ONSITE SEWAGE PROGRAM ACCELERATED CERTIFICATION TRAINING

Florida HEALTH

ONSITE SYSTEM CONSTRUCTION PERMITS AND ISNPECTIONS (MASTER CONTRACTOR PART III)

Day 5 – Friday 8:00 AM-12:35 PM (6 CEUs)

- Objectives:
  - To give a clear understanding of the System Repair and Existing System Modification permitting process.
  - To give a clear understanding of the Septic Tank Contracting Licensing and Enforcement duties and regulations of the DOH.

A - 8:00-9:00

System Repair Standards

System Repair Standards

- Repair Application and Forms (Is it really a Repair?)
- Original Installation Date (Most recent date system was installed under new system requirements)
- Existing Tank Certification
- Site Evaluation
- Repair Site Plans
- Sample Forms

Repair Application and Forms (Is it really a Repair?)

- Systems in failure require repair in order to prevent or abate a sanitary nuisance. The use of a repair permit assumes:
  - There will be no change in estimated sewage flow.
    - Change in sewage flow would require and Existing System Evaluation.
  - There has been no unpermitted change in flow since the original system installation or modification.
    - An unpermitted change in the original permit conditions voids the original approval and would require a new system construction permit.
  - Minor structural adjustments, or replacement of mechanical components do not require a repair permit.
  - None of this would allow for the continued existence of a sanitary nuisance at the site.

Repair Application:

- Applications for repairs follow the same general guidelines as for new system construction. There are a few key differences:
  - Site plans do not need to be scaled, and items to be shown are those within proximity to the system, not the property lines.
    - Because of this, all pertinent dimensions must be shown.
  - Floor plans are not required.
    - Because of this, the existing structure information is verified with other sources, such as the property appraiser's information.
  - There is one additional form (DH4015pg4) which gives us information about the existing OSTDS.

STATE OF FLORIDA
DEPARTMENT OF HEALTH
ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEM
EXISTING SYSTEM AND SYSTEM REPAIR EVALUATION

PERMIT # _____

APPLICANT: _____

CONTRACTOR / AGENT: _____

LOT: _____ BLOCK: _____ SUBDIV: _____ ID#: _____

TO BE COMPLETED BY FLORIDA REGISTERED ENGINEER, DEPARTMENT EMPLOYEE, SEPTIC TANK CONTRACTOR OR OTHER CERTIFIED PERSON. SIGN AND SEAL ALL SUBMITTED DOCUMENTS. COMPLETE ALL APPLICABLE ITEMS. COMPLETE TANK CERTIFICATION BELOW OR NOTE IN REMARKS WHY THE TANKS CANNOT BE CERTIFIED.

EXISTING TANK INFORMATION

[ ] GALLONS SEPTIC TANK/GPD ATU LEGEND:_____ MATERIAL:_____ BAFFLED:[Y / N]
[ ] GALLONS SEPTIC TANK/GPD ATU LEGEND:_____ MATERIAL:_____ BAFFLED:[Y / N]
[ ] GALLONS GREASE INTERCEPTOR LEGEND:_____ MATERIAL:_____
[ ] GALLONS DOSING TANK LEGEND:_____ MATERIAL:_____ # PUMPS:[ ]

I CERTIFY THAT THE LISTED TANKS WERE PUMPED ON ___/___/___ BY _____, HAVE THE VOLUMES SPECIFIED AS DETERMINED BY [DIMENSIONS / FILLING / LEGEND], ARE FREE OF OBSERVABLE DEFECTS OR LEAKS, AND HAVE A [SOLIDS DEFLECTION DEVICE / OUTLET FILTER DEVICE] INSTALLED.

