

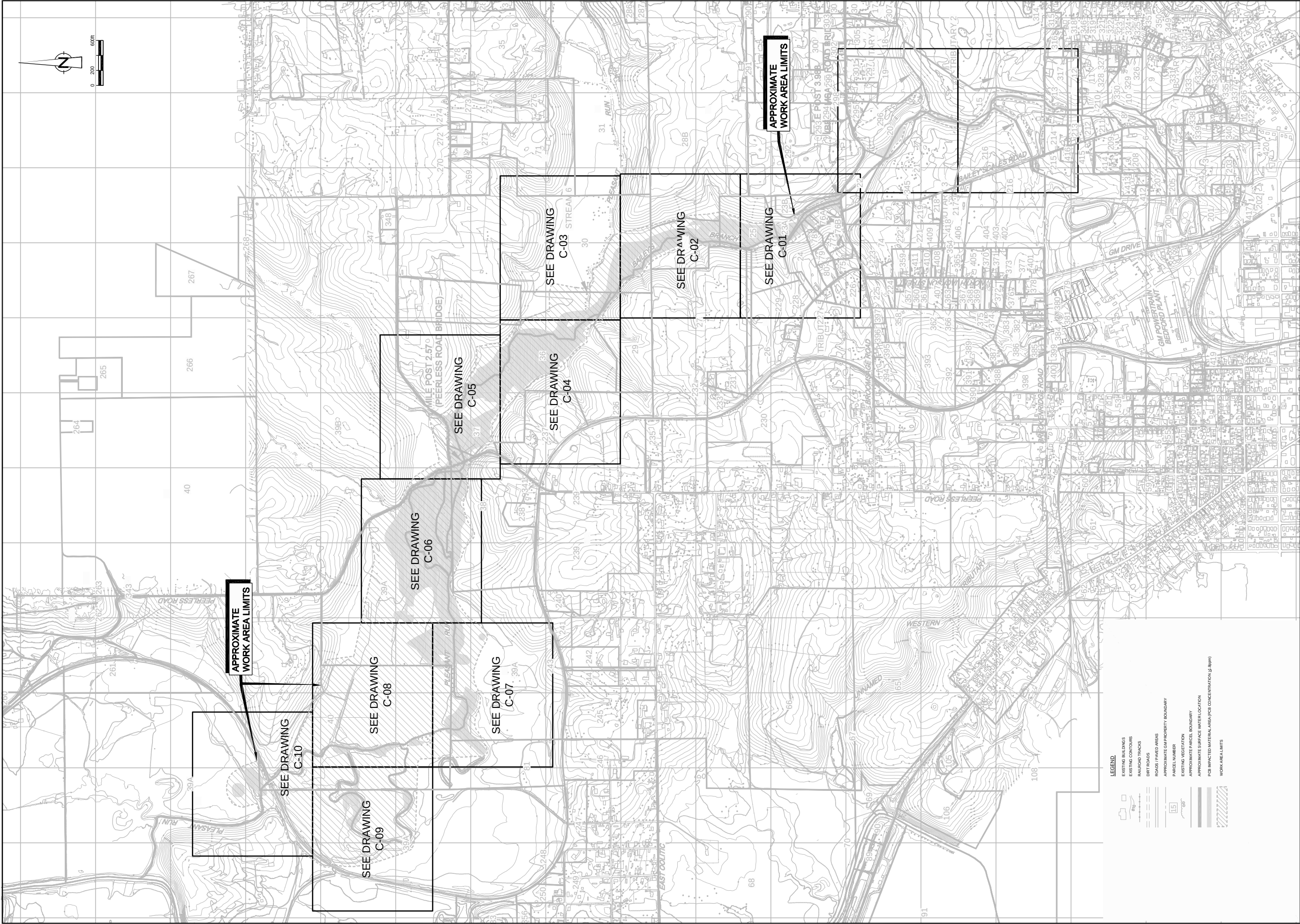
GM POWERTRAIN BEDFORD FACILITY BEDFORD, INDIANA ADDENDUM No. 2



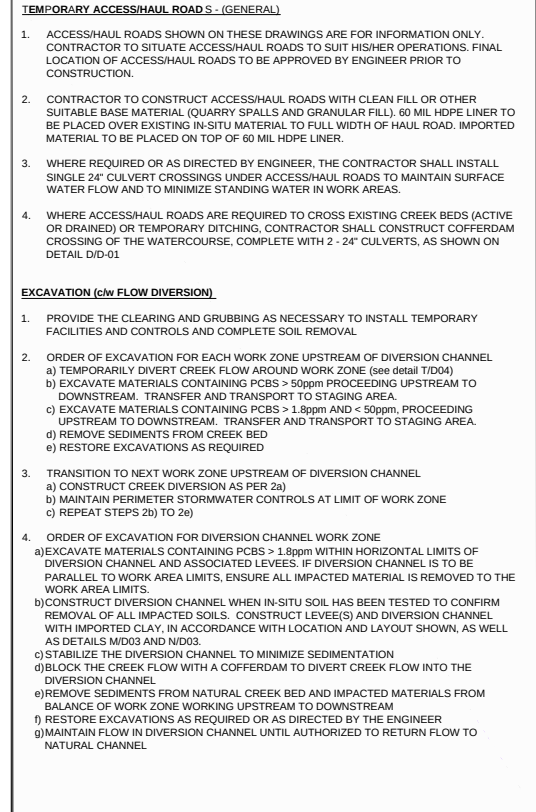
<u>DWG. No.</u>	<u>REV. No.</u>	<u>DATE</u>	<u>TITLE</u>
G-01	1	APRIL 2005	EXISTING CONDITIONS
G-02	2	APRIL 2005	SITE LOCATION
G-03	2	APRIL 2005	WORK AREA LIMITS
G-04	2	APRIL 2005	KEY PLAN, SUPPORT AREAS, AND CREEK DIVERSIONS
G-05	2	APRIL 2005	KEY PLAN AND LOCATION MAP
C-01 A	0	APRIL 2005	SITE PREPARATION AND EXCAVATION PLAN PARCELS 23, 24, 25, 76 AND 78
C-01 B	0	APRIL 2005	SOIL EROSION AND SEDIMENT CONTROL PARCELS 23, 24, 25, 76 AND 78
C-02 A	0	APRIL 2005	SITE PREPARATION AND EXCAVATION PLAN PARCEL 25, 28 AND 30
C-02 B	0	APRIL 2005	SOIL EROSION AND SEDIMENT CONTROL PARCEL 25, 28 AND 30
C-03 A	0	APRIL 2005	SITE PREPARATION AND EXCAVATION PLAN PARCELS 29, 30 AND 36
C-03 B	0	APRIL 2005	SOIL EROSION AND SEDIMENT CONTROL PARCELS 29, 30 AND 36
C-04 A	0	APRIL 2005	SITE PREPARATION AND EXCAVATION PLAN PARCELS 29 AND 36
C-04 B	0	APRIL 2005	SOIL EROSION AND SEDIMENT CONTROL PARCELS 29 AND 36
C-05 A	0	APRIL 2005	SITE PREPARATION AND EXCAVATION PLAN PARCELS 36, 37, 38 AND 39
C-05 B	0	APRIL 2005	SOIL EROSION AND SEDIMENT CONTROL PARCELS 36, 37, 38 AND 39

<u>DWG. No.</u>	<u>REV. No.</u>	<u>DATE</u>	<u>TITLE</u>
C-06 A	0	APRIL 2005	SITE PREPARATION AND EXCAVATION PLAN PARCELS 38 AND 39
C-06 B	0	APRIL 2005	SOIL EROSION AND SEDIMENT CONTROL PARCELS 38 AND 39
C-07 A	0	APRIL 2005	SITE PREPARATION AND EXCAVATION PLAN PARCELS 39, 40 AND 81
C-07 B	0	APRIL 2005	SOIL EROSION AND SEDIMENT CONTROL PARCELS 39, 40 AND 81
C-08 A	0	APRIL 2005	SITE PREPARATION AND EXCAVATION PLAN PARCELS 39 AND 40 (C)
C-08 B	0	APRIL 2005	SOIL EROSION AND SEDIMENT CONTROL PARCELS 39 AND 40 (C)
C-09 A	0	APRIL 2005	SITE PREPARATION AND EXCAVATION PLAN PARCELS 39 AND 40 (W)
C-09 B	0	APRIL 2005	SOIL EROSION AND SEDIMENT CONTROL PARCELS 39 AND 40 (W)
C-10 A	0	APRIL 2005	SITE PREPARATION AND EXCAVATION PLAN PARCELS 39 AND 40 (NW)
C-10 B	0	APRIL 2005	SOIL EROSION AND SEDIMENT CONTROL PARCELS 39 AND 40 (NW)
D-01	0	APRIL 2005	DETAILS - SHEET 1 OF 4
D-02	0	APRIL 2005	DETAILS - SHEET 2 OF 4
D-03	0	APRIL 2005	DETAILS - SHEET 3 OF 4
D-04	0	APRIL 2005	DETAILS - SHEET 4 OF 4

