planned interchange at Wonderland Road and Hwy. 401, was first raised as part of the W12A area planning exercise several years ago. The proximity of this area to the municipal landfill and waste recovery facilities, which could provide a source of both raw material and energy, its accessibility to Hwy. 401 and its separation from non-farm residential uses are positive locational factors for the creation of this type of industrial park. There is an opportunity to link the development of the park to the related research programs at the University of Western Ontario and other research and development agencies. The eco-industrial park could be designed and promoted through appropriate incentives as an incubator for start-up companies that would apply the innovative technology that is being developed.

The eco-industrial park concept was first introduced about fifteen years ago and there are many successful developments in Europe, Asia and North America that could be used to adapt a model that would be appropriate for local circumstances. An eco-industrial park has been defined as, "...a community of manufacturing and service businesses located together on a common property. Member businesses seek enhanced environmental, economic, and social performance through collaboration in managing environmental and resource issues. By working together, the community of businesses seeks a collective benefit that is greater than the sum of individual benefits each company would realize by only optimizing its individual performance. The goal of an eco-industrial park is to improve the economic performance of the participating companies while minimizing their environmental impacts. Components of this approach include green design of park infrastructure and plants (new or retro-fitted); cleaner production, pollution prevention, energy efficiency, and inter-company partnering..." (Eco-Industrial Park Handbook, Indigo Development). Aspects of an EIP can include by-product synergy inter-plant energy flows, shared logistics and shipping/ receiving facilities, district energy systems, common



wastewater and stormwater management systems and collaborative waste reduction schemes.

If Council has an interest in pursuing this concept it should be considered in the context of its Strategic Investment and Economic Prosperity Plan. Further research into the development of an EIP should be undertaken in collaboration with the LEDC and discussions initiated with UWO and other potential partners.

B. Evaluation Criteria for the Inclusion Industrial Lands in the Urban Growth Area

The following criteria should be considered in the evaluation of lands for inclusion in the UGA for industrial purposes;

- alignment with economic development objectives and priorities;
- suitability/affordability for municipal servicing;
- proximity to Hwy. 401, Hwy. 402 or the Veterans Memorial Parkway;
- site topography and configuration;
- environmental/natural heritage constraints;
- existing land use/ compatibility issues;
- landowner interest in development;
- agricultural land considerations including agricultural land capability and MDS requirements;
- suitability for the extension of transit service;
- compact urban form/ logical extension of the urban area;
- the return on investment in previous previous infrastructure projects;
- parcel sizes and their suitability for land assembly; and
- the opportunity for spin-off benefits.

The evaluation process should include input from all of the municipal departments and agencies that have an interest in industrial land development and be open to public review and input.



C. Industrial Land Use Policies and Zoning By-law

The 2011 ILDS Update recommended that Official Plan industrial land use policies and Zoning By-law industrial zone regulations be reviewed. The purposes of such a review would be to:

- update the policies and standards so that they are more restrictive of current industrial operations, provincial guidelines and the practices of other municipalities for regulating industrial land uses;
- engage local industries and economic development agencies in a dialogue about the adequacy of the City's land use controls;
- remove or revise regulations that have been proven to be unnecessarily restrictive based on the City's experience with industrial rezoning and minor variance applications;

Overly restrictive zoning that results in needless applications for amendments or minor variances is an impediment to the attraction of new industries to the City. The purpose of the regulations is to limit or mitigate the potential impact of industrial uses on surrounding lands and this can often be better achieved through effective site plan control measures that can be adapted to the circumstances of individual sites. Many of the land use policies and zoning regulations have been carried over through various iterations of the Official Plan and Zoning By-law over the last forty years and it has been twenty years since the last comprehensive review was undertaken. The New Official Plan Program provides the opportunity to initiate a review that would be directed towards a less detailed and less prescriptive approach.

- 1) **Identify in the Official Plan an area of long-term economic development interest.**
- 2) **Revise the economic development goals, objectives and strategies in the Official Plan to more closely align with Council's current strategic priorities and economic development initiatives.**
- 3) **Encourage the province to undertake a regional growth plan for Southwestern Ontario.**
- 4) **Review the potential for Office Business Park designations in the Highway 401/402 corridors.**
- 5) **Expand the Urban growth Area in the 401/402 corridor.**
- 6) **Continue to pursue the extension of Veterans Memorial Parkway to Wilton Grove Road and add this link to Schedule "C" of the Official Plan.**
- 7) **Delete Policy 2.5.8 vii) [reference to Southside Sewage Treatment Plant] from Official Plan.**
- 8) **Consider policies to allow greater opportunity to develop 'dry' industrial uses at strategic locations in the Highway 401/402 corridors that are not readily serviceable.**
- 9) **Review the allocation and mix of permitted uses in the industrial land use designations; increase the supply of 'General Industrial' lands.**
- 10) **Consider policies to support an 'eco-industrial' park in the corridor linking the W12A Landfill to Highway 401.**
- 11) **Review and revise the Zoning regulations for industrial lands.**
- 12) **Adopt revised ILDS inventory targets for serviced and unserviced lands for each industrial land use category.**

APPENDIX 1

13) Allocate \$4 million in 2012, 2013, 2014 Capital Budgets and \$2 million/year for 2015-2020 for industrial land acquisition (subject to annual review).

14) Increase assumed rate of industrial land sales from 10 ha/year to 15 ha/year.

15) Review the industrial land pricing strategy based on an independent land valuation and review of pricing and incentives in other municipalities.

16) Give a high priority to the servicing of industrial lands on the north side of Huron Street near London Airport.

17) Initiate a ten year capital program for industrial land development (planning and servicing) for a minimum of 100 ha of land at an approximate cost of \$20 - \$25 million per 100 ha (excluding land, including the contribution to DC funds); adjust program annually based on land inventory and demand factors.

