8180 Permanent Sediment Control Structures

REVISION 25/08/2025

8180.1 Introduction

This supplementary specification refers to the construction of permanent sediment control structures as detailed on the project Drawings.

Temporary sediment control structures required for the management of erosion and sediment control during construction are not deemed to be covered by this supplementary specification, however if these temporary structures become permanent then they shall be required to comply with this specification.

For the following permanent measures refer to the associated Supplementary Specification or referenced document;

- Bioretention Basins – MRC Supplementary Specification 8150 Bioretention Systems
- Gross pollutant Traps (GPT's) – MRC Supplementary Specification 8170 Gross pollutant Traps
- MRTS03 – Permanent erosion measures which apply to the provision of drainage structures, retaining structures, and embankment slope protection, examples such as gabions, rock mattress, bridge abutment protection, concrete lined drains, grouted rock pitching, and rock protection are covered in this specification.

8180.2 Referenced Documents

This supplementary specification shall be read in conjunction with the following:

- MRS01 *"Introduction to Specifications"*;
- MRTS01 *"Introduction to Technical Specifications"*;
- MRS03 and MRTS03 *"Drainage, Retaining Structures and Protective Treatments"*;
- MRS04 and MRTS04 *"General Earthworks";*
- MRS16 and MRTS16 *"General Requirements Landscape and Revegetation Works";*
- MRS51 and MRTS51 *"Environmental Management";*
- MRS52 and MRTS52 *"Erosion and Sediment Control";*
- MRC Planning Scheme Policy (PSP) *"Healthy Waters";*
- MRC Standard Drawings A3-06822 – A3-06827 *"Sediment Basins";*
- MRC Supplementary Specification 8300 *"Landscape and Horticultural Treatment";*
- MRC Supplementary Specification 8317 "*Landscape and Horticultural Treatment Maintenance Period";*
- IECA Australasia Best Practice Erosion and Sediment Control document "Book 4 – Design Fact Sheets";
- IECA Australasia Best Practice Erosion and Sediment Control document "Book 5 – Field Guides";
- The project Drawings; and
- The manufacturer's specifications, as appropriate.

8180.3 Description of Work Items

Work items incorporated by this supplementary specification are identified in Section 8180.6 and 8180.7 with individual activities/tasks for measurement and payment sourced from the Bill of Quantities and listed in MRC Supplementary Specification Annexure 8180_1 Permanent Sediment Control Structures Section 1

8180.4 Quality System Requirements

8180.4.1 Std test Methods (Testing Regime)

The following minimum testing regime applies to this specification:

Civil works activity associated with laying pipes, backfilling and protective measures of drainage structures shall be tested as per the relevant section/s of MRTS03 - Drainage, Retaining Structures and Protective Treatment.

Civil works activities associated with excavation and/or filling shall be tested as per MRTS04 – General Earthworks unless otherwise approved by the Superintendent.

Concrete works shall be tested as required by MRTS70 - Concrete unless otherwise approved by the Superintendent.

8180.4.2 Hold Points, Witness Points, and Milestones

The following table represents the minimum inspection requirements for this specification;

Activity	Inspection Type	When	Reference
Construction Procedure and other preliminary documentation as required by Clause 8170.5	Milestone	4 weeks prior to works commencing	8180.5
Construction			**8180.6**
Inspection of delivered items	Hold Point	At delivery time for each item.	8180.6.1.1
Final location and alignment of permanent sediment structures	Hold Point	Prior to excavation commencing	8180.6.1.2
Clearing extremities	Hold Point	After final location siting of structures	8180.6.1.2
Stockpiling of topsoil for reuse	Witness Point	During clearing and grubbing prior to excavation	8180.6.1.3
Bottom of excavation inspected for unsuitable material	Hold Point	At the completion of excavation and compacting of the excavated floor	8180.6.1.3
Inspection of excavated floor prior to works continuing	Hold Point	After compaction and trimming to grade of excavated floor	8180.6.1.5
Submission of procedure where groundwater or unsuitable material has	Hold Point	Prior to excavated floor stability works	8180.6.1.5

