

Erosion and Sediment Laboratory Updates

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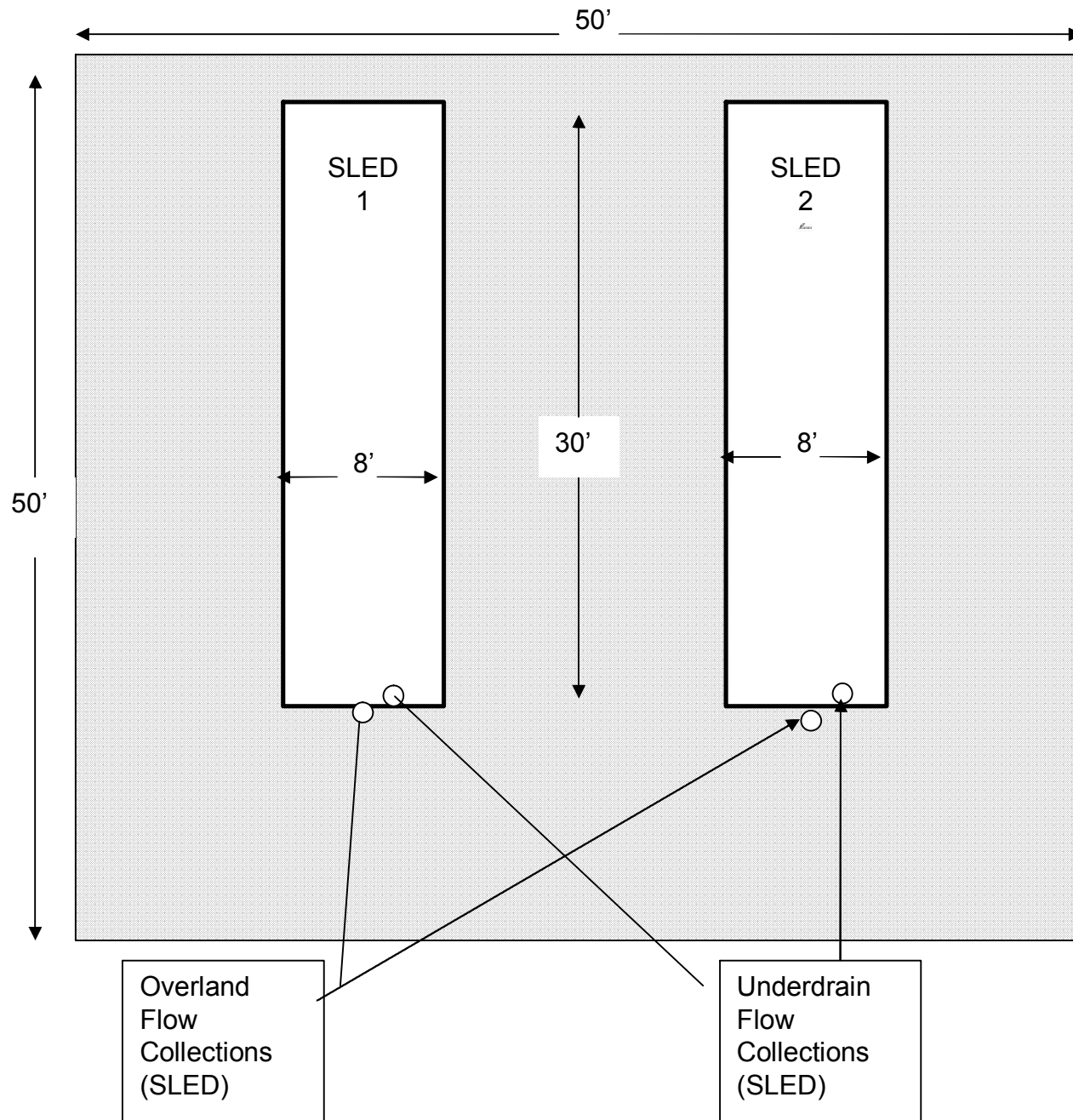
December 14, 2005



