

Tabulated Data Lite-Shield 20 System

November, 2014

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CAUTION

EXCAVATION PROCEDURES MAY CAUSE INJURY OR DEATH!

A <u>COMPETENT PERSON</u> WHO SATISFIES THE DEFINITION AND INTENT OF THE 1926 CONSTRUCTION STANDARD SUBPART P EXCAVATIONS SHALL: ENSURE THAT ALL EMPLOYEES ARE WORKING IN SAFE CONDITIONS AND THAT ALL EMPLOYEES HAVE BEEN TRAINED IN CORRECT EXCAVATION PROCEDURES AND THE PROPER USE OF THE PROTECTIVE EQUIPMENT CHOSEN.

EXCAVATIONS AND PROTECTIVE EQUIPMENT SHALL BE INSPECTED A MINIMUM OF ONCE EACH WORKING DAY AND WHENEVER THERE IS A CHANGE IN THE SOIL CONDITIONS AND/OR OTHER CHANGES SUCH AS AN INCREASE OR DECREASE IN WATER OR VIBRATIONS.

EMPLOYEES SHALL NOT BE ALLOWED TO ENTER AN EXCAVATION THAT IS NOT PROPERLY SHORED, SHIELDED, OR SLOPED.

EMPLOYEES SHALL ALWAYS ENTER, WORK, AND EXIT WITHIN THE SHORED, SHIELDED, OR SLOPED AREAS OF THE EXCAVATION AND/OR TRENCH.

ALL LIFTING AND PULLING EQUIPMENT, INCLUDING CABLES, SLINGS, CHAINS, SHACKLES AND SAFETY HOOKS SHALL BE INSPECTED FOR DAMAGE OR DEFECTS PRIOR TO USE AND SHALL BE EVALUATED FOR SUITABILITY AND CAPACITY.

THIS GME TABULATED DATA PROVIDES A GENERAL SET OF GUIDELINES TO ASSIST THE <u>COMPETENT PERSON</u> IN THE SELECTION OF A PROTECTIVE SYSTEM FOR EMPLOYEE SAFETY. THE RESPONSIBILITY FOR JOB SITE SAFETY AND THE PROPER SELECTION, INSTALLATION AND REMOVAL OF THE SHORING EQUIPMENT BELONGS TO THE <u>COMPETENT PERSON</u> DESIGNATED FOR THAT JOBSITE. THIS TABULATED DATA IS NOT INTENDED TO BE USED AS A JOB SPECIFIC EXCAVATION/TRENCHING SAFETY PLAN, BUT SHALL BE USED BY THE <u>COMPETENT PERSON</u>. TABULATED DATA IS INTENDED AS A SUPPLEMENT TO HIS/HER TRAINING, EXPERIENCE AND KNOWLEDGE OF SAFE PROCEDURES, JOB SITE CONDITIONS AND SOIL TYPES. TABULATED DATA IS INTENDED TO ASSIST HIM IN THE SELECTION OF AN APPROPRIATE PROTECTIVE SYSTEM FOR EMPLOYEE SAFETY.

LITE-SHIELD 20 SYSTEM TABULATED DATA

GENERAL:

- 1. This data has been prepared by a Registered Professional Engineer as required OSHA standard 29 CRF, Part 1926, Subpart P, Excavations.
- 2. This data is to be used by the "competent person" for the proper use and **placement** of the Lite-Shield 20 System components.
- 3. "Competent person" is one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.
- 4. When there is a discrepancy concerning the use of protective systems between this tabulated data and the OSHA standard, this data shall take precedence. Any topic not covered by this data shall be governed by the OSHA standard.
- 5. GME shall not be liable for damage or injury resulting from improper use of the Lite Shield System. Improper use of or modifications to the structural components not specifically authorized by GME without the written consent of GME shall void this data and all manufacturers' warranty.

SPECIFICATIONS FOR USE OF THE LITE-SHIELD 20 SYSTEM

- 1. All personnel involved with the use of Lite-Shield 20 System shall be trained in the proper use and installation procedures and other applicable safety requirements.
- 2. The Lite-Shield 20 System shall be used only in soil conditions indicated in this data.
- 3. Refer to the installation procedures for typical installation figures.
- 4. The system shall be installed in a manner to prevent lateral or otherwise hazardous movement.
- 5. The struts shall not be used to support side loading, nor shall the system be lifted, pulled or moved by the struts. The system shall be installed and extracted by the lifting eyes provided by the manufacturer. Struts are not designed to support vertical loads and shall not be used to provide access or egress to the trench

LITE-SHIELD 20 SYSTEM TABULATED DATA

SPECIFICATIONS FOR USE OF THE LITE-SHIELD 20 SYSTEM CON'T

- 6. This data is valid for Lite-Shield 20 components in structurally sound condition. Any significant damage will void this data, and all manufacturers' warranty. The damaged components shall not be used.
- 7. When the system is used in a three or four-sided assembly, a bottom panel may be left out on one side or on two opposite sides.

SOIL CLASSIFICATION

- 1. See the OSHA regulations for descriptions of Type A, B, and C soils.
- 2. Type C-60 soil is a soft cohesive or moist granular soil that is not flowing or submerged. This soil can be cut vertically and will stand long enough to safely install the protective system.

NOTES FOR TABULATED DATA

- 1. The top strut of the system shall be no more than twenty-four inches below the top of the panel elements.
- 2. The lowest strut of the system shall be no more than twenty-four inches above the bottom of the excavation. All additional struts shall be spaced at a maximum of forty-eight inches to the top of the excavation.
- 3. PC Connectors shall be pinned at each panel joint and struts shall be connected to the PC Connectors.
- 4. Surcharge loads are not included in the maximum depth tables. Surcharge loads are possible due to heavy equipment, vibrations, or soil piles adjacent to the trench. (Adjacent is defined as within a distance equal to the depth of the trench.)
- 5. If the system is used in a three or four-sided configuration with different sized panels, the maximum depth of the excavation shall not exceed the depth rating of the longer panel as indicated in the maximum depth table.
- 6. All strut components shall be approved or manufactured by GME.

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LITE SHIELD MAXIMUM DEPTH TABLE (1.1)				
MODEL	SOIL TYPE			
NUMBER	Α	В	C-60	C-80
LSP - 3	50 ft	50 ft	40 ft	30 ft
LSP - 4	50 ft	50 ft	40 ft	30 ft
LSP - 5	50 ft	50 ft	40 ft	30 ft
LSP - 6	50 ft	34 ft	31 ft	22 ft
LSP - 7	50 ft	33 ft	27 ft	20 ft
LSP - 8	50 ft	32 ft	24 ft	18 ft
LSP - 10	33 ft	20 ft	14 ft	11 ft
MAXIMUM VERTICAL PIPE CLEARANCE = 24 INCHES				

