256 A00 1001

1520-1520 Westbrook St, Portland, Maine

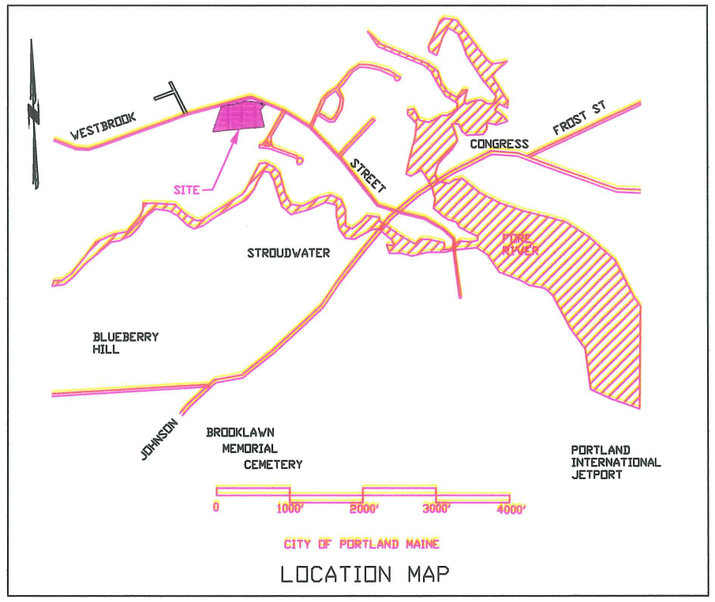
Community Life center

Stroudwater Christian Church

Att. 14

SITE PLAN AMENDMENT FOR:
STROUDWATER ADVENT CHRISTIAN CHURCH
1520 WESTBROOK STREET - PORTLAND, MAINE

TABLE OF PLANS



LOCATION MAP

GENERAL NOTES

1) BASE MAP AND BOUNDARY SURVEY PREPARED BY R.P.TITCOMB ASSOCIATES OF FALMOUTH MAINE DATED: AUGUST 7, 1987 AND STAMPED BY STEPHEN MARTIN PLS # 1262

2) PROPOSED WATER AND SEWER TO THE SITE IS FROM WESTBROOK STREET.

3) UNDERGROUND UTILITIES ARE SHOWN FROM FIELD LOCATION IF POSSIBLE. OTHERS ARE SHOWN FROM RECORD DATA. THEIR EXACT LOCATION MAY DIFFER FROM THAT AS SHOWN AND OTHERS MAY EXIST. DIG SAFE SHOULD BE CONTACTED AND EXACT LOCATIONS VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION.

5) THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY CONDITIONS THAT VARY FROM THOSE SHOWN ON THE PLANS. THE CONTRACTORS WORK SHALL NOT VARY FROM THE PLANS WITHOUT THE EXPRESS APPROVAL FROM THE ENGINEER.

6.) THE CONTRACTOR IS INSTRUCTED TO COOPERATE WITH ANY AND ALL OTHER CONTRACTORS PERFORMING WORK ON THIS PROJECT.

7.) THE CONTRACTOR SHALL RESTORE DRIVEWAY SUBBASES, CULVERTS, SIGNS AND OTHER PUBLIC OR PRIVATE PROPERTY DAMAGED OR REMOVED TO AT LEAST AS GOOD OF CONDITION AS BEFORE DISTURBED AS DETERMINED BY THE ENGINEER. ANY DAMAGED TREES, SHRUBS AND OR HEDGES SHALL BE REPLACED AT THE CONTRACTORS EXPENSE.

8.) CONTRACTOR SHALL COMPLY WITH ALL REQUIRED PERMITS.

9.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING, AND INCURRING THE COST OF ALL REQUIRED PERMITS, INSPECTIONS, CERTIFICATES, ETC.

10.) THE CONTRACTOR SHALL PROTECT EXISTING PROPERTY LINE MONUMENTATION. ANY MONUMENTATION DISTURBED OR DISTROIED, AS JUDGED BY THE ENGINEER OR OWNER SHALL BE REPLACED AT THE CONTRACTORS EXPENSE UNDER THE SUPERVISION OF A MAINE STATE LICENSED LAND SURVEYOR.

11.) IT IS THE CONTRACTORS RESPONSIBILITY TO EXAMINE ALL PLAN SHEETS AND SPECIFICATIONS AND COORDINATE WORK WITH ALL CONTRACTS FOR THE SITE.

12.) THE CONTRACTOR SHALL BE RESPONSIBLE TO CONDUCT EXPLORATORY TEST PITS AS MAY BE REQUIRED TO DETERMINE UNDERGROUND CONDITIONS.

13.) ALL TRENCH EXCAVATION AND ANY REQUIRED SHEETING AND SHORING SHALL BE DONE IN ACCORDANCE WITH OSHA REGULATIONS FOR CONSTRUCTION.

14.) CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING AND THE MAINTENANCE OF SURFACE DRAINAGE DURING THE COURSE OF THE WORK.

15.) ALL UTILITY WORK INVOLVING CONNECTION TO EXISTING SYSTEMS SHALL BE COORDINATED WITH THE ENGINEER AND THE UTILITY OWNER. NOTIFY THE ENGINEER AND THE UTILITY OWNER 24 HOURS BEFORE EACH AND EVERY CONNECTION TO EXISTING SYSTEM IS MADE.

16.) MAINTAIN FLOW OF ALL EXISTING UTILITIES.

17.) ALL NEW MANHOLES AND VALVE BOXES CONSTRUCTED WITHIN PAVED AREAS SHALL HAVE THE TOPS SET FLUSH WITH THE EXISTING PAVEMENT GRADE. IN LANDSCAPED AREAS, ALL FRAMES SHALL BE 0.1 FT ABOVE GRADE.

18) BEFORE CONSTRUCTING LINES TO CONNECT TO EXISTING UTILITIES, VERIFY EXISTING UTILITY INVERTS AND NOTIFY ENGINEER IF ANY VARIATION FROM THE PLANS IS REQUIRED.

19.) THE CONTRACTOR IS DIRECTED TO COMPLY WITH PORTLAND WATER DISTRICT STANDARD SPECIFICATIONS AND REQUIREMENTS FOR INSTALLATION OF WATER SERVICES. CONTRACTOR TO NOTIFY ENGINEER AT LEAST 48 HOURS PRIOR TO UNDERTAKING WORK ON WATER FACILITIES.

20.) ALL SITE FILL SHALL MEET SELECTED FILL STANDARDS UNLESS OTHERWISE NOTED ON THE DRAWINGS.

21.) THE CONTRACTOR TO GRADE ALL AREAS ON THE SITE TO PROVIDE POSITIVE DRAINAGE.

22.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL FIELD LAYOUT. THE CONTRACTOR SHALL TAKE THE TIES TO ALL UTILITY CONNECTIONS AND PROVIDE MARKED-UP AS-BUILT PLANS FOR ALL UTILITY SHOWING 3 POINT TIES TO CONNECTIONS, BENDS, VALVES, LENGTHS OF LINES AND INVERTS. AS BUILT PLANS SHALL BE REVIEWED BY THE OWNER AND HIS REPRESENTATIVES BEFORE UTILITIES WILL BE ACCEPTED.

ZONING NOTES

ZONING NOTES FOR ZONE R-1:
PORTLAND CODE SECTION 14-68 CONDITIONAL USE
(B) INSTITUTION
(3) CHURCH OR PLACE OF WORSHIP
LOT SIZE 211,822 SQ. FT.
FRONTAGE = 615.59 FT.
THIS PROJECT IS NOT LOCATED IN THE HISTORIC DISTRICT.

