Environmental Services Department
Water & Waste Management
On-Site Wastewater Program

TRENCH

Design Guide
For an
ON-SITE WASTEWATER TREATMENT FACILITY (OSWTF)

A basic guide to designing a Conventional OSWTF to serve a single family residence in Maricopa County. This guide includes instruction on how to design an OSWTF and submit a complete application called the Notice of Intent to Discharge (NOID) Packet.*

* A standard septic tank and disposal field design specified in this guide is intended to serve most sites where no limiting conditions are identified by the site investigation conducted under the Aquifer Protection Permit Rule - R18-9-A311. Typical disposal fields are: Trenches, Leach Beds, Seepage Pits or Chamber Technologies.

**Design requirements are subject to revision

Water & Waste Management Division, 1001 North Central Ave, Suite 150, Phoenix, Arizona 85004(602) 506 6666
March 7, 2008

ENVIRONMENTAL SERVICES DEPARTMENT

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_____(Permit / File #)

Phase II (Notice of Intent to Discharge-NOID) Submittal Checklist

INCORRECT OR INCOMPLETE PHASE II (NOID) PACKETS WILL NOT BE ACCEPTED

_____ Sewer Availability required for every application (see attached sewer determination sheet)
_____ Location of floodway and floodplain (See attached Floodway/Floodplain instructions)
_____ Completed NOID application with original signature of OWNER or letter of authorization
_____ All pages in design packet requiring permit number and signature must be submitted
_____ Official recorded deed, legal description, parcel number, building permit tracking number
_____ One (1) floor plan with dimensions and all rooms and plumbing fixtures clearly labeled
_____ Fixture unit/Bedroom Equivalent Chart/Calculations Worksheets used to design the system
_____ Plan and Profile with pipe elevations of tank and Cross Sections of disposal components
_____ List of materials, components, and equipment for constructing on-site wastewater treatment facility
_____ All reports regarding soil/site evaluations, percolation tests or seepage pit performance tests, if not conducted by MCESD staff **A310.B**
_____ Two (2) complete site plans: use scale of 1”=30’, 1”=20’, or 1”=10’. Break lines are prohibited! For larger parcels, use appropriate scale to fit parcel on one sheet of paper. On-site system, the structure(s) it serves, and the immediate area shall be on a separate sheet drawn using an acceptable scale. Indicate scale and north arrow on site plan. Maximum paper size is 24”x36”.

Site plans shall include the following (see example or refer to R18-9-A301(B) and R18-9-A309(B) for detailed requirements):

_____ Location of septic tank, distribution box, distribution lines, primary and reserve disposal areas (drawn to scale and indication north arrow)
_____ Location of all test holes
_____ Location of all structures, driveways, washes, and/or drainage easements on site
_____ Identify all easements and setbacks; indicate distance from property lines
_____ Location of any well and water line from well or meter to building
_____ Indicate topography, with appropriate contour interval, showing original and final grades
_____ Any features (well, wash, etc.) less than 200’ from the proposed site which may impact the location of the proposed OSWTF or reserve areas. Indicate if bordering lots are vacant or built-on
_____ Location of any earth fissures (minimum setback of 100’ required)
_____ Information Block with property owner, site address, permit number, subdivision name and lot number or legal description, and parcel number
_____ Signature Block, signed by designer, on first submission and any revision

_____ Water company name
_____ Recorded Shared Well Agreement with survey OR Affidavit of Agreement to Encroach (otherwise, tank and disposal area must be greater than 50’ from property line), if water is not supplied by a common water system
_____ Survey map; if lot split, a recorded survey with legal description of all lots involved in split is required
_____ Grading and Drainage plan submitted to One Stop Shop or other permitting agency, if required
_____ Vicinity map and detailed driving directions to the site, with distances from paved cross streets
_____ If submitting a later version of any documentation, clearly label as REVISED and the date of the revision in the top right corner of the documents
_____ Septic system designer must sign and write the permit number issued by MCESD on all documents
_____ Applicable fees, check or cash only, due at time of submittal (see fee schedule)

Applicant’s Signature _____ Date _____

FLOODWAYS AND FLOOD PLAINS
AUGUST 1, 2005

FLOOD PLAINS = BUILDING PAINS

Due to the increasing numbers of homes being built in and around Floodways and Flood Plains in Maricopa County it is important that you check to insure your parcel is not located in a flood plain or flood way. A septic permit will not be issued for those homes in the Flood Plains and Floodways, without prior approval from Maricopa County Flood Control Department. You can check your parcel on line at http://www.maricopa.gov/Assessor/ and http://www.fcd.maricopa.gov/Maps/ to see if you are with in a Flood Plain or Floodway or by telephone at (602) 506-1501. As always each submittal must have:

- Site plans must identify all washes and drainage patterns with flow rates.
- Site plans must identify Flood plains, and Flood way boundaries.
- Drainage and Grading reports must be submitted.

