



CITY OF KNOXVILLE

**SITE
DEVELOPMENT
ASSISTANCE
BROCHURE**

EFFECTIVE JULY 1, 2007

(Updates will be available on the City of Knoxville Website)

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SITE DEVELOPMENT PERMITTING PROCESS

1. The City of Knoxville Engineering Department will review all concept plans submitted to the Metropolitan Planning Commission (MPC) relative to the City's acceptance of proposed roads, drainage systems and related improvements.
2. Any person who is a party for or against the concept plan request at the MPC hearing, may appeal approval, conditions of approval or conditions of disapproval of said plan to the City Council.
3. After Planning Commission approval of a concept plan, the design plan may be submitted directly to the Engineering Department for review (or submitted to Building Plans Review and Inspections as part of a Building Permit submittal.)
4. Submit 1 copy of plans with a Site Development Permit Application, MPC Address Certification, signed Property Owner Acknowledgement Form, review fee, calculations and any additional information required for the site.
5. The City of Knoxville Engineering Department will review all site development plans relative to the City's approval of proposed roads, drainage systems, site work, erosion and sediment control, and related improvements.
6. After the Engineering Department reviews the plans, the reviewer will provide the design engineer, property owner/developer and other interested parties with a written statement certifying approval or itemizing deficiencies.
7. Submit revised plans and/or other required documents as specified in step 6. Steps 6 & 7 will be repeated until all necessary requirements are satisfied. Beginning with the 4th submittal, an additional \$100.00 fee will be charged for each subsequent submittal.
8. If a Performance & Indemnity Agreement (P & IA) is required, see page 3.
9. If a Covenants for Permanent Maintenance of Stormwater Facilities (CPMSF) is required, see page 4.
10. If a Special Pollution Abatement Permit (SPAP) is required, see page 8.
11. When MPC approval is required, MPC must sign off on approved design plans prior to issuance of the Erosion and Sediment Control Letter and/or Site Development Permit.
12. The Stormwater Engineering Section and the contractor, developer, owner and/or engineer arrange for a pre-construction conference.

13. Once the site development plans are approved and all required documents are received, the Stormwater Engineering Section will authorize the installation of erosion and sediment control measures via the Erosion and Sediment Control Letter. The letter will be issued to the owner, developer and/or engineer.
14. Once written authorization has been issued/received, the contractor may install erosion and sediment control measures per approved plans, and as needed to prevent erosion and sediment discharges.
15. An appropriate design professional, registered in the State of Tennessee, must certify the proper installation of the approved erosion and sediment control measures. Certification must consist of a signed, stamped and dated letter, outlining the erosion and sediment control installation and any additional requirements/phasing that may apply.
16. The erosion and sediment control certification must be submitted to and approved by the Engineering Department prior to the issuance of a permit.
17. A Site Development Permit may be issued by appointment. The Site Development Permit may be issued prior to plat approval. The plat must be approved/recorded prior to issuance of a Building Permit. If a plat is required and no building permit is sought, then the plat must be recorded prior to the issuance of a Site Development Permit.
18. Is a new street or Joint Permanent Easement (JPE) proposed?
(If yes, see page 9 (Plat Submittal & Review).)
19. Is a stormwater detention basin and/or water quality structure required?
(If yes, see pages 3- P & IA, 4 - CPMSF, 9 - Plat Submittal & Review and 12, and the Stormwater and Street Ordinance.)
20. Will the project contain a retaining wall 4' or taller?
(If yes, see pages 5 and 6, and the Land Development Manual Policy 10.)
21. Is there a potential for runoff to adversely effect city right-of-way (ROW) or any adjacent property? Is there downstream flooding?
(If yes, see page 3 - P & IA.) Additional requirements may apply on a case-by-case basis.
22. Does off-site water drain through the property?
(If yes, a drainage easement will be required. See pages 9 - Plat Submittal & Review, 12, and the Land Development Manual Policy 4.)
23. Will the project site contain a borrow pit?
(If yes, see page 3 - P & IA.)

