JOB HAZARD ANALYSIS (JHA)

Business name

Document: JHA-001 Rev 1
Prepared: Nov 9, 2026
Review by: Dec 9, 2026
Highest risk after controls: Medium

1. BUSINESS AND JOB DETAILS

Job	Install storm drain drainage	**Start date**	Nov 9, 2026
Working hours	7:00 am to 3:30 pm	**Trade**	Excavation and earthworks

2. JOB STEPS, HAZARDS AND CONTROLS

#	Job step	Hazards	Risk before	Controls	Risk after	Responsible
1	Get 811 locates and mark the pipe run	Hitting underground services Rules: 29 CFR 1926.651(b) and your state 811 law	**Critical Possible / Fatality**	1.1 Keep machine buckets well clear of marked services and use a spotter. [Engineering (guarding)] 1.2 Scan the area with a cable locator before digging and mark services on the ground. [Engineering] 1.3 Hand dig or vacuum excavate to expose services before using a machine near them. [Engineering] 1.4 Call 811 before you dig and wait until all utilities have marked their lines. [Administrative] 1.5 Keep plans or locate tickets on site and check them again if the work area grows. [Administrative] 1.6 Support or protect exposed utilities so they cannot sag or break while the excavation is open (29 CFR 1926.651(b)(4)). [Administrative] 1.7 If you hit a service, stop, get everyone clear, and call the owner and emergency services. [Administrative] 1.8 Wear safety boots, gloves and hi-vis when digging. [PPE]	**Medium Rare / Fatality**	Site supervisor
2	Cut hard surfaces with water suppression	Silica dust from concrete, brick, stone and tiles Saw cuts and kickback Loud noise Rules: 29 CFR 1926.1153; 29 CFR 1926 Subpart I; 29 CFR 1926.52	**Critical Likely / Fatality**	2.1 Order materials cut to size, or use low-dust methods such as score and snap or a block splitter. [Substitution] 2.2 Cut outdoors or in a separate area, with other people well away and upwind. [Engineering (guarding)] 2.3 Use wet cutting or on-tool dust collection with a HEPA vacuum, as set out in Table 1 of 29 CFR 1926.1153. [Engineering] 2.4 Clean up with a vacuum or wet methods. Never dry sweep or use compressed air. [Administrative] 2.5 Have a written exposure control plan and a competent person for silica (29 CFR 1926.1153). [Administrative] 2.6 Workers who must wear a respirator 30 or more days a year get a free medical exam every 3 years (29 CFR 1926.1153(h)). [Administrative] 2.7 Wear the respirator Table 1 lists for the task: APF 10 (a fit-tested N95 or half mask) for most tasks, APF 25 (such as a loose-fitting PAPR) for tuckpointing with a handheld grinder for more than 4 hours a shift. [PPE]	**Medium Unlikely / Serious injury**	Site supervisor

#	Job step	Hazards	Risk before	Controls	Risk after	Responsible
				2.8 Keep blade guards fitted and working, and use the riving knife on table saws. [Engineering] 2.9 Use push sticks and clamps, and support long pieces so they do not pinch the blade. [Engineering] 2.10 Use a sharp, undamaged blade made for the material. [Administrative] 2.11 Stand to one side of the blade line, out of the kickback path. [Administrative] 2.12 Let the blade stop fully before reaching in or putting the saw down. [Administrative] 2.13 Use quieter tools and methods, such as cut-to-size materials, low-noise machines and battery tools. [Substitution] 2.14 Keep noisy plant away from work areas, and use screens or distance between the noise and people. [Engineering (guarding)] 2.15 Keep tools maintained and use mufflers on compressors and generators. [Engineering] 2.16 Limit time on noisy tools and rotate workers. [Administrative] 2.17 If you have to shout to be heard at arm's length, wear hearing protection. [Administrative]		
3	Dig the trench and pits, protecting edges	Trench or excavation collapse Being hit by heavy equipment Falling through a floor opening or void Rules: 29 CFR 1926 Subpart P; 29 CFR 1926 Subpart O; 29 CFR 1926 Subpart M	**Critical Possible / Fatality**	3.1 Use methods that keep people out of the trench, such as directional boring or working from the surface. [Elimination] 3.2 Barricade or cover the excavation so people and equipment cannot fall in. Use guardrails on walkways that cross it (29 CFR 1926.651(l)). [Engineering (guarding)] 3.3 Use a protective system (sloping, shoring or a trench box) in any trench 5 feet or deeper, or shallower if the competent person sees signs of a possible cave-in (29 CFR 1926.652). [Engineering] 3.4 Protective systems for trenches over 20 feet deep are designed by a registered professional engineer (29 CFR 1926.652(b), (c)). [Engineering] 3.5 Keep spoil, materials and equipment at least 2 feet back from the edge. [Engineering] 3.6 Provide a ladder, stairway or ramp within 25 feet of workers in trenches 4 feet or deeper. [Engineering] 3.7 Competent person inspects the trench daily, after rain and as conditions change, and tests the air before entry in trenches over 4 feet deep where a hazardous atmosphere could exist (29 CFR 1926.651(g), (k)). [Administrative] 3.8 Nobody works in a trench where water is collecting unless the competent person has controls in place, such as pumping or special support (29 CFR 1926.651(h)). [Administrative] 3.9 Nobody stands under a loaded bucket or near a truck being loaded (29 CFR 1926.651(e)). [Administrative] 3.10 Separate people and equipment with barriers, exclusion	**Medium Rare / Fatality**	Site supervisor

