Stormwater Development Guide

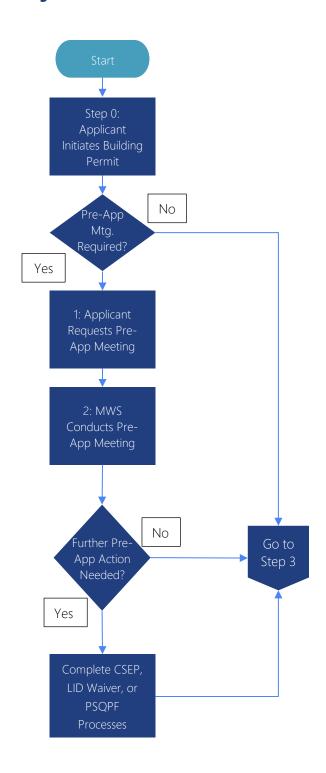
Metro Water Services



Process Flow Diagrams

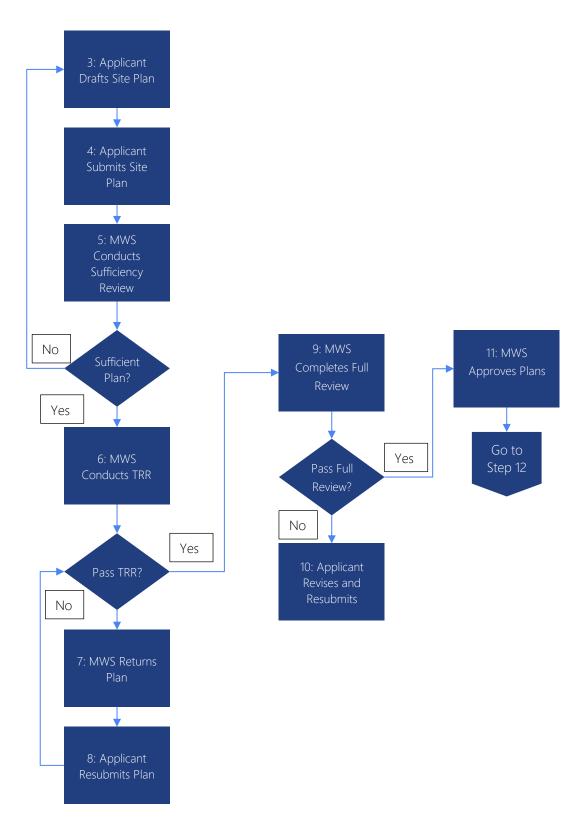


Project Initiation



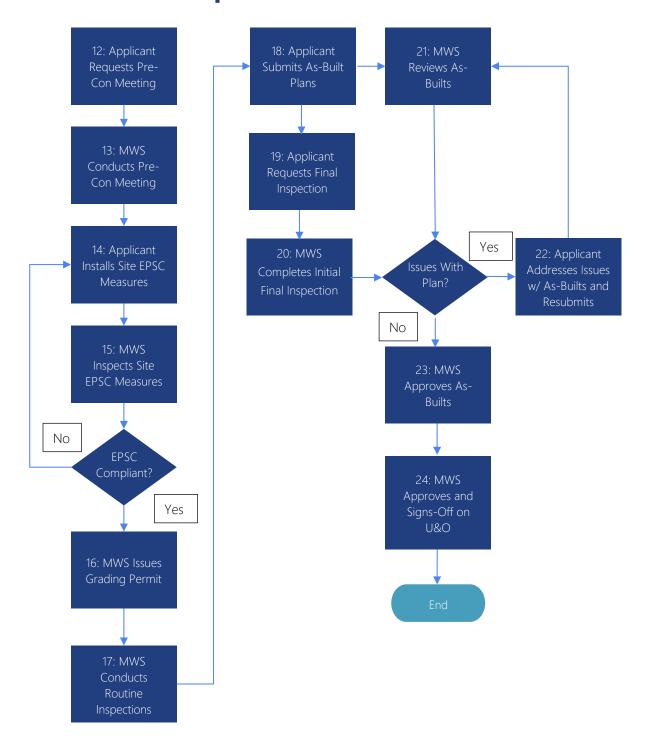


Site Plan Review





Construction, Inspection, and As-Built Review





Process Descriptions



Step 0: Applicants initiates the process of a securing a Building Permit

Step Detail

The process for securing a Building Permit begins with the Metro Department of Codes and Building Safety (Metro Codes). To start the process of securing a Building Permit, contact the Codes Help Desk:

- Address: 800 President Ronald Reagan Way, Nashville, TN 37210
- Hours: Monday-Friday, 7:30 a.m.-4:00 p.m.
- Email: <u>zoninghelpdesk@nashville.gov</u>
- Phone Number: 615-862-6510

A Codes zoning examiner will work with the Applicant to identify the Metro Departments that must be involved for the Building Permit to be completed. Please keep these factors in mind:

- It is the Applicant's responsibility to follow the requirements of the checklist on the building permit application and to make sure all necessary signoffs are achieved.
 Currently, Metro Nashville's plan review and permitting technology does not route the application through each step in the required process; that is the Applicant's responsibility.
- It is also the Applicant's responsibility to schedule the necessary inspections with Metro Nashville at the proper time in the building process.
- Do not seek to determine what reviews and permits are required on your own. That is the Codes zoning examiner's job. If an Applicant fails to complete the steps identified in the permit application, the Building Permit process will be delayed.
- Allow plenty of time. The Metro agencies involved in the review process are dealing with an unprecedented number of permit applications.

