2021 Craig, CO Day 2 Written Statement

Thank you for responding to our mine emergency.

This mine has 2 levels about 100 feet apart, named Level 100 and Level 200. They are connected by 3 air shafts.

The intake shaft in 2 entry has an elevator. The elevator is powered through a borehole from a surface controller.

The power is available through a switch we have in the command center.

You are located at the Fresh Air Base we established in the 100 Level. The entries are numbered from left to right 1, 2 and 3. Fresh air is coming in to the FAB in 2 entry and it splits across and returns out 1 and 3 entries.

Last night, 3 miners were working inby this area. The AMS system alarmed with high CO. Two supervisors traveled here and could not continue because of smoke and CO. They did build temporary stoppings in 1 and 2 entries. We have had no communication with the 3 miners. Our mine rescue teams, MSHA and the State were called. This mine has methane, is wet and has bad roof and ribs in places.

The map we have for you is up to date.

The BLOWING mine fan on the surface is running, guarded and cannot be reversed or turned off. A command center has been set up outby.

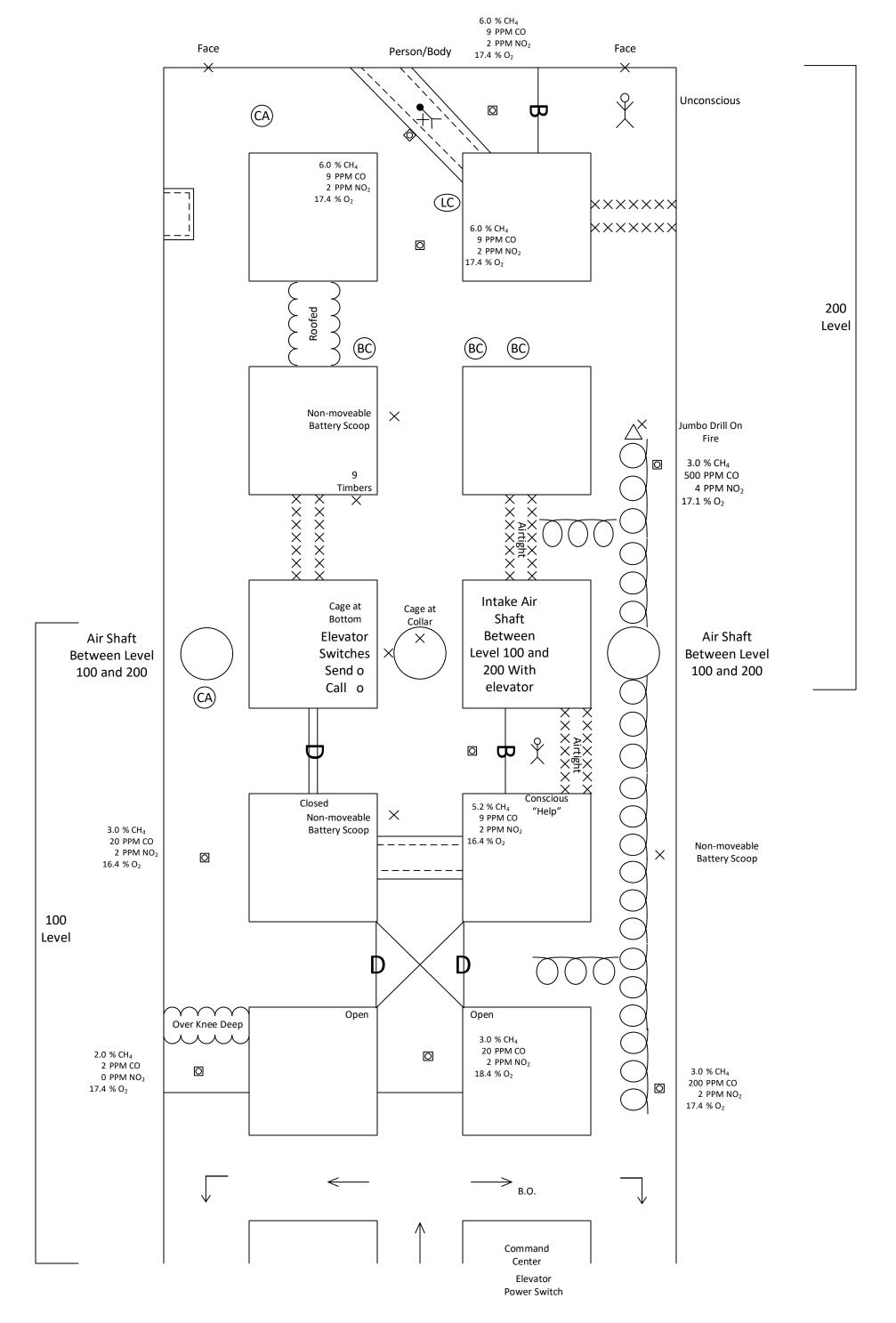
All officials and backup teams are present.

