



Water Management Consortium

ADVICE NOTE AN05: SERVICE CROSSINGS

REVISION RECORD				
Version	Date	Description	Originator	Checked
	09.08.11	DRAFT	AMD	--
1	27.09.11	FINAL – BOARD APPROVAL	AMD	DJS
2	09.07.13	New logo added	LSQ	DJS
3	23.04.18	Amendments	TR	DJS
4	29.04.21	Updated for WMC	LSQ	RB/DC
5	21.07.23	Updated for Utility Apparatus within 9m	LSQ	RB/DC

The Boards reserve the right to update or change this living document at any time without notice.

Lindsey Marsh Drainage Board
Isle of Axholme and North Nottinghamshire Water Level Management Board
Trent Valley Internal Drainage Board
Doncaster East Internal Drainage Board

BYELAW 17 - FENCES, EXCAVATIONS, PIPES ETC

The Boards' Byelaw No. 17 states:

No person shall without the previous consent of the Board –

- (a) place or affix or cause or permit to be placed or affixed any gas or water main or any pipe or appliance whatsoever or any electrical main or cable or wire in, under or over any watercourse or in, over or through any bank of any watercourse;*
- (b) cut, pare, damage or remove or cause or permit to be cut, pared, damaged or removed any turf forming part of any bank of any watercourse, or dig for or remove or cause or permit to be dug for or removed any stone, gravel, clay, earth, timber or other material whatsoever forming part of any bank of any watercourse or do or cause or permit to be done anything in, to or upon such bank or any land adjoining such bank of such a nature as to cause damage to or endanger the stability of the bank;*
- (c) make or cut or cause or permit to be made or cut any excavation or any tunnel or any drain, culvert or other passage for water in, into or out of any watercourse or in or through any bank of any watercourse;*
- (d) erect or construct or cause or permit to be erected or constructed any fence, post, pylon, wall, wharf, jetty, pier, quay, bridge, loading stage, piling, groyne, revetment or any other building or structure whatsoever in, over or across any watercourse or in or on any bank thereof;*
- (e) place or fix or cause or permit to be placed or fixed any engine or mechanical contrivance whatsoever in, under or over any watercourse or in, over or on any bank of any watercourse in such a manner or for such length of time as to cause damage to the watercourse or banks thereof or obstruct the flow of water in, into or out of such watercourse;*

Provided that this Byelaw shall not apply to any temporary work executed in an emergency but a person executing any work so expected shall, as soon as practicable, inform the Boards in writing of the execution and of the circumstances in which it was executed and comply with any reasonable directions the Boards may give with regard thereto.

SERVICE CROSSINGS

Subject to the Boards' formal consent, service crossings under the bed of a watercourse may be acceptable if:

- the crossing is installed using directional drilling techniques (or similar)
- the crossing is perpendicular to the watercourse
- a minimum of 1.5 metres of cover is maintained between hard bed level and the uppermost part of the duct or protective cover. This depth should be maintained 9.0 metres each side of the watercourse
- marker posts indicating the type and depth of crossing along with emergency contact details are installed at the top edge of each bank. Marker posts must be visible at all stages of vegetation growth.

The Boards' preference is for crossings to be constructed below the bed of the watercourse and installation by directional drilling; other techniques or arrangements will be considered where directional drilling is technically or environmentally unfeasible. Crossing underneath the bed of a watercourse is preferred as;

- It avoids any impediment to flows,
- It avoids the introduction of potential hazards which may endanger the Boards' operatives and maintenance operations, and,
- It avoids disturbance to water voles and their habitat, which may require licensing by Natural England.

A typical cross section drawing showing the Boards' requirements for under crossings is provided in Appendix A.

Applications not complying with the above criteria will only be considered in exceptional circumstances. Such applications must be supported by a full written justification statement.

Overhead crossings must:

- ensure all support structures are a minimum of 9.0 metres from the bank top
- provide a minimum 10 metres vertical clearance (further details in Appendices B and C)
- ensure the crossing is perpendicular to the watercourse
- consider the use of Bird Flight Deflectors for electrical crossings

Applications for in channel crossings and where the relevant height for overhead crossings **cannot** be met must ensure the watercourse beneath the crossing is lined with concrete or provided with a culvert with low level backfill. For hazardous installations the lining or backfill must extend a minimum of 6.0 metres upstream and downstream of the crossing. For less hazardous installations a minimum of 1.0 metre upstream and downstream may be appropriate. Applicants should note this requirement may result in the loss of wildlife habitat, which would require the provision of appropriate environmental mitigation. Please see the Boards' advice note *AN03: Environmental Considerations* for further details

A typical cross section drawing showing the Boards' requirements for overhead crossings is provided in Appendices B and C.

UTILITY APPARATUS WITHIN 9 METRES OF A BOARD WATERCOURSE

The Boards' consent will be required for any utility apparatus within 9 metres of a Board maintained watercourse. Any high voltage electricity cables and high or medium pressure gas mains within 9 metres of a Board maintained watercourse are outside of Officers' delegated powers and will therefore need to be determined at a Board meeting – See Advice Note No: 1.

FURTHER GUIDANCE

The Water Management Consortium Boards have the following documents available:

- Consent Application Form
- Technical Guidance Notes
- Byelaws
- Planning and Byelaw Policy

The Water Management Consortium Boards have also produced a series of other advice notes including:

- AN01: Buildings, Structures, Planting and Fencing
- AN02: Culverts and Bridges
- AN03: Environmental Considerations
- AN04: Stability of Garden Fences Close to Board Maintained Watercourses
- AN06: Surface Water

The above documents are available from the Consortium's office during normal working hours or alternatively, can be downloaded electronically from <http://www.wmc-idbs.org.uk>

If you would like to discuss any of the information in this document or associated advice notes, please do not hesitate to contact the Consortium's offices using the details provided below.

