# Chapter 18 - Gutters, Downspouts, and Conductor Lines

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#### Things to Consider

- Plan the installation of conductor lines to avoid large landscaping materials, such as trees.
- Ensure conductor lines are run under the sidewalks before they are poured.

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Gutters and Downspouts

**Conductor Lines** 

## Timing & Prerequisites

- This phase of the project will begin when the porch railings are complete.
- This phase should be done before the concrete walks are poured.
- The House/Project Lead will work with the Construction Superintendent to coordinate these volunteer activities.

## **Materials Needed**

#### Conductor Lines

3" Sch-30 PVC Pipe 3" Sch-30 PVC Elbows 3" Sch-30 PVC Tees 3" Sch-30 PVC Receptors for Downspouts 3" Sch-30 PVC Receptors for Sump Pump PVC Cleaner PVC Glue

# **Gutters and Downspouts**

#### Install Gutters and Downspouts (Contractor)

The contractors will install the gutters and downspouts as soon as the siding is completed and the porch posts are wrapped and the railing installed.

#### **Install Gutter Guards (Contractor)**

- 1. Starting at either end of the gutter, slide one edge of the first piece of gutter guard between shingle starter strip and the Ice and Water Shield until the front edge is flush with the front edge of the gutter.
- Insert metal screws provided with the gutter guard down through the aluminum flange into the top edge of the gutter. Place 1 screw at each end of each piece of gutter guard.
- 3. Continue across the entire length of the gutter installing gutter guard pieces. Snuggly Butt each piece to the previous piece.
- 4. Using snips cut the last piece to fit.

# **Conductor Lines**

#### **Critical Issues**

- > Call OPUS 24 hours before begin to dig the trenches.
- Before new cement flatwork is installed, work with the Construction Supervisor to ensure piping for the conductor lines are installed under the forms.

Safety Issues

- > Open trenches must be marked with safety tape.
- > Cover any holes left open when leaving the site with OSB.

#### Install Conductor Lines (Volunteers)

- 1. Layout the conductor lines.
  - Conductor lines should empty into the street. Lay out the lines to end at and existing hole through the street curb. If no hole exist, review plans with the Construction Supervisor.
  - If there are no gutters across the back of the house, the conductor lines will only be installed in the front of the house and as far back as necessary to connect the sump pump discharge.
  - The sump pump discharge should be installed as close to the house as possible. Place an elbow on the pipe close to the house and come straight down the wall.
  - The piping should be installed close to the foundation of the house.
  - The piping will need to be bent around the window wells and gas lines.
- 2. Dig trenches for the conductor lines.
  - The lines need to be laid so that the pipes slope away from the house at a minimum slope of 1/2" per 12' of pipe.
  - Using picks; spud bars and trenching shovels dig the trench from the back of the house to the front. Start shallow and dig deeper as needed.
- 3. Cut and dry fit the pipe.
  - The top of the transition connectors should be installed 2" to 6" above the finish grade.
  - The lateral piping may need to be installed deeper to accomplish the desired slope.
- 4. Clean the ends of the pipe.
- 5. Glue the fittings to the pipes. The long pipes contain bells and do not need glue.
- 6. Bury the conductor lines. Do not leave an open trench.

