

POST 11
MINE
RESCUE
CONTEST
MAY 11,
2016

NATIONAL MINE RESCUE

POST 11 CONTEST

May 5, 2016

Thanks for answering our call for help! You are located on the surface of our highwall mine, The Post 11 Ruff Times Mine. Here is what we have been able to find up to this time.

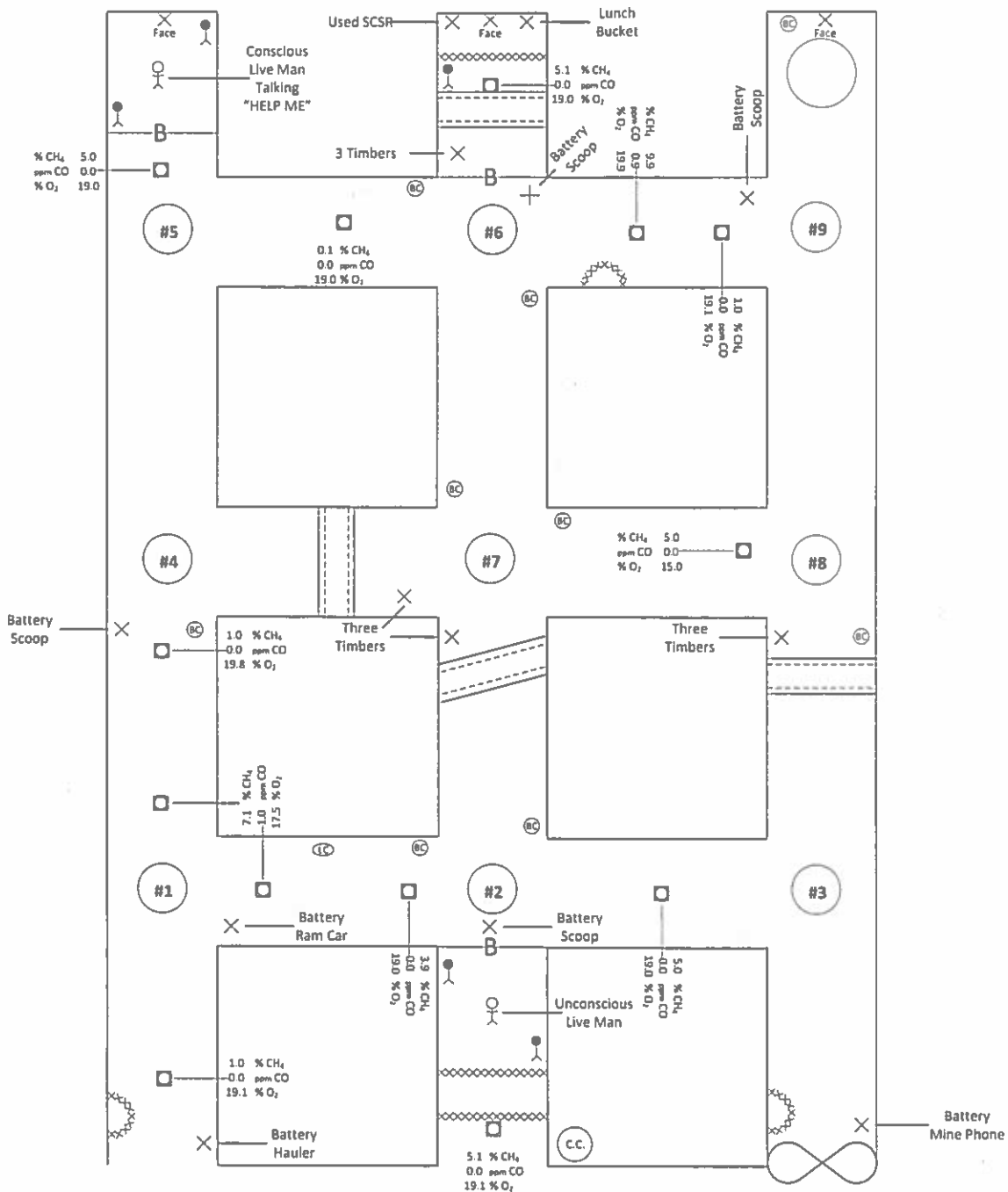
When I arrived this morning I noticed that the mine fan was not running. So I checked and it appears that it stopped about an hour ago. The security guard told me that the third shift mine foreman was outside a little while ago but he went back in when the crew leader called out and said that something was wrong in the face of #2. I'm not sure that the security guard understood everything because our new air shaft is in the face of the #3 entry. I have tried to reach the section every way that I know how but no one will answer me. According to the work schedule there was a crew leader and a crew of five that went it to get everything ready for dayshift. I was going to go look for them but I encountered low O₂ when I started in the #1 entry, a caved area in the #2 entry and I couldn't get by the fan in the #3 entry. That is when I called for help. This is not a very big mines please help us find our missing miners.

I called in an electrician and he has checked the fan and said that is ready whenever you need it. He said that the fan can be started in the exhausting or blowing system. To turn the fan on you must contact the command center and identify which way you want it to operate. All the power in the mine has been disconnected locked and tagged out and is being guarded. The mine is walking height. All of the regulatory agencies have been notified and have their personnel here. There are additional mine rescue teams here to serve as your back up.
GOOD LUCK & BE CAREFUL!

MINE RESCUE

WRITTEN INSTRUCTIONS

- **ACCOUNT FOR ALL MISSING PERSONS**
- **BRING SURVIVORS TO THE SURFACE**
- **FAN CAN BE STARTED BY REQUESTING IT TO BE TURNED ON BY THE COMMAND CENTER / BREIFING OFFICER**
- **THE COMMAND CENTER / BREIFING OFFICER MUST IDENTIFY IN WRITING AND GIVE IT TO THE SUPERTIDENT IN WHICH DIRECTION THE FAN IS TO OPERATE (BLOWING OR EXHAUSTING)**
- **ONCE THE FAN IS STARTED IT CANNOT BE STOPPED OR STALLED**
- **EXPLORE THE ENTIRE MINE IF IT CAN BE DONE SO SAFELY**
- **THE TEAM MUST NOTIFY THE COMMAND CENTER OF ANY CH₄ LEVELS ABOVE 10% BEFORE ADVANCING TO THE NEXT TEAM STOP**



TEAM STOP MAP

2016 POST 11 CONTEST

TEAM # _____

WORKING PROCEDURES:

When the team enters the Fresh Air Base, the Superintendent will introduce himself & his judges to the team captain. The Briefing Officer and the Command Center Attendant will report directly to the command center. The team will then have 4 minutes to arrange their equipment, lay out their lifeline etc. If the team captain does not start the clock within 4 minutes the Superintendent will start the clock. The team does not have to unload and test stretchers. They must however check their gas detectors after the clock has started as well as their communications between the team and the command center. Teams must go over standard lifeline signals with the lifeline judges unless wireless communications are used. Time for the briefing officer and the command center attendant to get set up is included in the 4 minute time.

