

TO: Mayor Savage and Members of Halifax Regional Council

Original Signed by 

SUBMITTED BY: _____
Jacques Dubé, Chief Administrative Officer

DATE: March 21, 2018

SUBJECT: Carriage of Two-Wheeled Devices on Halifax Transit Ferries

SUPPLEMENTARY REPORT

ORIGIN

At the June 7, 2017, meeting of the Transportation Standing Committee, the Committee reviewed the report entitled Carriage of Two-Wheeled Devices on Halifax Transit Ferries, dated April 10, 2017. The following motion was put and passed:

“That the Transportation Standing Committee defer consideration of the April 10, 2017 staff report pending receipt of a supplemental report which will include information regarding the number of cyclists that would have been delayed had the proposed rules been in place, and whether the rules can be relaxed around the number of cyclists during off peak hours.”

At the December 5, 2017 meeting of Reginal Council, Council approved the following two motions:

“That Halifax Regional Council:

- 1. Approve modifications to the Halifax Transit ferries to accommodate an additional bicycle rack;*
- 2. Restrict the number of standard sized bicycles carried per crossing to the number that can be accommodated in bicycle racks; and*
- 3. Approve the installation of tire sizing racks at the ferry terminals to ensure that bicycles can be accommodated prior to boarding.”*

And

“That Halifax Regional Council defer recommendation number 4 of the Transportation Standing Committee report dated November 23, 2017 pending the receipt of supplementary staff report on safely accommodating Segways on Halifax Transit ferries.”

Recommendation on next page

LEGISLATIVE AUTHORITY

Halifax Regional Municipality Charter, R.S.N.S. 2008, c. 39. subsection 69(1) allows the Municipality to provide a public transportation service, and clause 79(1)(o) provides authority for Council to expend money to provide public transportation.

Canada Shipping Act, 2001 (S.C. 2001, c.36), subsection 120(1)

Hull Construction Regulations, (C.R.C., c.1431)

Vessel Fire Safety Regulations, SOR/2017-14

Safe Working Practices Regulations, (C.R.C., c. 1467)

RECOMMENDATION

It is recommended that Halifax Regional Council prohibit segways from the Halifax Transit ferries.

BACKGROUND

Due to growing concerns about the safe storage of two-wheeled devices on the harbor ferries, the staff report dated April 10, 2017 recommended that rules be introduced to govern the carriage of two-wheeled devices. This included limiting the number of bicycles, installing tire sizing racks, and prohibiting segways.

The supplemental report dated November 23, 2017, provided additional information, including bicycle counts, and contained similar recommendations, including the prohibition of segways on ferries.

At the request of Regional Council, additional information is now being provided regarding the potential to accommodate segways on the ferries.

DISCUSSION

Responsibility for Safety

Transport Canada as a regulator is responsible for ensuring that the Halifax Transit/Halifax Regional Municipality complies with the intent of the Canada Shipping Act, and has recommended safety management plans are in place which could be subject to third party audits for compliance of Acts and regulations. Transport Canada needs to ensure that Halifax Transit has identified any risks/hazards and that actions are taken to mitigate those risks/hazards and that processes are developed around them. They have the authority to approve or disapprove alterations or additions to vessels or processes. In addition, they have the authority to conduct compliance audits, review drawings for accuracy, issue deficiencies, and require corrective actions to take place. If a complaint were made, or an incident were to occur, Transport Canada would investigate to determine if the appropriate safety management systems and checks were in place and being applied. Depending on the severity of any incidents, the onus would be on Halifax Transit to demonstrate to the Transportation Safety Board that there was no negligence.

The Halifax Regional Municipality, as the owner and Halifax Transit, as the operator of the harbour ferries, are responsible for the safe passage of all employees and passengers on the ferries. Section 118 of the Canada Shipping Act states that no person shall take any action that might jeopardize the safety of the vessel and/or persons onboard. Halifax Transit has determined that two-wheeled devices such as segways that are not properly secured are a safety risk. Specifically, the current configuration of seating on the ferries precludes the safe and efficient stowage of segways. As a result, they consume a great deal of space, block doors, and can be a tripping hazard. It the municipalities' responsibility to mitigate this risk. Any device, including two-wheeled devices, cannot be permitted to block access to life saving devices such as life jackets or fire fighting equipment, block exits, or create tripping hazards. As such, two-wheeled devices, including segways, must be properly stowed in a securing device in a safe location.

Storage Options

Halifax Transit engaged a consultant, *E.Y.E Marine Consultants*, to develop options for the safe storage of segways on the harbour ferries. The objective was to develop options that would have the least amount of impact on seating for passengers and not interfere with the safety of the persons onboard.

A total of eight configurations were provided by the consultant, and are shown in Attachment B. These drawings include bicycle storage without the presence of segways, shared space for segways and bicycles, and separate segway storage. The drawings presented include the following:

- Prohibition of segways, allowing for 12 bicycles;
- Prohibition of segways, allowing for 11 bicycles, 2 of which have child trailers;
- Shared space, allowing for 8 bicycles and 3 segways;
- Shared space, allowing for 7 bicycles, 2 of which have child trailers, and 3 segways;
- Shared space, allowing for 4 bicycles and 6 segways;
- Shared space, allowing for 4 bicycles, 2 of which have child trailers, and 6 segways;
- Separate space, allowing for 12 bicycles and 7 segways; and
- Separate space, allowing for 11 bicycles, 2 of which have child trailers, and 7 segways

Shared Space - To allow bicycles and segways to be safely stored together in the existing bicycle rack space, a new modified rack would need to be designed and manufactured. It is estimated that the design of the new modified storage rack, removal of all existing bicycle racks, and replacement with the modified racks, would cost approximately \$25,000. This configuration is not desirable, as the presence of segways would limit the number of bicycles that could be accommodated and could result in delays for cyclists. Should this configuration be pursued, the number of segways would need to be limited to a maximum of 6 per trip to ensure they were all stored properly. In addition, guidelines would need to be developed around the prioritization of two-wheeled devices onboard.

Separate Space: The creation of a separate segway storage space would result in the removal of an additional 16 passenger seats on the ferry. It is estimated that the design of the specialized segway storage rack, removal of seats, and installation of the racks on the harbour ferries would cost approximately \$25,000. In addition, due to the location of the segway rack and limited manoeuvrability of the space, there is a risk that this option would result in additional loading and unloading time for the segways, impacting ferry departure and arrival times. Should this configuration be pursued, the number of segways would need to be limited to a maximum of 7 per trip to ensure they were all stored properly. This configuration is not desirable as it would result in reduced seating and space for passengers on the ferry.

FINANCIAL IMPLICATIONS

There are no financial implications associated with the recommendation of this report.

RISK CONSIDERATION

There is a short-term risk of negative public opinion and acceptance of the recommendation, as segways have been permitted on the ferries in the past. This can be mitigated with consistent enforcement of the amended rules for use of the ferries.

COMMUNITY ENGAGEMENT

No community engagement was conducted regarding this supplemental report.

ENVIRONMENTAL IMPLICATIONS

Staff have not identified any environmental implications associated with the recommendations of this report.

ALTERNATIVES

Regional Council could provide direction to modify the harbor ferries to allow for the safe passage of a limited number of segways.

ATTACHMENTS

Attachment A: Storage Options (*E.Y.E Marine Consultants*)

Attachment B: Staff Report Dated November 23, 2017

A copy of this report can be obtained online at halifax.ca or by contacting the Office of the Municipal Clerk at 902.490.4210.

Report Prepared by: Patricia Hughes, MCIP, LPP, Manager, Planning & Scheduling 902.490.6287

