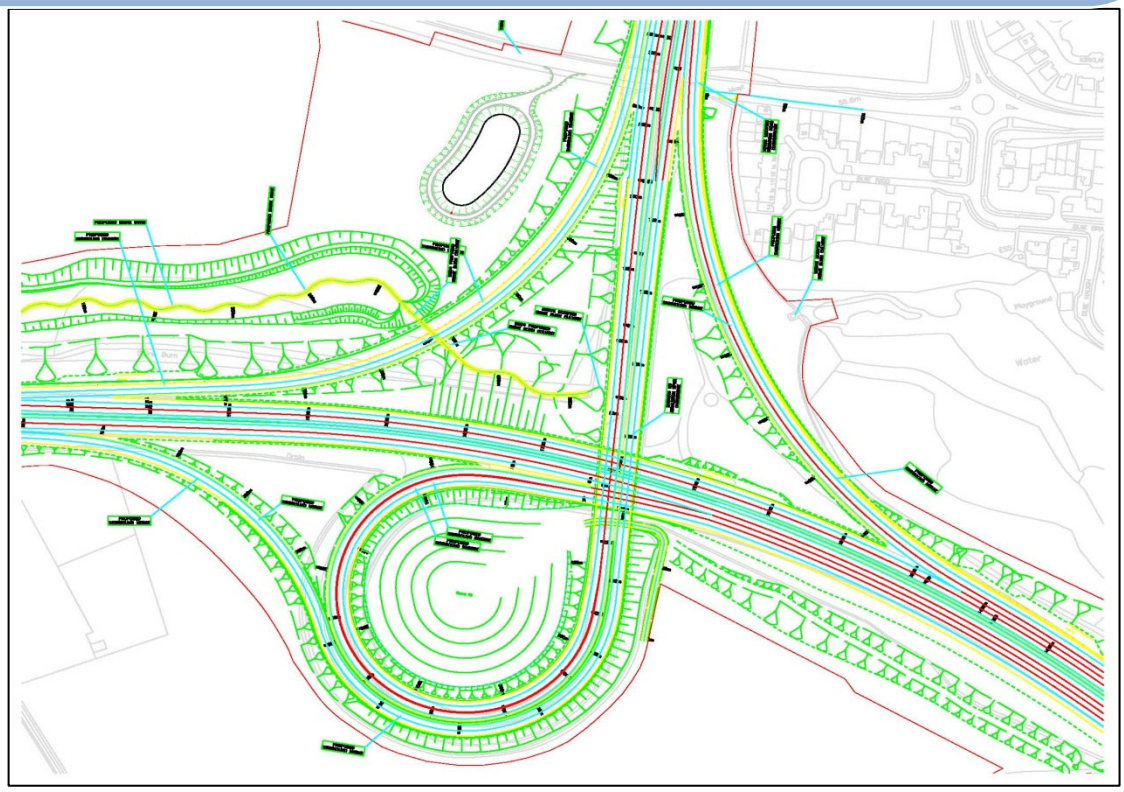
SRB Civil Engineering Limited

ROADBRIDGE CIVIL ENGINEERING & BUILDING CONTRACTORS

SISK BUILDERS CONTRACTORS

RAMBOLL

FORTH REPLACEMENT CROSSING
M9 Junction 1a – Project Quality Plan: Volume 4
AGRICULTURE MANAGEMENT PLAN



TRANSPORT SCOTLAND

Construction Issue: March, 2012

FORTH REPLACEMENT CROSSING M9 Junction A1

Agriculture Management Plan

CONTROLLED DOCUMENT (Unless Printed)			
Report No:AMP03			
Status:	**Construction Issue**	**Copy No:**	**Issue 3**

	Name	**Signature**	**Date**
Prepared by:	Roland Tarrant		March 2012
Checked SRB:	Seamus O'Brien		March 2012
Checked GIFFORD:	John Wyles		March 2012
SRB Approved:	Seamus O'Brien		March 2012

Revision Record

Rev	**Date**	**By**	**Summary of Changes**	**Chkd**	**Aprvd**
01	18th September 2011	RT	Reflect EDT, Statutory Bodies and Local Authorities Consultations and Review	SOB	SOB
02	10th October	RT	Reflect Rural Payments and Inspections Directorate comments and EDT comments	SOB	SOB
03	14th March	RT	Reflect review by SRB	SOB	SOB

1. Agriculture Management Plan

Objective:

To carry out the works in such a way to protect good quality agricultural land from damage and to contain and limit adverse effects on agricultural resources as far as reasonably practical.

