Donaldson Coal

Abel Mine

SMP STAKEHOLDER MEETING

ABEL SMP AREA 2

9 September 2010

Agenda

- Introduction and Meeting Objectives
- Donaldson Coal Background
- The Subsidence Management Plan (SMP) Process
- Abel Mine
  - Project Approval
  - Mine Planning
  - Mining Methods
  - Area 1
  - Area 2
  - SMP Area Surface Environment Assessment
- SMP Area 1 Approvals and conditions, Management Plans, Monitoring Programs

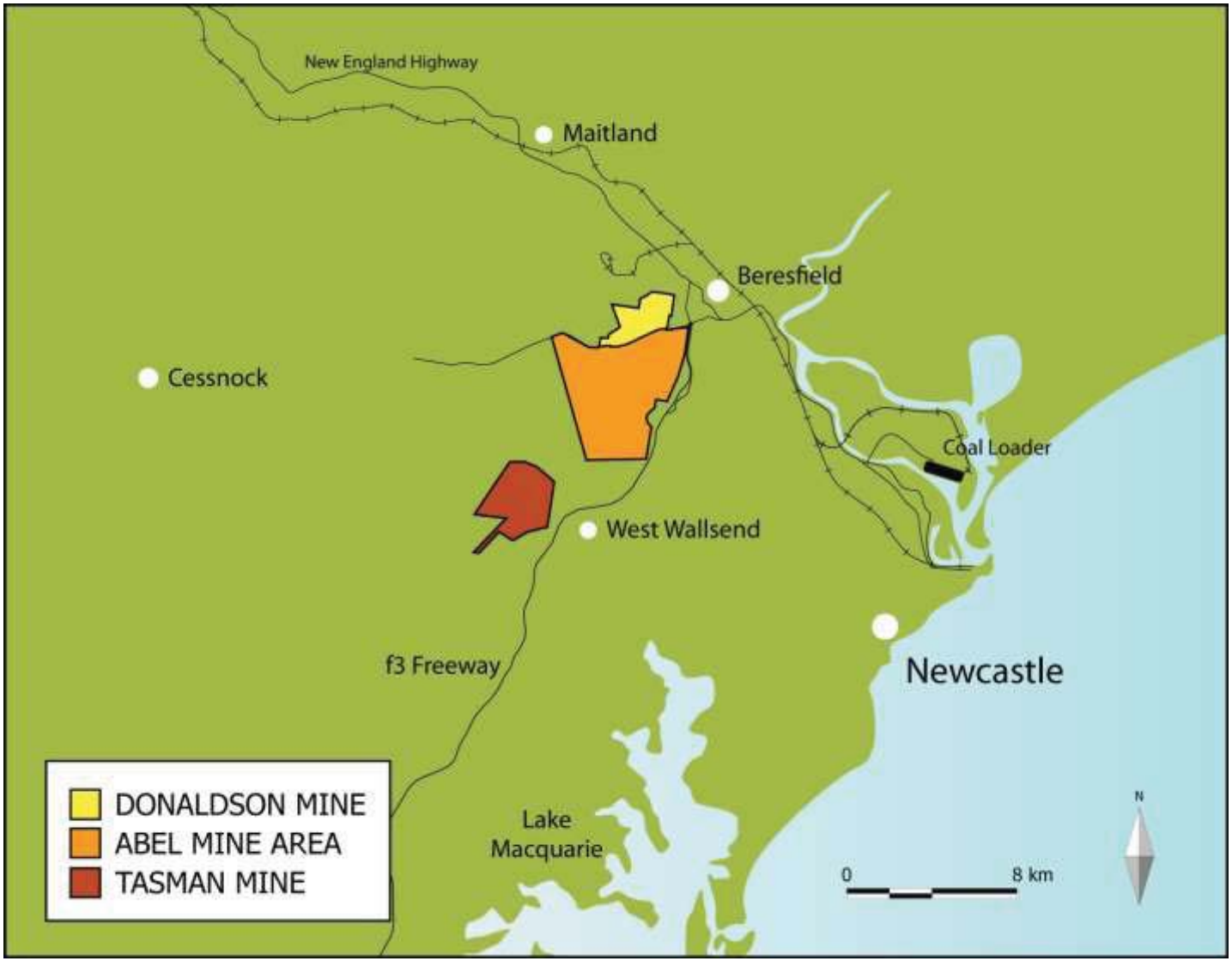
Agenda

- Panel 1 (SMP Area 1) Progress to date
- Subsidence Results Panel 1, impacts and remediation
- SMP Area 2 Key surface features
  - Man made and Natural features potentially impacted by subsidence, including
    - Properties
    - Roads
    - Powerlines
    - Waterlines
    - Dams
    - Other infrastructure
- Abel SMP Area 2 Subsidence Assessment and Predictions
- Abel SMP Area 2 Subsidence Impacts
- Abel SMP Area 2 Proposed Monitoring
- Abel SMP Area 2 Mining Schedule
- Field Visit SMP Area 1/2

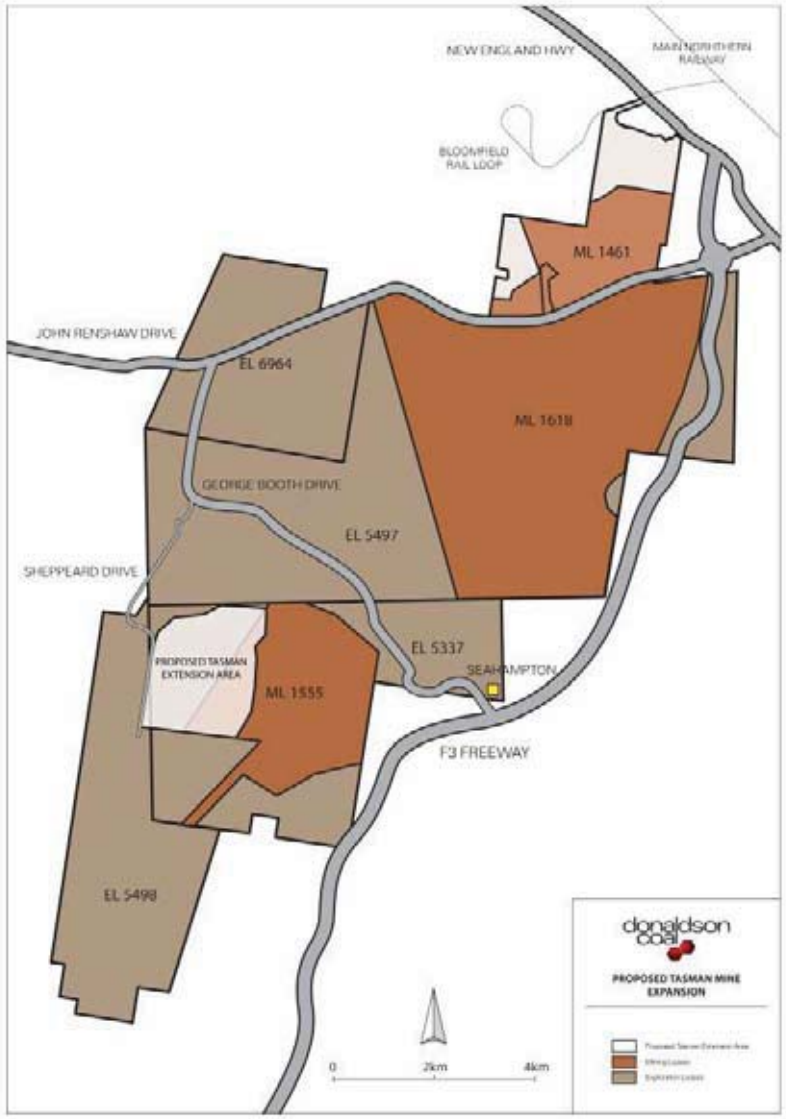
Meeting Objectives

1. Provide interested parties with an introduction to both the Subsidence Management Planning Process, review the approval procedure, update the results of mining Area 1 to date and outline the planning and baseline studies conducted in relation to the Abel mining proposal for Abel Area 2.
2. Consult with interested parties to identify any potential issues or relevant concerns to be considered and addressed in the preparation of the Subsidence Management Plan for Abel Area 2.

Location of Donaldson Coal Operations



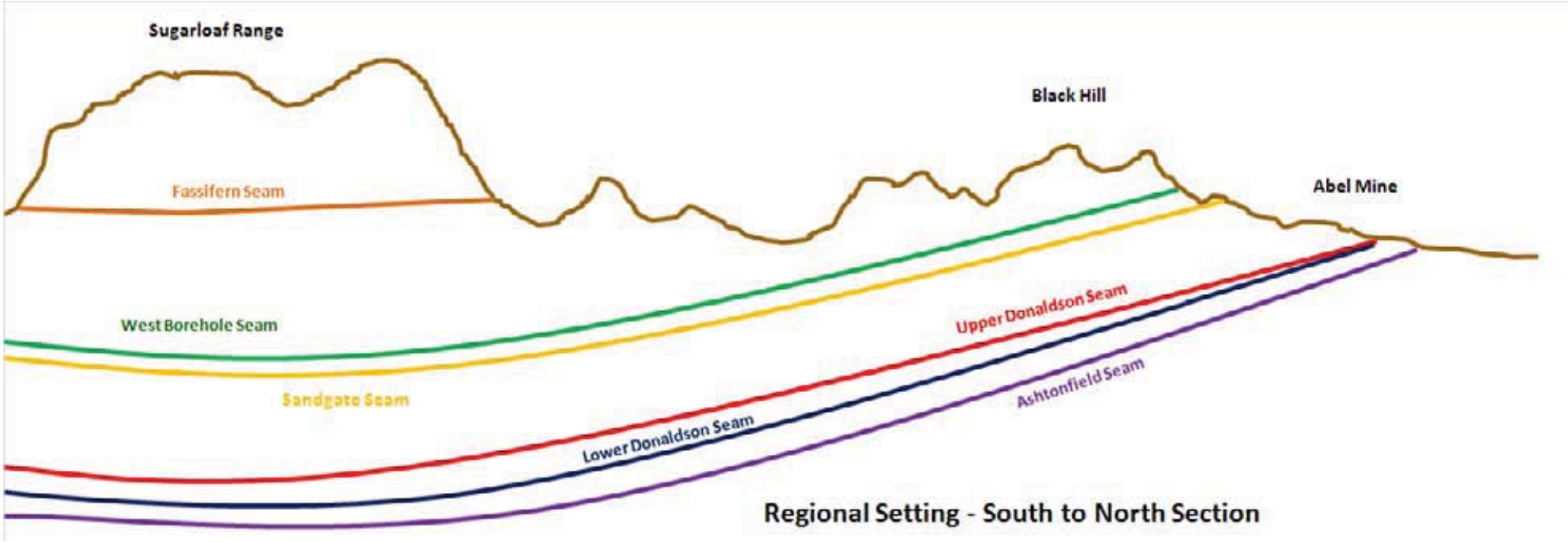
Lease Areas



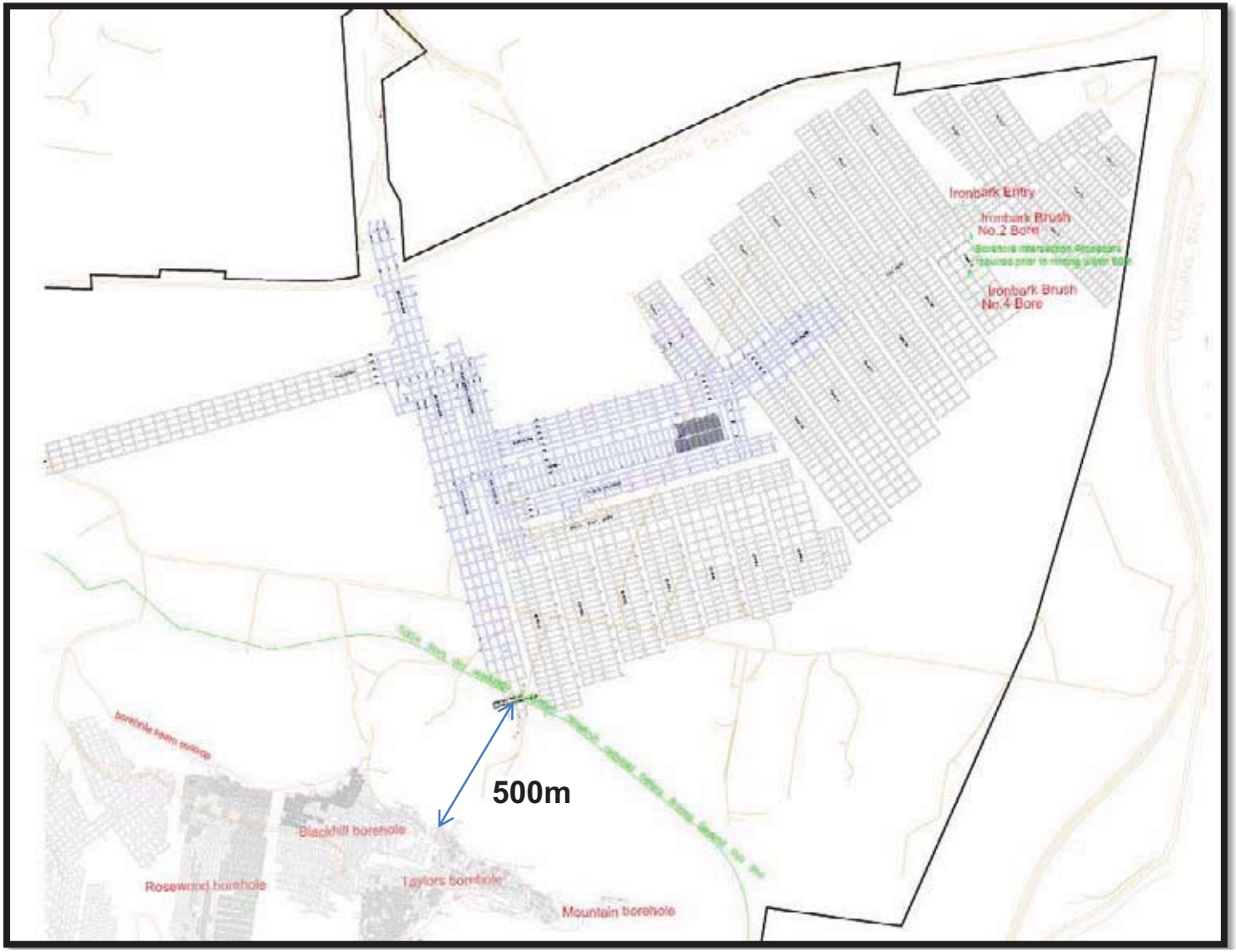
- Current Mining Leases:
  - ML 1461 (Donaldson O/C)
  - ML 1618 (Abel U/G)
  - ML 1555 (Tasman U/G)
- Current Exploration Areas:
  - EL 5337 (Tasman)
  - EL 5498 (Tasman)
  - EL 5497 (Abel)
  - EL 6964 (Abel)

Geological & Mining Setting

- Target seams are part of the East Maitland/Tomago district Four Mile creek formation
- Seams dips to south



Old Workings Borehole Seam



SMP Application Process

- Approval process introduced in March 2004 for the management of coal mining subsidence (*New Approval Process for Management of Coal Mining Subsidence – NSW)*

- Condition of Abel's Mining Lease 1618 that the leaseholder shall prepare a Subsidence Management Plan prior to commencing underground mining operations which will potentially lead to subsidence of the land surface

- This SMP process is currently being reviewed by Industry & Investment and Department of Planning.

Definitions

- **Subsidence-** Vertical movement of the land surface caused by underground coal mining. For the purposes of the SMP approval process, subsidence is defined as mining-induced movements and deformations at the ground surface where:
  - *i) the vertical downward surface movements are greater than 20mm; or*
  - *ii) the potential impacts on major surface infrastructure, structures or natural features may be significant, notwithstanding that the vertical downward surface movements are less than 20mm.*
- **Mitigation Measures –** Subsidence management measures which aim to reduce subsidence impacts, usually implemented prior to or during mining.
- **Remediation Measures –** Subsidence management measures which aim to repair any adverse effects of subsidence, usually implemented after mining.
- **First workings-** Roadways driven to form pillars. Development of main headings and panel roads to establish access to the coal in the Pillar Extraction panels.
- **Second workings** – Extraction of coal from pillars formed during development.

Definitions

- **Full extraction** - Systematic mining of all safely accessible coal within the formed pillars
- **Partial extraction** – Mining of a only a proportion of the formed pillars to reduce subsidence
- **Public Safety Management Plan** - prepared in consultation with I & I to ensure public safety in the mining area.
- **Principal Residence** –Principal Residence existing and defined at the date of Project Approval of this project. A Principal Residence is defined as an existing building capable of being occupied as a separate domicile and used for such purpose. Basically the main residential building on a property.
- **Effective subsidence –** 95% of predicted subsidence has occurred.
- **Goaf –** The mined-out area into which the immediate roof strata break.

Definitions

- **Statement of Commitments -** The commitments by Donaldson Coal Pty Limited set out in Appendix 3 of the Project Approval.
- **Safe, serviceable & repairable -** Safe means no danger to users, serviceable means available for its intended use, and repairable means damaged components can be repaired
- **SMP –** Subsidence Management Plan
- **Angle of Draw –** The angle between the vertical line joining the edge of the mining void with the limit of vertical subsidence (usually taken as 20mm) at the surface
- **Cover Depth –** The depth of the coal seam from the ground surface (metres)
- **Property Management Plan –** Developed by Donaldson Coal in consultation with the property owner and Mine Subsidence Board to address the management / mitigation of any subsidence impacts.

SMP Requirements

- **SMP Area 2 Application to include:**
  - Description of the surface area
  - Mine workings and extraction schedule
  - Subsidence predictions
  - Assessment of impacts and socio-economic benefits
  - Extracts of relevant conditions from Project Approval, Leases, Licences, Approvals
  - Description of previous subsidence predictions, results and impact assessments from previous approvals
  - Baseline monitoring / assessment including flora, fauna, surface water and groundwater
  - Monitoring proposals
  - Proposals to minimise surface impacts where required
  - Proposals for ground and surface water management
  - Proposals for rehabilitation if or where necessary
  - Results of consultation with relevant stakeholders (community)
  - Results of Risk Assessments carried out for the SMP Application
  - Details of ongoing community consultation process

SMP Preparation Stages

- **Stage 1 – Information Collection and Review**
  - Initial Consultation and Advertisement
  - Review of Statutes, Baseline Monitoring, Subsidence Prediction, Mine planning and initial Mine layout
- **Stage 2 – SMP Development**
  - Assessment and consideration of community input (Stakeholder Meeting, CCC)
  - Impact and Risk Assessment, monitoring program, mitigation / rehabilitation planning
  - Finalise Mine plan
  - Preparation of SMP written report and Subsidence Management Plan
- **Stage 3 – Assessment**
  - Submission of application to Industry & Investment NSW
  - Advertise and public display – opportunity for comment and submission
  - SMP Inter Agency review committee and Industry & Investment NSW assessment

SMP Preparation Stages

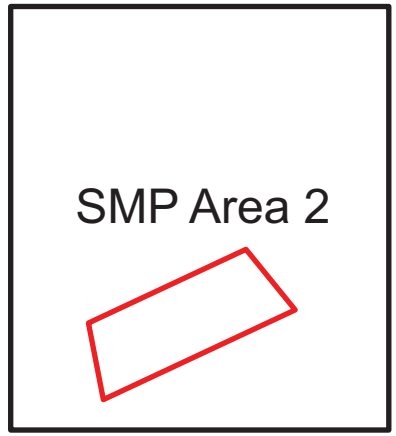
- **Stage 4 – Implementation if Approval Granted**
  - Implement SMP subject to Approval Conditions

- **Stage 5 – Reporting, Review and Ongoing Consultation**
  - Review monitoring results in relation to predictions
  - Review impacts in relation to predictions
  - Report monitoring results, impacts and compliance with SMP through AEMR, reporting as required by Approval Conditions and through Community Consultation Process

Abel Mine

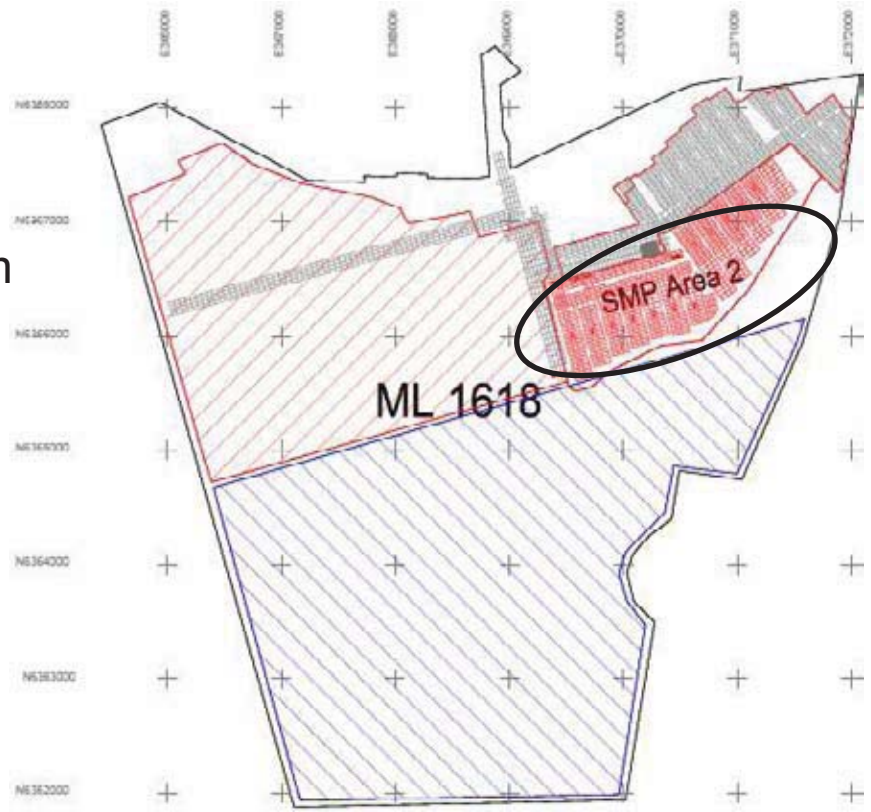
- Planning Focus November 2005
- EA lodged 2006
- Project approval granted June 2007
- Mining Lease ML1618 granted May 2008
- Abel commenced underground production from highwall in May 2008
- SMP Area 1 approved May 2010
- Pillar extraction production from Area 1 commenced July 2010
- SMP Area 2 = 221ha *(ML1618 area = 2,755ha*)
- Depth of cover in SMP 2 Area 95m to 150m
- Current workforce 200 including contractors
- 2010 planned ROM production 1.3mt.

Abel Mine SMP Area 2



Abel Mine Plan

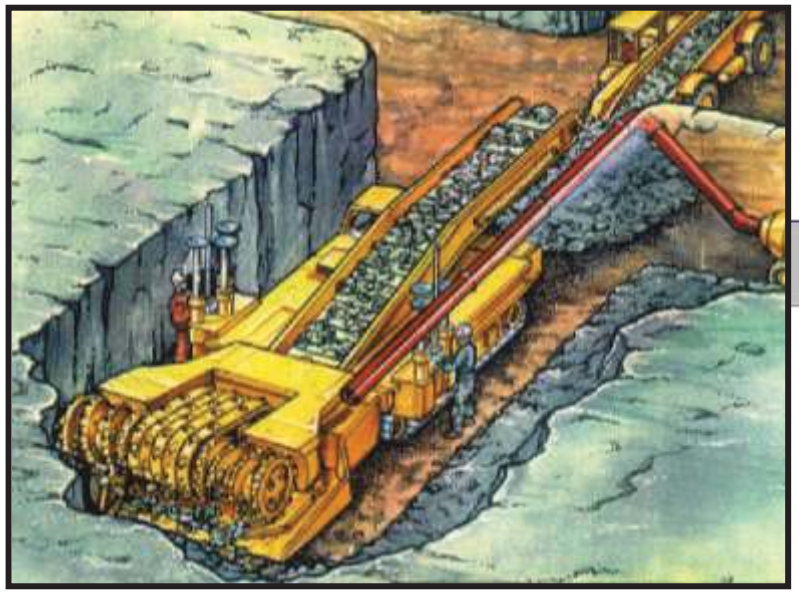
- Commenced coal production in May 2008 and will ramp up to 4.5mtpa and maintain that rate for >20yrs
- Target seams are the Upper and Lower Donaldson which range in thickness from 1.9m to 2.6m
- Soft coking and thermal products from the Upper Donaldson. Thermal from the Lower Donaldson
- At full production of 4.5mtpa will employ >350 people
- ML1618 area = 2,755 ha
- SMP Area 2 = 221ha

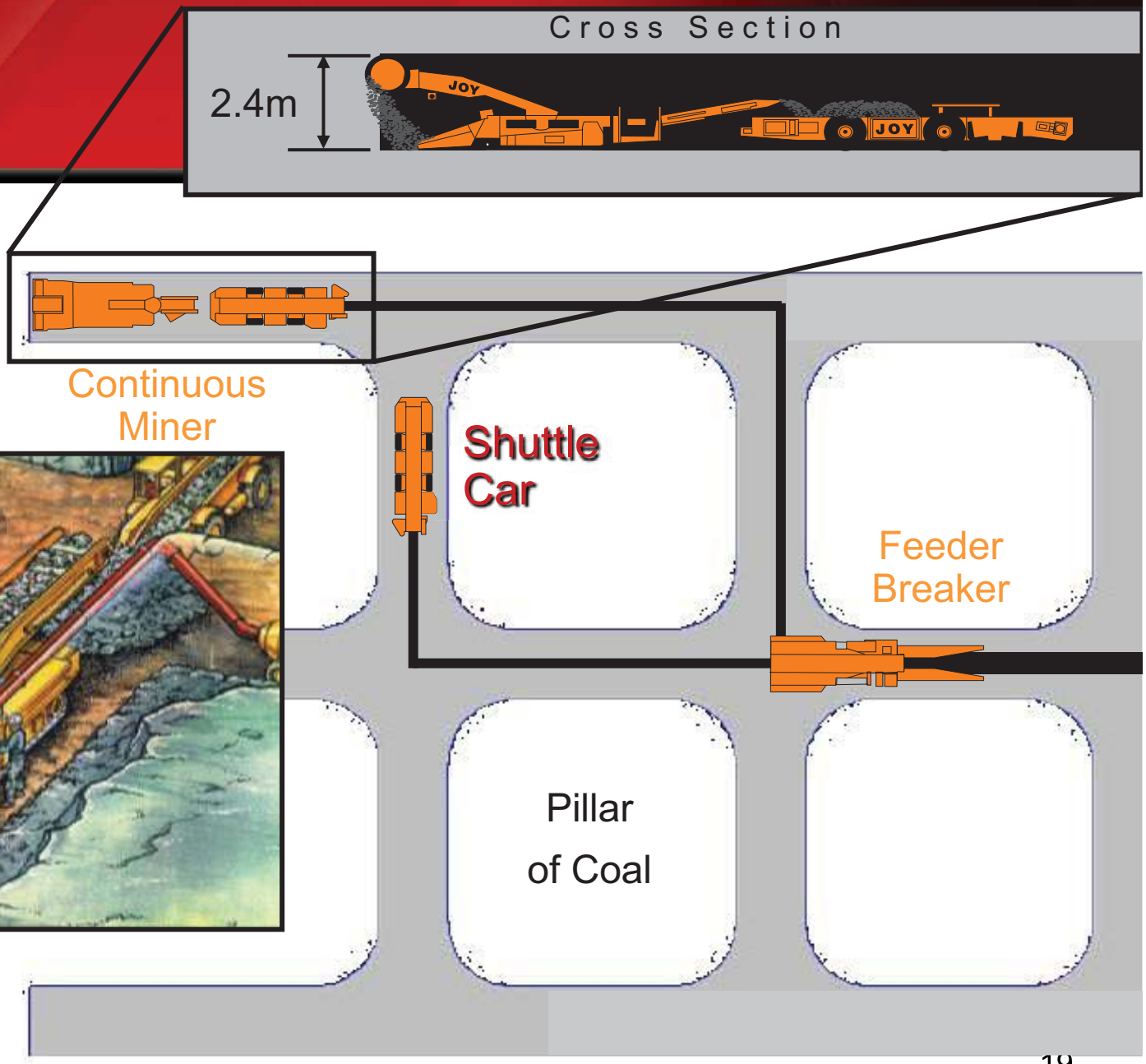


Upper Donaldson

Lower Donaldson

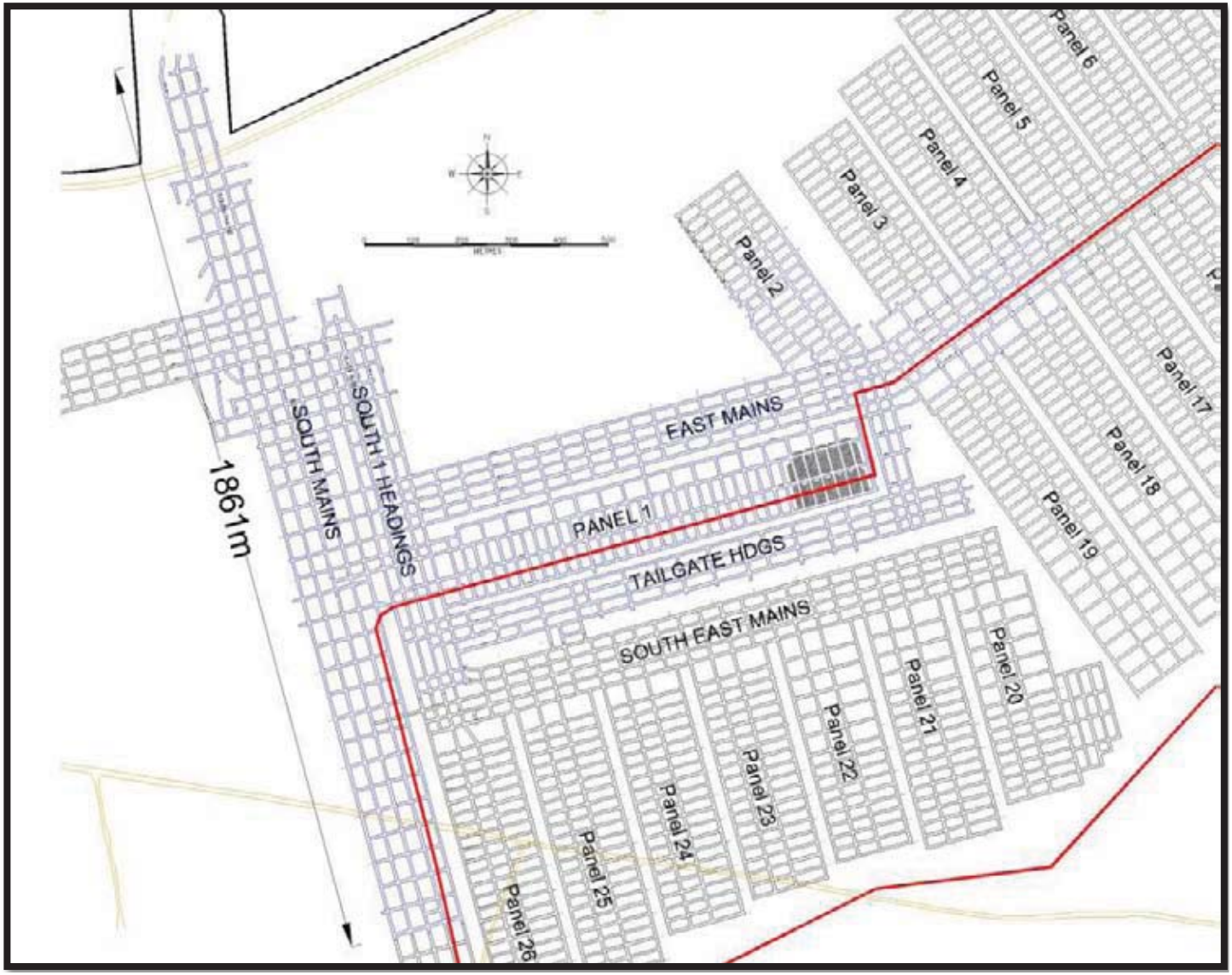
Bord & Pillar Mining





Abel Mine Plan

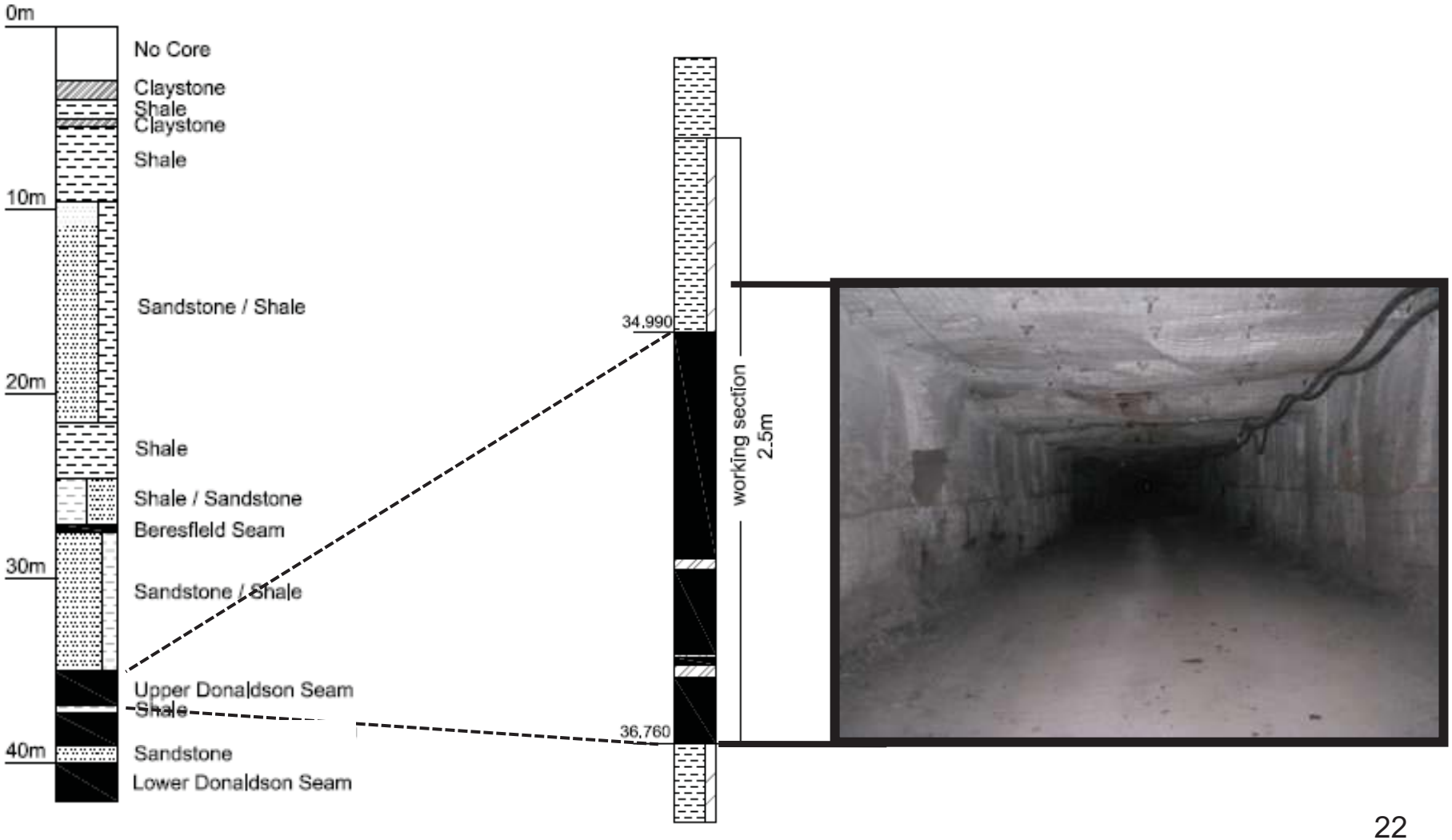
~ 40km of Development driveage completed to date
Current face areas up to 2km from Surface Portal



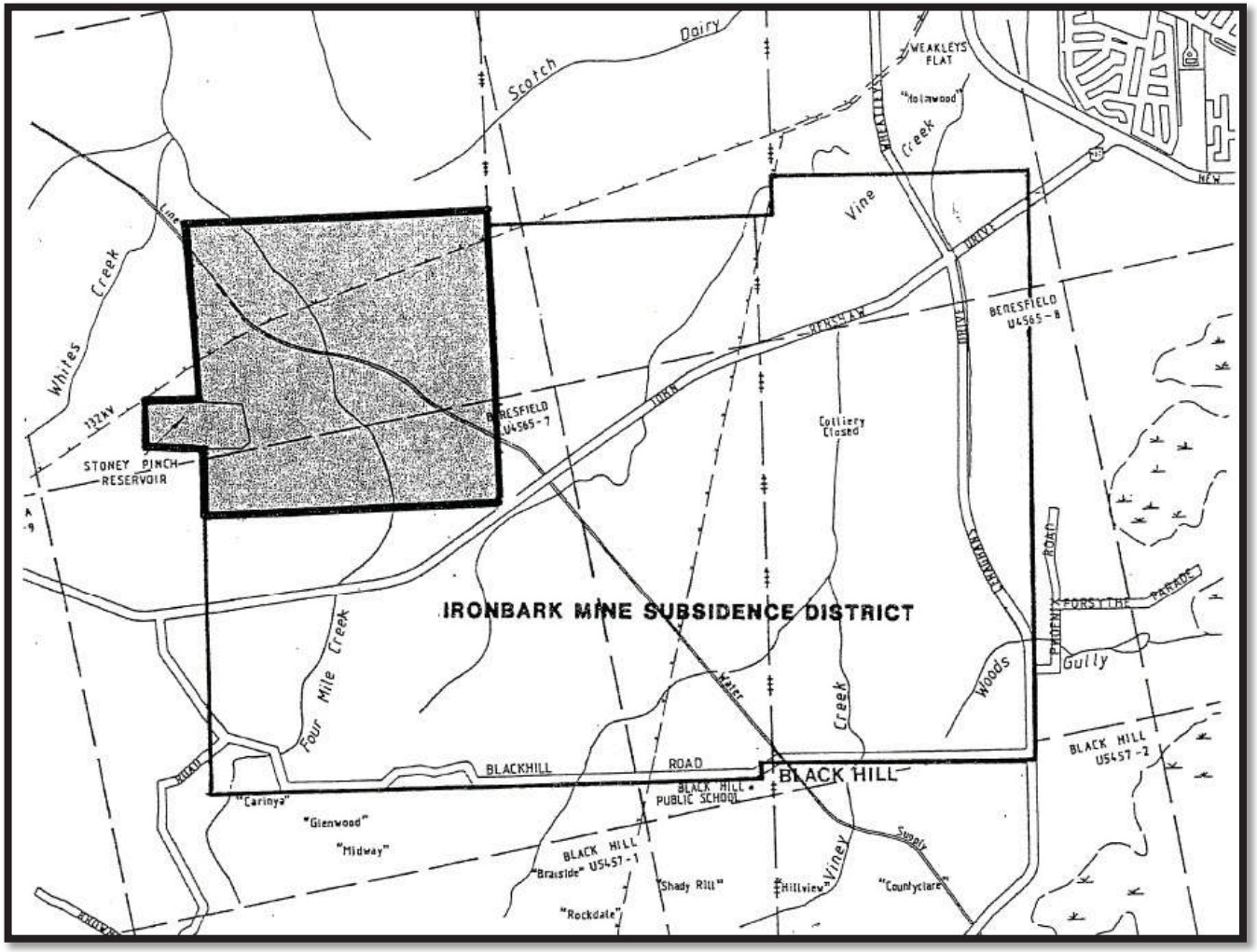
Mine Planning - Area 2

- Full extraction panels with the flexibility to retain long-term stable pillars for the protection of surface features
- Full extraction represents up to 85% reserve recovery within a mining panel
- Subsidence protection by either first workings or partial extraction
- No Pillar extraction below 50m depth of cover
- Panel width of 160m with appropriately designed barrier pillars

Typical Stratigraphic column (C086)