SIGNATURE OF LICENSED CONTRACTOR | BUSINESS NAME | DATE

EXISTING DRAINFIELD INFORMATION

[ ] SQUARE FEET PRIMARY DRAINFIELD SYSTEM NO. OF TRENCHES [ ] DIMENSIONS: _____X_____
[ ] SQUARE FEET _____ SYSTEM NO. OF TRENCHES [ ] DIMENSIONS: _____X_____
TYPE OF SYSTEM: [ ] STANDARD [ ] FILLED [ ] MOUND [ ] _____
CONFIGURATION: [ ] TRENCH [ ] BED [ ] _____
DESIGN: [ ] HEADER [ ] D-BOX [ ] GRAVITY SYSTEM [ ] DOSED SYSTEM
ELEVATION OF BOTTOM OF DRAINFIELD IN RELATION TO EXISTING GRADE _____ INCHES [ABOVE / BELOW]

SYSTEM FAILURE AND REPAIR INFORMATION

[ ] SYSTEM INSTALLATION DATE TYPE OF WASTE [ ] DOMESTIC [ ] COMMERCIAL
[ ] GPD ESTIMATED SEWAGE FLOW BASED ON [ ] METERED WATER [ ] TABLE 1, 64E-6, FAC

SITE CONDITIONS: [ ] DRAINAGE STRUCTURES [ ] POOL [ ] PATIO / DECK [ ] PARKING
[ ] SLOPING PROPERTY [ ] _____

NATURE OF FAILURE: [ ] HYDRAULIC OVERLOAD [ ] SOILS [ ] MAINTENANCE [ ] SYSTEM DAMAGE
[ ] DRAINAGE / RUN OFF [ ] ROOTS [ ] WATER TABLE [ ] _____

FAILURE SYMPTOM: [ ] SEWAGE ON GROUND [ ] TANK [ ] D BOX/HEADER [ ] DRAINFIELD
[ ] PLUMBING BACKUP [ ] _____

REMARKS/ADDITIONAL CRITERIA_____

SUBMITTED BY:_____TITLE/LICENSE_____DATE:_____

DH 4015, 08/09 (Obsoletes previous editions which may not be used)
Incorporated 64E-6.001, FAC

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Existing System and System Repair Evaluation.

Existing Tank Information:

EXISTING TANK INFORMATION

[900] GALLONS	SEPTIC TANK/GPD ATU	LEGEND: 35-015-04D-C3	MATERIAL: Concrete	BAFFLED: [Y / N]
[ ] GALLONS	SEPTIC TANK/GPD ATU	LEGEND:	MATERIAL:	BAFFLED: [Y / N]
[ ] GALLONS	GREASE INTERCEPTOR	LEGEND:	MATERIAL:	
[ ] GALLONS	DOSING TANK	LEGEND:	MATERIAL:	# PUMPS: [ ]

- Tank Size or ATU Capacity (Gallons Per Day)
- Tank Legend (if present)
- Tank Material
- Whether there is a baffle wall present
- (Additional similar information for Dosing tanks, Grease Interceptors, etc.)

Existing Tank Certification:

I CERTIFY THAT THE LISTED TANKS WERE PUMPED ON 06/25 /10 BY Tom Smith Septic Tank Service, HAVE THE VOLUMES SPECIFIED AS DETERMINED BY [DIMENSIONS / FILLING / LEGEND], ARE FREE OF OBSERVABLE DEFECTS OR LEAKS, AND HAVE A [SOLIDS DEFLECTION DEVICE / OUTLET FILTER DEVICE] INSTALLED.

Tom Smith	Sunshine Septic Company	07/01/2010
SIGNATURE OF LICENSED CONTRACTOR	BUSINESS NAME	DATE

- Date tanks were pumped (inlet and outlet end if multi-chambered).
- Name of authorized company who pumped the tanks.
- How the tank capacity was determined.
- The septic tank contractor, CEHP, or state-licensed plumber who physically inspected and is certifying the tanks.
- The name of the business certifying the tanks.
- The date the tank is certified by the authorized party.

