

U. S. Department of Labor

Mine Safety and Health Administration
100 Bluestone Road
Mount Hope, WV 25880-1000



JUL 27 2007

Mr. Michael A. Vaught
Safety Director
Performance Coal Company
P.O. Box 69
Naoma, WV 25140

Dear Mr. Vaught:

Subject: Supplement (2nd) to the Roof-Control Plan, Upper Big Branch Mine-South, I.D. No. 46-08436, Performance Coal Company, Montcoal, Raleigh County, West Virginia, Permit No. 4-RC-11-94-12307-11, approved October 25, 2005

Your supplement, received on March 7, 2007 and resubmitted on June 6, 2007, to the roof-control plan, has been reviewed and is approved as shown on the enclosed page(s). This approval is based upon a District review by representatives of the Mine Safety and Health Administration and upon receipt becomes part of the approved plan.

Should you have any questions concerning your roof-control plan, please contact Don Winston at this office, (304) 877-3900, Extension 130.

Sincerely,

A handwritten signature in black ink that reads "Robert G. Hardman". The signature is written in a cursive style with a large initial "R".

Robert G. Hardman
District Manager
Coal Mine Safety and Health, District 4

Enclosure

cc: State Inspector-at-Large, Oak Hill Division (1 encl.)
Mount Hope Field Office (3 encl.)
Don Winston (1 encl.)
Files/cls

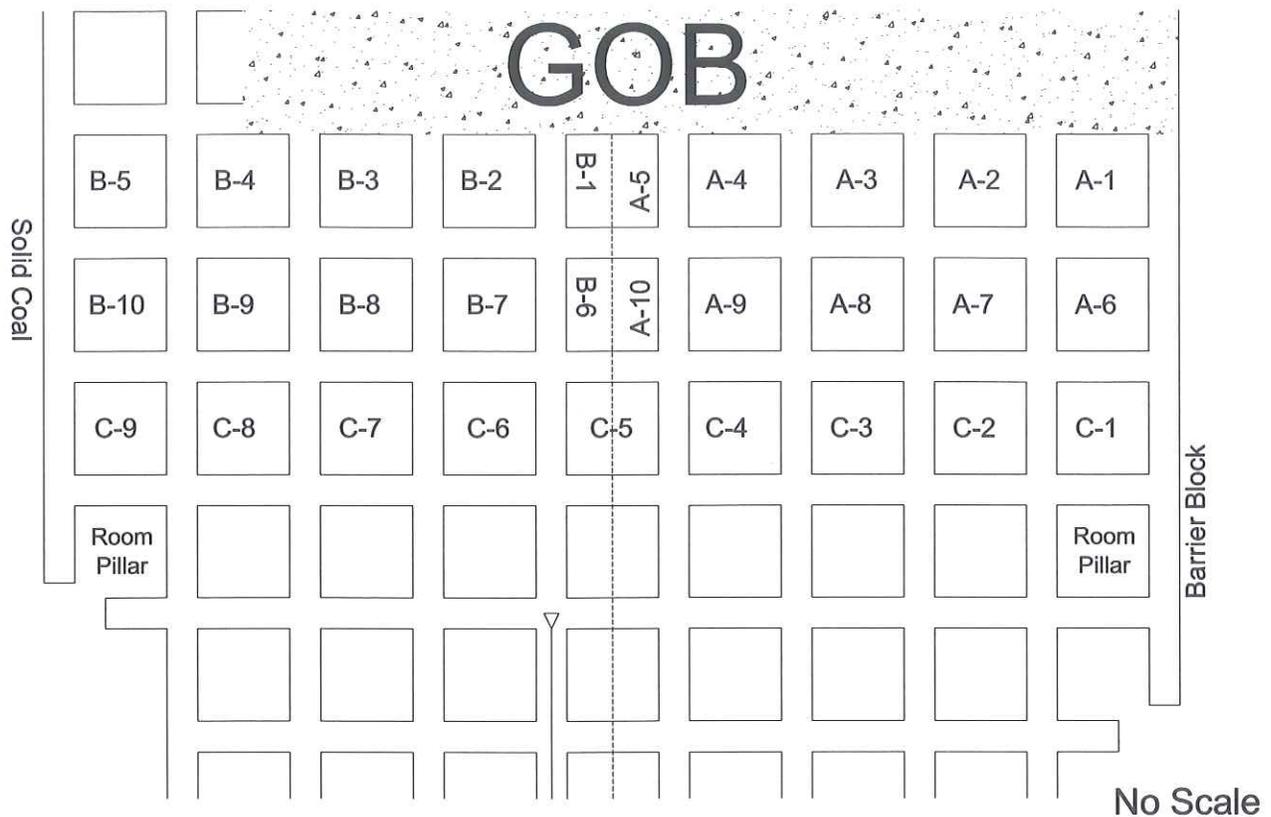
SAFETY PREACUTIONS FOR PILLAR RECOVERY

1. Prior to retreat mining, supplemental support will be installed in each intersection. Supplemental support will consist of a minimum 60 inch, $\frac{3}{4}$ " grade 60 bolt or equivalent installed on a star pattern. The supplemental support may be installed either on retreat or advance.
2. During retreat mining, minimum stump sizes will be maintained. At no time will push outs be mined.
3. A visible mark will be placed on the continuous miner to indicate the depth of cut, prior to retreat mining. The cut depth cannot exceed one-half the width of the pillar being mine when mining twin lifts.
4. Prior to taking lifts, the location of each lift will be clearly marked on the coal rib by a certified foreman. The marked coal rib shall clearly indicate the minimum size of the stump not to be mined.
5. Prior to retreat mining, a test hole shall be drilled in each intersection to determine any separation in the strata. If the test holes are drilled during development they must be left open for examination. Such test holes shall be examined by a certified foreman prior to beginning second mining in the pillars(s) immediately inby. The examiner shall place his date/time/initials at the test hole upon completion of examination. If any separations are detected, additional support such as longer bolts anchored above the separation, timbers, cribs, or crossbars shall be installed prior to retreat mining.
6. During retreat mining, a certified person knowledgeable in the retreat mining method being used shall be present on the working section during coal extraction.
7. A copy of the current approved roof control plan, including any supplements, shall be maintained on the section.
8. A minimum of one full row of un-mined pillars shall be left if the angle of retreat changes to the extent that pillars would not be uniform in size or that second mining of the pillars would result in an uneven pillar line or pillars that project inby the break -line.
9. Prior to any retreat mining, all persons engaged in retreat mining (including new crew members) shall be trained in the provisions of the approved roof control plan relative to retreat mining. Such training shall be documented on a 5000-23 form. Training shall be conducted before retreating of a new panel begins.

SAFETY PRECAUTIONS FOR MOBILE ROOF SUPPORT (MRS) SYSTEMS

1. Manual operations of the MRS units shall be used for maintenance purposes only. If the unit is set against the mine roof, adequate temporary roof support shall be installed prior to lowering the unit manually.
2. The MRS unit is equipped with an umbilical cord that allows remote tramping. This is not considered a manual operation.
3. Maintenance shall be performed in the next line of pillar blocks outby an active pillar line. If it necessary to perform maintenance on an active pillar line, temporary supports will be installed to adequately support the roof in the work area.
4. All four support units shall be operational and utilized during extraction of coal pillars. In the event of a failure to one MRS unit, mining can continue utilizing the back-up approved timber plan. In the event of a failure to multiple MRS units mining will be stopped until repairs are made to the disabled units. Two (or more) MRS units will be required to be operational at all times.
5. Never shall more than one (1) unit at a time be lowered and moved when the MRS units are in the active pillaring area. In the active pillaring area, the units shall be operated in pairs. When moving the mobile roof supports, each unit shall be offset not more than one half the length of the companion unit, keeping the units in pairs until such time as the MRS units are between solid pillars and out of the pillared area.
6. The MRS units should not be pressured against the roof except where the coal pillars are being actively mined.
7. Except when performing maintenance, all personnel should stay in a safe area (a minimum distance of 25 ft from the MRS units) when the MRS units are being trammed or the shields are raised or lowered.
8. Operator should observe the pressure gauges and cease pillaring operations when the manufacturer's specified yield pressure is being reached. Inoperable pressure gauges will be replaced prior to beginning a new block extraction.
9. A breakaway type hanger shall be used in the pillar line to keep persons from going in-by pillar splits to take the MRS power cables down. No hangers shall be retrieved from the blocks being pillared.
10. Mining heights in excess of the working range of the MRS will be anticipated and addressed using OEM extensions. However, in isolated (unanticipated) cases, when the MRS units cannot be set firmly against the roof, extensions shown on page P-16, "MRS Canopy Extension" may be used to increase the reach of the MRS units.
11. No person shall travel inby the outby corner of the lift being mined during pillaring.
12. MRS trailing cables shall not be stored on the units in an active pillar line.

