

April 29, 2025

Addendum No. 08

File Reference Number: RFP 2025 010

Title: Engineering Design Services for North Bay Shops Compressed Air System Upgrades

RE: Clarifications/Questions

Please refer to the following information/clarification:

Item 1: Please advise if the compressed air service in the Car, Diesel, and Wheel Shops is connected to any instrument controls (instrument air) or other devices (aside from the exterior baghouse) that would necessitate the use of an air dryer on those systems.

Answer: ONTC advises that the compressed air is used for instrument controls in the shops, therefore, an air dryer is necessary.

Item 2: Does ONTC require new compressors or can the current units be reused?

Answer: ONTC advises that the current compressors and components are not to be reused. All new parts are required.

Item 3: Please note that the Old Paint Shop roof is not suitable for installing the new compressor.

Item 4: ONTC proposes the New Paint Shop roof as an alternative location for installation of the new compressor. See attached at Appendix "A", structural, architectural, mechanical and electrical drawings, in addition to the roof photographs.

Item 5: As indicated on page 2 of part 2 (Summary of Requirements) for the PFP 2025 010, please provide us with **Proposal Form 1-A**, (it seems to be this form is not included),

Answer: ONTC advises that Proposal Form 1-A will not form part of this RFP and therefore it will not be included.

Item 6: On page 2 of part 2 (Summary of Requirements) for the RFP, please confirm

- a) Envelope No. 1 (Technical Proposal), would only contain Proposal Forms No. 2 to 8; and
- b) Envelope No. 2 (Price Proposal), would only contain Proposal Form No. 1.

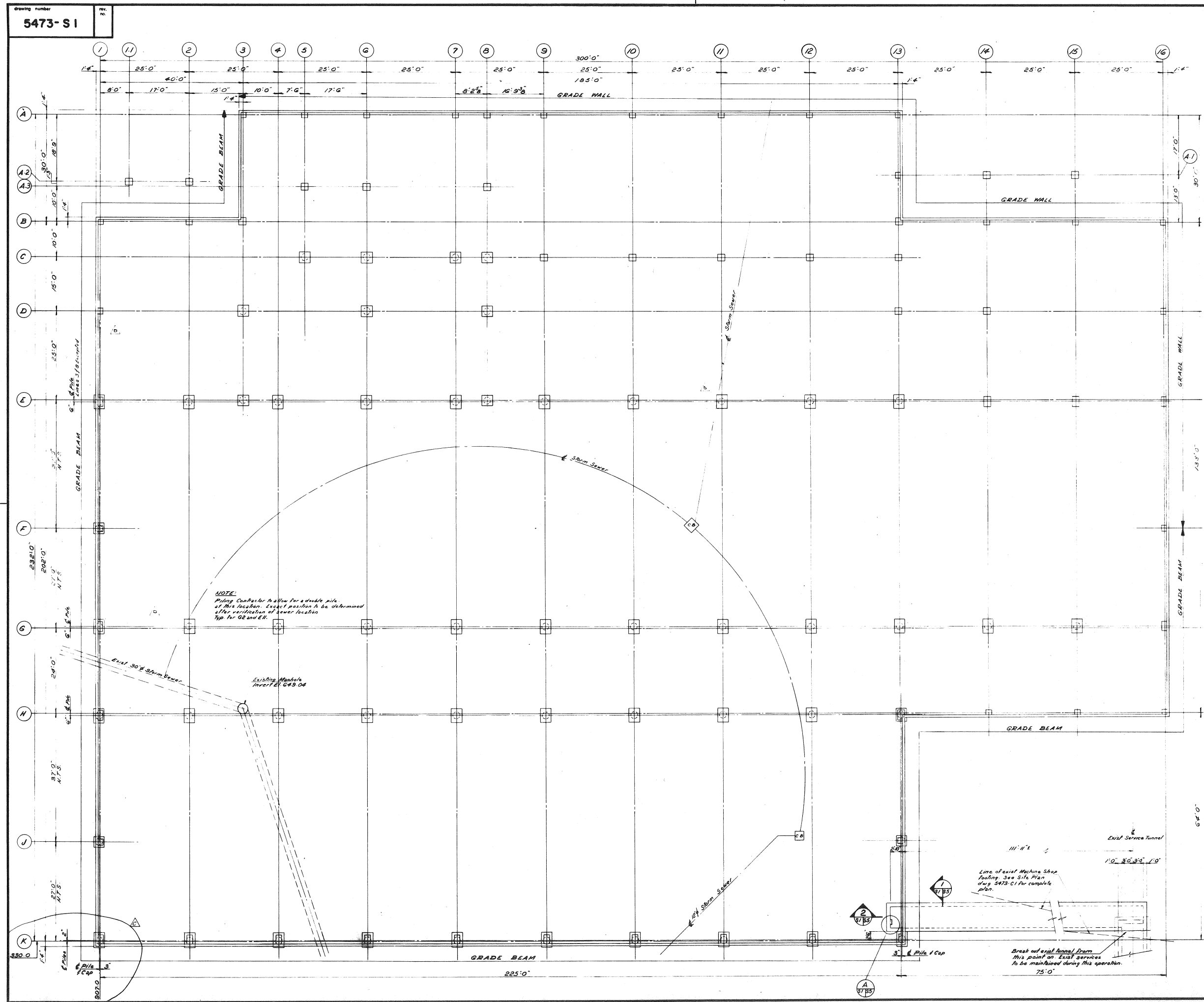
Answer: Yes, ONTC advises that this is correct.

This Addendum hereby forms part of the RFP.

Regards,

Nicole Laplante
Procurement Contracts Specialist
nicole.laplante@ontarionorthland.ca

Appendix “A”



A detail no.

B location drawing no.

C drawing no.

notes and reference drawings

GENERAL NOTES:

- The Contract Specifications form an integral part of the drawings.
- The Contractor shall verify all dimensions and shall report any discrepancies to the Chief Engineer before proceeding with the work.
- All workmanship except where noted otherwise shall be in accordance with the latest issue of C.S.A. Specifications, National Building Code of Canada and the contract specifications.

CONCRETE NOTES:

- Concrete construction shall conform to the requirements of the latest issue of C.S.A. Specification A23 and the contract specifications.
- Compressive strength of concrete at 28 days shall be 4000 p.s.i. for piles, 3000 p.s.i. remainder.
- Reinforcing steel shall be deformed bars meeting the requirements of C.S.A. Specification G30 series. Ties and stirrups 50000 p.s.i. All other bars 60000 p.s.i.
- Clear cover to reinforcing steel: Cast against earth 3"; Exposed to weather 2"; Not exposed to weather or not in contact with the ground 1 1/2".
- All exposed corners to have 1/4" chamfer unless noted otherwise.
- Wall pours shall not exceed 45' between pumps, lifts.

For Location Plan and Soil Data see dwg. 5473-S1

For Foundation Details see dwg. 5473-S2

For door openings in grade beams and grade walls see dwg. 5473-S3

indicates 24" reinforced concrete pile with expanded base.

Maximum concentric design load 350 k.

no.	date	revisions	drawn	checked	approved
1	04/11/85	Issued for Piling Contract			
2	04/11/85	Issued for Piling Contract			
3	04/11/85	Issued for Piling Contract			
4	04/11/85	Issued for Piling Contract			
5	04/11/85	Issued for Piling Contract			
6	04/11/85	Issued for Piling Contract			
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100	04/11/85	Issued for Piling Contract			

COLE, SHERMAN & ASSOC. LIMITED
TORONTO, ONTARIO

ONTARIO NORTHLAND RAILWAY
NORTH BAY YARD
CONSOLIDATION OF REPAIR FACILITIES

REPAIR FACILITY

CONCRETE

FOUNDATION LAYOUT

designed by C.S.L.

checked by J.F.W.

scale 1/8" = 1'-0"

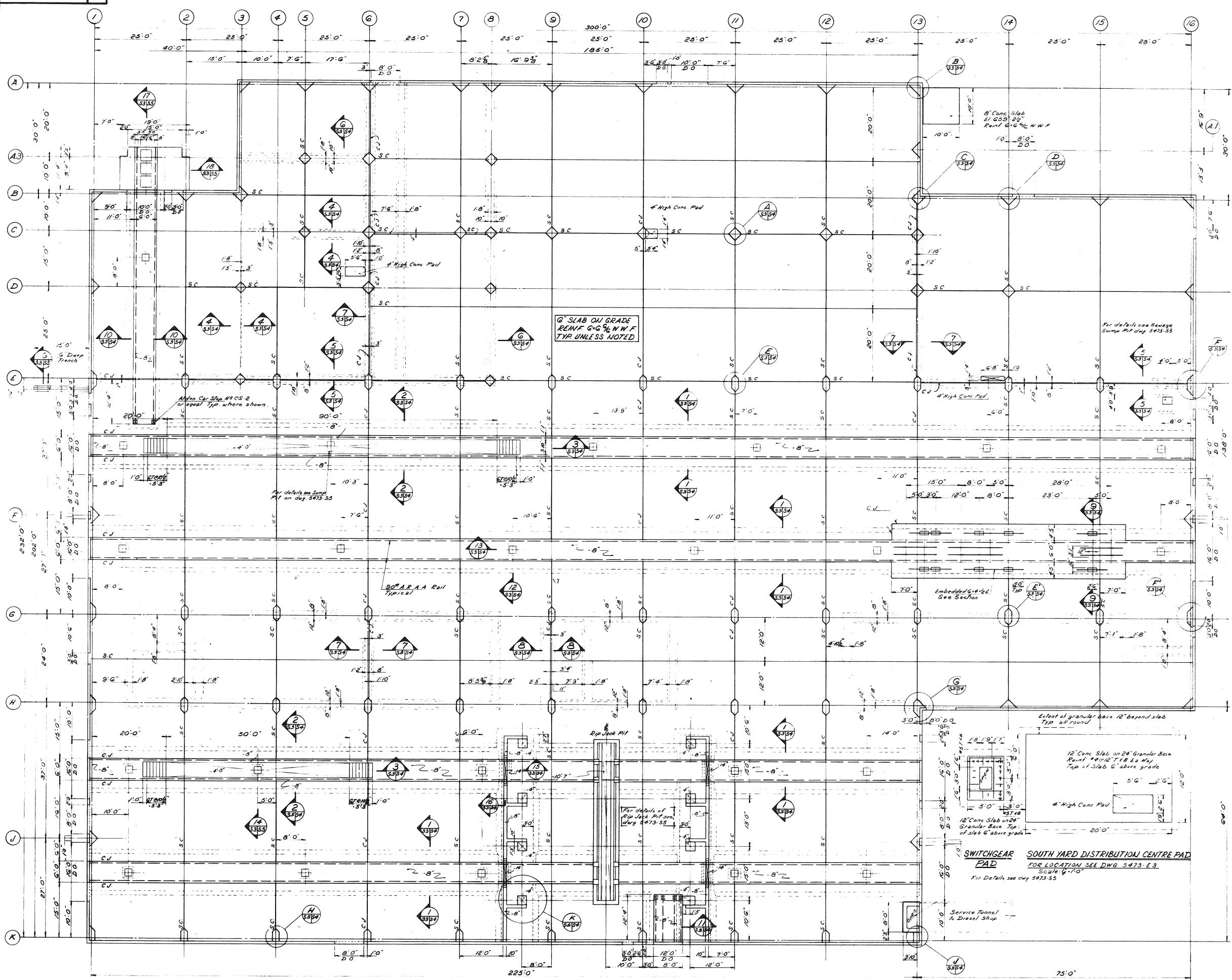
project number 5473

date MARCH, 74

approved by T.J.S.

drawing number 5473-S1

rev. no. 0



notes and reference drawings

FINISHED FLOOR EL. 4.55' ± UNLESS NOTED.

S.C. DENOTES 6\"/>

revisions

no.	date	issued for	checked	approved
1	Mar. 74	Issued for General Contract Tender		

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TORONTO, ONTARIO

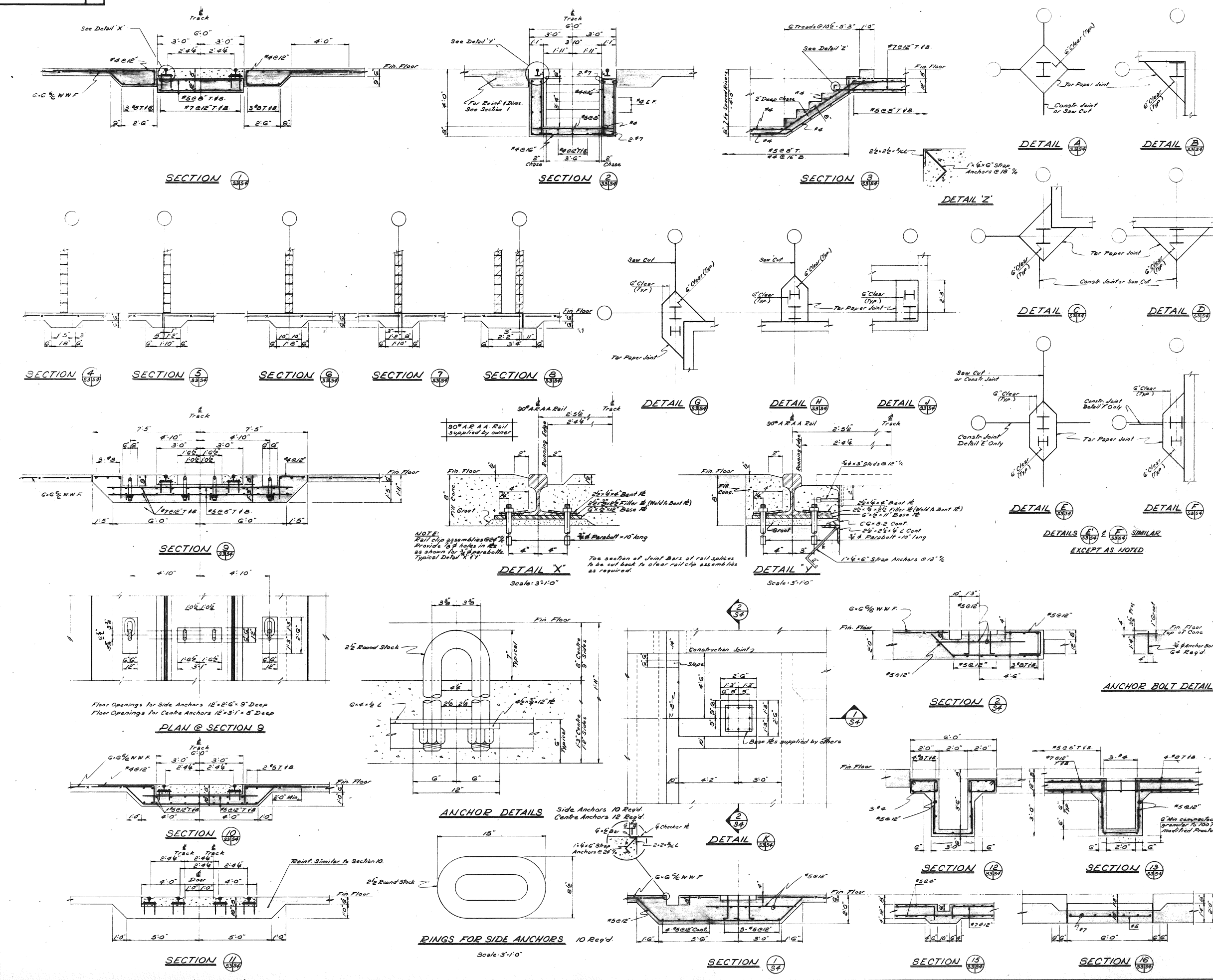
ONTARIO NORTHLAND RAILWAY
NORTH BAY YARD
CONSOLIDATION OF REPAIR FACILITIES

REPAIR FACILITY

CONCRETE

drawing title
FIRST FLOOR SLAB LAYOUT

designed by CSL	checked by J.F.W.	date MARCH, 74
drawn by F.J.W.	approved by T.J.S.	
scale 1/8" = 1'-0"	drawn status	drawing number 5473-S3
project number 5473		rev. no. C



<p>notes and reference drawings</p>	
<p>revisions</p>	
<p>designed by C.S.L. checked by J.F.W. approved by T.J.S. date MARCH, 70</p>	
<p>scale 1/2" = 1'-0" drawing number 5473-S4</p>	
<p>project number 5473</p>	
<p>5473-S4</p>	

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CONCRETE

SLAB DETAILS

Architectural floor plan showing a building layout with multiple rooms, corridors, and structural details. The plan includes dimensions, room numbers, and material specifications for concrete slabs and curbs.

Room 101 (Top Left):

- Dimensions: 30'0" x 20'0"
- Structural: 5" Concrete Slab, Reinf #6 @ 15" E-W, #4 @ 12" N-S
- Loads: Live Load 100 p.s.f., Dead Load 55 p.s.f., Total Load 155 p.s.f.

Room 102 (Top Right):

- Dimensions: 18'0" x 11'0"
- Structural: 5" Concrete Slab, Reinf #6 @ 15" E-W, #4 @ 12" N-S
- Loads: Live Load 100 p.s.f., Dead Load 55 p.s.f., Total Load 155 p.s.f.

Room 103 (Bottom Left):

- Dimensions: 23'2"0" x 20'0"0"
- Structural: 5" Concrete Slab, Reinf #6 @ 15" E-W, #4 @ 12" N-S
- Loads: Live Load 100 p.s.f., Dead Load 55 p.s.f., Total Load 155 p.s.f.

Room 104 (Bottom Right):

- Dimensions: 12'10"0" x 11'0"0"
- Structural: 5" Concrete Slab, Reinf #6 @ 15" E-W, #4 @ 12" N-S
- Loads: Live Load 100 p.s.f., Dead Load 55 p.s.f., Total Load 155 p.s.f.

Corridors and Other Areas:

- Corridor 105: 10'0" x 15'0"
- Corridor 106: 10'0" x 15'0"
- Corridor 107: 10'0" x 15'0"
- Corridor 108: 10'0" x 15'0"
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- Corridor 200: 10'0" x 15'0"

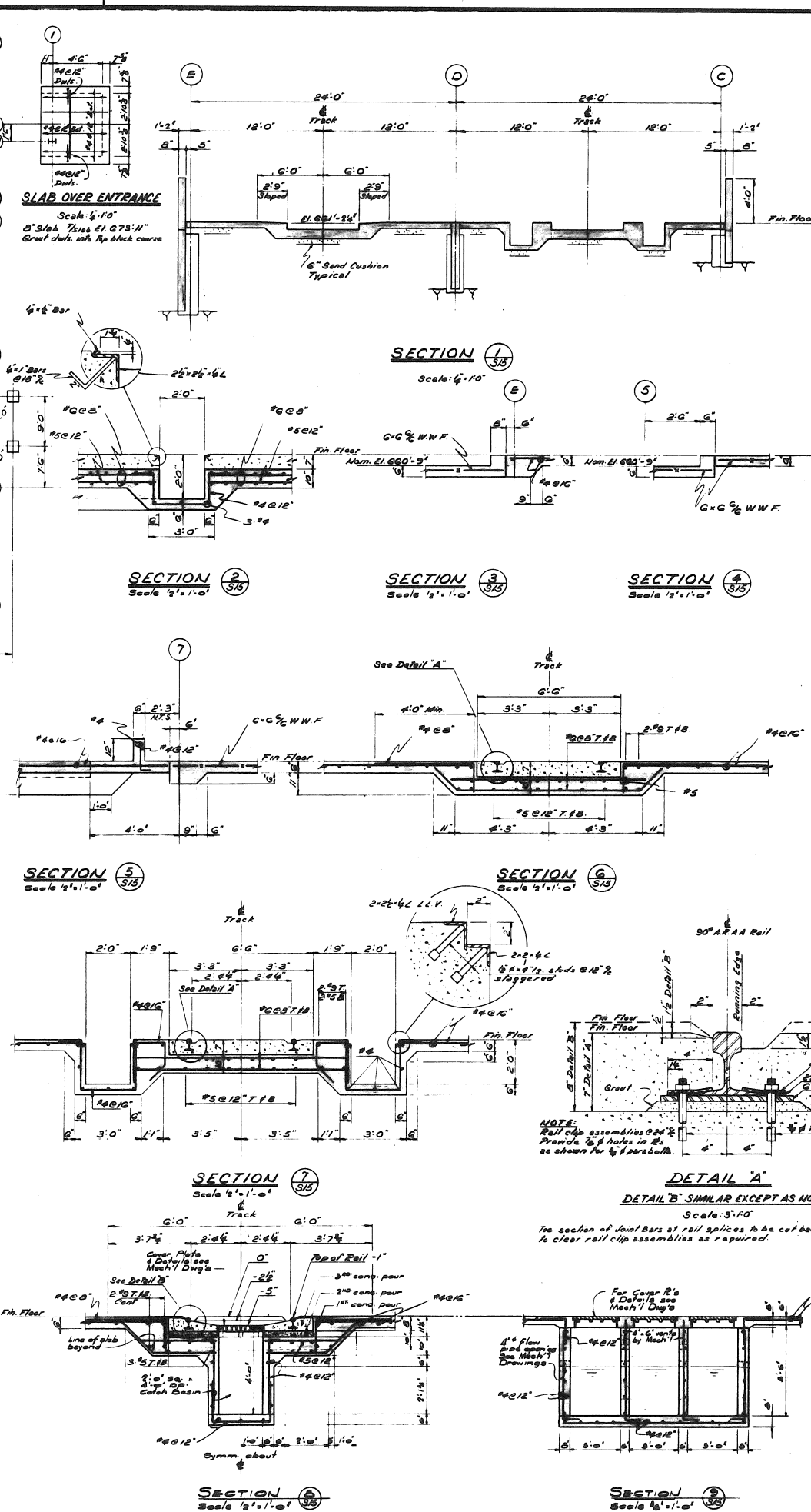
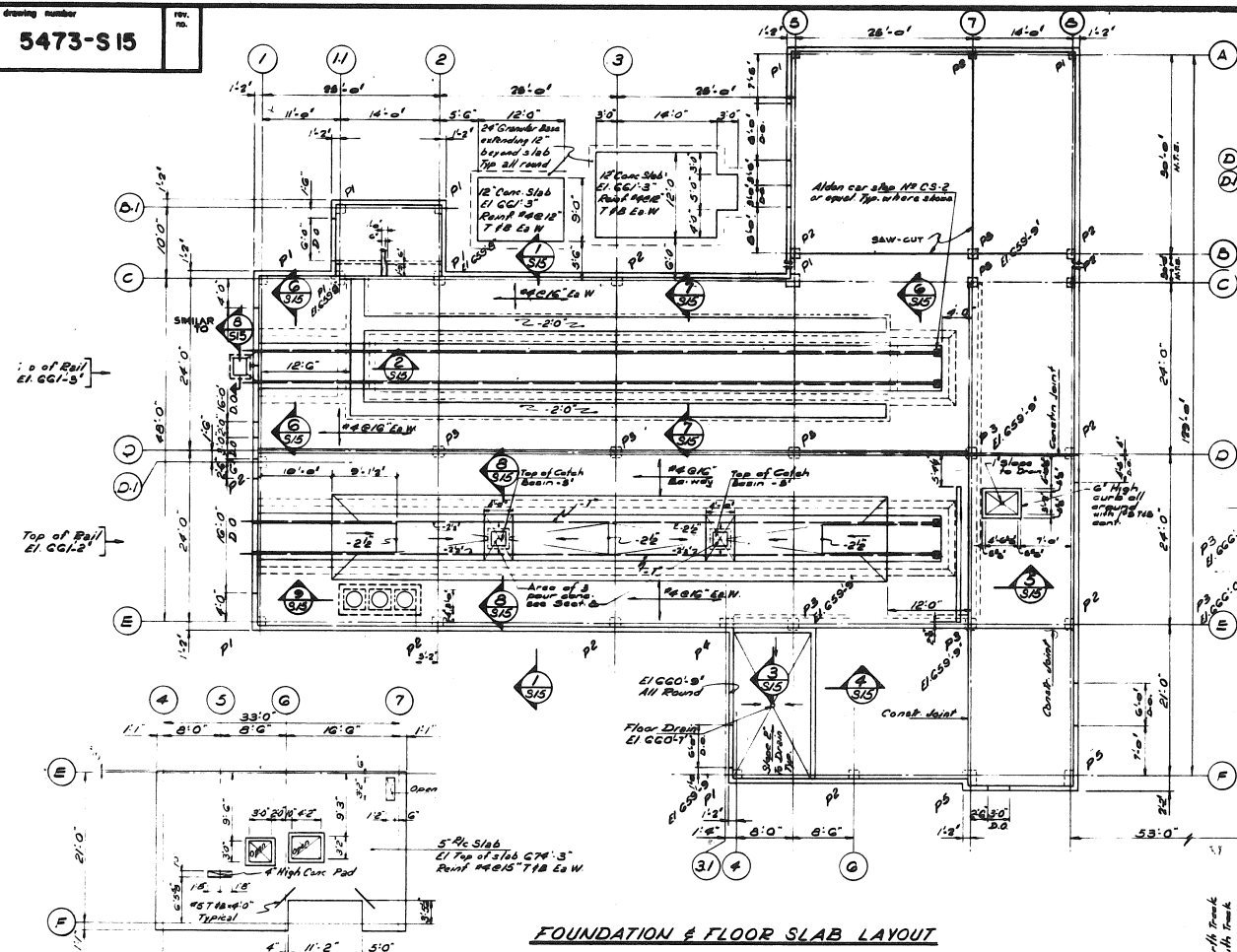
REPAIR FACILITY
CONCRETE

