Center Township
Small Project Stormwater Management Application

Per Center Township's Act 167 Stormwater Management Ordinance, a stormwater management plan is required whenever Regulated Activities involve the creation of new impervious surfaces equal to, or greater than 1,000 square feet and less than 5,000 square feet. Impervious surfaces are areas that prevent the infiltration of water into the ground and shall include, but not be limited to, roofs, patios, garages, storage sheds and similar structures, and any new streets or sidewalks.

To Calculate Impervious Surfaces Please Complete This Table					
Surface Type	**Length**	**X**	**Width**	**=**	**Proposed Impervious Area**
Building (area per downspout)		x		=	
		x		=	
		x		=	
		x		=	
Driveway		x		=	
		x		=	
		x		=	
Parking Areas		x		=	
		x		=	
		x		=	
Patios/Walks		x		=	
		x		=	
		x		=	
		x		=	
Other		x		=	
		x		=	
		x		=	
Total Impervious Surface Area to be managed (sum of all areas)					1

All areas referenced above must be depicted on a Site Plan for all projects.

If Total Impervious Surface Area to be managed is ***EQUAL TO or GREATER than 5,000 square feet***, the Applicant MUST submit a Stormwater Management Plan and Report as defined in Article VIII of the Ordinance and implement volume and rate controls.

If the Total Impervious Surface Area to be managed is ***LESS THAN 5,000 square feet***, or the proposed development is a Single Family Residential Activity Implementing the minimum measures in Section 21-302.E. read, acknowledge and sign below. A Stormwater Management Plan and Report IS NOT required for this Regulated Activity. Center Township may request additional information and/or a SWM Plan for any reason.

See 'On Lot Stormwater Detention Sump Sizing Sheet', included on page 3 of this appendix, for volume calculations when designing a stormwater detention sump. Total Impervious Surface Area to be managed from this sheet is used for the volume calculations, denoted as field 1.

Applicant or Property Owner certifies that Sections 21-302.A., 21-302.B., and 21-302.C. have been adequately addressed and acknowledges that submission of inaccurate information may result in a stop work order or permit revocation. Acknowledgement of such is by signature below.

I declare that I am the Owner or Owner's legal representative. I further acknowledge that the information provided is accurate and employees of Center Township are granted access to the above described property for review and inspection

_____ **Owner or Legal Representation**

_____ **Date**

Center Township
On Lot Stormwater Detention Sump Sizing Sheet

Please follow the below formulas to calculate required volume and appropriate sizing dimensions for Stormwater Detention Sumps. See Center Township Standard Details SD22, SD23, and SD24 on pages 5-7 of this appendix for more information. A 'Small Project Stormwater Management Application' should always accompany this form. See example on page 4.

$$Total\ Impervious\ Surface\ Area\ to\ be\ managed_{*} \times \frac{2\ inches}{12}_{**} \times 2.5_{***} = Total\ Sump\ Volume$$

$$Total\ Sump\ Volume\ = Length\ \times Width\ \times Depth\ , where$$

$$Depth\ = 5'\ maximum,$$

$$Length\ and\ Width\ vary\ based\ on\ each\ specific\ site, and$$

$$Length\ is\ greater\ than\ or\ equal\ to\ three\ times\ the\ Width$$

$$(In\ other\ words, length\ to\ width\ ratio\ is\ minimum\ 3{:}\ 1, or\ L\ \geq 3\ \times W)$$

Please show all calculations in the box below and complete the fields at the bottom of the page with the stormwater detention sump details for your proposed regulated activity.