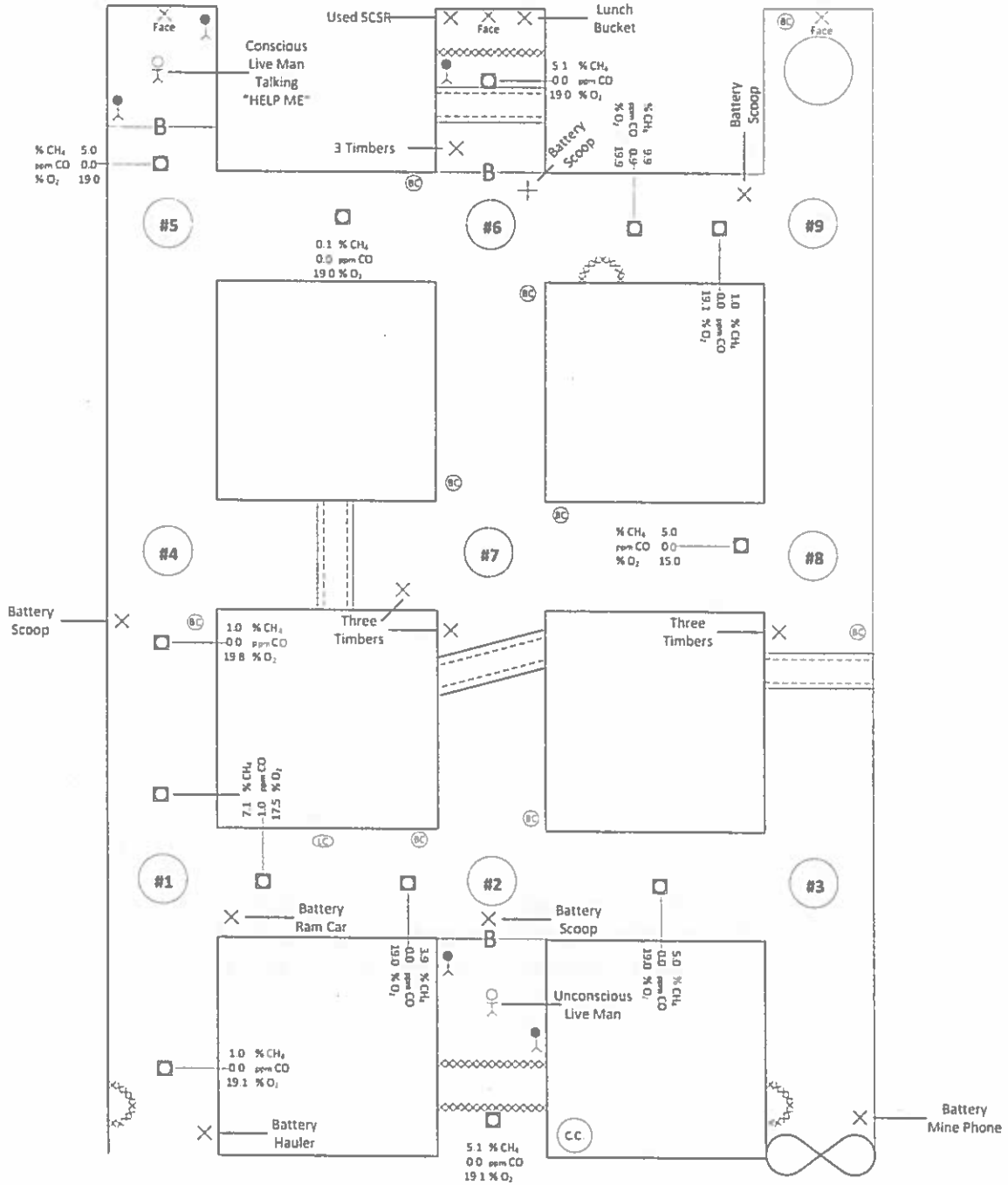
F.A.B.

The team is located on the surface of an underground highwall mine. The captain should make the three entrances prior to the team going underground.

In the #1 entry the team will find a battery hauler on the right hand side of the entry, on the left will be a partially caved area. In the entry the team will find an irrespirable atmosphere.

In the #2 entry the team will find a caved area with an explosive and irrespirable gas extending into the caved area, a roof and rib examination, the captain's D&I and a GT are required at this location.

In the #3 entry the team will find the mine fan and the captain's D&I and a GT are required at this location.



TEAM STOP MAP

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TEAM # _____

TEAM STOP #1

The team must enter the mine in the #1 entry. At team stop #1, an apparatus check must be made with all team members underground.

In the entry the team will find an explosive and irrespirable gas extending to a non-explosive and respirable gas, on the left hand rib the team will find a battery scoop, on the right hand rib the team will find a BC, a GT is required in this area.

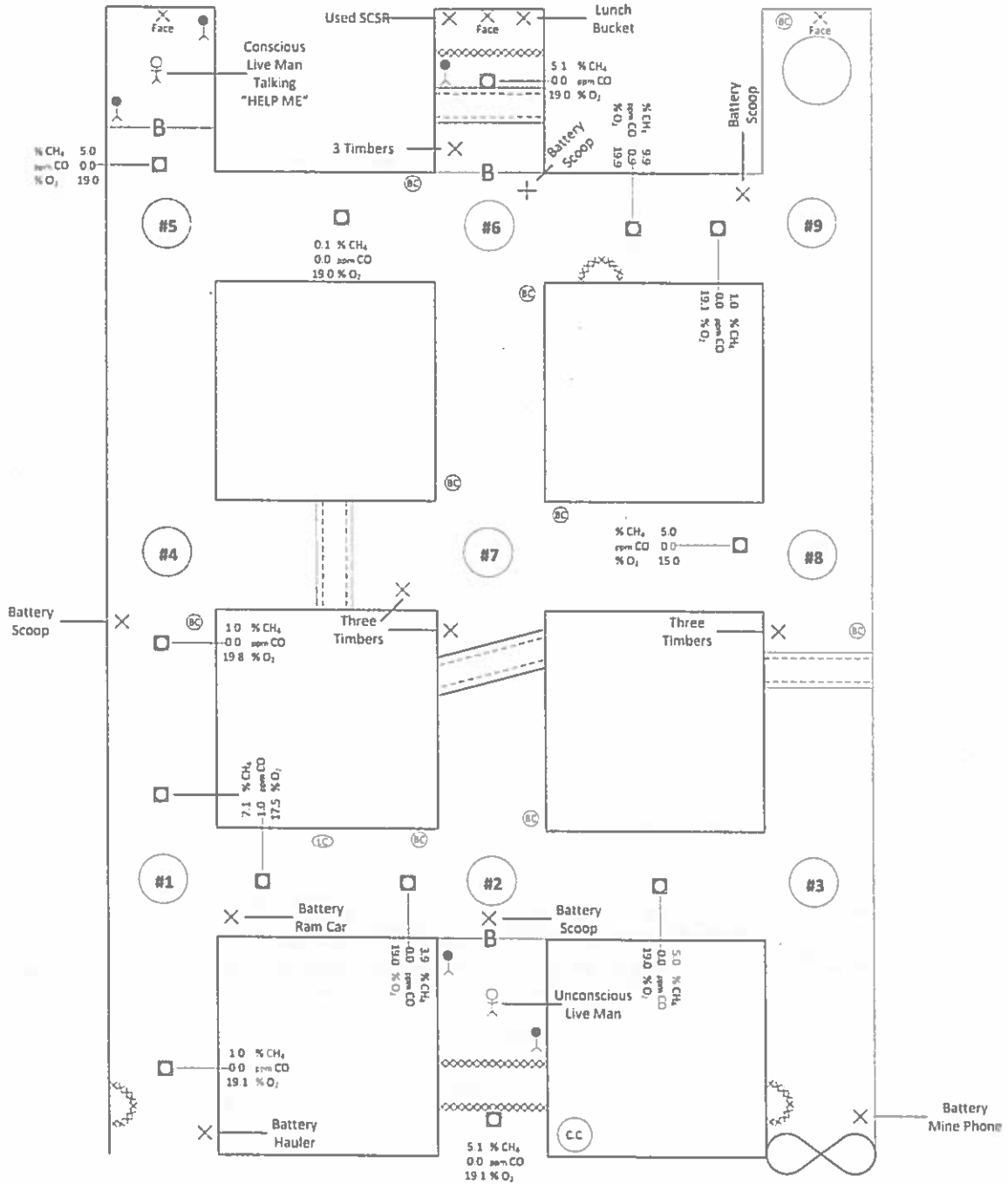
In the crosscut to the right the team will find a battery ram car on the outby rib, the team will find an explosive & irrespirable gas extending to a non-explosive but irrespirable gas that extends into the intersection of the #2 entry, the team will find a LC & a BC on the inby rib, a GT is required in this area.