Historical Mine Subsidence District



Ironbark Subsidence District

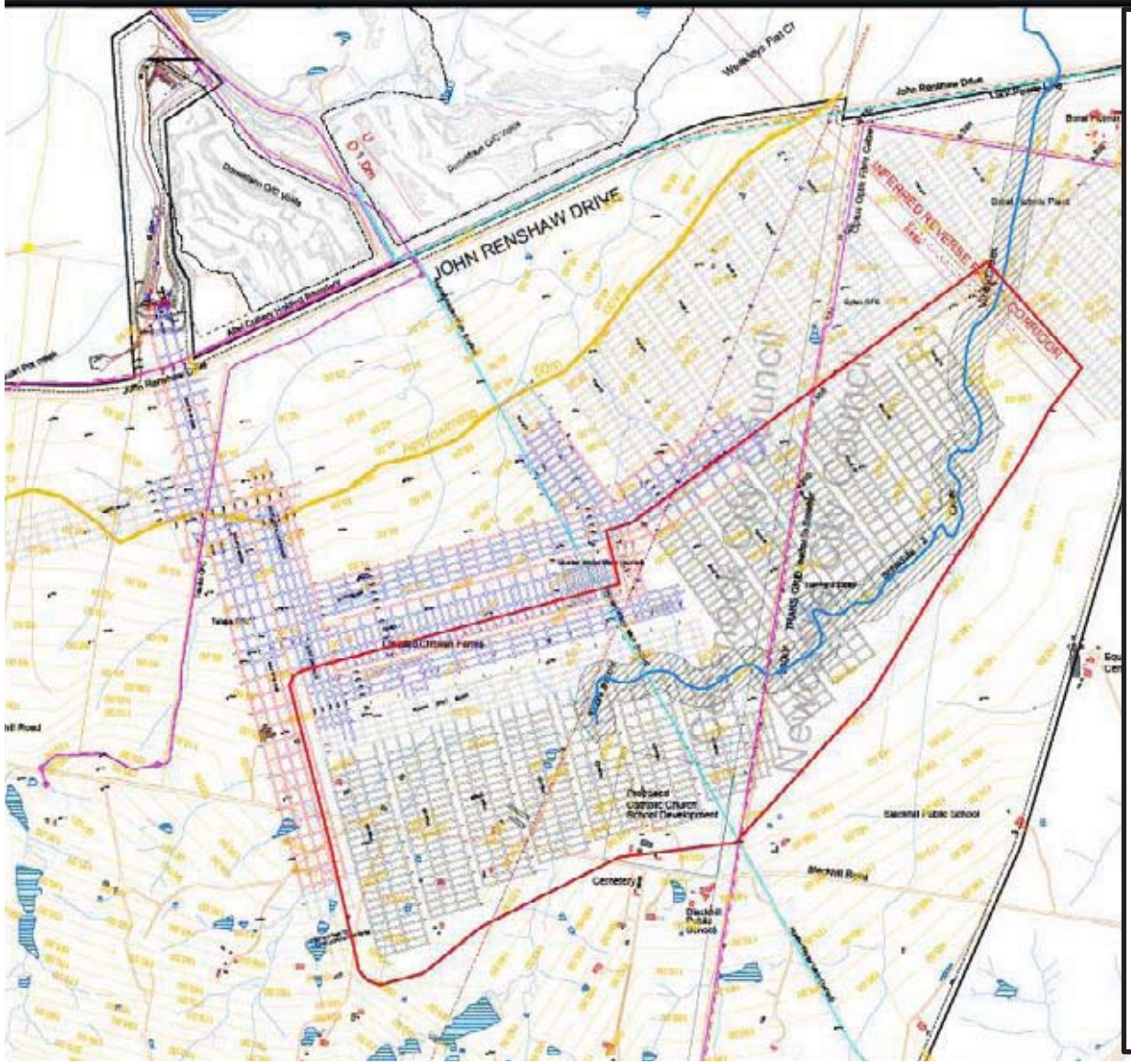
Initially gazetted in 1971

Extended in 1978

Revoked in 1994

New Subsidence District proposed for ML1618 area

SMP Application Area 2



Embraces 221ha

Contains 6.3m tonnes of insitu coal

Contains 3.7m tonnes of recoverable coal

Is divided into 13 Panels & 2 areas of Main Headings

Has an operating life of ~3 years

Project Approval condition- effective Subsidence to be completed by June 2013

Depth of cover ranges from 95m to 150m

Area to be re-classified as a Subsidence District by MSB

SMP Application Area 2

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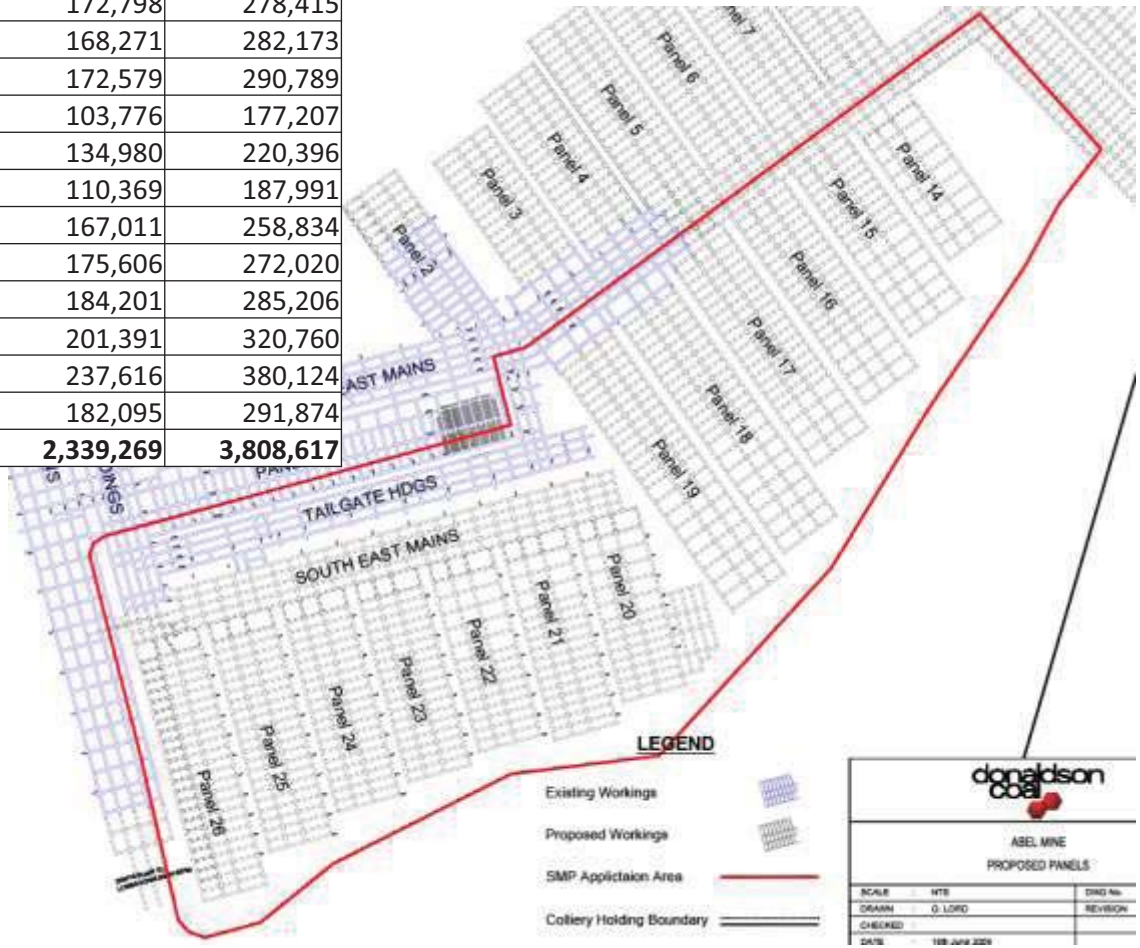
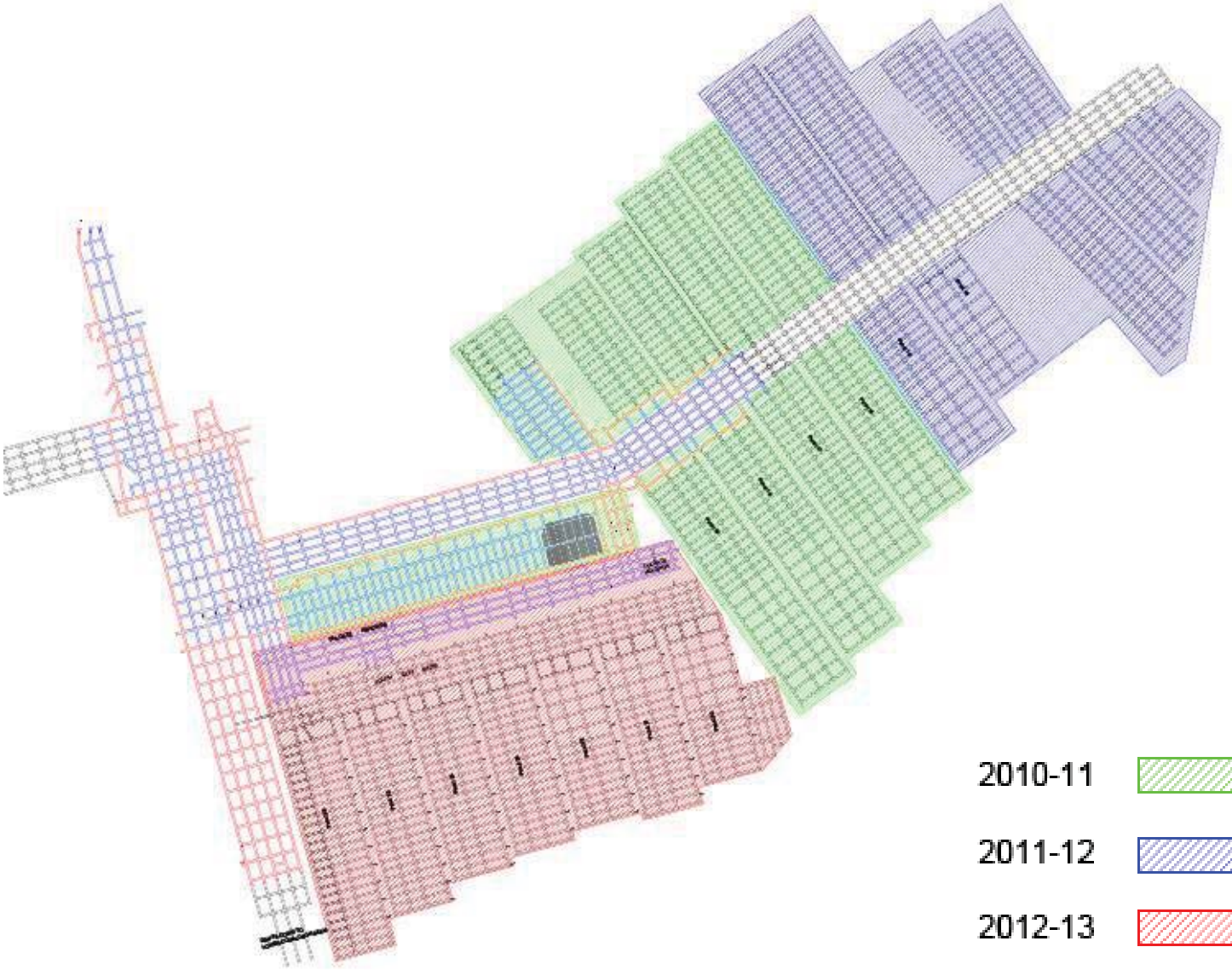
SMP Area 2 Panel tonnages

Total Tonnes	Length	Metres	development tonnes	extraction tonnes	Total
Panel 14	400	2,984	57,442	57,442	114,884
Panel 15	490	4,175	80,376	115,526	195,903
Panel 16	560	5,010	96,435	155,608	252,043
Panel 17	610	5,487	105,617	172,798	278,415
Panel 18	690	5,917	113,902	168,271	282,173
Panel 19	720	6,141	118,210	172,579	290,789
Panel 20	450	3,815	73,431	103,776	177,207
Panel 21	500	4,437	85,416	134,980	220,396
Panel 22	475	4,032	77,622	110,369	187,991
Panel 23	500	4,770	91,823	167,011	258,834
Panel 24	525	5,009	96,414	175,606	272,020
Panel 25	550	5,247	101,005	184,201	285,206
Panel 26	650	6,201	119,369	201,391	320,760
South East Mains	1100	7,403	142,508	237,616	380,124
Tailgate hdgs	1060	5,703	109,779	182,095	291,874
		76,330	**1,469,349**	**2,339,269**	**3,808,617**



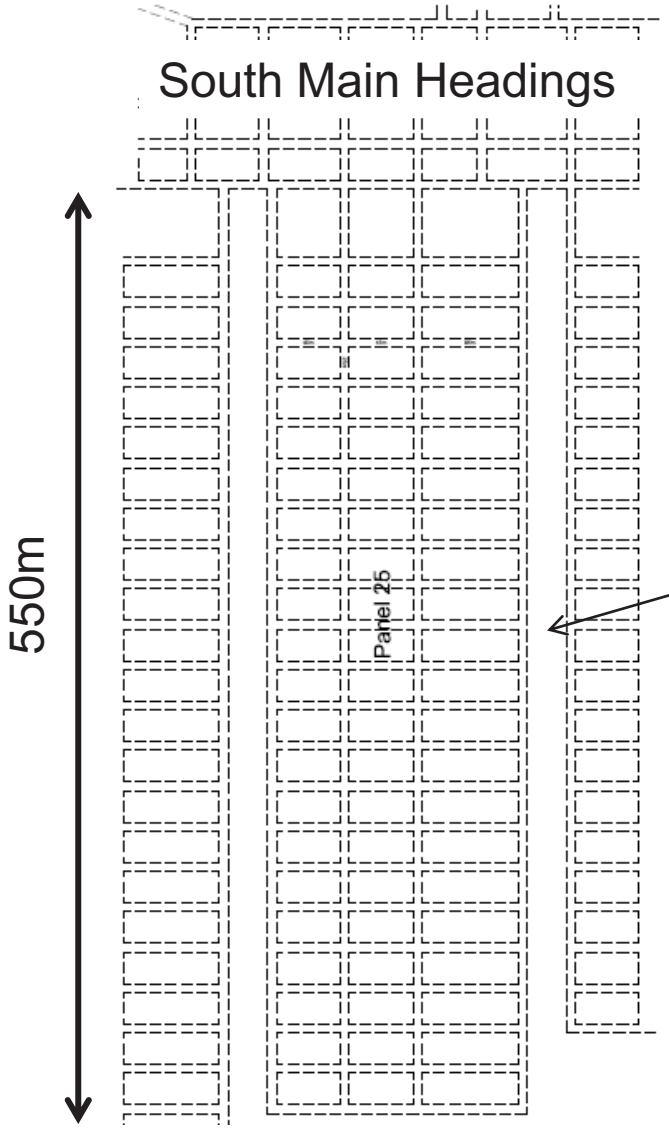
SMP Area 2 Schedule



Abel Mining Method

- Continuous miner based bord and pillar system
- Layout designed to minimise impact on sensitive surface areas while minimising resource sterilisation
- Panels 160m wide
  - 4 heading layout
- 1st workings (Roadway development)
  - Single Continuous Miner (CM) Unit (20-30m /shift)
  - Dual CM Unit (35- 45m/shift)
- 2nd workings (Pillar extraction)
  - 1,000 tonnes per shift
- 6 day rotating roster
- Depth of cover range 95m to 150m

Abel Typical Panel Layout - Panel 25

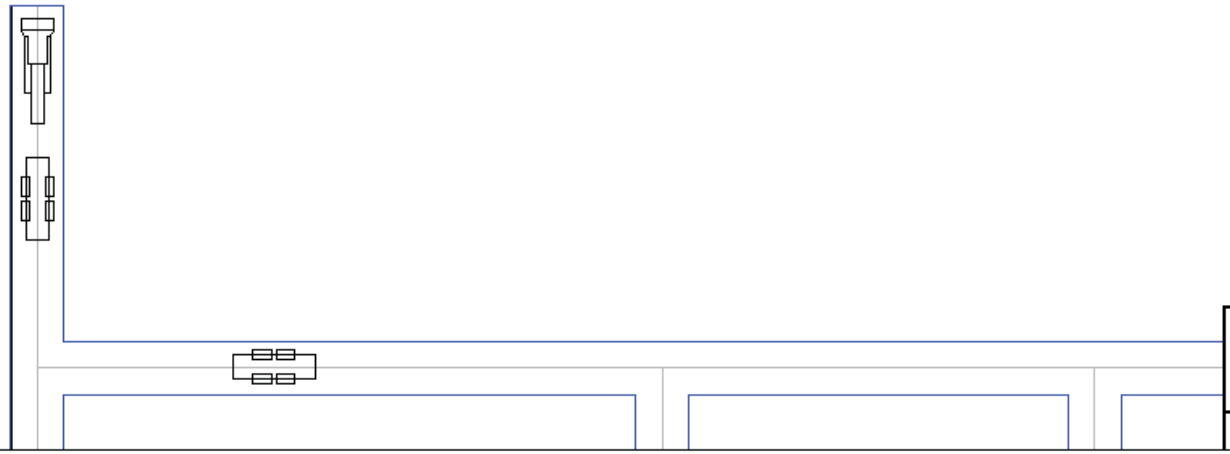


Panel 25	M Dev t Pillars	Time taken
1st workings	5,247m	~17 weeks
2nd workings	184,201t	~15 weeks
		~32 weeks

Barrier Pillar 24.5m

FIRST WORKINGS

- Roadways driven to form pillars. Development of main headings and panel roads to establish access to the coal in the Pillar Extraction panels.



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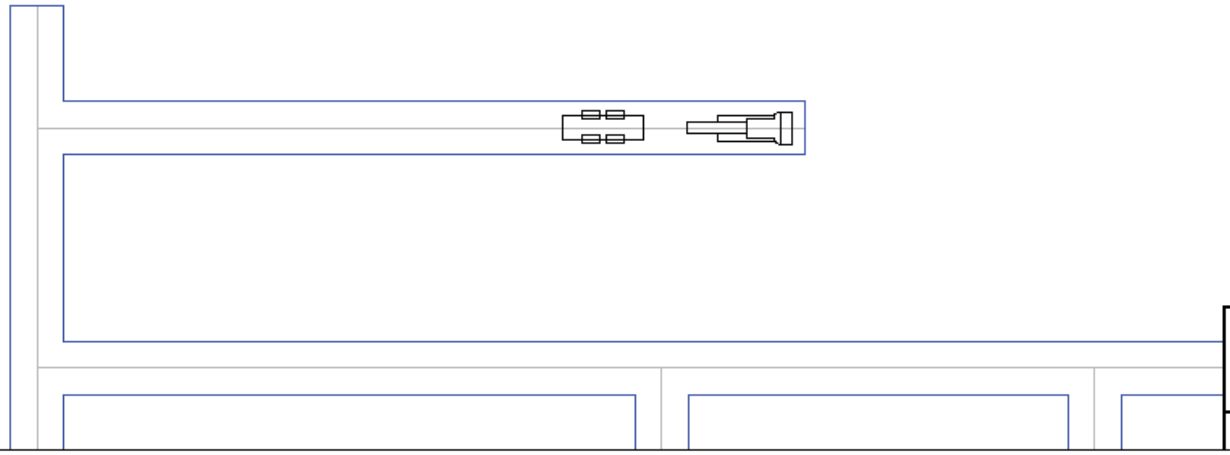
PANEL 2 PILLAR EXTRACTION



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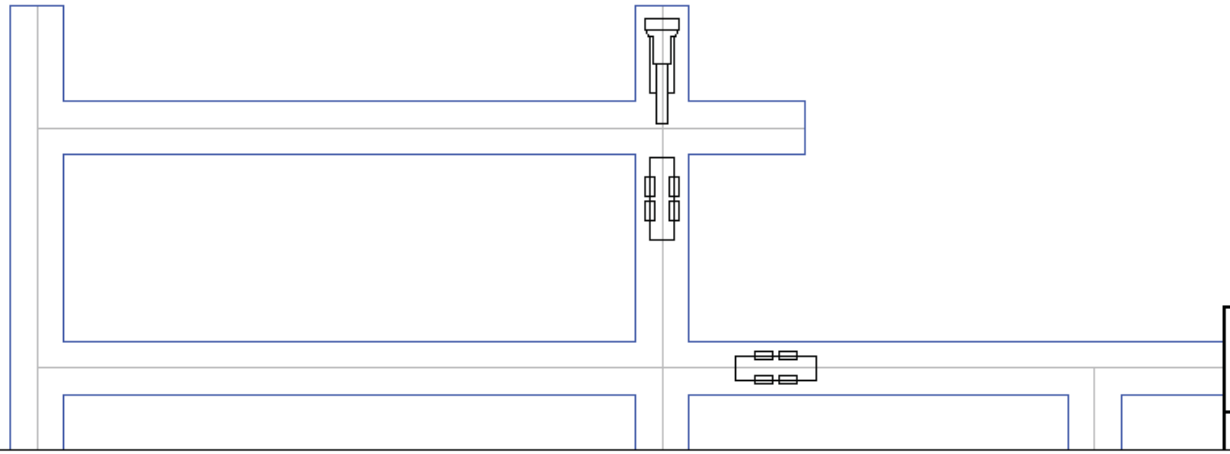

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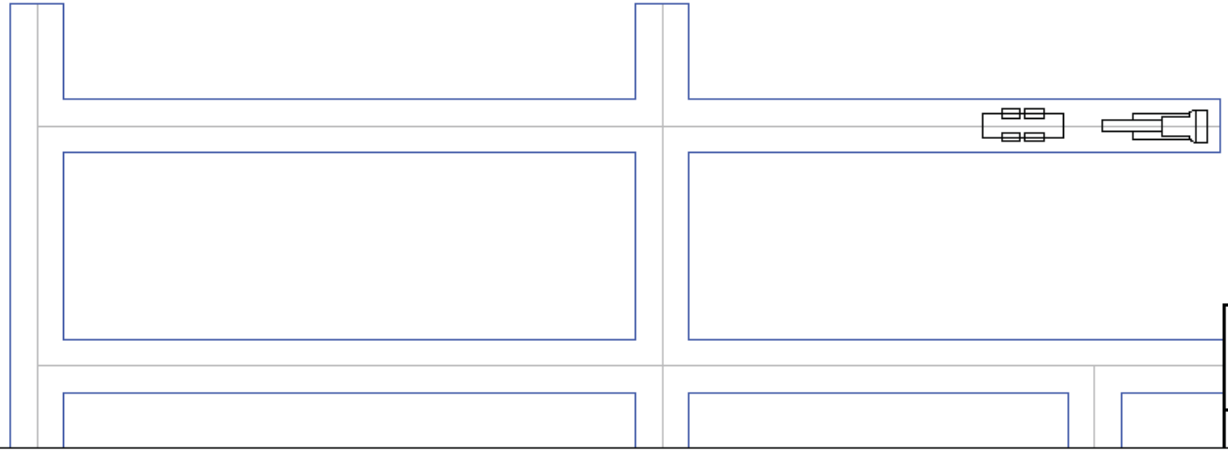

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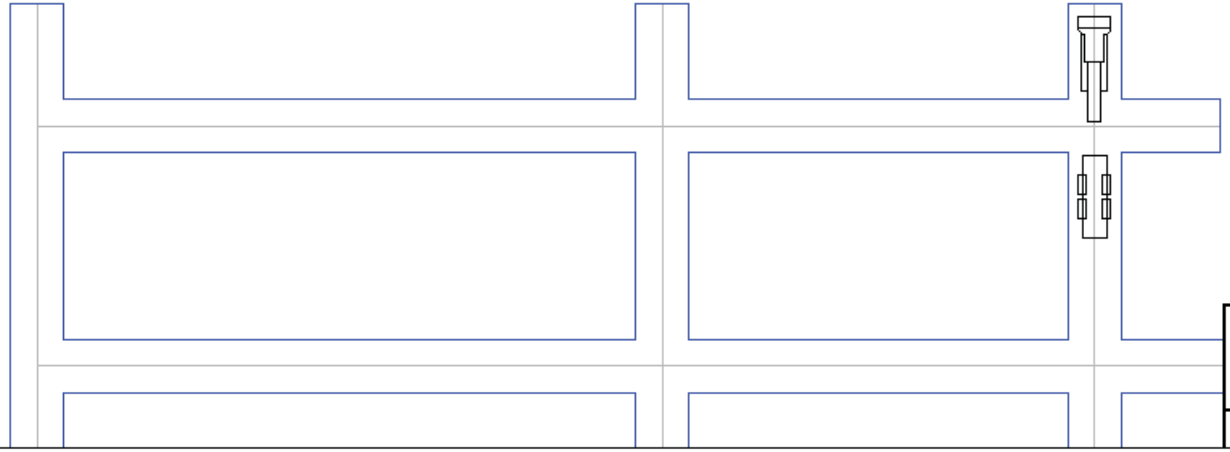

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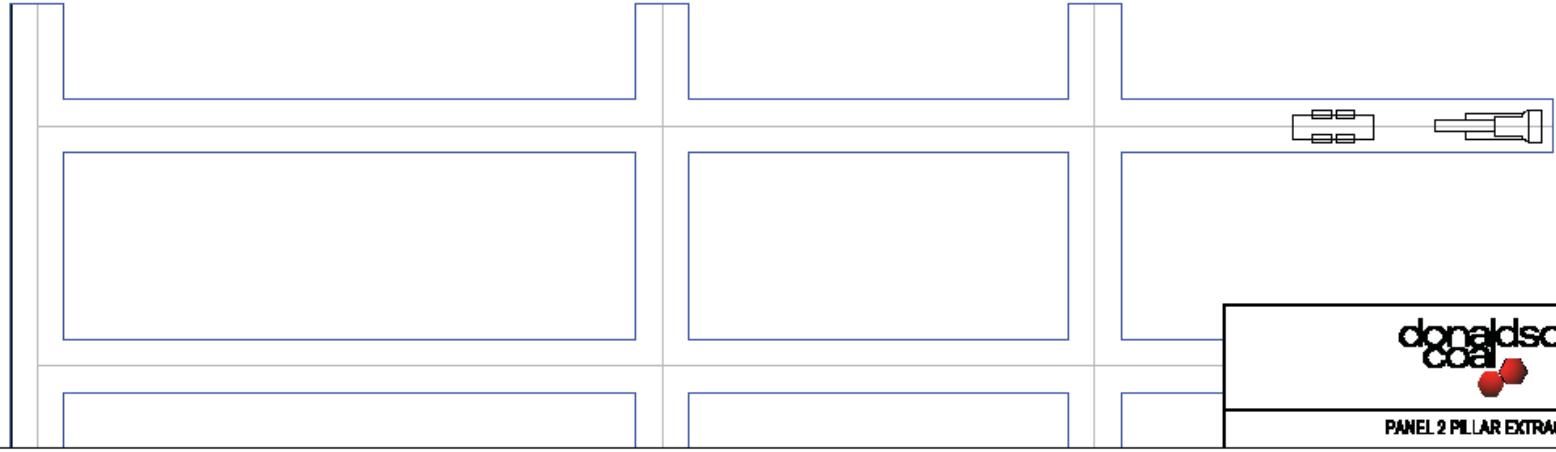

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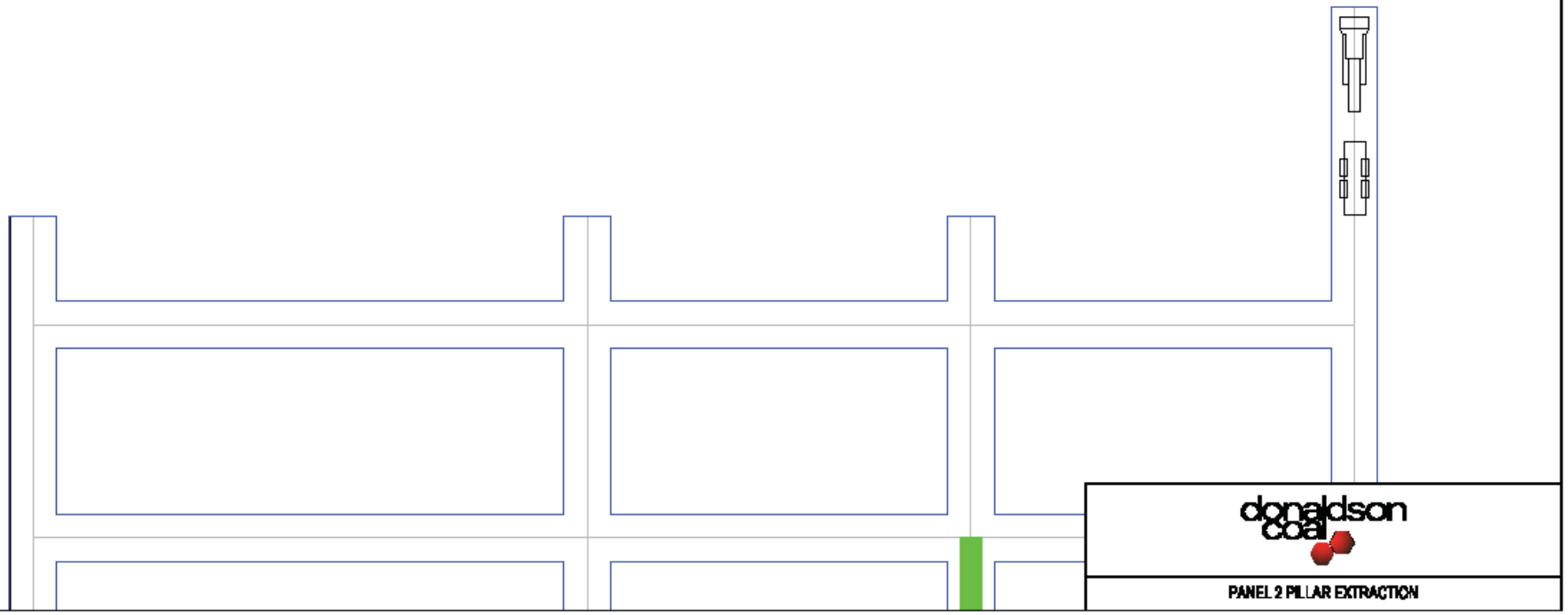

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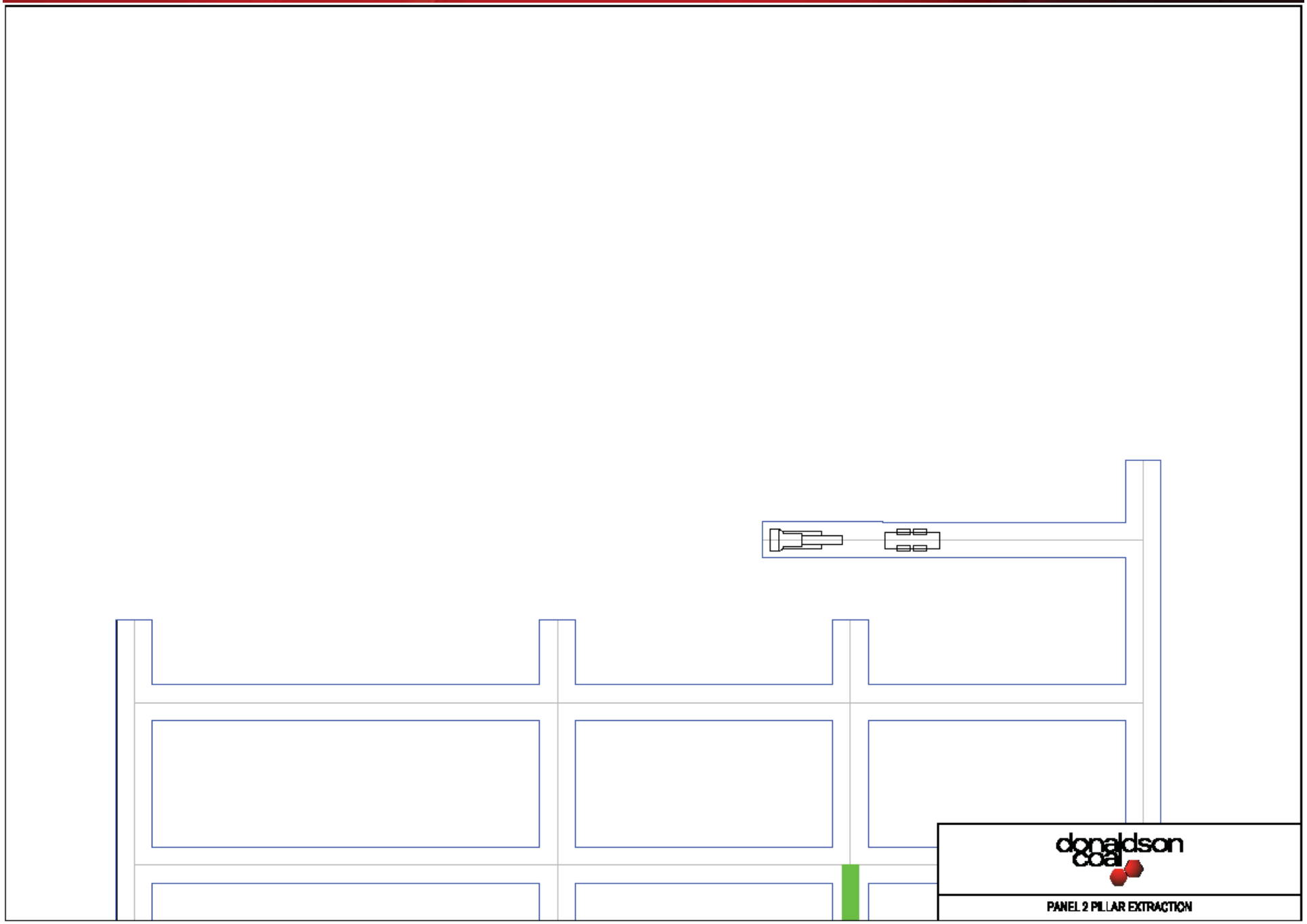
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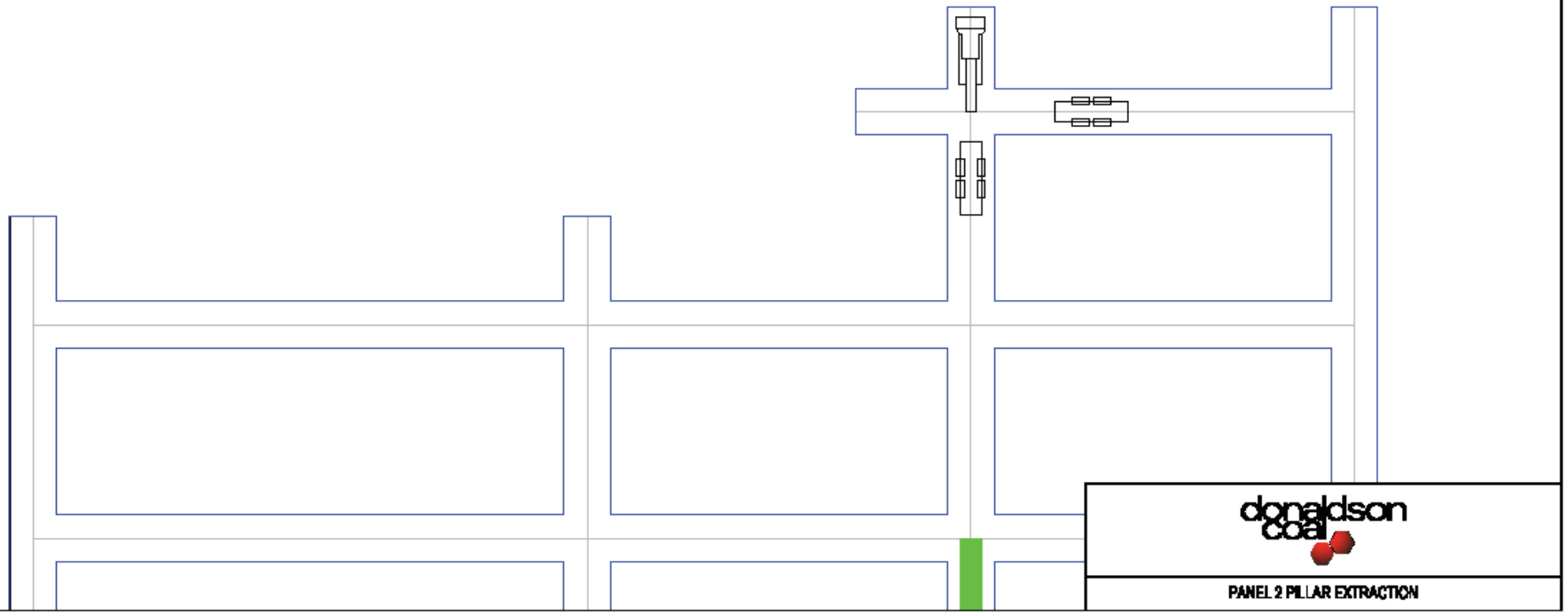

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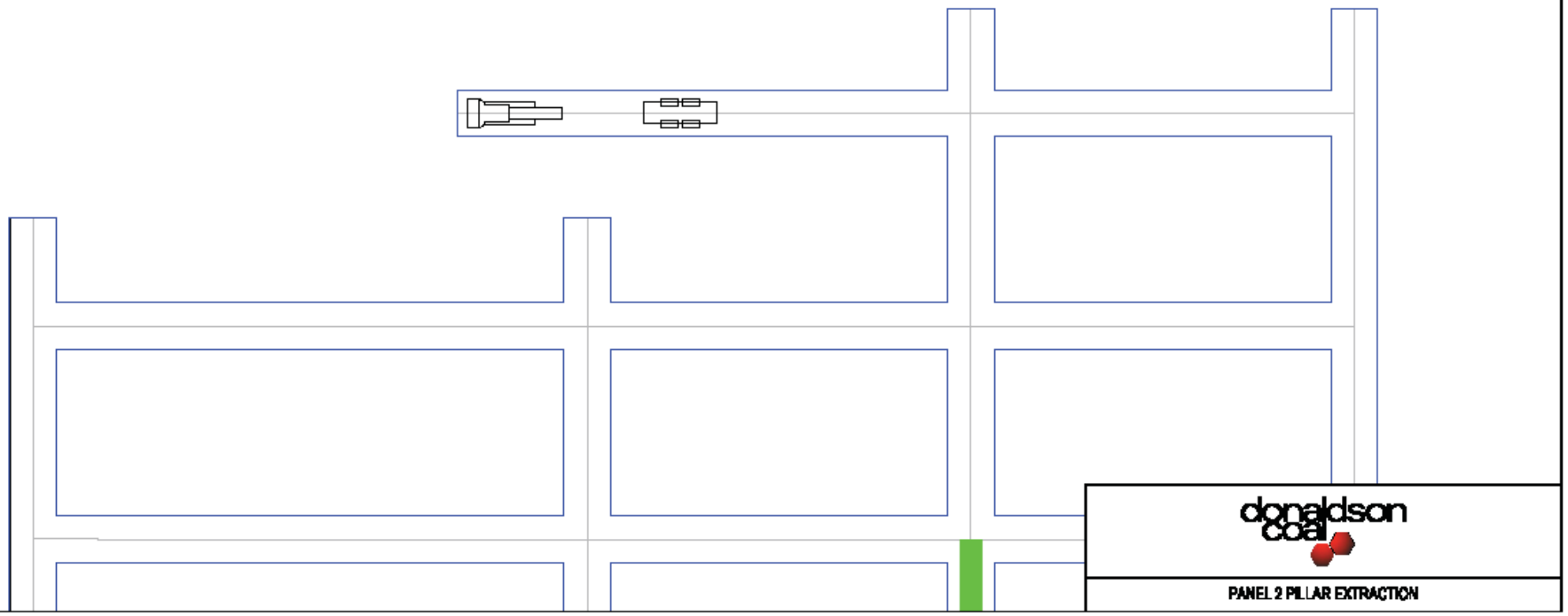

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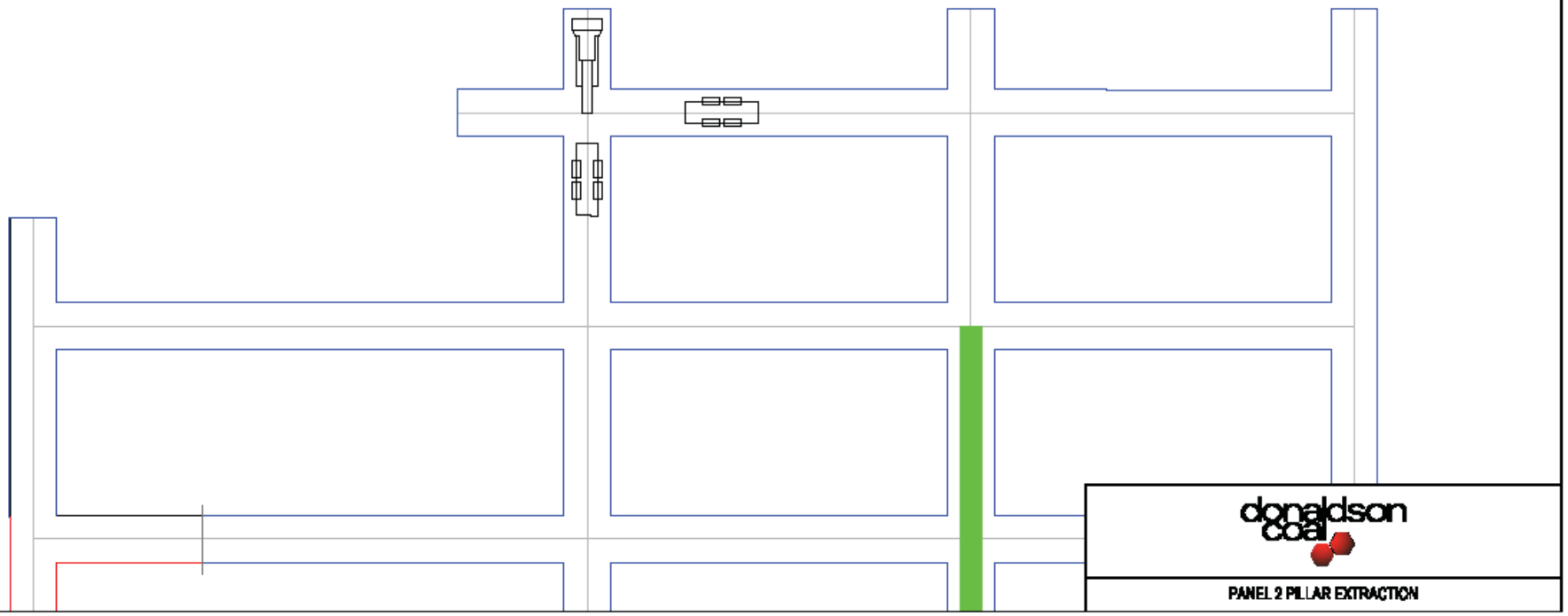
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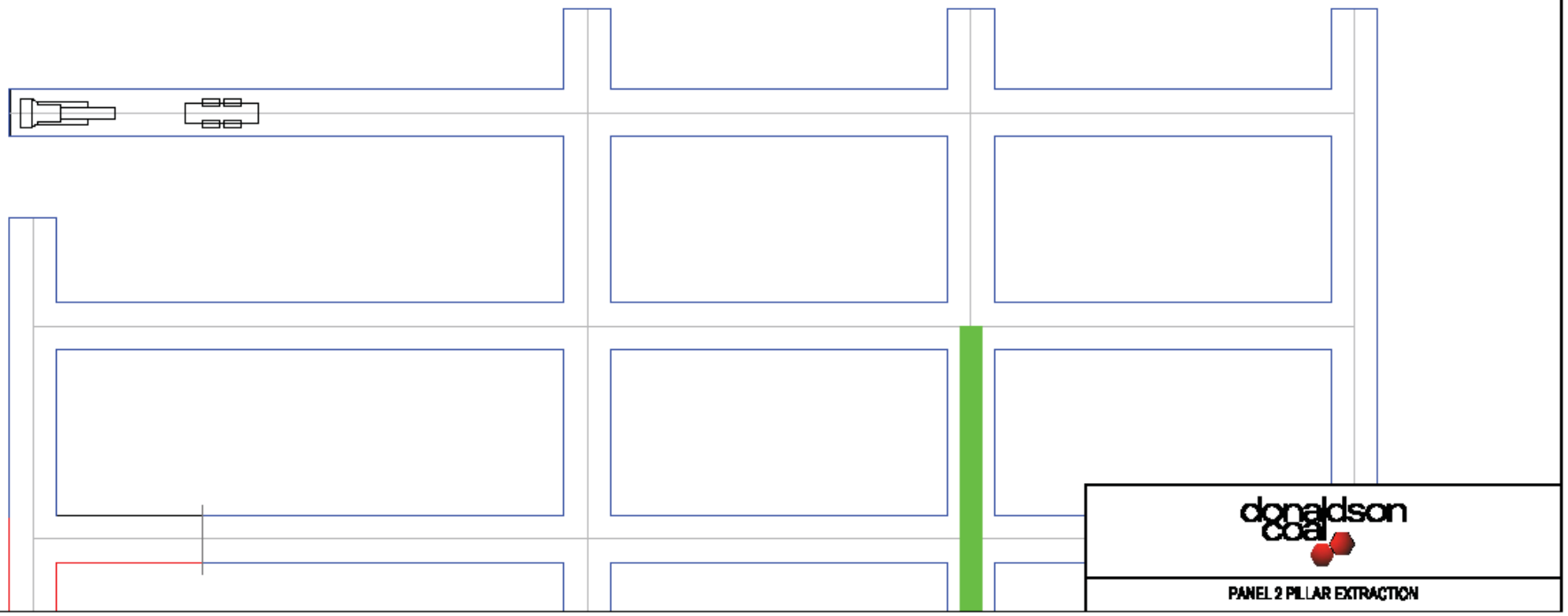
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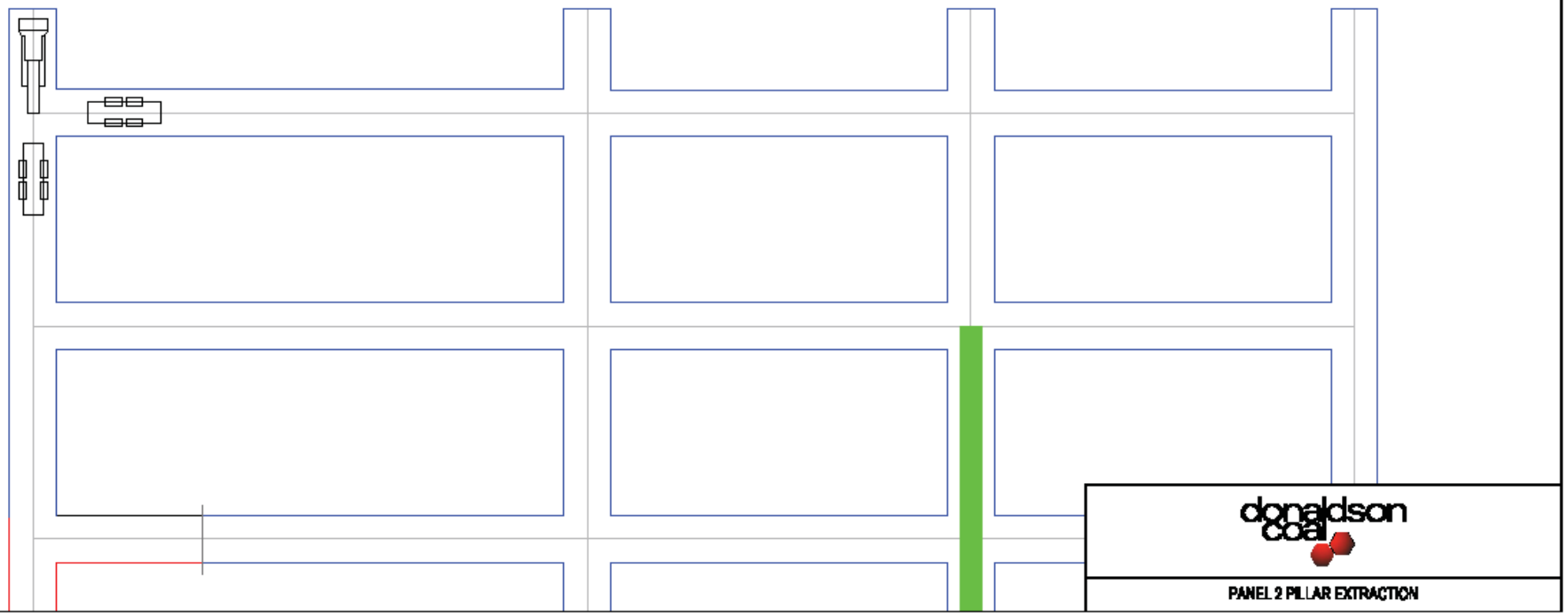
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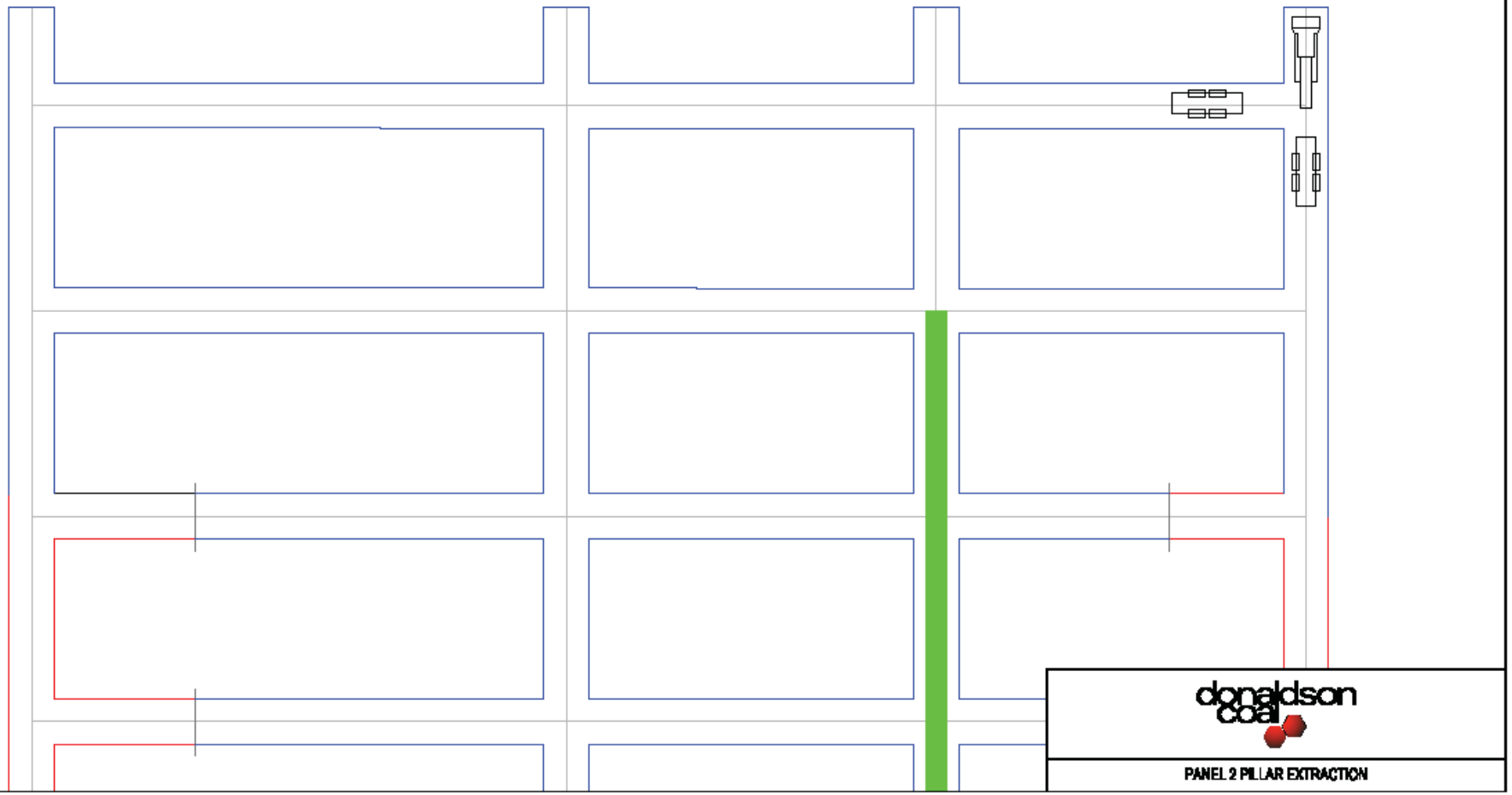
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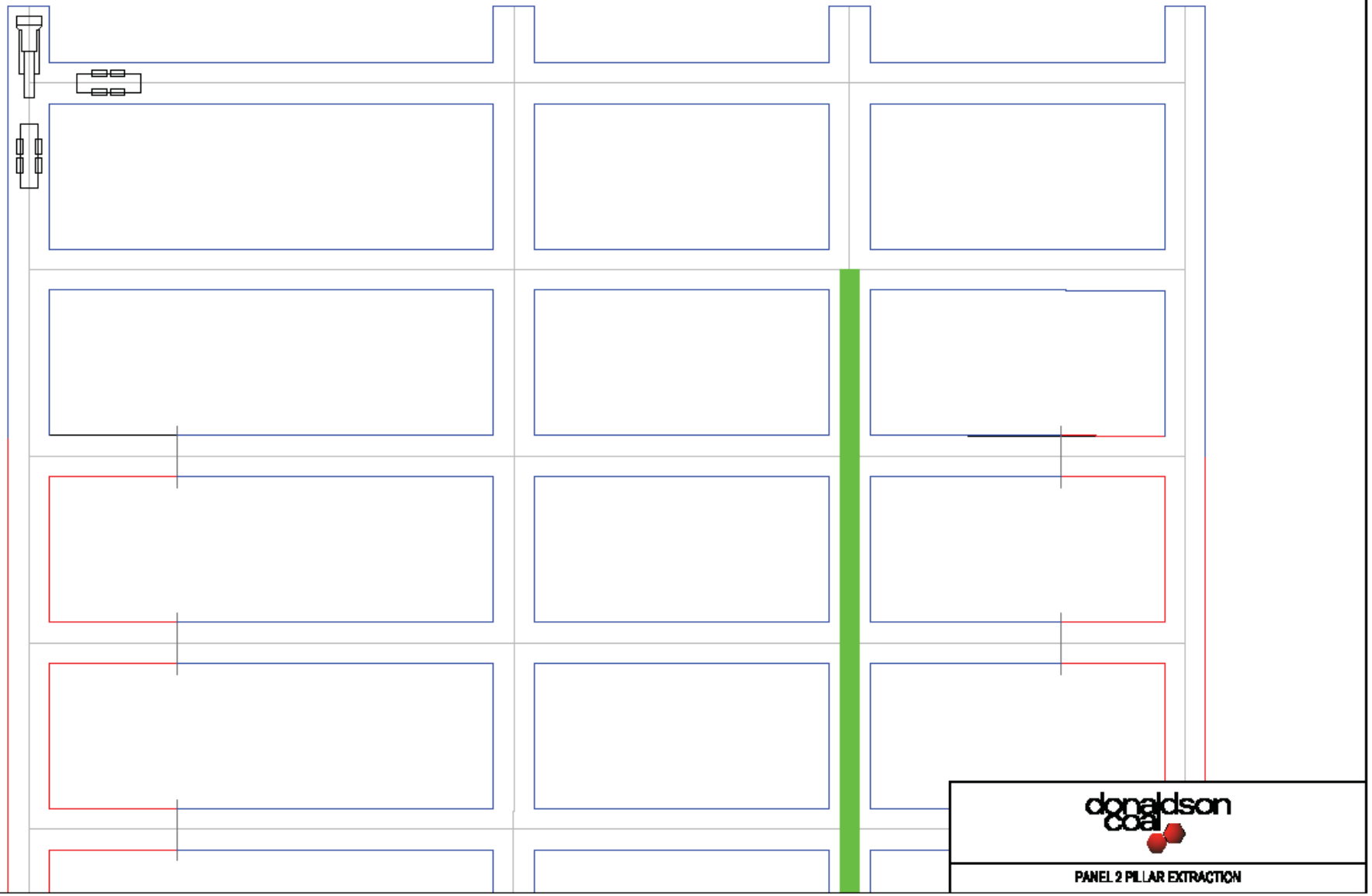
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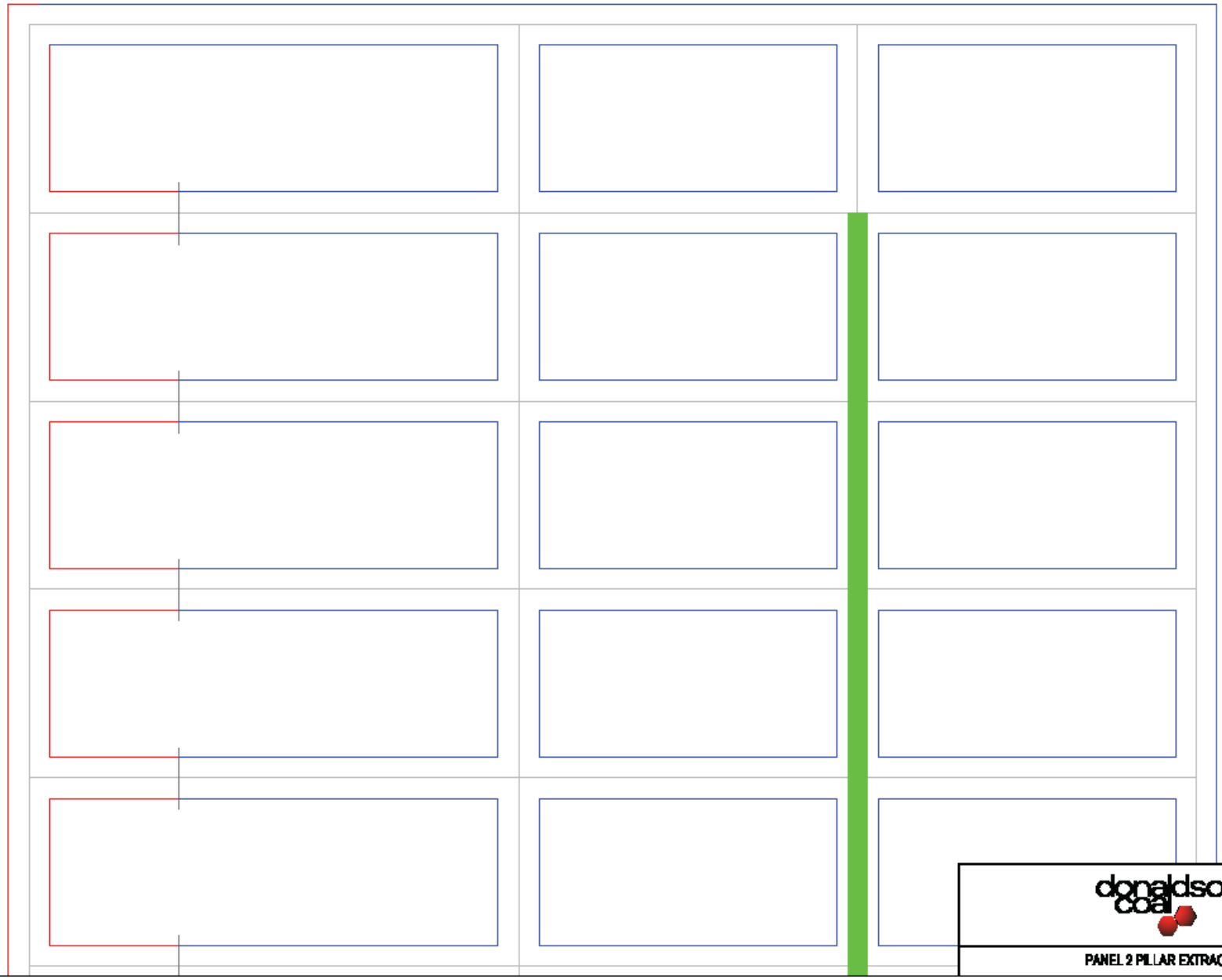