18) Request that London Transit consider the expansion of its bus service to municipal industrial parks that are not being served at present.

19) Establish an ILDS Coordinating Committee to be led by a senior management person who will be responsible for reporting on ILDS.

20) Review the range of uses that qualify for the industrial land use exemption under the Development Charges By-law.

21) Consider the merits of creating a municipally-owned Industrial Land Development Corporation to buy, service and sell industrial lands to be funded, after start-up, through tax increment financing.

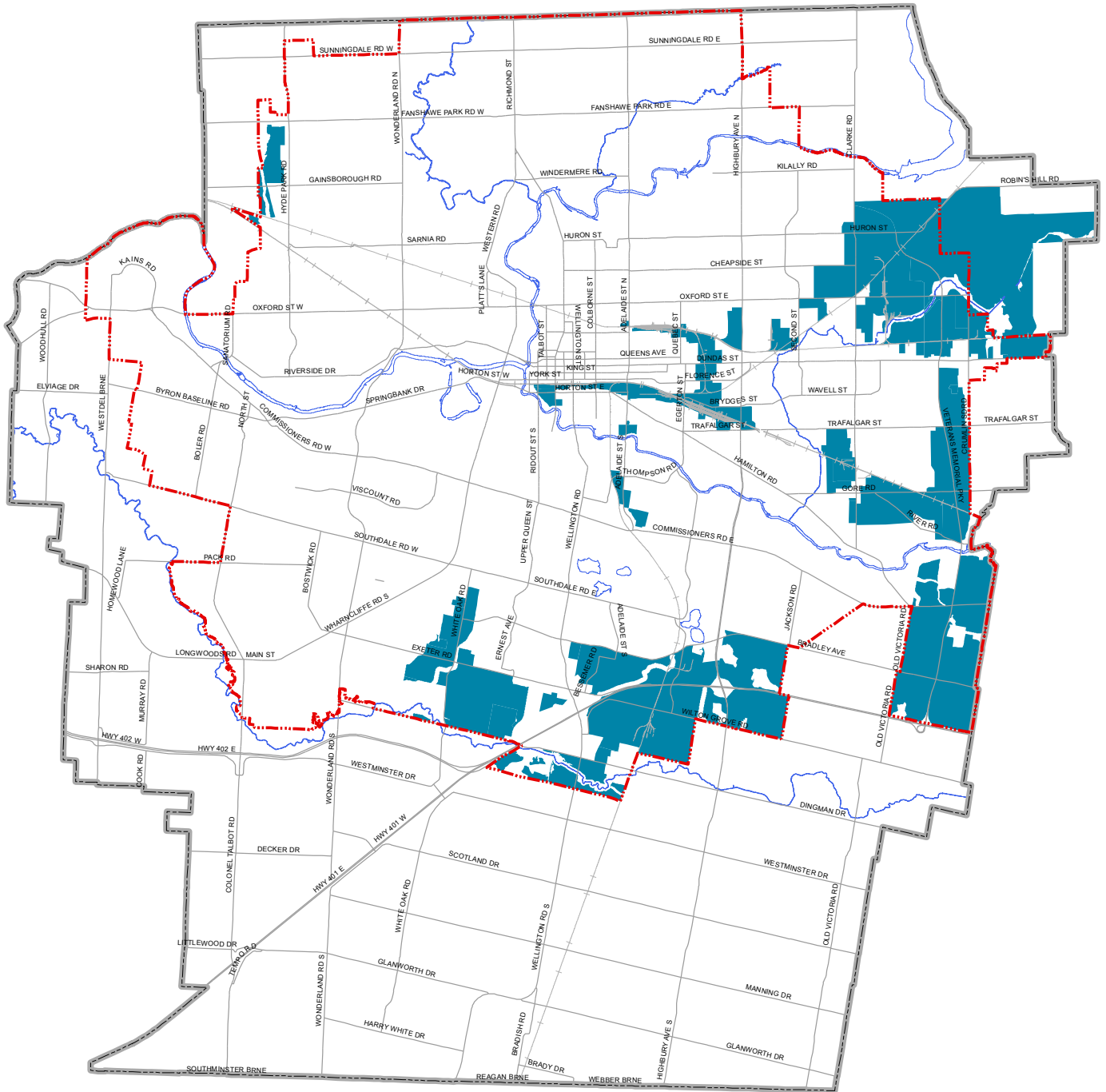


MAPS

MAP 1