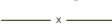
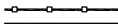
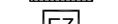

CONESTOGA-ROVERS & ASSOCIATES



N2		SCALE VERIFICATION		CONESTOGA-ROVERS & ASSOCIATES	
1	ISSUED FOR REVIEW	Revision	Date	GM POWERTRAIN BEDFORD FACILITY DOWNSTREAM PARCELS REMOVAL ACTION	
	2	ISSUED FOR REGULATORY REVIEW	Initial	THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.	
	3	APPROVED BY EPA	APRIL 1905 J.M.P. MAY 2505 J.M. NOV 705 J.M.	Approved	
				ADDENDUM No.2	
				KEY PLAN AND LOCATION MAP FOR SITE WORKS DRAWINGS	
				Source Reference: BASE MAP COMPLETED BY AIRLAND SURVEYS, FLINT, MI, APRIL 2001	
				Project Manager: J.M.	
				Reviewed By: J.D.	
				Date: JUNE 2004	
				Project No: 13968-00	
				Report No: 129	
				Drawing No: G-05	
				Scale: 1" = 600'	



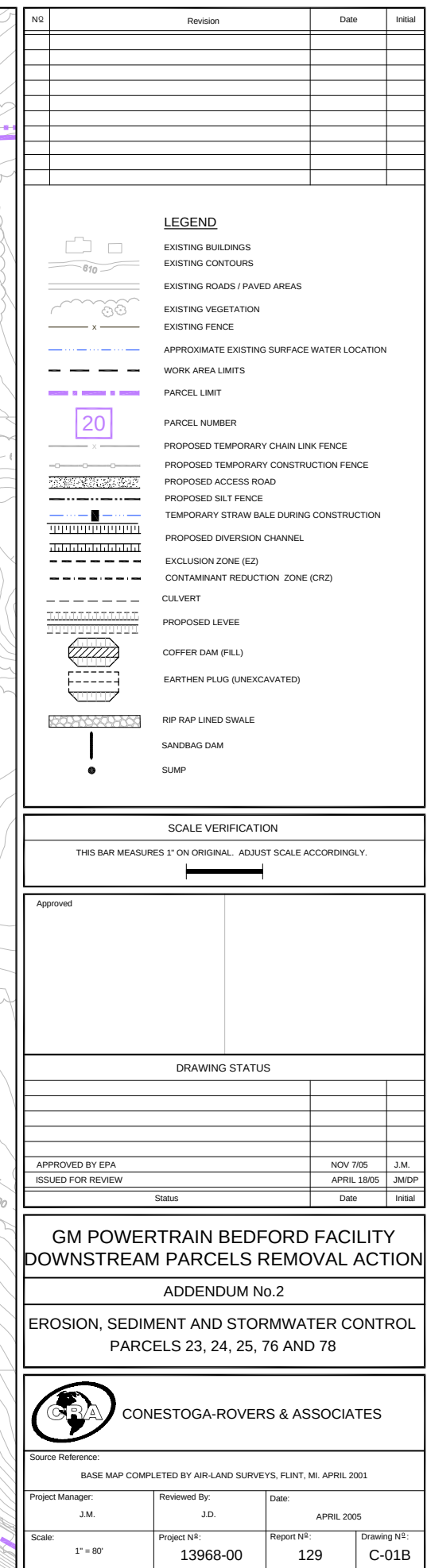
LEGEND

	EXISTING BUILDINGS
	EXISTING CONTOURS
	EXISTING ROADS / PAVED AREAS
	EXISTING VEGETATION
	EXISTING FENCE
	APPROXIMATE EXISTING SURFACE WATER LOCATION
	WORK AREA LIMITS
	PARCEL LIMIT
	PARCEL NUMBER
	PROPOSED TEMPORARY CHAIN LINK FENCE
	PROPOSED TEMPORARY CONSTRUCTION FENCE
	PROPOSED ACCESS ROAD
	PROPOSED SILT FENCE
	PROPOSED DIVERSION CHANNEL
	EXCLUSION ZONE (EZ)
	CONTAMINANT REDUCTION ZONE (CRZ)
	EXCAVATION/RESTORATION AREA (PCB CONCENTRATION EQUAL TO OR GREATER THAN 50 ppm IN SOIL)
	EXCAVATION/RESTORATION AREA (PCB CONCENTRATION EQUAL TO OR GREATER THAN 1.8 AND LESS THAN 50 ppm IN SOIL)
	EXCLUSION ZONE
	CONTAMINATION REDUCTION ZONE
	PROPOSED LEVEE
	CULVERT
	COFFER DAM (FILL)
	EARTHEN PLUG (UNEXCAVATED)

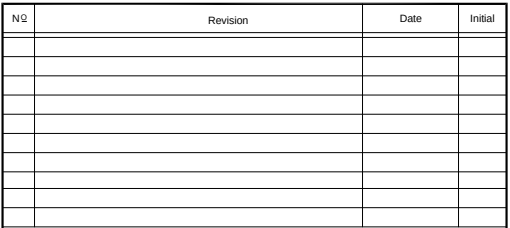
Approved		
DRAWING STATUS		
APPROVED BY EPA	NOV 7/05	J.M.
ISSUED FOR REGULATORY REVIEW	MAY 25/05	J.M.
ISSUED FOR REVIEW	APRIL 18/05	JM/DP
Status	Date	Initial

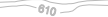
ADDENDUM No.2

 CONESTOGA-ROVERS & ASSOCIATES			
Source Reference:			
BASE MAP COMPLETED BY AIR-LAND SURVEYS, FLINT, MI. APRIL 2001			
Project Manager:	Reviewed By:	Date:	
J.M.	J.D.	APRIL 2005	
Scale:	Project N ^o :	Report N ^o :	Drawing N ^o :
1" = 80'	13968-00	129	C-01 A



 CONESTOGA-ROVERS & ASSOCIATES			
Source Reference:			
BASE MAP COMPLETED BY AIR-LAND SURVEYS, FLINT, MI. APRIL 2001			
Project Manager:	Reviewed By:	Date:	
J.M.	J.D.	APRIL 2005	
Scale:	Project N ^o :	Report N ^o :	Drawing N ^o :
1" = 80'	13968-00	129	C-01B



- ## LEGEND
- | | |
|---|---|
|  | EXISTING BUILDINGS |
|  | EXISTING CONTOURS |
|  | EXISTING ROADS / PAVED AREAS |
|  | EXISTING VEGETATION |
|  | EXISTING FENCE |
|  | APPROXIMATE EXISTING SURFACE WATER LOCATION |
|  | WORK AREA LIMITS |
|  | PARCEL NUMBER |
|  | PROPOSED TEMPORARY CHAIN LINK FENCE |
|  | PROPOSED TEMPORARY CONSTRUCTION FENCE |
|  | PROPOSED ACCESS ROAD |
|  | PROPOSED SILT FENCE |
|  | PROPOSED DIVERSION CHANNEL |
|  | EXCLUSION ZONE (EZ) |
|  | CONTAMINANT REDUCTION ZONE (CRZ) |
|  | EXCAVATION/RESTORATION AREA
(PCB CONCENTRATION EQUAL TO OR GREATER
THAN 50 ppm IN SOIL) |
|  | EXCAVATION/RESTORATION AREA
(PCB CONCENTRATION EQUAL TO OR GREATER
THAN 1.8 AND LESS THAN 50 ppm IN SOIL) |
|  | EXCLUSION ZONE |
|  | CONTAMINATION REDUCTION ZONE |
|  | PROPOSED LEVEE |
|  | CULVERT |
|  | COFFER DAM (FILL) |
|  | EARTHEN PLUG (UNEXCAVATED) |

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

Approved

APPROVED BY EPA	NOV 7/05	J.M.
ISSUED FOR REVIEW	APRIL 18/05	JM/DP
Status	Date	Initial

ADDENDUM No.2

 CONESTOGA-ROVERS & ASSOCIATES

Source Reference:

BASE MAP COMPLETED BY AIR-LAND SURVEYS, FLINT, MI. APRIL 2001

Project Manager:
J.M.

