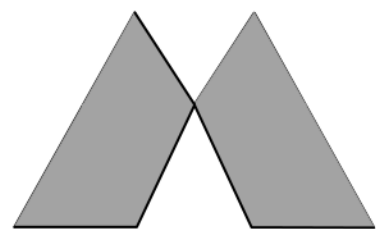




British Columbia
Ferry Services Inc.

FULFORD TERMINAL
BCF_PROJECT
MASTER PLAN UPGRADES
ROAD WIDENING



McElhanney
McElhanney Consulting Services Ltd.
SUITE #1, 1351 ESTEVAN RD. PH (250) 716-3336
NANAIMO, BC V9S 3Y3 FAX (250) 716-3339

DRAWING INDEX		
DRAWING No.	REV.	DESCRIPTION
41-97-C000	A	COVER SHEET
41-97-C001	A	KEY PLAN & LOCATION PLAN
41-97-C101	A	FULFORD-GANGES ROAD, PLAN & PROFILE, STATION 0+000 - 0+170
41-97-C102	A	FULFORD-GANGES ROAD, PLAN & PROFILE, STATION 0+170 - 0+340
41-97-C103	A	FULFORD-GANGES ROAD, PLAN & PROFILE, STATION 0+340 - 0+500
41-97-C104	A	BEAVER POINT ROAD, PLAN & PROFILE, STATION 2+000 - 2+135
41-97-C105	A	BEAVER POINT ROAD, PLAN & PROFILE, STATION 3+000 - 3+155
41-97-C106	A	BEAVER POINT ROAD, PLAN & PROFILE, STATION 4+000 - 4+155
41-97-C301	A	DETAILS & TYPICAL SECTIONS
41-97-C401	A	FULFORD-GANGES ROAD, CROSS SECTIONS, STATION 0+000 - 0+190
41-97-C402	A	FULFORD-GANGES ROAD, CROSS SECTIONS, STATION 0+200 - 0+470
41-97-C403	A	BEAVER POINT ROAD, CROSS SECTIONS, STATION 2+000 - 2+080
41-97-C501	A	FULFORD-GANGES ROAD, LANING AND GEOMETRICS 1 OF 2
41-97-C502	A	FULFORD-GANGES ROAD, LANING AND GEOMETRICS 2 OF 2
41-97-C503	A	FULFORD-GANGES ROAD, DESIGN VEHICLE SWEEP PATH 1 OF 2
41-97-C504	A	FULFORD-GANGES ROAD, DESIGN VEHICLE SWEEP PATH 2 OF 2
REFERENCE		
-	-	-
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41-97-C000

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Ministry of Transportation and Infrastructure
3rd Floor – 2100 Labieux Road
Nanaimo, BC
V9T 6E9

MCSL File: 2231-37001-1-1.2
May 29, 2013

Attention: Ms. Debbie O'Brien
Sr. District Development Technician

Dear Ms. O'Brien;

**Re: BC Ferries Road Widening Upgrades, Fulford Harbour, BC
Fulford-Ganges Road – Beaver Point Road to Morningside Road
Preliminary Design Review**

As per our meeting with Mike Pearson and yourself, we have enclosed for you review and comment two copies of the 50% design drawings for the above noted project.

As previously discussed we have included two design concepts for comment and discussion. Concept "A" reflects the design criteria agreed upon in January 2013 (based on concept drawings prepared by Stantec). Concept "B" reflects the modified design criteria developed by McElhanney during detailed design. For reference I have attached an updated Project Design Criteria sheet showing the design deviations.

Based on the existing site, topographic survey and on-site investigations, we recommend the horizontal and vertical geometry outlined in Concept "B" be accepted for the project. Utilizing the design of Concept "B" includes the following benefits:

1. best use of existing conditions and constraints;
2. optimize constructability;
3. minimize potential road fills;
4. minimize rock cuts and overall site grading;
5. minimize impact on adjacent properties; and,
6. minimize overall construction costs.

Overall there are a number of items and details that still need to be fully developed and agreed upon (all of which carries and incremental cost to the project). They are as follows:

1. retaining wall system to be used;
2. holding lane barrier / hand rail detail;
3. private driveway re-grading and negotiations therein;
4. property acquisition or working easements and negotiations therein;
5. storm drainage system and new outfall to foreshore.

Please review this submission at your earliest convenience. The intent is to have consensus between BC Ferries and MOTI on the overall project concept. Minor details can be addressed during the detailed design submission and H0020 application.

After you and your staff have had an opportunity to review this submission, and to provide comments, we suggest that a meeting between yourselves, BC Ferries and our consulting team would be appropriate.



Please contact me directly, should you have any questions or concerns or require further clarification.

Yours truly,
McElhanney Consulting Services Ltd.

Chris Pogson, P.Eng.
Division Manager, Engineering

Enclosure

z:\proj-active\37001 bc ferries - fulford road widening\02.0 documents\02.2 documents sent\13 may 28 mol ltr1.doc

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Project Design Criteria

Highway Design & Geomatics Engineering Ministry of Transportation and Infrastructure

Project: Fulford – Ganges Road (drawing reference BCF 41-97 Design Criteria “B”)
Type of work: Roadway Upgrade / Reconstruction
Location: Saltspring Island – Fulford – Ganges Road (reference intersections : Fulford-Ganges Road and Beaver Point Road)
Length: Approximately 460m

- all Projects involving highway geometrics

ACCEPTED BY:

Manager, Highway Design & Geomatics Engineering

Date

- Major Projects;
- Partnership Projects;
- exceptions to standards; and
- highway corridor standards

APPROVED BY:

Regional Manager, Engineering

Date

- Major Projects; and
- Partnership Projects

APPROVED BY:

Regional Director, Transportation

Date

- Major Projects;
- major exceptions to standards;
- highway corridor standards; and
- provincial standards

APPROVED BY:

Chief Engineer

Date

Notes: a) Projects require acceptance at the Manager, Highway Design & Geomatics Engineering level. Where exceptions to standards are proposed for a project, for corridor-wide standards, or where Ambient Standards or Context Sensitive Guidelines are proposed, the Regional Manager, Engineering must approve. Where there are major exceptions to prevailing standards the Chief Engineer's approval will be required. For Major Projects or Partnership Projects the Regional Director must also approve.

b) The following page(s) set out more detailed design criteria for this project.

