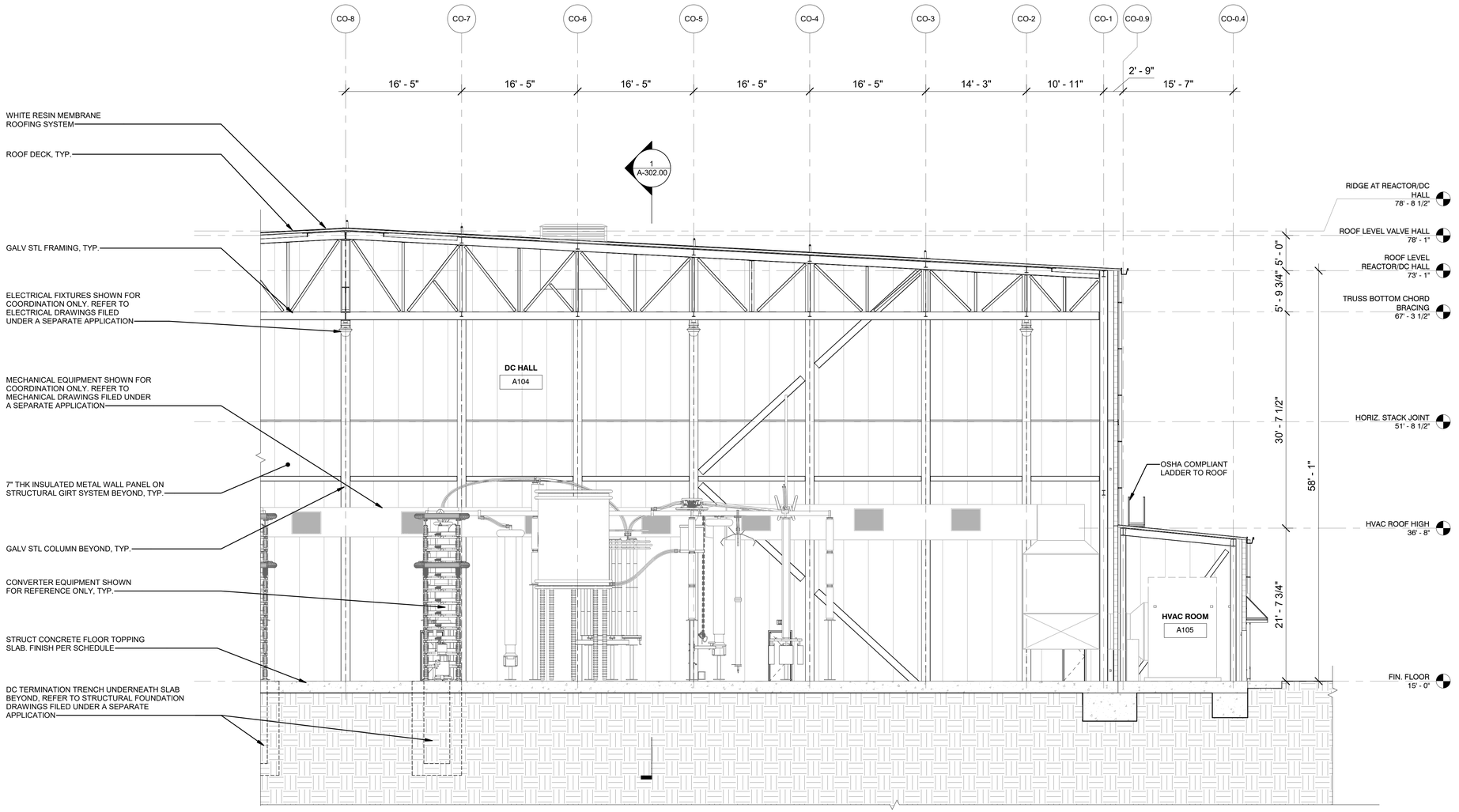


1 / A-301.00 ENLARGED SECTION DC HALL 4
1/8" = 1'-0"

12/12/2022 1:06:45 PM

ISSUED FOR PERMIT

Engineering and Land Surveying, P.C.
370 7th Avenue
SUITE 1604
New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE+ENGINEERING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
B	FINAL SUBMISSION	RAC	ZH	12/12/2022
A	INTERIM SUBMISSION	RAC	ZH	09/13/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

PROJECT

CHPE
Champlain Hudson Power Express

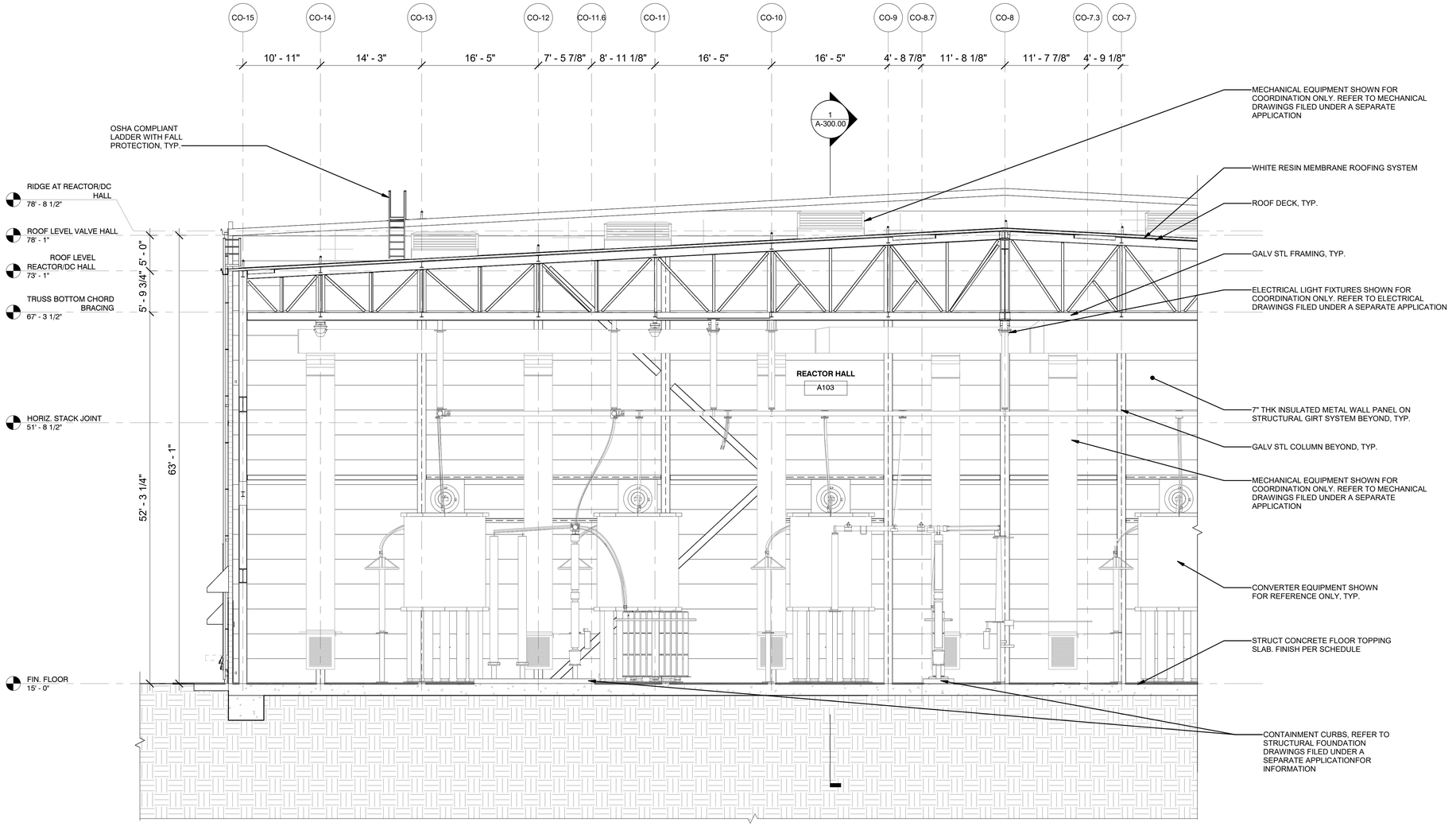
Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

CONVERTER BLDG. ENLARGED SECTION DC HALL

REGISTERED ARCHITECT SUZANNE SOWINSKI SULLIVAN STATE OF NEW YORK 026049

DATE	12/12/22
PROJECT NO	105121
DRAWING BY	Author
CHECKED BY	Designer
DRAWING NO	A-310.00
CADD FILE NO	Autodesk Docs://CHPE Astoria/CHA-KIE-111-ZZ-M3-A-001.rvt



1 / A-301.00 ENLARGED SECTION - REACTOR HALL
1/8" = 1'-0"

1' 0 4' 8' 16'

12/8/2022 11:18:31 AM

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Engineering and Land Surveying, P.C.
370 7th Avenue
SUITE 1604
New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE+ENGINEERING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
0	FINAL SUBMISSION	RAC	ZH	12/12/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

PROJECT

CHPE
Champlain Hudson Power Express

Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

CONVERTER BLDG. ENLARGED SECTION REACTOR HALL

REGISTERED ARCHITECT SUZANNE SOWINSKI SULLIVAN 026049 STATE OF NEW YORK

DATE	12/12/22
PROJECT NO	105121
DRAWING BY	Author
CHECKED BY	Designer
DRAWING NO	A-311.00
CADD FILE NO	Autodesk Docs://CHPE Astoria/CHA-K0E-111-ZZ-M3-A-001.rvt

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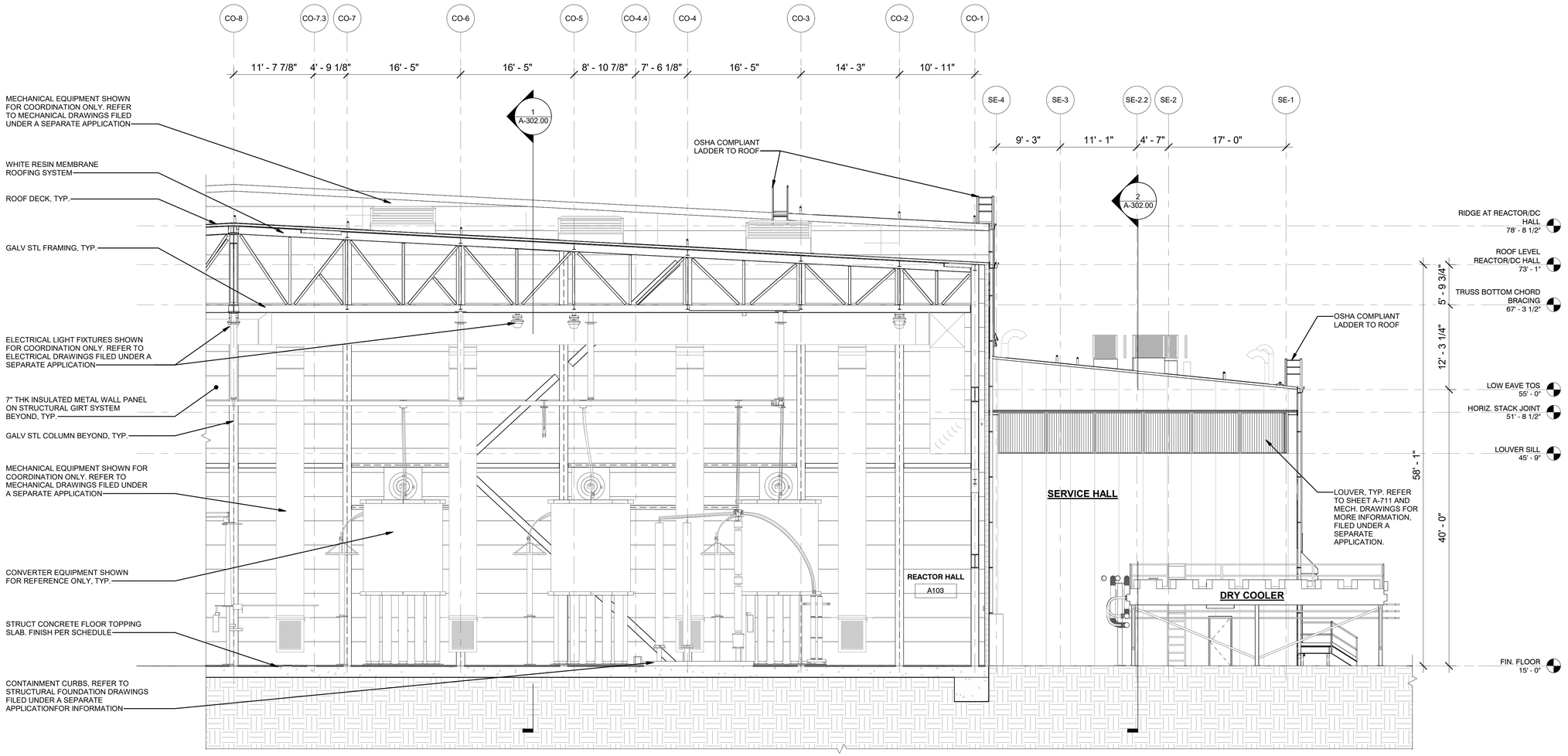

1 / A-301.00 ENLARGED SECTION - REACTOR HALL 2
1/8" = 1'-0"

1' 0 4' 8' 16'

12/8/2022 2:43:29 PM

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New York, NY 10001

SOWINSKI SULLIVAN
ARCHITECTURE & PC NEERING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
0	FINAL SUBMISSION	RAC	ZH	12/12/2022

Kiewit
470 Chestnut Ridge Rd # 2,
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Raleigh, North Carolina 27606

PROJECT

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Champlain Hudson Power Express

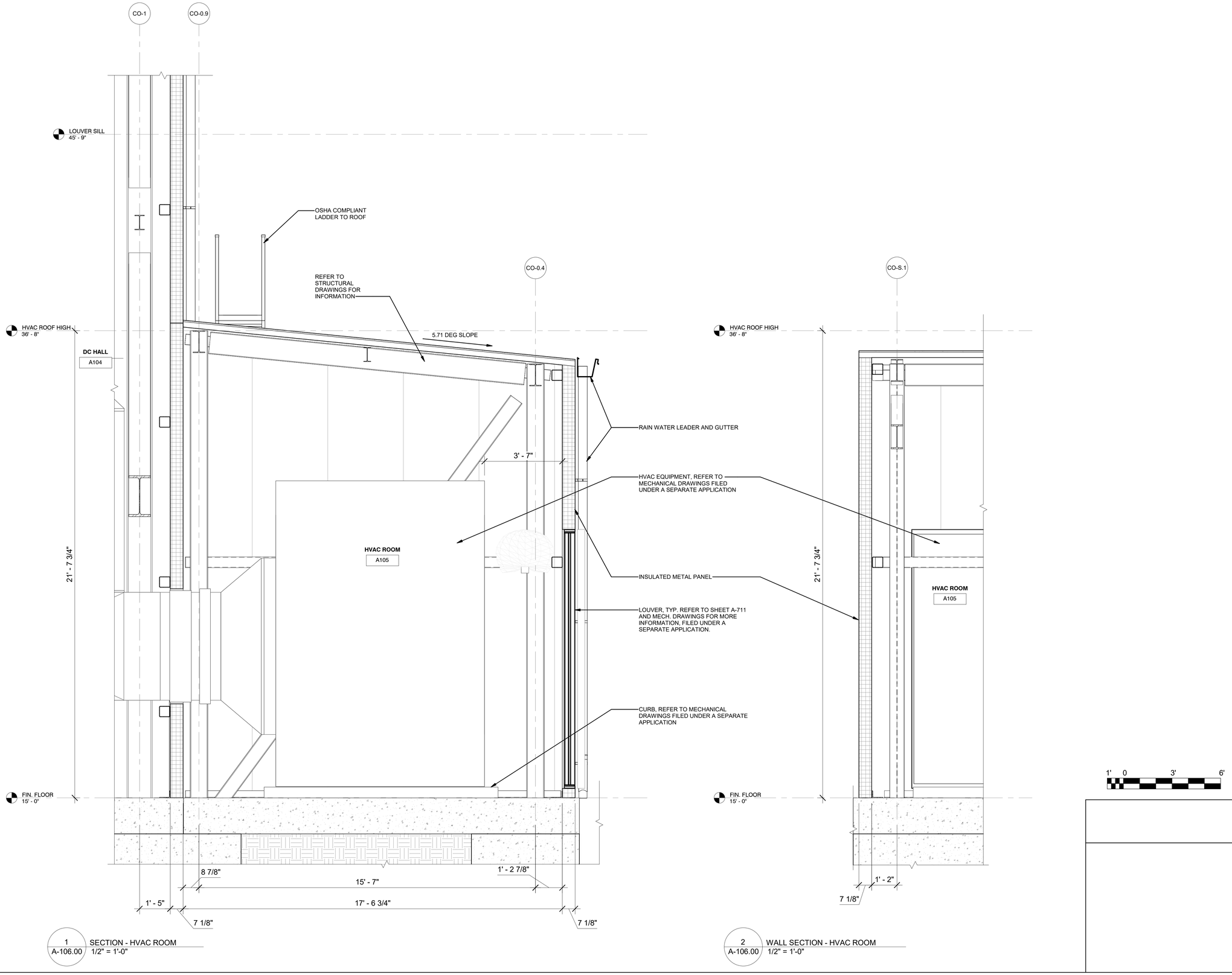
Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

CONVERTER BLDG. ENLARGED SECTION REACTOR HALL 2

REGISTERED ARCHITECT SUZANNE SOWINSKI SULLIVAN STATE OF NEW YORK 026049

DATE	12/12/22
PROJECT NO	105121
DRAWING BY	Author
CHECKED BY	Designer
DRAWING NO	A-312.00
CADD FILE N0	Autodesk Docs://CHPE Astoria/CHA-KIE-111-ZZ-M3-A-001.rvt

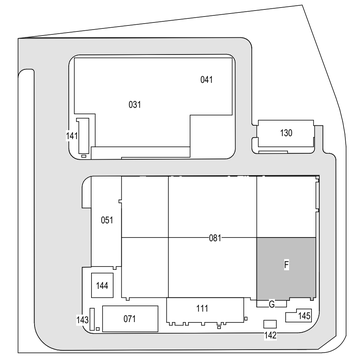


1 A-106.00 SECTION - HVAC ROOM 1/2" = 1'-0"

2 A-106.00 WALL SECTION - HVAC ROOM 1/2" = 1'-0"

12/8/2022 11:20:11 AM

ISSUED FOR PERMIT



KEY PLAN
N.T.S.

PLAN NORTH

Engineering and Land Surveying, P.C.
370 7th Avenue
SUITE 1604
New York, NY 10001

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25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
0	FINAL SUBMISSION	RAC	ZH	12/12/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

PROJECT

CHPE
Champlain Hudson Power Express

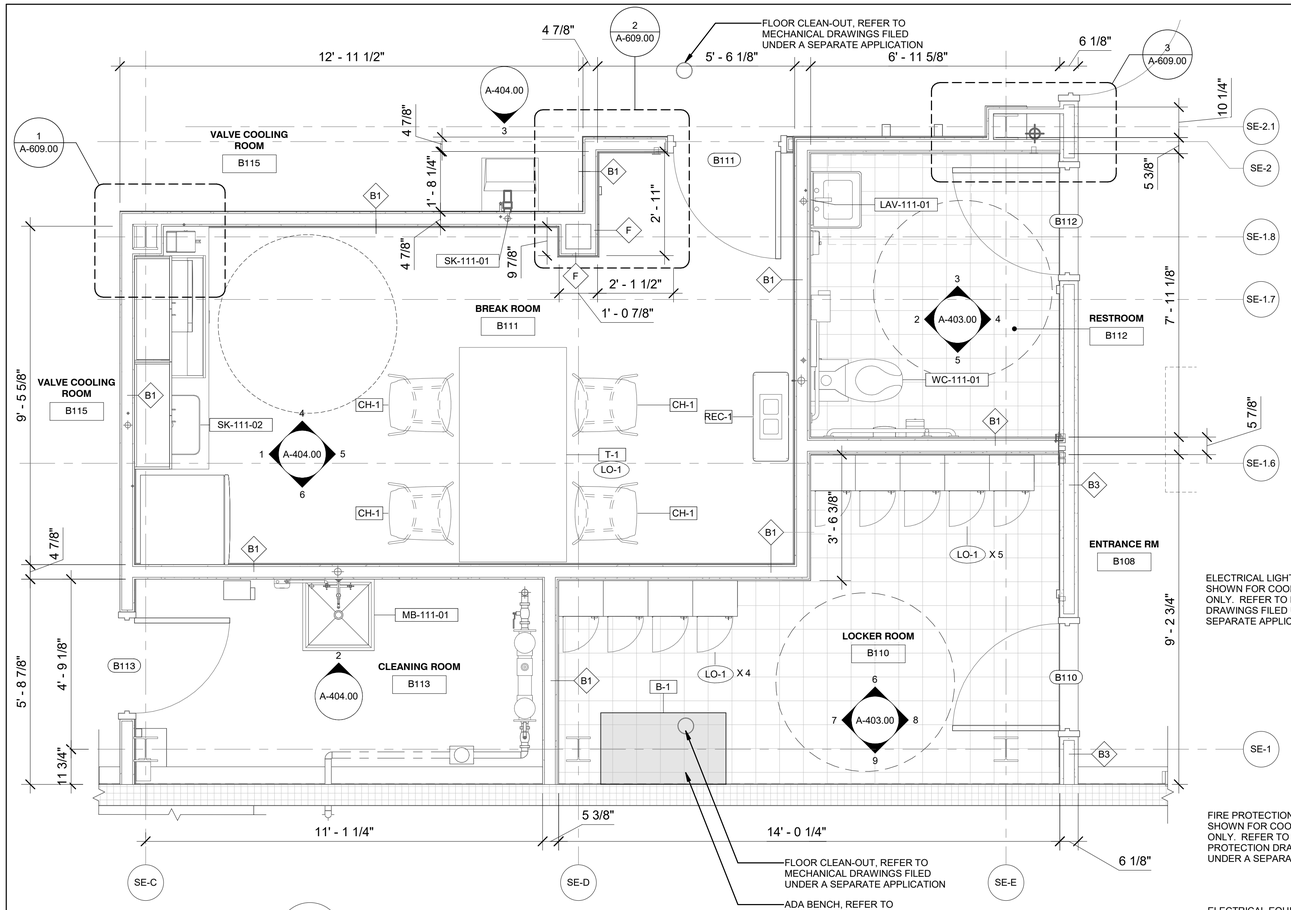
Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

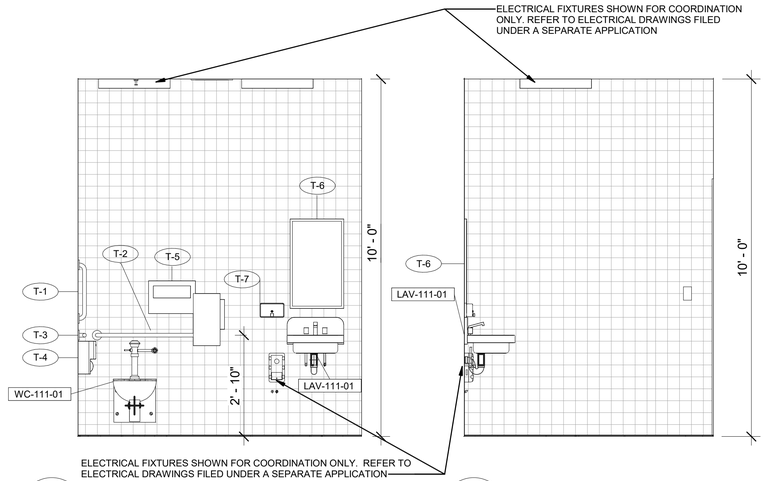
HVAC ROOM SECTIONS

REGISTERED ARCHITECT SUZANNE SOWINSKI SULLIVAN 026049 STATE OF NEW YORK

DATE	12/12/22
PROJECT NO	105121
DRAWING BY	Author
CHECKED BY	Designer
DRAWING NO	A-319.00
CADD FILE NO	Autodesk Docs://CHPE Astoria/CHA-K0E-111-ZZ-M3-A-001.rvt

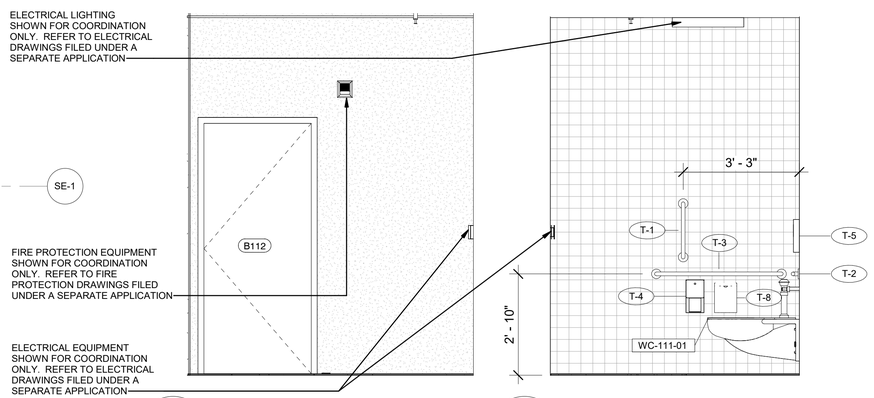


1 / A-109.00 SERVICE BLDG. FIRST FLOOR - RESTROOM & LOCKER RMS 1/2" = 1'-0"



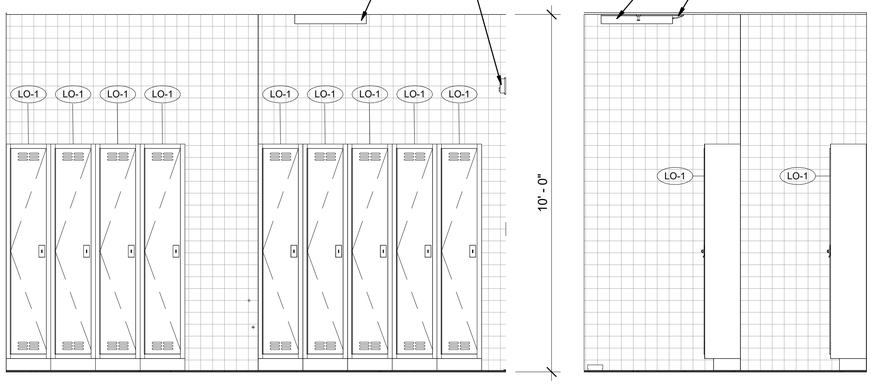
2 / A-403.00 ELECTRICAL FIXTURES SHOWN FOR COORDINATION ONLY. REFER TO ELECTRICAL DRAWINGS FILED UNDER A SEPARATE APPLICATION 1/2" = 1'-0"

3 / A-403.00 ELECTRICAL FIXTURES SHOWN FOR COORDINATION ONLY. REFER TO ELECTRICAL DRAWINGS FILED UNDER A SEPARATE APPLICATION 1/2" = 1'-0"



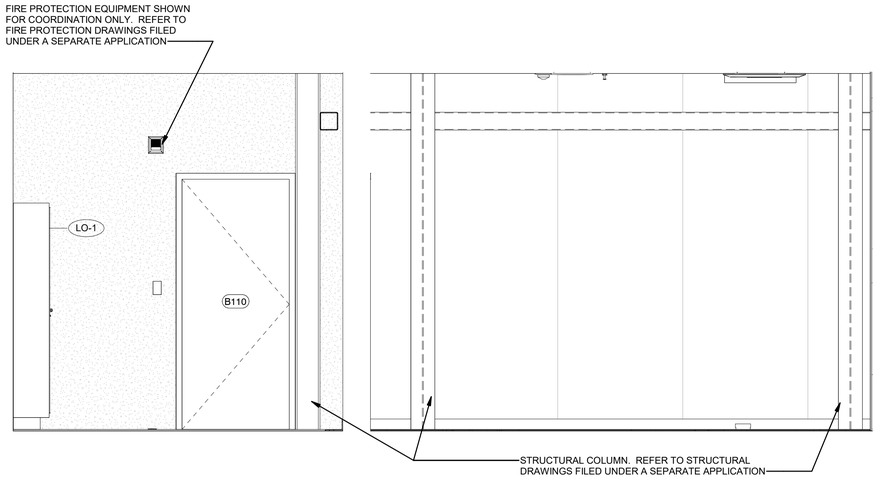
4 / A-403.00 ELECTRICAL LIGHTING SHOWN FOR COORDINATION ONLY. REFER TO ELECTRICAL DRAWINGS FILED UNDER A SEPARATE APPLICATION FIRE PROTECTION EQUIPMENT SHOWN FOR COORDINATION ONLY. REFER TO FIRE PROTECTION DRAWINGS FILED UNDER A SEPARATE APPLICATION ELECTRICAL EQUIPMENT SHOWN FOR COORDINATION ONLY. REFER TO ELECTRICAL DRAWINGS FILED UNDER A SEPARATE APPLICATION ELECTRICAL FIXTURES SHOWN FOR COORDINATION ONLY. REFER TO ELECTRICAL DRAWINGS FILED UNDER A SEPARATE APPLICATION 1/2" = 1'-0"

5 / A-403.00 ELECTRICAL FIXTURES SHOWN FOR COORDINATION ONLY. REFER TO ELECTRICAL DRAWINGS FILED UNDER A SEPARATE APPLICATION 1/2" = 1'-0"



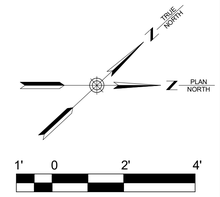
6 / A-403.00 ELECTRICAL FIXTURES SHOWN FOR COORDINATION ONLY. REFER TO ELECTRICAL DRAWINGS FILED UNDER A SEPARATE APPLICATION ELECTRICAL EQUIPMENT SHOWN FOR COORDINATION ONLY. REFER TO ELECTRICAL DRAWINGS FILED UNDER A SEPARATE APPLICATION 1/2" = 1'-0"

7 / A-403.00 ELECTRICAL LIGHTING SHOWN FOR COORDINATION ONLY. REFER TO ELECTRICAL DRAWINGS FILED UNDER A SEPARATE APPLICATION MECHANCIAL EQUIPMENT SHOWN FOR COORDINATION ONLY. REFER TO MECHANICAL DRAWINGS FILED UNDER A SEPARATE APPLICATION 1/2" = 1'-0"



8 / A-403.00 FIRE PROTECTION EQUIPMENT SHOWN FOR COORDINATION ONLY. REFER TO FIRE PROTECTION DRAWINGS FILED UNDER A SEPARATE APPLICATION STRUCTURAL COLUMN. REFER TO STRUCTURAL DRAWINGS FILED UNDER A SEPARATE APPLICATION 1/2" = 1'-0"

9 / A-403.00 ELEVATION - LOCKER ROOM 1 1/2" = 1'-0"



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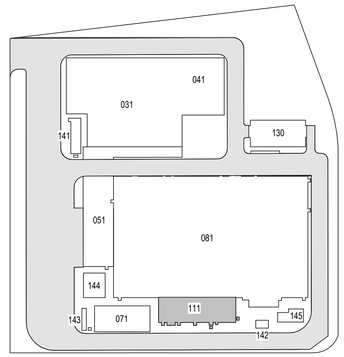


Engineering and Land Surveying, P.C.
370 7th Avenue
SUITE 1604
New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE+ENGINEERING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
0	FINAL SUBMISSION	RAC	ZH	12/12/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

PROJECT

CHPE
Champlain Hudson Power Express

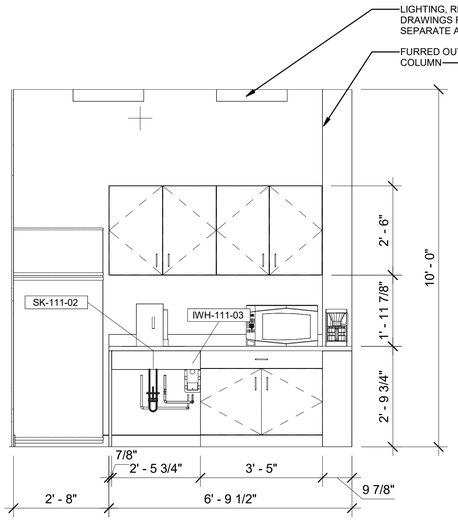
Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

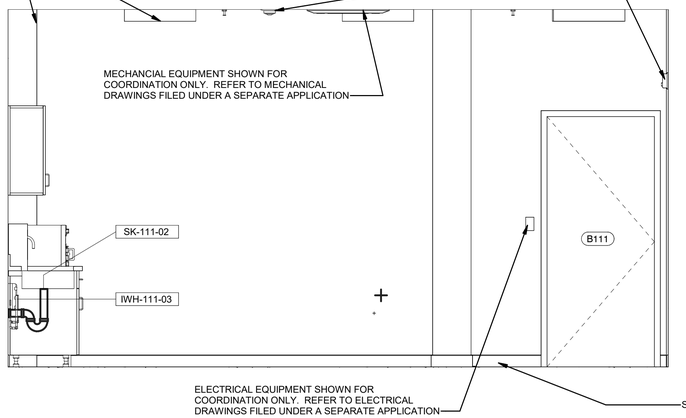
ENLARGED TOILET ROOM PLANS AND ELEVATIONS

DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR
DRAWING NO	A-403.00
CADD FILE N0	Autodesk Docs://CHPE Astoria/CHA-ASE-111-ZZ-M3-A-001.rvt

12/8/2022 11:20:43 AM

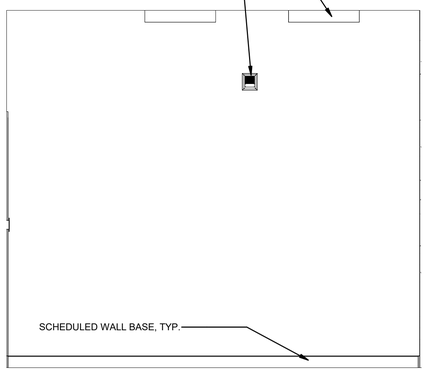


1 A-403.00 ELEVATION - BREAK ROOM 1/2" = 1'-0"

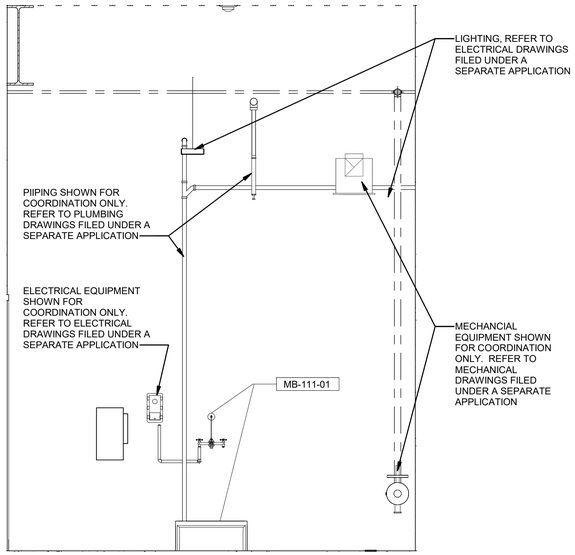


4 A-403.00 ELEVATION - BREAK ROOM 2 1/2" = 1'-0"

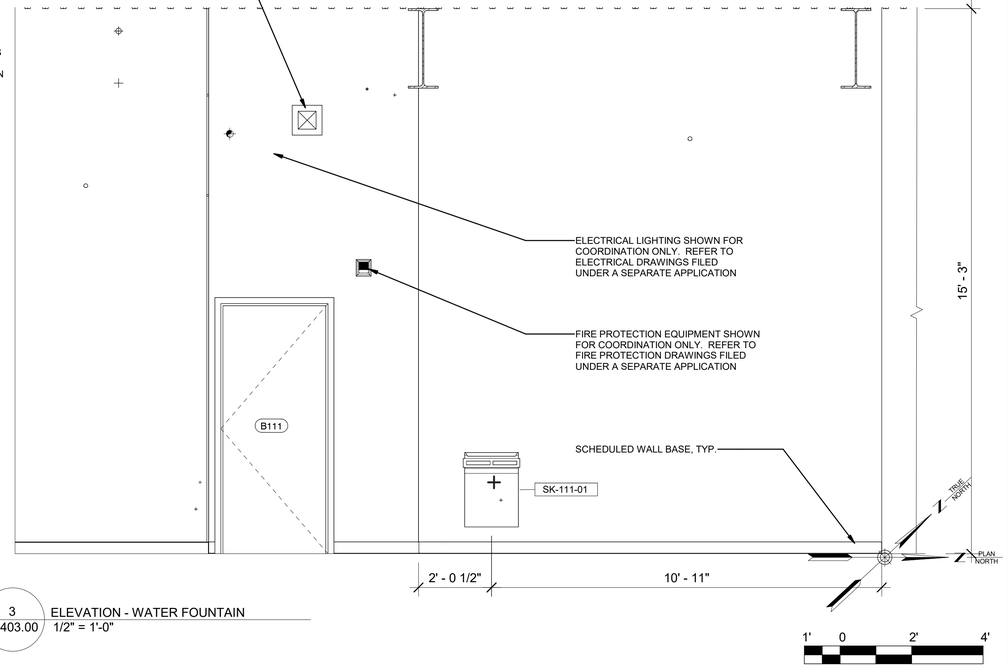
6 A-403.00 ELEVATION - BREAK ROOM 3 1/2" = 1'-0"



5 A-403.00 ELEVATION - BREAK ROOM 4 1/2" = 1'-0"



2 A-403.00 ELEVATION - CLEANING ROOM 1/2" = 1'-0"



3 A-403.00 ELEVATION - WATER FOUNTAIN 1/2" = 1'-0"

TOILET ACCESSORIES SCHEDULE				
TAG	DESCRIPTION	HEIGHT	WIDTH	SPECIFICATIONS
LO-1	LOCKERS	6' - 0"	1' - 3"	105100
T-1	18" LONG GRAB BAR			102800
T-2	36" GRAB BAR			102800
T-3	42" LONG GRAB BAR			102800
T-4	TOILET TISSUE DISPENSER	0' - 11"	0' - 6"	102800
T-5	SEAT COVER DISPENSER	0' - 11"	1' - 4"	102800
T-6	TEMPERED GLASS MIRROR	2' - 6"	1' - 6"	102800
T-7	SOAP DISPENSER	0' - 5"	0' - 8"	102800
T-8	SANITARY NAPKIN DISPOSAL	0' - 10"	0' - 7 1/2"	102800

PLUMBING TAG SCHEDULE - SEE PLUMBING DRAWINGS	
PLUMBING TAG	DESCRIPTION
EEW-111-01	EYEWASH, SEE SPECIFICATIONS
LAV-111-01	LAVATORY, SEE PLUMBING DWGS. & SPECS
MB-111-01	MOP SERVICE BASIN, SEE PLUMBING DWGS. & SPECS
SK-111-01	WATER FOUNTAIN, BARRIER FREE, SEE PLUMBING DWGS. & SPECS
SK-111-02	UNDERMOUNT SINK, SEE PLUMBING DRAWINS & SPECS
WC-111-01	WATER CLOSET, SEE PLUMBING DWGS. & SPECS

12/8/2022 11:21:06 AM

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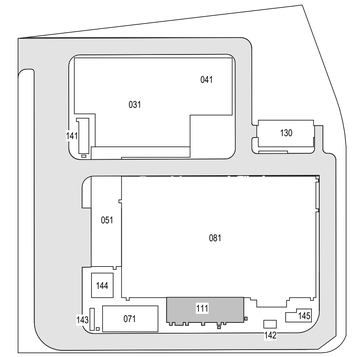


KEY PLAN N.T.S.

PLAN NORTH

K Engineering and Land Surveying, P.C.
370 7th Avenue
SUITE 1604
New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE+ENGINEERING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
0	FINAL SUBMISSION	RAC	ZH	12/12/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

PROJECT

CHPE Champlain Hudson Power Express

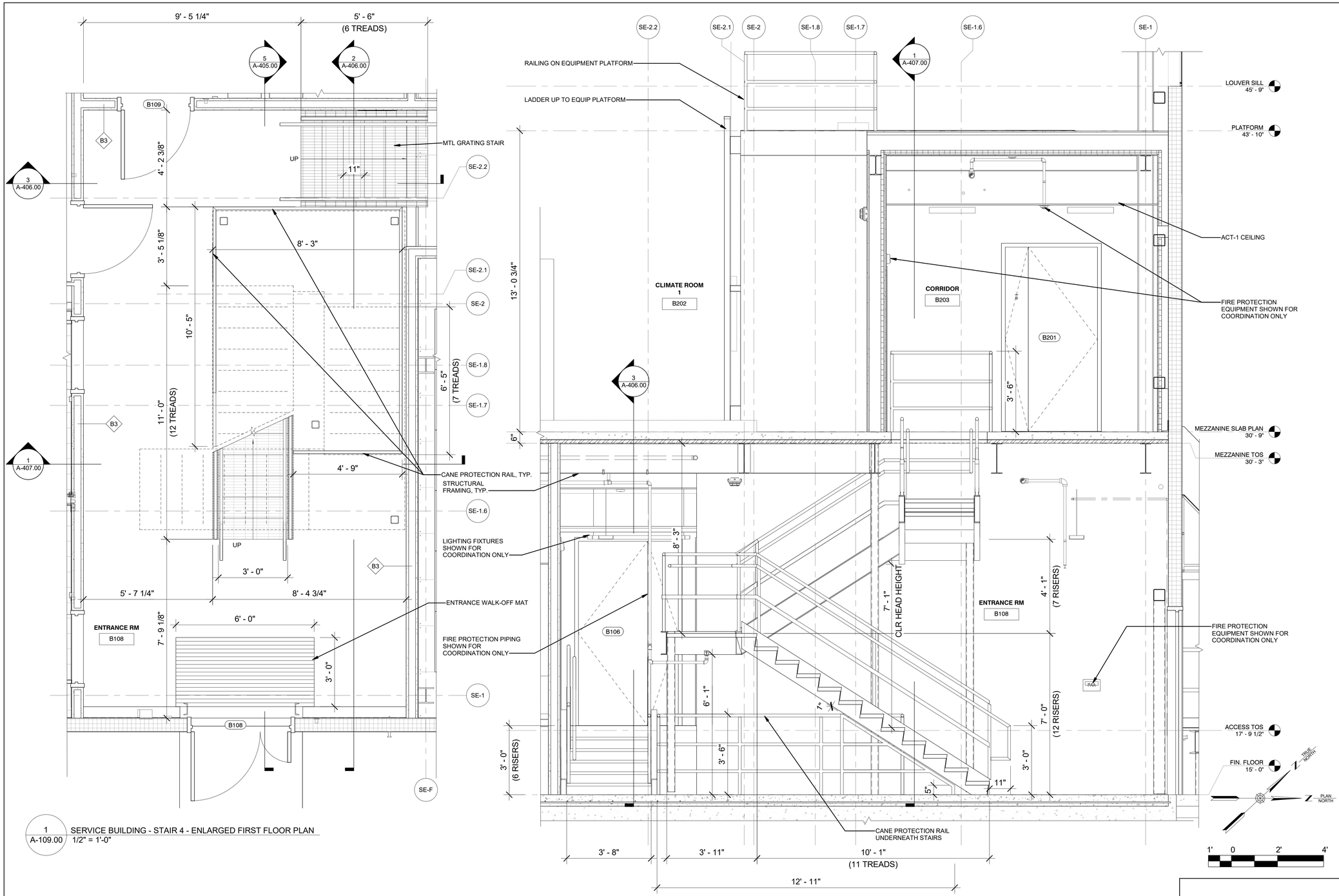
Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

ENLARGED TOILET ROOM PLANS AND ELEVATIONS

REGISTERED ARCHITECT SUZANNE SOWINSKI SULLIVAN 026049 STATE OF NEW YORK

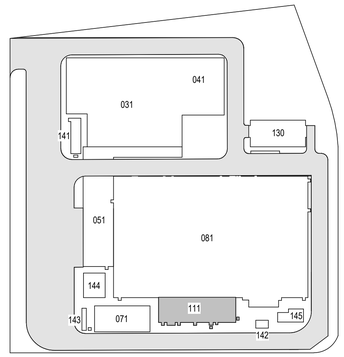
DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR
DRAWING NO	A-404.00
CADD FILE N0	Autodesk Docs://CHPE Astoria/CHA-K0E-111-ZZ-M3-A-001.rvt



1 / A-109.00 SERVICE BUILDING - STAIR 4 - ENLARGED FIRST FLOOR PLAN
1/2" = 1'-0"

5 / A-405.00 SERVICE BUILDING - STAIR 4- ENLARGED SECTION 1
1/2" = 1'-0"

ISSUED FOR PERMIT



KEY PLAN
N.T.S.