Total Sump Volume = _____

Length = _____

Width = _____

Depth = _____

* See total area from 'Small Project Stormwater Management Application' worksheet, in square feet

** See section §21-304.B.2.a of the Stormwater Management ordinance, which states that the first 2 inches of runoff from all new impervious surfaces must be captured

*** See Center Township Standard Detail SD22, note 3, which states that sumps are assumed to be 40% voids

	Center Township On Lot Stormwater Detention Sump Sizing Sheet

Example A:

Proposed regulated activity includes the construction of 1,000 SF of roof area and 200 SF of driveway. There is 5' of available width on the lot for the sump.

$$Total\ Impervious\ Surface\ Area\ to\ be\ managed\ = 1{,}200\ SF$$

$$Total\ Sump\ Volume = 1{,}200 \times \frac{2}{12} \times 2.5 = 500\ CF$$

Assuming depth is the maximum 5', and width is the available 5';

$$Total\ Sump\ Volume\ = L \times W \times D$$

$$500\ = L \times 5 \times 5$$

$$500\ = L \times 25$$

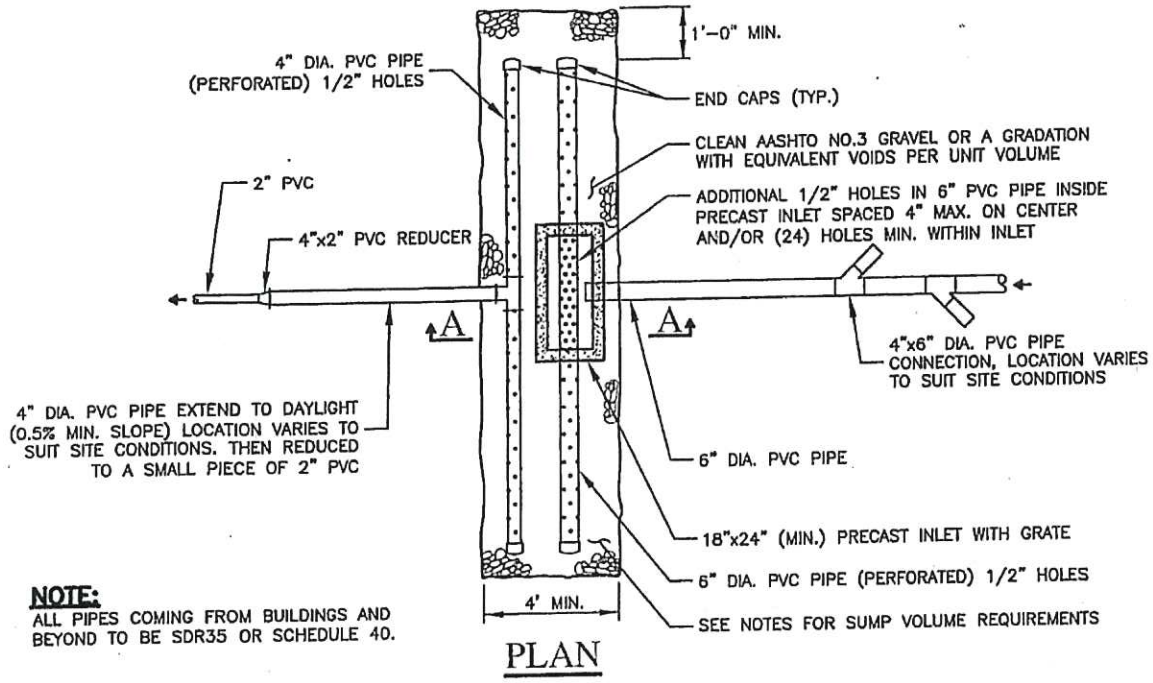
$$\frac{500}{25} = L$$

$$L\ =\ 20'$$

Check length to width ratio criteria:

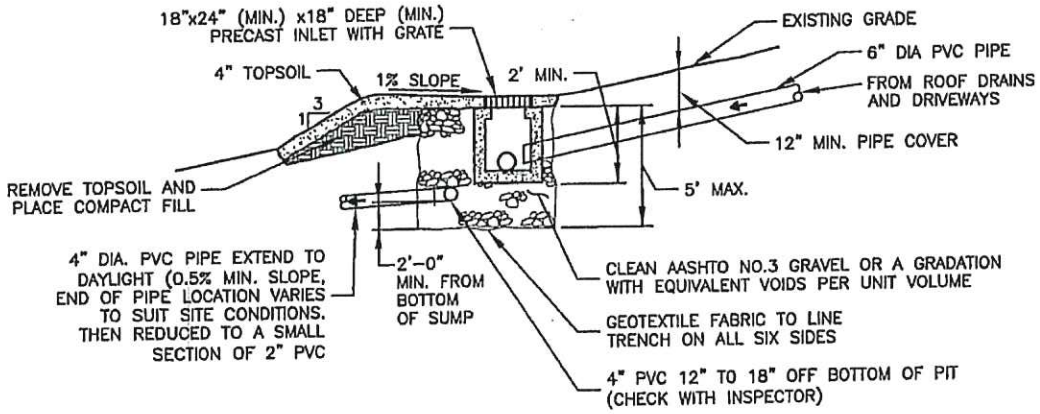
$$L \geq 3 \times W$$

$$20 \geq 15\ \checkmark$$



NOTE:
ALL PIPES COMING FROM BUILDINGS AND BEYOND TO BE SDR35 OR SCHEDULE 40.

PLAN



SECTION A - A

NOTES:

1. AS A CONDITION OF RECEIVING A BUILDING PERMIT OR LAND SUBDIVISION APPROVAL, LOT OWNERS SHALL BE REQUIRED TO CONSTRUCT AN "ON-LOT STORMWATER DETENTION SUMP" CONFORMING TO DETAILS AND NOTES ON THIS DRAWING.

2. ALL DRY SUMPS DESIGNED FOR ACCEPTING SURFACE WATER FROM ROOF AND DRIVEWAY AREAS SHALL BE DESIGNED ACCORDING TO THE FOLLOWING CRITERIA.

3. EACH SUMP SHALL BE DESIGNED TO STORE A MINIMUM WATER VOLUME EQUIVALENT TO 2" OF PRECIPITATION COVERING THE NEW IMPERVIOUS TRIBUTARY AREA. FOR EXAMPLE, A SUMP FOR A 1200-SQUARE FOOT ROOF AREA WOULD BE DESIGNED TO STORE A WATER VOLUME OF 200-CUBIC FEET. THE TOTAL STORAGE VOLUME, ASSUMING THE SUMP IS 60% ROCK AND 40% VOIDS, WOULD BE 500-CUBIC FEET.

4. DRY SUMPS SHOULD BE ELONGATED IN A MINIMUM 3:1 LENGTH TO WIDTH RATIO AND BE ORIENTED WITH THE LONG DIMENSION PARALLEL TO THE CONTOUR.

5. DRY SUMPS MUST BE CONSTRUCTED IN UNDISTURBED GROUND ONLY. DRY SUMPS SHALL BE 20-FEET OR MORE FROM ANY PROPERTY LINE OR RIGHT-OF-WAY LINE.

6. DRY SUMPS SHALL BE LOCATED BELOW OR DOWN SLOPE SO AS TO NOT INTERFERE OR CAUSE SATURATION OF ANY EXISTING OR PROPOSED ON-LOT SANITARY DISPOSAL ABSORPTION, OR BUILDING FOUNDATION.

