DULUTH INTERNATIONAL AIRPORT

Director of Airports: Brian Ryks
4701 GRINDEN DRIVE - DULUTH INTERNATIONAL AIRPORT
DULUTH, MINNESOTA 55811

FAA AIP No. - 3-27-0024-48-10
RS&H PROJ. No. - 213.1882.091
CITY OF DULUTH BID No. - 10-4401

NEW PASSENGER TERMINAL BUILDING PERMIT VOLUME 1 OF 2 ARCHITECTURAL, STRUCTURAL

AUG 16, 2010

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3716 Oneota Street
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DRAWING LIST

G101 DRAWING LIST

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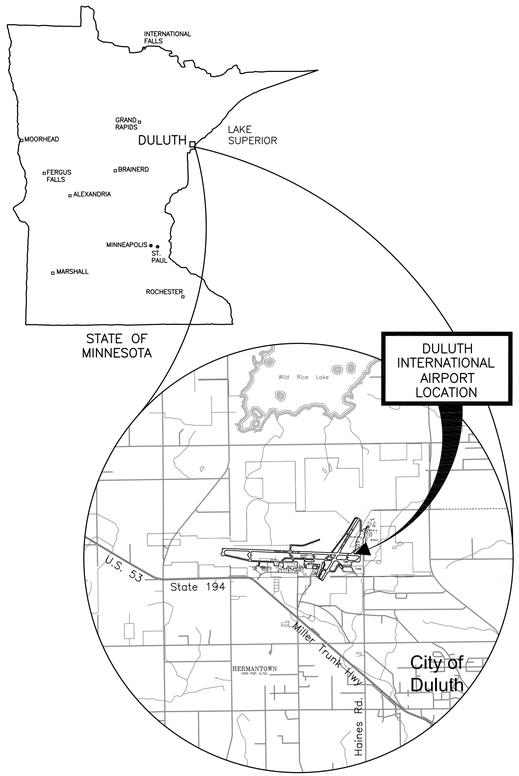
GENERAL NOTE:
FOR ADA STANDARDS, PLUMBING FIXTURES' MOUNTING HEIGHTS AND CLEARANCES, SEE A002



N

1 LOCATION MAP
N.T.S.

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DULUTH AIRPORT AUTHORITY

DULUTH INTERNATIONAL AIRPORT DULUTH, MN

NEW PASSENGER TERMINAL

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ARCHITECTURAL CERTIFICATION
I hereby certify that the architectural plans, specifications or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Architect under the laws of the State of Minnesota.

Print Name: Mark Ip

Signature:

Date: 06-03-10 Reg. No.: 46001

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 1	6.11.10
	CONFORMANCE SET	7.12.10
3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

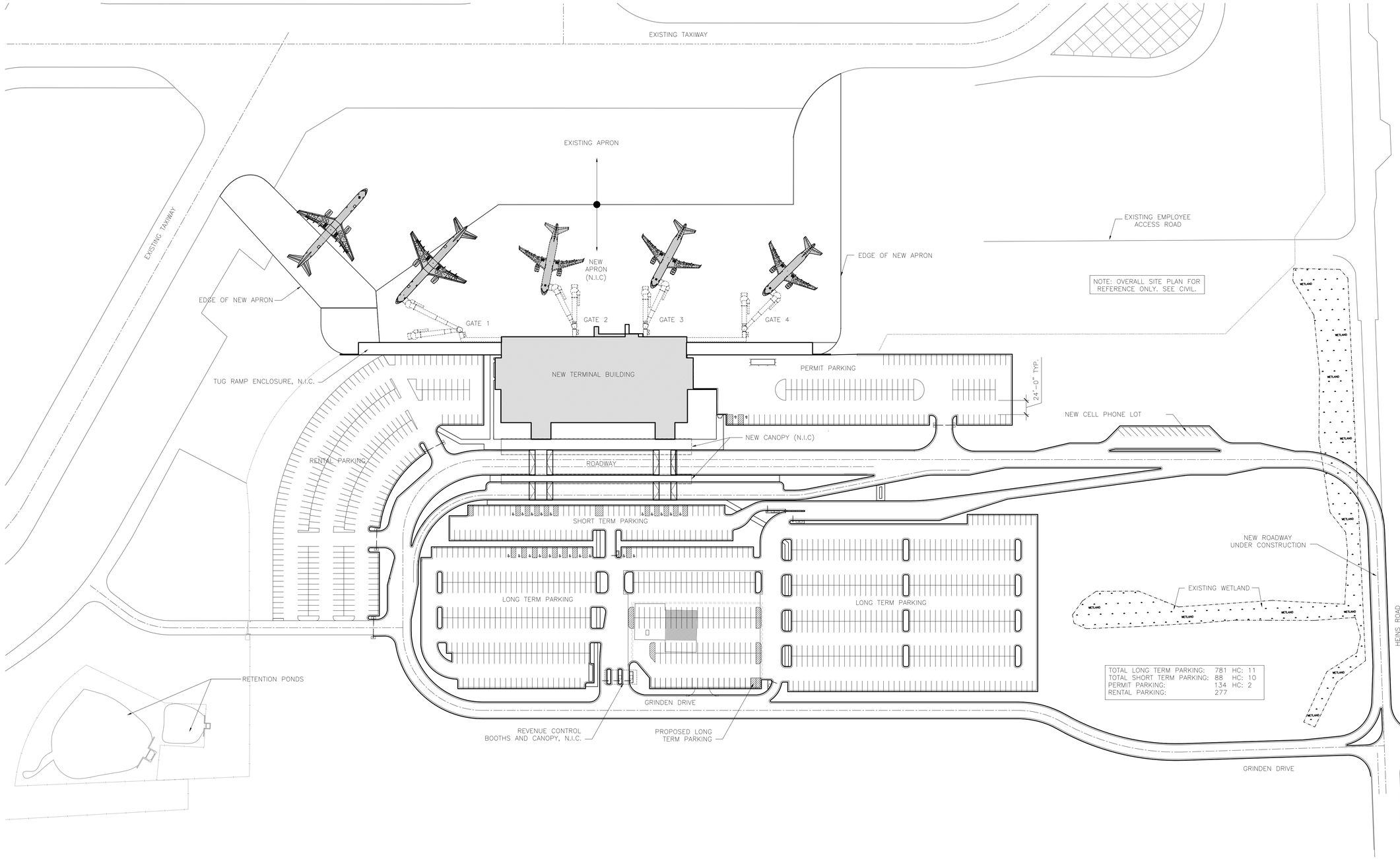
DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
DRAWING LIST

SHEET NUMBER
G101

BUILDING PERMIT



N

1 SITE PLAN
1" = 80'-0"

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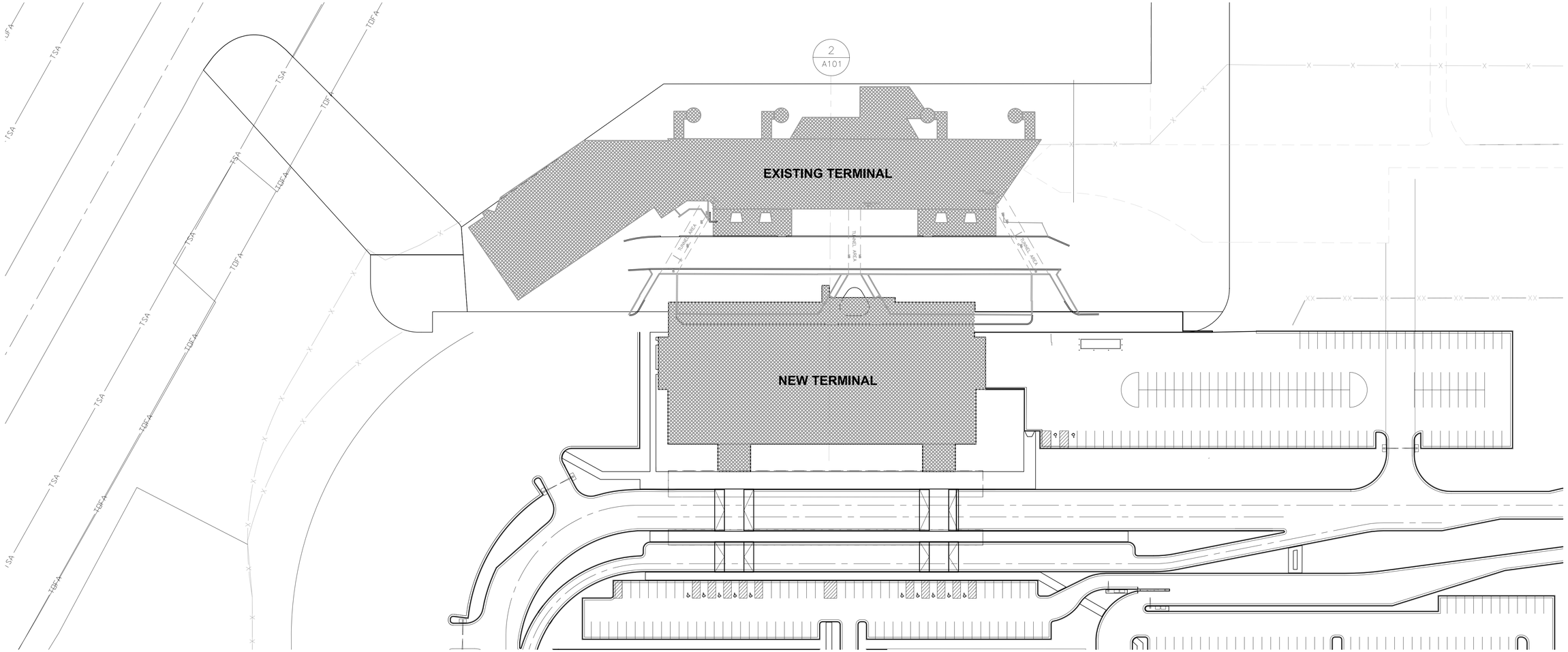
SHEET TITLE
OVERALL SITE PLAN

SHEET NUMBER
AS100

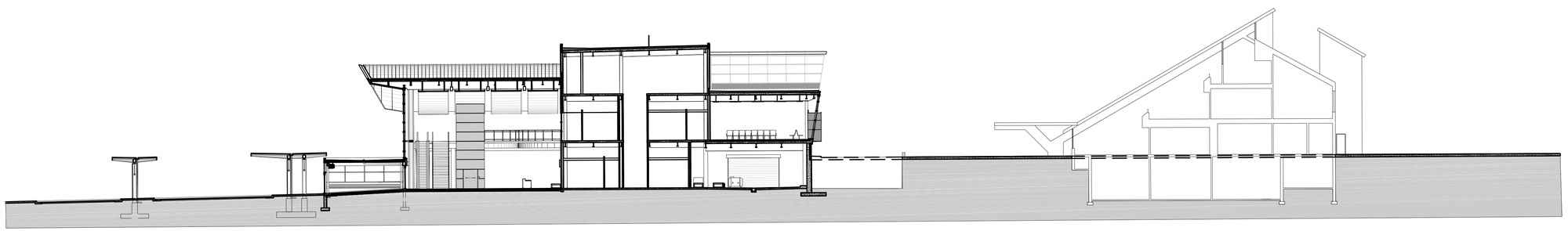
BUILDING PERMIT

Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\AS100 Overall Site Plan.dwg Plotted on: 8/16/2010 4:00 PMPlotted by: Kolodziej, Magdalena



N

1 SITE PLAN
1" = 50'-0"



NEW TERMINAL

EXISTING TERMINAL

2 SITE SECTION
1" = 20'-0"

NOTE: SITE PLAN AND SECTION FOR REFERENCE ONLY. VERIFY ALL CONDITIONS IN FIELD.

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213-1882-091

SHEET TITLE
CONSTRUCTION PHASE SITE INFORMATION

SHEET NUMBER
AS101

BUILDING PERMIT

Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\AS101 Construction Phase Site Information.dwg Plotted on: 8/16/2010 3:57 PMPlotted by: Kolodziej, Magdalena

ABBREVIATIONS

A.F.F.	ABOVE FINISHED FLOOR
A.C.T.	ACOUSTIC CEILING TILE
ADJ.	ADJACENT
A.E.S.S.	ARCH. EXPOSED STL. STRUCT.
A.H.U.	AIR HANDLER UNIT
ALT.	ALTERNATE
ALUM.	ALUMINUM
APPROX.	APPROXIMATE
ARCH.	ARCHITECTURAL
ASPH.	ASPHALT
AUTO.	AUTOMATIC
BM.	BEAM
B.M.	BENCH MARK
BLKG.	BLOCKING
BD.	BOARD
BOT.	BOTTOM
BLDG.	BUILDING
C.F.M.F.	COLD-FORMED METAL FRAMING
C.R.	CARD READER
CPT.	CARPET
CLG.	CEILING
℄ or C.L.	CENTERLINE
C.T.	CERAMIC TILE
CL.	CLEAR
CTR.	CENTER
C.O.	CLEAN OUT
COL.	COLUMN
COMP.	COMPRESSIBLE
CONC.	CONCRETE
CONC. BLK.	CONCRETE BLOCK
CMU	CONCRETE MASONRY UNIT
CONN.	CONNECTION
CONT.	CONTINUOUS
C.J.	CONTROL JOINT
CORR.	CORRIDOR
CU.	CUBIC
C.W.	CURTAINWALL
DEG.	DEGREE
DET.	DETAIL
DIA.	DIAMETER
DIM.	DIMENSION
DIST.	DISTANCE
DIV.	DIVIDER
DR.	DOOR
DN.	DOWN
DWG.	DRAWING
D.F.	DRINKING FOUNTAIN
EA.	EACH
ELEC.	ELECTRICAL
E.W.C.	ELECTRICAL WATER COOLER
EL.	ELEVATION
ENCL.	ENCLOSURE
EQ.	EQUAL
EQUIP.	EQUIPMENT
EXIST.	EXISTING
EXP. JT.	EXPANSION JOINT
EXP.	EXPOSED
EXT.	EXTERIOR
FIN.	FEET
FT.	FINISH
F.E.C.	FIRE EXTINGUISHER CABINET
F.E.	FIRE EXTINGUISHER
F.H.C.	FIRE HOSE CABINET
F.H.R.	FIRE HOSE RACK
FIXT.	FIXTURE
F.I.D.	FLIGHT INFORMATION DISPLAY
FL.	FLOOR
F.D.	FLOOR DRAIN
FLUOR.	FLUORESCENT
FR.	FRAME
GA.	GAUGE
GALV.	GALVANIZED
GYP.BD.	GYPSUM BOARD
HBS.	HANDLING BAGGAGE SYSTEM
HDW.	HARDWARE
HD.	HEAD
H.P.	HIGH POINT
H.P.C.	HIGH PERFORMANCE COATING
HT.	HEIGHT
H.M.	HOLLOW METAL
HORIZ.	HORIZONTAL
I.D.	INCHES
IN.	INSIDE DIAMETER
INSUL.	INSULATION
INT.	INTERIOR
JAN.	JANITOR
JT.	JOINT
LAM.	LAMINATED
LAV.	LAVATORY
L.F.	LINEAR FEET
L. PT.	LOW POINT
M.O.	MASONRY OPENING
MATL.	MATERIAL
MAX.	MAXIMUM
MECH.	MECHANICAL
M.H.	MAN HOLE
MTL.	METAL
MIN.	MINIMUM
MISC.	MISCELLANEOUS
MULL.	MULLION
M.U.F.I.D.	MULTIPLE USE FLIGHT INFORMATION DISPLAY
NOM.	NOMINAL
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
NO.	NUMBER
O.C.	ON CENTER
OPG.	OPENING
OPP.	OPPOSITE
OZ.	OUNCE
O.D.	OUTSIDE DIAMETER
O.A.	OVERALL
O.W.S.J.	OPEN WEB STEEL JOIST
PR.	PAIR
P.J.	PANEL JOINT
PLAS.	PLASTER
PL.	PLATE
PLMBG.	PLUMBING
PLYWD.	PLYWOOD
P.V.C.	POLYVINYLCHLORIDE
PT.	POINT
LBS.	POUNDS
PSI.	POUNDS PER SQUARE INCH
P.T.	PRESSURE TREATED
PRPTY.	PROPERTY
QTY.	QUANTITY
Q.T.	QUARRY TILE
R.	RADIUS
RECT.	RECTANGULAR
REINF.	REINFORCEMENT
REQD.	REQUIRED
REV.	REVISION
R.H.	RIGHT HAND
R.D.	ROOF DRAIN
RM.	ROOM
SC.	SCALE
SCHED.	SCHEDULE
SECT.	SECTION
SHT.	SHEET
SIM.	SIMILAR
SQ. FT.	SQUARE FEET
S.S.	STAINLESS STEEL
STD.	STANDARD
STA.	STATION
STL.	STEEL
STRUCT.	STRUCTURAL
SUSP.	SUSPENDED
SYM.	SYMBOL
TEL.	TELEPHONE
THK.	THICKNESS
TSA	TRANSPORTATION SECURITY ADMINISTRATION
TYP.	TYPICAL
U.L.	UNDERWRITERS LABORATORIES
U.O.N.	UNLESS OTHERWISE NOTED
V.B.	VAPOR BARRIER
VERT.	VERTICAL
V.C.T.	VINYL COMPOSITION TILE
V.W.C.	VINYL WALL COVERING
VOL.	VOLUME
W.H.I.	WARNOCK HERSEY INTERNATIONAL
W.C.	WATER CLOSET
WT.	WEIGHT
W.W.F.	WELDED WIRE FABRIC
WD.	WOOD
W.P.	WORKING POINT

PROJECT GENERAL NOTES:

1. ALL WORK SHALL CONFORM TO ALL APPLICABLE CODES, STANDARDS AND GOVERNING AUTHORITIES.

2. REFER TO CIVIL, ARCHITECTURAL, MECHANICAL, PLUMBING, STRUCTURAL AND ELECTRICAL DRAWINGS FOR COORDINATION OF WORK.

3. EACH TRADE CONTRACTOR SHALL VISIT THE SITE AND BECOME KNOWLEDGEABLE OF CONDITIONS THEREIN. EACH TRADE CONTRACTOR SHALL INVESTIGATE, VERIFY AND BE RESPONSIBLE FOR ALL THE REQUIREMENTS OF THE PROJECT AND SHALL NOTIFY THE ARCHITECT AND OWNER OF ANY CONDITIONS REQUIRING INFORMATION BEFORE PROCEEDING WITH THE WORK. EXISTING BUILDING DRAWINGS ARE AVAILABLE FROM THE OWNER FOR REVIEW. THE DOCUMENTS AVAILABLE MAY NOT BE REPRESENTATIVE OF ALL AS-BUILT CONDITIONS

4. THE TRADE CONTRACTORS SHALL PROTECT ALL EXISTING SITE ELEMENTS FROM DAMAGE DUE TO ALTERATION AND CONSTRUCTION OPERATIONS AND REPAIR OR REPLACE ELEMENTS DAMAGED DURING THE PROJECT.

5. ANY UTILITY SHUT-OFFS AS REQUIRED BY THE CONTRACTOR FOR COMPLETION OF THE WORK SUCH AS ELECTRICAL, WATER, SEWER, TELEPHONE, GAS ETC. MUST BE SCHEDULED WITH THE OWNER 72 HOURS PRIOR TO COMMENCING THE WORK. ALL WORK TO BE DONE IN OFF HOURS OR AT LOW-USE HOURS AS APPROVED BY THE OWNER.

6. DRAWINGS ARE TO BE ISSUED TO THE SUBCONTRACTORS IN COMPLETE SETS SO THAT THE EXTENT AND COORDINATION OF THE WORK IS MADE POSSIBLE.

7. DETAILS SHOWN ARE INTENDED TO BE INDICATIVE OF THE PROFILES AND TYPE OF DETAILING REQUIRED FOR THE WORK. DETAILS NOT SHOWN ARE SIMILAR IN CHARACTER TO THOSE DETAILED.

8. WHERE SPECIFIC DIMENSIONS, DETAILS AND DESIGN INTENT CANNOT BE DETERMINED, NOTIFY THE ARCHITECT IN WRITING BEFORE PROCEEDING WITH ANY WORK IN QUESTION.

9. DIMENSIONS SHALL GOVERN. DO NOT SCALE DRAWINGS. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES, OMISSIONS AND/OR CONFLICTS BEFORE PROCEEDING WITH THE WORK.

10. ALL DIMENSIONS SHALL BE VERIFIED ON THE SITE BEFORE PROCEEDING WITH THE WORK. NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES.

11. UNLESS NOTED OTHERWISE, ALL WALLS AND PARTITIONS ARE DIMENSIONED TO THE FINISH FACE OF THE METAL FRAMING OR FACE OF C.M.U.

12. UNLESS NOTED OTHERWISE, ALL FASTENERS AND FASTENING DEVICES ARE TO BE CONCEALED IN ALL FINISHED SPACES.

13. ANY PIPING, DUCTS, CONDUITS, ETC. THAT PENETRATE FIRE-RATED WALLS SHALL BE INSTALLED IN A MANNER THAT WILL PRESERVE THE FIRE INTEGRITY OF THE FLOOR OR WALL. FIRE STOP RATINGS OF WALLS WHERE PENETRATIONS OCCUR. PROVIDE FIRE DAMPERS IN DUCTS PENETRATING FIRE-RATED WALLS TO MEET THE APPLICABLE BUILDING CODES. REFER TO ALL DRAWINGS FOR EXTENT AND FIRE RATING REQUIREMENTS. THE FIRE RATING OF THE FIRESTOP MUST BE EQUAL TO OR GREATER TO THE MINIMUM RATING OF THE FLOOR, ROOF OR WALL ASSEMBLY. ALL FIREPROOFING REPLACEMENT OR INSTALLATION TO BE COMPLETED BY CONTRACTOR PERFORMING THE PENETRATION.

14. ALL JOINTS OF ANY ELEMENT OF CONSTRUCTION WHICH ARE REQUIRED TO HAVE A FIRE-RESISTANCE RATING SHALL BE INSTALLED PER THE MANUFACTURER'S PUBLISHED TESTED ASSEMBLIES, SHALL BE TIGHT AND SHALL PREVENT THE PASSAGE OF SMOKE AND FLAME.

15. WHERE THE FIRE RATING OF WALLS ARE NOTED ON THE DRAWINGS, THE FIRE RATING SHALL APPLY TO THE ENTIRE PERIMETER ENCLOSURE OF THE ROOM OR SPACE FOR THE FULL LENGTH AND HEIGHT OF AREAS BEING SEPARATED, EXTENDING TO THE UNDERSIDE OF THE FLOOR OR ROOF DECK.

16. ALL DISSIMILAR METALS SHALL BE EFFECTIVELY ISOLATED FROM EACH OTHER BY GASKETS OR COATINGS OR BOTH TO AVOID GALVANIC CORROSION ACTION.

17. ALL FERROUS METAL WORK LOCATED ON THE EXTERIOR OR IN NON CONDITIONED SPACES (INTERIOR) SHALL BE HOT-DIPPED GALVANIZED (MINIMUM G-90 COATING).

18. THE EXTENT OF THE WORK SHOWN ON THE PLANS AND DETAILS REFLECTS THE BEST JUDGMENT OF THE ARCHITECT/ENGINEER. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS AND ADVISE THE ARCHITECT IN WRITING OF ANY SITUATION THAT WOULD NOT ALLOW HIM TO PROCEED ON THE BASIS OF THESE DOCUMENTS.

19. THE ARCHITECT/ENGINEER SELECTION OF MATERIALS AND DETAILS DOES NOT RELIEVE THE CONTRACTOR FROM VERIFYING WITH THE MATERIAL SUPPLIERS THAT THE PROPOSED MATERIALS ARE CORRECT AND PROPER FOR THE INTENDED APPLICATION AND USE.

20. THE CONTRACTOR SHALL COORDINATE THE FINAL LOCATIONS OF THE POWER/DATA/COMMUNICATION OUTLETS.

21. ALL WORK SHALL CONFORM WITH MINNESOTA ACCESSIBILITY CODE AND THE IAC (SECTIONS 400.310(s) AND 400.310(u)).

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Print Name: Mark Ip

Signature:

Date: 06-03-10 Reg. No.: 46001

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NO.	DESCRIPTION	DATE
1	ADDENDUM 1	6.11.10
	CONFORMANCE SET	7.12.10
3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

AEP PROJECT NUMBER
213-1882-091

SHEET TITLE

ABBREVIATIONS AND GENERAL NOTES

SHEET NUMBER

A001

BUILDING PERMIT

Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A001 Abbreviations and General Notes.dwg Plotted on: 8/13/2010 11:58 AM Plotted by: Godzina, Marc

MATERIALS LEGEND

ITEM	DESIGNATION
EARTH CRUSHED ROCK GRAVEL	
EARTH UNDISTURBED	
EARTHWORK COMPACTED FILL	
SAND	
BRICK COMMON/FACE	
CMU	
CONCRETE	
GRANITE STONE	
GROUT	
LIMESTONE	
MARBLE STONE	
STONE CAST	
TERRA COTTA GLAZED	
TERRA COTTA UNGLAZED	
ALUMINUM AND OTHER METALS	
BRONZE BRASS	
STEEL	
SHEET METAL AND ALL METALS	
PARTICLEBOARD WOODWORK ARCHITECTURAL	
PLYWOOD	
WOOD BLOCKING SHIM	
WOOD FINISH	
WOOD FRAMING CONTINUOUS	
GASKET FIREPROOFING	
INSULATION BATT.	
INSULATION RIGID BOARD	
SEALANT AND BACKER ROD	
WATERPROOFING MEMBRANE	
GLASS MIRRORS	
GLASS ELEVATION MIRRORS ELEVATION	
CARPET AND PAD	
GYPSUM BOARD FINISH	
PLASTER FINISH WITH METAL LATH	
TERRAZZO FINISH	
TILE ACOUSTICAL CEILING	
WOOD FLOORING	

SYMBOLS LEGEND

ITEM	SYMBOL
DRAWING TITLE	1 DWG_LABEL_1 X" = 1'-0
ROOM NUMBER	ROOM NAME XXX
ROOM NUMBER WITH KT/BT	ROOM NAME XXX XX XXX
MATERIAL CHANGE	XX XX FLR FLR
F F & E	XXX
ELEVATION CHANGE	
INTERIOR ELEVATION	CLG HT XX'-XX" AFF
SPOT ELEVATION	XX'-XX"
ELEVATION REFERENCE VERTICAL	FLOOR NAME EL XX'-XX"
DOOR NUMBER	XXX XX — ROOM NUMBER, DOOR IDENTIFIER
WINDOW/ GLAZING NUMBER	XXX
NOTE NUMBER	XX
WALL TYPE	XX
NORTH ARROW	N

ITEM	SYMBOL WITH SHEET DESIGNATION
PARTIAL BUILDING SECTION	1 AXXX
FULL BUILDING SECTION	1 AXXX
EXTERIOR ELEVATION	1 AXXX
INTERIOR ELEVATION	1 AXXX (1, 2, 3, 4)
DETAIL	1 AXXX

ACCESSIBILITY NOTES

A. GENERAL REQUIREMENTS

THIS PROJECT WILL COMPLY WITH ALL IAC 400.310 - NEW CONSTRUCTION.

1. THE ENTRANCE IS ACCESSIBLE PER IAC 400.310(k).

2. ALL PASSENGER ELEVATORS PROVIDED IN A BUILDING OR FACILITY SHALL BE ACCESSIBLE, SHALL SERVE ALL LEVELS OF A BUILDING OR FACILITY, SHALL BE ON AN ACCESSIBLE ROUTE AND SHALL COMPLY WITH THE ASME A 17.1-1996.

3. ALL DOORS LEADING TO REQUIRED ACCESSIBLE ROOMS AND SPACES SHALL BE A MININUM OF 3-0" WIDE, HAVE LEVER OPERATED HARDWARE (OR EQUAL), HAVE A MININUM OPENING FORCE OF 5 LBF, AND FULLY COMPLY WITH IAC 400.310(j).

4. ALL DOORS LEADING TO HAZARDOUS ROOMS WILL COMPLY WITH THE ABOVE AND, IN ADDITION, WILL HAVE KNURLED OPERATING HARDWARE (I.E., ELECTRICAL/TELEPHONE ROOMS).

5. ALL ENVIRONMENTAL CONTROLS AND OPERATING MECHANISMS WILL COMPLY WITH IAC 400.310(r) (FRONT REACH BETWEEN 15" AND 48" AFF).

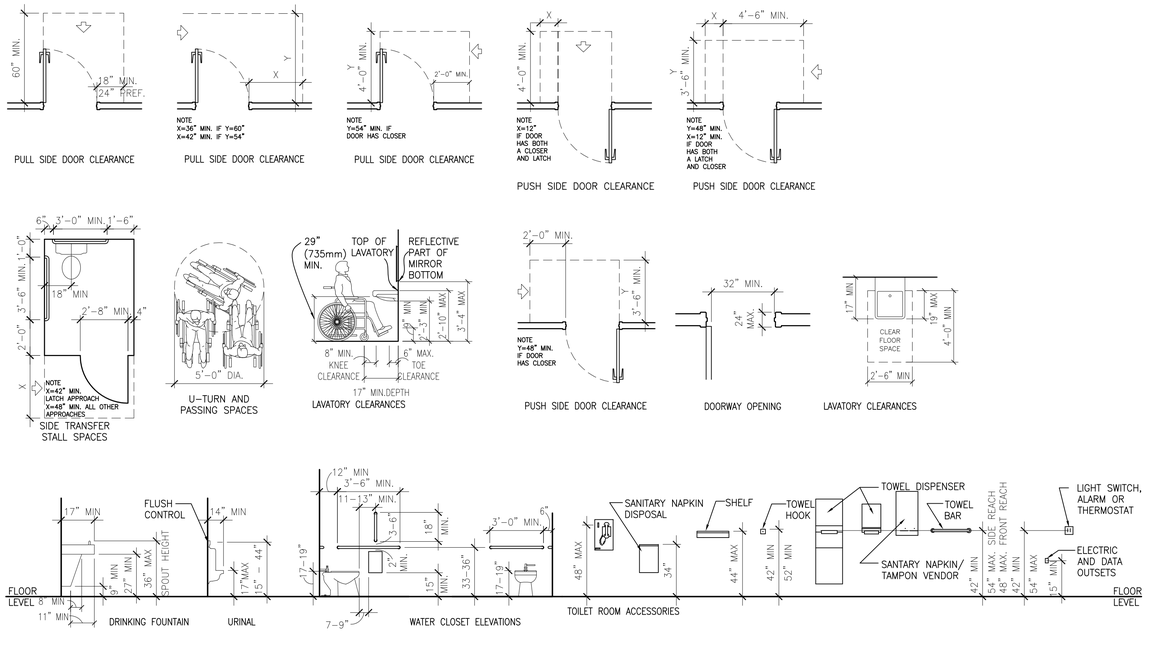
6. ALL EMERGENCY WARNING ALARMS, WHERE PROVIDED, SHALL BE BOTH AUDIBLE AND VISUAL AND COMPLY WITH IAC 400.310(s). THE VISUAL ALARMS WILL BE FLASHING TYPE WHERE THE FLASHING IS SYNCHRONIZED AND IN COMPLIANCE FOR INTENSITY AND FREQUENCY. ALL TENANT SPACES WILL BE WIRED FOR FUTURE INSTALLATION OF EMERGENCY WARNING ALARMS ON AN AS NEEDED BASIS (SEE SECURITY DRAWINGS).

7. ANY NEW REQUIRED SIGNAGE IN CONTRACT SHALL BE INSTALLED AS REQUIRED PER IAC 400.310(u).

8. TOILET ROOMS SERVING PUBLIC AREAS (I.E., LOBBIES, CONCOURSE, ETC.) WILL FULLY COMPLY WITH IAC 400.310(n).

9. REFER TO CHAPTER 1341 MN BUILDING CODE

ACCESSIBILITY CLEARANCES



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DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

AEP PROJECT NUMBER
213-1882-091

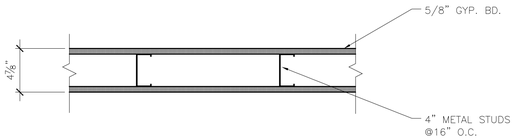
SHEET TITLE
SYMBOLS AND ACCESSIBILITY CLEARANCES

SHEET NUMBER
A002

BUILDING PERMIT

Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A002 Symbols.dwg Plotted on: 8/13/2010 11:58 AM Plotted by: Godzina, Marc

PARTITION TYPES



1 TYPICAL AT INTERIOR PARTITIONS TO 6" ABOVE HIGHEST CEILING OR UNDERSIDE OF DECK WHERE OPEN TO STRUCTURE.

1A SIMILAR WITH GYP. BD. 1 SIDE ONLY

1B SIMILAR WITH 6" METAL FRAMING

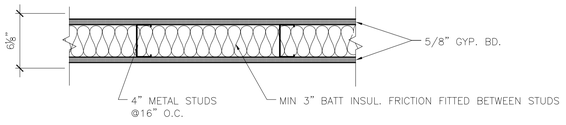
1C SIMILAR WITH 6" METAL FRAMING AND GYP. BD. 1 SIDE ONLY

1D SIMILAR WITH 8" METAL FRAMING

1E SIMILAR WITH 8" METAL FRAMING AND GYP. BD. 1 SIDE ONLY

1F SIMILAR WITH 8" METAL FRAMING AND GYP. BD. AND SOUND ATTENUATING BATT. INSUL.

1

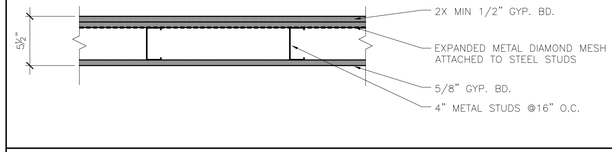


2 TYPICAL AT 1 HR FIRE RATED PARTITIONS TO UNDERSIDE OF STRUCTURAL DECK UNLESS OTHERWISE NOTED UL DESIGN NO. U404

2A SIMILAR WITH 8" FRAMING

2B TYPICAL AT TENANT PARITITIONS. SIMILAR TO UNDERSIDE OF CEILING ONLY.

2

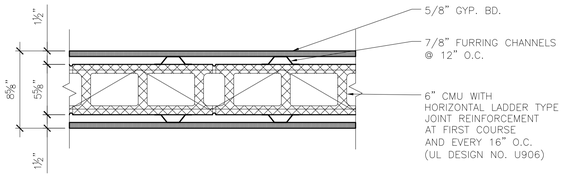


3 TYPICAL AT CBP SECURE ROOMS TO 6" ABOVE CEILING UNLESS OTHERWISE NOTED. STC RATING 50–55

3A SIMILAR WITH DOUBLE GYP. BD. AND EXPANDED METAL BOTH SIDES

NOTE: EXPANDED METAL MUST BE INSPECTED BY CPB PRIOR TO COVERING

3



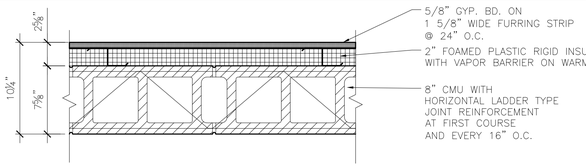
4 TYPICAL AT TOILET ROOMS TO 6" ABOVE CEILING UNLESS OTHERWISE NOTED.

4A SIMILAR WITH FURRING AND GYP. BD. ON ONE SIDE ONLY

4B SIMILAR WITH 8" CMU UL DESIGN NO. U907 MIN 1HR

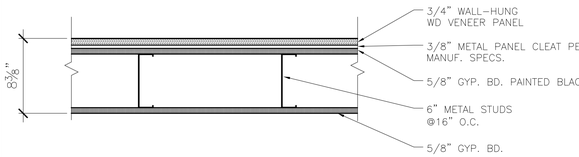
4C SIMILAR WITH 8" CMU AND FURRING AND GYP. BD. ON ONE SIDE ONLY UL DESIGN NO. U907 MIN 1HR

4



5 TYPICAL AT TUG TUNNEL WALL UL DESIGN NO. U912 3HR

5

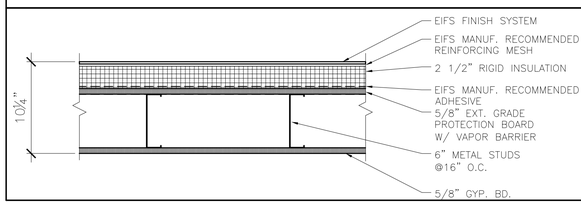


6 TYPICAL AT CORE WALL

6A SIMILAR WITH GYP. BD. ON PANEL SIDE ONLY

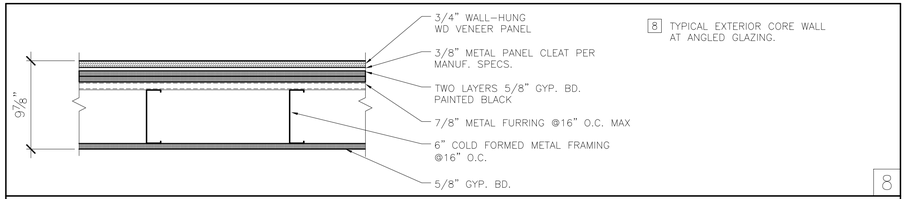
6B SIMILAR WITH 8" COLD FORMED METAL FRAMING INSTEAD OF 6"

6



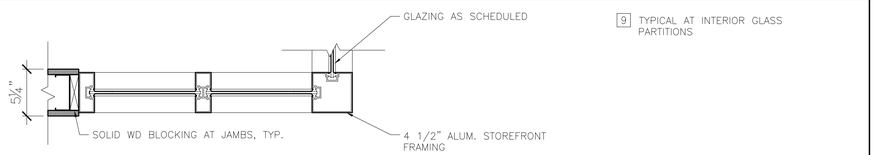
7 BUILDING ENCLOSURE AT CHILLER WELL

7



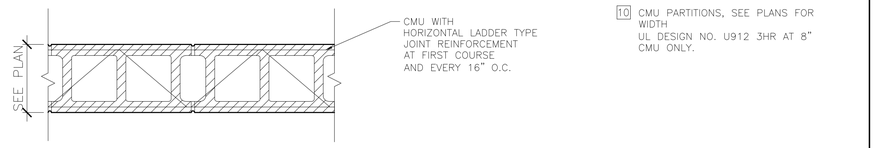
8 TYPICAL EXTERIOR CORE WALL AT ANGLED GLAZING.

8



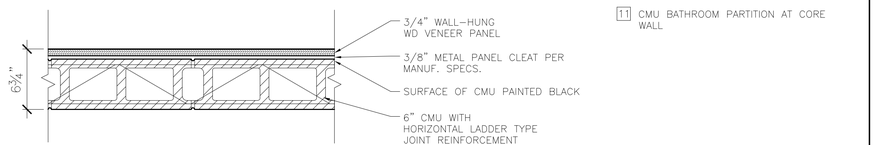
9 TYPICAL AT INTERIOR GLASS PARTITIONS

9



10 CMU PARTITIONS, SEE PLANS FOR WIDTH
UL DESIGN NO. U912 3HR AT 8" CMU ONLY.

10



11 CMU BATHROOM PARTITION AT CORE WALL

11

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AEP PROJECT NUMBER
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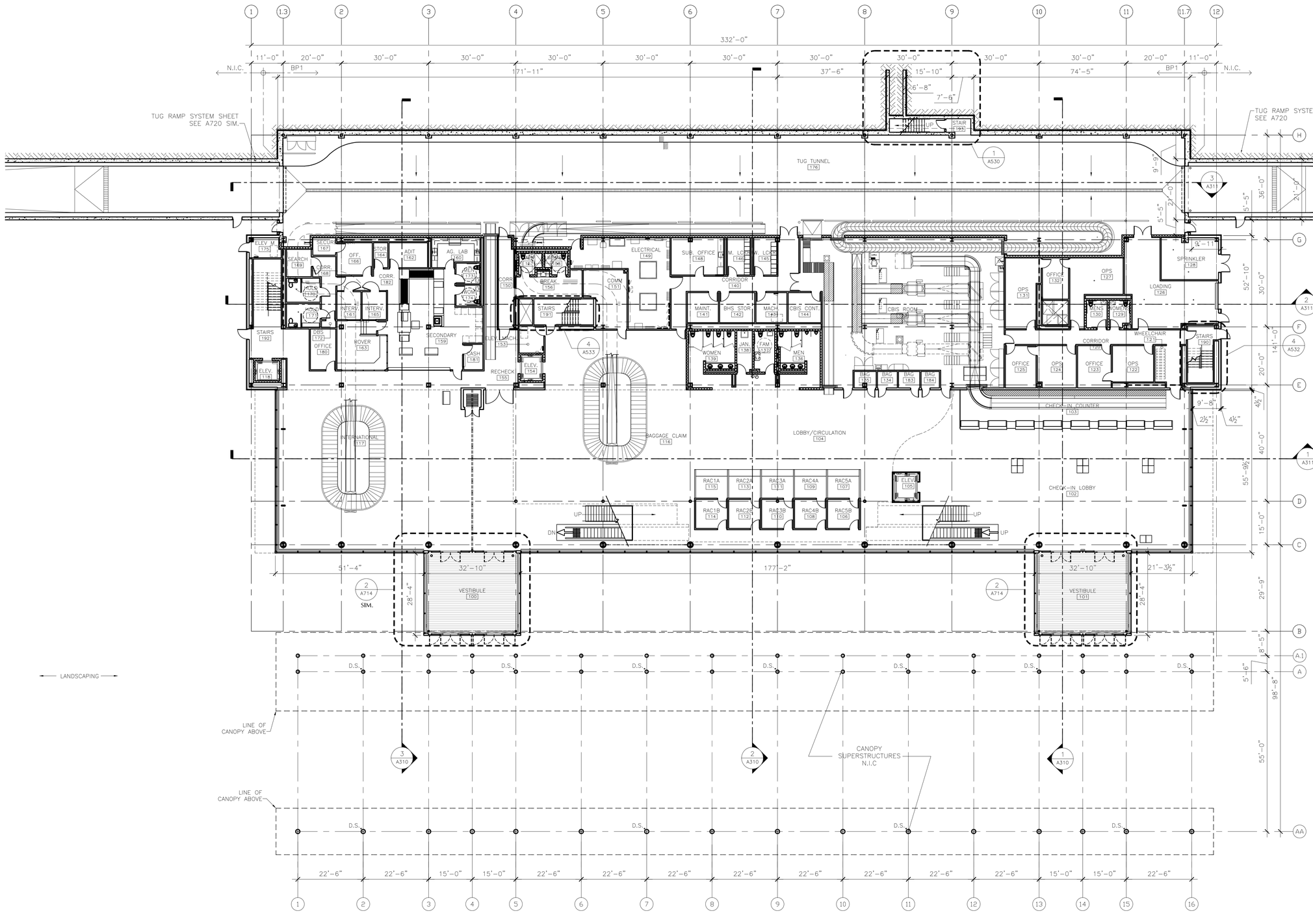
SHEET TITLE
PARTITION TYPES

SHEET NUMBER
A003

BUILDING PERMIT

Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A003 Partition Types.dwg Plotted on: 8/13/2010 11:59 AM Plotted by: Godzina, Marc



N

1 OVERALL FIRST FLOOR PLAN

1/16" = 1'-0"

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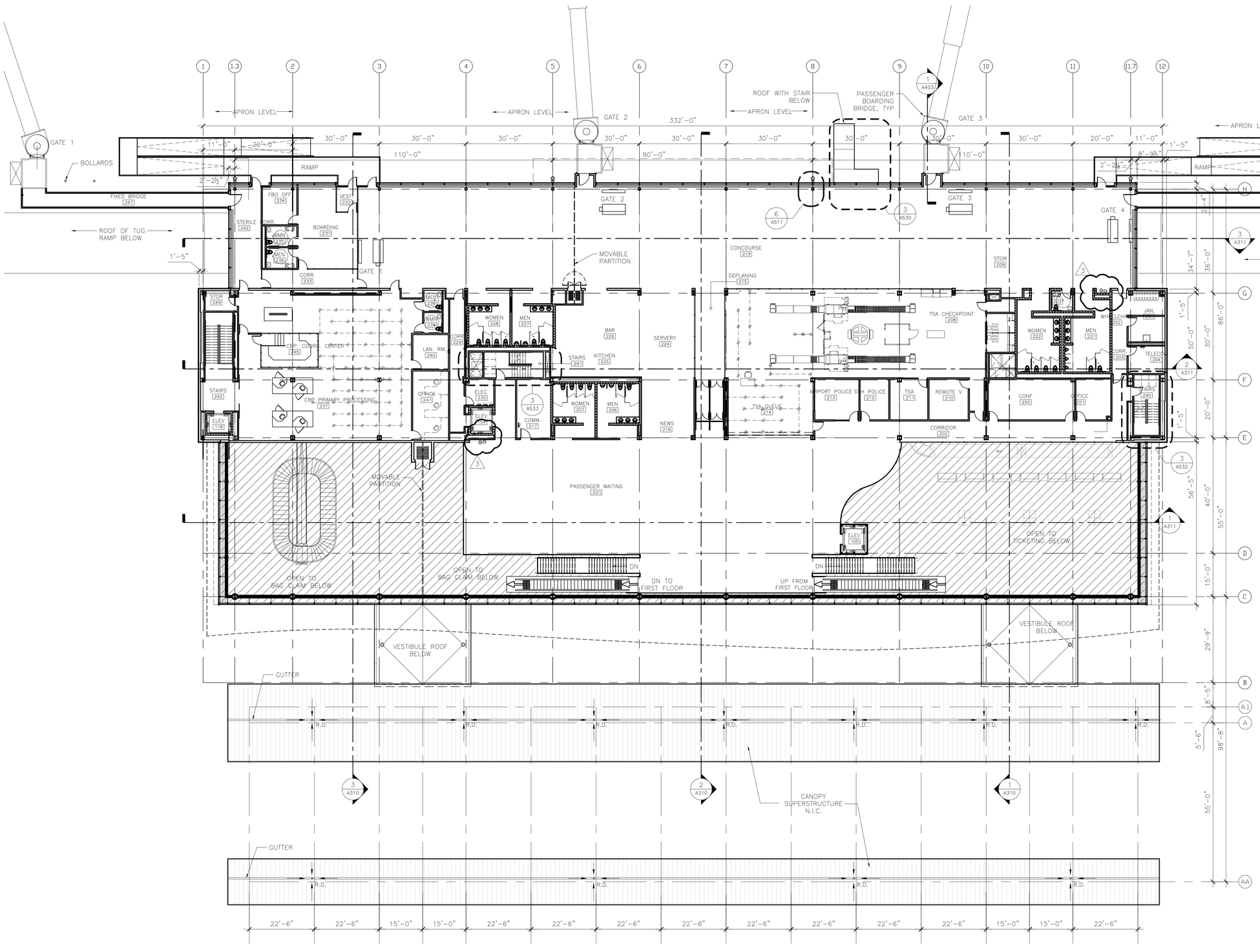
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
OVERALL FIRST FLOOR PLAN

SHEET NUMBER
A101

BUILDING PERMIT

Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A101 Overall First Floor Plan.dwg Plotted on: 8/13/2010 12:00 PM Plotted by: Godzina, Marc



NOTE: IN FLOOR AIR DISTRIBUTION SYSTEM N.I.C.

N

1 SECOND LEVEL FLOOR PLAN
1/16" = 1'-0"

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TEL: (312) 201-7408 / FAX: (312) 201-0031

Baggage Handling Systems Consultants:
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101 East Ridge Office Park, Suite 103, Danbury CT 06810
TEL: (203) 792-3000 / FAX: (203) 792-4900

Landscaping Consultants:
APPOLD DESIGN
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TEL: (218) 591-5079

ARCHITECTURAL CERTIFICATION
I hereby certify that the architectural plans, specifications or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Architect under the laws of the State of Minnesota.

Print Name: Mark Ip

Signature:

Date: 06-03-10 Reg. No.: 46001

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 1	6.11.10
	CONFORMANCE SET	7.12.10
3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

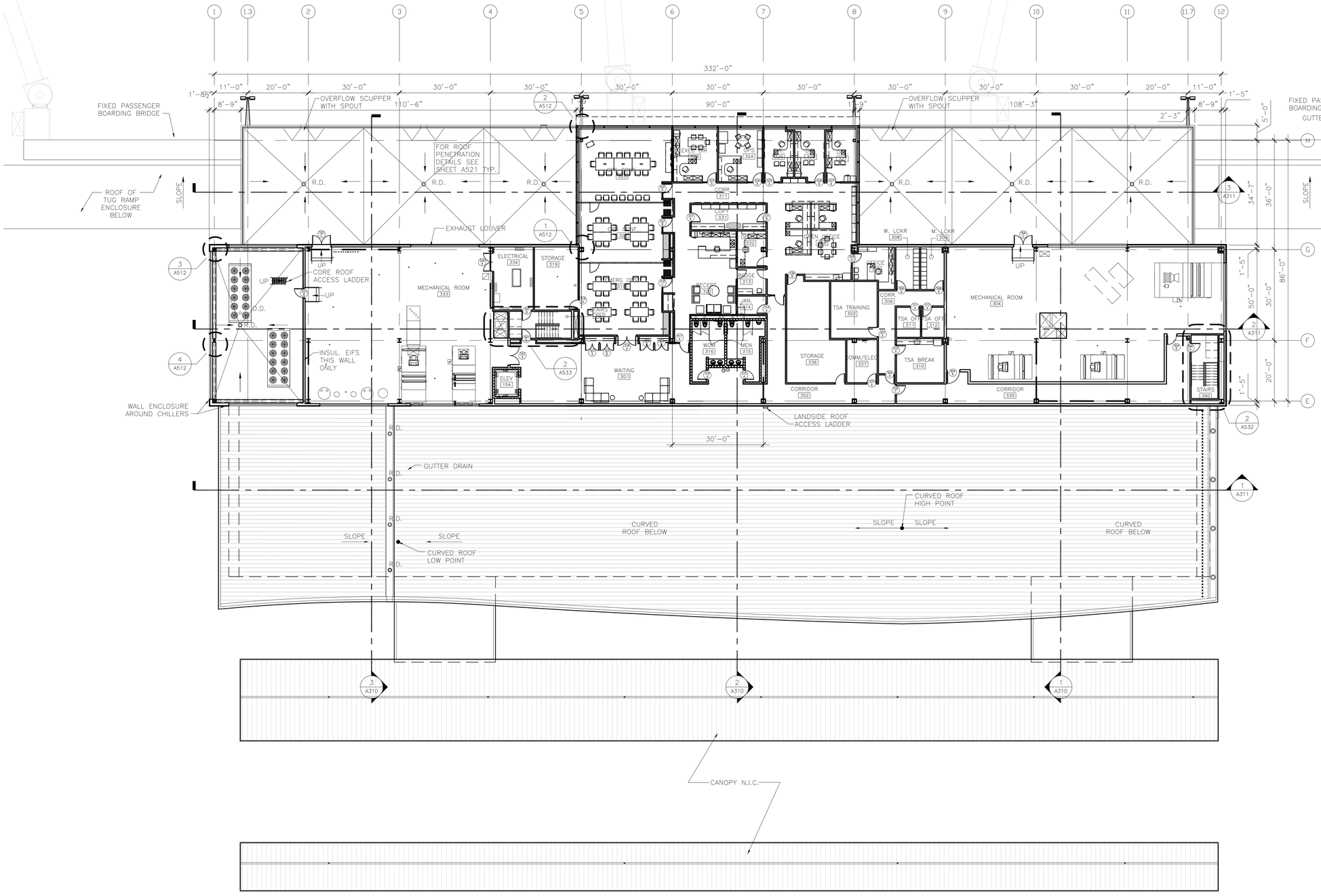
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
OVERALL SECOND FLOOR PLAN

SHEET NUMBER
A102

BUILDING PERMIT

Drawing: I:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A102 Overall Second Floor Plan.dwg Plotted on: 8/13/2010 12:00 PM Plotted by: Godzina, Marc



N

1 THIRD LEVEL FLOOR PLAN
1/16" = 1'-0"

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NEW PASSENGER TERMINAL

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	CONFORMANCE SET	7.12.10
3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

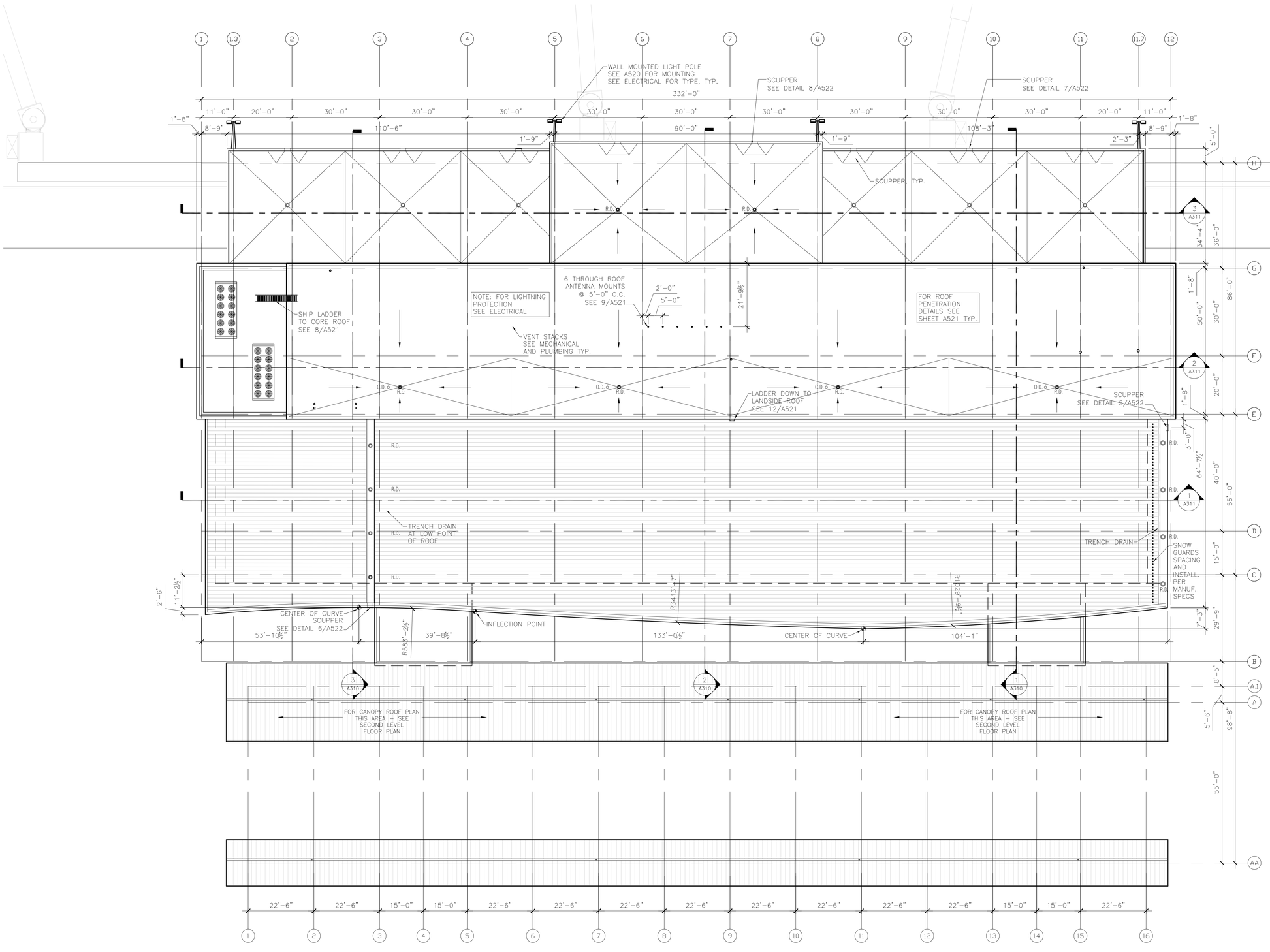
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
OVERALL THIRD FLOOR PLAN

SHEET NUMBER
A103

BUILDING PERMIT

Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A103 Overall Third Floor Plan.dwg Plotted on: 8/13/2010 12:01 PM Plotted by: Godzina, Marc



N

1 ROOF PLAN
1/16" = 1'-0"

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3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

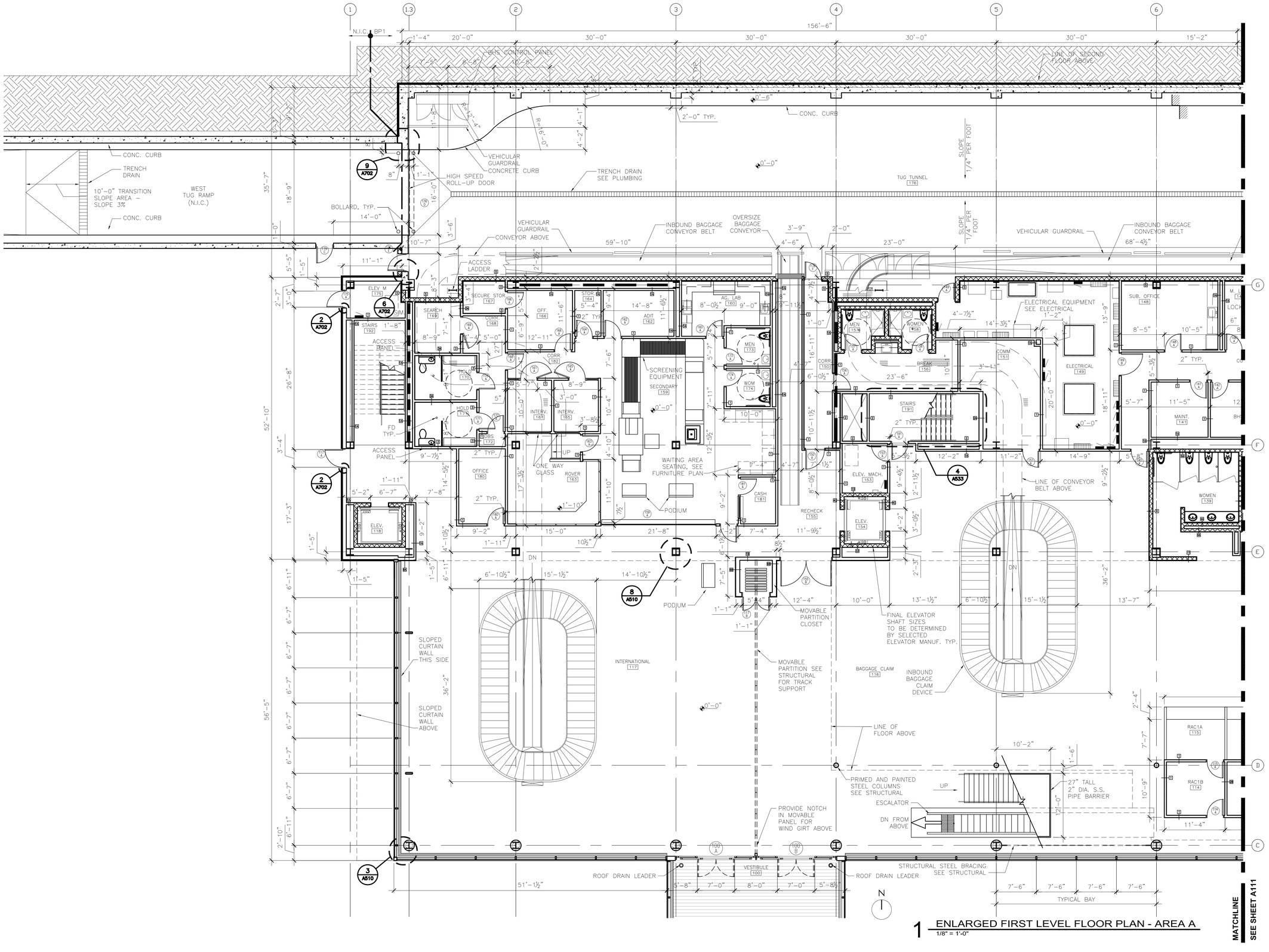
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
OVERALL ROOF PLAN

SHEET NUMBER
A104

BUILDING PERMIT

Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A104 Overall Roof Plan.dwg Plotted on: 8/13/2010 12:01 PM Plotted by: Godzina, Marc



1 ENLARGED FIRST LEVEL FLOOR PLAN - AREA A
1/8" = 1'-0"

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	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

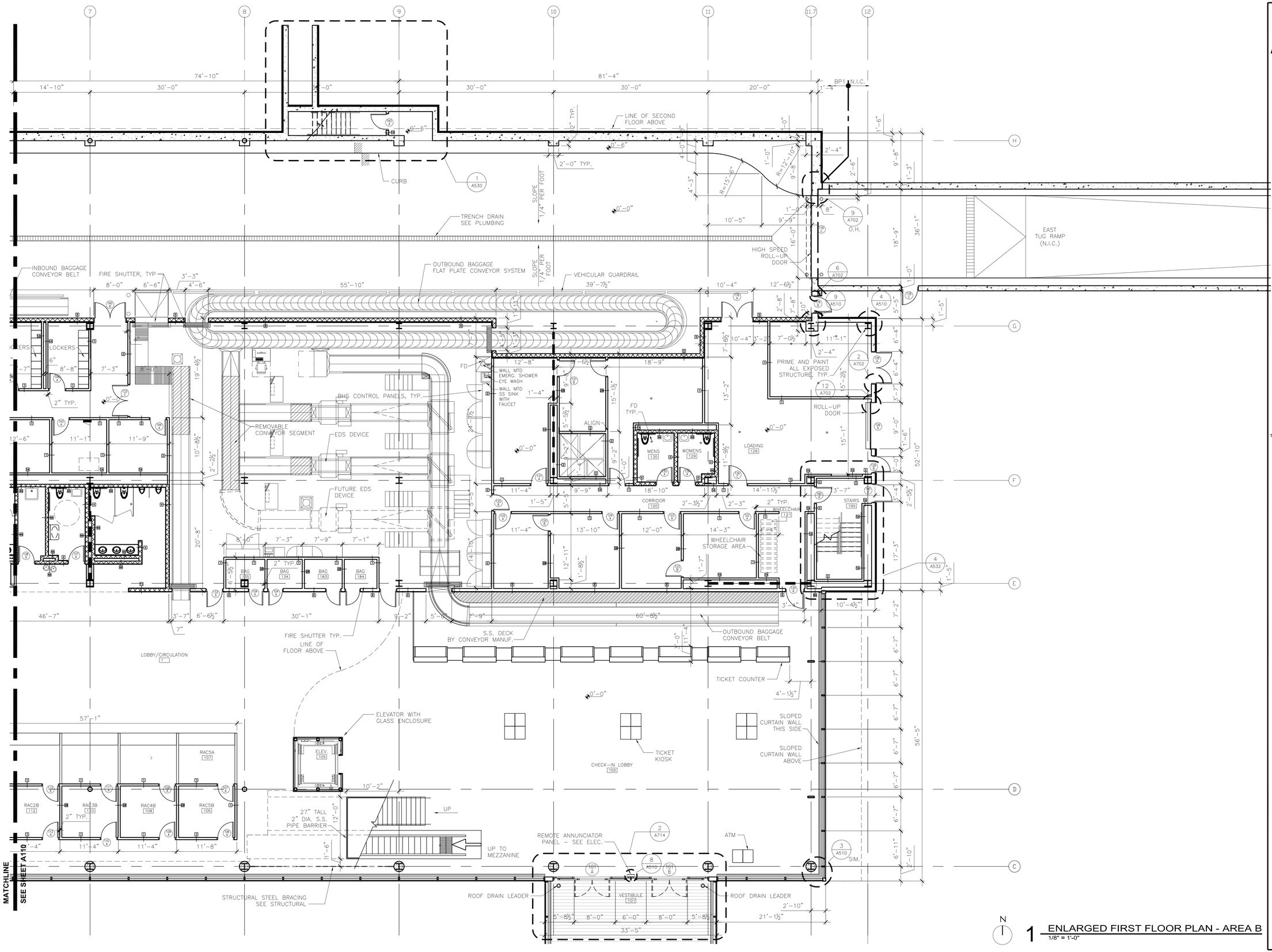
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
ENLARGED FIRST FLOOR PLAN AREA A

SHEET NUMBER
A110

BUILDING PERMIT

Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A110 First Floor Area A.dwg Plotted on: 8/13/2010 12:02 PM Plotted by: Godzina, Marc



N

1 ENLARGED FIRST FLOOR PLAN - AREA B
1/8" = 1'-0"

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REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

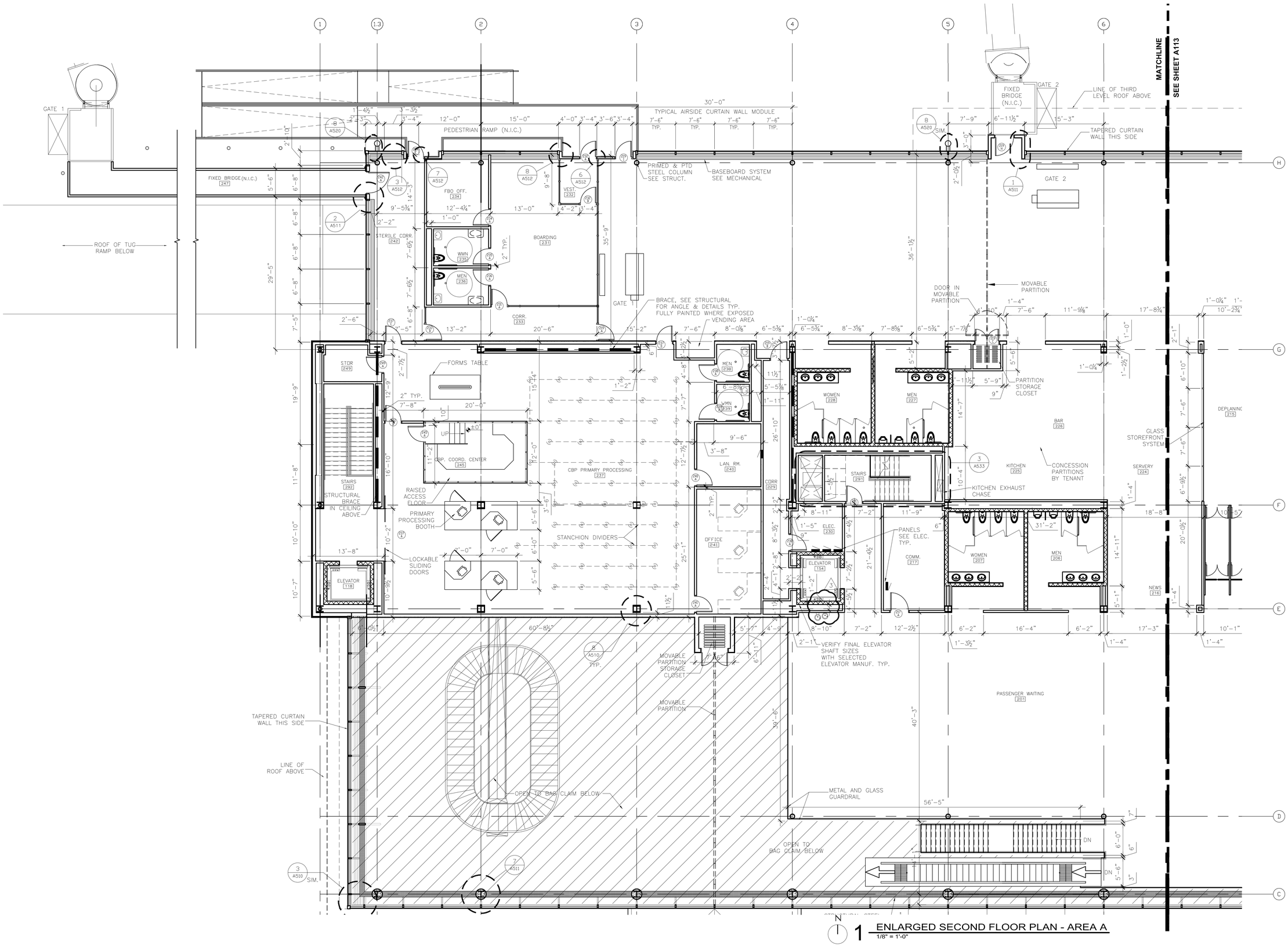
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
ENLARGED FIRST FLOOR PLAN AREA B

SHEET NUMBER
A111

BUILDING PERMIT

Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A111 First Floor Area B.dwg Plotted on: 8/13/2010 12:03 PM Plotted by: Godzina, Marc



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3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

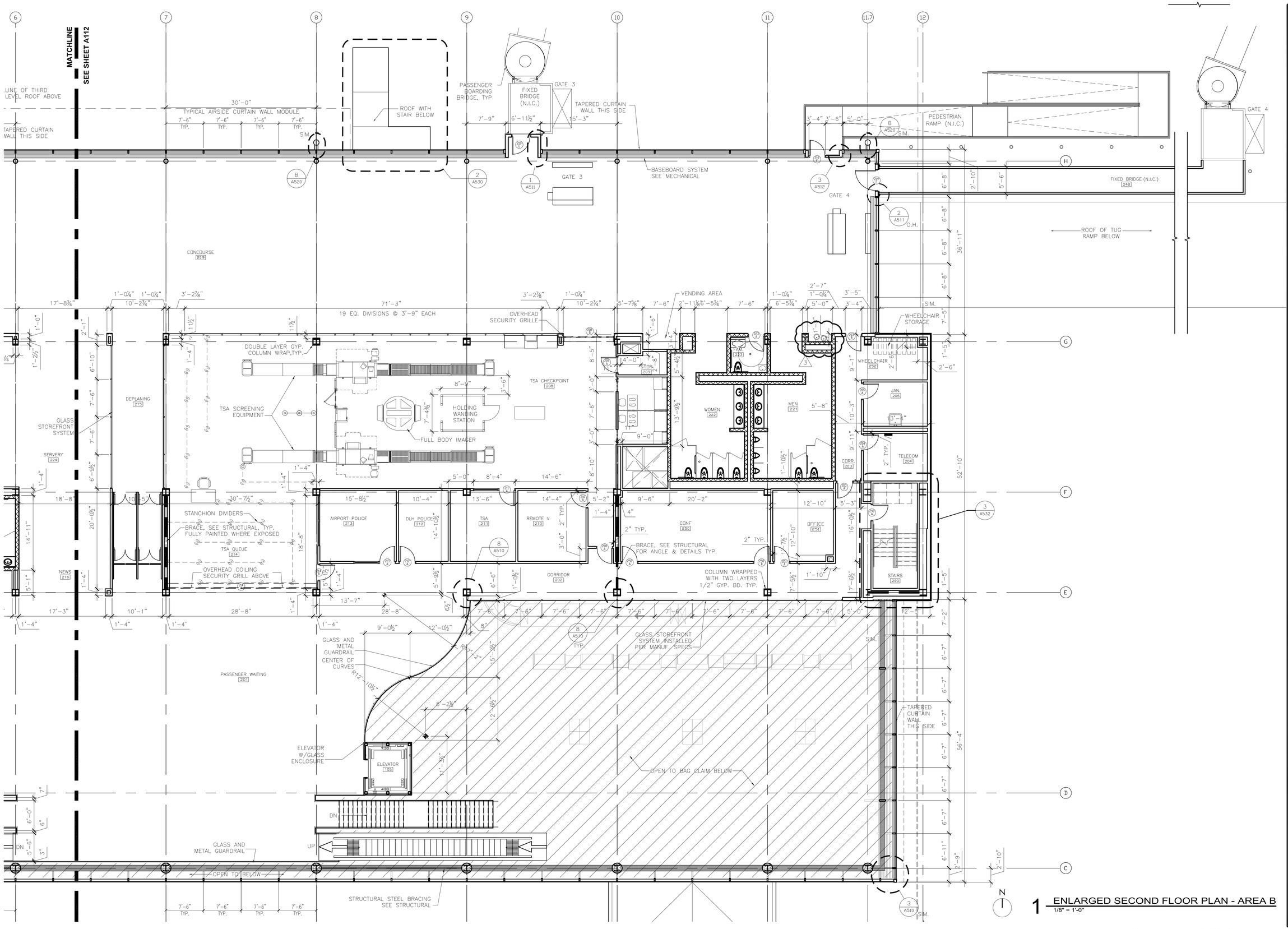
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
ENLARGED SECOND FLOOR PLAN AREA A

SHEET NUMBER
A112

BUILDING PERMIT

Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A112 Second Floor Area A.dwg Plotted on: 8/13/2010 12:03 PM Plotted by: Godzina, Marc



1 ENLARGED SECOND FLOOR PLAN - AREA B
1/8" = 1'-0"

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	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

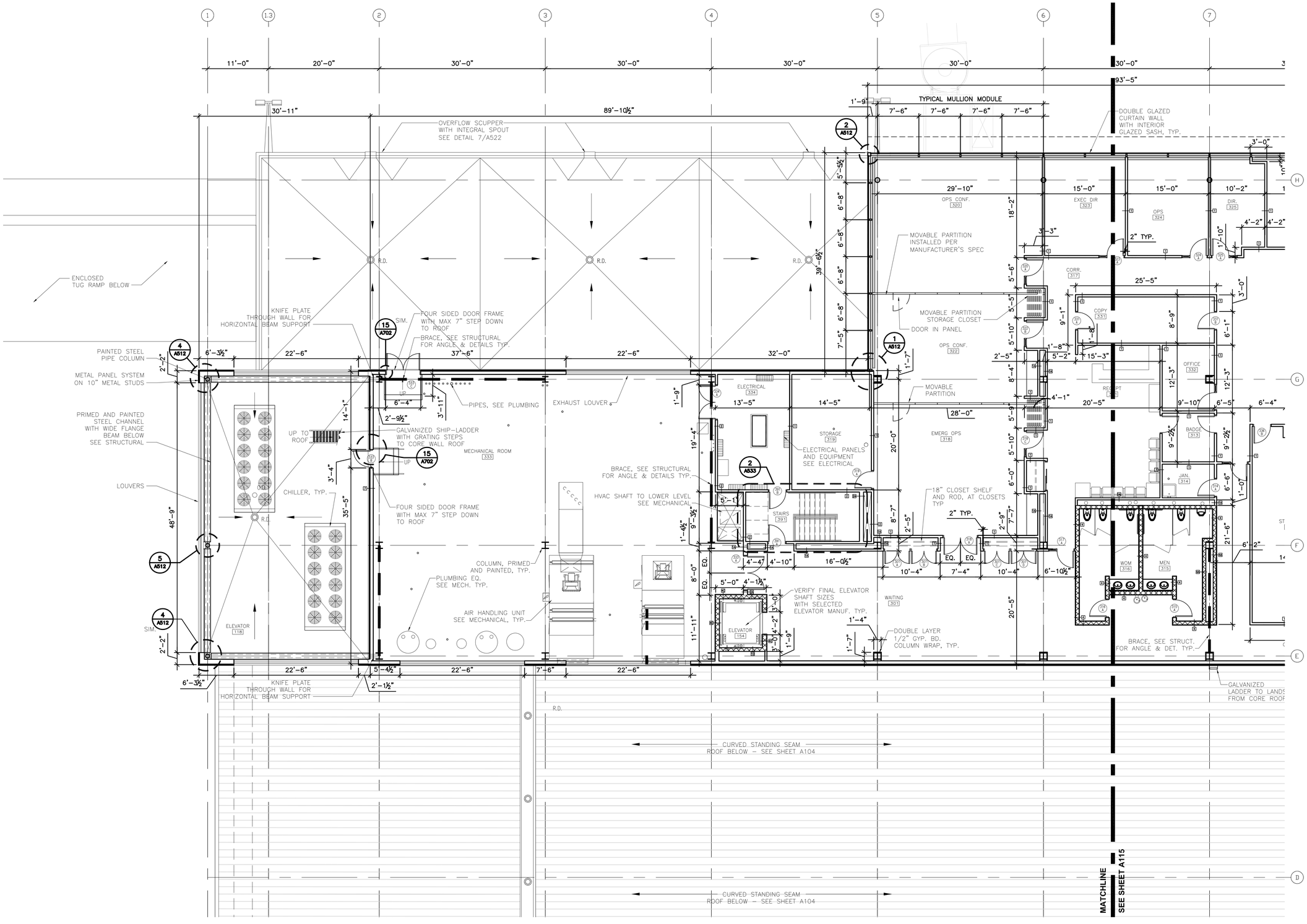
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
ENLARGED SECOND FLOOR PLAN AREA B

SHEET NUMBER
A113

BUILDING PERMIT

Drawing: T:\P\213188Z.091 Duluth New Terminal\Cad\A\Sheets\A113 Second Floor Area B.dwg Plotted on: 8/13/2010 12:04 PM Plotted by: Godzina, Marc



N

1 ENLARGED THIRD LEVEL FLOOR PLAN - AREA A
1/8" = 1'-0"

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3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

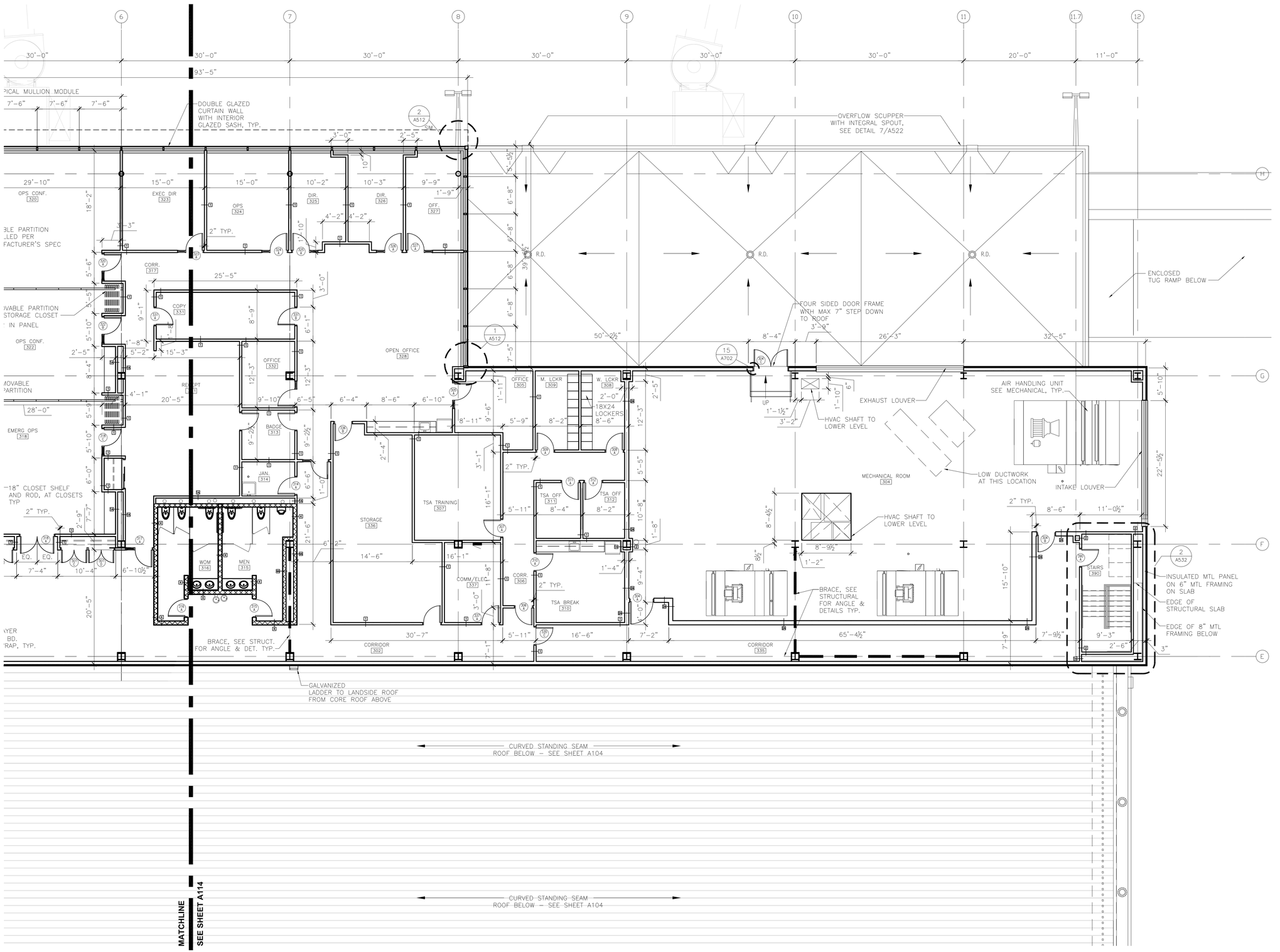
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
ENLARGED THIRD FLOOR PLAN AREA A

SHEET NUMBER
A114

BUILDING PERMIT

Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A114 Third Floor Area A.dwg Plotted on: 8/13/2010 12:05 PM Plotted by: Godzina, Marc



N

1 ENLARGED THIRD FLOOR PLAN - AREA B
1/8" = 1'-0"

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	BUILDING PERMIT	8.16.10

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DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

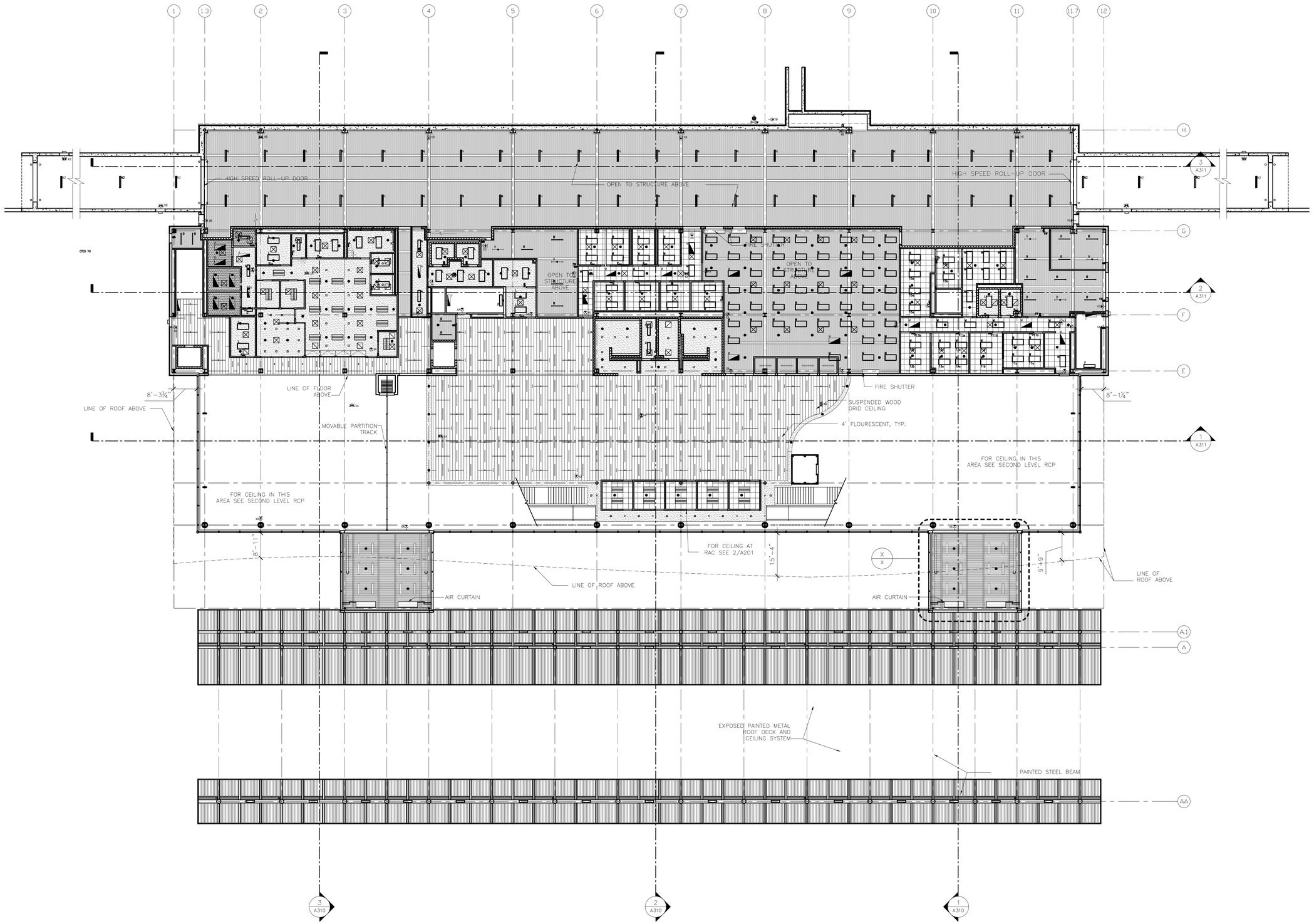
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
ENLARGED THIRD FLOOR PLAN AREA B

SHEET NUMBER
A115

BUILDING PERMIT

Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A115 Third Floor Area B.dwg Plotted on: 8/13/2010 12:05 PM Plotted by: Godzina, Marc



1 OVERALL FIRST FLOOR REFLECTED CEILING PLAN
1/16" =1'-0"

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REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

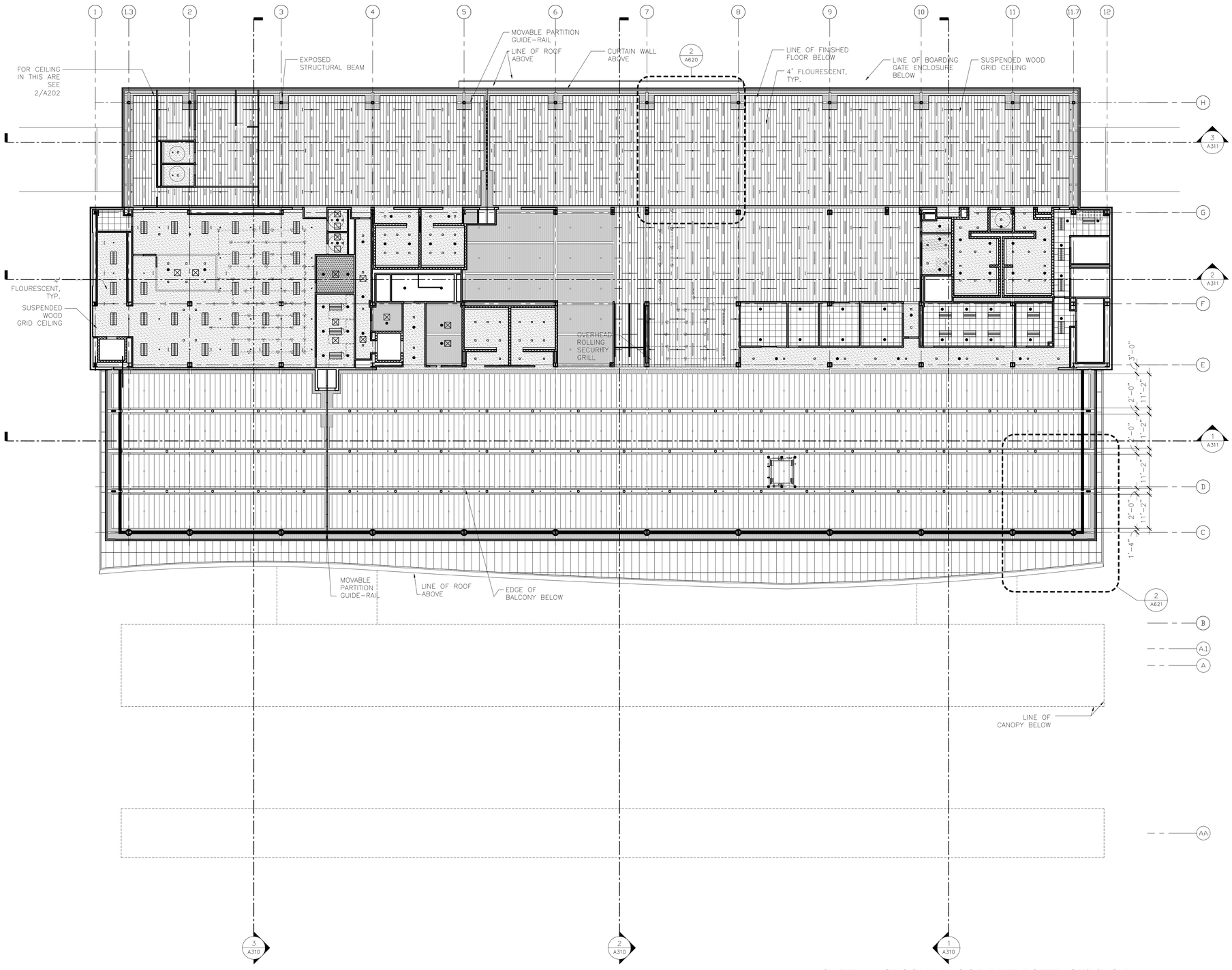
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
OVERALL FIRST FLOOR RCP

SHEET NUMBER
A201

BUILDING PERMIT

Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A201 Overall First Floor RCP.dwg Plotted on: 8/13/2010 12:07 PM Plotted by: Godzina, Marc



1 OVERALL SECOND FLOOR REFLECTED CEILING PLAN
1/16" = 1'-0"

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NEW PASSENGER TERMINAL

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TEL: (203) 792-3000 / FAX: (203) 792-4900

Landscaping Consultants:
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TEL: (218) 591-5079

ARCHITECTURAL CERTIFICATION
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Print Name: Mark Ip

Signature:

Date: 06-03-10 Reg. No.: 46001

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 1	6.11.10
	CONFORMANCE SET	7.12.10
3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

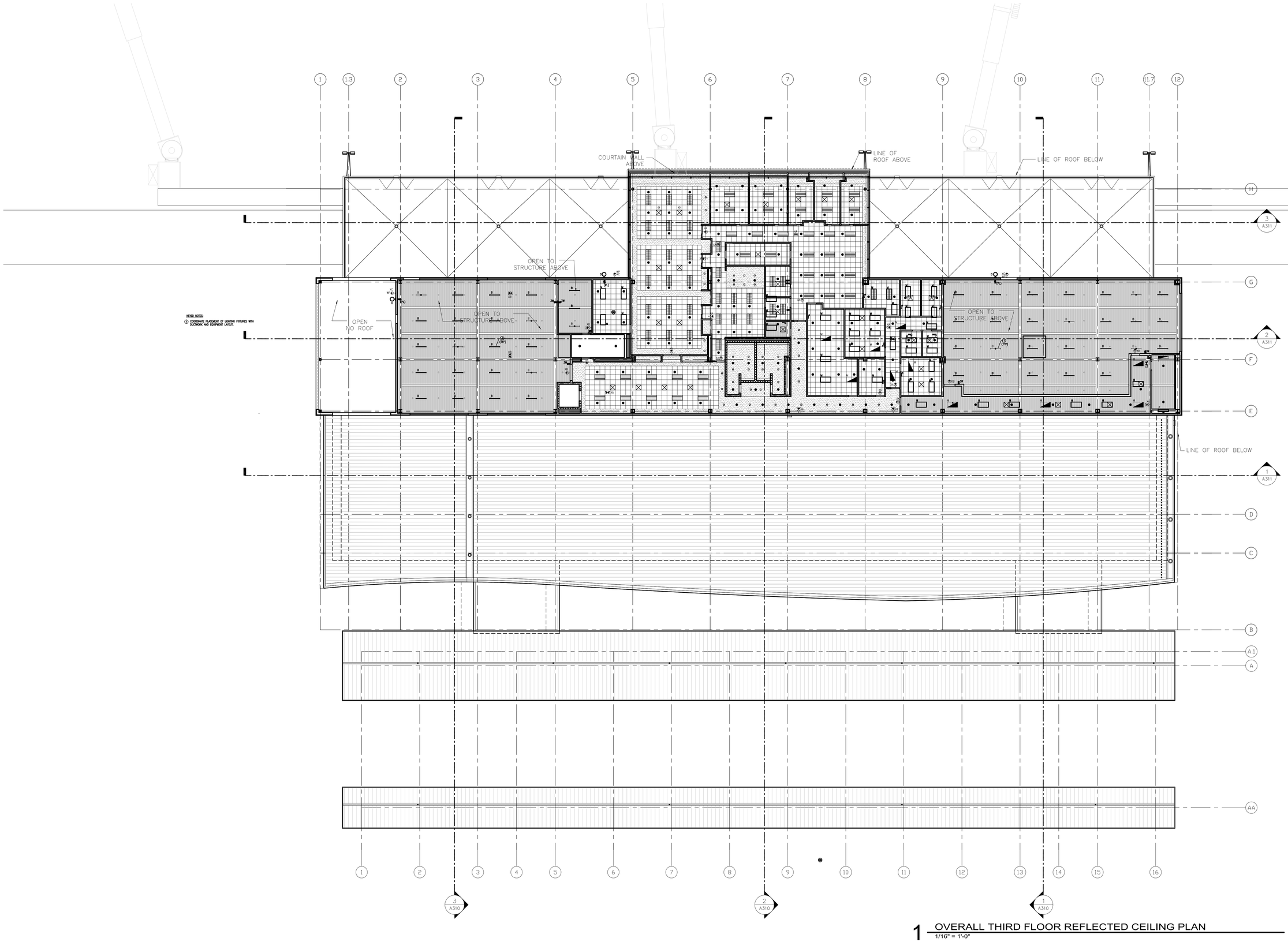
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
OVERALL SECOND FLOOR RCP

SHEET NUMBER
A202

BUILDING PERMIT

Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A202 Overall Second Floor RCP.dwg Plotted on: 8/13/2010 12:07 PM Plotted by: Godzina, Marc



1 OVERALL THIRD FLOOR REFLECTED CEILING PLAN
1/16" = 1'-0"

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3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

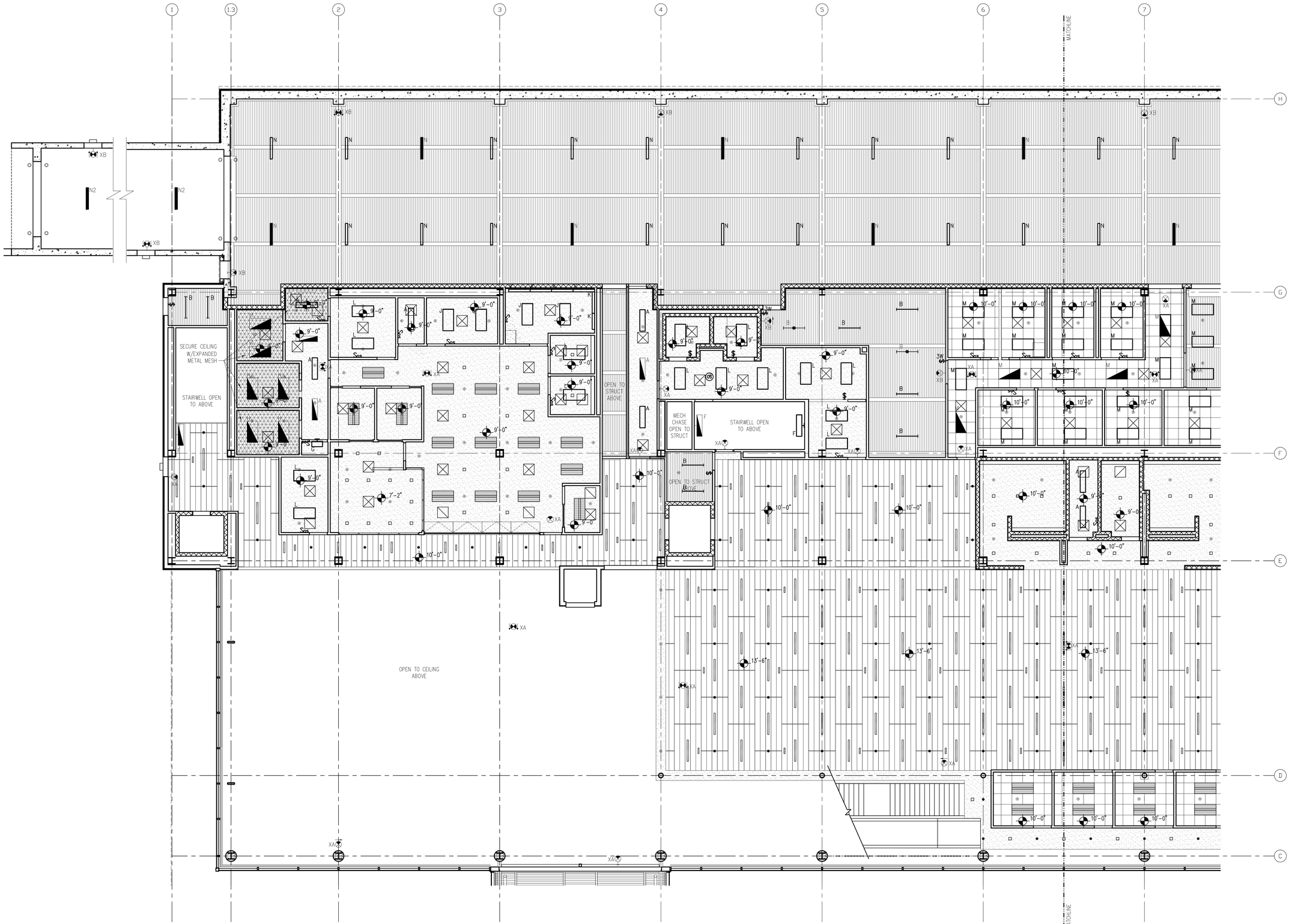
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
OVERALL THIRD FLOOR RCP

SHEET NUMBER
A203

BUILDING PERMIT

Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A203 Overall Third Floor RCP.dwg Plotted on: 8/13/2010 12:08 PM Plotted by: Godzina, Marc



1 ENLARGED FIRST FLOOR REFLECTED CEILING PLAN - AREA A
1/8" = 1'-0"

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	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
ENLARGED FIRST FLOOR REFLECTED CEILING PLAN AREA A

SHEET NUMBER
A210

BUILDING PERMIT

Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A210 Enlarged First Floor RCP Area A.dwg Plotted on: 8/13/2010 12:09 PM Plotted by: Godzina, Marc

1 ENLARGED FIRST FLOOR REFLECTED CEILING PLAN - AREA B
1/8" = 1'-0"

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	BUILDING PERMIT	8.16.10

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REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

AEP PROJECT NUMBER
213-1882-091

SHEET TITLE

ENLARGED FIRST FLOOR REFLECTED CEILING PLAN AREA B

SHEET NUMBER

A211

BUILDING PERMIT

Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A211 Enlarged First Floor RCP Area B.dwg Plotted on: 8/13/2010 12:09 PM Plotted by: Godzina, Marc

1 ENLARGED SECOND FLOOR REFLECTED CEILING PLAN - AREA A
1/8" = 1'-0"

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	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