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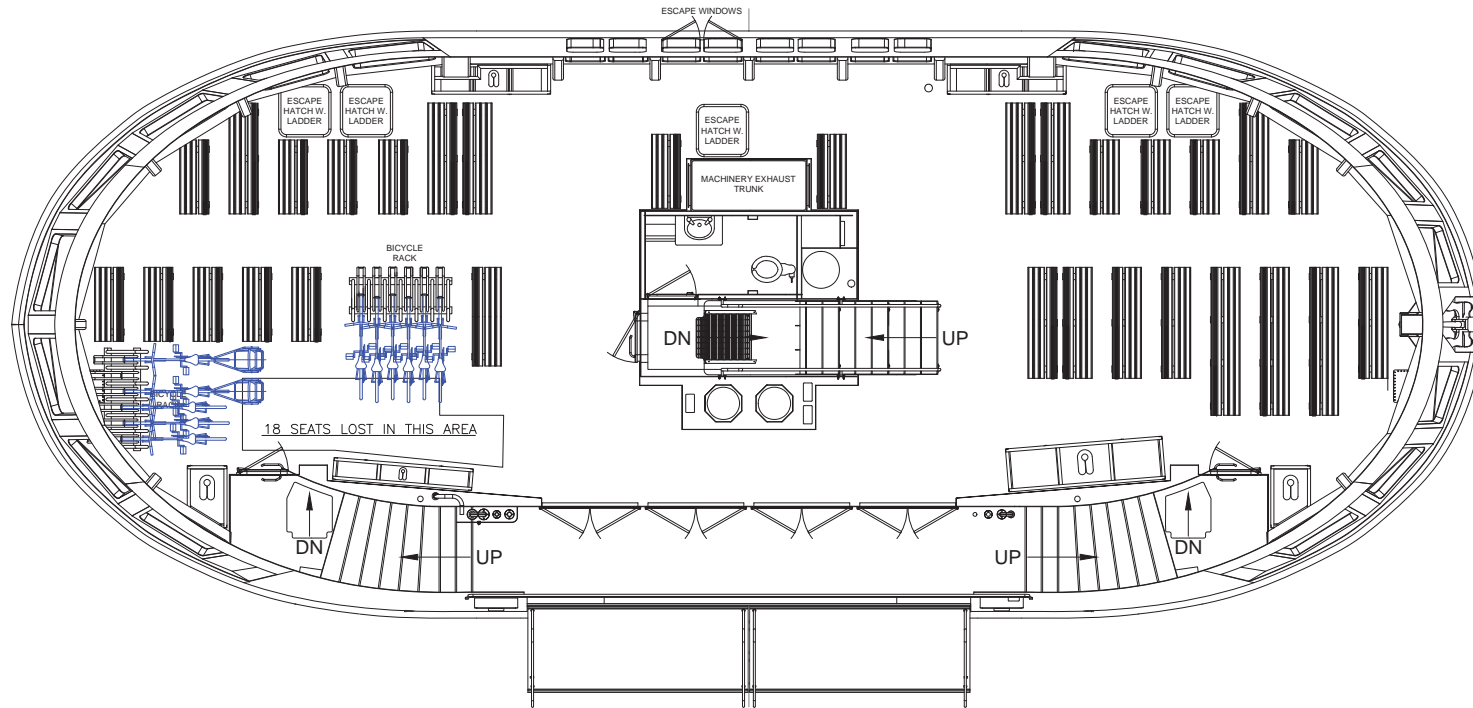
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Revised Arrangement with 11 Bikes 2 Bikes with Child Trailers



MAIN DECK
PASSENGER SEATING = 112

No.	Reference Drawings	Drawing No.

4	MF	ADDED BIKE TRAILERS	8 JAN 18
3	MF	ADDED LOADING OPTIONS	3 JAN 18
2	MF	ADDED SEGWAYS	19 DEC 17
1	CS	REVISED	23 AUG 16
0	CS	INITIAL ISSUE	18 AUG 16

E.Y.E. MARINE CONSULTANTS
Bedford Nova Scotia

Project: HRM PASSENGER FERRY

Client: HRM

Title: MAIN DECK ARRANGEMENT

Scale: 1/2" = 1' 0"

Client Approval: _____ Date: _____

T.C.M.S. Approval: _____

Classification Society Approval: _____

Drawn: C. SPECHT 18 AUG 16

Checked: T. THOMPSON 18 AUG 16

Project No. 16065 Sheet 1 of 1

Drawing No. 16065-SK1 Rev. No. 4

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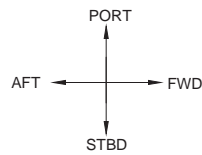
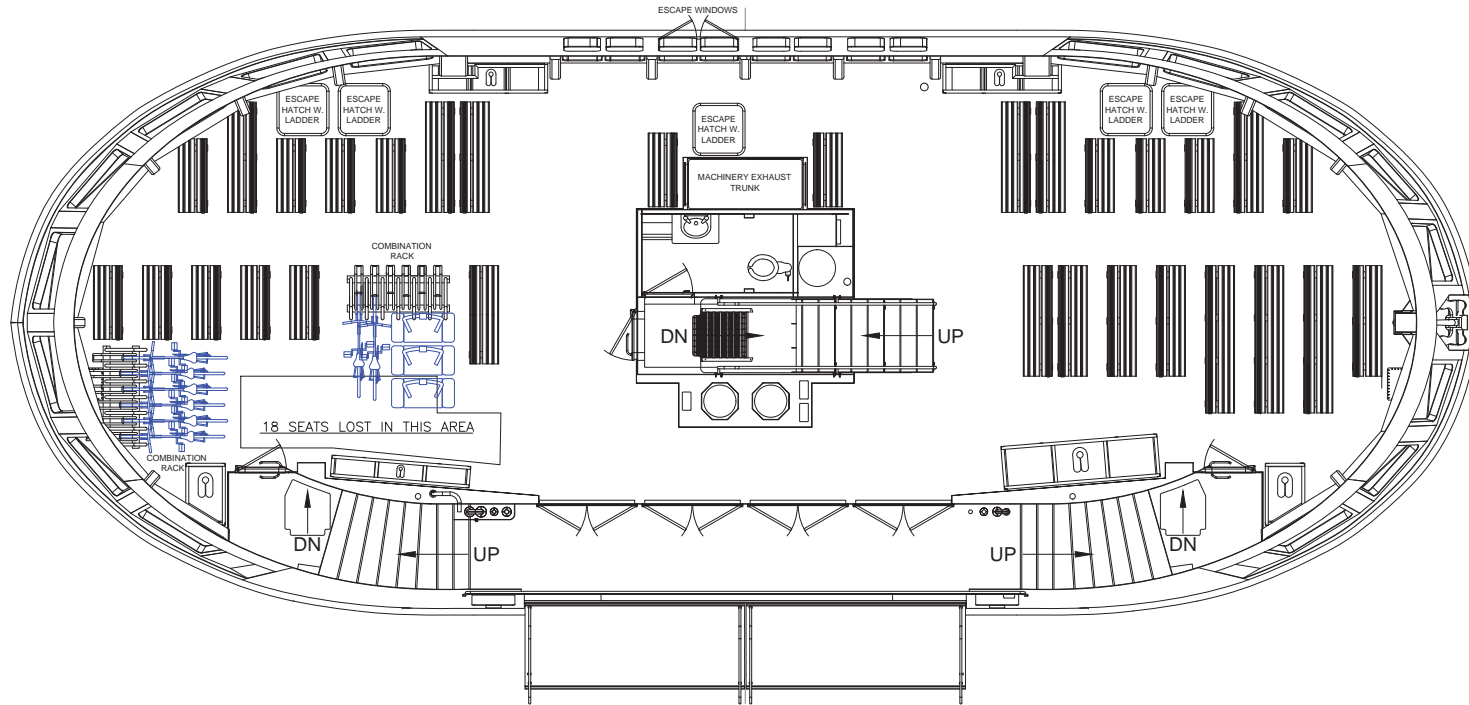
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Revised Arrangement with 8 Bikes and 3 Segways



MAIN DECK
PASSENGER SEATING = 112

No.	Reference Drawings	Drawing No.

3	MF ADDED LOADING OPTIONS	3 JAN 18
2	MF ADDED SEGWAYS	29 DEC 17
1	CS REVISED	23 AUG 16
0	CS INITIAL ISSUE	18 AUG 16
	Revisions:	Date

E.Y.E. MARINE CONSULTANTS
Bedford Nova Scotia

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Drawing	No. 16065-SK1	Rev. No. 3

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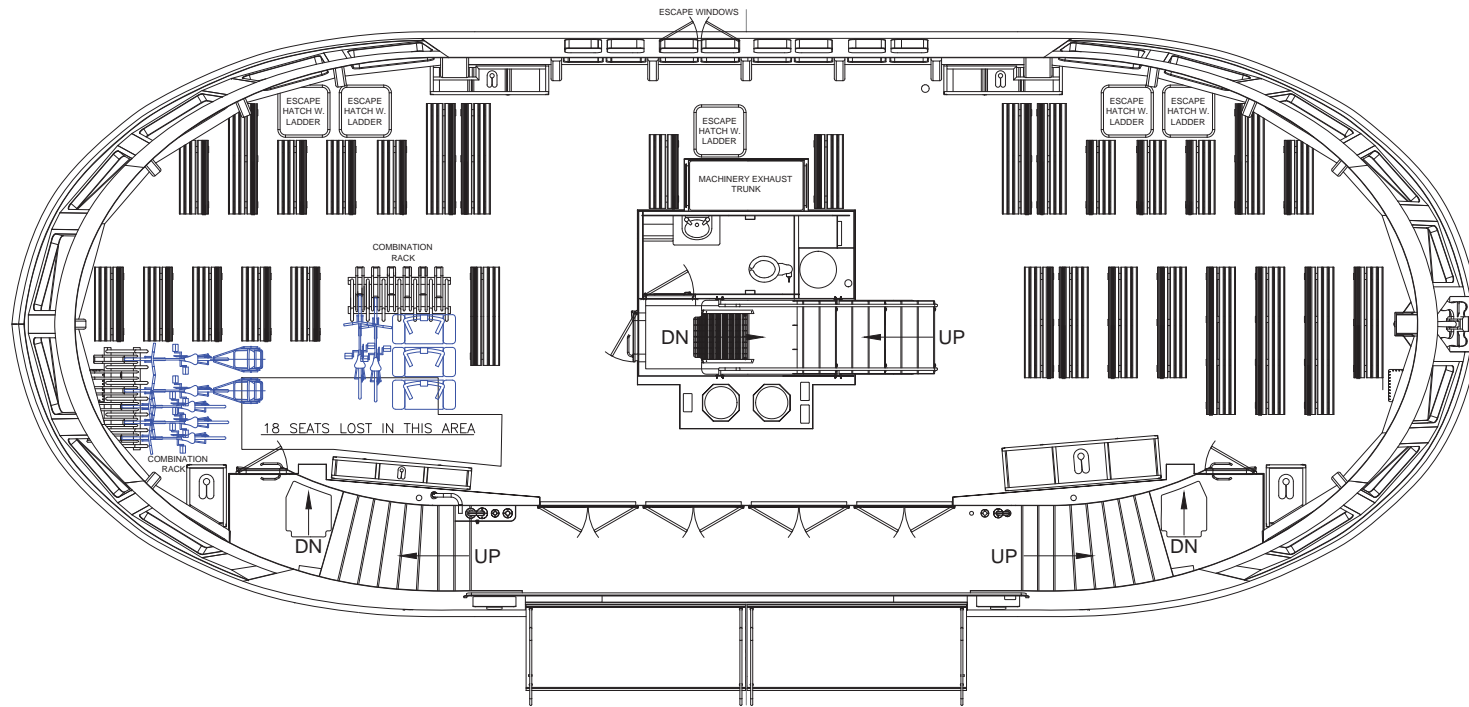
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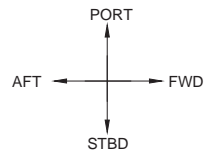
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Revised Arrangement with 7 Bikes and 3 Segways 2 Bikes with Child Trailers



