

RESOLUTION NO. R060820A
A RESOLUTION OF THE CITY OF FISHERS BOARD OF PUBLIC WORKS AND
SAFETY AMENDING THE STANDARDS FOR SUBMISSION OF RECORD
DRAWINGS

WHEREAS, on or around September 7, 2004, the Town of Fishers, Hamilton County, Indiana (which on January 1, 2015 transitioned into a second class city in accordance with Indiana law) (“City”) adopted standards for the submission of record drawings and standardization of the digital information submittal format for all development located within the City pursuant to Resolution R090704D, (the “Standards for Submission of Record Drawings”), as amended by Resolution R030110A on or around March 11, 2010;

WHEREAS, the City maintains a Geographic Information System (“GIS”) and maintains a file of Record Drawings of infrastructure projects;

WHEREAS, as the City experiences continued development, it is in the best interests of the City to have an accurate representation of public and private infrastructure constructed by developers in order to properly maintain said infrastructure;

WHEREAS, having digital files of the plans created by engineering and surveying firms increases the accuracy and reduces the time to resurvey and or recreate this information; and




WHEREAS, the City now desires to further amend the Standards for Submission of Record Drawings by requiring Record Drawings for the construction of all new public and private infrastructure to be submitted in accordance with the *City of Fishers Digital Record Drawing Submittal Requirements*, which are attached hereto and incorporated herein as Exhibit A, as amended from time to time.

NOW, THEREFORE, BE IT RESOLVED, by the City of Fishers Board of Public Works & Safety meeting in regular session as follows:

- Section 1. The Board hereby repeals R030110A, and replaces it with the *City of Fishers Digital Record Drawing Submittal Requirements*, which are attached hereto and incorporated herein as Exhibit A, as may be amended from time to time. All policies as may have been established by resolution or otherwise in conflict herewith are hereby vacated.
- Section 2. The submission of Record Drawings for all new public and private infrastructure construction within the City shall conform to the *City of Fishers Digital Record Drawing Submittal Requirements*, as amended from time to time.
- Section 3. This Resolution shall be of full force and effect from and upon its adoption and in accordance with Indiana law.

SO RESOLVED, by the City of Fishers Board of Public Works & Safety this 8th day of June, 2020.

**BOARD OF PUBLIC WORKS & SAFETY,
CITY OF FISHERS
HAMILTON COUNTY, INDIANA**

YAY		NAY	ABSTAIN
	Scott Fadness, Chairman		
	Jeff Lantz, Member		
	Jason Meyer, Member		

ATTEST: 
Lindsay Downing, Board Clerk

DATE: 6/8/20

This instrument prepared by: Christopher P. Greisl, City Attorney, City of Fishers, Hamilton County, Indiana, One Municipal Drive, Fishers, Indiana, 46038

"I affirm, under the penalties for perjury, that I have taken reasonable care to redact each Social Security number in this document, unless required by law." /s/ Christopher P. Greisl

Exhibit A

[City of Fishers Digital Record Drawing Submittal Requirements]

City of Fishers Digital Record Drawing Submittal Requirements

I. Introduction

This document outlines the submittal requirements and process for providing digital Record Drawing data to the City of Fishers for any new public or private infrastructure construction within the City of Fishers.

II. Submission of Digital Record Drawings

- a. All digital Record Drawing data shall be submitted to the City of Fishers within 60 days of installation of infrastructure. This Record Drawing data must be delivered to the City's Department of Engineering at One Municipal Drive, Fishers, IN 46038 along with payment for the review fee. You must contact the Department of Engineering at 595-3160 for the appropriate review fee.
- b. The necessary digital files shall be submitted to the City of Fishers Department of Engineering in order to complete the review. Review comments will be provided electronically.
- c. Any questions concerning the Record Drawing submittals shall be directed to the Director of Engineering for the City of Fishers, (317) 595-3160.

III. Digital Record Drawing Requirements Overview

- a. Digital Record Drawings shall be submitted in accordance with the City of Fishers Record Drawing Attribute Definitions. A copy of the most recent version is available at the City of Fishers, Department of Engineering, 1 Municipal Drive, Fishers, IN 46037 or on the City's website.
- b. Files will be submitted in AutoCad.dwg format.
- c. Provide just one .dwg file of the overall site plan drawing -including only the information for that section being submitted as the construction plan or record drawing.
- d. It is not necessary to submit copies of the Fishers Standard Details Sheets.
- e. Do not include title blocks in overall file, or digital professional seals in .dwg file.
- f. All text pertaining to utilities shall reflect as-built conditions.
- g. An Object Data Table template and instructions on the procedure to populate the Object Data Table are available for download from the City's website.
- h. All relevant attribute data will be attributed with their corresponding data via the Object Data function within AutoDesk's Map application or with ESRI's ArcGIS products. ESRI geodatabases are acceptable.
- i. Do not use fonts or line-types that are not AutoCAD standard. All utility line-work, blocks, and text shall be standard AutoCAD. Line-work and objects related to said utilities displayed as third-party software entities (AEC objects as an example, proxy graphics) will not be accepted.