LEGEND

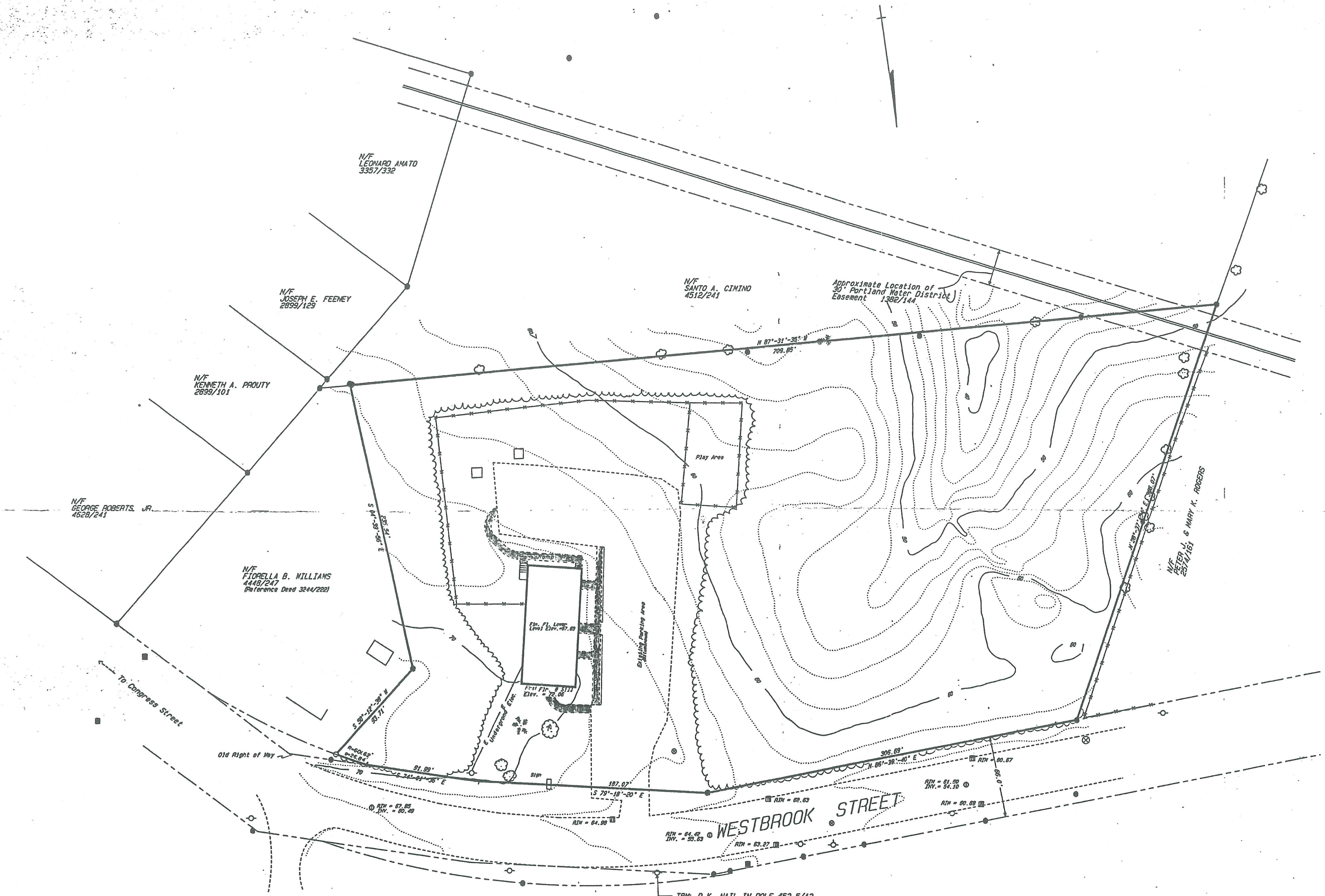
- IRON PIN FOUND (1/2" hollow pipe, unless noted)
- IRON PIN TO BE SET (5/8 rebar)
- MONUMENT FOUND
- NF NOW OR FORMERLY OF
- UTILITY POLE
- EDGE OF PAVEMENT
- EXISTING BUILDING
- FENCE LINE
- CATCH BASIN
- WATER VALVE
- MANHOLE
- FIRE HYDRANT
- DECIDUOUS TREE
- CONIFER TREE
- TREE LINE

FOR REVIEW ONLY NOT FOR CONSTRUCTION JUNE 2002

14a

REFERENCES

1) State of Maine Department of Transportation Right of Way Map, dated April 1977, D.O.T. File No. 3-255.
2) City of Portland Engineering Dept. Right of Way Plans.
3) Portland Water District Portland, Maine 42" Concrete Pipe Line Right of Way Plans, dated August 1931, recorded in the Cumberland County Registry of Deeds in Plan Book 20, Page 39.
4) Portland Pipe Line Co. Survey of Property of Ruby H. Young, dated October 8, 1941.
5) Plan made for Laurence C. Plowman Plan of Riverview Sec. A recorded in Plan Book 46, Page 14.



NOTES

1) Bearings are based on magnetic north 1977 (see reference #1).
2) Elevations are based on the City of Portland Date.

AREA

211,882 sf.
4.86 ac.

OWNER OF RECORD

Advent Christian Church of Portland, Maine
4520/175

LEGEND

- IRON PIN FOUND (1/2" hollow pipe, unless noted)
- IRON PIN TO BE SET (5/8" rebar)
- MONUMENT FOUND
- N/F NOW OR FORMERLY OF
- UTILITY POLE
- EDGE OF PAVEMENT
- EXISTING BUILDING
- FENCE LINE
- CATCH BASIN
- WATER VALVE
- MANHOLE
- FIRE HYDRANT
- DECIDUOUS TREE
- CONIFER TREE
- TREE LINE

1 INCH = 40 FEET
40 0 40 80 120

This survey conforms to category I condition II as defined by the Standards of the Maine State Board of Registration for Land Surveyors dated 1985. Except as noted.

Exceptions:
(1) Irons and Monuments not labeled
(2)
(3)

Stephen J. Martin RLS 1262

checked by [signature]