MAIN DECK
PASSENGER SEATING = 112



No.	Reference Drawings	Drawing No.

1	MF	ADDED BIKE TRAILERS	18 JAN 18
2	MF	ADDED LOADING OPTIONS	3 JAN 18
3	MF	ADDED SEGWAYS	19 DEC 17
4	MF	ADDED SEGWAYS	23 AUG 18
1	CS	REVISED	23 AUG 18
0	CS	INITIAL ISSUE	18 AUG 18

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Project No: 16065 Sheet 1 of 1

Drawing No: 16065-SK1 Rev. No. 4

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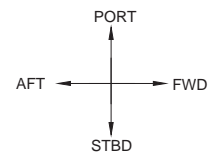
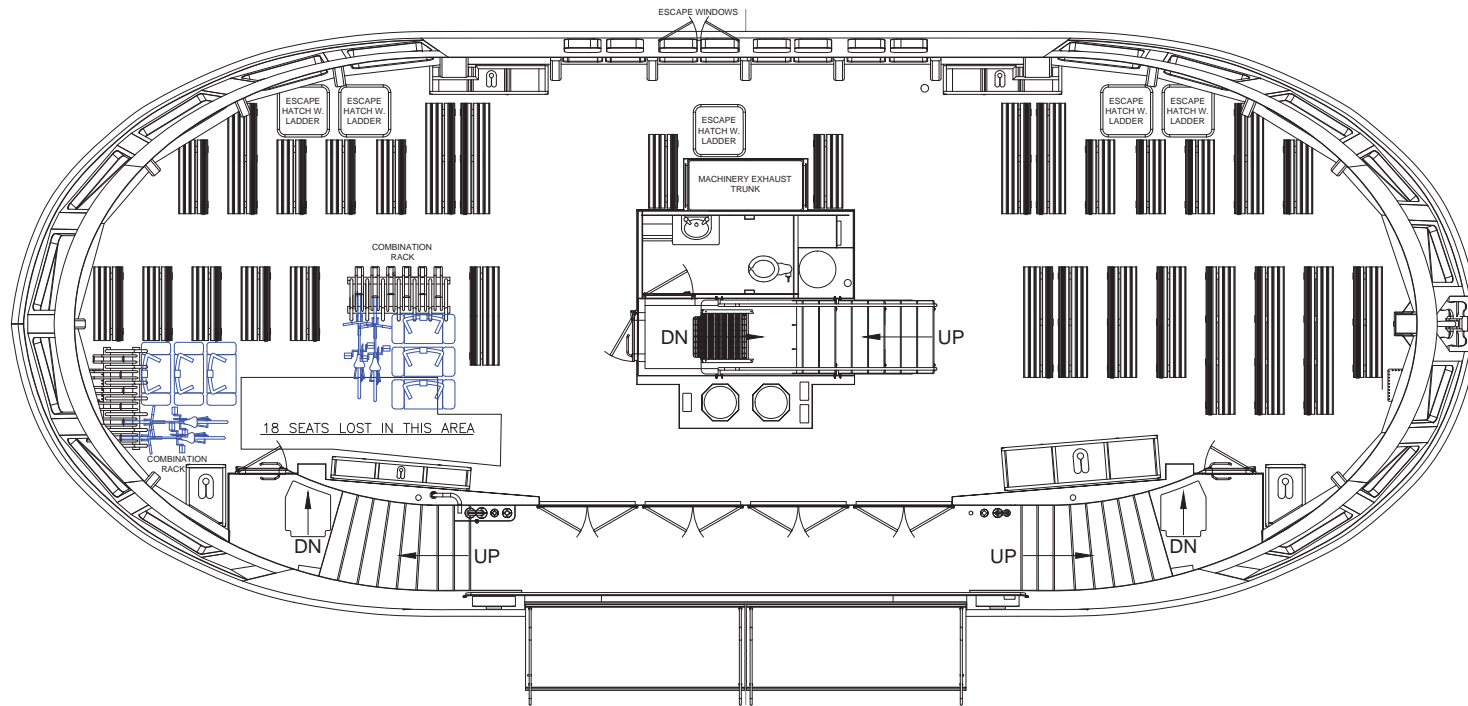
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Revised Arrangement with 4 Bikes and 6 Segways



MAIN DECK
PASSENGER SEATING = 112

No.	Reference Drawings	Drawing No.

3	MF ADDED LOADING OPTIONS	3 JAN 18
2	MF ADDED SEGWAYS	19 DEC 17
1	CS REVISED	23 AUG 16
0	CS INITIAL ISSUE	18 AUG 16
	Revisions:	Date

E.Y.E. MARINE CONSULTANTS
Bedford Nova Scotia

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Client: HRM

Title: MAIN DECK ARRANGEMENT

Scale: 1/2" = 1' 0"

Client Approval: _____ Date: _____

T.C.M.S. Approval: _____

Classification Society Approval: _____

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Checked: T. THOMPSON 18 AUG 16

Project No. 16065 Sheet 1 of 1

Drawing No. 16065-SK1 Rev. No. 3

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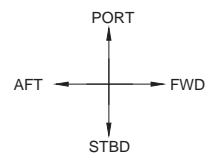
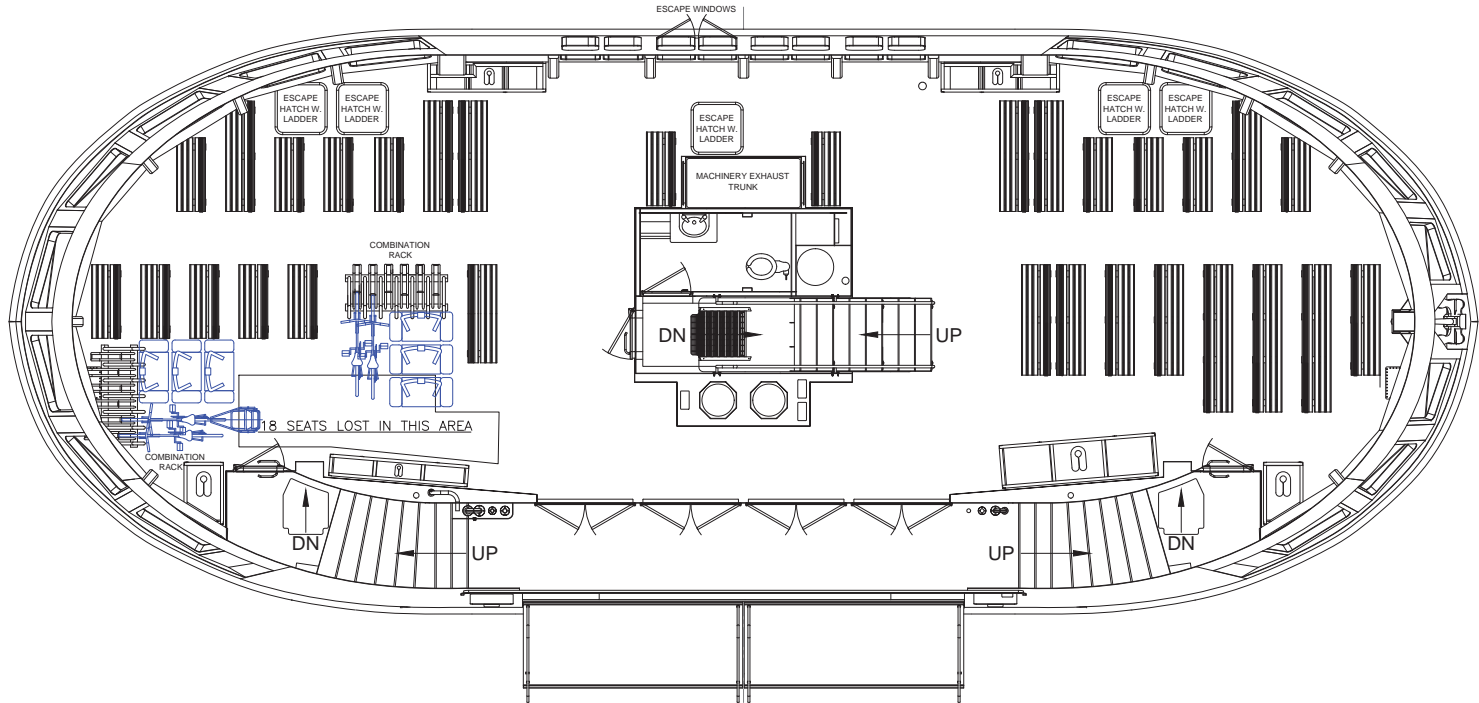
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Revised Arrangement with 4 Bikes and 6 Segways 2 Bikes with Child Trailers



MAIN DECK
PASSENGER SEATING = 112

No.	Reference Drawings	Drawing No.

