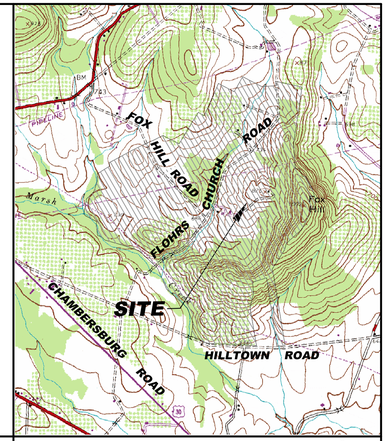
FINAL
LAND DEVELOPMENT PLANS
FOR
GENERALS MOUNTAIN LODGE
A RESORT - LODGE DEVELOPMENT
FRANKLIN TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA



VICINITY MAP SCALE – 1"=2000' NORTH

GENERAL CONSTRUCTION NOTES

1) THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST SEVEN (7) WORK DAYS PRIOR TO STARTING WORK AS SHOWN ON THESE DRAWINGS:

FRANKLIN TOWNSHIP	717–334–4901
KPI TECHNOLOGY (TOWNSHIP ENGINEER)	717–339–0612
ADAMS COUNTY CONSERVATION DISTRICT	717–334–0636
SHARRAH DESIGN GROUP, INC.	717–334–5400

2) A PRE–CONSTRUCTION MEETING SHALL BE HELD A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO GROUND BREAKING. THE MEETING SHALL INCLUDE A REPRESENTATIVE FROM SHARRAH DESIGN GROUP, INC., ADAMS COUNTY CONSERVATION DISTRICT, THE DEVELOPER AND HIS CONTRACTOR, THE TOWNSHIP SUPERVISORS AND/OR THEIR DESIGNATED REPRESENTATIVES.

3) THE LOCATION OF EXISTING UTILITIES SHOWN ON THESE DRAWINGS IS APPROXIMATE ONLY. THE UTILITY OWNERS AND ENGINEER DO NOT WARRANT OR GUARANTEE THE VALIDITY OF THE INFORMATION GIVEN. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION, AND DEPTH OF ANY EXISTING UTILITIES, AND SHALL TAKE NECESSARY PRECAUTION TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO THE CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.

4) THE CONTRACTOR SHALL LOCATE EXISTING UTILITIES IN ADVANCE OF CONSTRUCTION OPERATIONS IN THE VICINITY OF THE PROPOSED UTILITIES.

5) ALL UTILITIES SHALL BE CLEARED BY A MINIMUM OF 1'–0". ALL UTILITY POLES SHALL BE CLEARED BY A MINIMUM OF 2'–0" OR TUNNELED IF REQUIRED. COST FOR TUNNELING OR BRACING POLES SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR THE COMPLETED PROJECT.

6) THE CONTRACTOR SHALL NOT INTERRUPT EXISTING UTILITY SERVICES WITHOUT WRITTEN PERMISSION FROM THE OWNER OF THE UTILITY.

7) THE CONTRACTOR SHALL NOT CLOSE FLOHRS CHURCH ROAD WITHOUT PRIOR AUTHORIZATION TO DO SO FROM THE TOWNSHIP SUPERVISORS. ALL APPROPRIATE AGENCIES (i.e. SCHOOL DISTRICT, EMERGENCY SERVICES, POSTAL SERVICE, ETC.) SHLL BE NOTIFIED IN ADVANCE OF ANY ROAD CLOSURE.

8) IN FILL AREAS, THE COMPACTION SHALL BE FULL HEIGHT COMPACTION TO THE SPECIFIED ELEVATION. FILL SHALL BE PLACED IN EIGHT (8) INCH (PLUS OR MINUS TWO (2) INCHES), MEASURED LOOSE LIFTS AND EACH LIFT COMPACTED TO NOT LESS THAN NINETY–EIGHT PERCENT (98%) OF STANDARD DENSITY AS DETERMINED BY AASHTO METHODS T–99 (UNLESS SPECIFIED OTHERWISE BY THE GEOTECHNICAL ENGINEER).

9) FILL UTILIZED ON THIS PROJECT SHALL NOT CONTAIN BOULDERS OR FRACTURED ROCK OR BROKEN CONCRETE OVER ONE FOOT IN LARGEST DIMENSION OR ANY ORGANIC MATERIAL, TRASH, GARBAGE, OR BROKEN ASPHALT PAVING.

10) NO CONSTRUCTED SLOPE SHALL EXCEED a) 2H:1V IN EARTH; b) 1H:1V IN ROCKS AND c) 3H:1V IN FILLS.

11) THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE OFFICE OF THE ENGINEER OF ANY DISCREPANCIES IN THE PLANS OR IN THE RELATIONSHIP OF FINISHED GRADES TO EXISTING, PRIOR TO BEGINNING WORK. THE CONTRACTOR SHALL NOTE THAT IN CASE OF DISCREPANCIES BETWEEN THE SCALED AND FIGURED DIMENSIONS SHOWN ON THESE PLANS, THE FIGURED DIMENSIONS SHALL GOVERN.

12) THE WORK SHOWN ON THESE DRAWINGS IS SUBJECT TO INSPECTION AND ACCEPTANCE BY THE APPROPRIATE AUTHORITY.

13) THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND PROTECTION OF TRAFFIC IN ACCORDANCE STANDARD PENNDOT TRAFFIC CONTROL PLANS.

14) IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NATURALLY BE REQUIRED TO COMPLETE THE PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PERFORM SUCH WORK.

15) THE CONTRACTOR'S EQUIPMENT MUST BE MONITORED TO PREVENT MUD FROM BEING TRACKED ONTO THE STREET. IT IS THE CONTRACTOR'S RESPONSIBILITY TO KEEP THE STREET CLEARED AND THE SITE IN AN APPROPRIATE WORK–LIKE MANNER.

16) ALL UNDERGROUND UTILITIES MUST BE INSTALLED AND TRENCHES COMPACTED TO 98% SPD PRIOR TO PLACEMENT OF ANY PAVING. (SEE GEOTECHNICAL REPORT, IF AVAILABLE).

17) BEFORE AN OCCUPANCY PERMIT CAN BE ISSUED FOR THE NEW BUILDING, WATER TESTING IS REQUIRED TO ENSURE PROPER VOLUME AND PRESSURE FOR FIRE PROTECTION.

GENERAL NOTES

1) EXISTING PROPERTY BOUNDARY INFORMATION WAS TAKEN FROM RECORDS AND NOT FROM A SDGI SURVEY.

2) EXISTING TOPOGRAPHIC INFORMATION SHOWN HEREON WAS TAKEN FROM VARIOUS PLANS AND SURVEYS. SAME WAS SPOT CHECKED BY SHARRAH DESIGN GROUP, INC. IN THE SPECIFIC AREAS OF DEVELOPMENT PROPOSED AT THIS TIME.

3) THE FEMA ZONE A FLOODPLAIN SHOWN WAS INTERPOLATED FROM FLOOD INSURANCE RATE MAP 42001C0114D, EFFECTIVE 18 FEBRUARY 2009.

4) SDGI PERFORMED A HEC–RAS ANALYSIS OF THIS AREA OF CLEAR RUN. THE RESULTANT 100 YEAR FLOOD LINE IS ALSO DEPICTED.

5) ALL STORMWATER MANAGEMENT AND STORM DRAIN FACILITIES ON THIS PROPERTY SHALL BE PRIVATELY OWNED, OPERATED AND MAINTAINED BY PAINT THE WIND, LLC THEIR HEIRS AND/OR ASSIGNS.

6) A "BLANKET" ACCESS EASEMENT IS HEREBY GRANTED TO FRANKLIN TOWNSHIP THEIR AGENTS AND ASSIGNS, FOR THE PURPOSE OF INSPECTING THE STORMWATER MANAGEMENT FACILITIES THAT ARE PART OF THIS PROJECT.

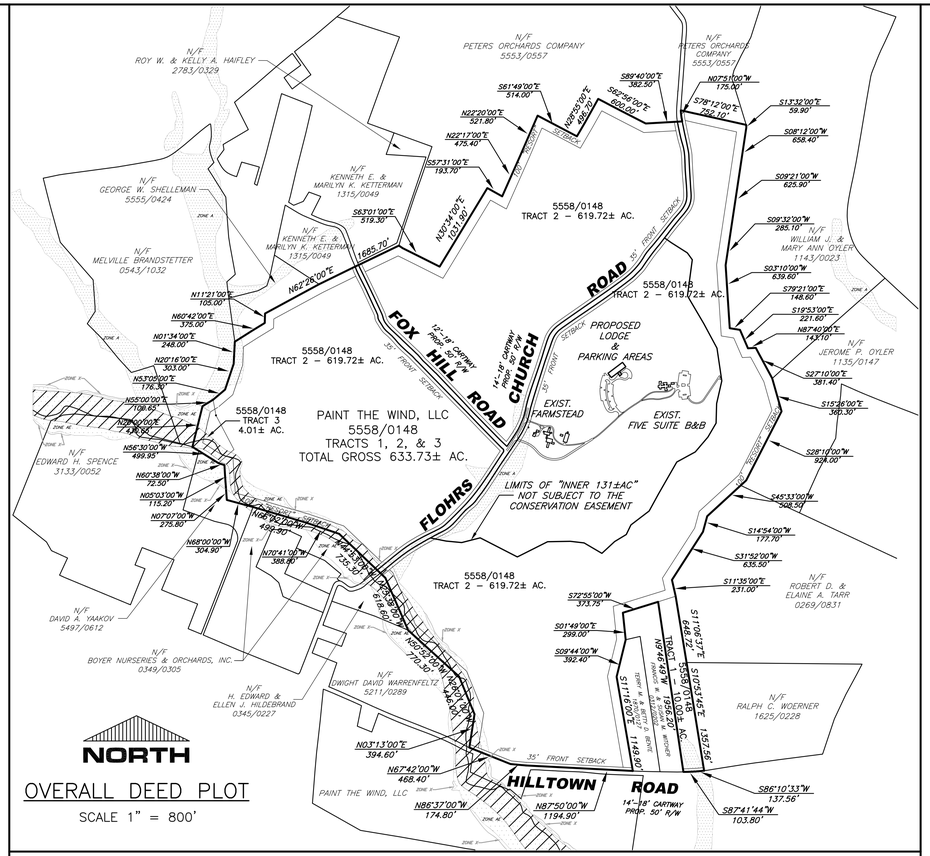
7) THE HORIZONTAL DATUM SHOWN HEREON IS BASED ON THE PA STATE COORDINATE SYSTEM (SOUTH REGION).

8) THE VERTICAL DATUM AS SHOWN HEREON IS BASED ON THE NORTH AMERICAN VERTICAL DATUM (NAVD88).

9) WETLAND BOUNDARIES SHOWN ON THESE PLANS WERE DELINEATED BY ROEMER ECOLOGICAL SERVICES, INC. ON 20 JUNE 2011 AND LOCATED BY SDGI ON 21 JUNE 2011 USING ACCURATE SURVEY METHODS.

WETLANDS NOTE

THE PRESENCE OF WETLANDS MAY PRESENT A PROBLEM, RELATIVE TO THE INTENDED USE OR DEVELOPMENT OF LAND THROUGHOUT FRANKLIN TOWNSHIP. APPLICANTS AND FUTURE OWNERS ARE, THEREFORE ADVISED OF SUCH POTENTIAL WETLANDS PROBLEMS AND OF THE ADVISABILITY OF INVESTIGATING SUCH WETLANDS PROBLEMS BEFORE DEVELOPING OR PURCHASING LAND WITHIN FRANKLIN TOWNSHIP: FURTHER, ALL PERSONS AND ENTITIES ARE HEREBY NOTIFIED THAT FRANKLIN TOWNSHIP MAKES NO REPRESENTATIONS OR ASSURANCES AS TO THE PRESENCE, ABSENCE OR LOCATION OF WETLANDS BY ITS APPROVAL OF THIS PLAN, AND NEITHER FRANKLIN TOWNSHIP NOR ANY OF ITS OFFICERS, AGENTS, EMPLOYEES OR REPRESENTATIVES SHALL HAVE ANY LIABILITY WHATSOEVER RELATIVE TO THE PRESENCE, ABSENCE OR LOCATION OF WETLANDS IN OR UPON THE LANDS DEPICTED ON THIS PLAN.



LIST OF ACT 187 UTILITY USERS IN PROJECT VICINITY

PA ONE CALL DESIGN SERIAL NO. 20112231865 (called 08–11–11)

Franklin Township
Franklin Township Municipal Authority
55 Scott School Road
PO Box 309
Cashtown, PA 17310
Jeff Black (717)–334–4901

Arendtsville Borough
1 Chestnut Street
PO Box 508
Arendtsville, PA. 17303
Ron Cooper (717)–677–6009

Columbia Gas Transmission LLC
12001 Industrial Park St.
Cumberland, MD. 21502
Rodney Mason (rmason@nisource.com)

Comcast
c/o Central Locating Services USIC
13085 Hamilton Crossing Blvd. Suite 200
Carmel, IN 46032

First Energy Corp. (Met–Ed)
76 S. Main Street
Akron, OH. 44308–1890

Centurylink (Embarq)
Mail Stop PABUTB0101
160 Unionville Road
Butler, PA. 16001–9650
Michael Montag (michael.c.montag@centurylink.com)

Chambersburg Borough
100 South 2nd Street
PO Box 1009
Chambersburg, PA. 17201
Ken Weaver (717)–264–5151

West Penn Power
76 S. Main Street
PO Box 570
Akron, OH. 44308–1890

Spectra Energy
560 Pottstown Pike
Chester Springs, PA. 19425
Bill Quinn (wlquinn@spectraenergy.com)

ZONING & SITE DATA

1) CURRENT ZONING: (A) AGRICULTURE
2) EXISTING LAND USE: SILVICULTURE, RESIDENTIAL & FARMSTEAD
3) PROPOSED LAND USE: RESORT LODGE (APPROVED BY SPECIAL EXCEPTION) SILVICULTURE, RESIDENTIAL & FARMSTEAD
4) TOTAL GROSS DEED AREA: 633.73± ACRES
5) TAX PARCEL ID: 12D10–0005–––000
6) SEWAGE DISPOSAL: EXISTING– PRIVATE ON–LOT SEWAGE DISPOSAL SYSTEMS
PROPOSED–PRIVATE ON–LOT SEWAGE DISPOSAL SYSTEMS
7) POTABLE WATER: EXISTING– PRIVATE ON–LOT WATER WELLS
PROPOSED– PRIVATE ON–LOT WATER WELLS (NOTE– THE SYSTEM DEVELOPED FOR SERVICE TO THE RESORT–LODGE WILL BE PERMITTED & TESTED BY PADEP AS A "NON–COMMUNITY" SYSTEM.)
8) MINIMUM REQUIRED NONRESIDENTIAL LOT AREA: 2 ACRES.
9) MINIMUM REQUIRED NONRESIDENTIAL LOT WIDTH: 250'.
10) REQUIRED MINIMUM SETBACKS: FOR THE ZONE– FRONT: 35' SIDES: 10' REAR: 25'
FOR THE RESORT–LODGE: 100' FROM ALL PROPERTY LINES
11) MAXIMUM PERMITTED LOT COVERAGE: FOR THE ZONE 20%
FOR THE RESORT–LODGE: 10%
12) EXISTING LOT COVERAGE = 1.4± AC. OR 0.22±%
13) PROPOSED LOT COVERAGE = 4.6± AC. OR 0.73±%
14) MAXIMUM PERMITTED FOREST CLEARING FOR DEVELOPMENT: 10%
15) PROPOSED FOREST CLEARING: 8.0± AC. OR 1.27±%

SPECIAL EXCEPTION NOTE

AT A DULY PUBLICIZED HEARING BEFORE THE FRANKLIN TOWNSHIP ZONING HEARING BOARD HELD ON 16 AUGUST 2011, THE SPECIAL EXCEPTION WAS GRANTED, BY UNANIMOUS VOTE, TO ALLOW THE CONSTRUCTION OF A RESORT LODGE AT 1207 FLOHRS CHURCH ROAD WITH THE FOLLOWING TWO CONDIONS:

1) NO WALKING TRAILS BE LOCATED CLOSER THAN ONE HUNDRED FEET (100') FROM A PERIMETER PROPERTY LINE.

2) THE PARKING PROVIDED SHALL BE IN FULL COMPLIANCE WITH §175.19. PARKING, OF THE FRANKLIN TOWNSHIP ZONING ORDINANCE.

WAIVERS & MODIFICATIONS

1) §136–11.C RELIEF FROM PROVIDING STORMWATER MANAGEMENT FOR ALL EXISTING IMPERVIOUS AREAS ON THE PROPERTY.
2) §146–20.B.3b RELIEF FROM MAKING PUBLIC ROAD IMPROVEMENTS BEYOND THOSE DEPICTED ON THESE PLANS AND AS OTHERWISE AGREED TO BY THE DEVELOPER AND THE TOWNSHIP
3) §146–21.B.2 RELIEF FROM PAVING THE PARKING AND DRIVE AREAS EXCEPT THAT AREA DEPICTED ON THESE PLANS
4) §146–22.B RELIEF FROM PAVING THE FULL WIDTH OF THE ACCESS DRIVE

SHEET INDEX

PARKING TABULATION

USE/OCCUPANCY	UNITS	MIN. REQUIRED PARKING
RESORT–LODGE	18 ROOMS	1 SPACE PER ROOM = 18 SPACES
BED & BREAKFAST	5 ROOMS	1 SPACE PER ROOM = 5 SPACES
MAX EMPLOYEES PER SHIFT	20 STAFF	1 SPACE PER 4 STAFF = 5 SPACES
EATING ESTABLISHMENT	540 SEATS	1 SPACE PER 4 SEATS = 135 SPACES
EATING ESTAB. STAFF	30 STAFF	1 SPACE PER EMP. = 30 SPACES
PERSONAL RESIDENCE	2 PERSONAL	2 SPACES PER UNIT = 4 SPACES
		TOTAL REQUIRED: 197 SPACES
TOTAL SPACES PROVIDED: 201 SPACES (8 OF WHICH ARE HCPD. ACCESSIBLE)		

ZONING §175–19.I1: PARKING – 10% INTERIOR LANDSCAPING AREAS

LODGE PARKING AREA = 73000 SF GROSS
PROPOSED INTERIOR LANDSCAPING = 12150 SF – 16.6% OF GROSS

B&B PARKING AREA = 41300 SF GROSS
PROPOSED INTERIOR LANDSCAPING = 6225 SF – 15.1% OF GROSS

Reviewed by the Adams County Planning Commission this _____ day of _____, 20__.

_____
Director

Reviewed by the Franklin Township Planning Commission this _____ day of _____, 20__.

_____ _____
Chairman Secretary

Approved by the Franklin Township Board of Supervisors this _____ day of _____, 20__.

_____ _____
Chairman Secretary

SOURCE OF TITLE

Deed recorded in the Adams County Courthouse in Record Book 5558, at Page 0148.

SURVEYOR'S CERTIFICATE

I hereby certify that this survey and plan are accurate and correct and have been prepared in accordance with the PA Professional Engineers' Registration Law.

_____ _____
Robert A. Sharrah, P.L.S. Date

I, _____(Printed Name), being _____(Title) of Paint the Wind, LLC, do hereby acknowledge that the stormwater management facilities depicted on these plans are a permanent fixture on this property that cannot be removed or altered without approval and authorization from the municipality.

_____
SIGNATURE DATE:

OWNER / DEVELOPER

PAINT THE WIND, LLC
1207 FLOHRS CHURCH ROAD
BIGLERVILLE, PA 17307

COMMONWEALTH OF PENNSYLVANIA

COUNTY OF ADAMS

On this the _____day of _____, 2011 , before me, the undersigned officer, personally appeared _____, who acknowledged himself/herself to be the _____ of PAINT THE WIND, LLC, a Pennsylvania Limited Liability Corporation, and that he/she, as such authorized member/officer of PAINT THE WIND, LLC, being authorized to do so, and being duly sworn according to law, deposes and says that the LLC is the owner of the property shown on these plans, and that plans were prepared at its direction, that it acknowledges the same to be its act and plan, that all necessary approval of the plan has been obtained and is endorsed thereon, and that it desires the same to be recorded (if applicable).

PAINT THE WIND, LLC:

_____
SIGNATURE PRINTED NAME & TITLE

NOTARY:_____

My Commission expires_____, _____

Sharrah Design Group, Inc.
Land Surveying & Design
20 Chambersburg Street
Gettysburg, PA 17325
Phone: (717) 334–5400
Fax: (717) 334–0922

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ROBERT A. SHARRAH LAND SURVEYOR 30170–E

REVISIONS			XREFS	
NO.	DATE	DESCRIPTION		
1	09/26/11	PER ACCD COMMENTS		
2	10/06/11	PER TWP. ENG. REVIEW COMMENTS		
3	10/31/11	PER TWP. ENG. REVIEW COMMENTS		
4	11/22/11	FINAL PLAN SUBMISSION		

811 Know what's below. Call before you dig.
PENNSYLVANIA ACT 287 (1974) AS AMENDED BY PENNSYLVANIA ACT 121 (2008) REQUIRES NO LESS THAN THREE (3) WORKING DAYS AND NO MORE THAN (10) WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH.

PLAN PREPARATION

DRAWN BY: WLM–MKK	DATE: 01 SEPTEMBER 2011
DESIGNED BY: RAS	FILE NO.: 1109
CHECKED BY: RAS	DWG NO.: TI01–1109

TITLE SHEET

GENERALS MOUNTAIN LODGE
A RESORT–LODGE DEVELOPMENT
1207 FLOHRS CHURCH ROAD, FRANKLIN TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA

SCALE AS NOTED

SHEET NO. LD 1

SOILS LEGEND

*	Hc	Hatboro Silt Loam HSG–D
	LgC	Legore Channery Silt Loam, 8 to 15% slopes HSG–B
	LgD	Legore Channery Silt Loam, 15 to 25% slopes HSG–B
~+	LhB	Lehigh Channery Silt Loam, 3 to 8% slopes HSG–C
	LhC	Lehigh Channery Silt Loam, 8 to 15% slopes HSG–C
+	MdB	Mount Lucas Silt Loam, 3 to 8% slopes HSG–C
	NaC	Neshaminy Channery Silt Loam, 3 to 8% slopes HSG–B
	NdD	Neshaminy Channery Silt Loam, extremely bouldery, 8 to 25% slopes HSG–B
	NdE	Neshaminy Channery Silt Loam, exteremly bouldery, 25 to 45% slopes HSG–B
*	WaB	Watchung silt loam, 3 to 8% slopes HSG–D

~ Listed in Adams County as Prime Farmland

* Listed in Adams County as Units having Hydric Components.

+ Listed in Adams County as Units having Hydric Inclusions.

SOIL TYPE BOUNDARY

1) SOILS TYPES AND BOUNDARIES WERE TAKEN FROM "SOIL SURVEY – ADAMS COUNTY, PA" 2005.

NORTH

GRAPHIC SCALE

0 50 100 200 300

1" = 100'

LEGEND

- ○ PERCOLATION TEST HOLE
- ▲ APPROVED SOIL PROBE
- △ FAILED SOIL PROBE
- ⦿ INFILTRATION TEST HOLE

Sharrah Design Group, Inc.

Land Surveying & Design

20 Chambersburg Street
Gettysburg, PA 17325
Phone: (717) 334-5400
Fax: (717) 334-0922

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — ROBERT A. SHARRAH — LAND SURVEYOR 30170–E

REVISIONS

NO.	DATE	DESCRIPTION
1	10/06/11	PER TWP. ENG. REVIEW COMMENTS
2	11/22/11	FINAL PLAN SUBMISSION

XREFS

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PLAN PREPARATION

DRAWN BY: WLM–MKK	DATE: 01 SEPTEMBER 2011
DESIGNED BY: RAS	FILE NO.: 1109
CHECKED BY: RAS	DWG NO.: EX01–1109

EXISTING CONDITIONS PLAN

GENERALS MOUNTAIN LODGE

A RESORT–LODGE DEVELOPMENT

1207 FLOHRS CHURCH ROAD, FRANKLIN TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA

SCALE 1"=100'

SHEET NO. LD 2

Sharrah Design Group, Inc. — Land Surveying & Design	Seal: Commonwealth of Pennsylvania, Registered Professional Land Surveyor, Robert A. Sharrah, 30170-E		

Sharrah Design Group, Inc.
Land Surveying & Design
20 Chambersburg Street
Gettysburg, PA 17325
Phone: (717) 334-5400
Fax: (717) 334-0922

REVISIONS

NO.	DATE	DESCRIPTION
1	09/26/11	PER ACCD COMMENTS
2	10/06/11	PER TWP. ENG. REVIEW COMMENTS
3	10/31/11	ADD NOTE RE PIPE BETWEEN HW 7 & HW 6
		EXTEND DRIVEWAY WIDENING TO STA. 15+00
4	11/22/11	FINAL PLAN SUBMISSION

XREFS

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PLAN PREPARATION

DRAWN BY: WLM-MKK	DATE: 01 SEPTEMBER 2011
DESIGNED BY: RAS	FILE NO.: 1109
CHECKED BY: RAS	DWG NO.: ST01-1109

SITE LAYOUT PLAN - WEST

GENERALS MOUNTAIN LODGE

A RESORT-LODGE DEVELOPMENT

1207 FLOHRS CHURCH ROAD, FRANKLIN TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA

SCALE 1"=50'

SHEET NO. LD 3

NORTH

GRAPHIC SCALE IN FEET
0 25 50 100 150
1" = 50'

ALL RAINWATER CONDUCTORS (RWC) SHALL BE SDR 35 PVC OR APPROVED EQUAL. MINIMUM PERMITTED SLOPE = 1.00%

PROPOSED RETREAT LODGE
FF 806.00
LL 794.00

PROPOSED SEGMENTAL RETAINING WALL W/ FENCE

PRIMARY ON-LOT SEWAGE DISPOSAL AREA

PROPOSED DUMPSTER AREA W/ VEHICULAR CONCRETE PAD

PROP. GAS METER

PROPOSED PAVED DROP-OFF AREA

6' WIDE CONC. WALK

PROP. ELEC. TRANSFORMER

PROPOSED TIMBER PARKING BUMPERS

PROPOSED GRAVEL PARKING AREA

PROPOSED GRAVEL PARKING AREA

PROPOSED GRAVEL PARKING AREA

REPLACEMENT SEWAGE DISPOSAL ON-LOT AREA

DEPRESS CONC. CURB ENTIRE LENGTH OF HC PARKING SPACES

PROP. SITE LIGHT (TYP)

6' WIDE CONC. WALK

6" VERT. CONC. CURB

PROP. WATER LINES

PROPOSED PAVED DROP-OFF AREA

EXIST. PRODUCTION WELL #1

100' ISOLATION RADIUS

WATER LINE RADIUS = 500'

PC = 2+71.64

PC = 4+69.35

EXIST. GRAVEL DRIVE

EXIST. 1-STORY FIVE SUITE B&B

EX. WELL

GARAGE
FF 815.85

EXISTING DRAINFIELD

EXISTING DRAINFIELD

EXISTING DRAINFIELD

EXISTING DRAINFIELD

EXIST. GRAVEL AREA

PROPOSED 25' GRAVEL PARKING AREA

PROP. SITE LIGHT (TYP)

10' GRAVEL PULLOVER

CONNECT TO EXISTING GRAVEL DRIVE

DELIVERY/PARKING DIRECTIONAL SIGN

LEVEL SPREADER #2

SEE DETAIL

DETENTION/INFILTRATION BASIN 2

DETENTION/INFILTRATION BASIN 3

SEE DETAIL

80 LF 15% SLOPE

LEVEL SPREADER #3

DETENTION/INFILTRATION BASIN 1

SEE DETAIL

80 LF 15% SLOPE

LEVEL SPREADER #1

PAINT THE WIND, LLC
5558/0148
TRACTS 1, 2, & 3
TOTAL GROSS 633.73± AC.

PROPOSED WATER STORAGE TANK
TANK BASE ELEV. = 880.00

PROPOSED SEGMENTAL RETAINING WALL W/ FENCE

PROPOSED AQUASTORE 47,000 GAL, 11' DIA. RAW WATER STORAGE TANK

5/8" REBAR FOUND

PROPOSED 12' WIDE GRAVEL WATER TANK ACCESS DRIVE

PROP. WATER LINES

EXIST. PATH

S81°51'42"E 369.44'

N34°01'05"E 260.61'

S76°32'22"W

5/8" REBAR FOUND

S88°14'41"W 218.86'

5/8" REBAR FOUND

R = 100.00'
A = 234.78'
B = S78°43'18"E
C = 184.45'

PAINT THE WIND, LLC
5558/0148
TRACTS 1, 2, & 3
TOTAL GROSS 633.73± AC.

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ROBERT A. SHARRAH
LAND SURVEYOR
30170-E

REVISIONS			XREFS
NO.	DATE	DESCRIPTION	
1	09/26/11	PER ACCD COMMENTS	
2	10/06/11	PER TWP. ENG. REVIEW COMMENTS	
3	10/31/11	EXTEND DRIVEWAY WIDENING TO STA. 15+00	
4	11/22/11	FINAL PLAN SUBMISSION	

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PLAN PREPARATION	
DRAWN BY: WLM–MKK	DATE: 01 SEPTEMBER 2011
DESIGNED BY: RAS	FILE NO.: 1109
CHECKED BY: RAS	DWG NO.: ST01–1109

SITE LAYOUT PLAN - EAST

GENERALS MOUNTAIN LODGE

A RESORT–LODGE DEVELOPMENT

1207 FLOHRS CHURCH ROAD, FRANKLIN TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA

SCALE 1"=50'

SHEET NO. LD 4

GRAPHIC SCALE IN FEET
0 25 50 100 150
1" = 50'

NORTH

FLOHRS CHURCH ROAD T-356

FOX HILL ROAD T-359

PAINT THE WIND, LLC
5558/0148
TRACTS 1, 2, & 3
TOTAL GROSS 633.73± AC.

RIPRAP APRON 10
L=10', W=13', D=27"
d50=R-5 ROCK
PLACED ON NON-WOVEN
FILTER FABRIC

PROP. ELEC. TRANSFORMER

PROP. WATER LINES

REPLACEMENT ON-LOT SEWAGE DISPOSAL AREA

DETENTION/INFILTRATION BASIN 3

SEE DETAIL

DELIVERY/PARKING DIRECTIONAL SIGN

RIPRAP APRON 3
L=18', W=10', D=27"
d50= R-5 ROCK
PLACED ON NON-WOVEN
FILTER FABRIC

LEVEL SPREADER #3

E.S. CREST 778.50
L=6', Z=3

RIPRAP APRON 6
L=10', W=10', D=9"
d50=R-3 ROCK
PLACED ON NON-WOVEN
FILTER FABRIC

INV. 688.00

SHED

GENERALS MOUNTAIN LODGE
STONE MONUMENT SIGN

PROPOSED
CONSPAN CONC.
CULVERT
20'-0" x 6'-0"
LAY LENGTH = 40'-0"

WETLANDS

EXISTING DRAINFIELD

EX. HOUSE

EX. BARN

EX. BARN

SHED

EX. BUILDING

MET-ED (1823-20432)

INV. 683.00

"PROPOSED CONSPAN CONC. CULVERT 20'-0" x 6'-0" LAY LENGTH = 32'-0" COVERED BY 32'x50' WOOD FRAME STRUCTURE"

WETLANDS

RIPRAP APRON 8
L=10', W=10', D=18"
d50=R-4 ROCK
PLACED ON NON-WOVEN
FILTER FABRIC

INV. 682.50

T/G 692.00
INV. 685.00

RIPRAP APRON 5
L=10', W=10', D=18"
d50=R-4 ROCK
PLACED ON NON-WOVEN
FILTER FABRIC

INV. 684.00

DETENTION/INFILTRATION BASIN 4
(SEE DETAIL)

INV. 683.25

RIPRAP APRON 4
L=17', W=21.5', D=27"
d50=R-5 ROCK
PLACED ON NON-WOVEN
FILTER FABRIC

E.S. CREST 689.00
L=8', Z=4

PAINT THE WIND, LLC
5558/0148
TRACTS 1, 2, & 3
TOTAL GROSS 633.73± AC.

