# 441 111 STREET SW LDA20-0159

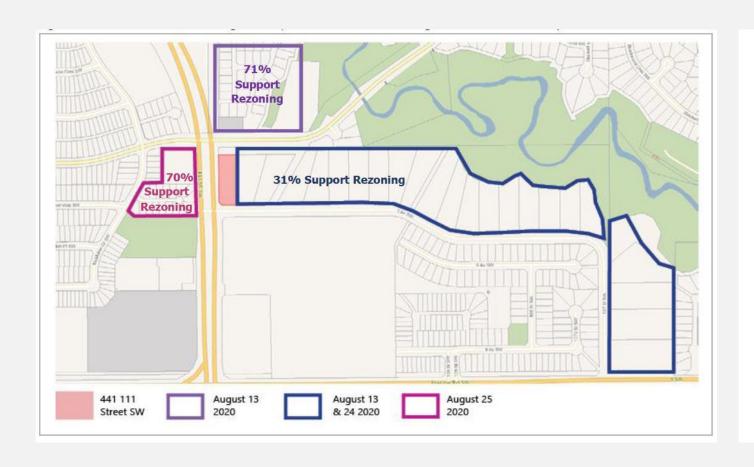
E1NS

#### **FOCUS**

- Overview of application details/process
  - Engagement & outcomes
  - Preliminary design & mitigation measures
- EMRB referral requirement is an unnecessary hardship
  - All concerns related to site's proximity to an inter-regional pipeline should be mitigated
  - Ask that Council considers removing the referral condition

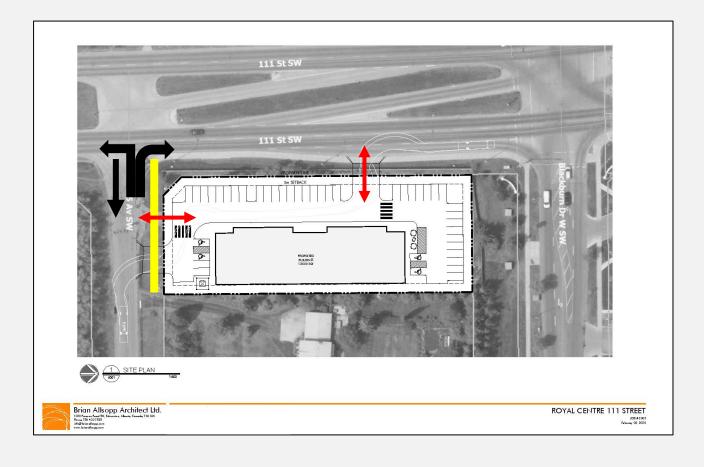


#### **PUBLIC ENGAGEMENT**



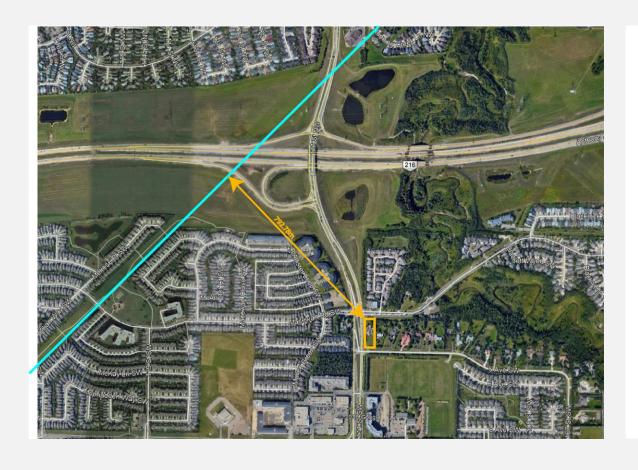
- No Open House was required, but we went out anyway
  - Gauge support / opposition
  - Help determine end users
- 3 days of door-to-door engagement (30 responses)
  - 13 in favour
  - 2 conditionally in favour
  - 14 opposed
  - 1 indifferent
- Distribution of responses tells full story

#### **SITE PLANNING**



- Resulting preliminary design
- → 2 access points to the site
  - Intersection improvements
  - Dedicated turning lanes out
    - Sidewalk & urban standard

