

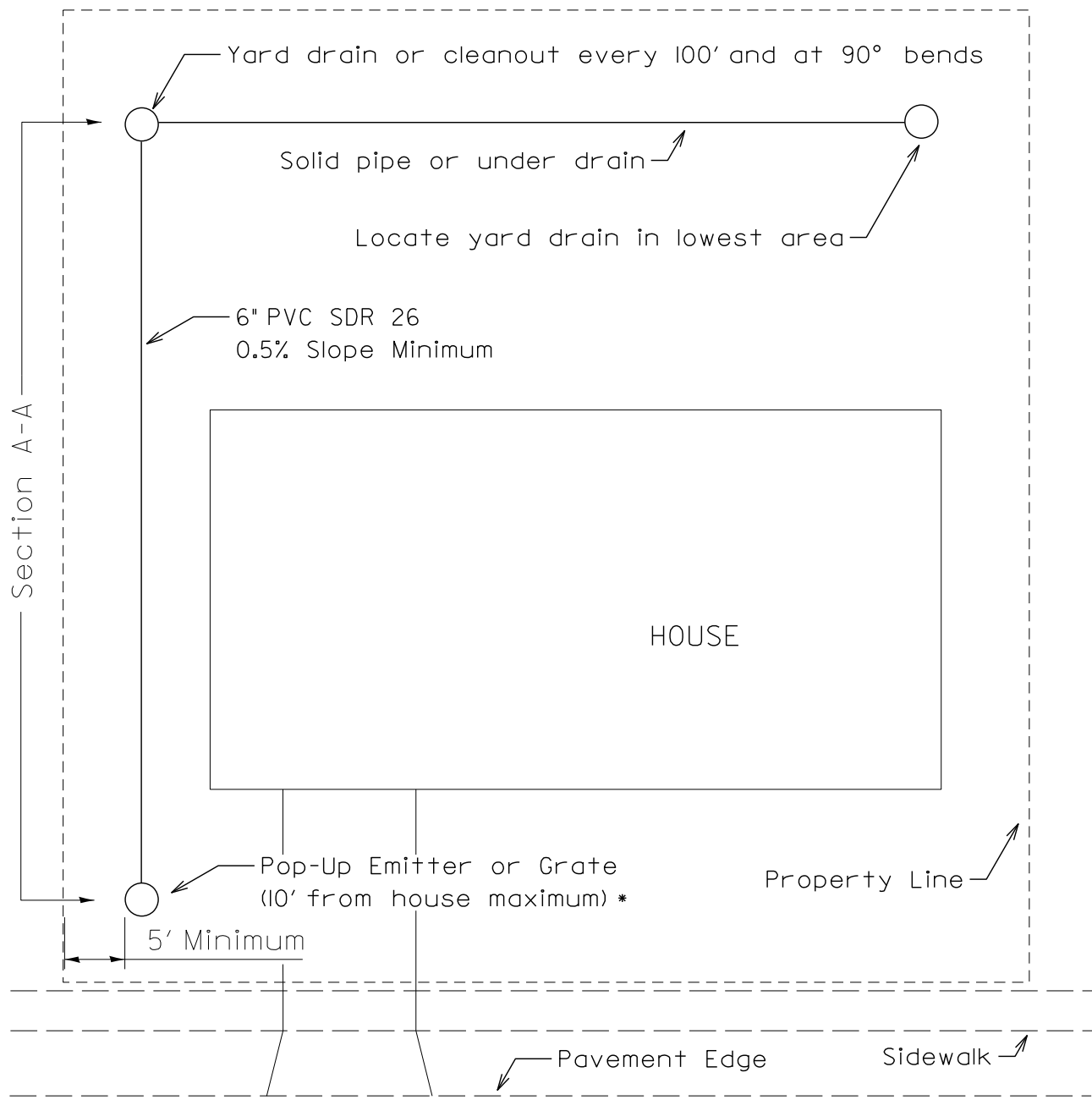
# VILLAGE OF NILES



## STORMWATER TOOLBOX FOR RESIDENTIAL DRAINAGE

October 27, 2017

DESIGNED - DJR  
 DRAWN - DJR  
 CHECKED - TJP



\* Elevation of Pop-Up Grate must be below low grade of rear yard drain rim elevation. Recommended minimum 6 inch elevation differential.