No.	Revisions	Date
1	MF ADDED BIKE TRAILERS	18 JAN 18
2	MF ADDED LOADING OPTIONS	3 JAN 18
3	MF ADDED SEGWAYS	19 DEC 17
4	CS REVISED	23 AUG 16
0	CS INITIAL ISSUE	18 AUG 16

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Title: MAIN DECK ARRANGEMENT

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Client Approval: _____

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Classification Society Approval: _____

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Drawing No: 16065-SK1	Rev. No. 4

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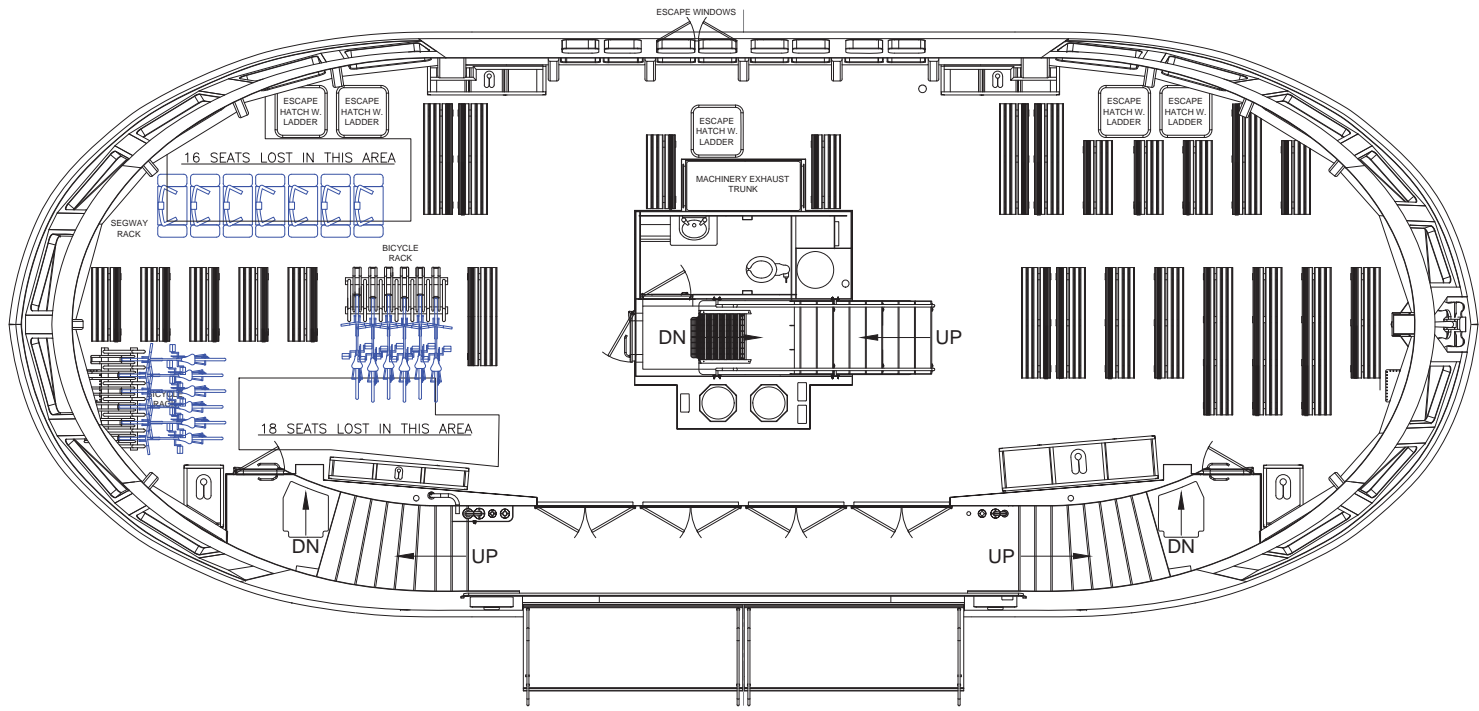
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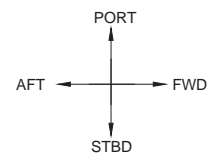
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No.	Reference Drawings	Drawing No.

Revised Arrangement with 12 Bikes and 7 Segways



MAIN DECK
PASSENGER SEATING = 96



No.	Description	Date
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2	MF ADDED SEGWAYS	29 DEC 17
1	CS REVISED	23 AUG 16
0	CS INITIAL ISSUE	18 AUG 16

E.Y.E. MARINE CONSULTANTS
Bedford Nova Scotia

Project: HRM PASSENGER FERRY

Client: HRM

Title: MAIN DECK ARRANGEMENT

Scale: 1/2" = 1' 0"

Client Approval: _____ Date: _____

T.C.M.S. Approval: _____

Classification Society Approval: _____

Drawn	C. SPECHT	18 AUG 16
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Project	No. 16065	Sheet 1 of 1
Drawing	No. 16065-SK1	Rev. No. 3

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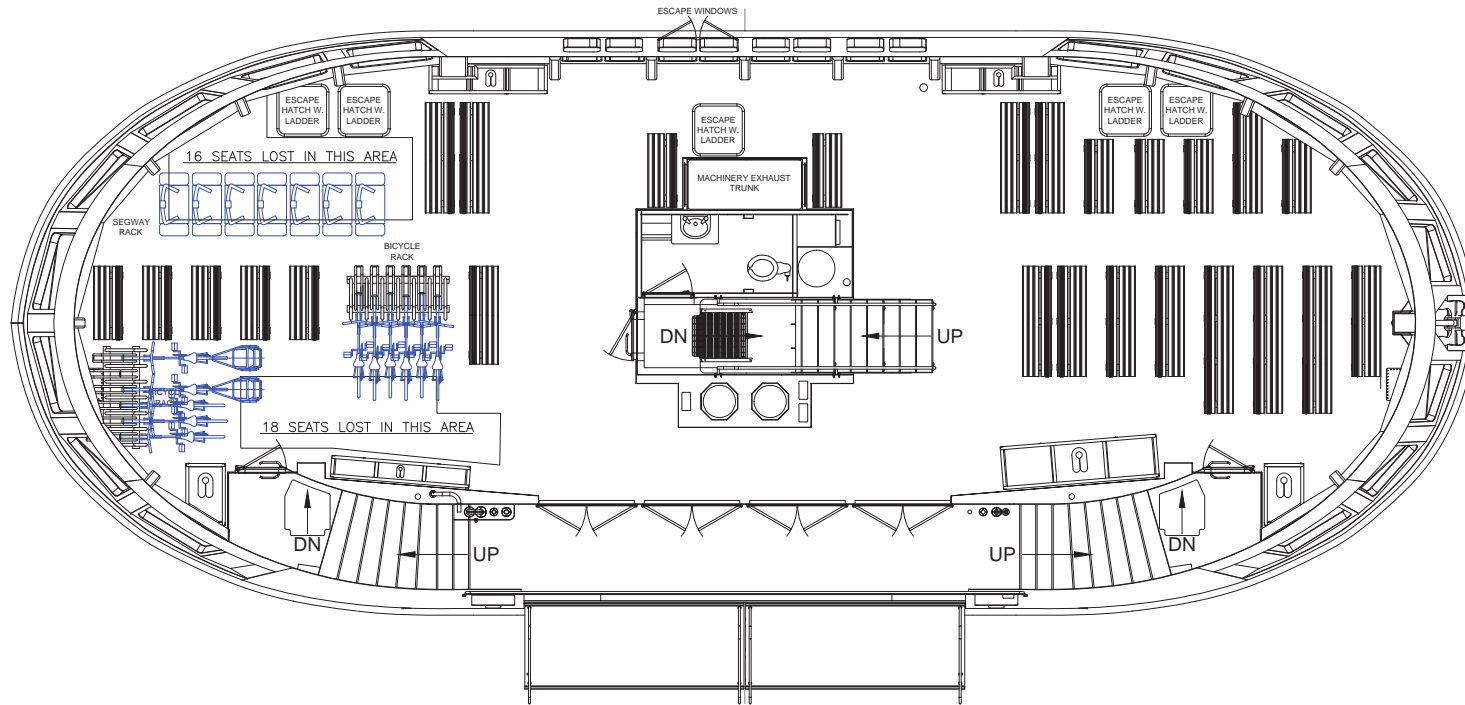
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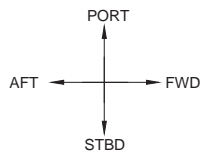
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Revised Arrangement with 11 Bikes and 7 Segways 2 Bikes with Child Trailers



MAIN DECK
PASSENGER SEATING = 96



No.	Reference Drawings	Drawing No.