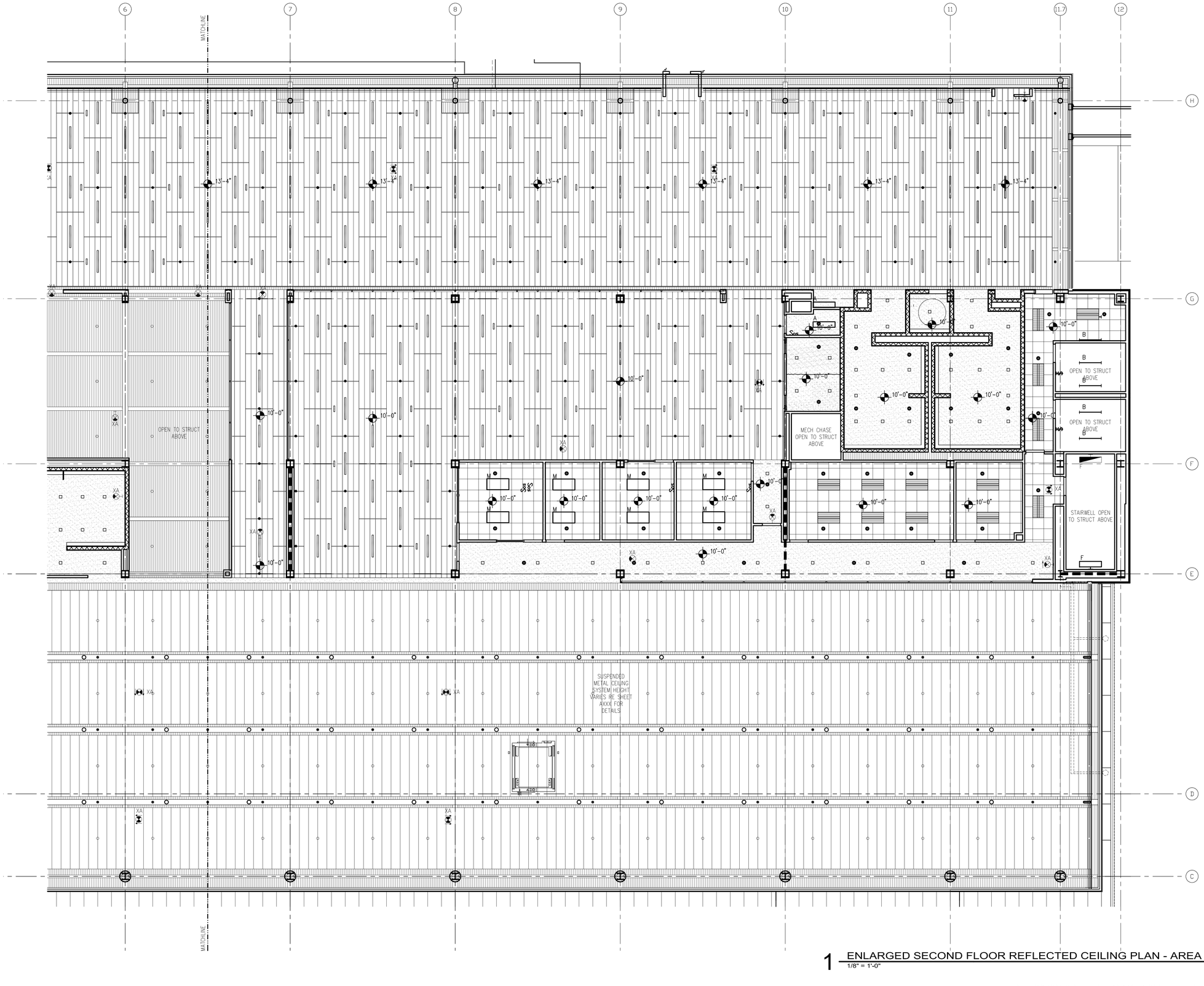
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
ENLARGED SECOND FLOOR REFLECTED CEILING PLAN AREA A

SHEET NUMBER
A212

BUILDING PERMIT

Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A212 Enlarged Second Floor RCP Area A.dwg Plotted on: 8/13/2010 12:10 PM Plotted by: Godzina, Marc



1 ENLARGED SECOND FLOOR REFLECTED CEILING PLAN - AREA B
1/8" = 1'-0"

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	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

AEP PROJECT NUMBER
213-1882-091

SHEET TITLE

ENLARGED SECOND FLOOR REFLECTED CEILING PLAN AREA B

SHEET NUMBER

A213

BUILDING PERMIT

Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A213 Enlarged Second Floor RCP Area B.dwg Plotted on: 8/13/2010 12:11 PM Plotted by: Godzina, Marc

1 ENLARGED THIRD FLOOR REFLECTED CEILING PLAN - AREA A
1/8" = 1'-0"

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DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
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AEP PROJECT NUMBER
213-1882-091

SHEET TITLE

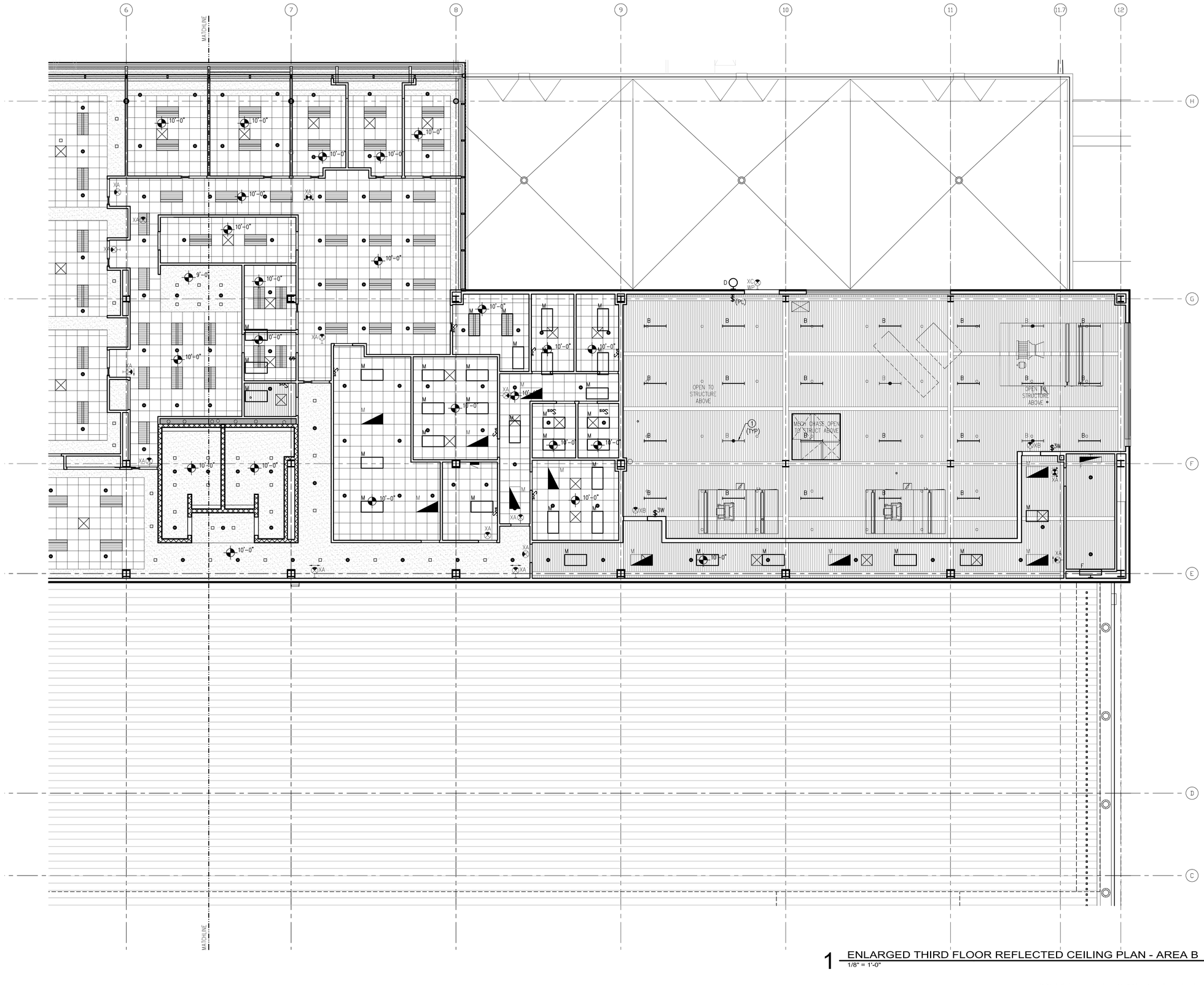
ENLARGED THIRD FLOOR REFLECTED CEILING PLAN AREA A

SHEET NUMBER

A214

BUILDING PERMIT

Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A214 Enlarged Third Floor RCP Area A.dwg Plotted on: 8/13/2010 12:11 PM Plotted by: Godzina, Marc



1 ENLARGED THIRD FLOOR REFLECTED CEILING PLAN - AREA B
1/8" = 1'-0"

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	BUILDING PERMIT	8.16.10

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DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

AEP PROJECT NUMBER
213-1882-091

SHEET TITLE

ENLARGED THIRD FLOOR REFLECTED CEILING PLAN AREA B

SHEET NUMBER

A215

BUILDING PERMIT

Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A215 Enlarged Third Floor RCP Area B.dwg Plotted on: 8/13/2010 12:12 PM Plotted by: Godzina, Marc

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AEP PROJECT NUMBER
213-1882-091

SHEET TITLE

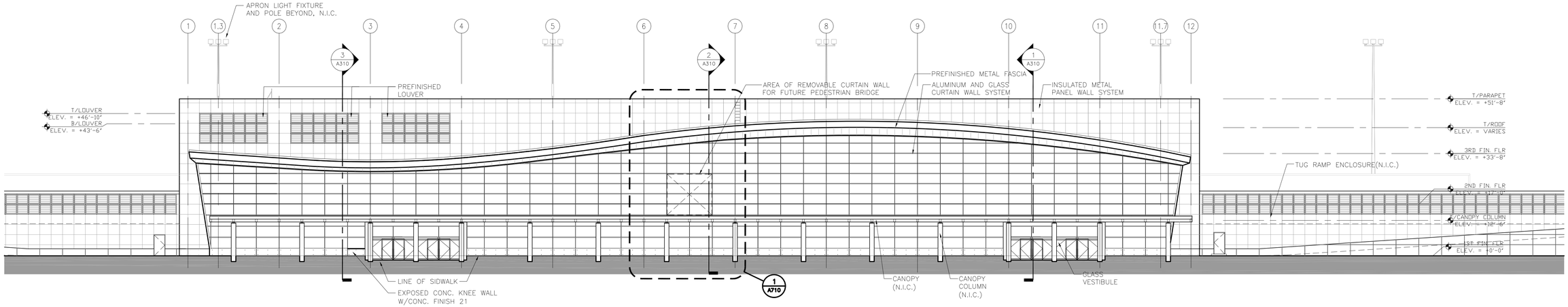
VESTIBULE AND RENTAL CAR REFLECTED CEILING PLANS

SHEET NUMBER

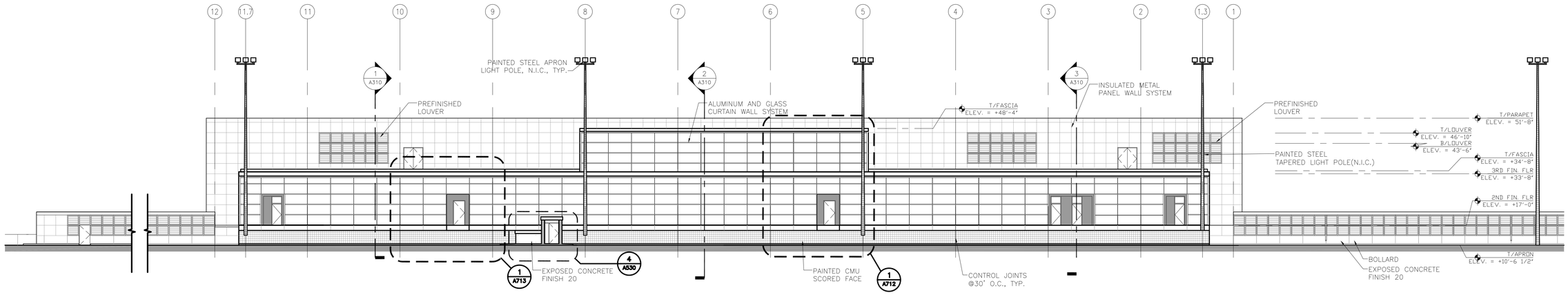
A216

BUILDING PERMIT

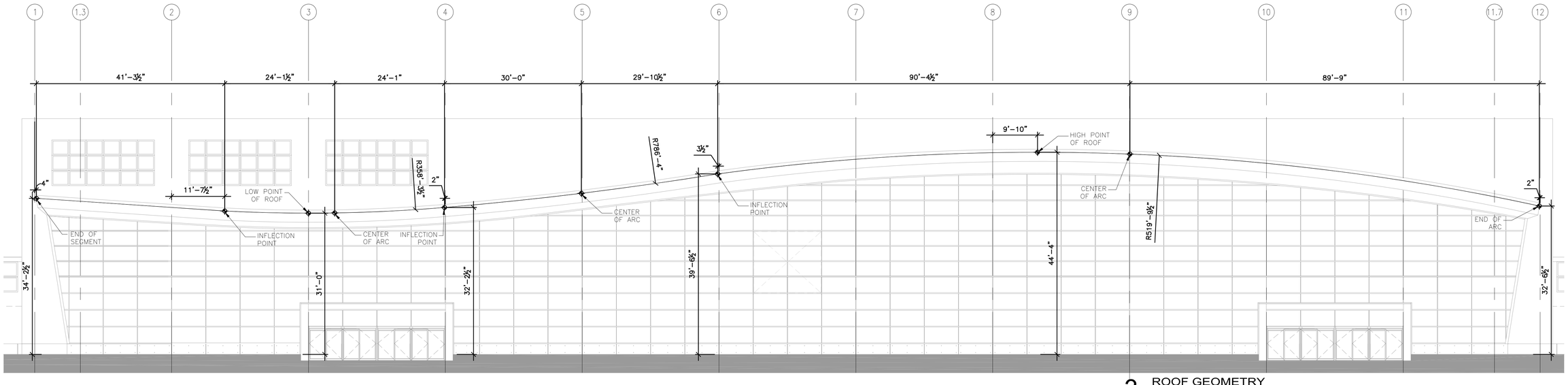
Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A216 Enlarged Misc RCPs.dwg Plotted on: 8/13/2010 12:12 PM Plotted by: Godzina, Marc



1 SOUTH ELEVATION - LANDSIDE
1/16" = 1'-0"



2 NORTH ELEVATION - AIRSIDE
1/16" = 1'-0"



3 ROOF GEOMETRY
3/32" = 1'-0"

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	BUILDING PERMIT	8.16.10

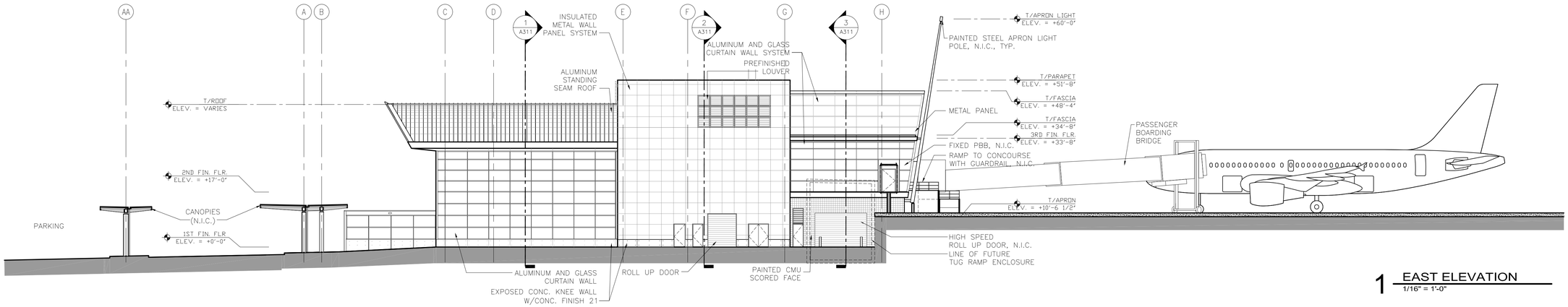
DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

AEP PROJECT NUMBER
213-1882-091

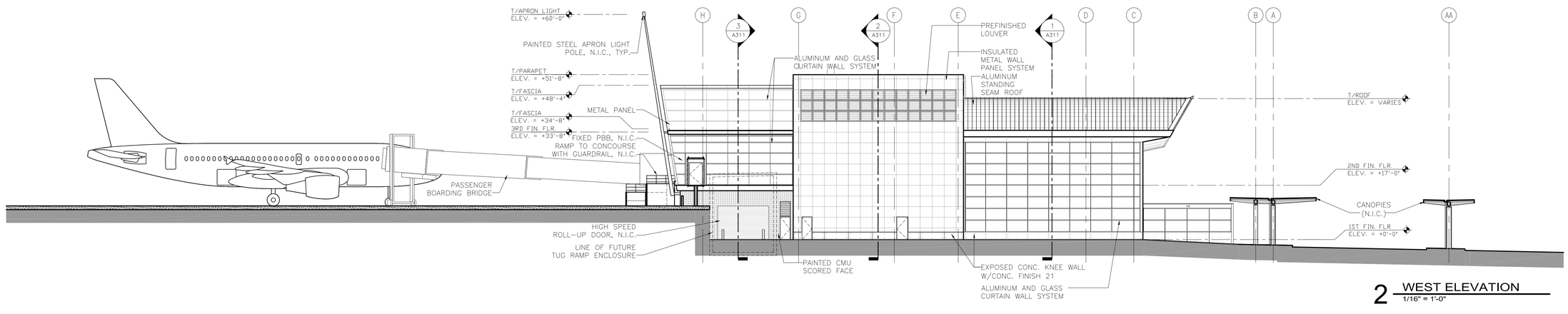
SHEET TITLE
EXTERIOR ELEVATIONS

SHEET NUMBER
A301

BUILDING PERMIT



1 EAST ELEVATION
1/16" = 1'-0"



2 WEST ELEVATION
1/16" = 1'-0"

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DULUTH INTERNATIONAL AIRPORT DULUTH, MN

NEW PASSENGER TERMINAL

CONSULTANTS

Interior Architects:
SJA ARCHITECTS
11 E Superior Street Suite 340, Duluth MN 55802
TEL: (218) 724-8578 / FAX: (218) 724-8717

Structural Engineers:
MBJ CONSULTING ENG.
501 Lake Avenue South, Suite 300, Duluth MN 55802
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Landscaping Consultants:
APPOLD DESIGN
2432 East First Street, Duluth MN 55812
TEL: (218) 591-5079

ARCHITECTURAL CERTIFICATION
I hereby certify that the architectural plans, specifications or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Architect under the laws of the State of Minnesota.

Print Name: Mark Ip

Signature:

Date: 06-03-10 Reg. No.: 46001

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 1	6.11.10
	CONFORMANCE SET	7.12.10
3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
EXTERIOR ELEVATIONS

SHEET NUMBER
A302

BUILDING PERMIT

Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A302 Exterior Elevations.dwg Plotted on: 8/13/2010 12:13 PM Plotted by: Godzina, Marc

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3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

AEP PROJECT NUMBER
213-1882-091

SHEET TITLE

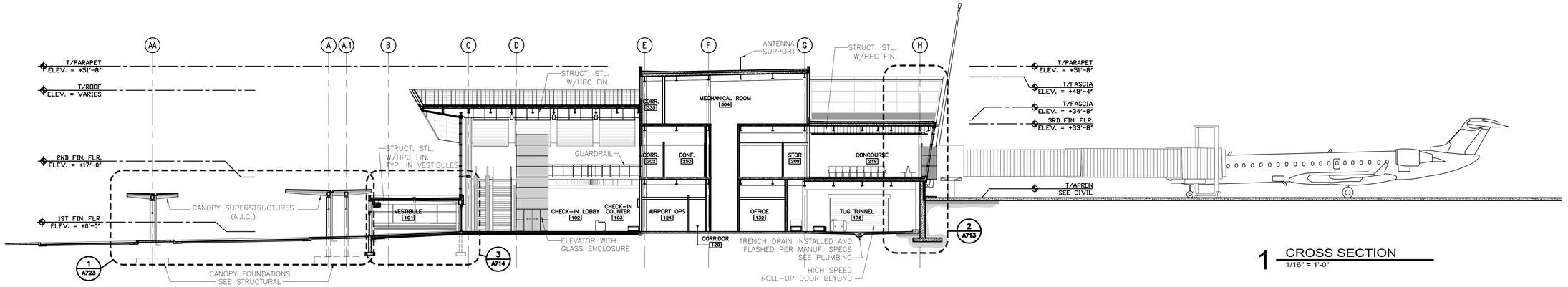
CANOPY ELEVATIONS

SHEET NUMBER

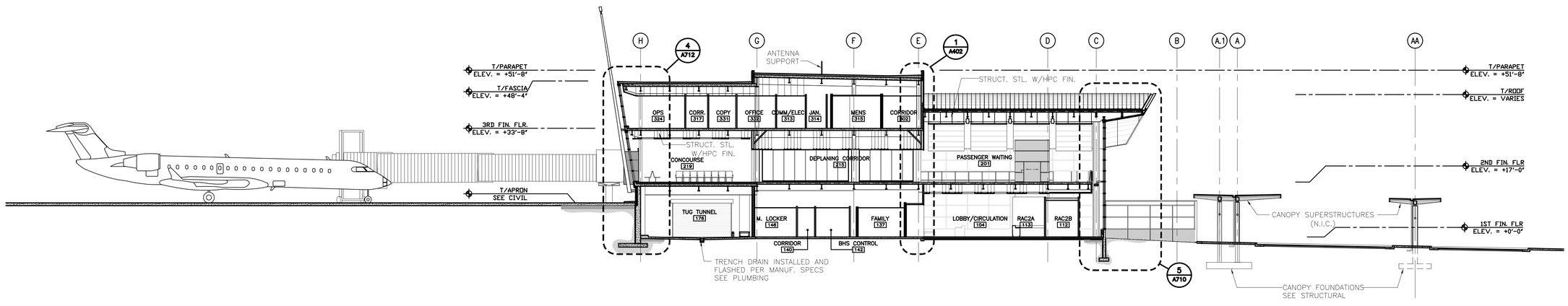
A303

BUILDING PERMIT

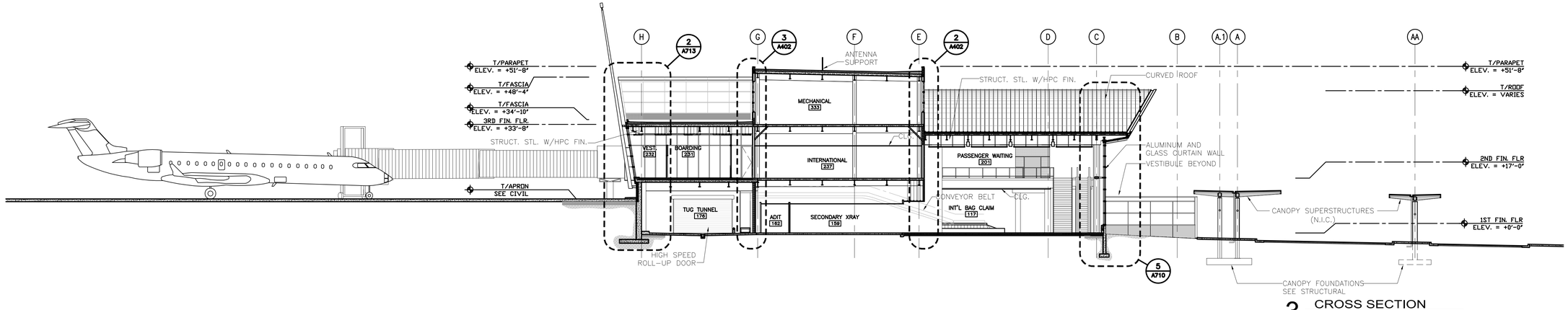
Drawing: T:\P\213188 2.091 Duluth New Terminal\Cad\A\Sheets\A303 Canopy Elevations.dwg Plotted on: 8/13/2010 12:13 PM Plotted by: Godzina, Marc



1 CROSS SECTION
1/16" = 1'-0"



2 CROSS SECTION
1/16" = 1'-0"



3 CROSS SECTION
1/16" = 1'-0"

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Signature:

Date: 06-03-10 Reg. No.: 46001

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	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

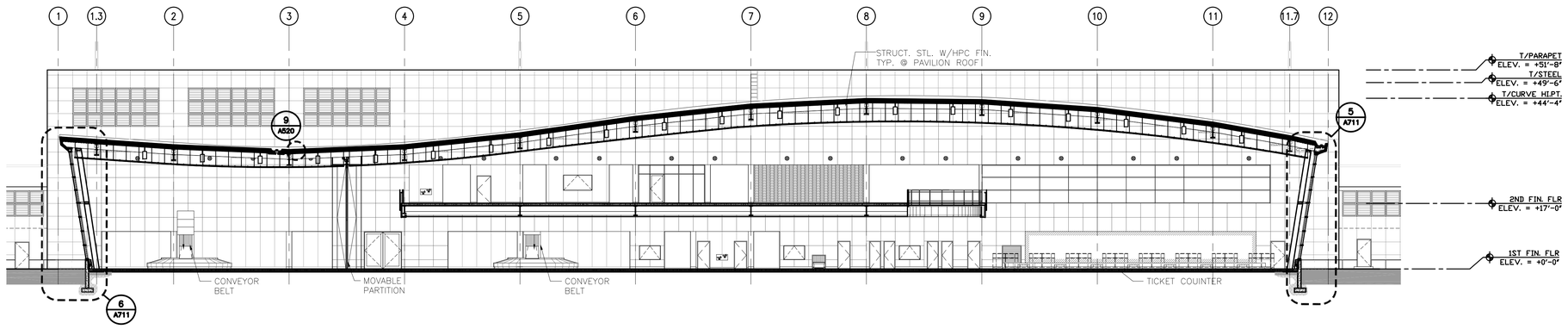
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
BUILDING SECTIONS

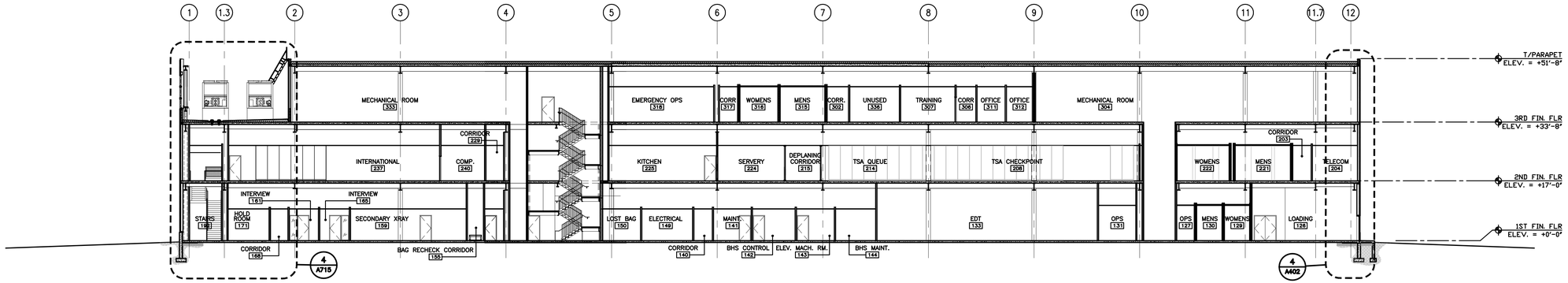
SHEET NUMBER
A310

BUILDING PERMIT

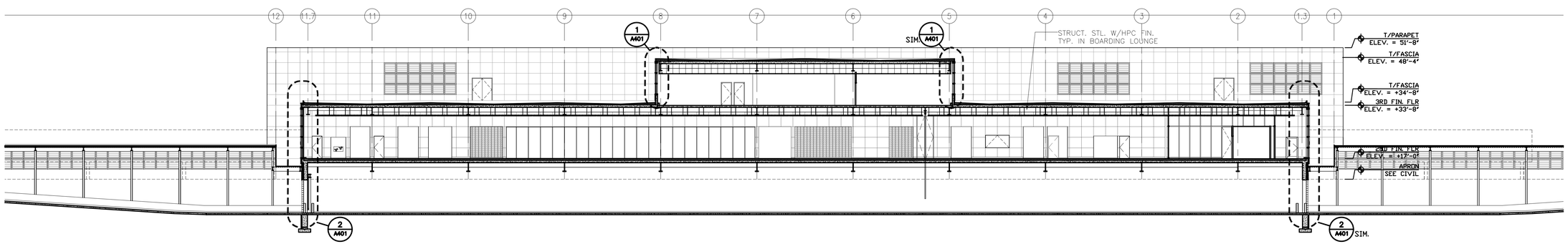
Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A310 Building Sections.dwg Plotted on: 8/13/2010 12:15 PM Plotted by: Godzina, Marc



1 LONGITUDINAL SECTION
1/16" = 1'-0"



2 LONGITUDINAL SECTION
1/16" = 1'-0"



3 LONGITUDINAL SECTION
1/16" = 1'-0"

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	BUILDING PERMIT	8.16.10

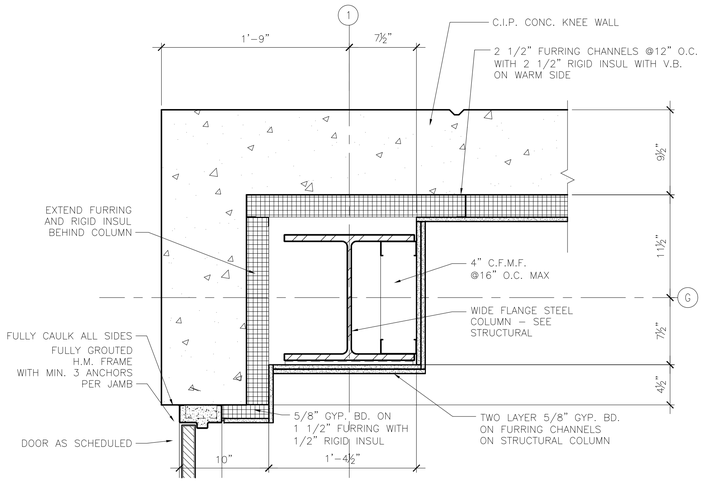
DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

AEP PROJECT NUMBER
213-1882-091

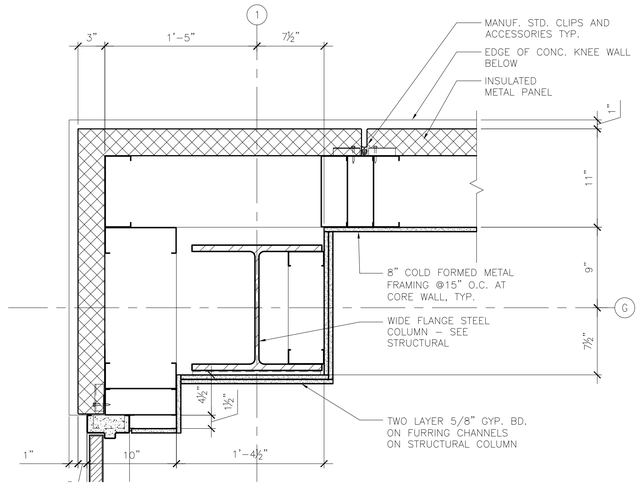
SHEET TITLE
BUILDING SECTIONS

SHEET NUMBER
A311

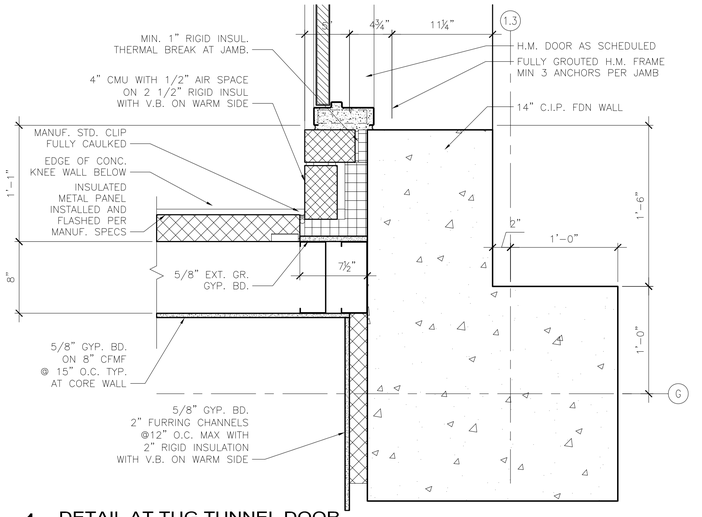
BUILDING PERMIT



7 DETAIL @ CORE WALL CORNER LOWER
1 1/2" = 1'-0"

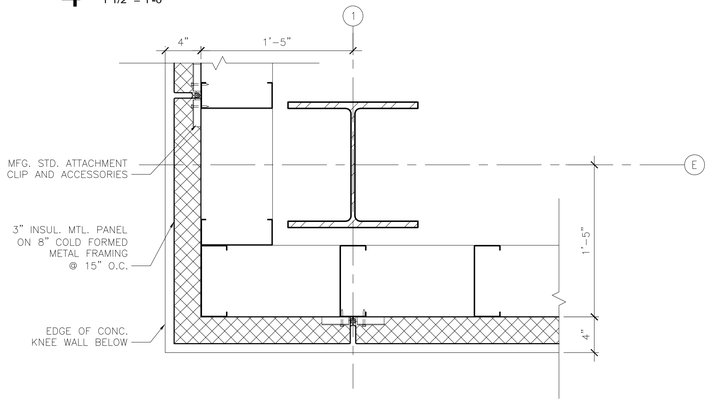


4 DETAIL @ CORE WALL CORNER UPPER
1 1/2" = 1'-0"



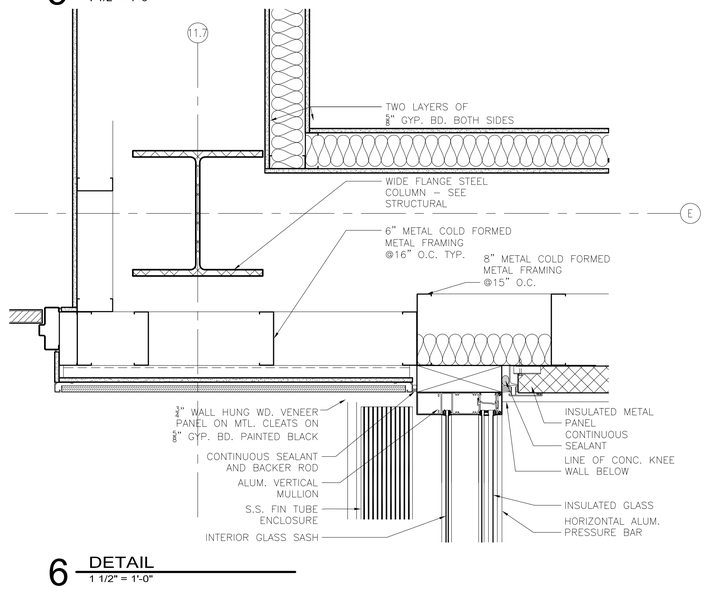
1 DETAIL AT TUG TUNNEL DOOR
1 1/2" = 1'-0"

8 TYP. COLUMN WRAP DETAIL
1 1/2" = 1'-0"

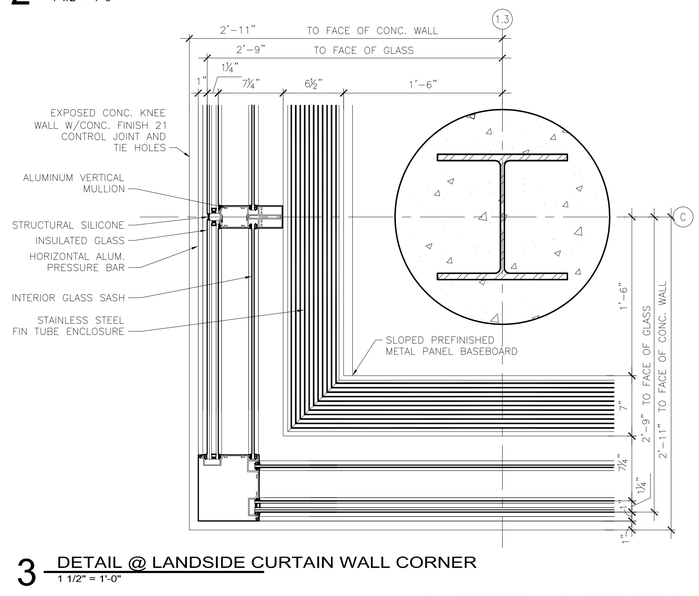


5 DETAIL
1 1/2" = 1'-0"

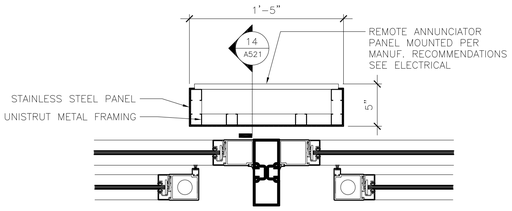
2 DETAIL @ LANDSIDE CURTAIN WALL TO CORE
1 1/2" = 1'-0"



6 DETAIL
1 1/2" = 1'-0"



3 DETAIL @ LANDSIDE CURTAIN WALL CORNER
1 1/2" = 1'-0"



8 REMOTE ANNUNCIATOR DETAIL
1 1/2" = 1'-0"

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NEW PASSENGER TERMINAL

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Date: 06-03-10 Reg. No.: 46001

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 1	6.11.10
	CONFORMANCE SET	7.12.10
3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

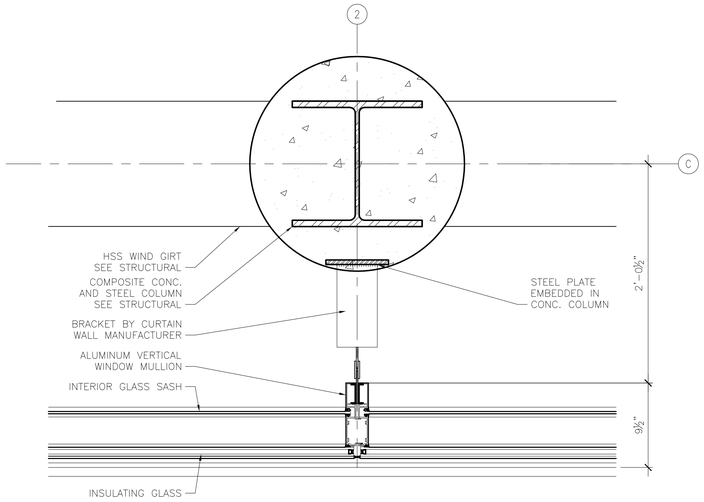
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
PLAN DETAILS

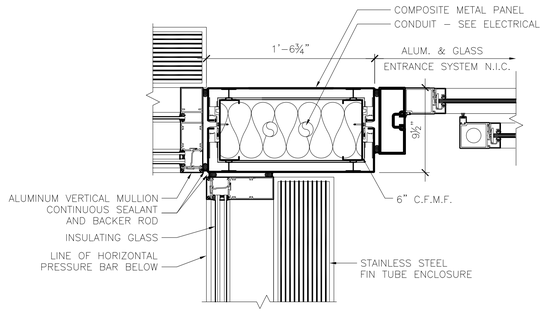
SHEET NUMBER
A510

BUILDING PERMIT

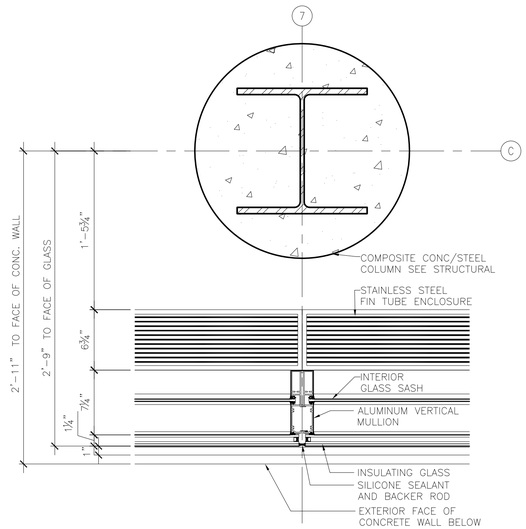
Drawing: T:\P\213188 2.091 Duluth New Terminal\Cad\A\Sheets\A510 Plan Details.dwg Plotted on: 8/16/2010 10:23 AMPlotted by: Kolodziej, Magdalena



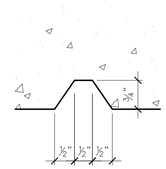
7 PLAN DETAIL - SECOND LEVEL
1 1/2" = 1'-0"



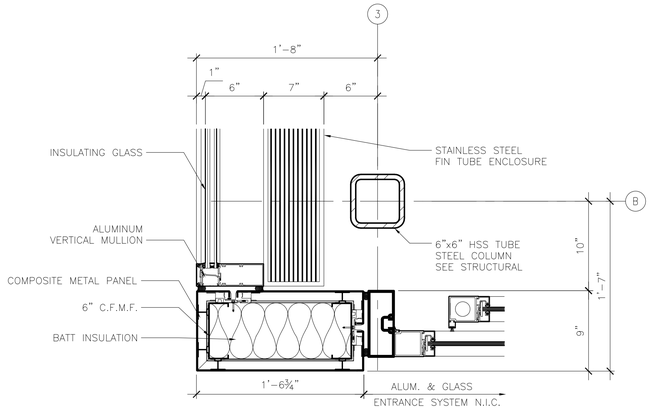
4 PLAN DETAIL @ VESTIBULE
1 1/2" = 1'-0"



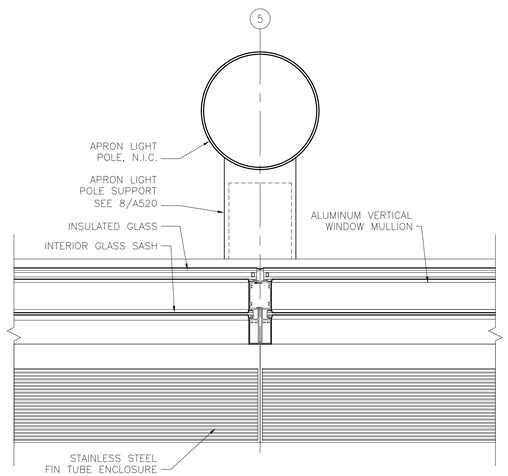
8 PLAN DETAIL - FIRST LEVEL
1 1/2" = 1'-0"



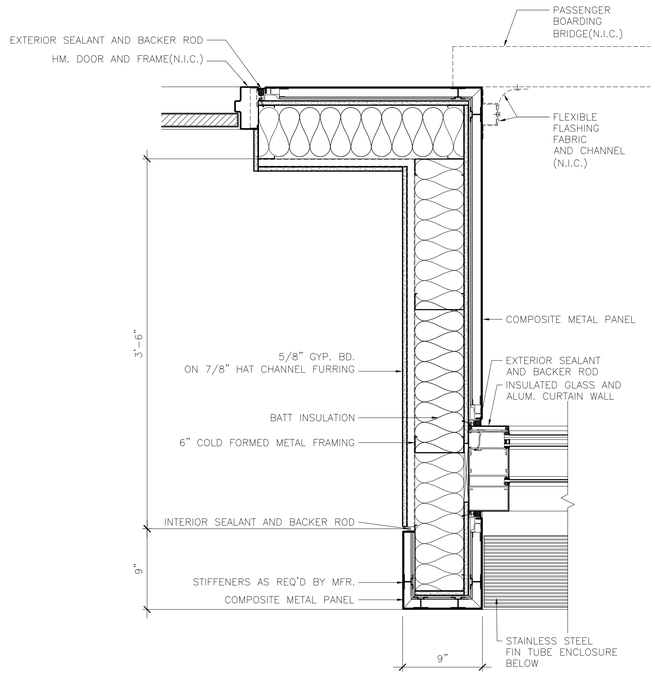
9 TYP. CONCRETE REVEAL DETAIL
6" = 1'-0"



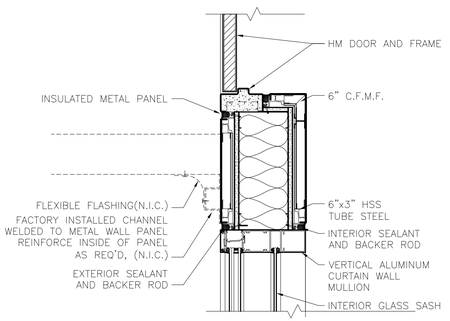
5 PLAN DETAIL @ VESTIBULE
1 1/2" = 1'-0"



6 PLAN DETAIL - SECOND LEVEL
1 1/2" = 1'-0"



1 PLAN DETAIL @ PBB PORTAL
1 1/2" = 1'-0"



2 PLAN DETAIL @ FIXED BRIDGE
1 1/2" = 1'-0"

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DESIGNED BY: SBS/TC

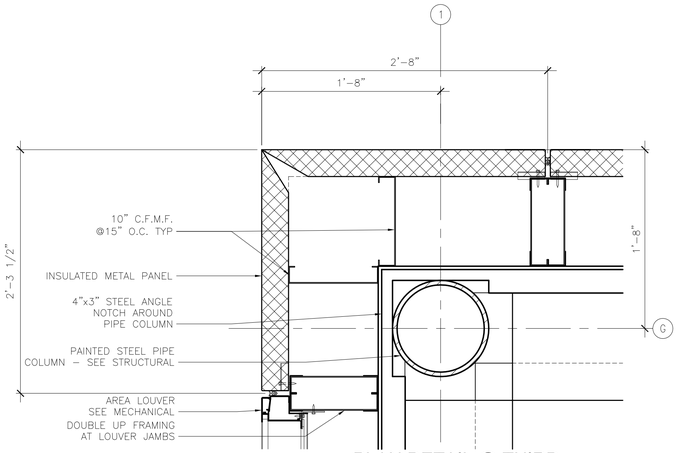
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
PLAN DETAILS

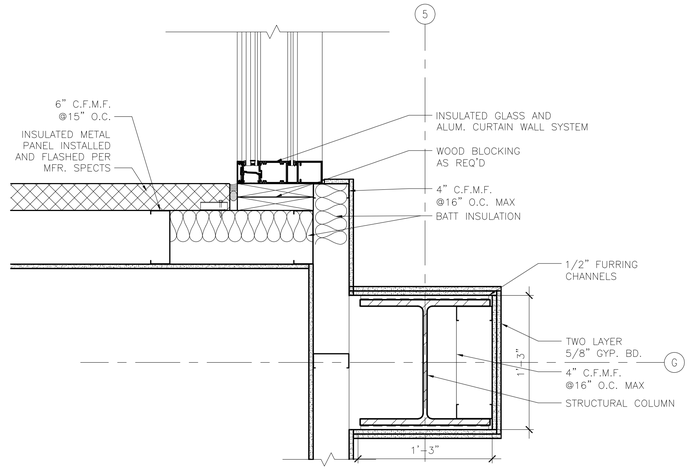
SHEET NUMBER
A511

BUILDING PERMIT

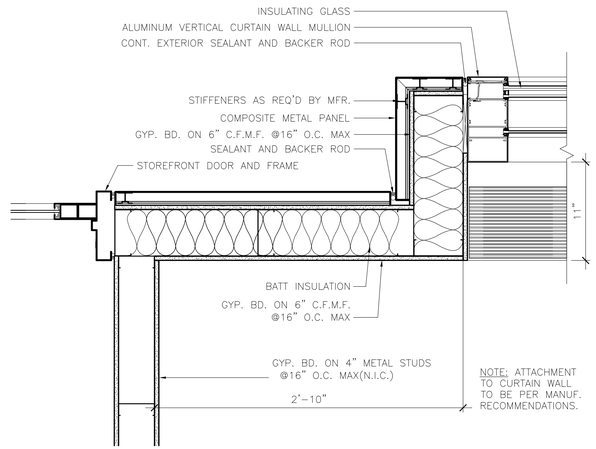
Drawing: T:\P\213188 2.091 Duluth New Terminal\Cad\A\Sheets\A511 Plan Details.dwg Plotted on: 8/16/2010 10:26 AMPlotted by: Kolodziej, Magdalena



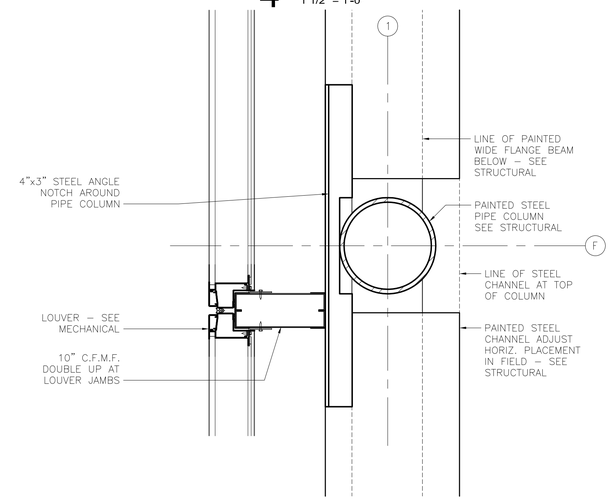
4 PLAN DETAIL @ THIRD LEVEL MECHANICAL SCREEN
1 1/2" = 1'-0"



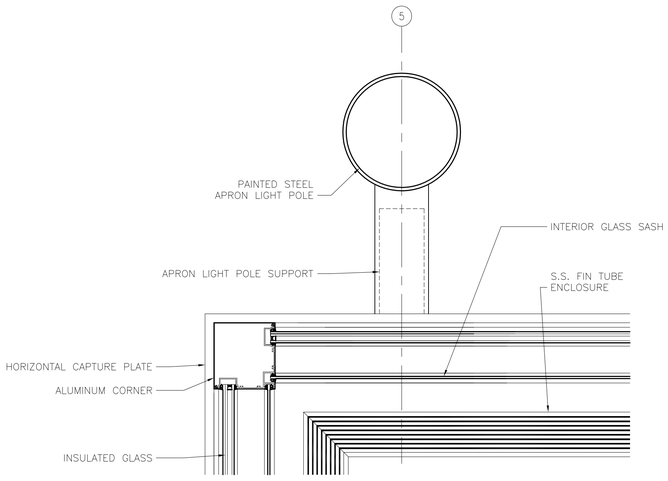
1 PLAN DETAIL @ THIRD LEVEL
1 1/2" = 1'-0"



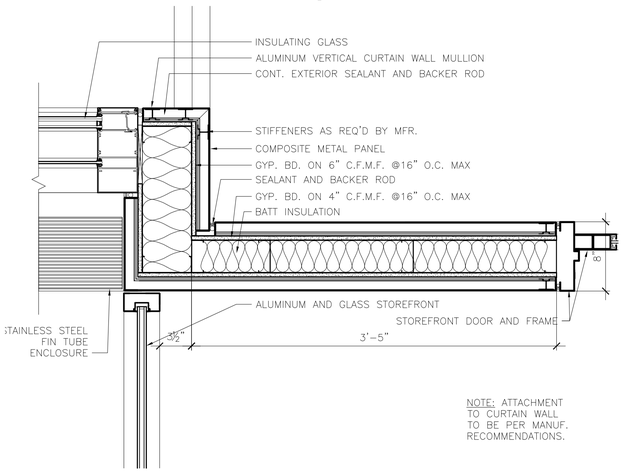
7 PLAN DETAIL @ SECOND LEVEL DOOR PORTAL
1 1/2" = 1'-0"



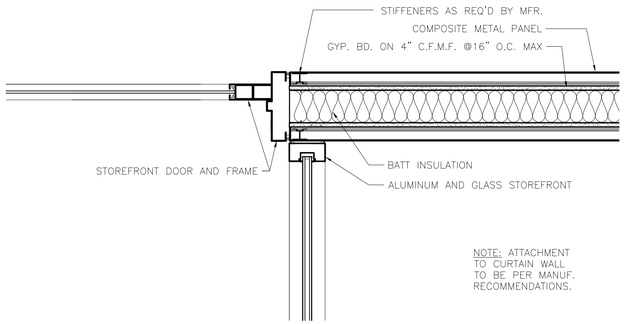
5 PLAN DETAIL @ THIRD LEVEL MECHANICAL SCREEN
1 1/2" = 1'-0"



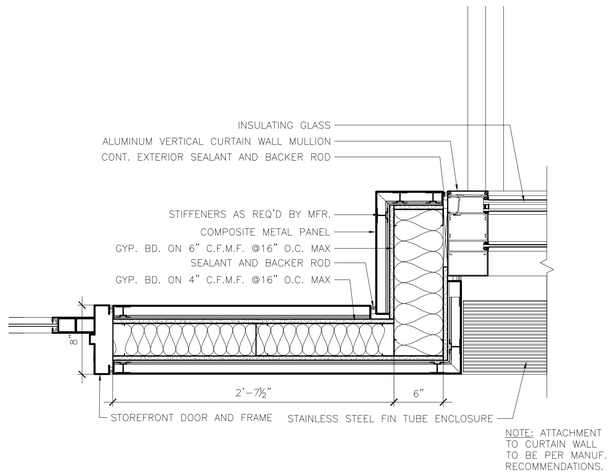
2 PLAN DETAIL @ THIRD LEVEL
1 1/2" = 1'-0"



8 PLAN DETAIL @ SECOND LEVEL DOOR PORTAL
1 1/2" = 1'-0"



6 PLAN DETAIL @ SECOND LEVEL DOOR PORTAL
1 1/2" = 1'-0"



3 PLAN DETAIL @ SECOND LEVEL DOOR PORTAL
1 1/2" = 1'-0"

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Print Name: Mark Ip

Signature:

Date: 06-03-10 Reg. No.: 46001

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 1	6.11.10
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	BUILDING PERMIT	8.16.10

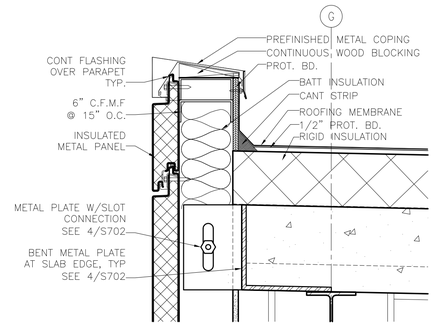
DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

AEP PROJECT NUMBER
213-1882-091

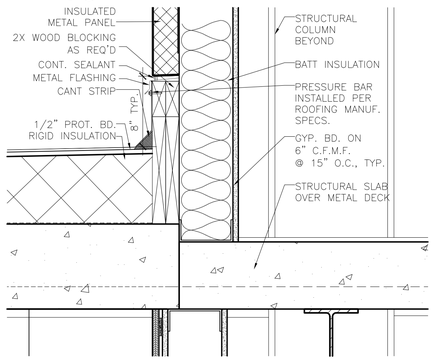
SHEET TITLE
PLAN DETAILS

SHEET NUMBER
A512

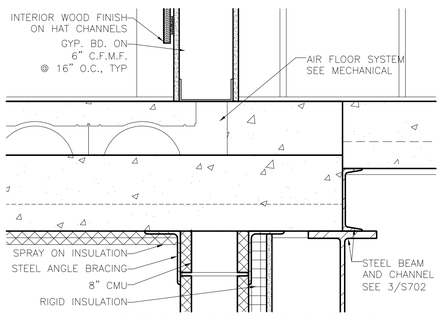
BUILDING PERMIT



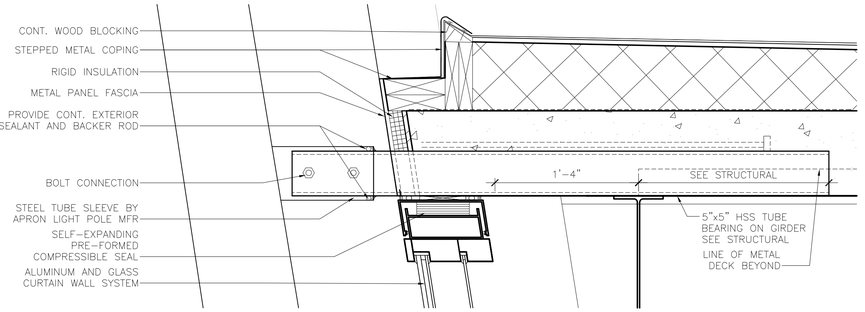
SECTION DETAIL @TYP. CORE ROOF PARAPET
10 — 1 1/2" = 1'-0"



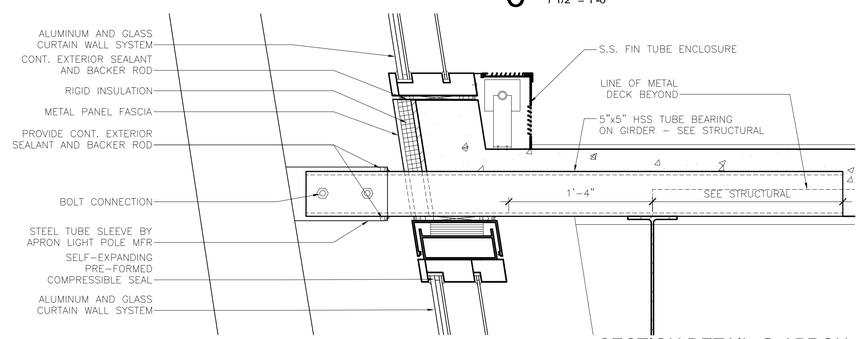
SECTION DETAIL @ CORE WALL TO CONCOURSE ROOF
11 — 1 1/2" = 1'-0"



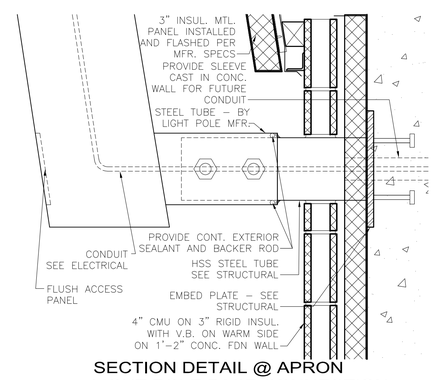
SECTION DETAIL @ SECOND FLOOR SLAB TRANSITION
12 — 1 1/2" = 1'-0"



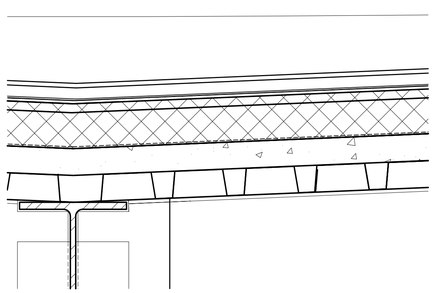
SECTION DETAIL @ APRON LIGHT POLE - CONCOURSE ROOF
6 — 1 1/2" = 1'-0"



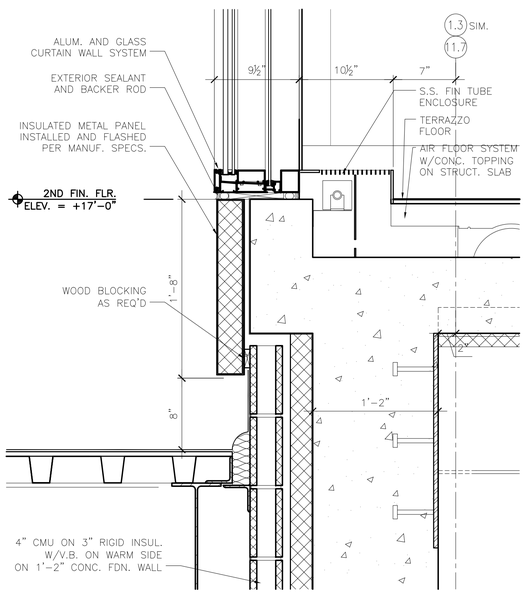
SECTION DETAIL @ APRON LIGHT POLE - THIRD FLOOR
7 — 1 1/2" = 1'-0"



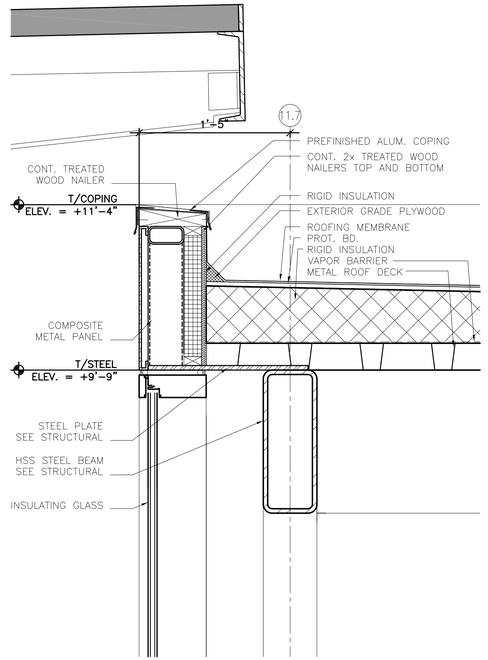
SECTION DETAIL @ APRON LIGHT POLE BASE CONNECTION
8 — 1 1/2" = 1'-0"



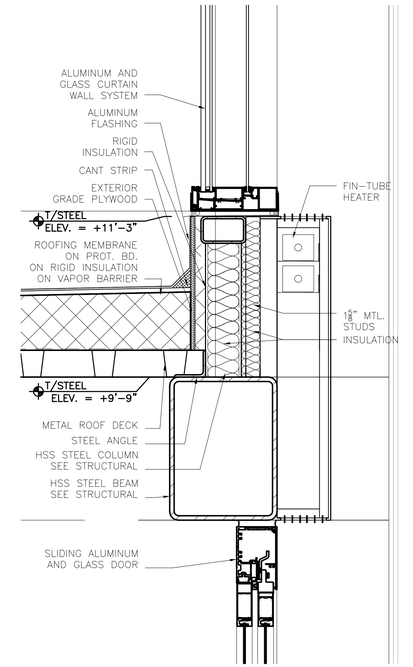
SECTION DETAIL @CURVED ROOF TRENCH DRAIN
9 — 1 1/2" = 1'-0"



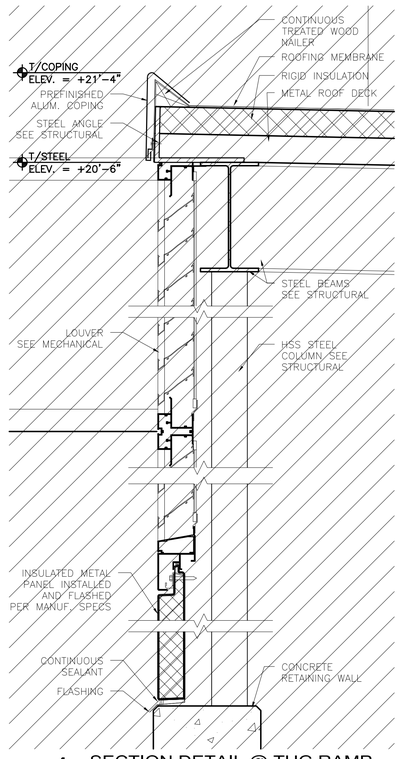
EXPANSION JOINT DETAIL @ TUG DRIVE & CONCOURSE
5 — 1 1/2" = 1'-0"



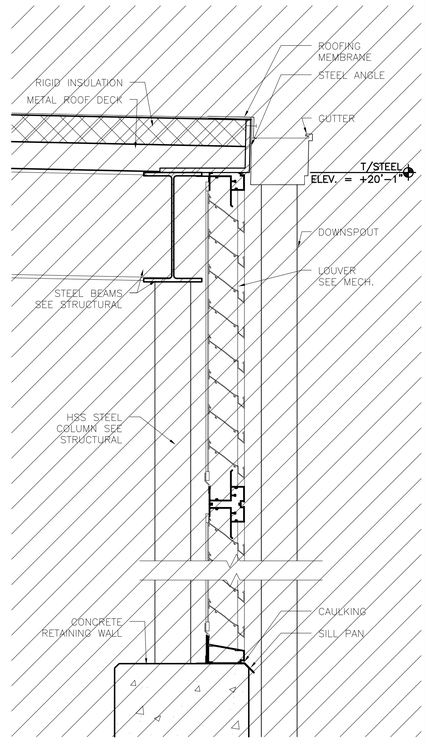
SECTION DETAIL @ VESTIBULE
3 — 1 1/2" = 1'-0"



SECTION DETAIL @ VESTIBULE
1 — 1 1/2" = 1'-0"



SECTION DETAIL @ TUG RAMP
4 — 1 1/2" = 1'-0"



SECTION DETAIL @ TUG RAMP
2 — 1 1/2" = 1'-0"

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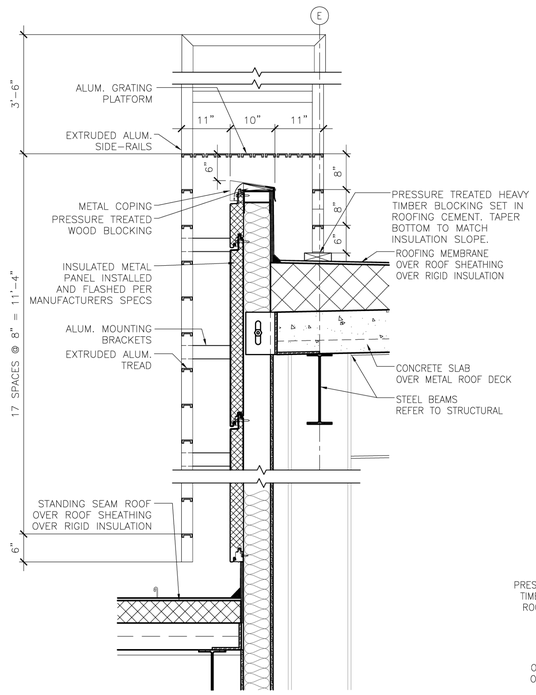
SHEET TITLE
SECTION DETAILS

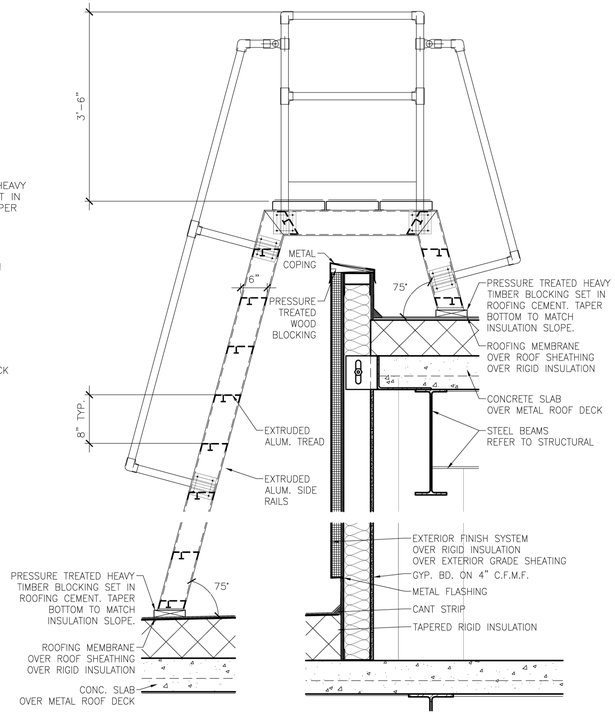
SHEET NUMBER
A520

BUILDING PERMIT

Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A520 Section Details.dwg Plotted on: 8/16/2010 3:17 PM Plotted by: Godzina, Marc



12 LADDER DETAIL
NOT TO SCALE



8 SHIPS LADDER DETAIL
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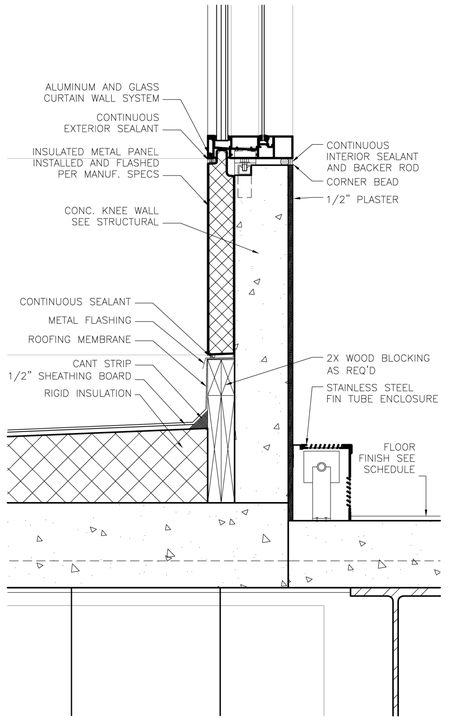
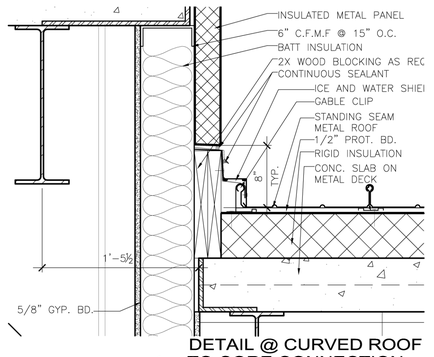
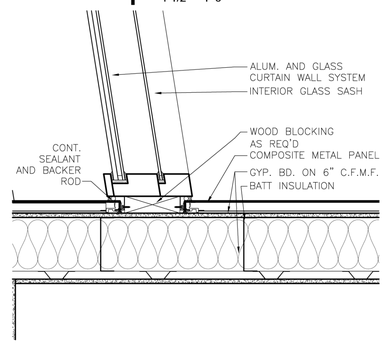


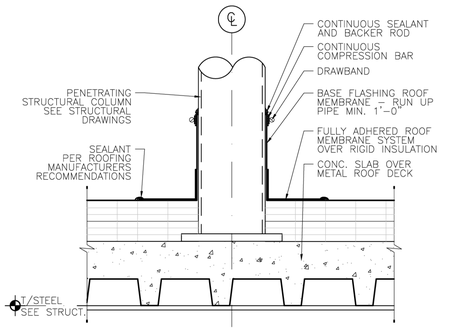
5 DETAIL @ 3RD FLOOR
1 1/2" = 1'-0"



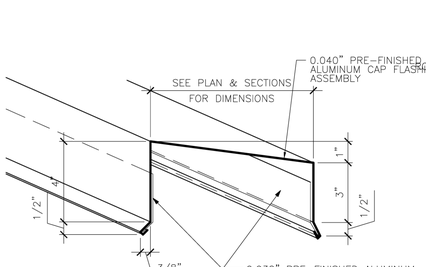
DETAIL @ CURVED ROOF TO CORE CONNECTION
1 1/2" = 1'-0"



2 DETAIL @ PBB PORTAL
1 1/2" = 1'-0"



13 ROOFTOP COLUMN DETAIL
NOT TO SCALE



10 TYP. COPING DETAIL
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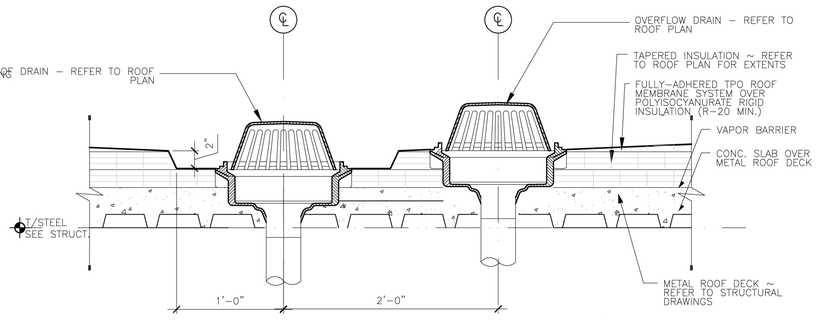
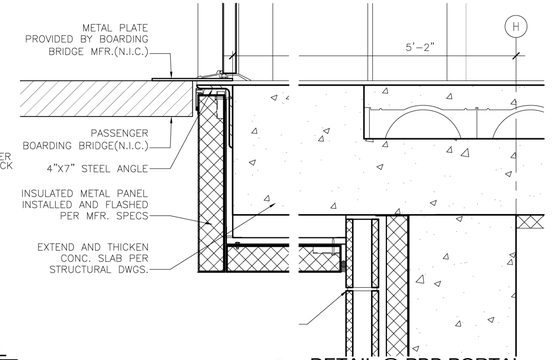
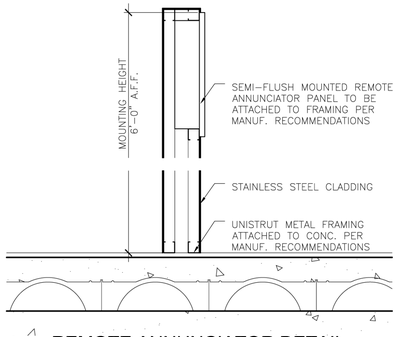


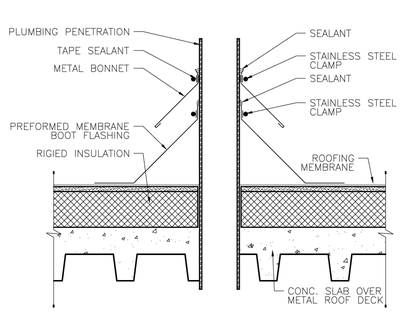
6 TYP. ROOF DRAIN DETAIL
NOT TO SCALE



3 DETAIL @ PBB PORTAL
1 1/2" = 1'-0"



14 REMOTE ANNUNCIATOR DETAIL
1 1/2" = 1'-0"



11 PLUMBING PENETRATION DETAIL
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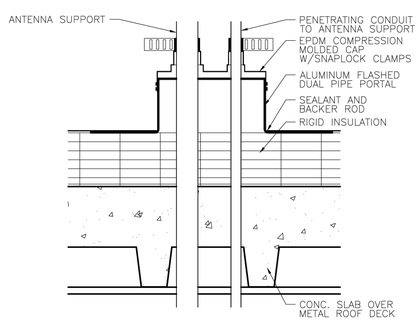

9 ANTENNA SUPPORT DETAIL
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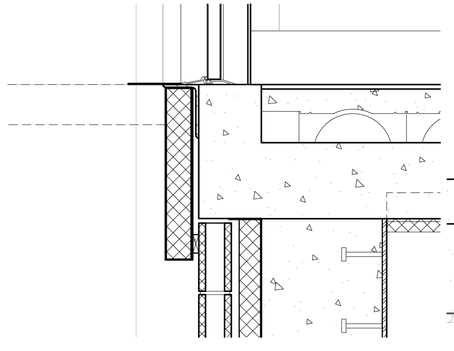
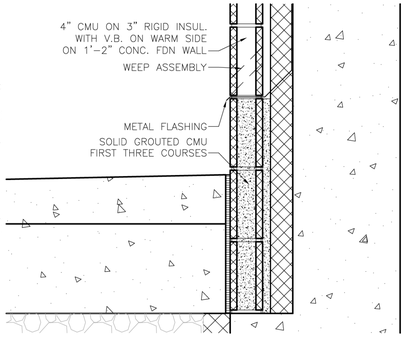


7 DETAIL @ FIXED BRIDGE
1 1/2" = 1'-0"



4 DETAIL @ APRON
1 1/2" = 1'-0"

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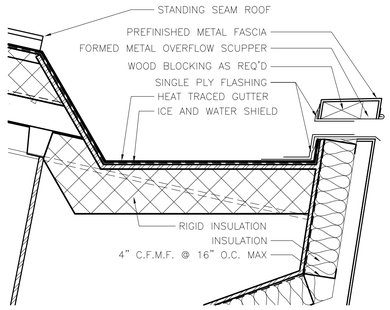
AEP PROJECT NUMBER
213-1882-091

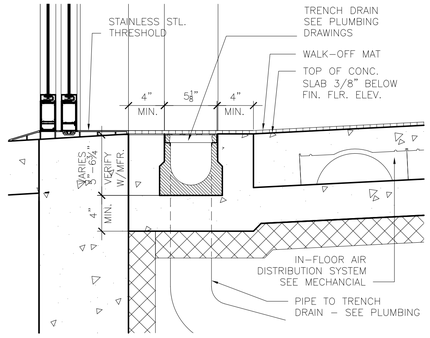
SHEET TITLE
SECTION DETAILS

SHEET NUMBER
A521

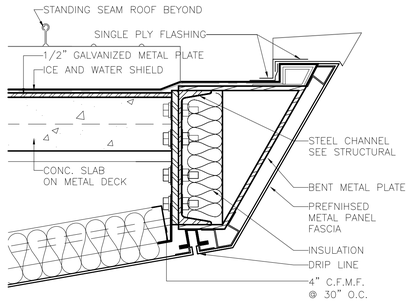
BUILDING PERMIT



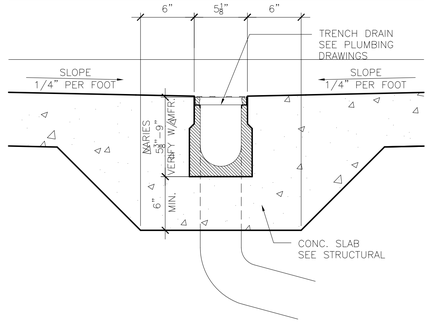
5 SCUPPER DETAIL @ EAST GUTTER
1 1/2" = 1'-0"



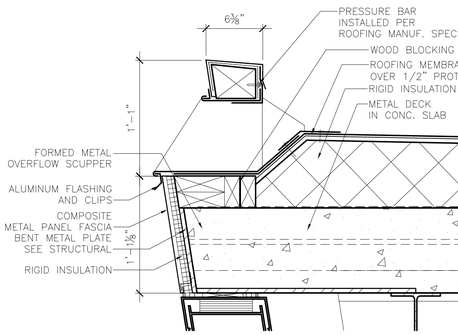
1 DETAIL @ VESTIBULE TRENCH DRAIN
1 1/2" = 1'-0"



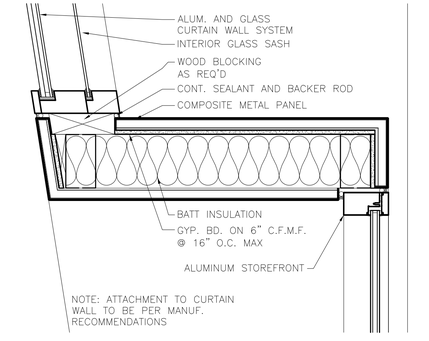
6 SCUPPER DETAIL @ SOUTH GUTTER
1 1/2" = 1'-0"



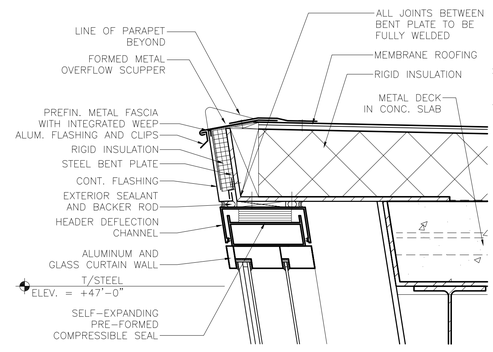
2 DETAIL @ TUG TUNNEL TRENCH DRAIN
1 1/2" = 1'-0"



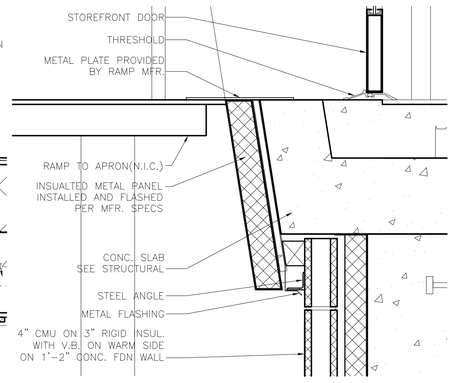
7 SCUPPER DETAIL @ NORTH LOW ROOF
1 1/2" = 1'-0"



3 DETAIL @ DOOR PORTAL
1 1/2" = 1'-0"



8 SCUPPER DETAIL @ NORTH HIGH ROOF
1 1/2" = 1'-0"



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DATE ISSUED: 08-16-10
REVIEWED BY: TC/SBS
DRAWN BY: MG/MI
DESIGNED BY: TC/SBS

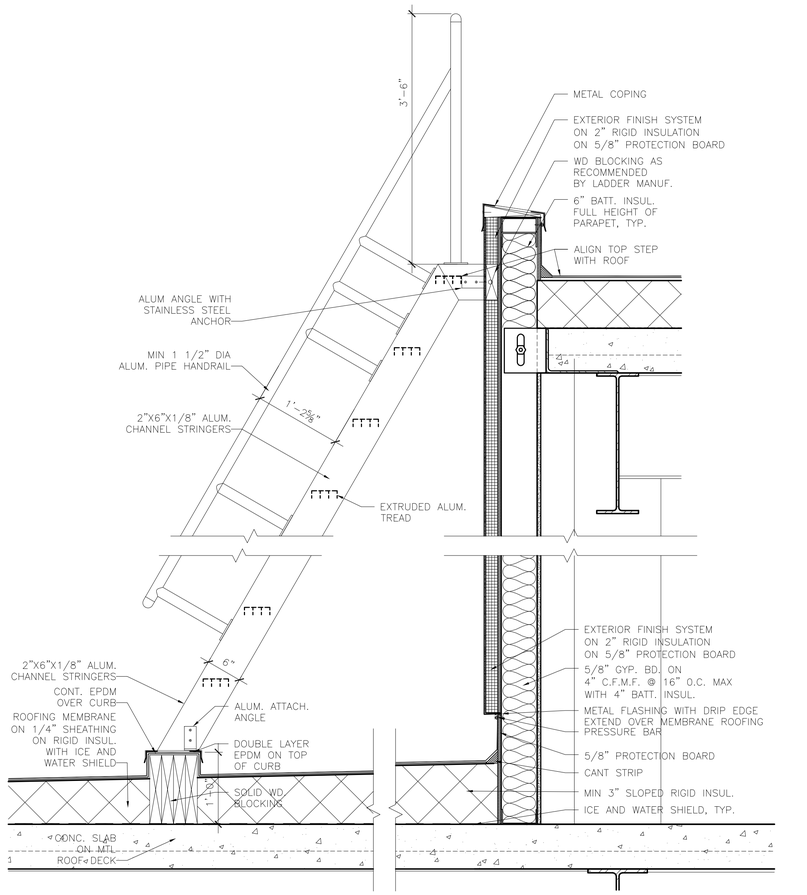
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
SECTION DETAILS

SHEET NUMBER
A522

BUILDING PERMIT

Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A522 Section Details.dwg Plotted on: 8/16/2010 10:08 AMPlotted by: Kolodziej, Magdalena



1 DETAIL @ SHIP LADDER
1" = 1'-0"

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DULUTH INTERNATIONAL AIRPORT DULUTH, MN

NEW PASSENGER TERMINAL

CONSULTANTS

Interior Architects:
SJA ARCHITECTS
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Landscaping Consultants:
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ARCHITECTURAL CERTIFICATION
I hereby certify that the architectural plans, specifications or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Architect under the laws of the State of Minnesota.

Print Name: Mark Ip

Signature:

Date: 06-03-10 Reg. No.: 46001

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 1	6.11.10
	CONFORMANCE SET	7.12.10
3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: TC/SBS
DRAWN BY: MG/MI
DESIGNED BY: TC/SBS

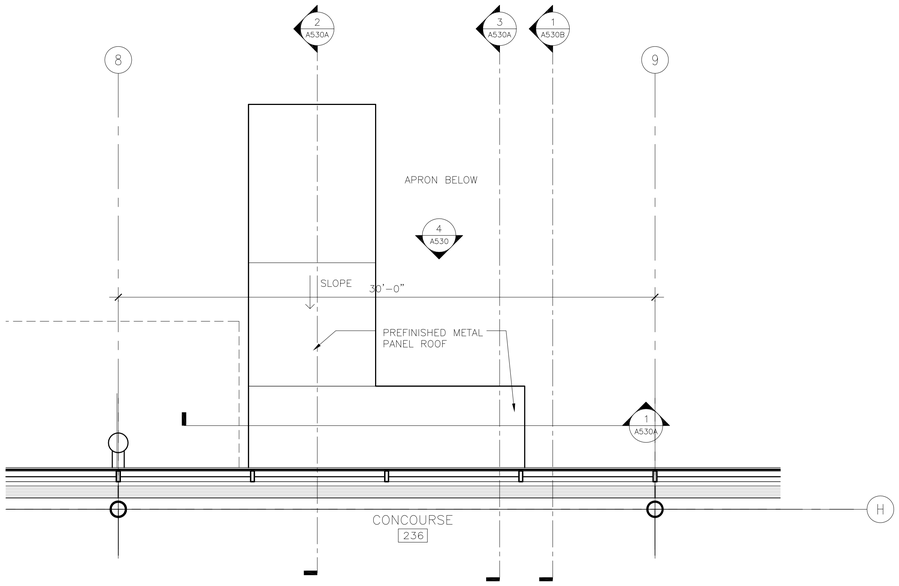
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
SECTION DETAILS

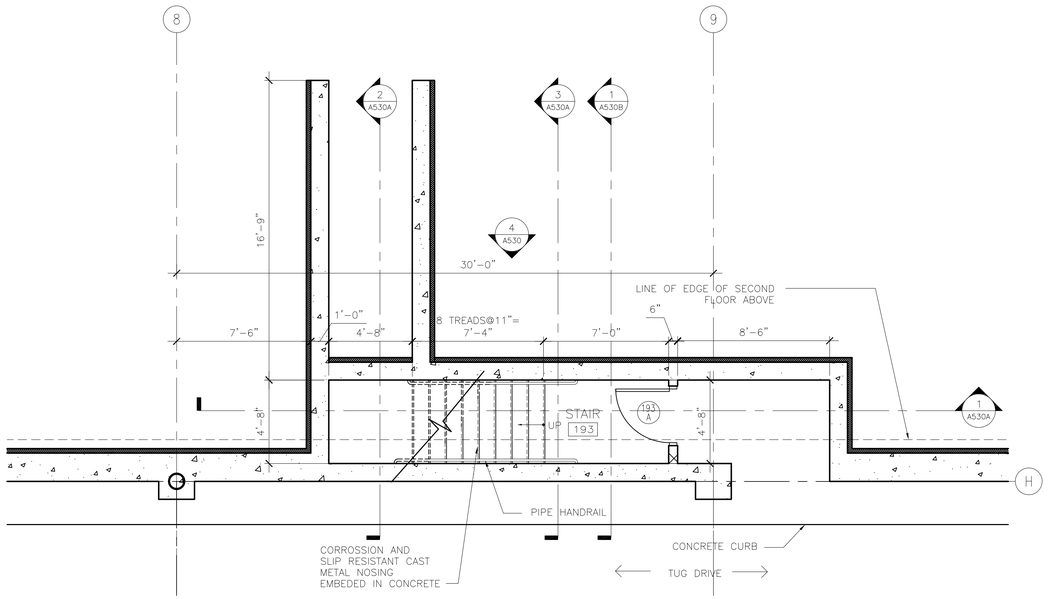
SHEET NUMBER
A523

BUILDING PERMIT

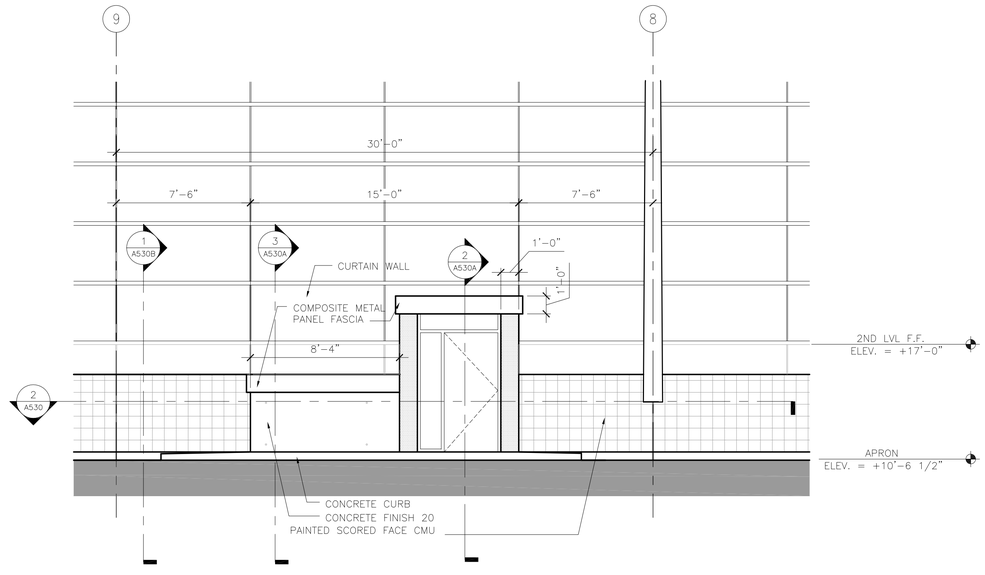
Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A523 ROOF DETAILS.dwg Plotted on: 8/16/2010 10:04 AMPlotted by: Kolodzie, Magdalena



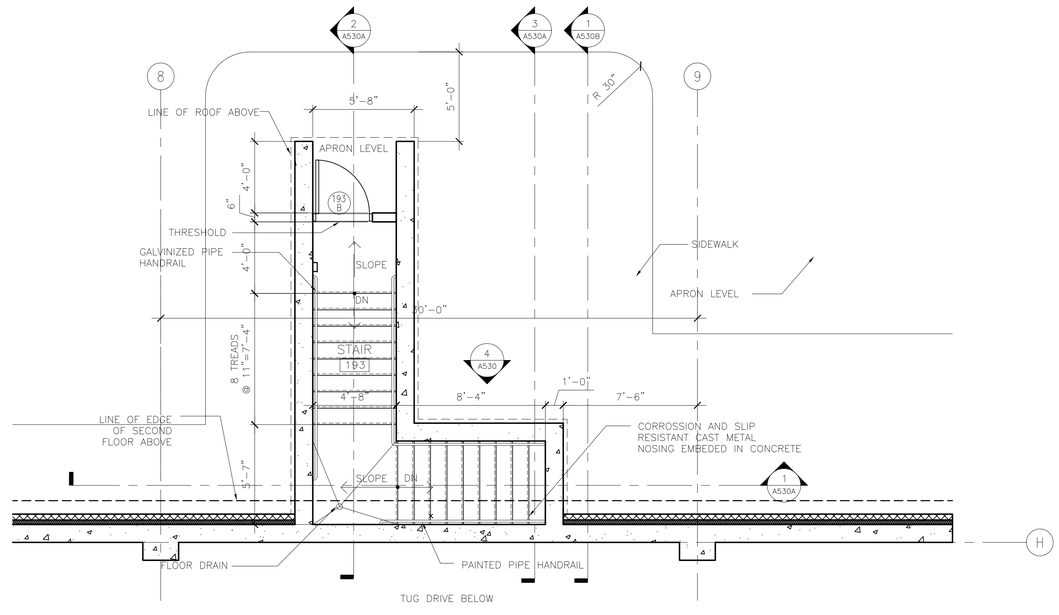
3 SECOND LEVEL PARTIAL FLOOR PLAN AND STAIR ROOF PLAN
1/4" = 1'-0"



1 STAIR PLAN @ FIRST LEVEL
1/4" = 1'-0"



4 PARTIAL NORTH ELEVATION
1/4" = 1'-0"



2 STAIR PLAN @ APRON LEVEL
1/4" = 1'-0"

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3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: TC
DRAWN BY: MK
DESIGNED BY: SBS

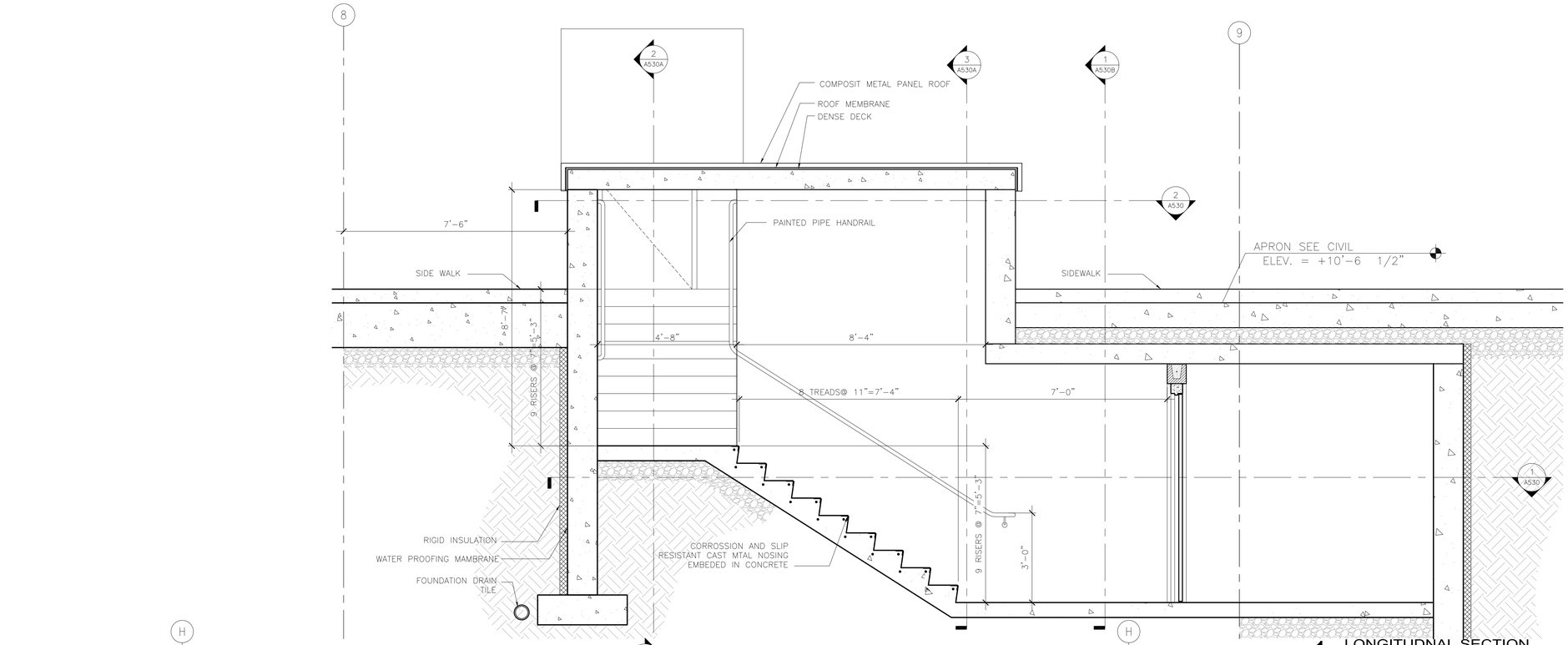
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
EXTERIOR SYSTEMS VERTICAL CIRCULATION

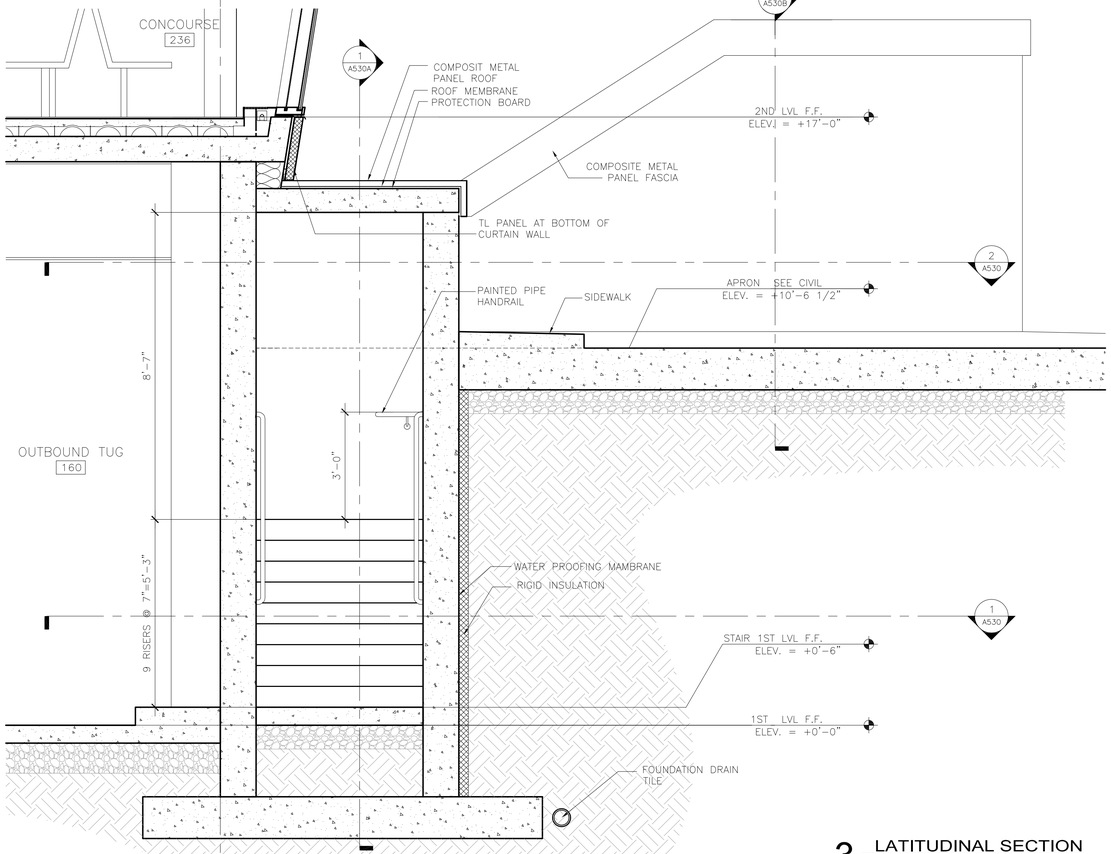
SHEET NUMBER
A530

BUILDING PERMIT

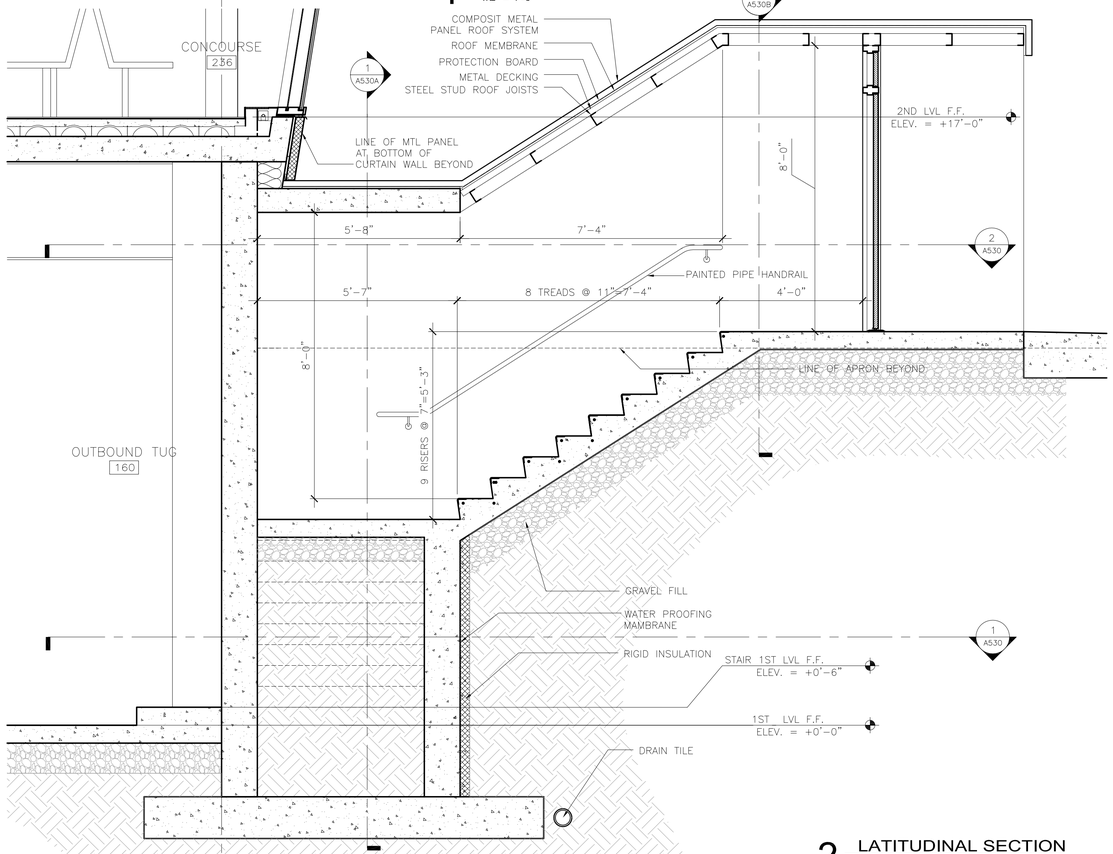
Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A530 Exterior System Sheet-Vertical Circulation.dwg Plotted on: 8/16/2010 9:57 AMPlotted by: Kolodziej, Magdalena



