

MITIGATION/ DRAINAGE CONTROLS AVAILABLE

FOR USE ACROSS THE SITE MANAGEMENT TYPE DESCRIPTION OF SUDS DRAINAGE CONTROL METHODS 1) APPLICATION OF 50M BUFFER ZONES TO NATURAL WATERCOURSES WHERE POSSIBLE 2) APPLICATION OF 10M BUFFER ZONES TO MAIN DRAINS WHERE POSSIBLE AVOIDANCE CONTROLS: 3) USING SMALL WORKING AREAS 4) WORKING IN APPROPRIATE WEATHER, AND SUSPENDING CERTAIN WORK ACTIVITIES IN ADVANCE OF FORECASTED WET WEATHER" 1) USE OF UPSTREAM INTERCEPTOR DRAINS AND DOWNSTREAM COLLECTOR DRAINS/ OVERSIZED SWALES, VEE- DRAINS, DIVERSION DRAINS, FLUMES AND CULVERT 2) EROSION AND VELOCITY CONTROL MEASURES SUCH AS: A. SAND BAGS C. FILTER FABRICS D. AND OTHER SIMILAR/EQUIVALENT OR APPROPRIATE

SOURCE CONTROLS: B. OYSTER BAGS FILLED WITH GRAVEL

3)USING SMALL WORKING AREAS 4) SURROUNDING STOCKPILES WITH SILT FENCING 5) WEATHERING OFF/ SEALING PEAT STOCKPILES 1) INTERCEPTOR DRAINS, VEE-DRAINS, OVERSIZED SWALES/ COLLECTOR DRAINS 2) EROSION AND VELOCITY CONTROL MEASURES SUCH AS:

G. AND/ OR OTHER SIMILAR OR EQUIVALENT OR

A. SAND BAGS B. OYSTER BAGS FILLED WITH GRAVEL C. FILTER FABRICS D. STRAW BALES E. FLOW LIMITERS IN-LINE CONTROLS: F. WEIRS OR BAFFLES

APPROPRIATE SYSTEMS

3) SILT FENCES, FILTER FABRICS 4) IN STREAM SEDIMATS 5) COLLECTION SUMPS, TEMPORARY SUMPS, PUMPING SYSTEMS. 6) ATTENUATION LAGOONS 7) SEDIMENT TRAPS, SILTING / SETTLEMENT PONDS

1) TEMPORARY SUMPS 2) ATTENUATION PONDS 3) TEMPORARY STORAGE LAGOONS WATER TREATMENT

4)SEDIMENT TRAPS, STILLING / SETTLEMENT PONDS

5) PROPRIETARY SETTLEMENT SYSTEMS SUCH AS SILT BUSTER, AND / OR OTHER SIMILAR / EQUIVALENT OR APPROPRIATE SYSTEMS
6) SILT DEWATERING BAGS

5) FLOW LIMITERS AND WEIRS

1) LEVEL SPREADERS 2) BUFFERED OUTFALLS OUTFALL CONTROLS: 3) VEGETATION FILTERS 4) SILT DEWATERING BAGS

LEGEND :

PROPOSED TURBINE PROPOSED MET MAST LOCATION HARDSTAND PROPOSED NEW ROADS

> **EXISTING ROADS - UPGRADE PROPOSED** PROPOSED CONSTRUCTION COMPOUND

PEAT PLACEMENT AREAS **EXISTING ROADS - UPGRADE REQUIRED** (NOT PROPOSED)

PROPOSED BORROW PITS

EXISTING STREAM WITH 50m BUFFER ZONE

EXISTING CULVERT

— UPSLOPE INTERCEPTOR DRAIN

PROPOSED NEW WATERCOURSE CROSSING

SWALES / DOWNSLOPE INTERCEPTOR DRAIN STILLING POND - CLEAN WATER

STILLING POND - DIRTY WATER **UPSLOPE INTERCEPTOR DRAIN - CULVERT**

DOWNSLOPE INTERCEPTOR DRAIN - CULVERT -- CHECK DAMS

SILT FENCES

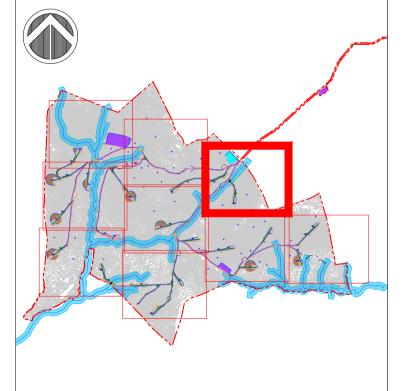
DOUBLE SILT FENCES → DIRECTION OF FLOW

▲ LS LEVEL SPREADER **EXISTING CONTOURS (1m INTERVAL)**

> FOR PLANNING NOT FOR CONSTRUCTION

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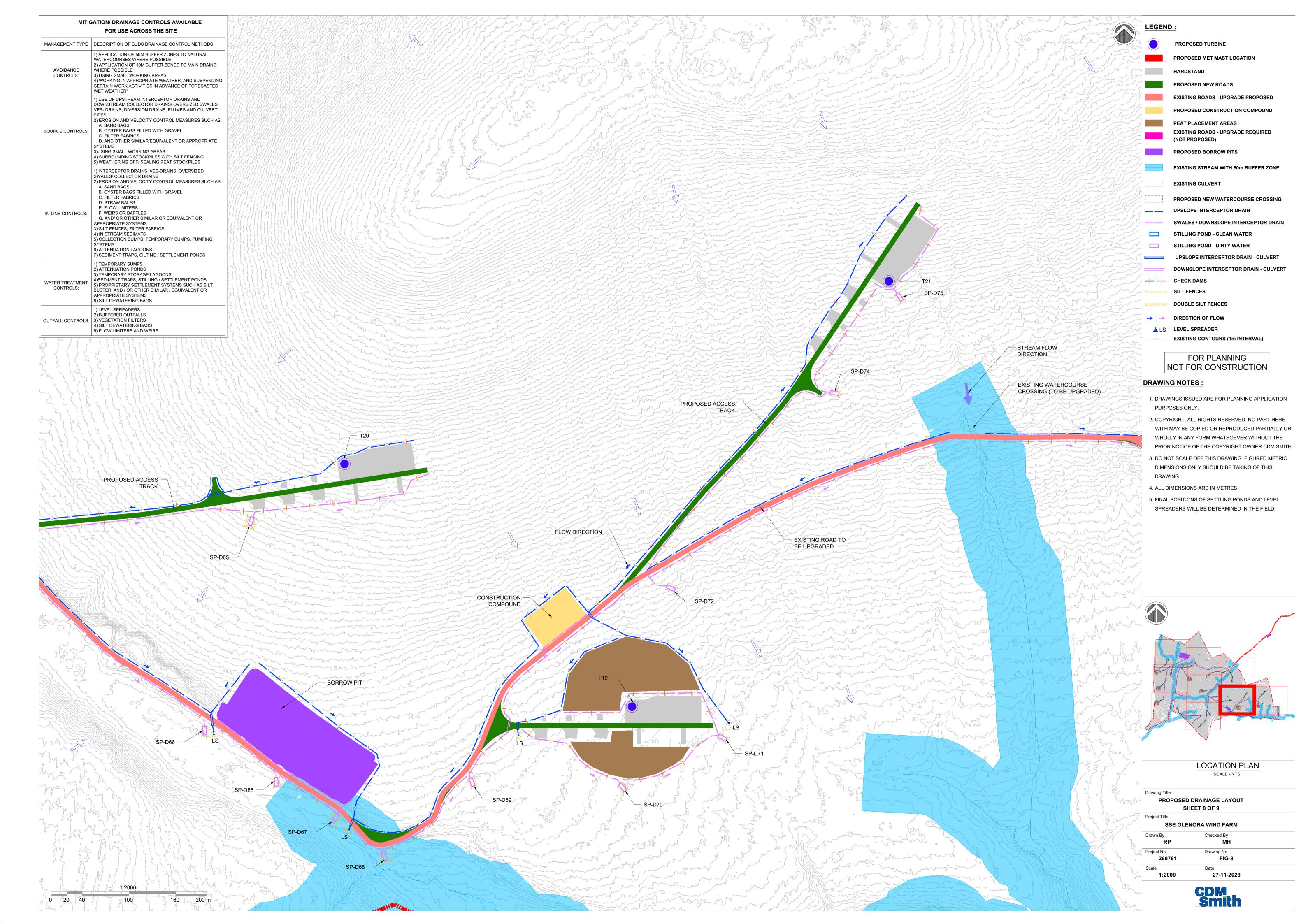