### **EMRB REFERRAL CRITERIA (REF)**

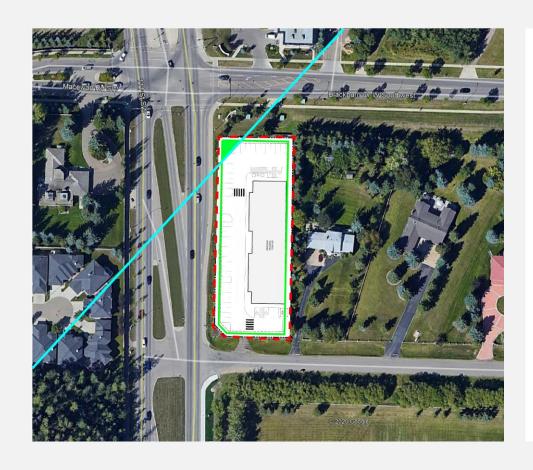


## Rationale for EMRB referral

- Pembina Crude Oil Pipeline (inter-regional pipeline)
- Boundary-to-boundary: 792.78m
- All statutory plan amendments within 800m get referred
- An unnecessary hardship in this situation



#### **SITE CONTEXT**

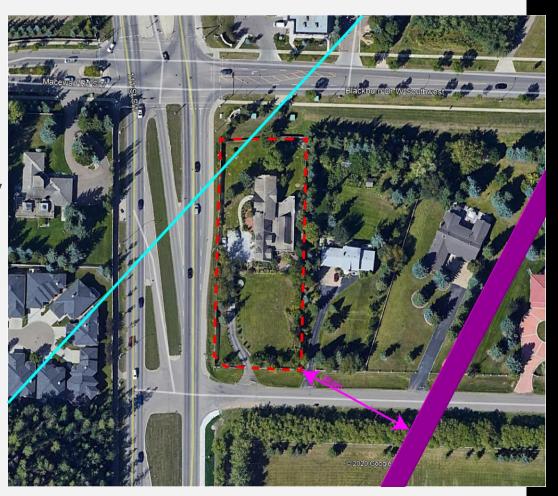


- Pembina Crude Oil Pipeline (inter-regional pipeline)
- Site boundary-to-800m: 7.22m
- Affected area: 62m<sup>2</sup>
  - Site area: 4,109.83m<sup>2</sup>
  - Coverage: 1.5% of site area
- CB1 setbacks: 3m on all sides
- Developable affected area: 17m<sup>2</sup> (0.4% of site area)
- Affected area based on design
  - 2 parking spaces
  - Landscaped area



#### **Risk Assessment**

 Risk Assessment required due to proximity to ATCO gas pipeline





#### **Risk Assessment**

- Risk Assessment required due to proximity to ATCO gas pipeline
  - Considered inter-regional pipeline in analysis
  - Study found acceptable level of risk
  - Report reviewed and accepted by Admin.
  - Should suffice to meet EMRB review criteria

Edmonton 111 Street Development Project

- Risk Assessment

from a Natural Gas release. A 1.0psi over pressure can create structural damage to buildings, hence injury or fatalities are possible.

- Radiant heat from a Natural Gas pipeline Jet fire would seriously injure people 115m and 206m respectively for the two gas pipelines and potentially seeing fatalities at a distance of 74m and 132m respectively. Here any radiant heat impact over 4 kW/m² for more than 100 seconds is considered to be serious enough and a conservative value to use for this analysis. Fatalities are expected at a radiant heat impact of 9.5kW/m² for an exposure over 80 seconds.
- Assuming a 0.10m (4") deep pool of Crude Oil as being more likely the distance to
  the point where serious injury and potentially fatalities can be expected within
  52m from the centre of the pool fire. The impact is dependent on the surface
  area of the pool.
- A Crude Oil fire will be very smoky and for the more realistic pool of 0.10m (4")
  depth will create enough smoke to be visible out to 14km. No concerns around
  Hydrogen Sulphide or Sulphur Dioxide exposures were noted as the pipelines do
  not contain any sour Natural Gas or sour Crude Oil.

The probability analysis takes into account the worst case scenarios as being a pipeline rupture. That data is taken form the Alberta Energy Regulator data base as it represents the Alberta experience. Additional data is shown as supporting data from the peer reviewed Health and Safety Executive (HSE) of the UK. The probabilities are adjusted to recognize that all releases of flammable material do not ignite (see Appendix "3") and also adjusted to the length of pipeline that will have an impact on the development site (500m of the pipeline lengths). The resulting probabilities and risks are:

ATCO Natural Gas @ 114mm diameter = 5.5 X 10-7

ATCO Natural Gas @ 406mm diameter = 2.6 X 10-8

Pembina Crude Oil @ 406mm diameter = 6.5 X 10<sup>-9</sup>

Overall risk for the three pipelines = 5.8 X 10

(NOTE: The individual risk as summed to represent the three pipelines having the potential to impact the development site.)

The overall risk of a worst case event is within the acceptable criteria for MIACC and the City of Edmonton Bylaw. No specific recommendations to the City were noted.