BECAUSE BASINS 1, 2, AND 3 ARE INFILTRATION BASINS, BOTTOMS MUST BE MARKED AND PROTECTED FROM COMPACTION AND SEDIMENTATION. HEAVY EQUIPMENT MUST BE OPERATED FROM OUTSIDE OF THESE AREAS.

Sharrah Design Group, Inc.
Land Surveying & Design
20 Chambersburg Street
Gettysburg, PA 17325
Phone: (717) 334-5400
Fax: (717) 334-0922

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ROBERT A. SHARRAH
LAND SURVEYOR
30170-E

REVISIONS			XREFS
NO.	DATE	DESCRIPTION	
1	09/26/11	PER ACCD COMMENTS	
2	10/06/11	PER TWP. ENG. REVIEW COMMENTS	
3	10/31/11	PER TWP. ENG. REVIEW COMMENTS	
4	11/22/11	FINAL PLAN SUBMISSION	

811 Know what's below. Call before you dig.

PENNSYLVANIA ACT 287 (1974) AS AMENDED BY PENNSYLVANIA ACT 121 (2008) REQUIRES NO LESS THAN THREE (3) WORKING DAYS AND NO MORE THAN TEN (10) WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH.

PLAN PREPARATION	
DRAWN BY: WLM–MKK	DATE: 01 SEPTEMBER 2011
DESIGNED BY: RAS	FILE NO.: 1109
CHECKED BY: RAS	DWG NO.: GR01–1109

GRADING PLAN - WEST

GENERALS MOUNTAIN LODGE

A RESORT–LODGE DEVELOPMENT

1207 FLOHRS CHURCH ROAD, FRANKLIN TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA

SCALE 1"=50'

SHEET NO. LD 5


NORTH
GRAPHIC SCALE IN FEET
0 25 50 100 150
1" = 50'
ALL RAINWATER CONDUCTORS (RWC) SHALL BE SDR 35 PVC OR APPROVED EQUAL. MINIMUM PERMITTED SLOPE = 1.00%
PROPOSED RETREAT LODGE
FF 806.00
LL 794.00
PRIMARY ON-LOT SEWAGE DISPOSAL AREA
REPLACEMENT ON-LOT SEWAGE DISPOSAL AREA
PROP. GAS METER
PROP. ELEC. TRANSFORMER
PROP. SITE LIGHT (TYP)
PROP. WATER LINES
EXIST. PRODUCTION WELL #1
100' ISOLATION RADIUS
EXISTING DRAINFIELD
EXIST. 1-STORY FIVE SUITE B&B
GARAGE FF 815.85
EXIST. GRAVEL AREA
EXIST. GRAVEL DRIVE
10' GRAVEL PULLOVER
LEVEL SPREADER #2
RIPRAP APRON 2 L=14', W=10', D=12" d50= R-4 ROCK PLACED ON NON-WOVEN FILTER FABRIC
DETENTION/INFILTRATION BASIN 2
PAINT THE WIND, LLC 5558/0148 TRACTS 1, 2, & 3 TOTAL GROSS 633.73± AC.
PROPOSED WATER STORAGE TANK TANK BASE ELEV. = 880.00
S81°51'42"E 369.44'
S76°52'29"W 260.61'
5/8" REBAR FOUND
DETENTION/INFILTRATION BASIN 1
RIPRAP APRON 1 L=14', W=10', D=9" d50= R-3 ROCK PLACED ON NON-WOVEN FILTER FABRIC
LEVEL SPREADER #1
RIPRAP APRON 10 L=10', W=13', D=27" d50=R-5 ROCK LACED ON NON-WOVEN FILTER FABRIC
DETENTION/INFILTRATION BASIN 3
RIPRAP APRON 3 L=18', W=10', D=27" d50= R-5 ROCK PLACED ON NON-WOVEN FILTER FABRIC
LEVEL SPREADER #3
DELIVERY/PARKING DIRECTIONAL SIGN
PAINT THE WIND, LLC 5558/0148 TRACTS 1, 2, & 3 TOTAL GROSS 633.73± AC.

LEGEND

FF	FIRST FLOOR ELEVATION	FG	FINISH GRADE
LL	LOWER LEVEL ELEVATION	T/G	TOP GRATE
GR	GARAGE SLAB ELEVATION	T/R	TOP RIM
TW	TOP OF WALL	HP	HIGH POINT
BW	BOTTOM OF WALL	INV.	INVERT ELEVATION

BECAUSE BASINS 1, 2, AND 3 ARE INFILTRATION BASINS, BOTTOMS MUST BE MARKED AND PROTECTED FROM COMPACTION AND SEDIMENTATION. HEAVY EQUIPMENT MUST BE OPERATED FROM OUTSIDE OF THESE AREAS.

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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — ROBERT A. SHARRAH — LAND SURVEYOR — 30170-E

REVISIONS

NO.	DATE	DESCRIPTION
1	09/26/11	PER ACCD COMMENTS
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3	10/31/11	PER TWP. ENG. REVIEW COMMENTS
4	11/22/11	FINAL PLAN SUBMISSION

XREFS

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PLAN PREPARATION

DRAWN BY: WLM-MKK	DATE: 01 SEPTEMBER 2011
DESIGNED BY: RAS	FILE NO.: 1109
CHECKED BY: RAS	DWG NO.: GR01-1109

GRADING PLAN - EAST

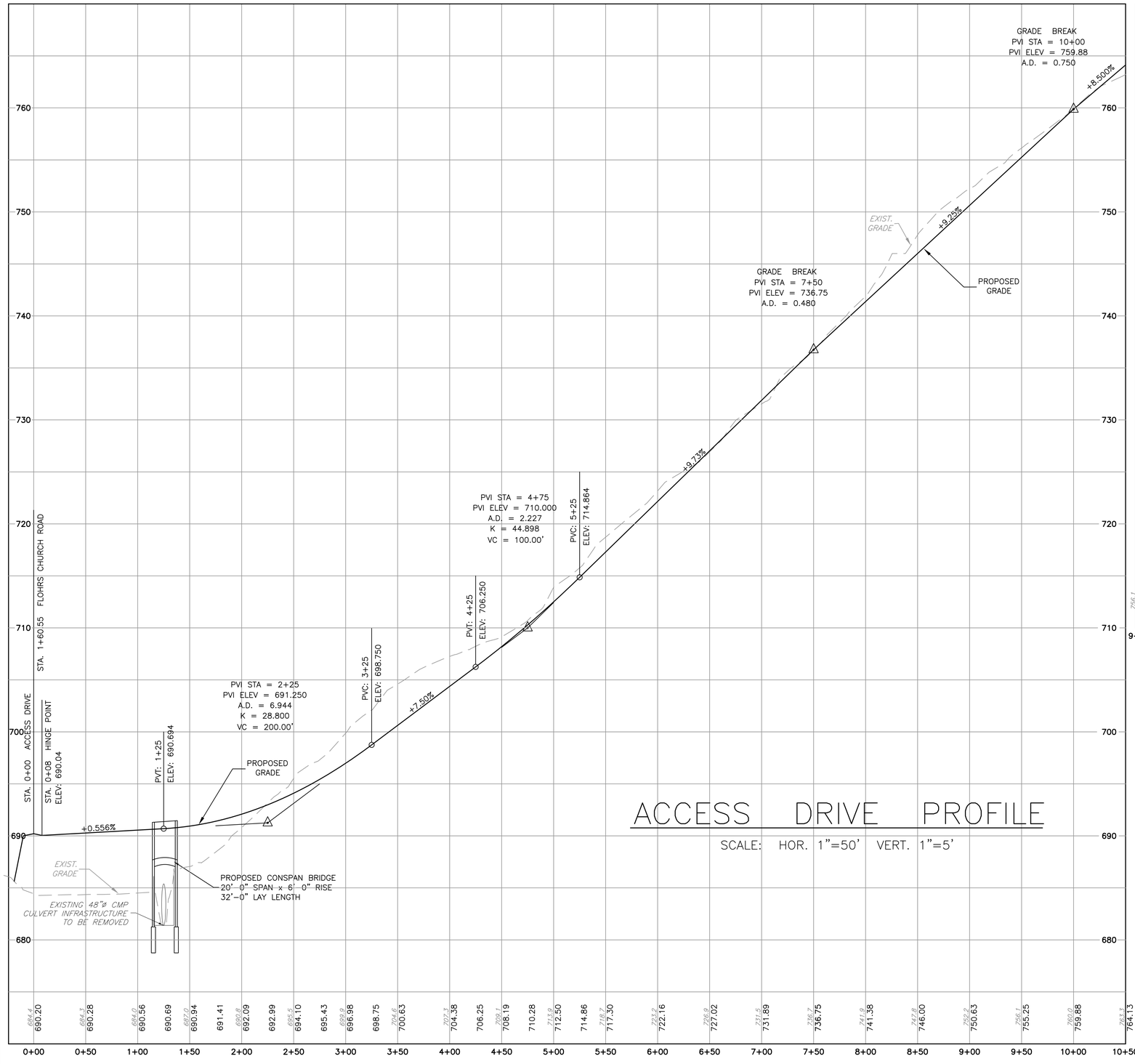
GENERALS MOUNTAIN LODGE

A RESORT-LODGE DEVELOPMENT

1207 FLOHRS CHURCH ROAD, FRANKLIN TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA

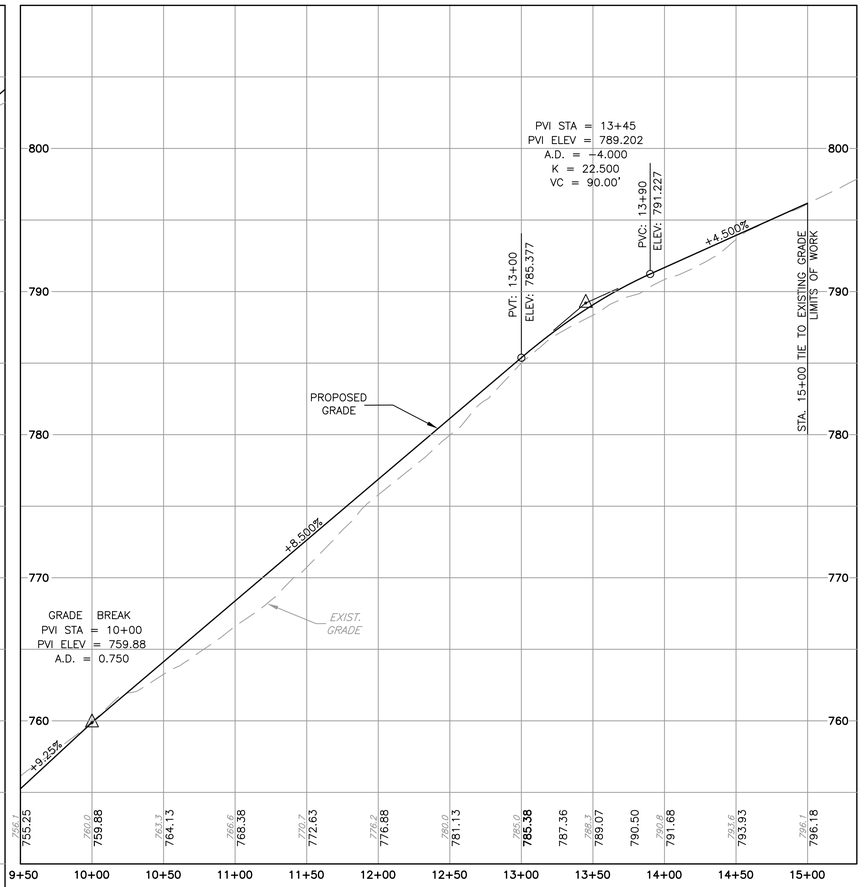
SCALE 1"=50'

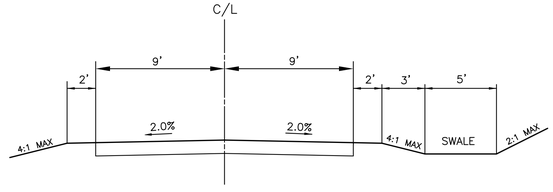
SHEET NO. LD 6



ACCESS DRIVE PROFILE

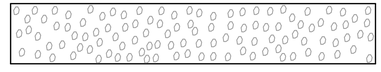
SCALE: HOR. 1"=50' VERT. 1"=5'





ACCESS DRIVE TYPICAL SECTION

NOT TO SCALE



8" PA 2RC STONE BASE

TYPICAL ROAD SECTION (ON-SITE)

NOT TO SCALE

Sharrah Design Group, Inc.
Land Surveying & Design
20 Chambersburg Street
Gettysburg, PA 17325
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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — ROBERT A. SHARRAH — LAND SURVEYOR 30170-E

REVISIONS			XREFS	
NO.	DATE	DESCRIPTION		
1	11/22/11	FINAL PLAN SUBMISSION		

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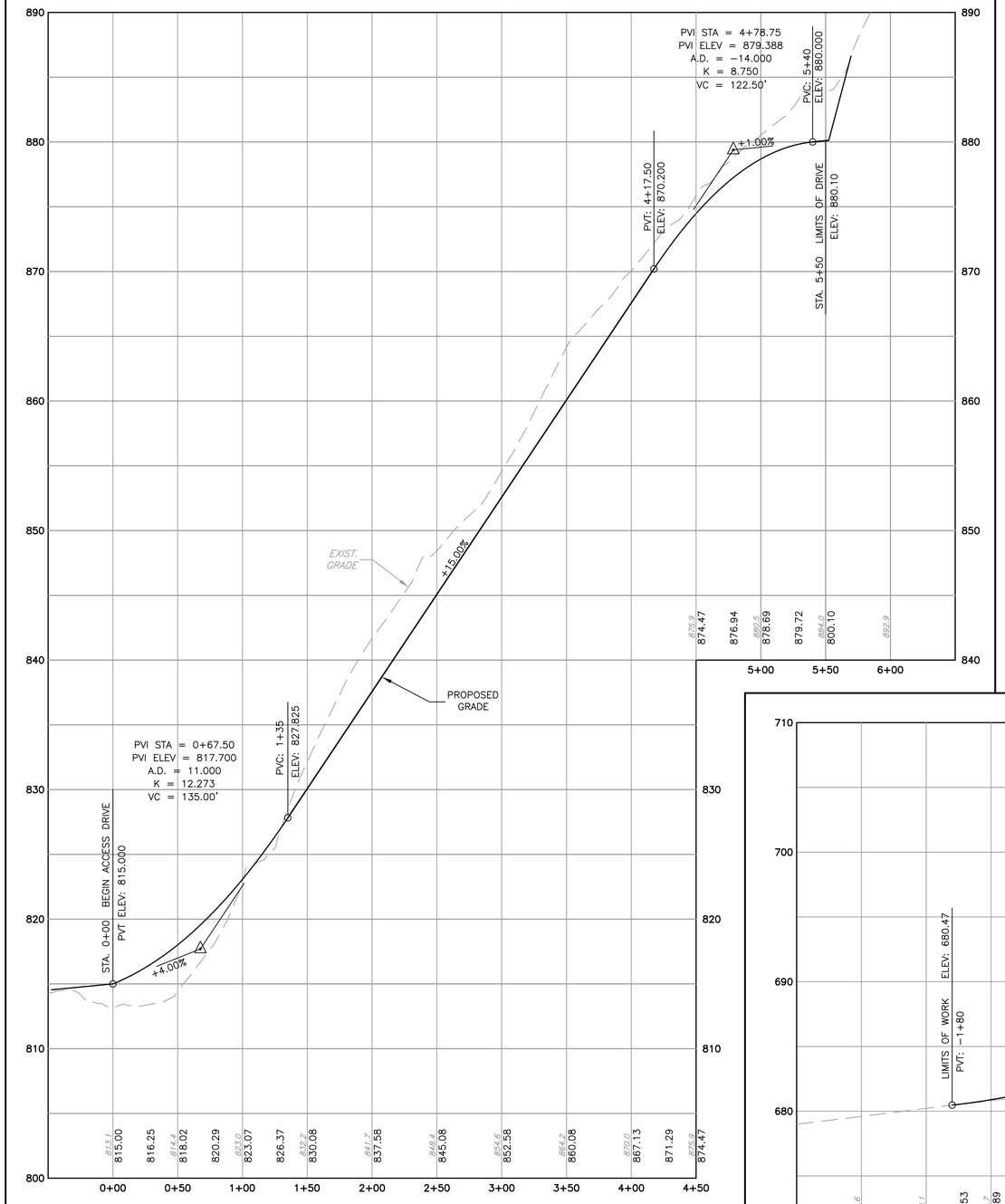
PLAN PREPARATION	
DRAWN BY: WLM-MKK	DATE: 01 SEPTEMBER 2011
DESIGNED BY: RAS	FILE NO.: 1109
CHECKED BY: RAS	DWG NO.: PRDR01-1109

ROAD PROFILES & DETAILS

GENERALS MOUNTAIN LODGE
A RESORT-LODGE DEVELOPMENT
1207 FLOHRS CHURCH ROAD, FRANKLIN TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA

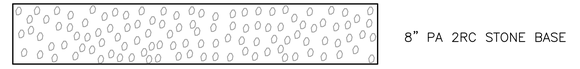
SCALE AS NOTED

SHEET NO. LD 7



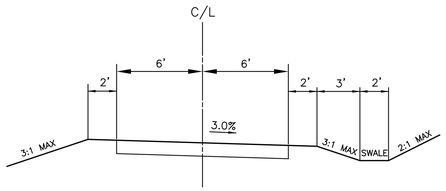
WATERTANK DRIVE PROFILE

SCALE: HOR. 1"=50' VERT. 1"=5'



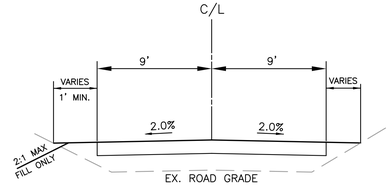
TYPICAL ROAD SECTION (ON-SITE)

NOT TO SCALE



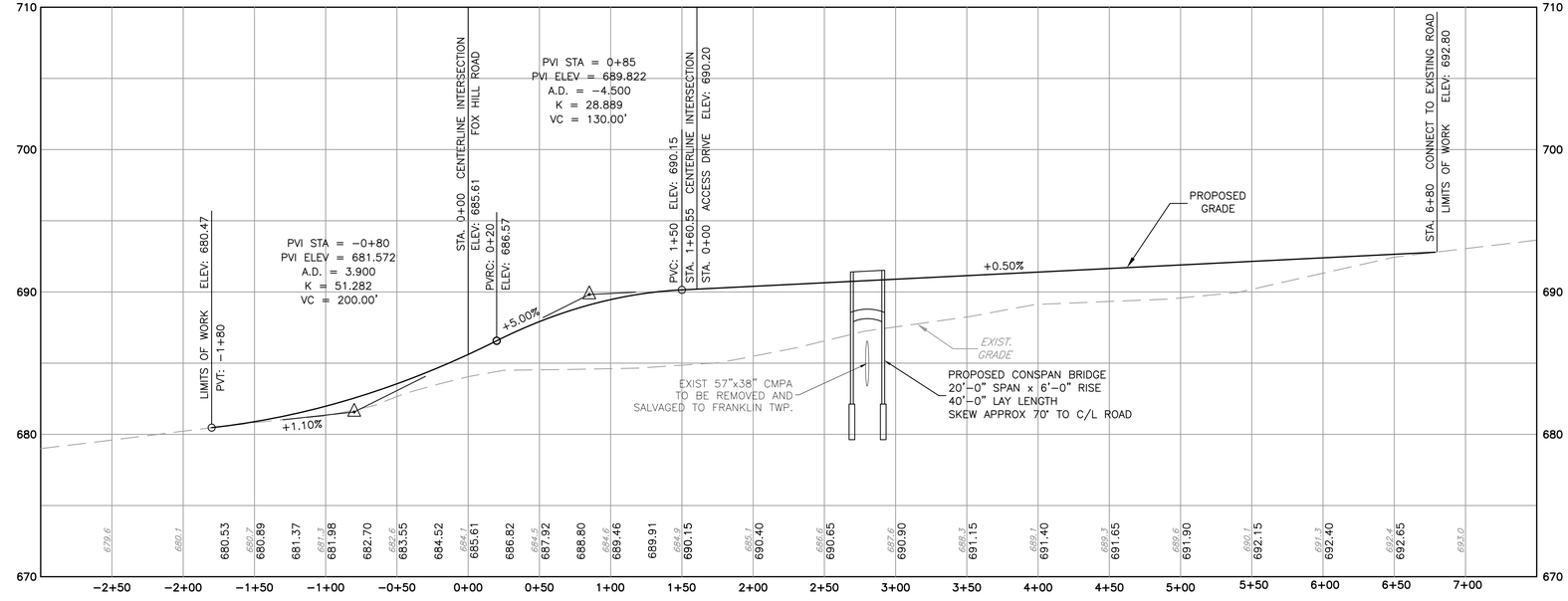
WATERTANK DRIVE TYPICAL SECTION

NOT TO SCALE



FLOHRS CHURCH ROAD TYPICAL SECTION

NOT TO SCALE



FLOHRS CHURCH ROAD PROFILE

SCALE: HOR. 1"=50' VERT. 1"=5'

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Gettysburg, PA 17325
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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — ROBERT A. SHARRAH — LAND SURVEYOR 30170-E

REVISIONS			XREFS	
NO.	DATE	DESCRIPTION		
1	11/22/11	FINAL PLAN SUBMISSION		

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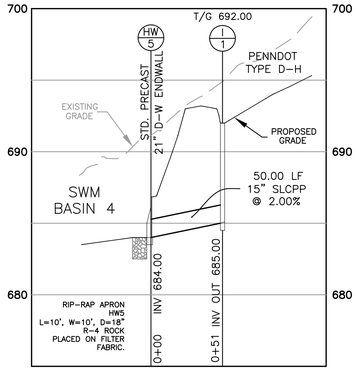
PLAN PREPARATION	
DRAWN BY: WLM-MKK	DATE: 01 SEPTEMBER 2011
DESIGNED BY: RAS	FILE NO.: 1109
CHECKED BY: RAS	DWG NO.: PRDR02-1109

ROAD PROFILES & DETAILS

GENERALS MOUNTAIN LODGE
A RESORT-LODGE DEVELOPMENT
1207 FLOHRS CHURCH ROAD, FRANKLIN TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA

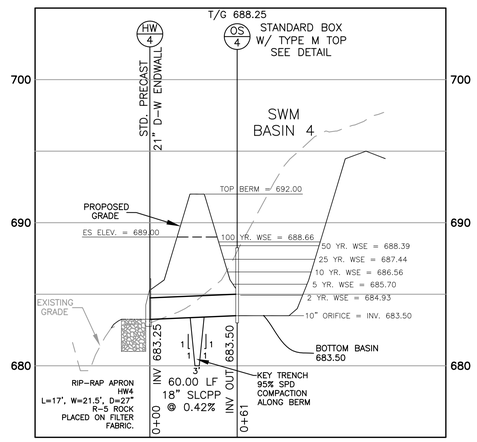
SCALE AS NOTED

SHEET NO. LD 8



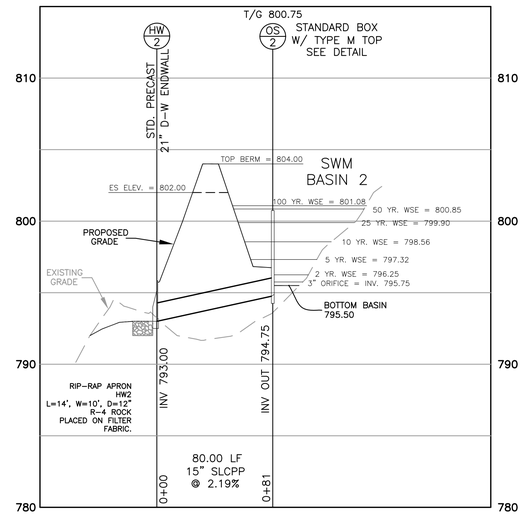
HW5 – I1

SCALE: HOR. 1"=50' VERT. 1"=5'



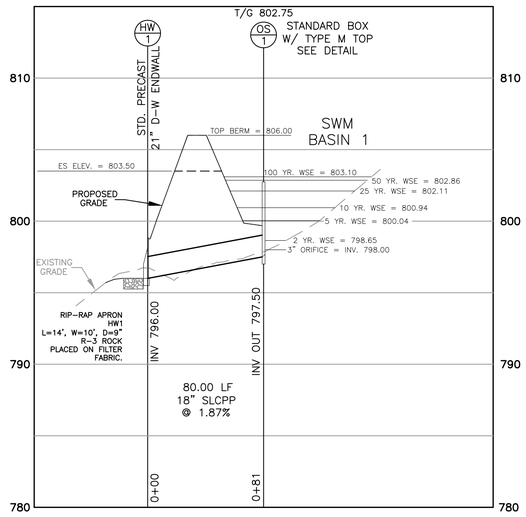
HW4 – OS4

SCALE: HOR. 1"=50' VERT. 1"=5'



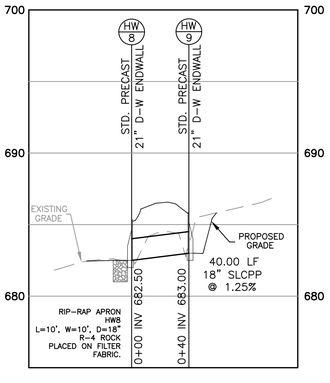
HW2 – OS2

SCALE: HOR. 1"=50' VERT. 1"=5'



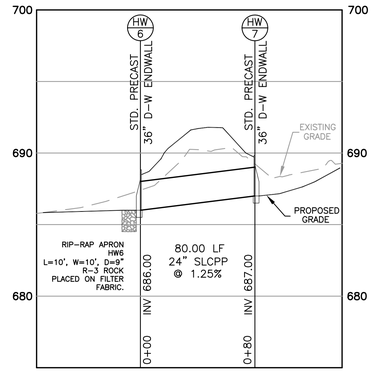
HW1 – OS1

SCALE: HOR. 1"=50' VERT. 1"=5'



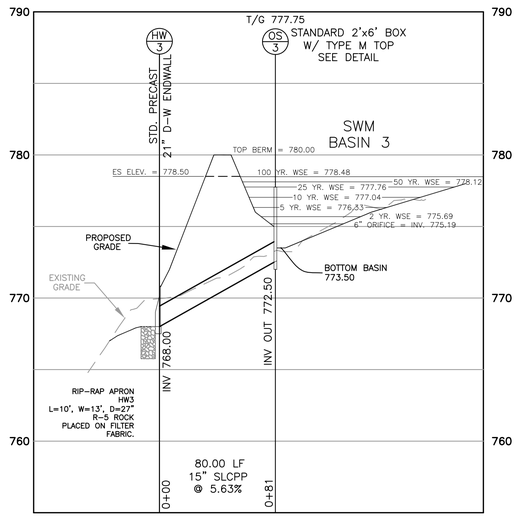
HW8 – HW9

SCALE: HOR. 1"=50' VERT. 1"=5'



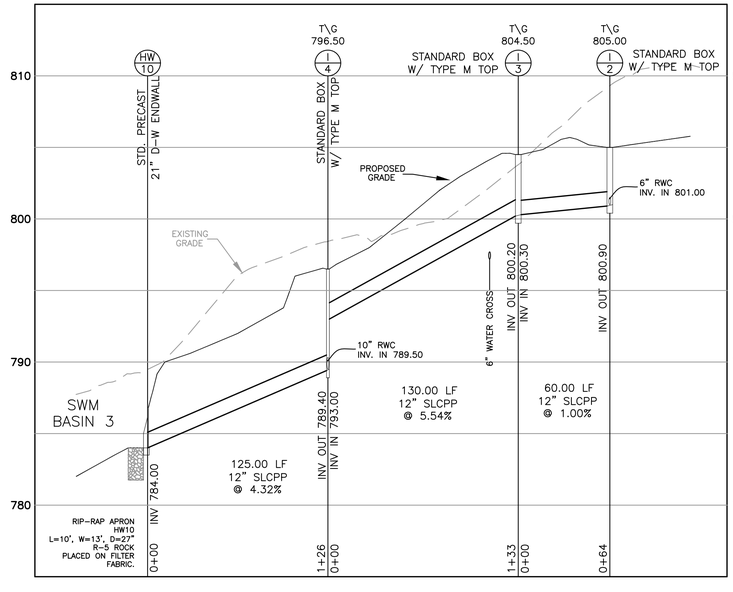
HW6 – HW7

SCALE: HOR. 1"=50' VERT. 1"=5'



HW3 – OS3

SCALE: HOR. 1"=50' VERT. 1"=5'



HW10 – I2

SCALE: HOR. 1"=50' VERT. 1"=5'

Sharrah Design Group, Inc.
Land Surveying & Design
20 Chambersburg Street
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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ROBERT A. SHARRAH LAND SURVEYOR 30170-E

REVISIONS			XREFS	
NO.	DATE	DESCRIPTION		
1	10/06/11	PER TWP. ENG. REVIEW COMMENTS		
2	10/31/11	ADD KEY TRENCH TO BASIN 4		
3	11/22/11	FINAL PLAN SUBMISSION		

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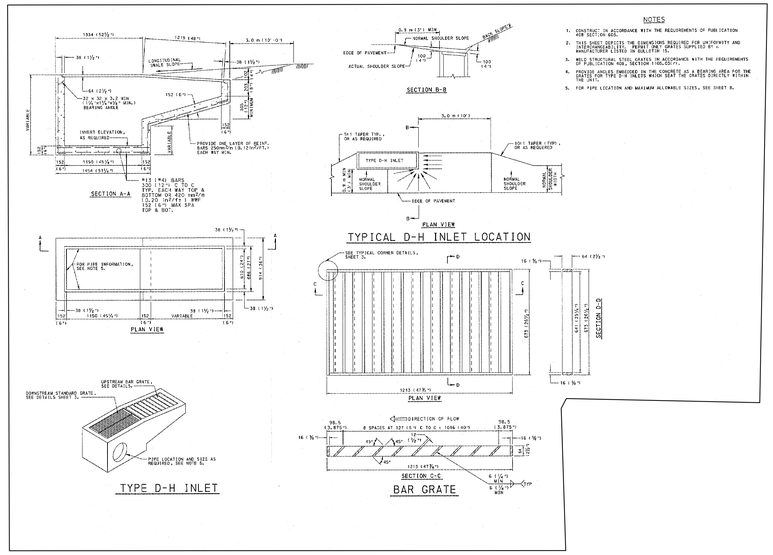
PLAN PREPARATION	
DRAWN BY: WLM–MKK	DATE: 01 SEPTEMBER 2011
DESIGNED BY: RAS	FILE NO.: 1109
CHECKED BY: RAS	DWG NO.: PRSD01–1109

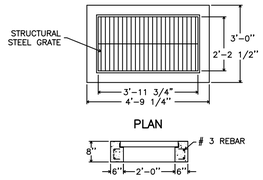
STORM DRAIN PROFILES

GENERALS MOUNTAIN LODGE
A RESORT–LODGE DEVELOPMENT
1207 FLOHRS CHURCH ROAD, FRANKLIN TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA

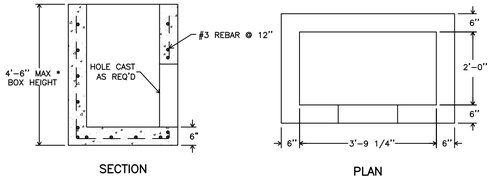
SCALE AS NOTED

SHEET NO. LD 9



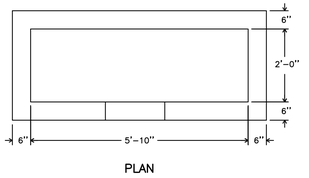


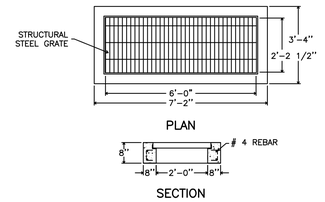
PENNDOT TYPE M
CONCRETE INLET TOP
(NOT TO SCALE)



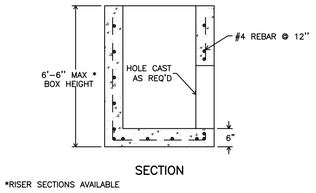
*RISER SECTIONS AVAILABLE FROM 2" TO 48"
NOTE: WEEP HOLES SHALL BE PROVIDED IN ALL PRECAST INLETS.