Note: Refer to Passive Drain Profile for Section A-A

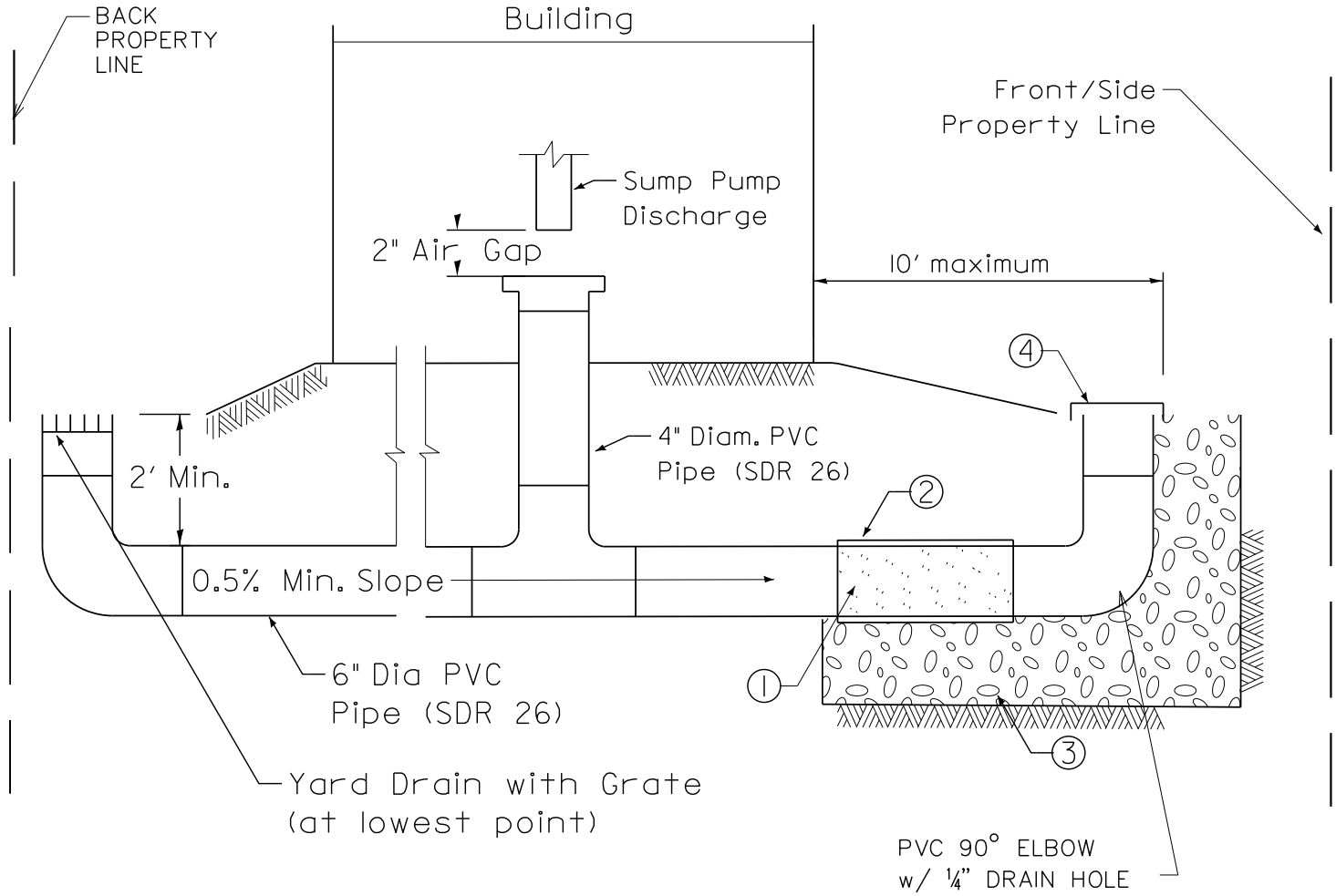
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USER NAME = DJR	PASSIVE DRAIN TO POP-UP PLAN VILLAGE OF NILES	TOTAL SHEETS	SHEET NO.
PLOT SCALE = NTS		02	01
PLOT DATE = OCT 2017			

