
CITY OF KELOWNA

MEMORANDUM

ATTACHMENT **A**

Date: May 29, 2017
File No.: Z17-0039
To: Urban Planning Management (AC)
From: Development Engineering Manager (SM)
Subject: 170 & 230 Nickel Road

This forms part of application
Z17-0039

Planner
Initials



RU1 to RM3

The Development Engineering Department has the following comments and requirements associated with this rezoning application from RU1 to RM3 to facilitate a townhouse development. The road and utility upgrading requirements outlined in this report will be a requirement of this development.

The Development Engineering Technologist for this project is Jason Ough

1. General

- a) These are Development Engineering comments/requirements and are subject to the review and requirements from the Ministry of Transportation (MOTI).

2. Domestic Water and Fire Protection

- a) This development is within the service area of the Black Mountain Irrigation District (BMID). The developer is required to make satisfactory arrangements with the BMID for these items. All charges for service connection and upgrading costs, as well as any costs to decommission existing services are to be paid directly to BMID.
- b) The developer must obtain the necessary permits and have all existing utility services disconnected prior to removing or demolishing the existing structures.

3. Sanitary Sewer

The subject properties are currently serviced with two 100mm sanitary services, at 170 and 230 Nickel Road. The developer's consulting mechanical engineer will determine the development requirements of this proposed development and establish the service needs. Only one service will be permitted for this development. The applicant, at his cost, will arrange for the removal and disconnection of the existing services and the installation of one new larger service if necessary.

4. Storm Drainage

The developer must engage a consulting civil engineer to provide a storm water management plan for the site, which meets the requirements of the Subdivision, Development and Servicing Bylaw No. 7900. The storm water management plan must also include provision of lot grading plan, minimum basement elevation (MBE), if applicable, and provision of a storm drainage service for the development and / or recommendations for onsite drainage containment and disposal systems. The applicant, at his cost, will arrange the installation of one overflow service if required

5. Road Improvements

- a) There is some curb, gutter and pavement missing from the frontage of the subject properties. The applicant must have a civil engineering consultant submit a design for the completion of urbanization for Nickel Road along the full frontage of the subject properties; including curb and gutter, sidewalk, LED street lighting, landscaped boulevard, storm drainage system, pavement removal and replacement and re-location or adjustment of utility appurtenances if required to accommodate the upgrading construction. An estimate for public side works will be required, for bonding purposes, to be submitted by the applicants civil engineering consultant.

6. Road Dedication and Subdivision Requirements

- a) The subject properties are required to be consolidated as part of this development project.
- b) The applicant is required to dedicate 3m along the north property line of 230 Nickel Road for construction of a walkway to connect Nickel Rd to Fir Ct.
- c) Grant statutory rights-of-way if required for utility services.

7. Electric Power and Telecommunication Services

All proposed service connections are to be installed underground. It is the developer's responsibility to make a servicing application with the respective electric power, telephone and cable transmission companies to arrange for these services, which would be at the applicant's cost.

8. Design and Construction

- a) Design, construction supervision and inspection of all off-site civil works and site servicing must be performed by a Consulting Civil Engineer and all such work is subject to the approval of the City Engineer. Drawings must conform to City standards and requirements.
- b) Engineering drawing submissions are to be in accordance with the City's "Engineering Drawing Submission Requirements" Policy. Please note the number of sets and drawings required for submissions.
- c) Quality Control and Assurance Plans must be provided in accordance with the Subdivision, Development & Servicing Bylaw No. 7900 (Part 5 and Schedule 3).
- d) A "Consulting Engineering Confirmation Letter" (City document 'C') must be completed prior to submission of any designs.
- e) Before any construction related to the requirements of this subdivision application commences, design drawings prepared by a professional engineer must be submitted to the City's Development Engineering Department. The design drawings must first be "Issued for Construction" by the City Engineer. On examination of design drawings, it may be determined that rights-of-way are required for current or future needs.

9. Servicing Agreements for Works and Services

- a) A Servicing Agreement is required for all offsite works and services on City lands in accordance with the Subdivision, Development & Servicing Bylaw No. 7900. The applicant's Engineer, prior to preparation of Servicing Agreements, must provide adequate drawings and estimates for the required works. The Servicing Agreement must be in the form as described in Schedule 2 of the bylaw.