- j. File names should make sense to a viewer who may not be familiar with the consulting firm's naming conventions and be indicative of the contents of the file. File names should match the project name as submitted during the TAC application process.
- k. Submitted drawings shall not contain xref files. **All xref's shall be bound using the "insert" command and exploded.** Do not explode all the blocks in the drawing. Care must be taken when binding xref's to avoid duplication of information.
- l. All structures, mains, laterals, and annotations relating to all utilities shall be on separate, logically named layers (i.e. san_text, san_line, san_struct, or similar).
- m. Each data point shall be located in the center of the infrastructure item. Data Table. Annotation must be placed on a unique layer and said text shall be standard
- n. Utility annotation text (including, but not limited to, structure name or number) shall not be displayed as a block or block attribute, unless the block attributes are tied to the Object Data Table (ODT). Annotation must be placed on a unique layer and said text shall be standard text, not MTEXT.
- o. Line-work representing utility mains shall be continuous from structure insertion point to structure insertion point. Line segments between structures must be continuous polylines. Line-work representing mains shall share a common endpoint (at the block insertion point) with all other line-work connected to that structure. Do not trim lines at the edge of structure symbols. Do not use a continuous polyline to represent an entire pipe run. Each line must begin and end at a structure insertion point, connecting only two structures per line. Line-work representing laterals must be a continuous polyline connected to the appropriate main, not a block.
- p. Line-work representing utility mains and laterals must be drawn in the direction of flow. Stationing does not have to be changed.
- q. Multi-use paths, sidewalks, and trails shall be represented as a centerline polyline with the ODT populated.
- r. Ponds shall be a polygon representing the normal pool elevation of all detention and retention areas (normal pool elevation for dry detention should be the bottom of the detention area). These polygons must be included in the drawing, as well as the appropriate data in the Object Data Table.
- s. Ponds that are Stormwater Best Management Practices (BMPs) shall have a center point populated with the BMP ODT.
- t. Storm structures that are also BMPs, shall have both a structure point and a BMP point in their associated ODTs.
- u. All open channel ditches and swales shall be represented by the flow line as a continuous polyline. The appropriate data shall be included in the Object Data Table.
- v. All structure locations and structure numbers indicated in drawing must reflect as-built locations (including connections to existing systems). The proposed structures and mains shall be moved to the correction location.

- w. All pre-existing storm and sanitary pipes that were abandoned or removed shall be included in the ODT per the Record Drawing Attribute Definitions.
- x. All easements shall be polygons, representing “aggregate” areas, not broken by lot lines. As an example, the drainage easement running along the back property line of neighboring lots will be shown as one area.
- y. All floodplain fill areas shall be represented by a polygon with the ODT populated.
- z. All floodplain compensatory storage elevations shall be represented by elevation points with the ODT populated.
- aa. All floodplain compensatory storage contours shall be represented by polylines with the ODT populated.

IV. Exceptions

The Director of Engineering is hereby authorized to make exceptions to the requirements set forth above in the following circumstances only and only upon a showing of substantial hardship: In the event that any applicant can demonstrate that the cost of producing the materials required in the format set forth is financially infeasible, or, that the applicant does not have reasonable access to the technology necessary to cause the preparation of such materials, then, and only then, may the Director of Engineering make an exception to the requirements set forth above. Any determination of the Director of Engineering shall be final.

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SOURCE TYPES

(Use to populate Source Type in the Object Data Table. Do not use the description)

DATA SOURCE TYPE	<i>Source Type Description:</i>
GPS	<i>Global Positioning System</i>
ELECTRONIC ASBUILT	<i>Electronic Construction Plan Asbuilt Documents</i>
MASTER PLAN	<i>Master Plan Document for Multiple Sections</i>
CONSTRUCTION DESIGN	<i>Construction Design Plans</i>
CONSTRUCTION ASBUILT	<i>Asbuilts of Construction Design Plans</i>
HSE ASBUILT	<i>Hamilton Southeastern Utilities Asbuilt Plans</i>
HSE DESIGN	<i>Hamilton Southeastern Utilities Design Plans</i>
SURVEY DATA	<i>Actual Surveyed Data from a Licensed Surveyor</i>
RECORD DRAWING	<i>Record Drawing Plans</i>
AERIAL	<i>Aerial Photography</i>
UNKNOWN	<i>Unknown</i>

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STATUS

(Existing assets on site which have been abandoned but are left in place or removed from the site. If this is a new feature leave this field blank)

STATUS TYPE

Status Type Description:

EX_REM

Existing and Removed

EX_AIP

Existing and Abandoned In Place. Inactive

AB_TYPE

Populate with CAPPED, FLOW FILL, GROUT

STATUS

If this is a new feature leave this field blank. Existing assets on site which have been abandoned but are left in place or removed from the site, populate with: EX_REM (Existing and Removed), EX_AIP (Existing and Abandoned In Place)

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SANITARY PIPES

San_Pipe

The object type for the SAN_PIPE feature class will be a **POLYLINE**

Attributes:

Attribute Definitions:

UPS_STR_ID

Upstream Structure ID. Note: Structure Identification is the Subdivision Code followed by consecutive numbers.
Downstream Structure ID.

DOW_STR_ID

SLOPE

The slope of the pipe. The slope will be populated from the Asbuilt drawings when available. If not, it will be calculated from the invert elevations. Include numbers only for this field.

DIAM

The diameter of the pipe in inches. Taken from field measurements and Asbuilt drawings. Use only the number in this field, do not include units.

PIPE_LEN

Length of the pipe in feet. This will be taken off of the Asbuilt drawings. If not available, the length will be calculated using ArcInfo.

MAIN_TYPE

Populate with one of the following main types: **FORCE MAIN, GRAVITY, INTERCEPTOR**, in all caps

MATERIAL

The type of pipe. See **Pipe Material Tab**.

PIPE_CLASS

Class #, SDR-35, SDR-26 and so on. See **Pipe Material Tab** for class definitions

AVG_DEPTH

Average Depth. The formula for the avg. depth will have to be adjusted slightly for each pipe run.

UPST_INVER

Invert elevation of the upstream end of the pipe.

DOWN_INVER

Invert elevation of the downstream end of the pipe.

SLOPE_CHEC

The slope check formula can be used as an aid to verify slope and the entered invert values. It can be copied directly to the pipe slope column if necessary.

PROJECT

Name of subdivision and section or other project name in all caps.

INST_DATE

Date the item was put in place. Format will be MM/DD/YYYY. If month or day is unavailable, 01 will be substituted. This field will be left blank if date is unknown.

SOURCE

The source of the map data. This will be populated with **Data Source Type from Source Types Tab**.

OWNER

FISHERS or PRIVATE

STATUS

If this is a new feature leave this field blank. Existing assets on site which have been abandoned but are left in place or removed from the site, populate with: EX_REM (Existing and Removed), EX_AIP (Existing and Abandoned In Place)

AB_TYPE

If this is a new feature leave this field blank. If status is EX_AIP, populate with CAPPED, FLOW FILL, GROUT

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SANITARY STRUCTURES

San_Str

*The object type for the SAN_STRUCTURES feature class will be a **POINT***

Attributes:

Attribute Definitions:

SAN_STR_NU

Structure Number -Your identifier number

SAN_STR_TY

*Structure Type-Populate with Structure Type from **San. Structures Type Tab .***

TOP_OF_CAS

Top of Casting - Elevation at rim or top of casting

CAST_TYPE

Casting type - Neenah or Jordan Ironworks number

DROP_MH_YN

*Drop Manhole - **YES/NO in all caps.***

NUM_OF_INV

Total number of inverts in the structure. The number used here will dictate how many of the following attributes will be populated. I.e. if there are 5 inverts all attributes from I1 – I5 will be populated.

I1_INV_ELE

Elevation of an invert in structure.

I1_DIR

*Direction of invert in structure. This will be populated with capital letters **N, NE, E, SE, S, SW, W , and NW .***

I1_DIA

Populate with diameter of pipe in inches and do not include units in this field. Integers only.

I1_MAT

*Type of material the invert is made of. Populate with **Pipe Type from Pipe Materials Tab .***

PROJECT

Name of subdivision and section or other project name in all caps.

INST_DATE

Date the item was put in place. Format will be MM/DD/YYYY. If month or day is unavailable, 01 will be substituted. This field will be left blank if date is unknown.

SOURCE

*The source of the map data. This will be populated with **Data Source Type from Source Types Tab .***

OWNER

FISHERS or PRIVATE

STATUS

If this is a new feature leave this field blank. Existing assets on site which have been abandoned but are left in place or removed from the site, populate with: EX_REM (Existing and Removed), EX_AIP (Existing and Abandoned In Place)

AB_TYPE

If this is a new feature leave this field blank. If status is EX_AIP, populate with CAPPED, FLOW FILL, GROUT

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SANITARY LATERALS

San_Lat *The object type for the SAN_LATS feature class will be a **POINT***

Attributes: ***Attribute Definitions:***

LENGTH *Length of line in feet. This can be calculated using ArcInfo.*

TYPE *Populate with one of the following exactly: **FORCE, GRAVITY***

PROJECT *Name of subdivision and section or other project name in all caps.*

INST_DATE *Date the lateral was installed. Format will be MM/DD/YYYY. If month or day is unavailable, 01 will be substituted. This field will be left blank if date is unknown.*

SOURCE *The source of the map data. This will be populated with **Data Source Type from Source Types Tab**.*

STATUS *If this is a new feature leave this field blank. Existing assets on site which have been abandoned but are left in place or removed from the site, populate with: EX_REM (Existing and Removed), EX_AIP (Existing and Abandoned In Place)*

AB_TYPE *If this is a new feature leave this field blank. If status is EX_AIP, populate with CAPPED, FLOW FILL, GROUT*

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SANITARY STRUCTURE TYPE

(Use to populate Sanitary Structure Type for Object Data Table)

SANITARY STRUCTURE TYPE

AIR RELEASE

Structure Type Description:

Air release valve

CAP

A capped sanitary pipe end that qualifies as a temporary sanitary structure until a permanent structure connection is made

CLEAN OUT

Sanitary system port without a structure box

GREASE TRAP

An underground chamber designed to capture grease prior to entry into the sanitary sewer system

GRINDER PUMP

A pump designed to grind, slurry, and lift sanitary waste

MANHOLE

Sanitary structure manhole

VALVE VAULT

A chamber designed to give maintenance access to a sanitary valve

WET WELL

A structure designed to contain waste with a float valve to automatically engage the pump

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LIFT STATIONS

Stations

*The object type for the LIFT_STATIONS feature class will be a **POINT***

Attributes:

Attribute Definitions:

ADDRESS

Populated with address as assigned by the Engineering Department

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STORM PIPES

Storm_Pipes

The object type for the STORM_PIPE feature class will be a **POLYLINE**

Attributes:

Attribute Definitions:

UPS_STR_ID

Upstream Structure ID. Note: Structure Identification is the Subdivision Code followed by consecutive numbers.
Downstream Structure ID.

DOW_STR_ID

SLOPE

The slope of the pipe. The slope will be populated from the Asbuilt drawings when available. If not, calculate it from the invert elevations. Include numbers only for this field

DIAM

The diameter of the pipe in inches. Taken from field measurements and Asbuilt drawings. Use only the number in this field, do not include units.

PIPE_LEN

Length of the pipe in feet. This will be taken off of the Asbuilt drawings.

MATERIAL

The type of pipe. **See Pipe Material on Pipe Materials Tab .**

PIPE_CLASS

See **Pipe Class on Pipe Materials Tab .**

TYP_GRA_FI

Type of Granular Backfill (Populate with SAND, #8 STONE, FLOWABLE FIL, PEA GRAVEL, B-BORROW, OTHER)

AVG_DEPTH

Average Depth. The formula for the avg. depth will have to be adjusted slightly for each pipe run.