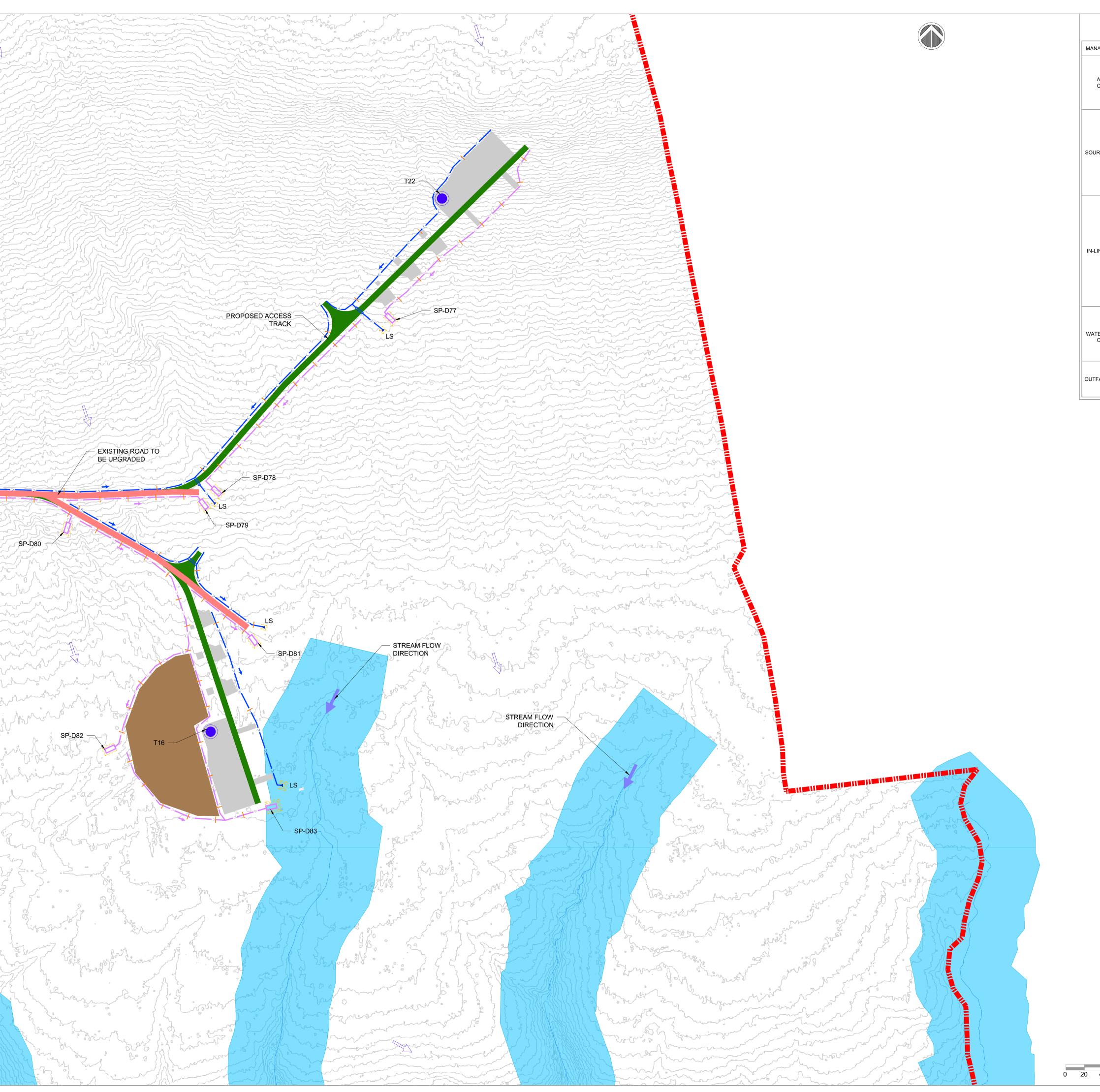
LOCATION PLAN

PROPOSED DRAINAGE LAYOUT SHEET 7 OF 9

SSE GLENORA WIND FARM

260761 FIG-7 27-11-2023





MITIGATION/ DRAINAGE CONTROLS AVAILABLE

FOR USE ACROSS THE SITE		
MANAGEMENT TYPE	DESCRIPTION OF SUDS DRAINAGE CONTROL METHODS	
AVOIDANCE CONTROLS:	APPLICATION OF 50M BUFFER ZONES TO NATURAL WATERCOURSES WHERE POSSIBLE APPLICATION OF 10M BUFFER ZONES TO MAIN DRAINS WHERE POSSIBLE USING SMALL WORKING AREAS WORKING IN APPROPRIATE WEATHER, AND SUSPENDING CERTAIN WORK ACTIVITIES IN ADVANCE OF FORECASTED WET WEATHER"	
SOURCE CONTROLS:	1) USE OF UPSTREAM INTERCEPTOR DRAINS AND DOWNSTREAM COLLECTOR DRAINS/ OVERSIZED SWALES, VEE- DRAINS, DIVERSION DRAINS, FLUMES AND CULVERT PIPES 2) EROSION AND VELOCITY CONTROL MEASURES SUCH AS: A. SAND BAGS B. OYSTER BAGS FILLED WITH GRAVEL C. FILTER FABRICS D. AND OTHER SIMILAR/EQUIVALENT OR APPROPRIATE SYSTEMS 3) USING SMALL WORKING AREAS 4) SURROUNDING STOCKPILES WITH SILT FENCING 5) WEATHERING OFF/ SEALING PEAT STOCKPILES	
IN-LINE CONTROLS:	1) INTERCEPTOR DRAINS, VEE-DRAINS, OVERSIZED SWALES/ COLLECTOR DRAINS 2) EROSION AND VELOCITY CONTROL MEASURES SUCH AS: A. SAND BAGS B. OYSTER BAGS FILLED WITH GRAVEL C. FILTER FABRICS D. STRAW BALES E. FLOW LIMITERS F. WEIRS OR BAFFLES G. AND/ OR OTHER SIMILAR OR EQUIVALENT OR APPROPRIATE SYSTEMS 3) SILT FENCES, FILTER FABRICS 4) IN STREAM SEDIMATS 5) COLLECTION SUMPS, TEMPORARY SUMPS, PUMPING SYSTEMS. 6) ATTENUATION LAGOONS 7) SEDIMENT TRAPS, SILTING / SETTLEMENT PONDS	
WATER TREATMENT CONTROLS:	1) TEMPORARY SUMPS 2) ATTENUATION PONDS 3) TEMPORARY STORAGE LAGOONS 4)SEDIMENT TRAPS, STILLING / SETTLEMENT PONDS 5) PROPRIETARY SETTLEMENT SYSTEMS SUCH AS SILT BUSTER, AND / OR OTHER SIMILAR / EQUIVALENT OR APPROPRIATE SYSTEMS 6) SILT DEWATERING BAGS	
OUTFALL CONTROLS:	1) LEVEL SPREADERS 2) BUFFERED OUTFALLS 3) VEGETATION FILTERS 4) SILT DEWATERING BAGS 5) FLOW LIMITERS AND WEIRS	

1:2000

LEGEND :

LEGEND.

PROPOSED TURBINE

PROPOSED MET MAST LOCATION

HARDSTAND

PROPOSED NEW ROADS

EXISTING ROADS - UPGRADE PROPOSED

PROPOSED CONSTRUCTION COMPOUND

PEAT PLACEMENT AREAS

EXISTING ROADS - UPGRADE REQUIRED (NOT PROPOSED)

PROPOSED BORROW PITS

EXISTING STREAM WITH 50m BUFFER ZONE

EXISTING CULVERT

PROPOSED NEW WATERCOURSE CROSSING

UPSLOPE INTERCEPTOR DRAIN

SWALES / DOWNSLOPE INTERCEPTOR DRAIN

STILLING POND - CLEAN WATER

STILLING POND - DIRTY WATER

UPSLOPE INTERCEPTOR DRAIN - CULVERT

DOWNSLOPE INTERCEPTOR DRAIN - CULVERT

- CHECK DAMS

SILT FENCES

DOUBLE SILT FENCES

▲ LS LEVEL SPREADER

FOR PLANNING NOT FOR CONSTRUCTION

EXISTING CONTOURS (1m INTERVAL)

DRAWING NOTES :

→ DIRECTION OF FLOW

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4. ALL DIMENSIONS ARE IN METRES.

5. FINAL POSITIONS OF SETTLING PONDS AND LEVEL SPREADERS WILL BE DETERMINED IN THE FIELD.

LOCATION PLAN

Drawing Title:

PROPOSED DRAINAGE LAYOUT

SHEET 9 OF 9

Project Title:

SSE GLENORA WIND FARM

 Drawn By
 Checked By

 MH
 MH

 Project No.
 Drawing No.

