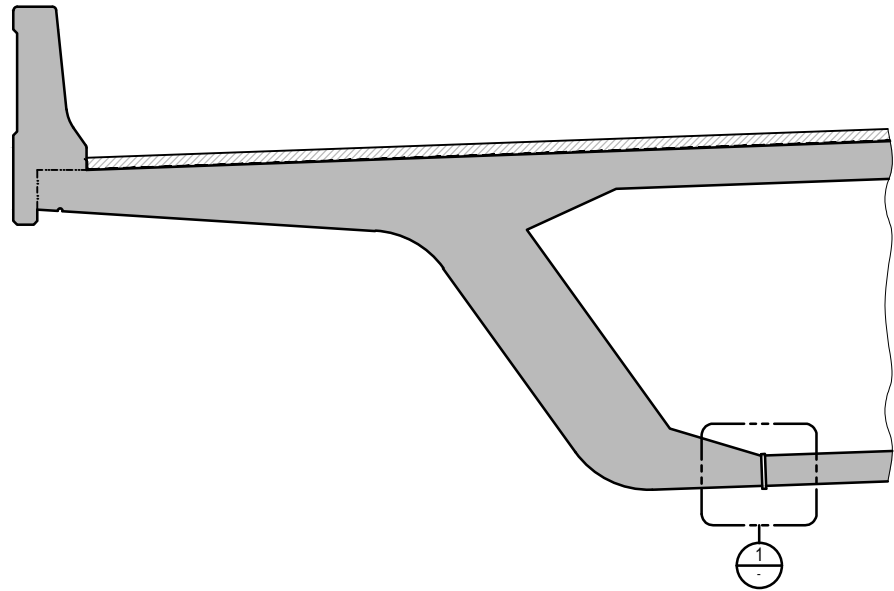
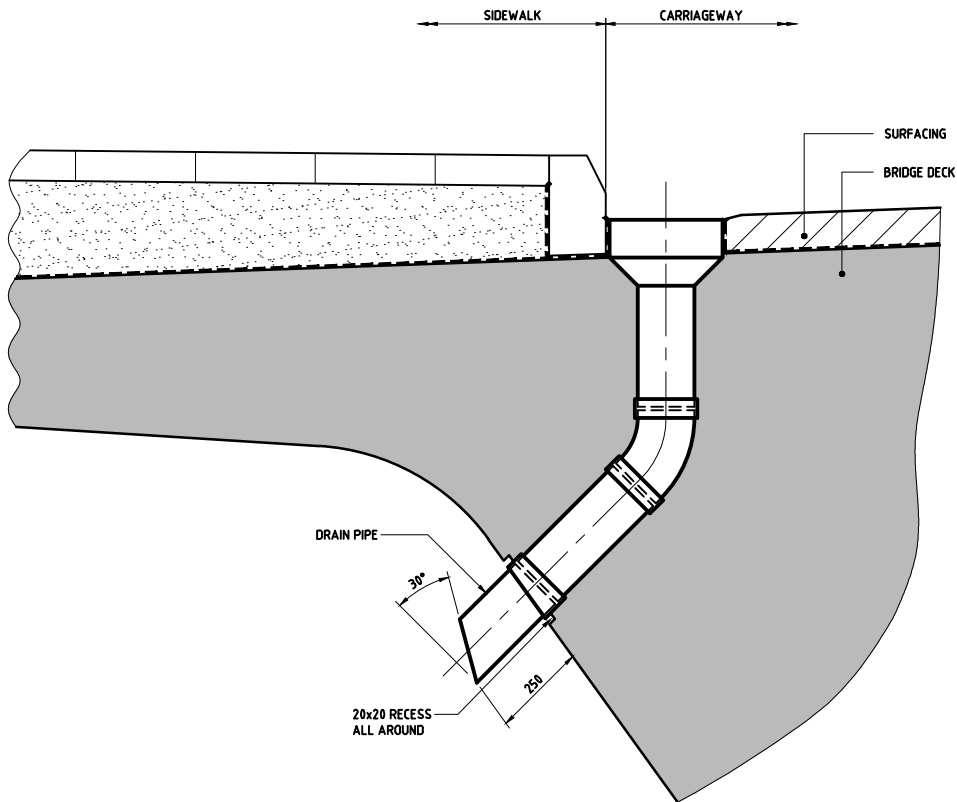


