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BENCH MARKS
BENCH CIRCUIT NAVD 88 DATUM

- REF. B.M. The station is a brass tablet set in concrete, stamped "97-001".
 97-001 Station is located on Home Road opposite residence #7540, 5.5' south of the edge of pavement and 155' east of the Delaware/Union County Line.
 Elevation = 937.59
- REF. B.M. The station is a brass tablet set in concrete and stamped "97-002".
 97-002 It is located on Home Road approximately 1600' west of the intersection of Home Road and State Route 745 on the south side of the road at the Concord Community Park.
 Elevation = 926.06
- REF. B.M. The station is a brass tablet set in concrete and stamped "97-143".
 97-143 The station located on Home Road 300 feet west of the intersection of Concord Rd., 8.4 feet north of edge of pavement.
 Elevation = 930.66

GENERAL NOTES

THE COUNTY OF DELAWARE REQUIREMENTS, INCLUDING ALL SUPPLEMENTAL SPECIFICATIONS THERETO IN FORCE ON JUNE 1, 1998, TOGETHER WITH THE SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, 1997 EDITION, INCLUDING ALL SUPPLEMENTS THERETO, SHALL GOVERN ALL MATERIALS AND WORKMANSHIP INVOLVED IN THE IMPROVEMENTS SHOWN ON THESE PLANS.

THE CONTRACTOR AND SUB-CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE AND LOCAL SAFETY REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS ALSO THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SUB-CONTRACTOR TO INITIATE, MAINTAIN AND SUPERVISE ALL SAFETY REQUIREMENTS PRECAUTIONS AND PROGRAMS.

THE CONTRACTOR SHALL INVESTIGATE AND LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION.

THE CONTRACTOR SHALL NOTIFY THE COUNTY ENGINEER'S OFFICE FORTY-EIGHT (48) HOURS PRIOR TO ANY CONSTRUCTION.

THE PROPOSED ELEVATIONS AND LOCATIONS OF INLETS, CATCH BASINS, AND PIPES AND THE ESTIMATED LENGTHS OF PIPES MAY BE ADJUSTED BY THE ENGINEER DURING THE ENTIRE IMPROVEMENT OF THIS PROJECT. BASIS OF PAYMENT FOR POSSIBLE ADJUSTMENT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR VARIOUS STORM SEWERS TO BE ADJUSTED.

THE CONTRACTOR SHALL CONNECT ALL EXISTING FIELD TILES FOUND IN THE AREA TO THE PROPOSED STORM SEWER SYSTEM. THE COST FOR SUCH CONNECTIONS SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS STORM SEWER ITEMS.

THE MATERIALS AND CONSTRUCTION TECHNIQUES OF POND EMBANKMENTS SHALL BE UNDER THE DIRECTION OF A SOILS ENGINEER.

UNLESS OTHERWISE NOTED ON THE PLANS, ALL STORM SEWERS SHALL BE AS HEREAFTER SPECIFIED: (1) ALL SIZES OF STORM SEWER LOCATED WITHIN OR ACROSS PROPOSED OR EXISTING PAVEMENT AREAS SHALL BE TYPE "B" CONDUIT, 706.02; (2) STORM SEWERS LOCATED OUTSIDE PAVEMENT AREAS SHALL BE TYPE "C" CONDUIT, 706.01, OR TYPE "E" CONDUIT, 707.19, IF APPROVED BY THE COUNTY ENGINEER.

ALL TYPE "A", "B" AND "C" CONDUIT SHALL HAVE JOINTS AS PER ODOT SPECIFICATIONS 603.06. TYPE "E" CONDUIT SHALL HAVE JOINTS AS PER ODOT SPECIFICATIONS 603.06.

TYPE I AND TYPE II BEDDING WILL BE PROVIDED AS PER DELAWARE COUNTY STANDARD DRAWINGS.

BACKFILL REQUIREMENTS SHALL BE AS PER STANDARD DRAWING DCED R100.

ALL PIPE OUTSIDE THE RIGHT-OF-WAY SHALL HAVE A COVER OF 1.5 FEET MINIMUM. WHERE THIS IS NOT THE CASE, EMBANKMENT SHALL BE PLACED TO PROVIDE A MINIMUM COVER.

ALL DRAIN TILES ENCOUNTERED DURING CONSTRUCTIONS SHALL BE CONNECTED TO A PROPOSED DRAINAGE STRUCTURE.

THE CONTRACTOR SHALL INCLUDE IN THE UNIT PRICE BID FOR ITEM 203, EXCAVATION, THE REMOVAL AND DISPOSAL OF ALL TREES, BRUSH AND STUMPS WITHIN THE LIMITS OF CONSTRUCTION.

NO DESIGN OR MATERIAL CHANGES TO THE APPROVED FINAL ENGINEERING AND CONSTRUCTION PLAN WILL BE PERMITTED IN THE FIELD UNLESS PROPOSED BY THE CONSULTANT AND APPROVED BY THE COUNTY ENGINEER.

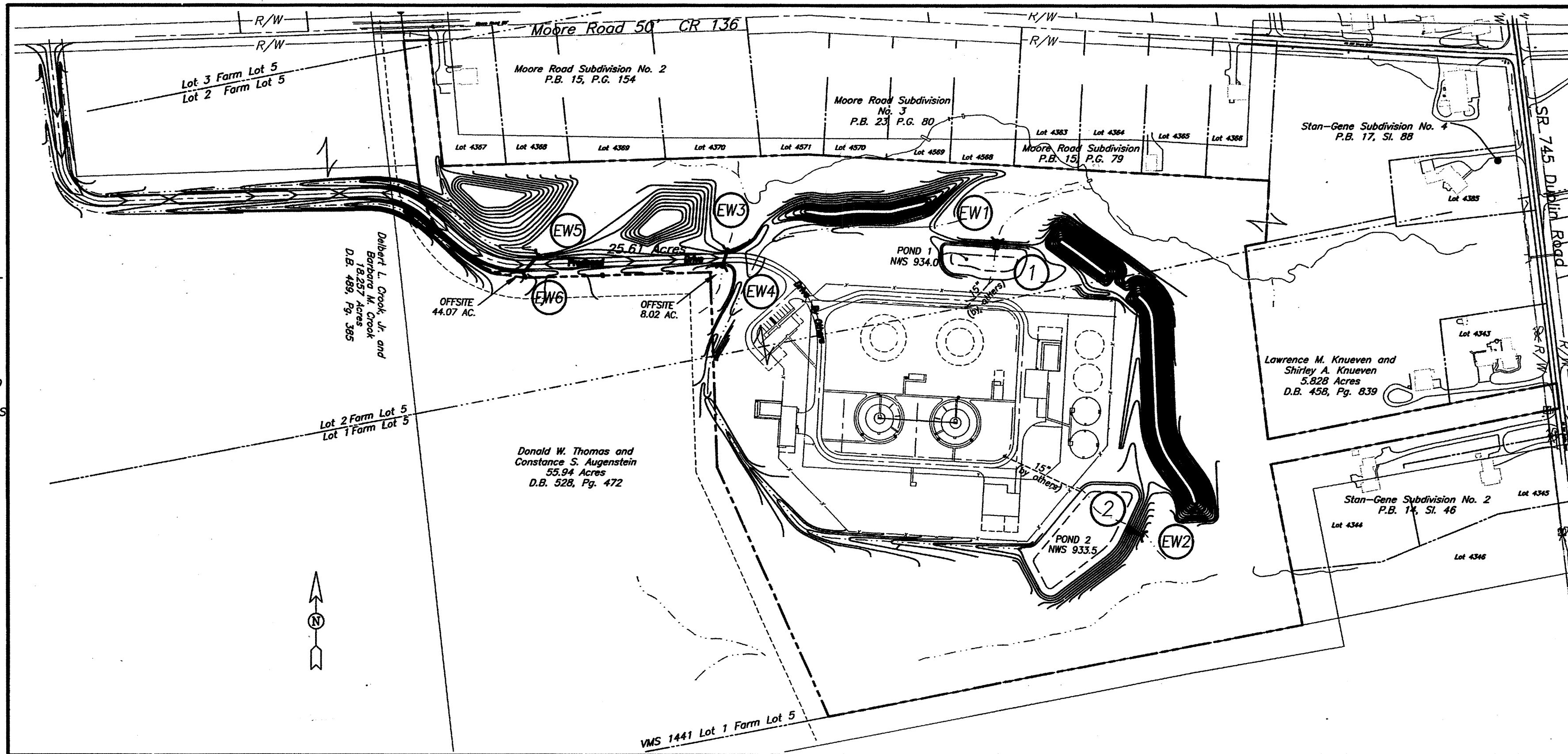
A PRECONSTRUCTION CONFERENCE SHALL BE HELD AT THE COUNTY ENGINEER'S OFFICE AT LEAST 15 CALENDAR DAYS BEFORE ANY WORK IS BEGUN BY REPRESENTATIVES OF THE OWNER, DESIGN ENGINEER AND CONTRACTOR SHALL BE IN ATTENDANCE. A SCHEDULE OF SEQUENCE OF EVENTS, DURING CONSTRUCTION, MUST BE SUBMITTED FOR REVIEW AT LEAST 7 DAYS PRIOR TO THIS MEETING.

STORM STRUCTURES ARE TO BE AS PER THE OHIO DEPARTMENT OF TRANSPORTATION, CITY OF COLUMBUS AND DELAWARE COUNTY STANDARDS AS LISTED ON THE STANDARD DRAWINGS.

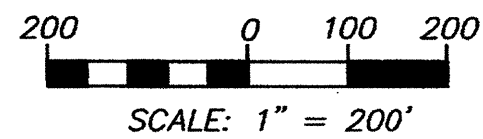
ROADWAY ITEMS ARE TO BE AS PER THE OHIO DEPARTMENT OF TRANSPORTATION STANDARDS.

ROOF DRAINS AND SUMP PUMPS MUST DRAIN TO THE CURB AS DESCRIBED IN THE STORM WATER MANAGEMENT REPORT.

PROOF SURVEYS ARE REQUIRED TO BE PERFORMED BY THE DEVELOPER IN ORDER TO DEMONSTRATE CONCLUSIVELY THAT THE FACILITIES ARE CONSTRUCTED TO THE CAPACITY, ELEVATIONS, SLOPES, GRADES AND SIZES SHOWN ON THE APPROVED PLANS. SUCH SURVEYS SHALL BE CONDUCTED BY A REGISTERED PROFESSIONAL SURVEYOR, SHALL EMPLOY STANDARD TECHNIQUES, AND SHALL PRODUCE AND FURNISH FIELD NOTES TO THE COUNTY ENGINEER FOR REVIEW AND RECORD PURPOSES. REDUCTION OF NOTES AND ANY PLOTTING NECESSARY TO MAKE NOTES INTERPRETABLE SHALL BE BY THE SURVEYOR PERFORMING THE PROOF SURVEY. PROOF SURVEYS SHALL BE IN ADDITION TO AND SEPARATE FROM OTHER INSPECTIONS THAT MAY BE CONDUCTED BY THE COUNTY ENGINEER. ALL DISCREPANCIES REVEALED IN THE AS-CONSTRUCTED FACILITIES BY THE PROOF SURVEY SHALL BE RECTIFIED BY THE DEVELOPER, AND THE PROOF SURVEY RE-PERFORMED IN ORDER TO DEMONSTRATE CONFORMANCE.



TRIBUTARY AREA & INDEX MAP



EXISTING UTILITIES

SUPPORT, PROTECTION AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS.

THE CONTRACTOR IS RESPONSIBLE FOR THE INVESTIGATION, LOCATION, SUPPORT, PROTECTION AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES WHETHER SHOWN ON THESE PLANS OR NOT. THE CONTRACTOR SHALL EXPOSE ALL UTILITIES AND STRUCTURES PRIOR TO CONSTRUCTION TO VERIFY THE HORIZONTAL AND VERTICAL EFFECT ON PROPOSED CONSTRUCTION. THE REVISED CODE. THE ABOVE MENTIONED NOTICE SHALL BE GIVEN AT LEAST TWO WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.

THE CONTRACTOR SHALL CAUSE NOTICE TO BE GIVEN TO THE REGISTERED UNDERGROUND UTILITY PROTECTION SERVICE (TELEPHONE 800-362-2764 TOLL FREE) AND THE OWNERS OF UNDERGROUND UTILITY FACILITIES SHOWN ON THE PLANS WHO ARE NOT MEMBERS OF A REGISTERED UNDERGROUND PROTECTION SERVICE IN ACCORDANCE WITH SECTION 153.64 OF THE REVISED CODE. THE ABOVE MENTIONED NOTICE SHALL BE GIVEN AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.