been encountered (as required)			
Excavated floor compliant, all test results submitted and compliant, alternative floor and bedding installed and approved by RPEQ Consultant	Hold Point	Prior to installing approval to proceed with installation of GPT	8180.6.1.5
Concrete prepour inspection (as applicable)	Hold Point	Prior to pouring concrete	8180.6.1.6
Concrete curing process (as applicable)	Witness Point	Immediately after concrete pour initial set	8180.6.1.6
Approval to strip formwork (as applicable)	Hold Point	72 hours after pouring	8180.6.1.6
Joints in concrete works	Witness Point	After removal of formwork	8180.6.1.6
Rip Rap installation (as applicable)	Hold Point	After laying and installing approved rock and liner	8180.6.1.7
Earthworks for Permanent Erosion and Sediment Control Basins			**8180.6.2.1**
Basin floor material (impermeable clay layer or installed liner)	Hold Point	At completion of earthworks prior to protective measures commencing	
Carry out ovality test on low flow pipe after compaction of bunds and weir earthworks	Hold Point	At completion of compaction of bunds and weir earthworks, test result submitted for approval	
Compliance of earthworks to specifications including inspections and testing	Hold Point	At completion of earthworks prior to protection works commencing	
Earthworks to basin and structures	Witness Point	At completion of works and submission of all test results and geometric survey results	
Protection works to stabilise exposed surfaces as per specification requirements	Witness Point	During and completion of protection works for compliance to specifications and design drawings	
Inlets, Spillways and Low Flow Outlets for Sedimentation Control Basins			**8180.6.2.2**
Set out of basin and associated infrastructure	Hold Point	Prior to earthworks commencing	
Inlet channels, outlet spillways constructed and protected as per specifications	Hold Point	During and at completion of protection works	
Geometrics for channels	Hold Point	At completion of works on	

and spillways conform to design drawings		channels and spillway	
Supply and installation of low flow pipe as per design drawings and specifications	Witness Point	During construction works installing low flow pipe	
Cleaning and Inspection of Sediment Control Structures			**8180.6.2.3**
Submission of inspection and maintenance regime	Milestone	4 weeks prior to works commencing	
Inspection of sediment structure during works and prior to "On Maintenance"	Hold Point	At completion of all works prior to "on maintenance" inspection	
Supply and Installation of Basin Inlet Infrastructure			**8180.6.2.4**
Inlet infrastructure installation (dissipation of flows, constructed forebay)	Hold Point	During and at completion of works for compliance to relevant specification requirements	
Supply and Installation of Basin Outlet Pit and Overflow Mechanism (as required)			**8180.6.2.5**
Layout of outlet basin or outlet structure	Witness Point	During and at completion of works for compliance to design and relevant specifications	
Test results and inspections	Hold Point	As required by relevant specification for the specific structure	
Installation of pit, outlet pipe, and components	Hold Point	During and at completion of installation works	
High flow bypass installation (as required)	Witness Point	During installation works and at completion of works including landscaping	
Installation of decanting or skimming components (as required)	Hold Point	After installation confirming compliance to design drawings	
Concrete Weir at Sediment Basin			**8180.6.2.6**
Weir geometrics and compaction testing	Hold Point	After shaping and compacting weir, bunds, and spillway prior to concrete works commencing	
Excavation of spillway to shape and grade	Witness Point	Prior to installation of rip rap	
Inspection of prepours and approvals to strip formwork	Hold Point	During concreting process	
Rip rap installation	Hold Point	At completion of rip rap	

		installation in spillway	
Supply and Installation of Precast Concrete Cover			**8180.6.2.7**
Placing of outlet pit lid, checking dimensions and type including grated inlet of debris screen	Witness Point	During lifting in place and once fixed in place	
Structural type of lid checked for trafficability as required	Witness Point	At delivery and when in place	
Supply and Installation of Trash Racks and Debris Screens			**8180.6.2.8**
Access to trash rack, approval by Superintendent	Hold Point	Prior to installation works	
Inspection of structure for damage	Hold Point	At delivery and prior to installation	
Dimension check prior to fixing system	Hold Point	Prior to fixing in place	
Fixing in place including sealants/protective coatings	Hold Point	Completion of installation process	
Supply and Installation of Cellular Confinement System			**8180.6.2.9**
Alternative material proposal to cellular confinement system	Hold Point	Prior to requirement for protection of berm, swale, of exposed drain	
Correct laying of cellular confinement system	Witness Point	During laying operations of cellular confinement system	
Compliance inspection of cellular confinement system	Hold Point	At completion of works in laying, backfilling, and vegetation installation	
Post Construction			**8180.7**
"As Constructed" documentation	Hold Point	4 weeks prior to practical completion being requested.	8180.7.1
Compliance of sediment control structure/s to design drawings and documentation	Hold Point	At completion of works	8180.7.2

8180.4.3 Construction Tolerances

Unless otherwise approved by the Superintendent the following construction tolerances shall apply to this Specification.