DESIGNED - DJR  
 DRAWN - DJR  
 CHECKED - TJP



SECTION A-A



NOTES:

- ① Perforated PVC pipe (Holes at bottom)
- ② Wrap with permeable landscaping fabric
- ③ 12" deep gravelbed under perforated pipe
- ④ Pop-up drainage emitter or grate

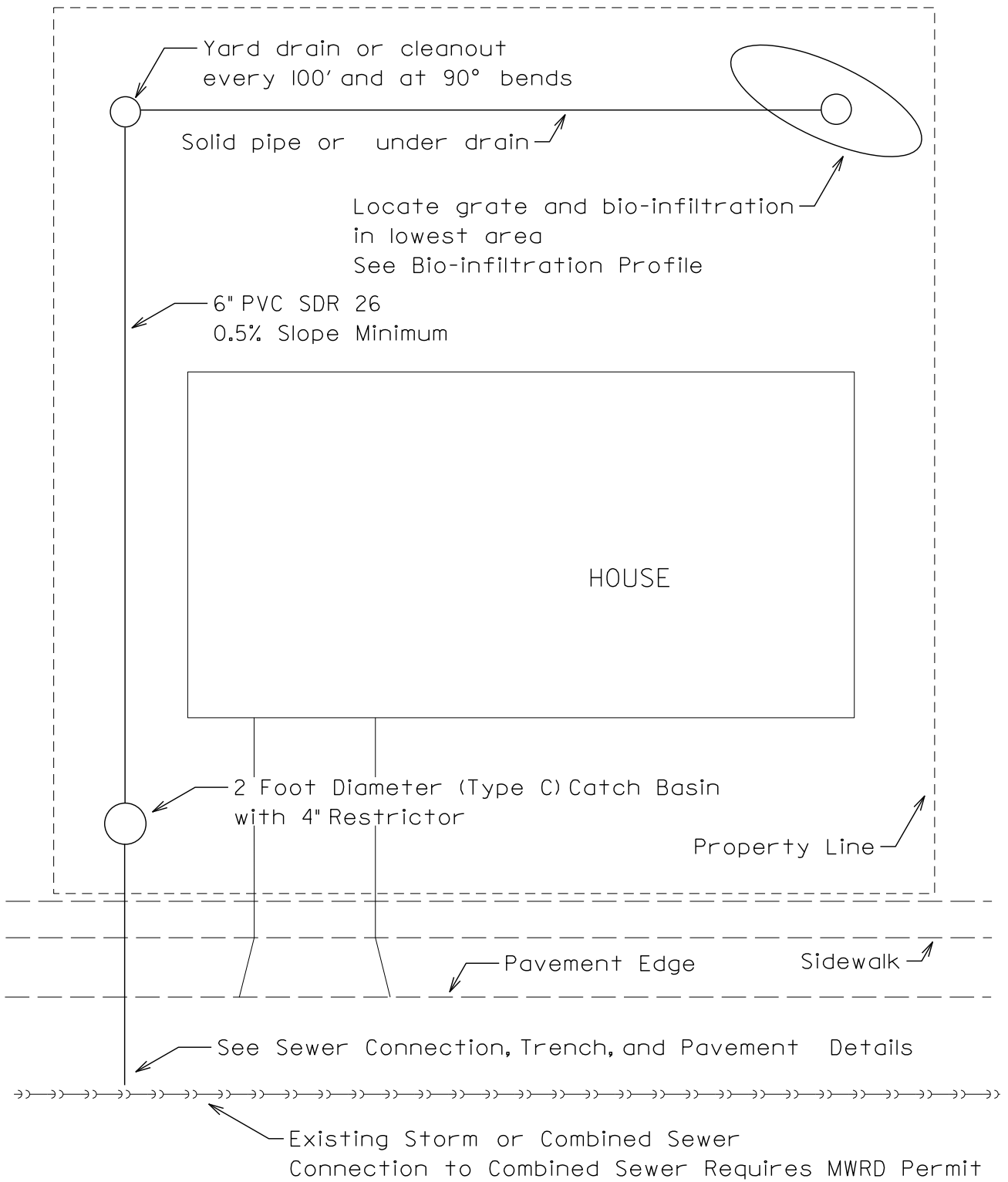
USER NAME = DJR  
 PLOT SCALE = NTS  
 PLOT DATE = OCT 2017

