



54 Audia Court, Unit 2
Concord, ON L4K 3N5
(905)-738-1400

Submittal 23-214-005

PROJECT NAME	PROJECT ADDRESS	DATE SUBMITTED
CHRIS GIBSON REC CENTRE 23-214	125 McLaughlin Rd N, Brampton, ON, L6X 1N9	Dec 9, 2024

TO	FROM
Ashish Singla	INZAMAN KHAN
COMPANY	COMPANY
RAFAT GENERAL CONTRACTOR INC.	Consult Mechanical Inc.
EMAIL	EMAIL
asingla@corebuildconstruction.com	inzaman@consultmechanical.com
ADDRESS	ADDRESS
8850 GEORGE BOLTON PKWY BOLTON, ON L7E 2Y4	54 Audia Court, Unit 2 Concord, ON L4K 3N5

Title

Fab Duct Rev 1

Description

Revised Fabric Ducts because of the change on the supply duct orientation.

Package Items

SPEC	SUBSECTION	ITEM	TYPE
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**Submittal # 83808****APPROVAL REQUIRED**

Project 22006063-SMET-7- Chris Gibson Recreation Centre
Leader Jaden Sebu
Job Site Chris Gipson Recreation Centre
Submission Date 2024-12-09
Sold To CONSULT MECH
Submitted By Chantal Koudou

Contacts

Role	Customer	Contact	Our Rep
Project Manager	Con-Sult Mechanical Inc.*	Mohammed Ali Khan Lodhi	Jaden Sebu
Designer	Integral Group	Mark Marotta	Graham Coote

Deliverables

Track #	241780		
Tag	FAB DUCT		
Description	Fabric Ducts		
Quantity	6		
Production Lead Time	8 - 10 weeks		
Revision #	1		

Notes:

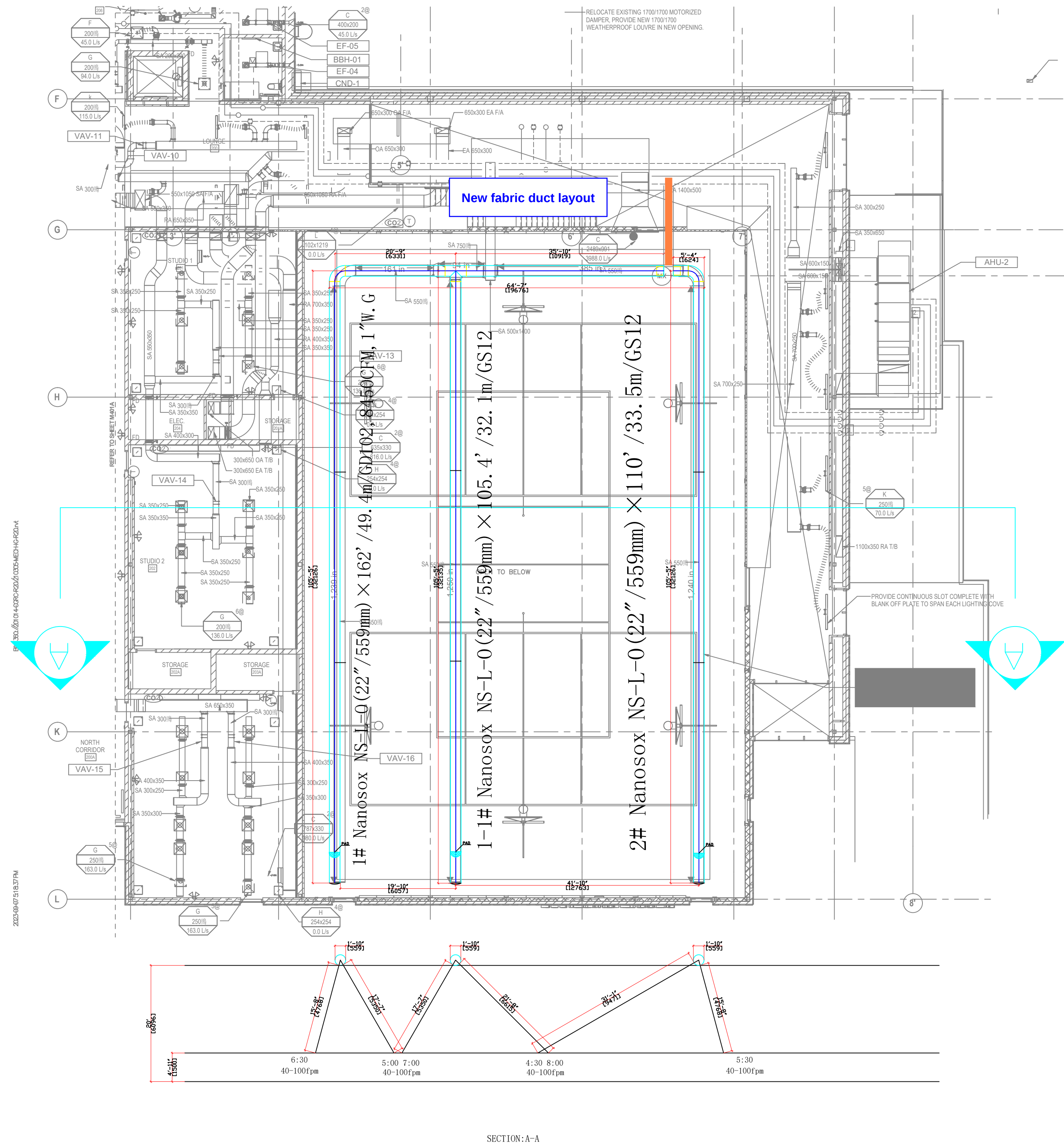
*****Resubmission of the shop because the supply orientation has changed.**