STATE OF MAINE STEPHEN J. MARTIN 1262 REGISTERED LAND SURVEYOR

— STANDARD BOUNDARY SURVEY —

PROPERTY & TOPO PLAN

1520 Westbrook Street Portland, Maine

Made for

Advent Christian Church

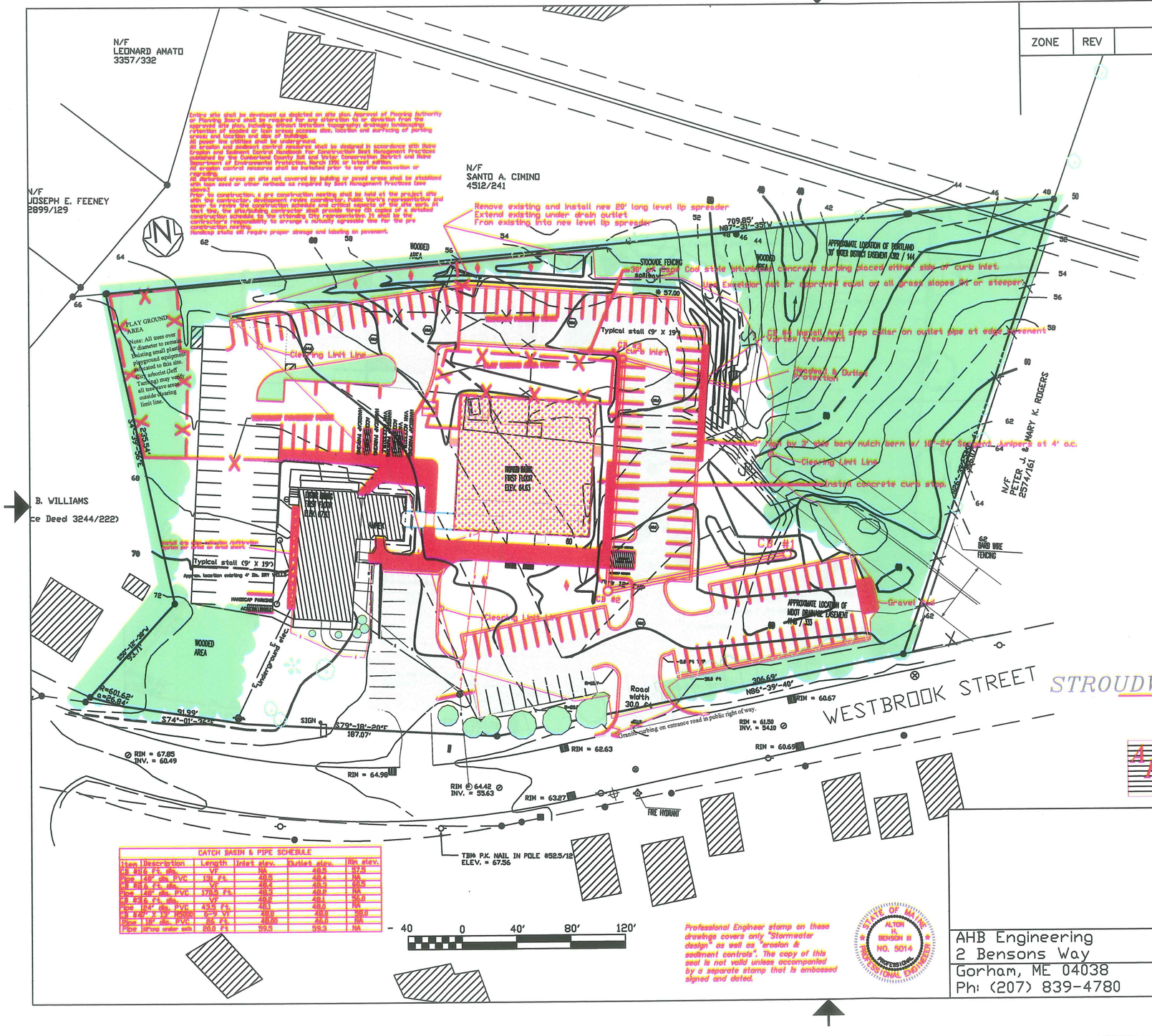
1520 Westbrook Street Portland, Maine

Job 87084 Book 345 File 4389 Disc 143

August 7, 1987

R. P. TITCOMB ASSOCIATES, INC.
LAND SURVEYORS / ENGINEERS
50 Gray Road, Falmouth, Maine

14b



REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

REFERENCES

1) Topographic information and existing conditions traced from plans compiled by R.P. Titcomb Associates, Falmouth, ME - Aug. 7, 1987
2) Existing condition contours revised in area of new parking areas and fill.
3) Neighboring building locations from plan titled Capisic brook greenbelt project Aerial survey of watershed, For: City of Portland, Parks & Public Works Dept. Engineering Div. Dated 5-15-92 By: Aerial survey & Photo Inc. Norridgewock, ME

NOTES

1) Bearings are based on magnetic north 1987 (see reference #1).
2) Elevations are based on the City of Portland Data

AREA

211,882 SF.
4.86 ac.

OWNER OF RECORD

Advent Christian Church of Portland, Maine
4520/175

LEGEND

- IRON PIN FOUND (1/2" hollow pipe, unless noted)
- IRON PIN TO BE SET (5/8 rebar)
- MONUMENT FOUND
- NF NOW OR FORMERLY OF
- UTILITY POLE
- EDGE OF PAVEMENT
- EXISTING BUILDING
- FENCE LINE
- CATCH BASIN
- WATER VALVE
- MANHOLE
- FIRE HYDRANT
- DECIDUOUS TREE
- CONIFER TREE
- TREE LINE
- NEW PAVED SIDEWALK
- NEW CONTOUR LINE
- STONE CHECK DAM
- SILT FENCE

Preliminary Site Plan

STROUDWATER CHRISTIAN CHURCH

1520 WESTBROOK STREET - PORTLAND, ME

PREPARED BY

AHB Engineering
Civil Engineering
#2 Bensons Way

Site Plan

Stroudwater Christian Church
1520 Westbrook Street - Portland Maine

AHB Engineering
2 Bensons Way
Gorham, ME 04038
Ph: (207) 839-4780

SIZE	FSCM NO.	DWG NO.	REV
"B"	by: AHB	scc-site 100x100.dwg	"B"

SCALE	DATE	SHEET
1"=80'	Sept. 18, 2002	2 of 10

14d

8 | 7 | 6 | 5 | 4 | 3 | 2 | 1

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

EROSION AND SEDIMENT CONTROL PLAN

THIS PLAN HAS BEEN DEVELOPED AS A STRATEGY TO CONTROL EROSION AND SEDIMENTATION DURING CONSTRUCTION. IT HAS BEEN BASED ON STANDARDS AND SPECIFICATIONS SET FORTH IN THE "MAINE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION" (BMP) PRODUCED BY: CUMBERLAND COUNTY SOIL AND WATER CONSERVATION DISTRICT, DEPARTMENT OF ENVIRONMENTAL PROTECTION DATED MARCH 1991. ALL SEDIMENT AND EROSION CONTROL PRACTICES SHALL BE DONE IN ACCORDANCE WITH STANDARDS SET FORTH IN THIS MAINE BMP HANDBOOK. PROPOSED LOCATION OF SILT FENCE AND EROSION CONTROL STRUCTURES ARE SHOWN ON ATTACHED SITE PLANS. EMPHASIS SHALL BE PLACED ON PREVENTING EROSION OVER TRAPPING SILT BY QUICKLY COMPLETING THE EARTHWORK AND ROUTINELY COVERING EXPOSED SOILS WITH HAY MULCH. HAY MULCH SHALL BE USED TO COVER DISTURBED SOIL UPON COMPLETION OF ROUGH GRADING AND ON FRIDAYS BEFORE LEAVING THE SITE FOR THE WEEKEND. HAY OR STRAW MATERIAL SHALL BE USED AT AN APPLICATION RATE OF 70-90LBS PER 1000 SQ. FT. REMULCH AND ANCHOR AS NECESSARY.

EROSION AND SEDIMENT CONTROL PLAN

EQUIPMENT ANTICIPATED TO BE USED FOR CONSTRUCTION INCLUDES FOLLOWING: BACK HOES, BULLDOZERS, LOADERS, TRUCKS CRANES, COMPACTORS, AND GRADERS MEASURES WILL BE TAKEN TO PROVIDE MAXIMUM PROTECTION.

1) SOIL SAMPLES TAKEN AND SENT PRIOR TO EARTH DISTURBANCE. IN LAKE WATERSHED, LIME AND FERTILIZATION FOR PERMANENT GRASS VEGETATION SHALL BE APPLIED ON SOIL IN ACCORDANCE TO RESULTS FROM SOIL TESTS. CONSTRUCTION LIMITS SHALL BE ASSUMED TO BE 20 FEET BEYOND LIMITS OF REQUIRED CUTS OR FILLS ASSOCIATED WITH BUILDING, PARKING OR DRAINAGE FEATURE, EXCEPT AS NECESSARY TO INSTALL EROSION CONTROL MEASURES OR WHERE SITE PLAN SHOWS DITCHES LEADING TO LEVEL LIP SPREADERS. CONTRACTOR SHALL PREVENT DISTURBANCE OF BUFFER AREAS BELOW LEVEL LIP SPREADERS BY USING CONSTRUCTION TAPE TO FLAG THESE AREAS AS WELL AS INSTALLATION OF SILT FENCE ABOVE THEM.