PRECAST STANDARD INLET BOX
(NOT TO SCALE)



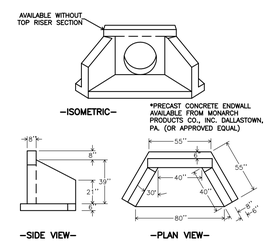


2' X 6' TYPE M INLET TOP
(NOT TO SCALE)

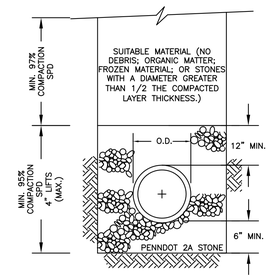


*RISER SECTIONS AVAILABLE

PRECAST INLET BOX 2' X 6'
NOT TO SCALE



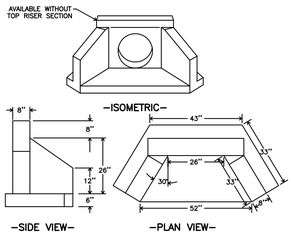
TYPE D-W ENDWALL
MAXIMUM PIPE SIZE - 36" C.M.P.
MONARCH PRODUCTS DWG. OS-2
NOT TO SCALE



TRENCH DETAIL FOR SLCPP PIPE
NOT TO SCALE

MINIMUM TRENCH WIDTH SHALL NOT BE LESS THAN THE GREATER OF
(1) THE PIPE OUTSIDE DIAMETER PLUS 16 IN. OR
(2) THE PIPE OUTSIDE DIAMETER TIMES 1.25, PLUS 12 IN.

PLACEMENT OF BACKFILL MATERIAL IN 8 INCH LIFTS SHALL BE PERMITTED WHEN USING VIBRATORY COMPACTION EQUIPMENT.



TYPE D-W ENDWALL
MAXIMUM PIPE SIZE - 21" C.M.P.
MONARCH PRODUCTS DWG. OS-1
NOT TO SCALE

Sharrah Design Group, Inc.
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Gettysburg, PA 17325
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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ROBERT A. SHARRAH LAND SURVEYOR 30170-E

REVISIONS			XREFS	
NO.	DATE	DESCRIPTION		
1	10/06/11	PER TWP. ENG. REVIEW COMMENTS		
2	11/22/11	FINAL PLAN SUBMISSION		

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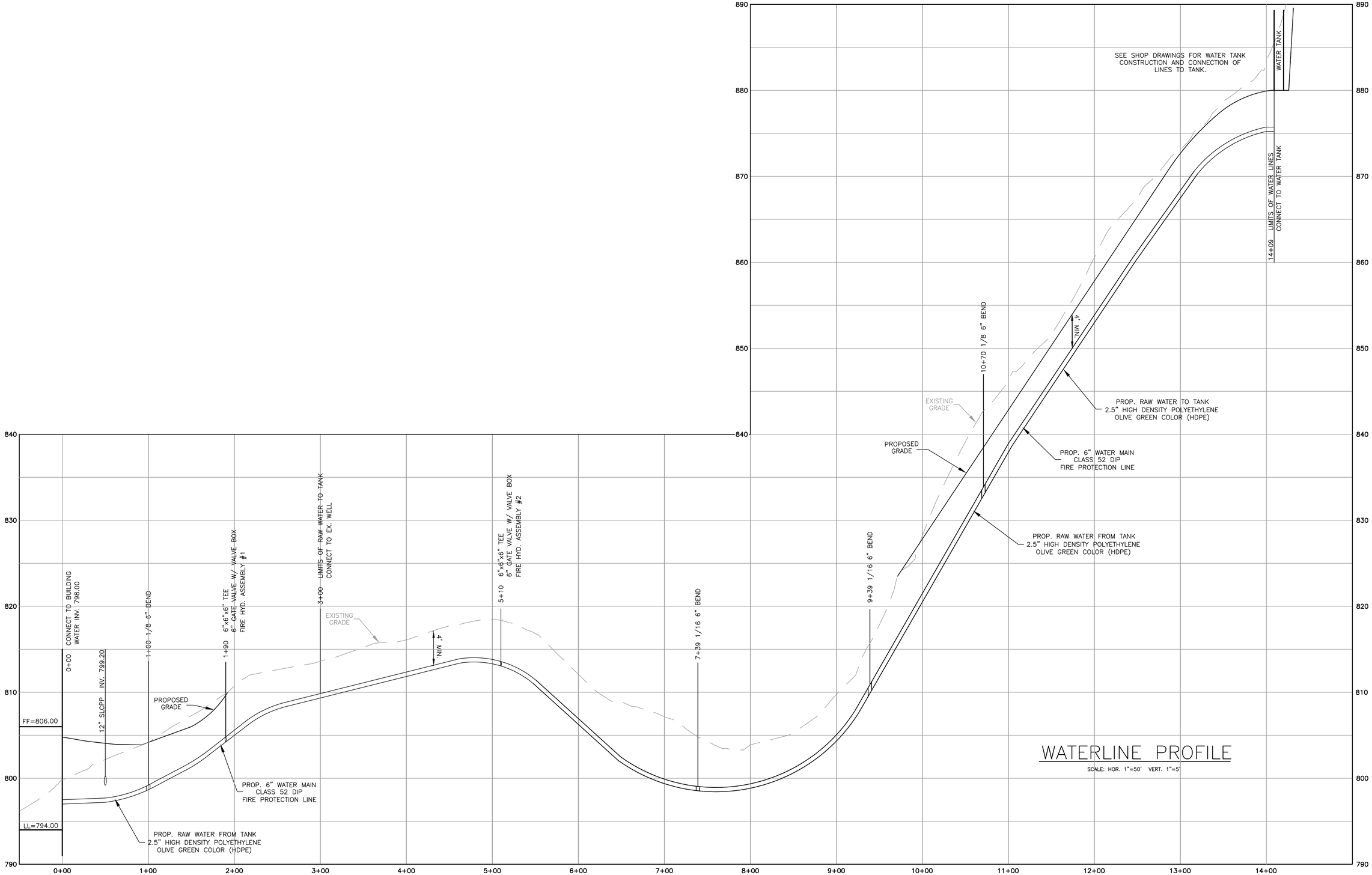
PLAN PREPARATION	
DRAWN BY: WLM-MKK	DATE: 01 SEPTEMBER 2011
DESIGNED BY: RAS	FILE NO.: 1109
CHECKED BY: RAS	DWG NO.: PRSD01-1109

STORM DRAIN DETAILS

GENERALS MOUNTAIN LODGE
A RESORT-LODGE DEVELOPMENT
1207 FLOHRS CHURCH ROAD, FRANKLIN TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA

SCALE AS NOTED

SHEET NO. LD 10



WATERLINE PROFILE

SCALE: HOR. 1"=50' VERT. 1"=5'

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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ROBERT A. SHARRAH LAND SURVEYOR 30170-E

REVISIONS		
NO.	DATE	DESCRIPTION
1	11/22/11	FINAL PLAN SUBMISSION

XREFS

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PLAN PREPARATION	
DRAWN BY: WLM–MKK	DATE: 01 SEPTEMBER 2011
DESIGNED BY: RAS	FILE NO.: 1109
CHECKED BY: RAS	DWG NO.: PRWT01–1109

WATERLINE PROFILE

GENERALS MOUNTAIN LODGE
A RESORT–LODGE DEVELOPMENT
1207 FLOHRS CHURCH ROAD, FRANKLIN TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA

SCALE AS NOTED

SHEET NO. LD 11

NOTES:

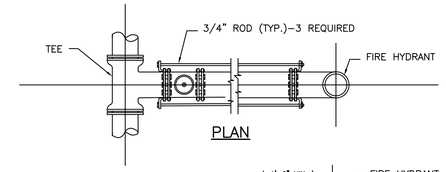
1. CARRY CONCRETE BUTTRESSES TO UNDISTURBED EARTH.

2. BUTTRESS DIMENSIONS SHOWN ARE MINIMUM. DIMENSIONS ARE BASED UPON SOIL BEARING PRESSURE OF 3000 P.S.F. AND STATIC WATER PRESSURE OF 150 P.S.I. WHERE WATER PRESSURE EXCEEDS 150 P.S.I. AND/OR WHERE SOIL BEARING PRESSURE IS LESS THAN 3000 P.S.I. SPECIAL BUTTRESS DESIGN IS REQUIRED.

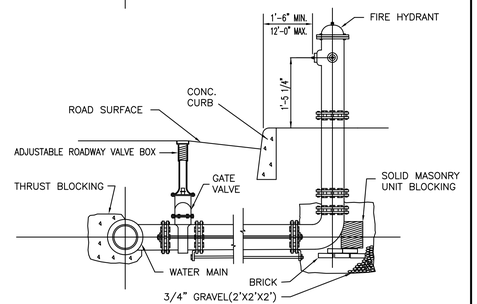
3. ALL TEES, BENDS & CAPS SHALL BE ANCHORED OR BUTTRESSED IN ACCORDANCE WITH THIS STANDARD DETAIL.

4. ALL WATERLINE MATERIALS AND CONSTRUCTION SHALL BE IN FULL ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS.

5. ALL WATERLINES SHALL HAVE A MINIMUM OF 4'-0" COVER.



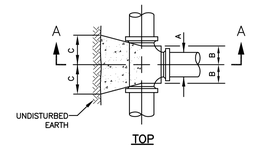
PLAN



ELEVATION

FIRE HYDRANT SETTING DETAIL

NOT TO SCALE



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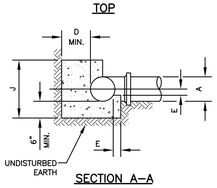
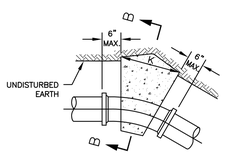


SECTION A-A

TEES



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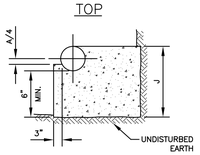
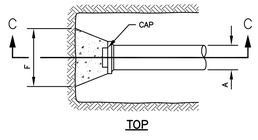


SECTION B-B

HORIZONTAL BENDS



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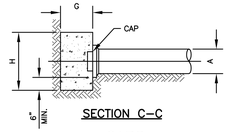
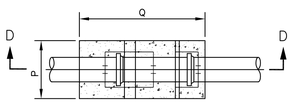


SECTION C-C

CAPS



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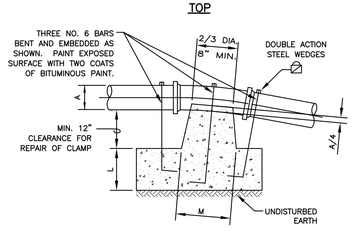


SECTION D-D

ANCHORAGE FOR VERTICAL BENDS

BUTTRESSES

NOT TO SCALE

MINIMUM BUTTRESS DIMENSIONS						
A	PIPE SIZE	6"	8"	10"	12"	16"
B		7"	9"	10"	12"	14"
C		7"	9"	13"	15"	26"
D		10"	10"	10"	12"	14"
E		1.5"	2"	2.5"	3"	4"
F		15"	21"	30"	38"	56"
G		6"	8"	10"	10"	12"
H		16"	18"	20"	22"	26"
J		10"	12"	14"	16"	20"
K	11 1/4°	12"	12"	14"	16"	20"
	22 1/2°	12"	12"	16"	18"	28"
	45°	15"	24"	32"	42"	58"
	90°	28"	43"	46"	72"	102"
L	11 1/4°	18"	24"	24"	30"	36"
	22 1/2°	24"	24"	30"	30"	42"
	45°	24"	30"	42"	48"	54"
M		20"	24"	30"	30"	36"
P	11 1/4°	18"	24"	30"	30"	36"
	22 1/2°	24"	30"	36"	42"	48"
	45°	30"	36"	42"	48"	60"
Q	11 1/4°	24"	24"	30"	36"	42"
	22 1/2°	30"	36"	42"	48"	54"
	45°	42"	48"	54"	60"	72"

Sharrah Design Group, Inc.
Land Surveying & Design
20 Chambersburg Street
Gettysburg, PA 17325
Phone: (717) 334-5400
Fax: (717) 334-0922

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — ROBERT A. SHARRAH — LAND SURVEYOR 30170-E

REVISIONS			XREFS	
NO.	DATE	DESCRIPTION		
1	11/22/11	FINAL PLAN SUBMISSION		

PLAN PREPARATION	
DRAWN BY: WLM-MKK	DATE: 01 SEPTEMBER 2011
DESIGNED BY: RAS	FILE NO.: 1109
CHECKED BY: RAS	DWG NO.: WTDT01-1109

WATERLINE DETAILS

GENERALS MOUNTAIN LODGE
A RESORT-LODGE DEVELOPMENT
1207 FLOHRS CHURCH ROAD, FRANKLIN TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA

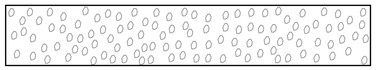
SCALE AS NOTED

SHEET NO. LD 12

LIGHT SOURCE SHALL BE 400W METAL HALLIDE.

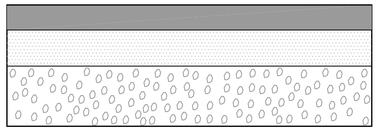
FIXTURE SHALL BE MOUNTED ON 20' POLE, WITH CONCRETE BASE SIZE AS REQUIRED BY MANUFACTURER.

GRAVEL SHALL BE UTILIZED IN ALL PARKING AND DRIVE AREAS NOT DESIGNATED AS PAVED.



TYPICAL GRAVEL SECTION

NOT TO SCALE



TYPICAL PAVING SECTION

NOT TO SCALE

VEHICULAR CONCRETE PADS

NOT TO SCALE

TIMBER PARKING BUMPER

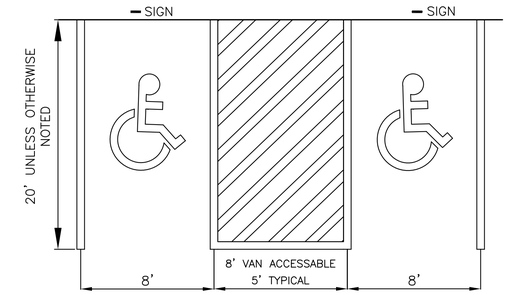
NOT TO SCALE

NOTES:
1. MINIMUM WIDTH 5 FEET
2. EXPANSION JOINTS LOCATED AT 20' O.C.
3. TOOLED JOINTS LOCATED AT 5' O.C.
4. SIDEWALK IS TO BE LIGHT BROOM FINISHED IN THE DIRECTION OF SIDEWALK WIDTH.

CONCRETE SIDEWALK

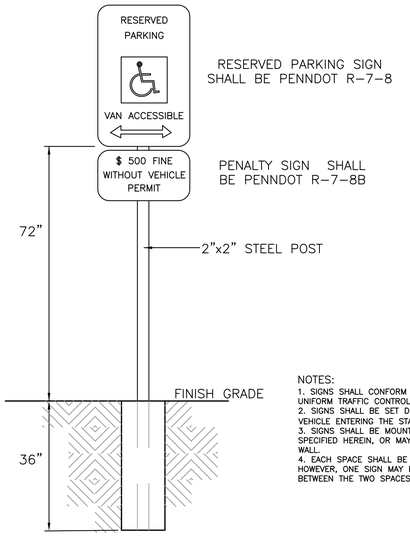
NOT TO SCALE

PAINT IS TO BE WHITE OR AS SPECIFIED BY THE LOCAL JURISDICTION APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS– (2) TWO COATS REQUIRED.



TYPICAL HANDICAP PARKING DETAIL

NOT TO SCALE



RESERVED PARKING SIGN SHALL BE PENNDOT R–7–8

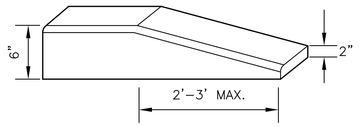
PENALTY SIGN SHALL BE PENNDOT R–7–8B

2"x2" STEEL POST

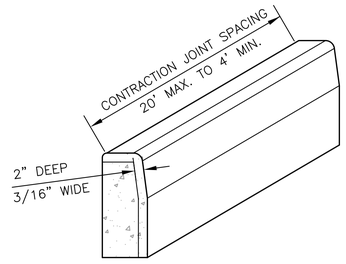
NOTES:
1. SIGNS SHALL CONFORM TO THE STANDARDS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND ADA REQUIREMENTS.
2. SIGNS SHALL BE SET DIRECTLY FACING THE LINE OF TRAVEL FOR THE VEHICLE ENTERING THE STALL (NOT < 45 °).
3. SIGNS SHALL BE MOUNTED ON A STURDY POST AT THE HEIGHT SPECIFIED HEREIN, OR MAY BE SECURELY FASTENED TO AN ADJACENT WALL.
4. EACH SPACE SHALL BE POSTED WITH A SIGN, CENTERED ON THE STALL, HOWEVER, ONE SIGN MAY BE USED FOR A PAIR OF STALLS WHEN PLACED BETWEEN THE TWO SPACES WITH THE APPROPRIATE ARROWS.

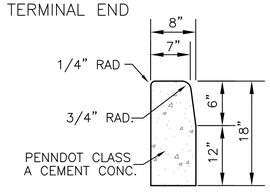
HANDICAP SIGN DETAIL

NOT TO SCALE



CURB TERMINAL END





TYP. CROSS SECTION

ON–SITE CONCRETE CURB

NOT TO SCALE

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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ROBERT A. SHARRAH LAND SURVEYOR 30170-E

REVISIONS			XREFS	
NO.	DATE	DESCRIPTION		
1	09/26/11	PER ACCD COMMENTS		
2	11/22/11	FINAL PLAN SUBMISSION		

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PLAN PREPARATION	
DRAWN BY: WLM–MKK	DATE: 01 SEPTEMBER 2011
DESIGNED BY: RAS	FILE NO.: 1109
CHECKED BY: RAS	DWG NO.: STDT01–1109

SITE DETAILS

GENERALS MOUNTAIN LODGE
A RESORT–LODGE DEVELOPMENT
1207 FLOHRS CHURCH ROAD, FRANKLIN TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA

SCALE AS NOTED

SHEET NO. LD 13

NORTH

GRAPHIC SCALE IN FEET
0 25 50 100 150
1" = 50'

ALL RAINWATER CONDUCTORS (RWC) SHALL BE SDR 35 PVC OR APPROVED EQUAL. MINIMUM PERMITTED SLOPE = 1.00%

PROPOSED RETREAT LODGE
FF 806.00
LL 794.00

PRIMARY ON-LOT SEWAGE DISPOSAL AREA

REPLACEMENT ON-LOT SEWAGE DISPOSAL AREA

EXIST. PRODUCTION WELL #1
100' ISOLATION RADIUS

EXIST. 1-STORY FIVE SUITE B&B

GARAGE FF 815.85

EXIST. GRAVEL AREA

EXIST. GRAVEL DRIVE

EXISTING DRAINFIELD

DETENTION/INFILTRATION BASIN 1

DETENTION/INFILTRATION BASIN 2

DETENTION/INFILTRATION BASIN 3

LEVEL SPREADER #1

LEVEL SPREADER #2

LEVEL SPREADER #3

DELIVERY/PARKING DIRECTIONAL SIGN

PROP. SITE LIGHT (TYP.)

PROP. GAS METER

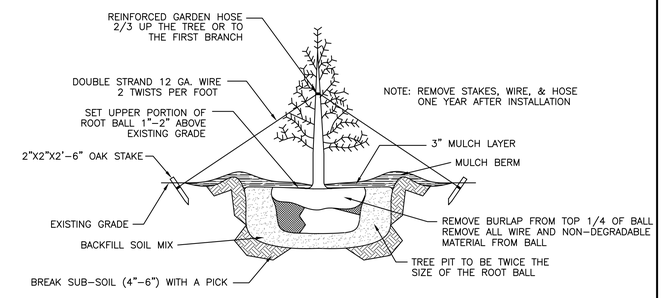
PROP. ELEC. TRANSFORMER

PROP. WATER LINES

PROP. 12" SLOPE

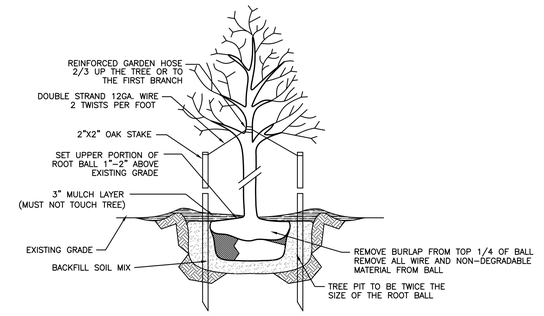
SEE DETAIL

PAINT THE WIND, LLC
5558/0148
TRACTS 1, 2, & 3
TOTAL GROSS 633.73± AC.



EVERGREEN PLANTING AND STAKING DETAIL

NOT TO SCALE



REMOVE STAKES, HOSE, & WIRE ONE YEAR AFTER INSTALLATION

TREE PLANTING AND STAKING DETAIL

NOT TO SCALE

LANDSCAPE NOTES

1) Plant Materials

All nursery stock shall conform to "American Standard for Nursery Stock" as specified by the American Association of Nurserymen.

All nursery stock shall be subject to inspection by the Developer for quality, size, and trueness to species. Any plant that is not healthy and vigorous or has indication of decay, disease, insect pest infestation, and/or physical injuries will not be accepted. Rejected plants shall be removed from the site and replaced with specified plants.

No substitutions for the specified plants shall be permitted. If specified plants and/or specified plant sizes are unobtainable, consideration will be given to related varieties and/or the nearest available size. Approval shall be granted by the Township.

2) Planting Procedures

Backfill soil mix shall consist of 100 lbs. of dehydrated cow manure to 1 cu. yd. of topsoil or 2 cu. yds. of peat humus to 6 cu. yds. of topsoil. This specified backfill soil mix shall be used on both planting beds and individual plants.

Existing soil within all planting beds and individual planting pits shall be worked loose to a depth of four to six (4–6) inches.

Mulch all planting beds and individual plants with three inches (3") of finely shredded bark. Planting beds with ground cover plants require only one inch (1") of mulch. Thoroughly soak planted area the same day of planting.

3) Maintenance and Replacement

Developer shall be required to guarantee all plant materials for a period of 12 months after installation is complete and approved. At the end of 12 months, all plant material which is dead or dying shall be replaced with plant material of identical type, size and condition as originally specified.

PLANTING SCHEDULE

SYMBOL	QUANTITY	COMMON NAME	BOTANICAL NAME	SIZE	COMMENTS
RM	5	RED MAPLE	ACER RUBRUM 'OCTOBER GLORY'	2" CAL.	B & B
SM	9	SUGAR MAPLE	ACER SACCHARUM 'GREEN MT.'	2" CAL.	B & B
SB	8	SERVICEBERRY	AMELANCHIER CANADENSIS	6'–8'	MULTI STEM, B & B
PO	9	PIN OAK	QUERCUS PALUSTRIS	2" CAL.	B & B
RO	7	RED OAK	QUERCUS RUBRA	2" CAL.	B & B
WP	10	WHITE PINE	PINUS STROBUS	6'–8'	B & B

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
WAYNE LEE MAYERS
LANDSCAPE ARCHITECT
LA-001296-R

REVISIONS			XREFS	
NO.	DATE	DESCRIPTION		
1	11/22/11	FINAL PLAN SUBMISSION		

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PLAN PREPARATION	
DRAWN BY: WLM–MKK	DATE: 01 SEPTEMBER 2011
DESIGNED BY: RAS	FILE NO.: 1109
CHECKED BY: RAS	DWG NO.: LS01–1109

LANSCAPE PLAN

GENERALS MOUNTAIN LODGE
A RESORT–LODGE DEVELOPMENT
1207 FLOHRS CHURCH ROAD, FRANKLIN TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA

SCALE 1"=50'

SHEET NO. LD 14

NORTH

GRAPHIC SCALE IN FEET
0 25 50 100 150
1" = 50'

PROPOSED RETREAT LODGE
FF 806.00
LL 794.00

PROP. SITE LIGHT (TYP)

1.0 FOOT CANDLE CONTOUR

0.3 FOOT CANDLE CONTOUR

2.0 FOOT CANDLE CONTOUR

EXIST. PRODUCTION WELL #1

100' ISOLATION RADIUS

EXISTING DRAINFIELD

EXIST. 1-STORY FIVE SUITE B&B

EX. WELL

GARAGE FF 815.85

EXIST. GRAVEL AREA

EXIST. GRAVEL DRIVE

EXIST. PATH

PROP. 12" SLOPP

PROP. 15" SLOPP

SEE DETAIL

DETENTION/INFILTRATION BASIN 1

DETENTION/INFILTRATION BASIN 2

DETENTION/INFILTRATION BASIN 3

80 LF 15% SLOPP

80 LF 18% SLOPP

NOTE:

SEE SITE DETAIL SHEET LD13 FOR PROPOSED SITE LIGHT FIXTURE DETAIL AND SPECIFICATIONS.

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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — ROBERT A. SHARRAH — LAND SURVEYOR 30170-E

REVISIONS			XREFS	
NO.	DATE	DESCRIPTION		
1	11/22/11	FINAL PLAN SUBMISSION		

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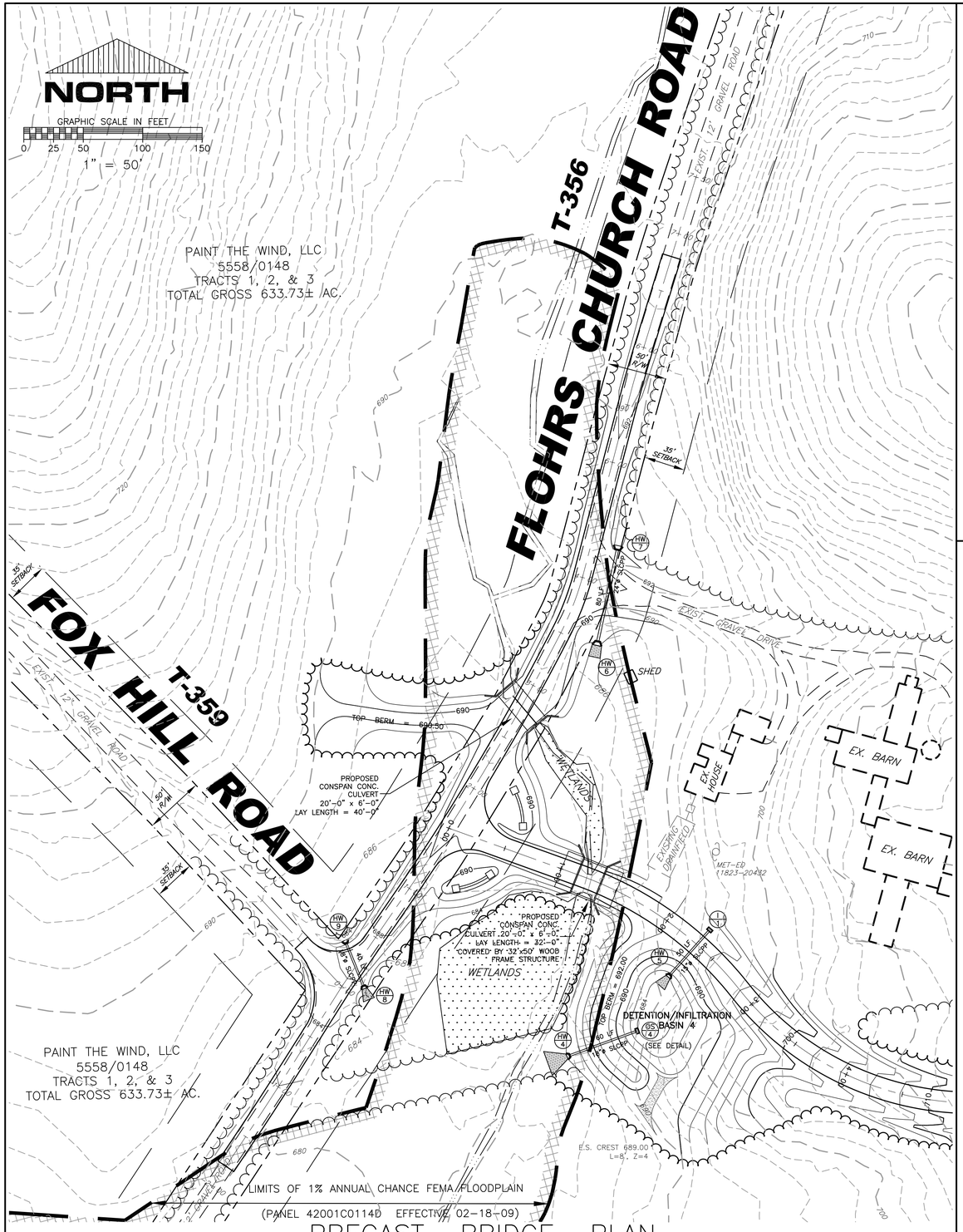
PLAN PREPARATION	
DRAWN BY: WLM-MKK	DATE: 12 OCTOBER 2011
DESIGNED BY: RAS	FILE NO.: 1109
CHECKED BY: RAS	DWG NO.: LI01-1109

LIGHTING PLAN

GENERALS MOUNTAIN LODGE
A RESORT-LODGE DEVELOPMENT
1207 FLOHRS CHURCH ROAD, FRANKLIN TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA

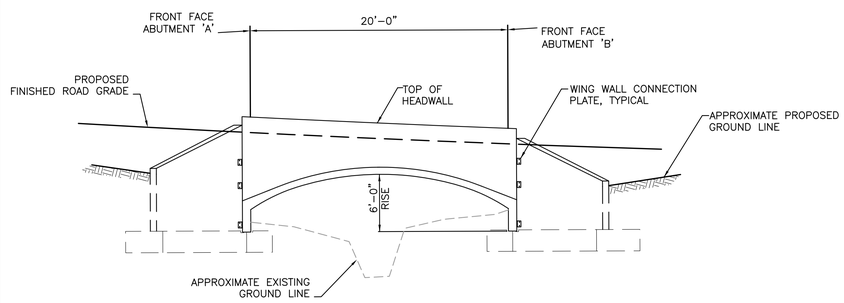
SCALE 1"=50'

SHEET NO. LD 15



PRECAST BRIDGE PLAN

SCALE: HOR. 1"=50'



TYPICAL PRECAST BRIDGE SECTION

SCALE: N/A

GENERAL NOTES:

SPECIFICATIONS:

AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES DATED 2002 FOR DESIGN.

CONCRETE DESIGN: SERVICE LOAD DESIGN METHOD f'c = 1,200 P.S.I.

LOADING:

HS25.

CONCRETE:

CAST-IN-PLACE CONCRETE FOR WING WALLS AND CONCRETE FOOTINGS SHALL HAVE A MINIMUM COMPRESIVE STRENGTH OF 3,500 P.S.I. AT 28 DAYS.

REINFORCING STEEL:

REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60. MINIMUM COVER FOR ANY BAR SHALL BE 2" UNLESS OTHERWISE NOTED, WITH THE EXCEPTION OF BARS AT THE BOTTOM AND SIDES OF ALL FOOTINGS WHICH SHALL HAVE 3" MINIMUM COVER.