THE FOLLOWING UTILITIES AND OWNERS ARE LOCATED WITHIN THE WORK LIMITS OF THIS PROJECT AND DO NOT SUBSCRIBE TO A REGISTERED UNDERGROUND UTILITY PROTECTION SERVICE:

UTILITY	OWNER	TELEPHONE
WATER MAINS	DELCO WATER CO. 6773 OLENTANGY RIVER ROAD DELAWARE, OHIO 43015	(740) 548-7746
TELEPHONE	VERIZON 550 LEADER STREET MARION, OHIO 43302	(740) 369-0147
STORM SEWERS	DELAWARE COUNTY 50 CHANNING STREET DELAWARE, OHIO 43015 (CONTACTING AGENT ONLY)	(740) 833-2400
SANITARY SEWERS	DELAWARE COUNTY 50 CHANNING STREET DELAWARE, OHIO 43015	(740) 833-2240
ELECTRIC	AEP 850 TECH CENTER DRIVE GAHANNA, OHIO 43230	(614) 883-6962
CABLE T.V.	TIME WARNER 1266 DUBLIN ROAD COLUMBUS, OHIO 43215	(614) 481-5263

DEVELOPER:
 Village Communities
 470 Olde Worthington Road
 Westerville, Ohio 43012
 Contact: Charlie Vince
 Ph: 614-540-2400
 Fax: 614-540-3458

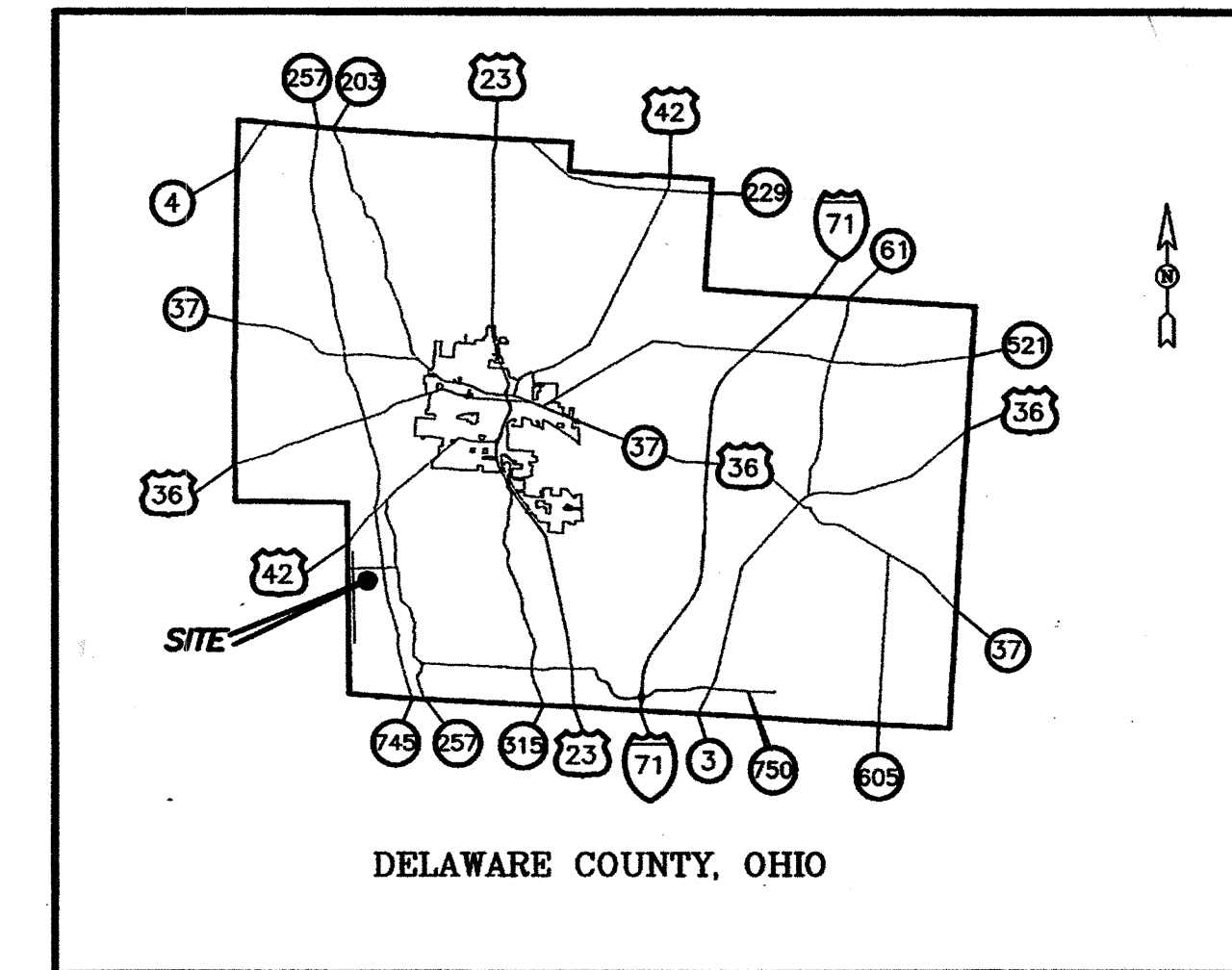
UNDERGROUND UTILITIES
 TWO WORKING DAYS
BEFORE YOU DIG
 CALL 1-800-362-2764 (TOLL FREE)
 OHIO UTILITIES PROTECTION SERVICE
 NON-MEMBERS
 MUST BE CALLED DIRECTLY

100 Year Ponding Requirements

Structure Number	Ponding Required	Ponding Provided	Ponding Depth	Ponding Elevation
1, Pond 1	49,890	50,140	2.8	936.8
2, Pond 2	58,769	62,636	1.3	934.8

DATE OF REQUEST	DESCRIPTION OF VARIANCE	SHEET	APPROVED	DATE

NO.	DATE	DESCRIPTION	BY	APPROVED	DATE



LOCATION MAP
 Not to Scale

DELAWARE COUNTY STANDARD DRAWINGS

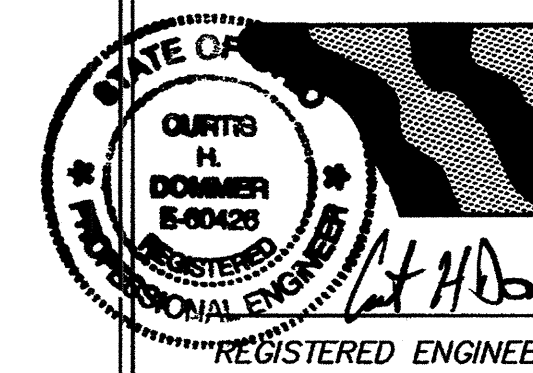
- DCED-S150 DCED-S155
 DCED-S151 DCED-S169
 DCED-R100

ODOT

2-3 CATCH BASIN

The Standard Drawings listed on this plan are to be considered a part thereof.

This is to state that good engineering practices have been utilized in the design of this project and that all of the minimum standards as delineated in the Delaware County Engineering and Surveying Standards for Subdivision Development have been met including those standards greater than minimum where, in my opinion, they are needed to protect the safety of the public. Any variances to the above standards are consistent with sound engineering practice and are not detrimental to the public safety and conveniences. These variances have been listed herein and have been approved by the Delaware County Engineer.



PLANS PREPARED BY:
BAUER, DAVIDSON & MERCHANT INC.
 255 GREEN MEADOWS DRIVE SOUTH
 WESTERVILLE, OHIO 43081
 (614) 846-3393

E-60426

9/19/07

DATE

The Delaware County signatures on this plan signify only concurrence with the general purpose and location of the proposed improvement. All technical details remain the responsibility of the Professional Engineer who prepared and certified these plans.

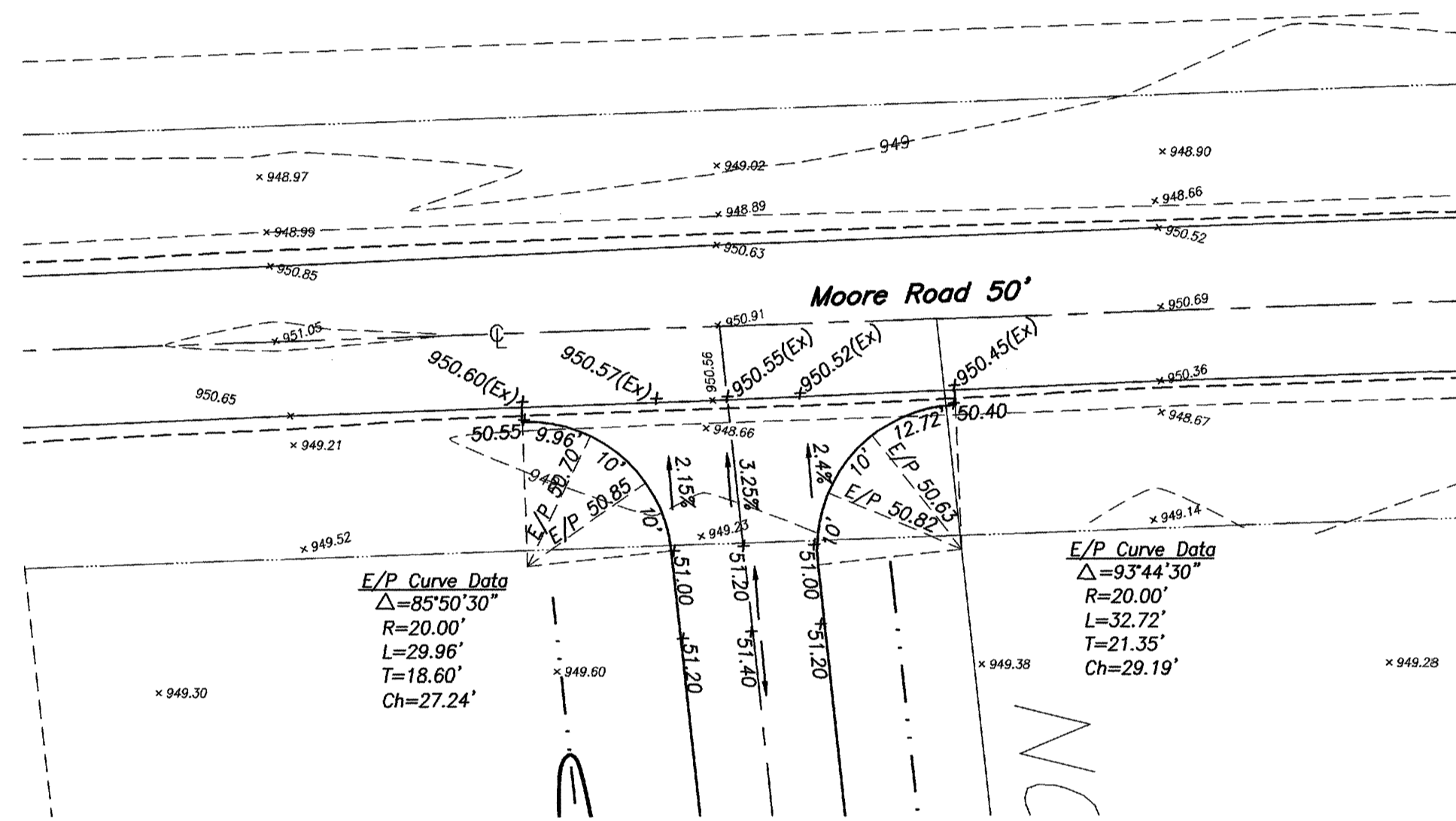
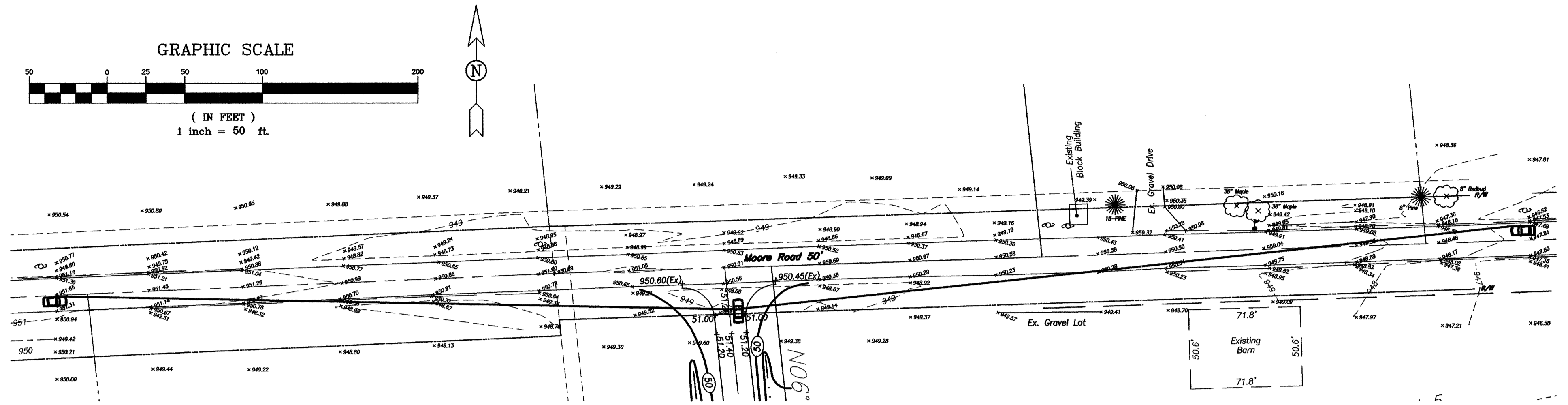
APPROVED
DELAWARE COUNTY

