



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

SOLAR INSTALLATION PERMIT INFORMATION

APPLICATION PROCESS:

The City of Naperville requires building permits for all residential and commercial solar installations. 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 the posted business hours. The following items must be included as part of the application:

1. A completed, signed Electrical Permit Application form
2. A completed, signed Compliance Form for Photovoltaic (Solar) Installations.
3. A completed Residential Load Calculation Worksheet. The worksheet is a MS Excel file that is available for download on the City website at www.naperville.il.us.
4. Five (5) copies of the Submittal Requirements listed below.

SUBMITTAL REQUIREMENTS:

Five copies of the following information must be submitted at the time of application.

1. Plat of Survey or Site Plan. Indicate the location of the building(s) and the proposed system including modules, inverter(s), combiner boxes, disconnects, utility disconnect and meter(s), and service panelboard. For ground mounted systems, include the number and configuration of the modules and provide dimensions to property lines and adjacent buildings.
2. Proposed Roof Plan. For roof mounted systems, the roof plan must clearly indicate the following:
 - a. A dimensioned layout plan drawn to scale including the number and configuration of the modules.
 - b. The structure must be capable of supporting the weight of the proposed system. Provide an analysis by an Illinois licensed design professional, or provide adequate documentation that structural compliance is met prescriptively.
 - c. Indicate the type of roof framing, i.e. wood, steel, wood truss, etc.
 - d. Indicate the size and spacing of roofing structural elements
 - e. Indicate the type of roof covering, i.e. asphalt shingle, steel, EPDM/TMO, etc.

- f. Indicate the number of existing roofing layers and estimated date of last roofing installation
- *Where the existing roof has two or more application of any type of roofing, new roof coverings shall not be installed without first removing all existing layers of roof coverings. 2018 IRC R907.3, 2018 IBC R1511.3*
 - *Please be advised: It is the responsibility of the property owner to assess the lifespan of the existing roof versus the solar panels; the life span of the solar panels may be greater than that of the existing roof. Once installed, there would most likely be an increase in costs for a roof replacement with photovoltaic panels in place.*
- g. Show the access pathways per code requirements to allow for support of fire fighters accessing the roof; the pathways shall be located in areas with minimum obstructions.

Residential Group R-3 (permanent residential occupants):

- *Not fewer than two 36" wide pathways on separate roof planes, from lowest roof edge to ridge; not fewer than one pathway shall be on the street or driveway side of the roof. For each roof plane with an array, not fewer than one 36" wide pathway shall be provided on the same roof plane as the array, on an adjacent roof plane, or straddling the same and adjacent roof planes. 2018 IFC 1204.2.1*
- *For arrays occupying 33% or less of the plan view total roof area, a setback of not less than 18" wide is required on both sides of a horizontal ridge (greater than 33% requires 36" wide on both sides). Alternatives exist for sprinklered structures.*

Commercial projects other than Residential Group R-3: 6-foot-wide clear perimeter around edges of roof (4 feet when 250 feet or less); interior pathways of not less than 4 feet every 150 feet or less; 4' wide around roof hatches and to roof edge or parapet. 2018 IFC 1204.3

Note: For commercial properties, where equipment requiring access is located on the roofs such that persons will have to climb higher than 16 feet, an interior or exterior means of access shall be provided (no portable ladders above 16 feet). 2018 IMC 306.5

- h. Provide details for array mounting to the supporting structure; include rail/racking system manufacturer specifications. The details must show the total mounting height of the system.
- i. Indicate fire classification rating of proposed solar panels. (2018 IRC R902, 2018 IBC 3111.3.2)
3. Electrical Plan. Per National Electrical Code 2017. The plan shall include the following information:
- a. A one line diagram including all circuitry, types/sizes of conduits and conductors, lengths of runs, array wiring, equipment, fusing, points of connection, disconnects, and equipment grounding.
 - b. Specifications from the panel manufacturer, the inverter manufacturer, and the battery manufacturer (as applicable)
 - c. System power rating

- d. Panelboard ampere rating: _____ Amps; Main Breaker: _____ Amps; Backfeed Breaker: _____ Amps
- e. Means of system disconnection
- f. All required labeling and warning signs

FOR PROPERTIES IN THE NAPERVILLE HISTORIC DISTRICT:

Per Section 6-11-8:2.15 of the Naperville Municipal Code, proposed solar panels on principle structures (where projection of the work would be visible from a public street measured by a line of sight perpendicular to the primary façade) requires review of a Certificate of Appropriateness (COA) by the Historic Preservation Commission. If a property owner in the historic district wishes to install a solar panel, the applicant will need to complete the following steps:

1. Fill out a COA Application Packet found on the Naperville City Website.
2. Submit one original and one copy of all application materials at least 21 calendar days (3 weeks) prior to the scheduled Historic Preservation Commission meeting to provide sufficient review time.
3. Staff will review the application for completeness and provide any review comments. Once complete, staff will contact the applicant to schedule the case for a meeting date.
4. Prior to the scheduled meeting date, the applicant shall give written notice of the meeting to the current owner of all lots within two hundred fifty feet (250') of the subject property, exclusive of the public right of way. The written notice shall be delivered personally or may be sent by first class mail no later than ten (10) days in advance of the public meeting. The applicant shall also post notice of the public meeting on a sign visible from the street upon the subject property, for a continuous period of not more than twenty-one (21) days and not less than ten (10) days in advance of the public meeting. The applicant can check out a standard notification sign from the City for use on the subject property with a \$100 deposit. The deposit will be refunded after the sign is returned to the City. If the applicant wishes to check out a notification sign, please complete the "Holding Deposit Acknowledgement" contained in the application packet and request the sign from staff at the meeting to submit the application.
5. The applicant will then attend the Historic Preservation Commission meeting to present the project and answer any questions. The commission will also hear public comments prior to making a decision on the project. The commission may approve or deny the COA application at the end of the meeting. If approved, a signed copy of the COA will be issued and emailed to the applicant.
6. The project will then require a submittal of a solar permit prior to commencement of any work similar to installation in other parts of Naperville. Upon approval of the permit work may commence.

APPLICATION MATERIAL REVIEW PERIOD:

Complete submittals, in compliance with municipal requirements, are typically ready for permit issuance in ten (10) business days of submittal.

INSPECTIONS:

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

Typical residential and commercial installations require a minimum of 2 inspections (rough and final). Requirements for any additional inspections will be provided with permit issuance.

The City of Naperville prides itself on its timely inspection schedule. We have a team of inspectors and a system for their dispatching that efficiently routes them to locations across the city each day. Our standard is inspections completed within 2-3 working days of any request. During the highest peak week of the construction season, the inspection scheduling window is sometimes extended, but customers should still expect the inspection to be completed within 7 days of request.

FEES:

Solar permit fees are as shown on the attached Permit Fee Schedules. Residential fees are paid at the time of application submittal and include all clerical fees, plan review fees, and up to two inspections. Additional inspection or reinspection fees must be paid prior to scheduling.

For commercial installations, the work is classified as a miscellaneous commercial permit. This permit requires a clerical fee plus a per-page plan review fee collected at the time of application submittal. Inspection fees are billed to the applicant upon completion of the inspection and are charged on a per-inspection basis.

GENERAL INFORMATION:

The Development Services Counter is open to the public from 8 am to 5 pm Monday through Friday (Closed daily from 1 pm – 2 pm); 630-420-6100 Option 2.

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



CITY OF NAPERVILLE

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

APPLICATION FOR ELECTRIC PERMIT

Date: _____

Permit #: _____

JOB LOCATION: _____

In accordance with the provisions of the Municipal Code of the City of Naperville, Illinois, effective as of this date, the undersigned owner of property (or licensed electrical contractor representing the owner(s)) located at:

NAME OF OWNER: _____

ADDRESS: _____ **ZIP** _____

TELEPHONE: (_____) _____

HEREBY AGREES to make payment to the Director of Finance of the City of Naperville the amount of the cost to be fixed by the Department of Public Utilities – Electric (DPU-E) of said City of Naperville, and that the applicant(s) agree to conform to and abide by all rules, regulations, and provisions of the Municipal Code of said City pertaining to the installation and maintenance of electrical wiring, fixtures, and appliances now and hereafter in force.

ELECTRIC CONTRACTOR:

Name of Firm: _____

Address: _____ Telephone: _____

Naperville License/Registration # _____

NATURE AND EXTENT OF THE ELECTRICAL INSTALLATION: (Please provide details.)