PASSIVE DRAIN PROFILE

VILLAGE OF NILES

TOTAL SHEETS	SHEET NO.
02	02

DESIGNED - DJR  
 DRAWN - DJR  
 CHECKED - TJP



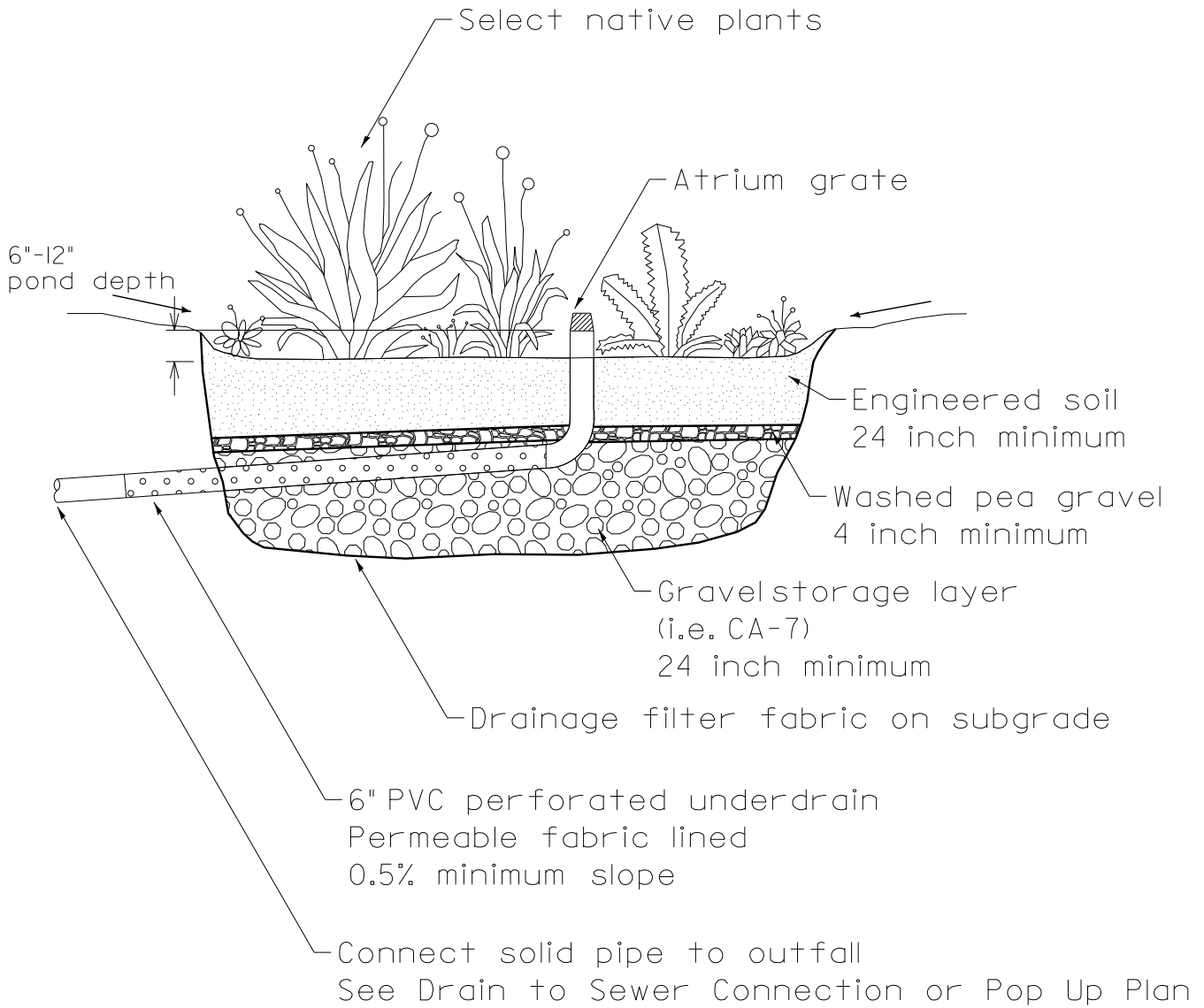
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USER NAME = DJR
PLOT SCALE = NTS
PLOT DATE = OCT 2017