1 LONGITUDNAL SECTION
1/2" = 1'-0"



3 LATITUDNAL SECTION
1/2" = 1'-0"



2 LATITUDNAL SECTION
1/2" = 1'-0"

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3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: TC
DRAWN BY: MK
DESIGNED BY: SBS

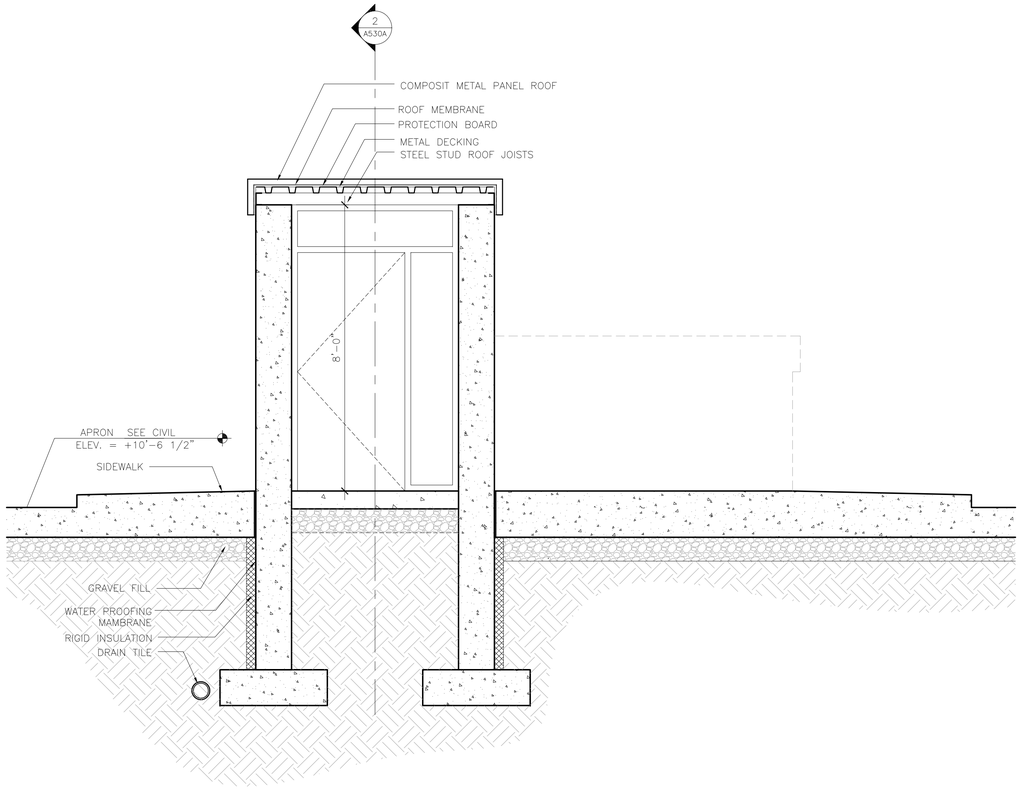
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
EXTERIOR SYSTEMS VERTICAL CIRCULATION

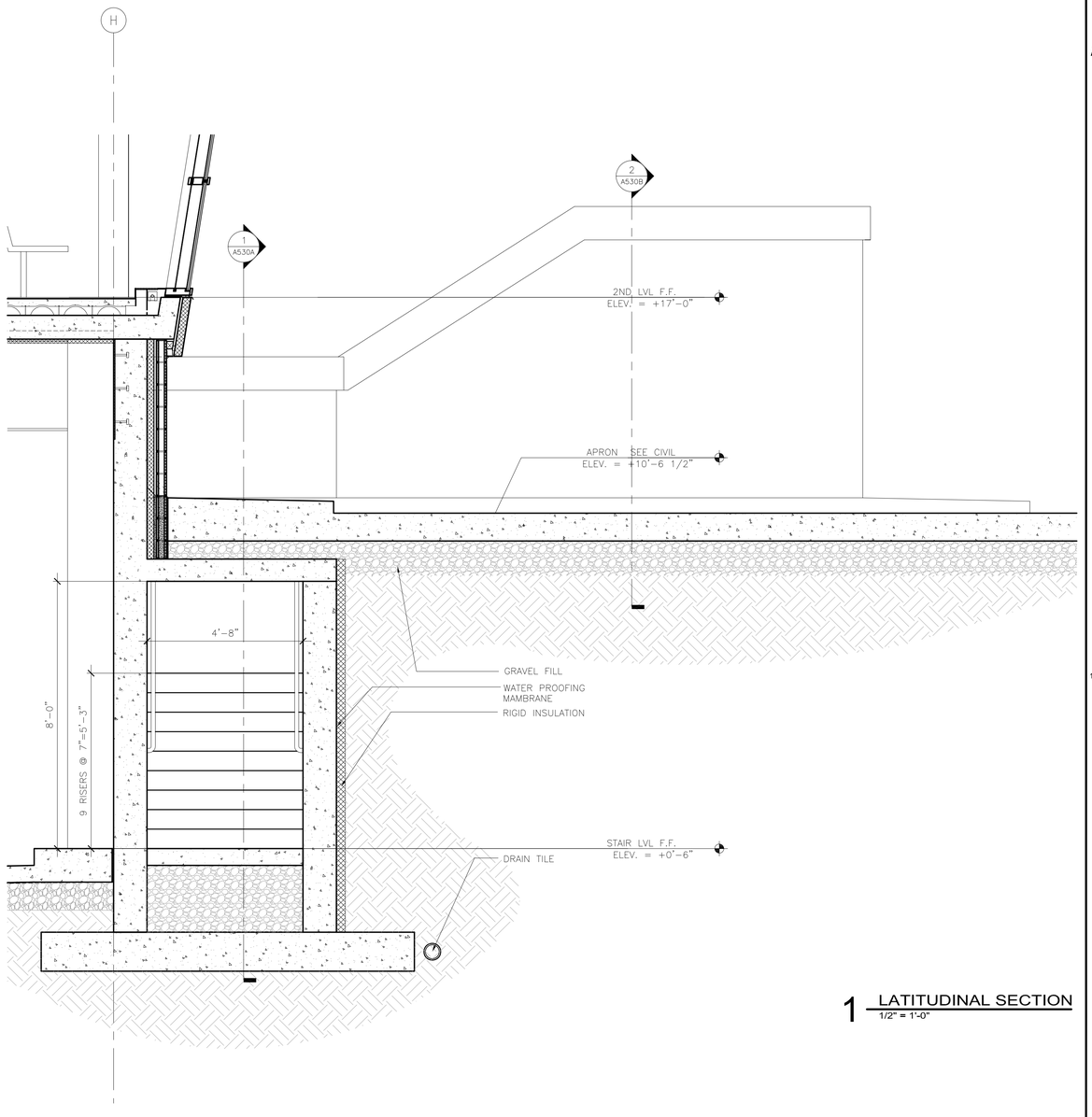
SHEET NUMBER
A530A

BUILDING PERMIT

Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A530A Exterior System Sheet-Vertical Circulation.dwg Plotted on: 8/16/2010 9:41 AMPlotted by: Kolodziej, Magdalena



2 LONGITUDNAL SECTION
1/2" = 1'-0"



1 LATITUDINAL SECTION
1/2" = 1'-0"

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Signature:

Date: 06-03-10 Reg. No.: 46001

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 1	6.11.10
	CONFORMANCE SET	7.12.10
3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: TC
DRAWN BY: MK
DESIGNED BY: SBS

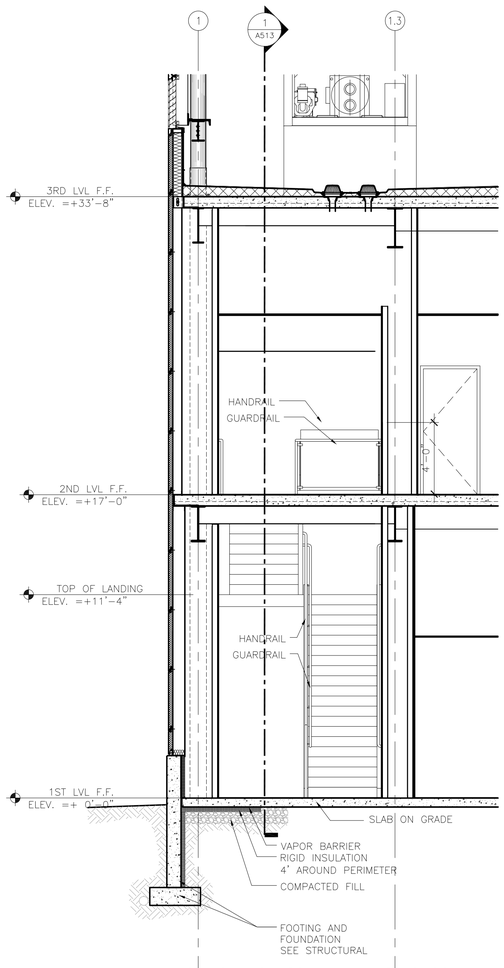
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
EXTERIOR SYSTEMS VERTICAL CIRCULATION

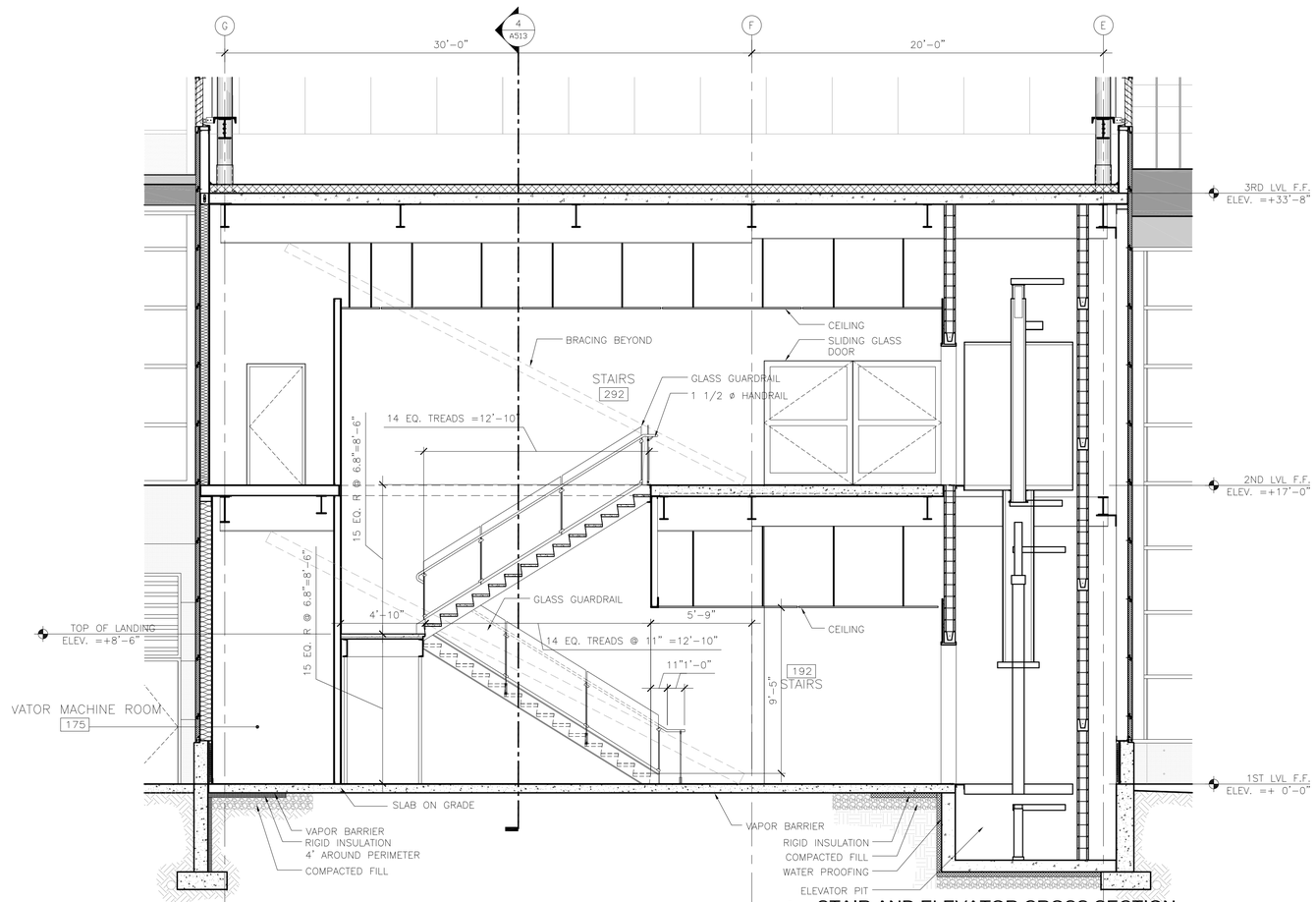
SHEET NUMBER
A530B

BUILDING PERMIT

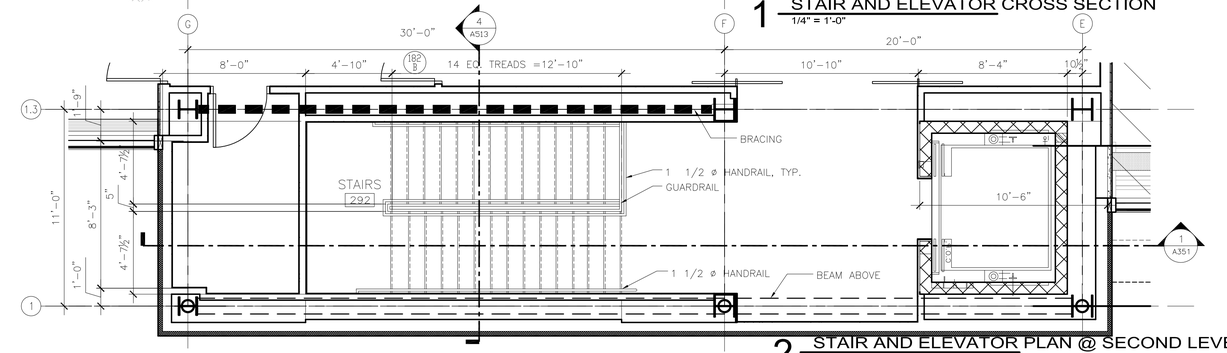
Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A530B Exterior System Sheet- Vertical Circulation.dwg Plotted on: 8/16/2010 9:37 AMPlotted by: Kolodziej, Magdalena



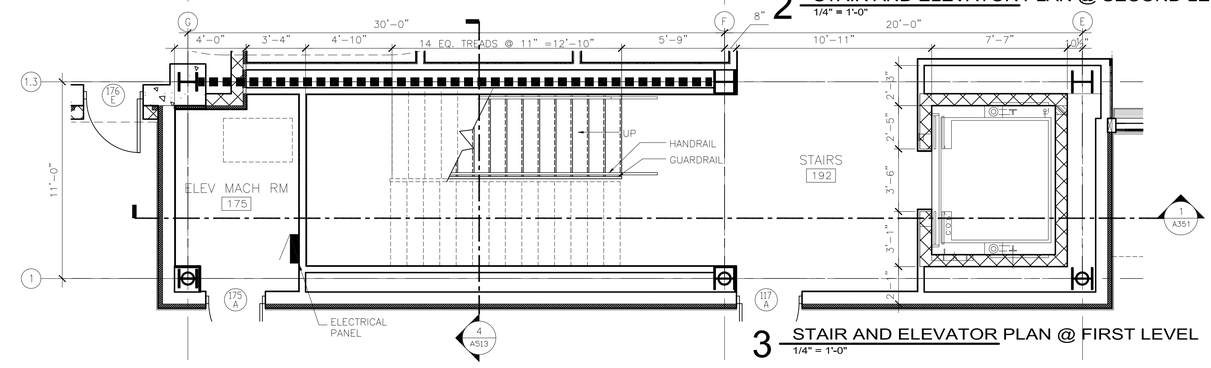
4 STAIR LONGITUDNAL SECTION
1/4" = 1'-0"



1 STAIR AND ELEVATOR CROSS SECTION
1/4" = 1'-0"



2 STAIR AND ELEVATOR PLAN @ SECOND LEVEL
1/4" = 1'-0"



3 STAIR AND ELEVATOR PLAN @ FIRST LEVEL
1/4" = 1'-0"

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	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: XX
DRAWN BY: XX
DESIGNED BY: XX

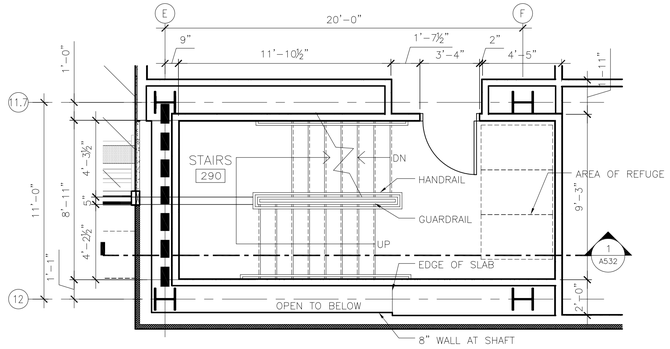
AEP PROJECT NUMBER
213-1882-091
XXX.DWG 08-03-00 12:00p

SHEET TITLE
INTERIOR SYSTEMS VERTICAL CIRCULATION

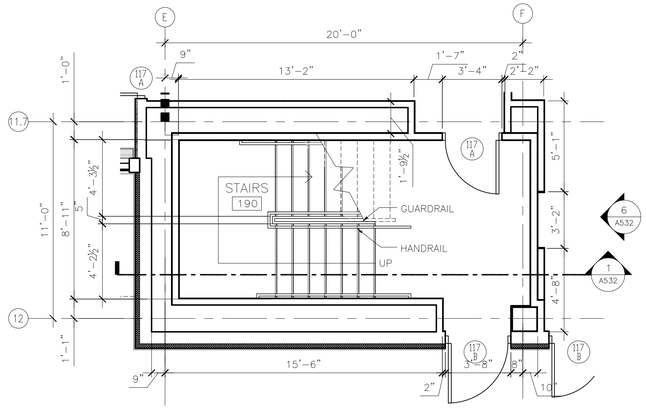
SHEET NUMBER
A531

BUILDING PERMIT

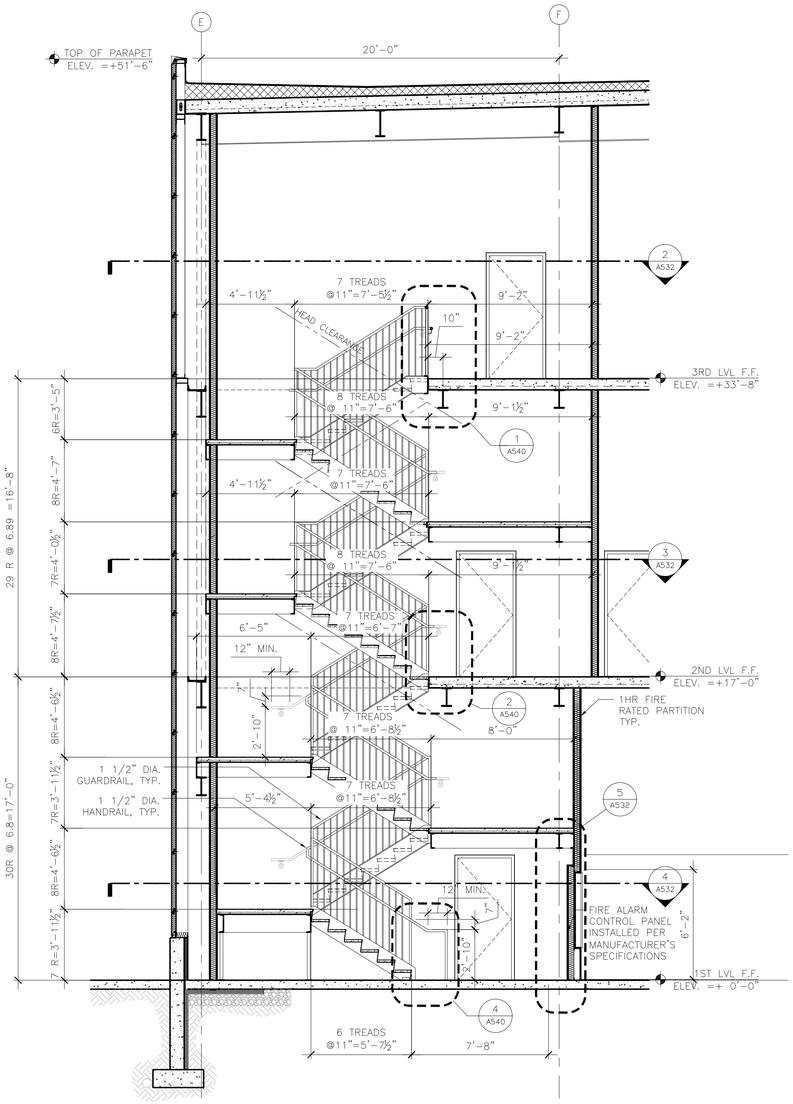
Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A531 Interior System Sheet-Vertical Circulation.dwg Plotted on: 8/16/2010 4:47 PMPlotted by: Kolodziej, Magdalena



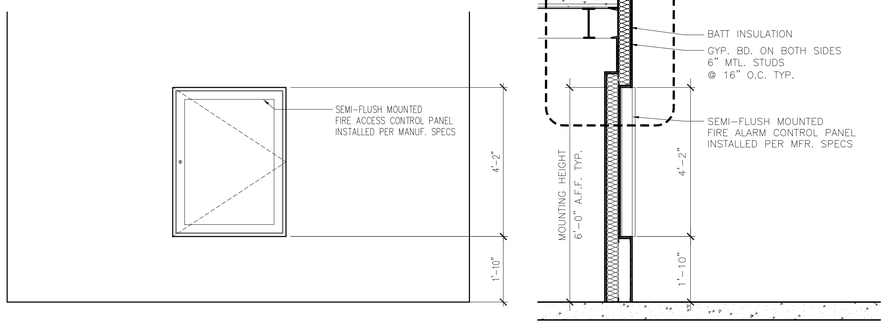
3 STAIR PLAN @ SECOND LEVEL
1/4" = 1'-0"



4 STAIR PLAN @ FIRST LEVEL
1/4" = 1'-0"

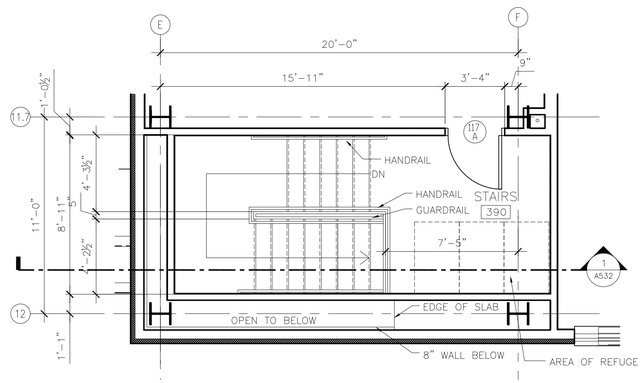


1 STAIR LONGITUDNAL SECTION
1/4" = 1'-0"



6 INTERIOR ELEVATION
1/2" = 1'-0"

5 WALL SECTION
1/2" = 1'-0"



2 STAIR PLAN @ THIRD LEVEL
1/4" = 1'-0"

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	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: TC
DRAWN BY: MK/MIP
DESIGNED BY: TC/SBS

AEP PROJECT NUMBER
XXX.XWP **213-1882-091** XXX-00 12:00p

SHEET TITLE

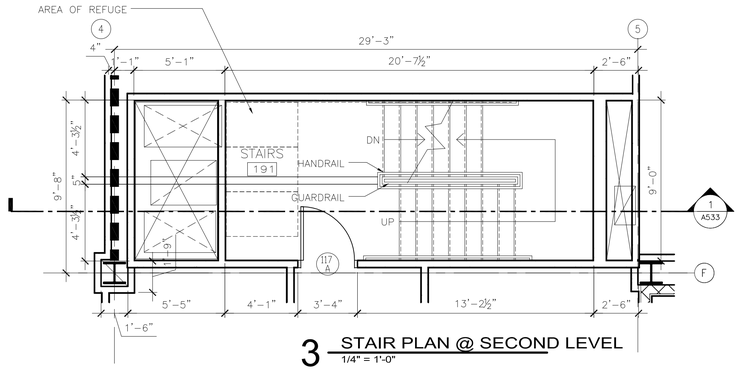
INTERIOR SYSTEMS VERTICAL CIRCULATION

SHEET NUMBER

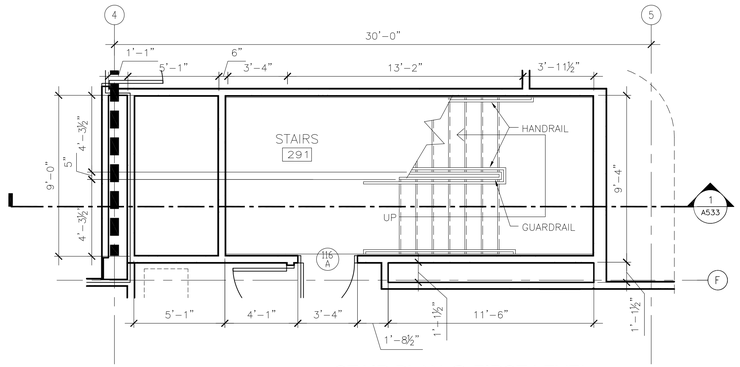
A532

BUILDING PERMIT

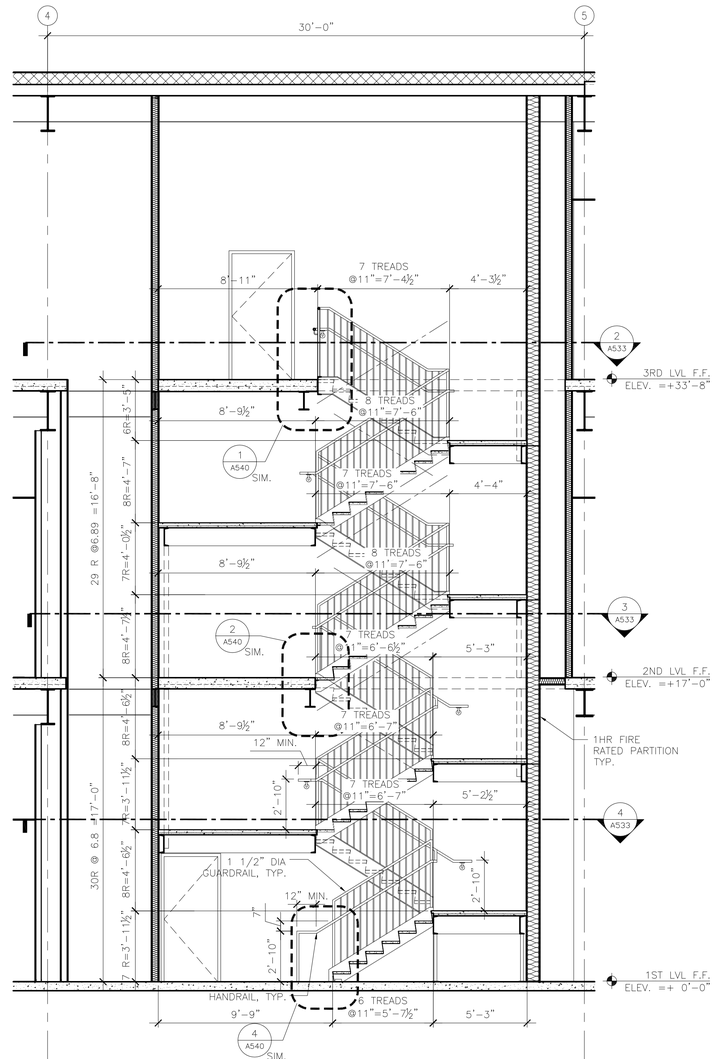
Drawing: T:\P\2131882.091 Duluth New Termina\Cad\A\Sheets\A532 Interior System Sheet-Vertical Circulation.dwg Plotted on: 8/16/2010 9:25 AMPlotted by: Kolodziej, Magdalena



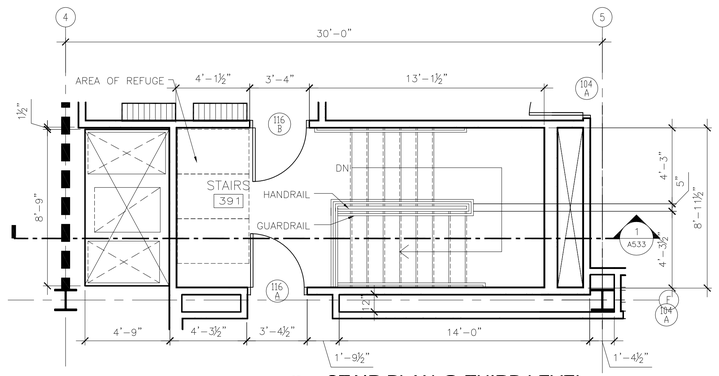
3 STAIR PLAN @ SECOND LEVEL
1/4" = 1'-0"



4 STAIR PLAN @ FIRST LEVEL
1/4" = 1'-0"



1 STAIR LONGITUDNAL SECTION
1/4" = 1'-0"



2 STAIR PLAN @ THIRD LEVEL
1/4" = 1'-0"

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Print Name: Mark Ip

Signature:

Date: 06-03-10 Reg. No.: 46001

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 1	6.11.10
	CONFORMANCE SET	7.12.10
3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: TC
DRAWN BY: MI/MK
DESIGNED BY: SBC/TC

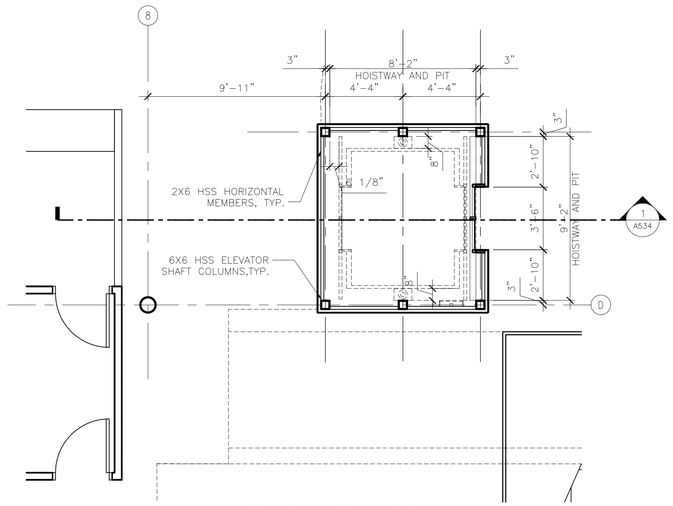
AEP PROJECT NUMBER
213-1882-091
XXX.SWP 08/16/10 12:00p

SHEET TITLE
INTERIOR SYSTEMS VERTICAL CIRCULATION

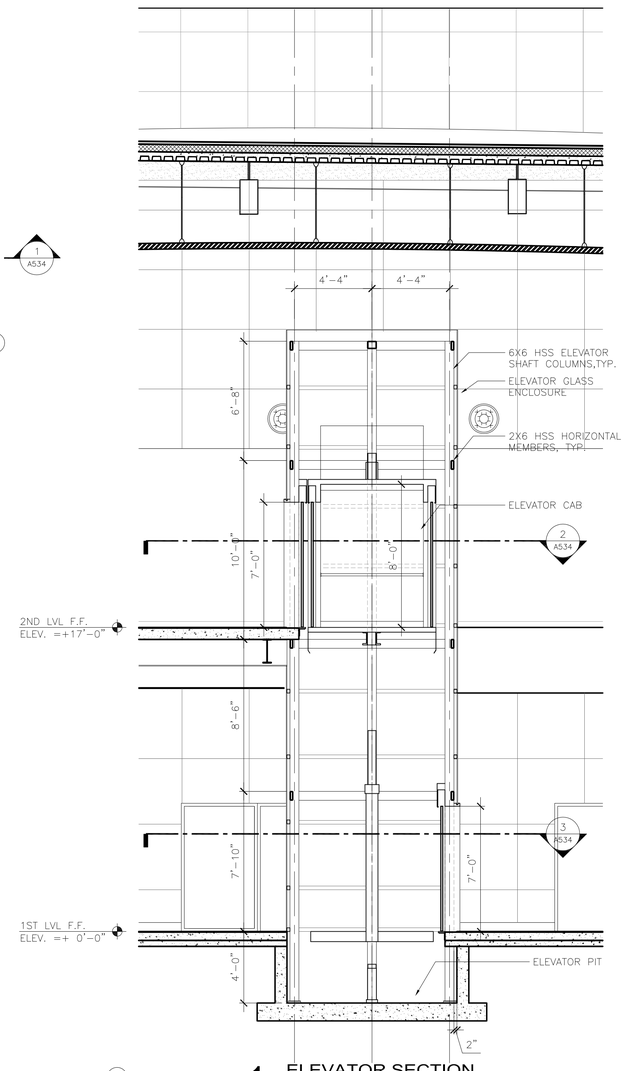
SHEET NUMBER
A533

BUILDING PERMIT

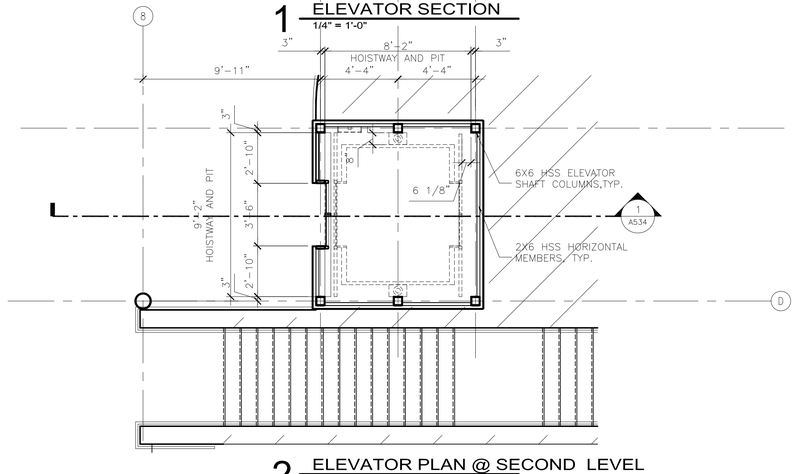
Drawing: T:\P\2131882.091 Duluth New Termina\Cad\A\Sheets\A533 Interior System Sheet-Vertical Circulation.dwg Plotted on: 8/16/2010 3:43 PMPlotted by: Kolodziej, Magdalena



2 ELEVATOR PLAN @ THIRD LEVEL
1/4" = 1'-0"



1 ELEVATOR SECTION
1/4" = 1'-0"



2 ELEVATOR PLAN @ SECOND LEVEL
1/4" = 1'-0"

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TEL: (218) 724-8578 / FAX: (218) 724-8717

Structural Engineers:
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M/E/P/FP Engineers:
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Baggage Handling Systems Consultants:
BNP ASSOCIATES INC.
101 East Ridge Office Park, Suite 103, Danbury CT 06810
TEL: (203) 792-3000 / FAX: (203) 792-4900

Landscaping Consultants:
APPOLD DESIGN
2432 East First Street, Duluth MN 55812
TEL: (218) 591-5079

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 1	6.11.10
	CONFORMANCE SET	7.12.10
3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: TC
DRAWN BY: MK/MP
DESIGNED BY: TC

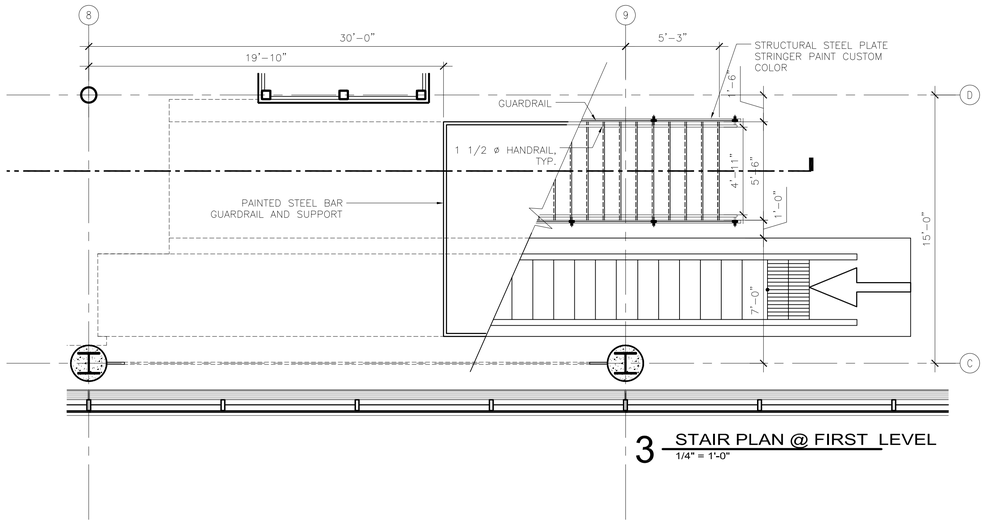
AEP PROJECT NUMBER
213-1882-091
XXX.DWG 08-16-00 12:00p

SHEET TITLE
INTERIOR SYSTEM SHEET MAIN ELEVATOR

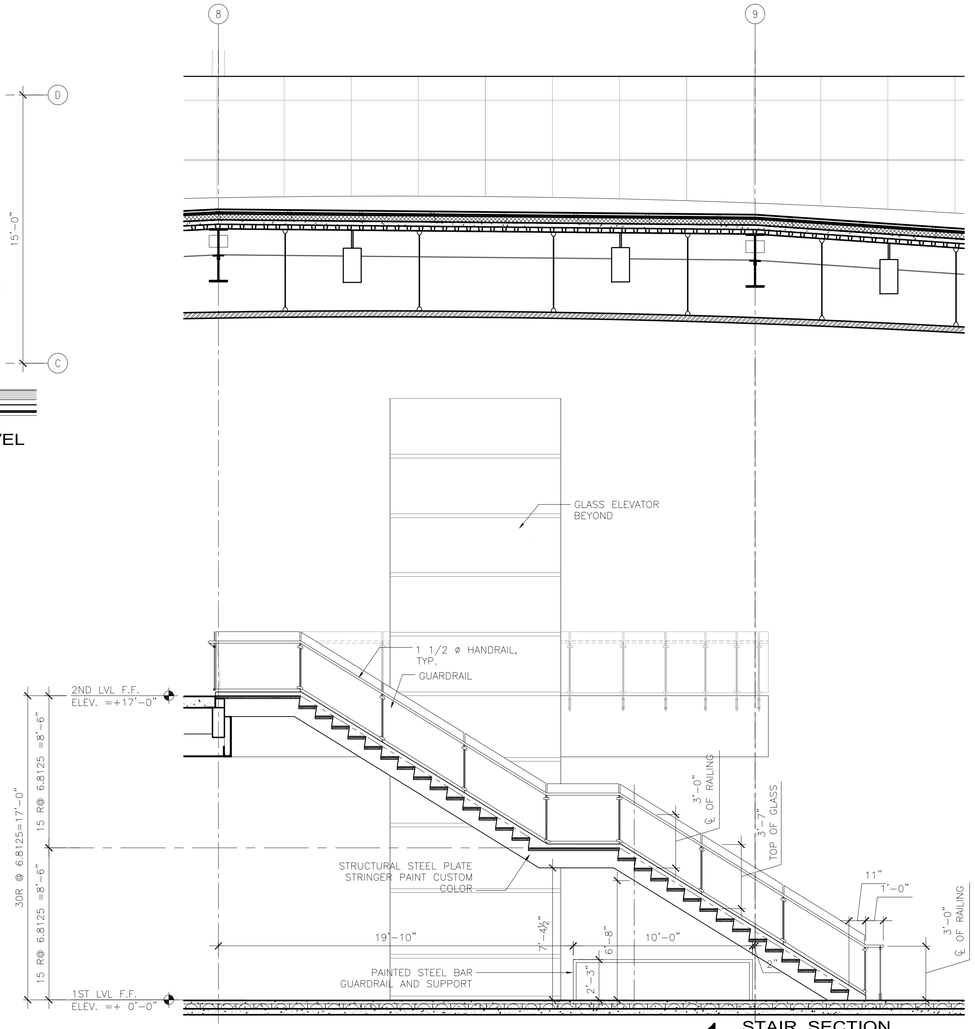
SHEET NUMBER
A534

BUILDING PERMIT

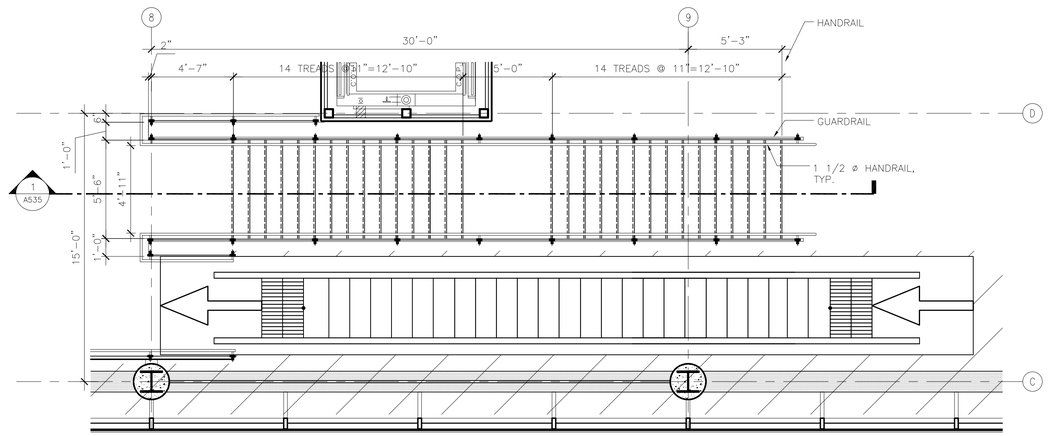
Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A534 Interior System Sheet-Vertical Cierculation.dwg Plotted on: 8/16/2010 8:58 AMPlotted by: Kolodziej, Magdalena



3 STAIR PLAN @ FIRST LEVEL
1/4" = 1'-0"



1 STAIR SECTION
1/4" = 1'-0"



2 STAIR PLAN @ SECOND LEVEL
1/4" = 1'-0"

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REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 1	6.11.10
	CONFORMANCE SET	7.12.10
3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: TC
DRAWN BY: MK/MP
DESIGNED BY: TC

AEP PROJECT NUMBER
XXX.DWG **213-1882-091** 10/06/00 12:00p

SHEET TITLE

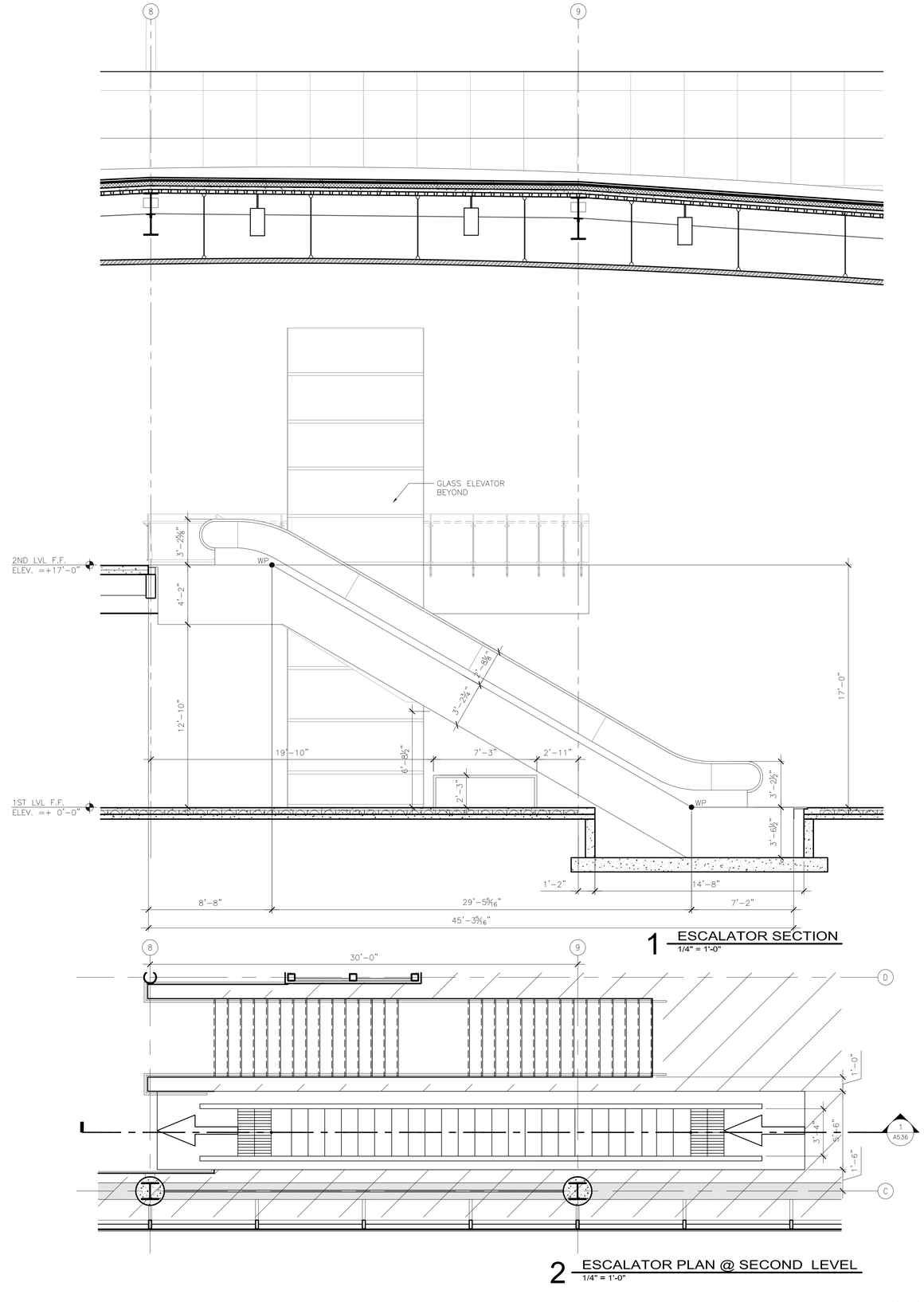
INTERIOR SYSTEM SHEET MAIN STAIR

SHEET NUMBER

A535

BUILDING PERMIT

Drawing: T:\P\213882.091 Duluth New Terminal\Cad\A\Sheets\A535 Interior System Sheet- Vertical Circulation.dwg Plotted on: 8/16/2010 8:53 AMPlotted by: Kolodziej, Magdalena



1 ESCALATOR SECTION
1/4" = 1'-0"

2 ESCALATOR PLAN @ SECOND LEVEL
1/4" = 1'-0"

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Landscaping Consultants:
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2432 East First Street, Duluth MN 55812
TEL: (218) 591-5079

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 1	6.11.10
	CONFORMANCE SET	7.12.10
3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: TC
DRAWN BY: MK/MP
DESIGNED BY: TC

AEP PROJECT NUMBER
213-1882-091
XXX.DWG 08/XX/10 12:00p

SHEET TITLE

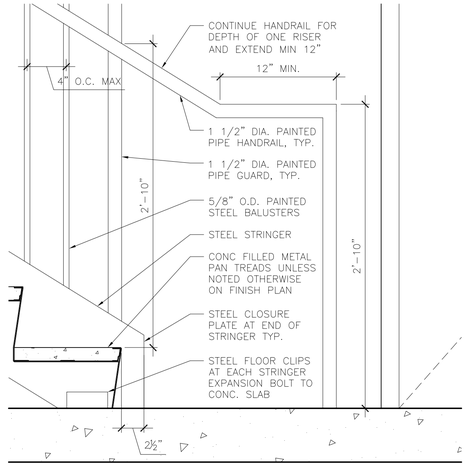
INTERIOR SYSTEM SHEET MAIN ESCALATOR

SHEET NUMBER

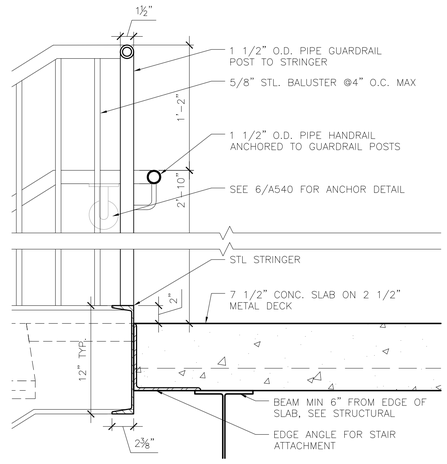
A536

BUILDING PERMIT

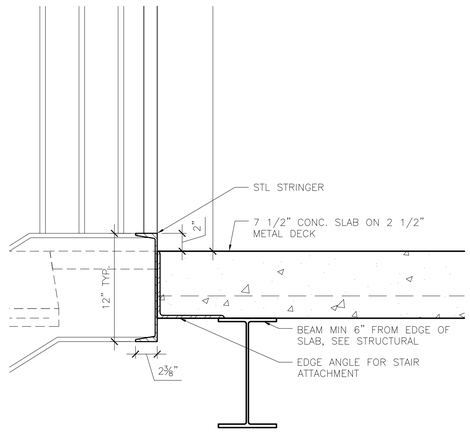
Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A536 Interior System Sheet-Vertical Circulation.dwg Plotted on: 8/16/2010 8:35 AMPlotted by: Kolodziej, Magdalena



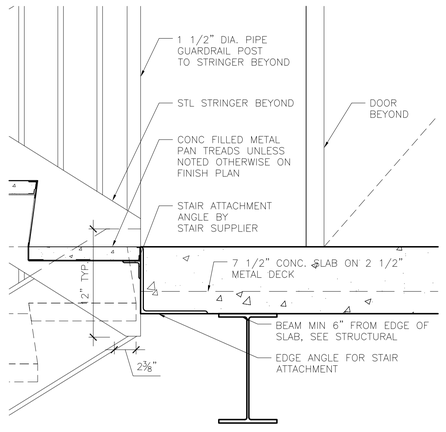
4 STAIR STRINGER @ FIRST LEVEL
1 1/2" = 1'-0"



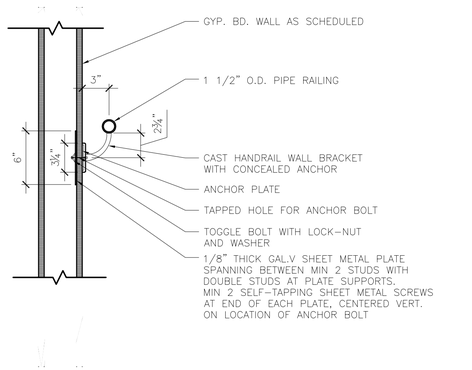
1 DETAIL AT TOP LANDING
1 1/2" = 1'-0"



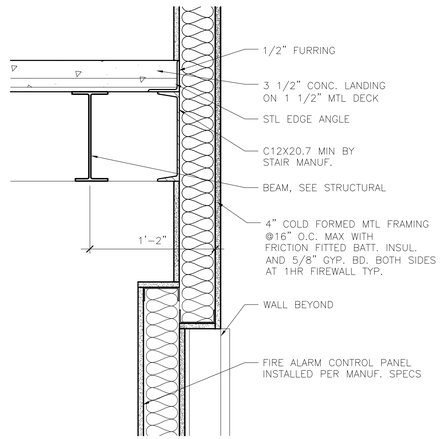
5 RAIL TERMINATION DETAIL
1 1/2" = 1'-0"



2 DETAIL AT INTERMEDIATE LANDING
1 1/2" = 1'-0"



6 HANDRAIL DETAIL AT GYP. BD.
1 1/2" = 1'-0"



3 DETAIL AT FIRE ALARM ALCOVE
1 1/2" = 1'-0"

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TEL: (218) 591-5079

ARCHITECTURAL CERTIFICATION
I hereby certify that the architectural plans, specifications or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Architect under the laws of the State of Minnesota.

Print Name: Mark Ip

Signature:

Date: 06-03-10 Reg. No.: 46001

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 1	6.11.10
	CONFORMANCE SET	7.12.10
3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: XX
DRAWN BY: XX
DESIGNED BY: XX

AEP PROJECT NUMBER
XXX.0##**213-1882-091** 8/16/10 12:00p

SHEET TITLE

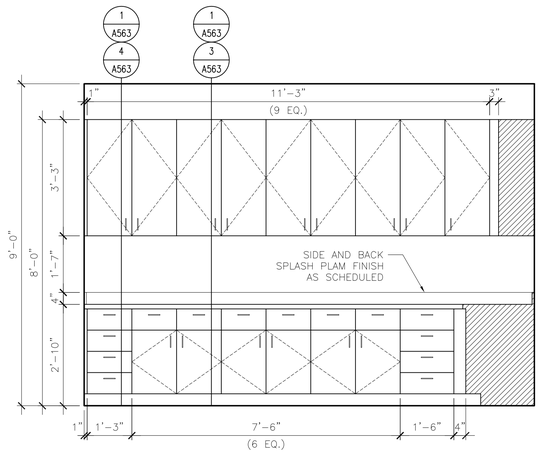
VERTICAL CIRCULATION DETAILS

SHEET NUMBER

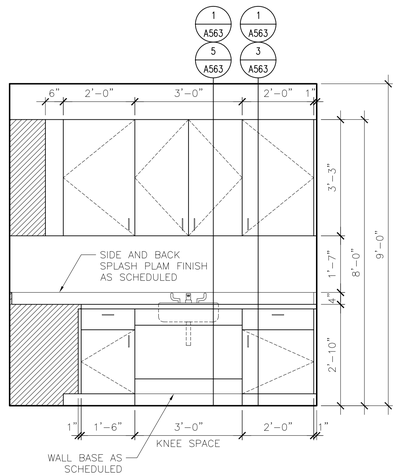
A540

BUILDING PERMIT

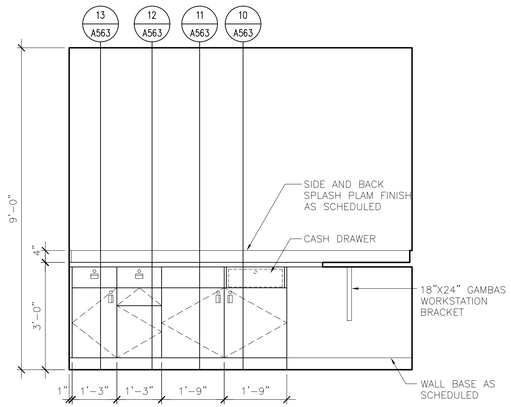
Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A540 Vertical Circulation Details.dwg Plotted on: 8/16/2010 8:25 AMPlotted by: Kolodzie, Magdalena



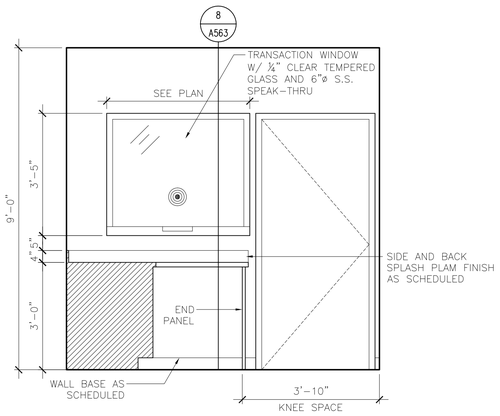
4 AG. LAB ELEVATION (RM 160)
1/2" = 1'-0"



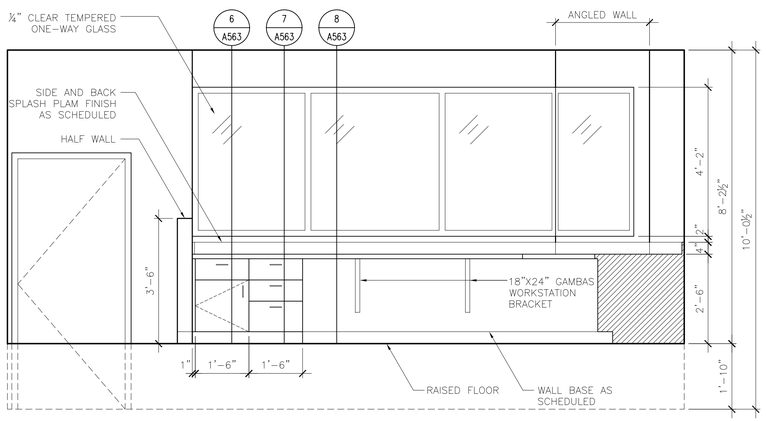
3 AG. LAB ELEVATION (RM 160)
1/2" = 1'-0"



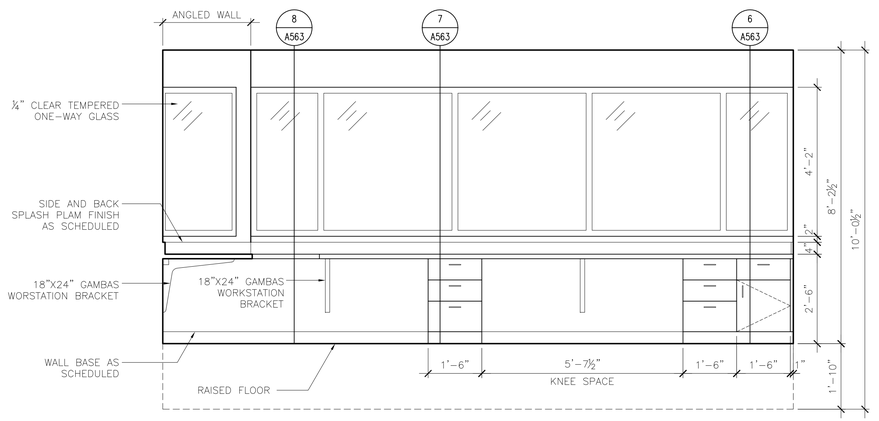
2 CASHIER ELEVATION (RM 181)
1/2" = 1'-0"



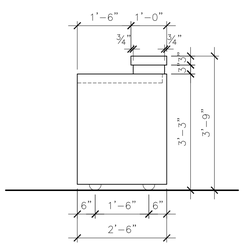
1 CASHIER ELEVATION (RM 181)
1/2" = 1'-0"



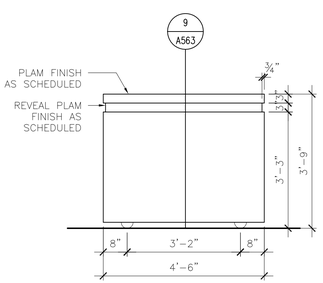
6 ROVER RM ELEVATION (RM 163)
1/2" = 1'-0"



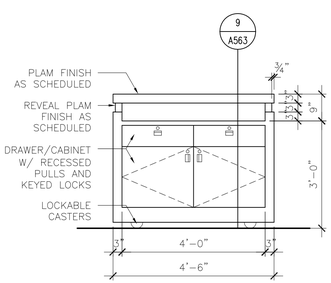
5 ROVER RM ELEVATION (RM 163)
1/2" = 1'-0"



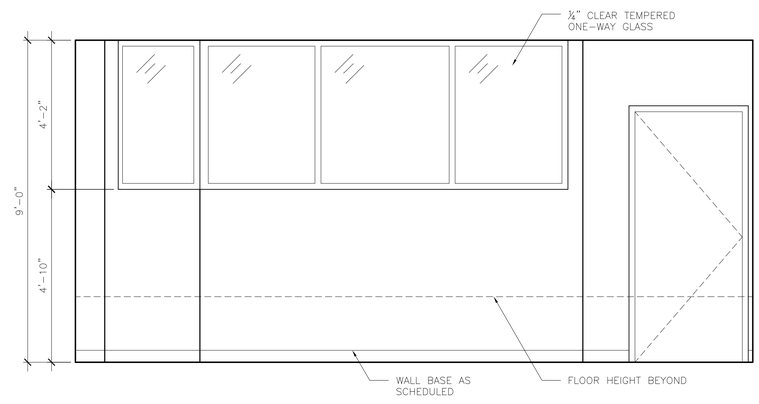
10 MOBILE PODIUM ELEV (RM 159)
1/2" = 1'-0"



9 MOBILE PODIUM ELEV (RM 159)
1/2" = 1'-0"



8 MOBILE PODIUM ELEV (RM 159)
1/2" = 1'-0"



7 ROVER ENTRY ELEVATION (RM 159)
1/2" = 1'-0"

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ARCHITECTURAL CERTIFICATION
I hereby certify that the architectural plans, specifications or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Architect under the laws of the State of Minnesota.

Print Name: Mark Ip

Signature:

Date: 06-03-10 Reg. No.: 46001

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 1	6.11.10
	CONFORMANCE SET	7.12.10
3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: VO
DESIGNED BY: SBS/TC

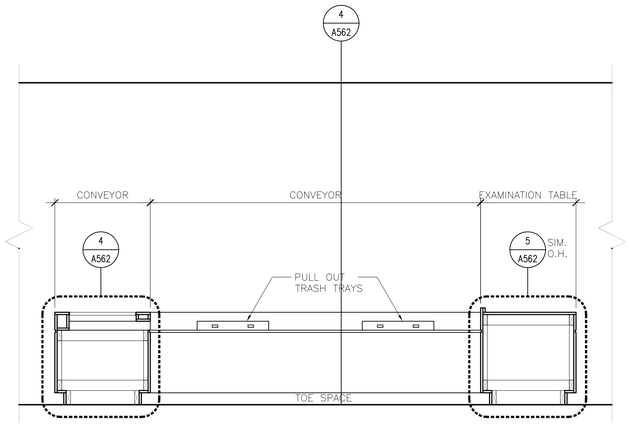
AEP PROJECT NUMBER
213-1882-091

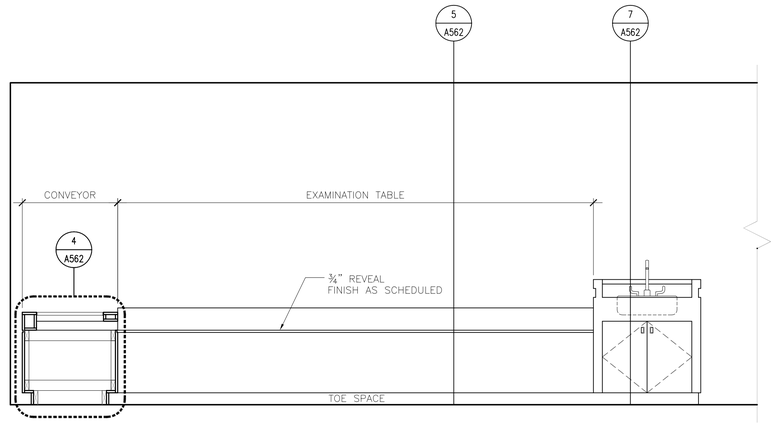
SHEET TITLE
MILLWORK ELEVATIONS

SHEET NUMBER
A560

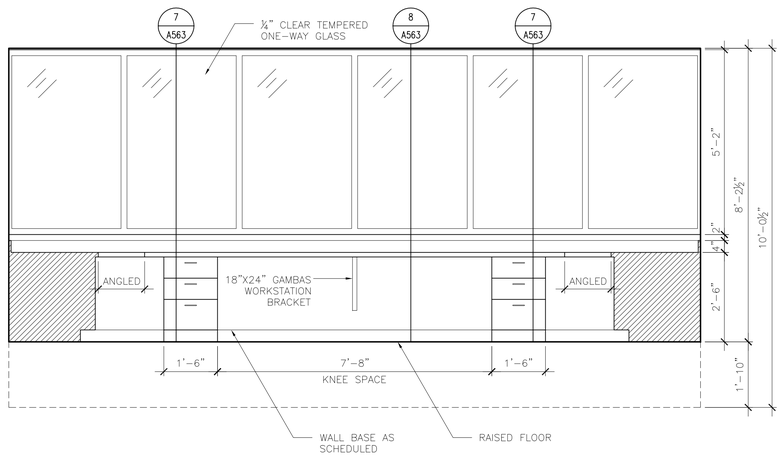
BUILDING PERMIT

Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A560 Millwork Elevations.dwg Plotted on: 8/16/2010 5:07 PMPlotted by: Kolodziej, Magdalena

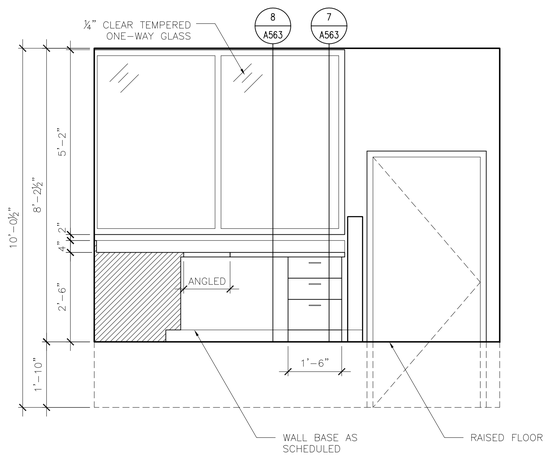


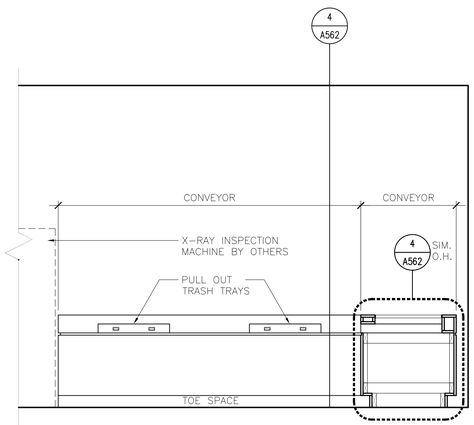


2 SECONDARY X-RAY ELEVATION (RM 159)
1/2" = 1'-0"

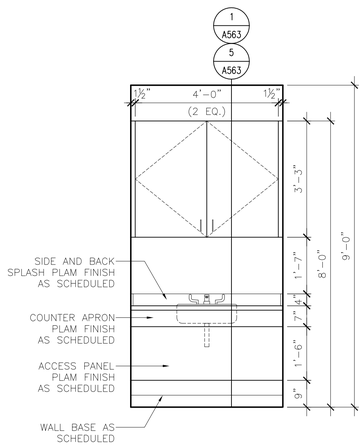


1 SECONDARY X-RAY ELEVATION (RM 159)
1/2" = 1'-0"

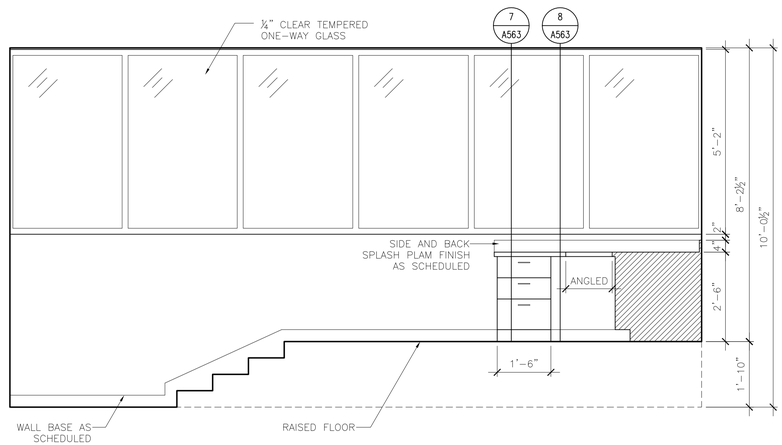




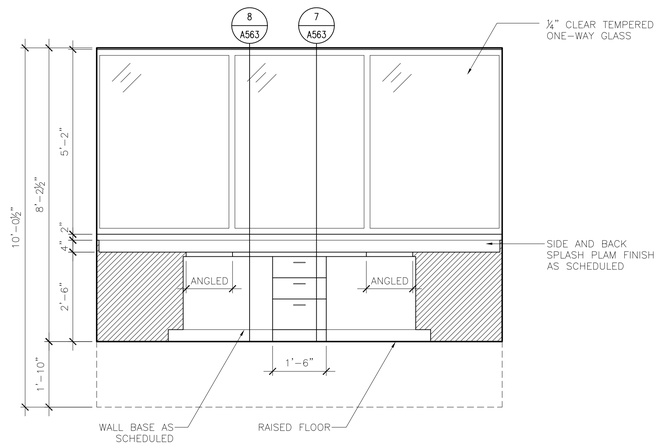
5 ROVER RM ELEVATION (RM 245)
1/2" = 1'-0"



4 ROVER RM ELEVATION (RM 245)
1/2" = 1'-0"



3 SECONDARY X-RAY ELEVATION (RM 159)
1/2" = 1'-0"



8 BREAK RM ELEVATION (RM 156)
1/2" = 1'-0"

7 ROVER RM ELEVATION (RM 245)
1/2" = 1'-0"

6 ROVER RM ELEVATION (RM 245)
1/2" = 1'-0"

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Signature:

Date: 06-03-10 Reg. No.: 46001

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 1	6.11.10
	CONFORMANCE SET	7.12.10
3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: VO
DESIGNED BY: SBS/TC

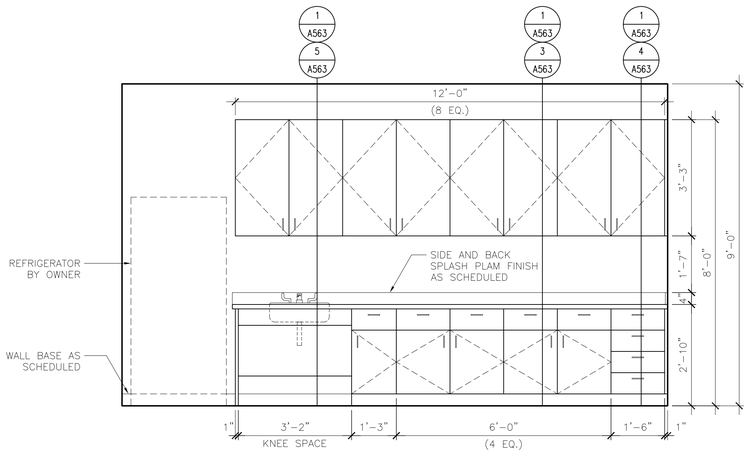
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
MILLWORK ELEVATIONS

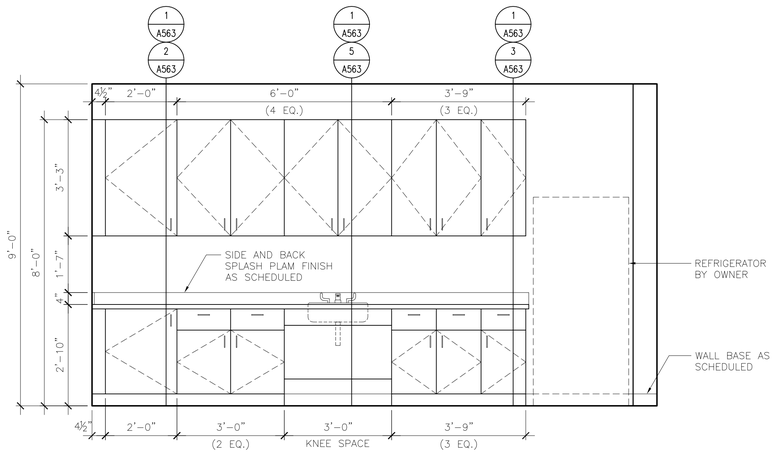
SHEET NUMBER
A561

BUILDING PERMIT

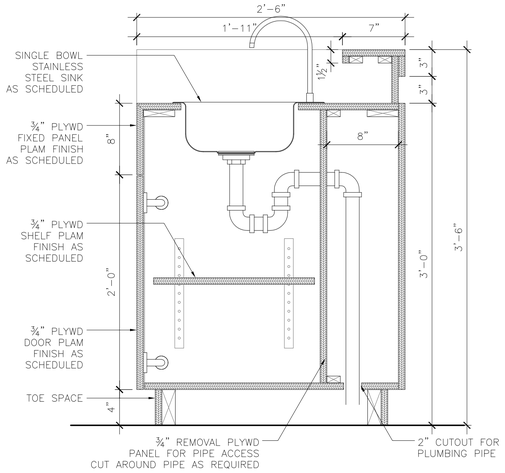
Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A561 Millwork Elevations.dwg Plotted on: 8/16/2010 5:07 PMPlotted by: Kolodziej, Magdalena



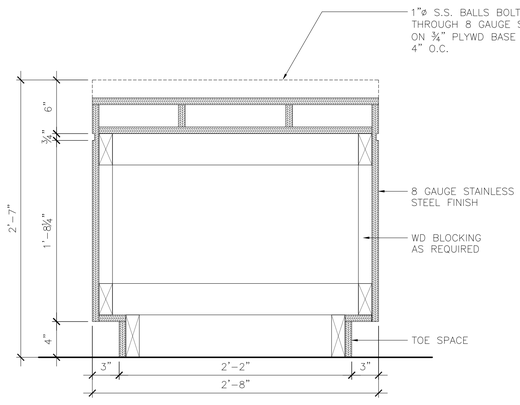
2 OPEN OFFICE ELEVATION (RM 328)
1/2" = 1'-0"



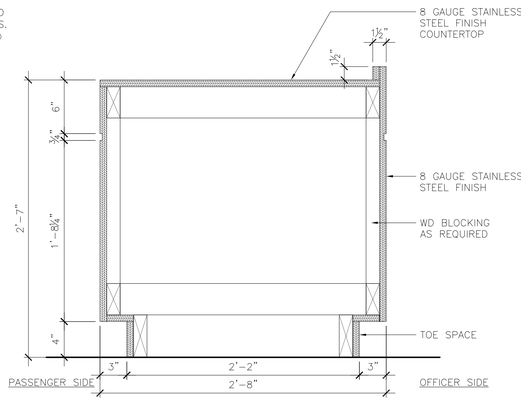
1 BREAK RM ELEVATION (RM 310)
1/2" = 1'-0"



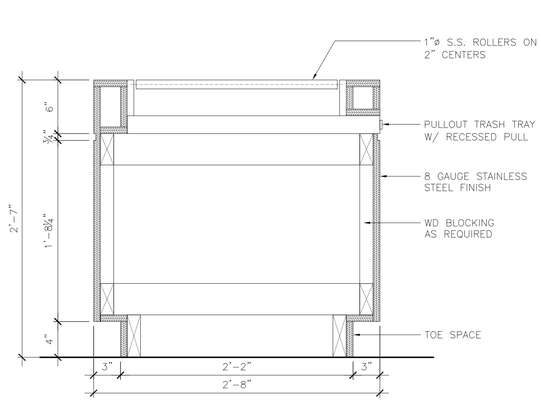
7 S.S. SINK COUNTER SECTION
1-1/2" = 1'-0"



6 BAGGAGE X-RAY INSPECTION STATION SECTION
1-1/2" = 1'-0"



5 BAGGAGE X-RAY INSPECTION STATION SECTION
1-1/2" = 1'-0"



4 BAGGAGE X-RAY INSPECTION STATION SECTION
1-1/2" = 1'-0"

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Signature:

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3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: VO
DESIGNED BY: SBS/TC

AEP PROJECT NUMBER
213-1882-091

SHEET TITLE

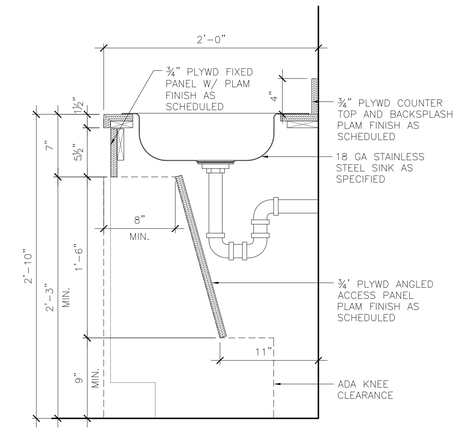
MILLWORK ELEVATIONS AND DETAILS

SHEET NUMBER

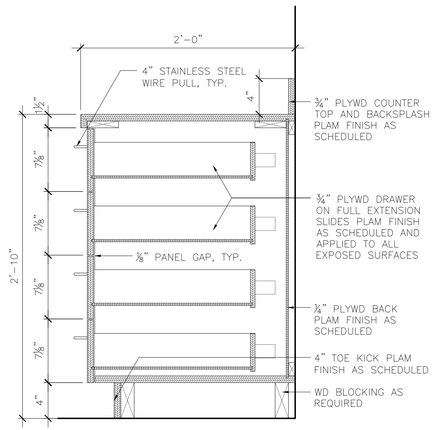
A562

BUILDING PERMIT

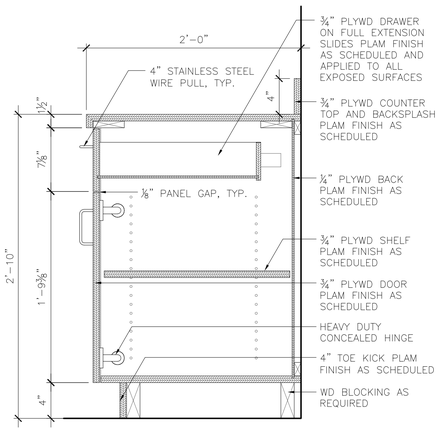
Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A562 Millwork Elevations and Details.dwg Plotted on: 8/16/2010 5:07 PMPlotted by: Kolodziej, Magdalena



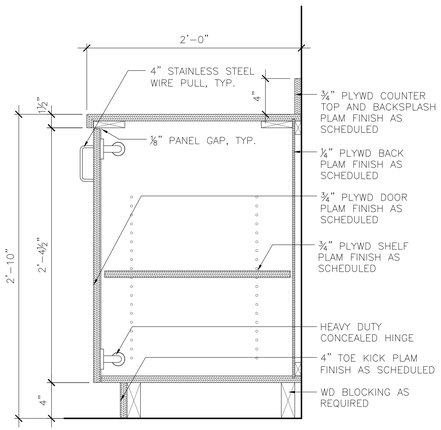
5 BASE CABINET/SINK SECTION
1-1/2" = 1'-0"



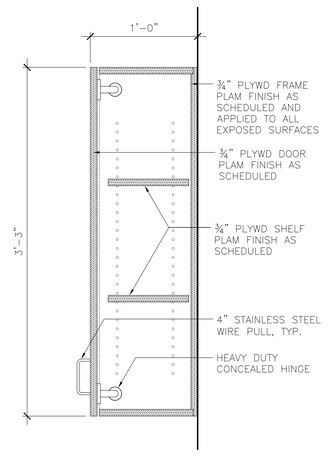
4 BASE CABINET SECTION
1-1/2" = 1'-0"



3 BASE CABINET SECTION
1-1/2" = 1'-0"



2 BASE CABINET SECTION
1-1/2" = 1'-0"



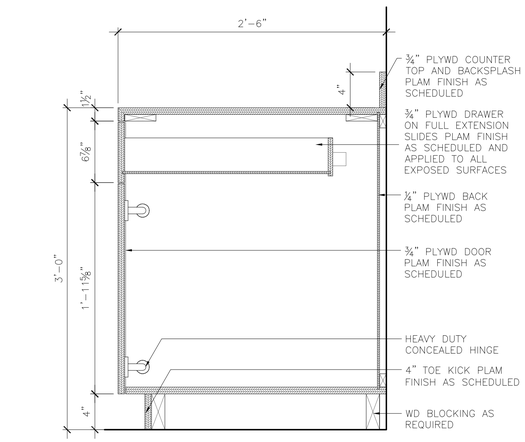
1 UPPER CABINET SECTION
1-1/2" = 1'-0"

9 MOBILE PODIUM SECTION
1-1/2" = 1'-0"

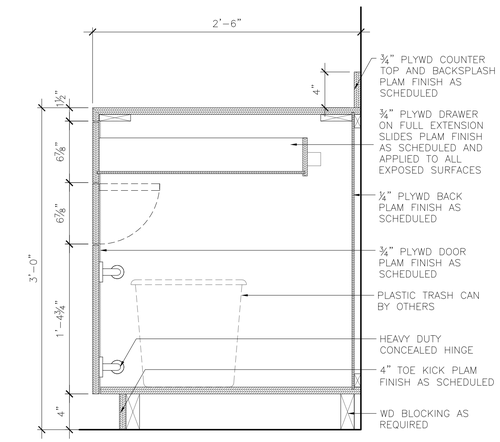
8 COUNTERTOP SECTION
1-1/2" = 1'-0"

7 BASE CABINET SECTION
1-1/2" = 1'-0"

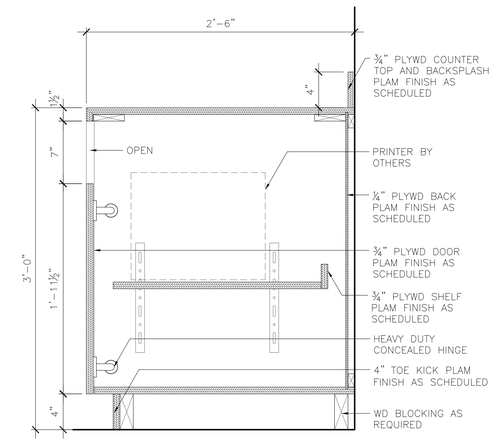
6 BASE CABINET SECTION
1-1/2" = 1'-0"



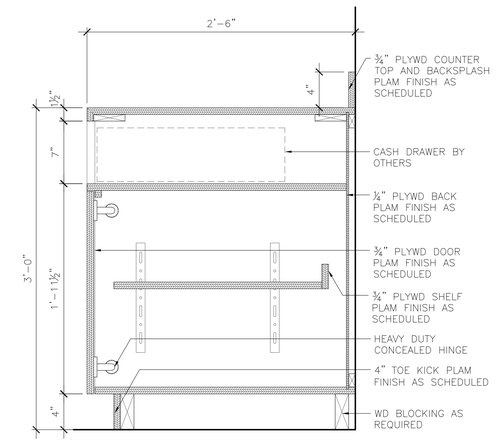
13 CASHIER BASE CABINET SECTION
1-1/2" = 1'-0"



12 CASHIER BASE CABINET SECTION
1-1/2" = 1'-0"



11 CASHIER BASE CABINET SECTION
1-1/2" = 1'-0"



10 CASHIER BASE CABINET SECTION
1-1/2" = 1'-0"

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Signature:

Date: 06-03-10 Reg. No.: 46001

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 1	6.11.10
	CONFORMANCE SET	7.12.10
3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: VO
DESIGNED BY: SBS/TC

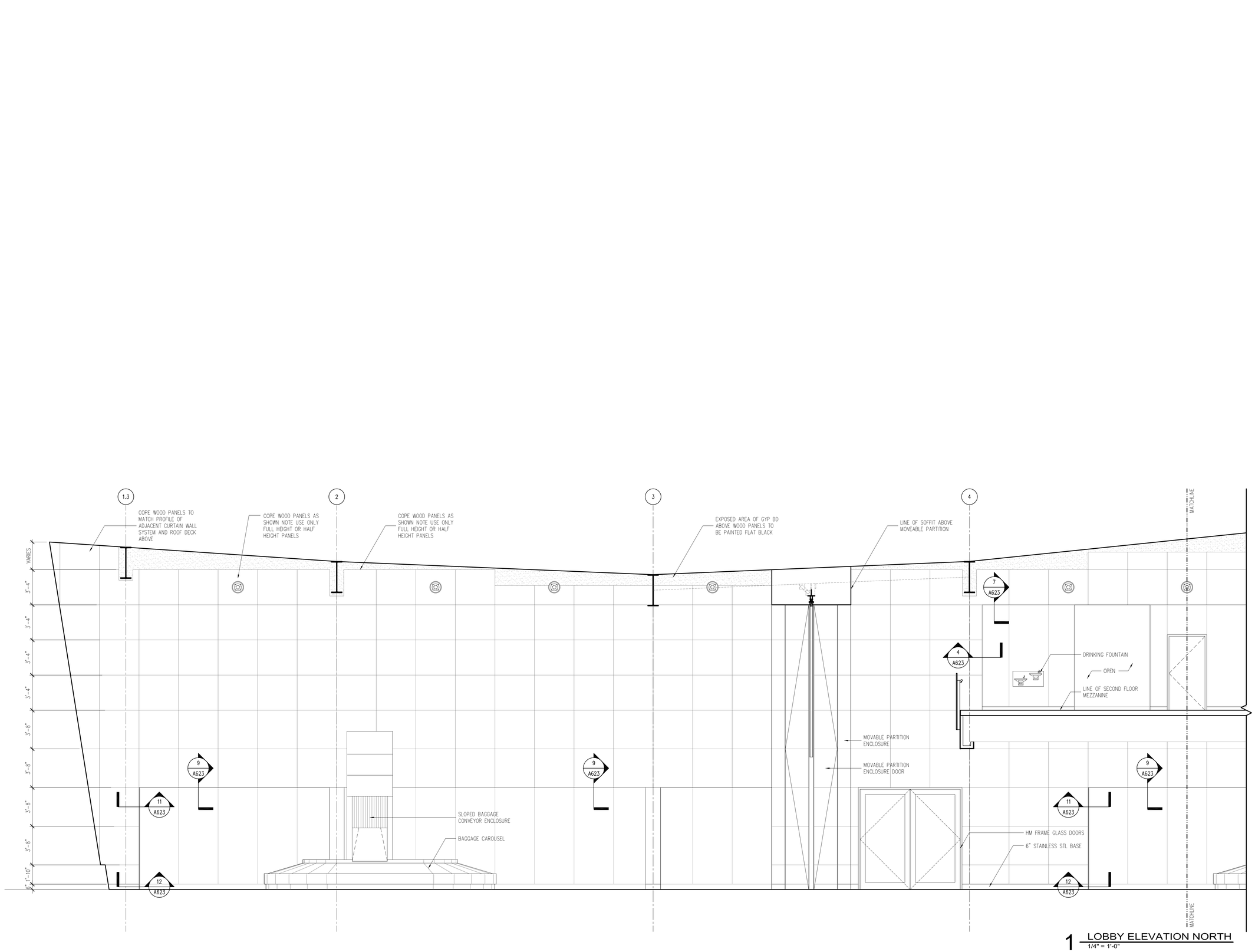
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
MILLWORK DETAILS

SHEET NUMBER
A563

BUILDING PERMIT

Drawing: T:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A563 Millwork Details.dwg Plotted on: 8/16/2010 5:07 PMPlotted by: Kolodziej, Magdalena



1 LOBBY ELEVATION NORTH
1/4" = 1'-0"

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DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

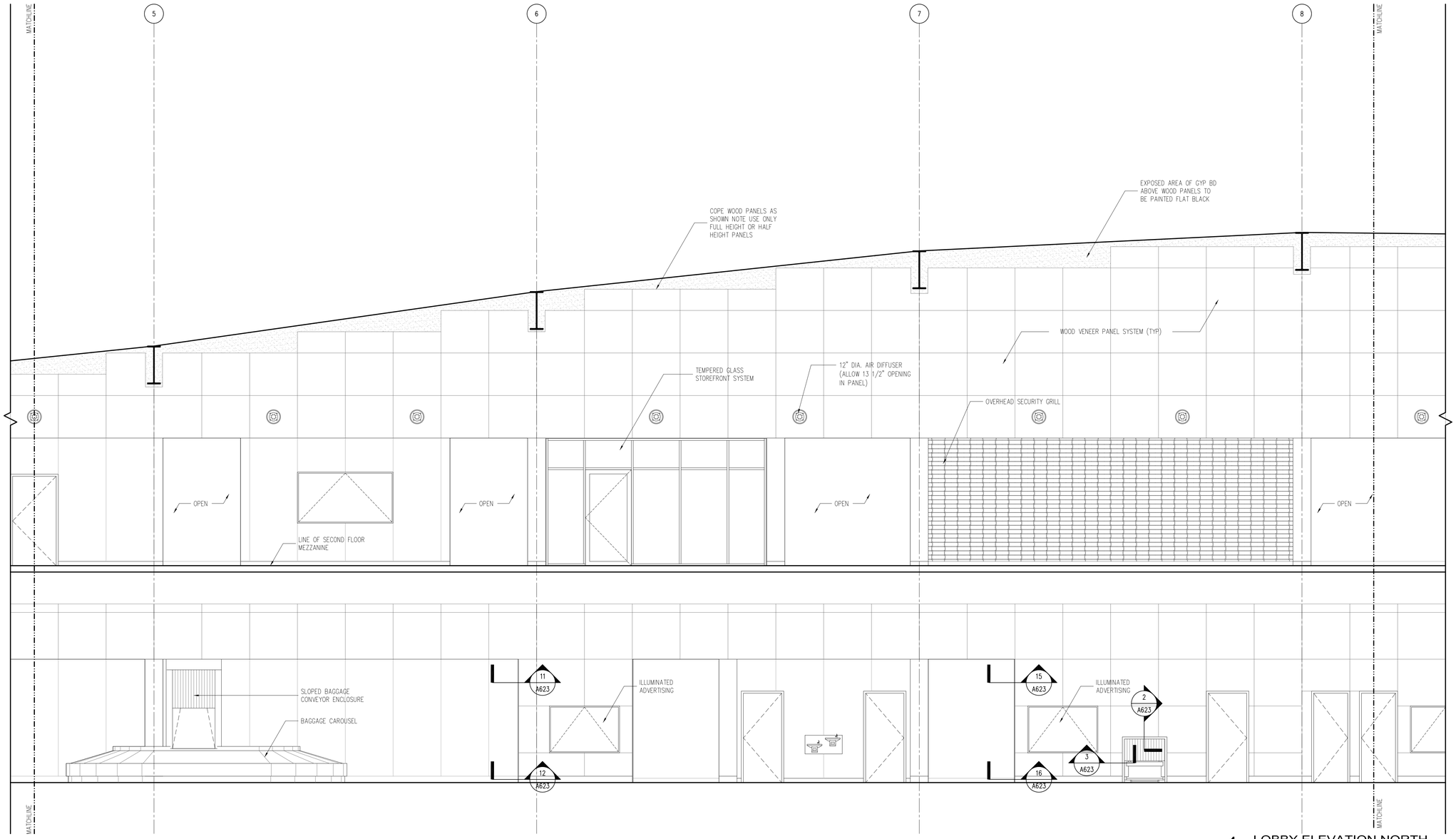
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
INTERIOR ELEVATIONS

SHEET NUMBER
A601

BUILDING PERMIT

Drawing: I:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A601 Interior Elevations.dwg Plotted on: 8/13/2010 1:40 PM Plotted by: lp, Mark



1 LOBBY ELEVATION NORTH
1/4" = 1'-0"

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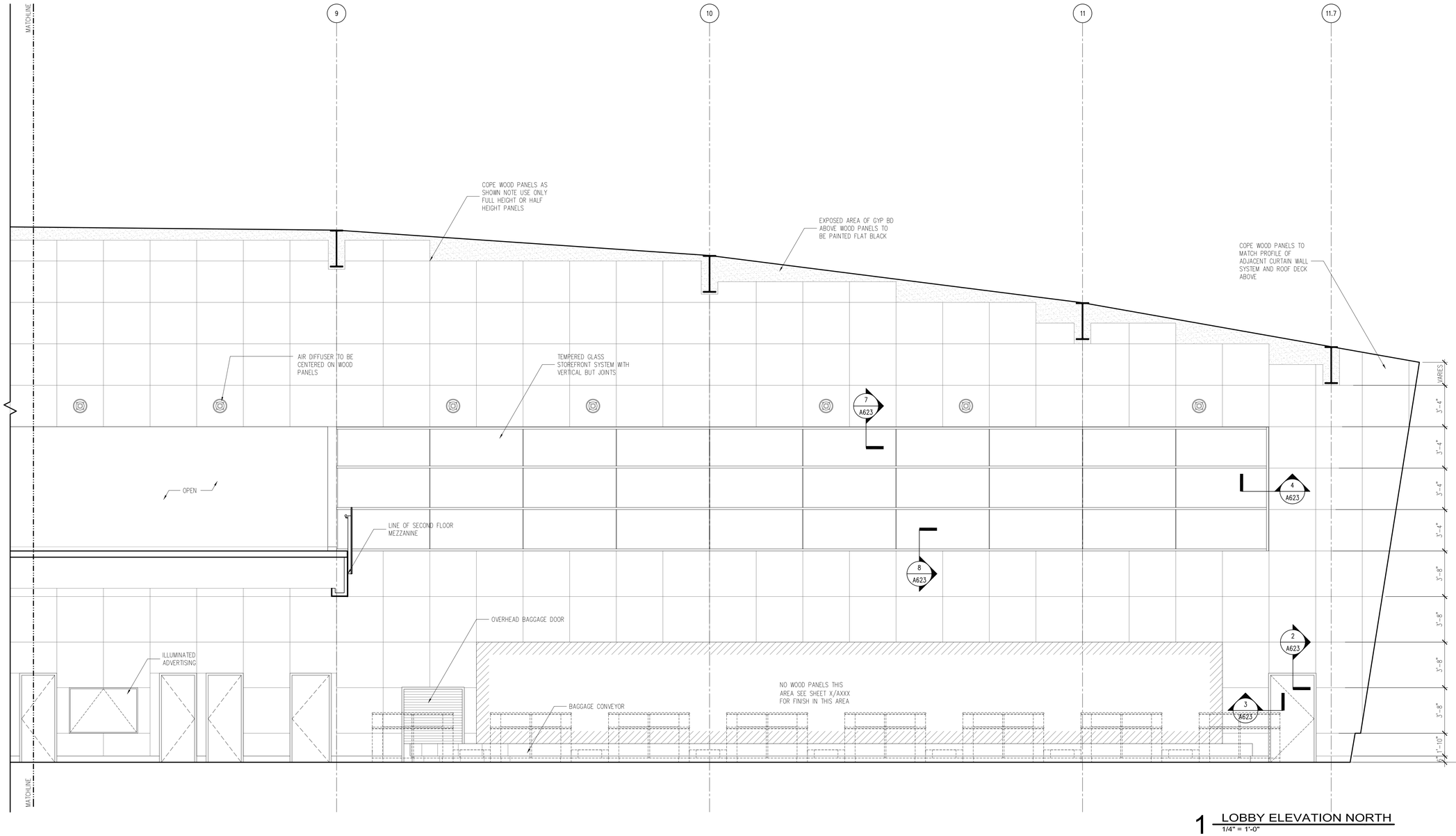
DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
INTERIOR ELEVATIONS

SHEET NUMBER
A602

BUILDING PERMIT



1 LOBBY ELEVATION NORTH
1/4" = 1'-0"

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REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

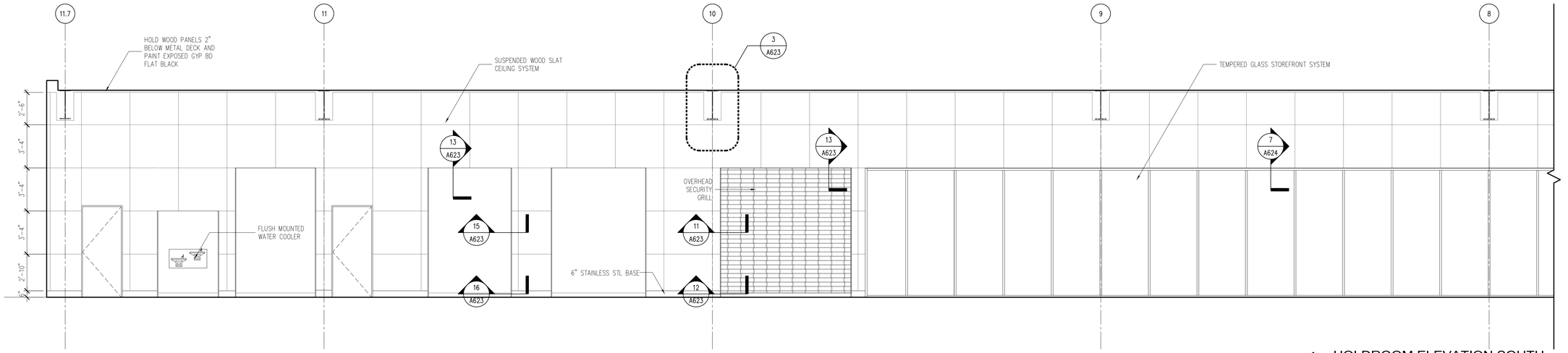
AIP PROJECT NUMBER
213-1882-091

SHEET TITLE
INTERIOR ELEVATIONS

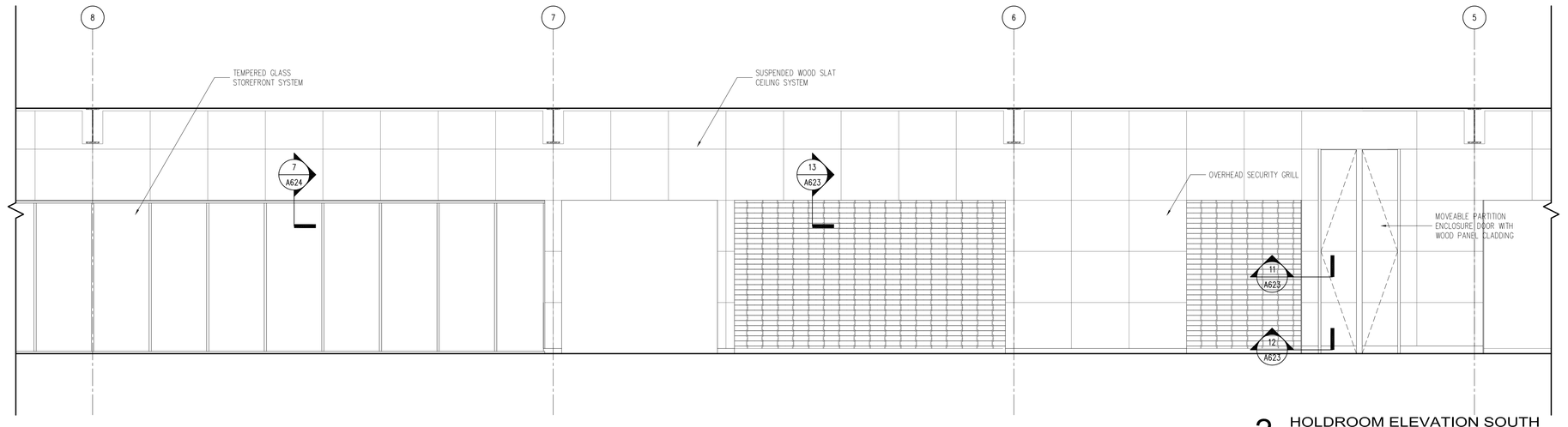
SHEET NUMBER
A603

BUILDING PERMIT

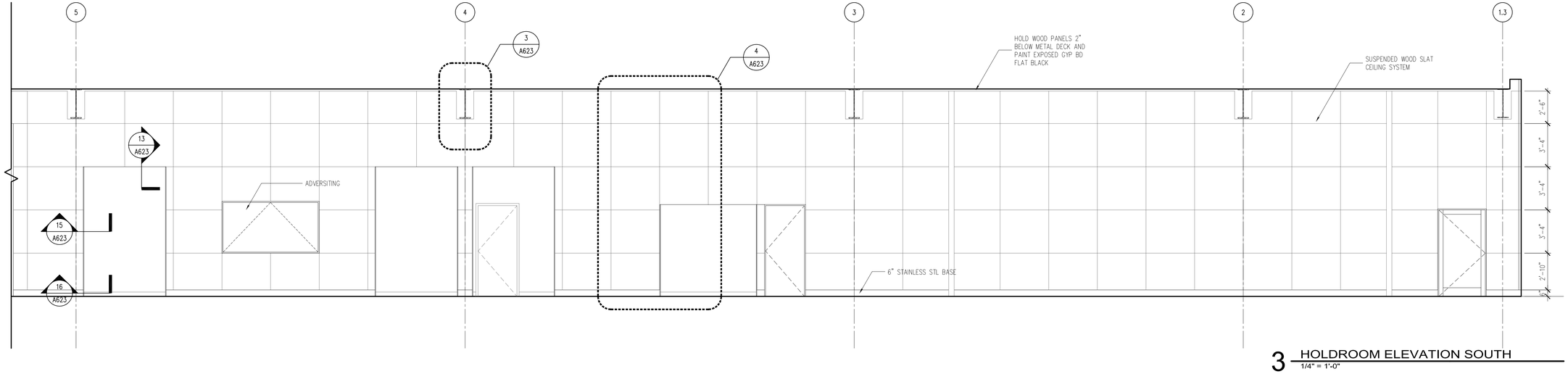
Drawing: I:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A603 Interior Elevations.dwg Plotted on: 8/13/2010 1:40 PM Plotted by: lp, Mark



1 HOLDROOM ELEVATION SOUTH
1/4" = 1'-0"



2 HOLDROOM ELEVATION SOUTH
1/4" = 1'-0"



3 HOLDROOM ELEVATION SOUTH
1/4" = 1'-0"

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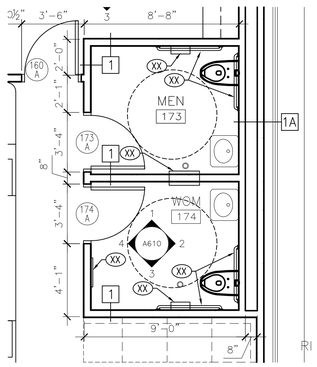
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

AEP PROJECT NUMBER
213-1882-091

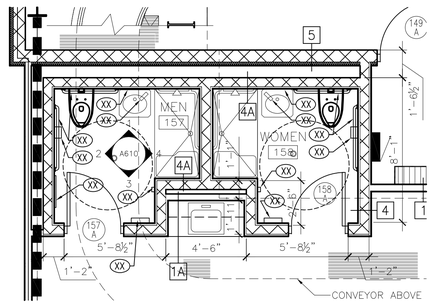
SHEET TITLE
INTERIOR ELEVATIONS

SHEET NUMBER
A604

BUILDING PERMIT



24 ENLARGED PLAN
1/4" = 1'-0"



19 ENLARGED PLAN
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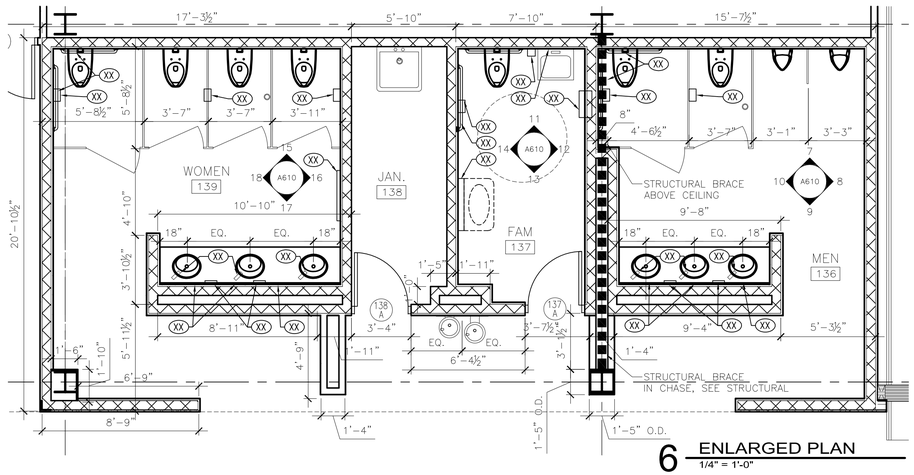

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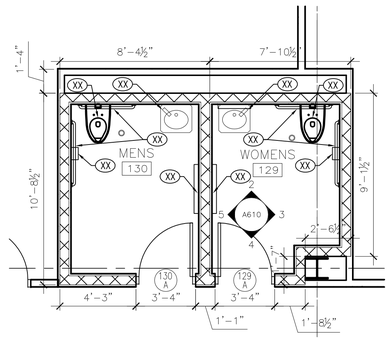
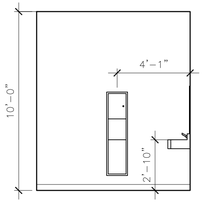
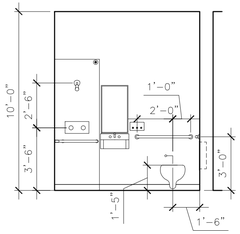


1 ENLARGED PLAN
1/4" = 1'-0"



25 RM 174 N ELEV
1/4" = 1'-0"



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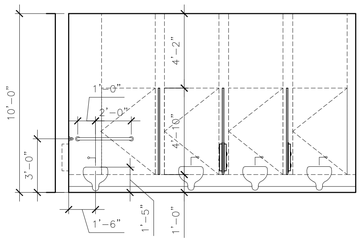
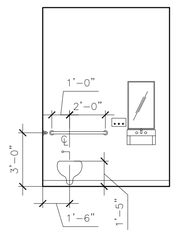
1/4" = 1'-0"



15 RM 139 N ELEV
1/4" = 1'-0"



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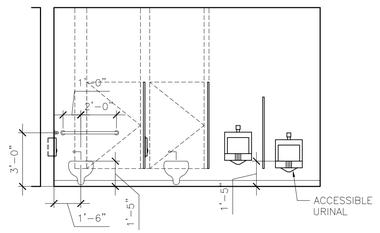

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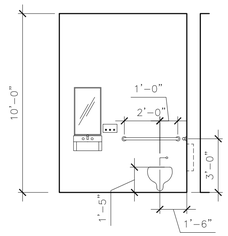

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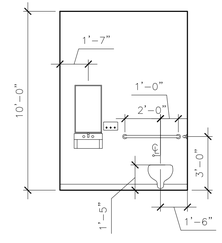

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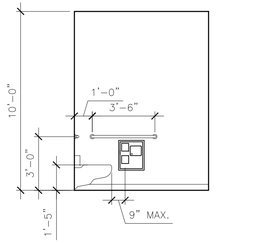

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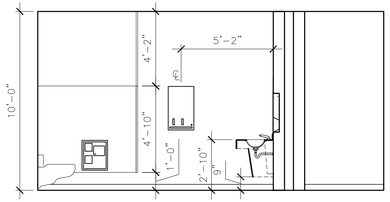

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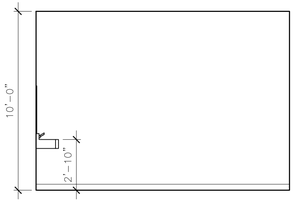

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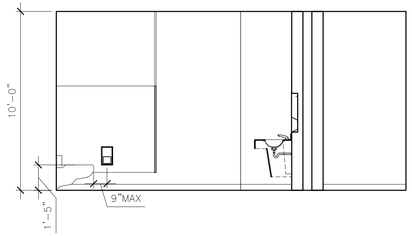

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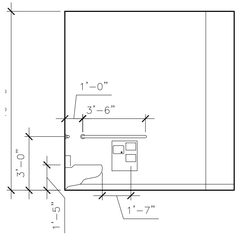

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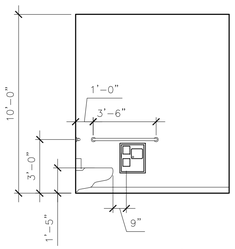
1/4" = 1'-0"



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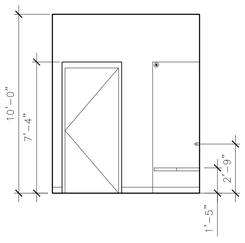

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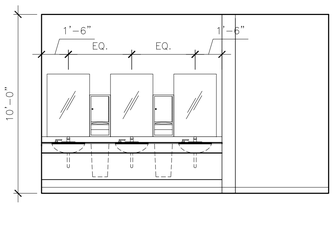

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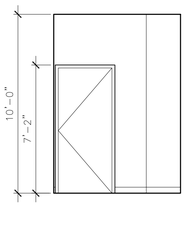

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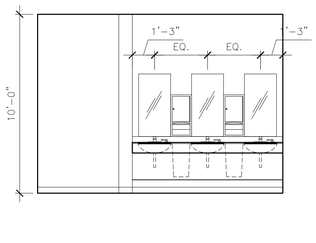

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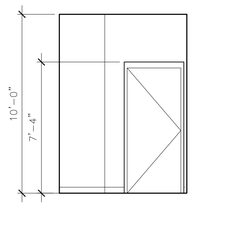

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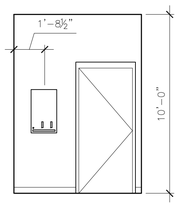

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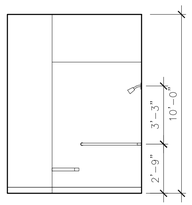

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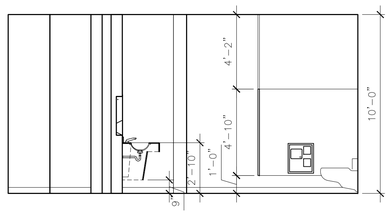
1/4" = 1'-0"



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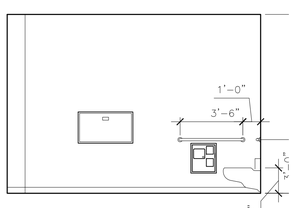

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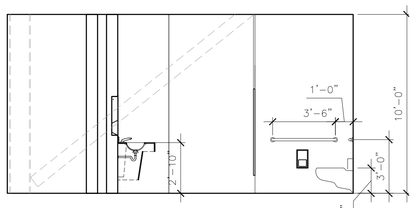

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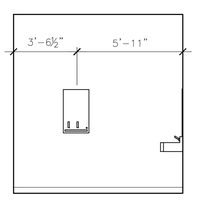

5 RM 129 W ELEV
1/4" = 1'-0"

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APPOLD DESIGN
2432 East First Street, Duluth MN 55812
TEL: (218) 591-5079

ARCHITECTURAL CERTIFICATION
I hereby certify that the architectural plans, specifications or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Architect under the laws of the State of Minnesota.

