

1. PROP 1" TYPE "K" COPPER WAT CONN
2. PROP 6" SDR 35 PVC SITS @ 1/4" MIN TO DISCHARGE TO DAYLIGHT (DOWN SPOUTS & FOOTER DRAINS)

SOIL TESTING WAS PERFORMED BY FLOYD E. MCCLARY & RAY BURNS ON DECEMBER 6, 2013. CERTIFICATION # ARCPACS-18357, AOP-1009

B-# = SOIL TEST BORING HOLE #1

THE CONTRACTOR MUST CHECK THE BENCHMARK WITH THE EDGE OF PAVEMENT PRIOR TO DIGGING THE FOUNDATION.

BENCHMARK
TOP STEM OF HYDRANT
ELEV = 838.13

STATEMENT ON SELF-REPORTING:

CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION, MAINTENANCE AND SUBSEQUENT REMOVAL OF SEDIMENTATION AND EROSION CONTROL MEASURES AS SHOWN ON THE PLAN.

ALL EROSION CONTROL MEASURES SHOWN ON THE SWP3 PLAN ARE TO BE INSTALLED PRIOR TO THE BEGINNING OF ANY EARTH MOVING ACTIVITY.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING INSPECTIONS OF ALL EROSION CONTROL PRACTICES ON A WEEKLY BASIS AFTER ALL STORMS THAT PRODUCE MORE THAN 1/4" INCH OF RAIN. ANY NEEDED REPAIR SHALL BE DONE IMMEDIATELY. CONTRACTOR SHALL DOCUMENT INSPECTIONS AND ANY REPAIRS. COPIES OF EROSION CONTROL INSPECTION REPORTS SHALL BE SUBMITTED TO THE CITY ENGINEER.

SEPTIC CHART

1. CONTROL PANEL
2. 2000 GALLON SEPTIC TANK
3. 2"-4" PVC
4. 2000 GALLON DRAINING TANK
5. HYDRAULIC UNIT
6. 1.5" SUPPLY LINE

ALL IRON PINS SET ARE 5/8" X 30" REBAR CAPED "AZTECH #6249"

CURVE TABLE					
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING
G1	19.86'	100.00'	9.86'	19.83'	N12°32'23"W
G2	58.40'	60.00'	31.25'	56.12'	N34°54'32"W

GRAPHIC SCALE



(IN FEET)
inch = 30 ft

- LEGEND**
- IRON PIN SET
 - MONUMENT BOX
 - STORM MANHOLE
 - CABLE PEDESTAL
 - TELEPHONE PEDESTAL
 - TRANSFORMER
 - WATER VALVE
 - CURB INLET
 - FIRE HYDRANT
 - OFFSET HUB
 - POWER POLE
 - FLOW DIRECTION
 - SWALE
 - EXISTING GRADE
 - PROPOSED GRADE
 - SILT FENCE

- NOTES:**
- INSTALLER TO CONTACT DESIGN ENGINEER & L.C.H.D. IF THERE ARE ANY CHANGES TO THE SEPTIC SYSTEM.
 - SEPTIC SYSTEM TO BE INSTALLED WHEN THE SOIL IS MOST DRY & THE LEAST AMOUNT OF SOIL DISTURBANCE WILL BE USED.
 - SEPTIC INSTALLER TO PROVIDE ASBUILTS TO L.C.H.D.
 - ALL ELECTRICAL COMPONENTS MUST BE N.E.C. COMPLIANT.
 - ELECTRICAL INSPECTION TO BE CONDUCTED BY LAKE COUNTY BUILDING DEPARTMENT

EXISTING UNDERGROUND UTILITIES NOTE:
THE SIZE AND LOCATION, BOTH HORIZONTAL AND VERTICAL, OF THE UNDERGROUND UTILITIES SHOWN HEREON HAVE BEEN OBTAINED BY A SEARCH OF AVAILABLE RECORDS. IDENTIFICATION BY FIELD OBSERVATION HAS BEEN CONDUCTED WHERE PRACTICAL. HOWEVER, AZTECH ENGINEERING AND SURVEYING CO., INC. DOES NOT GUARANTEE THE COMPLETENESS NOR ACCURACY THEREOF.