Good Luck.

2021 Craig, CO Day 2 Written Problem

- 1. You have 100 minutes to complete this problem.
- 2. Explore the entire area inby the FAB and account for the 3 missing miners, if it can be done safely.
- 3. Bring any live miners to the FAB.
- 4. The areas inby the shafts in level 100 are not accessible.
- 5. The areas outby the shafts in Level 200 are not accessible.
- 6. Your team cannot reverse or turn off the main mine fan.

Levels Representation For Information Only, Not For Mapping Air Shaft between Shaft With Level 100 and 200 Air Shaft Elevator between Level Between Level 100 and 200 100 and 200 Shaft With Air Shaft Elevator between Level Air Shaft between Between Level 100 and 200 Level 100 and 200 100 and 200



2021 Craig, CO Day 2 Judges Instructions

LEVEL 100

Initial opening checks entries at FAB. (temp. stoppings found in 1 and 2 entries, low O2 and smoke found in 3 E). Team can advance in 3 entry.

- 1. Team Stop 1 at XC 1 in 3 E. 50' Apparatus check, team in smoke, Team can tie across to 2 E.
- 2. Team Stop 2 at XC 1 in 2 E. Team in overcast, Low O2 found outby, unsafe roof found inby. Team can tie across.
- 3. Team stop 3 in XC 1 in 1 E. Water over knee deep found outby, Low O2 found inby. X 1 is not tied in. (area between temp stopping and water in 1 E) Team can advance in 1 or 3 E's.
- 4. Team stop 4,5 in 1 E at XC 2. Team in low O2, stopping w/door closed found in XC 2. Clear Air found inby Xc 2 and air shaft between 100 and 200 levels inby. Teams can airlock into XC 2 to tie across to 2 E OR can retreat and advance inby in 3 E.
- 5. Team stop 5,4 in 3 E at XC 2. Team in smoke. Zig-zag roof and rib check required in intersection, air shaft between level 100 and level 200 inby. Team must tie in 2 E at XC 2. (airlock required to breach stopping between 1 E and 2 E.
- 6. Team stop 6 in 2 E at XC 2. Ignition source found outby intersection. Intake air shaft with elevator found inby. Explosive mixture found in XC between intersection and 3 E. Barricade found with response of "Help". Not enough materials or information to vent barricade at this time. Prior to team exploring stop 7, if # 5 man travels inby XC 2 in any entry 2 XC limit is broken (Rule 44 E)
- 7. Team stop 7 in 1 E between FAB and XC 1. Airlock required to breach temp. stopping. Low O2 found. Level 100 is tied in. NOT ENOUGH MATERIALS TO VENT BARRICADE YET Team must request power set to elevator, and verbalize checking elevator/shaft for damage by simulating placing combustible materials on cage and sending it down, then calling the cage back (Rule 30 H). Once checked, team can ride elevator to level 200 LEVEL 200
- 8. Team stop 8 in 2 E at XC 3. caved found between 2 and 1 E's, 9 timbers found, ignition source found inby, airtight cave found in XC between 2 and 3 E's. NOT ENOUGH MATERIALS TO VENT BARRICADE in Level 100 YET
- 9. Team stop 9 in 2 E at XC 4. Water roofed found in XC between 1 and 2 E's, explosive mixture found inby intersection. LC found. 3 BC found. TEAMS HAVE MATERIALS TO VENT METHANE IN FRONT OF BARRICADE IN LEVEL 100.

Timbers required to be set through unsafe roof in 2 E between XC 1 and 2.

See VENT 1

Airlock required to breach barricade. LCM can be removed to FAB walking.

- 10. Team stop 10 in 3 E at XC 4. caved found inby, extinguishable fire found outby in 3 E. Team in smoke while exploring outby stop 10.
- 11. Team stop 11 in 3 E at XC 3. Team in smoke. Airtight cave found in Xc between 3 and 2 E's. Shaft bottom in 3 E made.
- 12. Team Stop 12 in 2 entry at XC 5. Zig-zag RR test required through intersection. Missing person can be seen in unsafe roof in intersection. Must be assessed. Timbers available. Body discovered once assessed.
- 13. Team Stop 13 in 1 E in XC 5. In clear air. RRF required. Can advance outby Zig-zag RR required through unsafe roof area outby stop 13.
- 14. Team Stop 14 in 1 E in XC 4.
- 15. Team Stop 15 in 1 E at XC 3. Caved found in XC, 1 E air shaft made.

