Dearborn County Health Department

Residential OSS Plan Review

Property Owner Name _____

Property Address _____

Designer _____

Date Received _____

Plan Reviewer _____

Date of Review _____

Meets or Exceeds Minimum Requirements	Does Not Meet Minimum Requirements	Additional Information Requested	Not Applicable			Approval Constitutes Best Judgment for System Replacement
				General Plan Requirements		
				Completed Application		
				Onsite Soil Evaluation		
				Onsite System Evaluation (replacement systems)		
				Property Lines		
				Structures - Existing and Proposed		
				Bodies of Water, Field Tiles		
				Water and Geothermal Wells - on site and adjacent		
				All Soil Boring Locations		
				North Direction Arrow		
				All System Components		
				Separation Distances (57(a))*	Min.	
				Private Water Supply or Geothermal Well	50'	
				Commercial Water Supply or Geothermal Well	100'	
				Public Water Supply Well, Lake or Reservoir	200'	
				Pond, Retention Pond, Lake, Reservoir	50'	
				Storm Water Detention Area	25'	
				River, Stream, Ditch or Drainage Tile	25'	
				Buildings, Foundations, Pools, Driveways, etc.**	10'	
				Front, Side, Rear Property Lines	5'	
				Water Lines continually under pressure	10'	
				Suction Water Lines	50'	
				Private water supply well, properly abandoned	10'	
				Cemetery	100'	
				Site Protected from disturbance		

*Minimum Distances doubled for SLR >0.75gpd/ft^2

** See complete listing in Table I, Section 57(a)

Notes on General Plan Review

Meets or Exceeds	Does Not Meet	Additional Information	Not Applicable	

Residential Sewer (57(b), 57(c), 67(a)(1), 74(i), 74(j), 74(k))

Piping Specifications

PVC		ABS	
	ASTM 2665-12		ASTM D 2661-11
	ASTM F 891-10		ASTM D 2680-01
	ASTM D 3034-08		ASTM D2751-05
	ASTM 480-12		

Pipe Diameter _____ Inches

Pipe Length _____ Feet

Proper Fall (Min. 4"/25' [1.33%] Max. 36"/25' [12%])

Vertical Drop with cleanout

Septic Tank (60, 61, 63)

Cross Section view provided

Approved Tank

Manufacturer _____

Material _____

Capacity _____ gal.

Compartments _____

Multiple septic tanks _____ (largest upstream)

Approved Tank Connectors

Approved Risers

Childproof Plug

Risers installed above floodplain elevation

Existing Tank (condition confirmed)

- Watertight
- Baffles in place / retrofitted
- Appropriate size
- Testing needed
- To be abandoned - documentation to be provided

Outlet Filter (64)

Approved Filter

Manufacturer _____

Model _____

Flow Rating _____ gal/day

Location _____

Effluent Sewer Pipe (67(a)(1),74(l), 75(d), 75(e), 75(f))

Piping Specifications

PVC		ABS	
	ASTM 2665-12		ASTM D 2661-11
	ASTM F 891-10		ASTM D 2680-01
	ASTM D 3034-08		ASTM D2751-05
	ASTM 480-12		
	Upgraded Pipe		

- Pressure rated pipe
- SDR 26 or less
- Compression Gasket Joints

Waterworks ductile iron with mechanical/tyton joints

Pipe Diameter _____ Inches

Pipe Length _____ Feet

Proper Slope (Min. 0.2%)