- NOTES:**
- STREETS ADJACENT TO CONSTRUCTION ENTRANCE SHALL BE CLEANED DAILY.
 - NO FUELING ALLOWED ON SITE
 - ALL CONCRETE TO BE A MINIMUM 3,000 PSI/28 DAYS. DRIVEWAYS MUST BE 4" THICK SACK MIX CONCRETE WITH 1/2" AIR ENTRAINMENT, AND BE REINFORCED WITH 6"x6" #10 WELDED WIRE MESH INSTALLED APPROXIMATELY 1" TO 2" FROM BOTTOM OF SLAB.
 - DRIP SYSTEM INSTALLER TO PROVIDE A GRAVITY DRAIN OUT OF THE HYDRAULIC UNIT, DRAIN TO CONNECT TO HOUSE FOOTER TILE OR DRAIN TO DAYLIGHT.

REFERENCES:
LAZIO'S RIDGE SUBDIVISION PHASE 1 PLAT VOLUME 44, PAGE 31
LAZIO'S RIDGE SUBDIVISION PHASE 1 IMPROVEMENT PLANS BY LESSMAN, BENDER & ASSOCIATES DATED: JANUARY, 2002

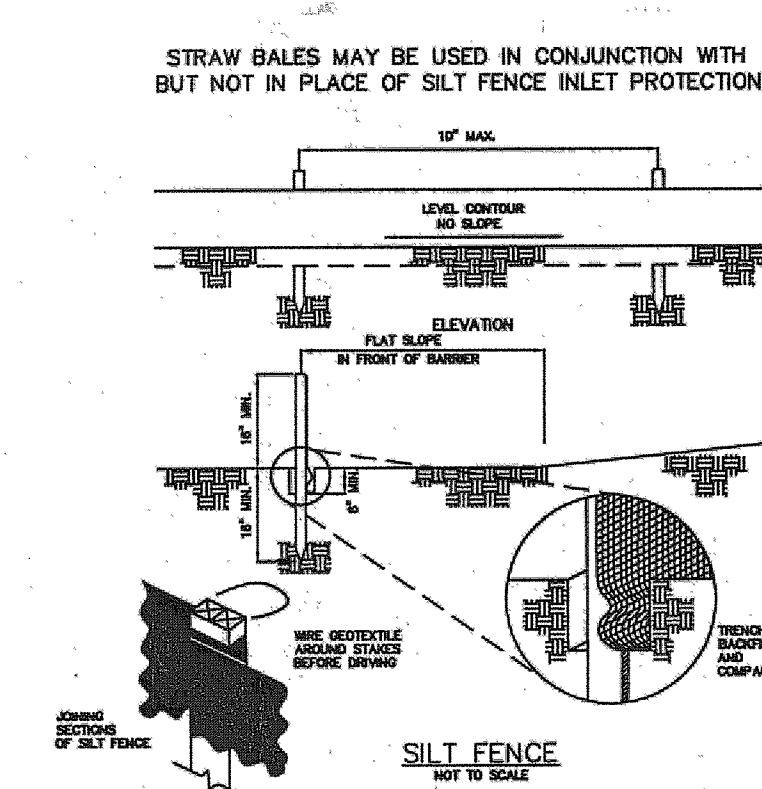


Table 1: Permanent Stabilization

Any area that will lie dormant for one year or more.	Within 7 days of the most recent disturbance.
Any area within 50 feet of a stream and at final grade.	Within 2 days of reaching final grade.
Any area at final grade.	Within 7 days of reaching final grade within that area.

Table 2: Temporary Stabilization

Any disturbed area within 50 feet of a stream and not at final grade.	Within 2 days of the most recent disturbance if that area will remain idle for more than 21 days.
For all construction activities, any disturbed area, including soil stockpiles that will be dormant for more than 21 days but less than one year.	Within 7 days of the most recent disturbance within the area.
Disturbed areas that will be idle over winter.	Prior to November 1.

Note: Where vegetative stabilization techniques may cause structural instability or are otherwise unobtainable, alternative stabilization techniques must be employed. These techniques may include mulching or erosion matting.