TEAM HAS ENOUGH MATERIALS TO TIMBER THROUGH DIAGONAL UNSAFE ROOF IN 2 E AT XC 5. Barricade found in XC 5 between 2 and 3 E's with explosive and low O2 with NO RESPONSE.

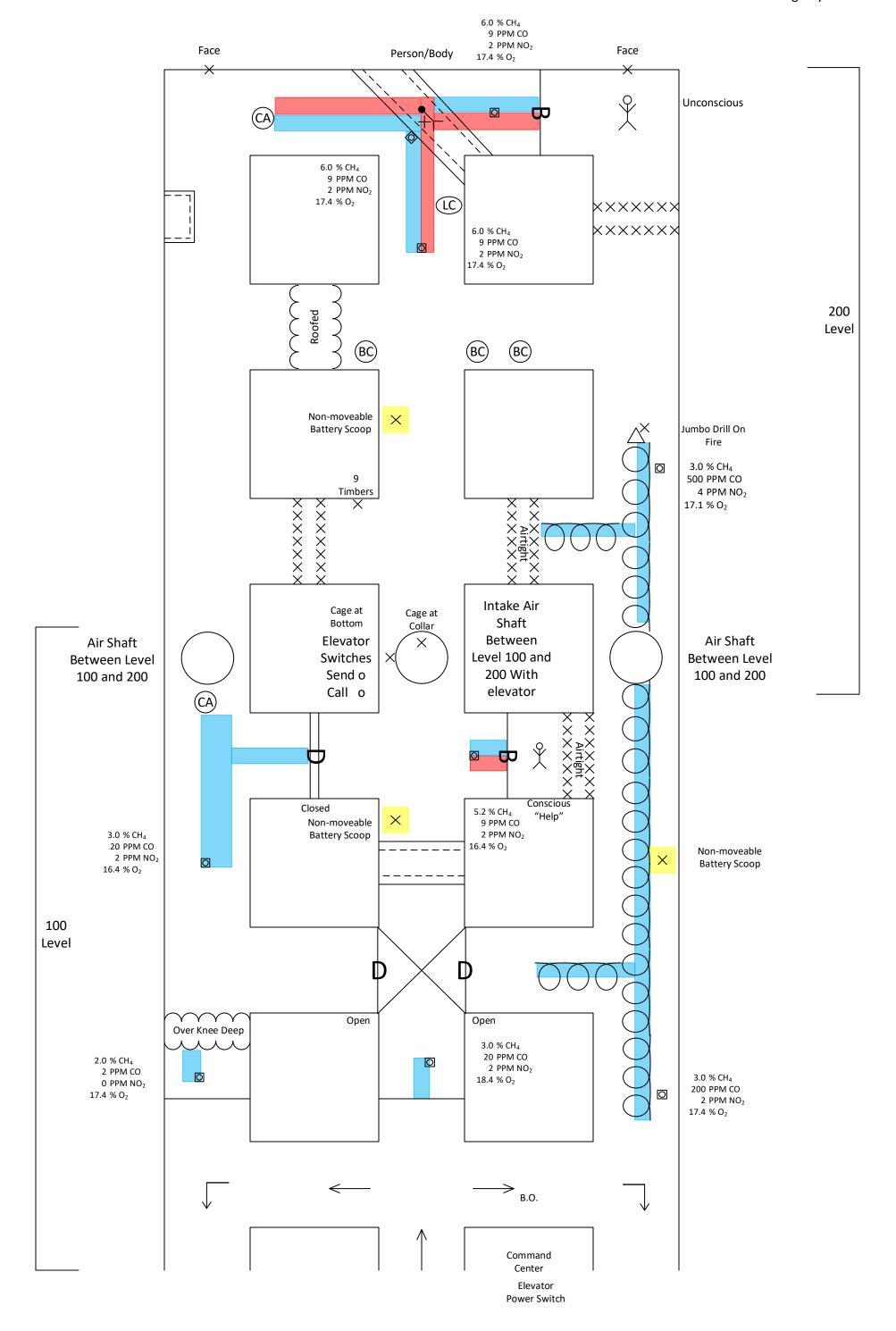
TEAM HAS MATERIALS TO VENT

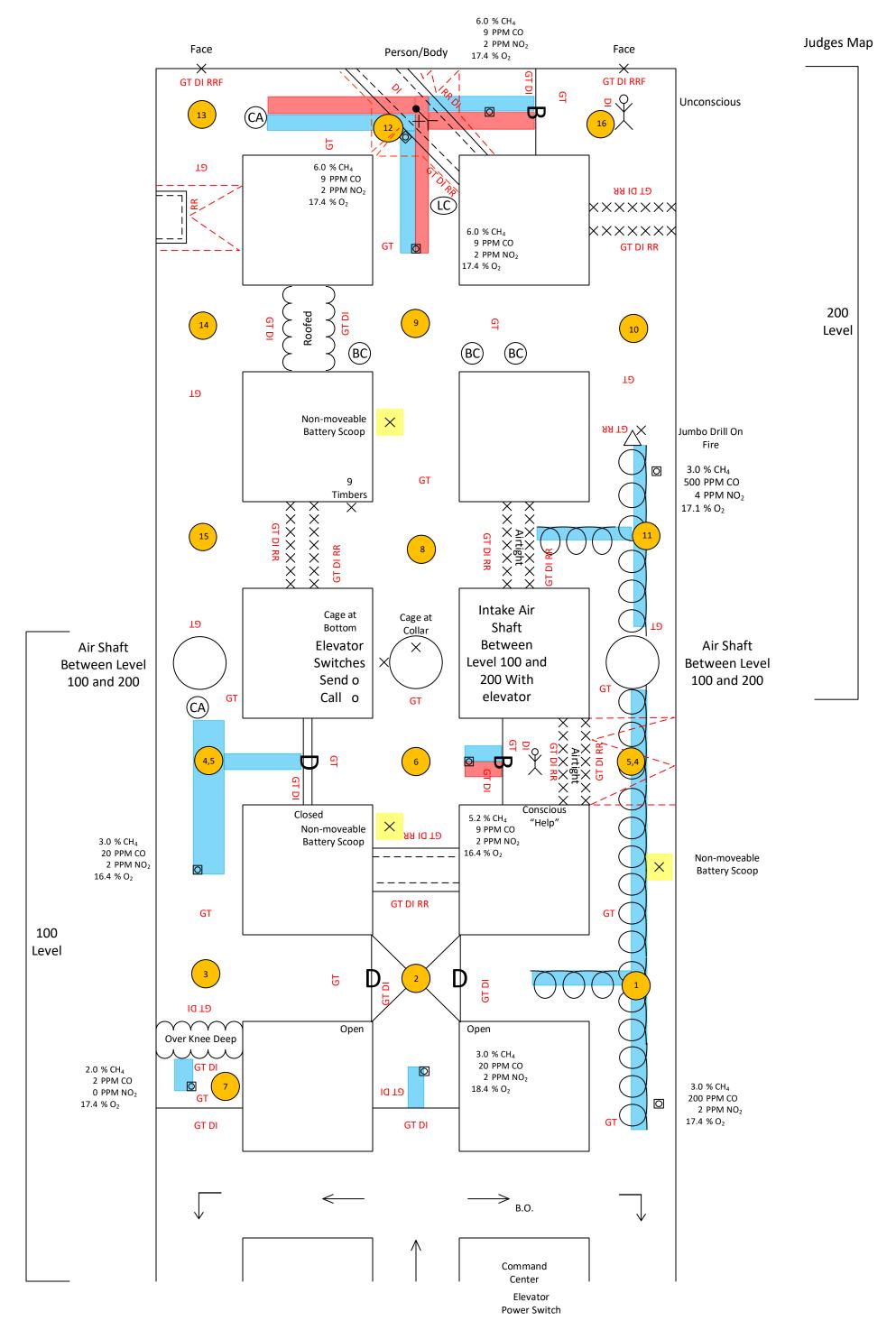
See Vent 2