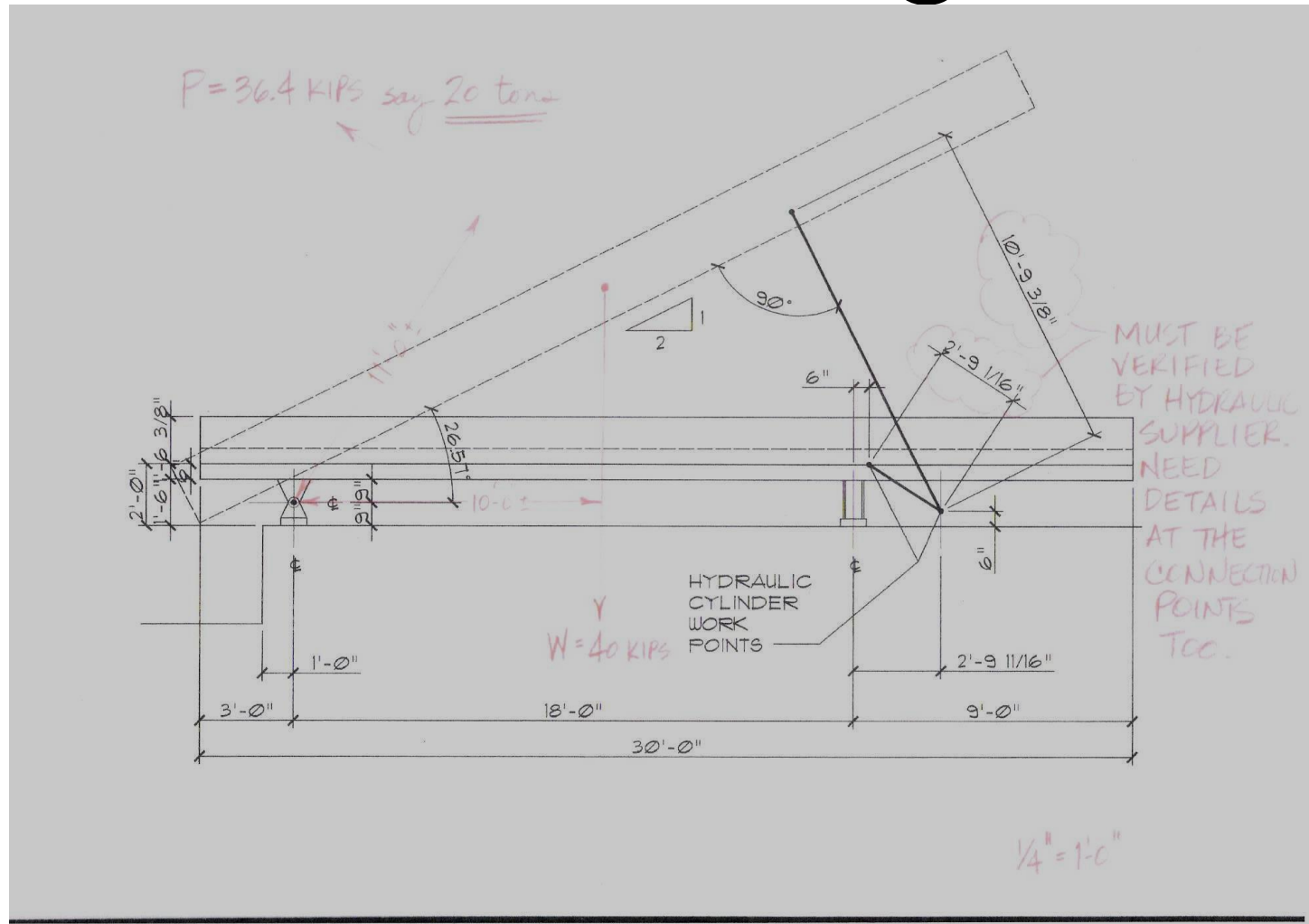
Sloping Laboratory Erosion Device (SLED)