Disturbed areas of the site that are to remain idle for more than twentyone (21) days shall be seeded and straw mulched (or similar) within seven (7) days of completion of initial grading; this includes soil stockpiles. Temporary seeding and mulching of a thirty (30) foot strip of the entire front side and any other down-gradient side of the lot shall be maintained on the site once initial grading is complete. Substitution of critical areas within fifty (50) feet of any stream or wetland shall be complete within two (2) days of the disturbance if the site is to remain inactive for longer than fourteen (14) days. Following completion of the construction activities, and the contractor leaving the site, the site soils must be fully stabilized by temporary seeding and/or mulching (or other acceptable process).

- SEQUENCE OF EROSION AND SEDIMENT CONTROL IMPLEMENTATION AND MAJOR SITE CONSTRUCTION OPERATIONS:**
- 1.0 INSTALL CONSTRUCTION DRIVE ENTRANCE
 - 1.1 VERIFY THAT ALL PERIMETER CONTROLS ARE IN PLACE.
 - 1.2 PERFORM CLEARING AND GRUBBING WITHIN CLEARING AREA.
 - 1.3 PERFORM SCALPING AND STRIPPING OF ALL TOPSOIL WITHIN CLEARING LIMITS
 - 1.4 PERFORM EARTHWORK OPERATIONS NECESSARY TO OBTAIN REQUIRED SUBGRADE ELEVATIONS.
 - 1.5 INSTALL ALL UNDERGROUND UTILITIES.
 - 1.6 INSTALL INLET PROTECTION AROUND ALL INLET BASINS AND YARD DRAINS AS TO BE CONSTRUCTED.
 - 1.7 PERFORM TEMPORARY SEEDING OF ALL AREAS OUTSIDE OF PROPOSED PAVEMENT IF CONSTRUCTION ACTIVITY WILL CEASE FOR 21 DAYS.
 - 1.8 PERFORM FINISHED GRADING
 - 1.9 REMOVE INLET PROTECTION
 - 1.10 INSTALL PAVEMENT AND PERMANENT SEEDING. PERMANENT SEEDING SHALL OCCUR WITHIN 7 DAYS OF LAST ACTIVITY.
 - 1.11 REMOVE ALL TEMPORARY SEDIMENT AND EROSION CONTROLS AFTER THE ENTIRE SITE IS STABILIZED

TEMPORARY SEEDING

SEEDING DATES	SPECIES	LB./1,000 S.F.	LB/PER ACRE
MARCH 1 - AUGUST 15	DAYS	3	128 (4 BUSHES)
	ANNUAL RYEGRASS	1	40
	PERENNIAL RYEGRASS	1	40
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1.25	50
	PERENNIAL RYEGRASS	3.25	140
	CRACKDOCK RED FESCUE	0.4	17
	KENTUCKY BLUEGRASS	0.4	17
	DAYS	3	128 (4 BUSHES)
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
AUGUST 16 - NOVEMBER	RYE	3	112 (4 BUSHES)
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1.25	50
	PERENNIAL RYEGRASS	3.25	140
	CRACKDOCK RED FESCUE	0.4	17
	KENTUCKY BLUEGRASS	0.4	17
NOVEMBER 1 - FEB. 29	USE MULCH ONLY OR DORMANT SEEDING		

CURRENT SOILS:
Ud - UDORTHENTS, MODERATELY STEEP (TYPE C/D)