Sequence of Pillar Recovery Sketch for Two Miners



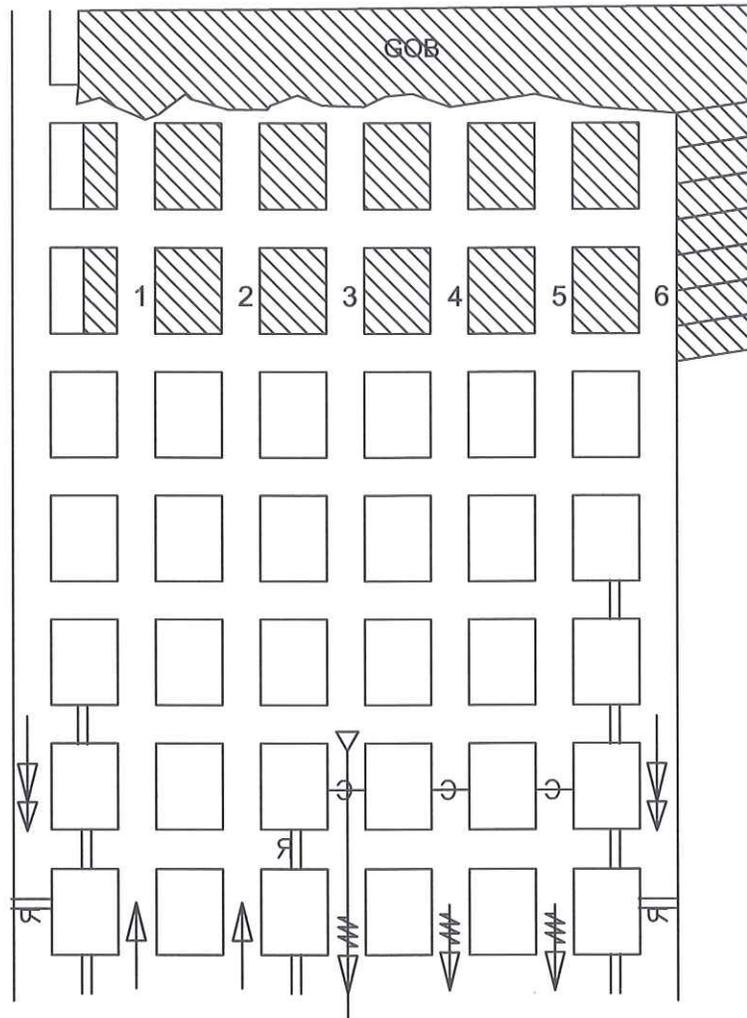
Typical pillaring sequence sketch when using (2) continuous mining machines with one or both developing barrier rooms. When using split-type ventilation, both continuous miners may mine coal at the same time. The right side miner may mine in the right barrier and to near the midpoint of the section. The left side miner may mine from near the midpoint to the left and in the left barrier. Mining will not necessarily end with miner (A) and start with miner (B) at the midpoint of the section. Conditions or circumstances may dictate stopping and/or starting right or left of the midpoint. Miner (B) will not start pillaring until Miner (A) has completed mining in a row near the midpoint of the section and has moved to the next row.

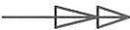
At least two full pillar blocks shall be maintained between the Left and Right continuous mining machines at all times (regardless of row). No more than (2) rows of blocks may be mined on pillaring at any one time.

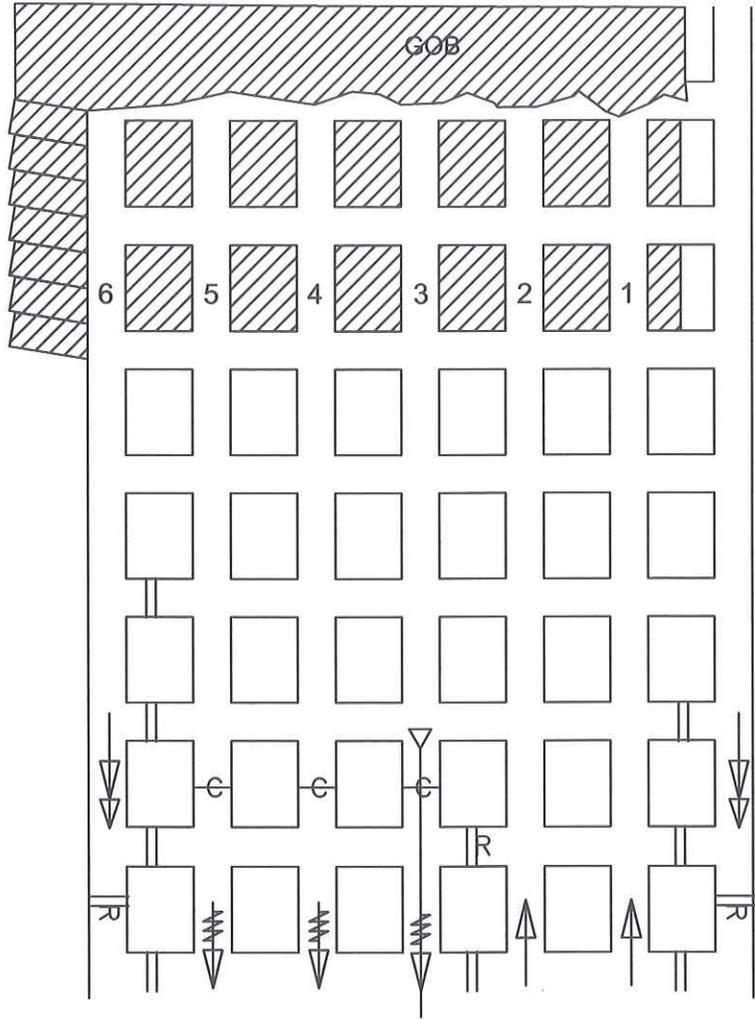
The sequence of pillaring for both the Left and Right continuous mining machines shall be from the barrier side of the section toward the solid side.

Pillar sequence (C) is typical when using one continuous mining machine for pillaring.

The number of entries may vary.