#	Job step	Hazards	Risk before	Controls	Risk after	Responsible
				zones and marked walkways. [Engineering (guarding)] 3.11 Use equipment with working backup alarms, cameras and lights. [Engineering] 3.12 Have a site traffic plan showing equipment routes, loading areas and pedestrian paths. [Administrative] 3.13 Use a spotter when backing up or working near people. [Administrative] 3.14 Make eye contact with the operator before going near. Stay out of the swing radius. [Administrative] 3.15 Cover every hole with a secured cover marked "HOLE" or "COVER" that can hold twice the weight it may carry. [Engineering (guarding)] 3.16 Put guardrails with toe boards around stairwells, elevator shafts, floor holes and open edges. [Engineering (guarding)] 3.17 Install stairs early and fit temporary handrails as soon as they go in. [Engineering] 3.18 Never remove a cover or guardrail without approval. Put it back straight away. [Administrative] 3.19 Inspect covers and barriers daily and after other trades have been through. [Administrative]		
4	Lay pipe to grade and set pits	Lifting and carrying heavy loads Hazardous chemicals Rules: 29 CFR 1926.59 Hazard Communication	**High Likely / Recordable / lost time**	4.1 Plan to avoid carrying: have materials delivered, and old items picked up, as close as possible to where they are used. [Elimination] 4.2 Use lighter or smaller loads: order smaller bags and shorter lengths, and drain or break down old items before moving them. [Substitution] 4.3 Use trolleys, pallet jacks, hoists, vacuum lifters or plant instead of carrying by hand. [Engineering] 4.4 Use a two-person lift for anything heavy, long or awkward. Plan the route first and clear it. [Administrative] 4.5 Keep the load close, back straight and no twisting. Turn with your feet. [Administrative] 4.6 Rotate tasks and take breaks on long lifting jobs. [Administrative] 4.7 Wear gloves for grip and safety boots to protect your feet. [PPE] 4.8 Choose the least harmful product that does the job, for example water-based instead of solvent-based. [Substitution] 4.9 Use chemicals in well-ventilated areas, or use fans and extraction in closed rooms. [Engineering] 4.10 Read the Safety Data Sheet (SDS) and labels before use, following OSHA Hazard Communication. [Administrative] 4.11 Keep chemicals in labeled containers. Never pour them into drink bottles. [Administrative] 4.12 Store chemicals away from heat, food and drink, and keep products that react with each other apart. [Administrative]	**Medium Unlikely / Recordable / lost time**	Site supervisor

#	Job step	Hazards	Risk before	Controls	Risk after	Responsible
				4.13 Have eye wash and a spill kit nearby, and wash hands before eating. [Administrative] 4.14 Wear chemical-resistant gloves and safety glasses or goggles as listed on the SDS. [PPE] 4.15 Use a respirator with the right cartridge if the SDS calls for one. [PPE]		
5	Backfill, compact and reinstate surfaces	Hand-arm and whole-body vibration Loud noise Poor housekeeping and waste Rules: 29 CFR 1926.52	**High Likely / Recordable / lost time**	5.1 Use low-vibration tools and methods, such as a breaker on an excavator instead of a hand jackhammer. [Substitution] 5.2 Keep tools sharp and well maintained, and use anti-vibration handles and seats. [Engineering] 5.3 Limit trigger time on high-vibration tools and rotate workers. [Administrative] 5.4 Keep hands warm and dry, and take regular breaks. [Administrative] 5.5 Report tingling, numbness or white fingers early. [Administrative] 5.6 Wear earplugs or earmuffs rated for the noise. [PPE] 5.7 Loud noise: see step 2 for the full controls [Administrative] 5.8 Order materials to size and send packaging back where you can. [Elimination] 5.9 Put dumpsters and waste chutes close to the work. [Engineering] 5.10 Clean as you go, and do a full clean up at the end of each day. [Administrative] 5.11 Keep exits, stairs and walkways clear at all times. [Administrative] 5.12 Stack materials neatly on level ground, away from edges. [Administrative]	**Medium Unlikely / Recordable / lost time**	Site supervisor

Risk key: risk = likelihood x consequence on a 5 x 5 matrix. Low, Medium, High, Critical. Work must not start while the risk after controls is high or above. Controls are listed in order of the hierarchy of controls: Elimination, Substitution, Engineering (guarding), Engineering, Administrative, PPE.

3. PPE AND PERMITS

Required PPE	Permits and plans
Safety-toe boots (ASTM F2413) High-visibility safety apparel, ANSI/ISEA 107 Class 2 or 3 (Type R near roadways) Safety glasses (ANSI Z87.1) Work gloves Hearing protection (earmuffs or plugs) Half-face respirator (P100 cartridges) N95 respirator Hard hat (ANSI Z89.1) Chemical-resistant gloves Safety goggles (ANSI Z87.1) Coveralls	811 locate ticket / excavation permit

4. PLANT AND EQUIPMENT

Plant / equipment	License or training needed	Inspection needed	Rego / ID	Last inspected	Certificate / report
Excavator					
Plate compactor					
Hand tools					
Concrete saw (cut-off saw)					

5. TRAINING REQUIRED FOR THIS WORK

- Silica training on the exposure control plan and Table 1 controls (29 CFR 1926.1153(i)); respirator fit test and medical evaluation (29 CFR 1910.134)
- Competent person for excavations, trained in soil classification and protective systems (29 CFR 1926.651(k), 1926.652)
- Equipment operator training (29 CFR 1926.20(b)(4)); forklift and telehandler operators trained, evaluated and certified, re-evaluated every 3 years (29 CFR 1910.178(l))
- Fall protection training by a competent person, with a written certification record (29 CFR 1926.503)
- Hazard communication training on the written program, labels and SDS (29 CFR 1910.1200(h), via 1926.59); respirator fit test and medical evaluation if a respirator is used (29 CFR 1910.134)

6. CREW TRAINING AND CERTIFICATIONS

Crew listed at sign-on below, with ticket and licence numbers.

7. EMERGENCY ARRANGEMENTS

Emergency number	911	**First aid kit**	In the work vehicle
Fire extinguisher	In the work vehicle	**Alarm and evacuation**	Shout for help and stop work. Make the area safe and go to the assembly point. Call the emergency number and send someone to meet the ambulance.
Reporting incidents	Report a fatality to OSHA within 8 hours, and an in-patient hospitalization, amputation or eye loss within 24 hours.		

8. MONITORING, REVIEW AND LEGAL BASIS

A competent person inspects the job site, materials and equipment before work each day and as conditions change (29 CFR 1926.20(b)(2)). Any time this JHA is revised, the affected crew is re-briefed and signs again.

Legal basis: OSH Act Section 5(a)(1) and 29 CFR 1926, Safety and Health Regulations for Construction (incl. 1926.20 and 1926.21). OSHA requires employers to find and fix hazards and to train workers on them. A JHA breaks the job into steps, lists the hazards in each step and the controls that protect the crew. General contractors often require one before you start.

Keep this JHA on site during the job, and keep it with the training and inspection records for at least 1 year after the job (longer if your state plan or general contractor requires it). OSHA does not set a retention period for JHAs themselves.

9. REVISION HISTORY

Rev	Date	By	What changed
1	Nov 9, 2026		First issue

10. SIGN-OFF

	Name	Signature	Date	
Prepared by				
Supervisor				
General contractor review				Accepted for use: Yes / No

By signing below, each crew member confirms they were trained on the hazards and controls in this JHA before work started, and will follow it. Stop work and tell the supervisor if conditions change.

Name	Role / company	Tickets / licences	Signature	Date

Name	Role / company	Tickets / licences	Signature	Date