2) SILT FENCE SHALL BE INSTALLED, AS SHOWN ON THE PLANS AS PER SILT FENCE DETAIL ON DETAIL SHEET, PRIOR TO GRUBBING OR ANY EARTH MOVING OPERATION. IT SHALL BE INSTALLED AT TOE OF SLOPE, ACROSS SLOPE ON CONTOUR AT DOWNHILL LIMIT OF WORK AS A PROTECTION AGAINST CONSTRUCTION RELATED EROSION. FOR MORE INFORMATION SEE SECTION 14 "SEDIMENT BARRIERS" ON PAGE N-90 BMP HANDBOOK. IN LAKE WATERSHED HAY BALES SHALL BE INSTALLED BEHIND SILT FENCE. ALL SOIL DISTURBANCES SHALL BE LEFT IN AN UNTREATED OR UNVEGETATED CONDITION FOR A MINIMUM TIME. IN LAKE WATERSHED THESE AREAS SHALL BE PERMANENTLY STABILIZED WITHIN 15 CALENDAR DAYS OF FINAL GRADING AND TEMPORARILY STABILIZED WITHIN 30 CALENDAR DAYS OF INITIAL DISTURBANCE OF SOIL. IN AREAS WHERE IT IS NECESSARY TO DISTURB SOIL WITHIN 100 FT OF A PROTECTED RESOURCE (WETLAND, STREAM, RIVER OR POND) THE AREA SHALL BE STABILIZED WITHIN 7 DAYS OF THE INITIAL DISTURBANCE OR PRIOR TO ANY STORM EVENT. SILT FENCE SHALL REMAIN IN PLACE UNTIL AREA ABOVE IS STABILIZED BY PERMANENT MEASURES.

3) STONE CHECK DAMS SHALL BE INSTALLED AS SHOWN ON PLAN AND AS PER STONE CHECK DAM DETAIL ON DETAIL SHEET. FOR MORE INFORMATION SEE BMP FOR CONSTRUCTION PAGE N-99.

4) PROJECT TO BE PHASED BY CONTRACTOR SUCH THAT NOT MORE THAN 1.5 ACRES OF DISTURBED SOIL ARE EXPOSED AT ONE TIME IN LAKE WATERSHED OR 3.0 ACRES ELSEWHERE.

5) ANY EXPOSED SLOPES STEEPER THAN 2:1 AND NEWLY CONSTRUCTED DRAINAGE SWALES WITH SLOPES OVER 6% WILL BE STABILIZED WITH EROSION CONTROL MESH TO PREVENT EROSION AND FACILITATE REVEGETATION AFTER LOAMING AND SEEDING.

6) RIP RAP WILL BE PLACED AT ALL CULVERT INLETS AND OUTLETS PER SPECIFICATIONS IN TABLE AND AS SHOWN ON ATTACHED DETAIL SHEET.

7) NATIVE TOPSOIL SHALL BE SAVED, STOCKPILED, MULCHED AND REUSED AS MUCH AS POSSIBLE ON SITE. SILTATION FENCE SHALL BE INSTALLED AT BASE OF STOCKPILES AT DOWNHILL LIMIT. STOCKPILE WILL BE STABILIZED BY SEEDING AND MULCHING UPON FORMATION OF PILES. STOCKPILES SHALL BE LOCATED WHERE SHOWN ON PLANS OR ON TOP OF A HILL; OTHERWISE UPHILL OF STOCKPILES, STABILIZED DITCHES AND OR BERMS WILL BE CONSTRUCTED TO DIVERT STORMWATER RUNOFF AWAY FROM PILES.

8) IF PERMANENT SEEDING IS NOT COMPLETED ON THIS SITE 45 DAYS PRIOR TO FIRST KILLING FROST OF YEAR OF INITIAL DISTURBANCE, AS SHOWN ON "OPTIMUM SEEDING PERIODS" FIGURE BELOW, THEN WITHIN NEXT 10 CALENDAR DAYS THESE AREAS WILL BE GRADED AND SMOOTHED, THEN TEMPORARY SEEDED TO A WINTER COVER CROP OF RYE AT A RATE OF 3 LBS. PER 1,000 SQ. FT.. FERTILIZER AND LIME SHALL BE APPLIED PER SOIL TEST RECOMMENDATIONS PRIOR TO SEEDING. HAY MULCH WILL BE APPLIED AT A RATE OF 100 LB. PER 1000 SQ. FT. FOLLOWING SEEDING. IF THE RYE SEEDING CAN NOT BE COMPLETED BY OCTOBER 1ST THEN ON THAT DATE HAY MULCH SHALL BE APPLIED AT THE RATE OF 2 TONS PER ACRE TO PROVIDE WINTER PROTECTION. IF RYE DOES NOT MAKE ADEQUATE GROWTH BY NOVEMBER 1ST, THEN ON THAT DATE HAY MULCH SHALL BE APPLIED AT THE RATE OF 100 LB. PER 1000 SQ. FT. A SUITABLE BINDER SUCH AS CURASOL OR RMB PLUS SHALL BE USED ON HAY MULCH FOR WIND CONTROL. BIODEGRADABLE NETTING WILL BE INSTALLED ON STEEP SLOPES (2.5:1 AND STEEPER) AND ON AREAS OF CONCENTRATED FLOWS. DORMANT SEEDING MAY BE ATTEMPTED BETWEEN NOVEMBER AND MARCH. SEE "OPTIMUM SEEDING PERIODS" CHART BELOW

OPTIMUM SEEDING PERIODS.

FIRST KILLING FROST DATE FOR CUMBERLAND COUNTY IS SEPTEMBER 30th.
FROM BMPs FOR CONSTRUCTION FIGURE 3.1 PAGE N-15

MONTH

Type of Area	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Heavy runoff area such as ditches					P			P				
All other disturbed areas	DS			P					T	M	DS	

P Permanent seeding
T Temporary seeding *
M Mulch seeding *
DS Dormant seeding*

*Seed for the permanent seeding may be applied by overseeding the mulch after November 1 at a 50% higher rate.
*Seeding rates for dormant seedings should be increased by 50% The ideal time to complete dormant seedings is march, however, seed should not be distributed over snow.

Avoid seeding between 7/1 - 8/15 as irrigation requirements are higher.

Winter construction

Winter construction is not proposed, however, should it become necessary the following plan shall be followed for earthwork done in the period between October 1 through April 15th.

1) Construction shall be phased such that no more disturbed soil shall be exposed at one time than that area which can be mulched in one day prior to any storm event or one acre whichever area is less.

2) Continuation of earthwork shall be contingent upon the stabilization of the previous phase. New work shall not begin until previous work is stabilized. An area shall be considered stabilized when exposed surfaces have either been adequately mulched (such that the soil can not be seen through the mulch) or dormant seeded mulched and the mulch anchored.

3) Between October 15th and April 15th loam and seed will not be required. The slopes shall be rough graded and the surface protected with mulch or temporary seed and mulch until such time that the final treatment could be applied. In situations where the loam has already been applied and smoothed the area should be dormant seeded at a seed rate 2 times the normal. Slopes shall not be left exposed over the winter unless treated as described above.

4) Between November 1st and April 15th either peg and line or mulch netting shall anchor mulching. On slopes steeper than 3:1 and in drainage ditches steeper than 3% which also have over 0.5 acre of drainage area, these areas shall be protected with mulch netting and anchored per manufacturers recommendations.

5) During winter construction all snow shall be removed prior to seeding and mulching.

MONITORING AND MAINTENANCE PROGRAM

1) DURING THE CONSTRUCTION WORK WEEK, SEDIMENTATION AND EROSION CONTROL STRUCTURES WILL BE INSPECTED DAILY BY CONTRACTOR AND ALL STRUCTURES DAMAGED BY CONSTRUCTION EQUIPMENT, VANDALS, OR THE ELEMENTS WILL BE REPAIRED IMMEDIATELY. FOLLOWING RAINSTORMS AND DURING RUNOFF EVENTS, THE SITE AND ALL STRUCTURES WILL BE REPAIRED FOR EROSION AND DAMAGE. ALL DAMAGED STRUCTURES WILL BE REPAIRED AND / OR ADDITIONAL EROSION CONTROL STRUCTURES WILL BE INSTALLED PRIOR TO CONTINUING CONSTRUCTION.

2) OUTSIDE OF THE CONSTRUCTION WORK WEEK AND AFTER CONSTRUCTION, ALL TEMPORARY EROSION CONTROL MEASURERS WILL BE INSPECTED, REPLACED AND OR REPAIRED WEEKLY AND IMMEDIATELY BEFORE AND FOLLOWING ANY SIGNIFICANT RAINFALL EVENT OF 0.5 INCH OR MORE. SEDIMENT DEPOSITS SHOULD BE REMOVED BEFORE IT REACHES ONE HALF THE BARRIER HEIGHT. THIS SEDIMENT MAY BE REGRADED ON SITE AS APPROPRIATE. EROSION CONTROL MEASURES SHALL REMAIN IN PLACE, AND BE MAINTAINED BY CONTRACTOR, UNTIL THE AREA ABOVE IS STABILIZED BY PERMANENT MEASURES.