1. SILT FENCE SHALL BE CONSTRUCTED BEFORE UPSLOPE LAND DISTURBANCE BEGINS.
2. ALL SILT FENCE SHALL BE PLACED AS CLOSE TO THE CONTOUR AS POSSIBLE SO THAT WATER WILL NOT CONCENTRATE AT LOW POINTS. THE FENCE AND SET BACK SHALL BE SLOPED OR DEPRESSURES THAT MAY CARRY SMALL CONCENTRATED FLOWS TO THE SILT FENCE ARE DISPERSED ALONG ITS LENGTH.
3. ENDS OF THE SILT FENCE SHALL BE BUILT UP TO PREVENT FLOODING AROUND THE ENDS.
4. SILT FENCE SHALL BE PLACED ON THE FLATTEST AREA AVAILABLE.
5. WHERE POSSIBLE, VEGETATION SHALL BE PRESERVED FOR 5 FEET (OR AS MUCH AS POSSIBLE) UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE REESTABLISHED WITHIN 7 DAYS FROM THE INSTALLATION OF THE SILT FENCE.
6. THE HEIGHT OF THE SILT FENCE SHALL BE A MINIMUM OF 18 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
7. THE SILT FENCE SHALL BE PLACED IN AN EXCAVATED OR SLOPED TRENCH CUT A MINIMUM OF 6 INCHES DEEP. THE TRENCH SHALL BE MADE WITH A TRENCHER, CABLE LIVING MACHINE, SLICING MACHINE, OR OTHER EQUIPMENT THAT WILL ENSURE AN ADEQUATELY UNIFORM TRENCH. THE TRENCH SHALL BE BACKFILLED AND COMPACTED ON THE BOTTOM OF THE 6-INCH DEEP TRENCH. THE TRENCH SHALL BE BACKFILLED AND COMPACTED ON BOTH SIDES OF THE TRENCH.
8. THE SILT FENCE SHALL BE PLACED WITH THE STAKES ON THE DOWN-SLOPE SIDE OF THE SEDIMENTATION BASIN. THE SILT FENCE SHALL BE PLACED WITH THE STAKES ON THE DOWN-SLOPE SIDE OF THE SEDIMENTATION BASIN. THE SILT FENCE SHALL BE PLACED WITH THE STAKES ON THE DOWN-SLOPE SIDE OF THE SEDIMENTATION BASIN.
9. SEAMS BETWEEN SECTIONS OF SILT FENCE SHALL BE SPUN TOGETHER ONLY AT A SUPPORT POST WITH A MINIMUM 6-INCH OVERLAP PRIOR TO DRIVING INTO THE GROUND.
10. MAINTENANCE—SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE SEDIMENTATION BASIN. SILT FENCE SHALL NOT BE USED TO DIVERT FLOW FROM THE FENCE. SILT FENCE SHALL NOT BE USED TO DIVERT FLOW FROM THE FENCE. SILT FENCE SHALL NOT BE USED TO DIVERT FLOW FROM THE FENCE.
11. ENDS, OR IN ANY OTHER WAY, ALLOW A CONCENTRATED FLOW DISCHARGE. ONE OF THE FOLLOWING SHALL BE PROVIDED: 1) THE LAYOUT OF THE SILT FENCE SHALL BE CHANGED. 2) ACCUMULATED SEDIMENT SHALL BE REMOVED, OR 3) OTHER PRACTICES SHALL BE INSTALLED.
12. SEDIMENT DEPOSITS SHALL BE ROUTINELY REMOVED WHEN THE DEPOSIT REACHES APPROXIMATELY ONE-HALF OF THE HEIGHT OF THE SILT FENCE.
13. SILT FENCES SHALL BE INSPECTED AFTER EACH RAINFALL AND AT LEAST DAILY DURING A PROLONGED RAINFALL. THE LOCATION OF EXISTING SILT FENCE SHALL BE REVEALED DAILY TO ENSURE ITS PROPER LOCATION AND EFFECTIVENESS. IF DAMAGED, THE SILT FENCE SHALL BE REPAIRED IMMEDIATELY.
14. CRITERIA FOR SILT FENCE MATERIALS: FENCE POSTS—THE LENGTH SHALL BE A MINIMUM OF 32 INCHES. WOOD POSTS WILL BE 2"-BY-4"-IN. NOMINAL DIMENSIONS HARDWOOD OF SOUND QUALITY. THEY SHALL BE FREE OF KNOTS, SPLITS AND OTHER DEFECTS. METAL POSTS SHALL BE 1/2" DIA. GALV. STEEL. THE MAXIMUM ALLOWED WEIGHT SHALL BE 10 FEET. POSTS SHALL BE DRIVEN A MINIMUM 18 INCHES INTO THE GROUND, WHEN POSSIBLE. IF NOT POSSIBLE, THE POSTS SHALL BE ANCHORED TO PREVENT OVERTURNING OF THE FENCE DUE TO SEDIMENT/WATER LOADING.
15. SILT FENCE FABRIC—SEE CHART