24. Does the project site drain to a sinkhole?
(If yes, see pages 3 - P & IA, 4 - CPMSF, 9 - Plat Submittal & Review, and the Stormwater and Street Ordinance.)
25. Does property contain a blue-line/studied stream/creek? (See Section 22.5-21 (f) of the Stormwater and Street Ordinance and/or contact TDEC for information on requirements.)
26. Is a plat required to dedicate a street, to create a Joint Permanent Easement, to dedicate an easement for stormwater facilities, to create a legal lot of record, to subdivide or re-subdivide the property, to eliminate old platted lot lines or easements, or to show a restricted-use buffer zone or no-fill line along a stream?
(If yes, see pages 9 - Plat Submittal & Review and 12.)
27. Is project a residential subdivision?
(If yes, see page 9 - Plat Submittal & Review, the Stormwater and Street Ordinance and MPC's Minimum Subdivision Regulations.)

PERFORMANCE AND INDEMNITY AGREEMENT

When the plans reviewer comments that a Performance and Indemnity Agreement is required, the Principal should contact the Stormwater Engineering Section secretary. The Principal can be the Property Owner and/or the Lessee.

The secretary will forward information on the requirements of the Performance and Indemnity Agreement ("Agreement") and an information sheet for the Principal to complete. When the form is completed with the names, addresses, phone and fax numbers and a contact person for both the Principal and the Guarantor, fax the sheet to the secretary at (865) 215-2631.

When the secretary has complete information, the Performance and Indemnity Agreement will be prepared for execution and forwarded to the Principal. Once the document has been executed, the Principal should return it with original signatures and notary seals, and the original form of guarantee to the secretary. Acceptable forms of guarantee are one of the following:

Letter of Credit
Cashier's Check
Surety Bond

A Cashier's Check should be made payable to the City of Knoxville. A Letter of Credit and a Surety Bond must name the City of Knoxville as beneficiary.

Providing that all other conditions for approval are met, the Site Development Permit may be issued.

Approximately sixty days prior to the expiration date of the Agreement, the Principal will receive a letter of notification that the Agreement will expire. A copy of the Extension Agreement will be enclosed and should be executed and returned to the Stormwater Engineering secretary. If necessary, a second notification letter is sent to the Principal approximately twenty-one days prior to the expiration date.

If the Principal feels that site development is completed, he must contact the Construction Inspector for instruction on requirements for release of the Agreement. If the inspector determines that the project is complete and meets all City specifications, including development certification, the secretary will prepare the Release document. When the document has been executed by the Mayor's Office and the Law Department, a copy will be mailed to both the Principal and the Guarantor. (For more information on Development Certification, see page 6.)

If it is determined that more time is required to complete the project, the Principal must submit the Extension Agreement no later than 10 days prior to the expiration date, or collection procedures will be implemented by the City.

If the Agreement is extended, but much of the work has been completed, the amount of the guarantee may be reduced by the Engineering Department.

COVENANTS FOR PERMANENT MAINTENANCE OF STORMWATER FACILITIES

When the plans reviewer comments that a Covenants for Permanent Maintenance of Stormwater Facilities (CPMSF) is required, the property owner should contact the Stormwater Engineering Section secretary. The secretary will forward an information worksheet and instructions. When the information sheet is completed, fax the sheet to the secretary at (865) 215-2631. When the plans reviewer advises the secretary that the plans are "approvable", the covenants document will be prepared.

The CPMSF will be forwarded to the property owner for execution and returned to the secretary along with the fee for recording the document with the Knox County Register of Deeds. The secretary records the document and mails a copy to the property owner.

The instrument number from the recorded document and an owner's responsibility note must be noted on the final plat by the surveyor. (See page 11.)

CONSTRUCTION INSPECTIONS

City Inspectors have three primary duties throughout the duration of projects within the City of Knoxville:

Site Inspections
Site Enforcement
Development Certification

Site Inspections

Certain types of construction activities will require submittals and field inspections by Stormwater Engineering personnel. Submittals and field inspections help to ensure that streets, sidewalks, graded slopes, streetlights, detention basins and drainage systems will meet city standards for safety and durability. Inspection activities for a typical project are listed below .

Pavement Subgrade and Aggregate

Submit aggregate gradation report (in TDOT format) at least 2 days prior to placement.