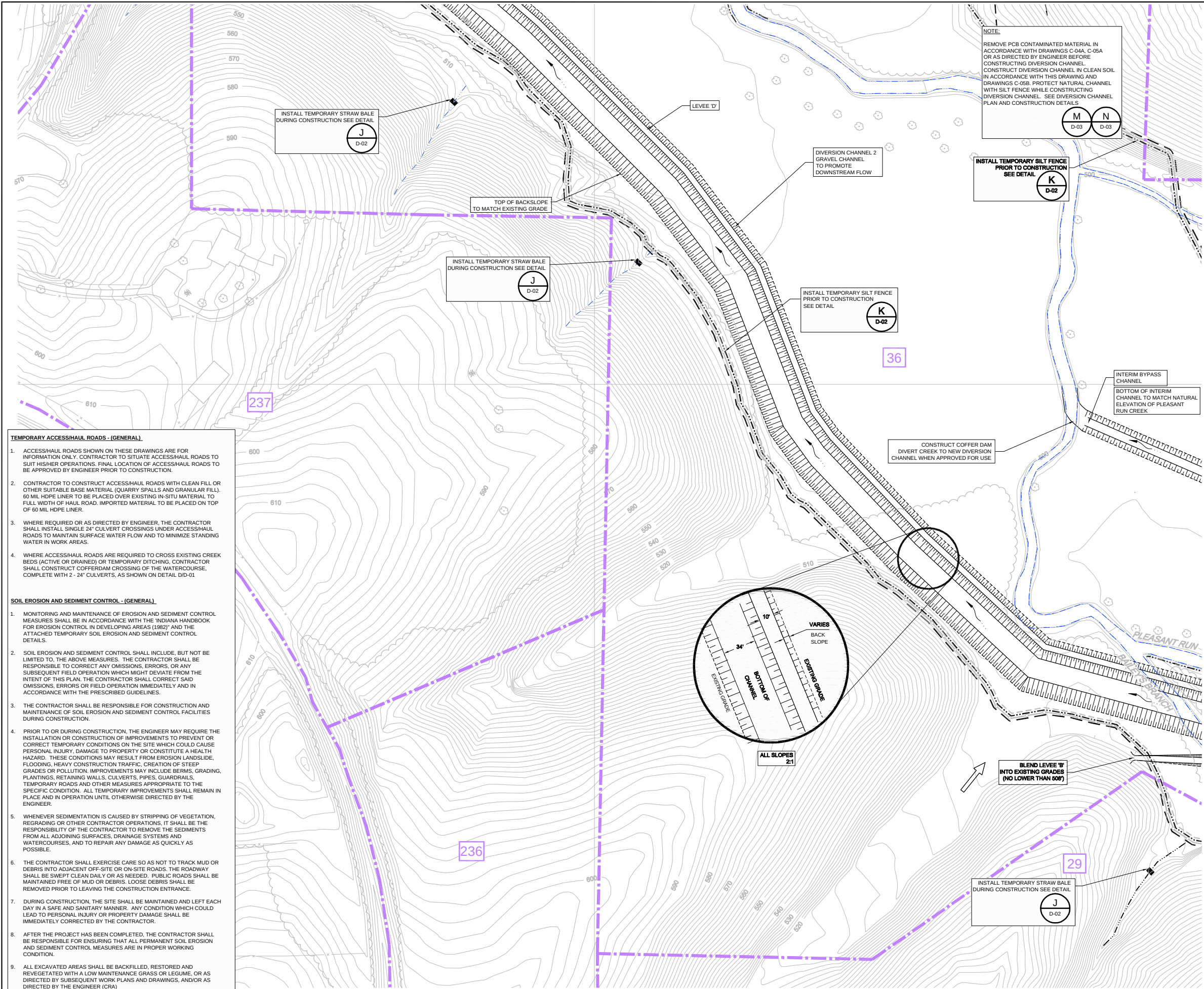
Reviewed By:
J.D.

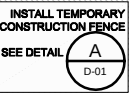
Date: APRIL 2005

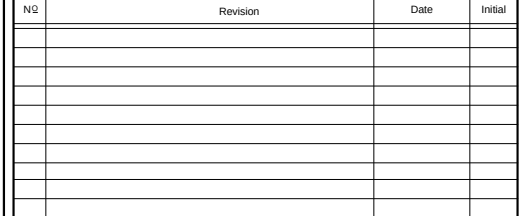
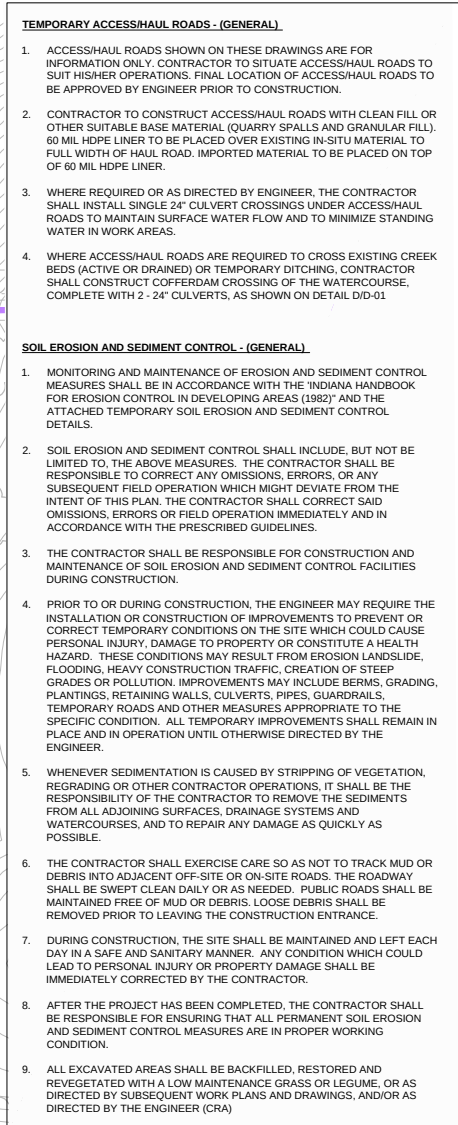
Scale: $1'' = 8'$