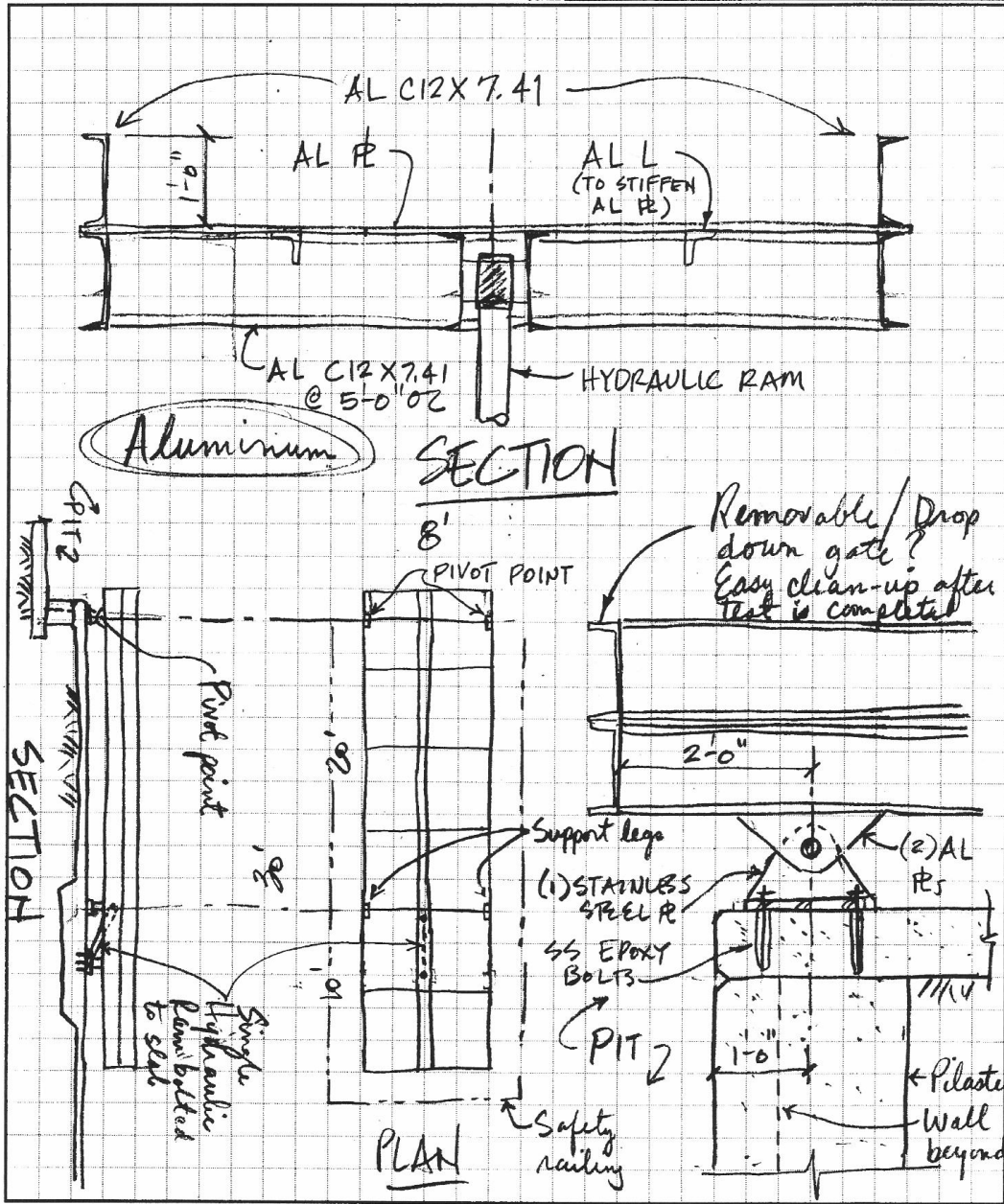
FEATURES AND ENHANCEMENTS:

- Mass Balance Setup
(overland flow, under drain, and overspray collection)
- Rainfall simulator with up to 12" per hour rainfall intensity
- (2) Sleds each at 30' x 8'
- Total Pad will be 50' x 50'
- Hydraulic ram lift design, with locking side supports
- Soil placement and removal efficiency enhancements