Chris E. Bauer
 DELAWARE COUNTY ENGINEER

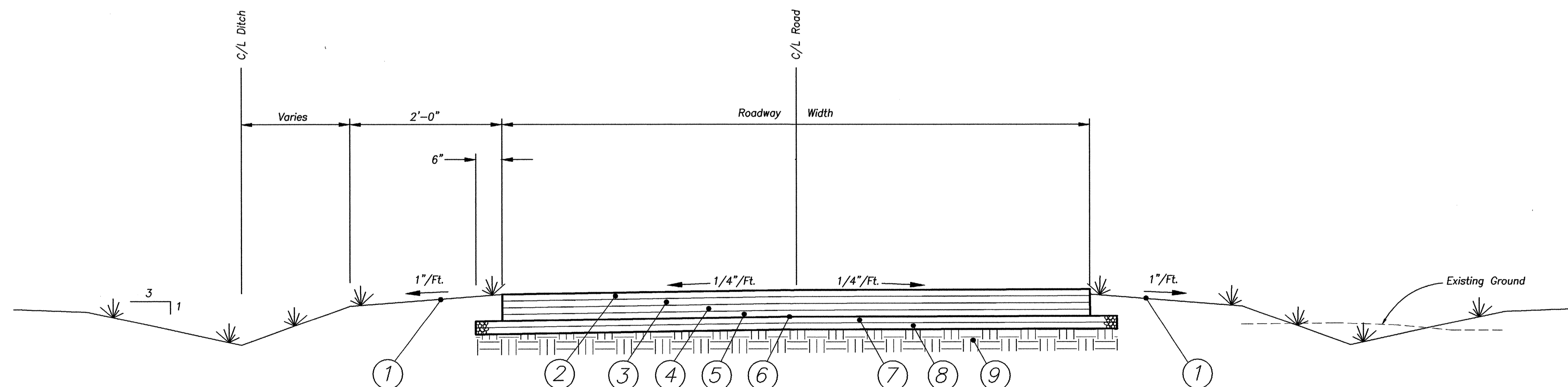
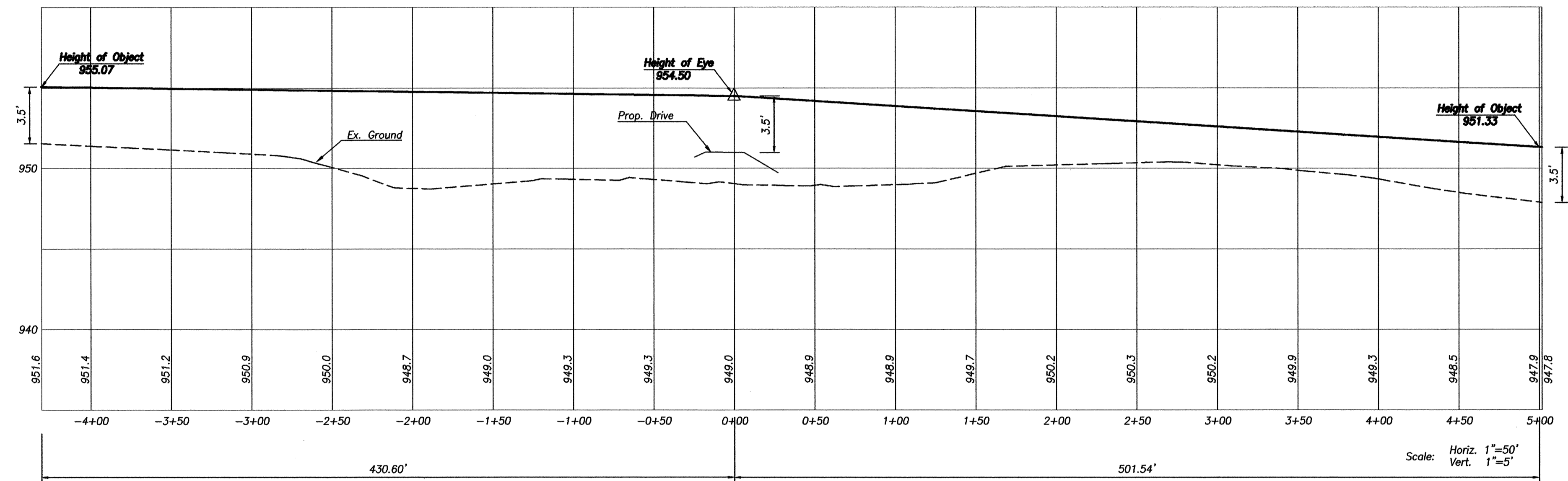
10.5.07

DATE

ESTIMATE OF QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
202	31	L.F.	8" PVC Culvert Pipe removed
207	1	Ea.	Stabilized Construction Entrance
207	2	Ea.	Inlet Protection
207	8850	L.F.	Filter Fabric Fence
207	70	Ea.	Straw or Hay Bales
601	3.3	C.Y.	Rock Channel Protection, Type C, w/ Filter
604	2	Ea.	2-3 CB (Per Plan)
604	2	Ea.	Griffice Plate (DCED-S145)
604	2	Ea.	12" Precast Endwall
604	2	Ea.	18" Precast Endwall
604	2	Ea.	36" Precast Endwall
901	40	L.F.	12" Conc. Storm Sewer 706.02 w/Type I Bedding
901	42	L.F.	18" Conc. Storm Sewer 706.02 w/Type I Bedding
901	55	L.F.	24" Conc. Storm Sewer 706.02 w/Type I Bedding



INTERSECTION DETAIL
 Scale: 1"=20'

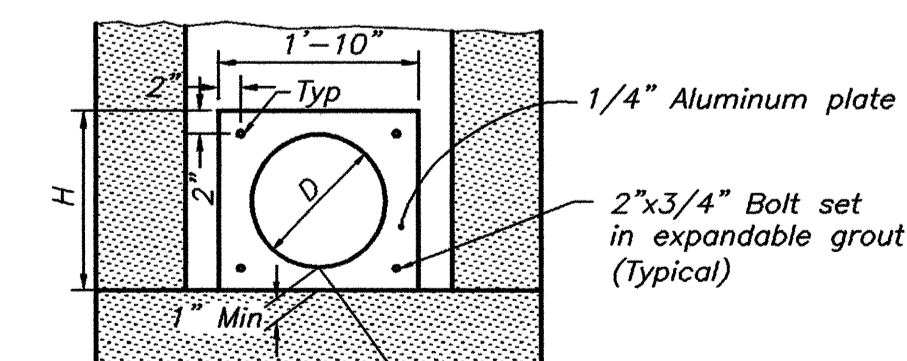


ASPHALT ROADWAY SECTION

NOTE:
 Crown Roadway at 1/4" per foot except where plans indicate cross slope

- | | |
|------------------------------------|------------------------------------|
| ① Fertilize and Seed | ⑤ 3" 301 Bituminous Aggregate Base |
| ② 1 1/4" 404 Surfacing Course | ⑥ Prime Coat |
| ③ 1 3/4" 402 Leveling Course | ⑦ 3" 304 Aggregate Base |
| ④ 3" 301 Bituminous Aggregate Base | ⑧ 3" 304 Aggregate Base |
| | ⑨ Compacted Subgrade |

Orifice Plate to be set on outlet pipe wall at Catch Basin #1 & #2.



	D	H
CB #1	15 1/8"	22"
CB #2	10"	22"

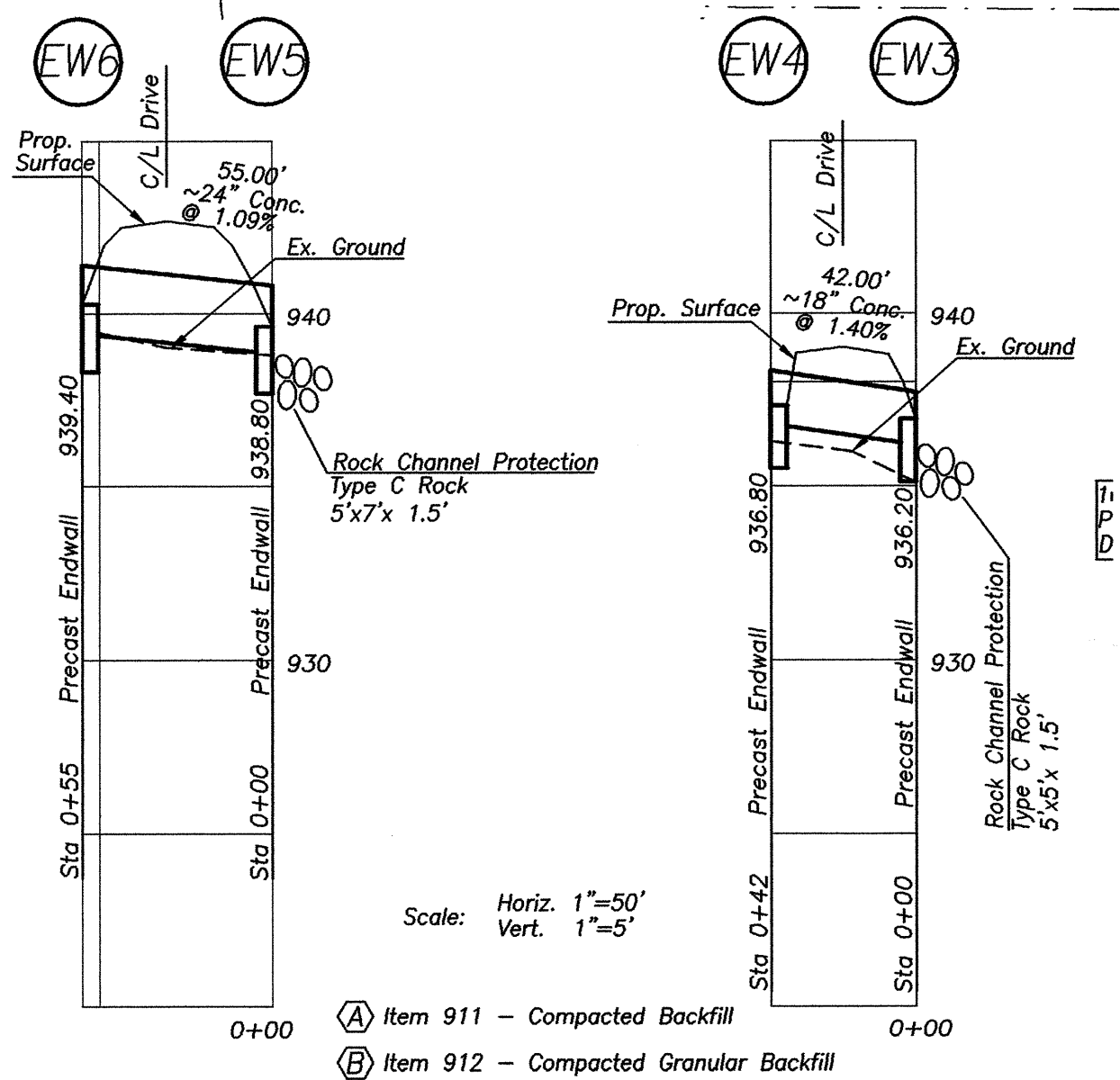
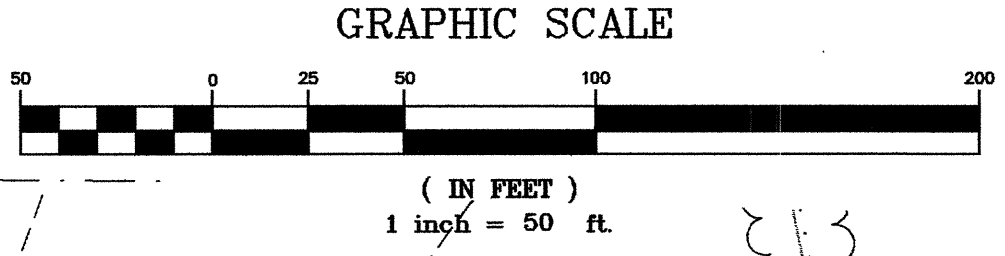
Orifice Plate Detail
 Not to Scale

CONCORD TOWNSHIP, DELAWARE COUNTY, OHIO
TYPICAL SECTION/QUANTITIES/DETAILS
 FOR
LOWER SCIOTO WATER RECLAMATION FACILITY

BAUER, DAVIDSON & MERCHANT, INC.
 Consulting Engineers

255 Green Meadows Drive S.
 P.O. Box 370
 Powell, Ohio 43065
 (614) 846-3393

I.D. #09
 September 5, 2007
 h:\dwg 07\15507\1557st2



- Legend**
- Ex. Water FH
 - Prop. Water Valve
 - Ex. Contour
 - Prop. Contour by others
 - Prop. Contour
 - Prop. Spot Elevation

*Location Based on Record Information. Contactor to Verify in Critical Areas.