- b) Part 3, "Security for Works and Services", of the Bylaw, describes the Bonding and Insurance requirements of the Owner. The liability limit is not to be less than \$5,000,000 and the City is to be named on the insurance policy as an additional insured.

10. Other Engineering Comments

- a) Provide all necessary Statutory Rights-of-Way for any utility corridors as required.
- b) If any road dedication affects lands encumbered by a Utility right-of-way, please obtain the approval of the utility prior to application for final subdivision approval. Any works required by the utility as a consequence of the road dedication must be incorporated in the construction drawings submitted to the City's Development Manager.

11. Geotechnical Report

- a) Provide a comprehensive geotechnical report prepared by a Professional Engineer competent in the field of hydro-geotechnical engineering to address the items below: **NOTE: The City is relying on the Geotechnical Engineer's report to prevent any damage to property and/or injury to persons from occurring as a result of problems with soil slippage or soil instability related to this proposed development.**
- Overall site suitability for development.
 - Presence of ground water and/or springs.
 - Presence of fill areas.
 - Presence of swelling clays.
 - Presence of sulphates.
 - Potential site erosion.
 - Provide specific requirements for footings and foundation construction.
 - Provide specific construction design sections for roads and utilities over and above the City's current construction standards

12. Development Permit and Site Related Issues

Access and Manoeuvrability

- (i) Only on drive access (6m width maximum) will be permitted for this development.
- (ii) All turning movements including garbage pick-up must be contained onsite.

Steve Muenz, P. Eng.
Development Engineering Manager
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ATTACHMENT		A
This forms part of application		
# Z17-0039		
Planner Initials	<input type="text"/>	 City of Kelowna <small>COMMUNITY PLANNING</small>

DESIGN RATIONALE: NICKEL ROAD TOWNHOMES

The subject properties are located at 170 & 230 Nickel Rd. in Rutland. The properties are currently zoned RU1. The Owner wishes to consolidate and rezone these properties to RM3 to allow for the development of rental row housing. A development with two, 2 storey blocks of row houses each side of a central parking plaza is proposed.



The row fronting Nickel Rd will provide seven, 2 *bedroom* units with two, 2 *bedroom + den* units at either end. These units will have unfinished basements for unit equipment (furnace/ HWT/ HRV) and tenant storage. The back row will provide 8, 3 *bedroom* units with two, 3 *bedroom + den* units at either end. These units will have basements finished to provide a bedroom, rec room, and washroom and will include unit equipment (furnace/ HWT/ HRV). The central parking area will allow 2 parking spaces per unit. All units will have 'front' and 'back' doors such that parking area and outdoor private patios and yards may be directly accessed.

DESIGN RATIONALE: NICKEL ROAD TOWNHOMES



Detail view of east elevation showing 'front' door access to Nickel street and private patios.



Detail view of west elevation showing 'back' door access to private patios and yards



Detail view of Interior (parking plaza) showing access to private patios and parking

The block of rows will be broken vertically and horizontally to provide human scale, shading, weather protection and visual interest. The scale and material selection- 'hardi' board & batten with 'hardi' horizontal lap siding - are selected for their durability and as acknowledgement of the residential setting of the development.