DRAIN WITH SEWER CONNECTION PLAN	
VILLAGE OF NILES	

TOTAL SHEETS	SHEET NO.
01	01

DESIGNED	- DJR
DRAWN	- DJR
CHECKED	- TJP



NOTES:

Unless otherwise specified, engineered soil mix shall be:

- 30% Sand
- 50% Topsoil
- 20% Compost

Plants shall be selected according to moisture and light conditions.

Ideal Tributary Area to Bio-infiltration Area ratio - 5:1

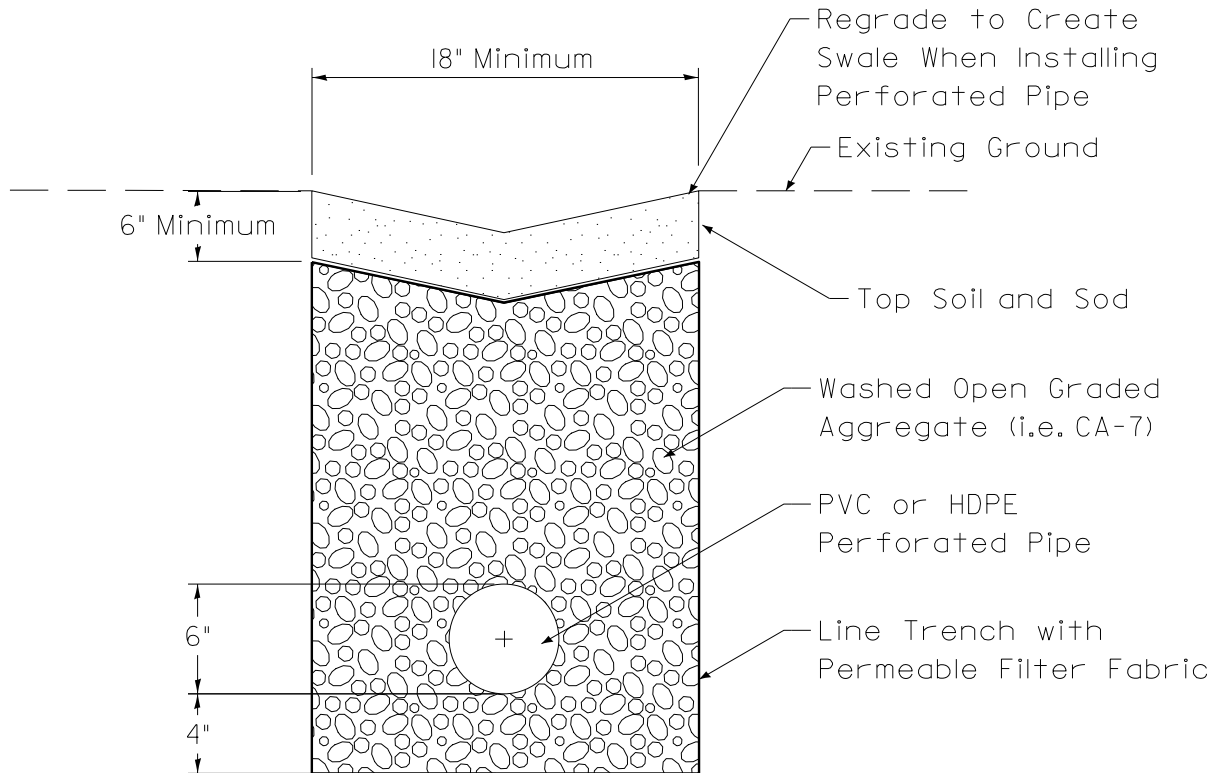
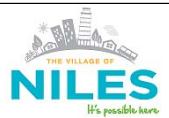
Refer to Village of Niles Environmental Committee step by step guide.  
[www.vniles.com](http://www.vniles.com)

Underdrains in combined sewer areas subject to MWRD permit regulations.