Step 1: Applicant requests pre-application meeting (if required)

Step Detail

Projects that are exempted from the requirement to receive a grading permit for stormwater management purposes can be found in **Section 3.4 of Volume I** of the <u>Stormwater Management Manual | Nashville.gov.</u>



For a list and definitions of key stormwater terms, see <u>Stormwater Terms and Acronyms</u> (nashville.gov).

To begin the process of securing a Grading Permit or receiving an exemption, Applicants may schedule a pre-application (pre-app) meeting with Metro Water Services (MWS) Development Services (DS) to discuss their proposed projects. To begin the process, Applicants should email mws.stormdr@nashville.gov and indicate their desire to schedule a pre-app meeting.

While not mandatory for most projects, a pre-app meeting can be useful to improve the timeliness of the plan review process and the issuance of a Grading Permit. A pre-app meeting also aids the Applicant in identifying water quality buffers and post-construction water quality requirements. During the pre-app meeting, the MWS DS Plan Reviewer can determine if a proposed project qualifies for an exemption and explain how technical guidelines and criteria should be applied.

Some examples of projects for which a pre-app meeting is **required** include:

- The proposed project is in Metro's Combined Sewer System (CSS) area and is, therefore, subject to Metro's <u>Combined Sewer Elimination Program</u> (CSEP) requirements.
 - o A map of the CSS area can be found here: Combined Sewer System Area
 - For a precise determination as to whether the project is in the CSS area,
 Applicants should email MWS Records and Mapping at: mws-ram@nashville.gov.
 Provide the address of the proposed development.
- The project is **not** in Metro's CSS area, but the Applicant intends to request a waiver from Metro's Low Impact Development (LID) standards (<u>Low Impact Development</u> <u>Information for Developers</u>). See a <u>summary of the LID waiver process</u>.
- The Applicant is interested in pursuing a <u>Public Stormwater Quality Project Fund</u>
 Application (PSQPF) in lieu of fee determination. This is designed for sites (usually involving redevelopment) that cannot physically meet the stormwater quality treatment requirements.
- The Applicant intends to seek a <u>stormwater variance</u> for a proposed project located in a stream buffer or flood plain.

Pre-app meeting participants include an MWS DS Plan Reviewer and the Applicant's Design Engineer. The Applicant Owner and/or Developer is also encouraged to attend. In anticipation of the pre-app meeting, the Applicant's representatives should prepare and bring to the meeting a preliminary Site Plan. In general, more preparation and relevant documentation (such as existing topographic information) brought by the Applicant will make for a more productive meeting, including the identification of other necessary public improvements such as sidewalk and street



improvements. Applicants interested to use the FTP process to submit materials may register to do so by following the instructions in Step 4.

In some cases, a Metro multi-departmental pre-application meeting may be convened by MWS Codes for particularly complex projects.

Associated Links and Forms

Stormwater Management Manual | Nashville.gov.
Stormwater Terms and Acronyms (nashville.gov)
Combined Sewer Elimination Program
Combined Sewer System Area
Low Impact Development Information for Developers
Summary of the LID Waiver Process
Public Stormwater Quality Project Fund

Step 2: MWS DS schedules and facilitates preapplication meeting with Applicant (if required)

Step Detail

Stormwater Variance

After the Applicant requests a pre-app meeting, a Plan Reviewer will contact the Applicant to arrange the meeting. The general intent of the meeting is to enable the Applicant's team to ask questions and for the Plan Reviewer to communicate requirements and direction that will benefit the Applicant's Design Engineer in the development of a conforming Site Plan. It is intended to facilitate the free flow of ideas to address the site's particular stormwater challenges. MWS DS usually assigns the Plan Reviewer who will review the submitted Site Plan to attend the pre-app meeting.

At or following the meeting, a Plan Reviewer advises the Applicant and the Design Engineer on any further pre-review and/or waiver-related actions to take following the pre-app meeting. The Applicant's Design Engineer attending the pre-app meeting may be required to document and return to MWS DS meeting minutes which will serve as the basis of any additional required meetings such as for the CSEP, LID Waiver or PSQPF processes. Such meeting minutes can be shared with other Metro departments, upon request.

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Step 3: Applicant drafts conforming Site Plan and assembles all required documents

Step Detail

Based on any direction received from the pre-app meeting (if held) and any subsequent MWS DS sessions (such as for the CSEP, LID Waiver or PSQPF processes), the Applicant develops a Site Plan that is conformance with:

- MWS's Stormwater Regulations
- Tennessee Department of Environment and Conservation (TDEC) Erosion Prevention Standards
- Tennessee Department of Transportation (TDOT) Standard Drawings
- Nashville Department of Transportation (NDOT) Engineering Details and Specifications
- Any other applicable governing regulations

Submitting conforming site plans speeds up the entire plan review and approval process.

