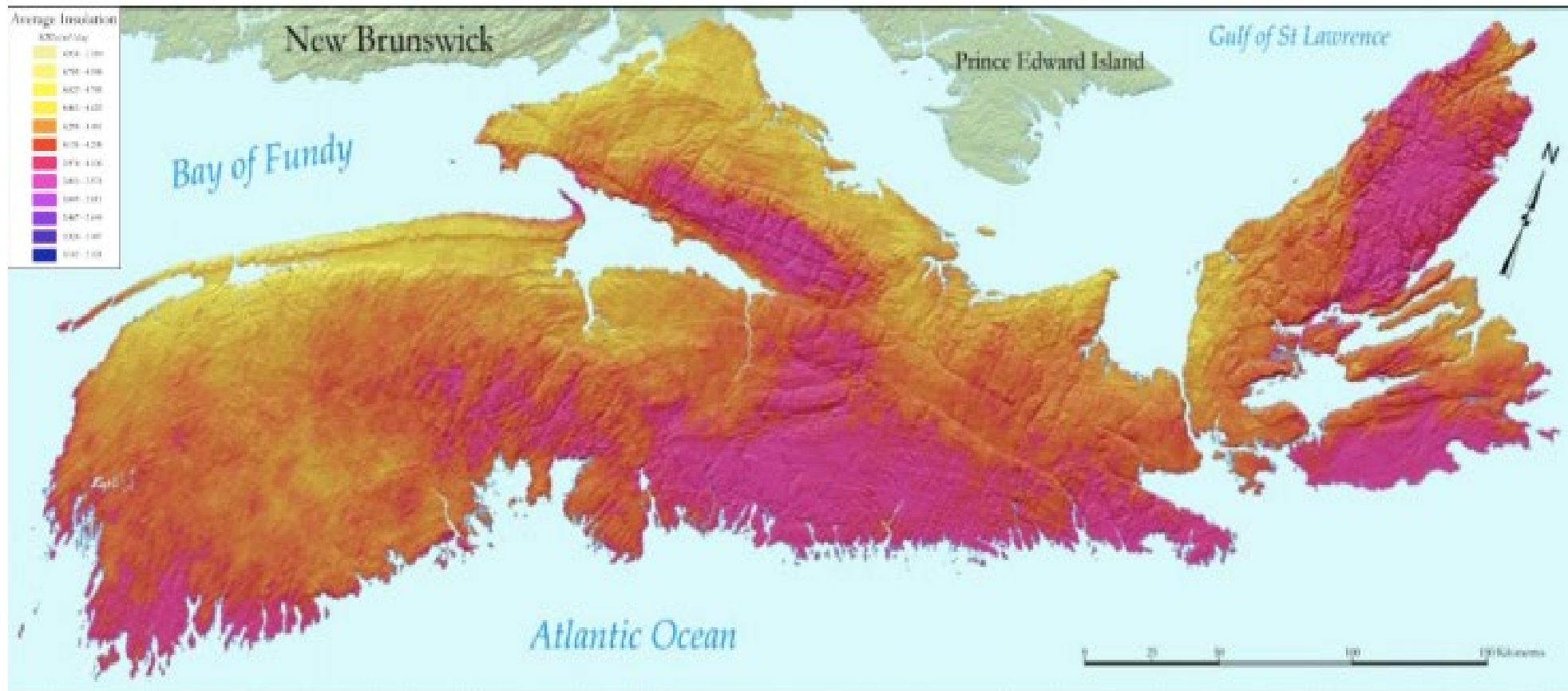


Protection of Right to Light for Solar Energy

Halifax's Solar Energy Resource is above global leaders such as Germany.

(Map: Nova Scotia Community College, Applied Geomatics Research Group)



Introductions

Peggy Cameron:

- Biologist, Masters of Environmental Studies
- Founder, owner and vice-president of wind energy company-2013
- Climate change and renewable energy researcher and advocate
- Carbon neutral retrofit of 1890 home, solar photovoltaic (PV) and thermal

Howard Epstein:

- lawyer
- Former Halifax Councilor, MLA, MP
- Dal Law Professor
- Specialist in planning policy and law, and environmental policy and law

Rationale for Solar Energy

- **Climate change** —reduction of fossil fuels and GHG emissions
- **Energy security** — energy independence- not imported
- **Diversify energy sources**—solar hot water, solar hot air, solar photovoltaic (electricity), passive solar building design (lighting/heating)
- **Educate** — encourage support for renewable energy and energy efficiency, transition to a smaller carbon footprint
- **Economic benefits** — creates local jobs in research, manufacturing, installation and maintenance. Keeps energy expenditures local.
- **Cost-effective** — Increasingly price competitive and accessible
- **Cutting edge opportunity** - Vancouver, New York, European cities/states now require all new builds be solar ready