2) FOLLOWING FINAL SEEDING, SITE WILL BE INSPECTED TO ENSURE THAT VEGETATION HAS BEEN ESTABLISHED. RESEEDING WILL BE CARRIED OUT, WITH FOLLOW-UP INSPECTION, IN EVENT OF ANY UNSATISFACTORY GROWTH.

3) AFTER CONSTRUCTION INSPECTOR HAS DETERMINED THAT PROJECT AREA HAS STABILIZED, CONTRACTOR SHALL REMOVE ALL SILTATION FENCE AND TEMPORARY SILTATION CONTROL MEASURES. SEDIMENT WILL BE DISPOSED OF PROPERLY.

SEEDING AND REVEGETATION PLAN

UPON COMPLETION OF SITE CONSTRUCTION, ALL AREAS PREVIOUSLY DISTURBED WILL BE TREATED AS STATED BELOW. THESE AREAS WILL BE CLOSELY MONITORED BY CONTRACTOR UNTIL SUCH TIME AS A SATISFACTORY GROWTH OF VEGETATION IS ESTABLISHED.

1) PERMANENT SIDE SLOPES SHALL NOT BE STEEPER THAN 2:1 UNLESS IN A LEDGE CUT. REVEGETATION MEASURES WILL BEGIN ON COMPLETION OF CONSTRUCTION IN EACH PHASE. ALL DISTURBED SOILS NOT OTHERWISE STABILIZED WILL BE GRADED SMOOTHED AND PREPARED FOR FINAL SEEDING AS FOLLOWS: FOUR INCHES OF LOAM WILL BE SPREAD OVER SUB. ALL DISTURBED AREAS WILL BE GRADED TO A MIN. UNIFORM DEPTH OF 3 INCHES.

2) SOIL SAMPLES SHALL BE TAKEN AND SENT TO USDA SOIL TESTING LAB IN ORONO MAINE PRIOR TO EARTH DISTURBANCE. FERTILIZER AND LIME APPLICATION TYPES AND RATES SHALL BE PER RECOMMENDATIONS OF USDA SOIL TEST. IF SOIL TESTING CAN NOT BE DONE BECAUSE TIMING WON'T PERMIT OR ON SMALL OR VARIABLE SITES THEN APPLY 10-20-20 FERTILIZER, OR EQUIVALENT, AT A RATE OF 18.4 LB. PER 1000 SQ. FT. APPLY LIME AT A RATE OF 3 TONS PER ACRE OR 138 LB. PER 1000 SQ. FT.. WORK LIME AND FERTILIZER INTO SOIL TO A DEPTH OF 4 INCHES.

3) SPRING SEEDING USUALLY GIVES BEST RESULTS AND IS RECOMMENDED, HOWEVER LATE SUMMER SEEDING CAN BE MADE. FINAL SEEDING SHALL BE COMPLETED I MINIMUM OF 45 DAYS PRIOR TO FIRST KILLING FROST. THE AVERAGE DATE OF THE FIRST FALL KILLING FROST = OCT. 1ST - 10TH IN SOUTHERN PARTS OF FOLLOWING MAINE COUNTIES CUMBERLAND, AND AND SAGADAHOC. IN THESE AREAS AREAS SEEDING IS REQUIRED BEFORE AUGUST 20TH.. THE FREEZE DATE OF 9/30 SHOULD BE USED IN COASTAL YORK, NORTHERN AND, KENNEBEC, KNOX,LINCOLN,WALDO AND SOUTHERN WASHINGTON COUNTY. THE AVE. FREEZE DATE OF 9/20 SHOULD BE USED IN CENTRAL YORK AND THE SOUTHERN PARTS OF THE FOLLOWING COUNTIES: OXFORD, FRANKLIN, SOMERSET AND THROUGHOUT PISCATAQUIS, PENOBSCOT AND NORTHERN WASHINGTON. IN NORTHERN PARTS OF THESE COUNTIES AND NORTHERN MAINE. IN GENERAL THE AVERAGE DATE OF THE FIRST FALL FREEZE VARIES BETWEEN 9/10 AND 8/30. SEE MAP ON PAGE N-15 IN THE MAINE BMP HANDBOOK FOR MORE DETAILED SITE INFORMATION.

4) DORMANT SEEDING: SHOULD CONDITIONS PROHIBIT SEEDING 45 DAYS PRIOR TO THE FIRST KILLING FROST THEN TEMPORARY SEED AND MULCH ALL DISTURBED SOILS IMMEDIATELY AND ATTEMPT DORMANT SEEDING 45 DAYS AFTER FIRST KILLING FROST WITH A SEED RATE DOUBLE THE NORMAL RATE.

5) ONCE SEEDBEDS HAVE BEEN PREPARED THEN THEY WILL BE SEEDED TO ONE OF THE SEED MIXTURES DESCRIBED BELOW. WATERING MAY BE REQUIRED DURING DRY PERIODS.

SEED MIXTURES FOR PERMANENT SEEDING, FROM BMP MANUAL TABLE 3.2 PAGE N-18

MIX	SEED MIXTURE FOR / SEED TYPE	LBS/ACRE	LBS/1000 SQ. FT
#1	MAINTAINED LAWNS SUNNY SITES		
	KENTUCKY BLUE GRASS	20	0.46
	CREEPING RED FESCUE	20	0.46
	PERENNIAL RYE GRASS	5	0.11
	TOTAL	45	1.03
#10	MAINTAINED LAWNS SHADY SITES		
	CREEPING RED FESCUE	50	1.15
	CANADA BLUEGRASS OR KENTUCKY BLUEGRASS	50	1.15
	TOTAL	100	2.3
#17	STEEP SLOPES NON MAINTAINED		
	DEERTONGUE	10	0.23
	BIRDSFOOT TREFOIL	15	0.34
	PERENNIAL RYE GRASS	3	0.07
	TOTALS	28	0.64
#3	GRASS LINED DITCHES		
	CREEPING RED FESCUE	20	0.46
	BIRDSFOOT TREFOIL	8	0.18
	TALL FESCUE	20	0.46
	TOTAL	48	1.10

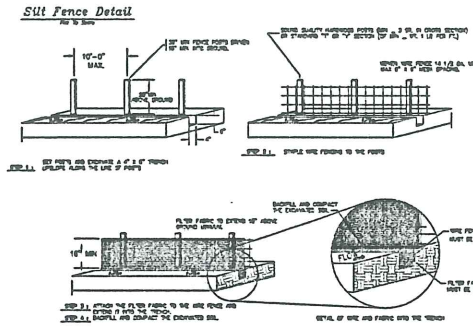
6) RAKE LIGHTLY TO INCORPORATE SEED THEN APPLY HAY MULCH AT A RATE OF 70 - 90 LB. PER 1000 SQ. FT. MULCH SHALL BE ANCHORED BY WATERING OR TRACKING BY BULLDOZER ON FLAT AREAS ANCHORING EMULSION, PEGS AND TWINE IN ONE SQ. YARD BLOCKS. OR COMBINATION OF METHODS. SHOULD WIND BLOW HAY MULCH AWAY, IMMEDIATELY REMULCH AND ANCHOR. OPTIONALLY HYDROSEED APPLICATION OF ASPHALT WOOD OR PAPER SHALL BE APPLIED FOLLOWING SEEDING.

7) WITHIN THE LOW FLOW AREA OF DRAINAGE WAYS OVER 2% MULCH SHOULD BE ANCHORED WITH EROSION CONTROL MATTING OR EQUIVALENT MATERIAL AND SECURED WITH STABLES.

