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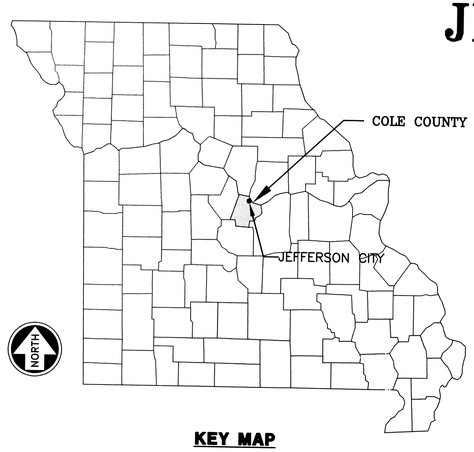
(TOLL FREE)
MISSOURI ONE CALL SYSTEM, INC.

MISSOURI DEPARTMENT OF TRANSPORTATION
WAREHOUSE RENOVATIONS PHASE II
JEFFERSON CITY, COLE COUNTY, MISSOURI



KEY MAP
SHOWING LOCATION OF COUNTY

NOTES TO CONTRACTOR:

1) UNDERGROUND UTILITIES HAVE BEEN SHOWN FROM APPROXIMATE LOCATIONS PROVIDED BY UTILITY COMPANIES, THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. VERIFICATION OF THE LOCATIONS OF UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN, WILL BE THE RESPONSIBILITY OF THE CONSTRUCTION CONTRACTOR.

2) CONTRACTOR SHALL MAKE EVERY EFFORT TO ASSURE MINIMUM CLEARANCE BETWEEN SEWER LINES AND WATER LINES (10' HORIZONTAL, 18" VERTICAL AT CROSSINGS).

3) ALL ROADS, DRIVEWAYS, CULVERTS, SIDEWALKS, FENCES, AND LANDSCAPING DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED.

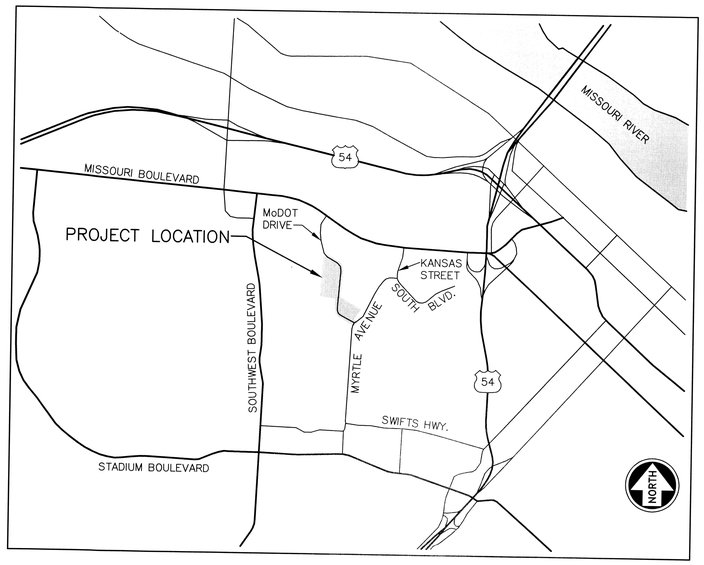
4) ALL EROSION CONTROL DEVICES SHALL BE INSTALLED IN CONFORMITY WITH THE CITY OF JEFFERSON CITY STANDARDS.

5) IT IS THE INTENT OF THESE PLANS TO COMPLY WITH THE REQUIREMENTS OF THE MISSOURI CLEAN WATER COMMISSION.

6) SILT FENCE SHALL BE PLACED AS INDICATED ON THE PLANS

ESTIMATED CIVIL QUANTITIES

DESCRIPTION	UNITS	QUANTITY
REMOVALS		
ASPHALT	SQ YD	580
CONCRETE	SQ YD	256
GRAVEL	SQ YD	48
FENCE	LF	103
STREET – BASE BID		
CONCRETE PAVEMENT / CURB COMBINED	SQ YD	744
STREET – ALTERNATE BID		
ASPHALT	SQ YD	622
CURB	LF	433
PARKING LOT – BASE BID		
CONCRETE PAVEMENT / CURB COMBINED	SQ YD	5099
PARKING LOT – ALTERNATE BID		
ASPHALT	SQ YD	4798
CURB	LF	990
SIDEWALK		
SIDEWALK – 5' WIDE	LF	638
SIDEWALK – 6' WIDE	LF	279
RETAINING WALL		
SEGMENTAL RETAINING WALL	LF	252
FENCE		
CHAIN LINK FENCE	LF	950
STORM SEWER		
24" RCP	LF	47
18" RCP	LF	22
15" RCP	LF	73
24" RCP END SECTION	EA	1
4' x 4' FIELD INLET – OPEN 4 SIDES	EA	1
4' x 4' JUNCTION BOX	EA	1
5' x 4' CURB INLET	EA	1
RIPRAP	SQ YD	366
RELOCATE ROOF DRAINS	EA	4
6" PVC	LF	35
6" PVC 45° BENDS	EA	4
EROSION CONTROL		
SILT FENCE	LF	1313
STRAW BALE DITCH CHECK	EA	2
STRAW BALE INLET PROTECTION	EA	2
GRADING		
CUT	CU YD	6085
FILL	CU YD	1204



SW 1/4, SECTION 12, TOWNSHIP 44 NORTH, RANGE 12 WEST

PROJECT LOCATION MAP
NOT TO SCALE

UTILITIES

SEWER – CITY OF JEFFERSON WASTEWATER COLLECTIONS
2320 HYDE PARK ROAD
JEFFERSON CITY, MO 65109
(573) 634-6455
www.jeffcitymo.org

ELECTRIC & GAS – AMEREN UE
2717 INDUSTRIAL DRIVE
JEFFERSON CITY, MO 65109
(573) 635-0171
1-800-552-7583

WATER – MISSOURI AMERICAN WATER CO.
906 W. HIGH STREET
JEFFERSON CITY, MO 65109
(866) 430-0820

PHONE – CENTURYLINK
319 MADISON STREET
JEFFERSON CITY, MO 65101
(573) 634-1704

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BENCHMARK

BENCHMARK
CHISELED SQUARE IN CONCRETE AT BUILDING ENTRANCE (53'± SOUTH OF NORTHEAST CORNER OF BUILDING).
ELEVATION = 100.00

TEMPORARY BENCHMARK
CHISELED SQUARE ON NORTH SIDE OF PAVEMENT OF ENTRANCE DRIVE (72'± WEST OF MYRTLE AVENUE).
ELEVATION = 99.63

P:\800160-040_ACAD\CIVIL\800160-040-C-SDT-00.DWG
LAYOUT: COVER | BY: EMCCUE | DATE: 1/8/2010
XREF DWG1: NONE | XREF DWG2: NONE
XREF DWG3: NONE | XREF DWG4: NONE

NO.	DATE	REVISIONS	BY	APP'D
1				
2				
3				
4				
5				

Designed By: RW
Drawn By: ELM
Checked By: MWH
Issue Date: 1-11-10

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MISSOURI CERTIFICATE OF AUTHORITY: F00139850

MICHAEL MELVIN HALL
STATE OF MISSOURI
MICHAEL MELVIN HALL
NUMBER E-30044
E-30044

SHAFER, KLINE & WARREN, INC.
1400 Forum Boulevard, Suite 19A, Columbia, MO 65203-1997
573/442-4537 FAX: 573/442-4543
OFFICE LOCATIONS: Chillicothe, MO; Columbia, MO; Houston, TX; Iola, KS; Kansas City, MO; Lenexa, KS; Macon, MO; North Kansas City, MO; Tulsa, OK
CIVIL ENGINEERS ELECTRICAL ENGINEERS MECHANICAL ENGINEERS STRUCTURAL ENGINEERS LANDSCAPE ARCHITECTS LAND SURVEYORS LAND PLANNERS

MISSOURI DEPARTMENT OF TRANSPORTATION
JEFFERSON CITY, MISSOURI

WAREHOUSE RENOVATIONS PHASE II
COVER SHEET

800160-040

SHEET NO.
G100

P:\800160-040_ACAD\CIVIL\800160-040-C-EXC-00.DWG
LAYOUT: EXISTING CONDITIONS BY: WILLIAMS DATE: 1/8/2010
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XREF DWG3: NONE XREF DWG4: NONE

NO.	DATE	REVISIONS	BY	APP'D
5				
4				
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2				
1				

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MICHAEL MELVIN HALL
STATE OF MISSOURI MICHAEL MELVIN HALL NUMBER E-30044 PROFESSIONAL ENGINEER

Designed By: RCW
Drawn By: ELM
Checked By: MMH
Issue Date: 1-11-10

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1400 Forum Boulevard, Suite 19A, Columbia, MO 65203-1997
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Columbia, MO | Kansas City, MO | North Kansas City, MO
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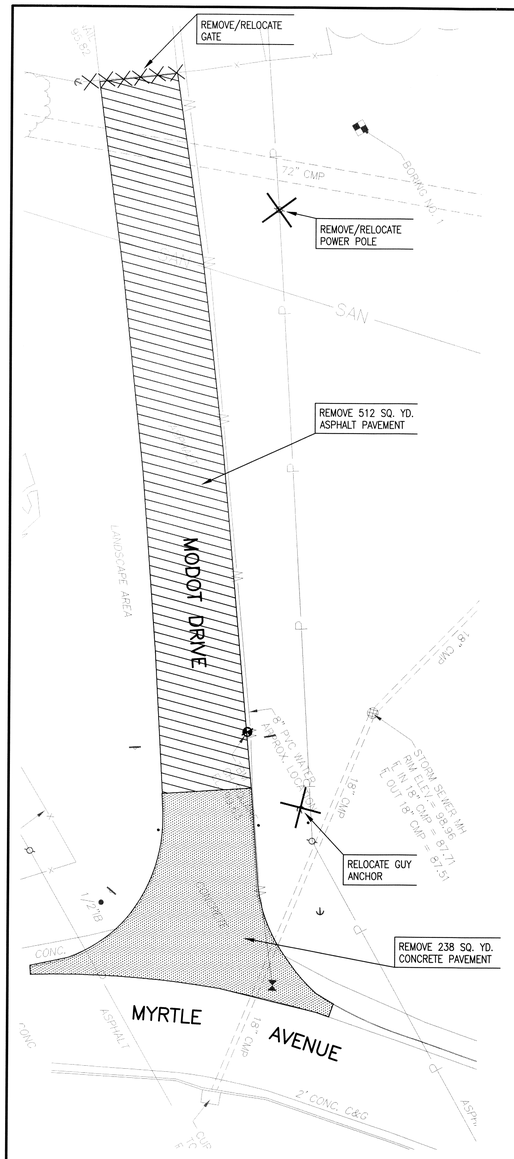
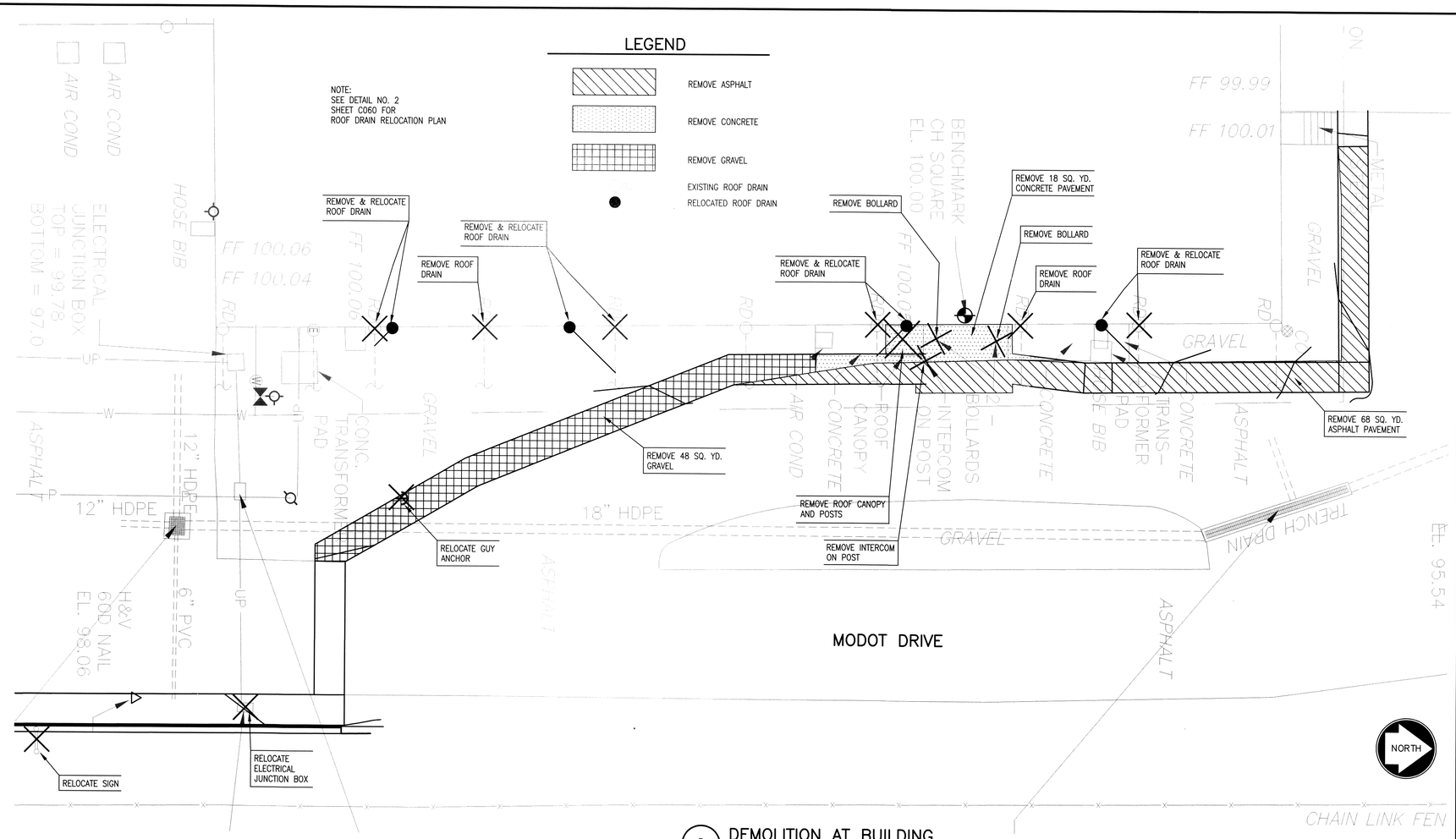
MISSOURI DEPARTMENT OF TRANSPORTATION
JEFFERSON CITY, MISSOURI

WAREHOUSE RENOVATIONS PHASE II
EXISTING CONDITIONS

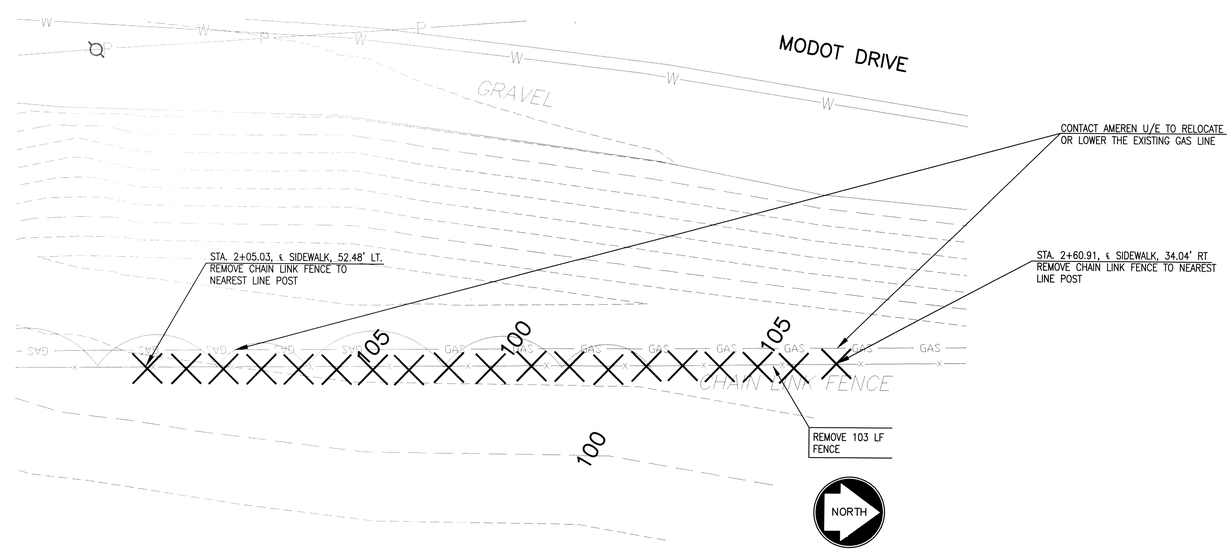
800130-040
SHEET NO.
C010



1 DEMOLITION AT PARKING LOT
1" = 20'



2 DEMOLITION AT BUILDING
1" = 10'



3 FENCE REMOVAL
1" = 10'

P:\800160-040_ACAD\CIVIL\800160-040-C-DEM-00.DWG	
LAYOUT: DEMOLITION	BY: RWILLIAMS DATE: 1/8/2010
XREF DWG1: NONE	XREF DWG2: NONE
XREF DWG3: NONE	XREF DWG4: NONE

NO.	DATE	REVISIONS	BY	APP'D
5				
4				
3				
2				
1				

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Designed By: RW
Drawn By: ELM
Checked By: MMH
Issue Date: 1-11-10

MICHAEL MELVIN HALL
STATE OF MISSOURI
MICHAEL MELVIN HALL
NUMBER E-30044
REGISTERED PROFESSIONAL ENGINEER
E-30044
1-14-10

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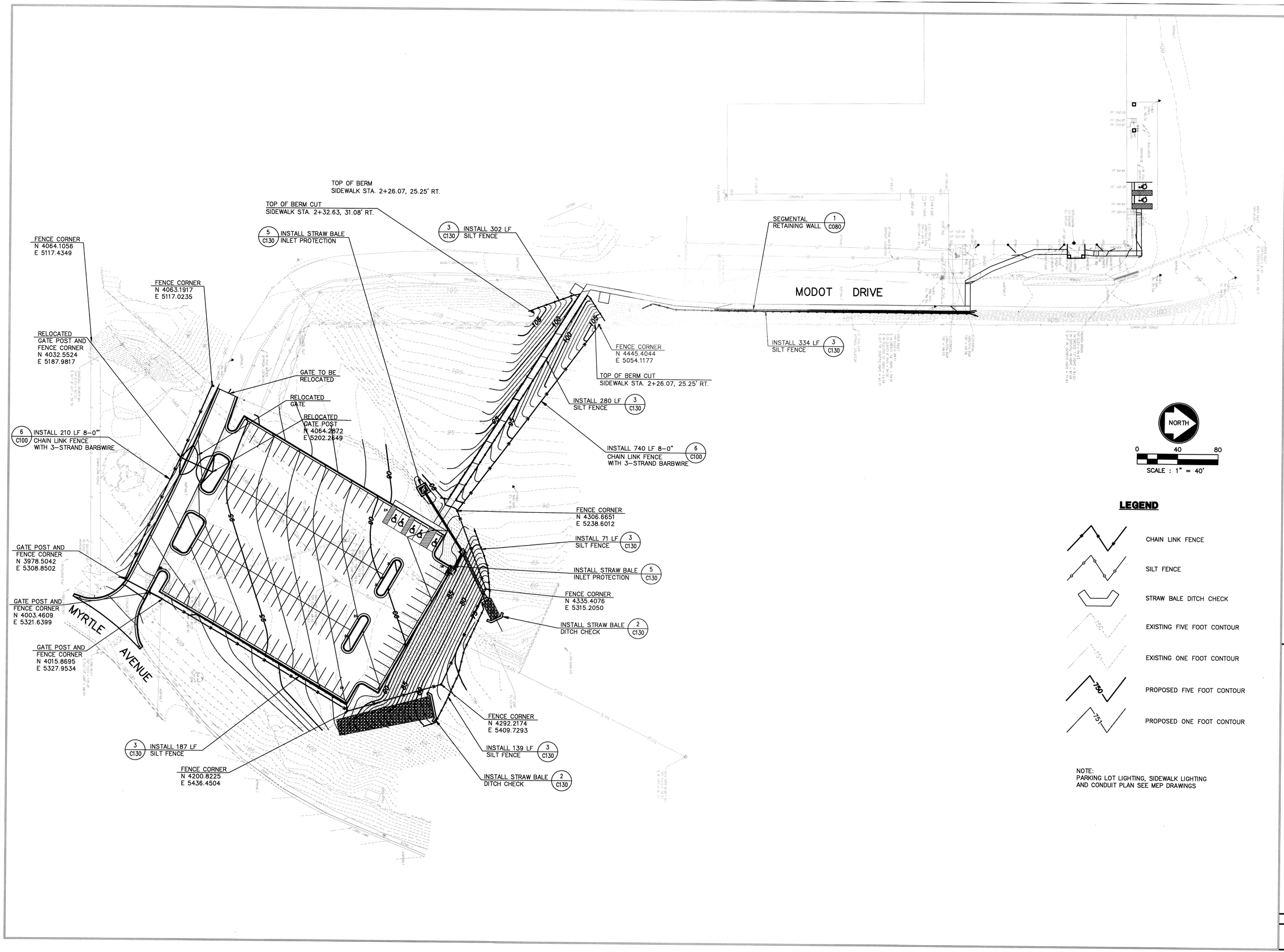
MISSOURI DEPARTMENT OF TRANSPORTATION
JEFFERSON CITY, MISSOURI

WAREHOUSE RENOVATIONS PHASE II
DEMOLITION PLAN

800160-040
SHEET NO.
C020



LEGEND

- CHAIN LINK FENCE
- SILT FENCE
- STRAW BALE DITCH CHECK
- EXISTING FIVE FOOT CONTOUR
- EXISTING ONE FOOT CONTOUR
- PROPOSED FIVE FOOT CONTOUR
- PROPOSED ONE FOOT CONTOUR

NOTE:
PARKING LOT LIGHTING, SIDEWALK LIGHTING AND CONDUIT PLAN SEE MEP DRAWINGS

P:\800160-040_ACAD\CIVIL\800160-040-C-GP-00.DWG
LAYOUT: GRADING PLAN BY: RWILLIAMS DATE: 1/8/2010
XREF DWG1: NONE XREF DWG2: NONE
XREF DWG3: NONE XREF DWG4: NONE

NO.	DATE	REVISIONS	BY	APP'D
1				
2				
3				
4				
5				

Designed By: RW
Drawn By: ELM
Checked By: MMH
Issue Date: 1-11-10

MICHAEL MELVIN HALL
STATE OF MISSOURI
MICHAEL MELVIN HALL
NUMBER E-30044
REGISTERED ENGINEER
E-30044 1/8/10

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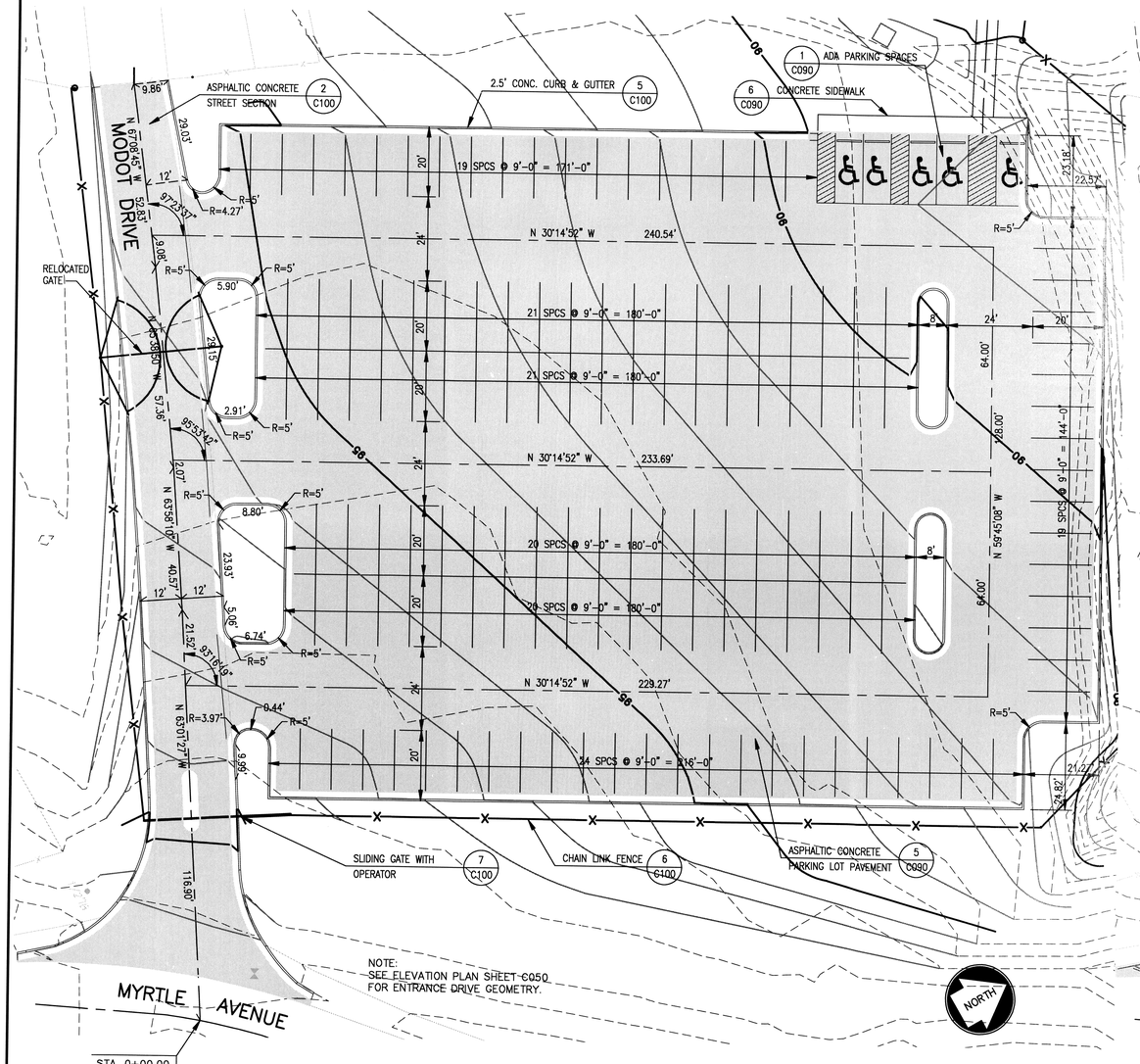
MISSOURI DEPARTMENT OF TRANSPORTATION
JEFFERSON CITY, MISSOURI

WAREHOUSE RENOVATIONS PHASE II
GRADING, EROSION CONTROL & FENCE PLAN

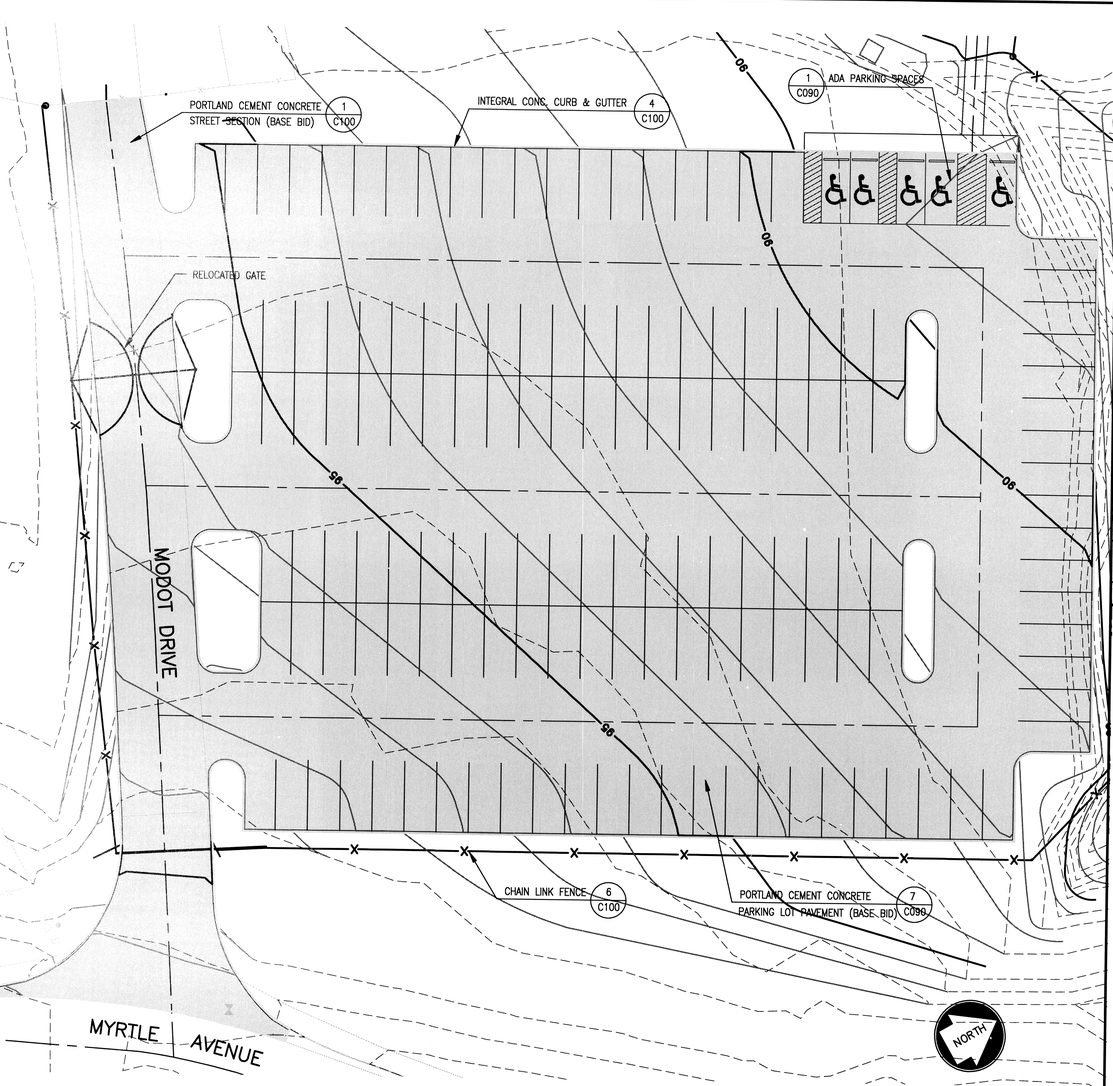
800130-040

SHEET NO.
C030

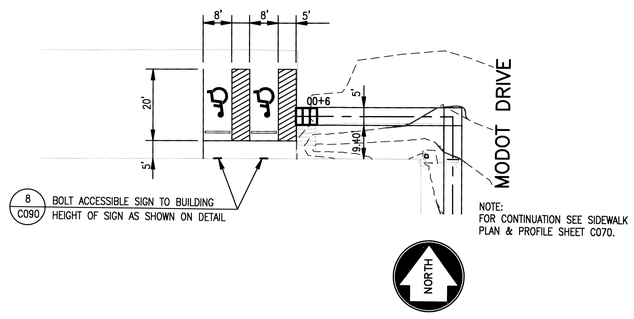


1 SOUTH PARKING LOT – ASPHALT PAVEMENT (ALTERNATE BID)
1" = 20'

NOTE:
PARKING LOT LIGHTING, SIDEWALK LIGHTING AND CONDUIT PLAN SEE MEP DRAWINGS



2 SOUTH PARKING LOT – CONCRETE PAVEMENT (BASE BID)
1" = 20'



3 ADA PARKING SPACES – AT BUILDING
1" = 10'

NO.	DATE	REVISIONS	BY	APP'D
5				
4				
3				
2				
1				

Designed By: RW
Drawn By: ELM
Checked By: MGH
Issue Date: 1-11-10

MICHAEL MELVIN HALL
STATE OF MISSOURI
MICHAEL MELVIN HALL
NUMBER E-30044
PROFESSIONAL ENGINEER
1-14-10
E-30044

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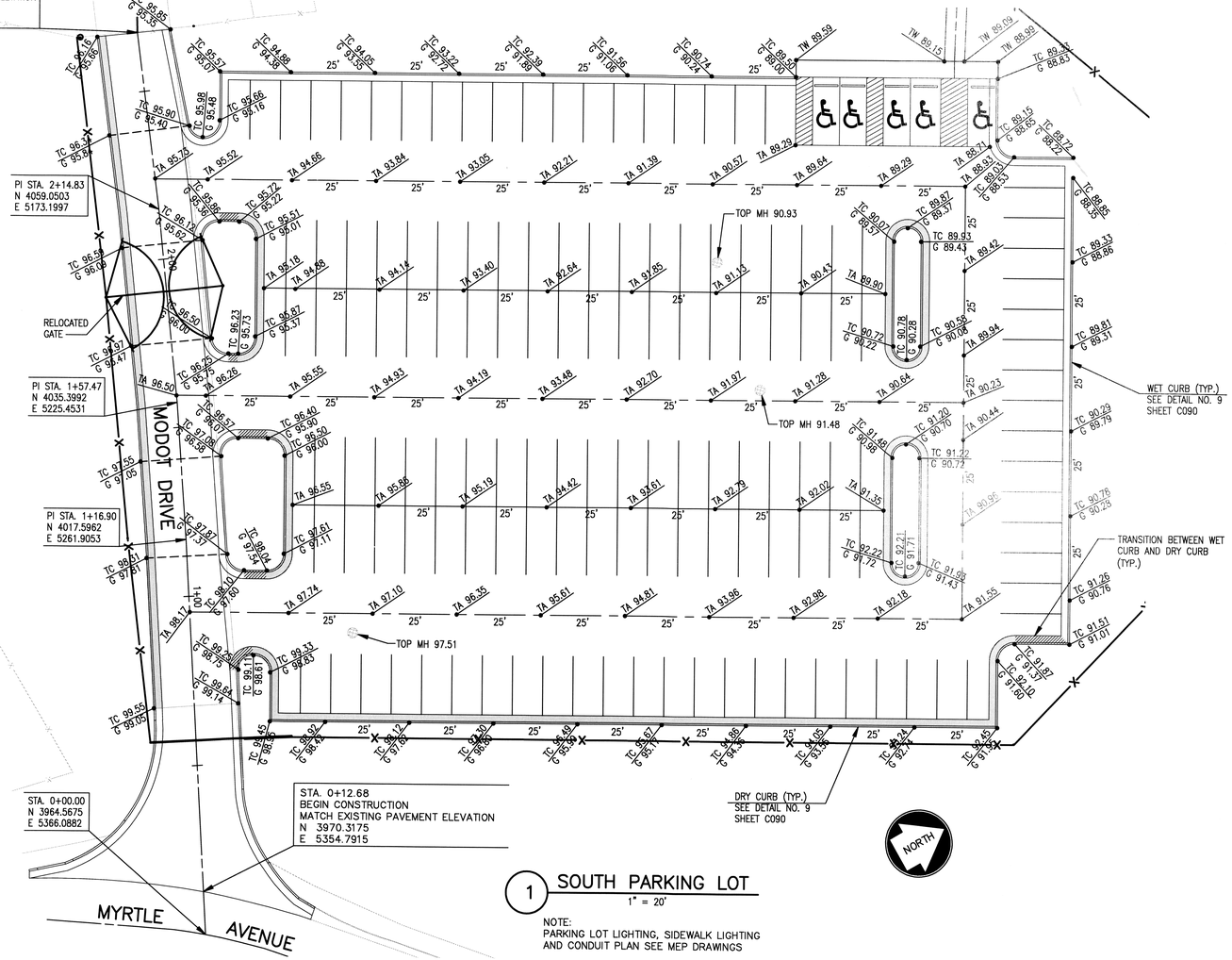
MISSOURI DEPARTMENT OF TRANSPORTATION
JEFFERSON CITY, MISSOURI