Documents required for submittal include:

- Development Services Review Transmittal Form <u>DS Transmittal Form REV10282022.pdf</u> (nashville.gov)
- One Water Application <u>Metro Nashville Water Services Stormwater Developers One</u> <u>Water Permit Application</u>
- Completed Technical Review Requirements (TRR) form <u>Technical Review Requirements</u>
 (TRR) Form
- Fee Worksheet <u>Fee Worksheet</u>
- Stamped Plans as a PDF document
- Stamped Calculations (including stormwater infrastructure, water quantity, water quality, and associated technical documents)
- Drainage Maps
- Project Narrative

Associated Links and Forms

Stormwater Management Manual | Nashville.gov

TN Erosion Prevention | Sediment Control (tnepsc.org)

Standard Drawings Library (tn.gov)

Nashville Department of Transportation Engineering Details and Specifications | Nashville.gov



Technical Review Requirements (TRR) Form

DS Transmittal Form REV10282022.pdf (nashville.gov)

Metro Nashville Water Services Stormwater Developers One Water Permit Application
Fee Worksheet

Step 4: Applicant submits Site Plan with all required supporting documents

Step Detail

When the pre-app meeting is completed – if required or desired - any special pre-review process is completed (CSEP, LID Waiver, Stormwater Variance), and a conforming Site Plan is developed, the Applicant submits the Site Plan and supporting documents for review. Submittals are uploaded to the <u>Electronic Plans Upload site</u>. Applicants must register with MWS DS to obtain a username and password to access the <u>Electronic Plans Upload site</u>. Email MWS.EPlanRev@nashville.gov to register and acquire a username and password to use the site. Uploaded files must be named using the Site Naming Convention outlined in the Site Naming Convention document - FTP Site File Naming Convention.

Documents required for submittal include:

- Development Services Review Transmittal Form <u>DS Transmittal Form REV10282022.pdf</u> (<u>nashville.gov</u>)
- One Water Application <u>Metro Nashville Water Services Stormwater Developers One</u> <u>Water Permit Application</u>
- Completed Technical Review Requirements (TRR) form <u>Technical Review Requirements</u>
 (TRR) Form
- Fee Worksheet Fee Worksheet
- Stamped Plans as a PDF document
- Stamped Calculations (including stormwater infrastructure, water quantity, water quality, and associated technical documents)
- Drainage Maps
- Project Narrative

Applicants must register with MWS DS to obtain a username and password to access the Online Electronic Plans Upload site. Email MWS.EPlanRev@nashville.gov to register and acquire a username and password to use the site. Uploaded files must be named using the Site Naming Convention outlined in the Site Naming Convention document - FTP Site File Naming Convention.



The Applicant will receive an email notification that their submission is successfully uploaded to the site.

Associated Links and Forms

Technical Review Requirements (TRR) Form

Link to Online Electronic Plans Upload site

FTP Site File Naming Convention

DS Transmittal Form REV10282022.pdf (nashville.gov)

Metro Nashville Water Services Stormwater Developers One Water Permit Application

Fee Worksheet

Step 5: MWS DS conducts review of submitted package for sufficiency

Step Detail

Once the plan package is successfully submitted, the package is reviewed for completeness. Normally, the Applicant receives a response in two to three business days. The Applicant receives an email informing them that the submittal package is complete or is notified if there are items missing. If the submission is not complete, the email will include a list of missing items and instructions on how to resubmit. Once a submission passes the sufficiency review, the Applicant can track the review and approval process through <u>ePermits</u>.

<u>Note</u>: The best way to determine the status of a project is to check in the <u>ePermits</u> system or to contact the assigned Plan Reviewer. After the initial sufficiency review, the MWS DS contact person for the initial submission does <u>not</u> have further information about the status of the review.

Each firm submitting plans should designate one staff person to manage the submission and status of plans. Having a single point of contact for each submitting firm reduces the opportunity for miscommunication.

Associated Links and Forms

Metro Nashville ePermits website



Step 6: MWS DS reviews submitted documents using the Technical Review Requirements form Step Detail

Submitted plans and the accompanying documents that meet the basic sufficiency requirements (that is, the submission package is complete) are assigned to a MWS DS Plan Reviewer. Using the <u>Technical Review Requirements</u> (TRR), the Plan Reviewer checks the Site Plan and associated documents for design elements that are required for an efficient and detailed review. This TRR process counts as the first review. The TRR step is intended to improve the quality of the Site Plan submitted and to reduce overall the time taken to reach plan approval.

Confirming the presence of the necessary calculations is an important part of the TRR process. Other recommendations to Applicants regarding the TRR process include:

- Completely fill out the sections under "Design Engineer" with specific page numbers included.
- Completely fill out the header and footer and sign the document.
- Update the TRR on subsequent re-submissions (if any), as page numbers and other information can change based on corrected items. For example, if the time of concentration is wrong, correcting this could change the entire drainage report, impacting other questions.

If the Plan Reviewer determines that a required item or items are missing or unaddressed, the plan is marked as "Incomplete" and the TRR is returned to the Design Engineer with the comments on what is missing or incorrect. The Plan Reviewer may provide summary comments that address the specific issues. If the Plan Reviewer determines that the Site Plan and related documents pass the TRR, it is moved on for a full review (Step 9).

Associated Links and Forms

Stormwater Technical Review Requirements Form



Step 7: If incomplete, MWS DS returns plans and the TRR with missing items identified

Step Detail

If the submitted Site Plan and related documents fail the TRR process, the Applicant's Design Engineer receives an email that their plan review status has been changed to "Incomplete" and is directed to check <u>ePermits</u> for further details. The Design Engineer can log in to <u>ePermits</u> to see the TRR with comments.

Associated Links and Forms

Metro Nashville ePermits website

Step 8: Applicant resubmits plans with all required elements included (if necessary)

Step Detail

Based on any feedback from the sufficiency/completion review and the TRR review, the Applicant's Design Engineer should address the feedback to bring the plan into conformance, modify the plans and other materials, and resubmit with an updated Technical Review Requirements form. Timely response and resubmission results in faster final plan approval.