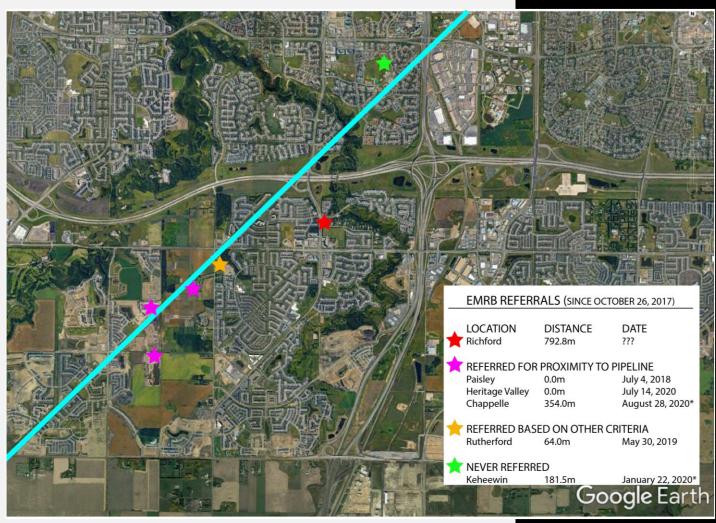
Micheler

Doug McCutcheon, P.Eng. (ret)



#### EMRB Referrals – pipelines

- October 26, 2017 Ministerial approval for REF submission criteria
- Since then inconsistent referrals at best
- Those referred were closer to pipeline:
  - All applications increased intensity
  - All applications were approved by EMRB
- Those not referred also closer to pipeline
- EMRB has shown no issue with development near this pipeline





#### EMRB Referrals – pipelines

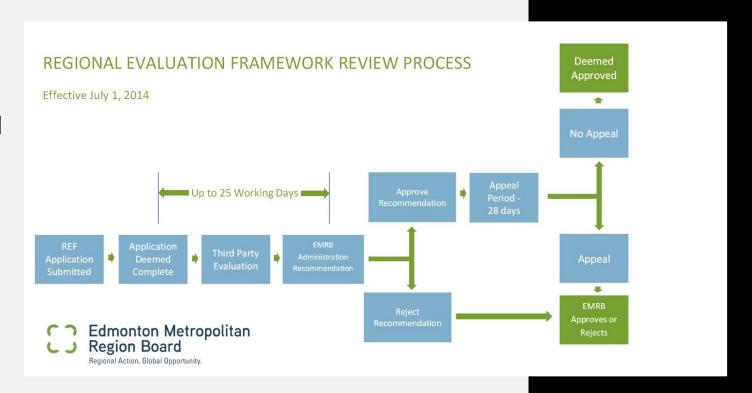
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- EMRB is changing the REF criteria
  - Referral near FUTURE pipelines only
  - 12-1 vote May 14, 2020, awaiting Minister





#### **Business Case**

- City Administration is driving the proposed changes to the REF & Red Tape reduction
- REF process adds 2 months (minimum) to approval process
  - Additional carrying costs get passed onto end users/tenants
- We have a plan ready to move forward
  - Ready to put people to work



#### **SUMMARY**

- Application for low-intensity business zone (CB1) is appropriate at this site
  - Administration supports
  - Some neighbourhood support
- EMRB referral requirement is an unnecessary hardship
  - All concerns related to site's proximity to an inter-regional pipeline have been mitigated
  - Ask that Council considers removing the referral condition