Notify city inspector at least 2 days prior to construction.

Asphalt Binder and Asphalt Surface Coat

Submit an asphalt job mix formula (in TDOT format) from an approved asphalt plant at least 2 days prior to placement.

Notify city inspector at least 2 days prior to construction.

Submit density and gradation reports from materials analysis laboratory as required.

Curbs and Sidewalks

Notify city inspector at least 2 days prior to placement for inspection of lines and grades. Methods, materials and locations for construction and expansion joints, and steel reinforcement where shown on plans, should also be reviewed.

Retaining Wall Footers

Notify city inspector at least 2 days prior to pouring concrete for inspection of lines and grades. Other review items include: adequate foundation conditions, joints, and correct amount and configuration of steel reinforcement.

Storm Drain Pipes

Notify city inspector at least 2 days prior to backfilling. Manufacturer's certificates may be required by the city inspector for materials which appear to be substandard.

Water Quality Structure

- a. Submit manufacturer's specifications for the structure at least 7 days prior to backfilling for final approval.
- b. Specifications must agree with approved construction plans and any other documents (such as a Special Pollution Abatement Permit or an NPDES application).
- c. Notify city inspector at least 2 days prior to installation.

Retaining walls will not be allowed on public right-of-way as part of a site development project, and any retaining walls inadvertently built on public right-of-way must be completely removed. See Policy 10 in Appendix C, of the Land Development Manual for more information concerning retaining walls.

Site Enforcement

The Stormwater Engineering Division can issue a Notice Of Violation (NOV) for many types of illegal discharges, sediment leaving the site, erosion, or grading without a permit (penalty of 10 times the original permit cost). A copy of the NOV shall include the recommended course of action and a timetable for accomplishing the corrective action. The NOV may lead to monetary penalties ranging from \$50 - \$5,000 per day, per violation. Performing site grading or construction without a valid site development permit may result in an NOV, which will serve as a stop-work order.

The Knoxville Stormwater and Street Ordinance (Section 22.5-54) may require any person engaging in any activity (or owning the property in question) to undertake a reasonable monitoring effort for discharges to the stormwater system operated by the City of Knoxville. The monitoring shall be included in periodic reports to the City of Knoxville.

Development Certification

An approved development certification is one item required prior to the release of a Performance and Indemnity Agreement. The development certification is submitted after all construction has been completed in accordance with the design plans and requirements of the Knoxville Stormwater and Street Ordinance. This certification must be stamped by the same type of design professional that stamped the original site development plans as well as a Registered Land Surveyor licensed to practice in the State of Tennessee.

The appropriate design professional must properly certify the as-built drawing, with the sample certification statement shown below in addition to the surveyor's seal with an original signature and date across the seal

Plats, maintenance covenants and easements are field-checked to ensure that the locations are approximately correct. Additionally, sizes and configurations for detention basins, oil/water separators or other water quality structures are inspected. Adequate vegetation cover is required for all areas disturbed by construction activity. Due to the difficulty of establishing vegetation on sloped surfaces and grades (such as detention basins), it is highly recommended that grass sod or turf reinforcement mats should be used for these areas.

Engineer

I _____, (PE #) hereby certify that I am an Engineer licensed in the state of Tennessee. I have reviewed the information based on the survey, dated _____, provided to me by _____, a state of Tennessee land surveyor registration number _____.

Based on the aforementioned survey and to the best of my knowledge, information and belief, the development was constructed such that the infrastructure improvements shown hereon function as intended on the approved design titled _____ permitted on the _____ day of _____ 20____.

Signature:
Printed Name:
Date:

Surveyor

I hereby certify that I have surveyed the land boundaries and easements shown hereon in accordance with the accuracy requirements for a Category I survey and that the ratio of precision of the adjusted survey is not less than 1:10,000.

I further certify that I have located all natural and manmade features shown hereon, in accordance with the current Standards of Practice adopted by the Tennessee State Board of Examiners for Land Surveyors. I certify the location, elevation and description of these features.