PLAN NORTH

Engineering and Land Surveying, P.C.
370 7th Avenue
SUITE 1604
New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE+ENGINEERING
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PROJECT

CHPE
Champlain Hudson Power Express

Astoria HVDC Converter Station

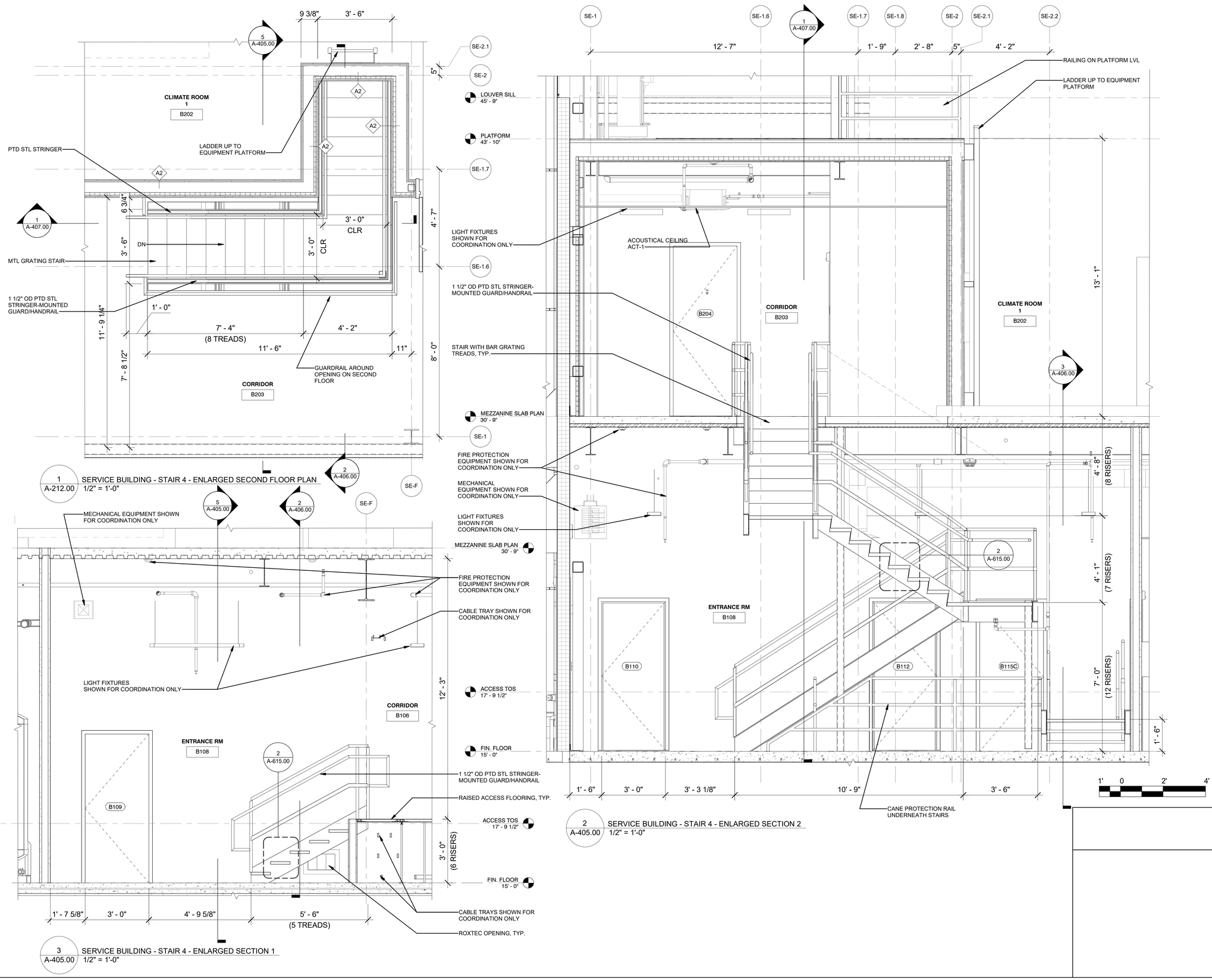
31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

ENLARGED STAIR PLANS AND SECTIONS 1

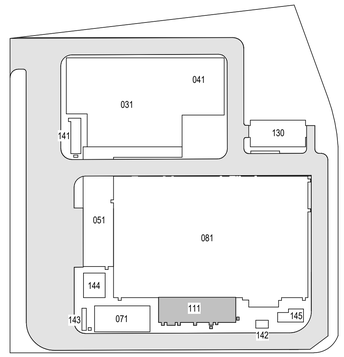
REGISTERED ARCHITECT
ALEXANDRE SOWINSKI SULLIVAN
026049
STATE OF NEW YORK

DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR
DRAWING NO	A-405.00
CADD FILE N0	Autodesk Docs://CHPE Astoria/CHA-KIE-111-ZZ-M3-A-001.rvt

12/8/2022 11:21:15 AM



ISSUED FOR PERMIT



K Engineering and Land Surveying, P.C.
370 7th Avenue
SUITE 1604
New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE+ENGINEERING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
0	FINAL SUBMISSION	RAC	ZH	12/12/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

PROJECT

CHPE
Champlain Hudson Power Express

Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

ENLARGED STAIR PLANS AND SECTIONS 2

REGISTERED ARCHITECT ALEXANDRE SOWINSKI SULLIVAN 026049 STATE OF NEW YORK

DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR
DRAWING NO	A-406.00
CADD FILE N0	Autodesk Docs://CHPE Astoria/CHA-KIE-111-ZZ-M3-A-001.rvt

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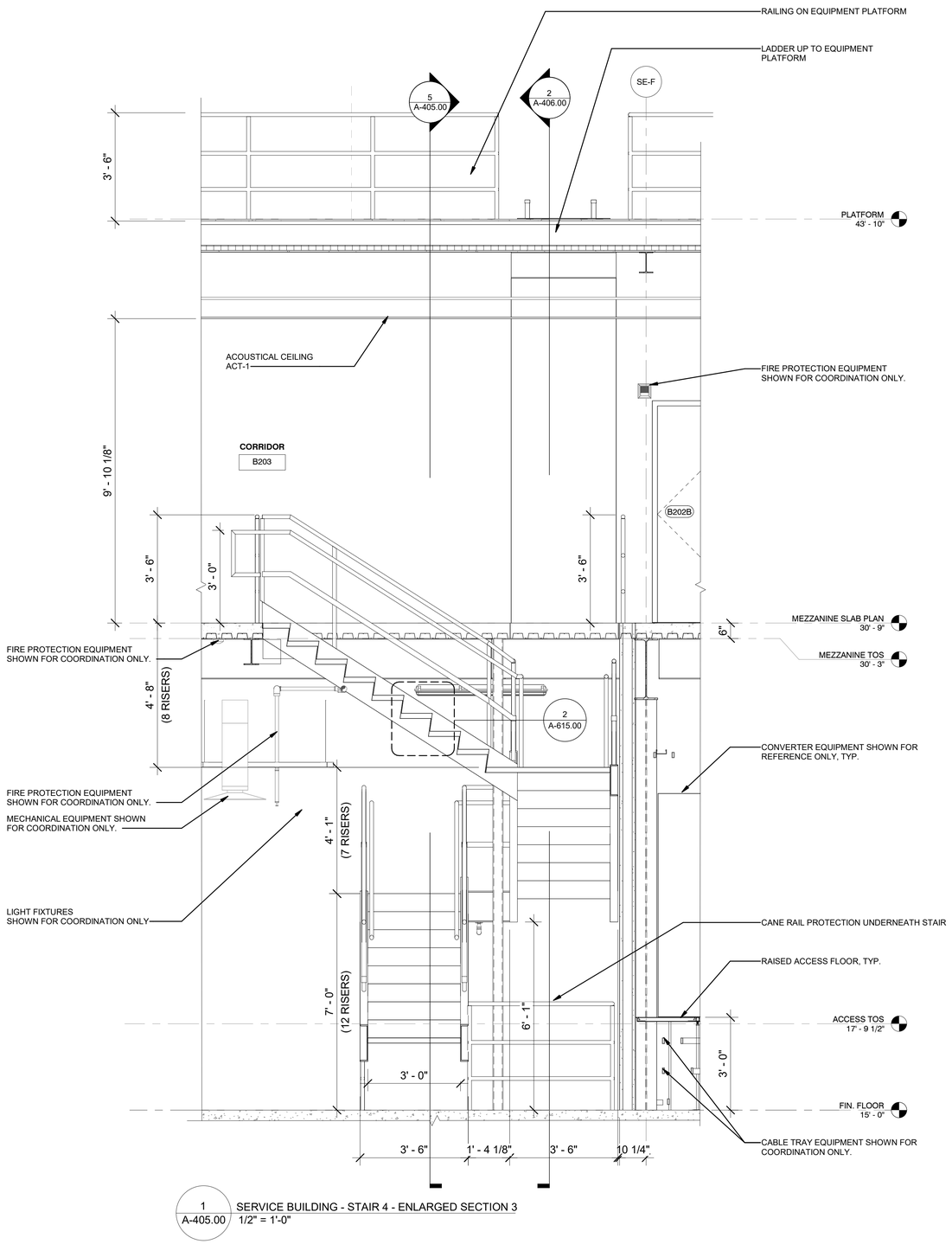
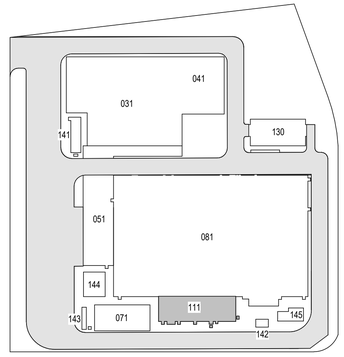


1
A-405.00 SERVICE BUILDING - STAIR 4 - ENLARGED SECTION 3
1/2" = 1'-0"

12/8/2022 11:21:37 AM

ISSUED FOR PERMIT



KEY PLAN
N.T.S.

PLAN NORTH

Engineering and Land Surveying, P.C.
370 7th Avenue
SUITE 1604
New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE+ENGINEERING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
0	FINAL SUBMISSION	RAC	ZH	12/12/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

TRUE NORTH

PLAN NORTH

1' 0 3' 6'

PROJECT

CHPE
Champlain Hudson Power Express

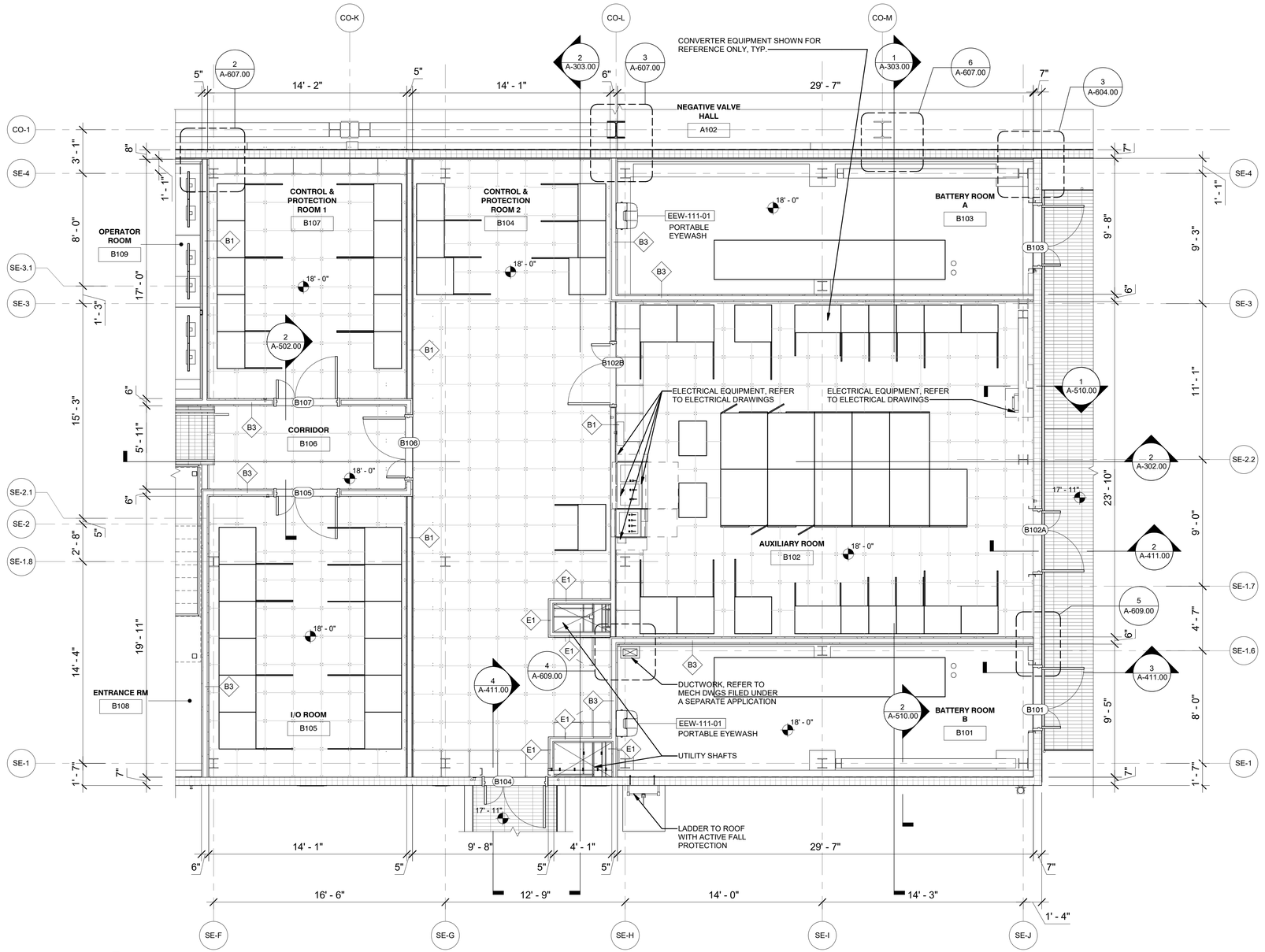
Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

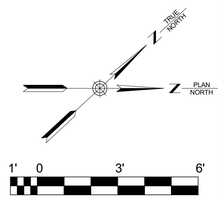
ENLARGED STAIR PLANS AND SECTIONS 3

REGISTERED ARCHITECT
SUZANNE SOWINSKI SULLIVAN
026045
STATE OF NEW YORK

DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR
DRAWING NO	A-407.00
CADD FILE N0	Autodesk Docs://CHPE Astoria/CHA-XXE-111-ZZ-M3-A-001.rvt



1 / A-109.00 SERVICE BLDG. - RAISED ACCESS ENLARGED FLOOR PLAN
1/4" = 1'-0"



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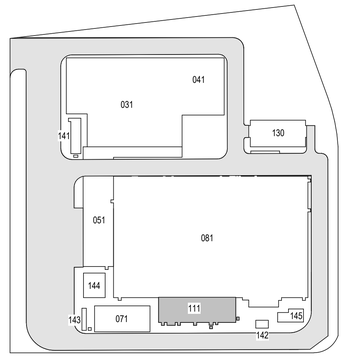


KEY PLAN
N.T.S.

Engineering and Land Surveying, P.C.
370 7th Avenue
SUITE 1604
New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE+ENGINEERING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
0	FINAL SUBMISSION	RAC	ZH	12/12/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

PROJECT

CHPE
Champlain Hudson Power Express

Astoria HVDC Converter Station

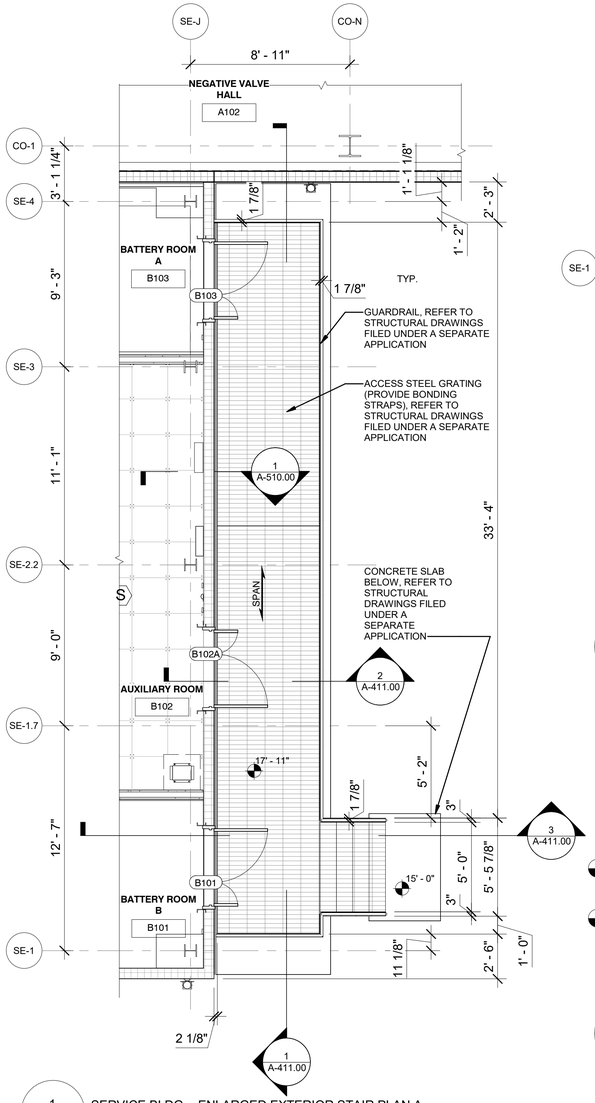
31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

ENLARGED ACCESS FLOOR PLANS

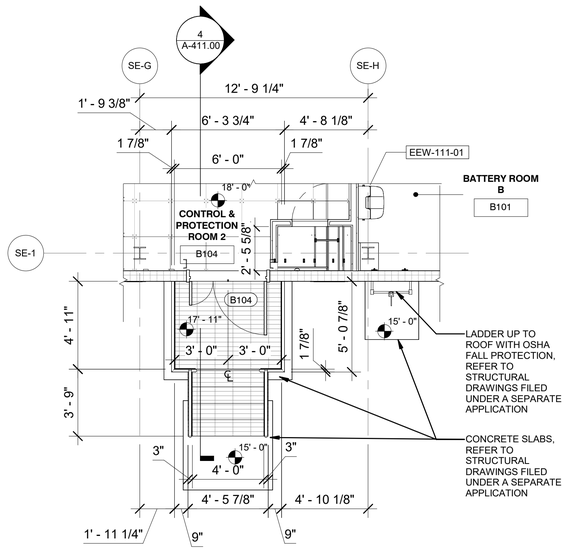
REGISTERED ARCHITECT ALEXANDRE SOWINSKI-SULLIVAN 026049 STATE OF NEW YORK

DATE	12/12/22
PROJECT NO	105121
DRAWING BY	Author
CHECKED BY	Designer
DRAWING NO	A-409.00
CADD FILE N0	Autodesk Docs://CHPE Astoria/CHA-ASE-111-ZZ-M3-A-001.rvt

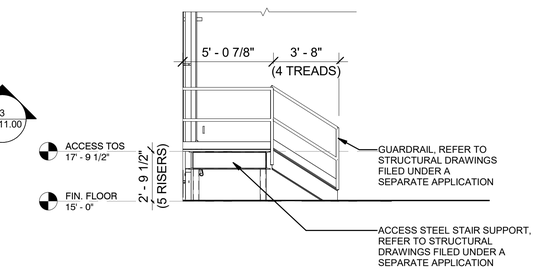
12/8/2022 11:21:46 AM



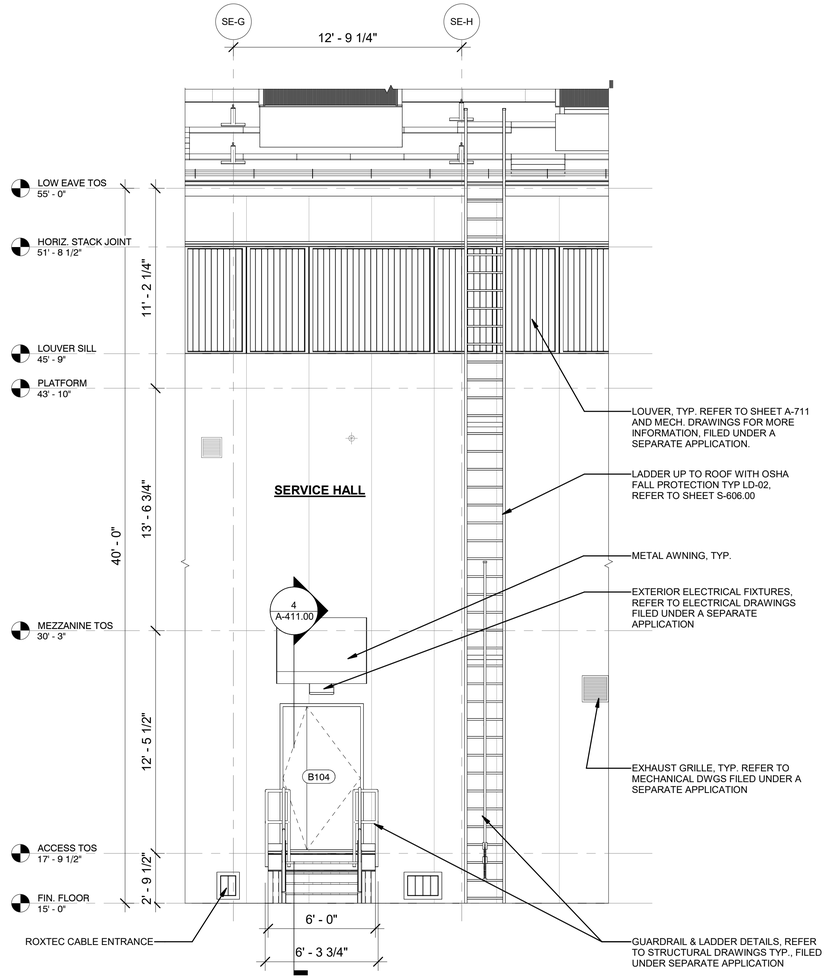
1 A-109.00 SERVICE BLDG. - ENLARGED EXTERIOR STAIR PLAN A
1/4" = 1'-0"



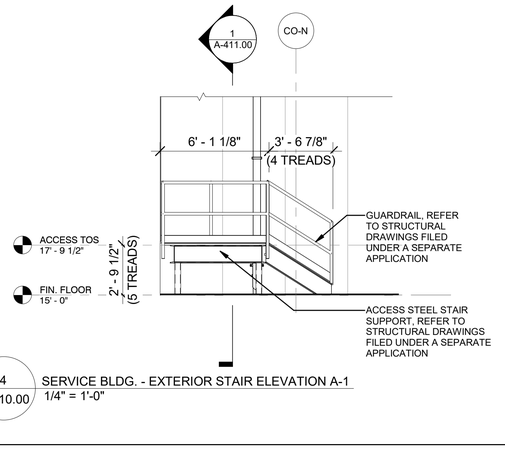
3 A-109.00 SERVICE BLDG. - ENLARGED EXTERIOR STAIR PLAN B
1/4" = 1'-0"



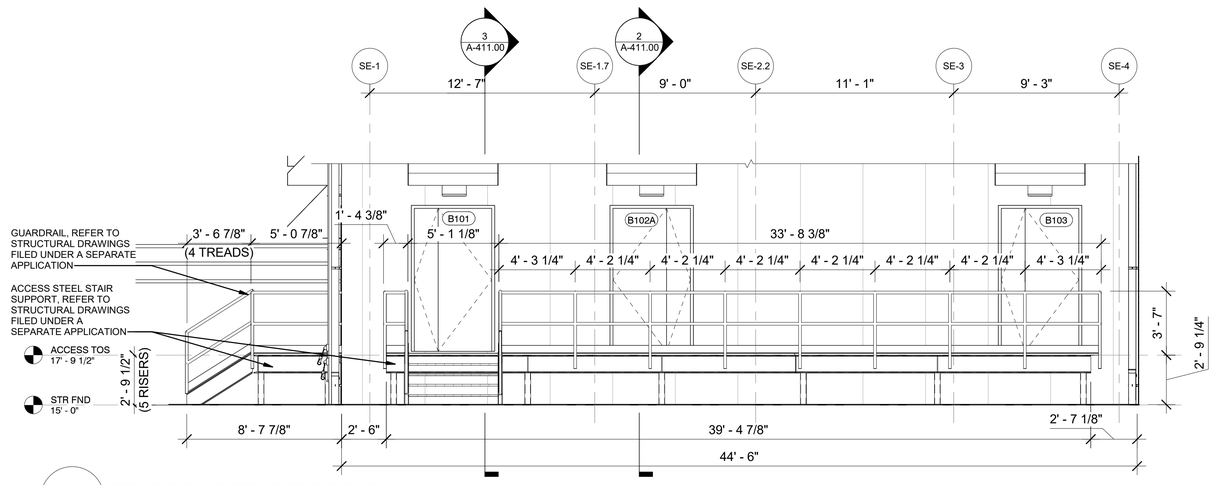
5 A-410.00 SERVICE BLDG. - EXTERIOR STAIR ELEVATION B-1
1/4" = 1'-0"



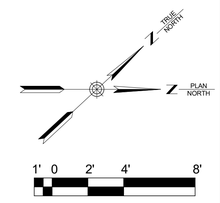
6 A-410.00 SERVICE BLDG. - EXTERIOR STAIR ELEVATION B-2
1/4" = 1'-0"



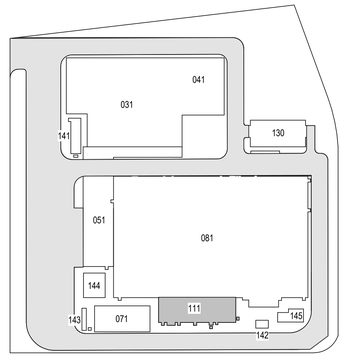
4 A-410.00 SERVICE BLDG. - EXTERIOR STAIR ELEVATION A-1
1/4" = 1'-0"



2 A-410.00 SERVICE BLDG. - EXTERIOR STAIR ELEVATION A-2
1/4" = 1'-0"



ISSUED FOR PERMIT



KEY PLAN
N.T.S.

PLAN NORTH

Engineering and Land Surveying, P.C.
370 7th Avenue
SUITE 1604
New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE+ENGINEERING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
B	FINAL SUBMISSION	RAC	ZH	12/12/2022
A	INTERIM SUBMISSION	RAC	ZH	09/13/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

PROJECT

CHPE
Champlain Hudson Power Express

Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

SERVICE BLDG. ENLARGED EXTERIOR STAIR PLANS

REGISTERED ARCHITECT ALEXANDRE SOWINSKI SULLIVAN 026049 STATE OF NEW YORK

DATE	12/12/22
PROJECT NO	105121
DRAWING BY	Author
CHECKED BY	Designer
DRAWING NO	A-410.00
CADD FILE N0	Autodesk Docs://CHPE Astoria/CHA-KE-111-ZZ-M3-A-001.rvt

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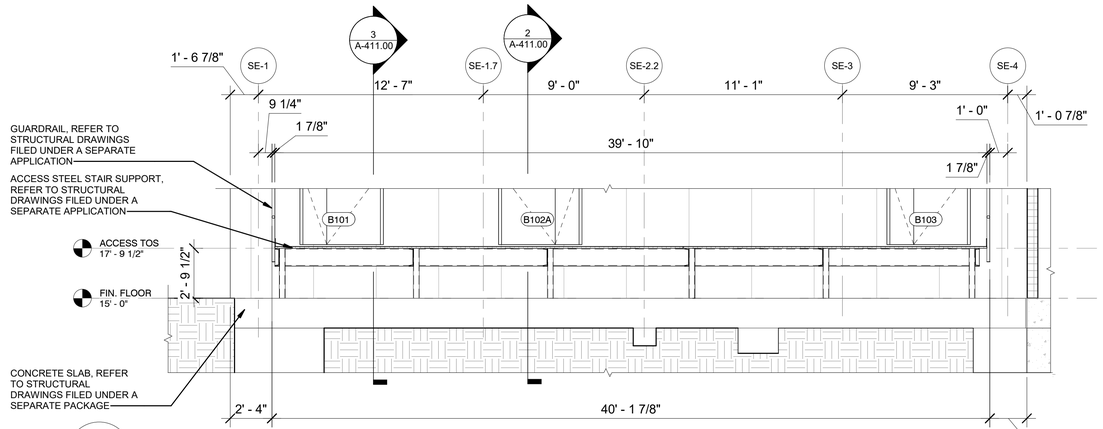
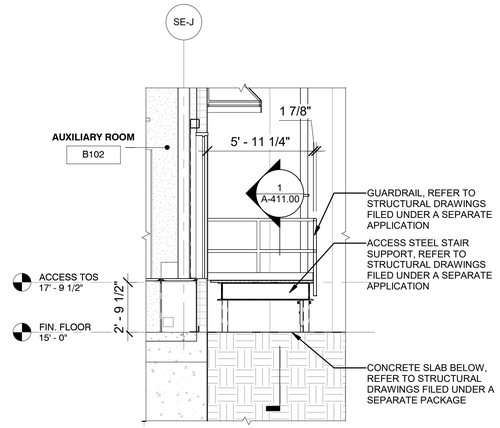


1 A-410.00 SERVICE BLDG. - EXTERIOR STAIR SECTION A-1
1/4" = 1'-0"



2 A-409.00 SERVICE BLDG. - EXTERIOR STAIR SECTION A-2
1/4" = 1'-0"

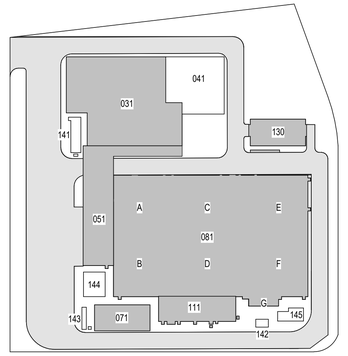
3 A-409.00 SERVICE BLDG. - EXTERIOR STAIR SECTION A-3
1/4" = 1'-0"

4 A-409.00 SERVICE BLDG. - EXTERIOR STAIR SECTION B-1
1/4" = 1'-0"

1' 0 3' 6'

12/8/2022 11:22:33 AM

ISSUED FOR PERMIT



KEY PLAN
N.T.S.

PLAN NORTH

Engineering and Land Surveying, P.C.
370 7th Avenue
SUITE 1604
New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE+ENGINEERING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
0	FINAL SUBMISSION	RAC	ZH	12/12/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

PROJECT

CHPE
Champlain Hudson Power Express

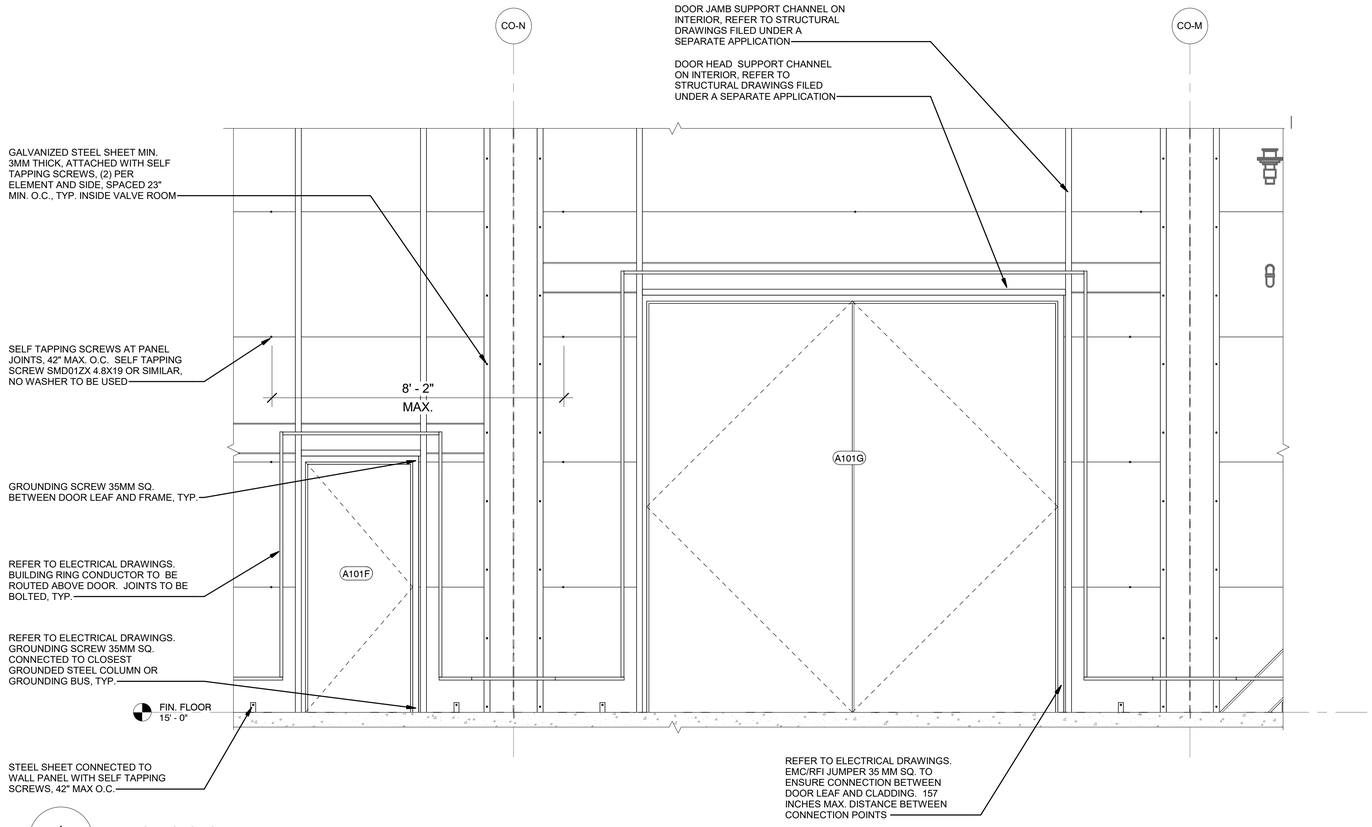
Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

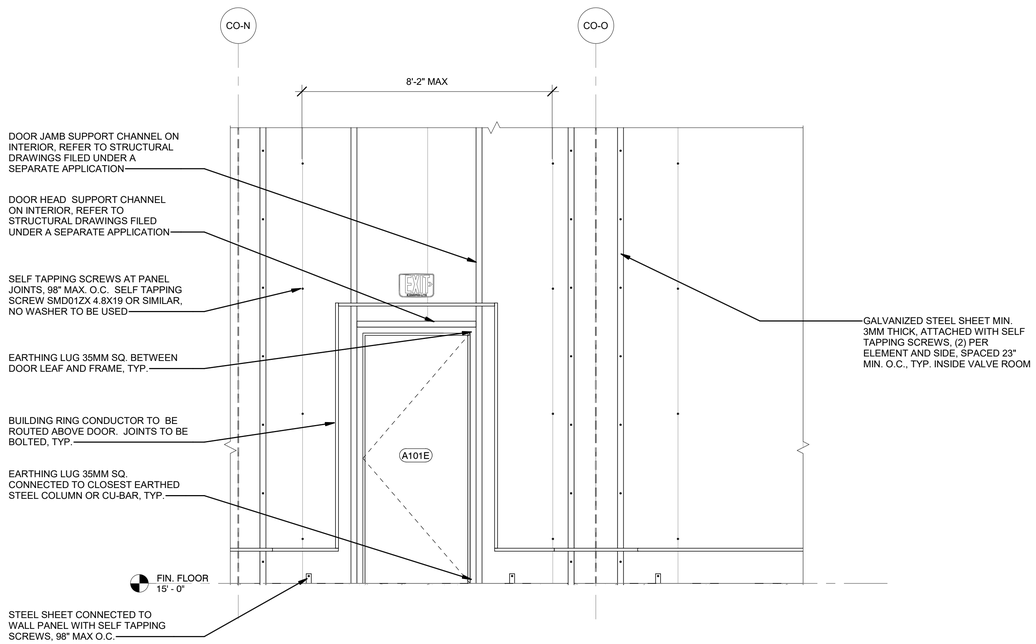
SERVICE BLDG. EXTERIOR STAIR SECTIONS

REGISTERED ARCHITECT
SUZANNE SOWINSKI SULLIVAN
026045
STATE OF NEW YORK

DATE	12/12/22
PROJECT NO	105121
DRAWING BY	Author
CHECKED BY	Designer
DRAWING NO	A-411.00
CADD FILE N0	Autodesk Docs://CHPE Astoria/CHA-ASE-111-ZZ-M3-A-001.rvt



1 / A-305.00 ENLARGED SECTION - VALVE HALL 1- DETAIL
1/2" = 1'-0"



2 / A-103.00 ENLARGED ELEVATION DETAIL - VALVE HALL 1
1/2" = 1'-0"

1' 0 3' 6'

12/8/2022 11:22:42 AM

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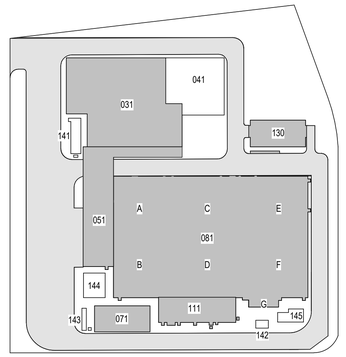


KEY PLAN
N.T.S.

PLAN NORTH

Engineering and Land Surveying, P.C.
370 7th Avenue
SUITE 1604
New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE+ENGINEERING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
0	FINAL SUBMISSION	RAC	ZH	12/12/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

PROJECT

CHPE
Champlain Hudson Power Express

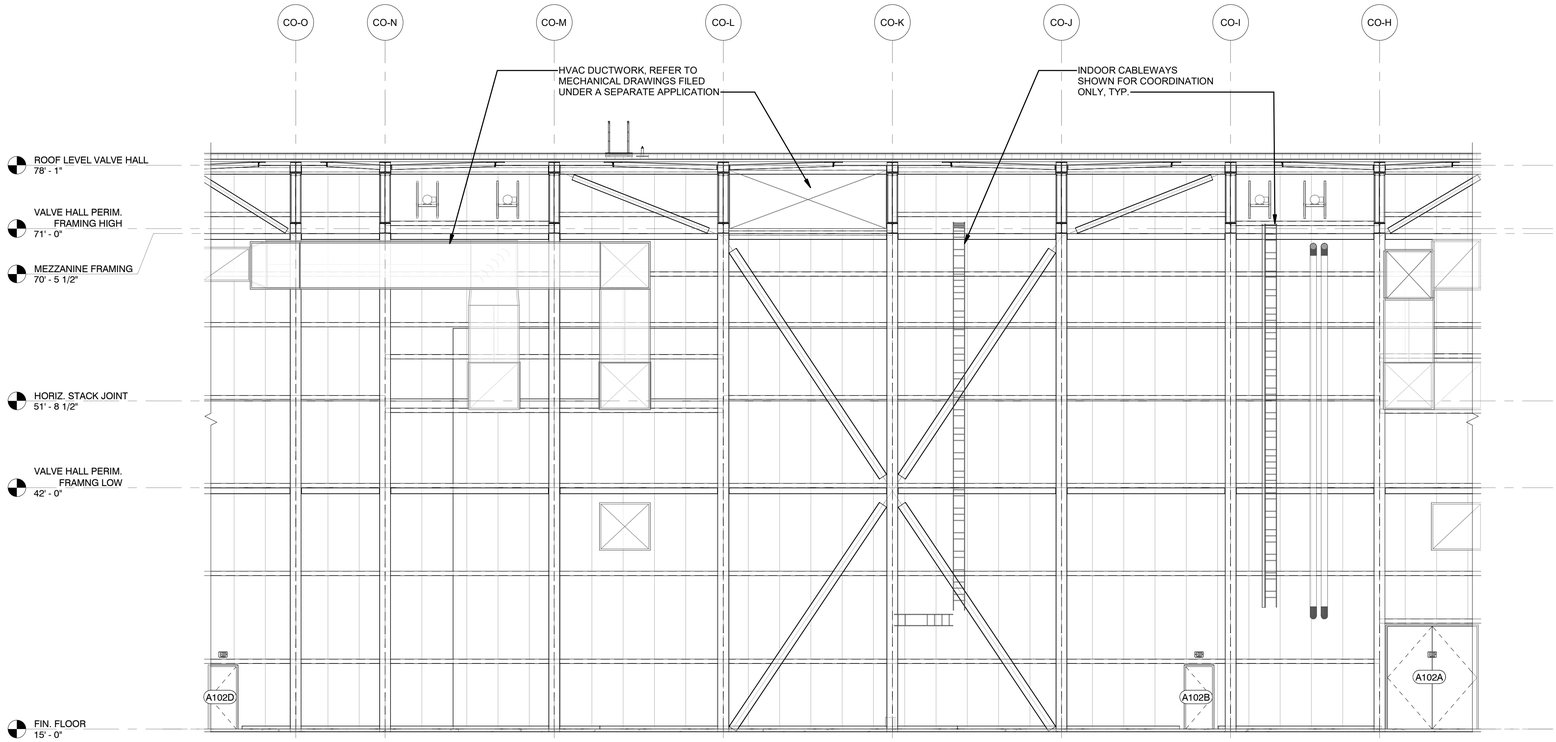
Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

CONVERTER BLDG. ENLARGED INTERIOR ELEVATIONS

REGISTERED ARCHITECT SUZANNE SOWINSKI SULLIVAN 026045 STATE OF NEW YORK

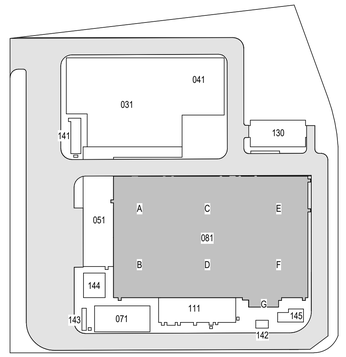
DATE	12/12/22
PROJECT NO	105121
DRAWING BY	Author
CHECKED BY	Designer
DRAWING NO	A-415.00
CADD FILE N0	Autodesk Docs://CHPE Astoria/CHA-KIE-111-ZZ-M3-A-001.rvt



1 / XA-108.00 VALVE HALL 2 - INTERIOR SOUTH ELEVATION
1/8" = 1'-0"

1' 0 4' 8' 16'

ISSUED FOR PERMIT



KEY PLAN
N.T.S.

PLAN NORTH

Engineering and Land Surveying, P.C.
370 7th Avenue
SUITE 1604
New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE+ENGINEERING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
B	FINAL SUBMISSION	RAC	ZH	12/12/2022
A	INTERIM SUBMISSION	RAC	ZH	09/13/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

PROJECT

CHPE
Champlain Hudson Power Express

Astoria HVDC Converter Station

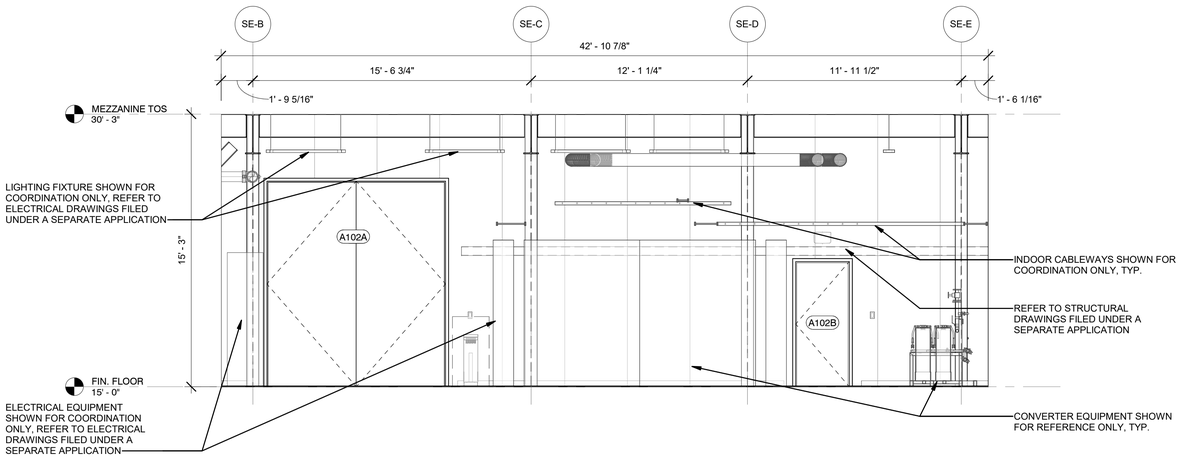
31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

CONVERTER BLDG. ENLARGED INTERIOR ELEVATIONS

REGISTERED ARCHITECT SUZANNE SOWINSKI SULLIVAN STATE OF NEW YORK 026049

DATE	12/12/22
PROJECT NO	105121
DRAWING BY	Author
CHECKED BY	Designer
DRAWING NO	A-416.00
CADD FILE N0	Autodesk Docs://CHPE Astoria/CHA-KIE-111-ZZ-M3-A-001.rvt

12/12/2022 1:07:19 PM

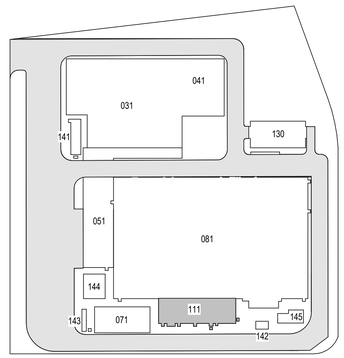


1 / XA-108.00 ELEVATION - SERVICE BLDG. VALVE RM. COOLING B115
1/4" = 1'-0"

1' 0 2' 4' 8'

12/12/2022 1:07:31 PM

ISSUED FOR PERMIT



KEY PLAN
N.T.S.

