



CITY OF NAPERVILLE
Transportation, Engineering & Development (T.E.D.) Business Group

*******ATTENTION*******
*******ROOM ADDITION INFORMATION*******

When 50% or more of a dwelling unit is razed or a building addition that increases the existing gross floor area by 50% or more the Room Addition shall be classified as a *Large Room Addition*.

Prior to the issuance of a building permit for a "large room addition", as defined in Title V, the permit applicant or representative must attend a site development meeting. The meeting is designed to provide the applicant with City of Naperville minimum site regulations for such construction as specified in Section 5-2B-8 of the Municipal code. Meetings are held twice each month.

When an addition is classified, as a Large Room Addition the following Ordinances must be followed: 03-149, 04-227 and 05-27.

***** The Safety And Work Requirements, as outlined in Ordinance number 03-149 and 04-227. These requirements include:

- ** Construction Traffic Management
- ** Construction Site Signage
- ** Fencing
- ** Sanitation Facilities
- ** Construction Hours
- ** Litter Control and Clean-Up

***** A height table must be included on sheet one of the architectural drawings per ordinance number 05-27 when the application is submitted.

If you have any questions please call **Development Services at 420-6100 option 2.**



CITY OF NAPERVILLE
Transportation, Engineering, & Development (T.E.D.) Business Group

PERMIT INFORMATION
ROOM ADDITIONS

APPLICATION PROCESS

The City of Naperville requires building permits for all room additions, basement remodels or other structural alterations to existing homes. A building permit must be obtained prior to beginning any work. The permit application must be submitted through the Transportation, Engineering & Development (T.E.D.) Business Group during posted business hours. The following items must be included as part of the application:

1. A completed, signed **Building Permit Application** form
2. A completed **Homeowner's Notification Form** signed by both the general contractor and the homeowner
3. A completed **Square Footage Checklist**
4. A completed **Plumbing Checklist for Existing Water Services**
5. A completed copy (up to the Signature of applicant) of the **Application for Final Inspection** form
6. Two (2) sets of complete, detailed architectural drawings indicating the complete scope of work to be performed. One of these sets must be signed and sealed by the architect. Computer-generated or hand-drawn plans are acceptable. (**Sketches are not acceptable.**)
7. Four (4) copies of the legal Plat of Survey of the property indicating the **room addition (drawn to scale), electric meter location, the electric line location and the location of any basement escape windows (if applicable). Indicate the room addition dimensions and the distance from the addition to all lot lines.**
8. Eight (8) copies of a Detailed Grading Survey **signed and sealed by an engineer** are required **if the structure is over 500 Sq feet.** A Detailed Grading Survey *may* be required for additions that are under 500 Sq feet.

BUILDING CODE REQUIREMENTS

Per Ordinance 12-159, passed by The City Council on December 18, 2012, all plans submitted on or after March 1, 2013 will be reviewed based on:

- 2012 International Building Code
- 2012 International Residential Code
- 2012 Illinois Energy Conservation Code
- 2012 International Property Maintenance Code
- 2012 International Fire Code
- 2012 International Fuel Gas Code
- 2012 International Mechanical Code
- 2012 International Plumbing Code
- 2012 International Existing Building Code

- 2012 International Swimming Pool and Spa Code
- 2006 International Electric Code
- 2011 National Electric Code (N.E.C.)
- 2006 Life Safety Code
- National Fire Code (NFPA), Current Edition
- Illinois State Plumbing Code, Current Edition
- Illinois Accessibility Code ,Current Edition
- Naperville Building Code Amendments, Title V

All work must be performed and completed in compliance with all adopted building codes and ordinances.

SMOKE DETECTORS

The City of Naperville requires, per the IRC 2012, Section R313 the installation of smoke detectors located as required for new dwellings for any “alterations, repairs, or additions requiring a permit or when one or more sleeping rooms are added or created in existing dwellings.” Smoke detectors shall be 110V, interconnected where accessible with a battery backup. Smoke detectors must be provided in:

- All bedrooms;
- All hallways adjacent to bedrooms;
- One (1) minimum per floor.