The construction activity outcome shall not depart from the widths, lengths, heights, and shapes specified by the relevant specifications as applies to this specification;

- Concrete tolerances in accordance with MRTS70 Concrete.
- Earthworks tolerances in accordance with MRTS04 General Earthworks.
- Protection device/s tolerances in accordance with MRTS03 Drainage, Retaining Structures and Embankment Slope Protections

Tolerances specific to the project are detailed on the design drawings and documents, and are included in Clause 2 of MRC Supplementary Specification Annexure 8180_1 Permanent Sediment Control Structures

8180.5 Preliminary

The Contractor is to submit the following documentation 4 weeks prior to commencing work or a prestart is conducted:

- Works procedure – all activities and order of construction
- Inspection and maintenance regime of structures
- Environmental Management Plan
- Erosion and Sediment Control Plan (as required for site/s)
- Traffic Management Plan and TGS's (as required)
- All backfill, embankment fill compliance tests
- Statement of material procurement and compliance to design drawings and documents (geofabric, rock and/or precast elements)
- Permits from Government bodies approving the proposed works and the methodology of the works

Other requirements unique to the project will be listed in the MRC Supplementary Specification Annexure 8180_1 Permanent Sediment Control Structures

MILESTONE

8180.5.1 Materials

Supply of all materials to site is the responsibility of the Contractor at their cost, where items are Principal supplied the nominated storage site shall be obtained from MRC Supplementary Specification Annexure 8180_1 Permanent Sediment Control Structures Section 3 and shall be the point of supply.

8180.5.2 Construction Process

Council requires the submission of the contractor's construction process and procedures a minimum 4 weeks prior to works commencing or prestart being conducted, including proposed testing and inspection regimes.

As a minimum the construction procedure will include but not be limited to the following identified work operations and cover the installation activity of preparation, excavation, supply and placement of dissipater structures as detailed on the design drawings and documentation.

MILESTONE

8180.5.3 Permits for Work

The Contractor must ensure applicable permits for the various work activities are completed and approval issued by the statutory body for those works prior to commencing site works, all requirements for submission, completion, and obtaining permits shall be at the Contractors cost.

MILESTONE

8180.6 Construction

This section lays out the works operations with more detail based on specific requirements of this supplementary specification. Some activities may appear to include items which are stated within other specifications, the purpose is to reinforce that requirement specific to this supplementary specification.

8180.6.1 Work Operations

The work operations shall include manufacture, supply, and installation or construction of the permanent sediment control structure and its components, including earthworks and landscaping as may be required by the design drawings and documents.

Work operations incorporated in this item are those included in Clause 2.1.5 of MRS01 "Introduction to Standard Specifications' and the following work scope activities and associated sub activities.

8180.6.1.1 Supply of All Materials

All materials, plant, and labour required to carry out the works under this Specification is to be supplied by the Contractor, where materials are Principal supplied the designated storage site will be the point of supply for the purposes of this Specification.

All items shall be inspected at delivery to site prior to use. Any items which are damaged are not to be used and are to be returned to the supplier.

HOLD POINT

8180.6.1.2 Site Preparation with Superintendent

The location and extremities of the permanent structure/s is to be marked out on site and shall be inspected and approved by the Superintendent prior to earthworks commencing or works continuing dependent on the structure.

HOLD POINT

Where earthworks are required, the Contractor shall mark out all vegetation clearing proposed as shown on the design drawings and documentation with any vegetation identified on the drawings as remaining clearly delineated and isolated for preservation.

HOLD POINT

8180.6.1.3 Earthworks, as required

Structures which require earthworks to be carried out shall be cleared and grubbed as indicated by the design drawings in accordance with MRTS04 and as agreed to by the Superintendent on site. Top soil stripping's shall be stockpiled and reused at the completion of works to rehabilitate and revegetate.

WITNESS POINT

Earthworks shall be carried out to level and grade with dimensional tolerances compliant with the design drawings and documentation requirements.

Excavated floor is to be inspected for areas of unsuitable material and possible groundwater.

If unsuitable material is identified this is to be removed and replaced with approved material as per the instructions of the Superintendent and in accordance with MRTS04.

HOLD POINT

8180.6.1.4 Utilising or Disposing of Surplus Earthworks Material

Excess materials shall be disposed of by the contractor or utilised as per Superintendents instructions. Material stockpiled shall ensure that all Environmental ESC measures are in place and maintained. If disposal offsite is to occur and dependent on volumes materials are to be disposed at regulated waste facilities or at site with current Bulk Earthworks approvals in place. Spoil disposal criteria and methodology as per MRTS 51 and EP175 are to be followed.

8180.6.1.5 Compacting material at Bottom of Excavations

Excavated floor preparation including compaction shall be carried out as per MRTS04 and is to be presented for inspection by the Superintendent with inspections, geotechnical testing and geometric requirements applying unless stated otherwise in MRC Supplementary Specification Annexure 8180_1 Permanent Sediment Control Structures.

HOLD POINT

If groundwater or unsuitable material is present the Contractor shall submit a modified installation procedure endorsed by the GPT's supplier and endorsed by the Contractors RPEQ Engineering Consultant. The contractor is responsible for the dewatering of the site at no cost to the Principal.