REASON FOR SERVICE CHANGE: _____

ESTIMATED COST: \$ _____

CONTACT PERSON: _____ **PHONE:** _____

EMAIL: _____

Signature of Owner: _____

Signature of Applicant: (if contractor) _____

APPLICANT'S BILLING ADDRESS
FOR COMMERCIAL PROJECTS ONLY

Name _____
Street _____
City/State/Zip _____
Phone Number _____

REQUIRED AT SUBMITTAL: (COMMERCIAL)

SIGNED APPLICATION
 SAMPLE PANEL SCHEDULE

LEGAL PLAT OF SURVEY
 DPU-E ACCEPTED METER SOCKET

RENEWABLE ENERGY GENERATOR

For the purposes of net metering a renewable generator is defined as a grid tied, solar photovoltaic system or a wind turbine system.

All equipment needed for a renewable energy generator is installed, owned and maintained by the customer. NDPUE owns the utility electric meter.

A renewable energy generator must be installed under a Building Permit issued by the City of Naperville.

A customer installed Renewable Energy Generator shall abide by the latest City of Naperville approved editions of the National Electric Code and of the DPU-E Service Rules and Policies.

The installation of a renewable energy generator must comply with UL 1741 and IEEE 1547 standards and all subsequent revisions.

The output of a grid tied renewable energy generator is limited in size to 10 Kw for residential installations and 20 Kw for non-residential installations.

A completed Solar Compliance Form must accompany a building permit for a grid tied renewable energy generator.

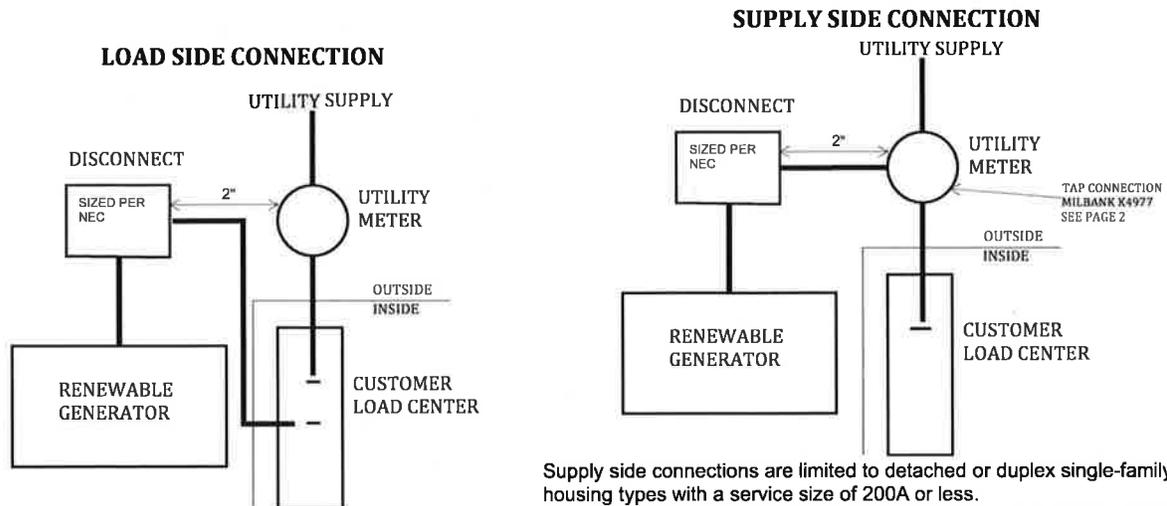
Supply side connections are limited to, detached or duplex single-family housing types with a service size of 200a or less.

Supply side connections can only be made using a Milbank Lugg K4977 or approved equivalent.

AC Disconnect Location:

Residential: Within 2' of the electric meter

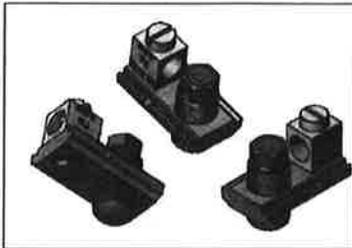
Commercial: Within 2' of the main service disconnect