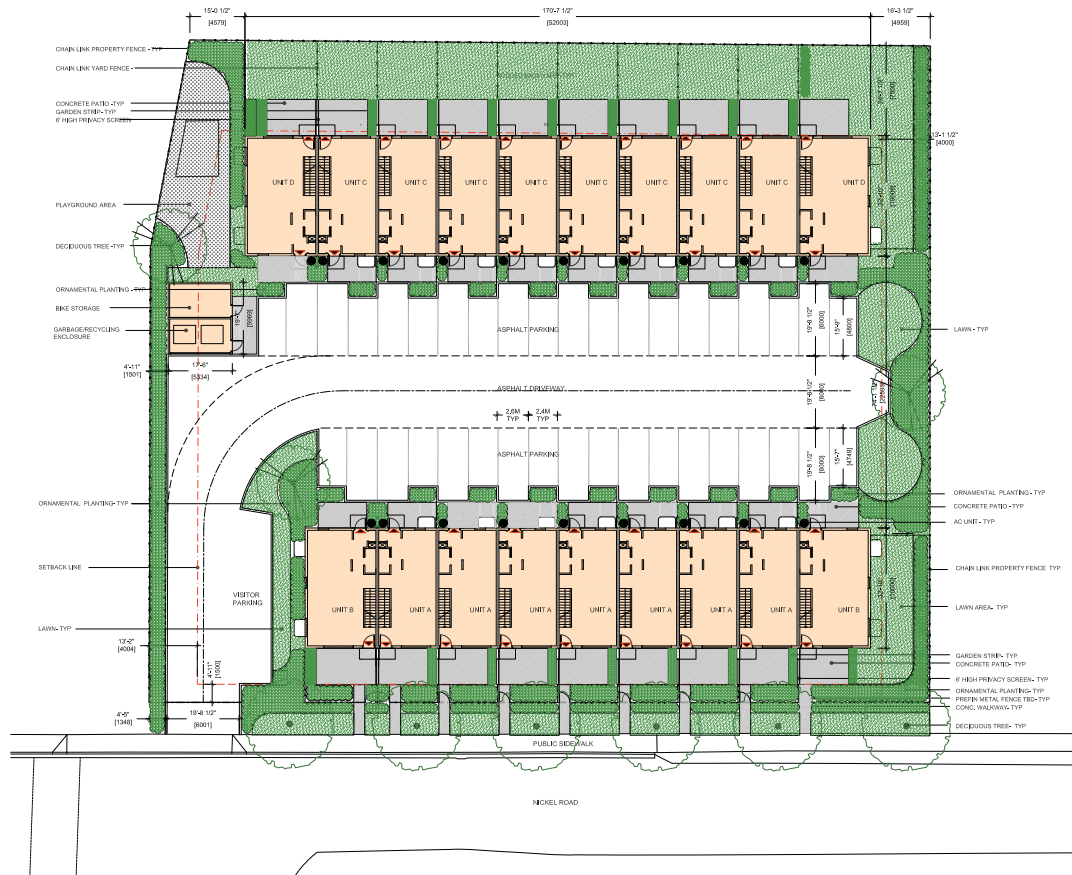
DESIGN RATIONALE: NICKEL ROAD TOWNHOMES



East/West Elevation Detail showing breaks in vertical & horizontal planes. Materials accentuate the breaks and provide additional human scale



Interior (parking plaza) elevation detail showing breaks in vertical & horizontal planes. Materials accentuate the breaks and provide additional human scale



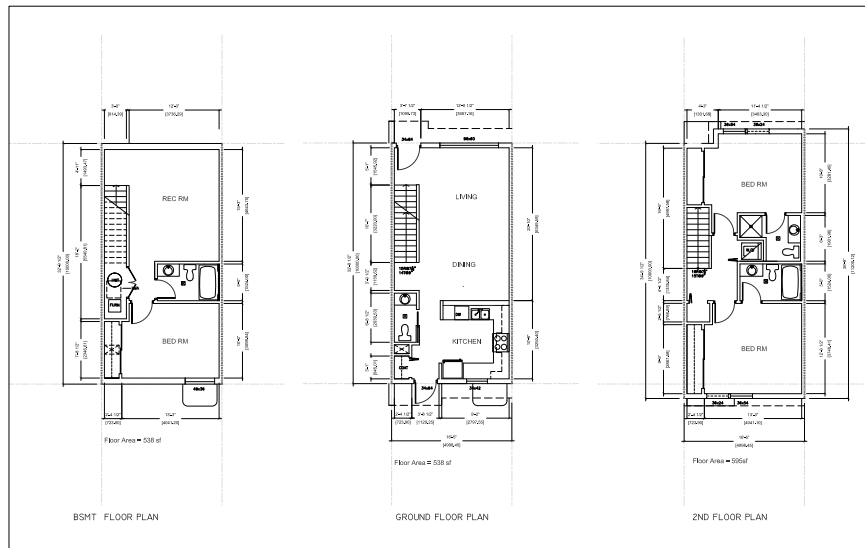
SITE PLAN - 1/2"=1/16"