TEAM STOP #2

The team should travel over to the #2 entry where the team will find a barricade on the outby rib line with no response, the captain's D&I and a GT is required at this location. In front of the barricade the team will find a battery scoop.

The team may at this time enter the strait of the #2 entry where they will find a BC on the right hand rib, inby they will encounter an unsafe diagonal across the entry, a R&R and the captains D&I is required at this location, a GT is required in this area.

In the x-cut to the right the team will find an explosive and irrespirable gas extending into the #3 entry, a GT is required in this area.



TEAM STOP MAP

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TEAM # _____

TEAM STOP #3

The team will travel to the #3 entry where outby they will find a battery mine phone on the right hand rib, on the left hand rib the team will find a partially caved area, then the team will find the backside of the mine fan, the captain's D&I is required at this location, and a GT is required in this area.

Then the team will go inby in the #3 entry where the team will find a area of unsafe roof across the entry, a R&R and the captain's D&I is required at this location, and a GT is required in this area.

TEAM STOP #4

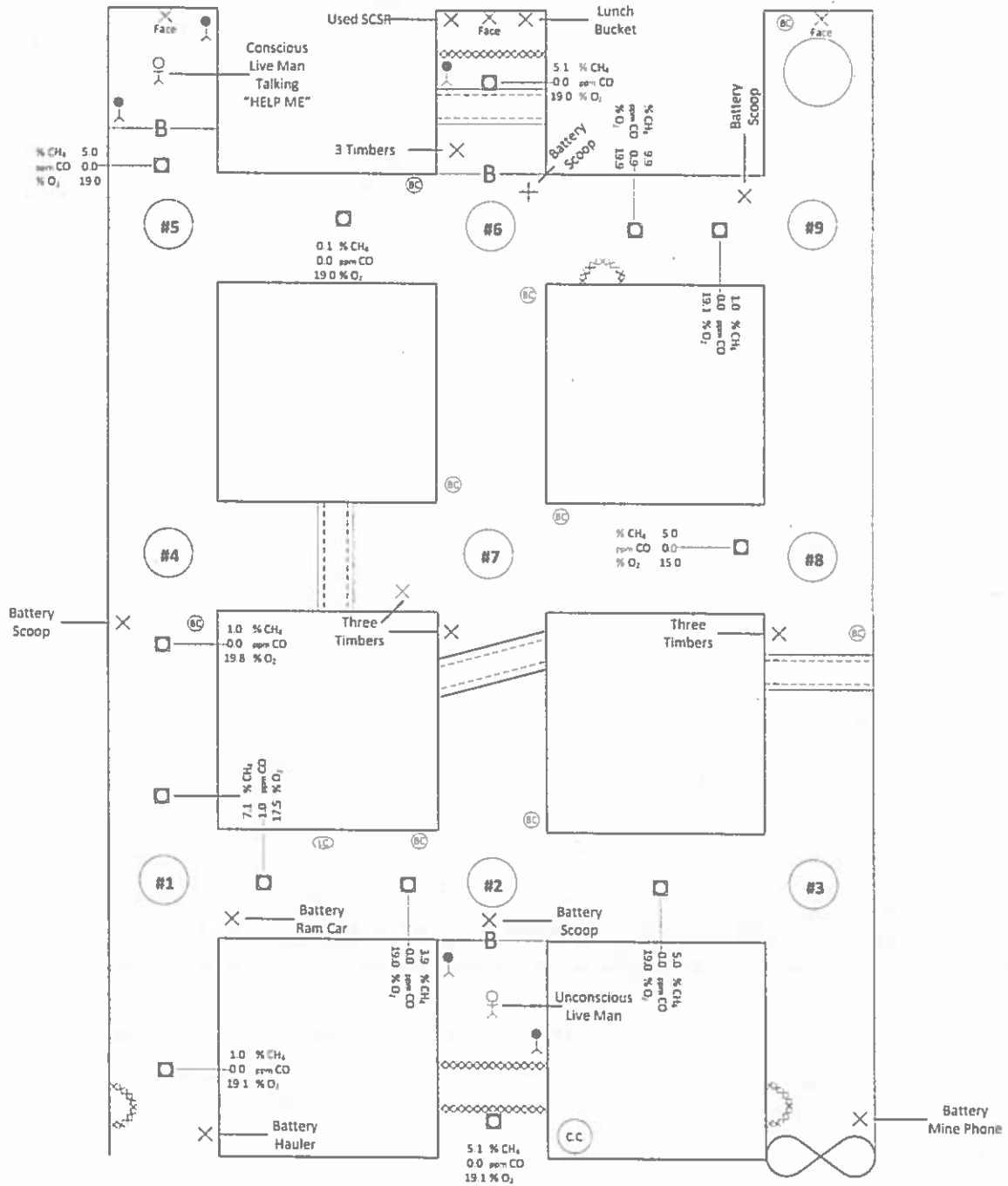
The team will travel back to the #1 entry and then travel inby, to the right at the next intersection the team will find unsafe roof across the entry, where a R&R and the captain's D&I is required at this location, and a GT is required in this area.

A GT is required inby the intersection in the #1 entry.

TEAM STOP #5

The team will travel inby into the next intersection, inby the team will find a barricade with a response, the captain's D&I and a GT is required at this location.

In the x-cut to the right the team will find a irrespirable gas extending into the next intersection, they will also find a BC on the inby rib, and a GT is required in this area.



TEAM STOP MAP

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TEAM # _____

TEAM STOP #6

The team will travel into the intersection of the #2 entry where the team will find a barricade on the inby side with no response, the captain's D&I and a GT is required at this location, the team will also find a battery scoop in this intersection.

In the x-cut to the right the team will find a partially caved area on the outby rib, then the team will find an explosive and respirable gas extending to a non-explosive but irrespirable gas that extends to the #3 entry, the team will find a battery scoop on the inby rib, a GT is required in this area.

The team will travel outby in the #2 entry where they will find a BC on both the left & right rib, a GT is required in this area.

TEAM STOP #7

The team will tie back down the #2 entry into the intersection and in the x-cut toward the #1 entry the team will find three timbers and unsafe roof across the entry, a R&R and the captain's D&I are required at this location, a GT is required in this area.

Outby the intersection the team will find three timbers and an unsafe diagonal across the entry, a R&R and the captain's D&I is required at this location, a GT is also required in this area.

