



City of
Rockville
Get Into It

WATER AND SEWER REVIEW CHECKLIST

June 2012

CITY OF ROCKVILLE

DEPARTMENT OF PUBLIC WORKS (DPW)

111 Maryland Avenue

Rockville, Maryland 20850

240-314-8500

www.rockvillemd.gov

Project Information:

Project Name: _____

Legal Description: Subdivision: _____ Lot(s) and Block(s): _____ Parcel(s): _____

Property Address: _____

Tax Acct. ID(s): _____

Engineering Firm: _____

Contact Person: _____

Phone Number: _____

Email Address: _____

CPDS Case No: _____

DPW PWK Permit No: _____ (assigned by DPW)

DPW SMP Permit No: _____ (assigned by DPW)

DPW SMP Permit No: _____ (assigned by DPW)

Proposed Water and Sewer Work: (Check all that apply)

_____ Abandon existing water (main and/or connection)	_____ Abandon existing sewer (main and/or connection)
_____ Construct new water (main and/or connection)	_____ Construct new sewer (main and/or connection)
_____ Fire hydrant	_____ Other _____

How To Use This Checklist:

This checklist has been developed to provide the engineer with guidance in preparing and submitting Water and Sewer Plans. All items in this checklist must be addressed. The engineer must complete each item in the checklist prior to submittal and indicate the status by completing the left hand column entitled "Initial Submission." Use the legend below to complete this column. Any items that are marked INC (incomplete) must be explained. The engineer must sign this checklist indicating that it has been completed in accordance with this guidance and the Submission Acceptance Policy below.

Legend: X = Complete or Provided, N/A = Not Applicable, INC = Incomplete (provide explanation)

Submission Acceptance Policy:

Correctly filling out this checklist will assist in the acceptance, review and approval process. All of the items in SECTION A - APPLICATION SECTION must be provided with the initial submission for the City to accept the package and forward it to the Reviewer. Incomplete submissions may be rejected. Once forwarded to the Reviewer, the Reviewer will have one week to review the package for the items listed in SECTION B - SUBMISSION REQUIREMENTS. Failure to include the required items or to explain items not included may result in the rejection of the submission without review.

Name of Firm

Date

Signature of Responsible Person

Responsible Person's Name

Title

WATER AND SEWER REVIEW CHECKLIST - PAGE 2

Initial Submission	Rockville's Review	
	1st	2nd

A) APPLICATION SECTION

- | | | | |
|---|--|-------|-------|
| 1 | _____ Completed and signed Public Works Improvement Plan (PWK) Application | _____ | _____ |
| 2 | _____ Review Fee (Check made out to City of Rockville.) Review fee is based on the estimated cost of work utilizing the City Standard Prices for Cost Estimating as may be updated - available at www.rockvillemd.gov | _____ | _____ |
| 3 | _____ Two copies of the proposed plans. Plans must be on 24" X 36" standard City of Rockville base sheet. Contact DPW for an electronic version if needed. | _____ | _____ |

B) SUBMISSION REQUIREMENTS

- | | | | |
|---|---|-------|-------|
| 1 | _____ Transmittal explaining purpose of the submission including explanation of any unusual circumstances | _____ | _____ |
| 2 | _____ Cost estimate for proposed water and sewer construction utilizing City Standard Prices for Cost Estimating as may be updated (available on www.rockvillemd.gov) | _____ | _____ |
| 3 | _____ Copy of DPW Water and Sewer Authorization Letter, if applicable | _____ | _____ |
| 4 | _____ State of MD Professional Engineer certification on the first sheet of the plan set | _____ | _____ |

C) BASE SHEET

- | | | | |
|----|--|-------|-------|
| 1 | _____ Scale 1" - 30' or larger with north arrow and datum NAD 83/91, NGVD 88, unless otherwise approved. Provide two benchmarks per plan view sheet with location, elevation and description. Individual single family lot submissions are not required to provide benchmarks. | _____ | _____ |
| 2 | _____ Legend for existing and proposed features | | |
| 3 | _____ Vicinity Map (1" - 2000') with site outlined/labeled in upper right hand corner | _____ | _____ |
| 4 | _____ Name, address and telephone number of firm or individual that prepared plan | _____ | _____ |
| 5 | _____ Name, address, telephone number, email of Owner/Applicant on the first sheet | _____ | _____ |
| 6 | _____ Title block including purpose of plan, property's legal description (subdivision, lots, parcels and blocks), election district | _____ | _____ |
| 7 | _____ Number sheets consecutively and provide match lines if needed | _____ | _____ |
| 8 | _____ Existing and proposed public and private streets, with rights-of-way delineated and widths labeled | _____ | _____ |
| 9 | _____ Miss Utility Note and Rockville Utility Note on first sheet | _____ | _____ |
| 10 | _____ Seal, signature, license number of qualified preparer on all sheets | _____ | _____ |