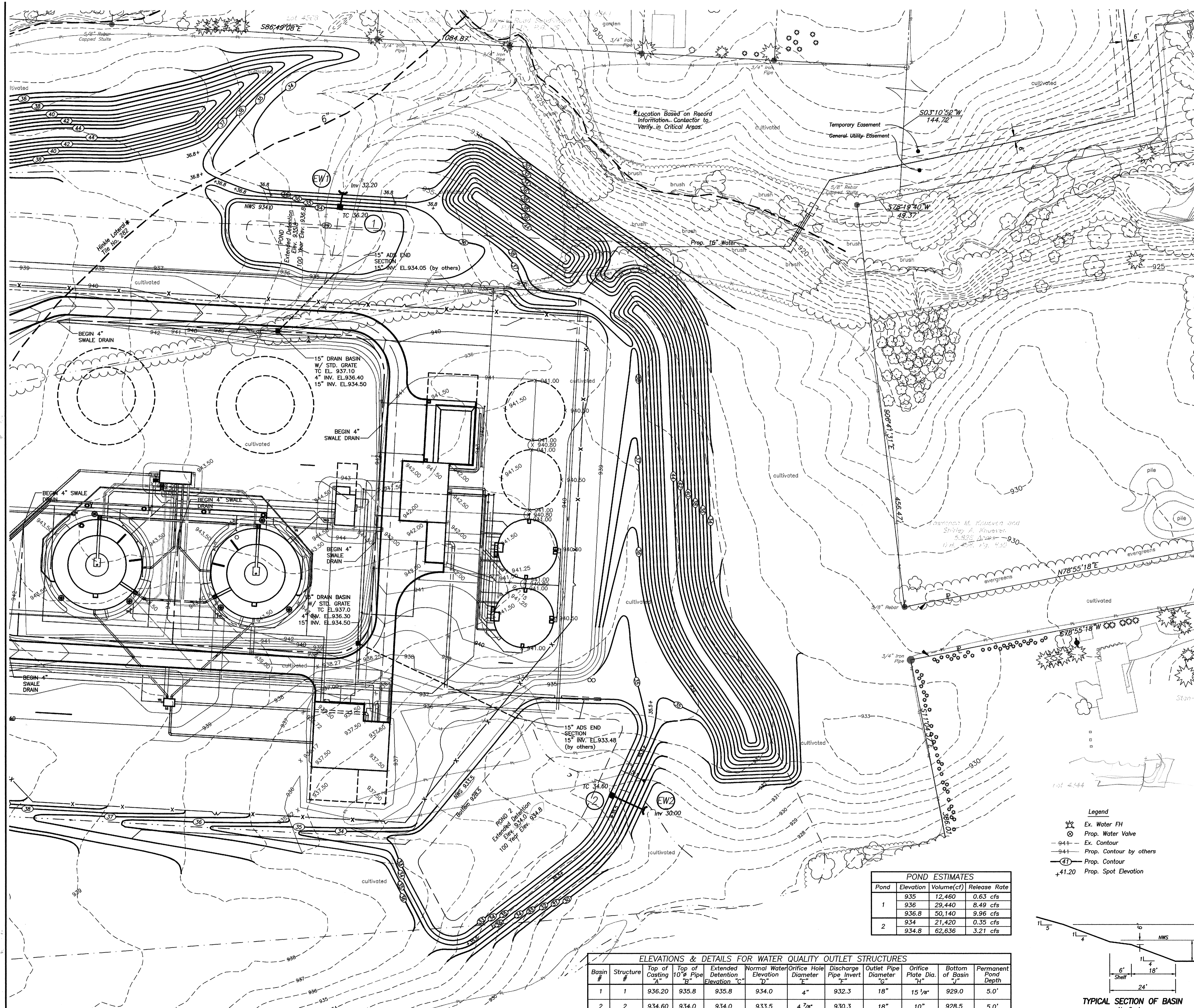
CONCORD TOWNSHIP, DELAWARE COUNTY, OHIO

GRADING PLAN FOR MOORE ROAD

BAUER, DAVIDSON & MERCHANT, INC.
 Consulting Engineers

255 Green Meadows Drive S.
 Westerville, Ohio 43081
 (614) 846-3393

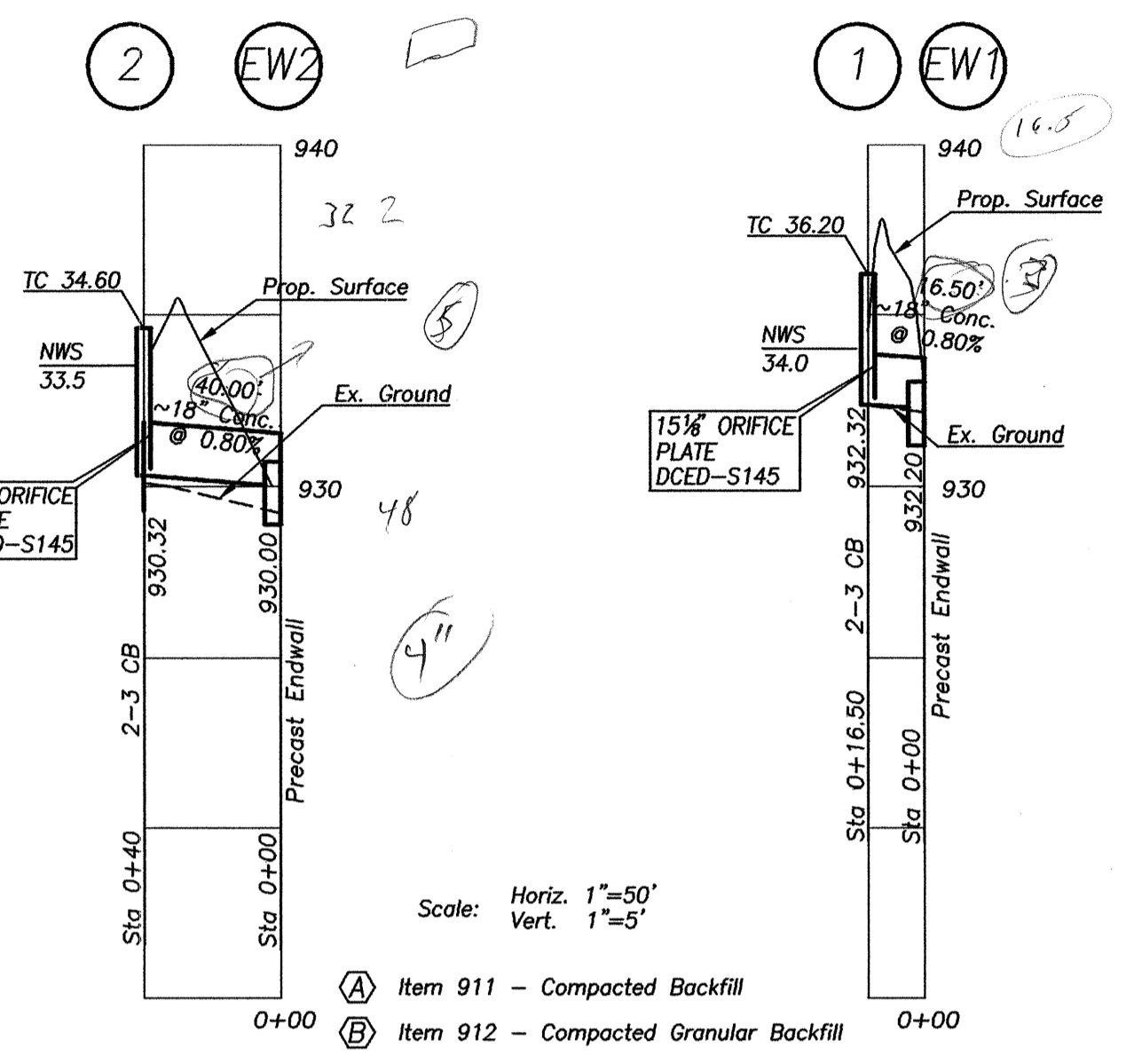
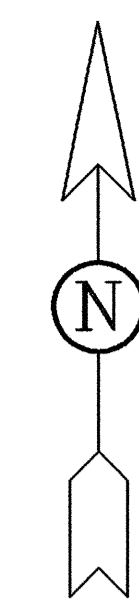
I.D. #09 October 1, 2007 h:\dwa 07155071557e33



GRAPHIC SCALE



(IN FEET)
1 inch = 50 ft.



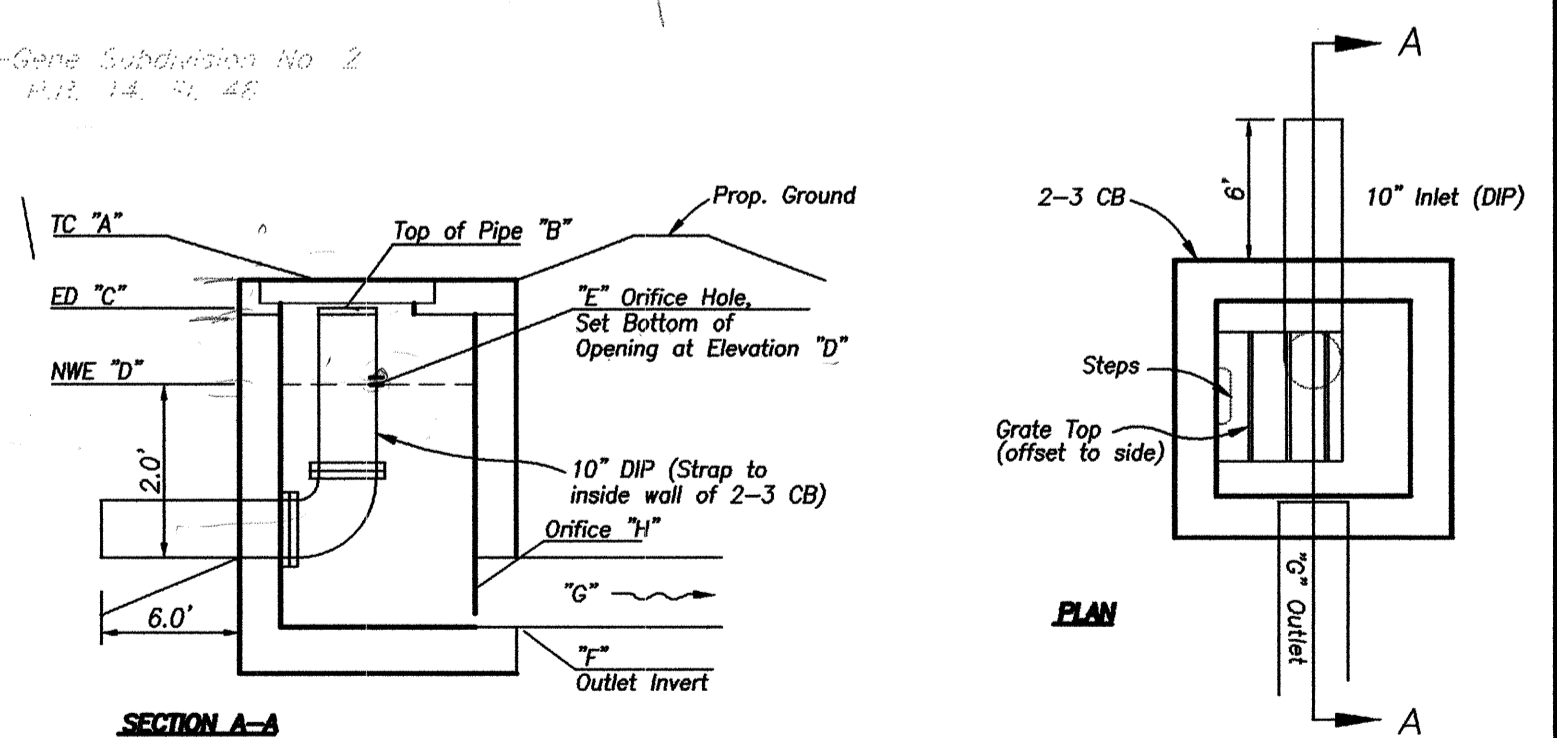
Scale: Horiz. 1"=50'
Vert. 1"=5'

- (A) Item 911 - Compacted Backfill
- (B) Item 912 - Compacted Granular Backfill

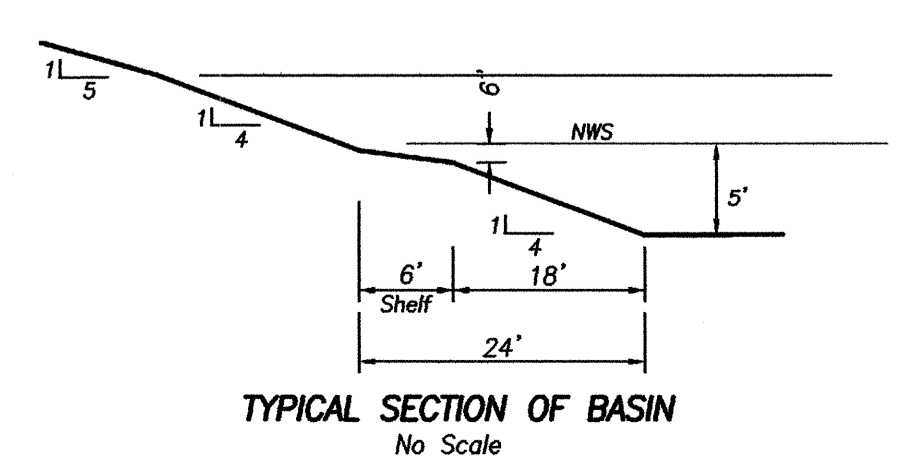
Pond	Elevation	Volume(cu)	Release Rate
1	935	12,460	0.63 cfs
	936	29,440	8.49 cfs
	936.8	50,140	9.96 cfs
2	934	21,420	0.35 cfs
	934.8	62,636	3.21 cfs

Basin #	Structure #	Top of Casting "A"	Top of 10" Pipe "B"	Extended Detention Elevation "C"	Normal Water Elevation "D"	Orifice Hole Diameter "E"	Discharge Pipe Invert "F"	Outlet Pipe Diameter "G"	Orifice Plate Dia. "H"	Bottom of Basin "I"	Permanent Pond Depth
1	1	936.20	935.8	935.8	934.0	4"	932.3	18"	15 1/8"	929.0	5.0'
2	2	934.60	934.0	934.0	933.5	4 7/8"	930.3	18"	10"	928.5	5.0'

- Legend
- ☼ Ex. Water FH
 - ⊗ Prop. Water Valve
 - 941- Ex. Contour
 - 941- Prop. Contour by others
 - (1) Prop. Contour
 - +41.20 Prop. Spot Elevation



OUTLET STRUCTURE DETAILS FOR WATER QUALITY STRUCTURE #



TYPICAL SECTION OF BASIN

CONCORD TOWNSHIP, DELAWARE COUNTY, OHIO

GRADING PLAN

FOR

LOWER SCIOTO WATER RECLAMATION FACILITY

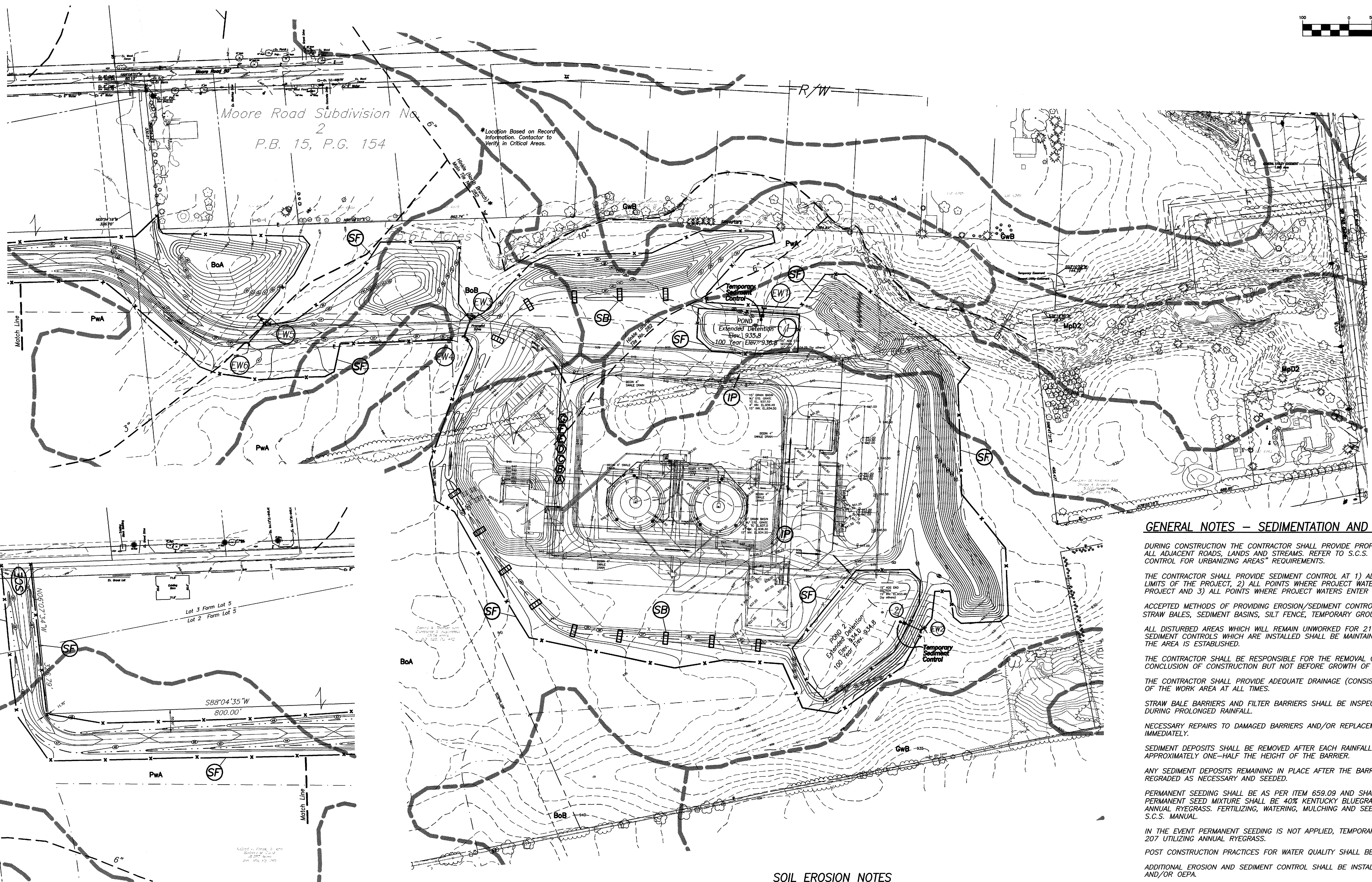
BAUER, DAVIDSON & MERCHANT, INC.
Consulting Engineers