Smoke detectors must be installed and in place to be inspected at the time of the rough electric inspection. You will not pass this inspection if the smoke detectors are not present.

CARBON MONOXIDE DETECTORS

In accordance with **Illinois General Assembly Public Act 094-0741 section 10a** “Every dwelling unit shall be equipped with at least one approved **Carbon Monoxide Alarm** in an operating condition within 15 feet of every room used for sleeping purposes”.

REQUIRED DRAWINGS

Any structural addition 400 square feet in area or larger requires drawings prepared, stamped, and signed by an architect or structural engineer licensed to practice in the State of Illinois. Additions smaller than this do not have to be designed by a professional, but still require the same level of detail as those prepared by design professionals. The following drawings must be submitted:

Construction documents shall be dimensioned and drawn on 36” x 24” paper

1. **Plan View:** A floor plan indicating the dimensions of the project, location of all walls, doors, windows, headers and beams (with sizes), structural members (such as floor joists, ceiling joists, and roof rafters including sizes, dimensions and direction), electrical outlets, electrical switches, lighting, smoke detectors, escape windows, appliances, electric service panels, bathrooms, furnaces, water heaters, all materials to be used, ceiling height, and all other pertinent information. If there is to be a fireplace, installation information must be submitted.
2. **Cross Section:** Show all materials to be used, basically a slice through the wall showing how the wall-ceiling-floor construction is to be completed. Indicate as much specific information and detail as possible.

3. **Elevations:** Required for exterior renovations only. A drawing showing the house with the completed addition. Indicate dimensions, door and windows, any new chimneys (indicate height above closest peak), materials to be used, skylights, exterior lighting, and any other pertinent information. Be sure to identify sections that are new.
4. **Legal Plat of Survey:** A registered land surveyor must have prepared the legal plat of survey. Indicate on it the proposed location of the room addition, the electric meter location, the electric line location, the dimensions of the proposed room addition, the distance from the room addition to all property lines, and the location of any basement escape windows (if applicable)

SCREENED PORCHES AND ENCLOSURES

Per Naperville Ordinance 95-262, "...one-story, attached, residential frame additions, roofed structure, screen rooms, and greenhouses not exceeding 400 sq. ft. in size..." may be supported on a trench foundation instead of a full foundation if evidence is provided that the soil will support the required design loads. **Pier construction will not be permitted for additions.** Additions in excess of 400 sq. ft. in size may be supported on a trench foundation if plans are prepared by a professional architect or structural engineer licensed to practice in the State of Illinois. Trench construction must be done as follows:

1. Trench widths shall be a minimum of 12" in width and 42" in depth.
2. Concrete is to be poured monolithically; cold joists below finished grade shall be prohibited.
3. Rigid insulation at least 2" thick shall be placed on the inner surface of the footing. Insulation shall extend a minimum of 3'-0" vertically and 2'-0" horizontally.

CONTRACTORS - License, Bond and Registration

Electrical sub-contractors must be licensed and registered in the City of Naperville.

Plumbing sub-contractors must complete and submit a Letter of Intent and provide **a copy of the State of Illinois Contractor's Plumbing License (055#) with each application** when plumbing work is being performed.

Roofing sub-contractors must be licensed by the State of Illinois. **A copy of the State of Illinois Roofing License must be submitted with each application.** Homeowners performing roofing work at his or her own property do not require a State of Illinois license.

Concrete sub-contractors must also be City-licensed, bonded, and registered **if they are working in the Right-of-Way. No exceptions!**

It is your responsibility to ensure that all subcontractors are appropriately licensed. The City will not issue a building permit; however, until everyone working on your project has been identified. If, for any reason, you must change a subcontractor, you are responsible for notifying the City **in writing**, being sure to include the project name, address and permit number as well as the names of the former and current subcontractors. *These requirements of the City of Naperville are strictly enforced.*

Please call the **Office of the City Clerk** at **630/420-6046** with all Electrical and Concrete Sub Contractors licensing questions.