 260761
 FIG-9

 Scale
 Date

 1:2000
 27-11-2023

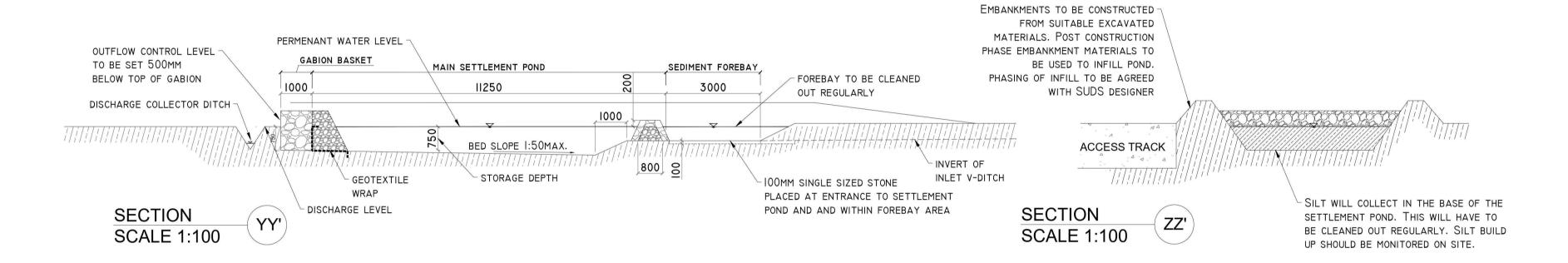
DM Smith

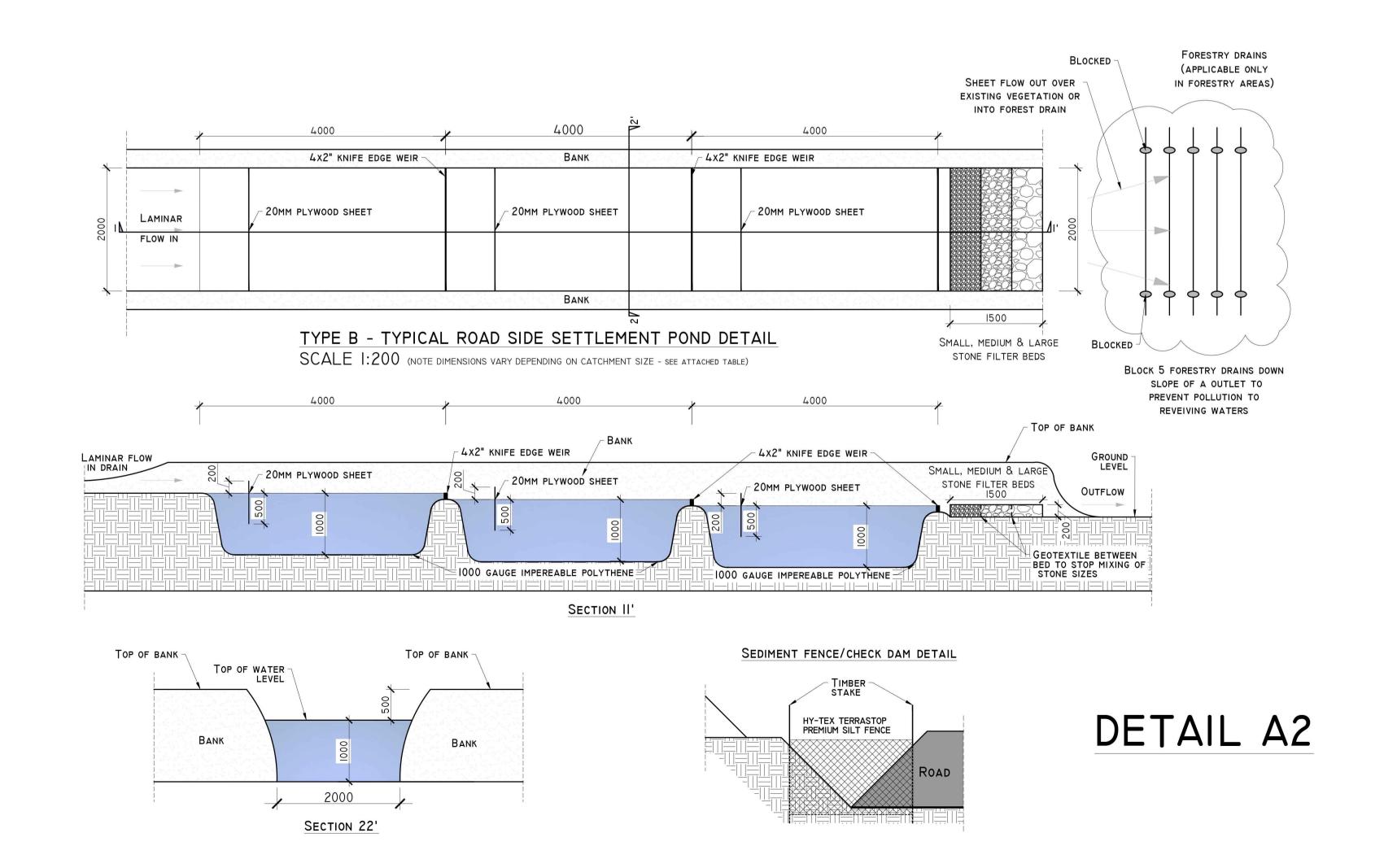
GEOTEXTILE WRAP EMBEDDED INTO EMBANKMENT TO PREVENT PREFERENTIAL FLOW ALONG EDGE OF GABION BASKET FINITIAL STILLING CHECK DAM 7 20-40MM FILTRATION CONSTRUCTED FROM ACCESS TRACK STONE PLACED PRIOR 20440MM CLEAN STONE CORE WITH TO GABIONS 200MM COVER OF 100MM SINGLE SIZE STONE 4 - INLET - DIVERT ROADSIDE DITCH INTO SETTLEMENT POND YY' OVERFLOW DISCHARGE -TO COLLECTOR DITCH EXTEND BOUNDARY BERMS TO PREVENT OVERFLOW SWALE TO BE WIDENED AT ENTRY TO POND ZZ' -100mm single sized stone PLACED AT ENTRANCE TO SETTLEMENT POND AND AND WITHIN FOREBAY AREA TYPE A - TYPICAL ROAD SIDE SETTLEMENT POND DETAIL

SCALE 1:200 (NOTE DIMENSIONS VARY DEPENDING ON CATCHMENT SIZE - SEE ATTACHED TABLE)