Signature:
Printed Name:
Date:

SPECIAL POLLUTION ABATEMENT PERMIT (SPAP)

Some land uses known to produce pollutants that are detrimental to stormwater quality are not adequately treated by the standard first flush detention basins. A Special Pollution Abatement Permit is required to ensure that best management practices are used to improve runoff quality from these land uses. A SPAP must be obtained for the following land uses:

- Any vehicle, truck, or heavy equipment maintenance, fueling, washing or storage areas including but not limited to: automotive dealerships, automotive repair shops and car wash facilities
- Any property containing more than 400 parking spaces or 120,000 square feet of parking area
- Recycling and/or salvage yard facilities
- Restaurants, grocery stores and other food service facilities
- Commercial facilities with outside animal housing areas including animal shelters, fish hatcheries, kennels, livestock stables, veterinary clinics or zoos
- Other producers of pollutants identified by the Engineering Director from information provided to or collected by him or his representatives or reasonably deduced or estimated by him or his representatives from engineering or scientific study

The SPAP application may be obtained from the Engineering Department BMP manual website or in the Engineering office. The requirements of the SPAP are site specific but most often require both management controls and structural controls which remain in place after development is completed. The SPAP is a renewable 5-year permit that requires periodic review of the controls, maintenance of the controls and reapplication. Management controls may include spill-prevention plans, parking lot vacuuming, recovery plans for power washing, policies preventing outside storage, employee training, etc. Structural controls must be designed to treat the 1-year storm and to effectively prevent non-point source pollutants from leaving the site. Common structural controls include sand/media filters, vortex chambers, oil/water separators, wet ponds, filter/buffer strips, etc.

Procedure For Obtaining a SPAP:

1. Prepare SPAP application. Submit to the Engineering Department for review. Include site development plans, all necessary documents and \$100 fee payable to the City of Knoxville. The SPAP application may be submitted with the application for the Site Development Permit.
2. After the Engineering Department reviews the SPAP application, the reviewer will provide the design engineer, property owner/developer and other interested parties with a written statement certifying approval or itemizing deficiencies.
3. Submit revised SPAP application and/or other required documents as specified in Step 2. Steps 2 and 3 will be repeated until all necessary requirements are satisfied. SPAP must agree with site development drawings.
4. Execute a Performance & Indemnity Agreement to ensure proper installation of stormwater quality structures. (See page 3 – P & IA.)
5. Execute a Covenants for Permanent Maintenance of Stormwater Facilities to ensure perpetual maintenance of stormwater quality structures. (See page 4 - CPMSF.)
6. Site Development Permit may not be issued without SPAP approval.
7. Submit a final plat showing all access and facility easements for stormwater quality structures. Revise as necessary to meet all MPC and Stormwater Engineering Section requirements. (See page 12.)
8. Stormwater quality process is complete. A Site Development Permit or a Building Permit can be issued, if all other requirements are met.

PLAT SUBMITTAL AND REVIEW

A plat is required when there is a change in a previous lot line, to create a legal lot of record for property not previously platted, to dedicate Stormwater Easements (detention/retention and/or water quality facilities, and access to them), to dedicate new public streets, certain types of access easements, utilities or other public improvements.

The Metropolitan Planning Commission (MPC) must approve and certify plats for recording with the Register of Deeds. Depending on the circumstances, a plat may be approved by one of two procedures: (1) by direct in-house recommendation by the MPC staff (Administrative Plat); or (2) by the full Commission's approval at its monthly public meeting. MPC and the City Engineering Department each have plat review responsibilities for properties in the City.

Administrative Plat Review Procedure

As specified by MPC's Minimum Subdivision Regulations (MSR), an Administrative Plat may divide a tract into two (2) lots, combine existing lots into no more than two (2) lots, adjust lot line(s) between two (2) existing lots, dedicate easements, show new information when no subdivision of land is involved or meet the requirements of an "Exempt Plat" or "Corrected Plat".

