AGENDA For the Special Meeting of the Active Transportation Advisory Committee To be held in Council Chambers Saanich Municipal Hall, 770 Vernon Avenue Tuesday, September 22, 2020 – 5 p.m. to 7 p.m.

Due to COVID-19 measures, Saanich is unable to accommodate the public for any Council, Committee of the Whole, Advisory, Board or Foundation meetings while maintaining the limits on large gatherings due to the Public Health Order.

As per the Order of the Minister of Public Safety and Solicitor General, *Emergency Program Act*, Ministerial Order No. M192, public attendance at the meeting is not required if it cannot be accommodated in accordance with the applicable requirements or recommendations under the *Public Health Act*.

To register to hear this meeting by telephone, please email council@saanich.ca or telephone 250-475-5501. You are asked to provide your name and an email address where instructions can be sent to you, along with and the name and date of the advisory committee meeting you wish to hear. The registration deadline is 12:00 p.m. noon on the day of the meeting.

5:00 p.m. TERRITORIAL ACKNOWLEDGEMENT

It is appropriate that we begin by acknowledging that our municipality lies within the traditional territories of the Lkwungen (Lay-kwung-gen) peoples known today as Songhees and **SXIMEŁEŁ (**Esquimalt) Nations and the **WSÁNEĆ** (wehsaanich) peoples known today as WJOŁEŁP (Tsartlip), BOKEĆEN (Pauquachin), STÁUTW (Tsawout), WSIKEM (Tseycum) and MÁLEXEŁ (Malahat) Nations.

5:05 p.m. ADOPTION OF MINUTES

- August 27, 2020
- 5:10 p.m. E-MOBILITY STRATEGY
 - M. Baynham, Senior Sustainability Planner
- 5:40 p.m. SAANICH BICYCLE PARKING/SECURITY GUIDELINES
 - Councillor Brownoff

6:00 p.m. PUBLIC ART – WALL MCKENZIE/GALLOPING GOOSE

Councillor Brownoff

* Adjournment * Next Meeting: TBD

MINUTES OF THE SPECIAL MEETING OF THE ACTIVE TRANSPORTATION ADVISORY COMMITTEE Held at Saanich Municipal Hall in Council Chambers Thursday August 27, 2020, at 4:00 p.m.

Present: In Person: Councillor Judy Brownoff (Chair), Brian Collier, Norman Gidney, Philippe Janicki, Robert McLeod, Owen Petersen (Youth Member)

Via Teleconference:

Pat Danforth, Susan Kerr, Erin Prescott

- Staff: Troy McKay, Manager, Transportation & Development Services; Cameron Scott, Manager of Community Planning; Rebecca Newlove, Manager of Sustainability; Alanna McDonagh, Community Planning; Lynn Merry, Senior Committee Clerk; and Megan MacDonald, Committee Clerk Assistant
- Regrets: Karen Laberee
- Guests: Lisa Totter, Bronson Bullivant and Erin Sparks, Transit Planners, BC Transit

APPROVAL OF PREVIOUS MINUTES

MOVED by B. Collier and Seconded by N. Gidney: "That the Minutes of the Active Transportation Advisory Committee meeting held February 27, 2020 be adopted as circulated."

CARRIED

Note: The agenda for the meeting was revised to add an additional item – "Management of District–owned Public EV Charging Stations".

CHAIR'S COMMENTS

The Chair welcomed all members and advised of participation both in person and via teleconference due to COVID-19 safety precautions. The following comments were noted:

- The Committee should consider public art options for the Ministry of Transportation and Infrastructure (MOTI) barrier wall at the McKenzie interchange.
- The COVID-19 pandemic has had an impact on the timeline of some projects, but work on projects within the budget including a number of cycling routes, safe routes to school and transit stops are ongoing.
- In June, Council approved the following resolution based on the Active Transportation Advisory Committee recommendation: "That Council write a letter to Chief Medical Health Officer to support My Health My Community survey for the South Island, which supports Saanich's Active Transportation Plan, Action 3B.2: Work with partners to develop and deliver materials outlining the health benefits of walking and cycling." A response to that letter has not yet been received.