HOLD POINT

Approval to proceed with installation shall be granted by the Superintendent upon the receival of compliant test results and/or alternative floor and bedding installation has occurred and approved by the Contractors RPEQ Engineering Consultant.

HOLD POINT

8180.6.1.6 Concrete Pours (as applicable to the structure type)

All concrete works (including formwork and reinforcing) associated with the permanent structure/s shall comply with the design drawings and be carried out in accordance with MRTS70, MRTS71, and the design drawings with inspections, geotechnical testing and geometric requirements applying unless otherwise specified in MRC Supplementary Specification Annexure 8180_1 permanent Sediment Control Structures.

Prior to carrying out concrete works a prepour inspection of formwork and reinforcing is to be carried out. In conjunction with the reinforcing all joints and dowels linking to adjacent section pours, and geofabric and weep holes are to be installed as per the design drawings prior to the respective pours taking place. The Superintendent shall give approval to proceed with the pour.

HOLD POINT

Immediately after the initial set of the concrete, curing shall commence and continue for a minimum of seven days. Plastic sheeting shall not be used as part of the curing process.

WITNESS POINT

Formwork is not to be stripped for 72 hours and loading not to occur for 7 days or as per project plans as approved by the Superintendent.

HOLD POINT

All joints are to be installed and sealed as per the design drawings.

WITNESS POINT

8180.6.1.7 Riprap Protection (as applicable)

Supply of rock materials and its source shall be approved by the Superintendent prior to use, where possible, existing materials shall be utilised as riprap. Riprap works shall comply with the design drawings and to be carried out in accordance with MRTS03 Clause 35.

HOLD POINT

8180.6.2 Carrying out all works to allow the installation of the permanent sediment control structures and materials, as specified on the project Drawings, and to the manufacturer's specifications as required.

8180.6.2.1 (8180) Earthworks for Permanent Erosion and Sediment Control Basins

Upon approval to commence excavation the Contractor shall carry out earthworks as required to the excavated base, batters/bunds, spillways, and swales to the design drawings and/or project documentation profile including grades.

If required by the design drawings and documents lining of the base/floor of the sediment basin shall be carried include the use of liners or an impermeable clay layer.

HOLD POINT

Where low flow outlet pipes are required by the design drawings and documentation these shall be the type and size as documented and installed during earthworks ensuring no ovality deformation, the contractor shall test the outlet pipe as per WSA 02. The contractor shall submit the results of the ovality test to the Superintendent for approval. Where the deflection does not comply, the Contractor shall remove the pipe and install new low flow pipe/s.

HOLD POINT

All earthworks are to be carried out in accordance with MRTS04, including testing, inspections, and geometric tolerances.

HOLD POINT

The finish of the excavated basin and associated earthwork structures shall comply with the design drawings and/or project documentation for the sediment basin system.

WITNESS POINT

The basin, bunds, batters, and high flow swales, and any exposed surfaces shall be stabilised as required by the design drawings and documentation, where rock protection is specified this shall be compliant with MRTS03 Clauses 35, 36, or 37 as applicable, where landscaping is required the Contractor shall ensure the top soil, mulch, and plantings/turf comply with and be installed as required by MRC Supplementary Specification 8300 - Landscaping and Horticultural Treatment in accordance with the design drawings and/or project documentation.

WITNESS POINT

8180.6.2.2 (8181) Inlets, Spillways and Low Flow Outlets for Sedimentation Control Basins

Location of all sedimentation control basins infrastructure shall be surveyed prior to commencing works, the Contractor shall ensure through survey the compliance to the design drawings and documents at the completion of earthworks.

HOLD POINT

At the completion of earthworks, inlet channels and spillways shall have geotextile laid in accordance with the design drawings, the class of geotextile shall be as detailed.

Inlet channels and spillways shall be constructed using rock filled woven galvanized steel mattresses placed on geotextile as required by the design drawings and documents, in the absence of detail MRTS03 shall apply. The thickness gauge of galvanised steel shall be compliant to Clause 37.2 of MRTS03, anchor pickets as per Clause 37.4 of MRTS03, and the rock compliant with Clause 37.3 of MRTS03.

The galvanized steel mattresses shall be filled with approved rock and the steel mattress closed. Care should be taken not to pierce the geofabric, if this occurs the Superintendent shall be notified immediately with the Contractor submitting a rectification plan and agreed to by the Superintendent prior to any further works continuing.

HOLD POINT

The finished infrastructure shape and grades shall be compliant with the design drawings, including the geometrics for the finished levels and grades throughout the structure.