D) GENERAL INFORMATION

- | | | | |
|---|---|-------|-------|
| 1 | _____ Include standard notes on the plan: City of Rockville General Notes, Water and Sewer Notes, and Geotechnical Notes (available at www.rockvillemd.gov) | _____ | _____ |
| 2 | _____ All aspects of water and sewer designed in accordance with WSSC standards, specifications and details unless otherwise indicated or directed. | _____ | _____ |
| 3 | _____ Add note to all applicable plan and profile sheets where new construction is proposed: Restrain all pipes and fittings | _____ | _____ |

WATER AND SEWER REVIEW CHECKLIST - PAGE 3

Initial Submission		Rockville's Review	
		1st	2nd
E) PLAN VIEW			
1	Property outlined with bearings and distances, and/or rights-of-way within the project limits	_____	_____
2	Proposed right-of-way dedication or reservation delineated with acreage and square footage noted	_____	_____
3	Existing and proposed public and private streets with rights-of-way shown and widths labeled	_____	_____
4	Adjacent property information with owner name, property address and legal description (i.e. subdivision, lot and block.) If adjacent property is part of the proposed subdivision only lot and block is required.	_____	_____
5	All existing and proposed easements shown and labeled with limits, use and liber/folio or plat and plat book. Include P.U.E.s.	_____	_____
6	Natural resources such as streams, drainage ways, wetlands, wetlands buffer, and 100 year floodplains. Note: 100 year floodplains exist when the drainage area to any point on the property \geq 30 acres.	_____	_____
7	Existing trees including type and size as shown on the approved NRI/FSD	_____	_____
8	All existing features within the project limits (buildings, paving, curb and gutter, sidewalk, etc.) shown and labeled to remain, to be removed, to be abandoned, to be relocated, etc.) Can be lighter for clarity.	_____	_____
9	Existing overhead and underground utilities including location, type, material and sizes.	_____	_____
10	Existing topography at 2' contour interval (only required for sewer outfalls unless otherwise directed)	_____	_____
11	Existing water and sewer and appurtenances within the project limits. Include field verified location, size and material for: existing manholes (label transition and drop connection manholes), water and sewer mains, individual service connections, fire hydrants and valves, including nearest hydrant and valve for shut off. Provide field shot inverts and sizes for all pipes into and out of manholes and tops of structures.	_____	_____
12	Proposed improvements within project limits (buildings, paving, curb and gutter, sidewalk, etc.)	_____	_____
13	Basement and first floor elevations for each structure	_____	_____
14	Proposed utilities within the project limits (storm drain pipes and structures, gas, electric, cable, etc.) Label size and material.	_____	_____
15	Proposed water mains including size, pressure class, all fittings and blocking. Stationing must coordinate with the profile	_____	_____
16	Proposed valves	_____	_____
17	Proposed fire hydrants	_____	_____

WATER AND SEWER REVIEW CHECKLIST - PAGE 4

Initial Submission	Rockville's Review		
	1st	2nd	
E) PLAN VIEW (Continued)			
18 _____	Water service connection to each lot, parcel, or building shown and labeled. (Sizes to be approved by ISD. Locations to be approved by DPW.)	_____	_____
19 _____	Water meters shown and labeled. (Sizes to be approved by ISD. Locations to be approved by DPW.) Water meter to be placed 1' behind right-of-way into private property unless otherwise approved.	_____	_____
20 _____	Show and label water blocking and pipe restraints with WSSC standard detail number. If blocking or restraint is not standard label as such and provide a special detail on the plan.	_____	_____
21 _____	Proposed sewer mains including size, material, class and direction of flow indicated with an arrow to match the profile. Minimum sewer size is 8".	_____	_____
22 _____	Manhole numbers to match profiles. Label manholes with drop connections or transition manholes.	_____	_____
23 _____	Sewer service connections shown and labeled with size and material	_____	_____
24 _____	Cleanouts shown and labeled. Cleanouts to be located at property line.	_____	_____
25 _____	Legend for all existing and proposed plan elements that are not labeled.	_____	_____
F) SPECIFIC DESIGN REQUIREMENTS			
1 _____	Water and Sewer Pipe and Structure Schedule with material list	_____	_____
2 _____	Maintain a minimum of 10' horizontally between water and sewer (outside to outside)	_____	_____
3 _____	Maintain a minimum of five (5) feet horizontally between all other existing or proposed water and/or sewer and/or existing or proposed storm drain pipes and structures, utility poles, dry utilities and appurtenances, conduits, etc. (measured outside to outside)	_____	_____
4 _____	Minimum fire hydrant spacing shall be 500' in single family developments and 250' to 300' in townhouse and all other areas. Locate hydrants on lot lines and in accordance with WSSC guidelines and/or as directed by DPW and Inspection Services Division (ISD.)	_____	_____
5 _____	Fire hydrants must be strapped to mains	_____	_____
6 _____	All pipe joints and fittings for new construction must be restrained	_____	_____
7 _____	Valves are to be located at all sides of tees and crosses	_____	_____
8 _____	Provide minimum valve spacing to allow shut off of 50 residential units or two street blocks and at all fire hydrant leads	_____	_____
9 _____	Minimize the number of water bends	_____	_____
10 _____	Water should be located 7' off centerline of any proposed curb and gutter	_____	_____
11 _____	Each commercial building, lot or parcel should have a separate sewer and water service connections with meter unless otherwise permitted by City code	_____	_____
12 _____	Manholes should be located outside of driveways aprons, sidewalks, handicap ramps, bike paths and parking spaces whenever possible or as directed	_____	_____
5 _____	Note: All pressure sewer systems and grinder pumps are to be designed in accordance with WSSC standards, specifications and details	_____	_____
13 _____	When only first floor service is proposed, verify and demonstrated that adequate cover over the service connection is achieved within the property	_____	_____
14 _____	When water meters are located on private they must be placed in an easement. Delineate the easement on the plan and label the dimensions.	_____	_____