Once the Applicant's Design Engineer has addressed the comments and updated the site plan and supporting materials to reflect those updates, the Applicant's Design Engineer should resubmit the site plan and all required materials as specified in Step 4.

At or before the time that that the Applicant submits the plans and accompanying documents for a second time, the Applicant must pay the required fees

(<u>Development Fee Schedule 10.18.23.pdf (nashville.gov)</u>) either on-line or in-person. Stormwater review fees can be paid on-line by emailing a request to pay to mws.ds@nashville.gov. The Applicant will receive an email with instructions on how to pay online. Fees may also be paid in-person by check/cashier's check or credit card in person with MWS DS. MWS DS is located on the first floor of the Metro Office Building, 800 President Ronald Reagan Way, 37210.

It is recommended that grading permit fees be paid at the same time as stormwater review fees. However, grading permit fees must be paid before the pre-con meeting is held (Step 12).

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Associated Links and Forms

<u>Technical Review Requirements (TRR) Form</u>
<u>Link to Online Electronic Plans Upload site</u>
<u>Development Fee Schedule 10.18.23.pdf (nashville.gov)</u>

Step 9: MWS DS completes full review, identifies corrections needed (if any), returns plan (if needed)

Step Detail

If the Site Plan and all supporting documents are complete in terms of the sufficiency review and pass the TRR, the Plan Reviewer can conduct a thorough and efficient comprehensive review.

Site plans are reviewed with reference to:

- MWS's Stormwater Regulations
- Tennessee Department of Environment and Conservation (TDEC) Erosion Prevention
 Standards
- Tennessee Department of Transportation (TDOT) Standard Drawings
- Nashville Department of Transportation (NDOT) Engineering Details and Specifications
- Any other governing regulations

The Plan Reviewer digitally reviews the plans and adds comments and/or markups to the Site Plan. The Plan Reviewer notes issues that must be addressed to bring the submitted Site Plan into conformance with applicable regulations. Depending on the Plan Reviewer, a separate comment letter may be drafted.

Upon completion of the review by the Plan Reviewer, the Design Engineer receives an email that their plan review status has been changed and is directed to check <u>ePermits</u> for further details. The Design Engineer can log in to <u>ePermits</u> to see the site plan with comments.

By the time of the second submission of plans and supporting documents for review, the Applicant should include the Detention Agreement and Long-Term Maintenance Plan (Stormwater Control Measure (SCM) Maintenance Documents).

Associated Links and Forms

Metro Nashville ePermits website
Stormwater Management Manual | Nashville.gov



TN Erosion Prevention | Sediment Control (tnepsc.org)

Standard Drawings Library (tn.gov)

Nashville Department of Transportation Engineering Details and Specifications | Nashville.gov Stormwater Control Measure (SCM) Maintenance Documents

Step 10: Applicant addresses comments and resubmits plan in conformance with comments

Step Detail

The Applicant reviews comments and/or markups to the site plan received from the Plan Reviewer and makes changes to the Site Plan to bring it into conformance. An Applicant's failure to address comments results in further submission, review, and return cycles. If the Applicant has questions regarding the comments, they can reach out to the assigned Plan Reviewer for additional information and/or clarification.

Once the site plan is updated to address the comments, it can be resubmitted through the process documented in <u>Step 4</u>.

Associated Links and Forms

Stormwater Management Manual | Nashville.gov

TN Erosion Prevention | Sediment Control (tnepsc.org)

Standard Drawings Library (tn.gov)

Nashville Department of Transportation Engineering Details and Specifications | Nashville.gov

Step 11: MWS DS approves plan and communicates approval

Step Detail

Once a Site Plan meets all regulatory requirements, the MWS DS Plan Reviewer approves it. Once the Site Plan is approved, the Applicant's Design Engineer receives email notification. The approved Site Plan and associated documents can be accessed in <u>ePermits</u>. The approval letter describes how the Applicant can sign up for a pre-construction meeting.

Associated Links and Forms

Metro Nashville ePermits website



Step 12: Applicant requests the pre-construction meeting

Step Detail

Once the Plan Reviewer has approved the Applicant's Site Plan, it is the Applicant's responsibility to initiate the pre-construction (pre-con) meeting. This is normally accomplished by the Applicant's Design Engineer for the project. If the project is not ready for pre-con, the meeting may be delayed at the discretion of the Applicant. However, work on the project site must begin within one (1) year of the site plan approval. If site work is not begun within one year of Site Plan approval, the Site Plan must be resubmitted for review by MWS DS.

Pre-con meetings are held on Tuesday of each week (except for weeks with holidays). Grading permit fees (<u>Development Fee Schedule 10.18.23.pdf</u> (<u>nashville.gov</u>)) must be paid before the pre-con meeting is held. Submissions for pre-con meetings must be received before noon of the preceding Friday to be scheduled for the following week's meeting. Pre-con meetings are scheduled to begin at 8:00 a.m., are held virtually (currently), and generally last for about 30 minutes. After submitting the on-line application to request a pre-con meeting (<u>SWGR Pre-Construction Meeting Application | Nashville.gov</u>), the Applicant should instantly receive verification of submission and a reply from MWS Stormwater staff within 24 hours scheduling the meeting. If confirmation is not received, the Applicant should call 615-880-2420.

At a minimum, the Applicant's Design Engineer and Erosion Prevention and Sediment Control (EPSC) Professional must attend the meeting on behalf of the Applicant.