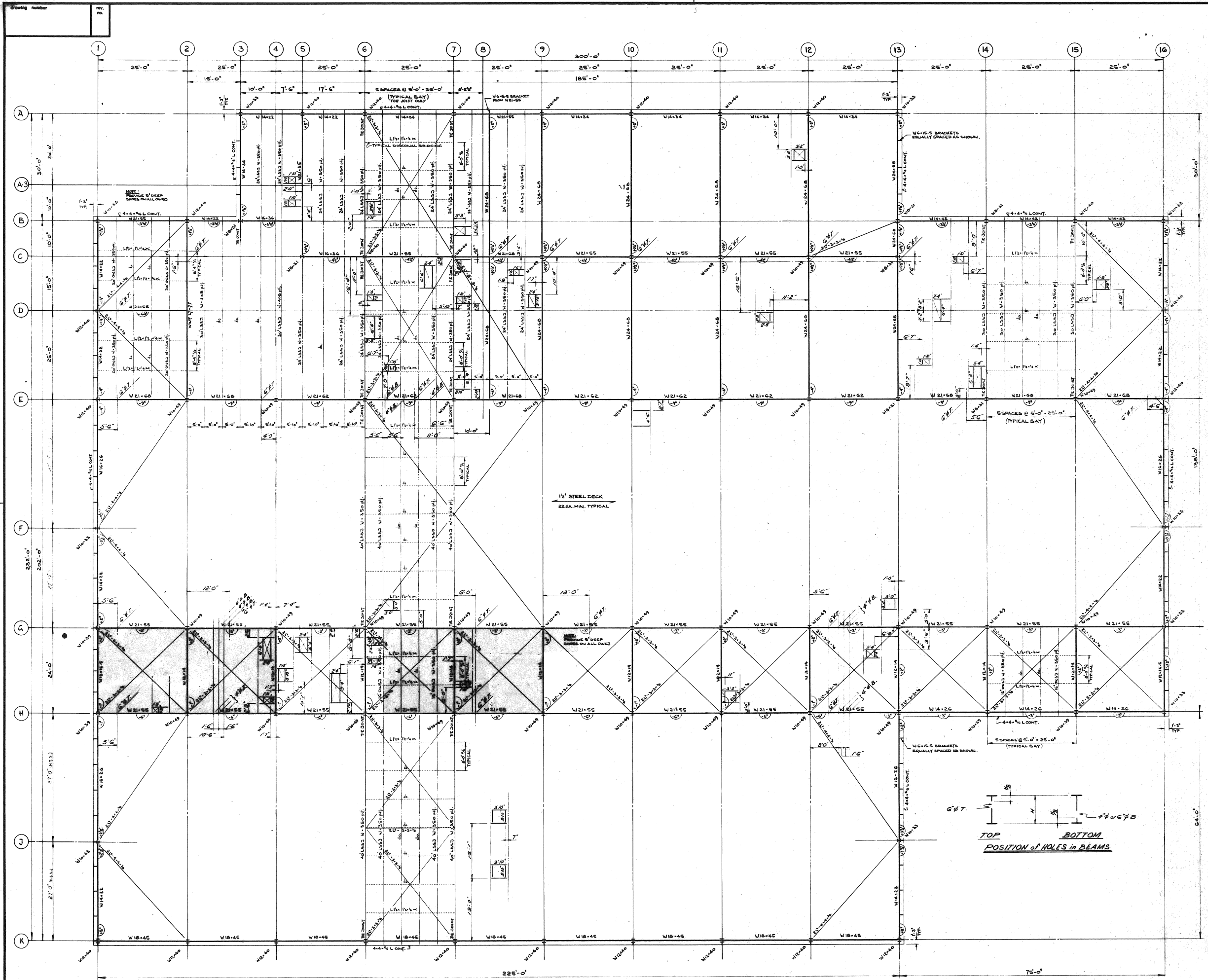
designed by C.S.L.		checked by C.A. H.		date MARCH, 74	
drawn by F.J.W.		approved by T.J.S.			
scale 1/8" = 1'-0"		drawing number 5473-S6		rev. no. B	
project number 5473					

ROOF SLABS OVER OFFICES

Scale 1/8" = 1'-0"

Top of conc to be at EL 667.7 unless noted.
a slab thickness to be 6" unless noted.

[illegible]



notes and reference drawings

TOP OF STEEL EL. 9'1"-2" UNLESS SHOWN THUS

DEAD LOAD - 27 PSF

SHOW LOAD - 45 PSF

TOTAL LOAD - 72 PSF

PROVIDE EXTENSION ON JOIST LINES A, B, H, K

PROVIDE W.G.-S BRACKETS & COLUMNS ON LINES A, B, H, K WHERE FRAMING IS BY BEAM AND NOT BY JOIST

ALL CROSS BRACING FASTENED AT UNDERSIDE OF JOIST AT LEAST EVERY 20 FEET

PROVIDE W.G.-S BRACKETS & COLUMNS ON LINES 1, 3, 15 & 16

INDICATES SUSPENDED DRYWALL CEILING

GENERAL NOTES:

- STRUCTURAL STEEL FABRICATION AND ERECTION SHALL CONFORM TO THE LATEST U.S.A. SPECIFICATIONS S-16 AND THE CONTRACT SPECIFICATIONS.
- STRUCTURAL STEEL SHALL CONFORM TO C.S.A. SPECIFICATION 440.21 GRADE 44W.
- BOLTED CONNECTIONS SHALL BE BEARING TYPE CONNECTIONS USING ASTM HIGH STRENGTH BOLTS UNLESS OTHERWISE NOTED.
- WELDED CONNECTIONS SHALL BE MADE USING 70 AN ELECTRODES, UNLESS OTHERWISE NOTED.
- TYPE OF CONSTRUCTION: SIMPLE.
- THE BOTTOM CHORD OF ALL THE JOISTS AND THEIR CONNECTIONS TO COLUMNS SHALL BE DESIGNED TO RESIST AN ADDITIONAL FORCE OF 2.7 KIPS DUE TO WIND AND CRANE LOADS.
- ALL ROOF OPENINGS SHOWN ON PLAN FRAMED WITH 3-3-1/2

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

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ONTARIO NORTHLAND RAILWAY

NORTH BAY YARD

CONSOLIDATION OF REPAIR FACILITIES

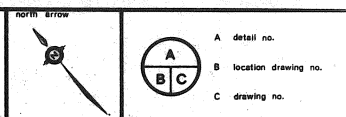
REPAIR FACILITY

STRUCTURAL STEEL


drawing title

ROOF FRAMING PLAN

designed by	C.S.L.	checked by	T.J.S.	date	DEC.14.73
drawn by	H.Q.	approved by	T.J.S.		
scale	1/8" = 1'-0"	status	drawn		
project number	5473	drawing number	5473-S7		



notes and reference drawings

TOP OF STEEL EL 677.92 UNLESS SHOWN THUS 

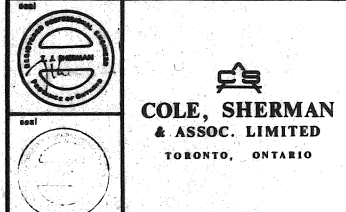
DEAD LOAD 66 PSF

LIVE LOAD 120 PSF

TOTAL LOAD 166 PSF

FOR CRANE COLUMN BRACING SEE DWG. 5473-S10

A	10-16-74	MEMO FOR GENL. CONTR.	AFD	AN.	T.J.
E	22-1-74	Bm locations revised Angle brackets added	F/U	CSL	T.J.
D	Mar. 74	Issued for Reference with General Contract Tables			
C	23-3-74	Sealing Flaming revised dims added Bm elev. revised Bms added	F/U	CSL	T.J.
B	29-7-74	Canopy Added if General Revision	F/U	CSL	T.J.
A	29-7-74	Addendum #1	F/U	CSL	T.J.
no.			drawn	checked	approved



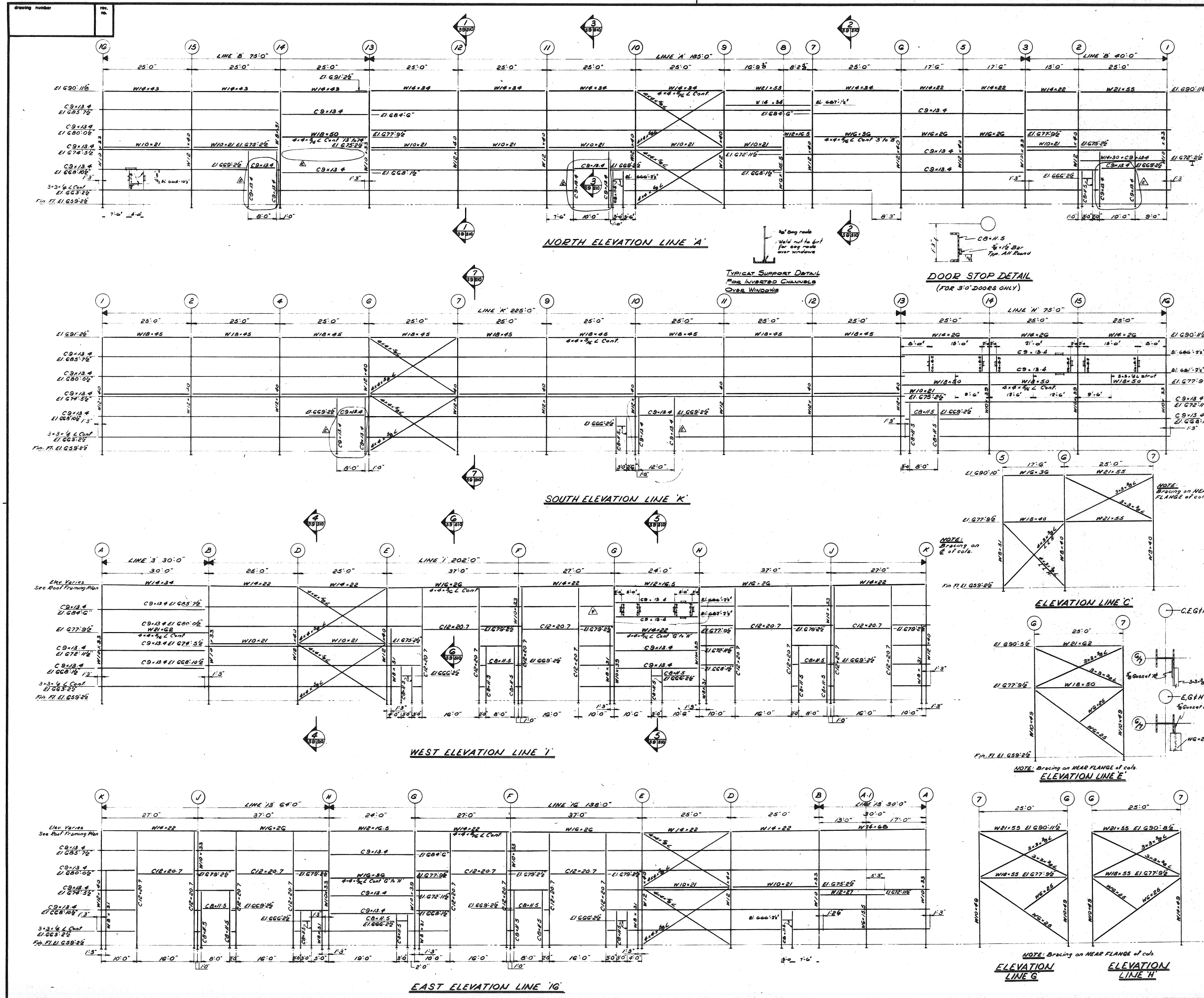
**ONTARIO NORTHLAND RAILWAY
NORTH BAY YARD
CONSOLIDATION OF REPAIR FACILITIES**

REPAIR FACILITY

STRUCTURAL STEEL

drawing title
**SECOND FLOOR
FRAMING PLAN**

designed by C.S.L.		checked by <i>J.H.K.</i>	date
drawn by F.J.W.		approved by T.J.S.	DEC.14.73
scale 1/8" = 1'-0"	drug status	drawing number	rev. no.
project number 5473		5473 - S8	F



A

B

C

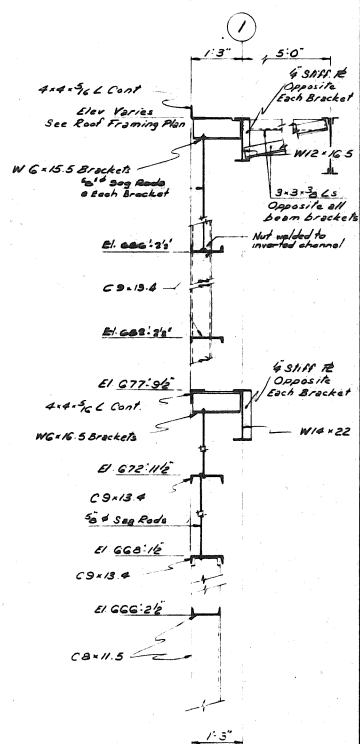
A detail no.
B location drawing no.
C drawing no.

notes and reference drawings

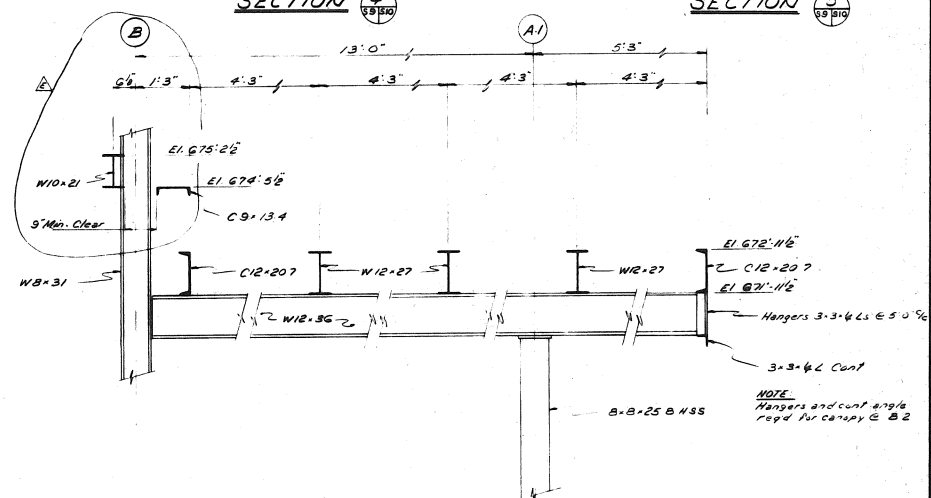
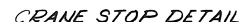
DESIGNED BY	C.S.L.	CHECKED BY	T.J.S.	DATE	DEC 14, 73
DRAWN BY	F.J.W.	APPROVED BY	T.J.S.		
SCALE	1/8" = 1'-0"	DWG. NO.	5473-S9		
PROJECT NUMBER	5473				

COLE, SHERMAN & ASSOC. LIMITED
TORONTO, ONTARIO

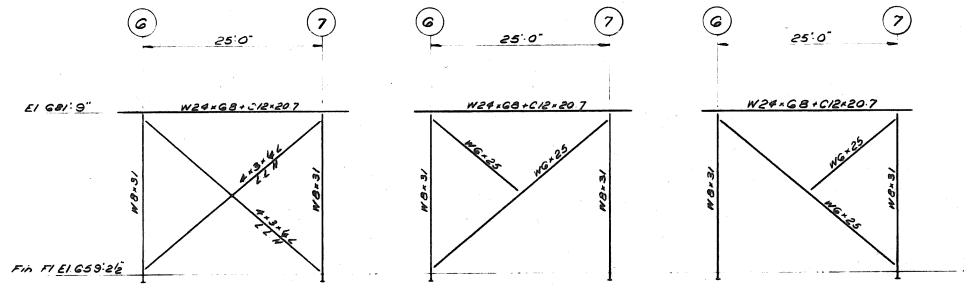
ONTARIO NORTHLAND RAILWAY
NORTH BAY YARD
CONSOLIDATION OF REPAIR FACILITIES
REPAIR FACILITY
STRUCTURAL STEEL
ELEVATIONS



SECTION 5
39 319



SECTION 1



LINE E

ELEVATIONAL - CRANE COLL BRACING

Scale: $\frac{1}{8} = 1:0$

6	0-22	SSSOD from GEN. CONTR.	AFG	04	7-5
E	72-42	Sections revised	FJW	C-6	7-5
D	74-7	Issued for Reference with General Contract binder			
C	83-74	Added Revised to n Sect 5	A.D.	C-2	7-5
B	83-74	Door Is & Gangway Sect Revised	FJW	C-6	7-5
A	83-74	Addendum N#1	FJW	C-6	7-5
no.	date		drawn	checked	approved