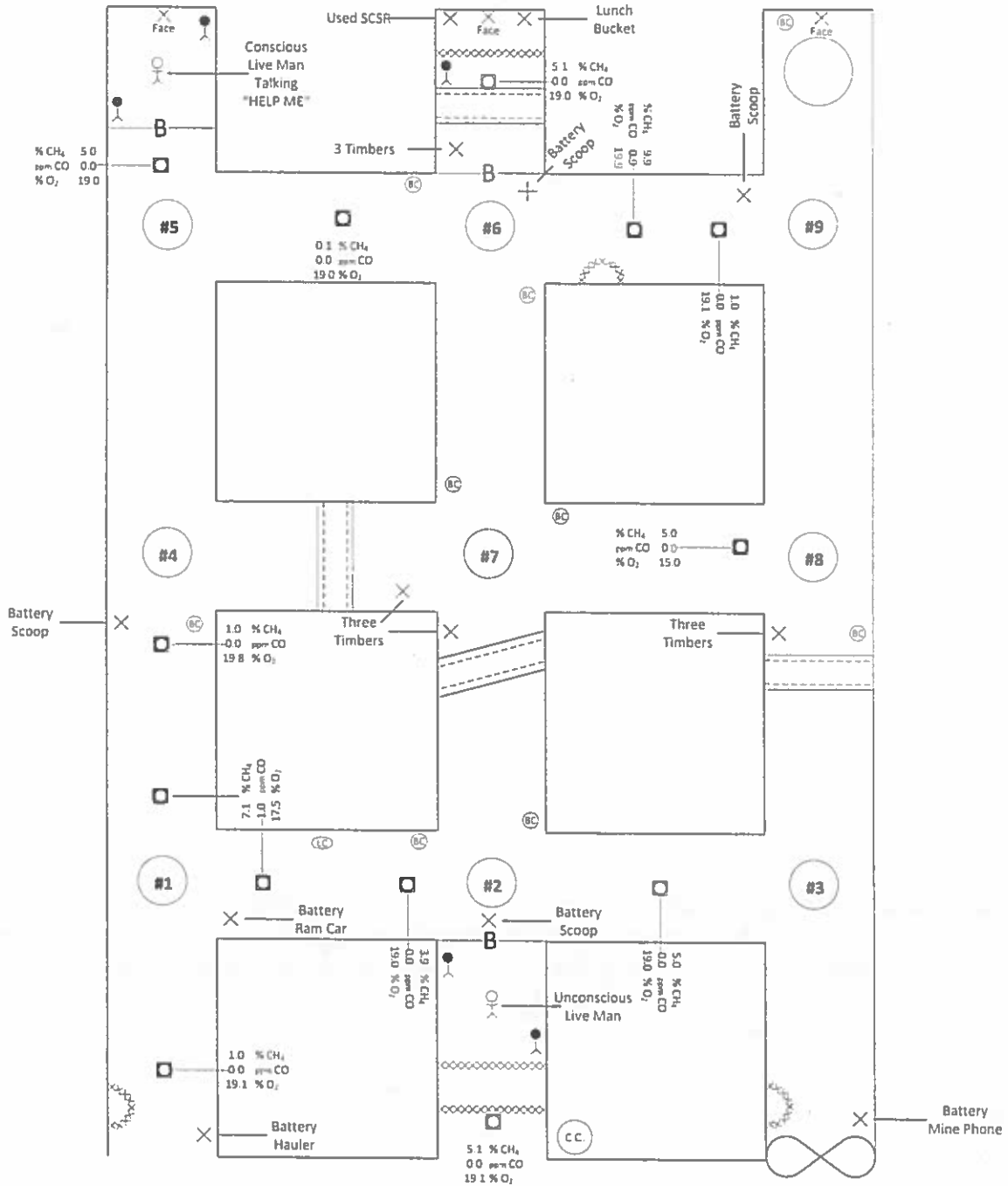
In the x-cut toward the #3 entry the team will find a BC on the inby rib, the team will find a explosive and irrespirable gas extending into the #3 entry, a GT is required in this area.

TEAM STOP #8

The team will travel into the #3 entry.

Outby they will find three timbers and a BC, then they will find unsafe roof across the entry, a R&R and the captain's D&I is required at this location, a GT is required in this area.

Inby the team is required to make a GT in this area.



TEAM STOP MAP

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TEAM # _____

TEAM STOP #9

The team will travel up the #3 entry where they will find the airshaft, a BC and the face, a R&R and the captain's D&I is required at this location, a GT is required in this area.

A GT is required in the x-cut to the left of the intersection.

At this time the team can ventilate.

(SEE THE FIRST VENT MAP)

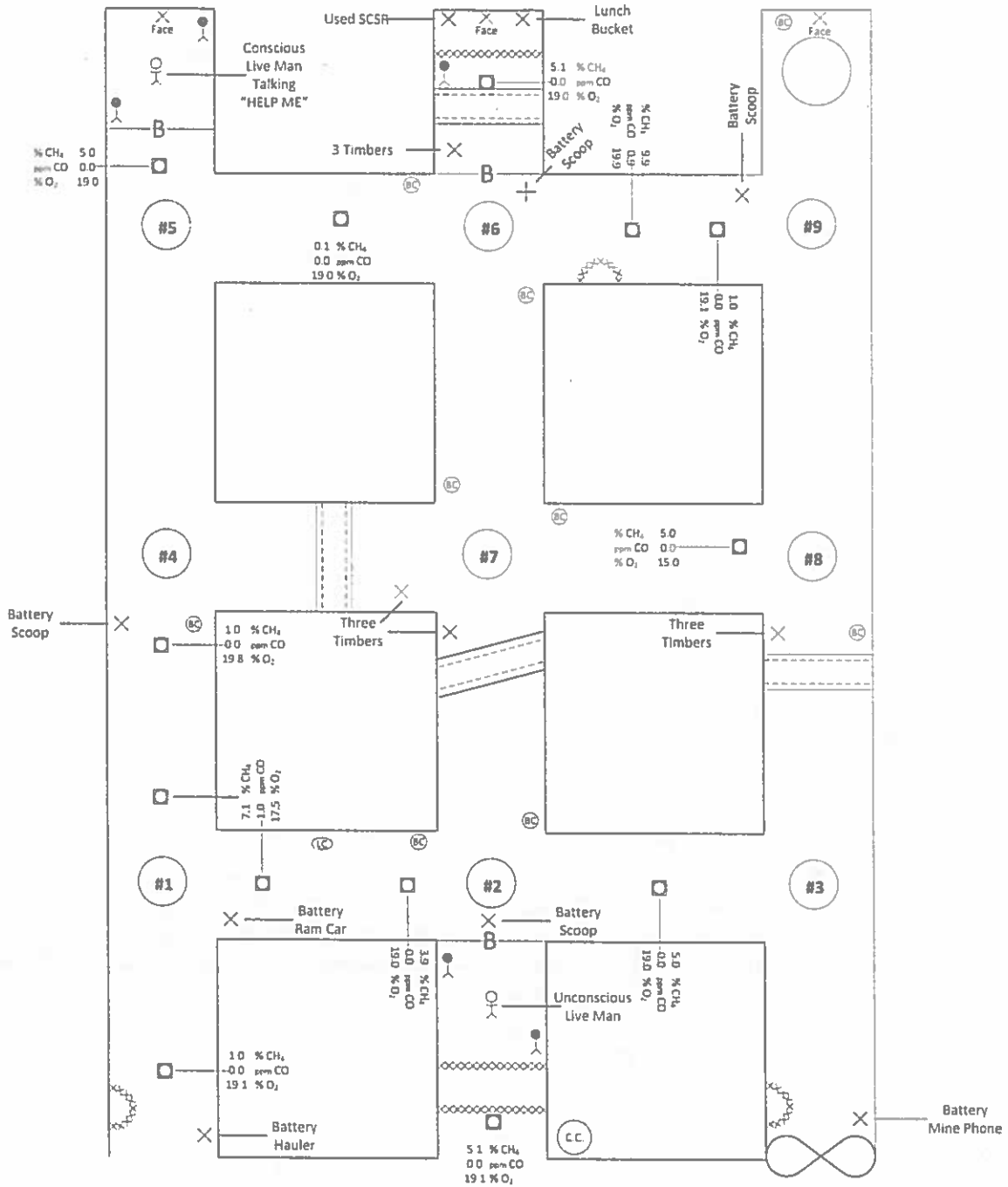
THE BARRICADE IN THE FACE OF #1 ENTRY

Behind the barricade the team will find a body, the captain's D&I is required at this location.