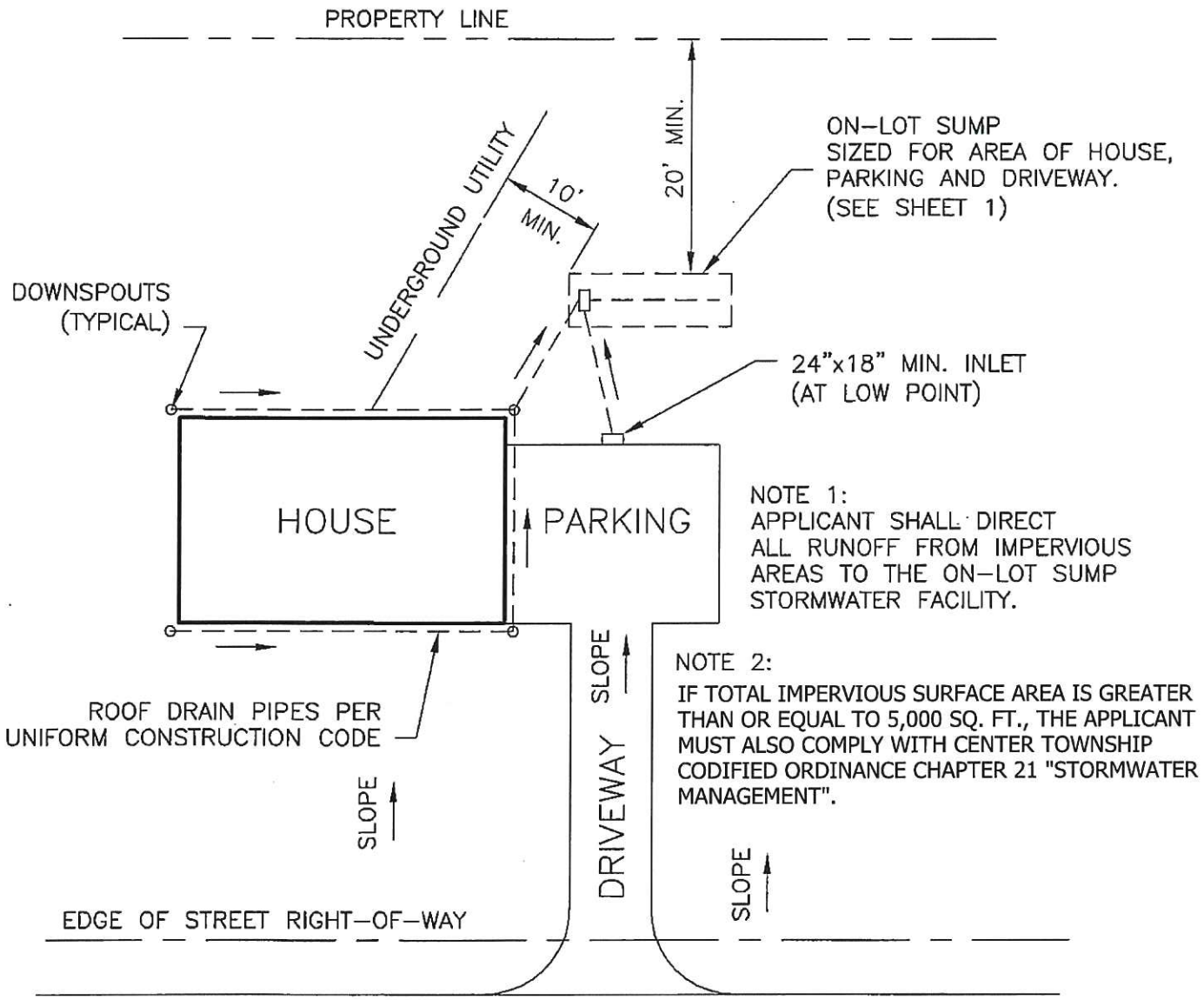
7. INLET GRATES SHALL BE PROVIDED TO SUPPORT 50 PSF IN LAWN AREAS AND HS20 LOADS IN PAVED AREAS.

* WHERE WATERCOURSE IS NOT AVAILABLE OR WHERE AN EXPOSED DISCHARGE PIPE IS INAPPROPRIATE, EXTEND THE 2" PIPE TO A DOWNGRADE 2'x2'x2' GRAVEL-FILLED SUMP PIT.

Center Township Standard Detail

ON-LOT STORMWATER DETENTION SUMP

SD22



TYPICAL LOW SIDE LOT (RESIDENTIAL)