Introduction:

This Agriculture Management Plan details how SRB will undertake the works on the Forth Replacement Crossing M9 Junction 1A project. This plan includes details of the controls to be implemented to mitigate potential impacts on farms including maintaining access.

The plan was prepared in accordance with the following:

- Section 10 of the Code of Construction Practice;
- Environmental Statement for the project and
- SRB Integrated Management System

Key Issues:

Loss of lands at:

- Humbie Farm Land Ref 7 – Residual Significance: Slight / moderate
- Overton Grazing Land Ref 15 – Residual Significance: Substantial
- Newliston Estate Land Ref 16 and 11 - Residual Significance: Slight / moderate

Management and mitigations

SRB has appointed a Community Liaisons Officer (CLO) to carry out liaisons with affected landowners, occupiers and agents, as appropriate.

The CLO will advise landowners, occupiers and agents, as appropriate, regarding the intended commencement of construction works in areas of the site adjacent to agricultural holdings and the provision of accommodation works and access routes to be used.

SRB will develop the construction programme to reduce disturbance in so far as is reasonably practicable.

SRB will implement appropriate measures in accordance with guidance produced by the Scottish Government Rural Payments and Inspections Directorate in relation to undertaking works on or adjacent to agricultural land. Relevant guidance covering measures associated with soils erosion, soil organic matter, soil structure and minimum level of maintenance includes:

- The code of good practice – Prevention of Environmental Pollution from Agricultural Activity (commonly known as the PEPFAA Code);
- Good Agricultural and Environmental Condition measures for Scotland (GAEC); and
- The Scottish Soil Framework Consultation Document.

SRB will also implement appropriate measures in accordance with the Code of Good Agricultural Practice – Protecting our Water, Soil and Air in 2009 published by the Department for Environment, Food and Rural Affairs (DEFRA).

Prior to works commencing on agricultural land which will be used temporarily or land to be returned to agricultural use following construction, SRB will undertake will undertake surveys to record the existing quality of land, including the condition of the following, as appropriate:

- Topsoil and subsoil;
- Drainage;
- Roads, accesses and paths;

- Forestry / woodland and
- Agricultural land adjacent to the construction site.

SRB will implement appropriate procedures in relation to the stripping, handling, storage and replacement of agricultural soils to mitigate risks associated with soil degradation. SRB will undertake reinstatement of land used temporarily for construction in accordance with the requirements of the Forth Crossing Bill.

SRB will take precautions in relation to storage of agricultural soils, including the following, as appropriate:

- Handling and storing different soils separately, particularly top soils and sub soil and
- Taking appropriate measures to prevent contamination of soils with chemicals or other materials

SRB will take reasonable precautions in the design and construction of the Project to identify, protect and maintain existing land drainage systems.

SRB will take appropriate measures to prevent the spread of invasive and alien species (see Ecological Management Plan).

SRB will comply with the requirements of the Scottish Government Rural Payments and Inspections Directorate and appropriate guidance to avoid, as far as possible, the spread of soil borne, crop and animal diseases. The contractor will implement appropriate measures to control run-off to reduce any risks associated with disease transmission.

SRB will take reasonable precautions to identify locations of carcass burial sites within the construction site to mitigate risks associated with the existence of any unrecorded sites.

SRB will liaise with landowners, occupiers and agents, as appropriate, to establish requirements and measures to be implemented to maintain livestock water supplies which may be affected due to construction works.

Maps showing the farms adjacent to the construction site.

Appendix A details the farms holdings and landowners adjacent to the construction site

Note this has been redacted as it contains landowner information.