PLAN NORTH

Engineering and Land Surveying, P.C.
370 7th Avenue
SUITE 1604
New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE+ENGINEERING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
B	FINAL SUBMISSION	RAC	ZH	12/12/2022
A	INTERIM SUBMISSION	RAC	ZH	09/13/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

PROJECT

CHPE
Champlain Hudson Power Express

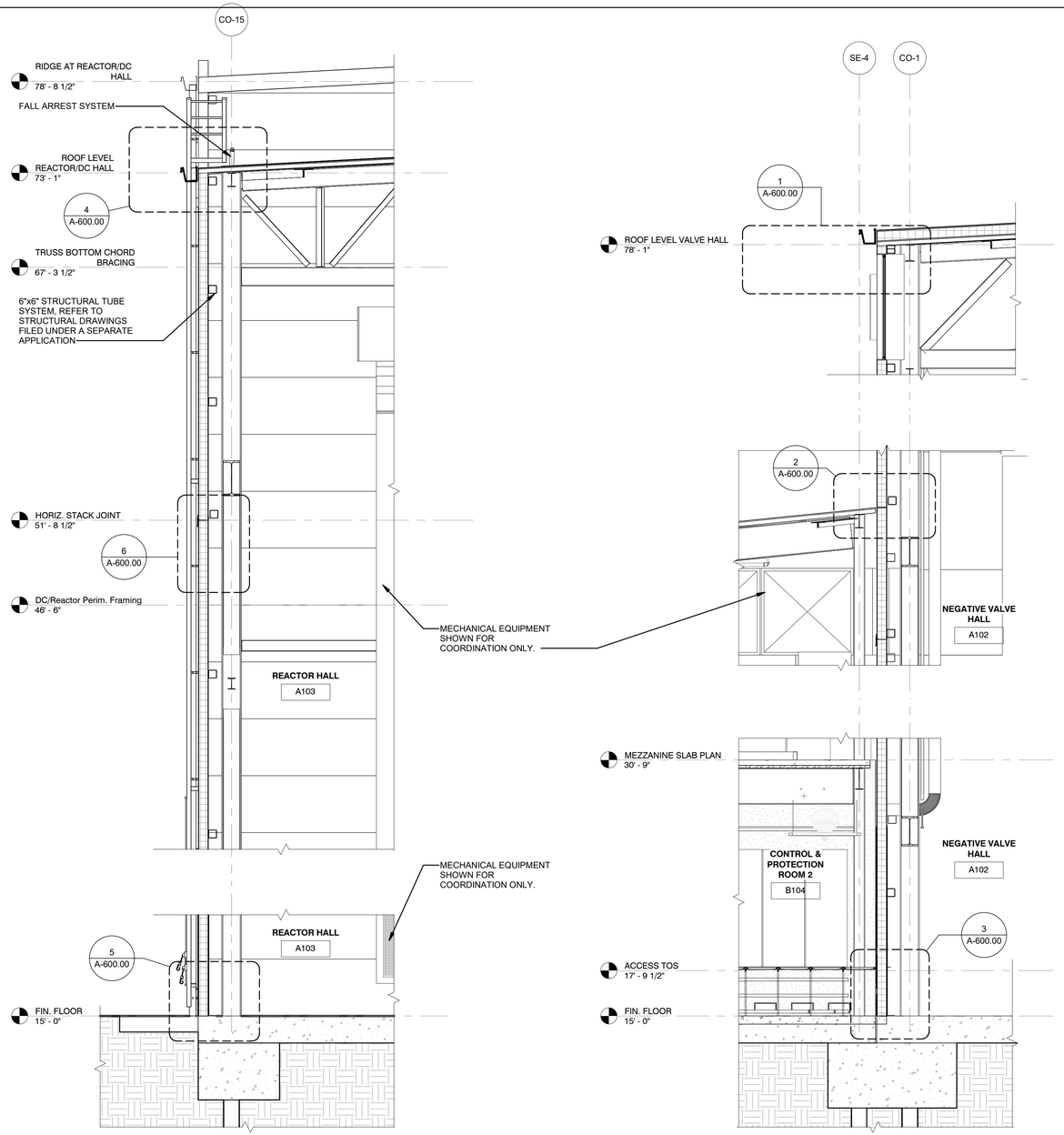
Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

SERVICE BLDG. INTERIOR ELEVATIONS

REGISTERED ARCHITECT
SUZANNE SOWINSKI SULLIVAN
026049
STATE OF NEW YORK

DATE	12/12/22
PROJECT NO	105121
DRAWING BY	Author
CHECKED BY	Designer
DRAWING NO	A-417.00
CADD FILE N0	Autodesk Docs://CHPE Astoria/CHA-KIE-111-ZZ-M3-A-001.rvt



4 A-301.00 REACTOR HALL WALL SECTION
1/4" = 1'-0"

3 A-300.00 WALL SECTION AT CONVERTER AND SERVICE BUILDINGS
1/4" = 1'-0"

1' 0 2' 4' 8'

12/8/2022 11:23:17 AM

ISSUED FOR PERMIT

Engineering and Land Surveying, P.C.
370 7th Avenue
SUITE 1604
New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE + ENGINEERING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
0	FINAL SUBMISSION	RAC	ZH	12/12/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

PROJECT

CHPE
Champlain Hudson Power Express

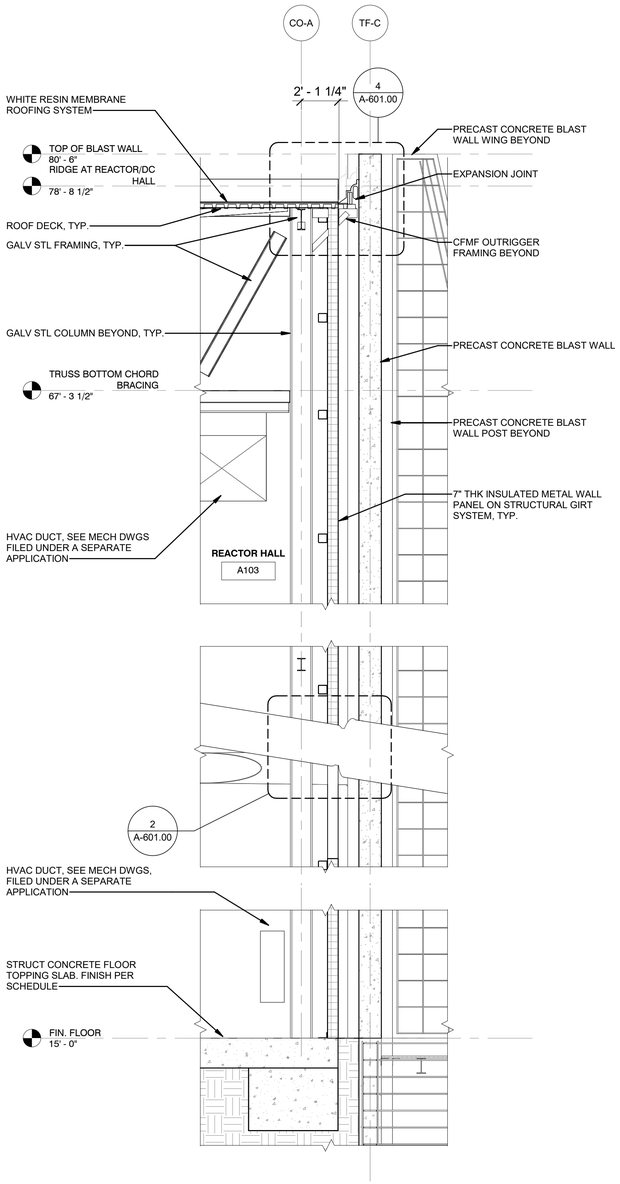
Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

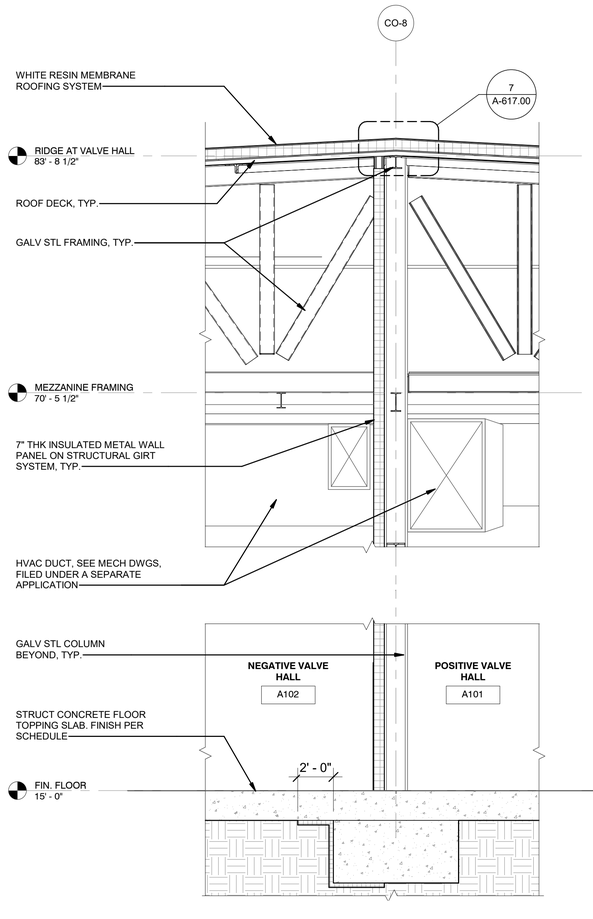
CONVERTER BLDG. WALL SECTIONS 1

REGISTERED ARCHITECT ALEXANDRE SOWINSKI SULLIVAN 026049 STATE OF NEW YORK

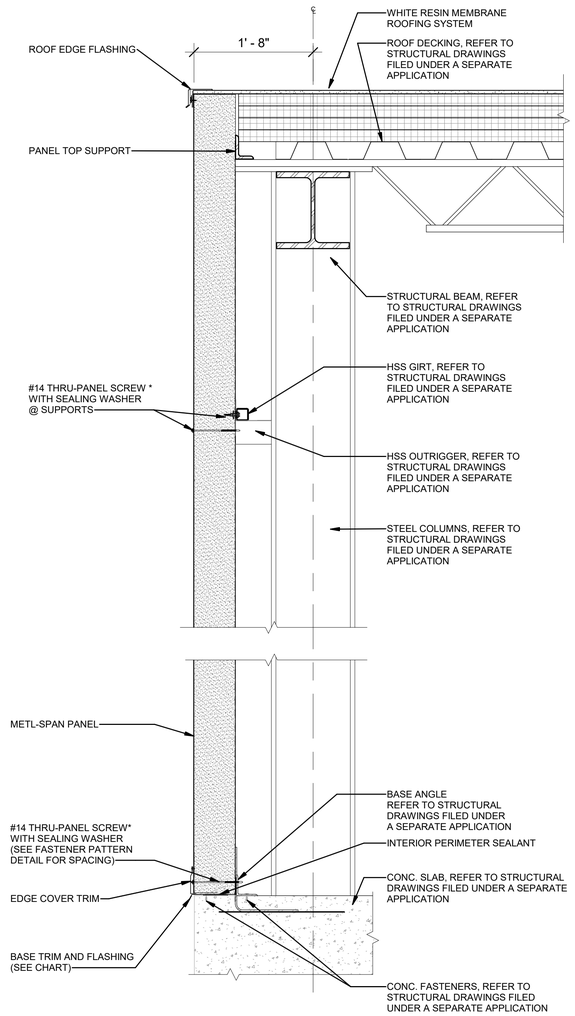
DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR
DRAWING NO	A-500.00
CADD FILE N0	Autodesk Docs://CHPE Astoria/CHA-KIE-111-ZZ-M3-A-001.rvt



3 A-300.00 WALL SECTION AT REACTOR HALL & TRANSFORMER BAYS
1/4" = 1'-0"



1 A-300.00 SECTION - VALVE HALLS 1 & 2
1/4" = 1'-0"



2 TYPICAL EXTERIOR WALL SECTION - CONVERTER BLDG.
1" = 1'-0"

1' 6" 0 1' 2'

ISSUED FOR PERMIT

Engineering and Land Surveying, P.C.
370 7th Avenue
SUITE 1604
New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE+ENGINEERING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
0	FINAL SUBMISSION	RAC	ZH	12/12/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

PROJECT

CHPE
Champlain Hudson Power Express

Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

CONVERTER BLDG. WALL SECTIONS 2

REGISTERED ARCHITECT ALEXANDRE SOWINSKI-SULLIVAN STATE OF NEW YORK 026049

DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR

DRAWING NO
A-501.00

CADD FILE N0
Autodesk Docs://CHPE Astoria/CHA-KIE-111-ZZ-M3-A-001.rvt

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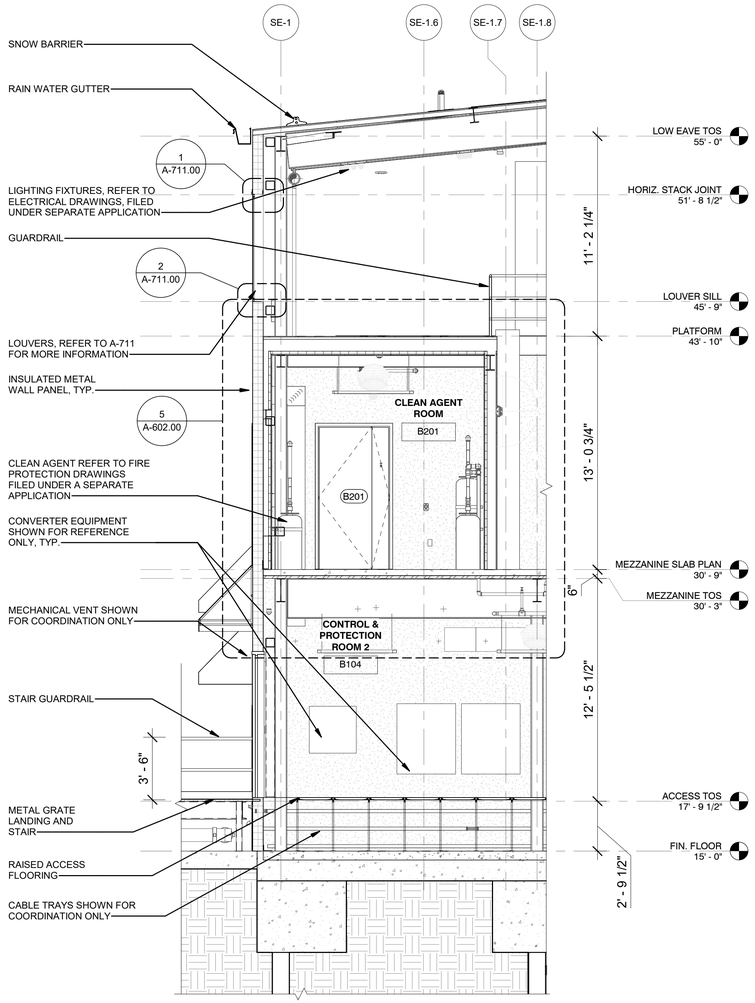
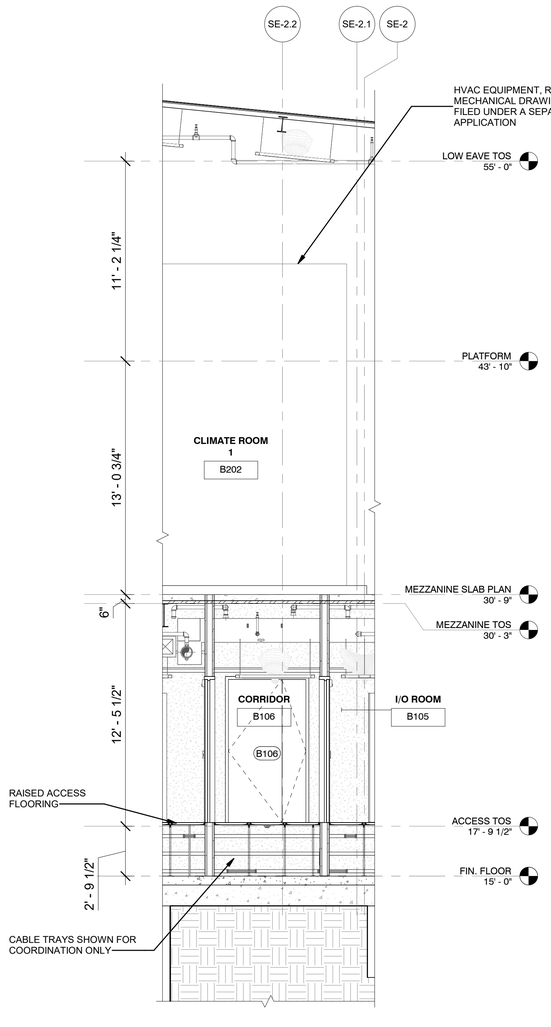
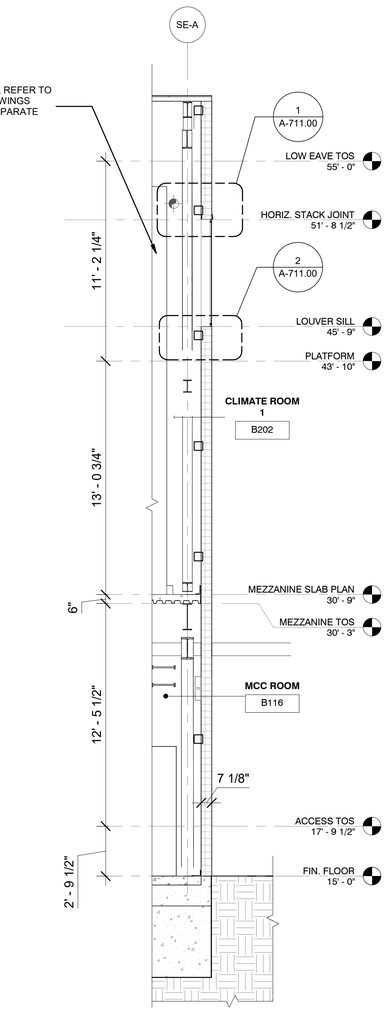


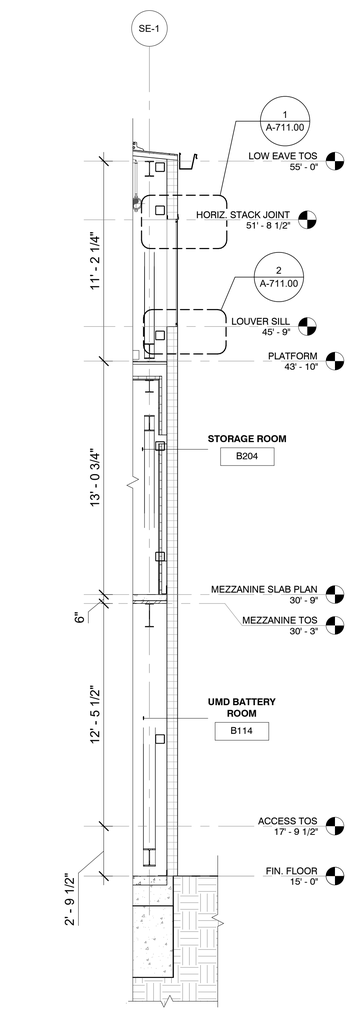
1 A-300.00 SERVICE BUILDING WALL SECTION
1/4" = 1'-0"



2 A-160.00 SERVICE BUILDING CORRIDOR WALL SECTION
1/4" = 1'-0"



3 A-109.00 SERVICE BUILDING SIDE WALL SECTION
1/4" = 1'-0"



4 A-109.00 UMD BATTERY ROOM SECTION
1/4" = 1'-0"

1' 0 2' 4' 8'

12/8/2022 1:43:18 PM

ISSUED FOR PERMIT

Engineering and Land Surveying, P.C.
370 7th Avenue
SUITE 1604
New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE+ENGINEERING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
0	FINAL SUBMISSION	RAC	ZH	12/12/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

PROJECT

CHPE
Champlain Hudson Power Express

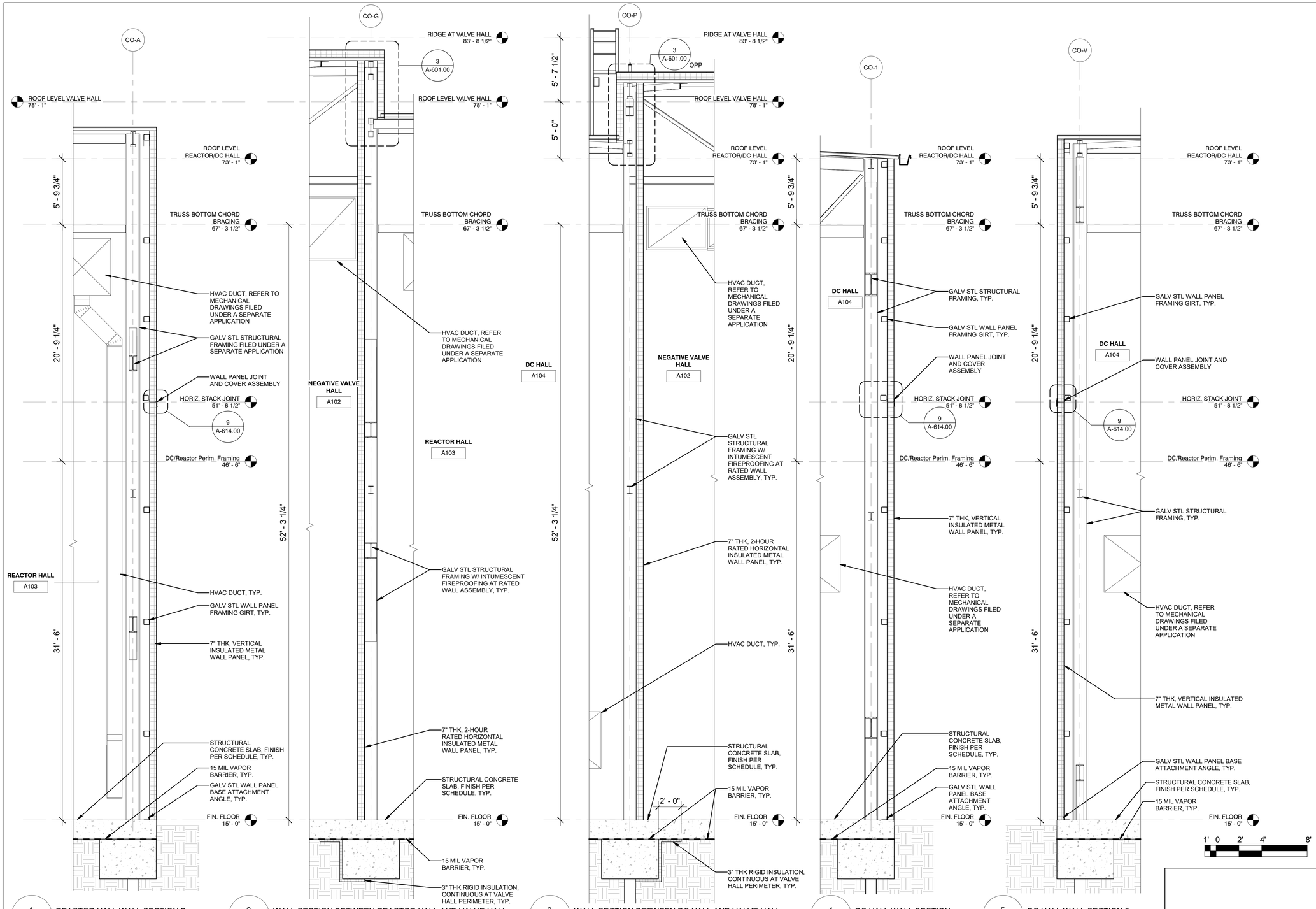
Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

SERVICE BLDG. - WALL SECTIONS

REGISTERED ARCHITECT SUZANNE SOWINSKI SULLIVAN 026040 STATE OF NEW YORK

DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR
DRAWING NO	A-502.00
CADD FILE N0	Autodesk Docs://CHPE Astoria/CHA-KIE-111-ZZ-M3-A-001.rvt



1 / A-102.00 REACTOR HALL WALL SECTION B 1/4" = 1'-0"

2 / A-102.00 WALL SECTION BETWEEN REACTOR HALL AND VALVE HALL 1/4" = 1'-0"

3 / A-104.00 WALL SECTION BETWEEN DC HALL AND VALVE HALL 1/4" = 1'-0"

4 / A-106.00 DC HALL WALL SECTION 1/4" = 1'-0"

5 / A-106.00 DC HALL WALL SECTION 2 1/4" = 1'-0"

12/8/2022 11:24:01 AM

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370 7th Avenue
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SOWINSKI SULLIVAN ARCHITECTURE+ENGINEERING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
0	FINAL SUBMISSION	RAC	ZH	12/12/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

PROJECT

CHPE
Champlain Hudson Power Express

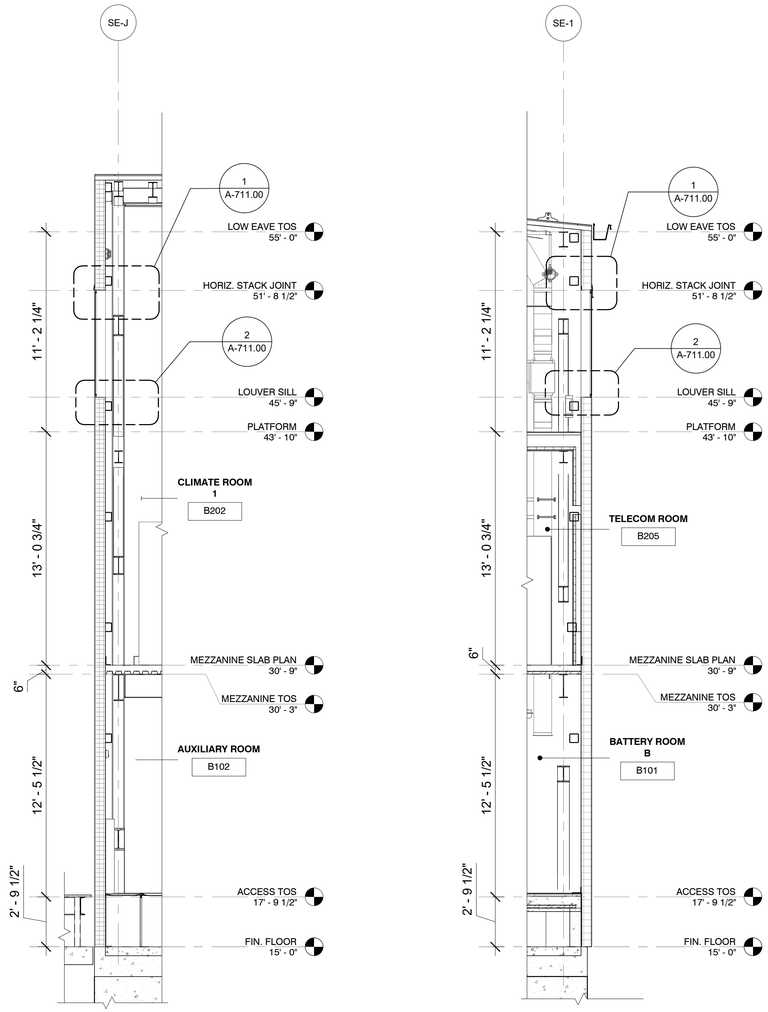
Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

CONVERTER BLDG. WALL SECTIONS 3

REGISTERED ARCHITECT ALEXANDRE SOWINSKI SULLIVAN 026049 STATE OF NEW YORK

DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR
DRAWING NO	A-509.00
CADD FILE N0	Autodesk Docs://CHPE Astoria/CHA-ASE-111-ZZ-M3-A-001.rvt



1 / A-110.00 AUXILIARY ROOM WALL SECTION
1/4" = 1'-0"

2 / A-110.00 BATTERY ROOM B WALL SECTION
1/4" = 1'-0"

1' 0 2' 4' 8'

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SOWINSKI SULLIVAN ARCHITECTURE+ENGINEERING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
B	FINAL SUBMISSION	RAC	ZH	12/12/2022
A	INTERIM SUBMISSION	RAC	ZH	09/13/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

PROJECT

CHPE
Champlain Hudson Power Express

Astoria HVDC Converter Station

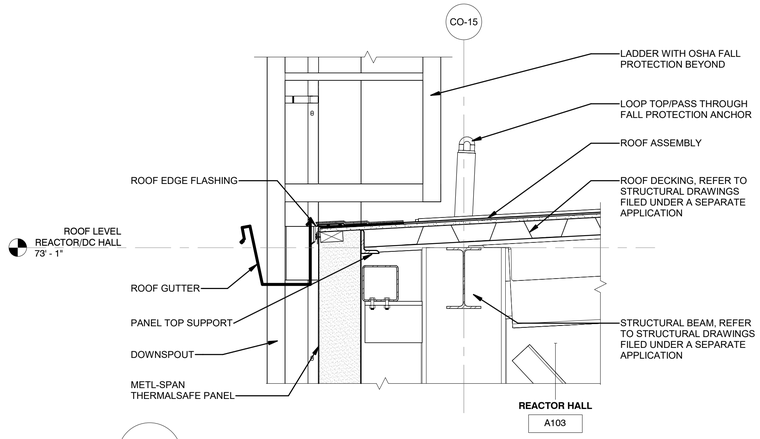
31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

SERVICE BLDG. - WALL SECTIONS 2

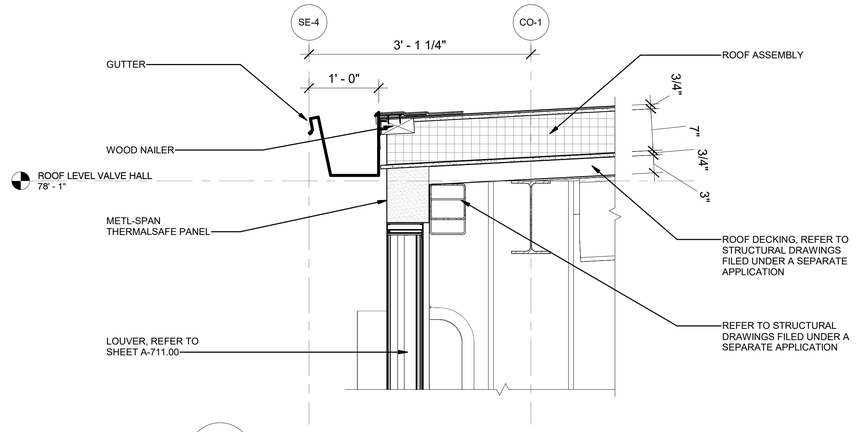
REGISTERED ARCHITECT
ALEXANDRE SOWINSKI SULLIVAN
026049
STATE OF NEW YORK

DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR
DRAWING NO	A-510.00
CADD FILE N0	Autodesk Docs://CHPE_Astoria/CHA-KIE-111-ZZ-M3-A-001.rvt

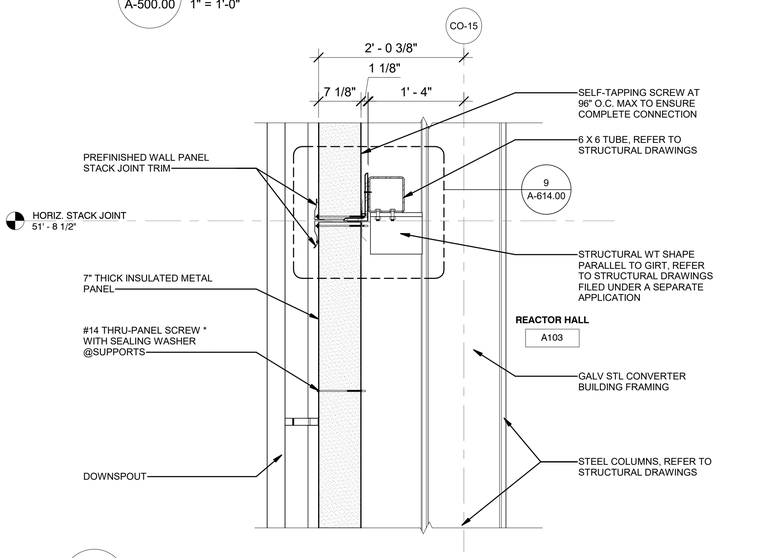
12/12/2022 1:07:43 PM



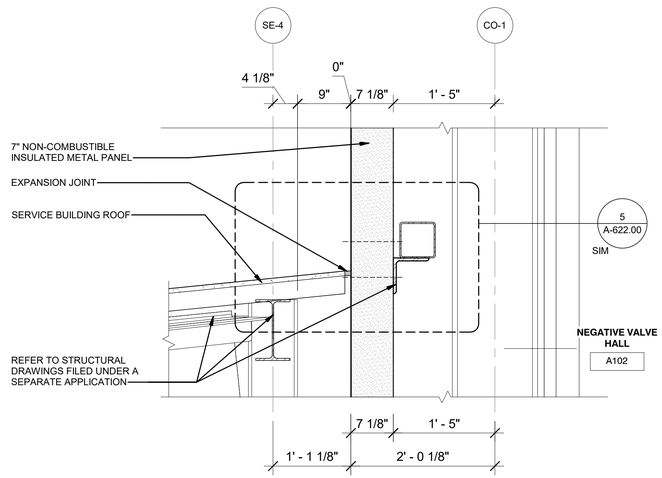
4 / A-500.00 SECTION - REACTOR HALL - ROOF DETAIL 1" = 1'-0"



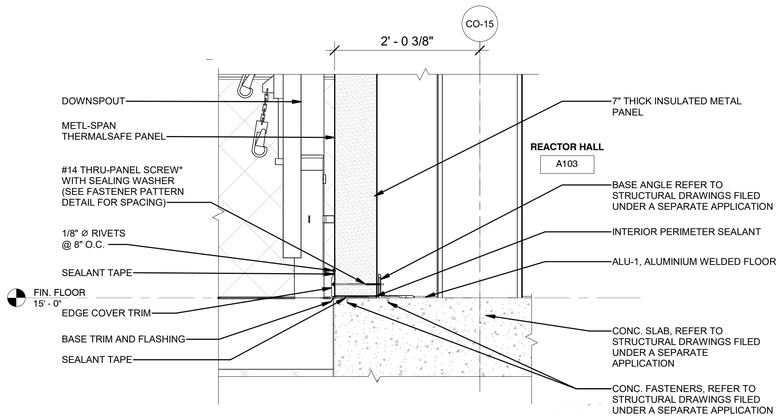
1 / A-500.00 SECTION - VALVE HALLS & SERVICE BLDG 1" = 1'-0"



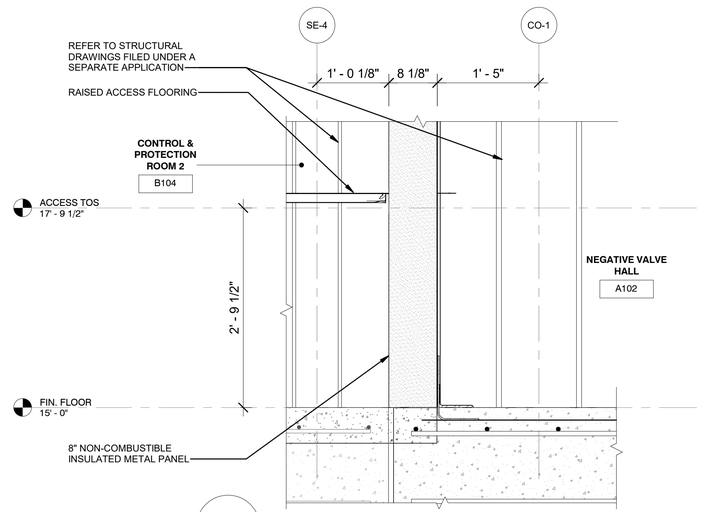
6 / A-500.00 SECTION - REACTOR HALL - DETAIL 1" = 1'-0"



2 / A-303.00 SECTION - VALVE HALLS & SERVICE BLDG - DETAIL 1" = 1'-0"



5 / A-500.00 SECTION - REACTOR HALL - BASE DETAIL 1" = 1'-0"



3 / A-500.00 SECTION - VALVE HALLS & SERVICE BLDG - DETAIL II 1" = 1'-0"

1' 6" 0 1' 2'

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25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
B	FINAL SUBMISSION	RAC	ZH	12/12/2022
A	INTERIM SUBMISSION	RAC	ZH	09/13/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

PROJECT

CHPE
Champlain Hudson Power Express

Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

SECTION DETAILS 1

REGISTERED ARCHITECT SUZANNE SOWINSKI SULLIVAN 026045 STATE OF NEW YORK

DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR
DRAWING NO	A-600.00
CADD FILE N0	Autodesk Docs://CHPE Astoria/CHA-KIE-111-ZZ-M3-A-001.rvt

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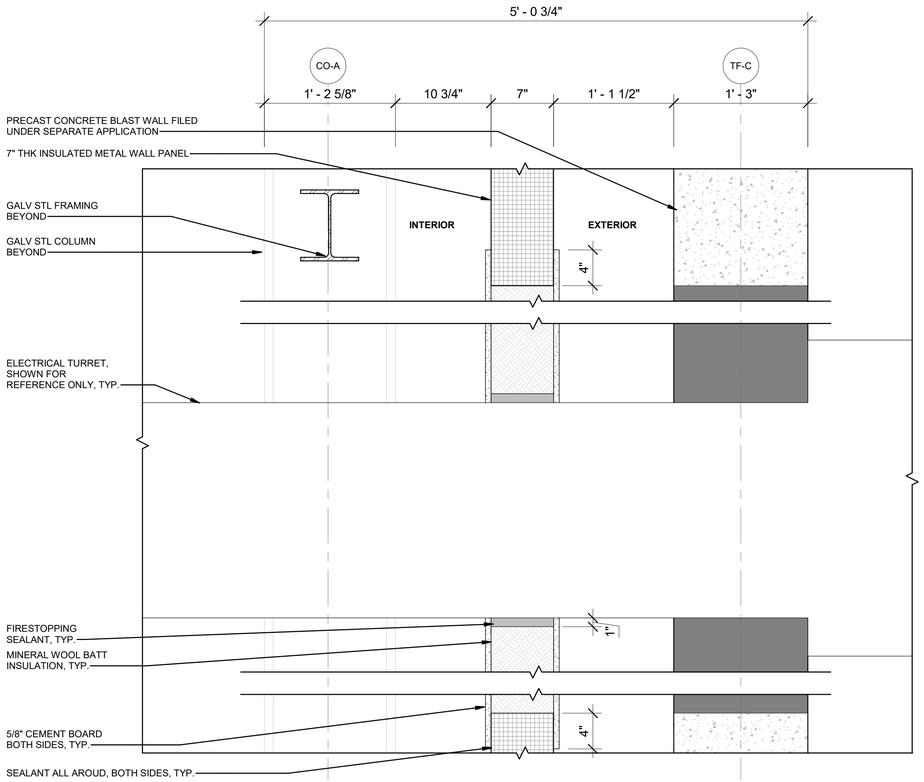
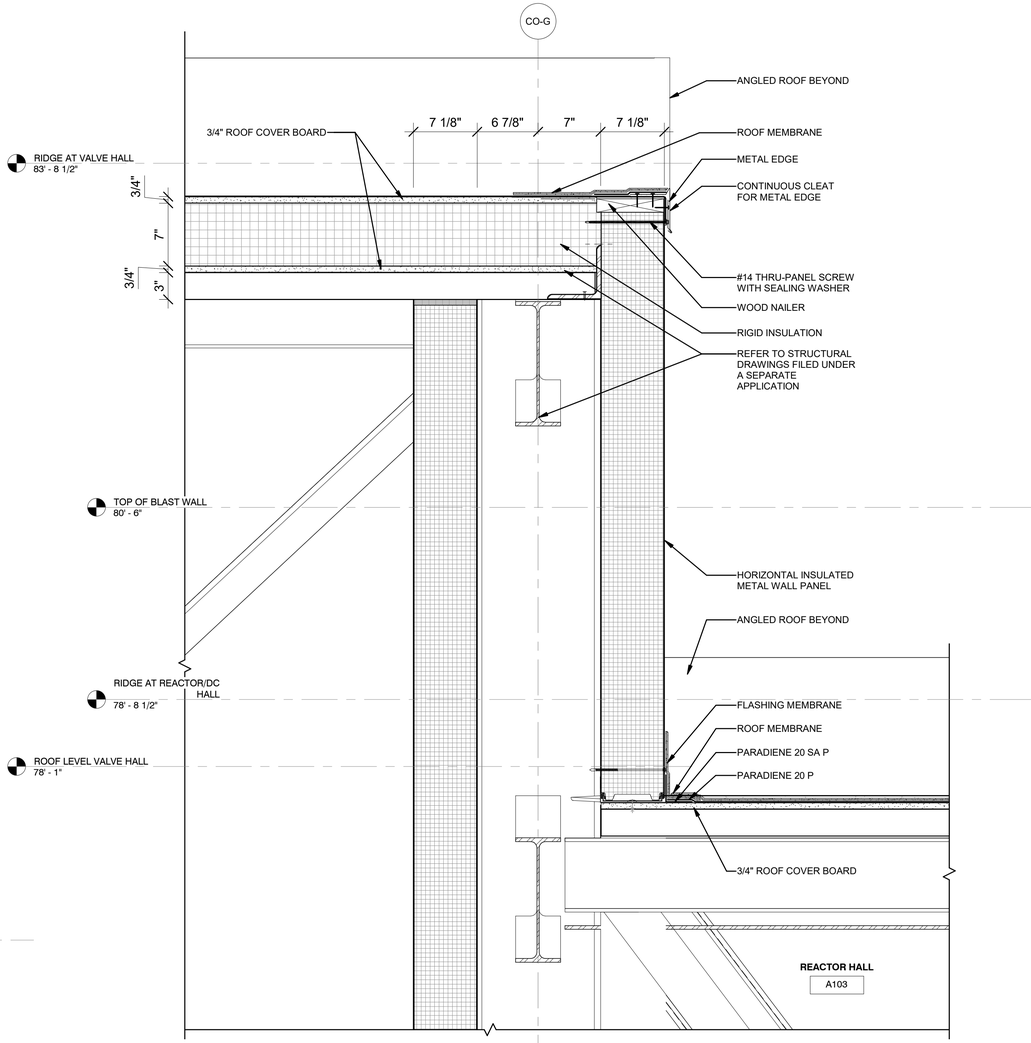
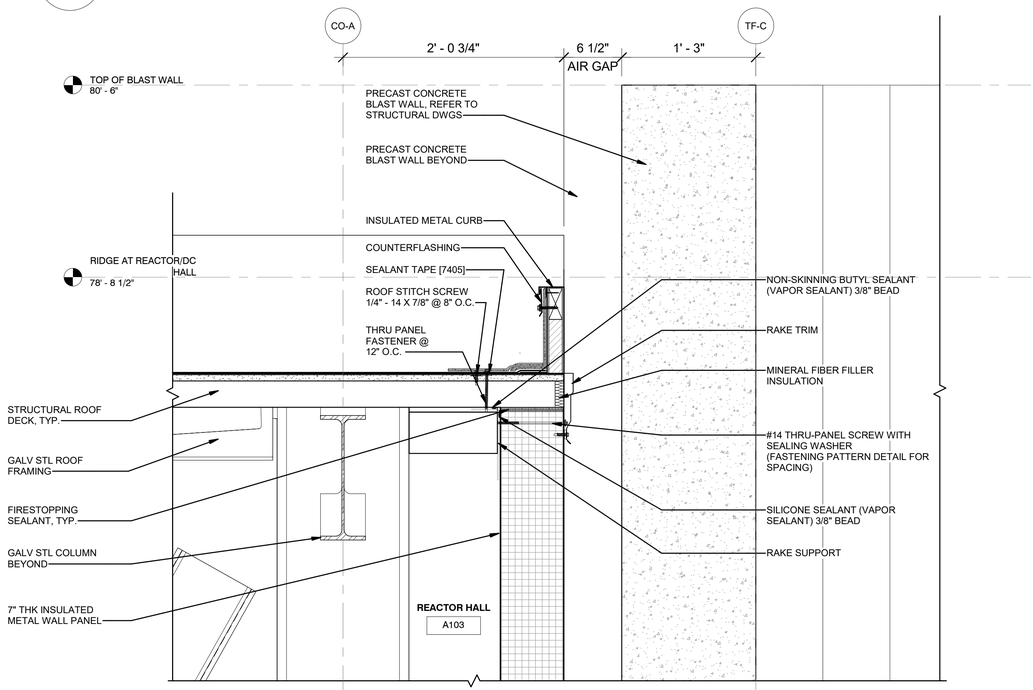


2 / A-501.00 TURRET PENETRATION SECTION DETAIL
1 1/2" = 1'-0"



3 / A-300.00 CONVERTER BLDG. SIDEWALL DETAIL
1 1/2" = 1'-0"



4 / A-501.00 BLAST WALL EXPANSION - JOINT DETAIL
1 1/2" = 1'-0"

0 6" 12" 24"

12/12/2022 9:35:58 AM

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25 Mohawk Avenue
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REV	DESCRIPTION	DRW BY	CHK BY	DATE
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PROJECT

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Champlain Hudson Power Express

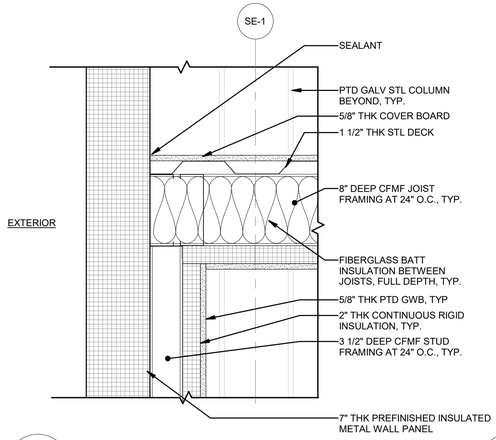
Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

