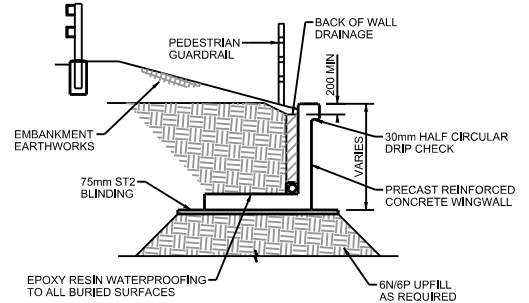
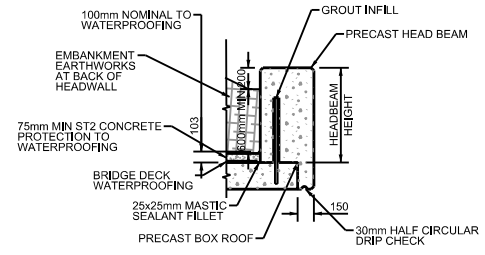


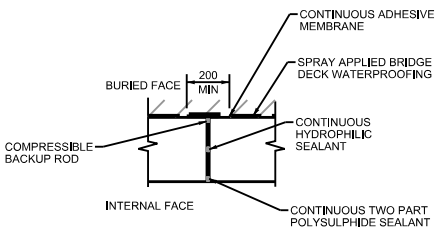
SECTION C-C



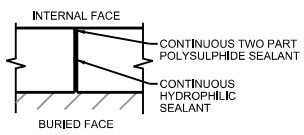
SECTION D-D



STANDARD DETAIL 1



**STANDARD DETAIL 2
WALL AND ROOF**



**STANDARD DETAIL 3
FLOOR**

NOTES:-

- DESIGN**
- MINIMUM COVER TO THE TOP OF THE STRUCTURE SHALL BE 600mm.
 - PRECAST CONCRETE UNITS ARE THE PREFERRED METHOD OF CONSTRUCTION, THESE SHALL BE DESIGNED IN ACCORDANCE WITH THE EUROCODES BY A CHARTERED ENGINEER WITH PREVIOUS STRUCTURAL DESIGN EXPERIENCE OF NATIONAL ROAD STRUCTURES.
 - ALL STRUCTURAL ELEMENTS SHALL BE DESIGNED IN ACCORDANCE WITH THE RELEVANT TII PUBLICATIONS AND THE EUROCODES INCORPORATING THE IRISH NATIONAL ANNEXES. FURTHER DETAILS OF THE RELEVANT STANDARDS CAN BE FOUND IN GE-POL-01008.
 - TRAFFIC LOADING SHALL BE IN ACCORDANCE WITH IS EN 1991-2 AND PD 6694-1. THE STRUCTURE SHALL BE DESIGNED FOR THE APPROPRIATE LMS VEHICLES IN ACCORDANCE WITH GE-POL-01008.
 - HYDROSTATIC PRESSURES SHALL BE CONSIDERED IN THE DESIGN, WHERE RELEVANT, A LONGITUDINAL SECTION WILL BE REQUIRED SHOWING THE EXISTING WATER-TABLE LEVEL, DETERMINED BY TRIAL HOLES OR BORE-HOLES, THE DEPTH TO BEDROCK AND A DESCRIPTION OF THE OVER BURDEN AT THE LOCATION OF THE PROPOSED UNDERPASS.
 - PRIOR TO ANY PLANNING APPLICATION, A TECHNICAL ACCEPTANCE REPORT IN ACCORDANCE WITH DN-STR-03001 SHALL BE SUBMITTED TO TII FOR APPROVAL.
 - PRE-CAST CONCRETE SHALL BE GRADE C40/50 (AS A MINIMUM) IN ACCORDANCE WITH IS EN 206 AND DN-STR-03012.
 - ALL CONCRETE SHALL BE SPECIFIED IN ACCORDANCE WITH TII PUBLICATION SERIES 1700.
 - DRIP CHECKS SHALL BE PROVIDED TO THE TOP OF ALL RETAINING WALL STRUCTURES.
 - ALL BLINDING CONCRETE SHALL BE ST2 IN ACCORDANCE WITH IS EN 206.
 - ALL EXPOSED ARRISSES OF STRUCTURAL CONCRETE SHALL BE FINISHED WITH A MINIMUM 25 MILLIMETRES X 25 MILLIMETRES CHAMFER.
 - NO GABIONS ARE PERMITTED AS PART OF ANY EARTH RETENTION SYSTEM.