### **THANK YOU**

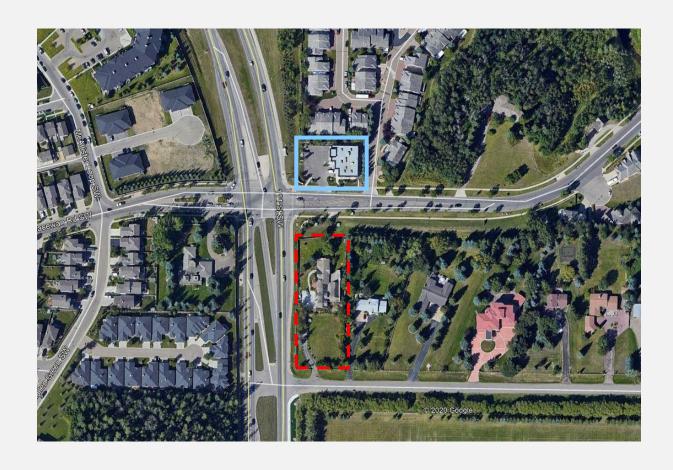


#### **PUBLIC ENGAGEMENT**



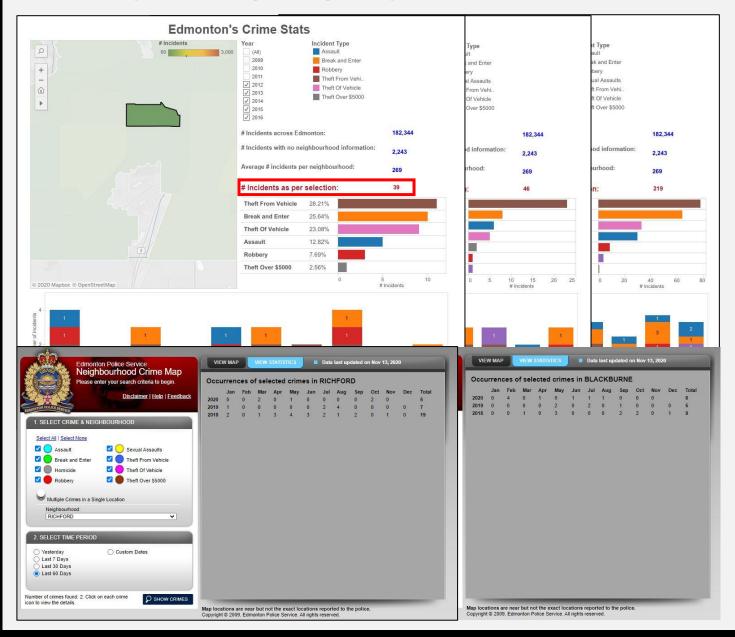
- Feedback themes:
  - Non-supportive:
    - Changing character of area
    - Perception of increased crime
    - Additional traffic
    - Perception of need
  - Supportive:
    - Possibility of destination-type uses (restaurants, café) within walking distance
    - Bringing services closer

#### **PUBLIC ENGAGEMENT**



 Crime data shows very low number of incidents relative to Edmonton average since 2012

#### **PERCEPTION OF CRIME**



- Crime data shows low number of incidents relative to average since 2012:
  - Richford: 39 (8 per year)
  - Blackburne: 46 (9 per year)
  - MacEwan: 219 (44 per year)
  - Edmonton: 269 (54 per year)
- Between 2009-2011:
  - Richford: 5 per year
  - Blackburne: 9 per year
  - MacEwan: 81 per year
  - Edmonton: 69 per year



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#### Attachment 2

- of a growth hamlet or hamlet that is not designated a growth hamlet in a municipal development plan where the boundary change includes a population gain of more than 200 and/or anresults in an increase in area of more than 32 ha-or more in the hamlet.
- d. The proposed statutory plan amendment is outside Downtown Edmonton, as depicted on Schedule 3A: Major Employment Areas in the EMRGPEdmonton Metropolitan Region Growth Plan, and would result in the conversion of lands larger than 32 ha within a major employment area from major employment uses to non-employment uses and/or would result in a change to the boundaries of a major employment area.
- e. The effect of the proposed statutory plan amendment requires the extension and/or increase in the capacity of the Regional Water and Wastewater Lines, as identified on Schedule 8A: Infrastructure Corridors in the EMRGPEdmenton Metropolitan Region Crowth Plan, or to regional water or wastewater treatment facilities
- f. The boundaries of the proposed amendment to the statutory plan are within 0.8 km of a future pipeline corridor as depicted on Schedule 8B: Energy Corridors in the Edmonton Metropolitan Region Growth Plan.
- g. The proposed statutory plan amendment<del>results in a</del> decreases <del>or</del>the planned density of the statutory plan area;
  - below the density targets listed in Schedule 6 of the EMRGP for statutory plans adopted after October 2017, or
  - below the density ranges in the Capital Region Growth Plan (the "CRGP") for grandfathered statutory plans in accordance with Section 8.2.
- h. The effect of the proposed statutory plan amendment contemplates requires the removal or major realignment of improvements to a road identified on Schedule 10A: Transportation Systems Regional Roads to 2044 in the EMRGPEdmentor Metropolitan Region Growth Plan.
- The boundaries of the proposed amendment to the statutory plan contemplates
  the removal or major realignment of intersect with a Recreation Trail Corridor as
  depicted on Schedule 10B: Transportation Systems Regional Transit and Trails
  to 2044 in the EMRGP-Edmonton Metropolitan Region Growth Plan,
- j. The plan area of the boundaries of the proposed amendment to the statutory plan:
   i. includes a Park and Ride:
  - ii. are within 0.4 km of a Planned LRT line; or
  - iii. are within 0.48 km of a Park and Ride, or TOD Centre Planned LRT line as identified on Schedule 240B: Edmonton Metropolitan Regional Structure to 2044Transportation Systems - Regional Transit and Trails to 2044 in the EMRGP Edmonton Metropolitan Region Growth Plan or as delineated more specifically by a municipality through a Council approved
- k. The boundaries of the proposed statutory plan amendment are within 1.6 km of the boundaries of the Edmonton International Airport or the Alberta's Industrial

