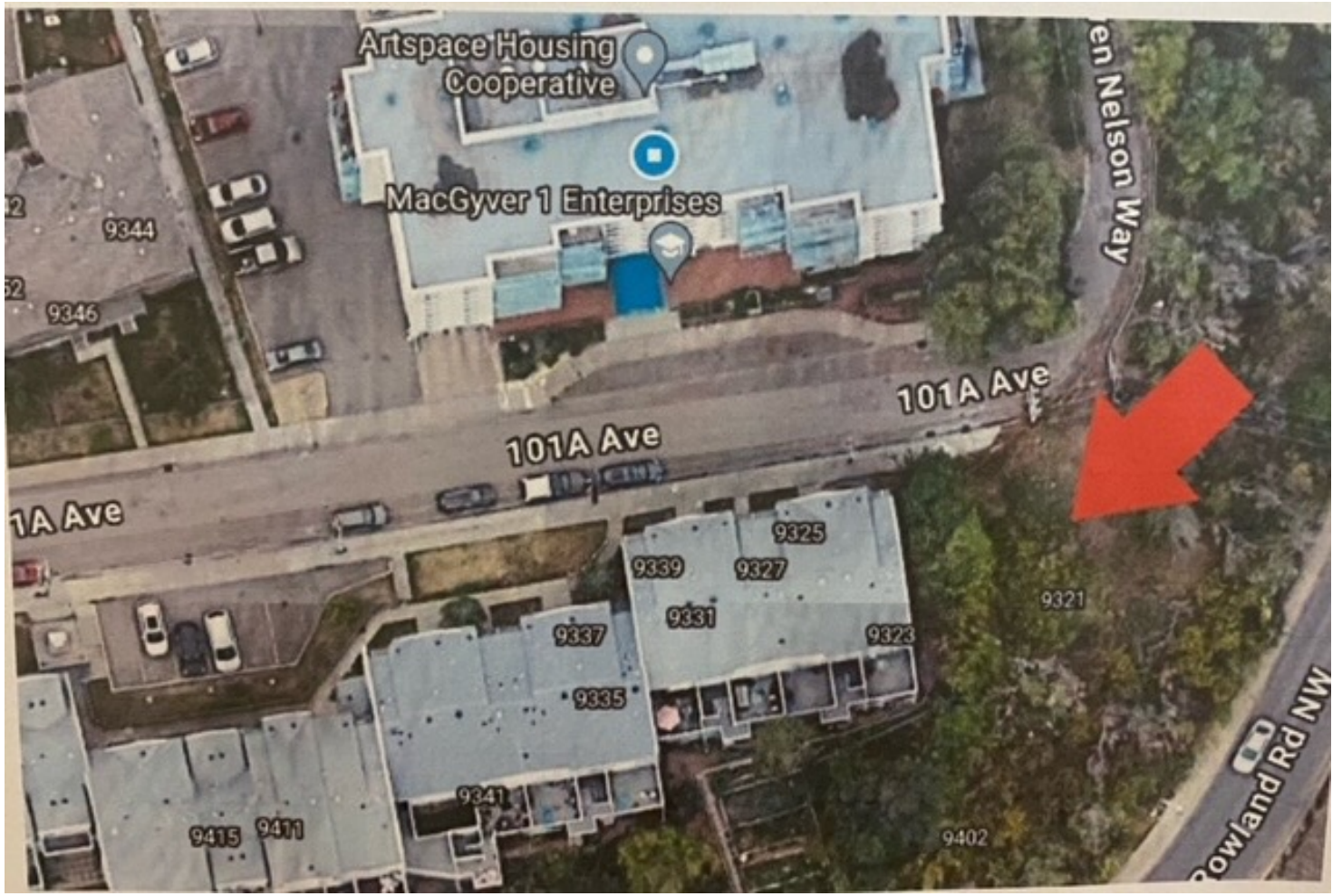
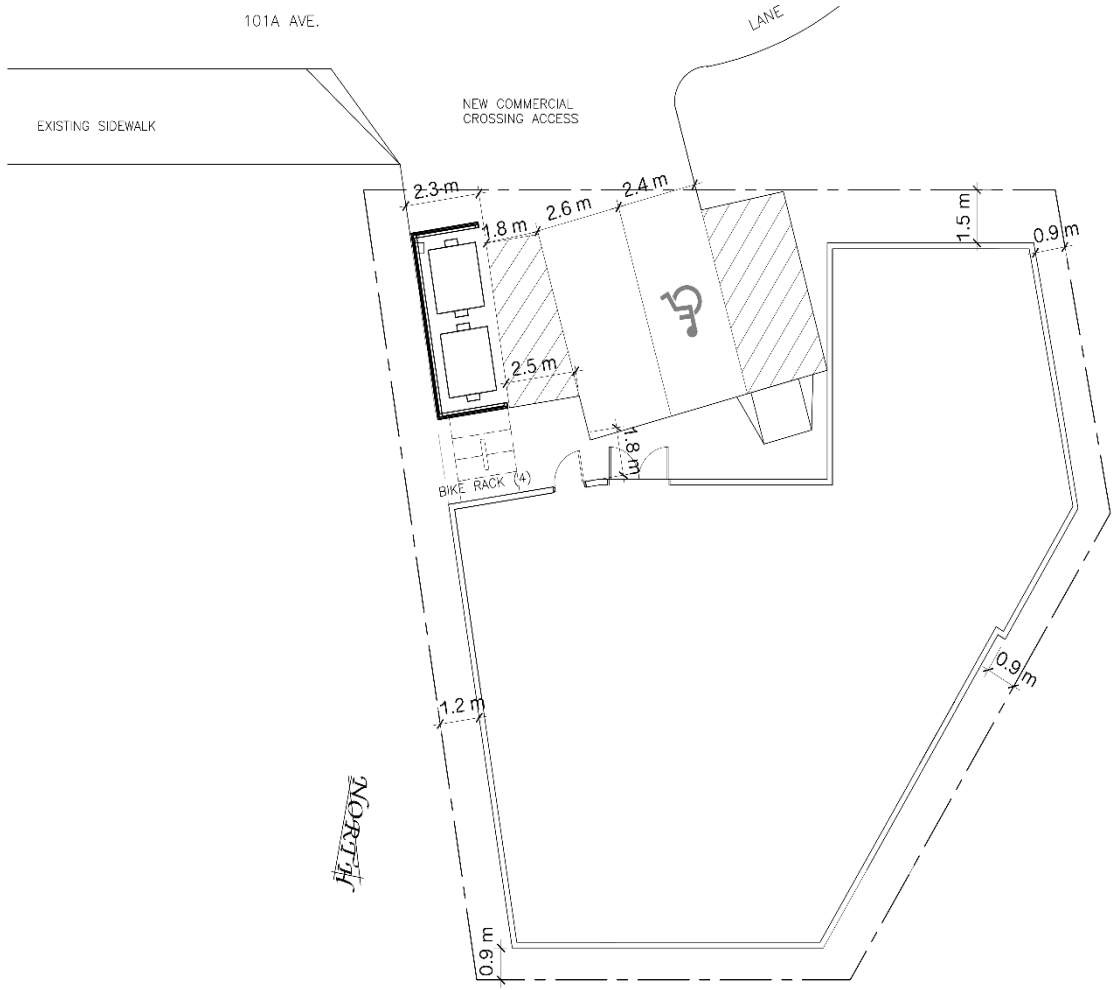