WAREHOUSE RENOVATIONS PHASE II
PARKING LOT DIMENSION PLAN

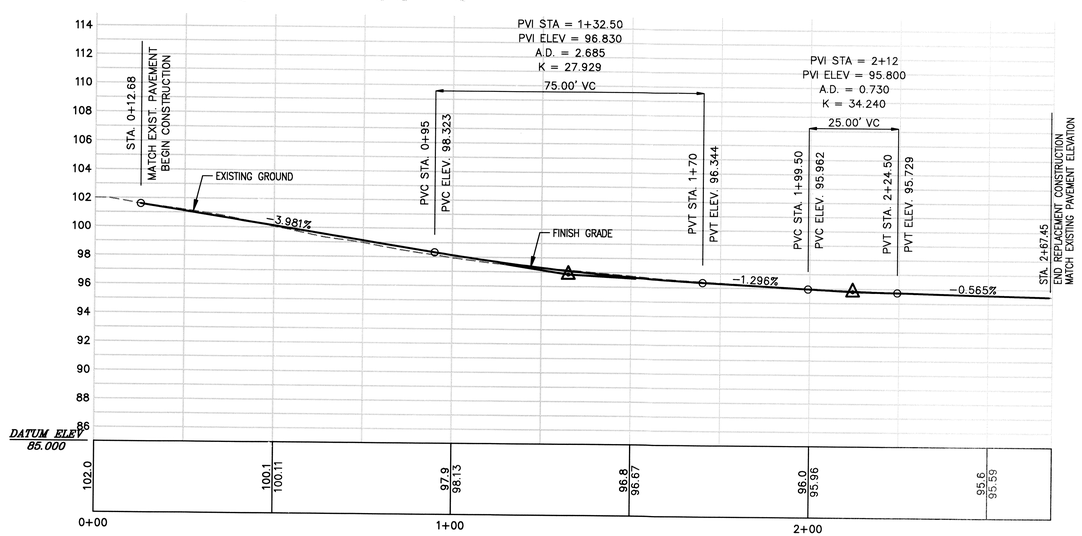
800160-040
SHEET NO.
C040

P:\800160-040_ACAD\CIVIL\800160-040-C-DM-00.DWG
LAYOUT: PARKING LOT BY: RWILLIAMS DATE: 1/8/2010
XREF DWG1: NONE XREF DWG2: NONE
XREF DWG3: NONE XREF DWG4: NONE

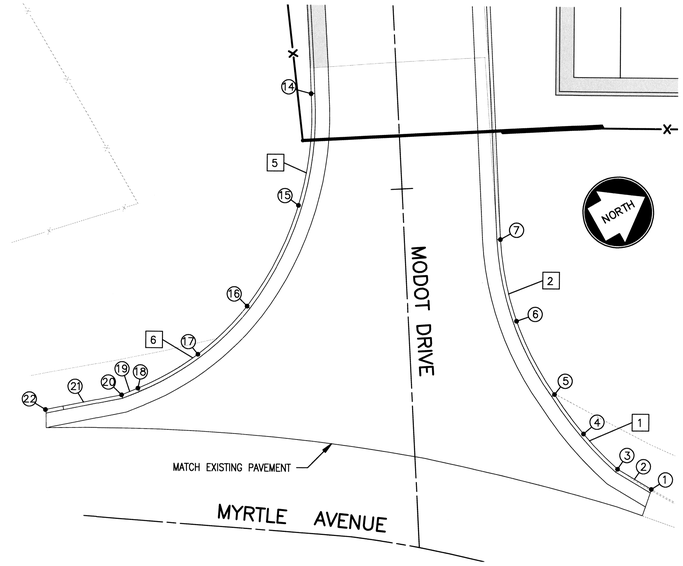


1 SOUTH PARKING LOT
1" = 20'

NOTE:
PARKING LOT LIGHTING, SIDEWALK LIGHTING AND CONDUIT PLAN SEE MEP DRAWINGS



2 MODOT DRIVE PROFILE
1" = 20'



COORDINATE / ELEVATION TABLE							
NO.	NORTHING	EASTING	TC ELEV	G ELEV	BEARING	DISTANCE	COMMENTS
1	3996.7792	5375.1721	102.44	101.94	--	--	MATCH EXISTING
2	--	--	--	--	S60°35'07W	5.50'	--
3	3994.0762	5370.3778	102.27	101.77	--	--	PC CURVE NO. 1
4	--	--	101.92	101.42	--	--	MID POINT CURVE NO. 1
5	3991.5634	5356.9930	101.58	101.08	ITB S84°26'54"W	--	PT CURVE NO. 1; PC CURVE NO. 2
6	--	--	101.16	100.66	--	--	MID POINT CURVE NO. 2
7	3995.7154	5334.4828	100.73	100.23	--	--	PT CURVE NO. 2
14	3982.8238	5303.6344	99.75	99.25	--	--	PC CURVE NO. 5
15	--	--	100.70	100.20	--	--	MID POINT CURVE NO. 5
16	3960.3308	5324.8982	101.56	101.06	--	--	PT CURVE NO. 5; PC CURVE NO. 6
17	--	--	101.91	101.41	--	--	MID POINT CURVE NO. 6
18	3941.3443	5327.2887	102.25	101.75	--	--	PT CURVE NO. 6
19	--	--	--	--	S7°42'05E	2.47'	--
20	3938.8962	5326.9576	102.32	101.82	--	--	PI
21	--	--	--	--	S18°35'24"W	10.87'	--
22	3928.5965	5323.4934	102.66	102.16	--	--	MATCH EXISTING

CURVE TABLE					
NO.	DELTA	RADIUS	TANGENT	LENGTH	CHORD DIST.
1	15°54'29"	49.21'	6.88'	13.66'	13.62'
2	32°00'15"	41.52'	11.91'	23.19'	22.89'
5	41°30'05"	43.68'	16.55'	31.64'	30.95'
6	29°42'12"	37.33'	9.90'	19.35'	19.14'

3 ENTRANCE DRIVE
1" = 10'

NO.	DATE	REVISIONS	BY	APP'D
1				
2				
3				
4				
5				

Designed By: RW
Drawn By: ELM
Checked By: MMH
Issue Date: 1-11-10

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MISSOURI CERTIFICATE OF AUTHORITY: F0103950

MICHAEL MELVIN HALL
STATE OF MISSOURI
MICHAEL MELVIN HALL
NUMBER E-25024
REGISTERED ENGINEER
E-25024 1/11/10

SHAFER, KLINE & WARREN, INC.
1400 Forum Boulevard, Suite 19A, Columbia, MO 65203-1997
573/442-4543 FAX: 573/442-4537
OFFICE LOCATIONS:
Chillicothe, MO
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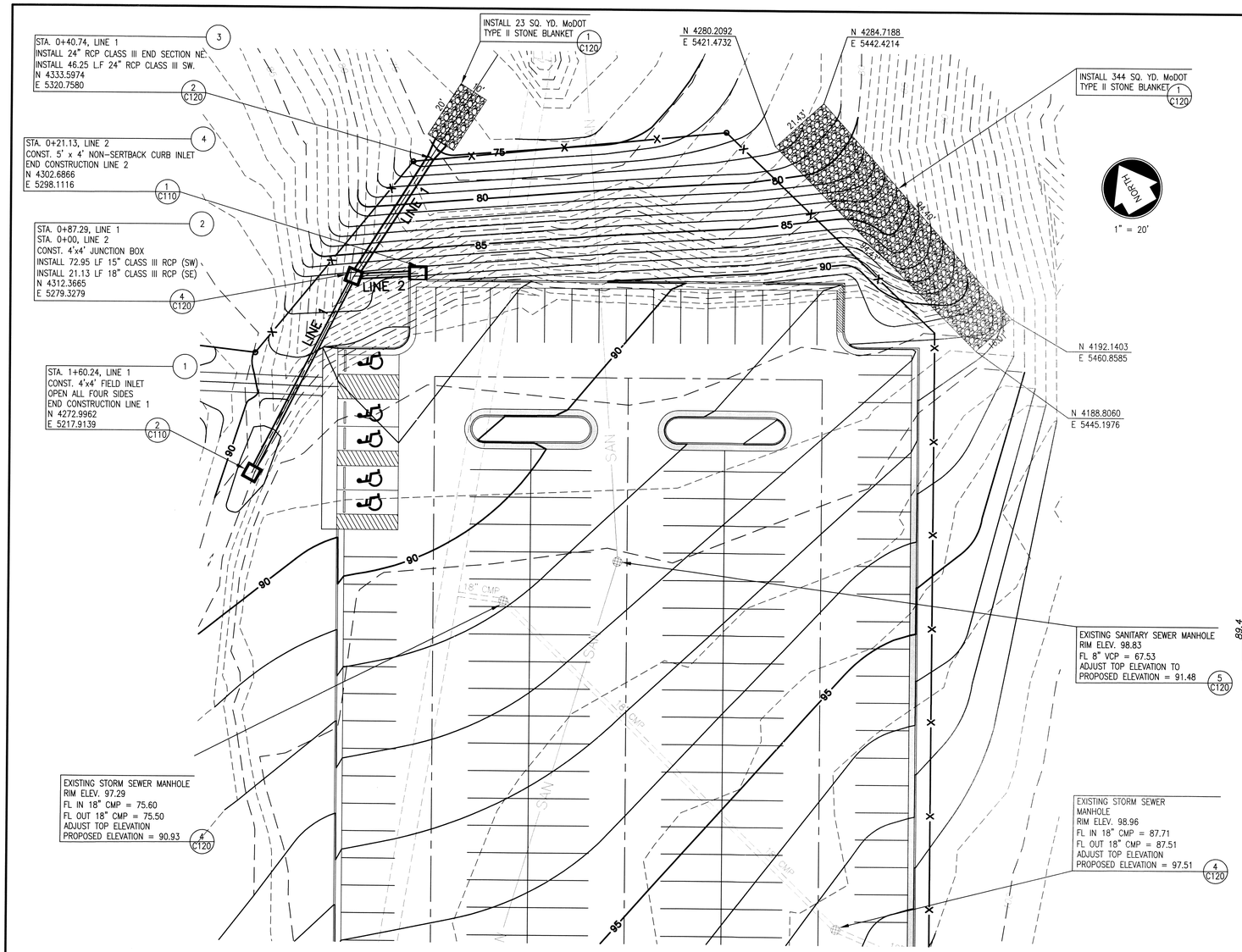
Iola, KS
Kansas City, MO
Lenexa, KS
Macon, MO
North Kansas City, MO
Tulsa, OK
CIVIL ENGINEERS ELECTRICAL ENGINEERS MECHANICAL ENGINEERS STRUCTURAL ENGINEERS LANDSCAPE ARCHITECTS LAND SURVEYORS LAND PLANNERS

MISSOURI DEPARTMENT OF TRANSPORTATION
JEFFERSON CITY, MISSOURI

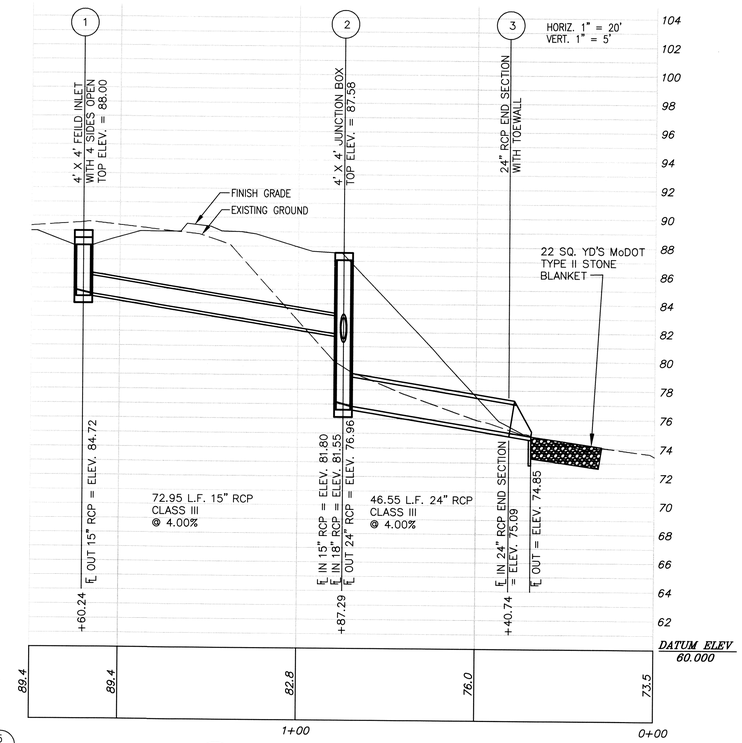
WAREHOUSE RENOVATIONS PHASE II
ELEVATON PLAN

800160-040
SHEET NO.
C050

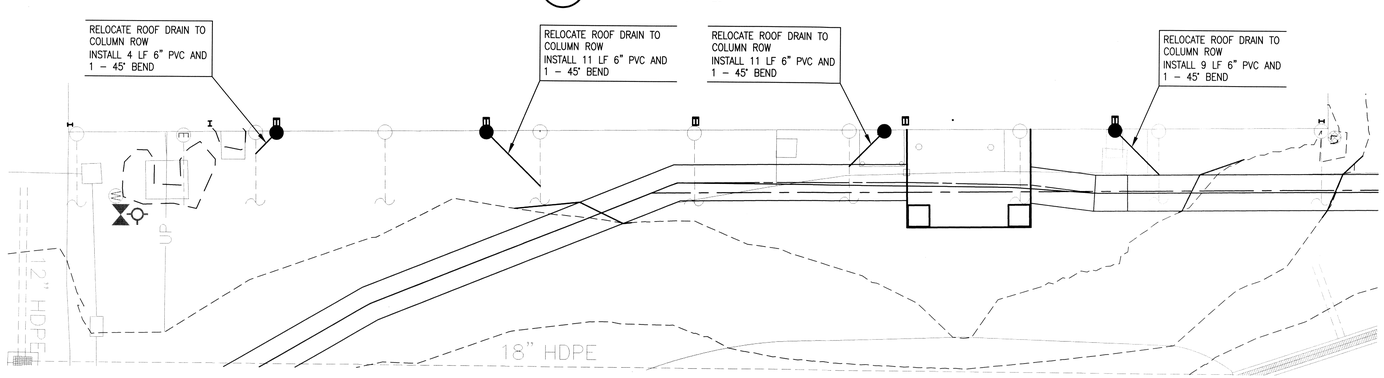
P:\800160-040_ACAD\CIVIL\800160-040-C-TEP-000.DWG
LAYOUT: ELEVATION PLAN BY: RWILLIAMS DATE: 1/8/2010
XREF DWG1: NONE XREF DWG2: NONE
XREF DWG3: NONE XREF DWG4: NONE



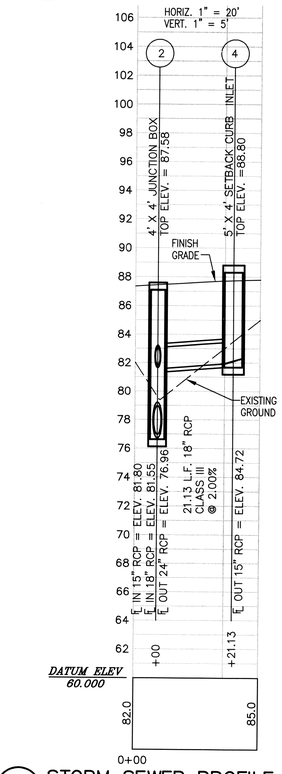
1 STORM SEWER PLAN
1" = 20'



3 STORM SEWER PROFILE LINE 1
1" = 20'



2 ROOF DRAIN RELOCATION PLAN
1" = 10'



4 STORM SEWER PROFILE LINE 2
1" = 20'

NO.	DATE	REVISIONS	BY	APP'D
1				
2				
3				
4				
5				

Designed By: RW
Drawn By: ELM
Checked By: MMH
Issue Date: 1-11-10

MICHAEL MELVIN HALL
MISSOURI PROFESSIONAL ENGINEER
MICHAEL MELVIN HALL
NUMBER E-30044
E-30044 1-11-10

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MISSOURI CERTIFICATE OF AUTHORITY: F001398SO

SHAFER, KLINE & WARREN, INC.
1400 Forum Boulevard, Suite 19A, Columbia, MO 65203-1997
573/442-4537 FAX: 573/442-4543
OFFICE LOCATIONS: Chillicothe, MO Columbia, MO Houston, TX Iola, KS Kansas City, MO Lenexa, KS Macon, MO North Kansas City, MO Tulsa, OK
CIVIL ENGINEERS ELECTRICAL ENGINEERS MECHANICAL ENGINEERS STRUCTURAL ENGINEERS LANDSCAPE ARCHITECTS LAND SURVEYORS LAND PLANNERS

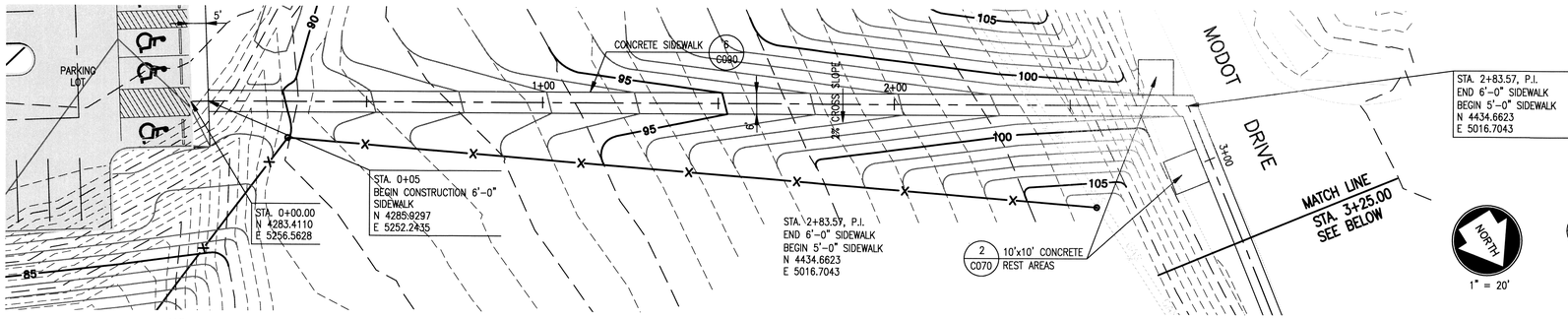
MISSOURI DEPARTMENT OF TRANSPORTATION
JEFFERSON CITY, MISSOURI

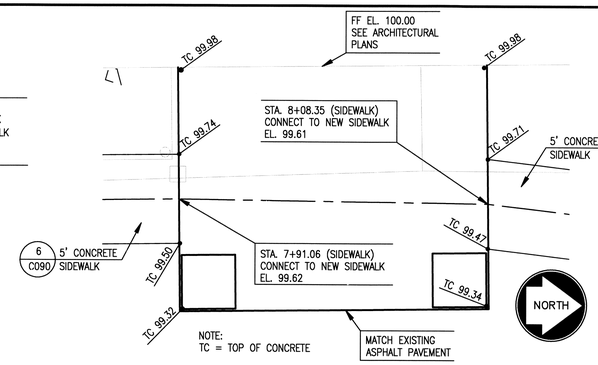
WAREHOUSE RENOVATIONS PHASE II
STORM SEWER PLAN & PROFILE

800160-040

SHEET NO.
C060

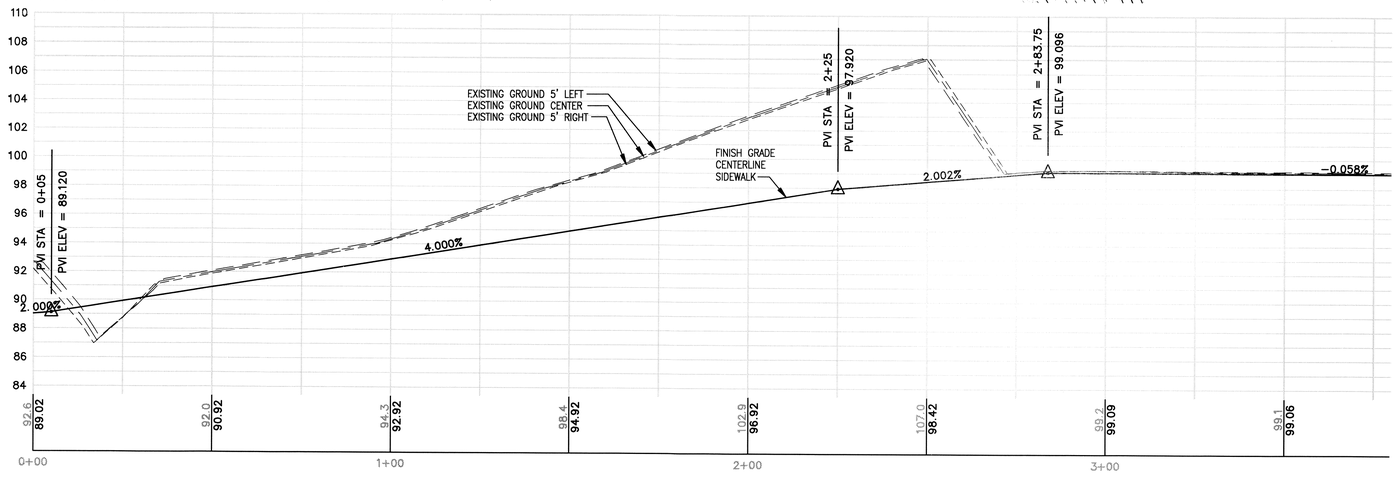
P:\800160-040_ACAD\CIVIL\800160-040-C-STP-00.DWG
LAYOUT: STORM SEWER PLAN BY: ACFRWILLIAMS DATE: 1/8/2010
XREF DWG1: NONE XREF DWG2: NONE
XREF DWG3: NONE XREF DWG4: NONE

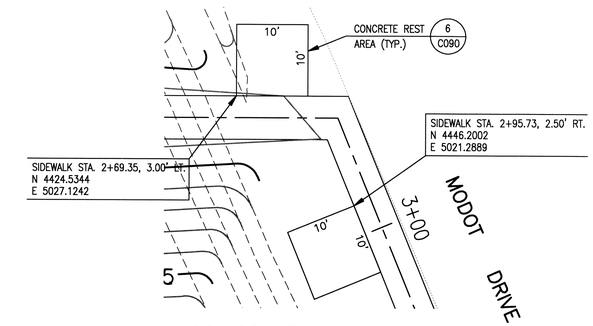




1 MAIN ENTRANCE SLAB

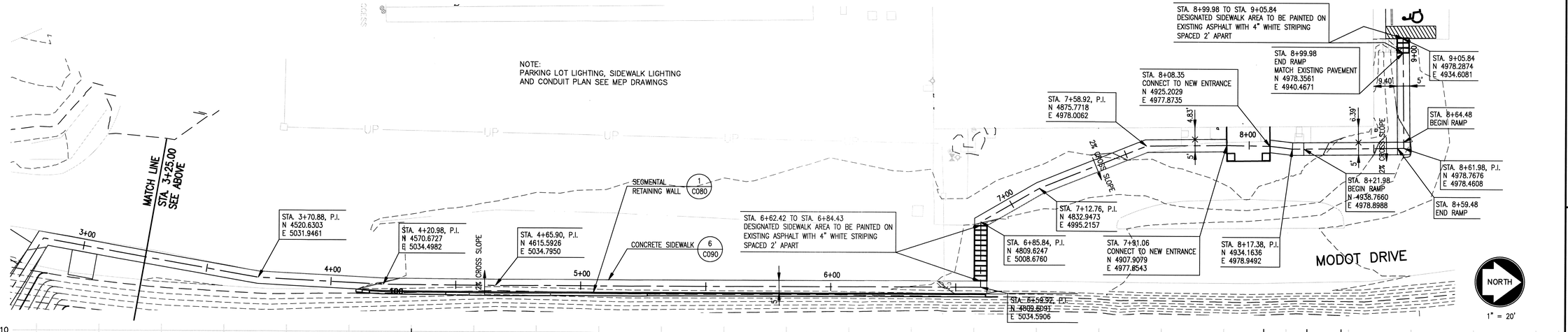
1/4" = 1'

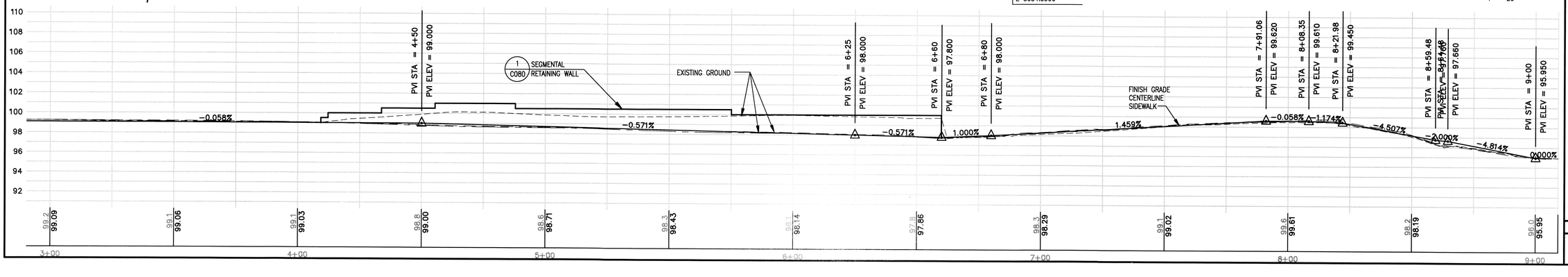




2 CONCRETE REST AREAS

1" = 10'





NO.	DATE	REVISIONS	BY	APP'D
1				
2				
3				
4				
5				

Designed By: RW
Drawn By: ELM
Checked By: MMH
Issue Date: 1-11-10

MICHAEL MELVIN HALL
STATE OF MISSOURI
NUMBER E-30044
1-11-10

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SHAFER, KLINE & WARREN, INC.
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573/442-4537 FAX: 573/442-4543
OFFICE LOCATIONS: Chillicothe, MO; Columbia, MO; Houston, TX; Iola, KS; Kansas City, MO; Lenexa, KS; Macon, MO; North Kansas City, MO; Tulsa, OK
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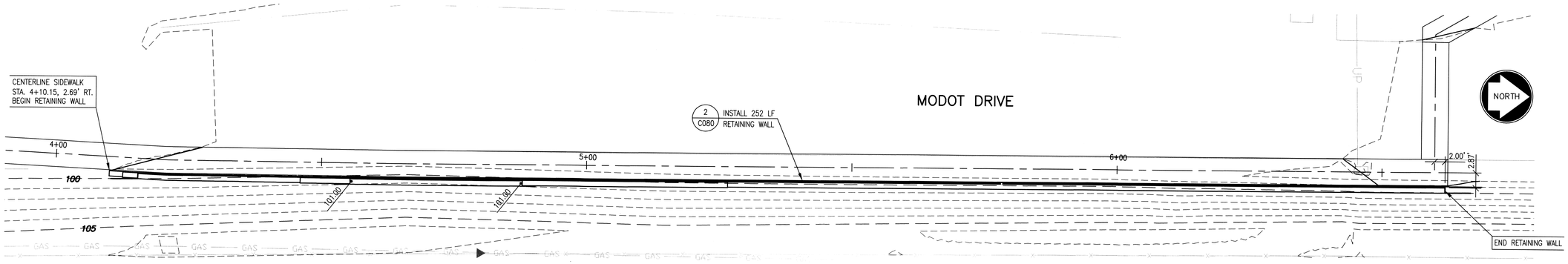
MISSOURI DEPARTMENT OF TRANSPORTATION
JEFFERSON CITY, MISSOURI

WAREHOUSE RENOVATIONS PHASE II
SIDEWALK PLAN & PROFILE

800160-040

SHEET NO.
C070

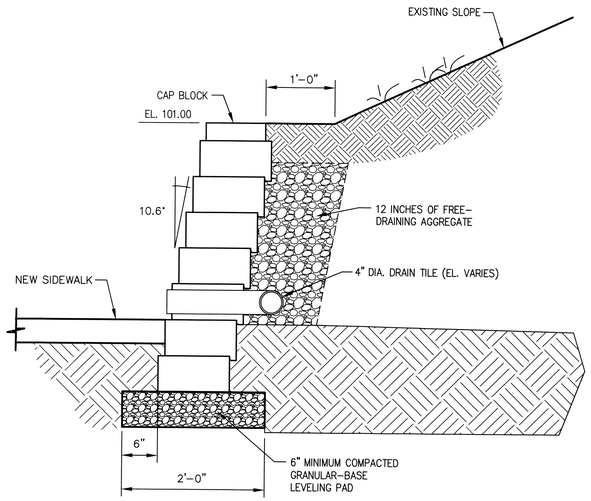
P:\800160-040_ACAD\CIVIL\800160-040-C-DM-00.DWG
LAYOUT: SIDEWALK P&P BY: RWILLIAMS DATE: 1/8/2010
XREF DWG1: NONE XREF DWG2: NONE
XREF DWG3: NONE XREF DWG4: NONE



1 RETAINING WALL PLAN

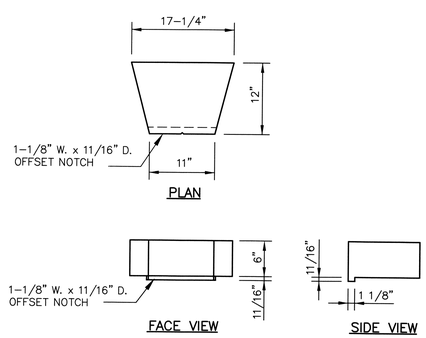
1" = 10'

NOTE:
SEE SIDEWALK PLAN & PROFILE SHEET C070
FOR RETAINING WALL PROFILE



2 GRAVITY WALL – RETAINING WALL

NOT TO SCALE



STRAIGHT UNIT

3 GRAVITY RETAINING WALL INDIVIDUAL BLOCK

NOT TO SCALE

NO.	DATE	REVISIONS	BY	APP'D
5				
4				
3				
2				
1				

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MISSOURI CERTIFICATE OF AUTHORITY: F001398SO

Designed By: RW
Drawn By: ELM
Checked By: MMH
Issue Date: 1-11-10

MICHAEL MELVIN HALL
STATE OF MISSOURI
MICHAEL MELVIN HALL
NUMBER E-30044
REGISTERED PROFESSIONAL ENGINEER
E-30044 1-11-10

SHAFER, KLINE & WARREN, INC.
1400 Forum Boulevard, Suite 19A, Columbia, MO 65203-1997
573/442-4537 FAX: 573/442-4543
OFFICE LOCATIONS: Chillicothe, MO Columbia, MO Houston, TX Iola, KS Kansas City, MO Lenexa, KS Macon, MO North Kansas City, MO Tulsa, OK
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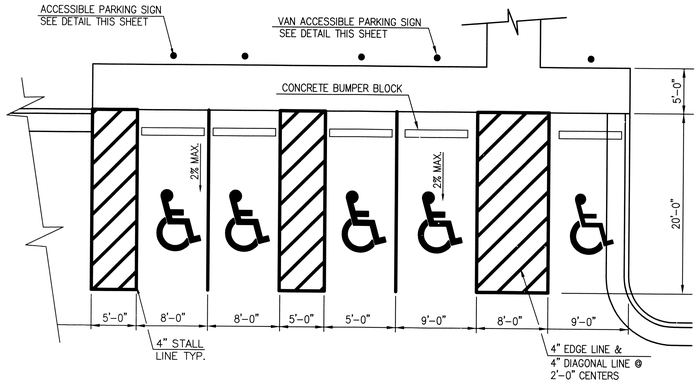
MISSOURI DEPARTMENT OF TRANSPORTATION
JEFFERSON CITY, MISSOURI

WAREHOUSE RENOVATIONS PHASE II
RETAINING WALL DETAILS

800160-040

SHEET NO.
C080

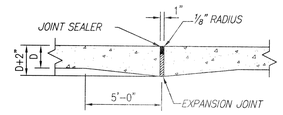
P:\800160-040_ACAD\CIVIL\800160-040-C-RET-00.DWG
LAYOUT: RETAINING WALL LEVEL PLAN WILLIAMS DATE: 1/8/2010
XREF DWG1: NONE XREF DWG2: NONE
XREF DWG3: NONE XREF DWG4: NONE



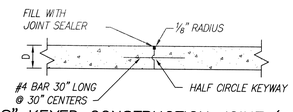
1 ACCESSIBLE PARKING STALLS

NOT TO SCALE

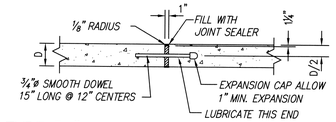
NOTES:
1. TRANSVERSE TYPE "C" JOINTS SHALL BE SAWED AS SOON AS CONCRETE CAN WITHSTAND RAVELING, JOINTS SHALL BE CLEANED AND FILLED WITH BITUMINOUS COMPOUND IMMEDIATELY FOLLOWING SAWING.
2. INSTALL TYPE "A" EXPANSION JOINTS AT INTERSECTIONS, AND AT STRUCTURES.
3. USE TYPE "D" JOINT AT END OF DAY'S WORK.