HOLD POINT

During earthworks the contractor shall supply and install the low flow pipe/s as required and shall supply, set up, install, and stabilise all required inlet components for the low flow pipe outlet as per the design drawings and documents. If concrete works are required, this shall be carried out as per MRTS70 with all testing and inspections complying with this specification and the design drawings and documents.

WITNESS POINT

8180.6.2.3 (8183P) Cleaning and Inspection of Sediment Control Structures

As part of the contractors work procedure a maintenance management plan for all sediment control structures covering inspections and maintenance activities during construction and during the "On Maintenance" period. It shall be also written for Council to use as their inspection and maintenance regime after acceptance as a Council asset. This shall be submitted 4 weeks prior to works commencing.

MILESTONE

During the construction period and prior to the acceptance of works to "On Maintenance" the Contractor shall monitor the sediment control structure and maintain the structure/s, the following criteria shall be followed;

a) Sediment basins and associated infrastructure – Inspected periodically for damage and assess sediment accumulation after every major rain event. Typical maintenance of sediment basins will involve but not limited to:
   - Removing sediment when capacity is less than half the storage volume and before the start of the wet season. The Contractor shall install a marker post within the sediment basin to indicate when half the storage area has been filled.
   - Unless otherwise indicated on the design drawings and documents the Contractor shall ensure access to the sediment basin can be gained in all weather.
   - The contractor shall remove sediment to an agreed location by the Superintendent where it can dewater away from drainage lines and natural waterways (ideally upstream of the sediment basin so flows can drain back into it). Once removed sediment is dry it shall be removed and disposed of by the Contractor at no cost to the Principal in accordance with their Environmental Plan.
   - Repair of any erosion on the batters.
   - Removing blockages and repairing erosion or damage of inlets, outlets and bypass structures.
   - Remove weeds (not poison) before they spread and/or set seed.

- For vegetated sediment basins maintain healthy vegetation to ensure the sediment basins are not colonised by weeds.
- Rectify infrastructure damage noted from inspection.

b) Other Sediment Control Structures – Clean and inspect periodically and after every major rain event. Typical maintenance of sediment control structures will involve:
   - Clean out, when accumulated sediment reduces the structure capacity of the control measure to 50% or less, use cleaning methods which will not damage the structure/s.
   - The Contractor shall remove waste/sediment to a nominated site agreed to by the Superintendent in accordance with their approved Environmental Plan.
   - Inspect for damage/defects to structure and rectify notifying the Superintendent of such defects and intended rectification method.
   - Maintaining suitable access to allow maintenance and inspection of the structure/s in all weather conditions.

c) Maintenance works prior to "On Maintenance" inspection - Clean all permanent sedimentation control structures, prior to "On Maintenance" inspection.
   - Within 10 days of the "On Maintenance" inspection the Contractor shall clean out the sediment control structure/s
   - During this 10 day period the Contractor shall also be responsible for removal of any waste/sediment from site as per their Environmental Plan, the site shall be clean and returned to its preconstruction condition prior to the "On Maintenance" inspection.

HOLD POINT

8180.6.2.4 (8184), Supply and Installation of Basin Inlet Infrastructure

The inlet structure of the sediment control basin shall be constructed as required by the design drawings and documents, this may include measures to dissipate flows and prevent scouring, or settle out larger sized sediment. The contractor shall be responsible for all materials, plant, and labour to install such measures when required.

For flow dissipation measures all construction (including testing, inspections, and tolerances) shall comply with MRC Supplementary specification 8207 Dissipater Structures. Where the inlet is designed with a sediment forebay all construction (including testing, inspections, and tolerances) shall comply with MRC Supplementary Specification 8150 Bioretention Systems.

HOLD POINT

8180.6.2.5 (8185), Supply and Installation of Basin Outlet Pit and Overflow Mechanism (as required)

This section refers to where the design drawings and documents require an overflow pit (with riser where required) and outlet pipe as well as mechanisms for dewatering of the basin.

Layout and construction of works shall comply with the design drawings and/or project documentation. All works associated with the construction of the overflow pit and outlet pipe/s shall be carried out in accordance with MRTS03, MRTS04, MRTS70, MRTS71, and AS3610 where MRTS70 does not address specific formwork requirements.

WITNESS POINT

All inspection and testing shall be carried out as required by the relevant specifications.

HOLD POINT

During prepour forming of the overflow pit stubs shall be put in place for the inlet and outlet pipes, alternative drilling of holes after pouring shall only occur with the Superintendents approval.

The outlet to the overflow pipe/s shall have a Tideflex Duckbill Check Valve installed. Consideration to alternatives will only be reviewed where it can be proven the outlet is not susceptible to inundation from tidal influence, rises in water course levels, or flash flooding of the outlet.

The inlet to the pit or riser shall have a trash rack configuration installed/constructed, this shall be as required by the design drawings and documents, if there is a lack of detail the Contractor shall submit a proposal for approval to the Superintendent for approval.