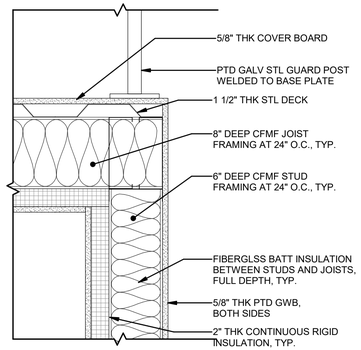
SECTION DETAILS 2

REGISTERED ARCHITECT SUZANNE SOWINSKI SULLIVAN 026045 STATE OF NEW YORK

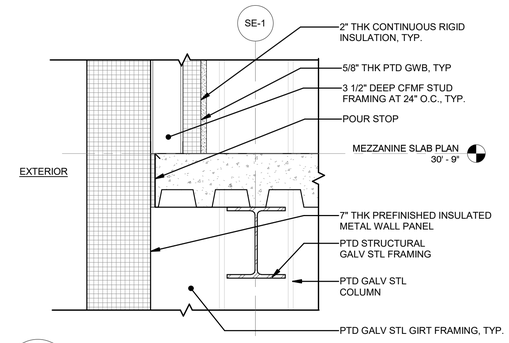
DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR
DRAWING NO	A-601.00
CADD FILE N0	Autodesk Docs://CHPE Astoria/CHA-XXE-111-ZZ-M3-A-001.rvt



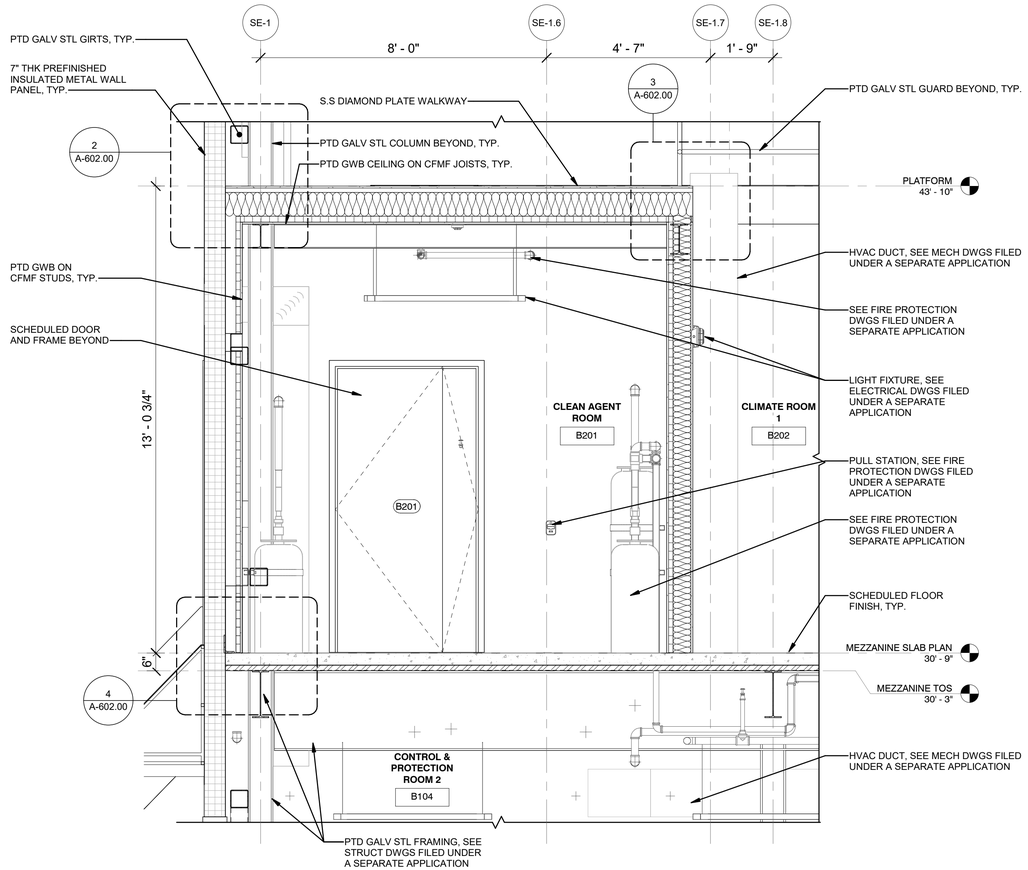
2 / A-602.00 SECOND FLOOR CEILING DETAIL 1
1 1/2" = 1'-0"



3 / A-602.00 SECOND FLOOR CEILING DETAIL 2
1 1/2" = 1'-0"



4 / A-602.00 SECOND FLOOR WALL DETAIL 1
1 1/2" = 1'-0"



5 / A-502.00 SERVICE BUILDING - ENLARGED SECTION THROUGH CLEAN AGENT RM
1/2" = 1'-0"

1' 0 2' 4'

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SOWINSKI SULLIVAN ARCHITECTURE & PLANNING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
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Raleigh, North Carolina 27606

PROJECT

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Champlain Hudson Power Express

Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

SECTION DETAILS 3

REGISTERED ARCHITECT SUZANNE SOWINSKI SULLIVAN 026049 STATE OF NEW YORK

DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR
DRAWING NO	A-602.00
CADD FILE NO	Autodesk Docs://CHPE Astoria/CHA-R0E-111-ZZ-M3-A-001.rvt

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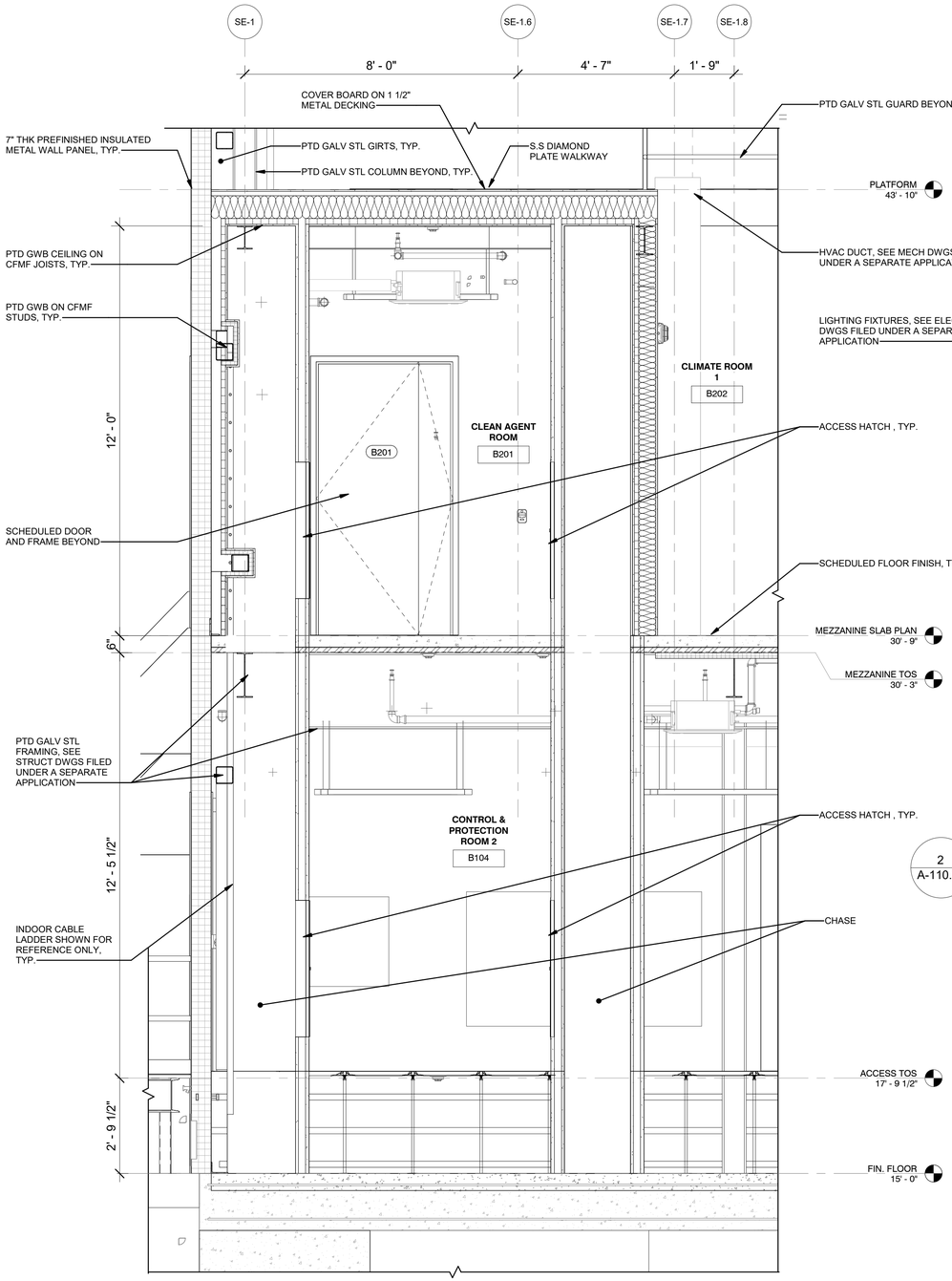
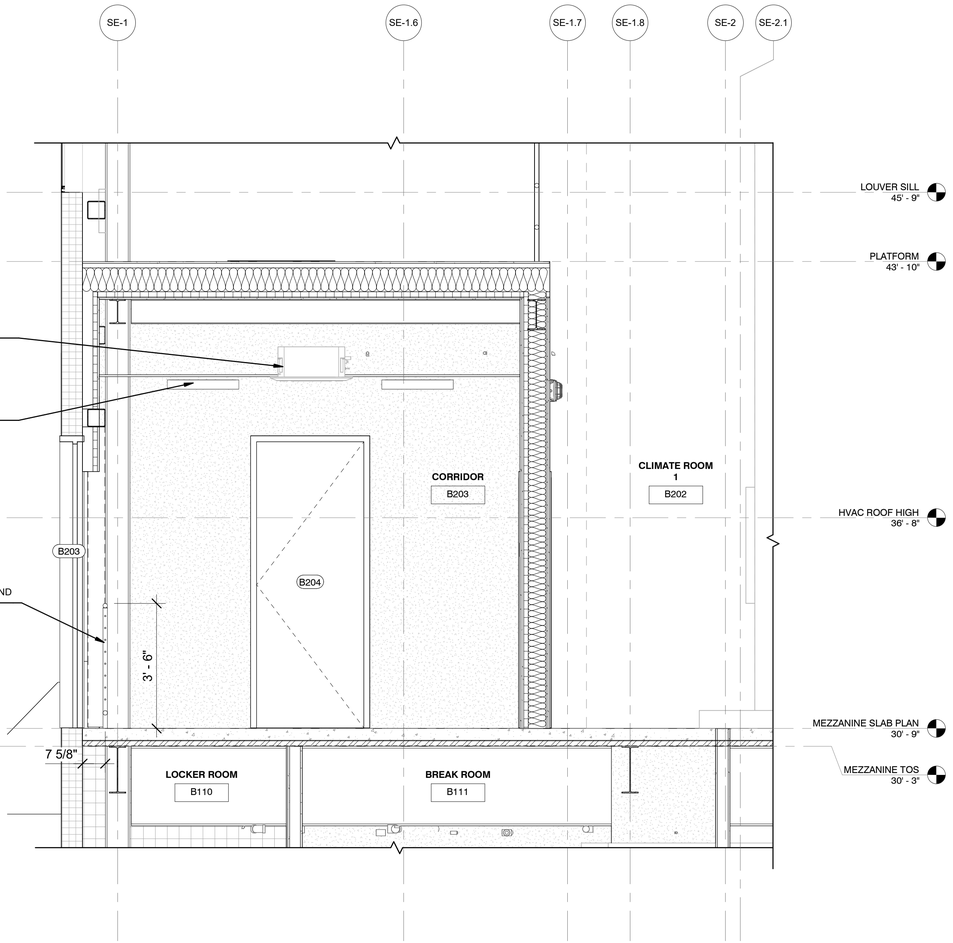


1 A-303.00 SERVICE BLDG. - ENLARGED SECTION THROUGH CHASES
1/2" = 1'-0"



2 A-110.00 SERVICE BLDG. - ENLARGED SECTION THROUGH CORRIDOR
1/2" = 1'-0"

1' 0 3' 6'

12/12/2022 9:43:00 AM

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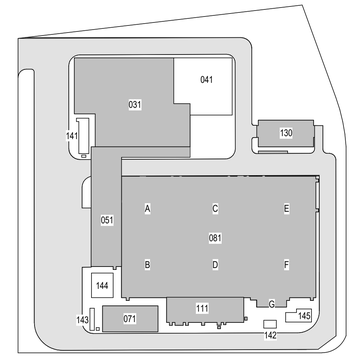

KEY PLAN N.T.S.

PLAN NORTH

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370 7th Avenue
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New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE + PLANNING
25 Mohawk Avenue
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REV	DESCRIPTION	DRW BY	CHK BY	DATE
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Raleigh, North Carolina 27606

PROJECT

CHPE
Champlain Hudson Power Express

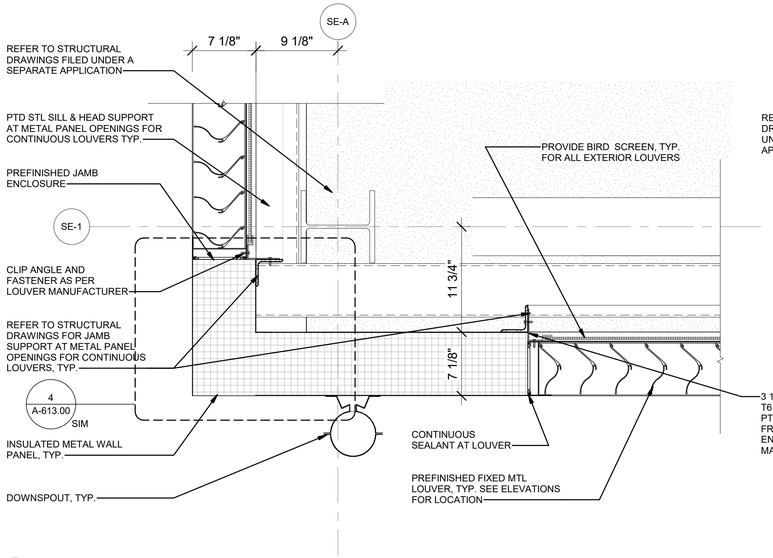
Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

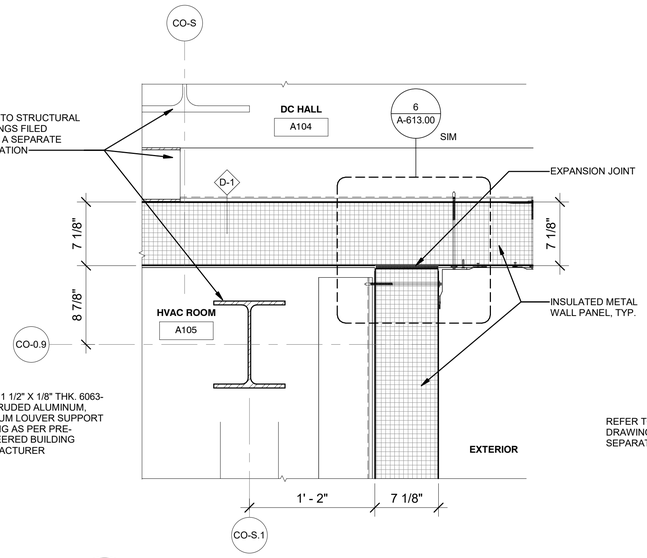
SECTION DETAILS 4

REGISTERED ARCHITECT SUZANNE SOWINSKI SULLIVAN STATE OF NEW YORK 026045

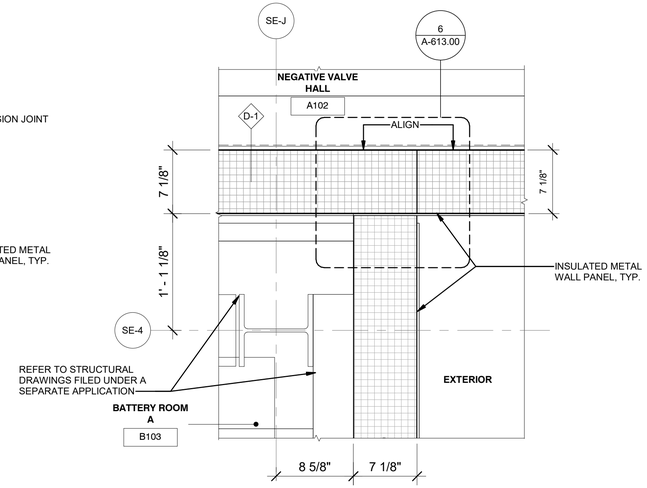
DATE	12/12/22
PROJECT NO	105121
DRAWING BY	Author
CHECKED BY	Designer
DRAWING NO	A-603.00
CADD FILE N0	Autodesk Docs://CHPE Astoria/CHA-KIE-111-ZZ-M3-A-001.rvt



1 / A-110.00 PLAN DETAIL - SERVICE BLDG. PLATFORM PLAN - PART G
1 1/2" = 1'-0"

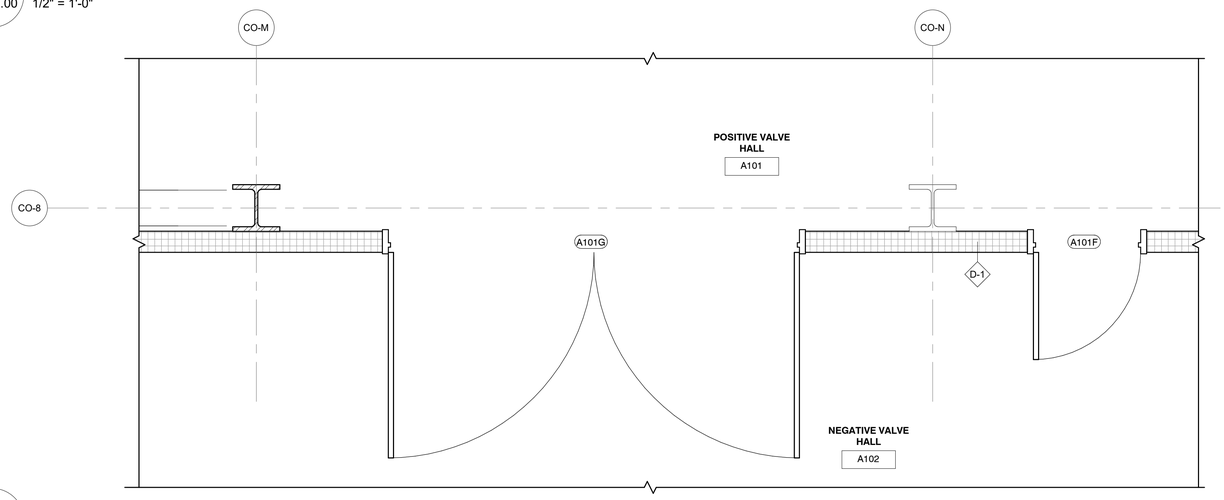


2 / A-106.00 PLAN DETAIL - PART F - HVAC ROOM & DC HALL
1 1/2" = 1'-0"



3 / A-104.00 PLAN DETAIL - PART D - BATTERY RM. & NEGATIVE VALVE HALL
1 1/2" = 1'-0"

4 / A-103.00 PLAN DETAIL - POSITIVE VALVE HALL
1/2" = 1'-0"



6 / A-103.00 PLAN DETAIL - POSITIVE & NEGATIVE VALVE HALLS
1/2" = 1'-0"

5 / A-103.00 COLUMN GROUNDING DETAIL - POSITIVE VALVE HALL
1 1/2" = 1'-0"

1' 0 3' 6'

12/8/2022 11:25:08 AM

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Raleigh, North Carolina 27606

PROJECT

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Champlain Hudson Power Express

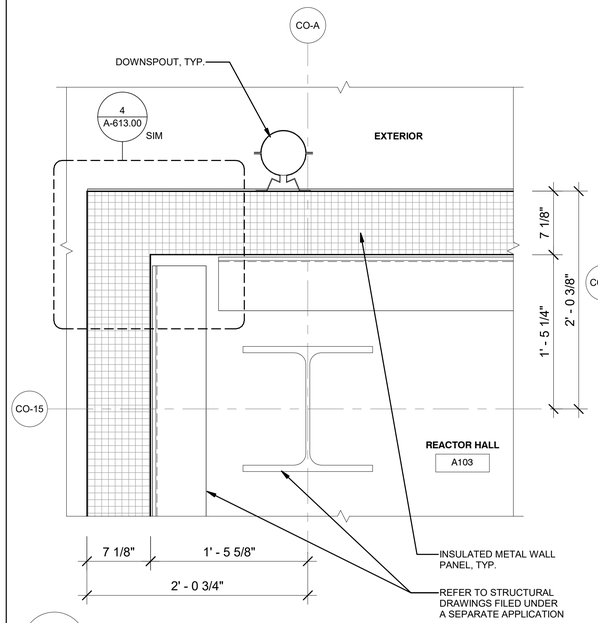
Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

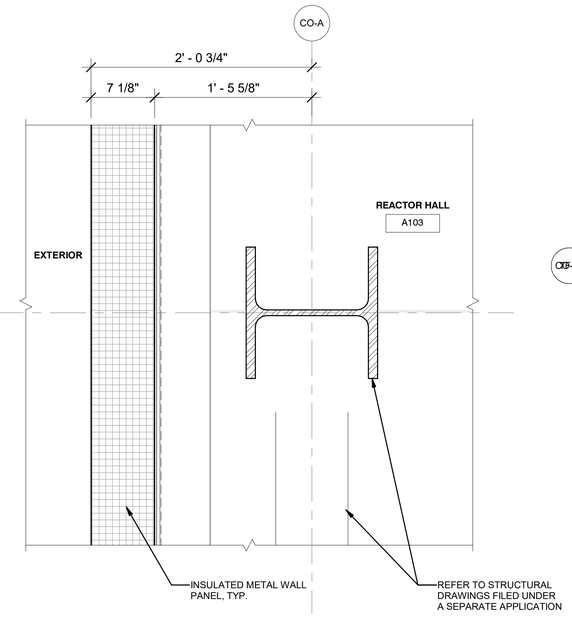
PLAN DETAILS 1

REGISTERED ARCHITECT SUZANNE SOWINSKI SULLIVAN STATE OF NEW YORK 026049

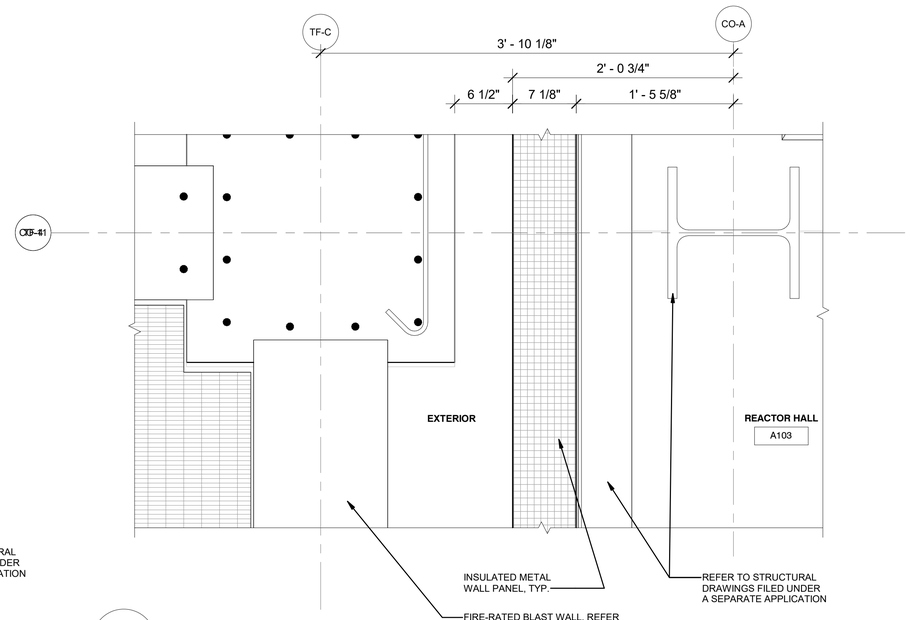
DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR
DRAWING NO	A-604.00
CADD FILE N0	Autodesk Docs://CHPE Astoria/CHA-KIE-111-ZZ-M3-A-001.rvt



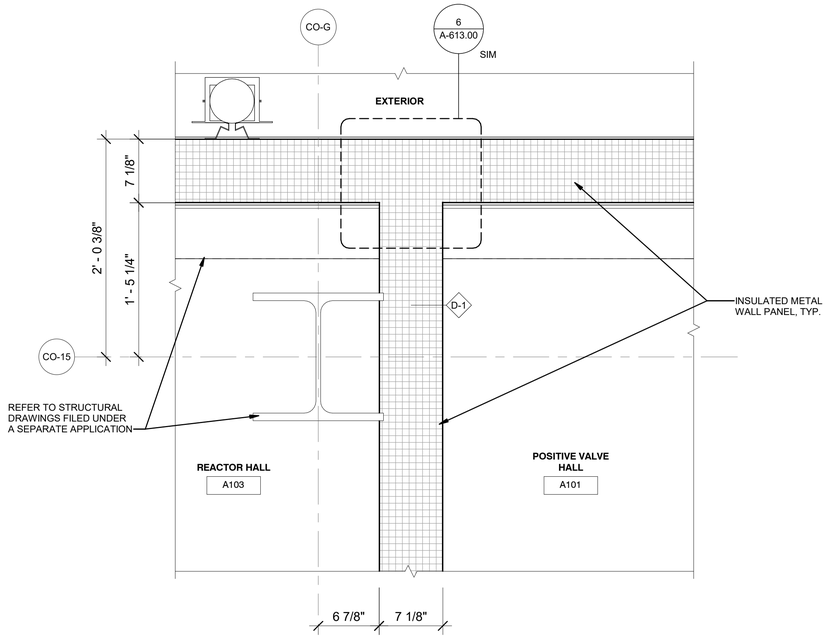
1 / A-101.00 PLAN DETAIL 1 - PART A - REACTOR HALL
1 1/2" = 1'-0"



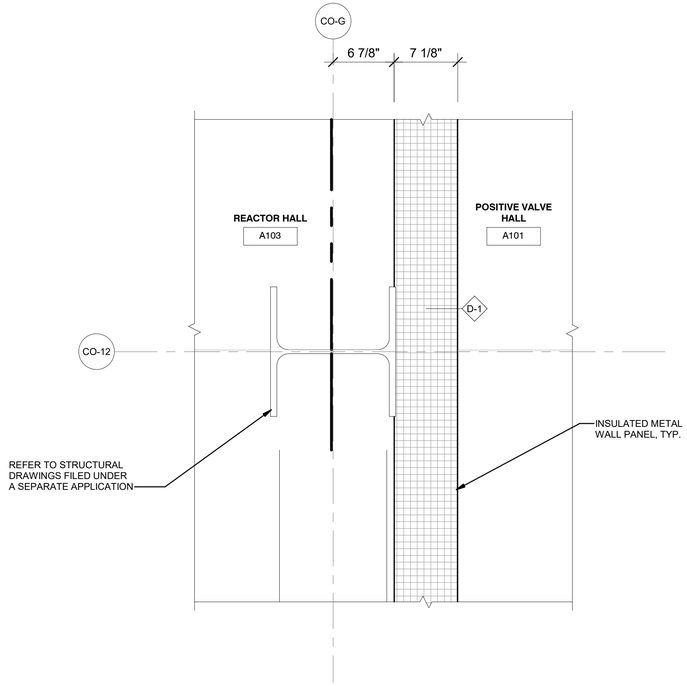
2 / A-101.00 PLAN DETAIL 2 - PART A - REACTOR HALL
1 1/2" = 1'-0"



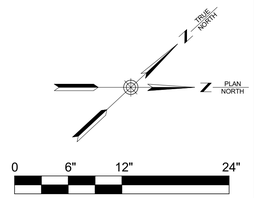
3 / A-101.00 PLAN DETAIL 3 - PART A - REACTOR HALL
1 1/2" = 1'-0"



4 / A-101.00 PLAN DETAIL 4 - PART A - REACTOR HALL
1 1/2" = 1'-0"



5 / A-101.00 PLAN DETAIL 5 - PART A - REACTOR HALL
1 1/2" = 1'-0"



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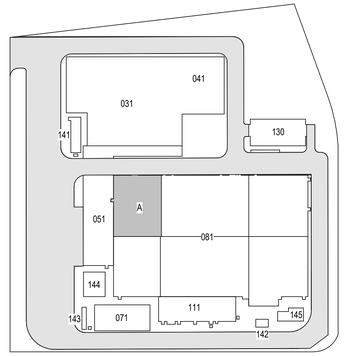

KEY PLAN
N.T.S.

PLAN NORTH

Engineering and Land Surveying, P.C.
370 7th Avenue
SUITE 1604
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SOWINSKI SULLIVAN ARCHITECTURE+ENGINEERING
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Kiewit
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PROJECT

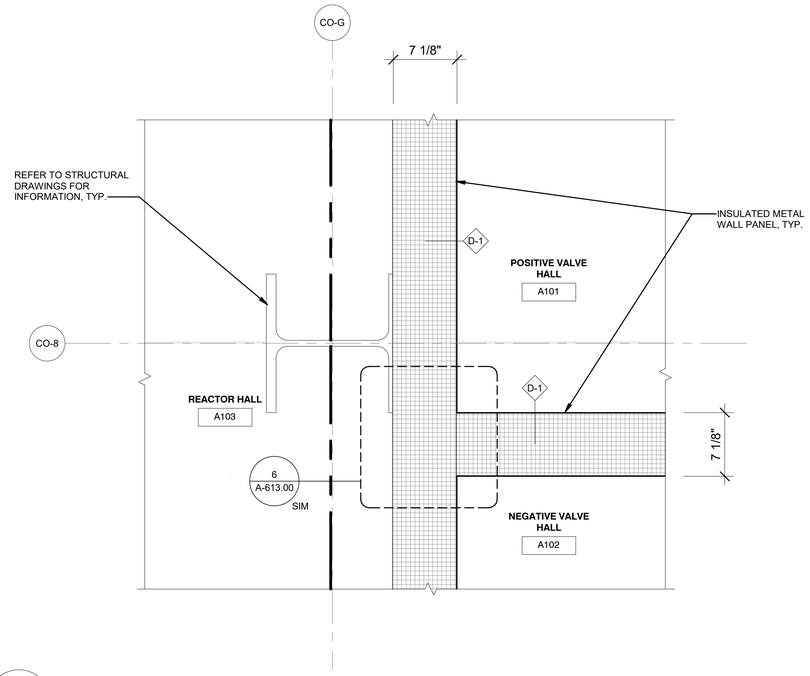
CHPE
Champlain Hudson Power Express

Astoria HVDC Converter Station

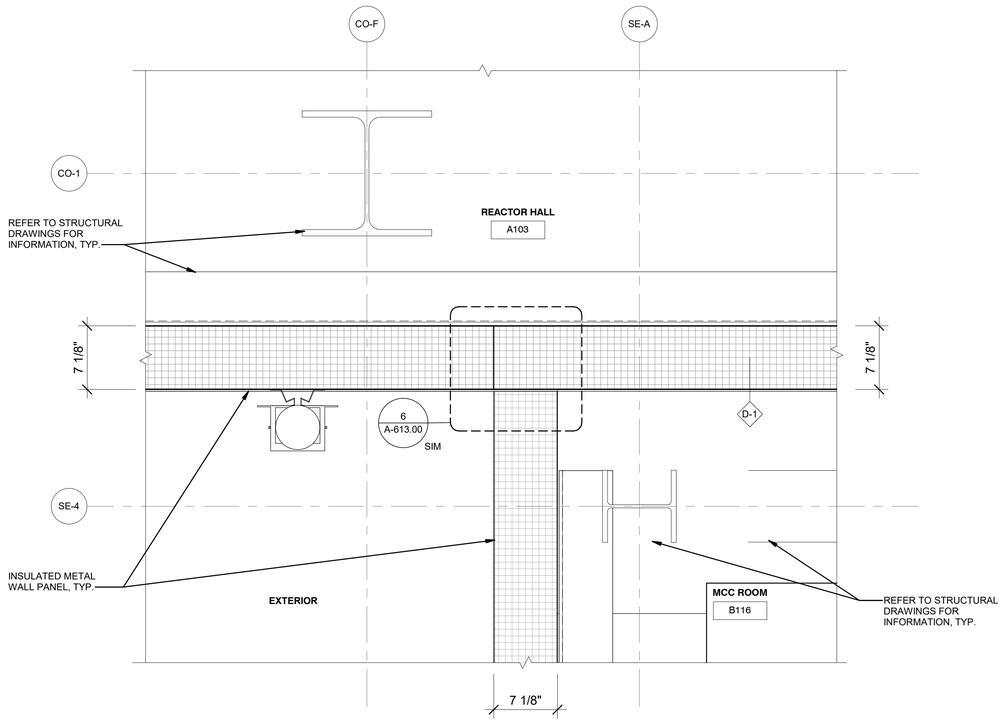
31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

PLAN DETAILS 2

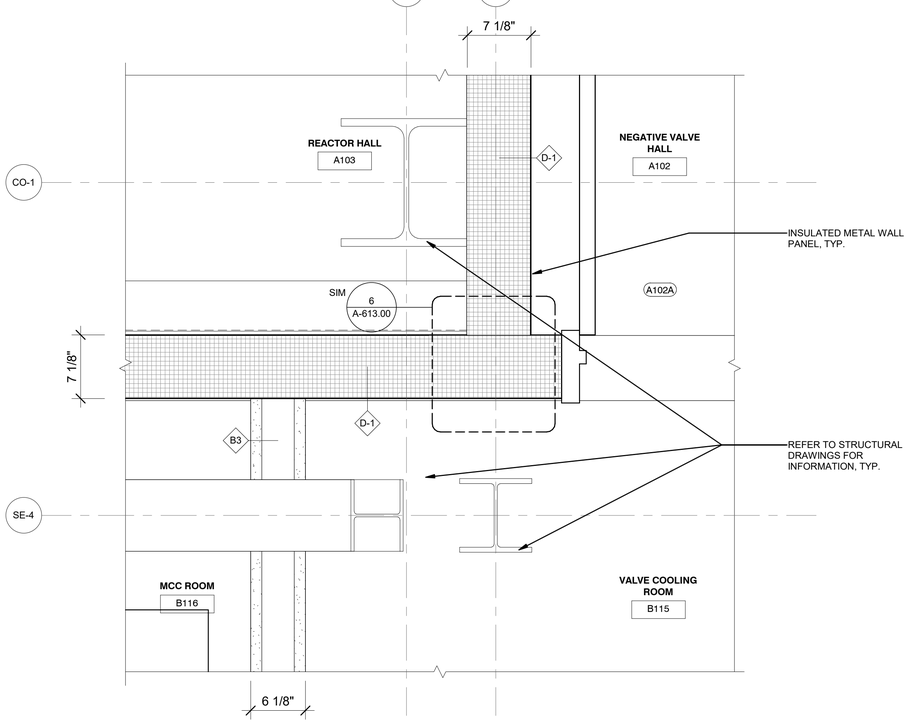
DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR
DRAWING NO	A-605.00
CADD FILE N0	Autodesk Docs://CHPE Astoria/CHA-KIE-111-ZZ-M3-A-001.rvt



1 / A-101.00 PLAN DETAIL - PART B - REACTOR HALL & VALVE HALLS INTERSECTION
1 1/2" = 1'-0"



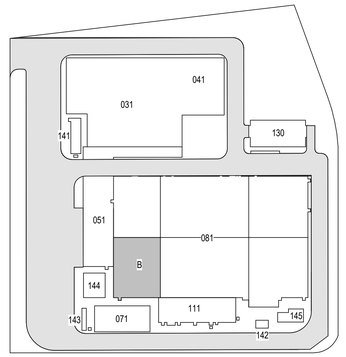
2 / A-102.00 PLAN DETAIL - PART B - REACTOR HALL & SERVICE BLDG. INTERSECTION
1 1/2" = 1'-0"



3 / A-102.00 PLAN DETAIL - PART B - REACTOR HALL, SERVICE BLDG. & VALVE HALL INTERSECTION
1 1/2" = 1'-0"

12/12/2022 1:08:29 PM

ISSUED FOR PERMIT



KEY PLAN
N.T.S.

PLAN NORTH

K Engineering and Land Surveying, P.C.
370 7th Avenue
SUITE 1604
New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE + ENGINEERING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
B	FINAL SUBMISSION	RAC	ZH	12/12/2022
A	INTERIM SUBMISSION	RAC	ZH	09/13/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

TRUE NORTH
PLAN NORTH

0 6" 12" 24"

PROJECT

CHPE
Champlain Hudson Power Express

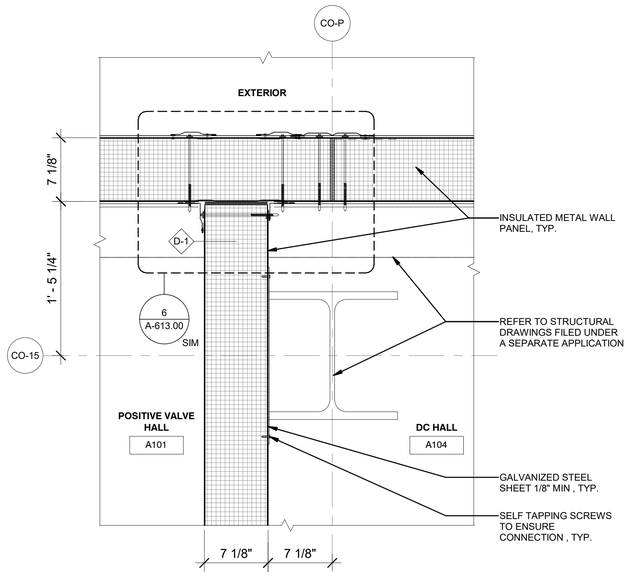
Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

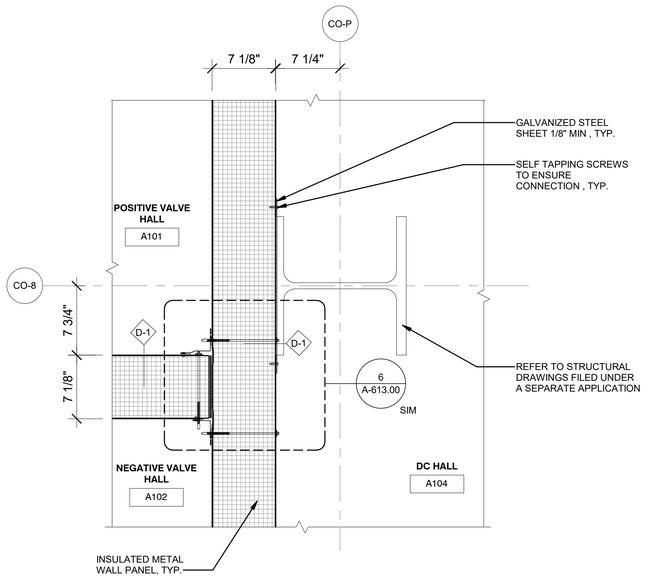
PLAN DETAILS 3

REGISTERED ARCHITECT
ALEXANDRE SOWINSKI SULLIVAN
026049
STATE OF NEW YORK

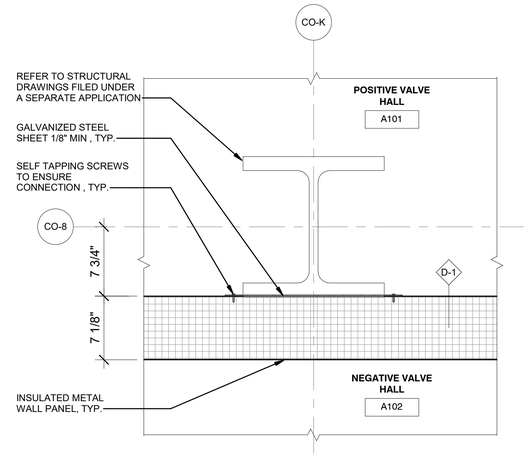
DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR
DRAWING NO	A-606.00
CADD FILE N0	Autodesk Docs://CHPE Astoria/CHA-KIE-111-ZZ-M3-A-001.rvt



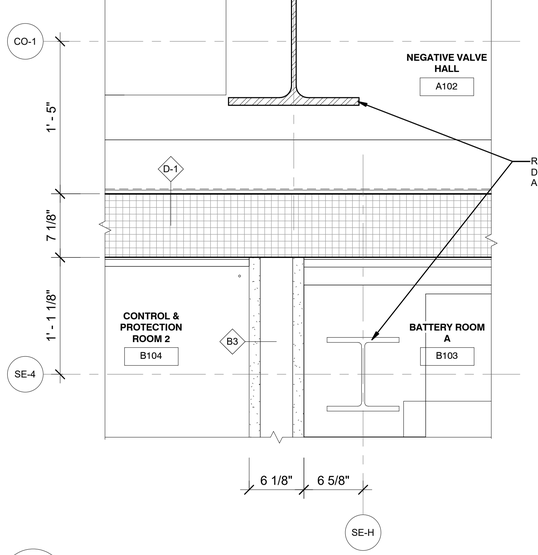
1 / A-103.00 PLAN DETAIL - PART C - VALVE HALL & DC HALL
1 1/2" = 1'-0"



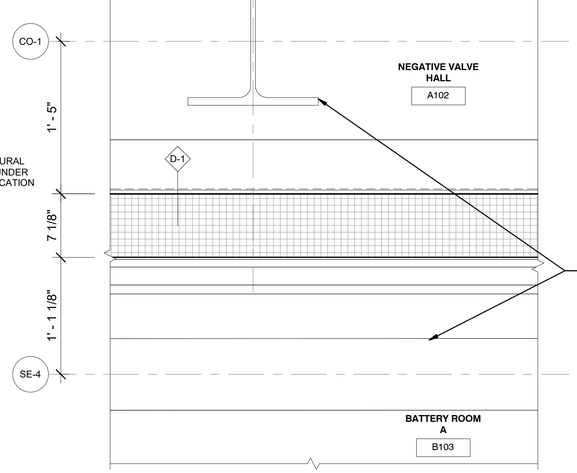
5 / A-103.00 PLAN DETAIL - PART C - VALVE HALLS & DC HALL
1 1/2" = 1'-0"



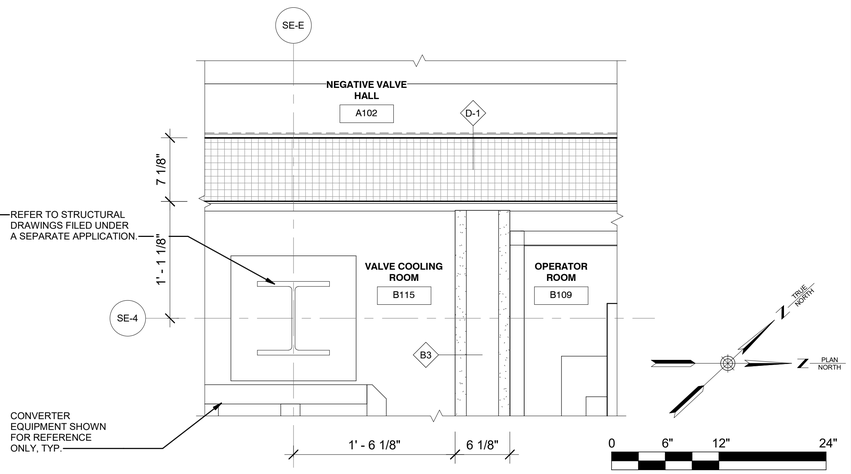
4 / A-103.00 PLAN DETAIL - PART C - VALVE HALLS 1 & 2
1 1/2" = 1'-0"



3 / A-104.00 PLAN DETAIL - PART D - VALVE HALL 2 & BATTERY RM A
1 1/2" = 1'-0"



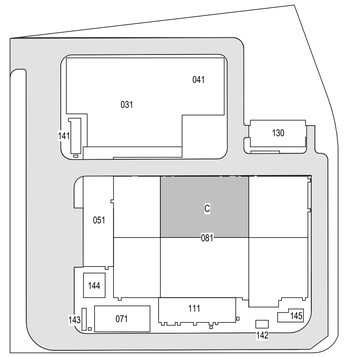
6 / A-104.00 PLAN DETAIL - PART D - VALVE HALL 2 & BATTERY RM A -2
1 1/2" = 1'-0"



2 / A-104.00 PLAN DETAIL - PART D - VALVE HALL 2 & OPERATOR RM
1 1/2" = 1'-0"

12/12/2022 1:08:43 PM

ISSUED FOR PERMIT



KEY PLAN
N.T.S.