Then a live conscious person who should put a respiratory device on, due to the patient will be moved through the low oxygen outby in the #1 entry, the captain's D&I is required at this location.

The team will find another body, the captain's D&I is required at this location.

The team will find the face, a R&R and the captain's D&I and a GT is required at this location.



TEAM STOP MAP

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TEAM # _____

(SEE SECOND VENT MAP.)

THE BARRICADE OUTBY IN THE #2 ENTRY

Behind the barricade the team will find a body, the captain's D&I is required at this location.

The team will find an unconscious live man which should have a respiratory device placed on them due to the irrespirable in the #1 entry between the FAB and the first x-cut, the captain's D&I are required at the unconscious live person.

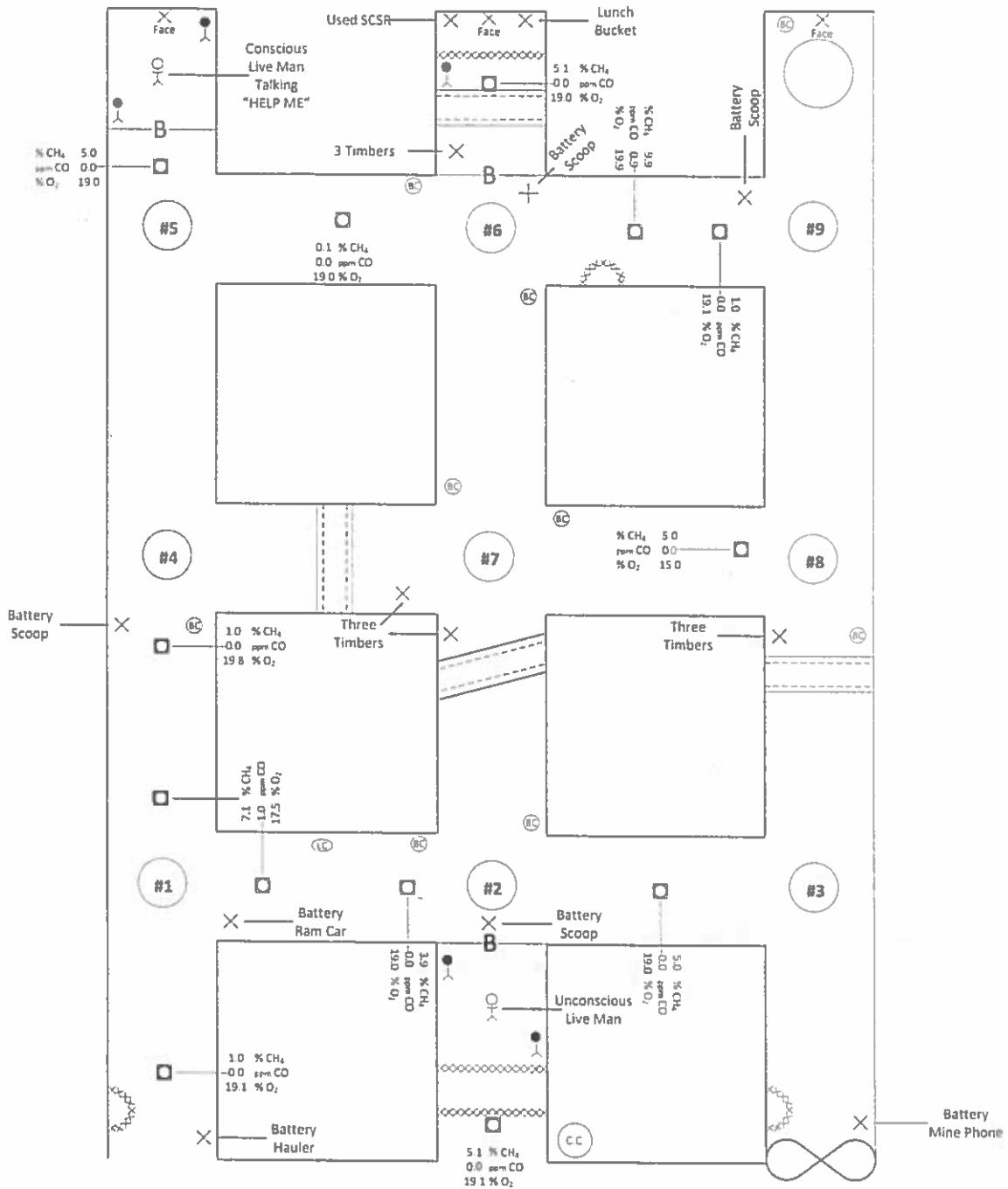
The team will find a body, the captain's D&I is required at this location, the team will find the caved area a R&R and the captain's D&I and a GT is required at this location.

(SEE THIRD VENT MAP.)

THE BARRICADE IN THE FACE OF #2 ENTRY

Behind the barricade the team will find 3 timbers, an unsafe roof across the entry, a R&R and the captain's D&I and a GT is required at this location, the captain must timber through the unsafe roof.

On the inby side of the unsafe roof the captain's R&R and D&I is required, inby the team will find a body, the captain's D&I is required at this location, inby the team will find caved area across the entry, a R&R the captains D&I and a GT is required at this location.