INSPECTIONS

Scheduling - Inspections can be scheduled (Monday through Friday) from 8 a.m. to 4 p.m. (**Closed daily from 1-2**) by calling **630/420-6100 option 1**. A minimum of 72-hours notice is required. You must have the permit number and address of the project ready to tell the operator when you call in an inspection. If you must cancel an inspection, please contact the inspection desk at least 24 hours in advance to avoid an unnecessary reinspection fee.

Historic Sites – Two additional inspections are required: 1.) Rough elevation inspection
2.) Final elevation inspection

GENERAL INFORMATION

The Development Services Counter is open to the public from 8 a.m. to 5 p.m. Monday through Friday (**Closed Daily from 1-2 pm**) **630/420-6100 option 2**.

FEES

Room addition permit fees are as follows:

- Application Fee: \$22/page + a one-time \$16 clerical fee due at time of submittal;
- Inspection Fee: \$45 per inspection, due when permit is issued;
- Reinspection Fee: \$61 per reinspection and due prior to rescheduling the reinspection;

Revised Plans Fee: \$22/page+\$16 clerical fee.

The number of inspections necessary is based upon the extent of the work being performed. The plan reviewer will determine how many inspections are necessary and assess the appropriate fees. Room addition/alteration permits are valid for twelve (12) months from the date of issuance.



**CITY OF NAPERVILLE
TRANSPORTATION, ENGINEERING & DEVELOPMENT (T.E.D.) BUSINESS
GROUP**

BUILDING PERMIT APPLICATION

OWNER _____

PROJECT ADDRESS _____

SUBDIVISION _____

UNIT # _____ LOT # _____

PHONE () _____ ZIP _____

E-MAIL ADDRESS _____

DESCRIBE THE PROPOSED CONSTRUCTION:

ESTIMATED COST OF WORK \$ _____

ELECTRIC SERVICE UPGRADE: YES _____ NO _____

ELECTRIC SERVICE RELOCATION YES _____ NO _____

WATER SERVICE UPGRADE : YES _____ NO _____

DIMENSIONS OF BUILDING:

HEIGHT _____ WIDTH _____ LENGTH _____

NUMBER OF STORIES _____

NUMBER OF UNITS _____

SQ. FT. OF STURCTURE _____

ZONING _____

TYPE OF HEAT: GAS _____ ELECTRIC _____

AIR CONDITIONER _____ **TONS** _____

APPLICANT _____

ADDRESS _____

CITY _____ ST _____ ZIP _____

PHONE () _____

E-MAIL ADDRESS _____

PROJECT CONTACT _____

PHONE () _____

FAX () _____

E-MAIL ADDRESS _____

ARCHITECT _____

ADDRESS _____

CITY _____ ST _____ ZIP _____

PHONE () _____ FAX () _____

E-MAIL ADDRESS _____

GENERAL CONTR. _____

ADDRESS _____

CITY _____ ST _____ ZIP _____

PHONE () _____ FAX () _____

E-MAIL ADDRESS _____

ROOFING CONTR. _____

ADDRESS _____

CITY _____ ST _____ ZIP _____

PHONE () _____

ST REG # _____

ELECTRICAL CONTR. _____

ADDRESS _____

CITY _____ ST _____ ZIP _____

PHONE () _____

NAP REG # _____

PLUMBING CONTR. _____

ADDRESS _____

CITY _____ ST _____ ZIP _____

PHONE () _____

NAP REG # _____

ST LIC # _____

SEWER/WATER CONTR. _____

ADDRESS _____

CITY _____ ST _____ ZIP _____

PHONE () _____

ST LIC # _____

APPLICANT REPRESENTS: (Please check one.)