Attention:

- 1) HTS will provide equipment in accordance with the attached shop drawings.
- 2) Upon approved submittal and customer release, HTS will release equipment to fabrication per the published lead times. Any storage fees associated with project schedule changes will be the responsibility of the purchaser.
- 3) HTS can provide freight and logistics to the purchaser as an added benefit of doing business with HTS. When freight is received by the purchaser, any noticeable damage must be recorded. Otherwise, HTS is not responsible for subsequent damage claims.

Approval Stamps

Fabric duct submittal



proprietor:

project name:

Rev.	Description	Designed by
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DurkeeSox
Air Dispersion System

Durkee America Inc.
Add.: PO Box 1592 Issaquah WA 98027
Tel: (206) 639-2889
Email: info@durkeintl.com
Website: http://www.nanosox.net

Project Name.	220518-33 ON HTS Chris Gibson Recreation Centre. 22006063		
Project No.	22006063		
Designed by	KERRY		
Checked by	KERRY		
Approved by			
Scale		Date	
Drawing Title: Design and construction instruction			
Drawing Number		Sheet No.	
Doc Number:		1NA2407259B	

DurkeeSox system design and installation instruction

proprietor:

1. Project Profile

This project is the design for fabric air dispersion system for air-condition system of 220518-33 ON HTS Chris Gibson Recreation Centre, 22006063.

2. Design concept

- 1) Fire safety standard:
Flame spread and smoke developed index less than 25/50 per ASTM E84 and UL S102 BS Part 6 and Part 7 Class 0 standard.
- 2) Using ACD (Airflow control device) & PAD(pressure adjustment device) to adjust and balance airflow in each DurkeeSox system.
- 3) Materials of DurkeeSox air dispersion system products meets the required fabric permeability.
- 4) Airflow Volume of each DurkeeSox system segment:
Depending on the capacity of AHU (AHUs) supplied.
- 5) Velocity of inlet of DurkeeSox system shall be less than 1770fpm to avoid turbulence and negative pressure at inlet.
- 6) Quantity and length: Depending on total airflow volume of AHU and room size.
- 7) System layout: The DurkeeSox system layout is based on existing room geometry, equipments and the space limitation in the drawings, avoid any interference with other ductwork and structures. The installation height is about : ---'. The diameter of DurkeeSox system chosen are ---".
- 8) Airflow dispersion model: DurkeeSox-NS model.
the designed airflow velocity at occupied area will be around 40-100fpm

3. Installation Instruction

- 1) Please refer to installation manual for more details.
- 2) Using double rows galvanized cable suspension system by the sites of 10:00 & 2:00 clock
Using single rows galvanized cable suspension system by the sites of 12:00 clock
- 3) Connection with Metal duct (See drawing on the right for detail):
The diameter of metal duct should be about 30mm (1-1/4") smaller than DurkeeSox inlet,
The length of metal duct to be connected with DurkeeSox system should be at least 300mm in length. The metal duct is supplied by contractors before installation of DurkeeSox system.