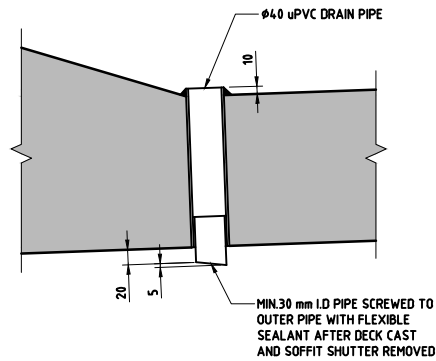
TYPICAL SURFACE WATER DRAINAGE DETAIL AT BARRIER  
SCALE NTS



TYPICAL BOX GIRDER SECTION SHOWING INTERNAL DRAINAGE OUTLET  
SCALE NTS



TYPICAL SURFACE WATER DRAINAGE DETAIL AT KERB  
SCALE NTS



1 DETAIL (TYPICAL BOX GIRDER DRAINAGE)  
SCALE NTS

#### USE OF STANDARD DETAILS:

1. THIS DRAWING SHOWS STANDARD DETAILS WHICH ARE INDICATIVE OF THE BASIC PRINCIPLES WHICH ARE PREFERRED BY ASHGHAL.
2. THE STANDARD DETAILS ARE GENERIC IN NATURE AND MUST BE FURTHER DEVELOPED BY THE DESIGNER AS NECESSARY TO SUIT THE PARTICULAR APPLICATION.
3. WHERE THESE STANDARD DETAILS ARE ADOPTED AS THE BASIS OF ANY DETAIL INCLUDED IN A DESIGN, THE DESIGNER SHALL BE ENTIRELY RESPONSIBLE FOR THE COMPLETED DETAIL AND ALL ASSOCIATED LIABILITY. DESIGNERS MUST THEREFORE SATISFY THEMSELVES AS TO THE SUITABILITY OF THE STANDARD DETAIL FOR THE PROPOSED APPLICATION.
4. DESIGNERS SHALL ADOPT THE STANDARD DETAILS SHOWN AS THE BASIS OF THEIR DESIGN UNLESS THEY CONSIDER THAT A DETAIL IS UNSUITABLE AND AGREE WITH ASHGHAL THAT IT SHALL NOT BE USED.
5. THIS DRAWING SHALL BE USED IN CONJUNCTION WITH ALL APPLICABLE ASHGHAL STANDARD DETAILS, DESIGN INSTRUCTIONS, CIRCULARS, ADVICE NOTES ETC.
6. DESIGNERS SHALL REFER ANY DISCREPANCIES OR CONTRADICTIONS BETWEEN THIS DRAWING AND OTHER APPLICABLE ASHGHAL STANDARD DETAILS, DESIGN INSTRUCTIONS, CIRCULARS, ADVICE NOTES ETC. TO ASHGHAL FOR DIRECTION.

#### NOTES:

1. SURFAGE WATER DRAINAGE OPENINGS THROUGH ANY PART OF STRUCTURES SHOULD BE AVOIDED IF POSSIBLE.
2. DESIGNERS SHALL REFER TO THE RELEVANT ASHGHAL DESIGN CRITERIA FOR HIGHWAY STRUCTURES (OR SUPERSEDING DOCUMENTS) FOR ALTERNATIVE APPROACHES TO SURFACE DRAINAGE WHICH ARE PREFERRED TO THE DETAILS SHOWN. THE DETAILS SHOWN SHALL BE ADOPTED ONLY AFTER THESE ALTERNATIVES HAVE BEEN CONSIDERED AND DISCOUNTED AS UNSUITABLE.
3. INTERNAL DRAINAGE OPENINGS ARE REQUIRED TO BOX GIRDER STRUCTURES (OR ANY STRUCTURE WITH A SIMILAR CLOSED VOID) AS SHOWN ON THIS DRAWING. OPENINGS SHALL BE PROVIDED AT LOW POINTS OF ALL CELLS OF BRIDGES TO PREVENT BUILD UP OF ANY WATER THAT MIGHT ENTER THE VOID. INTERNAL OUTLETS MAY BE OMITTED AT ANT LOCATION WHERE AN ACCESS HATCH IS PROVIDED TO A VOID AT A LOW POINT.
4. ANY PIPEWORK SHOWN ON THESE DETAILS THAT WILL BE VISIBLE OUTSIDE A BRIDGE STRUCTURE SHALL BE COLOURED TO MATCH THE FINAL CONCRETE COATING.
5. ALL DIMENSIONS SHOWN ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.

Rev.	Date	Revision Details	Appd.

هيئة الأشغال العامة  
Public Works Authority  
P.O.Box 22188  
Tel. : (0874) 44950000  
Fax. : (0874) 44950999  
www.ashghal.gov.qa



#### PA PROJECTS AFFAIRS

QCS Section: 5 (CONCRETE)  
PART 1 (GENERAL)

Drawing Title:

BRIDGE DECK DRAINAGE

Approved:	I. FLYNN	Sheet No:	1 OF 1
Date:	SEPTEMBER 2013	Scale:	AS NOTED FOR A1
Drawing Number:	SD 5-1-701	Revision:	0