- a. Natural Person (Self/Owner)
- b. Corporation
- c. Land Trust/Trustee
- d. Trust/Trustee
- e. Partnership
- f. Joint Venture
- g. Other (describe) _____

If you checked **b, c, d, e, f,** or **g,** identify by name and address each person or entity which is a minimum 5% shareholder in the case of a corporation, a beneficiary in the case of a trust or land trust, a joint venture in the case of a joint venture, or who otherwise has a proprietary interest, interest in profits and losses or right to control such entity:

<u>Name</u>	<u>Address</u>	<u>Interest</u>
a. _____	_____	_____
b. _____	_____	_____
c. _____	_____	_____
d. _____	_____	_____

Under the penalties of perjury as provided by law, the undersigned certifies that the statements set forth in this application, plans, specifications and plat are true and correct and are in accordance with the provisions and regulations of the building code and all other codes and ordinances of Naperville applicable thereto and in force when construction is commenced. If the applicant knowingly falsifies any information in this application, applicant shall be considered in violation of section 1-12-4 of the Naperville municipal code and shall be fined not less than fifty dollars (\$50) nor more than five hundred dollars (\$500). (Reduced from all caps)

I HAVE READ AND UNDERSTAND THE CONSTRUCTION SITE SAFETY REQUIREMENTS OF THE CITY OF NAPERVILLE. Initial here: _____

I understand that this project may be subject to city of Naperville road impact fees and/or road impact fees for DuPage county or Will county in Illinois. I further understand that the DuPage county fee (if applicable) must be paid and the receipt for same submitted prior to the issuance of a full building permit. All other impact fees must be paid prior to the issuance of any type of occupancy permit. Initial here: _____

I understand that interior inspections may be needed to verify the work being done. As the OWNER, I agree to arrange for all necessary interior inspections, or to authorize my contractor to arrange for all necessary inspections. Initial here: _____

As the OWNER of the property, I understand that this permit belongs to me, and may be updated by me or my authorized agent as needed. Initial here: _____

SIGNATURE OF OWNER _____ **DATE** _____

****No permit can be issued until the owner of the property has signed the application and initialed the information above.**

SIGNATURE OF APPLICANT _____ **DATE** _____



**City of Naperville
Transportation, Engineering & Development (T.E.D.) Business Group**

Square Footage Checklist

The information below will need to be filled out and submitted with the permit application.

GRADING PLANS (when required) Title 5-2B-7

******* All detailed grading plans must be signed and sealed by an engineer*****.**

Please be advised that 8 (eight) copies of a detail grading plan will be required if the location of the improvement will disturb the soil and / or affect drainage.

- **Subdivisions with Master Grading Plan: submittal required for any improvement that will disturb 500sq ft or greater.**
- **Subdivisions without Master Grading Plans: submittal required for any improvement that the plan examiner determines will significantly disturb the soil.**

Area of new foundation(s) _____SF

DEMOLITION/NEW CONSTRUCTION Title 5-1B-2

If 50% or greater of the building is being demolished it will be considered new construction and not an addition.

Total square feet of existing structure _____ SF Area being demolished _____ SF

LARGE ADDITIONS Title 5-1B-2

If the addition will increase the existing gross floor area of the building by 50%, it will be considered a large addition. The gross floor area includes all floor areas and areas under covered porches.

Current total existing gross floor areas _____SF Total additional floor areas _____ SF

Requirements may include but not limited to:

- | | |
|--------------------------------|-------------------------------------|
| • Neighbor Notification | • Signed Parking Plan |
| • 8 copies Detail Grading Plan | • Construction Signs |
| • R.O.W. | • Fencing |
| • \$5,000 or \$50,000 Bond | • Construction & Parking Identified |
| • Site Improvement Meeting | |

(Call Claudia Rosen @ (630) 420-6075

)

Applicant's Signature:

Date:

City of Naperville

Transportation, Engineering & Development (T.E.D.) Business Group

PLUMBING CHECKLIST for EXISTING WATER SERVICES

SITE ADDRESS _____ DATE _____ PERMIT # _____

WATER FIXTURE UNIT CHECKLIST TABLE "A"

_____ New Plumbing/to be installed under concrete slab.

_____ All plumbing installed under concrete slab to remain as is.

EXISTING WATER SERVICE SIZE _____"

EXISTING METER SIZE _____"

Fixture Type	Existing or Replaced	New	Values	Total WFSU
Water Closet (toilet)			X 3	=
Lavatory (sink)			X 1	=
Bathtubs			X 2	=
Shower Stalls			X 2	=
Kitchen Sink			X 2	=
Dishwasher			X 1	=
Laundry Machine			X 4	=
Laundry Sink			X 3	=
Other				=
			TOTAL WFSUs	

List the number of **new and/or existing** plumbing fixtures in the correct row. Multiply each row by the values and add all Water Fixture Supply Units sums to get the total WFSU plumbing load.

The information provided is accurate:

Applicant signature _____

Date _____

Based on the information provided in **Table A Total WFSUs** above it has been determined that the existing water service and/or water meter as noted is inadequately sized to accommodate the proposed total water fixture service units (WFSU). **Upgrade Required?** _____ **Yes** _____ **No**

PLEASE CIRCLE WHAT WATER SIZE YOU WILL BE UPGRADING TO

WFSU	Water Service Size <i>(inside diameter)</i>	Water Meter Size
20 to 34	1"	1"
35 to 59	1-1/4"	1"
60 to 100	1-1/2"	1-1/2"

Water meter and service size are per Table N of the Illinois Plumbing Code. The table does not provide adjustments for pressure losses such as height of building or length of water service line.

Infrastructure Availability Charges (Tap-on fees) for new water service are determined by the size of the water service connection at the City's water main.

Costs for residential water, meter & sewer fees (IAC Fees) for increasing water service or meter size:

3/4" to 1"	water and sewer hook-up	\$0	3/4" to 1" meter	\$141.84
3/4" to 1 1/4"	water and sewer hook-up	\$927.00	3/4" to 1 1/2" meter	\$424.50
3/4" or 1" to 1-1/2"	water and sewer hook-up	\$2078.00	1" to 1 1/2" meter	\$378.50

**CONTACT THE CITY OF NAPERVILLE WATER DEPARTMENT @ (630) 420-6137 FOR INFORMATION ON LEAD PIPE REBATES **



CITY OF NAPERVILLE
HOMEOWNER NOTIFICATION FORM
BUILDING CODE SMOKE DETECTOR & CARBON DIOXIDE DETECTORS

This form serves as notification to all homeowners and contractors of the building code requirement for the smoke detectors & monoxide detectors to current building code standards. The City of Naperville has adopted the 2012 IRC, Section R314 & R315.

- When a room addition or interior remodeling that requires a permit occurs the entire building shall be provided with smoke detectors as required for new dwellings:
 - All smoke detectors shall be interconnected (unless other remodeling considerations require the removal of finished wall(s) or ceiling coverings to facilitate concealed interconnected wiring) such that the actuation of one alarm will actuate all the alarms in the individual unit. Smoke alarms may be interconnected and complied with by using wireless interconnecting devices.
 - All detectors shall be approved and listed and shall be installed in accordance with the manufacturer's specifications.
 - Smoke detectors shall be installed in each sleeping room, outside of each separate sleeping area within 15' of each bedroom and on each additional story of the dwelling, including basements and cellars but not including crawl spaces and uninhabitable attics.
 - Required smoke detectors shall receive their primary power from the building wiring. When primary power is interrupted, the smoke detector shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for overcurrent protection.

- Where work inside a dwelling requires a permit, a carbon monoxide detector(s) must be installed outside and within 15' of each sleeping room or area. The carbon monoxide detectors may be battery operated devices.