- DURABILITY:**
- THE MINIMUM COVER FOR DURABILITY TO REINFORCEMENT IN CONCRETE SHALL BE IN ACCORDANCE WITH DN-STR-03012.
 - WATERPROOFING TO THE STRUCTURE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF DN-STR-03012. WHERE SPRAY APPLIED BRIDGE DECK WATERPROOFING IS REQUIRED, IT SHALL BE APPLIED IN ACCORDANCE WITH THE REQUIREMENTS OF DN-STR-03009.
 - WATERPROOFING TO BE APPLIED TO THE TOP SURFACE OF THE BOX AND THE TOP OF THE ADJOINING VERTICAL EXTERNAL SURFACE TO A LEVEL OF 200MM BELOW THE SOFFIT OF THE TOP SLAB.
 - THE UPPER SURFACE OF THE BOTTOM SLAB SHALL BE WATERPROOFED WITH A BRIDGE DECK WATERPROOFING SYSTEM.
 - ALL EXPOSED CONCRETE SHALL BE IMPREGNATED WITH A HYDROPHOBIC IMPREGNATION SYSTEM IN ACCORDANCE WITH TII PUBLICATION SERIES 1700.
 - ALL BURIED CONCRETE FACES OF STRUCTURES NOT REQUIRING BRIDGE DECK WATERPROOFING SHALL BE TREATED WITH TWO COATS OF EPOXY RESIN WATERPROOFING FOR BELOW GROUND CONCRETE IN ACCORDANCE WITH DN-STR-03012.

- DRAINAGE:**
- DRAINAGE OF THE STRUCTURE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF DN-STR-03012 AND SERIES 500 OF TII PUBLICATIONS. DETAILS OF THE MANAGEMENT OF STORM WATER, COLLECTION OF EFFLUENTS AND PREVENTION OF GROUNDWATER POLLUTION SHALL BE PROVIDED IN THE TECHNICAL ACCEPTANCE REPORT.
 - A LOW POINT WITHIN THE STRUCTURE SHALL BE AVOIDED SO THE STRUCTURE IS FREE DRAINING, WHERE POSSIBLE, DRAINAGE OF THE ACCESS TRACK SHALL INCORPORATE A POSITIVE DRAINAGE SYSTEM, ONLY WHERE NO ALTERNATIVE IS AVAILABLE, A SUMP AND PUMPING SHOULD BE CONSIDERED, THIS SHALL BE DETAILED IN THE TECHNICAL ACCEPTANCE REPORT.
 - A BACK OF WALL DRAINAGE SYSTEM SHALL BE PROVIDED TO ALL STRUCTURES REGARDLESS OF WATER TABLE LEVEL, FLOW THROUGH THE STRUCTURE OR DESIGN ASSUMPTIONS WITH REGARD TO HYDROSTATIC PRESSURES.

- VEHICLE RESTRAINT SYSTEM (VRS), DN-REQ-03034 REQUIREMENTS:**
- THE VEHICLE RESTRAINT SYSTEM PROVIDED SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF DN-REQ-03034 FOR THE APPROACH/DEPARTURE LENGTHS, WORKING WIDTHS ETC. VISIBILITY REQUIREMENTS SHALL BE IN ACCORDANCE WITH DN-REQ-03031.
 - THE VRS SHALL BE IN ACCORDANCE WITH TII PUBLICATION SERIES 400.
 - PEDESTRIAN PROTECTION TO THE TOP OF THE HEADWALL SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF DN-STR-03011.

- JOINTS BETWEEN PRECAST UNITS:**
- JOINTS BETWEEN PRE-CAST UNITS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF DN-STR-03012.

- EXECUTION:**
- WHEN WORKING ON A LIVE CARRIAGEWAY, PRIOR TO ANY WORKS TAKING PLACE ON SITE, A ROAD OPENING LICENSE WILL BE REQUIRED FROM THE RELEVANT LOCAL AUTHORITY.
 - PRIOR TO ANY EXCAVATION WORKS TAKING PLACE, EXISTING SERVICES ALONG THE ROAD WILL NEED TO BE IDENTIFIED AND APPROPRIATELY PROTECTED.
 - THE CONSTRUCTION SEQUENCE SHALL BE ADDRESSED WITHIN THE TECHNICAL ACCEPTANCE REPORT ON A CASE BY CASE BASIS. DETAILS OF THE TRAFFIC MANAGEMENT PROPOSED SHALL ALSO BE ADDRESSED WITHIN THE TECHNICAL ACCEPTANCE REPORT.
 - MATERIAL TESTING SHALL COMPLY WITH THE REQUIREMENTS OF TII PUBLICATION SERIES 100.