FABRIC PROPERTIES	VALUES	TEST METHOD
MINIMUM TENSILE STRENGTH	200 LBS.	ASTM D 1683
MINIMUM PUNCTURE STRENGTH	80 PSI	ASTM D 1683
MINIMUM TEAR STRENGTH	20 LBS. (200 N)	ASTM D 1683
MINIMUM BURST STRENGTH	300 PSI	ASTM D 1683
MINIMUM ELONGATION	20%	ASTM D 1683
MINIMUM PERMEABILITY	100-2 SEC.-1	ASTM D 1683
UV EXPOSURE STRENGTH RETENTION	70%	ASTM D 1683

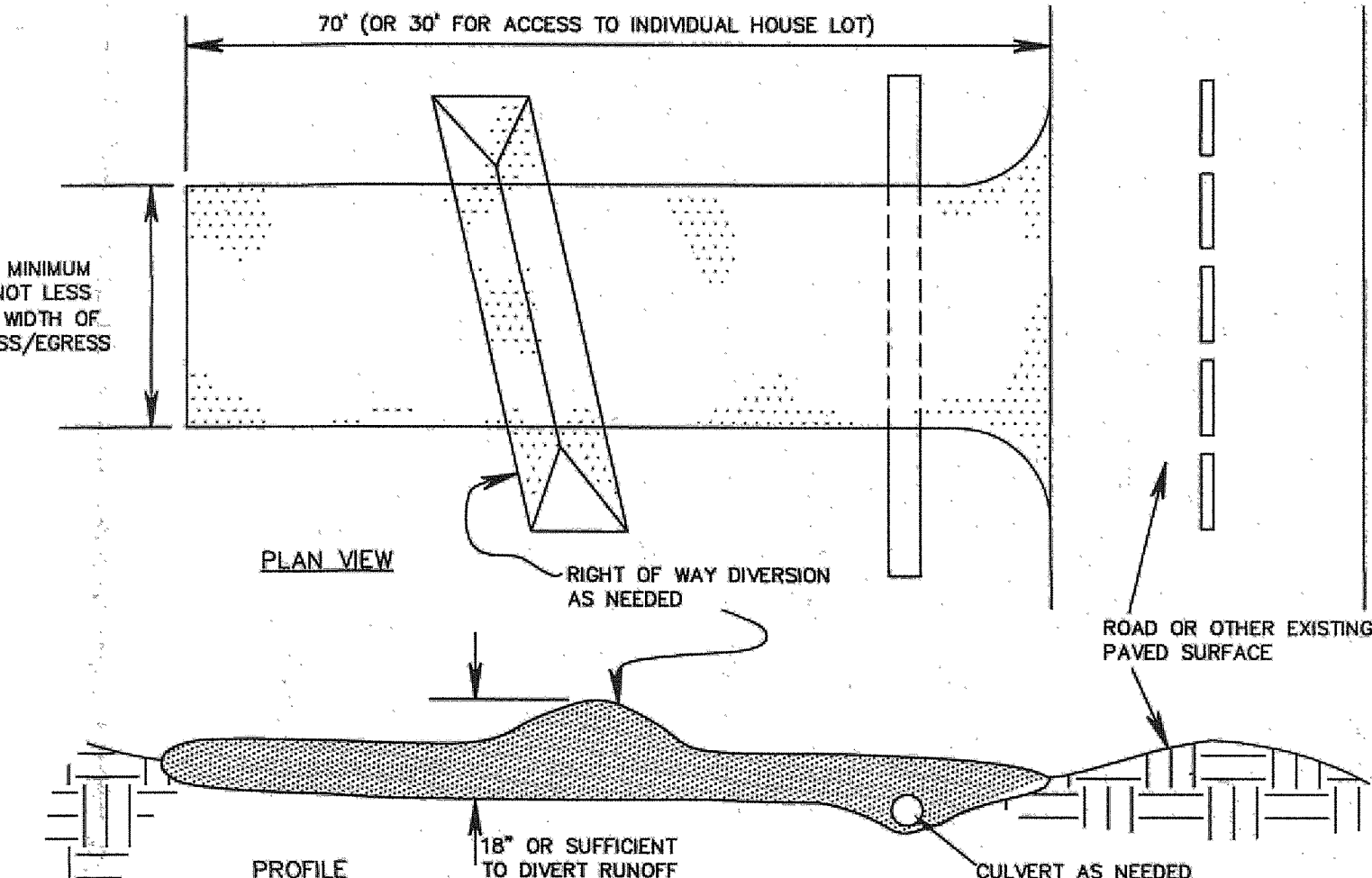
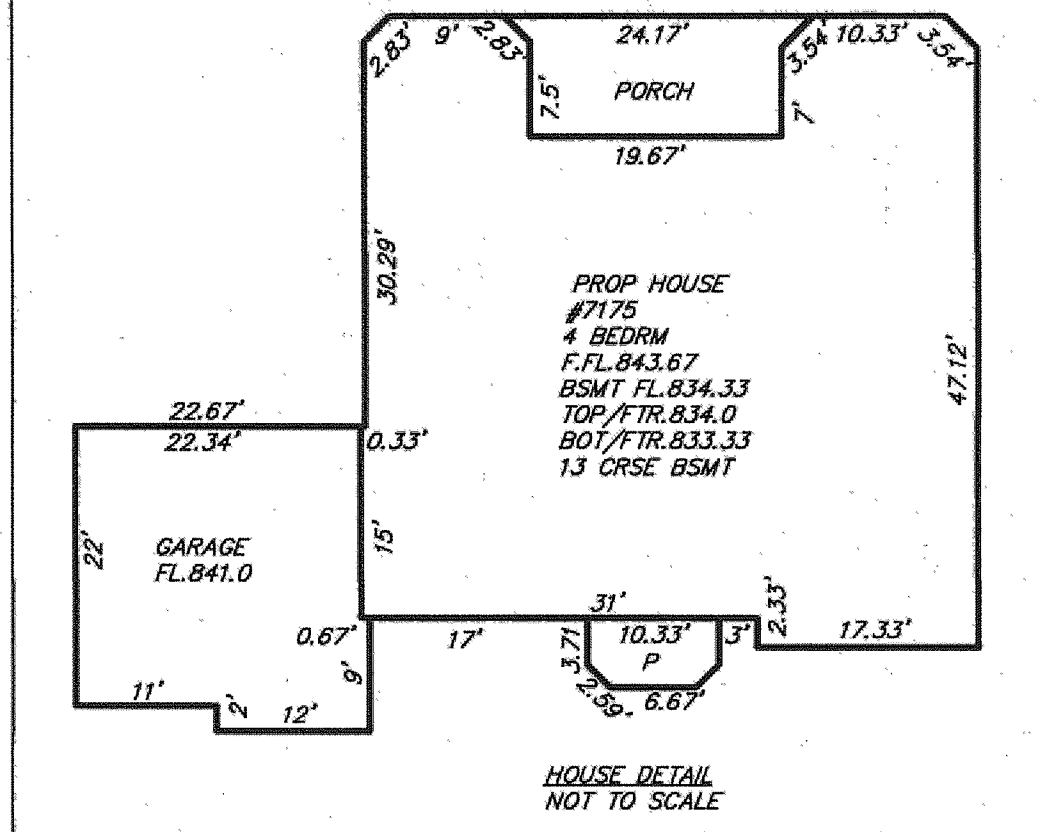
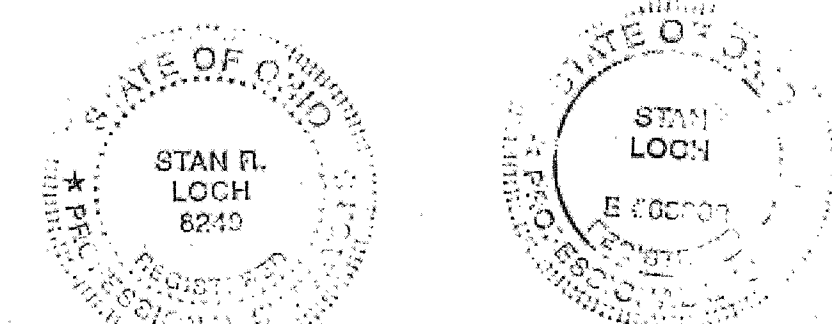
- PROJECT DATA**
1. PROJECT DESCRIPTION: THIS PROJECT WILL CONSIST OF SITE CLEARING, GRUBBING, EARTHWORK, UTILITIES AND RESIDENTIAL HOUSE CONSTRUCTION.
 2. DISTURBED AREA: 0.44 ACRES
 3. PRIOR LAND USE: WOODED LOT
 4. SITE LOCATION: IN KIRTLAND, OHIO
 5. LATITUDE: N 41°34'33"
 6. LONGITUDE: W -81°21'27"
 7. IMMEDIATE RECEIVING WATERS: CHAGRIN RIVER
 8. SUBSEQUENT RECEIVING WATERS: LAKE ERIE
 9. CURRENT SOILS: UdD
 10. PROPOSED IMPERVIOUS AREA: 0.10 ACRES
 11. SITE IMPERVIOUS PERCENTAGE: 6%
 12. RUNOFF CURVE NUMBERS (CN) 11-55
 13. PRE-DEVELOPED = 77
 14. POST-DEVELOPED = 78.4