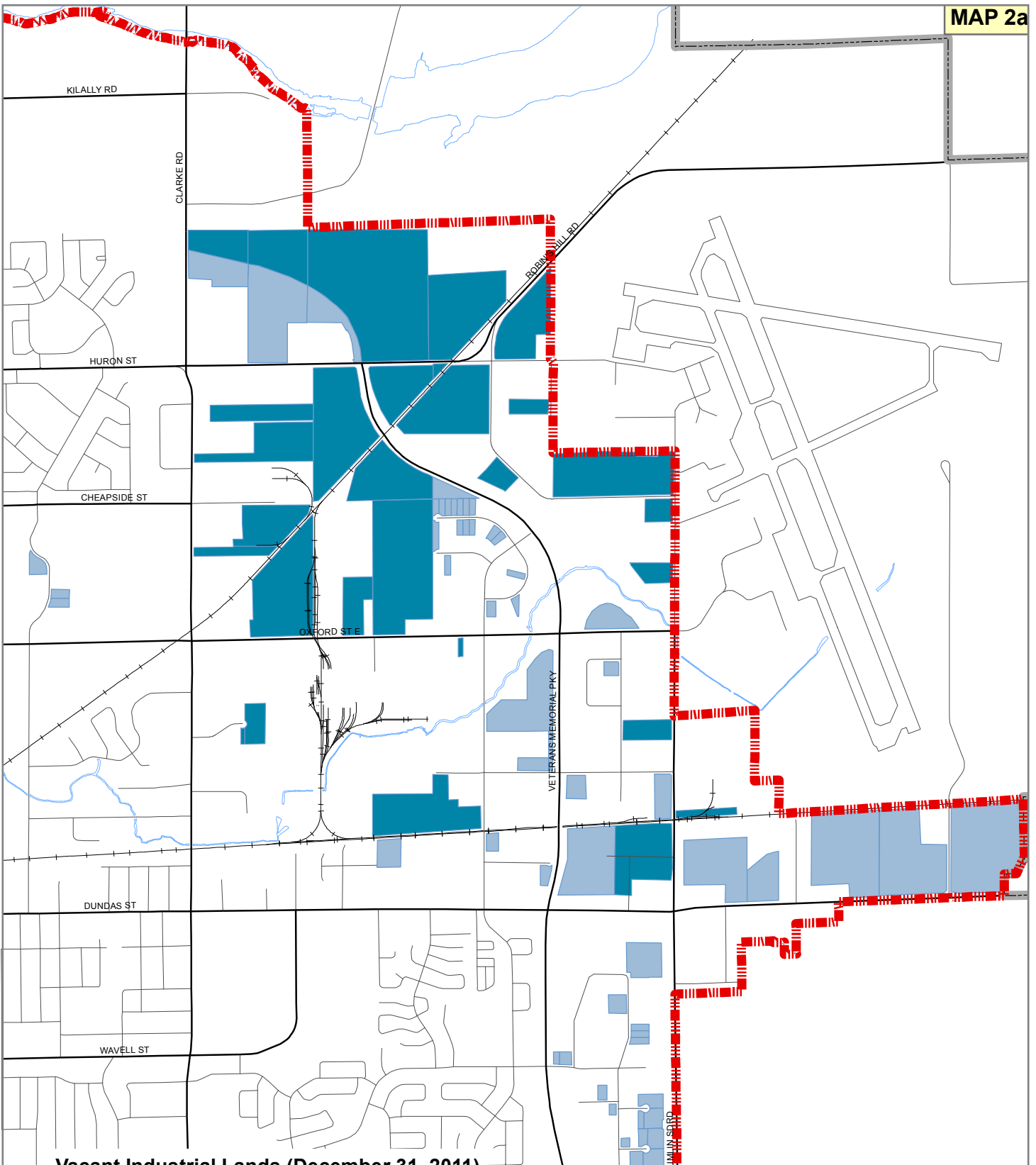
City-wide Designated Industrial Lands (December 31, 2011)

NOTE: Industrial Lands re-designated to non-industrial uses through the Southwest Area Plan in October, 2012 are not included in this map



General Industrial	1,374.4 ha
Light Industrial	2,278.6 ha
Office Business Park	103.7 ha
Urban Reserve Industrial Growth	221.0 ha
=====	
TOTAL AREA	3,977.7 ha





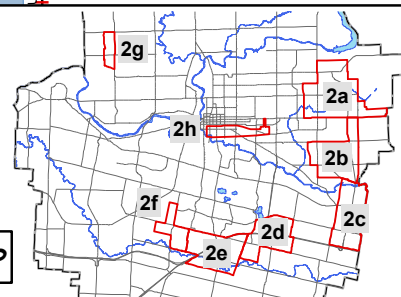
Vacant Industrial Lands (December 31, 2011)

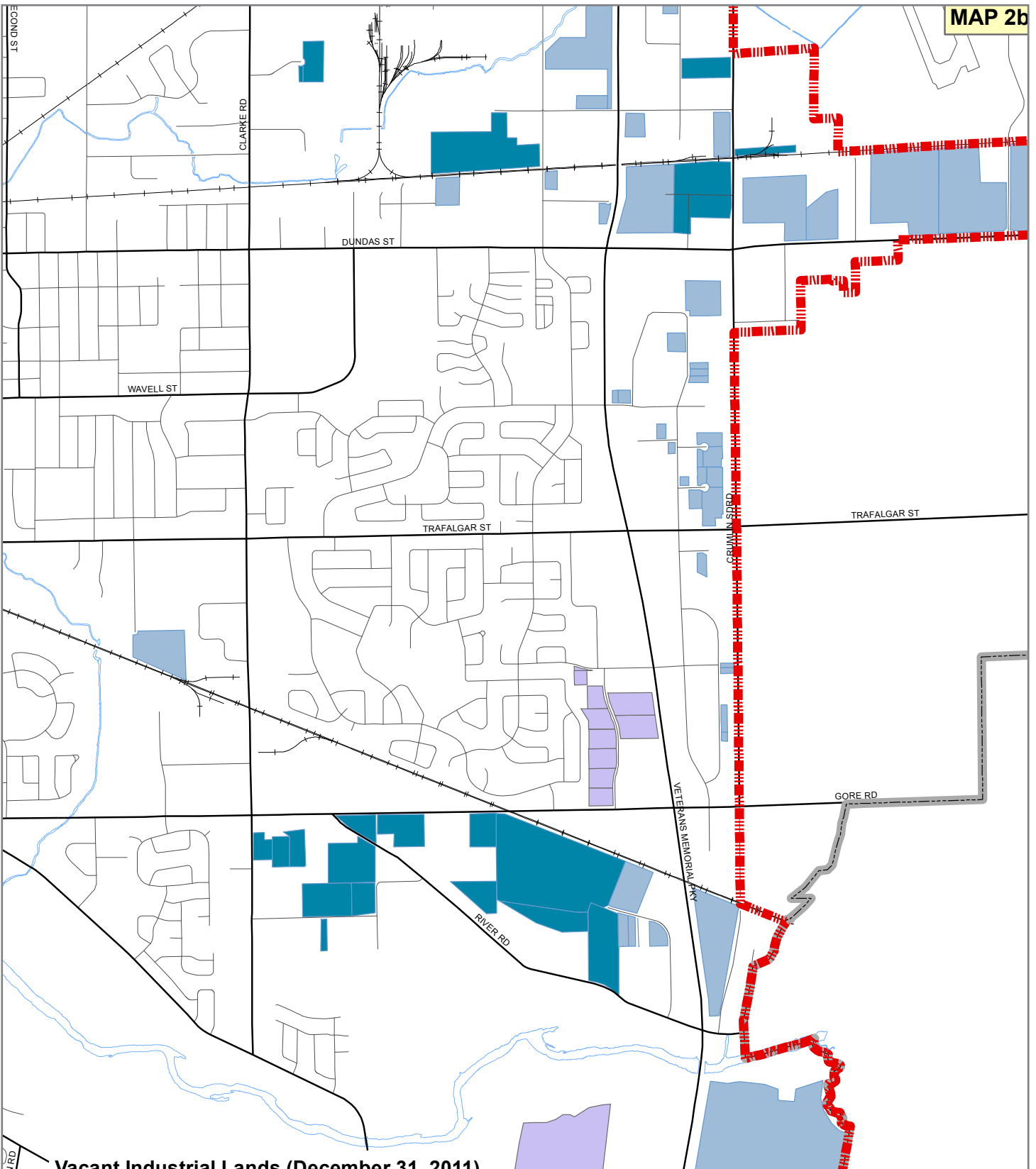
- General Industrial
- Urban Reserve Industrial Growth
- Light Industrial
- Urban Growth Boundary
- Office Business Park