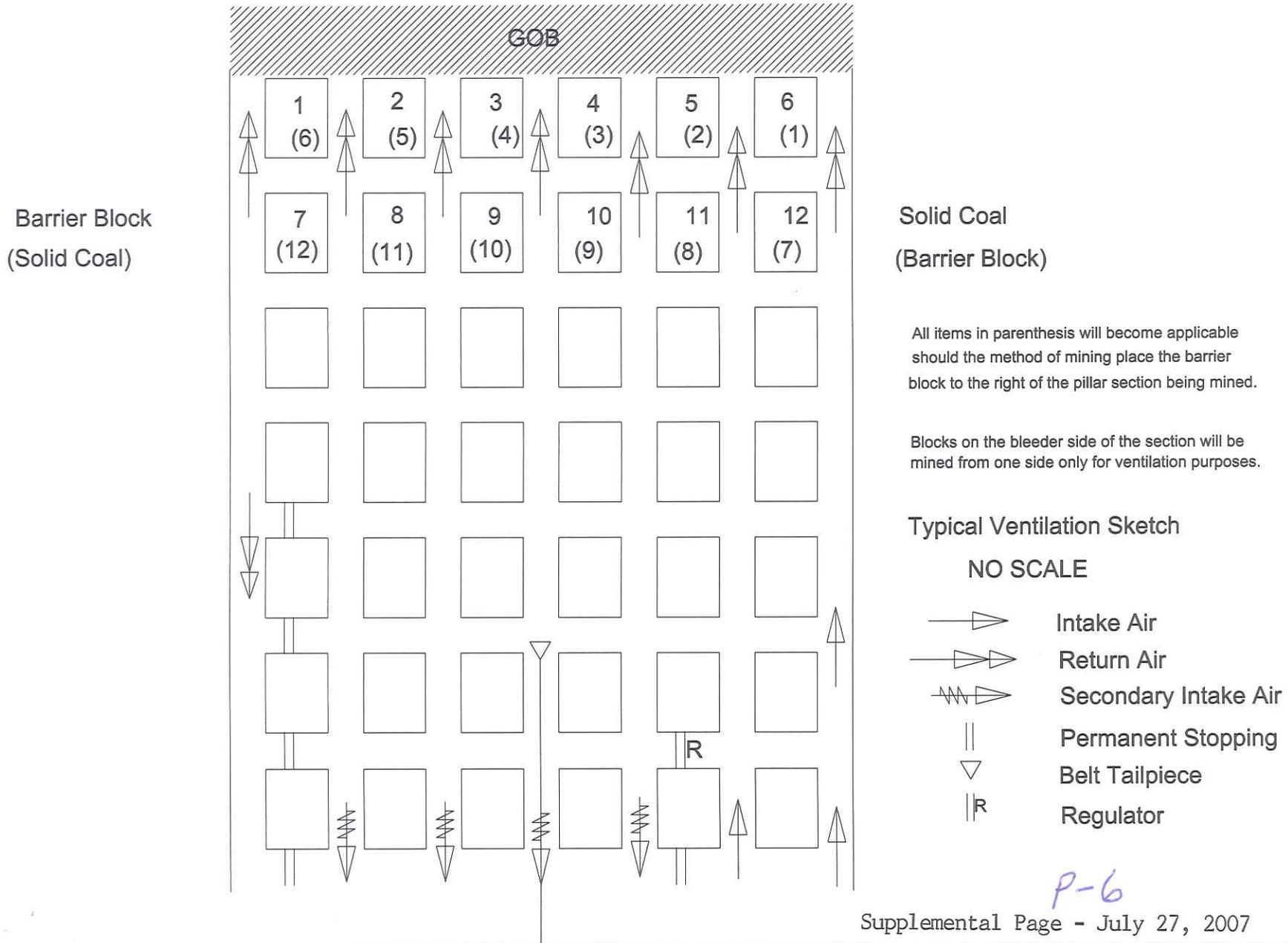


-  Intake Air
-  Return Air
-  Secondary Intake Air
-  Permanent Stopping
-  Belt Tailpiece
-  Regulator
-  Check Curtain



- Intake Air
- ⇨ Return Air
- ▨ Secondary Intake Air
- || Permanent Stopping
- ▽ Belt Tailpiece
- |R Regulator
- ⊕ Check Curtain

Sequence of Pillar Recovery



Full Pillar Extraction Plan #1

1. Breaker Posts (A) are to be installed promptly upon completion of mining inby.
2. Prior to Lift No. 1, Breaker Post B and roadway posts will be installed to limit the roadway to 16' wide from the entrance of Split No. 1 through the intersection outby the pillar in which the split or lift is being mined.
3. Turn Posts C will be installed prior to mining Lifts No. 1, 3 and 5.
4. Turn Posts D will be installed prior to mining Lifts No. 2, 4 and 6.
5. When a pillar block is mined by using twin lifts, the lift depth shall be limited to approximately half of the pillar width.

Gluts in pairs may be used in lieu of capblocks.

Fender distances are minimum. Stumps will vary in size.

Lifts will be 12 feet wide and limited to 25 feet deep.

All posts shown except roadway posts are to be set on 4 foot max. spacing. Roadway posts may be set on 5 foot max. spacing.

Blocks of larger dimensions may be mined using a similar sequence provided that the minimum dimension is no less than 30 feet by 40 feet.

While taking the first left handed lift (Lift #1) the miner operator may position inby the continuous mining machine at a safe location.

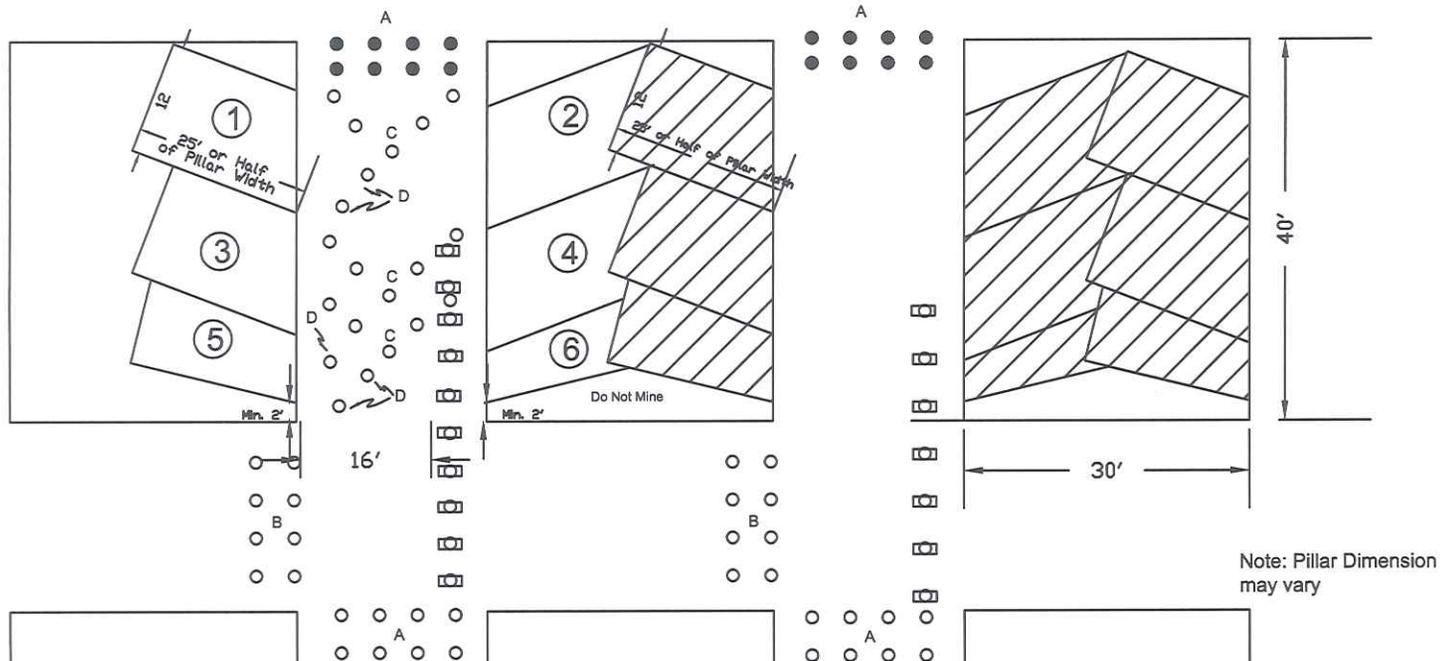
No persons shall be permitted inby the continuous mining machine while taking the remaining lifts.

Blocks on the bleeder side of the section will be mined from one side only for ventilation purposes.

Posts may be repositioned as needed.