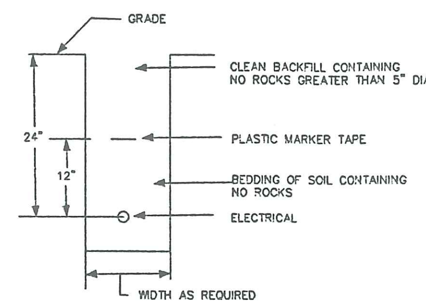
8) STONE LINED CHANNELS AND STONE CHECK DAMS SHOULD BE CHECKED PERIODICALLY TO INSURE THAT SCOUR DOES NOT OCCUR BENEATH THE STONE LAYER AND THAT STONES ARE NOT DISLODGED BY FLOW.

8) MAINTENANCE: ALL EROSION SHOULD BE REPAIRED IMMEDIATELY UPON EVIDENCE OF SCOUR. VEGETATION AND STONE LINING SHOULD BE RE-ESTABLISHED IF NECESSARY. AVOID MOWING NEWLY SEEDED AREAS UNTIL VEGETATION IS AT LEAST 4" TALL. AN ANNUAL FERTILIZER APPLICATION WILL HELP PRODUCE A LONG LASTING SOD.

Silt Fence Detail

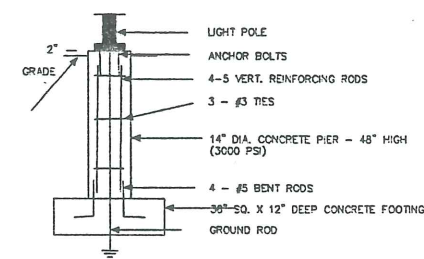


Location: Sediment barriers shall be installed as shown on plans. Sediment barriers are designed for situations in which sheet flow or overland flow is expected. It should not be used in ditches unless there is less than ½ acre of drainage area above it.
Timing: Sediment barrier to be installed prior to any soil disturbance of contributing area.
Type: Silt fence shall be of a pre manufactured type. It shall be 3-foot tall fence utilizing synthetic filter fabrics.
Installation: Silt fence Cut 4"X4" trench approximately along a contour line. Unroll pre manufactured silt fence fabric with stakes attached. Drive in 1st stake at lower edge of trench making sure stake is on downstream side of fabric. Stretch silt fence along trench driving in stakes as you proceed. Key fabric into a 4"X4" trench then back fill and compact. Hay bales shall be trenched the width of bale and 4 inches deep. Bales placed in a single row, lengthwise on contour with ends of adjacent bales tightly abutting one another. Excavated soil shall be back filled against barrier. Anchor bales with at least 2 stakes driven through each bale. First stake driven on an angle toward previous bale and deep enough into ground to secure bale.
Maintenance: Sediment barrier to be inspected immediately after each rainfall and at least twice daily during prolonged rainfall. Any required repair shall be made immediately. Sediment deposits must be removed prior to deposits reaching approximately ½ the height of barrier. Any sediment deposits remaining in place after barrier is no longer required shall be dressed to conform to existing grade prepared and seeded. Barrier will be removed once contributing area has well vegetation.



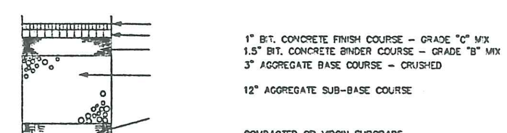
TRENCH DETAIL

NO SCALE



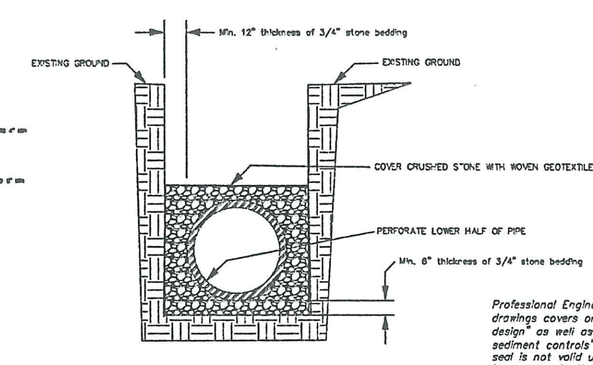
LIGHT POLE BASE DETAIL

NOT TO SCALE



BITUMINOUS PAVING DETAIL

NOT TO SCALE

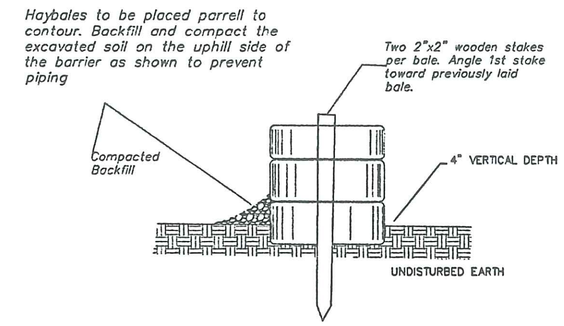


PIPE BEDDING FOR
STONE INFILTRATION TRENCH

Professional Engineer stamp on these drawings covers only "Storm water design" as well as "erosion & sediment controls". The copy of this seal is not valid unless accompanied by a separate that is embossed signed and dated.

STATE OF MAINE
ALTON H. BENSON III
NO. 5014
PROFESSIONAL ENGINEER

FILE NAME: E&S1of3.DWG
SHEET 8 OF 10



CONSTRUCTION NOTES :

1. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL WITH A MINIMUM OF 4"
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR RE-BARS DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD THE PREVIOUSLY LAID TO FORCE THE BALES TOGETHER.
4. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDED DRAINAGE.

Hay Bale Barrier Detail

Not To Scale

Erosion control details SHEET#1 of 3

STROUDWATER CHRISTIAN CHURCH

1520 WESTBROOK STREET - PORTLAND, ME

PREPARED BY

AHB Engineering
Civil Engineering
#2 Bensons Way
Gorham, Maine 04038-2082

June, 2002
DATE

Alton H. Benson III, PE # 5014

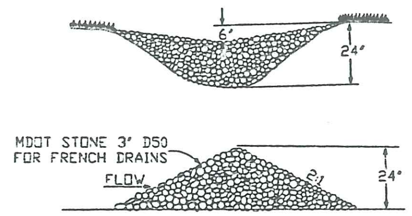
	Erosion & Sediment Control Details Stroudwater Christian Church
	1520 Westbrook Street Portland, Maine

AHB ENGINEERING #2 BENSONS WAY GORHAM, MAINE 04038-2082 PHONE (207) 839-4780	SIZE "D"	FSCM NO. By: AHB	DWG NO. e&s1of3.dwg	REV
	SCALE 1"=40'	June, 2002	SHEET 8 of 10	

8 | 7 | 6 | 5 | 4 | 3 | 2 | 1

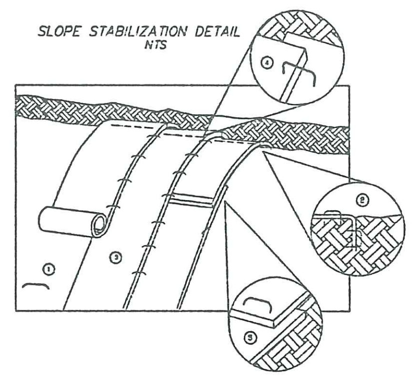
14e

ZONE	REV	DESCRIPTION	DATE	APPROVED
REVISIONS				



STONE CHECK DAM
BMP FIGURE 15.2

SLOPE STABILIZATION DETAIL
NTS



1. Prepare soil before installing blankets, including lime, fertilizer and seed.

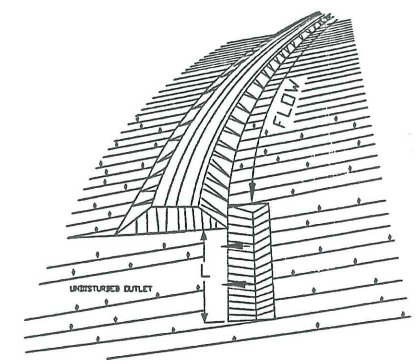
2. Begin at top of slope by anchoring blanket in 6"x6" trench. Backfill and compact trench after stapling.