FOR TIES AND STIRRUPS; STANDARD ACI BENDING TOLERANCES ARE MODIFIED TO PLUS (+) ZERO INCHES, MINUS (-) NORMAL ACI BENDING TOLERANCES.

ONLY GRADE 60 CAN BE USED FOR THIS PROJECT.

REINFORCING STEEL IN THE FOLLOWING AREAS SHALL BE EPOXY COATED:

PRECAST CONCRETE CULVERT.
CAST-IN-PLACE CONCRETE HEADWALLS.

KEYS:

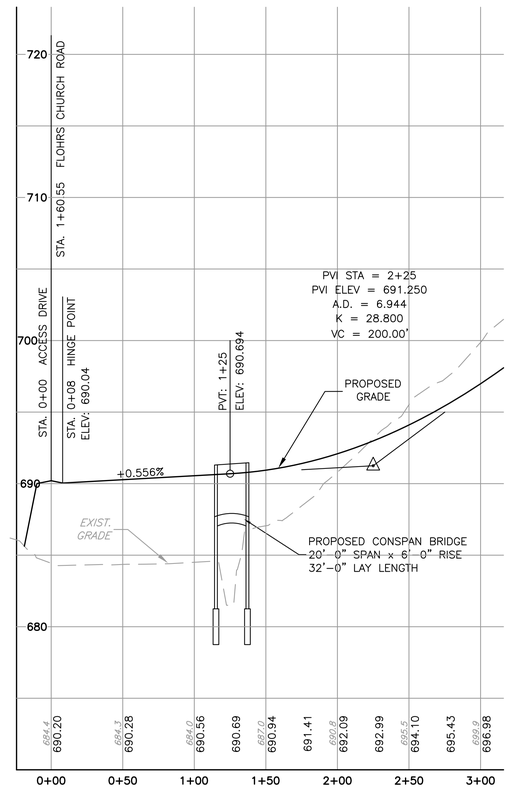
ALL KEYS ARE NOMINAL SIZE.

ALLOWABLE BEARING PRESSURE:

ALLOWABLE SOIL BEARING CAPACITY = 5000 P.S.F.

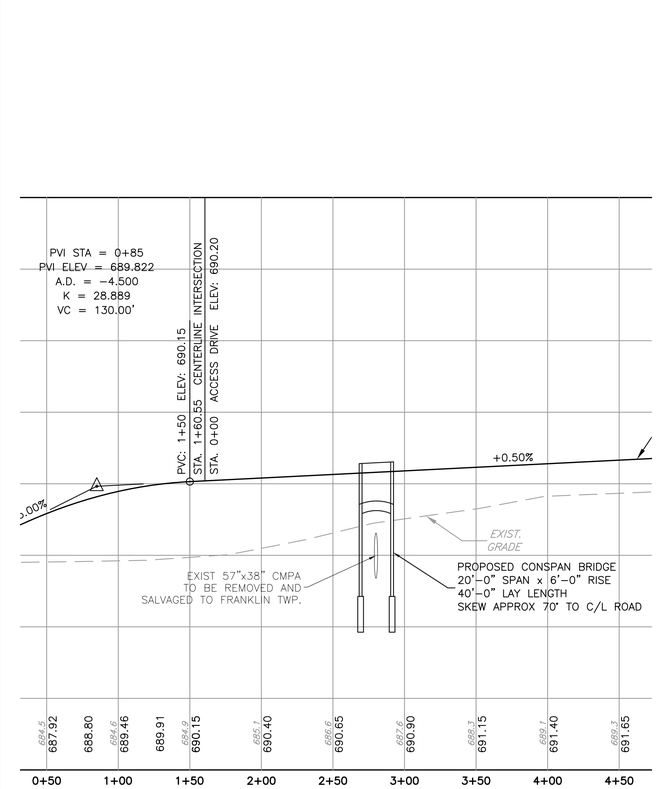
PRECAST CONCRETE CULVERT:

SEE SPECIFICATIONS FOR MANUFACTURE AND INSTALLATION SHEET ___.



ACCESS DRIVE BRIDGE PROFILE

SCALE: HOR. 1"=50' VERT. 1"=5'



FLOHRS CHURCH RD. BRIDGE PROFILE

SCALE: HOR. 1"=50' VERT. 1"=5'

Sharrah Design Group, Inc.
Land Surveying & Design
20 Chambersburg Street
Gettysburg, PA 17325
Phone: (717) 334-5400
Fax: (717) 334-0922

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER PETER JOSEPH MARTIN PE-077563

REVISIONS			XREFS
NO.	DATE	DESCRIPTION	
1	11/22/11	FINAL PLAN SUBMISSION	

811 Know what's below. Call before you dig.

PENNSYLVANIA ACT 287 (1974) AS AMENDED BY PENNSYLVANIA ACT 121 (2008) REQUIRES NO LESS THAN THREE (3) WORKING DAYS AND NO MORE THAN (10) WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH.

PLAN PREPARATION	
DRAWN BY: WLM-MKK	DATE: 31 OCTOBER 2011
DESIGNED BY: RAS	FILE NO.: 1109
CHECKED BY: RAS	DWG NO.: BR01-1109

BRIDGE DETAILS

GENERALS MOUNTAIN LODGE
A RESORT-LODGE DEVELOPMENT
1207 FLOHRS CHURCH ROAD, FRANKLIN TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA

SCALE AS NOTED

SHEET NO. BR 1

1. DESCRIPTION

This work shall consist of constructing a Con/Span culvert in accordance with these specifications and in reasonably close conformity with the lines, grades, design and dimensions shown on the plans or as established by the Engineer.

2. TYPES

Precast reinforced concrete Con/Span culverts manufactured in accordance with this specification shall be designated by span and rise.

3. MATERIALS – CONCRETE

The concrete for the culverts shall be air–entrained when installed in areas subject to freeze–thaw conditions, composed of Portland cement, fine and coarse aggregates, admixtures and water. Concrete shall contain 6 ± 2 percent air. The air entraining admixture shall conform to AASHTO M154.

3.1 Portland Cement – Shall conform to the requirements of ASTM Specifications C150–Type I, Type II, or Type III cement.

3.2 Coarse Aggregate – Shall consist of stone having a maximum size of 1 inch. Aggregate shall meet requirements for ASTM C33.

3.3 Water Reducing Admixture – The manufacturer may submit for approval by the Engineer, a water–reducing admixture for the purpose of increasing workability and reducing the water requirement for the concrete.

3.4 Calcium Chloride – The addition to the mix of calcium chloride or admixtures containing calcium chloride will not be permitted.

4. MATERIALS – STEEL REINFORCEMENT AND HARDWARE

All reinforcing steel for the culverts shall be fabricated and placed in accordance with the detailed shop drawings submitted by the manufacturer.

4.1 Steel Reinforcement – Reinforcement shall consist of welded wire fabric conforming to ASTM Specification A 185 or A 497, or deformed billet steel bars conforming to ASTM Specification A 615, Grade 60. Longitudinal distribution reinforcement may consists of welded wire fabric or deformed billet–steel bars.

5. MANUFACTURE

5.1 Mixture – The aggregates, cement and water shall be proportioned and mixed in a batch mixer to produce a homogeneous concrete meeting the strength requirements of this specification. The proportion of Portland cement in the mixture shall not be less than 564 pounds (6 sacks) per cubic yard of concrete.

5.2 Curing – The precast concrete culvert units shall be cured for a sufficient length of time so that the concrete will develop the specified compressive strength in 28 days or less. Any one of the following methods of curing or combinations thereof shall be used:

5.2.1. Steam Curing – The culverts may be low pressure, steam cured by a system that will maintain a moist atmosphere.

5.2.2. Water Curing – The culverts may be water cured by any method that will keep the sections moist.

5.2.3. Membrane Curing – A sealing membrane conforming to the requirements of ASTM Specification C 309 may be applied and shall be left intact until the required concrete compressive strength is attained. The concrete temperature at the time of application shall be within + 10 degrees F of the atmospheric temperature. All surfaces shall be kept moist prior to the application of the compounds and shall be damp when the compound is applied.

5.3 Forms – the forms used in manufacture shall be sufficiently rigid and accurate to maintain the culvert dimensions within the permissible variations given in Section 7. All casting surfaces shall be of a smooth material.

5.4 Handling – Handling devices or holes shall be permitted in each culvert for the purpose of handling and setting.

5.5 Storage – The culverts shall be stored in such a manner to prevent cracking or damage. The units shall not be stored in an upright position until the compressive strength is a minimum of 4,000 psi.

6. DESIGN

6.1 The culvert dimension and reinforcement details shall be as prescribed in the plan and the shop drawings provided by the manufacturer subject to the provisions of Section 7. The minimum concrete compressive strength shall be 4,000 psi. The minimum steel yield strength shall be 60,000 psi.

The culverts are designed in accordance with the "Standard Specifications for Highway Bridges" adopted by the American Association of State Highway and Transportation Officials, 1996. A minimum of one foot of cover above the crown of the culvert is required in the installed condition. (Unless noted otherwise and designed accordingly.)

6.2 Placement of Reinforcement – The cover of concrete over the outside circumferential reinforcement shall be 2 inches minimum. The cover of concrete over the inside circumferential reinforcement shall be 1 1/2 inches minimum. The clear distance of the end circumferential wires shall not be less than one inch nor more than two inches from the ends of the culvert. Reinforcement shall be assembled utilizing single or multiple layers of welded wire fabric, or utilizing a single layer of deformed billet–steel bars. The welded wire fabric shall be composed of circumferential and longitudinal wires meeting the spacing requirements of 6.4 and shall contain sufficient longitudinal wires extending through the culvert to maintain the shape and position of the reinforcement. Longitudinal distribution reinforcement may be welded wire fabric or deformed billet–steel bars and shall meet the spacing requirements of 6.4. The ends of the longitudinal distribution reinforcement shall be not more than 3 inches from the ends of the culvert.

6.3 Bending of Reinforcement – The outside and inside circumferential reinforcing steel for the corners of the culvert shall be bent to such an angle that is approximately equal to the configuration of the culvert's outside corner.

6.4 Laps, Welds, and Spacing – Tension splices in the circumferential reinforcement shall be made by lapping. Laps may be tack welded together for assembly purposes. For smooth welded wire fabric, the overlap shall meet the requirements of ACI 12.8 and 12.19. For deformed welded wire fabric, the overlap shall meet the requirements of ACI 12.7 and 12.18. For deformed billet–steel bars, the overlap shall meet the requirements of ACI 12.2. For splices other than tension splices, the overlap shall be a minimum of 12" for welded wire fabric or deformed billet–steel bars. The spacing center to center of the circumferential wires in a wire fabric sheet shall be not less than 2 inches nor more than 4 inches. For the wire fabric, the spacing center to center of the longitudinal wires shall not be more than 8 inches. The spacing center to center of the longitudinal distribution steel for either line of reinforcing in the top slab shall be not more than 16 inches.

7. PERMISSIBLE VARIATIONS

7.1 Internal Dimensions – The internal dimension shall vary not more than 1% from the design dimensions nor more than 1–1/2 inches whichever is less. The haunch dimensions shall vary not more than 3/4 inch from the design dimension.

7.2 Slab and Wall Thickness – The slab and wall thickness shall not be less than that shown in the design by more than 1/4 inch. A thickness more than that required in the design shall not be cause for rejection.

7.3 Length of Opposite Surfaces – Variations in laying lengths of two opposite surfaces of the culvert shall not be more than 5/8 inch in any culvert section, except where beveled ends for laying of curves are specified by the purchaser.

7.4 Length of Section – The underrun in length of a section shall not be more than 1/2 inch in any culvert.

7.5 Position of Reinforcement – The maximum variation in position of the reinforcement shall be + 1/2 inch. In no case shall the cover over the reinforcement be less than 1 inches for the outside circumferential steel or be less than 1 inch for the inside circumferential steel as measured to the external or internal surface of the culvert. These tolerances or cover requirements do not apply to mating surfaces of the joints.

7.6 Area of Reinforcement – The areas of steel reinforcement shall be the design steel areas as shown in the manufacturer's shop drawings. Steel areas greater than those required shall not be cause for rejection. The permissible variation in diameter of any reinforcement shall conform to the tolerances prescribed in the ASTM Specification for that type of reinforcement.

8. TESTING AND INSPECTION

8.1 Type of Test Specimen – Concrete compressive strength shall be determined from compression tests made on cylinders or cores. For cylinder testing a minimum of 4 cylinders shall be taken during each production run. For core testing, one core shall be cut from a culvert section selected at random from each group of 15 culverts or less of a particular size and production run. For each continuous production run, each group of 15 culverts of a single size or fraction thereof shall be considered separately for the purpose of testing and acceptance. A production run shall be considered continuous if not interrupted for more than 3 consecutive days.

8.2 Compression Testing – Cylinders shall be made and tested as prescribed by the ASTM C 39 Specification. Cores shall be obtained and tested for compressive strength in accordance with the provisions of the ASTM C 497 Specification.

8.3 Acceptability of Cylinder Tests – Failure of any of the 28 day test cylinders to meet 90 percent of the minimum compressive strength requirement can be cause for rejection.

8.4 Acceptability of Core Tests – The compressive strength of the concrete in each group of culverts as defined in 8.1 is acceptable when the core test strength is equal to or greater than the design concrete strength. When the compressive strength of the core tested is less than the design concrete strength, the culvert from which that core was taken may be recored. When the compressive strength of the recore is equal to or greater than the design concrete strength, the compressive strength of the concrete in that group of culverts is acceptable.

8.4.1 When the compressive strength of any recore is less than the design concrete strength, the culvert from which that core was taken shall be rejected. Two culverts from the remainder of the group shall be selected at random and one core shall be taken from each. If the compressive strength of both cores is equal to or greater than the design concrete strength, the compressive strength of the remainder of that group of culverts is acceptable. If the compressive strength of either of the two cores tested is less than the design concrete strength, the remainder of the group of culverts shall be rejected or, at the option of the manufacturer, each culvert of the remainder of the group shall be cored and accepted individually, and any of these culverts that have cores with less than the design concrete strength shall be rejected.

8.4.2 Plugging Core Holes – The core holes shall be plugged and sealed by the manufacturer in a manner such that the culvert will meet all of the test requirements of this specification. Culverts so sealed shall be considered satisfactory for use.

8.4.3 Test Equipment – Every manufacturer furnishing culverts under this specification shall furnish all facilities and personnel necessary to carryout the test required.

9. JOINTS

The culverts shall be produced with flat butt ends. The ends of the culvert shall be such that when the sections are laid together they will make a continuous line of culverts with a smooth interior free of appreciable irregularities, all compatible with the permissible variations – in Section 7. The joint width shall not exceed 3/4 inches.

10. WORKMANSHIP AND FINISH

The culverts shall be substantially free of fractures. The ends of the culverts shall be normal to the walls and centerline of the culvert section, within the limits of the variations given in section 7, except where beveled ends are specified. The surface of the culverts shall be a smooth steel form or troweled surface. Trapped air pockets causing surface defects shall be considered as part of a smooth steel form finish.

11. REPAIRS

Culverts may be repaired, if necessary, because of imperfections in manufacture or handling damage and will be acceptable if, in the opinion of the purchaser, the repairs are sound, properly finished and cured, and the repaired section conforms to the requirements of this specification.

12. INSPECTION

The quality of materials, the process of manufacture, and the finished culverts shall be subject to inspection by the purchaser.

13. REJECTION

Culverts shall be subject to rejection on account of any of the specification requirements. Individual culverts may be rejected because of any of the following:

13.1 Fractures or cracks passing through the wall, except for a single end crack that does not exceed one half the thickness of the wall.

13.2 Defects that indicate proportioning, mixing, and molding not in compliance with Section 5.

13.3 Honeycombed or open texture.

13.4 Damaged ends, where such damage would prevent making a satisfactory joint.

14. MARKING

Each culvert shall be clearly marked by waterproof paint. The following shall be shown on the inside of the vertical leg of the culvert section:

Culvert Section Span X Culvert Rise
Date of Manufacture
Name or trademark of the manufacturer

15. CONSTRUCTION REQUIREMENTS

15.1 Footings – the culverts shall be installed on either precast or cast–in–place concrete footings. The design size and elevation of the footings shall be as determined by the Engineer. A three inch deep keyway shall be formed in the top surface of the footing three inches clear of the inside and outside faces of the culvert, unless specified otherwise on the plans. The footings shall be given a smooth float finish and shall reach a compressive strength of 2,000 psi before placement of the culvert sections. The completed footing surface shall be constructed in accordance with grades shown on the plans. When tested with a 10 foot straight edge, the surface shall not vary more than 1/4 inch in 10 feet. If a precast concrete footing is used, the contractor shall prepare a 4 inch thick layer of compacted granular material the full width of the footing prior to placing the precast footing.

15.2 Placement of the Culverts – The culverts shall be placed as shown on the Engineer's plan drawings. Special care shall be taken in setting the culverts to the true line and grade. The culverts shall be set on 6" X 6" masonite or steel shims. A minimum of 1/2 inch gap shall be provided between the footing and the bottom of the culverts vertical legs. The gap shall be filled with cement grout (Portland cement and water or cement mortar composed of one part Portland cement and three parts of sand, by volume, and water.)

15.3 External Protection of Joints – The butt joint made by two adjoining culverts shall be covered with a 7/8" x 1 3/8" (1 1/4" round equivalent) piece of butyl rope and a minimum of a 9 inch wide joint wrap. The surface shall be free of dirt before applying the joint material. A primer compatible with the joint wrap to be used shall be applied for a minimum width of nine inches on each side of the joint. The external wrap shall be either EZ–WRAP RUBBER by PRESS–SEAL GASKET CORPORATION, SEAL WRAP by MAR MAC MANUFACTURING CO. INC. or approved equal. The joint shall be covered continuously from the bottom of one culvert section leg, across the top of the arch and to the opposite culvert section leg. Any laps that result in the joint wrap shall be a minimum of six inches long with the overlap running downhill.

In addition to the joints between units, the joint between the end unit and the headwall shall also be sealed. If using precast wingwalls, the joint between the end bridge unit and the wingwall shall be sealed with this type of wrap or at the discretion of the Engineer, filter fabric shall be substituted.

During the backfilling operation, care shall be taken to keep the joint wrap in its proper location over the joint.

15.4 Backfill – Backfill shall be considered as all replaced excavation and new embankment adjacent to the Con/Span bridge units and wingwalls. The project construction and material specifications which include the specifications for excavation for structures and roadway excavation and embankment construction shall apply except as modified in this section.

No backfill shall be placed against any structural elements until they have been approved by the Engineer.

Backfill against a waterproofed surface shall be placed carefully to avoid damage to the waterproofing material.

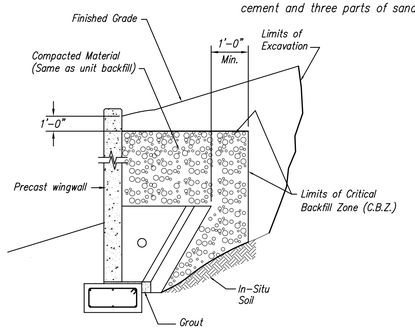
Mechanical tampers or approved compacting equipment shall be used to compact all backfill and embankment immediately adjacent to each side of the culvert and over the top of the culvert until it is covered to a minimum depth of one foot. The backfill within four feet of each side of the culvert shall be placed in lifts of eight inches or less (loose depth). Heavy compaction equipment shall not be operated in this area or over the culvert until it is covered to a depth of one foot.

Lightweight dozers and graders may be operated over culverts having one foot of compacted cover, but heavy earth moving equipment (larger than a D–4 Dozer weighing in excess of 12 tons and having track pressures of eight psi or greater) shall require two feet of cover unless the design cover is less than two feet. In no case shall equipment operating in excess of the design load (HS20 or HS25) be permitted over the culvert unless approved by Con/Span.

Any additional fill and subsequent excavation required to provide this minimum cover shall be made at no additional cost to the project.

As a precaution against introducing unbalanced stresses in the culvert, when placing backfill at no time shall the difference between the heights of fill on opposite sides of the culvert exceed 24".

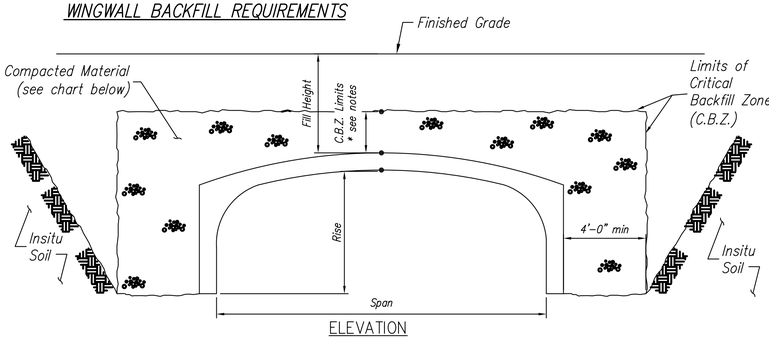
Backfill in front of wingwalls shall be carried to ground lines shown in the plans.



BACKFILL DESCRIPTION

Group Classification	A–1		A–3	A–2				A–4
	A–1–a	A–1–b		A–2–4	A–2–5	A–2–6	A–2–7	
Sleeve Analysis, Percent Passing								
No. 10	50 max.							
No. 40	30 max.	50 max.	51 max.					
No. 200	15 max.	25 max.	10 max.	35 max.	35 max.	35 max.	35 max.	36 min.
Characteristics of Fraction Passing No. 40								
Liquid Limit				40 max.	41 min.	40 max.	41 min.	40 max.
Plasticity Index	6 max.		N.P.	10 max.	10 max.	11 min.	11 min.	10 max.
Usual Types of Significant Constituent Materials	Stone Fragments, Gravel & Sand		Fine Sand	Silty or Clayey Gravel and Sand				Silty Soils
General Rating as Subgrade	Excellent to Good							Fair to Poor

WINGWALL BACKFILL REQUIREMENTS



ELEVATION

NOTES
1. SEE CON/SPAN SPECIFICATIONS SECTION 15.4 FOR BACKFILL SPECIFICATIONS.
2. FOR FILL HEIGHTS GREATER THAN 2'–0", C.B.Z. LIMIT SHALL BE 2'–0" ABOVE ARCH CROWN. FOR FILL HEIGHTS LESS THAN 2'–0", THE FINISHED GRADE SHALL BE THE BOUNDARY LINE FOR THE C.B.Z.
3. BACKFILLING OPERATIONS WITHIN THE C.B.Z. SHALL BE PERFORMED IN LIFTS OF 8" OR LESS (LOOSE DEPTH).
4. MAXIMUM DRY DENSITY SHALL BE DETERMINED BY AASHTO T–99 OR OTHER APPROVED METHODS.
5. BACKFILL SHALL BE COMPACTED IN LAYERS UNTIL THE DENSITY IS NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY.

SPAN	FILL HEIGHT	ACCEPTABLE MATERIAL INSIDE C.B.Z.	ACCEPTABLE MATERIAL OUTSIDE C.B.Z.
≤ 24'–0"	≥ 12'–0"	A1, A3	**
≤ 24'–0"	< 12'–0"	A1, A2, A3, A4	**
> 24'–0"	ALL	A1, A3	**

** EMBANKMENT MATERIAL PER PROJECT SPECIFICATIONS

BACKFILL REQUIREMENTS

Sharrah Design Group, Inc.
Land Surveying & Design
20 Chambersburg Street
Gettysburg, PA 17325
Phone: (717) 334-5400
Fax: (717) 334-0922

COMMONWEALTH OF PENNSYLVANIA – REGISTERED PROFESSIONAL – PETER JOSEPH MARTIN – ENGINEER – PE–077563

REVISIONS

NO.	DATE	DESCRIPTION
1	11/22/11	FINAL PLAN SUBMISSION

XREFS

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PLAN PREPARATION

DRAWN BY: WLM–MKK	DATE: 31 OCTOBER 2011
DESIGNED BY: RAS	FILE NO.: 1109
CHECKED BY: RAS	DWG NO.: BR02–1109

BRIDGE SPECIFICATIONS & DETAILS

GENERALS MOUNTAIN LODGE
A RESORT–LODGE DEVELOPMENT
1207 FLOHRS CHURCH ROAD, FRANKLIN TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA

SCALE AS NOTED

SHEET NO. BR 2

GRAPHIC SCALE IN FEET
0 25 50 100 150
1" = 50'

NORTH

E&SPC LEGEND

- FSS FILTEREXX FILTER SOXX
- LOD LIMIT OF DISTURBANCE
- RCE ROCK CONSTRUCTION ENTRANCE
- RIP RAP AREA
- RFO ROCK FILTER OUTLET
- TEMPORARY STOCKPILE AREA
- TURF REINFORCEMENT MATTING
- EROSION CONTROL BALNKET
- PHASE I LIMIT OF DISTURBANCE

FLOHRS CHURCH ROAD T-356
EXIST. 12' GRAVEL ROAD
50' R/W
35' SETBACK

FOX HILL ROAD T-359
EXIST. 12' GRAVEL ROAD
50' R/W
35' SETBACK

PAINT THE WIND, LLC
5558/0148
TRACTS 1, 2, & 3
TOTAL GROSS 633.73± AC.

RFO#1
INV. 683.00
RIPRAP APRON 8
L=10', W=10', D=18"
d50=R-4 ROCK
PLACED ON NON-WOVEN FILTER FABRIC
RFO#2
INV. 687.00
RIPRAP APRON
L=10', W=10', D=9"
d50=R-3 ROCK
PLACED ON NON-WOVEN FILTER FABRIC
RIPRAP APRON 4
L=17', W=2.5', D=27"
d50=R-5 ROCK
PLACED ON NON-WOVEN FILTER FABRIC
RIPRAP APRON 5
L=10', W=10', D=18"
d50=R-4 ROCK
PLACED ON NON-WOVEN FILTER FABRIC
RIPRAP APRON 10
L=10', W=13', D=27"
d50=R-5 ROCK
PLACED ON NON-WOVEN FILTER FABRIC
RIPRAP APRON 3
L=8', W=10', D=27"
d50= R-5 ROCK
PLACED ON NON-WOVEN FILTER FABRIC
LEVEL SPREADER #3

PROPOSED CONSPAN CONC. CULVERT
20'-0" x 6'-0"
LAY LENGTH = 40'-0"
PROPOSED CONSPAN CONC. CULVERT
20'-0" x 6'-0"
LAY LENGTH = 32'-0"
COVERED BY 32'x50' WOOB FRAME STRUCTURE

WETLANDS
EX. HOUSE
EX. BARN
EX. BARN
SHED
EX. BUILDING
EXISTING DRAINFIELD

DETENTION/INFILTRATION BASIN 4
(SEE DETAIL)
DETENTION/INFILTRATION BASIN 3
C.O. MARKER
64 LF BAFFLE
PHASE I LIMIT OF DISTURBANCE
TEMPORARY STOCKPILE AREA
SWALE 3
SWALE 2
E.S. CREST 689.00
L=8', Z=4

PROP. WATER LINES
REPLACEMENT ON-LOT SEWAGE DISPOSAL
PROP. 12" SLOPE
ELEVATED MOUND
SEE DETAIL

PAINT THE WIND, LLC
5558/0148
TRACTS 1, 2, & 3
TOTAL GROSS 633.73± AC.

BECAUSE BASINS 1, 2 AND 3 WILL ACT AS INFILTRATION BASINS, BASIN BOTTOMS MUST BE PROTECTED FROM COMPACTION AND SEDIMENTATION. DO NOT DRIVE HEAVY EQUIPMENT IN THESE AREAS.

ABBREVIATIONS

FF	FIRST FLOOR ELEVATION	FG	FINISH GRADE
LL	LOWER LEVEL ELEVATION	T/G	TOP GRATE
GR	GARAGE SLAB ELEVATION	T/R	TOP RIM
TW	TOP OF WALL	HP	HIGH POINT
BW	BOTTOM OF WALL	INV.	INVERT ELEVATION

LIST OF REQUIRED INSPECTIONS

SDGI, THE DESIGN CONSULTANT FOR THIS PROJECT, SHALL BE CONTACTED FOR ON-SITE INSPECTIONS AT THE FOLLOWING STAGES OF THE PROJECT:

1) UPON COMPLETION OF PERIMETER E&S CONTROL INSTALLATION
2) PRIOR TO BEGINNING CUTOFF TRENCH CONSTRUCTION IN EACH OF THE FOUR BASINS
3) DURING CONSTRUCTION OF THE EACH OF THE FOUR BASINS TO ASSURE PROPER TECHNIQUES AND THAT COMPACTION IS ACHIEVED
4) DURING INSTALLATION OF EACH OF THE FOUR BASIN OUTLET WORKS
5) DURING INSTALLATION OF THE FOUR SKIMMER DEVICES
6) DURING CONVERSION FROM SEDIMENT CONTROL FACILITIES TO PERMAMENT SWM BASINS
7) PRIOR TO REMOVAL OF E&SPC DEVICES TO ASSURE FINAL STABILIZATION OF THE SITE

THE NPDES PERMIT BOUNDARY FOR THIS PROJECT SHALL BE THE PERIMETER PROPERTY LINE, AN AREA OF APPROXIMATELY 634± ACRES.

Sharrah Design Group, Inc.
Land Surveying & Design
20 Chambersburg Street
Gettysburg, PA 17325
Phone: (717) 334-5400
Fax: (717) 334-0922

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — ROBERT A. SHARRAH — LAND SURVEYOR 30170-E

REVISIONS			XREFS	
NO.	DATE	DESCRIPTION		
1	09/09/11	ADD PHASE I L.O.D.		
2	09/26/11	PER ACCD COMMENTS		
3	10/06/11	PER TWP. ENG. REVIEW COMMENTS		
4	11/22/11	FINAL PLAN SUBMISSION		

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PLAN PREPARATION	
DRAWN BY: WLM-MKK	DATE: 01 SEPTEMBER 2011
DESIGNED BY: RAS	FILE NO.: 1109
CHECKED BY: RAS	DWG NO.: ES01-1109

E&SPC PLAN - WEST

GENERALS MOUNTAIN LODGE

A RESORT-LODGE DEVELOPMENT

1207 FLOHRS CHURCH ROAD, FRANKLIN TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA

SCALE 1"=50'

SHEET NO. ES 1


NORTH
GRAPHIC SCALE IN FEET
0 25 50 100 150
1" = 50'
TEMPORARY STOCKPILE 2
ALL RAINWATER CONDUCTORS (RWC) SHALL BE SDR 35 PVC OR APPROVED EQUAL. MINIMUM PERMITTED SLOPE = 1.00%
PROPOSED RETREAT LODGE
FF 806.00
LL 794.00
PRIMARY ON-LOT SEWAGE DISPOSAL AREA
REPLACEMENT ON-LOT SEWAGE DISPOSAL
PHASE I LIMIT OF DISTURBANCE
EXIST. PRODUCTION WELL #1
100' ISOLATION RADIUS
PROP. WATER LINES
EXIST. 1-STORY FIVE SUITE B&B
GARAGE FF 815.85
EXIST. GRAVEL DRIVE
EXISTING DRAINFIELD
PAINT THE WIND, LLC
5558/0148
TRACTS 1, 2, & 3
TOTAL GROSS 633.73± AC.
PROPOSED WATER STORAGE TANK
TANK BASE ELEV. = 880.00
S81°51'42"E
369.44'
260.61'
S76°52'29"W
LEVEL SPREADER #2
RIPRAP APRON 2
L=14', W=10', D=12"
d50= R-4 ROCK
PLACED ON NON-WOVEN FILTER FABRIC
DETENTION/INFILTRATION BASIN 2
C.O. MARKER
DETENTION/INFILTRATION BASIN 1
RIPRAP APRON 1
L=14', W=10', D=9"
d50= R-3 ROCK
PLACED ON NON-WOVEN FILTER FABRIC
LEVEL SPREADER #1
RIPRAP APRON 10
L=10', W=13', D=27"
d50=R-5 ROCK
PLACED ON NON-WOVEN FILTER FABRIC
DETENTION/INFILTRATION BASIN 3
RIPRAP APRON 3
L=8', W=10', D=27"
d50= R-5 ROCK
PLACED ON NON-WOVEN FILTER FABRIC
LEVEL SPREADER #3
TEMPORARY STOCKPILE 1
PHASE I LIMIT OF DISTURBANCE
PAINT THE WIND, LLC
5558/0148
TRACTS 1, 2, & 3
TOTAL GROSS 633.73± AC.