Associated Links and Forms

<u>SWGR Pre-Construction Meeting Application | Nashville.gov</u> Development_Fee_Schedule_10.18.23.pdf (nashville.gov)

Step 13: MWS Stormwater schedules and facilitates the pre-construction meeting

Step Detail

When the request for a pre-con meeting is received online, the MWS Stormwater staff first confirms that the Site Plan has been approved and, thus, is ready for the pre-con. The MWS Stormwater Administrator schedules the meeting and coordinates with the correct MWS



Stormwater Grading Permit Inspector. The MWS Stormwater Administrator then sends notice of the scheduled meeting to all parties.

The Design Engineer and the EPSC Professional for the site must attend the pre-con meeting on behalf of the applicant.

During the pre-con meeting, the assigned Grading Permit Inspector reviews a checklist of about 40 items, ensuring that all relevant topics are communicated. The Grading Permit Inspector reviews the plans, identifies what needs to be inspected, and communicates what needs to be submitted at the final sign off. The Grading Permit Inspector asks questions of the Applicant's representatives and provides input to them. The Applicant's representatives receive the Grading Permit Inspector's contact information (email and phone) for further questions and issues.

At the end of the pre-con meeting, the Applicant's representatives receive a letter authorizing them to install the approved EPSC measures. It is a conditional letter that allows the Applicant to install the EPSC measures but indicates that an inspection and approval of such EPSC measures is required before a Grading Permit is issued. Prior to Grading Permit issuance, the Detention Agreement and Long-Term Maintenance Plan (Stormwater Control Measure (SCM) Maintenance Documents) must be finalized.

When the agenda for the pre-con is generated, it is routed to other involved Metro departments, including the Urban Forester, the Nashville Department of Transportation (NDOT), and Planning. The Grading Permit Inspector will note during the pre-con meeting any issues flagged by those departments. These issues, if any, must be resolved before a Grading Permit is issued. It is the Applicant's responsibility to contact the appropriate Metro staff member and resolve any outstanding issues.

Associated Links and Forms

<u>Stormwater Pre-Construction Meeting Application</u>
<u>Stormwater Control Measure (SCM) Maintenance Documents</u>



Step 14: Applicant installs approved Erosion Prevention and Sediment Control (EPSC) measures at the site

Step Detail

The Applicant must install the required EPSC measures at the site. The Applicant's EPSC Professional must then inspect and confirm that the EPSC measures that are necessary to begin construction and that were identified at the pre-con meeting are in place before requesting an inspection by the Grading Permit Inspector. It is the responsibility of the Applicant's EPSC Professional to certify compliance with the approved EPSC measures. It is the Grading Permit Inspector's responsibility to verify that certification.

Special care should be taken to ensure that the construction exit is installed as per the approved plan.

EPSC installation is often phased, in accordance with the project's approved Site Plan. On certain projects, not all EPSC elements need to be installed for construction to begin. The EPSC measures necessary to meet the requirements of the initial inspection and for the Applicant to begin construction are identified at the pre-con meeting.

Once the Applicant's EPSC Professional has inspected and confirmed initial installation as agreed, the Applicant's EPSC Professional should contact (via phone or email) the Grading Permit Inspector to request an inspection. The Grading Permit Inspector generally completes the inspection within two (2) business days following receipt of the inspection request.

Step 15: MWS Stormwater inspects site EPSC measures

Step Detail

Soon after receiving a request to inspect the initial implementation of EPSC measures at the site, the Grading Permit Inspector completes the inspection. Inspections are completed with reference to the <u>Erosion Prevention and Sediment Control Inspection manual (tn.gov)</u>. No representative of the Applicant need be on-site at the time of the inspection.

If a simple issue of non-compliance is found, such as an improper installation, the Grading Permit Inspector will require it to be fixed before the Grading Permit is issued. In most such

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instances, a picture sent to the Grading Permit Inspector that documents the correction suffices, and a re-inspection is not required.

It is the Applicant's responsibility to reconcile their Tennessee Department of Environment and Conservation (TDEC) Storm Water Pollution Prevention Plan (SWPPP) to their approved GP EPSC plans sheet. The Grading Permit Inspector reserves the right to look at a site's SWPPP/EPSC inspection forms on site and/or request them if there is an issue requiring further evaluation.

However, in some instances, the Grading Permit Inspector finds that construction has begun before the EPSC inspection and the issuance of a Grading Permit. In that case, the Grading Permit Inspector issues a "stop work" notice which requires a halt to all construction activity until the EPSC measures are properly installed, the site is inspected, and a Grading Permit is issued.

Associated Links and Forms

Erosion Prevention and Sediment Control Inspection manual (tn.gov)

Step 16: MWS Stormwater issues Grading Permit and approves the Building Permit

Step Detail

If the EPSC measures are installed in accord with the requirements agreed to at the pre-con meeting, **and** there are no other open conditions or departmental signoff needs, the Grading Permit Inspector completes the inspection checklist and issues the Grading Permit. To distribute the Grading Permit, the Grading Permit Inspector generates an electronic grading permit card that is sent via email to the Applicant's representatives who attended the pre-con meeting.

If there is an associated Building Permit application, the Grading Permit Inspector approves it.

The Applicant can see that a Grading Permit has been issued by accessing Cityworks through Metro's <u>ePermits</u> system.