255 Green Meadows Drive S.
Westerville, Ohio 43081
(614) 846-3393

I.D. #09
October 1, 2007
h:\dwg 07\15507\1557st4



(IN FEET)
1 inch = 100 ft.



- Legend**
- Straw or Hay Bale
 - Prop. Contour
 - Ex. Contour
 - Filter Fabric Fence or approved equal
 - Stabilized Construction Entrance
 - Inlet Protection
 - Soil Boundary
 - Drainage Flow
 - Tile Location (approx.)
 - Dumpster Area
 - Toxic Waste Disposal Area
 - Sanitary Disposal
 - Solid Waste Disposal
 - Concrete Truck Washout Area
 - Fueling Area
 - Truck Wash Area

GENERAL NOTES - SEDIMENTATION AND EROSION CONTROL

DURING CONSTRUCTION THE CONTRACTOR SHALL PROVIDE PROPER SOIL EROSION MEASURES FOR PROTECTION OF ALL ADJACENT ROADS, LANDS AND STREAMS. REFER TO S.C.S. MANUAL "WATER MANAGEMENT AND SEDIMENT CONTROL FOR URBANIZING AREAS" REQUIREMENTS.

THE CONTRACTOR SHALL PROVIDE SEDIMENT CONTROL AT 1) ALL POINTS WHERE PROJECT WATERS LEAVE THE LIMITS OF THE PROJECT, 2) ALL POINTS WHERE PROJECT WATERS ENTER A STREAM THAT TRAVERSES THE PROJECT AND 3) ALL POINTS WHERE PROJECT WATERS ENTER PORTIONS OF COMPLETED UNDERGROUND PIPING.

ACCEPTED METHODS OF PROVIDING EROSION/SEDIMENT CONTROL INCLUDE BUT ARE NOT LIMITED TO: HAY/STRAW BALES, SEDIMENT BASINS, SILT FENCE, TEMPORARY GROUND COVER.

ALL DISTURBED AREAS WHICH WILL REMAIN UNWORKED FOR 21 DAYS OR MORE SHALL BE SEEDED. OTHER SEDIMENT CONTROLS WHICH ARE INSTALLED SHALL BE MAINTAINED UNTIL THE VEGETATION GROWTH ON THE AREA IS ESTABLISHED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY SEDIMENT DEVICES AT THE CONCLUSION OF CONSTRUCTION BUT NOT BEFORE GROWTH OF PERMANENT GROUND COVER.

THE CONTRACTOR SHALL PROVIDE ADEQUATE DRAINAGE (CONSISTENT WITH SEDIMENT/EROSION PRACTICES) OF THE WORK AREA AT ALL TIMES.

STRAW BALE BARRIERS AND FILTER BARRIERS SHALL BE INSPECTED AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.

NECESSARY REPAIRS TO DAMAGED BARRIERS AND/OR REPLACEMENT OF SAME SHALL BE ACCOMPLISHED IMMEDIATELY.

SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH RAINFALL OR WHEN LEVEL OF DEPOSIT REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.

ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE BARRIERS ARE NO LONGER REQUIRED SHALL BE REGRADED AS NECESSARY AND SEEDED.

PERMANENT SEEDING SHALL BE AS PER ITEM 659.09 AND SHALL BE BETWEEN MARCH 15 AND OCTOBER 15. PERMANENT SEED MIXTURE SHALL BE 40% KENTUCKY BLUEGRASS, 40% CREEPING RED FESCUE AND 20% ANNUAL RYEGRASS. FERTILIZING, WATERING, MULCHING AND SEEDING RATES SHALL BE AS SPECIFIED AS PER S.C.S. MANUAL.

IN THE EVENT PERMANENT SEEDING IS NOT APPLIED, TEMPORARY SEEDING SHALL BE APPLIED AS PER ITEM 207 UTILIZING ANNUAL RYEGRASS.

POST CONSTRUCTION PRACTICES FOR WATER QUALITY SHALL BE RETENTION POND WITH ORIFICE PLATE.

ADDITIONAL EROSION AND SEDIMENT CONTROL SHALL BE INSTALLED AS DIRECTED BY DELAWARE COUNTY AND/OR OEPA.

SOIL EROSION NOTES

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE, DRIVE CULVERTS, SEDIMENT BASINS, & SILT FENCE
2. GRADE AND STOCKPILE TOPSOIL
 - A. SEDIMENT BARRIER AROUND STOCKPILE OR
 - B. TEMPORARY SEEDING
3. VEGETATIVE COVER ALL AREAS TO BE EXPOSED LONGER THAN 21 DAYS (TEMPORARY SEEDING)
4. INSTALL UTILITIES
 - A. INSTALL INLETS
5. INSTALL ROADWAY SUBGRADE AND DITCHES
6. INSTALL PAVEMENT AND FINAL GRADING
7. PERMANENT SEEDING AND MULCHING. ASPHALT EMULSION OVER STRAW PER 659.09.
8. PERFORM CONTINUING MAINTENANCE
9. REMOVE SEDIMENT FILTER AFTER VEGETATION GROWTH IS ESTABLISHED
10. ALL DISTURBED AREAS SHALL BE SEEDED AND STRAW MULCHED STRAW MULCHED IF TO REMAIN UNDISTURBED FOR 21 DAYS OR GREATER.
11. ANY AREAS WITHIN 50 FEET OF THE STREAM TO REMAIN UNDISTURBED FOR GREATER THAN 21 DAYS SHALL BE SEEDED AND MULCHED WITHIN 2 DAYS. ANY AREAS AT FINAL GRADE SHALL BE PERMANENTLY STABILIZED WITHIN 2 DAYS.
12. STREAM CROSSING ASSOCIATED WITH TIMBER REMOVAL MUST BE PERMANENTLY STABILIZED AND STRAW MULCHED.

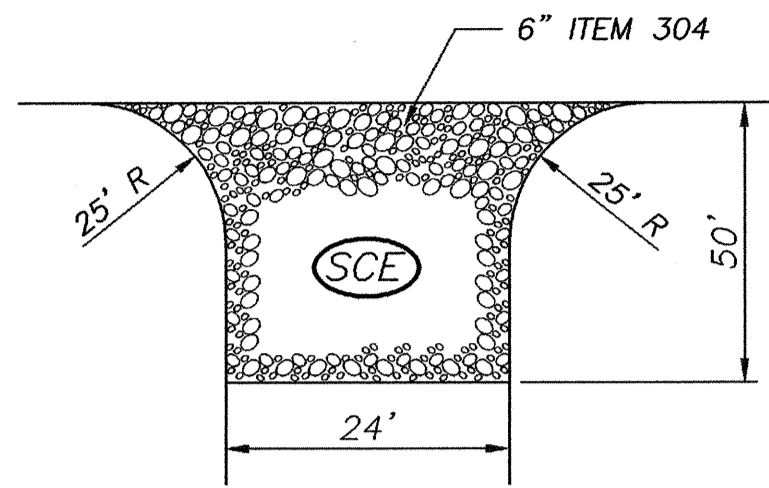
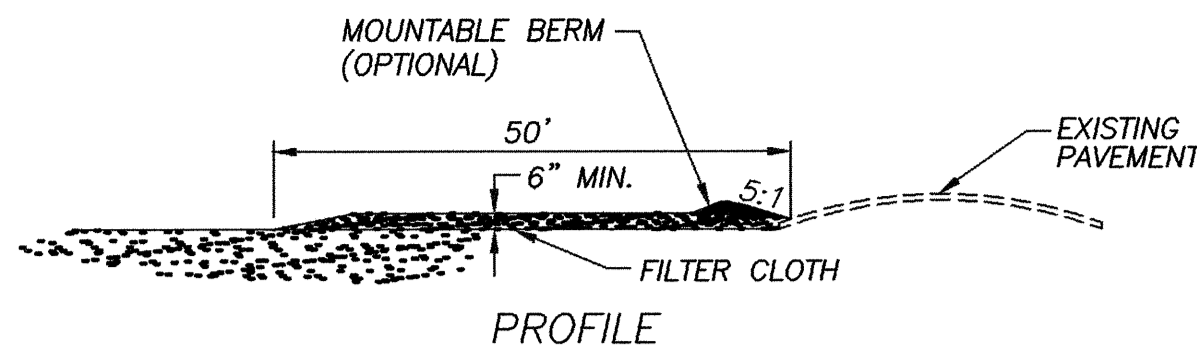
NOTE:
SEDIMENT BASIN SHALL BE INSTALLED AS A FIRST MEASURE OF CONSTRUCTION.

CONCORD TOWNSHIP, DELAWARE COUNTY, OHIO
STORM WATER POLLUTION PREVENTION PLAN
 FOR
LOWER SCIOTO WATER RECLAMATION FACILITY

BAUER, DAVIDSON & MERCHANT, INC.
 Consulting Engineers
 255 Green Meadows Drive S.
 P.O. Box 370
 Powell, Ohio 43065
 (614) 846-3393

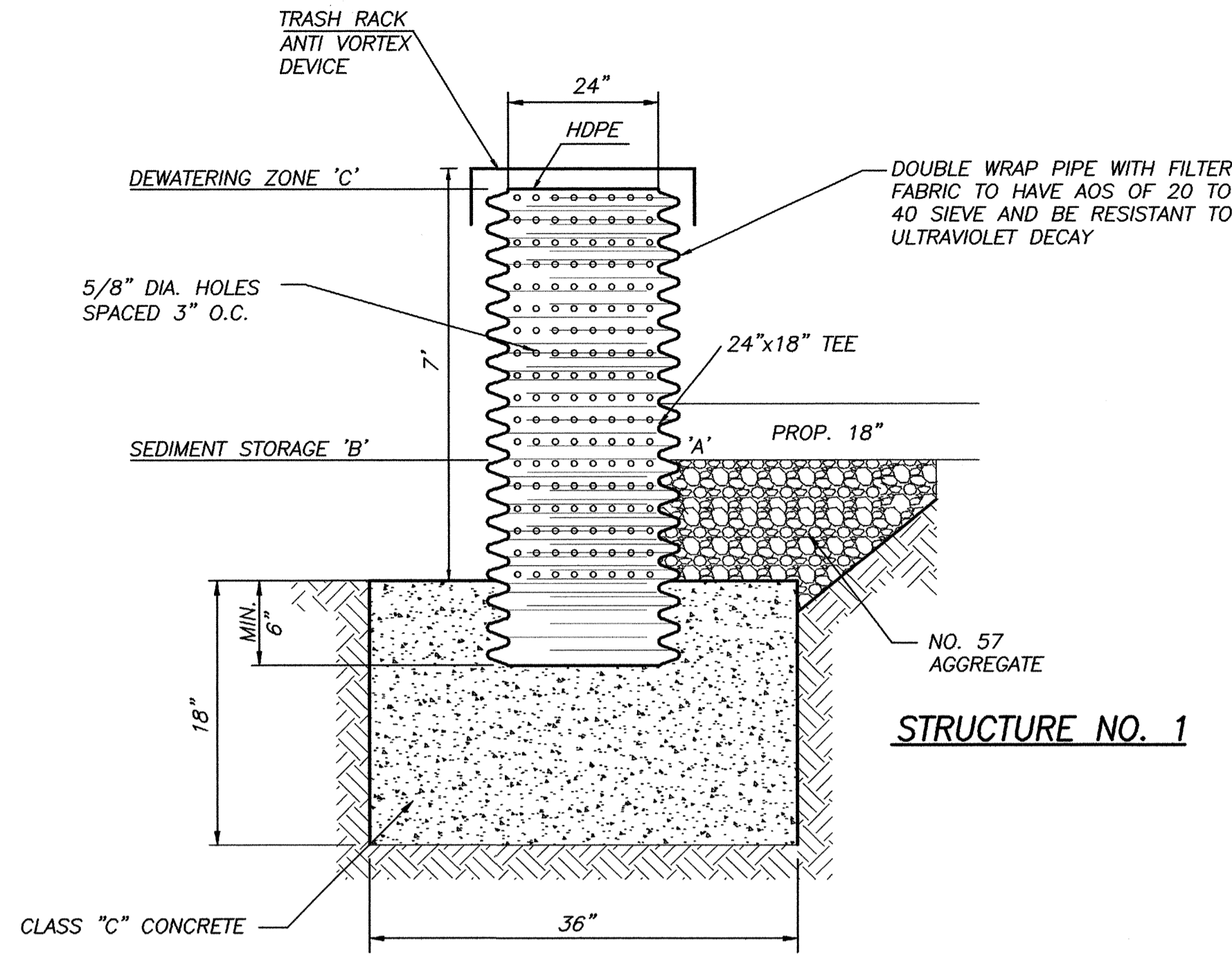
October 1, 2007

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- CONSTRUCTION SPECIFICATIONS**
- STONE SIZE - USE #2 STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
 - LENGTH - AS REQUIRED.
 - THICKNESS - NOT LESS THAN SIX (6) INCHES.
 - WIDTH - TWENTY-FOUR (24"), BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
 - FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
 - SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCE SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
 - MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
 - WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAYS. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
 - PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ACCESS ROAD
NO SCALE



TEMPORARY SEDIMENT CONTROL STRUCTURE
SCALE: NONE

Location	Tributary Acreage	Required Basin Volume (104 CY/Ac)	Provided Basin Volume	'A'	'B'	'C'
Basin 1	16.3	45,770 C.F.	53,900 C.Y.	932.3	932.0	935.0
Basin 2	12.8	35,942 C.F.	45,540 C.Y.	930.3	931.0	933.5

SEDIMENT POND SHALL BE CLEANED OUT WHEN SILT OCCUPIES 40% OF THE POND DEPTH.