LIST OF REQUIRED INSPECTIONS

SDGI, THE DESIGN CONSULTANT FOR THIS PROJECT, SHALL BE CONTACTED FOR ON-SITE INSPECTIONS AT THE FOLLOWING STAGES OF THE PROJECT:

1) UPON COMPLETION OF PERIMETER E&S CONTROL INSTALLATION
2) PRIOR TO BEGINNING CUTOFF TRENCH CONSTRUCTION IN EACH OF THE FOUR BASINS
3) DURING CONSTRUCTION OF THE EACH OF THE FOUR BASINS TO ASSURE PROPER TECHNIQUES AND THAT COMPACTION IS ACHIEVED
4) DURING INSTALLATION OF EACH OF THE FOUR BASIN OUTLET WORKS
5) DURING INSTALLATION OF THE FOUR SKIMMER DEVICES
6) DURING CONVERSION FROM SEDIMENT CONTROL FACILITIES TO PERMAMENT SWM BASINS
7) PRIOR TO REMOVAL OF E&SPC DEVICES TO ASSURE FINAL STABILIZATION OF THE SITE

BECAUSE BASINS 1, 2 AND 3 WILL ACT AS INFILTRATION BASINS, BASIN BOTTOMS MUST BE PROTECTED FROM COMPACTION AND SEDIMENTATION. DO NOT DRIVE HEAVY EQUIPMENT IN THESE AREAS.

NOTE:

THE CONTRACTOR SHALL TAKE SPECIAL CARE IN THE AREA OF THE WATER TANK DRIVE TO STABILIZE THE EXPOSED EXCAVATION AS QUICKLY AS POSSIBLE UPON INITIATING WORK. THIS INCLUDES THE INSTALLATION OF THE GRAVEL, TRM AND ECB AS QUICKLY AS POSSIBLE.

E&SPC LEGEND

- *FSS* FILTEREXX FILTER SOXX
- *LOD* LIMIT OF DISTURBANCE
- *RCE* ROCK CONSTRUCTION ENTRANCE
- RIP RAP AREA
- *RFO* ROCK FILTER OUTLET
- TEMPORARY STOCKPILE AREA
- TURF REINFORCEMENT MATTING
- EROSION CONTROL BALNKET
- PHASE I LIMIT OF DISTURBANCE

ABBREVIATIONS

FF	FIRST FLOOR ELEVATION	FG	FINISH GRADE
LL	LOWER LEVEL ELEVATION	T/G	TOP GRATE
GR	GARAGE SLAB ELEVATION	T/R	TOP RIM
TW	TOP OF WALL	HP	HIGH POINT
BW	BOTTOM OF WALL	INV.	INVERT ELEVATION

THE NPDES PERMIT BOUNDARY FOR THIS PROJECT SHALL BE THE PERIMETER PROPERTY LINE, AN AREA OF APPROXIMATELY 634± ACRES.

Sharrah Design Group, Inc.
Land Surveying & Design
20 Chambersburg Street
Gettysburg, PA 17325
Phone: (717) 334-5400
Fax: (717) 334-0922

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — ROBERT A. SHARRAH — LAND SURVEYOR 30170-E

REVISIONS

NO.	DATE	DESCRIPTION
1	09/09/11	ADD PHASE I L.O.D.
2	09/26/11	PER ACCD COMMENTS
3	10/06/11	PER TWP. ENG. REVIEW COMMENTS
4	11/22/11	FINAL PLAN SUBMISSION

XREFS

PLAN PREPARATION

DRAWN BY: WLM-MKK	DATE: 01 SEPTEMBER 2011
DESIGNED BY: RAS	FILE NO.: 1109
CHECKED BY: RAS	DWG NO.: ES01-1109

E&SPC PLAN - EAST

GENERALS MOUNTAIN LODGE

A RESORT-LODGE DEVELOPMENT

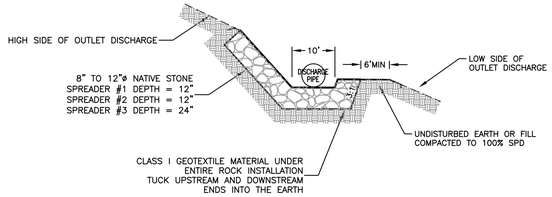
1207 FLOHRS CHURCH ROAD, FRANKLIN TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA

SCALE 1"=50'

SHEET NO. ES 2

LEVEL SPREADERS

SPREADER	OUTFALL PIPE INV	BOTT ELEV (GRND)	TOP BERM EL (GRND)
LS #1	796.00	795.00	797.00
LS #2	793.00	792.00	794.00
LS #3	768.00	766.00	769.00



SECTION

RIP RAP LEVEL SPREADER

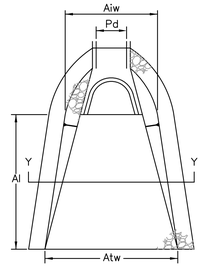
NOT TO SCALE

TABLE 9
RIPRAP GRADATION, FILTER BLANKET REQUIREMENTS, MAXIMUM VELOCITIES

	GRADED ROCK SIZE (in.)			FILTER BLANKET** REQUIREMENTS		
NSA NO.	MAX.	d50*	Min.	Size NSA No.	PLACEMENT THICKNESS	Vmax. (ft./sec.)
R–1	1.5	0.75	No. 8	FS–1	N/A	2.5
R–2	3	1.5	1	FS–1	N/A	4.5
R–3	6	3	2	FS–1	3	6.5
R–4	12	6	3	FS–2	4	9.0
R–5	18	9	5	FS–2	6	11.5
R–6	24	12	7	FS–3	8	13.0
R–7	30	15	12	FS–3	10	14.5

* THE d50 STONE SIZE IS THE SIZE EXCEEDED BY 50% OF THE TOTAL WEIGHT OF THE TONNAGE SHIPPED (i.e. 50% BY WEIGHT SHALL CONSIST OF PIECES LARGER THAN THE d50 STONE SIZE").

** THIS IS A GENERAL STANDARD. SOIL CONDITIONS AT EACH SITE SHOULD BE ANALYZED TO DETERMINE ACTUAL FILTER SIZE. A SUITABLE WOVEN OR NON–WOVEN GEOTEXTILE UNDERLAYMENT, USED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS, MAY BE SUBSTITUTED FOR THE FILTER STONE.



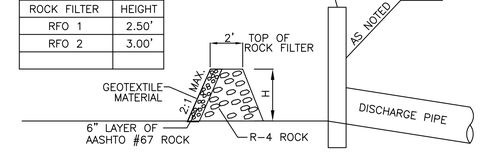
PLAN VIEW

SECTION Z–Z SECTION Y–Y

APRON NO.	PIPE DIA Pd (IN)	RIPRAP SIZE (R–__)	RIPRAP THICK. Rt (IN)	APRON LENGTH Al (FT)	APRON INITIAL WIDTH Aiw (FT)	APRON TERMINAL WIDTH Atw (FT)
1	18	3	9	14	4	10
2	15	4	18	14	4	10
3	15	5	27	18	4	10
4	18	5	27	17	4.5	21.5
5	15	4	18	10	4	10
6	24	3	9	10	6	10
8	18	4	18	10	4.5	10
10	12	4	18	10	3	13

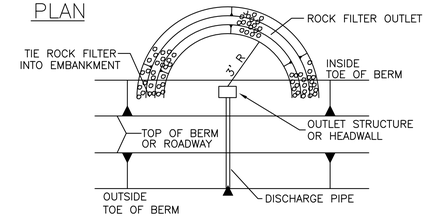
STANDARD CONSTRUCTION DETAIL #33
Riprap Aprons at Pipe Outlets

SECTION



NOTE: ROCK FILTER SHALL COMPLETELY SURROUND THE STRUCTURE.

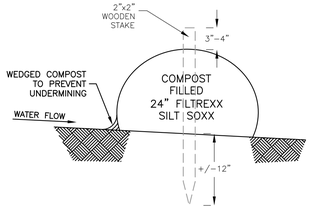
PLAN



MAINTENANCE: ROCK FILTER SHALL BE INSPECTED AFTER EVERY STORM EVENT. ADD ROCK TO MAINTAIN PROPER BERM HEIGHT. A STOCKPILE OF ROCK MATERIAL SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. REMOVE SEDIMENT AND REPLACE STONE AS NECESSARY.

ROCK FILTER OUTLET FOR SEDIMENT CONTROL

NOT TO SCALE



SECTION

MAXIMUM SLOPE LENGTHS FOR FILTREXX SILT SOXX

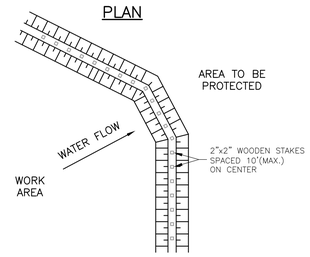
SLOPE PERCENT	MAXIMUM SLOPE LENGTH ABOVE SILT SOXX (ft)*			
	8 in. Silt Soxx	12 in. Silt Soxx	18 in. Silt Soxx	24 in. Silt Soxx
2 (or less)	300	375	500	650
5	200	250	275	325
10	100	125	150	200
15	70	85	100	160
20	50	65	70	130
25	40	50	55	100
30	30	40	45	65
35	30	40	40	55
40	30	40	45	50
45	20	25	30	40
50	20	25	30	35

*Based on failure point of Super Silt Fence at 1000 ft. of slope, watershed width equivalent to receiving length of sediment control device, 2 in/24 hr.

NOTES
1. ALL MATERIAL TO MEET FILTREXX(TM) SPECIFICATIONS.
2. INSTALLATIONS MUST BE BY CERTIFIED INSTALLER.
3. THE GENERAL SITE CONTRACTOR SHALL ROUTINELY INSPECT AND REPAIR ALL SILT SOXX TO MAINTAIN A FUNCTIONAL CONDITION AT ALL TIMES.
4. THE CONTRACTOR SHALL REMOVE SEDIMENT DEPOSITS WHEN THEY ACCUMULATE TO A HEIGHT OF 1/2 OF THE HEIGHT OF THE FILTER SOXX, OR AS DIRECTED BY THE ENGINEER.
5. DRIVE 2"x2" WOODEN ANCHOR STAKES THRU SOXX AS SHOWN, SPACED 10'(MAX.) ON CENTERS.
6. COMPOST TO BE SPREAD ON–SITE AFTER SOXX REMOVAL.
7. UNDERMINING OR OVERTOPPING REQUIRES INSTALLATION OF A ROCK FILTER REPAIR BMP.

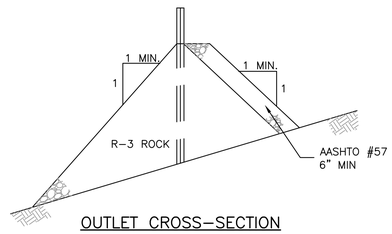
APPROVED LOCAL INSTALLER:
RIVER VALLEY ORGANICS
1178 NURSERY ROAD
WRIGHTSVILLE, PA
17368
TEL:(717) 252–1894
FAX:(717) 252–0700
www.rivervalleyorganics.com

PLAN



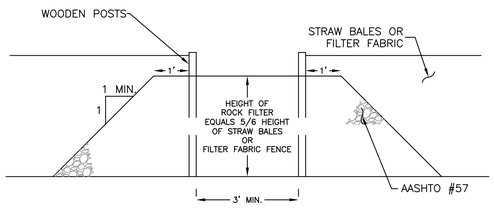
FILTREXX(TM) SILT SOXX(TM)
MANUFACTURER'S DRAWING T5

STANDARD CONSTRUCTION DETAIL #18
Rock Filter Outlets



OUTLET CROSS–SECTION

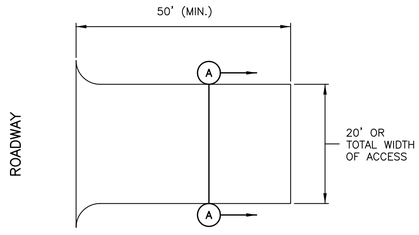
SIZE	BARRIER NO.	LOCATION	SLOPE PERCENT	SLOPE LENGTH ABOVE BARRIER (FT)
24"	FSS 1A & 1B	DOWNSLOPE OF BASIN 1	33	55
24"	FSS 2	DOWNSLOPE OF BASIN 2	33	60
24"	FSS 3	DOWNSLOPE OF BASIN 3 & TEMP. STOCKPILE 1	33	60
24"	FSS 4	DOWNSLOPE OF GRADED AREA BELOW LODGE PARKING	9.4	85
24"	FSS 5	DOWNSLOPE OF SANDMOUND & GRADED AREA WEST OF LODGE #5	10	170
24"	FSS 6	DOWNSLOPE OF TEMP. STOCKPILE 2	33	65
24"	FSS 7	DOWNSLOPE OF GRADED AREA EAST OF LODGE	10	20
24"	FSS 8	DOWNSLOPE OF SIDEWALK & GRADED AREA	9	45
24"	FSS 9	DOWNSLOPE OF SIDEWALK & GRADED AREA	10	120
24"	FSS 10	DOWNSLOPE OF SIDEWALK & GRADED AREA	14.4	180
24"	FSS 11A & 11B	DOWNSLOPE OF BASIN 4	12.5	180
24"	FSS 12A, 12B & 12C	DOWNSLOPE OF T–356 GRADING, SOUTH OF D/W	33	35
24"	FSS 13	DOWNSLOPE OF T–356 ROAD GRADING, NORTH OF D/W	33	50
24"	FSS 14	DOWNSLOPE OF T–356 ROAD GRADING, NORTH OF STREAM	8	180
24"	FSS 15	DOWNSLOPE OF FILL WEST OF T–356, NORTH OF STREAM	33	30
24"	FSS 16	DOWNSLOPE OF T–356 RAOD GRADING, NORTH OF STREAM, WEST OF T–356	33	20



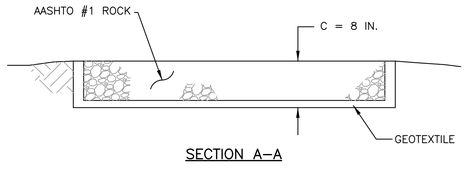
UP–SLOPE FACE

Sediment must be removed when accumulations reach 1/3 the height of the outlet.

STANDARD CONSTRUCTION DETAIL #16
Rock Construction Entrance



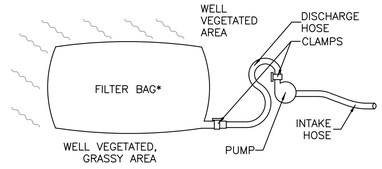
PLAN VIEW



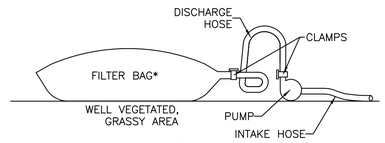
SECTION A–A

MAINTENANCE:
Rock Construction Entrance thickness shall be constantly maintained to the specified dimensions by adding rock. A stockpile shall be maintained on site for this purpose. At the end of each construction day, all sediment deposited on paved roadways shall be removed and returned to the construction site.

STANDARD CONSTRUCTION DETAIL #26
Pumped Water Filter Bag



PLAN VIEW



ELEVATION VIEW

Pumped Water Filter Bag– Filter bags may be used to filter water pumped from disturbed areas prior to discharging to waters of the Commonwealth. They may also be used to filter water pumped from the sediment storage of sediment basins.
The pumping rate should not exceed the manufacturer's specification. Filter Bags shall be made from non–woven geotextile material sewn with high strength, double stitched "J" type seams. They shall be capable of trapping particles larger than 150 microns.
A suitable means of accessing the bag with machinery required for disposal purposes must be provided. Filter Bags must be replaced when they become 1/2 full. Spare bags shall be kept available for replacement of those that have failed or are filled.

Sharrah Design Group, Inc.
Land Surveying & Design
20 Chambersburg Street
Gettysburg, PA 17325
Phone: (717) 334-5400
Fax: (717) 334-0922

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — ROBERT A. SHARRAH — LAND SURVEYOR 30170–E

REVISIONS			XREFS	
NO.	DATE	DESCRIPTION		
1	09/26/11	PER ACCD COMMENTS		
1	11/22/11	FINAL PLAN SUBMISSION		

811 Know what's below. Call before you dig.
PENNSYLVANIA ACT 287 (1974) AS AMENDED BY PENNSYLVANIA ACT 121 (2008) REQUIRES NO LESS THAN THREE (3) WORKING DAYS AND NO MORE THAN (10) WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH.

PLAN PREPARATION	
DRAWN BY: WLM–MKK	DATE: 01 SEPTEMBER 2011
DESIGNED BY: RAS	FILE NO.: 1109
CHECKED BY: RAS	DWG NO.: ESDT01–1109

E&SPC NOTES & DETAILS

GENERALS MOUNTAIN LODGE
A RESORT–LODGE DEVELOPMENT
1207 FLOHRS CHURCH ROAD, FRANKLIN TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA

SCALE AS NOTED

SHEET NO. ES 3

GENERAL EROSION & SEDIMENT POLLUTION CONTROL NOTES

1. Vehicles and equipment may neither enter directly to nor exit directly from this site at any point other than a Rock Construction Entrance.
2. Stockpile heights must not exceed 35 feet. Stockpile slopes must be 2:1 or flatter on all sides.
3. The operator shall assure that the approved erosion and sediment control plan is properly and completely implemented.
4. Until the site achieves final stabilization, the operator shall assure that the best management practices are implemented, operated, and maintained properly and completely. Maintenance shall include inspection of all best management practice facilities. The operator will maintain and make available to Adams County Conservation District complete, written inspection logs of all those inspections. All maintenance work, including cleaning, repair, replacement, regarding, and restabilization shall be performed immediately.
5. Immediately upon discovering unforeseen circumstances posing potential for accelerated erosion and/or sediment pollution, the operator shall implement appropriate best management practices to eliminate potential for accelerated erosion and/or sediment pollution.
6. Before initiating any revisions to the approved erosion and sediment control plan or revisions to other plans which may affect the effectiveness of the approved E&S control plan, the operator must receive approval of the revisions from the Adams County Conservation District.
7. The operator shall assure that an erosion and sediment control plan has been prepared, approved by the Adams County Conservation District, and is being implemented and maintained for all soil and/or rock spoil and borrow areas, regardless of their locations.
8. All pumping of sediment laden water shall be through a sediment control BMP, such as a pumped water filter bag discharging over non-disturbed areas.
9. The contractor is advised to become thoroughly familiar with the provisions of the Appendix 64, Erosion Control Rules and Regulations, Title 25, Part 1, Department of Environmental Protection, Subpart C, Protection of Natural Resources, Article III, Water Resources, Chapter 102, Erosion Control.
10. A copy of the approved erosion and sediment control plan must be available at the project site at all times.
11. The E&S control plan mapping must display a PA ONE CALL SYSTEM INCORPORATED symbol including the site identification number.
12. Only limited disturbance will be permitted to provide access to the sediment basin, sediment traps, diversion terraces, interceptor swales, and filter fabric fence installations for grading and acquiring borrow to construct those BMPs.
13. Erosion and sediment BMPs must be constructed, stabilized, and functional before site disturbance within the tributary areas of those BMPs.
14. After final stabilization has been achieved, temporary erosion and sediment BMP controls must be removed. Areas disturbed during removal of the BMPs must be stabilized immediately.
15. At least 7 days before starting any earth disturbance activities, the operator shall invite all contractors involved in those activities, the landowner, all appropriate municipal officials, the erosion and sediment control plan preparer, and the Adams County Conservation District to an on-site meeting. Also, at least 7 days before starting any earth disturbance activities, all contractors involved in those activities shall notify the Pennsylvania One Call System Incorporated at 1-800-242-1776 for buried utilities locations.
16. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE.
17. Immediately after earth disturbance activities cease, the operator shall stabilize any areas disturbed by the activities. During non-germinating periods, mulch must be applied at the specified rates. Disturbed areas which are not at finished grade and which will be redisturbed within 1 year must be stabilized in accordance with the temporary vegetative stabilization specifications. Disturbed areas which are at finished grade or which will not be redisturbed within 1 year must be stabilized in accordance with the permanent vegetative stabilization specifications.
18. An area shall be considered to have achieved final stabilization when it has a minimum uniform 70% perennial vegetative cover or other permanent non-vegetative cover with a density sufficient to resist accelerated surface erosion and subsurface characteristics sufficient to resist sliding and other movements.
19. Approval of the use of skimmer(s) does not approve use of any skimmer(s) in violation of any patent, patent rights, and/or patent laws.
20. Baffles must be installed to allow basin maintenance and clean out.
21. Upon installation of the temporary sediment basin riser(s), an immediate inspection of the riser(s) shall be conducted by a qualified site representative and Adams County Conservation District shall be notified in writing that the riser is sealed.
22. Sediment basins must be protected from unauthorized acts of third parties.
23. Sediment must be removed from storm water inlet protection after each runoff event.
24. At stream crossings, 50' buffer areas should be maintained. On buffers, clearing, sod disturbances, excavation, and equipment traffic should be minimized. Activities should as stacking logs, burning cleared brush, discharging rainwater from trenches, welding pipe sections, refueling and maintaining equipment should be accomplished outside of buffers.
25. Hay or straw mulch must be applied at 3.0 tons per acre.
26. Mulch with mulch control netting or erosion control blankets must be installed on all slopes 3:1 and steeper.
27. Straw mulch shall be applied in long strands, not chopped or finely broken.
28. Until the site is stabilized, all erosion and sediment BMPs must be maintained properly. Maintenance must include inspections of all erosion and sediment control BMPs after each runoff event and on a weekly basis. All preventative and remedial maintenance work, including clean out, repair, replacement, regrading, reseeding, remulching, and renetting, must be performed immediately. If erosion and sediment control BMPs fail to perform as expected, replacement BMPs, or modifications of those installed will be required.
29. Sediment removed from BMPs shall be disposed of in landscaped areas outside of steep slopes, wetlands, floodplains or drainage swales and immediately stabilized, or placed in topsoil stockpiles.
30. The operator shall remove from the site, recycle, or dispose of all building materials and wastes in accordance with the Department's Solid Waste Management Regulations at 25 Pa. Code 260.1 et seq., 271.1 et seq., and 287.1 et seq. The contractor shall not illegally bury, dump, or discharge any building material or wastes at the site.
31. Cleanout stakes must be placed at half distances from points of concentrated inflow to temporary risers. When sediment has accumulated to cleanout elevations on any stake, it must be removed to restore basin capacities.
32. Filter fabric fence must be installed at level grade. Both ends of each fence section must extend at least 8 feet upslope at 45 degrees to the main fence alignment.
33. Sediment must be removed from behind filter fabric fence installations when accumulation reaches one-half the above ground height of the fence.
34. Any filter fabric fence section that has been undermined or overtopped must be immediately replaced with a Rock Filter Outlet. See Rock Filter Outlet detail.
35. The above ground height of filter fabric fences shown in the standard details is the maximum allowable height and shall not be exceeded.
36. Stormwater inlets that do not discharge to sediment traps or basins must be protected until tributary areas are stabilized.
37. Diversions, channels, earth dikes, sedimentation basins, sediment traps, and stockpiles must be stabilized immediately after installation.

NOTE: Not all of the above notes are applicable to this project. This is a generic list intended to be applicable to the majority of earthmoving projects.

SPECIAL CLEAN FILL & DUE DILIGENCE NOTES

IF THE SITE REQUIRES IMPORTING OF FILL MATERIAL, THE RESPONSIBILITY OF CLEAN FILL DETERMINATION AND ENVIRONMENTAL DUE DILIGENCE RESIDES WITH THE OPERATOR. IF THE SITE HAS EXCESS FILL MATERIAL THAT WILL BE EXPORTED, THE RESPONSIBILITY OF CLEAN FILL DETERMINATION AND ENVIRONMENTAL DUE DILIGENCE RESTS UPON THE APPLICANT.

"CLEAN FILL" IS DEFINED AS: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK, AND CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT
INCLUDE MATERIALS PLACED IN OR ON WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE.)

ENVIRONMENTAL DUE DILIGENCE: INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT REQUIRED UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF A REGULATED SUBSTANCE. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION'S POLICY "MANAGEMENT OF FILL".

UTILITY NOTES:

A) The Contractor shall open only that section of trench that can be backfilled and stabilized each day. If any trench must remain open longer than one day, silt fence shall be placed downslope of trench.
B) Place all excavated material upslope of trench.
C) Any sediment control measures disturbed by utility installation shall be repaired immediately.
D) Any excavated material that must be loaded onto trucks and removed from the trenching area must be deposited within the onsite perimeter controls.
E) Any area disturbed by off-site utility installations shall be stabilized as soon as practical after trench backfilling and topsoil replacement are completed. Stabilization shall be in full accordance with the Permanent Seeding Notes.
F) If trench dewatering is required, a Filter Bag for pumped water shall be installed in accordance with the detail and must outlet to a stablized area.

CLEARING AND GRUBBING NOTE:

Any woody debris accumulated during the clearing and grubbing operations for this project shall be ground into mulch; stockpiled beside designated stockpile areas; transported from the site for accepted uses; or shall be used for mulching Erosion and Sediment Pollution Control measures onsite. The Contractor is advised to contact the Office of Adams County Solid Waste Management for information and guidance relative to this matter.

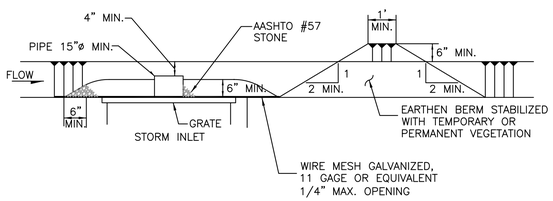
STOCKPILING NOTE:

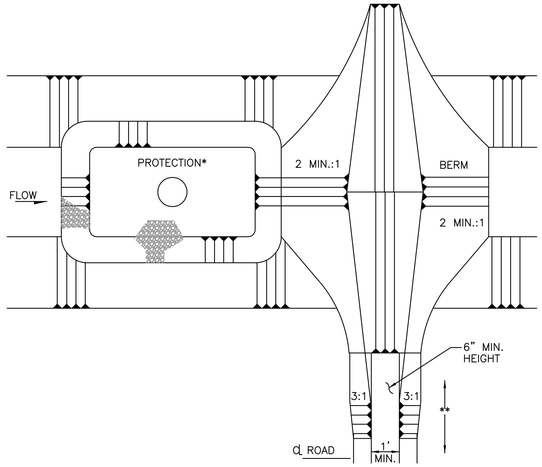
A) Stockpiling will not be allowed on any impervious area.
B) All stockpiles left at the end of the day must be temporarily stabilized until they are again disturbed, unless they are within existing perimeter controls.

WASTE MATERIAL RECYCLE NOTE

All building materials and wastes must be removed from the site and recycled or disposed in accordance with the Department's Solid Waste Management Regulations at Pa Code Section 260.1 et seq., Section 271.1 et seq., and Section 287.1 et seq. No building materials shall be buried, dumped, or discharged at the site.

STANDARD CONSTRUCTION DETAIL #31
Channel or Roadside Swale
Storm Inlet Protection and Berm(s)



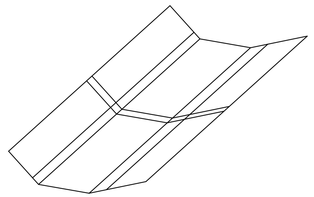


* Stone protection is not required for inlet tributary to sedimentation basins and sediment traps. Berms are required for all installations.

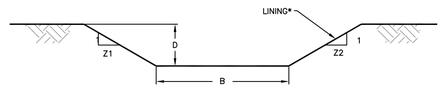
** Earthen berm in roadway shall be maintained until roadway is stoned. Road subbase berm on roadway shall be maintained until roadway is paved. Earthen berm in channel shall be maintained untill permanent stabilization is completed or to remain permanently.

One acre maximum drainage area with 15" overflow pipe and 4" head. This measure shall be used at inlet I-1: head=8".

STANDARD CONSTRUCTION DETAIL #1
Vegetated Channels



LINING INSTALLATION

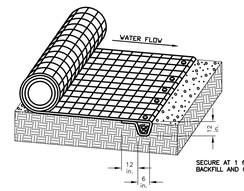


CHANNEL CROSS-SECTION

CHANNEL NO.	STATIONS	BOTTOM WIDTH B (FT)	DEPTH D (FT)	Z1 (FT)	Z2 (FT)	LINING*
1	ALL	2	1	3	2	TRM 450
2	ALL	5	2	4	2	TRM 450
3	ALL	5	2	2	4	TRM 450

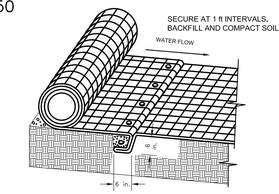
* See Manufacturer's Lining Installation Detail for Staple Patterns, and Vegetation Stabilization Specifications for Soil Amendments, Seed Mixtures, and Mulching information.

INSTALLATION DETAILS FOR SYNTHETIC INDUSTRIES TURF REINFORCEMENT MATTING TRM 450



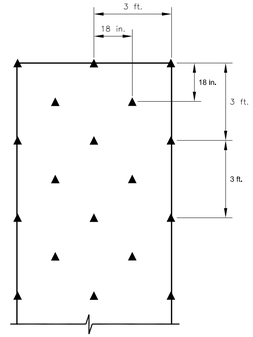
INITIAL ANCHOR TRENCH DETAIL

NOTES:
1. ALL DIMENSIONS ARE MINIMUM.
2. MATTING SHALL HAVE INTIMATE SURFACE-TO-SOIL CONTACT AT ALL TIMES. VOIDS BENEATH THE MATTING ARE UNACCEPTABLE.



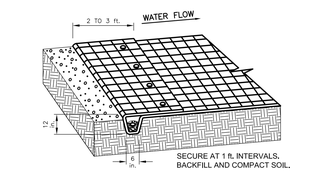
INTERMITTENT CHECK SLOT

NOTES:
1. ALL DIMENSIONS ARE MINIMUM.
2. MATTING SHALL HAVE INTIMATE SURFACE-TO-SOIL CONTACT AT ALL TIMES. VOIDS BENEATH THE MATTING ARE UNACCEPTABLE.



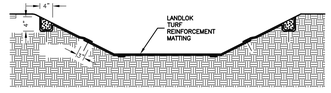
STAPLE PATTERN FOR TURF REINFORCEMENT MATTING (TRM)

NOTES:
1. ALL DIMENSIONS ARE MAXIMUM.
2. 3 ANCHORS PER S.Y. (MINIMUM) FOR SLOPES STEEPER THAN 1H:1V AND ALL CHANNELS.
3. U-SHAPED WIRE STAPLES, METAL GEOTEXTILE PINS, TRIANGULAR WOODEN OR PLASTIC STAKES CAN BE USED TO ANCHOR TRMs TO THE GROUND SURFACE.



TERMINAL ANCHOR TRENCH

NOTES:
1. ALL DIMENSIONS ARE MINIMUM.
2. MATTING SHALL HAVE INTIMATE SURFACE-TO-SOIL CONTACT AT ALL TIMES. VOIDS BENEATH THE MATTING ARE UNACCEPTABLE.