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS TOPOGRAPHY, INDICATED BY CONTOURS AND ELEVATIONS SHOWN HEREON, REPRESENTS AN ACTUAL FIELD SURVEY MADE BY ME ON NOVEMBER 28TH, 2013, AND THAT THE ELEVATIONS WERE TAKEN AT APPROPRIATE INTERVALS AND THAT, AS OF THAT DATE, THEY EXISTED AS INDICATED HEREON.

I FURTHER CERTIFY THAT THIS PLAN WAS PREPARED BY ME FROM AN ACTUAL BOUNDARY SURVEY AND IRON PINS WERE FOUND OR SET AT THE PROPERTY CORNERS AND ALL OF WHICH IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

I FURTHER CERTIFY THAT THIS SEWAGE SYSTEM DESIGN MEETS THE MINIMUM REQUIREMENTS ESTABLISHED BY THE LCOHD IN THE HSTS GUIDANCE MANUAL, AND THE REQUIREMENTS AND RECOMMENDATIONS OF THE SYSTEM MANUFACTURER.

STAN R. LOCH P.S. #6249
DATE 1-24-14



CONSTRUCTION ENTRANCE

SPECIFICATIONS FOR CONSTRUCTION ENTRANCE:

1. STONE SIZE—ODOT (#2 (1.5-2.5 INCH) STONE SHALL BE USED, OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH—THE CONSTRUCTION ENTRANCE SHALL BE AS LONG AS REQUIRED TO STABILIZE HIGH TRAFFIC AREAS BUT NOT LESS THAN 70 FT. (EXCEPT ON SINGLE RESIDENCE LOT WHERE A 30-FT. MINIMUM LENGTH APPLIES).
3. THICKNESS—THE STONE LAYER SHALL BE AT LEAST 6 IN. THICK FOR LIGHT DUTY ENTRANCES OR AT LEAST 18 IN. THICK FOR HEAVY DUTY ENTRANCES.
4. WIDTH—THE ENTRANCE SHALL BE AT LEAST 14 FT. WIDE BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS AND EGRESS OCCURS.
5. GEOTEXTILE—A GEOTEXTILE SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE. IT SHALL BE COMPOSED OF STRONG ROT-PROOF POLYMERIC FIBER AND MEET THE FOLLOWING SPECS:

GEOTEXTILE SPECIFICATION FOR CONSTRUCTION ENTRANCE	VALUES
MINIMUM TENSILE STRENGTH	200 LBS.
MINIMUM PUNCTURE STRENGTH	80 PSI
MINIMUM TEAR STRENGTH	20 LBS. (200 N)
MINIMUM BURST STRENGTH	300 PSI
MINIMUM ELONGATION	20%
MINIMUM PERMEABILITY	100-2 SEC.-1
UV EXPOSURE STRENGTH RETENTION	70%