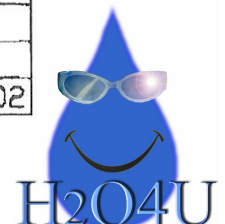
Sled Design



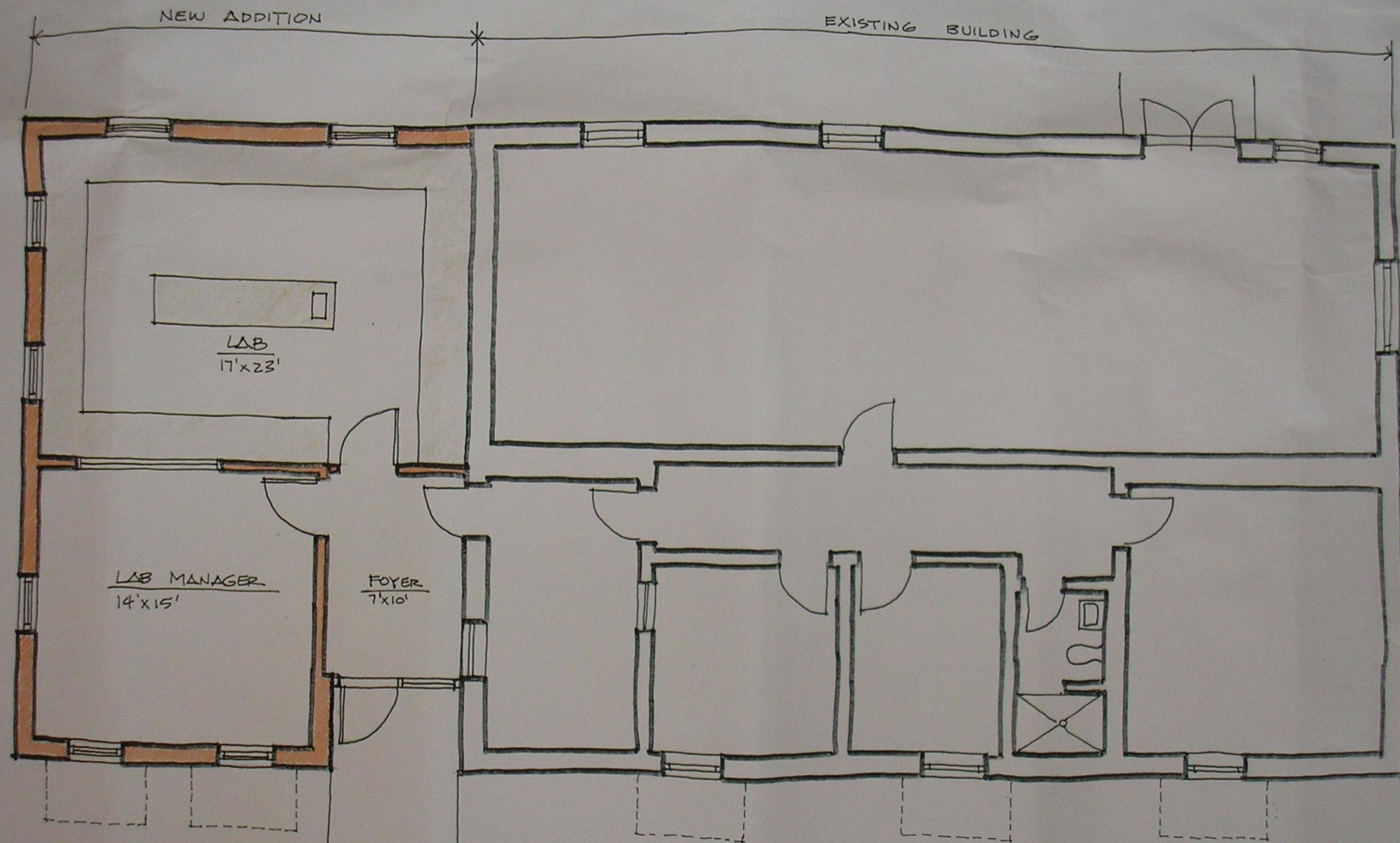


• SLED Construction

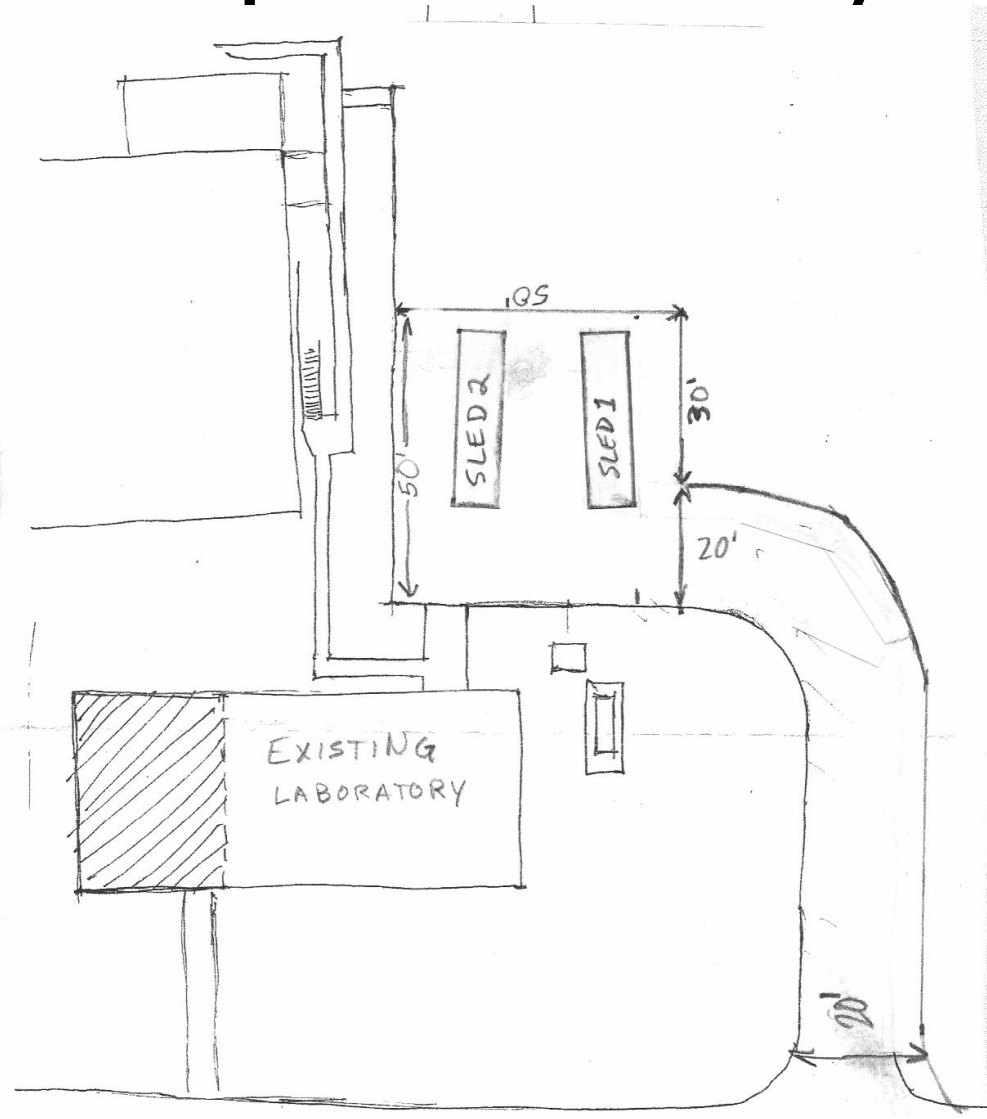
University of
**Central
Florida**



SOUTH ELEVATION
 $\frac{1}{4}'' = 1'-0''$



Conceptual Facility Layout



Materials Index Testing

Additional Equipment List

Some additional equipment we will be specifying will include:

- 20-ton punch press, with standard dies ranging from 4" to 12" square
- Thickness gage
- Resiliency press
- Light meter
- Smolder test box
- Stiffness test apparatus
- Water absorption index test screens
- Drying oven
- Ashing oven
- Universal materials testing machine

Universal Materials Testing

SMART Loadframe Features

- Twin Column loadframe
- Twin ball screw drive with closed-loop servo and motor controls
- Crosshead Guidance System: Uses heavy channel shape steel columns. Maximum lateral motion $\pm 0.25\text{mm}$ over full crosshead travel
- Anti-backlash system: standard on floor models, optional on table models
- Emergency Stop Control: via rocker and mechanical limit switches
- Interchangeable electronic loadcell weighing system is standard
- Electronic self-identifying loadcell & extensometer are optional
- Automatic overload protection
- Quick-Disconnect loadcell & fixture system
- Controlled release of load in the event of power failure
- Two-color (black & beige) is standard. Special colors available



Comments and Questions

- SLED
- Facility
- Index Tests