TYPICAL CHANNEL CROSS-SECTION

NOTES:
1. PLACE 5 ANCHORS/2 SQ.YD. FOR CHANNELS.
2. EXTEND LANDLOK TURF REINFORCEMENT MAT TO ACCOMODATE MAXIMUM DESIGNED FLOW DEPTH.
3. ALL DIMENSIONS SHOWN SHALL BE THE MINIMUM.

SPECIAL NOTE: THE TURF REINFORCEMENT MATTING MUST BE SOIL BACKFILLED TO ENSURE MAXIMUM PERFORMANCE. EXECUTE THE FOLLOWING PROCEDURE:

1) RESPREAD TOPSOIL TO A MINIMUM DEPTH OF SIX (6) INCHES.

2) INSTALL MATTING AND ANCHOR APPROPRIATELY.

3) APPLY SEED.

4) SPREAD AND LIGHTLY RAKE 1/2 TO 3/4" OF FINE TOPSOIL INTO THE MAT FILLING VOIDS USING THE BACK SIDE OF A RAKE OR OTHER FLAT TOOL.

5) IF EQUIPMENT MUST OPERATE ON THE MATTING, USE ONLY LIGHT, RUBBER-TIRED EQUIPMENT. DO NOT MAKE SHARP TURNS ON MATTING.

6) AVOID TRAFFIC OVER THE MATTING IF LOOSE OR WET SOIL CONDITIONS EXIST.

7) SMOOTH THE SOIL-FILL IN ORDER TO JUST EXPOSE THE TOP OF THE NETTING/MATRIX. DO NOT PLACE EXCESSIVE SOIL ABOVE THE MAT.

8) BROADCAST ADDITIONAL SEED TO INSURE A THICK STAND OF TURF.

Sharrah Design Group, Inc.
Land Surveying & Design
20 Chambersburg Street
Gettysburg, PA 17325
Phone: (717) 334-5400
Fax: (717) 334-0922

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ROBERT A. SHARRAH LAND SURVEYOR 30170-E

REVISIONS		
NO.	DATE	DESCRIPTION
1	09/26/11	PER ACCD COMMENTS
1	11/22/11	FINAL PLAN SUBMISSION

XREFS	

811 Know what's below. Call before you dig.

PENNSYLVANIA ACT 287 (1974) AS AMENDED BY PENNSYLVANIA ACT 121 (2008) REQUIRES NO LESS THAN THREE (3) WORKING DAYS AND NO MORE THAN (10) WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH.

PLAN PREPARATION	
DRAWN BY: WLM-MKK	DATE: 01 SEPTEMBER 2011
DESIGNED BY: RAS	FILE NO.: 1109
CHECKED BY: RAS	DWG NO.: ESDT01-1109

E&SPC NOTES & DETAILS

GENERALS MOUNTAIN LODGE
A RESORT-LODGE DEVELOPMENT
1207 FLOHRS CHURCH ROAD, FRANKLIN TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA

SCALE AS NOTED

SHEET NO. ES 4

EMBANKMENT SPECIFICATIONS

1. REMOVE AND STOCKPILE TOPSOIL FROM PROPOSED EMBANKMENT AREA PRIOR TO PLACING FILL. ALL UNSUITABLE FOUNDATION MATERIAL SHALL BE REMOVED AND REPLACED WITH EMBANKMENT MATERIAL. SCARIFY THE FOUNDATION AREA TO A DEPTH OF NOT LESS THAN 4". EMBANKMENT MATERIAL SHOULD BE COMPRISED OF INORGANIC ON-SITE SOIL THAT IS FREE OF ROCK FRAGMENTS THAT ARE OVER 4" MAXIMUM DIMENSION, CONTAINING AT LEAST 40% SILT- AND/OR CLAY-SIZE PARTICLES, AND IS UNIFORM IN COMPOSITION.

2. PLACE FILL IN 8"(MAXIMIUM) LIFTS, COMPACTED TO 97% MAXIMUM DRY DENSITY AS DETERMINED BY STANDARD COMPACTION TESTING, ASTM D 698. MOISTURE CONTENT SHALL BE PLUS OR MINUS THREE PERCENTAGE POINTS OF OPTIMUM AS DETERMINED BY STANDARD COMPACTION TESTING, ASTM D 698. A SHEEPSFOOT OR PADDED-DRUM ROLLER SHALL BE UTILIZED FOR COMPACTION. EMBANKMENT SLOPES SHALL BE OVERBUILT AND CUT TO FINISHED GRADES. EMBANKMENT HEIGHT SHALL BE INCREASED APPROXIMATELY 5% TO ENSURE THAT DESIGN TOP ELEVATION WILL BE MAINTAINED AFTER SETTLEMENT.

3. THE EMERGENCY AND PRINCIPAL SPILLWAYS SHALL BE AS SHOWN ON APPROVED PLANS.

4. SPREAD TOPSOIL OVER GRADED AREAS TO ESTABLISH VEGETATIVE COVER.

BASIN CONSTRUCTION SEQUENCE

1. Clear and grub basin and berm areas, removing all vegetation, roots, and other objectionable materials from the areas that are proposed for grading. Strip and stockpile topsoil. (NOTE: Do not disturb trees and roots in basins that are not proposed for bottom grading. These basins will later be converted for infiltration. Do not compact basin bottoms.)

2. Construct the berm and basin per geotechnical directive under the supervision of the geotechnical engineer.

3. Install the Principal Spillway as work progresses, so that compaction of the berm can be attained. Install the Riprap Apron immediately after Principal Spillway installation. Configure each Outlet Structure per plan details for temporary conditions, sealing watertight as indicated.

4. Install Emergency Spillway and turf reinforcement matting (if required) as the berm is being constructed. Complete construction of each berm.

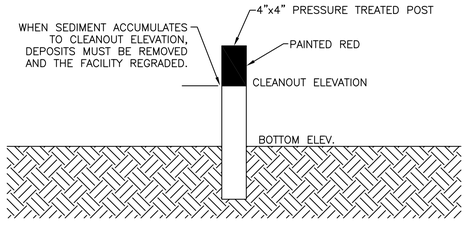
5. Install the Dewatering Facility per Standard Construction Detail #10.

6. Install the Faircloth Skimmer per details, ensuring a watertight connection. Install Baffle system (if required) per Standard Construction Detail #9 and the plans. Install Cleanout Marker, per details, at the appropriate location.

7. Outside and top of berm areas that will not be redisturbed during conversion to permanent stormwater facilities shall be stabilized in accordance with the Permanent Seeding Specifications or as otherwise directed on the Stabilization Plan. Remaining associated disturbed areas shall be stabilized in accordance with Temporary Seeding Specifications.

8. Remove litter and debris, inspect after each rain event, and provide required maintenance. Dewater and remove sediment when accumulations reach respective elevations indicated on Cleanout Markers. Sediment removed shall be used for onsite grading, upslope of a functioning E&S BMP.

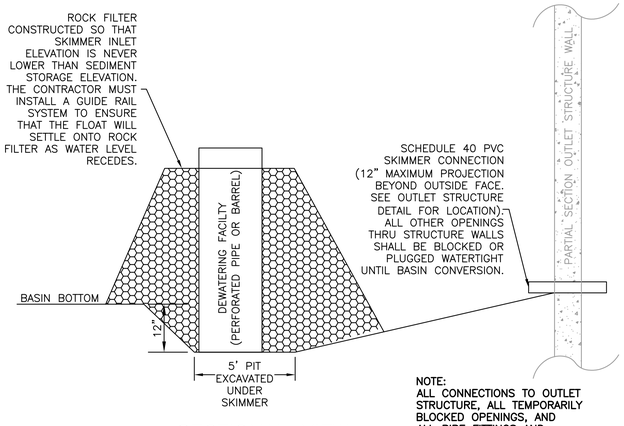
BASIN	BOTTOM ELEV.	CLEANOUT ELEV.
1	797.50	798.85
2	795.50	796.25
3	773.50	775.44
4	683.50	684.68



CLEANOUT MARKERS SHALL BE PLACED HALF-WAY BETWEEN POINTS OF CONCENTRATED INFLOW AND THE OUTLET STRUCTURE. WHEN SEDIMENT HAS ACCUMULATED TO CLEANOUT ELEVATION ON ANY MARKER, IT MUST BE REMOVED TO RESTORE THE FACILITY TO ITS DESIGN CAPACITY.

CLEANOUT MARKER DETAIL

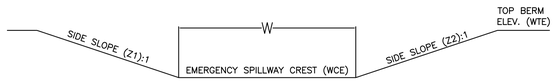
NOT TO SCALE



NOTE:
ALL CONNECTIONS TO OUTLET STRUCTURE, ALL TEMPORARILY BLOCKED OPENINGS, AND ALL PIPE FITTINGS AND CONNECTIONS MUST BE WATERTIGHT TO ENSURE THAT THE SYSTEM FUNCTIONS AS DESIGNED.

SECTIONAL VIEW ROCK FILTER DEWATERING FACILTY FOR FAIRCLOTH SKIMMERS

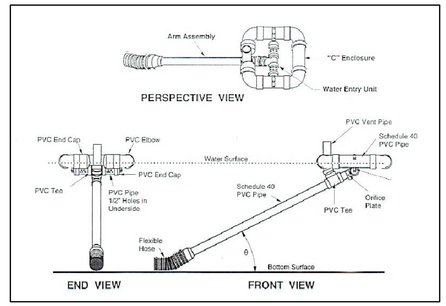
NOT TO SCALE



BASIN	Z1	Z2	TOP ELEV. (WTE)	CREST ELEV. (WCE)	WIDTH	LINING
1	3	3	806.00	803.50	8'	LANDLOK TRM 450
2	3	3	804.00	802.00	8'	LANDLOK TRM 450
3	3	3	780.00	778.50	8'	LANDLOK TRM 450
4	4	4	692.00	689.00	8'	LANDLOK TRM 450

EMERGENCY SPILLWAY DETAIL

NOT TO SCALE

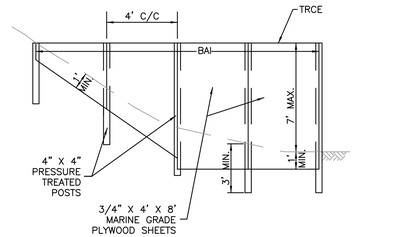


NOTE: APPROVAL OF USE OF A SKIMMER DOES NOT APPROVE USE OF A SKIMMER IN VIOLATION OF ANY PATENTS, PATENT RIGHTS, AND/OR PATENT LAWS.

FAIRCLOTH SKIMMER DATA

FACILITY	2cfs/ac ELEV.	SEDIMENT STORAGE ELEV.	BASIN BOTTOM ELEV.	SETTLING VOL. (C.F.)	DEWATER RATE (CF/DAY)	DEWATER TIME (DAYS)	SKIMMER ORIFICE (INCHES)	ARM LENGTH (FT.)	ARM DIA. (IN.)
BASIN 1	803.33	798.85	797.50	26,490	6,234	4.25	2.50	10	1.50
BASIN 2	801.24	796.25	794.75	20,628	6,234	3.31	2.50	10	1.50
BASIN 3	778.11	775.44	773.50	17,244	6,234	2.77	2.50	10	1.50
BASIN 4	688.57	684.68	683.50	10,836	3,283	3.30	2.00	10	1.50

ALL JOINTS AND CONNECTIONS MUST BE SEALED WATERTIGHT.
SKIMMER MUST BE OBTAINED FROM:
J.W. FAIRCLOTH & SON
P.O. BOX 757
HILLSBOROUGH, NC 27278-0757
TELE/FAX 919-732-1244
APPROVAL OF THE USE OF SKIMMERS DOES NOT APPROVE USE OF ANY SKIMMERS IN VIOLATION OF ANY PATENT, PATENT RIGHTS, AND/OR PATENT LAWS.



In pools with depths exceeding 7', the top of the plywood baffle does not need to extend to the temporary riser crest.

BASIN	BAFFLE		TEMPORARY RISER	BOTTOM
	LENGTH BAI (FT)	HEIGHT (FT)	CREST ELEV TRCE (FT)	BOTTOM ELEV BE (FT)
4	64	4.25(MAX)	688.25	684.00

STANDARD CONSTRUCTION DETAIL #9 Baffles

ASSEMBLING & INSTALLING THE SKIMMER

Assemble as follows:
1) Insert the vent into the hole in the Tee with the long end pointing to the rear, the side with the door. Tighten the screw to secure it.
2) Glue the pipe with the coupling and screw into Tee on the skimmer so the screw points up.
3) Cut the barrel (not included, available at plumbing and hardware stores) 6' – 10' long, depending on the length needed to pull the skimmer to the side of the basin.
4) Prime only one end of the PVC pipe for the barrel and the female coupling on the flexible joint. Then glue the pipe to the coupling.
5) Without glue (so it can be disassembled later) slip the other end of the pipe (a little grease is recommended) into the bushing at the outlet end of the pipe on the skimmer. Secure the pipe by tightening the Phillips head screw so that the point goes slightly into the pipe.

Install as follows:
1) Lay the assembled skimmer on the bottom of the basin with the flexible joint at the inlet of the pipe through the dam or at the connection with the riser.
2) Remove any dirt or mortar on the pipe and slip the 4" coupling over the pipe inlet. Tighten the two screws so the points just pierce the side of the pipe to secure the connection.
3) Position the skimmer over the concrete blocks and the excavated pit in the basin.
4) The skimmer should settle level across the top of the pipe with the door on it, so that the debris guards work. Otherwise, debris that accumulates around the float will flow under the float and clog the screen when the water level drops.
5) Adjust the flexible joint connection if necessary, especially if the skimmer is pulled to the side and the barrel is not aligned with the outlet pipe. The float is balanced so that the rear settles down as the last few inches of water drain from the basin. This positions the float and guards to contain floating debris on the outside of the float as the water level drops.
6) If the skimmer is not level, debris can flow under the float and clog the screen and possibly the orifice.
7) Place a stake at the connection of the flexible joint so the backhoe operator will know the location when excavating accumulated sediment from under the skimmer and not damage it.
8) After installing the skimmer check to make sure the orifice has not fallen out while moving the skimmer.

The Rope
1) Tie the rope provided around the Tee between the vent and the horizontal tube.
2) Since it is polypropylene rope, which is slippery, use a good knot that will not come loose.
3) Secure the other end to a stake on the dam or side of the basin.
4) Put tension on the rope so the skimmer will settle into the pit after the basin drains.
5) If you need to lengthen the rope use one that will float. Otherwise, it may sink, be covered by sediment, and act as an anchor to keep the skimmer from floating.

CUTTING & INSTALLING THE ORIFICE

The orifice must be sized for the volume of the basin it is installed in so it will drain within the desired time. A 2 to 7 day drawdown time is required. Follow the instructions with the skimmer for determining the orifice required for the particular size skimmer. A minimum diameter of 2 1/2" orifice is recommended to avoid clogging.

Cutting the Orifice
After determining the radius of the orifice use the tool provided to cut a hole in the plastic plug.
1) Measure the radius of the required orifice from the center of the pilot hole in the plug and mark it.
2) Loosen the bolt so it will slide in the slot; place the bolt in the pilot hole in the plastic plug; place the point of the nail on the mark for the orifice radius; BE CAREFUL OF THE SHARP NAIL POINT!
3) While holding in place, remove the bolt form the hole and tighten the nut and bolt.
4) Next, insert the bolt in the pilot hole in the flat side of the plastic plug until the nail point contacts the plastic.
5) Hold the plastic plug in one hand while turning the cutter with the other hand to scour the plastic. Don't' try to cut through the plastic with just one turn, take several.
6) After scouring the flat side, remove the cutter, drive the nail slightly further through the plastic then scour the other side. The plastic should rest on the edges of the plug.
7) The plug should pop out after scouring both sides even if the plastic is not entirely cut through around the entire perimeter; if not completely cut, carefully use a knife to follow the scour line and finish cutting through the plastic.
Remove the screw eye on the strap and open the door on the skimmer.
8) Place the plug into the inlet that projects through the side.
9) Don't glue the plug on; doing so limits the possibility of installing another orifice and reusing the skimmer in another basin.
10) The plug should fit tight enough to stay on, but tighten the screw slightly to hold it. After installing the skimmer check to make sure the plug has not fallen out while moving the skimmer.
11) If the plug is too tight to go in place, cut a notch from the center to the outside of the plug so it will contract slightly and go in place.

MAINTENANCE

Warning! The skimmer is made to withstand normal handling and the filling and draining of the sediment basin, but it cannot withstand being yanked around with a backhoe. Use the rope to carefully, manually position the skimmer or move it out of the way of heavy equipment for excavation.

Sediment Removal
Erosion control (temporary and permanent stabilization) and controlling runoff within the catchment is essential to prevent sediment generation, prevent pollution, and reduce basin maintenance. When the sediment storage in the basins fills, maintenance is required to restore the sediment volume in order to maintain basin efficiency.
1) Sediment removal is needed when sediment accumulates to the elevation marked on the cleanout stake.
2) Excavate the sediment from the entire basin to restore the original sediment storage volume.
3) When sediment accumulates around the skimmer to the point it cannot settle onto the concrete blocks, sediment removal is required.
4) Pull the skimmer to one side so the sediment underneath it can be excavated.

Skimmer
Trash If the skimmer is clogged with trash and there is water in the basin, usually a few jerks on the rope to make the skimmer bob up and down will dislodge the debris and restore flow. If this does not work pull the skimmer over to the side (it's easiest to do when the basin is partially full) and remove the debris. Also check the orifice inside the skimmer to see if it is clogged; if so remove the debris.

Sediment Under the Skimmer If sediment accumulates to the point the skimmer cannot settle low enough to drain the basin, pull the skimmer over to one side and excavate the sediment with a backhoe.

Clogged barrel or pipe through the dam If the skimmer is clogged despite removing debris and it appears that either the barrel between the orifice and the flexible joint or the pipe through the dam is clogged, take the following steps to clear the blockage (sediment will sometimes accumulate in the pipe):
1) Pull the skimmer over to the side.
2) Remove the pin and open the door to access the orifice.
3) Remove the orifice plug or cap.
4) Raise the inlet as high as practical.
5) Fill the barrel with water (use a bucket and funnel or a pump) to remove the clog using the water and pressure.
6) After the obstruction is removed continue pouring water into the barrel to flush out accumulated debris and sediment to prevent future clogging.
7) A plumbers snake can be used, but flushing out the sediment and debris accumulation is recommended first.

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20 Chambersburg Street
Gettysburg, PA 17325
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Fax: (717) 334-0922

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ROBERT A. SHARRAH LAND SURVEYOR 30170-E

REVISIONS			XREFS	
NO.	DATE	DESCRIPTION		
1	09/26/11	PER ACCD COMMENTS		
2	11/22/11	FINAL PLAN SUBMISSION		

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PLAN PREPARATION	
DRAWN BY: WLM-MKK	DATE: 01 SEPTEMBER 2011
DESIGNED BY: RAS	FILE NO.: 1109
CHECKED BY: RAS	DWG NO.: ESDT01-1109

E&SPC NOTES & DETAILS

GENERALS MOUNTAIN LODGE
A RESORT-LODGE DEVELOPMENT
1207 FLOHRS CHURCH ROAD, FRANKLIN TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA

SCALE AS NOTED

SHEET NO. ES 5

GENERAL CONSTRUCTION NOTES FOR IN–CHANNEL OR ADJACENT–CHANNEL WORK

1) Work shall be scheduled for low flow seasons. Normal flow should be conveyed past the work area by means of a pump and/or sandbag dams. The preferred option for both bridges on this project is the sandbag coffer dam.

2) Any in–channel excavations should be done from the top of banks wherever possible. Where this is not possible, a temporary crossing should be provided for any equipment working from within the channel. Upon completion, all channel entrances should be restored to pre–construction configurations, as much as possible, and stabilized.

3) All excavated channel materials that will be subsequently used as backfill should be placed in a temporary stockpile located outside the channel. A sediment barrier should be installed between the storage pile and the stream channel.

4) All excavated materials that will not be used on site must be immediately removed to a disposal site having an approved erosion and sediment pollution control plan.

5) Any pumped water from excavated areas must be filtered prior to discharging into waters of the Commonwealth. The use of filter bags is an acceptable method if located on a relatively flat (< 5% slope), well–vegetated area. The bag should be designed to trap particles larger than 150 microns. The pump discharge hose shall be inserted into the bags in the manner specified by the manufacturer and securely clamped. When the bag has been filled to 1/2 its total capacity, it should be replaced with a new bag and properly disposed. Wherever well–vegetated areas are not available, a geotextile underlayment should be used. Consideration should be given to how the bag will be accessed and removed once it has been 1/2 filled with sediment. Refer to Standard Construction Detail #26.

6) All disturbed areas within the existing channel must be completed and stabilized before flow is redirected into it. Suitable protection should be provided for the stream channel from any disturbed areas that have not yet achieved stabilization.

7) Pumped water bypass systems should conform to Figure 35.

NOTE: A small stream channel is defined as a normal flow width < 10 feet.

SEQUENCE OF CONSTRUCTION FOR IN–CHANNEL OR ADJACENT–CHANNEL WORK

1. Due to the possible presence of bog turtle habitat, this work shall be undertaken between November 1 and March 31.

2. The work associated with the two stream crossings associated with this project will be done from the top of bank, from each side of the stream. The stream crossings will be installed during projected low flow periods with no precipitation projected for the duration of the construction. Pumped water filter bags and dewatering pumps shall be onsite prior to commencement.

3. Install Sandbag Coffer Dams parallel to the stream in the area of proposed excavations to direct flows away from the construction.

4. Clear, grub, and excavate only that area necessary to provide access and excavate for the footings and later abutment installations.

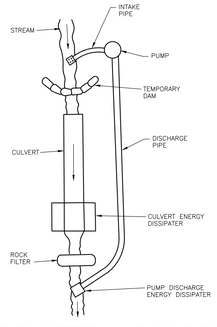
5. Install foundations and abutments. Use a Pumped Water Filter Bag if ground water or surface water enters the excavations.

6. Install bridge works as applicable. Backfill as project proceeds.

7. Remove coffer dams when no additional stream disturbance is anticipated.

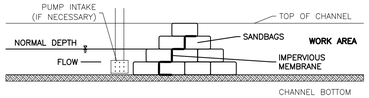
8. Immediately stabilize stream banks with seed, mulch, and stabilization blankets to 50 feet from top of bank.

9. Remove remaining stockpile material and immediately stabilize disturbed area. Remove Sandbag Dams, pump bypass, and energy dissipater. Refer to Waste Material Recycle Note for disposal of temporary sediment control device. Immediately stabilize any remaining disturbed areas.



TEMPORARY COFFERDAM AND PUMP BYPASS AROUND IN–CHANNEL WORK AREAS

SANDBAG COFFERDAM DETAIL



SANDBAGS SHALL BE CLOTH OR PLASTIC, FILLED WITH APPROXIMATELY 40 POUNDS OF SAND. THE OPEN END SHALL BE FOLDED UNDER AND FACE DOWNSTREAM. HORIZONTAL AND VERTICAL PLACEMENT SHALL BE STAGGERED.

MAINTENANCE PROGRAM

TEMPORARY MAINTENANCE:

INSPECT AND MAINTAIN ALL TEMPORARY E&S BMPs WEEKLY AND AFTER EACH RAIN EVENT IN ACCORDANCE WITH THE STANDARD DETAILS. REMOVED SEDIMENT SHALL BE USED FOR ONSITE GRADING, UPSLOPE OF A FUNCTIONING BMP. PROTECT ALL MEASURES FROM UNAUTHORIZED ACTS OF THIRD PARTIES. EXECUTE THE FOLLOWING PROCEDURES:

1) MAINTAIN, REPAIR, OR REPLACE DEVICES AS NEEDED.

2) CLEAN/REPLACE/ADD ROCK TO ROCK CONSTRUCTION ENTRANCES AS NEEDED.

3) REMOVE SEDIMENT FROM FILTREXX SILT SOXX WHEN ACCUMULATIONS REACH 1/3 OF THE ABOVE GROUND HEIGHT.

4) REMOVE SEDIMENT FROM ROCK FILTER OUTLETS WHEN ACCUMULATED DEPTH REACHES 12". CLEAN OR REPLACE FILTER STONE AND RECONSTRUCT TO PLAN DIMENSIONS.

5) DEWATER AND REMOVE SEDIMENT FROM TEMPORARY SEDIMENT BASINS WHEN ACCUMULATIONS HAVE REACHED THE ELEVATIONS INDICATED ON RESPECTIVE CLEANOUT MARKERS.

6) REMOVE SEDIMENT FROM AROUND INLET PROTECTION DEVICES. CLEAN AND/OR REPLACE FILTER STONE.

7) TEMPORARILY STABILIZE ANY DISTURBED AREAS IN ACCORDANCE WITH THE TEMPORARY SEEDING SPECIFICATIONS.

8) IMMEDIATELY REPAIR OR REPLACE ANY MEASURE THAT HAS BEEN DISTURBED BY CONSTRUCTION PROGRESS (e.g. UNDERGROUND UTILITY INSTALLATION, GRADING, SIDEWALK INSTALLATION ETC.).

PERMANENT MAINTENANCE:

INSPECT AND MAINTAIN ALL PERMANENT FACILITIES AFTER EVERY STORM EVENT. EXECUTE THE FOLLOWING PROCEDURES:

1) INSPECT ALL PERMANENT FEATURES TO SEE THAT THEY ARE STABLE AND FUNCTIONING PROPERLY.

2) REPAIR OR REPLACE ANY TURF OR LANDSCAPING THAT IS DISTURBED, DISEASED, OR DAMAGED. REMOVE LITTER AND DEBRIS. MOW GRASS AREAS AND MAINTAIN LANDSCAPE PLANTINGS. IRRIGATE, RESEED, AND FERTILIZE AS NECESSARY TO PROVIDE A DENSE, LONG–LIVED TURF COVER.

3) INSPECT AND MAINTAIN THE PLANTINGS IN THE DETENTION/INFILTRATION BASINS. REMOVE LITTER AND DEBRIS.

SEQUENCE OF CONSTRUCTION

1. The owner shall schedule a pre–construction conference with the following parties at least seven working days prior to beginning site work:

Adams County Conservation District (717) 334–0636
Franklin Township (717) 334–4901
Township Engineer – KPI Technology (717) 339–0612
Project Engineer – Sharrah Design Group, Inc. (717) 334–5400
Contractor – To Be Determined
Developer – Paint the Wind, LLC

a. At least 3 days prior to initiating earth disturbances, contractors must notify the Pennsylvania One Call System Incorporated at 1–800–242–1776 to delineate existing underground utilities.

b. All earth disturbance activities shall proceed in accordance with the following sequence. Each stage shall be completed and immediately stabilized before any following stage is initiated. Clearing, grubbing, and stripping shall be limited only to activities relative to each stage.

c. Immediately upon discovering unforeseen circumstances that may create a potential for accelerated erosion and/or sediment pollution, the operator shall implement appropriate best management practices to alleviate that potential.

d. Limits of Disturbance have been depicted on the Plans and shall be clearly field–marked to prevent unauthorized construction traffic. The Temporary Sediment Basins shall be staked in accordance with the plan to ensure the appropriate maximum runoff to each device is not exceeded.

e. Prior to the commencement of any earthmoving activities, the primary and replacement septic system areas shall be fenced off from all vehicular traffic. Use orange construction barrier fence to completely enclose sites.

f. Any required utility relocations in areas of proposed earthmoving activities shall be performed prior to, or in conjunction with, that activity.

g. Any required utility testing shall be performed under the direction of pertinent authorities.

h. It is specifically noted that the developer wishes to commence construction of the lodge building immediately so as to avoid adverse winter weather conditions.

2. Install Rock Construction Entrance RCE 1.

3. Install Filtrexx Silt Soxx FSS 3 thru 7 clearing and grubbing only if necessary.

4. Clear, grub, strip, and stockpile topsoil from Temporary Sediment Basin 3 berm: topsoil shall be stockpiled at the designated location. Care must be exercised to ensure that the basin bottom (infiltration area) does not become compacted. Construct Temporary Sediment Basin 3 berm, installing cutoff trench, Principal Spillway (Outlet Structure OS–3, Headwall HW–3, interconnecting culvert and Riprap Apron 3 and Level Spreader #3) as work progresses. Construct token Emergency Spillway. Install Faircloth Skimmer. Install Cleanout Markers as depicted on the plan. Stabilize inside berm, top of berm, and any area that may be later redisturbed in accordance with Temporary Seeding Specifications. Stabilize Emergency Spillway and outside berm areas that will not later be redisturbed in accordance with Permanent Seeding Specifications.

5. Clear, grub, strip, and stockpile topsoil from proposed lodge parking lot in the immediate vicinity of the lodge. This area will be used for temporary equipment and material staging, as well as the construction worker parking area.

6. Clear, grub, strip, and stockpile topsoil from proposed lodge area. Begin lodge construction: provide for utility installations (water, sewer, electric, communications, etc.), constructing sandmound and potable water treatment pumping/facility as work progresses.

7. Work in steps 1 thru 6 above shall be undertaken immediately so that the building can be constructed over the winter months. Only if weather conditions permit will the following steps be pursued in the fall and winter of 2011–2012.

8. Install Filtrexx Silt Soxx FSS 1A and 1B.

9. Clear, grub, strip, and stockpile topsoil from Temporary Sediment Basin 1 berm. Care must be exercised to ensure that the basin bottom (infiltration area) does not become compacted. Construct Temporary Sediment Basin 1 berm, installing cutoff trench, Principal Spillway (Outlet Structure OS–1, Headwall HW–1, interconnecting culvert and Riprap Apron 1 and Level Spreader #1) as work progresses. Construct token Emergency Spillway. Install Faircloth Skimmer. Install Cleanout Markers as depicted on the plan. Stabilize inside berm, top of berm, and any area that may be later redisturbed in accordance with Temporary Seeding Specifications. Stabilize Emergency Spillway and outside berm areas that will not later be redisturbed in accordance with Permanent Seeding Specifications.

10. Install Filtrexx Silt Soxx FSS 2, 8, 9, and 10.

11. Clear, grub, strip, and stockpile topsoil from Temporary Sediment Basin 2 berm. Care must be exercised to ensure that the basin bottom (infiltration area) does not become compacted. Construct Temporary Sediment Basin 2 berm, installing cutoff trench, Principal Spillway (Outlet Structure OS–2, Headwall HW–2, interconnecting culvert and Riprap Apron 2 and Level Spreader #2) as work progresses. Construct token Emergency Spillway. Install Faircloth Skimmer. Install Cleanout Markers as depicted on the plan. Stabilize inside berm, top of berm, and any area that may be later redisturbed in accordance with Temporary Seeding Specifications. Stabilize Emergency Spillway and outside berm areas that will not later be redisturbed in accordance with Permanent Seeding Specifications.

12. Bring lodge parking areas (both upper and lower areas) to proposed subgrade. Install electrical feeds and lighting fixtures. Place dense graded stone aggregate on areas that will be paved. Place pavement BCBC. Install parking lot landscape plantings.

13. Install Filtrexx Silt Soxx FSS 11A and 11B

14. Clear, grub, strip, and stockpile topsoil from Temporary Sediment Basin 4 berm. Care must be exercised to ensure that the basin bottom (infiltration area) does not become compacted. Construct Temporary Sediment Basin 4 berm, installing cutoff trench, Principal Spillway (Outlet Structure OS–4, Headwall HW–4, interconnecting culvert and Riprap Apron 4) as work progresses. Construct token Emergency Spillway. Install Faircloth Skimmer. Install Cleanout Markers as depicted on the plan. Stabilize inside berm, top of berm, and any area that may be later redisturbed in accordance with Temporary Seeding Specifications. Stabilize Emergency Spillway and outside berm areas that will not later be redisturbed in accordance with Permanent Seeding Specifications.

15. Install Filtrexx Silt Soxx FSS 12A, 12B, 12C, 13, 14, 15 and 16.

16. Flohrs Church Road can now be closed with the permission of the appropriate authorities. Commence filling operations, culvert removal and bottomless arch installation. Place dense graded stone aggregate on roadway after all installations are complete.