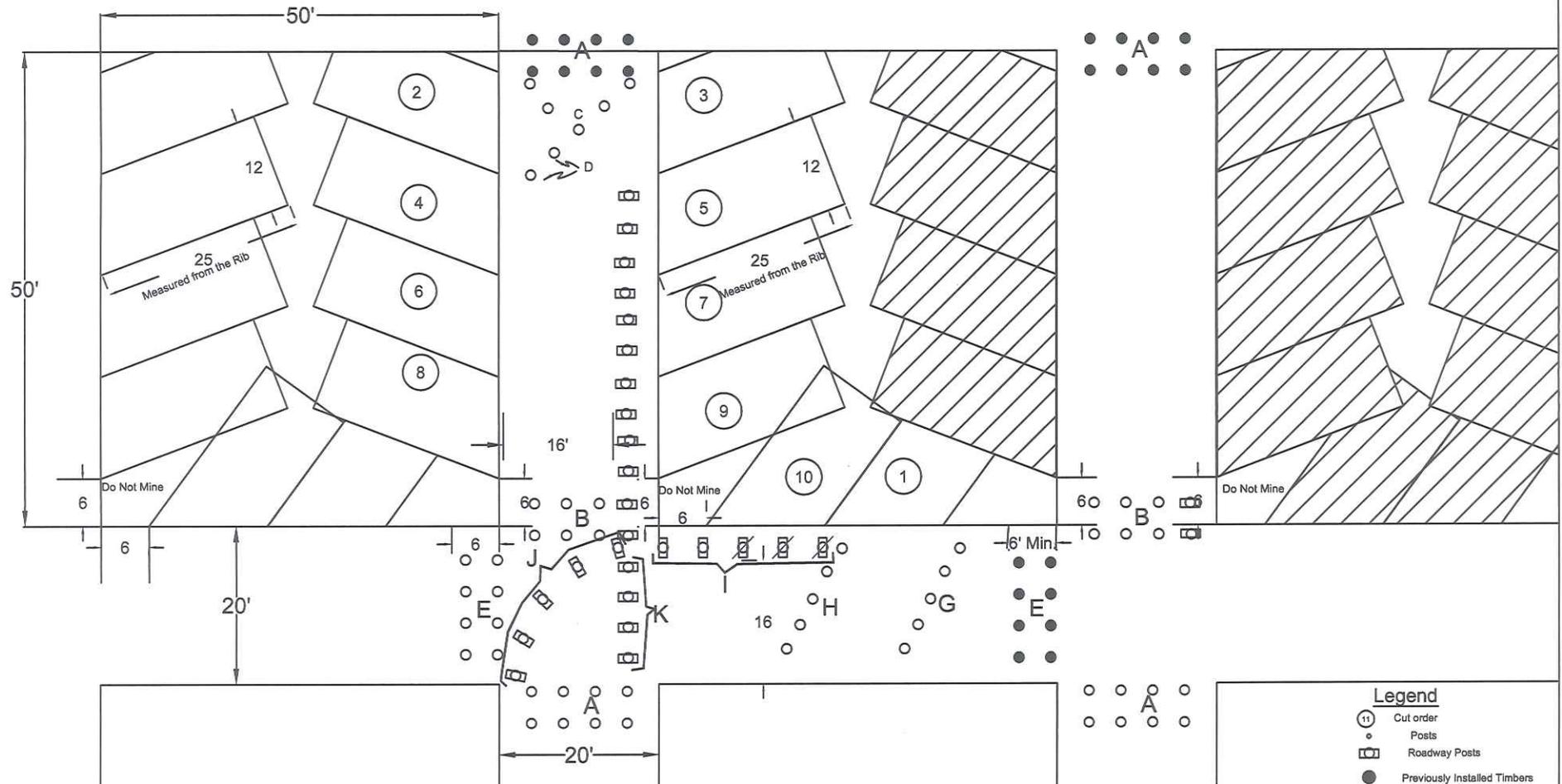
-  Roadway post
-  Post
-  ① Cut Number

Scale: 1"=20'



P-7

Pillar Recovery for Large Pillars



1. Breaker posts (A) shall be set promptly after mining is completed in the inby blocks.
2. Prior to Lift No. 1, Roadway Posts I will be installed to limit the roadway to 16' wide from the intersection to Lift No. 1 and turn posts G will be set.
3. Prior to Lift No. 2, Roadway Posts will be installed to limit the roadway to 16' wide from the intersection to Lift No. 2 and through the intersection outby the pillar in which the lift is being mined. Turn posts C will be set for lifts 2,4,6, and 8.
4. Turn posts D will be set for lifts 3,5,7, and 9.
5. After the completion of Lift #9, Required Breaker Posts B will be Promptly installed.
6. Prior to Lift No. 10, Breaker Posts E will be installed, also Roadway Posts J will be installed to limit the roadway to 16' wide from the intersection to Lift No. 10. Once installed, the Roadway Posts K and I (X) can be removed and turn posts H will be set.
7. All posts shown except roadway posts are to be set on 4 foot max. spacing. Roadway posts may be set on 5 foot max. spacing.

All timbers except breakers shall have half headers or gluts in pairs set between the posts and the mine roof.

Roadway Posts may be moved as needed to facilitate haulage when minng lifts Nos. 2 and 10.

When a pillar block is mined using twin lifts, the lift depth shall be limited to half of the pillar width, but not to exceed 25 ft deep measured from the rib. All lifts will be 12 ft wide.

Push-outs will not be mined.

Drawing shows 50' x 50' block (70' x 70' c-c), Similar procedures allowed for larger blocks.

Barrier Extraction Plan #1

Gluts in pairs may be used in lieu of capblocks.

Fender distances are minimum. Stumps will vary in size.

Lifts will be 12 feet wide and limited to 25 feet deep measured from the rib.

When a pillar block is mined by using twin lifts, the lift depth shall be limited to half of the pillar width.

All posts shown except roadway posts are to be set on 4 foot max. spacing. Roadway posts may be set on 5 foot max. spacing.

Blocks of larger dimensions may be mined using a similar sequence provided that the minimum dimension is no less than 30 feet by 40 feet.

Lifting off barrier blocks may be permitted provided the depth of cut does not exceed 25 feet.

While taking the first left handed lift (Lift #1) the miner operator may be position inby the continuous mining machine at a safe location.

No persons shall be permitted inby the continuous mining machine while taking the remaining lifts.

Blocks on the bleeder side of the section will be mined from one side only for ventilation purposes.

Posts may be repositioned as needed.

On all pillar lifts a 2 ft wedge of coal will be left at the mouth of the lift

☐ Roadway Post

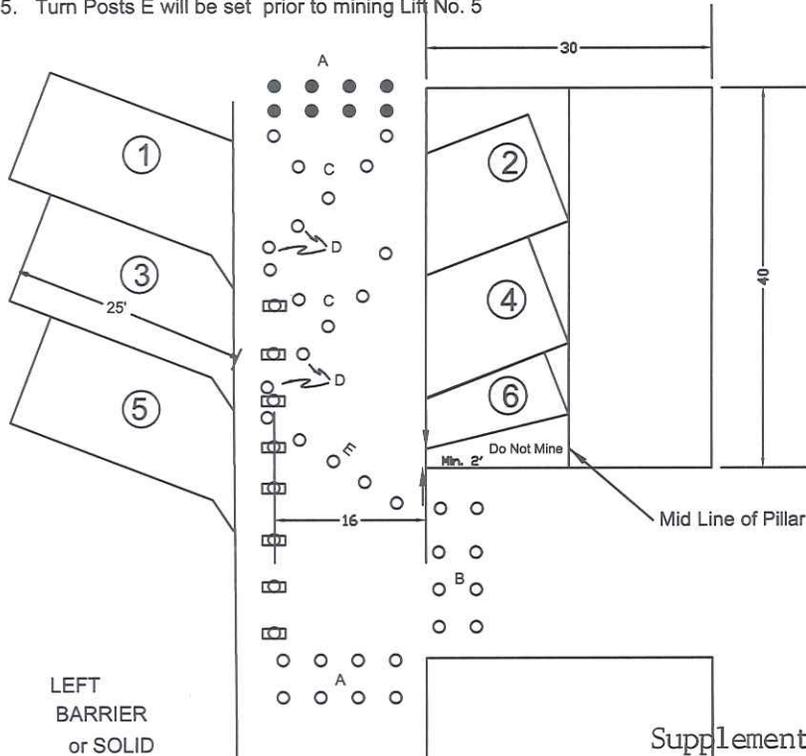
○ Post

① Cut Number

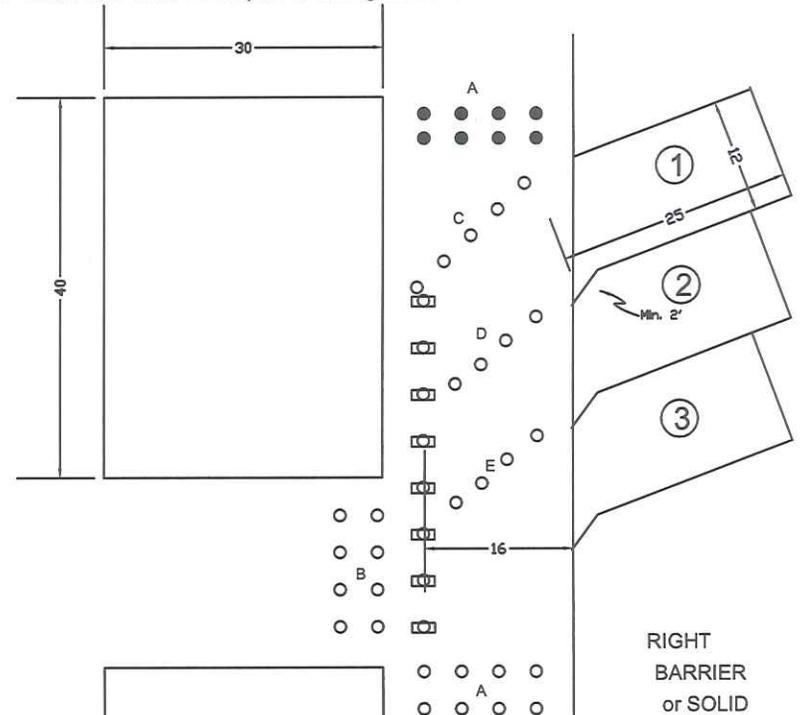
Scale: 1"=20'