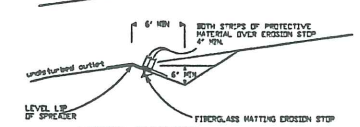
3. Roll blankets down or horizontally across slope.

4. Edges of parallel blankets must be stapled with min. 2 " overlap.

5. When blankets must be spliced down the slope place blankets end over end (shingle style) with min. 4" overlap. Staple through overlap area approx 12" apart.

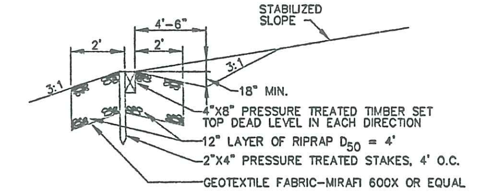
LEVEL SPREADER





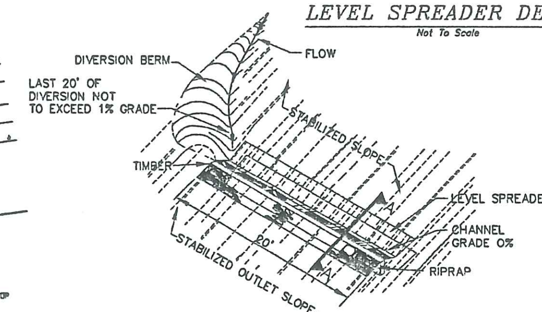
CROSS-SECTION

1. LEVEL SPREADER SHALL BE INSTALLED UNDER THE DIRECT SUPERVISION OF THE ENGINEER.
2. CONSTRUCT LEVEL LIP ON ZERO GRADE TO INSURE UNIFORM SPREADING OF RUNOFF.
3. LEVEL SPREADER SHALL BE CONSTRUCTED ON UNDISTURBED SOIL (NOT ON FILL).
4. A FIBERGLASS MATTING EROSION STOP SHALL BE PLACED VERTICALLY AND AT LEAST 6 INCHES DEEP IN A SLIT TRENCH ONE FOOT BACK OF THE LEVEL LIP AND PARALLEL WITH THE LIP. THIS EROSION STOP SHALL EXTEND THE ENTIRE LENGTH OF THE LEVEL LIP AND SHALL BE TRIMMED AFTER BACKFILLING WITH TAMPED SOIL SO THAT THE UPPER EDGE IS FLUSH WITH THE SOIL SURFACE.
5. THE ENTIRE LEVEL LIP AREA SHALL BE PROTECTED BY PLACING TWO STRIPS OF JUTE OR EXCELSIOR PROTECTIVE MATERIAL AS SHOWN ABOVE.
6. THE ENTRANCE CHANNEL SHALL NOT EXCEED A 1% GRADE FOR AT LEAST 20' BEFORE ENTERING SPREADER
7. STORMWATER RUNOFF CONVERTED TO SHEET FLOW SHALL OUTLET ONTO STABILIZED AREAS. WATER SHALL NOT BE RECONCENTRATED IMMEADIATELY AFTER THE POINT OF DISCHARGE.
8. PERIODIC INSPECTION AND REQUIRED MAINTENANCE SHALL BE PROVIDED.



SECTION A–A

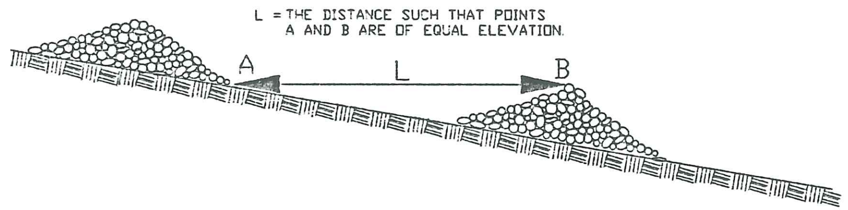
LEVEL SPREADER DETAIL
Not To Scale



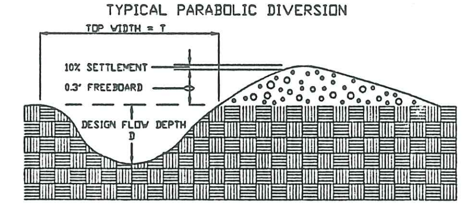
Receiving area below level spreader shall be protected from harm during construction. Minor areas disturbed shall be stabilized by sodding and or netting in combination with vegetative measure BMP requirements. The area shall not be allowed to be used by the level spreader until stabilization has been accomplished. A temporary diversion may be nessary in this case.
Level spreaders shall blend smoothly into downstream receiving areas to avoid channelization.
Final seeding of of receiving areas should be accomplished by September 1st.
MAINTENANCE:
After construction level spreader need to be carefully inspected for any signs of channelization and immediately repaired. The structure will fail if water exits from it in channelized flow.

SLOPE (ft / ft.)	LENGTH (ft.)
0.020	100
0.03	66
0.04	50
0.05	40
0.08	25
0.10	20
0.12	17
0.15	13

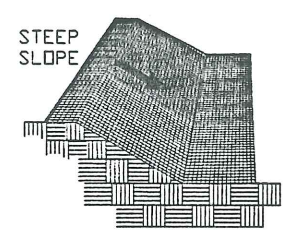
L = THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION.



TYPICAL PARABOLIC DIVERSION

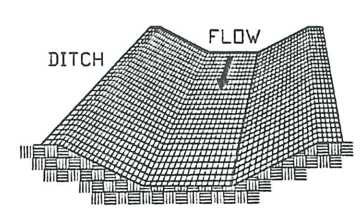


Erosion & sediment control details SHEET #2 of 3
STROUDWATER CHRISTIAN CHURCH
1520 WESTBROOK STREET– PORTLAND, ME



ON STEEP SLOPES, APPLY STRIPS OF NETTING PARALLEL TO DIRECTION OF FLOW AND ANCHOR SECURLEY.

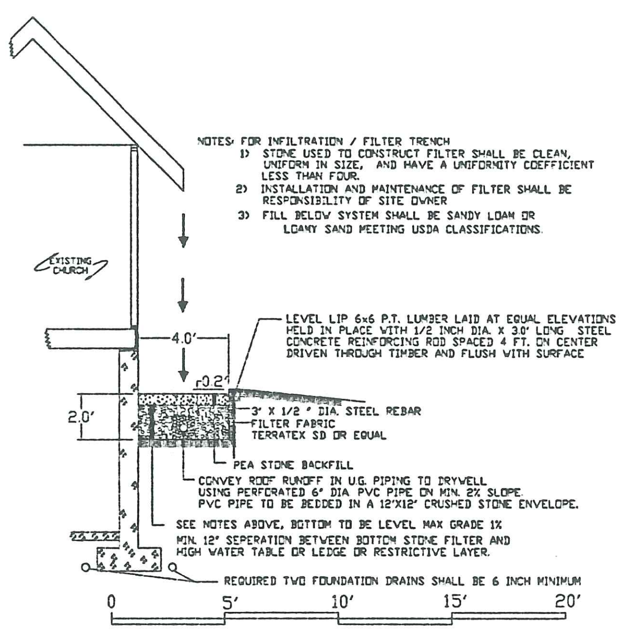
ANCHOR / STAPLE ALL NETTING PER MANUFACTURERS RECOMMENDATIONS.



IN DITCHES, APPLY NETTING PARALLEL TO DIRECTION OF FLOW. USE CHECK SLOTS EVERY 15 FEET. DO NOT JOIN STRIPS IN CENTER OF DITCH SEE BMP #1 PG. N-5 BMPs FOR CONSTRUCTION MARCH 91

PREPARED BY
AHB ENGINEERING
CIVIL ENGINEERING
#2 BENSONS WAY
GORHAM, ME 04038–2082

FILE NAME: E&S2of3.DWG



DRIP EDGE COLLECTION / INFILTRATION SYSTEM

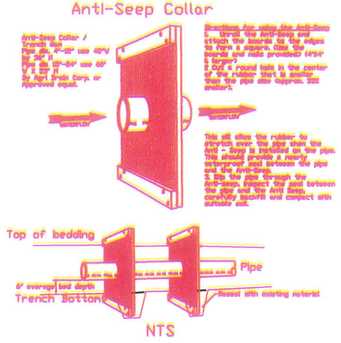
Professional Engineer stamp on these drawings covers only "stormwater design" as well as "erosion & sediment controls". The copy of this seal is not valid unless accompanied by seperate stamp that is embosed signed and dated.