No.	Revisions	Date
1	MF ADDED BIKE TRAILERS	8 JAN 18
2	MF ADDED LOADING OPTIONS	3 JAN 18
3	MF ADDED SEGWAYS	19 DEC 17
4	CS REVISED	23 AUG 16
5	CS INITIAL ISSUE	18 AUG 16

E.Y.E. MARINE CONSULTANTS
Bedford Nova Scotia

Project: HRM PASSENGER FERRY

Client: HRM

Title: MAIN DECK ARRANGEMENT

Scale: 1/2" = 1' 0" Date: _____

Client Approval: _____

T.C.M.S. Approval: _____

Classification Society Approval: _____

Drawn: C. SPECHT 18 AUG 16

Checked: T. THOMPSON 18 AUG 16

Project No. 16065 Sheet 1 of 1

Drawing No. 16065-SK1 Rev. No. 4

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P.O. Box 1749
Halifax, Nova Scotia
B3J 3A5 Canada

Item No. 14.2.1
Halifax Regional Council
December 5, 2017

TO: Mayor Savage and Members of Halifax Regional Council

Original Signed

SUBMITTED BY: _____
Councillor Tim Outhit, Chair, Transportation Standing Committee

DATE: November 23, 2017

SUBJECT: Carriage of Two-Wheeled Devices on Halifax Transit Ferries

ORIGIN

- June 7, 2017 meeting of the Transportation Standing Committee, Item No. 12.1.1.
- November 23, 2017 meeting of the Transportation Standing Committee, Item No. 8.1.

LEGISLATIVE AUTHORITY

Administrative Order 1, Respecting the Procedures of the Council, Schedule 7, Transportation Standing Committee Terms of Reference, section 6 (c) which states: "The Transportation Standing Committee shall promote and enable positive communication between communities, ridership, and the Council and Transit services to enable and support the Regional Transit service to the communities of the municipality".

RECOMMENDATION

The Transportation Standing Committee recommend that Halifax Regional Council:

1. Approve modifications to the Halifax Transit ferries to accommodate an additional bicycle rack;
2. Restrict the number of standard sized bicycles carried per crossing to the number that can be accommodated in bicycle racks;
3. Approve the installation of tire sizing racks at the ferry terminals to ensure that bicycles can be accommodated prior to boarding; and
4. Prohibit segways from the Halifax Transit ferries.

BACKGROUND

The Transportation Standing Committee received a staff report dated April 10, 2017 pertaining to the Carriage of Two-Wheeled Devices on Halifax Transit Ferries at its meeting held on June 7, 2017. The Transportation Standing Committee deferred consideration of the April 10, 2017 staff report pending the receipt of a supplemental report providing additional information on the proposed rules governing the carriage of two wheeled devices on ferries.

A supplementary staff report dated October 13, 2017 pertaining to the Carriage of Two-Wheeled Devices of Halifax Transit Ferries was before the Transportation Standing Committee for consideration at its meeting held on November 23, 2017. For further information please refer to the attached staff reports dated October 13, 2017 and April 10, 2017.

DISCUSSION

The Transportation Standing Committee reviewed the supplementary staff report dated October 13, 2017 at its meeting held on November 23, 2017 and forwarded the recommendation to Regional Council as outlined in this report.

FINANCIAL IMPLICATIONS

As outlined in the attached supplementary staff report dated October 13, 2017.

RISK CONSIDERATION

As outlined in the attached supplementary staff report dated October 13, 2017.

COMMUNITY ENGAGEMENT

The Transportation Standing Committee meetings are open to public attendance, a live webcast is provided of the meeting, and members of the public are invited to address the Committee for up to five minutes at the end of each meeting during the Public Participation portion of the meeting. The agenda, reports, video, and minutes of the Transportation Standing Committee are posted on Halifax.ca.

ENVIRONMENTAL IMPLICATIONS

As outlined in the attached staff report dated October 13, 2017.

ALTERNATIVES

The Transportation Standing Committee did not discuss alternative recommendations.

ATTACHMENTS

1. Supplementary staff report dated October 13, 2017 (Attachment B: April 10, 2017 staff report)

A copy of this report can be obtained online at halifax.ca or by contacting the Office of the Municipal Clerk at 902.490.4210.

Report Prepared by: Liam MacSween, Legislative Assistant, 902.490.6521



P.O. Box 1749
Halifax, Nova Scotia
B3J 3A5 Canada

Attachment 1
Transportation Standing Committee of Council
November 23, 2017

TO: Chair and Members of the Transportation Standing Committee

Original Signed

SUBMITTED BY: _____
Dave Reage, MCIP, LPP, Director, Halifax Transit

DATE: October 13, 2017

SUBJECT: Carriage of Two-Wheeled Devices on Halifax Transit Ferries

SUPPLEMENTARY REPORT

ORIGIN

At the June 7th, 2017, meeting of the Transportation Standing Committee, the committee reviewed the report entitled Carriage of Two-Wheeled Devices on Halifax Transit Ferries. The following motion was put and passed:

That the Transportation Standing Committee defer consideration of the April 10, 2017 staff report pending receipt of a supplemental report which will include information regarding the number of cyclists that would have been delayed had the proposed rules been in place, and whether the rules can be relaxed around the number of cyclists during off peak hours.

LEGISLATIVE AUTHORITY

Halifax Regional Municipality Charter, R.S.N.S. 2008, c. 39. subsection 69(1) allows the Municipality to provide a public transportation service, and clause 79(1)(o) provides authority for Council to expend money to provide public transportation.

Canada Shipping Act, 2001 (S.C. 2001, c.36), subsection 120(1)
Hull Construction Regulations, (C.R.C., c.1431)
Vessel Fire Safety Regulations, SOR/2017-14
Safe Working Practices Regulations, (C.R.C., c. 1467)

RECOMMENDATION

It is recommended that the Transportation Standing Committee of Council recommend that Halifax Regional Council:

1. Approve modifications to the Halifax Transit ferries to accommodate an additional bicycle rack;
2. Restrict the number of standard sized bicycles carried per crossing to the number that can be accommodated in bicycle racks;
3. Approve the installation of tire sizing racks at the ferry terminals to ensure that bicycles can be

- accommodated prior to boarding; and
4. Prohibit segways from the Halifax Transit ferries.

BACKGROUND

Due to growing concerns about the safe storage of two-wheeled devices on the harbor ferries, the staff report dated April 10, 2017, recommended the following:

- The number of standard sized bicycles permitted per crossing be limited to those that can be accommodated by the onboard racks;
- Two rows of seats be removed from each vessel to allow for up to two bike trailers per crossing;
- Tire sizing racks be installed to confirm that bicycles will fit into the onboard racks before permitting entry onto the ferry;
- Segways be prohibited from boarding the ferries; and
- The public be advised of the new practices via a robust communications plan.

At the request of the Transportation Standing Committee, additional information is being provided regarding bicycle capacity and volumes on the ferries.

DISCUSSION

Existing Capacity

Each of the five existing harbor ferries is fitted with bicycle racks. The older vessels in the fleet each have two bicycle racks, one at each end of the interior passenger deck. Both of these vessels will be replaced and removed from service in 2018. The newer vessels in the fleet have been fitted with one bicycle rack. The bicycle rack has the potential to hold up to six bicycles, however, due to variations in size and style of bicycle, there would be instances in which only four bicycles can fit in the rack at a time. Unlike with the older vessels, it is not possible to install an additional rack at the opposite end of the interior deck, as the aisle width would not allow passengers with bicycles to navigate through.

Existing Limitations on Two-Wheeled Devices

There is currently no specific policy that limits the number of two-wheeled devices on the ferries. However, safety regulations require that emergency exits and access to safety equipment are unobstructed and that every staircase, corridor, door, and ladder provide a ready means of escape. The Municipality is responsible for the safety of the passengers and crew, and the ferry crew is responsible for ensuring safety regulations are met on each crossing, and therefore have the authority to require that any mobility device be relocated or repositioned onboard the ferry, or prohibit passengers with two-wheeled devices from boarding.

It would be advantageous to have clear and consistent rules regarding the number of two-wheeled devices permitted to board to provide greater clarity and certainty to passengers and reduce the potential for confusion or conflicts between passengers and crew.

On July 26, 2016, a public service announcement was released advising that electric and gas powered scooters and bicycles with trailers would no longer be permitted on the ferries. A further announcement was made advising that bicycles with trailers would continue to be permitted, pending a larger analysis of options.