PLAN NORTH

Engineering and Land Surveying, P.C.
370 7th Avenue
SUITE 1604
New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE & ENGINEERING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
B	FINAL SUBMISSION	RAC	ZH	12/12/2022
A	INTERIM SUBMISSION	RAC	ZH	09/13/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

PROJECT

CHPE
Champlain Hudson Power Express

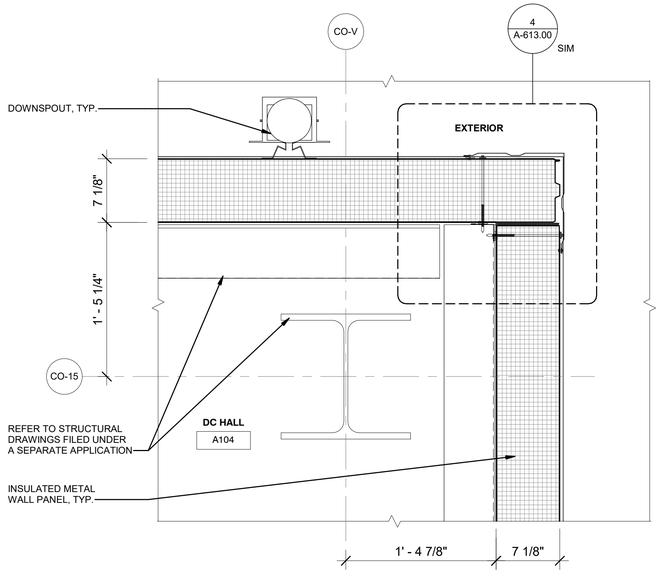
Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

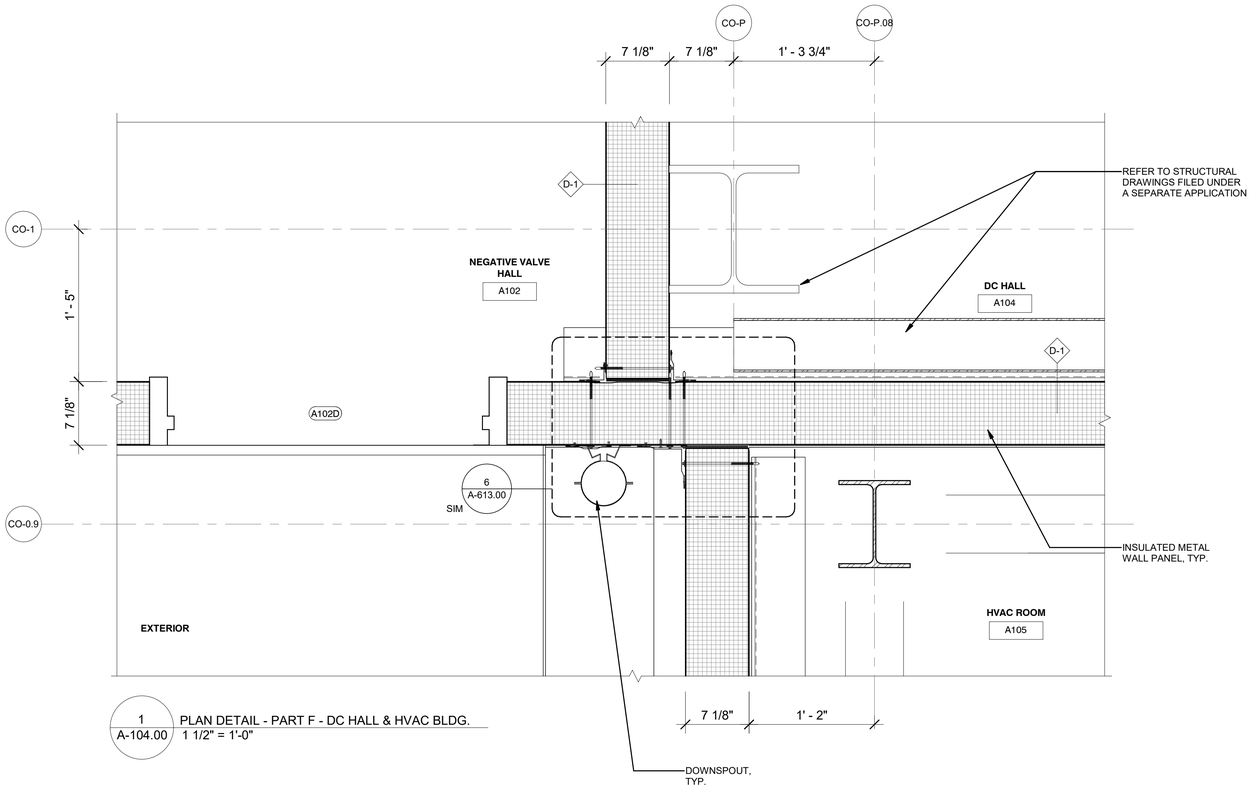
PLAN DETAILS 4

REGISTERED ARCHITECT ALEXANDRE SOWINSKI GUILLAUMAN 026049 STATE OF NEW YORK

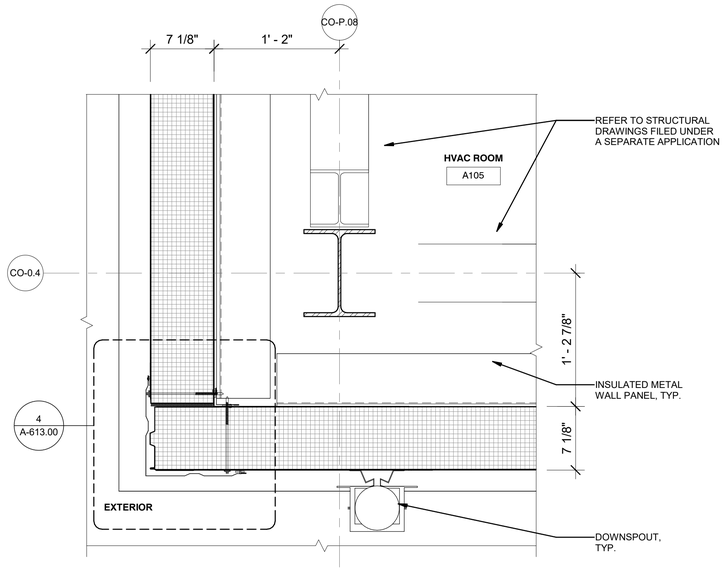
DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR
DRAWING NO	A-607.00
CADD FILE N0	Autodesk Docs://CHPE Astoria/CHA-KIE-111-ZZ-M3-A-001.rvt



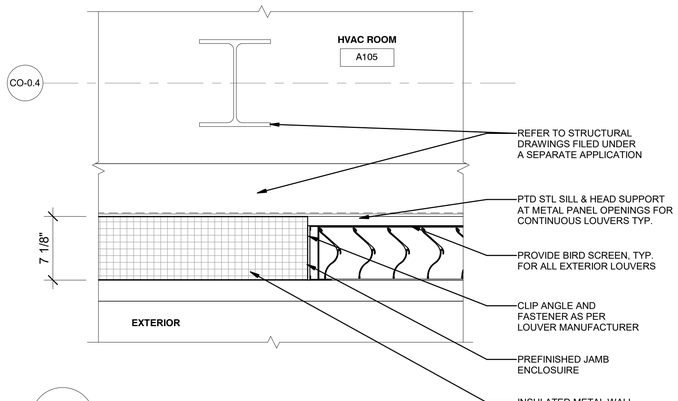
3 / A-105.00 PLAN DETAIL - PART E - DC HALL CORNER
1 1/2" = 1'-0"



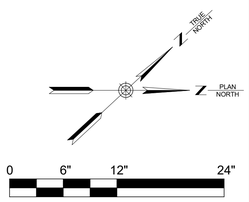
1 / A-104.00 PLAN DETAIL - PART F - DC HALL & HVAC BLDG.
1 1/2" = 1'-0"



2 / A-106.00 PLAN DETAIL - PART F - HVAC ENCLOSURE CORNER
1 1/2" = 1'-0"



4 / A-106.00 PLAN DETAIL - PART F - HVAC ENCLOSURE
1 1/2" = 1'-0"



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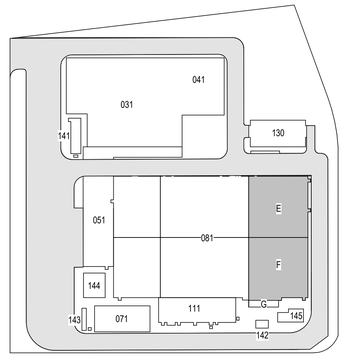
ISSUED FOR PERMIT



KEY PLAN
N.T.S.

PLAN NORTH

Engineering and
Land Surveying, P.C.
370 7th Avenue
SUITE 1604
New York, NY 10001

SOWINSKI SULLIVAN
ARCHITECTURE+ENGINEERING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
0	FINAL SUBMISSION	RAC	ZH	12/12/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

PROJECT

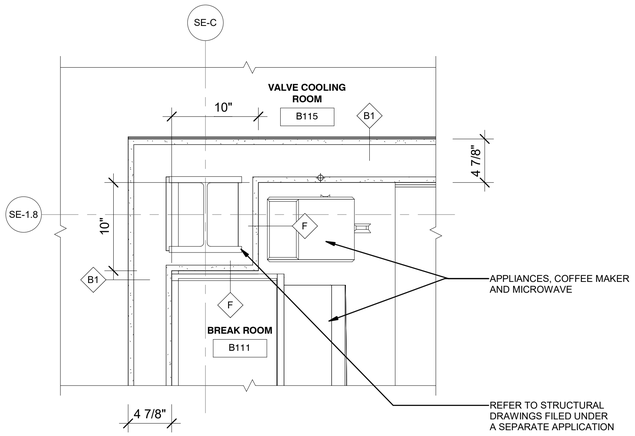
CHPE
Champlain Hudson
Power Express

Astoria HVDC Converter Station

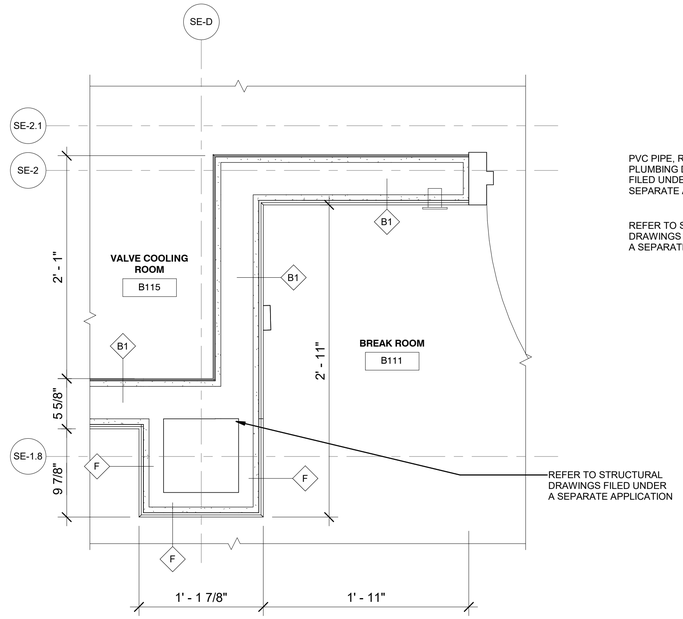
31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

PLAN DETAILS 5

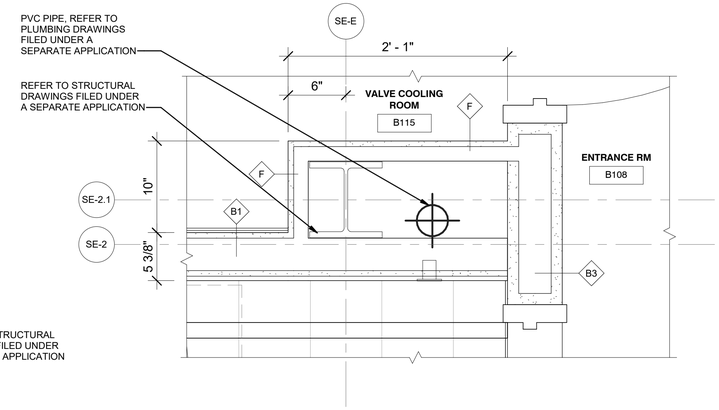
DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR
DRAWING NO	A-608.00
CADD FILE NO	Autodesk Docs://CHPE Astoria/CHA-K0E-111-ZZ-M3-A-001.rvt



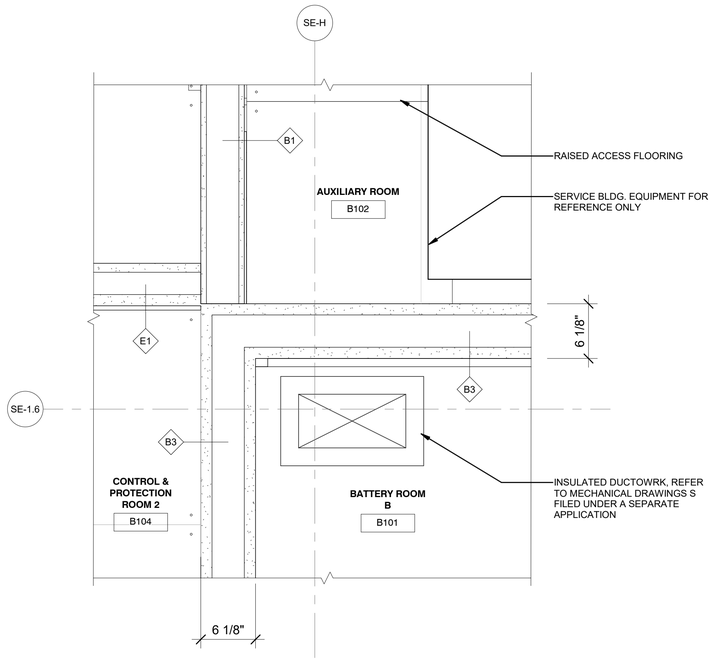
1 / A-403.00 PLAN DETAIL 1 - SERVICE BLDG. FIRST FLOOR
1 1/2" = 1'-0"



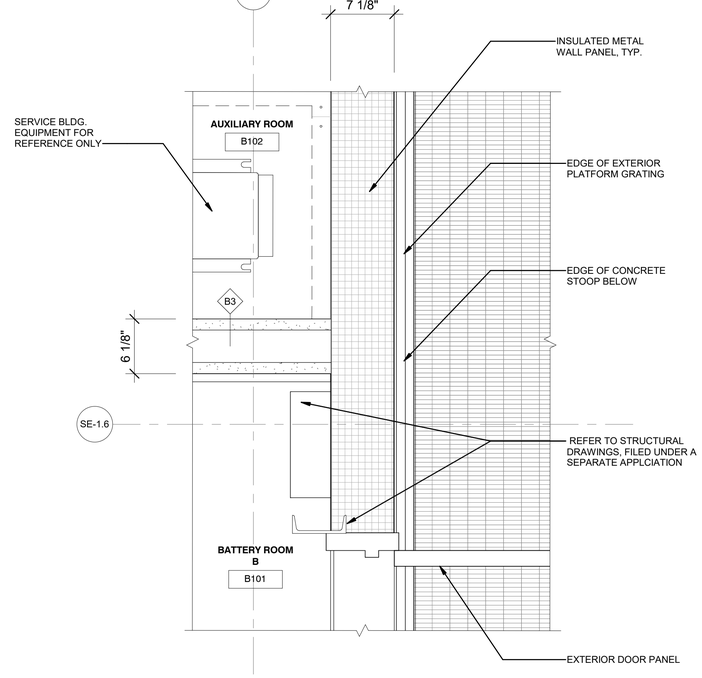
2 / A-403.00 PLAN DETAIL 2 - SERVICE BLDG. FIRST FLOOR
1 1/2" = 1'-0"



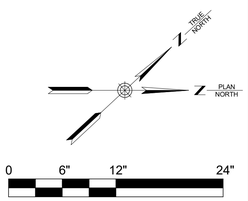
3 / A-403.00 PLAN DETAIL 3 - SERVICE BLDG. FIRST FLOOR
1 1/2" = 1'-0"



4 / A-409.00 PLAN DETAIL 4 - SERVICE BLDG. FIRST FLOOR
1 1/2" = 1'-0"



5 / A-409.00 PLAN DETAIL 5 - SERVICE BLDG. FIRST FLOOR
1 1/2" = 1'-0"



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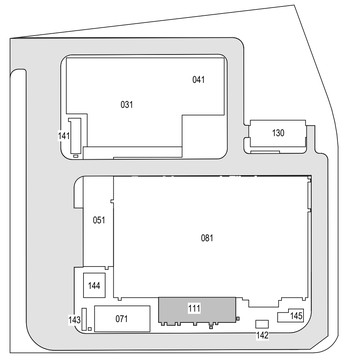
ISSUED FOR PERMIT



KEY PLAN N.T.S.

PLAN NORTH

Engineering and Land Surveying, P.C.
370 7th Avenue
SUITE 1604
New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE + ENGINEERING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
B	FINAL SUBMISSION	RAC	ZH	12/12/2022
A	INTERIM SUBMISSION	RAC	ZH	09/13/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

PROJECT

CHPE
Champlain Hudson Power Express

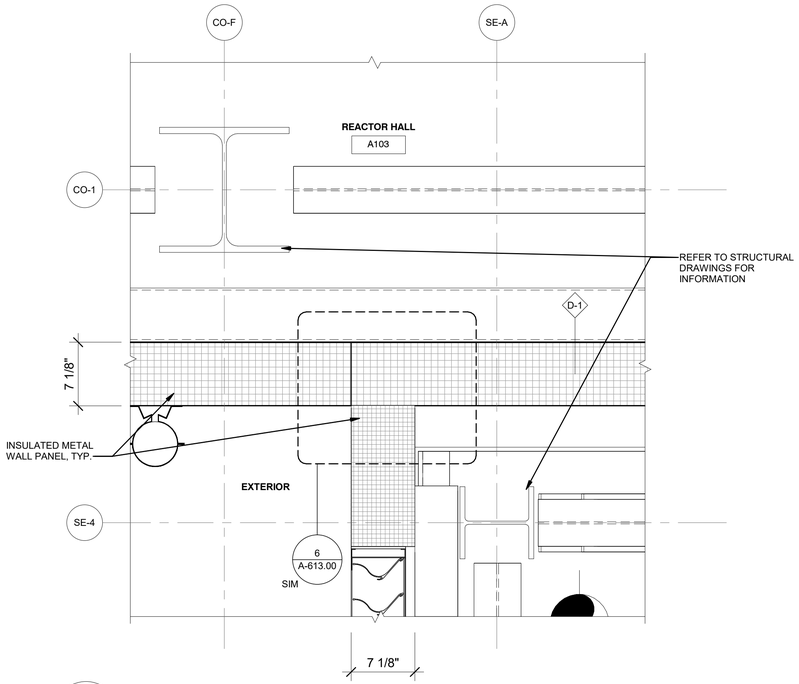
Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

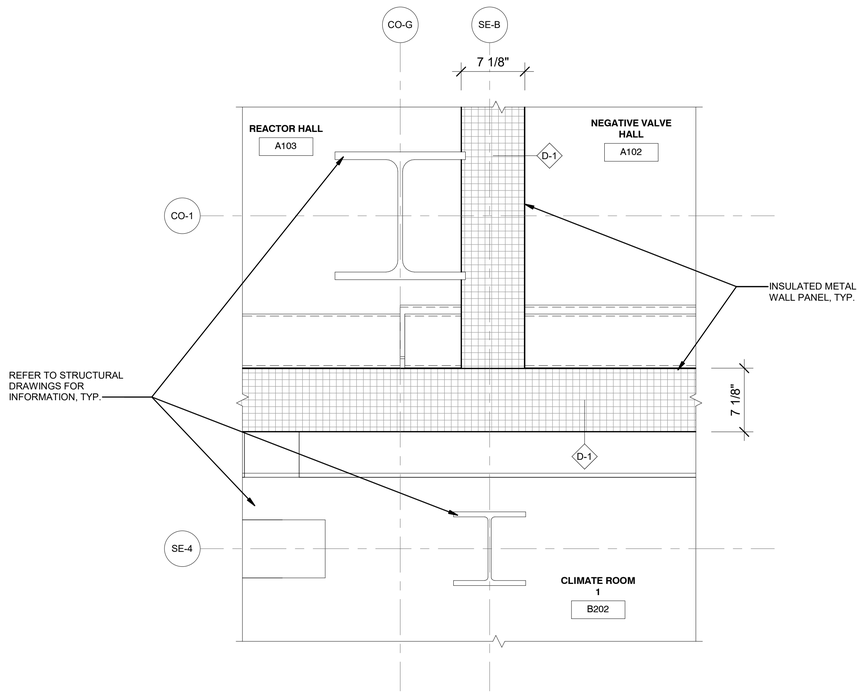
PLAN DETAILS 6

REGISTERED ARCHITECT SUZANNE SOWINSKI SULLIVAN 026049 STATE OF NEW YORK

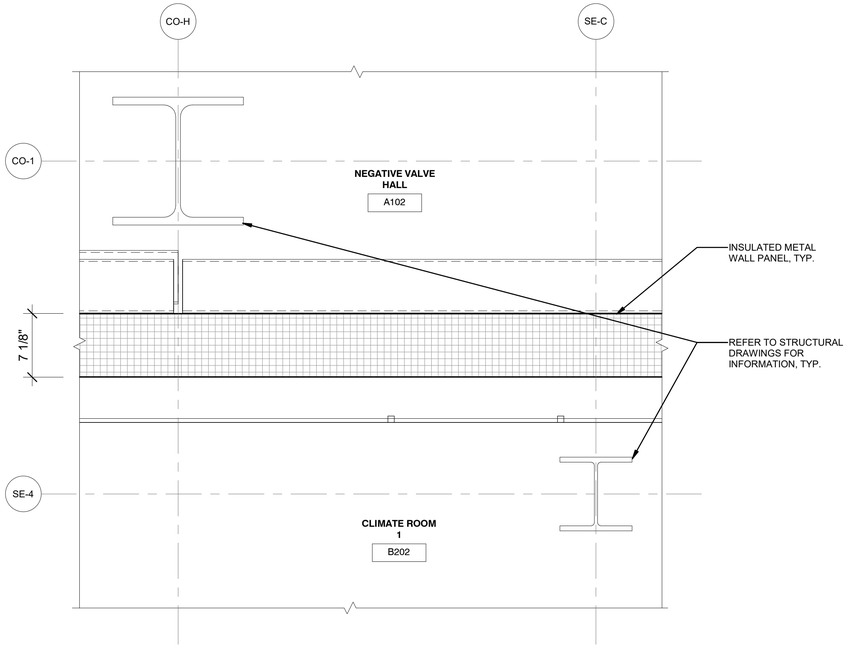
DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR
DRAWING NO	A-609.00
CADD FILE NO	Autodesk Docs://CHPE Astoria/CHA-K0E-111-ZZ-M3-A-001.rvt



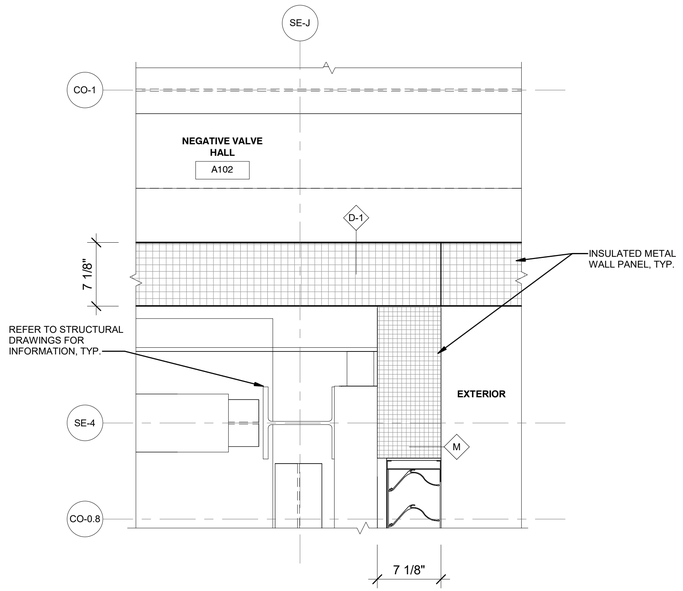
1 / A-110.00 PLAN DETAIL 1 - SERVICE BLDG. SECOND FLOOR
1 1/2" = 1'-0"



2 / A-110.00 PLAN DETAIL 2 - SERVICE BLDG. SECOND FLOOR
1 1/2" = 1'-0"



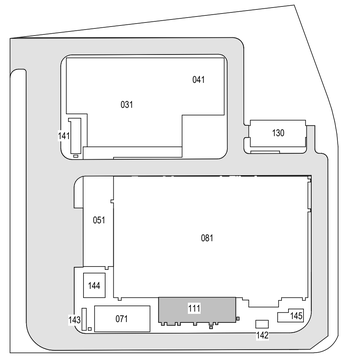
3 / A-110.00 PLAN DETAIL 3 - SERVICE BLDG. SECOND FLOOR
1 1/2" = 1'-0"



4 / A-110.00 PLAN DETAIL 4 - SERVICE BLDG. SECOND FLOOR
1 1/2" = 1'-0"

12/12/2022 1:09:12 PM

ISSUED FOR PERMIT



KEY PLAN
N.T.S.

PLAN NORTH

Engineering and Land Surveying, P.C.
370 7th Avenue
SUITE 1604
New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE & PLANNING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
B	FINAL SUBMISSION	RAC	ZH	12/12/2022
A	INTERIM SUBMISSION	RAC	ZH	09/13/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

TRUE NORTH
PLAN NORTH

0 6" 12" 24"

PROJECT

CHPE
Champlain Hudson Power Express

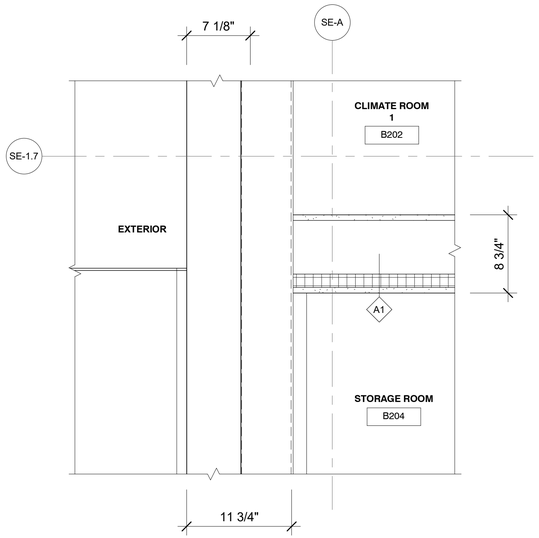
Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

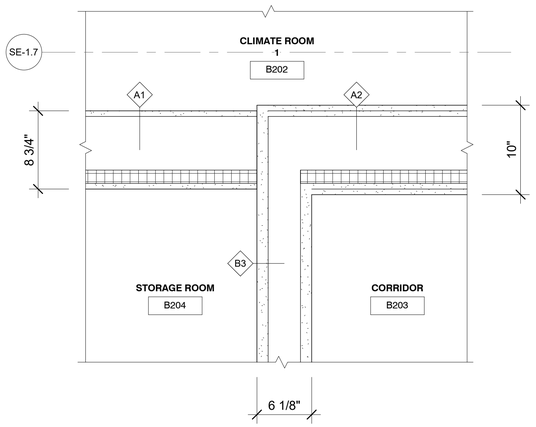
PLAN DETAILS 7

REGISTERED ARCHITECT
ROXANNE SOWINSKI SULLIVAN
026049
STATE OF NEW YORK

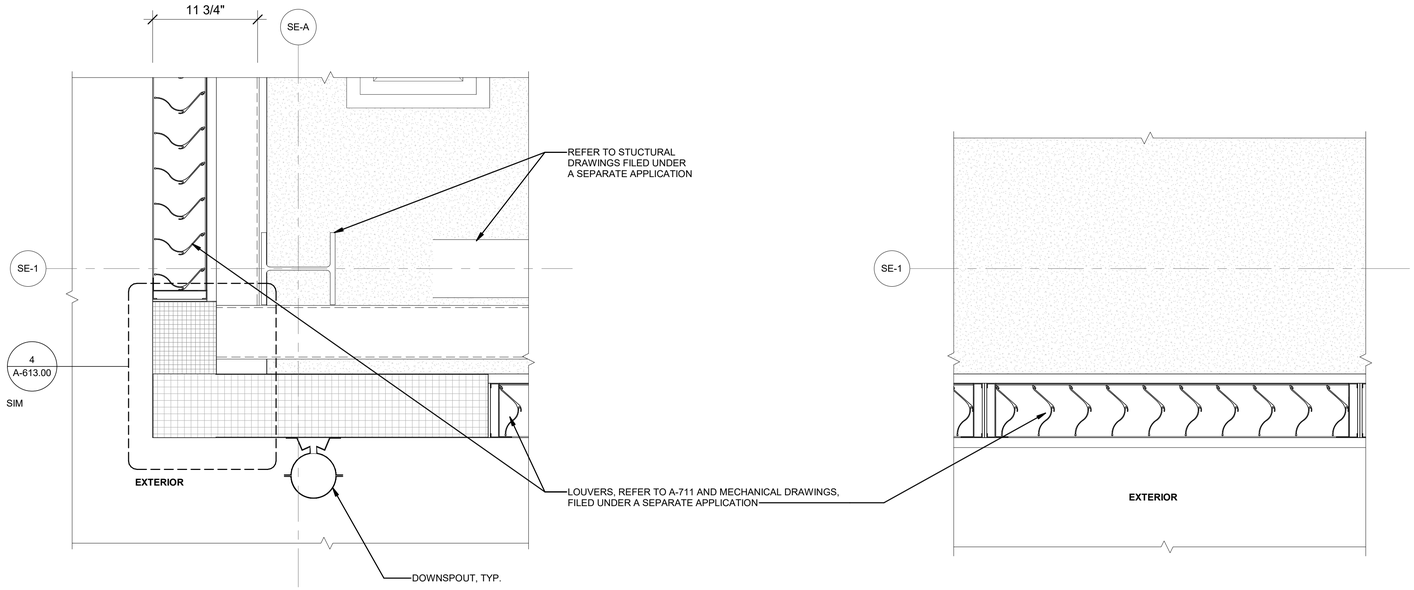
DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR
DRAWING NO	A-610.00
CADD FILE N0	Autodesk Docs://CHPE_Astoria/CHA-ASE-111-ZZ-M3-A-001.rvt



1 / A-110.00 PLAN DETAIL 5 - SERVICE BLDG. SECOND FLOOR
1 1/2" = 1'-0"



2 / A-110.00 PLAN DETAIL 6 - SERVICE BLDG. SECOND FLOOR
1 1/2" = 1'-0"

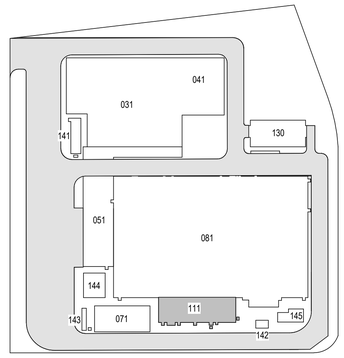


3 / A-110.00 PLAN DETAIL 7 - SERVICE BLDG. SECOND FLOOR
1 1/2" = 1'-0"

4 / A-110.00 PLAN DETAIL 8 - SERVICE BLDG. SECOND FLOOR
1 1/2" = 1'-0"

12/12/2022 1:09:16 PM

ISSUED FOR PERMIT



KEY PLAN
N.T.S.

PLAN NORTH

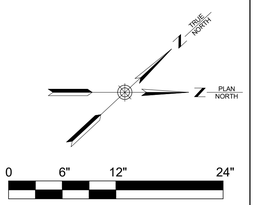
Engineering and Land Surveying, P.C.
370 7th Avenue
SUITE 1604
New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE & ENGINEERING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
B	FINAL SUBMISSION	RAC	ZH	12/12/2022
A	INTERIM SUBMISSION	RAC	ZH	09/13/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606



PROJECT

CHPE
Champlain Hudson Power Express

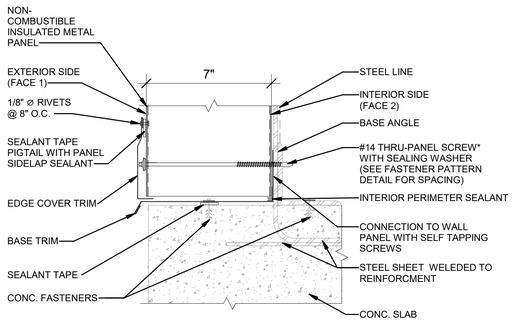
Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

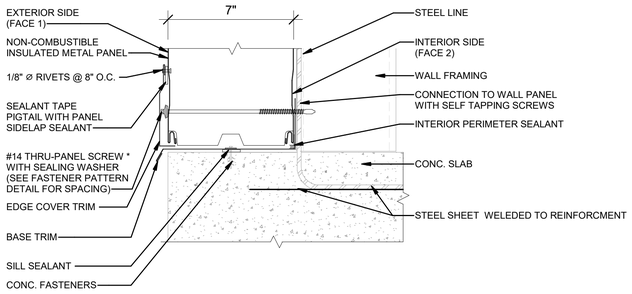
PLAN DETAILS 8

REGISTERED ARCHITECT
SUZANNE SOWINSKI SULLIVAN
026049
STATE OF NEW YORK

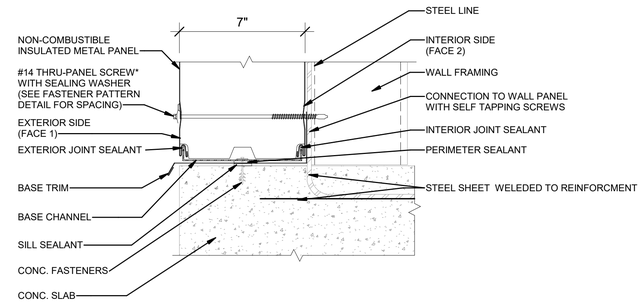
DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR
DRAWING NO	A-611.00
CADD FILE N0	Autodesk Docs://CHPE Astoria/CHA-K0E-111-ZZ-M3-A-001.rvt



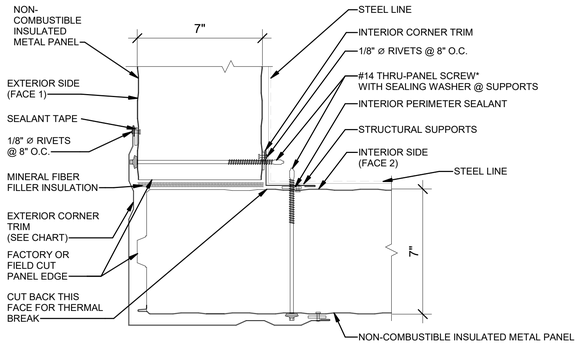
1 BASE DETAIL-BASE ANGLE VERTICAL THERMALSAFE PANEL
3" = 1'-0"



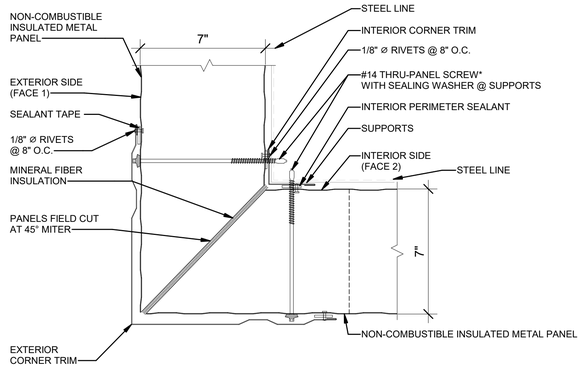
2 BASE DETAIL HORIZONTAL THERMALSAFE PANEL
3" = 1'-0"



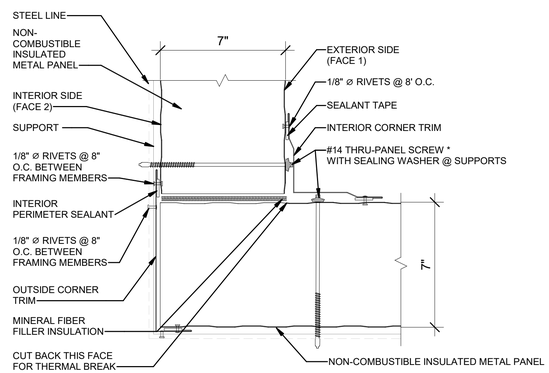
3 BASE DETAIL- BASE CHANNEL HORIZONTAL THERMALSAFE PANEL
3" = 1'-0"



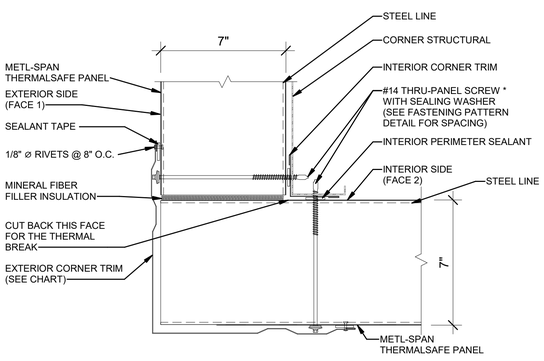
4 OUTSIDE CORNER VERTICAL THERMALSAFE PANEL
A-604.00 3" = 1'-0"



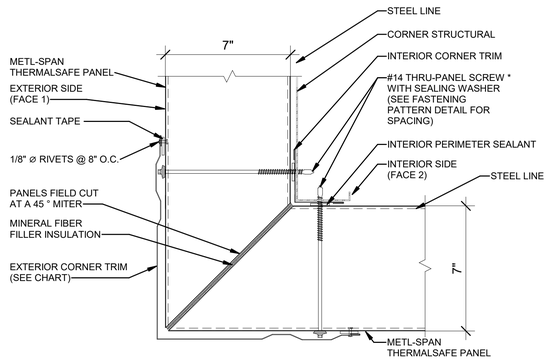
5 OUTSIDE CORNER - MITERED VERTICAL THERMALSAFE PANEL
3" = 1'-0"



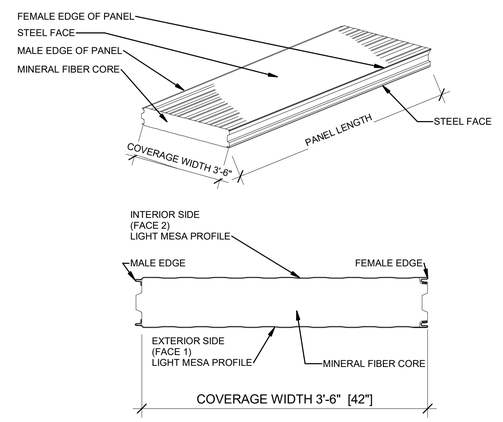
6 INSIDE CORNER VERTICAL THERMALSAFE PANEL
A-604.00 3" = 1'-0"



7 OUTSIDE CORNER HORIZONTAL THERMALSAFE PANEL
3" = 1'-0"



8 OUTSIDE CORNER - MITERED HORIZONTAL THERMALSAFE PANEL
3" = 1'-0"



9 CROSS SECTION THERMALSAFE PANEL
3" = 1'-0"

3" 0 3" 9"

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370 7th Avenue
SUITE 1604
New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE+ENGINEERING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
0	FINAL SUBMISSION	RAC	ZH	12/12/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

PROJECT

CHPE Champlain Hudson Power Express

Astoria HVDC Converter Station

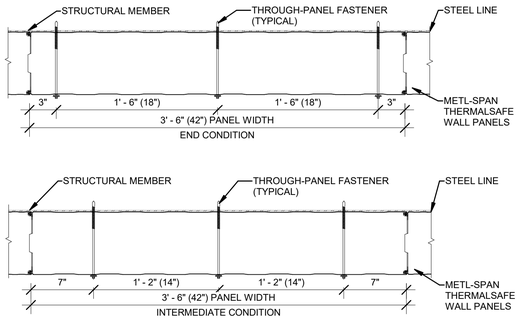
31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

MISCELLANEOUS DETAILS 1

REGISTERED ARCHITECT ALEXANDRE SOWINSKI SULLIVAN 026049 STATE OF NEW YORK

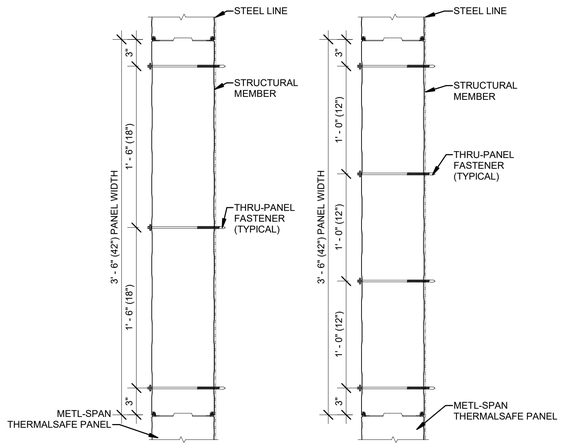
DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR
DRAWING NO	A-613.00
CADD FILE N0	Autodesk Docs://CHPE Astoria/CHA-KIE-111-ZZ-M3-A-001.rvt

12/8/2022 11:26:38 AM



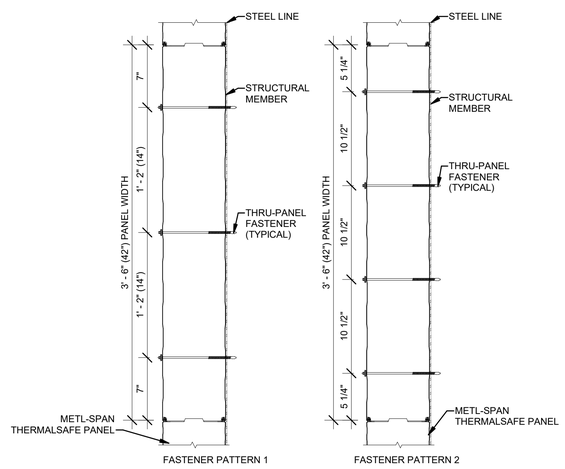
NOTE: FASTENER PATTERN TO BE DETERMINED PER SPECIFIC PROJECT DESIGN REQUIREMENTS.

1 FASTENER PATTERNS TSFP1 VERTICAL THERMALSAFE PANEL
1 1/2" = 1'-0"



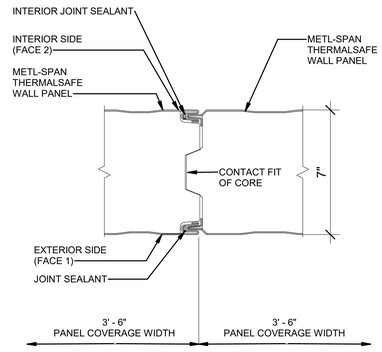
NOTE: FASTENER PATTERN TO BE DETERMINED PER SPECIFIC PROJECT DESIGN REQUIREMENTS.

4 FASTENER PATTERNS AT PANEL ENDS HORIZONTAL THERMALSAFE PANEL
1 1/2" = 1'-0"

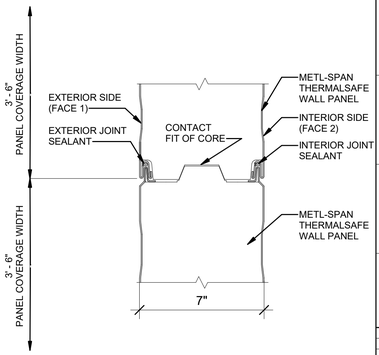


NOTE: FASTENER PATTERN TO BE DETERMINED PER SPECIFIC PROJECT DESIGN REQUIREMENTS.