UPST_INVER

Invert elevation of the upstream end of the pipe.

DOWN_INVER

Invert elevation of the downstream end of the pipe.

SLOPE_CHEC

The slope check formula can be used as an aid to verify slope and the entered invert values. It can be copied directly to the pipe slope column if necessary. Include numbers only for this field

PROJECT

Name of subdivision and section or other project name in all caps.

INST_DATE

Date the item was put in place. Format will be MM/DD/YYYY. If month or day is unavailable, 01 will be substituted. This field will be left blank if date is unknown.

SOURCE

The source of the map data. This will be populated with **Data Source Type from Source Types Tab .**

OWNER

FISHERS, PRIVATE OR COUNTY

STATUS

If this is a new feature leave this field blank. Existing assets on site which have been abandoned but are left in place or removed from the site, populate with: EX_REM (Existing and Removed), EX_AIP (Existing and Abandoned In Place)

AB_TYPE

If this is a new feature leave this field blank. If status is EX_AIP, populate with CAPPED, FLOW FILL, GROUT

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STORM PIPE MATERIAL

(Use Listed Pipe Material and Pipe Class designations for Object data Table. Do not use the Pipe Description in the Object Data Table.)

PIPE MATERIAL	PIPE DESCRIPTION	PIPE CLASS
HCSP	<i>Helical Corrugated Steel Pipe</i>	
VCP	<i>Vitrified Clay Pipe</i>	
RCP	<i>Reinforced Concrete Pipe</i>	<i>I, II, III, IV, V</i>
ERCP	<i>Elliptical Reinforced Concrete Pipe</i>	<i>I, II, III, IV, V</i>
STEEL	<i>Steel Pipe</i>	<i>TYPE 1, TYPE 2, TYPE 3, TYPE 4, TYPE 5, TYPE 6, TYPE 7</i>
DIP	<i>Ductile Iron Pipe</i>	<i>150, 200, 250, 300, 350, C151</i>
CMP	<i>Corrugated Metal Pipe</i>	
ECMP	<i>Elliptical Corrugated Metal Pipe</i>	
HDPE	<i>High Density Polyethylene Pipe</i>	<i>DR9, DR11, DR13.5, DR17, DR21, DR26</i>
CSSD	<i>Corrugated Subsurface Drain Pipe</i>	
SWSSD	<i>Smooth Wall Subsurface Drain Pipe</i>	
CCP	<i>Concrete Cylinder Pipe</i>	
PVC	<i>Polyvinyl Chloride Pipe</i>	<i>SDR35, SDR26, SDR36, SCH40, SCH80, SDR17, SDR21, C905</i>
TRUSS	<i>Polyvinyl Chloride Truss Pipe</i>	
FRDRAIN	<i>Gravel French Drain</i>	

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STORM STRUCTURES

Storm_Strs

*The object type for the STORM_STRUCTURES feature class will be a **POINT***

Attributes:

Attribute Definitions:

STO_STR_NU

Structure Number -Your identifier number based on subdivision code followed by consecutive numbers.

STO_STR_TY

*Structure Type-See **Storm Structure Types Tab***

STO_BMP_TY

*Storm Structure BMP Type - Populate ID from **BMP Types Tab** if your stormwater BMP is also a storm structure (i.e. hydrodynamic separators, oil/water separators, etc.)*

TOP_OF_CAS

Top of Casting- Elevation at rim or top of casting

CAST_TYPE

Casting type- Neenah Foundry, East Jordan (EJ) Iron Works, or US Foundry number

SUMP_INV

Sump Invert -Invert of sump if sump is present.

NUM_OF_INV

Total number of inverts in the structure. The number used here will dictate how many of the following attributes will be populated. I.e. if there are 5 inverts all attributes from I1 – I5 will be populated.

I1_INV_ELE

Elevation of an invert in structure.

I1_DIR

*Direction of invert in structure. This will be populated with **N, NE, E, SE, S, SW, W, and NW**. Do not spell out the direction. Use the abbreviated form as specified.*

I1_DIA

*Diameter of invert in structure. **This will only be populated if the invert is round.***

I1_MAT

*Type of material the invert is made of. Populate with **Material Type from Pipe Material Tab**.*

PROJECT

Name of subdivision and section or other project name in all caps.

INST_DATE

Date the item was put in place. Format will be MM/DD/YYYY. If month or day is unavailable, 01 will be substituted. This field will be left blank if date is unknown.

SOURCE

*The source of the map data. This will be populated with **Data Source Type from Source Types Tab**.*

OUTFALL

*Is this structure an outfall? **YES or NO in all caps**. Do not abbreviate, use YES or NO. An outfall is where the storm pipe discharges directly to the receiving stream. Do not name all outlet pipes from ponds as outfalls.*

OWNER

FISHERS, PRIVATE OR COUNTY

ORI_RE_PL

Orifice restrictor plate(s) (populate with Y/N)

ORI_RE_WQ

Orifice restrictor plate Water Quality invert elevation

ORI_RE_10

Orifice restrictor plate 10 year storm invert elevation

STATUS

*If this is a new feature leave this field blank. Existing assets on site which have been abandoned but are left in place or removed from the site, populate with: **EX_REM** (Existing and Removed), **EX_AIP** (Existing and Abandoned In Place)*

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STORM STRUCTURE TYPE

(Use the Storm Structure Type to populate the Object Data Table)

STORM STRUCTURE TYPE

CATCH BASIN

Structure Type Description:

Sumped inlet structure in parking lot

CURB INLET

Inlet along curbside

DITCH INLET

Inlet in ditch

YARD INLET

Inlet in yard

BEEHIVE

Inlet using a beehive grate

END SECTION

Flared end section at end of pipe

HEADWALL

Small retaining wall at end of storm pipe

INLET

General Inlet not meeting previous inlet descriptions

MANHOLE

Storm structure manhole

UD

Underground detention system

BLIND TIE

Buried Storm Structure or Connection (In general, structures should not be buried)

CLEAN OUT

Underground detention system cleanout or other storm system port without a structure box

OUTLET CONTROL STRUCTURE

Detention outlet control structure with water quality and detention orifi

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POND

Pond

The object type for POND feature class will be a **POLYGON** (If a BMP an additional point will be required)

Attributes:

BASIN
POOL_EL_NM
POOL_EL_WQ
POOL_EL_10
POOL_EL_X
BOT_ELEV
LEDGE_ELEV
PROJECT
INST_DATE

SOURCE
TYPE
OWNER
PROJECT_FULL
Description
Physical_Location

Attribute Definitions:

Use the 14 digit Hydraulic Unit Code (HUC)
Normal Pool Elevation
Water quality pool elevation as calculated per drainage report
10 year storm pool elevation
100 year storm pool elevation
Bottom elevation of pond
Safety ledge elevation per construction plans
Name of subdivision and section or other project name in all caps
Date the item was put in place. Format will be MM/DD/YYYY. If month or day is unavailable, 01 will be substituted. This field will be left blank if date is unknown.
*The source of the map data. This will be populated with **Data Source Type from Source Types Tab**.*
Populate with either WET or DRY
Populate with FISHERS or PRIVATE (Most will be PRIVATE)
Populate with subdivision project name, section #, and common area #
Concatenate/string with "POND", PROJECT_FULL (i.e. Pond, Turnberry, Section 1, CA B)
Populate site address for commercial projects and leave blank for subdivision ponds in common areas

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UNDERGROUND DETENTION

Und_Det

The object type for the UND_DET feature class will be a **POLYGON**

Attributes:

Attribute Definitions:

UD_ID

The identification number of the underground detention polygon (use the same structure number as the structure at the end of the system)

UD_TY

*Underground detention type. Populate with **MODULAR VAULT, VAULT, PIPE, PIPE SERIES, TANK, CHAMBER, STACKABLE CELLS, STONE BASIN.***

UD_MAT

*Underground detention material type-Populate with **CONCRETE, HDPE, PVC, STEEL, STONE.***

INST_DATE

Date the item was put in place. Format will be MM/DD/YYYY. If month or day is unavailable, estimate the date to the nearest month.

BASIN

Use the 14 digit Hydraulic Unit Code (HUC) for the watershed

POOL_EL_WQ

Water quality pool elevation as calculated per drainage report

POOL_EL_NM

Normal pool elevation

POOL_EL_10

10 year storm pool elevation

POOL_EL_X

100 year storm pool elevation

PROJECT

Name of subdivision and section or other project name in all caps

MODEL

Model number of underground detention system

MANUF

Manufacturer of underground detention system

MAKE

Make of the detention system

ORIFICE_1

Orifice size in inches of underground detention system for 10 year storm

ORIFICE_2

Orifice size in inches of underground detention system for 100 year storm

ORIFICE_3

Orifice size in inches of Water quality pool elevation

VOLUME

Volume of underground detention system in cubic feet

BOT_ELE

Bottom elevation of underground detention system in feet

DEPTH_BG

Depth of top of system below grade

STRUC_IN

The identification number of one of the structures at beginning of system

STRUC_OUT

The identification number of structure at end of system

CTL_ST_OUT

Elevation of the outflow control structure

TOP_ELE

Elevation of the top of the Detention system

NU_INVERTS

Number of inverts coming into the system

SOURCE

*The source of the map data. This will be populated with **Data Source Type from Source Types Tab.***

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DITCHES AND SWALES

Ditch_Swale

The object type for the DITCH_SWALE feature class will be a **POLYLINE**

Attributes:

Attribute Definitions:

FROM_ID

Upstream end section, pipe, manhole, etc.

TO_ID

Downstream end section, pipe, etc.

DITCH_LEN

Length of ditch in feet. Include numbers only in this field

DITCH_SLOP

Slope of swale or ditch. Include numbers only in this field

UPSTRM_INV

Upstream Invert

DNSTRM_INV

Downstream invert

BASE_WIDTH

Width of the bottom of the ditch in feet. Include numbers only in this field

PROJECT

Name of subdivision and section or other project name in all caps.

INST_DATE

Date the item was put in place. Format will be MM/DD/YYYY. If month or day is unavailable, 01 will be substituted. This field will be left blank if date is unknown.

SOURCE

*The source of the map data. This will be populated with **Data Source Type from Source Types Tab**.*

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SUBSURFACE DRAIN

Sub_Drains

The object type for the SUB_DRAIN feature class will be a **POLYLINE**

Attributes:

Attribute Definitions:

UPS_STR_ID

Upstream Structure ID. Note: Structure Identification is the Subdivision Code followed by consecutive numbers. Downstream Structure ID.

DOW_STR_ID

SLOPE

The slope of the pipe. The slope will be populated from the Asbuilt drawings when available. If not, it will be calculated from the invert elevations. Include numbers only for this field

DIAM

The diameter of the pipe in inches. Taken from field measurements and Asbuilt drawings. Include numbers only for this field

PIPE_LEN

Length of the pipe in feet. This will be taken off of the Asbuilt drawings.