WATER AND SEWER REVIEW CHECKLIST - PAGE 5

Initial Submission	Rockville's Review		
	1st	2nd	
E) WATER PROFILE			
1 _____	Finished and/or approved grade shown and labeled	_____	_____
2 _____	Profiles drawn to match direction of water main on plan view	_____	_____
3 _____	Stationing to match plan view with stations of all valves, bends, tees, etc. shown	_____	_____
4 _____	Mains shown with sizes and material labeled	_____	_____
5 _____	Four (4) feet of cover over finished and/or approved grade or existing street grade	_____	_____
6 _____	Crossings with existing and/or proposed utilities shown and labeled. Include type, material, size and invert of utility at crossing. Minimum of one (1) foot of vertical clearance.	_____	_____
7 _____	Water service connections shown with address, parcel or lot/block to be served labeled	_____	_____
F) SEWER PROFILE			
1 _____	Finished and/or approved grade shown and labeled	_____	_____
2 _____	Profiles drawn to match direction of sewer main on plan view	_____	_____
3 _____	Pipe lengths with 0+00 set at lowest invert per run	_____	_____
4 _____	Mains shown with sizes, material, class and slopes as percentage and to the hundredth place	_____	_____
5 _____	Sewer designed to normal maximum depth of up to 10' unless otherwise required due to site or utility clearance constraints and as approved by DPW	_____	_____
6 _____	Minimum slopes must be per WSSC criteria and as approved by DPW. Terminal sewer sections must be a minimum of 1.0%	_____	_____
7 _____	Label all inverts to the hundredth place	_____	_____
8 _____	Material to be ductile iron for all sewer steeper than 10% and at stream crossings. Stream crossing protection shown and standard detail labeled or provided special detail if non-standard.	_____	_____
9 _____	Manhole drop connections labeled. Only inside drop method will be permitted.	_____	_____
10 _____	Minimum of 0.10 channel drop through standard manholes	_____	_____
11 _____	Manhole numbers shown to match plan view with field verified rim elevations and slope as percentage to the hundredth place.	_____	_____
12 _____	Rim elevations and depths labeled. Rim elevations are to be field verified when manholes are to be set in existing ground or existing streets. Frame and cover to be set flush with existing, proposed or approved grade as applicable.	_____	_____
13 _____	When manholes are located in environmentally sensitive areas (forests, streams, etc.), frames and covers shall be set at 1 foot above existing ground.	_____	_____
14 _____	Crossings with existing and/or proposed utilities shown and labeled. Include type, material, size and invert of utility at crossing. Minimum of 1' of vertical clearance.	_____	_____
15 _____	All SHC's shown with address, parcel or lot/block labeled	_____	_____
16 _____	Sewer to be concrete encased wherever sewer crosses OVER water main. Show and label standard detail number or special detail if non-standard.	_____	_____

WATER AND SEWER REVIEW CHECKLIST - PAGE 6

Initial Submission	Rockville's Review
	1st 2nd
1 _____ Provide water blocking and thrust restraint calculations, if connecting to an existing, non-restrained water system	_____ _____
2 _____ Provide water blocking and/or pipe restraint calculations when for non-standard details are included in the design	_____ _____
3 _____ Plans must be submitted to affected utility companies for coordination. Provide documentation	_____ _____
4 _____ Two copies of proposed water and/or sewer easements with second submission. Water and Sewer easements may be dedicated by plat or by separate document.	_____ _____
5 _____ Water and Sewer Plan may be approved but PWK permit will not be issued until the other required DPW permits are issued	_____ _____
6 _____ Provide one copy of Storm Drain Plans for informational purposes and to check crossings. Required no later than at second submission.	_____ _____
7 _____ Crossings with existing utilities will require test pits to verify horizontal and vertical information. If test pits are not performed before plan approval encountered field conflicts may result in the need to resubmit revised plans to DPW for review and approval. Project delays may occur and additional review fees may be incurred.	_____ _____
8 _____ Perform soil borings for new subdivisions and/or projects proposing more than 1000 feet of new public water and/or sewer. Provide a minimum of two borings per 1000 feet of main. Provide a geotechnical report prepared by a qualified professional that identifies recommendations for utility construction including bedding. Geotechnical recommendations must be incorporated into the design unless otherwise directed. Spoil report must be submitted no later than at second submission.	_____ _____
9 _____ One copy of the Signature Set for the related CPDS Plan. Provide prior to plan approval.	_____ _____

COMMENTS:
