

Job Safety Plan for New Sewer Line

New Mexico Institute of Mining & Technology

Physical Plant, Construction



July 8, 2003

Job Safety Plan for New Sewer Line

Narrative-

This project, is the construction of a new sewer line, beginning at the south side of the newly constructed fine arts buildings, continuing through the intersection of canyon road and Buckwolfe Road, (the SE) corner of the Physical Plant.

From this intersection, the construction path will follow Buckwolfe Road toward the warehouse, and then veer west, drop down into the flood control area and terminate at a city manhole as shown on the plans.

OSHA's Perception of a Successful Program identifies six core elements:

1. Detailed Written Site Safety Assessments
2. Detailed Written Safety Procedures
3. Extensive Employee Training Programs
4. Periodic Reinforcement of Training
5. Sufficient Discipline Regarding Implementation
6. Follow-up

As with all of our construction projects, we seek to be a leader in safety and health. This project follows the same desire and management. Our first priority is SAFETY.

As a sidenote, this document will at times refer to other safety assessments which are attached. All of these materials can be available from the Safety office at 505-835-5401. These are some of the following references:

1. Construction Plans, as drawn by Engineers Inc.
2. Our Safety plan, and more specifically our Excavation plan
3. Our PowerPoint training program, tailored for this job
4. Our Hazard analysis and evaluation of the control in place to prevent loss to people and/or property.

Emergency Procedures – In the event of an emergency, the city 911 dispatcher will be called. This will necessitate a cell phone at the job site at all times. NMT Has met with Chief Bob Brunson, of the Socorro Fire Department (on the 8th of this month) to discuss this process. This will necessitate a cell phone at the job site at all times. NMT Has met with Chief Bob Brunson, of the Socorro Fire Department (on the 8th of this month) to discuss this project. We reviewed the plans and held an open ended job safety analysis of what types of hazards we could expect to see at NMT at this job. We also established a protocol on how we will handle and accident. We appreciate the City of Socorro's expertise and assistance as always.

In the event of an accident, we will evacuate the work area and immediately call city 911. NMT employees are not adequately trained in rescue techniques other than personal

protective equipment and the fall protection equipment that we use. We recognize the Fire department to be the expert in hand here and appreciate their assistance if called upon.

We have also met with our internal campus police to accomplish the same level of cooperation and protocol.

In the event of an accident, These are our emergency procedures:

- We will immediately call city 911 to alert The Socorro Fire Department
- We will call campus police at 835-5434.
- We will relay the following minimum information
 - The exact location of the accident
 - The number of potential injured parties
 - The nature of the emergency
 - The exact physical dimensions of the shoring on site.
 - Any special hazards we are currently working with
- We keep all life-support and dewatering systems if at all possible
- All workers will be cleared away from the equipment.
- The employee leading the crew, or the individual with the most information. The intent is to save TIME. Two NMT employees's maximum.

What Not to do:

- Don't Panic! It won't help anything.
- Control would-be rescuers.
- Don't sacrifice anyone else.
- NEVER attempt to dig some out using motorized quipment.

Key Personnel

Jim Shaffner, 835-5533 (Physical Plant Director)

Robert Hignight 507-2897 (Construction Manager)

Leo Guerra 835-5533 (Project Manager)

Mark Waggoner 835-5401(Associate Director-Eng. & Safety)

Jim McLain 835-5863 (Associate Director – Business)

Yvonne Manzano 835-6966 – (Associate Director –Administration)

Pete Sanchez 507-2857 (Energy Manager)

Rob Lopez & John Murphy (contact by radio or front desk835-5533) Operators

It is our policy that **ANY** NM Tech employee can call a temporary STOP to this project if they see a potential hazard.

Soil Classification

Our soil classification has been determined of that of "C". We are in a desert environment, and our soil is a cross between sand, gravel and loamy sand. On occasion, we have seen some clay on the Far East side of this campus.

For the purpose of the safety of this project, we have classified (start to finish), Type C. We have shoring on site, but intend to the greatest detail possible, to slope the soil to a degree where we do not need it. Where this cannot be achieved, then we will use shoring as our means to protect our employees.

Spot Procedures

We have used a triple redundancy here due to age of the University and the many underground utilities that we know exist and/or once existed. Our first line of defense has been our internal resources from ISD. ISD spots for everything except Gas and high voltage electrical. This was done beginning on the 7th of July. Our second resource is the Socorro Gas company. Our contact at Socorro Gas Company is: Mr. Chick Griego @ 835-0240. Pete Sanchez, plumbing manager for NMT is our liaison between Chick, this project and the Gas Company. The high voltage underground utility was put in last summer by the Physical plant and we know it's exact coordinates.

Our Third, resource is NM1Call, which translates to 1-800-321-2537.

As an extra caution, we have also constructed wooden stakes that we have offset 20' of the actual path of the trench to further safeguard from accidental knock-oversee.

Traffic Reroute

Beginning on Wednesday, July 16, we will need to begin directing traffic around an existing 4-way stop. This is being handled by Campus police, who will construct a re-route that will stay in use throughout the duration of work in the street area. (Attached)

Daily Safety Procedures

Every day will begin with an excavation inspection. This is a tailored 36 item excavation list that a "competent individual" will fill out. These will be reviewed daily and filed in the safety office. Following the inspection, we will have a daily 5-10 minute tailgate safety meeting. This will also be an open forum for any issues that have come up, but primarily a discussion of the hazards that we will be facing that day.

Training

Only "excavation trained" employees will be allowed in the work zone. Our training program will be provided at any time deemed necessary by any of our authorized competent employees. Our safety program is available to review for our training methods and procedures.

Job Hazard Analysis

Potential hazards

Underground utilities

Controls implemented

Spot system, and use of backhoe instead of larger equipment in congested areas. Stakes, and spotters in the trench.

Primary failure of dirt	Avoidance of using vertical digging. We plan to step the trench out so that there is little to no exposure to primary or secondary failure to the dirt.
Secondary failure of dirt Weather-summer rains	“ First, Immediate stoppage of work. If occurs overnight than the excavation inspection sheet and two competent employees will determine if it is feasible to dig that day. If it is not safe, we will not dig.
Falls	Good housekeeping. “Marked” materials. Strict access. Absolutely no bridge structures on this job.
Life safety controls, for depth of trench;	Anything deeper than 4 feet will follow the OSHA code. Again, we plan to step and slope because we are in sandy areas.
Vibration from street traffic: General Liability	Design of re-route of traffic to minimize. Fencing and construction zone protection 24/7 & campus police protection 24/7
Unauthorized personnel in the Construction zone:	Polite escort off the premises. We have already begun to use our internal email system to alert the general public that this project is under way.

Note: This is a Work In Progress Document that will without doubt change during the course of the project. I do encourage safety suggestions and will implement any procedure or process that improves the safety of our employees.