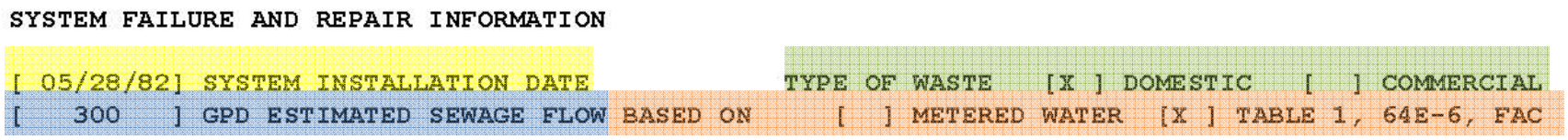
Existing Drainfield Information:

EXISTING DRAINFIELD INFORMATION

[200] SQUARE FEET PRIMARY DRAINFIELD SYSTEM NO. OF TRENCHES [3] DIMENSIONS: 3 X 67 .
[ ] SQUARE FEET _____ SYSTEM NO. OF TRENCHES [ ] DIMENSIONS: _____X_____
TYPE OF SYSTEM: [ ] STANDARD [ ] FILLED [X] MOUND [ ] _____
CONFIGURATION: [X] TRENCH [ ] BED [ ] _____
DESIGN: [ ] HEADER [ ] D-BOX [X] GRAVITY SYSTEM [ ] DOSED SYSTEM
ELEVATION OF BOTTOM OF DRAINFIELD IN RELATION TO EXISTING GRADE 18 INCHES [ABOVE / BELOW]

- The total square-footage of drainfield area present.
- The number of drainline trenches.
- The length and width if a bed system. The trench width and total length of all trenches present.
- Whether the system is subsurface or other.
- Whether the drainfield is installed in a bed or trenches.
- What type of distribution the system uses.
- Elevation of the bottom surface of the drainfield relative to undisturbed native soil.

System Failure and Repair Information:

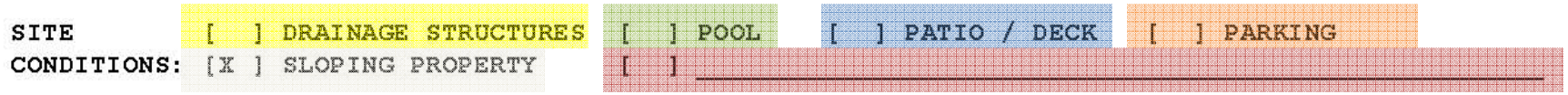

SYSTEM FAILURE AND REPAIR INFORMATION

[05/28/82] SYSTEM INSTALLATION DATE TYPE OF WASTE [X] DOMESTIC [ ] COMMERCIAL

[300] GPD ESTIMATED SEWAGE FLOW BASED ON [ ] METERED WATER [X] TABLE 1, 64E-6, FAC

- Date this system was most recently installed under a NEW SYSTEM or MODIFICATION permit.
- Whether the waste is domestic or commercial.
- Total estimated sewage flow generated by the existing structure.
- How the total estimated sewage flow was determined.

Site Conditions:



- Whether conditions are present that may impact the system:
- Drainage structures: (Ditches, swales, gutters, etc.)
- Pool (may be leaking, saturating the area).
- Is the system under a patio or deck?
- Is the system in an area subject to parking?
- Does the property slope, or is it flat?
- Other conditions which may be impacting the system or further reduce the available area.

Nature of Failure:

NATURE OF FAILURE:	[ ]	HYDRAULIC OVERLOAD	[ ]	SOILS	[ ]	MAINTENANCE	[X]	SYSTEM DAMAGE
	[ ]	DRAINAGE / RUN OFF	[ ]	ROOTS	[ ]	WATER TABLE	[ ]	_____

- What has caused the system to fail?
  - These items become important when considering what the repair permit must address.
  - There are specific rules to address systems failing due to excessive hydraulic loading and root clogging.

Failure Symptom:

FAILURE SYMPTOM: [X] SEWAGE ON GROUND [ ] PLUMBING BACKUP [ ] TANK [ ] D BOX/HEADER [ ] DRAINFIELD [ ] _____

REMARKS/ADDITIONAL CRITERIA_____

- What evidence is there of the system failure?
  - These items serve to help verify the cause of the failure, as well as to further document items that need to be addressed during the repair.

Submitted By:

SUBMITTED BY: John Doe TITLE/LICENSE SM1458320 DATE: 07/01/2010
DH 4015, 08/09 (Obsoletes previous editions which may not be used)
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- Signed and dated by the authorized person submitting the information.

