Nexus Solar - dist. to CityCaud Aug 26/19 9.1.3 LEC Plan



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Affordability and Choice Today

ACT Solutions Subdivision Introduces Innovative Lot/Design Concepts That Sell Nexus Solar Corporation, Guelph, ON

Issue

Conventional subdivision standards can give rise to the following drawbacks: garagedominated streetscapes; lack of privacy on corner lots; and undervaluation of pie-shaped lots compared to rectangular lots in terms of land and linear infrastructure consumption per home. New development and design solutions are needed to overcome such problems.

Plan

Nexus Solar received an ACT grant i) to continue work, initially undertaken by the City of Guelph, on alternative development standards and ii) to develop innovative lot and housing concepts. The objective was to improve housing choice and quality while keeping housing affordability constant.

The lot and housing concepts would address the lack of privacy of corner lots, provide an alternative to garage-dominated streetscapes, and result in more efficient land use on pie-shaped lots. Thomasfield Homes provided a 1hectare (2.59-acre) site, referred to as the "Actarea", in Guelph's Pine Ridge East subdivision, making it possible for Nexus Solar to apply the new standards and designs in practice.

Project team

Nexus Solar Corporation Thomasfield Homes Ltd. City of Guelph – Public Works; Planning Department Guelph's Round Table on the

Environment and Economy

Results

Zoning Changes Guelph adopted four specialized residential zones to permit the following features:

- wider frontages, which decrease the prominence of garages, create brighter interiors and offer new and traditional architectural opportunities;
- improved privacy on corner lots;
- introduction of a garden suite on a conventional lot;



The lot with a separate, permanent garden suite in back was among the first to sell.

Source: Nexus Solar Corp.

- lots permitting business units with main floor access, extra parking for employees or clients and a separate entry option;
- longer views to adjacent dwellings from backyard-facing windows; and
- more appealing frontage and an increased lot yield (approx. 20 per cent).

It could work for you!



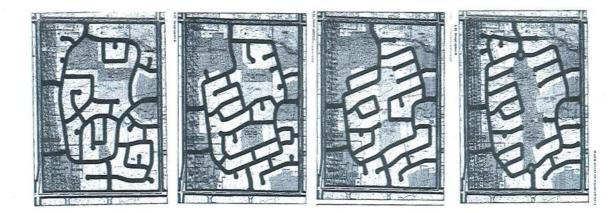
Program Partners:







Ryckmans Neighbourhood, Hamilton, ON. From Design for Northern Climates (1988) by Vladimir Matus, Van Nostrand Reinhold Co., NY.



Option	A – Conventional	B-A Nod to Efficiency	C – Design for Better Solar	D – Solar + Greenway
Construction costs1	\$ 13,048,000	\$ 13,004,000	\$ 12,146,000	\$ 12,699,000
Operation/main costs2	\$ 91,360	\$ 86,405	\$ 84,970	\$ 83,990
Street length (km)	7.173	6.695	6.490	6.914
Fuel efficiency vs. A		6.6%	4.6%	6.1%
Density (gross u/ha)	16.2	21.0	22.6	21.6
Net Rating	Worst	third	best	Second
Units/km road	178.4	247.8	275.1	246.8

1 according to Residential Cost Analysis Model (RACAM) 2 according to Residential Area Traffic Analysis Model (RATAM)

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