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KEY MAP



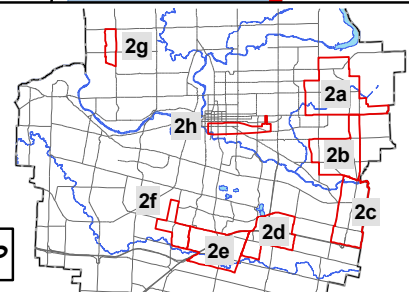


Vacant Industrial Lands (December 31, 2011)

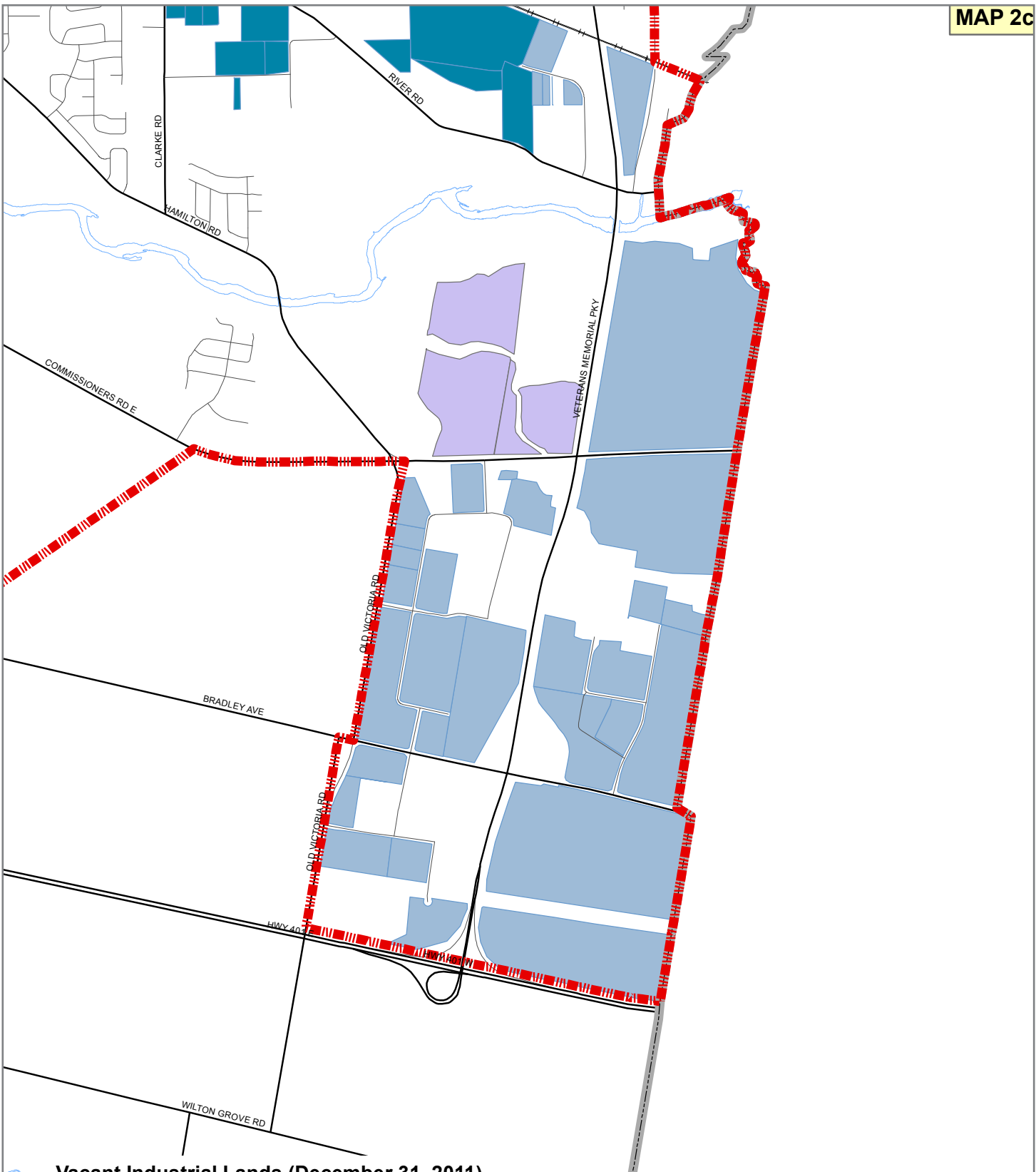
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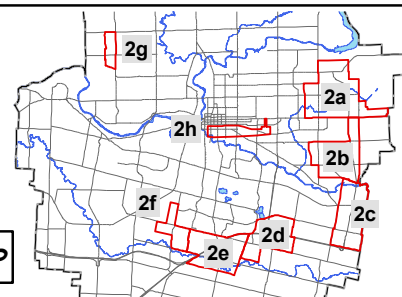
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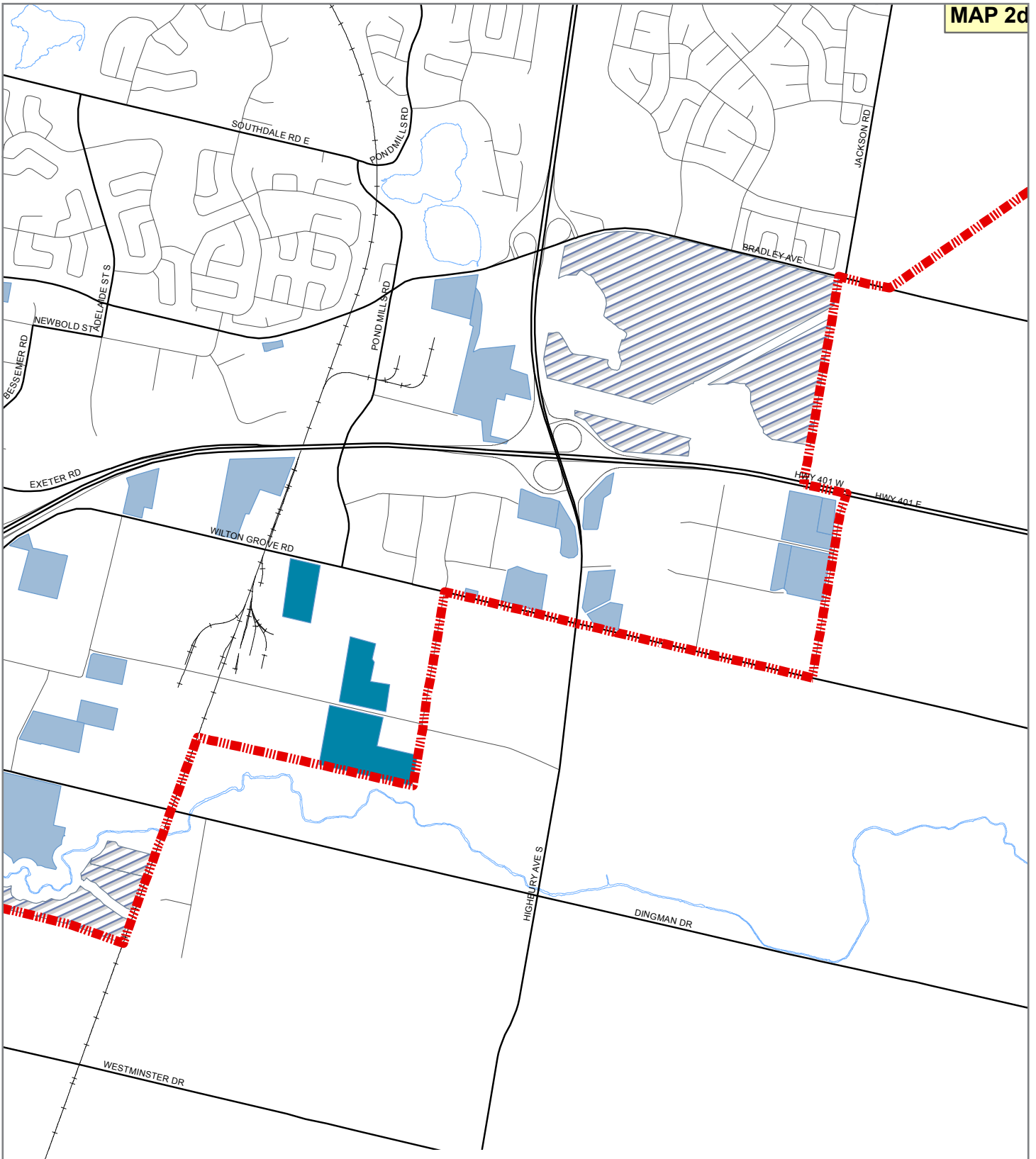