MATERIAL

*The material type of the pipe. **See Pipe Material Tab .***

PIPE_CLASS

*Populate from **Pipe Class from Pipe Material Tab .***

TYP_GRA_FI

Type of Granular Backfill (Populate with SAND, #8 STONE, FLOWABLE FIL, PEA GRAVEL, B-BORROW, OTHER)

AVG_DEPTH

Average Depth. The formula for the avg. depth will have to be adjusted slightly for each pipe run.

UPST_INVER

Invert elevation of the upstream end of the pipe.

DOWN_INVER

Invert elevation of the downstream end of the pipe.

SLOPE_CHEC

The slope check formula can be used as an aid to verify slope and the entered invert values. It can be copied directly to the pipe slope column if necessary. Include numbers only for this field

PROJECT

Name of subdivision and section or other project name in all caps.

INST_DATE

Date the item was put in place. Format will be MM/DD/YYYY. If month or day is unavailable, 01 will be substituted. This field will be left blank if date is unknown.

OWNER

FISHERS, PRIVATE, or COUNTY (ONLY FISHERS if it is curb underdrain on dedicated City road) All rear yard underdrain is PRIVATE or COUNTY.

SOURCE

*The source of the map data. This will be populated with **Data Source Type from Source Types Tab .***

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STORMWATER BEST MANAGEMENT PRACTICE (BMP)

BMP

The object type for the BMP feature class will be a **POINT** (An additional point will be required for the storm structure)

Attributes:

BMP_TYPE

BMP_TYPE_NAME

INST_DATE

BMP_OWNER

SOURCE

DESCRIPT

PROJECT

MAKE

MODEL

Attribute Definitions:

*BMP Type. Poplulate with **BMP Type from BMP Types Tab and use the letter code only (i.e. A1, B2, C2, D4, etc.)***

Populate with BMP TYPE NAME from BMP TYPE tab column 2

Date the item was put in place. Format will be MM/DD/YYYY. If month or day is unavailable, estimate the date to the nearest month.

Ultimate Owner of BMP after construction is completed (i.e. Name of HOA or Property Owner, etc.)

*The source of the map data. This will be populated with **Data Source Type from Source Types Tab** .*

Concatenate/string with "BMP", PROJECT, BMP TYPE NAME, BMP MAKE, BMP MODEL. Note that there is an 80 character text limit on this cell. Please abbreviate the project name if needed to account for this.

Name of subdivision and section or other project name in all caps

Populate from BMP TYPES Tab Column 3

Populate from BMP TYPES Tab Column 4

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BMP TYPES

STRUCTURAL BMPS

STO_BMP_TYPE or BMP_TYPE	BMP Type Name	BMP Make	BMP Model
A			
Source Control BMPS			
A1	<i>Stenciling</i>	<i>Storm drain water quality message</i>	<i>Stamp</i>
A2	<i>Stenciling</i>	<i>Storm drain water quality message</i>	<i>Marker</i>
Treatment Control BMPS			
B1	<i>Basin</i>	<i>Biofilter</i>	<i>Bioswale</i>
B2	<i>Buffer</i>	<i>Biofilter</i>	<i>Filter Strip</i>
B3	<i>Basin</i>	<i>Biofilter</i>	<i>Bioretention</i>
B4	<i>Buffer</i>	<i>Biofilter</i>	<i>Riparian Buffer</i>
B5	<i>Basin</i>	<i>Biofilter</i>	<i>Rain Garden</i>
C1	<i>Basin</i>	<i>Pond</i>	<i>Dry</i>
C2	<i>Basin</i>	<i>Pond</i>	<i>Wet</i>
C3	<i>Basin</i>	<i>Pond</i>	<i>Naturalized</i>
C4	<i>Underground Detention</i>	<i>Use Manufacturer Make (i.e. StormTech)</i>	<i>Use Manufacturer Model (i.e. SC-160LP)</i>
D1	<i>Basin</i>	<i>Infiltration</i>	<i>Basin</i>
D2	<i>Basin</i>	<i>Infiltration</i>	<i>Trench</i>
D3	<i>Pervious Surface</i>	<i>Infiltration</i>	<i>Porous asphalt</i>
D4	<i>Pervious Surface</i>	<i>Infiltration</i>	<i>Porous concrete</i>
D5	<i>Pervious Surface</i>	<i>Infiltration</i>	<i>Porous modular concrete block</i>
D6	<i>Module</i>	<i>Infiltration</i>	<i>Planter Box</i>
E1	<i>Basin</i>	<i>Wetland</i>	<i>Constructed wetland</i>
F1	<i>Oil/Water Separator</i>	<i>Use Manufacturer Make</i>	<i>Use Manufacturer Model</i>
F2	<i>Storm Drain Insert</i>	<i>Use Manufacturer Make (i.e. FlexStorm)</i>	<i>Use Manufacturer Model with casting model type (i.e. Pure PC Type 15)</i>
G1	<i>Media Filtration</i>	<i>Use Manufacturer Make (i.e. StormFilter)</i>	<i>Use Manufacturer Model (i.e. CatchBasin StormFilter Concrete 1-Cartridge)</i>
H2	<i>Swirl Concentrator</i>	<i>Use Manufacturer Make (i.e. Aqua Swirl)</i>	<i>Use Manufacturer Model (i.e. AS-2)</i>

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PERVIOUS SURFACE

Pervious_Surface

*The object type for the PERVIOUS_SURFACE feature class will be a **POLYGON***

Attributes:

Attribute Definitions:

TYPE

Type of surface. ASPHALT, CONCRETE or STONE

PROJECT

Name of subdivision and section or other project name

INST_DATE

Date the pervious surface was installed. Format will be MM/DD/YYYY. If month or day is unavailable, 01 will be substituted. This field will be left blank if date is unknown.