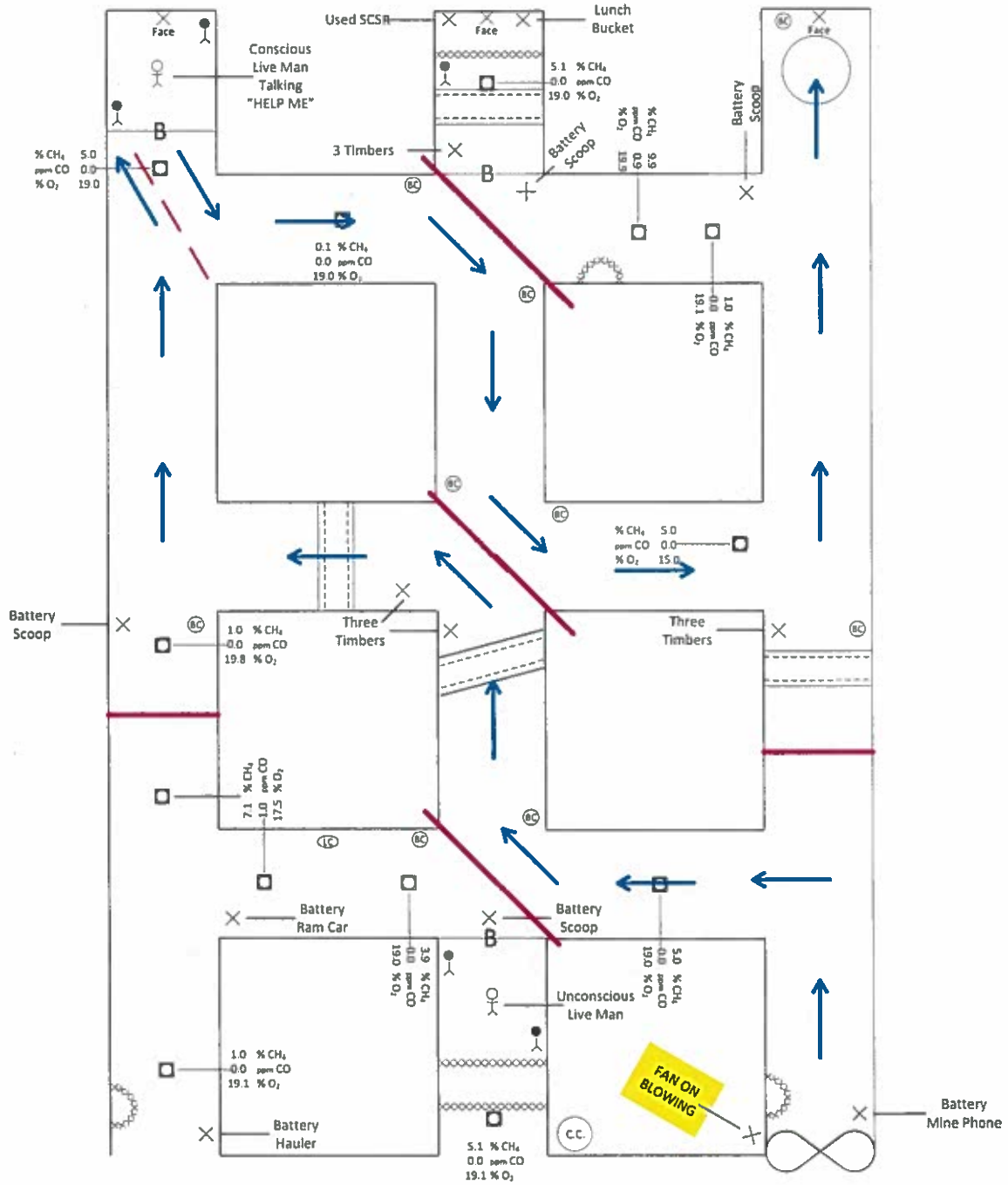
TEAM STOP MAP

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TEAM # _____

FIRST VENTILATION

For the first vent the team (starting at the fan and following the ventilation) the team should build in the #3 entry between the #1 & #2 x-cut to turn the air over to the #2 entry, they should build a diagonal in the #2 entry inby the barricade to isolate the battery scoop and turn the air up the #2 entry, the team should timber the unsafe diagonal in the #2 entry between the 1st and 2nd x-cut, in the second x-cut of the #2 entry the team should build a diagonal to turn the air to the #1 entry, the team should timber the unsafe area between the #1 & #2 entries in the second x-cut, outby in the #1 entry between outside and the second x-cut - the team should build to turn the air up the #1 entry to the last open x-cut to the barricade, the team should build a diagonal in the #2 entry outby the barricade in the face to turn the air back down the #2 entry, the air should travel down the #2 entry to the diagonal and turn back over to the #3 entry at which point it should turn up the #3 entry and go out the fan. When all the builds are complete the team should request that the fan be turned on in the BLOWING position.



1st VENT MAP

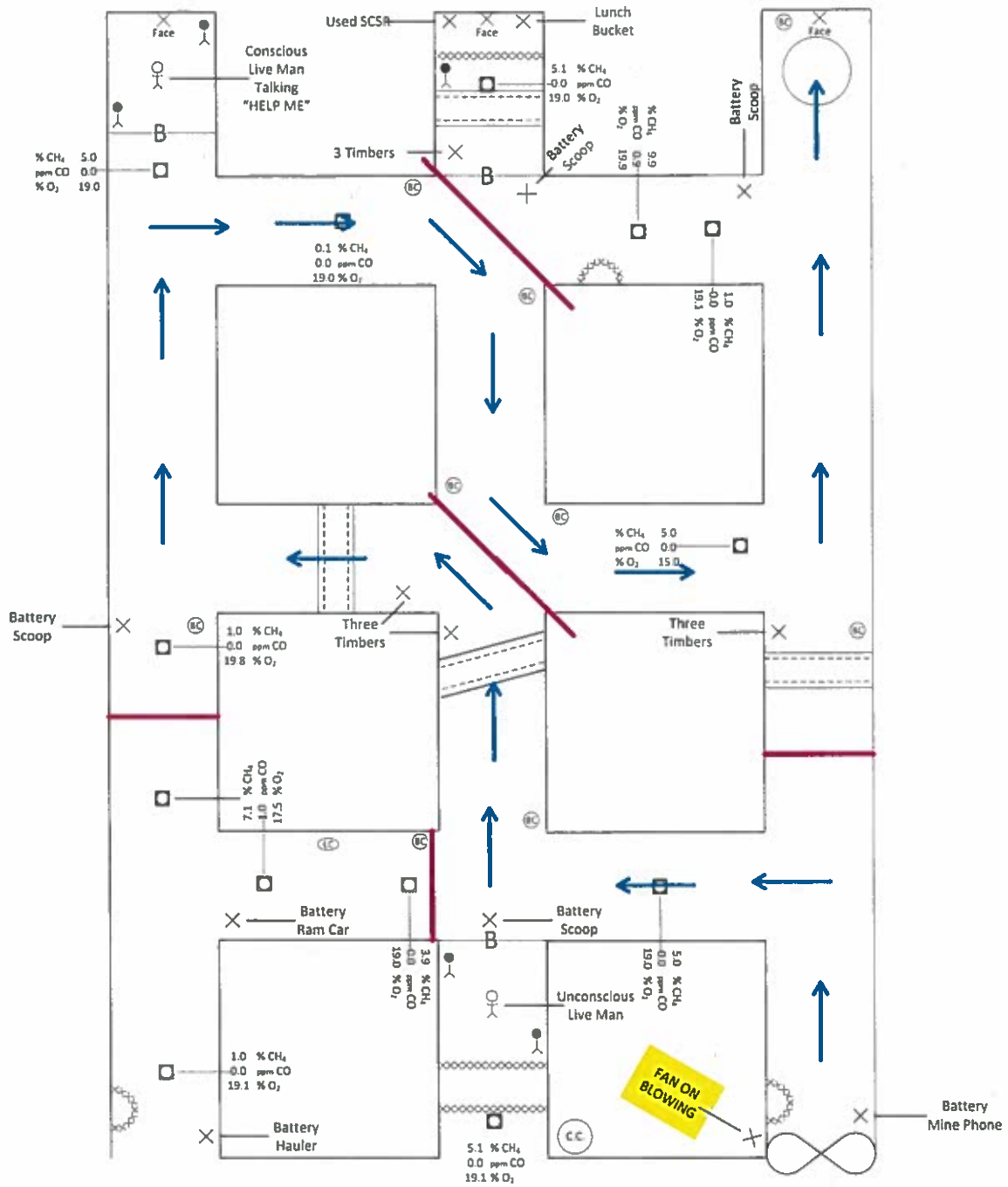
2016 POST 11 CONTEST

TEAM # _____

SECOND VENTILATION

(THIS VENTILATION IS THE SAME AS THE FIRST VENTILATION EXCEPT THE TEAM MUST FIRST BUILD BETWEEN THE #1 & #2 ENTRIES IN THE FIRST X-CUT BEFORE REMOVING THE DIAGONAL IN FRONT OF THE OUTBY BARRICADE IN THE # 2 ENTRY.

