

<b>CITY OF WINONA WINONA, MINNESOTA</b>  <b>ADMINISTRATIVE PROCEDURE</b>	<b>NUMBER:</b> 112-13	<b>REVISED:</b> 1	<b>PAGE</b> <u>  1  </u> <b>OF</b> <u>  5  </u>
	<b>SUBJECT: EXCAVATION &amp; TRENCHING POLICY</b>		

## 1.0 POLICY

The City of Winona recognizes Excavations and Trenching as a potentially hazardous job duty. Therefore, only trained and authorized City of Winona employees will be allowed to create or work in or around excavations and/or trenches.

## 2.0 ORGANIZATIONS AFFECTED

All Departments/Divisions with employees trained and authorized by the City of Winona.

These authorized and trained employees will be given information on hazards associated with trenches including contact with numerous underground utilities, hazardous atmospheres, water accumulations, and collapse of adjacent structures.

**This policy applies to all City of Winona work and any contractors working on City of Winona projects or on City of Winona property.**

## 3.0 ADMINISTRATIVE DUTIES

The City of Winona is responsible for developing and maintaining the written Excavation Procedures.

Our Excavation Procedures are administered under the direction of our competent person(s), someone capable of identifying existing and predictable hazards in the surrounding or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

## 4.0 PROCEDURES

### 4.1 Before Excavating

Before beginning excavating, an excavation checklist must be completed for any and all sites. (See Appendix A)

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#### 4.2 Protective Support Systems

The City of Winona protects each employee in an excavation from cave-ins during the excavation by an adequate protective system designed in accordance with OSHA standards. Protective system options include proper sloping or benching of the sides of the excavation; supporting the sides of the excavation with timber shoring, (approved alternatives of timber shoring) or aluminum hydraulic shoring; or placing a shield between the side of the excavation and the work area. The City of Winona has the following standard operating procedures regarding protective support systems for excavation, in accordance with safe practices and procedures and OSHA excavation regulations:

- If the excavation is made entirely of stable rock then no protective system is necessary or used.
- If the excavation is less than 4 feet in **depth (provided there is no indication of a potential cave-in)**, then no protective system is necessary or used.
- If the excavation is greater than 4 feet in depth, then proper shoring & trenching must be utilized.

#### 4.3 Sloping

When sloping is used to protect against cave-ins, options can be chosen for designing sloping systems by the superintendent/competent person.

The superintendent/competent person shall choose the best option for sloping for the job at hand and is familiar with Appendix B of 1926 Subpart P – Sloping & Benching.

#### 4.4 Benching

Based on the site, timber shoring (approved alternatives to timber shoring), aluminum hydraulic shoring, shielding or other protective systems may be selected as the best options for the protective support system by the superintendent/competent person who must be familiar with Appendix C-F of 1926 subpart P on shoring.

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**4.5 General Requirements for Excavations**

The following rules are to be followed at all times by all employees working on, in, or near excavations, as applicable:

- General site inspection
- Means of access and egress
- Wet conditions
- Hazardous Atmosphere
- Protective support systems
- Soil analysis/classification

**5.0 TRAINING**

The Public Works Director and Department Superintendents will identify all new employees and make arrangements to schedule training. The Environmental, Health, and Safety Coordinator will conduct initial training and evaluation and will arrange for instructor(s) that have the necessary knowledge, training, and experience to train/retrain all City of Winona excavation workers periodically.

**5.1 Training Certification**

After an employee has completed the training program, the City of Winona will keep records certifying that each excavation worker has successfully completed excavation training. The certificate includes the name of the worker, the date(s) of the training, and the signature of the person who did the training. The Safety Department is responsible for keeping a copy of all training records.

**5.2 Current Certified Excavation Workers**

Under no circumstances shall an employee create or work in an excavation until he/she has successfully completed the City of Winona's excavation training program. This includes all new excavation workers unless proof of previous training is satisfactorily documented.

**6.0 INSPECTION PROCEDURES**

Our competent person(s) inspects excavations daily and during poor weather. Our inspection checklist is attached to these written Excavation procedures. Public Works

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Superintendents are responsible for retaining completed inspection checklists for one year.

**6.1 Personal Protective Equipment**

We have determined that several hazards that require personal protective equipment are possible in and around excavations.

For this reason, we require that our excavation workers wear the following PPE (Personal Protective Equipment)

1. Safety Shoes
2. Reflective Vests
3. Hard Hats
4. Safety Glasses (if task appropriate)
5. Hearing Protection (if task appropriate)
6. Other as needed for task.

All excavation workers required to wear this equipment are trained when it is necessary; what equipment is necessary; how to properly put on, take off, adjust, and wear it; limitations of the equipment; and proper care, maintenance, useful life, and disposal of PPE.

**6.2 Non-Excavation Worker Protection**

As for those who don't work in or around excavations, but who may become bystanders, we require that they **stay at least 20 feet from the work site.**

**6.3 Emergency Action Plan**

Whenever a trench or excavation site is determined unsafe for any reason, call 911 immediately. Report circumstances of emergency location, number of victims and present status of victims. **Do not attempt to dig out victim or rescue by going into the trench.**

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**7.0 RECORDKEEPING**

We keep a copy of the following documents at the job site during construction of a particular excavation protective system and then store them in the department where they will be readily available to OSHA upon request:

- Tabulated data for designing any of our sloping or benching systems.
- Designs of any sloping or benching systems approved by a registered professional engineer.
- Manufacturer’s specifications, recommendations, and limitations for designs of support systems, shield systems, and other protective systems drawn from manufacturer’s tabulated data.
- Manufacturer’s approval to deviate from the specification, recommendations, and limitations for designs of support systems, shield systems, and other protective systems drawn from manufacturer’s tabulated data.
- Tabulated data for designing any of our support systems, shield systems, and other protective systems.
- Designs of all support system, shield systems, and other protective systems approved by a registered professional engineer.

**8.0 APPENDIX:**

Appendix A – City of Winona Excavation Checklist

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