http://www.maricopa.gov/Assessor/ 1.) Enter parcel number. 2.) Click "Submit". 3.) Click "View GIS Map". 4.) Click "OK" on the disclaimer. 5.) Locate menu on the lower right side of screen. 6.) Scroll down to "Zoom Selected". 7.) Locate the menu on the left hand side of the screen. 8.) Click on "down arrow" 9.) Scroll all the way down to "FLOODPLAINS", click on it. 10.) Print
http://www.fcd.maricopa.gov/Maps/ 1.) Click on "100-year FEMA Flood Plain Maps". 2.) Click on "OK" on the disclaimer. 3.) Locate "Parcel" in the upper right side of the screen. 4.) Click on it. 5.) In the pop-up box enter parcel number. 7.) Click "Find". 8.) Print For parcels in Rio Verde: *(note: all parcels start with Book: 219 and Map: 37 thru 42)* 1.) Click on "Rio Verde Preliminary Flood Plains". 2.) Click on "OK" on the disclaimer. 3.) Locate "Parcel" in the upper right side of the screen. 4.) In the pop-up box enter parcel number. 5.) Click "Find". 6.) Print

SEWER DETERMINATION

THE OWNER OR PERSON REQUESTING TO INSTALL AN ONSITE SYSTEM MUST DETERMINE THE LOCATION OF THE NEAREST SEWER TAP TO THE PROPERTY. ARIZONA ADMINISTRATIVE CODE R18-9-A309.A.5 SETS REQUIREMENTS FOR HOOK-UP TO SANITARY SEWER.

"A PERSON...SHALL CONNECT TO A SEWAGE COLLECTION SYSTEM IF:

...B. A SEWER SERVICE LINE EXTENSION IS AVAILABLE AT THE PROPERTY BOUNDARY AND BOTH OF THE FOLLOWING APPLY:

I. THE SERVICE CONNECTION FEE IS NOT MORE THAN $6000 FOR A DWELLING... AND

II. THE COST OF CONSTRUCTING THE BUILDING SEWER FROM THE WASTEWATER SOURCE TO THE SERVICE CONNECTION IS NOT MORE THAN $3000 FOR A DWELLING...."

MARICOPA COUNTY PROVIDES THE PHONE NUMBERS BELOW TO BEGIN YOUR SEARCH. SOME MUNICIPALITIES MAY HAVE MORE STRINGENT REQUIREMENTS AND WILL REQUIRE CONNECTION TO CITY SEWER. A STATEMENT INDICATING THE AVAILABILITY OF THE SEWER IS NEEDED PRIOR TO ANY SUBMITTAL TO THE ENVIRONMENTAL SERVICES DEPARTMENT.

AVONDALE	623-478-3330	www.ci.avondale.az.us
BUCKEYE	623-386-2487	www.buckeyeaz.gov
CAVE CREEK	480-488-1400	www.cavecreek.org
CHANDLER	480-782-3800	www.chandleraz.gov
CAREFREE	480-488-3638	www.carefree.org
EL MIRAGE	623-933-8318	www.cityofelmirage.org
GILBERT	480-503-6000	www.ci.gilbert.az.us
GLENDALE	623-930-2000	www.ci.glendale.az.us
GOODYEAR	623-932-1637	www.ci.goodyear.az.us
MESA	480-644-4273	www.cityofmesa.org
PARADISE VALLEY	480-348-3528	www.ci.paradise-valley.az.us
PEORIA	623-773-7210	www.peoriaaz.com
PHOENIX	602-262-6551	www.ci.phoenix.az.us
QUEEN CREEK	480-987-0496	www.queencreek.org
SCOTTSDALE	480-312-2356	www.ci.scottsdale.az.us
SURPRISE	623-583-0947	www.surpriseaz.com
TEMPE	480-350-8341	www.tempe.gov
TOLLESON	623-936-7141	www.tollesonaz.org

MARICOPA COUNTY ENVIRONMENTAL SERVICES MAKES EVERY ATTEMPT TO PROVIDE ACCURATE INFORMATION. PHONE NUMBERS MAY CHANGE WITHOUT OUR KNOWLEDGE.

CHAPTER I
MARICOPA COUNTY HEALTH CODE
WATER & WASTE MANAGEMENT DIVISION
ON-SITE WASTEWATER PROGRAM AND WELL PROGRAM
FEE SCHEDULE (excerpt)* - Effective July 21, 2006**

BASE PLAN REVIEW FEE SCHEDULE	
*Septic Tank Conventional Disposal, less than 3000 gal./day	$550.00
Aerobic System with Surface Disposal	$1050.00
Composting Toilet, less than 3000 gal/day	$400.00
Septic tank with one additional alternative element**	$1050.00
Septic tank with >one additional alternative element**	$1050 plus $250 per additional element
On-site wastewater treatment facility with flow from 3000 gal/day to less than 24,000 gal/day	$1800.00
**These alternative disposal elements are all for systems of less than 3000 gal/day and include the following: pressure distribution systems, gravelless trenches, natural seal evapotranspiration beds, Wisconsin mounds, engineered pad systems, intermittent sand filters, peat filters, textile filters, Ruck® Systems, sewage vaults, aerobic systems/subsurface disposal, aerobic systems/surface disposal, cap systems, constructed wetlands, sand lined trenches, disinfection devices, sequencing batch reactors, subsurface drip irrigation systems.	
On-Site System Site Inspection	$325.00
On-Site System Site Inspection and Domestic Well Approval	$375.00
On-Site System Alteration Permit	$75.00
On-Site System Alteration Permit and One Inspection	$400.00
On-Site System Reconnect/Remodel Review	$135.00
On-Site System Reconnect/Remodel Review and One Inspection	$400.00
On-Site System Plan Revision	$100.00
On-Site System Request for Alternate Design, Installation, or Operational Feature	$75.00
On-Site System Design Requiring Interceptor	$200.00 per Interceptor
On-Site System Transfer of Ownership	$50.00
On-Site System Abandoned Site	$175.00
Domestic Well Approval	$65.00

*Gravity-fed trenches, seepage pits, leach beds, or chambers. Includes up to two (2) plan reviews and three (3) construction inspections.