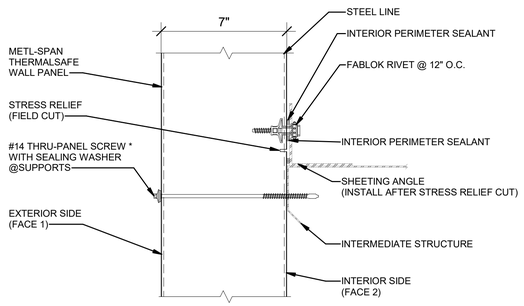
5 INTERMEDIATE FASTENER PATTERNS FOR HORIZONTAL THERMALSAFE PANEL
1 1/2" = 1'-0"



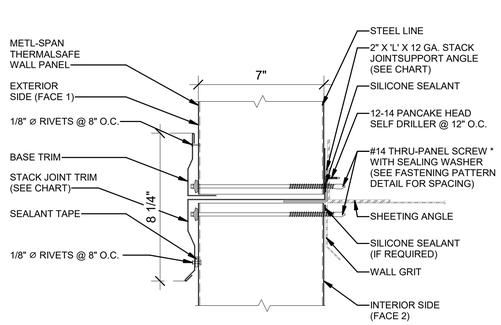
6 VERTICAL JOINT DETAIL THERMALSAFE PANEL
3" = 1'-0"



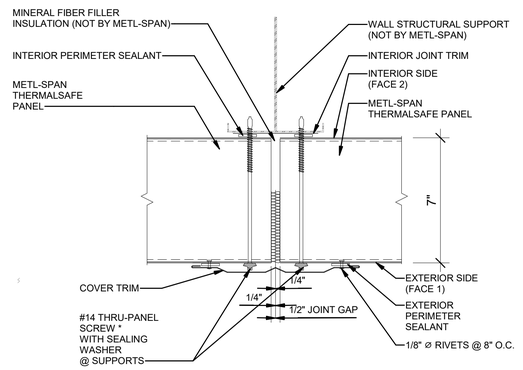
7 HORIZONTAL JOINT DETAIL THERMALSAFE PANEL
3" = 1'-0"



8 INTERMEDIATE FASTENER ATTACHMENT THERMAL STRESS RELIEF VERTICAL THERMALSAFE PANEL
3" = 1'-0"



9 VERTICAL STACK JOINT THERMALSAFE PANEL
A-509.00 3" = 1'-0"



10 VERTICAL JOINT DETAIL HORIZONTAL THERMALSAFE PANEL
3" = 1'-0"

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New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE+ENGINEERING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
0	FINAL SUBMISSION	RAC	ZH	12/12/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

PROJECT

CHPE
Champlain Hudson Power Express

Astoria HVDC Converter Station

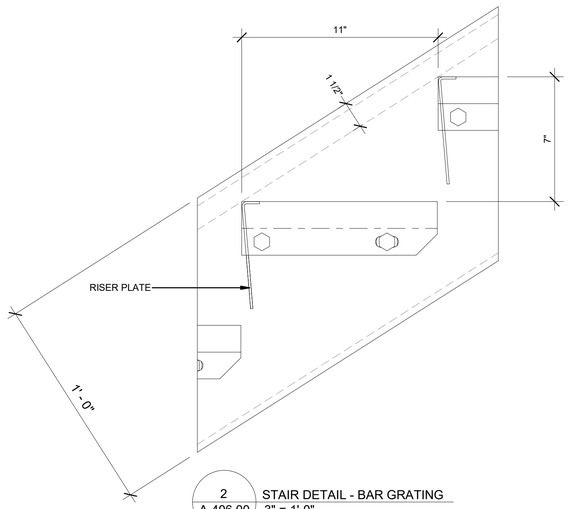
31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

MISCELLANEOUS DETAILS 2

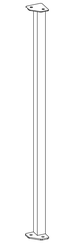
REGISTERED ARCHITECT SUZANNE SOWINSKI SULLIVAN 026049 STATE OF NEW YORK

DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR
DRAWING NO	A-614.00
CADD FILE NO	Autodesk Docs://CHPE Astoria/CHA-R0E-111-ZZ-MS-A-001.rvt

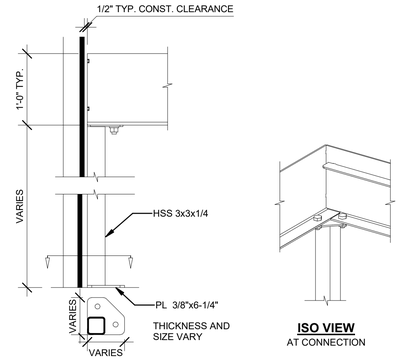
12/8/2022 11:26:42 AM



2 A-406.00 STAIR DETAIL - BAR GRATING
3" = 1'-0"



ISO VIEW

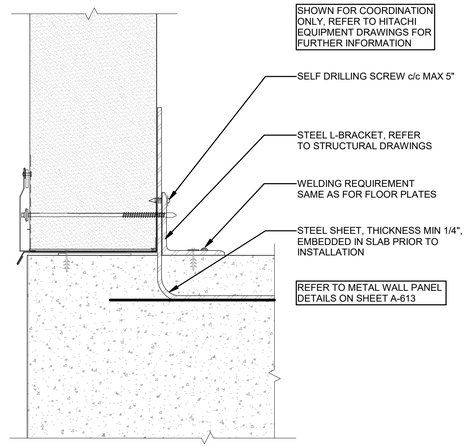


A - A

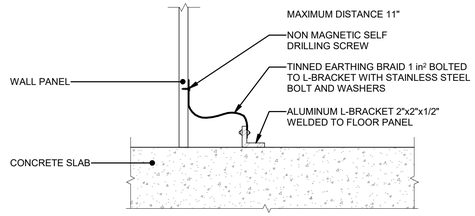
ISO VIEW
AT CONNECTION

TYPICAL COLUMN DETAIL WITH BASE PLATES

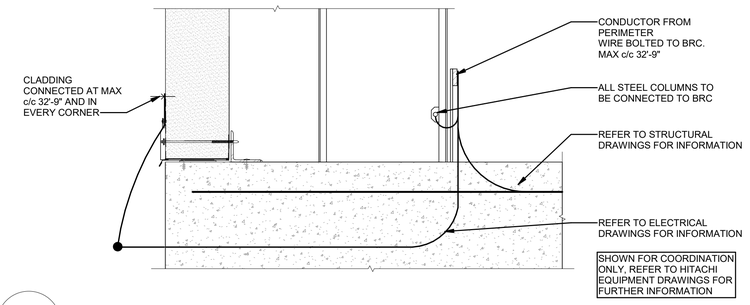
3 STAIR DETAIL - SUPPORT POST PLATFORM
3" = 1'-0"



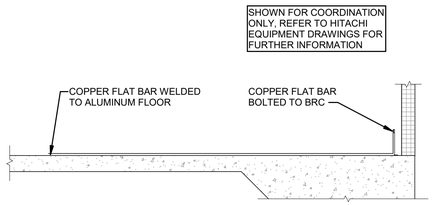
5 REACTOR HALL DETAIL FLOOR-WALL
3" = 1'-0"



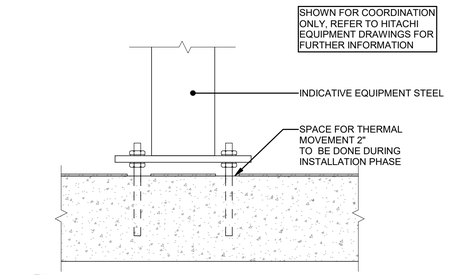
9 REACTOR HALL DETAIL WALL-FLOOR
1/2" = 1'-0"



6 REACTOR HALL GROUNDING DETAIL I
1 1/2" = 1'-0"



7 REACTOR HALL GROUNDING DETAIL II
1/2" = 1'-0"



8 REACTOR HALL BASE PLATE TYPICAL
1 1/2" = 1'-0"

3" 0 3" 9"

12/8/2022 11:26:45 AM

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370 7th Avenue
SUITE 1604
New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE+ENGINEERING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
0	FINAL SUBMISSION	RAC	ZH	12/12/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

PROJECT

CHPE
Champlain Hudson Power Express

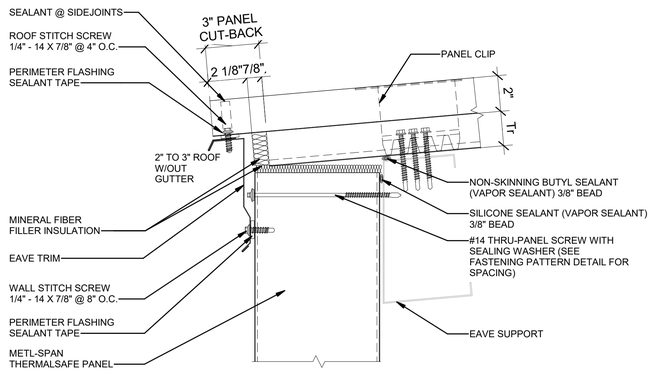
Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

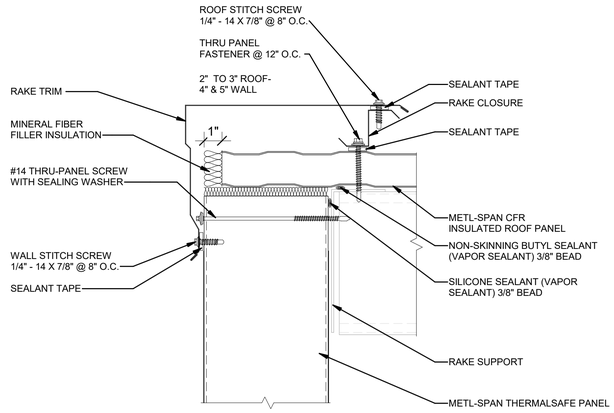
MISCELLANEOUS DETAILS 3

REGISTERED ARCHITECT SUZANNE SOWINSKI SULLIVAN 026049 STATE OF NEW YORK

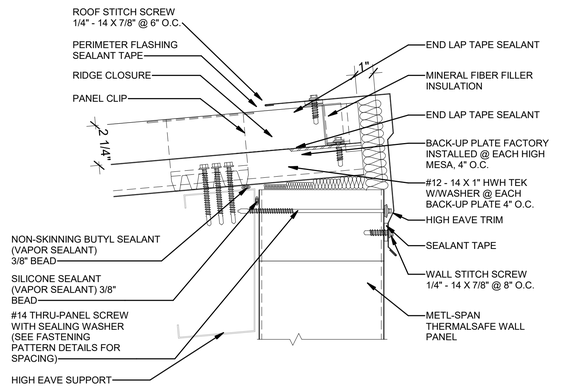
DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR
DRAWING NO	A-615.00
CADD FILE NO	Autodesk Docs://CHPE Astoria/CHA-K0E-111-ZZ-MS-A-001.rvt



1 CFR ROOF - THERMALSAFE WALL WITH EAVE TRIM
3" = 1'-0"



2 CFR ROOF - THERMALSAFE WALL STANDARD RAKE TRIM
3" = 1'-0"



3 CFR ROOF-THERMALSAFE WALL HIGH SIDE TRIM
3" = 1'-0"

4 CFR ROOF - THERMALSAFE WALL BELOW EAVE TIE-IN COMMON WALL SHEETED
3" = 1'-0"

5 CFR- THERMALSAFE WALL BELOW EAVE TIE-IN COMMON WALL OPEN
3" = 1'-0"

6 CFR ROOF - THERMALSAFE WALL RAKE PARAPET TIE-IN COMMON WALL OPEN
3" = 1'-0"

3" 0 3" 9"

12/8/2022 11:26:49 AM

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Engineering and Land Surveying, P.C.
370 7th Avenue
SUITE 1604
New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE+ENGINEERING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
0	FINAL SUBMISSION	RAC	ZH	12/12/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

PROJECT

CHPE
Champlain Hudson Power Express

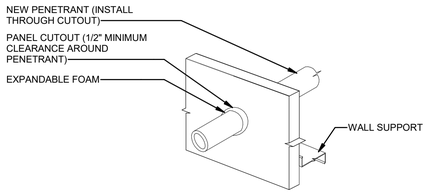
Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

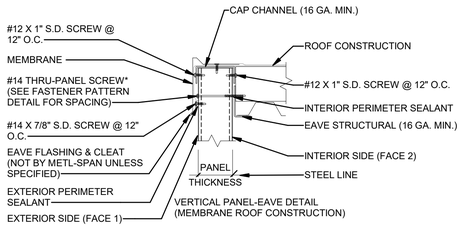
MISCELLANEOUS DETAILS 4

REGISTERED ARCHITECT SUZANNE SOWINSKI SULLIVAN 026043 STATE OF NEW YORK

DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR
DRAWING NO	A-616.00
CADD FILE N0	Autodesk Docs://CHPE Astoria/CHA-KIE-111-ZZ-M3-A-001.rvt

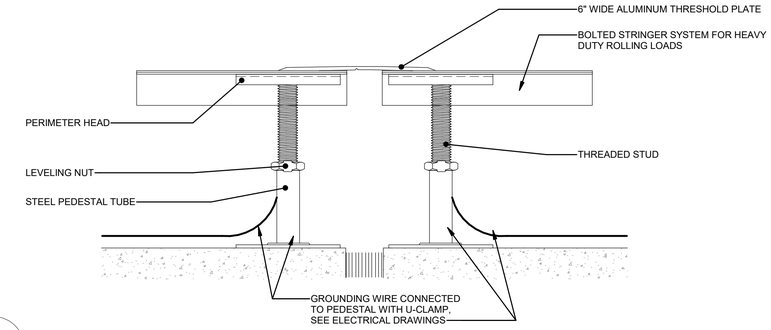


1 PIPE PENETRATION- FIELD OF PANEL
A-617.00 1" = 1'-0"

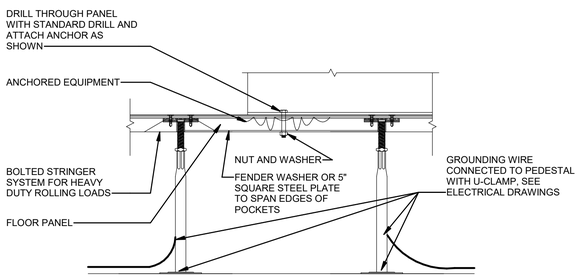


NOTES:
1. FIRE PROTECTION OF THE EAVE STRUCTURAL MAY BE REQUIRED, SUBJECT TO THE PROJECT'S BUILDING CODE REQUIREMENTS. FIRE PROTECTION OF THE STRUCTURAL MEMBERS IS NOT BY METL-SPAN.
2. *FASTENER TYPE IS SUBJECT TO THE EAVE STRUCTURAL MATERIAL AND THE PANEL THICKNESS.
3. TO CONFORM TO THE REQUIREMENTS OF THE ASTM E119 FIRE RESISTANCE RATING, THE FILLER INSULATION MUST HAVE AN APPROVED CLASSIFICATION MARKING FOR SURFACE BURNING CHARACTERISTICS OR FIRE RESISTANCE.
4. REFERENCE THE ROOF SYSTEM'S ERECTION DRAWINGS FOR SPECIFIC CONSTRUCTION DETAILS.

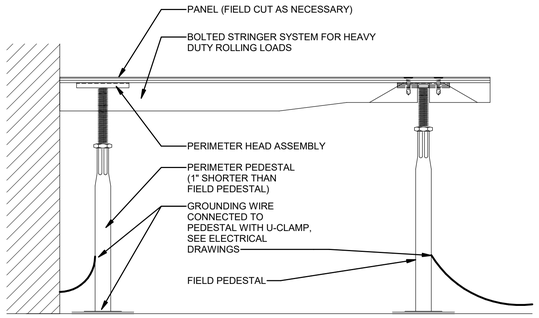
2 EXTERIOR EAVE DETAIL
A-617.00 3" = 1'-0"



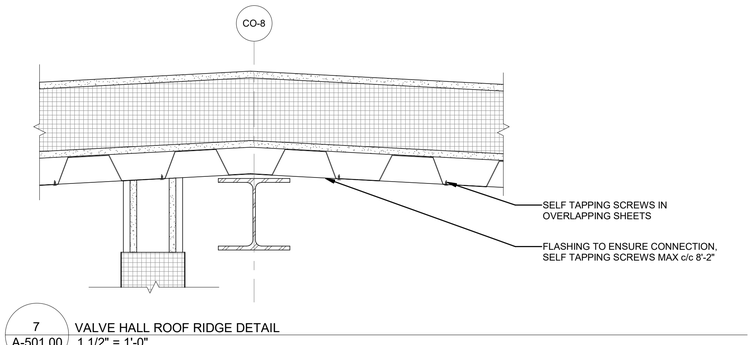
3 UNDERSTRUCTURE-EXPANSION JOINT DETAIL
A-617.00 1 1/2" = 1'-0"



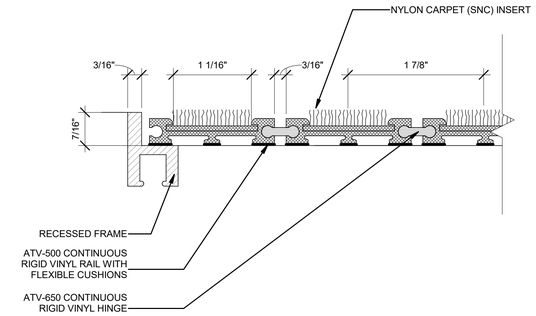
4 RAISED FLOOR ASSEMBLY
A-617.00 1/2" = 1'-0"



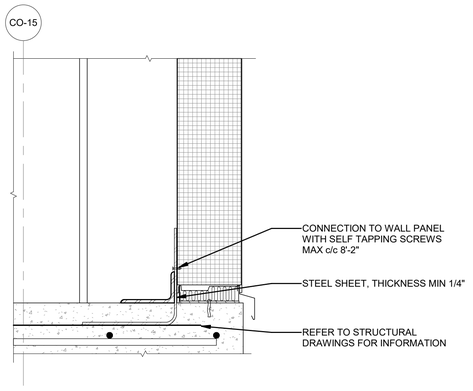
5 RAISED FLOOR SECTION DETAIL
A-617.00 3/4" = 1'-0"



7 VALVE HALL ROOF RIDGE DETAIL
A-501.00 1 1/2" = 1'-0"

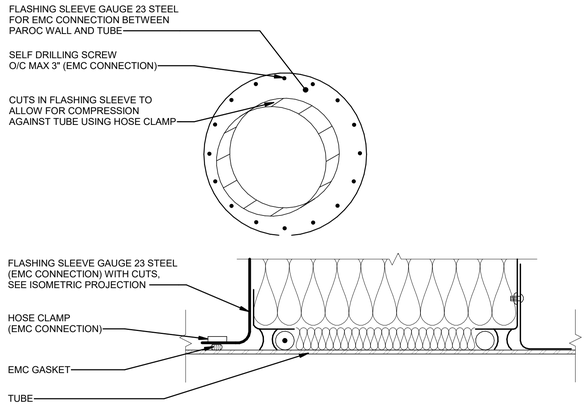


6 ENTRANCE FLOOR MAT DETAIL
A-617.00 12" = 1'-0"



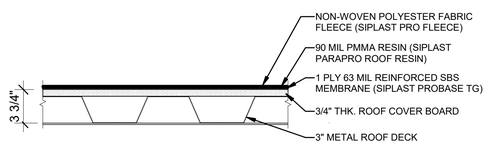
8 VALVE HALL SLAB WALL DETAIL
A-308.00 1 1/2" = 1'-0"

VALVE COOLING PIPES WERE PENETRATING THE VALVE HALL SHALL BE ELECTRICALLY CONNECTED TO THE WALL, TYPICALLY ACCORDING TO BELOW:

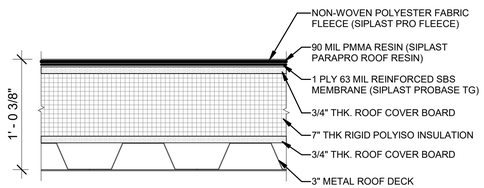


11 VALVE HALL - PENETRATION GROUNDING DETAIL
A-617.00 N.T.S.

3" 0 3" 9"



9 TYPICAL ROOF DETAIL
A-617.00 1 1/2" = 1'-0"



10 TYPICAL ROOF DETAIL AT VALVE HALL
A-617.00 1 1/2" = 1'-0"

12/12/2022 1:09:28 PM

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Engineering and Land Surveying, P.C.
370 7th Avenue
SUITE 1604
New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE & ENGINEERING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
B	FINAL SUBMISSION	RAC	ZH	12/12/2022
A	INTERIM SUBMISSION	RAC	ZH	09/13/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

PROJECT

CHPE
Champlain Hudson Power Express

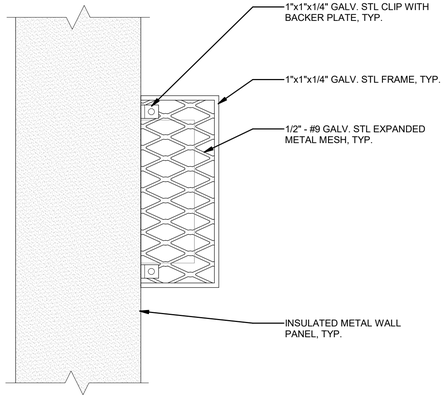
Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

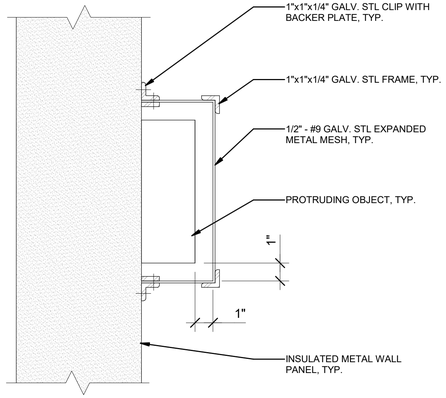
MISCELLANEOUS DETAILS 5

REGISTERED ARCHITECT ALEXANDRE SOWINSKI SULLIVAN STATE OF NEW YORK 026043

DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR
DRAWING NO	A-617.00
CADD FILE N0	Autodesk Docs://CHPE Astoria/CHA-KE-111-ZZ-M3-A-001.rvt

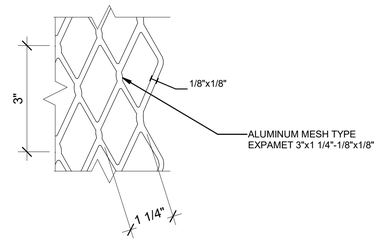


1 A-618.00 FARADAY CAGE ELEVATION DETAIL
3" = 1'-0"



2 A-618.00 FARADAY CAGE SECTION DETAIL
3" = 1'-0"

IF DETAILS CANNOT BE ACHIEVED WHEN USING SANDWICH PANELS, AN EXPANDED METAL MESH SHOULD BE USED INSTEAD, PROVIDING A FARADAYS CAGE WITH THE BELOW CHARACTERISTICS:



3 A-618.00 FARADAY CAGE GROUNDING DETAIL
6" = 1'-0"

3" 0 3" 9"

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ISSUED FOR PERMIT

Engineering and Land Surveying, P.C.
370 7th Avenue
SUITE 1604
New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE & LC NEERING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
B	FINAL SUBMISSION	RAC	ZH	12/12/2022
A	INTERIM SUBMISSION	RAC	ZH	09/13/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

PROJECT

CHPE
Champlain Hudson Power Express

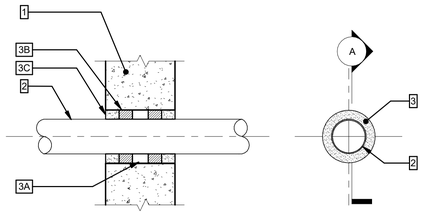
Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

MISCELLANEOUS DETAILS 6

REGISTERED ARCHITECT SUZANNE SOWINSKI SULLIVAN 026049 STATE OF NEW YORK

DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR
DRAWING NO	A-618.00
CADD FILE NO	Autodesk Docs://CHPE Astoria/CHA-K0E-111-ZZ-MS-A-001.rvt



SECTION "A"

FIRE STOPPING DETAIL, NON-METALLIC PIPE THROUGH MASONRY WALL

UL SYSTEM NO. W-J-2005 FOR, 2 HR. RATING

1. RATED PARTITION REFER TO ARCHITECTURAL DRAWINGS FOR FURTHER INFORMATION. MAXIMUM DIAMETER OF OPENING IS 8".

2. ONE NON-METALLIC PIPE TO BE INSTALLED CENTERED WITHIN THE FIRESTOP SYSTEM. PIPE TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY.

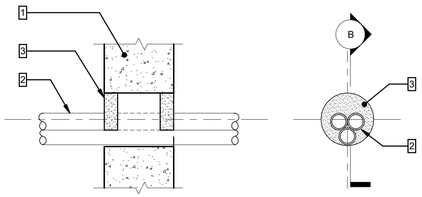
   PIPE: MAX. NOMINAL 4" DIA (OR SMALLER) SCHEDULE 40 PVC or SDR17 CPVC PIPE IN CLOSED PIPING SYSTEMS.

3A. STEEL SLEEVE OR WIRE MESH — NO. 8 STEEL WIRE MESH HAVING A MIN 1" LAP ALONG THE LONGITUDINAL SEAM. LENGTH OF SLEEVE TO BE 1/4" TO 1/2" LESS THAN OVERALL THICKNESS OF WALL SUCH THAT WHEN INSTALLED IN CIRCULAT OPENING, THE ENDS OF THE SLEEVE ARE RECESSED 1/8" TO 1/4" FROM EACH SURFACE OF THE WALL. SLEEVE MAY ALSO BE FORMED OF MIN 0.034" THICK GALV SHEET STEEL.

3B. PACKING MATERIAL — MINERAL WOOL BATT INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED FROM BOTH SURFACES OF WALL AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL.

3C. FILL, VOID, OR CAVITY MATERIAL - CAULK: MINIMUM 1 1/4" FORMING AND FILL DEPTH APPLIED WITHIN THE ANNULUS, FLUSH WITH BOTH SURFACES OF WALL.

CAULK MANUFACTURED BY:
RECTORSEAL - METACAULK 950, OR APPROVED EQUAL



SECTION "B"

FIRE STOPPING DETAIL, NON-METALLIC PIPE THROUGH MASONRY WALL

UL SYSTEM NO. W-J-2043 FOR, 2 HR. RATING

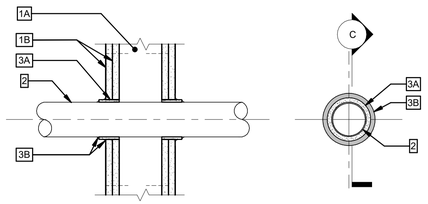
1. RATED PARTITION REFER TO ARCHITECTURAL DRAWINGS FOR FURTHER INFORMATION. MAXIMUM DIAMETER OF OPENING IS 3 1/2".

2. ONE TO THREE NON-METALLIC PIPE, CONDUITS, OR TUBES TO BE BUNDLED TOGETHER AND INSTALLED ECCENTRICALLY OR CONCENTRICALLY WITHIN THE FIRESTOP SYSTEM. SEPARATION BETWEEN PENETRANTS TO BE MIN 0" (POINT OF CONTACT) TO MAX 1". PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY.

   PIPE, CONDUIT OR TUBING:
   A. MAX. NOMINAL 1" DIA (OR SMALLER) SCHEDULE 40 PVC or SDR17 CPVC PIPE IN CLOSED PIPING SYSTEMS.
   B. RIGID NONMETALLIC CONDUIT: MAX. NOMINAL 1" DIA (OR SMALLER) SCHEDULE 40 PVC CONDUIT INSTALLED IN ACCORDANCE WITH ARTICLE 347 OF NFPA 70.
   C. ELECTRICAL NONMETALLIC TUBING: MAX. NOMINAL 1" DIA (OR SMALLER) SCHEDULE 40 PVC TUBING INSTALLED IN ACCORDANCE WITH ARTICLE 331 OF NFPA 70.
   D. OPTICAL FIBER RACEWAY: MAX. NOMINAL 1" DIA (OR SMALLER) FORMED FROM PVC OR PVDF INSTALLED IN ACCORDANCE WITH ARTICLE 770 OF NFPA 70.
   E. MAX. NOMINAL 1" DIA (OR SMALLER) SDR9 PEX TUBING FOR USE IN CLOSED PIPING SYSTEMS.

3. FILL, VOID, OR CAVITY MATERIAL - SEALANT: MINIMUM 5/8" THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH BOTH SURFACES OF WALL ASSEMBLY. SEALANT TO BE FORCED INTO INTERSTICES BETWEEN PENETRANTS TO MAXIMUM EXTENT FOSSIBLE. AT POINT OF CONTACT LOCATION, MIN 1/4" DIA BEAD OF FILL MATERIAL APPLIED AT NONMETALLIC PIPE/CONCRETE INTERFACE ON BOTH SURFACES OF WALL.

SEALANT MANUFACTURED BY:
SPECIFIED TECHNOLOGIES INC - SPECSEAL SSS SERIES OR LCI SEALANT, OR APPROVED EQUAL



SECTION "C"

FIRE STOPPING DETAIL, NON-METALLIC PIPE THROUGH FRAMED WALL

UL SYSTEM NO. W-L-2003 FOR, 2 HR. RATING

1. RATED PARTITION REFER TO ARCHITECTURAL DRAWINGS FOR FURTHER INFORMATION. MAXIMUM DIAMETER OF OPENING IS 3 1/8".

2. ONE NON-METALLIC PIPE OR CONDUIT TO BE CENTERED IN THE THROUGH OPENING. PIPE OR CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY.

   PIPE OR CONDUIT:
   A. MAX NOMINAL 2" DIA (OR SMALLER) SCHEDULE 40 SOLID CORE PVC PIPE IN CLOSED OR VENTED SYSTEM.
   B. RIGID NONMETALLIC CONDUIT — MAX NOMINAL 2" DIA (OR SMALLER) SCHEDULE 40 OR 80 PVC CONDUIT INSTALLED IN ACCORDANCE WITH NFPA 70.
   C. MAX NOMINAL 2" DIA (OR SMALLER) SDR13.5 CPVC PIPE IN CLOSED SYSTEMS.
   D. MAX NOMINAL 2" DIA (OR SMALLER) SCHEDULE 40 CELLULAR CORE PVC PIPE IN CLOSED OR VENTED SYSTEMS.
   E. MAX NOMINAL 2" DIA (OR SMALLER) SCHEDULE 40 SOLID CORE ABS PIPE IN CLOSED OR VENTED SYSTEMS.
   F. MAX NOMINAL 2" DIA (OR SMALLER) SCHEDULE 40 CELLULAR CORE ABS PIPE IN CLOSED OR VENTED SYSTEMS.

3. FIRESTOP SYSTEM — INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL ASSEMBLY.

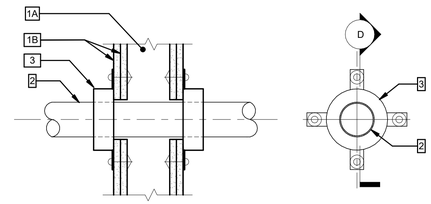
   A. WRAP STRIP — NOMINAL 1/4" THICK INTUMESCENT ELASTOMERIC MATERIAL FACED ON ONE SIDE WITH ALUMINUM FOIL, SUPPLIED IN 2" WIDE STRIPS. NOMINAL 2" WIDE STRIP TIGHTLY WRAPPED AROUND NONMETALLIC PIPE (FOIL SIDE OUT) WITH SEAM BUTTED. WRAP STRIP LAYER SECURELY BOUND WITH STEEL WIRE OR ALUMINUM FOIL TAPE AND SLID INTO ANNULAR SPACE APPROX 1-1/4" SUCH THAT APPROX 3/4" OF THE WRAP STRIP PROTRUDES FROM THE WALL SURFACE.

      WRAP STRIP MANUFACTURED BY:
      3M COMPAMY - FS-195+, OR APPROVED EQUAL

   B. CAULK, SEALANT OR PUTTY — MIN 5/8" THICKNESS OF CAULK OR PUTTY APPLIED INTO ANNULAR SPACE BETWEEN WRAP STRIP AND PERIPHERY OF OPENING. A NOM 1/4" DIA BEAD OF CAULK OR PUTTY TO BE APPLIED TO THE WRAP STRIP/WALL INTERFACE AND TO THE EXPOSED EDGE OF THE WRAP STRIP LAYERS APPROX 3/4" FROM THE WALL SURFACE.

      CAULK, SEALANT OR PUTTY MANUFACTURED BY 3M COMPANY OR APPROVED EQUAL CP 25WB+ CAULK OR MP+ STIX PUTTY, IC 15WB+ CAULK, FIREDAM 150+ CAULK OR FB-3000 WT SEALANT

   C. FOIL TAPE (NOT SHOWN) — NOMNAL 4" WIDE, 3 MIL THICK ALUMINUM TAPE WRAPPED AROUND PIPE PRIOR TO THE INSTALLATION OF THE WRAP STRIP (ITEM 3A). MIN OF ONE WRAP, FLUSH WITH BOTH SIDES OF WALL AND PROCEEDING OUTWARD.



SECTION "D"

FIRE STOPPING DETAIL, NON-METALLIC PIPE THROUGH FRAMED WALL

UL SYSTEM NO. W-L-2037 FOR, 2 HR. RATING

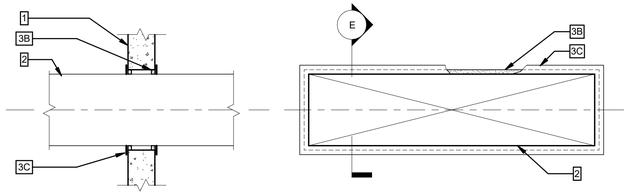
1. RATED PARTITION REFER TO ARCHITECTURAL DRAWINGS FOR FURTHER INFORMATION. MAXIMUM DIAMETER OF OPENING IS 9 1/8".

2. ONE NON-METALLIC PIPE OR CONDUIT TO BE CENTERED WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND PERIPHERY OF OPENING SHALL BE MIN 0" (POINT CONTACT) TO MAX 1/16". PIPE OR CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY.

   PIPE OR CONDUIT:
   A. MAX NOMINAL 8" DIA (OR SMALLER) SCHEDULE 40 SOLID CORE PVC PIPE IN CLOSED OR VENTED SYSTEM.
   B. RIGID NONMETALLIC CONDUIT — MAX NOMINAL 4" DIA (OR SMALLER) SCHEDULE 40 PVC CONDUIT INSTALLED IN ACCORDANCE WITH ARTICLE 347 OF NFPA 70.
   C. MAX NOMINAL 4" DIA (OR SMALLER) SDR 17 CPVC PIPE IN CLOSED SYSTEMS.
   D. MAX NOMINAL 4" DIA (OR SMALLER) SCHEDULE 40 CELLULAR CORE ABS PIPE IN CLOSED OR VENTED SYSTEMS.
   F. MAX NOMINAL 4" DIA (OR SMALLER) SCHEDULE 40 FRPP PIPE IN CLOSED OR VENTED SYSTEMS.

3. FIRESTOP DEVICE - GALV STEEL COLLAR LINED WITH AN INTUMESCENT MATERIAL SIZED TO FIT THE SPECIFIC DIAMETER OF THE THROUGH-PENETRANT. DEVICE SHALL INCORPORATE FOUR ANCHOR TABS FOR SECUREMENT TO EACH SURFACE OF WALL ASSEMBLY BY MEANS OF 1/8" DIA BY 3" LONG TOGGLE BOLTS IN CONJUNCTION WITH 1/8" DIA BY 3/4" AND 1/4" DIA BY 1-1/4" STEEL FENDER WASHERS.

   COLLAR MANUFACTURED BY:
   RECTORSEAL - FSD DEVICE, OR APPROVED EQUAL



SECTION "E"

FIRE STOPPING DETAIL, STEEL DUCT THROUGH MASONRY WALL

UL SYSTEM NO. W-J-7007 FOR, 2 HR. RATING

1. RATED PARTITION REFER TO ARCHITECTURAL DRAWINGS FOR FURTHER INFORMATION. MAXIMUM AREA OF OPENING IS 73.7 SF WITH MAX DIMENSION OF 104".

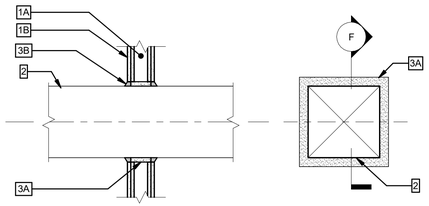
2. ONE GALV STEEL DUCT, NO 26 GAUGE (OR HEAVIER), MAX 100" BY 100" TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE SPACE BETWEEN THE STEEL DUCT AND PERIPHERY OR OPENING SHALL BE MIN 0" (POINT CONTACT) TO MAX 2". STEEL DUCT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF THE WALL ASSEMBLY.

3A. PACKING MATERIAL — (OPTIONAL, NOT SHOWN) - POLYETHYLENE BACKER ROD, MINERAL WOOL BATT INSULATION OR FIBERGLASS BATT INSULATION FRICTION FITTED INTO ANNULAR SPACE OF OPENING. PACKING MATERIAL TO BE RECESSED FROM BOTH SURFACES OF WALL AS REQUIRED THICKNESS OF FILL MATERIAL.

3B. SEALANT — MIN 5/8" THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH BOTH SURFACES OF WALL. AT THE POINT CONTACT LOCATION BETWEEN THE STEEL DUCT AND THE CONCRETE WALL, A MIN 1/4" DIA BEAD OF FILL MATERIAL SHALL BE APPLIED AT THE CONCRETE/STEEL DUCT INTERFACE ON BOTH SURFACES OF WALL ASSEMBLY.

   SEALANT MANUFACTURED BY:
   SPECIFIED TECHNOLOGIES INC - SPECSEAL SERIES SSS OR LCI SEALANT, OR APPROVED EQUAL

3C. STEEL RETAINING ANGLES — MIN NO. 16 GAUGE GALV STEEL ANGLES SIZED TO LAP STEEL DUCT A MIN OF 2" AND TO LAP WALL SURFACES A MIN OF 1". ANGLES ATTACHED TO STEEL DUCT ON BOTH SIDES OF WALL WITH MIN NO. 10 BY 1/2" LONG STEEL SHEET METAL SCREWS LOCATED A MAX OF 1" FROM EACH END OF THE STEEL DUCT AND SPACED A MAX OF 6" OC.



SECTION "F"

FIRE STOPPING DETAIL, STEEL DUCT THROUGH MASONRY WALL

UL SYSTEM NO. W-J-7006 FOR, 2 HR. RATING

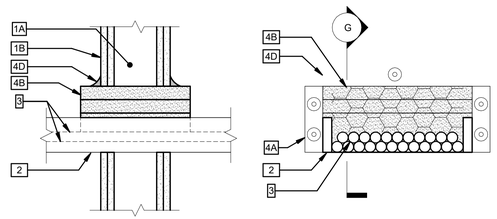
1. RATED PARTITION REFER TO ARCHITECTURAL DRAWINGS FOR FURTHER INFORMATION. MAXIMUM AREA OF OPENING IS 196 SQUARE INCHES WITH MAX DIMENSIONS OF 14".

2. ONE GALV STEEL DUCT, NO 24 GAUGE (OR HEAVIER), MAX NOMINAL 12" BY 12" (OR SMALLER) TO BE CENTERED WITHIN THE FIRESTOP SYSTEM. A NOMINAL 1" ANNULAR SPACE IS REQUIRED. STEEL DUCT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF THE WALL ASSEMBLY.

3A. PACKING MATERIAL — MIN 3-1/2" THICKNESS OF MIN 4 PCF MINERAL WOOL BATT INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED FROM BOTH SURFACES OF WALL TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL.

3B. SEALANT — MIN 3/4" THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, ON BOTH SURFACES OF WALL. ADDITIONAL FILL MATERIAL TO BE INSTALLED SUCH THAT A MIN 1/4" THICK CROWN IS FORMED AROUND THE PENETRATING ITEM AND LAPPING A MIN 1/4" BEYOND THE PERIPHERY OF THE OPENING.

   SEALANT MANUFACTURED BY:
   RECTORSEAL - FLAMESAFE FS1900, METACAULK 1000, METACAULK 350i, BIOSTOP 350i, BIOSTOP 500+, OR APPROVED EQUAL



SECTION "G"

FIRE STOPPING DETAIL, CABLE TRAY THROUGH FRAMED WALL

UL SYSTEM NO. W-L-4003 FOR, 2 HR. RATING

1. RATED PARTITION REFER TO ARCHITECTURAL DRAWINGS FOR FURTHER INFORMATION. MAXIMUM AREA OF OPENING IS 160 SQUARE INCHES WITH MAX DIMENSION OF 20".

2. ONE CABLE TRAY SHALL BE INSTALLED IN THE OPENING. THE ANNULAR SPACE BETWEEN THE CABLE TRAY THE AND TOP AND BOTTOM OF THE OPENING SHALL RANGE FROM 0" (POINT CONTACT) TO A MAX 2". THE ANNULAR SPACE BETWEEN THE CABLE TRAY AND EACH SIDE SHALL BE A NOMINAL 1".

   CABLE TRAY:
   A. MAX 18" WIDE BY 6" DEEP OPEN LADDER CABLE FORMED FROM NO. 16 MSG (0.060") THICK GALV STEEL WITH 1" WIDE BY 3/4" DEEP GALV STEEL RUNGS SPACED 9" OC.
   B. MAX 18" WIDE BY 4" DEEP OPEN LADDER ALUMINUM TRAY FORMED FROM 0.060 IN. THICK ALUMINUM WITH 1 IN. WIDE BY 1-7/16 IN. DEEP ALUMINUM RUNGS SPACED 9 IN. OC.

3. AGGREGATE CROSS-SECTIONAL AREA OF CABLES IN CABLE TRAY TO BE MAX 30 PERCENT OF THE CROSS-SECTIONAL AREA OF THE CABLE TRAY BASED ON A MAX 3" CABLE LOADING DEPTH WITHIN THE CABLE TRAY. THE MAX CABLE LOADING WITHIN THE CABLE TRAY IS DEPENDENT UPON THE DEPTH OF THE CABLE TRAY. FOR CABLE TRAYS HAVING A DEPTH OF 4 IN. OR LESS, THE MAX CABLE LOADING DEPTH IS 30 PERCENT. FOR CABLE TRAYS HAVING A DEPTH GREATER THAN 4 IN., THE MAX CABLE LOADING IS 18 PERCENT. ANY COMBINATION OF THE FOLLOWING TYPES AND SIZES OF COPPER CONDUCTOR CABLES MAY BE USED:

   CABLES:
   A. MAX 1/C NO. 300 KCMIL CABLE WITH XLPE JACKET.

4. FIRESTOP SYSTEM
   A. STEEL CHANNEL — "C" SHAPED CHANNEL FIELD FABRICATED FROM MIN NO. 30 MSG (0.016 IN.) THICK GALV SHEET STEEL. CHANNEL SHALL CONSIST OF TWO MIN 3" WIDE BY 6" LONG FLANGE AND A MIN 5" DEEP BY 6" WIDE WEB. THE CHANNELS SHALL BE FITTED AGAINST EACH SIDE OF THE OPENING. EACH FLANGE SHALL BE SECURED TO THE STEEL STUDS ON BOTH SURFACES OF THE WALL BY MEANS OF 2-1/4" LONG TYPE S SELF-DRILLING, SELF-TAPPING BUGLE-HEAD STEEL SCREWS AND 1/4" BY 1-1/2" DIA STEEL FENDER WASHERS, SPACED 4" OC.
   B. PILLOWS — MAX 9-1/2" LONG BY 6" WIDE BY 2-1/4" THICK PLASTIC COVERED INTUMESCENT PILLOWS. PILLOWS TO BE INSTALLED WITH 9-1/2" DIMENSION PROJECTING THROUGH WALL AND CENTERED WITHIN THE OPENING OF THE WALL ASSEMBLY. PILLOWS TIGHTLY PACKED INTO OPENING TO FILL THE ANNULAR SPACE BETWEEN CABLES AND PERIPHERY OF OPENING AND BETWEEN CABLE TRAY AND PERIPHERY OF OPENING.

      PILLOW MANUFACTURED BY:
      EGS NELSON FIRESTOP - TYPE PLW, OR APPROVED EQUAL

   C. PUTTY (NOT SHOWN) — AFTER INSTALLATION OF THE PILLOWS, PUTTY SHALL BE APPLIED TO SEAL ANY VOIDS BETWEEN THE CABLES AND THE PILLOWS AND BETWEEN THE CABLE TRAY AND THE PILLOWS ON BOTH SIDES OF WALL ASSEMBLY.

      PUTTY MANUFACTURED BY:
      EGS NELSON FIRESTOP - TYPE FSP PUTTY, OR APPROVED EQUAL

   D. WIRE LATH NOMINAL 2" HEXAGONAL SHAPED WIRE LATH FABRICATED FROM MIN NO. 19 SWG (0.041 IN.) GALV STEEL WIRE. WIRE LATH CUT TO FIT THE CONTOUR OF THE OPENING WITH A MIN 3" LAP BEYOND THE PERIPHERY OF THE OPENING TO KEEP THE PILLOWS IN PLACE. WIRE LATH SECURED TO BOTH SURFACES OF WALL ASSEMBLY BY MEANS OF 2-1/4 IN. LONG TYPE S SELF-DRILLING, SELF-TAPPING BUGLE-HEAD STEEL SCREWS AND 1/4 IN. BY 1-1/2 IN DIAM STEEL FENDER WASHERS, SPACED 6 IN. OC.

1 / A-619.00 TYPICAL WALL PENETRATION FIRESTOPPING
N.T.S.

12/12/2022 1:09:33 PM

ISSUED FOR PERMIT

Engineering and Land Surveying, P.C.
370 7th Avenue
SUITE 1604
New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE & ENGINEERING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
B	FINAL SUBMISSION	RAC	ZH	12/12/2022
A	INTERIM SUBMISSION	RAC	ZH	09/13/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

PROJECT

CHPE
Champlain Hudson Power Express

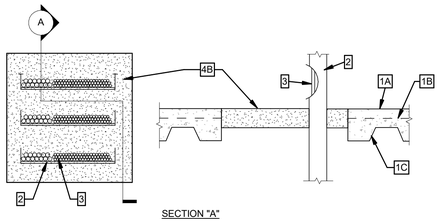
Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

TYPICAL FIRESTOPPING DETAILS I

REGISTERED ARCHITECT ZUZANNA SOWINSKI SULLIVAN 026049 STATE OF NEW YORK

DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR
DRAWING NO	A-619.00
CADD FILE NO	Autodesk Docs://CHPE Astoria/CHA-KIE-111-ZZ-M3-A-001.rvt



SECTION "A"

FIRE STOPPING DETAIL, THROUGH-PENETRATION FIRESTOP SYSTEMS

UL SYSTEM NO. F-A-4002 FOR, 3 HR. RATING

1. THE FIRE-RATED UNPROTECTED STEEL DECK FLOOR-CEILING ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL D900 SERIES DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND AS SUMMARIZED BELOW:
   A. CONCRETE THICKNESS ABOVE THE CREST OF THE DECK SHALL BE MIN 2-1/2". NORMAL WEIGHT CONCRETE WITH CARBONATE OR SILICEOUS AGGREGATE, 145 TO 155 PCF UNIT WEIGHT, MIN 3000 PSI COMPRESSIVE STRENGTH. LIGHTWEIGHT CONCRETE EXPANDED SHALE, CLAY, OR SLATE AGGREGATE, 105 TO 115 PCF UNIT WEIGHT, MIN 3000 PSI COMPRESSIVE STRENGTH.
   B. WELDED WIRE FABRIC - 6 X 6, W1.4 X W1.4.
   C. STEEL FLOOR AND FORM UNITS - COMPOSITE OR NONCOMPOSITE 1-5/16" TO 3" DEEP GALV UNITS OR AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGNS. MAX AREA OF OPENING IS 1024 SQ IN. WITH MAX DIMENSION OF 32".