Note: Pillar Dimension may vary

1. Breaker Posts (A) are to be installed upon completion of mining inby.
2. Prior to Lift No. 1, Breaker Post B and roadway posts will be installed to limit the roadway to 16' wide from the entrance of Lift No. 1 through the intersection outby the pillar in which the split or lift is being mined.
3. Turn Posts C will be set prior to mining Lift No. 1 and Lift No. 3.
4. Turn Posts D will be set prior to mining Lift No. 2 and Lift No. 4.
5. Turn Posts E will be set prior to mining Lift No. 5



1. Breaker Posts (A) are to be installed upon completion of mining inby.
2. Prior to Lift No. 1, Breaker Post B and roadway posts will be installed to limit the roadway to 16' wide from the entrance of Lift No. 1 through the intersection outby the pillar in which the split or lift is being mined.
3. Turn Posts C will be set prior to mining Lift No. 1
4. Turn Posts D will be set prior to mining Lift No. 2
5. Turn Posts E will be set prior to mining Lift No. 3



P-9

Full Pillar Extraction Plan #2

1. Breaker Posts (A) are to be installed promptly upon completion of mining inby.
2. Prior to Lift No. 1, Breaker Post B and roadway posts will be installed to limit the roadway to 16' wide from the entrance of Split No. 1 through the intersection outby the pillar in which the split or lift is being mined.
3. Turn Posts C will be installed prior to mining Lifts No. 1 and 3.
4. Turn Posts D will be installed prior to mining Lifts No. 2 and 4.
5. Prior to Lift No. 5, Breaker Post E and Roadway Posts F1 will be set prior to removing Roadway Posts F. Turn Post G will be installed to limit the roadway to 16' wide from the entrance of Split No. 5 through the intersection.
6. When a pillar block is mined by using twin lifts, the lift depth shall be limited to half of the pillar width or 25 ft which ever is less.

Gluts in pairs may be used in lieu of capblocks.

Fender distances are minimum. Stumps will vary in size.

Lifts will be 12 feet wide and limited to 25 feet Max. dept measured from the rib.

All posts shown except roadway posts are to be set on 4 foot max. spacing. Roadway posts may be set on 5 foot max. spacing.

Blocks of larger dimensions may be mined using a similar sequence provided that the minimum dimension is no less than 30 feet by 40 feet.

While taking the first left handed lift (Lift #1) the miner operator may be position inby the continous mining machine at a safe location.

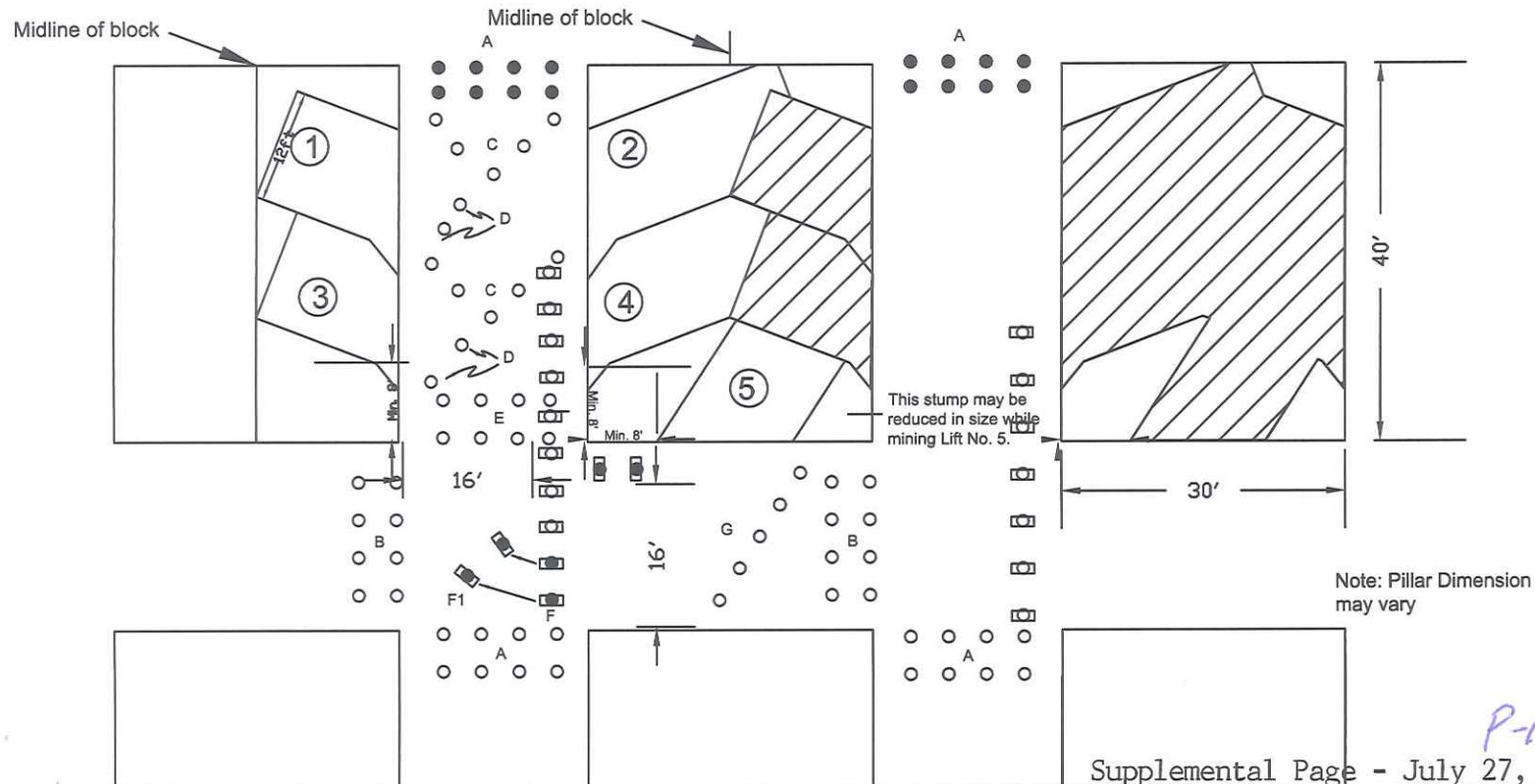
No persons shall be permitted inby the continous mining machine while taking the remaining lifts.

Blocks on the bleeder side of the section will be mined from one side only for ventilation purposes.

Posts may be repositioned as needed.