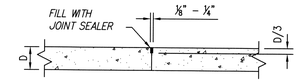
TYPE "A" EXPANSION JOINT



TYPE "BS" KEYED CONSTRUCTION JOINT (WITH STEEL)

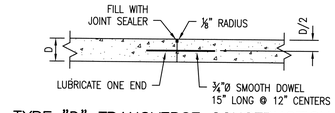


TYPE "A" ALTERNATE EXPANSION JOINT



TYPE "C" – CONSTRUCTED WITHOUT TIE BAR

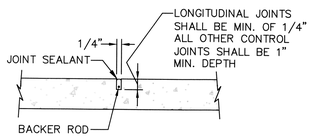
TYPE "C" SAWED OR PREMOLDED STRIP



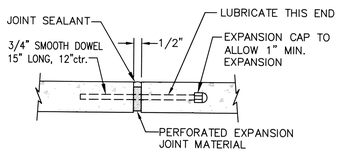
TYPE "D" TRANSVERSE CONSTRUCTION JOINT

2 JOINT DETAILS – P.C. CONCRETE PAVEMENT

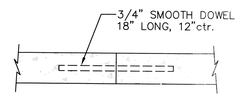
NOT TO SCALE



CONTROL JOINT



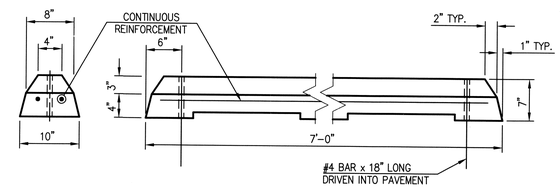
EXPANSION JOINT



TRANSVERSE CONSTRUCTION JOINT

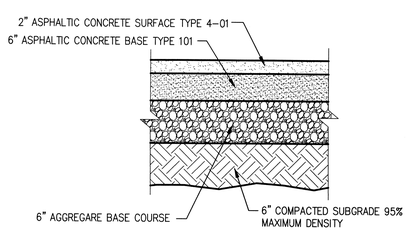
3 SIDEWALK JOINT DETAILS

NOT TO SCALE



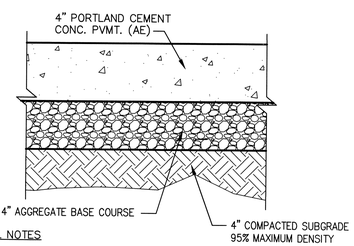
4 CONCRETE BUMPER BLOCK

NOT TO SCALE



5 PARKING LOT – ASPHALTIC CONCRETE (ALTERNATE BID)

NOT TO SCALE



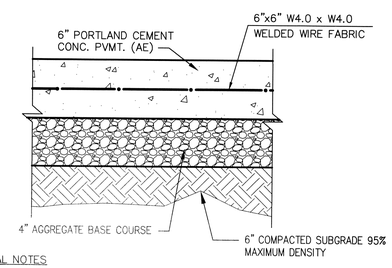
GENERAL NOTES

SIDEWALK PAVEMENT:
1. MCIB MIX. WA473-1-4-0.518

A.	COMPRESSIVE STRENGTH:	3,500 PSI @ 28 DAYS
B.	MAXIMUM SLUMP:	4 INCHES
C.	AIR ENTRAINMENT:	5-7 PERCENT
D.	METHOD OF CURING:	7 DAY DAMP CURE, OR W.R. MEADOWS CO. "TYPE WP-40" WHITE PIGMENTED RESIN BASED SPRAY ON CURING COMPOUND MEETING ASTM C-309, TYPE II, CLASS B OR APPROVED EQUAL
E.	FINISH:	BROOM
F.	CONTROL JOINTS:	TRANSVERSE SAW JOINTS AT SPACING = TO SIDEWALK WITH
G.	JOINT SEALER:	SILICONE JOINT SEALANT, DOW CORNING 888

6 CONCRETE SIDEWALK DETAIL

NOT TO SCALE



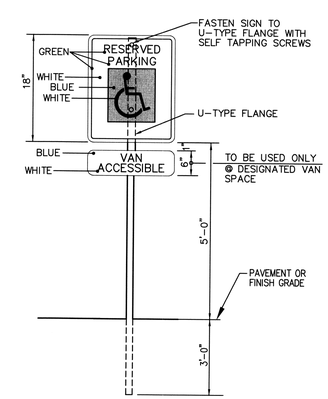
GENERAL NOTES

CONCRETE PAVEMENT:
1. PARKING LOT, MCIB MIX. WA610-1-4-0.410

A.	COMPRESSIVE STRENGTH:	4,500 PSI @ 28 DAYS
B.	MAXIMUM SLUMP:	4 INCHES
C.	AIR ENTRAINMENT:	5-7 PERCENT
D.	METHOD OF CURING:	7 DAY DAMP CURE, OR W.R. MEADOWS CO. "TYPE WP-40" WHITE PIGMENTED RESIN BASED SPRAY ON CURING COMPOUND MEETING ASTM C-309, TYPE II, CLASS B
E.	FINISH:	SCREED
F.	CONTROL JOINTS:	1/8" SAWCUT, 1/4 SLAB THICKNESS. 11'-15' ON CENTER EACH WAY.
G.	JOINT SEALER:	SILICONE JOINT SEALANT, DOW CORNING 888

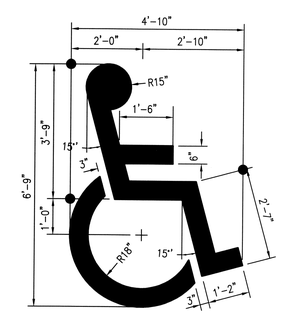
7 PARKING LOT – PORTLAND CEMENT CONCRETE (BASE BID)

NOT TO SCALE



8 ACCESSIBLE SIGN

NOT TO SCALE



9 ACCESSIBLE SYMBOL

NOT TO SCALE

NO.	DATE	REVISIONS	BY	APP'D
1				
2				
3				
4				
5				

Designed By: RW
Drawn By: ELM
Checked By: MMH
Issue Date: 1-11-10

MICHAEL MELVIN HALL
MISSOURI
MICHAEL MELVIN HALL
NUMBER 2004024044
REGISTERED PROFESSIONAL ENGINEER
8/5/2010

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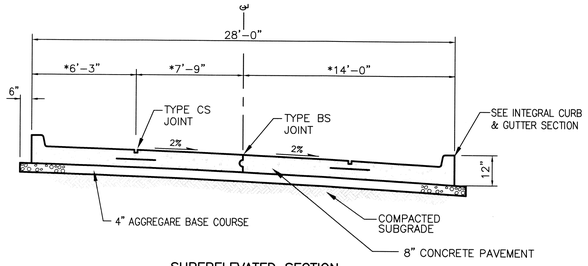
MISSOURI DEPARTMENT OF TRANSPORTATION
JEFFERSON CITY, MISSOURI

WAREHOUSE RENOVATIONS PHASE II
PARKING LOT DETAILS

800160-040

SHEET NO.
C090

P:\800160-040_ACAD\CIVIL\800160-040-C-PVD-00.DWG
LAYOUT: PARKING LOT DATE: 1/8/2010
XREF DWG1: NONE XREF DWG2: NONE
XREF DWG3: NONE XREF DWG4: NONE



SUPERELEVATED SECTION

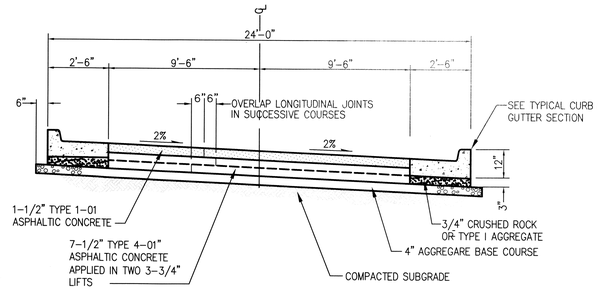
GENERAL NOTES

CONCRETE PAVEMENT:
1. MCIB MIX. WA610-1-4-0.410

A.	COMPRESSIVE STRENGTH:	4,500 PSI @ 28 DAYS
B.	MAXIMUM SLUMP:	4 INCHES
C.	AIR ENTRAINMENT:	5-7 PERCENT
D.	METHOD OF CURING:	7 DAY DAMP CURE, OR W.R. MEADOWS CO. "TYPE WP-40" WHITE PIGMENTED RESIN BASED SPRAY ON CURING COMPOUND MEETING ASTM C-309, TYPE II, CLASS B
E.	FINISH:	SCREED
F.	CONTROL JOINTS:	1/8" SAWCUT, 1/4 SLAB THICKNESS. 11'-15' ON CENTER EACH WAY.
G.	JOINT SEALER:	SILICONE JOINT SEALANT, DOW CORNING 888 OR APPROVED EQUAL

1 STREET SECTION – PORTLAND CEMENT CONCRETE (BASE BID)

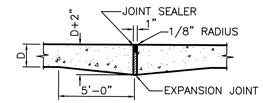
NOT TO SCALE



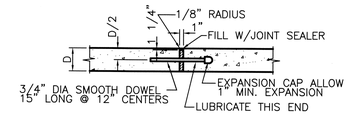
SUPERELEVATED SECTION

2 STREET SECTION – ASPHALTIC CONCRETE (ALTERNATE BID)

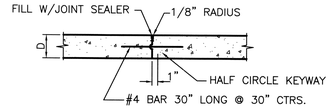
NOT TO SCALE



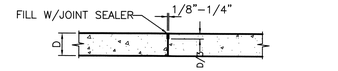
TYPE A
EXPANSION JOINT



TYPE A – ALTERNATE
EXPANSION JOINT

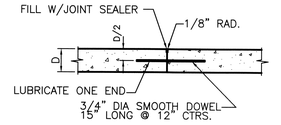


TYPE BS
KEYED CONSTRUCTION JOINT
(With Steel)



TYPE © – CONSTRUCTED WITHOUT TIE BAR

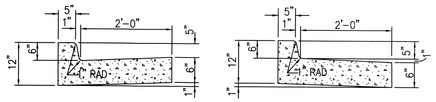
TYPE C
SAWED OR PREMOLDED STRIP



TYPE D
TRANSVERSE CONSTRUCTION JOINT

3 JOINT DETAILS – P.C. CONCRETE PAVEMENT

NOT TO SCALE



WET CURB

DRY CURB

GENERAL NOTES

CURB & GUTTER CONCRETE:
1. MCIB MIX. WA473-1-4-0.518

A.	COMPRESSIVE STRENGTH:	3,500 PSI @ 28 DAYS
B.	MAXIMUM SLUMP:	4 INCHES
C.	AIR ENTRAINMENT:	5-7 PERCENT
D.	METHOD OF CURING:	7 DAY DAMP CURE, OR W.R. MEADOWS CO. "TYPE WP-40" WHITE PIGMENTED RESIN BASED SPRAY ON CURING COMPOUND MEETING ASTM C-309, TYPE II, CLASS B OR APPROVED EQUAL
E.	FINISH:	BROOM

2. INSTALL 1/2" EXPANSION JOINTS IN CURB AND GUTTER SECTION AT P.C. AND P.T. OF CURB RADIUS OF INTERSECTIONS.

3. INSTALL SAW JOINTS IN CURB AND GUTTER SECTION AT 10 FT. MAXIMUM SPACING, SEAL WITH BITUMASTIC JOINT SEALANT.

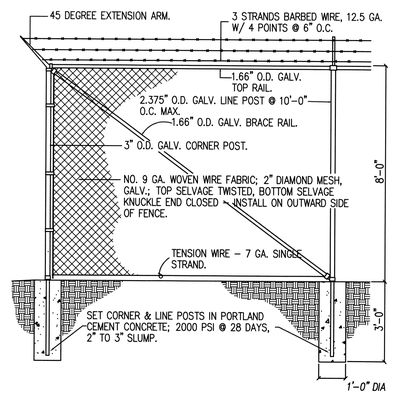
NOTE:
ALL P.C. CONCRETE SHALL BE CLASS A.

4 INTEGRAL CURB SECTION

NOT TO SCALE

5 TYPICAL CURB AND GUTTER SECTION

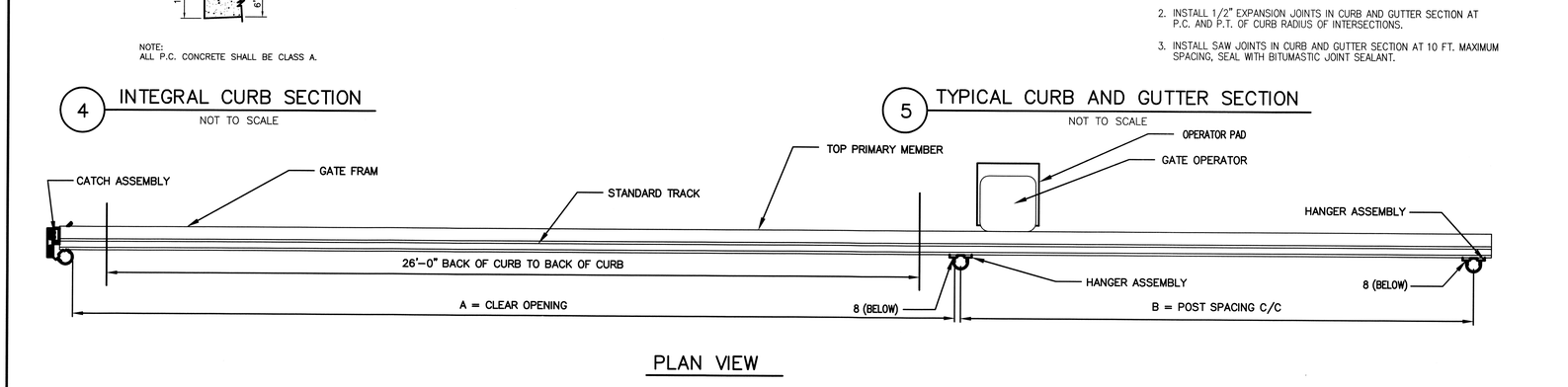
NOT TO SCALE



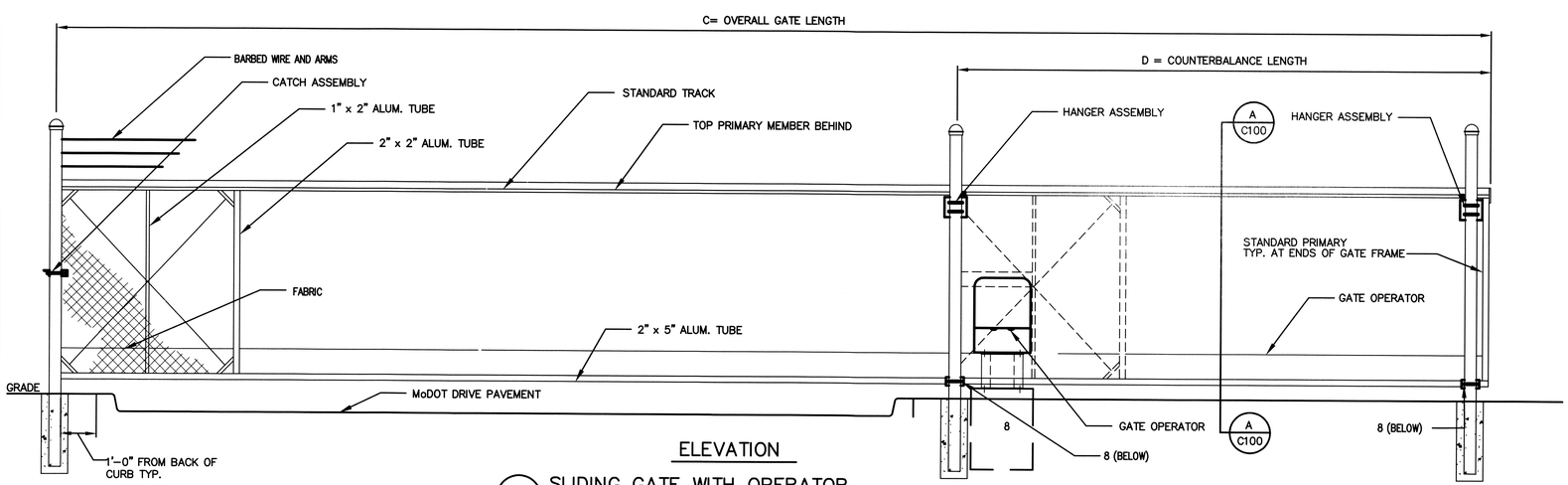
CONTRACTOR'S NOTE: GATE POSTS SHALL BE GALV. STEEL TUBING – SIZE TO VARY PER SIZE & TYPE OF GATE

6 CHAIN LINK FENCE

NOT TO SCALE

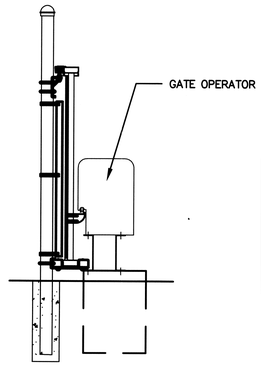


PLAN VIEW



ELEVATION

7 SLIDING GATE WITH OPERATOR



SECTION A–A

CRITICAL DIMENSION CHART

MARK	DESCRIPTION	FORMULA	DIM.
A	CLEAR OPENING	A	28'-0"
B	COUNTERBALANCE POST SPACING C/C	(A/2)-11"	13'-1"
C	OVERALL GATE LENGTH	A x 1.5	42'-0"
D	COUNTERBALANCE LENGTH	A x 0.5	14'-0"
E	NOMINAL GATE HEIGHT	E	8'-0"
F	POST HEIGHT (W BARB ARMS)	E + 1'-6"	9'-6"
G	FABRIC HEIGHT	E – 1'-0"	7'-0"

NOTE:
FOR CONDUIT PLAN SEE MEP DRAWINGS

NO.	DATE	REVISIONS	BY	APP'D
1				
2				
3				
4				
5				

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MISSOURI CERTIFICATE OF AUTHORITY: F0013950

Designed By: RW
Drawn By: ELM
Checked By: MMH
Issue Date: 1-11-10

MICHAEL MELVIN HALL
STATE OF MISSOURI
MICHAEL MELVIN HALL
NUMBER E-30848
REGISTERED PROFESSIONAL ENGINEER
1-11-10

SHAFER, KLINE & WARREN, INC.
1400 Forum Boulevard, Suite 19A, Columbia, MO 65203-1997
573/442-4537 FAX: 573/442-4543
OFFICE LOCATIONS: Chillicothe, MO; Columbia, MO; Houston, TX; Macon, MO; North Kansas City, MO; Tulsa, OK; Iola, KS; Kansas City, MO; Lenexa, KS
CIVIL ENGINEERS ELECTRICAL ENGINEERS MECHANICAL ENGINEERS STRUCTURAL ENGINEERS LANDSCAPE ARCHITECTS LAND SURVEYORS LAND PLANNERS

MISSOURI DEPARTMENT OF TRANSPORTATION
JEFFERSON CITY, MISSOURI

WAREHOUSE RENOVATIONS PHASE II
STREET AND FENCE DETAILS

800160-040

SHEET NO.
C100

P:\800160-040_ACAD\CIVIL\800160-040-C-STD-00.DWG
LAYOUT: STREET DETAIL | BY: RWILLIAMS | DATE: 1/8/2010
XREF DWG1: NONE | XREF DWG2: NONE
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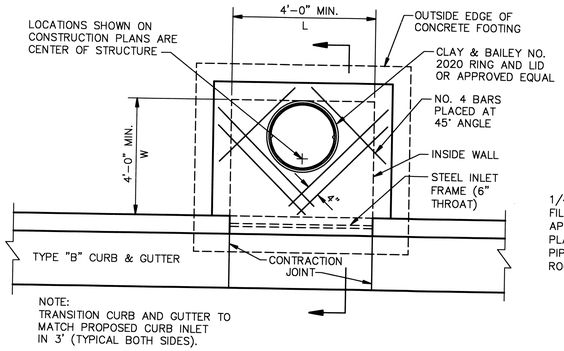
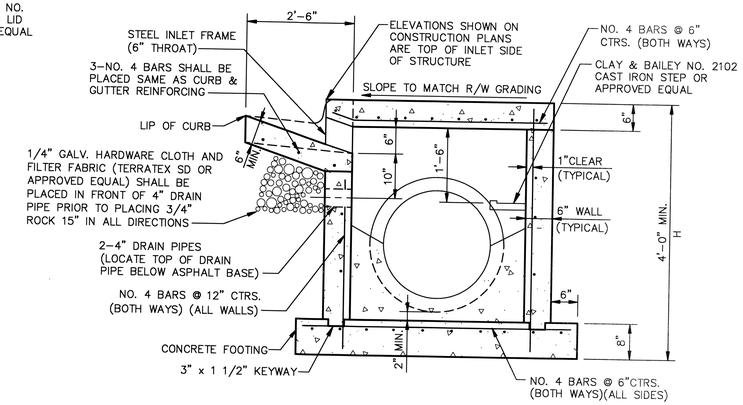
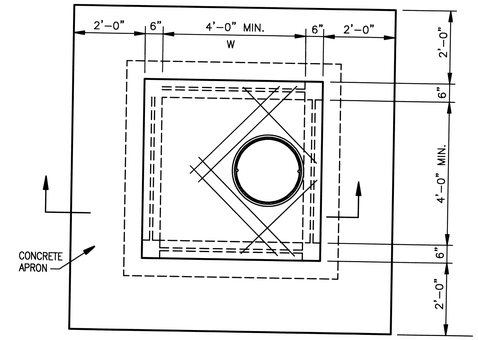


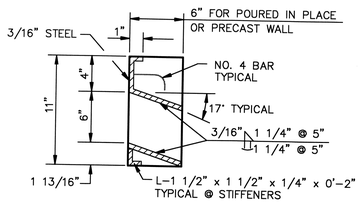
PLAN



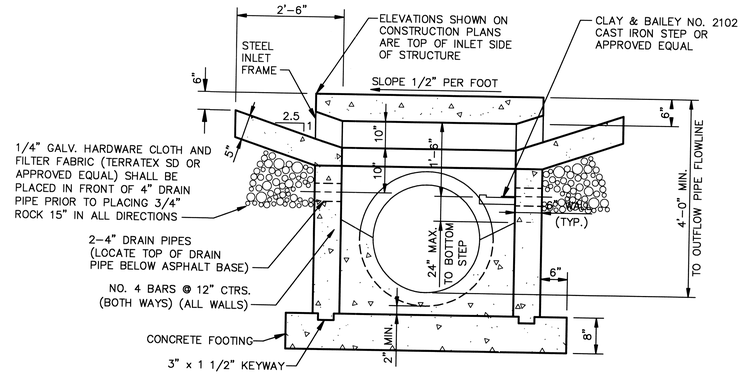
SECTION



PLAN – WITH 4 SIDE OPENINGS



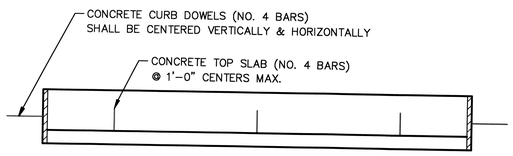
SECTION D–D (6" THROAT)



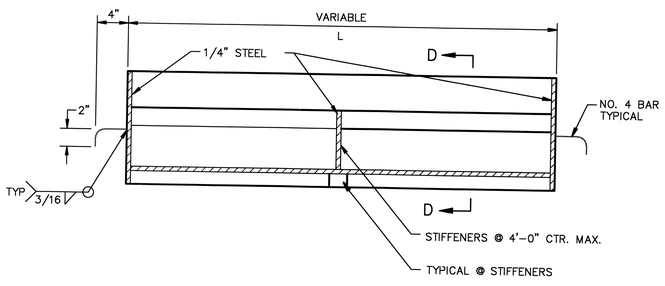
SECTION

NON–SETBACK CURB INLET NOTES

1. ALL STORM SEWER STRUCTURES SHALL BE PRE–CAST.
2. PRE–CAST SHOP DRAWINGS ARE TO BE APPROVED BY THE ENGINEER
3. DO NOT SCALE THESE DRAWINGS FOR DIMENSIONS OR CLEARANCES. ANY QUESTIONS REGARDING DIMENSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE CITY ENGINEER PRIOR TO CONSTRUCTION.
4. THE FIRST DIMENSION LISTED IN THE CONSTRUCTION NOTES IS THE "L" DIMENSION. THE SECOND DIMENSION IS THE "W" DIMENSION. THE CONCRETE THICKNESS AND REINFORCEMENT SHOWN IS FOR BOXES WITH ("L"+"H") AND ("W"+"H") LESS THEN OR EQUAL TO 20.
5. USED CLASS "A" CONCRETE (AE) THROUGHOUT
6. INLET FLOORS SHALL BE SHAPED WITH NON–REINFORCED CLASS "A" CONCRETE (AE) INVERTS TO PROVIDE SMOOTH FLOW.
7. BEVEL ALL EXPOSED EDGES WITH ¾" TRIANGULAR MOLDING. REINFORCING STEEL
8. PIPE CONNECTIONS TO PRE–CAST STRUCTURES SHALL HAVE A MINIMUM OF 6" OF CONCRETE AROUND THE ENTIRE PIPE WITHIN 2' OF THE STRUCTURE.
9. MATERIAL SELECTION AND COMPACTION REQUIREMENTS FOR BACKFILL AROUND STRUCTURES SHALL BE COMPACTED TO 90% STANDERED POCTER
10. ON–GRADE INLETS SHALL CONFORM TO THE STREET GRADE AND SUMP INLETS SHALL BE LEVEL.
11. STEEL INLET FRAME SPACERS SHALL BE PLACED AT EQUAL SPACINGS NOT TO EXCEED 4'-0".
12. CAST IRON STEPS TO BE CLAY & BAILEY 2102 OR APPROVED EQUAL. STEEL CORE, PLASTIC COATED STEPS MAY BE USED (M.A. IND.,INC. NO. PS1–PF, PS2–PF, OR APPROVED EQUAL). STEPS SHALL BE SPACED AT 1'–4" O.C. VERTICALLY. THE DISTANCE FROM THE LAST STEP TO THE TOP OF CONCRETE INVERT SHOULD BE A MAXIMUM OF 24".
13. ALL CURB INLET TOPS ARE TO BE CONSTRUCTED AFTER FINAL CURB STRING LINE HAS BEEN APPROVED BY THE ENGINEER AND PRIOR TO CURB CONSTRUCTION.



TOP VIEW



FRONT VIEW (6" THROAT)

STEEL INLET FRAME NOTES:

1. ALL WELDS SHALL BE PERFORMED IN ACCORDANCE WITH APPROPRIATE AWS SPECIFICATIONS AND PROCEDURES.
2. ALL WELDS ON EXPOSED SURFACES SHALL BE DRESSED SO AS TO PROVIDE A PLEASING FINISHED APPEARANCE.
3. THE ENTIRE FRAME SHALL BE HOT DIP ZINC COATED IN ACCORDANCE WITH ASTM A–123.

1 NON–SETBACK CURB INLET

NOT TO SCALE

AREA INLET NOTES

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5. USED CLASS "A" CONCRETE (AE) THROUGHOUT
6. INLET FLOORS SHALL BE SHAPED WITH NON–REINFORCED CLASS "A" CONCRETE (AE) INVERTS TO PROVIDE SMOOTH FLOW.
7. BEVEL ALL EXPOSED EDGES WITH ¾" TRIANGULAR MOLDING. REINFORCING STEEL
8. PIPE CONNECTIONS TO PRE–CAST STRUCTURES SHALL HAVE A MINIMUM OF 6" OF CONCRETE AROUND THE ENTIRE PIPE WITHIN 2' OF THE STRUCTURE.
9. MATERIAL SELECTION AND COMPACTION REQUIREMENTS FOR BACKFILL AROUND STRUCTURES SHALL BE COMPACTED TO 90% STANDERED POCTER

2 AREA INLET

NOT TO SCALE

NO.	DATE	REVISIONS	BY	APP'D
5				
4				
3				
2				
1				

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MISSOURI CERTIFICATE OF AUTHORITY: F0013950

Designed By: RW
Drawn By: ELM
Checked By: MMH
Issue Date: 1-11-10

MICHAEL MELVIN HALL
MISSOURI
MICHAEL MELVIN HALL
NUMBER E-30044
1-11-10
E-30044

SHAFER, KLINE & WARREN, INC.
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573/442-4537 FAX: 573/442-4543
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Macon, MO North Kansas City, MO Tulsa, OK
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MISSOURI DEPARTMENT OF TRANSPORTATION
JEFFERSON CITY, MISSOURI

WAREHOUSE RENOVATIONS PHASE II
STORM SEWER DETAILS

800160–040

SHEET NO.
C110

P:\800160-040_ACAD\CIVIL\800160-040-C-STM-00.DWG
LAYOUT: STORM SEWER BY: BRETARNOLD LLAWS DATE: 1/8/2010
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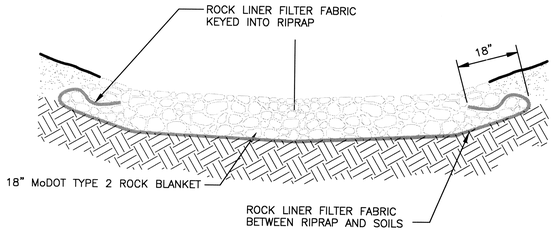
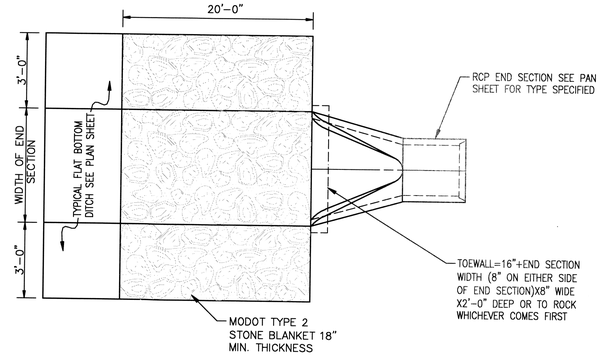
XREF DWG3: NONE XREF DWG4: NONE



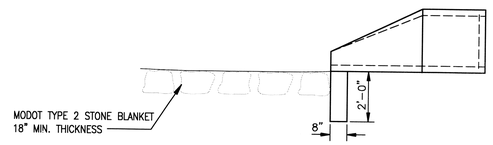
NOTE:
ROCK LINER FILTER FABRIC SHALL CONSIST OF A NON-WOVEN, POLYPROPYLENE TYPE FABRIC SUCH AS: AMOCO 4553 NON-WOVEN GEOTEXTILE FABRIC OR APPROVED EQUAL.