Project N^o:
13968-00

Report No:
129Drawing N^o:
C-03 A



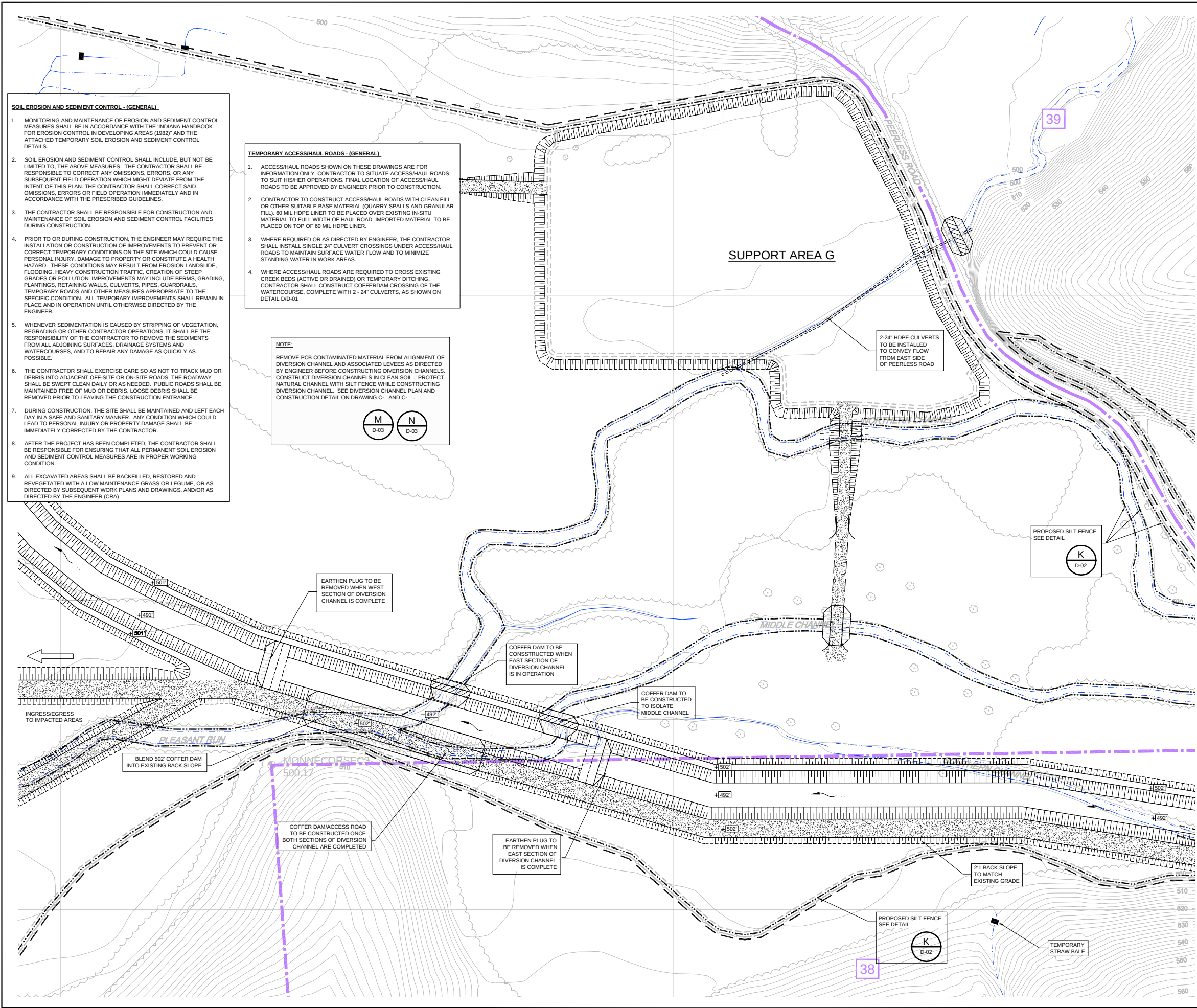




SCALE VERIFICATION
THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.


GM POWERTRAIN BEDFORD FACILITY DOWNSTREAM PARCELS REMOVAL ACTION
ADDENDUM No.2
EROSION, SEDIMENT AND STORMWATER CONTROL PARCELS 36, 37, 38, AND 39

 CONESTOGA-ROVERS & ASSOCIATES			
Source Reference:			
OIL EROSION AND SEDIMENT CONTROL			
Project Manager: J.M.	Reviewed By: J.D.	Date: APRIL 2005	
Scale: 1" = 80'	Project N ^o : 13968-00	Report N ^o : 129	Drawing N ^o : C-05 B



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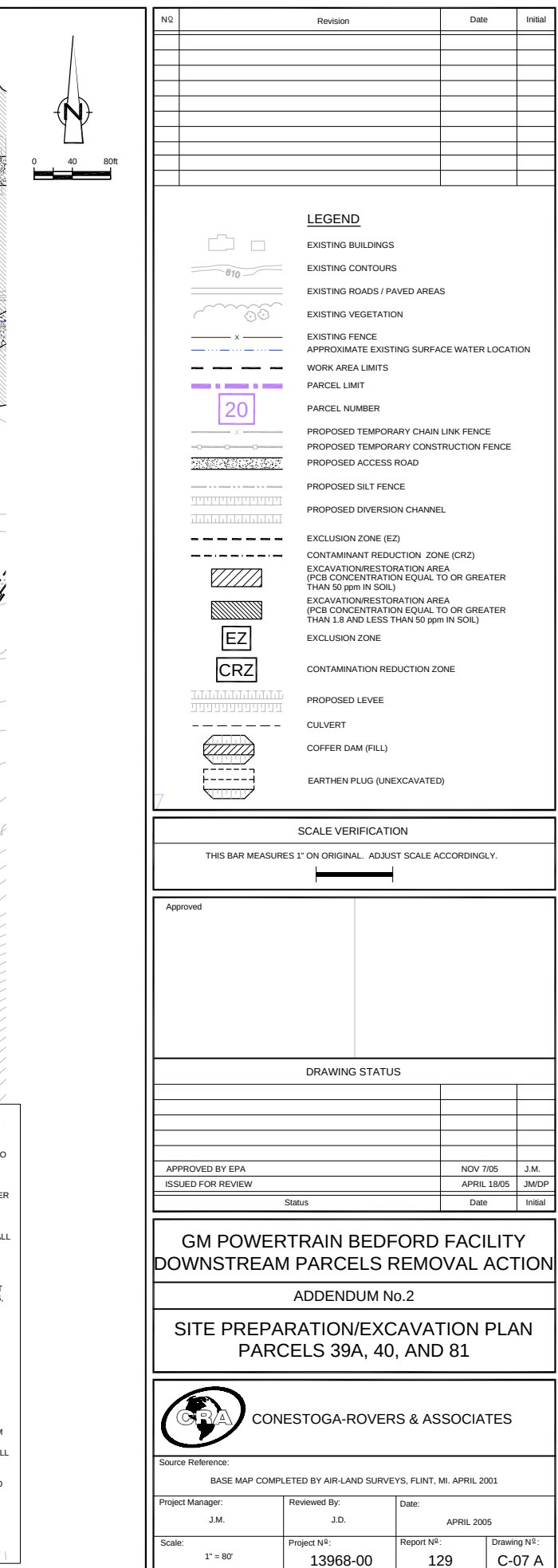
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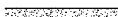
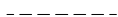
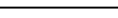
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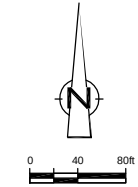
LEGEND

	EXISTING BUILDINGS
	EXISTING CONTOURS
	EXISTING ROADS / PAVED AREAS
	EXISTING VEGETATION
	EXISTING FENCE
	APPROXIMATE EXISTING SURFACE WATER LOCATION
	WORK AREA LIMITS
	PARCEL LIMIT
	PARCEL NUMBER
	PROPOSED TEMPORARY CHAIN LINK FENCE
	PROPOSED TEMPORARY CONSTRUCTION FENCE
	PROPOSED ACCESS ROAD
	PROPOSED SILT FENCE
	PROPOSED DIVERSION CHANNEL
	EXCLUSION ZONE (EZ)
	CONTAMINANT REDUCTION ZONE (CRZ)
	EXCAVATION/RESTORATION AREA (PCB CONCENTRATION EQUAL TO OR GREATER THAN 50 ppm IN SOIL)
	EXCAVATION/RESTORATION AREA (PCB CONCENTRATION EQUAL TO OR GREATER THAN 1.8 AND LESS THAN 50 ppm IN SOIL)
	EXCLUSION ZONE
	CONTAMINATION REDUCTION ZONE
	PROPOSED LEVEE
	CULVERT
	COFFER DAM (FILL)
	EARTHEN PLUG (UNEXCAVATED)

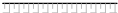
Approved	
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GM POWERTRAIN BEDFORD FACILITY DOWNSTREAM PARCELS REMOVAL ACTION
ADDENDUM No.2
SITE PREPARATION/EXCAVATION PLAN PARCELS 39A, 40, AND 81

 CONESTOGA-ROVERS & ASSOCIATES			
Source Reference:			
BASE MAP COMPLETED BY AIR-LAND SURVEYS, FLINT, MI. APRIL 2001			
Project Manager:	Reviewed By:	Date:	
J.M.	J.D.	APRIL 2005	
Scale:	Project N ^o :	Report N ^o :	Drawing N ^o :
1" = 80'	13968-00	129	C-07 A

[illegible]

LEGEND

	EXISTING BUILDINGS
	EXISTING CONTOURS
	EXISTING ROADS / PAVED AREAS
	EXISTING VEGETATION
	EXISTING FENCE
	APPROXIMATE EXISTING SURFACE WATER LOCATION
	WORK AREA LIMITS
	PARCEL LIMIT
	PARCEL NUMBER
	PROPOSED TEMPORARY CHAIN LINK FENCE
	PROPOSED TEMPORARY CONSTRUCTION FENCE
	PROPOSED ACCESS ROAD
	PROPOSED SILT FENCE
	TEMPORARY STRAW BALE DURING CONSTRUCTION
	PROPOSED DIVERSION CHANNEL
	EXCLUSION ZONE (EZ)
	CONTAMINANT REDUCTION ZONE (CRZ)
	CULVERT
	PROPOSED LEVEE
	COFFER DAM (FILL)
	EARTHEN PLUG (UNEXCAVATED)
	RIP RAP LINED SWALE
	SANDBAG DAM
	SUMP