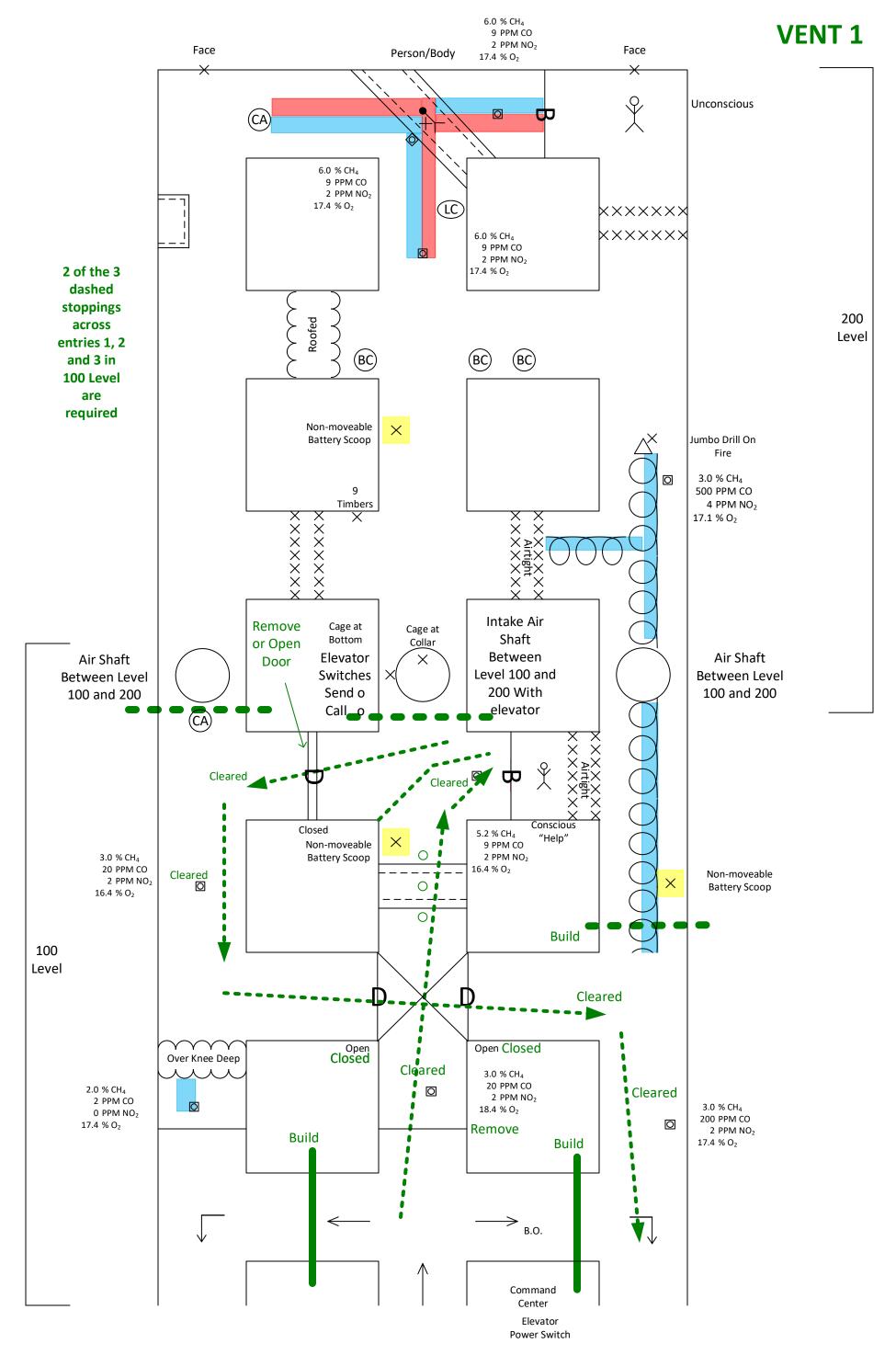
Must airlock into barricade in Level 200

LUM found, can be removed to FAB on stretcher w/o respiratory protection.