**COLE, SHERMAN
& ASSOC. LIMITED**
TORONTO, ONTARIO

**ONTARIO NORTHLAND RAILWAY
NORTH BAY YARD
CONSOLIDATION OF REPAIR FACILITIES**

REPAIR FACILITY

STRUCTURAL STEEL

SECTIONS

designed by	GSL	checked by	<i>[Signature]</i>	date	
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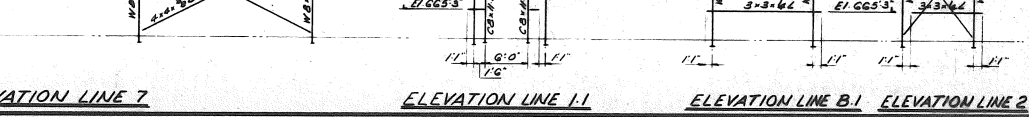
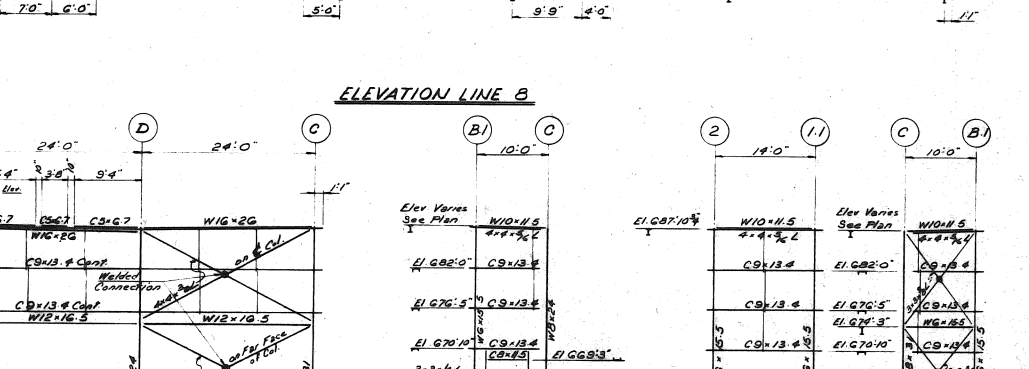
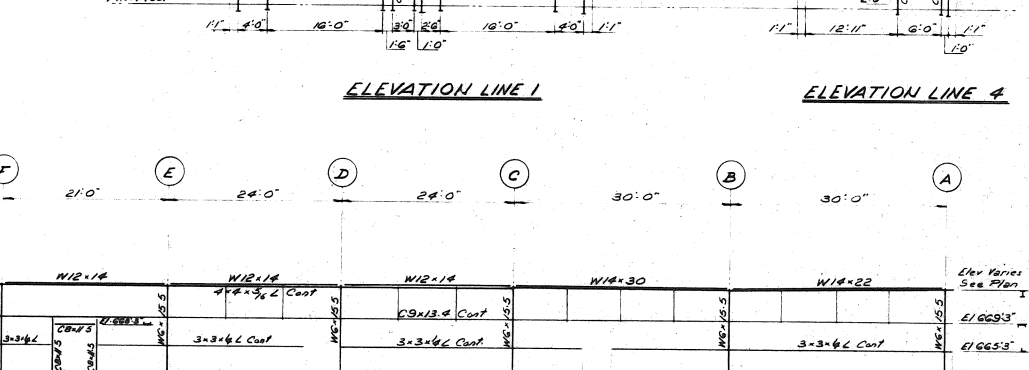
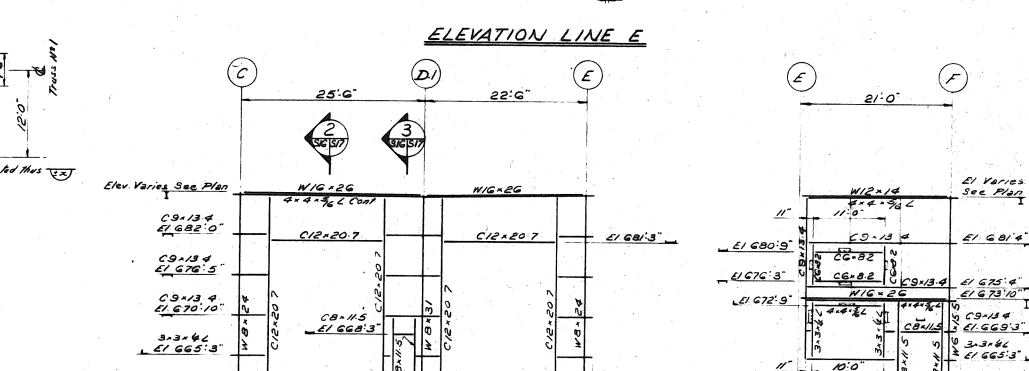
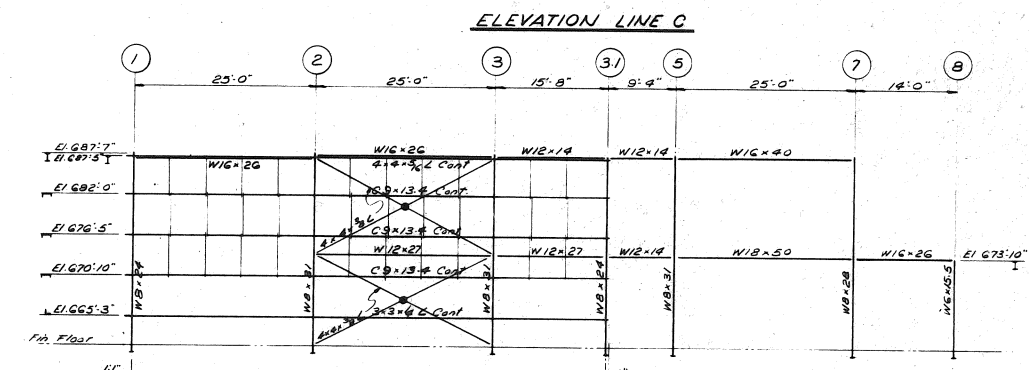
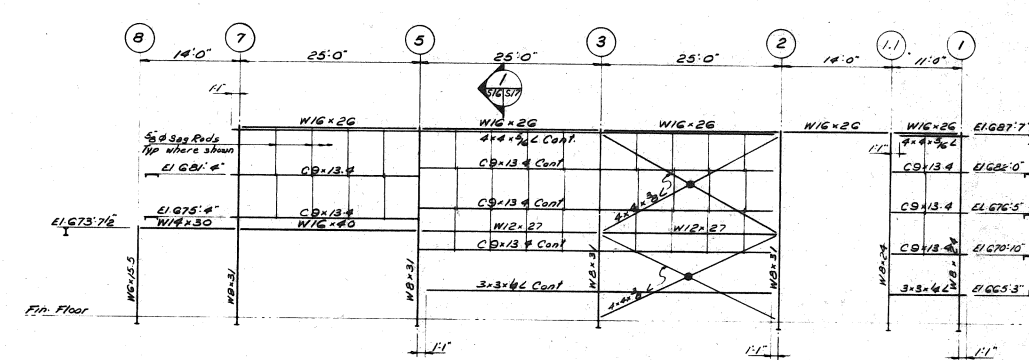
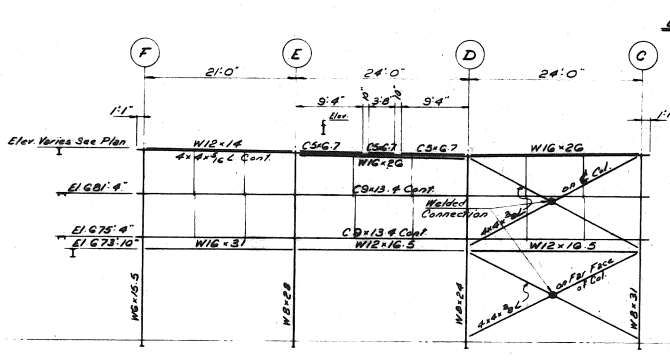
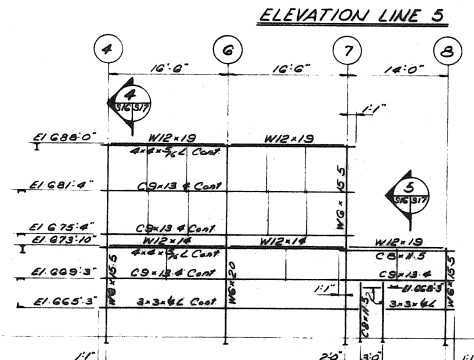
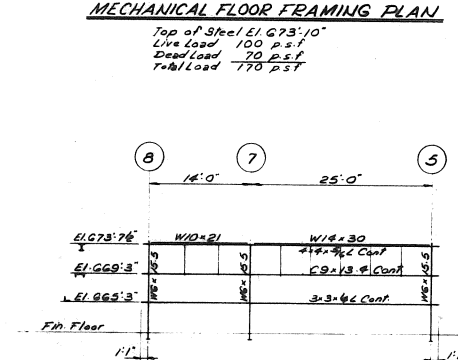
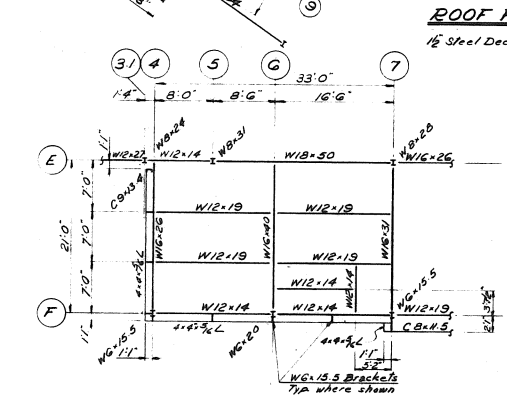
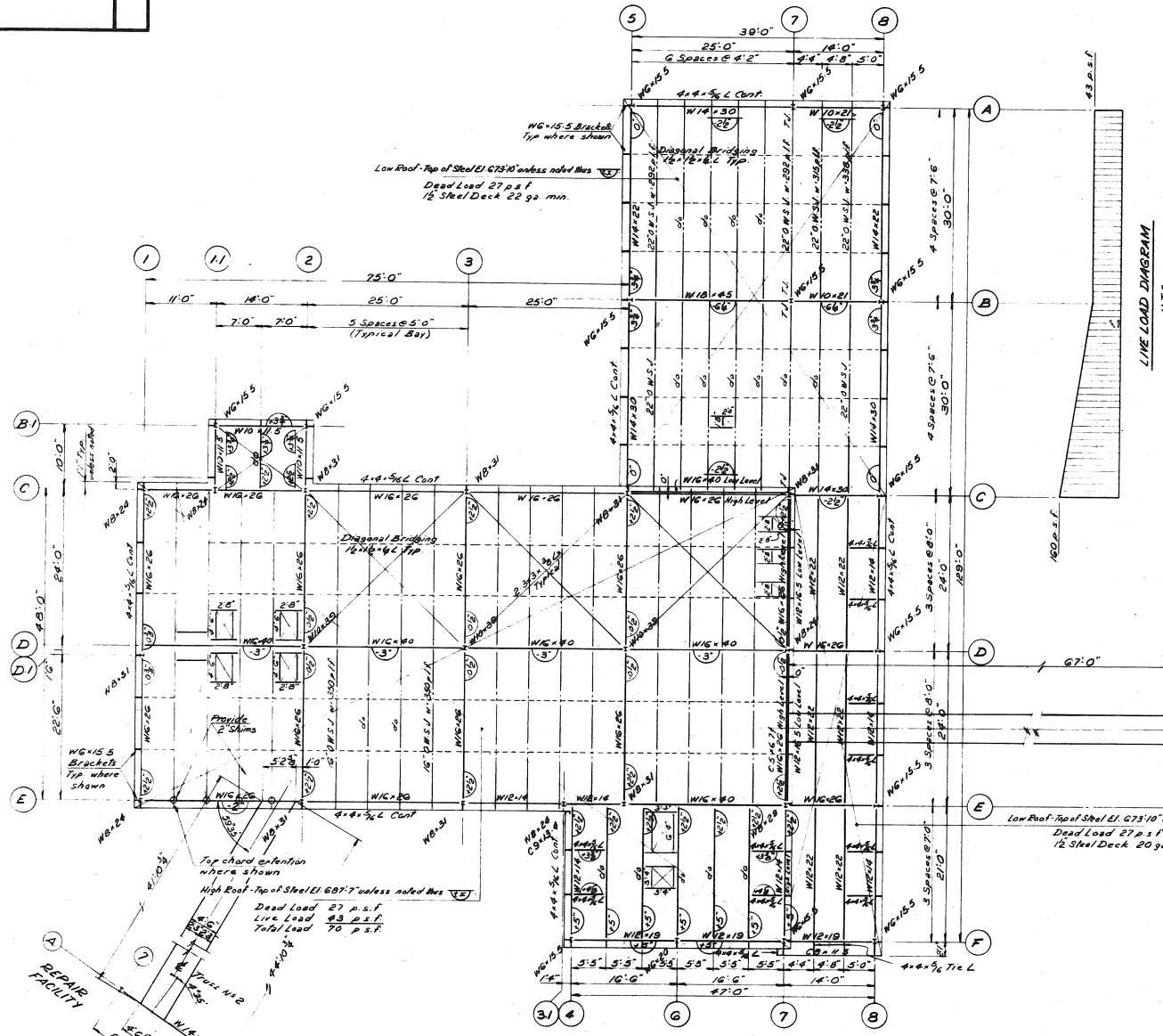
drawn by	E.J.W.	approved by	T.J.S.	DEC.14,73
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P.O.W.		P.O.B.		
scale	drawn	drawing number	rev.	

3/4" = 1'-0"	status	no.
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project number	5473-S10	F
5473		

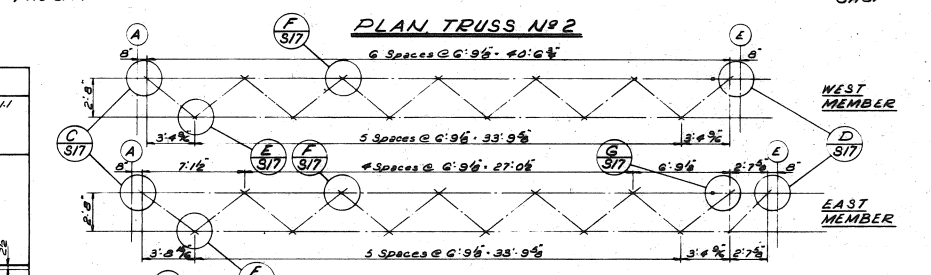
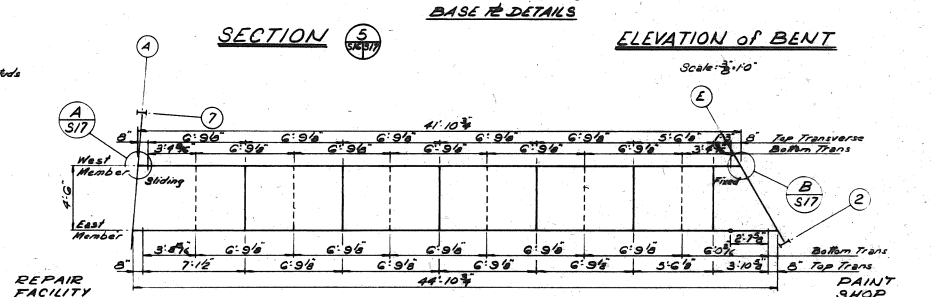
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Notes and reference drawings
 For General Notes see Aug 5473-SI.
 For details of Trusses R1/R1.1 see Aug 5473-SI7.
 All roof openings framed with 3x3x4 Ls.

<p>COLE, SHERMAN & ASSOC. LIMITED TORONTO, ONTARIO</p>	
<p>ONTARIO NORTHLAND RAILWAY NORTH BAY YARD CONSOLIDATION OF REPAIR FACILITIES</p>	
<p>PAINT SHOP</p>	
<p>STRUCTURAL STEEL</p>	
<p>Drawing title: FRAMING PLANS AND ELEVATIONS</p>	
<p>Designed by: S.A. C.S.L. Drawn by: F.J.W. Scale: 1/8" = 1'-0"</p>	<p>Checked by: T.J.S. Approved by: T.J.S. Date: FEB 11, 1974 Project number: 5473</p>

D	0574	ISSUED FOR GEN. CONTR.	APD	DN.	P.S.
C	Mar-74	Issued for Reference with General Contract Number			
B	3-74	CW added & the Personal Press & Boat details added	FJW	CLC	TJS
A	0274	Re-drawn General/Personal	FJW	SA	TJS
no.	date		drawn	checked	approved



ELEVATIONS OF TRUSS #2
Scale: $\frac{1}{4}'' = 1'-0''$

TYPE 7

DETAIL (A) S17

DETAIL (B) S17

DETAIL (C) S17

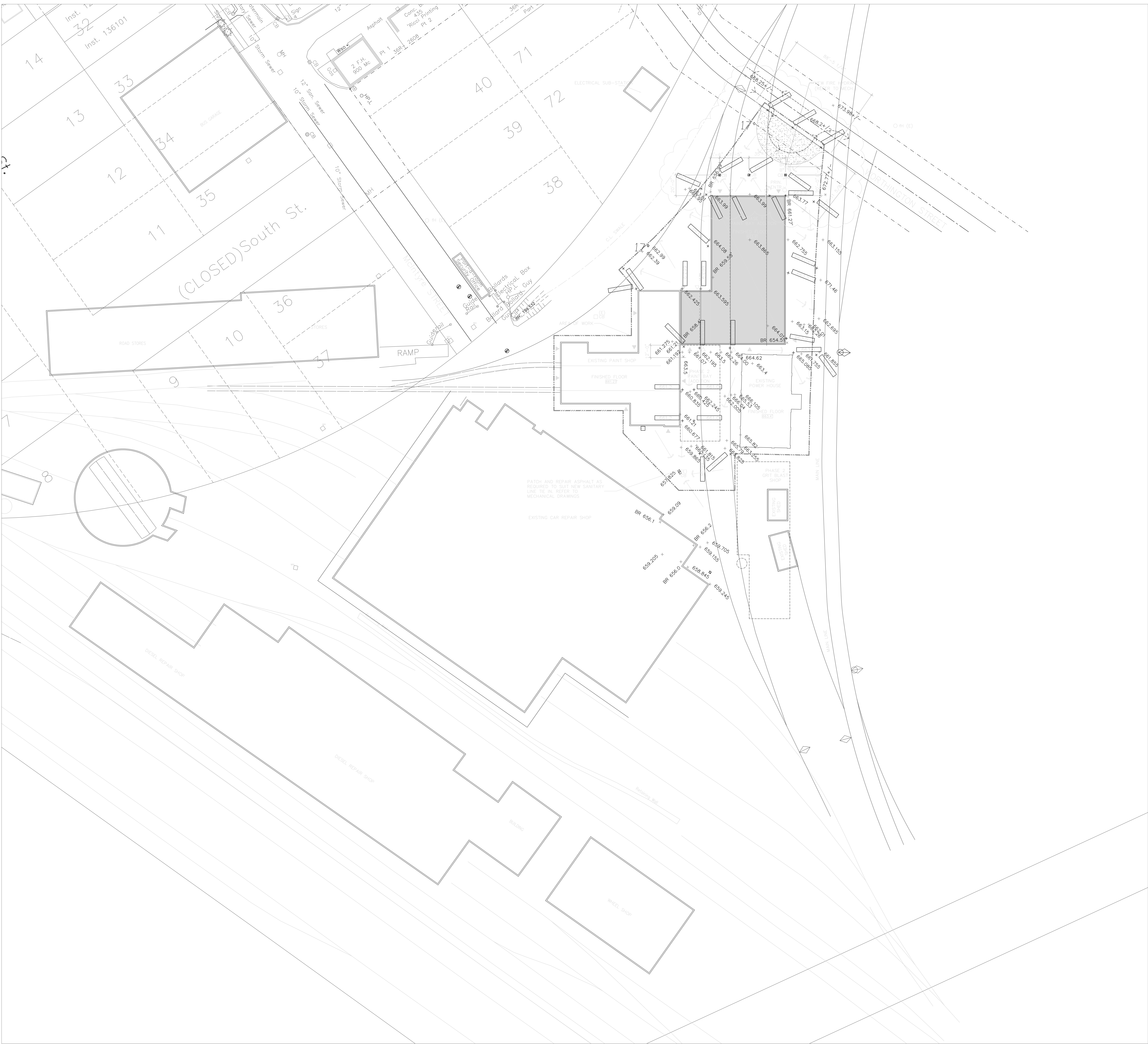
DETAIL (D) S17

DETAIL (E) S17

DETAIL (F) S17

DETAIL (G) S17

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<div style="text-align: center;">  <p>1001</p> </div>	<div style="text-align: center;"> <h1 style="margin: 0;">ONTARIO NORTHLAND RAILWAY</h1> <h2 style="margin: 0;">NORTH BAY YARD</h2> <h3 style="margin: 0;">CONSOLIDATION OF REPAIR FACILITIES</h3> </div>
<h2 style="margin: 0;">PAINT SHOP</h2>	
<h2 style="margin: 0;">STRUCTURAL STEEL</h2>	
<div style="display: flex; justify-content: space-between;"> <div style="width: 40%;"> <p>drawing title</p> <h1 style="margin: 0;">SECTIONS AND COLUMN SCHEDULE</h1> </div> <div style="width: 60%;"> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>designed by <u>S.A. CSL</u></p> <p>drawn by <u>F.J.W.</u></p> <p>scale <u>3/8" = 1'-0"</u></p> </div> <div style="width: 45%;"> <p>checked by <u>JA</u></p> <p>approved by <u>T.J.S.</u></p> <p>drawing number</p> </div> </div> </div> </div>	
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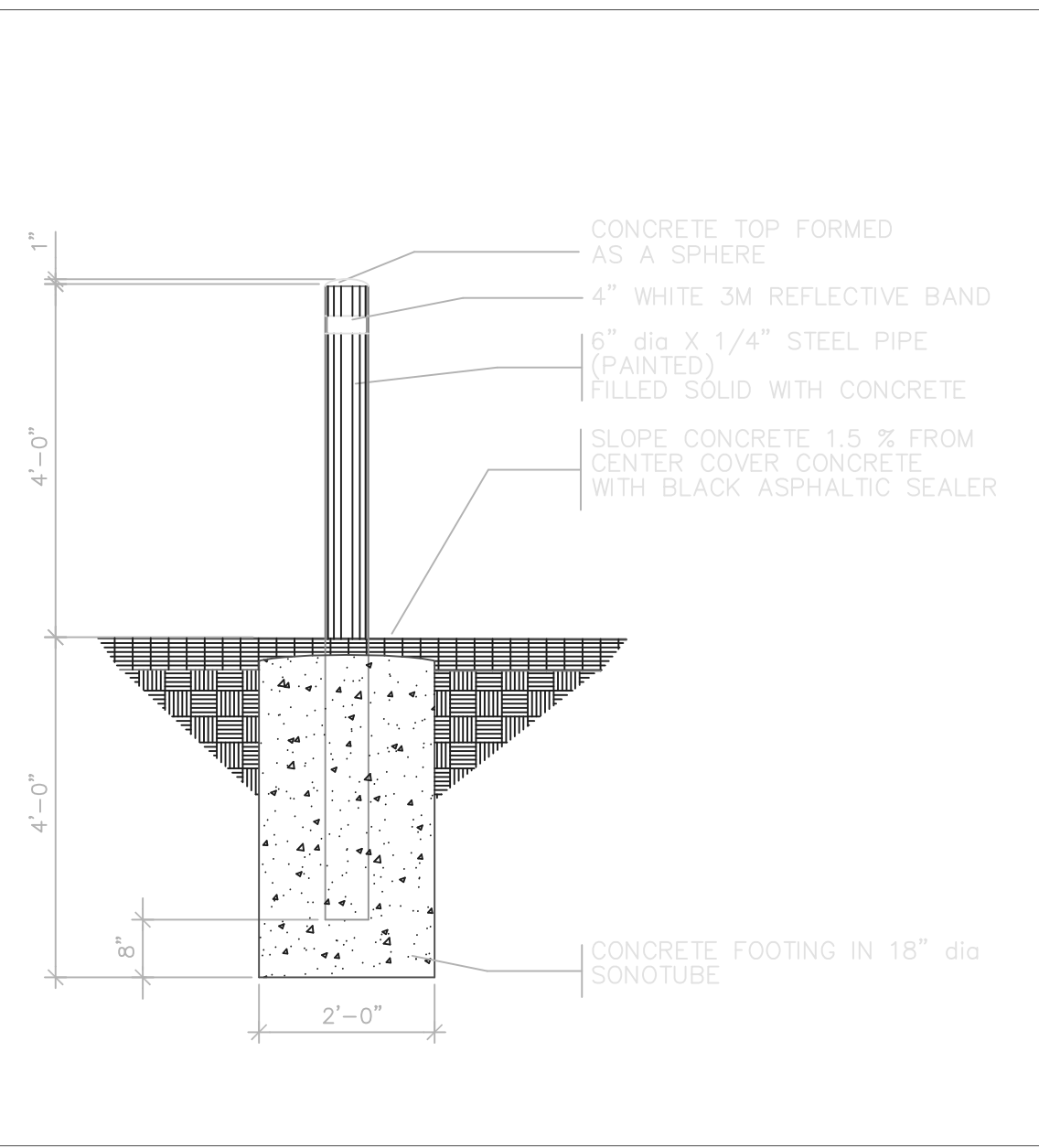


SITE PLAN
SCALE = 1" = 40'

LEGEND

- DENOTES PROPERTY LINE
- + NEW SPOT ELEVATION
- + EXISTING SPOT ELEVATION
- BR 658.4' DENOTES APPROXIMATE LEVEL OF BEDROCK (PAY GRADE)
- FINISHED FLOOR (BB) BUILDING ELEVATION
- DENOTES 20'-0" WIDE UNSTRUCTURED FIRE ROUTE
- DENOTES TRAFFIC FLOW DIRECTION
- MH DENOTES EXISTING MANHOLE
- FH DENOTES FIRE DEPT. CONNECTION
- FH (E) DENOTES EXISTING FIRE HYDRANT TO BUILDING
- FH (N) DENOTES NEW FIRE HYDRANT
- ▶ DENOTES MAIN DOOR ACCESS TO BUILDING
- ▷ DENOTES OVERHEAD DOOR ACCESS TO BUILDING
- MH DENOTES STORM / SANITARY MANHOLE
- CB DENOTES NEW CATCHBASIN
- ASPHALT PAVING DENOTES NEW ASPHALT PAVING ASSEMBLY, REFER TO SPECIFICATIONS
- DENOTES BUILDING ADDITION
- (E) DENOTES EXISTING STRUCTURE
- DENOTES "AREA OF WORK" REFER TO SPECIFICATIONS
- B DENOTES BOLLARDS REFER TO DETAIL A-1-0
- DENOTES DRAINAGE DIRECTION

- NOTES:**
- 1.0 REFER TO MECHANICAL DRAWINGS FOR LOCATION OF SITE SERVICES
 - 2.0 SURVEY INFORMATION TAKEN FROM THE FOLLOWING SOURCES:
 - * CITY OF NORTH BAY AS BUILT ENGINEERING DRAWINGS
 - * COMPOSITE SKETCHES PREPARED BY NORTHLAND ENGINEERING
 - * LOCATED FIELD DATA (GRADES ONLY) COLLECTED BY POLESTAR CM INC AND ONTARIO NORTHLAND TRANSPORTATION COMMISSION
 - * COLL. SHERMAN & ASSOC. LTD EXISTING DRAWINGS
 - 3.0 COORDINATE FINAL GRADE WITH OWNERS TECHNICAL STAFF AS REQUIRED TO SUIT EXISTING CONDITIONS, FINAL TRACK LAYOUT AND GRADING REQUIREMENTS. ADJUST GRADES AS REQUIRED PRIOR TO COMPLETION OF ROUGH GRADING AND ASPHALT PAVING.
 - 4.0 FIELD VERIFY CONDITIONS AND GRADES. REPORT DISCREPANCIES TO ARCHITECT/CONSTRUCTION MANAGER IMMEDIATELY.