Notes/Comments

Meets or Exceeds	Does Not Meet	Additional Information	Not Applicable	
				Dosing Tank (62, 63)
				Cross Section view provided (with gal/in)
				Approved Tank
				Manufacturer _____
				Material _____
				Sufficient Liquid Capacity
				Liquid Capacity _____ gal. _____ in. (as spec by manuf.)
				Freeboard _____ gal. _____ in. (alarm to inlet inv)
				Alarm _____ gal. _____ in. (on to alarm)
				Dose + Drainback _____ gal. _____ in. (off to on)
				Pump Submersion _____ gal. _____ in. (Bottom to off)
				Total req. cap. _____ gal. _____ in. (Bottom to inlet inv)
				Acceptable Access Ports
				Approved Tank Connectors
				Float / Sensors with elevations (Mercury comparable)
				Float settings reflect correct dose (with elevations)
				Top installed above floodplain elevation
				Effluent Pump (65)
				Acceptable Pump Selection with pump curve attached
				Manufacturer _____
				Model _____
				Total Dynamic Head _____ ft.
				System Flow _____ gpm
				☐ Lifting Rope ☐ Electrical Box (NEMA 4X)
				☐ Pump and Alarm on Separate Circuits
				Effluent Force Main (67(a)(2), 67(b))
				Piping Specifications
				PVC / ABS
				☐ ASTM D 2241-09 ☐ ASTM D 1527-99
				☐ ASTM D 1785-06 ☐ ASTM D 2282-99
				☐ SDR ≤26 with Gasketed compression-type joints (≤10' from water line)
				Pipe Diameter _____ Inches
				Pipe Length _____ Feet
				☐ Pipe Drains to _____ or ☐ Installed below frostline
				Distribution Box (66, 75(c), (i))
				Approved Distribution Box
				Manufacturer _____
				Material _____
				☐ Minimum Size Req. ☐ Baffle
				☐ Sanitary Tee ☐ 90 elbow with weephole
				Effluent Sewer Pipe (Header Pipes) (67(a)(1),74(l), 75(d), 75(e), 75(f), 75(i))
				Piping Specifications
				PVC / ABS
				☐ ASTM 2665-12 ☐ ASTM D 2661-11
				☐ ASTM F 891-10 ☐ ASTM D 2680-01
				☐ ASTM D 3034-08 ☐ ASTM D2751-05
				☐ ASTM 480-12
				☐ Upgraded Pipe
				☐ Pressure rated pipe ☐ Waterworks ductile iron with
				☐ SDR 26 or less mechanical/tyton joints
				☐ Compression Gasket Joints
				Pipe Diameter _____ Inches
				Minimum 5' between distribution box and proximal end of trench
				Proper Slope (Min. 0.2%)
				Pipe backfilled with debris free soil (no aggregate) / soil compacted
				Soil Absorption Field General Parameters (To be checked for all SAFs)
				Properly Sized (square footage) ☐
				Adequately described with soil evaluation
				On Contour ☐
				Infiltrative surface above the regulated flood elevation ☐

Meets or Exceeds	Does Not Meet	Additional Information	Not Applicable	

Subsurface Trench Soil Absorption Field

				Type of Distribution	
				☐ Gravity Feed	
				☐ Gravity Feed Alternating Fields	
				☐ Flood Dosed	
				☐ Pressure Distribution	
				Acceptable Design of Subsurface Trenches	
				Number of Trenches _____	
				Length of Trenches _____	
				Width of Trenches _____	
				Total square footage of trench bottom _____ sq. ft.	
				Minimum Depth of Installed Trenches _____ In.	
				Maximum Depth of Installed Trenches _____ In.	
				On Center Separation _____ ft.	
				Distribution Pipe Specifications (67(c))	

☐	ASTM 2665-12	☐	ASTM D 2661-11
☐	ASTM F 891-10	☐	ASTM D 2680-01
☐	ASTM D 3034-08	☐	ASTM D 2751-05
☐	ASTM D 2729-11	☐	ASTM D 1527-99
☐	ASTM F 810-07	☐	ASTM D 2282-99
☐	ASTM D 2241-09	☐	Water works grade ductile iron
☐	ASTM D 1785-06	☐	ASTM 480-12
☐	AASHTO M252-09		

Pipe Diameter _____ Inches

				Bottom of Trench Level	
				Proper hole placement (4-8-12) or (4-8)	
				Pipe Level throughout length of trench	
				Approved Materials for subsurface trench	