Associated Links and Forms

Metro Nashville ePermits website



Step 17: MWS Stormwater conducts routine EPSC and MS4 inspections during the construction process

Step Detail

After the initial EPSC inspection and issuance of the Grading Permit, site inspections are scheduled at least monthly. On-going inspections focus on not just the initial EPSC measures, but also compliance with all required stormwater features included in the approved Site Plan. For example, if the detention pond differs from the approved Site Plan, the Applicant would be required to submit calculations to prove that it is sufficient. Site inspection results are accessible through ePermits.

As the inspections continue, there may be a need for the Grading Permit Inspector to coordinate with the EPSC Professional or the Design Engineer, as appropriate. While the Grading Permit Inspector confirms that the site's private stormwater infrastructure is built to plan, most of the inspection effort is devoted to inspecting the public stormwater infrastructure.

As construction nears completion, the Inspector develops a "punch list" of all remaining requirements, as needed. The frequency of inspections may decrease as the project reaches completion (to include achieving final site stabilization), and most or all the stormwater measures have been installed. However, all projects require a "final ready" inspection required to be performed and passed before a Use and Occupancy (U&O) Permit is issued. As the project approaches completion, the Grading Permit Inspector may communicate with the Applicant's representatives to remind them of final steps to be taken.

Associated Links and Forms

Metro Nashville ePermits website

Step 18: Applicant submits As-Built Plans

Step Detail

It is the responsibility of the Applicant to ensure compliance with all specified stormwater infrastructure requirements as identified in the approved Site Plan and Grading Permit. There may be modifications made to the stormwater infrastructure requirements over the course of construction, but those modifications must be approved by MWS DS and incorporated by the Design Engineer into the As-Built Plan.



When the Applicant's construction project reaches substantial completion and a temporary Use & Occupancy letter (U&O) is sought, the Applicant's Design Engineer must submit an As-Built Plan and accompanying documents for review and approval. The As-Built Plan certification verifies that the project was constructed per the approved Site Plan.

Required documents include:

- A completed As-Built Technical Review Requirements (As-Built TRR) form <u>As-Built Stormwater TRR-V1 05232023.pdf (nashville.gov)</u>
- Compliance Letter (PE stamped)
- Record Drawings (PE stamped)
- Calculations
- Pictures of the site
- Video of the entire public stormwater pipe system (see <u>Pipe Inspection Evaluation</u> <u>Guidance</u>)

The reviewed and approved Detention Agreement and Long-Term Maintenance Plan (Stormwater Control Measure (SCM) Maintenance Documents must be filed with MWS Deeds & Bonds (D&B).

Other documents may be required depending on the site specifics. See the As-Built TRR for a full list of the required documents and associated criteria. Submitting the required As-Built Plan and supporting documents is accomplished through the FTP process (see <u>Step 4</u>).

Associated Links and Forms

As-Built Stormwater TRR-V1 05232023.pdf (nashville.gov)

Pipe Inspection Evaluation Guidance

Stormwater Control Measure (SCM) Maintenance Documents

Step 19: Applicant requests final inspection

Step Detail

Once the installation of all approved stormwater infrastructure is complete, and the site is finished, the Applicant's Design Engineer submits a final compliance letter to the assigned Grading Permit Inspector. The compliance letter confirms that the required stormwater infrastructure was installed as per plan and functions as designed. This compliance letter serves as the request for a final inspection.

The site must be stabilized prior to final signoff and EPSC measures removed.



Step 20: MWS Stormwater completes initial final inspection

Step Detail

The Grading Permit Inspector completes the initial final inspection. The Grading Permit Inspector ensures that the site conforms to the approved plan, including any variances. Any significant change in the project during construction that is not per the approved plan is noted to all parties. It may be a change that requires a revised As-Built Plan before an additional final inspection is completed (See <u>Step 24</u>). In the very few cases in which there is site variance that is not included in the approved plan, notation/tracking/and sign-off of such is approved through the Cityworks "need" process.

The Grading Permit Inspector documents any final issues for resolution. Most punch list items do not impact the As-Built Plan. For certain minor items, submission by the Applicant's representatives of photographic evidence that the issue has been resolved is sufficient.

Step 21: MWS DS reviews As-Built Plans and returns comments (if necessary)

Step Detail

The Plan Reviewer uses the As-Built TRR form to review the Applicant's submitted As-Built Plan and accompanying documents. This is done to make sure that the As-Built Plan and supporting documentation conforms to the MWS DS documentation requirements and the Site Plan and calculations originally approved. If not in conformance, the Applicant must take the necessary steps to bring the As-Built Plan and accompanying documents into conformance with the approved Site Plan, including modifying the site itself, if necessary.

Common issues that result in returned comments include:

- Documents missing the required PE stamp
- Failure to submit the as-built CAD file
- The outlet for the stormwater detention pond is not at the right elevation
- The stormwater detention pond does not have enough storage
- The stormwater quality BMPs do not intercept the WQ storm adequately
- Scoring a "3" or more on any stormwater-related element on the Pipeline Assessment Certification Program (PACP), requiring remediation

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Associated Links and Forms

Pipe Inspection Evaluation Guidance

Step 22: Applicant addresses comments and resubmits As-Built Plan (if necessary)

Step Detail

After addressing any issues identified in the as-built review phase, the Applicant resubmits (via the FTP process detailed in <u>Step 4</u>) drawings, calculations, and pictures to show that any necessary remediation has occurred and that the site is now in conformance with the approved Site Plan.

Step 23: MWS DS approves As-Built Plan and communicates approval

Step Detail

Assuming the As-Built Plan is compliant, and all required documentation is submitted, the Applicant's Design Engineer receives an email signaling approval from the Plan Reviewer. Approved As-Built Plans and related documents can be accessed through <u>ePermits</u> for 90 days.