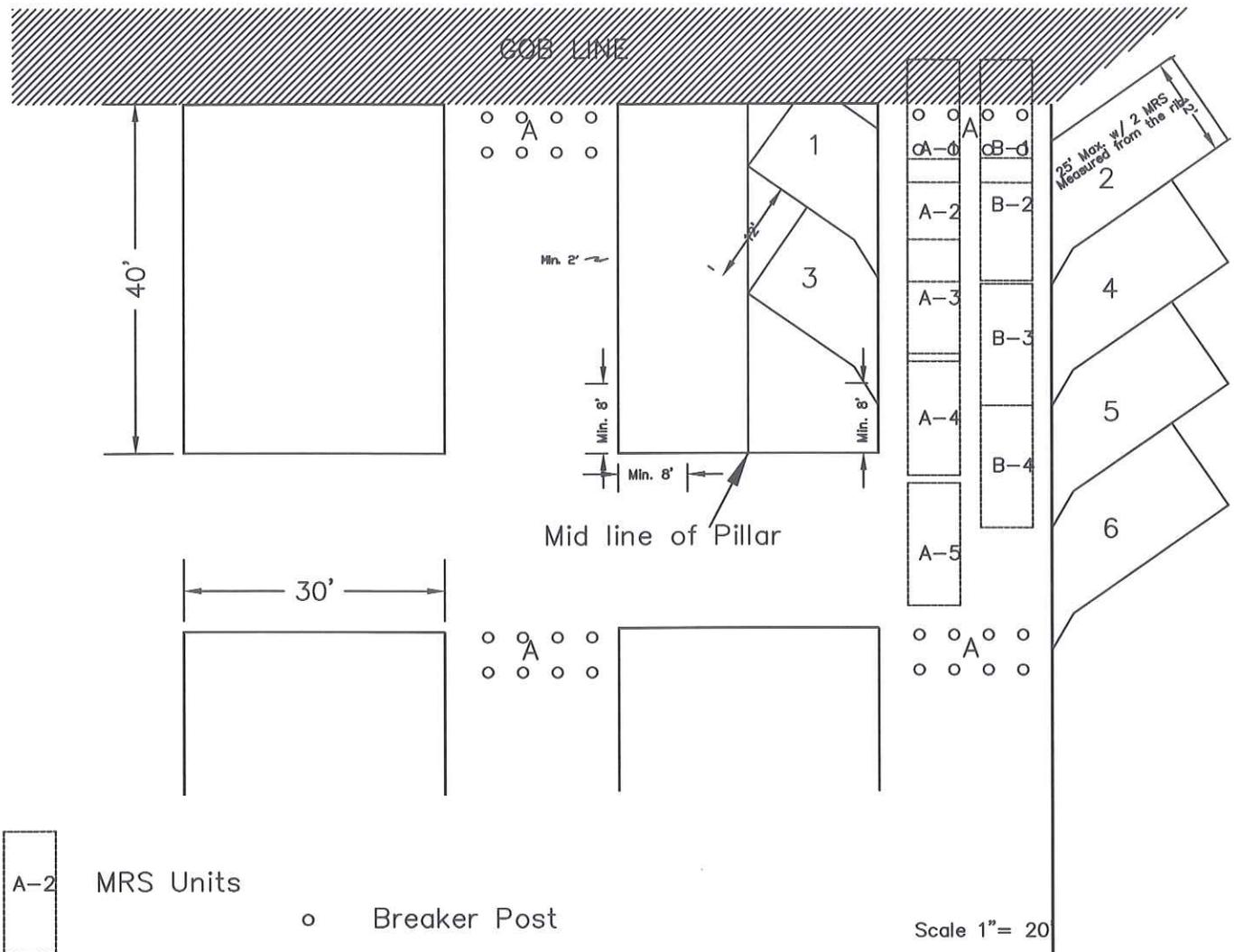


Scale: 1"=20'



Full Pillar Plan Using Posts and 2 Mobile Roof Support for Barriers

Drawing 1 of 2



1. If Lift No. 1 is being mined with MRS units, then MRS Units A-1 and B-1 shall be installed prior to mining Lift No. 1
2. MRS unit will be set at locations (A-2) and (B-1) prior to mining cut No.2
3. MRS unit will be set at locations (A-2) and (B-2) prior to mining cut No.3.
4. MRS unit will be set at locations (A-3) and (B-2) prior to mining cut No.4.
5. MRS unit will be set at locations (A-4) and (B-3) prior to mining cut No.5.
6. MRS unit will be set at locations (A-5) and (B-4) prior to mining cut No.6.
7. Breaker Posts (A) are to be installed after mining is completed inby.
8. The last open cross cut shall not be used as a haulageway during and after mining Cut No. 3.
9. When a pillar block is mined by using twin lifts, the lift depth shall be limited to half the pillar width or 25ft. which ever is less.

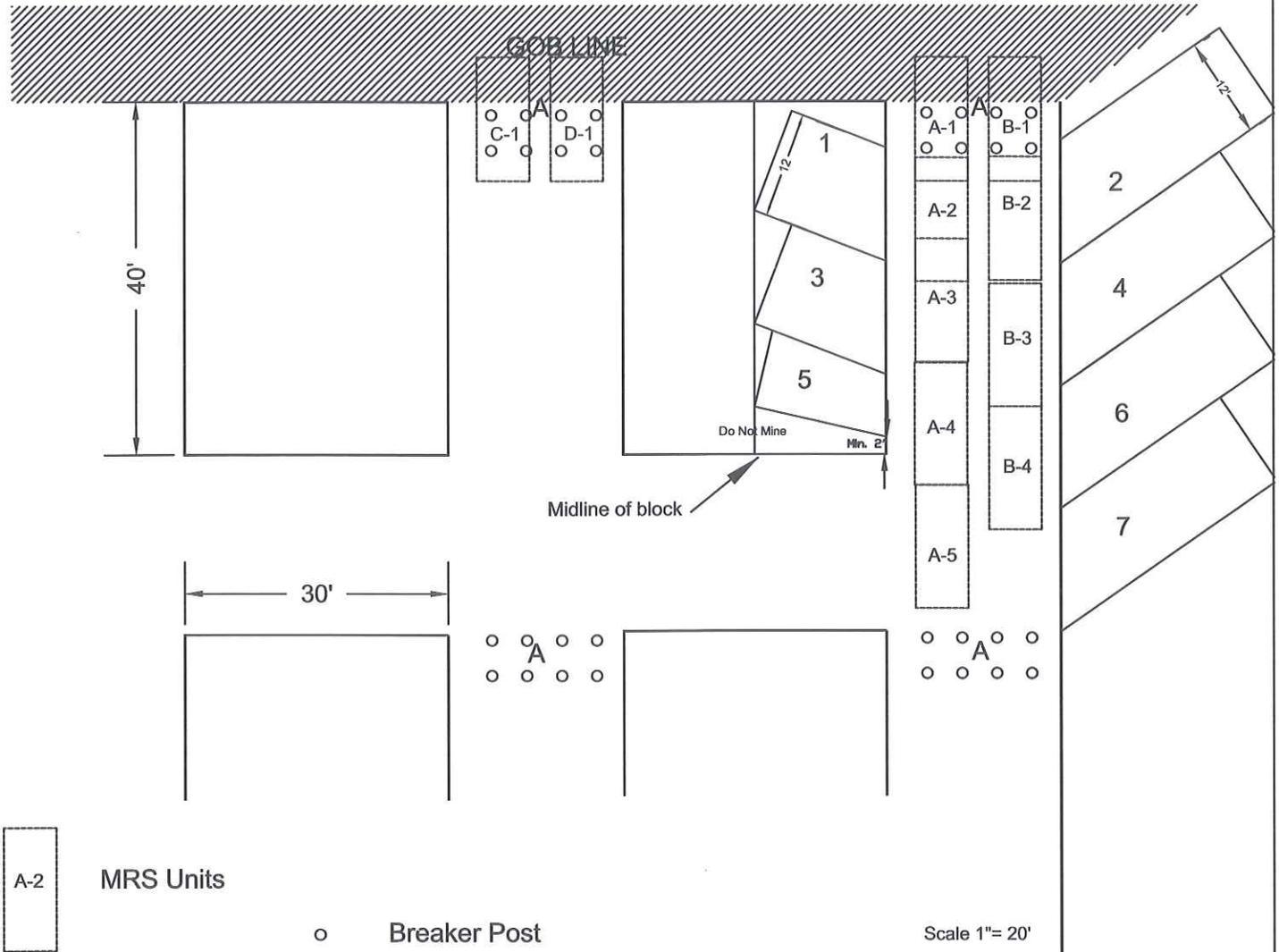
Note: Blocks of larger dimensions may be mined in a similar manner, provided the minimum dimension on the block is no smaller than 30 feet by 40 feet.