Bicycle Volumes

The number of bicycles being transported on the ferry was observed and recorded in both summer and fall of 2017. Each daily trip was observed once in each period, therefore the data collected represents a typical summer weekday and a typical fall weekday, and does not represent days with unusually high or low volumes. In addition to bicycles, a record was kept of all other devices onboard the ferry, including strollers, wheelchairs, powerchairs, walkers, and segways, to provide a sense of the volumes of other mobility devices that potentially compete with bicycles for the limited spaces available at the perimeter of the seating areas. The data collected is presented in Attachment A.

The maximum number of bicycles observed on the Woodside Ferry at any one time was four, and therefore

the existing bike rack arrangement appears to be sufficient for that route.

For the Alderney Ferry service, the maximum number of bicycles on any one trip on a typical fall weekday was four. However, during the summer counts, there were six trips which had greater than four bicycles on any one trip. This represents 6% of daily trips. The volumes of bicycles on these size trips were: 5, 6, 6, 7, 7, and 8.

The Transportation Standing Committee requested information regarding the number of cyclists that would be delayed should bicycles be limited to those that can be accommodated in the existing racks. Based on the volumes cited above, the number of cyclists that would be delayed on a typical day by limiting the number of bicycles onboard to the number that could be loaded into the existing bicycle rack would range from four to fifteen, pending bicycle dimensions and ability to accommodate four or six bicycles in the available rack. In addition, there is a risk that during the morning peak departing Alderney, cyclists would need to be held back for multiple trips. With an additional bicycle rack in place, there would be capacity for all observed cyclists without any delays.

Trailer Volumes

One bicycle with a trailer was observed on the Alderney Ferry service on a typical summer day, and one was observed on a typical fall day. In both instances, they were on crossings during off-peak times.

Ability to Accommodate Additional Bicycle/Trailer Storage

The data collected demonstrates that there is insufficient capacity aboard the vessels to accommodate existing bicycle demand, and it is anticipated that this demand will grow in the future as the Municipality invests in bicycle infrastructure to further encourage travel by sustainable transportation. It is recommended that an additional storage space be created for two-wheeled devices.

An additional bicycle rack can be safely installed on each vessel to increase bicycle storage capacity to between eight and twelve bicycles. Based on the summer and fall bicycle counts, this capacity would accommodate the observed volumes of bicycles within the racks and minimize any delays to cyclists travelling on the ferry. To accommodate this, seating for approximately 18 passengers would need to be removed and an additional rack would be installed, at a cost of \$1,000 - \$3,600 per vessel. This additional space could also be used to stow one or two bicycle trailers when the rack is not in use. On high demand crossings, ferry crew would need to balance the boardings of bicycles and trailers to ensure that the space was used as efficiently as possible to reduce delays.

The removal of seats would have no impact on the total number of passengers that can be carried per crossing, but would result in additional passengers standing during high volume periods. Currently, the ferries accommodate approximately 95 seated passengers on the main deck (interior of the vessel) and 90 passengers on the top (exterior) deck, so this modification results in a loss of approximately 10% of the total seating, and 19% of the interior seating.

Although the additional capacity may not be required on the Woodside service at this time, the additional bicycle racks are recommended for all five vessels as all vessels operate on both the Alderney and Woodside routes. Because two of the existing vessels will be replaced in 2018, only three existing vessels would need to be modified, and the additional bicycle racks can be added to the remaining two vessels currently under production.

Segway Volumes

During the data collection in the summer and fall, no segways were observed boarding the Woodside Ferry service. However, 12 segways were observed on the Alderney Ferry service, travelling in both directions, in the summer, and three were observed in the fall. The crossings in which segways were observed had a minimum of three segways onboard, and a maximum of five. The current configuration of the seating on the ferries precludes the safe and efficient use of segways, as a result, they consume a great deal of space, block doors, and can be a tripping hazard. Unlike other mobility devices travelling on the ferries, such as bicycles, wheelchairs, strollers, and bicycle trailers, the segways observed do not appear to be privately owned or used for personal transportation, but are part of a commercial operation.

Special Events

The bicycle volumes cited above and in Attachment A are intended to be representative of a typical weekday in the summer and fall. Ferry passenger volumes of all types tend to be higher during special events, on some holidays, and on weekends in the summer, with volumes varying widely depending on the occasion and weather conditions. During these high volume periods, limitations on the number of two-wheeled devices are critical to accommodating the large crowds safely.

FINANCIAL IMPLICATIONS

Modifications to the ferries to remove approximately 18 seats and install an additional bicycle rack will require a capital expenditure of an estimated amount of \$14,000 and can be accommodated from the Biennial Ferry Refit (CVD00436) project account. Procuring sizing racks for the three ferry terminals is estimated at \$3,000 and can be accommodated from the Transit Terminal Upgrade & Expansion (CB200428) project account. Budget availability has been confirmed by Finance.

Budget Summary:

Project No. CVD00436 – Biennial Ferry Refit

Cumulative Unspent Budget	\$310,508
Less: Estimate Ferry Vessels	<u>\$ 14,000</u>
Balance	\$296,508

Project No. CB200428 – Transit Terminal Upgrade & Expansion

Cumulative Unspent Budget	\$23,897
Less: Estimate Ferry Vessels	<u>\$ 3,000</u>
Balance	\$20,897

The balance of funds will be used to implement remaining Ferry Refits and Transit Terminal Upgrade expenditures.

RISK CONSIDERATION

There is a short term risk of negative public opinion and acceptance of the recommendation, as two-wheeled devices have not been limited in this way in the past. This can be mitigated with a robust communications plan and consistent enforcement of the amended rules for use of the ferries.

COMMUNITY ENGAGEMENT

No community engagement was conducted regarding this supplemental report.

ENVIRONMENTAL IMPLICATIONS

Staff have not identified any environmental implications associated with the recommendations of this report.

ALTERNATIVES

1. The Transportation Standing Committee could recommend to Regional Council a restriction on the accommodation of two-wheeled devices to the original design concept (standard size bicycles only and no other devices, and only in the number of racks currently fitted).
2. The Transportation Standing Committee could recommend to Regional Council the accommodation of some combination of devices other than what is recommended in this report, with a corresponding requirement to remove passenger seating.

ATTACHMENTS

Attachment A: 2017 Bicycle Counts

Attachment B: Staff Report Dated April 10, 2017

A copy of this report can be obtained online at halifax.ca or by contacting the Office of the Municipal Clerk at 902.490.4210.

Report Prepared by: Patricia Hughes, MCIP, LPP, Manager, Planning & Scheduling 902.490.6287

Attachment A – 2017 Bicycle Counts

Alderney – Halifax Ferry

Depart	From Alderney				Depart	To Alderney			
	Summer		Fall			Summer		Fall	
	Bikes	Other	Bikes	Other		Bikes	Other	Bikes	Other
630a	3		3		645a				
700a	7		2		715a			1	
715a	3		3		730a				
730a	3		1		745a	2			
745a	1		2		800a	1			
800a	3		1		815a	1			
815a	3		4		830a			1	
830a	4		2		845a	1		1	1
845a	4		2		900a				
900a	2		3		915a	1			
930a	1		4		945a	2	1	1	
1000a			3	3	1015a			1	
1030a	2			1	1045a	6			
1100a					1115a				3
1130a					1145a	1			
1200p	3		2		1215p				1
1230p	8	1			1245p	3	5	1	1
100p			2		115p	1	1		1
115p					130p				1
130p	1	5		1	145p			1	3
145p		1		1	200p		1		
200p	2	1		1	215p		1		
215p		7			230p		4		
230p		2	1		245p	1	4	1	
245p	1	2			300p		2		
300p		1	1	3	315p		1		
315p		5			330p	2	2	2	2
330p	1	1	1		345p				2
345p	2				400p	2		2	
400p					415p	7	3	3	
415p		1	2		430p	1		3	1
430p	1	4		1	445p		1	2	
445p	1		1	1	500p	2	4	1	
500p	3	3			515p	3	5	1	
515p	2	1			530p	6	4	1	
530p	1	2			545p		2	2	
545p		3			600p		1	1	
600p		3			615p	3	2		
615p	1	5	2	1	630p	1			
630p					645p		3		
645p		2	2		700p	3	2		
700p	2	2			715p	1	1	3	
715p		2			730p	2	3		
730p	3				745p		2	2	
745p	2	1			800p	2	1	1	2
800p	1	1			815p	5	3		1
815p		1			830p	1	3		
830p	1				845p	2	2		
845p					900p	2	1	1	
900p	3		1		915p	1	1	1	
Total	75	57	45	13	Total	66	66	34	19

*Other counts includes strollers, wheel chairs, power chairs, walkers and segways.