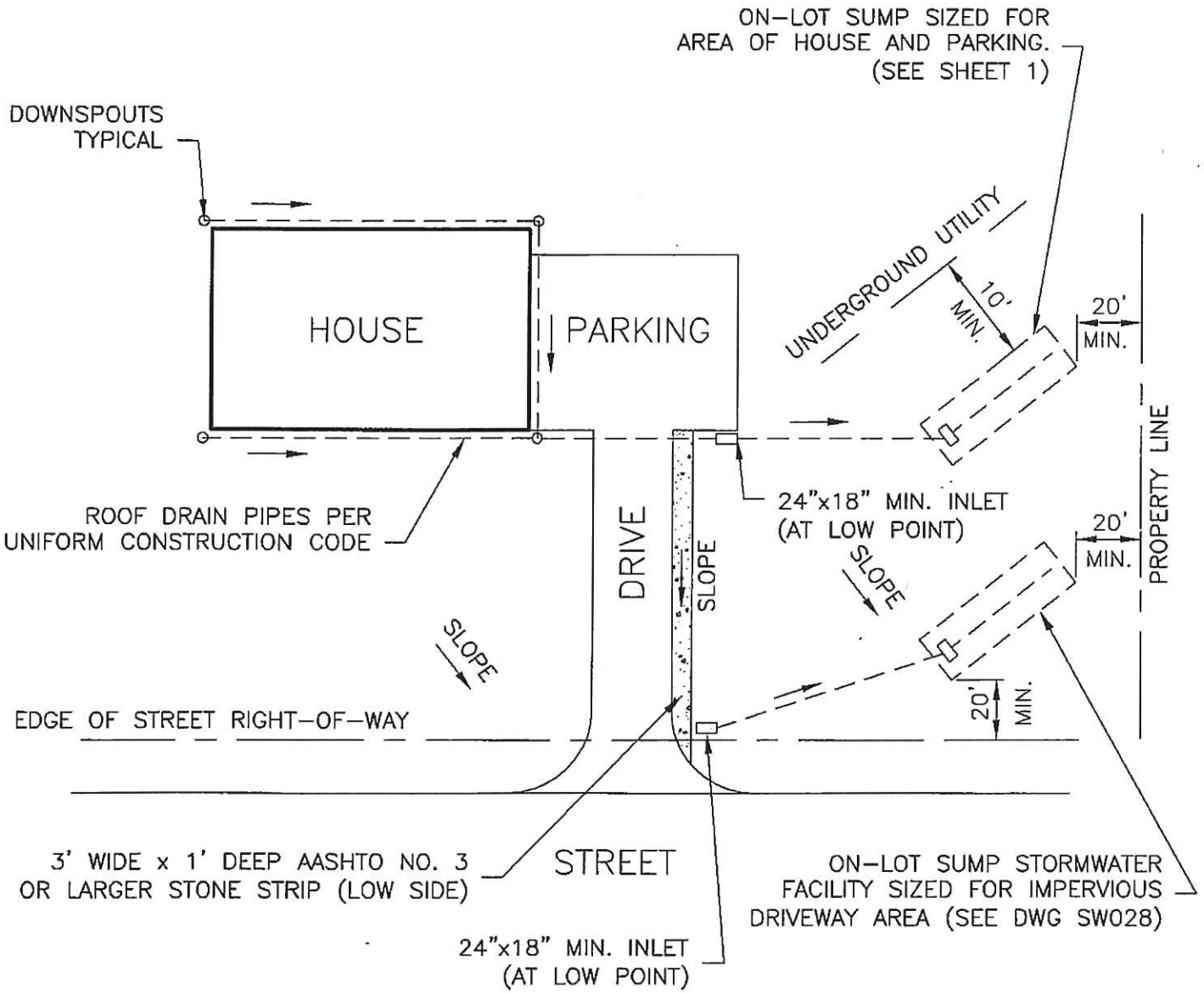
(NOT TO SCALE)

REV: 09-09-21

Center Township Standard Detail

ON LOT STORMWATER DETENTION SUMP

SD23



NOTE 1:
APPLICANT SHALL DIRECT ALL RUNOFF FROM IMPERVIOUS AREAS TO THE ON–LOT SUMP STORMWATER FACILITIES.

NOTE 2:
IF TOTAL IMPERVIOUS SURFACE AREA IS GREATER THAN OR EQUAL TO 5,000 SQ. FT., THE APPLICANT MUST ALSO COMPLY WITH CENTER TOWNSHIP CODIFIED ORDINANCE CHAPTER 21 "STORMWATER MANAGEMENT".

NOTE:
THIS DRAWING SHOWS A SITUATION WHERE THE APPLICANT HAS DETERMINED IT IS IN HIS BEST INTEREST TO INSTALL 2 SMALLER ON–LOT SUMPS RATHER THAN ONE LARGER FACILITY.

TYPICAL HIGH SIDE LOT–(RESIDENTIAL)

(NOT TO SCALE) REV: 09-09-21

Center Township Standard Detail

ON LOT STORMWATER DETENTION SUMP

SD24