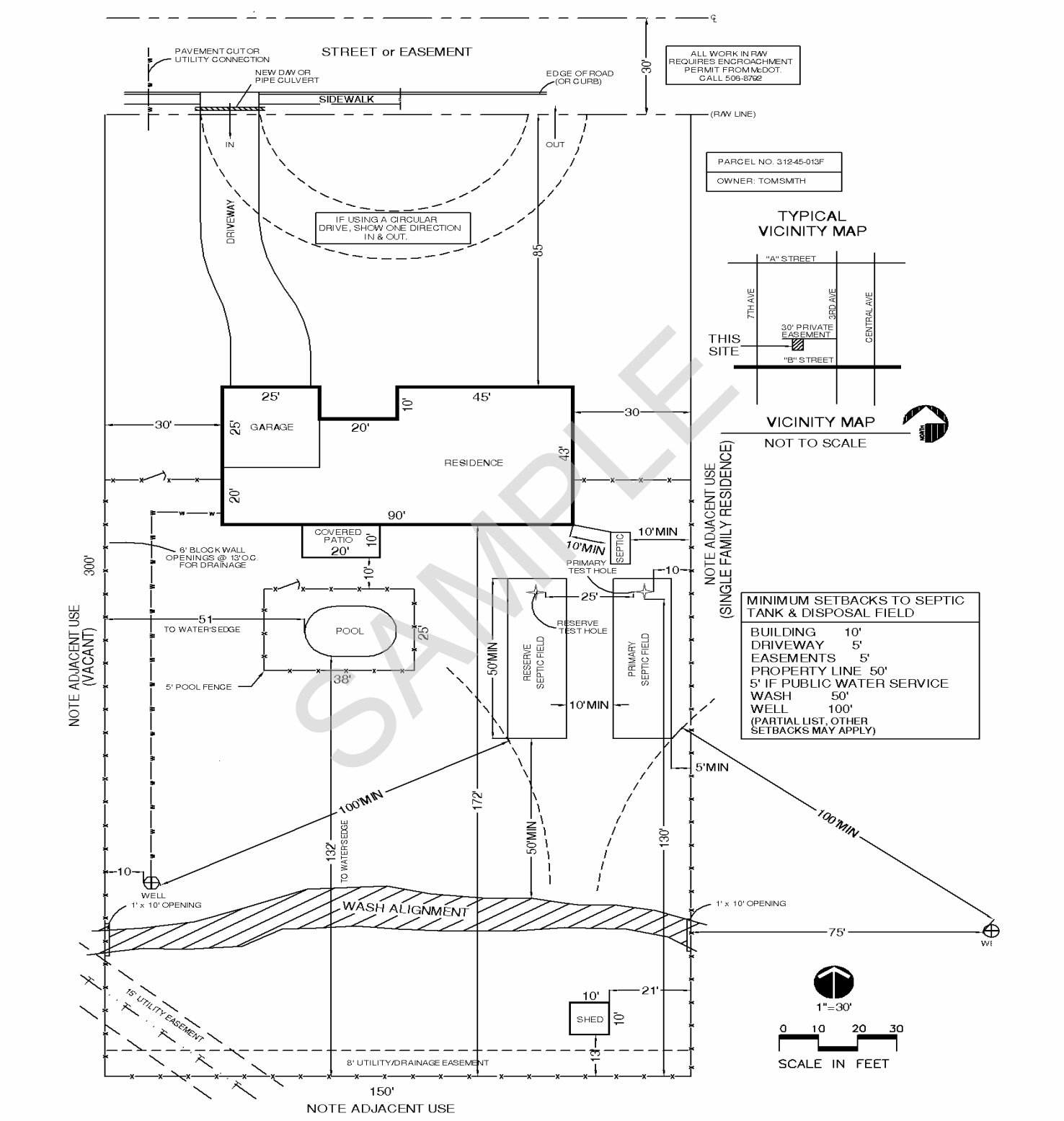
*** To see the fee schedule in its entirety go to:
www.maricopa.gov/envsvc/BUSINESS/hlthcode.asp

The Expedited Plan Review Fee is twice the fee for that category.
Expedited Plan Reviews require prior Management approval.

Any questions regarding these fees, contact MCESD, WWM Division at 602-506-6666.

Planning & Development Department

TYPICAL RESIDENTIAL SITE PLAN



SAMPLE ONLY (DRAWING SHOWN IS NOT TO SCALE)

ADDITIONAL DETAILED PLANS MAY BE REQUIRED.

SETBACK DISTANCE CHART

The design of the On-Site Wastewater Treatment Facility shall comply with the setbacks indicated below.