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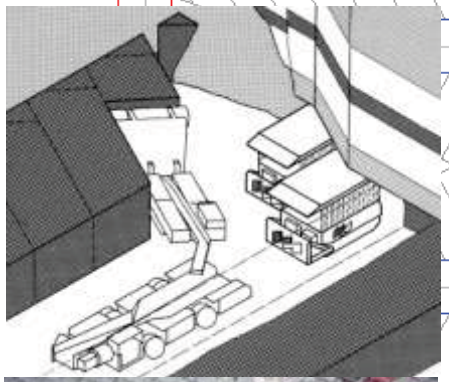
PANEL 2 PILLAR EXTRACTION

2nd WORKINGS

- Once 1st workings Development is completed, 2ndary extraction commences
- Extraction of coal from pillars formed during development



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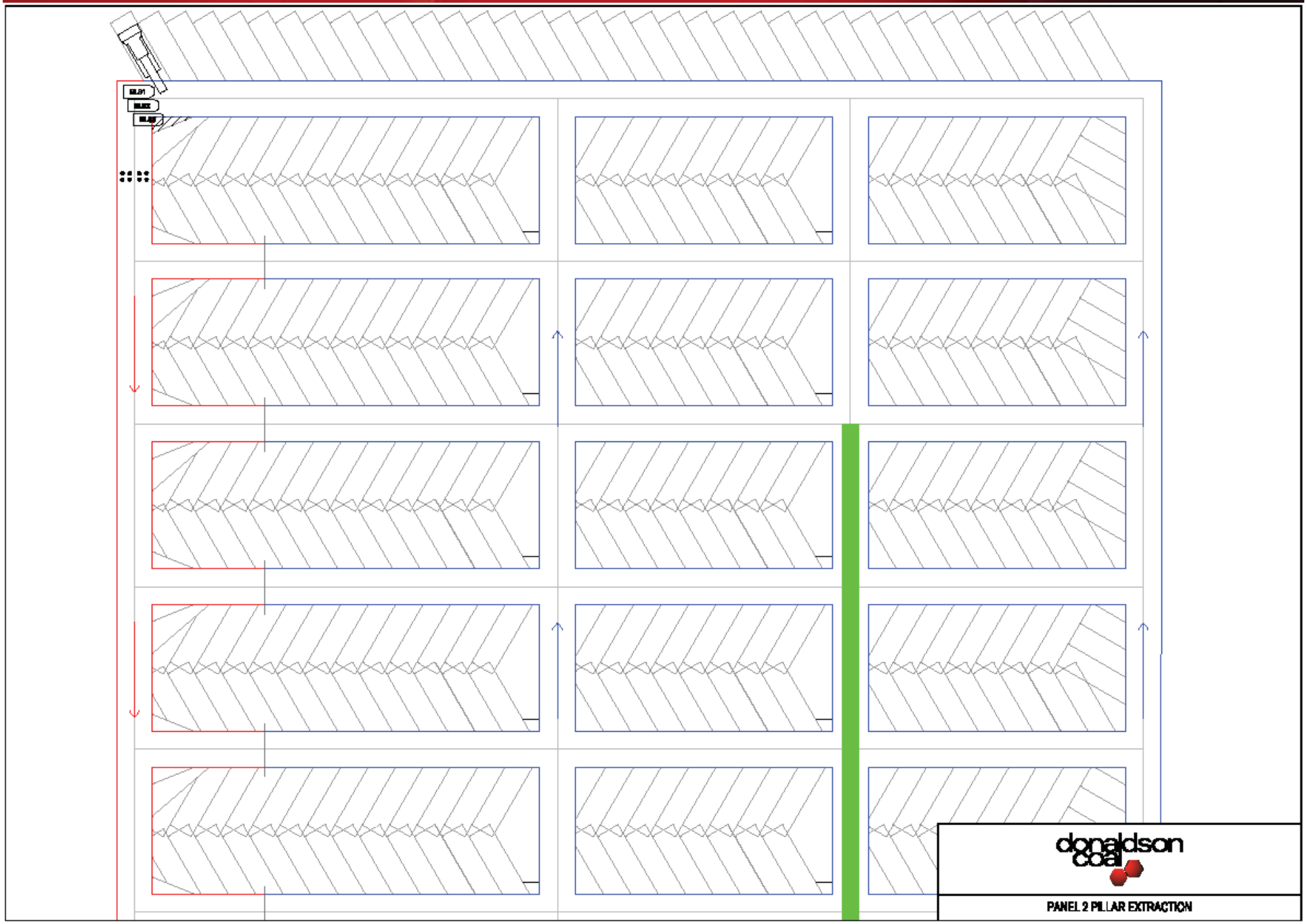
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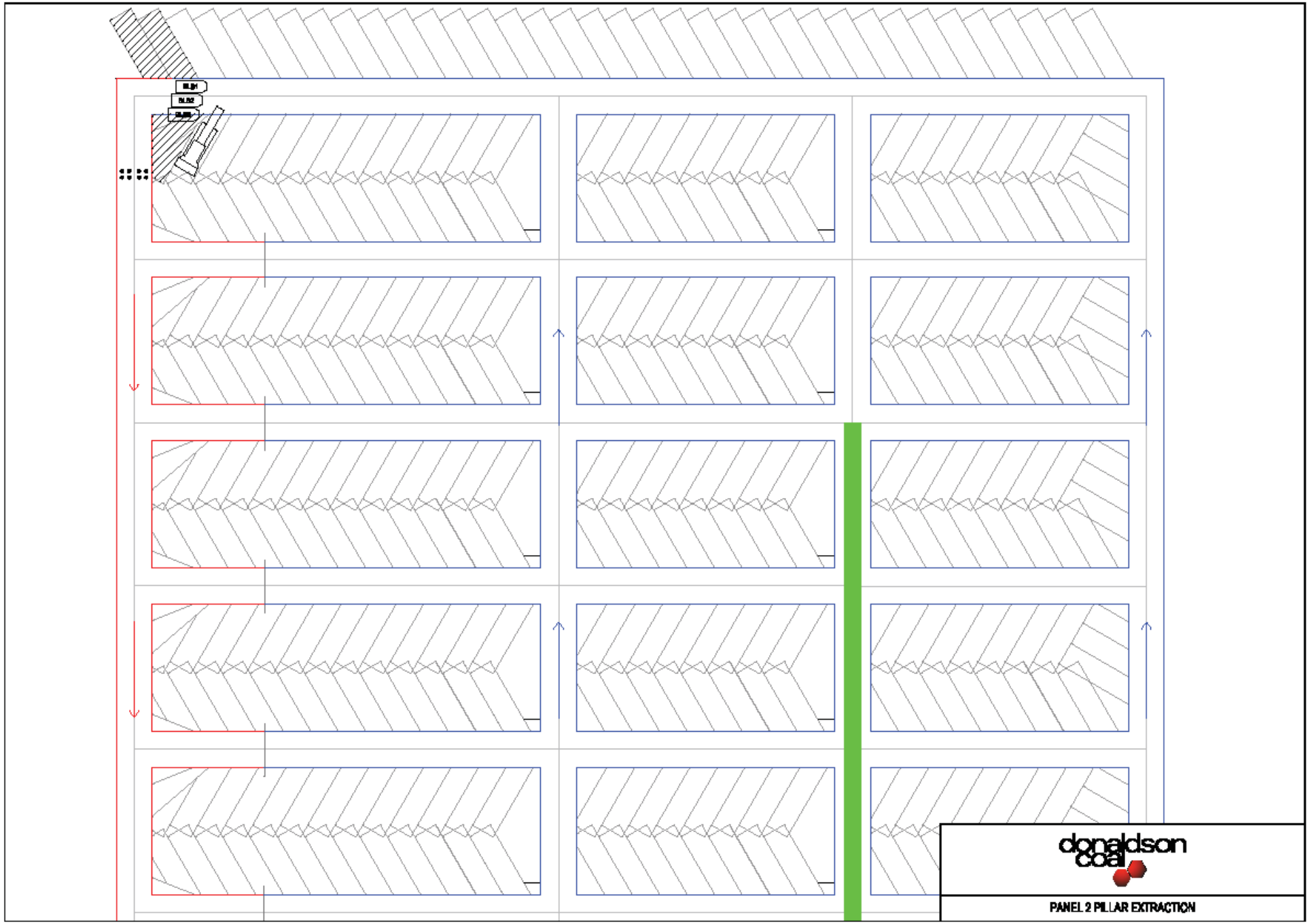
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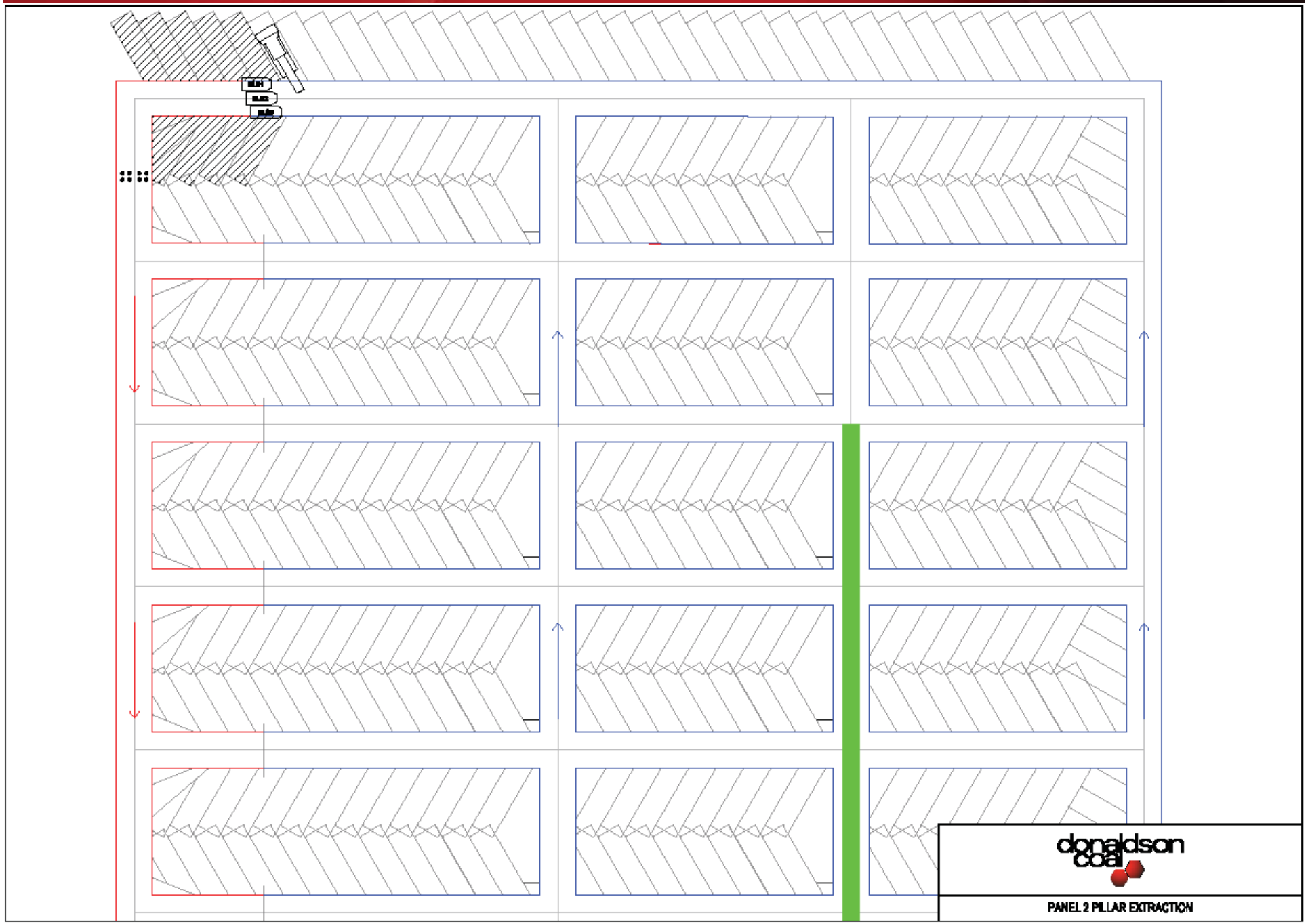
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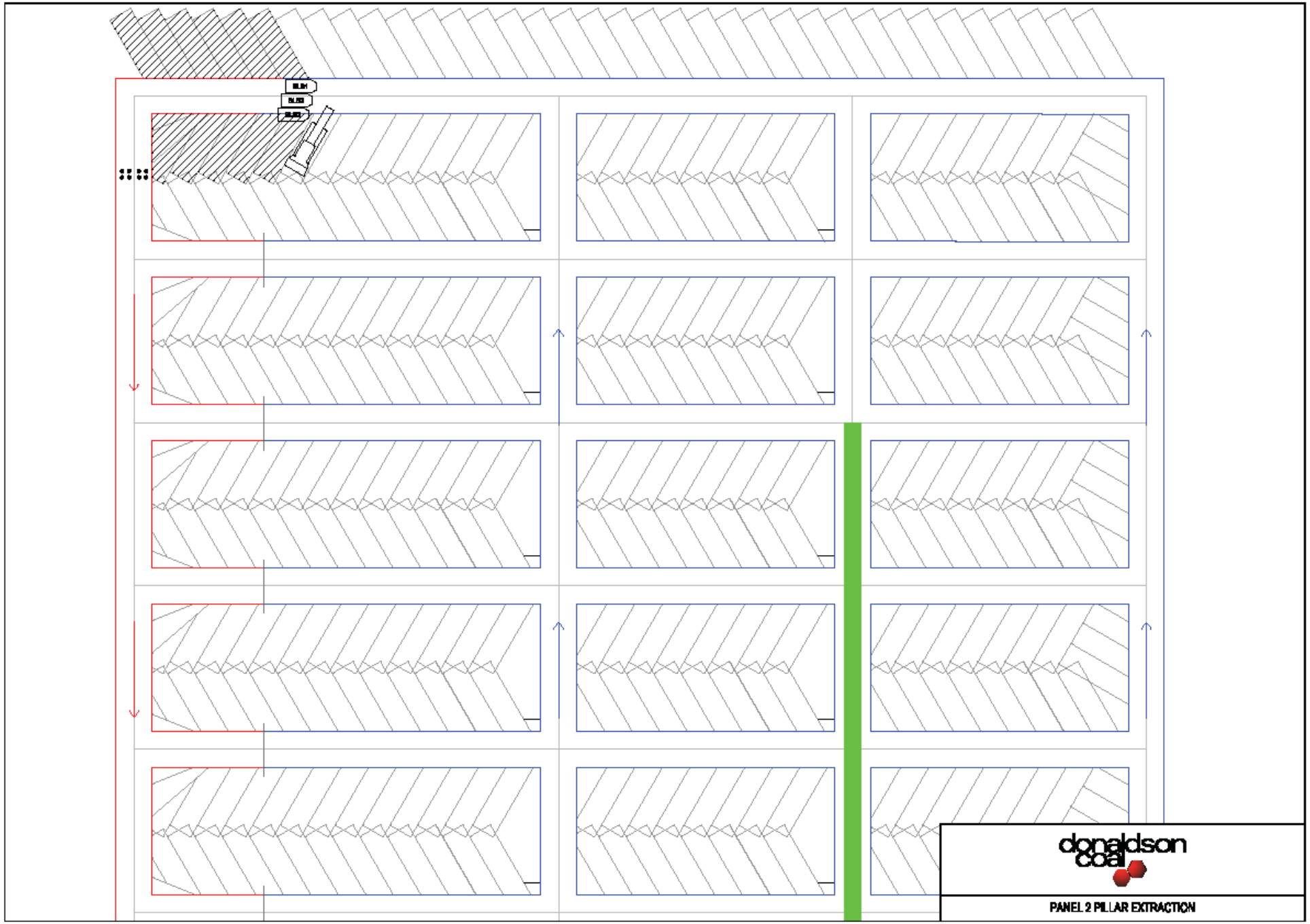
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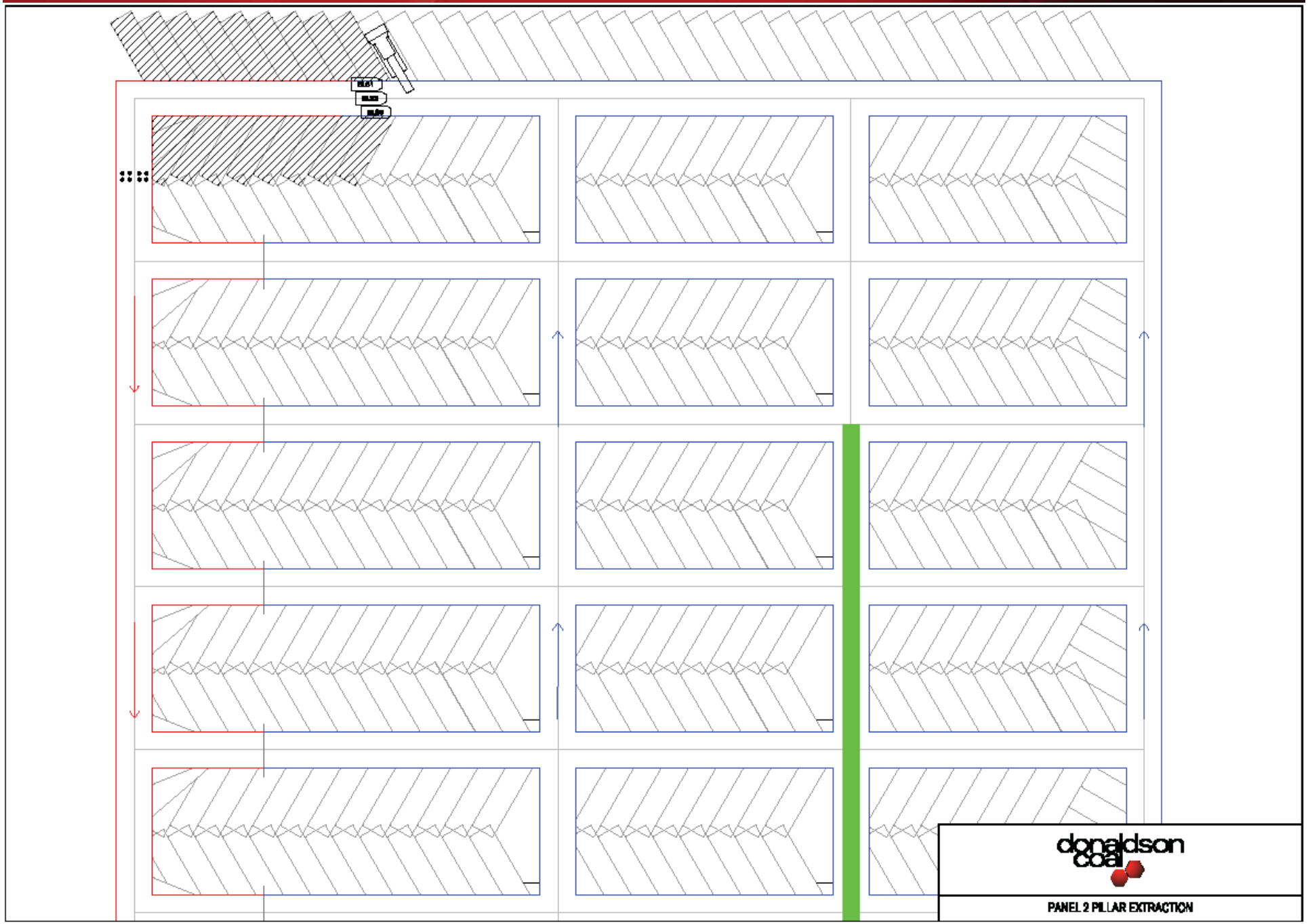
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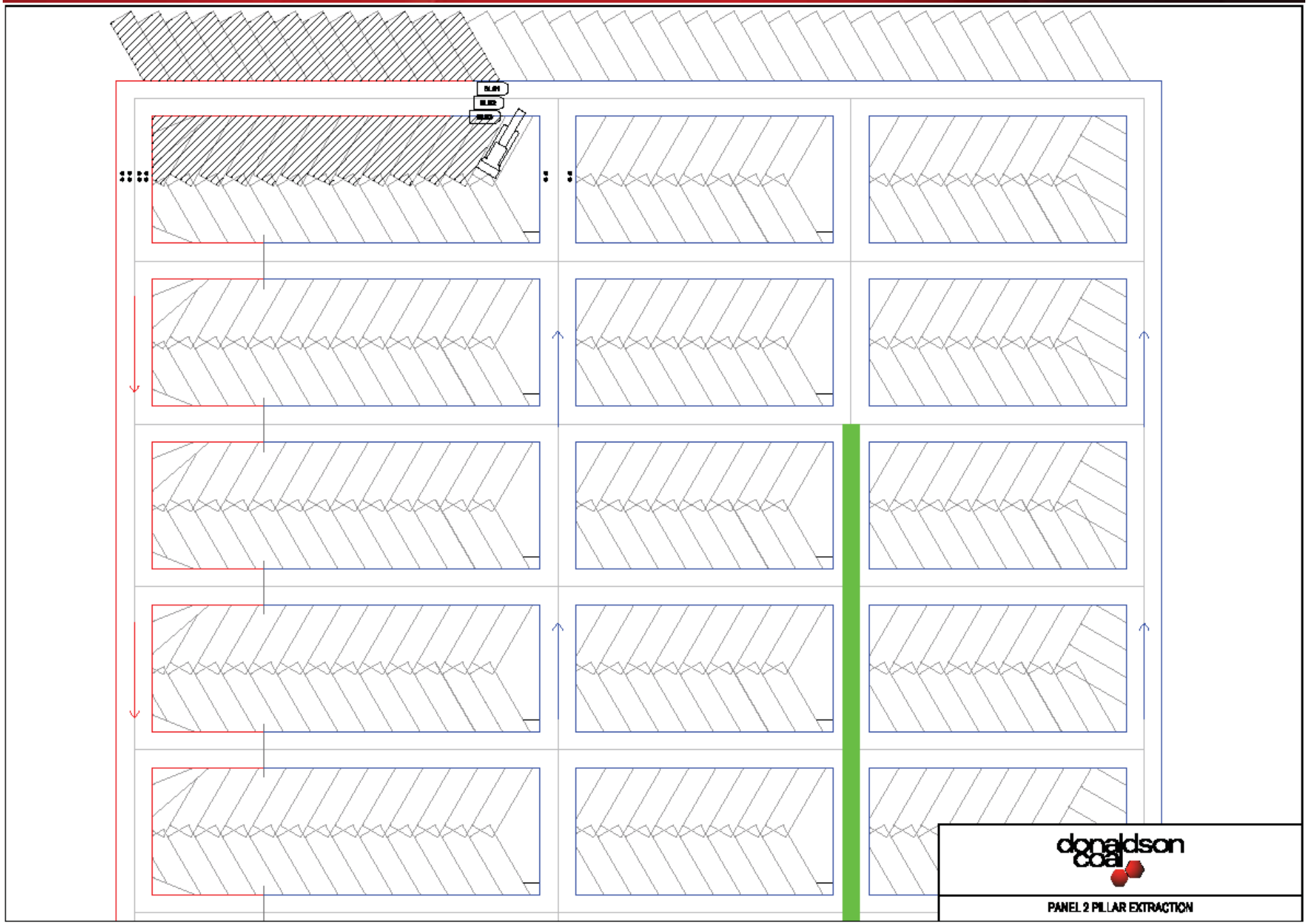
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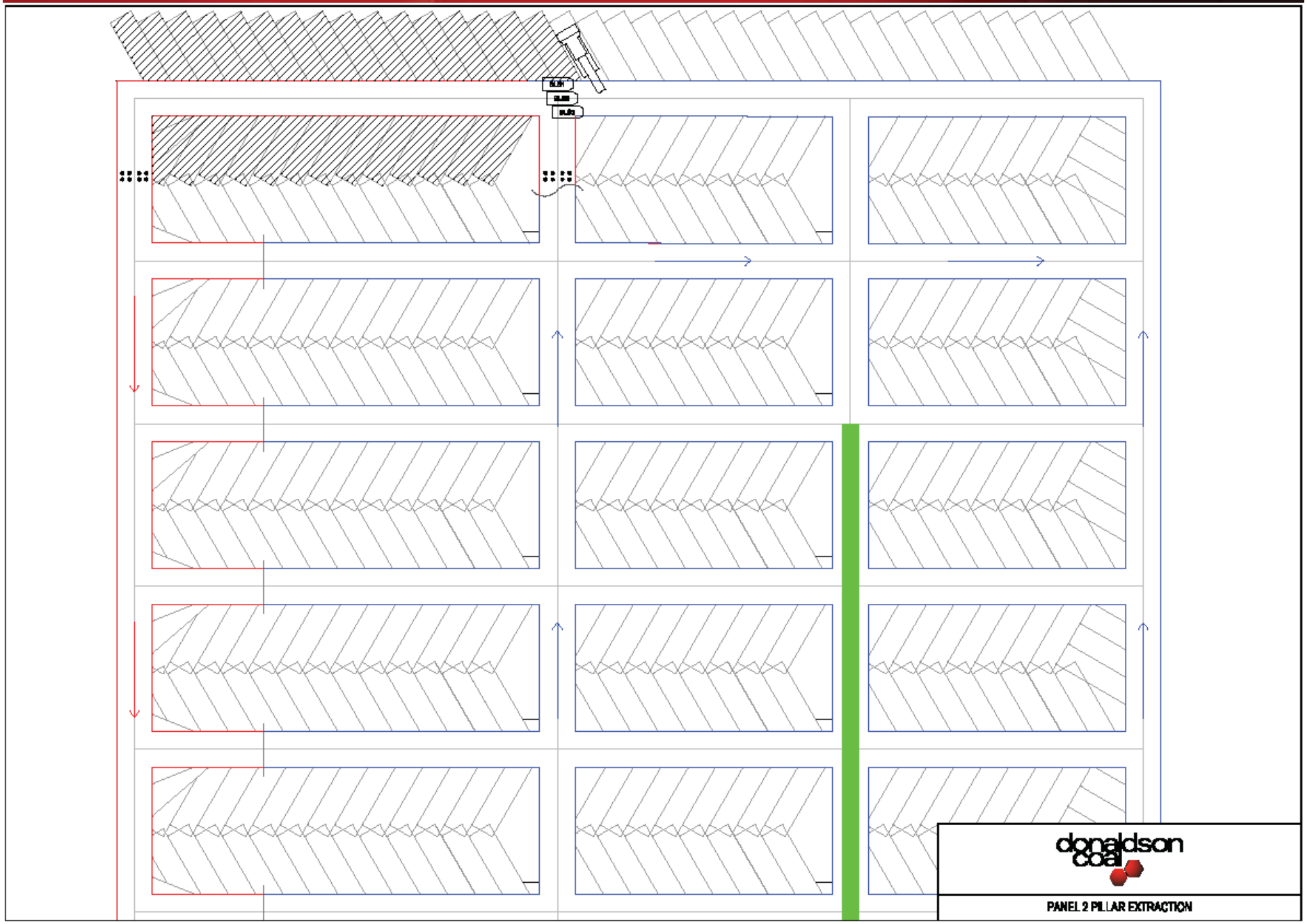
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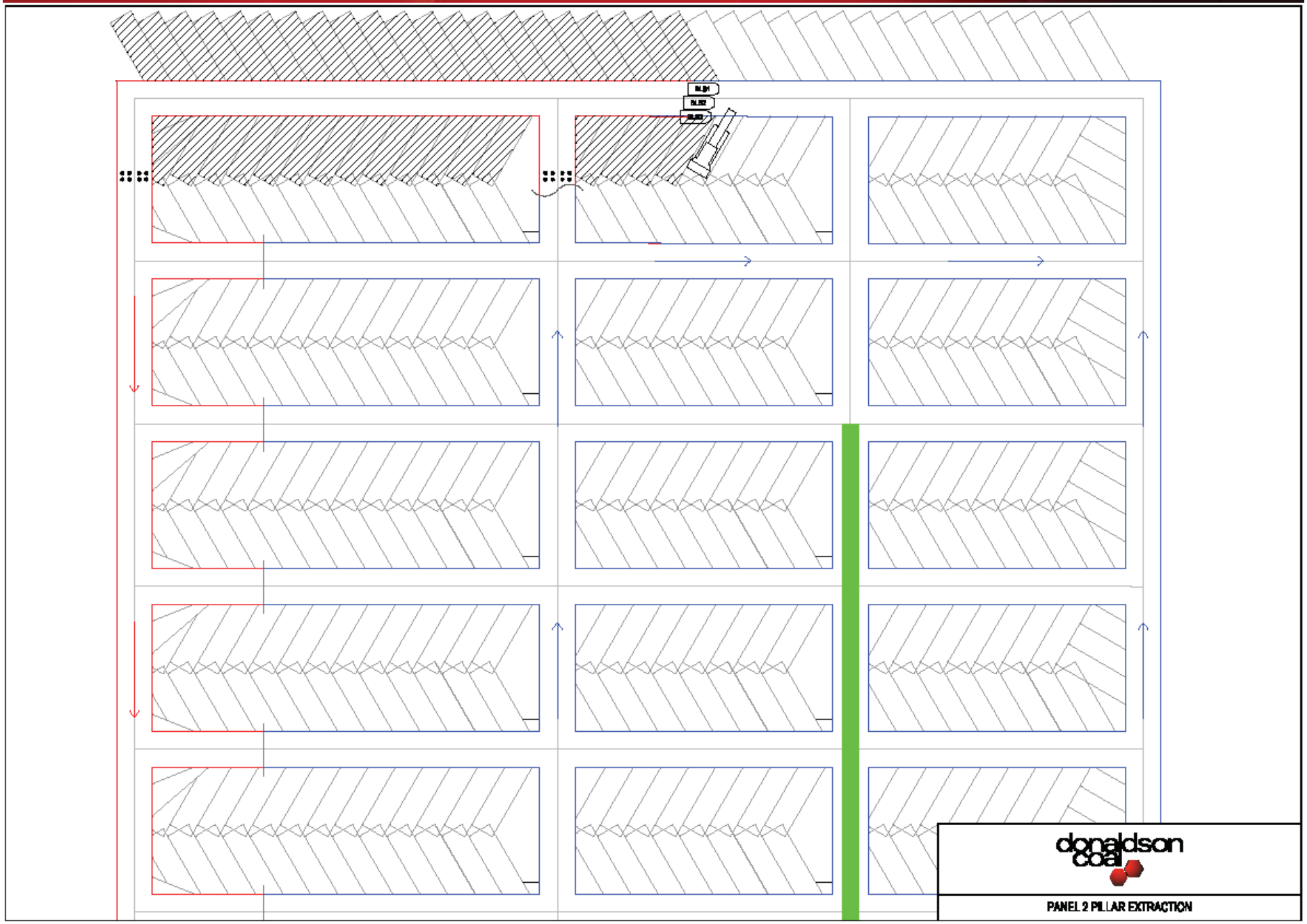
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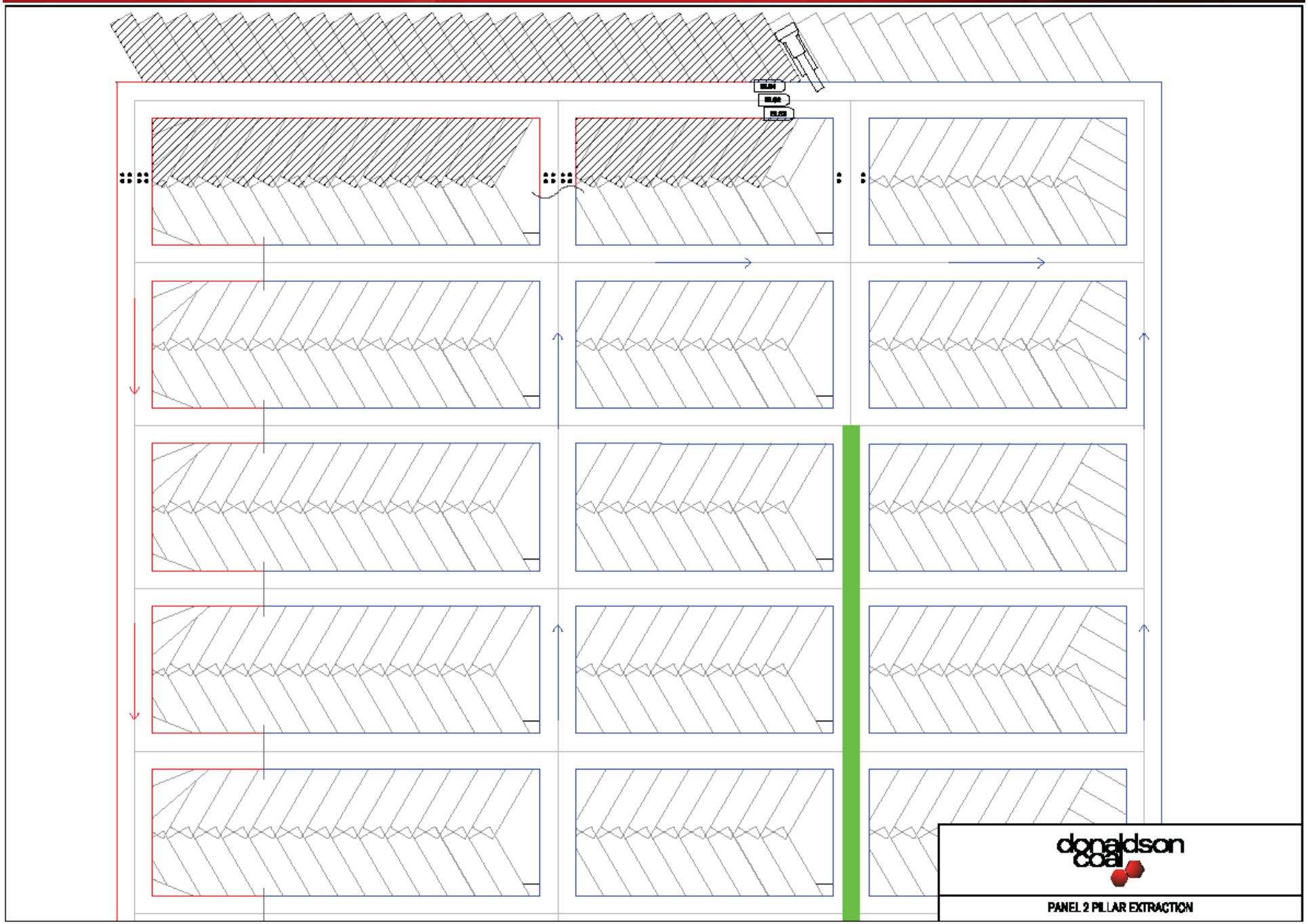
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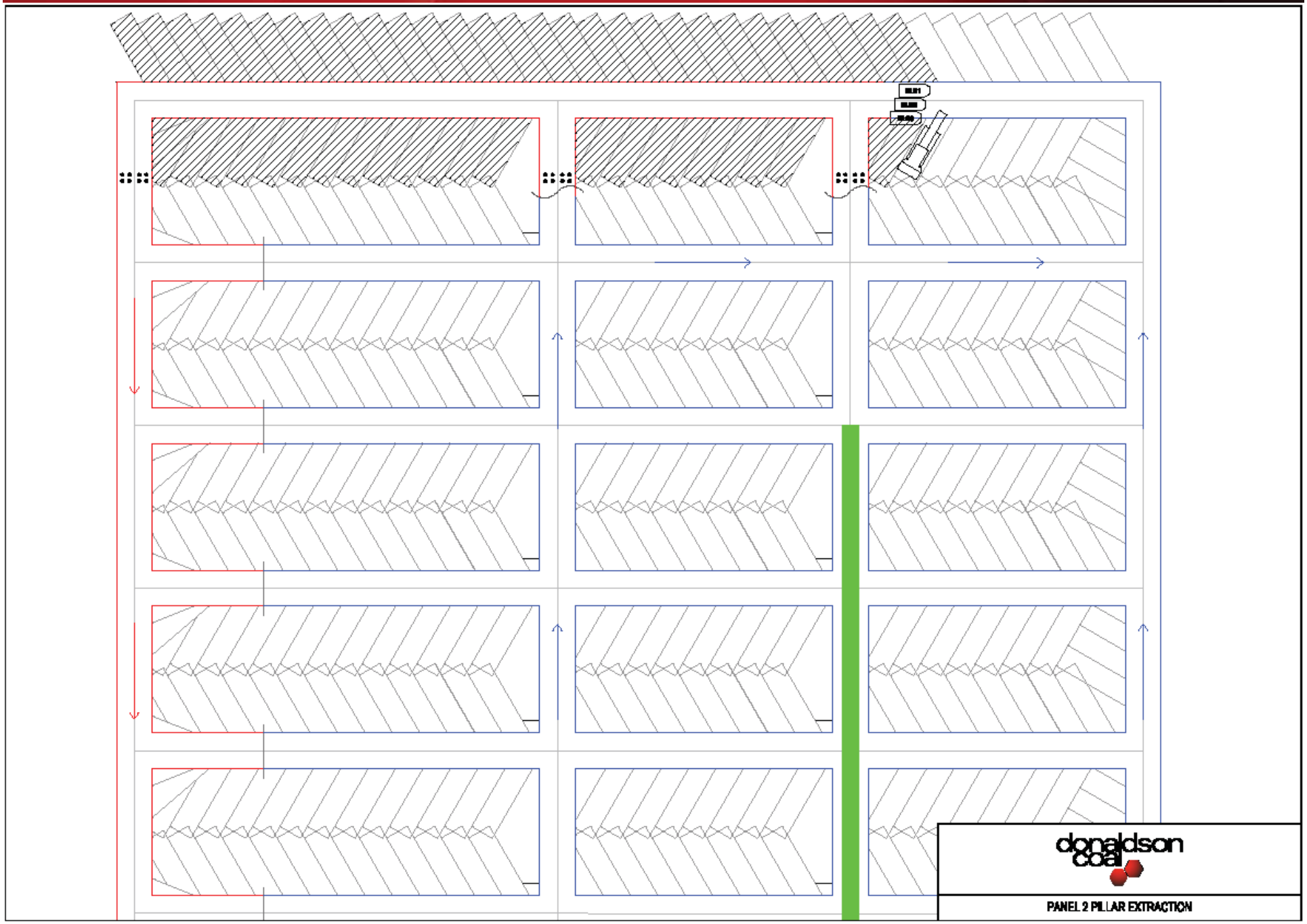
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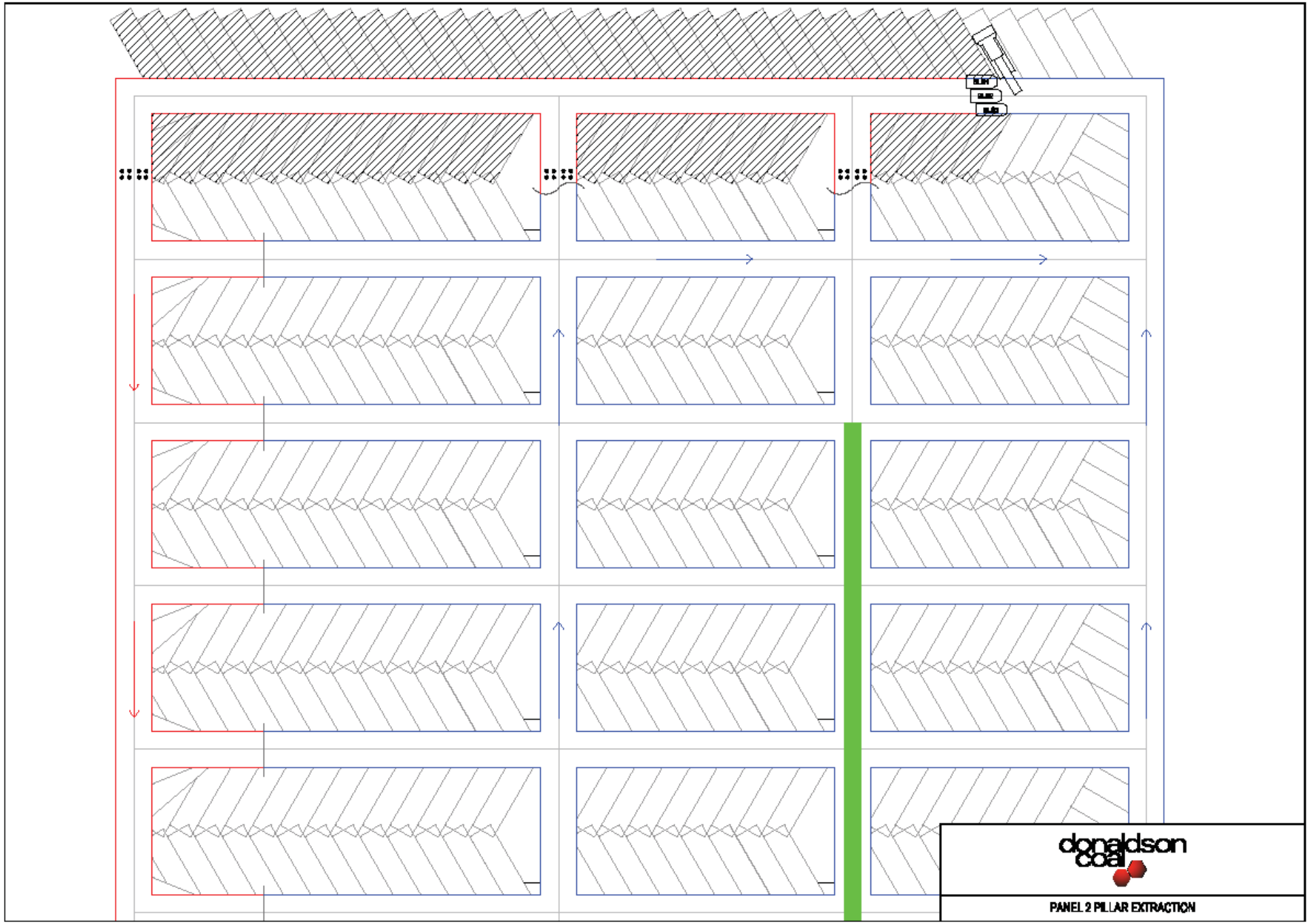
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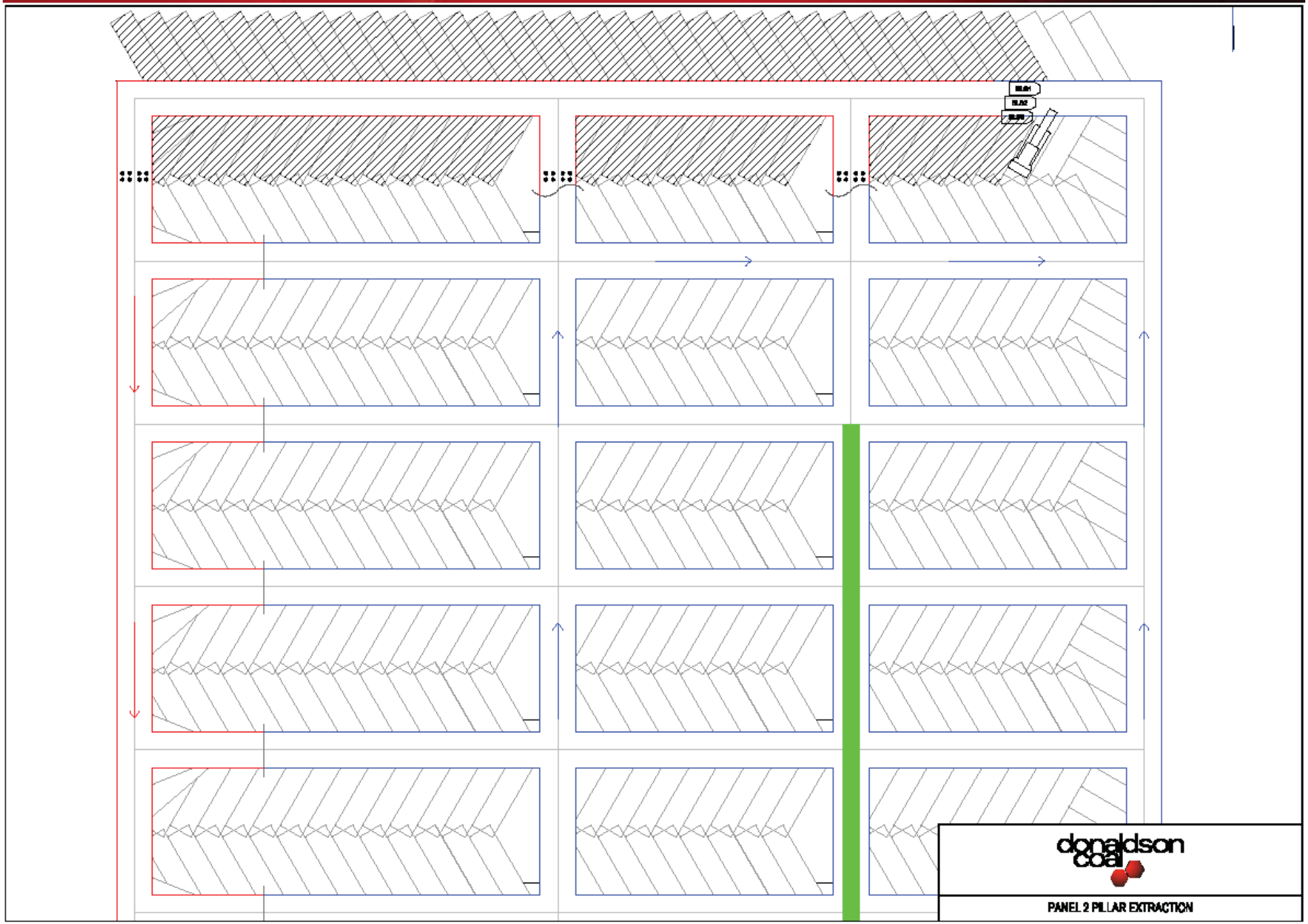
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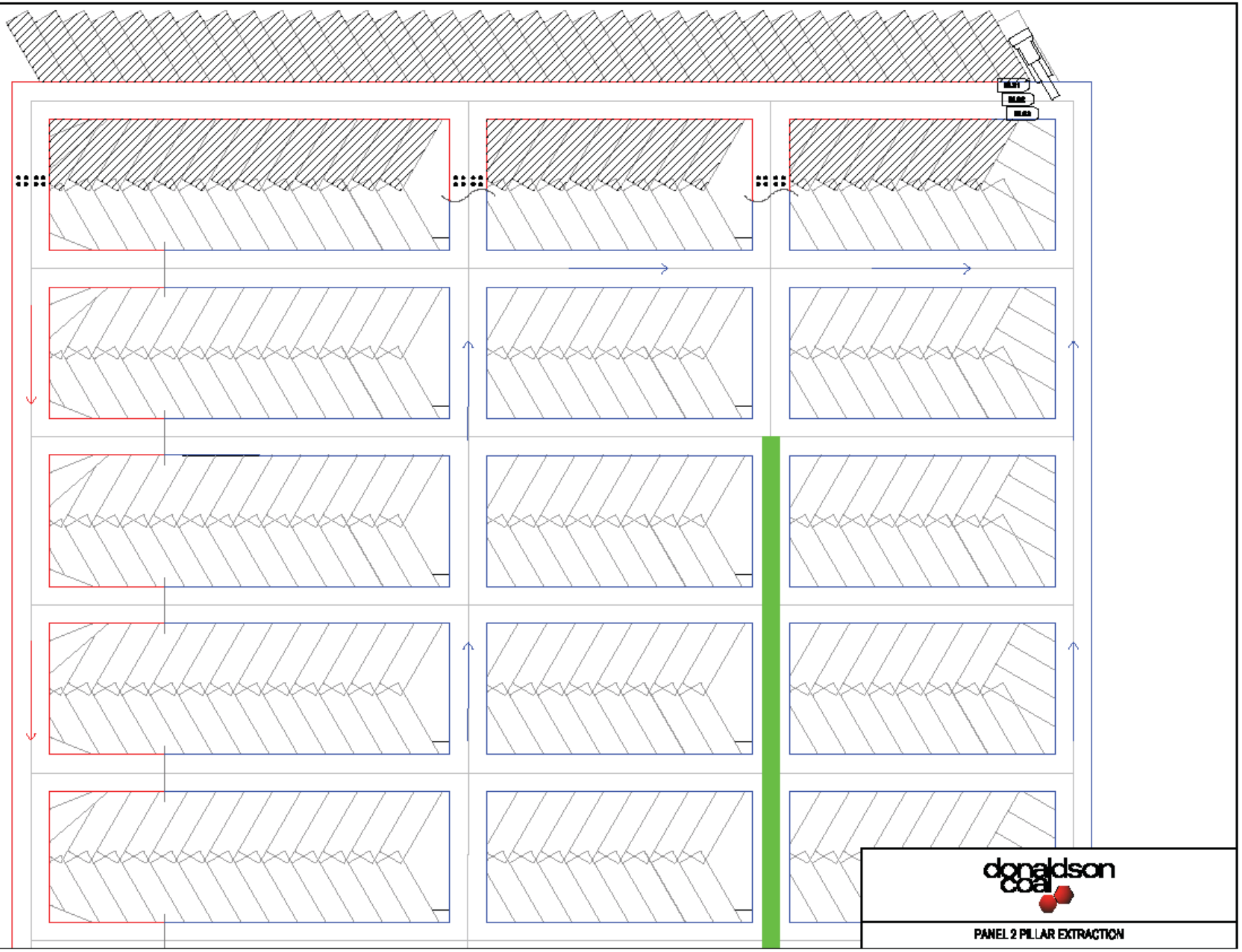