Project Design Criteria

Highway Design & Geomatics Engineering Ministry of Transportation and Infrastructure

Project: Fulford – Ganges Road (drawing reference BCF 41-97 Design Criteria “B”)
 Type of work: Roadway Upgrade / Reconstruction
 Location: Saltspring Island – Fulford – Ganges Road (reference intersections : Fulford-Ganges Road and Beaver Point Road)
 Length: Approximately 460m

Design Element	Present Conditions	Adjacent Project Conditions	MOT/TAC Guidelines Criteria	Proposed Project Criteria	Comments / Notes
Design Classification	Main Rural	Main Rural	Rural Collector Undivided (RCU)	Main Rural	
Posted Speed	50 km/h (advisory speed = 30 km/hr)	50 km/hr		30 km/hr	
Design Speed	Unknown	Unknown	30 km/hr	30 km/hr	
Basic Lanes	1 Through /Holding 1 Left Turn (part length) 1 Through	2	2	1 Dedicated Holding Lane 1 Through/Left Turn 1 Through	
Minimum Radius	~ 46 m	Unknown	40 m (for superelevation of +0.02 m/m)	45 m	
Equiv. Min.....Sag K Factor..... Crest	Unknown ~ 2.7	Unknown	4 2	2.5 on Beaver Point Road 3.3	
Maximum Grade	12%	Unknown	-	12% on Fulford Ganges Road 12.5% on Beaver Point Road	
Maximum Superelevation	Unknown	Unknown	+0.06 m/m	+0.06 m/m	
Minimum S.S.D.	45 m	Unknown	30 m (SSD calculated for automobiles and trucks with antilock braking systems)	30 m or greater	
Lane Width	2.5 m – 3.0 m	~2.75 m	3.6 m	Travel lanes = 3.0m min	
Shoulder Width Outside	0.5 m – 1.0 m	~0.6 m	1.5 m	0.9 m – 1.5 m	
Shoulder Width Inside	1.0 m – 2.0 m	~0.6 m	1.5 m	0.0 m	
Clear Zone – Offset Width Recovery Slope	Varies, as low as 1.0 m	~3.35 m	2.0 m (ADT <750)	0 – 1.5 m	
Catchment Width in Rock Cuts	n/a	Unknown	-	n/a	
Level of Service (to year 2036)	Unknown	Unknown	-	Unknown	
Design Vehicle	Unknown	Unknown	Typ. WB-20	WB-20	

Project Design Criteria

Highway Design & Geomatics Engineering Ministry of Transportation and Infrastructure

Project:	Fulford – Ganges Road (drawing reference BCF 41-97 Design Criteria “B”)
Type of work:	Roadway Upgrade / Reconstruction
Location:	Saltspring Island – Fulford – Ganges Road (reference intersections : Fulford-Ganges Road and Beaver Point Road)
Length:	Approximately 460m

Project Overview:

The Fulford Ganges Road upgrade project entails upgrades to approximately 460 metres of Fulford Ganges Road, spanning from the intersection of Fulford Ganges Road / Morningside Road and extending beyond the Fulford Ganges Road / Beaver Point Road.

Existing conditions of the roadway include a ~130 m long holding lane (lane where BC Ferries queue traffic is accommodated), a northbound traffic lane, and a southbound traffic lane. The southbound traffic lane is designated as a left-turn lane via pavement markings.

At times, the queue traffic may extend beyond the length of the existing holding lane which can generate traffic and backups on the roadway. The proposed upgrade would better align the capacity of the holding lane and parking lot with that of the BC Ferries Ferry Vessel (Skeena Queen). Widths of the traffic lanes would also be adjusted reflecting requirements to accommodate truck traffic. These upgrades would generate a proposed cross section that is greater than the existing cross section, this combined with the existing site topography, would necessitate the use of retaining structures.

The upgrade will increase the holding lane capacity thus providing benefit to BC Ferries and its passengers. A benefit to the MoTI and local traffic movement is also anticipated by reducing the potential for backups / traffic.

Explanatory Notes / Discussion:

(a) Design Classification

Road Classification based on MoTH / IT Letter of Agreement (October 20, 1992), except for the MOT / TAC Guidelines Criteria column.

Fulford – Ganges Road classification assumed to be “Main Rural”. Average Annual Daily Traffic (AADT) is approximately 1000 – 1500.

(b) Posted Speed

Posted speed proposed to be reduced to 30 km/h.

(c) Design Speed

Design Speed for Adjacent Project Conditions columns is unknown.

A Review of the proposed upgrades and the existing site conditions have been conducted and it has been determined that a design speed of 30 km/h is appropriate. The following items identify several reviews from the TAC Geometric Design Guide for Canadian Roads.

Project Design Criteria

Highway Design & Geomatics Engineering Ministry of Transportation and Infrastructure

Project:	Fulford – Ganges Road (drawing reference BCF 41-97 Design Criteria “B”)
Type of work:	Roadway Upgrade / Reconstruction
Location:	Saltspring Island – Fulford – Ganges Road (reference intersections : Fulford-Ganges Road and Beaver Point Road)
Length:	Approximately 460m

- Sight distance on Fulford Ganges Road on the curve at Beaver Point Road is as low as 52 m (for the proposed southbound traffic lane, assumed sight boundaries at the property line).
- TAC Geometric Design, Table 1.2.5.3 (SSD for Automobiles and Trucks ABS)
 - Design Speed 30 km/h = 30 m SSD
 - Design Speed 40 km/h = 45 m SSD ← **Warranted**
 - Design Speed 50 km/h = 65 m SSD
- TAC Geometric Design, Table 1.2.5.4 (SSD for Trucks with Conventional Braking System)
 - Design Speed 30 km/h – N/A ← **Speed < 40 km/h Warranted**
 - Design Speed 40 km/h = 70 SSD
 - Design Speed 50 km/h = 110 SSD
- Centerline curve radius at intersection with Beaver Point Road is proposed at approximately 45 m.
 - TAC Geometric Design Table 2.1.2.4
 - Speed 30 km/h = 20 m radius (for +0.04 m/m superelevated)
 - Speed 40 km/h = 45 m radius (for +0.04 m/m superelevated) ← **Warranted**
 - Speed 50 km/h = 80 m radius (for +0.04 m/m superelevated)

Additional points considered when determining the proposed Design Speed are noted below.

- The adjacent properties to Fulford Ganges Road are commercial (restaurant, bookstore, post office, other), the location is generally referred to as Fulford Village. These are common destinations for pedestrians, as such pedestrian traffic is anticipated on / near the roadway.
- Fulford Ganges Road leads to either the BC Ferries Terminal or dead-ends at residential streets on Morningside Road. Slower speeds are generally more desirable in these situations.
- Pedestrian traffic can be generated from the BC Ferry vehicle queue in the parking lot and the holding lane. These pedestrians may cross the roadway at irregular locations and may be unexpected for vehicles on the roadway. A slower speed would require lower SSD.
- Average grade on Fulford Ganges Road between Beaver Point Road and Morningside Road is approximately 8.0 %, with some shorter sections being at 12 %. Slower speed would be more desirable in these situations given the potential pedestrian traffic.
- An advisory 30 km/h speed tab is already posted on Fulford Ganges Road southbound approach to the Beaver Point Road intersection.

Project Design Criteria

Highway Design & Geomatics Engineering Ministry of Transportation and Infrastructure

Project:	Fulford – Ganges Road (drawing reference BCF 41-97 Design Criteria “B”)
Type of work:	Roadway Upgrade / Reconstruction
Location:	Saltspring Island – Fulford – Ganges Road (reference intersections : Fulford-Ganges Road and Beaver Point Road)
Length:	Approximately 460m

Based on the above reasons, a 30 km/h speed is recommended for this segment of Fulford Ganges Road.

(d) Number of Lanes

For the purpose of this “Project Design Criteria” sheet, Fulford Ganges Road is assumed to be oriented in a north – south direction.

The proposed upgrade for the Fulford Ganges Road is to include 3 lanes; two southbound lanes and one northbound lane. These lanes would span the length of the upgrade, 460 m. The purpose of each of the lanes is briefly described below.

The northbound lane and the southbound middle lane are intended to service the local traffic and provide access to the adjacent land parcels.

The southbound outside lane (west lane), also referred to as the holding lane, is intended to accommodate vehicular traffic queued for the BC Ferries vessel, but unable to be accommodated at the BC Ferries parking lot. Vehicular operating velocities of the holding lane are anticipated to be low with the understanding that the vehicles will be either stopped during the queue or moving slowly during the boarding procedure.