DETAIL AI

POND SIZE W [M] X L [M] X D [M]			CATCHMENT SIZE (M2)		
RETURN PERIOD	50 YRS	STORM DURATION	500	1000	2000
6HR RETENTION I	FOR COARSE SILT	6 HRS	2.8 x 9 x l m	4 x 13 x 1 M	5.7 x 18 x 1 M
IIHR RETENTION I	FOR MEDIUM SILT	I2 HRS	3.2 x 10 x 1 M	4.5 x 14 x 1 M	6.4 x 20 x l m
24HR RETENTION	N FOR FINE SILT	24 HRS	3.5 x II x I M	5 x l6 x l м	7 x 22 x l m





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FOR PLANNING NOT FOR CONSTRUCTION

Drawing Title:

DRAINAGE DETAILS - I

Project Title:

SSE GLENORA WIND FARM

Drawn By
MK

Checked By
EM

Project No.
201120

Drawing No.
FIG-10

Scale
NTS

-



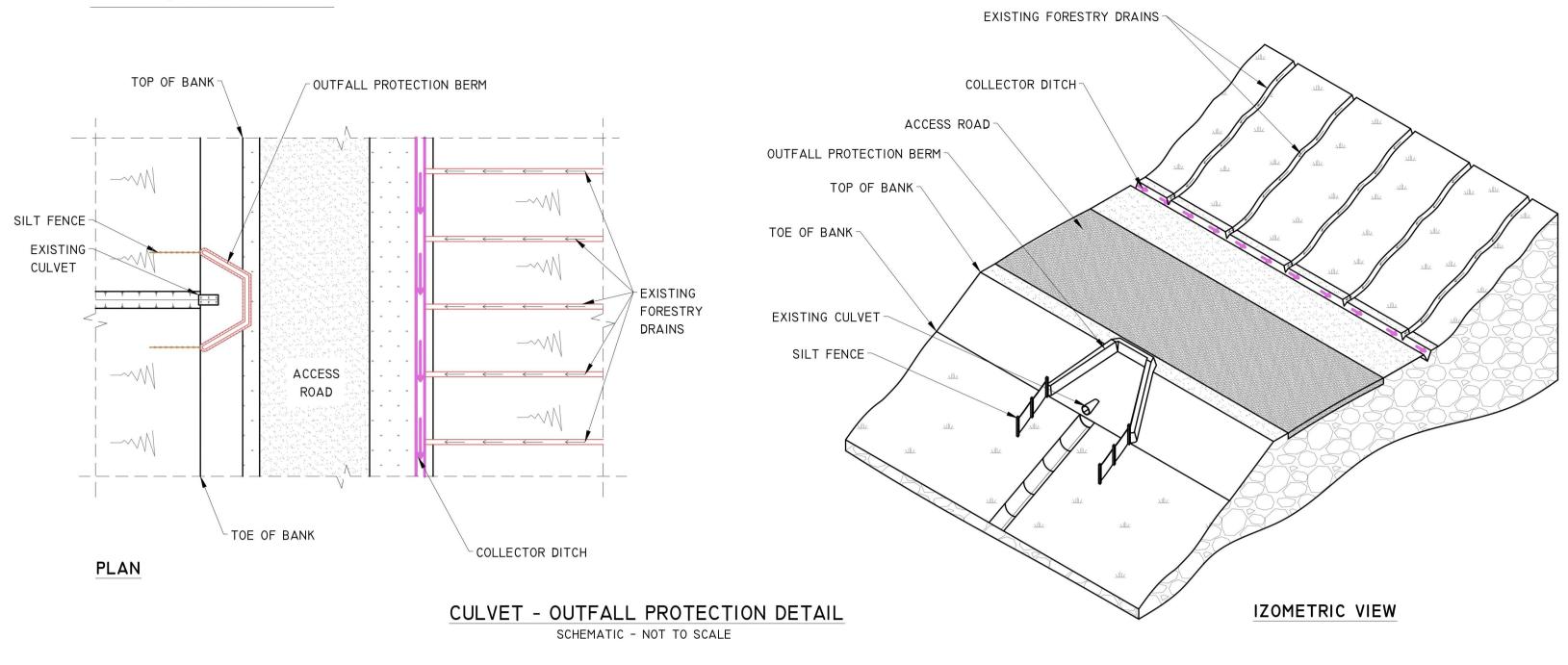
ROAD LEVEL CAPPING MATERIAL/ ROAD CONSTRUCTION REFER TO CLIENT STANDARD DETAIL DRAINAGE PIPE, DIAMETER VARIES FILL MATERIAL TO CL. 503.3 (I) OF THE NRA SPEC. FOR ROADWORKS