6. TRUCK—THE CONSTRUCTION ENTRANCE SHALL BE INSTALLED AS SOON AS IS PRACTICABLE BEFORE MAJOR GRADING ACTIVITIES.
7. CULVERT—A PIPE OR CULVERT SHALL BE CONSTRUCTED UNDER THE ENTRANCE IF NEEDED TO PREVENT SURFACE WATER FLOWING ACROSS THE ENTRANCE FROM BEING DIRECTED OUT ONTO PAVED SURFACES.
8. MAINTENANCE—TOP DRESSING OF ADDITIONAL STONE SHALL BE APPLIED AS CONDITIONS DEMAND. MULCH, SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADS, OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS, SHALL BE REMOVED IMMEDIATELY. REMOVAL SHALL BE ACCOMPLISHED BY SCRAPING OR SHEEPING.
9. CONSTRUCTION ENTRANCES SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES AND PREVENT OFF-SITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE CONSTRUCTION-SITE SHALL BE RESTRICTED FROM MUDDY AREAS.
10. REMOVAL—THE ENTRANCE SHALL REMAIN IN PLACE UNTIL THE DISTURBED AREA IS STABILIZED OR REPLACED.

DESCRIPTION:
A CONSTRUCTION ENTRANCE IS A STABILIZED PAD OF AGGREGATE OVER A GEOTEXTILE BASE AND IS USED TO REDUCE THE AMOUNT OF MUD TRACKED OFF-SITE WITH CONSTRUCTION TRAFFIC.

CONDITIONS WHERE PRACTICE APPLIES:

- A CONSTRUCTION ENTRANCE SHOULD BE USED:
 - WHERE CONSTRUCTION VEHICLES LEAVE ACTIVE CONSTRUCTION AREAS ONTO SURFACES WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS.
 - AT ALL POINTS OF EGRESS TO PUBLIC ROADS.
 - WHERE FREQUENT VEHICLES AND EQUIPMENT WASHES/ENRICHES IS EXPECTED SUCH AS AT THE ENTRANCE OF INDIVIDUAL BUILDING LOTS.

PLANNING CONSIDERATIONS:

THIS PRACTICE SHOULD NOT BE RELIED ON TO REMOVE MUD FROM CONSTRUCTION TRAFFIC. MOST MUD IS FLUNG FROM TIRES AS VEHICLES REACH SPEEDS HIGHER THAN IS REACHED ON SITE. THE BEST APPROACH TO PREVENTING OFF-SITE TRACKING IS TO KEEP VEHICLES THAT FREQUENTLY ENTER AND LEAVE A SITE AWAY FROM MUDDY AREAS IN THE FIRST PLACE. VEHICLES SHOULD BE RESTRICTED TO STABILIZED AREAS TO THE EXTENT PRACTICAL, AND AREAS WHERE FREQUENT WASHES/ENRICHES IS EXPECTED SHOULD BE STABILIZED.

NO.	DATE	DESCRIPTION	BY

Approved
FHE # KCSL-14015
Date 2/21/14
Lake SWCD
Stormwater Management Plan
Approved as shown and/or noted
JAMES R. GILLS, P.E.
County Drainage Engineer
By L.S. Date 2/26/2014

SITE PLAN & SWP3 PLAN FOR
PERRINO CUSTOM HOMES
PP#20-A-024-H-00-002-0
7175 GIULIANO DRIVE
SL 2 IN THE LAZIO'S RIDGE SUBDIVISION PH. 1
PLAT VOLUME 44, PAGE 31
CITY OF KIRTLAND, COUNTY OF LAKE
STATE OF OHIO

5425 WARNER ROAD - SUITE 12
VALLEY VIEW, OHIO 44125
440-602-9071
FAX 216-369-0259
AZTECH
ENGINEERING and SURVEYING
Civil Engineering - Land Surveying

HORIZ. SCALE: 1" = 30'	VERT. SCALE:
DRAWN BY: CL	DATE: 1/24/2014
CHECKED BY: SRL	DRAWING NO.: 20122621
JOB NO.: 20122621	SHEET 1 OF 2