Halifax Solar City Programme (since 2013)

- Progressive Vision supporting solar energy
- HRM provides staff, resources and support; incentives, rebates, financing,
- Began with solar hot water systems
- Progressed to solar electricity or Photo Volatics (PV)
 - To date 550 properties have used the financing, totalling nearly \$14 million for installation of 5 megawatts of renewable energy

“HalifACT requires nine times this amount (of PV) per year to meet our targets” municipal clean energy specialist Kevin Boutilier

Increasing building heights
decreases opportunities for solar
energy development

Problems with current zoning changes to allow taller buildings

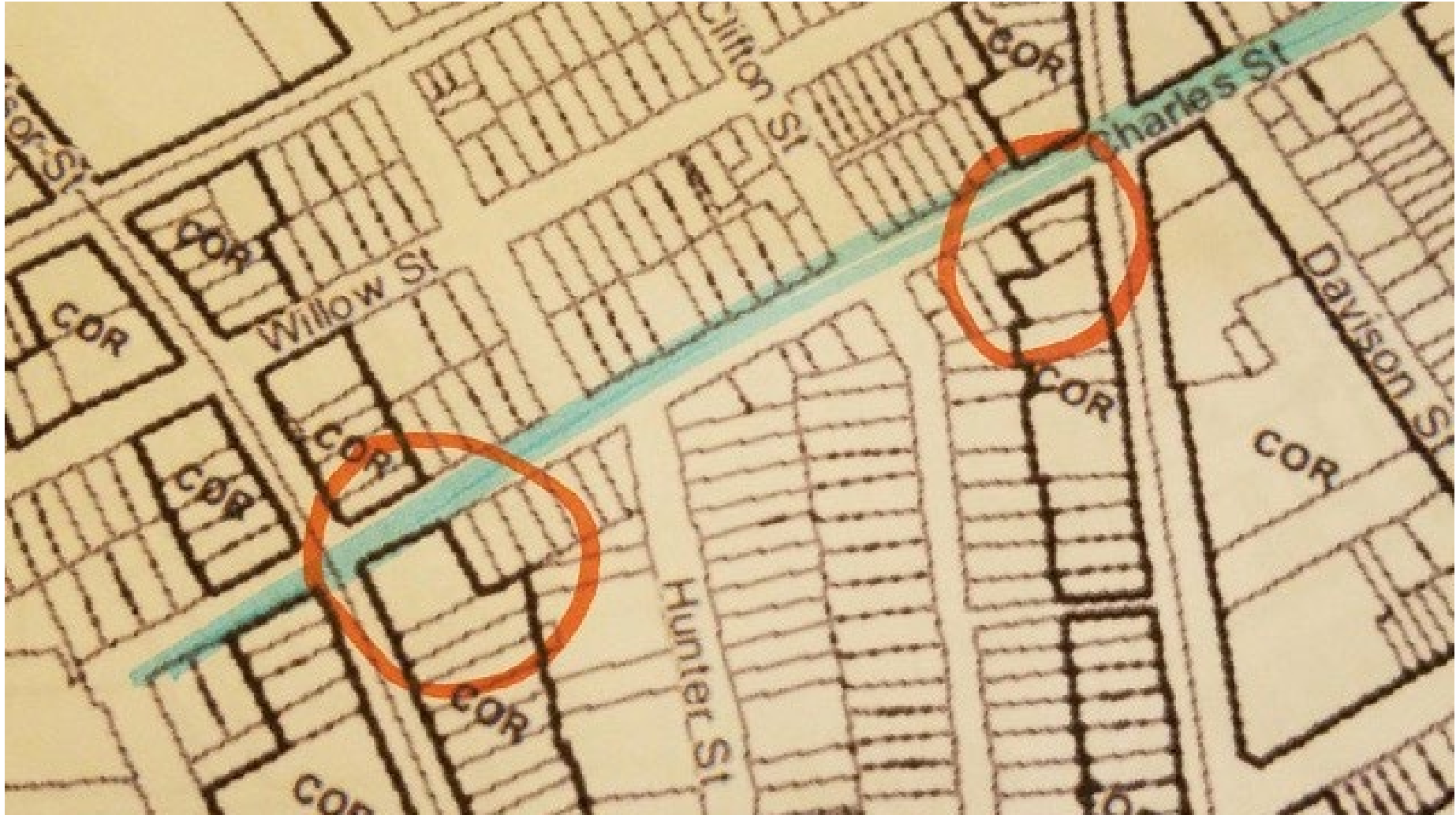
- HRM does not offer “right to light” protection for solar installations
- Up-zoning in the Centre Plan area will negatively impact existing and future solar energy installations.
- Investment risk - solar installations are costly (\$20-40,000-100,000++)
- Solar installations can last 30-40 years
- HRM must adopt zoning flexibility to consider local situations and impacts on solar energy infrastructure and opportunities.