HOLD POINT

As required, the construction of a high flow by-pass drainage system shall comply with the location, levels and grades, and lining materials of the design drawings and documentation including landscaping and vegetation installation.

WITNESS POINT

The outlet design may require decanting or skimming of water from the surface of the basin, this shall be carried out as required by the design drawings and documents, all materials, manufacturing, and installation shall be carried out by the Contractor with levels for decanting or skimming to be as required by the design drawings and documentation. The Superintendent shall inspect the installed system both when constructed and in operation.

HOLD POINT

8180.6.2.6 (8186) Concrete Weir at Sediment Basin

Prior to setting up the weir for concrete pouring the Contractor shall check all earthworks levels, grades of bunding and outlet spillway, and location comply with the design drawings and documents. The compaction of the earthworks shall be tested as required by MRTS04, the results submitted to the Superintendent prior to commencing set up of formwork and reinforcing.

HOLD POINT

The concrete overflow weir is located and constructed as per the design drawings and/or project documentation. Levels and grades comply with the design requirements and tolerances, the structure is to be keyed into the bund walls with any liner extending under the weir structure and down the full length of the spillway and any rip rap protection. The weir spillway floor level shall be lower than the slopes/sides of the weir structure in compliance with the design drawings and documents.

WITNESS POINT

The concrete construction of the weir is to comply with MRTS70, MRTS71, with all inspections and testing applying as per the relevant specification. The contractor shall ensure the Superintendent inspects all prepour setups prior to pouring and approves of the timing of the stripping of formwork after each pour.

HOLD POINT

Rock protection in the form of rip rap shall be installed at the end of the spillway as per the design drawings and documentation as required by Clause 8180.6.1.7 above.

HOLD POINT

8180.6.2.7 (8187) Supply and Installation of Precast Concrete Cover

Where the design drawings show a precast lid fitted to the outlet pit, the Contractor shall supply and install a precast lid of size, thickness, and type to comply including any required sealing or locking mechanisms. The Contractor must make themselves aware the design, manufacture, and supply of this concrete lid may need to allow high water levels to enter the pit through open slotted inlet holes or grated mesh.

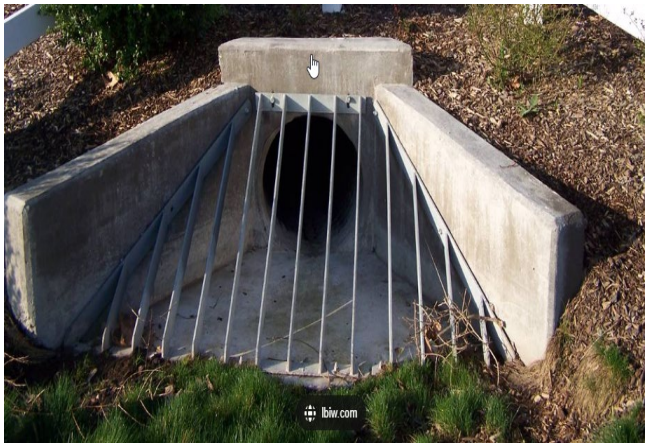
WITNESS POINT

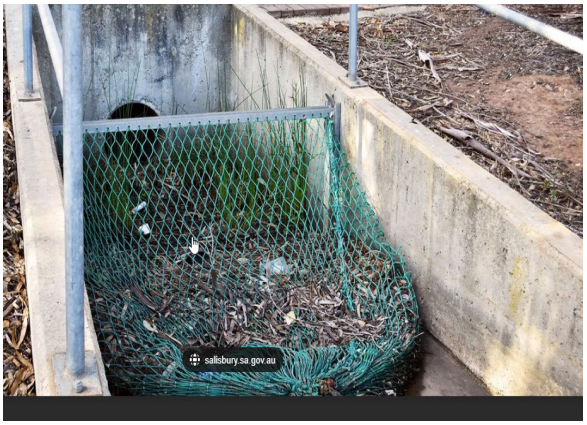
The contractor shall be aware of the location of the pit/lid configuration and where there is a chance of vehicles running over the lid ensure the installed lid is certified as trafficable including any screens/grated openings.