Print Name: Mark Ip

Signature:

Date: 06-03-10 Reg. No.: 46001

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 1	6.11.10
	CONFORMANCE SET	7.12.10
3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MI
DESIGNED BY: SBS/TC

AIP PROJECT NUMBER
213-1882-091

SHEET TITLE

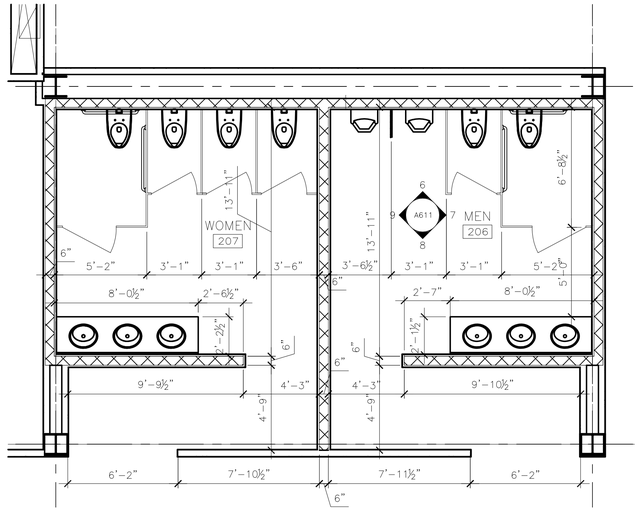
INTERIOR SYSTEMS RESTROOMS

SHEET NUMBER

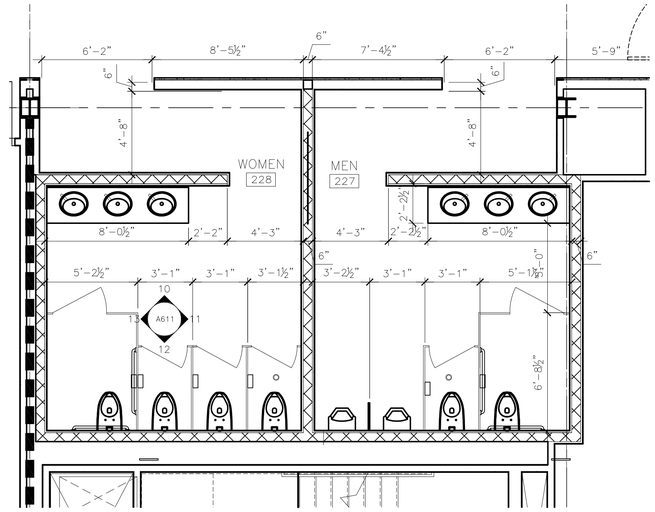
A610

BUILDING PERMIT

Drawing: t:\F\2131882.091 Duluth New Termina\Cad\A\Sheets\A610 Interior System Sheet – Restrooms.dwg Plotted on: 8/13/2010 1:42 PM Plotted by: ip, Mark



15 ENLARGED PLAN
1/4" = 1'-0"



8 ENLARGED PLAN
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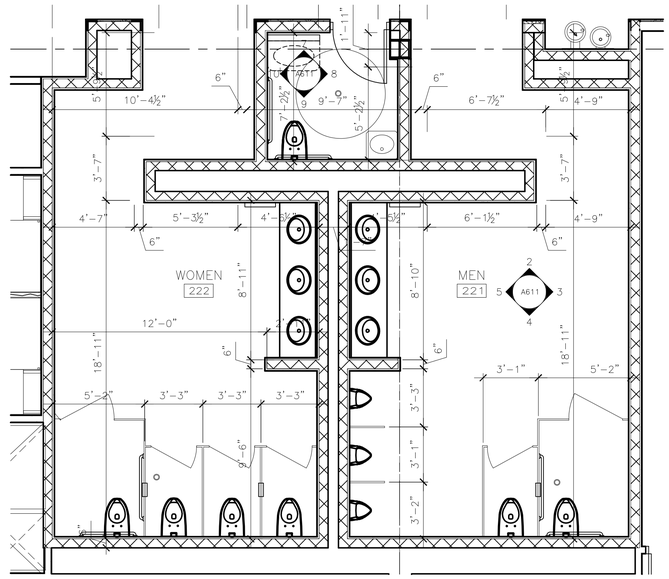
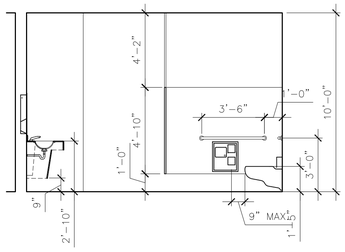
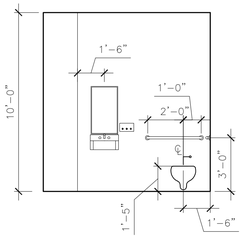


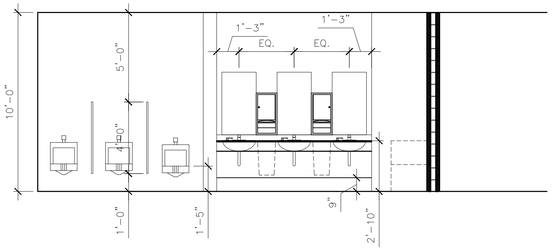
1 ENLARGED PLAN
1/4" = 1'-0"



12 ELEVATION
1/4" = 1'-0"



9 ELEVATION
1/4" = 1'-0"



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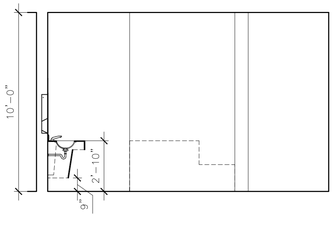
1/4" = 1'-0"



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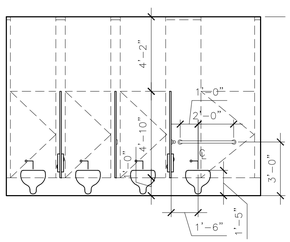

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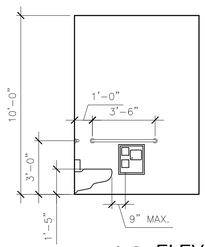
1/4" = 1'-0"



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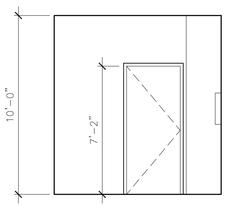
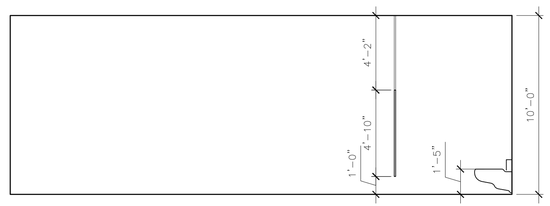


6 ELEVATION
1/4" = 1'-0"



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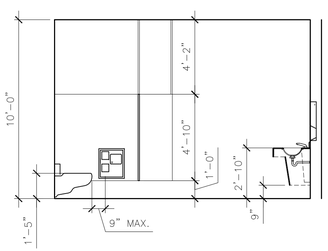
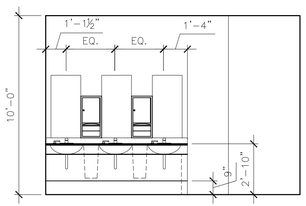
1/4" = 1'-0"



14 ELEVATION
1/4" = 1'-0"



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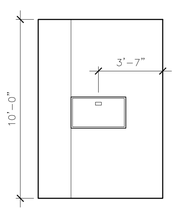
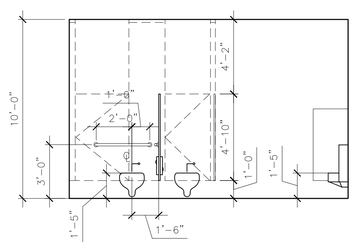
1/4" = 1'-0"



7 ELEVATION
1/4" = 1'-0"



4 ELEVATION
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Print Name: Mark Ip

Signature:

Date: 06-03-10 Reg. No.: 46001

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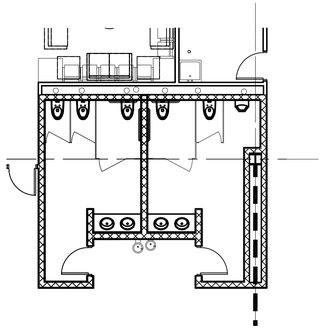
DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MI
DESIGNED BY: SBS/TC

AEP PROJECT NUMBER
213-1882-091

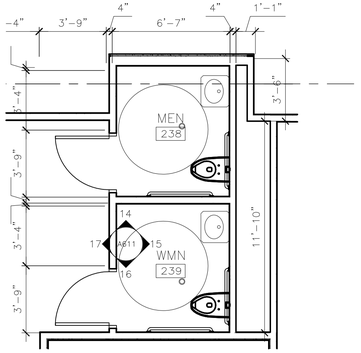
SHEET TITLE
INTERIOR SYSTEMS RESTROOMS

SHEET NUMBER
A611

BUILDING PERMIT



11 ENLARGED PLAN
1/4" = 1'-0"



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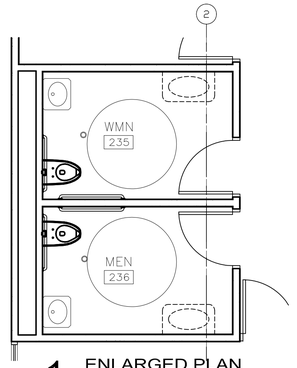
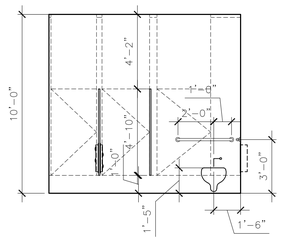
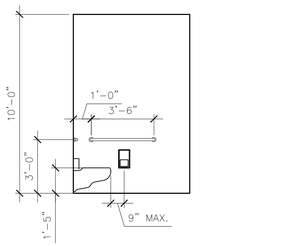
1/4" = 1'-0"



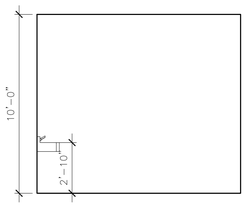
1 ENLARGED PLAN
1/4" = 1'-0"



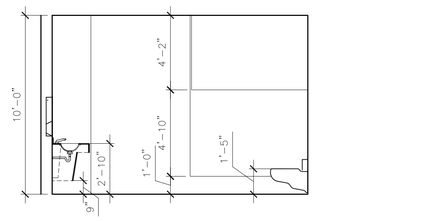
12 ELEVATION
1/4" = 1'-0"



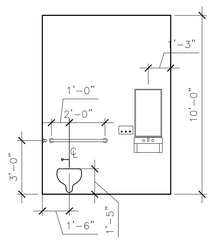
7 ELEVATION
1/4" = 1'-0"



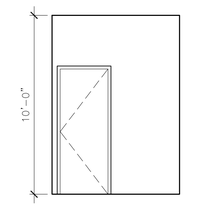
2 ELEVATION
1/4" = 1'-0"



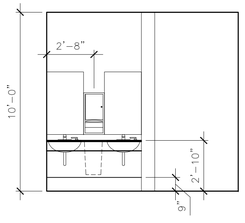
13 ELEVATION
1/4" = 1'-0"



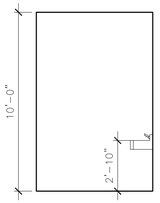
8 ELEVATION
1/4" = 1'-0"



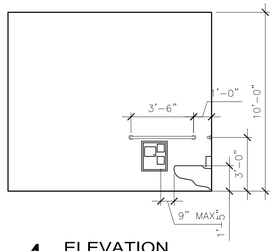
3 ELEVATION
1/4" = 1'-0"



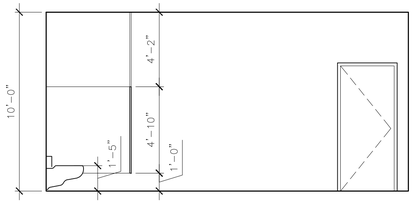
14 ELEVATION
1/4" = 1'-0"



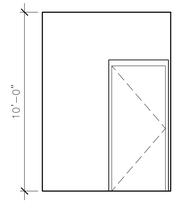
9 ELEVATION
1/4" = 1'-0"



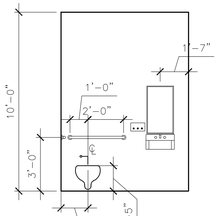
4 ELEVATION
1/4" = 1'-0"



15 ELEVATION
1/4" = 1'-0"



10 ELEVATION
1/4" = 1'-0"



5 ELEVATION
1/4" = 1'-0"

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Landscaping Consultants:
APPOLD DESIGN
2432 East First Street, Duluth MN 55812
TEL: (216) 591-5079

ARCHITECTURAL CERTIFICATION
I hereby certify that the architectural plans, specifications or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Architect under the laws of the State of Minnesota.

Print Name: Mark Ip

Signature:

Date: 06-03-10 Reg. No.: 46001

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 1	6.11.10
	CONFORMANCE SET	7.12.10
3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MI/MK
DESIGNED BY: SBS/TC

AEP PROJECT NUMBER
213-1882-091

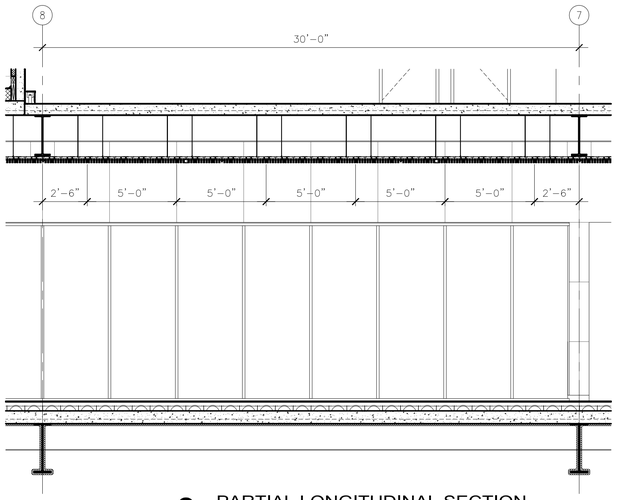
SHEET TITLE

INTERIOR SYSTEMS RESTROOMS

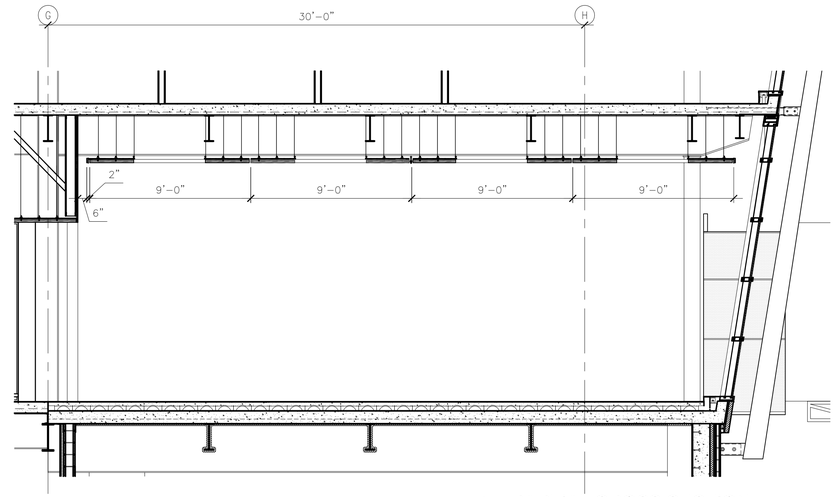
SHEET NUMBER

A612

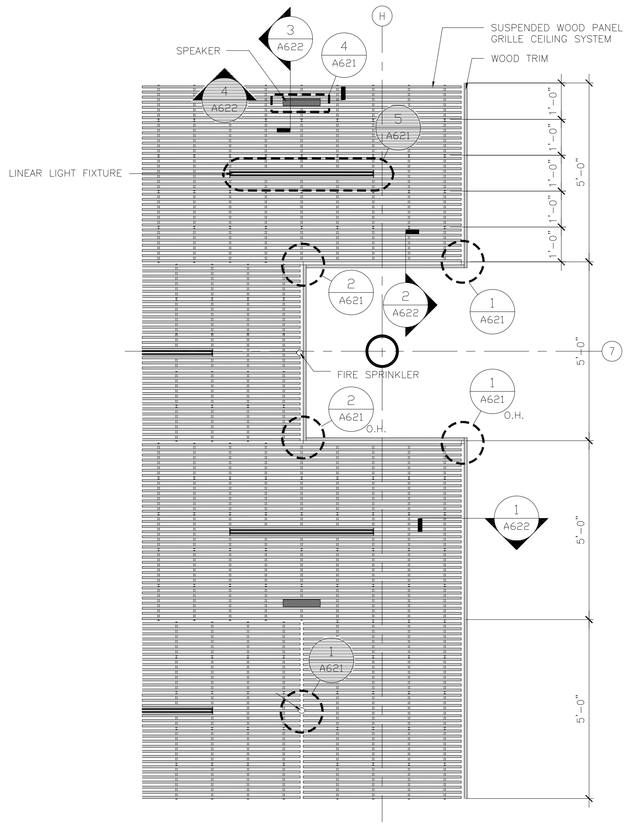
BUILDING PERMIT



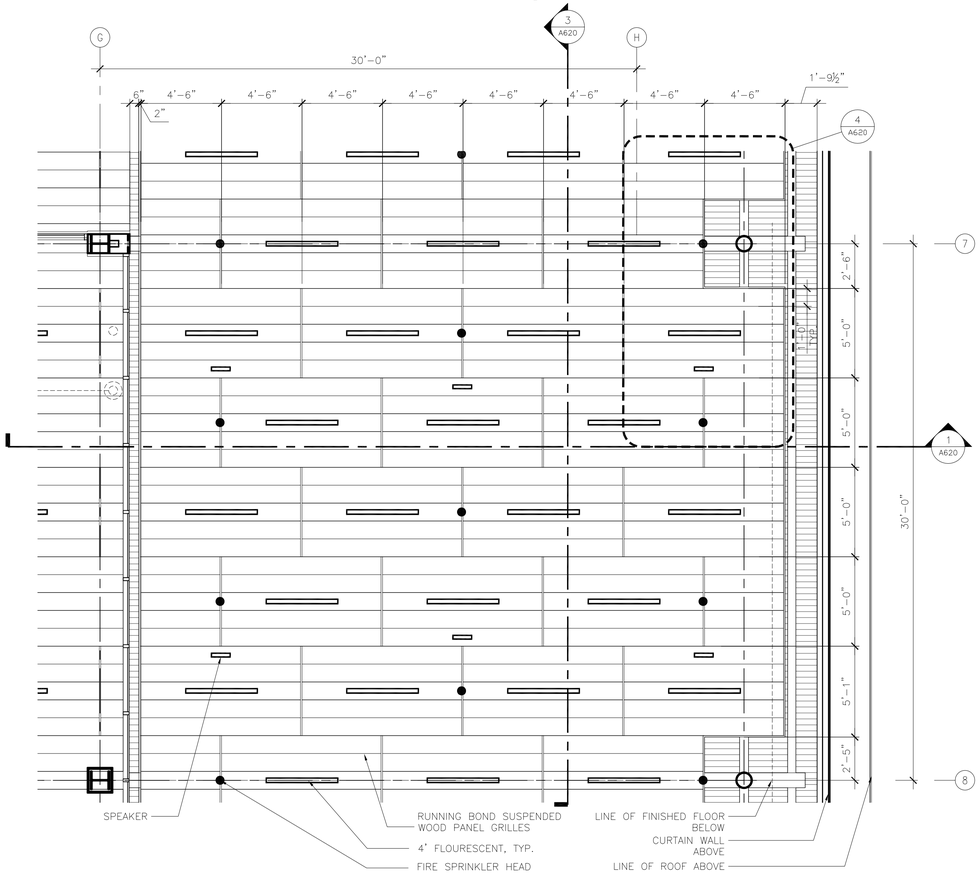
3 PARTIAL LONGITUDINAL SECTION
1/4" = 1'-0"



1 PARTIAL CROSS SECTION
1/4" = 1'-0"



4 ENLARGED PLAN DETAIL
1/4" = 1'-0"



2 ENLARGED REFLECTED CEILING PLAN
1/4" = 1'-0"

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ARCHITECTURAL CERTIFICATION
I hereby certify that the architectural plans, specifications or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Architect under the laws of the State of Minnesota.

Print Name: Mark Ip

Signature:

Date: 06-03-10 Reg. No.: 46001

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 1	6.11.10
	CONFORMANCE SET	7.12.10
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	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: XX
DRAWN BY: MK
DESIGNED BY: TC

AEP PROJECT NUMBER
213-1882-091
XXX.DWG 08-16-10 12:00p

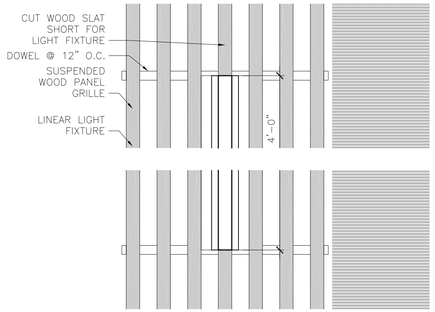
SHEET TITLE

INTERIOR SYSTEM SHEET CEILINGS

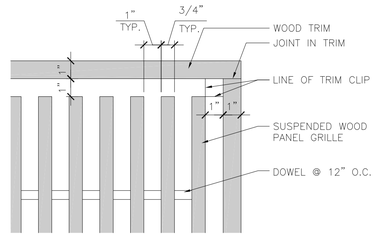
SHEET NUMBER

A620

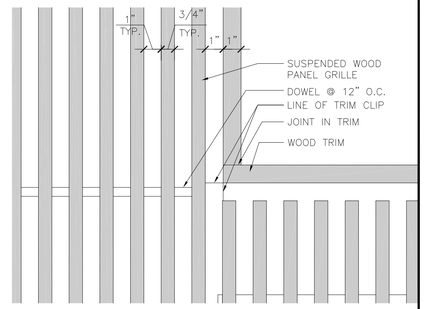
BUILDING PERMIT



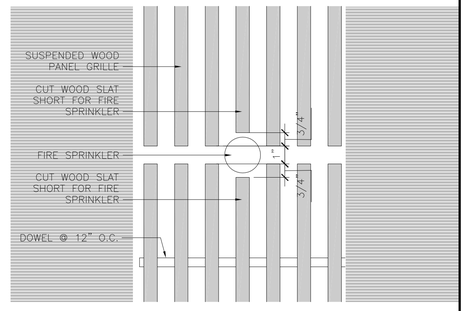
1 PLAN DETAIL - OUTSIDE TRIM CORNER
3" = 1'-0"



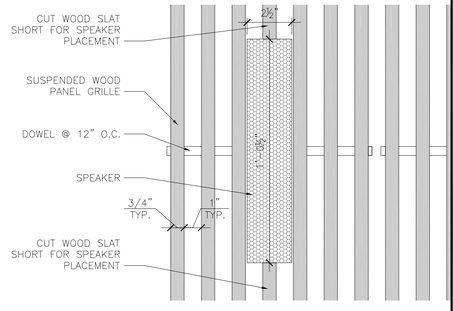
1 PLAN DETAIL - OUTSIDE TRIM CORNER
3" = 1'-0"



2 PLAN DETAIL - INSIDE TRIM CORNER
3" = 1'-0"



3 PLAN DETAIL - SPRINKLER HEAD
3" = 1'-0"



4 PLAN DETAIL - SPEAKER
3" = 1'-0"

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	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: XX
DRAWN BY: XX
DESIGNED BY: XX

AEP PROJECT NUMBER
213-1882-091
XXX.DWG 8-16-10 12:00p

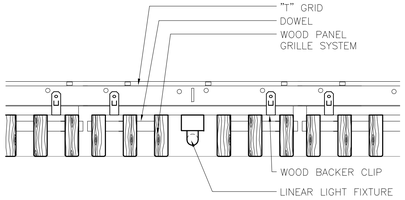
SHEET TITLE

CEILING PLAN DETAILS

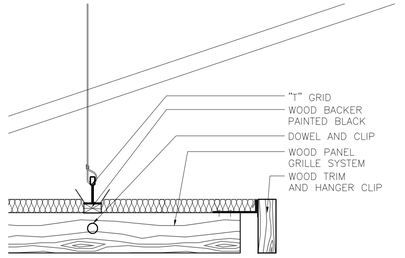
SHEET NUMBER

A621

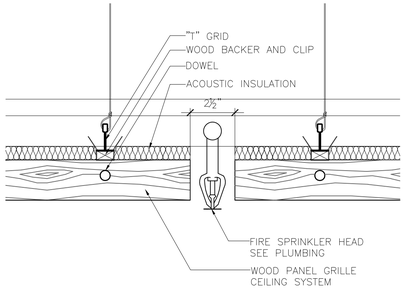
BUILDING PERMIT



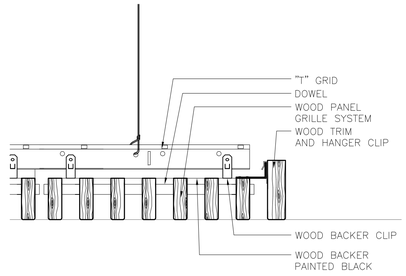
5 SECTION DETAIL
LIGHT AT WOOD CEILING
1/4" = 1'-0"



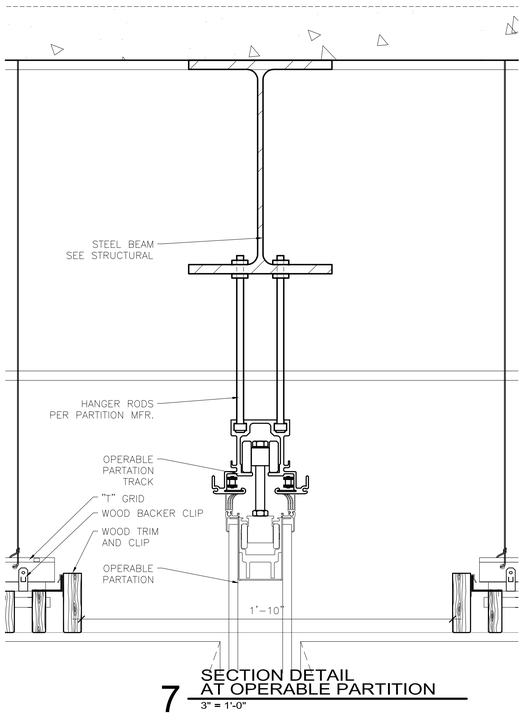
1 SECTION DETAIL
WOOD CEILING TRIM
3" = 1'-0"



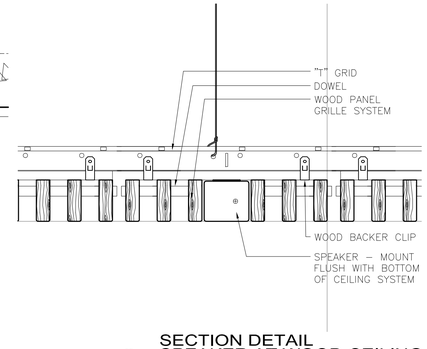
6 SECTION DETAIL
SPRINKLER AT WOOD CEILING
1/4" = 1'-0"



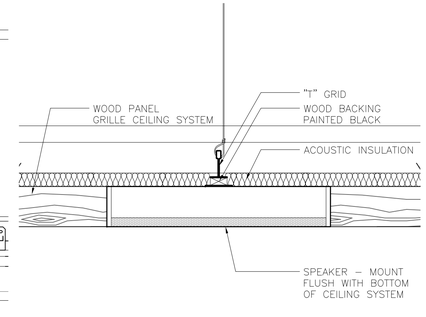
2 SECTION DETAIL
WOOD CEILING TRIM
3" = 1'-0"



7 SECTION DETAIL
AT OPERABLE PARTITION
3" = 1'-0"



3 SECTION DETAIL
SPEAKER AT WOOD CEILING
3" = 1'-0"



4 SECTION DETAIL
SPEAKER AT WOOD CEILING
3" = 1'-0"

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1	ADDENDUM 1	6.11.10
	CONFORMANCE SET	7.12.10
3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: XX
DRAWN BY: XX
DESIGNED BY: XX

AEP PROJECT NUMBER
213-1882-091
XXX DWG 2010-08-00 12:00p

SHEET TITLE

CEILING SECTION DETAILS

SHEET NUMBER

A622

BUILDING PERMIT

DOOR SCHEDULE - FIRST FLOOR

	Opening		Door			Frame			Details				
Door Number	Width	Height	Thick	Type	Mat.	Type	Mat.	Rating	Head	Sill	Jamb	Hdwr. Group	Remarks
100A	6'-10"	7'-0"	1 3/4"	--	--	--	ALUM	--	--	--	--		2
100B	6'-10"	7'-0"	1 3/4"	--	--	--	ALUM	--	--	--	--		2
100C	6'-10"	7'-0"	1 3/4"	--	--	--	ALUM	--	--	--	--		2
100D	6'-10"	7'-0"	1 3/4"	--	--	--	ALUM	--	--	--	--		2
101A	6'-10"	7'-0"	1 3/4"	--	--	--	ALUM	--	--	--	--		2
101B	6'-10"	7'-0"	1 3/4"	--	--	--	ALUM	--	--	--	--		2
101C	6'-10"	7'-0"	1 3/4"	--	--	--	ALUM	--	--	--	--		2
101D	6'-10"	7'-0"	1 3/4"	--	--	--	ALUM	--	--	--	--		2
106A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
107A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
108A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
109A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
110A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
111A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
112A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
113A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
114A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
115A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
117A	3'-4"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		1
117B	5'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
120A	3'-4"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		1
120B	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		1
122A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
123A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
123B	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
124A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
125A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
125B	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
126A	9'-0"	7'-0"	1"	--	--	--	H.M.	--	--	--	--		
126B	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		1
126C	3'-6"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		1
127A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
127B	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
128A	6'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
129A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
130A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
131A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
131B	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
133A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		1
133C	6'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		1
133D	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		1
134A	2'-8"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
135A	2'-8"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
137A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
138A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
140A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		1
140B	6'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		1
141A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
142A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
143A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
144A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
145A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
146A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
148A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
149A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		1
149B	4'-0"	6'-8"	1 3/4"	--	--	--	H.M.	--	--	--	--		1
150A	3'-6"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		1
151A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
153A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		1
155B	9'-6"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		1
156A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
157A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
158A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
159A	21'-3"	7'-0"	1"	--	--	--	H.M.	--	--	--	--		2
159B	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		1
160A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
161A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
162A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
163A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
164A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
165A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
166A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
166A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
168A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
169A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
170A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
171A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
172A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
173A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
174A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
175A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
176A	6'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
176B	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		1
176C	16'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
176D	16'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
176E	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		1
176F	3'-0"	7'-0"	2"	--	--	--	H.M.	1	--	--	--		
178A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
178B	14'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
178C	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
179A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
179B	14'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
179C	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
180A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
181A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
183A	2'-8"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
184A	2'-8"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
190A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		1
190B	3'-4"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		1
191A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	1	--	--	--		
193A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		1

Remarks

1	Provide Panic Hardware per IBC 1008.1.9
2	Provide Break-Away emergency exit doors
3	
4	
5	
6	

3 DOOR SCHEDULE - FIRST FLOOR

DOOR SCHEDULE - SECOND FLOOR

	Opening		Door			Frame			Details				
Door Number	Width	Height	Thick	Type	Mat.	Type	Mat.	Rating	Head	Sill	Jamb	Hdwr. Group	Remarks
203A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		1
203B	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		1
204A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
205A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
208A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		1
208B	9'-9 3/4"	7'-0"	1"	--	--	--	H.M.	--	--	--	--		2
209A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		1
210A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
211A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
212A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
213A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
214A	30'-0"	7'-0"	1"	--	--	--	H.M.	--	--	--	--		
214B	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		1
215A	4'-3"	7'-1"	1 3/4"	--	--	--	--	--	--	--	--		2
215B	4'-3"	7'-1"	1 3/4"	--	--	--	--	--	--	--	--		2
215C	4'-3"	7'-1"	1 3/4"	--	--	--	--	--	--	--	--		2
215D	4'-3"	7'-1"	1 3/4"	--	--	--	--	--	--	--	--		2
217A	3'-5"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
219A	3'-0"	7'-0"	1 3/4"	--	--	--	ALUM.	--	--	--	--		1
219B	3'-2"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		1
219C	4'-6"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
219E	4'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
219F	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		1
219G	3'-6"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
219H	3'-6"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
219I	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		1
223A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
230A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
231A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
232A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		1
232B	3'-0"	7'-0"	1 3/4"	--	--	--	ALUM.	--	--	--	--		1
233B	3'-0"	7'-0"	1 3/4"	--	--	--	ALUM.	--	--	--	--		
234A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
234C	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		1
235A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
236A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
237A	10'-1"	7'-0"	1 3/8"	--	--	--	ALUM.	--	--	--	--		2
237B	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
237C	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		1
237D	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		1
238A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
239A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
240A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
241A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
242A	4'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
245A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
249A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
250A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
250B	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
251A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
290A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	1	--	--	--		1
291A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	1	--	--	--		1

Remarks

1	Provide Panic Hardware per IBC 1008.1.9
2	Provide Break-Away emergency exit doors
3	
4	
5	
6	

2 DOOR SCHEDULE - SECOND FLOOR

DOOR SCHEDULE - THIRD FLOOR

	Opening		Door			Frame			Details				
Door Number	Width	Height	Thick	Type	Mat.	Type	Mat.	Rating	Head	Sill	Jamb	Hdwr. Group	Remarks
301A	4'-6"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
301B	4'-6"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
301C	4'-6"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
301D	4'-6"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
302A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		1
304A	4'-0"	7'-0"	1 3/4"	--	--	--	H.M.	1	--	--	--		1
304B	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	1	--	--	--		1
304C	6'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
305A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
306A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		1
307A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
308A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
309A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
310A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
311A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
312A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
313A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
313B	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
314A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
315A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
316A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
317A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		1
317B	5'-0"	7'-0"	1 1/4"	--	--	--	H.M.	--	--	--	--		
318A	6'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		1
318C	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
319A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
320A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		1
322B	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		1
323A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
324A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
325A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
326A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
327A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
331A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
331B	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
332A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
333A	6'-0"	7'-0"	1 3/4"	--	--	--	H.M.	1	--	--	--		1
333B	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
333C	6'-0"	7'-0"	1 3/4"	--	--	--	H.M.	--	--	--	--		
334A	6'-0"	7'-0"	1 3/4"	--	--	--	H.M.	1	--	--	--		1
335C	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
336A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
336B	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
337A	3'-0"	7'-0"	2"	--	--	--	H.M.	--	--	--	--		
390A	3'-0"	7'-0"	2"	--	--	--	H.M.	1	--	--	--		1
391A	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	1	--	--	--		1
391B	3'-0"	7'-0"	1 3/4"	--	--	--	H.M.	1	--	--	--		1

Remarks

1	Provide Panic Hardware per IBC 1008.1.9
2	
3	
4	
5	
6	

1 DOOR SCHEDULE - THIRD FLOOR

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TEL: (218) 591-5079

ARCHITECTURAL CERTIFICATION
I hereby certify that the architectural plans, specifications or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Architect under the laws of the State of Minnesota.

Print Name: Mark Ip

Signature:

Date: 06-03-10 Reg. No.: 46001

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 1	6.11.10
	CONFORMANCE SET	7.12.10
3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

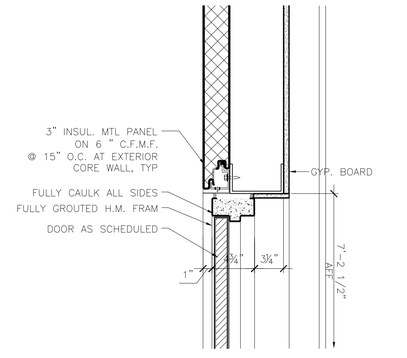
DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MI
DESIGNED BY: SBS/TC

AEP PROJECT NUMBER
213-1882-091

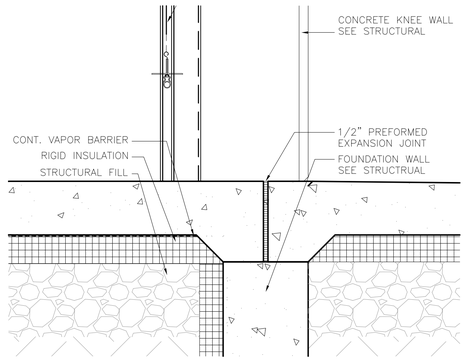
SHEET TITLE
DOOR SCHEDULES

SHEET NUMBER
A701

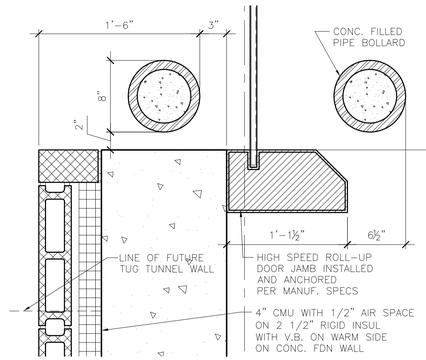
BUILDING PERMIT



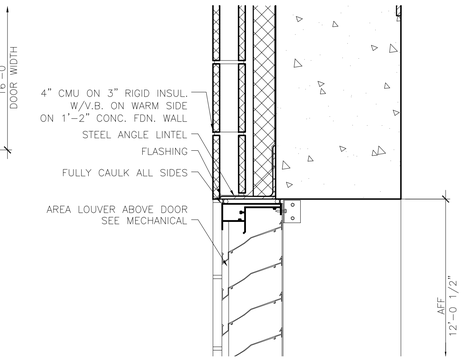
17 TYP. HEAD @ 3RD FLOOR NORTH WALL DOOR
1 1/2" = 1'-0"



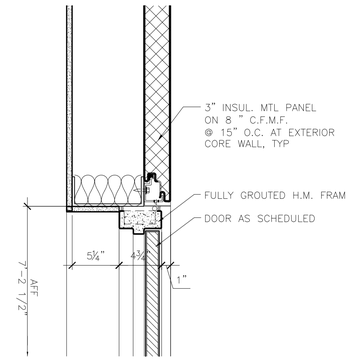
13 TYP. SILL @ EXT. COILING DOOR
1 1/2" = 1'-0"



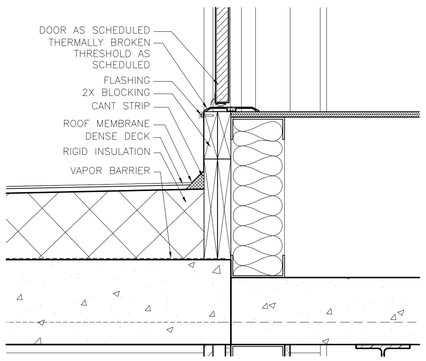
9 TYP. JAMB @ HIGH SPEED O.H. DOOR
1 1/2" = 1'-0"



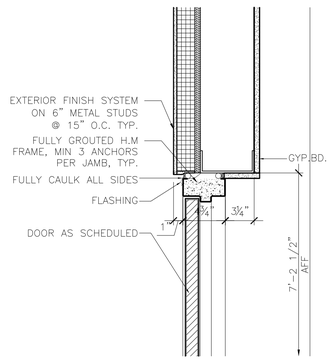
5 TYP.HEAD @ EXT. TUG TUNNEL DOOR LOUVER
1/16" = 1'-0"



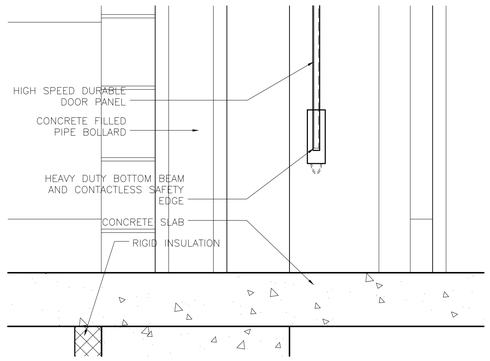
1 TYP. HEAD @EXT.CORE DOOR
1 1/2" = 1'-0"



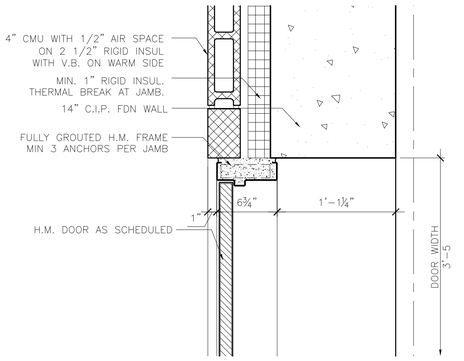
18 TYP.SILL @ 3RD FLOOR NORTH WALL DOOR
1 1/2" = 1'-0"



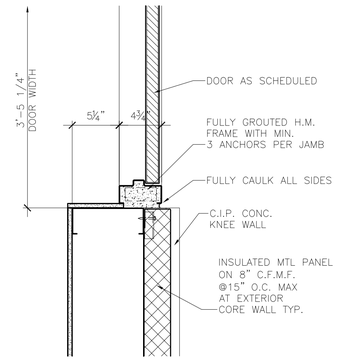
14 HEAD @ CHILLER ENCLOSURE
1 1/2" = 1'-0"



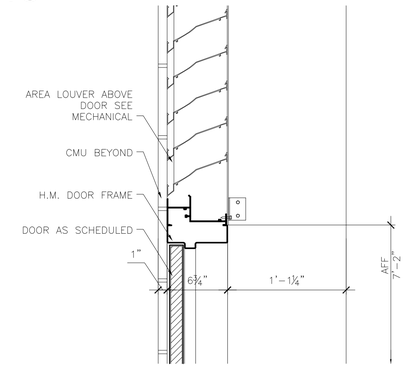
10 TYP. SILL @ HIGH SPEED O.H. DOOR
1 1/2" = 1'-0"



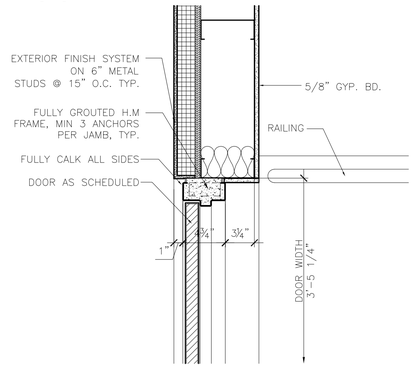
6 TYP. JAMB @ EXT. TUG TUNNEL DOOR
1 1/2" = 1'-0"



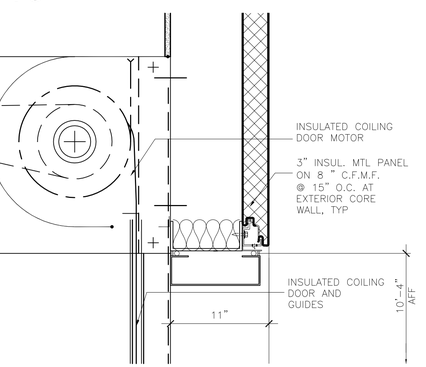
2 TYP. JAMB @ EXT. CORE WALL
1 1/2" = 1'-0"



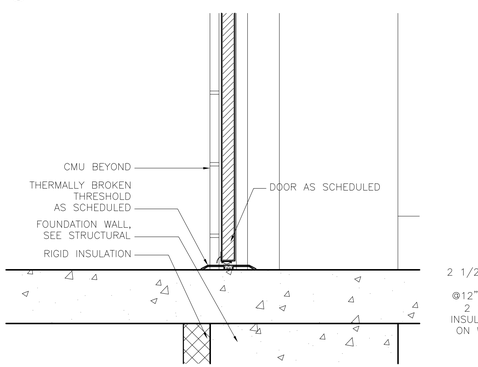
19 TRANSOM @ TUG TUNNEL DOOR
1 1/2" = 1'-0"



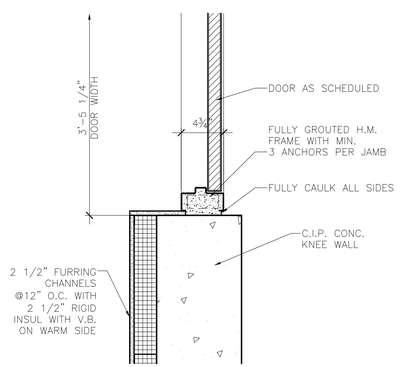
15 JAMB @ CHILLER ENCLOSURE DOOR
1 1/2" = 1'-0"



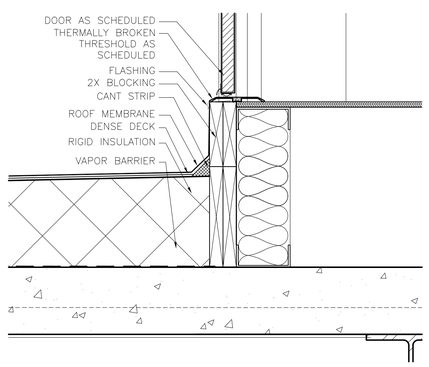
11 TYP. HEAD @ EXT. COILING DOOR
1 1/2" = 1'-0"



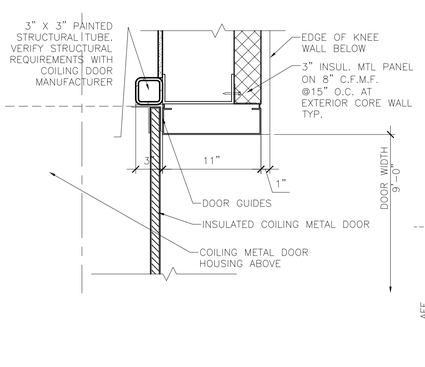
7 TYP. SILL @ EXT. TUG TUNNEL DOOR
1 1/2" = 1'-0"



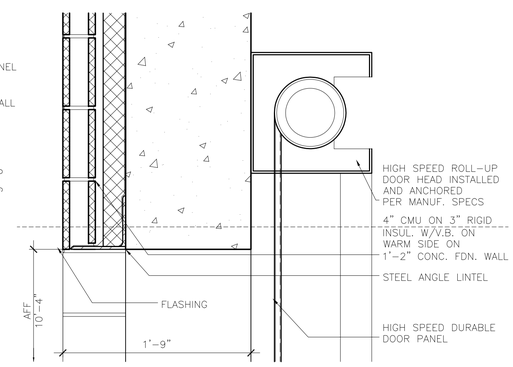
3 TYP. JAMB @ EXT. CORE WALL BASE
1 1/2" = 1'-0"



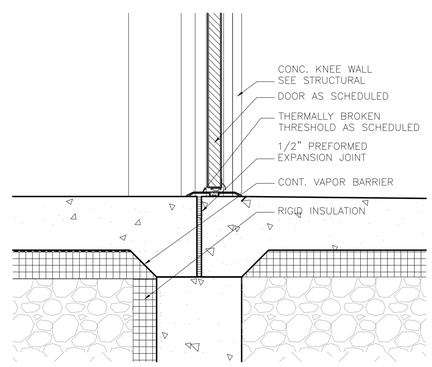
16 SILL @ CHILLER ENCLOSURE DOOR
1 1/2" = 1'-0"



12 TYP. JAMB @ EXT. COILING DOOR
1 1/2" = 1'-0"



8 TYP. HEAD @ TUG DRIVE HIGH SPEED O.H. DOOR
1 1/2" = 1'-0"



4 TYP. SILL @ EXT. CORE
1 1/2" = 1'-0"

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Print Name: Mark Ip

Signature:

Date: 06-03-10 Reg. No.: 46001

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NO.	DESCRIPTION	DATE
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	CONFORMANCE SET	7.12.10
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	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

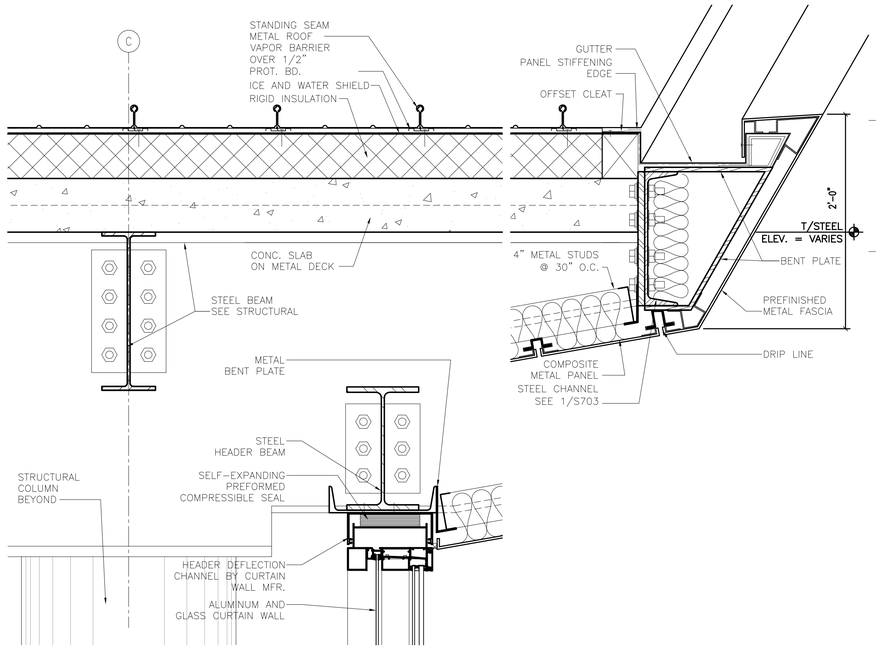
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
DOOR DETAILS

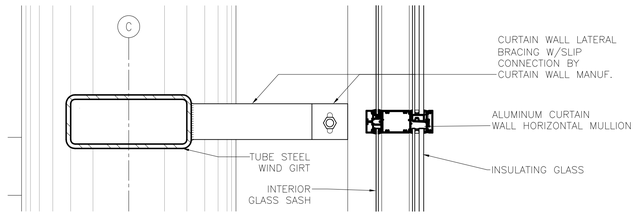
SHEET NUMBER
A702

BUILDING PERMIT

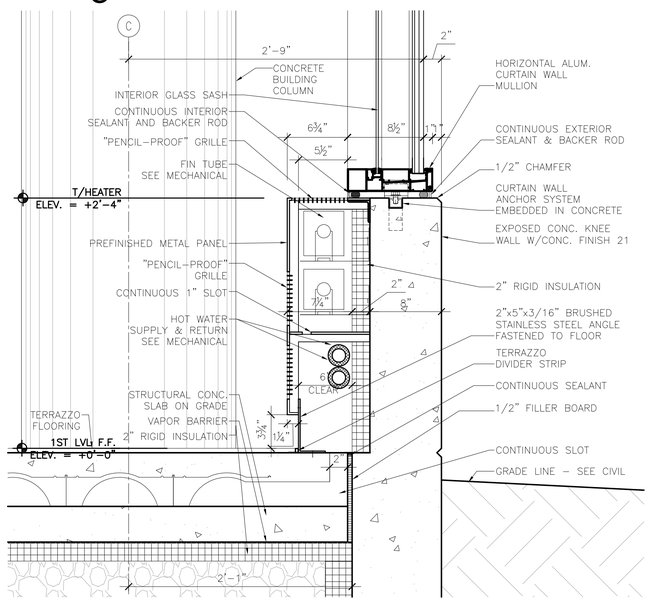
Drawing: t:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A702 Door Details.dwg Plotted on: 8/16/2010 8:24 AM Plotted by: ip, Mark



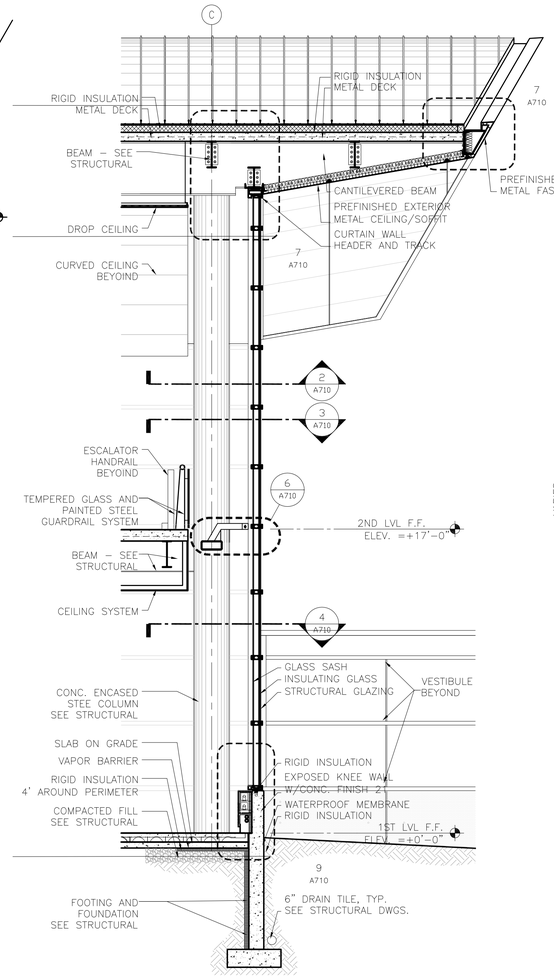
7 CURTAIN WALL HEAD DETAIL
1-1/2" = 1'-0"



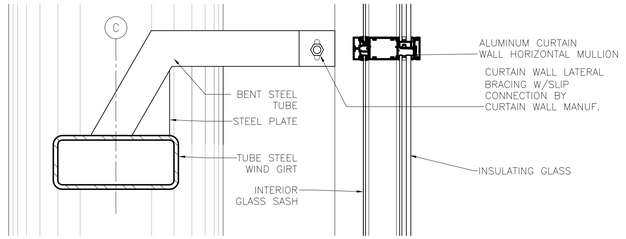
8 CURTAIN WALL WIND BRACE DETAIL - TYP.
1-1/2" = 1'-0"



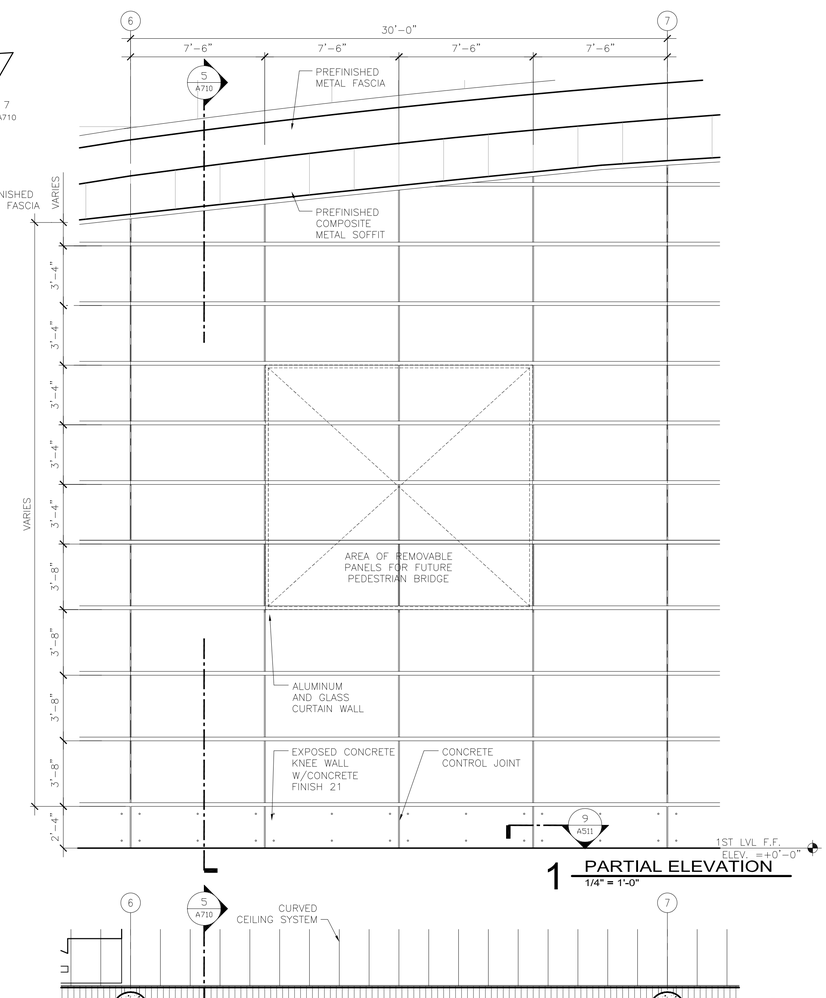
9 CURTAIN WALL SILL DETAIL
1-1/2" = 1'-0"



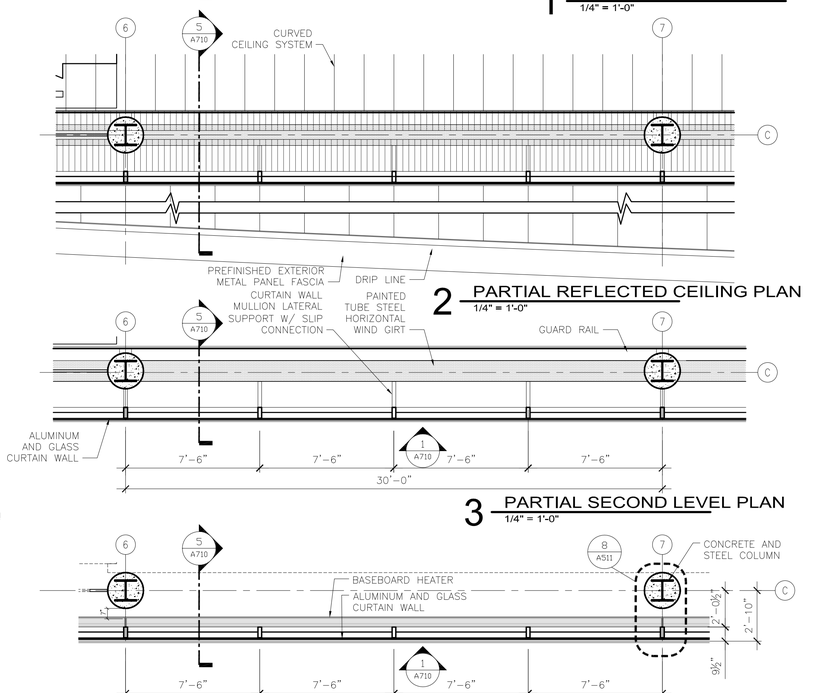
5 WALL SECTION
1/4" = 1'-0"



6 WIND BRACE DETAIL BETWEEN COL. LINES 6 & 7
1 1/2" = 1'-0"



1 PARTIAL ELEVATION
1/4" = 1'-0"



2 PARTIAL REFLECTED CEILING PLAN
1/4" = 1'-0"

3 PARTIAL SECOND LEVEL PLAN
1/4" = 1'-0"

4 PARTIAL FIRST LEVEL PLAN
1/4" = 1'-0"

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Signature:

Date: 06-03-10 Reg. No.: 46001

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	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

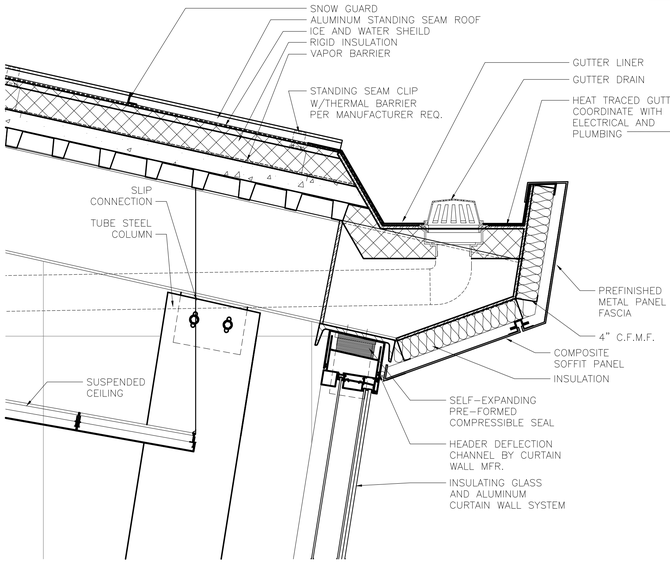
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
EXTERIOR SYSTEMS LANDSIDE CURTAIN WALL

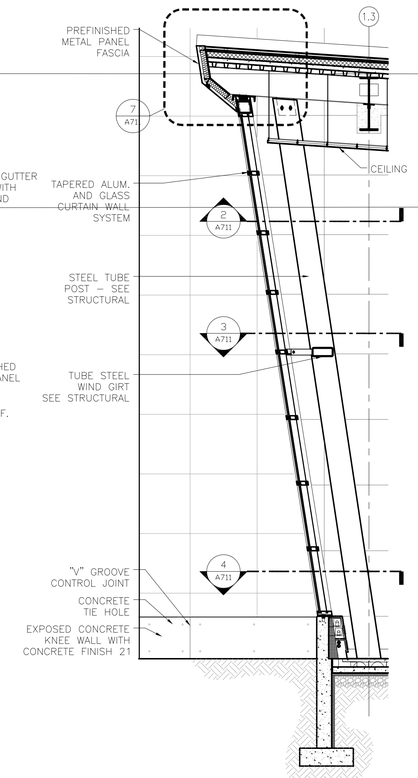
SHEET NUMBER
A710

BUILDING PERMIT

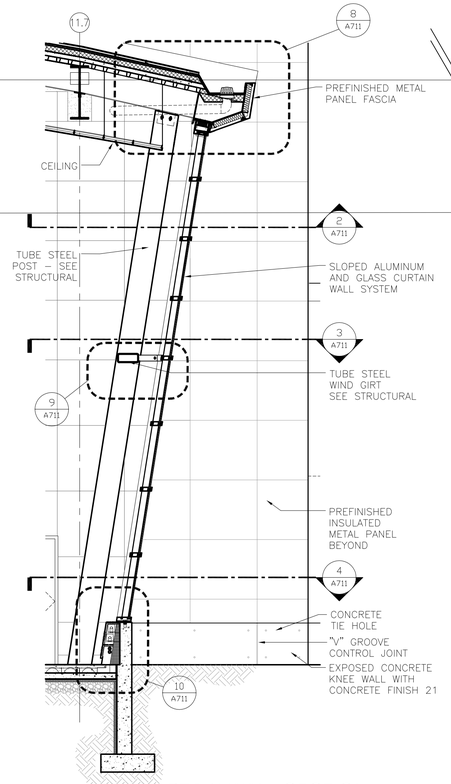
Drawing: t:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A710 Exterior System Sheet - Landside Curtain Wall.dwg Plotted on: 8/16/2010 8:35 AM Plotted by: ip, Mark



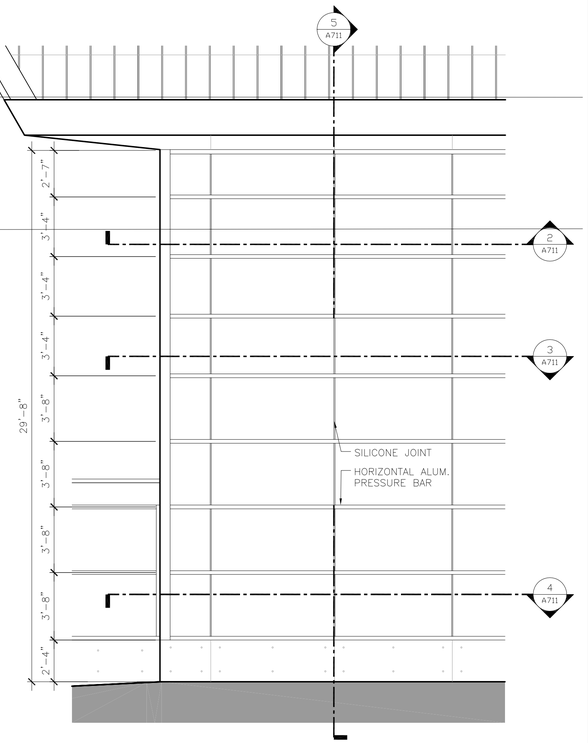
8 CURTAIN WALL HEAD DETAIL @ EAST END OF LOBBY
1" = 1'-0"



6 WEST CURTAIN WALL SECTION
1/4" = 1'-0"

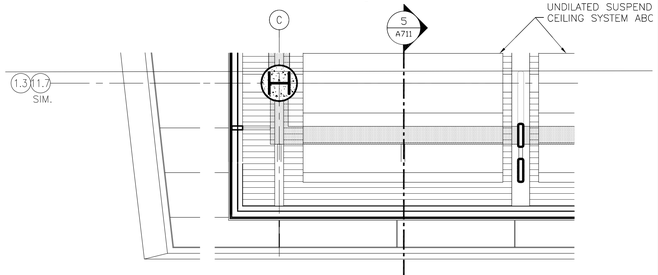


5 EAST CURTAIN WALL SECTION
1/4" = 1'-0"

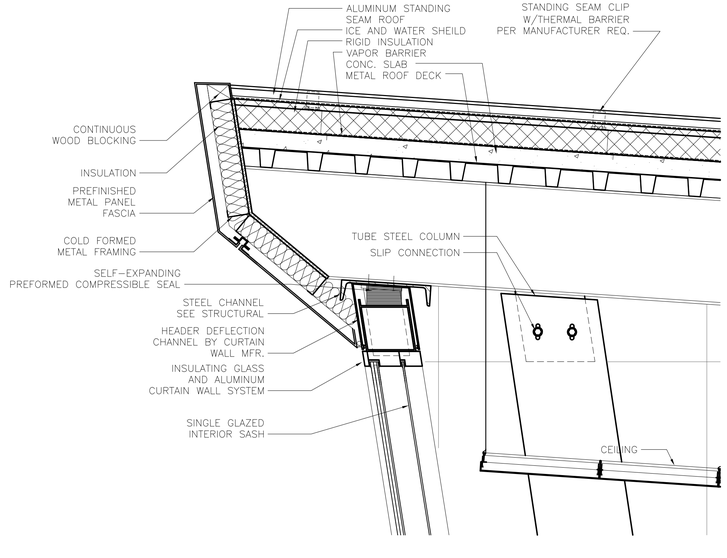


1 PARTIAL EAST ELEVATION
1/4" = 1'-0"

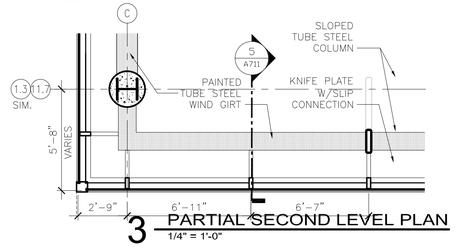
9 CURTAIN WALL HORIZONTAL DETAIL
1" = 1'-0" WEST SIDE SIMILAR



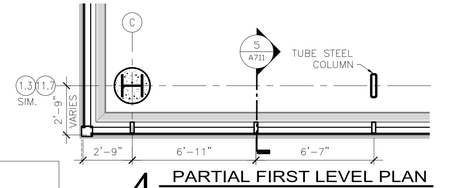
2 PARTIAL REFLECTED CEILING PLAN
1/4" = 1'-0"



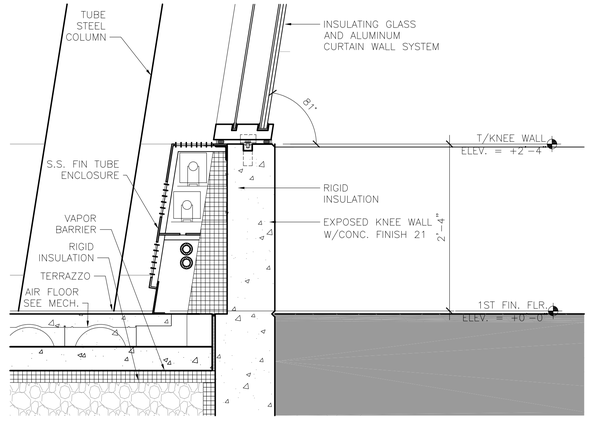
7 CURTAIN WALL HEAD DETAIL @ WEST END OF LOBBY
1" = 1'-0"



3 PARTIAL SECOND LEVEL PLAN
1/4" = 1'-0"



4 PARTIAL FIRST LEVEL PLAN
1/4" = 1'-0"



10 CURTAIN WALL SILL DETAIL
1" = 1'-0" WEST SIDE SIMILAR

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Signature:

Date: 06-03-10 Reg. No.: 46001

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	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

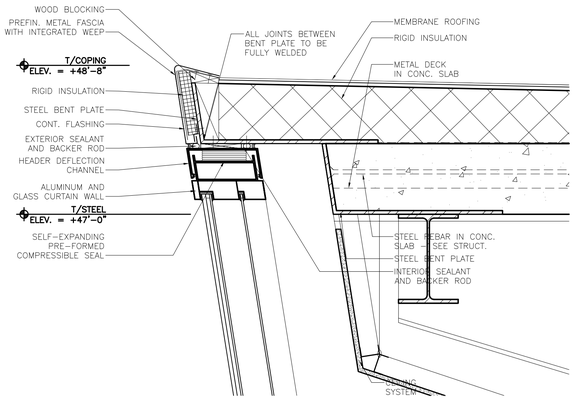
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
EXTERIOR SYSTEMS LANDSIDE CURTAIN WALL

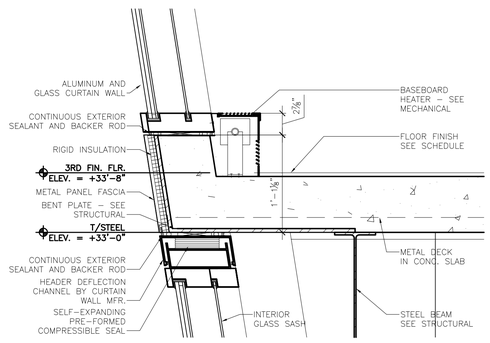
SHEET NUMBER
A711

BUILDING PERMIT

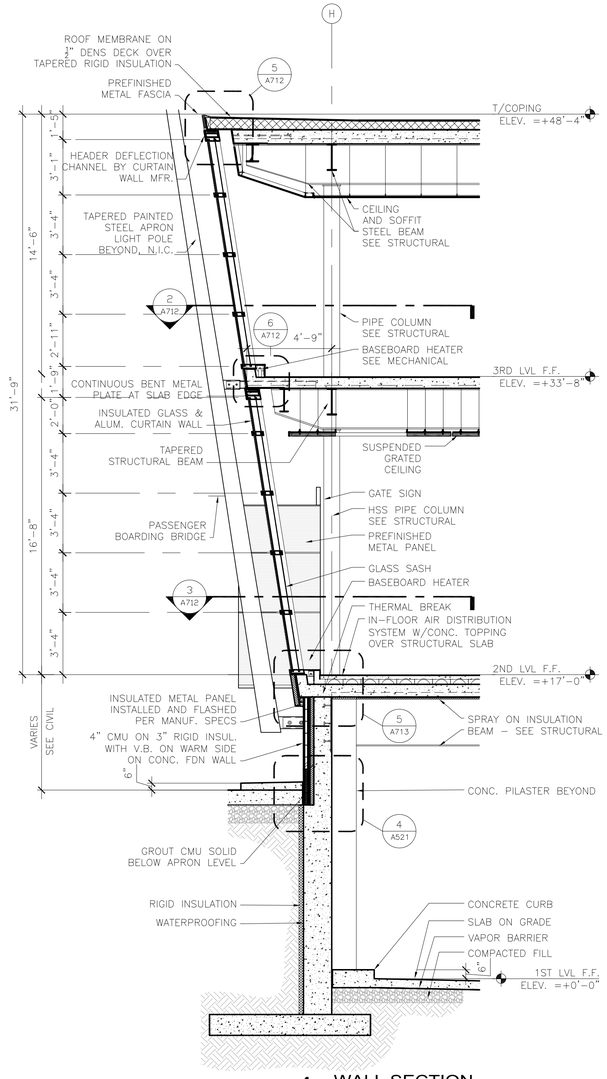
Drawing: t:\P\213188Z.091 Duluth New Terminal\Cad\A\Sheets\A711 Exterior System Sheet – Landside Curtain Wall.dwg Plotted on: 8/16/2010 8:55 AM Plotted by: Ip, Mark



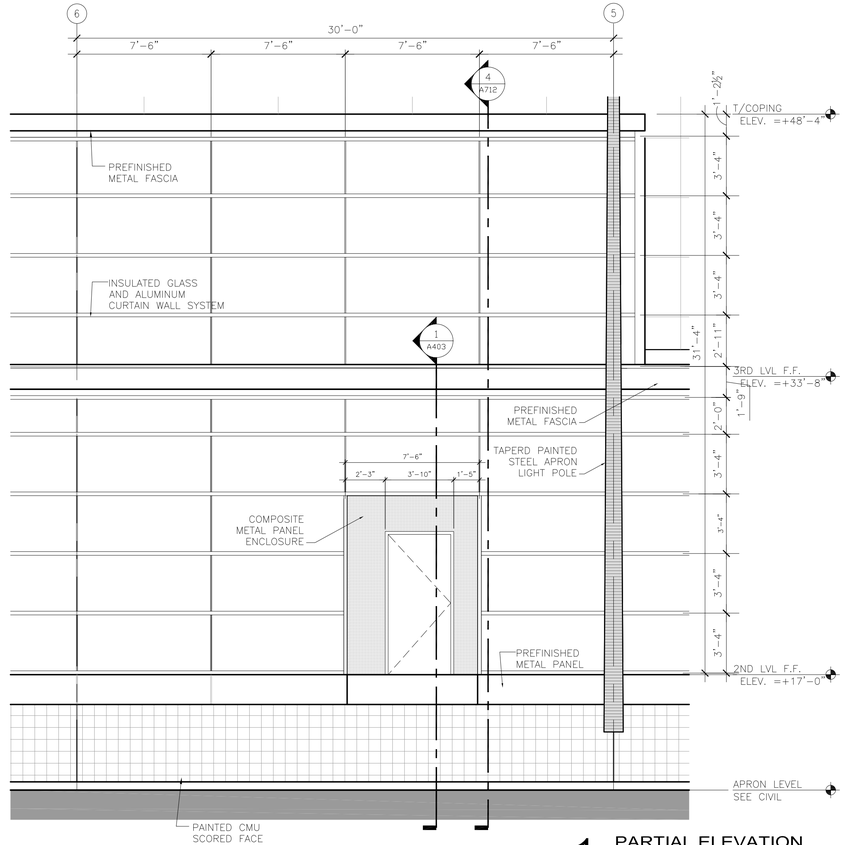
5 CURTAIN WALL HEAD DETAIL
1 1/2" = 1'-0"



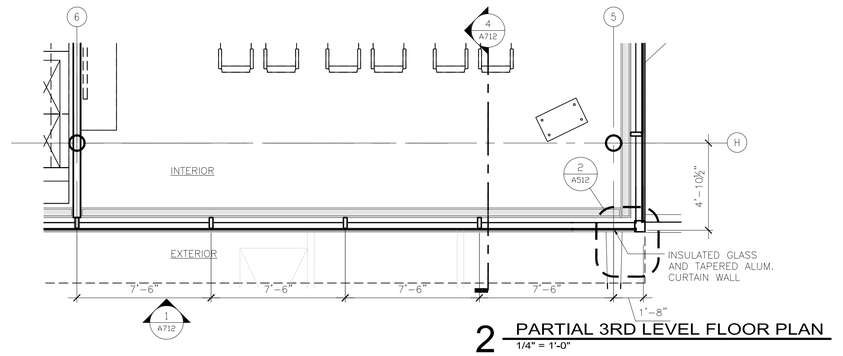
6 CURTAIN WALL HORIZONTAL MULLION DETAIL @ 2ND LEVEL
1 1/2" = 1'-0"



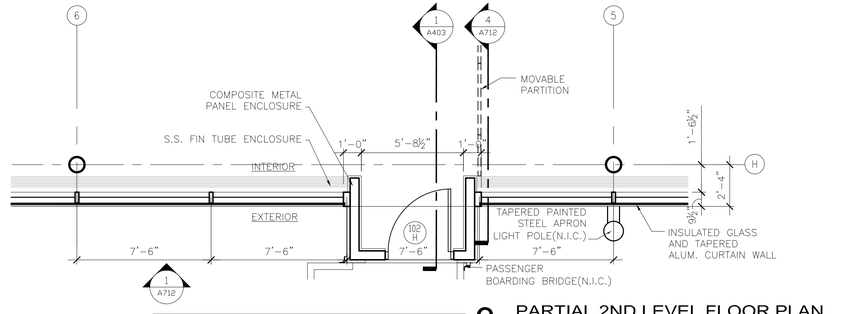
4 WALL SECTION
1/4" = 1'-0"



1 PARTIAL ELEVATION
1/4" = 1'-0"



2 PARTIAL 3RD LEVEL FLOOR PLAN
1/4" = 1'-0"



3 PARTIAL 2ND LEVEL FLOOR PLAN
1/4" = 1'-0"

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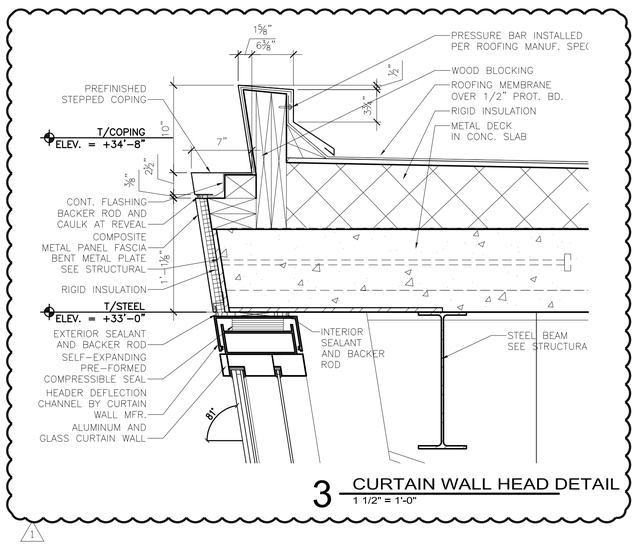
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

AEP PROJECT NUMBER
213-1882-091

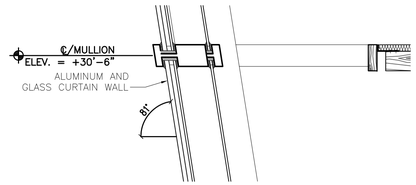
SHEET TITLE
EXTERIOR SYSTEMS AIRSIDE CURTAIN WALL

SHEET NUMBER
A712

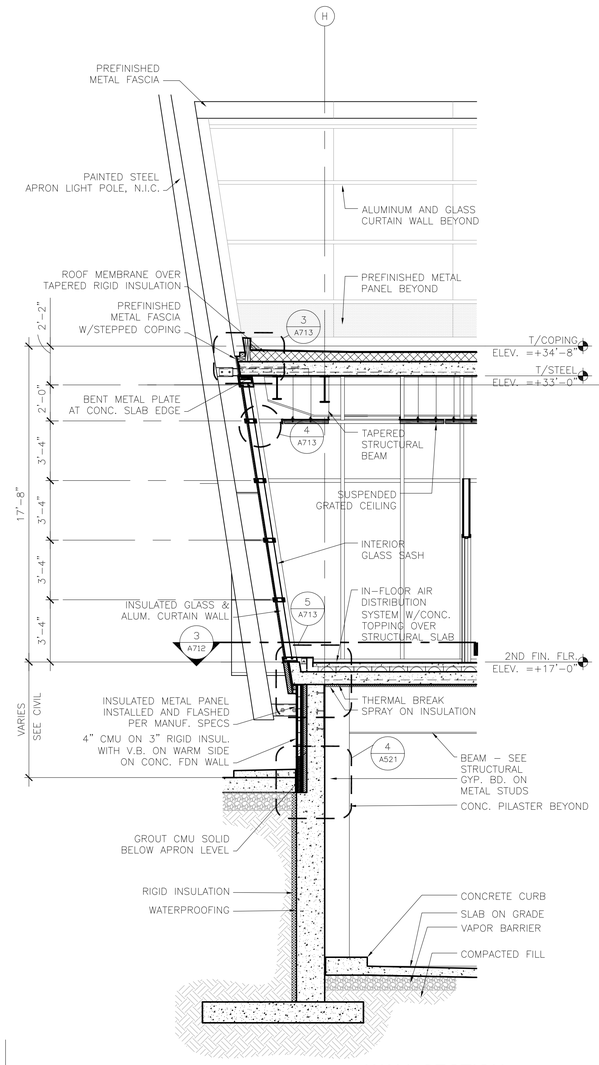
BUILDING PERMIT



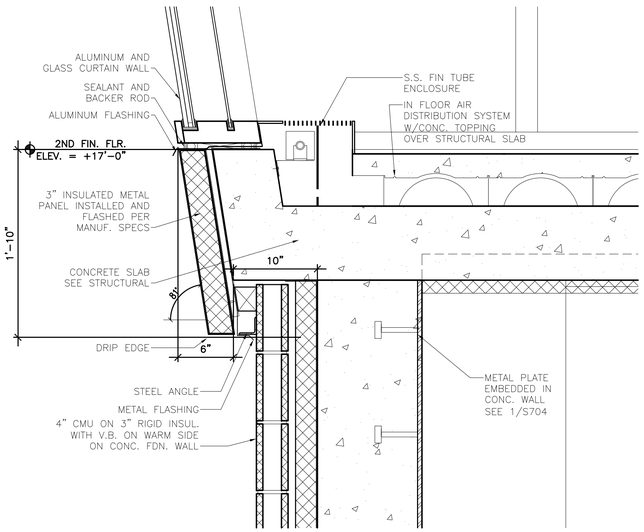
3 CURTAIN WALL HEAD DETAIL
1 1/2" = 1'-0"



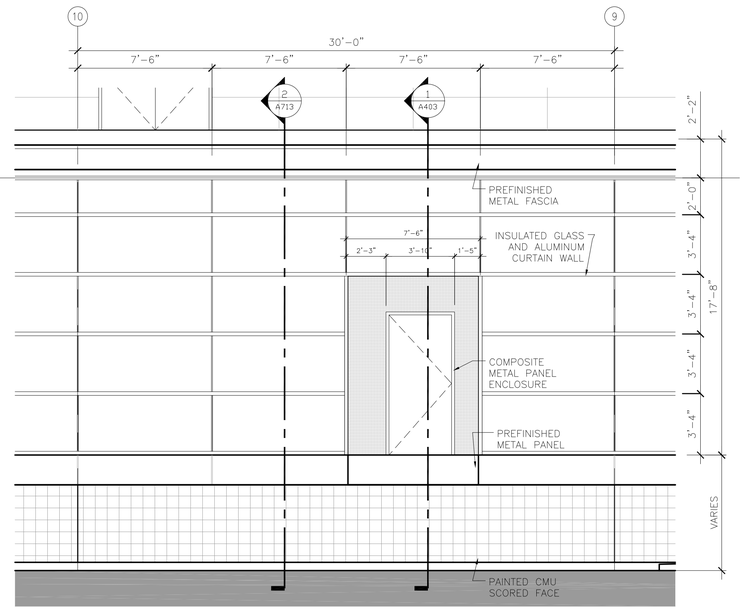
4 CURTAIN WALL MULLION DETAIL
1 1/2" = 1'-0"



2 WALL SECTION
1/4" = 1'-0"



5 CURTAIN WALL SILL DETAIL
1 1/2" = 1'-0"



1 PARTIAL CONCOURSE NORTH ELEVATION
1/4" = 1'-0"

NOTE: IN FLOOR AIR DISTRIBUTION SYSTEM N.I.C.