Note: All timbers except breakers shall have half headers or gluts in pairs set between them and the mine roof.

Note: Stumps will vary in size, fender dimensions are minimum.

Full Pillar Plan with Mobile Roof Support for Barriers

Drawing 1 of 2



1. If Lift No. 1 is being mined with MRS units, then MRS Units A-1, B-1, C-1 and D-1 shall be installed prior to mining Lift No. 1
2. MRS unit will be set at locations (A-2) and (B-1) prior to mining cut No.2
3. MRS unit will be set at locations (A-2) and (B-2) prior to mining cut No.3.
4. MRS unit will be set at locations (A-3) and (B-2) prior to mining cut No.4.
5. MRS unit will be set at locations (A-3) and (B-3) prior to mining cut No.5.
6. MRS unit will be set at locations (A-4) and (B-3) prior to mining cut No.6.
7. MRS unit will be set at locations (A-5) and (B-4) prior to mining cut No.7.
8. Breaker Posts (A) are to be installed after mining is completed inby.
9. The last open cross cut shall not be used as a haulageway during and after mining Cut No. 5.

Note: Blocks of larger dimensions may be mined in a similar manner, provided the minimum dimension on the block is no smaller than 30 feet by 40 feet. Pillar Lifts will be to the mid point of block or 35 feet, which ever is less.

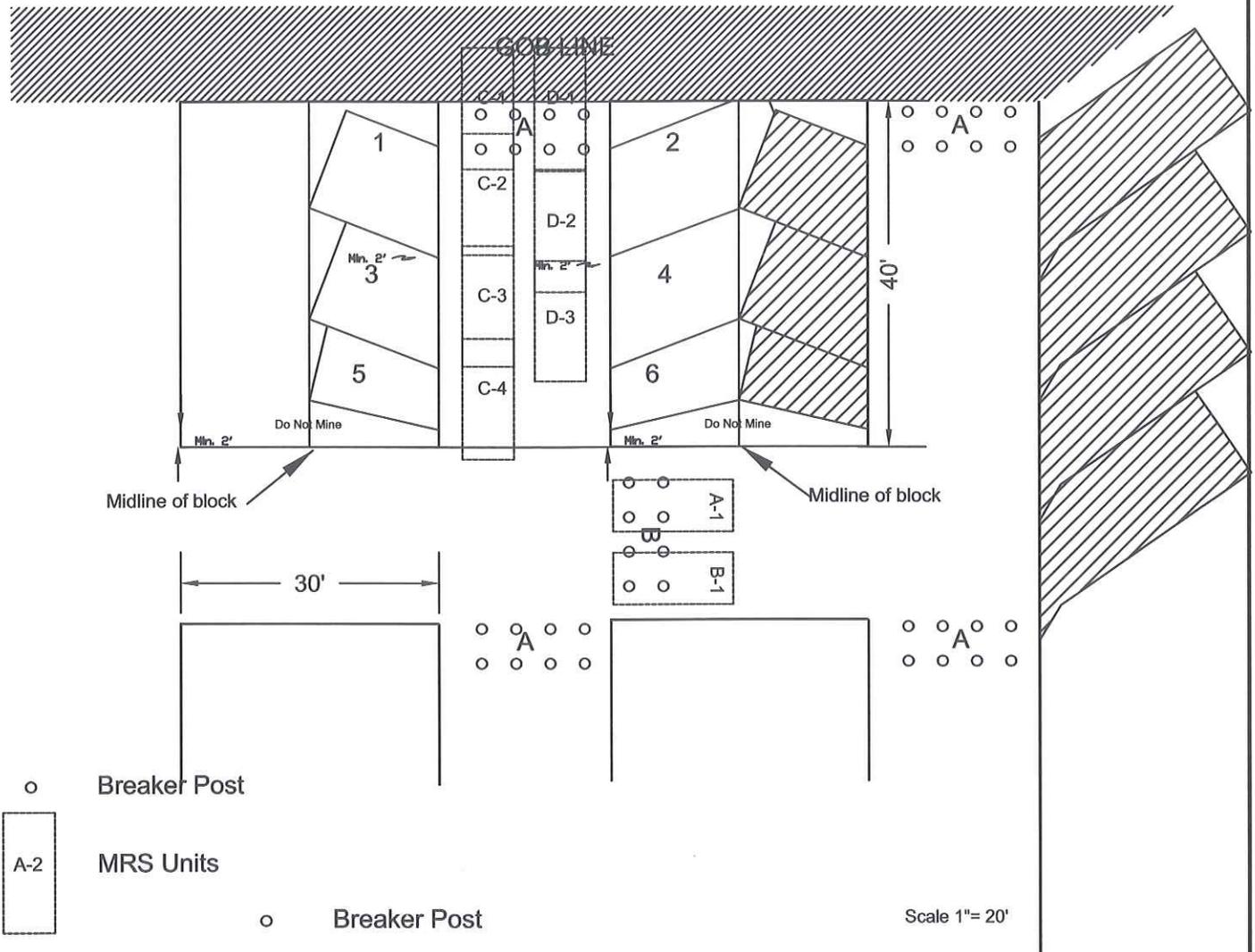
Note: All timbers except breakers shall have half headers or gluts in pairs set between them and the mine roof.

Note: Stumps will vary in size, fender dimensions are minimum.

Note: When a pillar block is mined using twin lifts, the lift depth shall be limited to half of the pillar width.

Full Pillar Plan with Mobile Roof Support

Drawing 2 of 2



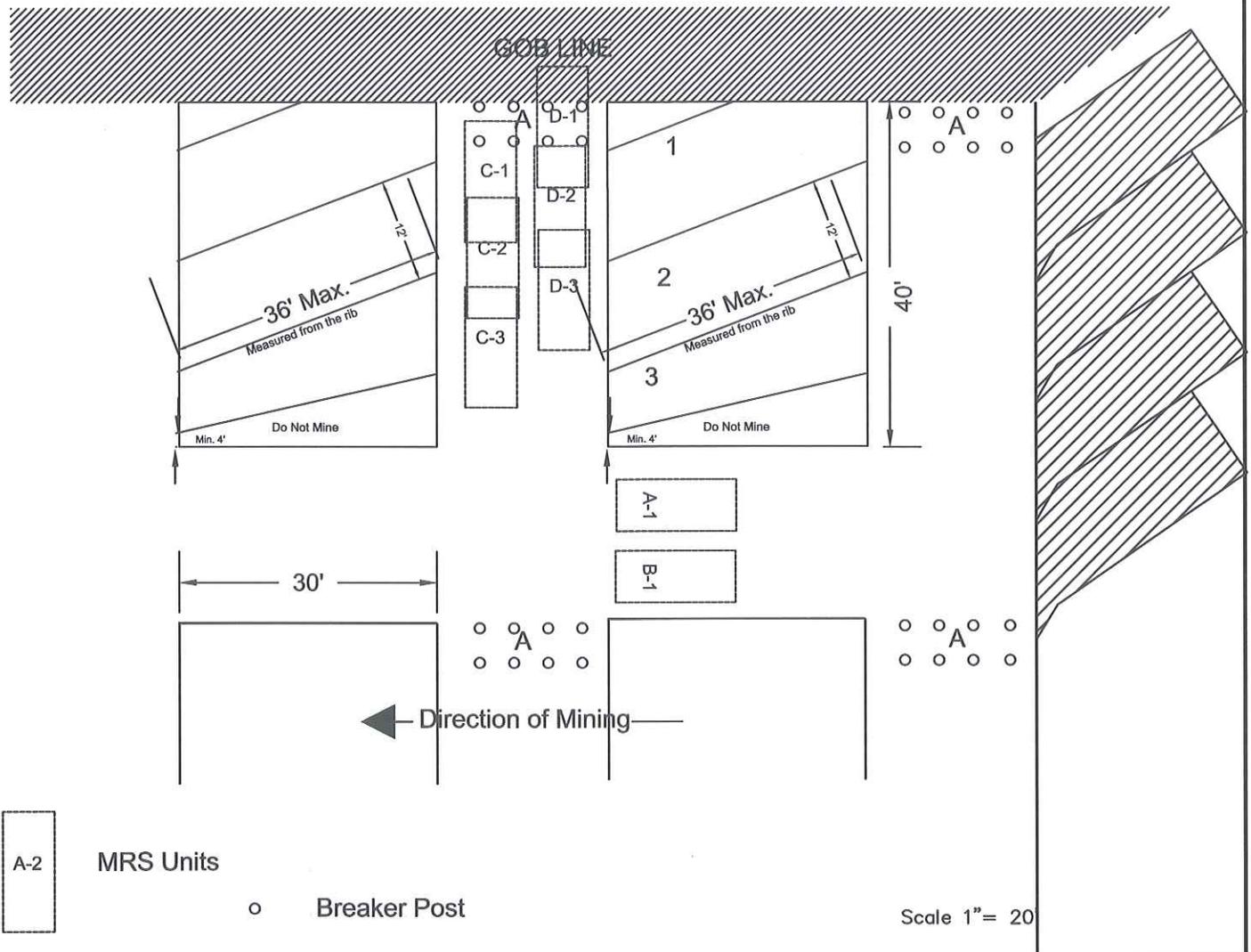
1. MRS units will be located at A-1, B-1, C-1 and D-1 prior to starting Lift No. 1
2. MRS unit will be set at locations (C-2) and (D-1) prior to mining cut No.2
3. MRS unit will be set at locations (C-2) and (D-2) prior to mining cut No.3.
4. MRS unit will be set at locations (C-3) and (D-2) prior to mining cut No.4.
5. MRS unit will be set at locations (C-3) and (D-3) prior to mining cut No.5.
6. MRS unit will be set at locations (C-4) and (D-3) prior to mining cut No.6.
7. Breaker Posts (A) are to be installed after mining is completed inby.
8. The last open cross cut shall not be used as a haulageway during and after mining Cut No. 5.
9. When pillaring with two MRS units, Breaker Posts (B) may be set in lieu of the MRS units located at A-1 and B-1 and the depth of cut limited to 25'
10. When a pillar block is mined by using twin lifts, the lift depth shall be limited to half the pillar width or 35ft. which ever is less.