TYPICAL BOLLARD DETAIL
SCALE = 1" = 1'-0"

No.	Revision / Version	Date
1	ISSUED FOR REVIEW	MAY 25, 2024
2	PACKAGE A	JUNE 1, 2024
3	ADDENDUM No.1	JUNE 13, 2024
4	PACKAGE B	JUNE 23, 2024
5	TRACK & HYDRANT LOCATION REVISED	JULY 16, 2024

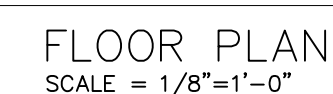
Plotted: JULY 16, 2024
Plot scale: 1:1
File Name: A-1-0

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ARCHITECTS ENGINEERS CONSULTANTS
280 CECIL STREET SUITE 200 NORTH BAY ONTARIO L7N 1G5
TEL: 709-674-2200 FAX: 709-674-2205

ONTARIO NORTHLAND TRANSPORTATION COMMISSION
NORTH BAY SHOP EXTENSION
SITE PLAN

Drawn by: *sm/ty*
Checked by: *ty*
Project No.: 0436

Date: JUNE 23, 2024
Scale: AS NOTED
Drawing No.: A-1.0b



LEGEND

- ===== NEW GYPSUM BOARD PARTITIONS
 ===== NEW MASONRY PARTITIONS
 ===== EXISTING PARTITIONS TO REMAIN
 150° NEW DOOR AND FRAME
 EXISTING DOOR AND FRAME TO REMAIN
 DTP DENOTES TIGHT PARTITION.
 FD DENOTES FLOOR DRAIN. REFER TO MECHANICAL DRAWINGS
 ♀ DENOTES BOLLARD—REFER TO DETAIL A ON A-1.0.
 [] DENOTES TRAIN STOP — SUPPLIED AND INSTALLED BY OWNER — REFER TO DETAIL
 X DENOTES FIRE DEPARTMENT CONNECTION — REFER TO MECH. DWGS.
 -2.5' DENOTES HEIGHT OF FLOOR RELATIVE TO FINISHED FLOOR ELEVATION
 [] DENOTES EXTENT OF JACKING PAD, REFER TO STRUCTURAL DRAWINGS.
 [] DENOTES MARKING AT EXISTING DUCK BANK (PAINT USING SAFETY YELLOW
 EE () ES DENOTES EMERGENCY EYE WASH AND EMERGENCY SHOWER LOCATION.

GENERAL NOTES:

- 1.0 RAIL LINES INSIDE THE BUILDING SHALL BE SUPPLIED BY OWNER AND INSTALLED BY CONTRACTOR. COORDINATE INSTALLATION OF RAILS WITH OWNER AS REQUIRED. NEW RAILS SHALL BE CONTINUOUS ACROSS EDGE OF SLAB ON GRADE, AND SHALL BE "D" OR "T" ON TO EXISTING RAILS. EXISTING RAIL LINES OUTSIDE THE BUILDING SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR.
- 2.0 COORDINATE SIZE AND LOCATION OF PAINT BOOTHS AND RELATED EQUIPMENT AS REQUIRED PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES.
- 3.0 REFER ALSO TO STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL PROJECT DETAILS AND REQUIREMENTS.
- 4.0 CONTRACTOR SHALL COORDINATE BUILDING COMPONENTS WITH PAINT BOOTH SUPPLIER/OWNER AS REQUIRED THROUGHOUT THE CONSTRUCTION OF THE PROJECT.

ASSEMBLIES:

- | | | | |
|-----------|--|-----------|---|
| RA | <p>PREFINISHED METAL CLADDING
18GA GALV. ZORTIS ϕ 7"-6"
0/0°
2" SEMI RIGID INSULATION
24 GA. GALV METAL LINER
STEEL GIRTS ϕ7"-6" ϕ2"
VERTICALLY (REFER TO
STRUCTURAL DWGS.)</p> | RB | <p>MODIFIED BETWEEN ROOF MEMBRANE
1/2" FIBRE BOARD
4" RIGID INSULATION
AIR VAPOUR BARRIER
1/2" GYPSUM BOARD
3" STRUCTURAL STEEL DECK
OPEN WEB STEEL JOIST</p> |
| RA | <p>PREFINISHED METAL CLADDING
18GA GALV. ZORTIS ϕ 7"-6"
0/0°
2" CAVITY WALL INSULATION
MEMBRANE AIR VAPOUR
BARRIER
8" - 75% SOLID CONC. BLK</p> | RB | <p>MODIFIED BETWEEN ROOF MEMBRANE
1/2" FIBRE BOARD
4" RIGID INSULATION
1/2" GYPSUM BOARD
EXISTING STEEL DECK</p> |
| RC | <p>8" - 75% SOLID CONC. BLK.
EXISTING GALV. METAL LINER
PROVIDE NEW STEEL STUD
GIRTS AT EXISTING HANGERS
OPENINGS AND $\frac{5}{8}$" ϕ BD
CLADDING OVER METAL STUDS
AND EXISTING WALL AS
SCHEDULED.</p> | RD | <p>EPOXY COATING
8" CONCRETE REINFORCED SLAB
UNDERSLAB AIR VAPOUR BARRIER
1/2" GRANULAR "A" COMPACTED TO
100% SPDM
12" GRANULAR "B" COMPACTED TO
100% SPDM
EXISTING FILL - rigorously
compacted in accordance with the
geotechnical report
NATIVE BEDROCK</p> |
| RA | <p>6" CONCRETE BLOCK PARTITION
TO EXTEND FROM U/S OF
STEEL DECK. 10'-0" +/- AFF.</p> | | |
| RA | <p>8" CONCRETE BLOCK, 75%
SOLID PARTITION TO EXTEND
TO U/S OF STEEL DECK.
10'-0" +/- AFF.</p> | | |

No.:	Revision / Version:	Date:	No.:	Revision / Version:	Date:
1	ISSUED FOR REVIEW	MAY 18, 2004			
2	PAGE 6 A	JUNE 1, 2004			
3	PAGE 8 B	JUNE 22, 2004			
4	ADD 3RD TANK RELIEF VALVE	AUG 15, 2004			
5	PAINT BOLD LOCATIONS	AUG 18, 2004			
	PAINT SLIDE REVISION	SEPT 1, 2004			

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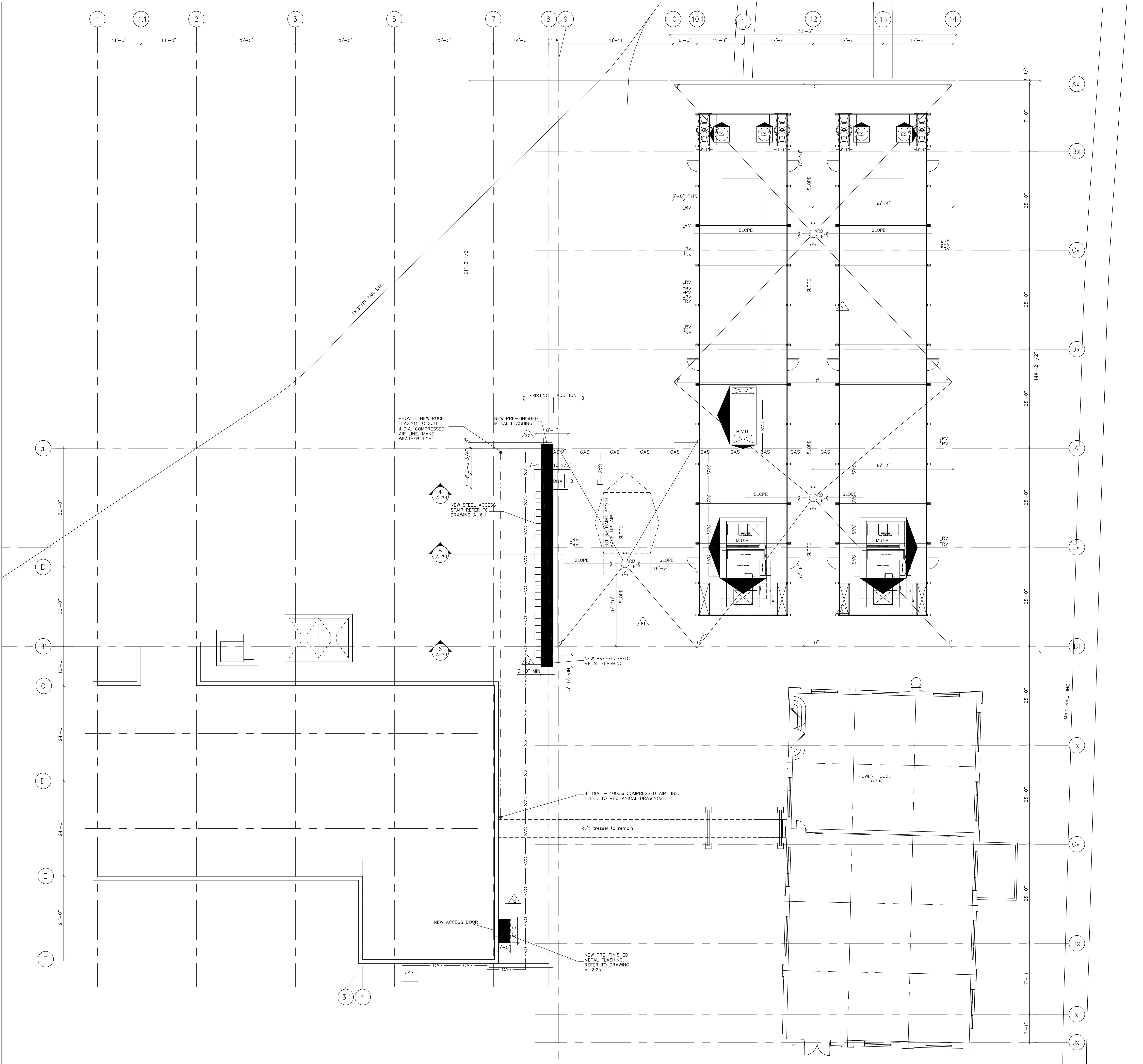
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Plot scale: 1:1
File Name: A-2.0

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ONTARIO NORTHLAND
TRANSPORTATION COMMISSION
NORTH BAY SHOP EXTENSION
PAINT SHOP - FLOOR PLAN

Drawn by: RC/TJ
Checked by: TJ
Project No.:
0436
Date: JUNE 23, 2004
Scale: AS NOTED
Drawing No.:

A-2.1b



LEGEND

- RD DENOTES NEW ROOF DRAIN
- 2.5" DENOTES FINISHED ROOF RELATIVE TO PARAPET LOCATION. REFER ALSO TO STRUCTURAL DRAWINGS.
- RV DENOTES ROOF VENT REFER TO MECHANICAL DRAWINGS
- ES DENOTES EXHAUST STACK (N.I.C.)
- M.U.A. DENOTES MAKE UP AIR UNIT (N.I.C.)
- H.V.U. DENOTES HEATING/VENTILATION UNIT, REFER TO MECHANICAL DRAWINGS.
- ⊠ DENOTES ROOF OPENING, REFER TO MECHANICAL DRAWINGS.
- DENOTES EXTENT OF ROOF REPLACEMENT FOR THE IN.
- GAS — DENOTES GAS LINE, REFER TO MECHANICAL DRAWINGS.
- ⚡ DENOTES CRICKET REFER TO SPECIFICATIONS.

GENERAL NOTES:

- 1.0 REFER ALSO TO STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL PROJECT DETAILS AND REQUIREMENTS.
- 2.0 CONTRACTOR TO INSTALL CURBS SUPPLIED BY PAINT BOOTH MANUFACTURER FOR MAKE UP AIR UNITS AND EXHAUST STACKS.
- 3.0 COORDINATE AND ADJUST THE OPENING SIZES AND LOCATION FOR EXHAUST STACKS (ES) AND MAKE UP AIR UNITS (M.U.A) WITH PAINT BOOTH PRIOR TO INSTALLATION OF THE OPENINGS.

No.	Revision / Version	Date
1	PACKAGE B	June 23, 2004

Revised: JUNE 23, 2004
Plot scale: 1" = 1'
File Name: A-3.0

CASTELLAN JAMES + PARTNERS
ARCHITECTS
288 CROWN STREET SUDBURY ONTARIO CANADA TEL: 705-674-2205 FAX: 705-674-2205

**ONTARIO NORTHLAND
TRANSPORTATION COMMISSION**
NORTH BAY SHOP EXTENSION
PAINT SHOP - ROOF PLAN

Drawn by: RC/TJ
Checked by: TJ
Project No.:
0436
Date: JUNE 23, 2004
Scale: AS NOTED
Drawing No.:

DEMOLITION LEGEND:

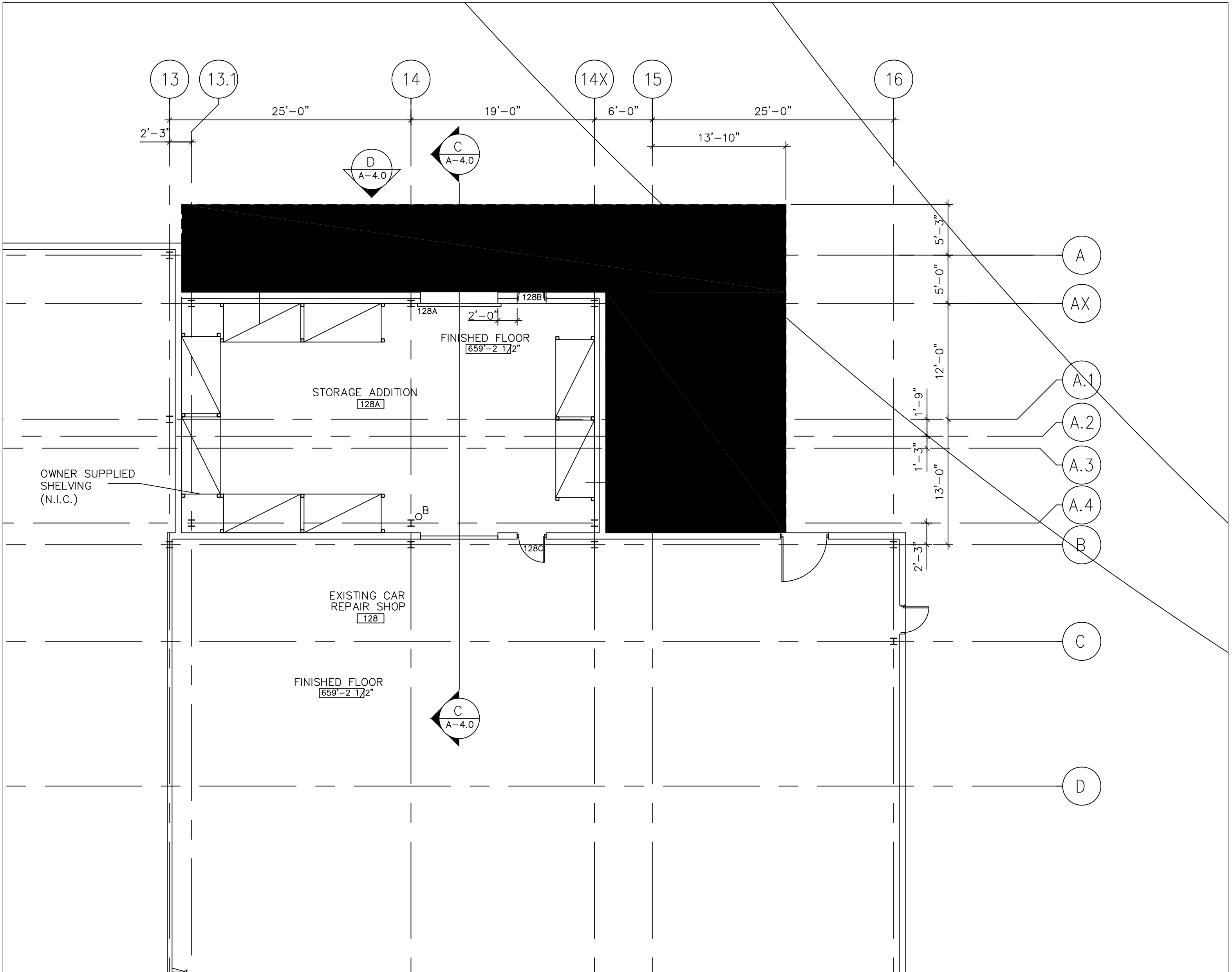
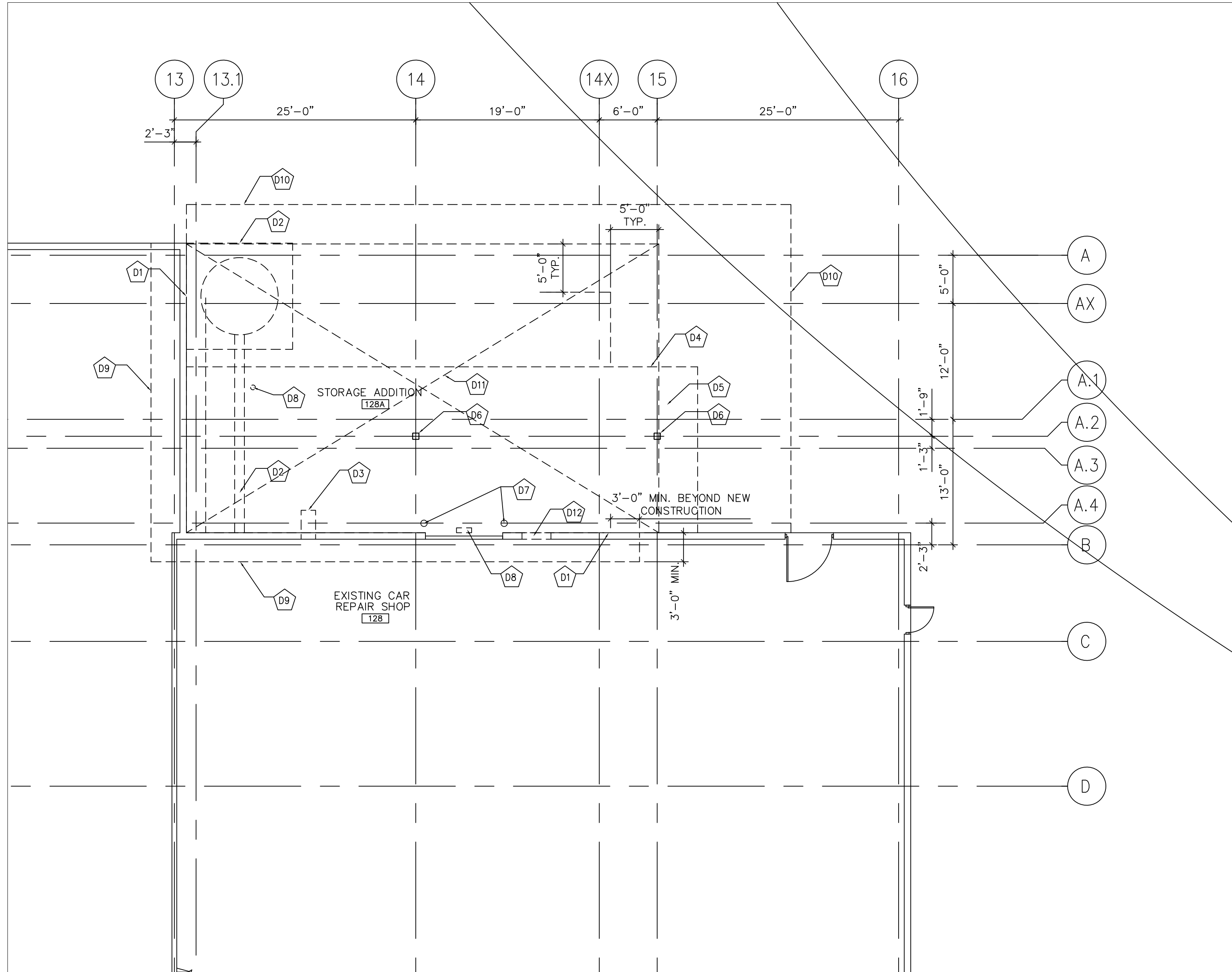
- ===== EXISTING TO BE REMOVED
- ===== EXISTING PARTITIONS
- ===== EXISTING DOOR AND FRAME TO REMAIN
- ===== EXISTING DOOR AND FRAME TO BE REMOVED

DEMOLITION NOTES:

- D1 REMOVE EXISTING EXTERIOR WALL CLADDING, INSULATION/INTERIOR LINER AND STEEL GIRTS IN AREAS TO PERMIT STRUCTURAL TIE IN'S AS REQUIRED.
- D2 REMOVE ALL OF EXISTING STEEL DUST COLLECTOR AND ALL ASSOCIATED STRUCTURAL STEEL, DUCTS AND ELECTRICAL UNITS. SHALL BE BY OWNER.
- D3 REMOVE EXISTING METAL SAW DUST CHUTE, PATCH WALL TO MATCH EXISTING.
- D4 REMOVE EXISTING STEEL CANOPY c/w ALL STRUCTURAL STEEL, ROOF DECK, ROOFING ASSEMBLY AND PRE-FINISHED METAL CLADDING.
- D5 REMOVE EXISTING SPRINKLER SYSTEM, REFER TO MECHANICAL DRAWINGS
- D6 REMOVE EXISTING COLUMN AND CONCRETE PIER TO LEVEL OF EXISTING BEDROCK.
- D7 REMOVE EXISTING BOLLARDS
- D8 SALVAGE EXISTING LIGHT FIXTURES AND TURN OVER TO OWNER.
- D9 REMOVE EXISTING FLASHING, CANT STRIP AND ROOFING TO PERMIT TIE IN OF NEW/EXISTING ROOFING, REFER TO ROOF PLAN.
- D10 REMOVE ASPHALT AS REQUIRED TO PERMIT INSTALLATION OF NEW CONSTRUCTION. SAW CUT EDGE OF REMOVAL.
- D11 REMOVE AND DISPOSE OF EXISTING FILL FROM FINISHED GRADE TO EXISTING BEDROCK. LIMIT SHALL BE TO 6'-0" OUTSIDE FOOT PRINT OF ADDITION, REFER TO STRUCTURAL DRAWINGS.
- D12 REMOVE EXISTING EXTERIOR WALL CLADDING, INSULATION/INTERIOR LINER AND STEEL GIRTS FOR NEW MAIN DOOR. SAW CUT AND REMOVE CONCRETE WALL AS REQUIRED FOR NEW OPENING.

GENERAL DEMOLITION NOTES:

- 1.0 REFER ALSO TO MECHANICAL, ELECTRICAL DRAWINGS FOR ADDITIONAL NOTES AND DEMOLITION ACTIVITIES.
- 2.0 OWNER SHALL BE RESPONSIBLE FOR REMOVAL OF EXISTING RACKING AND EQUIPMENT LOCATED AT EXISTING CANOPY PRIOR TO START OF WORK.