Features Requiring Setbacks	Setback For An On-Site Wastewater Treatment Facility, Including Reserve Area (In Feet)	Special Provisions
1. Building	10	Includes porches, decks, and steps (covered or uncovered), breezeways, roofed patios, carports, covered walks, and similar structures and appurtenances.
2. Property line shared with any adjoining lot or parcel not served by a common drinking water system* or an existing drinking water well	50	A person may reduce the setback to a minimum of 5 feet from the property line if: a. The owners of any affected undeveloped adjacent properties agree, as evidenced by an appropriately recorded document, to limit the location of any new well on their property to at least 100 feet from the proposed treatment works and primary and reserve disposal works; and b. The arrangements and documentation are approved by the Department. * A “common drinking water system” means a system that currently serves or is under legal obligation to serve the property and may include a drinking water utility, a well-sharing agreement, or other viable water supply agreement.
3. All other property lines.	5	None
4. Public or private water supply well.	100	None
5. Perennial or intermittent stream	100	Measured horizontally from the high water line of the peak streamflow from a 10-year, 24-hour rainfall event.
6. Lake, reservoir, or canal	100	Measured horizontally from the high water line from a 10-year, 24-hour rainfall event at the lake or reservoir.
7. Drinking water intake from a surface water source (includes an open water body, downslope spring or a well tapping streamside saturated alluvium)	200	Measured horizontally from the on-site wastewater treatment facility to the structure or mechanism for withdrawing raw water such as a pipe inlet, grate, pump, intake or diversion box, spring box, well, or similar structure.
8. Wash or drainage easement with a drainage area more than 20 acres	50	Measured horizontally from the nearest edge of the defined natural channel bank or drainage easement boundary. A person may reduce the setback to 25 feet if natural or constructed erosion protection is approved by the appropriate floodplain administrator.
9. Water main or branch water line	10	None

10. Domestic service water line	5	Measured horizontally between the water line and the wastewater pipe, except that the following are allowed: a. A water line may cross above a wastewater pipe if the crossing angle is between 45 and 90 degrees and the vertical separation distance is 1 foot or more. b. A water line may parallel a wastewater pipe with a horizontal separation distance of 1 foot to 5 feet if the bottom of the water line is 1 foot or more above the top of the wastewater pipe and is in a separate trench or on a bench in the same trench.
11. Downslopes or cut banks greater than 15 percent, culverts, and ditches from:		
a. Treatment works components	10	Measured horizontally from the bottom of the treatment works component to the closest point of daylighting on the surface.
b. Trench, bed, chamber technology, or gravelless trench with:		Measured horizontally from the bottom of the lowest point of the disposal pipe or drip lines, as applicable, to the closest point of daylighting on the surface.
i. No limiting subsurface condition specified in R18-9-A310(D)(2),	20	
ii. A limiting subsurface condition.	50	
c. Subsurface drip lines.	3	Measured horizontally from the bottom of the lowest point of the disposal pipe or drip lines, as applicable, to the closest point of daylighting on the surface.
12. Driveway	5	Measured horizontally to the nearest edge of an on-site wastewater treatment facility excavation. A person may place a properly reinforced and protected wastewater treatment facility, except for disposal works, at any location relative to a driveway if access openings, risers, and covers carry the design load and are protected from inflow.
13. Swimming pool excavation	5	Except if soil loading or stability concerns indicate the need for a greater separation distance.
14. Easement (except drainage easement)	5	None
15. Earth fissures	100	None

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DEPARTMENT

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SHARED WELL EASEMENTS/AGREEMENTS

Shared well agreements may provide an adjustment to property line setback requirements as stated in the Arizona Aquifer Permit Rule, R-18-9-A312 C.

All shared well agreements MUST be recorded at the county recorders office and <u>contain</u> the following information:

- Effective date
- Parties involved (Grantor and Grantees; Parties to the Agreement)
- Recorded document number
- Full legal description of all the well site, easement and Servant parcels sharing the well with instrument number (all the parcels benefiting from sharing the well and easements)
- How the agreement will run with the land/deed for the parcels
- The relationship of each parcel to: (construction, operation and expenses)
  - General provisions
  - Management of the provisions of the agreement
  - Percentage ownership
  - Percentage share of cost for operation and maintenance of the well and easements
  - Resolution of conflicts
  - Conditions and Limitations
- Survey map (drawing or graphic showing the impacted parcels with dimensions, well site and easements). Recorded as part of document or as a separate document
- Title and Signature with date, of Grantor/Grantee (Parties to the Agreement) of all parcels
- Notary stamp, signature and date.
- Unofficial document will not be accepted

If you have questions or need additional information please contact us at the numbers listed above.

TRENCH WORKSHEET

(to be submitted with NOID Application Packet)

FIXTURE COUNT CALCULATION CHART					
FIXTURE TYPE	FIXTURE UNIT		# OF FIXTURES		TOTAL UNITS
Bath Tub	**2**	X		=	
Bidet	2	X		=	
Clothes Washer	**2**	X		=	
Dishwasher (separate from kitchen)	2	X		=	
Lavatory (bathroom sink), single	**1**	X		=	
Lavatory, double in master bedroom	**1**	X		=	
Shower, single stall	**2**	X		=	
Sink, bar	**1**	X		=	
Sink, kitchen (incluing dishwasher)	**2**	X		=	
Sink, service	3	X		=	
Utility tub or Sink	**2**	X		=	
Water Closet (toilet), 1.6 GPF	**3**	X		=	
Water Closet (toilet), >1.6-3.2 GPF	4	X		=	
Water Closet (toilet), >3.2 GPF	6	X		=	
				TOTAL FIXTURE UNITS	

Items in BOLD are the most commonly used fixtures.