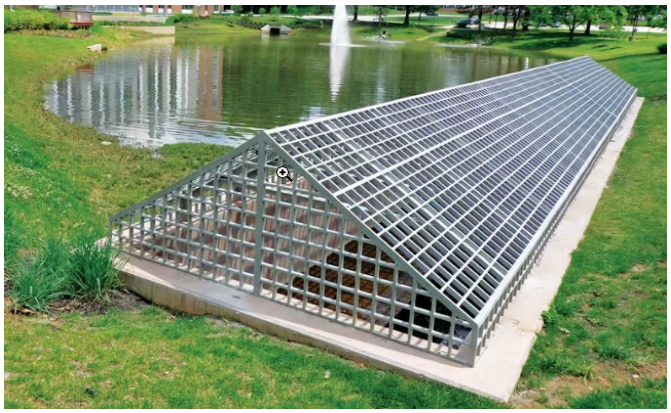
WITNESS POINT

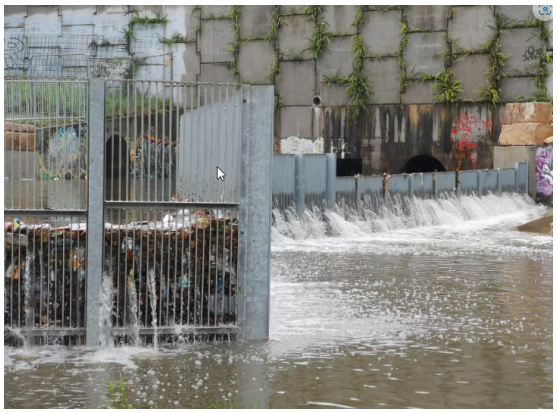
8180.6.2.8 (8188) Supply and Installation of Trash Racks and Debris Screens

For the purpose of this section of the specification the supply of trash racks and debris screens shall be taken to also include fabrication of these structures in design and materials as required by the design drawings and documents and site conditions. These could be installed either at inlet or at outlet to stormwater networks and can be fixed slotted structures or nets, below are examples.









Structures which are inline configurations of a stormwater culvert network are dealt with as a separate type of structure, refer to MRC Supplementary Specification 8170 – Gross Pollutant Traps.

Prior to procuring fabrication of the structures, the Contractor shall ensure and be responsible for site works complying with the design drawings and documentation. All costs associated with fabrication of structures where compliance to the approved drawings for the specific site/s has not been achieved is to be borne by the Contractor.

All trash racks or debris screens shall be manufactured and installed such that they can be easily lifted, removed and cleaned, this shall be considered as part of the fabrication process by inclusion of hooks for lifting.

The Contractor shall ensure the location of such structures shall include vehicle/crane all weather hard standing for ease of access to carry out maintenance activities. Prior to commencing works the Superintendent shall inspect the site and approve of the proposed layout and site works.

HOLD POINT

The fabricated structures shall be supplied to site at the Contractors cost, this includes fittings, sealants, and componentry to install and operate the structures as designed. At the time of delivery, the Contractor shall inspect all structures and materials for damage and compliance to design requirements. Any items which are damaged or do not meet the requirements of the design drawings and documents are not to be used and are to be returned to the supplier.

HOLD POINT

Prior to installing the structure, the Contractor shall lift into place the trash rack or debris screen to verify the fabricated structure conforms with the design plans, the Superintendent shall be present and give approval to proceed with fixing in place.

HOLD POINT

The Contractor is to install the trash racks and/or debris screens as shown on the design drawings and documents, utilising the specified fixings and sealants and coatings where specified. Upon installation the Contractor shall request the Superintendent to inspect the structure/s.

HOLD POINT

8180.6.2.9 (8189) Supply and Installation of Cellular Confinement System

Where a cellular confinement system has been designed for permanent installation, the Contractor shall follow the manufacturers requirements for the site/s on an individual basis, this includes but not limited to the type of cellular confinement and the restraining system to be used.

The Contractor shall supply all materials which includes the cellular confinement system, tendons and restraining clips, anchors, geotextile or polythene sheeting, and infill material in accordance with the design drawings and documentation. Where an alternative has been advised the Contractor shall submit this proposal to the Superintendent for approval prior to works commencing. Alternative materials will only be considered for approval with the manufacturer's recommendation.

HOLD POINT

Generally cellular confinement systems consist of a high-density polyethylene (HDPE) cellular proprietary material which is expanded and stretched down and along the surface to be protected, anchored in place and infill material suited to its application as per the manufacturers requirements.

After excavation, shaping, and compaction of the site geotextile cloth or polyethylene sheeting shall be laid with the cellular confinement matrix expanded, restrained, and anchored on top of the fabric as per the manufacturer's requirements.

WITNESS POINT

Prior to placement of the infill material the contractor shall ensure the excavated inlet and outlet are level with or slightly below the existing ground or finished surface levels, with the side slopes also finished level with the existing ground or finished surface level and extended up the slope/s in accordance with the design drawings and documentation.

The Contractor shall carry out infilling of the cellular matrix ensuring no damage to cellular matrix is caused from the infilling process. As infilling occurs the contractor shall carry out compaction of infill material in accordance with the manufacturer's requirements.