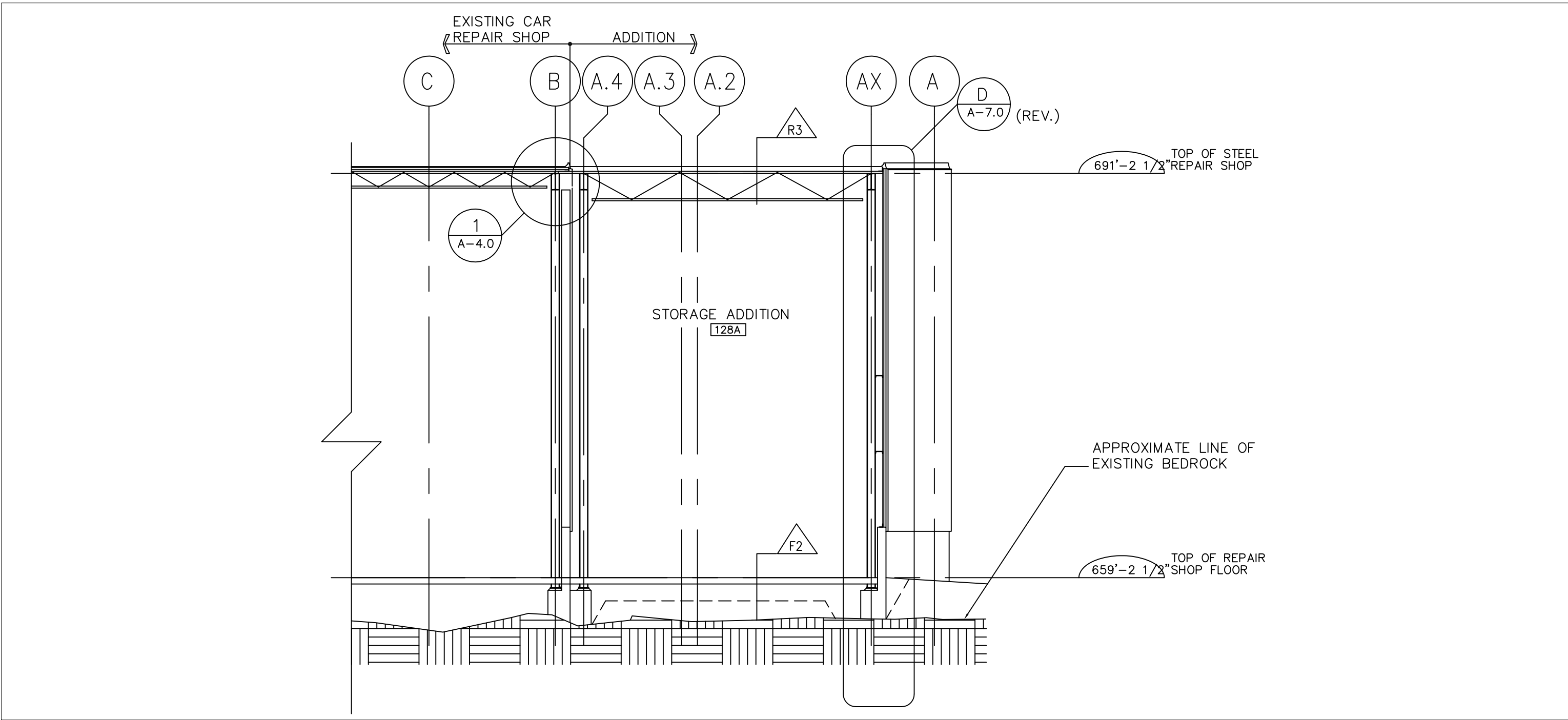
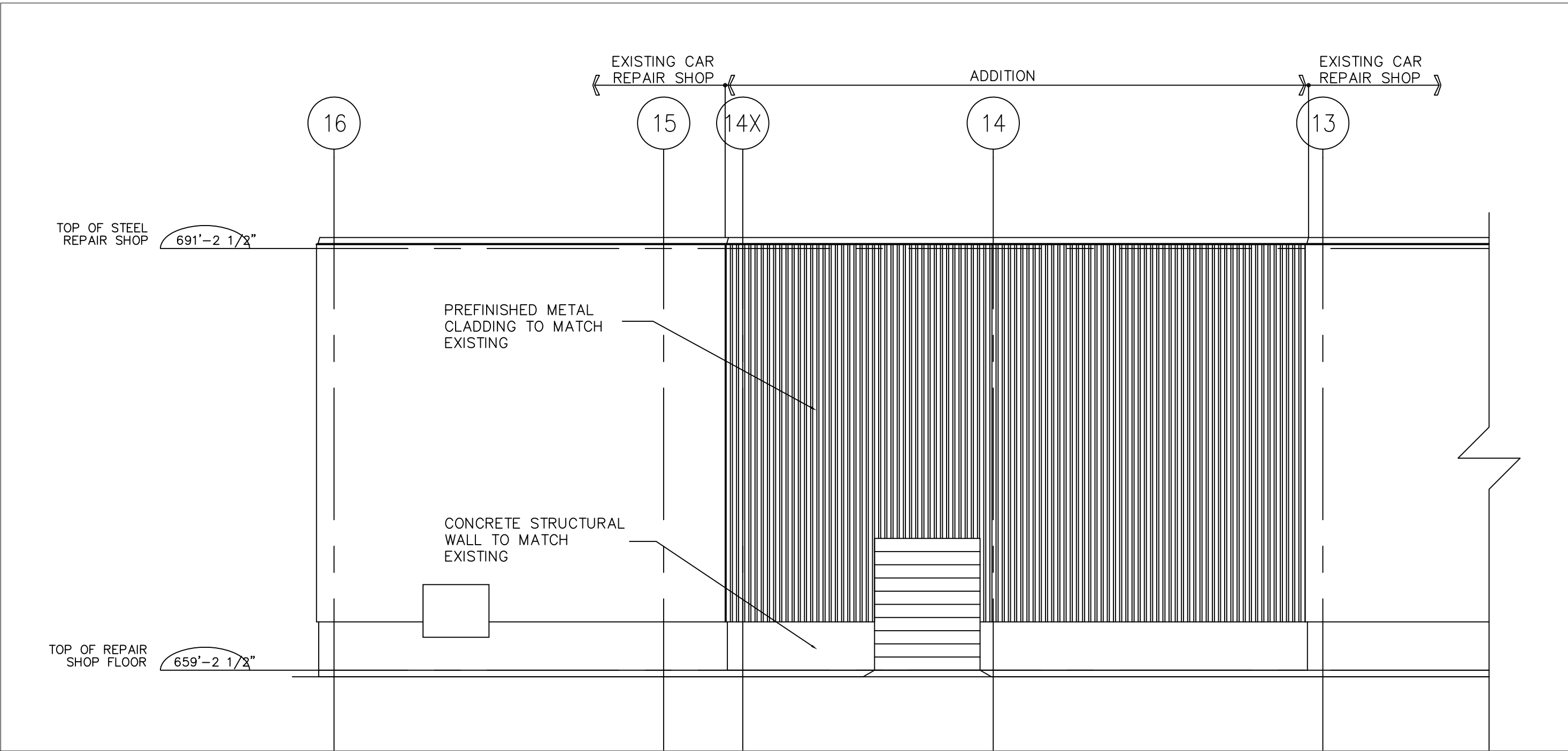
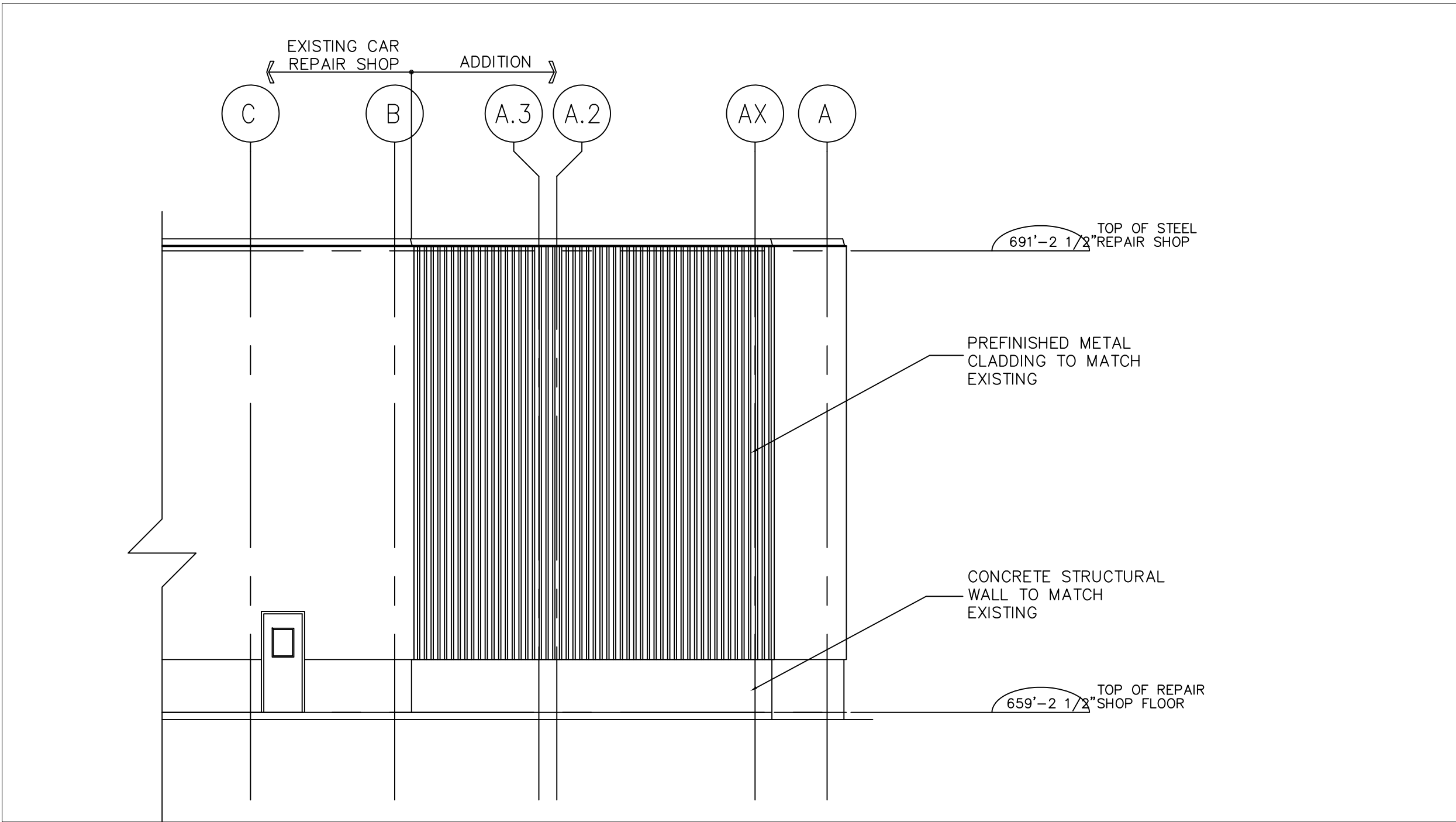
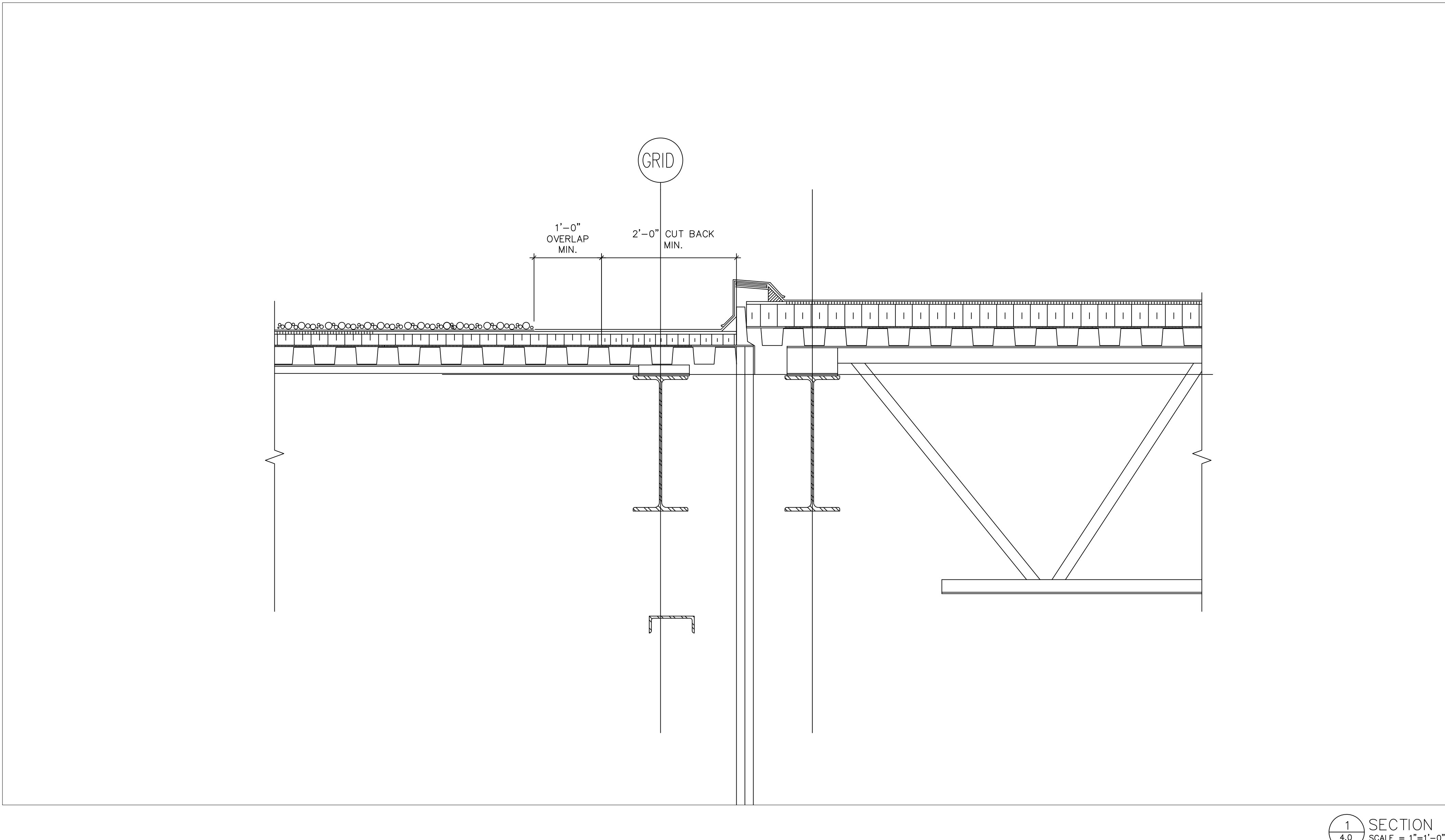
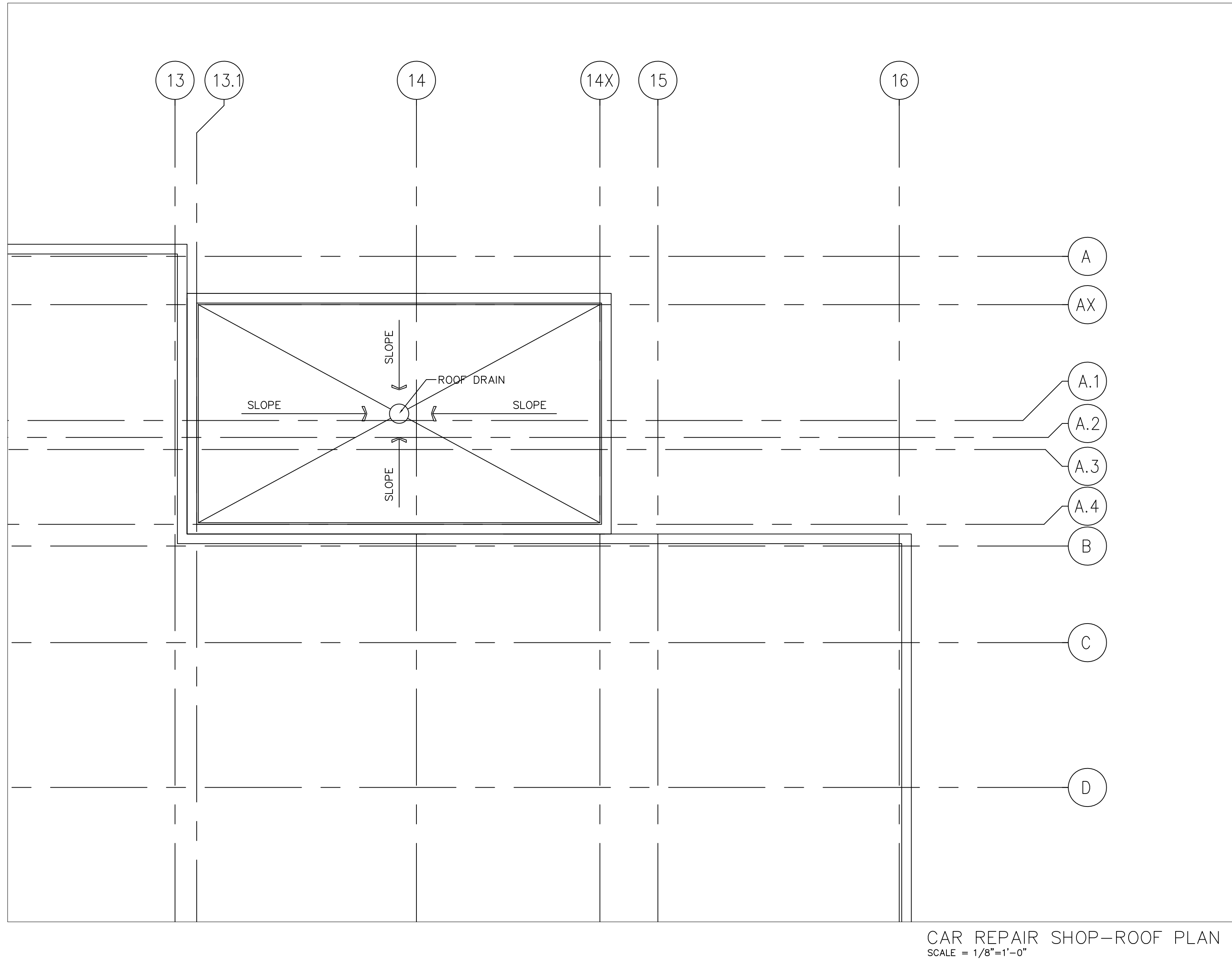


LEGEND

- ===== NEW PARTITIONS
- ===== EXISTING PARTITIONS TO REMAIN
- ===== NEW DOOR AND FRAME
- ===== EXISTING DOOR AND FRAME TO REMAIN
- ⊙ DENOTES BOLLARD-REFER TO DETAIL
- DENOTES NEW ASPHALT PAVING REFER TO SPECIFICATIONS

ASSEMBLIES:

- A3A PREFINISHED METAL WALL CLADDING 24GA. GALVANIZED METAL LINER STEEL GIRT (REFER TO STRUCTURAL DRAWINGS)
- A3B 8" CONCRETE SKIRT WALL
- T2 6" CONCRETE SLAB ON GRADE 5 MIL POLY VAPOUR BARRIER 12" GRANULAR "A" COMPACTED TO 100% SPMPD GRANULAR "B" COMPACTED TO 100% SPMPD NATIVE SOIL/ BEDROCK
- R3 MODIFIED BITUMEN ROOF MEMBRANE 1/2" FIBRE BOARD AIR VAPOUR BARRIER 5/8" GYPSUM BOARD 1 1/2" METAL DECK O.W.S.J.



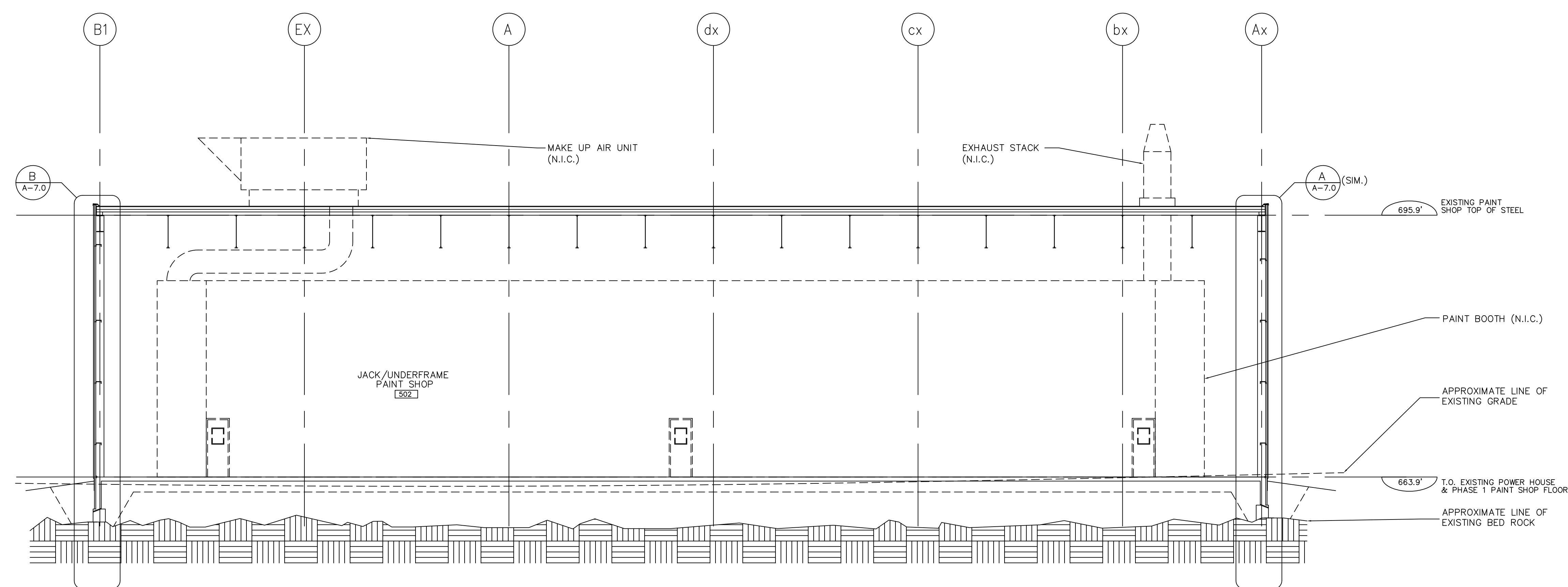
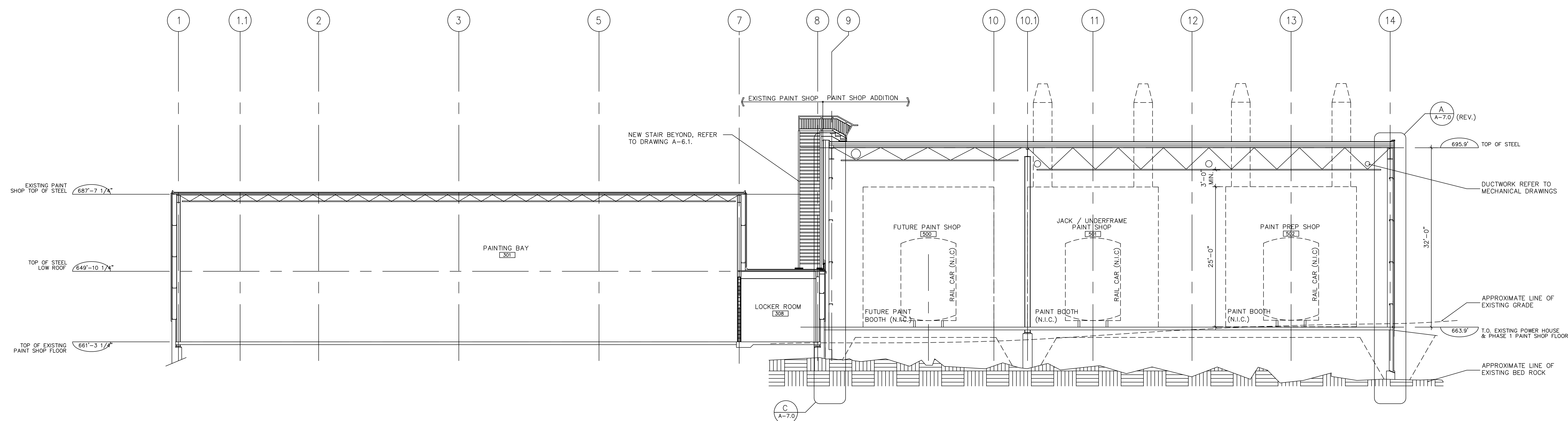
No.	Revision / Version	Date
1	ISSUED FOR REVIEW	MAY 28, 2004
2	PACKAGE A	JUNE 1, 2004

Plotted: JUNE 1, 2004
Plot scale: 1:1
File Name: A-4.0

CASTELLAN LUCIW JAMES + ARCHITECTS INC.
380 CEDAR STREET SUITE 200 CHICAGO, IL 60601
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ONTARIO NORTHLAND TRANSPORTATION COMMISSION
NORTH BAY SHOP EXTENSION
CAR REPAIR SHOP - PLANS, SECTIONS AND ELEVATIONS

Drawn by: RC/TJ
Checked by: TJ
Project No.: 0436
Date: JUNE 1, 2004
Scale: AS NOTED
Drawing No.: A-4.0a



No.:	Revision / Version:	Date:
1	ISSUED FOR REVIEW	MAY 25, 2004
2	PACKAGE A	JUNE 1, 2004
3	PACKAGE B	JUNE 23, 2004

Plotted: JUNE 23, 2004
Plot scale: 1:1
File Name: A-5.0

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289 CEDAR STREET SUDBURY ONTARIO P3B 1M8 TEL 706-674-2000 FAX 706-674-2185