SCALE VERIFICATION THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.
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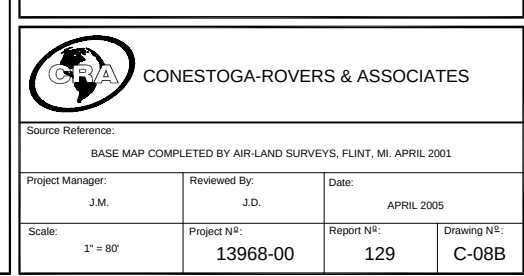
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DRAWING STATUS		
APPROVED BY EPA	NOV 7/05	J.M.
ISSUED FOR REVIEW	APRIL 18/05	JM/DP
Status	Date	Initial

GM POWERTRAIN BEDFORD FACILITY DOWNSTREAM PARCELS REMOVAL ACTION

ADDENDUM No. 2

EROSION, SEDIMENT AND STORMWATER CONTROL
PARCELS 39 AND 40



12060_00/12060_00.W/A045 11 IN 22/2006

1. THESE NOTES ARE TO BE READ IN CONJUNCTION WITH DIVERSION CHANNEL 3 WORKS DOWNSTREAM OF THE CONFLUENCE OF PLEASANT RUN CREEK AND DIVERSION CHANNEL 3 AS SHOWN ON THIS DRAWING. (SEE FULL NOTES ON DRAWING C-06A)

46. PROVIDE SILTATION PROTECTION ADJACENT TO ALL EXISTING WATERCOURSES

47. PROVIDE THE CLEARING AND GRUBBING NECESSARY TO INSTALL TEMPORARY FACILITIES AND CONTROLS AND TO COMPLETE SOIL REMOVAL.

64. ***EXCAVATE FOR WEST SECTION OF DIVERSION CHANNEL 3 (COMMENCING AT WEST END OF EAST SECTION OF DIVERSION CHANNEL 3) WITHIN THE LIMITS IDENTIFIED ON THE CONTRACT DRAWINGS. TEST FOR LEVELS OF PCBs IN IN-SITU SOILS. ALL EXCAVATED MATERIALS WITH PCB LEVELS >1.8PPM SHALL BE TRANSPORTED TO THE STAGING AREA FOR SUBSEQUENT REMOVAL.

65. ***CONSTRUCT WEST SECTION OF DIVERSION CHANNEL AND LEVEE(S) WHEN IN-SITU
SOILS HAVE BEEN TESTED TO CONFIRM REMOVAL OF IMPACTED SOILS. CONSTRUCT
CHANNEL AND LEVEE(S) USING IMPROVED CLAY (OR NON-IMPACTED IN-SITU
MATERIAL) IN ACCORDANCE WITH LOCATION AND LAYOUT SHOWN, AS WELL AS
FIGURE D2-2 AND NOTES.
66. ***OPEN EAST END OF WEST SECTION OF DIVERSION CHANNEL 3 (AT FINAL
DOWNSTREAM CONFLUENCE OF PLEASANT RUN). BACKWATERS SHOULD FILL THE
REMAINING DIVERSION CHANNEL.
67. ***EAST END OF DIVERSION SECTION OF DIVERSION CHANNEL AT DOWNSTREAM
CONFLUENCE OF NORTHERN, MIDDLE AND SOUTHERN CHANNELS. FLOW SHOULD BE
AVAILABLE THROUGH FULL LENGTH OF DIVERSION CHANNEL 3.
68. ***CONSTRUCT COFER DAM SOUTH OF CONFLUENCE OF NORTHERN, MIDDLE AND
SOUTHERN CHANNELS OF PLEASANT RUN, PREVENTING NEW FLOW FROM ENTERING
THE ORIGINAL PLEASANT RUN COURSE. FLOW SHOULD NOW BE EXCLUDED
THROUGH DIVERSION CHANNEL 3.

69. CONSTRUCT PRIMARY ACCESS ROAD(S) TO SUIT CONTRACTOR'S OPERATIONS, WESTERLY FROM SUPPORT AREA G.

70. TEST FOR LEVELS OF PCBs IN IN-SITU SOILS. WHERE PCB LEVELS EXCEED 1.8 PPM, CONSTRUCT HAUL AND ACCESS ROADS WITH IMPORTED CLAY AND/OR QUARRY AGGREGATE, PLACED ON TOP OF GEOTEXTILE FABRIC, SET DIRECTLY ON IMPACTED IN-SITU MATERIAL.

71. CONSTRUCT/TEXTEND ACCESS ROAD(S) ACROSS NORTH/SOUTH LEVEE ALONG PARCEL 39/40 AND WEST OF ISOLATED SECTION OF PLEASANT RUN TO ACCESS REMEDIATION AREA F.
72. RE-CONSTRUCT ACCESS PORTAGE CROSSING OF PLEASANT RUN AT EXISTING STRUCTURE. CONSTRUCT/TEXTEND ACCESS ROADS WEST OF ACCESS PORTAGE TO ACCESS REMEDIATION AREA F.
73. INSTALL CULVERTS UNDER ACCESS ROADS AS NECESSARY, TO MAINTAIN EXISTING SURFACE GRADE AND WATER FLOW.
74. CONSTRUCT/TEXTEND ACCESS ROAD FROM REMEDIATION AREA F, TO THE EXISTING ROAD "WYE" CROSSING AT THE RAILROAD RIGHT-OF-WAY, AND NORTH OF PLEASANT RUN. UTILIZE EXISTING GRAVEL ROAD CROSSING OF RAIL RIGHT-OF-WAY.

75. REMOVE SEDIMENTS FROM ALL NATURAL CREEK BEDS AND IMPACTED MATERIALS FROM BALANCE OF WORK ZONE WORKING UPSTREAM TO DOWNSTREAM. ALL REMOVALS SHALL BE COMPLETED THROUGH SUPPORT AREA F.
76. TESTING TO BE COMPLETED DURING ALL EXCAVATION WORKS TO ENSURE DISCHARGE BETWEEN MATERIALS IS NOT $> 50\%$ OF EXCAVATION.
77. RESTORE EXCAVATIONS AS REQUIRED OR AS DIRECTED BY THE ENGINEER
78. MAINTAIN FLOW IN DIVERSION CHANNEL UNTIL AUTHORIZED TO RETURN FLOW TO NATURAL CHANNEL.
79. REVISIONS TO THE SPECIFIED INSTRUCTIONS AND/OR DRAWINGS AND DETAILS MAY BE MADE AT THE DISCRETION OF THE SITE ENGINEER (CRA). REQUEST FOR REVISION BY THE CONTRACTOR MUST BE MADE IN WRITING. APPROVAL OR NON-APPROVAL WILL BE PROVIDED IN WRITING FROM THE SITE ENGINEER (CRA).

1. ACCESS/HAUL ROADS SHOWN ON THESE DRAWINGS ARE FOR INFORMATION ONLY. CONTRACTOR TO SITUATE ACCESS/HAUL ROADS TO SUIT HIS/HER OPERATIONS. FINAL LOCATION OF ACCESS/HAUL ROADS TO BE APPROVED BY ENGINEER PRIOR TO CONSTRUCTION.

2. CONTRACTOR TO CONSTRUCT ACCESSHAUL ROADS WITH CLEAN FILL OR OTHER SUITABLE BASE MATERIAL (QUARRY SPLASHES AND GRANULAR FILL). 60 MIL HDPE LINER TO BE PLACED OVER EXISTING IN-SITU MATERIAL TO FULL WIDTH OF HAUL ROAD. IMPORTED MATERIAL TO BE PLACED ON TOP OF 60 MIL HDPE LINER.
3. WHERE REQUIRED OR AS DIRECTED BY ENGINEER, THE CONTRACTOR SHALL INSTALL SINGLE 24" CULVERT CROSSINGS UNDER ACCESSHAUL ROADS TO MAINTAIN SURFACE WATER FLOW AND TO MINIMIZE STANDING WATER IN WORK AREAS.
4. WHERE ACCESSHAUL ROADS ARE REQUIRED TO CROSS EXISTING CREEK BEDS (ACTIVE OR DRAINED) OR TEMPORARY DITCHING, CONTRACTOR SHALL CONSTRUCT CONFERMENT CROSSING OF THE WATERCOURSE, COMPLETE WITH 2 - 24" CULVERTS, AS SHOWN ON DETAIL D1P-D1.