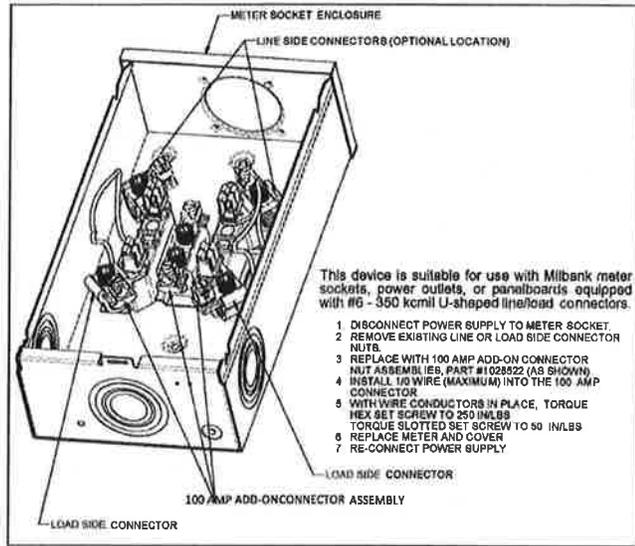
Supply side connections are limited to detached or duplex single-family housing types with a service size of 200A or less.
Supply side connections can only be made using a MILBANK lug K4977 or approved equivalent.

NAPERVILLE PUBLIC UTILITIES DEPARTMENT ELECTRIC STANDARDS	CUSTOMER REQUIREMENTS FOR NET METERING - RENEWABLE ENERGY	DATE: 11-27-2018 PAGE 1 of 2 E50-5200
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MILBANK ACCESSORIES TAP CONNECTORS



K4977-EXT



Specifications & Features

- #6-350 kcmil connectors with 100amp #12-1/0 tap.
- Replaces the existing slide-in nut assembly on Milbank 200amp and allows for up to 100amp tap connection in addition to the #6-350 kcmil connectors.
- Connectors designed for either line-side or load-side installation.
- Available with both internal and external hex set screws.
- Ideal for line connection with incorporating renewable energy net metering that utilizes two meters.
- Also perfect for load-side 100 amp feeds to outdoor lighting water well pumps, hot tubs, outbuildings, whole house surge suppressors and swimming pools.
- Contact Milbank for additional applications and details.

TAP CONNECTORS

Catalog Number	Description	Vac
K4977-INT	Set of 3 tap connectors with internal hex set screw	Under 300
K4977-EXT	Set of 3 tap connectors with external hex set screw	Under 300

NAPERVILLE PUBLIC UTILITIES DEPARTMENT	CUSTOMER REQUIREMENTS FOR NET METERING - RENEWABLE ENERGY	DATE: 11-27-2018
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COMPLIANCE FORM FOR PHOTOVOLTAIC (SOLAR) INSTALLATIONS
SUBSET OF THE NET METERING (RENEWABLE ENERGY) GUIDELINES
DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC

A. Owner Information:

Name: _____

Address: _____

City/State/Zip: _____

Phone: _____ Fax: _____ Email: _____

B. Photovoltaic (Solar) System Information:

Solar Module Manufacturer/Model: _____

System Power Rating: _____

Inverter Manufacturer/Model: _____ Array/Inverter Locations: _____

Battery Manufacturer/Model (if appl.): _____ AC Disconnect Location: _____

C. Installation Contractor Information:

Name: _____ License No: _____

Address: _____

City/State/Zip: _____

Phone: _____ Fax: _____ Email: _____

D. Hardware and Installation Compliance:

1. The system hardware is in compliance with Underwriters Laboratories (UL) 1741 - *Inverters, Converters, Controllers and Interconnection System Equipment for Use With Distributed Energy Resources*, UL 1703 - *Standard for Safety: Flat-Plate Photovoltaic Modules and Panels*, and IEEE 1262-1995 - *IEEE Recommended Practice for Qualification of Photovoltaic (PV) Modules*.
2. There is not a Purchase Power Agreement associated with the installation or operation of this renewable energy generator.
3. The system will be in compliance with IEEE Standard 929 - *Recommended Practice for Utility Interface of Photovoltaic Systems* and the 2005 National Electrical Code (NEC).

Signed (Contractor): _____ Date: _____

Name (Print): _____ Company: _____

E. Owner Acknowledgement:

1. There is not a Purchase Power Agreement associated with the installation or operation of this renewable energy generator.
2. I hereby acknowledge that all of the information provided is true and correct.

Signed (Owner): _____ Date: _____

Name (Print): _____

City of Naperville Approved for Interconnection _____ Date: _____

City of Naperville
BUILDING PERMIT FEE SCHEDULE

(Title 1, Chapter 9 of the Naperville Municipal Code)
Effective February 1, 2019 per Ord 18-145

The following represents a good faith estimate of the building fees associated with construction permitting by the City of Naperville. The manner in which the fees are applied will be based on the scope of the proposed project and will be determined by Naperville’s Transportation, Engineering & Development group at the time of permitting.