For the second vent the team (starting at the fan and following the ventilation) the team should build in the #3 entry between the #1 & #2 x-cut to turn the air over to the #2 entry, they should build between the #1 & #2 entries in the first x-cut to turn the air up the #2 entry and then they should remove the diagonal in the #2 entry, the team should timber the unsafe diagonal in the #2 entry between the 1st and 2nd x-cut, in the second x-cut of the #2 entry the team should build a diagonal to turn the air to the #1 entry, the team should timber the unsafe area between the #1 & #2 entries in the second x-cut, outby in the #1 entry between outside and the second x-cut - the team should build to turn the air up the #1 entry to the last open x-cut the team should build a diagonal in the #2 entry outby the barricade in the face to turn the air back down the #2 entry, the air should travel down the #2 entry to the diagonal and turn back over to the #3 entry at which point it should turn up the #3 entry and go out the fan.



2nd VENT MAP

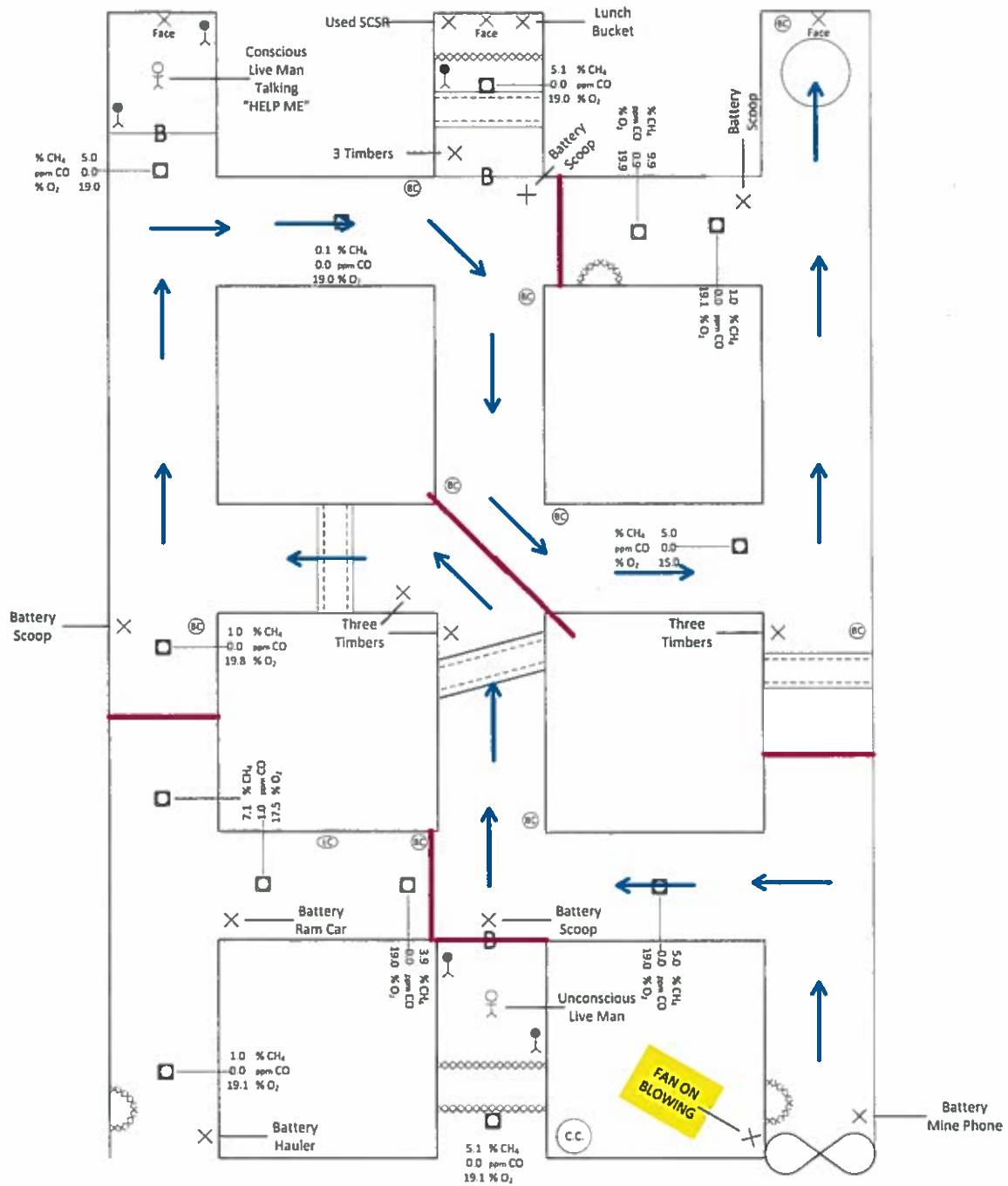
2016 POST 11 CONTEST

TEAM # _____

THIRD VENTILATION

(THIS VENTILATION IS THE SAME AS THE FIRST VENTILATION EXCEPT THE TEAM SHOULD BUILD BETWEEN THE #2 & #3 ENTRY IN THE LAST OPEN X-CUT BEFORE REMOVING THE DIAGONAL IN FRONT OF THE BARRICADE IN THE FACE.)

For the third vent the team (starting at the fan and following the ventilation) the team should build in the #3 entry between the #1 & #2 x-cut to turn the air over to the #2 entry, they should build between the #1 & #2 entries in the first x-cut to turn the air up the #2 entry, the team should timber the unsafe diagonal in the #2 entry between the 1st and 2nd x-cut, in the second x-cut of the #2 entry the team should build a diagonal to turn the air to the #1 entry, the team should timber the unsafe area between the #1 & #2 entries in the second x-cut, outby in the #1 entry between outside and the second x-cut - the team should build to turn the air up the #1 entry to the last open x-cut, the team should build between the #2 & #3 entry in the last open x-cut then the team should remove the diagonal in the #2 entry outby the barricade in the face, the air should travel down the #2 entry to the diagonal and turn back over to the #3 entry at which point it should turn up the #3 entry and go out the fan.



3rd VENT MAP

2016 POST 11 CONTEST

TEAM # _____

KEYS TO THE PROBLEM

No air should ever move in the #1 entry between the FAB and the second cross-cut.

The team should build in the proper x-cut before either diagonal is removed in front of the barricades to prevent moving gases in the wrong direction.

At the outby barricade it will move four irrespirable gases over the caved area in the #1 entry and one explosive gas over the battery ram car in the first x-cut and over the battery hauler in the #1 entry. (On Blowing)

At the inby barricade it will move one irrespirable gas over the caved area in the x-cut and one explosive gas over the battery scoop in the x-cut. (On Blowing)

Both patients must have a respiratory device on when they are brought out of the mine due to the irrespirable between the FAB and the first x-cut.