BC TRANSIT ROUTE CHANGES

Lisa Totter and Erin Sparks presented information on the Broadmead/Cordova Bay Local Area Transit Plan (LATP) route updates and the following was highlighted:

- The COVID-19 pandemic has significantly affected ridership in the Capital Regional District (CRD).
- Fare collection and front door loading have resumed; safety measures are in place.
- Transit aims to support economic recovery and address community challenges.
- The LATP defines the service and infrastructure strategies and priorities. Community engagement on LATP included open houses, workshops, and online surveys.
- Route 6 will be simplified by removing 6A and 6B to improve route clarity. The simplified Route 6 will have improved frequency and span.
- Route 32 will remain the same, Route 34 will be added, and Route 35 will be expanded.
- A review of capacity at the Royal Oak Exchange will also be a priority.
- Next steps will be the presentation of LATP to Victoria Regional Transit Commission in November for endorsement, followed by integration into service planning.

In response to questions from the Chair and committee, the following was noted:

- New bus stops will be strategically introduced in areas that align with connections to regional trails and parks, with a focus on safety and pedestrian locations.
- Saanich staff will work with BC Transit to ensure curbs and accessible loading infrastructure will be implemented where possible during the design phase.
- All expansions were deferred at the beginning of the pandemic to reevaluate priorities.
- BC Transit is reviewing options to make bus route numbers easier to differentiate.
- BC Transit has acquired land in View Royal for a new facility that will allow an expansion of services, including additional Handi-Dart resources.
- Broadmead Area Residents Association (BARA) has been involved in community consultation.
- More growth is needed through the region including rapid bus and expanded services.

MANAGEMENT OF DISTRICT-OWNED PUBLIC EV CHARGING STATIONS

Rebecca Newlove, Manager of Sustainability provided an overview of the District of Saanich's electric mobility work, including the proposed expansion of District-owned public Electric Vehicle charging stations and proposed user fees. The following was highlighted:

- The Climate Plan includes a focus on mobility, with the goal of reducing greenhouse gas emissions via active transportation, transit improvements, and transitioning to electric vehicles (EV).
- EV Charging Infrastructure Requirements Bylaws were approved by Council August 10, 2020 and are in effect as of September 1, 2020.
- Access to charging across the region is essential to support the transition to EV.
- Saanich currently has 12 public Level 2 EV charging stations.
- 20 new public Level 2 charging stations will be installed by the end of 2021.
- Funding for new chargers will be provided by the Federal Government Zero Emission Vehicle Infrastructure Program and Council Strategic Initiatives Contingency Fund.

- A proposed user fee and time limit, to come into effect January 1, 2021 will be presented to Council for approval in September, 2020:
 - Proposed user fee of \$1/hour, consistent with Esquimalt & Victoria and comparable to other BC municipalities,
 - Recommended in CRD EV + E-bike Infrastructure report,
 - o Review after 1 year,
 - o Revenue used to offset costs of operating charging stations,
 - Fees can be paid via card or app.
- Management Approach of charging stations: Time Limits
 - Existing:
 - 3-hour time limit currently in place but not enforced.
 - Proposed:
 - 3-hour time limit during the day/operating hours,
 - Enforced with \$30 fine,
 - \$30 fine also applies to parking non-EV in EV Parking Space.
- New management plan in place for administration of EV charging stations.

*** D. Wick entered the meeting at 5:03 p.m. ***

Committee comments and responses to committee questions are noted as follows:

- E-Bicycle charging will be addressed in an upcoming E-mobility Strategy Report.
- Provincial rebates are available and information is available on the Saanich website.
- The District is working with BC Hydro to develop a standard template for a Feasibility Study for EV charging stations to be installed in existing multi-unit residential buildings.
- Accessibility will be taken into consideration during the design phase of the new stations.
- The additional 20 public charging station expansion will address the short and medium term needs for EV charging stations. Locations for private charging stations are being explored with partners regionally and provincially.
- Proposed charges encourage balance between offsetting expenses and maintaining an affordable rate to encourage the use of electric vehicles.