(e) Minimum Radius

Minimum horizontal curve radius measured at road centerline.

(f) Vertical curves

‘K’ Factors for Proposed Project Criteria based on TAC Geometric Design Guide for Canadian Road: Crest K for Stopping Sight Distance, Sag K for Stopping Sight Distance Headlight Control. K for Sag curves located at intersection of Beaver Point Road has been adjusted to suit existing topographic site conditions. Minimum Sag K to be 2.5 at / on Beaver Point Road Intersection only.

(g) Maximum Grade

Grades as per profile on Design Criteria “C” Drawings, proposed maximum grade for Fulford Ganges Road is 11.75% for a 20 m section of roadway.

Grades as per profile on Design Criteria “C” Drawings, proposed maximum grade for Beaver Point Road is 12.5% for a 40 m section of roadway.

(h) Maximum Superelevation

Continuous superelevation ranging from -0.02 m/m to 0.06 m/m is proposed on Fulford Ganges Road. Superelevation will be increased to 0.06 m/m for approximately 20 m at the intersection of Beaver Point Road in order to accommodate the grade change between the roadways.

(i) Minimum SSD

On horizontal plane, SSD assumes clear line of sight on roadway up to property lines.

Project Design Criteria

Highway Design & Geomatics Engineering Ministry of Transportation and Infrastructure

Project:	Fulford – Ganges Road (drawing reference BCF 41-97 Design Criteria “B”)
Type of work:	Roadway Upgrade / Reconstruction
Location:	Saltspring Island – Fulford – Ganges Road (reference intersections : Fulford-Ganges Road and Beaver Point Road)
Length:	Approximately 460m

(j) Lane Width

Lane widths as per discussion between BC Ferries and MoTI. The existing lanes have been optimized to suit the existing legal boundaries and ROW. The majority of the ROW varies in width with a minimum of approximately 10.2m. Proposed lane widths vary from 3.0m to 3.65m throughout the project.

(k) Paved Shoulder Width

The Proposed Project Criteria maintains a 1.2m shoulder on the outside (east side) of the roadway.

Due to the limited right-of-way of the Fulford Ganges Road corridor, there is insufficient space to accommodate a continuous shoulder on the inside (west side) of the roadway. However, this lack of shoulder would be adjacent to the holding lane which is anticipated to be a slow velocity lane.

(l) Clear Zone Offset Width / Recovery Slope / Barrier Approach Flare

Clear Zone extends to edge of shoulder. Insufficient ROW beyond this point.

(m) Catchment Width In Rock Cuts

N/A at this time.

(n) Design Vehicle

WB-20 swept path shown on Preliminary Design Drawings.

(o) Adjacent Project Conditions

Actual adjacent project conditions are unknown, identified criteria is based on requirements set out in “Letter of Agreement between Ministry of Transportation and Highways and Islands Trust, Subject: Road Standards, Classifications, and MoTH / IT Consultative Process in Islands Trust Area”, dated October 20, 1992. Assumed road classification for Fulford Ganges Road is “Main Rural”.

RECOMMENDED BY: Engineer of Record: _____ Date: _____
(Print Name)

Engineering Firm: _____
(Print Name/Provide Seal & Signature)

Project Design Criteria **Highway Design & Geomatics Engineering** **Ministry of Transportation and Infrastructure**

Project: Fulford – Ganges Road (drawing reference BCF 41-69)
Type of work: Roadway Upgrade / Reconstruction
Location: Saltspring Island - Fulford – Ganges Road (reference intersections : Fulford-Ganges Road and Beaver Point Road)
Length: Approximately 420m

- all Projects involving highway geometrics

ACCEPTED BY:

[Signature]
 Manager, Highway Design & Geomatics Engineering

Date

50104/2013

APPROVED BY:

[Signature]
 Regional Manager, Engineering

Date

Jan 1, 2013

- Major Projects;
- Partnership Projects;
- exceptions to standards; and
- highway corridor standards

APPROVED BY:

Regional Director, Transportation

Date

- Major Projects; and
- Partnership Projects

APPROVED BY:

Chief Engineer

Date

- Major Projects;
- major exceptions to standards;
- highway corridor standards; and
- provincial standards

Notes: a) Projects require acceptance at the Manager, Highway Design & Geomatics Engineering level. Where exceptions to standards are proposed for a project, for corridor-wide standards, or where Ambient Standards or Context Sensitive Guidelines are proposed, the Regional Manager, Engineering must approve. Where there are major exceptions to prevailing standards the Chief Engineer's approval will be required. For Major Projects or Partnership Projects the Regional Director must also approve.

b) The following page(s) set out more detailed design criteria for this project.

Project Design Criteria

Highway Design & Geomatics Engineering

Ministry of Transportation and Infrastructure

Project: Fulford – Ganges Road (drawing reference BCF 41-69)
Type of work: Roadway Upgrade / Reconstruction
Location: Saltspring Island - Fulford – Ganges Road (reference intersections : Fulford-Ganges Road and Beaver Point Road)
Length: Approximately 420m

Design Element	Present Conditions	Adjacent Project Conditions	MOT/TAC Guidelines Criteria	Proposed Project Criteria	Comments / Notes
Design Classification	Main Rural	Main Rural	Rural Collector Undivided (RCU)	Main Rural	
Posted Speed	50 km/h (advisory speed = 30km/h)	60 km/h		30 km/h	
Design Speed	Unknown	Unknown	30 km/h	30 km/h	
Basic Lanes	1 Through / Holding 1 Left Turn (part length) 1 Through	2	2	1 Dedicated Holding Lane 1 Through / Left Turn 1 Through	
Minimum Radius	~46m	Unknown	40 m (for superelevation of + 0.02 m/m)	45 m	
Equiv. Min.....Sag K Factor..... Crest	Unknown ~ 2.7	Unknown	4 2	4 3.3	
Maximum Grade	12%	Unknown	-	12 % on Fulford Ganges Road 14 % on lane to Beaver Point Road	
Maximum Superelevation	Unknown	Unknown	+0.06 m/m	+0.02 m/m	
Minimum S.S.D.	45m	Unknown	30 m (SSD calculated for automobiles and trucks with antilock braking systems.)	30 m or greater	
Lane Width	2.5 m – 3.0 m	~ 2.75 m	3.6 m	Travel lanes = 3.35 m min. Holding lane = 3.5 m min.	
Shoulder Width Outside	0.5 m – 1.0 m	~ 0.6 m	1.5 m	1.0 m – 1.5 m	
Shoulder Width Inside	1.0 m – 2.0 m	~ 0.6 m	1.5 m	0.0 m	
Clear Zone - Offset Width Recovery Slope	Varies, as low as 1.0 m.	~ 3.35 m	2.0 m (ADT < 750)	0 – 1.5m	
Catchment Width in Rock Cuts	n/a	Unknown	-	n/a	
Level Of Service (to year 2036)	Unknown	Unknown	-	Unknown	
Design Vehicle	Unknown	unknown	Typ. WB-20	WB-20	

Project Design Criteria

Highway Design & Geomatics Engineering Ministry of Transportation and Infrastructure

Project:	Fulford – Ganges Road (drawing reference BCF 41-69)
Type of work:	Roadway Upgrade / Reconstruction
Location:	Saltspring Island - Fulford – Ganges Road (reference intersections : Fulford-Ganges Road and Beaver Point Road)
Length:	Approximately 420m

Project Overview:

The Fulford Ganges Road upgrade project entails upgrades to approximately 420m of Fulford Ganges Road, spanning from the intersection of Fulford Ganges Road / Morningside Road and extending beyond the Fulford Ganges Road / Beaver Point Road.