SITE DATA

OWNER/DEVELOPER: VILLAGE COMMUNITIES
470 OLDE WORTHINGTON ROAD
WESTERVILLE, OHIO 43082
(614) 540-3400

PLAN DESIGNER: BAUER, DAVIDSON & MERCHANT, INC.
255 GREEN MEADOWS DRIVE SOUTH
WESTERVILLE, OHIO 43081
(614) 846-3393

TOTAL SITE ACREAGE: 29.1 ACRES
DISTURBED ACREAGE: 29.1 ACRES
AVERAGE SLOPE:
SITE CONDITIONS: EXISTING - UNDEVELOPED FIELD
DEVELOPED - WATER RECLAMATION FACILITY

ADJACENT AREAS: RESIDENTIAL TO NORTH & EAST; UNDEVELOPED TO SOUTH & WEST

THIS SITE IS TRIBUTARY TO SCIOTO RIVER.

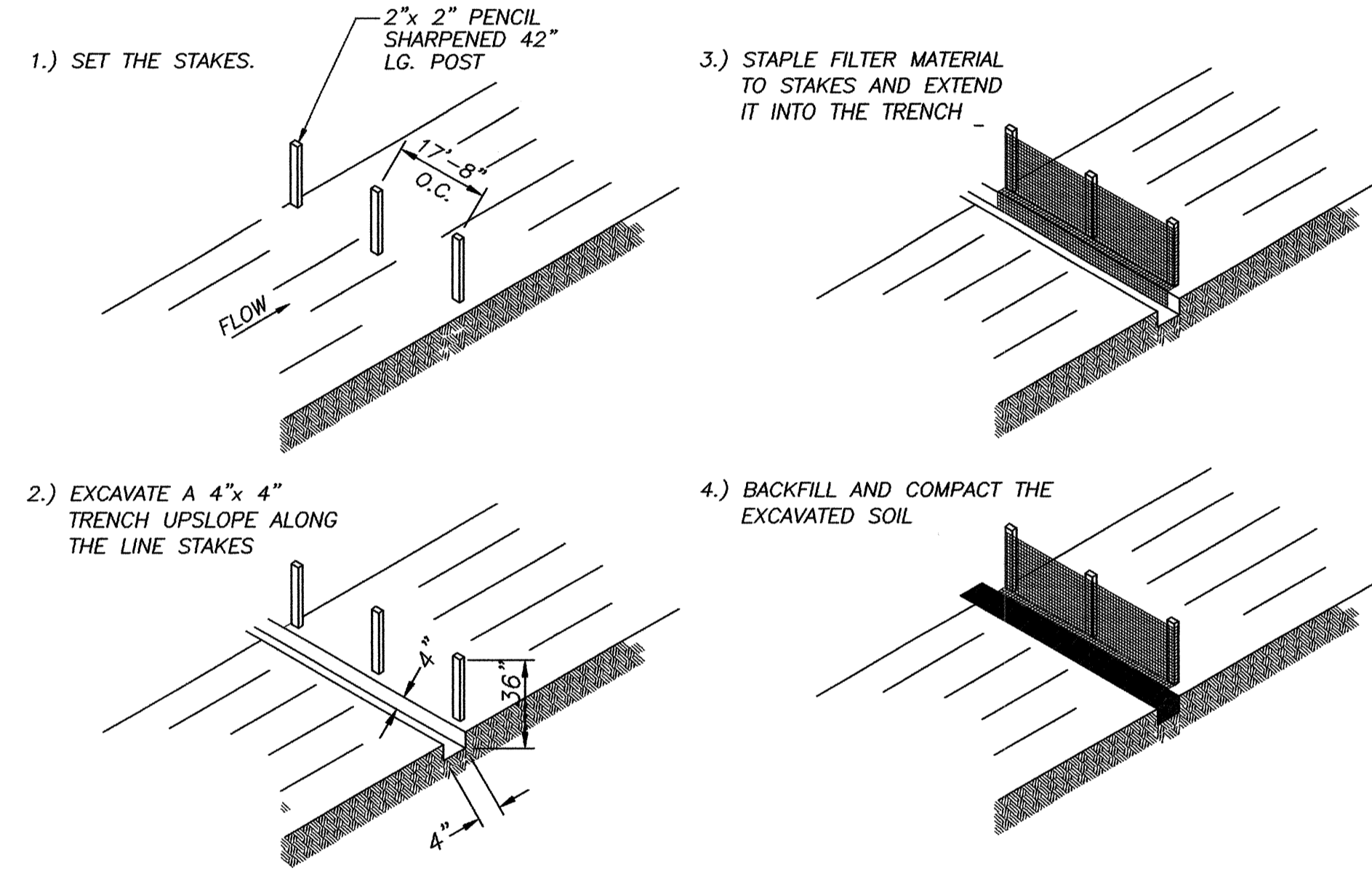
SOILS:
BoA BLOUNT SILT LOAM, 0-2 PERCENT SLOPES
BoB BLOUNT SILT LOAM, 2-4 PERCENT SLOPES
GwB GLYNWOOD SILT LOAM, 4-6 PERCENT SLOPES
PwA PEWAMO SILTY CLAY LOAM, 0-1 PERCENT SLOPES

SEDIMENTATION AND EROSION CONTROL

PRIOR TO CONSTRUCTION OPERATIONS IN A PARTICULAR AREA ALL SEDIMENTATION AND EROSION CONTROL FEATURES SHALL BE IN PLACE. FIELD ADJUSTMENTS WITH RESPECT TO LOCATION AND DIMENSIONS MAY BE MADE BY THE ENGINEER AS REQUIRED.

IT MAY BECOME NECESSARY TO REMOVE PORTIONS OF THE BARRIER DURING CONSTRUCTION TO FACILITATE THE GRADING OPERATIONS IN CERTAIN AREAS. HOWEVER, THE BARRIER SHALL BE IN PLACE IN THE EVENING OR DURING ANY INCLEMENT WEATHER.

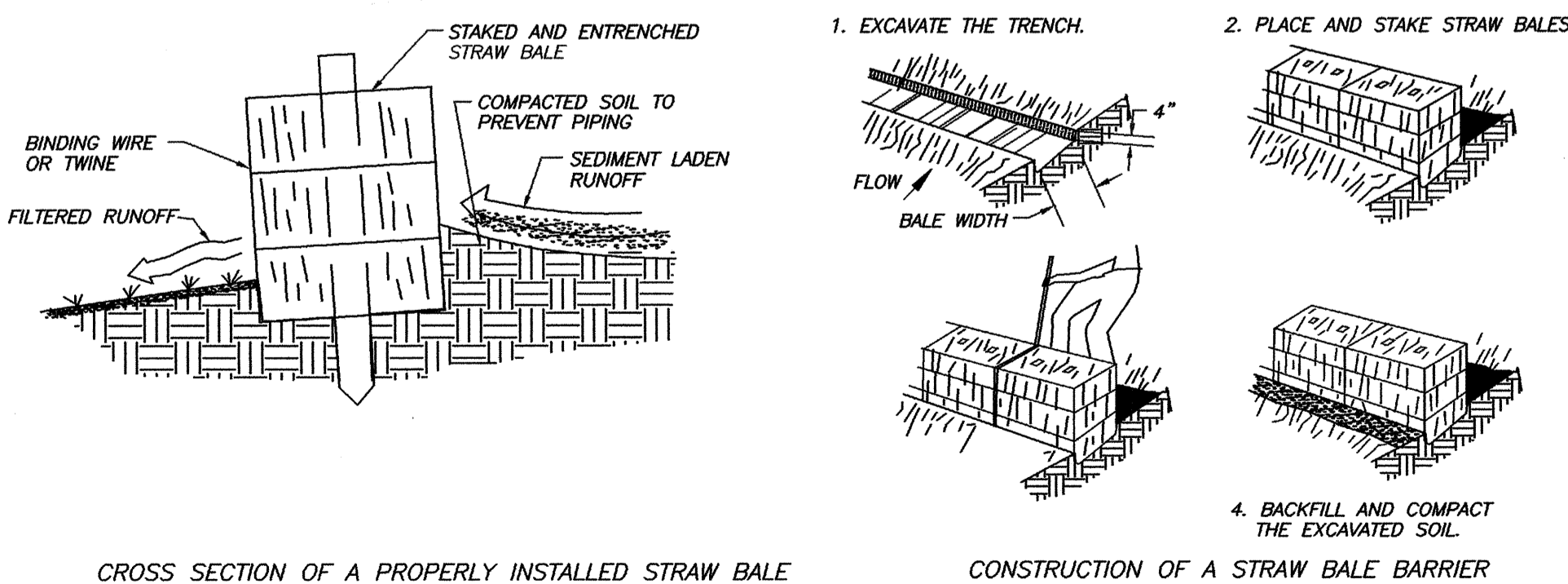
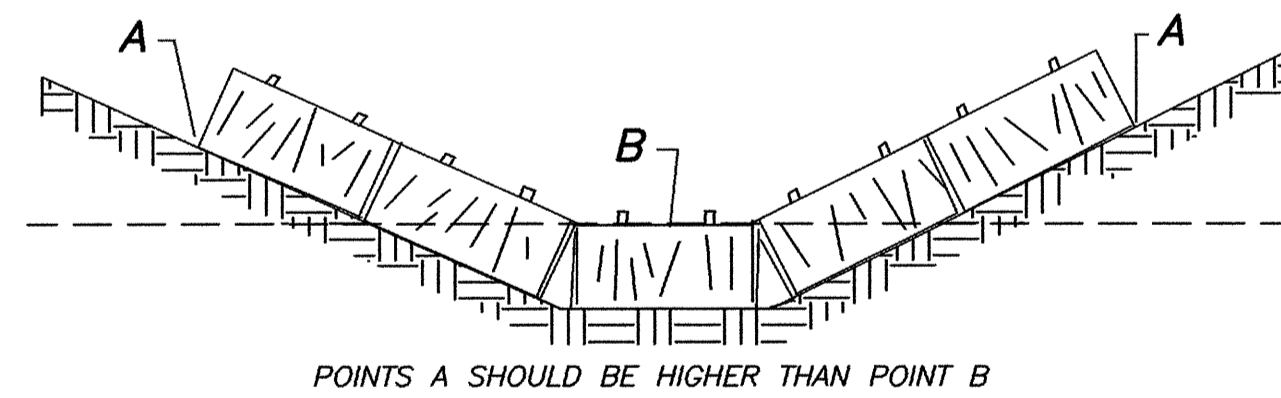
SPECIFICATIONS FOR SEEDING & MULCHING			
SEED TYPE	SEEDING DATES	PER 1000 SQ. FT.	PER ACRE
TALL FESCUE & ANNUAL RYEGRASS	MARCH 1 TO SEPTEMBER 15	2 POUND & 1/2 POUND	80 POUND & 20 POUND
SMALL GRAIN, STRAW		100 POUNDS OR 2 OR 3 BALES	2 TONS OR 50 BALES
FERTILIZER		25 POUNDS OF 12-12-12 OR THE EQUIVALENT	100 POUNDS OF 12-12-12 OR THE EQUIVALENT
TEMPORARY SEEDING			
RYE OR WHEAT	SEPTEMBER 15 TO OCTOBER 30	3 POUNDS	2 BUSHELS
SOIL PROTECTION			
SMALL GRAIN, STRAW MULCH	OCTOBER 30 TO MARCH 1	2 TO 3 BALES	2 TONS