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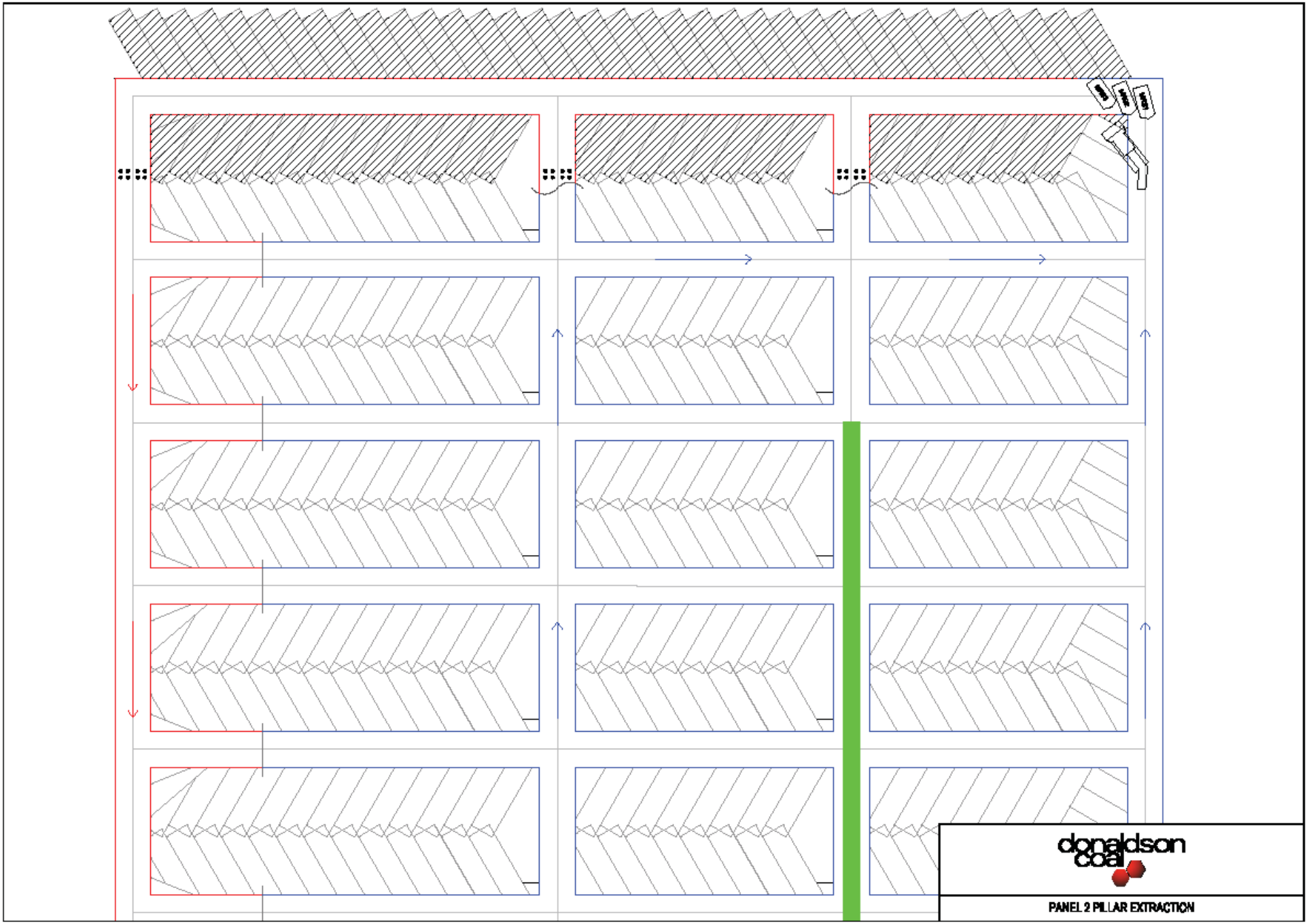
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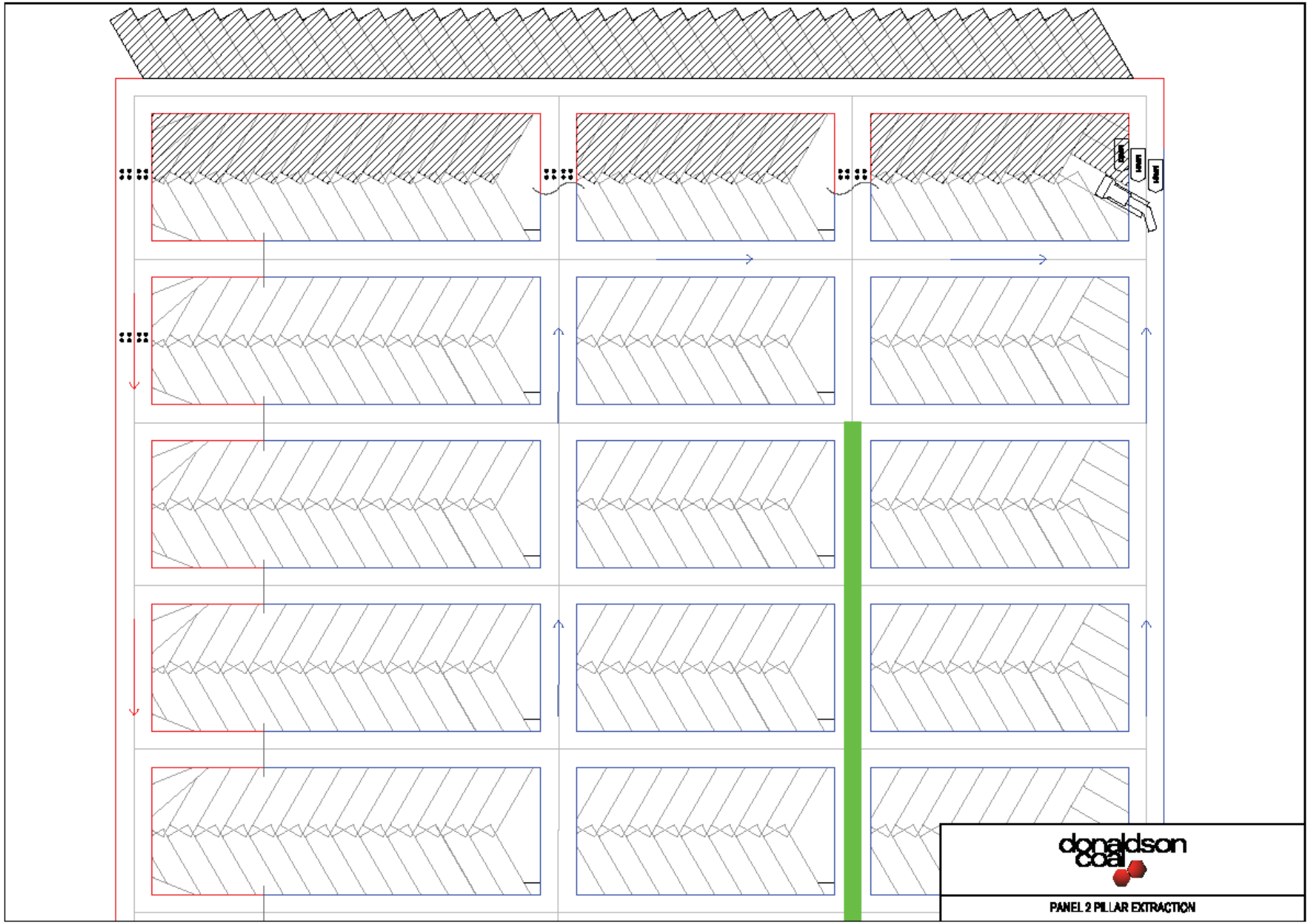
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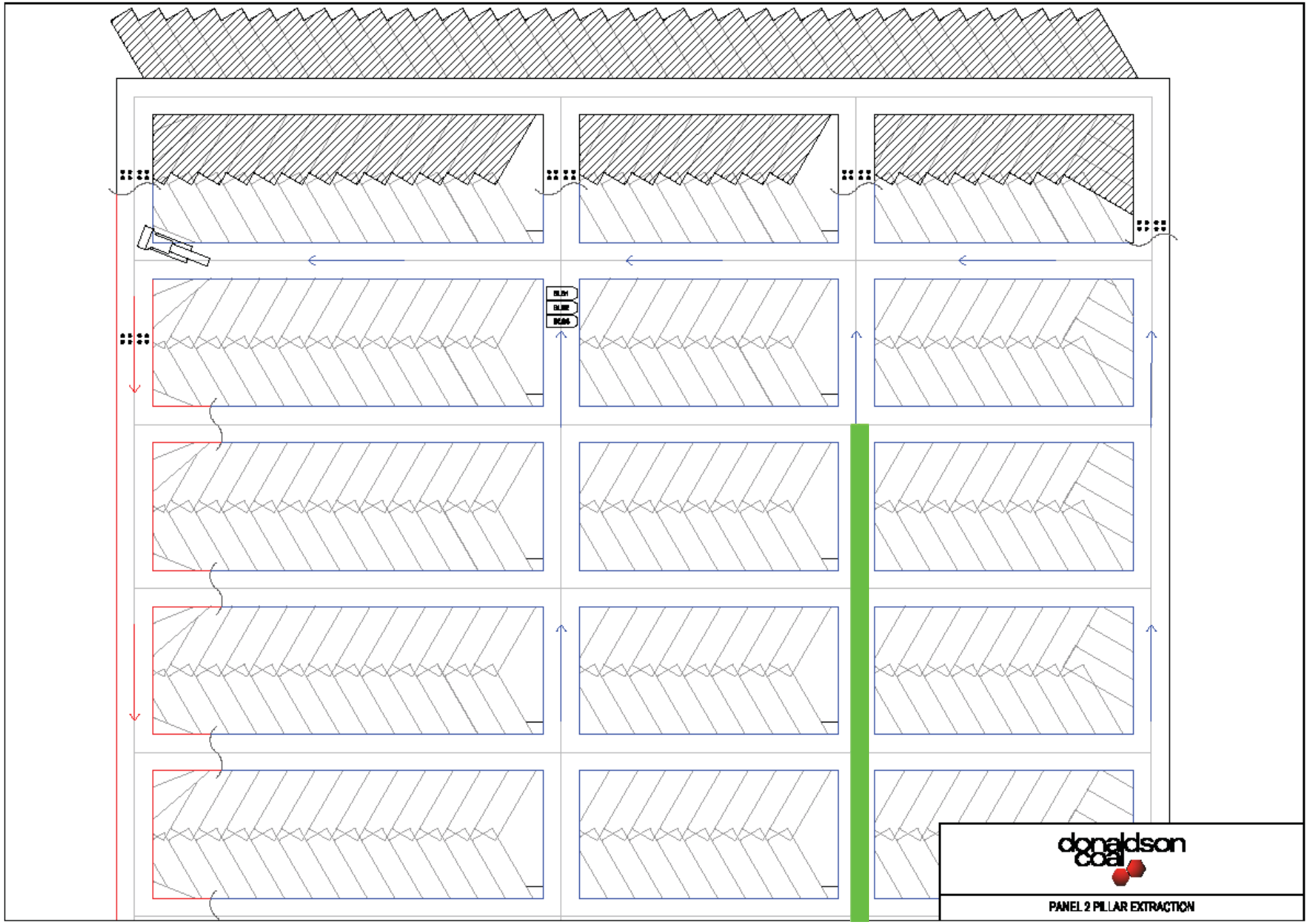
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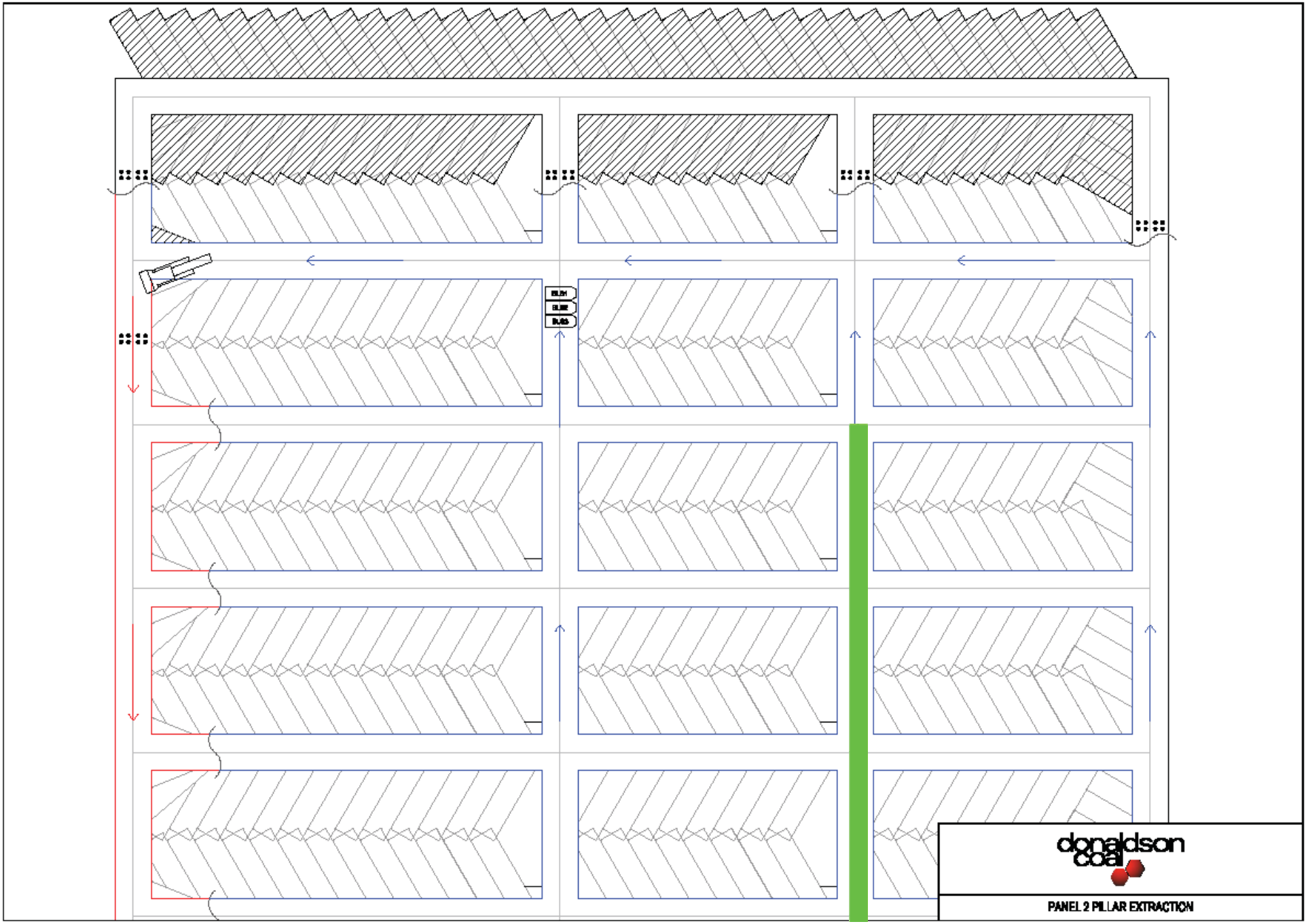
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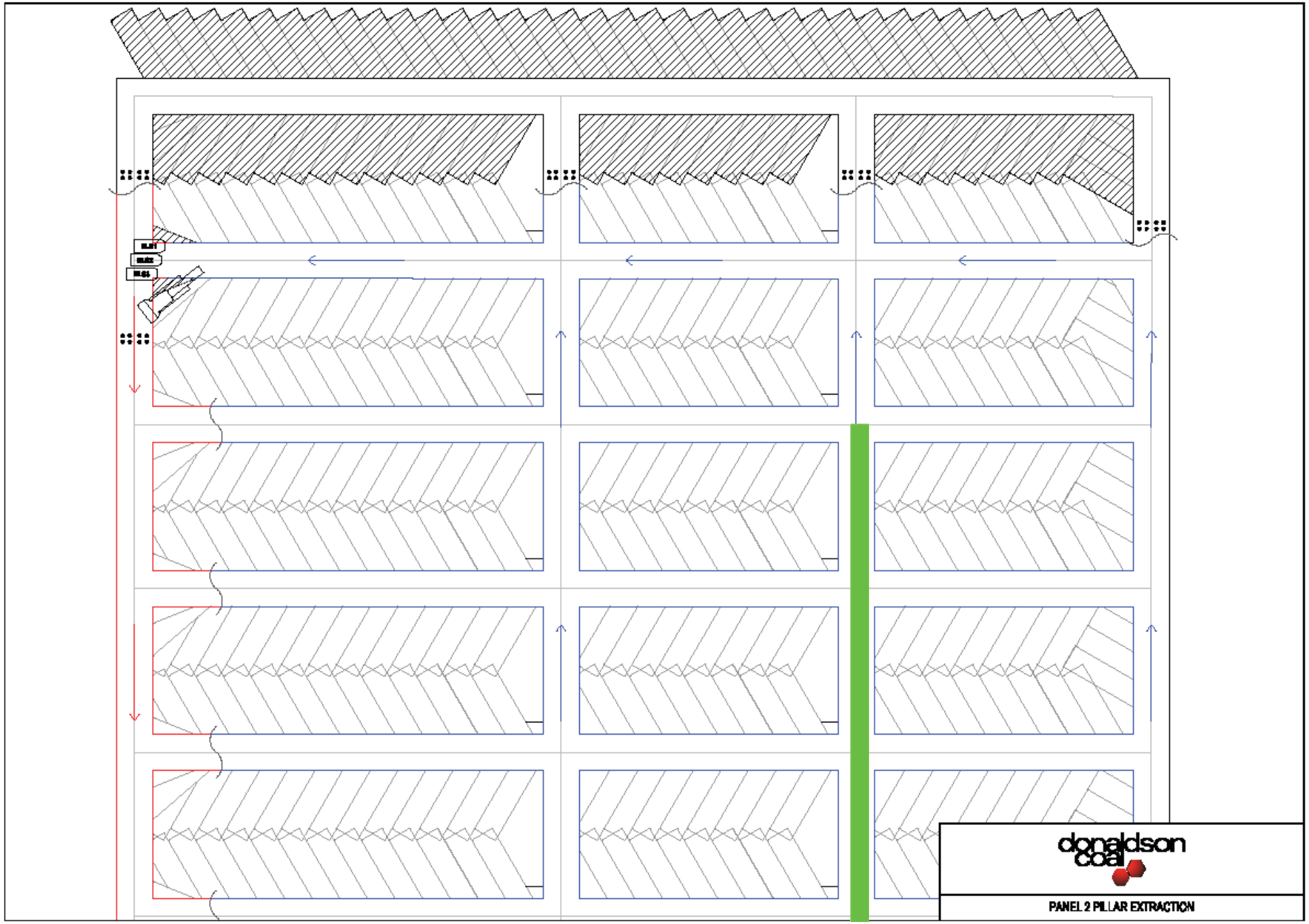
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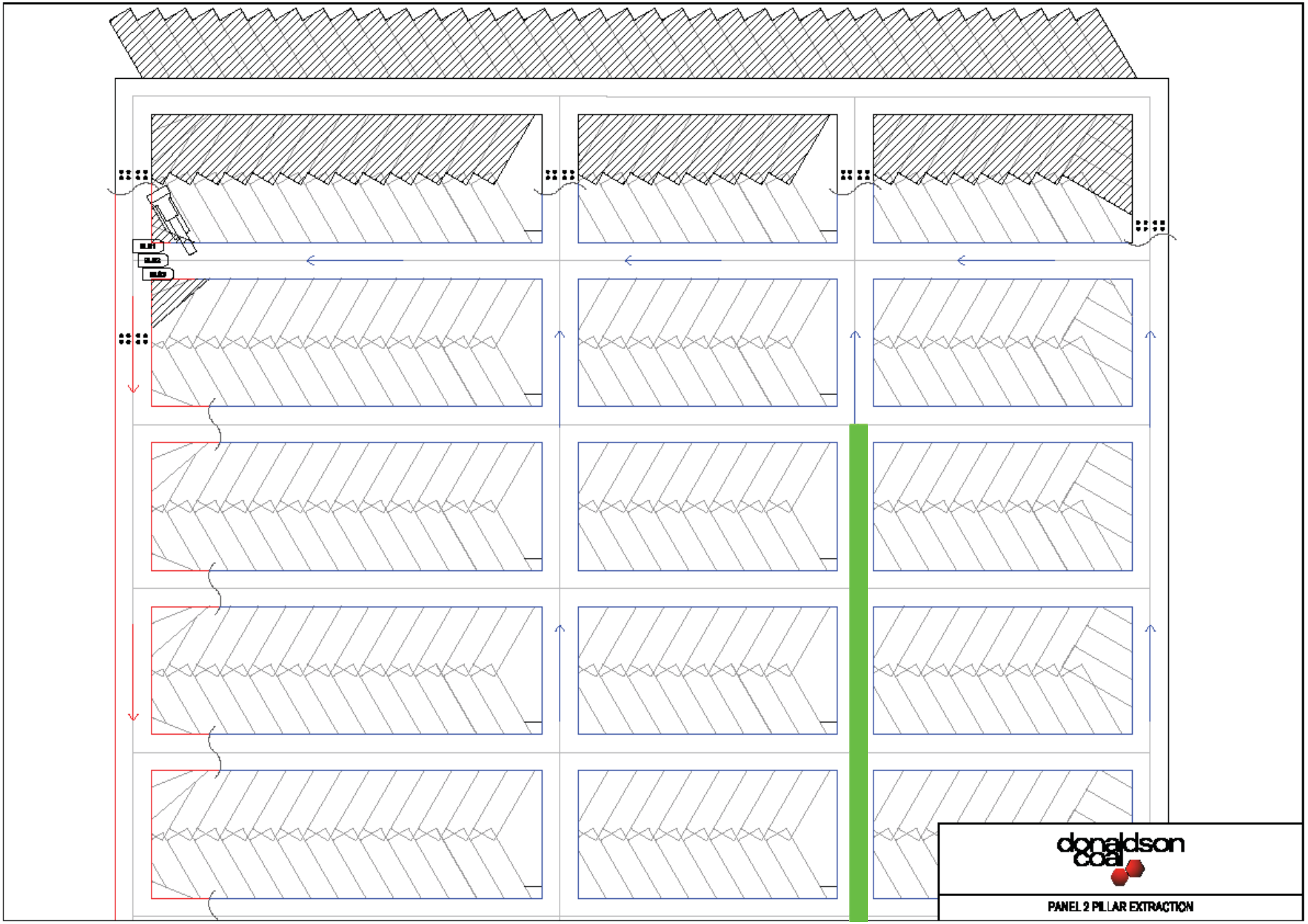
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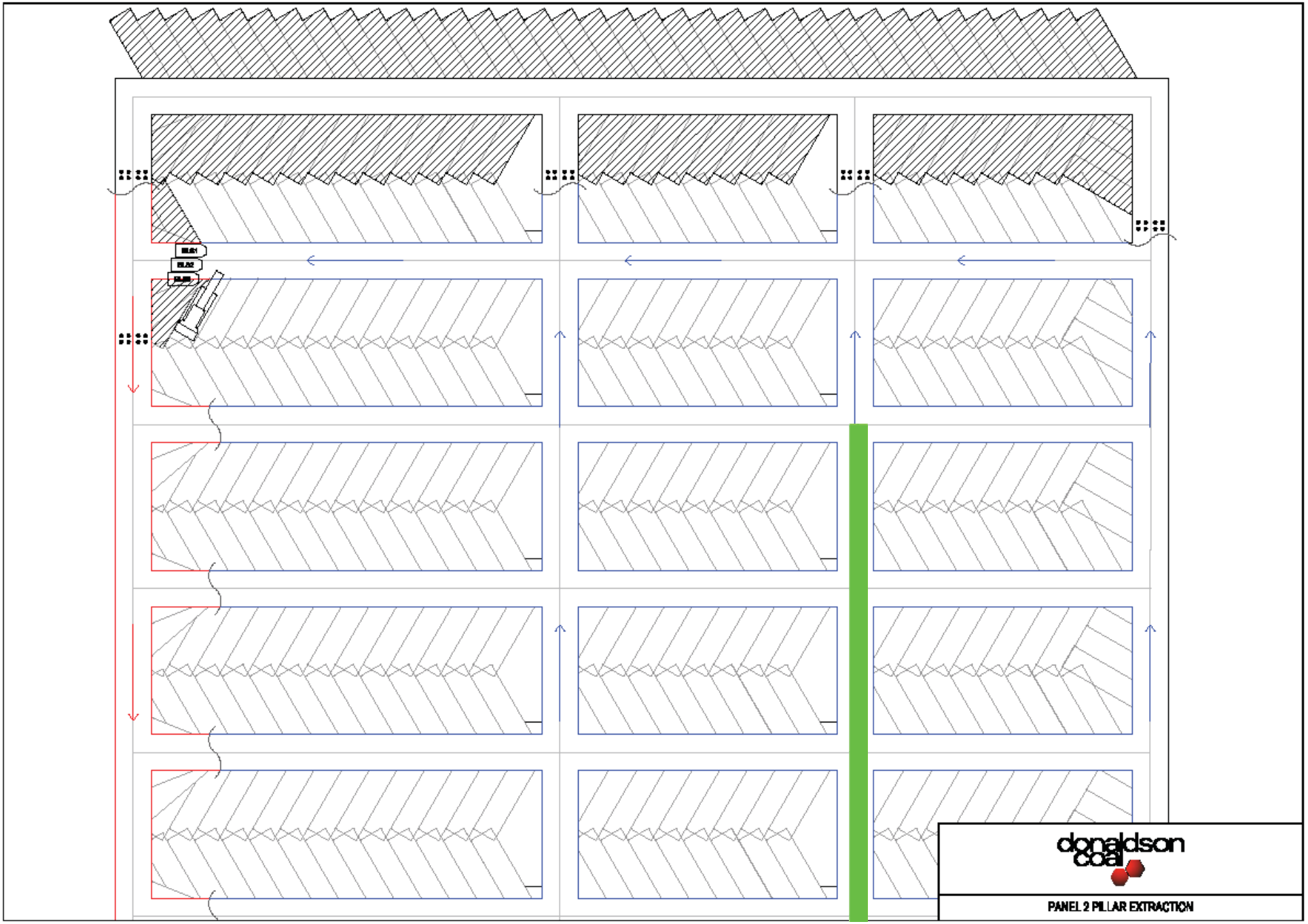
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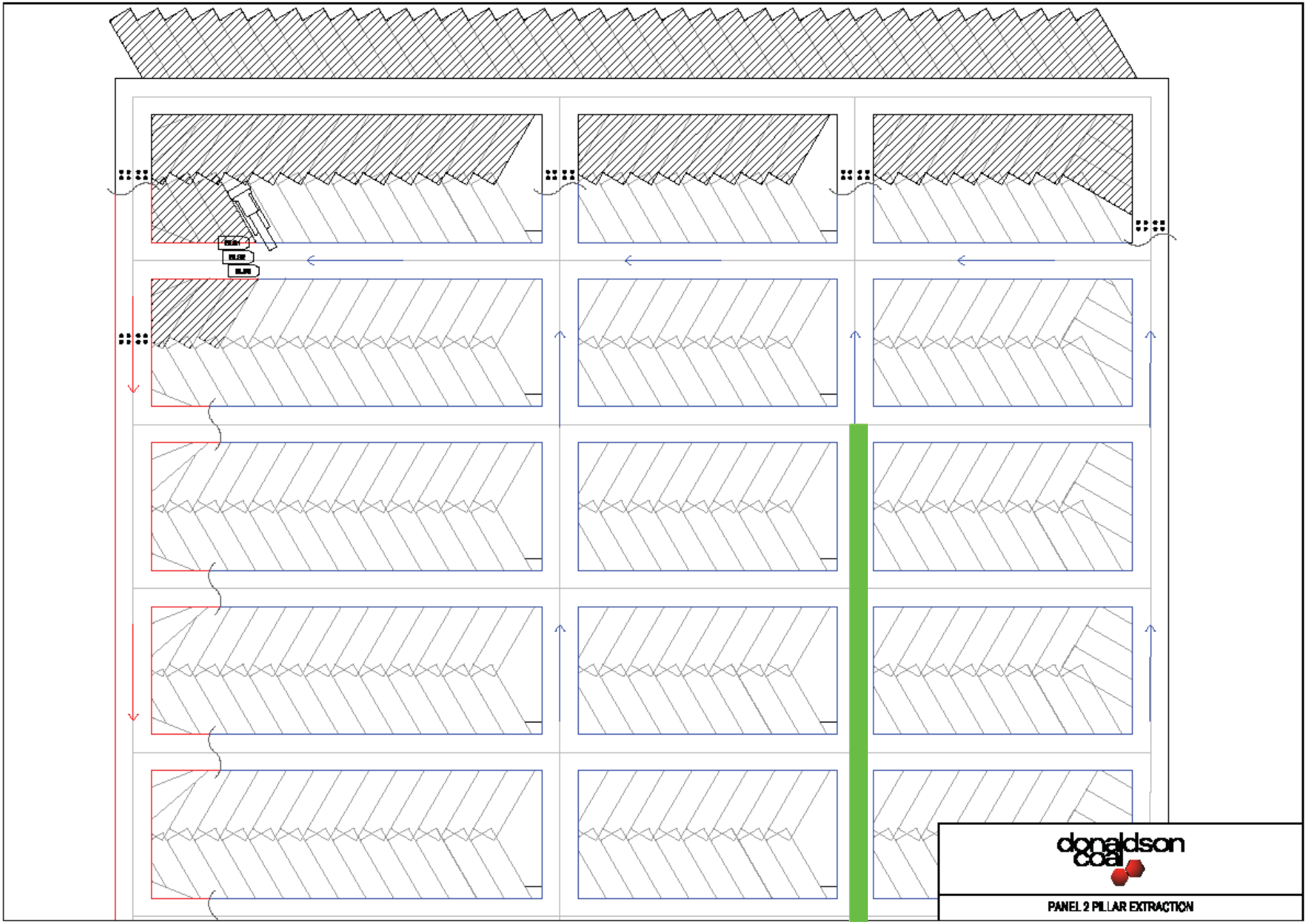
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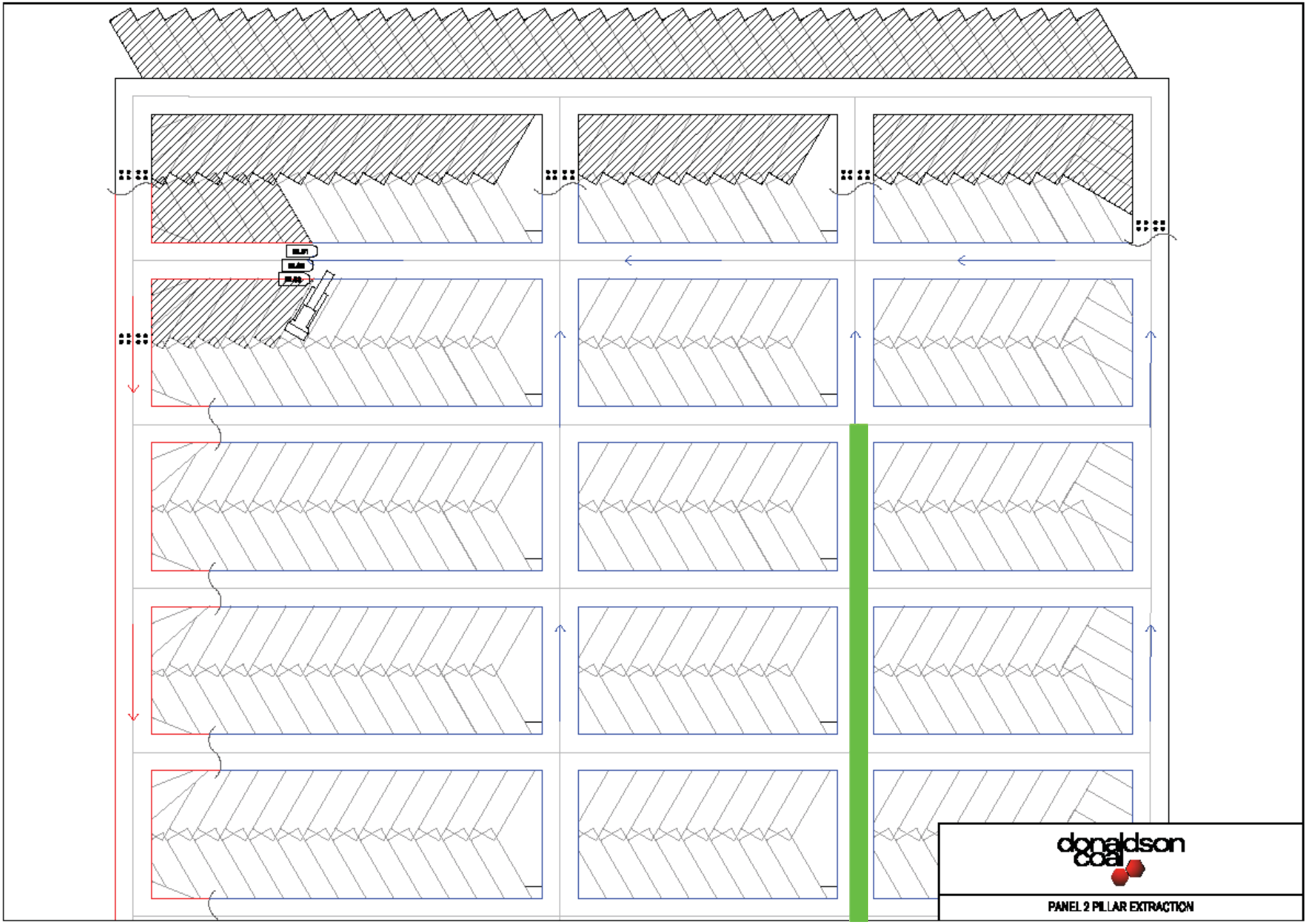
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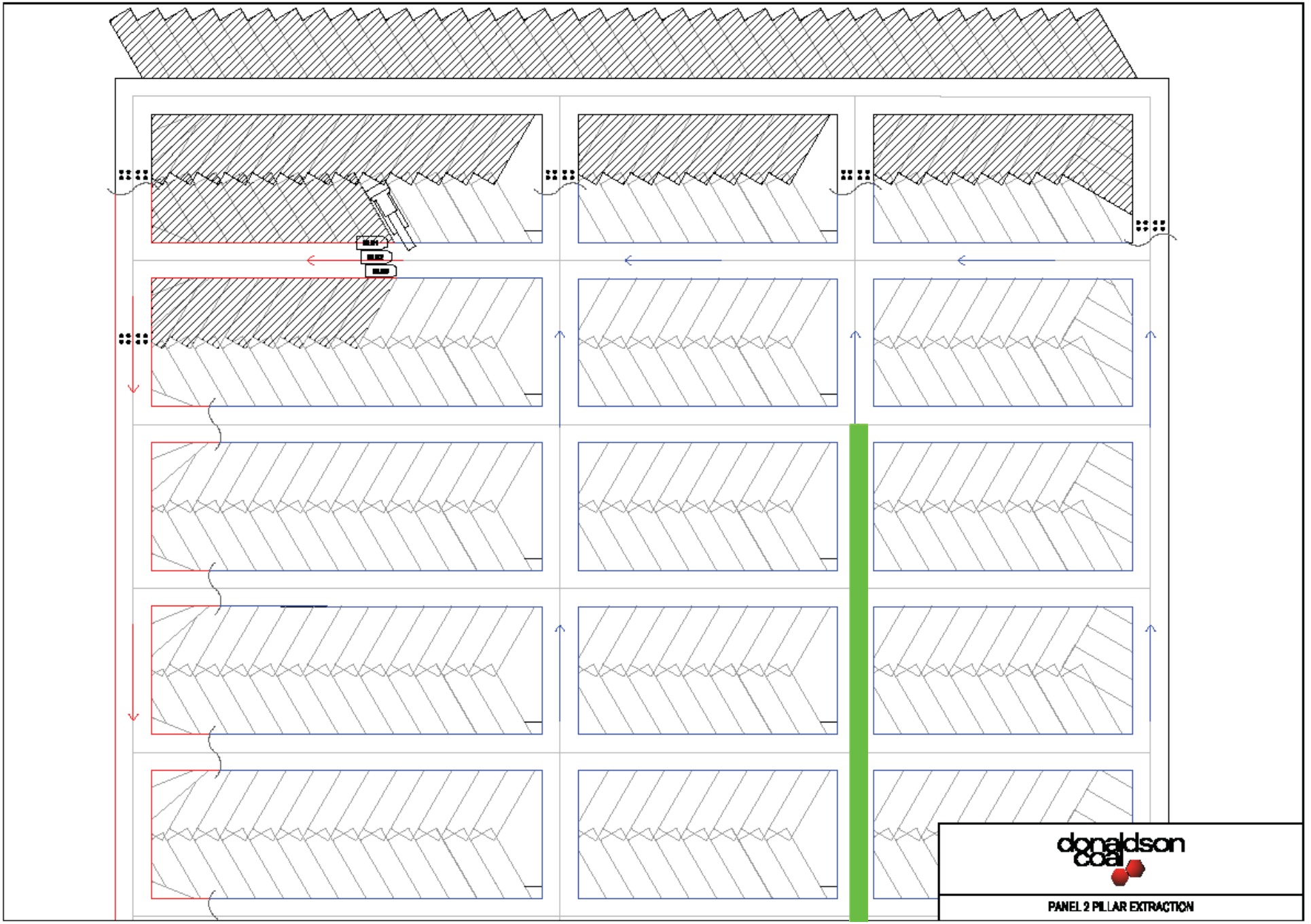
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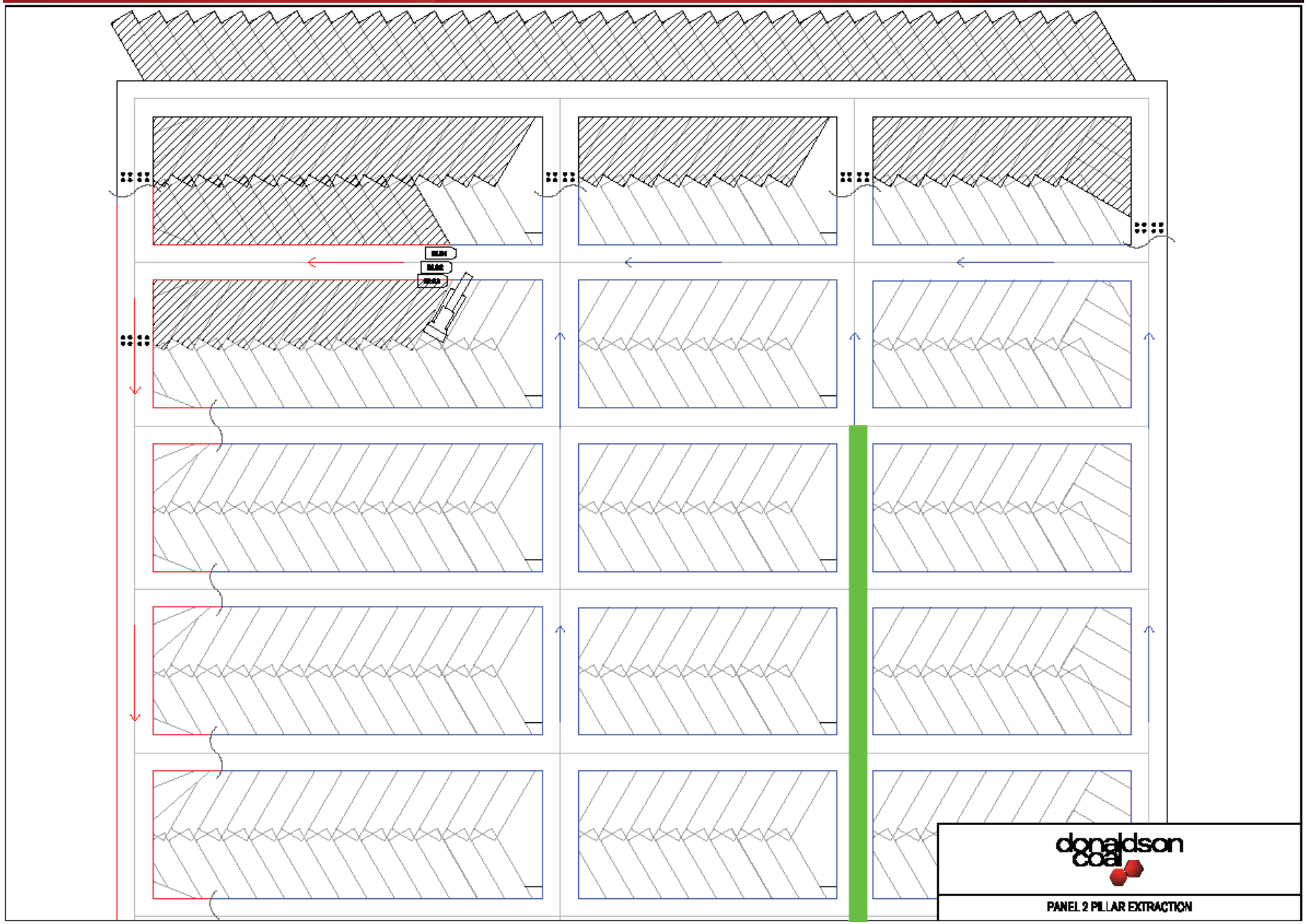
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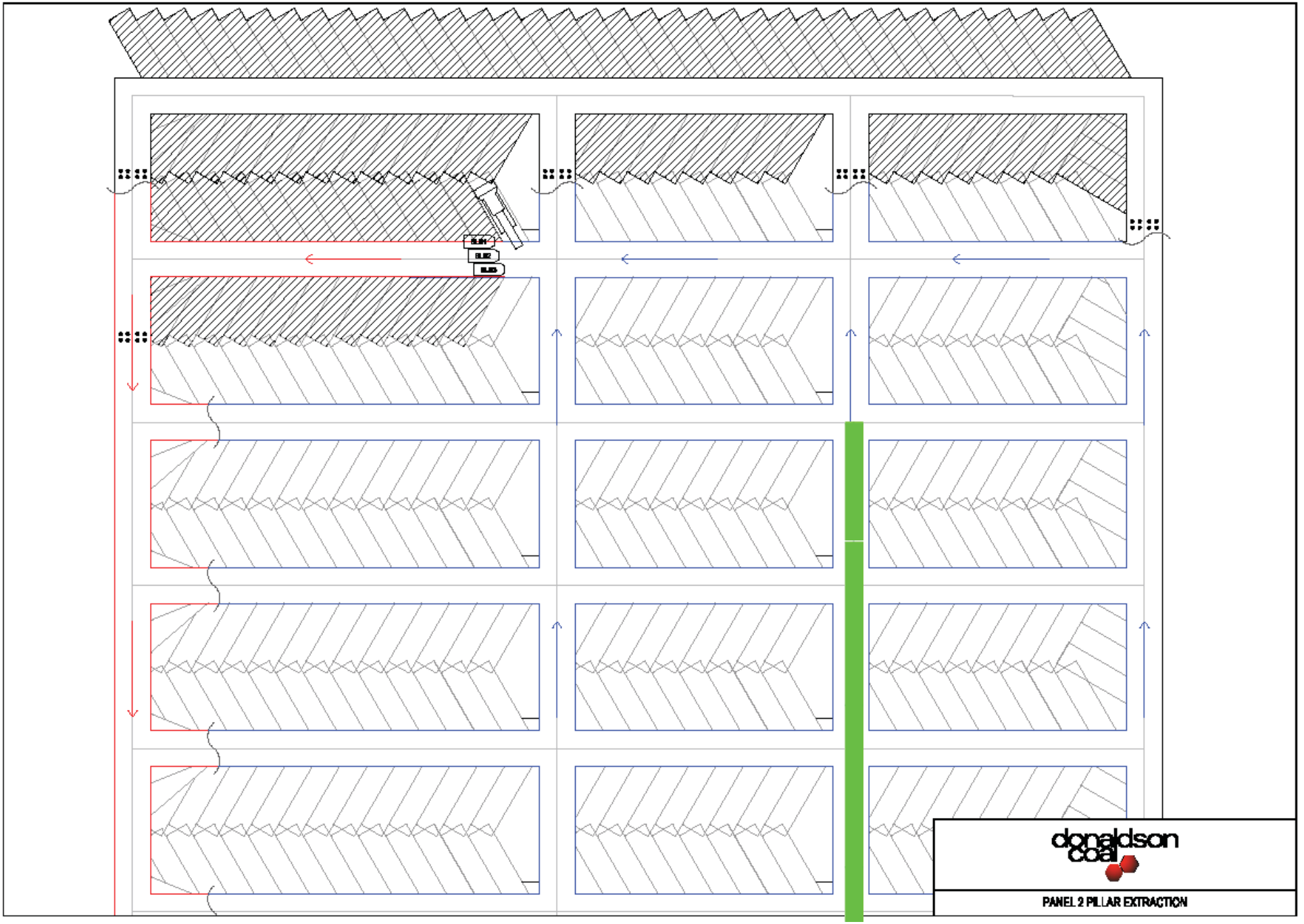
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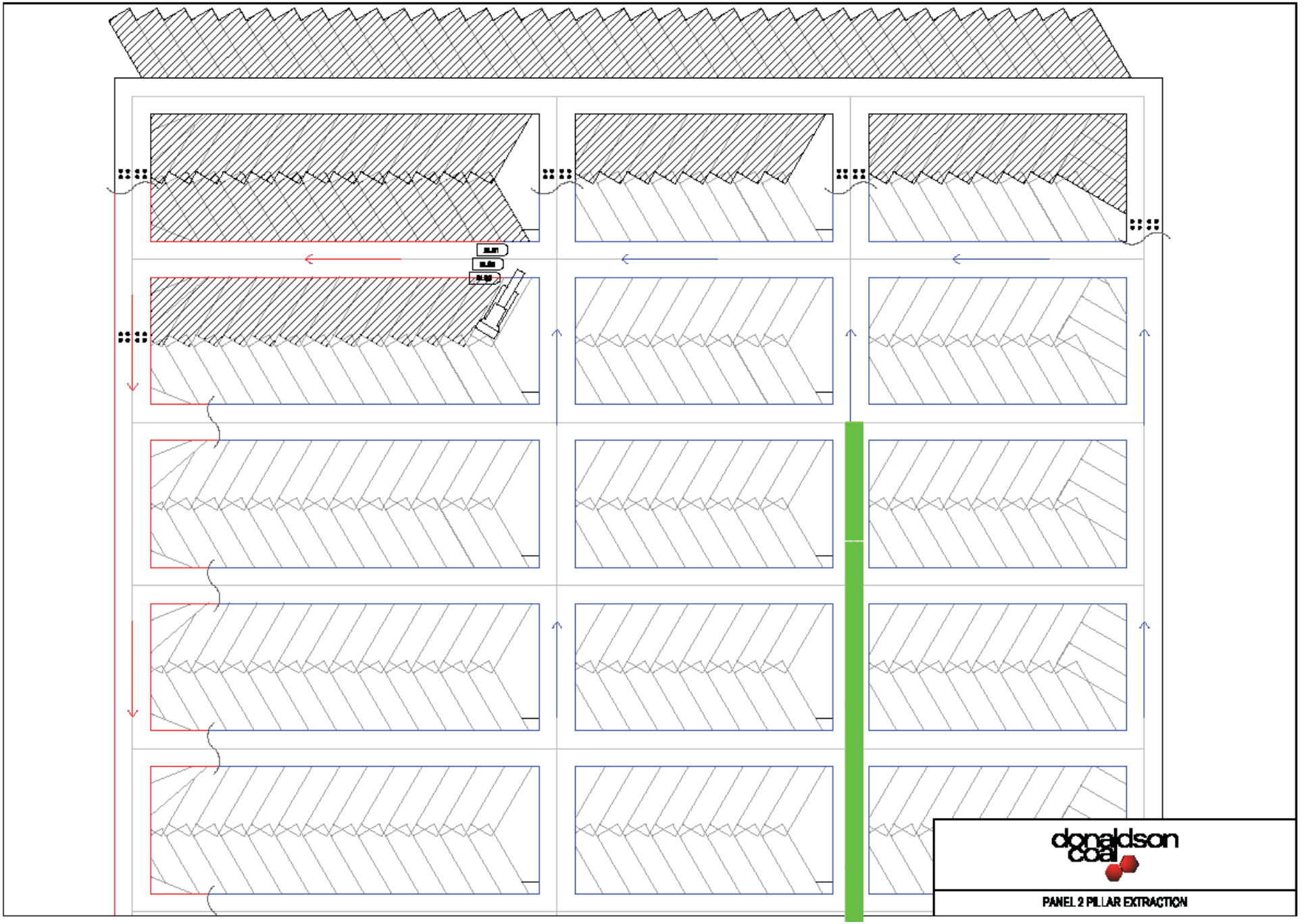
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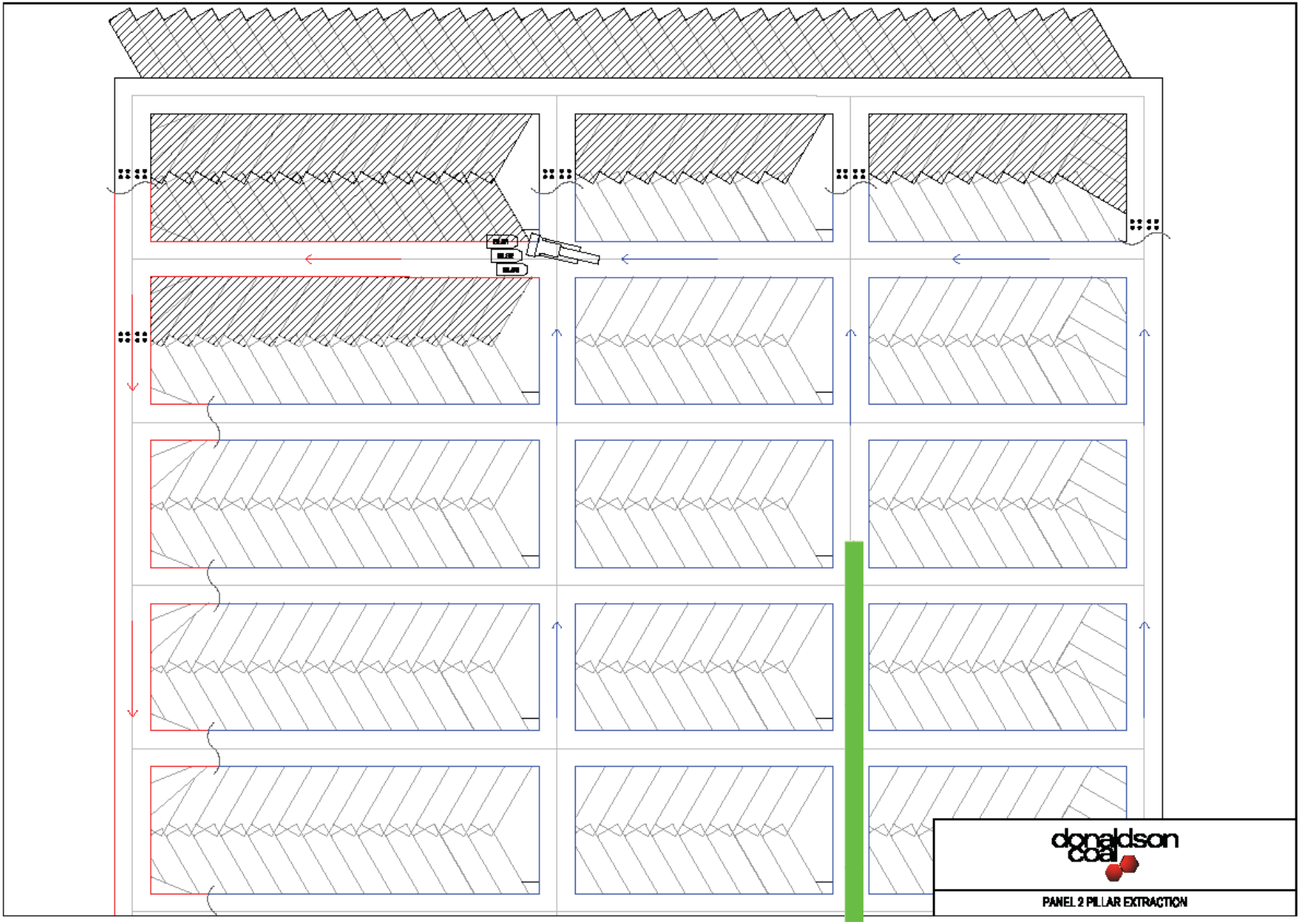
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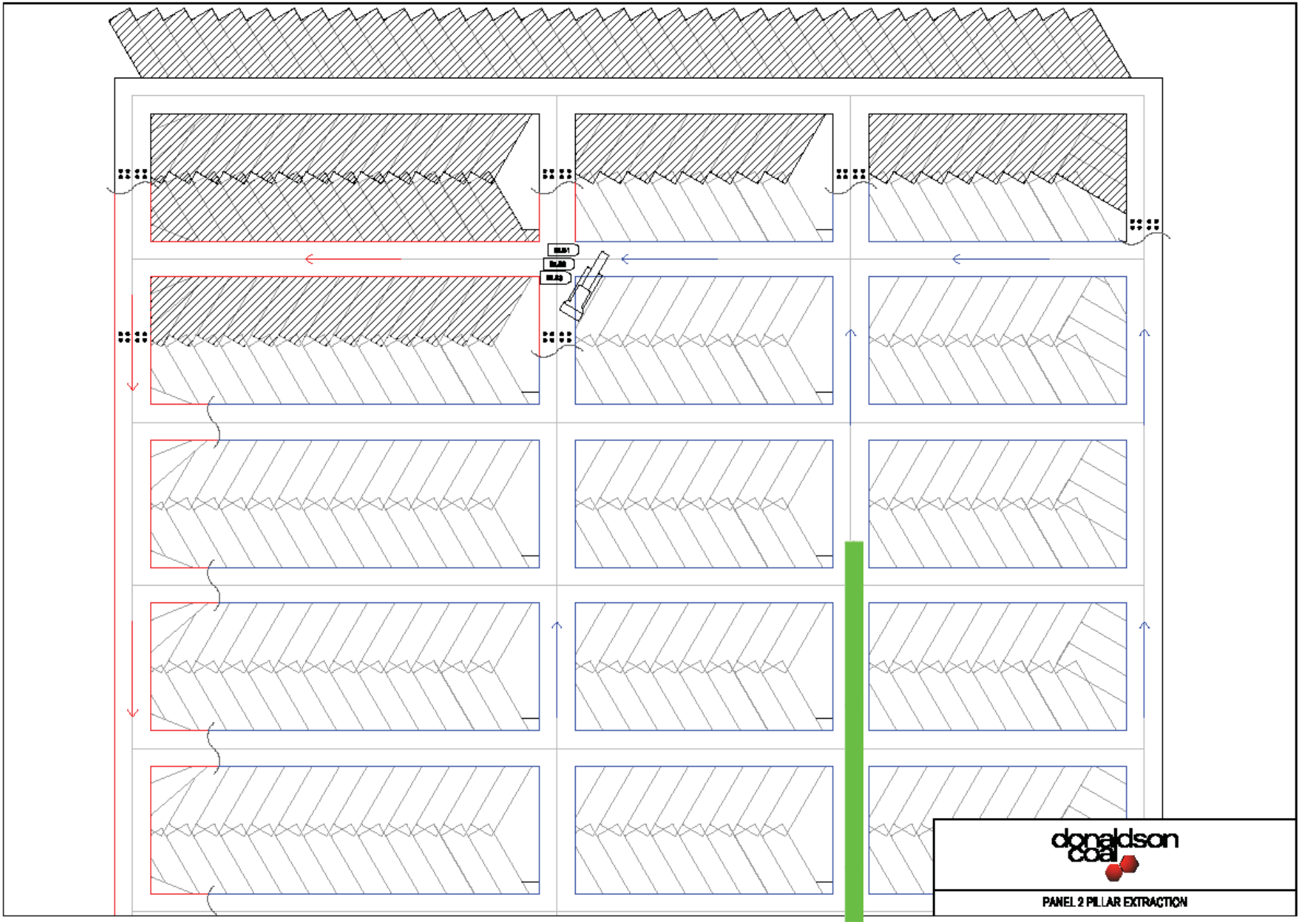
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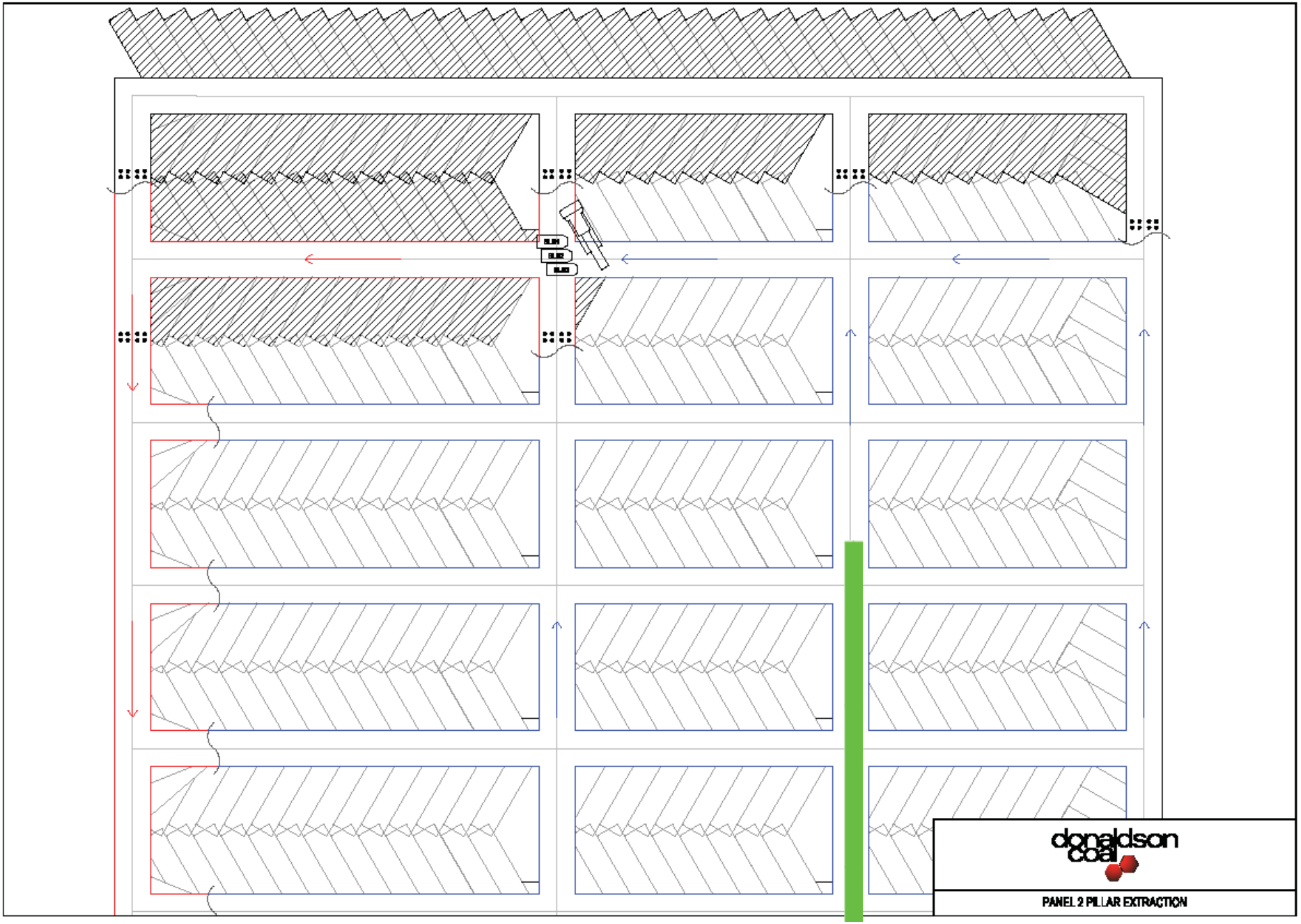