**ONTARIO NORTHLAND
TRANSPORTATION COMMISSION**
NORTH BAY SHOP EXTENSION

PAINT SHOP - SECTIONS

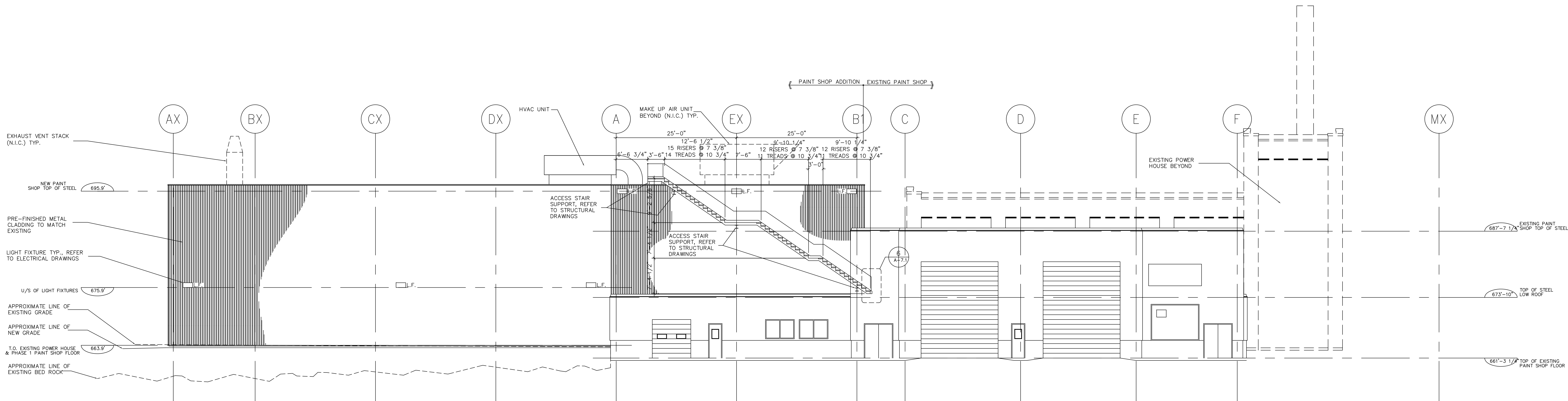
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Project No.:

0436

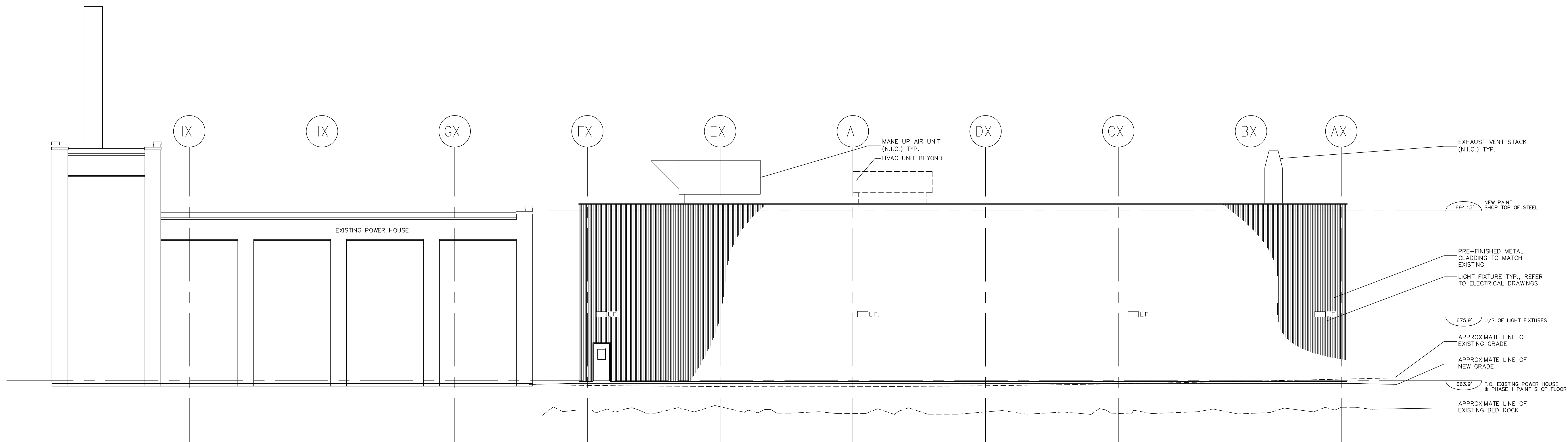
Date: JUNE 23, 2004

Scale: AS NOTED

A-5.0b



C WEST ELEVATION
D-2
SCALE = 1/8"=1'-0"



D EAST ELEVATION
D-2
SCALE = 1/8"=1'-0"

No.	Revision / Version	Date
1	ISSUED FOR REVIEW	MAY 25, 2004
2	PACKAGE A	JUNE 1, 2004
3	PACKAGE B	JUNE 23, 2004

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1	ISSUED FOR REVIEW	MAY 25, 2004
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3	PACKAGE B	JUNE 23, 2004

Plotted:	JUNE 23, 2004
Plot scale:	1:1
File Name:	A-6.1

The Contractor shall verify all dimensions and report any discrepancies to the Architect. Drawings are instruments of service and are not to be used for any other purpose without the written consent of the Architect. Copyright, Do not scale drawings.

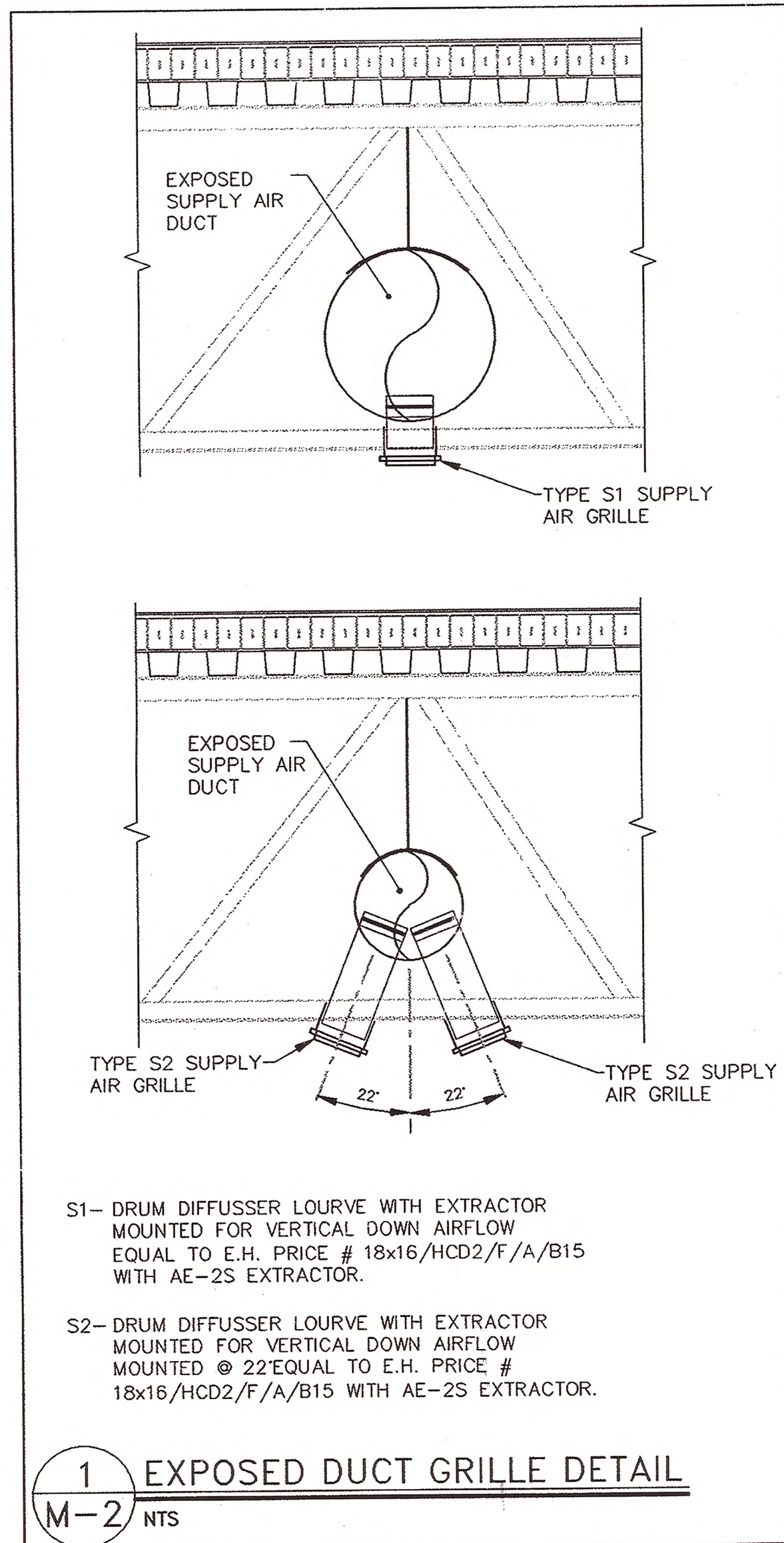
CASTELLAN JAMES + PARTNERS
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ONTARIO NORTHLAND
TRANSPORTATION COMMISSION
NORTH BAY SHOP EXTENSION
PAINT SHOP - ELEVATIONS

Drawn by: RC/TJ
Checked by: TJ
Project No.: 0436

Date: JUNE 23, 2004
Scale: AS NOTED
Drawing No.: A-6.1b

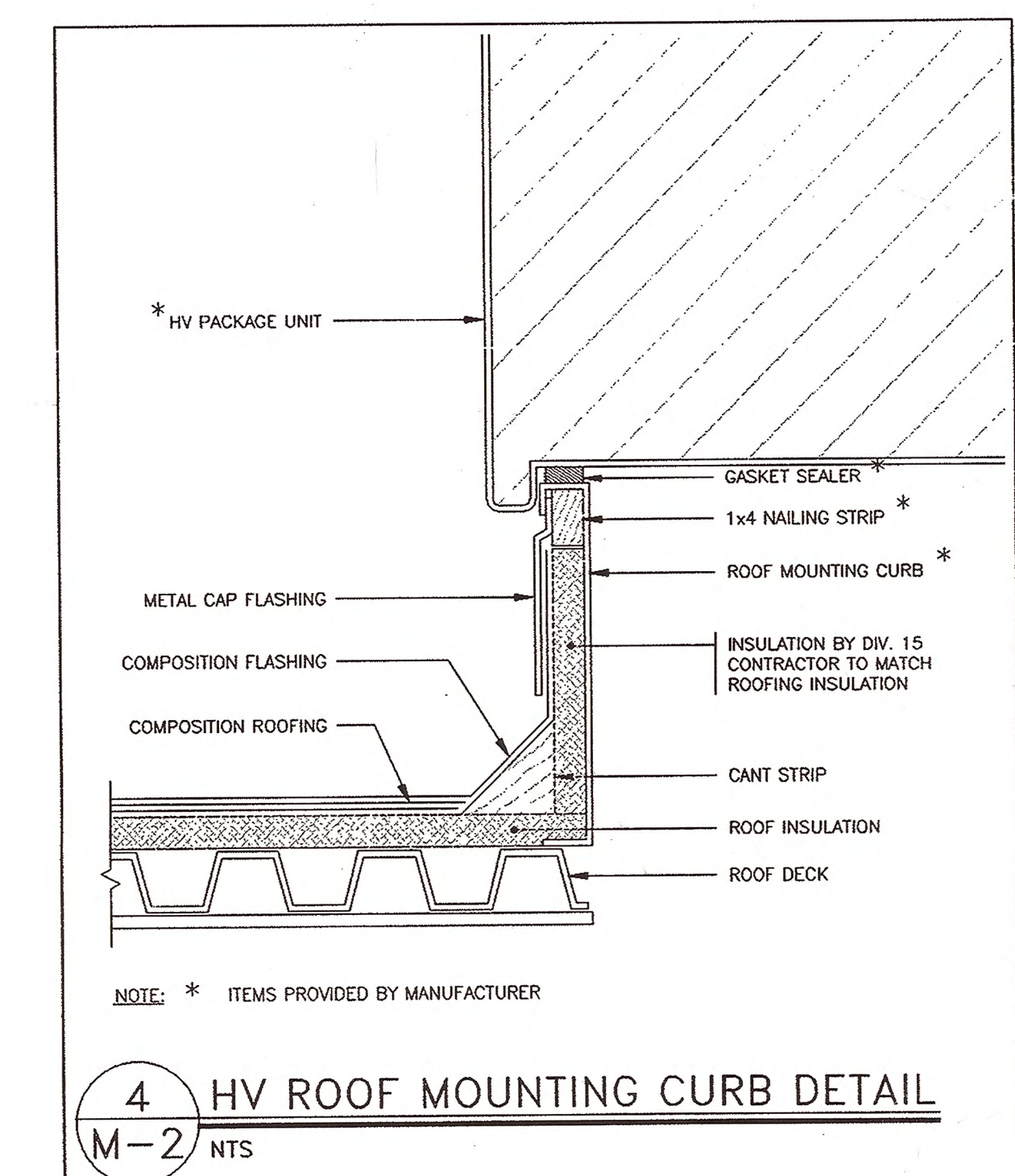
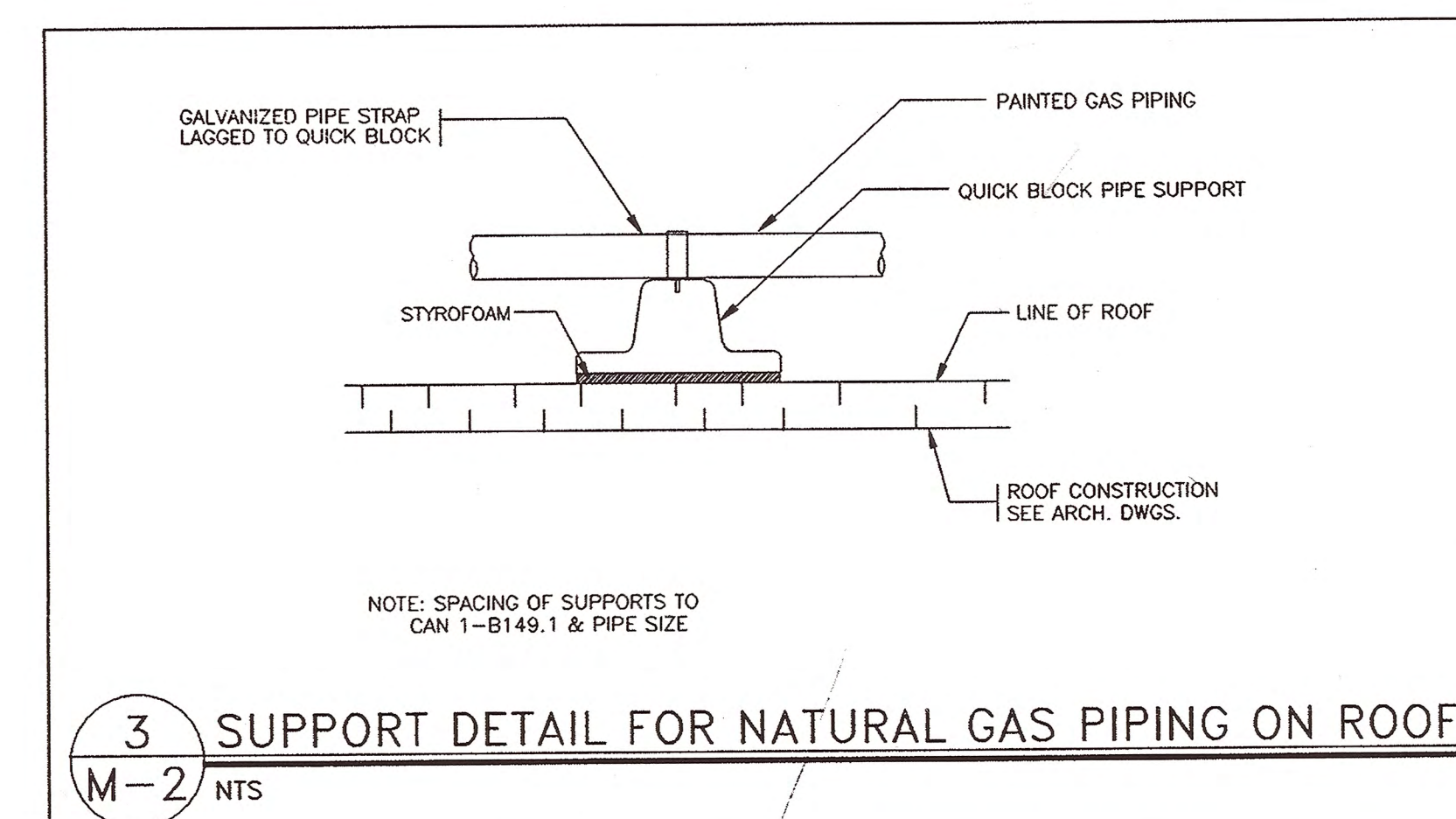
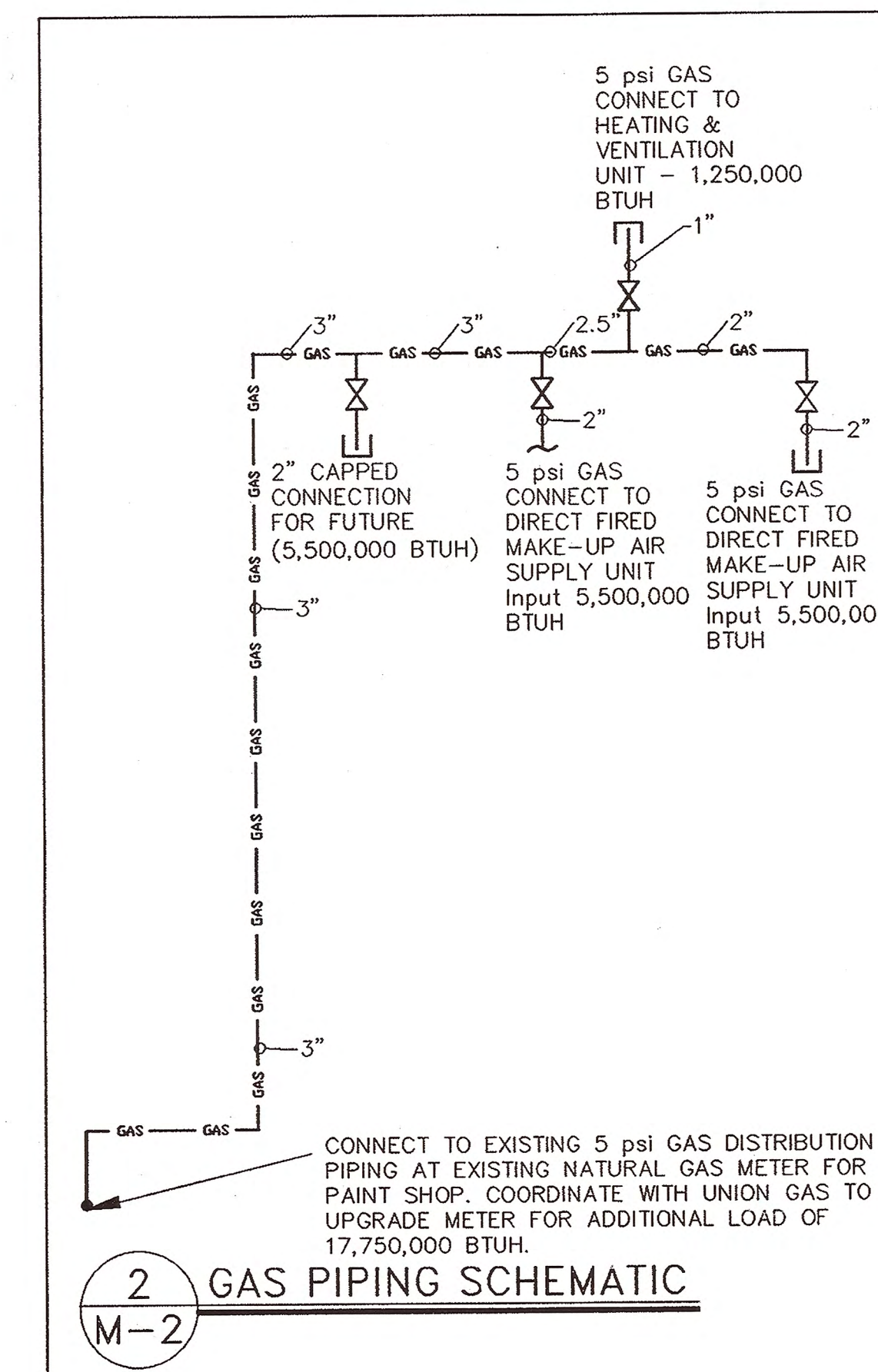
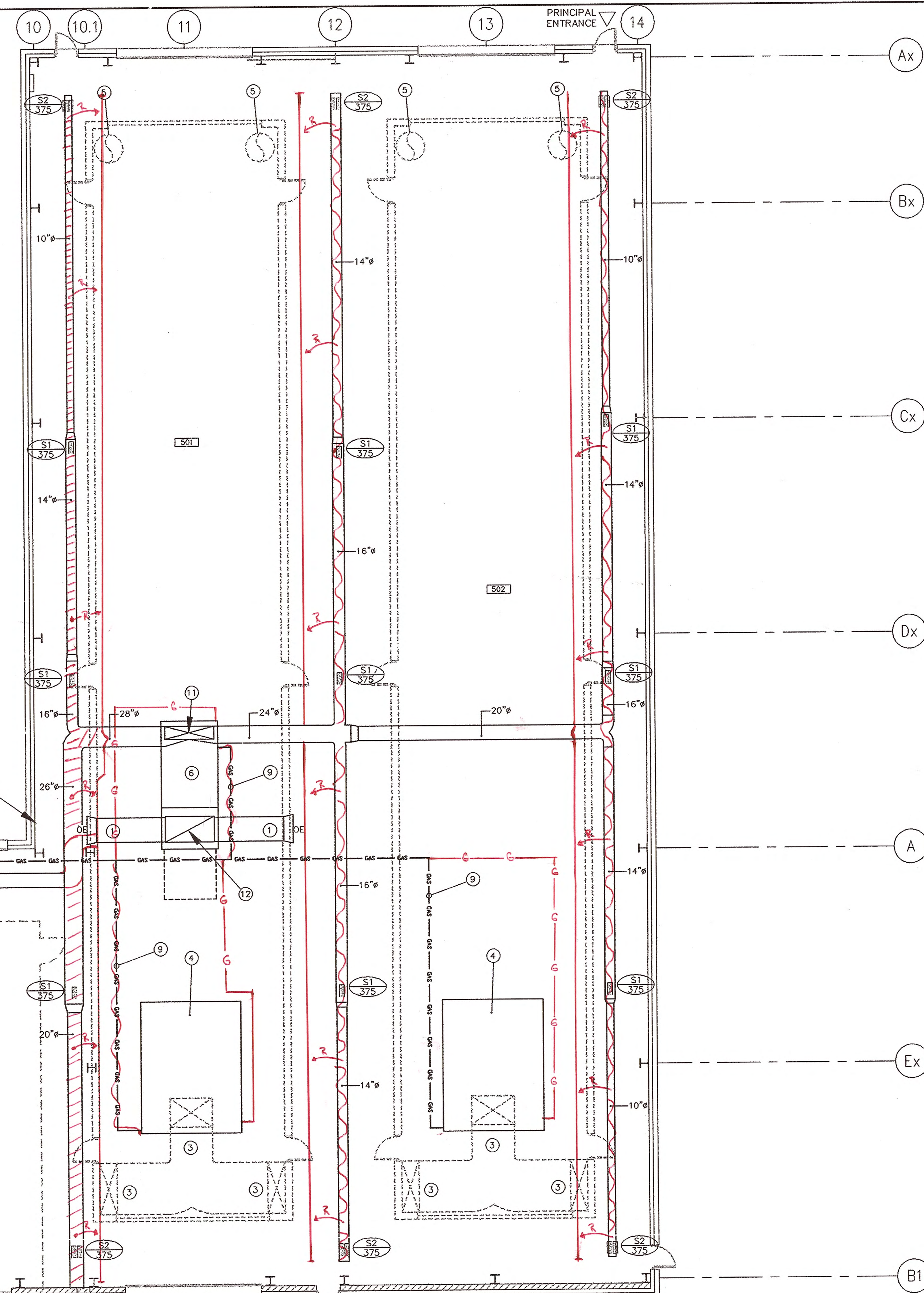