SOURCE

*The source of the map data. This will be populated with **Data Source Type from Source Types Tab** .*

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IMPERVIOUS SURFACE

Impervious_Surface

*The object type for the IMPERVIOUS_SURFACE feature class will be a **POLYGON***

Attributes:

PROJECT

Attribute Definitions:

Name of subdivision and section or other project name

INST_DATE

Date the impervious surface was installed. Format will be MM/DD/YYYY. If month or day is unavailable, 01 will be substituted. This field will be left blank if date is unknown.

SOURCE

*The source of the map data. This will be populated with **Data Source Type from Source Types Tab**.*

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RIGHT OF WAY

Right_of_Way

*The object type for the RIGHT_OF_WAY feature class will be a **POLYGON***

Attributes:

WIDTH

Attribute Definitions:

Number or VARIABLE (If consistent dimension, use an integer number for the right-of-way width. If variable, use the word VARIABLE) Right of way is defined as 1/2 right-of-way on thoroughfares.

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EASEMENTS

Easments

*The object type for the EASEMENTS feature class will be a **POLYGON***

Attributes:

Attribute Definitions:

TYPE

Type of Easement (i.e. DU, DUS, DULE, etc.)

WIDTH

Number or VARIABLE (If consistent, use an integer number for the easement width. If variable, use the word VARIABLE)

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FIBER

TOF_FIBERLINE

*The object type for the FIBER feature class will be a **POLYLINE***

Attributes:

Attribute Definitions:

TYPE

CONNECTOR, ONLY CONDUIT, AERIAL, FIBER

SIZE_OUTER

Size of Outerducts

NUM_OUTER

Number of Outerducts

MAT_OUTER

Material of Outerduct (PVC, STAINLESS, CABLE)

SIZE_INNER

Size of Innerduct

MAT_INNER

Material of Innerduct

NUM_INNERD

Number of Innerducts

LEASABLE

YES/NO

FIB_COUN

Fiber Count

SLACK_CAB

Amount of slack cable/feet per conduit

OWNER

Owner of fiber

STATUS

If this is a new feature leave this field blank. Existing assets on site which have been abandoned but are left in place or removed from the site, populate with: EX_REM (Existing and Removed), EX_AIP (Existing and Abandoned In Place)

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HANDHOLES

TOF_HANDHOLES

*The object type for the HANDHOLE feature class will be a **POINT***

Attributes:

HNDHLE_TY
LOCAL_WIRE
TYPE1
SIZE_OTR1
NUM_OTR1
MAT_OTR1
SIZE_INR1
MAT_INR1
NUM_INR1
LEASABLE1
FIB_COUN1
SLACK_CAB1
OWNER
STATUS

Attribute Definitions:

Handhole type: Ingress, metal, etc.

YES/NO

CONNECTOR, ONLY CONDUIT, AERIAL, FIBER

Size of Outerducts

Number of Outerducts

Material of Outerduct (PVC, STAINLESS, CABLE)

Size of Innerduct

Material of Innerduct

Number of Innerducts

Is the fiber leasable? YES/NO

Fiber Count

Amount of feet per conduit(Integer only)

Owner of fiber

If this is a new feature leave this field blank. Existing assets on site which have been abandoned but are left in place or removed from the site, populate with: EX_REM (Existing and Removed), EX_AIP (Existing and Abandoned In Place)

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HYDRANTS

Hydrants

The object type for the HYDRANTS feature class will be a **POINT**

Attributes:

Attribute Definitions:

ID	Structure Identification. Subdivision code followed by consecutive numbers.
MAKE	The specific manufacturer of the hydrant in all caps (i.e. MURDOCK FOUNTAINS, WEIHO)
MODEL	Model of the hydrant (i.e. CH108ST, CH1081T, WEIHO'S)
OUTLET1_SZ	The size of each water outlet's first opening in inches
OUTLET2_SZ	The size of each water outlet's second opening in inches
OUTLET3_SZ	The size of each water outlet's third opening in inches
MAIN_TYPE	The type of water main to which the hydrant is connected in all caps (i.e. TRANSMISSION, SUBDIVISION)
COLOR	Color of the hydrant in all caps
UTIL_NAME	Owner of hydrant. Example: CITIZENS, INDIANA AMERICAN, FORTVILLE, or PRIVATE in all caps.
IN_SERVICE	YES or NO . Use only YES or NO and not Y or N.
MAIN_SIZE	If known. Diameter in inches. Include numbers only in this field
CONNECTION	STEAMER, SIAMESE or STORZ in all caps
FDC_YN	Fire Department Connection: Populate with YES or NO in all caps
CONDITION	Populate with: OK or DAMAGED in all caps
PROJECT	Name of subdivision and section or other project name in all caps
INST_DATE	Date the item was put in place. Format will be MM/DD/YYYY. If month or day is unavailable, 01 will be substituted. This field will be left blank if date is unknown.
SOURCE	The source of the map data. This will be populated with Data Source Type from Source Types Tab .
STATUS	If this is a new feature leave this field blank. Existing assets on site which have been abandoned but are left in place or removed from the site, populate with: EX_REM (Existing and Removed), EX_AIP (Existing and Abandoned In Place)

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VALVES

Valves

The object type for the VALVE feature class will be a **POINT**

Attributes:

Attribute Definitions:

ID

Valve Identification number

VALVE_TYPE

AIR RELEASE, HYDRANT SHUTOFF etc. In all caps

MANUFAC

Manufacturer

MODEL

Valve Model

PROJECT

Name of subdivision and section or other project name in all caps

INST_DATE

Date the item was put in place. Format will be MM/DD/YYYY. If month or day is unavailable, 01 will be substituted. This field will be left blank if date is unknown.