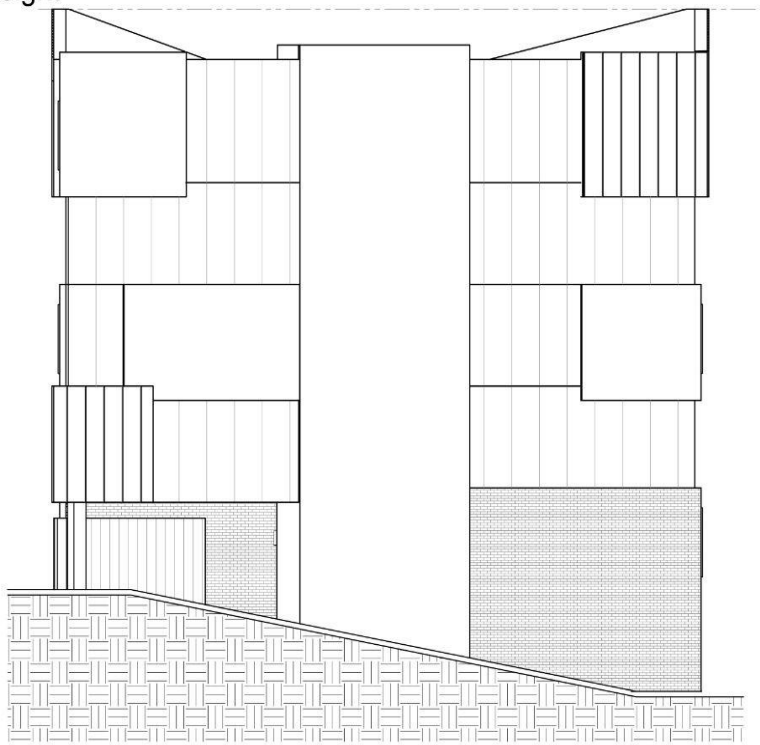