Zoning changes should not eliminate current and future opportunities for climate-friendly energy such as solar.

Risk Example: Detail of Final Corridor map shown to public after consultation period-(April 2019).

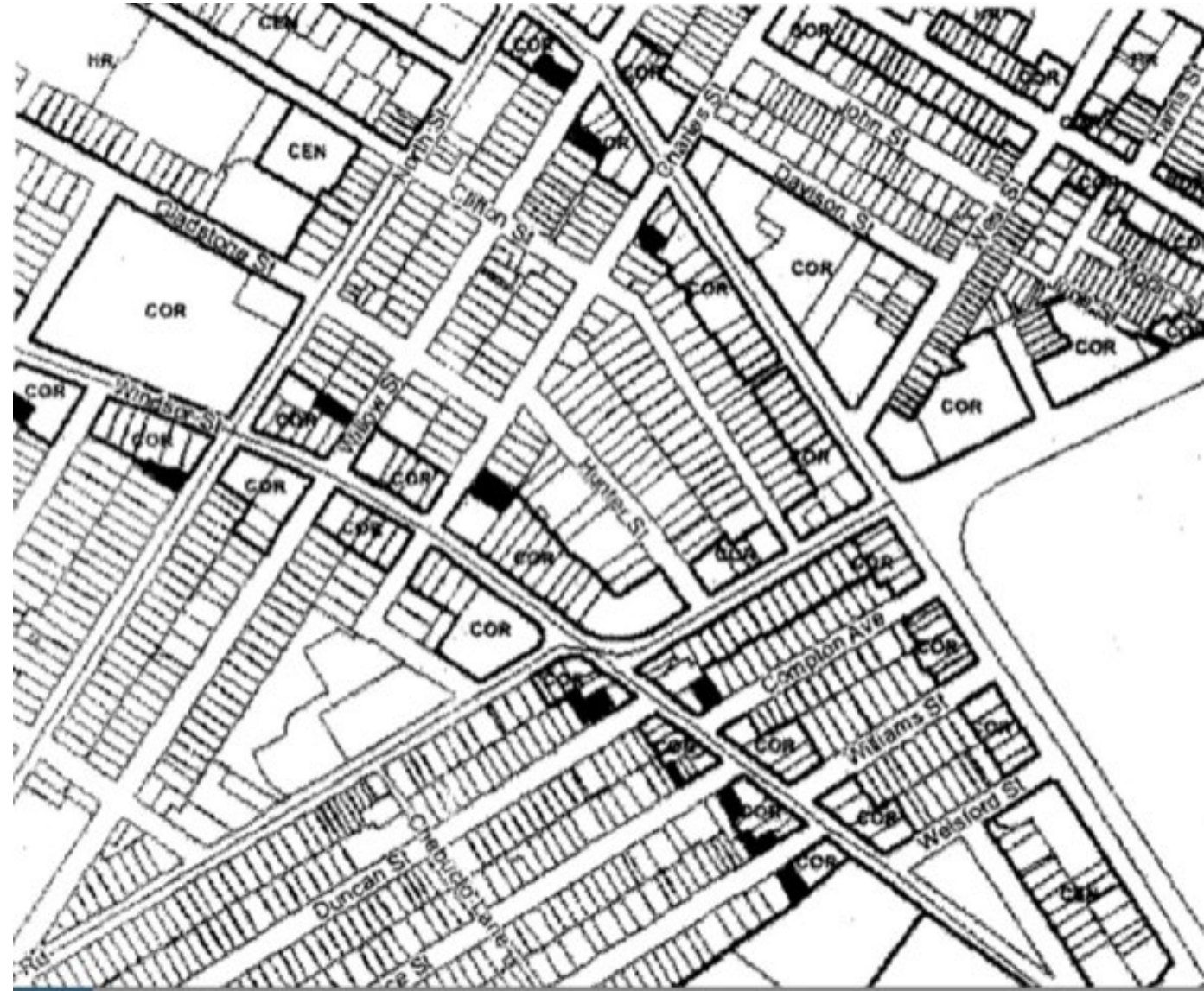


Charles Street on Corridor Map (April 2019)
No homes on Charles Street are included