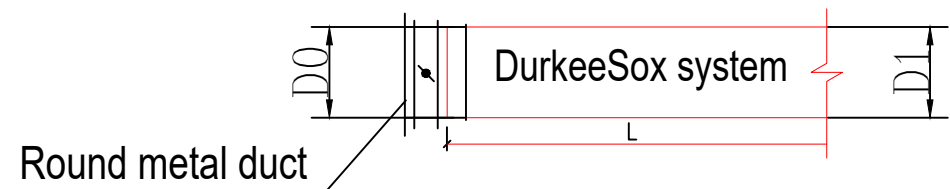
4. Specifications

1) Fabric materials (Physical Properties)

Item	Parameters	Compliance
Weight	5-11 Oz/yd2	UL 181/AC167/ASTM D3776
Tension strength(N)	>3.4 lbf	GB/T 3917.1-1997
Tear strength(N)	>112 lbf	GB/T 3923.1-1997
Fire safety performance	25/50	UL 181 NAPA-90A/ASTM E84
	ClassB-s1,d0,t0	GB 8624-2006
	Class 0	BS Part6 and Part 7
600s smoking volume	(TSP600s) ≤25	GB/T 20284-2006
Motes dropped of Burning	600s nothing	GB/T 20284-2006
Smoking Toxicity	ZA1	GB/T20285-2006
Shrinkage after wash	<0. 5%	UL 181/AC167
Permeability toleranceCV(%)	<4%	UL 181/AC167
Aging resistance (200h)	No tear, no carbonization	UL 181/AC167
Tempereture range	-53℃--100℃ (-63℉ - 212℉)	UL 181/AC167

2) DurkeeSox system performances

Item	Parameters	Compliance
Pressure resistance	Good appearance, no tear, no damage @ 8" W.G	UL 181/AC167
Passive Permeability	≤ 2.6cfm/ft ² (50 m ³ /h • m ²) @ 2" W.G ≤ 5.4cfm/ft ² (100 m ³ /h • m ²) @ 4" W.G	JGJ 141-2004
Dimensional tolarence	≤ 1 %	JGJ 141-2004



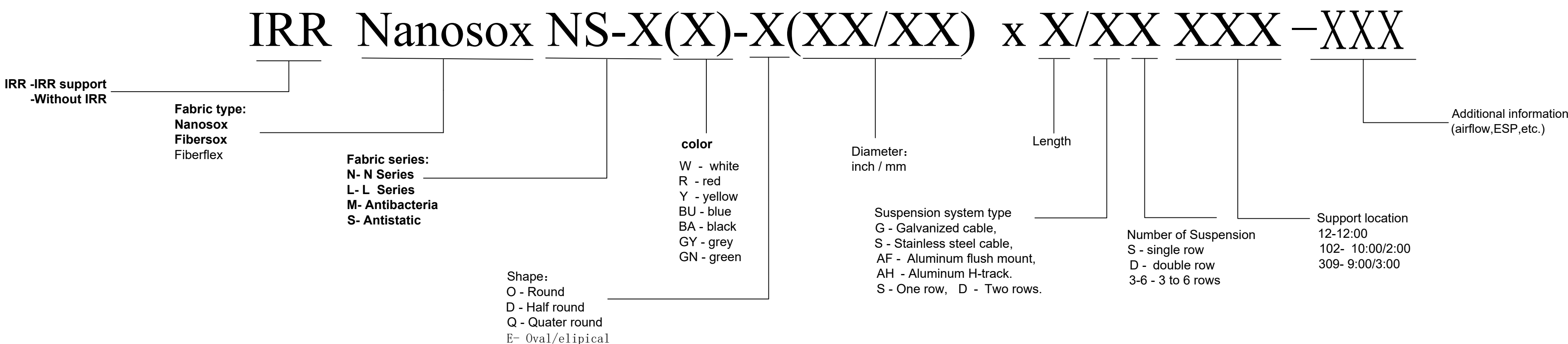
Connection between DurkeeSox and metal duct

Instructions:

D0=D1-30mm
D0 = Outer diameter of the metal duct which connects to DurkeeSox system
D1 = Inlet diameter of DurkeeSox system

The Length of metal duct should be no less then 300mm. A thickness of 10mm duct liner or duct wrap is recommended to prevent condensation.