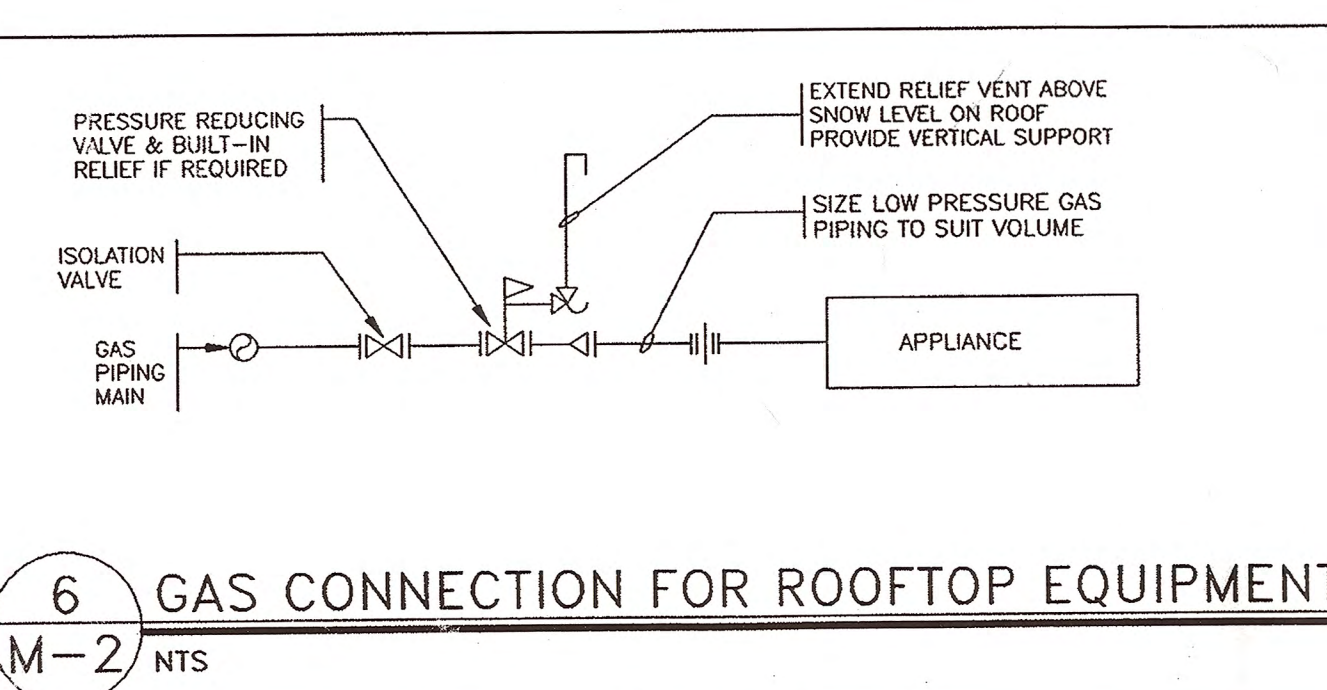
HEATING & VENTILATION NOTES:

- 48" x 26" OPEN END RETURN AIR DUCT.
- 20" DUCT FOR FUTURE EXTENSION.
- SUPPLY DUCT FROM MAKE UP AIR UNIT TO PAINT BOOTH BY PAINT BOOTH SUPPLIER.
- DIRECT FIRED MAKE UP AIR SUPPLY UNIT ON ROOF BY PAINT BOOTH SUPPLIER. COORDINATE INSTALLATION OF ROOF CURB (SENT TO SITE EARLY BY BOOTH SUPPLIER).
- EXHAUST DUCT TO ROOF MOUNTED EXHAUST FANS BY PAINT BOOTH SUPPLIER. COORDINATE INSTALLATION OF ROOF CURB (SENT TO SITE EARLY BY BOOTH SUPPLIER).
- ROOF MOUNTED HEATING & VENTILATION UNIT BY DW. 15 SEE SPECIFICATIONS THIS DRAWING.
- EXTEND NEW 3" - 5psi GAS LINE ALONG EDGE OF BUILDING AND OFFSET UP TO LOW ROOF AREA. SEE DETAIL 2 FOR METER UPGRADE.
- 2" CAPPED 5psi GAS LINE FOR FUTURE.
- 2" GAS LINE TO ROOF MOUNTED EQUIPMENT SEE DETAIL 2.
- REMOTE CONTROL PANEL FOR H & V UNIT.
- 66"x18" SUPPLY AIR DUCT DOWN FROM H & V UNIT ON ROOF.
- 60"x24" RETURN AIR DUCT UP TO H & V UNIT.
- NATURAL GAS PIPING ON ROOF WITH SUPPORTS. SEE DETAIL 3 THIS DRAWING. PAINTING OF PIPING TO GAS CODE REQUIREMENTS BY DW. 15.
- EXISTING HVAC SYSTEMS THIS AREA TO REMAIN. REMOVE - REINSTALL AND COORDINATE WITH NEW CEILING SYSTEMS - SEE ARCHITECTURAL DRAWINGS.
- EXTEND 6" EXHAUST DUCT FOR RELOCATED LOCKERS TO EXISTING LOCKER EXHAUST SYSTEM.

NOTE: ALL SUPPLY AIR DUCT WORK TO BE INSTALLED IN OPEN WEB STEEL JOISTS. ALL RETURN AIR DUCT WORK TO BE INSTALLED TIGHT TO U/S OF DWS-2.



NATURAL GAS LOADS	
2 MAKEUP AIR UNITS @ 5,500 MBH	11,000 MBH
1 HVAC UNIT @ 1,250 MBH	1,250 MBH
1 FUTURE MAKEUP AIR UNIT @ 5,500 MBH	5,500 MBH
TOTAL CONNECTED LOAD - ADDITION	17,750 MBH



ROOF MOUNTED HEATING & VENTILATION UNIT

THE HEATER SHALL BE AN INDUSTRIAL QUALITY ROOF MOUNTED INDIRECT FIRED UNIT, CSA/CSA APPROVED, EQUAL TO QUIET-AIRE MODEL 704-1000-4. THE HEATER SHALL BE DESIGNED FOR OUTDOOR HORIZONTAL MOUNTING, ASSEMBLED, WIRED AND FLAME-TESTED BEFORE SHIPMENT, EUIT TO THE FOLLOWING SPECIFICATIONS AND WITH THE FOLLOWING FEATURES:

SPECIFICATIONS:

AIRFLOW RATE: 10000 SCFM
EXTERNAL STATIC PRESSURE: 1" W.C.
SUPPLY FAN MOTOR SIZE: 10 HP
EXHAUST FAN MOTOR SIZE: 1/2 HP
HEATING INPUT: 1,250,000 BTU/HR
HEATING OUTPUT: 1,000,000 BTU/HR
TEMPERATURE RISE: (T) 100°F
POWER SUPPLY: 480V/3/60CY
NATURAL GAS SUPPLY: 5 psi

FEATURES: THE UNIT(S) SHALL BE FACTORY ASSEMBLED AND SHIPPED IN ONE OR MORE SECTIONS TO FACILITATE SHIPPING AND INSTALLATION REQUIREMENTS.

UNIT CASING:

THE UNIT CASING AND ACCESSORIES SHALL BE HEAVY GAUGE C-90 GALVANIZED STEEL WITH BAKED ENAMEL FINISH. THE UNIT CASING SHALL BE ARTIALLY AND WEATHERPROOF. ALL STRUCTURAL FRAMING TO BE HOT ROLLED STEEL PRIME PAINTED. FRESH AIR DAMPERS CONSTRUCTED OF 16 GAUGE GALVANIZED STEEL BLADES AND FRAMING WITH RYON BEARINGS SHALL BE FURNISHED. MOTORIZED DAMPER OPERATION WITH SPRING RETURN ACTION SHALL BE FURNISHED. FILTER RAILS ARRANGED IN A "V" CONFIGURATION FURNISHED WITH 2" REPLACABLE TYPE FILTER SHALL BE SUPPLIED. A C-90 GALVANIZED STEEL INLET HOOD WITH RAIN SHIELD SHALL BE FURNISHED ON THE FRESH AIR INLET. CASING SHALL BE INSULATED WITH 2" - 3LB. NON-WICKING INSULATION, LINED WITH 20 GAUGE GALVANIZED STEEL TO ELIMINATE AIR BORNE FIBERS FROM ENTERING THE AIR STREAM. INSULATED DOUBLE WALLER HINGED ACCESS DOORS SHALL BE PROVIDED TO PERMIT ACCESS TO ALL INTERNAL COMPONENTS. CASING SHALL BE FURNISHED WITH A REAR TUBE ACCESS PANEL, C/W HANDLES, FOR TUBE MAINTENANCE.

HEAT EXCHANGER

THE HEAT EXCHANGER SHALL BE RATED AT A MINIMUM 80% EFFICIENCY AT RATED OUTPUT. THE FLUE GAS TRANSFER SHALL BE OF FOUR-PASS DESIGN, WITH NO INTERNAL BIFURCATIONS. THE PRIMARY HEAT TRANSFER SURFACE AND HEADERS SHALL BE A MINIMUM OF 18 GA. 409 STAINLESS STEEL UP TO AND INCLUDING INPUTS OF 125000 BTU. 14 GA. 409 STAINLESS STEEL FOR THE LARGER PORTS. THE SECONDARY HEAT TRANSFER SURFACE SHALL BE 16 GA. 409 STAINLESS STEEL. THERE SHALL BE THREE (3) COLLECTOR BOXES PARALLEL TO THE HEAT EXCHANGER DESIGN. THE HEAT EXCHANGER SHALL BE SUPPLIED WITH A REAR TUBE ACCESS PANEL COMPLETE WITH BRASS NUTS FOR EASY REMOVAL BOXES PARALLEL TO THE HEAT EXCHANGER DESIGN. THE HEAT EXCHANGER SHALL PERMIT UNRESTRICTED LATERAL AND PERIPHERAL EXPANSION DURING THE HEATING AND COOLING CYCLE. THE HEATING SURFACE AREA OF THE PRIMARY AND SECONDARY HEAT TRANSFER SURFACE AREA SHALL BE 80 FT² AND 56 FT² RESPECTIVELY. THE SURFACE TEMPERATURE OF THE HEAT EXCHANGER SHALL NOT EXCEED 75% OF ITS SCALING TEMPERATURE WHEN OPERATING AT RATED CAPACITY.

FAN SECTION

THE UNIT SHALL BE SUPPLIED WITH AMCA RATED, FORWARD CURVED, DOUBLE WIDTH, DOUBLE INLET, STATIONARY AND DYNAMICALLY BALANCED CENTRIFUGAL FANS. THE FAN ASSEMBLY SHALL BE LOCATED UPSTREAM OF THE HEAT EXCHANGER. FANS ARE TO BE MOUNTED ON A HEAVY DUTY, TURNED AND GROUND STEEL SHAF WITH ITS MAXIMUM OPERATING SPEED NOT EXCEEDING 70% OF ITS FIRST CRITICAL SPEED. THE BEARINGS ARE TO BE OF THE PRE-LUBRICATED, SELF-ALIGNING TYPE WITH LOCKING COLLARS AND EXTENDED GREASE TUBING WITH ALUMINUM FITTINGS. THE "V" BELT DRIVE SHALL BE SIZED WITH A CAPACITY 20% GREATER THAN THE MOTOR HORSEPOWER AND HAVE A MINIMUM OF TWO BELTS. UP TO 7.5 HP THE MOTOR SHAFT SHALL BE OF THE ADJUSTABLE PITCH TYPE. HINGED ACCESS PANELS SHALL BE PROVIDED TO ALLOW INSPECTION AND MAINTENANCE OF THE FAN AND DRIVE ASSEMBLY AND FOR REMOVAL OF THE COMPLETE ASSEMBLY. MOTORS SHALL BE RATED FOR FAN DUTY, TFC, T-FRAME AND 275 VOLT 60 CYCLE 3 PHASE. THE FAN MOTOR SHALL BE MOUNTED ON AN ADJUSTABLE BASE AND PRE-WIRED IN CONDUIT TO THE CONTROL PANEL.

INDUCED DRAFT FAN

AN INTEGRALLY MOUNTED, HEAVY DUTY, RADIAL BLADE INDUCED DRAFT FAN SHALL BE PROVIDED. THE INDUCED DRAFT FAN SHALL BE EQUIPPED WITH A PROPER MANUAL DAMPER COMPLETE WITH LOCKING QUADRANT TO ENSURE PROPER DRAFT, RATED EFFICIENCY AND EXTENDED HEAT EXCHANGER PERFORMANCE. NO CENTRIFUGAL WHEELS SHALL BE USED. THE INDUCED DRAFT FAN SHALL BE EQUIPPED WITH A PROPERLY SIZED FULL VOLTAGE THREE PHASE MOTOR FOR RELIABLE OPERATION.

GAS FIRED BURNER

GAS BURNER SHALL BE OF THE LOW PRESSURE POWER TYPE, WITH INTEGRAL COMBUSTION AIR BLOWER AND MOTOR, COMBUSTION AIR PROVING DIFFERENTIAL SWITCH AND REMOVABLE PILOT ASSEMBLY. THE COMBUSTION AIR DAMPERS SHALL BE INTERLOCKED WITH A PROPERLY SIZED GAS CONTROL VALVE TO ENSURE "ON RATIO" FIRING. AN ELECTRONIC PROGRAMMABLE RELAY WITH FLAME ROD SHALL BE USED FOR FLAME SUPERVISION. THE PRE-WIRED AND PRE-PIPED VALVE TRIM SHALL BE MOUNTED ON THE HEATER AND COME COMPLETE WITH APPLIANCE GAS PRESSURE REGULATOR, AUTOMATIC SHUT-OFF VALVE, FIRING COCK, MANUAL PILOT SHUT-OFF COCK, PILOT GAS PRESSURE REGULATOR, AUTOMATIC PILOT VALVE, AND AN ADJUSTABLE ORIFICE/SHUT-OFF COCK. A LUBRICATED PLUS COCK SHALL BE PROVIDED FOR FIELD MOUNTING AT THE UNIT. THE BURNER SHALL FIRE NATURAL GAS AND BE ARRANGED FOR FULL MODULATING, WITH LOW FIRE START.

ELECTRICAL CONTROLS

AN NEMA 1 CONTROL PANEL COMPLETE WITH HINGED ACCESS DOOR AND DEADFRONT DISCONNECT SWITCH SHALL BE MOUNTED ON THE UNIT AND WIRED. ALL CONTROL COMPONENTS ARE TO BE LABELED AND REMOVABLY WIRED TO A NUMBERED ON-WALL MOUNTED TERMINAL STRIP TO AID IN SERVICING. POINT TO POINT WIRING IS NOT ACCEPTABLE. ALL WIRING SHALL BE COLOUR CODED AND NUMBER TAGGED AT EACH END TO MATCH THE CONTROL DIAGRAM SUPPLIED. ALL CONTROL PANEL WIRING TO RUN IN PLASTIC RACEWAY. WIRING FROM PANEL TO COMPONENTS MUST BE RUN IN FLEXIBLE CONDUIT AND FOR LONGER RUNS IN DWT AND FLEXIBLE CONDUIT. FULL OPERATING AND MAINTENANCE INSTRUCTIONS SHALL ACCOMPANY EACH UNIT. THE CONTROL SYSTEM SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING COMPONENTS REQUIRED FOR AUTOMATIC OPERATION:

- MAIN DISCONNECT SWITCH
- CONTROL CIRCUIT TRANSFORMER
- FAN MOTOR STARTER C/W OVERLOADS
- SUB CIRCUIT FUSES
- CONTROL CIRCUIT FUSES
- CONTROL RELAYS
- ELECTRONIC FLAME RELAY COMPLETE WITH ALARM CONTACTS
- INDUCED DRAFT FAN AIR PROVING DIFFERENTIAL SWITCH
- HIGH LIMIT SWITCH
- AUTOMATIC/MANUAL FAN SWITCH
- HEAVY DUTY EXTENSION TRANSFORMER
- FAN AND BURNER SERVICE SWITCHES
- REMOTE CONTROL PANEL

OPTIONAL ACCESSORIES INCLUDED:

- OUTDOOR/WEATHERPROOF ENCLOSURES
- INLET HOOD(S) WITH BIRD SCREEN
- 2-POSITION MOTORIZED INLET DAMPER
- 2-POSITION MOTORIZED INLET DAMPER
- CRI APPROVALS
- EXTENDED GREASE LINES PIPED TO OUTSIDE OF CASING
- REM. 12 REMOTE CONTROL STATION COMPLETE WITH "FAN ON/OFF" SWITCH, "BURNER ON/OFF" SWITCH, "FAN OFF" LIGHT, "BURNER OFF" LIGHT AND DISCHARGE TEMPERATURE CONTROLLER.
- REM. 12 CONTROL PANEL UPGRADE
- A FRONT MOUNTED, SPRING LOADED, PRESSURE RELIEF DOOR COMPLETE WITH AN OBSERVATION WINDOW TO VIEW THE MAIN FLAME
- "C" STACK 4' ABOVE UNIT
- HIGH GAS PRESSURE REGULATORS
- INTERNAL SPRING ISOLATION
- 24" HIGH MOUNTING CURB

SPRINKLER LEGEND

- SPRINKLER PIRING
- FE FIRE EXTINGUISHER
- FE - 10# DRY CHEMICAL FIRE EXTINGUISHER WITH WALL BRACKET 44-6062 RING
- SPRINKLER HEAD PENDANT
- SPRINKLER HEAD SIDEWALL
- SPRINKLER HEAD UPRIGHT
- ISOLATION VALVE
- CHECK VALVE
- PRESSURE GAUGE
- SHIMSE CONNECTION
- FLOW SWITCH
- SUPERVISED VALVE

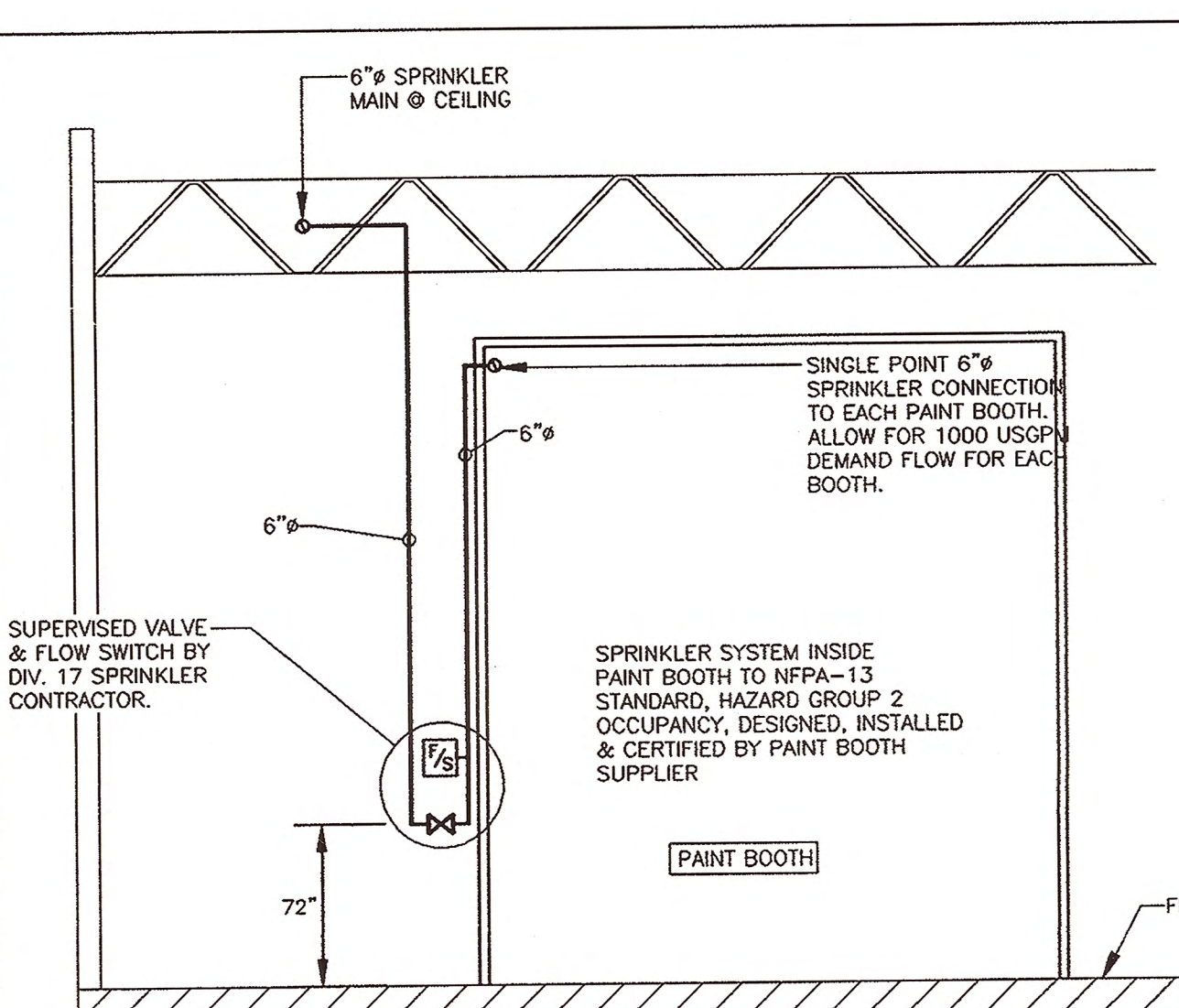
SPRINKLER SYSTEM FLOOR PLAN NOTES:

- SPRINKLER SYSTEMS INSIDE PAINT BOOTHS BY OTHERS.
- SPRINKLER PIPING TO BE INSTALLED IN OWS/ SPACE AT CEILING.
- COORDINATE SPRINKLER HEADS WITH DUCT SYSTEMS.