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USER NAME = DJR	BIO-INFILTRATION PROFILE	TOTAL SHEETS	SHEET NO.
PLOT SCALE = NTS		01	01
PLOT DATE = OCT 2017		VILLAGE OF NILES	

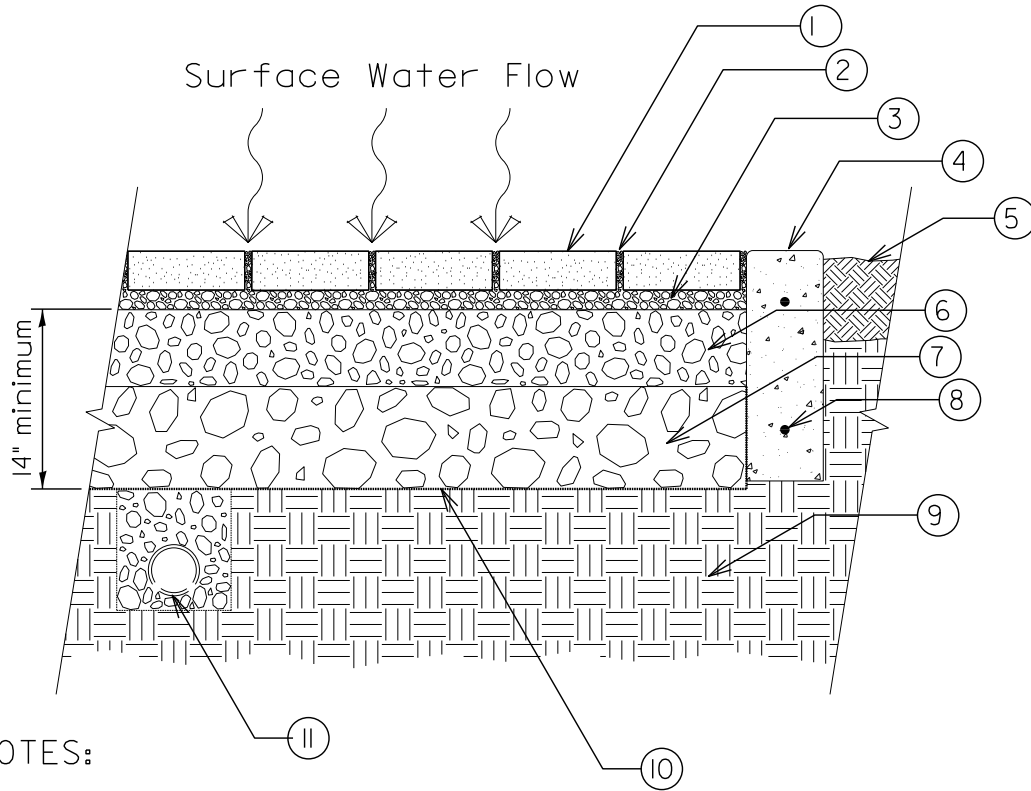
DESIGNED	- DJR
DRAWN	- DJR
CHECKED	- TJP



Note: Entire trench must be placed within private property unless sideyard drainage easement exists.

USER NAME = DJR	UNDERDRAIN CROSS SECTION	TOTAL SHEETS	SHEET NO.
PLOT SCALE = NTS		01	01
PLOT DATE = OCT 2017		VILLAGE OF NILES	

DESIGNED	- DJR
DRAWN	- DJR
CHECKED	- TJP



NOTES:

- ① Permeable paver
- ② Permeable joint opening aggregate:  
Open graded crushed stone. ASTM No.8 or 3/8" chips
- ③ Permeable setting bed aggregate:  
1.5" open graded crushed stone. ASTM No.8 or 3/8" chips
- ④ Concrete curb
- ⑤ Landscaping
- ⑥ 6" permeable base aggregate. CA-7
- ⑦ Permeable subbase aggregate. CA-1. 8" min. with underdrain or  
12" min. without under drain
- ⑧ #4 Rebar, continuous. 3" clear space (typical)
- ⑨ Existing subbase
- ⑩ Geotextile material -  
Install as directed by professional engineer
- ⑪ PVC perforated underdrain pipe in open graded crushed stone -  
Install as directed by professional engineer