Maps showing watercourses and, where known, field drainage layouts and outfalls into watercourses or ditches.

Appendix B details watercourse and where known field drainage layouts and outfalls into watercourses or ditches. This will be further developed as the Works Progress

This is not included in this published version but figures can be found in the Environmental Statement.

Details of the landowners, occupiers and agents for farms adjacent to the construction site.

Appendix C lists the landowners and agents for farms adjacent to the construction site.

Note this has been redacted as it contains landowner information.

Details of the husbandry associated with the areas of farms adjacent to the construction site.

Appendix D contains drawings showing the husbandry associated with the areas of farms adjacent to the construction site. There are a few areas where cattle and sheep are kept grazing with the majority of land being arable farmland. There are also a few areas of ancient woodland.

Procedures to be adopted for the appropriate protection of agricultural land adjacent to the construction site, including information regarding appropriate stock-proof fencing to be provided and maintained.

Where temporary fencing is to be erected, plant and labour will only operate on the road side of the fence. This will limit the potential for spread of animal diseases e.g. foot and mouth and also reduce the amount of farmland that is exposed to cross contamination from other sources.

Existing field drainage systems coming from lands adjacent to the works will be either maintained or intercepted to reduce the risk of additional flooding to adjacent lands.

At site boundaries, a vegetative buffer strip will be maintained. Also, riparian zones will be maintained at the edges to watercourses. This will act to divert possible contamination from the construction site from entering adjacent farmland and prevent erosion of the topsoil from the land.

Where livestock is to be grazed adjacent to the site boundary, temporary works will be agreed with the land agent for the land owner. This may involve the erection of suitable stock proof fencing e.g. sheep wire fence, for the duration of the landtake. Where there are no livestock in adjacent properties, a four strand wire fence will be erected.

Earthworks within the LMA will be shaped to fall surface water away from the works into interceptor drains that collect the surface runoff and not out into the adjacent farmland.

During the daily site walkover, the EM will assess the impact of the works on the adjacent farmland. He will look out for ponding adjacent to the fenceline, siltation of adjacent land with surface water flowing from the works and the access routes etc.

Procedures to be adopted to undertake survey works to record the condition of existing agricultural land which may be used temporarily during construction, including agricultural land quality and land drainage, as appropriate. See also CoCP: Section 3.6 Lands Made Available, Fencing and Hoarding.

Prior to construction commencing, SRB carried out a photographic and video record of the of the condition of the land prior to entry to the land to be taken. This is uploaded to the site server.

The condition of the land will be agreed with the Land Agent / Land Owner. A topsoil testing regime will be developed by SRB and the Landscape Clerk of Works and forwarded to the Land Agent / Owner and EDT. This will record the existing condition of the topsoil prior to major earthworks commencing.

Procedures to be adopted for the reinstatement of any agricultural land which is used temporarily during construction.

The methodology detailed within the “Code of Construction Practice for the Sustainable Use of Soils on Construction Sites – DEFRA 2009” will be used to carry out any reinstatement of agricultural land to be returned.

Measures for the reinstatement of agricultural lands will be agreed with the Land Agent and Land Owner. Where disagreement arises over the reinstatement, SRB will inform the EDT immediately.

Works will take place during periods where the weather is appropriate for reinstatement ie. not during periods of excessively wet weather.

Subsoil material will be decompacted and broken up to a depth of 150mm using ripper or other suitable means, prior to topsoil being replaced over it. Once decompacted, no heavy machinery will be allowed to traverse the subsoil layer.

Topsoil will be replaced to the detail specified within the Landscape Drawings and as specified in the Employer’s Requirements unless otherwise agreed with the Landscape Clerk of Works. Large stones will be removed prior to final seeding.

Once lands are reinstated, they will not be used for parking or storage of plant and materials.

Topsoil shall be reinstated by tipping loads along a relatively thick peninsula and spreading the topsoil to the required depth using appropriate plant.

A programme indicating when temporary occupation of agricultural land will be taken and when any agricultural land used temporarily is intended to be returned to agricultural use.