'TYPE B' CULVERT - DRAINAGE CROSSING BENEATH EXCAVATED ROAD
SCALE 1:50

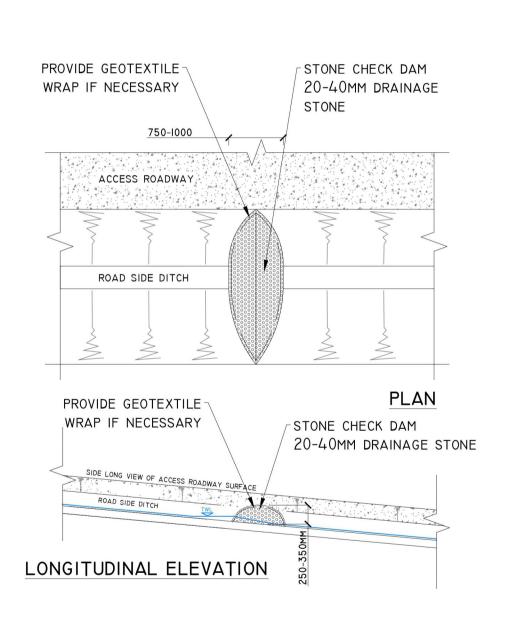
'x' +300 Min.

'x' +600 Max.

DETAIL BI



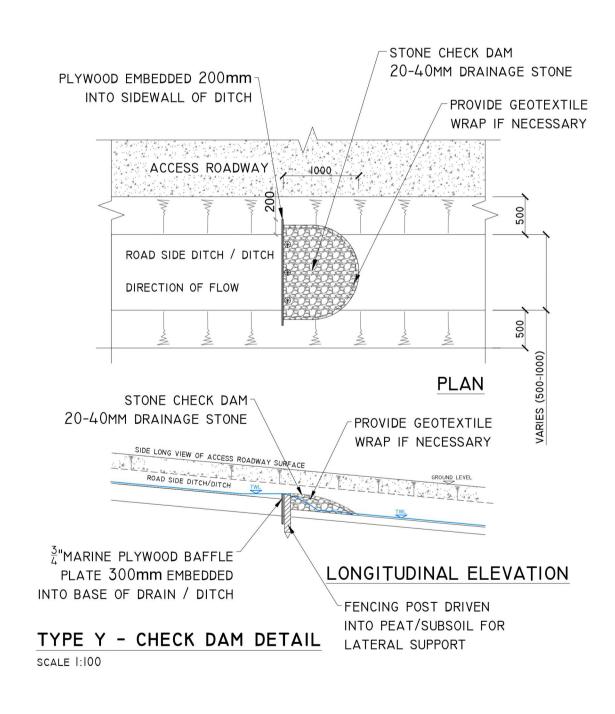
DETAIL C

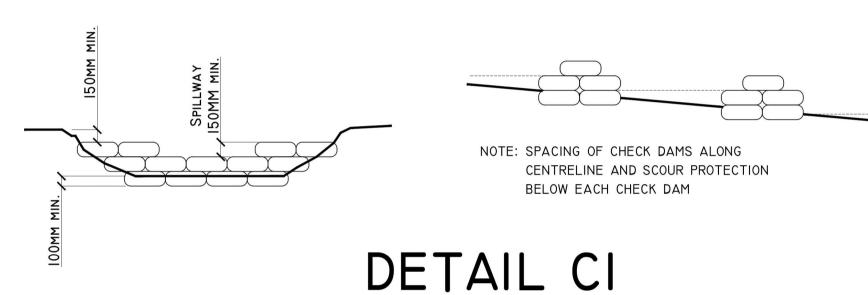


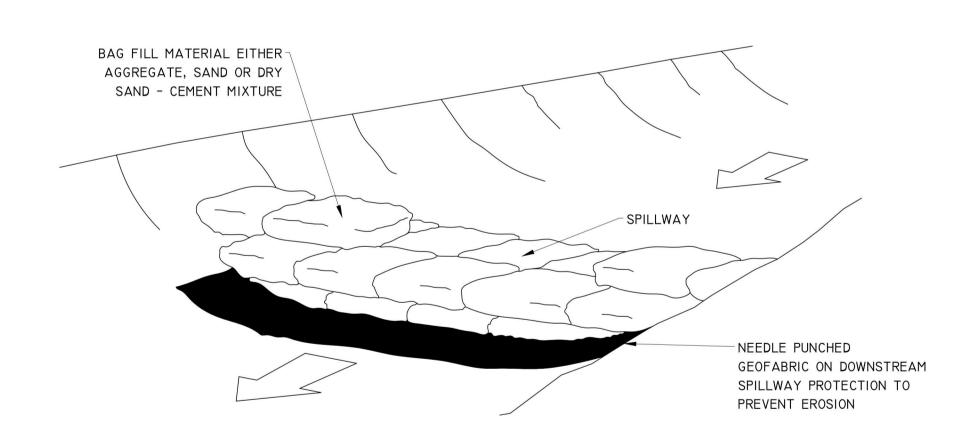
TYPE X - CHECK DAM DETAIL

SCALE 1:50

DETAIL D



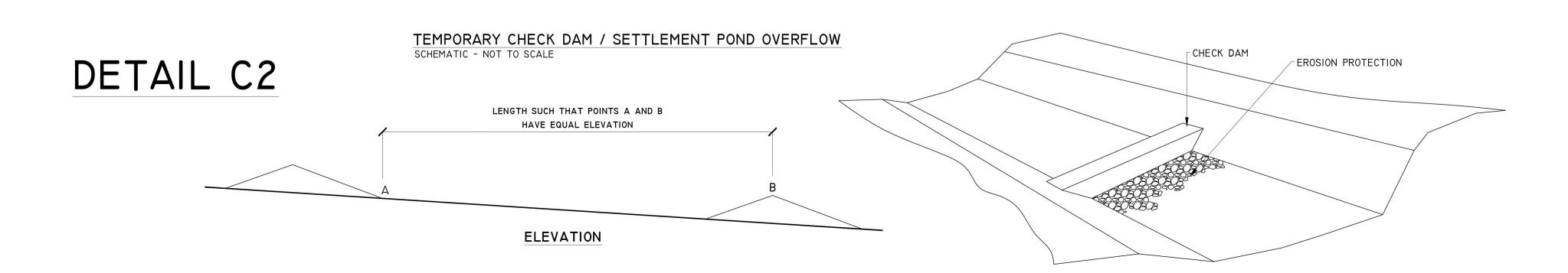




TEMPORARY CHECK DAM / SETTLEMENT POND OVERFLOW

SAND FILLED BAG CONSTRUCTION