Site Evaluation

STATE OF FLORIDA
DEPARTMENT OF HEALTH
ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEM
SITE EVALUATION AND SYSTEM SPECIFICATIONS

PERMIT #. 10-1000-R

APPLICANT: Tom Smith AGENT: Sunshine Septic Company

LOT: 5 BLOCK: NA SUBDIVISION: Oviedo Oaks

PROPERTY ID #: [Section/Township/Parcel No. or Tax ID Number]

TO BE COMPLETED BY ENGINEER, HEALTH DEPARTEMENT EMPLOYEE,OR OTHER QUALIFIED PERSON. ENGINNEERS MUST PROVIDE REGISTRATION NUMBER AND SIGN AND SEAL EACH PAGE OF SUBMITTAL. COMPLETE ALL ITEMS.

PROPERTY SIZE CONFORMS TO SITE PLAN: [x] YES [ ] NO NET USABLE AREA AVAILABLE: 0.37 ACRES
TOTAL ESTIMATED SEWAGE FLOW: 200 GALLONS PER DAY [RESIDENCES-TABLE 1/OTHER-TABLE2]
AUTHORIZED SEWAGE FLOW: 554.41 GALLONS PER DAY [1500 GPD/ACRE OR 2500 GPD/ACRE]
UNOBSTRUCTED AREA AVAILABLE: 3375.00 SQFT UNOBSTRUCTED AREA REQUIRED: 375.00 SQFT

BENCHMARK/REFERENCE POINT LOCATION: disc on CL of RD near SE corner of property
ELEVATION OF PROPOSED SYSTEM SITE IS 12 [INCHES/FT] [ABOVE/BELOW] BENCHMARK/REFERENCE POINT

THE MINIMUM SETBACK WHICH CAN BE MAINTAINED FROM THE PROPOSED SYSTEM TO THE FOLLOWING FEATURES
SURFACE WATER: 80 FT DITCHES/SWALES: 35 FT NORMALLY WET? [ ] YES [x] NO
WELLS: PUBLIC: NA FT LIMITED USE: NA FT PRIVATE: 85 FT NON-POTABLE: 73 FT
BUILDING FOUNDATIONS: 10 FT PROPERTY LINES: 17 FT POTABLE WATER LINES: 14 FT

SITE SUBJECT TO FREQUENT FLOODING: [ ] YES [x] NO 10 YEAR FLOODING? [ ] YES [x] NO
10 YEAR FLOOD ELEVATION FOR SITE: NA FT MSL/NGVD SITE ELEVATION: NA FT MSL/NGVD

SOIL PROFILE INFORMATION SITE 1

MUNSELL #/COLOR	TEXTURE	DEPTH
10YR 2/1 Blk	FS	0 TO 6
10YR 5/1, 7/1	FS	6 TO 12
10YR 7/2	FS	12 TO 32
10YR 3/1 Dk Br	FS spodic	32 TO 39
10YR 4/3 Br	FS spodic	39 TO 45
10YR 5/3 Br	FS	45 TO 72
		TO
		TO
		TO

USDA SOIL SERIES: similar to Myakka

SOIL PROFILE INFORMATION SITE 2

MUNSELL #/COLOR	TEXTURE	DEPTH
10YR 2/1 Blk	FS	0 TO 7
10YR 5/1, 7/1	FS	7 TO 12
10YR 7/2	FS	12 TO 18
10YR 2/1 Blk	FS spodic	18 TO 40
10YR 3/3 Dk Br	FS spodic	40 TO 48
10YR 5/4 YB	FS	48 TO 72
		TO
		TO
		TO

USDA SOIL SERIES: similar to Myakka

OBSERVED WATER TABLE: 16 INCHES [ABOVE / BELOW] EXISTING GRADE. TYPE: [PERCHED / APPARENT]
ESTIMATED WET SEASON WATER TABLE ELEVATION: 6 INCHES [ABOVE / BELOW] EXISTING GRADE
HIGH WATER TABLE VEGETATION: [x] YES [ ] NO MOTTLING: [x] YES [ ] NO DEPTH: 6 INCHES

SOIL TEXTURE/LOADING RATE FOR SYSTEM SIZING: FS/0.80 DEPTH OF EXCAVATION: 48 INCHES
DRAINFIELD CONFIGURATION: [x] TRENCH [ ] BED [ ] OTHER (SPECIFY)
REMARKS/ADDITIONAL CRITERIA:
Soil profile #1 is 12" above RP, Soil profile #2 is 13" above RP.
Stripping at 6" below grade "10YR 7/1 in 5/1 matrix".