- LORNA THOMAS ~ RIVERDALE HOME OWNER ~ NOT IN FAVOUR

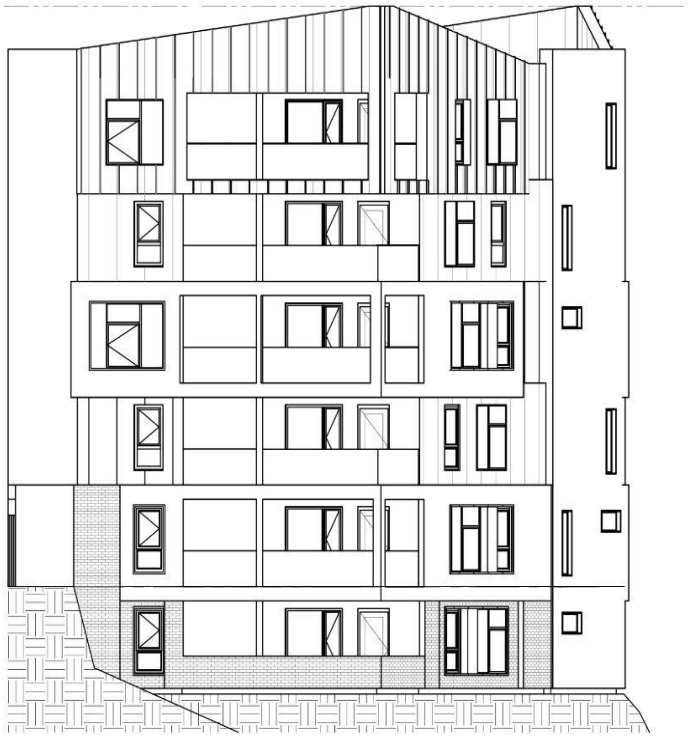


HERE IS THE SITE PLAN FOR RIVERDALE OUTLOOK

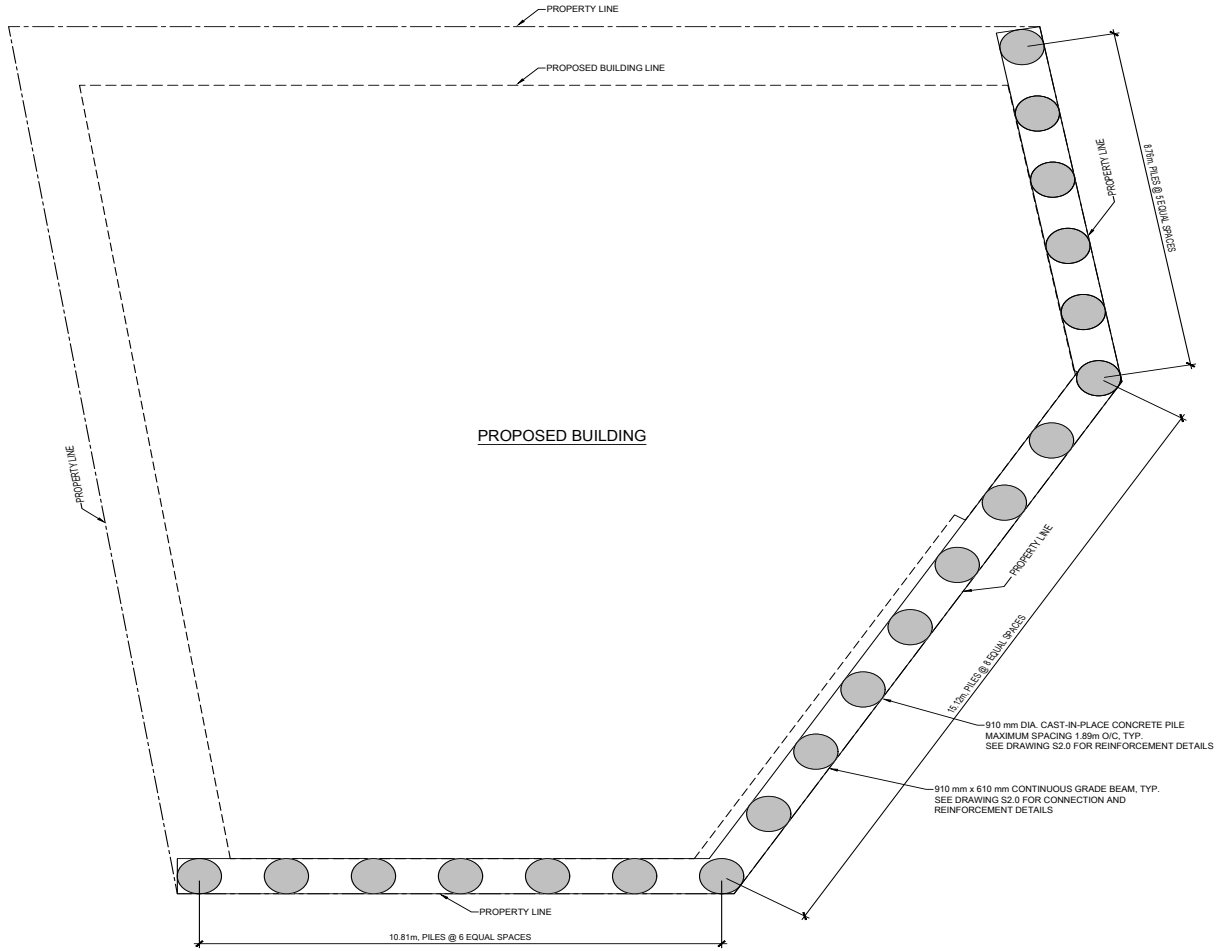
Max. Height
23.0 m



West Elevation



South Elevation



GENERAL NOTES

1. Design, material and workmanship shall conform with the National Building Code - 2019 Alberta Edition
2. The structural drawings are intended to be used in conjunction with the specifications and other consultant's drawings such as architectural, pile suppliers shop drawings and geotechnical report.
3. Where discrepancies exist between structural and other drawings, the contractor shall notify PT Engineering Inc for clarification before proceeding to any work.
4. If conditions encountered during construction differ from what is shown on the structural drawings, the structural engineer shall be notified immediately and work shall not progress until all problems are resolved to the satisfaction of the structural engineer.
5. The contractor shall be responsible for structural stability during all construction stages. The contractor shall provide bracing, shoring, etc. as required to temporarily support the structure.
6. These drawings shall not be used for construction unless marked "Issued For Construction".
7. The information on these drawings applies strictly to this project only and shall not be used for any other projects.

GEOTECHNICAL NOTES