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Print Name: Mark Ip

Signature:

Date: 06-03-10 Reg. No.: 46001

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NO.	DESCRIPTION	DATE
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	CONFORMANCE SET	7.12.10
3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

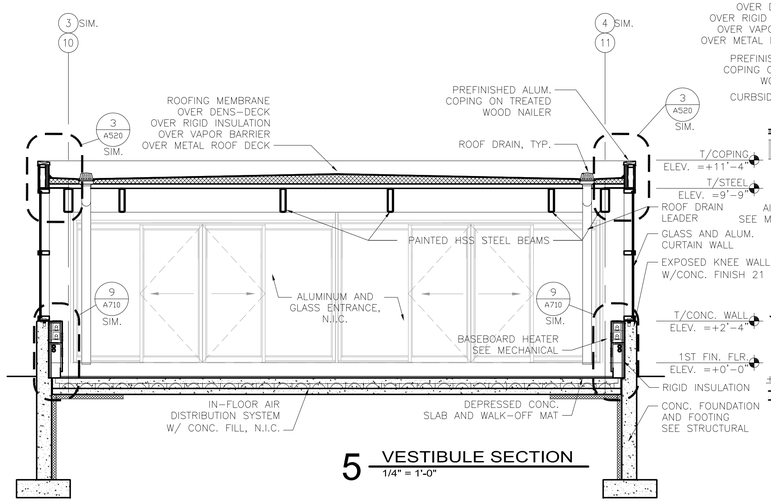
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
EXTERIOR SYSTEMS AIRSIDE CURTAIN WALL

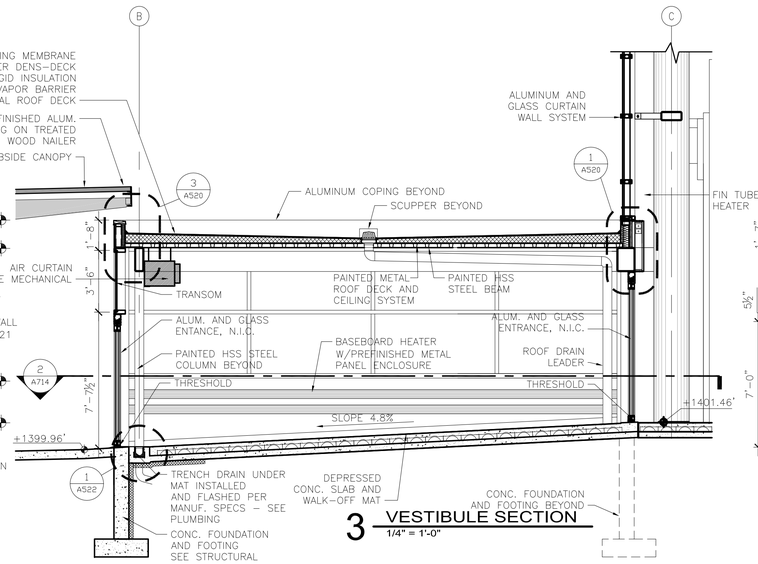
SHEET NUMBER
A713

BUILDING PERMIT

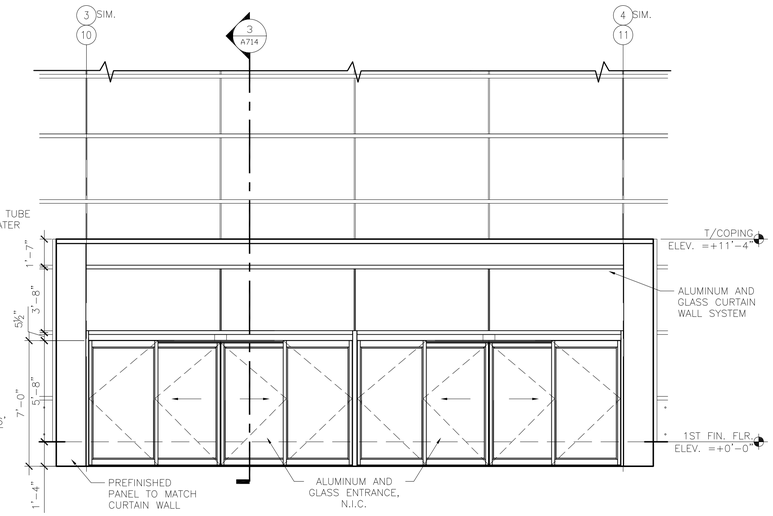
Drawing: t:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A713 Exterior System Sheet - Airside Curtain Wall.dwg Plotted on: 8/16/2010 9:15 AM Plotted by: lp, Mark



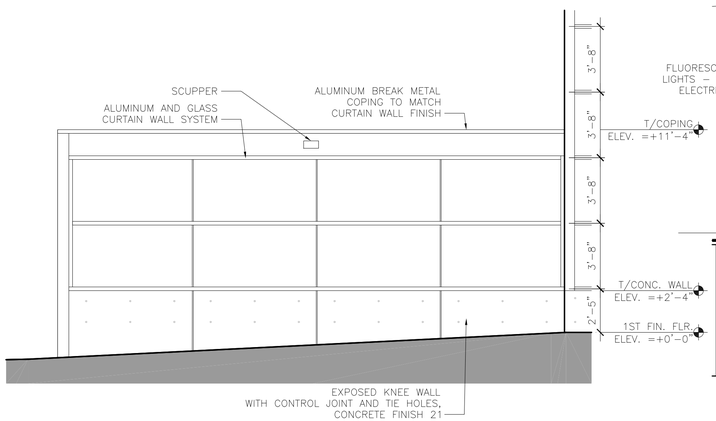
5 VESTIBULE SECTION
1/4" = 1'-0"



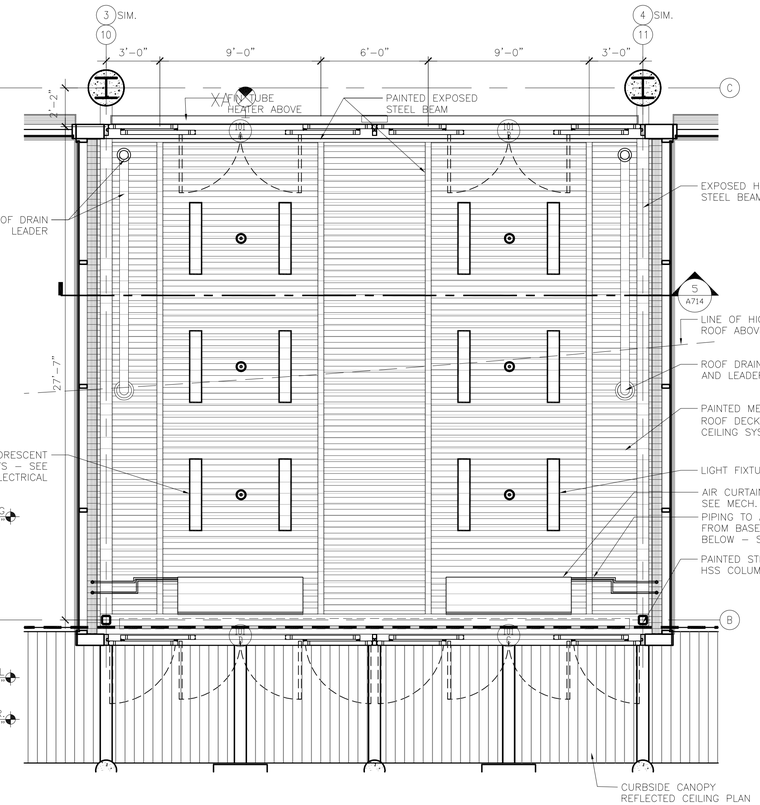
3 VESTIBULE SECTION
1/4" = 1'-0"



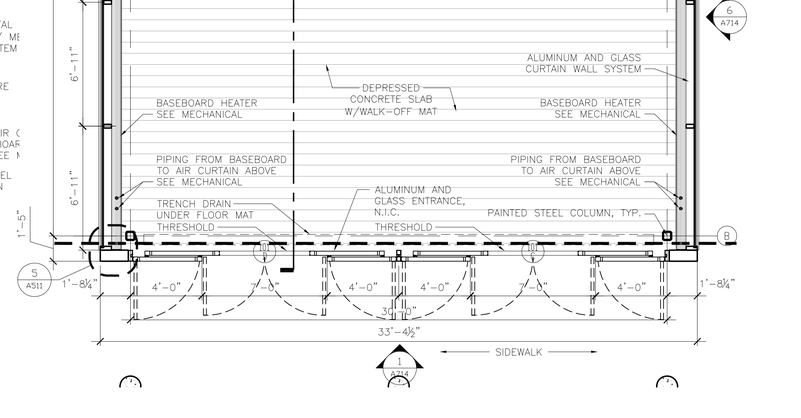
1 VESTIBULE SOUTH ELEVATION
1/4" = 1'-0"



6 VESTIBULE EAST ELEVATION
1/4" = 1'-0"



4 ENLARGED VESTIBULE REFLECTED CEILING PLAN
1/4" = 1'-0"



2 ENLARGED VESTIBULE FLOOR PLAN
1/4" = 1'-0"

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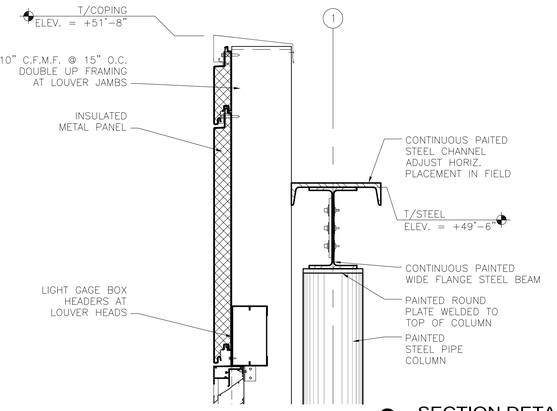
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

AEP PROJECT NUMBER
213-1882-091

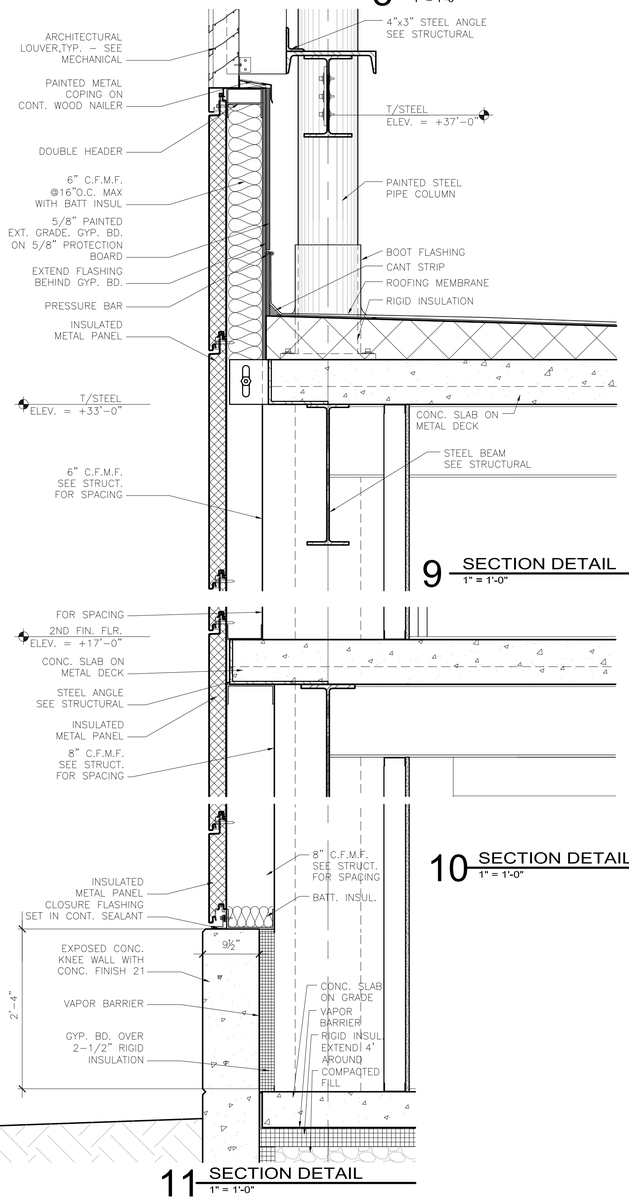
SHEET TITLE
EXTERIOR SYSTEMS ENTRY VESTIBULE

SHEET NUMBER
A714

BUILDING PERMIT



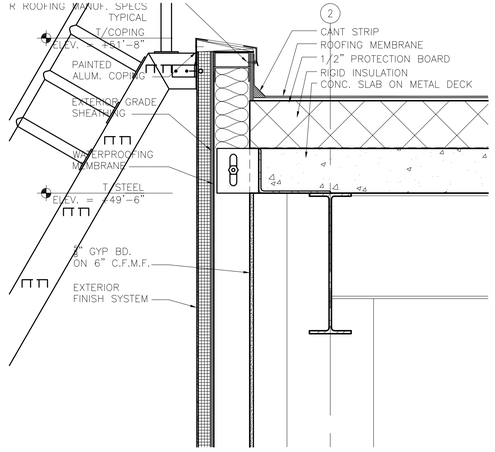
8 SECTION DETAIL
1" = 1'-0"



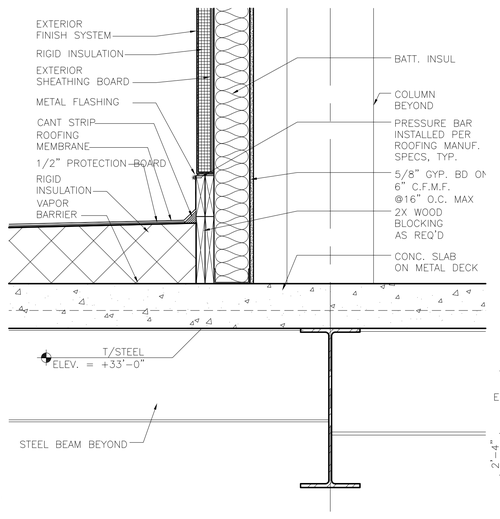
9 SECTION DETAIL
1" = 1'-0"

10 SECTION DETAIL
1" = 1'-0"

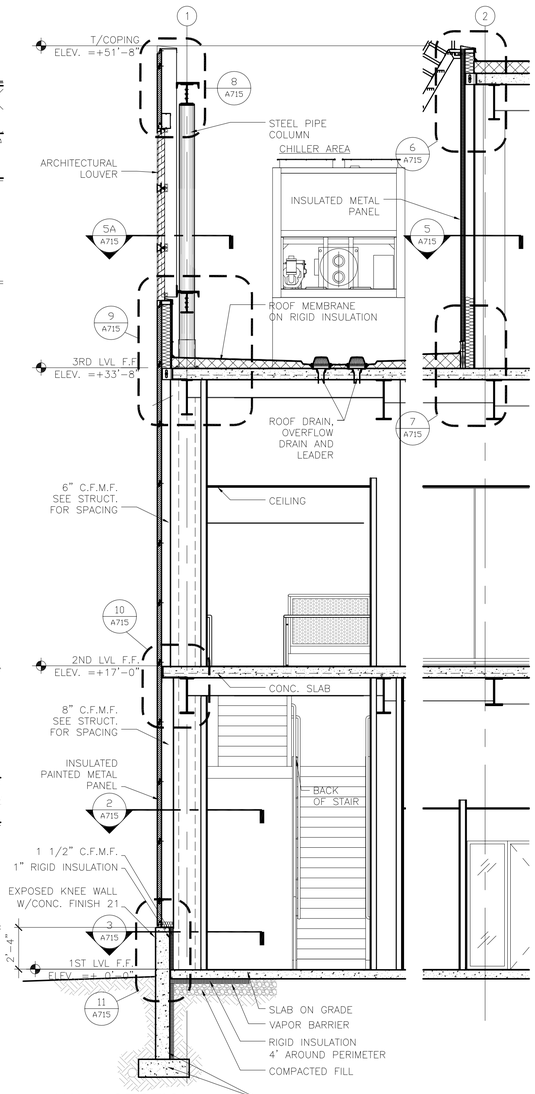
11 SECTION DETAIL
1" = 1'-0"



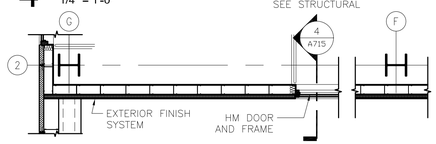
6 SECTION DETAIL
1" = 1'-0"



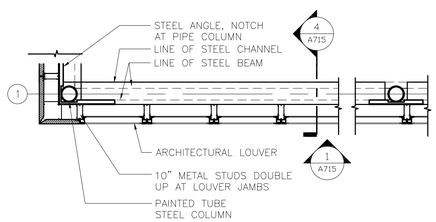
7 SECTION DETAIL
1" = 1'-0"



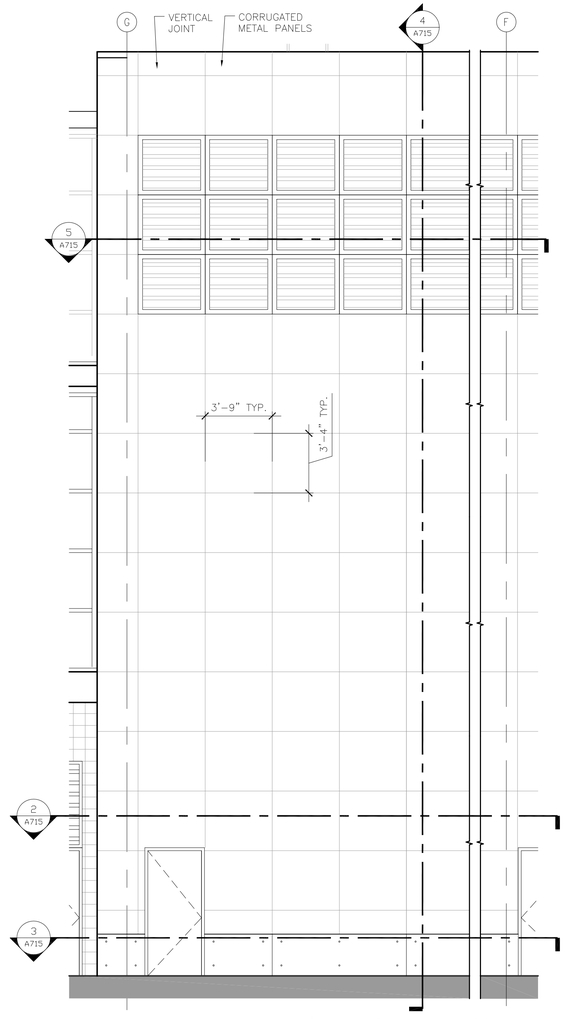
4 WALL SECTION
1/4" = 1'-0"



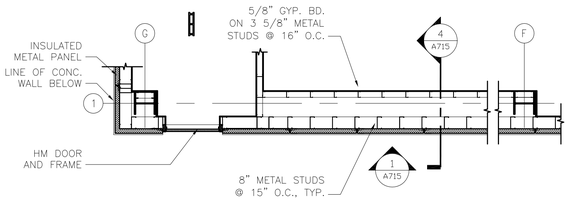
5 PARTIAL 3RD LEVEL FLOOR PLAN
1/4" = 1'-0"



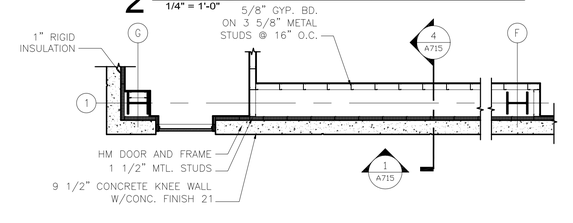
5A PARTIAL 3RD LEVEL FLOOR PLAN
1/4" = 1'-0"



1 PARTIAL WEST ELEVATION
1/4" = 1'-0"



2 PARTIAL 1ST LEVEL FLOOR PLAN @ INSULATED METAL PANEL
1/4" = 1'-0"



3 PARTIAL 1ST LEVEL FLOOR PLAN @ STONE
1/4" = 1'-0"

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	BUILDING PERMIT	8.16.10

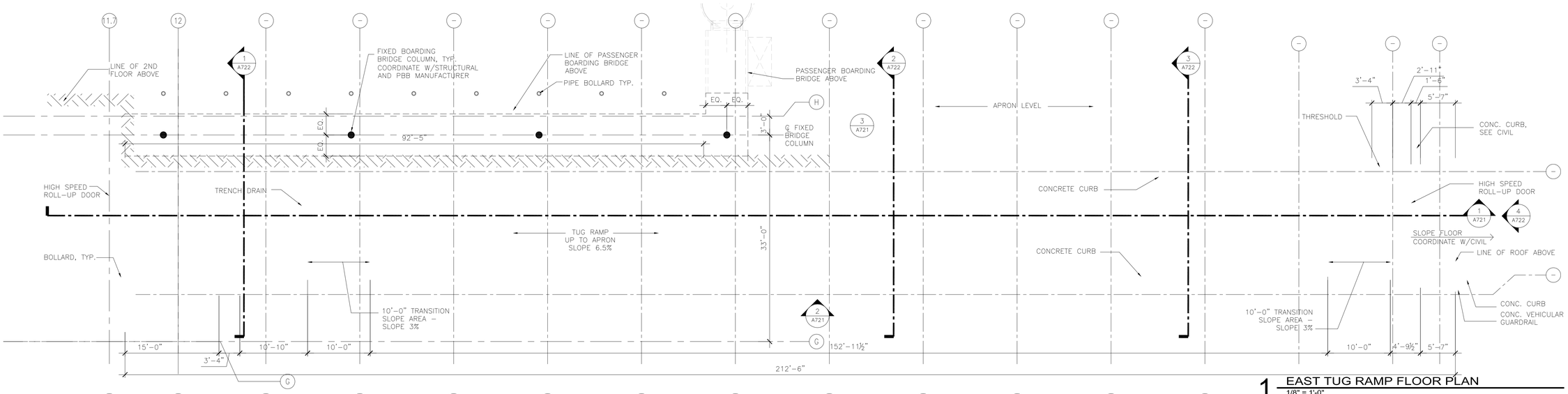
DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

AEP PROJECT NUMBER
213-1882-091

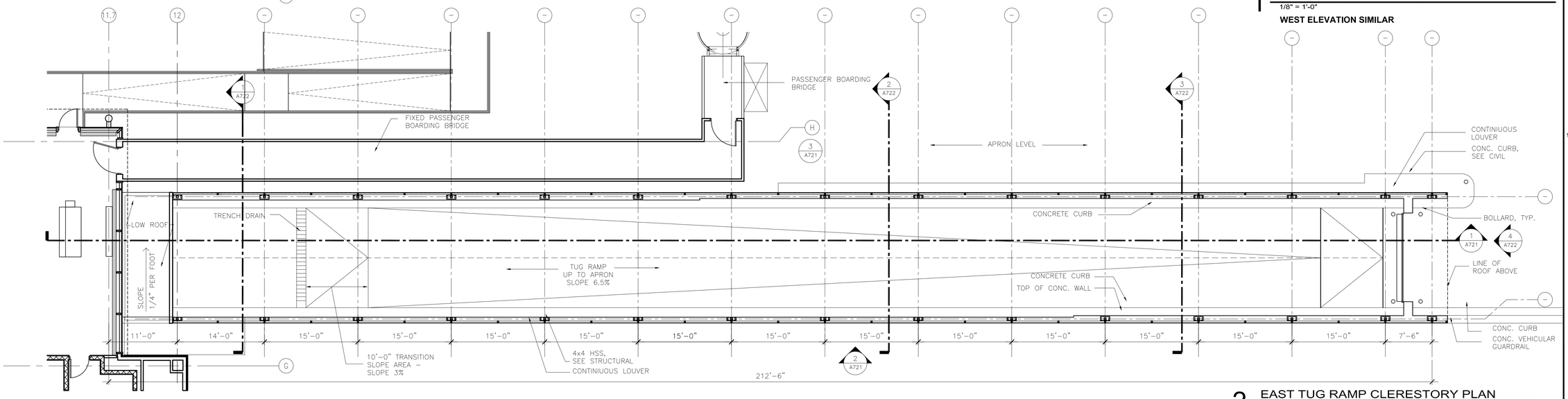
SHEET TITLE
EXTERIOR SYSTEMS CORE WALL

SHEET NUMBER
A715

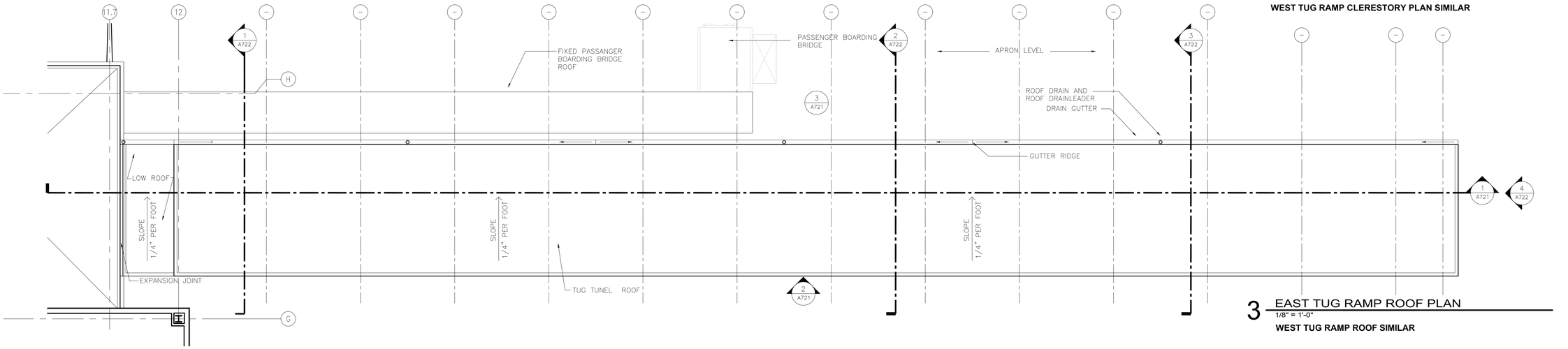
BUILDING PERMIT



1 EAST TUG RAMP FLOOR PLAN
1/8" = 1'-0"
WEST ELEVATION SIMILAR



2 EAST TUG RAMP CLERESTORY PLAN
1/8" = 1'-0"
WEST TUG RAMP CLERESTORY PLAN SIMILAR



3 EAST TUG RAMP ROOF PLAN
1/8" = 1'-0"
WEST TUG RAMP ROOF SIMILAR

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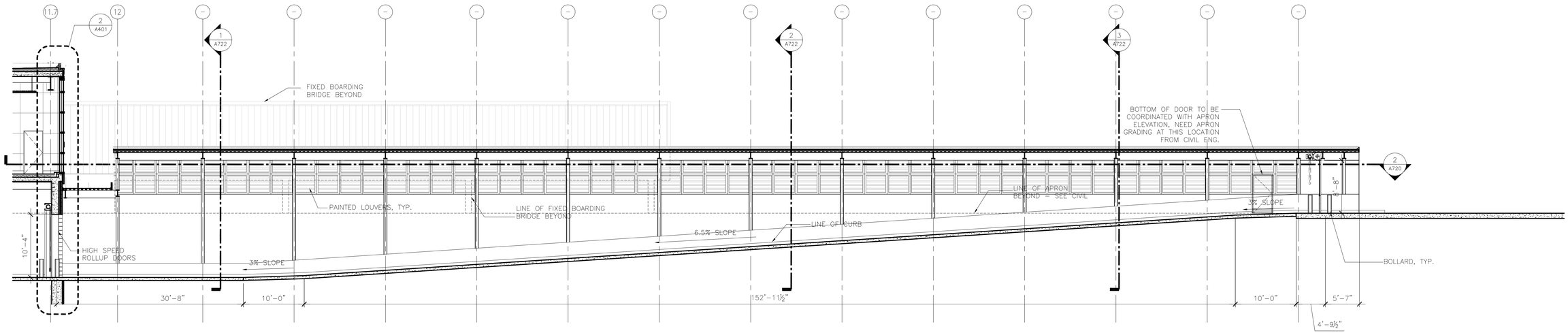
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
EXTERIOR SYSTEMS TUG TUNNEL

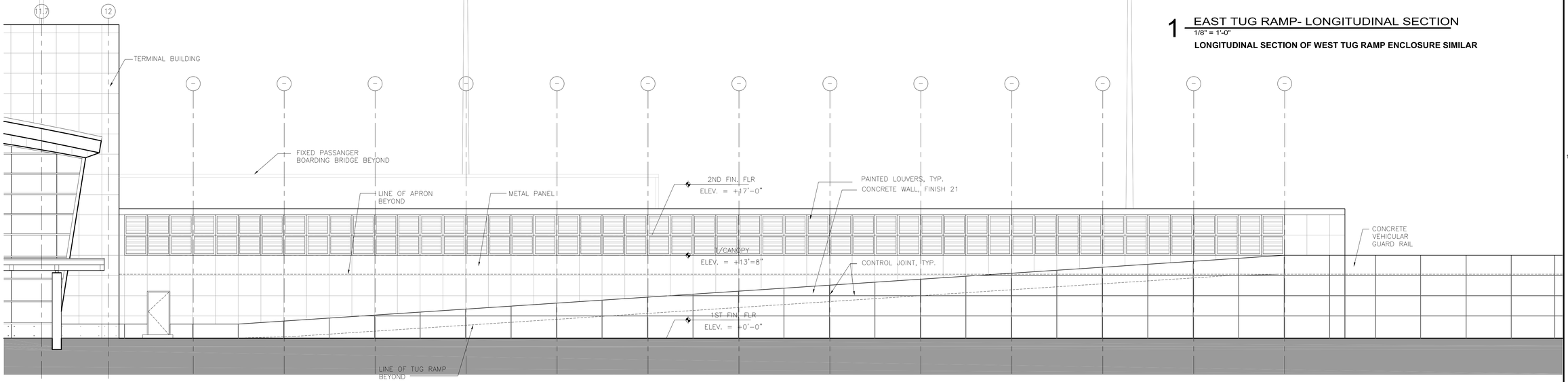
SHEET NUMBER
A720

BUILDING PERMIT



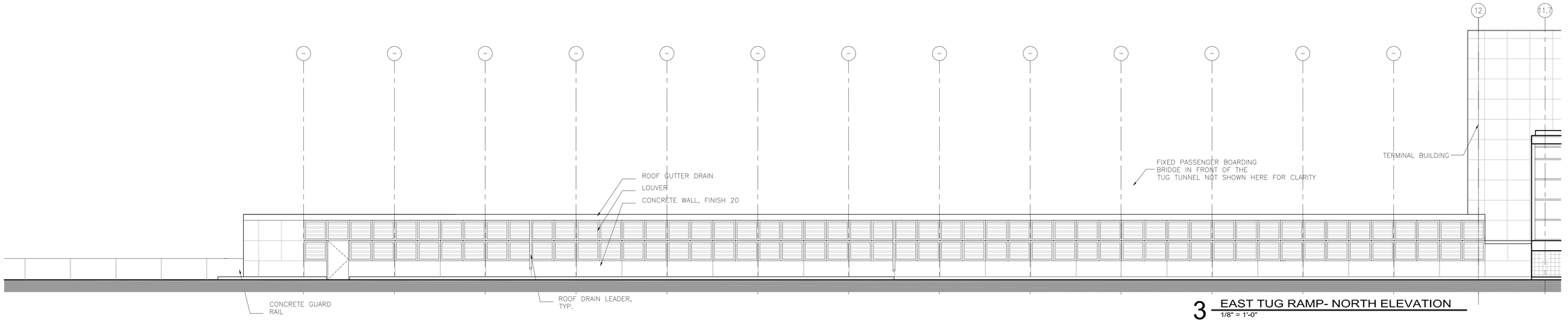
1 EAST TUG RAMP- LONGITUDINAL SECTION
1/8" = 1'-0"

LONGITUDINAL SECTION OF WEST TUG RAMP ENCLOSURE SIMILAR



2 EAST TUG RAMP SOUTH ELEVATION
1/8" = 1'-0"

SOUTH ELEVATION OF WEST TUG RAMP ENCLOSURE SIMILAR



3 EAST TUG RAMP- NORTH ELEVATION
1/8" = 1'-0"

NORTH ELEVATION OF WEST TUG RAMP ENCLOSURE SIMILAR

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AEP PROJECT NUMBER
213-1882-091

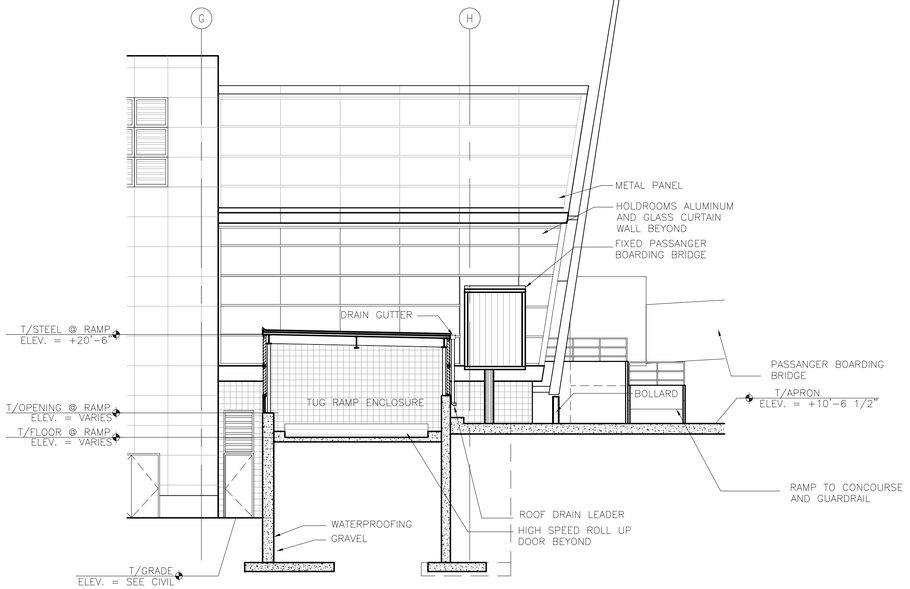
SHEET TITLE

EXTERIOR SYSTEMS TUG TUNNEL

SHEET NUMBER

A721

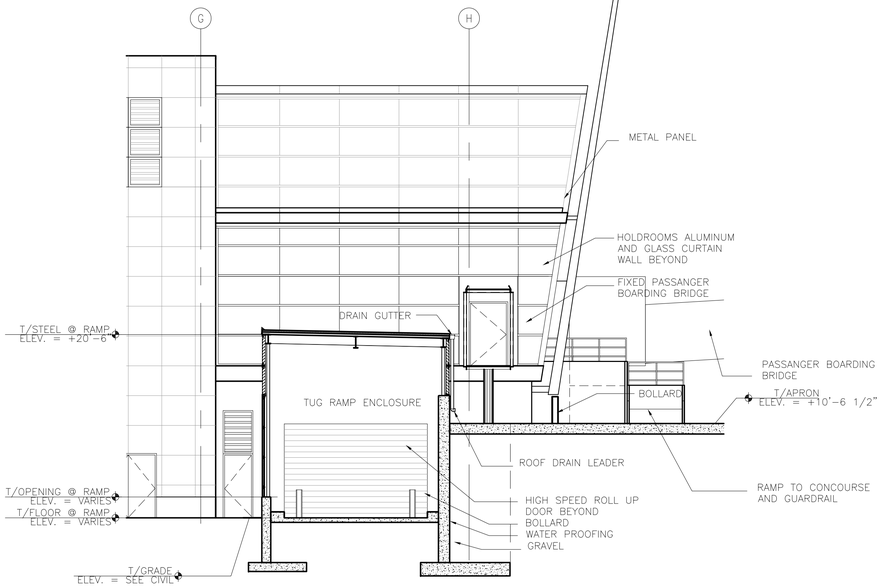
BUILDING PERMIT



3 EAST TUG RAMP- CROSS SECTION WITH BUILDING ELEV BEYOND

1/8" = 1'-0"

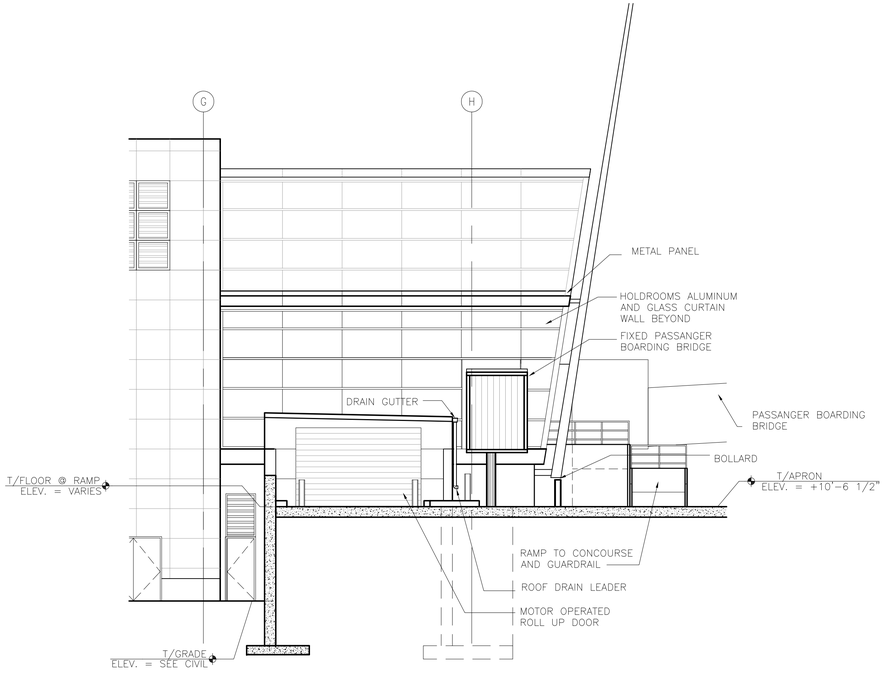
CROSS SECTION OF WEST TUG RAMP ENCLOSURE SIMILAR



1 EAST TUG RAMP- CROSS SECTION WITH BUILDING ELEV BEYOND

1/8" = 1'-0"

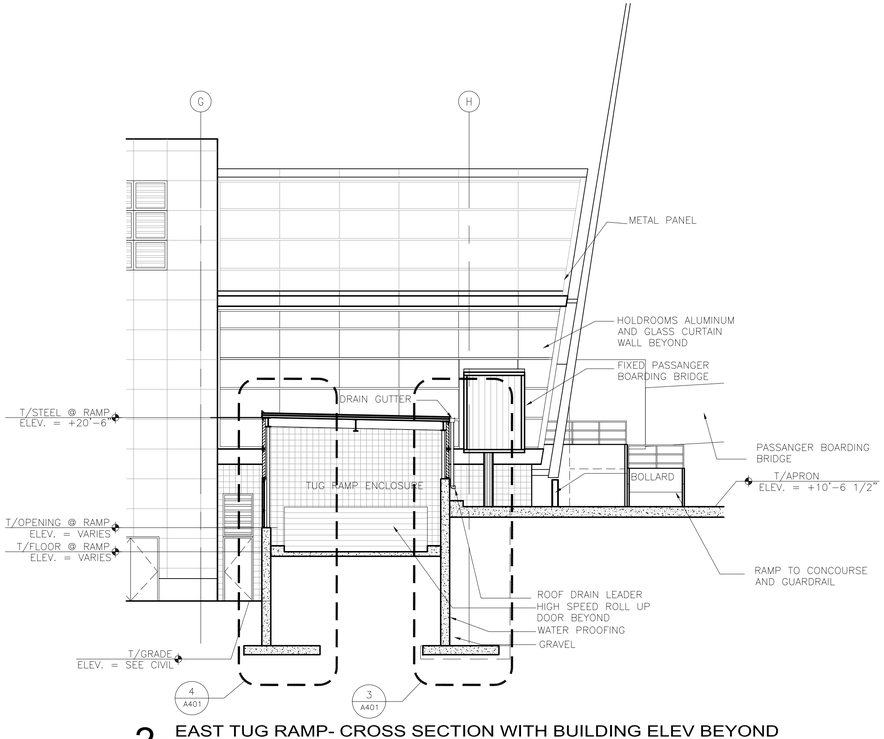
CROSS SECTION OF WEST TUG RAMP ENCLOSURE SIMILAR



4 EAST TUG RAMP ENCLOSURE- EAST ELEVATION

1/8" = 1'-0"

WEST ELEVATION OF WEST TUG RAMP ENCLOSURE SIMILAR



2 EAST TUG RAMP- CROSS SECTION WITH BUILDING ELEV BEYOND

1/8" = 1'-0"

CROSS SECTION OF WEST TUG RAMP ENCLOSURE SIMILAR

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TEL: (218) 591-5079

ARCHITECTURAL CERTIFICATION

I hereby certify that the architectural plans, specifications or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Architect under the laws of the State of Minnesota.

Print Name: Mark Ip

Signature:

Date: 06-03-10 Reg. No.: 46001

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 1	6.11.10
2	CONFORMANCE SET	7.12.10
3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

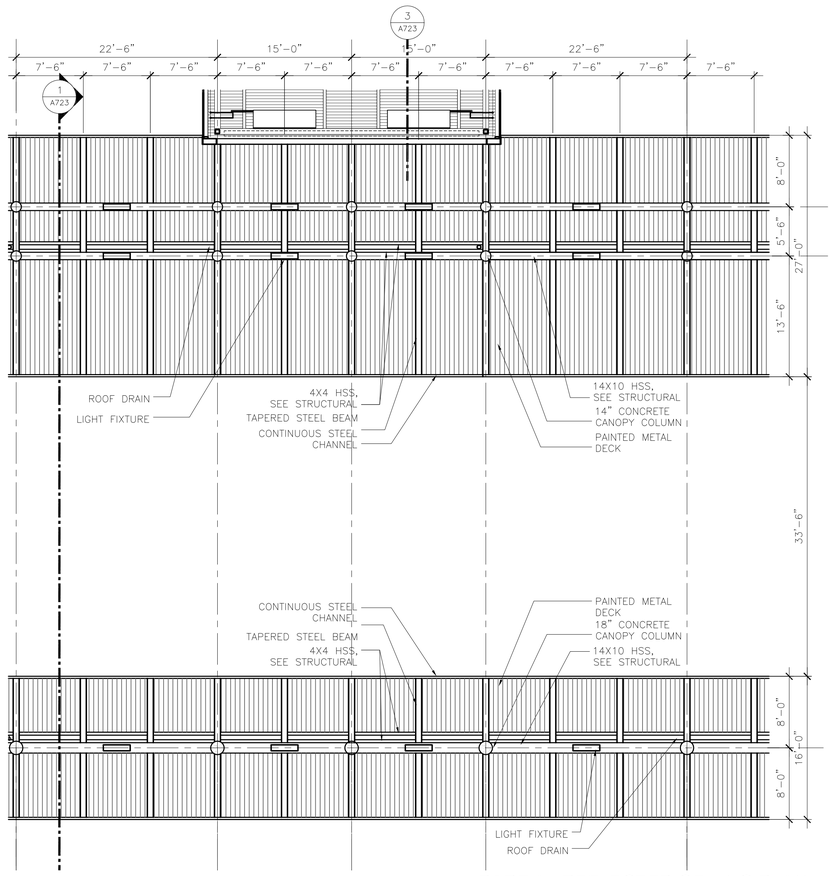
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
EXTERIOR SYSTEMS TUG TUNNEL

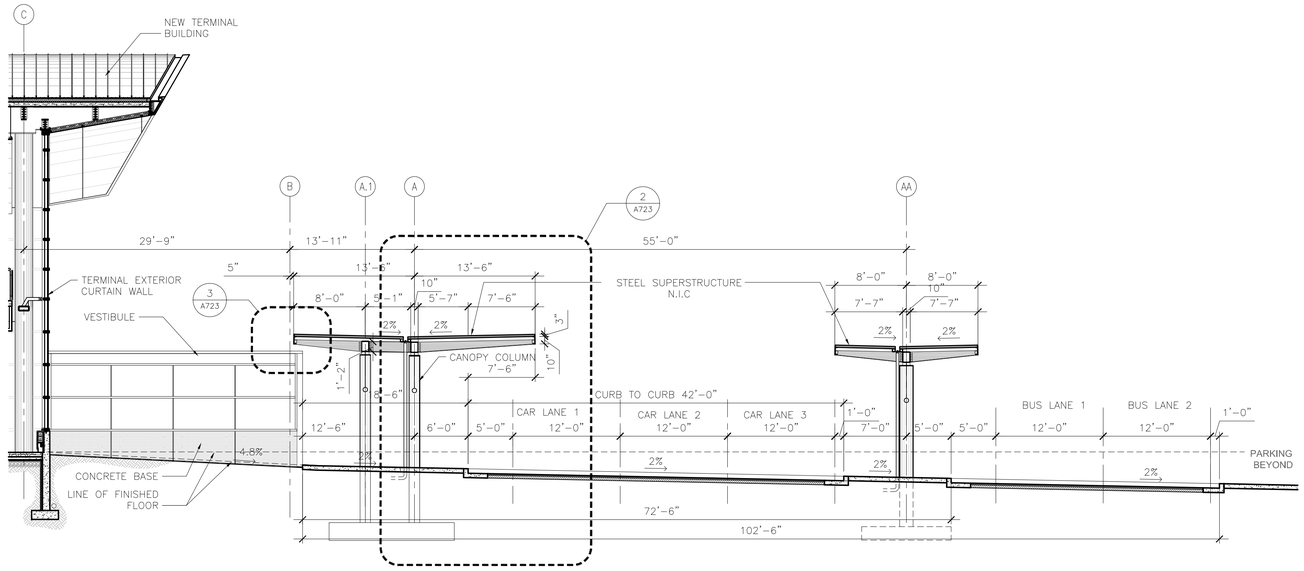
SHEET NUMBER
A722

BUILDING PERMIT

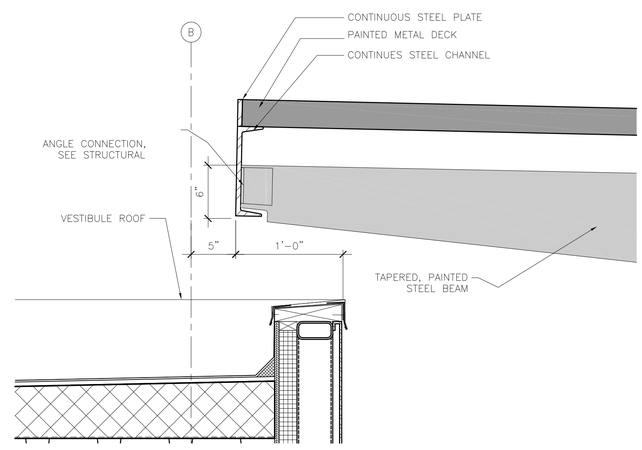
Drawing: t:\P\213188Z.091 Duluth New Terminal\Cad\A\Sheets\A722 Exterior System Sheet – Tug Tunnel.dwg Plotted on: 8/16/2010 9:42 AM Plotted by: Ip, Mark



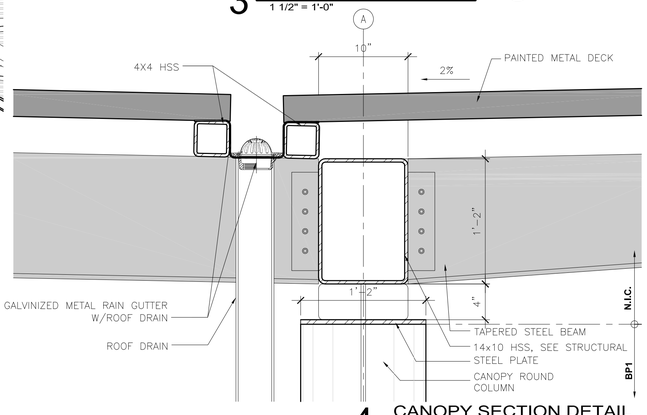
5 PARTIAL REFLECTED CEILING PLAN
1/8" = 1'-0"



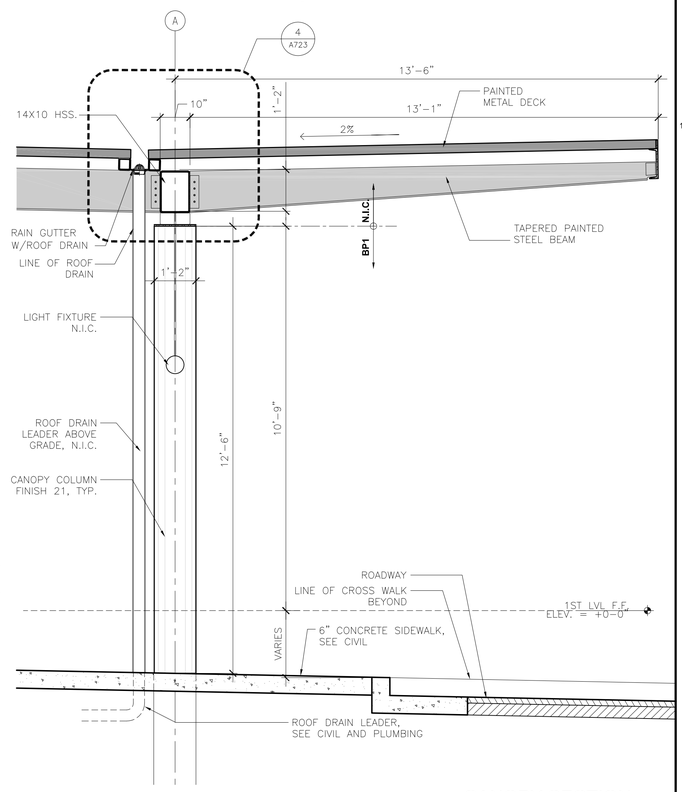
1 OVERALL CANOPY CROSS SECTION
1/8" = 1'-0"



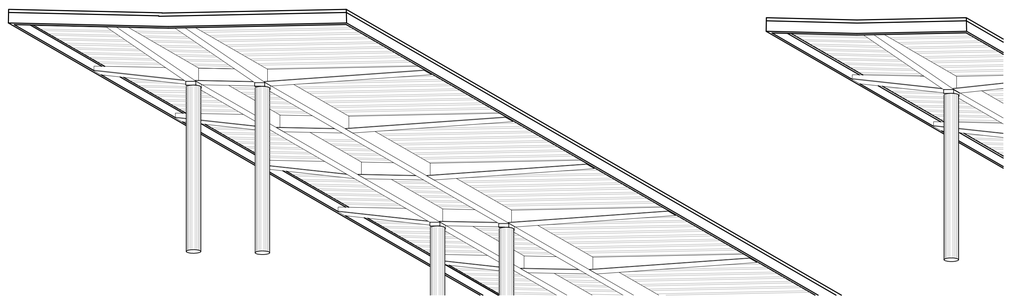
3 CANOPY SECTON DETAIL @ VESTIBULE
1 1/2" = 1'-0"



4 CANOPY SECTION DETAIL
1 1/2" = 1'-0"



2 CANOPY SECTION
1/2" = 1'-0"



6 CANOPY ISOMETRIC LOOKING UP
N.T.S.

GENERAL NOTE:
ALL STRUCTURE EXPOSED TO PUBLIC VIEW TO BE PAINTED WITH A HIGH PERFORMANCE COATING

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Duluth, Minnesota 55811
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www.rsandh.com

DULUTH AIRPORT AUTHORITY

DULUTH INTERNATIONAL AIRPORT DULUTH, MN

NEW PASSENGER TERMINAL

CONSULTANTS

Interior Architects:
SJA ARCHITECTS
11 E Superior Street Suite 340, Duluth MN 55802
TEL: (218) 724-8578 / FAX: (218) 724-8717

Structural Engineers:
MBJ CONSULTING ENG.
501 Lake Avenue South, Suite 300, Duluth MN 55802
TEL: (218) 722-1056 / FAX: (218) 723-9306

M/E/P/FP Engineers:
COSENTINI ASSOCIATES INC.
1 South Wacker Drive, 37th Floor, Chicago IL 60606
TEL: (312) 201-7408 / FAX: (312) 201-0031

Baggage Handling Systems Consultants:
BNP ASSOCIATES INC.
101 East Ridge Office Park, Suite 103, Danbury CT 06810
TEL: (203) 792-3000 / FAX: (203) 792-4900

Landscaping Consultants:
APPOLD DESIGN
2432 East First Street, Duluth MN 55812
TEL: (218) 591-5079

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Print Name: Mark Ip

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Date: 06-03-10 Reg. No.: 46001

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NO.	DESCRIPTION	DATE
1	ADDENDUM 1	6.11.10
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DATE ISSUED: 08-16-10
REVIEWED BY: XX
DRAWN BY: MK
DESIGNED BY: TC

AEP PROJECT NUMBER
213-1882-091
XXX.DWG 8-16-10 12:00p

SHEET TITLE
EXTERIOR SYSTEM SHEET- CANOPY

SHEET NUMBER
A723

BUILDING PERMIT

Drawing: t:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A723 Exterior System Sheet – Canopy.dwg Plotted on: 8/16/2010 9:53 AM Plotted by: ip, Mark

SECOND FLOOR FINISH SCHEDULE

ROOM #	ROOM NAME	FLOOR	WALLS								CEILING		WINDOW COVERING	REMARKS
			NORTH		EAST		SOUTH		WEST					
		FINISH	FINISH	BASE	FINISH	BASE	FINISH	BASE	FINISH	BASE	MATERIAL	HEIGHT		
201	PASSENGER WAITING	TER	DP-1/ DP-2	SST	GL-3	SST	GL-1/ GL-3	SST	GL-3	SST	CL-1			
202	CORRIDOR	TER	DRY MTL	TER	PT	TER	GL-2	TER	DP-1/ DP-2	TER	CL-6			
203	CORRDIOR	RF-1	WRY PT	RB-1	WRY PT	RB-1	WRY PT	RB-1	WRY PT	RB-1	CL-3			
204	TELECOM	SC-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	EX-1			
205	JAN.	SC-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	EX-1			
206	MEN	T-1/ T-2	T	T	T/ GT	T	T/ GT	T	T	T	CL-4			
207	WOMEN	T-1/ T-2	T	T	T	T	T/ GT	T	T/ GT	T	CL-4			
208	TSA CHECKPOINT	CPT-2	GL-4	SST	WRY PT	SST	WRY PT	SST	WRY PT	SST	CL-2			
209	STOR.	RF-3	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-6			
210	REMOTE V.	CPT-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			
211	TSA	CPT-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			
212	DLH POLICE	RF-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			
213	AIRPORT POLICE	RF-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			
214	TSA QUELIE	CPT-2	GL-4	SST	WRY PT	SST	--	SST	GL-4	SST	CL-2			
215	DEPLAINING	CPT-3	--	SST	GL-4	SST	--	SST	DP-2	SST	CL-2			
216	VEND	TER	PT	SST	PT	SST	PT	SST	PT	SST	CL-6/ PT-2			
217	COMM.	RF-3	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	EX-1			
218	NOT USED													
219	CONCOURSE	CPT-3	GL-1	SST	GL-1	SST	GL-4/ DP-2	SST	GL-4	SST	CL-2/ EX-2			
220	NOT USED													
221	MEN	T-1/ T-2	T	T	T/ GT	T	T	T	T/ GT	T	CL-4			
222	WOMEN	T-1/ T-2	T	T	T/ GT	T	T	T	T/ GT	T	CL-4			
223	FAMILY	T-1/ T-2	T	T	T	T	T	T	T	T	CL-4			
224	SERVERY	--	--	--	--	--	--	--	--	--	--			NIC
225	KITCHEN	--	--	--	--	--	--	--	--	--	--			NIC
226	BAR	--	--	--	--	--	--	--	--	--	--			NIC
227	MEN	T-1/ T-2	T	T	T	T	T/ GT	T	T/ GT	T	CL-4			
228	WOMEN	T-1/ T-2	T	T	T/ GT	T	T / GT	T	T	T	CL-4			
229	CORRIDOR	RF-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-6			
230	ELEC.	RF-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	EX-1			
231	BOARDING	CPT-3	GL-1 / PT	SST	GL-4	SST	GL-2	SST	DP-2	SST	CL-2/ EX-2			
232	VEST	CPT-3	GL-1	SST	GL-4	SST	GL-2	SST	GL-2	SST	CL-2/ EX-2			
233	CORR.	CPT-3	GL-2/ PT	SST	GL-4/ PT	SST	DP-2	SST	--	SST	CL-2			
234	FBO OFFICE	CPT-1	GL-1/ PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-2/ EX-2			
235	WOMEN	T-1/ T-2	T	T	T	T	T/ GT	T	T	T	CL-4			
236	MEN	T-1/ T-2	T/ GT	T	T	T	T	T	T	T	CL-4			
237	INTERNATIONAL	TER	GL-5	TER	DRY MTL	TER	GL-5	TER	DRY MTL/ GL-2	TER	CL-6			
238	MEN	T-1/ T-2	T	T	T/ GT	T	T	T	T	T	CL-4			
239	WOMEN	T-1/ T-2	T	T	T/ GT	T	T	T	T	T	CL-4			
240	COMP	CPT-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-7			
241	OFFICE	CPT-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-6			
242	CORR.	CPT-3	GL-1	SST	PT	SST	DP-2	SST	GL-1	SST	CL-2/ EX-2			
243	NOT USED													
244	NOT USED													
245	ROVER	CPT-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-6			
247	FIXED BRIDGE	--	--	--	--	--	--	--	--	--	--			Equipment Item
248	FIXED BRIDGE	--	--	--	--	--	--	--	--	--	--			Equipment Item
249	STOR.	RF-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			
250	CONF.	CPT-5	WC	WB	PT	WB	PT	WB	PT	WB	CL-5			
251	OFFICE	CPT-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			
252	WHEELCHAIR	RF-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			

REMARKS

1
2
3

GENERAL NOTES

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2
3

THIRD FLOOR FINISH SCHEDULE

ROOM #	ROOM NAME	FLOOR	WALLS								CEILING		WINDOW COVERING	REMARKS
			NORTH		EAST		SOUTH		WEST					
		FINISH	FINISH	BASE	FINISH	BASE	FINISH	BASE	FINISH	BASE	MATERIAL	HEIGHT		
301	WAITING	CPT-3	WC/ PT	WB	WC/ PT	WB	WC/ PT	WB	WC/ PT	WB	CL-5/ CL-6			
302	CORRIDOR	CPT-3	WC/ PT	WB	WC/ PT	WB	WC/ PT	WB	WC/ PT	WB	CL-6			
303	NOT USED													
304	MECHANICAL ROOM	SC-1	--	--	--	--	--	--	--	--	EX-1			
305	OFFICE	CPT-4	PT	RB-2	PT	RB-2	PT	RB-2	PT	RB-2	CL-5			
306	CORRIDOR	CPT-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			
307	TSA TRAINING	CPT-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			
308	W. LOCKER	RF-2	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			
309	M. LOCKER	RF-2	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			
310	TSA BREAK	RF-2	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			
311	TSA OFFICE	CPT-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			
312	TSA OFFICE	CPT-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			
313	BADGE	CPT-4	PT	RB-2	PT	RB-2	PT	RB-2	PT	RB-2	CL-5			
314	JAN.	RF-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	EX-1			
315	MEN	T-1/ T-2	T	T	T/ GT	T	T/ GT	T	T	T	CL-4			
316	WOMEN	T-1/ T-2	T	T	T	T	T/ GT	T	T/ GT	T	CL-4			
317	CORR.	CPT-4	WC/ PT	RB-2	PT	RB-2	PT	RB-2	WC/PT	RB-2	CL-5			
318	EMERG. OPS	CPT-5	GL-1/ PT	WB	WC/ PT	WB	PT	WB	PT	WB	CL-5/ CL-6			
319	STORAGE	RF-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			
320	OSP CONF.	CPT-5	GL-1/ PT	WB	WC/ PT	WB	PT	WB	GL-1/ PT	WB	CL-5/ CL-6			
321	RECEPTION	CPT-4	PT	RB-2	PT	RB-2	PT	RB-2	WC/ PT	RB-2	CL-5/ CL-6			
322	OPS CONF.	CPT-5	GL-1/ PT	WB	WC/ PT	WB	PT	WB	PT	WB	CL-5/ CL-6			
323	EXEC DIR.	CPT-4	GL-1/ PT	RB-2	PT	RB-2	PT	RB-2	PT	RB-2	CL-5/ CL-6			
324	OPS.	CPT-4	GL-1/ PT	RB-2	PT	RB-2	PT	RB-2	PT	RB-2	CL-5/ CL-6			
325	DIR.	CPT-4	GL-1/ PT	RB-2	PT	RB-2	PT	RB-2	PT	RB-2	CL-5/ CL-6			
326	DIR.	CPT-4	GL-1/ PT	RB-2	PT	RB-2	PT	RB-2	PT	RB-2	CL-5/ CL-6			
327	OFFICE	CPT-4	GL-1/ PT	RB-2	GL-1/ PT	RB-2	PT	RB-2	PT	RB-2	CL-5/ CL-6			
328	OPEN OFFICE	CPT-4	WC/ PT	RB-2	GL-1/ PT	RB-2	PT	RB-2	PT	RB-2	CL-5			
229	NOT USED													
330	NOT USED													
331	COPY	RB-3	PT	RB-2	PT	RB-2	PT	RB-2	PT	RB-2	CL-5			
332	OFFICE	CPT-4	PT	RB-2	PT	RB-2	PT	RB-2	PT	RB-2	CL-5			
333	MECHANICAL ROOM	SC-1	--	--	--	--	--	--	--	--	EX-1			
334	ELECTRICAL	SC-1	--	--	--	--	--	--	--	--	EX-1			
335	CORRIDOR	CPT-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	EX-2			
336	STORAGE	RF-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			
337	COMM/ ELEC	RF-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			

REMARKS

1
2
3

GENERAL NOTES

1
2
3

FIRST FLOOR FINISH SCHEDULE

ROOM #	ROOM NAME	FLOOR	WALLS								CEILING		WINDOW COVERING	REMARKS
			NORTH		EAST		SOUTH		WEST					
		FINISH	FINISH	BASE	FINISH	BASE	FINISH	BASE	FINISH	BASE	MATERIAL	HEIGHT		
100/ 101	VESTIBULE		GL-1		GL-1		GL-1		GL-1		--			Entrance Floor System- Refer to Specifications
102	CHECK- IN LOBBY	TER		SST	GL-1	SST	GL-1	SST		SST	CL-3			
103	CHECK- IN COUNTER	TER	DP-1/ DP-2	SST	GL-1	SST	--	SST	--	SST	CL-1			
104	LOBBY CIRCULATION	TER	DP-1	SST	--	SST	DP-1/ DP-2	SST	--	SST	CL-2/ CL-6			
105	ELEV.													Refer to Elevator Specifications
106	RAC 5B	RF-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			
107	RAC 5A	TER	DP-1/ PT	SST	DP-1/ PT	SST	PT	SST	DP-1/ PT	SST	CL-2			
108	RAC 4B	RF-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			
109	RAC 4A	TER	DP-1/ PT	SST	DP-1/ PT	SST	PT	SST	DP-1/ PT	SST	CL-2			
110	RAC 3B	RF-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			
111	RAC 3A	TER	DP-1/ PT	SST	DP-1/ PT	SST	PT	SST	DP-1/ PT	SST	CL-2			
112	RAC 2B	RF-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			
113	RAC 2A	TER	DP-1/ PT	SST	DP-1/ PT	SST	PT	SST	DP-1/ PT	SST	CL-2			
114	RAC 1B	RF-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			
115	RAC 1A	TER	DP-1/ PT	SST	DP-1/ PT	SST	PT	SST	DP-1/ PT	SST	CL-2			
116	BAGGAGE CLAIM	TER	DP-1 / DP-2	SST	DP-1/ DP-2	SST	GL-1	SST	DP-1/ DP-2	SST	CL-2/ CL-6			
117	INTERNATIONAL	TER	DP-1/ DP-2	SST	DP-1/ DP-2	SST	GL-1	SST	GL-1	SST	CL-1/ CL-2			
118	ELEV.													Refer to Elevator Specifications
119	NOT USED													
120	CORRIDOR	FT-2	WRY PT	FT-2	WRY PT	FT-2	WRY PT	FT-2	WRY PT	FT-2	CL-3			
121	WHEELCHAIR	FT-2	WRY PT	FT-2	WRY PT	FT-2	WRY PT	FT-2	WRY PT	FT-2	CL-3			
122	OPS	CPT-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			
123	OFFICE	CPT-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			
124	OPS	CPT-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			
125	OFFICE	CPT-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			
126	LOADING	SC-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	EX-1			
127	OPS	CPT-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			
128	SPRINKLER	SC-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	EX-1			
129	WOMENS	FT-1	T/ PT	FT-1	T/ PT	FT-1	T/ PT	FT-1	T/ PT	FT-1	CL-4			
130	MENS	FT-1	T/ PT	FT-1	T/ PT	FT-1	T/ PT	FT-1	T/ PT	FT-1	CL-4			
131	OPS	CPT-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			
132	OFFICE	CPT-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			
133	CBIS ROOM	SC-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	EX-1			
134	BAG	RF-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	EX-1			
135	BAG	RF-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	EX-1			
136	MEN	T-1/ T-2	T	T	T/GT	T	T/ GT	T	T	T	CL-4			
137	FAMILY	T-1	T	T	T	T	T	T	T	T	CL-4			
138	JAN.	RF-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-4			
139	WOMEN	T-1/ T-2	T	T	T	T	T/ GT	T	T/ GT	T	CL-4			
140	CORRIDOR	RF-3	WRY PT	RB-1	WRY PT	RB-1	WRY PT	RB-1	WRY PT	RB-1	CL-3			
141	MAINT	RF-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			
142	BHS CONT	RF-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			
143	MACH.	RF-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			
144	CBIS CONT.	RF-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			
145	W. LOCKER	RF-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			
146	M. LOCKER	RF-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			
147	NOT USED													
148	SUB OFFICE	RF-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-3			
149	ELECTRICAL	SC-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	EX-1			
150	CORRIDOR	RF-3	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-6			
151	COMM	SC-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-6			
152	NOT USED													
153	ELEV MACHINE	SC-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	EX-1			
154	ELEV													Refer to Elevator Specifications
155	RECHECK	TER	DP-1/ DP-2/ PT	SST	DP-1/ DP-2/ PT	SST	DP-1/ DP-2	SST	DP-1/ DP-2	SST	CL-2			
156	BREAK	RF-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-6			
157	MEN	FT-1	T/ PT	FT-1	T/ PT	FT-1	T/ PT	FT-1	T/ PT	FT-1	CL-4			
158	WOMEN	FT-1	T/ PT	FT-1	T/ PT	FT-1	T/ PT	FT-1	T/ PT	FT-1	CL-4			
159	SEC. X-RAY	CPT-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-6			
160	A.G LAB	FT-2	PT	FT-2	PT	FT-2	PT	FT-2	PT	FT-2	CL-6			
161	INTERV.	CPT-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-6			
162	ADIT	CPT-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-6			
163	ROVER	CPT-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-6			
164	STOR	RF-2	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-6			
165	INTERV.	CPT-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-6			
166	OFFICE	CPT-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-6			
167	STOR	RF-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-7			
168	CORRIDOR	FT-2	WRY PT	FT-2	WRY PT	FT-2	WRY PT	FT-2	WRY PT	FT-2	CL-6			
169	SEARCH	FT-1	PT	FT-1	PT	FT-1	PT	FT-1	PT	FT-1	CL-7			
170	HOLD ROOM	FT-1	FRP	FT-1	FRP	FT-1	FRP	FT-1	FRP	FT-1	CL-7			
171	HOLD ROOM	FT-1	FRP	FT-1	FRP	FT-1	FRP	FT-1	FRP	FT-1	CL-7			
172	DBS	FT-2	PT	FT-2	PT	FT-2	PT	FT-2	PT	FT-2	CL-6			
173	MEN	FT-1	T	FT-1	T	FT-1	T	FT-1	T	FT-1	CL-4			
174	WOMEN	FT-1	T	FT-1	T	FT-1	T	FT-1	T	FT-1	CL-4			
175	ELEV M.	SC-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	EX-1			
176	TUG TUNNEL	SC-1	--	--	--	--	--	--	--	--	EX-1			
177	NOT USED													
178	TUG RAMP	SC-1	--	--	--	--	--	--	--	--	EX-1			
179	TUG RAMP	SC-1	--	--	--	--	--	--	--	--	EX-1			
180	OFFICE	CPT-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-6			
181	CASHIER	CPT-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-6			
182	CORRIDOR	CPT-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	CL-6			
183	BAG	RF- 1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	EX-1			
184	BAG	RF-1	PT	RB-1	PT	RB-1	PT	RB-1	PT	RB-1	EX-1			

REMARKS

1
2
3

GENERAL NOTES

1
2
3

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ARCHITECTURAL CERTIFICATION
I hereby certify that the architectural plans, specifications or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Architect under the laws of the State of Minnesota.

Print Name: Mark Ip

Signature:

Date: 06-03-10 Reg. No.: 46001

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 1	6.11.10
	CONFORMANCE SET	7.12.10
3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: VO/MKI
DESIGNED BY: SBS/TC

AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
INTERIOR FINISH SCHEDULES

SHEET NUMBER
A801

BUILDING PERMIT

INTERIOR MATERIAL SCHEDULE

CODE TAG	MATERIAL	MANUFACTURER	SERIES	COLOR	DIMENSIONS	REMARKS
MILLWORK						
MLT-1	STAINLESS STEEL					
PL-1	PLASTIC LAMINATE					
PL-2	PLASTIC LAMINATE					
PL-3	PLASTIC LAMINATE					
PL-4	PLASTIC LAMINATE					
QS-1	QUARTZ SURFACING					
QS-2	QUARTZ SURFACING					
SSM-1	SOLID SURFACE					
SSM-2	SOLID SURFACE					
WD	WOOD					

EQUIPMENT SCHEDULE

MARK	ITEM	QTY	MANUFACTURER	MODEL	COLOR	DESCRIPTION
E-1						
E-2						
E-3						
E-4						
NOTES						

FINISH NOTES FOR ALL AREAS RECEIVING NEW CONSTRUCTION:

1. ALL WALLS AND COLUMN ENCLOSURES TO BE PAINTED (PT-1) SATIN FINISH, UNLESS OTHERWISE NOTED.
2. ALL WALLS TO RECEIVE (VB-1) VINYL BASE, UNLESS OTHERWISE NOTED,
3. STEEL DOORS AND FRAMES TO BE PAINTED WITH A SEMI"GLOSS FINISH. ALL PAINTED DOORS AND FRAMES TO BE PAINTED TO MATCH ADJACENT WALL OTHERWISE NOTED. WOOD FRAMES TO BE STAINED AND VARNISHED, WOOD DOORS ARE TO BE FACTORY PRE-FINISHED TO MATCH (WD-1).
4. ALL FLOOR FINISH TO BE CARPET (CPT-1) UNLESS OTHERWISE NOTED.
5. GENERAL CONTRACTOR AND SUB-CONTRACTOR MUST NOTIFY ARCHITECT OF ANY MATERIALS REQUIRING LONG LEAD TIMES SO THAT THESE MATERIALS MAY BE ORDERED OR PRE-ORDERED TO ENSURE A TIMELY COMPLETION WITHIN THE OWNER'S CONSTRUCTION SCHEDULE.
6. NEW RESILIENT BASE TO BE 4" HIGH UNLESS OTHERWISE NOTED. RESILIENT BASE TO BE FURNISHED FROM A CONTINUOUS ROLL, AND INSTALLED WITH NO JOINTS. IF LENGTH TO BE INSTALLED IS GREATER THAN THE LENGTH OF OF THE LARGEST ROLL, PLACE JOINTS EQUAL DISTANCE FROM EACH OTHER. EXTERIOR CORNERS ARE TO BE FORMED CONTINUOUS WITH SAME COIL STOCK- NO PREFORMED CORNERS AND BACKREST.
7. RESILIENT BASE AT CARPET AREAS TO BE FLAT BASE. RESILIENT BASE AT HARD SURFACE FLOORS TO BE COVED BASE.
8. PARTITIONS CONCEALED WITH MILLWORK CABINETRY TO BE TAPED, DRYWALL COMPOUND APPLIED, SANDED, SMOOTHED, AND PRIMED.
9. PROVIDE FINISH COAT OF PAINT AT ALL EXPOSED WALL SURFACE AREAS BEHIND APPLIED MILLWORK, FILE CABINETS, PANELS, ETC. DUE TO REVEALS, JOINTS, OPENINGS, END CONDITIONS, ETC. REVEAL COLOR TO BE FLAT BLACK UNLESS OTHERWISE NOTED.
10, ALL ACCESS PLATES, PANELS, BOXES, COVERS, MECH, CUH, BASEBOARD COVERS AND SUPPORTS TO BE FACTORY PRE-FINISHED AND TO RECEIVE SEMI- GLOSS FINISH TO MATCH WALL COLOR.
11. PRIOR TO APPLICATION OF PAINT, ALL SURFACES SHOULD BE PROPERLY PREPARED, TAPED, AND SANDED.
12. ALL GYPSUM REVEALS, CORNERS,,AND TRANSITIONS TO BE FORMED WITH PVC FINISH BEADS. ALL BEADS ARE TO BE TAPED, DRYWALL COMPOUND APPLIED, AND SANDED SMOOTH.
13. FINISH FLOOR MATERIAL TO BE INSTALLED UNDER ALL MILLWORK. FLOOR FINISH TO RUN UP TO CABINET AND BUT INTO KNEE SPACES. BASE OF ROOM TO BE APPLIED TO CABINET AND EXPOSED CABINET AND SHALL BE FINISHED SAME AS CABINET BODY.
14. TRANSITIONS BETWEEN DISSIMILAR FLOOR FINISHES TO ALIGN UNLESS OTHERWISE NOTED. CONTRACTOR IS RESPONSIBLE FOR ANY REQUIRED FLOOR LEVELING REQUIRED TO COMPLETE A QUALITY INSTALLATION. THE FLOORING CONTRACTOR IS RESPONSIBLE FOR LEVELING,
15. TRANSITIONS OCCURRING IN A DOOR OPENING SHALL BE INSTALLED SO THE TRANSITION OCCURS UNDER THE CENTER LINE OF OF THE DOOR IN THE CLOSED POSITION,
16, PROVIDE RESILIENT TRANSITION STRIPS AT ALL CARPETI HARD SURFACE TRANSITIONS, FLOORING CONTRACTOR TO SUBMIT MANUFACTURER'S FULL LINE OF AVAILABLE COLORS FOR ARCHITECTS APPROVAL,
17. FLOORING CONTRACTOR TO PROVIDE CARPET SEAMING DIAGRAM TO ARCHITECT FOR REVIEW PRIOR TO CUTTING OR INSTALLATION.
18. REFER TO REFLECTED CEILING DRAWINGS FOR CEILING FINISHES AND LOCATIONS, HEIGHTS, ETC,
19. ALL EXISTING DOORS AND FRAMES TO BE PAINTED TO MATCH ADJACENT WALL BOTH INTERIOR AND EXTERIOR SIDES. EXISTING STAINED DOORS ARE TO BE TOUCH STAINED AND REVARNISHED.
20. PAINT ALL EXPOSED DUCTWORK, CONDUIT, PIPES, AND MECHANICAL ELECTRICAL EQUIPMENT.
21. STAIRS: PAINT ALL EXPOSED METAL INCLUDING, BUT NOT LIMITED TO STRINGERS. RISERS, AND TREAD PANS,

INTERIOR MATERIAL SCHEDULE

CODE TAG	MATERIAL	MANUFACTURER	SERIES	COLOR	DIMENSIONS	REMARKS
FLOOR						
CPT-1	BROADLOOM					GENERAL AREAS
CPT-2	CARPET TILE					PUBLIC AREAS
CPT-3	CARPET TILE					PUBLIC AREAS
CPT-4	BROADLOOM					ADMIN LEVEL - OFFICES
CPT-5	BROADLOOM					ADMIN LEVEL - CONF ROOMS
FT-1	FLOOR TOPPING- FLAKE COATING SYSTEM					ANCILLARY SPACES
FT-2	FLOOR TOPPING- FLAKE COATING SYSTEM					ANCILLARY SPACES
RF-1	RESILIENT FLOORING					
RF-2	RESILIENT FLOORING					
RF-3	RESILIENT FLOORING					
SC-1	SEALED CONCRETE - NO STAIN					
SC-2	SEALED CONCRETE - STAINED					
TER-1	TERRAZZO FLOORING					
TER-2	TERRAZZO FLOORING					
TER-3	TERRAZZO FLOORING					
TER-4	TERRAZZO FLOORING					
T-1	PORCELAIN TILE- FLOOR					
T-2	PORCELAIN TILE- FLOOR					
BASE						
RB-1	RUBBER BASE- STANDARD PROFILE					
RB-2	RUBBER BASE- UPGRADED PROFILE					
SST	STAINLESS STEEL BASE					
WB	WOOD BASE					
WALLS						
DP-1	DECORATIVE PANELS- WOOD					
DP-2	DECORATIVE PANELS- WOOD					
DP-3	DECORATIVE PANELS- METAL					
DP-4	DECORATIVE PANELS- METAL					
FRP-1	FIBERGLASS REINFORCED PANEL					
GL-1	EXTERIOR GLAZING SYSTEM					
GL-2	INTERIOR GLAZING- NO PATTERN					
GL-3	GUARDRAIL GLASS					
GL-4	LAMINATED DECORATIVE GLASS W/ DOUBLE LAYER CUSTOM GRAPHIC					
GT-1	GLASS MOSAIC TILE					
GT-2	GLASS MOSAIC TILE					
PT	PAINT (NOT TO EXCEED 20 COLORS)					
T-3	PORCELAIN TILE- WALL					
T-4	PORCELAIN TILE- WALL					
T-5	PORCELAIN TILE- WALL					
T-6	PORCELAIN TILE- WALL					
WC	WALL COVERING					
WP	WALL PROTECTION - RIGID SHEET VINYL					
CEILING						
CL-1	SUSPENDED LINEAR METAL CEILING					
CL-2	WOOD GRILLE CEILING SYSTEM					
CL-3	MINERAL FIBER CEILING TILE					ANCILLARY SPACES
CL-4	WATERPROOF GYP BD- PAINTED					
CL-5	MINERAL FIBER CEILING TILE					ADMIN LEVEL
CL-6	GYP BD. - PAINTED					
CL-7	REINFORCED GYP BD.- PAINTED					
EX-1	EXPOSED CEILING - UNFINISHED					
EX-2	EXPOSED CEILING - PAINTED					

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I hereby certify that the architectural plans, specifications or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Architect under the laws of the State of Minnesota.

Print Name: Mark Ip

Signature:

Date: 06-03-10 Reg. No.: 46001

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 1	6.11.10
	CONFORMANCE SET	7.12.10
3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
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DRAWN BY: VO/MKI
DESIGNED BY: SBS/TC

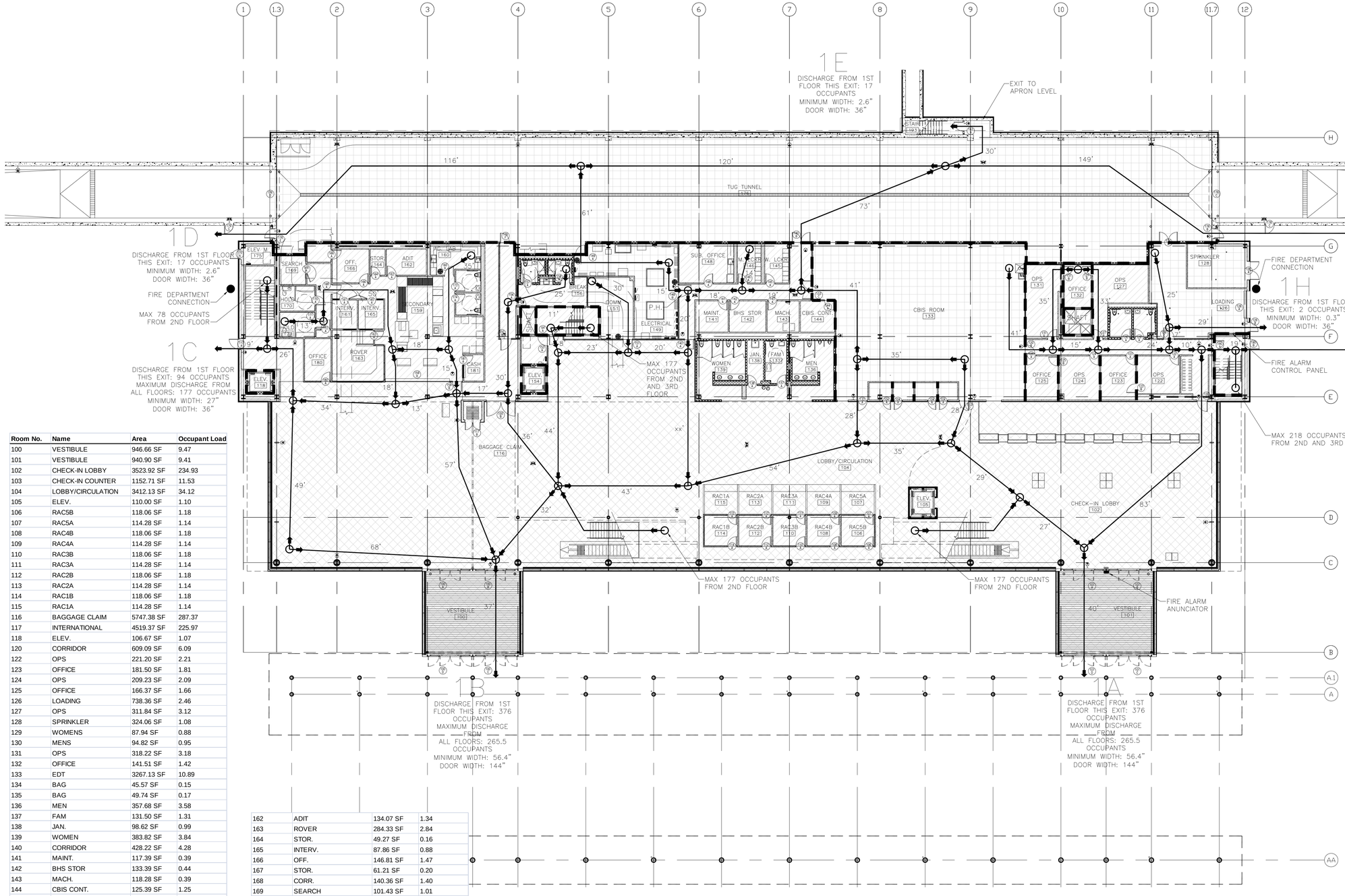
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
INTERIOR MATERIALS AND EQUIPMENT SCHEDULE

SHEET NUMBER
A802

BUILDING PERMIT

Drawing: t:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\A802 Interior Materials Schedule.dwg Plotted on: 8/16/2010 9:56 AM Plotted by: lp, Mark



Room No.	Name	Area	Occupant Load
100	VESTIBULE	946.66 SF	9.47
101	VESTIBULE	940.90 SF	9.41
102	CHECK-IN LOBBY	3523.92 SF	234.93
103	CHECK-IN COUNTER	1152.71 SF	11.53
104	LOBBY/CIRCULATION	3412.13 SF	34.12
105	ELEV.	110.00 SF	1.10
106	RAC5B	118.06 SF	1.18
107	RAC5A	114.28 SF	1.14
108	RAC4B	118.06 SF	1.18
109	RAC4A	114.28 SF	1.14
110	RAC3B	118.06 SF	1.18
111	RAC3A	114.28 SF	1.14
112	RAC2B	118.06 SF	1.18
113	RAC2A	114.28 SF	1.14
114	RAC1B	118.06 SF	1.18
115	RAC1A	114.28 SF	1.14
116	BAGGAGE CLAIM	5747.38 SF	287.37
117	INTERNATIONAL	4519.37 SF	225.97
118	ELEV.	106.67 SF	1.07
120	CORRIDOR	609.09 SF	6.09
122	OPS	221.20 SF	2.21
123	OFFICE	181.50 SF	1.81
124	OPS	209.23 SF	2.09
125	OFFICE	166.37 SF	1.66
126	LOADING	738.36 SF	2.46
127	OPS	311.84 SF	3.12
128	SPRINKLER	324.06 SF	1.08
129	WOMENS	87.94 SF	0.88
130	MENS	94.82 SF	0.95
131	OPS	318.22 SF	3.18
132	OFFICE	141.51 SF	1.42
133	EDT	3267.13 SF	10.89
134	BAG	45.57 SF	0.15
135	BAG	49.74 SF	0.17
136	MEN	357.68 SF	3.58
137	FAM	131.50 SF	1.31
138	JAN.	98.62 SF	0.99
139	WOMEN	383.82 SF	3.84
140	CORRIDOR	428.22 SF	4.28
141	MAINT.	117.39 SF	0.39
142	BHS STOR	133.39 SF	0.44
143	MACH.	118.28 SF	0.39
144	CBIS CONT.	125.39 SF	1.25
145	W. LCKR	117.94 SF	2.36
146	M. LCKR	116.82 SF	2.34
147	BREAK	126.93 SF	8.46
148	SUB. OFFICE	133.67 SF	1.34
149	ELECTRICAL	681.55 SF	2.27
150	LOST BAG	123.62 SF	0.41
151	COMM	155.87 SF	0.52
153	ELEV. MACH.	91.86 SF	0.31
154	ELEV.	100.02 SF	1.00
155	RECHECK	670.32 SF	6.70
156	BREAK	214.80 SF	14.32
157	MEN	84.03 SF	0.84
158	WOMEN	74.36 SF	0.74
159	X-RAY	977.83 SF	3.26
160	AG. LAB	144.85 SF	1.45
161	INTERV.	83.68 SF	0.84

162	ADIT	134.07 SF	1.34
163	ROVER	284.33 SF	2.84
164	STOR.	49.27 SF	0.16
165	INTERV.	87.86 SF	0.88
166	OFF.	146.81 SF	1.47
167	STOR.	61.21 SF	0.20
168	CORR.	140.36 SF	1.40
169	SEARCH	101.43 SF	1.01
170	HOLD	112.84 SF	1.13
171	HOLD	112.84 SF	1.13
172	DBS	14.95 SF	0.15
173	MEN	75.42 SF	0.75
174	WOM	75.42 SF	0.75
175	ELEV M	100.11 SF	0.33
176	TUG TUNNEL	11702.26 SF	39.01
180	OFFICE	132.23 SF	1.32
181	CASH	64.17 SF	0.64
182	CORR.	109.29 SF	1.09
183	BAG	48.18 SF	0.16
184	BAG	42.45 SF	0.14
190	STAIRS	270.25 SF	2.70
191	STAIRS	193.86 SF	1.94
192	STAIRS	299.01 SF	2.99
193	STAIR	200.73 SF	2.01

1 LIFE SAFETY PLAN
1/16" = 1'-0"

N

OCCUPANCY CALCULATION
B OCCUPANCY: 103
A3 OCCUPANCY: 878
S2 OCCUPANCY: 13
TOTAL OCCUPANTS: 994

FIRE RATING & TRAVEL DISTANCE LEGEND

1 HR Fire Rating	
Start Point of Travel to Exit	
Travel Distance to Exit	XX'
Fire Extinguisher	
Eye Wash Station	
Exit Sign	

OCCUPANCY AREAS LEGEND

S2 Occupancy	
A3 Occupancy	
B Occupancy	

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Print Name: Mark Ip

Signature:

Date: 08-16-10 Reg. No.: 46001

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 1	6.11.10
	CONFORMANCE SET	7.12.10
3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

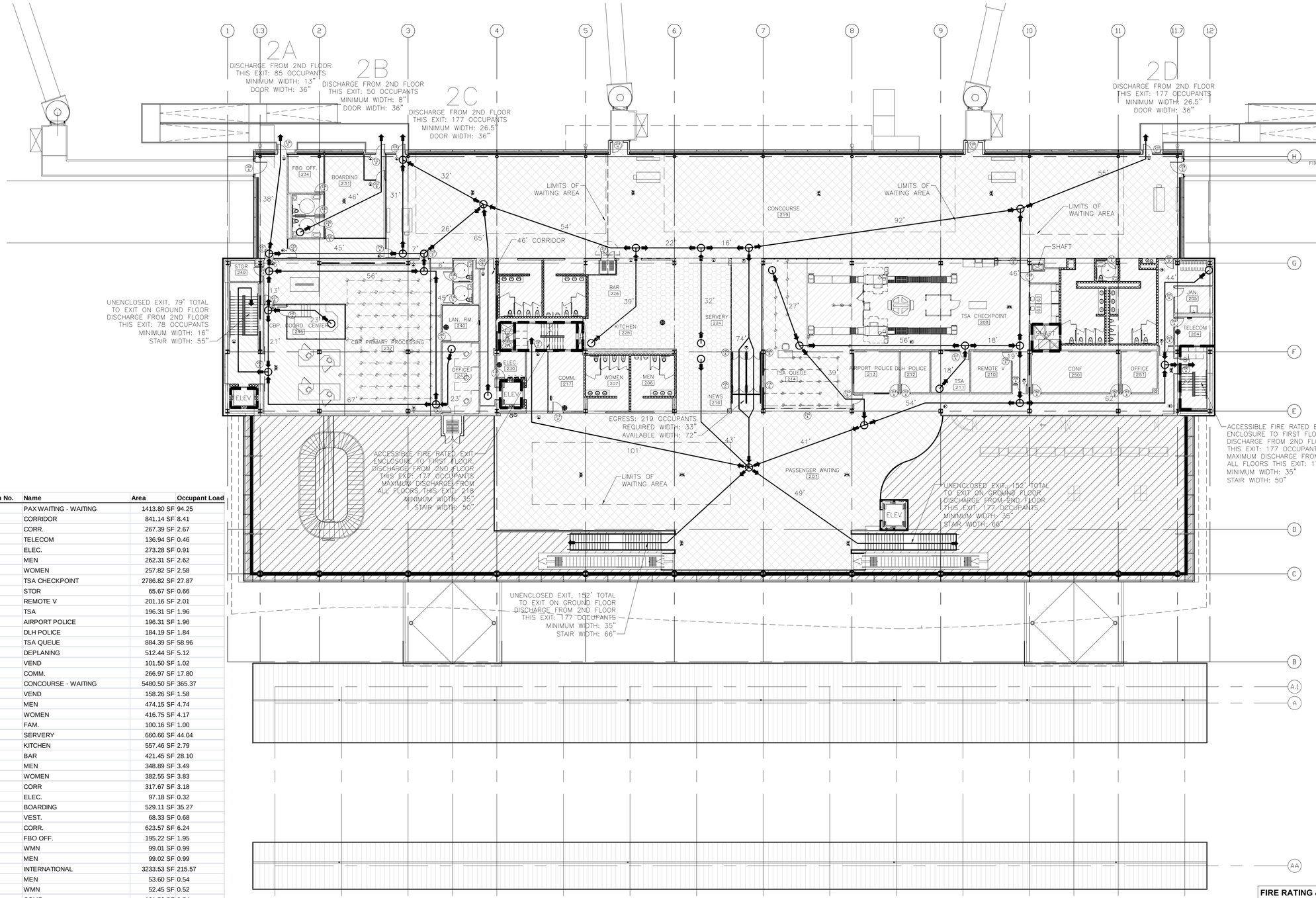
DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
FIRST FLOOR LIFE SAFETY PLAN

SHEET NUMBER
LS101

BUILDING PERMIT



Room No.	Name	Area	Occupant Load
201	PAX WAITING - WAITING	1413.80 SF	94.25
202	CORRIDOR	841.14 SF	8.41
203	CORR.	267.39 SF	2.67
204	TELECOM	136.94 SF	0.46
205	ELEC.	273.28 SF	0.91
206	MEN	262.31 SF	2.62
207	WOMEN	257.82 SF	2.58
208	TSA CHECKPOINT	2786.82 SF	27.87
209	STOR	65.67 SF	0.66
210	REMOTE V	201.16 SF	2.01
211	TSA	196.31 SF	1.96
212	AIRPORT POLICE	196.31 SF	1.96
213	DLH POLICE	184.19 SF	1.84
214	TSA QUEUE	884.39 SF	58.96
215	DEPLANING	512.44 SF	5.12
216	VEND	101.50 SF	1.02
217	COMM.	266.97 SF	17.80
219	CONCOURSE - WAITING	5480.50 SF	365.37
220	VEND	158.26 SF	1.58
221	MEN	474.15 SF	4.74
222	WOMEN	416.75 SF	4.17
223	FAM.	100.16 SF	1.00
224	SERVERY	660.66 SF	44.04
225	KITCHEN	557.46 SF	2.79
226	BAR	421.45 SF	28.10
227	MEN	348.89 SF	3.49
228	WOMEN	382.55 SF	3.83
229	CORR	317.67 SF	3.18
230	ELEC.	97.18 SF	0.32
231	BOARDING	529.11 SF	35.27
232	VEST.	68.33 SF	0.68
233	CORR.	623.57 SF	6.24
234	FBO OFF.	195.22 SF	1.95
235	WMN	99.01 SF	0.99
236	MEN	99.02 SF	0.99
237	INTERNATIONAL	3233.53 SF	215.57
238	MEN	53.60 SF	0.54
239	WMN	52.45 SF	0.52
240	COMP.	161.76 SF	0.54
241	OFFICE	315.88 SF	3.16
245	ROVER	229.44 SF	2.29
249	STOR	104.25 SF	0.35
250	CONF	395.19 SF	26.35
251	OFFICE	144.56 SF	1.45
252	STOR.	49.33 SF	0.16
253	WHLCHR	34.99 SF	0.12
290	STAIRS	259.86 SF	2.60
291	STAIRS	196.09 SF	1.96
292	STAIRS	314.47 SF	3.14
293	JAN	41.41 SF	0.14
201A	PAX WAITING - CIRCULATION	5222.44 SF	52.22
219A	CONCOURSE - CIRCULATION	4528.81 SF	45.29

N

1 LIFE SAFETY PLAN
1/16" = 1'-0"

OCCUPANCY CALCULATION
B OCCUPANCY: 157
A3 OCCUPANCY: 867
A2 OCCUPANCY: 72
TOTAL OCCUPANTS: 1096

FIRE RATING & TRAVEL DISTANCE LEGEND

1 HR Fire Rating	
Start Point of Travel to Exit	
Travel Distance to Exit	XX'
Fire Extinguisher	
Eye Wash Station	
Exit Sign	

OCCUPANCY AREAS LEGEND

B Occupancy	
A2 Occupancy	
A3 Occupancy	

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218-722-1227 Fax: 218-722-1052
www.rsandh.com

DULUTH AIRPORT AUTHORITY

DULUTH INTERNATIONAL AIRPORT DULUTH, MN

NEW PASSENGER TERMINAL

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ARCHITECTURAL CERTIFICATION
I hereby certify that the architectural plans, specifications or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Architect under the laws of the State of Minnesota.