Existing conditions of the roadway include a ~130m long holding lane (lane where BC Ferries queue traffic is accommodated), a northbound traffic lane, and a southbound traffic lane. The southbound traffic lane is designated as a left-turn lane via pavement markings.

At times, the queue traffic may extend beyond the length of the existing holding lane which can generate traffic and backups on the roadway. The proposed upgrade would better align the capacity of the holding lane and parking lot with that of the BC Ferries Ferry Vessel (Skeena Queen). Widths of the traffic lanes would also be adjusted reflecting requirements to accommodate truck traffic. These upgrades would generate a proposed cross section that is greater than the existing cross section, this combined with the existing site topography, would necessitate the use of retaining structures.

The upgrade will increase the holding lane capacity thus providing benefit to BC Ferries and its passengers. A benefit to the MoTI and local traffic movement is also anticipated by reducing the potential for backups / traffic.

Explanatory Notes / Discussion:

(a) Design Classification

Road classification based on MoTH / IT Letter of Agreement (October 20, 1992), except for the MOT/TAC Guidelines Criteria column.

Fulford – Ganges Road classification assumed to be 'Main Rural'

(b) Posted Speed

Posted speed proposed to be reduced to 30 km/h.

Project Design Criteria **Highway Design & Geomatics Engineering** **Ministry of Transportation and Infrastructure**

Project:	Fulford – Ganges Road (drawing reference BCF 41-69)
Type of work:	Roadway Upgrade / Reconstruction
Location:	Salspring Island - Fulford – Ganges Road (reference intersections : Fulford-Ganges Road and Beaver Point Road)
Length:	Approximately 420m

(c) Design Speed

Design Speed for Adjacent Project Conditions and Present Conditions columns is unknown.

A review of the proposed upgrades and the existing site conditions have been conducted and it has been determined that a design speed of 30 km/h is appropriate. The following items identify several reviews from the TAC Geometric Design Guide for Canadian Roads.

- Sight Distance on Fulford Ganges Road on the curve at Beaver Point Road is as low as 52m (for the proposed southbound traffic lane, with assumed sight boundaries at the property line).
 - TAC Geometric Design, Table 1.2.5.3 (SSD for Automobiles and Trucks with ABS)
 - Design Speed 30 km/h = 30m SSD
 - Design Speed 40 km/h = 45m SSD ←Warranted
 - Design Speed 50 km/h = 65m SSD
 - TAC Geometric Design, Table 1.2.5.4 (SSD for Trucks with Conventional Breaking System)
 - Design Speed 30 km/h = N/A ←Speed < 40 km/h Warranted
 - Design Speed 40 km/h = 70 SSD
 - Design Speed 50 km/h = 110 SSD
- Centerline curve radius at intersection with Beaver Point Road is proposed at approximately 45m.
 - TAC Geometric Design Table 2.1.2.4:
 - Speed 30 km/h = 20 m radius (for +0.04m/m superelevated)
 - Speed 40 km/h = 45m radius (for +0.04m/m superelevated) ←Warranted
 - Speed 50 km/h = 80 m radius (for +0.04m/m superelevated)

Additional points considered when determining the proposed Design Speed are noted below.

- The adjacent properties to Fulford Ganges Road are commercial (restaurant, bookstore, post office, other), the location is generally referred to as Fulford Village. These are common destination for pedestrians, as such pedestrian traffic is anticipated on / near the roadway.
- Fulford Ganges Road leads to either the BC Ferries Terminal or dead-ends at residential streets on Morningside Road. Slower speeds are generally more desirable in these situations.
- Pedestrian traffic can be generated from the BC Ferry vehicle queue in the parking lot and the holding lane. These pedestrians may cross the roadway at irregular locations and may be unexpected for vehicles on the roadway. A slower speed would require lower SSD.
- Average grade on Fulford Ganges Road between Beaver Point Road and Morningside Road is approximately 8.0 %, with some shorter sections being at 12%. Slower speed would be more desirable in these situations given the potential pedestrian traffic.
- An advisory 30 km/h speed tab is already posted on Fulford Ganges Road southbound approach to the Beaver Point Road intersection.

Based on the above reasons, a 30km/h speed is recommended for this segment of Fulford Ganges Road.

Project Design Criteria

Highway Design & Geomatics Engineering

Ministry of Transportation and Infrastructure

Project:	Fulford – Ganges Road (drawing reference BCF 41-69)
Type of work:	Roadway Upgrade / Reconstruction
Location:	Saltspring Island - Fulford – Ganges Road (reference intersections : Fulford-Ganges Road and Beaver Point Road)
Length:	Approximately 420m

(d) Number of Lanes

For the purpose of this 'Project Design Criteria' sheet, Fulford Ganges Road is assumed to be oriented in a north – south direction.

The proposed upgrades for the Fulford Ganges Road is to include 3 lanes; two southbound lanes and one northbound lane. These lanes would span the length of the upgrade, approximately 420m. The purpose of each of the lanes is briefly described below.

The northbound land and the southbound middle lane are intended to service the local traffic and provide access to the adjacent land parcels.

The southbound outside lane (west lane), also referred to as the holding lane, is intended to accommodate vehicular traffic queued for the BC Ferries vessel, but unable to be accommodated at the BC Ferries parking lot. Vehicular operating velocities of the holding lane are anticipated to be low with the understanding that the vehicles will be either stopped during the queue or moving slowly during the loading procedure.

(e) Minimum Radius

Minimum horizontal curve radius measured at road centerline.

(f) Vertical Curves

'K' Factors for Proposed Project Criteria based on TAC Geometric Design Guide for Canadian Road; Crest K for Stopping Sight Distance, Sag K for Stopping Sight Distance Headlight Control.

(g) Maximum Grade

Grades as per profile on Preliminary Design Drawings, proposed maximum grade for Fulford-Ganges Road is 12% for a 20m section of roadway.

The right turn lanes from Fulford – Ganges Road onto Beaver Point Road will have a 10 m long section at 14%. This is due to the grade change between the roadways.

(h) Maximum Superelevation

Continuous 0.02 m / m superelevation is proposed on Fulford – Gages Road.

(i) Minimum SSD

On horizontal plane, SSD assumes clear line of sight on roadway up to property lines.

(j) Lane Width

Lane widths as per discussions between BC Ferries and MoTI.

Project Design Criteria
Highway Design & Geomatics Engineering
Ministry of Transportation and Infrastructure

Project:	Fulford – Ganges Road (drawing reference BCF 41-69)
Type of work:	Roadway Upgrade / Reconstruction
Location:	Saltspring Island - Fulford – Ganges Road (reference intersections : Fulford-Ganges Road and Beaver Point Road)
Length:	Approximately 420m

(k) Paved Shoulder Width

The Proposed Project Criteria maintains a shoulder on the outside (east side) of the roadway.

Due to the limited right-of-way of the Fulford Ganges Road corridor, there is insufficient space to accommodate a continuous shoulder on the inside (west side) of the roadway. However, this lack of shoulder would be adjacent to the holding lane which is anticipated to be a slow velocity lane.

(l) Clear Zone Offset Width / Recovery Slope / Barrier Approach Flare

Clear Zone extends to edge of shoulder. Insufficient ROW beyond this point.