- TREATMENT OF SLAB THROUGH THE BOX:**
- THE FINISH TO THE TOP OF THE BASE SLAB SHALL BE PROTECTED WITH BRIDGE DECK WATERPROOFING AND SHALL BE DOUBLE SURFACE DRESSED IN ACCORDANCE WITH TII PUBLICATION SERIES 900, CLAUSE 919.

- BACKFILL REQUIREMENTS:**
- BACKFILLING OF EXCAVATIONS SHALL BE CARRIED OUT AS QUICKLY AS POSSIBLE AFTER COMPLETION OF THE WORK FOR WHICH THE EXCAVATION IS REQUIRED, IN COMPLIANCE WITH THE APPROPRIATE CLAUSES IN TII PUBLICATION SERIES 500, 600, 1200, 1300 AND 1400.
 - PRIOR TO DESIGN BLINDING CONCRETE AT THE DESIGN FOUNDATION LEVEL, OR IMMEDIATELY PRIOR TO FILLING THE EXCAVATION WHERE NO BLINDING LAYER IS REQUIRED, THE FORMATION SHALL BE INVESTIGATED BY A CHARTERED ENGINEER WITH SUITABLE GEOTECHNICAL DESIGN EXPERIENCE (SHEAR VALUE, DYNAMIC PROBE OR PLATE BEARING TEST, AS APPROPRIATE) TO CONFIRM THAT THE FORMATION STRENGTH MEETS THE DESIGN REQUIREMENTS.
 - FILL TO STRUCTURES SHALL COMPRISE CLASS 6N AND/OR CLASS 6P IN ACCORDANCE WITH TII PUBLICATION SERIES 600, SPECIFIED FILL MATERIAL TO STRUCTURES SHALL BE DEPOSITED AND COMPACTED IN ACCORDANCE WITH NRA MCDRW SERIES 600, SUB-CLAUSE 610.
 - CONSTRUCTION OF FILL MATERIAL REQUIRING END PRODUCT COMPACTION SHALL BE DEPOSITED IN LAYERS NOT EXCEEDING 250MM UN-COMPACTED THICKNESS IN LAYERS IN ACCORDANCE WITH TII PUBLICATIONS SERIES 600, SUB-CLAUSE 608, FILL MATERIAL SHALL BE COMPACTED IN ACCORDANCE WITH TII PUBLICATION SERIES 600, SUB-CLAUSE 612.

- ROAD REINSTATEMENT:**
- REINSTATEMENT OF THE ROAD SHALL BE IN ACCORDANCE WITH THE TII PUBLICATIONS, PAVEMENT DESIGN AND MAINTENANCE AND THE CONDITIONS OF THE ROAD OPENING LICENSE, PROPOSALS FOR REINSTATEMENT SHALL BE APPROVED BY THE LOCAL AUTHORITY PRIOR TO ANY WORKS TAKING PLACE.

- ROAD REINSTATEMENT:**
- STAGE 2 AND STAGE 3 ROAD SAFETY AUDITS WILL BE REQUIRED AT THE LOCATION OF THE NEW STRUCTURE IN ACCORDANCE WITH THE REQUIREMENTS OF GE-STY-01024.

- HEALTH AND SAFETY:**
- ALL DUTIES FOR DESIGN AND CONSTRUCTION INCLUDING, BUT NOT LIMITED TO PSDP, PSCS AND PRODUCTION OF RISK ASSESSMENTS SHALL BE IN ACCORDANCE WITH THE CURRENT SAFETY, HEALTH AND WELFARE AT WORK (CONSTRUCTION) REGULATIONS.



SPECIAL STRUCTURES
ACCESS UNDERPASS

ACTIVITY		PUBLICATION TITLE						
STREAM		HISTORICAL REFERENCE	DOCUMENTATION SET	PUBLICATION DATE	PUBLICATION NUMBER			
SHEET		ACTIVITY	STREAM	DRAWING NUMBER				
STANDARD CONSTRUCTION DETAILS (SCD)		A3	RCD/2500/3	STANDARD	JUNE 2014	CC	SCD	02503