All recommendations, procedures, and observations noted in geotechnical report shall be considered to be part of this specification. Refer to geotechnical report prepared by:
Stantec Consulting Ltd. Project Number:123316276

CAST-IN PLACE CONCRETE PILE NOTES

1. Cast-in place concrete pile design is based on Stantec Consulting Ltd. Geotechnical Report Project Number 123316276, dated December 19, 2022.
2. Piles shall be placed:
   - 2.1. not more than 2% of its length out of plumb.
   - 2.2. not more than 3" off center at the top.
   - 2.3. Cut off top of piles level. Keep top free from loose material, laitance etc.
   - 2.4. pile center to center spacing not to exceed 1.92m.
3. All piling work shall comply fully with recommendations of the geotechnical report.
4. Dowels shall be placed before the concrete is poured.
5. Unless otherwise shown, piles shall be centered under grade beams.
6. To avoid sloughage and seepage reinforcing steel and concrete shall be placed as soon as possible after drilling of each pile. All water shall be removed from the pile excavation and reinforcing secured to the specified cover. The upper 2.5m of placed concrete each pile shall be vibrated to remove voids.
7. Concrete for each pile shall be poured in continuous operation and shall be placed immediately after excavation and inspection of files as noted on geotecnical report.
8. Preparation and excavation of soil shall be inspected by a geotechnical consultant prior to pouring concrete. PT Engineering Inc is not responsible for inspection and confirming foundation condition of soil.