*I have read the above building code requirements and fully understand that all smoke detector & carbon monoxide requirements must be met in order to pass **both the rough electric and final inspections** on my room addition or alteration permit:*

Homeowner's Address _____

Homeowner's Signature: _____ Date: _____

Contractor's Signature: _____ Date: _____

CITY OF NAPERVILLE WATER SERVICE UPGRADE REQUIREMENTS:

- Transportation Right- Of-Way Permit \$30.00**
- Maintenance Bond \$5,000 for minor arterial or \$50,000 for major arterial that is site specific listing City of Naperville as beneficiary**
- Eight (8) copies of a detailed engineering survey**

DETAILED ENGINEERING SURVEY REQUIREMENTS

The detailed engineering survey must be signed and sealed by an Illinois registered Professional Engineer and must include:

- North arrow
- Scale
- Benchmarks
- Show building footprint
- Dimensions from each side of house to lot lines (front, rear, sides)
- Existing conditions for a minimum of 50' adjacent to all sides of property (ex. – Driveways, trees, and all other features that fall within work area).
- Easements
- All existing utilities including:
 - Manholes
 - Storm Sewer inlets (rim and invert elevations)
 - B-Boxes
 - Fire Hydrants
 - Valve Vaults
 - Street Lights, Utility Poles
 - Utility Services
- Proposed relocations/new service
- Offsite disturbed areas
 - Street – full-depth patch
 - Parkway – driveways, sidewalk, sod restoration
 - Existing driveway and sidewalk locations with material type identified.
 - Driveway and sidewalk to be replaced (specify material type)
- Trees (identify trunk size with diameter measured in inches)

PLEASE ALLOW UP TO 21 DAYS FOR APPROVAL



CITY OF NAPERVILLE
TRANSPORTATION, ENGINEERING & DEVELOPMENT (T.E.D.) BUSINESS GROUP
APPLICATION FOR FINAL INSPECTION AND OCCUPANCY PERMIT

DESCRIPTION:

Address _____ Building Permit No. _____

Builder _____ Owner _____

Owner's Current Mailing
 Address _____

STATEMENT OF COMPLIANCE:

References Naperville Municipal Code and National Building Code, adopted by reference, specifically Section 110.1, Certificate of Occupancy "No building or structure shall be occupied or used, in whole or in part, until a Certificate of Occupancy shall have been issued." The applicant declares that the above- mentioned improvement was constructed in accordance with the Naperville Building Code and all complete other Ordinances and Codes of said City applicable thereto. The applicant further declares that the owner's name and address is and correct as if the date of application and that incorrect information voids the application.

Dated this _____ day of _____, A.D. 20 _____

Applicant's Address _____ Telephone Number _____

Signature of Applicant _____

EXTENSION FORM ITEMS STILL OUTSTANDING:

- | | |
|---|---|
| _____ Required public and private sidewalks | _____ Driveway access |
| _____ Painting or exterior trim work | _____ Final Grade Survey or as-builts + DTE approval |
| _____ Required gutters and/or downspouts | _____ Required landscaping(includes parkway trees, DPW |
| _____ Buffalo Box(B-Box) to grade | _____ Permit required for self-plant (420-6095) |
| | _____ Storm doors, windows, and screens |

FINAL INSPECTION REPORT:

1. This inspection was made in response to a request for an Occupancy Permit. Such Permit can be issued **only** after all discrepancies noted at the time of the Final Inspection have been satisfactorily resolved.

Contractor's Signature _____

2. This building has _____/has not _____ passed "final inspection."
 3. This completed form was handed/mailed to:
 Copy 1 to FILE, T.E.D. Business Group
 Copy 2 to Applicant if inspection passes or fails
 Copy 3 to Applicant when inspection passes

Inspector _____
 Date _____



CITY OF NAPERVILLE
Transportation, Engineering & Development (T.E.D.) Business Group

PLUMBERS LETTER OF INTENT

Naperville requires the following Letter of Intent for plumbing contractors. This form is to be completed and submitted to the City along with any building permit applications where plumbing work is being performed.