Print Name: Mark Ip

Signature:

Date: 08-16-10 Reg. No.: 46001

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 1	6.11.10
	CONFORMANCE SET	7.12.10
3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

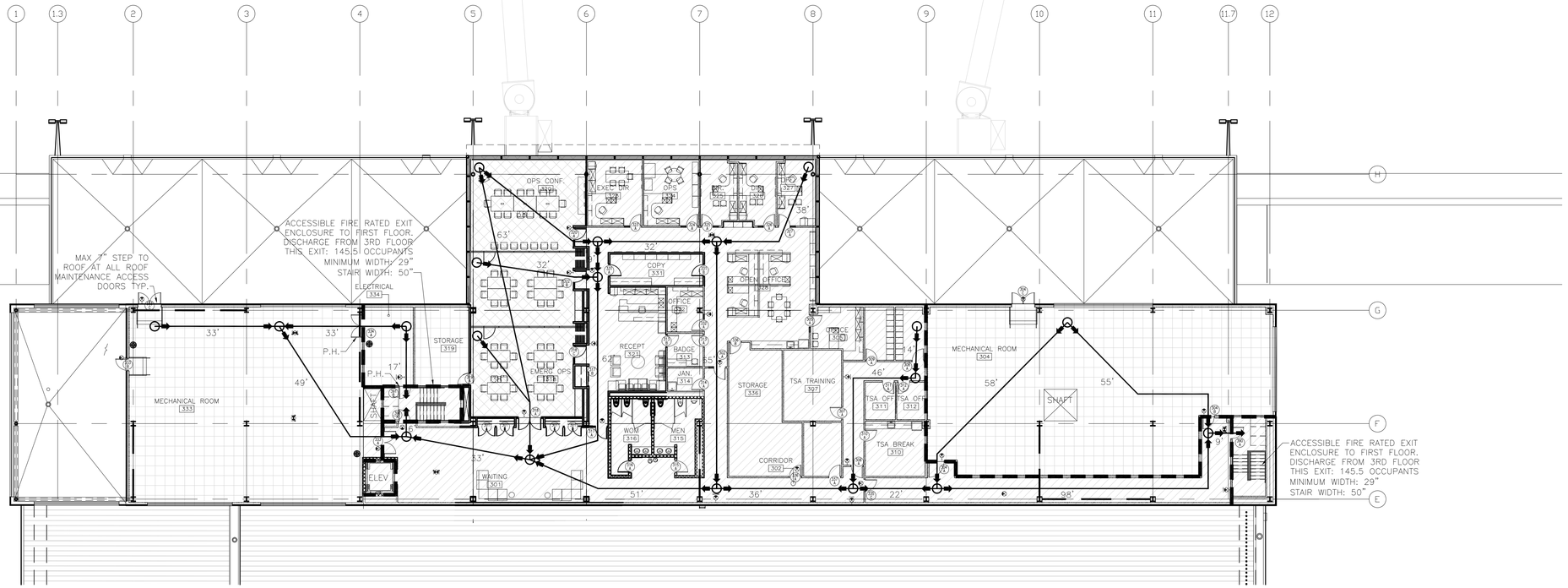
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
SECOND FLOOR LIFE SAFETY PLAN

SHEET NUMBER
LS102

BUILDING PERMIT

Room No.	Name	Area	Occupant Load
301	WAITING	1301.22 SF	13.01
302	CORRIDOR	831.55 SF	8.32
304	MECHANICAL ROOM	3774.52 SF	12.58
305	STORAGE	199.26 SF	0.66
306	CORR.	245.29 SF	2.45
307	TRAINING	302.66 SF	20.18
308	W. LCKR	134.74 SF	2.69
309	M. LCKR	130.31 SF	2.61
310	BREAK	245.58 SF	16.37
311	OFFICE	77.47 SF	0.77
312	OFFICE	74.00 SF	0.74
313	COMM/ELEC.	147.73 SF	0.49
314	JAN.	61.81 SF	0.21
315	MEN	248.04 SF	2.48
316	WOM	207.97 SF	2.08
317	CORR.	721.07 SF	7.21
318	EMERG OPS	1325.01 SF	88.33
319	STORAGE	320.82 SF	1.07
320	OPS CONF.	799.93 SF	53.33
321	RECEPT	231.70 SF	2.32
322	BADGE	92.19 SF	0.92
323	EXEC DIR	308.06 SF	3.08
324	OPS	278.92 SF	2.79
325	DIR.	210.79 SF	2.11
326	DIR.	199.52 SF	2.00
327	OFF.	220.45 SF	2.20
328	OPEN OFFICE	723.85 SF	7.24
331	COPY	219.82 SF	2.20
332	OFFICE	131.94 SF	1.32
333	MECHANICAL ROOM	3471.63 SF	11.57
334	ELECTRICAL	297.79 SF	0.99
335	CORRIDOR	967.01 SF	9.67
336	UNUSED	733.02 SF	2.44
390	STAIRS	283.02 SF	2.83
391	STAIRS	208.30 SF	2.08



N

1 LIFE SAFETY PLAN
1/16" = 1'-0"

OCCUPANCY CALCULATION
B OCCUPANCY: 126
A3 OCCUPANCY: 141
S2 OCCUPANCY: 24
TOTAL OCCUPANTS: 291

FIRE RATING & TRAVEL DISTANCE LEGEND

1 HR Fire Rating	
Start Point of Travel to Exit	
Travel Distance to Exit	XX'
Fire Extinguisher	
Eye Wash Station	
Exit Sign	

OCCUPANCY AREAS LEGEND

S2 Occupancy	
B Occupancy	
A3 Occupancy	

RS&H

Reynolds, Smith and Hills, Inc. — **ARCHITECTURAL CODE COMPLIANCE EVALUATION**

PROJECT: **Duluth International Airport**
PROJ #: **2131882.091**
DATE: 10/2/2009 *Prepared by:* **Mark Ip**

I APPLICABLE CODE(S):

	Life Safety: IBC-2006, 2007 MSBC	Mechanical: IMC-2006
	Accessibilty: IBC-2006, (ANSI/ICC) ADA, 2007 Minn Acc. Code	Gas: IFGC-2006
	Building Code: IBC-2006, 2007 MSBC	Electric: ICC EC-2006
	Plumbing Code: IPC-2006, Minn. Plumbing Code, Ch. 4715	Other:

II BUILDING DATA

1.	Total Gross Square Feet	**101,625**	6. Sprinklered	**Y**
2.	Number of Floors	**3**	7. Open Space - Area Mod.	**Y**
3.	Height of Building	**51**	a. If yes, Building Perimeter	**1077**
4.	Design Occupant Load	**2976.93**	b. Perim. w. min 20' open space	**1077**
5.	GLA	**2601.00**	8. OLF	**25.18**

III	CODE REVIEW		Reference	Notes
A	Classification Of Occupancy:			
	1. Occupancy Type 1	**Assembly for worship/recreation/amusement (A-3)**	Ref 302	See section 508 for occupancy separation req.
	2. Occupancy Type 2	**Business (B)**		
	3. Occupancy Type 3	**Storage Low Hazard (S-2)**		
	4. Occupancy Type 4	**Assembly for food consumption (A-2)**		
	5. Occupancy Type 5			
	6. Governing Occupancy	**Assembly for worship/recreation/amusement (A-3)**		
B	Construction Type:	**II-B**	Ref 602	Noncombustible Frame, Walls, Floor, Roof
C	Area Limitation:	**Unlimited**	Ref Chap 5	**Covered Mall Occupancy, ref 402.1**
D	Height Limitation:	**55**	Ref Chap 5	
E	Maximum number of Floors:	**3**	Ref Chap 5	**Covered Mall Occupancy, ref 402.1**
F	Fire Protective Requirements:		Ref 601/Chap 7	Note: FP adjusted for const. type & sprinklers
	1. Structural Frame	**0**	Ref 601/Chap 7	
	Supporting Roof Only	**0**	Ref 601/Chap 7	
	2. Bearing Walls			
	Exterior	**0**	Ref 601/Chap 7	
	Interior	**0**	Ref 601/Chap 7	
	Supporting Roofs Only	**0**	Ref 601/Chap 7	
	3. Nonbearing Walls/Partitions			
	Exterior <5' Separation	**1**	Ref Table 602	Note: Adjusted for Group and Const Type
	Exterior 5'-9' Separation	**1**	Ref Table 602	
	Exterior 10'-29' Separation	**0**	Ref Table 602	
	Exterior >30' Separation	**0**	Ref Table 602	
	Interior	**1hr between tenants**	Ref Table 602	Ref: 708.4 partitions to underside of ceiling
	4. Floor Construction	**0**	Ref 601/Chap 7	
	5. Roof Construction	**0**	Ref 601/Chap 7	
	6. Corridors	**0 hr if occupant load is >30**	Ref 1016.1	
	7. Stair/Ramp Enclosures	**1 hr, see 1020 for exceptions**	Ref 1020/706	
	8. Elevator Enclosures	**1 hr, see 707 for details**	Ref 707.4	**Elevator 103 not required to be rated.**
	9. Between Tenant Spaces	**1hr, to underside of ceiling only**	Ref 708.4.4	**Covered Mall Occupancy, ref 402.1**

III	CODE REVIEW (cont.)		Reference	Notes
G	Occupant Load			
	1. Design Occupant Load	**3499.48**	Ref 1004.1	
	2. GLA	**2601.00**	Ref 402.4	
	3. OLF	**25.18**	Ref 402.4	
H	Means Of Egress		Ref Chap 10	Ref 1025 for Assembly Occupancies
	1. Minimum Egress Width	**525 inches**	Ref 1005.1	0.15 inches x 3500 occupants
	2. Minimum number of exits	2	Ref 1019.2	Ref 1019.1 for req. exits by room
	- Actual number of exits	**12**		Ref 1018.2 for single exit requirements
	3. Capacity of each Exit			
	- Width of each Exit	**36**		
	- Total Exit Width	**576 inches**		
	4. Maximum travel Distance (fr	**200'**	**Ref 402.4.4**	**Max Travel Distance to Exit or Mall**
	5. Dead End Corridor Limit	**A: 20', B: 50'**	Ref 1017.3	See ref for Group I occupancies
	6. Min. Corridor Width	44"	Ref 1017.2	For Exit Passageway corridor, see H8 below
	7. Interior Corridor Rating	**0 hr if occupant load is >30**	Table 1017.1	
	8. Exit Passageway			
	a. Width	**min 44**	Ref 1021	
	b. Fire Rating	Min 1hr or match adjacent if higher	Ref 1021.3	
	c. Door rating	1/3 hr		
	9. Ramps			
	a. Minimum Width	36" min., not less than corridors.	Ref 1010.5.1	
	b. Maximum Slope	1:12 (8%) for egress, 1:8 (12.5%) other	Ref 1010.2	
	c. Height Between Landings	30"	ref 1010.4	
	10. Doorways:			
	a. Minimum Number	See 1015.1 for requirements for each room	Ref 1015.1	
	b. Door Size	Min 32"	Ref 1008.1.1	
	c. Special Size Rqts.	See 1008.1.1 for exceptions	Ref 1008.1.1	
	11. Horizontal Exit:			
	a. Separation	Ref 705, 706 for separations	Ref 1022.2	
	b. Fire Rating	2 hr	Ref 1022.2	
	c. Area Of Refuge	3 sf per occupant, see references	Ref 1022.4	
	12. Exit Stairways:			
	a. Capacity	See references	Ref 1009/1019	
	b. Width	**min 44**	Ref 1009/1005	Note: Adjusted for max Occupants
	c. Min. Headroom	80"	Ref 1009.2	
	d. Max. Ht. Between Landi	12'	Ref 1009.6	
	e. Max. Riser Height	7"	Ref 1009.3	
	f. Min. tread width	11"	Ref 1009.3	
	g. Door Rating	**1 hr**	Ref 715.4	
	h. Enclosure	**1 hr, see 1020 for exceptions**	Ref 1020/706	
	i. Smokeproof tower	Req'd if flr > 75' above or >30' below exit discharge	Ref 1020.1.7	
	j. Handrails	1.25" - 2" dia. W. 1.5" clearance W. 12" extension	Ref 1012	See also 1607.7
	13. Interior Finishes		Ref Chap 8	
	a. Exits, Vertical & Passag	**B**	Ref 803.5	
	b. Exit Access Corr.	**B**	Ref 803.5	
	c. Rooms & Enclosed	**C**	Ref 803.5	
I	Compartmentalized Areas:	For floors > 60' below exit discharge, see Ref	Ref 405.1	
J	Protection of Vert.Openings	Fire door Ref 715.3	Ref 1020.1.1	
K	Exit Lighting	Min. 1 fc (11lux) along egress, see ref for exceptions	Ref 1006	
L	Extinguishment Requirements	Provide portable extinguishers req'd by IFC-2003	Ref 906	
M	Mech.Conveyance (Vertical)	See references	Ref 3005	

IV	PLUMBING CODE REVIEW				
A	Min. Plumbing Fixture Req'ts:				
	1. Water Closets	Men's WC Required	**9.07**	Women's WC Required	**9.07**
		Men's WC Provided	**22**	Women's WC Provided	**22**
	2. Lavatories	Men's Lavatories Required	**5.32**	Women's Lavatories Required	**5.32**
		Men's Lavatories Provided	**15**	Women's Lavatories Provided	**17**
	3. Baths	Baths Required	**0.00**		
		Baths Provided	**0**		
	4. Drinking Fountains	Drinking Fountains Required	**6.80**		
		Drinking Fountains Provided	**8**		
	5. Sinks	Sinks Required	**1.00**		
		Sinks Provided	**3**		

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Print Name: Mark Ip

Signature:

Date: 08-16-10 Reg. No.: 46001

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 1	6.11.10
	CONFORMANCE SET	7.12.10
3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: SBS/TC
DRAWN BY: MKG/MI
DESIGNED BY: SBS/TC

AEP PROJECT NUMBER
213-1882-091

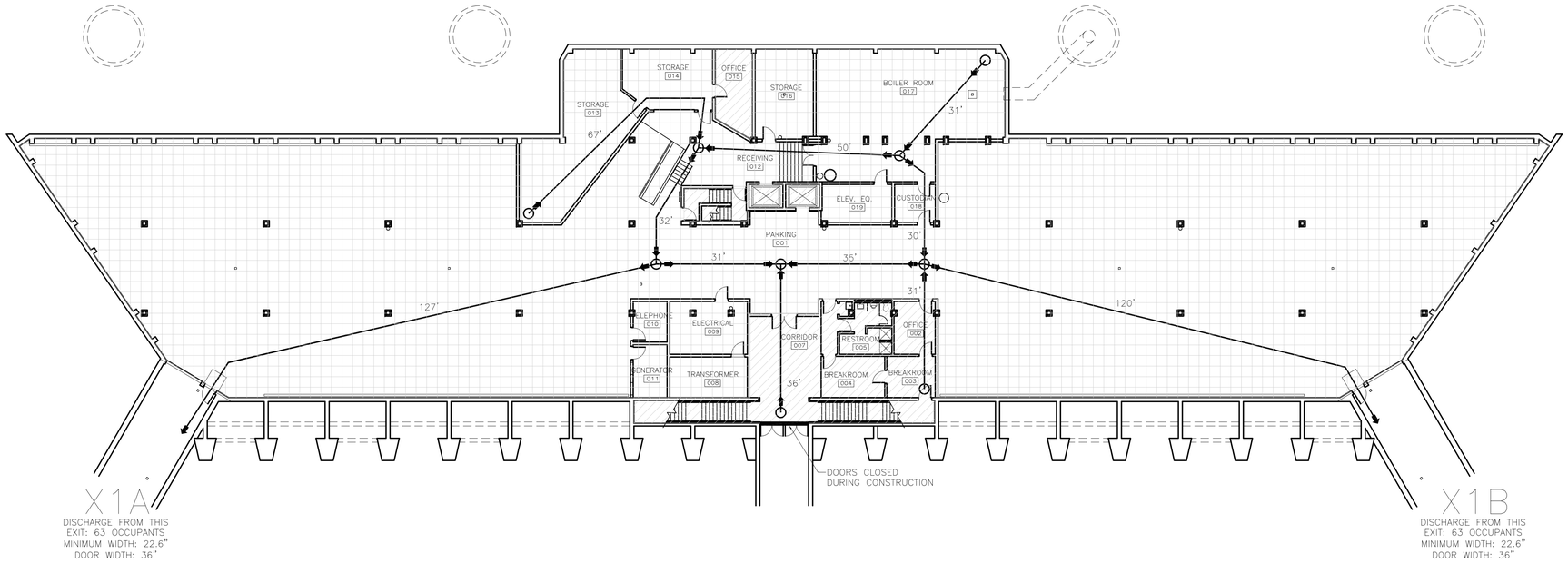
SHEET TITLE

THIRD FLOOR LIFE SAFETY PLAN

SHEET NUMBER

LS103

BUILDING PERMIT



1 LIFE SAFETY PLAN
1/16" = 1'-0"

Room No.	Name	Area	Occupant Load
1	PARKING	18067.60 SF	90.34
2	MAINT. OFFICE	145.39 SF	1.45
3	BREAK ROOM	135.11 SF	1.35
4	BREAKROOM	175.65 SF	1.76
5	RESTROOM	165.93 SF	1.66
6	CORRIDOR	61.92 SF	0.62
7	CORRIDOR	867.67 SF	8.68
8	TRANSFORMER	210.67 SF	0.70
9	ELECTRICAL	269.92 SF	0.90
10	TELEPHONE	96.00 SF	0.32
11	GENERATOR	123.00 SF	0.41
12	RECIEVING	972.84 SF	3.24
13	STORAGE	795.22 SF	2.65
14	STORAGE	355.21 SF	1.18
15	JAN.	15.58 SF	0.05
15	OFFICE	209.14 SF	2.09
16	STORAGE	355.00 SF	1.18
17	BOILER ROOM	1441.93 SF	4.81
18	CUSTODIAN	106.78 SF	0.36
19	ELEV. EQ.	179.42 SF	0.60
20	ELEV	115.50 SF	1.15
21	STAIRS	144.90 SF	1.45

FIRE RATING & TRAVEL DISTANCE LEGEND

1 HR Fire Rating	▬ ▬ ▬ ▬
Start Point of Travel to Exit	O
Travel Distance to Exit	XX'
Fire Extinguisher	
Eye Wash Station	
Exit Sign	
Panic Hardware	P.H.

OCCUPANCY AREAS LEGEND

S2 Occupancy

B Occupancy

OCCUPANCY CALCULATION
B OCCUPANCY: 20
S2 OCCUPANCY: 106
TOTAL OCCUPANTS: 126

NOTE:
HORIZONTAL ACCESSIBLE EXITS TO EXTERIOR ACCOMMODATE MINIMUM EXIT REQUIREMENTS. ADDITIONAL ACCESSIBLE EXITS TO FIRST FLOOR ALSO AVAILABLE.

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REVISIONS

NO.	DESCRIPTION	DATE
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	CONFORMANCE SET	7.12.10
3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

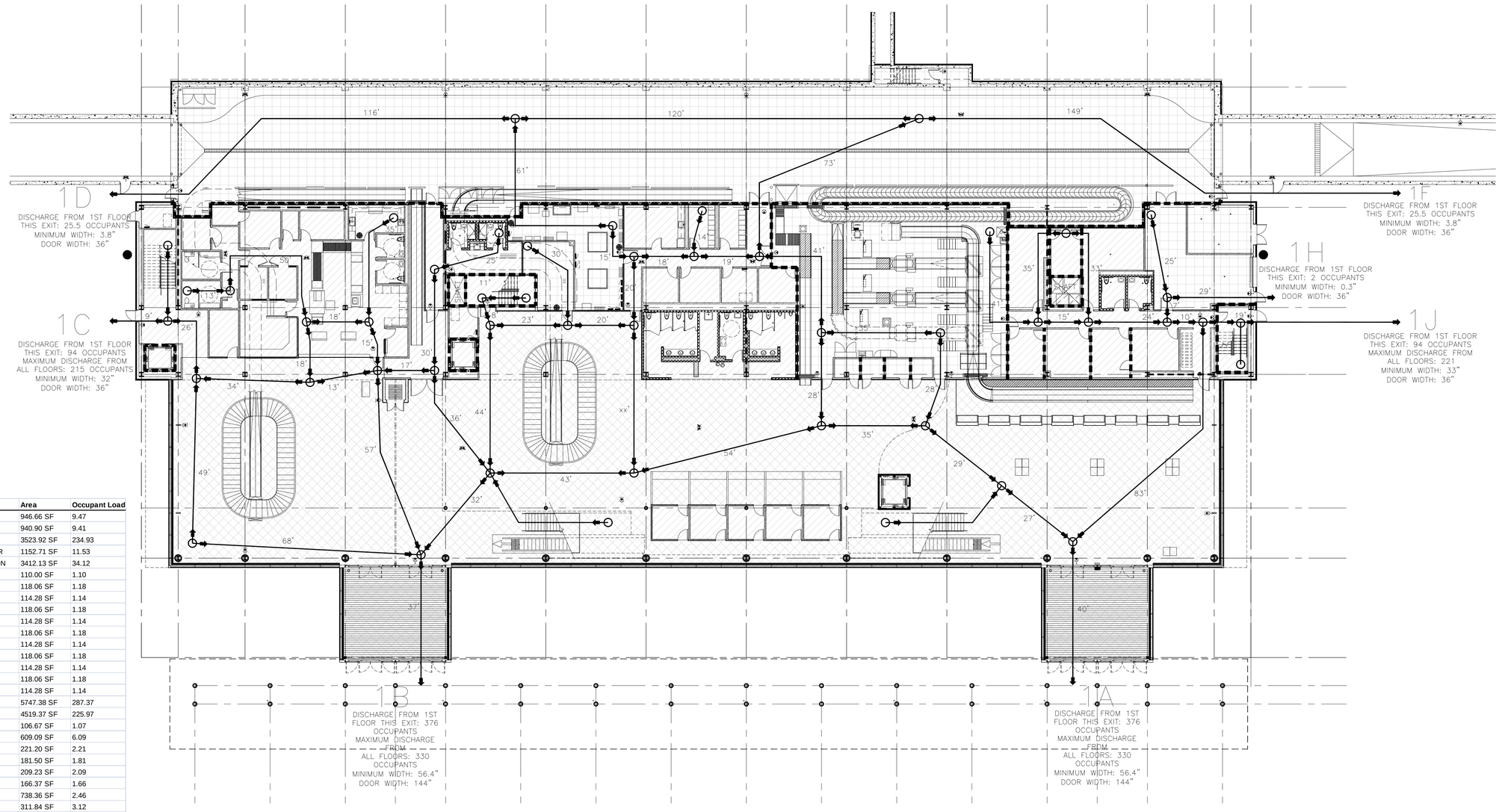
DATE ISSUED: 08-16-10
REVIEWED BY: TC
DRAWN BY: MI
DESIGNED BY: TC

AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
EXISTING BASEMENT LIFE SAFETY PLAN

SHEET NUMBER
3
LS110

BUILDING PERMIT



1 LIFE SAFETY PLAN
1/16" = 1'-0"

Room No.	Name	Area	Occupant Load
100	VESTIBULE	946.66 SF	9.47
101	VESTIBULE	940.90 SF	9.41
102	CHECK-IN LOBBY	3523.92 SF	234.93
103	CHECK-IN COUNTER	1152.71 SF	11.53
104	LOBBY/CIRCULATION	3412.13 SF	34.12
105	ELEV.	110.00 SF	1.10
106	RAC5B	118.06 SF	1.18
107	RAC5A	114.28 SF	1.14
108	RAC4B	118.06 SF	1.18
109	RAC4A	114.28 SF	1.14
110	RAC3B	118.06 SF	1.18
111	RAC3A	114.28 SF	1.14
112	RAC2B	118.06 SF	1.18
113	RAC2A	114.28 SF	1.14
114	RAC1B	118.06 SF	1.18
115	RAC1A	114.28 SF	1.14
116	BAGGAGE CLAIM	5747.38 SF	287.37
117	INTERNATIONAL	4519.37 SF	225.97
118	ELEV.	106.67 SF	1.07
120	CORRIDOR	609.09 SF	6.09
122	OPS	221.20 SF	2.21
123	OFFICE	181.50 SF	1.81
124	OPS	209.23 SF	2.09
125	OFFICE	166.37 SF	1.66
126	LOADING	738.36 SF	2.46
127	OPS	311.84 SF	3.12
128	SPRINKLER	324.06 SF	1.08
129	WOMENS	87.94 SF	0.88
130	MENS	94.82 SF	0.95
131	OPS	318.22 SF	3.18
132	OFFICE	141.51 SF	1.42
133	EDT	3267.13 SF	10.89
134	BAG	45.57 SF	0.15
135	BAG	49.74 SF	0.17
136	MEN	357.68 SF	3.58
137	FAM	131.50 SF	1.31
138	JAN.	98.62 SF	0.99
139	WOMEN	383.82 SF	3.84
140	CORRIDOR	428.22 SF	4.28
141	MAINT.	117.39 SF	0.39
142	BHS STOR	133.39 SF	0.44
143	MACH.	118.28 SF	0.39
144	CBIS CONT.	125.39 SF	1.25
145	W. LCKR	117.94 SF	2.36
146	M. LCKR	116.82 SF	2.34
147	BREAK	126.93 SF	8.46
148	SUB. OFFICE	133.67 SF	1.34
149	ELECTRICAL	681.55 SF	2.27
150	LOST BAG	123.62 SF	0.41
151	COMM	155.87 SF	0.52
153	ELEV. MACH.	91.86 SF	0.31
154	ELEV.	100.02 SF	1.00
155	RECHECK	670.32 SF	6.70
156	BREAK	214.80 SF	14.32
157	MEN	84.03 SF	0.84
158	WOMEN	74.36 SF	0.74
159	X-RAY	977.83 SF	3.26
160	AG. LAB	144.85 SF	1.45
161	INTERV.	83.68 SF	0.84
162	ADIT	134.07 SF	1.34
163	ROVER	284.33 SF	2.84
164	STOR.	49.27 SF	0.16
165	INTERV.	87.86 SF	0.88
166	OFF.	146.81 SF	1.47
167	STOR.	61.21 SF	0.20
168	CORR.	140.36 SF	1.40
169	SEARCH	101.43 SF	1.01
170	HOLD	112.84 SF	1.13
171	HOLD	112.84 SF	1.13
172	DBS	14.95 SF	0.15
173	MEN	75.42 SF	0.75
174	WOM	75.42 SF	0.75
175	ELEV M	100.11 SF	0.33
176	TUG TUNNEL	11702.26 SF	39.01
180	OFFICE	132.23 SF	1.32
181	CASH	64.17 SF	0.64
182	CORR.	109.29 SF	1.09
183	BAG	48.18 SF	0.16
184	BAG	42.45 SF	0.14
190	STAIRS	270.25 SF	2.70
191	STAIRS	193.86 SF	1.94
192	STAIRS	299.01 SF	2.99
193	STAIR	200.73 SF	2.01

FIRE RATING & TRAVEL DISTANCE LEGEND

1 HR Fire Rating	▬ ▬ ▬ ▬
Start Point of Travel to Exit	○
Travel Distance to Exit	XX'
Fire Extinguisher	
Eye Wash Station	
Exit Sign	

OCCUPANCY AREAS LEGEND

S2 Occupancy	
A3 Occupancy	
B Occupancy	

OCCUPANCY CALCULATION	
B OCCUPANCY:	103
A3 OCCUPANCY:	878
S2 OCCUPANCY:	13
TOTAL OCCUPANTS:	994

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Signature:

Date: 08-16-10 Reg. No.: 46001

REVISIONS

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	BUILDING PERMIT	8.16.10

DATE ISSUED: 08-16-10
REVIEWED BY: TC
DRAWN BY: MKI
DESIGNED BY: MKI

AEP PROJECT NUMBER
213-1882-091

SHEET TITLE

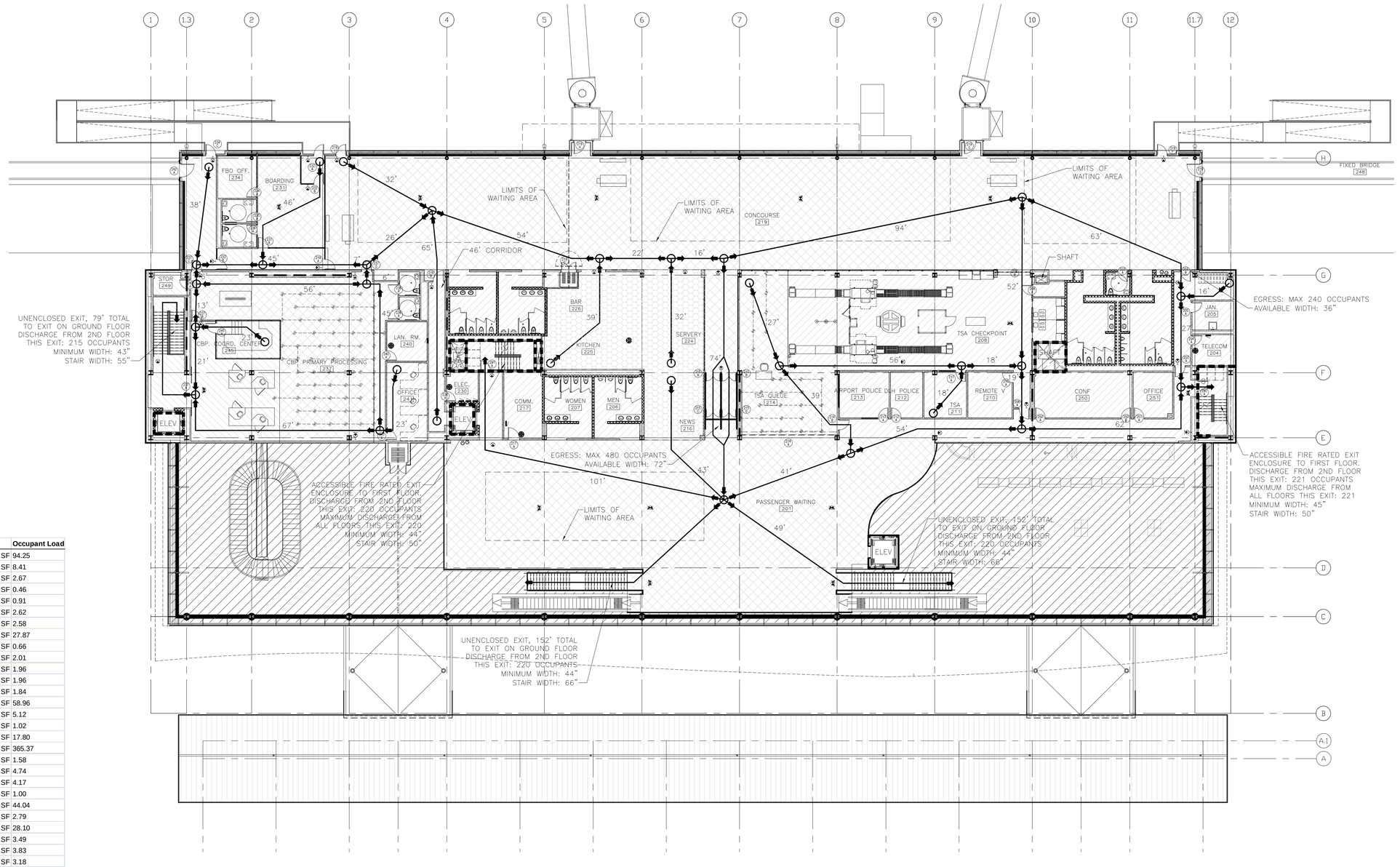
FIRST FLOOR INTERIM LIFE SAFETY PLAN

SHEET NUMBER

LS111

BUILDING PERMIT

Drawing: t:\P\2131882.091 Duluth New Terminal\Cad\A\Sheets\LS111 First Floor Interim Life Safety.dwg Plotted on: 8/16/2010 2:03 PM Plotted by: lp, Mark



Room No.	Name	Area	Occupant Load
201	PAX WAITING - WAITING	1413.80 SF	94.25
202	CORRIDOR	841.14 SF	8.41
203	CORR.	267.39 SF	2.67
204	TELECOM	136.94 SF	0.46
205	ELEC.	273.28 SF	0.91
206	MEN	262.31 SF	2.62
207	WOMEN	257.82 SF	2.58
208	TSA CHECKPOINT	2786.82 SF	27.87
209	STOR	65.67 SF	0.66
210	REMOTE V	201.16 SF	2.01
211	TSA	196.31 SF	1.96
212	AIRPORT POLICE	196.31 SF	1.96
213	DLH POLICE	184.19 SF	1.84
214	TSA QUEUE	884.39 SF	58.96
215	DEPLANING	512.44 SF	5.12
216	VEND	101.50 SF	1.02
217	COMM.	266.97 SF	17.80
219	CONCOURSE - WAITING	5480.50 SF	365.37
220	VEND	158.26 SF	1.58
221	MEN	474.15 SF	4.74
222	WOMEN	416.75 SF	4.17
223	FAM.	100.16 SF	1.00
224	SERVERY	660.66 SF	44.04
225	KITCHEN	557.46 SF	2.79
226	BAR	421.45 SF	28.10
227	MEN	348.89 SF	3.49
228	WOMEN	382.55 SF	3.83
229	CORR	317.67 SF	3.18
230	ELEC.	97.18 SF	0.32
231	BOARDING	529.11 SF	35.27
232	VEST.	68.33 SF	0.68
233	CORR.	623.57 SF	6.24
234	FBO OFF.	195.22 SF	1.95
235	WMN	99.01 SF	0.99
236	MEN	99.02 SF	0.99
237	INTERNATIONAL	3233.53 SF	215.57
238	MEN	53.60 SF	0.54
239	WMN	52.45 SF	0.52
240	COMP.	161.76 SF	0.54
241	OFFICE	315.88 SF	3.16
245	ROVER	229.44 SF	2.29
249	STOR	104.25 SF	0.35
250	CONF	395.19 SF	26.35
251	OFFICE	144.56 SF	1.45
252	STOR.	49.33 SF	0.16
253	WHLCHR	34.99 SF	0.12
290	STAIRS	259.86 SF	2.60
291	STAIRS	196.09 SF	1.96
292	STAIRS	314.47 SF	3.14
293	JAN	41.41 SF	0.14
201A	PAX WAITING - CIRCULATION	5222.44 SF	52.22
219A	CONCOURSE - CIRCULATION	4528.81 SF	45.29

N

1 LIFE SAFETY PLAN
1/16" = 1'-0"

FIRE RATING & TRAVEL DISTANCE LEGEND

1 HR Fire Rating	
Start Point of Travel to Exit	
Travel Distance to Exit	XX'
Fire Extinguisher	
Eye Wash Station	
Exit Sign	

OCCUPANCY AREAS LEGEND

B Occupancy	
A2 Occupancy	
A3 Occupancy	

OCCUPANCY CALCULATION

B OCCUPANCY:	157
A3 OCCUPANCY:	867
A2 OCCUPANCY:	72
TOTAL OCCUPANTS:	1096

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DULUTH AIRPORT AUTHORITY

DULUTH INTERNATIONAL AIRPORT DULUTH, MN

NEW PASSENGER TERMINAL

CONSULTANTS

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SJA ARCHITECTS
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TEL: (218) 722-1056 / FAX: (218) 722-9306

M/E/P/FP Engineers:
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Baggage Handling Systems Consultants:
BNP ASSOCIATES INC.
101 East Ridge Office Park, Suite 103, Danbury CT 06810
TEL: (203) 792-3000 / FAX: (203) 792-4900

Landscaping Consultants:
APPOLD DESIGN
2432 East First Street, Duluth MN 55812
TEL: (218) 591-5079

ARCHITECTURAL CERTIFICATION
I hereby certify that the architectural plans, specifications or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Architect under the laws of the State of Minnesota.

Print Name: Mark Ip

Signature:

Date: 08-16-10 Reg. No.: 46001

REVISIONS

NO.	DESCRIPTION	DATE
1	ADDENDUM 1	6.11.10
	CONFORMANCE SET	7.12.10
3	PERMIT REVISIONS	7.23.10
	BUILDING PERMIT	8.16.10

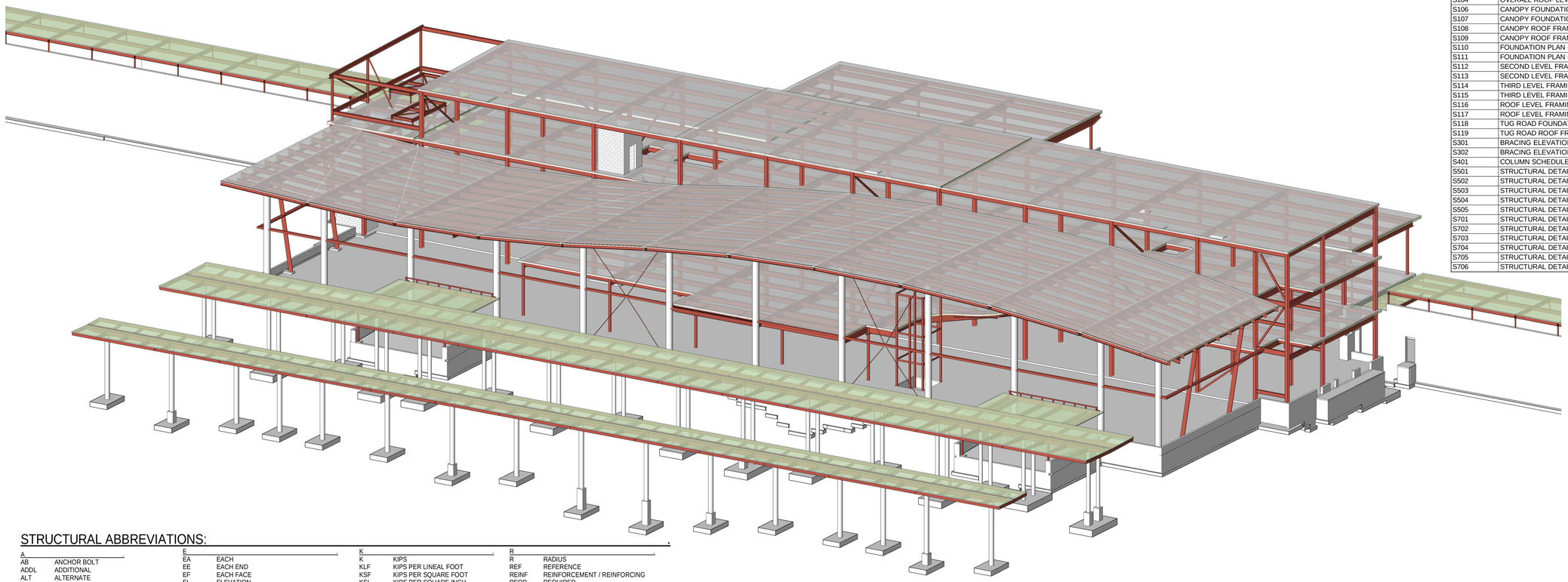
DATE ISSUED: 08-16-10
REVIEWED BY: TC
DRAWN BY: MKI
DESIGNED BY: MKI

AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
SECOND FLOOR INTERIM LIFE SAFETY PLAN

SHEET NUMBER
LS112

BUILDING PERMIT



SHEET NUMBER	SHEET NAME
S001	TITLE SHEET
S002	GENERAL STRUCTURAL NOTES
S003	GENERAL STRUCTURAL NOTES
S101	OVERALL FIRST LEVEL FLOOR PLAN
S102	OVERALL SECOND LEVEL FLOOR PLAN
S103	OVERALL THIRD LEVEL FLOOR PLAN
S104	OVERALL ROOF LEVEL PLAN
S106	CANOPY FOUNDATION PLAN - AREA A
S107	CANOPY FOUNDATION PLAN - AREA B
S108	CANOPY ROOF FRAMING PLAN - AREA A
S109	CANOPY ROOF FRAMING PLAN - AREA B
S110	FOUNDATION PLAN - AREA A
S111	FOUNDATION PLAN - AREA B
S112	SECOND LEVEL FRAMING PLAN - AREA A
S113	SECOND LEVEL FRAMING PLAN - AREA B
S114	THIRD LEVEL FRAMING PLAN - AREA A
S115	THIRD LEVEL FRAMING PLAN - AREA B
S116	ROOF LEVEL FRAMING PLAN - AREA A
S117	ROOF LEVEL FRAMING PLAN - AREA B
S118	TUG ROAD FOUNDATION PLAN
S119	TUG ROAD ROOF FRAMING PLAN
S301	BRACING ELEVATIONS AND DETAILS
S302	BRACING ELEVATIONS AND DETAILS
S401	COLUMN SCHEDULE AND DETAILS
S501	STRUCTURAL DETAILS
S502	STRUCTURAL DETAILS
S503	STRUCTURAL DETAILS
S504	STRUCTURAL DETAILS
S505	STRUCTURAL DETAILS
S701	STRUCTURAL DETAILS
S702	STRUCTURAL DETAILS
S703	STRUCTURAL DETAILS
S704	STRUCTURAL DETAILS
S705	STRUCTURAL DETAILS
S706	STRUCTURAL DETAILS

STRUCTURAL ABBREVIATIONS:

A	
AB	ANCHOR BOLT
ADDL	ADDITIONAL
ALT	ALTERNATE
ALUM	ALUMINUM
APPX	APPROXIMATE
AR	ANCHOR ROD
ARCH	ARCHITECT

B	
BDE	BOTTOM OF DECK ELEVATION
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BEAM
BOD	BOTTOM OF DECK
BOT	BOTTOM
BP	BEARING PLATE
BR	BOTTOM REINFORCING
BRDG	BRIDGING
BRG	BEARING
BTWN	BETWEEN

C	
CANTL	CANTILEVER
C/C	CENTER TO CENTER
CIP	CAST IN PLACE
CGS	CENTER OF GRAVITY STRAND
CJ	CONTROL JOINT
CJP	COMPLETE JOINT PENETRATION
CL	CENTER LINE
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN(S)	CONNECTION(S)
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
CTR	CENTER

D	
d	NAIL DIAMETER
db	BAR DIAMETER
DBA	DEFORMED BAR ANCHOR
DBE	DECK BEARING ELEVATION
DBL	DOUBLE
DEG	DEGREE
DEMO	DEMOLITION
DET	DETAIL
DF	DOUGLAS FIR-LARCH
DIA	DIAMETER
DL	DEAD LOAD

E	
EA	EACH
EE	EACH END
EF	EACH FACE
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
EJ	EXPANSION JOINT
EJBE	EXISTING JOIST BEARING ELEVATION
EMBED	EMBEDMENT
ENG	ENGINEER
EQ	EQUAL
EQUIP	EQUIPMENT
ES	EACH SIDE
ETBE	EXISTING TOP OF BEAM ELEVATION
ETDE	EXISTING TOP OF DECK ELEVATION
ETFE	EXISTING TOP OF FOOTING ELEVATION
ETPCE	EXISTING TOP OF PILE CAP ELEVATION
ETPE	EXISTING TOP OF PIER ELEVATION
ETSE	EXISTING TOP OF SLAB ELEVATION
ETWE	EXISTING TOP OF WALL ELEVATION
EW	EACH WAY
E-W	EAST - WEST DIRECTION
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR

F	
FDN	FOUNDATION
FFE	FINISHED FLOOR ELEVATION
FLR	FLOOR
FP	FULL PENETRATION
FRMG	FRAMING
FS	FOOTING STEP
FT	FEET
FTG	FOOTING

G	
GA	GAGE/GAUGE
GALV	GALVANIZED
GB	GRADE BEAM
GC	GENERAL CONTRACTOR
GEN	GENERAL
GL	GLUE LAMINATED TIMBER
GLB	GLUE LAMINATED BEAM
GR	GRADE
GSN	GENERAL STRUCTURAL NOTES
GYP BD	GYPSUM BOARD

H	
HDR	HEADER
HK	HOOK
HORIZ	HORIZONTAL
HP	HIGH POINT
HSA	HEADED STUD ANCHOR
HS	HEADED STUD
HSS	HOLLOW STRUCTURAL SHAPE
HT	HEIGHT

I	
ID	INSIDE DIAMETER
INT	INTERIOR
ISF	INSIDE FACE

J	
JT	JOINT
JBE	JOIST BEARING ELEVATION
JST	JOIST

K	
K	KIPS
KLF	KIPS PER LINEAL FOOT
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
KO	KNOCK OUT

L	
LB(S)	POUND(S)
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LONG	LONGITUDINAL
LP	LOW POINT
LSL	LAMINATED STRAND LUMBER
LTL	LINTEL
LG	LIGHT GUAGE
LW	LIGHT WEIGHT
LVL	LAMINATED VENEER LUMBER

M	
MAS	MASONRY
MAX	MAXIMUM
MECH	MECHANICAL
MEP	MECHANICAL, ELECTRICAL AND PLUMBING
MEZZ	MEZZANINE
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MTL	METAL

N	
NA	NOT APPLICIABLE
NF	NEAR FACE
NIC	NOT IN CONTRACT
NS	NEAR SIDE
N-S	NORTH - SOUTH DIRECTION
NTS	NOT TO SCALE
NW	NORMAL WEIGHT

O	
OC	ON CENTER
OD	OUTSIDE DIAMETER
OSF	OUTSIDE FACE
OPG	OPENING
OPP	OPPOSITE

P	
PAF	POWER ACTUATED FASTENER
PC	PRECAST CONCRETE
PEN	PENETRATION
PERP	PERPENDICULAR
PL	PLATE
PLF	POUNDS PER LINEAL FOOT
PROJ	PROJECTION
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSL	PARALLEL STRAND LUMBER
PT	POST TENSIONED

Q	
QTY	QUANTITY

R	
R	RADIUS
REF	REFERENCE
REINF	REINFORCEMENT / REINFORCING
REQD	REQUIRED
RFI	REQUEST FOR INFORMATION
RO	ROUGH OPENING
RTU	ROOF TOP UNIT

S	
SB	SOIL BORING
SC	SLIP CRITICAL
SCHED	SCHEDULE
SER	STRUCTURAL ENGINEER OF RECORD
SIM	SIMILAR
SK	SKETCH
SOG	SLAB ON GRADE
SPA	SPACES
SPEC	SPECIFICATION
SF	SQUARE FOOT
SPF	SPRUCE PINE FIR
SSK	STRUCTURAL SKETCH
STD	STANDARD
STIFF	STIFFENER
STEEL	STEEL
STRUCT	STRUCTURE / STRUCTURAL
SYM	SYMMETRICAL
SYP	SOUTHERN YELLOW PINE

T	
T/B	TOP AND BOTTOM
T/G	TOUNGE AND GROOVED
TBE	TOP OF BEAM ELEVATION
TDE	TOP OF DECK ELEVATION
TEMP	TEMPORARY
TFE	TOP OF FOOTING ELEVATION
TGBE	TOP OF GRADE BEAM ELEVATION
TJ	TRUSS JOIST
TPCE	TOP OF PILE CAP ELEVATION
TPE	TOP OF PIER ELEVATION
TR	TOP REINFORCING
TRANS	TRANSVERSE
TSE	TOP OF SLAB ELEVATION
TWE	TOP OF WALL ELEVATION
TYP	TYPICAL

U	
UNEX	UNEXCAVATED
UNO	UNLESS NOTED OTHERWISE

V	
VERT	VERTICAL
VIF	VERIFY IN FIELD

W	
W/	WITH
W/O	WITHOUT
WD	WOOD
WF	WIDE FLANGE
WL	WIND LOAD
WP	WORK POINT
WS	WATERSTOP
WT	WEIGHT
WWF	WELDED WIRE FABRIC

LEGENDS:

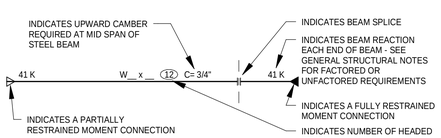
GENERAL:

BF1	INDICATES BRACE FRAME MARK NUMBER
FD	INDICATES APPROXIMATE LOCATION OF FLOOR DRAIN
L1	INDICATES LINTEL MARK NUMBER
RD	INDICATES APPROXIMATE LOCATION OF ROOF DRAIN
1	INDICATES KEY NOTE MARK NUMBER
	INDICATES SLAB STEP LOCATION
	INDICATES MATCH LINE
0	INDICATES NEW BUILDING GRID LINE
"LEVEL" / "ELEVATION"	ELEVATION MARKER
	SHADED AREA INDICATES EXISTING CONSTRUCTION
	INDICATES SPAN DIRECTION OF ELEMENT

FOUNDATION PLANS:

F1	INDICATES SPREAD FOOTING MARK NUMBER
P1	INDICATES PIER MARK NUMBER
WF1	INDICATES WALL FOOTING MARK NUMBER
	INDICATES APPROXIMATE LOCATION OF UNDERGROUND UTILITY
	INDICATES APPROXIMATE LOCATION OF DRAIN TILE
FS	INDICATES FOOTING STEP LOCATION
SB1	INDICATES APPROXIMATE LOCATION OF SOIL BORING

STEEL FRAMING SYSTEM:



STEEL BEAM

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DULUTH INTERNATIONAL AIRPORT DULUTH, MN

NEW TERMINAL DESIGN

CONSULTANTS

Interior Architects:
SJA ARCHITECTS
11 E Superior Street Suite 340 Duluth MN 55802
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501 Lake Avenue South, Suite 300, Duluth MN 55802
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M/E/P/FP Engineers:
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1 East Wacker Drive, Suite 103, Chicago IL 60601
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Baggage Handling Systems Consultants:
BNP ASSOCIATES INC.
101 East Ridge Office Park, Suite 103, Danbury CT 06810
TEL: (203) 792-3000 / FAX: (203) 792-4900

Landscape Consultants:
APPOLD DESIGN
2432 East First Street, Duluth MN 55812
TEL: (218) 591-5079

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.

Print Name: Paul A. Johnson

Signature:

Date: June 3, 2010 Reg. No.: 20379

REVISIONS

NO.	DESCRIPTION	DATE
	Conformance Set	07-12-10
	Building Permit	08-16-10

DATE ISSUED: 08-16-10
REVIEWED BY: PAJ / CWB
DRAWN BY: SJL
DESIGNED BY: CWB

AEP PROJECT NUMBER

213-1882-091

SHEET TITLE

TITLE SHEET

SHEET NUMBER

S001

BUILDING PERMIT

TYPICAL NOTES:
These notes specify the requirements for the design represented in these documents. The construction and materials shall comply with all the pertinent codes and references, plans, and details, including (but not limited to) those shown in architectural, civil, mechanical and electrical drawings.

The contractor shall verify all dimensions and existing conditions in the field that affect construction prior to commencing work on the affected element or shop drawing submittals. Resolve any discrepancies with the architect prior to construction.

The contract structural drawings and specifications represent the completed structure. The contractor is responsible for bracing and shoring (without overstressing) all structural elements as necessary at any stage of construction until completion of the project. The Structural Engineer is not responsible for the contractor's means, methods, sequences or procedures of construction. Contractor shall recognize and consider effects of thermal movements of structural elements during construction period.

The contractor is solely responsible for site safety including all temporary precautionary measures and safety programs. Site observation visits by the Structural Engineer do not include review of the contractor's safety precautions.

Refer to architectural, mechanical and electrical drawings for locations, elevations, dimensions, and details of sleeves, inserts, openings, recesses, curbs, housekeeping pads, etc. that are not shown on the structural drawings and do not damage structural members.

Information shown in the structural drawings regarding existing conditions represents the current and general field conditions related to the new work, to the best of our knowledge. Report all discrepancies to the Architect for resolution prior to performing related new work.

Requests for information shall be submitted in writing and shall reference the part of the construction documents that is in question.

SPECIAL INSPECTIONS:
Contractor shall read and understand their duties in the specification and under the building code for special inspections and coordinate as necessary the owner's responsibilities.

The special inspectors shall be provided and shall only use approved shop drawings.

Special inspection reports are to be submitted immediately to the SER, Architect, and Contractor daily when inspections are performed.

The general contractor shall provide timely notice to the special inspector and sufficient time for the inspector to perform their inspection.

SHOP DRAWINGS:
All engineering design provided by others and submitted for review shall bear the certification stamp and signature of a qualified professional engineer who is licensed in the state of Minnesota.

Submit shop drawing schedule with construction schedule that includes consideration for review period. See specification for additional information.

DEFERRED SUBMITTALS:
The following items shall be issued as deferred submittals per IBC:
Steel Connections

Light gage metal framing

All items issued as deferred submittals shall be issued a minimum of 30 days prior to installation and shall not be installed until their design and submittal documents have been reviewed for general conformance to the drawings by the general contractor, the engineer of record and the building official. A copy of the deferred submittal shall be forwarded to the city after the engineer of record has reviewed the documents and prior to erection of the deferred submittal items.

DESIGN CODES AND STANDARDS:
Minnesota State Building Code, MSBC 2007

2006 International Building Code, as amended and adopted by the MSBC 2007

ACI 318-05 Building Code Requirements for Reinforced Concrete

ACI 530-05 Building Code Requirements for Masonry Structures, Allowable Stress Design

ACI 530.1-05 Masonry Structures

AISC 360-05 Specification for Structural Steel Buildings

AISI NAS-01 North American Specification for the design of Cold-Formed Steel Structural Members including 2004 supplement.

ASCE 7-05 Minimum design loads for buildings and other structures including supplement NO. 1 and excluding Chapter 14 and Appendix 11A.

ASCE 3-01 Structural Design of Composite Slabs

MATERIAL PROPERTIES:
Reinforcing Steel (Fy):

Typical	60,000 psi	ATSM A615 Grade 60
Weldable	60,000 psi	ASTM A706 Grade 60

Cast-in-Place Concrete (f'c) at 28 days, UNO:

Controlled Low	1,200 psi (at 5 days)	Maximum
Strength Material (CLSM)	500 psi (at 5 days)	Minimum
Footings	4,000 psi	
Piers and Walls	4,000 psi	
Columns	4,000 psi	
Concrete placed over Metal Floor Deck	4,000 psi	
Slabs on Grade	4,000 psi	
Exterior Concrete	4,000 psi	
Masonry Corefill Concrete	3,000 psi	
All Concrete not otherwise noted	4,000 psi	

Concrete Masonry- Prism (f'm):

Typical Units:	2,000 psi	

Structural Steel (Fy):

Wide Flanges	50,000 psi	ASTM A992
Angles, Channels	36,000 psi	ASTM A36
Grade B Rectangular HSS	46,000 psi	ASTM A500
Grade B Round HSS	42,000 psi	ASTM A500
Grade B Steel Pipe	35,000 psi	ASTM A53
Plates, Bars	50,000 psi	ASTM A572 or A36 as indicated

Structural Fasteners:

Typical High-Strength Bolts	92,000 psi	ASTM A325
High-Strength Bolts as noted on plan	150,000 psi	ASTM A490
Grade 36 Anchor Rods, UNO	36,000 psi	ASTM F1554
Threaded Rods	36,000 psi	ASTM A36
Direct -Tension Indicator Washers as noted on plan		ASTM F959

Cold-formed Light Gauge Metal Framing (Fy):

Studs, Joists, Braces-16 ga. and heavier	50,000 psi	ASTM A653
Studs, Joists, Braces-18 ga. and lighter	33,000 psi	ASTM A653
Track, Channels and Accessories	33,000 psi	ASTM A653

DESIGN LOADS:
LATERAL LOADS:
Primary Frame Wind Data:

Basic Wind Speed:	90 mph
Wind Importance Factor:	1.15
Exposure:	C

Primary Seismic Data: No design required

Component Loads:
Exterior Component/Cladding: Supplier to develop based on MSBC 2007 and to indicate on shop drawings.

GRAVITY LOADS:
Roof Snow Load:

Ground Snow Load, Pg:	60 psf
Flat-Roof Snow Load, Pf:	46 psf
Snow Exposure Factor, Ce:	0.70
Snow Load Importance Factor, I:	1.1
Unbalanced/Drift Snow Load:	As required by ASCE 7

Floor Loads:

Live Load:	100 psf (not reducible)
Hanging loads at underside of 2nd floor:	40 psf superimposed
Stairs, Corridors and Lobbies:	100 psf (not reducible)
Stair Tread Concentrated Load:	300 lbs
Mechanical Rooms:	150 psf (not reducible)

Exterior Site Surcharge Loads:

Fire Trucks:	250 psf
Sidewalk:	250 psf
North terminal retaining wall and north tug tunnel retaining wall:	HS20-44 axle load as defined by IBC 2006 table 1607.6 at a distance of 5 feet from the north wall edge.

Provisions For Future Expansion:
Design for additional 30' bay (3 story) between grids "E" and "G", east of grid 12 and west of grid 1.

Design for one story expansion of 3rd floor office space north of grid "G".

FOUNDATIONS:
Refer to Geotechnical report number AET #07-04216.2 by American Engineering Testing, Inc., dated October 14, 2009 and the subsequent addendum (AET project #07-04216.3) dated January 29, 2010.

The contractor shall verify the location of all existing and new underground utilities and tanks prior to beginning excavation and contact Gopher State One Call.

The minimum dimension from exterior grade to bottom of footing and foundation shall be 72" in unheated areas.

For underground utilities adjacent to foundations and through foundations reference drawings for detail showing step footings below utilities as required to avoid undermining of structure by utilities.

See geotechnical report for water table elevations. Contractor to make adequate provisions for dewatering as required.

CONVENTIONAL FOOTINGS:
Footings are designed for a maximum allowable soil bearing pressure of 8000 pounds per square foot on undisturbed native soil or lean mix concrete/controlled low strength material fill. Soil bearing pressure is to be verified in the field during construction by a qualified Geotechnical Engineer.

All topsoil, fill, organic swamp deposits, and/or other unsuitable bearing material shall be removed below the footings and/or within the building area to the depths indicated in the geotechnical engineering report and extent of removal shall be field verified by the Geotechnical Engineer.

All excavations shall be observed by a qualified geotechnical engineer to verify removal of unsuitable material and confirm the proper preparation of bearing conditions.

For footings that do not bear on natural undisturbed soil, extend engineered fill laterally beyond bottom edge of footing for a distance equal to the depth of engineered fill. Reference drawings for details.

Foundation and retaining walls shall be back filled with free draining fill approved by the Geotechnical Engineer. Provide drain tile required by the contract documents and verify with architect and civil engineer.

Backfill equally on both sides of foundation walls to prevent overturning or lateral wall movement, or temporarily brace as necessary until permanent bracing elements are complete and cured to design strength.

All temporary bracing, cribbing, shoring or underpinning not fully designed or detailed on these drawings shall be designed by a licensed specialty engineer engaged directly by the contractor.

For stepping of wall footings reference drawings for detail.

REINFORCED CONCRETE:
The detailing, fabrication and erection of all reinforcing shall be done in accordance with the latest edition of ACI-315, "Manual of Standard Practice for Detailing Reinforced Concrete Structures and ACI-318, "Building Code Requirements for Structural Concrete."

All reinforcing bars are deformed and continuous, unless noted otherwise. Refer to drawings for reinforcing lap length schedule.

Provide suitable wire spacers, chairs, etc. for support of reinforcing steel in proper position while placing concrete. All bars shall be tied to prevent displacement while placing concrete. All chairs and slab bolsters shall be plastic or steel with plastic tips. When reinforcing steel is epoxy coated or p/t tendons are fully encapsulated, all chairs and slab bolsters shall be epoxy-coated or plastic and all support bars shall be epoxy coated. Chairs are to be stable and resist tipping. Acceptable products are GTI or approved equal.

The fabricator shall submit a complete list of accessories and placing details with the shop drawings.

No horizontal construction joints shall be placed in beams, joists, or slabs, unless shown on drawings.

Locate vertical construction joints in beams and slabs at central one third of span. Refer to drawings for details. Submit proposed construction joint locations to the Structural Engineer of Record for review prior to placement of concrete. Where new concrete is placed against existing concrete, the existing concrete shall be roughened to a minimum 1/4" amplitude.

Refer to drawings and ACI 318 Chapter 6 for placement guidelines of embedded pipes, sleeves, and conduits. Conduits are not permitted in slabs 3 inches or less in thickness. The maximum size of conduits within any slab shall be 1 1/4" outside diameter and shall be spaced no closer (to each other or any reinforcing steel) than 4" unless prior approval is obtained from the structural engineer. Additional reinforcing steel and chairs may be required to support embedded conduit. All conduit shall be placed in the middle 1/3 of the slab thickness above the metal deck, typical. Conduit may not be tied to parallel reinforcing steel. Conduit may not be paced in deck flutes. Conduit may not cross within slabs 5" or less in thickness. Conduit placement drawings may be required in areas of high conduit concentricity.

Provide a 3/4 inch chamfer for all exposed concrete corners. See Architectural drawings for details and additional requirements.

The general contractor shall notify the Special Inspector a sufficient period in advance of placing concrete to allow required inspections and testing to occur in a timely fashion.

Formwork and all shoring for flatwork shall be left in place until the concrete reaches at least 75 percent of the 28-day compressive strength. Design of shoring and reshoring is the responsibility of the contractor and shall conform to ACI 347R-88.

Aluminum conduit, aluminum sleeves and aluminum embeds are not permitted in concrete.

Exterior concrete to have 6% +/- 1% entrained air.

Calcium chloride is not permitted as a concrete additive.

Concrete Cover on Reinforcing:

Topping Slab:	3/4" clear top. See drawings for cover at composite slabs
Slab on Grade:	3" bottom
Footings:	3" clear bottom and sides
	2" clear top
Walls:	#5 and smaller 1 1/2" clear earth or weather face
	#6 and greater 2" clear earth or weather face
	3/4" interior face
Columns and Beams:	1 1/2" clear to ties or stirrups

CONCRETE SLABS ON GRADE:
Slabs on grade shall be place in lane fashion.

The control or construction joints shall be placed as shown on the drawings. The joints shall align with the column grids and be spaced as noted below:

Exterior slabs	24 times slab thickness, maximum;
Interior slabs	36 times slab thickness, maximum;
Interior slabs	48 times slab thickness, maximum, with carpeting

The panels formed by control or construction joints shall not be "L" shaped and a rectangular panel's aspect ratio shall not exceed 1.5.

Refer to the drawings for the typical slab on grade construction and saw cut control joint detail. Control and construction joints must be continuous and not offset.

Refer to drawings for detail of isolation diamonds or circles at columns.

Refer to drawings for reinforcing at re-entrant corners. Bend bars as necessary at obstructions.

Refer to the specification for the existence, type, and thickness of interior ground vapor retarder. Locate a vapor retarder directly beneath the slab on grade on top of a 6 inch compactable granular base. Refer to the specification for requirements for the compactable granular base.

Mechanically vibrate concrete around trench drains, floor ducts, construction joint dowels, loading docks, architectural features and other embedded items.

Refer to the specification for slab on grade pre-placement meeting.

Refer to the specification for acceptable methods of curing the concrete.

Refer to flooring manufacturer's specification for levelness, flatness and curing of concrete slabs on grade to receive special architectural floor finishes.

REINFORCED MASONRY:
All masonry units are placed in running bond fashion. Corners shall have a standard bond by overlapping units.

Special shapes shall be provided for jambs, columns, pilasters, control joints, corners, and lintels.

All masonry walls shall have horizontal joint reinforcing spaced at 16" o.c. Horizontal joint reinforcing shall be truss style and fabricated with galvanized nine-gauge wire and shall include corner and intersecting wall pieces. Provide minimum 6" laps at all splices.

Vertical reinforcing shall be held in place by rebar positioners, crossties, chairs, or tying to every other layer of horizontal reinforcing steel. Refer to the detail in the drawings for vertical reinforcing bar location in a core.

Provide concrete cover of minimum 1/2" to face shell.

Refer to detail in the drawings for reinforcing bar lap lengths.

Extend vertical reinforcing from footings to 2" clear top of wall or to beam bearing. Extend vertical reinforcing into the next level of construction and lap in accordance with the lap schedule.

When typical vertical wall reinforcing is interrupted by long wall openings, provide typical vertical wall reinforcing above and below opening, and extend into horizontal bond beams. Refer to the schedule on the drawings, for masonry wall opening lintels. Refer to the detail in the drawings for masonry openings minimum jamb reinforcing.

Provide vertical reinforcing at the ends of walls and at wall intersections to match specified reinforcing. Run reinforcing full height of walls.

All masonry units shall be placed with full face shell mortar coverage on horizontal and vertical face shells. Webs shall also have full mortar coverage around all grouted cells.

Fill block core at vertical reinforcing (8" minimum length along wall) with concrete grout. Filling cores with mortar is not allowed. Vibrate in place. Rodding and puddling are not allowed.

Maximum lift height is four feet. For concrete core fill pour height up to maximum 8'-0", provide cleanouts if pour height exceeds 5'-0".

Masonry cement mortar is not allowed.

Calcium chloride or admixtures containing chloride shall not be used in mortar or grout.

For reinforced masonry bond beams, provide bent corner bars at corners and intersections that match reinforcing. Step bond beams as necessary to match roof slopes. Lap reinforcing bars per schedule.

For construction of masonry control joints refer to detail in drawings.

Unless noted otherwise on the drawings place control joints in masonry walls such that no straight run of wall exceeds 24'-0" and within 4'-0" of corners. Do not place control joints within 48 inches of a masonry opening jamb or a steel bearing plate.

Place bond beam reinforcing continuously through control joints. Do not splice bond beam reinforcing within 6'-0" of a control joint.

Provide bond beam with reinforcing at all floor lines, roof lines, and top of walls. Refer to details in the drawings.

Grout below steel bearing plate and refer to the drawings for additional information.

Refer to drawings for reinforcing schedule, top of wall bracing, thickened bearing slab and lintel schedule for non-bearing masonry walls. Refer to Architectural drawings for location and extent.

MASONRY BEAMS (HIGH-LOW BOND BEAMS):
For all masonry beams use lintel blocks.

Masonry beams are to bear 8" minimum at jambs. Extend vertical reinforcing through masonry beam bearing. 1

Extend horizontal reinforcing full length.

Grout masonry beams solid. Mechanically vibrate grout in place.

EXPANSION AND ADHESIVE ANCHORS:
Anchors in concrete or concrete masonry when not exposed to earth, weather, or corrosive environment shall be as noted below:

Expansion anchors shall be stud type with a single piece three section wedge and zinc plated in accordance with ASTM B633.

Threaded anchor rod for adhesive anchors in concrete shall be ASTM A193, Grade B7, or ASTM A36, as noted in the drawings. The adhesive used for anchors shall be a structural grade, two part epoxy or acrylic material that meets the requirement of ASTM C-881 Types I, II, IV, and V, Grade 3, Classes B and C as noted on plans.

Holes shall be drilled with a bit and cleaned using a method that complies with the manufacturer's guidelines, and specifications. Do not cut or damage reinforcing steel or P-T tendons.

Upon the request of the structural engineer the anchors shall be proof tested by the manufacturer to verify capacity of anchors that do not meet the conditions in the construction documents.

Minimum embedment depths in concrete and concrete masonry for expansion and adhesive anchors shall be as noted below:

Concrete base material:
For 1/2", 5/8", and 3/4" diameter expansion anchors provide 4 3/4"embed, UNO on plan.

For 1/2"and 5/8" diameter adhesive anchors provide 5" embed. For 3/4" diameter adhesive anchors provide 7" embed, UNO on plan.

Grouted solid concrete masonry unit material:
For 1/2", 5/8", and 3/4" diameter expansion anchors provide 4 3/4"embed, UNO on plan.

For adhesive anchors refer to the product's ICBO Report.

Pre-approved manufacturer are as follows: HILTI, ITWR Ramset/Redhead, Powers Fasteners, and Simpson Strong-Tie. For review of alternate products, submit manufacture's product data and product's current ICBO report prior to construction.

Anchors in concrete or concrete masonry when exposed to earth, weather, or corrosive environment shall be manufactured from AISI 304/316 Stainless Steel.

STRUCTURAL STEEL:
Structural steel shall be detailed, fabricated and erected in compliance with AISC Specification for the design, fabrication, erection of structural steel for building, and Code of standard practice, and OSHA steel erection standards.

All beams and girders shall be cambered at mid-span as indicated on the structural drawings. The cambers indicated shall be present in the beam in its erected position after completion of the end connections and shall be verified prior to placing concrete. Cambering tolerances shall be (-0", +1/4"). No center point cambering allowed.

Splicing structural members where not detailed on the drawings is prohibited without prior approval of the structural engineer.

Modification of structural steel members in the field is not allowed without written approval by the structural engineer.

All composite beams using the concrete slab as a compression flange are designed for unshored construction unless noted otherwise.

Anchor rods shall be minimum 3/4" diameter or as detailed in drawings.

STRUCTURAL STEEL CONNECTIONS:
All steel connections shall be designed by the steel fabricator for the criteria indicated on the drawings unless noted or detailed otherwise. Connection design shall conform to the requirements of the AISC Specifications for the design, fabrication, erection of structural and OSHA regulations. Submit calculations certified by a Professional Engineer who is licensed in the state of Minnesota. All loads indicated on the drawings are unfactored, working loads.

Non-composite beams: Unless noted otherwise, design simple beam shear connections per the AISC Manual connection tables. The required end reaction shall be based on the reactions indicated on the plans. Design connections for the reactions indicated on plan or for the minimum connection requirements indicated in the Connection Schedule, whichever provides the greater capacity.

Composite beams: Design simple composite beam shear connections per the AISC Manual connection tables UNO. Design connections for the reactions indicated on the plans or the minimum connection requirements indicated in the Connection Schedule, whichever provides the greater capacity.

Unless detailed otherwise, beam shop connections may be welded or bolted and field connections are to be bolted. Bolts shall be a minimum 3/4" diameter for connections specified or detailed in the drawings. The fabricator may submit an alternate connection with the calculations that is certified by a professional engineer who is licensed in the state of Minnesota.

All beam web copes must be made to a 1 inch minimum radius.

Welded connections shall be made in accordance with ANSI/AWS D1.1 Structural Welding Code using E70XX electrodes unless noted otherwise. Weld sizes not shown or controlled by the required forces shall be AWS code minimum size. Welds shall be visually inspected for compliance with the AWS code visual inspection criteria. Welders shall be qualified in accordance with ANSI/AWS D1.1 and shall be experienced in weld in structural steel.

Full penetration welds shall be tested using NDT methods such as ultrasonic, magnetic particle or other methods referenced in the AWS code. Welds subject to NDT methods shall also have been found compliant with the AWS visual inspection criteria.

STRUCTURAL STEEL STAIRS:
Structural steel stair stringers, components, railings, posts, hangers, and connections to be designed by the fabricator's Qualified Professional Engineer for the loads indicated in the specifications. Configuration of stringers and railings shall be as indicated on the architectural drawings. Channel stringers to have a minimum 12" depth and a minimum 1 1/2" flange width.

STEEL ROOF DECK:
Manufacturer shall be a current member of the Steel Deck Institute (SDI).

Detail, manufacture and install steel roof deck and accessories in accordance with the SDI specifications and codes and OSHA requirements.

Steel roof deck shall be as noted on plan.

Welding shall be in accordance with AWS D1.3. Welders shall be qualified in accordance with AWS D1.3.

Where spray-on fireproofing of the deck is required, the contractor shall verify that the deck finish is compatible with the proposed fireproofing material to ensure proper bonding of the fireproofing. Coordinate fireproofing locations and requirements with the architect.

All steel deck shall span a minimum of three spans, unless otherwise approved by the engineer. Deck ends are to be lapped over supports.

Contractor shall verify the location and extent of acoustical steel deck with the architectural drawings.

Reference drawings for detail on steel roof deck fastening requirements unless noted otherwise. Powder actuated or pneumatically driven fasteners are not allowed.

Provide reinforcement or frames for deck openings as indicated on the drawings.

LIMITATIONS ON M/E SUPPORT FROM PRIMARY STRUCTURE:
All M/E systems shall be supported from the primary structural frame, unless noted otherwise. Do not connect to roof deck, floor slabs, or secondary members unless specifically allowed on the structural construction documents.

All M/E support systems, hangers, brackets and connections to the primary structural frame shall be designed, provided and installed by the M/E contractor, unless noted otherwise on the structural construction documents.

All M/E supports and connections for loads in excess of 300 lbs shall be designed by a structural engineer licensed in the state of Minnesota and engaged by the M/E contractor.

COMPOSITE STEEL FLOOR DECK:
Manufacturer shall be a current member of the Steel Deck Institute (SDI).
Composite steel floor deck shall be as noted on plan.

Detail, manufacture and install composite steel floor deck and accessories in accordance with the SDI specifications, codes and OSHA steel erection standards.

Refer to drawings for composite steel floor deck fastening requirements unless noted otherwise. Powder actuated or pneumatically driven fasteners are not allowed.

Provide and install pour stops, column closures, end closures, cover plates and girder fillers and other accessories as required by the SDI unless otherwise indicated or detailed.

Where spray-on fireproofing of the deck is required, the contractor shall verify that the deck finish is compatible with the proposed fireproofing material to ensure proper bonding of the fireproofing. Coordinate fireproofing locations and requirements with the architect.

Provide reinforcement or frames for deck openings as indicated on the drawings.

Do not cut control joints in structural slabs on metal deck.

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I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.

Print Name: Paul A. Johnson

Signature:

Date: June 3, 2010 Reg. No.: 20379

REVISIONS

NO.	DESCRIPTION	DATE
1	Addendum 1	06-10-10
	Conformance Set	07-12-10
	Building Permit	08-16-10

DATE ISSUED: 08-16-10
REVIEWED BY: PAJ / CWB
DRAWN BY: SJL
DESIGNED BY: CWB

AEP PROJECT NUMBER

213-1882-091

SHEET TITLE

GENERAL STRUCTURAL NOTES

SHEET NUMBER

S002

BUILDING PERMIT

NON-COMPOSITE STEEL FLOOR DECK:
Manufacturer shall be a current member of the Steel Deck Institute (SDI).

Non-composite steel floor deck shall be as noted on plan.

Detail, manufacture and install non-composite steel floor deck and accessories in accordance with the SDI specifications and codes and OSHA steel erection standards.

Refer to drawings for non-composite steel floor deck fastening requirements. Powder actuated or pneumatically driven fasteners are not allowed.

Where spray-on fireproofing of the deck is required, the contractor shall verify that the deck finish is compatible with the proposed fireproofing material to ensure proper bonding of the material. Coordinate locations and requirements with the architect.

Provide reinforcement or frames for deck openings as indicated on the drawings.

LIGHT GAUGE METAL FRAMING:
The design and connection detailing of all light gage material including, but not limited to exterior studs, bearing studs, headers, jambs, joists, rafters and anchorage shall be by the Light Gauge Supplier. The design for systems other than bearing framing shall meet the following criteria:

Stud in exterior walls shall be minimum 600S162-43 (6"-18 gauge) studs at 16" OC. See architectural for additional spacing requirements at exterior finishes.

Studs shall be cold rolled steel, galvanized, C shape, with minimum 1 5/8" flange and minimum 1/2" return. They are to be punched for utility access and galvanized to G60 coating per ASTM 525.

At all openings in exterior and bearing walls provide a minimum two studs full wall height each side of opening and a minimum one additional stud each side for lintel bearing.

Anchor bottom track to concrete or masonry with minimum 5/32" x 1 1/4" power driven fasteners at 16" OC.

Top and bottom tracks shall be cold rolled or break formed steel, galvanized U shaped and minimum 18 gauge and as noted on the drawings.

Light gauge metal framing fasteners shall be minimum #10 self-drilling sheet metal screws, 16 threads per inch, with low profile head. Provide a minimum of two screws per connection unless noted otherwise.

Fasten light gage framing to wood with minimum #10 x 1 7/8" bugle head wood screws. Pre-drill holes in metal studs. Provide a minimum of two screws per connection unless noted otherwise.

All framing components shall be squarely cut for attachment to perpendicular members. Stud ends must seat tightly into tracks for all bearing applications.

At all wall elements, provide 1 1/2"-16 gauge horizontal channel bridging to prevent stud rotation. For all axial loaded walls, space bridging at 4'-0" OC. For all non-load bearing exterior walls, space bridging at 5'-0" OC.

Wall stud deflection criteria:

For wall studs providing lateral support to masonry veneer and cementitious stucco, provide L/600.

For wall studs providing lateral support to other materials, provide L/360.

Joist and rafter deflection criteria:

Live Load Deflection is L/360.

Total Load Deflection is L/240.

An additional joist shall be provided under parallel non-load bearing partition walls.

The light gauge supplier shall submit certified shop drawings and design calculations prepared by a qualified Professional Engineer registered in the state of Minnesota. See project specification manual for additional submittal requirements.

All light gauge designations are in accordance with the Steel Stud Manufacturers Association (SSMA).

Refer to architectural drawings and specification for size, minimum gage, extent, and location of interior non-bearing light gage framing not shown on the structural drawings. Interior light gauge framing is to be designed for 5 psf lateral pressure by the light gauge supplier.

Temporary bracing shall be furnished by the light gauge supplier and framing installer and maintained until permanent systems providing lateral stability are in place.

Welding shall conform to the American Welding Society (AWS) "Structural Welding Code - Sheet Steel, D1.3 - Current Edition." Welders shall be qualified in accordance with AWS D1.3 and shall be experienced in light gage welding.

All light gage material to be welded must be nominal 16 gauge or thicker.

Touch up all light gage material at welds with zinc-rich paint.

Align load bearing wall studs with floor or roof joists.

Splices in studs, joists, and headers, are not permitted, unless approved in writing by the structural engineer.

Framing components may be pre-assembled into panels prior to erecting. Prefabricated panels shall be square, with components attached in a manner that prevents racking.

SPECIAL INSPECTION SCHEDULE:

SPECIAL INSPECTIONS REQUIRED OF STRUCTURAL ELEMENTS (PER IBC 2006, CHAPTER 17):

	Continuous	Periodic	Not Req'd	See Arch.	
1. Steel *					Table 1704.3
1.1 Welding	☐	■	☐	☐	
1.2 Details	☐	■	☐	☐	
1.3 High-strength Bolts	☐	■	☐	☐	
2. Concrete					Table 1704.4
2.1 Reinforcing steel including Prestressing tendons	☐	■	☐	☐	
2.2 Bolts installed in concrete	■	☐	☐	☐	
2.3 Required design mix	☐	■	☐	☐	
2.4 Sampling	■	☐	☐	☐	
2.5 Shotcrete	☐	☐	■	☐	
2.6 Curing techniques	☐	■	☐	☐	
2.7 Prestressed concrete forces and grouting	☐	☐	■	☐	
2.8 Erection of precast concrete members	☐	☐	■	☐	
2.9 Verification of IN-SITU concrete strength	☐	☐	■	☐	
3. Masonry					
3.1 Level 1 Special Inspection *	☐	■	☐	☐	1704.5.1, 1704.5.2, Table 1704.5.1
3.2 Level 2 Special Inspection	☐	☐	■	☐	1704.5.3, Table 1704.5.3
4. Wood	☐	☐	■	☐	1704.6
5. Soils	■	☐	☐	☐	1704.7
6. Pile Foundations	☐	☐	■	☐	1704.8
7. Pier Foundations	☐	☐	■	☐	1704.9
8. Wall Panel and Veneers	☐	☐	☐	■	1704.10
9. Sprayed Fire-Resistant Materials	☐	☐	☐	■	1704.11
10. Exterior Insulation and Finish Systems (EIFS)	☐	☐	☐	■	1704.12
11. Special Cases	☐	☐	☐	■	1704.13
12. Smoke Control Systems	☐	☐	☐	■	1704.14

* Please see referenced tables for exceptions.

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Print Name: Paul A. Johnson

Signature: Paul A Johnson

Date: June 3, 2010 Reg. No.: 20379

REVISIONS

NO.	DESCRIPTION	DATE
	Conformance Set	07-12-10
	Building Permit	08-16-10

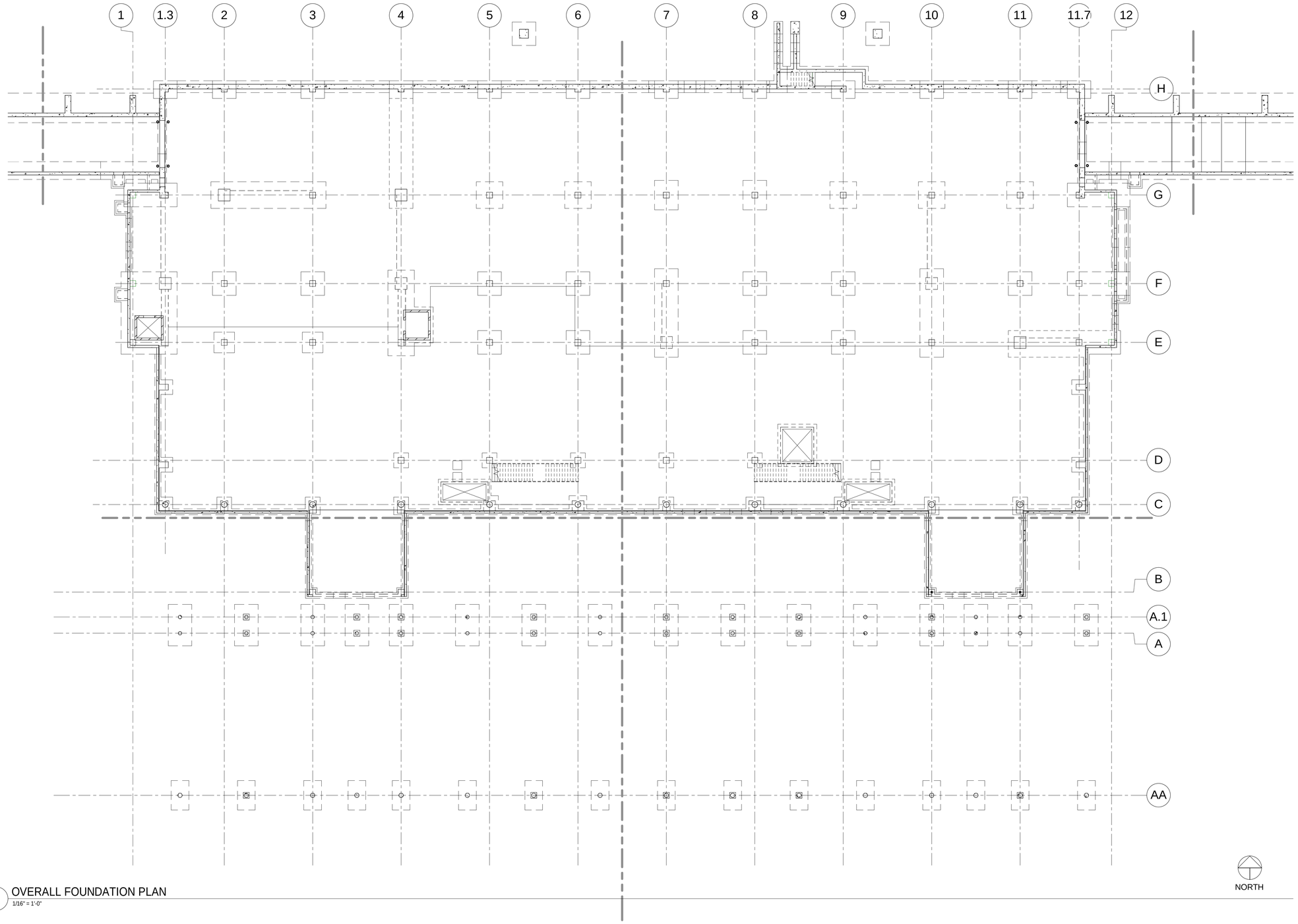
DATE ISSUED: 08-16-10
REVIEWED BY: PAJ / CWB
DRAWN BY: SJL
DESIGNED BY: CWB

AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
GENERAL STRUCTURAL NOTES

SHEET NUMBER
S003

BUILDING PERMIT



1 OVERALL FOUNDATION PLAN
1/16" = 1'-0"

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AEP PROJECT NUMBER
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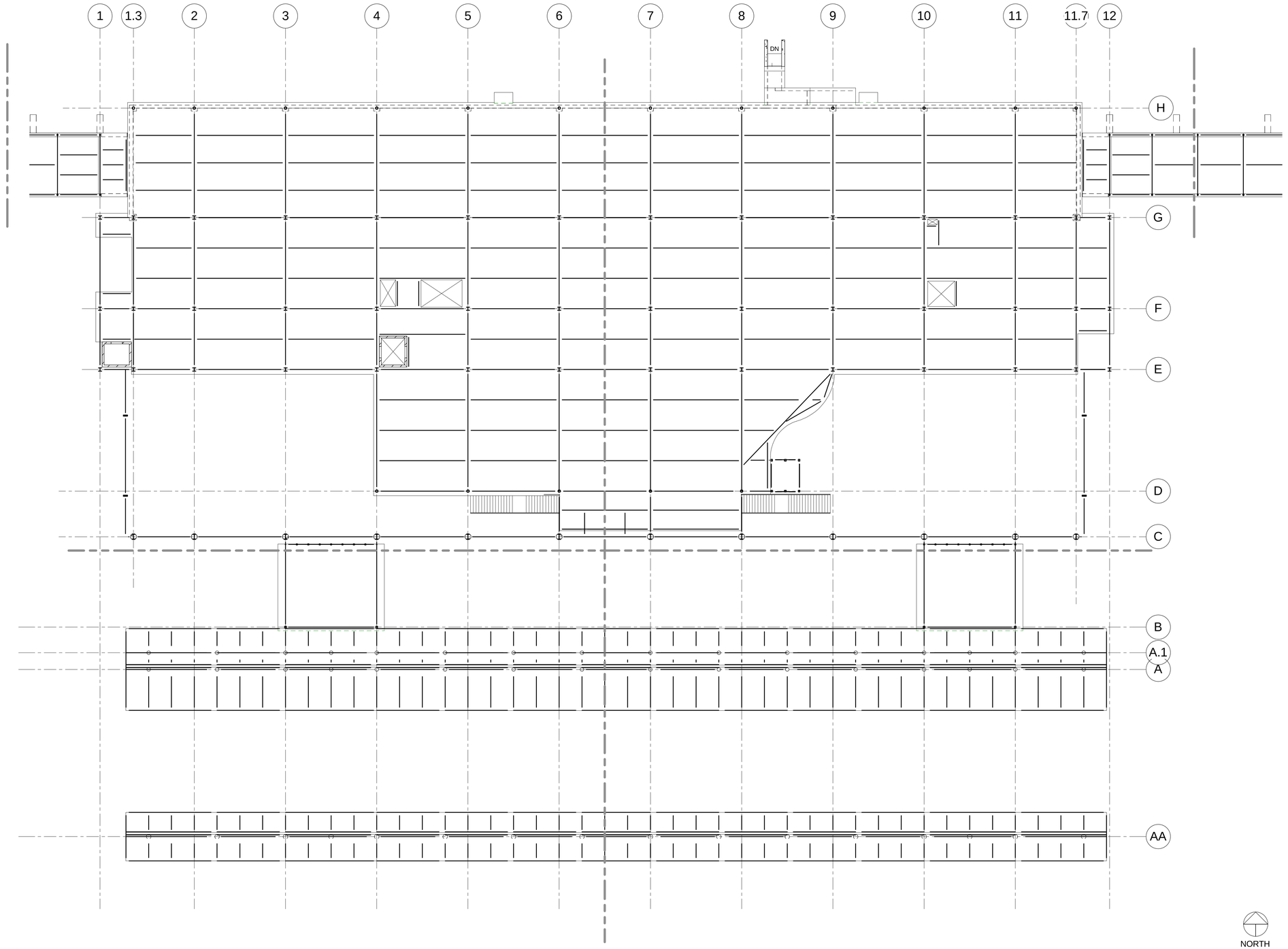
SHEET TITLE
OVERALL FIRST LEVEL FLOOR PLAN

SHEET NUMBER
S101

BUILDING PERMIT



1 OVERALL SECOND LEVEL FLOOR PLAN
1/16" = 1'-0"

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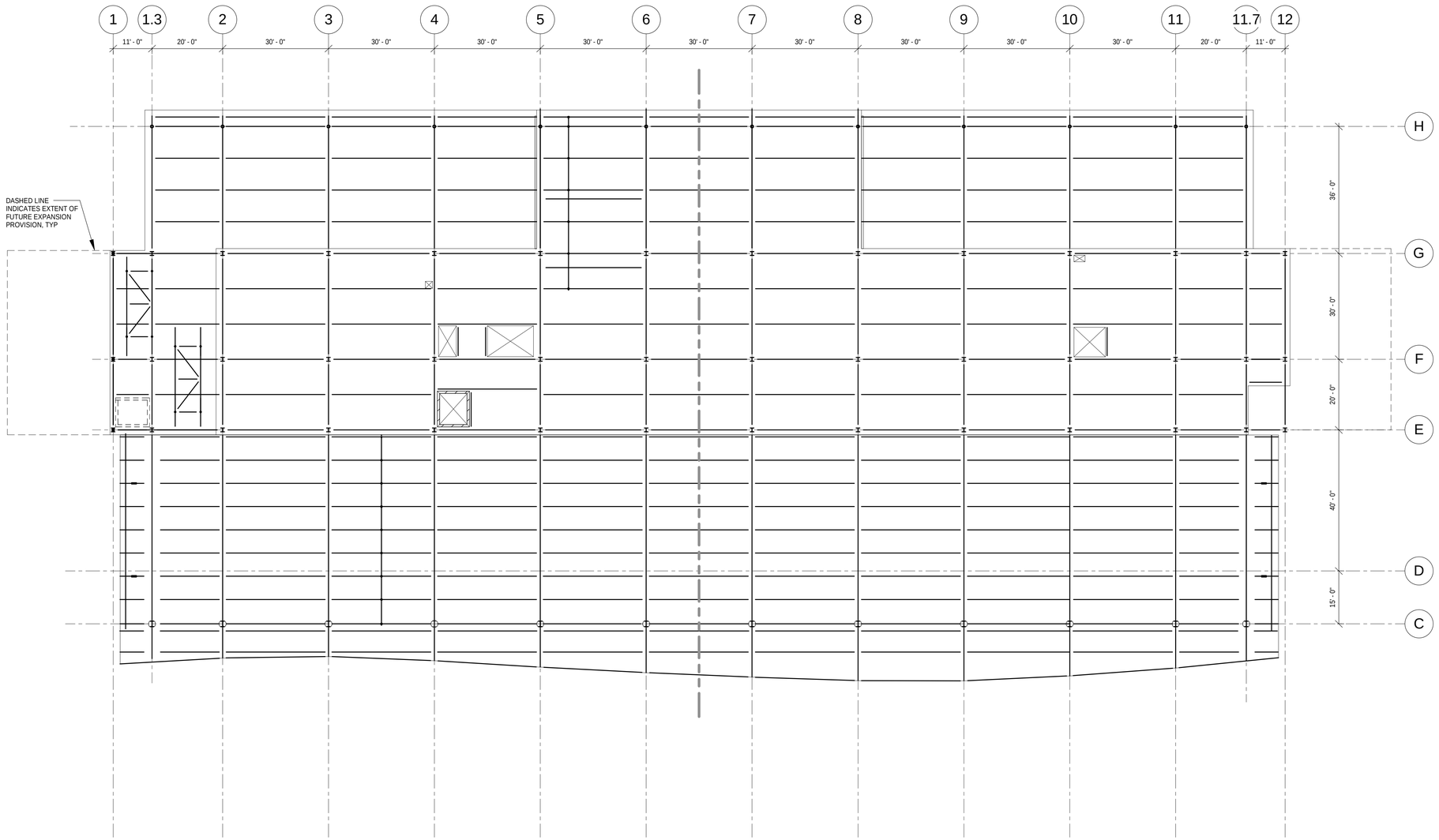
DESIGNED BY: CWB

AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
OVERALL SECOND LEVEL FLOOR PLAN

SHEET NUMBER
S102

BUILDING PERMIT



1 OVERALL THIRD LEVEL FLOOR PLAN
1/16" = 1'-0"

NORTH

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DULUTH INTERNATIONAL AIRPORT DULUTH, MN

NEW TERMINAL DESIGN

CONSULTANTS

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TEL: (218) 724-8578 / FAX: (218) 724-8717

Structural Engineers:
MBJ CONSULTING ENG.
501 Lake Avenue South, Suite 300, Duluth MN 55802
TEL: (218) 722-1056 / FAX: (218) 722-9306

M/E/P/FP Engineers:
COSENTINI
1 East Wacker Drive, Suite 103, Chicago IL 60601
TEL: (312) 670-1800 / FAX: (312) 670-1801

Baggage Handling Systems Consultants:
BNP ASSOCIATES INC.
101 East Ridge Office Park, Suite 103, Danbury CT 06810
TEL: (203) 792-3000 / FAX: (203) 792-4900

Landscape Consultants:
APPOLD DESIGN
2432 East First Street, Duluth MN 55812
TEL: (218) 591-5079

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.

Print Name: Paul A. Johnson

Signature:

Date: June 3, 2010 Reg. No.: 20379

REVISIONS

NO.	DESCRIPTION	DATE
	Conformance Set	07-12-10
	Building Permit	08-16-10

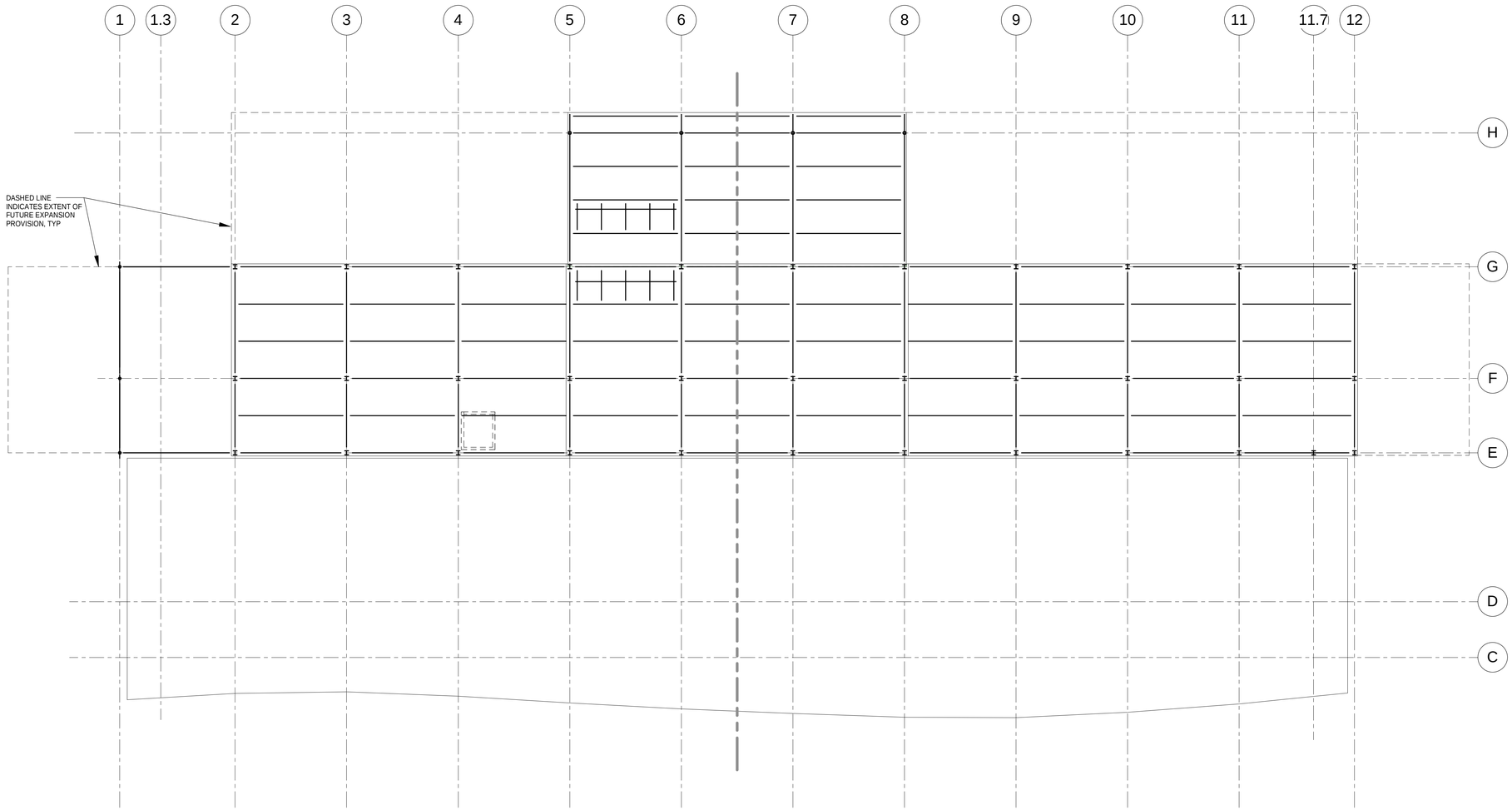
DATE ISSUED: 08-16-10
REVIEWED BY: PAJ / CWB
DRAWN BY: SJL
DESIGNED BY: CWB

AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
OVERALL THIRD LEVEL FLOOR PLAN

SHEET NUMBER
S103

BUILDING PERMIT



NORTH

1 OVERALL ROOF PLAN
1/16" = 1'-0"

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DESIGNED BY: CWB

AEP PROJECT NUMBER

213-1882-091

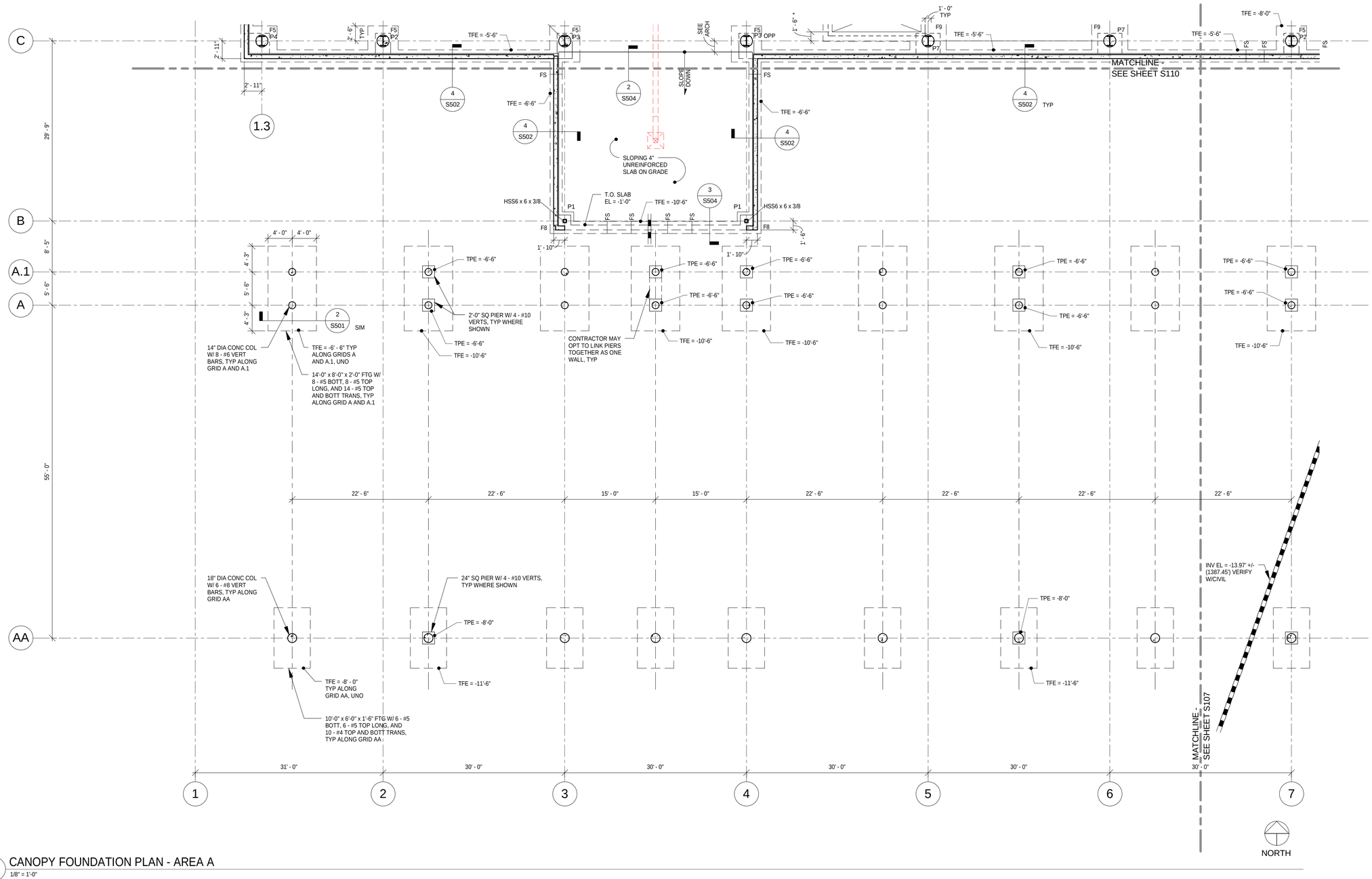
SHEET TITLE

OVERALL ROOF LEVEL PLAN

SHEET NUMBER

S104

BUILDING PERMIT



1 CANOPY FOUNDATION PLAN - AREA A

1/8" = 1'-0"

NOTES:
1. REFER TO S110 FOR TYPICAL PLAN NOTES.

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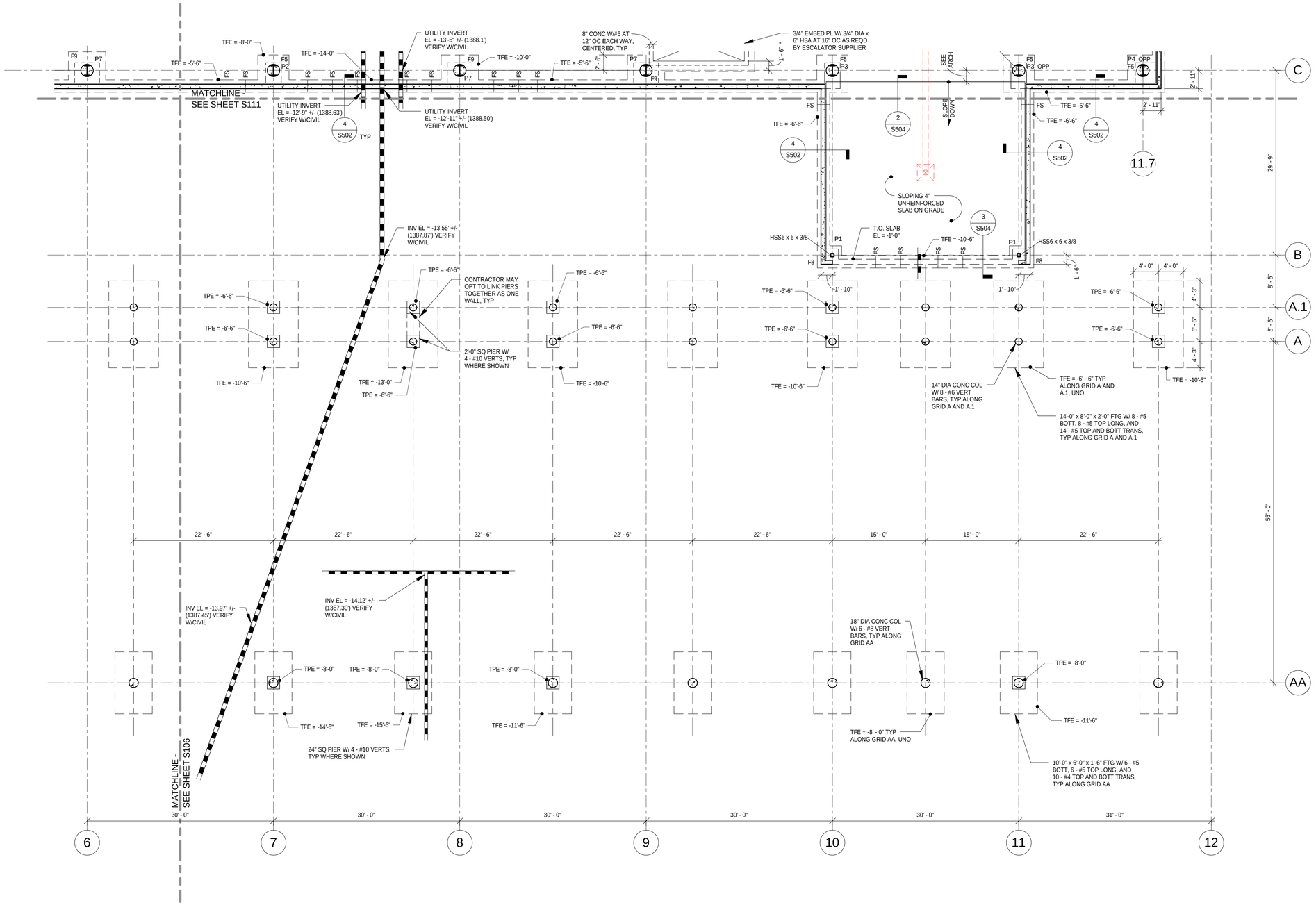
DRAWN BY: SJL
DESIGNED BY: CWB

AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
CANOPY FOUNDATION PLAN - AREA A

SHEET NUMBER
S106

BUILDING PERMIT



1 CANOPY FOUNDATION PLAN - AREA B

1/8" = 1'-0"

NOTES:
1. REFER TO S110 FOR TYPICAL PLAN NOTES.