Appendix E contains the letter sent to all affected landowners and tenants with the date the access of lands was taken (1st October 2011). Lands shall be returned in a phased basis as the Works progress. All temporarily occupied lands will be returned on or before the Contract Programme finish date.

Procedures to be adopted in relation to the provision of accommodation works including a programme for the provision of accommodation works

The Programme for the provision of Accommodation Works is being finalised with the EDT. Details of Accommodation Works are included in Appendix F bar that which contains landowner information which has been removed.

Details of accesses which may be affected by construction, including the procedures to be implemented to maintain access. See also Area Management Plan.

Appendix G contains details of the accesses that may be affected by construction.

Procedures to be followed in relation to the stripping, handling, storage and replacement of topsoil on areas of land to be returned to agricultural use following construction.

The methodology detailed within the "Code of Construction Practice for the Sustainable Use of Soils on Construction Sites – DEFRA 2009" will be used in relation to stripping, handling, storage and replacement of topsoil on areas of land to be returned to agricultural use following construction.

A Method Statement will be prepared in advance of stripping and site clearance taking place. This Method Statement will cover stripping, handling and storage of the topsoil removed from the land. The main methodology will include:

- The topsoil will be handled in the right conditions of weather and soil moisture and using suitable machinery in an appropriate way.
- Soil that is wet or very moist (wetter than the plastic limit) should ideally be allowed to dry further. The presence of growing vegetation is important as it helps soil dry out quickly to depth.
- Multiple handling of soil materials increases the risk of damage to soil structure and will be minimised.
- Soil will be stored in areas where it can be left undisturbed and will not interfere with site operations
- Prevention of topsoil and subsoil becoming mixed together during the topsoil stripping.
- Immediate sealing of all topsoil heaps to prevent erosion and water ingress
- Tracked machinery will be used as much as practicable to reduce compaction of the topsoil
- Dumpers will be confined to designated temporary haul routes
- Topsoil will be stored in appropriate windrows to maintain soil quality and minimise the damage to the soils physical (structural) condition so that it can be easily reinstated once respreads.
- The surface of the windrows will be regarded and compacted by a tracked machine to reduce surface water infiltration
- Appropriate flexibility will be built into the site works programme to allow planned mechanised operations to be deferred is preceding weather conditions create unsuitable ground conditions.

A specific method statement will be prepared in advance of topsoil reinstatement. This will identify the methodology to be used to spread topsoil back onto the lands to be returned to agricultural use including:

- In so far as practicable, the topsoil returned to the lands should be from the same heap that was initially stripped from the land at the commencement of the Project.
- Care will be taken not to compact the subsoil and topsoil with plant traffic in order to protect the structure of the soil and prevent ponding of the reinstated ground.
- The excavator bucket will be used to break up clods of earth that come from the stockpiles.

Compliance with Scottish Government Rural Payments and Inspections Directorate

SRB have consulted with the Scottish Government Rural Payments and Inspections Directorate (formerly the Scottish Executive Environment and Rural Affairs Department (SEERAD)) regarding the preparation of the Agriculture Management Plan.

Monitoring

Land drains intercepted will be surveyed and recorded on as-built drawings. New drainage systems that are required as a result of construction works and / or land realignment will also be surveyed and recorded on as-built drawings.

The Landscape Clerk of Works will monitor topsoil stripping, handling and storage, as appropriate.

SRB will carry out regular auditing and review of the CEMP and the Environmental Management System. This will ensure that all appropriate measures are in place.

References

- Code of Good Agricultural Practice for farmers, growers and land managers – Protecting our Water, Soil and Air, Department for Environment Food and Rural Affairs, 2009
- Code of Good Practice – Prevention of Environmental Pollution from Agricultural Activity, The Scottish Executive, 2005
- Cross Compliance Notes for Guidance. (Incorporating Good Agricultural and Environmental Condition), The Scottish Executive, 2005
- Environmental Protection Act 1990, as amended
- Farm Soils Plan, Protecting soils and income in Scotland, The Scottish Executive, 2005
- Scottish Planning Policy 15 [SPP15] Planning for Rural Development
- The Scottish Soil Framework. A Consultation Document, The Scottish Government, 2008
- Wildlife and Countryside Act 1981, as amended
- DEFRA Construction Code of Practice for the Sustainable use of Soils on Construction Sites 2009