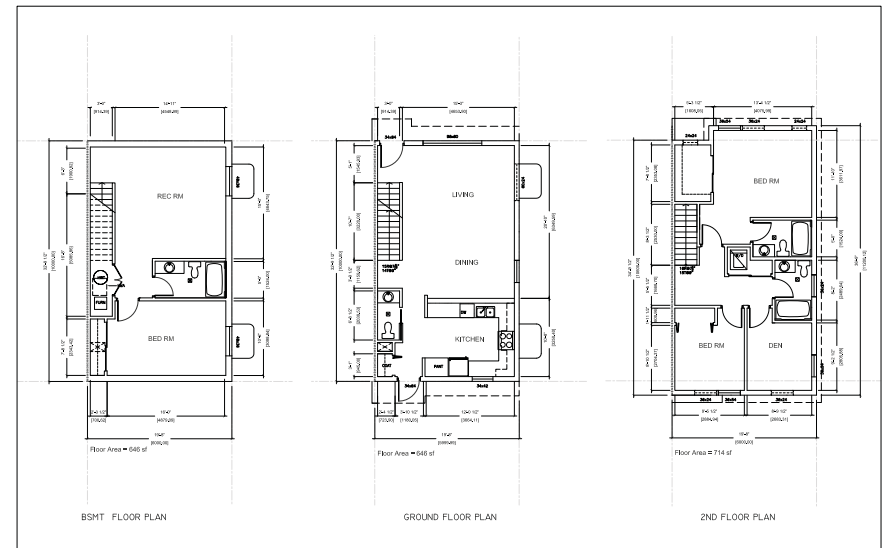
SITE AXIOMETRIC - NTS



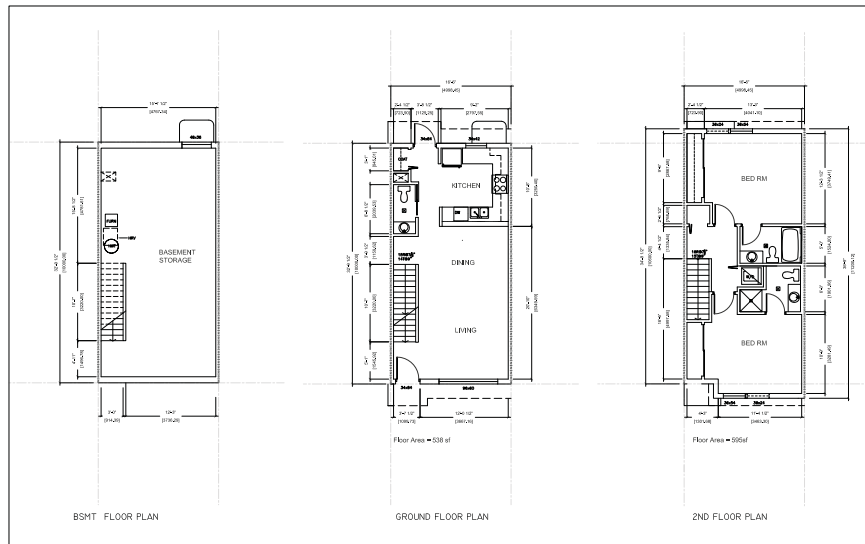
SITE CONTEXT PLAN - NTS



UNIT TYPE C - 3 BED, 3.5 BATH



UNIT TYPE D - 3 BED + DEN, 3.5 BATH



UNIT TYPE A - 2 BED, 1.5 BATH



UNIT TYPE B - 2 BED + DEN, 2.5 BATH

West Elevation



'IKO' Cambridge Shingle
Colour: Dual Black

North Elevation

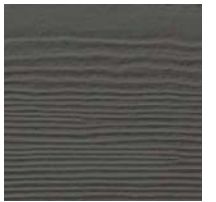


'Hardie' Fascia & Detail Panel
Colour: Pearl Gray



'Hardie' Horizontal Siding & Trim
Colour: Artic White

East Elevation



'Hardie' Board & Batten
Colour: Rich Espresso

South Elevation



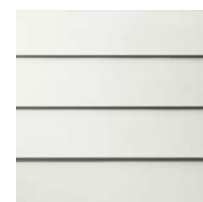
East Interior
Elevation



'IKO' Cambridge Shingle
Colour: Dual Black

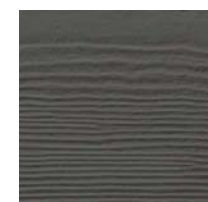


'Hardie' Fascia & Detail Panel
Colour: Pearl Gray



'Hardie' Horizontal Siding & Trim
Colour: Artic White

West Interior
Elevation



'Hardie' Board & Batten
Colour: Rich Espresso

West /East
Elevation Detail



Interior
Elevation Detail





LEGEND:

	LAWN AREA
	ORNAMENTAL SHRUBS, GRASSES, & PERENNIALS
	VEGETABLE & HERB GARDEN, PLANTED BY HOMEOWNER
	CONCRETE PAVING FINISH: BROOM
	CRUSH GRANULAR WALKWAY
	PROPOSED FENCE HT. VARIES
	EXISTING FENCE

NOTES:

1. PLANT MATERIAL AND CONSTRUCTION METHODS SHALL CONFORM TO MINIMUM STANDARDS ESTABLISHED IN THE LATEST EDITION OF THE CANADIAN LANDSCAPE STANDARDS, PUBLISHED BY THE C.N.L.A. AND THE C.S.L.A. AS WELL AS THE CITY OF KELOWNA LANDSCAPE STANDARDS.
2. THE LANDSCAPE DESIGN DESIGNATED HEREIN IS CONCEPTUAL BUT REFLECTS THE MINIMUM CITY OF KELOWNA FORM AND CHARACTER REQUIREMENTS.
3. PLANT MATERIAL SELECTIONS ARE CONCEPTUAL ONLY. FINAL PLANTING SELECTIONS MAY VARY DEPENDING UPON AVAILABILITY AT THE TIME OF CONSTRUCTION.
4. TREES SHALL BE INSTALLED IN DEFINED OIL PITS OR PLANTING BED AREAS. ADEQUATE SOIL VOLUME SHALL BE PROVIDED BASED ON THE SPECIFIED TREE SPECIES AND LOCATION.
5. SHRUB BEDS TO HAVE COMPOSTED, PRE-APPROVED, MULCH, DEPTH 75mm
6. ORNAMENTAL SHRUBS, GRASSES, AND PERENNIALS TO BE PLACED WITHIN DEFINED PLANTING BEDS. ALL PLANTING BEDS SHALL HAVE MIN. OF 450mm (18") IMPORTED GROWING MEDIUM AND 75mm (3") OF COMPOSTED MULCH R APPROVED EQUAL.
7. MAINTENANCE EDGE AREAS SHALL HAVE A MIN. DEPTH OF 100mm (3") OF DECORATIVE ROUND ROCK. LANDSCAPE FABRIC SHALL BE NILEX 4545 OR APPROVED EQUAL.
8. TURF AREAS SHALL BE ECO TURF FARMS, (O MART BLEND SOD WITH A MIN. OF 150mm (6") IMPORTED GROWING MEDIUM.
9. A HIGH EFFICIENCY IRRIGATION SYSTEM SHALL BE INSTALLED FOR ALL ORNAMENTAL LANDSCAPE AREAS, AND SHALL CONFORM TO THE CITY OF KELOWNA'S IRRIGATION STANDARDS IN BYLAW 7900.

PLANT LIST:

TREES			
BOTANICAL NAME	COMMON NAME	PLANT SIZE	SPACING
<i>Acer x freemanii</i> 'Jeffersred'	Autumn blaze red maple	B&B, 5cm Cal	As Shown
<i>Cercidiphyllum japonicum</i>	Katsura tree	B&B, 5cm Cal	As Shown
SHRUBS			
BOTANICAL NAME	COMMON NAME	PLANT SIZE	SPACING
<i>Forsythia x intermedia</i> 'Lynwood Gold'	Lynwood gold forsythia	#2 Pot	2.0m O.C.
<i>Maehoria aquifolium</i>	Oregon grape	#2 Pot	1.5m O.C.
<i>Philadelphus lewisii</i>	Mock orange	#2 Pot	1.5m O.C.
PERENNIALS			
BOTANICAL NAME	COMMON NAME	PLANT SIZE	SPACING
<i>Artemisia schmidtiana</i> 'Silver Mound'	Silver Mound Sage	#1 Pot	0.6m O.C.
<i>Echinacea paradoxa</i>	Yellow coneflower	#1 Pot	0.6m O.C.
<i>Gaillardia aristata</i>	Indian Blanket Flower	#1 Pot	0.5m O.C.
<i>Hesperis matronalis</i> 'Gloria'	Common Gervillia	#1 Pot	0.5m O.C.
<i>Perovskia atriplicifolia</i> 'Little Spire'	Dwarf Russian Sage	#1 Pot	0.6m O.C.
<i>Nepeta racemosa</i> 'Walker's Low'	Catmint	#1 Pot	0.9m O.C.
GRASSES			
BOTANICAL NAME	COMMON NAME	PLANT SIZE	SPACING
<i>Deschampsia caespitosa</i> 'Bronzeschiele'	Bronze veiled tufted hair grass	#1 Pot	0.6m O.C.
<i>Miscanthus sinensis</i> 'Adagio'	Dwarf maiden grass	#1 Pot	0.6m O.C.
GROUND COVER			
BOTANICAL NAME	COMMON NAME	PLANT SIZE	SPACING
<i>Sedum spurius</i> 'Fuldagut'	Fuldagut stonecrop	#1 Pot	0.5m O.C.

Revision Issue

Issued for DP Apr 3 02

Issued for review Mar 15 01

DESCRIPTION DATE NO.

Sarah L. Dickie
Landscape Designer
(250) 300-4286
sarahdickie@gmail.com

PROJECT

Nickel Road
Townhomes
Kelowna BC

SHEET TITLE

Landscape Plan

Design by: Sarah L. Dickie

Project Number: 17010

Date: Mar 2017

Scale: 3/32" = 1'

SHEET NUMBER

L-1.0

Estimate of Probable Cost

Project Name: Nickel Road Townhomes

Project No.: 17-010

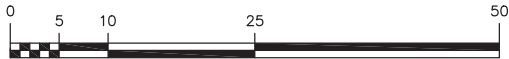
Date: April 3, 2017

No.	ITEM	UNIT	QTY	COST	PRICE
1.0	GROWING MEDIUM				
1.1	Tree growing medium - 1 m3 tree pit	m3	9	\$45	\$405
1.2	Shrub growing medium - 0.45m depth	m3	218	\$45	\$9,801
1.3	Lawn growing medium - 0.15m depth	m3	79	\$45	\$3,571
				1.0 Total	\$13,777
2.0	MULCH				
2.1	Shrub bed mulch - 0.075m depth	m3	36	\$40	\$1,452
				2.0 Total	\$1,452
3.0	TREES				
3.1	Deciduous trees - 5cm Cal.	ea.	9	\$150	\$1,350
				3.0 Total	\$1,350
4.0	SHRUBS GRASSES & PERENNIALS				
4.1	Plant - #2 pot	ea.	23	\$15	\$345
4.2	Plant - #1 pot	ea.	3	\$8	\$24
				4.0 Total	\$369
5.0	IRRIGATION				
5.1	Drip irrigation system (head, pipe, valve)	ea.	1	\$1,500	\$1,500
5.2	Controller	ea.	1	\$200	\$200
5.3	Point of connection	ea.	1	\$400	\$400
				5.0 Total	\$2,100
6.0	FENCING				
6.1	Perimeter fencing - Ht. 1.8m	l.m.	115	\$40	\$4,600
6.2	Nickel Rd fencing - Ht. 1.2m	l.m.	50	\$65	\$3,250
6.3	Screening between units - Ht. 1.2m	l.m.	73	\$65	\$4,745
				6.0 Total	\$12,595
7.0	LANDSCAPE STRUCTURES				
7.1	Play structure	ea.	1	\$20,000	\$20,000
				7.0 Total	\$20,000
				TOTAL	\$51,643
				(15%) CONTINGENCY	\$7,746
				GRAND TOTAL	\$59,389

* See corresponding development permit drawings L-1 Issued April 3, 2017

SITE PLAN SHOWING LOT A, SEC 27, TP 26, ODYD,
PLAN 25115 AND LOT B, SEC 27, TP 26, ODYD, PLAN
25115 EXCEPT PLAN KAP65522.