SITE EVALUATED BY: *Carroll Sweet*, ESI DATE: 7/2/2010

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Site Evaluation for Repairs:

- Are held to the same standards as for new system construction permits.
- Require a benchmark that is specific in both location and elevation.
- Requires careful measurement of the existing setbacks.
  - These must be referenced to Table V to determine the minimum proposed setbacks.

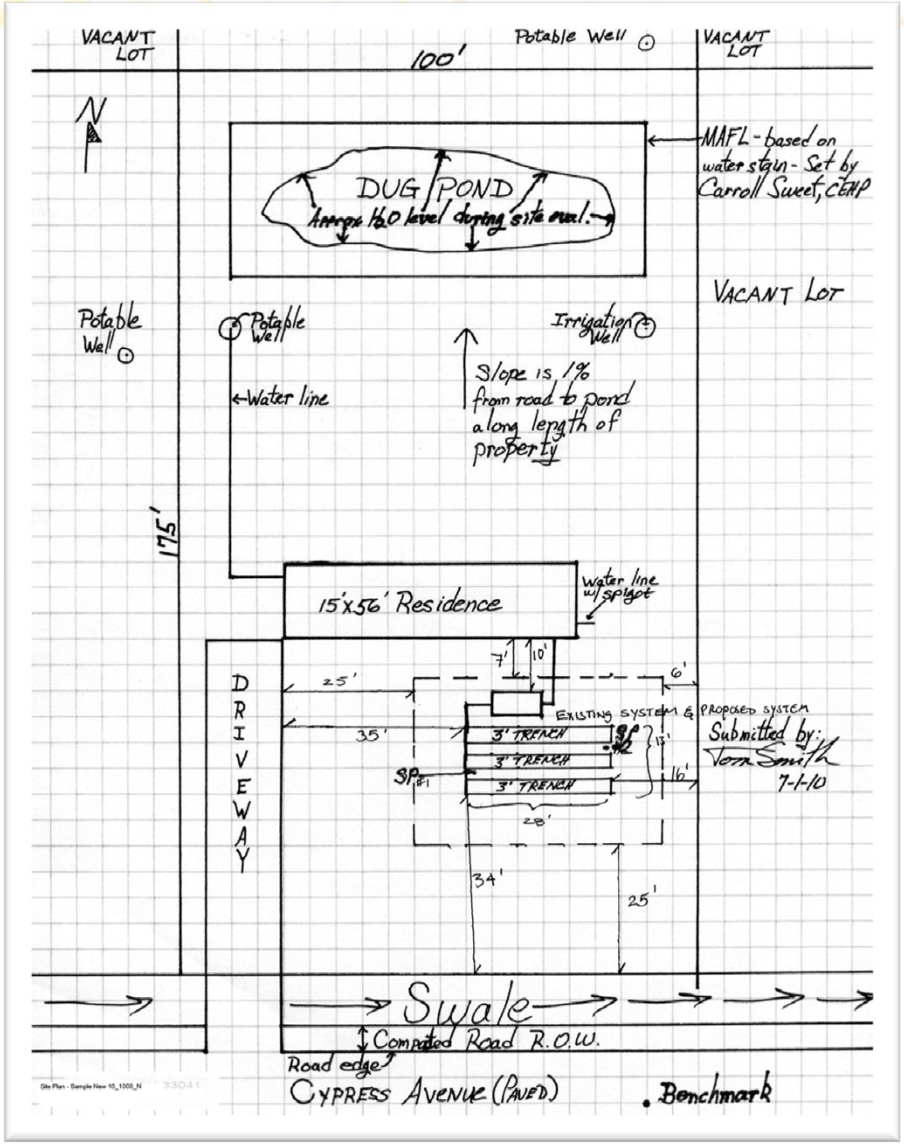
Table V: Repair System Setback Requirements.