APPENDIX A

APPENDIX B

APPENDIX C
Landowner Details for M9 J1a

(Confidential information therefore redacted)

APPENDIX D

WHEAT FIELD / OILSEED RAPE

SPORTS FIELD

OILSEED RAPE

SPORTS FIELD

WHEAT FIELD / OILSEED RAPE

DEC H 15-20

CORN FIELD

WHEAT FIELD

COMMUNITY WOODLAND

MIXED + VEG H 2-20

CORN FIELD

WHEAT FIELD

ROUGH GRASS

MIXED AND VEG H 15-20

PASTURE

WHEAT FIELD

ROUGH GRASS

LEGEND:
Husbandry of Adjacent Lands

Utilised for Sheep Farming

Utilised for Pasture / Cattle

Note:
All other lands other than those Indicated are utilised for Tillage Crops

SRB Civil Engineering Limited
ROADBRIDGE
SISK

Project:
FORTH CROSSING
Forth Replacement Crossing
M9 Junction 1a Upgrade

Title:
Site Layout showing Husbandry of Adjoining Lands

REV	DATE	DESCRIPTION	DES	CHK'D	APP'D

Date: Sept 2011
Scale: N.T.S.
Drawn By: AM
Drawing No.: SRB/SK/A1-07/01
Rev.: 0

10/10/11

Construction Environmental Management Plan
Rev 1 Construction Issue

APPENDIX E

SRB Civil Engineering Limited
ROADBRIDGE
CIVIL ENGINEERING & BUILDING CONTRACTORS
BUILDERS SISK EST. 1859 CONTRACTORS

HEAD OFFICE
Wilton Works, Naas Road,
Clondalkin, Dublin 22, Ireland
Tel: +353 (0)1 4091500
Fax: +353 (0)1 4091505

SITE OFFICE
□ M9 Junction 1a,
Site Offices,
TBA

Tel:
Fax:

Our Ref: FRC/M9J1a/0022/PMcC
Your Ref: FRC-M9J1A-EMP-COR00017

26th August 2011.

Transport Scotland,
Arrol House,
Viking Way,
Rosyth,
KY11 2UT.

FAO Mr. David Climie, Employer's Representative.

FORTH REPLACEMENT CROSSING – M9 JUNCTION 1A

RE: ACCESS TO TEMPORARY LANDS

Dear Sir,

Following your letter dated 28 July 2011, please find attached a further list of the temporary lands to which access is required. In accordance with clause 2.3.1 of the contract, SRB request access to the temporary lands.