Corridor “final” Version (May 2019)

- Residential street properties were added post-consultation (in black)
- Three properties on Charles Street are included.
- General public and homeowners not notified of Corridor designation, zoning change.
- Many citizens wrote to council asking properties to be undesignated



Charles Street with what is now possible after 6024 Charles (blue/grey house centre left) is included.

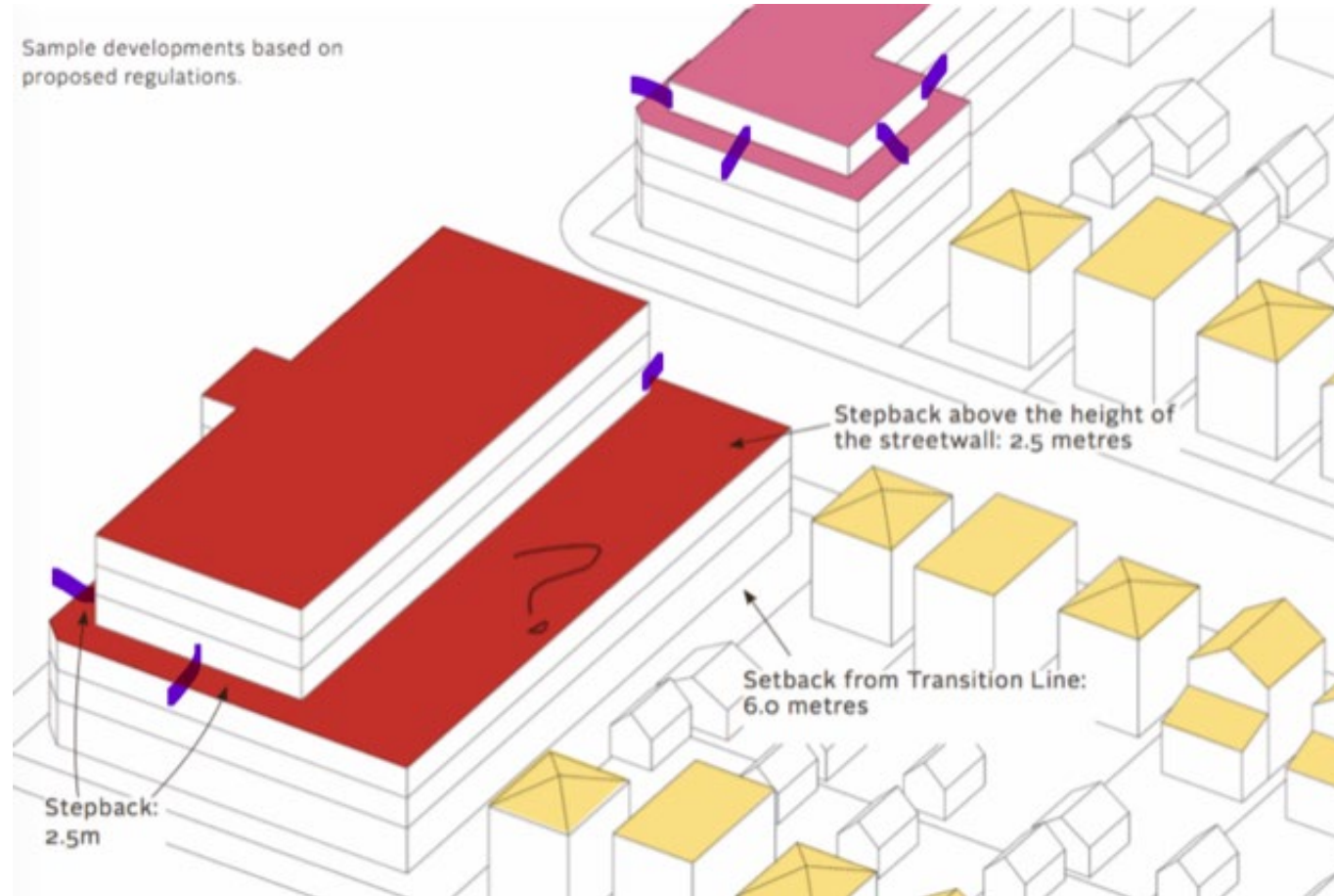


96 citizens petitioned to have 6024 Charles removed from Corridor.