1 RIP RAP W / FILTER FABRIC

NOT TO SCALE



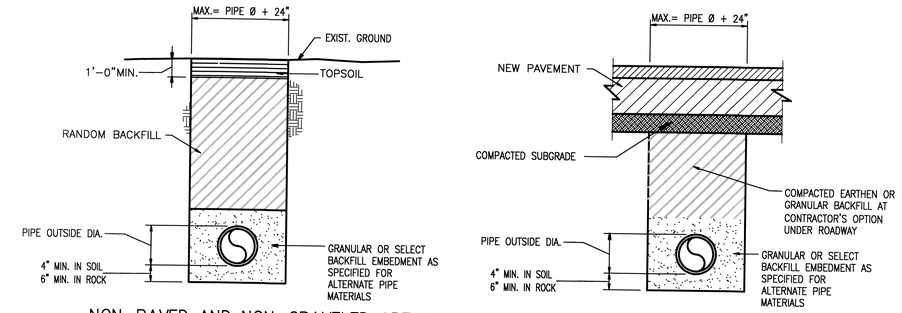
PLAN



ELEVATION

2 END SECTION DETAIL

NOT TO SCALE

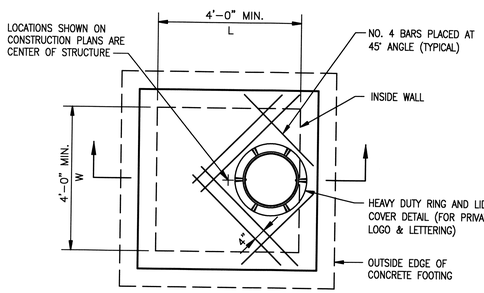


NON-PAVED AND NON-GRAVELED AREAS

PAVEMENT AREA

3 TRENCH DETAILS

NOT TO SCALE



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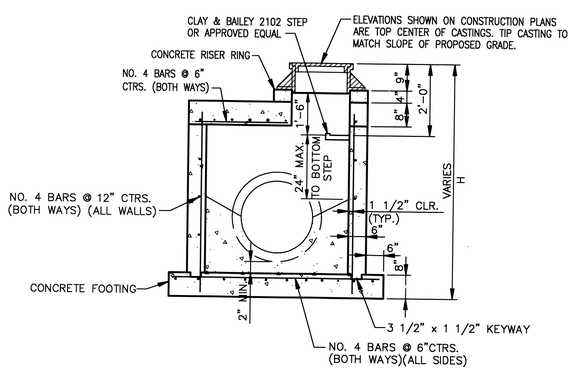

SECTION

4 JUNCTION BOX DETAILS

NOT TO SCALE

JUNCTION BOX NOTES

1. ALL STORM SEWER STRUCTURES SHALL BE PRE-CAST.
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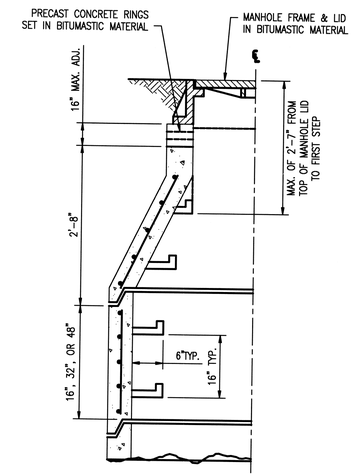
MATERIAL SELECTION AND COMPACTION REQUIREMENTS FOR BACKFILL AROUND STRUCTURES SHALL BE COMPACTED TO 90% STANDERED POCTER



BARREL SECTION

NOTES:
IF MORE THAN 16" OF ADJUSTMENT IS NEEDED ADJUST MANHOLE HEIGHT AS FOLLOWS:

IF MANHOLE IS OF BRICK CONSTRUCTION REMOVE CONE SECTION OR REMOVE BRICK COURSES TO AN ELEVATION LOW ENOUGH TO ALLOW FOR A PRECAST CONE SECTION TO BE PLACED TOGETHER WITH THE FRAME AND LID CASTINGS.

IF THE MANHOLE IS OF PRECAST CONSTRUCTION REMOVE CONE SECTION THEN REMOVE BARREL SECTIONS TO AN ELEVATION LOW ENOUGH TO ALLOW FOR THE PRECAST CONE SECTION TO BE REPLACED TOGETHER WITH THE FRAME AND LID CASTINGS.

5 MANHOLE ADJUSTMENT DETAIL

NOT TO SCALE

NO.	DATE	REVISIONS	BY	APP'D
5				
4				
3				
2				
1				

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MISSOURI CERTIFICATE OF AUTHORITY: F0013850

Designed By: RW
Drawn By: ELM
Checked By: MMH
Issue Date: 1-11-10

MICHAEL MELVIN HALL
STATE OF MISSOURI
MICHAEL MELVIN HALL
NUMBER E-30044
REGISTERED PROFESSIONAL ENGINEER
E-30044 1-11-10

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573/442-4537 FAX: 573/442-4543
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MISSOURI DEPARTMENT OF TRANSPORTATION
JEFFERSON CITY, MISSOURI

WAREHOUSE RENOVATIONS PHASE II
STORM SEWER DETAILS

800160-040

SHEET NO.
C120

P:\800160-040_ACAD\CIVIL\800160-040-C-STM-00.DWG
LAYOUT: STORM SEWER DETAILS DATE: 1/8/2010
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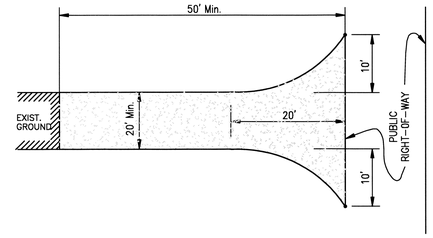
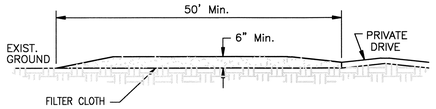


PLAN VIEW



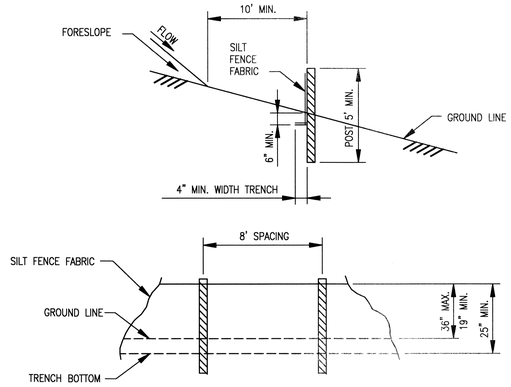
SIDE VIEW

CONSTRUCTION SPECIFICATIONS

1. STONE SIZE – USE 2" STONE, OR RECLAIMED OR RECYCLED EQUIVALENT.
2. LENGTH – AS REQUIRED, BUT NOT LESS THAN 50 FEET.
3. THICKNESS – NOT LESS THAN SIX (6) INCHES.
4. WIDTH – TWENTY (20) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 3:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS–OF–WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING – WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT–OF–WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AS NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

1 STABILIZED CONSTRUCTION ENTRANCE DETAIL

NOT TO SCALE



NOTES:
1. MINIMUM LONGITUDINAL SPLICE OVERLAP SHALL BE 2' WITH A POST AT EACH END.
2. SECURE FABRIC TO POST.
3. POST SHALL BE DRIVEN A MINIMUM 24" INTO GROUND.

3 SILT FENCE DETAILS

NOT TO SCALE

GENERAL EROSION CONTROL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING THIS STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AT THE TIME THE PROJECT BREAKS GROUND. A COPY OF THE SWPPP SHALL BE AVAILABLE ON SITE AT ALL TIMES.

2. THE EROSION CONTROL FEATURES, NOTES AND SPECIFICATIONS IN THIS SWPPP REPRESENT THE MINIMUM REQUIREMENTS ACCEPTABLE. LOCATIONS ARE TYPICAL AND MAY VARY ACCORDING TO CONTRACTOR'S STAGING AND LIMITS OF CONSTRUCTION. THE CONTRACTOR SHALL ADJUST, MODIFY AND ADD TO THIS PLAN AS NECESSARY TO CONTROL EROSION, SILTATION AND POLLUTION.

3. IT SHALL BE EACH CONTRACTOR'S RESPONSIBILITY TO CONTROL EROSION AND PREVENT POLLUTION FOR ALL WORK WHICH THEY ARE DIRECTLY INVOLVED.

4. EROSION CONTROL DEVICES ALONG THE DOWN SLOPE SIDE OF THE PROJECT SHALL BE IN PLACE PRIOR TO THE COMMENCEMENT OF ANY GRADING WORK.

5. WHEN POSSIBLE, WITHOUT ADVERSELY AFFECTING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL: MINIMIZE THE AMOUNT OF SURFACE AREA WHICH IS EXPOSED AT ONE TIME, LEAVE GRADED AREAS WITH A ROUGH TEXTURE, CONSTRUCT TEMPORARY TERRACES DURING GRADING OPERATIONS, AND LIMIT UNNECESSARY VEHICLE TRAFFIC IN GRADED AREAS.

6. THE SPILLAGE OF DEBRIS, INCLUDING THE TRACKING OF SOIL, OUTSIDE OF THE CONSTRUCTION LIMITS SHALL BE AVOIDED. THEREFORE THE CONTRACTOR SHALL PROVIDE STABILIZED DRIVES AT ALL ACCESS LOCATIONS AS NECESSARY AND SHALL REMOVE PROMPTLY ANY MATERIAL WHICH FINDS ITS WAY INTO THE PUBLIC RIGHT–OF WAY.

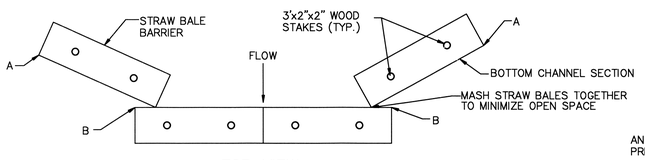
7. STRAW BALE DIKES OR SILT FENCES SHALL BE PLACED ON A CONTOUR ELEVATION ALONG THE DOWNHILL SIDE AND FOR THE FULL EXTENT OF THE DISTURBED AREAS WITHIN THE CONSTRUCTION LIMITS. THE LAST FIVE FEET ON EACH END OF RUN OF SILT FENCE/STRAW BALE DIKE SHALL BE PLACED FACING UPHILL AT 90 DEGREES TO THE CONTOUR LINE.

8. THE CONTRACTOR SHALL PREVENT SILT AND SEDIMENT FROM ENTERING THE STORM SEWER SYSTEM. STRAW BALE DIKES/SILT FENCE PLACED AROUND ALL STORM SEWER INLETS EXCEPT DURING CONSTRUCTION OPERATIONS WHICH REQUIRE THEIR REMOVAL IS ONE METHOD OF MEETING THE ABOVE REQUIREMENT.

9. EACH CONTRACTOR SHALL INSPECT THEIR EROSION CONTROL DEVICES EVERY 7 DAYS OR WITHIN 24 HOURS OF A STORM OF 0.5 INCHES OR MORE IN DEPTH. THE CONTRACTOR SHALL REPAIR DAMAGE, CLEAN OUT SEDIMENT AND ADD ADDITIONAL CONTROL DEVICES AS NEEDED AS SOON AS PRACTICABLE AFTER INSPECTION. DEFICIENCIES MUST BE CORRECTED WITHIN 7 DAYS OF INSPECTION.

10. ALL AREAS UPON REACHING FINAL GRADE SHALL BE BROUGHT TO FINAL PLAN CONDITION (PAVED, MULCHED AND SEEDED, SODDED, OR OTHER) AS SOON AS POSSIBLE. EROSION CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL ALL SOIL DISTURBING ACTIVITIES ARE COMPLETE AND A UNIFORM PERENNIAL COVER WITH A DENSITY OF 70 % (MINIMUM) FOR UNPAVED AREAS IS ESTABLISHED.

11. WHERE GRADED AREAS DRAIN ONTO PAVED AREAS, SILT FENCE/STRAW BALE DIKES SHALL BE PLACED AT THE BACK OF CURB TO PREVENT SILT FROM ENTERING THE PAVED AREAS. WHEN THESE EROSION CONTROL DEVICES ARE NOT PLACED ON THE CONTOUR, THEN THEY SHALL HAVE BE INSTALLED AT 50' INTERVALS AT 5' LENGTH PLACED AT 90 DEGREES TO THE CURB.



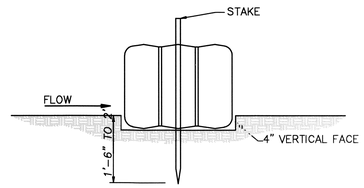
TOP VIEW

NOTES:
1. POINTS "A" SHOULD BE HIGHER THAN POINTS "B" TO INSURE FLOW THROUGH OR OVER BARRIER, NOT AROUND IT.
2. SEE PLANS FOR DITCH CHECK LOCATIONS.

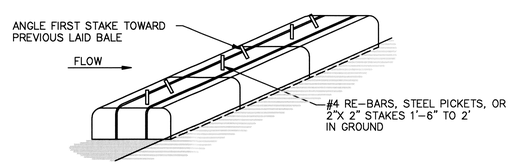
DITCH CHECK SPACING			
DITCH ℄ SLOPE %	SPACING (FT)	DITCH ℄ SLOPE %	SPACING (FT)
.05	400	5.5	38
1.0	200	6.0	35
1.5	133	6.5	30
2.0	100	7.0	28
2.5	80	7.5	26
3.0	66	8.0	25
3.5	57	8.5	23
4.0	50	9.0	22
4.5	44	9.5	21
5.0	40	10.0	20

2 TEMPORARY STRAW BALE DITCH CHECK

NOT TO SCALE



EMBEDDING DETAIL

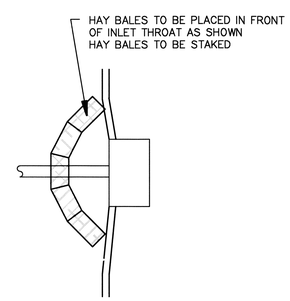


ANCHORING DETAIL

1. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4".
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR RE–BARS DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
4. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE BY THE OWNER.

4 STRAW BALE DIKE DETAIL

NOT TO SCALE



5 FIELD AND CURB INLET DETAIL

NOT TO SCALE

NO.	DATE	REVISIONS	BY	APP'D
1				
2				
3				
4				
5				

Designed By: RW
Drawn By: ELM
Checked By: MMH
Issue Date: 1-11-10

MICHAEL MELVIN HALL
NUMBER E-30044
1-11-10
E-30044

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CIVIL ENGINEERS ELECTRICAL ENGINEERS MECHANICAL ENGINEERS STRUCTURAL ENGINEERS LANDSCAPE ARCHITECTS LAND SURVEYORS LAND PLANNERS

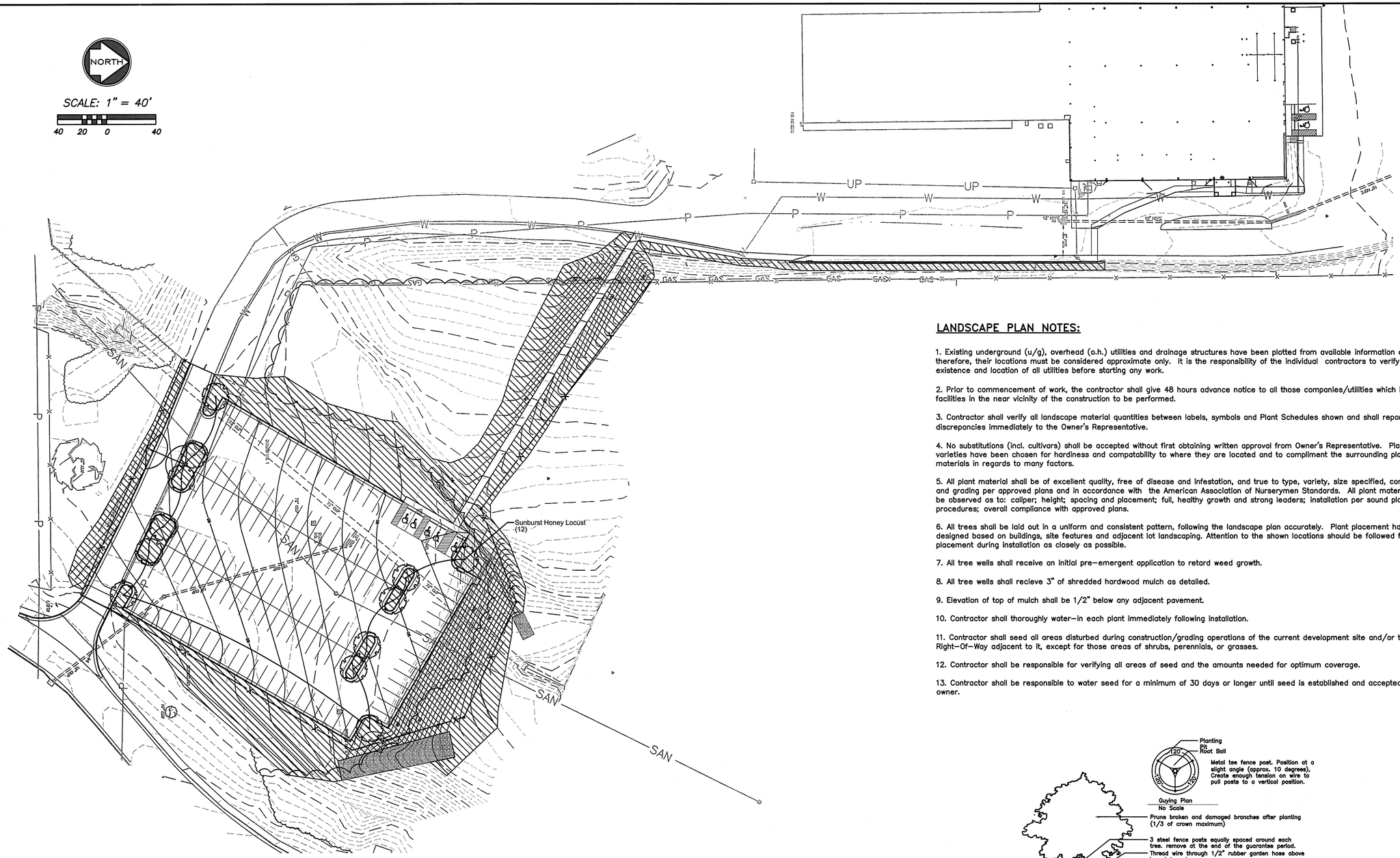
MISSOURI DEPARTMENT OF TRANSPORTATION
JEFFERSON CITY, MISSOURI

WAREHOUSE RENOVATIONS PHASE II
EROSION CONTROL DETAILS

800160–040

SHEET NO.
C130

P:\800160-040_ACAD\DWG\800160-040-C-ERD-001.DWG
LAYOUT: EROSION CONTROL DETAILS DATE: 1/8/2010
XREF DWG1: NONE XREF DWG2: NONE
XREF DWG3: NONE XREF DWG4: NONE



LANDSCAPE PLAN NOTES:

1. Existing underground (u/g), overhead (o.h.) utilities and drainage structures have been plotted from available information and therefore, their locations must be considered approximate only. It is the responsibility of the individual contractors to verify existence and location of all utilities before starting any work.

2. Prior to commencement of work, the contractor shall give 48 hours advance notice to all those companies/utilities which have facilities in the near vicinity of the construction to be performed.

3. Contractor shall verify all landscape material quantities between labels, symbols and Plant Schedules shown and shall report any discrepancies immediately to the Owner's Representative.

4. No substitutions (incl. cultivars) shall be accepted without first obtaining written approval from Owner's Representative. Plant varieties have been chosen for hardiness and compatability to where they are located and to compliment the surrounding plant materials in regards to many factors.

5. All plant material shall be of excellent quality, free of disease and infestation, and true to type, variety, size specified, condition and grading per approved plans and in accordance with the American Association of Nurserymen Standards. All plant material will be observed as to: caliper; height; spacing and placement; full, healthy growth and strong leaders; installation per sound planting procedures; overall compliance with approved plans.

6. All trees shall be laid out in a uniform and consistent pattern, following the landscape plan accurately. Plant placement has been designed based on buildings, site features and adjacent lot landscaping. Attention to the shown locations should be followed for placement during installation as closely as possible.

7. All tree wells shall receive an initial pre-emergent application to retard weed growth.

8. All tree wells shall recieve 3" of shredded hardwood mulch as detailed.

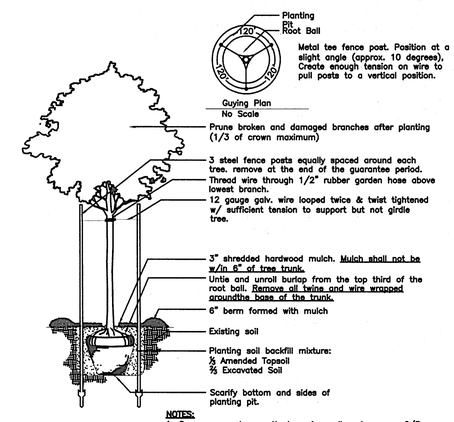
9. Elevation of top of mulch shall be 1/2" below any adjacent pavement.

10. Contractor shall thoroughly water-in each plant immediately following installation.

11. Contractor shall seed all areas disturbed during construction/grading operations of the current development site and/or the Right-Of-Way adjacent to it, except for those areas of shrubs, perennials, or grasses.

12. Contractor shall be responsible for verifying all areas of seed and the amounts needed for optimum coverage.

13. Contractor shall be responsible to water seed for a minimum of 30 days or longer until seed is established and accepted by the owner.



NOTES:
1. On evergreen trees, attach guying collar at approx. 2/3 height of tree on trees that are 6 ft. height and over.
2. Top of rootball shall match original ground level as grown in the nursery.
3. Do not fertilize the first growing season.

Section
Tree Planting Detail
No Scale

PLANT SCHEDULE

TREES	QTY	BOTANICAL/COMMON	CONT	CAL
	12	Gleditsia triacanthos 'Sunburst' / Sunburst Honey Locust	B & B	2"Cal

GROUND COVERS	QTY	BOTANICAL/COMMON	CONT
	45,642 sf	Turf Sod 90% Fescue, 10% Bluegrass	seed

NO.	DATE	REVISIONS	BY	APP'D
1				
2				
3				
4				
5				

Designed By: SMM
Drawn By: SMM
Checked By: MJG
Issue Date: 12-30-09

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MISSOURI DEPARTMENT OF TRANSPORTATION
JEFFERSON CITY, MISSOURI

WAREHOUSE RENOVATIONS PHASE II
SITE LANDSCAPE PLAN

800130-040
SHEET NO.
L1.00

LAYOUT: LAYOUT1	BY: RWILLIAMS	DATE: 1/8/2010
XREF DWG1: NONE	XREF DWG2: NONE	
XREF DWG3: NONE	XREF DWG4: NONE	

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CHAPTER 1: ADMINISTRATION

BUILDING CODE
2006 INTERNATIONAL BUILDING CODE
IBC 101.4 REFERENCED CODES: ICC ELECTRICAL CODE, INTERNATIONAL FUEL GAS CODE, INTERNATIONAL MECHANICAL CODE, INTERNATIONAL PLUMBING CODE, INTERNATIONAL PROPERTY MAINTENANCE CODE, INTERNATIONAL FIRE CODE, AND THE INTERNATIONAL ENERGY CONSERVATION.

BUILDING AUTHORITY
BUILDING REGULATIONS DIVISION, DEPT. OF COMMUNITY DEVELOPMENT - CITY OF JEFFERSON, MO.

DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE:
IBC 106.3.4.1 GENERAL: THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE OF THIS PROJECT IS MATTHEW J. RIMILLER, PRINCIPAL ARCHITECT OF RIMILLER ARCHITECTS LLC. THE RDP IS RESPONSIBLE FOR REVIEWING AND COORDINATING SUBMITTAL DOCUMENTS PREPARED BY OTHERS, INCLUDING PHASED AND DEFERRED SUBMITTAL ITEMS, FOR COMPATIBILITY WITH THE DESIGN OF THE BUILDING.
IBC 106.3.4.2 DEFERRED SUBMITTALS: THE FOLLOWING PORTIONS OF THE DESIGN WILL NOT BE SUBMITTED AT THE TIME OF APPLICATION, BUT SHALL BE SUBMITTED TO THE BUILDING OFFICIAL WITHIN A PERIOD SPECIFIED BY THE BOONE COUNTY PLANNING AND BUILDING INSPECTION:
1. AUTOMATIC SPRINKLER SYSTEM

CHAPTER 2: DEFINITIONS

CONTRACTOR SHALL MAINTAIN ACCESS TO THE 2006 INTERNATIONAL BUILDING CODE FOR DEFINITIONS OF TERMS THAT MAY APPEAR IN THESE DOCUMENTS.

CHAPTER 3: USE AND OCCUPANCY CLASSIFICATION

OCCUPANCY USE GROUP: MIXED USE (SEPARATED) B BUSINESS, S-1 MODERATE HAZARD STORAGE; S-2 LOW HAZARD STORAGE

CHAPTER 4: SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY

NONE

CHAPTER 5: GENERAL BUILDING HEIGHTS AND AREAS

TYPE IIB CONSTRUCTION

	ALLOWABLE TABLE 503	+	AREA INCREASE SPRINKLER %	+	AREA INCREASE FRONTAGE %	=	TOTAL AREA ALLOWABLE AFTER INCREASES
USE GROUP B	23,000		46,000		17,250		86,250SQ. FT.
USE GROUP S-1	17,500	+	35,000	+	13,125	=	65,625 SQ. FT.
USE GROUP S-2	26,000		52,000		19,500		97,500 SQ. FT.

PROPOSED BLDG HEIGHT AND AREA THESE DOCUMENTS:
BLDG. IS 2 STORIES,
BLDG. HEIGHT IS 24'-0",
SEE CHART OF RATIOS FOR FLOOR AREA

CHART OF RATIOS

	B $\frac{\text{TOTAL}}{\text{ALLOW}}$ = RATIO	S-1 $\frac{\text{TOTAL}}{\text{ALLOW}}$ = RATIO	S-2 $\frac{\text{TOTAL}}{\text{ALLOW}}$ = RATIO	*SUM OF RATIOS
SECOND FL	$\frac{9,231}{86,250} = 0.11$	"	"	*0.11
FIRST FL	$\frac{26,367}{86,250} = 0.31$	$\frac{25,447}{65,625} = 0.39$	$\frac{19,415}{97,500} = 0.20$	*0.90

*SECTION 508.3.3.2 - SUM OF RATIOS SHALL NOT EXCEEDE A VALUE OF 1 (FOR EACH FLOOR).

CHAPTER 6: TYPES OF CONSTRUCTION

FIRE RATINGS FOR BUILDING ELEMENTS - **IIB CONSTRUCTION TYPE** (TABLE 601)

STRUCTURAL FRAME (INCLUDING COLUMNS GIRDERS AND TRUSSES)		0 HR.
	WHEN SUPPORTING ROOF ONLY	0 HR.
BEARING WALLS separation distance = x	EXTERIOR - SEPARATION DISTANCE: x ≥ 30. (TABLE 602)	0 HR.
	INTERIOR	0 HR.
NON-BEARING WALLS AND PARTITIONS separation distance = x	EXTERIOR - SEPARATION DISTANCE: x ≥ 30. (TABLE 602)	0 HR.
	INTERIOR	0 HR. U.N.O.
FLOOR CONSTRUCTION (INCLUDING SUPPORTING BEAMS AND JOISTS)		0 HR.
ROOF CONSTRUCTION (INCLUDING SUPPORTING BEAMS AND JOISTS)		0 HR.

CHAPTER 7 FIRE-RESISTANT MATERIALS & CONSTRUCTION

EXTERIOR WALLS - FIRE RESISTANCE RATING (SECTION 704)

704.5 - FIRE RESISTANCE RATINGS: SEE CHAPTER 6
704.8 - ALLOWABLE AREA OF OPENINGS:

PLAN NORTH SIDE: NO LIMIT OF UNPROTECTED OPENINGS
PLAN SOUTH SIDE: NO LIMIT OF UNPROTECTED OPENINGS
PLAN WEST SIDE: NO LIMIT UNPROTECTED OPENINGS
PLAN EAST SIDE: NO LIMIT TO UNPROTECTED OPENINGS

FIRE WALLS - FIRE RESISTANCE RATING (SECTION 705.4)

MIXED OCCUPANCIES: NONSEPARATED	NOT REQ'D.

FIRE BARRIERS - FIRE RESISTANCE RATING (SECTION 706.3)

SHAFT ENCLOSURES (SECTION 707.4.)		1 HR
EXIT ENCLOSURES (SECTION 1020.1)	ELEVATORS CONNECTING LESS THAN 4 STORIES	1 HR
	UNENCLOSED STAIRS PER 1020.1-EXCEPTION 9	NOT REQ'D.
NOTE:1020.1.2 PENETRATIONS ARE PROHIBITED EXCEPT: EXIT DOORS, EQUIPMENT AND DUCTWORK NECESSARY FOR INDEPENDANT PRESSURIZATION, SPRINKLER PIPING, STANDPIPES, ELECTRICAL RACEWAY FOR FIRE DEPT. COMMUNICATION AND ELECTRICAL RACEWAY SERVING THE EXIT PASSAGEWAY AND TERMINATING AT A STEEL BOX NOT TO EXCEED 16 SQ. INCHES. SEE PENITRATION DETAILS.		
EXIT PASSAGEWAY (SECTION 1021.3)	*NOT LESS THAN THAT REQUIRED FOR ANY CONNECTING EXIT ENCLOSURE	N/A
NOTE:1021.5 PENETRATIONS ARE PROHIBITED EXCEPT: EXIT DOORS, EQUIPMENT AND DUCTWORK NECESSARY FOR INDEPENDANT PRESSURIZATION, SPRINKLER PIPING, STANDPIPES, ELECTRICAL RACEWAY FOR FIRE DEPT. COMMUNICATION AND ELECTRICAL RACEWAY SERVING THE EXIT PASSAGEWAY AND TERMINATING AT A STEEL BOX NOT TO EXCEED 16 SQ. INCHES. SEE PENITRATION DETAILS.		
HORIZONTAL EXIT (SECTION 1022.2)		N/A
ATRIUMS		N/A
INCIDENTAL USE AREAS		N/A
CONTROL AREAS		N/A
SEPARATION OF MIXED OCCUPANCIES	*NOT REQ'D BETWEEN B AND S-1 AREAS, OTHERWISE -	1 HR.
SINGLE OCCUPANCY FIRE AREAS		NOT REQ'D.

FIRE PARTITIONS - FIRE RESISTANCE RATING (SECTION 708.3)

CORRIDOR WALLS (TABLE 1017.1)	B, S-1 OR S-2: SPRINKLERED	0 HR.

PENETRATIONS
SEE FIRE PENETRATION DETAILS

CHAPTER 8: INTERIOR FINISHES

SECTION 803.5 - INTERIOR WALL AND CEILING FINISH SHALL HAVE A FLAME SPREAD INDEX NOT GREATER THAN THAT SPECIFIED IN TABLE 803.5 (SEE BELOW).