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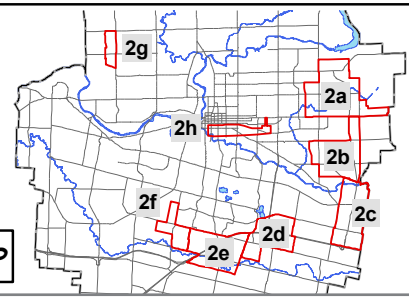
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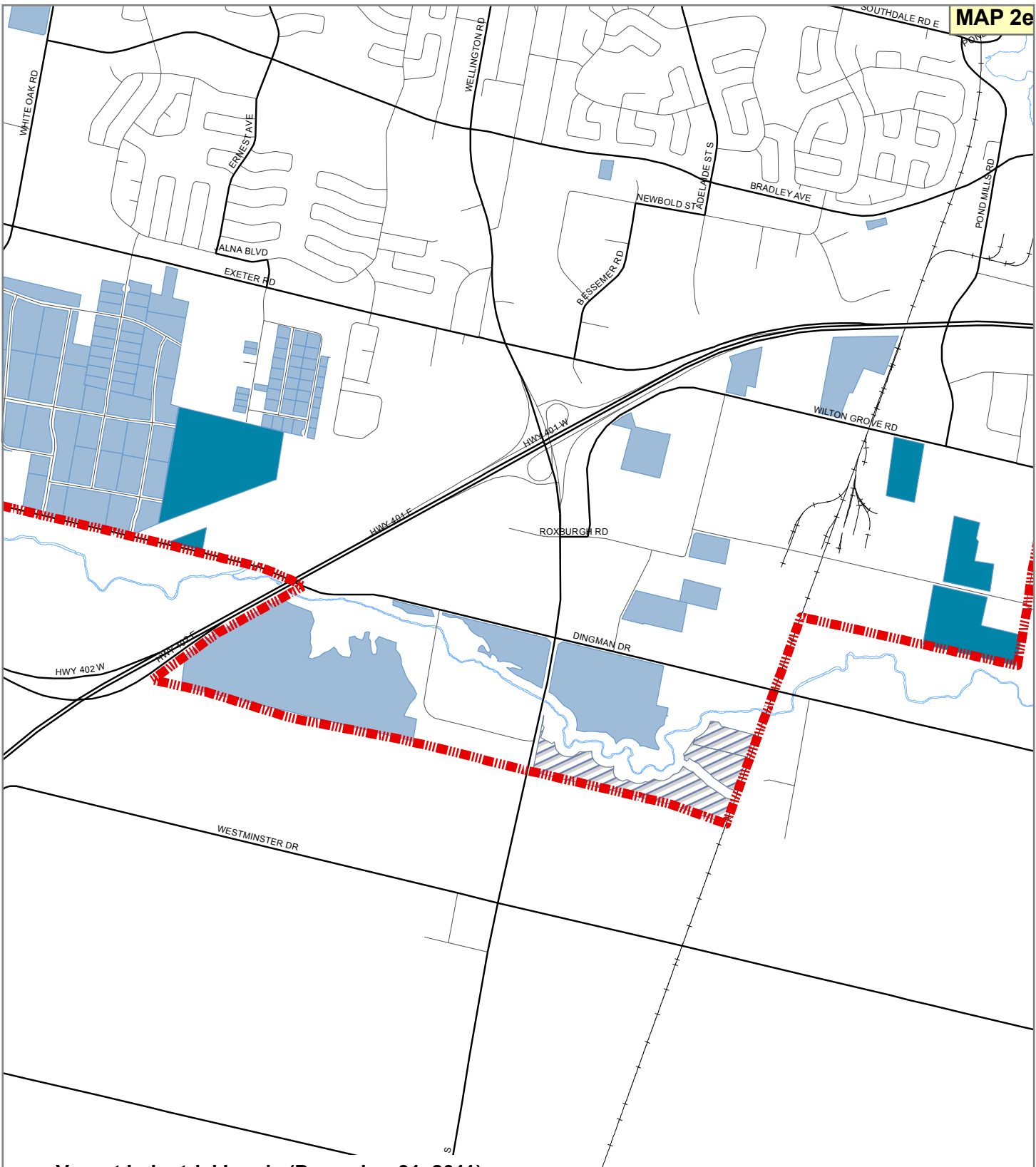
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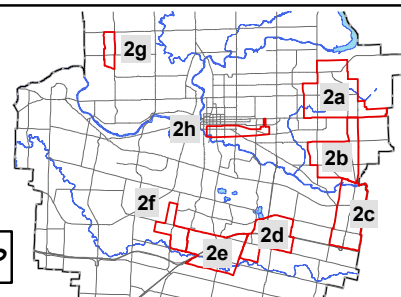