DurkeeSox system label Nomenclature



project name:

Rev.	Description	Designed by
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Durkee America Inc.
Add.: PO Box 1592 Issaquah WA 98027
Tel: (206) 639-2889
Email: info@durkeintl.com
Website: http://www.nanosox.net

Project Name: 220518-33 ON HTS Chris Gibson Recreation Centre.
Project No. 22006063

Designed by KERRY

Checked by KERRY

Approved by

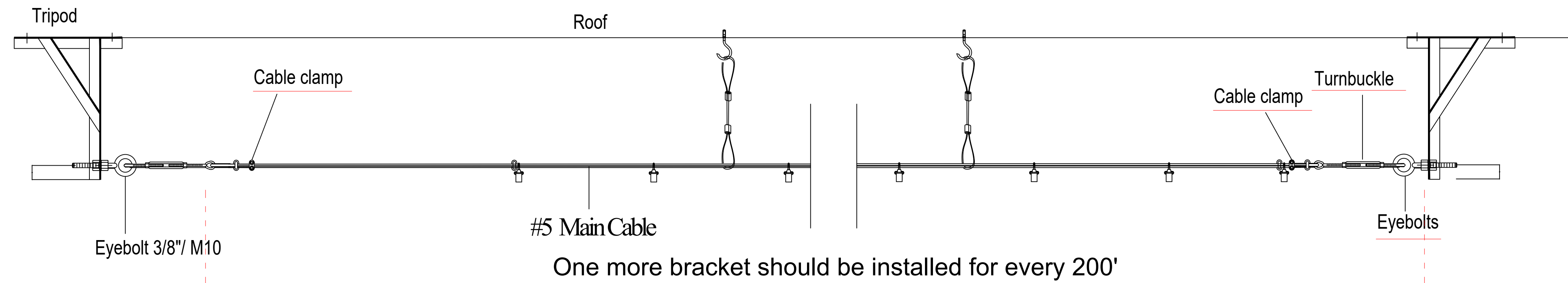
Scale Date

Drawing Title:

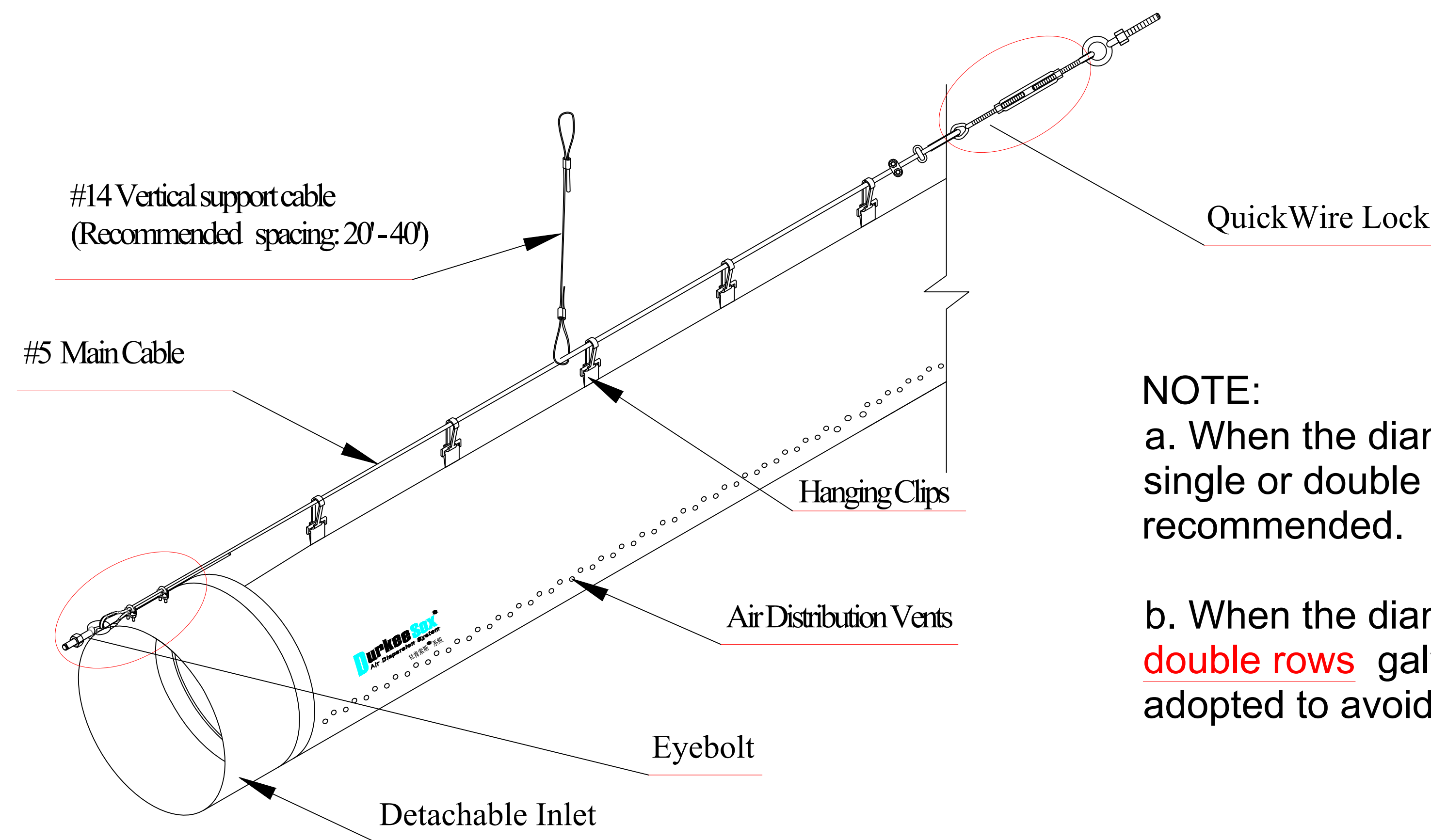
Design and construction instruction

Drawing Number Sheet No.

Doc Number: 1NA2310318A



One more bracket should be installed for every 200'
Durkeesox Suspension Drawing(Length>50')



Single row Cable Suspension Details

NOTE:

a. When the diameter of fabric duct is less than **28"**, single or double rows galvanized cable suspension is recommended.

b. When the diameter of fabric duct is more than **28"**, **double rows** galvanized cable suspension shall be adopted to avoid breaking .

Additional intermediate bracket sets required

THE STRAIGHT DUCT DIAMETER (MM)	LENGTH(>40M/114')	LENGTH(>50M/164')	LENGTH(>90M/295')	LENGTH(>120M)	LENGTH(>150M/393')	LENGTH(>200M/656')	LENGTH(>200M/656')
Dia<700MM/28"	0	1	1	2	3	4	4
Dia>700MM/28"	1	1	2	3	4	5	5

proprietor:

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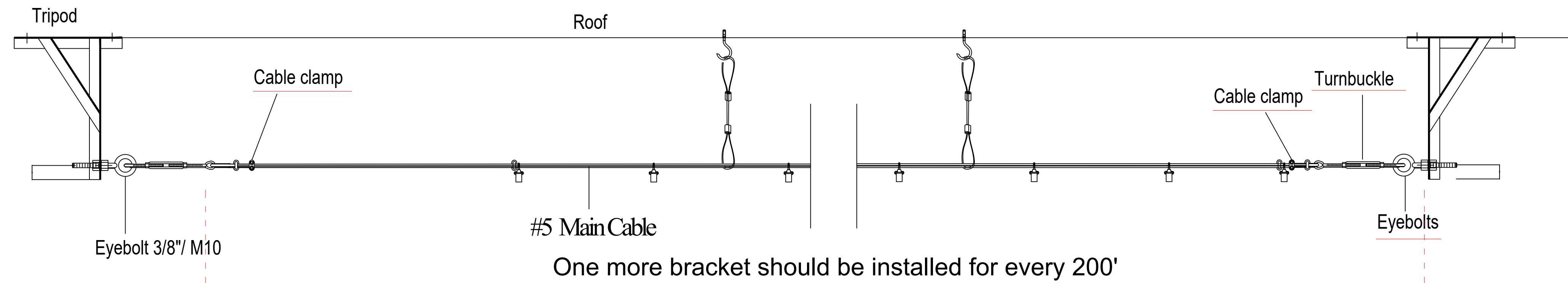
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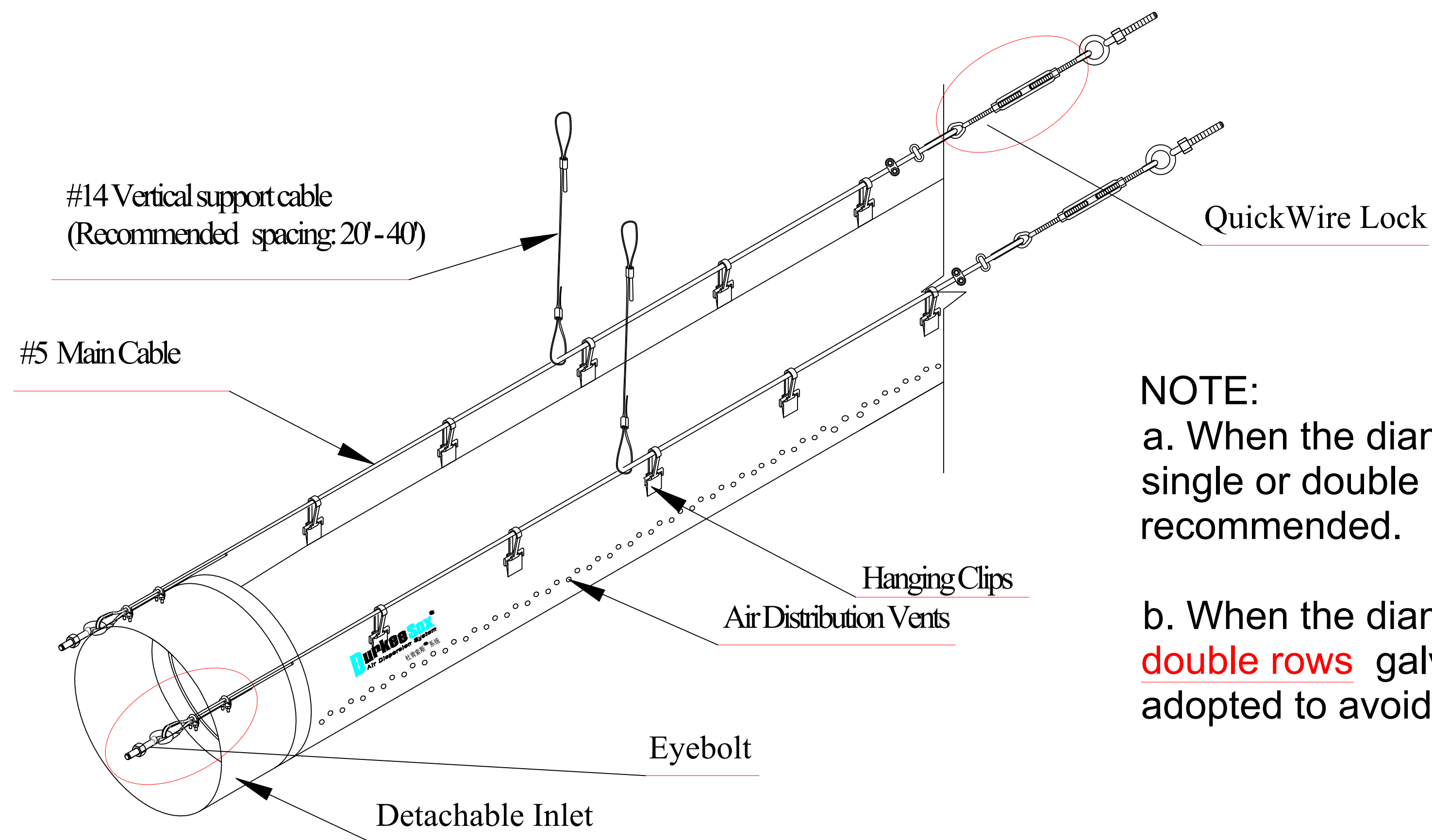
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Chris Gibson
Recreation Centre.**

Project No. **22006063**

Designed by **KERRY**

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