1. PROVIDE THE CLEARING AND GRUBBING AS NECESSARY TO INSTALL TEMPORARY FACILITIES AND CONTROLS AND COMPLETE SOIL REMOVAL

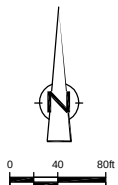
2. ORDER OF EXCAVATION FOR DIVERSION CHANNEL WORK ZONE
- a) EXCAVATE MATERIALS CONTAINING PCBs > 1.8ppm WITHIN HORIZONTAL LIMITS OF DIVERSION CHANNEL AND ASSOCIATED LEVEES. IF DIVERSION CHANNEL IS TO BE PARALLEL TO WORK AREA LIMITS, ENSURE ALL IMPACTED MATERIAL IS REMOVED TO THE DIVERSION CHANNEL
- b) CONSTRUCT DIVERSION CHANNEL WHEN IN-SITU SOIL HAS BEEN TESTED TO CONFIRM REMOVAL OF ALL IMPACTED SOLIDS. CONSTRUCT LEVEES(S) AND DIVERSION CHANNEL WITH IMPORTED CLAY. IN ACCORDANCE WITH LOCATION AND LAYOUT SHOWN, AS WELL AS DETAILS MD03 AND NID03.
- c) STABILIZE THE DIVERSION CHANNEL TO MINIMIZE SEDIMENTATION
- d) BLOCK THE NATURAL CREEK FLOW WITH A COFFERDAM TO DIVERT CREEK FLOW INTO THE DIVERSION CHANNEL
- e) REMOVE SEDIMENTS FROM NATURAL CREEK BED AND IMPACTED MATERIALS FROM BEDDING OF WORK ZONE WORKING UPSTREAM TO DOWNSTREAM
- f) MAINTAIN DIVERSION CHANNEL AS REQUIRED OR AS DIRECTED BY THE ENGINEER
- g) MAINTAIN FLOW IN DIVERSION CHANNEL UNTIL AUTHORIZED TO RETURN FLOW TO NATURAL CHANNEL

FOR CONTINUATION
SEE DRAWING C-10A

CONSTRUCT TEMPORARY
ACCESS ROAD TO SUIT
CONTRACTOR OPERATIONS

EXCAVATE AND TRANSPORT TO
SUPPORT AREA G. TRANSFER TO
TRANSPORT UNIT AND TRANSPORT
TO STAGING AREA H OR TO OFF-SITE
TSDF. RESTORE AREAS AS
REQUIRED

FOR CONTINUATION
SEE DRAWING C-08A



	EXISTING BUILDINGS
	EXISTING CONTOURS
	EXISTING ROADS / PAVED AREAS
	EXISTING VEGETATION
	EXISTING FENCE
	APPROXIMATE EXISTING SURFACE WATER LOCATION
	WORK AREA LIMITS
	PARCEL LIMIT
	PARCEL NUMBER
	PROPOSED TEMPORARY CHAIN LINK FENCE
	PROPOSED TEMPORARY CONSTRUCTION FENCE
	PROPOSED ACCESS ROAD
	PROPOSED SILT FENCE
	PROPOSED DIVERSION CHANNEL
	EXCLUSION ZONE (EZ)
	CONTAMINANT REDUCTION ZONE (CRZ)
	EXCAVATION/RESTORATION AREA (PCB CONCENTRATION EQUAL TO OR GREATER THAN 50 ppm IN SOIL)
	EXCAVATION/RESTORATION AREA (PCB CONCENTRATION EQUAL TO OR GREATER THAN 1.8 AND LESS THAN 50 ppm IN SOIL)
	EXCLUSION ZONE
	CONTAMINATION REDUCTION ZONE
	PROPOSED LEVEE
	CULVERT
	COFFER DAM (FILL)
	EARTHEN PLUG (UNEXCAVATED)

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY

Approved _____

APPROVED BY EPA	NOV 7/05	J.M.
ISSUED FOR REGULATORY REVIEW	MAY 25/05	J.M.
ISSUED FOR REVIEW	APRIL 18/05	JM/DP
Status	Date	Initial

GM POWERTRAIN BEDFORD FACILITY
DOWNSTREAM PARCELS REMOVAL ACTION

ADDENDUM No.2

SITE PREPARATION/EXCAVATION PLAN PARCELS 39A, AND 40 (W)



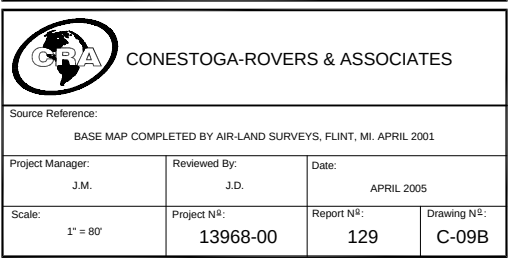
CONESTOGA-ROVERS & ASSOCIATES

Source Reference:

BASE MAP COMPLETED BY AIR-LAND SURVEYS, FLINT, MI. APRIL 2001

Project Manager: J.M.	Reviewed By: J.D.	Date: APRIL 2005	
Scale: 1" = 80'	Project N ^o : 13968-00	Report N ^o : 129	Drawing N ^o : C-09 A

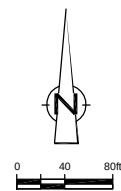
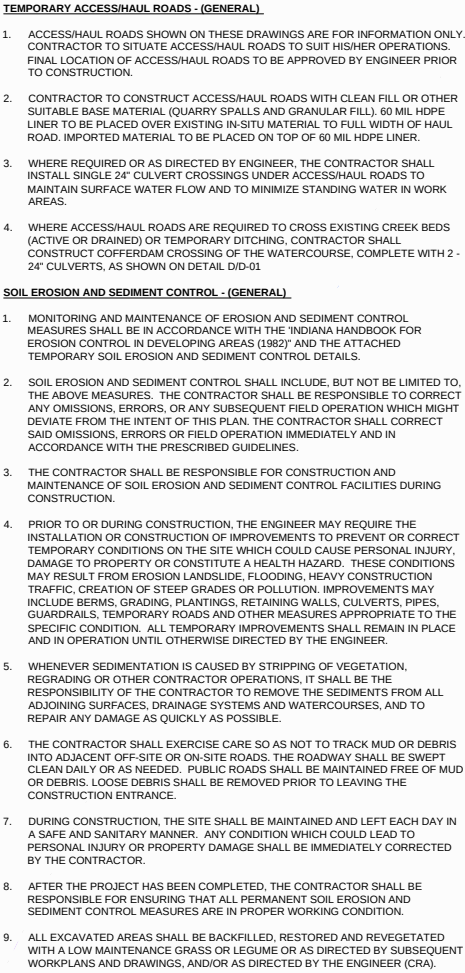
13068 00(120)CL WAOE4 JUN 22/2004