TABLE 803.5 INTERIOR WALL AND CEILING FINISH REQUIREMENTS BY OCCUPANCY:

	SPRINKLERED		
	EXIT ENCLOSURES AND EXIT PASSAGEWAYS	CORRIDORS	ROOMS AND ENCLOSED SPACES
GROUP B	CLASS B	CLASS C	CLASS C
GROUP S	CLASS C	CLASS C	CLASS C

CHAPTER 9: FIRE PROTECTION SYSTEMS

SECTION 903.2.5 - SPRINKLER SYSTEM **REQUIRED. (MODIFY EXISTING)**

SECTION 906 - PORTABLE FIRE EXTINGUISHERS SHALL BE PROVIDED IN OCCUPANCIES AND LOCATIONS AS REQUIRED BY THE INTERNATIONAL FIRE CODE.
IFC 906.3:PROVIDE A CLASS 2-A FIRE EXTINGUISHER EVERY 75' OF TRAVEL DISTANCE

SECTION 907 - FIRE ALARM AND DETECTION SYSTEM **REQUIRED**
MANUAL FIRE ALARM BOX REQUIRED UNLESS SPRINKLER SYSTEM CONTAINS AN ALARM NOTIFICATION APPLIANCE THAT WILL ACTIVATE UPON SPRINKLER WATER FLOW. CONTRACTOR SHALL VERIFY AND NOTIFY ARCHITECT IN WRITING.

CHAPTER 10: MEANS OF EGRESS

	OCCUPANT LOAD (TABLE 1004.1.1)		
	B BUSINESS AREA/100 GROSS	S-1 STORAGE AREA/300 GROSS	S-2 STORAGE AREA/200 GROSS
SECOND FLOOR	11,536/100 = 115		
FIRST FLOOR	24,414/100 = 244	25,443/300 = 84	19,392/200 = 96

TOTAL BUILDING OCCUPANT LOAD: *539 people

*SEE ROOM SCHEDULE FOR ACTUAL OCCUPANT LOADS

EXIT ACCESS TRAVEL DISTANCE (IBC 2006, TABLE 1016.1)
S-1 = 250'
B = 300'
S-2 = 400'

COMMON PATH OF EGRESS TRAVEL (IBC 2006, SECTION 1014.3)
B OR S = 100'

MIN. CORRIDOR WIDTH SHALL NOT BE LESS THAN 44" (SECTION 1017.2.)
MIN. STAIR WIDTH SHALL NOT BE LESS THAN 44" (SECTION 1009.1)

SECTION 1019
2 EXITS REQUIRED PER FLOOR

CHAPTER 11: ACCESSIBILITY

ACCESSIBLE PARKING SPACES PROVIDED - SEE CIVIL DRAWINGS

SECTION 1110 SIGNAGE: REQUIRED ACCESSIBLE ELEMENTS SHALL BE IDENTIFIED BY THE INTERNATIONAL SYMBOL OF ACCESSIBILITY AT THE FOLLOWING LOCATIONS:
1. ACCESSIBLE PARKING SPACES 2. ACCESSIBLE PASSENGER LOADING ZONES 3. ACCESSIBLE ENTRANCES 4. UNISEX TOILET AND BATHING ROOMS.

CHAPTER 16: STRUCTURAL DESIGN

SEE STRUCTURAL DRAWINGS

CHAPTER 27,28,29: ELECTRICAL, MECHANICAL, PLUMBING

SEE MEP DRAWINGS

ABBREVIATIONS

A.C.T.	ACOUSTIC CEILING TILE	F.O.S.	FACE OF STUD	R.D.L.	ROOF DRAIN LEADER
A.F.F.	ABOVE FINISH FLOOR	F.R.P.	FIBERGLASS REINFORCED PANEL	R.O.	ROUGH OPENING
ADJ.	ADJACENT			RAD.	RADIUS
ALT.	ALTERNATE	F.R.T.	FIRE RETARDANT TREATED	REINF.	REINFORCEMENT
ALUM.	ALUMINUM	F.S.	FLOOR SINK	REQD.	REQUIRED
APPROX.	APPROXIMATE	FIN.	FINISH	RES.	RESILIENT
ARCH.	ARCHITECT	FL.	FLOOR	RM.	ROOM
BD.	BOARD	GALV.	GALVANIZED	S.C.	SOLID CORE
BLDG.	BUILDING	GWB	GYPSUM WALL BOARD	S.F.	SQUARE FOOT
C.A.	CLEAR ANODIZED	GYP.	GYPSUM	SHT.	SHEET
C.G.	CORNER GUARD	HGT.	HEIGHT	SIM.	SIMILAR
C.J.	CONTRACTION JOINT	HORIZ.	HORIZONTAL	ST.	STAIN
C.M.U.	CONCRETE MASONRY UNIT	HR.	HOUR	STD.	STANDARD
C.T.	CERAMIC TILE	ID.	INSIDE DIAMETER	STG.	STAGGER TOP AND BOTTOM
CEM.	CEMENT	INSUL.	INSULATION	STL.	STEEL
CER.	CERAMIC	JST.	JOIST	STOR.	STORAGE
CLG.	CEILING	JT.	JOINT	STRUCT.	STRUCTURE
COL.	COLUMN	LAM.	LAMINATE	SUSP.	SUSPENDED
CONC.	CONCRETE	LAV.	LAVATORY	SYNTH.	SYNTHETIC
CONT.	CONTINUOUS	M.O.	MASONRY OPENING	T.O.S.	TOP OF STEEL
CORR.	CORRIDOR	MACH.	MACHINE	TEL.	TELEPHONE
D.S.	DOWNSPOUT	MAX.	MAXIMUM	THK.	THICKNESS
DET.	DETAIL	MECH.	MECHANICAL	TYP.	TYPICAL
DIA.	DIAMETER	MIN. OR MN.	MINIMUM	U.N.O.	UNLESS NOTED OTHERWISE
DN.	DOWN	MISC.	MISCELLANEOUS	UTIL.	UTILITY
DWG.	DRAWING	MNT.	MOUNT, OR MOUNTED	V.C.T.	VINYL COMPOSITION TILE
E.I.F.S.	EXTERIOR INSULLATION AND FINISH SYSTEM	MTL.	METAL	V.W.C.	VINYL WALL COVERING
		N.I.C.	NOT IN CONTRACT	VERT.	VERTICAL
E.J.	EXPANSION JOINT	N.T.S.	NOT TO SCALE	W.P.	WATER PROOFING
E.O.S.	EDGE OF SLAB	NO.	NUMBER	W.W.F.	WELDED WIRE FABRIC
EA.	EACH	O.C.	ON CENTER	W/	WITH
ELEC.	ELECTRICITY	O.F.C.I.	OWNER FURNISHER AND CONTRACTOR INSTALLED	W/O	WITHOUT
ELEV.	ELEVATOR			WC.	WATER CLOSET
EQ.	EQUAL	O.R.D.	OVERFLOW ROOF DRAIN	WD.	WOOD
EXIST.	EXISTING	OD.	OUTSIDE DIAMETER	WT.	WEIGHT
EXP.	EXPANSION	OPP.	OPPOSITE		
EXT.	EXTERIOR	P.L. OR PLAM	PLASTIC LAMINATE		
F.D.	FLOOR DRAIN	P.T.	PRESSURE TREATED		
F.E.	FIRE EXTINGUISHER	PLYWD.	PLYWOOD		
F.E.C.	FIRE EXTINGUISHER CABINET	PNT.	PAINT		
F.H.C.	FIRE HOSE CABINET	Q.T.	QUARRY TILE		
F.O.B.	FACE OF BRICK				

PROJECT GENERAL NOTES

RIMILLER ARCHITECTS LLC CERTIFIES TO THE BEST OF OUR KNOWLEDGE AND INFORMATION, AND IN ACCORDANCE WITH ACCEPTED PROFESSIONAL STANDARDS, WE HAVE COMPLIED WITH APPLICABLE GOVERNING CODES PERTAINING TO BUILDING ACCESSIBILITY FOR THE PHISICALLY HANDICAPPED AND THE AMERICANS WITH DISABILITIES ACT (ADA) TITLE III ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES.

IN THE EVENT OF CONFLICTS, EXPLANATORY NOTES IN THE DRAWINGS TAKE PRECEDENCE OVER GRAPHIC INDICATIONS; LARGE-SCALE DRAWINGS AND DETAILS TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS, AND FIGURED DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. ALL DIMENSIONS MUST BE VERIFIED ON THE JOB AND THE ARCHITECT MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.

IF AND TO THE EXTENT OF ANY INCONSISTENCY, AMBIGUITY, DISCREPANCY, OR ERROR IN THE CONTRACT DOCUMENTS (REFERRED TO AS "DISCREPANCY" COLLECTIVELY IN THIS PARAGRAPH), THE CONTRACTOR SHALL IMMEDIATELY SEEK CLARIFICATION FROM THE ARCHITECT. IN INTERPRETING THE CONTRACT DOCUMENTS, ALL TERMS AND CONDITIONS SHALL BE HARMONIZED AND EFFECTUATED, AND NONE SHALL BE RENDERED SUPERFLUOUS OR MEANINGLESS. IN THE EVENT OF A DISCREPANCY THAT CANNOT BE HARMONIZED, THE INTERPRETATION THAT IMPOSES THE MOST STRINGENT PERFORMANCE OBLIGATION ON THE CONTRACTOR SHALL CONTROL.

THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION AND WORK OF ALL SUBCONTRACTORS.

THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO INSURE THAT THE INSTALLATION AND WORKMANSHIP OF ALL MATERIAL AND EQUIPMENT IS PERFORMED IN STRICT ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.

THE CONTRACTOR SHALL FURNISH ALL EQUIPMENT, MATERIALS AND LABOR. EXCEPT AS OTHERWISE SPECIFIED, AND PERFORM ALL WORK REQUIRED BY THIS CONTRACT, IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND SPECIFICATIONS.

THE CONTRACTOR ALONE SHALL BE RESPONSIBLE FOR THE SAFETY, EFFICIENCY, AND ADEQUACY OF HIS PLANT, APPLICANTS, AND METHODS, AND FOR ANY DAMAGE WHICH MAY RESULT FROM THEIR FAILURE OR THEIR IMPROPER CONSTRUCTION, MAINTENANCE OR OPERATION.

GENERAL CONTRACTOR, ALL OTHER CONTRACTORS, AND ALL SUBCONTRACTORS SHALL COORDINATE THEIR WORK WITH ALL ADJACENT WORK AND SHALL COOPERATE WITH ALL OTHER TRADES SO AS TO FACILITATE GENERAL PROGRESS OF THE WORK. EACH TRADE SHALL AFFORD OTHER TRADES EVERY REASONABLE OPPORTUNITY FOR INSTALLATION OF THEIR WORK AND FOR STORAGE OF THEIR MATERIALS.

CONTRACTOR SHALL IN ALL CASES, SCHEDULE AND COMPLETE WORK SO AS TO MINIMIZE DOWN TIME AND INCONVENIENCE TO THE TENANTS INCLUDING BUT NOT LIMITED TO WORKING DURING TENANT CLOSED HOURS WHEN POSSIBLE.

CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL DIMENSIONAL VARIATIONS FROM THOSE SHOWN ON THE DRAWINGS WITH ALL TRADES AFFECTED. THE CONTRACTORS BID SHALL REFLECT THESE VARIATIONS.

ALL REFERENCES TO CODES, SPECIFICATIONS, AND STANDARDS IN THE DRAWINGS SHALL MEAN, AND ARE INTENDED TO BE, THE LATEST EDITION. AMENDMENT AND/OR REVISION OF SUCH REFERENCE STANDARD IN EFFECT AS OF THE DATE OF THESE CONTRACT DOCUMENTS.

THE CONTRACTOR IS TO PAY FOR ALL TESTS, PERMITS, LICENSES, CONSTRUCTION TAXES, AND FEES REQUIRED BY THE CITY, COUNTY, AND STATE LAWS, EXCEPT GENERAL BUILDING PLAN CHECK FEE WHICH WILL BE PAID BY THE OWNER. INCLUDE IN ALL CONTRACTS, NECESSARY EXPENSES TO COMPLY WITH ALL SUCH LAWS, ORDINANCES, REGULATIONS, FEES PERMITS AND TAXES. ARRANGE FOR ALL METER INSTALLATIONS AND UTILITY CONNECTIONS AND PAY FOR THESE FEES.

IT IS RECOMMENDED THAT THE SITE BE VISITED PRIOR TO SUBMISSION OF ANY BID. NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES FOUND WITHIN THE CONSTRUCTION DOCUMENTS.

DRAWINGS AND SPECIFICATIONS ARE INTENDED TO SHOW AND DESCRIBE DETAILS FOR A COMPLETE BUILDING. EXECUTE PARTS AND DETAILS NOT FULLY SHOWN OR DESCRIBED ACCORDING TO STANDARD AND CUSTOMARY TRADE PRACTICES AND IN SIMILAR MANNER AND SPIRIT OF DETAILS WHICH ARE SHOWN ON DRAWINGS OR DESCRIBED IN SPECIFICATIONS.

FOLLOW SPECIFICATIONS AND WRITTEN NOTES AND SCHEDULES IN PREFERENCE TO INFORMATION FURNISHED IN THE FORM OF LINE DRAWINGS.

FIGURED DIMENSIONS SHALL BE FOLLOWED IN PREFERENCE TO SCALE. AND DETAIL DRAWINGS IN PREFERENCE TO SMALL SCALE DRAWINGS.

DETAILS WHICH IN THE OPINION OF THE CONTRACTOR ARE UNSOUND, UNSAFE OR NOT WATERPROOF SHALL BE CONVEYED TO THE ARCHITECT IN WRITING PRIOR TO CONSTRUCTION.

OPERABLE PARTS (SWITCHES, RECEPTICALS, ETC) MUST COMPLY WITH ADA REACH RANGES - SEE FIG. 6 SHEET ADA-1.

Drawing List

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A0.2	OVERALL FIRE KEY	1-11-2010		
A0.3	ENLARGED FIRE KEY MAIN LEVEL	1-11-2010		
A0.4	ENLARGED FIRE KEY SECOND LEVEL	1-11-2010		
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A1.2	OVERALL SECOND LEVEL PLAN	1-11-2010		
A1.3	OVERALL ROOF PLAN	1-11-2010		
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A4.6	ENLARGED PLANS & DETAILS	1-11-2010		
A4.7	ENLARGED PLANS & DETAILS	1-11-2010		
A4.8	STAIR A DETAILS	1-11-2010		
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A4.10	STAIR C DETAILS	1-11-2010		
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A4.12	ENLARGED PLANS & DETAILS	1-11-2010		
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MISSOURI DEPARTMENT OF TRANSPORTATION: WAREHOUSE RENOVATION PHASE II

830 MoDOT Drive
Cole County - City of Jefferson, Missouri 65109

Revision Schedule

Revision Number	Revision Date

limited liability company

ISSUE DATE: 1-11-2010

PROJECT NUMBER: 09-031

STATE OF MISSOURI
MATTHEW JAMES RIMILLER
NUMBER A-2007019928
ARCHITECT
1-11-2010

RIMILLER ARCHITECTS

Rimiller Architects LLC
Missouri Certificate of Authority # A-2007030604
Matthew James Rimiller - Architect
MO.# A-2007019928

1630 WEST McCARTY STREET
JEFFERSON CITY, MISSOURI 65109

A0.1

BUILDING CODE INFORMATION

T. (573) 761-5600
F. (573) 761-5605

FIRE SAFETY SYMBOLS - NFPA 170

SYMBOLS FOR BUILDING CONSTRUCTION

WALLS

WALL (BASIC SYMBOL) | SMOKE BARRIER | 1/2 HR. FIRE RATED

1/2 HR. FIRE RATED / SMOKE BARRIER | 3/4 HR. FIRE RATED | 3/4 HR. FIRE RATED / SMOKE BARRIER

1 HR. FIRE RATED | 1 HR. FIRE RATED / SMOKE BARRIER | 2 HR. FIRE RATED

2 HR. FIRE RATED / SMOKE BARRIER | 3 HR. FIRE RATED | 3 HR. FIRE RATED / SMOKE BARRIER

4 HR. FIRE RATED | 4 HR. FIRE RATED / SMOKE BARRIER

SYMBOLS RELATED TO MEANS OF EGRESS

*REFER TO MEP DRAWINGS FOR FURTHER INFORMATION.

- EMERGENCY LIGHT, BATTERY-POWERED
- ILLUMINATED EXIT SIGN, SINGLE FACE
  INDICATE DIRECTION OF FLOW
- ILLUMINATED EXIT SIGN, DOUBLE FACE
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- REMOTE EMERGENCY LIGHT

SYMBOLS FOR PORTABLE FIRE EXTINGUISHERS

- Water Extinguisher - Portable Fire Extinguisher: Water-based, Class 2-A Type
- Foam Extinguisher - Portable Fire Extinguisher: Aqueous Film-Forming Foam, Class 2-A Type
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- Dry Chemical Extinguisher - Portable Fire Extinguisher: For Fires of All Types, Class ABC Type
- Carbon Dioxide Extinguisher - Portable Fire Extinguisher: Class BC Type
- Halon or Clean Agent - Portable Fire Extinguisher: Class ABC Type
- Metal/Sand Extinguishers - Portable Fire Extinguisher: Class D Type

SYMBOLS FOR PORTABLE FIRE EXTINGUISHERS

MOST REMOTE POINT.

POINT AT WHICH THE OCCUPANTS ARE PRESENTED WITH TWO SEPARATED AND DISTINCT PATHS OF EGRESS TRAVEL TO TWO EXITS.

A — COMMON PATH OF EGRESS TRAVEL — B — — — X:X

X:X

EXIT OR EXIT ACCESS DOORWAY ARRANGEMENT CONFORMS to SECT. 1015.2

EGRESS COMPONENT IDENTIFIER:
EXit = EXIT NUMBER
HE = HORIZONTAL EXIT
EP = EXIT PASSAGEWAY
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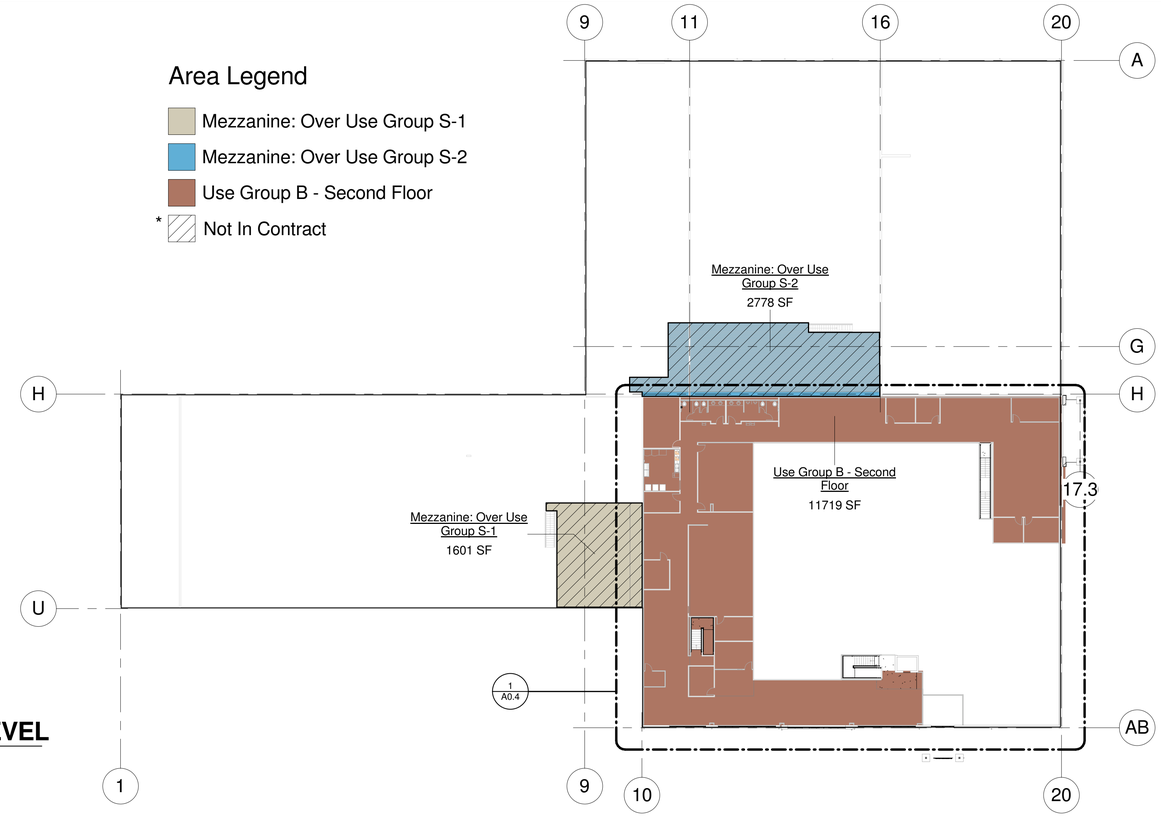
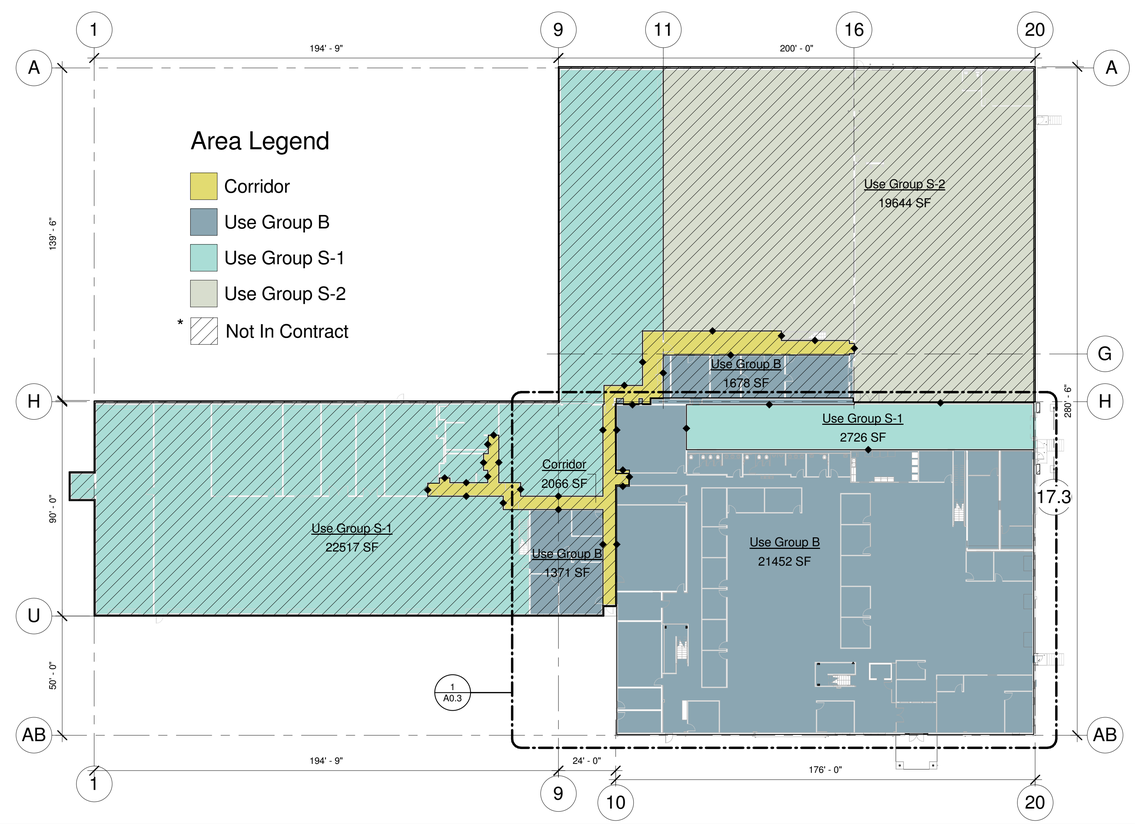
EGRESS COMPONENT CAPACITY (PEOPLE).



2 OVERALL FIRE KEY: SECOND LEVEL

1" = 30'-0"



1 OVERALL FIRE KEY: MAIN LEVEL

1" = 30'-0"

MISSOURI DEPARTMENT OF TRANSPORTATION: WAREHOUSE RENOVATION PHASE II

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RIMILLER ARCHITECTS

STATE OF MISSOURI — MATTHEW JAMES RIMILLER — NUMBER A-2007019928 — ARCHITECT — 1-11-2010

Rimiller Architects LLC
Missouri Certificate of Authority # A-2007030604
Matthew James Rimiller - Architect
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JEFFERSON CITY, MISSOURI 65109

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A0.2

OVERALL FIRE KEY

FIRE SAFETY SYMBOLS - NFPA 170

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- Carbon Dioxide Extinguisher - Portable Fire Extinguisher: Class BC Type
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SYMBOLS FOR PORTABLE FIRE EXTINGUISHERS

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EXIT OR EXIT ACCESS DOORWAY ARRANGEMENT COMPLIES WITH SEC. 10.9.4

X:X

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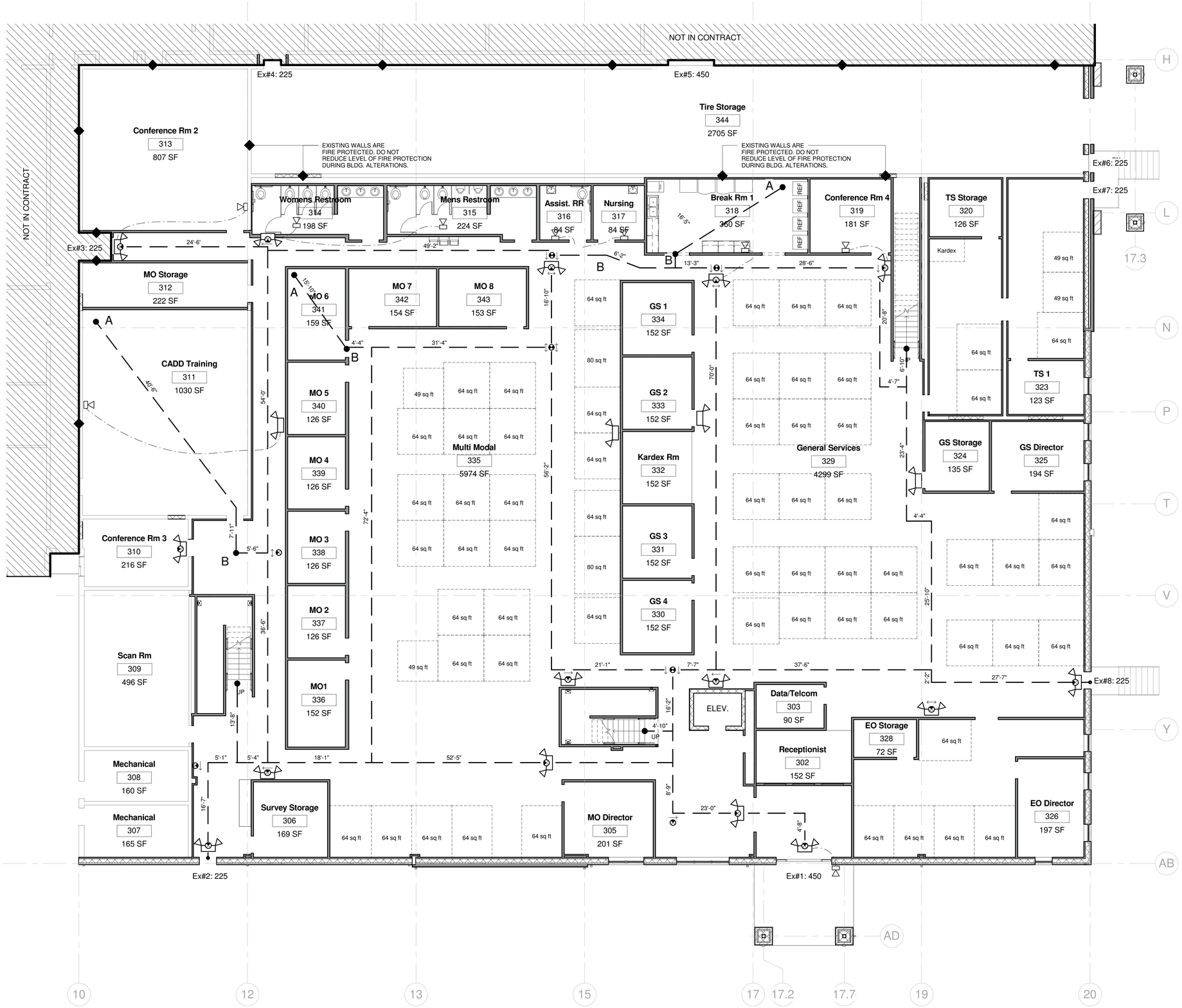

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STATE OF MISSOURI — MATTHEW JAMES RIMILLER — NUMBER A-2007019928 — ARCHITECT — 1-11-2010

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Rimiller Architects LLC
Missouri Certificate of Authority # A-2007030604
Matthew James Rimiller - Architect
MO.# A-2007019928
1630 WEST McCARTY STREET
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T. (573) 761-5600
F. (573) 761-5605

A0.3

ENLARGED FIRE KEY
MAIN LEVEL

1 ENLARGED FIRE KEY - MAIN LEVEL

1/8" = 1'-0"

FIRE SAFETY SYMBOLS - NFPA 170

SYMBOLS FOR BUILDING CONSTRUCTION

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EXIT OR EXIT ACCESS DOORWAY ARRANGEMENT COMPLIES W/ SECT. 1015.2

X:X

EGRESS COMPONENT IDENTIFIER:
EX# = EXIT NUMBER
HE = HORIZONTAL EXIT
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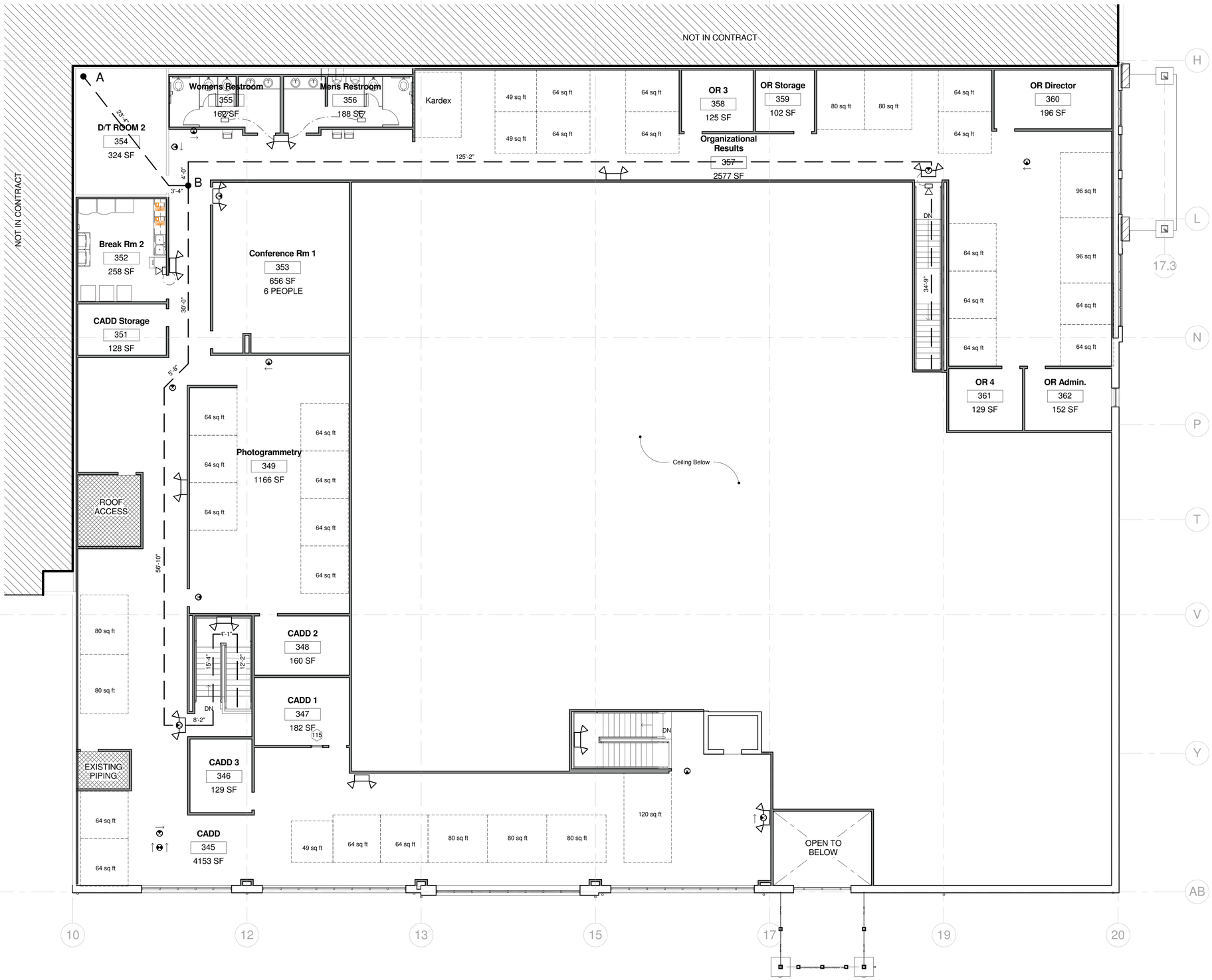

MISSOURI DEPARTMENT OF TRANSPORTATION: WAREHOUSE RENOVATION PHASE II

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STATE OF MISSOURI — MATTHEW JAMES RIMILLER — NUMBER A-2007019928 — ARCHITECT — 1-11-2010

Rimiller Architects LLC
Missouri Certificate of Authority # A-2007030604
Matthew James Rimiller - Architect
MO.# A-2007019928

limited liability company

RIMILLER ARCHITECTS

1630 WEST McCARTY STREET
JEFFERSON CITY, MISSOURI 65109

T. (573) 761-5600
F. (573) 761-5605

A0.4

ENLARGED FIRE KEY
SECOND LEVEL

1 ENLARGED FIRE KEY - SECOND LEVEL

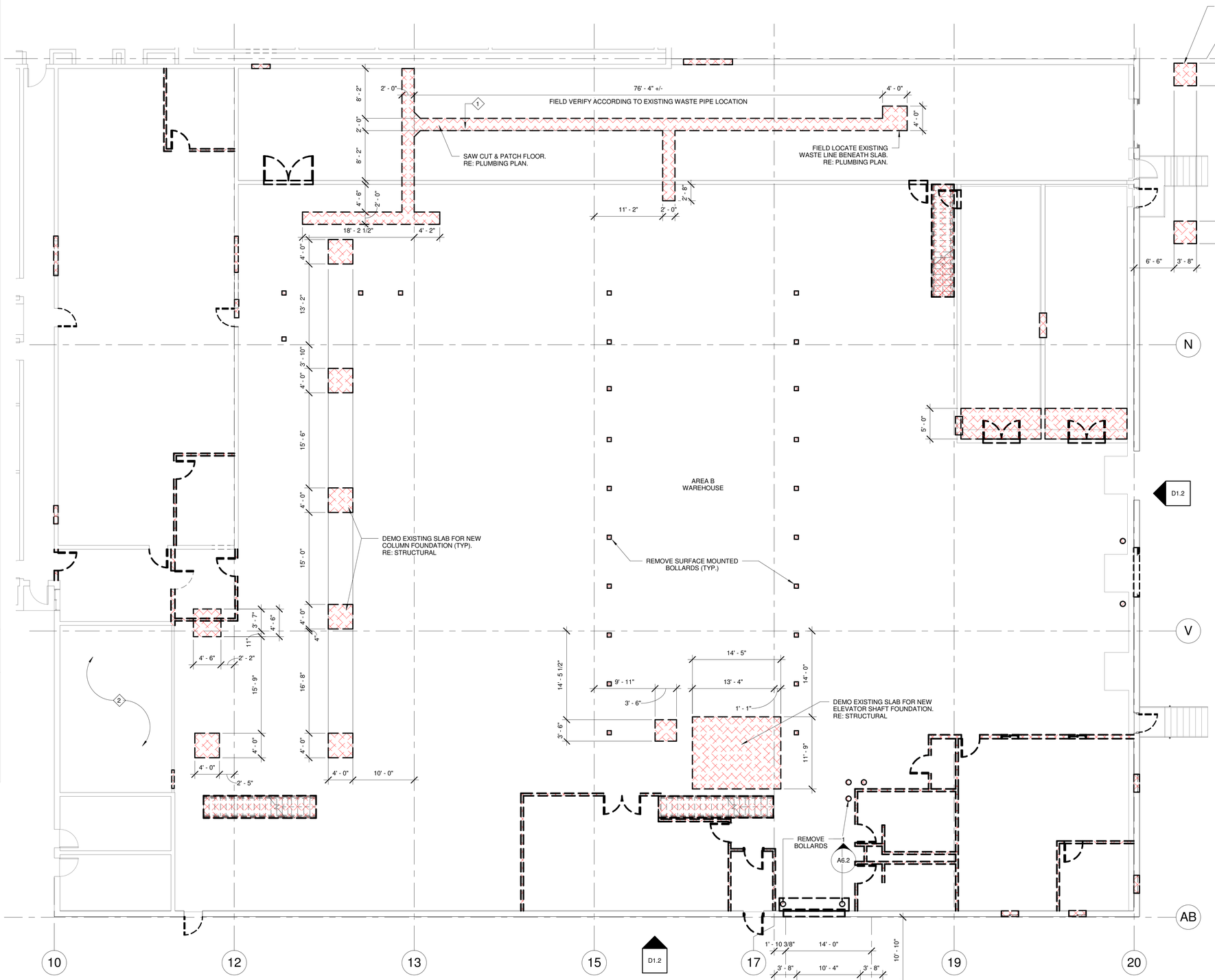
1/8" = 1'-0"

GENERAL DEMOLITION NOTES

1. DASHED LINES ON DEMOLITION PLAN INDICATE EXISTING MATERIALS TO BE REMOVED, UNLESS NOTED OTHERWISE. ANY DAMAGE RESULTING FROM CONSTRUCTION WILL BE REPAIRED TO ITS ORIGINAL STATE.
2. RIMILLER ARCHITECTS LLC ASSUMES NO RESPONSIBILITY FOR THE DETECTION OR REMOVAL OF ANY HAZARDOUS MATERIAL, INCLUDING BUT NOT LIMITED TO ASBESTOS, IN ANY FORM. PARTIES RESPONSIBLE FOR DEMOLITION SHALL NOTIFY OWNER IMMEDIATELY OF ANY SUSPECTED MATERIALS (REFER TO ARTICLE 10 OF AIA DOCUMENT A201 - CURRENT ADDITION). SEE PROJECT MANUAL.
3. ALL DEMOLITION EXPOSING THE INTERIOR OF THE BUILDING TO THE OUTSIDE ELEMENTS, SHALL BE PROPERLY CONCEALED AND PROTECTED TO PREVENT ANY DAMAGE FROM VANDALISM OR WEATHER DURING CONSTRUCTION.
4. ITEMS NOTED TO BE DEMOLISHED SHALL BE REMOVED AND DISPOSED OF IN A SAFE AND LAWFUL MANNER. SEE PROJECT MANUAL.
5. CONTRACTOR SHALL REMOVE AND STORE ALL ITEMS AS DIRECTED BY OWNER'S REPRESENTATIVE. CONTRACTOR SHALL DOCUMENT CONDITION OF ITEMS TO BE RELOCATED IN PROJECT. SEE PROJECT MANUAL.
6. ALL FURNISHINGS, AS WELL AS MISC. ITEMS, ATTACHED TO WALLS, FLOORS, AND CEILINGS SHALL BE RELOCATED OR REMOVED AND STORED AND PROTECTED BY THE OWNER. CONSULT AND COORDINATE WITH OWNER AND PROJECT MANUAL FOR ITEMS TO BE REMOVED OR RELOCATED.
7. WHERE ENTIRE WALLS ARE BEING DEMOLISHED, REWORK MECHANICAL LINES, PLUMBING LINES AND ELECTRICAL WIRES AS DIRECTED BY THE MEP DEMOLITION DRAWINGS.
8. THESE DEMOLITION DRAWINGS DO NOT PURPORT TO SHOW ALL LOCATIONS WHERE EXISTING CEILING SYSTEMS (GYP. BOARD AND CEILING TILE/GRID) WILL REQUIRE REMOVAL TO PERFORM ABOVE CEILING MECHANICAL, ELECTRICAL AND PLUMBING DEMOLITION ABOVE SPACES NOT OTHERWISE SCHEDULED FOR RENOVATION. THE EXTENT OF CEILING SYSTEM REMOVAL AND REPLACEMENT MATERIALS ARE TO BE NEW AND MATCHING IN APPEARANCE AND FINISH TO THE EXISTING. WHERE SEVERAL MATERIALS OF DIFFERENT FINISH EXIST IN ASSOCIATION, REPLACEMENT MATERIALS ARE TO MATCH THE NEWIST FINISH.
9. SHOULD CONTRACTOR DISCOVER EXISTING CONDITIONS AT VARIANCE WITH INFORMATION SHOWN ON DEMOLITION PLANS, IT IS THE INTENT OF THESE DRAWINGS TO HAVE THE CONFLICTING ITEMS REMOVED TO THE EXTENT REQUIRED TO FACILITATE NEW CONSTRUCTION.
10. EXISTING SURFACES TO RECEIVE NEW FINISHES SHALL BE PATCHED AND CLEANED AS REQUIRED TO RECEIVE NEW SURFACE TREATMENT.
11. AT WALLS SCHEDULED FOR DEMOLITION, REMOVE ALL MECHANICAL, PLUMBING, AND ELECTRICAL LINES LOCATED WITHIN THE WALL AND CAP OR AS OTHERWISE INDICATED ON THE MEP DRAWINGS. INVENTORY AND DELIVER TO OWNER ALL GAS OUTLETS, CALL DEVICES, FIRE ALARM DEVICES, LIFE SAFETY AUDIO/VISUAL EQUIPMENT, FIRE EXTINGUISHERS, EXIT SIGNAGE, THERMOSTATS AND ELECTRICAL/TELEPHONE OUTLETS REMOVED DURING DEMOLITION.
12. SALVAGE EXISTING PLUMBING FIXTURES AS DIRECTED BY OWNER.
13. ALL EQUIPMENT TO BE RELOCATED SHALL BE STORED AND PROTECTED FROM DAMAGE DURING CONSTRUCTION. EXISTING EQUIPMENT TO BE RELOCATED MAY REQUIRE TEMPORARY UTILITY CONNECTIONS; PROVIDE AS REQUIRED. ANY ITEMS DAMAGED BY CONTRACTOR OR SUB-CONTRACTOR (WHETHER SCHEDULED FOR RELOCATION OR NOT) CAUSED BY DEMOLITION OR NEW CONSTRUCTION OPERATIONS SHALL BE REPAIRED TO ITS ORIGINAL STATE. ALL COST ASSOCIATED WITH THE REPAIR SHALL BE BORNE BY THE CONTRACTOR. EXISTING MILLWORK, MISC. METALS, FIRE DETECTION, FIRE NOTIFICATION AND EXTINGUISHING EQUIPMENT, LIGHTING AND EMERGENCY EXIT FIXTURES AND PLUMBING FIXTURES SCHEDULED FOR REMOVAL BUT NOT REINSTALLATION/RELOCATION ARE TO BE DELIVERED TO THE OWNER. IF THE OWNER DOES NOT ACCEPT THE ITEMS, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DISPOSE OF THE ITEMS IN A LAWFUL MANNER. SEE PROJECT MANUAL.
14. CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF ALL SUPPORTS, ACCESSORIES, AND CONVEYANCES RELATED TO THE EQUIPMENT AND FIXTURES SHOWN TO BE REMOVED ON THE CONSTRUCTION DOCUMENTS.
15. REMOVE ALL DOORS, FRAMES AND HARDWARE IN PARTITIONS SHOWN TO BE DEMOLISHED. THESE ITEMS SHALL BE MADE AVAILABLE TO THE OWNER. ITEMS WHICH THE OWNER DOES NOT WISH TO KEEP SHALL BECOME THE PROPERTY OF THE CONTRACTOR. IF THE CONTRACTOR DOES NOT KEEP THE ITEMS, THE CONTRACTOR IS RESPONSIBLE FOR DISPOSING THE ITEMS IN A LAWFUL MANNER. SEE PROJECT MANUAL. SEE PROJECT MANUAL.
16. LEVEL FLOOR SLABS WHERE SLAB DEPRESSIONS HAVE BEEN LEFT BY THE REMOVAL OF EQUIPMENT.
17. PATCH AND SEAL ALL PENETRATIONS THROUGH RATED WALLS AND FLOORS (1HR., 2HR., SMOKE, ETC.) RESULTING FROM DEMOLITION WORK.
18. ALL FIREPROOFING SHALL BE PATCHED AND REPAIRED AT ALL COLUMNS AND BEAMS (IF EXISTING) WITHIN THE SCOPE OF WORK REQUIRED TO MEET LOCAL, STATE AND NATIONAL REQUIREMENTS.
19. REMOVE ALL EXPANSION JOINT COVERS, COVER PLATES AND OTHER ITEMS TO BE REPLACED IN SUBSEQUENT WORK.

KEYED DEMOLITION NOTES

1. COORDINATE WORK IN THE TIRE STORAGE AREA TO AVOID INTERUPTION OF NORMAL OPERATIONS. MAY REQUIRE WEEKEND WORK.
2. REMOVE CARPET TILE FLOORING IN THIS AREA. PREPARE FLOOR SURFACE FOR NEW FINISH.



1 DEMOLITION PLAN - MAIN LEVEL

1/8" = 1'-0"

MISSOURI DEPARTMENT OF TRANSPORTATION: WAREHOUSE RENOVATION PHASE II

830 MoDOT Drive
Cole County - City of Jefferson, Missouri 65109

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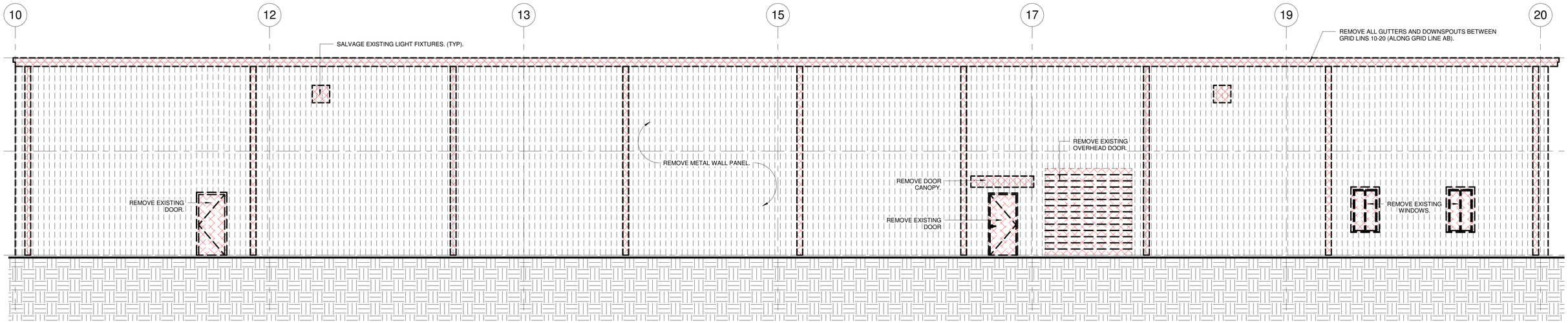
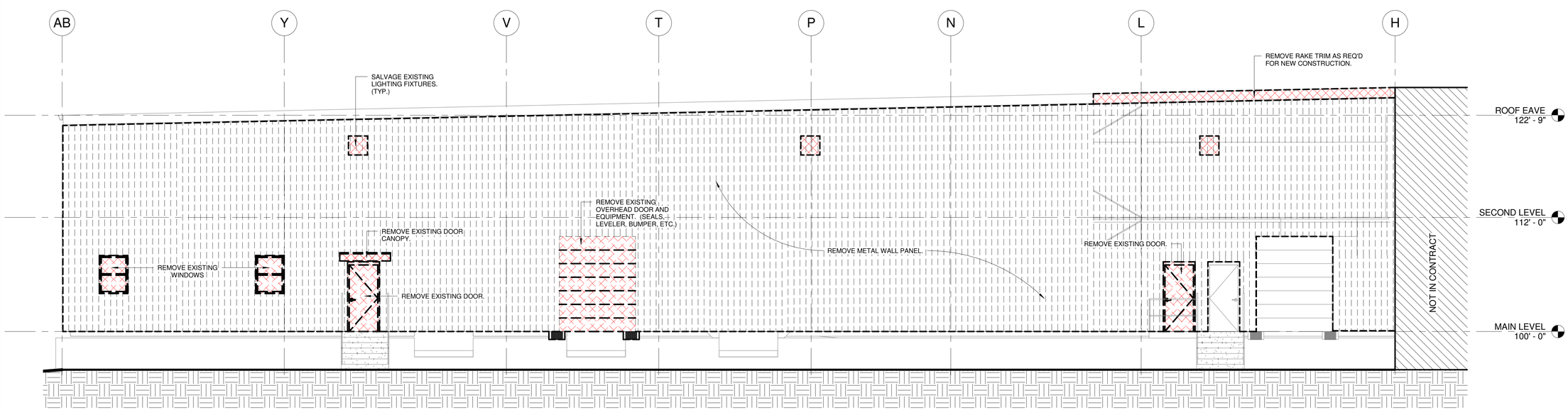
D1.1

DEMOLITION PLAN



1 EAST DEMOLITION ELEVATION

3/16" = 1'-0"



2 NORTH DEMOLITION ELEVATION

3/16" = 1'-0"

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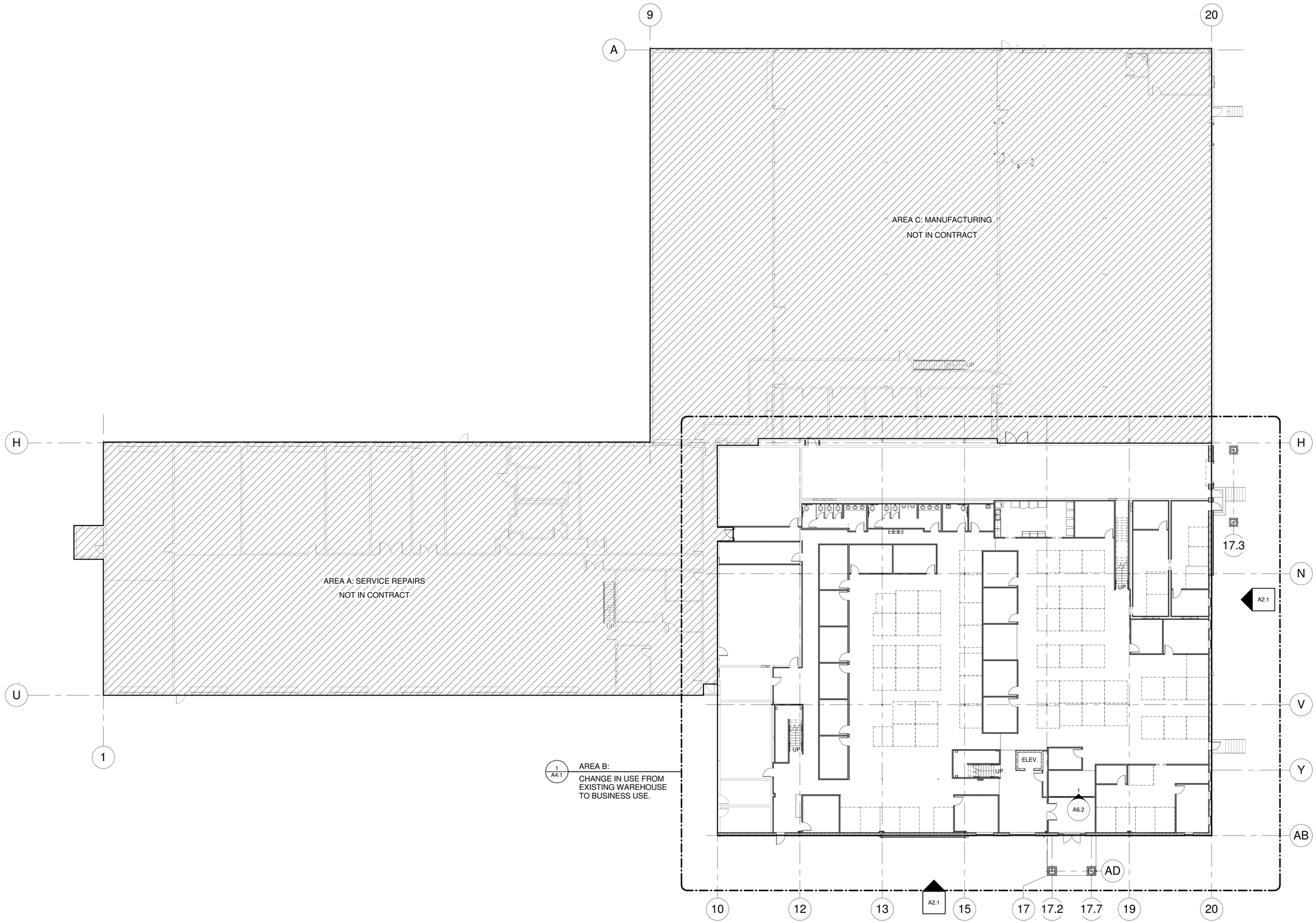
DEMOLITION ELEVATIONS



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1 **OVERALL MAIN LEVEL PLAN**
1/16" = 1'-0"

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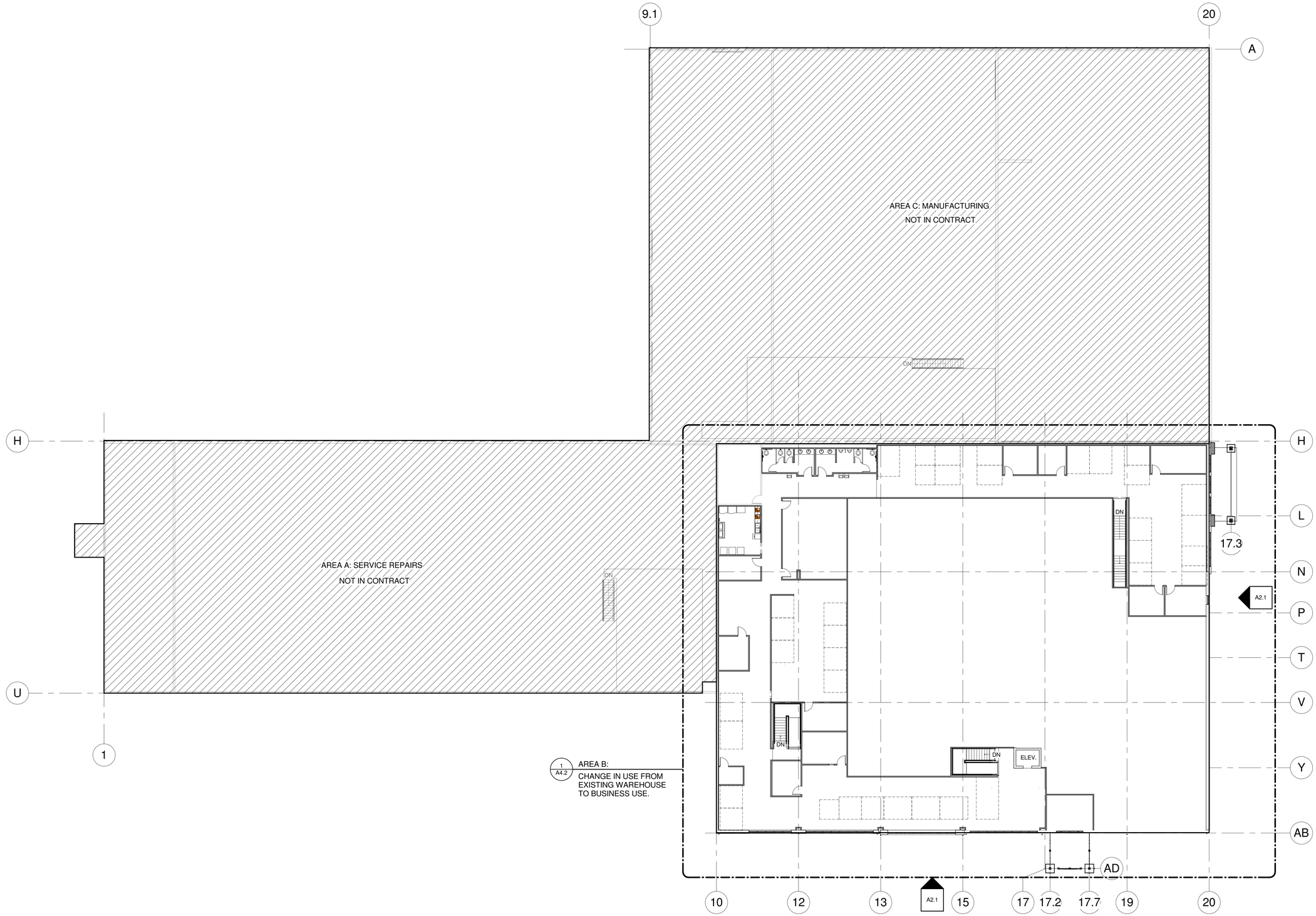
A1.1

OVERALL MAIN LEVEL PLAN



N

1 **OVERALL SECOND LEVEL PLAN**
1/16" = 1'-0"

MISSOURI DEPARTMENT OF TRANSPORTATION: WAREHOUSE RENOVATION PHASE II

830 MoDOT Drive
Cole County - City of Jefferson, Missouri 65109

Revision Schedule	
Revision Number	Revision Date

ISSUE DATE: 1-11-2010

PROJECT NUMBER: 09-031

STATE OF MISSOURI
MATTHEW JAMES RIMILLER
NUMBER A-2007019928
ARCHITECT
1-11-2010

RIMILLER ARCHITECTS
Rimiller Architects LLC
Missouri Certificate of Authority # A-2007030604
Matthew James Rimiller - Architect
MO.# A-2007019928
1630 WEST McCARTY STREET
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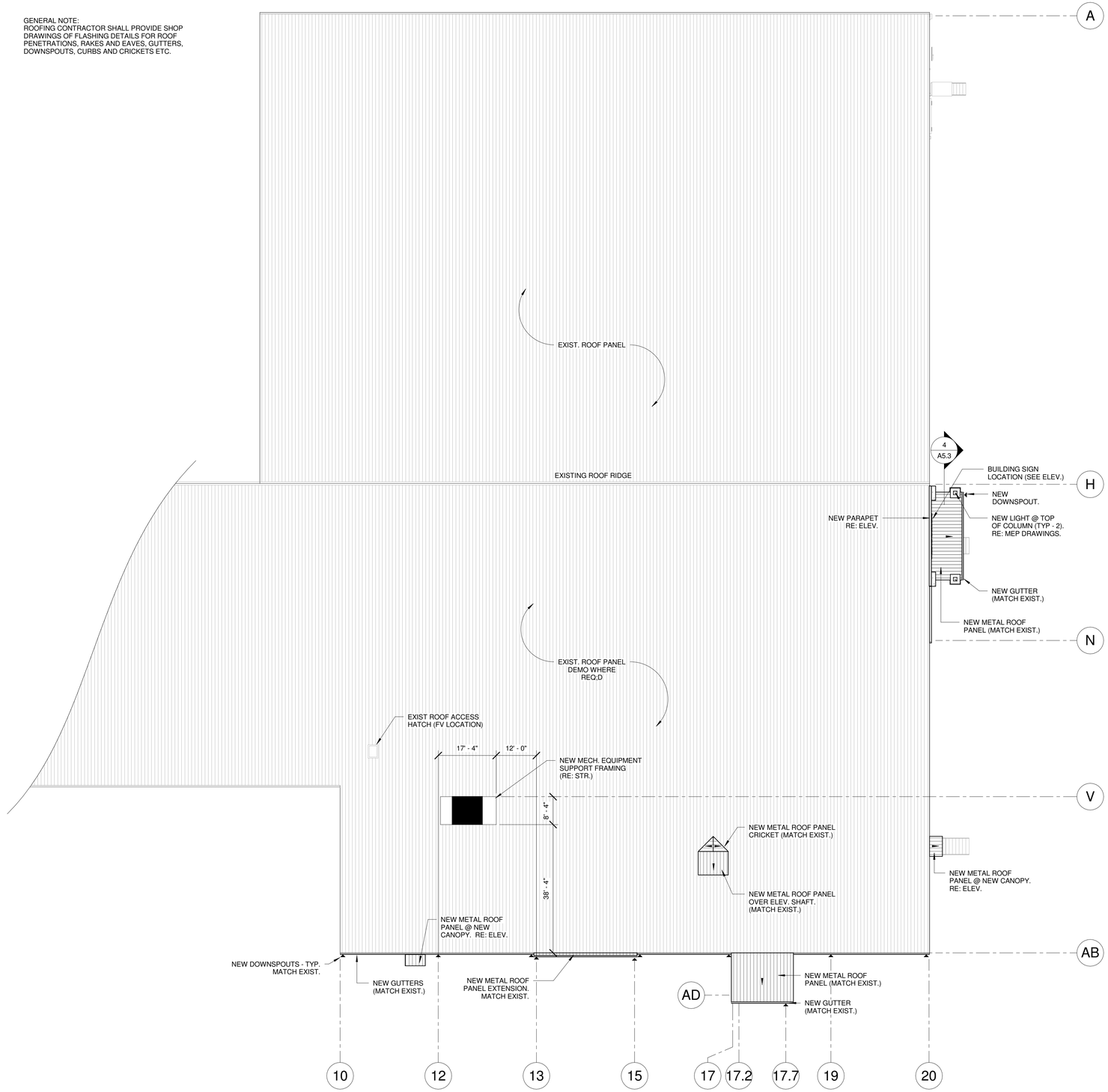
T. (573) 761-5600
F. (573) 761-5605

A1.2

OVERALL SECOND LEVEL PLAN

GENERAL NOTE:
ROOFING CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF FLASHING DETAILS FOR ROOF PENETRATIONS, RAKES AND EAVES, GUTTERS, DOWNSPOUTS, CURBS AND CRICKETS ETC.