Associated Links and Forms

Metro Nashville ePermits website

Step 24: MWS Stormwater conducts an additional final inspection (if necessary), issues approval, and signs off on U&O

Step Detail

Upon receipt of the final compliance letter, the Grading Permit Inspector schedules and completes an additional final inspection, if necessary. The Grading Permit Inspector documents any final issues for resolution. For certain minor items, submission by the Applicant's representatives of photographic evidence that the issue has been resolved is sufficient.

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Preceding or in parallel with this process, the Design Engineer must have submitted and received approval for the As-Built Plan to the Plan Reviewer. In certain circumstances, the Grading Permit Inspector may issue a temporary sign-off.

Depending on the specific site situation, the Grading Permit Inspector confirms final approval by either:

- 1. Signing off on the Use and Occupancy (U&O) permit, or
- 2. Releasing the stormwater bond (for a bonded subdivision).

In some cases, bonds can be reduced by MWS staff during the process of construction if sufficient work has been done.

A site unable to pass inspection will not receive final approval from the Grading Permit Inspector.

Associated Links and Forms

Metro Nashville ePermits website





Stormwater Program Summaries



Combined Sewer Elimination Program Introduction

Goals of the Combined Sewer Elimination Program (CSEP)

Engineered solutions that result in stormwater volume reduction can reduce combined sewer system (CSS) overflows. Consistent with the objectives of the <u>Clean Water Nashville Program</u> (CWN), Metro Water Services continues to provide and promote sustainable infrastructure serving the Nashville community. Project designs should focus on the following options to reduce volumes:

- Green Infrastructure Practices (GIP) enables on-site stormwater to infiltrate and/or be reused. Green roof systems (evapotranspiration) also are an important tool to reduce runoff volumes.
- Separation of stormwater flows to the Municipal Separate Storm Sewer System (MS4).
- For sites where the use of GIPs (individually and in series) cannot achieve water quality compliance, Engineers can submit for a Low Impact Development (LID) Waiver or contribute to the PSQPF. Note: all LID Waiver and PSQPF requests are subject to a separate review and must demonstrate that the site cannot achieve compliance.

CSEP Process

- 1. Applicant submits the following documents via email to MWS.CSEP@nashville.gov requesting a pre-application meeting:
 - a. CSEP Pre-Application Meeting Form
 - b. Site plan (can be preliminary)
 - c. Geotechnical/infiltration information
 - d. Additional Supplemental Information, as needed
- 2. MWS DS staff will schedule a pre-application meeting to discuss any on-site/offsite requirements.
- 3. Meeting minutes are recorded and provided by the Applicant's design engineer along with updated plans (if applicable). Once received, the CSEP committee will evaluate and provide a directive.
- 4. Once the directive (letter) is received the Applicant's design engineer will update plans accordingly and submit all required materials required for the review of the site plan and issuance of the grading permit (see submission requirements featured in Step 4).



Low Impact Development Waiver Introduction

Projects within the Metro Nashville Davidson County Municipal Separate Storm Sewer System (MS4) area must be completed in compliance with Metro's Low Impact Development (LID) standard, found here: Stormwater Manual Volume 5. LID standards utilize Green Infrastructure Practices (GIP) to meet a development site's post-development stormwater runoff water quality and volumetric requirements. Additional resources related to Metro Nashville's LID requirements can be found here: Low Impact Development Information for Developers | Nashville.gov.

An LID Waiver can be pursued on projects where the site conditions are not conducive for the inclusion of Green Infrastructure Practices (GIP) in their post construction stormwater quality design. An LID Waiver allows for the site design to use Total Suspended Solids (TSS) removal practices to meet water quality requirements as outlined in Volume 4 of the Stormwater Management Manual | Nashville.gov.

Approval of an LID Waiver does <u>not</u> remove any detention or water quality requirements or serve to pre-approve a specific design. LID Waivers are granted based on the hardships identified for the individual site and applications are considered weekly. The process to apply for an LID Waiver is as follows:

- 1. Assess the site for hardships. Site limitations are often physical constraints such as shallow soils, brownfield soils, a water table that is too high, steep slopes, or non-stormwater regulatory compliance requirements.
- 2. Locate the LID Waiver Application here: Microsoft Word Waiver Application June 2022
- 3. Complete the application, following the directions.
- 4. Prepare supporting documents to accompany the application in accordance with the application directions. Supporting documents can include a project summary, attempted design summary, design layout plan, soil testing report summary, infiltration testing report summary, boring location maps, draft calculations, or conflicting regulatory documents.
- 5. Compile the application and supporting documents and submit them to lidwaiver@nashville.gov.
- 6. The LID Waiver Group, consisting of two (2) representatives from Metro Water's National Pollutant Discharge Elimination System (NPDES) team and two (2) from Development Services, receives the application and considers it at the next scheduled meeting.
- 7. The LID Waiver Group decides and issues a letter accepting or rejecting the application.