"Bedroom" means, for the purposes of determining design flow for an on-site wastewater treatment facility for a dwelling, any room has:

a). A floor space of at least 70 square feet in area, excluding closets;
b). A ceiling height of at least 7 feet;
c). Electrical service and ventilation;
d). A closet or area where a closet could be constructed;
e). At least one window capable of being opened and used for emergency egress; and
f). A method of entry and exit into the room which allows it to be considered distinct from other rooms in the dwelling to afford a level of privacy customarily expected for such a room.

Bedroom/Equivalent Worksheet	
Room Type	**Number of Rooms**
Bedroom	
Den	
Office	
Other:	
Other:	
Other:	
Total:	

_____(Permit / File #) Designed by: _____ Date: _____

TRENCHES HAVE MAXIMUM OVERALL DEPTH OF FIVE FEET (5') ABOVE DEPTH OF TEST HOLE.

Fill in the TANK SIZE from the OSWTF Sizing Chart Worksheet. **TANK SIZE=** _____

Fill in the DESIGN FLOW from the OSWTF Sizing Chart Worksheet. **DESIGN FLOW** = _____

Fill in the PERCOLATION RATE from the Soils Report **PERC. RATE** = _____

Divide DESIGN FLOW by the SAR from the Conversion Chart. **SAR** = _____

This equals the total square footage of disposal area required.

TOTAL SQUARE FOOTAGE OF DISPOSAL AREA REQUIRED = _____

(See Example Calculations for detailed instructions) **DIVISOR USED** = _____

Divide the total square footage by the divisor, this will equal the total linear length of trench required.

TOTAL LINEAR LENGTH OF TRENCH = _____

Proposed Number of Trenches	
Proposed Length of each Trench	
Proposed Width of each Trench	
Proposed Effective Depth of Trench	
Proposed Overall Depth of Trench	
Separation Between Trench Edges	

If the total linear length of trench is greater than 50' it is recommended that the total is divided into more than one trench of equal size separated by a distribution box.

The separation between the trench walls is 5' or twice the effective depth, whichever is greater.

The maximum length for any disposal field is 100'. Additional inspection risers are required for any trench greater than 50' in length, placed in the center and at the end of each trench.

Cross Section for Trench

(to be submitted with NOID Application Packet)

Side View

Top of mound

2" mound for drainage control

Finished Grade

9" to 24" backfill cover. If backfill is more than 24", all piping must be SDR 35 or equivalent

6"

Inspection Riser

Removable Caps

Landscape filter cloth, geotextile or similar porous material. No straw.

2" aggregate over pipe

Level, 3" or 4" perforated distribution pipe (holes at 4 & 8 o'clock)

Maximum overall depth 5' above depth of test hole

Leach Rock – ¾" to 2 ½" diameter, screened & washed offering 30% or more void space.

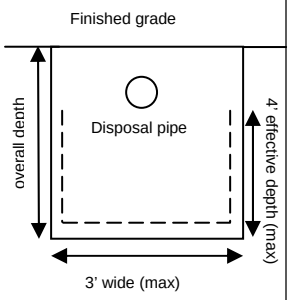
Sidewall absorption area (effective depth) is 1, 2, 3, or 4 feet below the distribution pipe

3/4" PVC pipe placed every 10' to be used as depth markers and to verify that the bottom of the trench is level. Place pipes in center of trench.

24" to 48" from end of trench

EXAMPLE CALCULATION

To calculate the divisor per linear foot of trench, add both sides of the sidewall absorption area (effective depth) plus the bottom absorption area (width). In the example below, the effective depth is 4' and the width is 3'. The divisor would be 11 (4 + 4+ 3). 11 is the maximum allowable divisor.



End View

2" mound for drainage control

Finished grade

Undisturbed native soil

6"

9" to 24" backfill cover. Backfill is greater than 24", piping must be SDR 35 or equivalent

Geotextile material

2" aggregate over pipe

3" or 4" diameter distribution pipe, end to be capped

Maximum overall depth is 5' above depth of test hole

Sidewall absorption area (effective depth) is 1, 2, 3, or 4 feet below the distribution pipe

Inspection riser to be 3" or 4" diameter, perforated pipe with solid pipe and removable cap above the aggregate

Leach Rock – ¾" to 2 ½" diameter, screened & washed offering 30% or more void space.

Level and square throughout entire trench. Bottom absorption area (width) is 1, 2, or 3 feet

NOTE: TANK PLUMBING SHOULD **NOT** BE ATTACHED TO HOUSE PRIOR TO INSPECTION**.**

These diagrams are for example purposes only; they are not to TRUE scale.

(Permit / File #) _____ **Designed by:** _____ **Date:** _____

SEPTIC SYSTEM SIZING CHARTS

Use the charts below to complete the Design Worksheet on the following page.

SELECTING THE PROPER SIZE SYSTEM			
*No. of Bedrooms**	*Fixture Count*	*Minimum Septic Tank Size (gallons)*	*System Daily Design Flow (gallons per day)*
1	7 or less	1000	150
	more than 7	1000	300
2	14 or less	1000	300
	more than 14	1000	450
3	21 or less	1000	450
	more than 21	1250	600
4	28 or less	1250	600
	more than 28	1500	750
5	35 or less	1500	750
	more than 35	2000	900
6	42 or less	2000	900
	more than 42	2500	1050
7	49 or less	2500	1050
	more than 49	3000	1200
8	56 or less	3000	1200
	more than 56	3000	1350

For a single residence with more than 8 bedrooms, use either the bedroom count or the fixture count, whichever is greater, and the following formulas:* **For Septic Tank Size: multiply the number of bedrooms by 150, then multiply that total by 2.1. This will equal the minimum septic tank size in gallons. OR multiply the total fixture units by 25, then multiply that total by 2.1. **For System Daily Design Flow**: multiply the number of bedrooms by 150, this will equal the minimum Design Flow in gallons per day. OR multiply the total fixture units by 25.