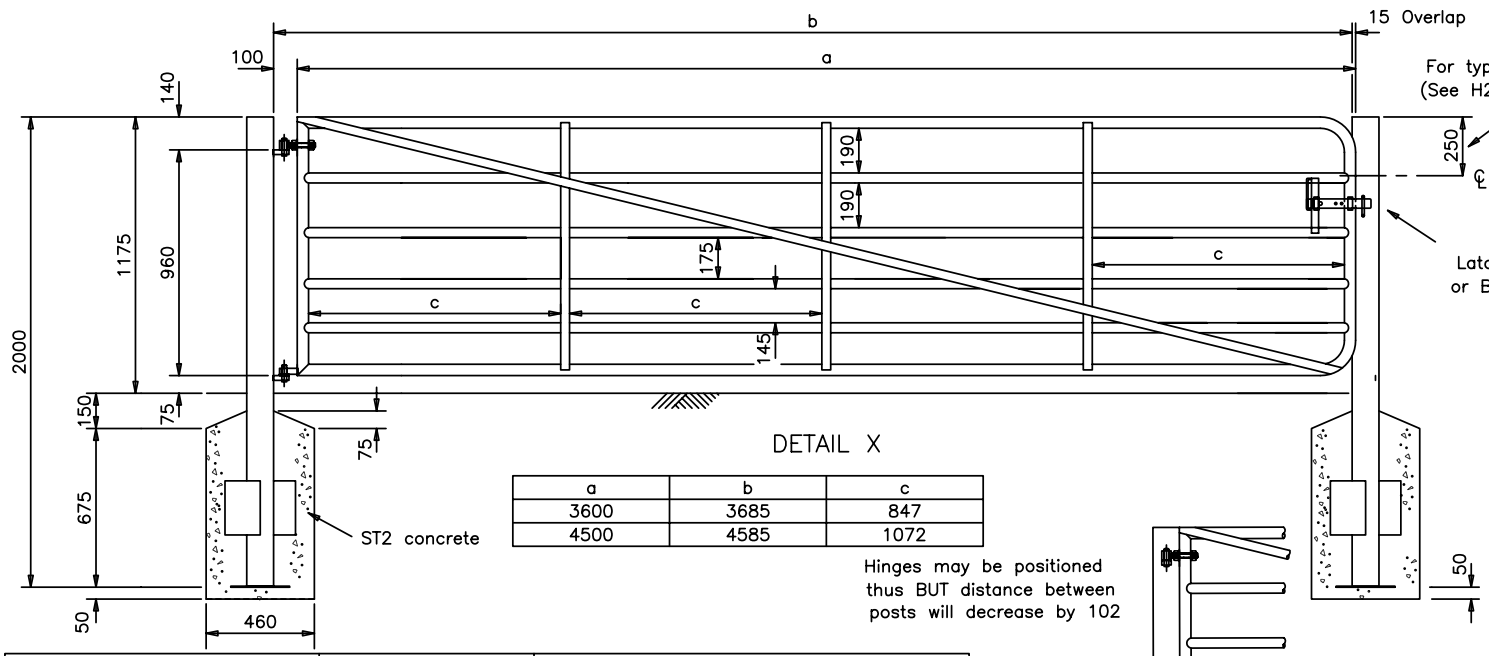
These lands are required for access purposes from the 1st of October 2011. It is intention to carry out temporary fencing in consultation with the landowner to secure these temporary lands, followed by the construction of a haul route for access. These temporary lands will be no longer required approximately 14 months after initial access. However, if possible we will return these lands at an earlier date in a condition as required by the contract.

Yours faithfully,

Paraic McCarthy,
Senior Engineer.

Plot No.	Proposed Use of Temporary Lands	Date Access Required	Estimated Duration of Access
641	Construction Works and for all other necessary and ancillary purposes	1 October 2011	14 months
661	Construction Works and for all other necessary and ancillary purposes	1 October 2011	14 months
663	Construction Works and for all other necessary and ancillary purposes	1 October 2011	14 months
664	Construction Works and for all other necessary and ancillary purposes	1 October 2011	14 months
665	Construction Works and for all other necessary and ancillary purposes	1 October 2011	14 months
613	Construction and use of a temporary access, ground improvement works, construction works and all other necessary and ancillary purposes	1 October 2011	14 months
612	Construction and use of a temporary access, ground improvement works, construction works and all other necessary and ancillary purposes	1 October 2011	14 months
628	Ground improvement works, construction works and for all other necessary and ancillary purposes	1 October 2011	14 months
627	Ground improvement works, construction works and for all other necessary and ancillary purposes	1 October 2011	14 months
615	Ground improvement works, construction works and for all other necessary and ancillary purposes	1 October 2011	14 months
648	Ground improvement works, construction works and for all other necessary and ancillary purposes	1 October 2011	14 months
649	Ground improvement works, construction works and for all other necessary and ancillary purposes	1 October 2011	14 months
668	Ground improvement works, construction works and for all other necessary and ancillary purposes	1 October 2011	14 months
669	Ground improvement works, construction works and for all other necessary and ancillary purposes	1 October 2011	14 months
656	Ground improvement works, construction works and for all other necessary and ancillary purposes	1 October 2011	14 months
657	Ground improvement works, construction works and for all other necessary and ancillary purposes	1 October 2011	14 months