Single Family Construction

PERMIT TYPE	Admin/Review Fees	Inspections
Single Family/Duplex – New Construction Sub-permit inspection fees are a one-time fee based on the size of the structure (a fee is required for each sub-permit) – 5 to 6 sub-permits are typical	\$18 clerical fee + \$182 permit fee + \$25/plan page (4 page min.)	\$50/inspection \$68/reinspection (clerical fee + inspection fee) \$50: 0 to 2000 sf \$72: 2001 to 3000 sf \$96: 3001 to 4000 sf \$120: 4001 to 5000 sf \$138: 5001 to 6000 sf \$162: 6001 to 7000 sf \$186: 7001 to 8000 sf \$211: 8001 to 9000 sf \$228: 9001 sf and above
Single Family/Duplex (building additions, remodeling, finished basement)	\$18 clerical fee + \$25/plan page	\$50/inspection \$68/reinspection (clerical fee + inspection fee)
Miscellaneous residential permits, not otherwise listed	\$18 clerical fee + \$25/plan page	\$50/inspection \$68/reinspection (clerical fee + inspection fee)

- a) All admin/review fees are due at the time of application submittal.
- b) If plans are resubmitted following a plan review, the clerical fee plus a per page fee for each revised sheet is charged.
- c) The total number of inspections will be estimated at the time of plan review. Inspection fees are due at the time of permit issuance.
- d) Reinspection fees are due prior to scheduling the reinspection.
- e) Each unit of a duplex requires separate permits.
- f) Additional fees related to land development, utility services, and school/park donations may also apply and are not included in the above schedule.

Single Family/Duplex – Special Permits

PERMIT TYPE	Admin/Review Fees	Inspections
Air conditioner (\$88)	\$18 clerical fee + \$26 permit fee	\$44/inspection (1 minimum)
Backflow preventer (\$88+)	\$18 clerical fee + \$26 permit fee	\$44/inspection (1 min) + \$33 ROW insp (if applic.)
Deck (\$132)	\$18 clerical fee + \$26 permit fee	\$44/inspection (2 minimum)
Demolition (single family or duplex structure)	\$1,005 application fee + \$40 sign fee	None
Driveway (\$88+)	\$18 clerical fee + \$26 permit fee	\$44/inspection (1 min) + \$33 ROW insp (if applic.)
Encroachment License and Covenant Agreement	\$110 application fee + \$54 filing fee (DuPage) or \$51 filing fee (Will)	None
Driveway ROW Encroachment Agreement/ Sprinkler Covenant Agreement	\$54 filing fee (DuPage) or \$51 filing fee (Will)	None
Fence (\$88)	\$18 clerical fee + \$26 permit fee	\$44/inspection (1 minimum)
Fireplace, masonry (\$176)	\$18 clerical fee + \$26 permit fee	\$44/inspection (3 minimum)
Fireplace, pre-fabricated (\$132)	\$18 clerical fee + \$26 permit fee	\$44/inspection (2 minimum)
Gazebo (\$132)	\$18 clerical fee + \$26 permit fee	\$44/inspection (2 minimum)
Housing for fowl or livestock (\$88)	\$18 clerical fee + \$26 permit fee	\$44/inspection (1 minimum)
Patio, with foundation (\$132)	\$18 clerical fee + \$26 permit fee	\$44/inspection (2 minimum)
Patio, without foundation (\$88)	\$18 clerical fee + \$26 permit fee	\$44/inspection (1 minimum)
Photovoltaic (Solar) Installation (\$132)	\$18 clerical fee + \$26 permit fee	\$44/inspection (2 minimum)
Pool/spa, above ground (\$88)	\$18 clerical fee + \$26 permit fee	\$44/inspection (1 minimum)
Pool/spa, inground (Does not include fencing or patio) (\$132)	\$18 clerical fee + \$26 permit fee	\$44/inspection (2 minimum)
Satellite dish, > 1 meter in dia. (\$42)	\$18 clerical fee + \$24 permit fee	None
Sewer repair (\$88)	\$18 clerical fee + \$26 permit fee	\$44/inspection (1 minimum)
Parkway Tree	\$400/tree	None
Water Softener (\$88)	\$18 clerical fee + \$26 permit fee	\$44/inspection (1 minimum)

- a) All required reinspections will be charged \$62 (clerical fee + inspection fee)
- b) All fees are due at the time of application submittal.
- c) Reinspection fees are due prior to scheduling the reinspection.
- d) County filing fees are subject to change.