Woodside – Halifax Ferry 2017 Bicycle Counts

From Woodside					To Woodside				
Depart	Summer		Fall		Depart	Summer		Fall	
	Bikes	Other	Bikes	Other		Bikes	Other	Bikes	Other
637a			3		652a	1		1	
652a	1				707a				
707a			2		722a			1	
722a	1				737a	2		2	
737a					752a	1			
752a	1				807a			4	
807a			1		822a			1	
822a					837a			2	
837a			1		852a	1		2	
852a			1		907a				
907a	1		1		922a				
922a				1	937a			2	
937a	1		1		952a	1			
1007a					1022a				
1037a			3	1	1052a				
1107a	2		1		1122a			1	
1137a					1152a	1			1
1207p					1222p	1			
1237p			1	1	1252p				
107p		1			122p				
137p					152p	1			
207p					222p				
237p	1	3	1		252p	2			
252p					307p				
307p			1	1	322p	1	1		
322p		1	1		337p				
337p			2		352p	1	1		
352p					407p	2		3	
407p					422p	2		1	
422p	1	2	3		437p			1	
437p	1				452p		1		
452p					507p			1	
507p				1	522p				
522p					537p	1			
537p			3		552p				
552p		2			607p				
607p	1				622p				
637p		1	2		652p	1		1	
707p	2			1	722p				
737p					752p		2		
807p			1		822p		1		
837p					852p				
Total	13	10	29	6	Total	19	6	23	1

*Other counts includes strollers, wheel chairs, power chairs, walkers and segways.



P.O. Box 1749
Halifax, Nova Scotia
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Attachment B

Item No. 12.1.1 Transportation Standing Committee June 7, 2017

TO: Chair and Members of Transportation Standing Committee

Original Signed

SUBMITTED BY:

Dave Reage, Director, Halifax Transit

DATE: April 10, 2017

SUBJECT: Carriage of Two-Wheeled Devices on Halifax Transit Ferries

ORIGIN

This report originates from the August 2nd, 2016 meeting of Halifax Regional Council, Item 15.2, and the November 8th, 2016 meeting of Halifax Regional Council, Information Item3.

LEGISLATIVE AUTHORITY

Halifax Regional Municipality Charter, R.S.N.S. 2008, c. 39. subsection 69(1) allows the Municipality to provide a public transportation service, and clause 79(1)(o) provides authority for Council to expend money to provide public transportation.

Canada Shipping Act, 2001 (S.C. 2001, c.36), subsection 120(1)

Hull Construction Regulations, (C.R.C., c.1431)

Vessel Fire Safety Regulations, SOR/2017-14

Safe Working Practices Regulations, (C.R.C., c. 1467)

RECOMMENDATION

It is recommended that the Transportation Standing Committee recommend that Halifax Regional Council direct staff to modify Halifax Transit Ferries and introduce rules to govern the carriage of two wheeled devices on ferries as outlined in this report.

BACKGROUND

Halifax Transit operates five harbour ferries on two routes between Halifax and Dartmouth, Nova Scotia. The ferries in the fleet were designed and certified to carry mainly walking passengers with a small number (four to six) of standard sized bicycles secured in bike racks.

Since the commencement of the Halifax Harbour Bridges Big Lift project, the number of customers arriving with various types of bicycles, scooters, strollers and Segways and expecting transportation via the ferry service has increased significantly. Staff have struggled to safely accommodate passengers with these items while maintaining safe and comfortable conditions for all passengers and crew. The challenges are particularly acute during peak periods of travel and special events; on Canada Day, 2016, staff observed hazardous conditions created by the carriage of these items. Complicating the matter is the wide variety of bicycles and scooters that are available today; our contract security staff, who are responsible to collect fares and monitor access, are sometimes unable to accurately classify passenger items to determine whether or not they are permitted for carriage.

Mindful of the interests of passenger and crew safety and in preparation for the Natal Day 2016 weekend, on July 26th, 2016 staff issued public service announcements prohibiting carriage of electric and gas powered scooters and bicycles with trailers from the ferry system. This announcement was subsequently modified to permit the carriage of bicycles with trailers, pending a review of related issues.

Staff delivered an Information Report for the November 8th, 2016 meeting of Halifax Regional Council, with a commitment to follow up with additional recommendations at a later date.

DISCUSSION

The *Motor Vehicle Act*, R.S.N.S, 1989, c. 293, provides the following definition:

“vehicle” means every device in, upon or by which any person or property is or may be transported or drawn upon a public highway, excepting a motorized wheelchair and devices moved by human power or used exclusively upon stationary rails or tracks.

The *Hull Construction Regulations* issued under the *Canada Shipping Act*, define “passenger ships” and “ferry vessels” as follows:

“passenger ship” means a ship carrying passengers, and “passenger steamship” means a steamship carrying passengers and in the case of a Safety Convention ship means a steamship carrying more than 12 passengers.

“ferry vessel” means any vessel, having provision only for deck passengers and for vehicles, that is operated on a short run on a schedule between two points over the most direct water route and offers a public service of a type normally attributed to a bridge or tunnel.

Halifax Transit vessels have been assessed and certified as “passenger ships” not “ferry vessels”.

Scooters or any other devices that fall under the definition of “vehicle” under the *Motor Vehicle Act* are prohibited on passenger ships. If Halifax Transit were to carry vehicles, the vessels would have to be re-assessed as a “ferry vessels”, with implications such as structural fire protection, ventilation, electrical requirements, stability, and passenger capacity.

It should also be noted that regardless of classification or power output, items powered by gasoline engines are prohibited on our ferries due to the hazards posed by gasoline. Scooters, classified as vehicles, are permitted to traverse the Halifax Harbour Bridges, providing avenues available to cross the harbour for these riders.

None of the aforementioned information should be interpreted to mean that if a mode of transportation is not a “vehicle”, it is permitted for carriage on our vessels without restriction. The bicycle racks on our vessels, and the area in the immediate vicinity, were not designed or scoped to accommodate anything other than standard sized bicycles. As a result, whenever any mode of transportation of abnormal length or wheel dimensions is carried, passengers typically situate their item in the passageways between the seats or in the area in the vicinity of the Engine Room door/bottom of the interior staircase. In the case of bicycles with trailers, as the ferries were not designed to carry arrangements of any length, there is no turning circle to assist in the embarkation and disembarkation of these units. As a result, the bikes are typically driven in and then backed out, which can be awkward and time consuming given the number of obstructing features in our vessels. Even if the trailer is decoupled from the bicycle and the bicycle put in a rack, the staff and passenger must still find a spot for the trailer. In all cases, items that cannot be safely stowed in the racks provided, due to size or number, can and do impede the safe passage of both passengers and staff under both normal and potentially emergency conditions. The difficulties and risks are amplified during peak and special events when there is a high passenger load, and there are associated impacts on schedule.

The *Vessel Fire Safety Regulations*, issued under the *Canada Shipping Act*, state:

Escape Routes

314(2) Every stairway, corridor, door and ladder must be arranged to provide a ready means of escape to the muster and embarkation stations.

The *Safe Working Practices Regulations*, issued under the *Canada Shipping Act*, state:

10. No person shall cause an emergency exit to be obstructed or otherwise made ineffective.

“Person” includes the Owner (HRM), Master and crew; violation carries liability.

These regulations require direct and unobstructed access via passageways to escape routes and emergency exits. Practically speaking, two wheeled devices are acceptable as long as they do not pose a hazard; properly stowed in designated racks/areas and accounted for in stability data for each vessel. Unless the Halifax Transit vessels are modified (by removing passenger seating and installing racks, for example), there is currently very limited capacity for designated safe stowage areas.

Creating space and safe storage arrangements to accommodate each of the different types of two wheeled devices under discussion presents several challenges. The currently serving ferries are fitted with bike racks that will accommodate four to six (depending on the class of ferry) standard sized bicycles; to accommodate more bicycles safely, passenger seating would have to be removed. The bike racks currently fitted will not accommodate bicycles, electric bicycles or electric scooters with wide tires. The safe stowage of bicycle trailers would require the removal of passenger seats and the installation of a hitch arrangement to keep them immobile, while the safe stowage of Segways would require the removal of seats and a special rack arrangement to keep them immobile as well. Any modification of the ferries to accommodate these devices requires careful consideration and an approach that is balanced to accommodate the needs of walking passengers and a reasonable number of passengers in possession of two wheeled devices without compromising safety.

The bicycle and pedestrian lanes on the Macdonald Bridge are scheduled to reopen in Spring 2017; this will re-establish the means, other than the Ferry Service, to conduct cross harbour passage using a two wheeled device. In order to mitigate the concerns outlined above, maintain compliance with the regulations, provide a safe and comfortable environment for passengers and staff, and provide a reasonable balance between the needs of walking passengers and evolving transportation choices, staff recommend the following measures:

1. Restrict the number of standard sized bicycles carried per crossing to the number of racks currently featured on each ferry;

2. Remove two rows of seats on all ferries (including the two ferries currently in build) to provide space and a hitching arrangement for two bike trailers. The capital cost of removing seats, restoring deck surfaces and installing appropriate signage is approximately \$2500 per ferry for a total of \$17,500 (five existing ferries, two in build);
3. Install tire sizing racks at the entrance of each ferry terminal. Similar to the concept of sizing racks for carry-on luggage at airports, these tire sizing racks would be used to verify that a bicycle, electric bike or electric scooter with wider tires can be safely accommodated in the racks featured on the ferries. The approximate cost including signage is \$1000 per terminal for a total of \$3000;
4. Permit electric bicycles only if they fit the bicycle racks fitted, and only if they do not cause the total number of bicycles carried to be exceeded;
5. Prohibit Segways as they cannot be accommodated in the currently fitted bike racks and creating space for their safe storage would require the removal of additional seats; and
6. Create and implement a robust communications plan to advise the public of the amended access rules.