TABLE V
Repair System Setback Requirements

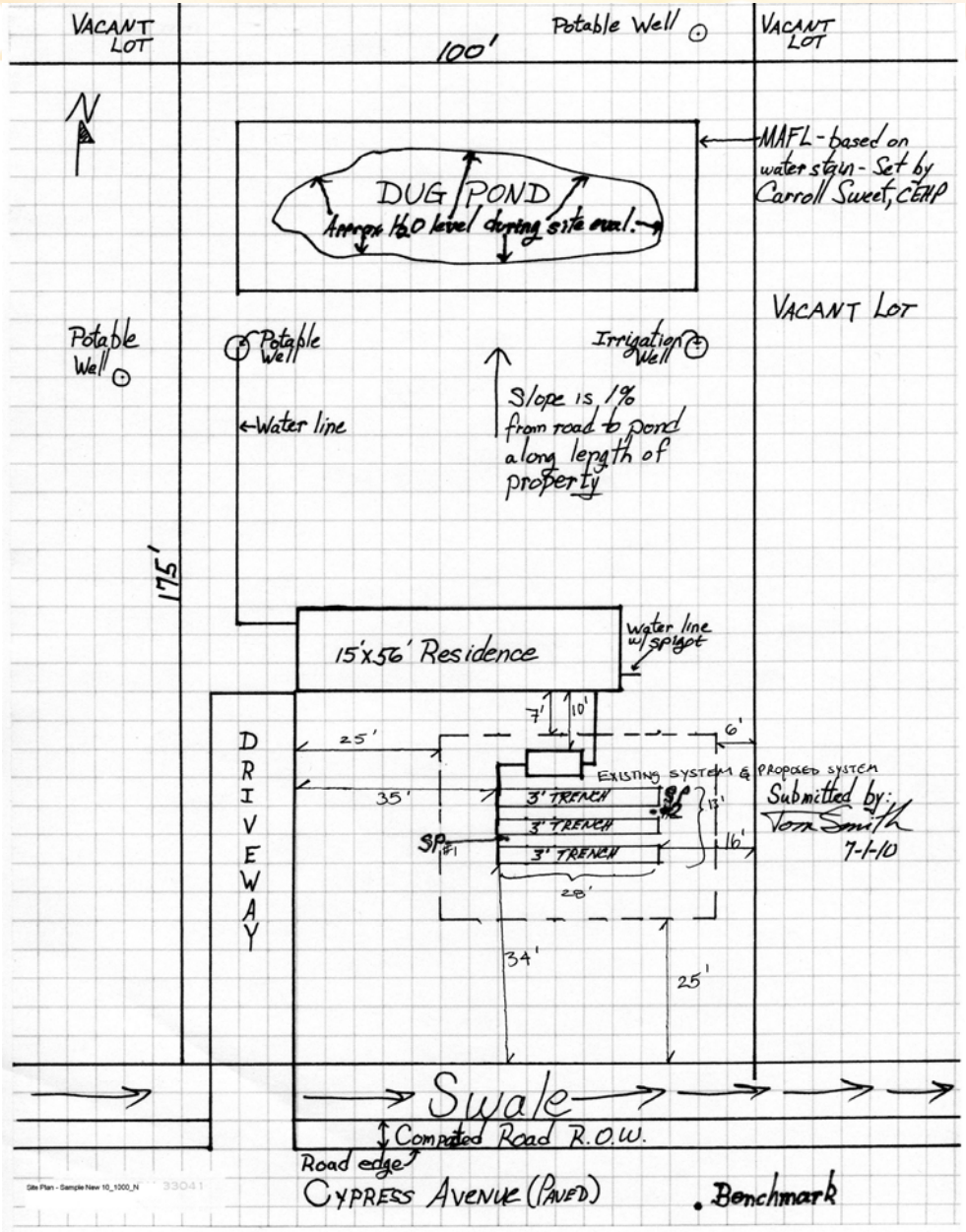
Permit Date of Original System	Description of Setback (Separation)	Protection Factor	Current Required Setback	Absolute Minimum Setback
Prior to 1-1-72	System to a Private Potable Well	6	75 feet	Greatest of the Following: a) Maximum Setback (<75 feet and >50 feet) b) Original Setback (if >50 feet) c) 50 feet
	Bottom of Drainfield Absorption Surface	5	24 inches	Greatest of the Following:

- Table V lists reduced setbacks given for repairs only.
- These are based on the year of original system installation.
- If the existing setback is greater than the minimum setback, the existing setback must be maintained.

Repair Site Plans



The Repair Site Plan:



- Is not required to be to scale.
- Shows all dimensions.
- Shows the existing OSTDS.
- Shows the proposed OSTDS.
- Shows the setbacks for both.
- Shows the auger boring locations.
- Shows all features requiring setbacks if they are:
  - In proximity to the system.
  - Will affect system installation.
- Defers to Table V for setback requirements.
- Serves to document the existing and the proposed system location and setbacks that will be used for the system permit and inspection.

System Repair Permit:

STATE OF FLORIDA
DEPARTMENT OF HEALTH
ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEM
CONSTRUCTION PERMIT

PERMIT NO. 10-1000-N
DATE PAID: 7/1/2010
FEE PAID:
RECEIPT #:

CONSTRUCTION PERMIT FOR:
[x] New System [ ] Existing System [ ] Holding Tank [ ] Innovative
[ ] Repair [ ] Abandonment [ ] Temporary [ ]

APPLICANT: Tom Smith

PROPERTY ADDRESS: 312 Cypress Ave., Geneva, FL 32765

LOT: 5 BLOCK: NA SUBDIVISION: Oviedo Oaks
[SECTION, TOWNSHIP, RANGE, PARCEL NUMBER]
PROPERTY ID #: 293031000782 [OR TAX ID NUMBER]

SYSTEM MUST BE CONSTRUCTED IN ACCORDANCE WITH SPECIFICATIONS AND STANDARDS OF SECTION 381.0065, F.S., AND CHAPTER 64E-6, F.A.C. DEPARTMENT APPROVAL OF SYSTEM DOES NOT GUARANTEE SATISFACTORY PERFORMANCE FOR ANY SPECIFIC PERIOD OF TIME. ANY CHANGE IN MATERIAL FACTS, WHICH SERVED AS A BASIS FOR ISSUANCE OF THIS PERMIT, REQUIRE THE APPLICANT TO MODIFY THE PERMIT APPLICATION. SUCH MODIFICATIONS MAY RESULT IN THIS PERMIT BEING MADE NULL AND VOID. ISSUANCE OF THIS PERMIT DOES NOT EXEMPT THE APPLICANT FROM COMPLIANCE WITH OTHER FEDERAL, STATE, OR LOCAL PERMITTING REQUIRED FOR DEVELOPMENT OF THIS PROPERTY.

SYSTEM DESIGN AND SPECIFICATIONS

T [900] GALLONS / GPD SEPTIC TANK/AEROBIC UNIT CAPACITY MULTI-CHAMBERED/IN-SERIES [ ]
A [ ] GALLONS / GPD _____ CAPACITY MULTI-CHAMBERED/IN-SERIES [ ]
N [ ] GALLONS GREASE INTERCEPTOR CAPACITY [MAXIMUM CAPACITY SINGLE TANK: 1250 GALLONS]
K [ ] GALLONS DOSING TANK CAPACITY [ ] GALLONS @ [ ] DOSES PER 24 HRS # PUMPS [ ]