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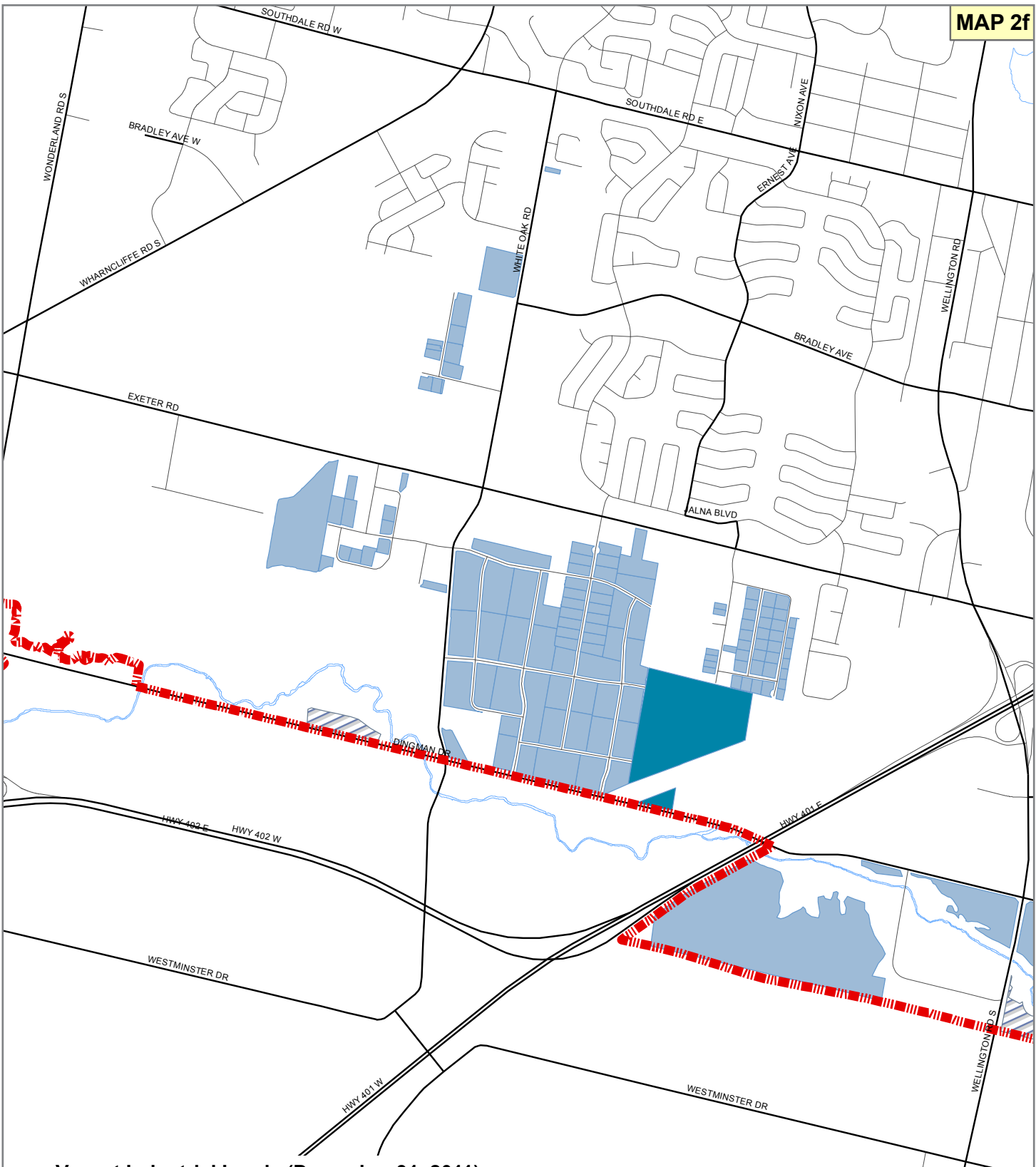
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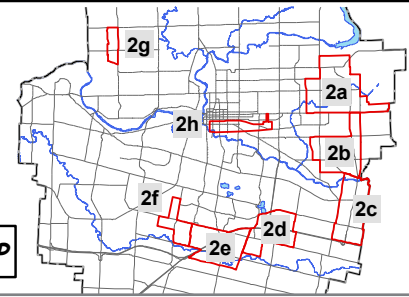
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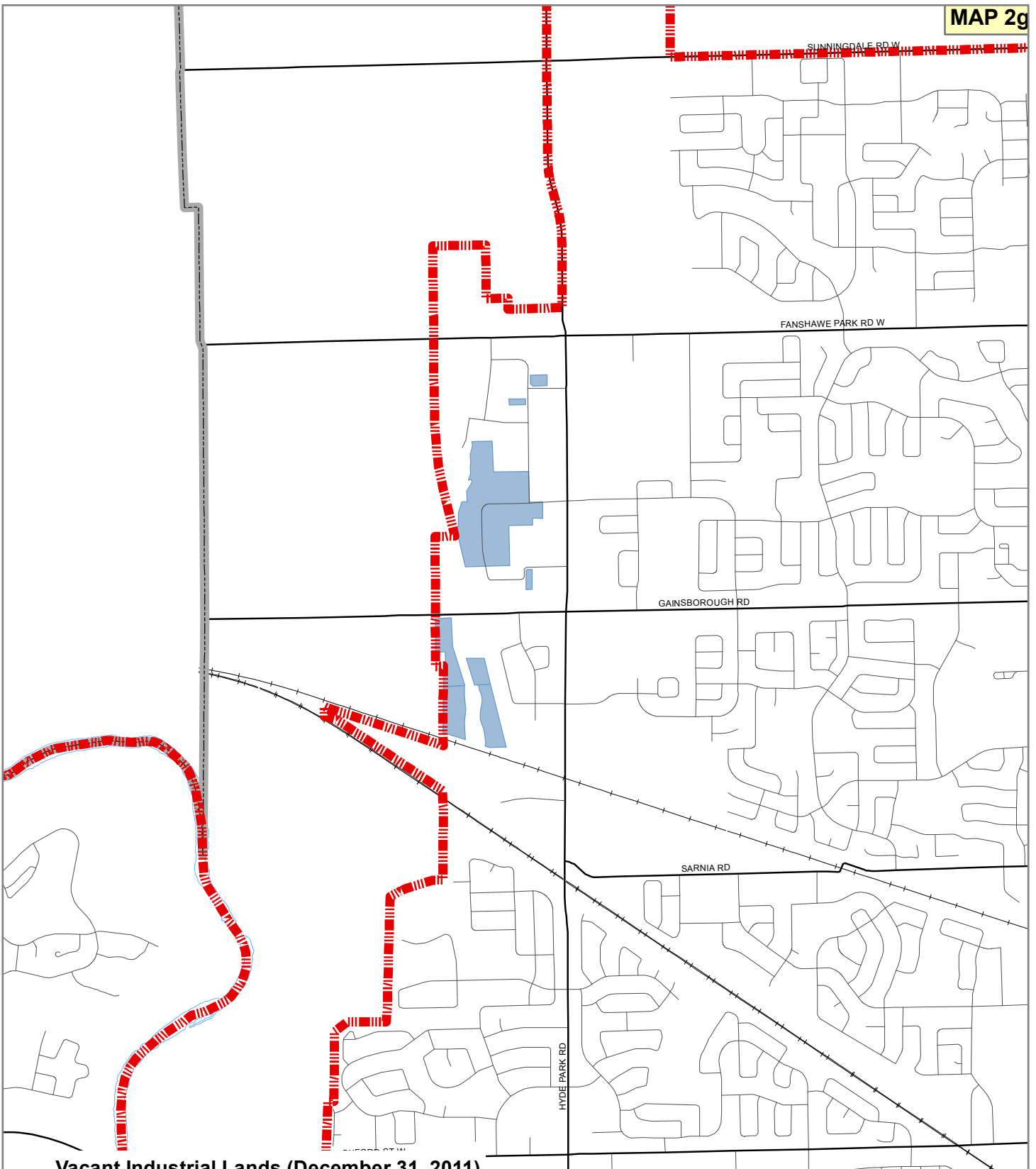
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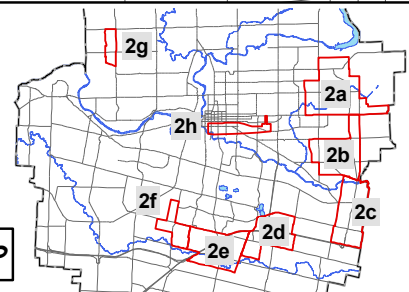