SOURCE

*The source of the map data. This will be populated with **Data Source Type from Source Types Tab**.*

STATUS

If this is a new feature leave this field blank. Existing assets on site which have been abandoned but are left in place or removed from the site, populate with: EX_REM (Existing and Removed), EX_AIP (Existing and Abandoned In Place)

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SIGNAGE

Signs

*The object type for the SIGNAGE feature class will be a **POINT***

Attributes:

Attribute Definitions:

MUTCD_TYPE

As identified in the Manual on Uniform Traffic Control Devices (MUTCD) in all caps

SERIES

Regulatory, Warning, Guide, Specific Service, Tourist-Oriented, Recreational and Cultural Interest, Emergency Management in all caps

SPEED

If a speed limit sign, the posted speed. Include numbers only for this field

DESCRIPT

Describe the sign, ex. Stop sign, no parking, Street sign in all caps

PROJECT

Name of subdivision and section or other project name in all caps

INST_DATE

Date the item was put in place. Format will be MM/DD/YYYY. If month or day is unavailable, 01 will be substituted. This field will be left blank if date is unknown.

SOURCE

*The source of the map data. This will be populated with **Data Source Type from Source Types Tab** .*

OWNER

FISHERS or PRIVATE

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LAMP POSTS

LampPosts

*The object type for the LAMP_POST feature class will be a **POINT***

Attributes:

Attribute Definitions:

OWNER

FISHERS or PRIVATE

STYLE

Manufacturer's model name and number

BULB_TYPE

Bulb type in all caps

LAMP

*Populate with **SINGLE** or **DOUBLE** only depending upon type in all caps*

PROJECT

Name of subdivision and section or other project name in all caps

INST_DATE

Date the item was put in place. Format will be MM/DD/YYYY. If month or day is unavailable, 01 will be substituted. This field will be left blank if date is unknown.

SOURCE

*The source of the map data. This will be populated with **Data Source Type from Source Types Tab**.*

CONTROL_ID

Which control box operates the lamp

TYPE

CONTROL BOX or LAMP POST

GFI_OUTLET

Ground Fault Interrupter

IN_SERVICE

YES/NO

BRACKET

Used for hanging banners/flower baskets etc.

HEIGHT

Height of pole

MATERIAL

Aluminum, metal, cast iron

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TRAFFIC SIGNALS

Signals

*The object type for the TRAFFIC_SIG feature class will be a **POINT***

Attributes:

Attribute Definitions:

CON_TYPE

Type of controller. Populate with one of the following exactly; ECONOLITE or PEAK

TYPE

CONTROL BOX or SIGNAL POLE

OWNER

***FISHERS** or **HAMCO** for Hamilton County*

DESCRIPT

*Pole description if on a pole. Populate with **MAST** or **STRAIN**.*

PROJECT

Name of subdivision and section or other project name in all caps

INST_DATE

Date the item was put in place. Format will be MM/DD/YYYY. If month or day is unavailable, 01 will be substituted. This field will be left blank if date is unknown.

SOURCE

*The source of the map data. This will be populated with **Data Source Type from Source Types Tab**.*

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PATHS

Paths

*The object type for the PATH feature class will be a **CENTERLINE POLYLINE***

Attributes:

SURF_TYPE
SURF_WIDTH
YEAR_BUILT
CROSSWALK
TYPE

Attribute Definitions:

Populate with either ASPHALT or CONCRETE

Example: 6, 8, etc. Include numbers only or this field

Date the item was put in place. Format will be YYYY.

Populate with either Y or N

Populate as Multi-use, Bicycle lane, Connector sidewalk, Park path, Subdivision sidewalk or Natural (Mulch)

GREENWAY

Greenway: Populate with Y or N only

TRANS_COR

Path along a Transportation Corridor: Populate with Y or N only

TRAIL_OWNER

FISHERS or PRIVATE (For example: paths in a common area)

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FLOODPLAIN FILL

Floodplain_Fill

*The object type for the FLOODPLAIN FILL feature class will be a **POLYGON***

Attributes:

Attribute Definitions:

PROJECT

Name of subdivision and section or other project name in all caps

INST_DATE

Date the floodplain fill was installed. Format will be MM/DD/YYYY. If month or day is unavailable, 01 will be substituted. This field will be left blank if date is unknown.

SOURCE

*The source of the map data. This will be populated with **Data Source Type from Source Types Tab**.*

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COMPENSATORY STORAGE ELEVATIONS

CompensStorElev *The object type for the COMPENSATORY STORAGE ELEVATIONS feature class will be **POINTS***

Attributes:

Attribute Definitions:

ELEVATION

Elevation points in a quantity sufficient to establish six (6) inch contour lines

PROJECT

Name of subdivision and section or other project name in all caps

INST_DATE

Date the compensatory storage was installed. Format will be MM/DD/YYYY. If month or day is unavailable, 01 will be substituted. This field will be left blank if date is unknown.

SOURCE

*The source of the map data. This will be populated with **Data Source Type from Source Types Tab**.*

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COMPENSATORY STORAGE CONTOURS

CompensStorCont *The object type for the COMPENSATORY STORAGE CONTOURS feature class will be **POLYLINES***

Attributes:

Attribute Definitions:

CONTOUR

Six (6) inch contour lines

PROJECT

Name of subdivision and section or other project name in all caps

INST_DATE

Date the compensatory storage was installed. Format will be MM/DD/YYYY. If month or day is unavailable, 01 will be substituted. This field will be left blank if date is unknown.

SOURCE

*The source of the map data. This will be populated with **Data Source Type from Source Types Tab**.*