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Doncaster East Internal Drainage Board – planning@deidb.co.uk

APPENDIX A – CROSS SECTION OF UNDERCROSSING

NOTE	DETAILS	DATE
1	No materials, spoil, plant or equipment is to be stored or placed within 9m of the top of the bank.	22/07/2016
2	Marker posts to be installed at the top edge of each bank indicating the type & depth of crossing along with emergency contact details. Marker posts to be visible at all stages of vegetation growth.	22/07/2016

Cross Section

REV	DESCRIPTION	DATE
A	Byview distance changed to 5m.	17/07/2018

Water Management Consortium
 Incorporating Lindsey Marsh Drainage Board,
 Isle of Axholme and North Nottinghamshire W.L.M.B.,
 Trent Valley / D.B. and Doncaster Est. / D.B.
 Engineer to the Board - Mr N. Kemble, B.Eng., C.Eng., MAFM

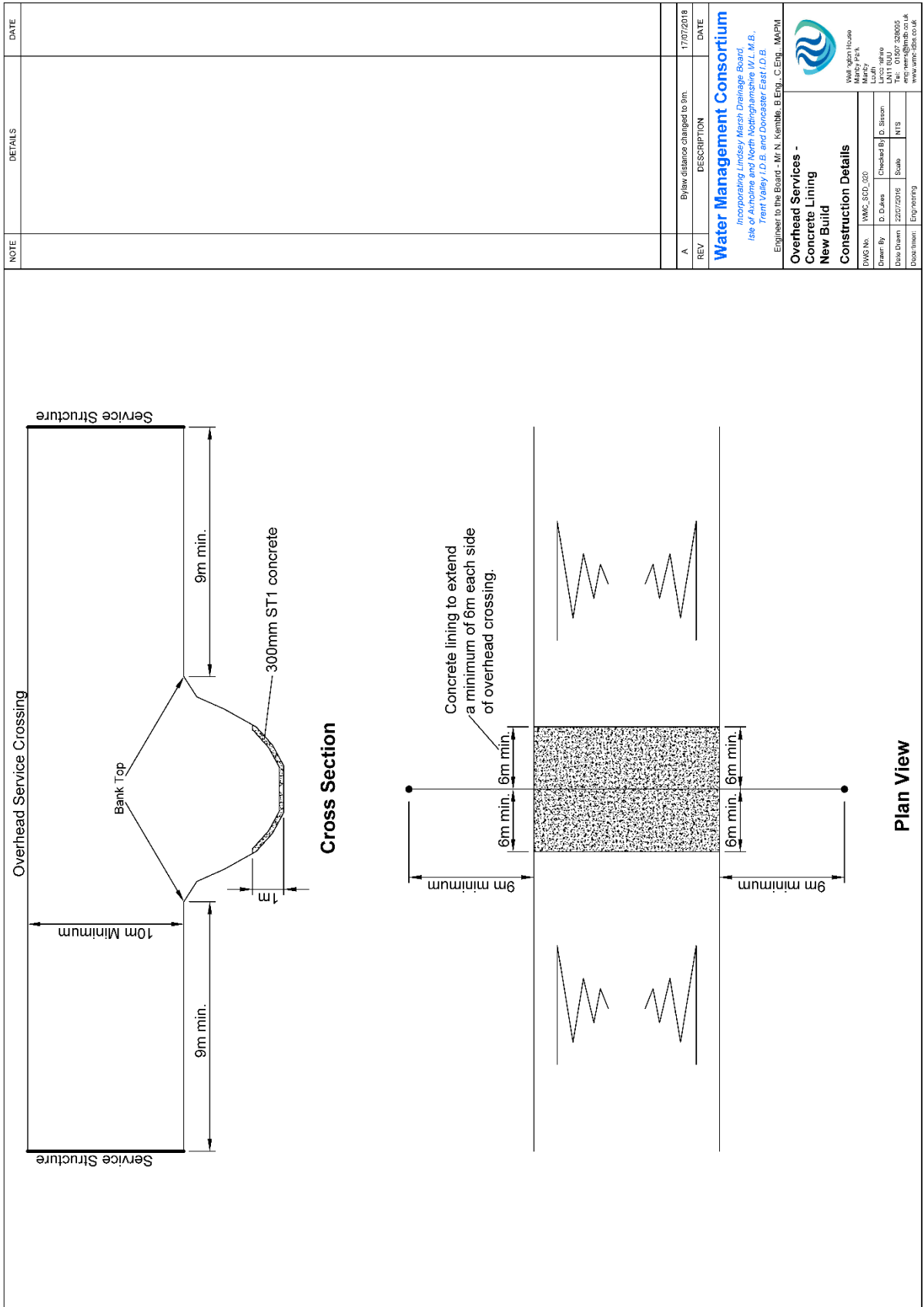
Service Undercrossing

Construction Details

DWG NO:	MMC_SCD_01
Drawn By:	D. Dallas
Checkd By:	D. Sisson
Date Drawn:	22/07/2016
Scale:	NTS
Department:	Eng. teaming

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APPENDIX B – CROSS SECTION WITH CONCRETE LINING MITIGATION



APPENDIX C – CROSS SECTION WITH LOW LEVEL BACKFILL CULVERT MITIGATION