City of Naperville
BUILDING PERMIT FEE SCHEDULE

(Title 1, Chapter 9 of the Naperville Municipal Code)
 Effective February 1, 2019 per Ord 18-145

The following represents a good faith estimate of the building fees associated with construction permitting by the City of Naperville. The manner in which the fees are applied will be based on the scope of the proposed project and will be determined by Naperville’s Transportation, Engineering & Development group at the time of permitting.

Commercial Construction

PERMIT TYPE	Admin/Review Fees	Inspections
New Construction, Building Additions, Remodeling (includes all building types except single family and duplex)	\$18 clerical fee + \$49/plan page	\$68/inspection (\$18 clerical fee + \$50 inspection fee) <u>Timed inspections:</u> \$18 clerical fee + \$50/hour inspection fee (1 hour min.)
Miscellaneous commercial permits, not otherwise listed	\$18 clerical fee + \$49/plan page	\$68/inspection (\$18 clerical fee + \$50 inspection fee)

- a) All admin/review fees are due at the time of application submittal.
- b) If plans are resubmitted following a plan review, the clerical fee plus a per page fee for each revised sheet is charged.
- c) The total number of inspections will be estimated at the time of plan review. Inspection fees are billed to the applicant following inspections.
 - a) Reinspections will be charged at the same rate as initial inspections.
 - b) Timed inspections include: footing, foundation wall, commercial slab, sewer and water, HVAC ductwork, fire sprinkler, hydrostatic test, final plumbing, fire alarm, final inspections.
- d) Additional fees related to land development, utility services, and school/park donations may also apply and are not included in the above schedule.

Commercial – Special Permits

PERMIT TYPE	Admin/Review Fees	Inspections
Annual Maintenance (\$109)	\$18 clerical fee + \$23 permit fee	\$68/inspection (1 minimum)
Driveway (\$109)	\$18 clerical fee + \$23 permit fee	\$68/inspection (1 minimum)
Parking lot (\$109)	\$18 clerical fee + \$23 permit fee	\$68/inspection (1 minimum)
Elevator – new installation (\$149)	\$18 clerical fee + \$63 permit fee	\$68/inspection (1 minimum)
Elevator – routine semiannual inspections	None	\$50/inspection (1 minimum)
Commercial occupancy (\$85)	\$17 clerical fee	\$68/inspection (1 minimum)
Restaurant occupancy (\$152)	\$16 clerical fee	\$68/inspection (2 minimum)
15-day stocking & training permit (\$85)	\$17 clerical fee	\$68/inspection (1 minimum)
Fire alarm system (\$134)	\$18 clerical fee + \$48 permit fee	\$68/inspection (1 minimum)
Fire sprinkler (\$134+)	\$18 clerical fee + \$48 permit fee + \$0.50/sprinkler head	\$68/inspection (1 minimum)
Lawn sprinkler/Irrigation (\$134)	\$18 clerical fee + \$48 permit fee	\$68/inspection (1 minimum)
Above or inground storage tank (\$134)	\$18 clerical fee + \$48 permit fee	\$68/inspection (1 minimum)
Demolition (\$134)	\$18 clerical fee + \$48 permit fee	\$68/inspection (1 minimum)
Satellite dish/Antenna tower/ Telecommunications	\$18 clerical fee + \$49/page permit fee (if applicable)	None
Tents (\$85)	\$17 clerical fee	\$68/inspection (1 minimum)
Commercial or public pool, inground (\$244)	\$18 clerical fee + \$22 permit fee	\$68/inspection (3 minimum)
Canopy or awning (\$109)	\$18 clerical fee + \$23 permit fee	\$68/inspection (1 minimum)
Signs (\$92)	\$18 clerical fee + \$24 permit fee	\$50/inspection (1 minimum)
Signs, temporary (\$42)	\$18 clerical fee + \$24 permit fee	None
Trailer (\$176)	\$18 clerical fee + \$22 permit fee	\$68/inspection (2 minimum)
Trailer, renewal	\$18 clerical fee	None

- a) All required reinspections will be charged \$68 (clerical fee + inspection fee)
- b) All fees are due at the time of application submittal.
- c) Inspection fees are billed to the applicant following inspections.