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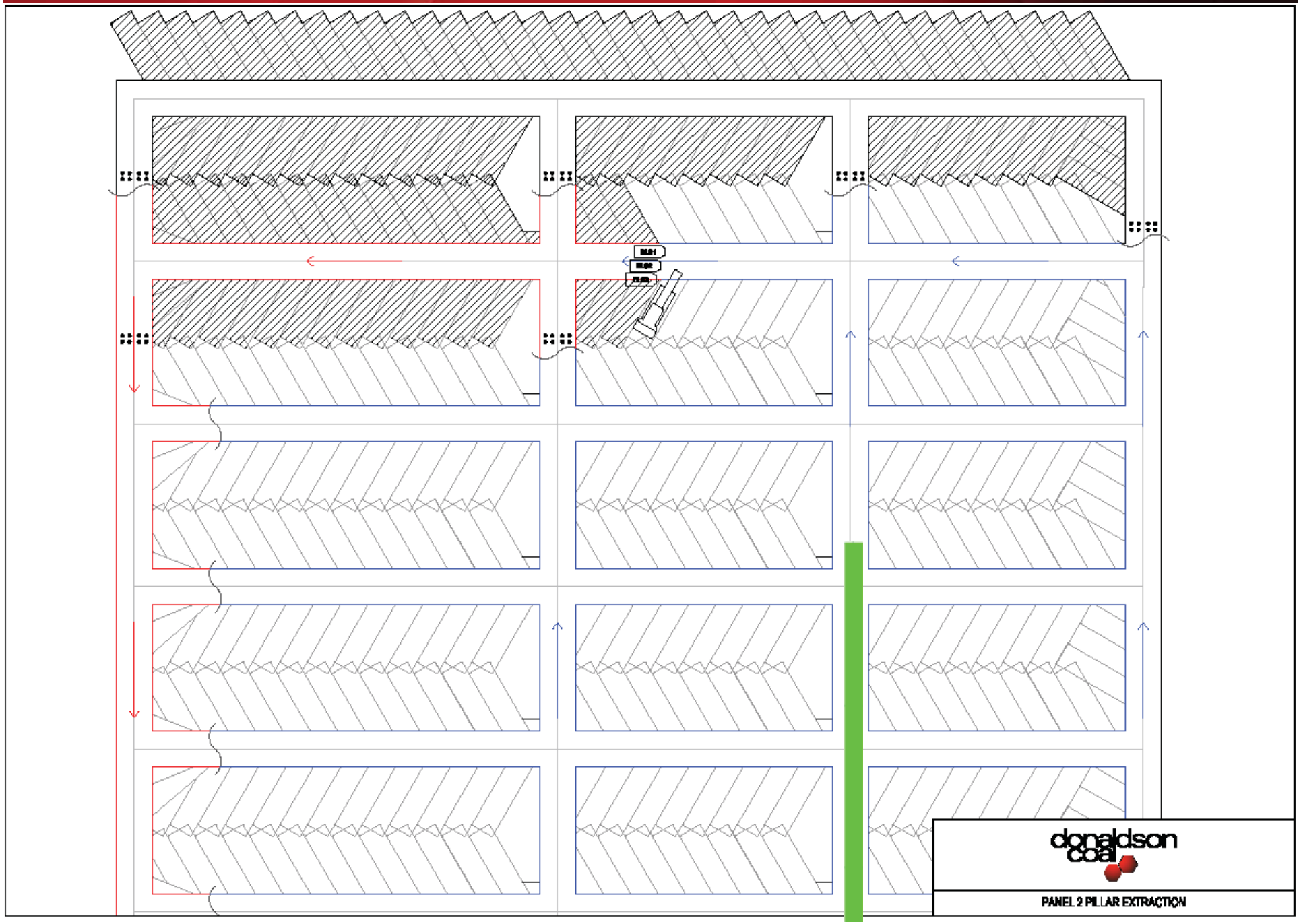
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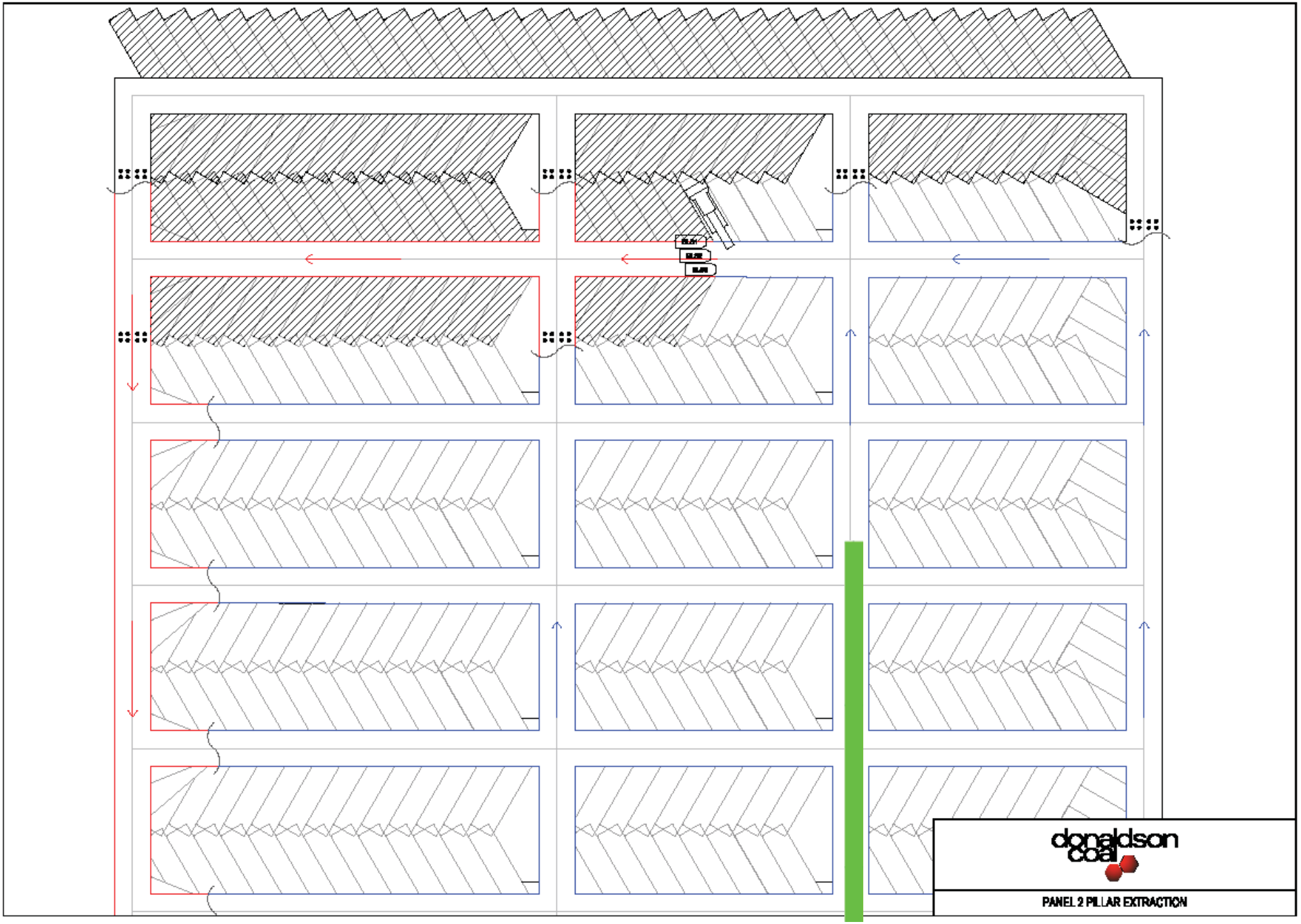
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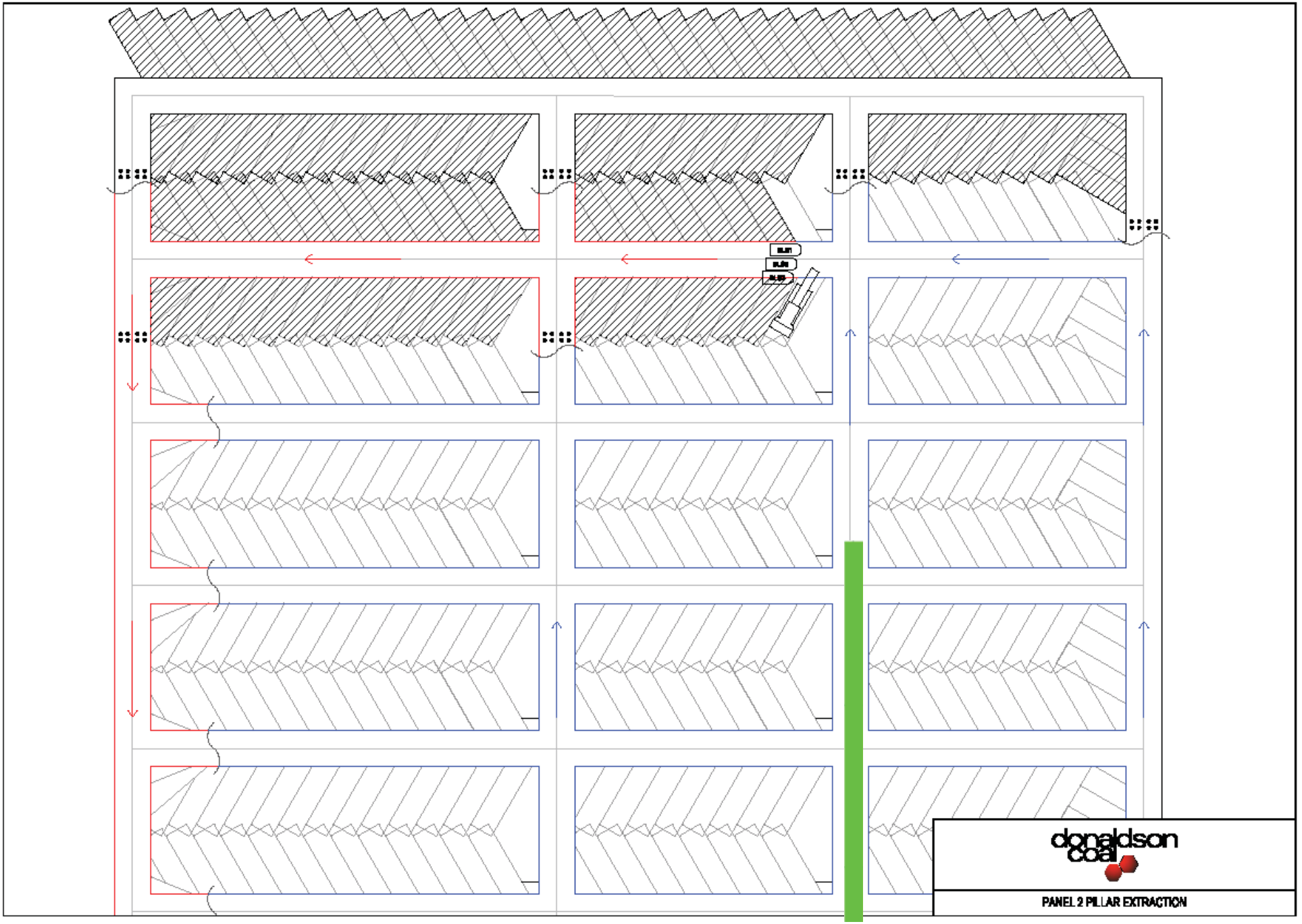
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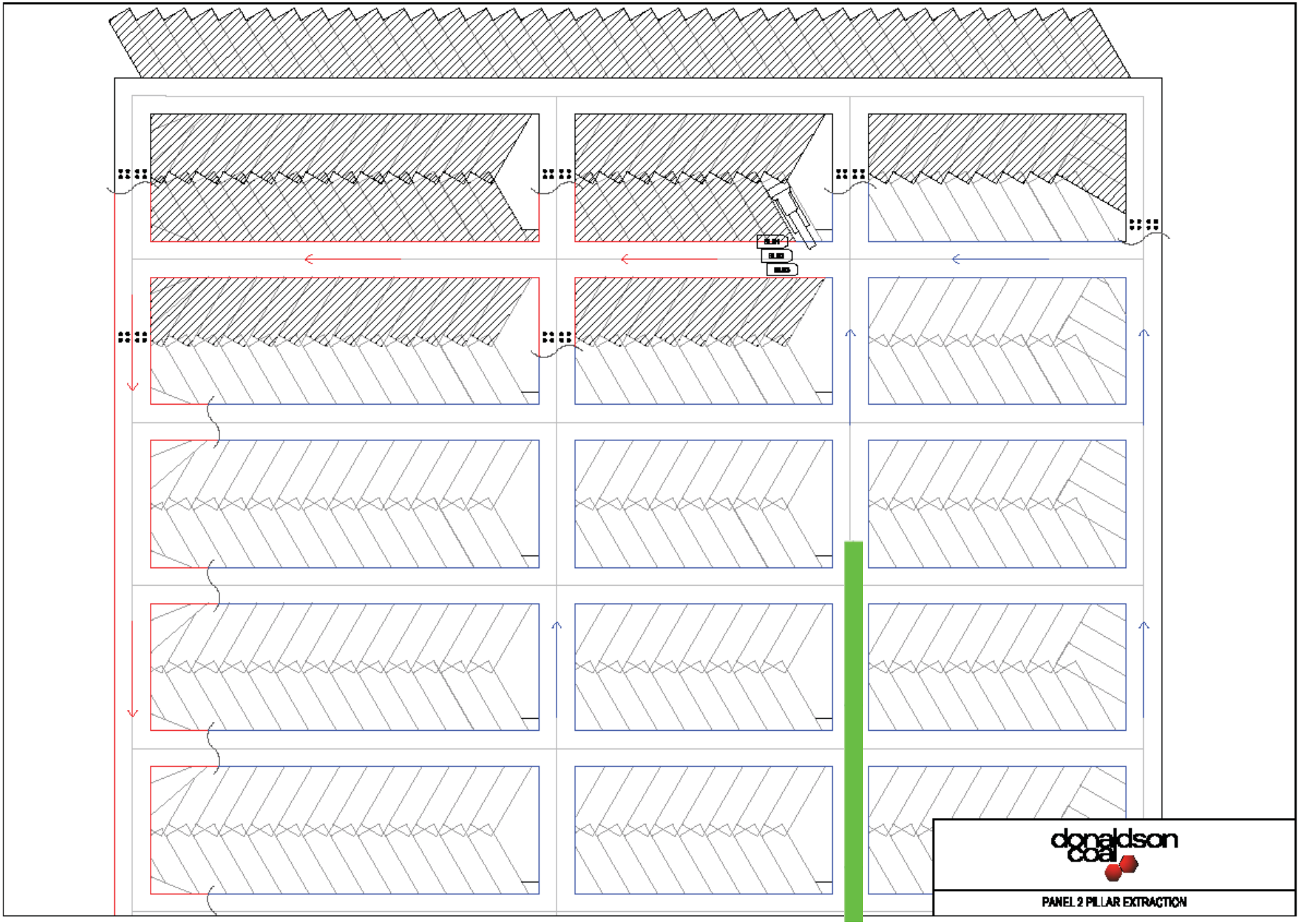
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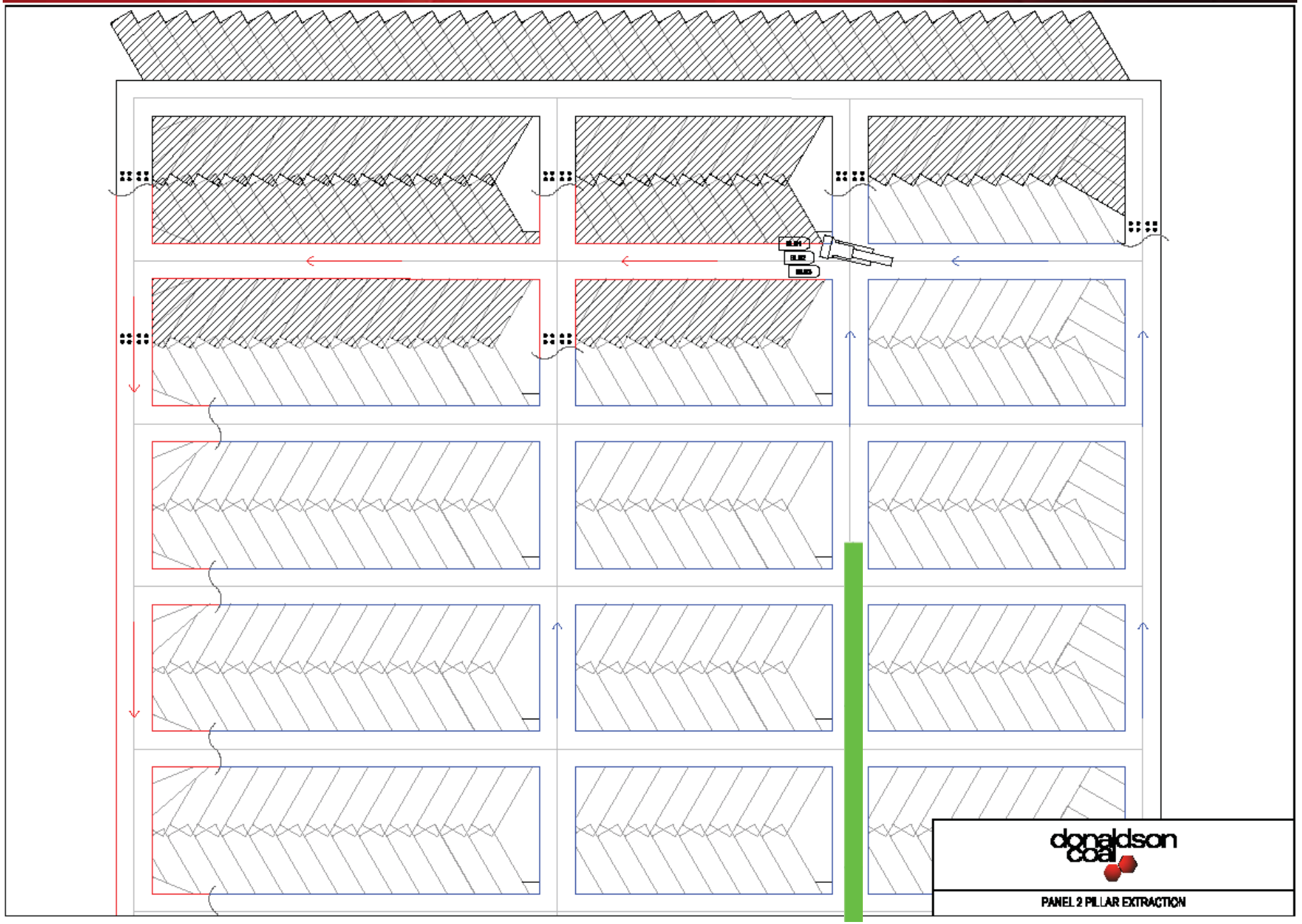
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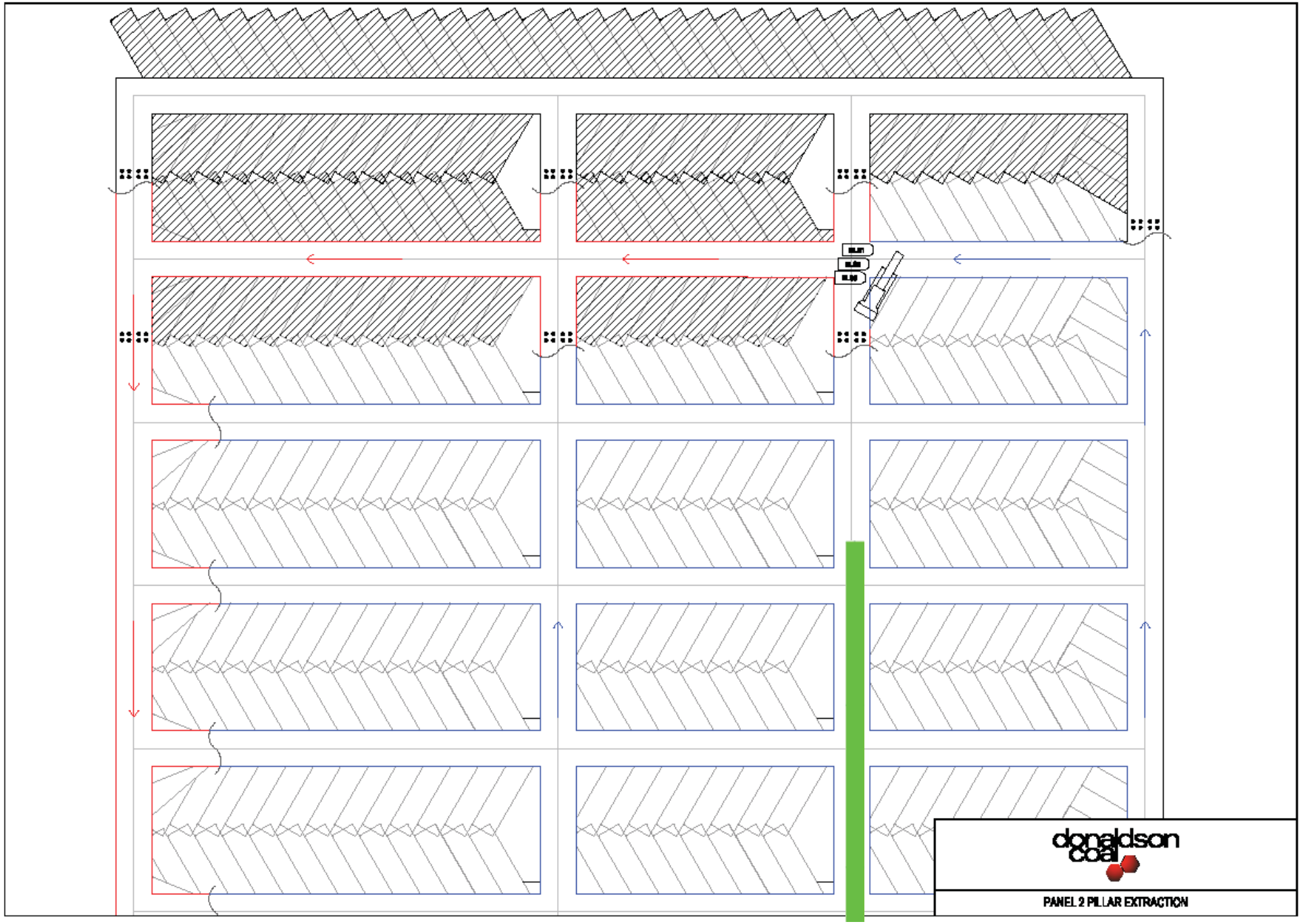
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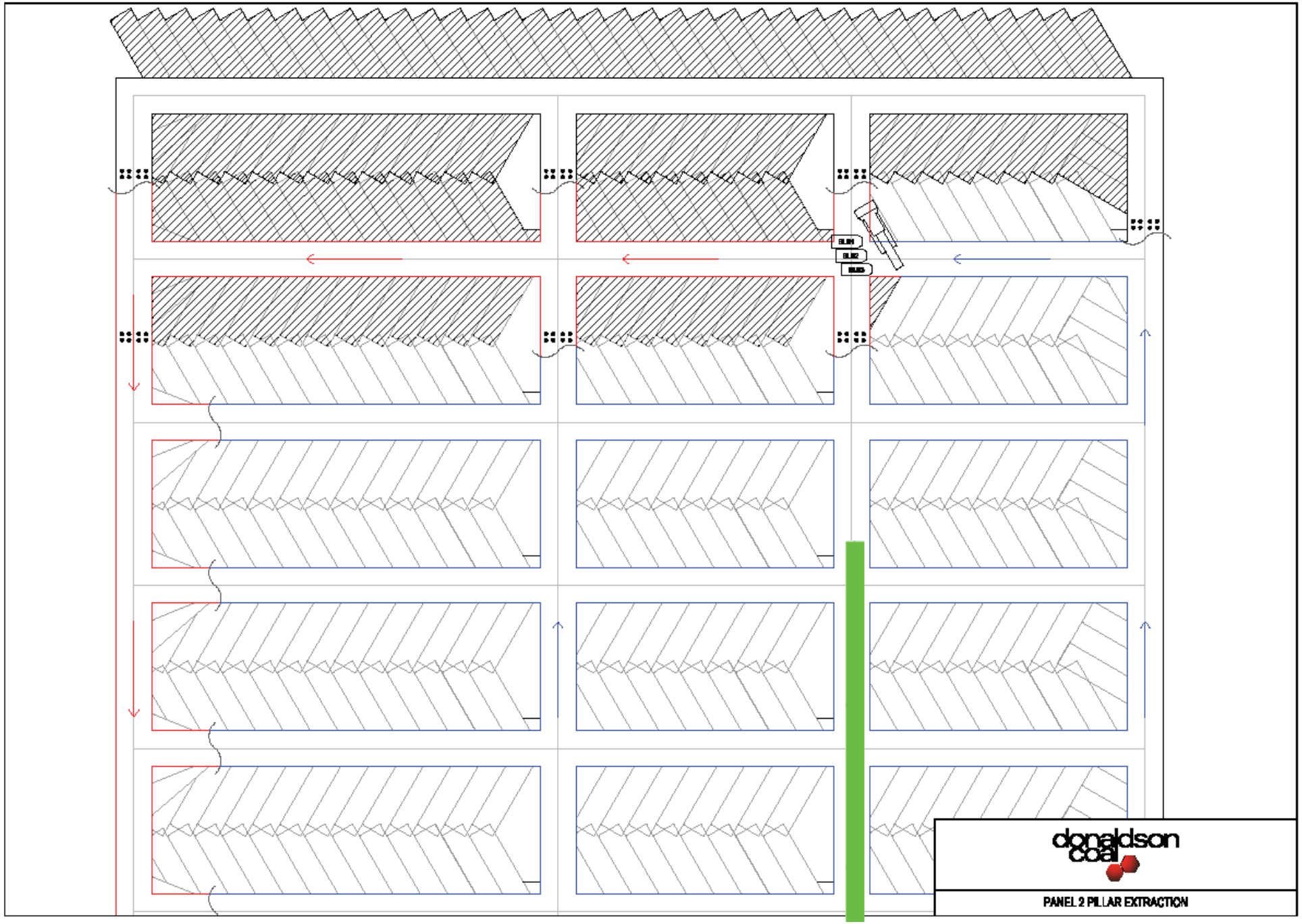
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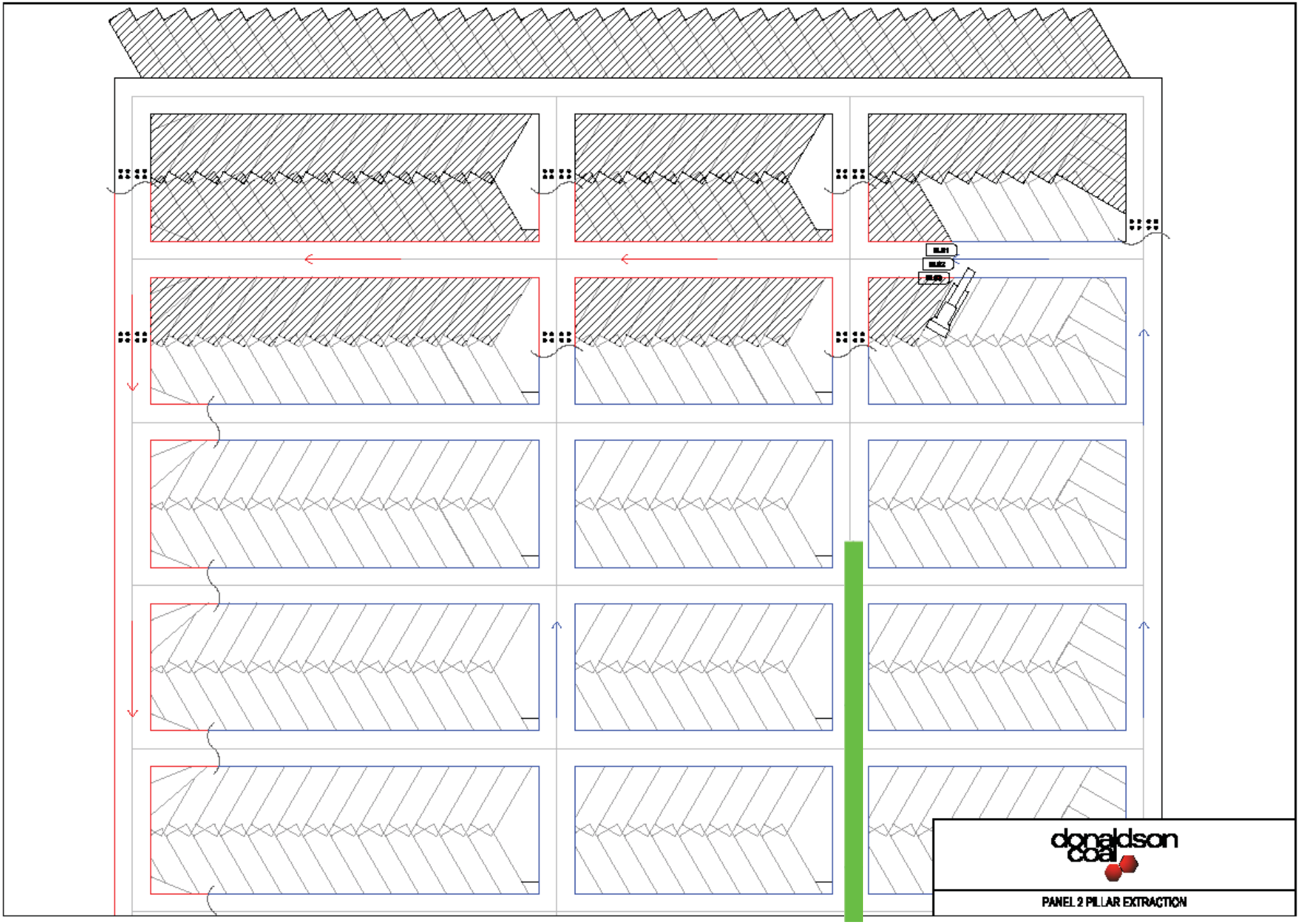
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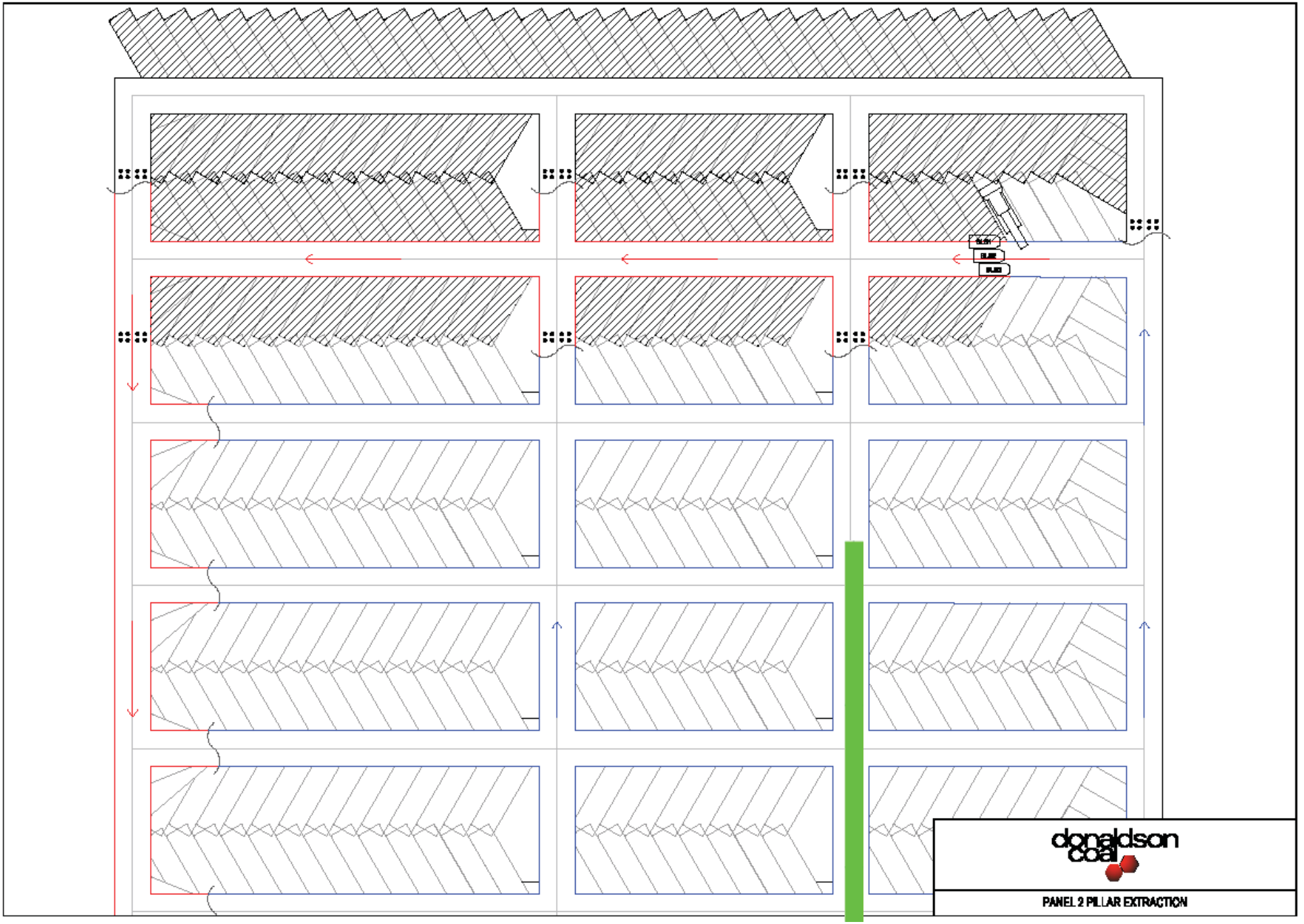
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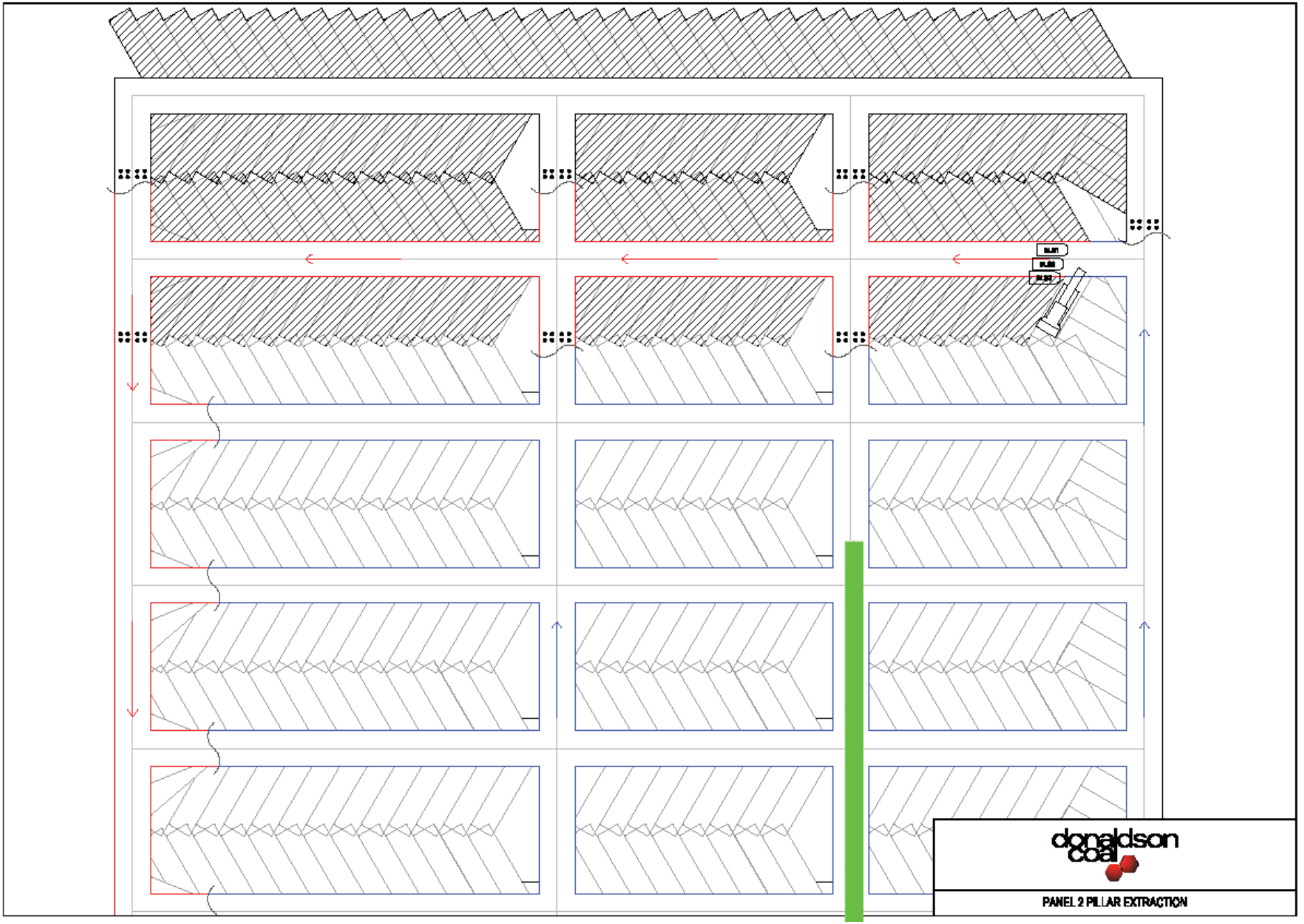
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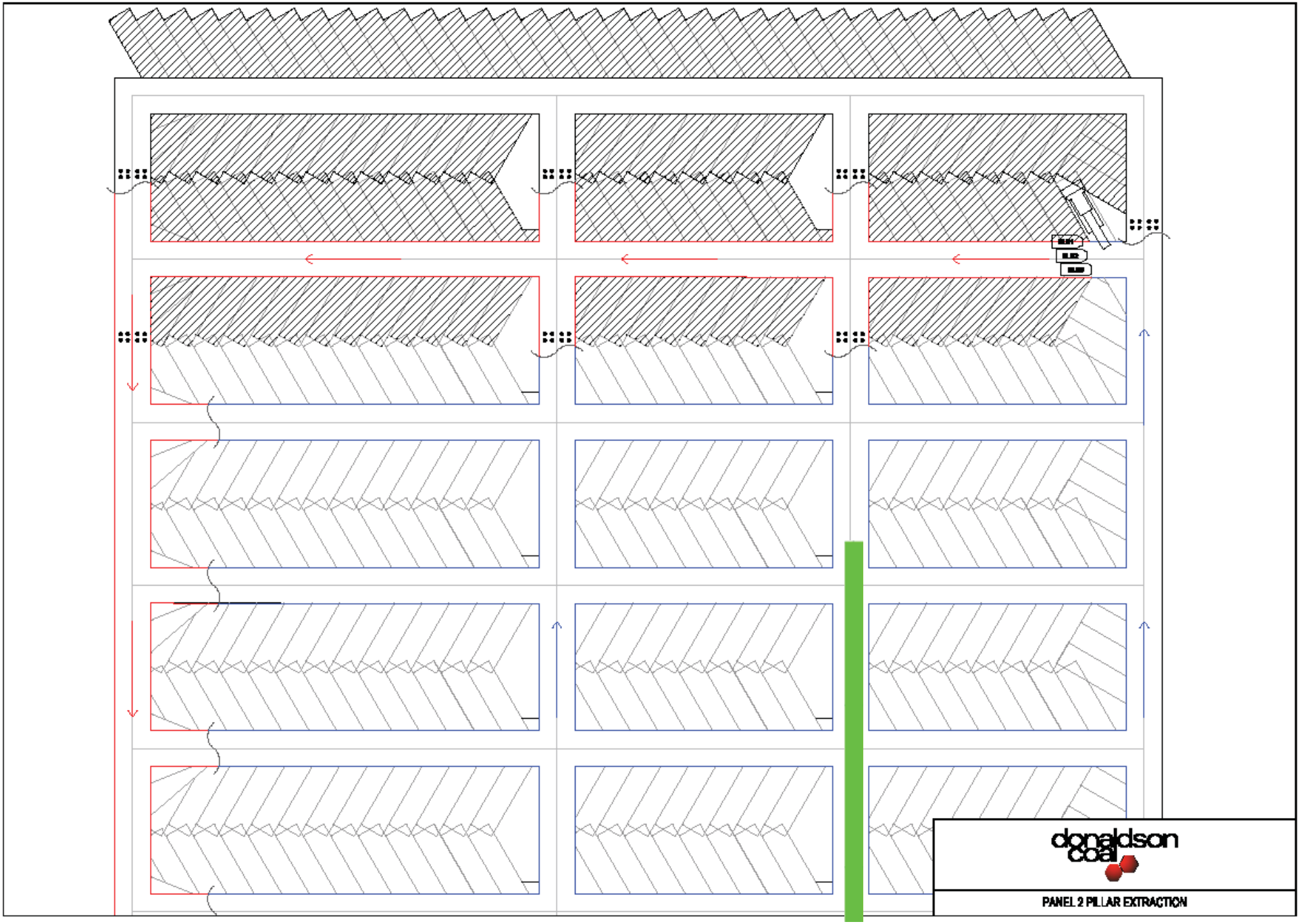
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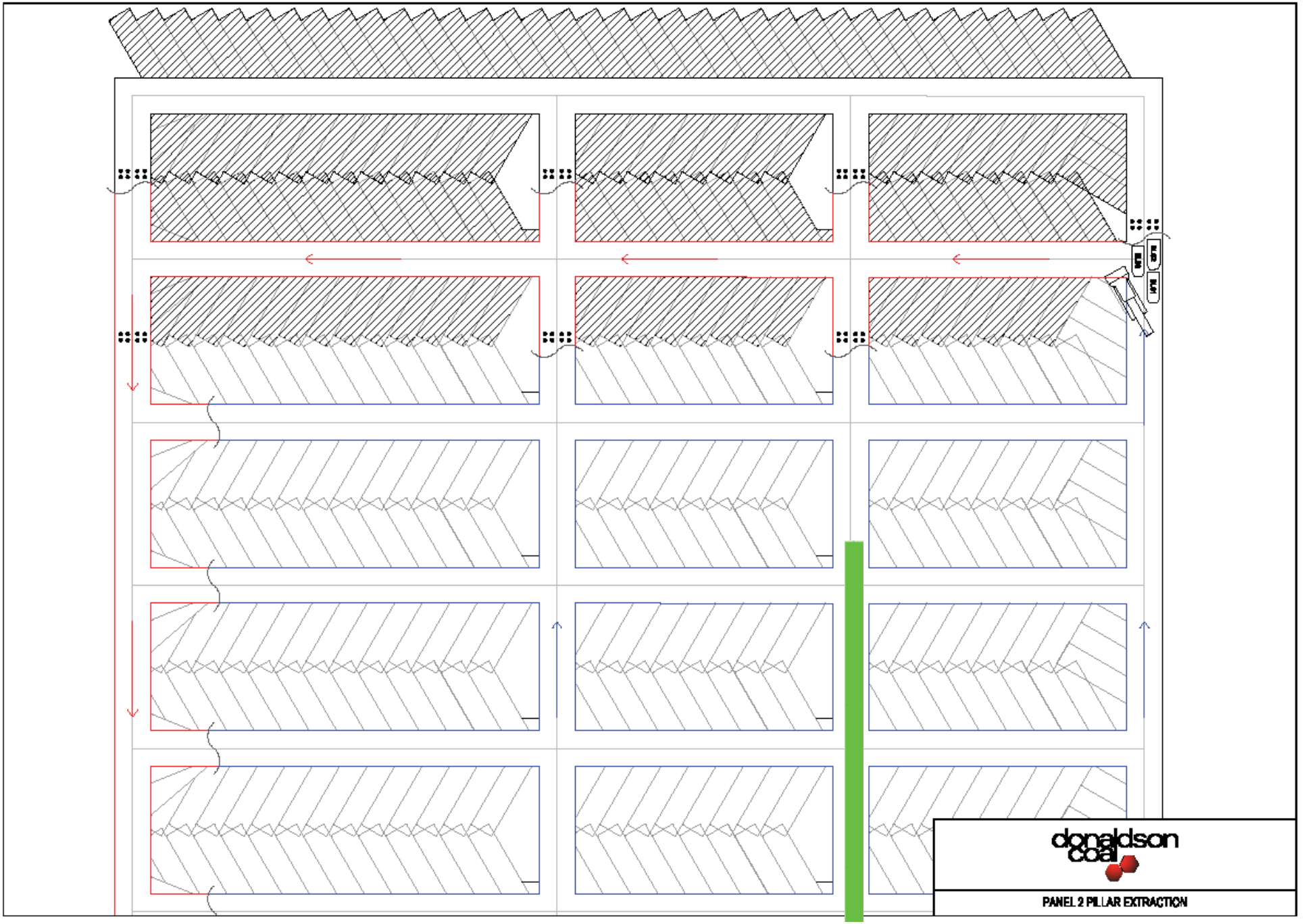
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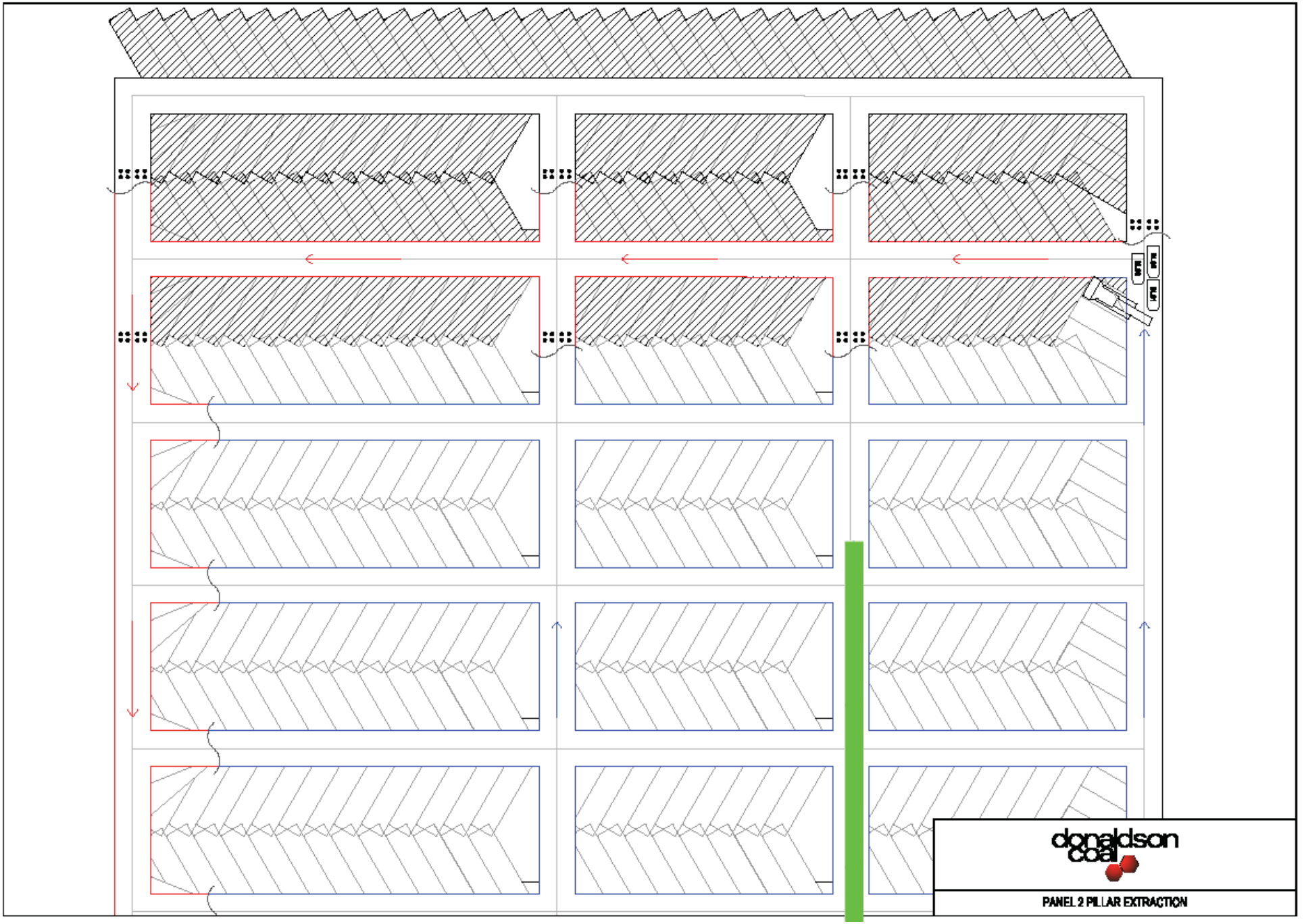
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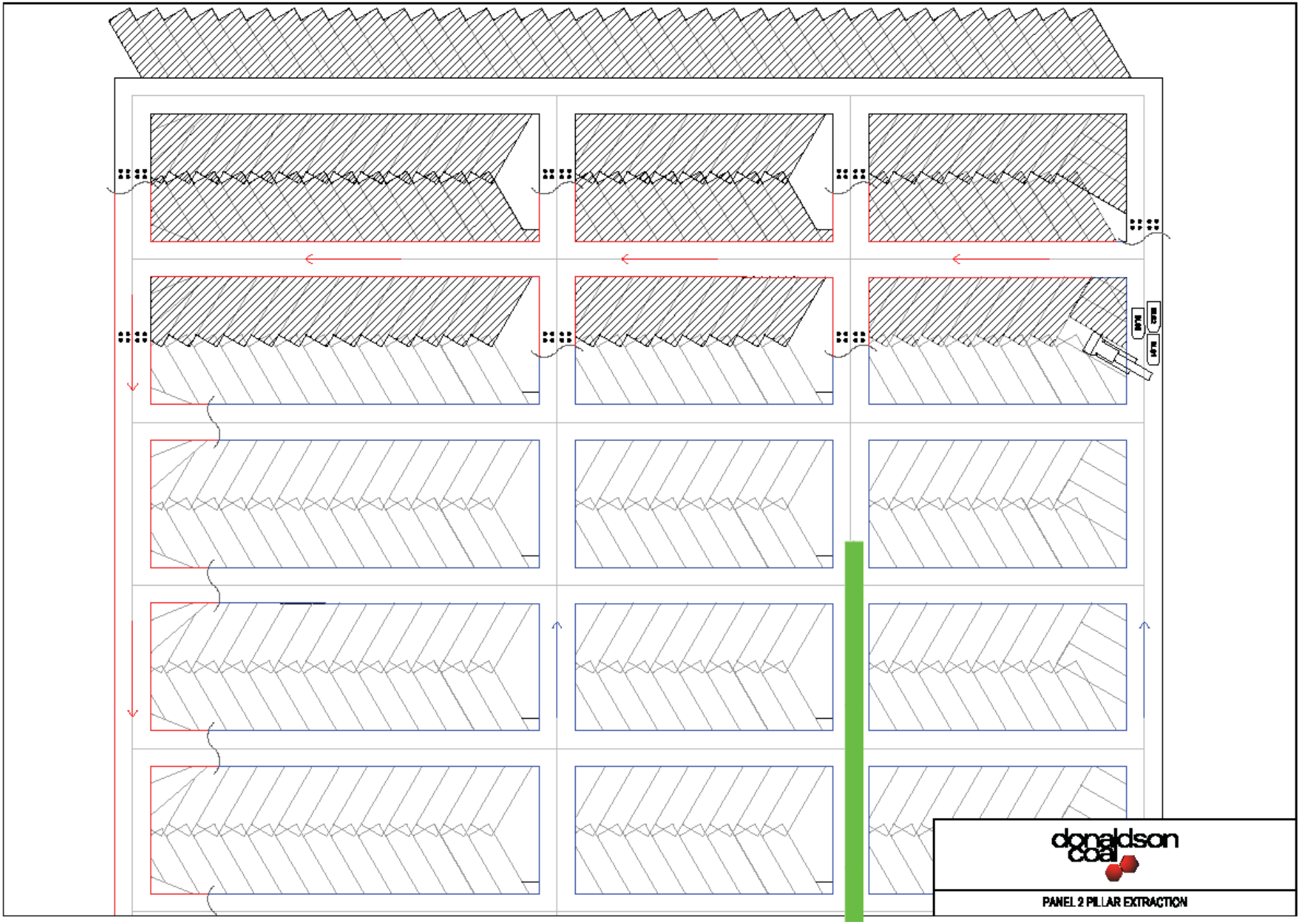
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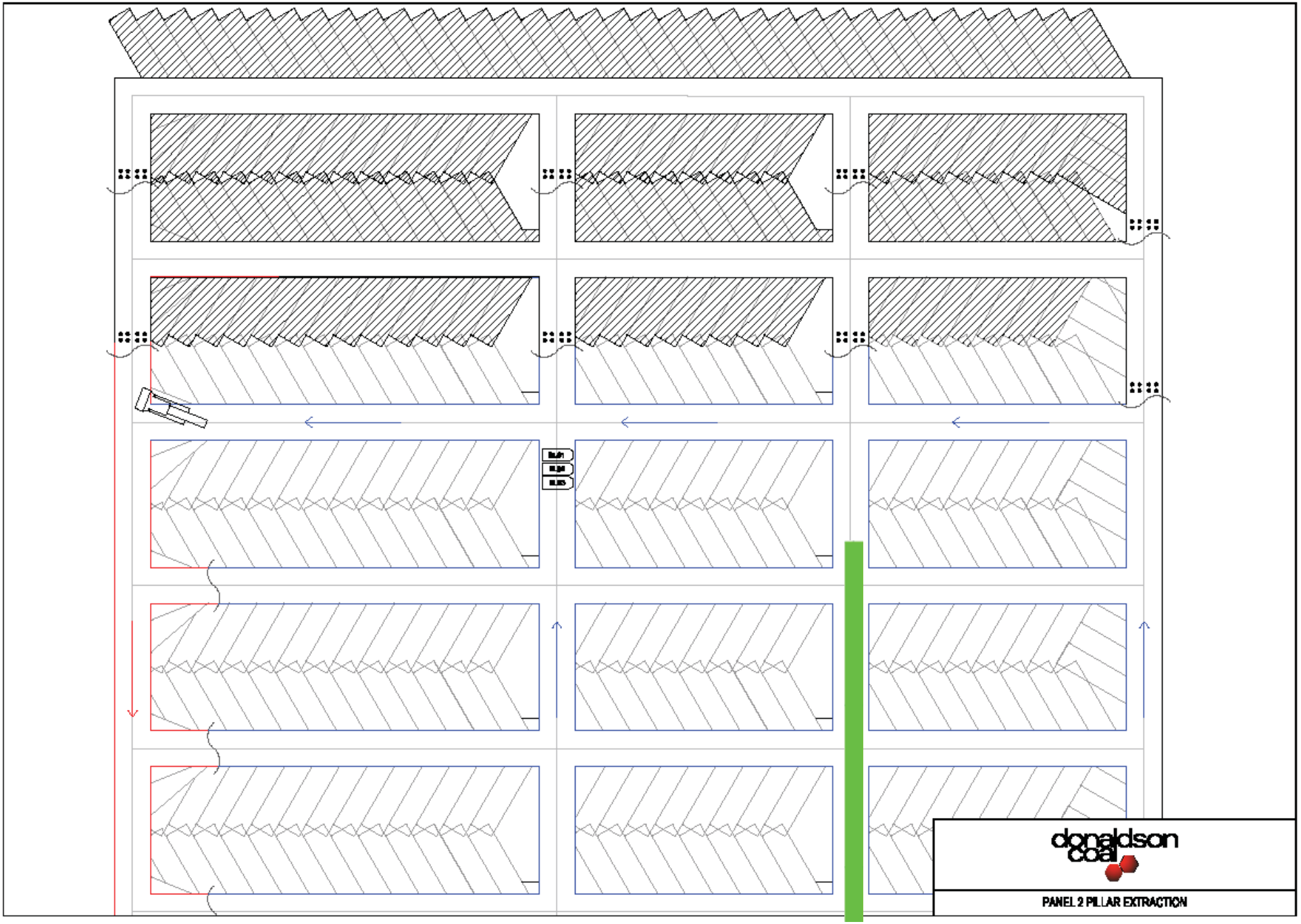
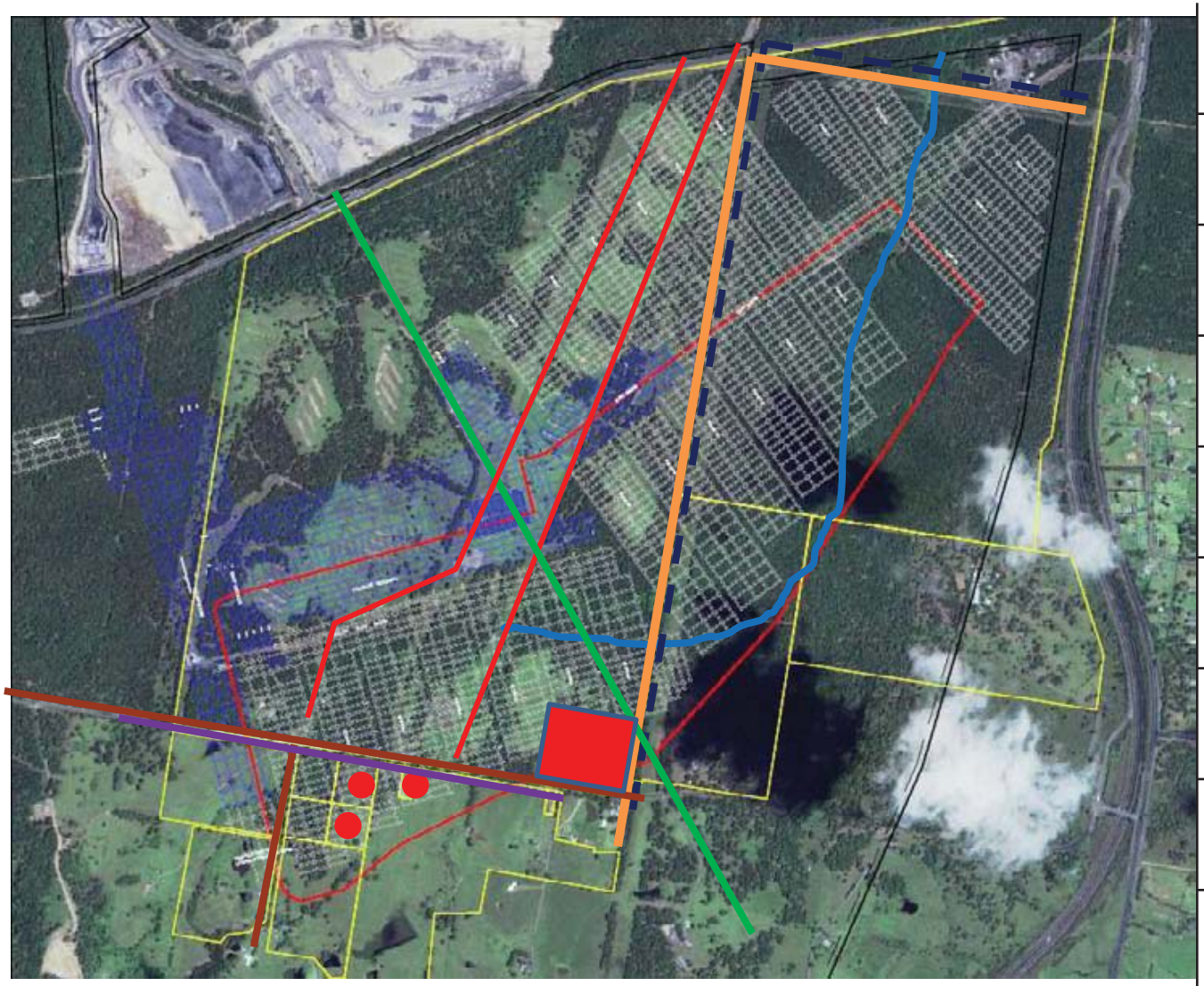