Obtain perc rate from soil report. Use the chart below to determine Soil Absorption Rate (SAR). Then, use the Design Flow determined from the above chart. The formula used to determine the required square footage of disposal area is: DESIGN FLOW ÷ SAR. (Example: 600 ÷ 0.63 = 952 sqft)

DESIGN FLOW CALCULATION TABLE-TRENCH								
		Design Flow--Gallons per Day						
		450	600	750	900	1050	1200	1350
PERC RATE (min/inch)	**SAR (gpd/sqft)**	**Required Square Footage of Disposal Area**						
<1	NOT ALLOWED FOR CONVENTIONAL DISPOSAL							
1 to <3	1.2	375	500	625	750	875	1000	1125
3	1.1	409	545	682	818	955	1091	1227
4	1	450	600	750	900	1050	1200	1350
5	0.90	500	667	833	1000	1167	1333	1500
7	0.75	600	800	1000	1200	1400	1600	1800
10	0.63	714	952	1190	1429	1667	1905	2143
15	0.50	900	1200	1500	1800	2100	2400	2700
20	0.44	1023	1364	1705	2045	2386	2727	3068
25	0.40	1125	1500	1875	2250	2625	3000	3375
30	0.36	1250	1667	2083	2500	2917	3333	3750
35	0.33	1364	1818	2273	2727	3182	3636	4091
40	0.31	1452	1935	2419	2903	3387	3871	4355
45	0.29	1552	2069	2586	3103	3621	4138	4655
50	0.28	1607	2143	2679	3214	3750	4286	4821
55	0.27	1667	2222	2778	3333	3889	4444	5000
55 to<60	0.25	1800	2400	3000	3600	4200	4800	5400
60 to<120	0.20	2250	3000	3750	4500	5200	6000	6750
>120	NOT ALLOWED FOR CONVENTIONAL DISPOSAL							

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MATERIALS LIST FOR ON-SITE WASTEWATER TREATMENT FACILITY

PERMIT: _____

OWNER: _____

ADDRESS: _____

_____Zip_____

TANK MANUFACTURER: _____

TANK SIZE: _____gallons.

A. Concrete: _____
B. Fiberglass: _____
C. Polyethylene: _____

D-BOX: _____4 hole. _____6 hole._____Other:_____
Material: _____Concrete _____Polyethylene

TYPE OF AGGREGATE TO BE USED: _____. ____tons.

WASHED RE-CYCLED CONCRETE: _____. ____tons.

LENGTH OF PIPE:

A. SOLID: ___Ft
B. PERFORATED ___Ft
C. SDR 35: _____YES ____NO

CHAMBERS:

A. TYPE: _____
B. NUMBER: _____

OTHER COMPONENTS:

A. GEO-TEXTILE _____ft.
B. OTHER NON-POROUS MATERIAL: Type:_____. ____ft.
C. ALTERNATIVE SYSTEMS (Describe materials list in detail):