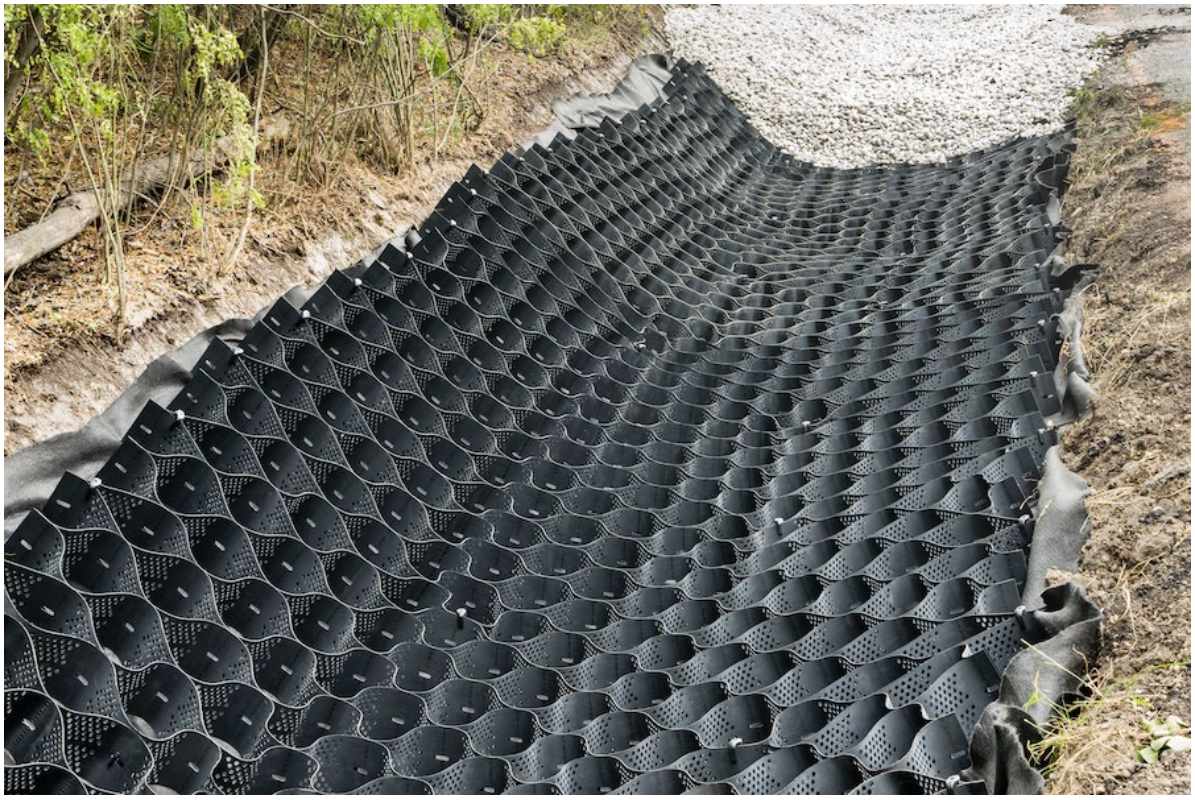
At the completion of installation works the Contractor shall carry out a conjoint inspection with the Superintendent, the following particular items should be noted;

- Ensure cellular grid is not lifted from the ground, all stakes inserted.
- Check for displacement of infill material.
- Ensure surface flow can freely enter the Cellular Confinement System-lined area.
- Check for water scour along the up-slope edges of the matrix.

- Check for successful vegetation cover (if required) along edges of matrix in disturbed areas.

HOLD POINT

Refer to MRC Standard Drawing A3-06744 for installation of a cellular confinement system, the following Photo is an example of this type of Sediment Control Structure.



8180.7 Post Construction

8180.7.1 Collection and Submission of all As Constructed Data Including QA Data Requirements.

The Contractor is responsible for the collection and submission of As-Constructed documentation as required by *MRC D20 - Drawings and Documentation* for approval by the Superintendent 4 weeks prior to requesting a "on maintenance" inspection.

The format of submitted "As Constructed" documentation shall be compliant with MRC Supplementary Specification 8919.

HOLD POINT

8180.7.2 Compliance of Dissipater Structure

At the completion of all works the Contractor is to present the completed permanent sediment control structure/s for inspection by the Superintendent to verify compliance to the design drawings and documents.

HOLD POINT

8180.8 Measurement and Payment

Provision for these works shall be included in the scheduled unit rate for the items show in Clause 8116.3 of this Supplementary Specification and Annexure. No separate payment will be made for the works specified within this Supplementary specification or it's annexure.

Version Control:

Version	Description	Reviewed / Endorsed	Date
1.0	Original issue		14.10.2020
2.0	Review	C. Sultana	25.08.2025