SCALE 1:500 METRIC



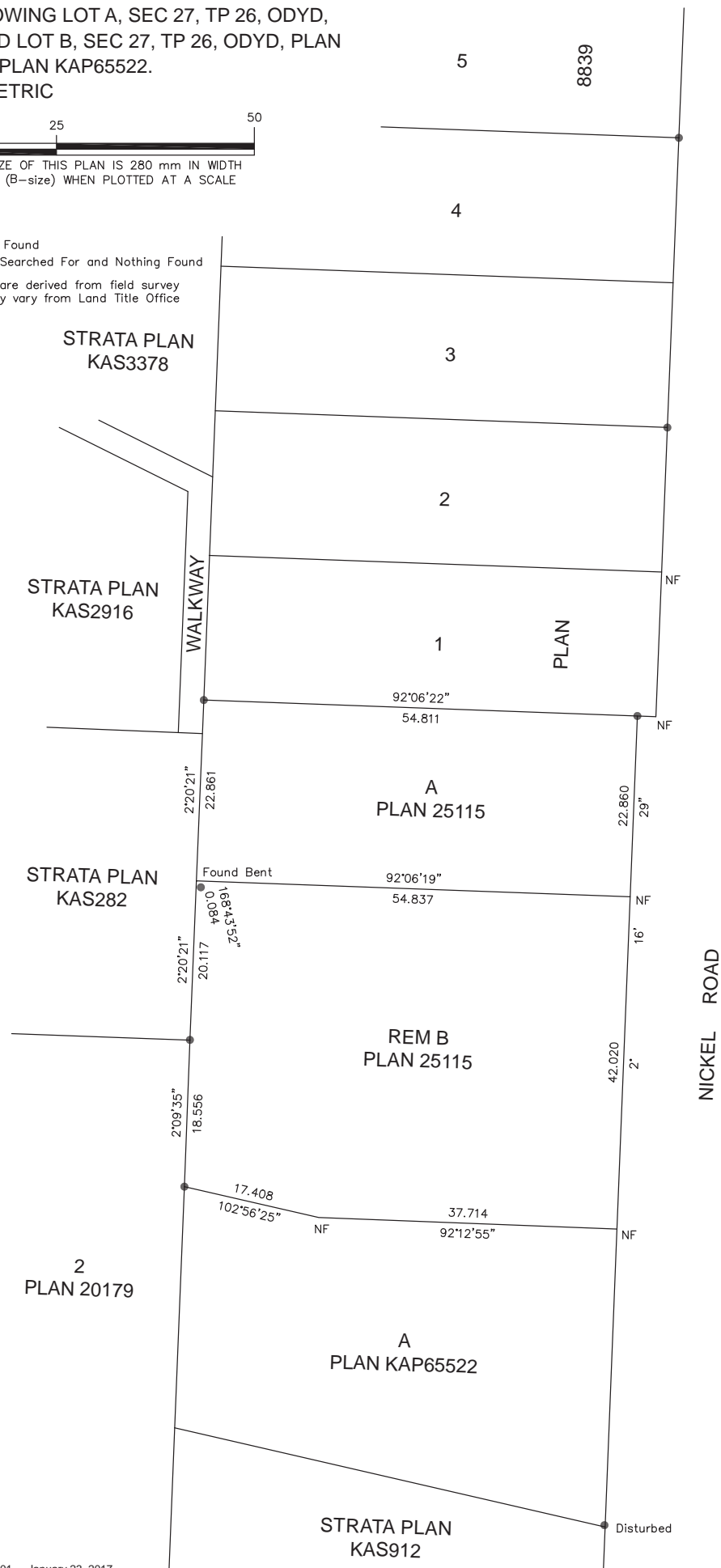
THE INTENDED PLOT SIZE OF THIS PLAN IS 280 mm IN WIDTH
BY 432 mm IN HEIGHT (B-size) WHEN PLOTTED AT A SCALE
OF 1:500 METRIC.

LEGEND

● Standard Iron Post Found

NF—Denotes Iron Post Searched For and Nothing Found

Lot dimensions shown are derived from field survey
measurements and may vary from Land Title Office
records.



AllTerra
Land Surveying Ltd.

www.AllTerraSurvey.ca

Ph: 250.762.0122 File: 317001 January 23, 2017