1. MONITORING AND MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE INDIANA HANDBOOK FOR EROSION CONTROL IN DEVELOPING AREAS (1982) AND THE ATTACHED TEMPORARY SOIL EROSION AND SEDIMENT CONTROL DETAILS.
2. SOIL EROSION AND SEDIMENT CONTROL SHALL INCLUDE, BUT NOT BE LIMITED TO, THE ABOVE MEASURES. THE CONTRACTOR SHALL BE RESPONSIBLE TO CORRECT ANY OMISSIONS, ERRORS, OR ANY SUBSEQUENT FIELD OPERATION WHICH MIGHT DEVIATE FROM THE INTENT OF THIS PLAN. THE CONTRACTOR SHALL CORRECT SAID OMISSIONS, ERRORS OR FIELD OPERATION IMMEDIATELY AND IN ACCORDANCE WITH THE PRESCRIBED GUIDELINES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION AND MAINTENANCE OF SOIL EROSION AND SEDIMENT CONTROL FACILITIES DURING CONSTRUCTION.
4. PRIOR TO OR DURING CONSTRUCTION, THE ENGINEER MAY REQUIRE THE INSTALLATION OR CONSTRUCTION OF IMPROVEMENTS TO PREVENT OR CORRECT TEMPORARY CONDITIONS ON THE SITE WHICH COULD CAUSE PERSONAL INJURY, DAMAGE TO PROPERTY OR CONSTITUTE A HEALTH HAZARD. THESE CONDITIONS MAY RESULT FROM EROSION LANDSLIDE, FLOODING, HEAVY CONSTRUCTION TRAFFIC, CREATION OF STEEP GRADES OR POLLUTION. IMPROVEMENTS MAY INCLUDE BERMS, GRADING, PLANTINGS, RETAINING WALLS, CULVERTS, PIPES, GUARDRAILS, TEMPORARY ROADS AND OTHER MEASURES APPROPRIATE TO THE SPECIFIC CONDITION. ALL TEMPORARY IMPROVEMENTS SHALL REMAIN IN PLACE AND IN OPERATION UNTIL OTHERWISE DIRECTED BY THE ENGINEER.
5. WHENEVER SEDIMENTATION IS CAUSED BY STRIPPING OF VEGETATION, REGRADING OR OTHER CONTRACTOR OPERATIONS, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE THE SEDIMENTS FROM ALL ADJOINING SURFACES, DRAINAGE SYSTEMS AND WATERCOURSES, AND TO REPAIR ANY DAMAGE AS QUICKLY AS POSSIBLE.
6. THE CONTRACTOR SHALL EXERCISE CARE SO AS NOT TO TRACK MUD OR DEBRIS INTO ADJACENT OFF-SITE OR ON-SITE ROADS. THE ROADWAY SHALL BE SWEEP CLEAN DAILY OR AS NEEDED. PUBLIC ROADS SHALL BE MAINTAINED FREE OF MUD OR DEBRIS. LOOSE DEBRIS SHALL BE REMOVED PRIOR TO LEAVING THE CONSTRUCTION ENTRANCE.
7. DURING CONSTRUCTION, THE SITE SHALL BE MAINTAINED AND LEFT EACH DAY IN A SAFE AND SANITARY MANNER. ANY CONDITION WHICH COULD LEAD TO PERSONAL INJURY OR PROPERTY DAMAGE SHALL BE IMMEDIATELY CORRECTED BY THE CONTRACTOR.
8. AFTER THE PROJECT HAS BEEN COMPLETED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL PERMANENT SOIL EROSION AND SEDIMENT CONTROL MEASURES ARE IN PROPER WORKING CONDITION.
9. ALL EXCAVATED AREAS SHALL BE BACKFILLED, RESTORED AND REVEGETATED WITH A LOW MAINTENANCE GRASS OR LEGUME OR AS DIRECTED BY SUBSEQUENT WORKPLANS AND DRAWINGS, AND/OR AS DIRECTED BY THE ENGINEER (C.R.A.).



39

[illegible]

	EXISTING BUILDINGS
	EXISTING CONTOURS
	EXISTING ROADS / PAVED AREAS
	EXISTING VEGETATION
	EXISTING FENCE
	APPROXIMATE EXISTING SURFACE WATER LOCATION
	WORK AREA LIMITS
	PARCEL LIMIT
	PARCEL NUMBER
	PROPOSED TEMPORARY CHAIN LINK FENCE
	PROPOSED TEMPORARY CONSTRUCTION FENCE
	PROPOSED ACCESS ROAD
	PROPOSED SILT FENCE
	TEMPORARY STRAW BALE DURING CONSTRUCTION
	PROPOSED DIVERSION CHANNEL
	EXCLUSION ZONE (EZ)
	CONTAMINANT REDUCTION ZONE (CRZ)
	CULVERT
	PROPOSED LEVEE
	COFFER DAM (FILL)
	EARTHEN PLUG (UNEXCAVATED)
	RIP RAP LINED SWALE
	SANDBAG DAM
	SUMP

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.



Approved

APPROVED BY EPA	NOV 7/05	J.M.
ISSUED FOR REVIEW	APRIL 18/05	JM/DP
Status	Date	Initial

ADDENDUM No.2

EROSION, SEDIMENT AND STORMWATER CONTROL
PARCELS 39 AND 40 (NW)



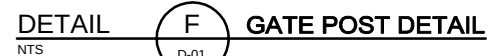
CONESTOGA-ROVERS & ASSOCIATES

Source Reference:

BASE MAP COMPLETED BY AIR-LAND SURVEYS, FLINT, MI. APRIL 2001

Project Manager: J.M.	Reviewed By: J.D.	Date: APRIL 2005	
Scale: 1" = 80'	Project N ^o : 13968-00	Report N ^o : 129	Drawing N ^o : C-10B

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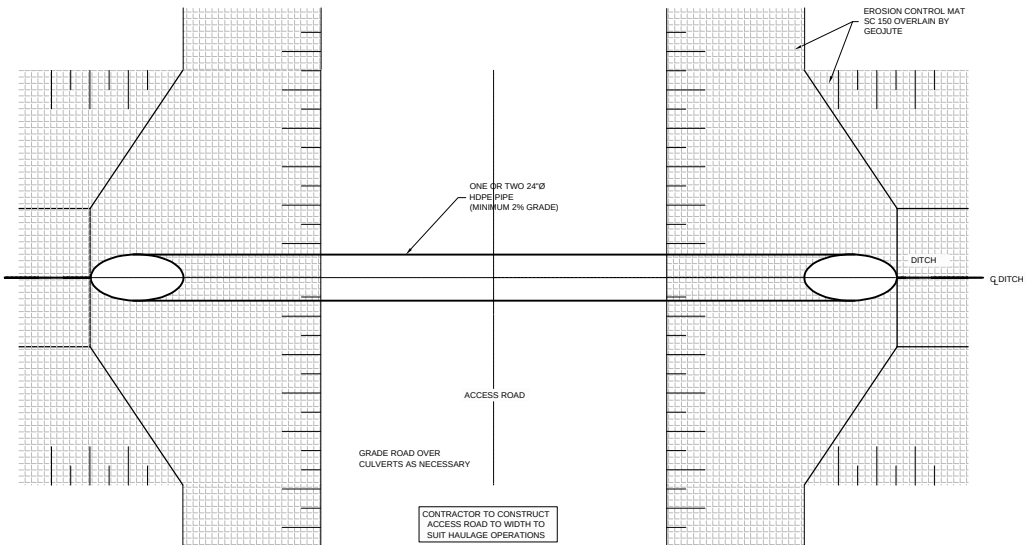
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Source Reference:		
Project Manager: J.M.	Reviewed By: J.D.	Date: APRIL 2005
Scale: AS SHOWN	Project N ^o : 13968-00	Report N ^o : 129
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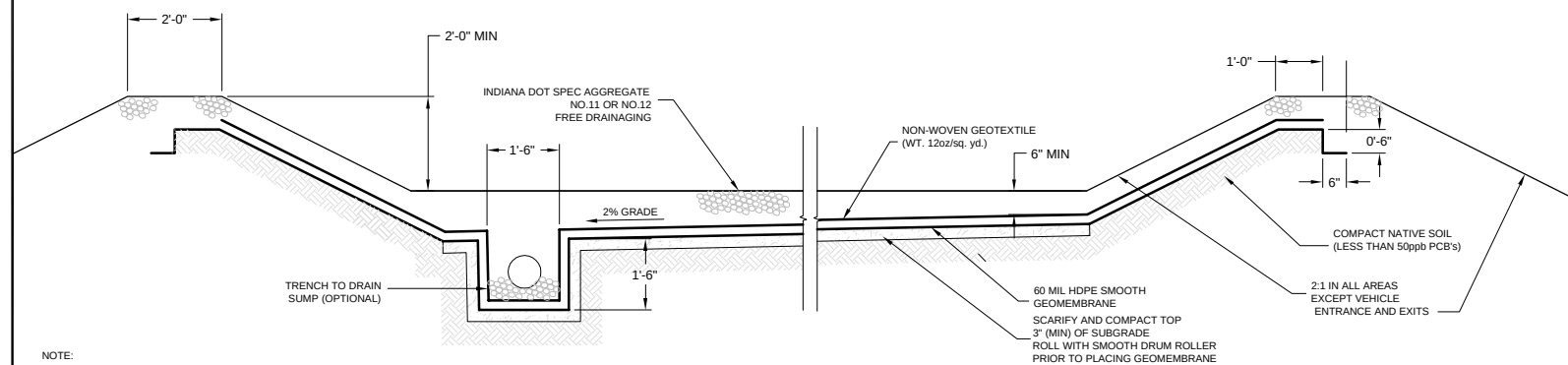
SCALE VERIFICATION THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY. 	
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GM POWERTRAIN BEDFORD FACILITY DOWNSTREAM PARCELS REMOVAL ACTION
ADDENDUM No.2
DETAILS SHEET 3 OF 4