Public Stormwater Quality Project Fund (PSQPF)

The Public Stormwater Qualify Project Fund (PSQPF) was enacted by the Metro Council under BL2019-1735 and is intended to provide relief for sites that are unable to provide sufficient water quality for the site through onsite treatment. This can be applicable for sites that are unable to provide *any* treatment onsite or only *partial* treatment. **The PSQPF is intended to be an option of last resort to be used in very few instances and will require MWS DSP Plan Reviewer recommendation prior to application submittal.** The application process to pay into the PSQPF is as follows:

- Proceed through the technical review, exploring treatment alternatives with the assigned MWS DS Plan Reviewer. Once all alternatives have been explored, the MWS DS Plan Reviewer can recommend the project for PSQPF consideration.
- 2. The reviewer will send the <u>PSQPF application</u> to the Applicant's design team which will complete the application.
- 3. The Applicant's design team will prepare supporting documents which typically include a written description of the hardship preventing the water quality requirement from being met, a layout plan of the site, any geotechnical testing conducted, a copy of any conflicting regulatory items, and Low Impact Development (LID) Worksheets for both pre- and post-developed site conditions.
- 4. The Applicant's design team will return the <u>PSQPF application</u> and supporting documents to the MWS DS Plan Reviewer along with their recommendation that the case be considered for the PSQPF.
- 5. The PSQPF Group, consisting of two (2) representatives from Metro Water's National Pollutant Discharge Elimination System (NPDES) team and two (2) from Development Services, will consider the application at the next available meeting. The PSQPF Group meets bi-weekly.
- 6. The PSQPF Group will decide based on the application submitted, and a decision letter will be sent to the design team. The amount to be paid into the PSQPF is calculated based on a standard formula incorporating factors like the area of untreated impervious and the area of partial treatment. The amount will be included in the decision letter.



Stormwater Variance Process Introduction

This is the process whereby MWS DS considers an Applicant's request seeking a stormwater variance such as for a proposed project within a stream buffer or flood plain. More detail on the process can be found here: <u>Stormwater Management Commission Meeting Dates and Submittal Deadlines.</u>

- 1. Send an email to Logan.Bowman@nashville.gov to request a pre-application meeting.
- 2. Applicant is requested to submit a conceptual plan showing variance requests and proposed mitigation.
- 3. MWS DS staff will schedule a pre-application meeting to discuss any requirements or changes to plans that are necessary.
- 4. The Applicant must submit full package of items to Logan by noon on the Wednesday prior to the next meeting. See checklist here: Microsoft Word Appendix F Draft 2016 (nashville.gov) application.
- 5. MWS DS staff reviews the package and makes comments.
- 6. Once the full package is complete, Logan will send information to the Applicant about signage and letter notification requirements, and the agenda is sent out.
- 7. The meeting date is the next first Wednesday of the month. See information on the Stormwater Management Commission (SWMC) here: Stormwater Management Commission Meeting Information | Nashville.gov.
- 8. The Applicant will be heard by the SWMC.
- 9. The SWMC will grant, deny, or defer the proposed variance.
- 10. A decision letter is sent to the Applicant giving notice of the SWMC decision.
- 11. Once Applicant is ready for final approvals (after project is constructed) MWS DS staff will ensure variance conditions were met.

Associated Links and Forms

<u>Application for Stormwater Management Commission</u>

Floodplain Program Introduction

Metro Nashville participates in the National Flood Insurance Program (NFIP - Flood Insurance | FEMA.gov) and the Community Rating System (CRS - Community Rating System |



<u>FEMA.gov</u>), a voluntary incentive program that encourages community floodplain management practices that exceed the NFIP standards. In CRS communities, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community's efforts to address the three goals of the program:

- Reduce and avoid flood damage to insurable property.
- Strengthen and support the insurance aspects of the National Flood Insurance Program.
- Foster comprehensive floodplain management.

Participation in these programs requires that projects requiring building permits be constructed in conformance with floodplain regulations, such as are specified in the MWS Stormwater Management Manual Volume 1, Chapter 5 (Floodplain Requirements).

For a project determined to be subject to floodplain regulations, the following information must be included with the Site Plan:

- 1. The Base Flood Elevation (BFE) (determined by surveyor via Flood Insurance Study (FIS) profile, confirmed by MWS staff) should be listed on the plans and then drawn on the contour as well, with reference to the boundary of the floodplain.
- 2. The lowest Finished Floor Elevation callout for the proposed structure (minimum 4' above BFE for residential and 1' for non-residential).
- 3. Any proposed grading/fill in the floodplain (may require engineered plans).
- 4. Confirmation that all materials below the BFE will be flood resistant (more information at fema_tb_2_flood_damage-resistant_materials_requirements.pdf).
- 5. Demonstration of safe passage of water through structure by use of flood vents, open areas (such as building on piers, etc.).
- 6. Information to enable review of architectural design of porches, if necessary.
- 7. Confirmation of locations (and elevations) of proposed machinery (typically furnace, air conditioner, and water heater are main concerns). These should be 1' or more above BFE. Gas meter, electric meter should be elevated if possible. The water meter does not need to be elevated. Outlets and ductwork should also be 1' or more above BFE.

Acceptable Green Infrastructure practices in floodplain are modified French drains, vegetated filter strips, and cisterns (may require backwater valve).

Additional requirements include:

- 1. Prior to the framing inspection, a <u>FEMA Elevation Certificate</u> must be sent to logan.bowman@nashville.gov and singlefamilystormwater@nashville.gov.
- 2. After receipt of the FEMA Elevation Certification, an MWS DS representative must inspect and verify that the lowest floor level is at the right height.



3. It is requested that markers be put on the structure showing the level of both the finished floor and the BFE. This is to help the Metro inspectors verify that the utility systems are built to the proper height.

An MWS DS representative must inspect and confirm that all applicable floodplain requirements applicable to the project are met before the building permit can be approved.