1 OVERALL ROOF PLAN

1/16" = 1'-0"

MISSOURI DEPARTMENT OF TRANSPORTATION: WAREHOUSE RENOVATION PHASE II

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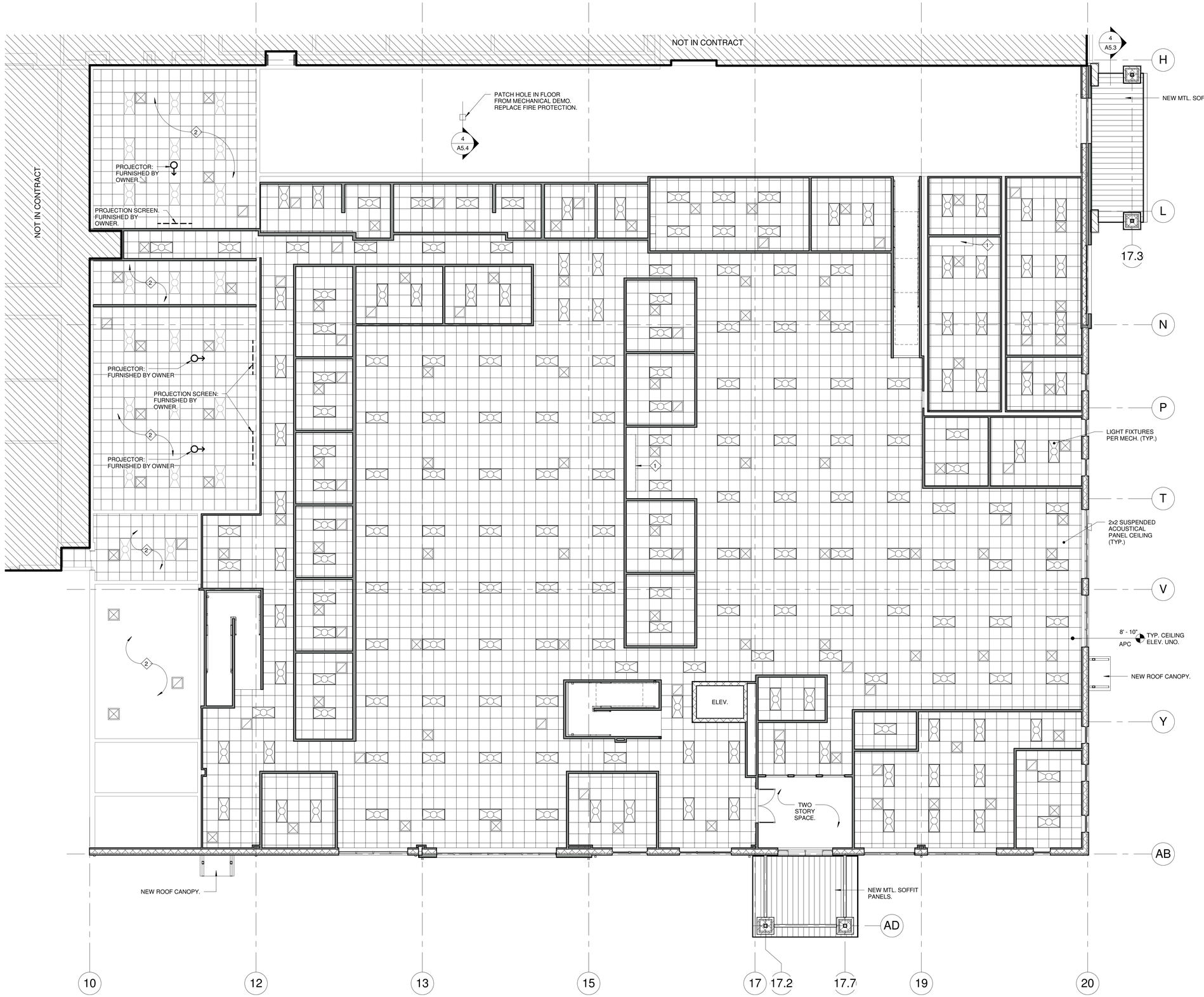
A1.3

OVERALL ROOF PLAN

KEYED NOTES

1. COORDINATE SOFFIT OPENING IN CEILING GRID TO ACCOMMODATE KARDEX MACHINE. VERIFY LOCATIONS AND DIMENSIONS WITH OWNER.

2. MODIFY EXISTING CEILING AS REQ'D. TO ACCOMMODATE NEW PARTITIONS AND MECHANICAL EQUIPMENT.



1 **ENLARGED REFLECTED CEILING PLAN - MAIN LEVEL**
1/8" = 1'-0"

MISSOURI DEPARTMENT OF TRANSPORTATION: WAREHOUSE RENOVATION PHASE II

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STATE OF MISSOURI
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1-11-2010

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Rimiller Architects LLC
Missouri Certificate of Authority # A-2007030604
Matthew James Rimiller - Architect
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JEFFERSON CITY, MISSOURI 65109

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F. (573) 761-5605

A1.4

ENLARGED REFLECTED CEILING PLAN MAIN LEVEL

KEYED NOTES

1. COORDINATE SOFFIT OPENING IN CEILING GRID TO ACCOMMODATE KARDEX MACHINE. VERIFY LOCATIONS AND DIMENSIONS WITH OWNER.

2. MODIFY EXISTING CEILING AS REQ'D. TO ACCOMMODATE NEW PARTITIONS AND MECHANICAL EQUIPMENT.

N

1 **ENLARGED REFLECTED CEILING PLAN - SECOND LEVEL**
1/8" = 1'-0"

MISSOURI DEPARTMENT OF TRANSPORTATION: WAREHOUSE RENOVATION PHASE II

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Missouri Certificate of Authority # A-2007030604
Matthew James Rimiller - Architect
MO.# A-2007019928

ARCHITECTS

1630 WEST McCARTY STREET
JEFFERSON CITY, MISSOURI 65109

RIMILLER

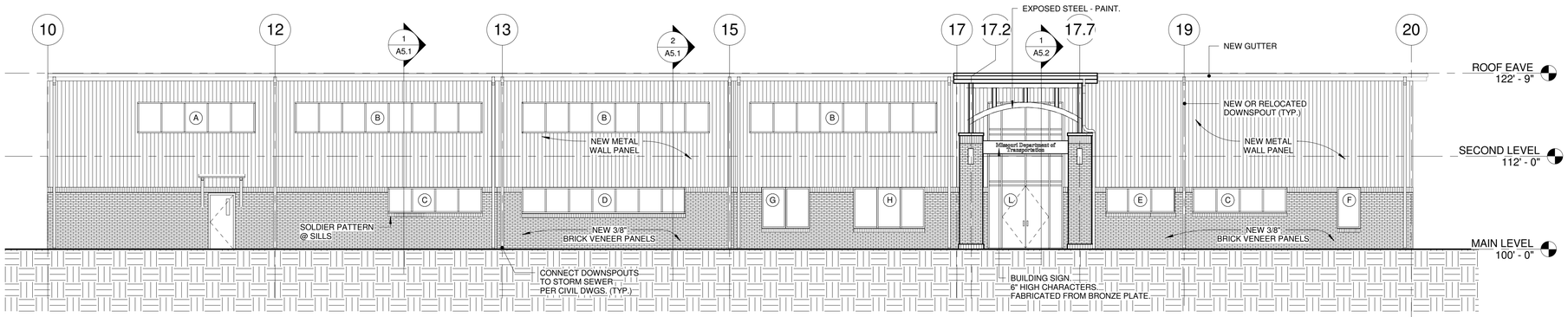
A1.5

ENLARGED REFLECTED CEILING PLAN SECOND LEVEL

T. (573) 761-5600
F. (573) 761-5605

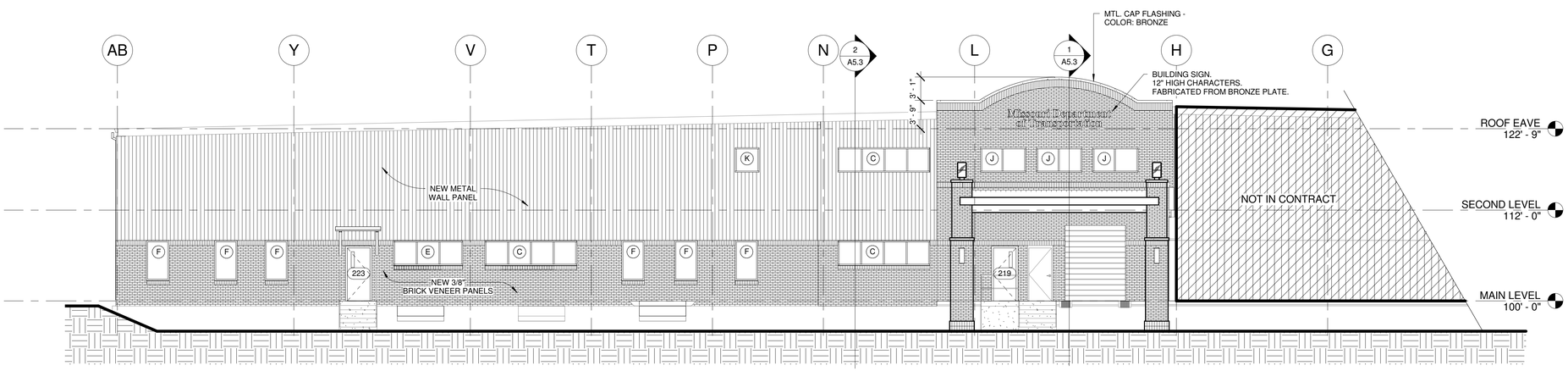
GENERAL NOTES:

1. STOREFRONT TYPES: SEE SHEET A6.2



1 EAST ELEVATION

1/8" = 1'-0"



2 NORTH ELEVATION

1/8" = 1'-0"

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Missouri Certificate of Authority # A-2007030604
Matthew James Rimiller - Architect
MO.# A-2007019928

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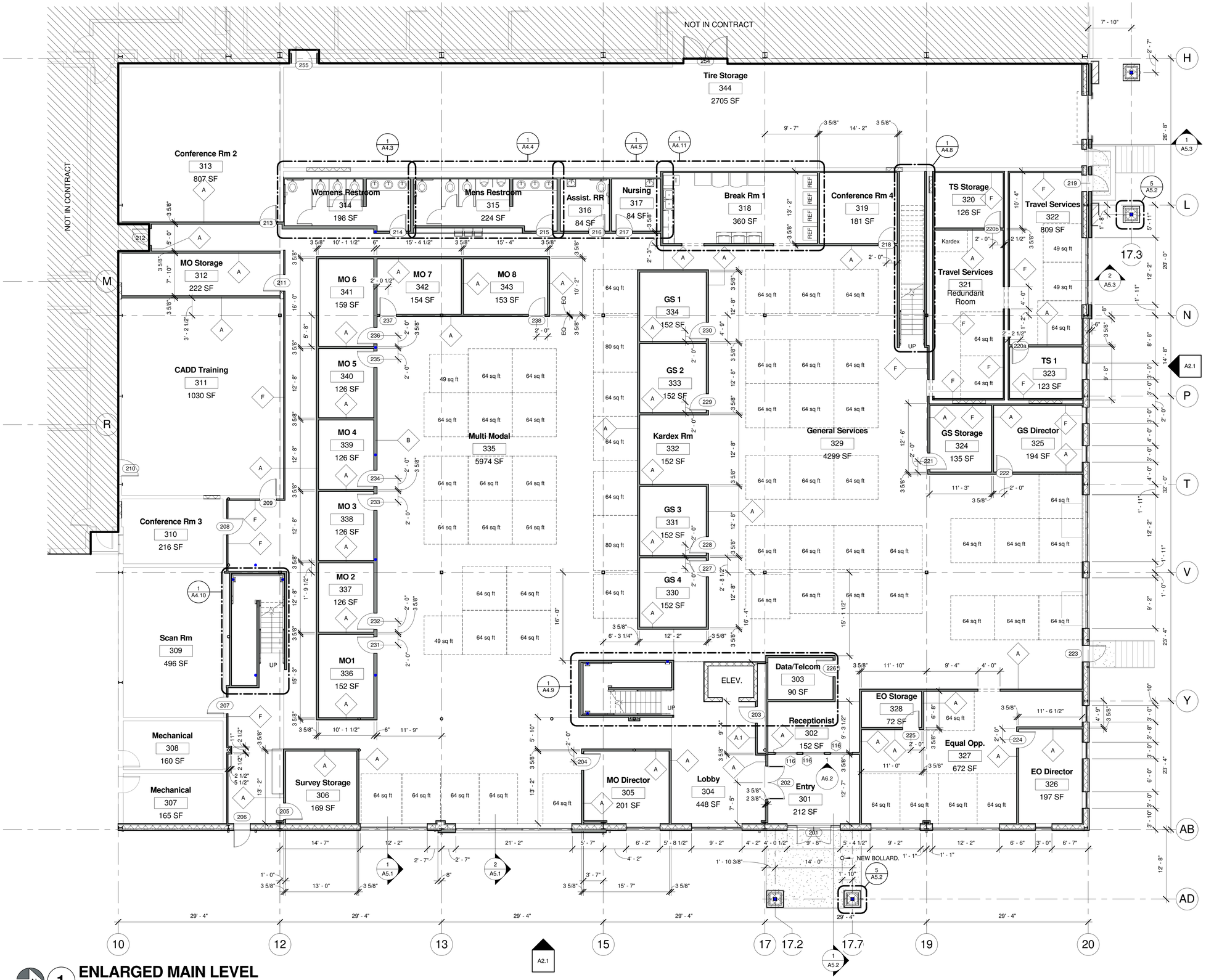
F. (573) 761-5605

A2.1

EXTERIOR ELEVATIONS

GENERAL NOTES:

1. WALL TYPES: SEE SHEET A6.1



MISSOURI DEPARTMENT OF TRANSPORTATION: WAREHOUSE RENOVATION PHASE II

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RIMILLER ARCHITECTS

Rimiller Architects LLC
Missouri Certificate of Authority # A-2007030604
Matthew James Rimiller - Architect
MO # A-2007019928

1630 WEST McCARTY STREET
JEFFERSON CITY, MISSOURI 65109

T. (573) 761-5600
F. (573) 761-5605

A4.1

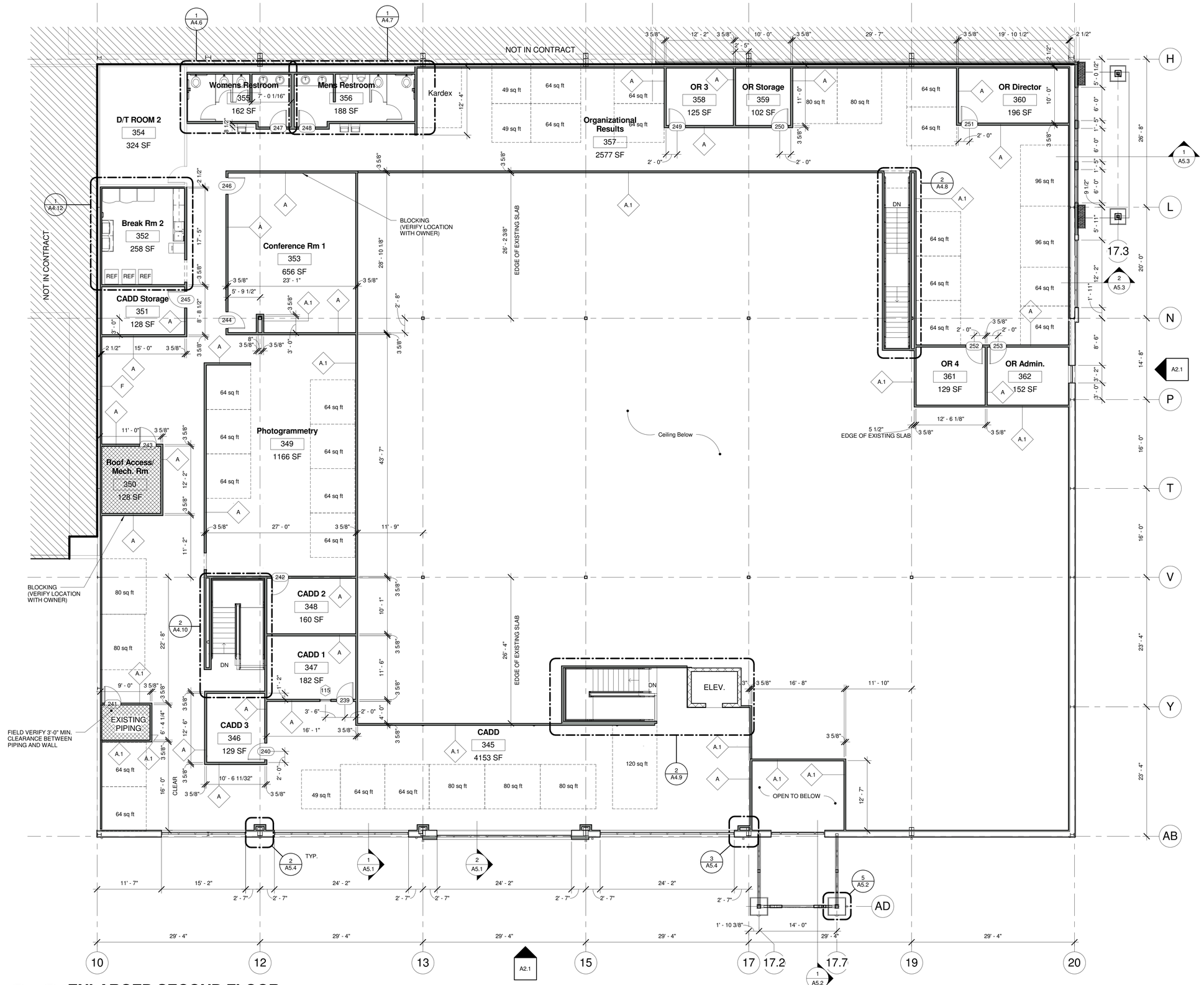
ENLARGED FLOOR PLAN
MAIN LEVEL

1 ENLARGED MAIN LEVEL

1/8" = 1'-0"

GENERAL NOTES:

1. WALL TYPES: SEE SHEET A6.1



1 ENLARGED SECOND FLOOR

1/8" = 1'-0"

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Missouri Certificate of Authority # A-2007030604
Matthew James Rimiller - Architect
MO.# A-2007019928

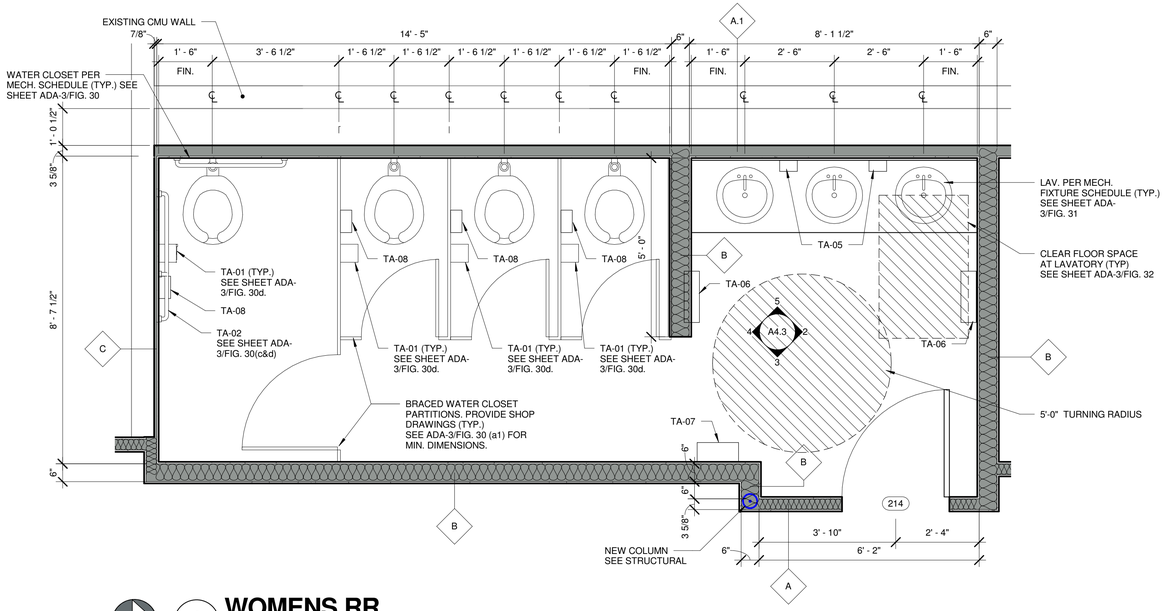
RIMILLER ARCHITECTS
limited liability company

1630 WEST McCARTY STREET
JEFFERSON CITY, MISSOURI 65109

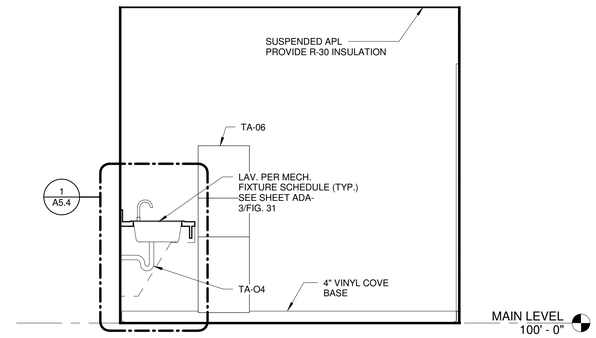
T. (573) 761-5690
F. (573) 761-5605

A4.2

ENLARGED FLOOR PLAN
SECOND LEVEL



1 WOMENS RR
1/2" = 1'-0"

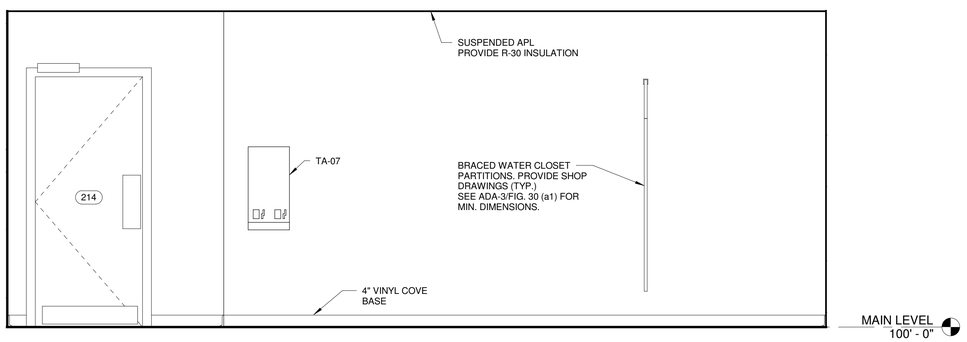


2 WOMENS NORTH WALL
1/2" = 1'-0"

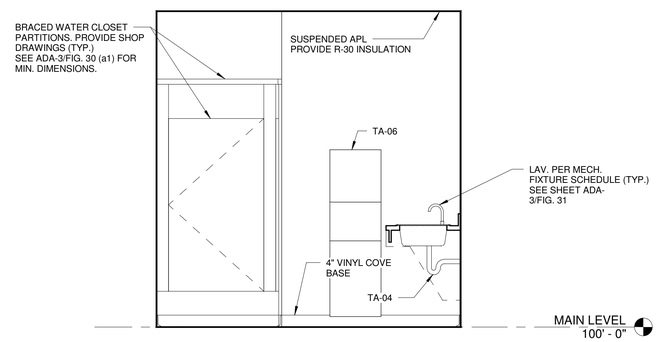
Toilet Accessory Legend	
TA-01	Surface Mounted Multi-Roll Toilet Tissue Dispenser - FURNISHED BY OWNER.
TA-02	Grab Bars - Surface Mounted
TA-03	Mirror
TA-04	Under Lavatory Guard
TA-05	Surface Mounted Soap Dispenser
TA-06	Recessed Convertible Automatic Universal Roll Paper Towerl Dispenser and Waster Receptacle
TA-07	Recessed Napkin/Tampon Vendor
TA-08	Surface Mounted Sanitary Napkin Disposal
TA-09	Surface Mounted Paper Towel Dispenser

GENERAL NOTE

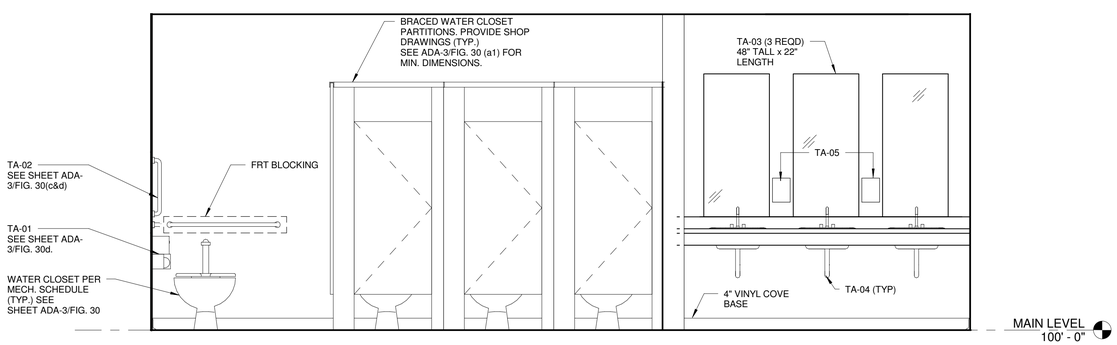
1. UTILIZE JS-3 BETWEEN PLUMBING FIXTURES AND ADJOINING WALLS AND FLOORS.



3 WOMENS EAST WALL
1/2" = 1'-0"



4 WOMENS SOUTH WALL
1/2" = 1'-0"



5 WOMENS WEST WALL
1/2" = 1'-0"

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RIMILLER ARCHITECTS

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JEFFERSON CITY, MISSOURI 65109

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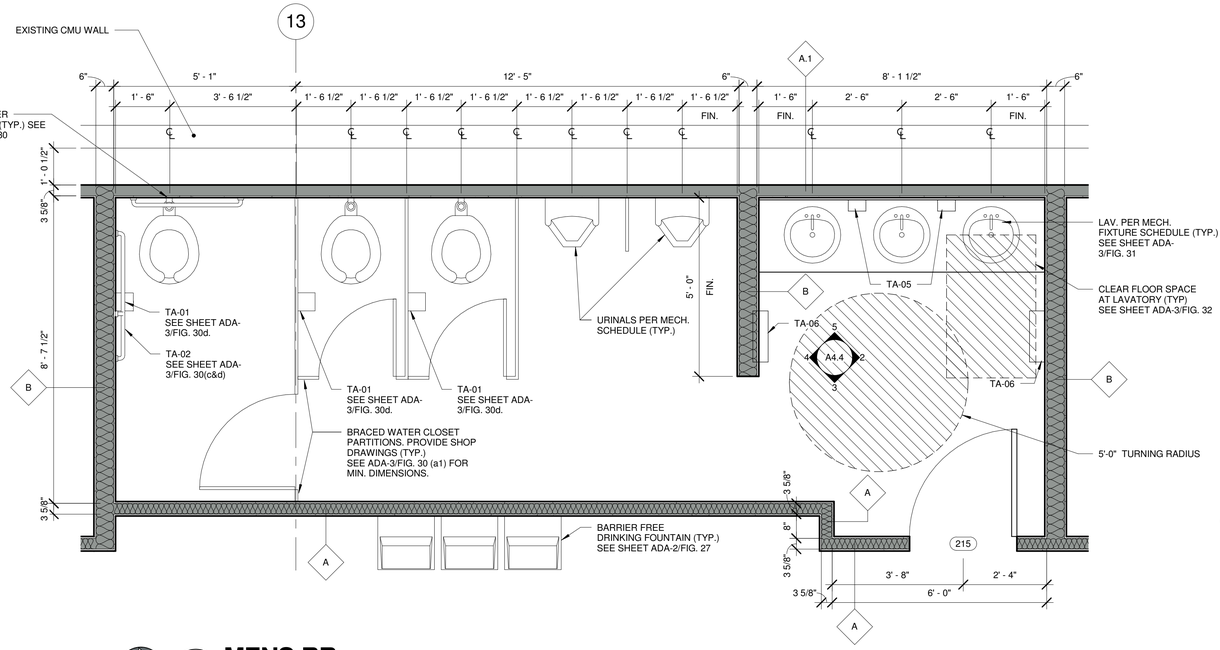
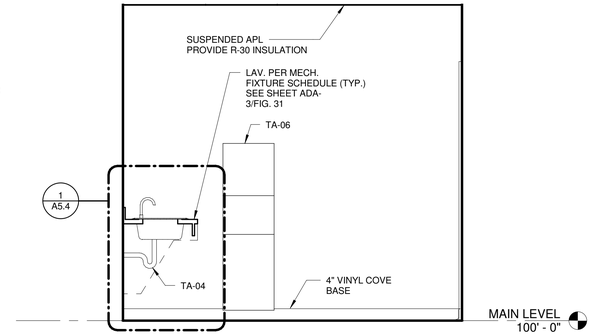
A4.3

ENLARGED PLANS & DETAILS



1 MENS RR
1/2" = 1'-0"



2 MENS NORTH WALL
1/2" = 1'-0"

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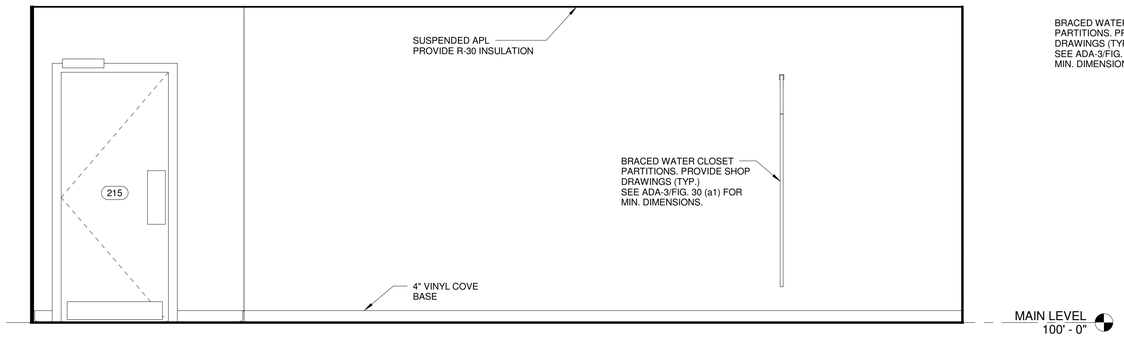
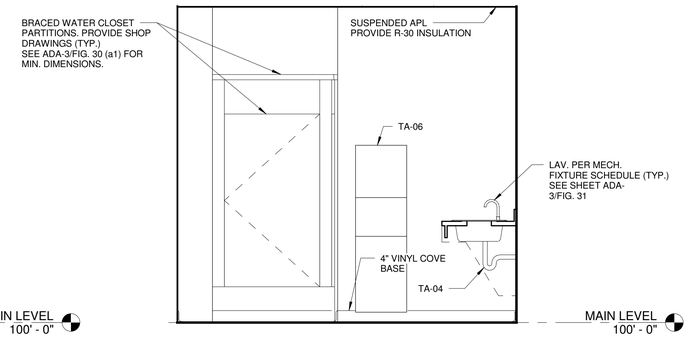
GENERAL NOTE

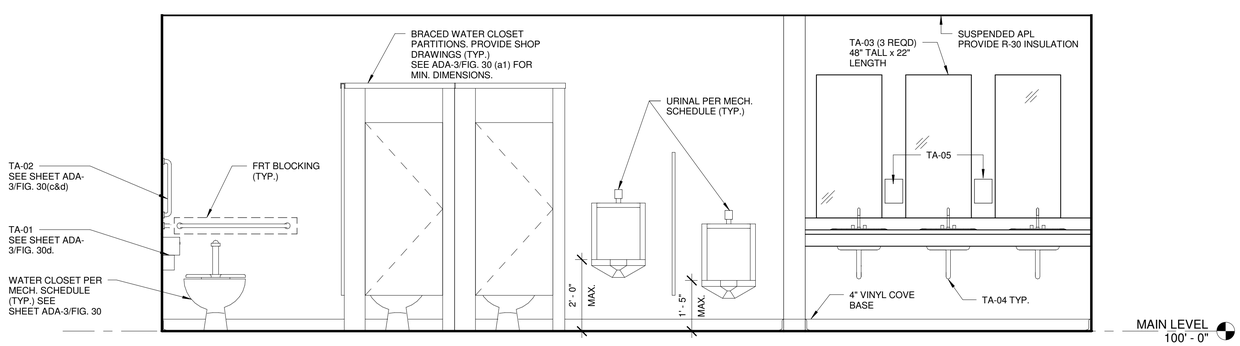
1. UTILIZE JS-3 BETWEEN PLUMBING FIXTURES AND ADJOINING WALLS AND FLOORS.