(m) Catchment Width in Rock Cuts

N/A at this time.

(n) Design Vehicle

WB-20 swept path shown on Preliminary Design Drawings.

(o) Adjacent Project Conditions

Actual adjacent project conditions are unknown, identified criteria is based on requirements set out in 'Letter of Agreement between Ministry of Transportation and highways and Islands Trust, Subject: Road Standards, Classifications, and MOTM / IT Consultative Process in Islands Trust Area' dated October 20, 1992. Assumed road classification for Fulford-Ganges Road is 'Main Rural'.

RECOMMENDED BY: Engineer of Record: Alex Charanur Eng. Date: Dec 14/12
(Print Name)

Engineering Firm: Stantec Consulting Ltd
(Print Name/Provide Seal & Signature)



Pearson, Michael TRAN:EX

From: Pearson, Michael TRAN:EX
Sent: Monday, June 24, 2013 4:02 PM
To: 'Robert.Seitz@bcferries.com'
Cc: Wagner, Jordan TRAN:EX
Subject: Fulford Revised DCS

Hi Rob,

Sorry for the delay getting back to you. Jordan and I have reviewed the revised drawing set and design criteria sheet that we received from McElhanney. We don't have any issues with the proposed changes and I have forwarded them on to our regional staff for sign off.

In the next couple weeks, I will be off^{s.22} so please contact Jordan with any questions. Since the design criteria changes are very minor I would expect to get the regional OK this week so we can continue to proceed with detailed design.

Thanks,

Mike Pearson, P.Eng.

District Transportation Engineer
Ministry of Transportation and Infrastructure
240-4460 Chattertion Way
Saanich, BC
Tel: (250) 952-5562
Cell: (250) 213-9451
Michael.Pearson@gov.bc.ca

Pearson, Michael TRAN:EX

From: Carney, Steve TRAN:EX
Sent: Monday, December 10, 2012 8:14 AM
To: Pearson, Michael TRAN:EX
Cc: Ludwar, Kenedee TRAN:EX
Subject: Fulford DCS

Hi Mike,

Can you please forward a signed/sealed DCS for sign off? We've reviewed the DCS and are parameters are acceptable to the Region, however I believe a speed reduction (to 30km/hr) will have to be supported by HQ. With respect to the reduced shoulder – can you please ask the designer to clearly articulate in the explanatory notes that the intention of the second lane southbound lane is a holding lane and so traffic will be moving very slow and/or stopped and that property constraints prevent us from providing standard shoulder widths. A more general brief project scope overview should be provided in advance of the discussion on the individual parameters that describes the objective of the improvements.

Thanks!

Steve Carney, P. Eng., PTOE
A/Manager Highway Design and Traffic Engineering South Coast Region
Ministry of Transportation and Infrastructure
Phone: (604) 660-1086
Fax: (604) 660-8817
email: steve.carney@gov.bc.ca

Pearson, Michael TRAN:EX

From: Pearson, Michael TRAN:EX
Sent: Wednesday, June 26, 2013 4:59 PM
To: Mounteney, Renee A TRAN:EX; Erwin, Janelle A TRAN:EX; Spillett, Ryan TRAN:EX; Coulter, Colin TRAN:EX; Newall, Andrew R TRAN:EX; Ludwar, Kenedee TRAN:EX; Garand, Leanne TRAN:EX; Loewen, James TRAN:EX; Wagner, Jordan TRAN:EX
Subject: Fulford Ferry Terminal Meeting

Hi Everyone,

BC Ferries would like to meet the week of July 22nd or July 24th to discuss the status of the Fulford Ferry terminal upgrades project.

The rough agenda of the meeting will include:

- Detailed design – status update
- Property acquisition/licence to construct - status update
- CRD waterline replacement
- **Ministry Cost Share** → from my last discussion with Ferries the ask will likely be for s.17 (to be confirmed with detailed design)

Can you please let me know if you can attend (either by phone or in person) and which day works better for you.

Thanks,

Mike Pearson, P.Eng.

District Transportation Engineer
Ministry of Transportation and Infrastructure
Suite 240 - 4460 Chatterton Way
Saanich, BC
Tel: (250) 952-5562
Mobile: (250) 213-9451
Michael.Pearson@gov.bc.ca

Pearson, Michael TRAN:EX

From: Wagner, Jordan TRAN:EX
Sent: Monday, June 24, 2013 3:59 PM
To: Pearson, Michael TRAN:EX
Subject: FW: BC Ferries - Fulford Ganges Road Upgrade Part 1
Attachments: 37001-1-DCA SET.pdf

Digital copies – e-mail #1.

Jordan Wagner
District Development Technician
Ministry of Transportation and Infrastructure
3rd Floor - 2100 Labieux Road
Nanaimo, B.C. V9T 6E9
Phone 250-751-7090
Fax 250-751-3289

From: Chris Pogson [<mailto:cpogson@mcelhanney.com>]
Sent: Monday, June 24, 2013 3:51 PM
To: Wagner, Jordan TRAN:EX
Subject: BC Ferries - Fulford Ganges Road Upgrade Part 1

Hi Jordan, as discussed please see attached. Due to size a second email has been sent as well.

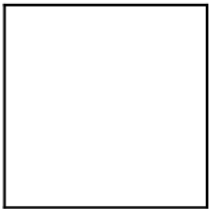
If you need anything further, please let me know.

Regards,

Chris

Chris Pogson, P.Eng.
Division Manager, Engineering

McElhanney Consulting Services Ltd.
Suite 1, 1351 Estevan Road
Nanaimo, BC V9S 3Y3
Tel: 250-716-3336 Fax: 250-716-3339
cpogson@mcelhanney.com



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Pearson, Michael TRAN:EX

From: Wagner, Jordan TRAN:EX
Sent: Monday, June 24, 2013 3:59 PM
To: Pearson, Michael TRAN:EX
Subject: FW: BC Ferries - Fulford Ganges Road Upgrade Part 2
Attachments: 37001-1-DCB SET.pdf

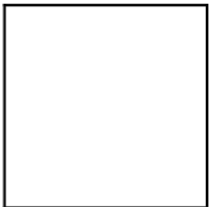
Digital copies – e-mail 2.

Jordan Wagner
District Development Technician
Ministry of Transportation and Infrastructure
3rd Floor - 2100 Labieux Road
Nanaimo, B.C. V9T 6E9
Phone 250-751-7090
Fax 250-751-3289

From: Chris Pogson [<mailto:cpogson@mcelhanney.com>]
Sent: Monday, June 24, 2013 3:52 PM
To: Wagner, Jordan TRAN:EX
Subject: BC Ferries - Fulford Ganges Road Upgrade Part 2

Chris Pogson, P.Eng.
Division Manager, Engineering

McElhanney Consulting Services Ltd.
Suite 1, 1351 Estevan Road
Nanaimo, BC V9S 3Y3
Tel: 250-716-3336 Fax: 250-716-3339
cpogson@mcelhanney.com



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Pearson, Michael TRAN:EX

From: Pearson, Michael TRAN:EX
Sent: Tuesday, August 20, 2013 8:34 AM
To: Ludwar, Kenedee TRAN:EX; Garand, Leanne TRAN:EX
Subject: FW: Fulford - Ganges Road Upgrades
Attachments: 13 Aug 9 -DCS.pdf

Hello Kenedee and Leanne,

Please find attached the revised DCS for the BC Ferries Fulford Ferry Terminal upgrade project for your review and approval.