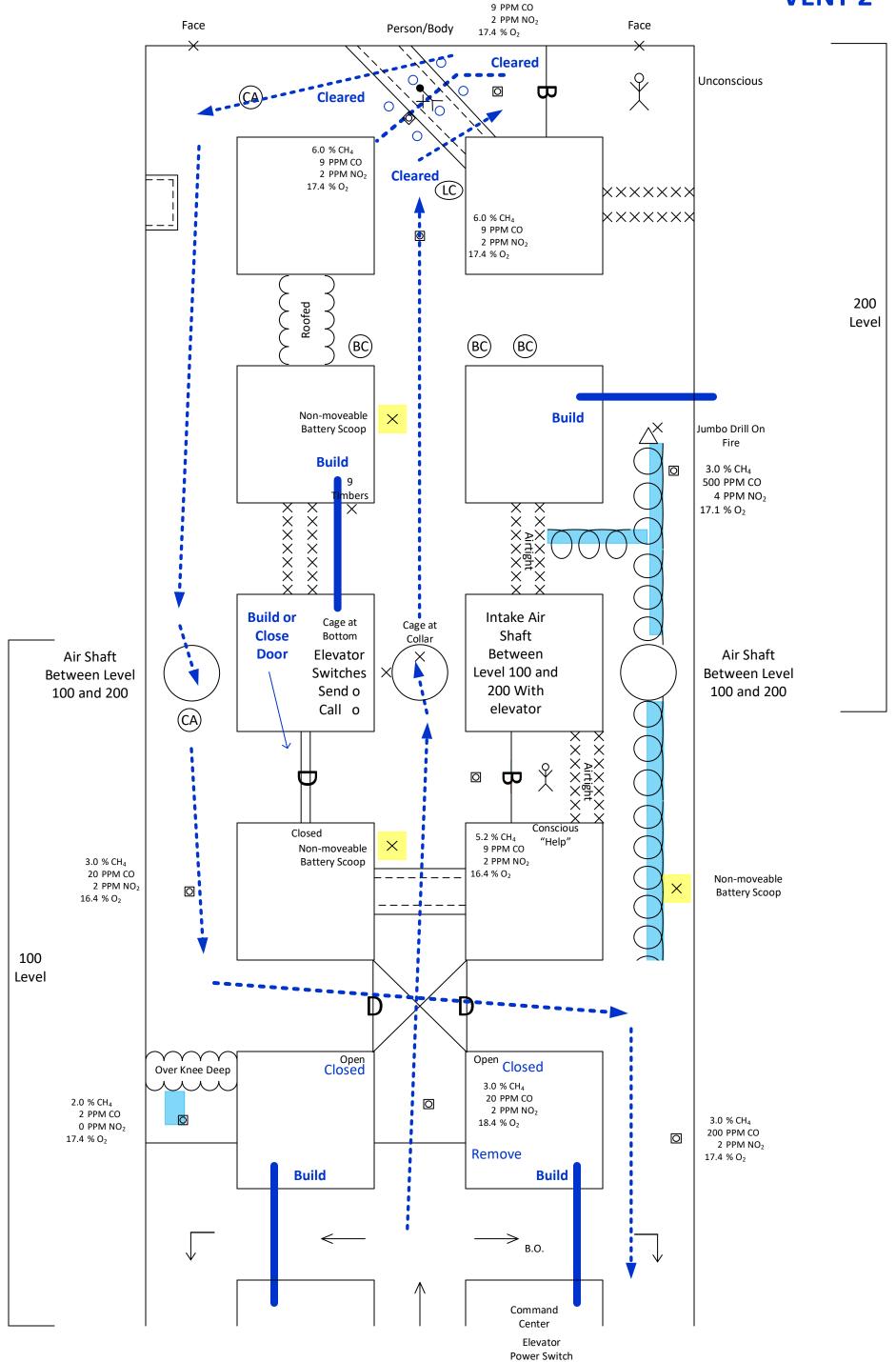
End of Problem





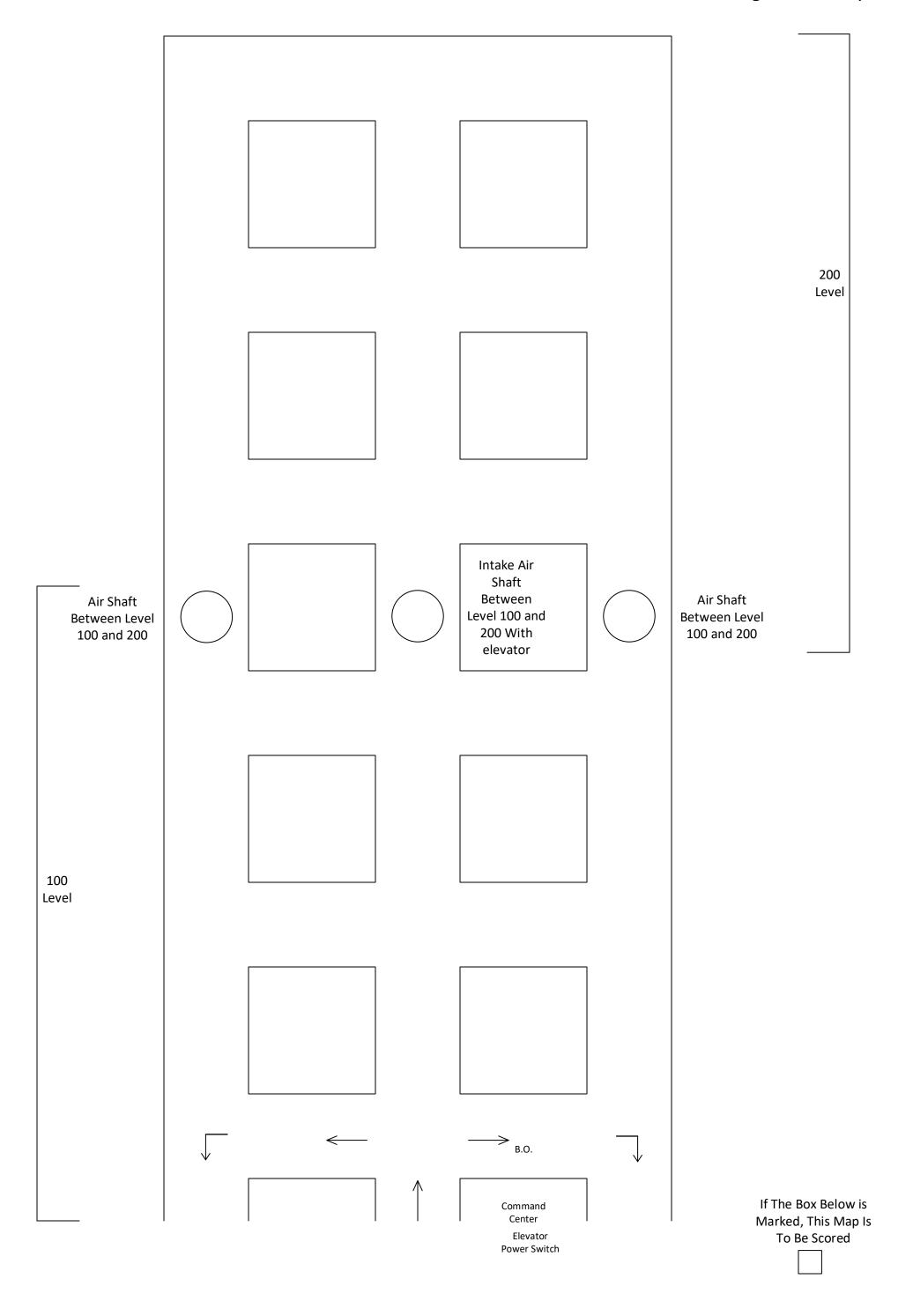


VENT 2

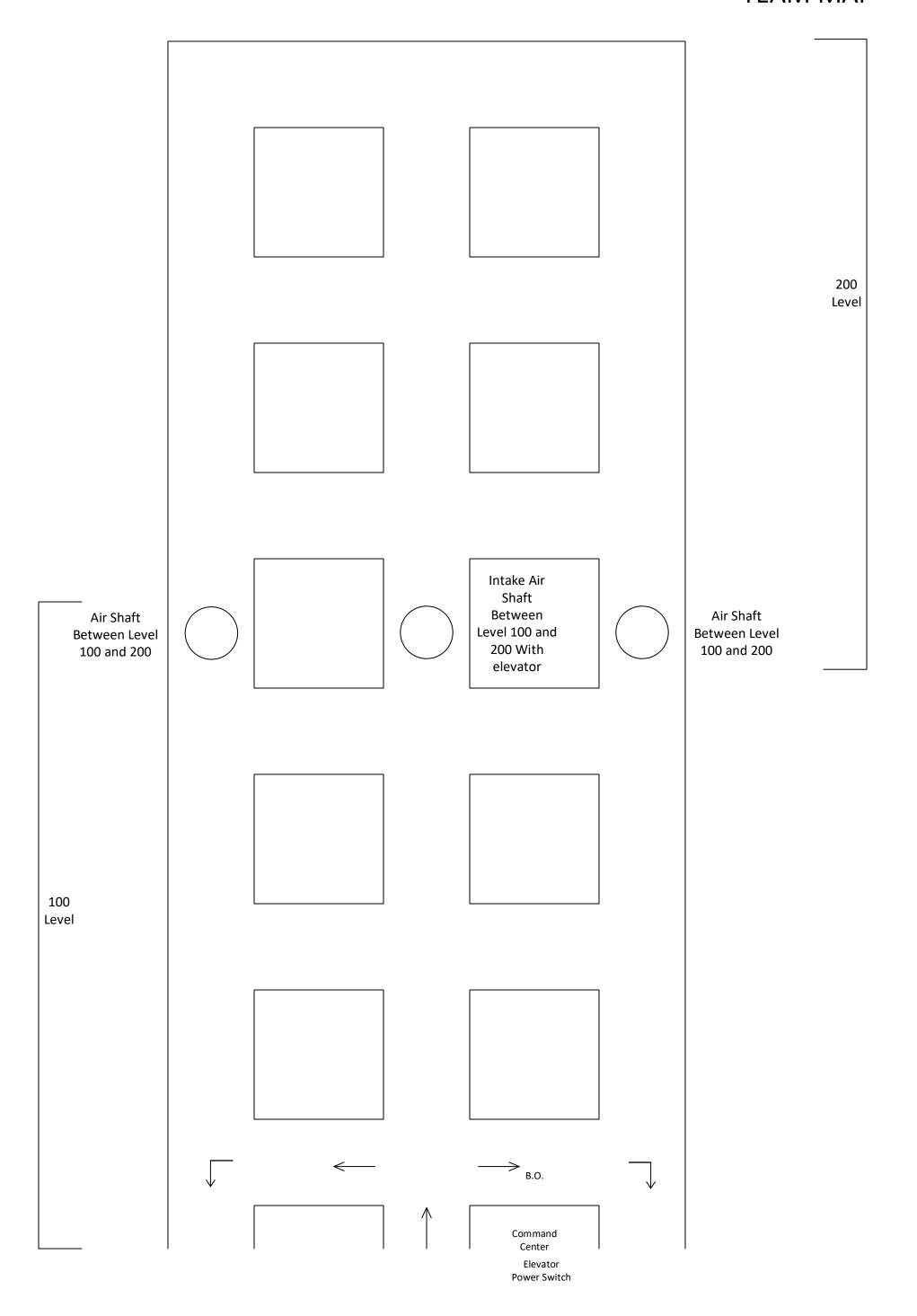


 $6.0~\%~CH_4$