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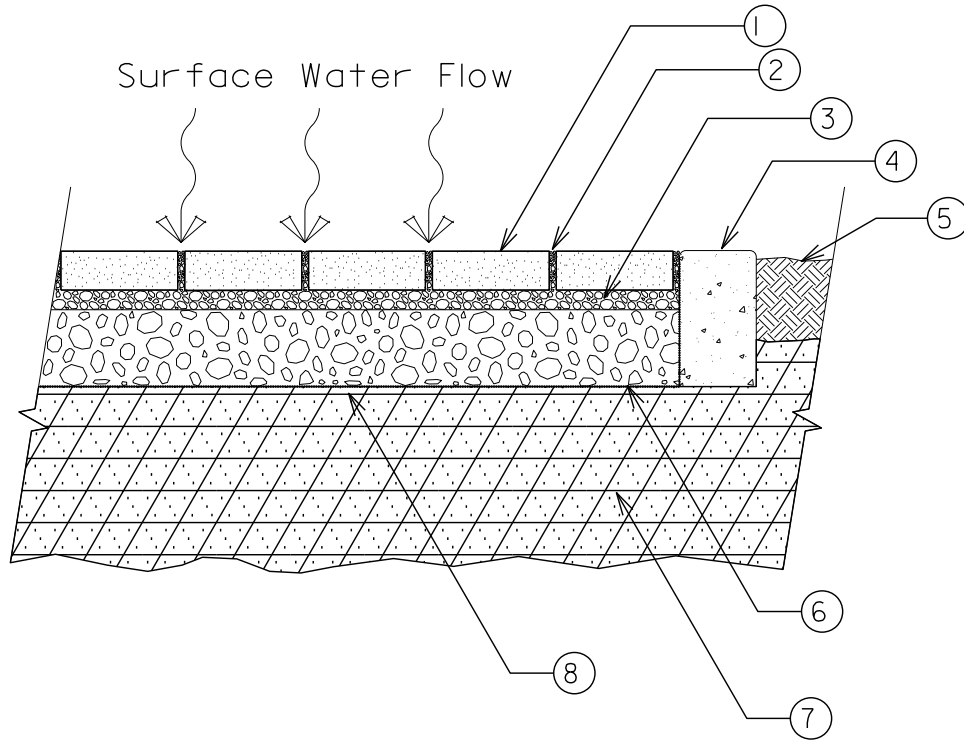
USER NAME = DJR
PLOT SCALE = NTS
PLOT DATE = OCT 2017

PERMEABLE PAVEMENT CROSS SECTION

VILLAGE OF NILES

TOTAL SHEETS	SHEET NO.
01	01

DESIGNED - DJR  
 DRAWN - DJR  
 CHECKED - TJP



NOTES:

- ① Permeable paver
- ② Permeable joint opening aggregate:  
Open graded crushed stone, ASTM No.8 or 3/8" chips
- ③ Permeable setting bed aggregate:  
1.5" open graded crushed stone, ASTM No.8 or 3/8" chips
- ④ Optional edging material
- ⑤ Landscaping
- ⑥ 8" permeable base aggregate, CA-7
- ⑦ Existing subgrade
- ⑧ Geotextile material -  
Install as directed by professional engineer

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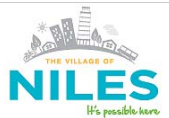
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PLOT SCALE = NTS
PLOT DATE = OCT 2017