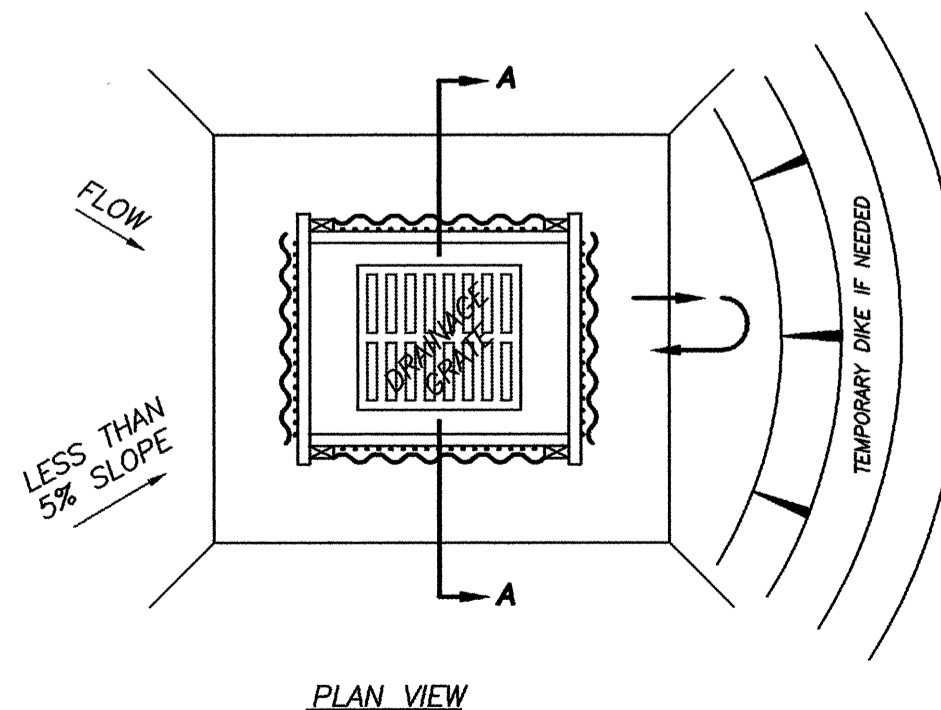
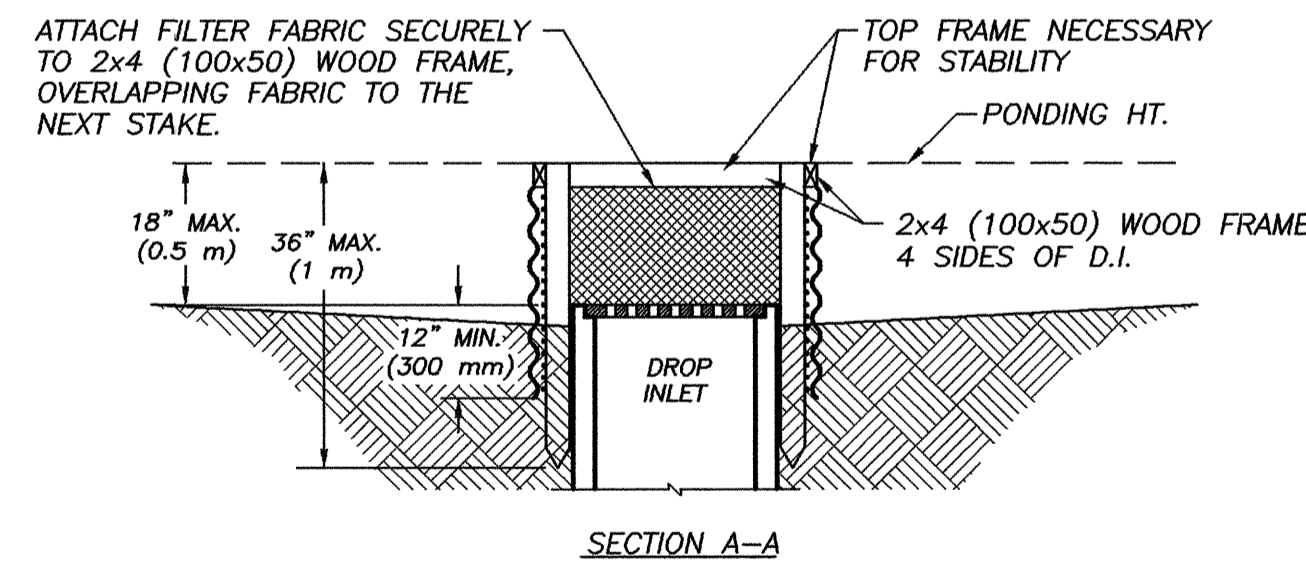
FABRIC FILTER BARRIER



IF CAPACITY EXCEEDS SILT FENCING, A TEMPORARY SEDIMENT TRAP WILL BE INSTALLED IN ITS PLACE.



PROPER PLACEMENT OF STRAW BALE BARRIER IN DRAINAGE WAY



SILT FENCE DROP INLET SEDIMENT BARRIER

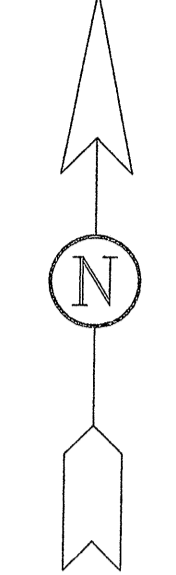
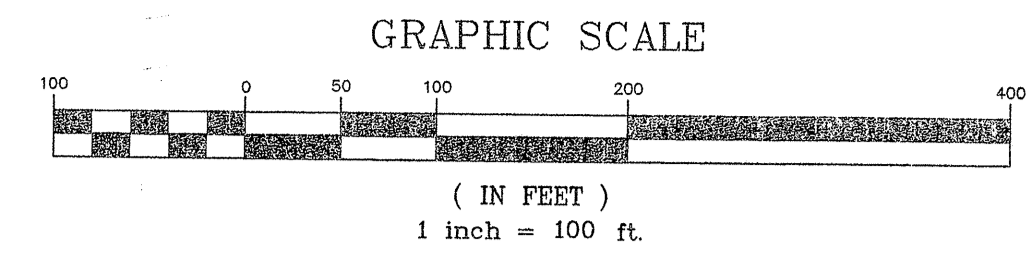


USE AT ALL EXISTING AND PROPOSED CATCH BASINS

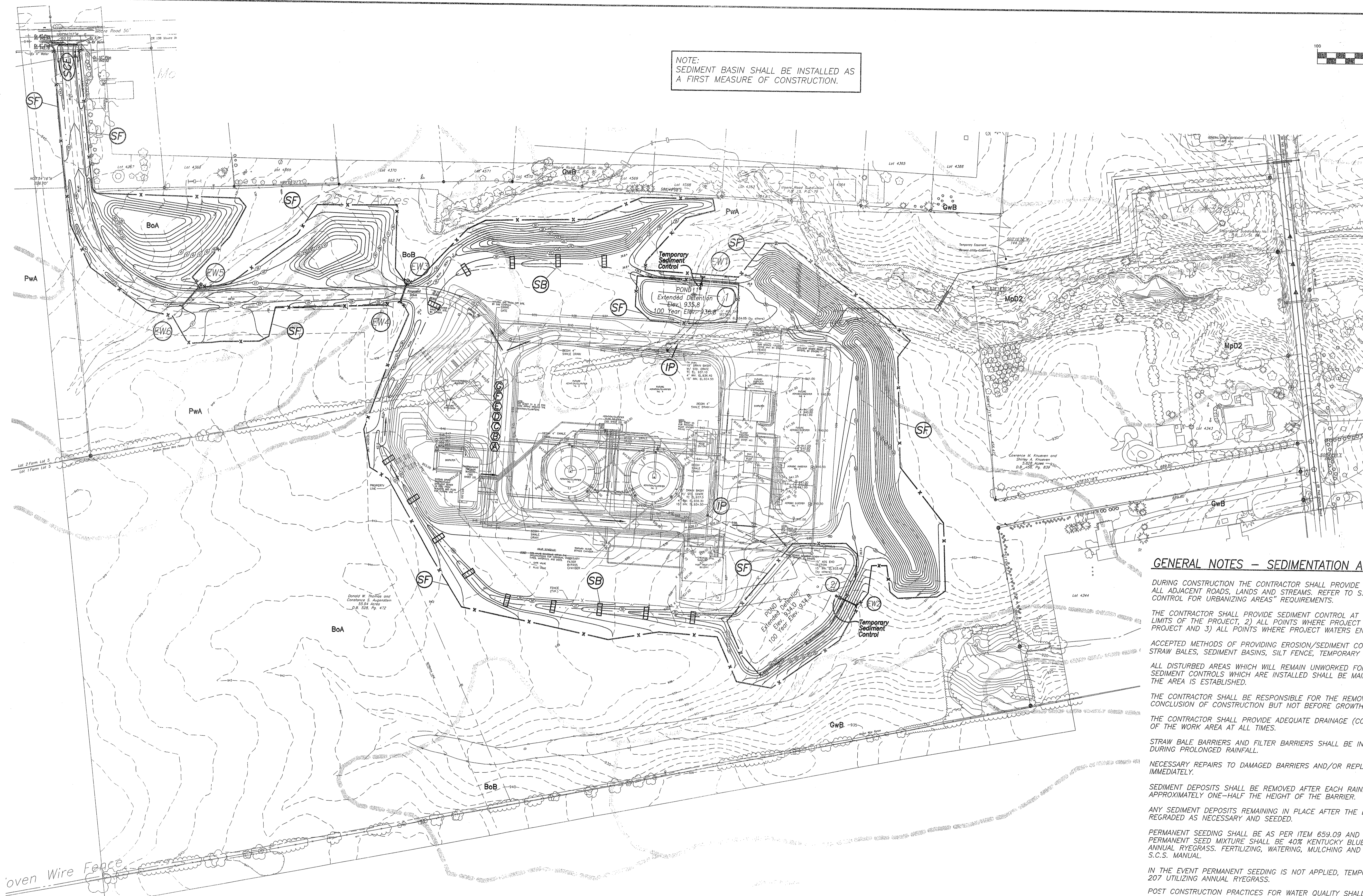
CONCORD TOWNSHIP, DELAWARE COUNTY, OHIO
STORM WATER POLLUTION PREVENTION PLAN
FOR
LOWER SCIOTO WATER RECLAMATION FACILITY

BAUER, DAVIDSON & MERCHANT, INC.
Consulting Engineers
255 Green Meadows Drive S.
P.O. Box 370
Powell, Ohio 43065
(614) 846-3393

I.D. #09
September 17, 2007
h:\dwg 07\15507\1557swppp2



NOTE:
SEDIMENT BASIN SHALL BE INSTALLED AS
A FIRST MEASURE OF CONSTRUCTION.



- Legend
- Straw or Hay Bale
 - Prop. Contour
 - Ex. Contour
 - Filter Fabric Fence or approved equal
 - Stabilized Construction Entrance
 - Inlet Protection
 - Soil Boundary
 - Drainage Flow
 - Dumpster Area
 - Toxic Waste Disposal Area
 - Sanitary Disposal
 - Solid Waste Disposal
 - Concrete Truck Washout Area
 - Fueling Area
 - Truck Wash Area

GENERAL NOTES – SEDIMENTATION AND EROSION CONTROL

DURING CONSTRUCTION THE CONTRACTOR SHALL PROVIDE PROPER SOIL EROSION MEASURES FOR PROTECTION OF ALL ADJACENT ROADS, LANDS AND STREAMS. REFER TO S.C.S. MANUAL "WATER MANAGEMENT AND SEDIMENT CONTROL FOR URBANIZING AREAS" REQUIREMENTS.

THE CONTRACTOR SHALL PROVIDE SEDIMENT CONTROL AT 1) ALL POINTS WHERE PROJECT WATERS LEAVE THE LIMITS OF THE PROJECT, 2) ALL POINTS WHERE PROJECT WATERS ENTER A STREAM THAT TRAVERSES THE PROJECT AND 3) ALL POINTS WHERE PROJECT WATERS ENTER PORTIONS OF COMPLETED UNDERGROUND PIPING.

ACCEPTED METHODS OF PROVIDING EROSION/SEDIMENT CONTROL INCLUDE BUT ARE NOT LIMITED TO: HAY/STRAW BALES, SEDIMENT BASINS, SILT FENCE, TEMPORARY GROUND COVER.

ALL DISTURBED AREAS WHICH WILL REMAIN UNWORKED FOR 21 DAYS OR MORE SHALL BE SEED. OTHER SEDIMENT CONTROLS WHICH ARE INSTALLED SHALL BE MAINTAINED UNTIL THE VEGETATION GROWTH ON THE AREA IS ESTABLISHED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY SEDIMENT DEVICES AT THE CONCLUSION OF CONSTRUCTION BUT NOT BEFORE GROWTH OF PERMANENT GROUND COVER.

THE CONTRACTOR SHALL PROVIDE ADEQUATE DRAINAGE (CONSISTENT WITH SEDIMENT/EROSION PRACTICES) OF THE WORK AREA AT ALL TIMES.

STRAW BALE BARRIERS AND FILTER BARRIERS SHALL BE INSPECTED AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.

NECESSARY REPAIRS TO DAMAGED BARRIERS AND/OR REPLACEMENT OF SAME SHALL BE ACCOMPLISHED IMMEDIATELY.

SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH RAINFALL OR WHEN LEVEL OF DEPOSIT REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.

ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE BARRIERS ARE NO LONGER REQUIRED SHALL BE REGRADED AS NECESSARY AND SEED.

PERMANENT SEEDING SHALL BE AS PER ITEM 659.09 AND SHALL BE BETWEEN MARCH 15 AND OCTOBER 15. PERMANENT SEED MIXTURE SHALL BE 40% KENTUCKY BLUEGRASS, 40% CREEPING RED FESCUE AND 20% ANNUAL RYEGRASS. FERTILIZING, WATERING, MULCHING AND SEEDING RATES SHALL BE AS SPECIFIED AS PER S.C.S. MANUAL.

IN THE EVENT PERMANENT SEEDING IS NOT APPLIED, TEMPORARY SEEDING SHALL BE APPLIED AS PER ITEM 207 UTILIZING ANNUAL RYEGRASS.

POST CONSTRUCTION PRACTICES FOR WATER QUALITY SHALL BE RETENTION POND WITH ORIFICE PLATE.