BICYCLE PARKING GUIDELINES/STANDARDS – UPTOWN DOUGLAS CORRIDOR AREA PLAN

Alanna McDonagh, Planner (Community Planning) presented key active transportation highlights of the Uptown-Douglas Corridor Area Plan (UDC). The following was noted:

- Council has requested a supplemental report on the UDC to capture feedback and recommendations from the Active Transportation Advisory Committee, along with feedback from other committees.
- A fundamental goal of the UDC is to create a connected and sustainable balanced mobility network with convenient and safe connections for all modes of transportation.
- Key Plan Directions:
 - o Putting pedestrians first, transforming Oak Street,
 - Creating a multi-modal transit hub, accelerating rapid transit,
 - o Creating a network of parks, plazas and public spaces, converting grey to green,
 - o Residential growth and conserving light industrial.

- The UDC Land Use Framework designates neighborhood sub-areas to provide a high functioning, cohesive core for Saanich. This includes land uses, building height designations, street interface guidelines and building types and uses.
- A connected mobility network is intended to provide convenient and safe options of travel, increase convenience of transit, and improve travel across all major roads.
- Key features include the introduction of a new laneway to support network connectivity, good movement and to reduce conflicts on primary streets.
- Introduction of a pedestrian/cycling overpass across the Patricia Bay Highway.
- Active transportation and mobility key factors have been taken into consideration.
- The pedestrian network is intended to provide a complete sidewalk network and implement actions in the Active Transportation Plan (ATP) by redesigning streets and boulevards and establishing an alternate transportation reserve fund.
- Uptown Douglas Corridor Plan supports the ATP by implementing separated bike lanes, supporting bike parking, and enhancing regional trails.
- Transit routes are intended to support BC Transit and the Transit Future Plan (2011), create an urban mobility network, build complete streets, enhance the public realm and provide high quality transit service.
- Plans for parking includes shifting parking underground, adaptive reuse of parking structures, designated on-street car-share spaces, developing a parking management strategy, supplying EV and bicycle parking, and secure storage for bicycles and cargo.
- The general design of streets will change with a redesign of major streets into "Significant Streets", which will enhance pedestrian conditions and facilities, integrate AAA bicycle facilities, incorporate more pedestrian-oriented buildings, and reduce the dominance of motor vehicles. Cross sections of the proposed Significant Streets are included in the UDC, including the proposed addition of Audley Crossing.

Committee discussion ensued, the following was highlighted:

- Committee feedback will be included in the supplemental report to Council.
- Electric bicycle parking should be taken into consideration with the parking study.
- Consideration of accessibility for all users should be undertaken at the design phase.
- Pay parking would be beneficial to reduce car use and create revenue.

FUTURE MEETING AGENDA ITEMS

- Public Art Options for MOTI barrier wall.
- Bicycle Parking Standards Administrative Policy and Zoning.

ADJOURNMENT

The meeting adjourned at 6:00 p.m.

NEXT MEETING

Next meeting is Thursday September 24, 2020.

I hereby certify these Minutes are accurate.

Committee Secretary

Electric Mobility Strategy

Active Transportation Advisory Committee





PRESENTATION PURPOSE

To provide an overview of the Draft E-Mobility Strategy and associated Action Plan for discussion and input



PRESENTATION OUTLINE

- E-Mobility Strategy Context & Purpose
- Developing the E-Mobility Strategy
- Electric mobility 101
- Barriers to electric mobility
- Action Plan
- Implementation & Monitoring



CONTEXT: CLIMATE PLAN

Plan Goals:





A CHANGING CLIMATE





CONTEXT: PATHWAY TO TARGETS



On-road transportation = 53% of GHGs:

- Personal Vehicles (50%)
- Light trucks & SUVs (39%)
- Commercial Vehicles (10%)

CONTEXT: PATHWAY TO TARGETS



E-MOBILITY STRATEGY PURPOSE

Support a rapid transition to electric vehicles (EVs) and electric bikes (e-bikes) in Saanich