	CONESTOGA-ROVERS & ASSOCIATES		
Source Reference: BASE MAP COMPLETED BY AIR-LAND SURVEYS, FLINT, MI. APRIL 2001			
Project Manager: J.M.	Reviewed By: J.D.	Date: APRIL 2005	
Scale: N.T.S.	Project N^o: 13968-00	Report N^o: 129	Drawing N^o: D-03

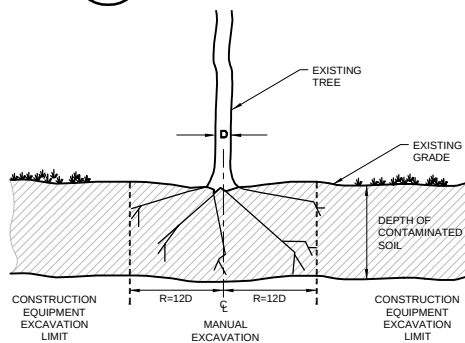


SECTION S ROAD CROSSING -
NTS D-04 TEMPORARY DITCH

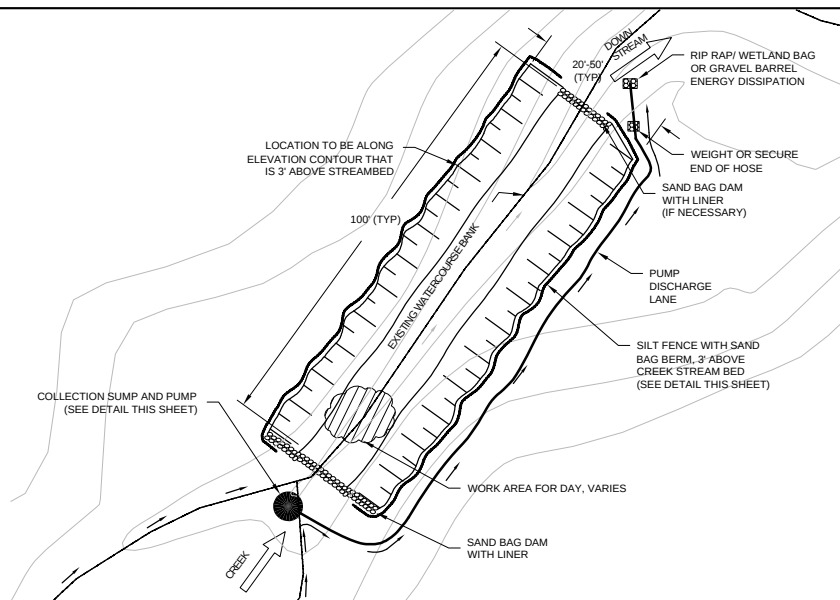


A. TYPICAL DETAILS SHOWN AT SOIL STAGING AND DEWATERING AREA MAY BE REVISED BY THE CONTRACTOR. CONTRACTOR'S REVISED DETAILS SHALL BE SUBMITTED FOR REVIEW PRIOR TO CONSTRUCTION.

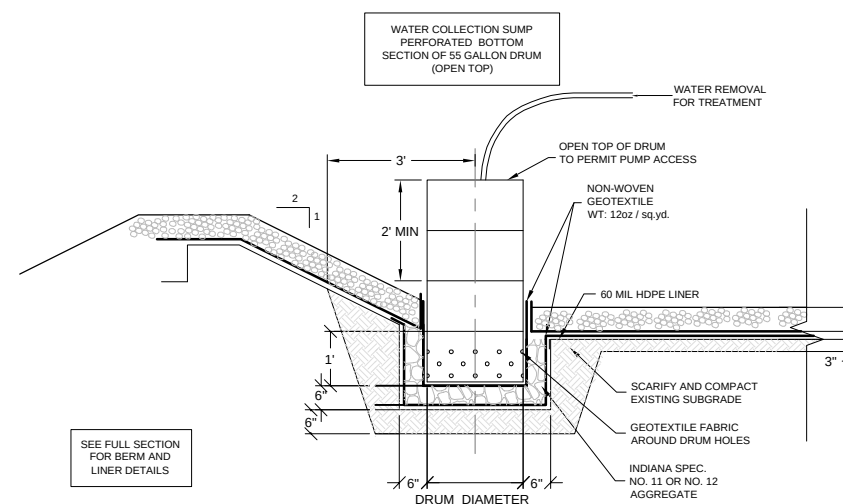
SECTION U SOIL STAGING AND DEWATERING AREA -
NTS D-04 TYPICAL SECTION



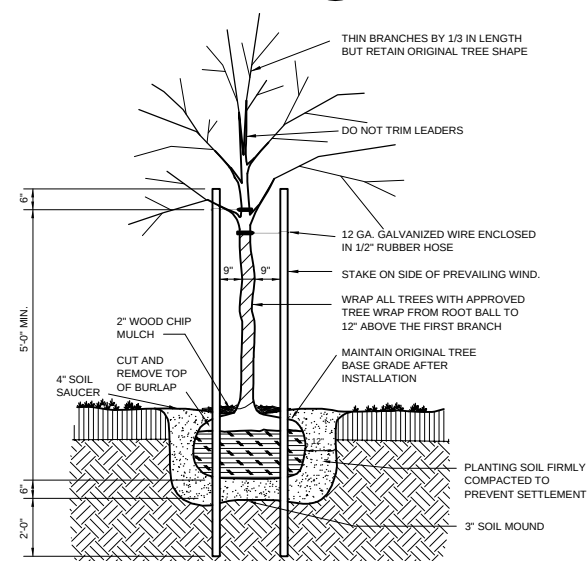
SECTION W EXCAVATION AROUND EXISTING TREES



SECTION T CREEK DIVERSION/STORMWATER CONTROL DETAIL



SECTION V SUMP PUMP
NTS C-04



SECTION X TREE PLANTING SECTION

1. PAINT ALL CUTS TO TREE ROOTS AND BRANCHES OVER 1/4" WITH APPROVED TREE WOUND PAINT
2. DETAIL APPLIES TO TREES 3" CALIPER AND UNDER

[illegible]

1. INSTALL UPSTREAM SANDBAG (OR EQUIVALENT) CHECK DAM WITH GEOTEXTILE LINER ACROSS WATERCOURSE AND MATCH EXISTING BANKS.
2. INSTALL SO THAT FLOW UNDER OR BETWEEN BAGS IS PREVENTED BY OVERLAPPING THE STACKED BAGS AND ENTRENCHING THE BOTTOM SET.
3. SAND BAG BARRIERS SHALL BE REGULARLY INSPECTED AND MAINTAINED AND ANY BREAKS OR UNDERCUTTING IN THE BARRIER SHALL BE PROMPTLY REPAIRED.
4. REMOVE SEDIMENT BEHIND THE BARRIER WHEN IT ACCUMULATES.
5. REPLACE BROKEN BAGS IMMEDIATELY.
6. INSTALL INSTREAM PUMP OR INTAKE LINE OF REMOTE PUMP IN SUMP LOCATED UPSTREAM OF WORK AREA. DISCHARGE WATER THROUGH OR INTO AN ENERGY DISSIPATOR INTO THE WATERCOURSE SUFFICIENTLY DOWNSTREAM TO PREVENT WATER FLOWING BACK INTO WORK AREA. (USE TEMPORARY SANDBAG BACKWATER DAM IF NECESSARY.)
7. THE TEMPORARY DIVERSION METHOD MAY BE REVISED AS NECESSARY BY THE CONTRACTOR. CONTRACTOR'S REVISED DETAILS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BY ENGINEER AND PERMITTING AGENCIES PRIOR TO CONSTRUCTION.
8. COLLECT SEEPAGE INTO EXCAVATION AREA. TRANSPORT TO THE WASTEWATER TREATMENT SYSTEM.

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

Approved

DRAWING STATUS

APPROVED BY EPA	NOV 7/05	J.M.
ISSUED FOR REVIEW	APR 18/05	JM/DP
Status	Date	Initial

GM POWERTRAIN BEDFORD FACILITY
DOWNSTREAM PARCELS REMOVAL ACTION

DETAILS
SHEET 4 OF 4



CONESTOGA-ROVERS & ASSOCIATES

Project Manager: J.M.	Reviewed By: J.D.	Date: APRIL 2005	
Scale: AS SHOWN	Project N ^o : 13968-00	Report N ^o : 129	Drawing N ^o : D-04