Thanks,

Mike Pearson, P.Eng.

District Transportation Engineer
Ministry of Transportation and Infrastructure
Suite 240 - 4460 Chatterton Way
Saanich, BC
Tel: (250) 952-5562
Mobile: (250) 213-9451
Michael.Pearson@gov.bc.ca

From: Chris Pogson [<mailto:cpogson@mcelhanney.com>]
Sent: Friday, August 9, 2013 9:22 AM
To: 'robert.seitz@bcferries.com'
Cc: Pearson, Michael TRAN:EX
Subject: Fulford - Ganges Road Upgrades

Hi Rob, as discussed please find attached for review and signature the updated Project Design Criteria Sheet for the above noted project. It has been updated to reflect the design criteria as outlined from our "Design Criteria "B" drawings. Also, as requested by Mike, I have added the AADT and commented on the reduced lane widths.

If you need anything further, please let me know.

Regards,

Chris

Chris Pogson, P.Eng.
Division Manager, Engineering

McElhanney Consulting Services Ltd.
Suite 1, 1351 Estevan Road
Nanaimo, BC V9S 3Y3
Tel: 250-716-3336 Fax: 250-716-3339
cpogson@mcelhanney.com

Pearson, Michael TRAN:EX

From: Pearson, Michael TRAN:EX
Sent: Tuesday, August 27, 2013 2:13 PM
To: 'Chris Pogson (cpogson@mcelhanney.com)'
Cc: 'Russ Irish (rirish@mcelhanney.com)'; 'Seitz, Robert (Robert.Seitz@bcferries.com)'; Garand, Leanne TRAN:EX; Ludwar, Kenedee TRAN:EX
Subject: FW: Fulford - Ganges Road Upgrades

Hello Chris,

Please find below additional comments on the DCS submission.

Regards,

Mike Pearson, P.Eng.

District Transportation Engineer
Ministry of Transportation and Infrastructure
Suite 240 - 4460 Chatterton Way
Saanich, BC
Tel: (250) 952-5562
Mobile: (250) 213-9451
Michael.Pearson@gov.bc.ca

From: Garand, Leanne TRAN:EX
Sent: Monday, August 26, 2013 2:12 PM
To: Pearson, Michael TRAN:EX
Cc: Ludwar, Kenedee TRAN:EX
Subject: RE: Fulford - Ganges Road Upgrades

Hi Mike,

I have reviewed the DCS and we would like to see more details in the notes based on the discussions at the on July 24.

- Equiv. Min Sag: TAC allows 2.0 if the roadway is illuminated. During the meeting it was discussed that the lighting will be relocated at Beaver Point Road I/S. This should be captured in the notes that there is no exception at this point if it is going to be illuminated.
- Clear Zone: The Criteria should be updated to match the ADT. The note should have further discussion on where(Sta to Sta) we have 0m and where we have 1.5m and where we have barrier in place of clear zone.

While reviewing the DCS I took another look at the drawings and I have a few additional comments.

- The northbound retaining wall currently is not protected. This should be review to make sure that it is a safe treatment.
- The southbound retaining wall is quite high for a lock block wall and should be reviewed by Geotech.

Thanks,

*Leanne Garand, EIT
Consultant Liaison / Highway Design Engineer
Ministry of Transportation and Infrastructure*

Based on the Letter of Agreement between MOTI and Islands Trust we will revise the detailed design (Design Criteria "C") as follows:

- 1) Road Classification - Major Rural (IT Classification)
- 2) Paved Travel Lanes to be minimum 3.35 m wide except on curves where minimum widths shall be 3.65m
- 3) Vehicle Holding Lane to be 3.0m width minimum
- 4) Bike Lane to be 1.20m wide (one side only as holding lanes takes place of the bike lane).

The islands trust also specifies a 0.6m gravel should both sides, however due to the right of way width, we will accommodate where practical. Once we revise the design, we will produce the following documents for Mike Pearson to negotiate with land owners:

- 1) 8.5x11 Land Acquisition Sketches for affected properties; and,
- 2) Detailed design sketches for driveway accesses for all properties (negotiations will be required as driveway modification works will be required on private property).

We are working on the changes and will have deliverables for late next week.

If you have any questions or concerns, please let me know.

Regards,
Chris

Chris Pogson, P.Eng.
Division Manager, Engineering

McElhanney Consulting Services Ltd.
Suite 1, 1351 Estevan Road
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cpogson@mcelhanney.com



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Pearson, Michael TRAN:EX

From: Pearson, Michael TRAN:EX
Sent: Monday, October 28, 2013 12:57 PM
To: Seitz, Robert (Robert.Seitz@bcferries.com)
Cc: Mounteney, Renee A TRAN:EX (Renee.Mounteney@gov.bc.ca); Spillett, Ryan TRAN:EX (Ryan.Spillett@gov.bc.ca)
Subject: Fulford Road Project

Hello Rob,

I just wanted to touch base and see where things are at with this project. I understand that it has been delayed and there is still concern with the Ministry's requirements, in particular the Road Safety Audit. I think it might be beneficial if we could set up a meeting with yourself, David Hendry and Renee Mounteney our District Manager to discuss the project and how to move forward.

Would the afternoon of November 6th work for you?

Best Regards,

Mike Pearson, P.Eng.

District Transportation Engineer
Ministry of Transportation and Infrastructure
Suite 240 - 4460 Chatterton Way
Saanich, BC
Tel: (250) 952-5562
Mobile: (250) 213-9451
Michael.Pearson@gov.bc.ca

Pearson, Michael TRAN:EX

From: Pearson, Michael TRAN:EX
Sent: Monday, June 16, 2014 11:46 AM
To: 'kwahlstrom@crd.bc.ca'
Cc: Seitz, Robert (Robert.Seitz@bcferries.com); Newall, Andrew R TRAN:EX (Andrew.Newall@gov.bc.ca); Coulter, Colin TRAN:EX (Colin.Coulter@gov.bc.ca); Wagner, Jordan TRAN:EX
Subject: Fulford-Ganges Road Upgrade

Hi Keith,

I am not sure if you are the correct person to be speaking with but we have been working with BC Ferries on some design work for the upgrading of Fulford Ganges Road. As you may know there is a CRD waterline under the road that is failing and I think we should discuss prior to this project going ahead. If we are going to be undertaking any major works on this section of road the failing waterline will need to be addressed.

Thanks,

Mike Pearson, P.Eng.

District Transportation Engineer
Ministry of Transportation and Infrastructure
Suite 240 - 4460 Chatterton Way
Saanich, BC
Tel: (250) 952-5562
Mobile: (250) 213-9451
Michael.Pearson@gov.bc.ca

Pearson, Michael TRAN:EX

From: Pearson, Michael TRAN:EX
Sent: Tuesday, August 6, 2013 11:49 AM
To: 'Seitz, Robert (Robert.Seitz@bcferries.com)'
Subject: FW: 217251 - Fulford Road Upgrades

Hello Rob,

I just wanted to follow up on this item as it is another requirement for the design process. Because of the size and nature of this project a Road Safety Audit is required based on the ministry policy. The RSA must be done by an independent consultant so as not to be perceived in anyway as being biased.

I would suggest that you contact ICBC, Paul DeLeur in particular, to possibly undertake the RSA report.

Any questions please let me know,

Thanks,

Mike Pearson, P.Eng.