38 Actions in five focus areas to achieve the following targets:

- 1. By 2030, 36% of all personal vehicles are EVs
- 2. By 2050, 100% of personal and commercial vehicles are powered by electricity or other renewable fuels
- 3. By 2030, 22% of trips are by active transportation
- 4. By 2050, 30% of trips are by active transportation

Focus: light duty vehicles – most readily available and largest impact on community-wide GHGs

E-MOBILITY STRATEGY PROCESS



E-MOBILITY STRATEGY - Engagement

- Climate Plan Engagement: May 2018 – Sept 2019
- Capital Region EV & E-Bike Infrastructure Planning Project: 2018



- Plugging the Gaps Event with Drive Electric Victoria: Sept 2018
- EV Charging Infrastructure Requirements engagement: May 2018 May 2019
- E-Mobility Strategy Engagement: Feb/Mar 2020 and Sept 2020



E-MOBILITY 101 - EVs





plug-in hybrid electric vehicle

fossil fuel and electric ability to plug in extended range over BEV



chevrolet volt



nissan leaf

E-MOBILITY 101 – EV Charging



source: Accenture, Plug-in BC, Powertech Labs, Fleet Carma.

90-150 km per half hour charge time

use on the go (fast-charge hubs) use on the go (highway travel)

public DC fast charger

E-MOBILITY 101 – Benefits of EVs

- Reduced GHGs
- Increased affordability
- Cleaner air
- Electric Bikes
- Quieter streets

5x more efficient



traditional engine 17%-21% efficient



electric motor **90%-95%** efficient

Lower fuel costs



gasoline **\$9,600** CAD 7,900 liters electricity **\$2,600** CAD 19,400 kWh

Decreasing battery costs



Less maintenance



2,000+

moving parts

electric vehicle 18 to 20 moving parts

E-MOBILITY 101 – e-bikes & others

• E-bikes – 3 classes

- 1. Pedal Assist
- 2. Power-on-Demand
- 3. Hybrid
- Electric mopeds and scooters
- Electric Mobility scooters
- Mini motorcycles
- Electric skateboards and kick/push scooters
- Electric unicycles







E-MOBILITY 101 – Benefits of e-bikes & others!

- Climate Friendly renewable
- Affordable can replace driving, avoid traffic, save gas, insurance and maintenance
- Accessible easier for longer trips, steep hills, hauling cargo or young children. Greater range of ages and abilities
- Exercise you chose how much you want to peddle
- E-bike fleets



E-MOBILITY MARKET CONDITIONS

EV SALES



BC legislated EV sales targets:

- 2025 10%
- 2030 30%
- 2040 100%

Share of vehicles in Saanich

	2015	2019
Hybrid	2%	3%
Electric	0.2%	1.4%

Share of new passenger car registrations in BC

E-MOBILITY BARRIERS - EVs

- Purchase price
- Lack of knowledge and experience

- Range anxiety
- Inability to charge at home or work
 - Lack of public charging stations
- Lack of variety and model types



E-MOBILITY SOLUTIONS – EVs

Roles for local government



Demonstrating leadership at local government locations like City Hall.

local government

fleet

local government

employee

Ensuring adequate EV charging at work and at home.

new

new

single family



retrofits



multi family

Ensuring publicly accessible charging on the go.





commercial ev stations



dcfc corridor network

E-MOBILITY BARRIERS – E-Bikes



Too expensive Afraid that it might be stolen Concerned about safety Lack of public places to charge an E-Bike Concerned about achieving less exercise Lack of places to park an E-Bike Lack of private places to charge an E-Bike Other Not applicable

CRD Survey responses 2018

E-MOBILITY SOLUTIONS – E-bikes

- Cycling infrastructure –
 renewable
- E-bike incentive programs
- Education programs –
 including rentals and demos
- Land use planning for compact, complete communities
- Provincial Motor Vehicle
 Act Pilot projects:
 - Zero-emission mobility devices
 - Pilot speed limit reductions



E-MOBILITY ACTION PLAN

Support a rapid transition to electric vehicles (EVs) and electric bikes (e-bikes) in Saanich