_____
_____

D. PRESSURE DRIP SYSTEMS:
Materials and quantity: (attach separate list)

_____

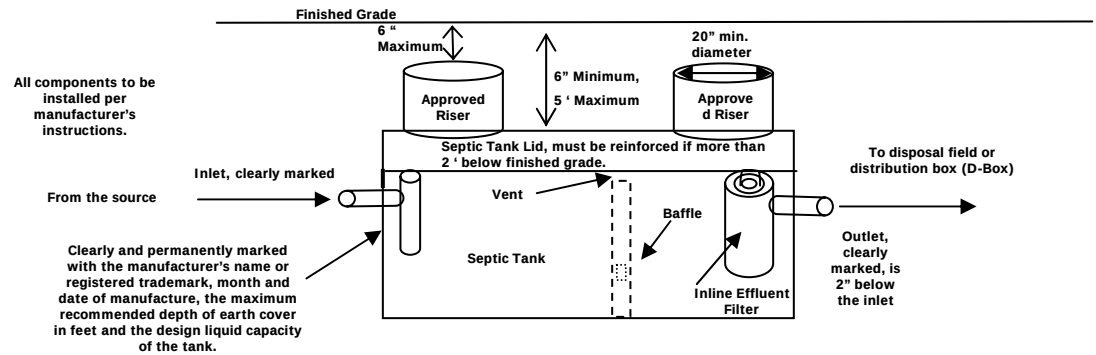
PRINT DESIGNER NAME: _____

PRINT INSTALLER NAME: _____ROC:_____

SEPTIC TANK AND DISTRIBUTION BOX (D-BOX) TIPS

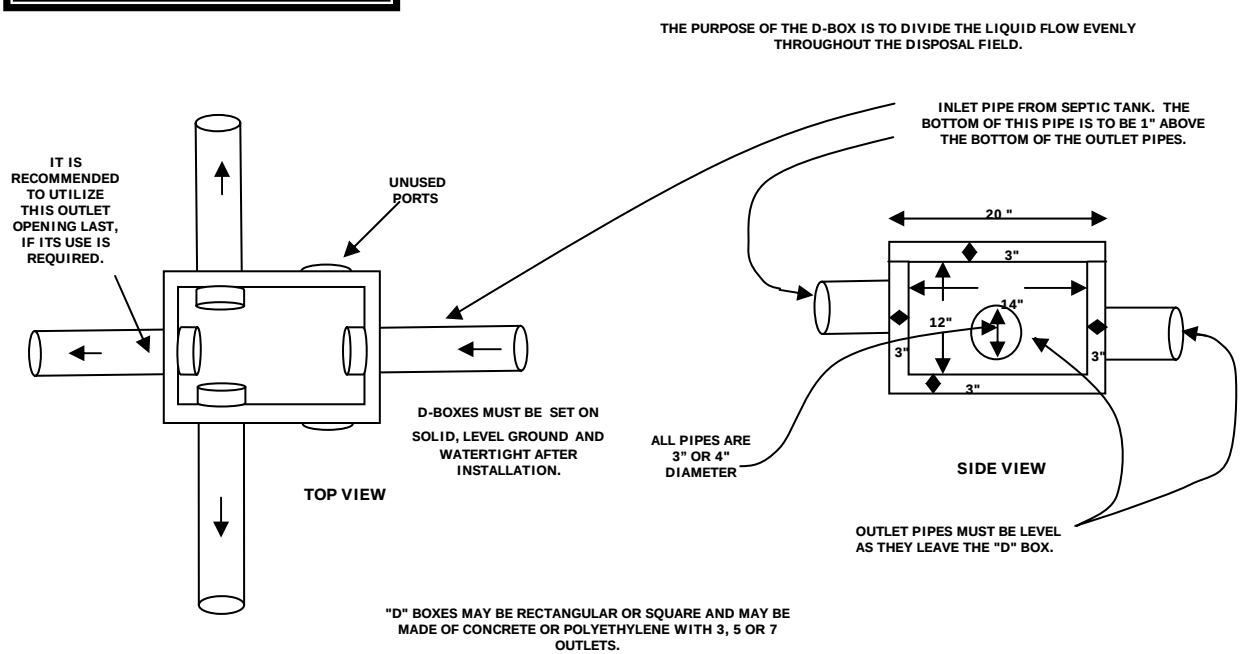
(to be submitted with NOID Application Packet)

Consideration of how deep the plumbing stub-out is at the proposed septic tank location will determine how deep the tank and disposal field must be. Septic tanks that are installed so the top of the tank is two feet (2') to five feet (5') below finished grade will require additional reinforcement in the lid and risers. Tank lids that are greater than six inches (6") below finished grade are required to have risers installed so access openings on the top of the tank are within six inches (6") of finished grade. **Tanks that are installed so the top of the tank is greater than five feet (5') deep are not allowed**. In cases where the plumbing stub out is too deep to install the tank as described above the sewage may have to be pumped up to the tank from the source. If the designated reserve disposal field is at a higher elevation than the septic tank, across a wash or too far away (100' is the maximum separation between septic tank and disposal field), it may be required to have a lift station engineered and approved prior to utilizing the primary or reserve disposal fields.



It is recommended that the OSWTF be installed as shallow as possible to utilize the benefit of evaporation through the top soils.

TYPICAL DISTRIBUTION, "D", BOX



(Permit / File #)_____ Designed by:_____ Date:_____

These diagrams are for example purposes only; they are not to TRUE scale.

Maricopa County Environmental Services Department
Water & Waste Management Division
(Delegated Authority for ADEQ)
1001 N Central Ave, Suite 150
Phoenix, AZ 85004
Phone: (602) 506-6666
Fax: (602) 506 6925

NOTICE OF INTENT TO DISCHARGE (NOID)

Under a General Aquifer Protection Permit for an On-Site Wastewater Treatment Facility (OSWTF)

OSWTF Permit # __ __ - __ __ __ __

Instructions: Fill out completely (**failure to do so will result in a delay of the permitting process**) and submit this NOID to obtain authorization to construct and approval to discharge from a new or altered OSWTF, including a **conventional septic tank and / or disposal field system or alternative on-site treatment and disposal technologies** covered by Aquifer Protection Permits. All required information must be submitted along with this application and applicable fees, cash or check only. **Print or type in black or blue INK** (pencil is not acceptable) all information except the signature block on page two. This application will expire one year from the date of submittal if Construction Authorization has **not** been issued.

1. Site Location:

Subject Property Address:_____Maricopa County, AZ_____
Required at time of PVGPC issuance — Street Name and Number — City (if applicable) — Zip Code

Cross Streets_____Parcel Number __ __ __ - __ __ - __ __ __ __

Subdivision Name (if applicable):_____ Lot #(s)_____

Legal Description: Section_____ Township_____ Range_____ Acreage_____

2. Property Owner

Name:_____ Phone #_____

Current Mailing Address*:_____ Fax #_____
Street Name and Number

_____ Mobile #_____
City — State — Zip Code

*Any changes to this address shall be submitted in writing to MCESD within 15 days of the change. All documents from MCESD will be mailed to this address unless otherwise noted below. Returned mail will not be forwarded.