SCHEMATIC - NOT TO SCALE



FOR PLANNING NOT FOR CONSTRUCTION

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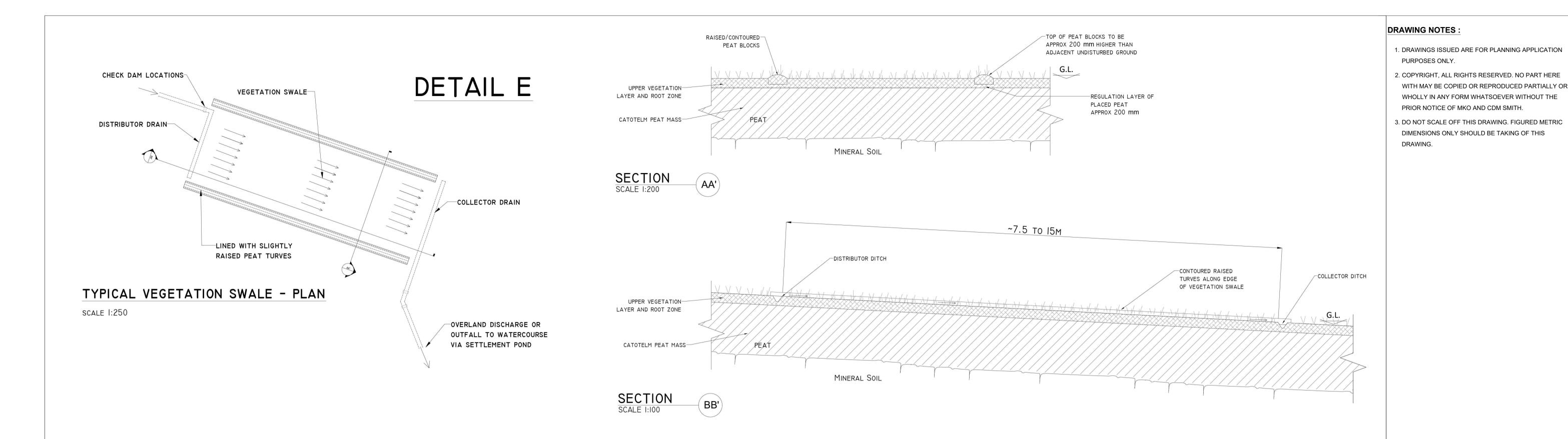
3. DO NOT SCALE OFF THIS DRAWING. FIGURED METRIC

DIMENSIONS ONLY SHOULD BE TAKING OF THIS

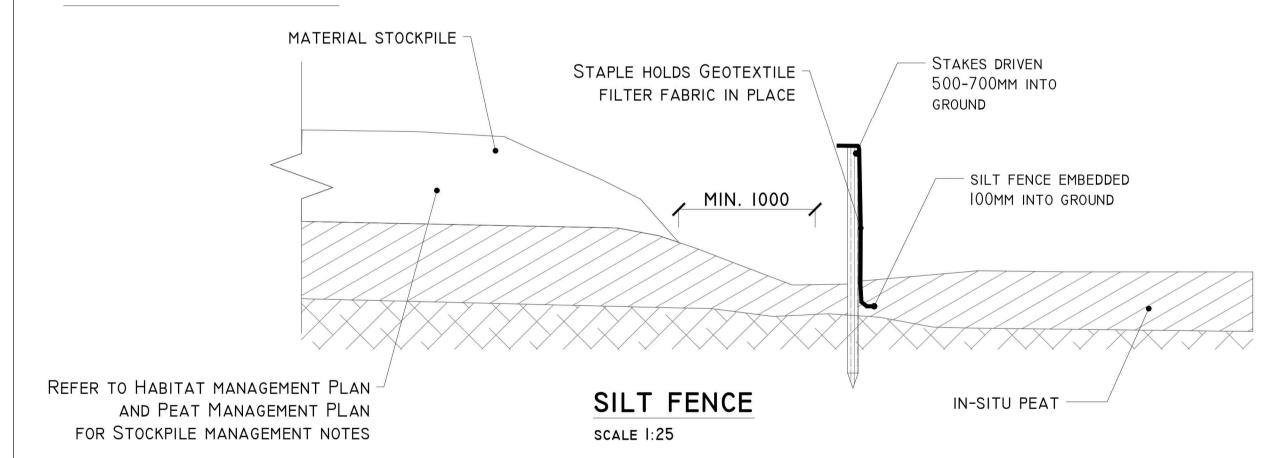
PRIOR NOTICE OF MKO AND CDM SMITH.

Drawing Title:	
DRAINA	AGE DETAILS - II
Project Title:	
SSE GLE	NORA WIND FARM
Drawn By	Checked By
MK	EM
Project No.	Drawing No.
201120	FIG-11
Scale	Date
NTS	_