☐ Stone / Gravel and Pipe
- Agg. Supplier _____
- Size _____
- ☐ Fines, Sand, Clay Removed
- ☐ Approved Barrier Material
- ☐ Proper Cross Section View

☐ Chamber
- Manufacturer _____
- Model _____
- % Reduction _____

☐ Tire Chips and Pipe
- Supplier _____
- Size _____ in.
- ☐ Approved Barrier Material
- ☐ Proper Cross Section View

☐ Gravelless Pipe (gravity systems only)
- Manufacturer _____
- Model _____
- Size _____

☐ Other (may require additional plan submittal paperwork)

Notes/Comments

Meets or Exceeds	Does Not Meet	Additional Information	Not Applicable		Approval Constitutes Best Judgment

Elevated Sand Mound System (79-89)

				Acceptable Design of Elevated System	
				☐ Sloping Site (>1/2%) Aggregate Bed Upslope	
				☐ Level Site (≤1/2%) Aggregate Bed Centered	
				Aggregate Bed Area _____ sq. ft.	
				Length _____ ft.	
				Width _____ ft.	
				Basal Area _____ sq. ft.	
				Length _____ ft.	
				Width _____ ft.	
				Cross Section of Elevated Sand Mound	
				☐ Min. 12" sand under Aggregate Bed	
				☐ Min. 6" agg under and 2" agg over distribution lateral	
				☐ Approved Barrier Material over aggregate	
				Plan View of Elevated Sand Mound	
				☐ Proper Lateral Separation (2-3')	
				☐ Proper Lateral to Edge separation (1-1.5')	
				☐ Proper Lateral to End separation (1.5')	
				Accurate effluent force main approach to ESM	
				☐ Approach from uplsope side (sloping site)	
				☐ Approach from either end (level or sloping site)	
				Minimal Disturbance to Basal Area	
				INDOT Spec 23 sand specified in basal area	
				Aggregate in Aggregate Bed	
				Type of Aggregate _____	
				Size of Aggregate _____	
				Additional 1' sand surrounding aggregate bed	
				Additional sand on ends of ESM (min. 3:1 slope)	
				Additional sand on uplsope of ESM (sloping sites) (min. 3:1 slope)	
				Manifold Specifications	
				PVC / ABS	
				☐ ASTM D 2241-09 ☐ ASTM D 1527-06	
				☐ ASTM D 1785-06 ☐ ASTM D 2282-99	
				Manifold Length _____ Feet Manifold Diameter _____ Inches	
				☐ Center feed ☐ End feed	
				Pressure Distribution Laterals Specifications	
				PVC / ABS	
				☐ ASTM D 2241-09 ☐ ASTM D 1527-06	
				☐ ASTM D 1785-06 ☐ ASTM D 2282-99	
				Lateral Length _____ Feet Lateral Diameter _____ Inches	
				Number of laterals _____	
				Proper Lateral Hole Spacing	
				☐ 1/4" holes ☐ Holes deburred	
				☐ 3' on center spacing (beginning 1.5' from manifold)	
				☐ Proper hole placement in endcap	
				Holes per lateral ☐ Holes Holes per network ☐ Holes	
				Soil Cover Material	
				☐ Min. 12" over ESM & 18" Crowned over Agg. Bed	
				☐ Min. 3:1 slope	
				Proper Installation Technique Methods Noted	
				☐ Protection of Site	
				☐ Tillage Method	
				Depth of tilling _____ in.	
				☐ Parallel to contour	
				☐ Chisel ☐ Backhoe (with approval)	
				☐ Moldboard ☐ Bulldozer with ripper	

Meets or Exceeds	Does Not Meet	Additional Information	Not Applicable		Approval Constitutes Best Judgment