17. Clear and grub as necessary for the new access drive. Install RCE #2 as work progresses

18. Begin covered bridge installation. Follow appropriate guidance for in or near channel work. Complete bridge and grading of approaches. Immediately upon completion of filling, stabilize embankments according to the Stabilization Plan.

19. Grade new access drive to the lines and grades indicated on the Plans. Place dense graded stone aggregate on completed subbase. Stabilize roadside swales immediately upon installation with turf reinforcement matting.

20. Commence grading water tank access drive. Stabilize the swale on the high side of the road with turf reinforcement matting. Stabilize all steep "cut" slopes with erosion control blanket or approved equal. Special care must be taken to stabilize excavations as quickly as possible to reduce the chance of accelerated erosion and sedimentation in these steep slope areas.

21. Install water lines and water tank.

22. Install dense graded stone aggregate on the tank access drive.

23. Complete all final stabilization plantings and landscaping.

24. After upslope, disturbed areas have attained the minimum stabilized surfaces treatments, decommission, and convert Temporary Sediment Basins to permanent facilities in accordance with PCSM Plans.

NOTE: After permanent stabilization has been attained on all disturbed areas, the owner and/or operators shall contact the Adams County Conservation District for final inspection prior to the removal of E&S BMPs.

NOTE: Permanent stabilization, according to Chapter 102.22, is, "A minimum uniform 70% perennial vegetative cover, with a density capable of resisting accelerated erosion and sedimentation" or "An acceptable BMP which permanently minimizes accelerated erosion and sedimentation."

NOTE: Work is expected to begin in the fall of 2011. Disturbed areas shall be permanently stabilized by September 15, 2012.

NOTE: The contractor, or designated Erosion and Sediment Control Manager, shall maintain a log of maintenance activities while this project is under construction. The log shall include items such as dates, times, and amounts of precipitation, dates of inspections, descriptions of any maintenance performed, as well as any other pertinent comments. The log shall be available for inspection onsite at all times.

Sharrah Design Group, Inc.
Land Surveying & Design
20 Chambersburg Street
Gettysburg, PA 17325
Phone: (717) 334-5400
Fax: (717) 334-0922

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — ROBERT A. SHARRAH — LAND SURVEYOR 30170–E

REVISIONS			XREFS	
NO.	DATE	DESCRIPTION		
1	09/26/11	PER ACCD COMMENTS		
2	11/22/11	FINAL PLAN SUBMISSION		

811 Know what's below. Call before you dig.

PENNSYLVANIA ACT 287 (1974) AS AMENDED BY PENNSYLVANIA ACT 121 (2008) REQUIRES NO LESS THAN THREE (3) WORKING DAYS AND NO MORE THAN (10) WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH.

PLAN PREPARATION	
DRAWN BY: WLM–MKK	DATE: 01 SEPTEMBER 2011
DESIGNED BY: RAS	FILE NO.: 1109
CHECKED BY: RAS	DWG NO.: ESDT01–1109

E&SPC NOTES & DETAILS

GENERALS MOUNTAIN LODGE
A RESORT–LODGE DEVELOPMENT
1207 FLOHRS CHURCH ROAD, FRANKLIN TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA

SCALE AS NOTED

SHEET NO. ES 6

TEMPORARY SEEDING SPECIFICATIONS

THESE NOTES APPLY TO GRADED OR CLEARED AREAS THAT ARE LIKELY TO BE RE-DISTURBED OR WHERE A SHORT TERM VEGETATIVE COVER IS NEEDED.
SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING, OR OTHER ACCEPTABLE MEANS BEFORE SEEDING. PERFORM ALL CULTIVATION AT RIGHT ANGLES TO THE SLOPE.
SOIL AMENDMENTS: APPLY 1 TON OF AGRICULTURAL-GRADE LIMESTONE PER ACRE, PLUS FERTILIZER AT THE RATE OF 50-50-50 PER ACRE, AND WORK INTO THE SOIL.
SEEDING:
SPRING (UNTIL JUNE 15)
ANNUAL RYEGRASS 40 LB/ACRE
OR SPRING OATS 96 LB/ACRE
OR SPRING OATS PLUS RYEGRASS 64 LB/ACRE OATS, PLUS 20 LB/ACRE ANNUAL OR PERENNIAL RYEGRASS
OR WINTER WHEAT 180 LB/ACRE
OR WINTER RYE 168 LB/ACRE
LATE SPRING/SUMMER (JUNE 16 THRU AUGUST 15)
ANNUAL RYEGRASS 40 LB/ACRE
OR JAPANESE OR FOXTAIL MILLET 35 LB/ACRE
OR SUDANGRASS 40 LB/ACRE
OR SPRING OATS 96 LB/ACRE
OR WINTER WHEAT 180 LB/ACRE
OR WINTER RYE 168 LB/ACRE
LATE SUMMER/FALL (AUGUST 16 AND LATER)
ANNUAL RYEGRASS 40 LB/ACRE
OR WINTER RYE 168 LB/ACRE
OR WINTER WHEAT 180 LB/ACRE
AT OTHER TIMES OF THE YEAR, PROTECT THE SITE BY APPLYING 3 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS PRACTICABLE; OR BY USING SOD.
MULCHING: APPLY 3 TONS PER ACRE OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION BY USING MULCHING TOOL; OR APPLY 218 GALLONS/ACRE (5 GAL/1000 SF) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON 2:1 SLOPES OR GREATER, USE 350 GALLONS OF ASPHALT PER ACRE (8 GAL/1000 SF) FOR PROPER ANCHORING. THE FOLLOWING METHODS OF ANCHORING MULCH MATERIALS ARE ACCEPTABLE ALTERNATES TO ASPHALT ANCHORING IF APPLIED UNDER THE PROPER CONDITIONS:
1) TRACKING: THE PROCESS OF CUTTING MULCH INTO THE SOIL VIA EQUIPMENT THAT RUNS ON TRACKS, IS EMPLOYED PRIMARILY ON SLOPES 3:1 OR STEEPER.
2) MULCH NETTING: STAPLE LIGHTWEIGHT BIODEGRADABLE PAPER, PLASTIC OR COTTON NETTING OVER THE MULCH ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
3) SYNTHETIC BINDERS: SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRI-TAC), DCA-70, PETROSET OR TERRATACK MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH MATERIAL.
4) WOOD CELLULOSE FIBER: THE FIBER BINDER SHALL BE APPLIED AT A NET DRY WEIGHT OF 750 LB/AC. THE WOOD CELLULOSE FIBER SHALL BE MIXED WITH WATER, AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LBS OF WOOD CELLULOSE FIBER PER 100 GALLONS.
5) PEG & TWINE: DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRISSCROSS WITHIN A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE TURNS.
MAINTENANCE: INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS, AND RESEEDINGS TO INSURE SITE STABILIZATION.

PERMANENT SEEDING SPECIFICATIONS

THESE NOTES APPLY TO GRADED OR CLEARED AREAS, NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE, WHERE A PERMANENT, LONG-LIVED VEGETATIVE COVER IS NEEDED.
SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING, OR OTHER ACCEPTABLE MEANS BEFORE SEEDING. PERFORM ALL OPERATIONS AT RIGHT ANGLES TO THE SLOPE.
SOIL AMENDMENTS: IT IS RECOMMENDED THAT SITE SPECIFIC SOIL TESTING BE PERFORMED. IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE THE FOLLOWING SCHEDULES:
1) PREFERRED – APPLY 6 TONS PER ACRE DOLOMITIC LIMESTONE (275 LBS/1000 SF) AND 600 LBS PER ACRE 10-20-20 (14 LBS/1000 SF) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS PER ACRE 30-0-0 UREAFORM FERTILIZER (91 LBS/1000 SF).
2) ACCEPTABLE – APPLY 6 TONS PER ACRE DOLOMITIC LIMESTONE (275 LBS/1000 SF) AND 100 LBS PER ACRE 10-20-20 FERTILIZER (23 LBS/1000 SF) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.
SEEDING: USE PERTINENT FOLLOWING FORMULA(E):
FORMULA 1 – (ACCEPTABLE FOR ANY DISTURBED AREA EXCEPT THOSE SPECIFYING WETLAND PLANTINGS). SOW DURING THE PERIOD FROM MARCH 1 THROUGH MAY 31 OR THE PERIOD FROM AUGUST 1 THROUGH SEPTEMBER 31 USING A MIXTURE OF ANNUAL RYEGRASS, TALL FESCUE, REDTOP, AND PERENNIAL RYEGRASS AT THE FOLLOWING RATIO OF PURE LIVE SEED (PLS) IN POUNDS PER ACRE; ANNUAL RYEGRASS 15 LBS/AC, TALL FESCUE 75 LBS/AC, REDTOP 3 LBS/AC, AND PERENNIAL RYEGRASS 20 LBS/AC. (CONSULT SUPPLIER AND SEED TAG FOR PURE LIVE SEED PERCENTAGES FOR EACH SEED).
FORMULA 2 – (ACCEPTABLE FOR DISTURBED AREAS NOT DESIGNATED AS LAWN)
PLS SEEDING RATES
SPRING
SPRING OATS 96LB/ACRE
OR ANNUAL RYEGRASS 15 LB/ACRE
FALL
ANNUAL RYEGRASS 15 LB/ACRE
OR WINTER WHEAT 120 LB/ACRE
OR WINTER RYE 112 LB/ACRE
COMBINE THE FOLLOWING, IN ADDITION TO THE ABOVE RATES:
BIRDSFOOT TREFOIL 10 LB/ACRE
PLUS TALL FESCUE 35 LB/ACRE
FORMULA 3 – LAWNS
TURF-TYPE PERENNIAL RYEGRASS 200 LB/ACRE
DURING OTHER PERIODS OF THE YEAR, APPLY 3.0 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS PRACTICABLE; OR PLACE SOD ON DISTURBED SURFACES.
MULCHING: APPLY 3 TONS PER ACRE OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH, USING MULCHING TOOL, IMMEDIATELY; OR APPLY 218 GALLONS PER ACRE (5 GAL/1000 SF) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON 2:1 SLOPES OR GREATER, USE 350 GALLONS OF ASPHALT PER ACRE (8 GAL/1000 SF) FOR PROPER ANCHORING. THE FOLLOWING METHODS OF ANCHORING MULCH MATERIALS ARE ACCEPTABLE ALTERNATES TO ASPHALT ANCHORING IF APPLIED UNDER THE PROPER CONDITIONS:
1) TRACKING: THE PROCESS OF CUTTING MULCH INTO THE SOIL VIA EQUIPMENT THAT RUNS ON TRACKS, IS EMPLOYED PRIMARILY ON SLOPES 3:1 OR STEEPER.
2) MULCH NETTINGS: STAPLE LIGHTWEIGHT BIODEGRADABLE PAPER, PLASTIC OR COTTON NETTING OVER THE MULCH ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
3) SYNTHETIC BINDERS: SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRI-TAC), DCA-70, PETROSET OR TERRATACK MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH MATERIAL.
4) WOOD CELLULOSE FIBER: THE FIBER BINDER SHALL BE APPLIED AT A NET DRY WEIGHT OF 750 LB/AC. THE WOOD CELLULOSE FIBER SHALL BE MIXED WITH WATER, AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LBS OF WOOD CELLULOSE FIBER PER 100 GALLONS.
5) PEG & TWINE: DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRISSCROSS WITHIN A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE TURNS.
MAINTENANCE: INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS, AND RESEEDINGS TO INSURE SITE STABILIZATION.

SOILS

The following soil types are mapped on the project property. Descriptions for the soil types were taken from "Soil Survey of Adams County, Pennsylvania" 2005 by the US Department of Agriculture.

Hc – Hatboro silt loam, HSG 'D'
LgC – Legore channery silt loam, 8 to 15 % slopes, HSG 'B'
LgD – Legore channery silt loam, 15 to 25 slopes, HSG 'B'
^*LhB – Lehigh channery silt loam, 3 to 8 slopes, HSG 'C'
LhC – Lehigh channery silt loam, 8 to 15 slopes, HSG 'C'
NaC – Neshaminy channery silt loam, 8 to 15 slopes, HSG 'B'
NdD – Neshaminy channery silt loam, 8 to 25 slopes, extremely bouldery, HSG 'B'
NdE – Neshaminy channery silt loam, 25 to 45 slopes, extremely bouldery, HSG 'B'
WaB – Watchung silt loam, 3 to 8% slopes, HSG 'D'

^ Listed on Table 7 as "Prime Farmland"
* Listed on Table 14 as "Map Units with Hydric Inclusions"

As of 21 June 2011, Sharrah Design Group, Inc. had completed the survey of wetlands delineation, performed by Roemer Ecological Services, Inc., for this site, as reflected on the plans.

The "Custom Soil Resource Report" that follows was prepared from the Natural Resource Conservation Service (NRCS) website and provides some additional background on the project soils.

A brief listing of the soils and their limitations and alternatives also follows. The alternatives provided are not intended to be absolute, but are provided as guidance only.

SOILS INFORMATION AND LIMITATION ALTERNATIVES

According to the latest NRCS Soil Survey of Adams County, Pennsylvania, Hc soil permeability is moderate in the solum and moderately rapid in the substratum. Seasonal high water table is within 6-inches of the surface for most of the year. Surface runoff is slow or negligible. Areas containing this designated soil are subject to frequent, brief winter and early spring flooding. In unlimed areas, this soil is very strongly acid to neutral in the solum, and moderately acid or slightly acid in the substratum.

Table 5 indicates a 3w Land Capability Classification: Class 3 means severe limitations that restrict the choice of plants or that require special conservation practices, or both.

Table 13 indicates that this soil designation has Hydric Components. Roemer Ecological Services, Inc. performed the required associated wetlands delineation.

Table 15a indicates that the soil is very limited for small commercial buildings due to flooding and depth to saturation zone. No buildings are proposed, but poured-in-place concrete footers are required for the open-bottom box culvert: services of a qualified soil scientist may be required for testing bearing capacity.

Table 15b indicates that local road construction is very limited because of depth to saturated zone, frost action, and flooding. Shallow excavations are very limited due to depth to saturated zone, cutbanks cave, and flooding. Lawns and landscaping are very limited due to flooding and depth to saturated zone.

Tables 16a and 16b limitations for this soil designation do not pertain to this site.

Table 18 indicates that this soil type is very limited for embankment construction because of depth to saturated zone and piping.

Fill material around the proposed box culvert shall be select: roadway improvement fill shall be imported from a better soil designation onsite and from Township stockpiles. Frost action on roadways can be addressed through proper compaction and drainage. OSHA controls shoring installations for trenching.

LgC designated soil permeability is moderate to moderately rapid on the surface, moderate in the subsoil, and moderate to moderately rapid in the substratum. Surface runoff is medium. In unlimed areas, this soil is strong acid to slightly acid in the upper part of the solum, moderate or slightly acid in the substratum. Proper application of lime helps to neutralize acidity: utility piping installations will be plastic and are unaffected by acidity.

Table 5 indicates a 3e Land Capability Classification: Class 3 soils have severe limitations that restrict the choice of plants or that require special conservation practices, or both: e means the main hazard is risk for erosion unless close-growing plant cover is maintained.

Table 15a indicates the soil is very limited for small commercial buildings because of slope and shrink-swell. Proposed site grading and compaction address these issues.

Table 15b indicates that local road construction is very limited because of low strength, slope, shrink-swell, and frost action. Shallow excavations are very limited due to cutbanks cave and slope. Lawns and landscaping are somewhat limited because of slope. Frost action on roadways can be addressed through proper compaction and drainage. OSHA controls shoring installations for trenching.

Table 16a indicates that absorption fields are somewhat limited because of slope and restricted permeability. Onsite soil investigation for infiltration has already been performed.

Table 18 indicates that this soil type is very limited for pond reservoir areas because of seepage and slope. Embankment construction is somewhat limited because of piping.

LgD designated soil permeability is moderate to moderately rapid on the surface, moderate in the subsoil, and moderate to moderately rapid in the substratum. Surface runoff is medium. In unlimed areas, this soil is strong acid to slightly acid in the upper part of the solum, moderate or slightly acid in the substratum. Proper application of lime helps to neutralize acidity: utility piping installations will be plastic and are unaffected by acidity.

Table 5 indicates a 4e Land Capability Classification: Class 4 soils have severe limitations that restrict the choice of plants or that require very careful management, or both: e means the main hazard is risk for erosion unless close-growing plant cover is maintained.

Table 15a indicates the soil is very limited for small commercial buildings because of slope and shrink-swell. Proposed site grading and compaction address these issues.

Table 15b indicates that local road construction is very limited because of slope, low strength, shrink-swell, and frost action. Shallow excavations are very limited due to slope and cutbanks cave. Lawns and landscaping are very limited because of slope. Frost action on roadways can be addressed through proper compaction and drainage. OSHA controls shoring installations for trenching.

Table 16a indicates that absorption fields are very limited because of slope and restricted permeability. Onsite soil investigation for infiltration has already been performed.

Table 18 indicates that this soil type is very limited for pond reservoir areas because of seepage and slope. Embankments are very limited because of piping.

LhB soil permeability is moderate in the surface layer and slow in the subsoil and substratum. Surface runoff is very high. Seasonal high water table is 6 to 18 inches deep. In unlimed areas, this soil is very strongly acid to neutral.

Table 5 indicates a 2w Land Capability Classification: Class 2 means moderate limitations that restrict the choice of plants or that require moderate conservation practices; w indicates that water in or on the soil interferes with plant growth or cultivation.

Table 7 indicates this soil designation as 'Prime Farmland'.

Table 14 lists this soil type as 'Map Units with Hydric Inclusions'.

Table 15a indicates that small building construction is somewhat limited because of depth to saturated zone and slope.

Table 15b indicates that local road construction is very limited due to frost action and depth to saturated zone. Shallow excavations are very limited due to depth to saturated zone, depth to hard bedrock, and cutbanks cave. Lawns and landscaping are somewhat limited because of depth to saturated zone, gravel content, and content of large stones.

Table 16a indicates that absorption fields are very restricted because of restricted permeability, depth to saturated zone, and depth to bedrock.

Table 18 indicates that pond reservoir areas are very limited because of seepage and depth to bedrock. Embankments are very limited because of depth to saturated zone, thin layer, and seepage.

LhC soil permeability is moderate in the surface layer and slow in the subsoil and substratum. Surface runoff is very high. Seasonal high water table is 6 to 18 inches deep. In unlimed areas, this soil is very strongly acid to neutral.

Table 5 indicates a 3e Land Capability Classification: Class 3 soils have severe limitations that restrict the choice of plants or that require special conservation practices, or both: e means the main hazard is risk for erosion unless close-growing plant cover is maintained.

Table 15a indicates that small building construction is somewhat limited because of slope and depth to saturated zone.

Table 15b indicates that local road construction is very limited due to frost action, slope, and depth to saturated zone. Shallow excavations are very limited due to depth to saturated zone, depth to hard bedrock, and cutbanks cave. Lawns and landscaping are somewhat limited because of slope, depth to saturated zone, gravel content, and content of large stones.

Table 16a indicates that absorption fields are very restricted because of restricted permeability, depth to saturated zone, depth to bedrock, and slope.

Table 18 indicates that pond reservoir areas are very limited because of seepage, depth to bedrock, and slope. Embankments are very limited because of depth to saturated zone, thin layer, and seepage.

NoC designated soil permeability is moderate in the surface layer and moderately slow in the subsoil and substratum. Surface runoff is high. The soil is very strongly acid to moderately acid in the upper part of the solum and strongly acid to slightly acid in the lower part and in the substratum. Liming the soil is part of Temporary and Permanent Seeding Specifications.

Table 5 indicates the Land Capability Classification is 3e: Class 3 soils have severe limitations that restrict the choice of plants or that require special conservation practices, or both: e means the main hazard is risk for erosion unless close-growing plant cover is maintained.

Table 15a indicates that small commercial buildings are very limited because of slope: buildings are not proposed in this soil designation.

Table 15b indicates that local road and street construction is somewhat limited because of slope and frost action. Shallow excavations are somewhat limited due to slope and cutbanks cave. Lawns and landscaping are somewhat limited because of slope, gravel content, and content of large stones. Frost action can be addressed through proper compaction and drainage: soil reinforcement may be required. As always, it is advisable to have an experienced geotechnical engineer evaluate proposed improvements in questionable areas. OSHA requires that the Contractor install shoring of trenches over a specified depth. Preparation of lawns and landscaping areas specifies a recommended depth for topsoil.

Table 16a indicates that this soil designation is very limited for septic tank absorption fields because of restricted permeability and slope.

Table 18 indicates that this soil type is somewhat limited for pond reservoir areas because of seepage and slope. Embankment construction is very limited because of piping. Seepage and piping are controlled by cutoff trenches and anti-seep collars.

NdD designated soil permeability is moderate in the surface layer and moderately slow in the subsoil and substratum. Surface runoff is very high. The soil is very strongly acid to moderately acid in the upper part of the solum and strongly acid to slightly acid in the lower part and in the substratum. Liming the soil is part of Temporary and Permanent Seeding Specifications.

Table 5 indicates the Land Capability Classification is 7s: Class 7 soils have very severe limitations that restrict their use to mainly forestland: s means the main limitation is shallowness.

Table 15a indicates that small commercial buildings are very limited because of slope.

Table 15b indicates that local road and street construction is very limited because of slope and frost action. Shallow excavations are very limited due to slope and cutbanks cave. Lawns and landscaping are very limited because of slope and content of large stones.

Tables 16a and 18 are not applicable for this site.

NdE designated soil permeability is moderate in the surface layer and moderately slow in the subsoil and substratum. Surface runoff is very high. The soil is very strongly acid to moderately acid in the upper part of the solum and strongly acid to slightly acid in the lower part and in the substratum. Liming the soil is part of Temporary and Permanent Seeding Specifications.

Table 5 indicates the Land Capability Classification is 7s: Class 7 soils have very severe limitations that restrict their use to mainly forestland: s means the main limitation is shallowness.

Table 15a indicates that small commercial buildings are very limited because of slope.

Table 15b indicates that local road and street construction is very limited because of slope and frost action. Shallow excavations are very limited due to slope and cutbanks cave. Lawns and landscaping are very limited because of slope and content of large stones.

Tables 16a and 18 are not applicable for this site.

WaB designated soil permeability is moderate or moderately slow in the surface layer, slow or very slow in the subsoil, and moderate to moderately slow in the substratum. The seasonal high water table is at a depth of 12 inches from the surface, mainly in winter and early spring. Surface runoff is very high or negligible. The soil is very strongly acid to slightly acid in the surface layer, strongly acid to neutral in the subsoil, and moderately acid to neutral in the substratum.

Table 5 indicates the Land capability classification is 6w. Class 6 means severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat; w means that water in or on the soil interferes with plant growth or cultivation.

Table 13, a list of Map Units with Hydric Components, contains this designated soil type.

Table 15a indicates the soil as very limited for small commercial buildings due to depth to saturated zone and shrink-swell.

Table 15b indicates that local roads are very limited because of depth to saturated zone, frost action, low strength, and shrink-swell. Shallow excavations are very limited due to depth to saturated zone, too clayey, and cutbanks cave. Additionally, lawns and landscaping are very limited because of depth to saturated zone and large stone content.

Table 16a is not applicable for this project.

Table 18 indicates that this soil type is somewhat limited for pond reservoir areas because of seepage. Embankment construction is very limited because of depth to saturation zone and the soil is hard to pack.

If any of the Limitations listed above prevail, the following are suggested remedies: liming the soil to reduce acidity; acidity has no adverse affect on new plastic pipe that is being specified for some of the proposed utility installations; Temporary and Permanent Seeding Specifications and stabilization of disturbed areas per the Erosion and Sediment Pollution Control Plan will mitigate vegetative ground cover issues; it is highly recommended that a Geotechnical Engineer be employed to deal with shrink-swell, compaction, embankment, and piping issues; seasonal high water table will be controlled via drainage and grading; saturated areas encountered during earthmoving activities shall be dewatered by pumping and implementation of the pumped water detail; OSHA requires that the Contractor install shoring in trenches over a specified depth for the caving of cutbanks hazard (no deep excavations are proposed). Fragipan can be blasted, if necessary.

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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ROBERT A. SHARRAH LAND SURVEYOR 30170-E

REVISIONS			XREFS	
NO.	DATE	DESCRIPTION		
1	11/22/11	FINAL PLAN SUBMISSION		

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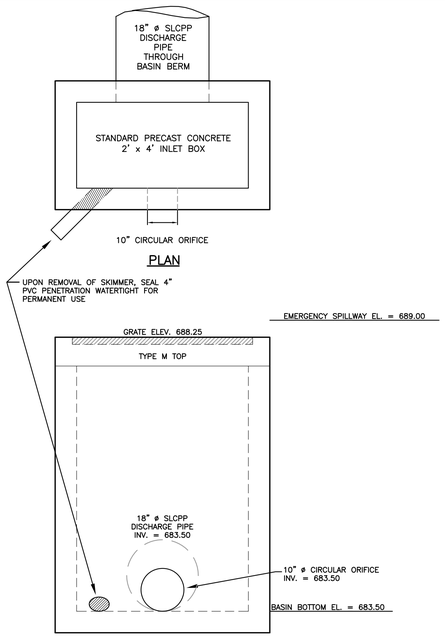
PLAN PREPARATION	
DRAWN BY: WLM-MKK	DATE: 01 SEPTEMBER 2011
DESIGNED BY: RAS	FILE NO.: 1109
CHECKED BY: RAS	DWG NO.: ESDT01-1109

E&SPC NOTES

GENERALS MOUNTAIN LODGE
A RESORT-LODGE DEVELOPMENT
1207 FLOHRS CHURCH ROAD, FRANKLIN TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA

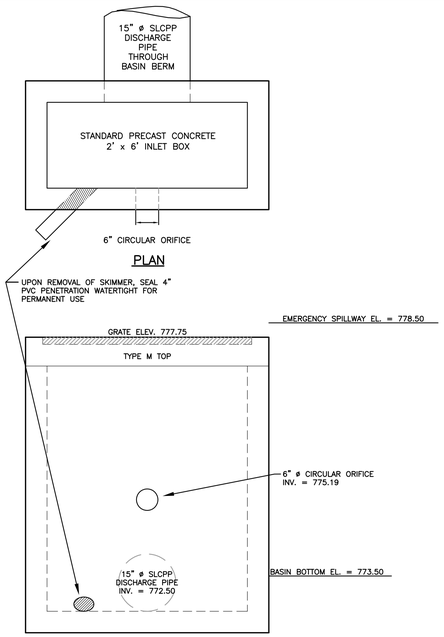
SCALE AS NOTED

SHEET NO. ES 7



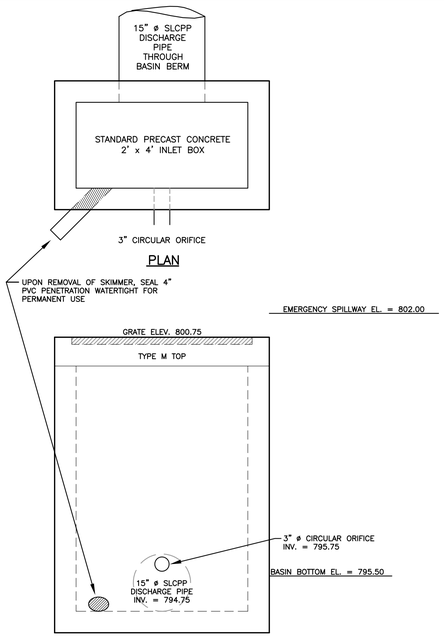
PERMANENT OUTLET STRUCTURE DETAIL
OS–4 @ DETENTION BASIN 4

NOT TO SCALE



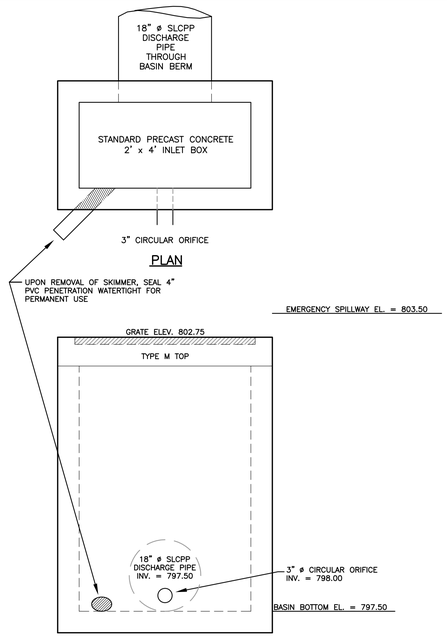
PERMANENT OUTLET STRUCTURE DETAIL
OS–3 @ DETENTION BASIN 3

NOT TO SCALE



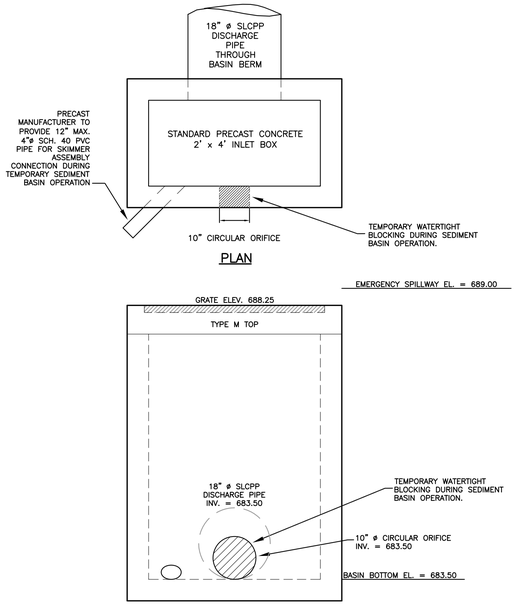
PERMANENT OUTLET STRUCTURE DETAIL
OS–2 @ DETENTION BASIN 2

NOT TO SCALE



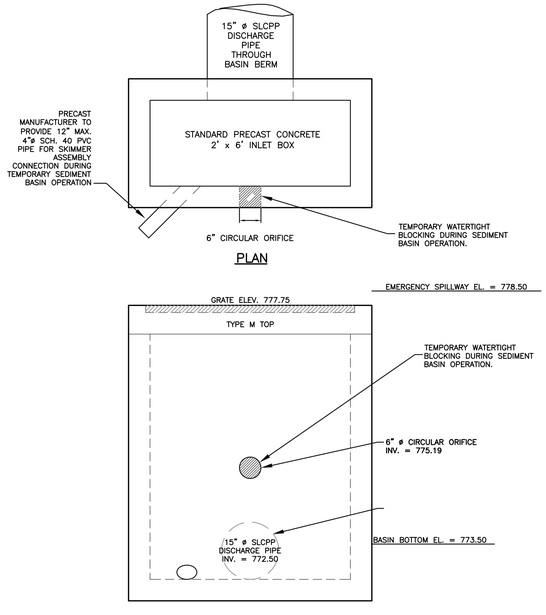
PERMANENT OUTLET STRUCTURE DETAIL
OS–1 @ DETENTION BASIN 1

NOT TO SCALE



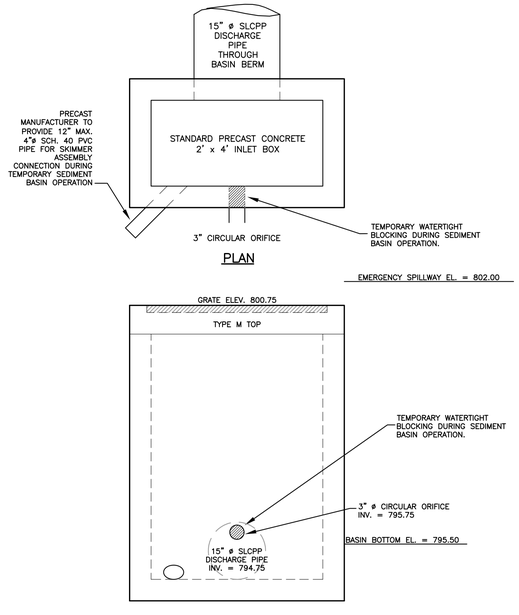
TEMPORARY OUTLET STRUCTURE DETAIL
OS–4 @ DETENTION BASIN 4
(SEDIMENT BASIN USE)

NOT TO SCALE



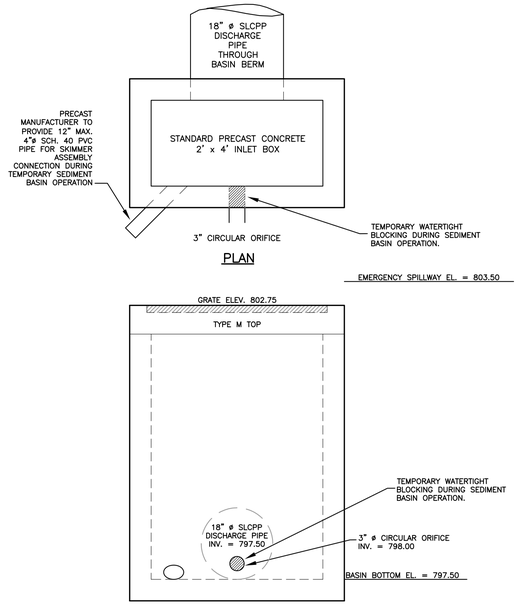
TEMPORARY OUTLET STRUCTURE DETAIL
OS–3 @ DETENTION BASIN 3
(SEDIMENT BASIN USE)

NOT TO SCALE



TEMPORARY OUTLET STRUCTURE DETAIL
OS–2 @ DETENTION BASIN 2
(SEDIMENT BASIN USE)

NOT TO SCALE



TEMPORARY OUTLET STRUCTURE DETAIL
OS–1 @ DETENTION BASIN 1
(SEDIMENT BASIN USE)

NOT TO SCALE

Sharrah Design Group, Inc.
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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — ROBERT A. SHARRAH — LAND SURVEYOR 30170–E

REVISIONS			XREFS	
NO.	DATE	DESCRIPTION		
1	11/22/11	FINAL PLAN SUBMISSION		

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PLAN PREPARATION	
DRAWN BY: WLM–MKK	DATE: 01 SEPTEMBER 2011
DESIGNED BY: RAS	FILE NO.: 1109
CHECKED BY: RAS	DWG NO.: ESDT01–1109

OUTLET STRUCTURE DETAILS

GENERALS MOUNTAIN LODGE

A RESORT–LODGE DEVELOPMENT

1207 FLOHRS CHURCH ROAD, FRANKLIN TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA

SCALE AS NOTED

SHEET NO. ES 8

SITE AREA = 13.32± ACRES.