donaldson coal
PANEL 2 PILLAR EXTRACTION

Surface Features

Abel Mine Lease- Full ML 1618 Area	Abel Mine Lease- Area 1	Abel Mine Lease- Area 2
Pambalong Nature Reserve		
Black Hill cemetry		
Cliff Lines		
Private property and residences (100+)		Private property (13) / Principal residences (4)
Numerous dams (approx 175)		2 x dams
Black Hill school		
Church and cemetry		
Viney, Blue Gum, Long Gully, Buttai Creeks	Viney Creek	Viney Creek
Boral Asphalt Plant (Black Hill Depot)	Boral Asphalt Plant (Black Hill Depot)	
Catholic Diocese Land	Catholic Diocese Land	Catholic Diocese Land
C&A land (Black Hill Land Pty Ltd)	C&A land (Black Hill Land Pty Ltd)	C&A land (Black Hill Land Pty Ltd)
Transgrid 330kV	Transgrid 330kV	Transgrid 330kV
EA 132kV power line	EA 132kV power line	EA 132kV power line
Rural 11kV power lines	Rural 11kV/415V power lines	Rural 11kV/415V power lines
Aboriginal Artefacts		
Telstra/Optus Fibre optic cables	Optus Fibre optic cables	Optus Fibre optic cables
Telstra copper comms cables		Telstra copper comms cables
Hunter water pipeline	Hunter water pipeline	Hunter water pipeline
Agility gas pipeline		
Public Roads		Public Roads Black Hill Road, Taylors Road
State survey marks		State survey marks
Overlying mine workings		
Disused Richmond Vale railway line		
Black Hill & Stockrington Quarries		

SMP Area 2 – Key surface features



- Private Properties
- Viney Creek
- Optus Fibre Optic cable
- Transgrid 330kV Power Line
- EA 132kV/11kV Power Lines
- Hunter Water buried pipeline
- Principles Residences
- Black Hill Road and Taylors Road
- Telstra cables

Surface Environmental Assessment

- Surface inspections and surveys conducted to identify features as part of EA Process including
  - Flora/Fauna
  - Groundwater
  - Surface Water
  - Aboriginal & European heritage
- Monitoring programs as required by Project and SMP Approvals
- This information is reviewed and updated as part of each SMP Area submission
- Consultation with Landowners and Stakeholders

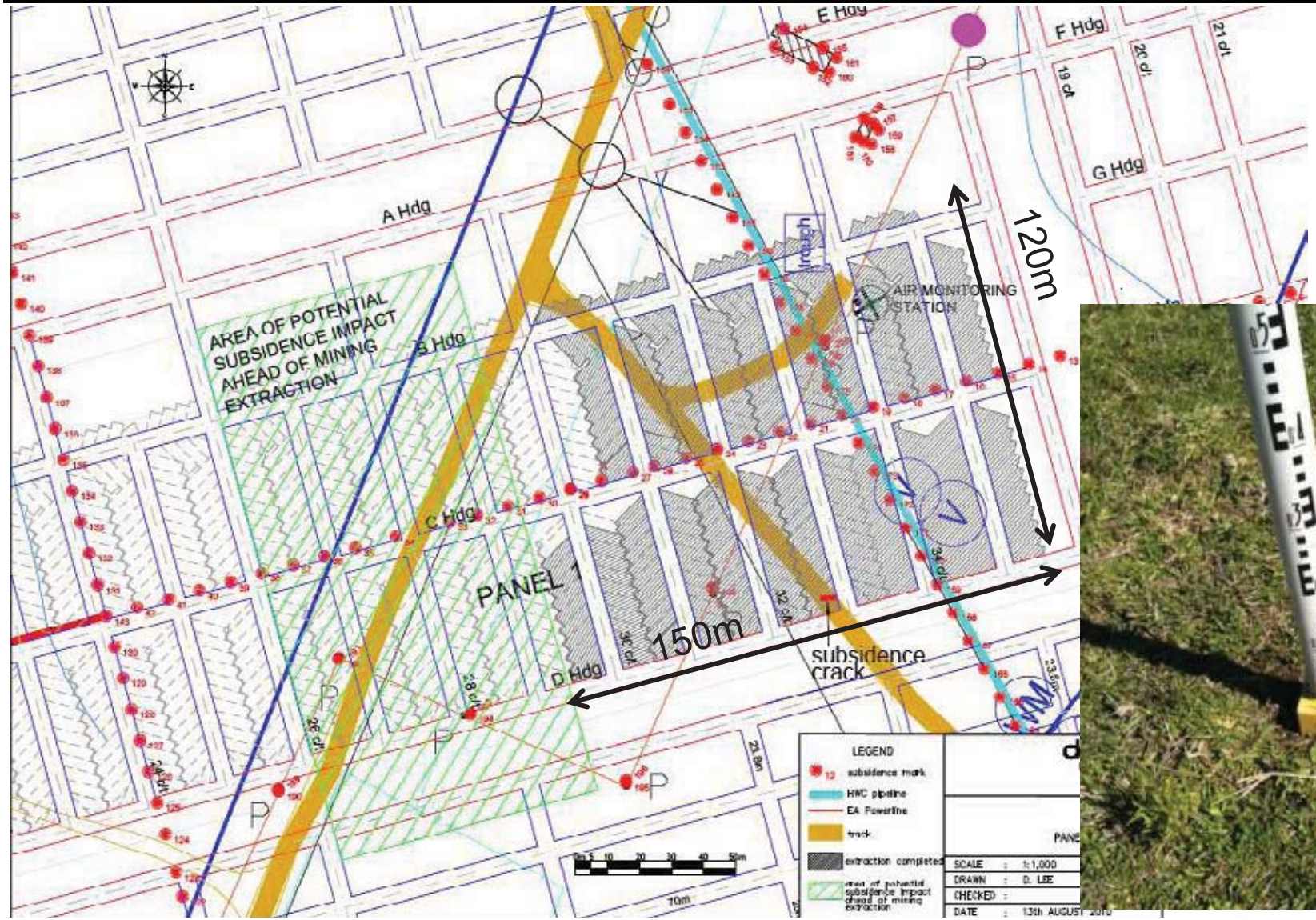
Area 1 Approval and Conditions, Management Plans, Monitoring Programs

- Approval for Abel Area 1 SMP was obtained on 26 May 2010;
- Minor variations have been approved to the layout of Panels 1 and 2 due to geological structures encountered
- Various Management Plans / Programs have been implemented,
  - Subsidence Monitoring Program;
  - Environmental Management Plan;
  - Public Safety Management Plan;
  - Infrastructure Management Plans for Hunter Water Corporation and Energy Australia;
  - Draft Transgrid Management Plan; and
  - Draft Property Management Plans for both the Catholic Diocese and Black Hill Land P/L land.