D [250] SQUARE FEET PRIMARY DRAINFIELD SYSTEM
R [ ] SQUARE FEET _____ SYSTEM
A TYPE SYSTEM: [ ] STANDARD [ ] FILLED [x] MOUND [ ] _____
I CONFIGURATION: [x] TRENCH [ ] BED [ ] _____
N
F LOCATION OF BENCHMARK: Disc in CL of Road near SE property corner
I ELEVATION OF PROPOSED SYSTEM SITE [12.00] [INCHES/FT] [ABOVE/BELOW] BENCHMARK/REFERENCE POINT
E BOTTOM OF DRAINFIELD TO BE [30.00] [INCHES/FT] [ABOVE/BELOW] BENCHMARK/REFERENCE POINT
L
D FILL REQUIRED: [36.00] INCHES EXCAVATION REQUIRED: [48.00] INCHES

O The licensed contractor installing the system is responsible for installing the minimum
T category of tank in accordance with s. 54E-6.013(3)(f), FAC.
H
E
R

SPECIFICATIONS BY: Carroll Sweet TITLE: Environmental Specialist I

APPROVED BY: John Forest, RS TITLE: Environmental Manager Sunshine CHD

DATE ISSUED: 7/6/2010 EXPIRATION DATE: 1/2/2012

DH 4016, 08/09 (Obsoletes all previous editions which may not be used)
Incorporated: 64E-6.003, FAC Page 1 of 3

System Repair Permit:

- In order to write the repair permit, we must first determine the following parameters of the existing system, which will be used to determine the repair permit specifications:
  - What is the existing tank size?
    - The tank must be within 2 tank sizes of that required for the total flow.
  - Is the tank structurally sound?
    - The tank must be free of observable defects and constructed of approved materials.
  - Is there an existing outlet device or filter?
    - If one was not present, it must be installed prior to final approval.
  - What is the existing drainfield size?
    - The permit drainfield size can be no less than the existing size.
  - What are the existing system setbacks to all pertinent features?
    - The permitted drainfield cannot have lesser setbacks than the existing system.
    - If the existing setbacks are less than the Table V minimums, a variance is required.
    - Items not listed in Table V, have no setback reductions and must meet current rule requirements.

System Repair Permit:

- In order to write the repair permit, we must first determine the following parameters of the existing system, which will be used to determine the repair permit specifications:
  - What is the existing drainfield elevation compared to natural grade?
    - The permit drainfield elevation can be no lower, while maintaining the WSWT separation determined via Table V.
  - When was the system originally installed?
    - This information is used to determine the Table V setbacks, and sizing criteria.
  - What is the sizing criteria?
    - Determined using the number of bedrooms for pre-83 systems, or Table I for systems installed from 1983 onward.
  - What is the nature of the failure?
    - If caused by root clogging or hydraulic overload, there are special provisions.

All of this information is obtained from the Application, Site Plan, Site Evaluation, and Existing System and Repair Evaluation forms. It is used to determine the minimum repair system specifications.

Alternative Repair Methods:

- Chemical Treatment (any product used must be in compliance with 64E-6.0151, F.A.C.).
- Air injection/Physical Disruption of the Drainfield.
- Water “Jetting” of drain lines.
- Installation of an “Aerobic Bacteria Generator.”

The use of these methods requires a repair permit prior to initiating the process and an inspection prior to final approval.
(see Memo HSES 12-005 for further details on permitting & inspecting an “ARM”).

Master Contractor Inspection of Repairs:

- Master ST contractors may schedule **inspections** within the normal duty schedule of the CHD. If the CHD is not on site within 30 minutes of scheduled time, the master ST contractor on site may document a System Repair Certification on Form DH 4016, Page 3, and cover the system.
  - If the system has been previously inspected by the CHD, and violations are found in need of correction, the Master Contractor may not inspect and cover the system.
- The CHD issues a **FINAL APPROVAL** based on this certification on form DH4016, Page 4.
  - Form DH4016, Page 4 can only be completed by a DOH employee certified per 381.0101, FS.
- The Master Contractor Program does not allow any work without permits or certifications after normal duty hours or on weekends and holidays.
  - There are no “after-the-fact” permits.

System Repair Inspection and Approval on form DH4016pg4:

- Requirements for repair drainfield inspections are the same as for new system construction inspections.
- If the existing drainfield remains part of the system, its size and configuration must also be verified.
- If an alternative repair method is employed, the inspection requirements will be method-specific, but must still document compliance with rule requirements.