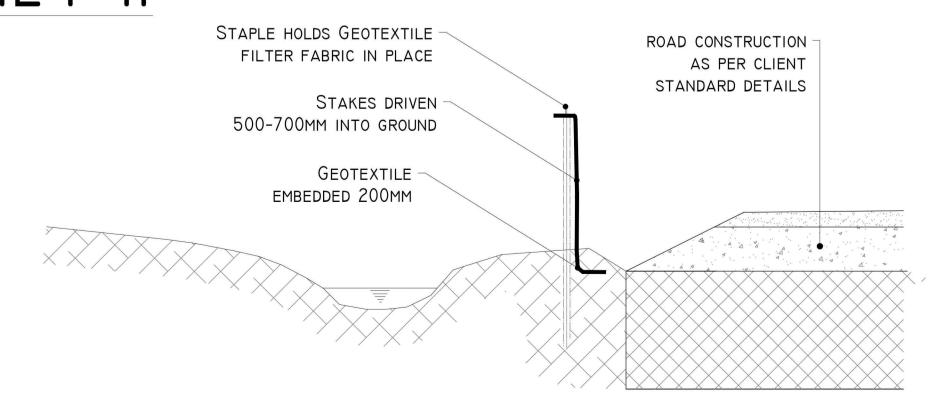




DETAIL F-I

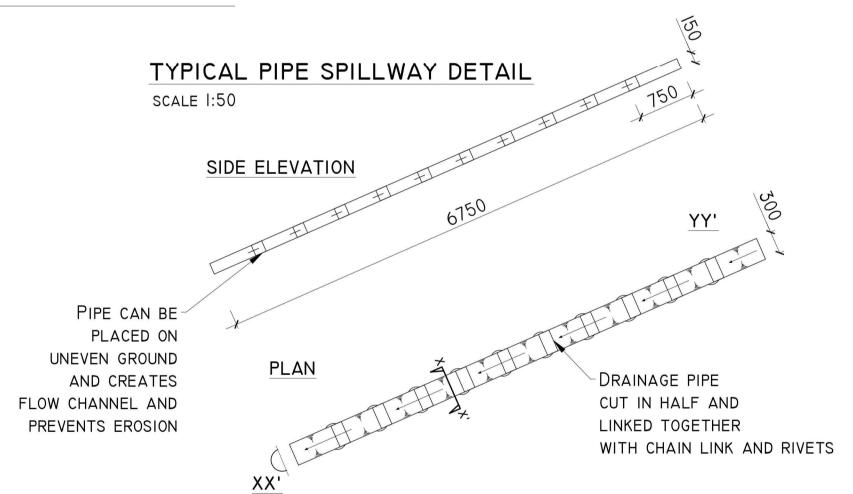


DETAIL F-II

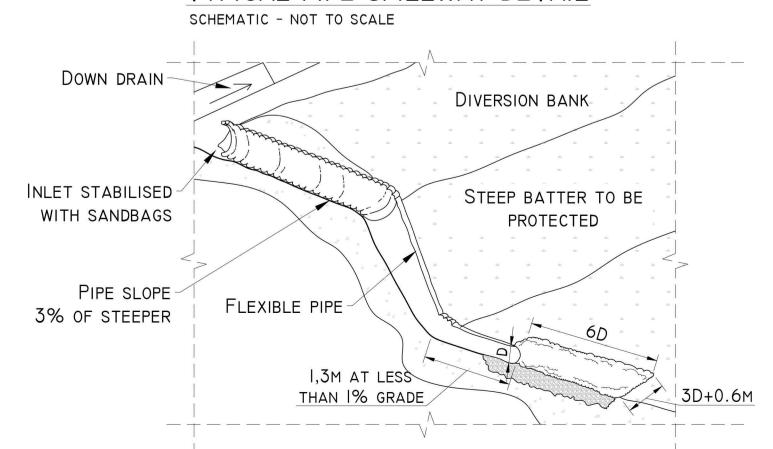


SILT FENCE FOR WATERCOURSE PROTECTION SCALE 1:25

DETAIL G

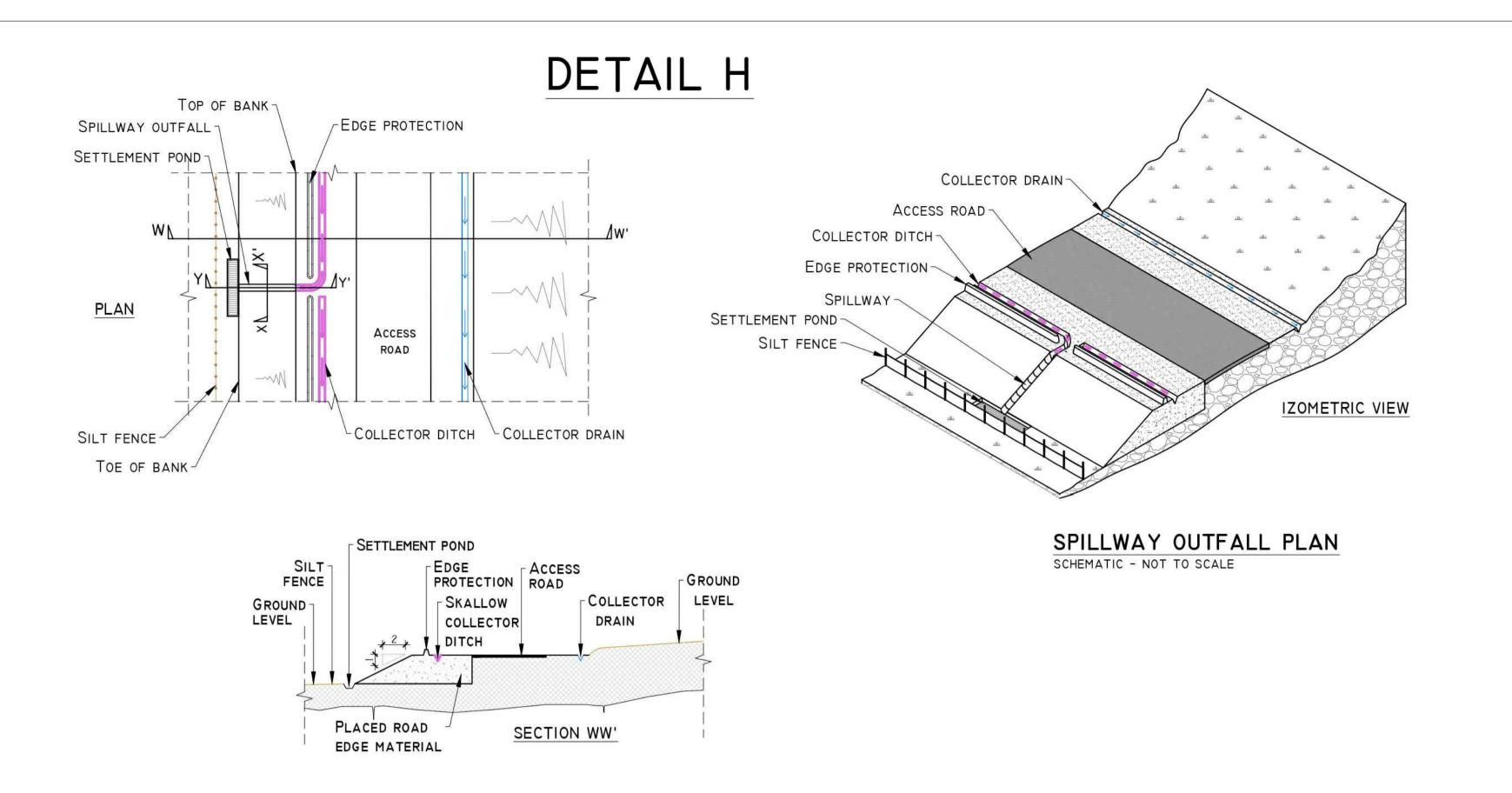


TYPICAL PIPE SPILLWAY DETAIL

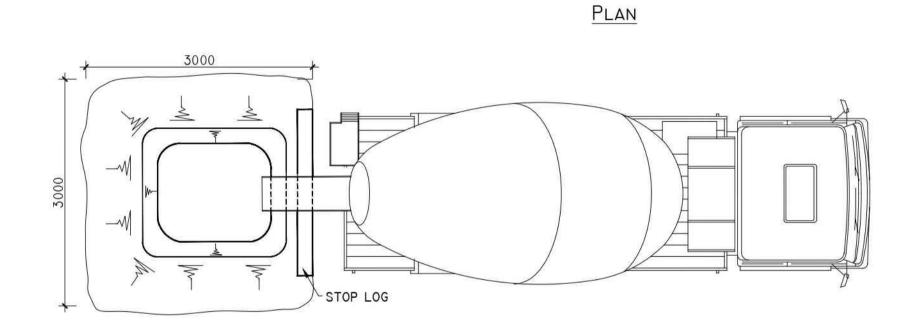


FOR PLANNING
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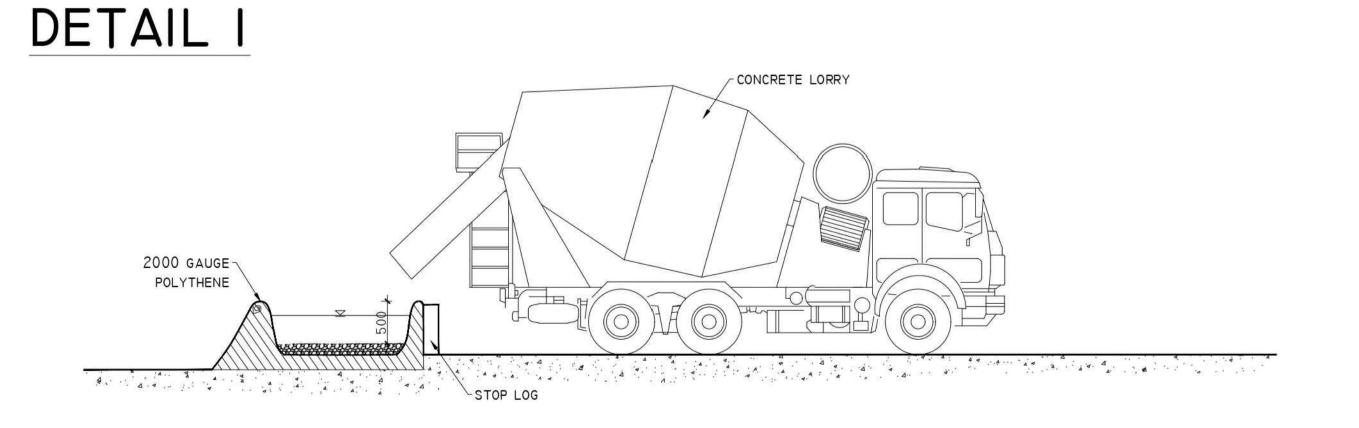
Drawing Title:				
DRAINAGE DETAILS - III				
Project Title:				