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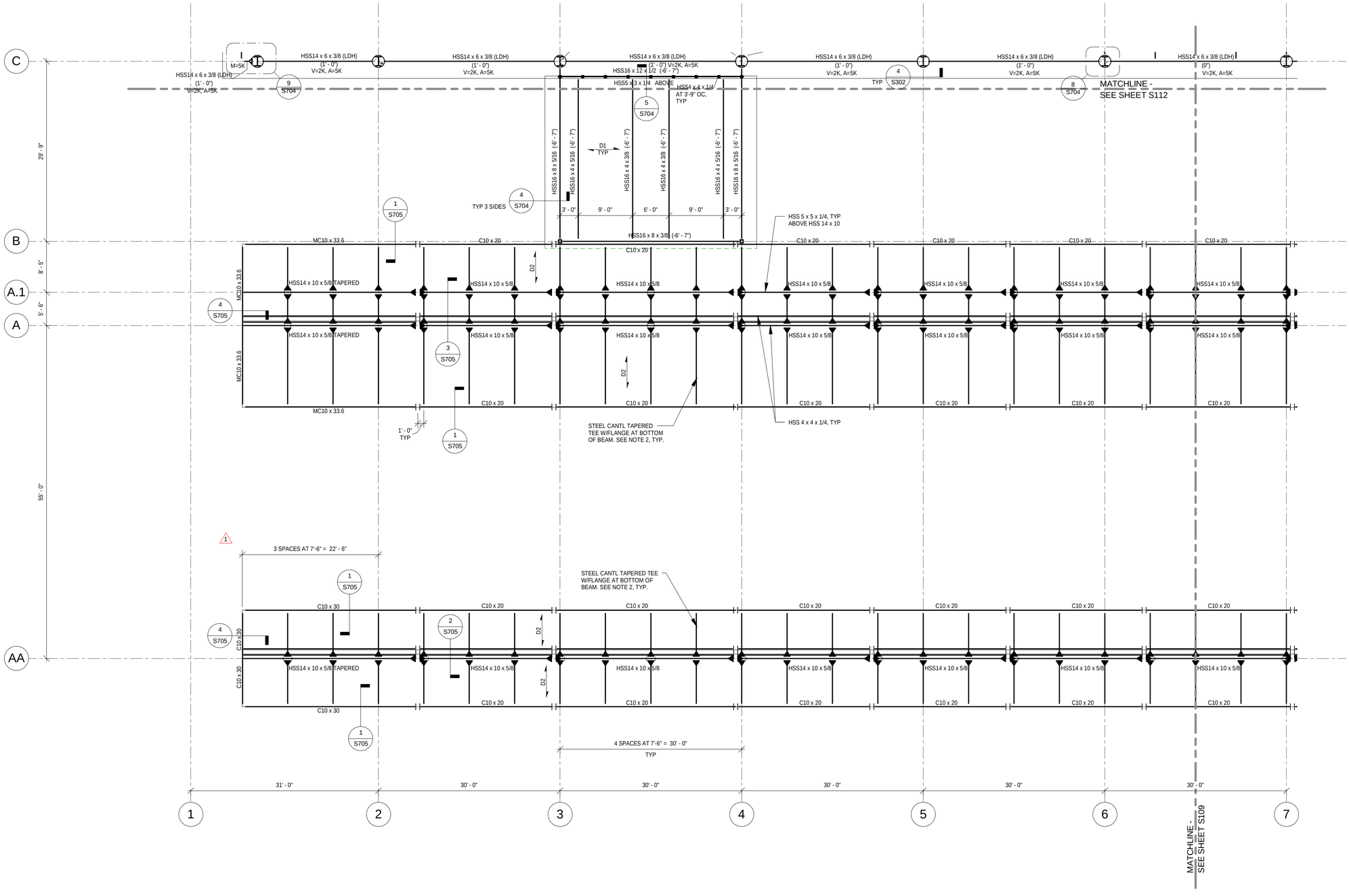
DESIGNED BY: CWB

AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
CANOPY FOUNDATION PLAN - AREA B

SHEET NUMBER
S107

BUILDING PERMIT



1 CANOPY ROOF PLAN - AREA A

1/8" = 1'-0"

NOTES:

1. REFER TO S115 FOR TYPICAL PLAN NOTES.
2. FABRICATOR TO PROVIDE SECTION (BUILT UP PLATE SECTION OR CUT WT OR CUT WIDE FLANGE) WITH THE FOLLOWING DIMENSIONAL PROPERTIES:
   - d max = 14"
   - d min = 6"
   - bf = 12"
   - tf = 1 3/8"
   - tw = 3/4"
   - Fy = 50 ksi

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REVISIONS

NO.	DESCRIPTION	DATE
1	Addendum 1	06-10-10
	Conformance Set	07-12-10
	Building Permit	08-16-10

DATE ISSUED: 08-16-10
REVIEWED BY: PAJ / CWB
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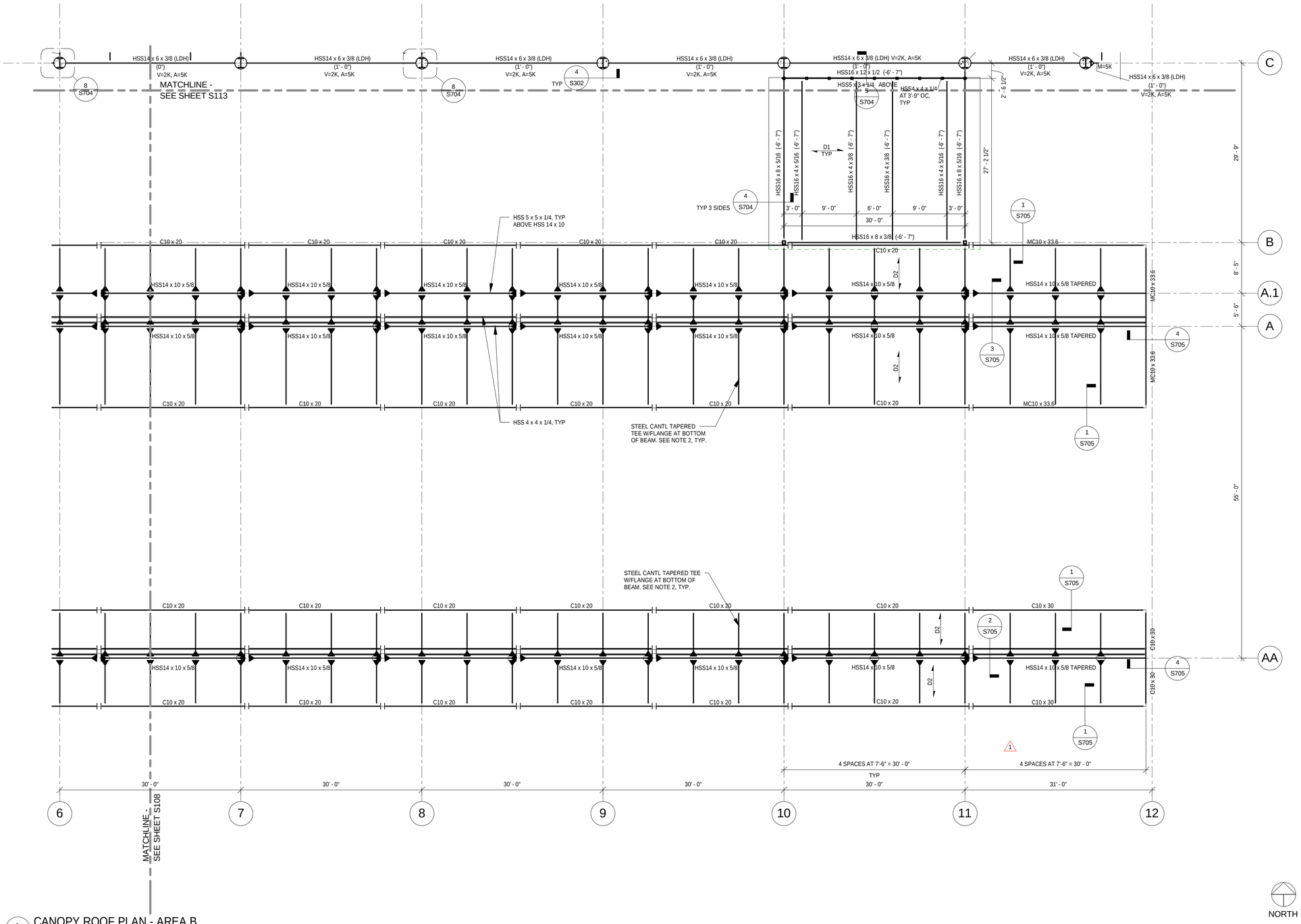
DESIGNED BY: CWB

AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
CANOPY ROOF FRAMING PLAN - AREA A

SHEET NUMBER
S108

BUILDING PERMIT



1 CANOPY ROOF PLAN - AREA B

1/8" = 1'-0"

NOTES:
1. REFER TO S115 FOR TYPICAL PLAN NOTES.
2. FABRICATOR TO PROVIDE SECTION (BUILT UP PLATE SECTION OR CUT WT OR CUT WIDE FLANGE) WITH THE FOLLOWING DIMENSIONAL PROPERTIES:
   - d max = 14"
   - d min = 6"
   - bf = 12"
   - tf = 1 3/8"
   - tw = 3/4"
   - Fy = 50 ksi

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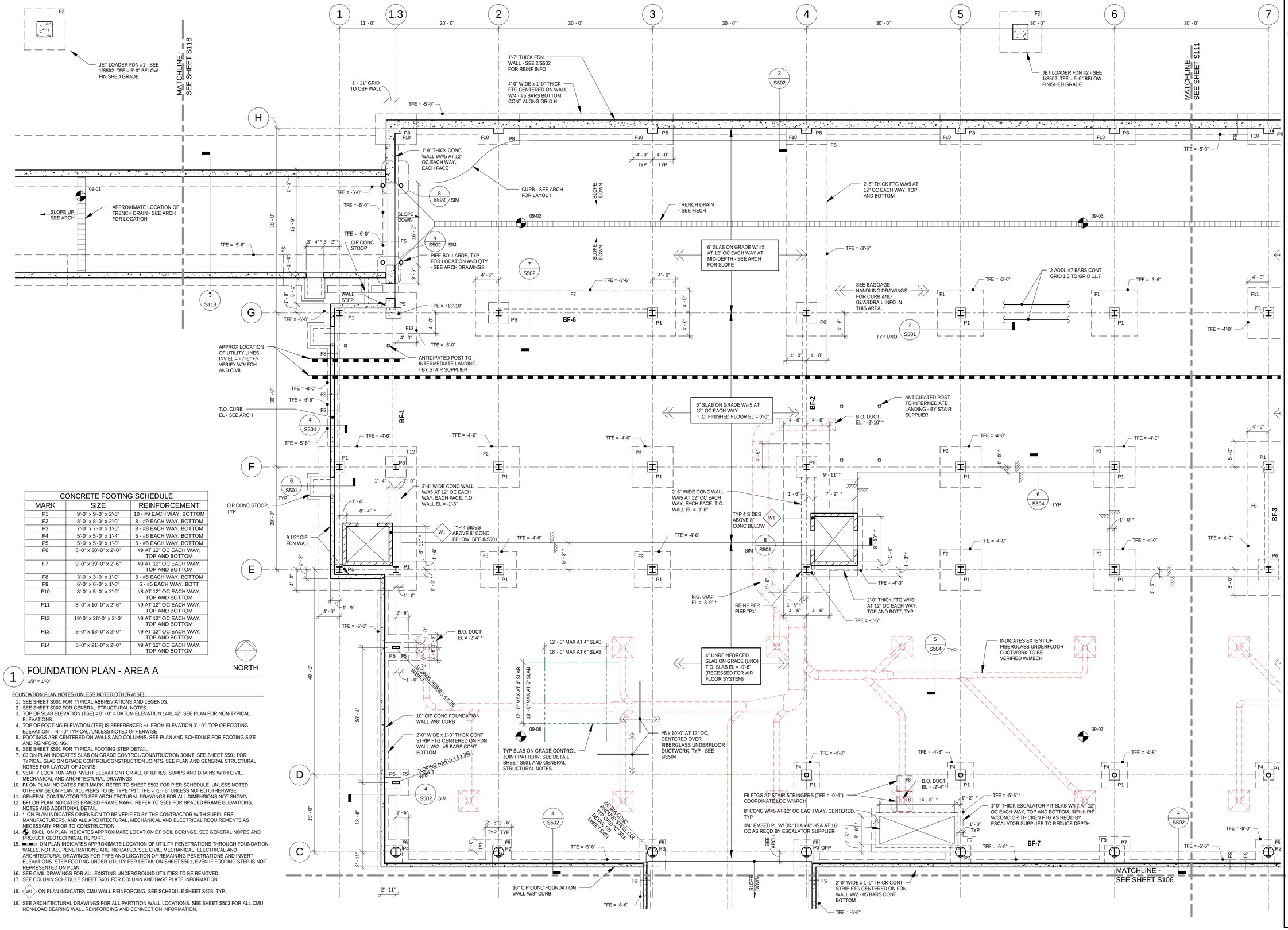
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
CANOPY ROOF FRAMING PLAN - AREA B

SHEET NUMBER
S109

BUILDING PERMIT



CONCRETE FOOTING SCHEDULE		
MARK	SIZE	REINFORCEMENT
F1	9'-0" x 9'-0" x 2'-6"	10 - #9 EACH WAY, BOTTOM
F2	8'-0" x 8'-0" x 2'-0"	8 - #9 EACH WAY, BOTTOM
F3	7'-0" x 7'-0" x 1'-6"	8 - #8 EACH WAY, BOTTOM
F4	5'-0" x 5'-0" x 1'-4"	5 - #6 EACH WAY, BOTTOM
F5	5'-0" x 5'-0" x 1'-0"	5 - #5 EACH WAY, BOTTOM
F6	8'-0" x 30'-0" x 2'-0"	#9 AT 12" OC EACH WAY, TOP AND BOTTOM
F7	9'-0" x 39'-0" x 2'-6"	#9 AT 12" OC EACH WAY, TOP AND BOTTOM
F8	3'-0" x 3'-0" x 1'-0"	3 - #5 EACH WAY, BOTTOM
F9	6'-0" x 6'-0" x 1'-0"	6 - #5 EACH WAY, BOTT
F10	8'-0" x 5'-0" x 2'-0"	#8 AT 12" OC EACH WAY, TOP AND BOTTOM
F11	8'-0" x 10'-0" x 2'-6"	#9 AT 12" OC EACH WAY, TOP AND BOTTOM
F12	19'-0" x 28'-0" x 2'-0"	#9 AT 12" OC EACH WAY, TOP AND BOTTOM
F13	8'-0" x 18'-0" x 2'-0"	#9 AT 12" OC EACH WAY, TOP AND BOTTOM
F14	8'-0" x 21'-0" x 2'-0"	#9 AT 12" OC EACH WAY, TOP AND BOTTOM

NORTH

1 FOUNDATION PLAN - AREA A

1/8" = 1'-0"

FOUNDATION PLAN NOTES (UNLESS NOTED OTHERWISE):

1. SEE SHEET S001 FOR TYPICAL ABBREVIATIONS AND LEGENDS.
2. SEE SHEET S002 FOR GENERAL STRUCTURAL NOTES.
3. TOP OF SLAB ELEVATION (TSE) = 0' - 0" = DATUM ELEVATION 1401.42'. SEE PLAN FOR NON-TYPICAL ELEVATIONS.
4. TOP OF FOOTING ELEVATION (TFE) IS REFERENCED +/- FROM ELEVATION 0' - 0". TOP OF FOOTING ELEVATION = -4' - 0" TYPICAL, UNLESS NOTED OTHERWISE
5. FOOTINGS ARE CENTERED ON WALLS AND COLUMNS. SEE PLAN AND SCHEDULE FOR FOOTING SIZE AND REINFORCING.
6. SEE SHEET S001 FOR TYPICAL FOOTING STEP DETAIL.
7. CJ ON PLAN INDICATES SLAB ON GRADE CONTROL/CONSTRUCTION JOINT. SEE SHEET S501 FOR TYPICAL SLAB ON GRADE CONTROL/CONSTRUCTION JOINTS. SEE PLAN AND GENERAL STRUCTURAL NOTES FOR LAYOUT OF JOINTS.
8. VERIFY LOCATION AND INVERT ELEVATION FOR ALL UTILITIES, SUMPS AND DRAINS WITH CIVIL, MECHANICAL AND ARCHITECTURAL DRAWINGS.
9. **P1** ON PLAN INDICATES PIER MARK. REFER TO SHEET S502 FOR PIER SCHEDULE. UNLESS NOTED OTHERWISE ON PLAN, ALL PIERS TO BE TYPE "P1". TPE = -1' - 6" UNLESS NOTED OTHERWISE
10. GENERAL CONTRACTOR TO SEE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS NOT SHOWN.
11. **BF1** ON PLAN INDICATES BRACED FRAME MARK. REFER TO S301 FOR BRACED FRAME ELEVATIONS, NOTES AND ADDITIONAL DETAIL.
12. * ON PLAN INDICATES DIMENSION TO BE VERIFIED BY THE CONTRACTOR WITH SUPPLIERS, MANUFACTURERS, AND ALL ARCHITECTURAL, MECHANICAL AND ELECTRICAL REQUIREMENTS AS NECESSARY PRIOR TO CONSTRUCTION.
13. 09-01 ON PLAN INDICATES APPROXIMATE LOCATION OF SOIL BORINGS. SEE GENERAL NOTES AND PROJECT GEOTECHNICAL REPORT.
14. ▬▪▬ ON PLAN INDICATES APPROXIMATE LOCATION OF UTILITY PENETRATIONS THROUGH FOUNDATION WALLS. NOT ALL PENETRATIONS ARE INDICATED. SEE CIVIL, MECHANICAL, ELECTRICAL AND ARCHITECTURAL DRAWINGS FOR TYPE AND LOCATION OF REMAINING PENETRATIONS AND INVERT ELEVATIONS. STEP FOOTING UNDER UTILITY PER DETAIL ON SHEET S501, EVEN IF FOOTING STEP IS NOT REPRESENTED ON PLAN.
15. SEE CIVIL DRAWINGS FOR ALL EXISTING UNDERGROUND UTILITIES TO BE REMOVED.
16. SEE COLUMN SCHEDULE SHEET S401 FOR COLUMN AND BASE PLATE INFORMATION.
17. W1 ON PLAN INDICATES CMU WALL REINFORCING. SEE SCHEDULE SHEET S503, TYP.
18. SEE ARCHITECTURAL DRAWINGS FOR ALL PARTITION WALL LOCATIONS. SEE SHEET S503 FOR ALL CMU NON-LOAD BEARING WALL REINFORCING AND CONNECTION INFORMATION.

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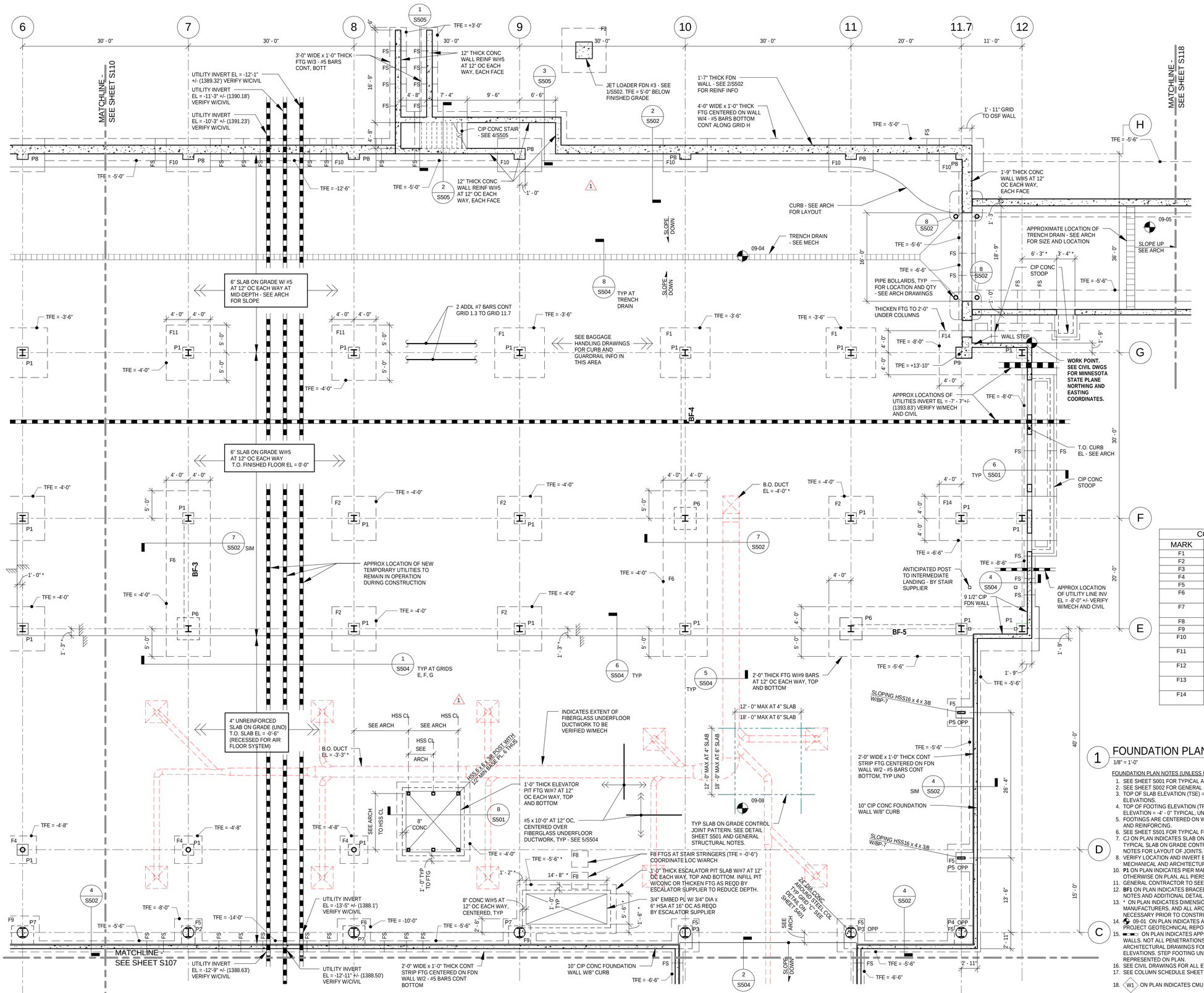
SHEET TITLE
FOUNDATION PLAN - AREA A

SHEET NUMBER
S110

BUILDING PERMIT



CONCRETE FOOTING SCHEDULE

MARK	SIZE	REINFORCEMENT
F1	9'-0" x 9'-0" x 2'-6"	10 - #9 EACH WAY, BOTTOM
F2	8'-0" x 8'-0" x 2'-0"	8 - #9 EACH WAY, BOTTOM
F3	7'-0" x 7'-0" x 1'-6"	8 - #8 EACH WAY, BOTTOM
F4	5'-0" x 5'-0" x 1'-4"	5 - #6 EACH WAY, BOTTOM
F5	5'-0" x 5'-0" x 1'-0"	5 - #5 EACH WAY, BOTTOM
F6	8'-0" x 30'-0" x 2'-0"	#9 AT 12" OC EACH WAY, TOP AND BOTTOM
F7	9'-0" x 39'-0" x 2'-6"	#9 AT 12" OC EACH WAY, TOP AND BOTTOM
F8	3'-0" x 3'-0" x 1'-0"	3 - #5 EACH WAY, BOTTOM
F9	6'-0" x 6'-0" x 1'-0"	6 - #5 EACH WAY, BOTT
F10	8'-0" x 5'-0" x 2'-0"	#8 AT 12" OC EACH WAY, TOP AND BOTTOM
F11	8'-0" x 10'-0" x 2'-6"	#9 AT 12" OC EACH WAY, TOP AND BOTTOM
F12	19'-0" x 28'-0" x 2'-0"	#9 AT 12" OC EACH WAY, TOP AND BOTTOM
F13	8'-0" x 18'-0" x 2'-0"	#9 AT 12" OC EACH WAY, TOP AND BOTTOM
F14	8'-0" x 21'-0" x 2'-0"	#9 AT 12" OC EACH WAY, TOP AND BOTTOM

NORTH

1 FOUNDATION PLAN - AREA B

1/8" = 1'-0"

FOUNDATION PLAN NOTES (UNLESS NOTED OTHERWISE):

1. SEE SHEET S001 FOR TYPICAL ABBREVIATIONS AND LEGENDS.
2. SEE SHEET S002 FOR GENERAL STRUCTURAL NOTES.
3. TOP OF SLAB ELEVATION (TSE) = 0' - 0" = DATUM ELEVATION 1401.42'. SEE PLAN FOR NON-TYPICAL ELEVATIONS.
4. TOP OF FOOTING ELEVATION (TFE) IS REFERENCED +/- FROM ELEVATION 0' - 0". TOP OF FOOTING ELEVATION = -4' - 0" TYPICAL, UNLESS NOTED OTHERWISE
5. FOOTINGS ARE CENTERED ON WALLS AND COLUMNS. SEE PLAN AND SCHEDULE FOR FOOTING SIZE AND REINFORCING.
6. SEE SHEET S501 FOR TYPICAL FOOTING STEP DETAIL.
7. CJ ON PLAN INDICATES SLAB ON GRADE CONTROL/CONSTRUCTION JOINT. SEE SHEET S501 FOR TYPICAL SLAB ON GRADE CONTROL/CONSTRUCTION JOINTS. SEE PLAN AND GENERAL STRUCTURAL NOTES FOR LAYOUT OF JOINTS.
8. VERIFY LOCATION AND INVERT ELEVATION FOR ALL UTILITIES, SUMPS AND DRAINS WITH CIVIL, MECHANICAL AND ARCHITECTURAL DRAWINGS.
9. **P1** ON PLAN INDICATES PIER MARK. REFER TO SHEET S502 FOR PIER SCHEDULE. UNLESS NOTED OTHERWISE ON PLAN, ALL PIERS TO BE TYPE "P1". TPE = -1' - 6" UNLESS NOTED OTHERWISE
10. GENERAL CONTRACTOR TO SEE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS NOT SHOWN.
11. **BF1** ON PLAN INDICATES BRACED FRAME MARK. REFER TO S301 FOR BRACED FRAME ELEVATIONS, NOTES AND ADDITIONAL DETAIL.
12. * ON PLAN INDICATES DIMENSION TO BE VERIFIED BY THE CONTRACTOR WITH SUPPLIERS, MANUFACTURERS, AND ALL ARCHITECTURAL, MECHANICAL AND ELECTRICAL REQUIREMENTS AS NECESSARY PRIOR TO CONSTRUCTION.
13. 09-01 ON PLAN INDICATES APPROXIMATE LOCATION OF SOIL BORINGS. SEE GENERAL NOTES AND PROJECT GEOTECHNICAL REPORT.
14. ON PLAN INDICATES APPROXIMATE LOCATION OF UTILITY PENETRATIONS THROUGH FOUNDATION WALLS. NOT ALL PENETRATIONS ARE INDICATED. SEE CIVIL, MECHANICAL, ELECTRICAL AND ARCHITECTURAL DRAWINGS FOR TYPE AND LOCATION OF REMAINING PENETRATIONS AND INVERT ELEVATIONS. STEP FOOTING UNDER UTILITY PER DETAIL ON SHEET S501, EVEN IF FOOTING STEP IS NOT REPRESENTED ON PLAN.
15. SEE CIVIL DRAWINGS FOR ALL EXISTING UNDERGROUND UTILITIES TO BE REMOVED.
16. SEE COLUMN SCHEDULE SHEET S401 FOR COLUMN AND BASE PLATE INFORMATION.
17. W1 ON PLAN INDICATES CMU WALL REINFORCING. SEE SCHEDULE SHEET S503, TYP.
18. SEE ARCHITECTURAL DRAWINGS FOR ALL PARTITION WALL LOCATIONS. SEE SHEET S503 FOR ALL CMU NON-LOAD BEARING WALL REINFORCING AND CONNECTION INFORMATION.

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CONSULTANTS

Interior Architects:
SJA ARCHITECTS
11 E Superior Street Suite 340 Duluth MN 55802
TEL: (218) 724-8578 / FAX: (218) 724-8717

Structural Engineers:
MBJ CONSULTING ENG.
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APPOLD DESIGN
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TEL: (218) 591-5079

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.

Print Name: Paul A. Johnson

Signature:

Date: June 3, 2010 Reg. No.: 20379

REVISIONS

NO.	DESCRIPTION	DATE
1	Addendum 1	06-10-10
	Conformance Set	07-12-10
	Building Permit	08-16-10

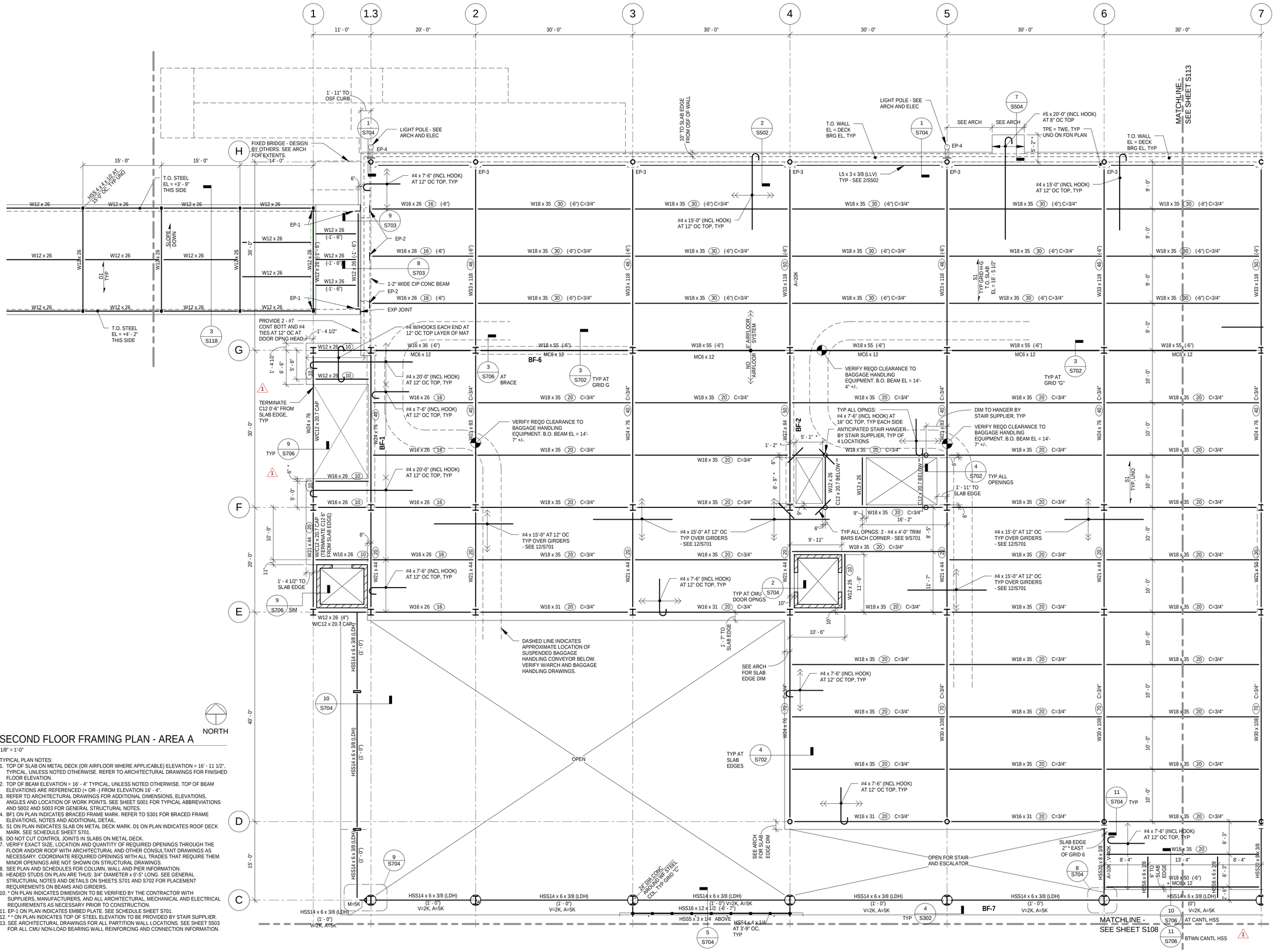
DATE ISSUED: 08-16-10
REVIEWED BY: PAJ / CWB
DRAWN BY: SJL
DESIGNED BY: CWB

AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
FOUNDATION PLAN - AREA B

SHEET NUMBER
S111

BUILDING PERMIT



1 SECOND FLOOR FRAMING PLAN - AREA A

1/8" = 1'-0"

TYPICAL PLAN NOTES:

1. TOP OF SLAB ON METAL DECK (OR AIRFLOOR WHERE APPLICABLE) ELEVATION = 16' - 11 1/2", TYPICAL, UNLESS NOTED OTHERWISE. REFER TO ARCHITECTURAL DRAWINGS FOR FINISHED FLOOR ELEVATION.
2. TOP OF BEAM ELEVATION = 16' - 4" TYPICAL, UNLESS NOTED OTHERWISE. TOP OF BEAM ELEVATIONS ARE REFERENCED (+ OR -) FROM ELEVATION 16' - 4".
3. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL DIMENSIONS, ELEVATIONS, ANGLES AND LOCATION OF WORK POINTS. SEE SHEET S001 FOR TYPICAL ABBREVIATIONS AND S002 AND S003 FOR GENERAL STRUCTURAL NOTES.
4. BF1 ON PLAN INDICATES BRACED FRAME MARK. REFER TO S301 FOR BRACED FRAME ELEVATIONS, NOTES AND ADDITIONAL DETAIL.
5. S1 ON PLAN INDICATES SLAB ON METAL DECK MARK. D1 ON PLAN INDICATES ROOF DECK MARK. SEE SCHEDULE SHEET S701.
6. DO NOT CUT CONTROL JOINTS IN SLABS ON METAL DECK.
7. VERIFY EXACT SIZE, LOCATION AND QUANTITY OF REQUIRED OPENINGS THROUGH THE FLOOR AND/OR ROOF WITH ARCHITECTURAL AND OTHER CONSULTANT DRAWINGS AS NECESSARY. COORDINATE REQUIRED OPENINGS WITH ALL TRADES THAT REQUIRE THEM. MINOR OPENINGS ARE NOT SHOWN ON STRUCTURAL DRAWINGS.
8. SEE PLAN AND SCHEDULES FOR COLUMN, WALL AND PIER INFORMATION.
9. HEADED STUDS ON PLAN ARE THUS: 3/4" DIAMETER x 0'-5" LONG. SEE GENERAL STRUCTURAL NOTES AND DETAILS ON SHEETS S701 AND S702 FOR PLACEMENT REQUIREMENTS ON BEAMS AND GIRDERS.
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11. EP-1 ON PLAN INDICATES EMBED PLATE. SEE SCHEDULE SHEET S701.
12. ** ON PLAN INDICATES TOP OF STEEL ELEVATION TO BE PROVIDED BY STAIR SUPPLIER.
13. SEE ARCHITECTURAL DRAWINGS FOR ALL PARTITION WALL LOCATIONS. SEE SHEET S503 FOR ALL CMU NON-LOAD BEARING WALL REINFORCING AND CONNECTION INFORMATION.

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Date: June 3, 2010 Reg. No.: 20379

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	Conformance Set	07-12-10

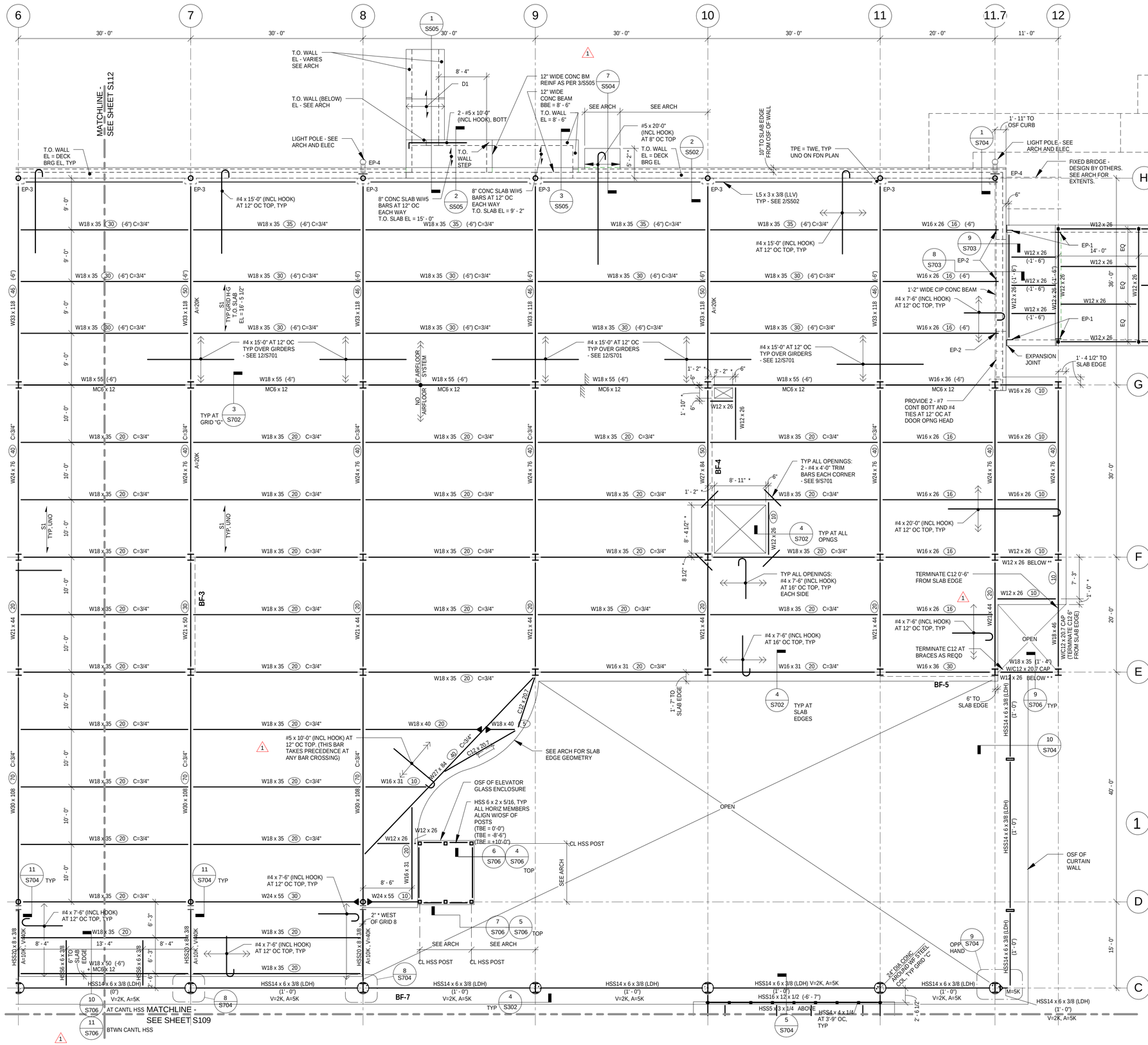
DATE ISSUED: 08-16-10
REVIEWED BY: PAJ / CWB
DRAWN BY: SJL
DESIGNED BY: CWB

AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
SECOND LEVEL FRAMING PLAN - AREA A

SHEET NUMBER
S112

BUILDING PERMIT



1 SECOND FLOOR FRAMING PLAN - AREA B

1/8" = 1'-0"

TYPICAL PLAN NOTES:

1. TOP OF SLAB ON METAL DECK (OR AIRFLOOR WHERE APPLICABLE) ELEVATION = 16' - 11 1/2", TYPICAL, UNLESS NOTED OTHERWISE. REFER TO ARCHITECTURAL DRAWINGS FOR FINISHED FLOOR ELEVATION.
2. TOP OF BEAM ELEVATION = 16' - 4" TYPICAL, UNLESS NOTED OTHERWISE. TOP OF BEAM ELEVATIONS ARE REFERENCED (+ OR -) FROM ELEVATION 16' - 4".
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4. BF1 ON PLAN INDICATES BRACED FRAME MARK. REFER TO S301 FOR BRACED FRAME ELEVATIONS, NOTES AND ADDITIONAL DETAIL.
5. S1 ON PLAN INDICATES SLAB ON METAL DECK MARK. D1 ON PLAN INDICATES ROOF DECK MARK. SEE SCHEDULE SHEET S701.
6. DO NOT CUT CONTROL JOINTS IN SLABS ON METAL DECK.
7. VERIFY EXACT SIZE, LOCATION AND QUANTITY OF REQUIRED OPENINGS THROUGH THE FLOOR AND/OR ROOF WITH ARCHITECTURAL AND OTHER CONSULTANT DRAWINGS AS NECESSARY. COORDINATE REQUIRED OPENINGS WITH ALL TRADES THAT REQUIRE THEM. MINOR OPENINGS ARE NOT SHOWN ON STRUCTURAL DRAWINGS.
8. SEE PLAN AND SCHEDULES FOR COLUMN, WALL AND PIER INFORMATION.
9. HEADED STUDS ON PLAN ARE THUS: 3/4" DIAMETER x 0'-5" LONG. SEE GENERAL STRUCTURAL NOTES AND DETAILS ON SHEETS S701 AND S702 FOR PLACEMENT REQUIREMENTS ON BEAMS AND GIRDERS.
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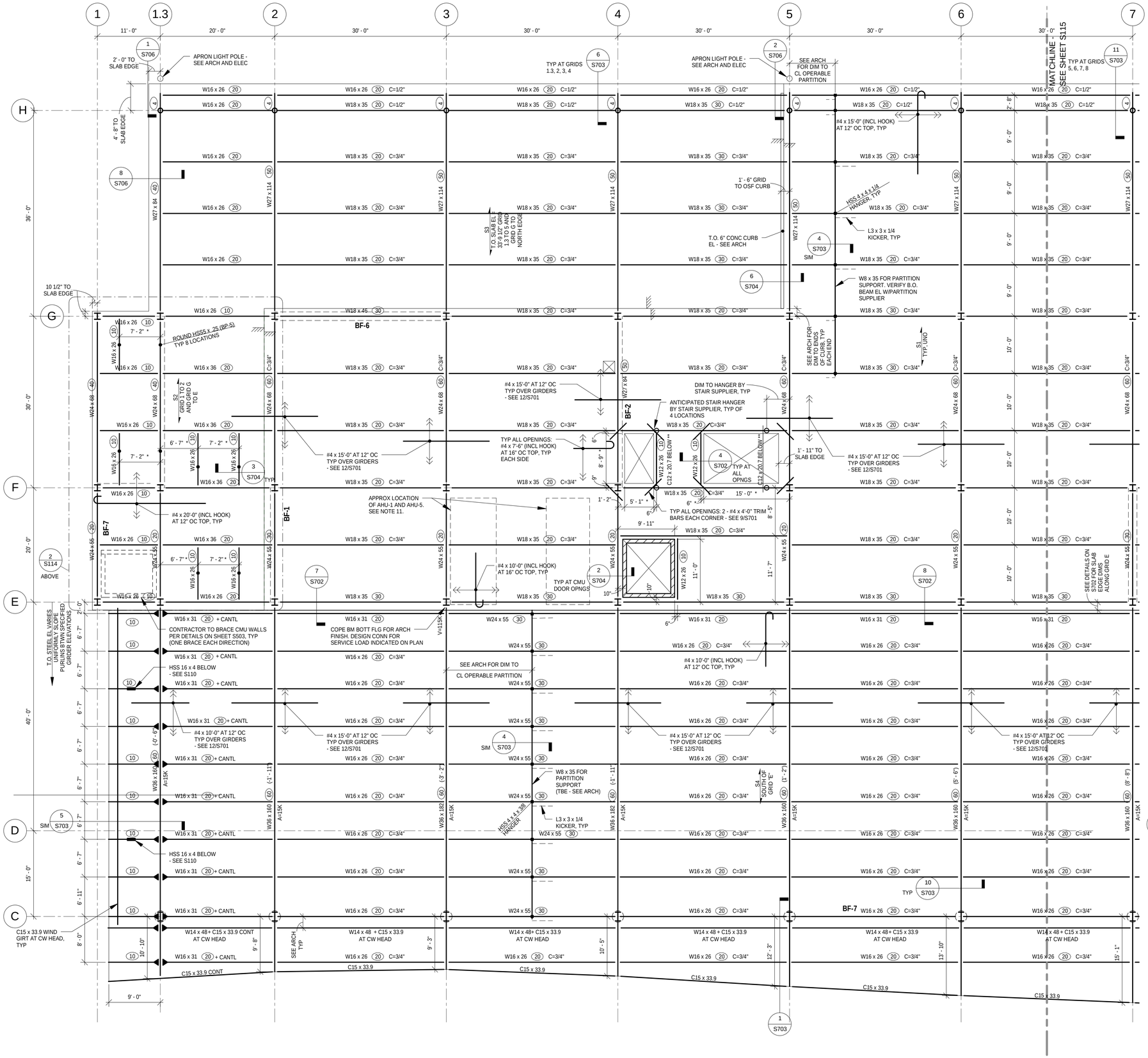
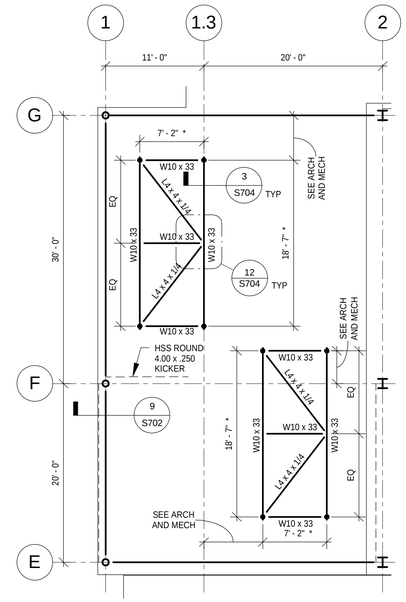
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
SECOND LEVEL FRAMING PLAN - AREA B

SHEET NUMBER
S113

BUILDING PERMIT





2 PARTIAL THIRD FLOOR FRAMING PLAN

1/8" = 1'-0"

NOTES:
1. TOP OF CHILLER SUPPORT BEAM EL = 37'-0" *, TYP. SEE NOTE 10 ON 1/S120.
2. ASSUMED APPROXIMATE CHILLER SELF-WEIGHT = 13,000 LBS. SEE MECHANICAL EQUIPMENT SCHEDULES.

APPROXIMATE AHU WEIGHTS (VERIFY WIMECH)	
MARK	WEIGHT (POUNDS)
AHU-1	5,000
AHU-2	12,000
AHU-3	6,200
AHU-4	6,200
AHU-5	5,000

1 THIRD LEVEL FRAMING PLAN - AREA A

1/8" = 1'-0"

TYPICAL PLAN NOTES:
1. TOP OF SLAB ELEVATION = 33' - 7 1/2", UNLESS NOTED OTHERWISE. REFER TO ARCHITECTURAL DRAWINGS FOR FINISHED FLOOR ELEVATION.
2. TOP OF BEAM ELEVATION = 33' - 0" TYPICAL, UNLESS NOTED OTHERWISE. TOP OF BEAM ELEVATIONS ARE REFERENCED (+ OR -) FROM ELEVATION 33' - 0".
3. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL DIMENSIONS, ELEVATIONS, ANGLES AND LOCATION OF WORK POINTS. SEE SHEET S001 FOR TYPICAL ABBREVIATIONS AND S002 AND S003 FOR GENERAL STRUCTURAL NOTES.
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12. SEE ARCHITECTURAL DRAWINGS FOR ALL PARTITION WALL LOCATIONS. SEE SHEET S503 FOR ALL CMU NON-LOAD BEARING WALL REINFORCING AND CONNECTION INFORMATION.

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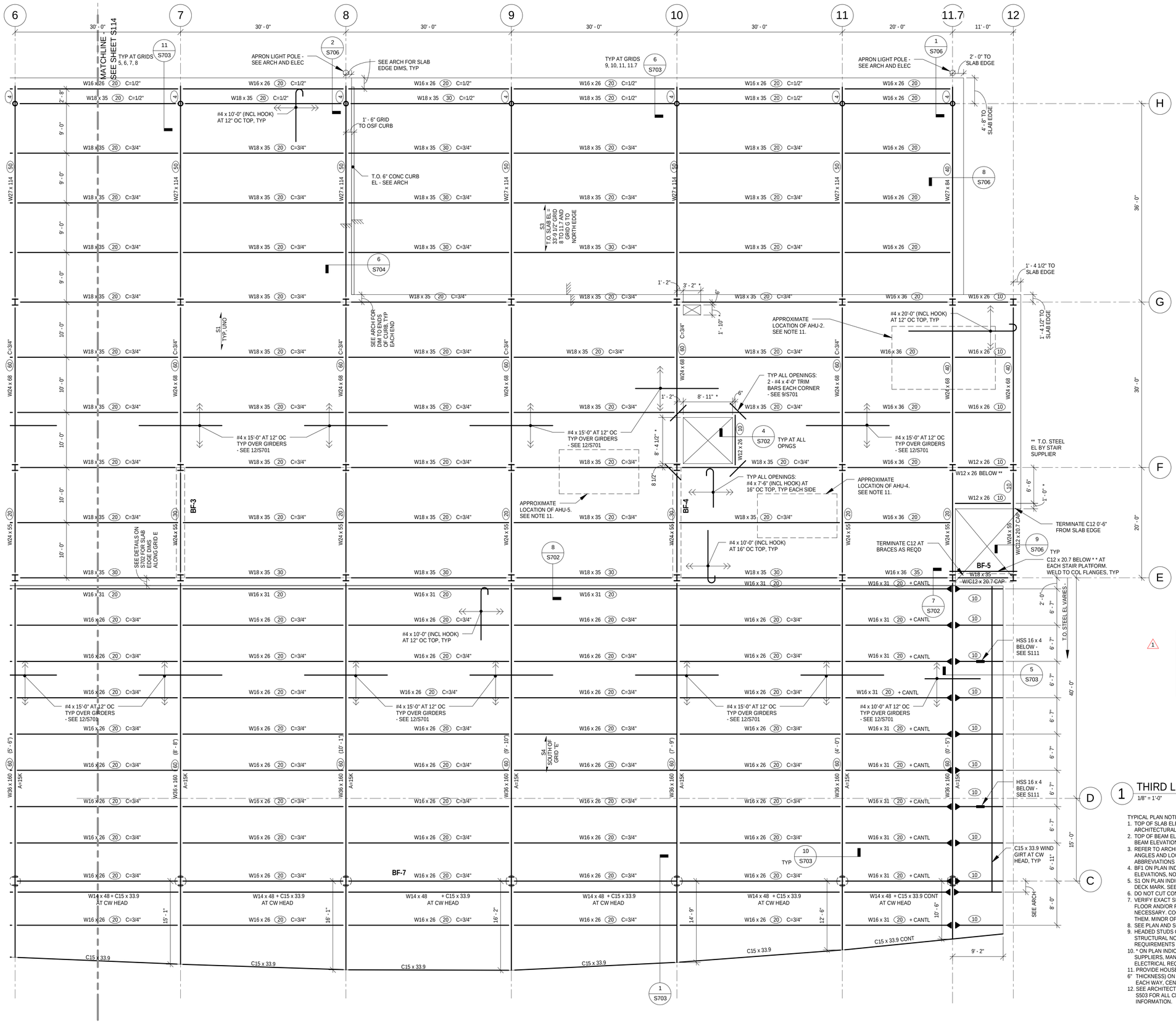
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
THIRD LEVEL FRAMING PLAN - AREA A

SHEET NUMBER
S114

BUILDING PERMIT



APPROXIMATE AHU WEIGHTS (VERIFY W/MECH)	
MARK	WEIGHT (POUNDS)
AHU-1	5,000
AHU-2	12,000
AHU-3	6,200
AHU-4	6,200
AHU-5	5,000

1 THIRD LEVEL FRAMING PLAN - AREA B

1/8" = 1'-0"

TYPICAL PLAN NOTES.

1. TOP OF SLAB ELEVATION = 33' - 7 1/2", UNLESS NOTED OTHERWISE. REFER TO ARCHITECTURAL DRAWINGS FOR FINISHED FLOOR ELEVATION.
2. TOP OF BEAM ELEVATION = 33' - 0" TYPICAL, UNLESS NOTED OTHERWISE. TOP OF BEAM ELEVATIONS ARE REFERENCED (+ OR -) FROM ELEVATION 33' - 0".
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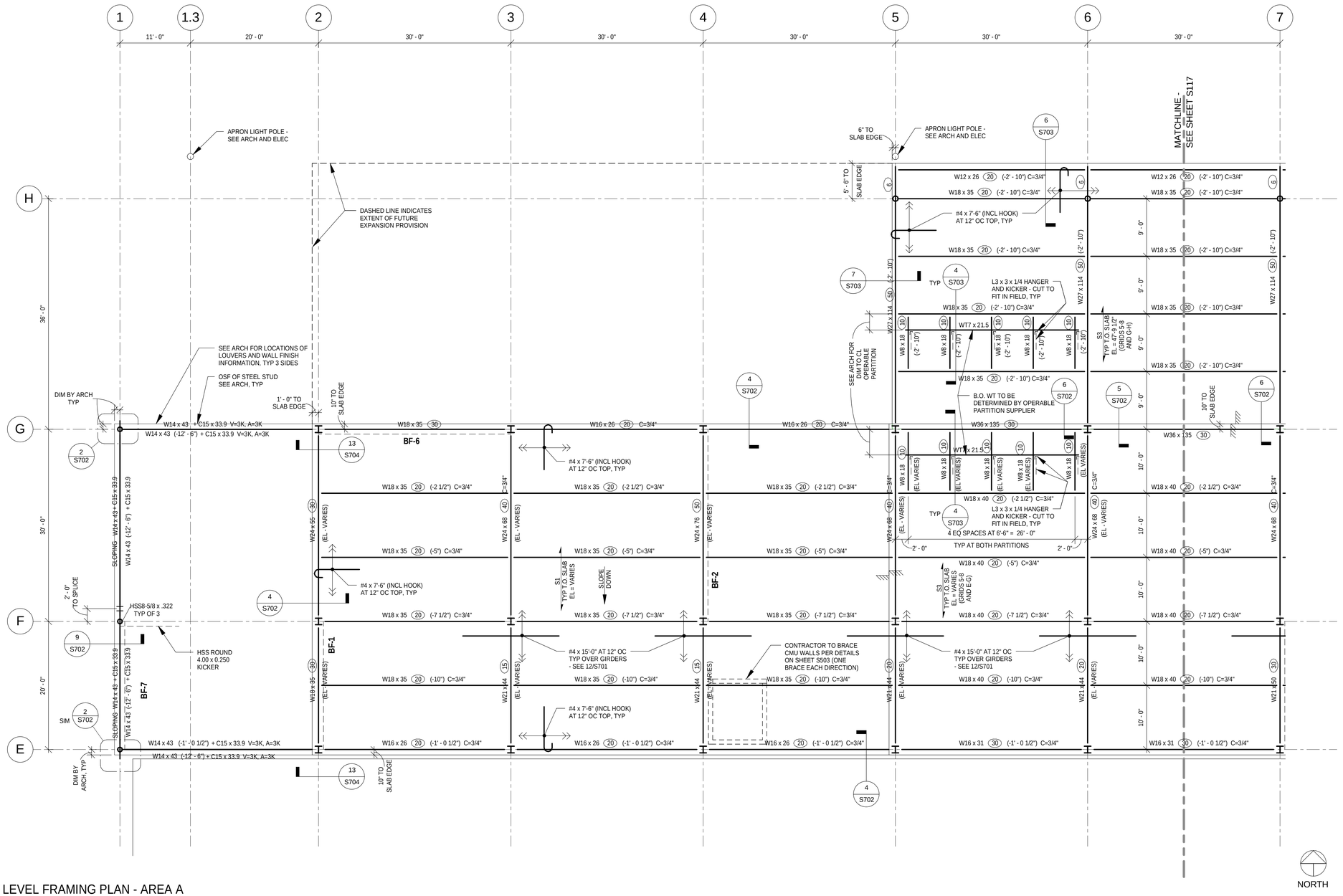
SHEET TITLE
THIRD LEVEL FRAMING PLAN - AREA B

SHEET NUMBER
S115

BUILDING PERMIT



1 ROOF LEVEL FRAMING PLAN - AREA A

1/8" = 1'-0"

TYPICAL PLAN NOTES:

1. TOP OF STEEL BEAM ELEVATION IS REFERENCED (+ OR -) FROM ELEVATION 49' - 6". TOP OF STEEL BEAM = 49' - 6", UNLESS NOTED OTHERWISE.
2. TOP OF SLAB ELEVATION VARIES. SEE PLAN
3. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL DIMENSIONS, ELEVATIONS, ANGLES AND LOCATION OF WORK POINTS. SEE SHEET S001 FOR TYPICAL ABBREVIATIONS AND S002 AND S003 FOR GENERAL STRUCTURAL NOTES.
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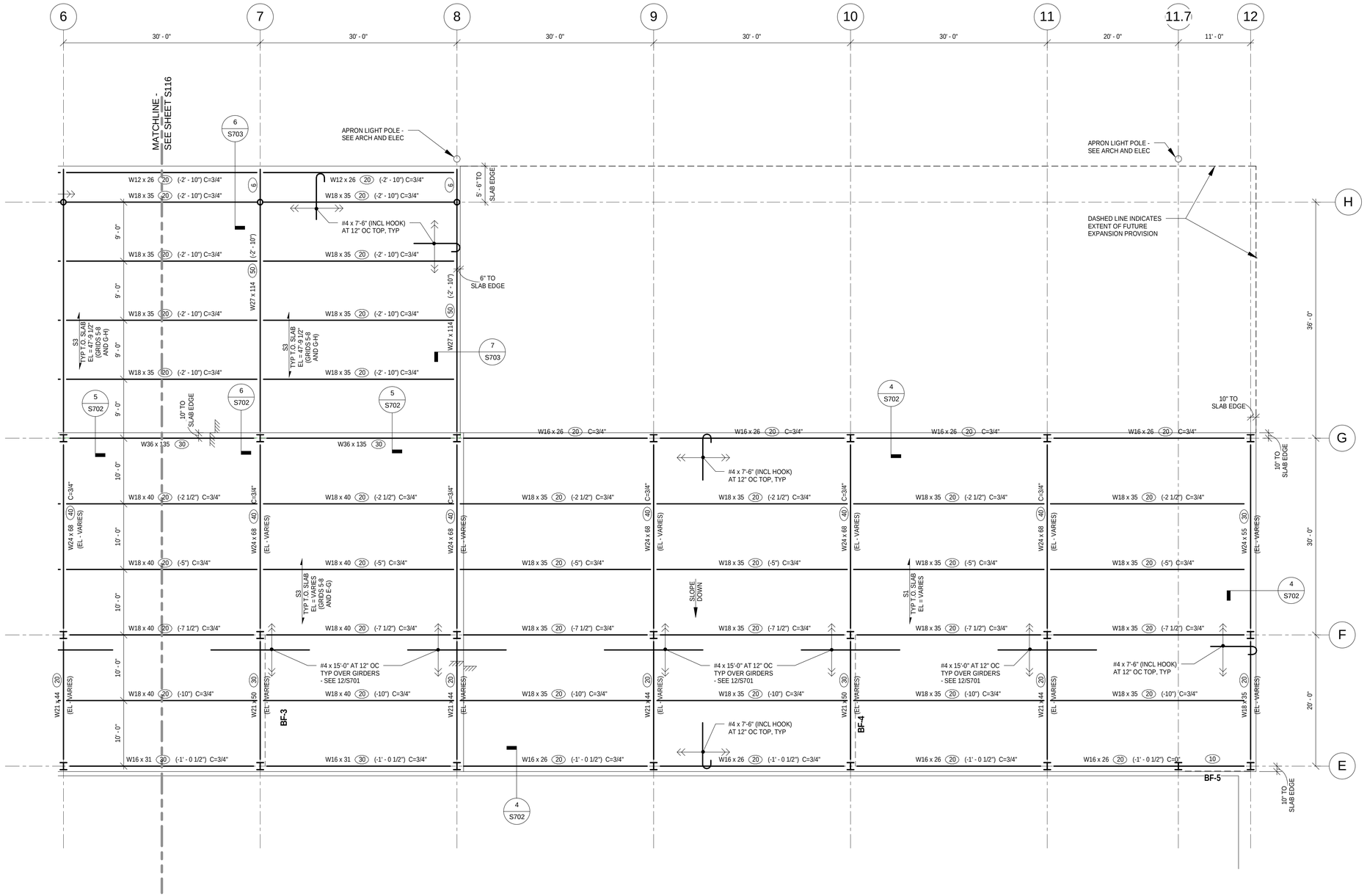
SHEET TITLE

ROOF LEVEL FRAMING PLAN - AREA A

SHEET NUMBER

S116

BUILDING PERMIT



1 ROOF LEVEL FRAMING PLAN - AREA B

1/8" = 1'-0"

TYPICAL PLAN NOTES:

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3. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL DIMENSIONS, ELEVATIONS, ANGLES AND LOCATION OF WORK POINTS. SEE SHEET S001 FOR TYPICAL ABBREVIATIONS AND S002 AND S003 FOR GENERAL STRUCTURAL NOTES.
4. BF1 ON PLAN INDICATES BRACED FRAME MARK. REFER TO S301 FOR BRACED FRAME ELEVATIONS, NOTES AND ADDITIONAL DETAIL.
5. S1 ON PLAN INDICATES SLAB ON METAL DECK MARK. D1 ON PLAN INDICATES ROOF DECK MARK. SEE SCHEDULE ON SHEET S701.
6. DO NOT CUT CONTROL JOINTS IN SLABS ON METAL DECK.
7. VERIFY EXACT SIZE, LOCATION AND QUANTITY OF REQUIRED OPENINGS THROUGH THE FLOOR AND/OR ROOF WITH ARCHITECTURAL AND OTHER CONSULTANT DRAWINGS AS NECESSARY. COORDINATE REQUIRED OPENINGS WITH ALL TRADES THAT REQUIRE THEM. MINOR OPENINGS ARE NOT SHOWN ON STRUCTURAL DRAWINGS.
8. SEE PLAN AND SCHEDULES FOR COLUMN, WALL AND PIER INFORMATION.
9. HEADED STUDS ON PLAN ARE THUS: 3/4" DIAMETER x 0'-5" LONG. SEE GENERAL STRUCTURAL NOTES AND DETAILS ON SHEETS S701 AND S702 FOR PLACEMENT REQUIREMENTS ON BEAMS AND GIRDERS.
10. * ON PLAN INDICATES DIMENSION TO BE VERIFIED BY THE CONTRACTOR WITH SUPPLIERS, MANUFACTURERS, AND ALL ARCHITECTURAL, MECHANICAL AND ELECTRICAL REQUIREMENTS AS NECESSARY PRIOR TO CONSTRUCTION.

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TEL: (218) 591-5079

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Print Name: Paul A. Johnson

Signature:

Date: June 3, 2010 Reg. No.: 20379

REVISIONS

NO.	DESCRIPTION	DATE
	Conformance Set	07-12-10
	Building Permit	08-16-10

DATE ISSUED: 08-16-10
REVIEWED BY: PAJ / CWB
DRAWN BY: SJL
DESIGNED BY: CWB

AEP PROJECT NUMBER

213-1882-091

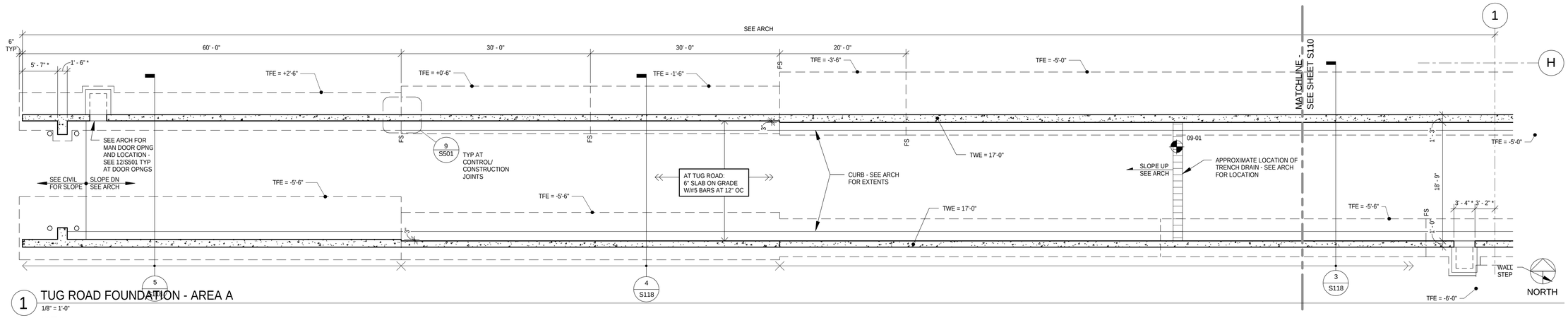
SHEET TITLE

ROOF LEVEL FRAMING PLAN - AREA B

SHEET NUMBER

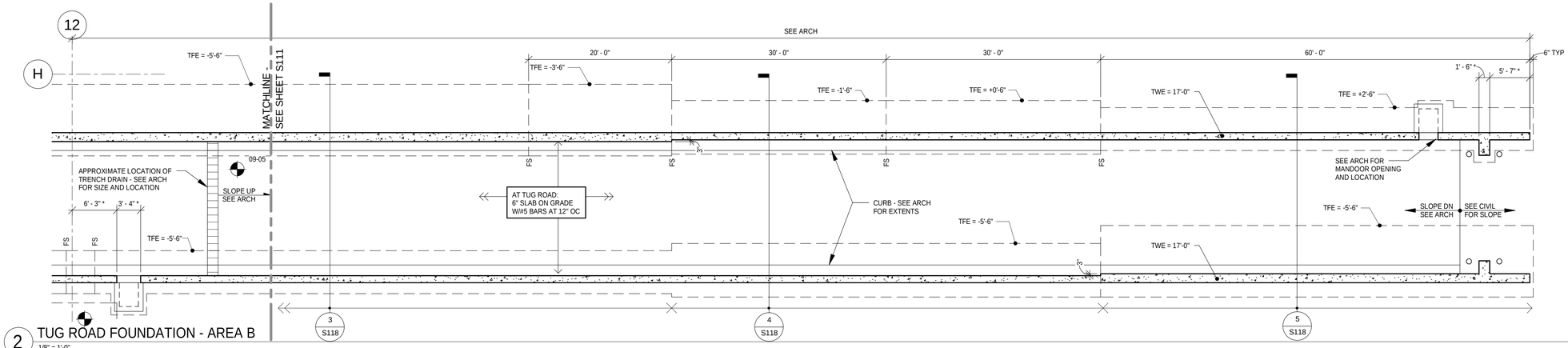
S117

BUILDING PERMIT



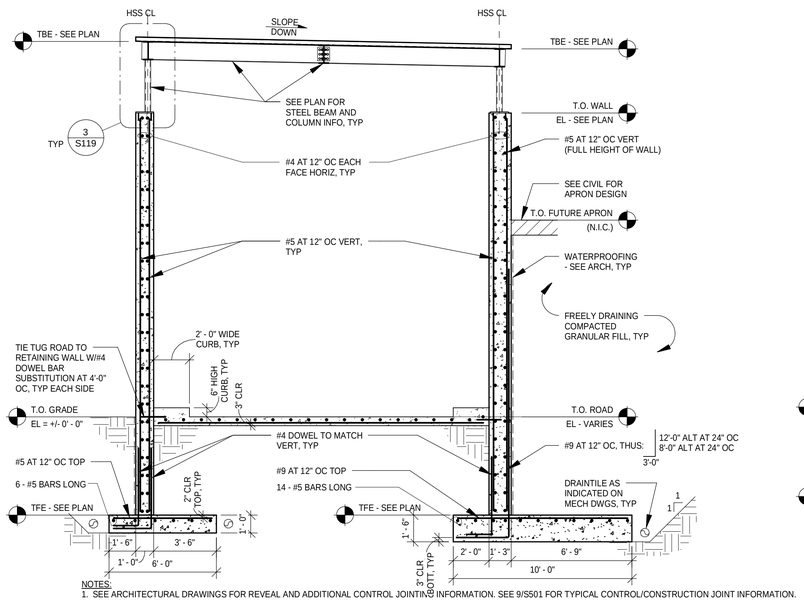
1 TUG ROAD FOUNDATION - AREA A
1/8" = 1'-0"

NOTES:
1. REFER TO S110 FOR TYPICAL PLAN NOTES.



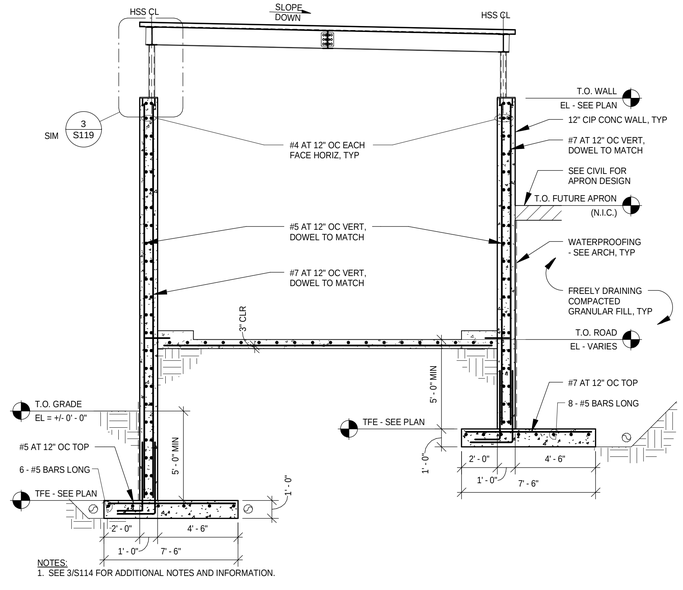
2 TUG ROAD FOUNDATION - AREA B
1/8" = 1'-0"

NOTES:
1. REFER TO S110 FOR TYPICAL PLAN NOTES.



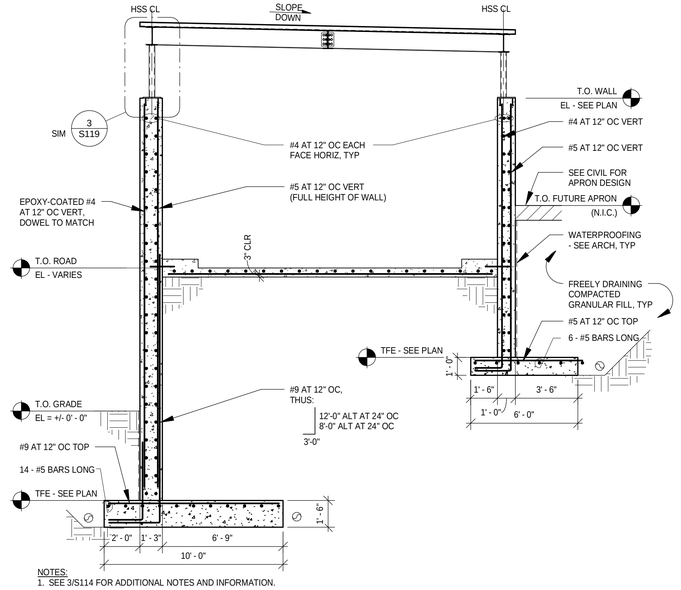
NOTES:
1. SEE ARCHITECTURAL DRAWINGS FOR REVEAL AND ADDITIONAL CONTROL JOINTING INFORMATION. SEE 9/S501 FOR TYPICAL CONTROL/CONSTRUCTION JOINT INFORMATION.
2. SEE SPECIFICATION FOR CONCRETE WALL FINISH INFORMATION.
3. CONTRACTOR TO ADEQUATELY SEQUENCE BACKFILLING OPERATIONS OR BRACE WALL UNTIL CONCRETE REACHES ITS 28-DAY COMPRESSIVE STRENGTH.
4. FREE-DRAINING COMPACTED GRANULAR BACKFILL TO BE AS DEFINED IN THE PROJECT GEOTECHNICAL REPORT.
5. FOR DRAIN TILE DESIGN AND LAYOUT - SEE MECHANICAL DRAWINGS.

3 SECTION NEAR TERMINAL (LOOKING WEST)
1/4" = 1'-0"



NOTES:
1. SEE 3/S114 FOR ADDITIONAL NOTES AND INFORMATION.

4 SECTION HALFWAY DOWN TUG ROAD (LOOKING WEST)
1/4" = 1'-0"



NOTES:
1. SEE 3/S114 FOR ADDITIONAL NOTES AND INFORMATION.

5 SECTION (LOOKING WEST)
1/4" = 1'-0"

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Print Name: Paul A. Johnson
Signature:
Date: June 3, 2010 Reg. No.: 20379

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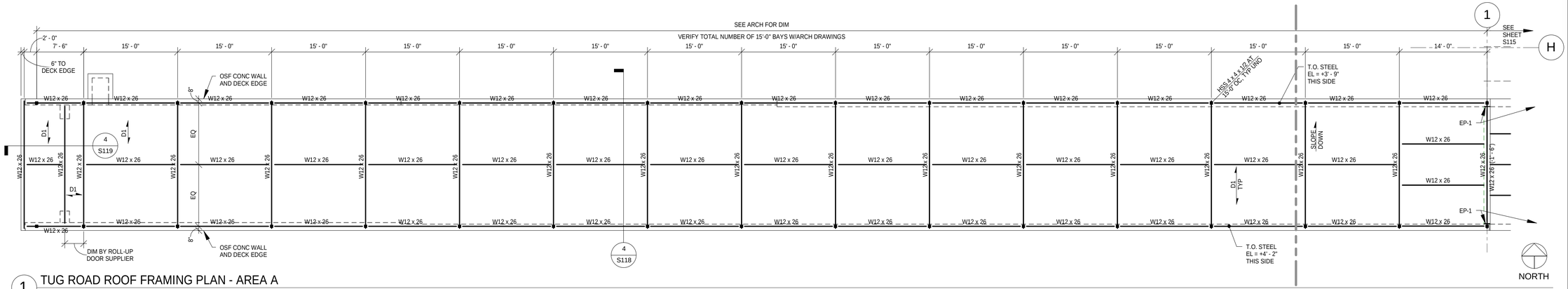
DRAWN BY: SJL
DESIGNED BY: CWB

AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
TUG ROAD FOUNDATION PLAN

SHEET NUMBER
S118

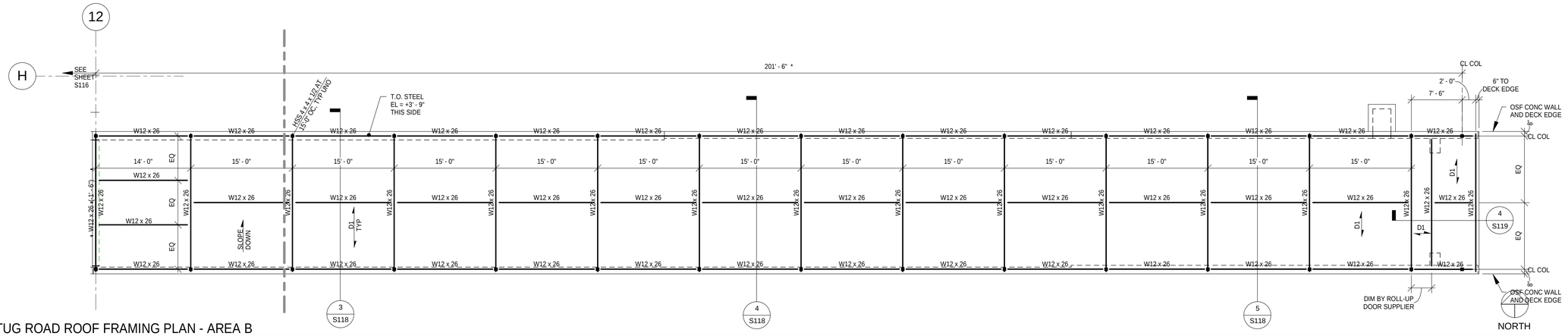
BUILDING PERMIT



1 TUG ROAD ROOF FRAMING PLAN - AREA A

1/8" = 1'-0"

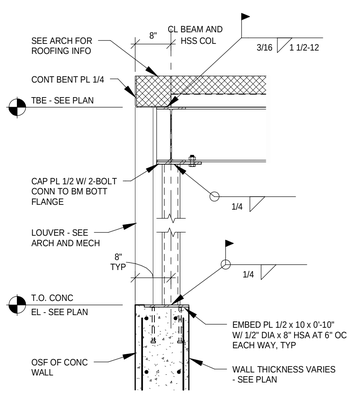
NOTES:
1. REFER TO S115 FOR TYPICAL PLAN NOTES.



2 TUG ROAD ROOF FRAMING PLAN - AREA B

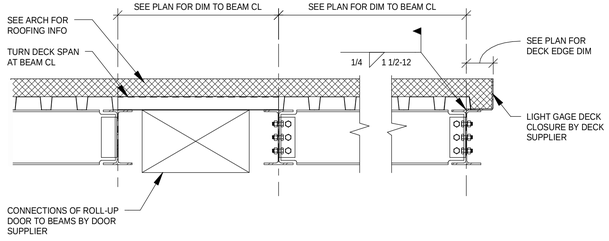
1/8" = 1'-0"

NOTES:
1. REFER TO S115 FOR TYPICAL PLAN NOTES.



3 SECTION

3/4" = 1'-0"



4 SECTION

3/4" = 1'-0"

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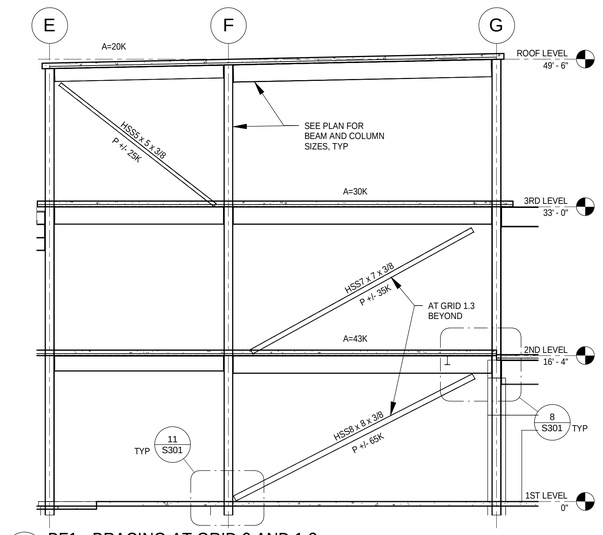
AEP PROJECT NUMBER
213-1882-091

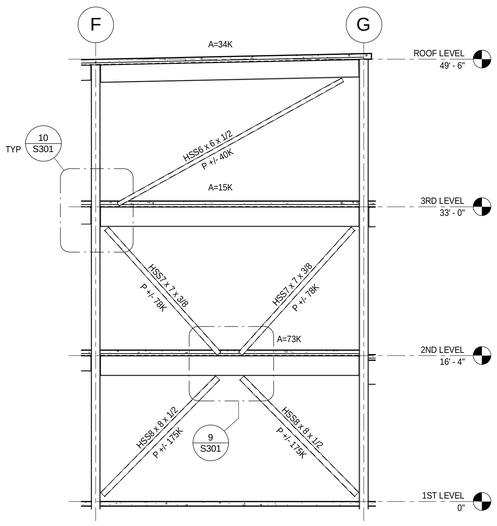
SHEET TITLE
TUG ROAD ROOF FRAMING PLAN

SHEET NUMBER
S119

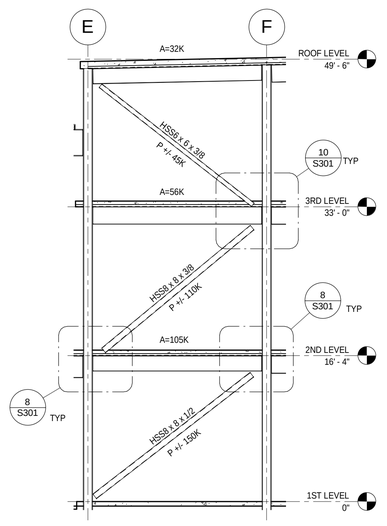
BUILDING PERMIT



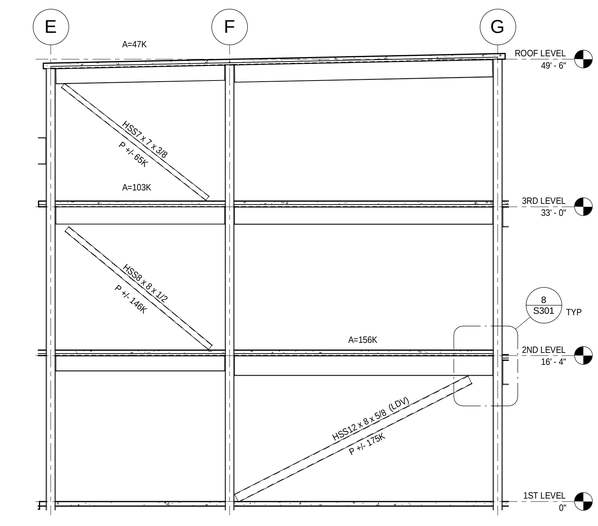
1 BF1 - BRACING AT GRID 2 AND 1.3
1/8" = 1'-0"



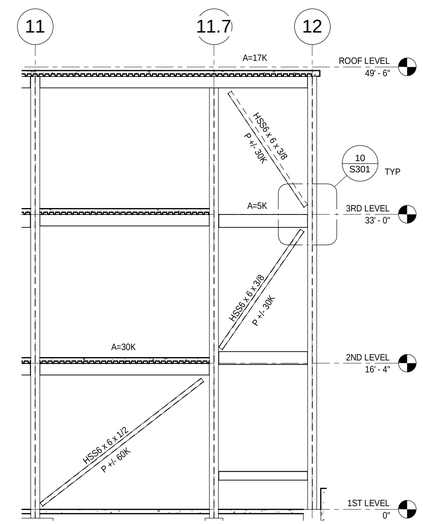
2 BF2 - BRACING AT GRID 4
1/8" = 1'-0"



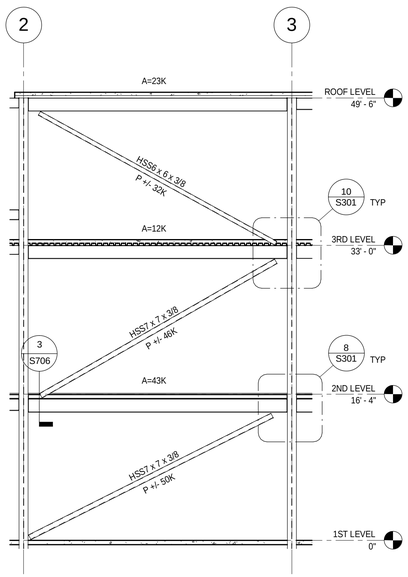
3 BF3 - BRACING AT GRID 7
1/8" = 1'-0"



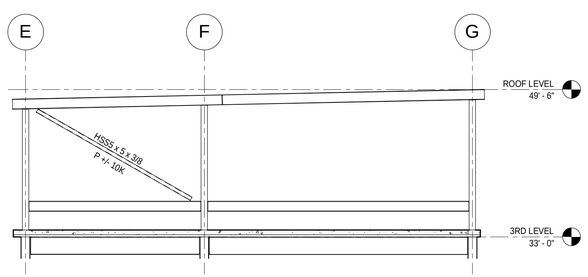
4 BF4 - BRACING AT GRID 10
1/8" = 1'-0"



5 BF5 - BRACING AT GRID E
1/8" = 1'-0"



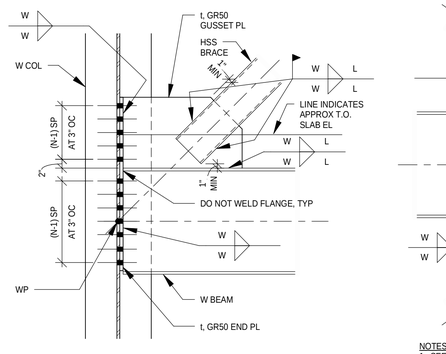
6 BF6 - BRACING AT GRID G
1/8" = 1'-0"



7 BF7 - BRACING AT GRID 1
1/8" = 1'-0"

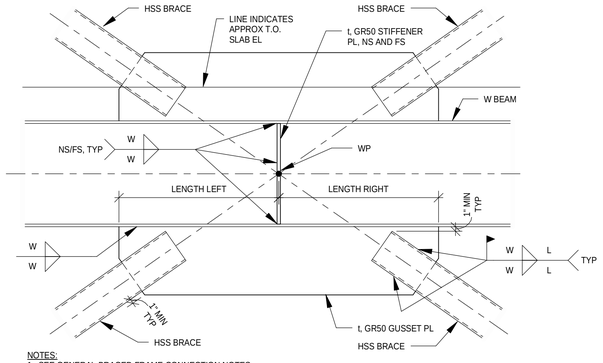
GENERAL BRACED FRAME CONNECTION NOTES:

1. ALL PLATE MATERIAL USED IN CONNECTIONS: ASTM A572-50.
2. ALL ANGLE MATERIAL USED IN CONNECTIONS: ASTM A-36.
3. ALL BOLTS 3/4" DIAMETER A325N OR 1" A490N BOLTS, UNLESS NOTED OTHERWISE. ALL BOLTS IN BRACED FRAMES CONNECTIONS SHALL BE FULLY TENSIONED.
4. ALL BOLTS ARE IN STANDARD HOLES, UNLESS NOTED OTHERWISE. FABRICATOR MAY OPT TO PROVIDE SHORT SLOTTED HOLES NORMAL TO LOAD DIRECTION IN GIRDER/BRACE END PLATES.
5. 1 1/2" MINIMUM EDGE DISTANCE.
6. 6" MAXIMUM EDGE DISTANCE.
7. 2" MINIMUM PITCH.
8. E70XX WELDING ELECTRODES.
9. CONNECTIONS SHOWN ARE CONCEPTUAL DETAILS ONLY. WELD LENGTHS, NUMBER OF BOLTS AND PLATE SIZES WILL VARY AS REQUIRED FOR DESIGN FORCES INDICATED.
10. PROVIDE A SLOTTED ERECTION AID FOR BRACE MEMBERS.
11. DO NOT WELD BRACE TO UPPER GUSSET UNTIL AFTER COMPOSITE CONCRETE FLOORS HAVE BEEN POURED.
12. "P" INDICATES MEMBER AXIAL FORCE. "A" INDICATES AXIAL FORCE TO BE TRANSFERRED THROUGH THE CONNECTION.
13. "t" INDICATES PLATE THICKNESS TO BE DETERMINED BY FABRICATOR BASED ON THE DESIGN FORCES INDICATED.



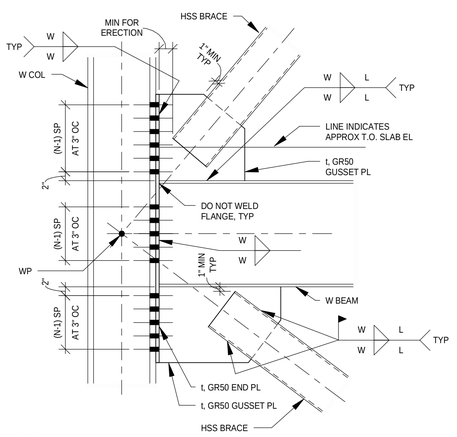
NOTES:
1. SEE GENERAL BRACED FRAME CONNECTION NOTES.

8 DETAIL
NO SCALE



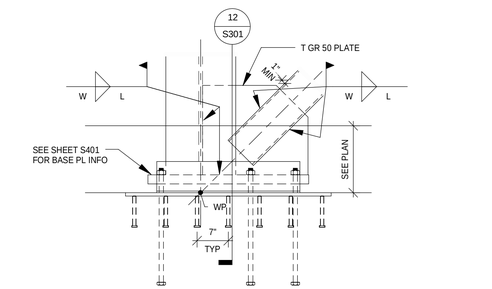
NOTES:
1. SEE GENERAL BRACED FRAME CONNECTION NOTES.

9 DETAIL
NO SCALE

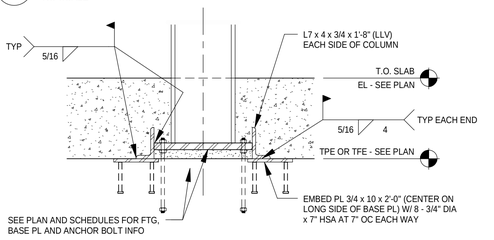


NOTES:
1. SEE GENERAL BRACED FRAME CONNECTION NOTES.

10 DETAIL
NO SCALE



11 TYPICAL FOUNDATION DETAIL AT BRACED FRAMES
NO SCALE



12 SECTION
NO SCALE

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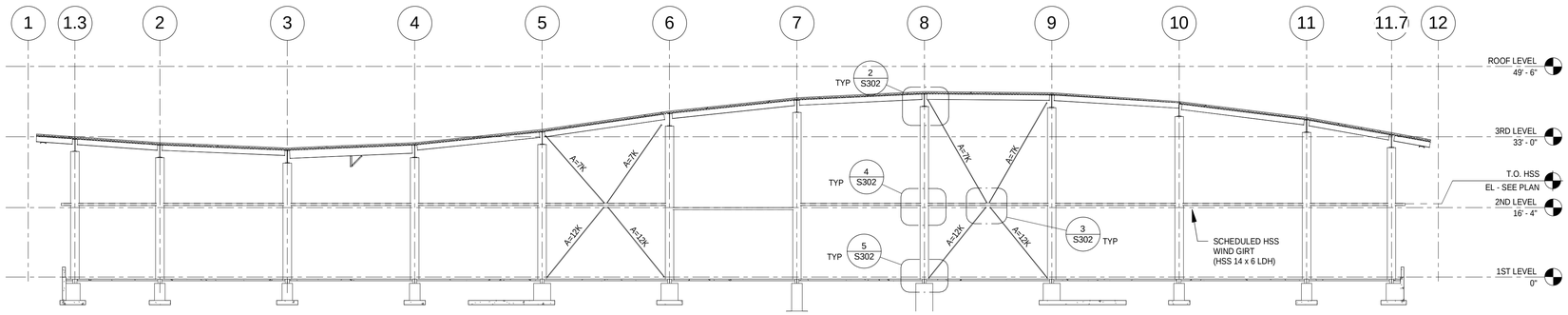
AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
BRACING ELEVATIONS AND DETAILS

SHEET NUMBER
S301

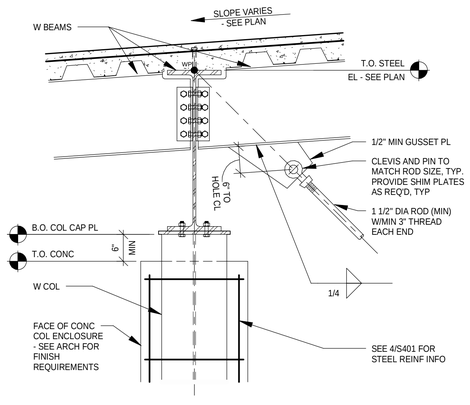
BUILDING PERMIT



1 ELEVATION AT GRID "C"

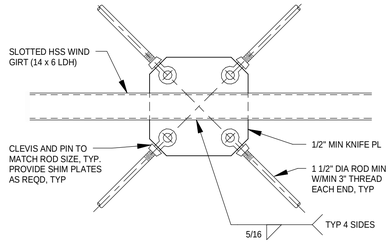
1/16" = 1'-0"

NOTES:
1. SEE GENERAL BRACED FRAME CONNECTION NOTES ON SHEET S301, TYPICAL THIS SHEET.



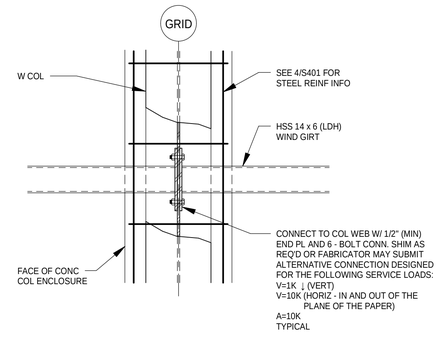
2 SECTION AT COLUMN HEAD

3/4" = 1'-0"



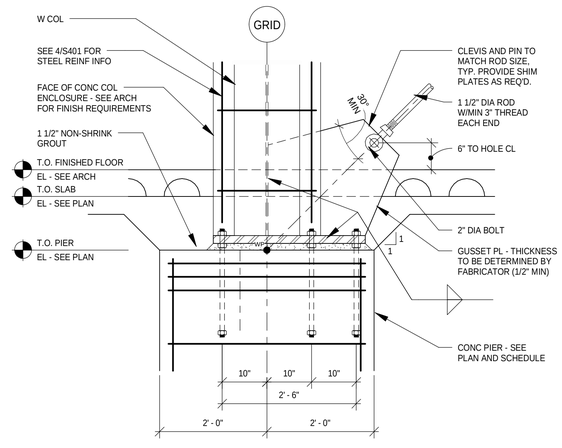
3 SECTION AT BRACING INTERSECTION

3/4" = 1'-0"



4 SECTION AT COLUMN TO GIRT CONNECTION

3/4" = 1'-0"



5 SECTION AT COLUMN BASE

3/4" = 1'-0"

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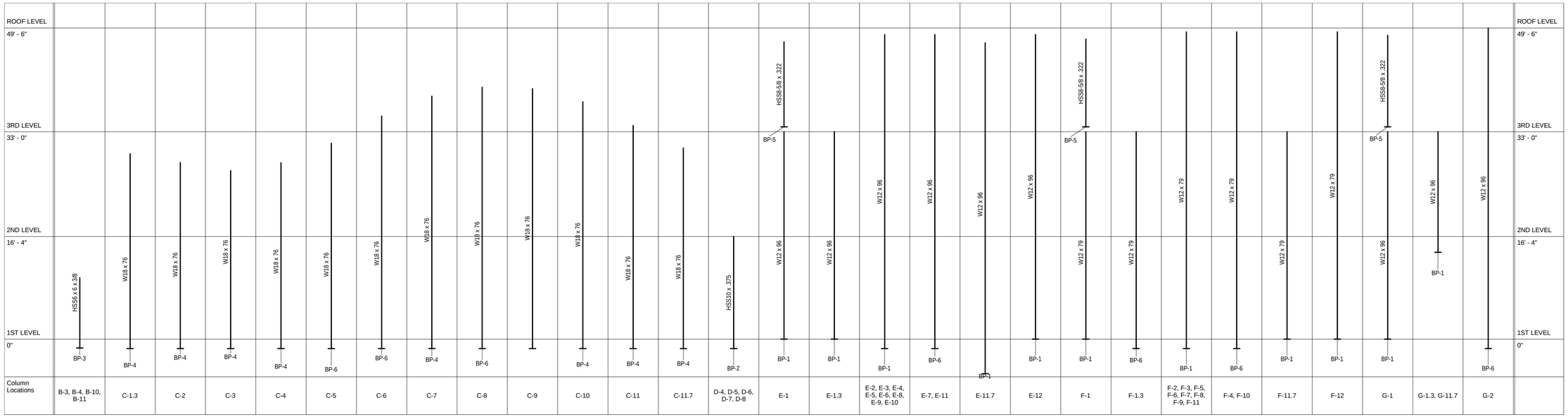
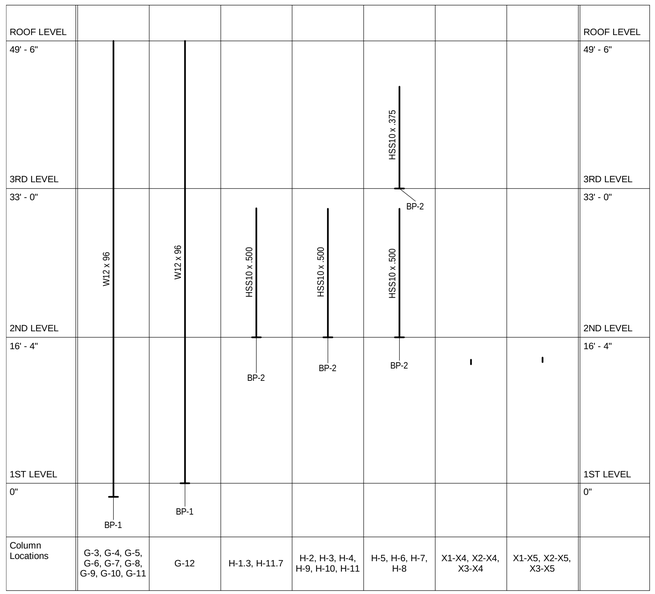
SHEET NUMBER
S302

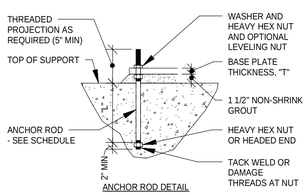
BUILDING PERMIT



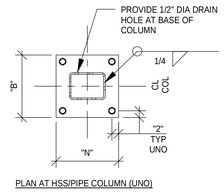


NOTES:
1. FOR BASE PLATE AND ANCHOR BOLT INFORMATION, SEE COLUMN BASE PLATE SCHEDULE THIS SHEET.
2. AT HSS ROUND COLUMNS, FABRICATOR MAY OPT TO SUBMIT EQUIVALENT PIPE SECTION TO A/E FOR REVIEW IN LIEU OF HSS ROUND COLUMN SHOWN.

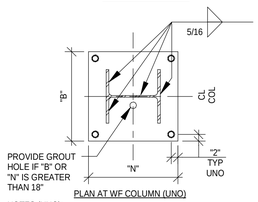
1 STEEL COLUMN SCHEDULE
NO SCALE



ANCHOR ROD DETAIL



PLAN AT HSS/PIPE COLUMN (UNO)

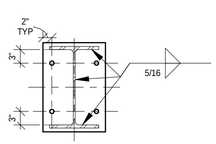


PLAN AT WF COLUMN (UNO)

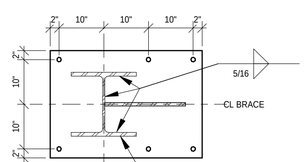
COLUMN BASE PLATE AND ANCHOR ROD SCHEDULE							
	BASE PLATE SIZE (IN)			ANCHOR RODS			
MARK	"N"	"B"	"T"	NO.	DIA (IN)	EMBED "L"	COMMENTS:
BP-1	20	20	1 3/4"	4	3/4"	0'-11"	AT GRID E-10, ANCHOR ROD EMBED LENGTH "L" = 2'-0"
BP-2	16	16	1"	4	3/4"	0'-11"	
BP-3	12	12	3/4"	4	3/4"	0'-11"	
BP-4	20	14	1 1/2"	4	3/4"	0'-11"	SEE 3/S401
BP-5	12	12	3/4"	4	1/2"	0'-3 1/2"	EXP ANCHORS
BP-6	24	34	1 3/4"	6	1"	1'-6"	SEE 3/S401
BP-7	12	18	1 1/2"	4	3/4"	0'-11"	

NOTES (UNO):
1. SEE SCHEDULE FOR BASE PLATE AND ANCHOR ROD DIMENSIONS.
2. DIMENSION "N" IS PARALLEL TO WF WEB OR LONGER HSS DIMENSION.
3. ANCHOR RODS SHALL BE ASTM F1554, GRADE 36.
4. BASE PLATES SHALL BE ASTM A36, MINIMUM.
5. MILL COLUMN BASE AND/OR BASE PLATE AS NECESSARY FOR FULL CONTACT.
6. ANCHOR RODS SHALL SET BY TEMPLATE AND NOT BE SET INTO CONCRETE AFTER CONCRETE IS CAST.
7. SEE SHEETS S301 AND S302 FOR ADDITIONAL INFORMATION AT BRACED FRAME BASE PLATES.
8. FOR ALL UNDESIGNATED BASE PLATES, MINIMUM "N" = MEMBER SIZE + 4". MINIMUM "B" = MEMBER WIDTH + 1". MINIMUM "T" = 1/2". MINIMUM 4 - 3/4" DIAMETER ANCHOR RODS.

2 COLUMN BASE PLATE AND ANCHOR ROD SCHEDULE
NO SCALE

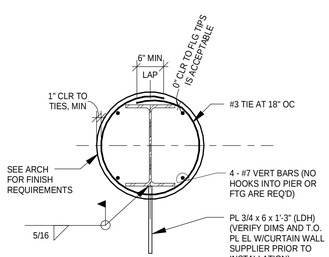


BP-4



BP-6

3 BASE PLATE DETAILS
NO SCALE



NOTES:
1. SEE PLAN FOR LOCATIONS.

4 CONCRETE ENCASED WIDE FLANGE COLUMN
NO SCALE

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I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.