PILE (CANTILEVER) DESIGN LOADS & CRITERIA:

1. Pile loading from geotechnical consultant (Figure 10 and Table 4-4):
   - a. Maximum bending moment in pile wall (M) = 493.0 kN.m/m x 1.92m (pile spacing) = 947 kN.m
   - b. Maximum shear force in pile wall (Q) = 361.5 kN.m/m x 1.92m = 694 kN
   - c. Maximum axial force in pile wall (P) = 217.8 kN.m/m x 1.92m = 418 kN
   - d. Maximum horizontal ground displacement (u) = 6.2mm
   - e. Maximum vertical ground displacement (v) = 4.8
   - f. Note: used values for "ground loss downslope of wall"
   - g. Goetech indicated above loads are factored ultimiate limit state

1. Materials:
   - a. Concrete: Class S-2 or better (32 MPa)
   - b. Rebar: Grade 400MPa

CONCRETE NOTES

Concrete Design to CAN/CSA A23.3-14
Concrete Mix Design to CAN/CSA A23.1-09
Parkade Design to CAN/CSA S413-07 where applicable

1. CONCRETE MIX DESIGN

Member Type	A23.1-09 Exposure Class	Specified Compressive Strength	Maximum W/C Ratio	Air Entrainment	Cement Type	Curing Regime
Piles and Grade Beams	F-2	32 mPa at 56 days	0.45	5% to 7%	HS	Basic

REINFORCING NOTES

1. Reinforcing steel shall be in accordance with CSA G30.18-09, Grade 400R
2. All detailing, bending and placing of reinforcing steel shall conform to CAN/CSA A23.1-09.

PT ENGINEERING INC
STRUCTURAL DESIGN & CONSULTING
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Edmonton, AB. T5S1V8
Phone: (780) 952-0188
Email: ptengs@ptengineering.net
Website: www.ptengineering.net

SEAL:

PROFESSIONAL ENGINEERS ASSOCIATION OF ALBERTA — PERMIT TO PRACTICE — 2023 APRIL 25 — RM SIGNATURE — RM APEGA ID #: 53133

PERMIT TO PRACTICE
PT ENGINEERING INC.
RM SIGNATURE:
RM APEGA ID #: 53133
DATE: 2023 APRIL 25
PERMIT NUMBER: 14956
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

REV.	DATE	DRAWING ISSUE
1	2023 APR 25	Issued for Development Permit Revised Pile Locations
0	2022 DEC 22	Issued for Development Permit