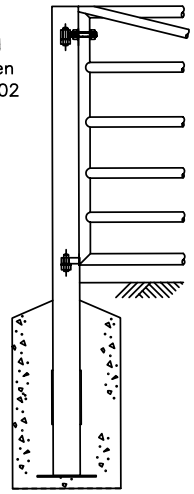
APPENDIX F



DETAIL X

a	b	c
3600	3685	847
4500	4585	1072

Hinges may be positioned thus BUT distance between posts will decrease by 102



DETAIL Y

Alternative position of hinge to give a full 180° opening when required in Appendix 1/15 or 3/1

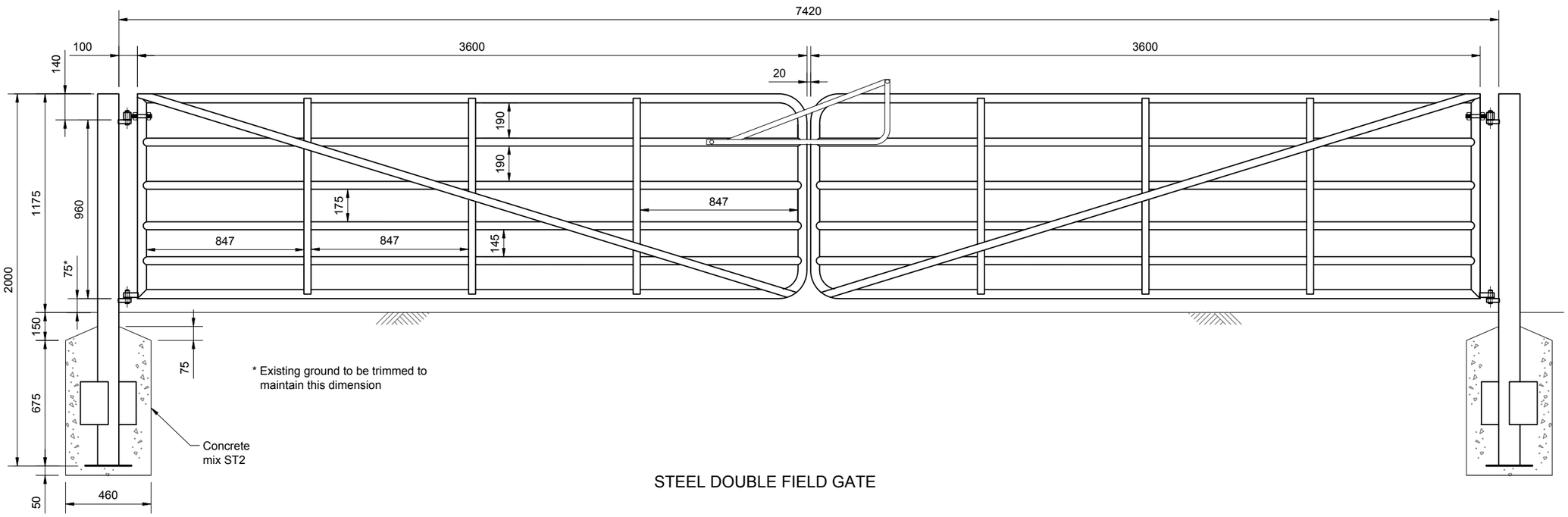
DESCRIPTION OF MATERIAL	SIZE	FIXINGS AND FITTINGS
Hanging post (Tubular steel)	114.3 outer dia.x 3.6 thick	Top capping plate 4.8 thick Two 230x150x4.8 wing plates stitch welded to post Base plate 250x250x4.8 Cap and base plates to be continuously flush welded to tube
Shutting post (Tubular steel)	88.9 outer dia.x 3.2 thick	
Outer frames	48.3 outer dia.x 2.9 thick	
Infilling horizontal rails (All tubular steel)	42.4 outer dia.x 2.6 thick	
Vertical braces (steel flat)	Three 38x4.8	Fillet welded to each gate member crossed by braces
Diagonal braces (steel flat)	Two 38x4.8	

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. Gates shall comply with the appropriate Clauses in Series 300, any further requirements in Appendix 1/15 or 3/1, and with BS 3470. (Cattle yard).
3. For details of latches and fittings see Drawing Nos. H26,H27 & H28.
4. Gate stops to be provided in accordance with Drawing No. H33.
5. The gate shall open into the owner's property.
6. The corners of the main frame may be rounded, rounded and mitred (as drawn),mitred,saddled or crimped.
7. Protective treatment to be as described in Appendix 1/15 or 3/1.