38 Actions in five focus areas:

- 1. Electric Vehicles (EVs)
- 2. E-Bikes (& other e-mobility devices)
- 3. Home & Workplace Charging
- 4. Public Charging Network
- 5. District Leadership

Some actions replicate or are similar to Climate Plan actions

Actions also support mode shift targets in the ATP

ACTION PLAN - EVs

Action	Description	Time
EV1	Advocate to provincial and federal governments to maintain EV incentive programs	2020-25 high
EV2	Increase awareness of EVs through a comprehensive communications campaign	2020-23 high
EV3	Explore E-mobility requirements and incentives for business licenses and fees	2020-21 med
EV4	Encourage and support regional organizations to convert their fleets to Zero Emission Vehicles (ZEVs) (Climate Plan Action M3.7)	2020-25 med
EV5	Support car sharing organizations to electrify their fleet	2021-23 med
EV6	Explore land use planning policy and bylaw changes that support future car dealership needs as vehicles electrify	2023-25 low
EV7	Explore the potential for EVs to act as backup power supply	2023-25 low

ACTION PLAN – E-bikes

Action	Description	Time
EB1	Accelerate implementation of the Active Transportation Plan (Climate Plan Action M1.1).	2020-25 high
EB2	Plan compact, complete communities and focus density in nodes and corridors	2020-25 high
EB3	Identify and plan for infrastructure to ensure the safety of e-bike riders and others	2020-25 high
EB4	Advocate to the provincial and federal governments for an e-bike incentive program not linked to Scrap-It	2020-22 high
EB5	Provide 'top-up' incentives to augment provincial/ federal e-bike incentive programs if required	2020-22 high
EB6	Pilot an e-bike incentive/trial program (Climate Plan Action M1.2).	2020-22 high
EB7	Increase awareness of E-bikes through a comprehensive communications campaign	2020-23 high

ACTION PLAN – E-bikes cont'd

Action	Description	Time
EB8	Support lower speed limits on residential streets (Climate Plan Action M1.7).	2020-23 high
EB9	Review and update the Building Bylaw to consider amendments that support e-bikes	2021-23 med
EB10	Review and update the Zoning Bylaw to consider amendments that support e-bikes	2021-23 med
EB11	Advocate to BC Transit and the CRD to update their infrastructure design guidelines to support e-bikes	2021-23 med
EB12	Develop policies and infrastructure to support other kinds of e mobility in collaboration with the Province and regional partners	2021-23 med

ACTION PLAN – Home & Workplace Charging

Action	Description	Time
H+W1	Monitor Saanich EV Infrastructure Requirements for New Developments and share knowledge regionally	2020-25 high
H+W2	Create guidelines for 100% EV-ready feasibility studies in existing multi-unit residential buildings	2020-21 high
H+W3	Promote incentives for EV charging infrastructure	2020-23 high
H+W4	Provide additional 'top-up' incentives to augment provincial/ federal EV charging infrastructure incentives for existing MURBs if required	2021-22 high
H+W5	Explore need for and provide incentives for EV charging infrastructure feasibility studies in existing MURBs if required	2021-22 high

ACTION PLAN – Home & Workplace Charging cont'd

Action	Description	Time
H+W6	Provide EV charging infrastructure education for MURBs	2020-21 med
H+W7	Advocate for Right to Charge legislation. (Climate Plan Action M3.6).	2020-21 med
H+W8	Identify and address potential policy barriers to EV infrastructure in existing buildings	2020-21 med
H+W9	Support workplace EV charging	2021-23 med
H+W10	Support dedicated EV charging access for car shares near MURBs	2022-23 low
H+W11	Explore other financial approaches to overcome the capital cost barrier to EV charging	2022-23 low

ACTION PLAN – Expand Public Charging Network

Action	Description	Time
PN1	Identify priority areas in Saanich for the provision of additional public EV charging stations	2020-22 high
PN2	Work with BC Hydro and the provincial and federal governments to install more Level 3 DC fast charging stations in Saanich	2020-22 high
PN3	Explore how to encourage private sector investment in new EV charging infrastructure	2021-25 med
PN4	Embed EV charging considerations in Saanich planning processes	2021-23 med