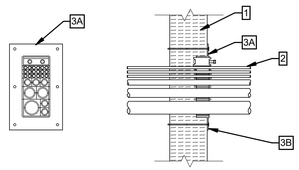
2. THE FOLLOWING TYPES OF CABLE TRAYS MAY BE USED:
   A. MAX 24" WIDE BY MAX 4" DEEP OPEN-LADDER CABLE TRAY WITH CHANNEL-SHAPED SIDE RAILS FORMED OF MIN 0.048" THICK STEEL AND WITH RUNGS SPACED 9" IN OC.
   B. MAX 24" WIDE BY MAX 4" DEEP OPEN-LADDER CABLE TRAY FORMED OF MIN 0.060" THICK ALUMINUM SIDE RAILS AND WITH RUNGS SPACED 9" OC.

   A MAX OF THREE CABLE TRAYS TO BE INSTALLED IN THE OPENING. OF THE THREE CABLE TRAYS, ONLY ONE MAY BE ALUMINUM. THE ANNULAR SPACE BETWEEN CABLE TRAYS SHALL BE A MIN 5-1/4". THE ANNULAR SPACE BETWEEN CABLE TRAYS AND PERIPHERY OF THE OPENING SHALL BE MIN 1 IN. CABLE TRAYS TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY.

3. CABLES - AGGREGATE CROSS-SECTIONAL AREA OF CABLES IN CABLE TRAY SHALL BE MAX 30 PERCENT OF THE CROSS-SECTIONAL AREA OF STEEL CABLE TRAY AND MAX 20 PERCENT OF THE CROSS-SECTIONAL AREA OF ALUMINUM CABLE TRAY, BASED ON A MAX 3" CABLE LOADING DEPTH WITHIN THE CABLE TRAY. ANY COMBINATION OF THE FOLLOWING TYPES AND SIZES OF COPPER CONDUCTOR CABLES MAY BE USED:
   A. MAX 350 KCMIL SINGLE-CONDUCTOR POWER CABLES WITH POLYVINYL CHLORIDE (PVC) INSULATION AND JACKET.
   B. MAX 7/C NO. 12 AWG COPPER CONDUCTOR CABLE WITH PVC INSULATION AND JACKET.
   C. MAX 100 PAIR NO. 24 AWG CABLE WITH PVC INSULATION AND JACKET.
   D. MAX 3/C NO. 2 AWG COPPER CONDUCTOR CABLE WITH PVC INSULATION AND JACKET.
   E. MAX 3/C NO. 16 AWG COPPER CONDUCTOR CABLE WITH PVC INSULATION AND JACKET.
   F. FIBER OPTICAL COMMUNICATION CABLE 62.5/125 UM.

4. THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING:
   A. FORMS — (NOT SHOWN) — USED AS A FORM TO PREVENT LEAKAGE OF FILL MATERIAL DURING INSTALLATION. FORMS TO BE A RIGID SHEET MATERIAL, CUT TO FIT THE CONTOUR OF THE PENETRATING ITEM AND POSITIONED AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIALS. FORMS MAY BE REMOVED AFTER FILL MATERIAL HAS CURED.
   B. FILL, VOID OR CAVITY MATERIAL — MORTAR — MIN 2-1/2" THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS FLUSH WITH TOP SURFACE OF FLOOR. MORTAR TO BE FORCED INTO INTERSTICES OF CABLES TO MAX EXTENT POSSIBLE. MORTAR TO BE MIXED WITH WATER AT A RATE OF 1.9 TO 2.4 GAL (7-9 LITERS) PER 25 LB BAG IN ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS.

1 / A-620.00 TYPICAL WALL PENETRATION FIRESTOPPING II
N.T.S.



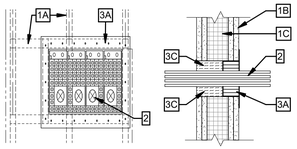
FIRE STOPPING DETAIL THROUGH-PENETRATION FIRESTOP SYSTEMS

UL SYSTEM NO. W-N-8002, 2 HR. RATING

1. THROUGH-PENETRANTS — WITHIN THE LOADING AREA FOR THE FIRESTOP DEVICE, THE PENETRANTS MAY REPRESENT A 0 TO 100 PERCENT VISUAL FILL. PENETRANTS TO BE INSTALLED THROUGH THE FIRESTOP DEVICE AND THE INSULATION CORE OF THE PARTITION PANEL TO PASS THROUGH THE OPENING. PENETRANTS TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY.
   A. CABLES — THE FOLLOWING CABLE TYPES MAY BE USED:
   B. METALLIC PENETRANTS —THE FOLLOWING TYPES AND SIZES OF METALLIC PENETRANTS MAY BE USED:

2. FIRESTOP SYSTEM — THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING:
   A. FIRESTOP DEVICES — FIRESTOP DEVICES EACH CONSIST OF A RECTANGULAR STEEL FRAME WITH INTEGRAL FLANGE, MULTI DIAMETER ELASTOMERIC SEALING MODULES, STEEL STAY PLATES AND A COMPRESSION UNIT CONSISTING OF A ROXTEC WEDGE (OR OTHER APPROVED MATERIAL). FIRESTOP DEVICE FRAME SHALL BE INSTALLED INTO THE PANEL CUTOUT AT ONE SIDE OF WALL WITH THE FLANGE OF DEVICE INSTALLED FLUSH AGAINST STEEL SKIN OF PARTITION PANEL. THE RECTANGULAR PACKING AREA OF EACH FRAME SHALL BE FILLED WITH MULTIPLE ROWS OF MULTI DIAMETER ELASTOMERIC SEALING MODULES WITH A MAX OF ONE CABLE IN EACH SEALING MODULE. THE LAYERS OF THE MULTI DIAMETER SEALING MODULE HALVES ARE REMOVED ONE BY ONE UNTIL A MAX GAP OF 0.04"IS FORMED BETWEEN THE TWO MODULE HALVES. WHEN THE NUMBER OF SEALING MODULES EXCEEDS THE NUMBER OF CABLES, THE SOLID CYLINDRICAL CORES OF THE UNPENETRATED SEALING MODULES SHALL BE LEFT IN PLACE OR "BLANK" (SOLID) SEALING MODULES SHALL BE USED. DURING INSTALLATION OF THE ELASTOMERIC SEALING MODULES, THIN STEEL STAY PLATES SHALL BE USED TO SEPARATE THE ROWS OF SEALING MODULES AND TO RETAIN THE SEALING MODULES WITHIN THE STEEL FRAME. AFTER INSTALLATION OF THE MODULES, THE BOLTS OF THE COMPRESSION UNIT ARE TIGHTENED TO FORM AN EFFECTIVE SEAL AROUND THE THROUGH PENETRANTS AND INSERT MODULES. FIRESTOP DEVICE SECURED IN PLACE WITH MIN 1/4" DIAM BY MIN 6-1/2" LONG WASHER HEAD LAG SCREWS WITHIN EACH PREFORMED HOLE IN DEVICE FLANGE AROUND PERIPHERY OF OPENING AND EXTENDING THROUGH FULL THICKNESS OF PARTITION PANEL. THE FIRESTOP DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE ACCOMPANYING INSTALLATION INSTRUCTIONS.
   B. FILL, VOID OR CAVITY MATERIAL — SEALANT — NOM 3/8" BEAD OF FILL MATERIAL APPLIED AROUND THE PERIPHERY OF THE FIRESTOP DEVICE FRAME FLANGE AT THE INTERFACE WITH THE STEEL SKIN OF THE PARTITION PANEL. IN ADDITION, FOR L RATING, SEALANT SHALL BE APPLIED ON THE DEVICE FRAME FLANGE TO SEAL EACH SCREW HEAD LOCATION AND AT THE PANEL SEAM.

2 / A-620.00 ROXTEC THROUGH-PENETRATION FIRESTOP
N.T.S.



FIRE STOPPING DETAIL, THROUGH-PENETRATION FIRESTOP SYSTEMS

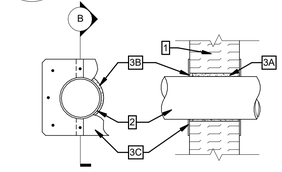
UL SYSTEMS NO. W-L-3359 FOR, 2 HR. RATING

1. WALL ASSEMBLY — THE 1 OR 2 H FIRE-RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL U400, V400 OR W400 SERIES WALL AND PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
   A. STEEL STUDS — (NOT SHOWN) — CHANNEL-SHAPED, 3-5/8" DEEP. ADDITIONAL FRAMING MEMBERS TO BE INSTALLED TO FORM A RECTANGULAR BOX HAVING DIMENSIONS WHICH ARE MAX 1/4" GREATER THAN THE WIDTH AND HEIGHT OF THE FIRESTOP DEVICE FRAME (ITEM 3A), EXCLUDING MOUNTING FLANGES. THE OPENING MUST BE FRAMED IN SUCH MANNER TO MEET STRUCTURAL REQUIREMENTS OF U400 OR V400 SERIES WALL AND PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIMENSION OF FRAMED OPENING IS 21-1/16" WIDE BY 11-5/8" HIGH (G 8X4 DEVICE).
   B. GYPSUM BOARD — FOR 2 HR RATING, TWO LAYERS OF MIN 1/2" THICK, GYPSUM BOARD, AS SPECIFIED IN THE INDIVIDUAL WALL AND PARTITION DESIGN.

2. CABLES — WITHIN THE LOADING AREA FOR EACH FIRESTOP DEVICE MODULE THE CABLES MAY REPRESENT A 0 TO 00 PERCENT VISUAL FILL. CABLES TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. ANY COMBINATION OF THE FOLLOWING TYPES AND SIZES OF CABLES MAY BE USED:

3. FIRESTOP SYSTEMS — THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING:
   A. FIRESTOP DEVICES — FIRESTOP DEVICES EACH CONSIST OF A RECTANGULAR STEEL FRAME WITH INTEGRAL FLANGE, MULTI DIAMETER ELASTOMERIC SEALING MODULES, STEEL STAY PLATES AND A COMPRESSION UNIT CONSISTING OF A ROXTEC WEDGE (OR OTHER APPROVED MATERIAL). THE FIRESTOP DEVICES SHALL BE INSERTED INTO THE FRAMED OPENING ON ONE SIDE OF THE WALL ASSEMBLY. THE STEEL FRAME OF EACH FIRESTOP DEVICE SHALL BE SECURED TO THE STEEL STUD FRAMING OF THE WALL ASSEMBLY, THROUGH THE GYPSUM BOARD LAYERS, BY MEANS OF NO. 8 BY MIN 3" LONG SELF-DRILLING, SELF-TAPPING STEEL SCREWS THROUGH THE PRE-DRILLED HOLES SPACED MAX 3-1/2" OC IN THE DEVICE FRAME MOUNTING FLANGE. THE RECTANGULAR OPENING(S) OF EACH DEVICE FRAME SHALL BE FILLED WITH MULTIPLE ROWS OF MULTI DIAMETER ELASTOMERIC SEALING MODULES WITH A MAX OF ONE CABLE IN EACH SEALING MODULE. THE SHEETS OF THE MULTI DIAMETER SEALING MODULE HALVES ARE REMOVED ONE BY ONE UNTIL A MAX GAP OF 0.04" IS FORMED BETWEEN THE TWO MODULES HALVE. WHEN THE NUMBER OF SEALING MODULES EXCEEDS THE NUMBER OF CABLES, THE SOLID CYLINDRICAL CORES OF THE UNPENETRATED SEALING MODULES SHALL BE LEFT IN PLACE OR "BLANK" (SOLID) SEALING MODULES SHALL BE USED. DURING INSTALLATION OF THE ELASTOMERIC SEALING MODULES, THIN STEEL STAY PLATES SHALL BE USED TO SEPARATE THE ROWS OF SEALING MODULES AND TO RETAIN THE SEALING MODULES WITHIN THE STEEL FRAME. AFTER INSTALLATION OF THE MODULES, THE BOLTS OF THE COMPRESSION UNIT ARE TIGHTENED TO FORM AN EFFECTIVE SEAL AROUND THE THROUGH PENETRANTS AND INSERT MODULES. THE FIRESTOP DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE ACCOMPANYING I NSTALLATION INSTRUCTIONS.
   B. SILICONE RTV SEALANT — (NOT SHOWN) — A MIN 1/4" DIAM BEAD OF SILICONE RTV SEALANT SHALL BE APPLIED AS A GASKET BETWEEN THE DEVICE FRAME MOUNTING FLANGE AND GYPSUM BOARD. THE SEALANT BEAD SHALL BE LOCATED BETWEEN THE EDGE OF THE OPENING AND THE LINE OF FASTENERS AROUND THE ENTIRE PERIMETER OF THE FRAMED OPENING.
   C. PACKING MATERIAL — PIECES OF MIN 3" THICK MIN 2.76 PCF DENSITY MINERAL WOOL BATT INSULATION CUT TO LINE FOUR SIDES OF THROUGH OPENING WITHIN WALL CAVITY. PIECES CUT TO LENGTH AND TIGHTLY FRICTION-FIT BETWEEN FRAMING OF WALL OPENING AND CABLES AND IN-BETWEEN CABLES AND MADE FLUSH WITH WALL SURFACE.

3 / A-620.00 THROUGH-PENETRATION FIRESTOPPING
N.T.S.



SECTION "B"

FIRE STOPPING DETAIL, THROUGH PENETRATION FIRESTOP SYSTEMS

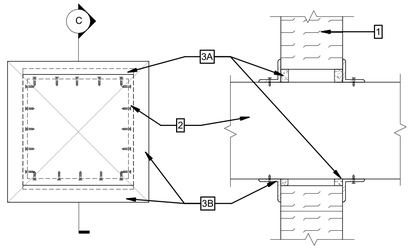
UL SYSTEM NO. W-N-1001 FOR, 2 HR. RATING

1. WALL ASSEMBLY — THE 1 OR 2 HR FIRE RATED COMPOSITE WALL ASSEMBLY SHALL BE CONSTRUCTED OF NOM 4" OR 7" THICK, RESPECTIVELY, GALVANIZED STEEL OR PAINTED GALVANIZED STEEL FACED PARTITION PANEL UNITS (CJMR) INSTALLED IN THE MANNER SPECIFIED IN WALL AND PARTITION DESIGN NO. U050 IN THE FIRE RESISTANCE DIRECTORY. MAX DIAM OF OPENING IS 20-1/4". OPENING CAN BE LOCATED ON OR OFF PANEL UNIT JOINTS.

2. THROUGH-PENETRANTS — ONE METALLIC PIPE, CONDUIT OR TUBE TO BE INSTALLED ECCENTRICALLY OR CONCENTRICALLY WITHIN THE OPENING. AN ANNULAR SPACE OF MIN 1/4 IN. (6 MM) TO MAX 1/2 IN. (13 MM) IS REQUIRED WITHIN THE FIRESTOP SYSTEM. PIPE, CONDUIT OR TUBE TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF THE WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUIT OR TUBING MAY BE USED:
   A. STEEL PIPE — NOM 18" DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.
   B. IRON PIPE — NOM 18" DIAM (OR SMALLER) CAST OR DUCTILE IRON PIPE.
   C. CONDUIT — NOM 6" DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR NOM 4 IN. DIAM (OR SMALLER) STEEL CONDUIT.
   D. COPPER TUBING — NOM 6" DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.
   E. COPPER PIPE — NOM 6" DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.

3. FIRESTOP SYSTEM — THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING:
   A. PACKING MATERIAL — MIN 4 PCF (64 KG/M3) MINERAL WOOL BATT INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM. MIN 3-1/4" AND MIN 6-1/4" THICKNESS REQUIRED FOR 1 HR AND 2 HR FIRE RATED WALLS, RESPECTIVELY. PACKING MATERIAL MAY BE RECESSED FROM ONE OR BOTH SURFACES OF WALL TO ACCOMMODATE THE THICKNESS OF THE OPTIONAL FILL MATERIAL (ITEM 3B).
   B. FILL, VOID OR CAVITY MATERIAL* — SEALANT — (OPTIONAL) - NOM 3/8" THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH ONE OR BOTH WALL SURFACES. SEE FILL, VOID OR CAVITY MATERIAL (XHHW) CATEGORY IN THE FIRE RESISTANCE DIRECTORY FOR THE NAMES OF MANUFACTURERS. ANY SEALANT OR CAULK MATERIAL MEETING THE ABOVE SPECIFICATION AND BEARING THE UL CLASSIFICATION MARKING MAY BE USED.
   C. COVER PLATE — COVER PLATE AVAILABLE FROM THE WALL PANEL MANUFACTURER OR FIELD PROVIDED. COVER PLATE FABRICATED FROM TWO PIECES OF MIN 0.019" THICK GALV OR PAINTED GALV SHEET STEEL, CUT TO THE SHAPE AS SHOWN IN DETAIL ABOVE. INSIDE DIAMETER OF COVER PLATE TO EQUAL OUTSIDE DIAMETER OF PENETRANT. OUTSIDE DIMENSION OF COVER PLATE TO BE 4" GREATER THAN OUTER DIAM OF PENETRANT, WITH A RADIUS 2" GREATER THAN OUTER RADIUS OF METALLIC PENETRANT. TWO HALVES OF COVER PLATE INSTALLED AROUND THROUGH PENETRANT WITH NOM 1" OVERLAP AT THE MATING ENDS. COVER PLATE TO BE INSTALLED ON BOTH SIDES OF WALL AND SECURED TO STEEL WALL PANEL SKINS WITH MIN 1/8" DIAM STAINLESS STEEL RIVETS OR NO. 12 BY MIN 1/2" LONG HEX WASHER HEAD (HWH) STEEL SCREWS. ONE FASTENER TO BE LOCATED AT EACH OVERLAP WITH INTERMEDIATE FASTENERS LOCATED MAX 4" ON CENTER AROUND PERIPHERY OF OPENING. FASTENERS LOCATED MIN 3/8" FROM CUT OPENING IN WALL PANEL.

4 / A-620.00 TYPICAL INSULATED METAL WALL PANEL THROUGH-PENETRATION FIRESTOP SYSTEM - PIPING
N.T.S.



SECTION "C"

FIRE STOPPING DETAIL, THROUGH PENETRATION FIRESTOP SYSTEMS

UL SYSTEM NO. W-N-7001 FOR, 2 HR. RATING

1. WALL ASSEMBLY — THE 1 OR 2 HR FIRE RATED COMPOSITE WALL ASSEMBLY SHALL BE CONSTRUCTED OF NOM 4" OR 7" THICK, RESPECTIVELY, GALVANIZED STEEL OR PAINTED GALVANIZED STEEL FACED PARTITION PANEL UNITS* (CJMR) INSTALLED IN THE MANNER SPECIFIED IN WALL AND PARTITION DESIGN NO. U050 IN THE FIRE RESISTANCE DIRECTORY. MAX AREA OF OPENING IS 564 SQ IN. WITH A MAX DIMENSION OF 23-3/4". OPENING CAN BE LOCATED ON OR OFF PANEL UNIT JOINTS.

2. STEEL DUCT — NOM 23" BY 23", OR NOM 23" DIAM, (OR SMALLER) NO. 24 GAUGE (OR HEAVIER) GALV STEEL DUCT TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. . THE ANNULAR SPACE BETWEEN THE STEEL DUCT AND THE PERIPHERY OF THE OPENING SHALL BE MIN 1/4" TO MAX 1/2". STEEL DUCT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF THE WALL ASSEMBLY.

3. FIRESTOP SYSTEM — THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING:
   A. PACKING MATERIAL — MIN NO. 20 GA, 2" BY 2" GALV STEEL ANGLES. FOR CIRCULAR DUCTS, ANGLES TO BE ROLL FORMED TO FIT THE OD OF THE DUCT. ANGLES ATTACHED TO DUCT ONLY ON BOTH SIDES OF WALL WITH MIN NO. 10 BY 3/4" LONG STEEL SHEET METAL SCREWS SPACED A MAX OF 1-1/2" FROM EACH END OF STEEL DUCT AND SPACED MAX 6" OC. ANGLES INSTALLED SUCH THAT THEY TIGHTLY ABUT THE WALL SURFACE ON BOTH SIDES OF WALL.
   B. FILL, VOID OR CAVITY MATERIAL* — CAULK — MIN 5/8" THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH BOTH SURFACES OF WALL.
   C. STEEL RETAINING ANGLES — MIN NO. 20 GA, 2" BY 2" GALV STEEL ANGLES. FOR CIRCULAR DUCTS, ANGLES TO BE ROLL FORMED TO FIT THE OD OF THE DUCT. ANGLES ATTACHED TO DUCT ONLY ON BOTH SIDES OF WALL WITH MIN NO. 10 BY 3/4" LONG STEEL SHEET METAL SCREWS SPACED A MAX OF 1-1/2" FROM EACH END OF STEEL DUCT AND SPACED MAX 6" OC. ANGLES INSTALLED SUCH THAT THEY TIGHTLY ABUT THE WALL SURFACE ON BOTH SIDES OF WALL.

5 / A-620.00 TYPICAL INSULATED METAL WALL PANEL THROUGH-PENETRATION FIRESTOP SYSTEM - DUCTWORK
N.T.S.

ISSUED FOR PERMIT

Engineering and Land Surveying, P.C.
370 7th Avenue
SUITE 1604
New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE + LANDSCAPE
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
B	FINAL SUBMISSION	RAC	ZH	12/12/2022
A	INTERIM SUBMISSION	RAC	ZH	09/13/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

PROJECT

CHPE
Champlain Hudson Power Express

Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

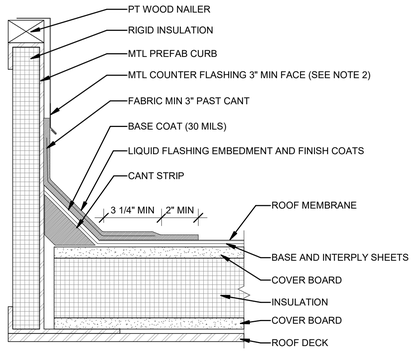
TYPICAL FIRESTOPPING DETAILS II

REGISTERED ARCHITECT ALEXANDRE SOWINSKI SULLIVAN STATE OF NEW YORK 026049

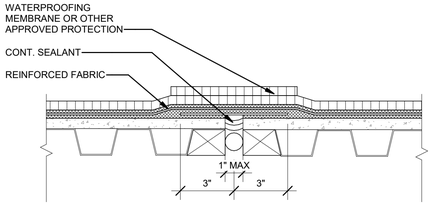
DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR
DRAWING NO	A-620.00
CADD FILE N0	Autodesk Docs://CHPE Astoria/CHA-KIE-111-ZZ-M3-A-001.rvt

12/12/2022 1:09:35 PM

NOTES:
1. WOOD NAILERS MUST BE INSTALLED WITH SUITABLE FASTENERS TO MEET APPLICABLE BUILDING CODES (MIN 200 LBS PER LINEAR FOOT IN ANY GIVEN DIRECTION).
2. ALL SHEET METAL IS TO BE INSTALLED PER SMACNA GUIDELINES.
3. MECHANICAL UNITS SHOULD NOT BE SET UNTIL THE ROOF MEMBRANE AND FLASHING HAVE BEEN INSTALLED.
4. EMBED GRANULES ON CAP SHEET PRIOR TO APPLYING LIQUID FLASHING.
5. LIQUID FLASHING SHALL BE APPLIED WITH A BOTTOM COAT, EMBEDMENT COAT, AND FINISH COAT OF 30 MILS WET THICKNESS EACH.

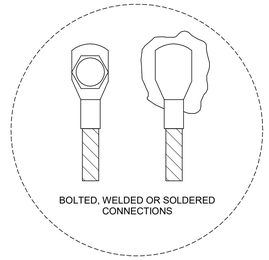


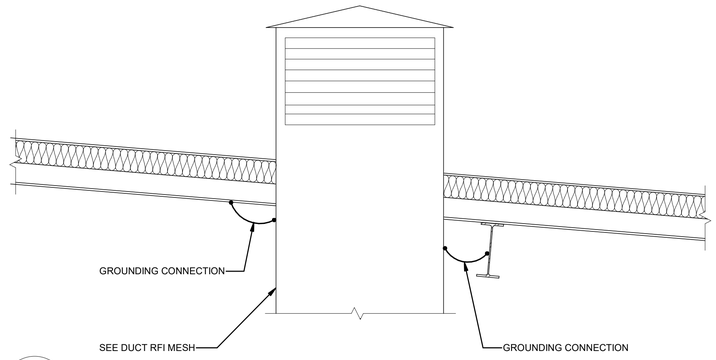
1 TYPICAL ROOF CURB DETAIL
3" = 1'-0"



NOTES:
1. DETAIL DESIGNED FOR JOINTS WITH MAX. MOVEMENT ACCOMMODATION FACTOR OF 25%.
2. BACKER ROD AND SEALANT ARE REQUIRED IN JOINT PRIOR TO REINFORCED FABRIC INSTALLATION.
3. IN COVERED/ BURIED CONDITIONS REINFORCED FABRIC IS EXTENDED AS CONTINUOUS FLASHING AS HIGH AS THE OVERBURDEN LEVEL. FLASHING MUST BE TERMINATED NO LESS THAN 4" ABOVE SUBSTRATE. IN ADDITION, ADEQUATE PROTECTION MUST BE PROVIDED FOR FLASHING FROM SUBSEQUENT TOPPING/BACKFILL. WHENEVER POSSIBLE THE EXPANSION JOINT SHALL BE EXTENDED UP THROUGH ALL TOPPING LAYERS.
4. REGLETS CAN BE CAST/FORMED OR CUT INTO THE CONCRETE. REGLETS SHALL BE MIN. 1/2" DEEP AND PROVIDE AN EASY TRANSITION FOR THE MEMBRANE FLASHING.

2 TYPICAL ROOF EXPANSION JOINT DETAIL
3" = 1'-0"





3 ROOF PENETRATION GROUNDING DETAIL
1/2" = 1'-0"

3" 0 3" 9"

ISSUED FOR PERMIT

Engineering and Land Surveying, P.C.
370 7th Avenue
SUITE 1604
New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE+ENGINEERING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
0	FINAL SUBMISSION	RAC	ZH	12/12/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

PROJECT

CHPE
Champlain Hudson Power Express

Astoria HVDC Converter Station

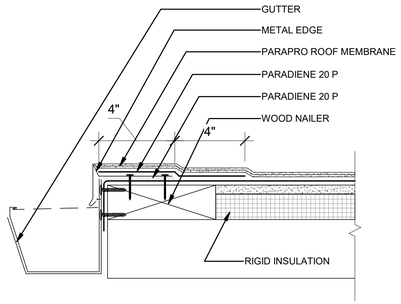
31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

TYPICAL ROOF DETAILS 1

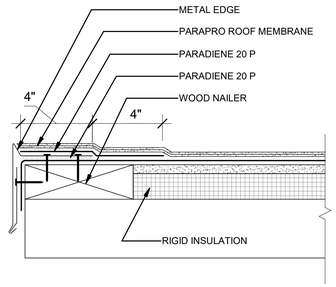
REGISTERED ARCHITECT SUZANNE SOWINSKI SULLIVAN 026049 STATE OF NEW YORK

DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR
DRAWING NO	A-621.00
CADD FILE NO	Autodesk Docs://CHPE Astoria/CHA-K0E-111-ZZ-MS-A-001.rvt

12/8/2022 11:27:08 AM



1 GUTTER EDGE DETAIL
3" = 1'-0"



2 ROOF EDGE DETAIL
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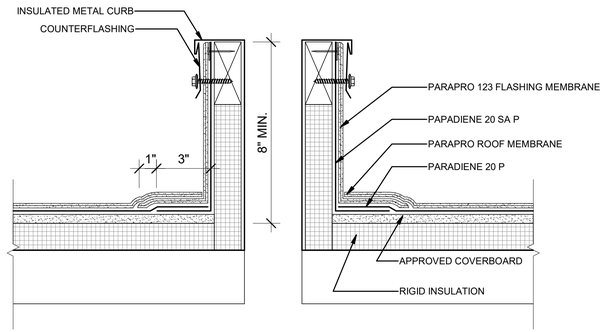
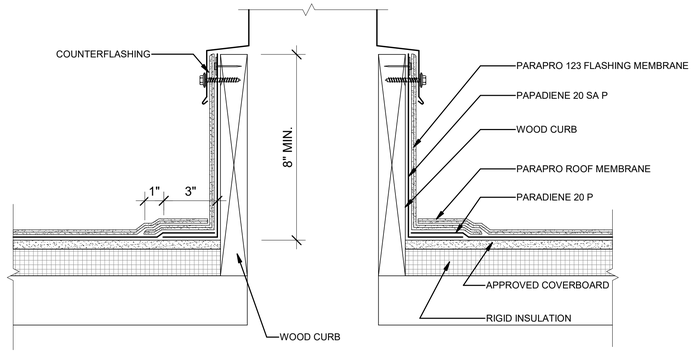
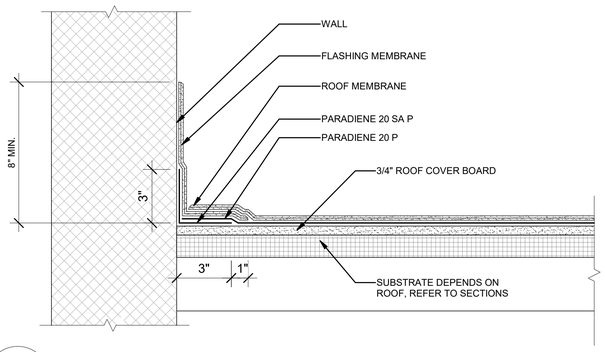


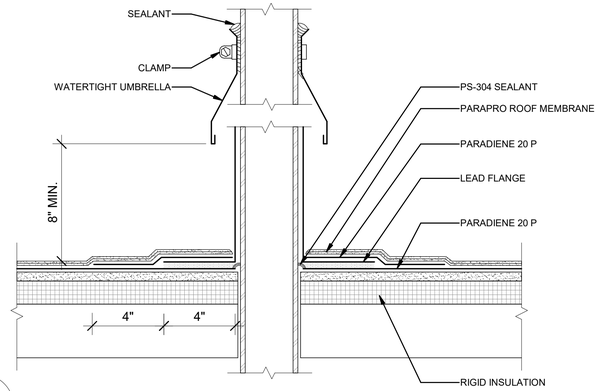
3 HVAC CURB DETAIL
3" = 1'-0"



4 CURB DETAIL
3" = 1'-0"



5 WALL WITH SELF TERMINATING PARAPRO FLASHING DETAIL
3" = 1'-0"



6 EQUIPMENT FRAME DETAIL
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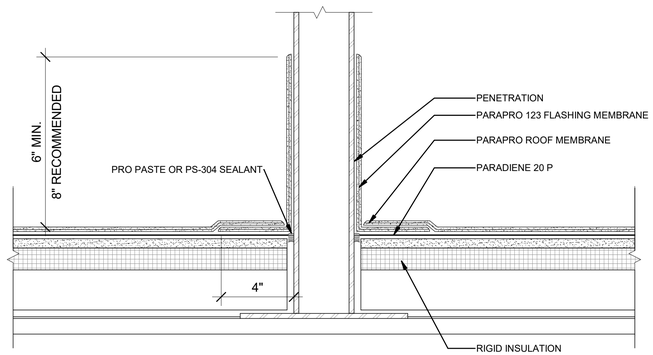
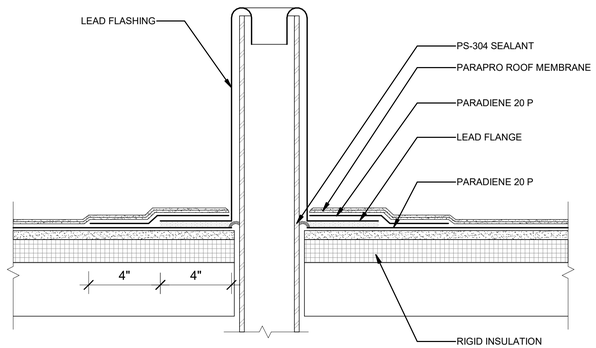


7 ROOF PENETRATION DETAIL
3" = 1'-0"



8 WASTE STACK DETAIL
3" = 1'-0"

3" 0 3" 9"

ISSUED FOR PERMIT

Engineering and Land Surveying, P.C.
370 7th Avenue
SUITE 1604
New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE+ENGINEERING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
0	FINAL SUBMISSION	RAC	ZH	12/12/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

PROJECT

CHPE
Champlain Hudson Power Express

Astoria HVDC Converter Station

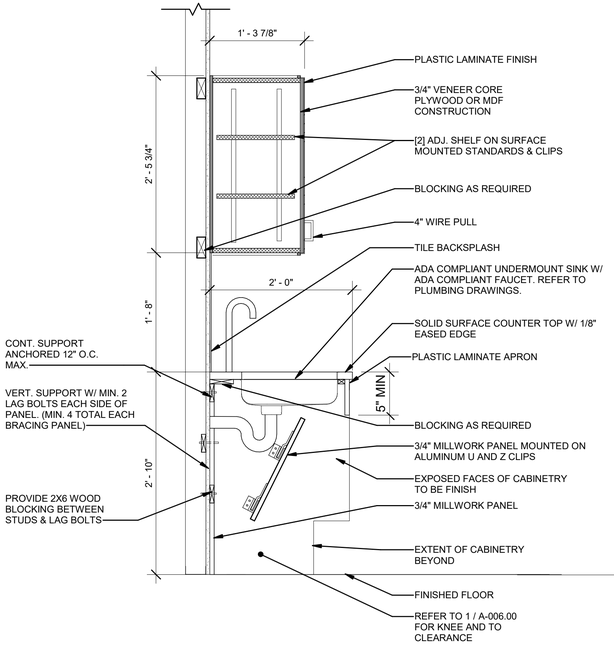
31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

TYPICAL ROOF DETAILS 2

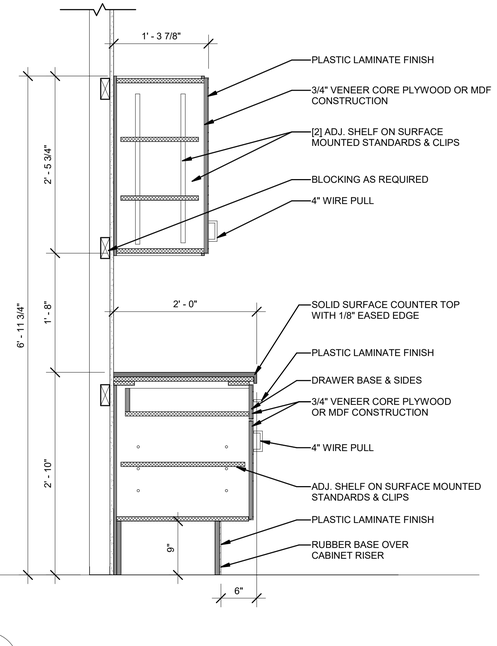
REGISTERED ARCHITECT SUZANNE SOWINSKI SULLIVAN 026045 STATE OF NEW YORK

DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR
DRAWING NO	A-622.00
CADD FILE N0	Autodesk Docs://CHPE Astoria/CHA-ADE-111-ZZ-M3-A-001.rvt

12/8/2022 11:27:11 AM



1 COUNTER / SINK DETAIL
1" = 1'-0"



2 WALL AND BASE CABINET DETAIL
1" = 1'-0"

1' 6" 0 1' 2'

12/8/2022 11:27:13 AM

ISSUED FOR PERMIT

Engineering and Land Surveying, P.C.
370 7th Avenue
SUITE 1604
New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE+ENGINEERING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
0	FINAL SUBMISSION	RAC	ZH	12/12/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

PROJECT

CHPE
Champlain Hudson Power Express

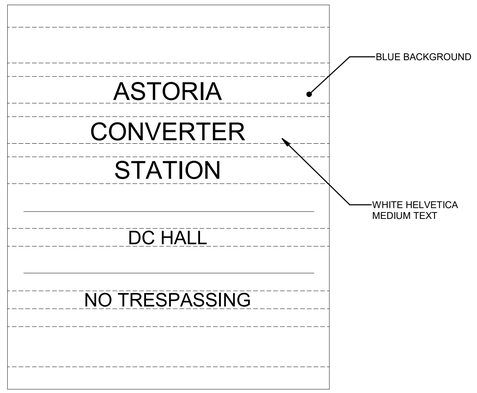
Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

MILLWORK DETAILS 1

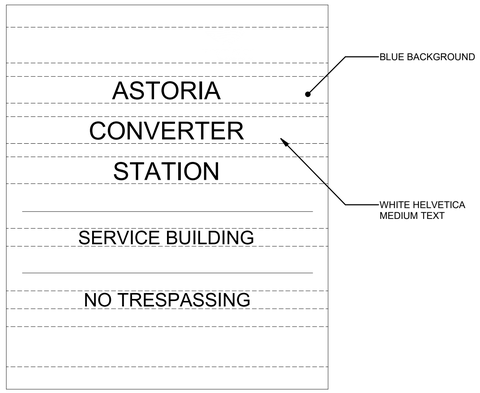
REGISTERED ARCHITECT ALEXANDRE SOWINSKI SULLIVAN 026049 STATE OF NEW YORK

DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR
DRAWING NO	A-623.00
CADD FILE N0	Autodesk Docs://CHPE Astoria/CHA-KIE-111-ZZ-M3-A-001.rvt



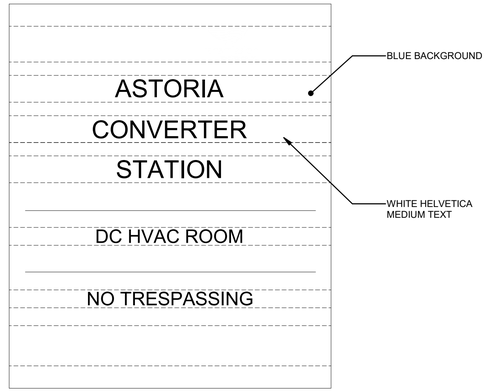
SIGN TYPE 1

1 SIGNAGE - DC HALL
1 1/2" = 1'-0"



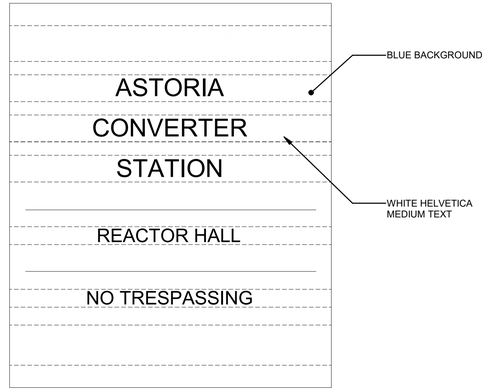
SIGN TYPE 2

2 SIGNAGE - SERVICE BUILDING
1 1/2" = 1'-0"



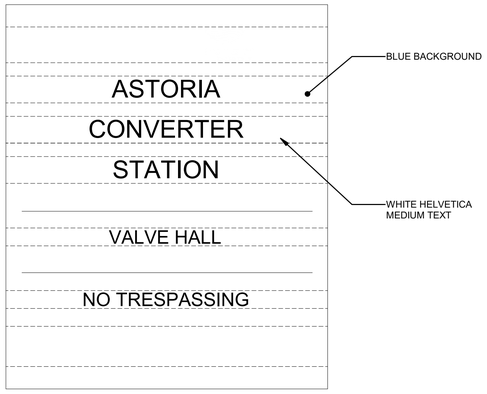
SIGN TYPE 3

3 SIGNAGE - DC HVAC ROOM
1 1/2" = 1'-0"



SIGN TYPE 4

4 SIGNAGE - REACTOR HALL
1 1/2" = 1'-0"



SIGN TYPE 5

5 SIGNAGE - VALVE HALL
1 1/2" = 1'-0"

SIGN TYPE 6

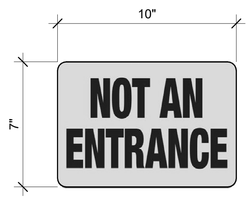
6 SIGNAGE - WARNING
3" = 1'-0"

SIGN TYPE 7

7 SIGNAGE - HAZARDOUS VOLTAGE WARNING
3" = 1'-0"

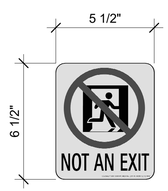
SIGN TYPE 8

8 SIGNAGE - EMERGENCY EXIT ONLY
3" = 1'-0"



SIGN TYPE 9

9 SIGNAGE - NOT AN ENTRANCE
3" = 1'-0"



SIGN TYPE 10

10 SIGNAGE - NOT AN EXIT
3" = 1'-0"

0 6" 12" 24"

12/8/2022 11:27:17 AM

ISSUED FOR PERMIT

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370 7th Avenue
SUITE 1604
New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE+ENGINEERING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
0	FINAL SUBMISSION	RAC	ZH	12/12/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
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PROJECT

CHPE
Champlain Hudson Power Express

Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

SIGNAGE DETAILS

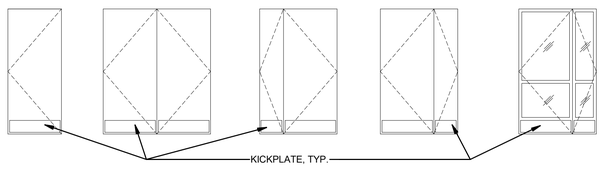
REGISTERED ARCHITECT SUZANNE SOWINSKI SULLIVAN 026049 STATE OF NEW YORK

DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR
DRAWING NO	A-624.00
CADD FILE NO	Autodesk Docs://CHPE Astoria/CHA-K0E-111-ZZ-M3-A-001.rvt