3. Authorized Agent *for Property Owner, (if none, then leave blank):*

Business Name:_____

Agent's Name_____ Contractor License #:_____

Business Mailing Address:_____ Phone #_____
Street Name and Number

_____ Fax #_____
City — State — Zip Code

Are you authorized to install the OSWTF? **(circle one)** YES NO Mobile #_____

If **NO,** fill out the Septic Installer information below:
After 30 Days, unclaimed Authorizations to Construct will be mailed to: **(circle one)** Property Owner Authorized Agent

4. On-Site Installer - *Person authorized to install the OSWT, (if same as the Property Owner or Authorized Agent, leave blank):*

Business Name:_____ Contact Person Name:_____ Contractor's License #_____

Business Mailing Address:_____ Phone #_____
Street Name and Number

_____ Fax #_____
City — State — Zip Code

Mobile #_____

THIS IS A TWO (2) PAGE DOCUMENT; BOTH PAGES MUST BE COMPLETED BEFORE SUBMITTING TO MCESD.

THIS SPACE FOR OFFICE USE ONLY

LICENSING TIME FRAMES

NOID Log in Date_____By_____

ACR Completed_____By_____
Paperwork Review

ACR Incomplete/HOLD_____By_____

SR Pre Const Completed _____ By_____
Plan Review

SR Pre Const -Incomplete/HOLD_____By_____

SR Post Const Completed_____ By_____
Inspection

Site Code:_____

MC P/D Tracking # B_____

APPROVALS: General Permit (circle one): 4.02 Other_____

Design Flow: _____gpd System Type:_____

BILLING PURPOSE	AMT PD	RECEIPT #	DATE PD
PLAN REVIEW / SITE			
PLAN REVIEW / SITE			
OTHER			

OSWTF Permit # ___ - ___ ___ ___

5. Site Details:

SEWER **(circle one)** **IS** / **IS NOT** AVAILABLE WITHIN 400' OF THE PROPERTY.

WATER SOURCE: **(check one)** _____Water Company: Water Company Name _____

_____Holding Tank (hauling water) - Fifty foot (50') setback is required.

_____ Private Well

_____Shared Well*- SWA Recording # _____

Well Identification # _____

* A copy of all shared well agreements, recorded as an attachment to the deed of the subject properties, may be required as supplemental information **IF** the fifty foot (50') setback to the common property line between the OSWTF and adjacent property can not be met **AND** there is not a well already installed on the adjacent property to the side that can not meet the required setback.

ALL EXISTING WELLS ON AND WITHIN 200' OF THE SUBJECT PROPERTY ARE SHOWN ON THE SITE PLANS, **(circle one).** **YES** **NO**

Check One: ____Prior site work has been initiated and is on file with MCESD, W/WM. Existing file number(s) _____

____No prior site work has been filed for this site with MCESD, W/WM. The NOID Packet includes all site/soils reports.

6. Narrative Description of Project:

☐ **NEW - General Permit 4.02** (OSWTF which consists solely of a septic tank **AND** conventional disposal field circled below)**:**

(circle one) Trench Seepage Pit Leach Bed Chamber Technology

☐ **ALTERATION - General Permit 4.02** (OSWTF which consists solely of a septic tank **OR** conventional disposal field circled below)**:**

(circle one) Tank Trench Seepage Pit Leach Bed Chamber Technology

☐ **Any Other OSWTF.** Describe proposed treatment and disposal train and indicate all applicable general permit numbers; indicate design flow and expected date of operation; describe sewage source and characteristics: _____

_____.

THE OSWTF WAS DESIGNED USING A SEPTIC TANK SIZE AND A DESIGN FLOW TO:

☐ **Serve a Single-Family Residence** with typical household sewage.

☐ **Serve a Single-Family Residence** with typical household sewage and _____
List all other sources and characteristics of the wastewater

☐ **Serve Other Than a Single-Family Residence** with typical household sewage.

☐ **Serve Other Than a Single-Family Residence** with other than typical household sewage.
If other than a Single-Family Residence, **then** fill out the following information:

Type of Facility_____ **Number of Employees/Users**_____

☐ Other sources and characteristics of the wastewater_____

7. Acknowledgement:

I, _____ (Property Owner), am aware that although a septic tank and disposal works system described in R18-9-E302 is appropriate for the site, I desire to install a treatment works or disposal works authorized under R18-9-E303 through R18-9-E322. (R18-9-311(D)(1). I am also aware that a treatment works or disposal works authorized under R18-9-E303 through R18-9-E322 may result in higher capital, operation, and maintenance costs. (R18-9-311(D)(2).

_____ _____
Signature of Owner Date

8. Existing Environmental Permits:

List any state or federal environmental permits already associated with this site or that are needed (**check all that apply**) :

___ New installation of an on-site wastewater treatment facility. ___No other environmental permits exist. ____Other environmental permits required (list all): _____

9. Certfication: (READ CAREFULLY AND SIGN BELOW, to be completed by the property owner identified in Item Two (2) on the front of this application:

I _____, certify that this Notice of Intent to Discharge and all attachments were prepared
Print Name

under my direction or authorization and all information is, to the best of my knowledge, true, accurate and complete. I also certify that the on-site wastewater treatment facility described in this form is or will be designed, constructed, and operated in accordance with terms and conditions of the authorized general aquifer protection permit(s) and applicable requirements of Arizona Revised Statues Title 49, Chapter 2, and Arizona Administrative Code Title 18, Chapter 9 regarding aquifer protection permits and the Maricopa County Health Code. **I am aware that there are significant penalties for submitting false information including permit revocation as well as the possibility of fine and imprisonment for known violations.**

_____ _____
Signature Date