Note: Blocks of larger dimensions may be mined in a similar manner, provided the minimum dimension on the block is no smaller than 30 feet by 40 feet.

Note: All timbers except breakers shall have half headers or gluts in pairs set between them and the mine roof.

Note: Stumps will vary in size, Fender dimensions are minimum.

Full Pillar Plan with Mobile Roof Support (Using 4 MRS Units) Pillaring from One Side



1. MRS units will be located at A-1, B-1, C-1 and D-1 prior to starting Lift No. 1
2. MRS unit will be set at locations (C-2) and (D-2) prior to mining cut No.2
3. MRS unit will be set at locations (C-3) and (D-3) prior to mining cut No.3.
4. Breaker Posts (A) are to be installed after mining is completed inby.

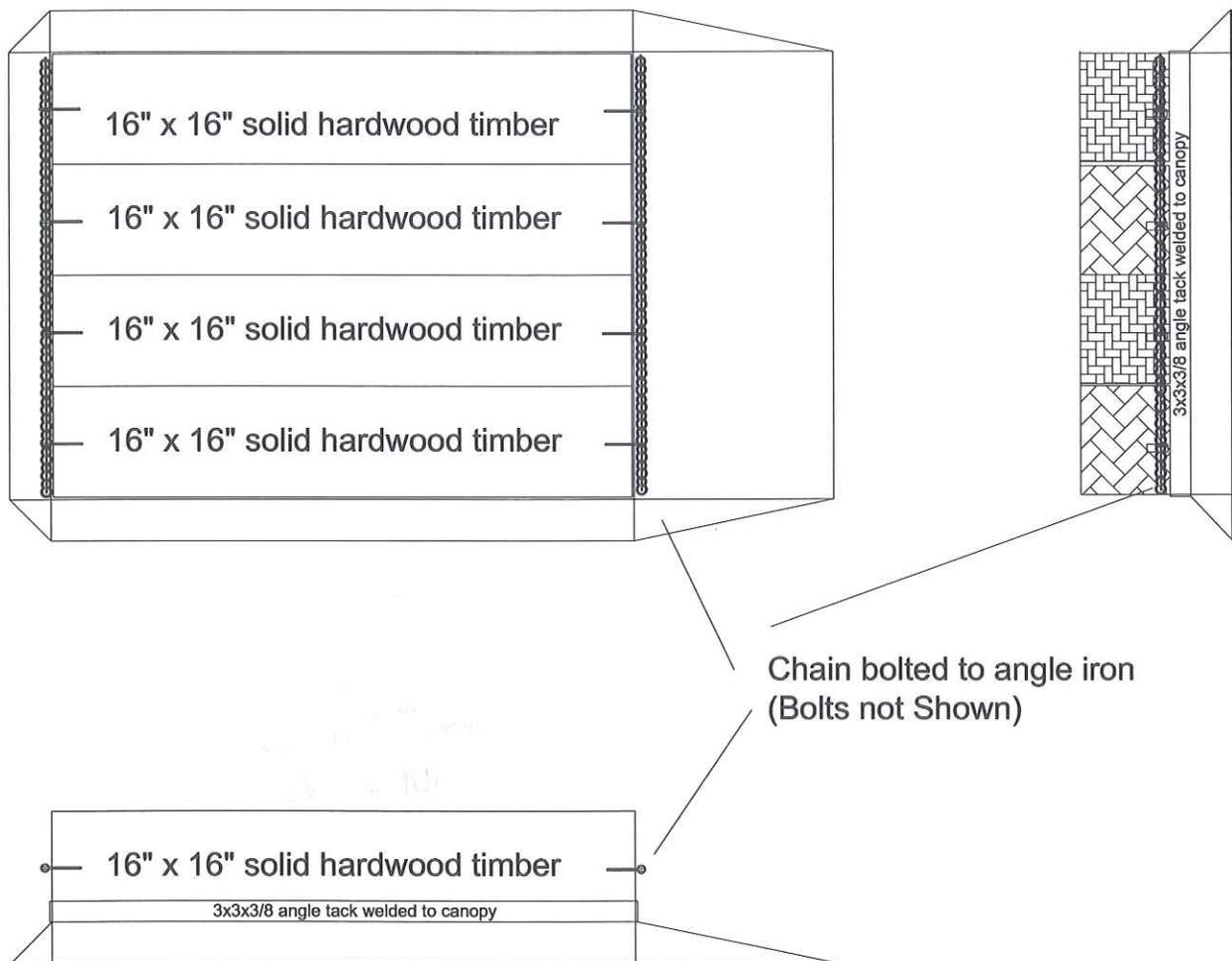
Note: Blocks of larger dimensions may be mined in a similar manner, provided the minimum dimension on the block is no smaller than 30 feet by 40 feet.

All timbers except breakers shall have half headers or gluts in pairs set between them and the mine roof. Mirror image applies to the left and right side barrier.

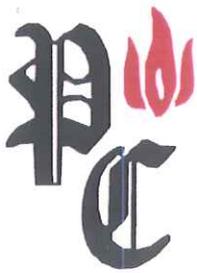
Stumps will vary in size, fender dimensions are minimum.

MRS Canopy Extension

No Scale



NOTE: Angle iron tack welded to sides and back of canopy.
Chain fastened to wooden members and bolted to angle iron.



Performance Coal Company

P.O. Box 69

Naoma, WV

25140

May 23, 2007

Mr. Robert G. Hardman
District Manager
Mine Safety and Health Administration
100 Bluestone Road
Mt. Hope, West Virginia 25880-0112

RE: Performance Coal Company - Upper Big Branch Mine-South
Federal I.D. 46-08436, State I. D. U-3042-92 – Roof Control Plan

Dear Mr. Hardman:

Performance Coal Company, Upper Big Branch Mine-South (ID 46-08436), is re-submitting the attached drawings to be added to our currently approved roof control plan. These drawings are for adding pillaring back into the plan. Added also are toe latest safety precautions for pillar mining and use of Mobile Roof Supports.

Your timely review and approval of this revision would be greatly appreciated. If you have any questions, or require further information, please call me at (304) 854-1761.

Respectfully Submitted,

Performance Coal Co.
George T. Levo
Mining Engineer