PERMEABLE SIDEWALK CROSS SECTION
VILLAGE OF NILES

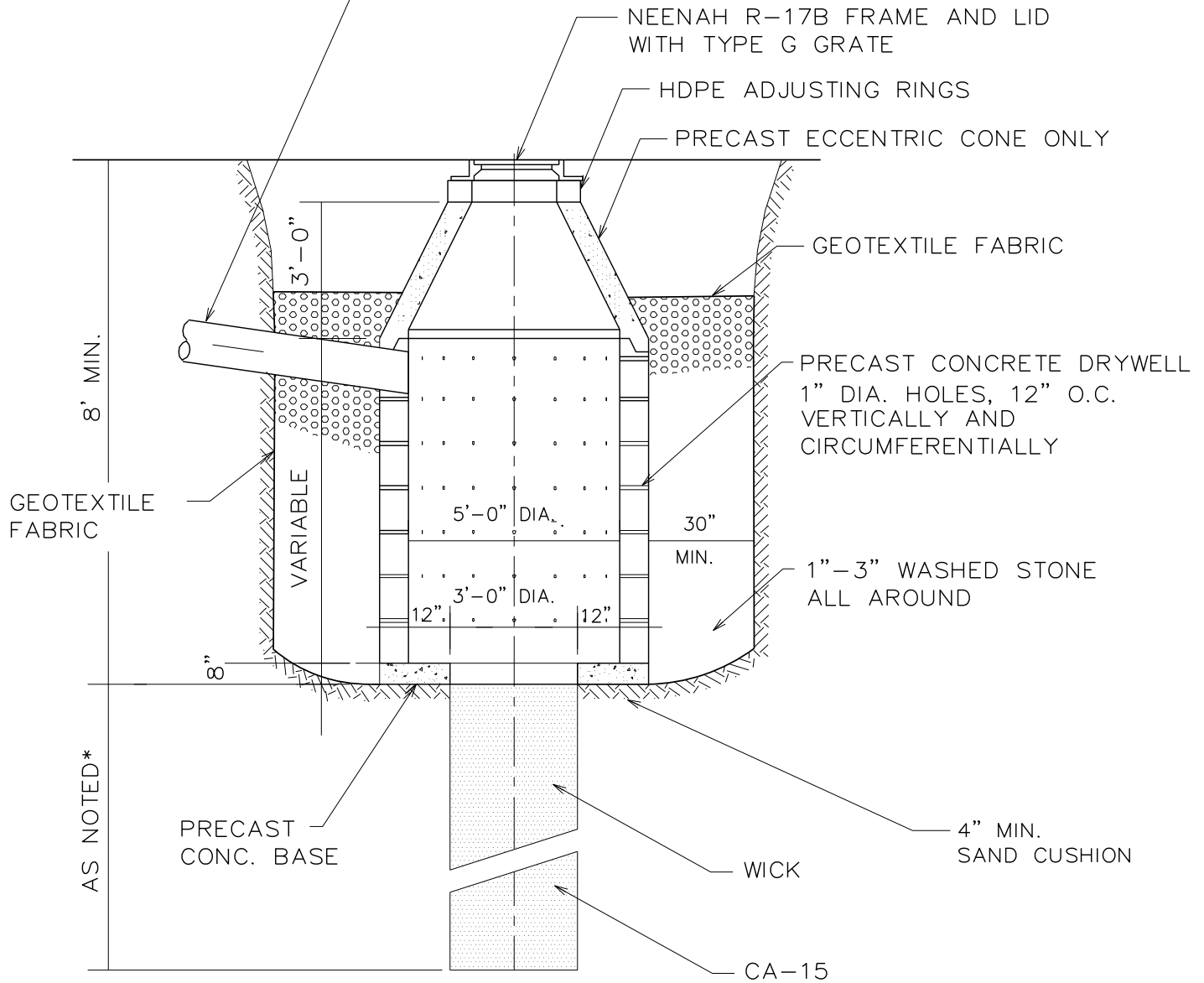
TOTAL SHEETS	SHEET NO.
01	01



DESIGNED	- TCI
DRAWN	- TCO
CHECKED	- DJR



PIPE FROM CATCH BASIN:  
ALL DRYWELLS SHALL BE  
PRECEDED BY A CATCH  
BASIN.



NOTES:

1. Wick shall be constructed to a depth reaching water table, course soils, or 28 feet below grade, whichever is less
2. Structure must conform to ASTM C-478
3. Structure sections must be tongue and grooved.
4. Non-precast openings shall be cored.
5. Use steel reinforced polyurethane steps (12" wide), 16" O.C. vertical
6. Two max. precast concrete or plastic adjusting rings, 8" max.

USER NAME = TCO
PLOT SCALE = NTS
PLOT DATE = AUG 2017

DRY WELL CROSS SECTION

VILLAGE OF NILES

TOTAL SHEETS	SHEET NO.
01	01

# MWRD WMO STORMWATER DETAILS