1. As of July 1, 2007, four (4) copies of the plat must be submitted to MPC, which then provides two (2) copies to the City Engineering Department. MPC will assign a permanent file number to the plat. This number follows the plat through the review process, and must be noted on the recorded plat.
2. Both MPC and City Engineering charge separate fees for reviewing Administrative Plats. The City Engineering fee must be paid directly to City Engineering before the plat will be approved.
3. City Engineering computes mathematical closures for all plats located in the City. When closure precisions and the requirements of MSR Sections 44-88 and 44-92 and City Engineering Policy 17 are met, an "M Number" will be assigned to the plat by City Engineering. This "M" number must also be noted on the recorded plat.
4. City Engineering reviews the plat to ensure that it complies with the MSR, the Major Road Plan, the Stormwater and Street Ordinance, City Engineering Policies and the City ward map.
5. City Engineering has a plat review checklist detailing review items. During the review, discrepancies to be addressed will be noted and provided to the surveyor.
6. Once the surveyor has made the corrections, four (4) revised copies of the plat should be resubmitted to MPC for a follow-up review.
7. After all MPC and City Engineering issues have been properly addressed on the plat, the surveyor is notified and may obtain signatures for all stamps on the plat.
8. All stamps except MPC's final certification and the Engineering Department's stamp must be signed before the plat is brought to City Engineering for signature.
9. After City Engineering signs the plat, MPC can certify it for recording with the Knox County Register of Deeds.

Meeting Plat Review Procedure

Any plat that requires a Concept Plan, that contains three (3) or more lots, that seeks a variance to any subdivision regulation, or that involves a re-subdivision of property that has

been subdivided within the last ten (10) years, must be approved by MPC at its monthly public meeting (Meeting Plats).

1. As of July 1, 2007, ten (10) copies must be submitted to MPC, which then provides. Two (2) copies to City Engineering. MPC will assign a permanent file number to the plat. This number follows the plat through the review process, and must be noted on the recorded plat.
2. MPC and City Engineering charge separate review fees. The fee amount varies depending on the number of lots being created. The Engineering review fee must be paid directly to City Engineering before the plat will be signed.
3. In addition to the ten (10) copies, an MPC application form must be submitted with all Meeting Plats. The form includes a place for variance requests and hardship justification.
4. Meeting plats must be placed on the agenda for a monthly meeting. To be placed on the agenda, these plats must be submitted to MPC before the monthly meeting deadline. MPC and City Engineering will review these plats and notify the surveyor of any deficiencies.
5. City Engineering computes mathematical closures for all plats located in the City. When closure precisions and the requirements of MSR Sections 44-88 and 44-92 and City Engineering Policy 17 are met, an "M Number" will be assigned to the plat by City Engineering. This "M" number must also be noted on the recorded plat.
6. City Engineering reviews the plat to ensure that it complies with the MSR, the Major Road Plan, the Stormwater and Street Ordinance, City Engineering policies and the City ward map.
7. City Engineering has a plat review checklist detailing review items. During the review, discrepancies to be addressed will be noted in a memorandum and sent to MPC for use during the monthly meeting. A copy of the checklist and memorandum are also sent to the surveyor.
8. The plat must be revised and resubmitted to MPC nine (9) days prior to the meeting date. If the surveyor has properly addressed all MPC and City Engineering issues on the resubmitted plat, it may be approved at the monthly MPC meeting. If not, it may be denied.
9. Signatures are not required for all stamps on Meeting Plats before they go to the meeting. However, once approved at the meeting, all remaining signatures must be obtained. The Engineering Department's stamp is the last stamp to be signed before the plat is taken to MPC for final certification.
10. For a meeting plat to be recorded, MPC must certify it within one (1) year of the date of the monthly meeting when it was approved.

Plats Dedicating Stormwater Easements

Plats dedicating easements for stormwater facilities must comply with the City of Knoxville's Stormwater and Street Ordinance and various policies included in the City's Land Development Manual.

Plats dedicating easements for detention/retention basins or water quality facilities must comply with an engineering design plan that has been submitted to and approved by the Engineering Department. This design plan must be approved before the plat can be reviewed and before the "Covenants for Permanent Maintenance of Stormwater Facilities" (CPMSF) can be completed and recorded.

If a CPMSF is required, the document must be recorded with the Knox County Register of Deeds. The recorded instrument number and the Owner's Responsibility Note must be noted on the plat.