BUT 6024 Charles Street has not been removed from Corridor designation.



Centre Plan Stepback of 2.5m does not protect solar access



Shading Impact on 6032-34 Charles St. Solar PV

March 21, 9am

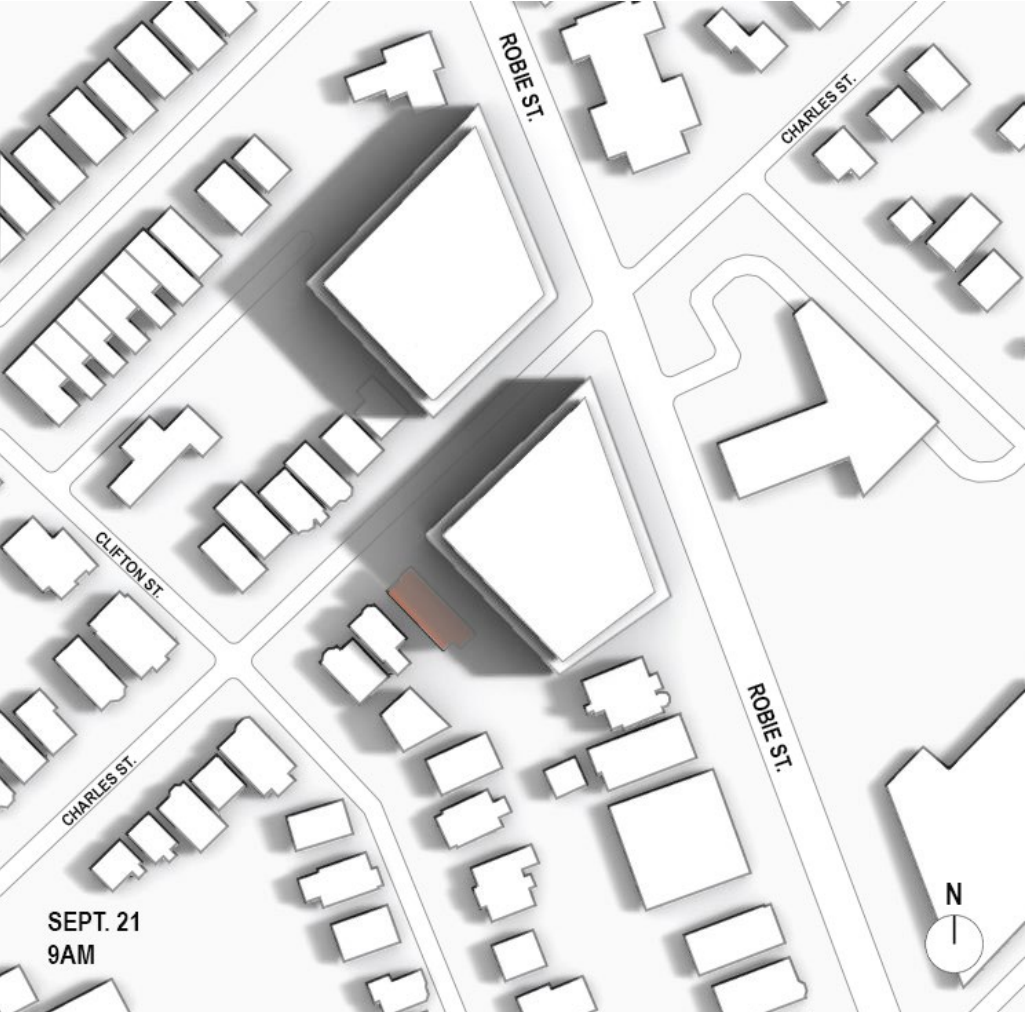


June 21, 9am

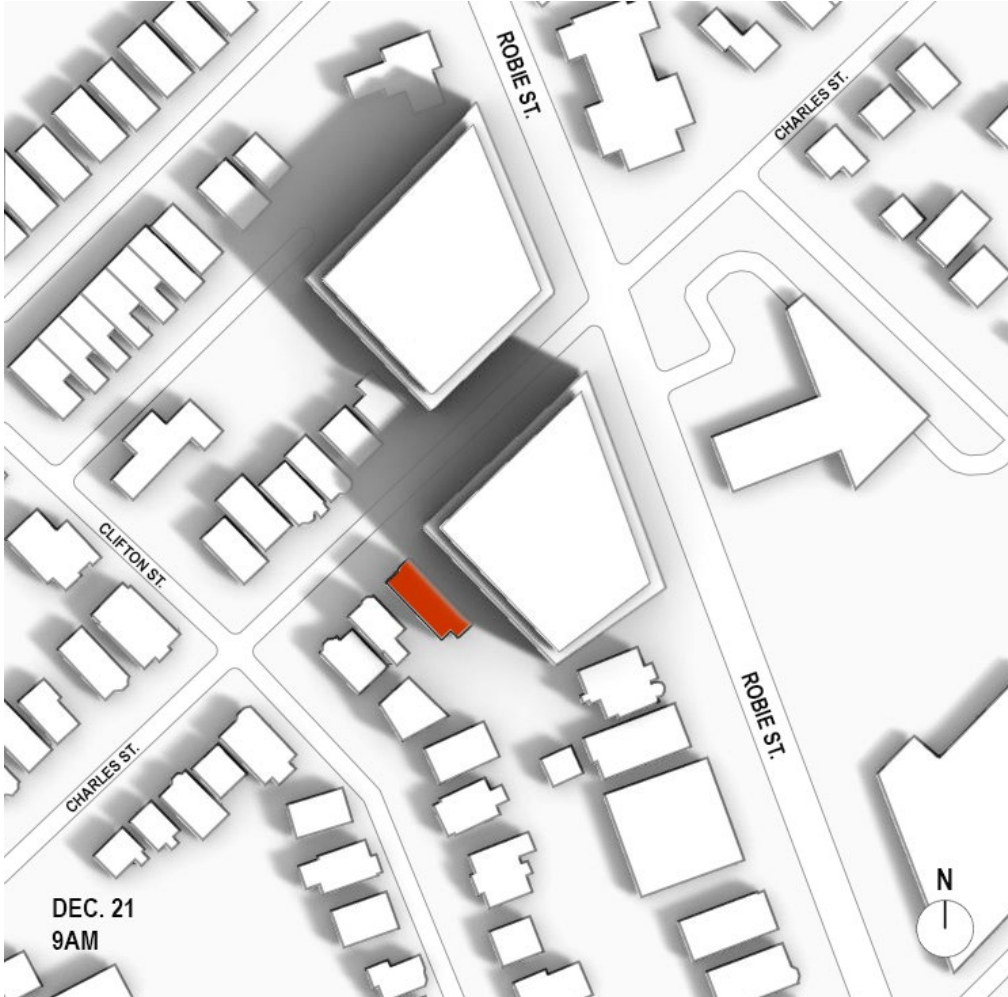


Shading Impact on 6032-34 Charles St. Solar PV

Sept 21, 9am



Dec 21, 9am



Recommendations – two motions

- **Motion 1:** to recommend to HRM Council that they pass a motion that 6024 Charles Street be removed from the Robie Street Corridor
- **Motion 2:** to recommend to HRM Council that they pass a motion to work collaboratively with the Province to develop legislation which supports and promotes solar energy, including but not limited to:
 - Solar access or right to light
 - Solar orientation of buildings for passive solar benefits
 - Solar ready and solar installation requirement building codes
 - Solar EV charging stations

HRM must be Proactive for Creating and Protecting Solar Energy Opportunities

Risk: Undermining current investments in solar energy.

Risk: Undermining the potential for making Halifax a centre for cutting edge research, city planning and business development in solar energy

Resources

- QUEST Nova Scotia –Planning for Solar Energy HRM

<http://legacycontent.halifax.ca/boardscom/SCenv/documents/QUESTNSSolarPlanningReportSeptember2013.pdf>

- A Comprehensive Review of Solar Access Law in the United States, Suggested Standards for a Model Statute and Ordinance

<http://www.solarabcs.org/about/publications/reports/solar-access/pdfs/Solaraccess-full.pdf>

Thank you!

Package A planning documents includes:

- a detailed building heights framework that directs high-rise buildings to Downtown and Centre Designations, considers local context, and transition to low-density neighbourhoods;
- building design requirements that require setbacks above the streetwall and limit the width of the tower portion of high-rise buildings to mitigate impacts of shadow on nearby areas;
- setback and setback transition requirement for multi-unit buildings when located next to parks and low-density areas;
- shadow impact assessment protocols that manage the height/design of buildings located near to public parks; and
- maximum building height exemptions for rooftop solar installation to reduce potential regulator barriers to installing solar panels on buildings that are already at the maximum permitted height.