STATE OF MAINE
ALTON H. BENSON III
NO. 5014
PROFESSIONAL
PROFESSIONAL ENGINEER

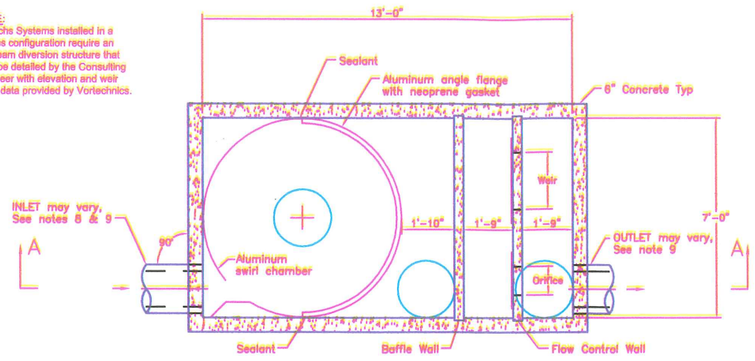
	Erosion & Sediment Control details
	Stroudwater Christian Church 1520 Westbrook Street Portland, Maine
AHB ENGINEERING #2 BENSONS WAY GORHAM, MAINE 04038-2082 Ph: (207) 839-4780	SIZE "D" · FSCM NO. By: AHB · DWG NO. e&s2of3.dwg · REV SCALE NTS · June, 2002 · SHEET 9 of 10

14f

Anti-Seep Collar

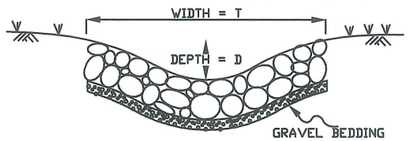


NOTE:
Vortechs Systems installed in a bypass configuration require an upstream diversion structure that shall be detailed by the Consulting Engineer with elevation and weir width data provided by Vortechnics.



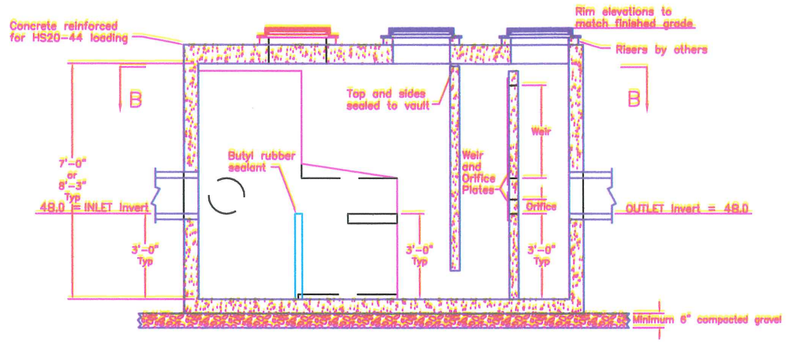
PLAN VIEW B – B

REPAIR TO AREA BELOW MDOT EASEMENT
PARABOLIC STONE LINED WATERWAY



FOR CONSTRUCTION SPECIFICATIONS
SEE PAGE S-47 BMP MANUAL

USE:
WIDTH = T = FT.
DEPTH = D = 1.8 FT.
AVE. STONE = D50 = 9"
THICKNESS OF STONE ARMOR = 24"



SECTION A – A

NOTES:
1. Stormwater Treatment System (SWTS) shall have:
   Peak treatment capacity: 8.5 cfs
   Sediment storage: 3.25 cu yd
   Sediment chamber dia: 7' min
2. SWTS shall be contained in one rectangular structure
3. SWTS removal efficiency shall be based on a 50 micron particle
4. SWTS shall retain floatables and trapped sediment up to and including peak treatment capacity
5. SWTS inverts in and out shall be at the same elevation
6. SWTS shall not be compromised by effects of downstream tailwater
7. SWTS shall have no internal components that obstruct maintenance access
8. Inlet pipe must be perpendicular to the structure
9. Pipe orientation may vary; see site plan for size and location
10. Purchaser shall not be responsible for assembly of unit
11. Manhole frames and perforated covers supplied with system, not installed
12. Purchaser to prepare excavation and provide lifting equipment
13. Contact Vortechnics @ (207) 878-3662 for ordering information

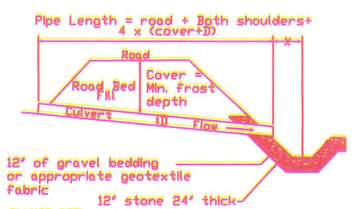
STANDARD DETAIL
STORMWATER TREATMENT SYSTEM
VORTECHS™ MODEL 5000

U.S. PATENT No. 5,759,415

PROPRIETARY INFORMATION – NOT TO BE USED FOR CONSTRUCTION PURPOSES

01/17/02 | 1/4" = 1'-0" | STDSK | DMF

DETAIL OF CULVERT OUTLET PROTECTION



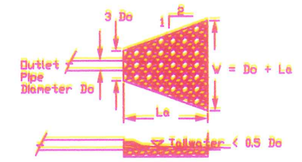
PLUNGE POOL
1 D deep
2 D side
4 D long

PIPE SIZE (inches)	X (feet)
12"	2 ft
15"	2.5 ft
18"	3 ft
24"	5 ft
36"	7 ft

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	–	Submission to City of Portland	6/17/02	
	A	Resubmission per comments	9/18/02	

OUTLET PROTECTION ROCK APRON

STROUDWATER CHRISTIAN CHURCH	D=Do	La	Vs	TBA	Z
18" CMP UNDER SIDEWALK OUTLET	1.5 INCH	3 FT.	2 FT.	8 - INCHES	0.63
18" PVC VORTECHNICS SYSTEM OUTLET	6 INCH	9 FT.	5 FT.	-13 - INCHES	1.96



Vortechnics sizing calculations
Q1 year storm = 3.09 cfs
Vortechs model 5000 treatment capacity = 8.5 cfs
Grit chamber diameter = 7 ft.
Vortechs system swirl chamber surface area calculations
Surface area = (pi) r squared = (3.14) (7'x7') = 38 sq ft.
Q 1 yr operating rate = Q 1 yr / grit chamber surface area
= (3.09 cfs * 448.8 gpm / cfs) 38 sq ft
= 36.5 gpm/ sq ft
50% ME DEP Total Suspended Solids Removal Rating Verified
Per May 24th 2001 letter from MDEP letter 50% removal rating will apply as Vortechs System, provided that peak flow doesn't exceed a water loading rate of 42 gpm/sq ft within the system. 36.5 gpm/sq ft is less than 42 OK.

Erosion & Sediment control details SHEET #3 of 3

STROUDWATER CHRISTIAN CHURCH

1520 WESTBROOK STREET– PORTLAND, ME

June, 2002

PREPARED BY

AHB ENGINEERING
CIVIL ENGINEERING
#2 BENSONS WAY
GORHAM, ME 04038–2082

Professional Engineer stamp on these drawings covers only "stormwater control design" as well as "erosion & sediment controls". The copy of this seal is not valid unless accompanied by a separate stamp that is embossed, signed and dated.

STATE OF MAINE
ALTON H. BENSON III
NO. 5014
REGISTERED PROFESSIONAL ENGINEER

FILE N
NDG

Erosion and Sediment Control Details

Stroudwater Christian Church
1520 Westbrook Street
Portland Maine

SIZE	FSCM NO.	DWG NO.	RE
"B"	BY: AHB	E&SDF.dwg	"A
SCALE NTS	September, 2002	SHEET 10 of 10	