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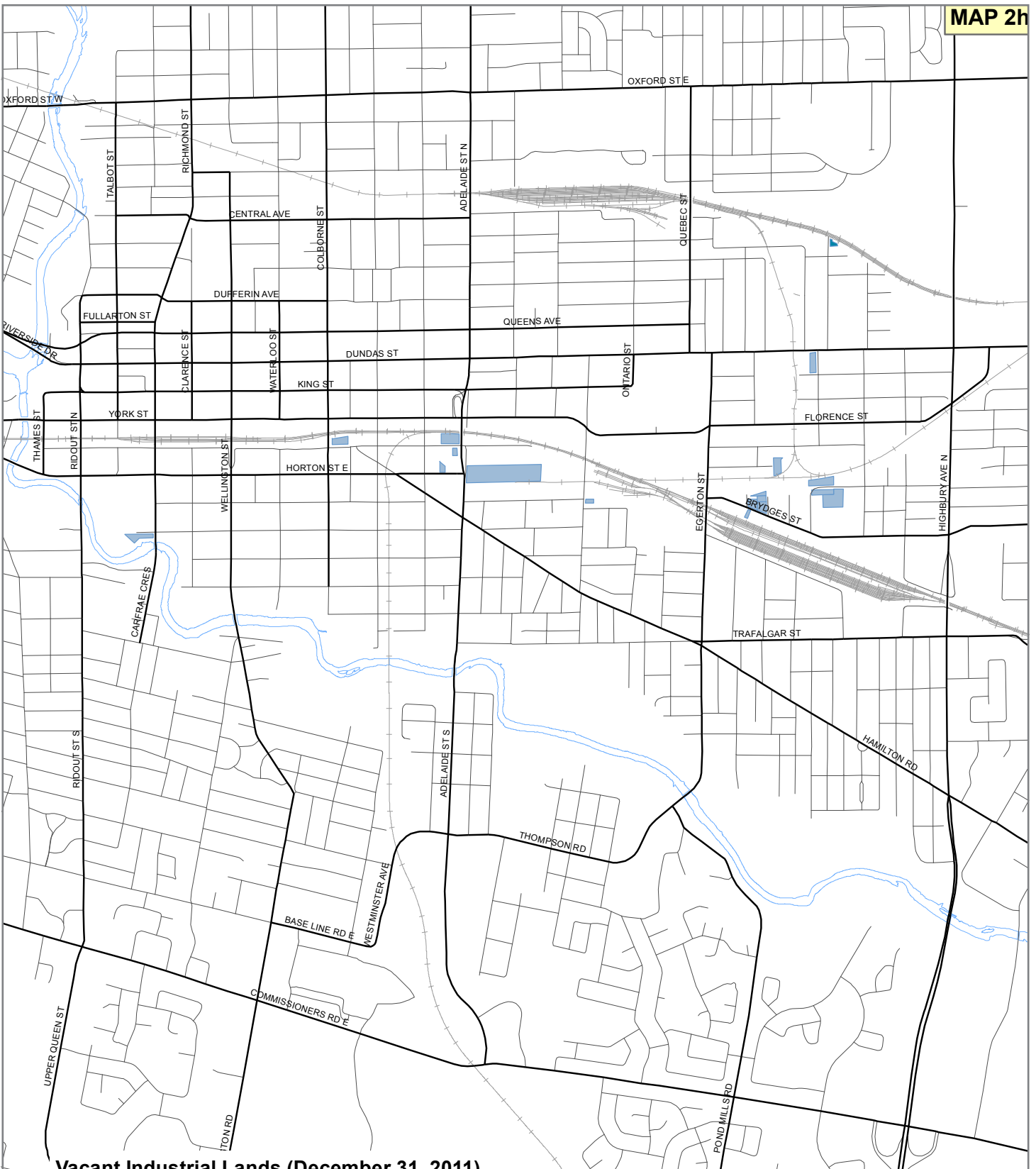
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KEY MAP





Vacant Industrial Lands (December 31, 2011)

- General Industrial
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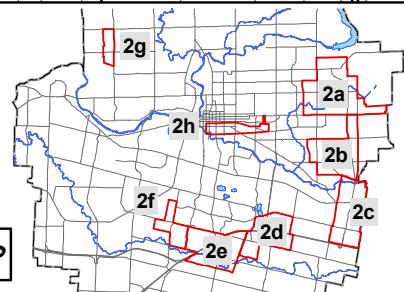


IMAGE SOURCES

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11	City of London Realty Services
12	City of London Realty Services
15	City of London Realty Services
19	City of London Realty Services
21	cbre.ca/o/london/properties/2021-oxford-street-east/Pages/aerials.aspx
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