District Transportation Engineer
Ministry of Transportation and Infrastructure
Suite 240 - 4460 Chatterton Way
Saanich, BC
Tel: (250) 952-5562
Mobile: (250) 213-9451
Michael.Pearson@gov.bc.ca

From: Pearson, Michael TRAN:EX
Sent: Monday, July 22, 2013 11:08 AM
To: 'Seitz, Robert (Robert.Seitz@bcferries.com)'
Subject: FW: 217251 - Fulford Road Upgrades

FYI – something else we need to discuss on Wednesday.

Thanks, Mike

From: Spillett, Ryan TRAN:EX
Sent: Friday, July 12, 2013 3:24 PM
To: Pearson, Michael TRAN:EX; Erwin, Janelle A TRAN:EX
Subject: Fwd: 217251 - Fulford Road Upgrades

FYI

Begin forwarded message:

From: Brenda Guiled <islandpathways.brenda@gmail.com>
Date: 12 July, 2013 3:22:21 PM PDT
To: "Transportation, Minister TRAN:EX" <Minister.Transportation@gov.bc.ca>
Cc: "Transportation, Deputy Minister TRAN:EX" <DeputyMinister.Transportation@gov.bc.ca>, "Spillett,

Pearson, Michael TRAN:EX

From: Pearson, Michael TRAN:EX
Sent: Wednesday, June 25, 2014 3:10 PM
To: Loewen, James TRAN:EX
Subject: Fwd: Fulford Harbour Road Upgrades

FYi - we might have acquisition drawings next week

Begin forwarded message:

From: Chris Pogson <cpogson@mcelhanney.com>
Date: June 25, 2014 at 2:41:02 PM PDT
To: "Taylor.Carr@bcferries.com" <Taylor.Carr@bcferries.com>
Cc: "robert.seitz@bcferries.com" <robert.seitz@bcferries.com>, "Pearson, Michael TRAN:EX" <Michael.Pearson@gov.bc.ca>, Kayla Bate <kbate@mcelhanney.com>
Subject: Fulford Harbour Road Upgrades

Hi Taylor, to follow up our conversation please see the following comments:

Based on the Letter of Agreement between MOTI and Islands Trust we will revise the detailed design (Design Criteria "C") as follows:

- 1) Road Classification - Major Rural (IT Classification)
- 2) Paved Travel Lanes to be minimum 3.35 m wide except on curves where minimum widths shall be 3.65m
- 3) Vehicle Holding Lane to be 3.0m width minimum
- 4) Bike Lane to be 1.20m wide (one side only as holding lanes takes place of the bike lane).

The islands trust also specifies a 0.6m gravel should both sides, however due to the right of way width, we will accommodate where practical. Once we revise the design, we will produce the following documents for Mike Pearson to negotiate with land owners:

- 1) 8.5x11 Land Acquisition Sketches for affected properties; and,
- 2) Detailed design sketches for driveway accesses for all properties (negotiations will be required as driveway modification works will be required on private property).

We are working on the changes and will have deliverables for late next week.

If you have any questions or concerns, please let me know.

Regards,
Chris

Chris Pogson, P.Eng.
Division Manager, Engineering

McElhanney Consulting Services Ltd.

Suite 1, 1351 Estevan Road
Nanaimo, BC V9S 3Y3
Tel: 250-716-3336 Fax: 250-716-3339
cpogson@mcelhanney.com



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Pearson, Michael TRAN:EX

From: Pearson, Michael TRAN:EX
Sent: Monday, July 29, 2013 3:04 PM
To: 'Doyle, Joanne'
Cc: Spillett, Ryan TRAN:EX; Coulter, Colin TRAN:EX; Erwin, Janelle A TRAN:EX; Mounteney, Renee A TRAN:EX
Subject: RE: Draft SSI Cycling Master plan website

Thanks for this Joanne,

I think we need to provide a response to this report on the Fulford Harbour improvements. Perhaps we could set up a meeting with the CRD and SSI TC to discuss our proposed design and their report. I believe Option 3 in the report is essentially what we have proposed in the BC Ferries design (with the addition of the cycle stencils on the roadway). Options 1 and 2 are not likely options that the ministry will accept due to the fact that^{s.13}

s.13

If you like, I can contact the CRD and see what there availability is for a meeting to go over their report and provide them a chance to see the current design we are proposing.

Thanks,

Mike Pearson, P.Eng.

District Transportation Engineer
Ministry of Transportation and Infrastructure
Suite 240 - 4460 Chatterton Way
Saanich, BC
Tel: (250) 952-5562
Mobile: (250) 213-9451
Michael.Pearson@gov.bc.ca

From: Doyle, Joanne [<mailto:Joanne.Doyle@bcferries.com>]
Sent: Thursday, July 25, 2013 8:51 AM
To: Pearson, Michael TRAN:EX
Subject: Draft SSI Cycling Master plan website

Good Morning Mike,

As was mentioned yesterday here is the website for the Salt Spring Island Cycling Draft Master Plan. There are a number of links on the site and one of them is the Alta planning document that you had a copy of from yesterdays meeting.

<http://www.crd.bc.ca/saltspring/transportation/programs.htm>

It was good to have the meeting yesterday and we look forward to continuing to work together on Fulford Road upgrade project.

Thanks,
Joanne

Joanne Doyle, MBA | Manager Master Planning | British Columbia Ferry Services Inc.
t: 250.978.1322 | m: 250.888.0149 | f: 250.380.3029 | e: joanne.doyle@bcferries.com

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Pearson, Michael TRAN:EX

From: Pearson, Michael TRAN:EX
Sent: Monday, June 24, 2013 3:57 PM
To: Lee, Gar TRAN:EX; Ludwar, Kenedee TRAN:EX
Cc: Wagner, Jordan TRAN:EX
Subject: FW: Fulford scan

Hi Kenedee/Gar,

Please find a revised design criteria sheet for the Fulford Road upgrades on Salt Spring Island. BC Ferries has got McElhanney on board for the detailed road design.

Since they picked up the Stantec design they have found a few things that they would like to change to improve the design. I don't have any issues with the proposed changes.

If you could please review and send any comments to Jordan and I that would be appreciated. I will also send along revised drawings once we receive them electronically from BC Ferries.

Thanks,

Mike Pearson, P.Eng.

District Transportation Engineer
Ministry of Transportation and Infrastructure
240-4460 Chatterton Way
Saanich, BC
Tel: (250) 952-5562
Cell: (250) 213-9451
Michael.Pearson@gov.bc.ca

From: Pool, Joyce TRAN:EX
Sent: Monday, June 24, 2013 3:09 PM
To: Pearson, Michael TRAN:EX
Subject: Fulford scan



Fulford Road Widening Project

Cost Estimate based on McElhanney Consulting Limited (MCL) 50% Design Drawings REV D + MoTI Comments
Updated January 30, 2015

	BCF Costs	MoTI Costs	Total	Comments
Construction Work				
General Conditions	s.13,s.17			Added :s.17 per MoTI comments
Rock Removal				
Roadwork and Retaining Walls				
Waterworks CRD portion (excl \$50K they pay)				
Storm Sewer				
Electrical trenching and lighting				Added s.17
Other Excavation and Miscellaneous				s.17
Subtotal Construction Costs				
Other Costs				
Detailed design				This increased ~s.17
Environmental permits and monitoring				Assumes no major issues onsite
Archaeological permits and monitoring				Assumes no major issues onsite
Survey				
Materials Testing				
Community Consultation				
Project Management - BCF				
Misc Items Req'd by Term Maint and Ops				
Project Infrastructure - Consultant Contract Admin				
Legal				Only incl property under paved road. s.1 spent to date
BCF Travel				
Subtotal Other Costs				
Subtotal				
Tax (GST)				PST included by MCL in construction estimates
Subtotal				
Contingency (15%)				
TOTAL PROJECT BUDGET ESTIMATE				