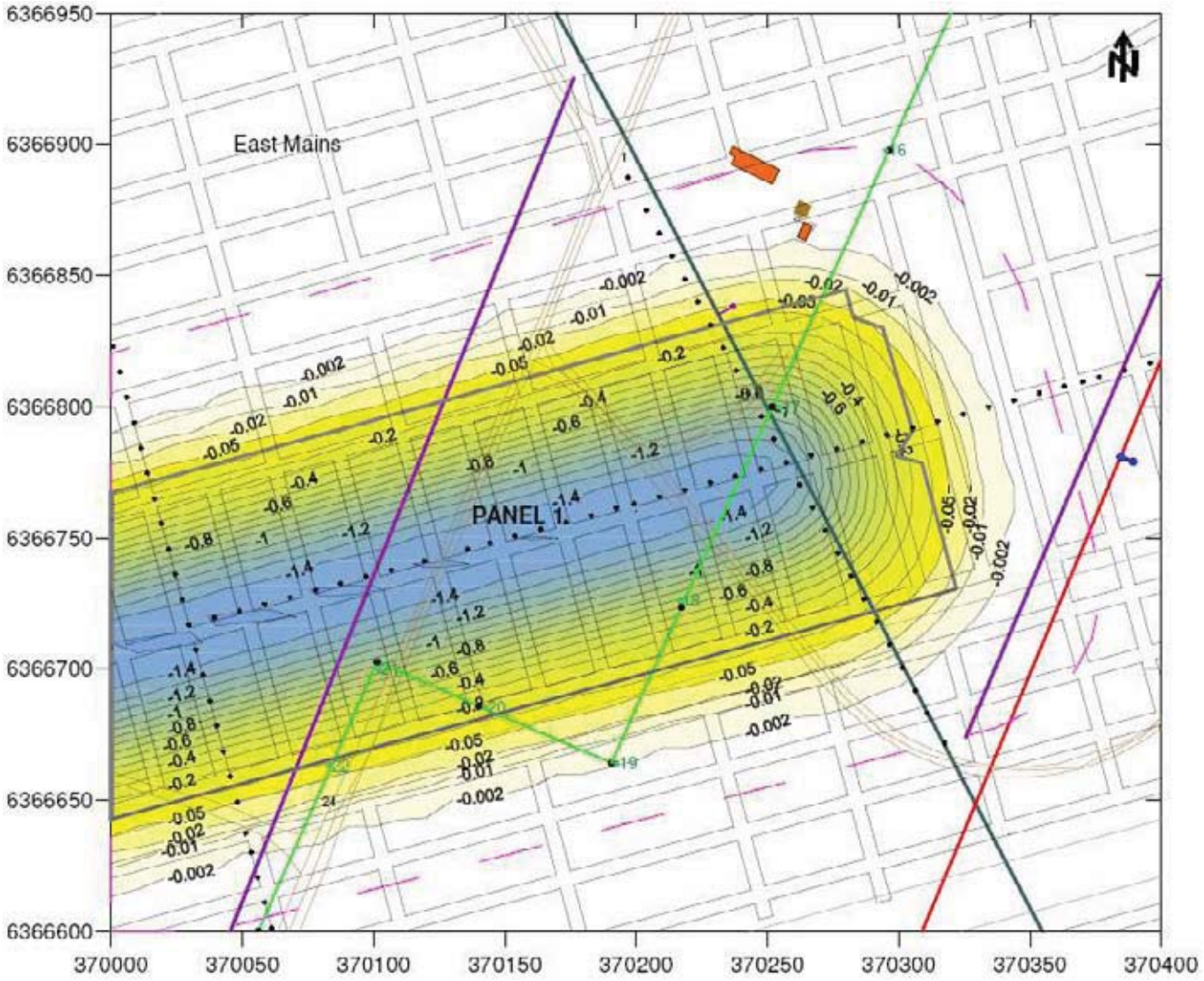
Panel 1 progress to date

- Commenced 12 July 2010
- Has retreated 150m
- Panel 2 to commence next week

Panel 1 Mining Notification to Landholder



Panel 1 subsidence predictions



Subsidence Results Panel 1, Impacts and Remediation

Monitoring

Panel	Monitoring Item	SMP Prediction For 156m wide Panel	Actual Survey Measurements to date For 120m wide Panel
Panel 1	Subsidence	1.58 to 1.76m	1.10m (incomplete)
	Strain	10-15mm/m	10-11mm/m
	Tilt	38-53mm/m	47mm/m

Some further minor subsidence increase is anticipated as extraction of the Panel progresses

Impacts

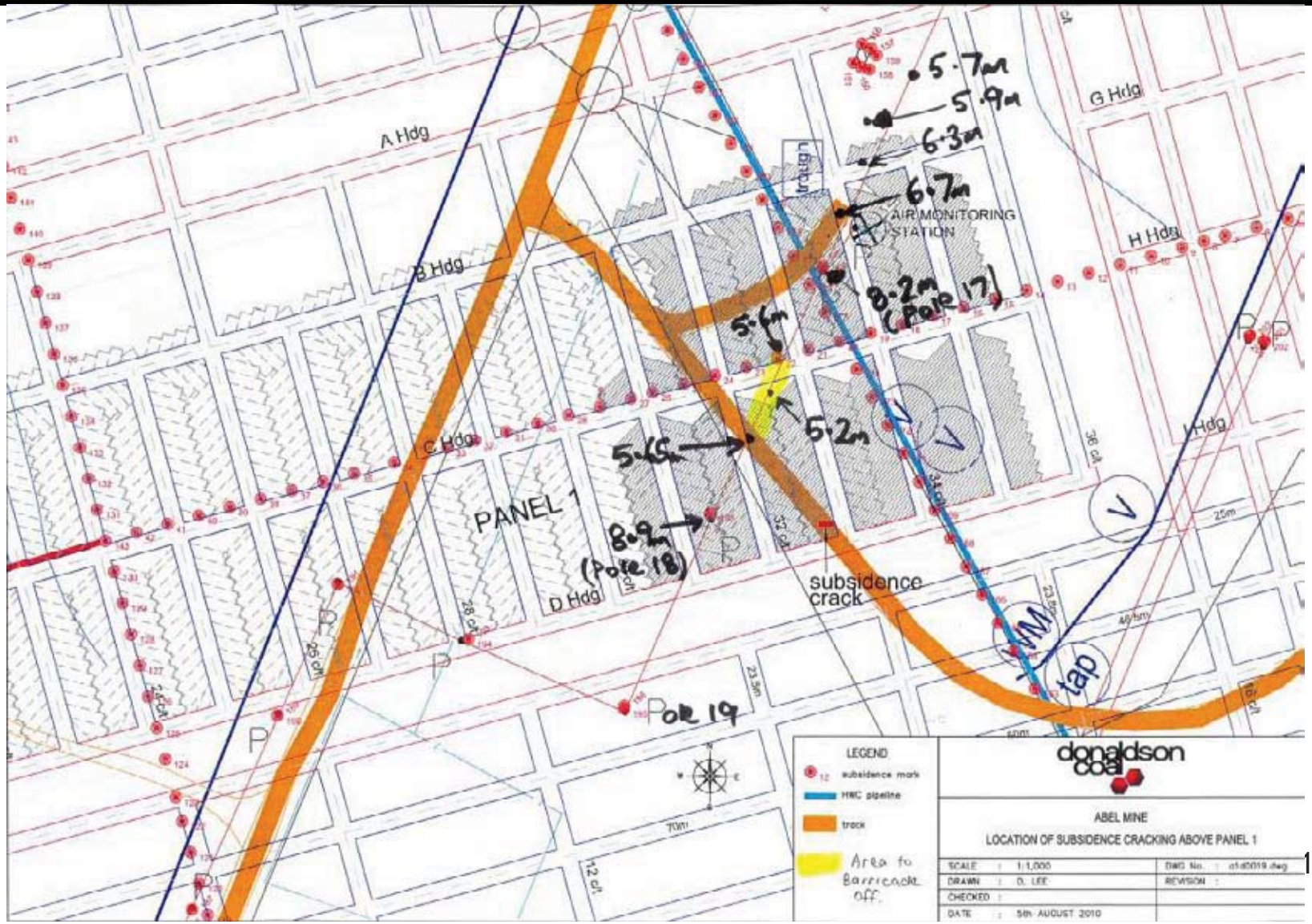
Panel	Impacts	SMP Prediction For 156m wide Panel	Actual Impacts to date For 120m wide Panel
Panel 1	Surface cracking	100-150mm	180-200mm across road only (remediated)
	Water Line (HWC)	Potential to be assessed by HWC	Minor crack on fitting fed from the HWC 200mm line (remediated in accordance with HWC MP)
	Power Line (EA)	Potential for clearance loss was identified	Clearance loss on EA 415V line was observed and EA notified (remediated in accordance with EAMP)

Subsidence cracking on access track

Subsidence cracking on access track

415V Conductor Clearance

415V Conductor Clearance



415V conductor lifting

11kV Power pole repairs

Cracking on fitting HWC Water Line

- No Damage to 200mm Line, however leak resulting from cracking of disused copper connection to old 375mm Water Line

Subsidence Prediction Methodology

Several industry established empirical models were used to predict the maximum subsidence impact parameters and profiles for the given mining layouts. The predictions involved the following work:

(i) The development of a geotechnical model for the study area.

(ii) Review of Stage 1 results to date.

(iii) Prediction of maximum panel and barrier pillar subsidence and profiles using the DgS Modified **ACARP, 2003** subsidence model.

(iv) Subsidence, tilt, strain, horizontal displacement contours using **SDPS®** 3-D influence function software.

(v) Post-mining topography, potential cracking width, ponding location and surface gradient change contours were estimated using **Surfer8®** contouring software.

(vi) Estimation of sub-surface fracturing heights above the panels using empirically based models in **ACARP, 2003, Forster, 1995** and **Mark, 2007**.

Subsidence Prediction Outcomes

For the 125 m to 160 m wide panels with mining heights of 2.4 to 3.7 m and cover depths of 95m to 150m, the predicted key subsidence impact parameters include:

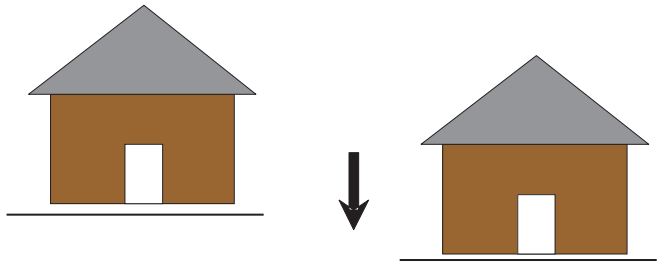
- Final maximum panel subsidence between 42% and 51% of the mining height e.g. 1.0m to 1.90m.
- Final barrier pillar subsidence from 0.04 m to 0.21 m
- Maximum possible surface cracking widths of between 50 mm and 200 mm and tapering to depths of 5 to 10 m (likely to be mitigated by surface clays/weathered shales). Most cracks likely to be 'self healing' or may not develop at surface at all.
- No cracking or ponding expected along Viney Creek, due to buffer zone.
- Engineered solutions required for man-made features.

Subsidence Impact Parameters

- vertical subsidence (m)

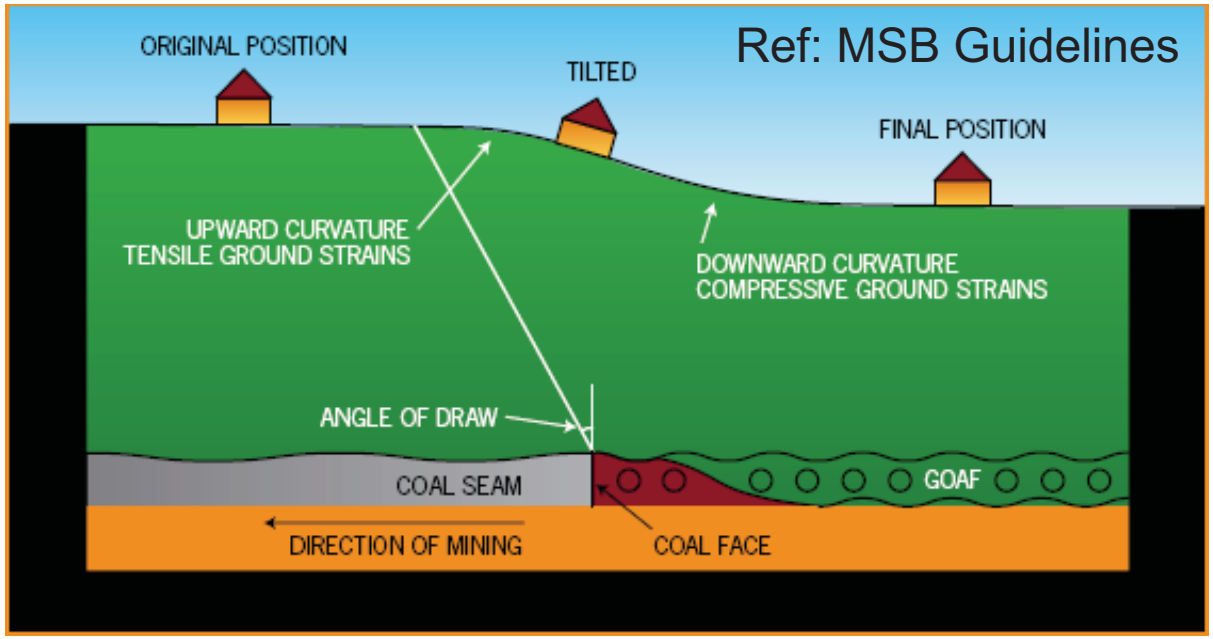
  rarely a direct concern, except when adjacent to water bodies

  or flat terrain with watercourses (i.e. ponding)



Final maximum panel subsidence ranges from 1.0m to 1.9m for the given mining geometries.

SCZs will limit subsidence to <20mm



Subsidence Impact Parameters

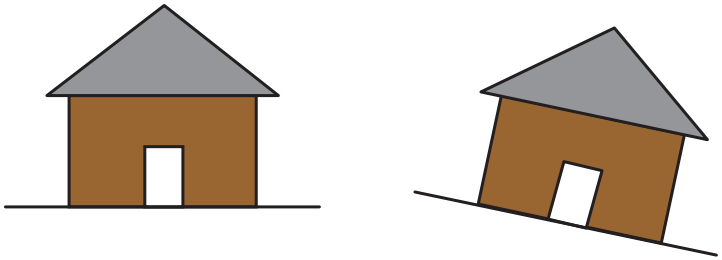
- Tilt (mm/m)

differential subsidence

does not commonly cause

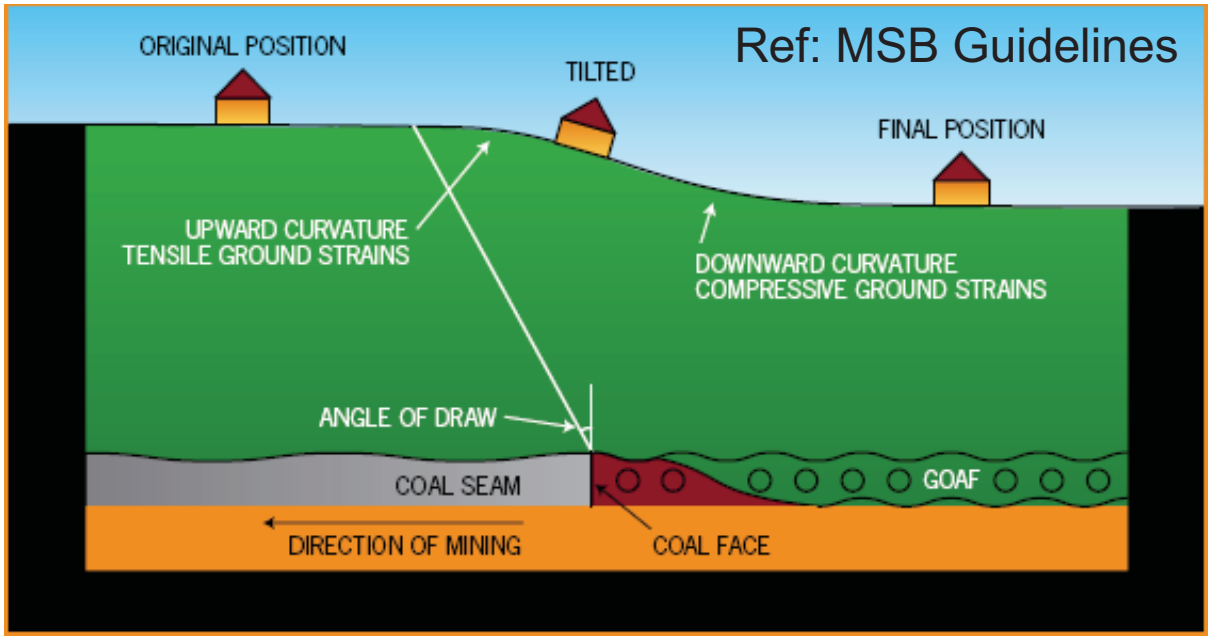
structural damage

affects structure usage, drainage



Final maximum panel tilt ranges from 10 to 48 mm/m (30 mm/m typical).

Houses impacted by tilts > 7 mm/m.



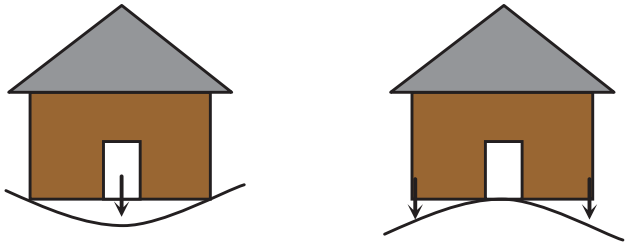
Subsidence Impact Parameters

- Curvature (bending)

  differential tilt (1/km)

  major damage driver

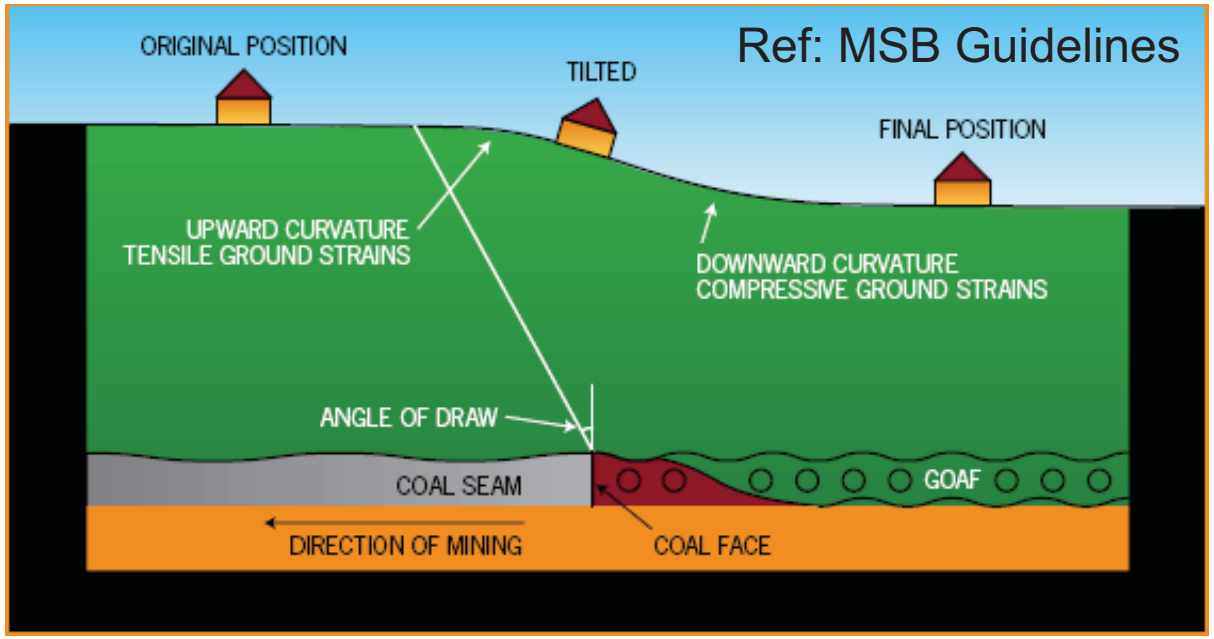
  structures deformed and can crack, shear or buckle



sagging hogging

Final maximum panel hogging and sagging curvature ranges from 0.5 to 1.9 1/km or bending radii of 2 km to 0.5 km.

Houses can crack between 2 to 10 km radii.

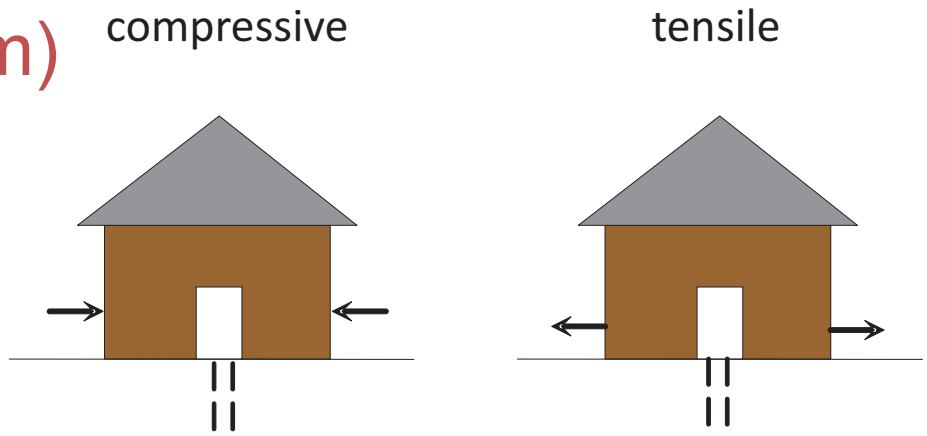


Subsidence Impact Parameters

- horizontal strain (mm/m)

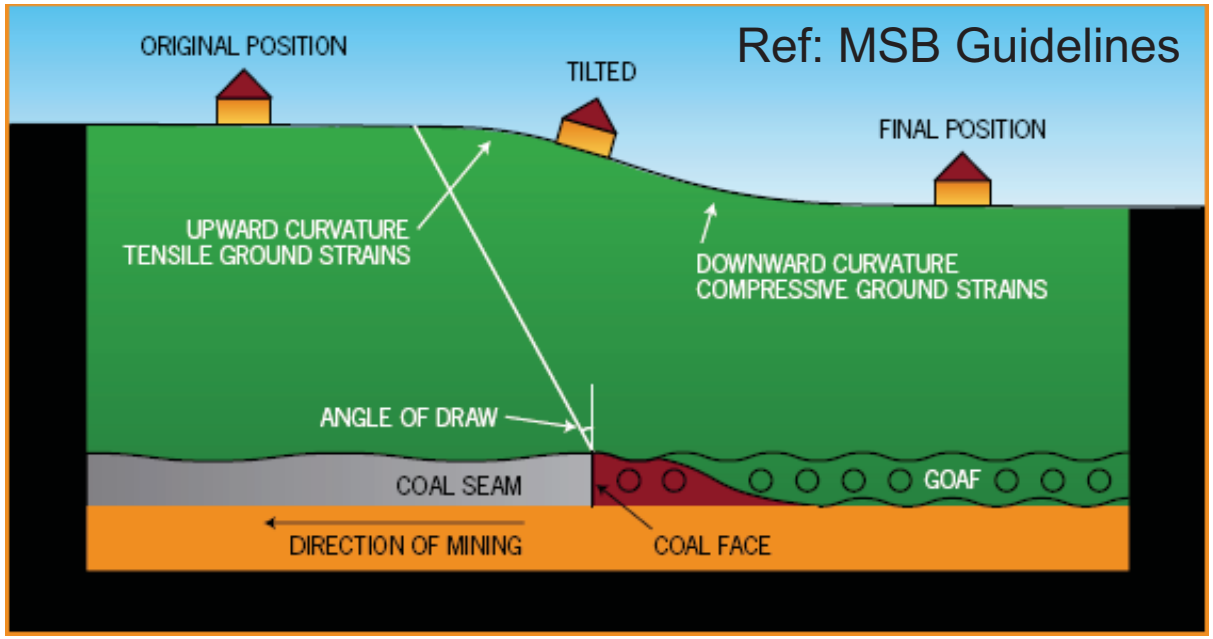
tensile or compressive

associated with curvature and has similar damage outcomes

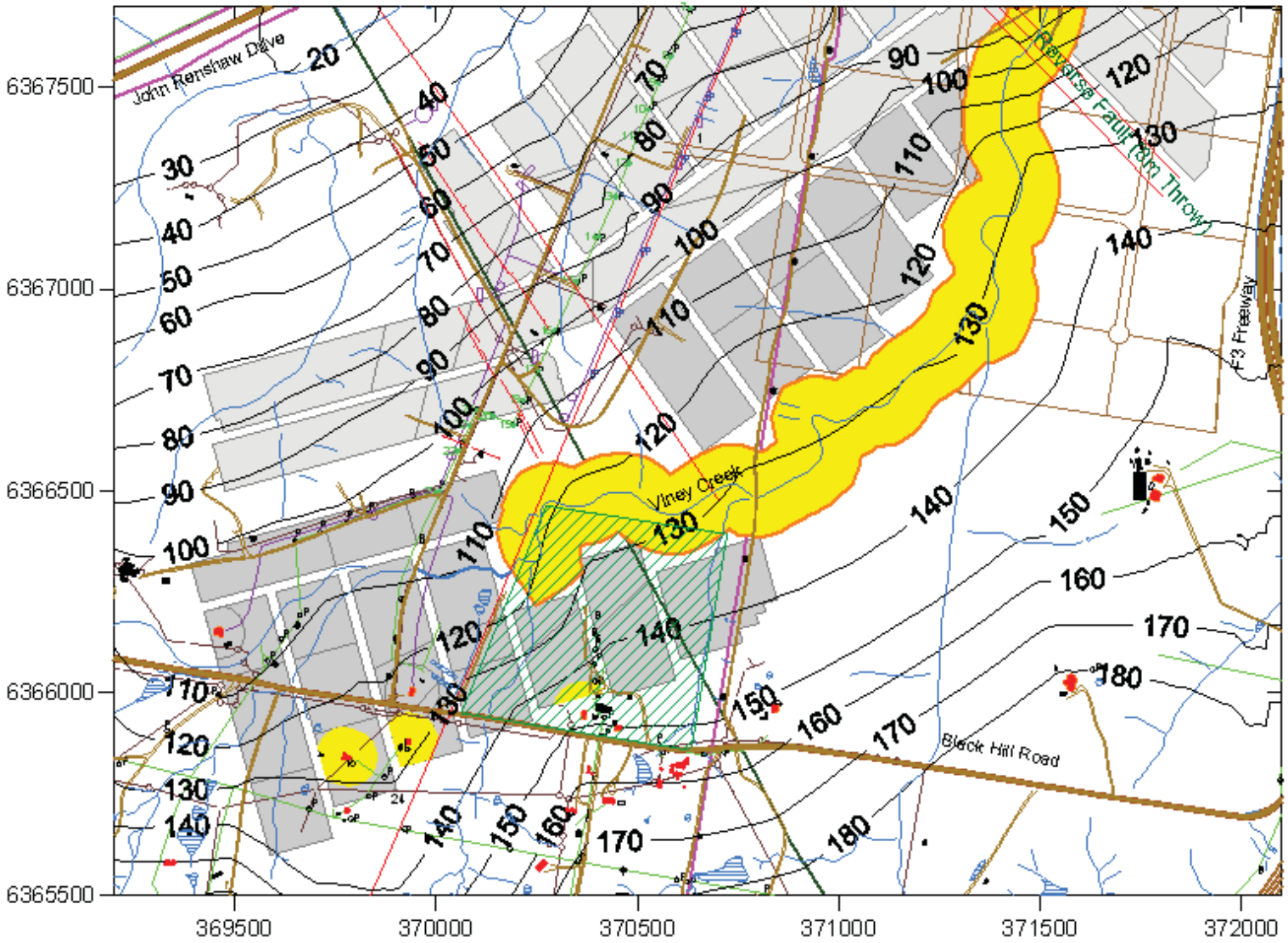


Final maximum panel tensile and compressive strain ranges from 5 to 20 mm/m (10 mm/m typical) .