Sand Lined System (SLS) Soil Absorption Field

- Product proposed in design
  - Manufacturer _____
  - Model _____
- Certification of designer for product used
- Acceptable Design
  - ☐ Sloping Site (>1/2%) Aggregate Bed Upslope
  - ☐ Level (≤1/2%) Aggregate Bed Centered
  - ☐ Elevated
    - ☐ Site slope confirmed ≤6%
    - ☐ Minimum 12" sand under pipes
    - ☐ Installed at original grade
    - ☐ Installed at ≤4" (Presby or Infiltrator ATL) or at surface (Eljen)
  - ☐ Subsurface
    - ☐ Site slope confirmed ≤15%
    - ☐ Minimum 6" sand under pipes
    - Max. Installation depth _____ in
  - ☐ Gravity flow ☐ Pump assisted (may require velocity reduction)
  - ☐ Pressure distribution (Eljen only)
  - ☐ Serial distribution ☐ Parallel distribution
  - ☐ Sequential distribution (Eljen only)
- Min. 1% slope and 2" fall from septic tank to pipe or D-box and pipe (Presby)
- Bed Design (SLS using trenches or ESM, use conventional SAF checklist)
  - ☐ As long and narrow as site allows
  - Pipe Bed dimensions — Length ☐ ft Width ☐ ft
  - Length of pipe/conduit/unit run ☐ ft
  - Depth of sand under pipe bed ☐ ft
  - On-center separation between rows ☐ ft
  - Separation between pipe and edge ☐ ft
  - ☐ Min. 1' sand at each end
  - ☐ Raised connections
  - Basal Area Dimensions — Length ☐ ft Width ☐ ft
  - Bed Area ☐ sq. ft.
  - ☐ INDOT Spec 23 sand specified in basal area
- Cover Material
  - ☐ Min. sand over pipe
    - ☐ None required ☐ Min. 3" required (Presby)
  - ☐ Soil cover (min. sand plus soil = 12")
  - ☐ Min. 3:1 slope
- Venting (Required for Presby, only required for ATL and Eljen if >18" cover)
  - ☐ Low Vent
    - ☐ At low point of system
    - ☐ Min. 1' above grade
    - ☐ Remote with proper design
  - ☐ High Vent
    - ☐ House vent ☐ At D-box ☐ Remote
    - ☐ Min. 10' above low vent
  - ☐ Proper vent design

Notes/Comments

Meets or Exceeds	Does Not Meet	Additional Information	Not Applicable		Approval Constitutes Best Judgment
				Dispersal Area (58)	
				Adequate dispersal area identified	
				☐ 1/4 width of SAF on each side of system (slope ≤1/2%)	☐
				☐ 1/2 width of SAF on downslope side of system (slope >1/2%)	☐
				☐ No portion slopes back toward SAF (slopes >1/2%)	☐
				☐ 10' to perimeter drain	☐
				Drainage (59)	
				Surface Diversion	
				☐ Positive Grade (min. 0.2%)	
				☐ Sufficient Depth & Width	☐
				☐ Proper separation to soil absorption field	☐
				☐ Upslope position	☐
				Subsurface Drainage	☐
				Calculated site slope _____ %	
				☐ Full Perimeter drain	☐
				☐ Interceptor Drain	☐
				☐ Segment Drain	☐
				Adequate Depth	☐
				☐ 2" into massive clay, glacial till or fragipan	☐
				☐ 36" below adjacent trench bottom (subsurface)	☐
				☐ 32" below grade (ESM)	☐
				☐ Drainage Calculations included	☐
				Min. 10' separation to SAF laterals	☐
				Positive Slope (min. 0.2% for 4" or min. 0.1% for 6")	
				Acceptable Outlet	☐
				☐ To existing approved tile	☐
				☐ To daylight with rodent guard	☐
				Pipe Specifications (67(e))	
				☐ ASTM F 405-05 ☐ NRCS 606	
				☐ ASTM F 667-12	
				Wrapped with geotextile fabric (63(b)(3))	
				Appropriate Backfill (59 (i) and (j)	
				☐ Backfilled to surface with aggregate	
				☐ Backfilled to within 6" of grade with geotextile fabric	

Notes/Comments