SSE GLEN	NORA WIND FARM			
Drawn By	Checked By			
MK	EM			
Project No.	Drawing No.			
201120	FIG-12			
Scale	Date			
NTS	-			
	CDM Smith			

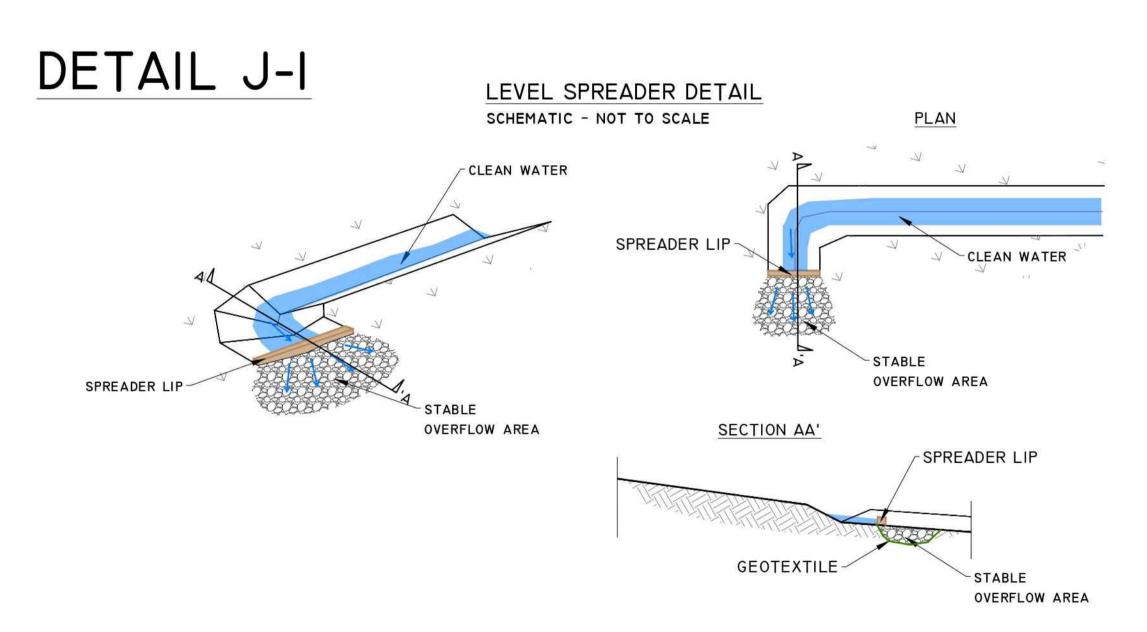


TEMPORARY CONCRETE WASH OUT PIT

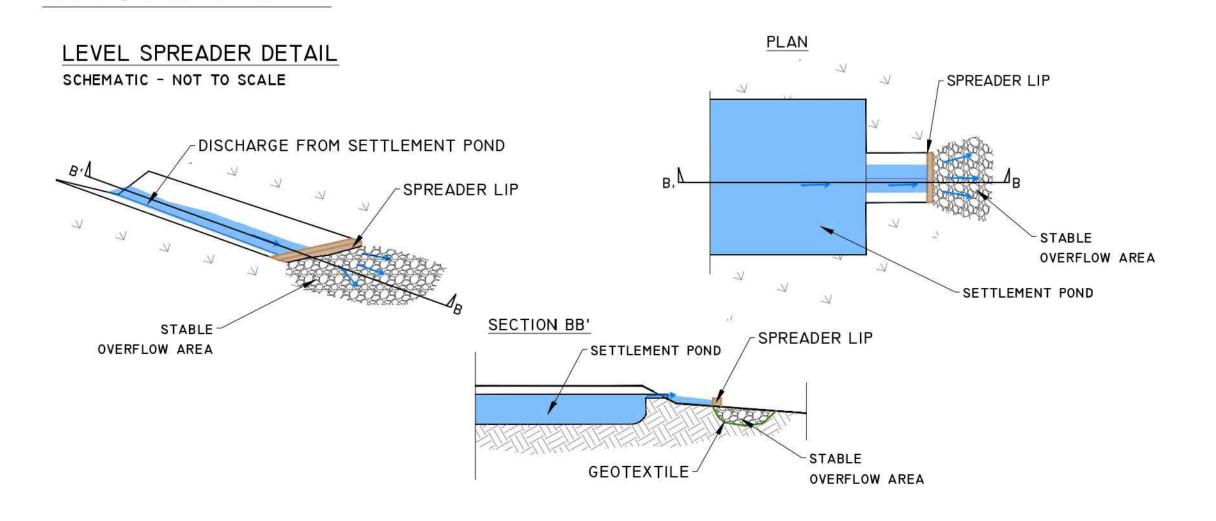








DETAIL J-2



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Drawing Title: DRAINAGE DETAILS - IV				
Project Title:				
SSE GLEN	IORA WIND FARM			
Drawn By	Checked By			
MK	EM			
Project No.	Drawing No.			
201120	FIG-13			
Scale	Date			
NTS	-			