Houses can crack > 3 mm/m

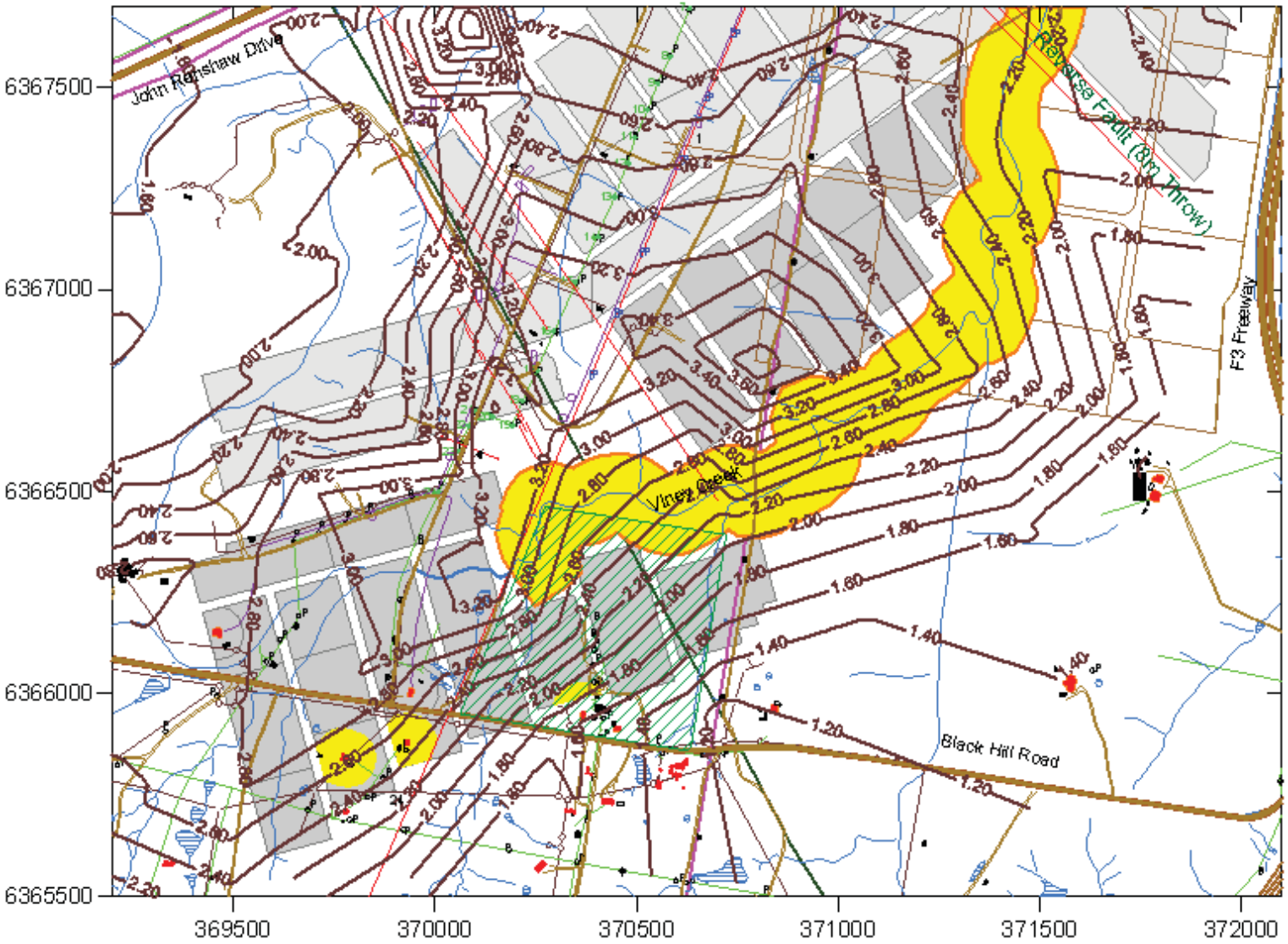


Prediction Input: Cover Depth



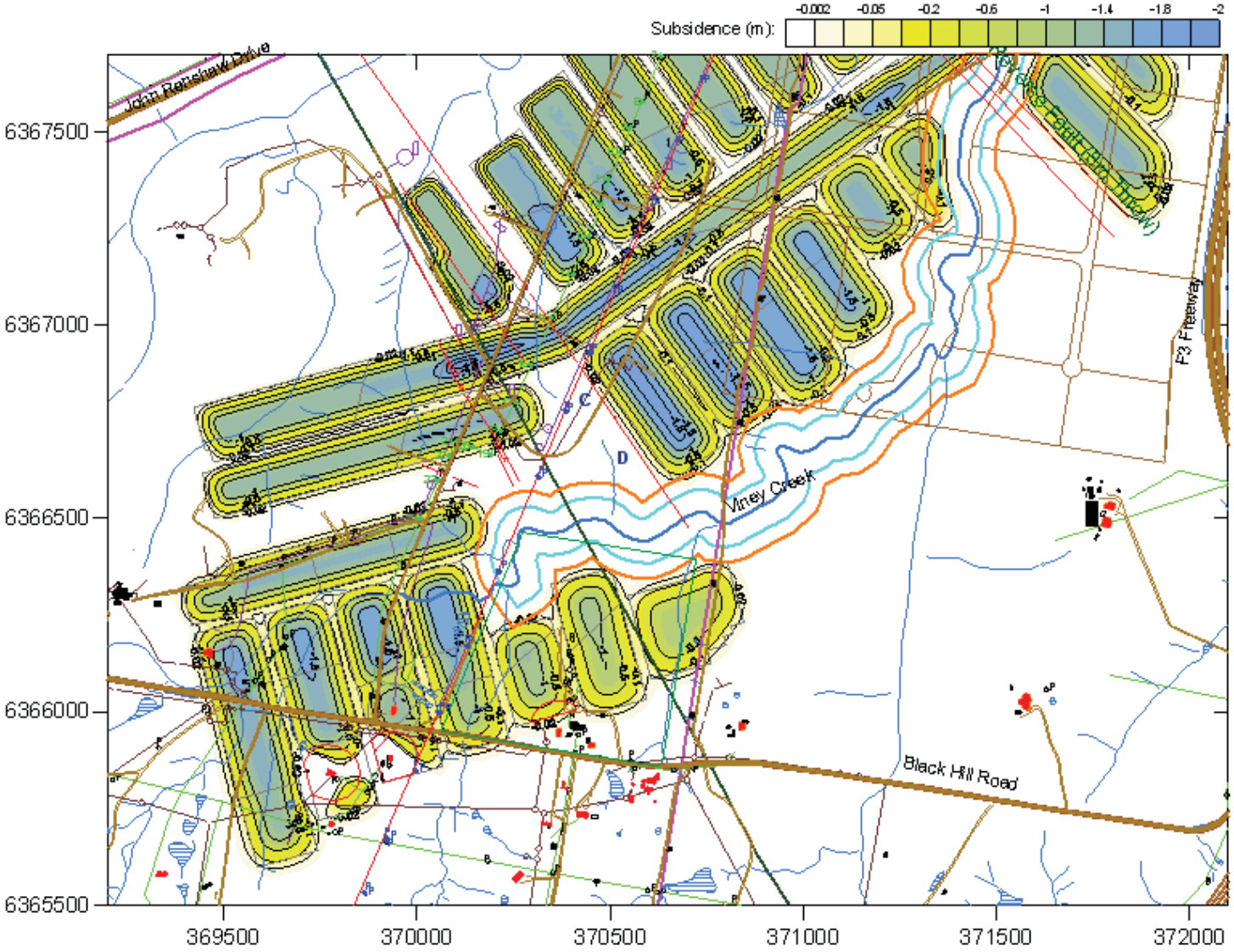
Subsidence Control Zone

Prediction Input: Mining Height

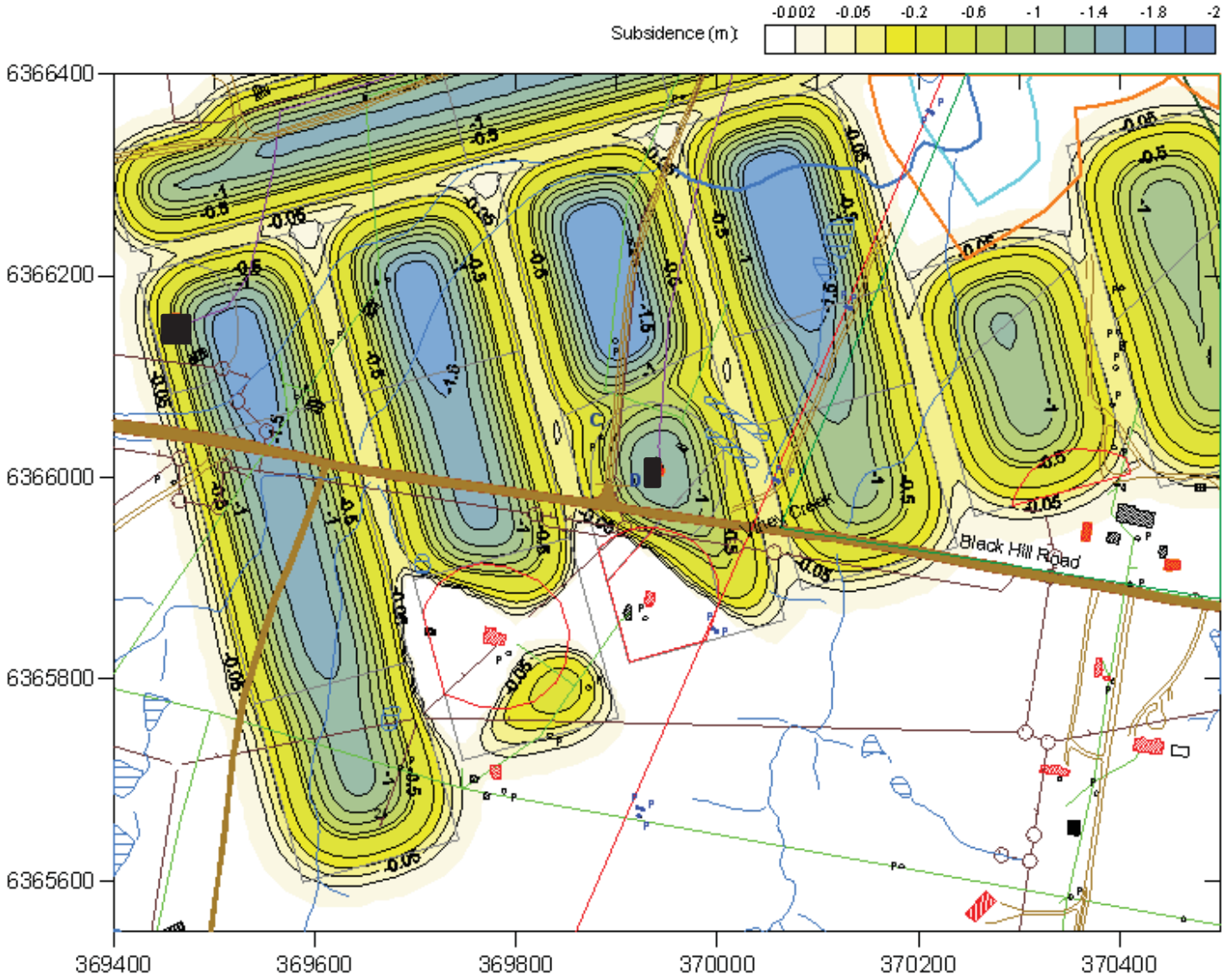


Subsidence Control Zone

Prediction Outcomes: Subsidence

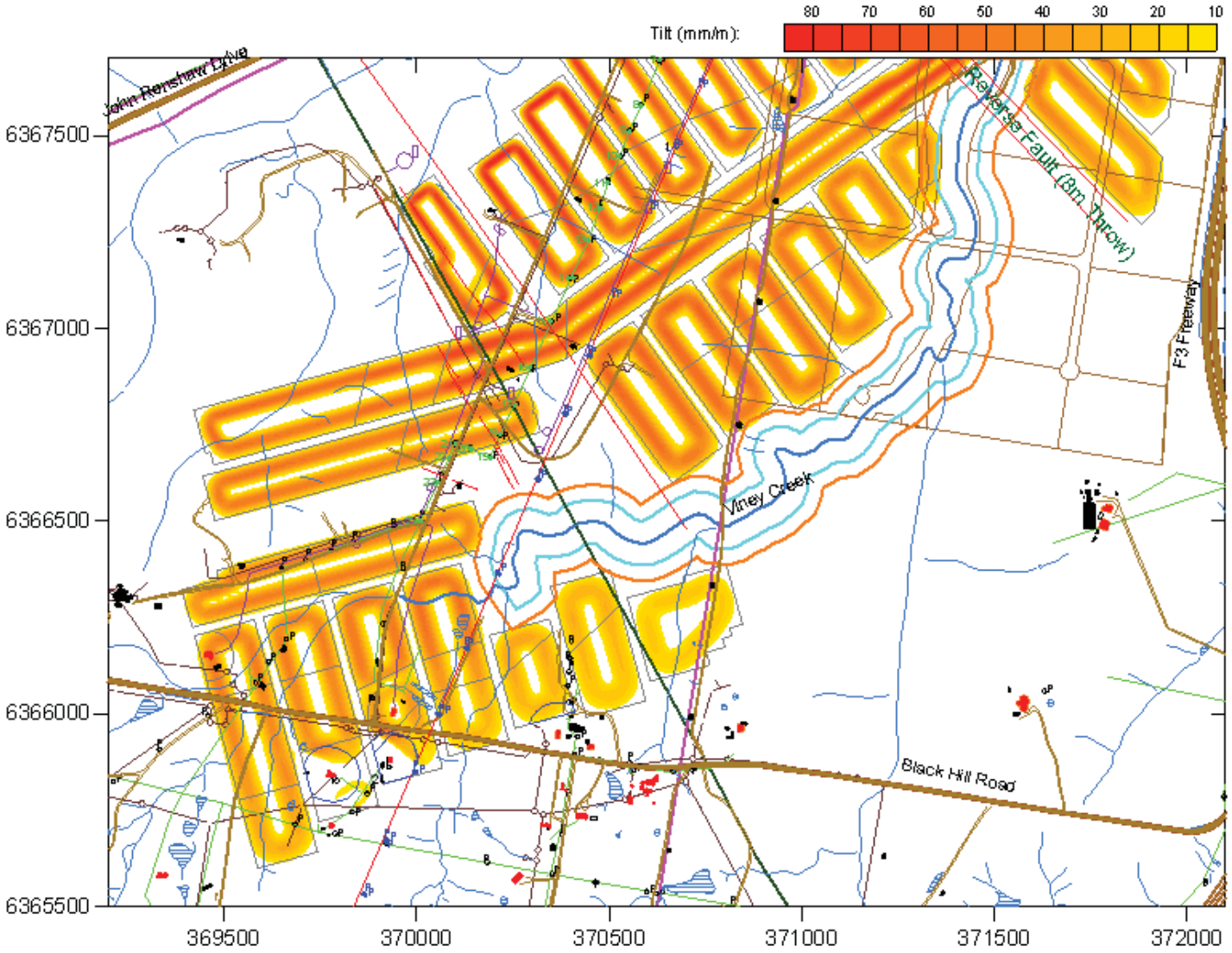


Predicted Subsidence at Principle Residences



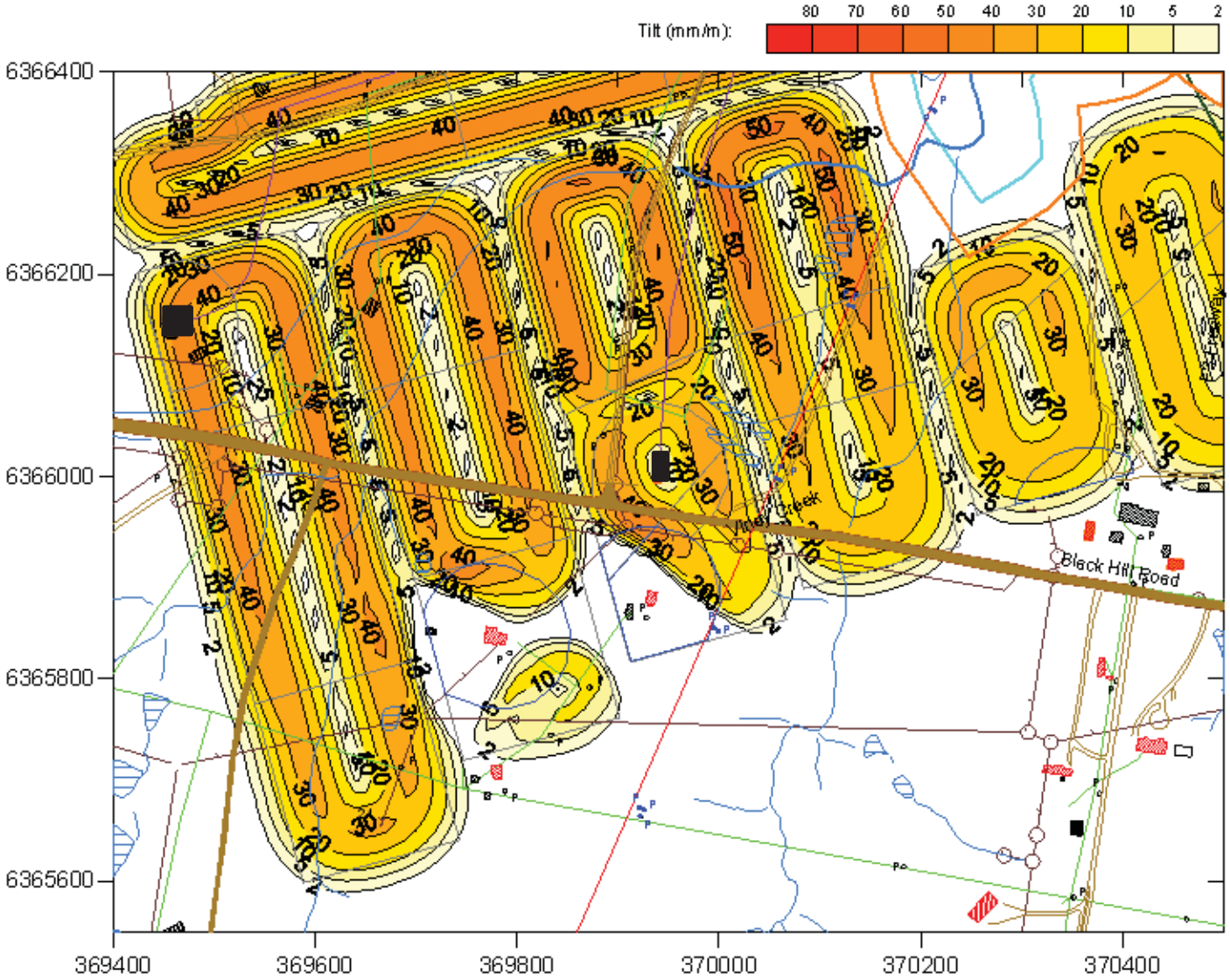
Subsidence Control Zone

Prediction Outcomes: Tilt



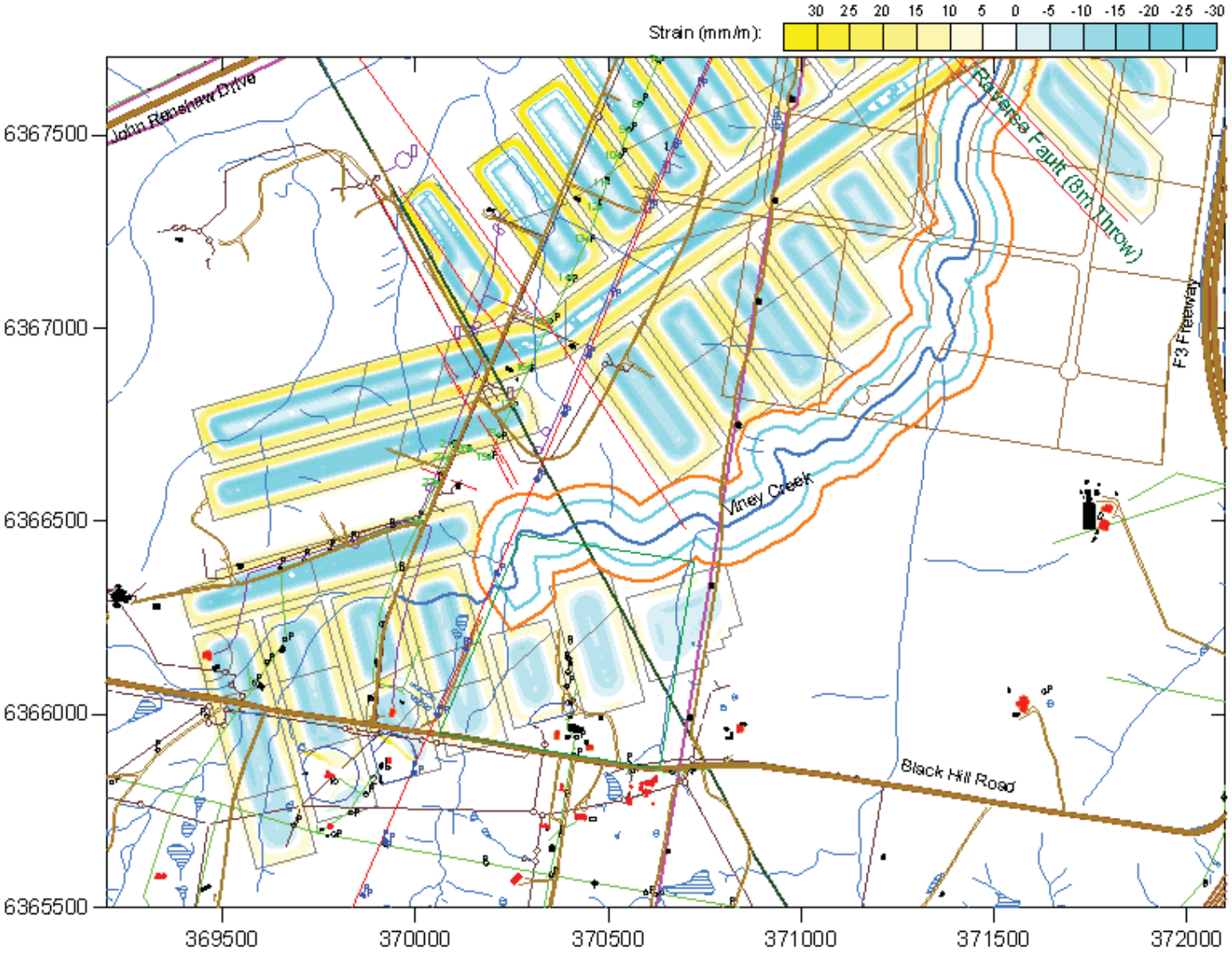
Subsidence Control Zone

Predicted Tilt at Principle Residences



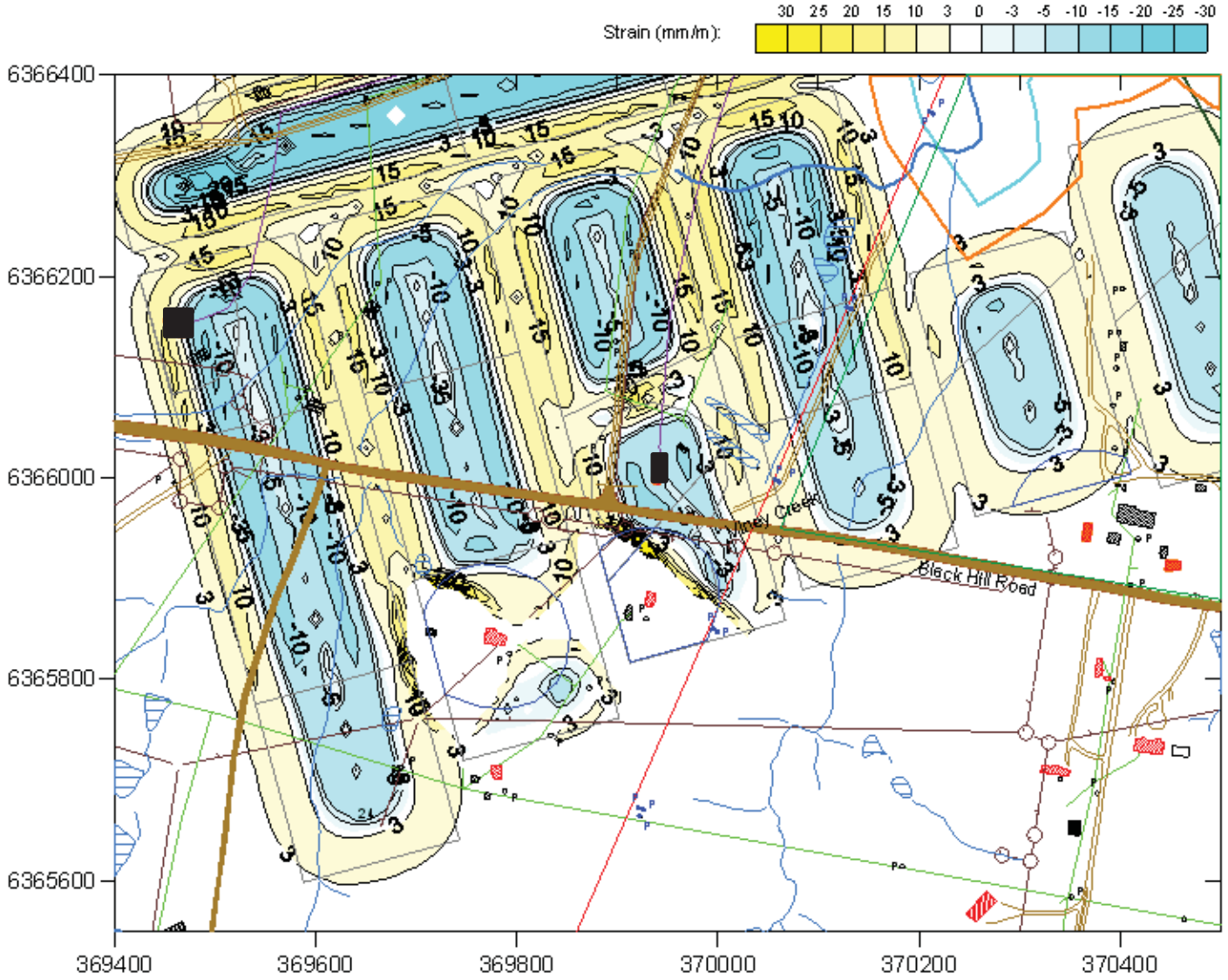
Subsidence Control Zone

Prediction Outcomes: Strain



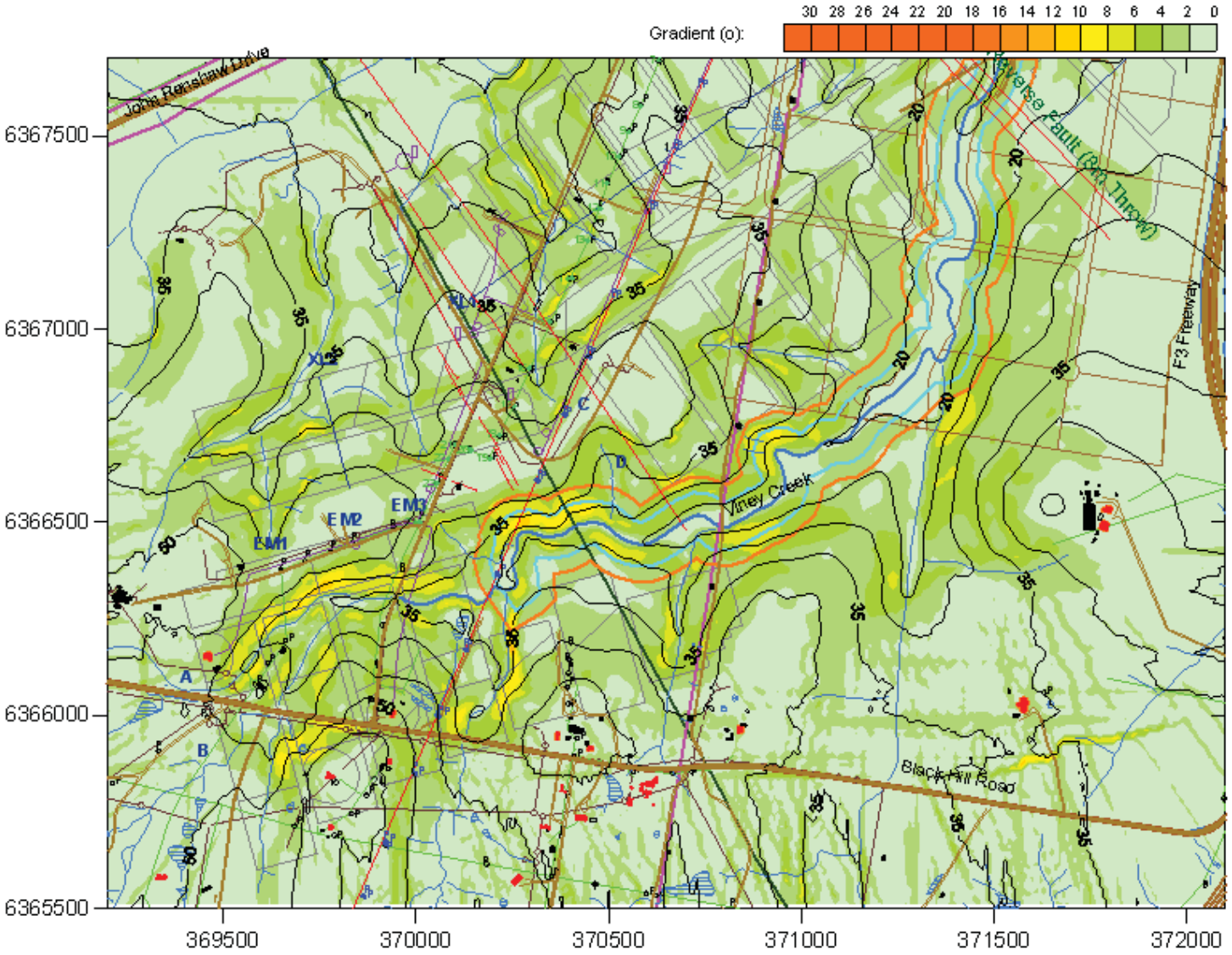
Subsidence Control Zone

Predicted Strain at Principle Residences



Subsidence Control Zone

Prediction Outcomes: Surface Gradients



Sub Surface Fracturing Assessment

- The **ACARP, 2003** model predicts that heights of continuous sub-surface fracturing for the proposed mining heights are > 10 m below the surface for cover depths >100m.

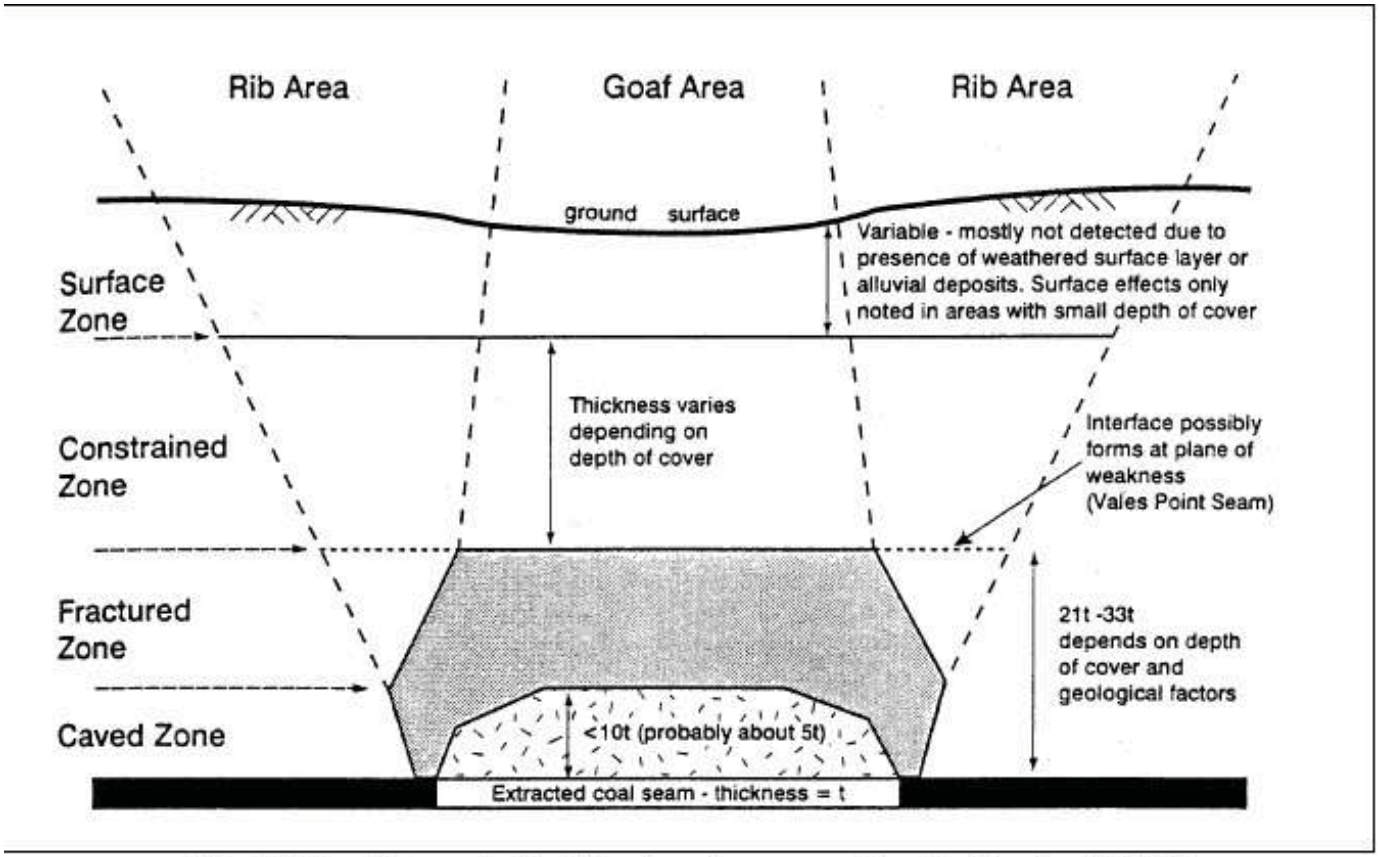
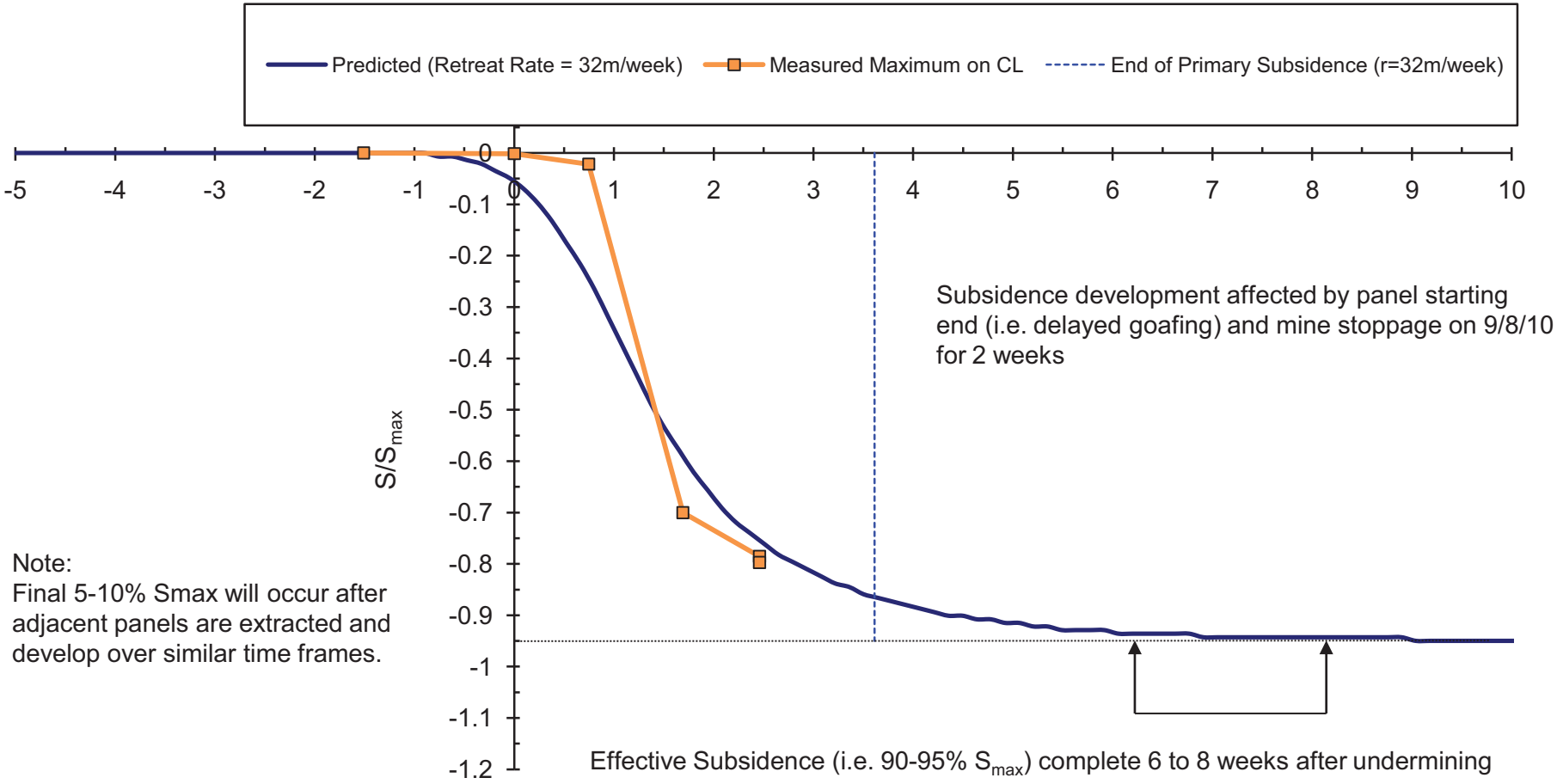


Fig. 1.33 Zones in the Overburden according to Forster (1995)

Abel Subsidence Development Rates – Area 1



Note:
Final 5-10% Smax will occur after adjacent panels are extracted and develop over similar time frames.

SMP Area 2

- Surface above application area comprises a combination of land owned by Black Hill Land Pty Ltd, the Catholic Diocese of Maitland and Newcastle, a narrow strip traversing the area owned by Hunter Water Corporation, ten private properties and two public roads;

- Man made and natural features potentially impacted by subsidence arising from mining this area, are
  - Catholic Diocese of Maitland / Newcastle land, Stock water supply line; access roads and tracks; various fences, Principal Residence, disused, unoccupied residences – Property Management Plan to be prepared;
  - Black Hill Land Pty Ltd land, access roads and tracks – Property Management Plan to be prepared;

Key features

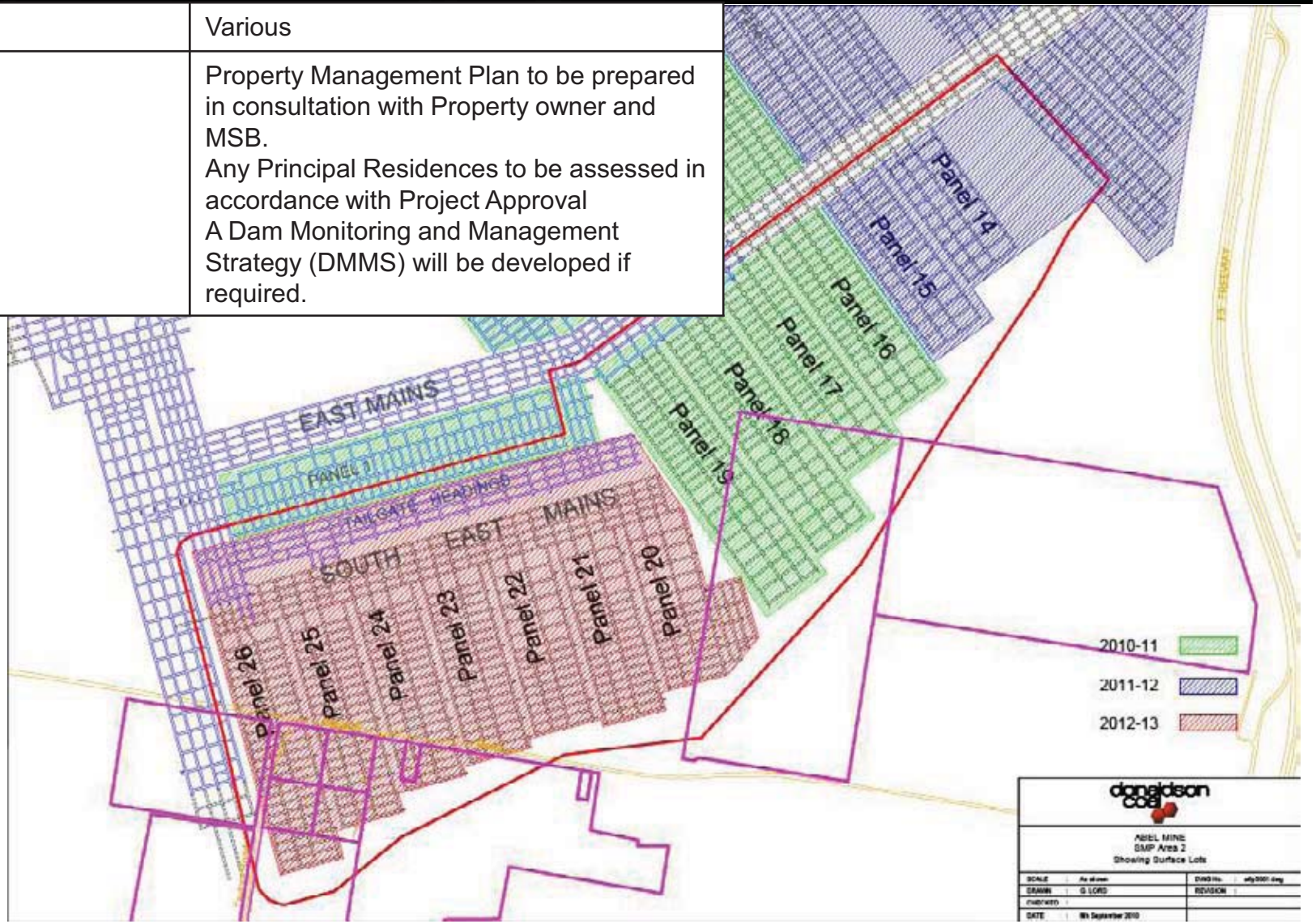
- Private properties and Principal Residences – Property Management Plans to be prepared – to include Mine Subsidence Board inspection, Dam Monitoring & Management Strategy and also consideration of outbuildings and other improvements as `other surface structures'. Discussions will also be held, as part of the SMP application preparation with property owners and the MSB regarding mitigation / rehabilitation and responsibilities
- Black Hill Road – Management Plan to be prepared in consultation with Cessnock City Council
- Telstra Copper cables – Management Plan to be prepared in consultation with Telstra.
- Hunter Water Corporation water pipeline – Existing Infrastructure Management Plan to reviewed;
- Energy Australia rural 11kV and 132kV power lines – Existing Infrastructure Management Plan to reviewed;

Key features

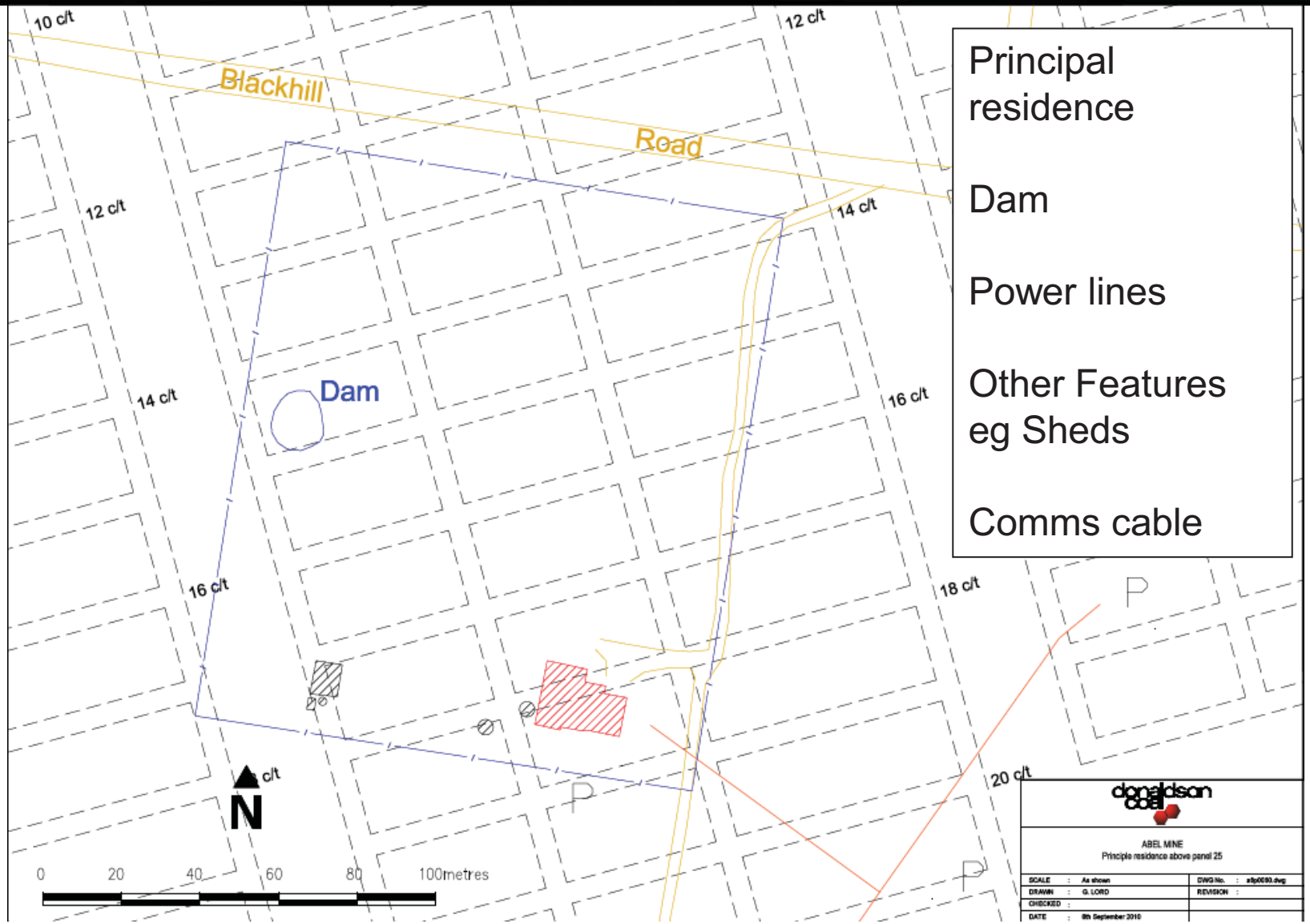
- Transgrid 330kV power line – Existing Infrastructure Management Plan to reviewed;
- Optus fibre optic cable – continued discussions relating to relocation and/or Management Plan
- Layout of the panels has been designed to provide management outcomes of subsidence impacts in line with the Statement of Commitments and Project Approval
- Maximum predicted subsidence in the application area ranges between 1.0m and 1.9m
- Maximum predicted strains from 5 to 20mm/m, and
- Maximum predicted tilts from 10 to 48mm/m excluding areas nominated to be protected.

Private Properties

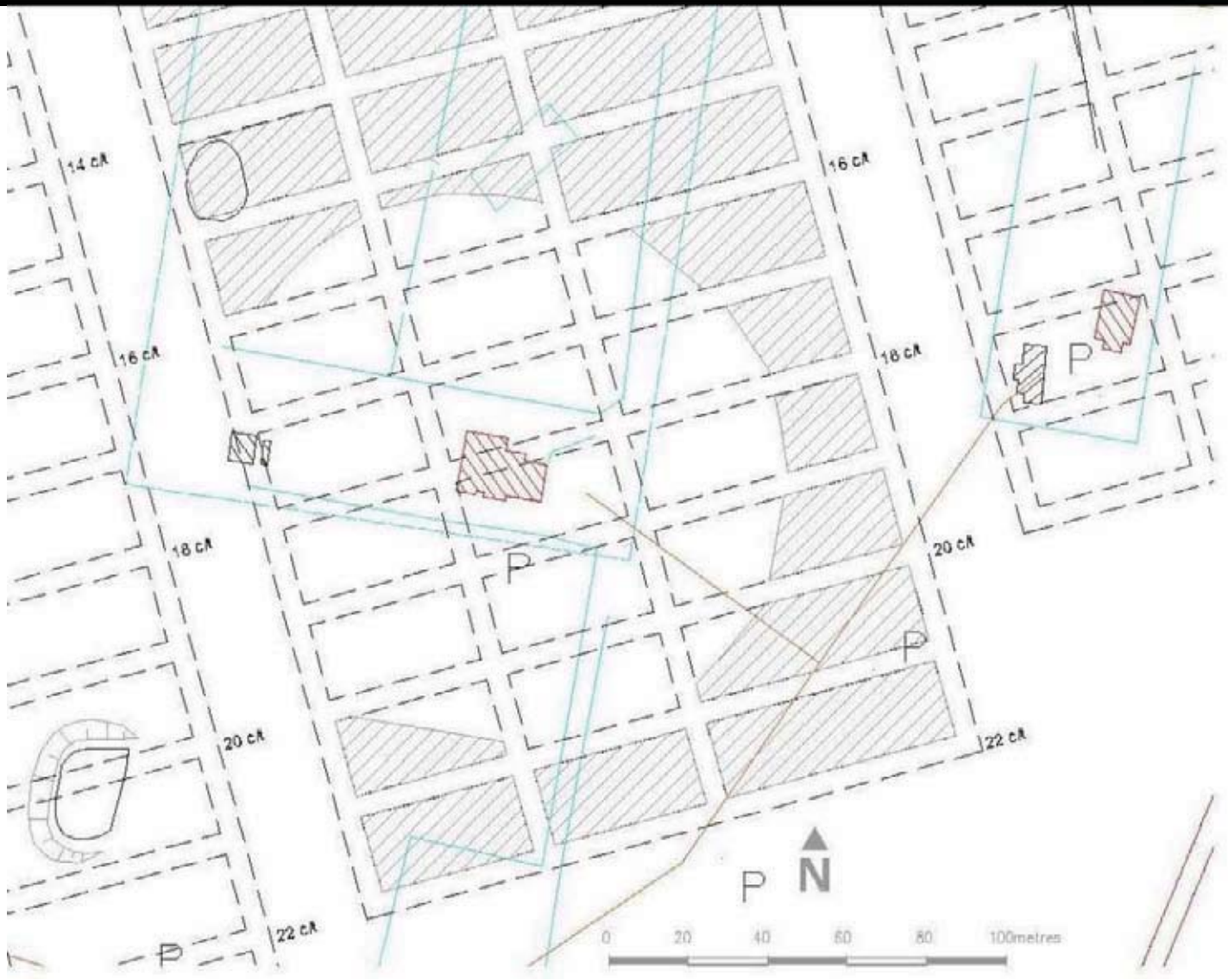
Timing	Various
Detail	Property Management Plan to be prepared in consultation with Property owner and MSB. Any Principal Residences to be assessed in accordance with Project Approval A Dam Monitoring and Management Strategy (DMMS) will be developed if required.



Typical Private Property Infrastructure



Typical Private Property Infrastructure



Dams

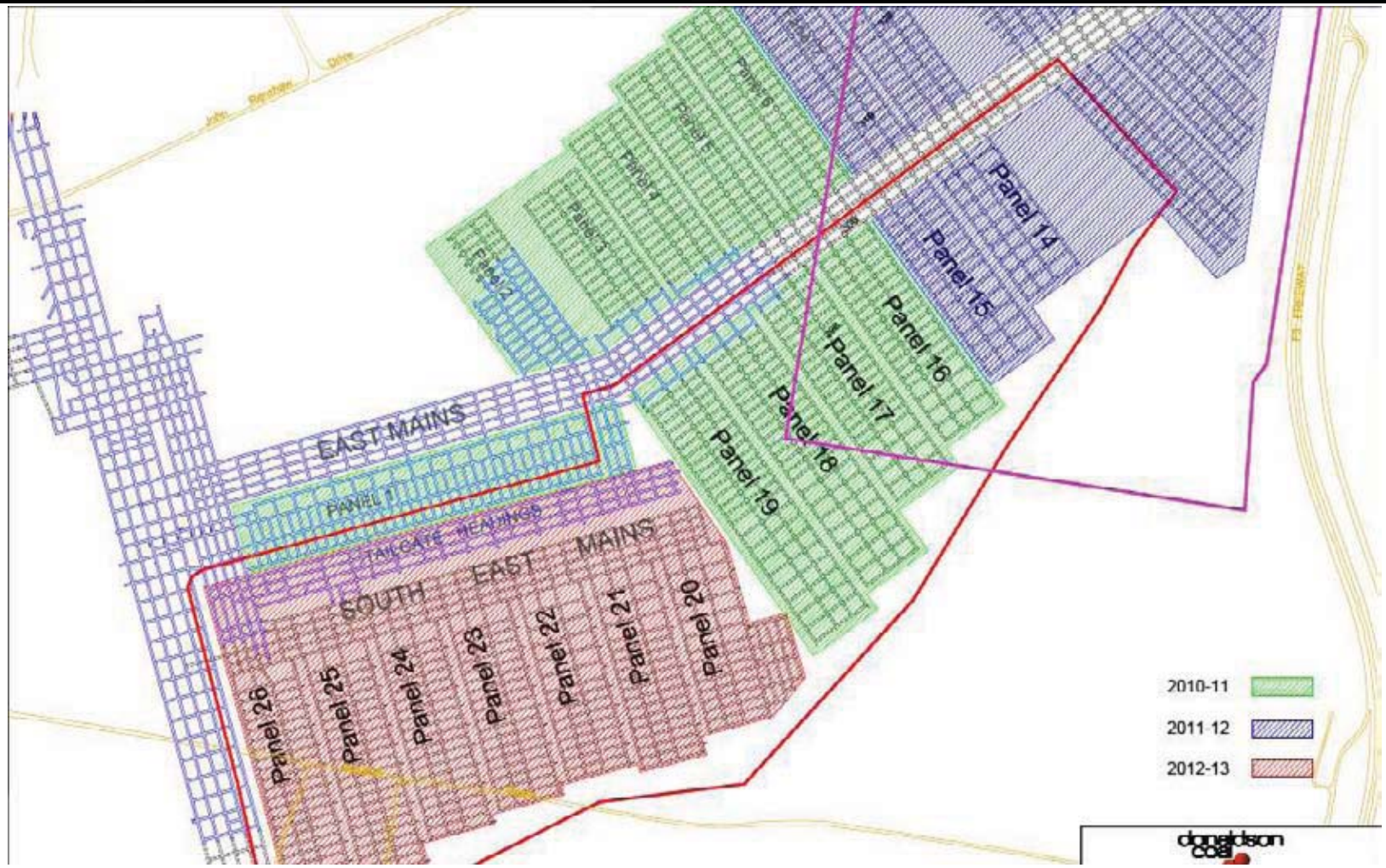
- A Dam Monitoring and Management Strategy (DMMS) will be developed for all dams prior to any mining impact.

Catholic Diocese Land

Timing	Extraction- Panel 19
Detail	Cattle agistment and stock watering system. Principal Residence area.
Property Management Plan	Draft completed
Access agreement	In place
Mining schedule agreement	In place

Catholic Diocese Land

- Irrigation system for cattle agistment
- Fences/gates/cattle grids
- Cattle yards/Holding yards
- Access tracks


EAST MAINS
PANEL 1
TAILGATE HEADINGS
SOUTH EAST MAINS
Panel 1
Panel 2
Panel 3
Panel 4
Panel 5
Panel 6
Panel 14
Panel 15
Panel 16
Panel 17
Panel 18
Panel 19
Panel 20
Panel 21
Panel 22
Panel 23
Panel 24
Panel 25
Panel 26
2010-11
2011 12
2012-13
donaldson coal