FINANCIAL IMPLICATIONS

Implementation of the recommendations outlined in this report will require a capital expenditure of an estimated amount of \$17,500 (CVD00436) to modify the ferry vessels and an estimated amount of \$3,000 (CB200428) to procure sizing racks for the three ferry terminals. Funding is available in Project Account Nos. CVD00436 – Biennial Ferry Refit and CB200428 – Transit Terminal Upgrade & Expansion. Funding has been confirmed by Finance.

Budget Summary: **Project No. CVD00436 – Biennial Ferry Refit**

Cumulative Unspent Budget	\$335,508
Less: Estimate Ferry Vessels	<u>\$ 17,500</u>
Balance	\$318,008

Project No. CFB200428 – Transit Terminal Upgrade & Expansion

Cumulative Unspent Budget	\$ 27,432
Less: Estimate Ferry Vessels	<u>\$ 3,000</u>
Balance	\$ 24,432

RISK CONSIDERATION

There is a short term risk of negative public opinion associated with this action, as users of two wheeled devices have not been subject to the restrictions and recommendations outlined in this report. This risk can be mitigated with a robust communications plan and consistent enforcement of the amended rules for use of the ferries.

COMMUNITY ENGAGEMENT

No formal community engagement was conducted in preparation of this report, although staff met with representatives of the Halifax Bike Coalition to discuss the challenges associated with this issue.

ENVIRONMENTAL IMPLICATIONS

Staff have not identified any environmental implications associated with the recommendations of this report.

ALTERNATIVES

1. The Transportation Standing Committee could recommend to Council a restriction on the accommodation of two wheeled devices to the original design concept (standard size bicycles only and no other devices, and only in the number of racks currently fitted).
2. The Transportation Standing Committee could recommend to Council the accommodation of some combination of devices other than what is recommended in this report, with a corresponding requirement to remove passenger seating. More complex configurations may also require a fifth person for each of the eight crews to act as Loadmaster, with a corresponding impact on the operational budget.

ATTACHMENTS

Attachment A - Electric & Gas Powered Scooters and Bicycles w Trailers Info Report

A copy of this report can be obtained online at <http://www.halifax.ca/commcoun/index.php> then choose the appropriate Community Council and meeting date, or by contacting the Office of the Municipal Clerk at 902.490.4210, or Fax 902.490.4208.

Report Prepared by: Glen Bannon, Manager, Transit Operations, 902.490.1505



P.O. Box 1749
Halifax, Nova Scotia
B3J 3A5 Canada

Item No. 03
Halifax Regional Council
November 8, 2016

TO: Mayor Savage and Members of Halifax Regional Council

Original Signed by Director

SUBMITTED BY:

Dave Reage, Director, Halifax Transit

DATE: October 17, 2016

SUBJECT: Electric & Gas-Powered Scooters and Bicycles w Trailers Information Report

INFORMATION REPORT

ORIGIN

This report originates from the August 2nd, 2016 meeting of Halifax Regional Council, Item 15.2.

MOVED by Councillor Karsten that Halifax Regional Council receive a staff report on the public service announcement released on July 26, 2016 advising that electric and gas-powered scooters and bicycles with trailers are not permitted on Halifax Transit ferries.

BACKGROUND

Halifax Transit operates five harbour ferries on two routes between Halifax and Dartmouth, Nova Scotia. The ferries in the fleet were designed and certified to carry mainly walking passengers with a small number (four to six) of standard sized bicycles secured in bike racks. Additional information related to the design and certification of our ferries is included in this report.

Since the commencement of the Halifax Harbour Bridges Big Lift project, the number of customers arriving with various types of bicycles, scooters, strollers and Segways and expecting transportation via the ferry service has increased significantly. Staff have struggled to safely accommodate passengers with these items while maintaining safe and comfortable conditions for all passengers and crew. The challenges are particularly acute during peak periods of travel and special events; on Canada Day, 2016, staff observed hazardous conditions created by the carriage of these items. Complicating the matter is the wide variety of bicycles and scooters that are available today; our contract security staff, who are responsible to collect fares and monitor access, are sometimes unable to accurately classify passenger items to determine whether or not they are permitted for carriage.

Mindful of the interests of passenger and crew safety and in preparation for the Natal Day 2016 weekend, on July 26th, 2016 staff issued public service announcements prohibiting carriage of electric and gas powered scooters and bicycles with trailers from the ferry system. This announcement was subsequently modified to permit the carriage of bicycles with trailers, pending a review of related issues. This staff report is intended to inform Halifax Regional Council of the challenges to be considered.

DISCUSSION

The Nova Scotia Motor Vehicle Act provides the following definition;

“vehicle” means every device in, upon or by which any person or property is or may be transported or drawn upon a public highway, excepting a motorized wheelchair and devices moved by human power or used exclusively upon stationary rails or tracks

Halifax Transit vessels are certified as passenger vessels and, for the purpose of the Hull Construction Regulations issued under the Canada Shipping Act, our vessels have been assessed as “passenger ships” not “ferry vessels” as defined:

“passenger ship” means a ship carrying passengers, and “passenger steamship” means a steamship carrying passengers and in the case of a Safety Convention ship means a steamship carrying more than 12 passengers

“ferry vessel” means any vessel, having provision only for deck passengers and for vehicles, that is operated on a short run on a schedule between two points over the most direct water route and offers a public service of a type normally attributed to a bridge or tunnel

Scooters or any other devices that fall under the definition of “vehicle” under the Nova Scotia Motor Vehicle Act are prohibited on Halifax Transit vessels. If we were to choose to carry vehicles, the vessels would have to be re-assessed as a “ferry vessels” (as defined above) with implications such as structural fire protection, ventilation, electrical requirements, stability, and passenger capacity. It should be noted that scooters classified as vehicles are permitted to traverse the Halifax Harbour Bridges, providing avenues available to cross the harbour for these riders.

It should also be noted that regardless of classification or power output, items powered by gasoline engines are prohibited on our ferries due to the hazards posed by gasoline.

None of the aforementioned information should be interpreted to mean that if a mode of transportation is not a “vehicle”, it is permitted for carriage on our vessels without restriction. The bicycle racks on our vessels, and the area in the immediate vicinity, were not designed or scoped to accommodate anything other than standard sized bicycles. As a result, whenever any mode of transportation of abnormal length or wheel dimensions is carried, passengers typically situate their item in the passageways between the seats or in the area in the vicinity of the Engine Room door/bottom of the interior staircase. In the case of bicycles with trailers, as the ferries were not designed to carry arrangements of any length, there is no turning circle to assist in the embarkation and disembarkation of these units. As a result, the bikes are typically driven in and then backed out, which can be awkward and time consuming given the number of obstructing features in our vessels. Even if the trailer is decoupled from the bicycle and the bicycle put in a rack, the staff and passenger must still find a spot for the trailer. In all cases, items that cannot be safely stowed in the racks provided, due to size or number, can and do impede the safe passage of both passengers and staff under both normal and potentially emergency conditions. The difficulties and risks are amplified during peak and special events when there is a high passenger load, and there are associated impacts on schedule.

The Hull Construction Regulations state:

Means of Escape — Applicable to Passenger and Cargo Ships

84.(8) The stairways, corridors and doors, shall be so arranged as to permit ready and direct access to the various muster stations and lifeboat embarkation areas.

The Safe Working Practices Regulations, issued under the Canada Shipping Act, state:

10. No person shall cause an emergency exit to be obstructed or otherwise made ineffective.

“Person” includes the Owner (HRM), Master and crew; violation carries liability.

These regulations require direct and unobstructed access via passageways to escape routes and emergency exits. Practically speaking the modes of transportation under discussion are acceptable as long as they do not pose a hazard; properly stowed in designated areas and accounted for in stability data for each vessel. Unless the Halifax Transit vessels are modified (by removing passenger seating and installing racks, for example), there is currently very limited capacity for designated safe stowage areas.

While the bicycle and pedestrian lanes on the Macdonald Bridge are scheduled to reopen prior to spring of 2017, the increasing popularity of the Ferry Service and its potential roles in the expected Integrated Mobility Plan and the active transportation network require more detailed consideration of the associated challenges; these will be the subject of a staff initiated recommendation report that is planned for submission in December 2016.

FINANCIAL IMPLICATIONS

There are no financial implications associated with this report.

COMMUNITY ENGAGEMENT

No formal community engagement was conducted in preparation of this report, although staff met with one representative of the Halifax Bike Coalition to demonstrate and discuss some of the challenges associated with this issue. Staff will engage appropriate stakeholders in the process of preparing the staff initiated recommendation report that will follow.

ATTACHMENTS

None.

A copy of this report can be obtained online at <http://www.halifax.ca/council/agendasc/cagenda.php> then choose the appropriate meeting date, or by contacting the Office of the Municipal Clerk at 902.490.4210, or Fax 902.490.4208.

Report Prepared by: Glen Bannon, Manager, Transit Operations, 902-490-1505