DOOR AND FRAME SCHEDULE

NUMBER	HARDWARE SET	DOOR TYPE	DOOR FINISH	DOOR SIZE WIDTH	DOOR SIZE HEIGHT	FRAME TYPE	FRAME FINISH	HEAD DETAIL	JAMB DETAIL	THRESHOLD DETAIL	FIRE RATING	EMC GASKET	AIR TIGHT	CONNECTED TO GROUNDING GRID	DOOR CLOSER	KEY INTERLOCK	REMARKS
A101A	2	D.1	SST	3' - 0"	7' - 0"	F.1	SST	5/A-701.00	7/A-701.00	3/A-701.00	90 MIN	YES	YES	YES	YES	NO	ELECTRIFIED PANIC HARDWARE - LOW PROFILE CYLINDER PULL ON EXTERIOR TRIM - FAIL SECURE, EMERGENCY EXIT ONLY, DOOR POSITION SWITCH
A101B	2	D.1	SST	3' - 0"	7' - 0"	F.1	SST	5/A-701.00	7/A-701.00	3/A-701.00	90 MIN	YES	YES	YES	YES	NO	ELECTRIFIED PANIC HARDWARE - LOW PROFILE CYLINDER PULL ON EXTERIOR TRIM - FAIL SECURE, EMERGENCY EXIT ONLY, DOOR POSITION SWITCH
A101C	2	D.1	SST	3' - 0"	7' - 0"	F.1	SST	5/A-701.00	7/A-701.00	3/A-701.00	90 MIN	YES	YES	YES	YES	NO	ELECTRIFIED PANIC HARDWARE - LOW PROFILE CYLINDER PULL ON EXTERIOR TRIM - FAIL SECURE, EMERGENCY EXIT ONLY, DOOR POSITION SWITCH
A101D	3	D.2	SST	11' - 6"	11' - 6"	F.1A	SST	5/A-701.00	7/A-701.00	6/A-700.00	90 MIN		YES	YES	YES	N0	RADIO FREQUENCY INTERFERENCE DOOR - LOW PROFILE CYLINDER PULL ON EXTERIOR TRIM, REMOVEABLE MULLION - FAIL SECURE, SERVICE DOOR, DOOR POSITION SWITCH
A101E	1		SST	3' - 0"	7' - 0"		SST	5/A-701.00	3/A-700.00	3/A-701.00			YES	YES	YES	YES	MANUAL INTERLOCK SYSTEM DOOR
A101F	22	D.1	SST	3' - 0"	7' - 0"	F.1	SST	5/A-701.00	7/A-701.00		90 MIN		YES	YES	YES	NO	PANIC HARDWARE WITH LEVER TRIM, NOT KEYED, INTERIOR ENTRANCE DOOR, DOOR POSITION SWITCH
A101G	21	D.2	SST	11' - 6"	11' - 6"	F.1A	SST	5/A-701.00	7/A-701.00	6/A-700.00	90 MIN		YES	YES	YES	N0	RADIO FREQUENCY INTERFERENCE DOOR - WITH LEVER TRIM, REMOVEABLE MULLION, NOT KEYED, INTERIOR DOOR, DOOR POSITION SWITCH
A102A	20	D.2	SST	10' - 0"	11' - 6"	F.4A	SST	5/A-701.00	9/A-701.00	6/A-700.00			YES	YES	YES	YES	MANUAL INTERLOCK SYSTEM DOOR, RADIO FREQUENCY INTERFERENCE DOOR, REMOVEABLE MULLION, INTERIOR DOOR
A102B	2	D.1	SST	3' - 0"	7' - 0"	F.1	SST	5/A-701.00	7/A-701.00	4/A-701.00	90 MIN	YES	YES	YES	YES	NO	ELECTRIFIED PANIC HARDWARE - LEVER TRIM - FAIL SECURE, INTERIOR DOOR, EMERGENCY EXIT ONLY, DOOR POSITION SWITCH
A102D	2	D.1	SST	3' - 0"	7' - 0"	F.1	SST	5/A-701.00	7/A-701.00	6/A-700.00		YES	YES	YES	YES	NO	RADIO FREQUENCY INTERFERENCE DOOR - WITH EXTERIOR LEVER TRIM, REMOVEABLE MULLION, & CARD READER - FAIL SECURE, DOOR POSITION SWITCH
A102E	22	D.1	SST	3' - 0"	7' - 0"	F.1	SST	5/A-701.00	7/A-701.00		90 MIN		YES	YES	YES	NO	PANIC HARDWARE WITH LEVER TRIM, NOT KEYED, INTERIOR ENTRANCE DOOR, DOOR POSITION SWITCH
A103A	2	D.1	HM	3' - 0"	7' - 0"	F.1	HM	5/A-701.00	7/A-701.00	3/A-701.00		YES	YES	YES	YES	NO	ELECTRIFIED PANIC HARDWARE - LOW PROFILE CYLINDER PULL ON EXTERIOR TRIM - FAIL SECURE, EMERGENCY EXIT ONLY, DOOR POSITION SWITCH
A103B	3	D.2	HM	11' - 6"	11' - 6"	F.1A	HM	5/A-701.00	7/A-701.00	6/A-700.00		YES	YES	YES	YES	NO	RADIO FREQUENCY INTERFERENCE DOOR - LOW PROFILE CYLINDER PULL ON EXTERIOR TRIM, REMOVEABLE MULLION - FAIL SECURE, SERVICE DOOR, DOOR POSITION SWITCH
A103C	1	D.1	HM	3' - 0"	7' - 0"	F.4	HM	5/A-701.00	9/A-701.00	3/A-701.00			YES	YES	YES	YES	MANUAL INTERLOCK SYSTEM DOOR
A103D	2	D.1	HM	3' - 0"	7' - 0"	F.1	HM	5/A-701.00	7/A-701.00	3/A-701.00		YES	YES	YES	YES	NO	ELECTRIFIED PANIC HARDWARE - LOW PROFILE CYLINDER PULL ON EXTERIOR TRIM - FAIL SECURE, EMERGENCY EXIT ONLY, DOOR POSITION SWITCH
A103E	1	D.1	HM	3' - 0"	7' - 0"	F.4	HM	5/A-701.00	9/A-701.00	3/A-701.00			YES	YES	YES	YES	MANUAL INTERLOCK SYSTEM DOOR
A103G	2		HM	3' - 0"	7' - 0"		HM	5/A-701.00	7/A-701.00	3/A-701.00			YES	YES	YES	YES	ELECTRIFIED PANIC HARDWARE - LOW PROFILE CYLINDER PULL ON EXTERIOR TRIM - FAIL SECURE, EMERGENCY EXIT ONLY, DOOR POSITION SWITCH
A104A	2	D.1	HM	3' - 0"	7' - 0"	F.1	HM	5/A-701.00	7/A-701.00	3/A-701.00		YES	YES	YES	YES	NO	ELECTRIFIED PANIC HARDWARE - LOW PROFILE CYLINDER PULL ON EXTERIOR TRIM - FAIL SECURE, EMERGENCY EXIT ONLY, DOOR POSITION SWITCH
A104B	2	D.1	HM	3' - 0"	7' - 0"	F.1	HM	5/A-701.00	7/A-701.00	3/A-701.00		YES	YES	YES	YES	NO	ELECTRIFIED PANIC HARDWARE - LOW PROFILE CYLINDER PULL ON EXTERIOR TRIM - FAIL SECURE, EMERGENCY EXIT ONLY, DOOR POSITION SWITCH
A104C	2	D.1	HM	3' - 0"	7' - 0"	F.1	HM	5/A-701.00	7/A-701.00	3/A-701.00		YES	YES	YES	YES	NO	ELECTRIFIED PANIC HARDWARE - LOW PROFILE CYLINDER PULL ON EXTERIOR TRIM - FAIL SECURE, EMERGENCY EXIT ONLY, DOOR POSITION SWITCH
A104D	2	D.1	HM	3' - 0"	7' - 0"	F.1	HM	5/A-701.00	7/A-701.00	3/A-701.00		YES	YES	YES	YES	NO	ELECTRIFIED PANIC HARDWARE - LOW PROFILE CYLINDER PULL ON EXTERIOR TRIM - FAIL SECURE, EMERGENCY EXIT ONLY, DOOR POSITION SWITCH
A104E	3	D.2	HM	13' - 2"	16' - 6"	F.1A	HM	5/A-701.00	7/A-701.00	6/A-700.00		YES	YES	YES	YES	NO	RADIO FREQUENCY INTERFERENCE DOOR - LOW PROFILE CYLINDER PULL ON EXTERIOR TRIM, REMOVEABLE MULLION - FAIL SECURE, SERVICE DOOR, DOOR POSITION SWITCH
A104F	1		HM	3' - 0"	7' - 0"		HM	5/A-701.00	9/A-701.00	3/A-701.00			YES	YES	YES	YES	MANUAL INTERLOCK SYSTEM DOOR
A104G	2	D.1	HM	3' - 0"	7' - 0"	F.1	HM	5/A-701.00	7/A-701.00	3/A-701.00		YES	YES	YES	YES	NO	ELECTRIFIED PANIC HARDWARE - LOW PROFILE CYLINDER PULL ON EXTERIOR TRIM - FAIL SECURE, EMERGENCY EXIT ONLY, DOOR POSITION SWITCH
A104H	2	D.1	HM	3' - 0"	7' - 0"	F.1	HM	5/A-701.00	7/A-701.00	3/A-701.00		YES	YES	YES	YES	NO	ELECTRIFIED PANIC HARDWARE - LOW PROFILE CYLINDER PULL ON EXTERIOR TRIM - FAIL SECURE, EMERGENCY EXIT ONLY, DOOR POSITION SWITCH
A104I	2	D.1	HM	3' - 0"	7' - 0"	F.1	HM	5/A-701.00	7/A-701.00	3/A-701.00		YES	YES	YES	YES	NO	ELECTRIFIED PANIC HARDWARE - LOW PROFILE CYLINDER PULL ON EXTERIOR TRIM - FAIL SECURE, EMERGENCY EXIT ONLY, DOOR POSITION SWITCH
A104J	2	D.1	HM	3' - 0"	7' - 0"	F.1	HM	5/A-701.00	7/A-701.00	3/A-701.00		YES	YES	YES	YES	NO	ELECTRIFIED PANIC HARDWARE - LOW PROFILE CYLINDER PULL ON EXTERIOR TRIM - FAIL SECURE, EMERGENCY EXIT ONLY, DOOR POSITION SWITCH
A104K	1	D.1	HM	3' - 0"	7' - 0"	F.4	HM	5/A-701.00	7/A-701.00	3/A-701.00			YES	YES	YES	YES	MANUAL INTERLOCK SYSTEM DOOR
A105A	15	D.2	HM	6' - 0"	7' - 0"	F.1A	HM	5/A-701.00	7/A-701.00	3/A-701.00		YES	YES	YES	YES	NO	STORE ROOM LOCKSET, DOOR POSITION SWITCH, EXTERIOR LEVER TRIM
B101	6	D.3	HM, PTD	4' - 4"	8' - 0"	F.1A	HM, PTD	1/A-700.00	3/A-700.00	4/A-701.00		NO		YES		NO	ELECTRIFIED PANIC HARDWARE - WITH EXTERIOR LEVER TRIM, REMOVEALBE MULLION, & CARD READER - FAIL SECURE
B102A	6	D.4	HM, PTD	4' - 4"	8' - 0"	F.1A	SST	1/A-700.00	3/A-700.00	3/A-701.00		NO		YES		NO	ELECTRIFIED PANIC HARDWARE - NO EXTERIOR TRIM, REMOVEALBE MULLION, & CARD READER - FAIL SECURE
B102B	7	D.3	HM, PTD	4' - 4"	8' - 0"	F.3	HM, PTD	1/A-701.00	1/A-701.00	RAISED FLOOR		NO		YES		NO	ELECTRIFIED PANIC HARDWARE - WITH LEVER TRIM, REMOVEALBE MULLION, & CARD READER - FAIL SAFE
B103	6	D.3	HM, PTD	4' - 4"	8' - 0"	F.1A	SST	1/A-700.00	3/A-700.00	4/A-701.00		NO		YES		NO	ELECTRIFIED PANIC HARDWARE - WITH EXTERIOR LEVER TRIM, REMOVEALBE MULLION, & CARD READER - FAIL SECURE
B104	6	D.3	HM, PTD	4' - 4"	8' - 0"	F.1A	SST	1/A-700.00	3/A-700.00	9/A-700.00		NO		YES		NO	ELECTRIFIED PANIC HARDWARE - NO EXTERIOR TRIM, REMOVEALBE MULLION, & CARD READER - FAIL SECURE
B105	8	D.4	HM, PTD	4' - 4"	8' - 0"	F.3	SST	1/A-701.00	1/A-701.00	RAISED FLOOR	90 MIN	NO		YES		NO	ELECTRIFIED HARDWARE, STOREROOM LOCKSET, REMOVEABLE MULLION, CARD READER - FAIL SAFE
B106	19	D.3	HM, PTD	4' - 4"	8' - 0"	F.3	SST	1/A-701.00	1/A-701.00	RAISED FLOOR	90 MIN	NO		YES		NO	ELECTRIFIED PANIC HARDWARE - WITH LEVER TRIM, REMOVEALBE MULLION, & CARD READER - FAIL SAFE
B107	8	D.3	HM, PTD	4' - 4"	8' - 0"	F.3	SST	1/A-701.00	1/A-701.00	RAISED FLOOR	90 MIN	NO		YES		NO	ELECTRIFIED HARDWARE, STOREROOM LOCKSET, REMOVEABLE MULLION, CARD READER - FAIL SAFE
B108	6	D.4	HM, PTD	4' - 4"	8' - 0"	F.1A	SST	1/A-700.00	3/A-700.00	3/A-701.00		NO		YES		NO	ELECTRIFIED PANIC HARDWARE - WITH EXTERIOR LEVER TRIM, REMOVEALBE MULLION, & CARD READER - FAIL SECURE
B109	13	D.1	HM, PTD	3' - 0"	7' - 0"	F.2	SST	1/A-701.00	1/A-701.00		90 MIN	NO		YES		NO	ELECTRIFIED PANIC HARDWARE - WITH LEVER TRIM & CARD READER - FAIL SAFE
B110	12	D.1	HM, PTD	3' - 0"	7' - 0"	F.2	SST	1/A-701.00	1/A-701.00	ADA MARBLE SADDLE	90 MIN	NO		YES		NO	ELECTRIFIED STOREROOM LOCKSET, CARD READER
B111	10	D.1	HM, PTD	3' - 0"	7' - 0"	F.2	SST	1/A-701.00	1/A-701.00			NO		YES		NO	PASSAGE LOCK
B112	11	D.1	HM, PTD	3' - 0"	7' - 0"	F.2	SST	1/A-701.00	1/A-701.00	ADA MARBLE SADDLE	90 MIN	NO		YES		NO	PRIVACY LOCKSET
B113	9	D.1	HM, PTD	2' - 8"	7' - 0"	F.2	SST	1/A-701.00	1/A-701.00	ADA MARBLE SADDLE	90 MIN	NO		YES		NO	STOREROOM LOCKSET
B114	5	D.1	HM, PTD	3' - 0"	7' - 0"	F.1	SST	1/A-701.00	1/A-701.00	4/A-701.00		NO		YES		NO	ELECTRIFIED STOREROOM LOCKSET, CARD READER
B115A	4		HM, PTD	12' - 0"	12' - 0"		SST	1/A-700.00	3/A-700.00	6/A-700.00		NO		YES		NO	RADIO FREQUENCY INTERFERENCE DOOR, REMOVEABLE MULLION, NO EXTERIOR TRIM, ELECTRIFIED HARDWARE, CARD READER - FAIL SECURE
B115C	18	D.1	HM, PTD	3' - 0"	7' - 0"	F.2	SST	1/A-701.00	1/A-701.00		90 MIN	NO		YES		NO	ELECTRIFIED PANIC HARDWARE - WITH LEVER TRIM & CARD READER - FAIL SAFE
B116	8	D.4	HM, PTD	4' - 4"	8' - 0"	F.1A	SST	1/A-701.00	1/A-701.00			NO		YES		NO	ELECTRIFIED STOREROOM LOCKSET, CARD READER
B201	8	D.4	HM, PTD	4' - 0"	8' - 0"	F.3	SST	1/A-701.00	1/A-701.00		90 MIN	NO		YES		NO	ELECTRIFIED PANIC HARDWARE - WITH LEVER TRIM, REMOVEALBE MULLION, & CARD READER - FAIL SAFE
B202A	14	D.2	HM, PTD	7' - 0"	7' - 0"	F.3	SST	5/A-700.00	5/A-700.00		90 MIN	NO		YES		NO	ELECTRIFIED PANIC HARDWARE - WITH LEVER TRIM, REMOVEALBE MULLION, & CARD READER - FAIL SAFE
B202B	14	D.2	HM, PTD	7' - 0"	7' - 0"	F.3	SST	5/A-700.00	5/A-700.00		90 MIN	NO		YES		NO	ELECTRIFIED PANIC HARDWARE - WITH LEVER TRIM, REMOVEALBE MULLION, & CARD READER - FAIL SAFE
B203	16	D.2	HM, PTD	7' - 0"	8' - 0"	F.1A	SST	1/A-700.00	3/A-700.00	3/A-701.00		NO		YES		NO	ELECTRIFIED STOREROOM LOCKSET - EXTERIOR SAFETY GATE, REMOVEABLE MULLION & CARD READER - FAIL SECURE
B204	17	D.1	HM, PTD	3' - 0"	8' - 0"	F.2	SST	1/A-700.00	1/A-701.00		90 MIN	NO		YES		NO	ELECTRIFIED PANIC HARDWARE - WITH LEVER TRIM & CARD READER - FAIL SAFE
B205	7	D.3	HM, PTD	4' - 0"	8' - 0"	F.1A	SST	1/A-701.00	1/A-701.00			NO		YES		NO	ELECTRIFIED PANIC HARDWARE - WITH LEVER TRIM, REMOVEALBE MULLION, & CARD READER - FAIL SAFE

DOOR TYPE LEGEND



TYPE D.1 SINGLE DOOR

TYPE D.2 DOUBLE DOOR

TYPE D.3 UNEQUAL DOUBLE DOOR - LEFT

TYPE D.4 UNEQUAL DOUBLE DOOR - RIGHT

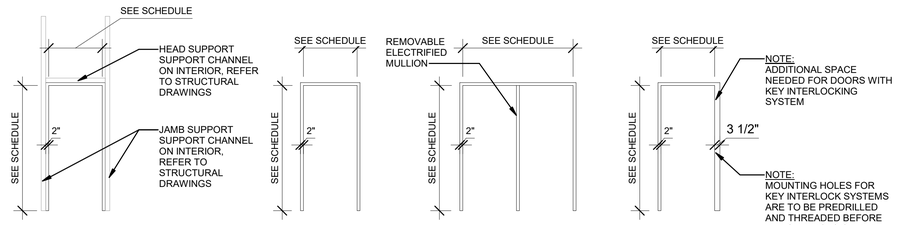
TYPE D.5 UNEQUAL DOUBLE DOOR - RIGHT WITH GLASS

NOTE:
MOUNTING HOLES FOR KEY INTERLOCK SYSTEMS ARE TO BE PREDRILLED AND THREADED BEFORE THE SURFACES OF THE DOORS ARE TREATED

PERSONNEL DOORS
*ASSA ABLOY/CURRIES - 747 TEMP RISE 450 F TYPE, STEEL STIFFENED, MINERAL WOOL INFILL. HEAVY DUTY INDUSTRIAL DOOR, 14 GAUGE STAINLESS STEEL.

RADIO FREQUENCY INTERFERENCE DOORS
*KRIEGER PRODUCTS - CUSTOM OVERSIZED DOOR, STAINLESS STEEL FINISH, ASSUME RFI-60 UNTIL CAN BE CONFIRMED. LARGE DOORS AND LARGE OPENINGS SHALL BE RFI SCREENED. KRIEGER CAN MAKE RATED RFI DOORS (CURRIES CAN NOT MAKE BOTH)

FRAME TYPE LEGEND



FRAME TYPE F.1

FRAME TYPE F.1A - WITH REMOVEABLE ELECTRIFIED MULLION

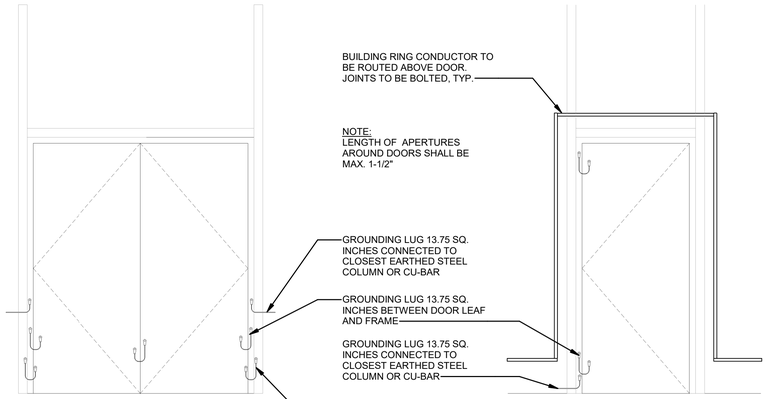
FRAME TYPE F.2

FRAME TYPE F.3

FRAME TYPE F.4

FRAME TYPE F.4A - WITH REMOVEABLE MULLION

TYP. DOOR GROUNDING & RFI PROTECTION



DOUBLE DOOR MAX 157 INCHES X 157 INCHES

MOUNTING HOLES FOR GASKETS AND BRAIDS ARE TO BE PREDRILLED AND THREADED. GASKETS AND BRAIDS ARE TO BE MOUNTED ON A NON PAINTED FINISH.

PERSONNEL DOOR MAX 59 INCHES X 98 INCHES

MOUNTING HOLES FOR GASKETS AND BRAIDS ARE TO BE PREDRILLED AND THREADED. GASKETS AND BRAIDS ARE TO BE MOUNTED ON A NON PAINTED FINISH.

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K Engineering and Land Surveying, P.C.
370 7th Avenue
SUITE 1604
New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE+ENGINEERING
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
0	FINAL SUBMISSION	RAC	ZH	12/12/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

PROJECT

CHPE
Champlain Hudson Power Express

Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

DOOR SCHEDULE

REGISTERED ARCHITECT SUZANNE SOWINSKI SULLIVAN 026049 STATE OF NEW YORK

DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR
DRAWING NO	A-701.00
CADD FILE N0	Autodesk Docs://CHPE Astoria/CHA-K0E-111-ZZ-MS-A-001.rvt

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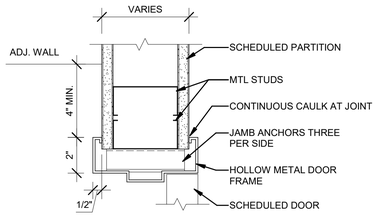
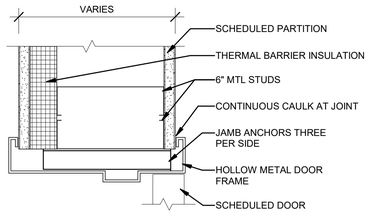
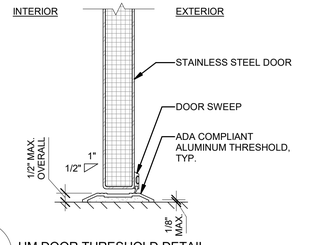


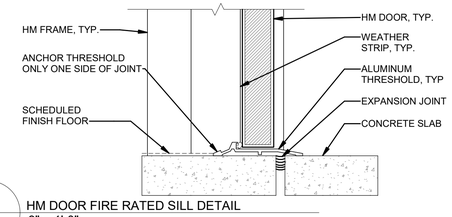
1 HM FRAME / GWB PARTITION JAMB/HEAD DETAIL
3" = 1'-0"



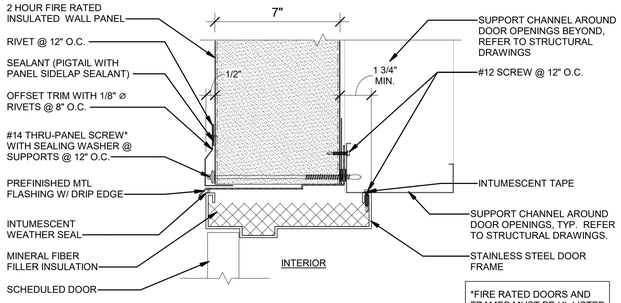
2 HM FRAME / GWB PARTITION JAMB/HEAD DETAIL - WIDE
3" = 1'-0"



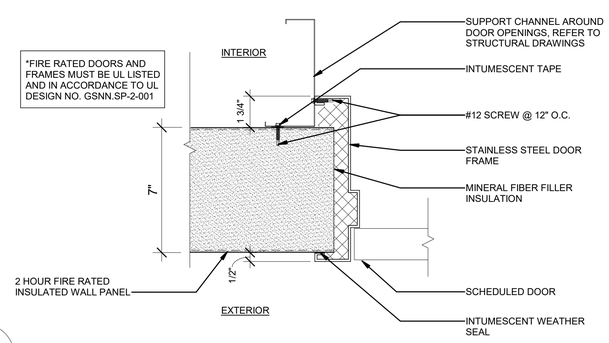
3 HM DOOR THRESHOLD DETAIL
3" = 1'-0"



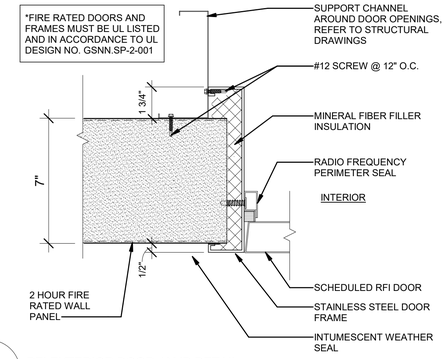
4 HM DOOR FIRE RATED SILL DETAIL
3" = 1'-0"



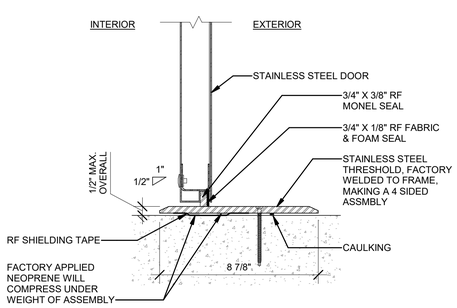
5 TYPICAL EXTERIOR DOOR HEAD DETAIL
3" = 1'-0"



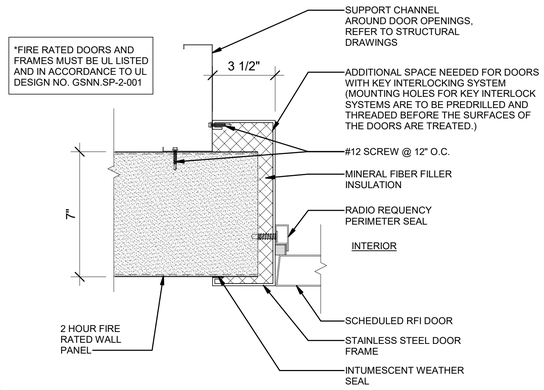
6 TYPICAL EXTERIOR DOOR JAMB DETAIL
3" = 1'-0"



7 RFI EXTERIOR DOOR JAMB DETAIL
3" = 1'-0"



8 RFI DOOR THRESHOLD DETAIL
3" = 1'-0"



9 RFI EXTERIOR DOOR JAMB DETAIL - KEY INTERLOCK SYSTEMS DOORS
3" = 1'-0"

3" 0 3" 9"

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370 7th Avenue
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New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE+ENGINEERING
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PROJECT

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Champlain Hudson Power Express

Astoria HVDC Converter Station

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DOOR DETAILS

REGISTERED ARCHITECT SUZANNE SOWINSKI SULLIVAN 026049 STATE OF NEW YORK

DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR
DRAWING NO	A-702.00
CADD FILE NO	Autodesk Docs://CHPE Astoria/CHA-KIE-111-ZZ-M3-A-001.rvt

FINISH LEGEND				
TAG	FINISH TYPE	MANUFACTURER OR APPROVED EQUAL	COLOR / FINISH	NOTES
ACC-1	RAISED ACCESS FLOORING	TATE OR APPROVED EQUAL		HEAVIEST DESIGN LOAD WITH HEAVY DUTY 2" BOLTED STRINGER
ALU-1	ALUMINIUM FLOOR (REACTOR HALL)			WELDED WITH COPPER FLAT BAR, SPACED FOR THERMAL MOVMENT UNDERNEATH EQUIPMENT STEEL
EP-1	EPOXY FLOOR COATING SYSTEM			
PT-1	PAINT			
PT-2	PAINT			
QT-1	PORCELAIN TILE			WALL AND FLOOR TILE
VB-1	RUBBER BASE			

ROOM FINISH SCHEDULE

ROOM NUMBER	ROOM NAME	BASE FINISH	WALL FINISH	FLOOR FINISH	CEILING FINISH
	<varies>	-		EP-1	PT-1
A101	POSITIVE VALVE HALL	-		EP-1	PT-1
A102	NEGATIVE VALVE HALL	-		EP-1	PT-1
A103	REACTOR HALL	-		EP-1	PT-1
A104	DC HALL	-		EP-1	PT-1
A105	HVAC ROOM	-		EP-1	PT-1
B101	BATTERY ROOM B	VINYL		EP-1	PT-1
B102	AUXILIARY ROOM	VINYL		ACC-1	PT-1
B103	BATTERY ROOM A	VINYL		EP-1	PT-1
B104	CONTROL & PROTECTION ROOM 2	VINYL		ACC-1	PT-1
B105	I/O ROOM	VINYL		ACC-1	PT-1
B106	CORRIDOR	VINYL		ACC-1	PT-1
B107	CONTROL & PROTECTION ROOM 1	VINYL		ACC-1	PT-1
B108	ENTRANCE RM	VINYL		CONC-1	ACT-1
B109	OPERATOR ROOM	VINYL		EP-1	ACT-1
B110	LOCKER ROOM	QT-1		QT-1	ACT-1
B111	BREAK ROOM	QT-1		QT-1	ACT-1
B112	RESTROOM	QT-1		QT-1	ACT-1
B113	CLEANING ROOM	QT-1		QT-1	PT-1
B114	UMD BATTERY ROOM	VINYL		EP-1	PT-1
B115	VALVE COOLING ROOM	VINYL		EP-1	PT-1
B116	MCC ROOM	VINYL		EP-1	PT-1
B201	CLEAN AGENT ROOM	VINYL		EP-1	PT-1
B202	CLIMATE ROOM 1	VINYL		EP-1	PT-1
B203	CORRIDOR	VINYL		EP-1	ACT-1
B204	STORAGE ROOM	VINYL		EP-1	PT-1
B205	TELECOM ROOM	VINYL		EP-1	PT-1

COATING FINISH SCHEDULE

ROOM NUMBER	ROOM NAME	COLUMNS	SECONDARY FRAMING	TRUSSES	ROOF DECK	ROOF FRAMING
Finish						
	<varies>					
A101	POSITIVE VALVE HALL	INTUMESCENT PAINTED	INTUMESCENT PAINTED	INTUMESCENT PAINTED	GALVANIZED	GALVANIZED
A102	NEGATIVE VALVE HALL	INTUMESCENT PAINTED	INTUMESCENT PAINTED	INTUMESCENT PAINTED	GALVANIZED	GALVANIZED
A103	REACTOR HALL	GALVANIZED, EXCEPT ALONG 2 HOUR RATED WALL COLUMN LINE CO-G	GALVANIZED, EXCEPT ALONG 2 HOUR RATED WALL COLUMN LINE CO-G	GALVANIZED, EXCEPT ALONG 2 HOUR RATED WALL COLUMN LINE CO-G	GALVANIZED	GALVANIZED
A104	DC HALL	GALVANIZED, EXCEPT ALONG 2 HOUR RATED WALL COLUMN LINE CO-P	GALVANIZED, EXCEPT ALONG 2 HOUR RATED WALL COLUMN LINE CO-P	GALVANIZED, EXCEPT ALONG 2 HOUR RATED WALL COLUMN LINE CO-P	GALVANIZED	GALVANIZED
A105	HVAC ROOM	GALVANIZED	GALVANIZED	GALVANIZED	GALVANIZED	GALVANIZED
B101	BATTERY ROOM B	CEMENTITIOUS	CEMENTITIOUS	NON GALV PAINTED	NON GALV PAINTED	NON GALV PAINTED
B102	AUXILIARY ROOM	NON GALV PAINTED, EXCEPT CEMENTITIOUS ALONG RATED WALLS	NON GALV PAINTED, EXCEPT CEMENTITIOUS ALONG RATED WALLS	NON GALV PAINTED	NON GALV PAINTED	NON GALV PAINTED
B103	BATTERY ROOM A	CEMENTITIOUS	CEMENTITIOUS	NON GALV PAINTED	NON GALV PAINTED	NON GALV PAINTED
B104	CONTROL & PROTECTION ROOM 2	NON GALV PAINTED, EXCEPT CEMENTITIOUS ALONG RATED WALLS	NON GALV PAINTED, EXCEPT CEMENTITIOUS ALONG RATED WALLS	NON GALV PAINTED	NON GALV PAINTED	NON GALV PAINTED
B105	I/O ROOM	NON GALV PAINTED, EXCEPT CEMENTITIOUS ALONG RATED WALLS	NON GALV PAINTED, EXCEPT CEMENTITIOUS ALONG RATED WALLS	NON GALV PAINTED	NON GALV PAINTED	NON GALV PAINTED
B106	CORRIDOR	CEMENTITIOUS	CEMENTITIOUS	NON GALV PAINTED	NON GALV PAINTED	NON GALV PAINTED
B107	CONTROL & PROTECTION ROOM 1	NON GALV PAINTED, EXCEPT CEMENTITIOUS ALONG RATED WALLS	NON GALV PAINTED, EXCEPT CEMENTITIOUS ALONG RATED WALLS	NON GALV PAINTED	NON GALV PAINTED	NON GALV PAINTED
B108	ENTRANCE RM	CEMENTITIOUS	CEMENTITIOUS	NON GALV PAINTED	NON GALV PAINTED	NON GALV PAINTED
B109	OPERATOR ROOM	CEMENTITIOUS	CEMENTITIOUS	NON GALV PAINTED	NON GALV PAINTED	NON GALV PAINTED
B110	LOCKER ROOM	NON GALV PAINTED, EXCEPT CEMENTITIOUS ALONG RATED WALLS	NON GALV PAINTED, EXCEPT CEMENTITIOUS ALONG RATED WALLS	NON GALV PAINTED	NON GALV PAINTED	NON GALV PAINTED
B111	BREAK ROOM	NON GALV PAINTED	NON GALV PAINTED	NON GALV PAINTED	NON GALV PAINTED	NON GALV PAINTED
B112	RESTROOM	NON GALV PAINTED, EXCEPT CEMENTITIOUS ALONG RATED WALLS	NON GALV PAINTED, EXCEPT CEMENTITIOUS ALONG RATED WALLS	NON GALV PAINTED	NON GALV PAINTED	NON GALV PAINTED
B113	CLEANING ROOM	NON GALV PAINTED	NON GALV PAINTED	NON GALV PAINTED	NON GALV PAINTED	NON GALV PAINTED
B114	UMD BATTERY ROOM	NON GALV PAINTED, EXCEPT CEMENTITIOUS ALONG RATED WALLS	NON GALV PAINTED, EXCEPT CEMENTITIOUS ALONG RATED WALLS	NON GALV PAINTED	NON GALV PAINTED	NON GALV PAINTED
B115	VALVE COOLING ROOM	NON GALV PAINTED, EXCEPT CEMENTITIOUS ALONG RATED WALLS	NON GALV PAINTED, EXCEPT CEMENTITIOUS ALONG RATED WALLS	NON GALV PAINTED	NON GALV PAINTED	NON GALV PAINTED
B116	MCC ROOM	NON GALV PAINTED, EXCEPT CEMENTITIOUS ALONG RATED WALLS	NON GALV PAINTED, EXCEPT CEMENTITIOUS ALONG RATED WALLS	NON GALV PAINTED	NON GALV PAINTED	NON GALV PAINTED
B201	CLEAN AGENT ROOM	NON GALV PAINTED, EXCEPT CEMENTITIOUS ALONG RATED WALLS	NON GALV PAINTED, EXCEPT CEMENTITIOUS ALONG RATED WALLS	NON GALV PAINTED	NON GALV PAINTED	NON GALV PAINTED
B202	CLIMATE ROOM 1	GALVANIZED, AND CEMENTITIOUS ALONG RATED WALLS	NON GALV PAINTED, AND CEMENTITIOUS ALONG RATED WALLS	GALVINZED	GALVANZED	GALVANIZED
B203	CORRIDOR	NON GALV PAINTED, EXCEPT CEMENTITIOUS ALONG RATED WALLS	NON GALV PAINTED, EXCEPT CEMENTITIOUS ALONG RATED WALLS	NON GALV PAINTED	NON GALV PAINTED	NON GALV PAINTED
B204	STORAGE ROOM	NON GALV PAINTED, EXCEPT CEMENTITIOUS ALONG RATED WALLS	NON GALV PAINTED, EXCEPT CEMENTITIOUS ALONG RATED WALLS	NON GALV PAINTED	NON GALV PAINTED	NON GALV PAINTED
B205	TELECOM ROOM	NON GALV PAINTED, EXCEPT CEMENTITIOUS ALONG RATED WALLS	NON GALV PAINTED, EXCEPT CEMENTITIOUS ALONG RATED WALLS	NON GALV PAINTED	NON GALV PAINTED	NON GALV PAINTED

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CADD FILE N0	Autodesk Docs://CHPE Astoria/CHA-K0E-111-ZZ-MS-A-001.rvt

12/6/2022 1:43:53 PM

FURNITURE SCHEDULE

FURNITURE ID	ROOM NUMBER	ROOM NAME	MANUFACTURER	MODEL	OVERALL DEPTH	OVERALL WIDTH	OVERALL HEIGHT	FINISH	FABRIC	ACCESSORIES
CH-2			Haworth	SJT-x0-41 - Height Adjustable Arms - With Lumbar						
CH-2			Haworth	SJT-x0-41 - Height Adjustable Arms - With Lumbar						
CH-2			Haworth	SJT-x0-41 - Height Adjustable Arms - With Lumbar						
CH-2			Haworth	SJT-x0-41 - Height Adjustable Arms - With Lumbar						
WC-2				60" x 36"						
WC-1				96" x 36"						
WC-1				96" x 36"						
WC-2				60" x 36"						
B-1				Furniture-Bench-Reed_ADA						
CH-1			DAUPHIN NORTH AMERICA	FI75100						
CH-1			DAUPHIN NORTH AMERICA	FI75100						
CH-1			DAUPHIN NORTH AMERICA	FI75100						
CH-1			DAUPHIN NORTH AMERICA	FI75100						
T-1				72" x 36" T-9						
REC-1			PPP	SW2, Wastebasket						

EMERGENCY EYEWASH SCHEDULE

SYMBOL	DESCRIPTION	BUILDING	BASIS OF DESIGN	FIXTURE SIZE (in)	CARRIER	MOUNTING HEIGHT	REMARKS
EEW-111-01	WALL MOUNTED PORTABLE EMERGENCY EYEWASH STATION	SERVICE	HAWS: MODEL 7501	22"x22"x10"-DEEP	STAINLESS STEEL WALL BRACKET		PROVIDE WITH WASTE CONTAINER MODEL 9009, HAWSCLEAN PORTABLE EYEWASH CLEANSING STICK MODEL9083, AND WATER ADDITIVE MODEL 9082

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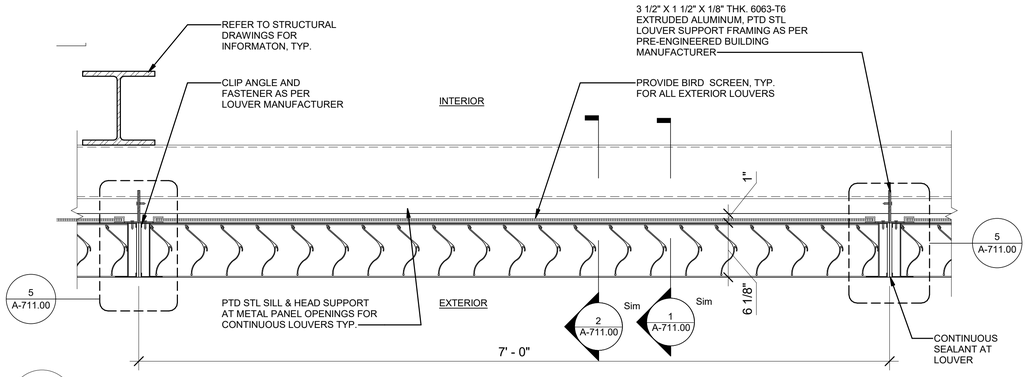
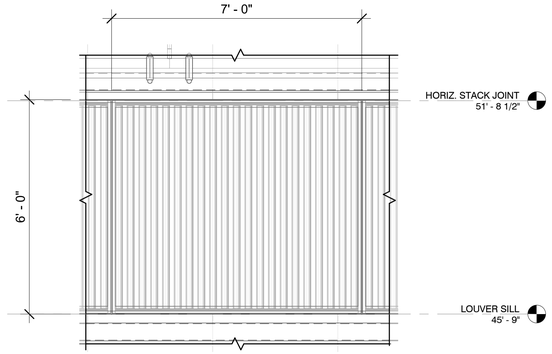
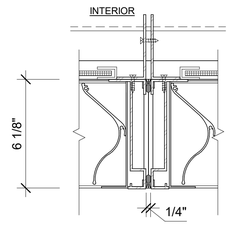


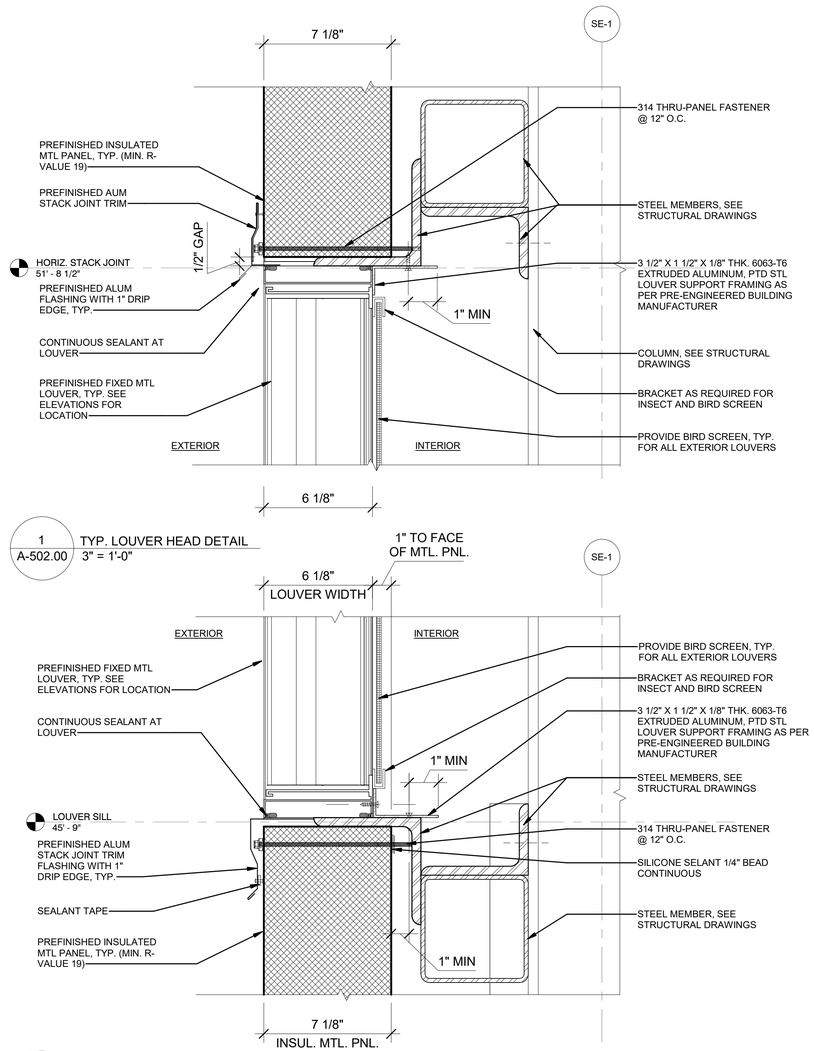
3 A-711.00 LOUVER SECTION
1 1/2" = 1'-0"



4 TYP. LOUVER INTERIOR ELEVATION
1/2" = 1'-0"

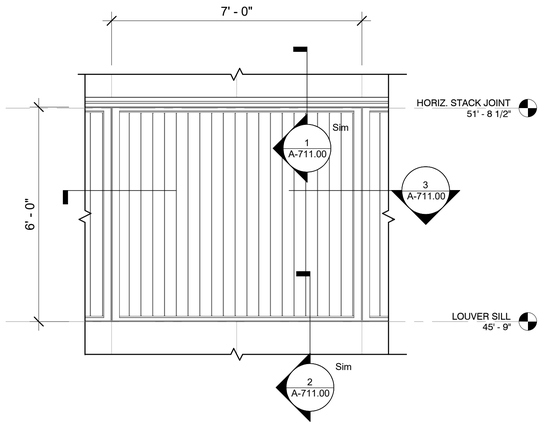


5 A-711.00 LOUVER SECTION DETAIL
3" = 1'-0"

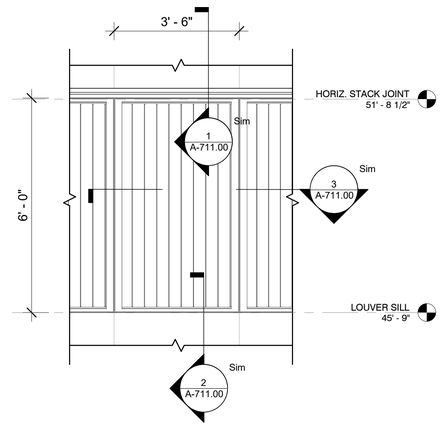


1 A-502.00 TYP. LOUVER HEAD DETAIL
3" = 1'-0"

2 A-502.00 TYP. LOUVER SILL DETAIL
3" = 1'-0"



6 A-212.00 TYP. LOUVER EXTERIOR ELEVATION - TYPE A
1/2" = 1'-0"



7 A-212.00 TYP. LOUVER EXTERIOR ELEVATION - TYPE B
1/2" = 1'-0"

LOUVER SCHEDULE						
TYPE	HEIGHT	WIDTH	HEAD/SILL	JAMB	QUANTITY	EQUIPMENT TAG, SEE MECHANICAL DWGS
L-1	6' - 0"	7' - 0"	1/A-711.00	2/A-711.00	16	(16) L-1 + (10) L-2 = LVR-111-01
L-2	6' - 0"	3' - 6"	1/A-711.00	2/A-711.00	22	(6) = LVR-111-02, (6) = LVR-111-03,
L-3	10'-0"	4' - 3"	1/A-711.00	2/A-711.00	4	(4) = LVR-081-03
L-4	6' - 6"	4' - 4 1/2"	1/A-711.00	2/A-711.00	8	(4) = LVR-081-01 & (4) = LVR-081-02
L-5	6' - 0"	7' - 0"	1/A-711.00	2/A-711.00	1	
L-6	12'-0"	4' - 3"	1/A-711.00	2/A-711.00	4	(4) = LVR-081-04
L-10	2' - 0"	2' - 6"	3/A-507.00	4/A-507.00	2	LVR-130-01 + LVR-130-02
L-11	2' - 6"	2' - 6"	2/A-507.00	2/A-507.00	1	LVR-130-03

3" 0 3" 9"

ISSUED FOR PERMIT

Engineering and Land Surveying, P.C.
370 7th Avenue
SUITE 1604
New York, NY 10001

SOWINSKI SULLIVAN ARCHITECTURE + DESIGN
25 Mohawk Avenue
Sparta, NJ 07871

REV	DESCRIPTION	DRW BY	CHK BY	DATE
0	FINAL SUBMISSION	RAC	ZH	12/12/2022

Kiewit
470 Chestnut Ridge Rd # 2,
Woodcliff Lake, NJ 07677

Hitachi Energy
901 Main Campus Drive
Raleigh, North Carolina 27606

PROJECT

CHPE
Champlain Hudson Power Express

Astoria HVDC Converter Station

31-45 20th Avenue, Astoria, Queens NY 11105
Block #850 - Lot #310 - BIN #4624437

LOUVER SCHEDULE AND DETAILS

REGISTERED ARCHITECT ALEXANDRE SOWINSKI SULLIVAN STATE OF NEW YORK 026049

DATE	12/12/22
PROJECT NO	105121
DRAWING BY	R. COLES
CHECKED BY	Z. HARR
DRAWING NO	A-711.00
CADD FILE N0	Autodesk Docs://CHPE Astoria/CHA-ASE-111-ZZ-M3-A-001.rvt

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