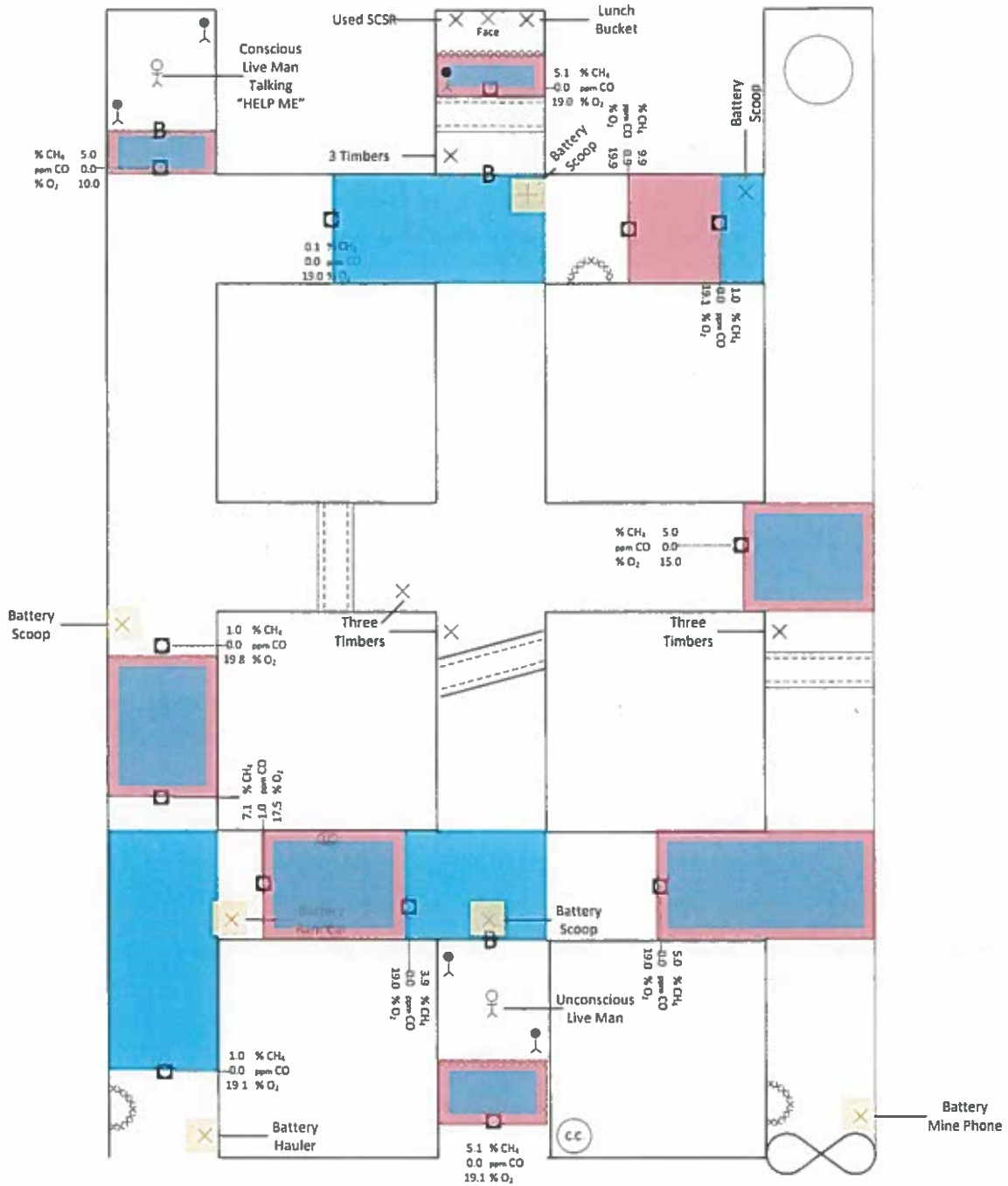
The team must build the outby barricade back when they ventilate the inby barricade or they will move the explosive and irrespirable gas in the caved area in the #2 entry between the FAB and the first x-cut.

The team must airlock on three sides in order to enter the either barricade in the #2 entry.

The fan should be used as a blowing fan for all three ventilations.

The team must airlock in and out of the mine every time they enter or exit the mine.

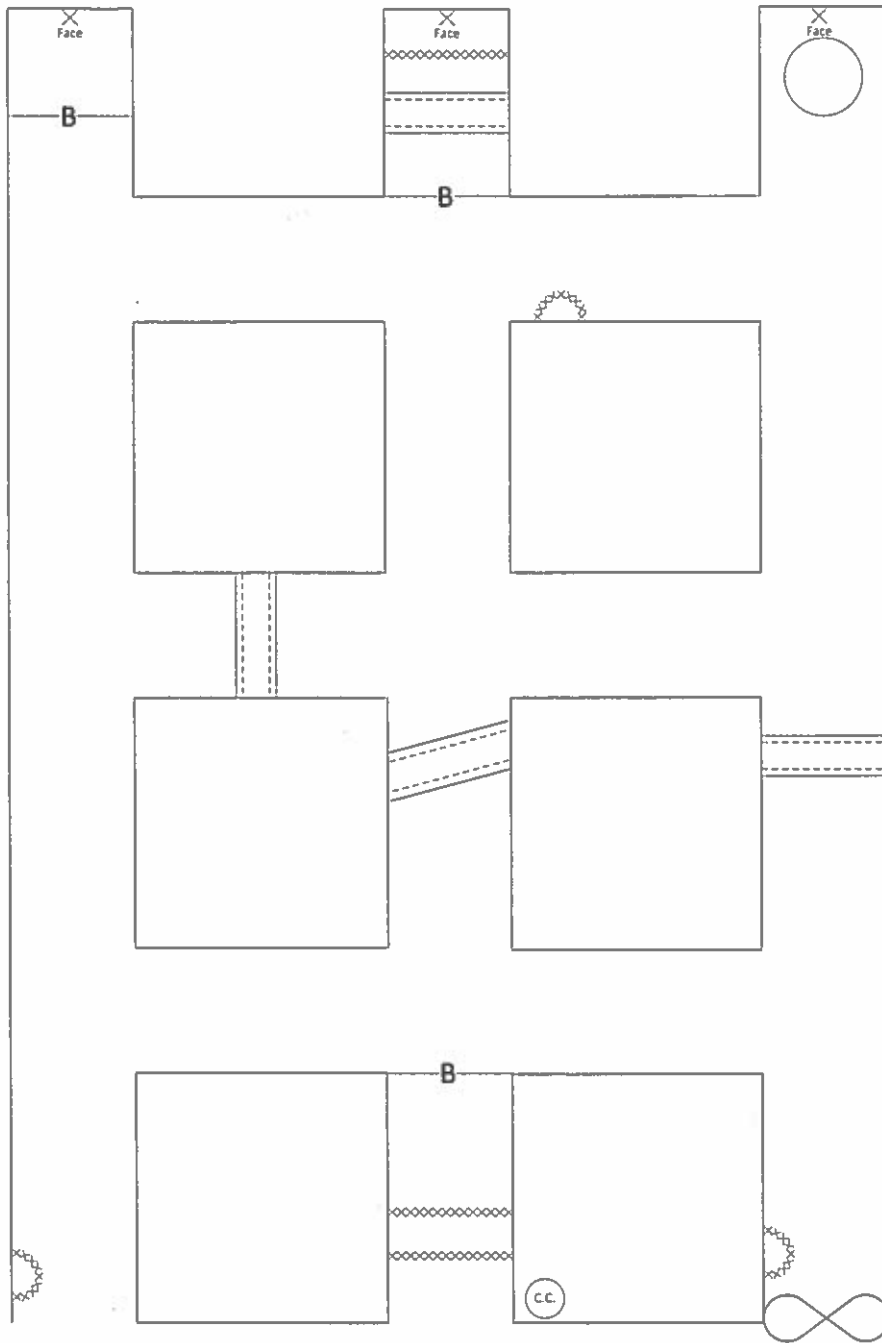
Before the team airlocks to enter any of the barricades they must remove the build in the #3 entry between the first and second x-cut or they stall the fan.



CONTEST EXTENT OF GAS MAP

2016 POST 11 CONTEST

TEAM # _____



_____ VENT MAP
 2016 POST 11 CONTEST

TEAM # _____