PROJECT: APARTMENT AT 9321 101A AVENUE PILE WALL DESIGN

SITE: 9321-101A AVENUE NW, EDMONTON, ALBERTA

DRAWING TITLE: PILE WALL PLAN

DATE	SCALE	DRAWN / CHECKED
2023 APR 25	AS NOTED	GT / PT

PROJECT NO.: PTE22127

DRAWING NO.: S1.0


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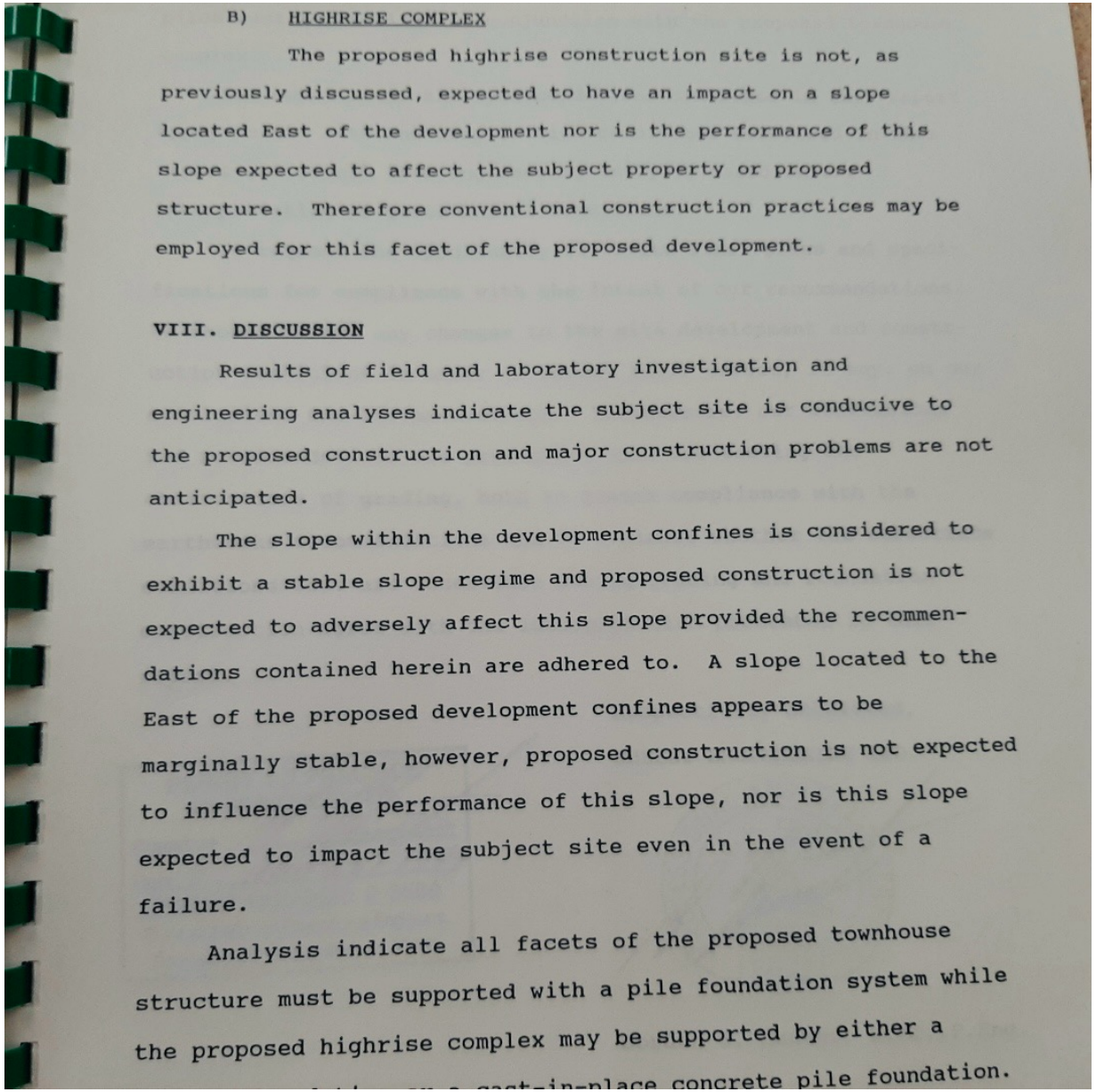

B) HIGHRISE COMPLEX

The proposed highrise construction site is not, as previously discussed, expected to have an impact on a slope located East of the development nor is the performance of this slope expected to affect the subject property or proposed structure. Therefore conventional construction practices may be employed for this facet of the proposed development.

VIII. DISCUSSION

Results of field and laboratory investigation and engineering analyses indicate the subject site is conducive to the proposed construction and major construction problems are not anticipated.

The slope within the development confines is considered to exhibit a stable slope regime and proposed construction is not expected to adversely affect this slope provided the recommendations contained herein are adhered to. A slope located to the East of the proposed development confines appears to be marginally stable, however, proposed construction is not expected to influence the performance of this slope, nor is this slope expected to impact the subject site even in the event of a failure.

Analysis indicate all facets of the proposed townhouse structure must be supported with a pile foundation system while the proposed highrise complex may be supported by either a

cast-in-place concrete pile foundation.

EXCERPT FROM the 1989 SHELBY ENGINEERING GEO TECH REPORT

1 Introduction

Stantec Consulting Ltd. (Stantec) was retained by Helio Construction Ltd. (Helio) to conduct geotechnical assessment and slope stabilization pile wall design in support of the development of a proposed apartment complex at 9321-101A Avenue, Edmonton, AB.

Shelby Engineering Ltd. (Shelby) was initially engaged to conduct geotechnical investigation, foundation design, and slope stability assessment for this project (Shelby 2022). As the design evolved, a concrete pile wall was required to stabilize the existing slope. Stantec was then retained to conduct geotechnical design of the pile wall (Stantec 2022). To clarify the engineering responsibility and resolve disagreement in professional opinions between the two consultants, it was decided that Stantec would assume the geotechnical Engineer of Record role and prepare a standalone geotechnical report for this entire project.

Potential for slope failure?

DC zoning means Direct Control.

City leadership needs to take back control - not just let developers do whatever they want with complete disregarding for the people in the surrounding communities and the natural environment