Fulford Road Upgrades Project - DRAFT

Monday, December 1, 2014

Project Phase	Project Spend Profile by Fiscal Year (assuming \$3.4M)				FY 2016												FY 2017															
					2015												2016															
	Prior	2015	2016	2017	2014	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
Updated cost estimate	s.13,s.17																															
Cost Sharing Proposal agreed to by all																																
Detailed design																																
MOU and Project Agreement documents finalized																																
Meet with impacted residents about project																																
Stakeholder Consultation (Ferry Advisory Committee, Islands Trust, CRD, Fulford Transportation Commission, Fulford Water Commission, others...?)																																
Property Agreements w/ owners																																
Public Information Session																																
Tender and Award																																
Construction																																
Miscellaneous Clean-up																																
Project Close-Out																																

Pearson, Michael TRAN:EX

From: Pearson, Michael TRAN:EX
Sent: Friday, February 13, 2015 4:31 PM
To: Erwin, Janelle A TRAN:EX (Janelle.Erwin@gov.bc.ca); Spillett, Ryan TRAN:EX (Ryan.Spillett@gov.bc.ca); Mounteney, Renee A TRAN:EX (Renee.Mounteney@gov.bc.ca)
Subject: FW: Updated Fulford budget based on comments received
Attachments: Fulford Road Upgrade Cost Sharing Proposal Jan 30, 2015.xls; Re: Updated Fulford budget based on comments received

FYI – just so you know where things are at while I am off s.22

Cost of the project is now sitting around s.17

Thanks, Mike

From: Seitz, Robert [<mailto:Robert.Seitz@bcferries.com>]
Sent: Friday, January 30, 2015 12:02 PM
To: Pearson, Michael TRAN:EX; McWalter, Emma
Subject: Updated Fulford budget based on comments received

Hi Mike and Emma,

I received comments from MoTI since our last meeting in December regarding budget tweaks. I have included those in the attached spreadsheet. I also corrected the taxes, as PST had been counted twice, and I moved the s.17 property acquisition estimate down to the bottom as I am not sure if this is a project "cost share" item or a general overhead MoTI item.

Please review and let me know if I missed anything or if these figures should be distributed differently. I just wanted to make sure we all have the latest Road Widening Estimate.

Regards,
Rob

Rob Seitz, P.Eng
Project Manager, Terminal Construction
British Columbia Ferry Services Inc.
Suite 500-1321 Blanshard Street, Victoria, BC V8W 0B7
T: 250-978-1268 C: 250-514-3496 F: 250-361-4922
Robert.Seitz@bcferries.com
bcferries.com | [Facebook](#) | [Twitter](#)

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Pearson, Michael TRAN:EX

From: Pearson, Michael TRAN:EX
Sent: Friday, May 8, 2015 1:12 PM
To: Trozzo, Vince TRAN:EX; Seward, Liz M TRAN:EX; Erwin, Janelle A TRAN:EX; Spillett, Ryan TRAN:EX
Subject: Fwd: Fulford

FYI - the Fulford road upgrade project has been officially cancelled so our project funding is not required this year and can be put to other paving jobs :)

Thanks,

Mike Pearson, P. Eng.
District Transportation Engineer
(250) 213-9451

Begin forwarded message:

From: "Seitz, Robert" <Robert.Seitz@bcferries.com>
Date: May 8, 2015 at 8:36:01 AM PDT
To: "Pearson, Michael TRAN:EX" <Michael.Pearson@gov.bc.ca>
Subject: RE: Fulford

Hi Mike,

The Fulford Project, Phase 1 - Master Plan Related Upgrades, ie. Road Widening, has been cancelled and Phase 2 – Compound Expansion, preliminary design will begin shortly.

Regards,
Rob

Rob Seitz, P.Eng
Project Manager, Terminal Construction
British Columbia Ferry Services Inc.
T: 250-978-1268 C: 250-514-3496 F: 250-361-4922
Robert.Seitz@bcferries.com
bcferries.com

From: Pearson, Michael TRAN:EX [<mailto:Michael.Pearson@gov.bc.ca>]
Sent: May 07, 2015 11:27 AM
To: Seitz, Robert
Subject: Fulford

Hi Rob,

Just wanted to follow up on our last conversation from about a month ago. Would you be able to provide formal confirmation that the Fulford project is on hold?

Thanks,

Mike Pearson, P.Eng.

Pearson, Michael TRAN:EX

From: Pearson, Michael TRAN:EX
Sent: Monday, December 22, 2014 3:26 PM
To: Seitz, Robert (Robert.Seitz@bcferries.com)
Subject: FW: Fulford - Ganges Road Upgrades

Hello Rob,

Sorry for the delay getting this to you.

For discussion - generally looks ok, a few tweaks to make. ^{s.13,s.17}
s.13,s.17

Thanks,

Mike Pearson, P.Eng.

District Transportation Engineer
Ministry of Transportation and Infrastructure
Suite 240 - 4460 Chatterton Way
Saanich, BC
Tel: (250) 952-5562
Mobile: (250) 213-9451
Michael.Pearson@gov.bc.ca

From: Englund, Darren D TRAN:EX
Sent: Friday, December 19, 2014 12:00 PM
To: Pearson, Michael TRAN:EX
Subject: RE: Fulford - Ganges Road Upgrades

Notes:

s.13,s.17

That's about all I noted.

Darren

From: Pearson, Michael TRAN:EX
Sent: Monday, December 15, 2014 8:41 AM
To: Englund, Darren D TRAN:EX
Subject: FW: Fulford - Ganges Road Upgrades

Hi Darren,

Could you have a quick look over these estimates and help me out with what might be missing....assume ferries to deliver.

Thanks, Mike

From: Seitz, Robert [<mailto:Robert.Seitz@bcferries.com>]
Sent: Wednesday, December 10, 2014 3:34 PM
To: Pearson, Michael TRAN:EX
Cc: Carroll, David; McWalter, Emma
Subject: FW: Fulford - Ganges Road Upgrades

Hi Mike,

As discussed on December 1st, I have had McElhanney provide an updated cost estimate for the construction work as well as an estimate for McElhanney contract administration during construction. These figures can be used for the updated budget Mike is working on. Note that the CRD contribution is included in the water works section line item 4.23.

How are you making out with the cost share agreement?

Regards,
Rob

Rob Seitz, P.Eng
Project Manager, Terminal Construction
British Columbia Ferry Services Inc.

In addition, I have included a draft Project Management Budget for your review as well. It incorporates our typically full time construction services for these types of projects and can be used for budgetary purposes.

Please let me know if you have any questions, however, I will be away from the office from Dec 11 to 22, 2014.

Regards,

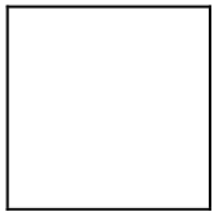
Chris

Chris Pogson, P.Eng.
Division Manager, Engineering
cpogson@mcelhanney.com



McElhanney

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