ACTION PLAN – Saanich Leadership

Action	Description	Time
Lead 1	Develop a fleet strategy to reduce corporate emissions. (Climate Plan Action L3.1)	2020-21 high
Lead 2	Convert all light-duty fleet vehicles to zero-emissions vehicles. (Climate Plan Action L3.2).	2020-25 high
Lead 3	Develop an e-bike fleet program (Climate Action L3.3).	2020-22 med
Lead 4	Implement a Climate Friendly Commuter Program and improve bike parking at all Saanich facilities (Climate Action L2.1).	2020-22 med

NEXT STEPS

- Funding & Resources for Action Plan
- Final Engagement & Survey
 - Survey available at www.saanich.ca/climateplan
 - Closes 27 September
- Presentation to Council for approval
 - Expected October 2020



Questions?

Maggie Baynham Senior Sustainability Planner Maggie.Baynham@Saanich.ca

REFERENCE 1 • SAANICH BICYCLE PARKING GUIDELINES

The following guidelines are intended to be used in conjunction with the bicycle parking standards incorporated in the Zoning Bylaw. Prior to these guidelines, bicycle parking has been a matter of individual bicycle owners using aisles in a storage locker room, keeping bikes on balconies, or possibly finding locations in a parking area/garage. In commercial, industrial, or cultural/recreational locations, under-supply of appropriate facilities has meant that bikes end up locked to boulevard trees, signs, poles, guard rails, furnishings or building entries. This results in an unsatisfactory situation for all, as bicycles are not secure or sheltered, and conflicts often result with pedestrians and/or automobiles.

As part of a development application, the applicants' plans shall include details indicating the size of Class I and Class II parking facilities required. Similar details for showers, change rooms, and lockers may also be provided. Detailed design specifications for the fixtures to be used for all bicycle parking (racks, upright units, supports, anchors, etc.) should be supplied, as well as a description of security measures (enclosure method, access control, door hinging, supervision, etc.) for both classes of parking.

1. General Requirements

- 1.1 Bicycle Parking Requirements shall apply to new development, and/or building expansions requiring rezoning, development permit or a development variance permit. Bicycle parking shall be provided in conjunction with all multiple dwelling units (3 or more), commercial and industrial developments, institutional uses including churches, and all new automobile parking structures in compliance with the required dimensions and as per the amounts stated in the Zoning Bylaw.
- 1.2 Council has the discretion to vary the bicycle parking requirements through the development permit/development variance permit process or approve minor changes to existing bicycle parking under an approved Development Permit.
- 1.3 In addition to review by the Planning Department, proposals will be reviewed by the Advisory Design Panel for clarification on items, such as the type of rack, rack location, security issues, etc.
- 1.4 The minimum number of spaces provided at each new site shall be six (6).
- 1.5 Class I and Class II minimum dimensions for parking stalls shall be:

Bicycle stall - horizontal	• 1.8 m length x 0.8 m width x 2.1 m overhead clearance
Bicycle stall - vertical	• 1.2 m length x 0.8 m width x 2.1 m overhead clearance
Access Aisle	• 1.2 m

1.6 Class II – short-term bicycle parking spaces shall be sheltered from precipitation:

6 to 12	٠	100% of spaces sheltered
10		

13 or more • 50% of spaces sheltered

2. Class I – Long-Term Parking

Long-term parking provides the most complete protection from the weather and from theft, and is identified as spaces available for those who expect to leave their bicycles for more than four hours. Long-term parking must be fully secure and protected as the bicycle may be unattended for long periods of time. Each bicycle must be independently accessible and securable to a sturdy rack, and an enclosure should provide total protection from theft and damage to both the bicycle and its components and accessories. The facility also provides total protection from the elements, including wind and driven rain.