HIGHWAY CONSTRUCTION DETAILS	FENCES, STILES & GATES	Issue	Date	STEEL SINGLE FIELD GATE	Drawing No.
		B	MAY 04		H17
		A	DEC 91		

Drawing number / Rev
FRC/J/434/CD/J1A/006 Rev 00



* Existing ground to be trimmed to maintain this dimension

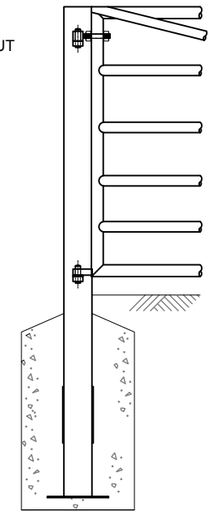
STEEL DOUBLE FIELD GATE

Notes:

1. All dimensions are in millimetres.
2. Gates shall comply with the appropriate Clauses in the 300 Series, any further requirements in Appendix 1/15 or 3/1 and with BS 3470. (Cattle yard).
3. For details of latches and fittings see HCD Drawing Nos. H26 and H27.
4. Gate stops to be provided in accordance with HCD Drawing No. H33.
5. The gate shall open into the owner's property.
6. The corners of the main frame may be rounded, rounded and mitred (as drawn), mitred, saddled or crimped.
7. Protective treatment to the gate and fittings shall be by galvanising to BS 729.

DESCRIPTION OF MATERIAL	SIZE	FIXINGS AND FITTINGS
Hanging post (Tubular steel)	114.3 outer dia.x 3.6 thick	Top capping plate 4.8 thick Two 230x150x4.8 wing plates stitch welded to post Base plate 250x250x4.8 Cap and base plates to be continuously flush welded to tube
Shutting post (Tubular steel)	88.9 outer dia.x 3.2 thick	
Outer frames	48.3 outer dia.x 2.9 thick	
Infilling horizontal rails (All tubular steel)	42.4 outer dia.x 2.6 thick	
Vertical braces (steel flat)	Three 38x4.8	Fillet welded to each gate member crossed by braces
Diagonal braces (steel flat)	Two 38x4.8	

Hinges may be positioned thus BUT distance between posts will decrease by 204



ALTERNATIVE HINGE POSITION

Alternative position of hinge to give a full 180° opening when required in Appendix 1/15 or 3/1

Rev	Rev. Date	Purpose of revision	Drawn	Checked	Reviewed	Approved
00	08/04/11	Final Tender	SA	RS	DC	RG

Client

TRANSPORT SCOTLAND
An agency of The Scottish Government

JACOBS ARUP

Project
FORTH REPLACEMENT CROSSING

Drawing title
M9 JUNCTION 1A
STEEL DOUBLE FIELD GATE
TYPICAL DETAIL

Drawing status
FINAL TENDER

Scale	1:25 @ A3	DO NOT SCALE
Client no.	RD 001675	

Drawing number: FRC/J/434/CD/J1A/006 Rev 00

APPENDIX G

LEGEND:
Affected Access Tracks

SRB Civil Engineering Limited
ROADBRIDGE
SISK

Project:
FORTH CROSSING
Forth Replacement Crossing
M9 Junction 1a Upgrade

Title:
Site Layout showing Access Tracks affected by Construction

REV	DATE	DESCRIPTION	DRSL	CHK'D	APP'D

Date: Sept 2011
Scale: N.T.S.
Drawn By: AM
Drawing No.: SRB/SK/A1-06/01
Rev.: 0

Construction Environmental Management Plan
Rev 1 Construction Issue

10/10/11