Letter of Intent

The undersigned certifies that _____,
Name of Contractor/ Subcontractor

Street Address

City State Zip

has been retained by _____
Owner or Contractor Name

As the plumbing contractor for _____
Job Location Street Address

Plumbing Contractor
(Signature)

Date

ORDINANCE NO. 01 - 14

**AN ORDINANCE AMENDING SECTION 5-2B (GENERAL
CONSTRUCTION PROVISIONS) OF TITLE 5
(BUILDING REGULATIONS) OF THE NAPERVILLE MUNICIPAL
CODE TO ADD GRADING REQUIREMENTS FOR LOTS
WITHIN RESIDENTIAL SUBDIVISIONS THAT DO NOT HAVE
MASTER GRADING PLANS AND FOR WHICH
A BUILDING PERMIT FOR A
NEW HOME OR ADDITION IS SOUGHT**

**BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF NAPERVILLE,
DUPAGE AND WILL COUNTIES, ILLINOIS, acting in its home rule authority, as
follows:**

SECTION 1: Section 5-2B (General Construction Provisions) of Title 5 (Building
Regulations) of the Naperville Municipal Code is hereby amended by adding the following
underlined words as a new subsection 8:

5-2B-8: INDIVIDUAL LOT GRADING PLAN REQUIREMENTS:

- 1. A detailed grading plan shall be submitted to the City for any lot within a subdivision without a master grading plan prior to the issuance of a building permit for a new home or addition. The detailed grading plan shall be signed and sealed by a professional engineer registered to practice in the State of Illinois. The plan shall show the existing topography for the individual lot, the topography of all areas within 50 feet of the lot, and the proposed main structure, driveway and any other permanent structures proposed for the lot. Proposed grades must be shown for the top of the foundation, ground adjacent to the foundation, all pavement and all high points, low points and break points in the grading of the lot.**
- 2. The detailed grading plan shall comply with the following:**
 - 2.1 Unless easements are granted for work on adjacent property, the new grading must meet the existing grades at the side and rear property lines.**
 - 2.2 There shall be a drainage swale along the side yard that has a slope of at least 1.5%. A "swale" is defined as a shallow ditch with side slopes formed by the grading away from the building foundation. If a drainage swale is not present, one must be constructed as part of the engineering improvements for the lot.**

Unless permission is granted by an adjacent property owner, the new swale shall be built entirely on the lot for which there has been an application for a building permit.

- 2.3 Rear yards shall have a design drainage pattern with a minimum slope of 1.5%.
- 2.4 If the minimum slope requirements cannot be met for either the side or rear yards, drainage inlets shall be constructed. The inlet(s) shall be connected to a public storm sewer. If a public storm sewer is not available, a dry well or infiltration trench shall be constructed to which the inlet(s) shall be connected. The dry well or infiltration trench shall be designed to store the runoff generated by a 4.5-inch rainfall over any additional rooftop or driveway area. This requirement shall apply to all permits where the amount of the additional rooftop and/or driveway areas is 500 square feet or greater. Provisions shall be made to connect to a future storm sewer, which shall include extending storm sewer pipe across the entire width of the property.
- 2.5 The required storage volume of the dry well or infiltration trench shall be as follows:

<u>Net Increase in Rooftop and Driveway Area (sq ft)</u>	<u>Required Storage Volume in Dry Well or Infiltration Trench (cu ft)</u>
Less than 500	0
500	188
1000	375
1500	563
2000	750
2500	938
3000	1125
Greater than 3000	0.375 x (rooftop/driveway area)

- 2.6 Where storm water runoff exits a lot at a rear property corner, or other point where storm water must flow through adjacent property to reach the public storm sewer or receiving stream, a path of positive drainage must be designed for adequate capacity as part of the drainage study for the lot. Offsite improvements may be required to provide a path for positive drainage.