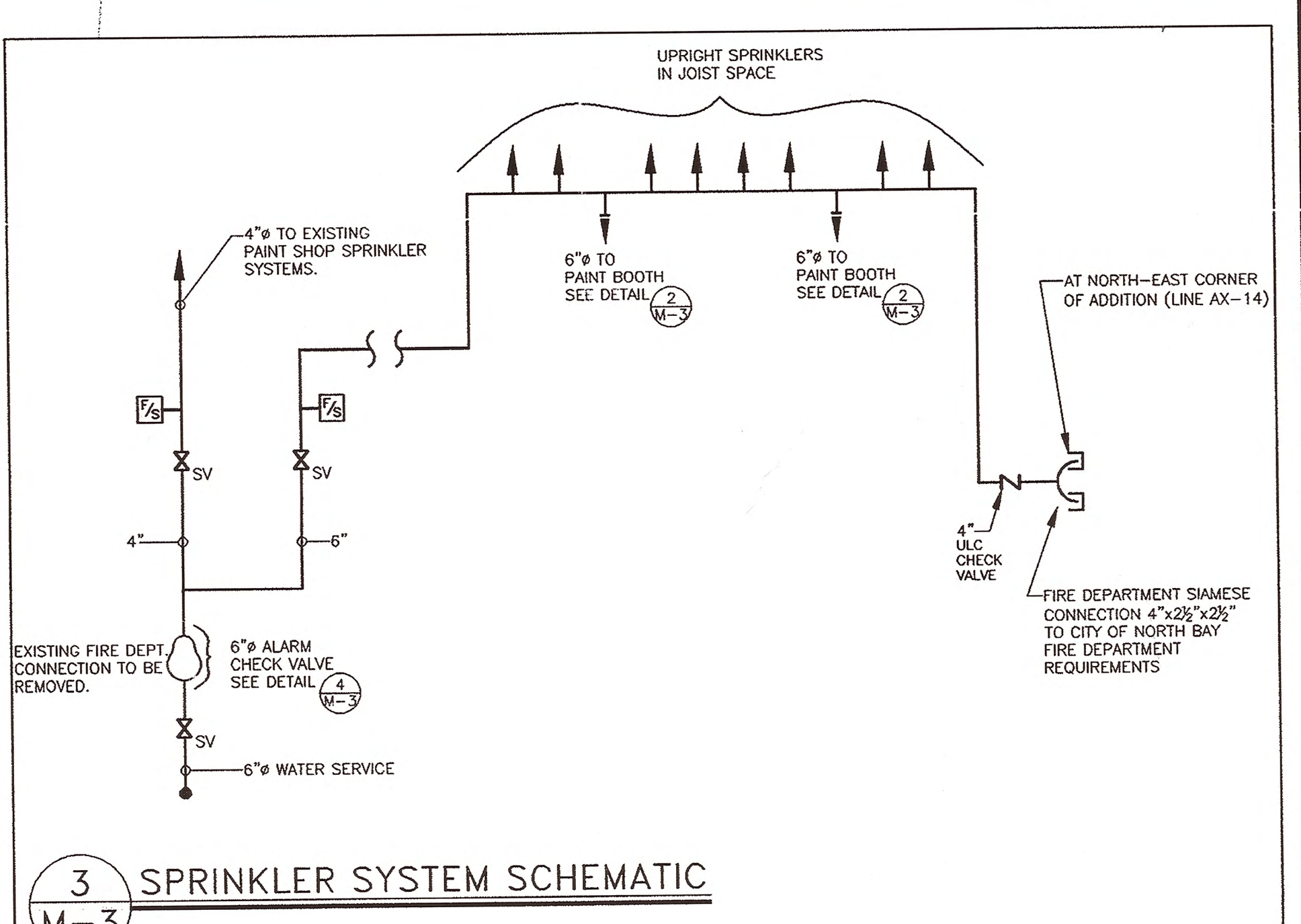
SPRINKLER SYSTEM NOTES

- REVISIONS TO THE EXISTING SPRINKLER SYSTEMS ARE TO BE DESIGNED AND INSTALLED BY QUALIFIED SPRINKLER DESIGN CONTRACTORS. THE LAYOUT AND PIPE SIZES INDICATED ON THE DRAWING IS TO BE USED AS A GUIDE ONLY FOR THE QUANTITY AND LOCATION OF HEADS.
- DESIGN, INSTALL AND TEST ENTIRE SYSTEM IN ACCORDANCE WITH NFPA 13.
- TESTING TO BE WITNESSED BY AUTHORITY HAVING JURISDICTION.
- SPRINKLER SYSTEMS FOR THE BUILDING AS FOLLOWS:
CIRCULATION SPACES - GROUP 1 HAZARD
INSIDE PAINT BOOTHS - EXTRA HAZARD - GROUP 2.
- THE SPRINKLER SYSTEM WITHIN THE PAINT BOOTHS WILL BE DESIGNED, INSTALLED AND CERTIFIED BY OTHERS. ALLOW FOR A SINGLE POINT 6" CONNECTION FOR EACH OF THE TWO PAINT BOOTHS. EXACT DETAIL TO FOLLOW.
- PROVIDE 8" SUPERVISED VALVE AND FLOW SWITCH AT EACH SPRINKLER CONNECTION TO THE PAINT BOOTH.
- SPRINKLER HEADS - EXPOSED DECK AREAS - UPRIGHT, 57C RATING.
- IT IS THE RESPONSIBILITY OF THE SPRINKLER CONTRACTOR TO REMOVE AND REPLACE EXISTING CEILING FINISHES IN THE EXISTING BUILDING AS REQUIRED FOR THE INSTALLATION.
- WATER SERVICE DATA AS TESTED BY WPMO FIRE PROTECTION ON May 24, 2004.
BUILDING SERVICE LINE: 8" x 8"
STATIC PRESSURE: 100 psi
RESIDUAL PRESSURE AT 335 USGPM FLOW RATE: 101 psi
RESIDUAL PRESSURE AT 815 USGPM FLOW RATE: 90 psi
RESIDUAL PRESSURE AT 1500 USGPM FLOW RATE: 87 psi
- A NEW FIRE HYDRANT WILL BE PROVIDED OUTSIDE OF THE PRINCIPAL ENTRANCE FOR FIRE FIGHTING PURPOSES. THE HYDRANT IS SERVED FROM A SEPARATE WATER LINE. SEE PACKAGE 'A'.
- IF REQUESTED, SUBMIT DESIGN DRAWINGS AND CERTIFICATION TO THE OWNER FOR REVIEW/ APPROVAL BY THEIR INSURANCE COMPANY. THE INSURANCE COMPANY IS AMERICAN HOME ASSURANCE COMPANY. ALL RISKS PROPERTY INSURANCE POLICY # MM-1380.

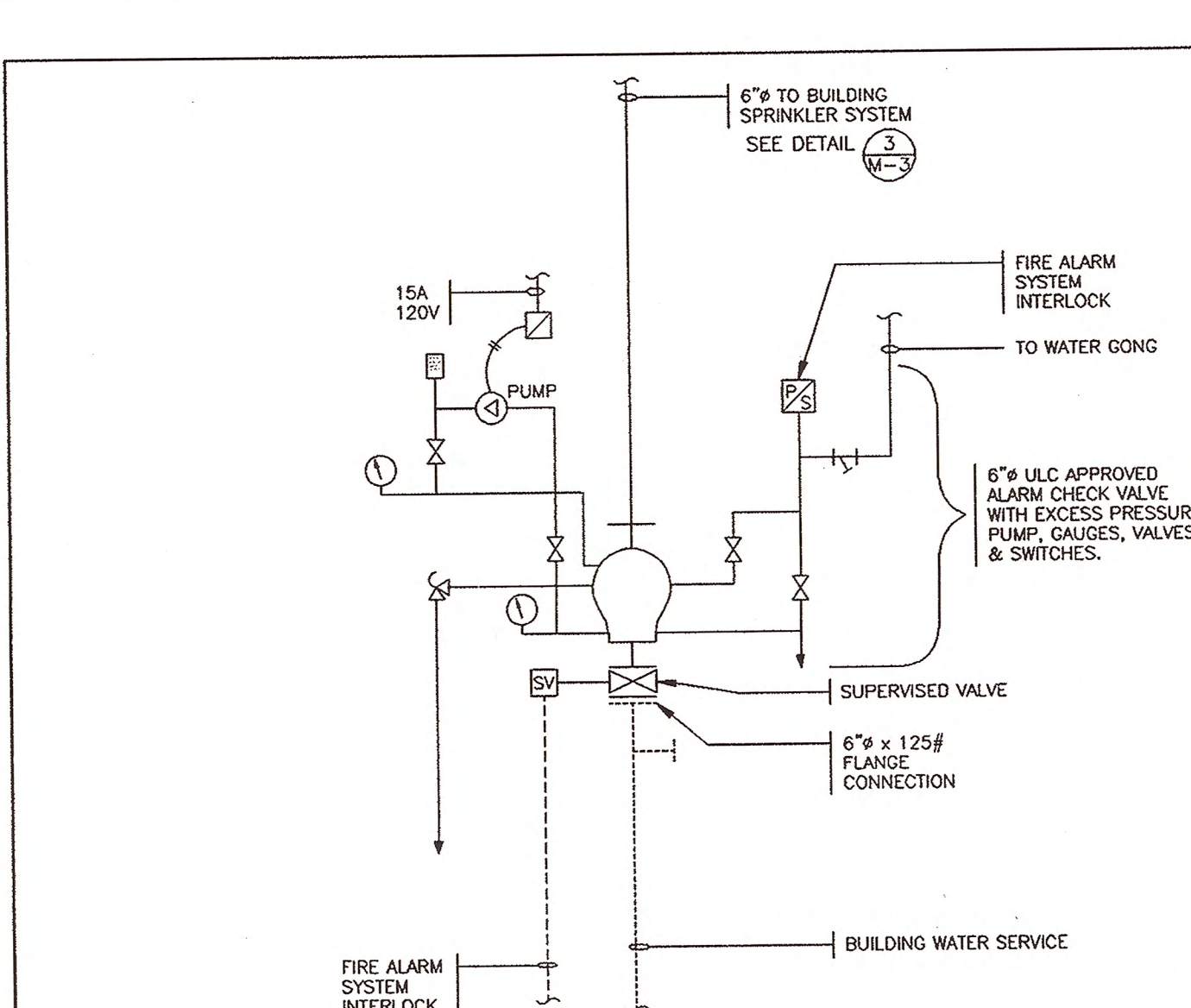
1 SPRINKLER SYSTEM NOTES M-3 NTS



2 PAINT BOOTH SPRINKLER CONNECTION DETAIL M-3 NTS



3 SPRINKLER SYSTEM SCHEMATIC M-3



4 SPRINKLER ALARM CHECK VALVE DETAIL M-3

Drawn by:	KAP
Checked by:	KL
Project No.:	2837
Date:	JUNE 23, 2004
Scale:	3/8" = 1'-0"
Drawing No.:	M-3b

KAP ENGINEERING
 CONSULTING ENGINEERS - MECHANICAL & ELECTRICAL
 18/03/04
 NORTH
 ONTARIO NORTHLAND TRANSPORTATION COMMISSION
 NORTHBAY SHOP EXTENSION
 SPRINKLER SYSTEMS

FIRE ALARM LEGEND

- PULL STATION
- FLOW SWITCH - SPRINKLER SYSTEM
- SUPERVISED VALVE - SPRINKLER SYSTEM
- PRESSURE SWITCH - SPRINKLER SYSTEM
-
-
- FIRE ALARM SYSTEM INTERLOCK

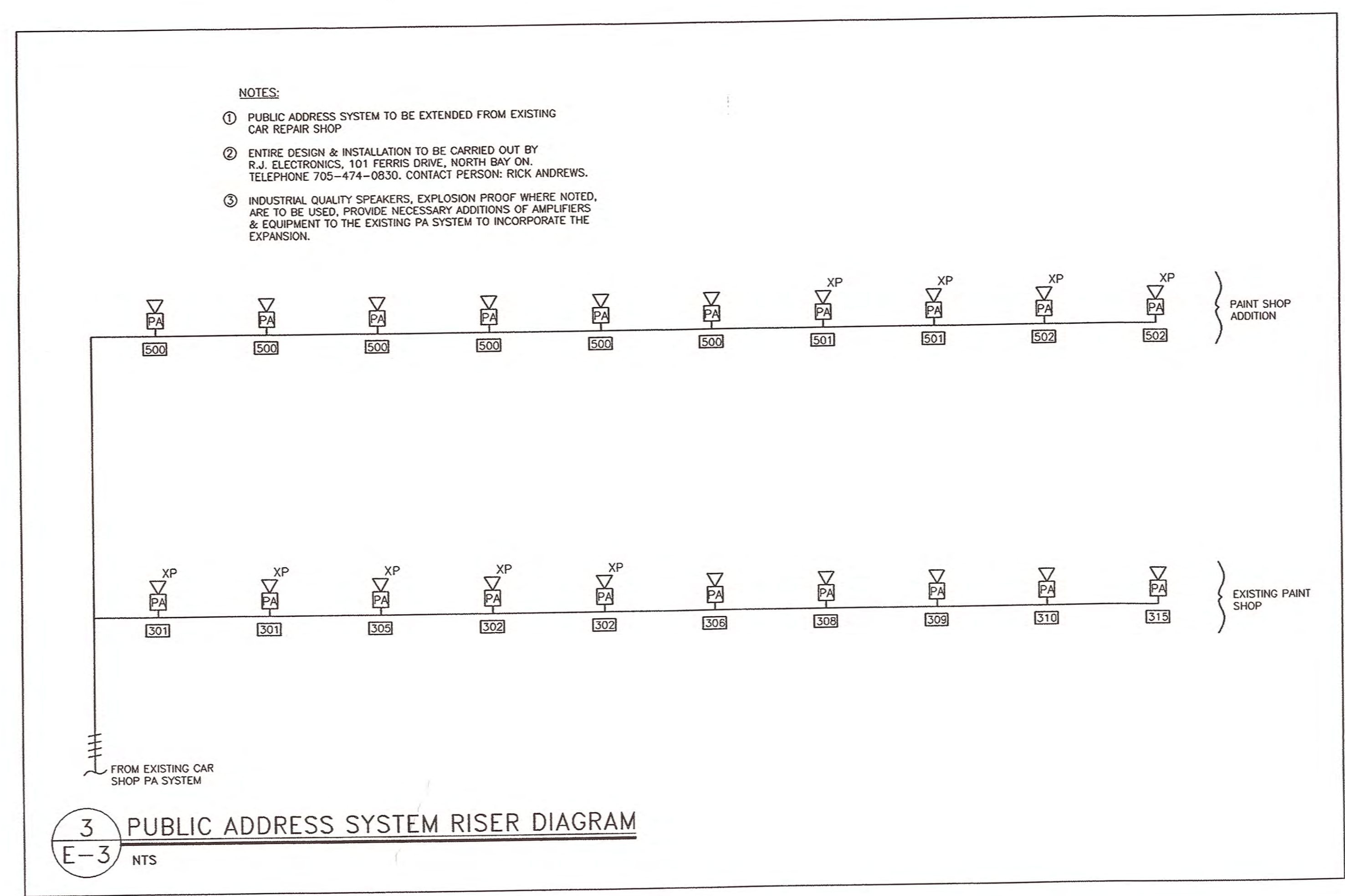
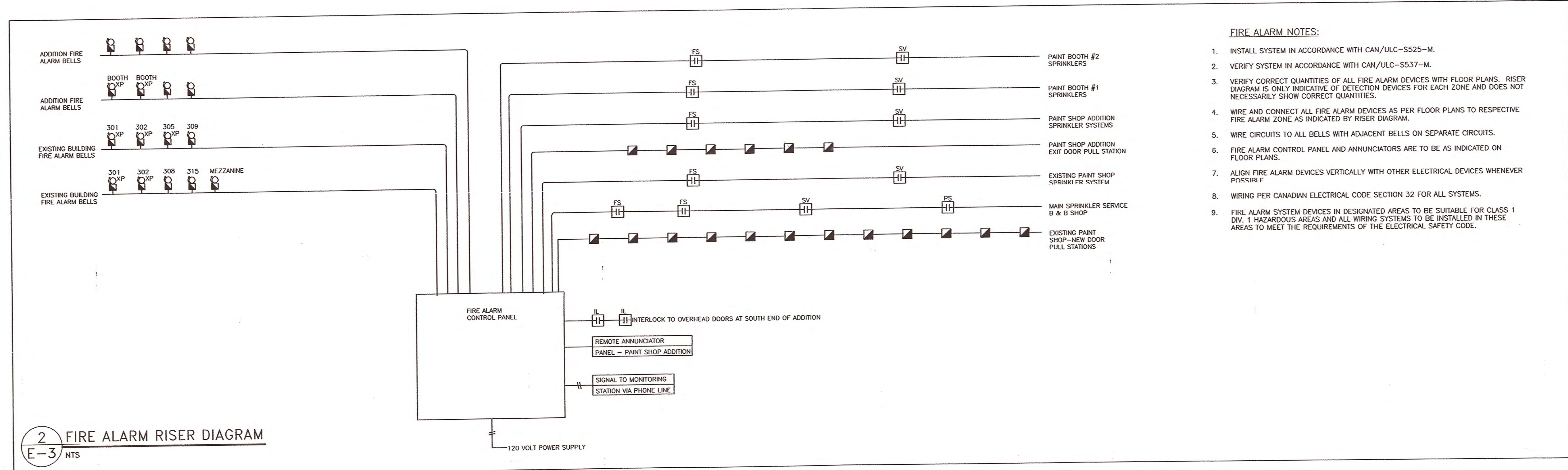
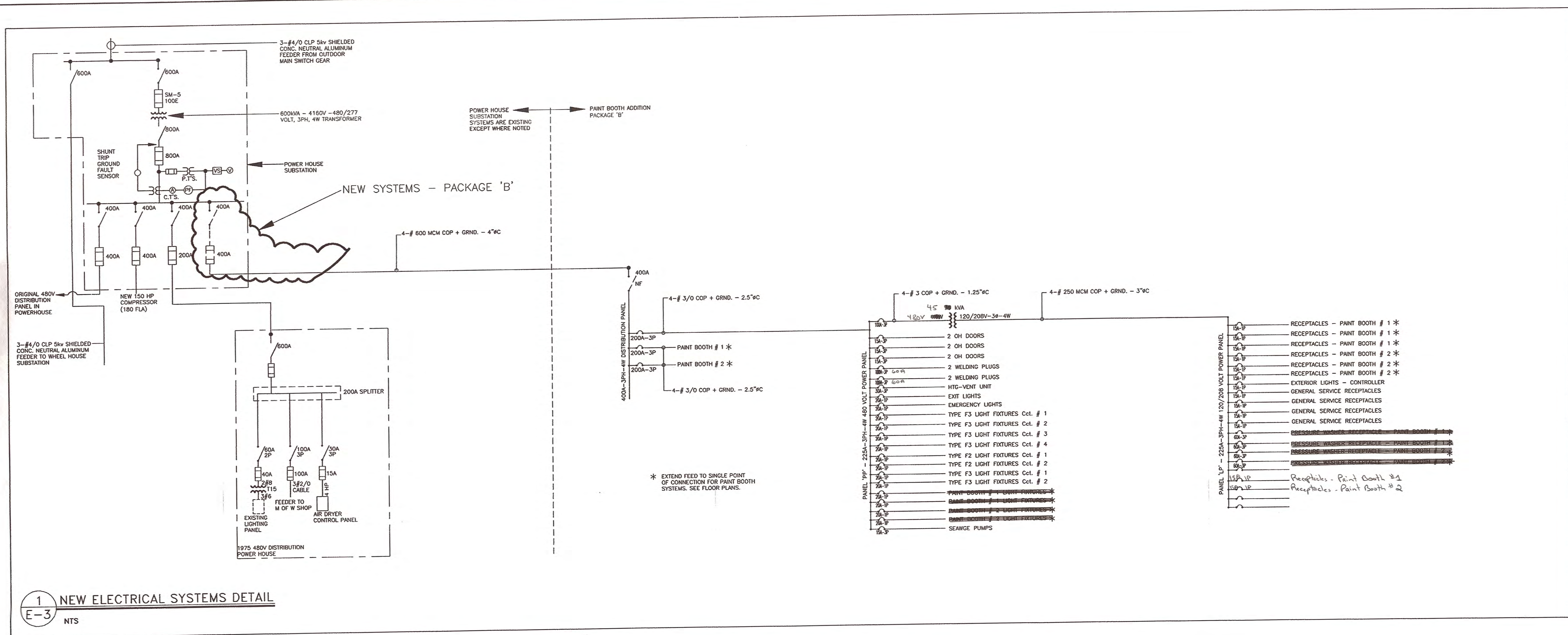
NOTE:
WELDING OUTLETS (BY DIV.16) EQUAL TO CUTLER HAMMER FUSED SAFETY SWITCH WITH CROUSE HINDS MOUNTED RECEPTACLE - TYPE 12 ENCLOSURE 60 AMP, 480 VOLT FUSE CLIPS & FUSES FOR CROUSE HINDS # 4000000000.

EMERGENCY LIGHTING - EXIT SIGNAGE

- EXIT - INDUSTRIAL SELF POWERED EXIT & EMERGENCY LIGHT UNIT - WATER, DUST & OIL RESISTANT, REMAIN IN ENCLOSURE, EQUAL TO LUMACELL #R336-E01-WA/12-277V WITH TWO 8W QUARTZ HALOGEN SEALED BEAM LAMPS.
- EXIT - POWER FREE SELF LUMINOUS EXIT SIGN FOR HAZARDOUS AREAS WITH 12 YEAR LIFE EXPECTANCY, AECB APPROVED, EQUAL TO LUMACELL # LITE-1.
- EXIT - INDUSTRIAL SELF POWERED EMERGENCY LIGHT UNIT WITH 10 YEAR SEALED BATTERY, CDM60 12 RATED, WITH TWO - 50W QUARTZ HALOGEN SEALED BEAM LAMPS, EQUAL TO LUMACELL #R336-E01-WA/12-277V.

FLOOR PLAN NOTES

- 480V POWER FOR 1.5 HP OVER HEAD DOOR MOTORS. EXTEND 480V FROM PANEL PP-1, Ckt. 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130, 132, 134, 136, 138, 140, 142, 144, 146, 148, 150, 152, 154, 156, 158, 160, 162, 164, 166, 168, 170, 172, 174, 176, 178, 180, 182, 184, 186, 188, 190, 192, 194, 196, 198, 200, 202, 204, 206, 208, 210, 212, 214, 216, 218, 220, 222, 224, 226, 228, 230, 232, 234, 236, 238, 240, 242, 244, 246, 248, 250, 252, 254, 256, 258, 260, 262, 264, 266, 268, 270, 272, 274, 276, 278, 280, 282, 284, 286, 288, 290, 292, 294, 296, 298, 300, 302, 304, 306, 308, 310, 312, 314, 316, 318, 320, 322, 324, 326, 328, 330, 332, 334, 336, 338, 340, 342, 344, 346, 348, 350, 352, 354, 356, 358, 360, 362, 364, 366, 368, 370, 372, 374, 376, 378, 380, 382, 384, 386, 388, 390, 392, 394, 396, 398, 400, 402, 404, 406, 408, 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- FIRE ALARM NOTES:**
1. INSTALL SYSTEM IN ACCORDANCE WITH CAN/ULC-S525-M.
 2. VERIFY SYSTEM IN ACCORDANCE WITH CAN/ULC-S537-M.
 3. VERIFY CORRECT QUANTITIES OF ALL FIRE ALARM DEVICES WITH FLOOR PLANS. RISER DIAGRAM IS ONLY INDICATIVE OF DETECTION DEVICES FOR EACH ZONE AND DOES NOT NECESSARILY SHOW CORRECT QUANTITIES.
 4. WIRE AND CONNECT ALL FIRE ALARM DEVICES AS PER FLOOR PLANS TO RESPECTIVE FIRE ALARM ZONE AS INDICATED BY RISER DIAGRAM.
 5. WIRE CIRCUITS TO ALL BELLS WITH ADJACENT BELLS ON SEPARATE CIRCUITS.
 6. FIRE ALARM CONTROL PANEL AND ANNUNCIATORS ARE TO BE AS INDICATED ON FLOOR PLANS.
 7. ALIGN FIRE ALARM DEVICES VERTICALLY WITH OTHER ELECTRICAL DEVICES WHENEVER POSSIBLE.
 8. WIRING PER CANADIAN ELECTRICAL CODE SECTION 32 FOR ALL SYSTEMS.
 9. FIRE ALARM SYSTEM DEVICES IN DESIGNATED AREAS TO BE SUITABLE FOR CLASS 1 DIV. 1 HAZARDOUS AREAS AND ALL WIRING SYSTEMS TO BE INSTALLED IN THESE AREAS TO MEET THE REQUIREMENTS OF THE ELECTRICAL SAFETY CODE.





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