Briefing Officer Map



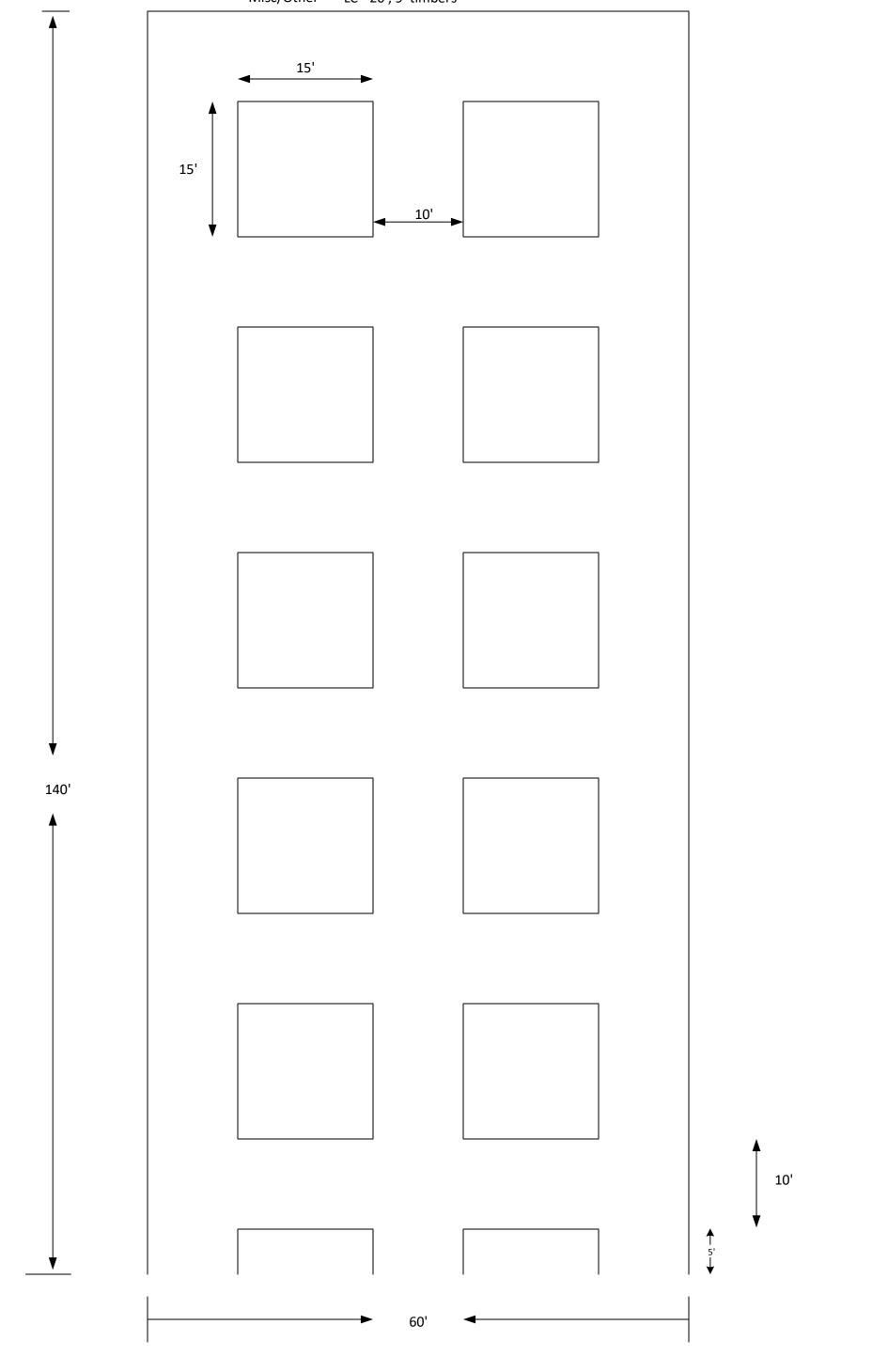
TEAM MAP



Markers/Ribbons/Rope for water/unsafe roof - Blue - 4 Red - 17

Elongated items – feet length - $3 \times 25'$, $2 \times 15'$ (white $\frac{1}{2}$ " ropes)

Placards - MSHA will bring Misc/Other- LC - 20', 9 timbers Layout



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