Print Name: Paul A. Johnson
Signature:
Date: June 3, 2010 Reg. No.: 20379

REVISIONS

NO.	DESCRIPTION	DATE
	Conformance Set	07-12-10
	Building Permit	08-16-10

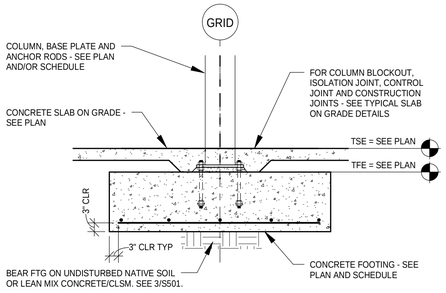
DATE ISSUED: 08-16-10
REVIEWED BY: PAJ / CWB
DRAWN BY: SJL
DESIGNED BY: CWB

AEP PROJECT NUMBER
213-1882-091

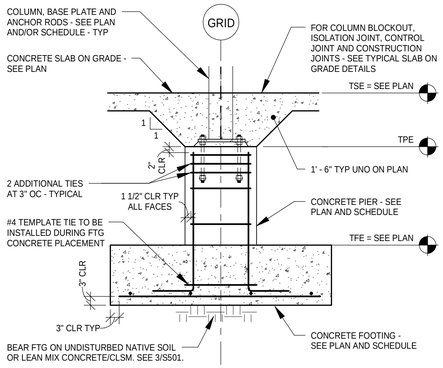
SHEET TITLE
COLUMN SCHEDULE AND DETAILS

SHEET NUMBER
S401

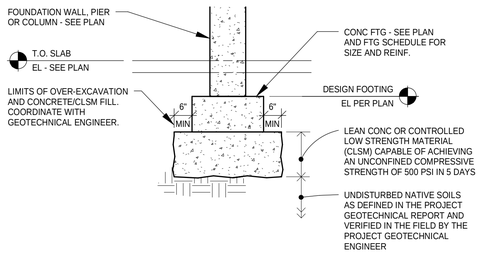
BUILDING PERMIT



1 TYPICAL INTERIOR WF COLUMN FOOTING DETAIL
NO SCALE

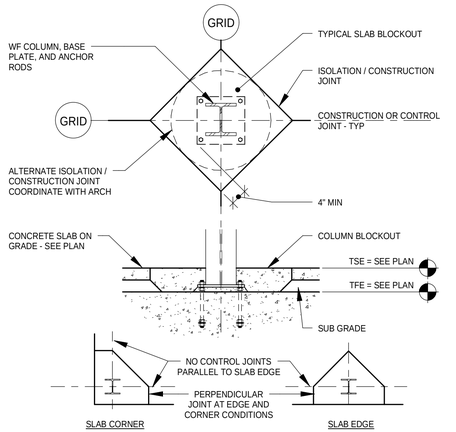


2 TYPICAL WF COLUMN, CONCRETE PIER AND FOOTING DETAIL
NO SCALE



NOTES:
1. THIS DETAIL APPLIES ONLY AT LOCATIONS WHERE THE GEOTECHNICAL ENGINEER HAS DETERMINED THAT SOILS AT THE DESIGN FOOTING ELEVATIONS ARE NOT ADEQUATE FOR FOOTING SUPPORT ACCORDING TO THE ALLOWABLE SOIL BEARING CAPACITY LISTED UNDER "DESIGN UNIT STRESS" ON SHEET S002.
2. IN LIEU OF OVER-EXCAVATING AND PLACING LEAN CONCRETE OR CLSM AS OUTLINED IN THIS DETAIL, CONTRACTOR MAY LOWER THE DESIGN FOOTING ELEVATION SUCH THAT THE FOOTING RESTS DIRECTLY ON UNDISTURBED NATIVE SOILS AS APPROVED BY THE GEOTECHNICAL ENGINEER IN THE FIELD.
3. SEE GEOTECHNICAL REPORT FOR WATER TABLE ELEVATIONS. CONTRACTOR TO MAKE ADEQUATE PROVISIONS FOR DEWATERING AS REQUIRED.

3 OVER-EXCAVATION WITH LEAN CONCRETE/CLSM FILL DETAIL
NO SCALE



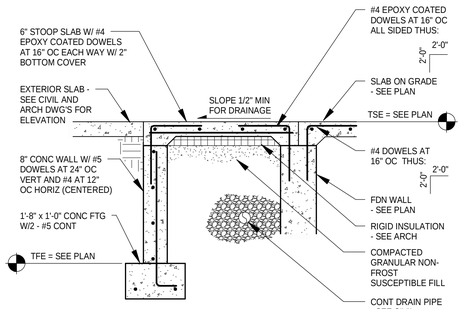
NOTE:
1. CONTRACTOR MAY PROPOSE ALTERNATE ISOLATION JOINT DETAIL TO A/E PRIOR TO CONSTRUCTION.

4 TYPICAL COLUMN ISOLATION JOINT
NO SCALE

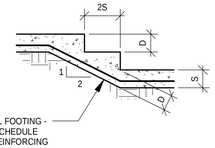
TENSION LAP SPLICE / CONCRETE / GR 60 UNCOATED REINFORCING				
STRUCTURAL ELEMENTS	FOOTINGS / SLAB-ON-GRADE / CONCRETE FILL ON METAL DECK			
CONCRETE	F'c = 4,000 PSI (NORMAL WEIGHT)			
BAR SIZE	CLASS "A" LAP		CLASS "B" LAP	
	BASIC	TOP BAR	BASIC	TOP BAR
#3	12"	14"	14"	18"
#4	15"	19"	19"	25"
#5	18"	23"	23"	30"
#6	22"	28"	28"	36"
#7	32"	42"	42"	55"
#8	42"	55"	55"	71"
#9	53"	69"	69"	90"
#10	68"	88"	88"	114"
#11	83"	108"	108"	140"

NOTES:
1. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE PLACED BELOW THEM.
2. USE CLASS "B" LAP LENGTHS - TYPICAL UNLESS NOTED OTHERWISE ON DRAWINGS.

5 BAR LAP SCHEDULE
NO SCALE

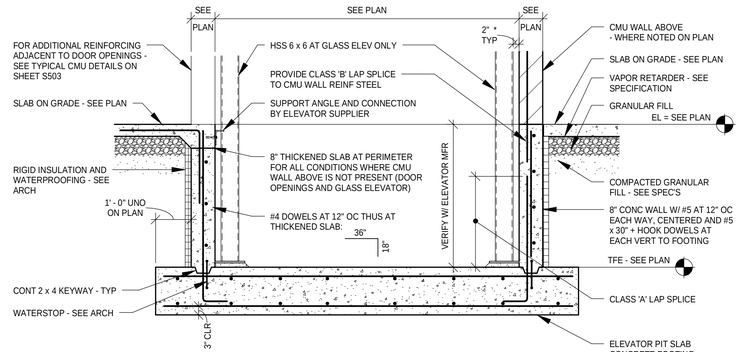


6 TYPICAL STOOP DETAIL
NO SCALE

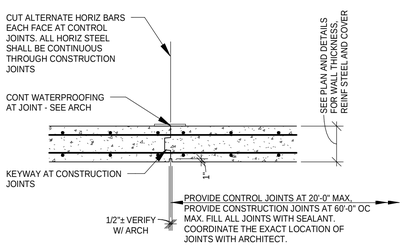


NOTE:
MAX FOOTING STEP EQUALS 24"

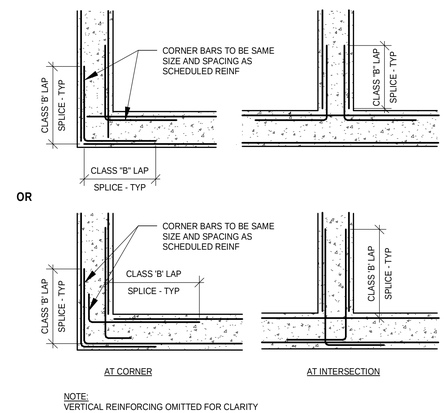
7 TYPICAL FOOTING STEP
NO SCALE



8 SECTION THRU ELEVATOR PIT
NO SCALE

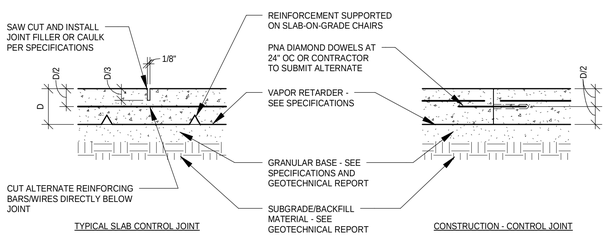


9 TYPICAL CONSTRUCTION/CONTROL JOINTS FOR CONCRETE WALLS
1/2" = 1'-0"



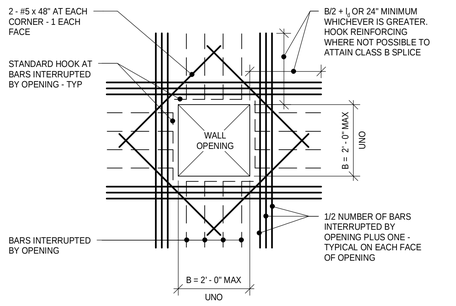
NOTE:
VERTICAL REINFORCING OMITTED FOR CLARITY

10 TYPICAL CONCRETE CORNER BAR PLACING DETAIL
NO SCALE



NOTES:
1. A CONSTRUCTION JOINT WHICH IS NOT INTENDED TO ALSO SERVE AS A CONTROL JOINT IS TO HAVE ALL REINFORCING EXTEND THROUGH IT AND TO HAVE NO GROOVE/SAW-CUT, UNLESS NOTED OTHERWISE.
2. IGNORE REINFORCING NOTES AT UNREINFORCED OR FIBER REINFORCED SLABS-ON-GRADE.
3. FOR EXTERIOR SLAB ON GRADE EXPOSED TO FREEZE-THAW CYCLES, CONSTRUCT A SLAB EXPANSION-CONTRACTION JOINT THE SAME EXCEPT ADD 3/8" COMPRESSIBLE MATERIAL THROUGH JOINT.

11 TYPICAL SLAB ON GRADE CONSTRUCTION DETAIL
1/2" = 1'-0"



NOTES:
1. FOR WALL OPENINGS LARGER THAN 2'-0" (FOR WALLS NOT SUBJECT TO LATERAL EARTHPRESSURE) ADD 2 - #5 EACH FACE ALL 4 SIDES OF OPENING. EXTEND BAR 24" PAST OPENING UNLESS NOTED OTHERWISE.

12 TYPICAL ADDITIONAL BAR PLACING DETAIL FOR WALL OPENING
1/2" = 1'-0"

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Signature:

Date: June 3, 2010 Reg. No.: 20379

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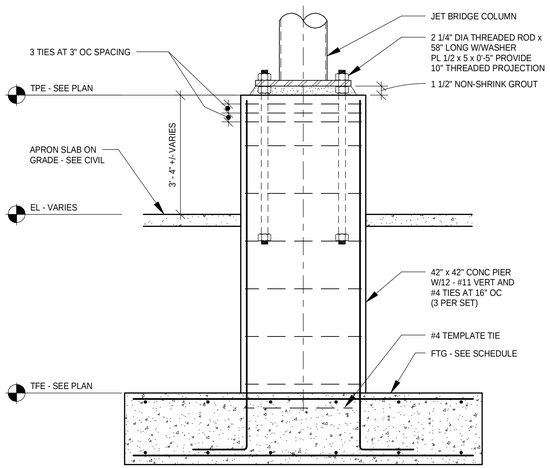
SHEET TITLE
STRUCTURAL DETAILS

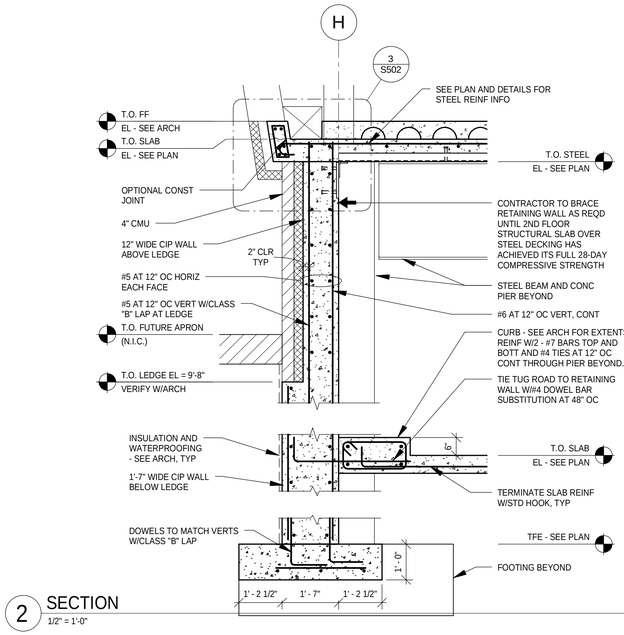
SHEET NUMBER
S501

BUILDING PERMIT

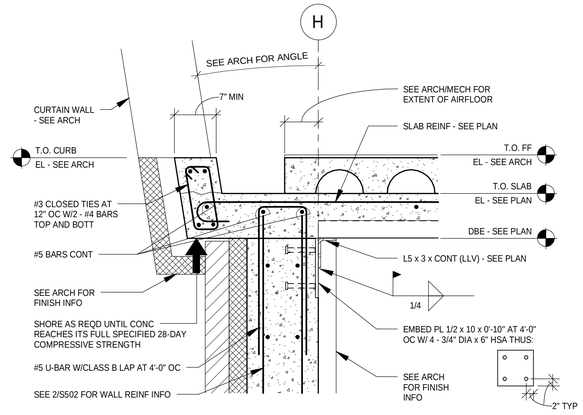


FOR INFORMATION ONLY - NOT IN THIS BID PACKAGE

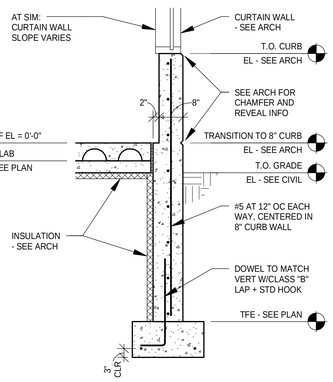
1 SECTION AT JET BRIDGE - SPREAD FOOTING
1/2" = 1'-0"



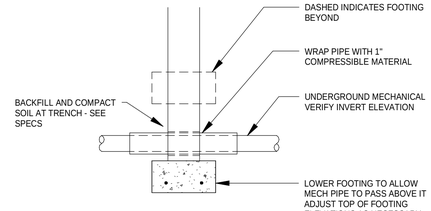
2 SECTION
1/2" = 1'-0"



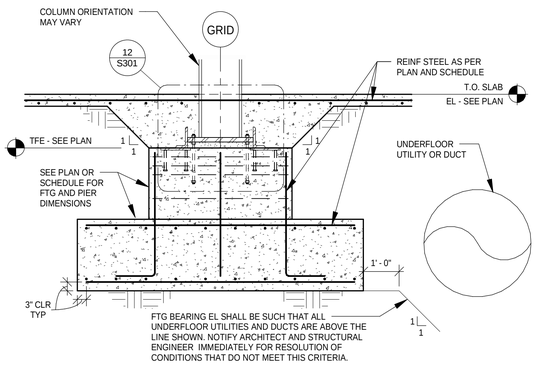
3 SECTION BETWEEN COLUMNS
1" = 1'-0"



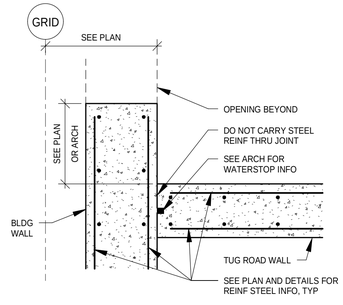
4 SECTION
1/2" = 1'-0"



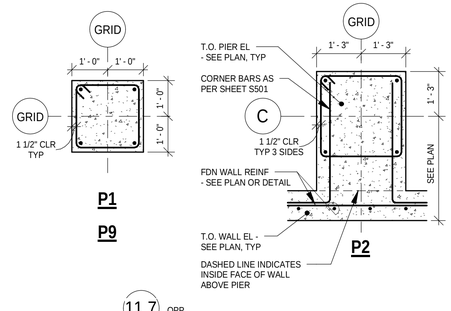
5 TYPICAL FOUNDATION WALL PIPE SLEEVE DETAIL
NO SCALE

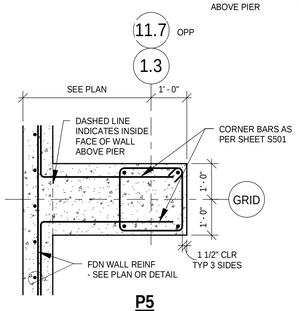


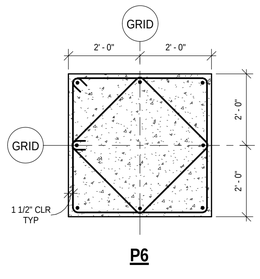
7 SECTION AT FOOTING
1/2" = 1'-0"

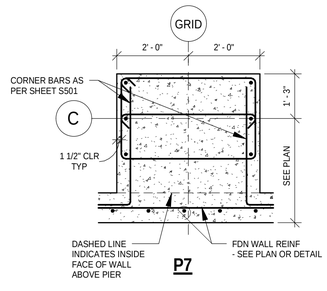


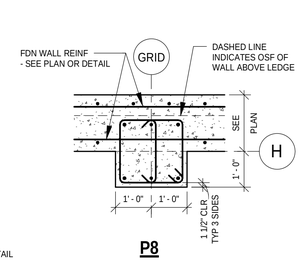
8 WALL DETAIL - TUG ROAD ONLY
3/4" = 1'-0"











CONCRETE PIER SCHEDULE			
MARK	SIZE	VERTICAL REINFORCEMENT	TIES (SEE PLAN DETAILS)
P1	24" x 24"	4 - #8 BARS	#4 AT 12" OC
P2	30" x 30"	4 - #10 BARS	#4 AT 12" OC
P3	30" x 30"	4 - #10 BARS	#4 AT 12" OC
P4	30" x 30"	4 - #10 BARS	#4 AT 12" OC
P5	24" x 24"	4 - #8 BARS	#4 AT 12" OC
P6	48" x 48"	8 - #11 BARS	#4 AT 12" OC
P7	48" x 30"	6 - #11 BARS	#4 AT 12" OC
P8	24" x 24"	6 - #11 BARS	#4 AT 12" OC
P9	24" x 24"	4 - #11 BARS	#4 AT 12" OC

NOTES:
1. PROVIDE 3 - #4 TIES AT 3" ON CENTER TOP, TYPICAL.
2. RUN HORIZONTAL AND VERTICAL WALL STEEL CONTINUOUS THROUGH PIERS AT INTERSECTIONS.

6 CONCRETE PIER SCHEDULE AND PLAN DETAILS
NO SCALE

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SHEET TITLE
STRUCTURAL DETAILS

SHEET NUMBER
S502

BUILDING PERMIT

CMU WALL REINFORCING SCHEDULE					
		CENTERED IN WALL			
MARK	WALL TYPE	FOOTING DOWELS	HORIZONTAL	VERTICAL	COMMENTS
W1	8" CMU	#5 AT 24" OC	AS NOTED ON DETAILS	#5 AT 24" OC	

UNLESS NOTED OTHERWISE:
1. PROVIDE CLASS "A" SPLICE TO DOWELS TYPICAL.
2. FOR ALL CMU WALLS NOT INDICATED ON STRUCTURAL PLANS, SEE "NON-LOAD BEARING MASONRY PARTITION WALL REINFORCING SCHEDULE".
3. SEE LINTEL SCHEDULE THIS SHEET FOR LINTELS OVER MASONRY WALL OPENINGS.

1 WALL REINFORCING SCHEDULE
NO SCALE

CMU LINTEL SCHEDULE			
WALL TYPE	ROUGH OPENING	REQUIRED LINTEL	BEARING LENGTH EACH END
6" CMU	UP TO 3'-4"	8" DEEP BOND BM W/1 - #5 CONT BOTT	8"
6" CMU	3'-4" TO 8'-0"	16" DEEP BOND BM W/1 - #5 CONT TOP AND BOTT	16"
8" CMU	UP TO 5'-4"	8" DEEP BOND BM W/2 - #5 CONT BOTT	8"
8" CMU	5'-4" TO 10'-0"	16" DEEP BOND BM W/2 - #5 CONT TOP AND BOTT AND #4 SINGLE LEG HOOKED STIRRUP AT 8" OC	16"

NOTES:
1. REFER TO ARCHITECTURAL DRAWINGS FOR ALL ROUGH OPENING SIZES AND ELEVATIONS.
2. USE LINTEL BLOCKS FOR ALL CMU LINTELS.
3. PROVIDE 8" DEEP BOND BM W/2 - #5 CONT BOTTOM AT ALL SILLS.
4. ALL LINTEL REINFORCING TO EXTEND 1'-4" MINIMUM BEYOND EDGES OF ROUGH OPENING.

3 LINTEL SCHEDULE
NO SCALE

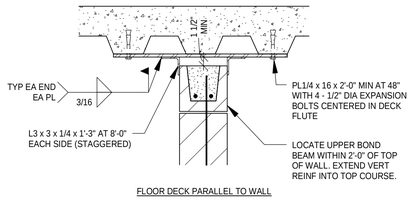
MASONRY LAP SPLICE SCHEDULE	
BAR SIZE	8" CMU (1 BAR IN CENTER)
	f'c = 2,000 PSI
#4	24"
#5	30"
#6	36"

NOTES:
1. ALL BARS TO BE IN FULLY GROUTED CELLS OR BOND BEAMS
2. Fy = 60 KSI (Fs = 24 KSI MAX)
3. BAR LAP LENGTHS PER IBC 2006 SECTION 2107.5 AND ACI 530 EQ 2-9
4. SEE SHEET S501 FOR CONCRETE REINFORCING LAP SCHEDULE.

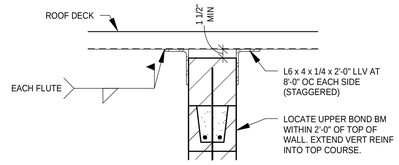
4 SCHEDULE
NO SCALE

NON-LOAD BEARING MASONRY PARTITION WALL REINFORCING SCHEDULE		
WALL TYPE	VERTICAL REINFORCING	HORIZONTAL REINFORCING
6" CMU UP TO 13'-0"	#4 AT 4'-0" OC, CENTERED	BOND BM AT 5'-4" OC W/1 - #5 CONT, CENTERED
8" CMU UP TO 13'-0"	#5 AT 5'-4" OC, CENTERED	BOND BM AT TOP OF WALL AND ABOVE ALL OPNGS, EACH W/2 - #5 CONT
8" CMU CANTL TO 5'-4" MAX	#5 AT 2'-8" OC, CENTERED	BOND BM AT TOP OF WALL W/2 - #5 CONT

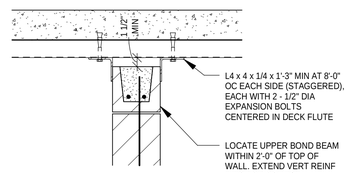
NOTES:
1. REFER TO TYPICAL DETAILS FOR DOWELS AT BOTTOM OF CMU WALLS AND BRACING AT TOP OF CMU WALLS. TOP OF WALL BRACING TO BE PLACED AT 10'-0" OC MAX SPACING WHERE DISTANCE BETWEEN WALL CORNERS EXCEEDS 12'-0". CONTRACTOR MAY USE ONE OF THE BRACING OPTIONS PROVIDED OR COORDINATE ALTERNATE BRACING WITH A/E.
2. GROUT CMU SOLID AT HANDRAIL, GUARDRAIL AND OTHER SUPPORTS. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION AND ADDITIONAL GROUTING REQUIREMENTS.
3. PROVIDE (1) ADDITIONAL VERTICAL BAR MATCHING SCHEDULED REINFORCING IN FULLY GROUTED CELL AT CORNERS AND WITHIN 8" OF ALL OPENINGS.
4. REFER TO 3/SS03 FOR MASONRY LINTEL SCHEDULE.



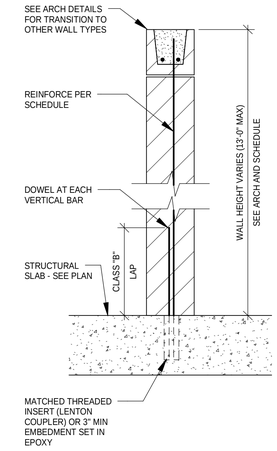
FLOOR DECK PARALLEL TO WALL



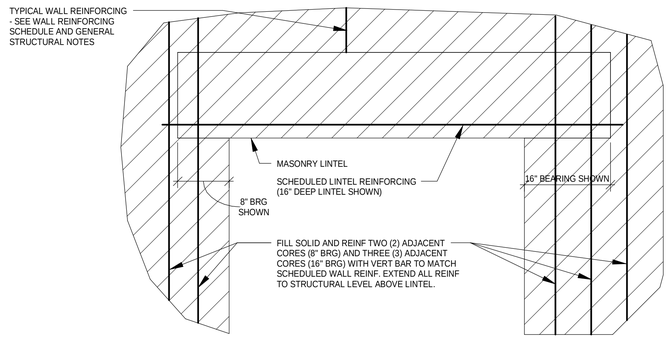
ROOF DECK PERPENDICULAR TO WALL

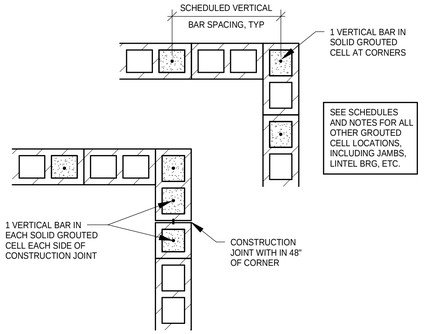


FLOOR DECK PERPENDICULAR TO WALL

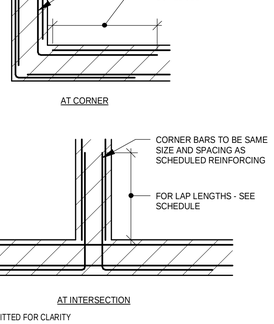


2 NON-LOAD BEARING WALL REINFORCING SCHEDULE AND TYPICAL DETAILS
NO SCALE



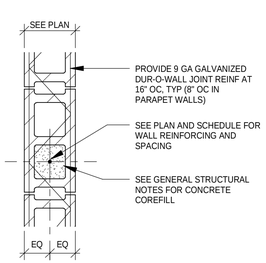


5 TYPICAL VERTICAL REINFORCING AT MASONRY CORNER DETAIL
NO SCALE



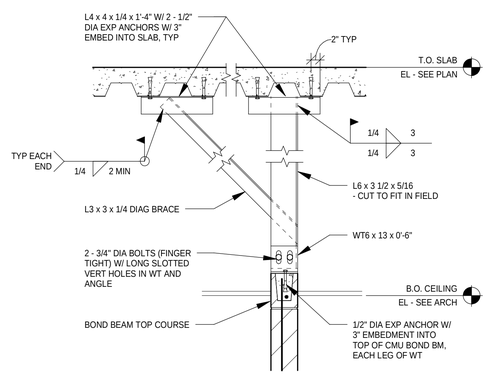
NOTE:
VERTICAL REINFORCING OMITTED FOR CLARITY

6 TYPICAL HORIZONTAL REINFORCING AT MASONRY CORNER
NO SCALE

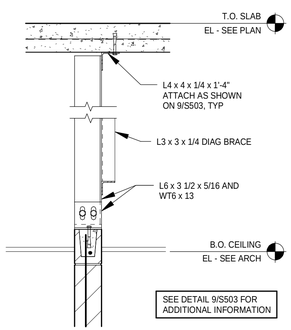


7 TYPICAL CMU WALL DETAIL
NO SCALE

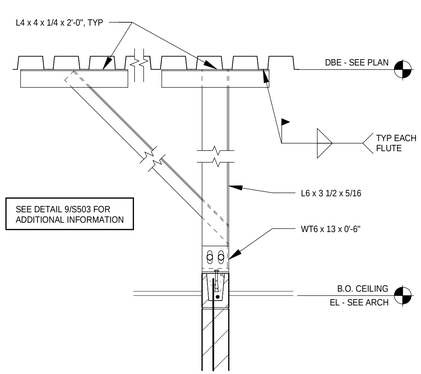
8 TYPICAL CMU LINTEL BEARING DETAIL
NO SCALE



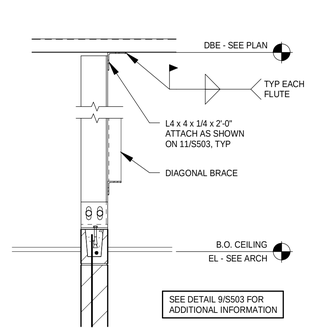
9 FLOOR DECK PARALLEL TO WALL
NO SCALE



10 FLOOR DECK PERPENDICULAR TO WALL
3/4" = 1'-0"



11 ROOF DECK PARALLEL TO WALL
3/4" = 1'-0"



12 ROOF DECK PERPENDICULAR TO WALL
3/4" = 1'-0"

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TEL: (218) 591-5079

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.

Print Name: Paul A. Johnson
Signature:
Date: June 3, 2010 Reg. No.: 20379

REVISIONS

NO.	DESCRIPTION	DATE
	Conformance Set	07-12-10
	Building Permit	08-16-10

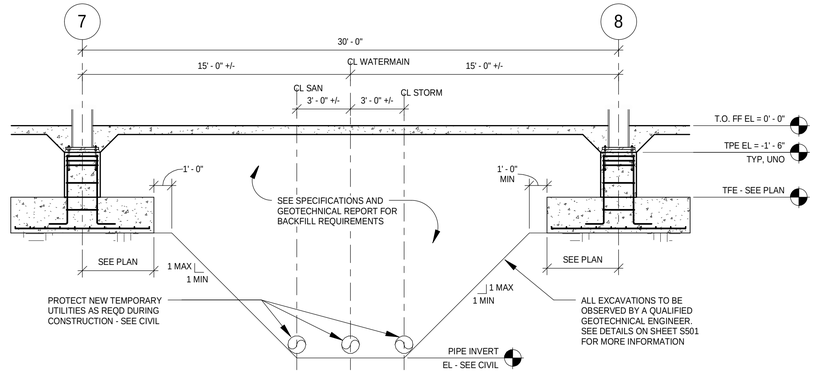
DATE ISSUED: 08-16-10
REVIEWED BY: PAJ / CWB
DRAWN BY: SJL
DESIGNED BY: CWB

AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
STRUCTURAL DETAILS

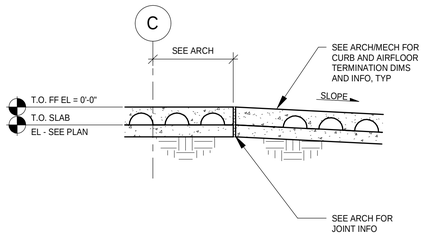
SHEET NUMBER
S503

BUILDING PERMIT

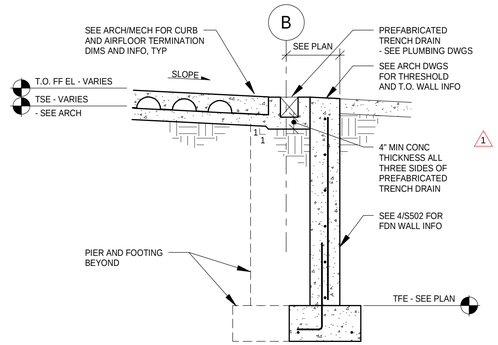


NOTES:
1. SEE GEOTECHNICAL REPORT FOR WATER TABLE ELEVATIONS. CONTRACTOR TO MAKE ADEQUATE PROVISIONS FOR DEWATERING AS REQUIRED.
2. PIPE INVERT LOCATION SHOWN SCHEMATICALLY REPRESENT LOCATIONS AT GRID E.
3. CONTRACTOR TO NOTIFY A/E IMMEDIATELY IF ACTUAL FIELD CONDITIONS VARY FROM LOCATIONS/SLOPES INDICATED.

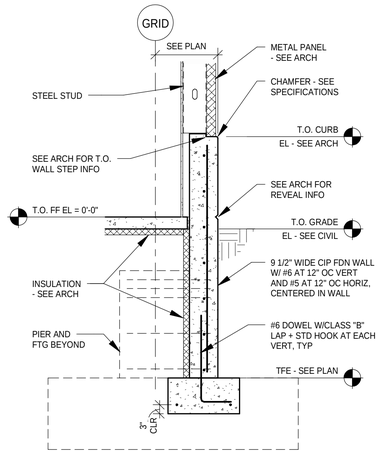
1 SECTION
1/4" = 1'-0"



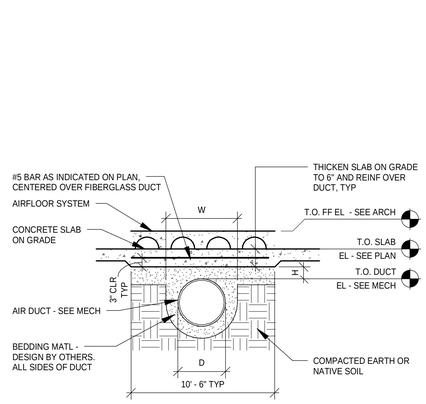
2 SECTION
1/2" = 1'-0"



3 SECTION AT VESTIBULE DOOR
1/2" = 1'-0"

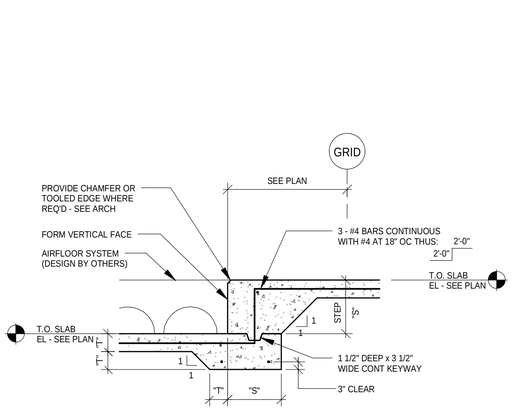


4 SECTION
1/2" = 1'-0"

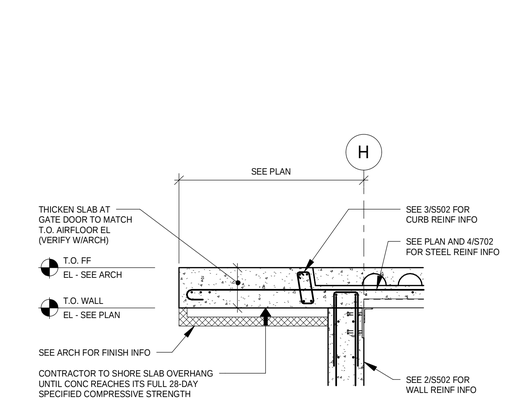


1 NOTE:
1. "H" AND "W" DIMENSIONS AND SPECIFICATIONS FOR BEDDING MATERIAL TO BE VERIFIED WITH UNDERGROUND DUCT SUPPLIER PRIOR TO CONSTRUCTION.

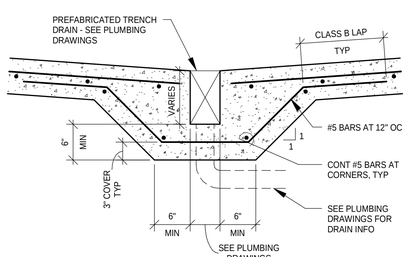
5 UNDERGROUND DUCTWORK DETAIL
1/2" = 1'-0"



6 SLAB STEP DETAIL
3/4" = 1'-0"



7 SECTION AT GATE DOOR SLAB
1/2" = 1'-0"



8 SECTION AT TRENCH DRAIN
1" = 1'-0"

1

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1	Addendum 1	06-10-10
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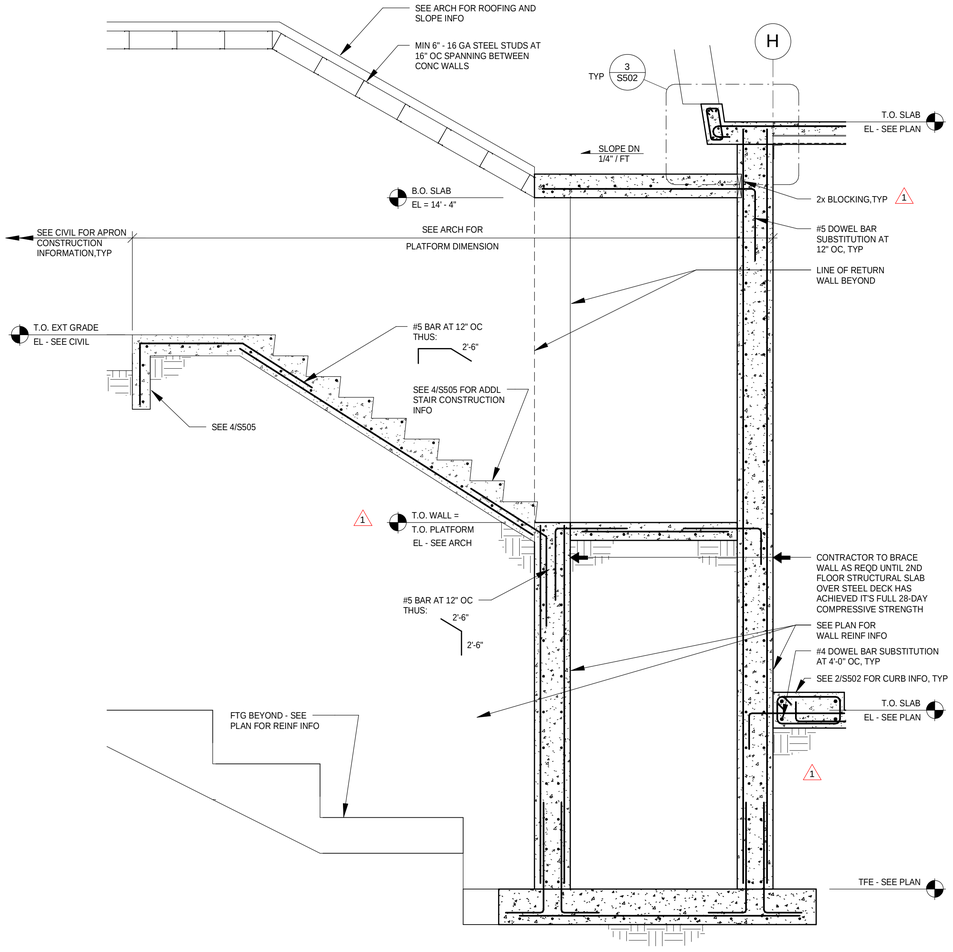

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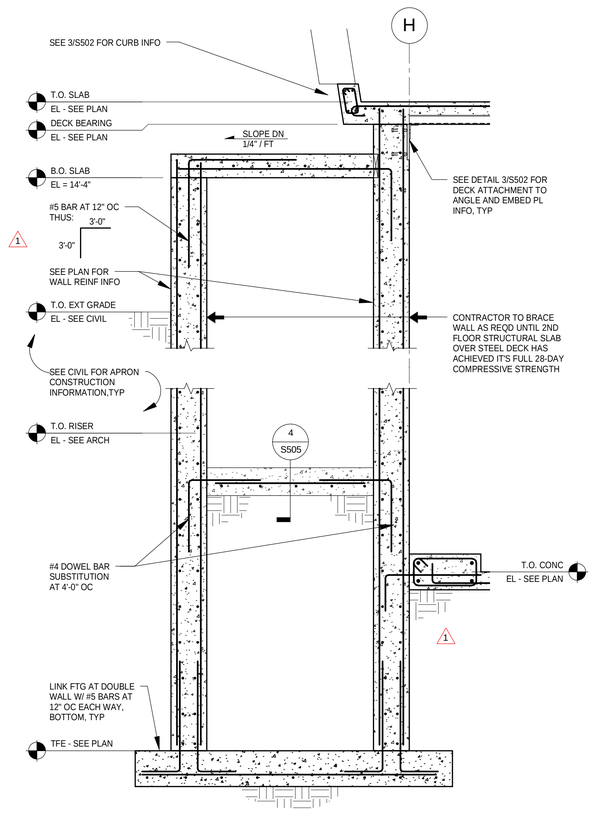

2 SECTION
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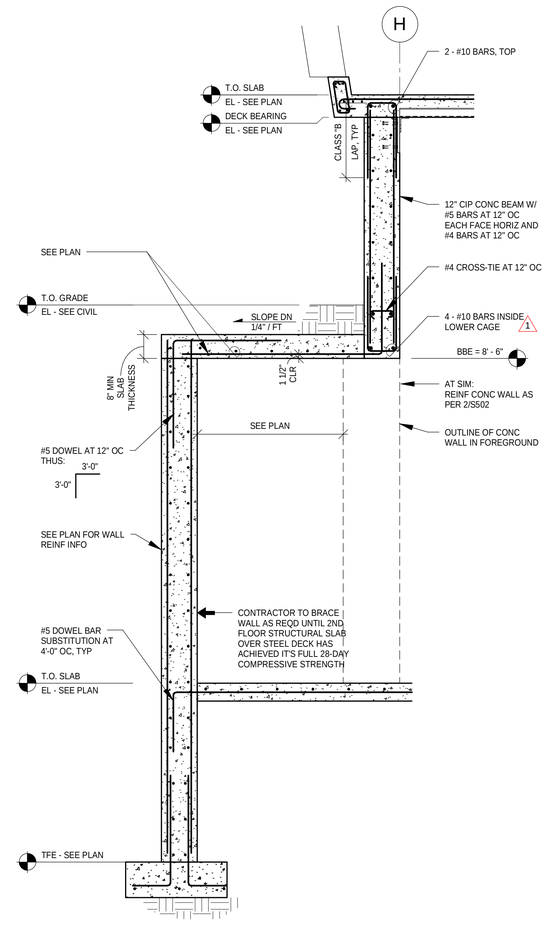
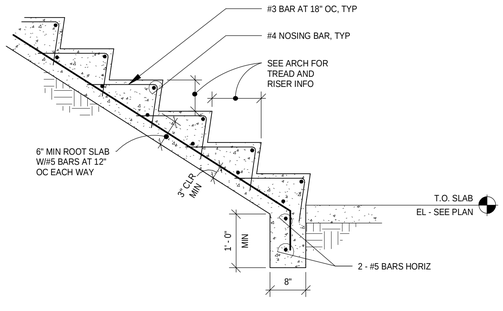


3 SECTION
1/2" = 1'-0"



4 STAIR SECTION
3/4" = 1'-0"

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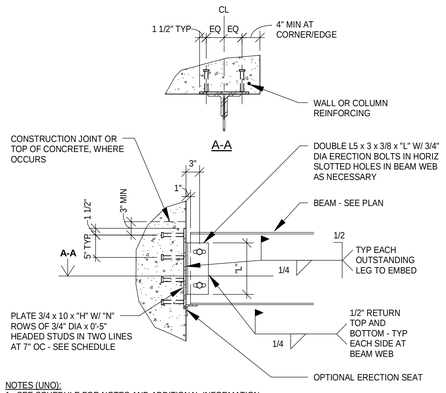


NOTES (UNO):
1. SEE SCHEDULE FOR NOTES AND ADDITIONAL INFORMATION.
2. PROVIDE ERECTION SEAT AS NECESSARY.

1 TYPICAL EMBED PLATE - DOUBLE ANGLE CONNECTION
3/4" = 1'-0"

TYPICAL EMBED PLATE SCHEDULE				
MARK	STEEL BEAM SIZE	STUD ROWS "N"	PLATE LENGTH "H"	MIN ANGLE LENGTH "L"
EP-1	W12, W14	3	13"	8 1/2"
EP-2	W16	4	18"	11 1/2"
EP-3	W33	8	38"	24"
EP-4	HSS 5 x 5	3	13"	NA

NOTES (UNO):
1. PROVIDE EMBED PLATES CORRESPONDING TO BEAM SIZES IN SCHEDULE, UNLESS NOTED OTHERWISE ON PLANS OR DETAILS.
2. PROVIDE HOLES AS NECESSARY FOR PLATE ATTACHMENT TO FORMWORK (5/16" DIA MAX).
3. COORDINATE CONCRETE REINFORCING BAR PLACEMENT WITH HEADED STUDS.
4. FIELD VERIFY EMBED PLATE PLACEMENT PRIOR TO BEAM ERECTION.
5. AT EP-4, PROVIDE 3" DIAMETER HOLE CENTERED ON HSS FOR CONDUIT ACCESS.

2 TYPICAL EMBED PLATE SCHEDULE
1 : 1

BEAM SHEAR CONNECTION SCHEDULE				
STEEL BEAM SIZE	SINGLE SHEAR CONNECTION FOR BEAMS SUPPORTING DECK ONLY		DOUBLE SHEAR CONNECTION FOR BEAMS SUPPORTING OTHER BEAMS	
	MIN ROWS OF BOLTS	MIN DESIGN SERVICE CAPACITY (KIPS)	MIN ROWS OF BOLTS	MIN DESIGN SERVICE CAPACITY (KIPS)
W8, W10	2	12	2	24
W12	3	23	3	46
W14	3	23	3	46
W16	4	35	4	70
W18	5	45	4	70
W21	6	55	5	90
W24	7	65	6	110
W27	7	65	6	110
W30	8	75	7	130
W33	8	75	7	130
W36	9	85	8	150

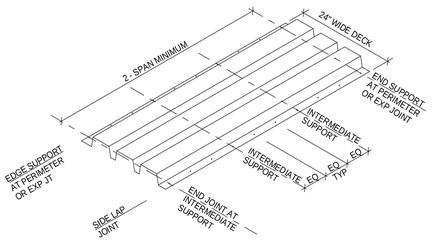
NOTES:
1. CONTRACTOR/FABRICATOR SHALL DESIGN TYPICAL SHEAR CONNECTIONS FOR THIS PROJECT. CONNECTION TYPES SHALL CONFORM TO AISC STANDARD SHEAR CONNECTIONS. SUBMIT PROPOSED CONNECTION TYPES FOR APPROVAL BEFORE STARTING SHOP DRAWINGS.
2. PROVIDE BEAM CONNECTIONS FOR END REACTIONS INDICATED ABOVE OR AS SHOWN ON PLAN OR DETAIL, WHICHEVER IS GREATER. BEAM TO BEAM CONNECTIONS MAY BE SINGLE OR DOUBLE SHEAR, AS REQUIRED TO PROVIDE THE SPECIFIED CONNECTION CAPACITY WITHIN THE AVAILABLE CONNECTION GEOMETRY. ALL BEAM TO COLUMN CONNECTIONS SHALL BE DOUBLE SHEAR.
3. ALL BOLTS SHALL BE 3/4" DIAMETER A325-N OR 1" DIAMETER A490-N, UNLESS NOTED OTHERWISE.
4. SHOP CONNECTIONS MAY BE WELDED (WITH CAPACITY AS NOTED HEREIN) OR BOLTED.
5. VALUES SHOWN ASSUME 1/4" BEAM WEB THICKNESS, MINIMUM.
6. USE TWO ANGLE CONNECTION TO ALL BEAMS FRAMING INTO CONCRETE EMBED PLATES.

3 BEAM SHEAR CONNECTION SCHEDULE
1" = 1'-0"

FLOOR AND ROOF DECK SCHEDULE				
MARK	DECK TYPE	CONCRETE TOPPING THICKNESS	CONCRETE TOPPING REINFORCING	COMMENTS
S1	3" - 19 GA COMPOSITE DECK	4 1/2" NORMAL WT	STRUX 90/40 SYNTHETIC FIBER	5.0 LBS/CU YD
S2	3" - 19 GA COMPOSITE DECK	6 1/2" NORMAL WT	#5 AT 12" OC EACH WAY	1 1/2" TOP COVER
S3	3" - 19 GA COMPOSITE DECK	6 1/2" NORMAL WT	STRUX 90/40 SYNTHETIC FIBER	5.0 LBS/CU YD
S4	3" - 20 GA COMPOSITE DECK	3" NORMAL WT	STRUX 90/40 SYNTHETIC FIBER	5.0 LBS/CU YD
D1	3" - 20 GA TYPE N ROOF DECK	NA	NA	NA
D2	3 1/2" - 16 GA ROOF DECK OR 4 1/2" - 18 GA ROOF DECK	NA	NA	NA
D3	1 1/2" - 20 GA TYPE N ROOF DECK	NA	NA	NA

NOTES (UNO):
1. SEE TYPICAL DETAILS FOR DECK ATTACHMENT DETAILS.
2. SEE GENERAL STRUCTURAL NOTES FOR CONCRETE STRENGTH.
3. CONCRETE TOPPING THICKNESS IS FROM TOP OF DECK TO TOP OF CONCRETE
4. SEE PLANS AND DETAILS FOR ADDITIONAL REINFORCING AND REINFORCING PLACEMENT AT CONCRETE SLABS ON METAL DECK.
5. SEE SPECIFICATIONS FOR SYNTHETIC FIBERS.
6. ALL COMPOSITE DECK IS GALVANIZED. REFER TO SPECIFICATIONS FOR ROOF DECK FINISH.

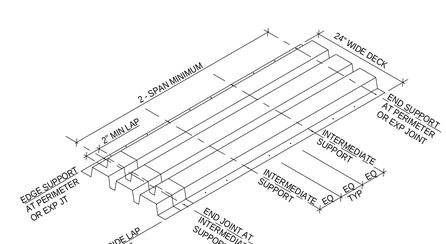
4 FLOOR AND ROOF DECK SCHEDULE
NO SCALE



DECK SUPPORT CONDITION	DECK ATTACHMENT
END SUPPORT	PUDDLE WELDS AT EACH LOW FLUTE
EDGE SUPPORT	PUDDLE WELDS AT 12" OC
INTERMEDIATE SUPPORT	PUDDLE WELDS AT EACH LOW FLUTE
END JOINT AT INT SUPPORT	PUDDLE WELDS AT EACH LOW FLUTE, EACH SIDE
SIDE LAP JOINT	#10 TEK SCREWS OR 1 1/2" SEAM WELD AT 36" OC MAX

NOTES (UNO):
1. ALL PUDDLE (ARC-SPOT) WELDS SHALL BE 5/8" DIAMETER.
2. PROVIDE DECK ATTACHMENTS AT SPACING SHOWN UNLESS NOTED OTHERWISE ON DRAWINGS.
3. DECK SHEETS SHALL BE BUTTED AT END JOINTS. PROVIDE 2 1/2" MINIMUM BEARING. GAPS UP TO 1" ARE ACCEPTABLE AT BUTT JOINTS.
4. HEADED STUD INSTALLED THROUGH THE DECK MAY BE SUBSTITUTED FOR PUDDLE WELD.

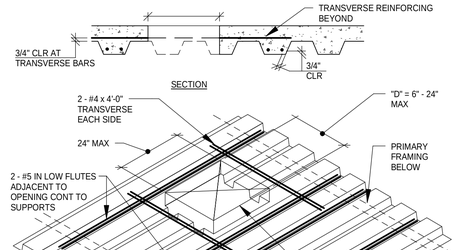
5 TYPICAL 3" COMPOSITE STEEL DECK ATTACHMENT DETAIL
NO SCALE



DECK SUPPORT CONDITION	DECK ATTACHMENT
END SUPPORT	PUDDLE WELDS AT EACH LOW FLUTE
EDGE SUPPORT	PUDDLE WELDS AT 12" OC
INTERMEDIATE SUPPORT	PUDDLE WELDS AT EACH LOW FLUTE
END LAP JOINT	PUDDLE WELDS AT EACH LOW FLUTE
SIDE LAP JOINT	#10 TEK SCREWS ___ PER SPAN

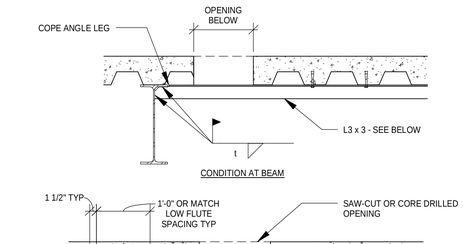
NOTES (UNO):
1. ALL PUDDLE (ARC-SPOT) WELDS SHALL BE 5/8" DIAMETER.
2. PROVIDE DECK ATTACHMENTS AT SPACING SHOWN UNLESS NOTED OTHERWISE ON DRAWINGS.
3. AT END LAP CONDITIONS, PUDDLE WELDS SHALL PROVIDE FUSION THROUGH ALL DECK LAYERS.

6 TYPICAL 3" STEEL ROOF DECK ATTACHMENT DETAIL
NO SCALE



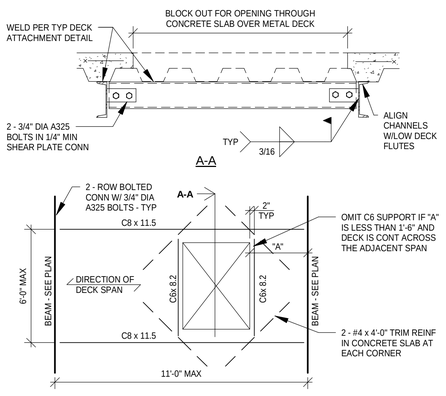
NOTES (UNO):
1. DO NOT CUT DECK AT OPENINGS UNTIL CONCRETE HAS ATTAINED ITS SPECIFIED COMPRESSIVE STRENGTH.
2. PROVIDE 2 TIMES "D" CLEAR DISTANCE BETWEEN OPENING EDGES. "D" IS LARGEST OF ADJACENT OPENING DIMENSIONS.

7 TYPICAL FRAMING AT FLOOR OPENINGS (6"-32" MAX)
NO SCALE



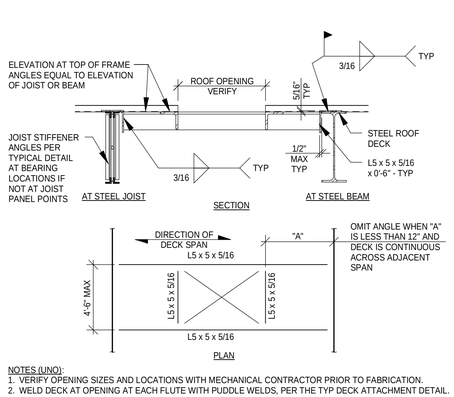
NOTES (UNO):
1. DO NOT OVER CUT CORNERS OF SQUARE OR RECTANGULAR OPENINGS.
2. CLUSTER OF OPENINGS CONSIDERED TO BE ONE OPENING. PROVIDE SUPPORT ANGLES IF OPENINGS LOCATED WITH LESS THAN TWO TIMES "D" CLEAR BETWEEN OPENING EDGES. "D" IS LARGEST OF ADJACENT OPENING DIMENSIONS.

8 TYPICAL OPENING (6"-24" MAX) THROUGH SLAB OVER METAL DECK
NO SCALE



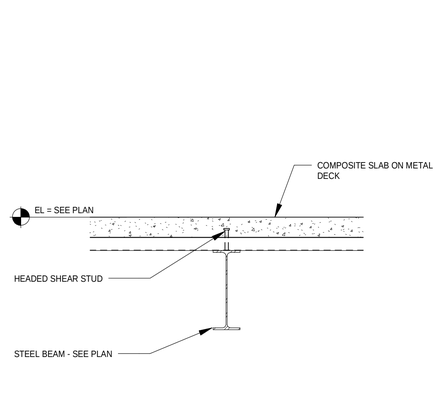
NOTES (UNO):
1. DO NOT CUT DECK AT OPENINGS UNTIL CONCRETE HAS ATTAINED ITS SPECIFIED COMPRESSIVE STRENGTH.
2. VERIFY OPENING DIMENSIONS WITH ARCHITECTURAL DRAWINGS AND MECHANICAL TRADES.

9 TYPICAL FLOOR OPENING FRAME (OVER 32")
NO SCALE



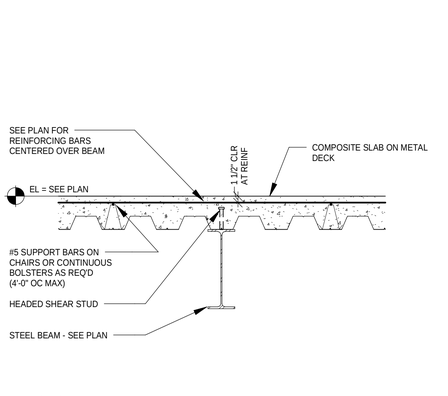
NOTES (UNO):
1. VERIFY OPENING SIZES AND LOCATIONS WITH MECHANICAL CONTRACTOR PRIOR TO FABRICATION.
2. WELD DECK AT OPENING AT EACH FLUTE WITH PUDDLE WELDS, PER THE TYP DECK ATTACHMENT DETAIL.
3. DO NOT CUT OPENING IN DECK UNTIL NECESSARY, CONTRACTOR TO COORDINATE.
4. THIS ROOF OPENING FRAME IS NOT DESIGNED TO SUPPORT THE WEIGHT OF ROOF TOP MECHANICAL EQUIPMENT WEIGHING OVER 400 LBS. EQUIPMENT SHALL BE SUPPORTED ON A STRUCTURAL CURB DESIGNED BY THE SUPPLIER TO SPAN TO THE PRIMARY STRUCTURAL FRAMING.

10 TYPICAL ROOF OPENING FRAME FOR 3" DECK
NO SCALE



NOTES (UNO):
1. SEE TYPICAL DETAILS FOR DECK ATTACHMENT AND HEADED STUD INFORMATION.

11 TYPICAL SECTION AT COMPOSITE DECK PERPENDICULAR TO BEAM
NO SCALE



NOTES (UNO):
1. CUT HIGH DECK FLUTE WHEN IT OCCURS AT BEAM AND PROVIDE GIRDER FILLER DECK PIECE AS NECESSARY.
2. SEE TYPICAL DETAILS FOR DECK ATTACHMENT AND HEADED STUD INFORMATION.

12 TYPICAL SECTION AT COMPOSITE DECK PARALLEL TO BEAM
NO SCALE

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TEL: (218) 591-5079

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.

Print Name: Paul A. Johnson
Signature:
Date: June 3, 2010 Reg. No.: 20379

REVISIONS

NO.	DESCRIPTION	DATE
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	Building Permit	08-16-10

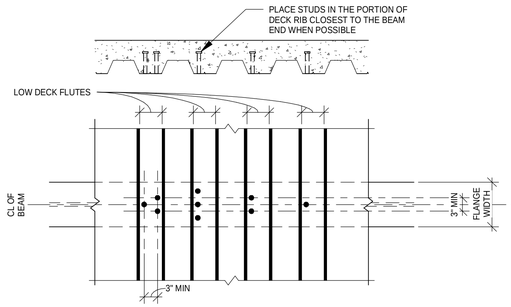
DATE ISSUED: 08-16-10
REVIEWED BY: PAJ / CWB
DRAWN BY: SJL
DESIGNED BY: CWB

AEP PROJECT NUMBER
213-1882-091

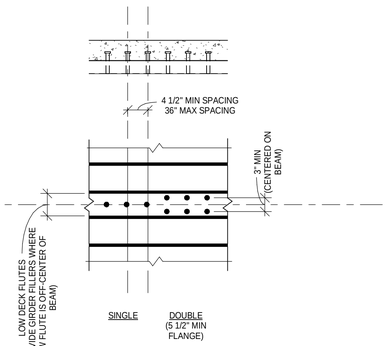
SHEET TITLE
STRUCTURAL DETAILS

SHEET NUMBER
S701

BUILDING PERMIT



DECK PERPENDICULAR TO BEAM

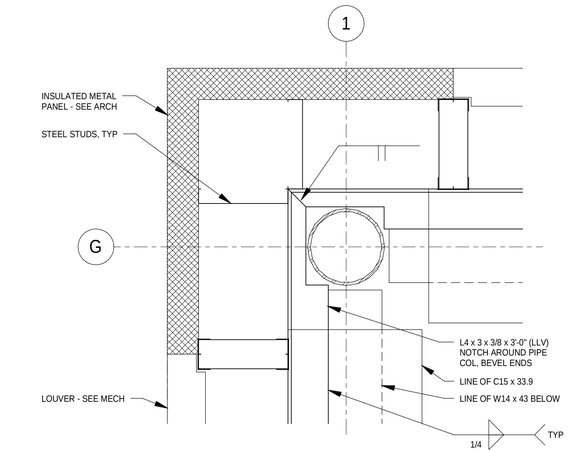


DECK PARALLEL TO BEAM

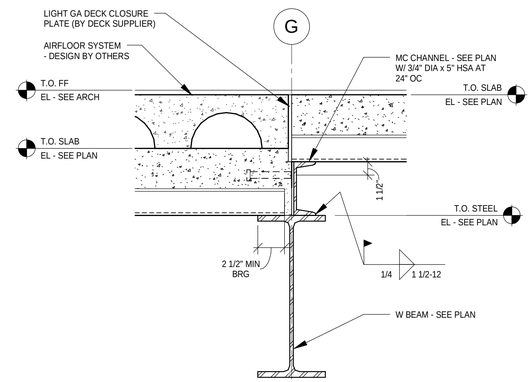
NOTES (UNO):
1. USE ONLY ONE STUD PER RIB UNTIL NUMBERS OF STUDS EXCEEDS DECK RIBS AVAILABLE. LOCATE SINGLE STUDS OVER WEB.
2. START LAYOUT OF HEADED STUDS AT EACH END OF THE BEAM AND PROCEED TOWARDS THE CENTER OF THE BEAM.
3. PROVIDE STUDS IN DOUBLE OR TRIPLE CONFIGURATION SHOWN TO MEET TOTAL NUMBER OF STUDS REQUIRED. START LAYOUT OF DOUBLE/TRIPLE STUDS AT EACH END OF BEAM. DOUBLE/TRIPLE STUD LAYOUTS SHALL ONLY BE USED FOR BEAMS WITH MINIMUM FLANGE WIDTHS SHOWN.
4. PROVIDE ADDITIONAL STUDS BEYOND NUMBER NOTED ON PLANS OR SCHEDULES TO MEET MAXIMUM STUD SPACING SHOWN.
5. HEADED STUDS SHALL BE 3/4" DIA x 5" LONG (AFTER WELDING) TYPICAL, UNLESS NOTED OTHERWISE. REMOVE ALL FERRULS PRIOR TO CONCRETE PLACEMENT.

NOTES:
1. TRIPLE STUDS NOT PERMITTED.

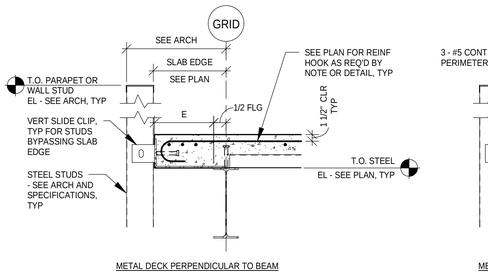
1 TYPICAL HEADED STUD PLACEMENT DETAIL
NO SCALE



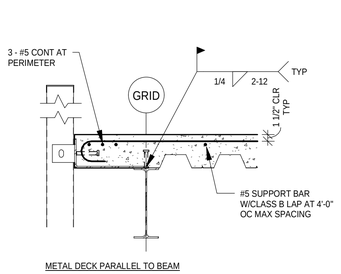
2 PLAN DETAIL AT CHILLER ENCLOSURE
1 1/2" = 1'-0"



3 SECTION
1 1/2" = 1'-0"



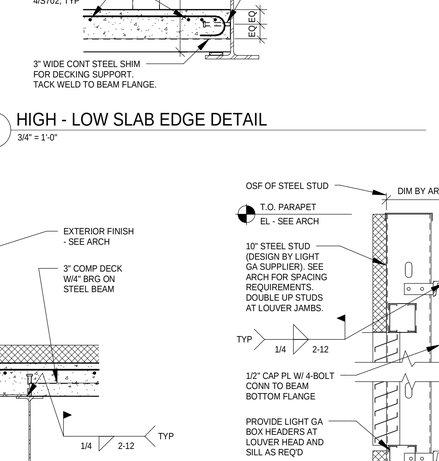
METAL DECK PERPENDICULAR TO BEAM



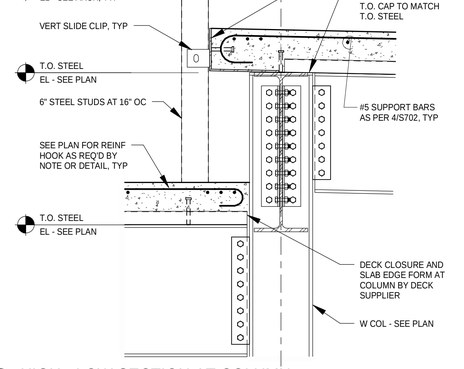
METAL DECK PARALLEL TO BEAM

NOTES:
1. FOR "E" GREATER THAN 5" AND LESS THAN 12", PROVIDE 1/4" BENT PLATE EDGE FORM WITH 3/4" DIA x 6" LONG HEADED STUDS AT 24" OC.
2. FOR "E" GREATER THAN 12" BUT LESS THAN 24", PROVIDE 3/8" BENT PLATE EDGE FORM WITH 3/4" DIA x 6" HEADED STUDS AT 24" OC AND SHORE SLAB OVERHANG (DESIGN BY CONTRACTOR) UNTIL CONCRETE REACHES ITS 28 DAY SPECIFIED COMPRESSIVE STRENGTH.
3. FOR "E" UP TO 5", PROVIDE OPTIONAL LIGHT GAGE BENT PLATE POUR STOP AND ANY REQUIRED ACCESSORIES BY DECK FABRICATOR OR USE 1/4" BENT PLATE PER NOTE 1.

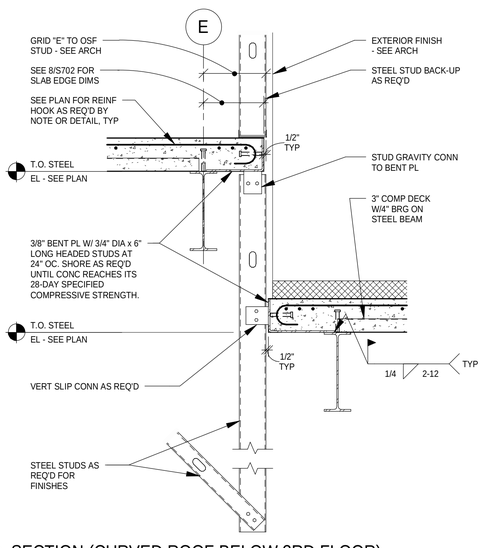
4 TYPICAL SLAB EDGE DETAIL
NO SCALE



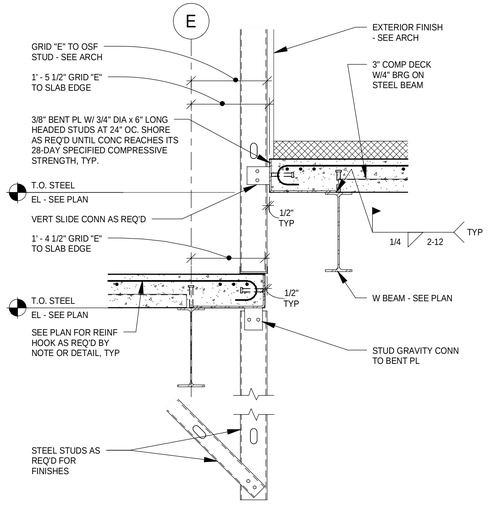
5 HIGH - LOW SLAB EDGE DETAIL
3/4" = 1'-0"



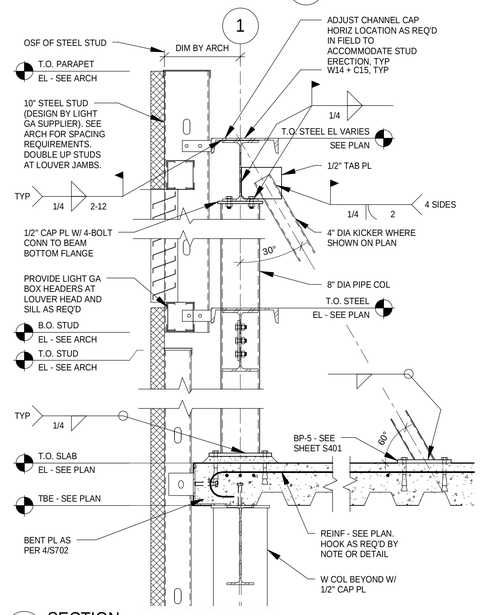
6 HIGH - LOW SECTION AT COLUMN
3/4" = 1'-0"



7 SECTION (CURVED ROOF BELOW 3RD FLOOR)
3/4" = 1'-0"



8 SECTION (CURVED ROOF ABOVE 3RD FLOOR)
3/4" = 1'-0"



9 SECTION
3/4" = 1'-0"

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DULUTH INTERNATIONAL AIRPORT DULUTH, MN

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I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.

Print Name: Paul A. Johnson
Signature:
Date: June 3, 2010 Reg. No.: 20379

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AEP PROJECT NUMBER
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SHEET TITLE
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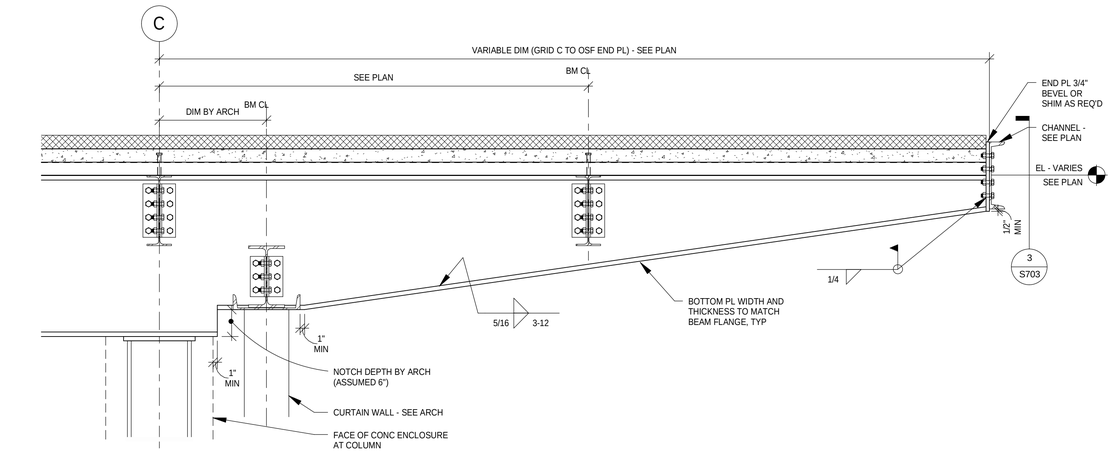
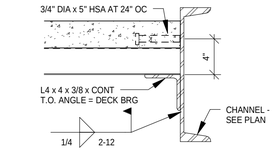
SHEET NUMBER
S702

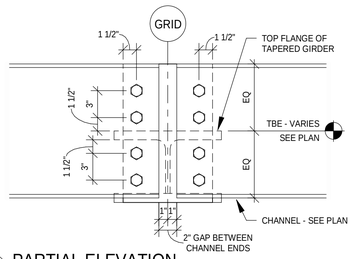
BUILDING PERMIT



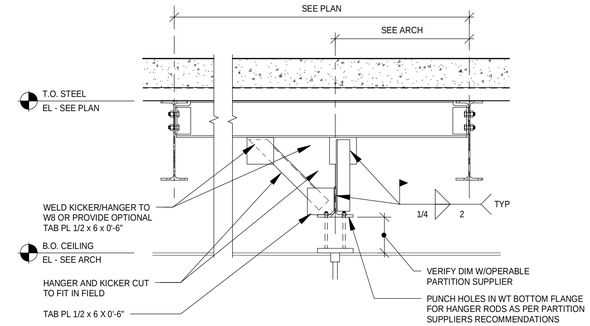
1 SECTION AT GIRDER
3/4" = 1'-0"



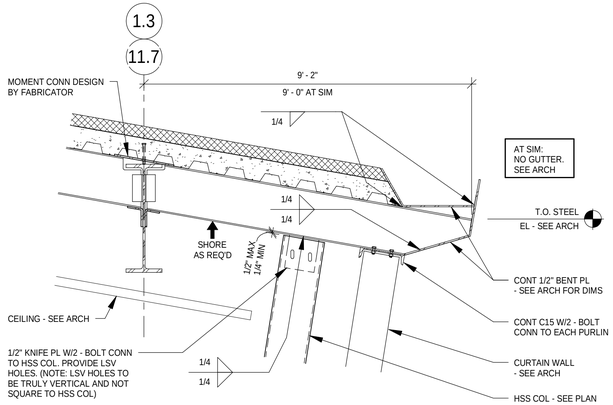
2 SECTION BETWEEN GIRDERS
1 1/2" = 1'-0"



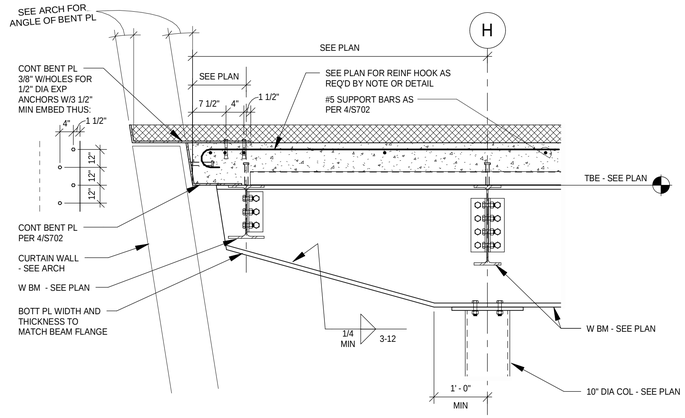
3 PARTIAL ELEVATION
1 1/2" = 1'-0"



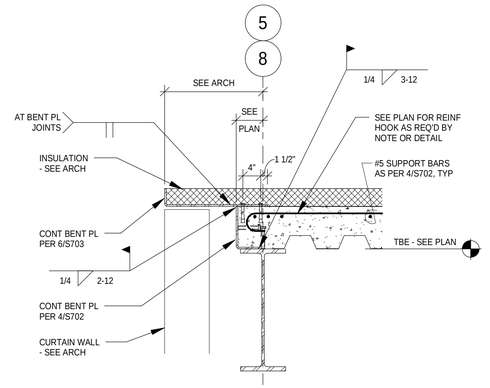
4 SECTION
3/4" = 1'-0"



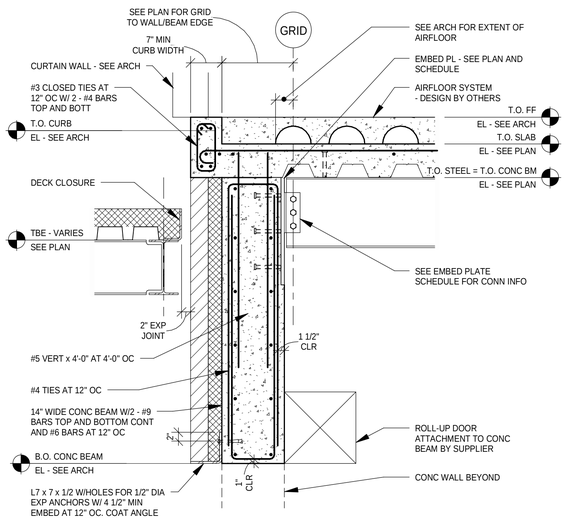
5 SECTION
1/2" = 1'-0"



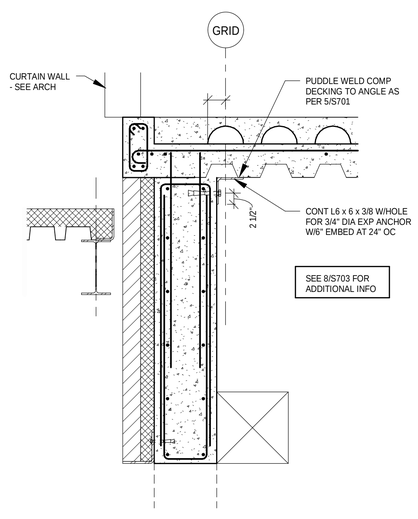
6 SECTION AT NORTH EDGE
3/4" = 1'-0"



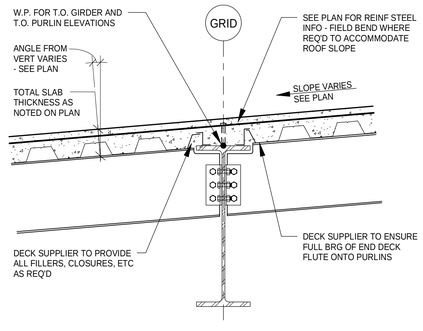
7 SECTION
3/4" = 1'-0"



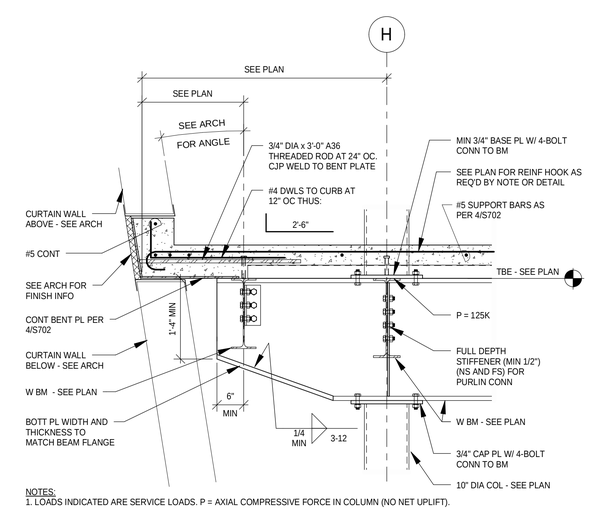
8 SECTION AT PURLIN
3/4" = 1'-0"



9 SECTION BETWEEN PURLINS
3/4" = 1'-0"



10 SECTION
3/4" = 1'-0"



NOTES:
1. LOADS INDICATED ARE SERVICE LOADS. P = AXIAL COMPRESSIVE FORCE IN COLUMN (NO NET UPLIFT).

11 SECTION AT NORTH EDGE
3/4" = 1'-0"

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S703

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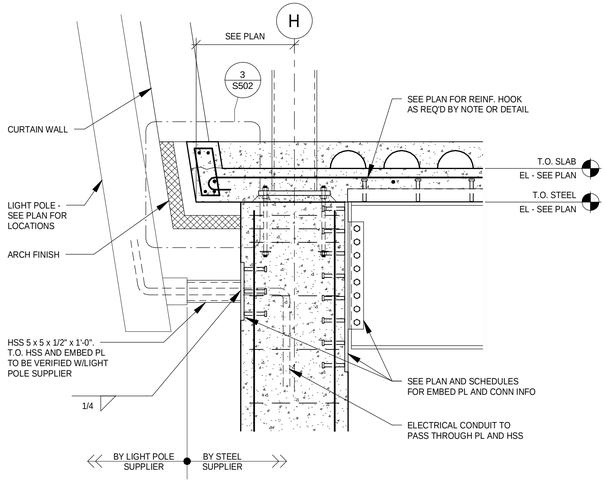
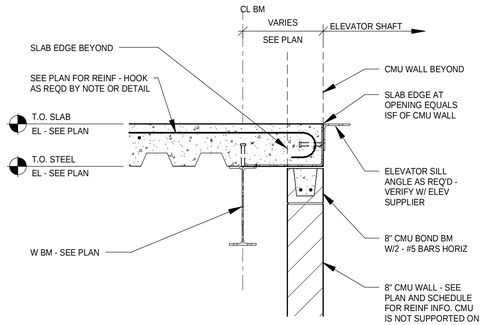
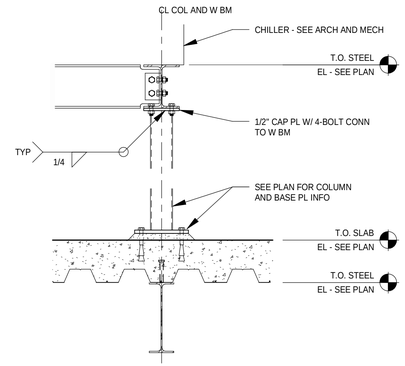


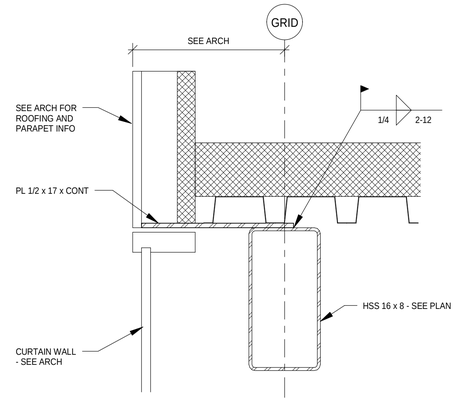
1 SECTION AT COLUMN AND LIGHT POLE
3/4" = 1'-0"



2 SECTION AT ELEVATOR DOOR OPENING
3/4" = 1'-0"



3 SECTION
3/4" = 1'-0"

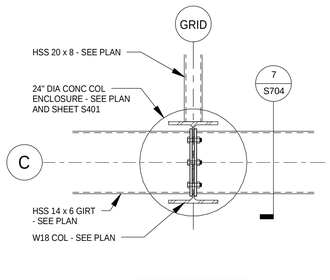


4 SECTION
1 1/2" = 1'-0"

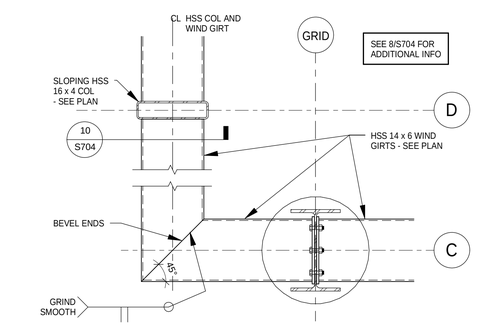
5 SECTION
1 1/2" = 1'-0"

6 SECTION
3/4" = 1'-0"

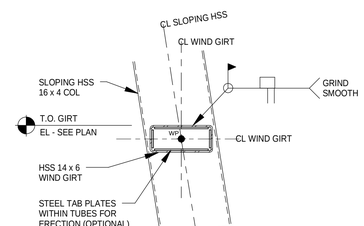
7 SECTION
3/4" = 1'-0"



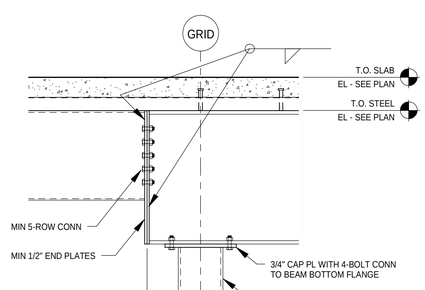
8 PARTIAL PLAN DETAIL
3/4" = 1'-0"



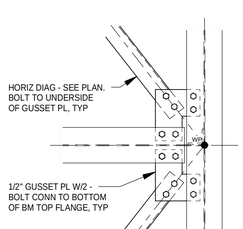
9 CORNER PLAN DETAIL
3/4" = 1'-0"



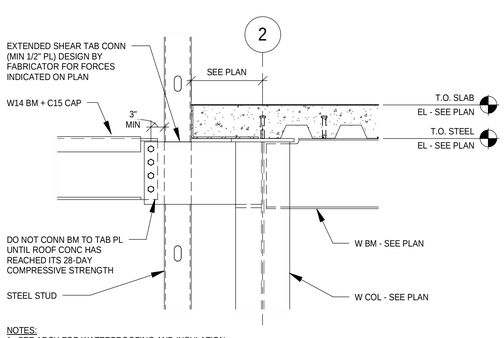
10 SECTION
3/4" = 1'-0"



11 SECTION
3/4" = 1'-0"



12 PLAN DETAIL
3/4" = 1'-0"



NOTES:
1. SEE ARCH FOR WATERPROOFING AND INSULATION INFORMATION AT CONNECTION.

13 SECTION
3/4" = 1'-0"

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TEL: (218) 591-5079

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.

Print Name: Paul A. Johnson

Signature:

Date: June 3, 2010 Reg. No.: 20379

REVISIONS

NO.	DESCRIPTION	DATE
	Conformance Set	07-12-10
	Building Permit	08-16-10

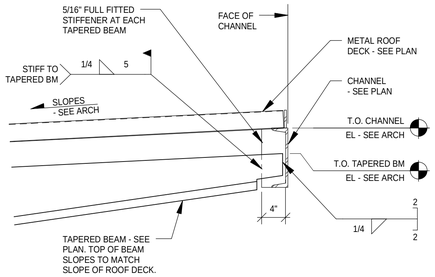
DATE ISSUED: 08-16-10
REVIEWED BY: PAJ / CWB
DRAWN BY: SJL
DESIGNED BY: CWB

AEP PROJECT NUMBER
213-1882-091

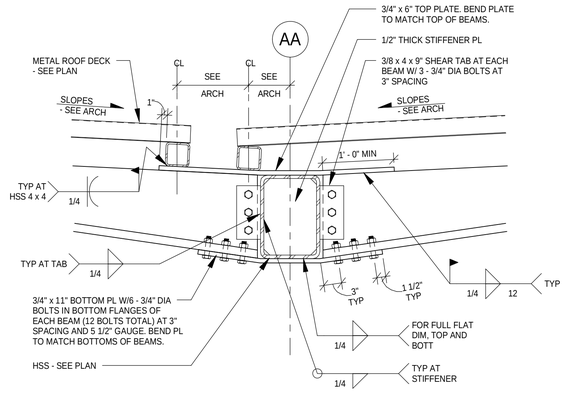
SHEET TITLE
STRUCTURAL DETAILS

SHEET NUMBER
S704

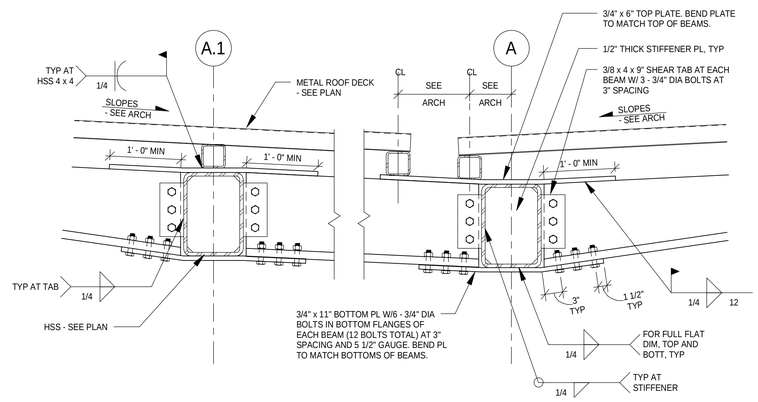
BUILDING PERMIT



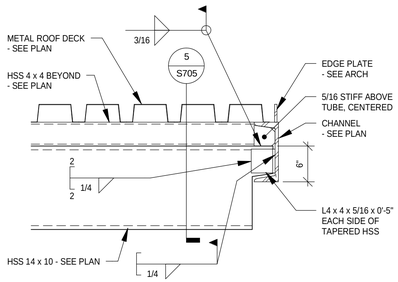
1 SECTION
1" = 1'-0"



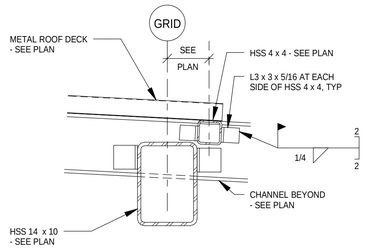
2 SECTION
1" = 1'-0"



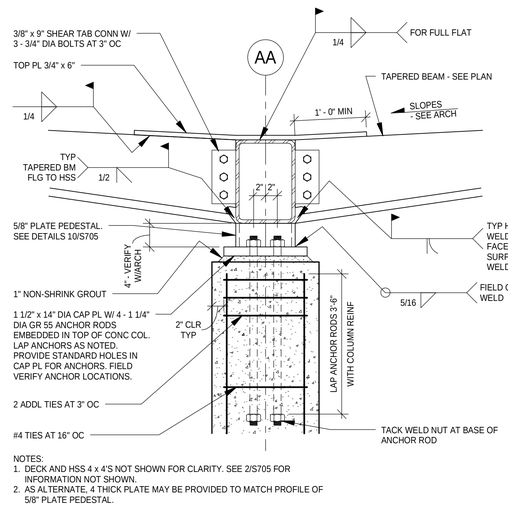
3 SECTION
1" = 1'-0"



4 SECTION AT END HSS
1" = 1'-0"

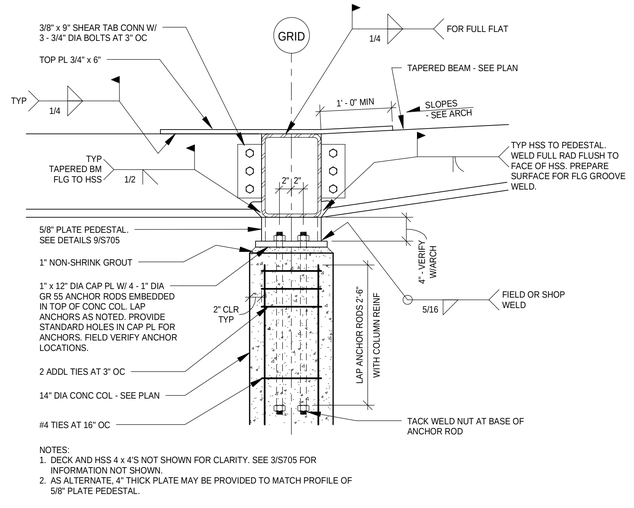


5 SECTION
1" = 1'-0"



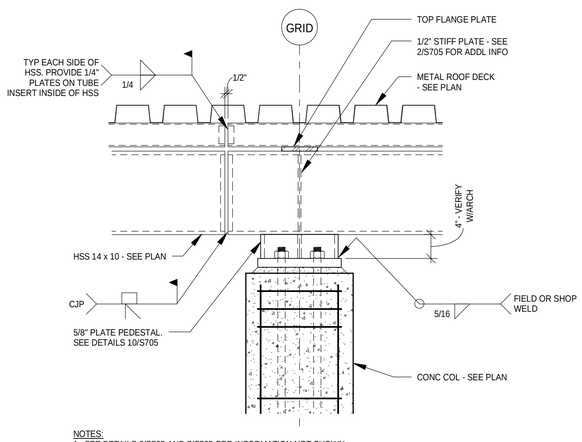
NOTES:
1. DECK AND HSS 4 x 4'S NOT SHOWN FOR CLARITY. SEE 2/S705 FOR INFORMATION NOT SHOWN.
2. AS ALTERNATE, 4 THICK PLATE MAY BE PROVIDED TO MATCH PROFILE OF 5/8" PLATE PEDESTAL.

6 SECTION
1" = 1'-0"



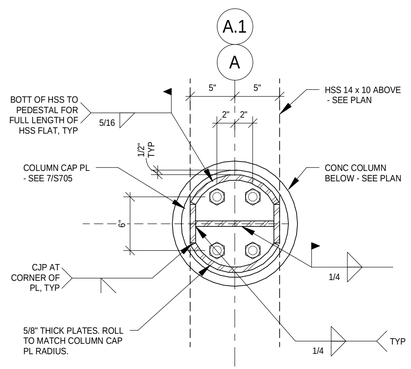
NOTES:
1. DECK AND HSS 4 x 4'S NOT SHOWN FOR CLARITY. SEE 3/S705 FOR INFORMATION NOT SHOWN.
2. AS ALTERNATE, 4" THICK PLATE MAY BE PROVIDED TO MATCH PROFILE OF 5/8" PLATE PEDESTAL.

7 SECTION
1" = 1'-0"

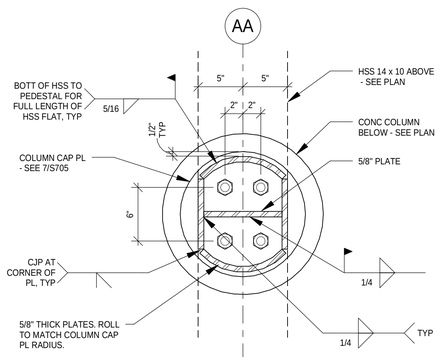


NOTES:
1. SEE DETAILS 6/S705 AND 7/S705 FOR INFORMATION NOT SHOWN.

8 SECTION
1" = 1'-0"



9 SECTION
1 1/2" = 1'-0"



10 SECTION
1 1/2" = 1'-0"

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I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.

Print Name: Paul A. Johnson

Signature:

Date: June 3, 2010 Reg. No.: 20379

REVISIONS

NO.	DESCRIPTION	DATE
	Conformance Set	07-12-10
	Building Permit	08-16-10

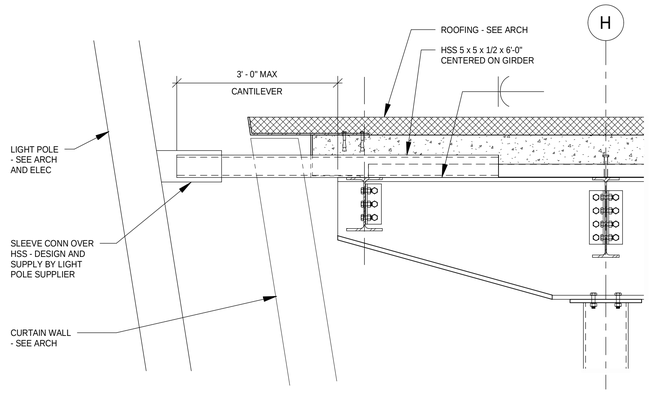
DATE ISSUED: 08-16-10
REVIEWED BY: PAJ / CWB
DRAWN BY: SJL
DESIGNED BY: CWB

AEP PROJECT NUMBER
213-1882-091

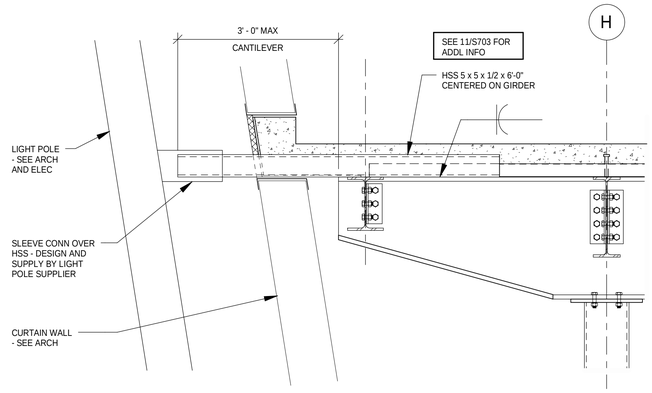
SHEET TITLE
STRUCTURAL DETAILS

SHEET NUMBER
S705

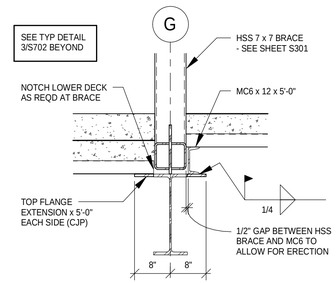
BUILDING PERMIT



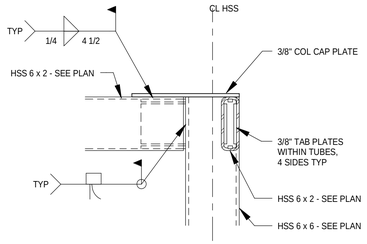
1 SECTION
3/4" = 1'-0"



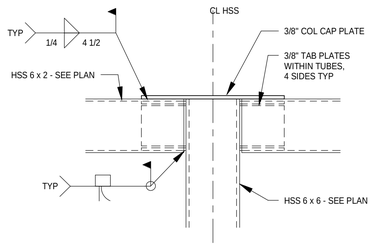
2 SECTION
3/4" = 1'-0"



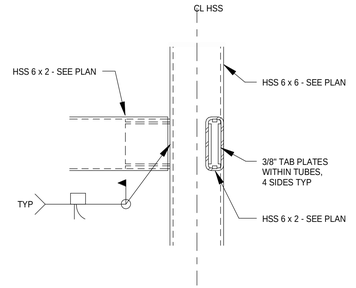
3 SECTION AT BF-6 AT LEVEL 2
3/4" = 1'-0"



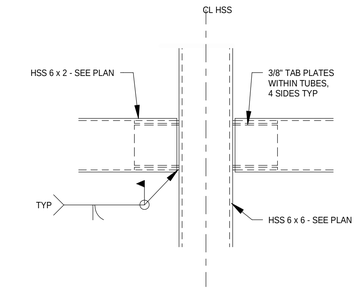
4 SECTION
1 1/2" = 1'-0"



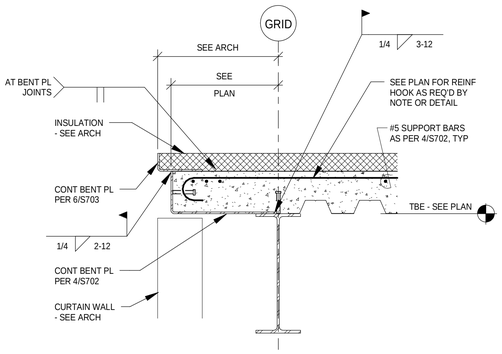
5 SECTION
1 1/2" = 1'-0"



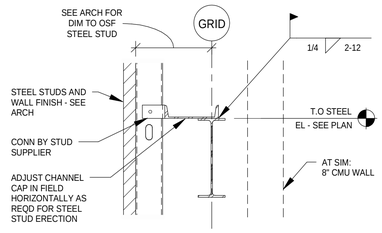
6 SECTION
1 1/2" = 1'-0"



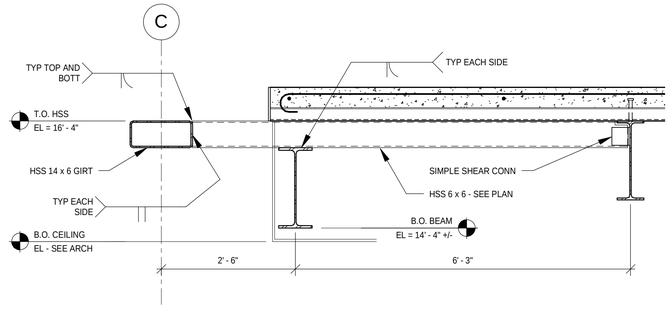
7 SECTION
1 1/2" = 1'-0"



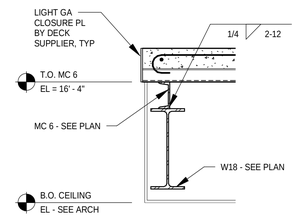
8 SECTION
3/4" = 1'-0"



9 SECTION
3/4" = 1'-0"



10 SECTION AT HSS CANTILEVER
3/4" = 1'-0"



11 SECTION BETWEEN HSS CANTILEVER
3/4" = 1'-0"

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Signature:

Date: June 3, 2010 Reg. No.: 20379

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1	Addendum 1	06-10-10
	Conformance Set	07-12-10
	Building Permit	08-16-10

DATE ISSUED: 08-16-10
REVIEWED BY: PAJ / CWB
DRAWN BY: SJL
DESIGNED BY: CWB

AEP PROJECT NUMBER
213-1882-091

SHEET TITLE
STRUCTURAL DETAILS

SHEET NUMBER
S706

BUILDING PERMIT