FOR PURPOSES OF THIS ANALYSIS, THE DISTURBED AREA SHALL BE THE "SITE AREA".

THE ENTIRE PROPERTY CONTAINS OVER 634± ACRES.

LEGEND

(crosshatch)	WOODLAND	8.05± ACRES
(hexagon)	WATERBODY	0.004± ACRES
(dotted)	PROTECT TREES WITHIN 100' OF IMPERVIOUS AREA	4.863± ACRES

PRE & POST DEVELOPMENT

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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — ROBERT A. SHARRAH — LAND SURVEYOR 30170-E

REVISIONS

NO.	DATE	DESCRIPTION
1	09/26/11	PER ACCD COMMENTS
2	10/06/11	PER TWP. ENG. REVIEW COMMENTS
3	11/22/11	FINAL PLAN SUBMISSION

XREFS

PLAN PREPARATION

DRAWN BY: MKK	DATE: 01 SEPTEMBER 2011
DESIGNED BY: RAS	FILE NO.: 1109
CHECKED BY: RAS	DWG NO.: PC-PRE-1109

SENSITIVE RESOURCE MAP

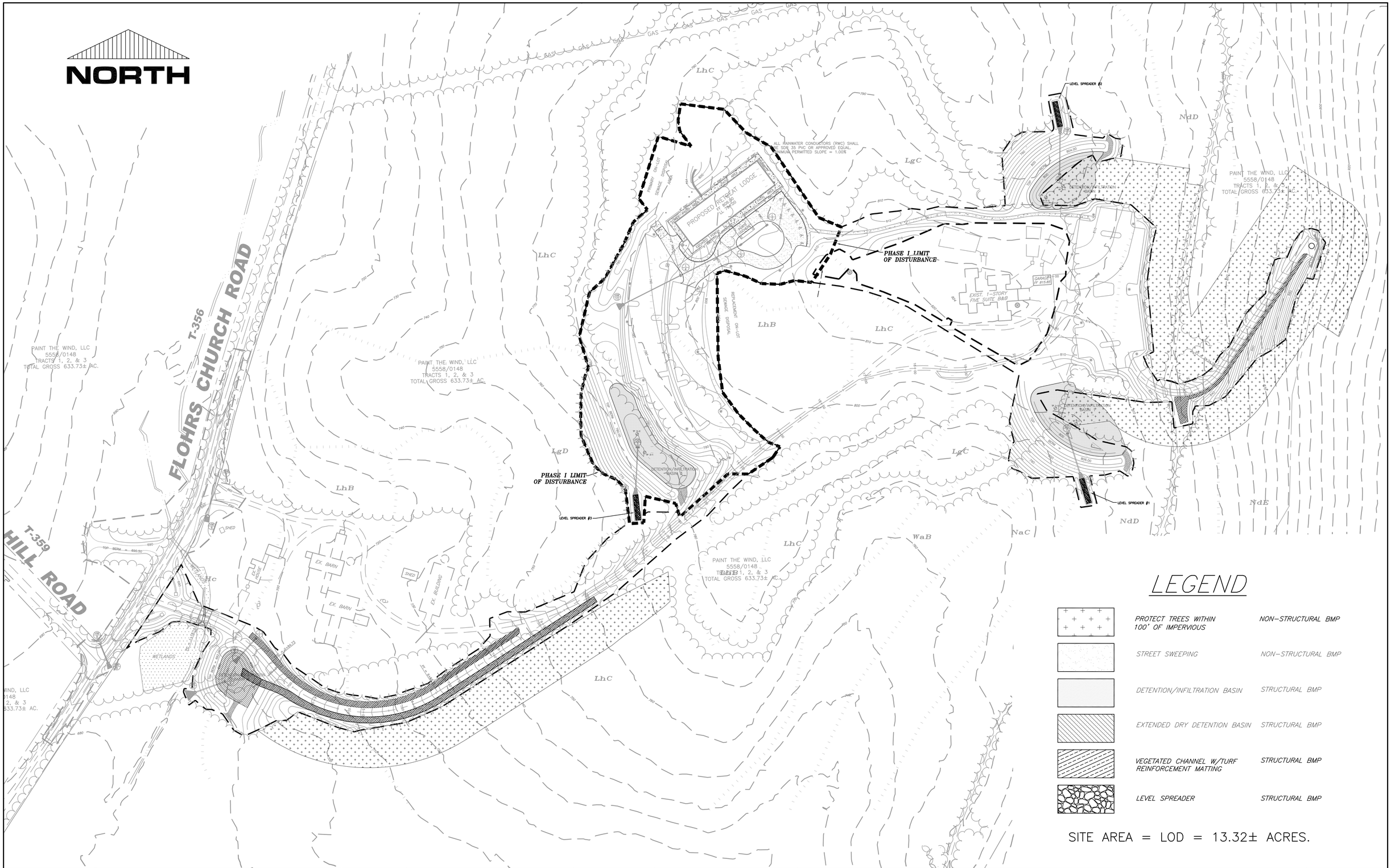
GENERALS MOUNTAIN LODGE

A RESORT-LODGE DEVELOPMENT

1207 FLOHRS CHURCH ROAD, FRANKLIN TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA

SCALE 1"=80'

SHEET NO. PC 1



LEGEND

	PROTECT TREES WITHIN 100' OF IMPERVIOUS	NON-STRUCTURAL BMP
	STREET SWEEPING	NON-STRUCTURAL BMP
	DETENTION/INFILTRATION BASIN	STRUCTURAL BMP
	EXTENDED DRY DETENTION BASIN	STRUCTURAL BMP
	VEGETATED CHANNEL W/TURF REINFORCEMENT MATTING	STRUCTURAL BMP
	LEVEL SPREADER	STRUCTURAL BMP

SITE AREA = LOD = 13.32± ACRES.

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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL
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30170-E

REVISIONS			XREFS	
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PLAN PREPARATION	
DRAWN BY: RAS	DATE: 01 SEPTEMBER 2011
DESIGNED BY: RAS	FILE NO.: 1109
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POST CONSTRUCTION SWM PLAN

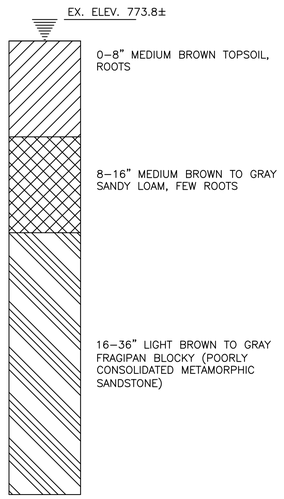
GENERALS MOUNTAIN LODGE

A RESORT-LODGE DEVELOPMENT

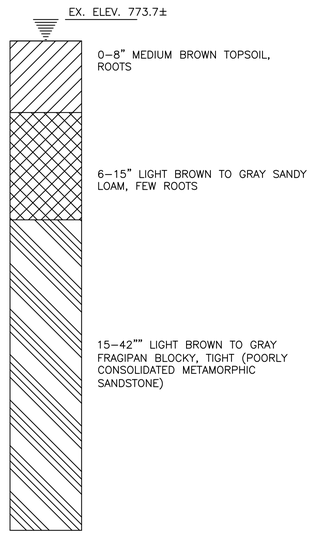
1207 FLOHRS CHURCH ROAD, FRANKLIN TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA

SCALE 1"=80'

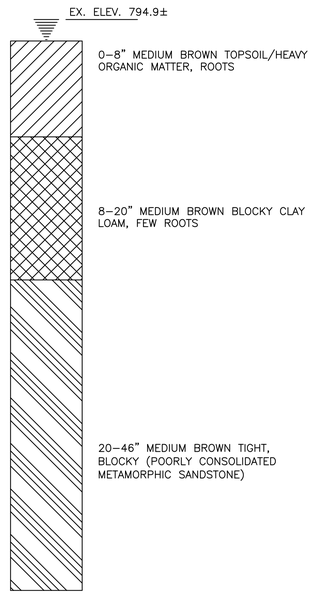
SHEET NO. PC 2



TP 3–1
NOT TO SCALE



TP 3–2
NOT TO SCALE



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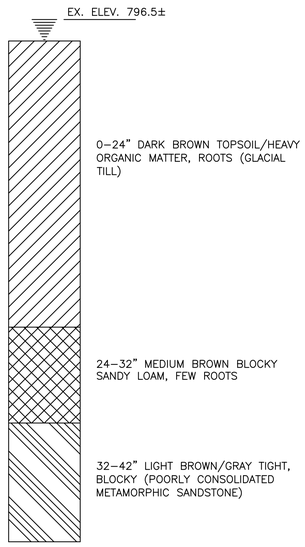
NOT TO SCALE



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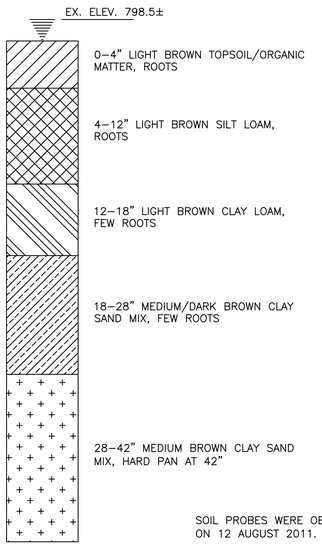

TP 1–1
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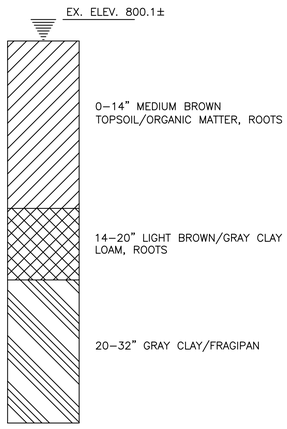


TP 1–2
NOT TO SCALE

SOIL PROBES WERE OBSERVED BY ROBERT A. SHARRAH, PLS & PETER J. MARTIN, PE ON 12 AUGUST 2011. TEST HOLES WERE EXCAVATED WITH A "MINI–TRACKHOE".

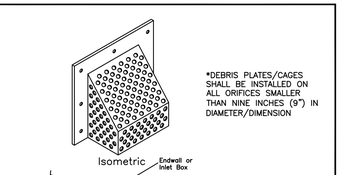
DOUBLE RING INFILTROMETER TESTING WAS CONDUCTED ON 14 AUGUST 2011. OBSERVED RATES ARE AS FOLLOWS. ALL RATES ARE IN IN/HR.

TP 1–1 3.75	TP 1–2 2.25	–	AVERAGE FOR DESIGN = 3.00
TP 2–1 1.50	TP 2–1 1.50	–	AVERAGE FOR DESIGN = 1.50
TP 3–1 2.25	TP 3–2 2.25	–	AVERAGE FOR DESIGN = 2.25

LIST OF REQUIRED INSPECTIONS

SDGI, THE DESIGN CONSULTANT FOR THIS PROJECT, SHALL BE CONTACTED FOR ON–SITE INSPECTIONS AT THE FOLLOWING STAGES OF THE PROJECT:

1) UPON COMPLETION OF PERIMETER E&S CONTROL INSTALLATION
2) PRIOR TO BEGINNING CUTOFF TRENCH CONSTRUCTION IN EACH OF THE FOUR BASINS
3) DURING CONSTRUCTION OF THE EACH OF THE FOUR BASINS TO ASSURE PROPER TECHNIQUES AND THAT COMPACTION IS ACHIEVED
4) DURING INSTALLATION OF EACH OF THE FOUR BASIN OUTLET WORKS
5) DURING INSTALLATION OF THE FOUR SKIMMER DEVICES
6) DURING CONVERSION FROM SEDIMENT CONTROL FACILITIES TO PERMAMENT SWM BASINS
7) PRIOR TO REMOVAL OF E&SPC DEVICES TO ASSURE FINAL STABILIZATION OF THE SITE



BMP DEBRIS PLATE & CAGE

PLASTIC SOLUTIONS INC.
240 McGhee Road
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Winchester VA 22604
540-723-4694
www.plasticsolutions.com

LEVEL SPREADER MAINTENANCE GUIDELINES

Rip Rap level Spreaders are designed to convert the the pipe discharges (after exiting the rip rap apron) to sheet flow.

1. Inspect the receiving area below the spreader quarterly and after rainfall events exceeding one inch.

2. Remove any surface debris that may have accumulated on the spreader.

3. Inspect and repair as necessary any erosion that may occur below the spreader. Return receiving area to its native, stable cover.

RIPRAP APRON MAINTENANCE GUIDELINES

Rip Rap Aprons are designed to dissipate the erosive velocities produced when pipes discharge to grade.

1. Aprons shall be inspected semi–annually and after major rain events to assure that they are not being undermined, they are not silted over and that no noxious trees or vegetation are present.

2. If the apron is being undermined, the rock, filter stone and/or geotextile fabric must be removed and all components must be replaced to the original design configuration.

3. The same procedure must also be followed if the rock is silted over. Rock can be removed, cleaned, and replaced if desired.

4. If noxious vegetation is encountered, it must be removed immediately upon discovery. Remove roots and spray area with appropriate weed/brush killer.

STREET SWEEPING MAINTENANCE GUIDELINES

a. Conduct mechanical sweeping at least twice annually, adjusting as necessary to meet pollutant removal needs for this site.

b. Use proper equipment; dry vacuum filters demonstrate optimal results, significantly better than mechanical and regenerative air sweeping.

c. Restrict parking when sweeping to improve removal.

d. Provide seasonal variation for winter applications.

RE–FOREST REVEGETATE DISTURBED AREAS

a. Inspect and monitor to assure no invasive or exotic species are encroaching into the area. Remove immediately if discovered.

b. Remove dead and/or dying trees.

c. Protect from animal and pest damage

d. Provide watering in times of extreme drought.

NON–ROOFTOP DISCONNECTION

a. Inspect vegetation biannually.

b. Remove and replace dead or diseased vegetation. Remove weeds and invasive plants.

c. Reseed bare areas.

d. Replace mulch as necessary.

e. Water during drought conditions.

f. Mow regularly.

PROTECT TREES WITHIN 100' OF IMPERVIOUS AREAS

a. Monitor existing tress to maintain a healthy stand.

b. Remove any dead or dying trees.

c. Protect from animal and pest damage.

d. Provide watering in times of extreme drought.

PERMANENT SOD MAINTENANCE GUIDELINES

a. In the absence of adequate rainfall, watering shall be performed daily or as often as necessary during the first week and in sufficient quantities to maintain moist soil to a depth of 4 inches.

b. After the first week, sod shall be watered as necessary to maintain adequate moisture and insure establishment.

c. First mowing should not be attempted until sod is firmly rooted. No more than 1/3 of the grassleaf shall be removed by the initial cutting or subsequent cuttings. Grass height shall be maintained between 2 and 3 inches unless otherwise specified.

d. Maintenance of established sod should follow specifications outlined in the Permanent Seeding Notes for this project.

DETENTION/INFILTRATION BASIN MAINTENANCE GUIDELINES

Maintenance is necessary to ensure proper functionality of the detention/infiltration basins and should take place at a minimum on a quarterly basis. A basin maintenance plan should be developed which includes the following measures:

a. All basin structures expected to receive and/or trap debris and sediment should be inspected for clogging and excessive debris and sediment accumulation at least four times per year, as well as after every storm greater than 1 inch. Structures include basin bottoms, trash racks, outlet structures, riprap aprons, and inlets.

b. Sediment removal should be conducted when the basin is completely dry. Sediment should be disposed of properly and once sediment is removed, disturbed areas need to be immediately stabilized and re–vegetated.

c. Mowing and/or trimming of vegetation should be performed as necessary to sustain the system, but all detritus should be removed from the basin.

d. Vegetated areas should be inspected annually for erosion.

e. Vegetated areas should be inspected annually for unwanted growth of exotic/invasive species.

f. Vegetative cover should be maintained at a minimum of 95 percent. If vegetative cover has been reduced by 10%, vegetation should be reestablished.

g. Special care must be taken to avoid compaction of the basin bottoms. All maintenance should be undertaken with small equipment or from outside the basin bottom.

VEGETATED SWALE MAINTENANCE GUIDELINES

Maintenance activities to be done annually and within 48 hours after every major storm event (>1 inch rainfall depth):

a. Inspect and correct erosion problems, damage to vegetation, and sediment and debris accumulation (address when > 3 inches at any spot or covering vegetation)

b. Inspect vegetation on side slopes for erosion and formation of rills or gullies, correct as needed.

c. Inspect for pools of standing water; dewater and discharge to an approved location and restore to design grade.

d. Mow and trim vegetation to ensure safety, aesthetics, proper swale operation, or to suppress weeds and invasive vegetation; dispose of cuttings in a local composting facility; mow only when swale is dry to avoid rutting.

e. Inspect for litter; remove prior to mowing.

f. Inspect for uniformity in cross–section and longitudinal slope, correct as needed.

g. Inspect swale inlet (curb cuts, pipes, etc.) and outlet for signs of erosion or blockage, correct as needed.

Maintenance activities to be done as needed:

a. Plant alternative grass species in the event of unsuccessful establishment.

b. Reseed bare areas; install appropriate erosion control measures when native soil is exposed or erosion channels are forming.

c. Rototill and replant swale if draw down time is more than 48 hours.

d. Inspect and correct check dams when signs of altered water flow (channelization, obstructions, erosion, etc.) are identified.

e. Water during dry periods, fertilize, and apply pesticide only when absolutely necessary.

Most of the above maintenance activities are reasonably within the ability of individual homeowners. More intensive swales (i.e. more substantial vegetation, check dams, etc.) may warrant more intensive maintenance duties and should be vested with a responsible agency. A legally binding and enforceable maintenance agreement between the facility owner and the local review authority might be warranted to ensure sustained maintenance execution. Winter conditions also necessitate additional maintenance concerns, which include the following:

a. Inspect swale immediately after the spring melt, remove residuals (e.g. sand) and replace damaged vegetation without disturbing remaining vegetation.

b. If roadside or parking lot runoff is directed to the swale, mulching and/or soil aeration/manipulation may be required in the spring to restore soil structure and moisture capacity and to reduce the impacts of deicing agents.

c. Use nontoxic, organic deicing agents, applied either as blended, magnesium chloride–based liquid products or as pretreated salt.

d. Use salt–tolerant vegetation in swales.

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ROBERT A. SHARRAH
LAND SURVEYOR
30170–E

REVISIONS			XREFS	
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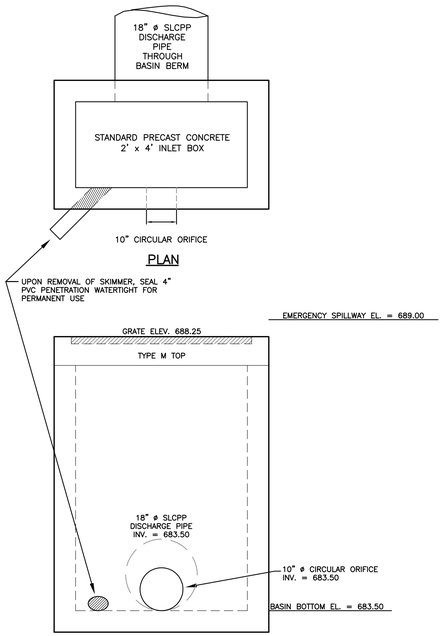
PLAN PREPARATION		
DRAWN BY: WLM–MKK	DATE: 01 SEPTEMBER 2011	
DESIGNED BY: RAS	FILE NO.: 1109	
CHECKED BY: RAS	DWG NO.: TI01–1109	

PCSM DETAILS

GENERALS MOUNTAIN LODGE
A RESORT–LODGE DEVELOPMENT
1207 FLOHRS CHURCH ROAD, FRANKLIN TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA

SCALE AS NOTED

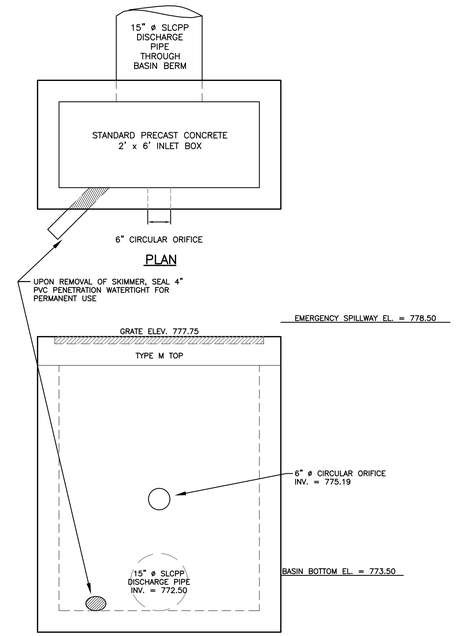
SHEET NO. PC 3



FRONT ELEVATION

PERMANENT OUTLET STRUCTURE DETAIL OS–4 @ DETENTION BASIN 4

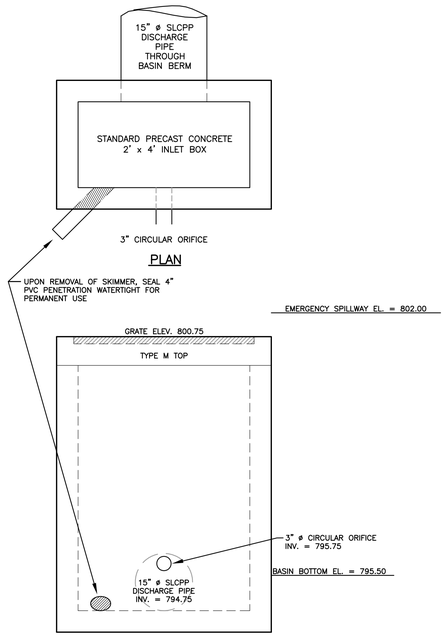
NOT TO SCALE



FRONT ELEVATION

PERMANENT OUTLET STRUCTURE DETAIL OS–3 @ DETENTION BASIN 3

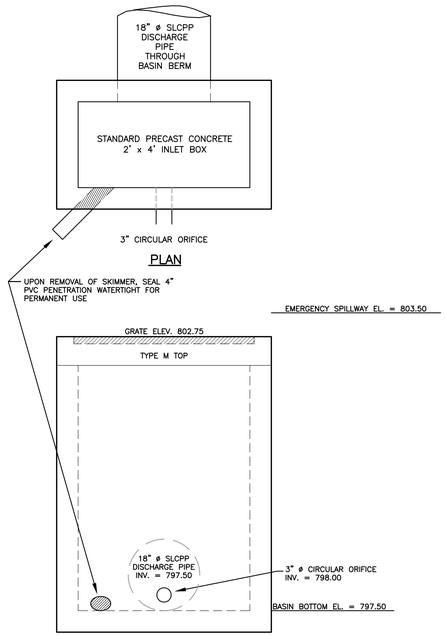
NOT TO SCALE



FRONT ELEVATION

PERMANENT OUTLET STRUCTURE DETAIL OS–2 @ DETENTION BASIN 2

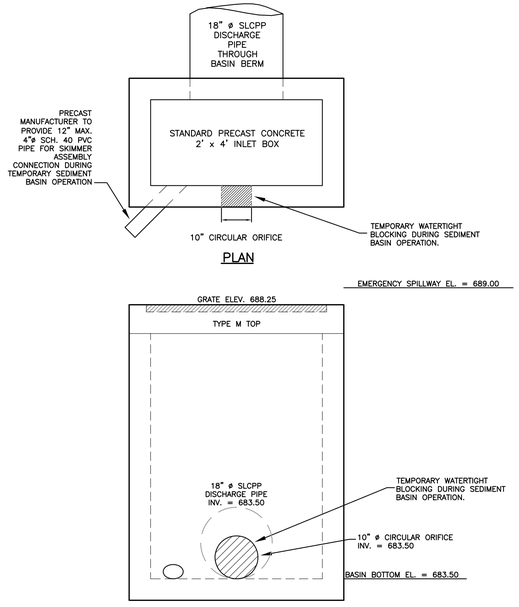
NOT TO SCALE



FRONT ELEVATION

PERMANENT OUTLET STRUCTURE DETAIL OS–1 @ DETENTION BASIN 1

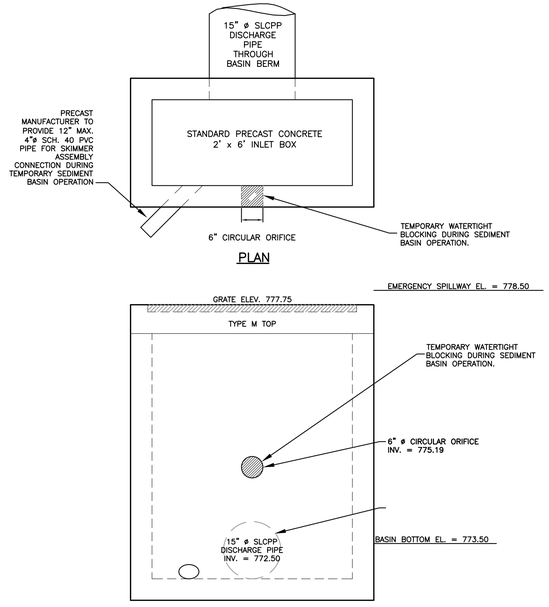
NOT TO SCALE



FRONT ELEVATION

TEMPORARY OUTLET STRUCTURE DETAIL OS–4 @ DETENTION BASIN 4 (SEDIMENT BASIN USE)

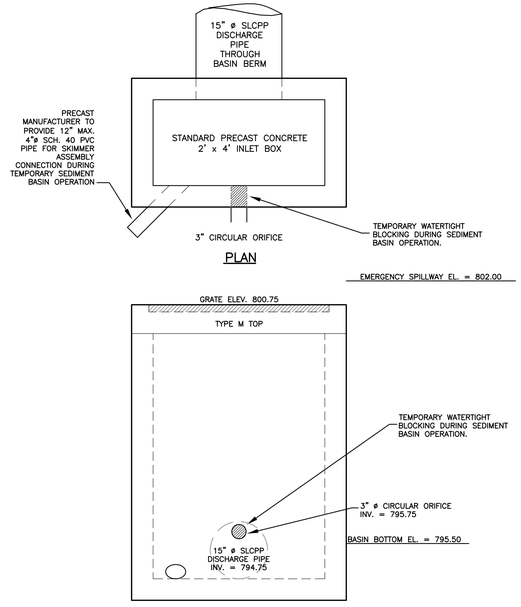
NOT TO SCALE



FRONT ELEVATION

TEMPORARY OUTLET STRUCTURE DETAIL OS–3 @ DETENTION BASIN 3 (SEDIMENT BASIN USE)

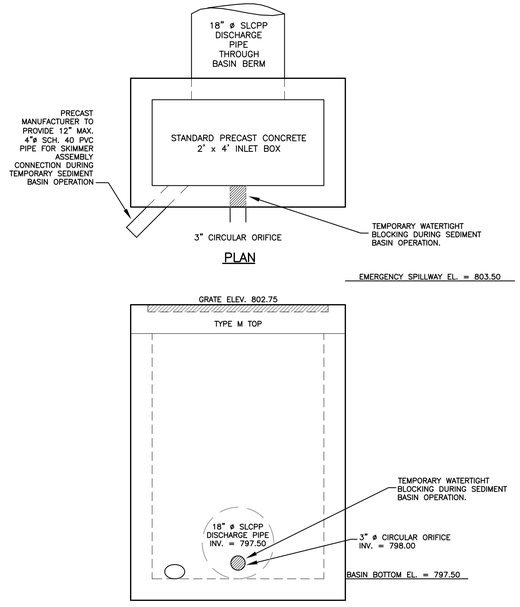
NOT TO SCALE



FRONT ELEVATION

TEMPORARY OUTLET STRUCTURE DETAIL OS–2 @ DETENTION BASIN 2 (SEDIMENT BASIN USE)

NOT TO SCALE



FRONT ELEVATION

TEMPORARY OUTLET STRUCTURE DETAIL OS–1 @ DETENTION BASIN 1 (SEDIMENT BASIN USE)

NOT TO SCALE

Sharrah Design Group, Inc.
Land Surveying & Design
20 Chambersburg Street
Gettysburg, PA 17325
Phone: (717) 334-5400
Fax: (717) 334-0922

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — ROBERT A. SHARRAH — LAND SURVEYOR 30170–E

REVISIONS			XREFS	
NO.	DATE	DESCRIPTION		
1	11/22/11	FINAL PLAN SUBMISSION		

811 Know what's below. Call before you dig.

PENNSYLVANIA ACT 287 (1974) AS AMENDED BY PENNSYLVANIA ACT 121 (2008) REQUIRES NO LESS THAN THREE (3) WORKING DAYS AND NO MORE THAN (10) WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH.

PLAN PREPARATION	
DRAWN BY: WLM–MKK	DATE: 01 SEPTEMBER 2011
DESIGNED BY: RAS	FILE NO.: 1109
CHECKED BY: RAS	DWG NO.: PCDT–1109

PCSM DETAILS

GENERALS MOUNTAIN LODGE
A RESORT–LODGE DEVELOPMENT
1207 FLOHRS CHURCH ROAD, FRANKLIN TOWNSHIP, ADAMS COUNTY, PENNSYLVANIA

SCALE AS NOTED

SHEET NO. PC 4