The primary characteristic of long-term parking is that security is provided via restricted access to a locked room or covered enclosure. Fencing can be used, but must be reinforced with metal bars. It is recommended that these be placed in well lit areas, preferably near employee work areas or where there is a high amount of foot traffic. Other security measures, such as camera surveillance or alarms may be appropriate. An example of a long-term parking facility is a lockable room, lockable bicycle enclosure, or a bicycle locker. Long-term bicycle facilities tend to be the most expensive type of facilities, although the cost will vary depending on the specific design.

3. Class II – Short-Term Parking

Short-term bicycle parking spaces are meant to accommodate visitors, customers, messengers, and other persons expected to depart within several hours. These facilities are not intended for overnight use; they provide protection from theft or the frame and wheels, but not components or accessories (such as seat, air pump, water bottles, etc.) and may provide limited protection from the weather by a special structure, existing building overhangs, or roof. A short-term bicycle facility usually consists of a securely fixed structure that supports the bicycle frame in a stable position without damage to the wheels, frame, or components, and must enable the frame and both wheels to be locked to the rack by the cyclist's own locking device. It is important that the facility be designed so as not to promote wheel damage.

Class II parking facilities for short-term convenience use (less than 4 hours) can be provided in exposed locations near the entrance to buildings. Often, the facility may be a simple bike rack or a post to which a bicycle may be secured.

Ideal bicycle storage for multifamily dwelling

Visibility:

- Vandal proof glass doors and windows or other materials providing view of interior. High visibility protects against theft and vandalism.
- Glass doors and windows also alerts those about to enter area, especially women, of any current area occupants.
- CCTV cameras should record entrance and also any activity within room area. At least two cameras viewing from opposite direction can help from using bright lights to blind a single camera.

Access:

- Room construction to prevent access without a key.
- Controlled entrance. A key fob type system to provide entry records.
- Door should automatically shut. Alarm if door held open (blocked) for more than a couple of minutes.
- Each area should serve a maximum of perhaps 6 residences. Multiple rooms for additional residences.

Room interior:

- Provisions for securing different bicycle types:
 - Inexpensive city bike: a lockable bike stand. Consider stands that only require a pad lock (see example). Some stands achieve this with moveable bars that can fit through bike frame, others might have high grade cable attached to stand.
 - Accommodate non-traditional bikes such as cargo bike or tandems.
 - Expensive bikes including e-bikes and higher end mountain or road bikes.
 - Provide high security lockers where bicycle is not visible. These might store bike horizontally or vertically.
 - Provide power outlets for charging e-bikes

Additional facilities:

- Area to wash bicycle
- Bicycle work area: (bike stand, bench, tools, pump)

BikeRack.ca	BIKE RACK MFG. & DIST. CO. 80 BASS PRO MILLS DR., UNIT 24 VAUGHAN, ON L4K 5W9 PHONE: (416) 927-7499 FAX: (416) 927-7499 www.bikerack.ca
PERSPECTIVE	
FEATURES: -SLIDING ARMS 5/8" (15.875 MM) HOT ROLLED SOLID ROD. -POWDER COATED PAINT COLOR BLUE. -INSTALLED 21" (533.4 MM) OR 24" (609 MM) CENTER TO CENTER. -10" (300 MM) FROM GROUND TO BOTTOM OF CHANNEL. -LAG USING 3/16" (4.763 MM) X 1 3/4" (44.45 MM) TAP CONS THREE SECTIONS PER RACK. <u>NOTES:</u> 1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFI	ICATIONS.
 DO NOT SCALE DRAWING. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCT. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPME THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADU REFERENCE NUMBER 4238-004. 	CTION. ENT BUT MUST BE REVIEWED AND APPROVED BY
LOCK-UP BIKE RACKS	
4238-004	REVISION DATE 03/06/2015
PROTECTED BY COPYRIGHT @2015 CADDETAILS.COM LTD.	CADdetails.com

Example bike rack providing good security for entire bicycle. Could be vertical or horizontal insallation.

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Individual Bike Lockers that fit in a room corner



Quality chain link can provde good security, visibility and air circulation.

C:\Work\ATAC\Bicycle storage for multifamily dwelling.odt 2020-09-15 8:30:00 AM



Note cable attached to rack reuires only a padlock