SOIL EROSION NOTES

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE, SEDIMENT BASINS, & SILT FENCE
2. GRADE AND STOCKPILE TOPSOIL
 - A. SEDIMENT BARRIER AROUND STOCKPILE OR
 - B. TEMPORARY SEEDING
3. VEGETATIVE COVER ALL AREAS TO BE EXPOSED LONGER THAN 21 DAYS (TEMPORARY SEEDING)
4. INSTALL UTILITIES
 - A. INSTALL INLETS
5. INSTALL ROADWAY SUBGRADE AND DITCHES
6. INSTALL PAVEMENT AND FINAL GRADING
7. PERMANENT SEEDING AND MULCHING, ASPHALT EMULSION OVER STRAW PER 659.09.
8. PERFORM CONTINUING MAINTENANCE
9. REMOVE SEDIMENT FILTER AFTER VEGETATION GROWTH IS ESTABLISHED
10. ALL DISTURBED AREAS SHALL BE SEED AND STRAW MULCHED STRAW MULCHED IF TO REMAIN UNDISTURBED FOR 21 DAYS OR GREATER.
11. ANY AREAS WITHIN 50 FEET OF THE STREAM TO REMAIN UNDISTURBED FOR GREATER THAN 21 DAYS SHALL BE SEED AND MULCHED WITHIN 2 DAYS. ANY AREAS AT FINAL GRADE SHALL BE PERMANENTLY STABILIZED WITHIN 2 DAYS.
12. STREAM CROSSING ASSOCIATED WITH TIMBER REMOVAL MUST BE PERMANENTLY STABILIZED AND STRAW MULCHED.

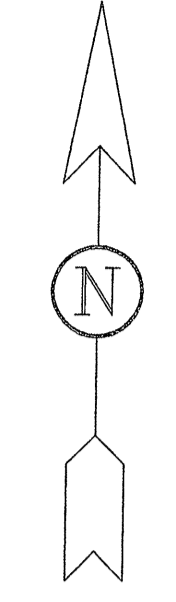
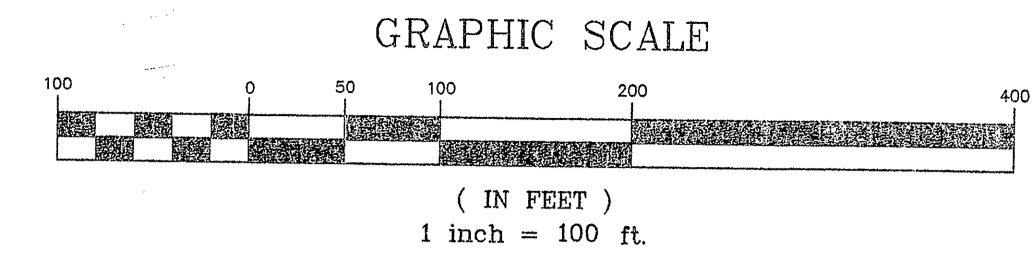
PRELIMINARY PLANS
FOR REVIEW/BIDDING ONLY
NOT FOR CONSTRUCTION
DATE 5/31/07

CONCORD TOWNSHIP, DELAWARE COUNTY, OHIO
STORM WATER POLLUTION PREVENTION PLAN
FOR
LOWER SCIOTO WATER RECLAMATION FACILITY

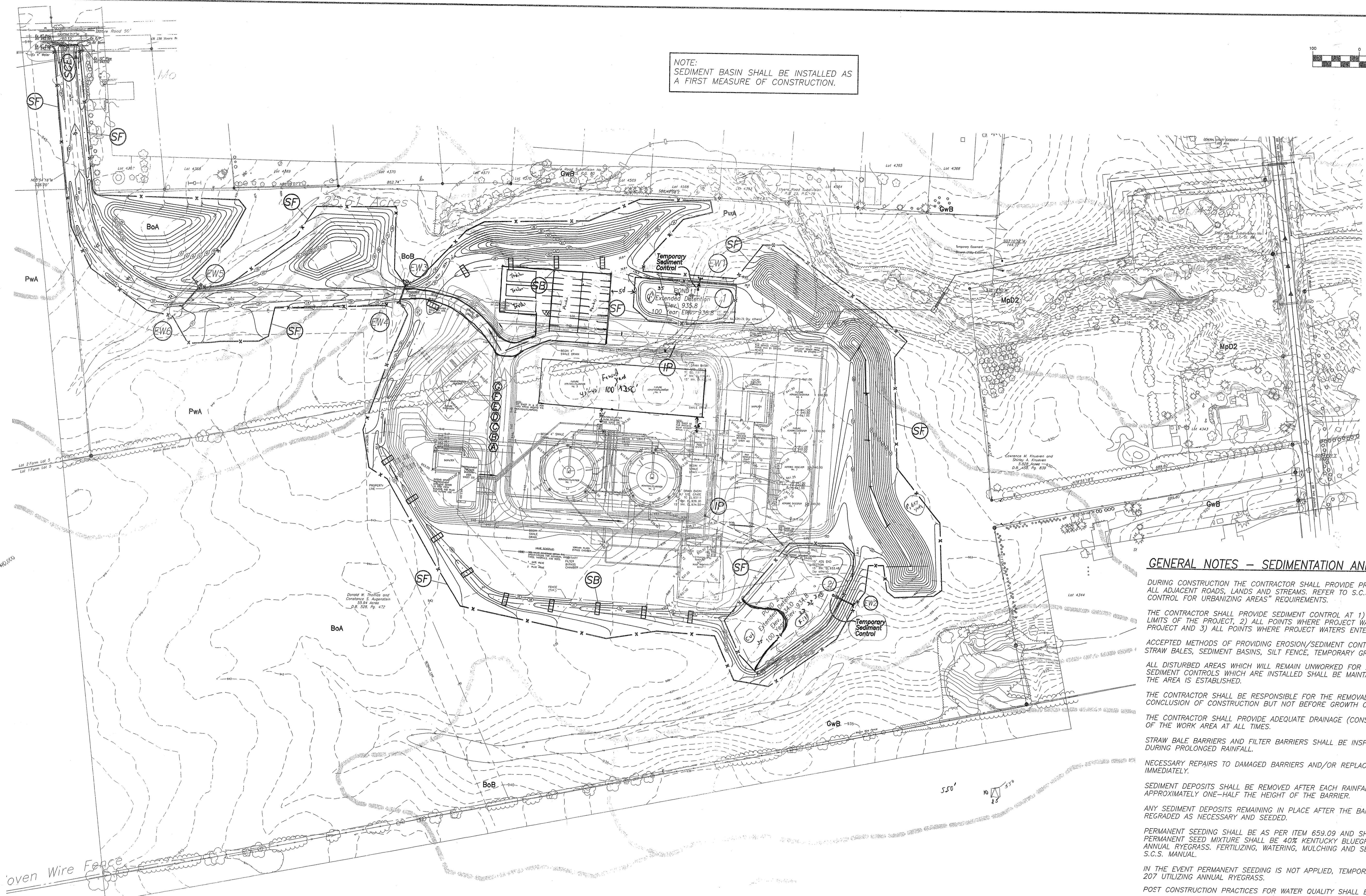
BAUER, DAVIDSON & MERCHANT, INC.
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P.O. Box 370
Powell, Ohio 43065
(614) 846-3393

I.D. #09
May 31, 2007
h:\dwa_07\15507\1557swppp1



NOTE:
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A FIRST MEASURE OF CONSTRUCTION.



- Legend
- SB Straw or Hay Bale
 - 94 Prop. Contour
 - 894 Ex. Contour
 - SF Filter Fabric Fence or approved equal
 - SCD Stabilized Construction Entrance
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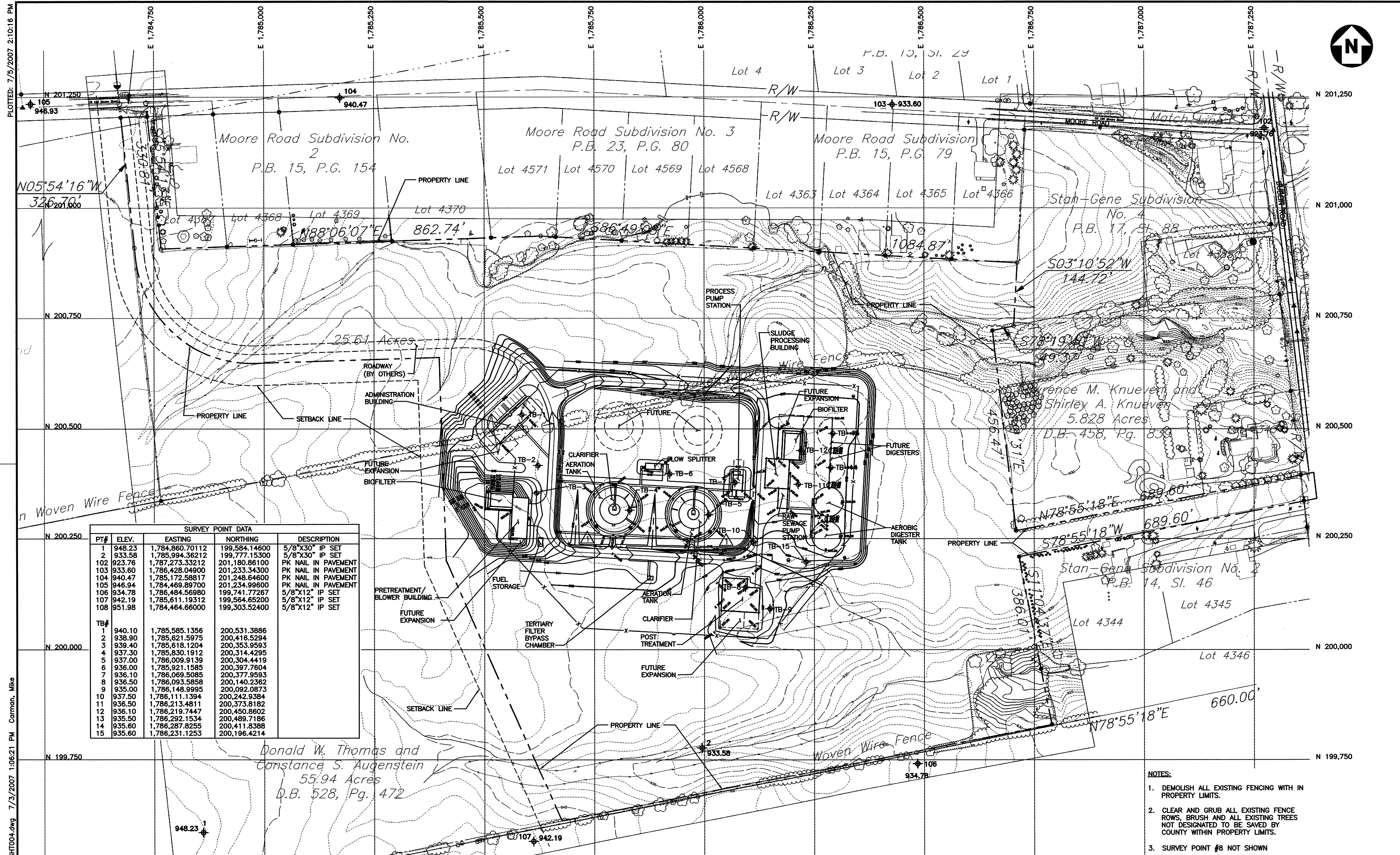
CONCORD TOWNSHIP, DELAWARE COUNTY, OHIO
STORM WATER POLLUTION PREVENTION PLAN
FOR
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Consulting Engineers

255 Green Meadows Drive S.
P.O. Box 370
Powell, Ohio 43065
(614) 846-3393

I.D. #09 May 31, 2007 h:\dwg 07\15507\1557swppp1

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SURVEY POINT DATA				
PT#	ELEV.	EASTING	NORTHING	DESCRIPTION
1	948.23	1,784,860.70112	199,584.14600	5/8"x30" IP SET
2	933.58	1,785,994.38212	199,777.15300	5/8"x30" IP SET
102	923.76	1,787,273.33212	201,180.86100	PK NAIL IN PAVEMENT
103	933.60	1,786,428.04900	201,233.34300	PK NAIL IN PAVEMENT
104	940.47	1,785,172.58817	201,248.64600	PK NAIL IN PAVEMENT
105	946.94	1,784,469.89700	201,234.99600	PK NAIL IN PAVEMENT
106	934.78	1,786,484.56980	199,741.77267	5/8"x12" IP SET
107	942.19	1,785,611.19312	199,564.65200	5/8"x12" IP SET
108	951.98	1,784,464.66000	199,303.52400	5/8"x12" IP SET
TB#				
1	940.10	1,785,585.1356	200,531.3886	
2	938.90	1,785,621.5975	200,416.5294	
3	939.40	1,785,618.1204	200,353.9593	
4	937.30	1,785,830.1912	200,314.4295	
5	937.00	1,786,009.9139	200,304.4419	
6	936.00	1,785,921.1585	200,397.7604	
7	936.10	1,786,069.5085	200,377.9593	
8	936.50	1,786,093.5858	200,140.2362	
9	935.00	1,786,148.9995	200,092.0673	
10	937.50	1,786,111.1394	200,242.9384	
11	936.50	1,786,213.4811	200,373.8182	
12	936.10	1,786,219.7447	200,450.8602	
13	935.50	1,786,292.1534	200,489.7186	
14	935.60	1,786,287.8255	200,411.8388	
15	935.60	1,786,231.1253	200,196.4214	

- NOTES:
1. DEMOLISH ALL EXISTING FENCING WITH IN PROPERTY LIMITS.
 2. CLEAR AND GRUB ALL EXISTING FENCE ROWS, BRUSH AND ALL EXISTING TREES NOT DESIGNATED TO BE SAVED BY COUNTY WITHIN PROPERTY LIMITS.
 3. SURVEY POINT #8 NOT SHOWN

NO.	REVISIONS	DATE	BY	CHK.
1	PAVEMENT, 12" DRAIN, AND C.B. ADDED	03/21/07	PLE	RBD

Burgess & Niple, Inc. COLUMBUS, OHIO



**DELAWARE COUNTY, OHIO
LOWER SCIOTO WATER RECLAMATION FACILITY**

JOB NO.	PR35649
DESIGNED BY:	PLE
DRAWN BY:	TLM
CHECKED BY:	PLE
APPROVED BY:	RBD
DATE:	MARCH 2007

GENERAL PLAN

SCALE:	
1" = 100'	
SHEET NO.	OF
4	131

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