3 MENS EAST WALL
1/2" = 1'-0"



4 MENS SOUTH WALL
1/2" = 1'-0"



5 MENS WEST WALL
1/2" = 1'-0"

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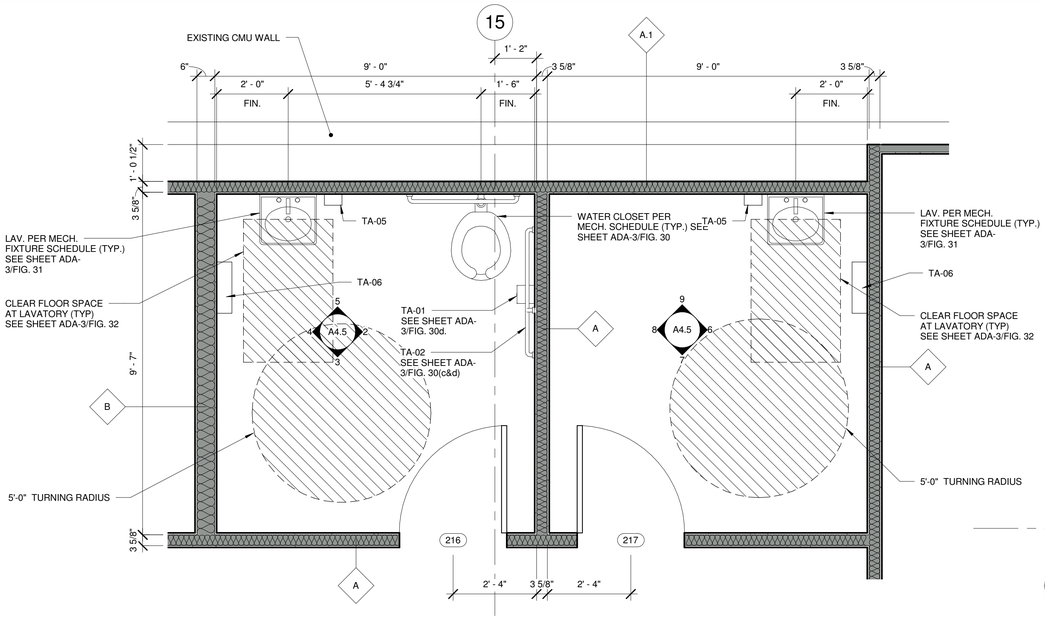
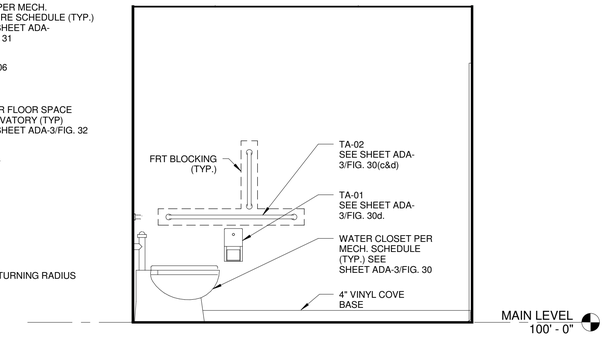
A4.4

ENLARGED PLANS & DETAILS

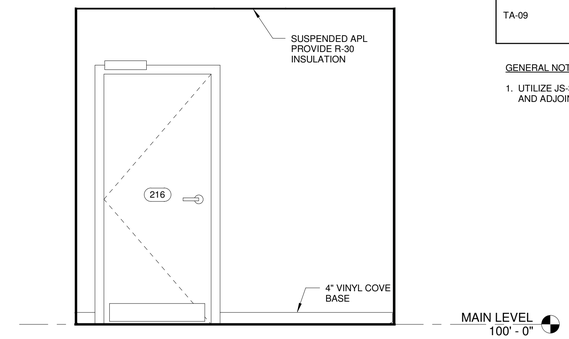


N

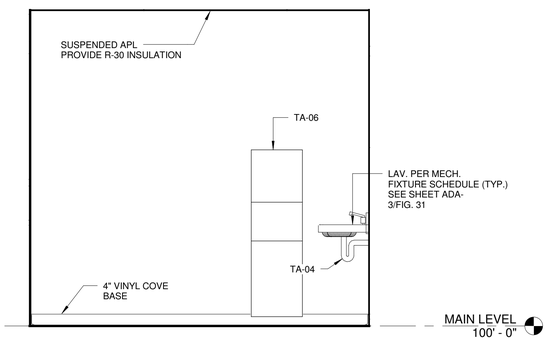
1 ASSIST. RR AND NURSING
1/2" = 1'-0"



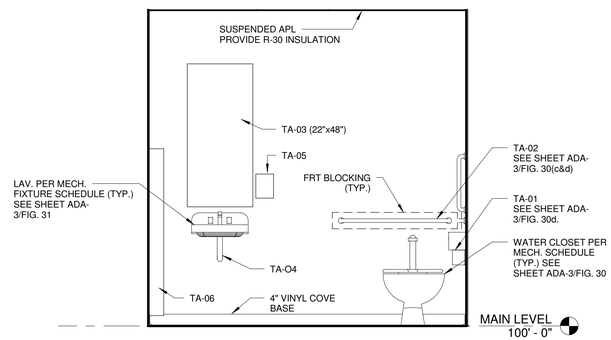
2 ASSIST. NORTH WALL
1/2" = 1'-0"



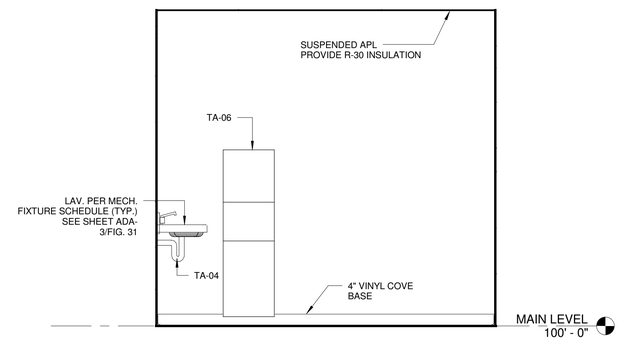
3 ASSIST. EAST WALL
1/2" = 1'-0"



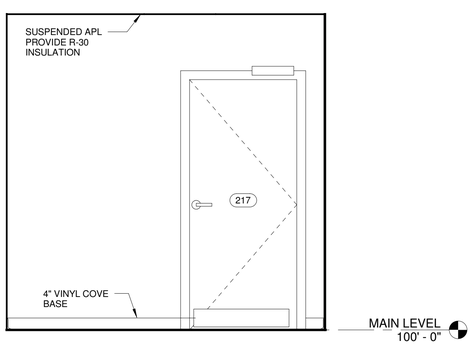
4 ASSIST. SOUTH WALL
1/2" = 1'-0"



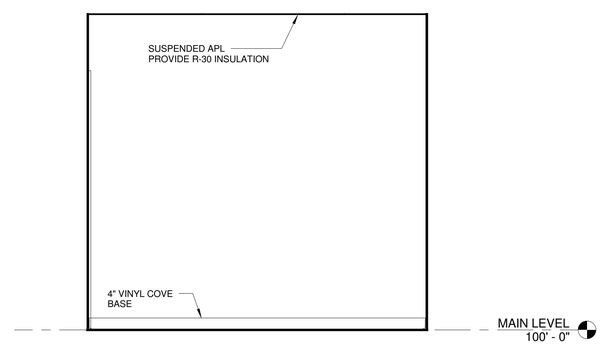
5 ASSIST. WEST WALL
1/2" = 1'-0"



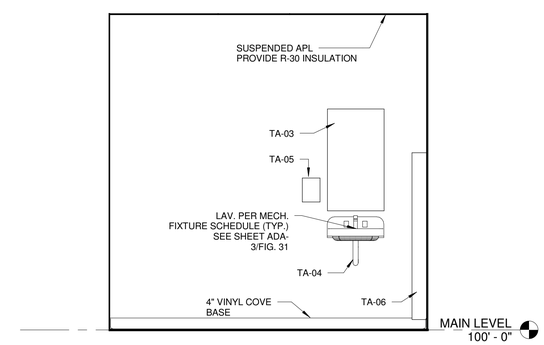
6 NURSING NORTH WALL
1/2" = 1'-0"



7 NURSING EAST WALL
1/2" = 1'-0"



8 NURSING SOUTH WALL
1/2" = 1'-0"



9 NURSING WEST WALL
1/2" = 1'-0"

Toilet Accessory Legend	
TA-01	Surface Mounted Multi-Roll Toilet Tissue Dispenser - FURNISHED BY OWNER.
TA-02	Grab Bars - Surface Mounted
TA-03	Mirror
TA-04	Under Lavatory Guard
TA-05	Surface Mounted Soap Dispenser
TA-06	Recessed Convertible Automatic Universal Roll Paper Towerl Dispenser and Waster Receptacle
TA-07	Recessed Napkin/Tampon Vendor
TA-08	Surface Mounted Sanitary Napkin Disposal
TA-09	Surface Mounted Paper Towel Dispenser

GENERAL NOTE

1. UTILIZE JS-3 BETWEEN PLUMBING FIXTURES AND ADJOINING WALLS AND FLOORS.

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Matthew James Rimiller - Architect
MO.# A-2007019928

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T. (573) 761-5600
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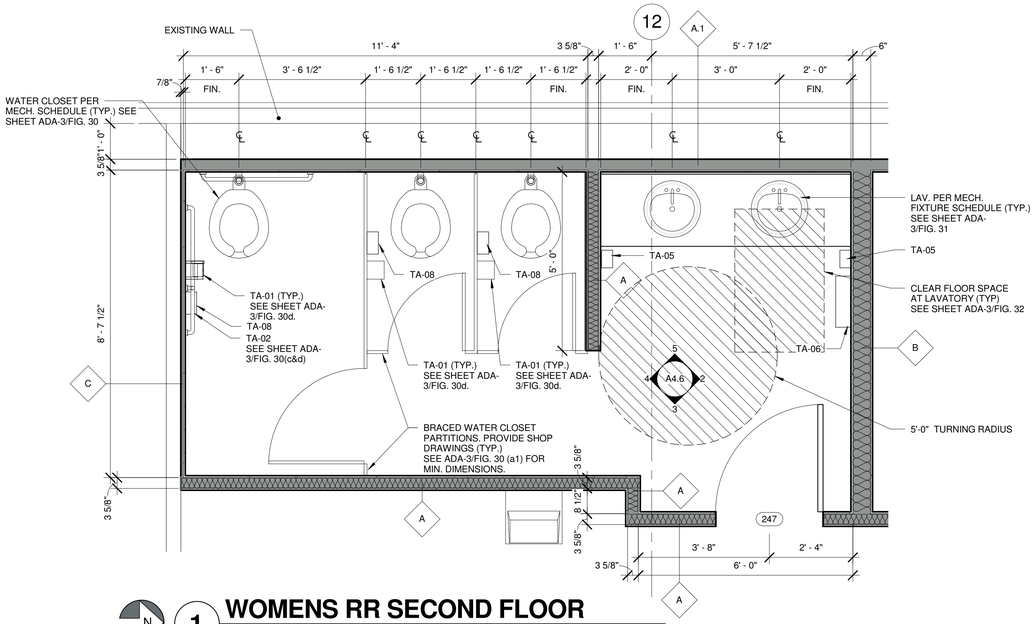
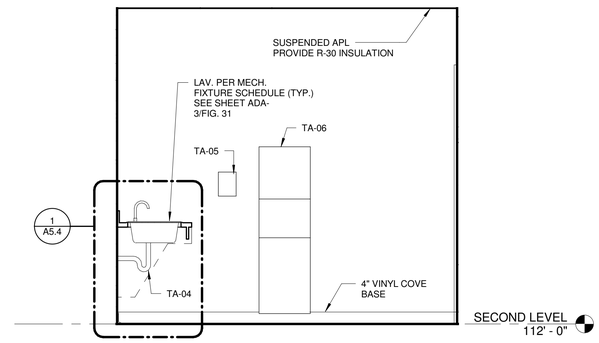
A4.5

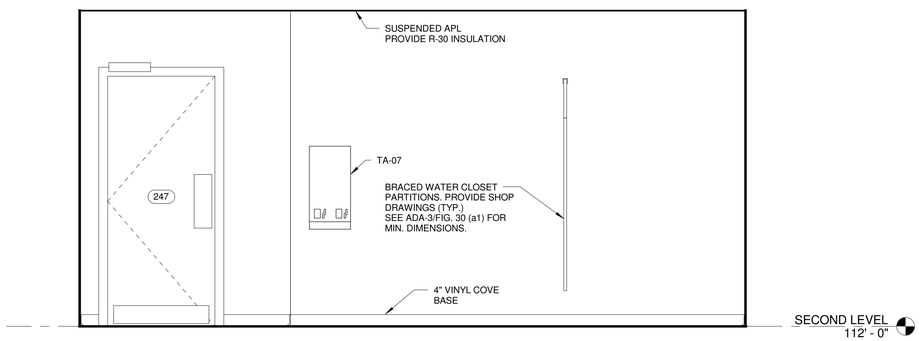
ENLARGED PLANS & DETAILS



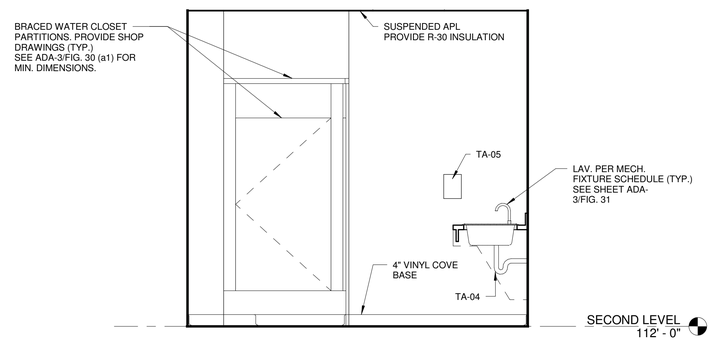
1 WOMENS RR SECOND FLOOR
1/2" = 1'-0"



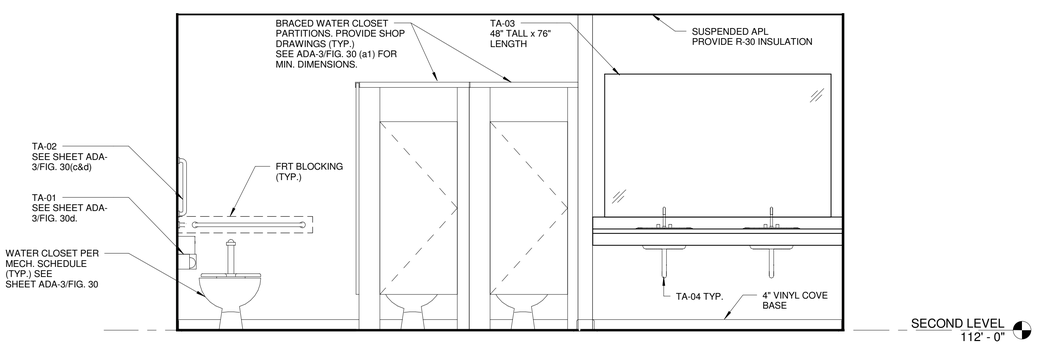
2 WOMENS 2nd FLOOR NORTH WALL
1/2" = 1'-0"



3 WOMENS 2nd FLOOR EAST WALL
1/2" = 1'-0"



4 WOMENS 2nd FLOOR SOUTH WALL
1/2" = 1'-0"



5 WOMENS 2nd FLOOR WEST WALL
1/2" = 1'-0"

Toilet Accessory Legend

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TA-06	Recessed Convertible Automatic Universal Roll Paper Towerl Dispenser and Waster Receptacle
TA-07	Recessed Napkin/Tampon Vendor
TA-08	Surface Mounted Sanitary Napkin Disposal
TA-09	Surface Mounted Paper Towel Dispenser

GENERAL NOTE

1. UTILIZE JS-3 BETWEEN PLUMBING FIXTURES AND ADJOINING WALLS AND FLOORS.

MISSOURI DEPARTMENT OF TRANSPORTATION: WAREHOUSE RENOVATION PHASE II

830 MoDOT Drive
Cole County - City of Jefferson, Missouri 65109

Revision Schedule	
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PROJECT NUMBER: 09-031

RIMILLER ARCHITECTS

STATE OF MISSOURI
MATTHEW JAMES RIMILLER
NUMBER A-2007019928
ARCHITECT
1-11-2010

Rimiller Architects LLC
Missouri Certificate of Authority # A-2007030604
Matthew James Rimiller - Architect
MO.# A-2007019928

1630 WEST McCARTY STREET
JEFFERSON CITY, MISSOURI 65109

T. (573) 761-5600
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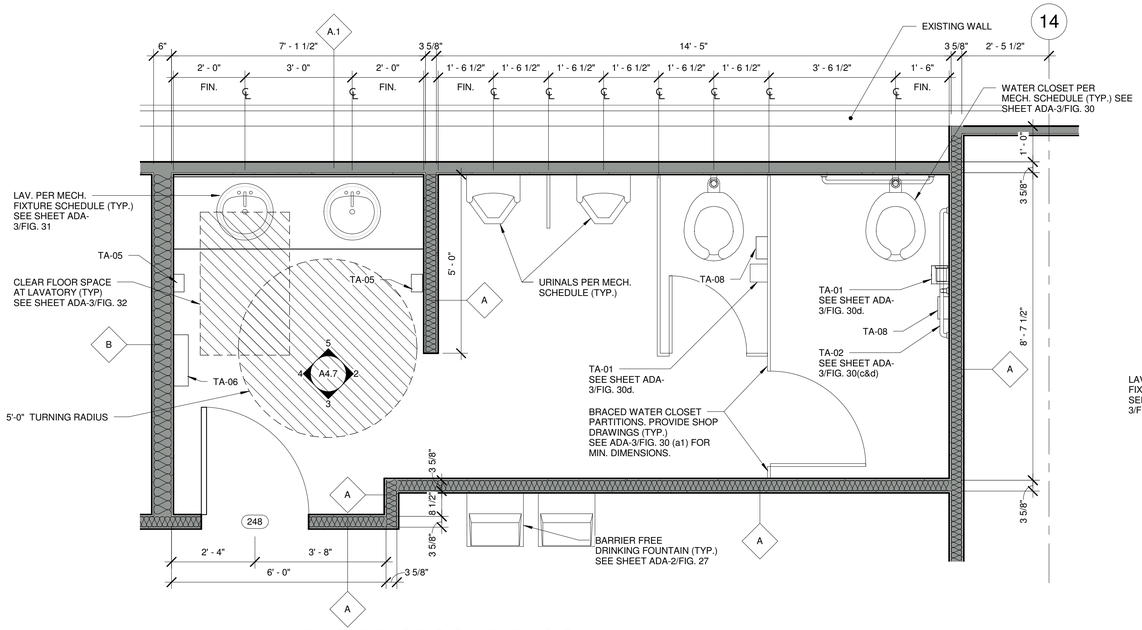
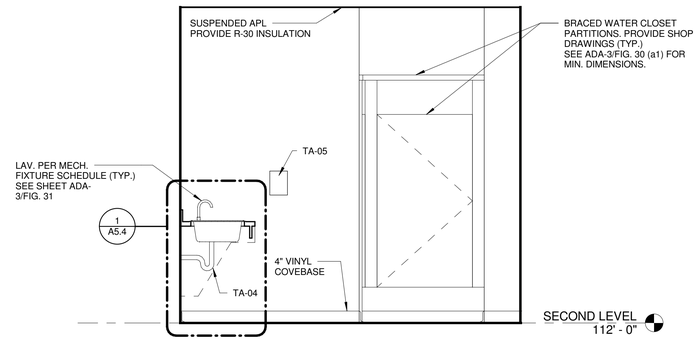
A4.6

ENLARGED PLANS & DETAILS



1 MENS RR SECOND FLOOR
1/2" = 1'-0"

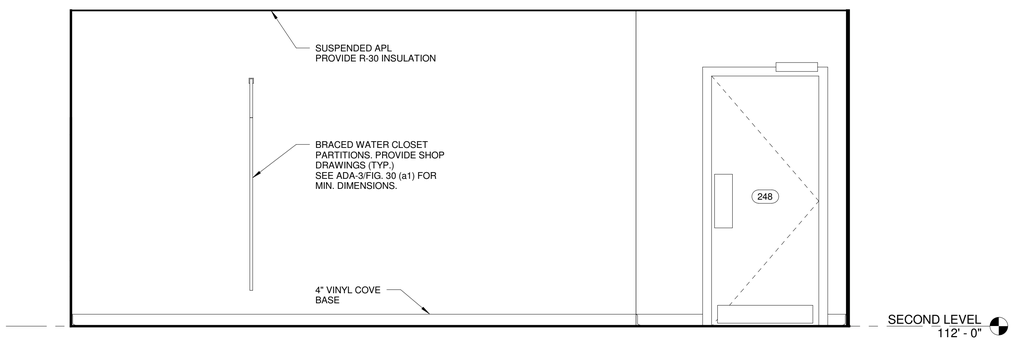


2 MENS 2nd FLOOR NORTH WALL
1/2" = 1'-0"

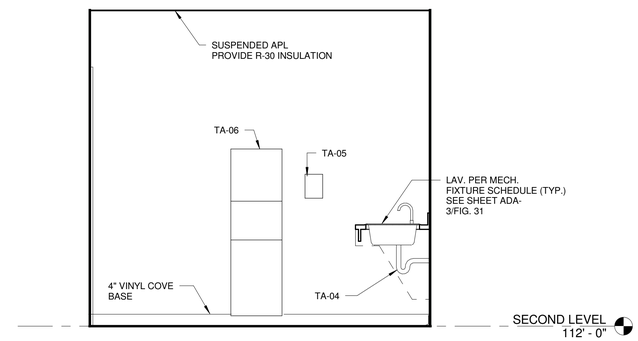
Toilet Accessory Legend	
TA-01	Surface Mounted Multi-Roll Toilet Tissue Dispenser - FURNISHED BY OWNER.
TA-02	Grab Bars - Surface Mounted
TA-03	Mirror
TA-04	Under Lavatory Guard
TA-05	Surface Mounted Soap Dispenser
TA-06	Recessed Convertible Automatic Universal Roll Paper Towerl Dispenser and Waster Receptacle
TA-07	Recessed Napkin/Tampon Vendor
TA-08	Surface Mounted Sanitary Napkin Disposal
TA-09	Surface Mounted Paper Towel Dispenser

GENERAL NOTE

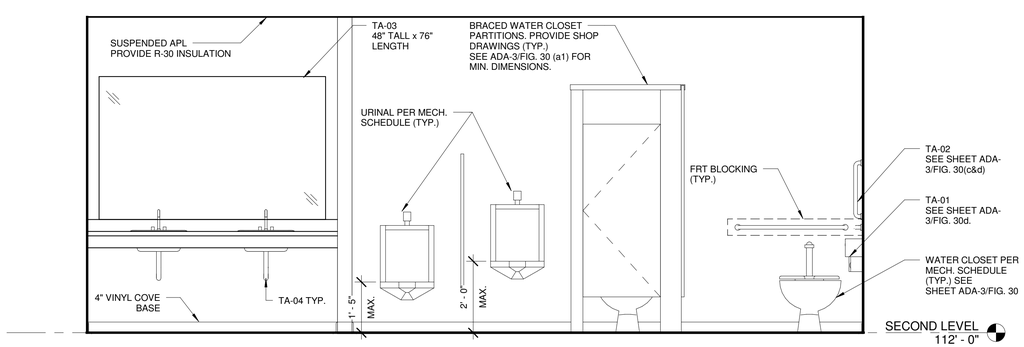
1. UTILIZE JS-3 BETWEEN PLUMBING FIXTURES AND ADJOINING WALLS AND FLOORS.



3 MENS 2nd FLOOR EAST WALL
1/2" = 1'-0"



4 MENS 2nd FLOOR SOUTH WALL
1/2" = 1'-0"



5 MENS 2nd FLOOR WEST WALL
1/2" = 1'-0"

MISSOURI DEPARTMENT OF TRANSPORTATION: WAREHOUSE RENOVATION PHASE II

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RIMILLER ARCHITECTS

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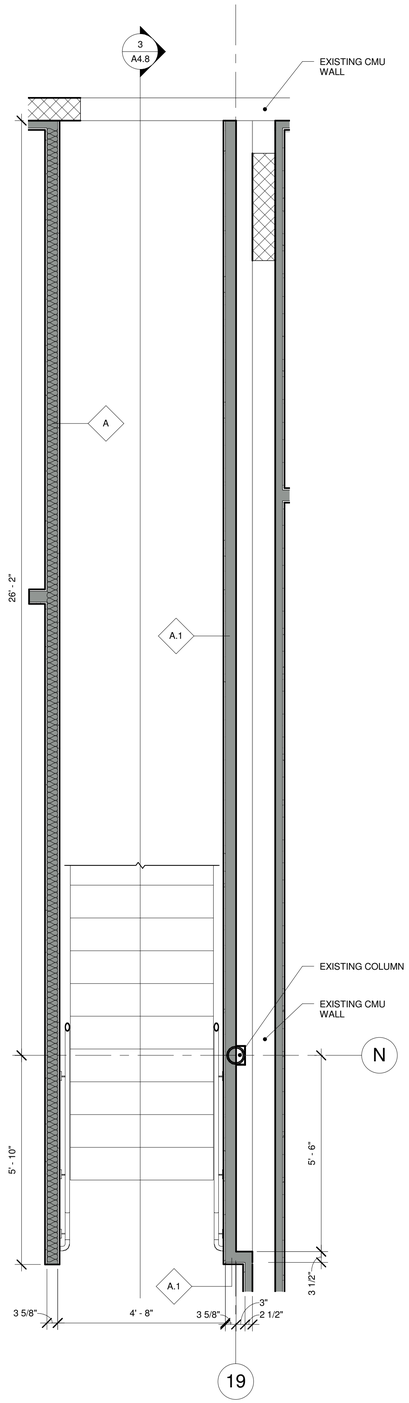
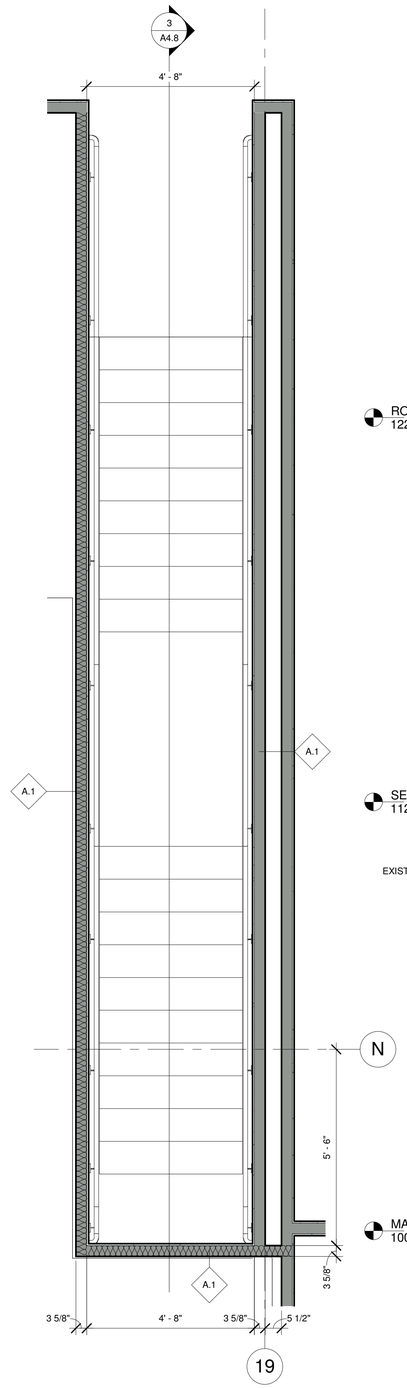
A4.7

ENLARGED PLANS & DETAILS



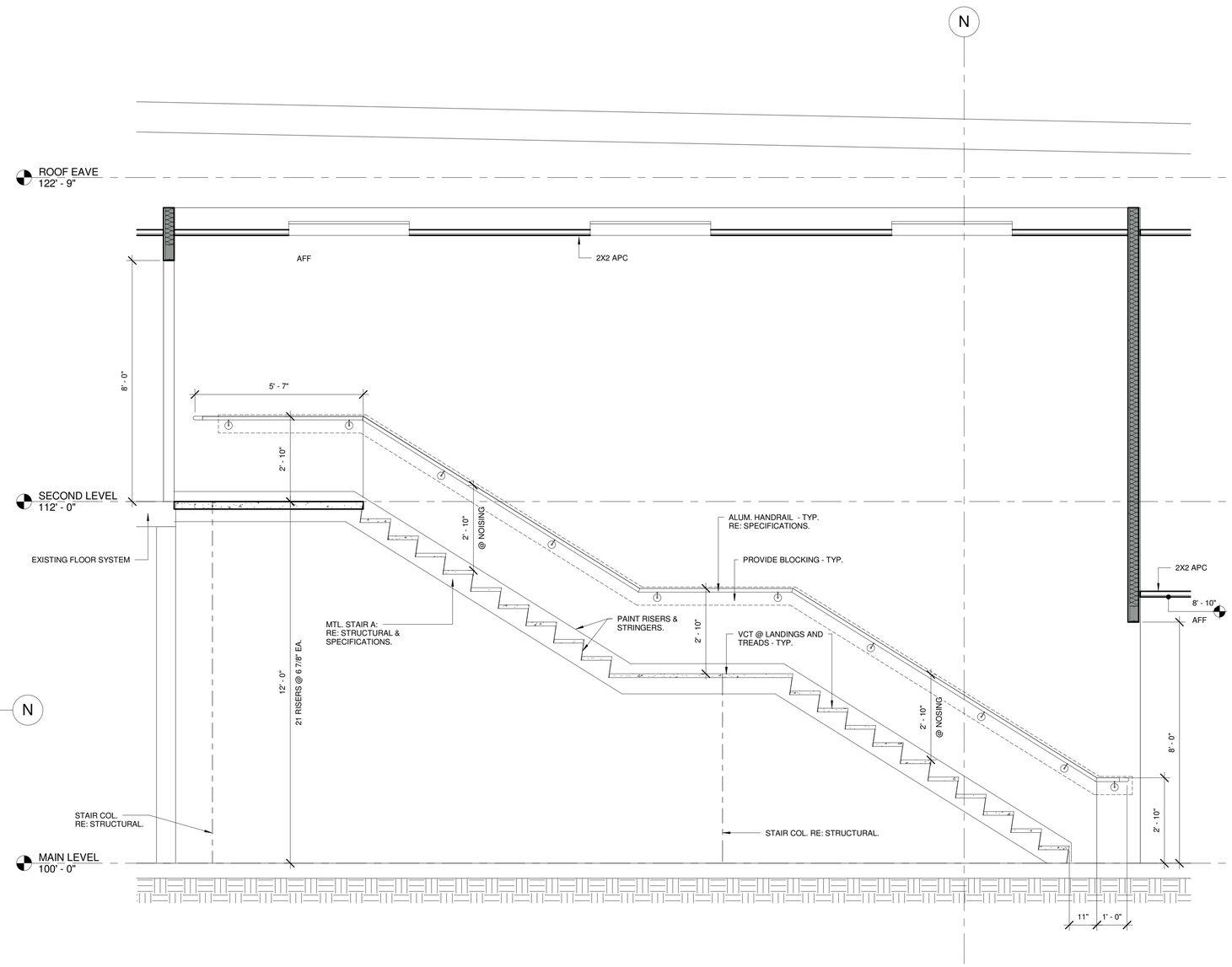
1 STAIR A - MAIN LEVEL

1/2" = 1'-0"



2 STAIR A - SECOND FLOOR

1/2" = 1'-0"



3 STAIR A - SECTION

1/2" = 1'-0"

MISSOURI DEPARTMENT OF TRANSPORTATION: WAREHOUSE RENOVATION PHASE II

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RIMILLER ARCHITECTS

STATE OF MISSOURI
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NUMBER A-2007019928
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Rimiller Architects LLC
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JEFFERSON CITY, MISSOURI 65109

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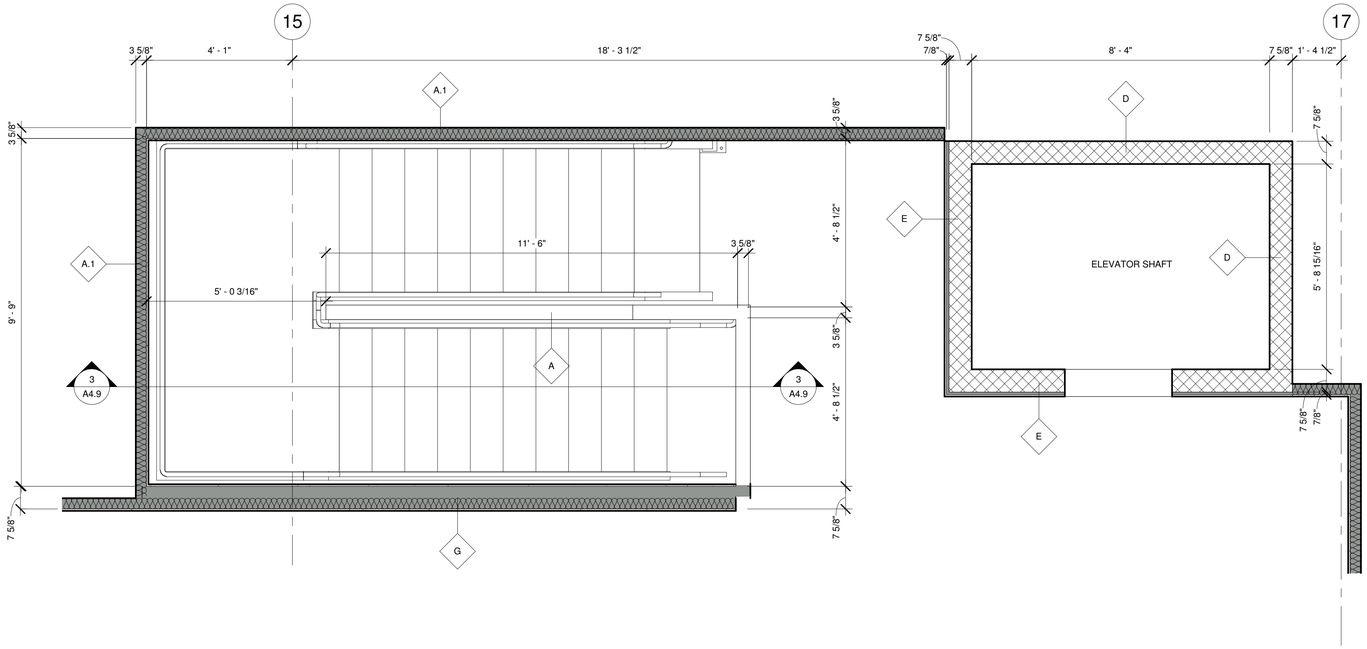
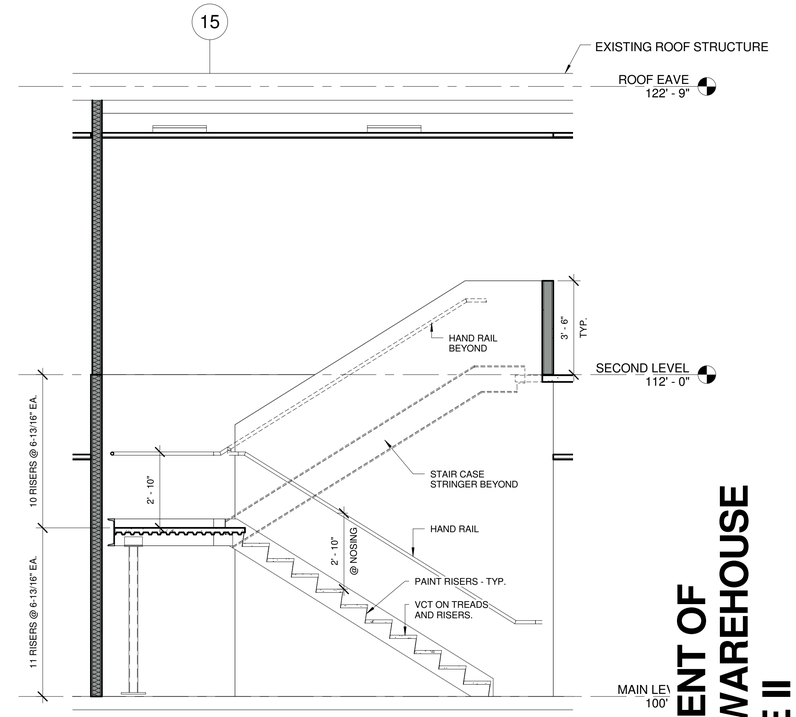
A4.8

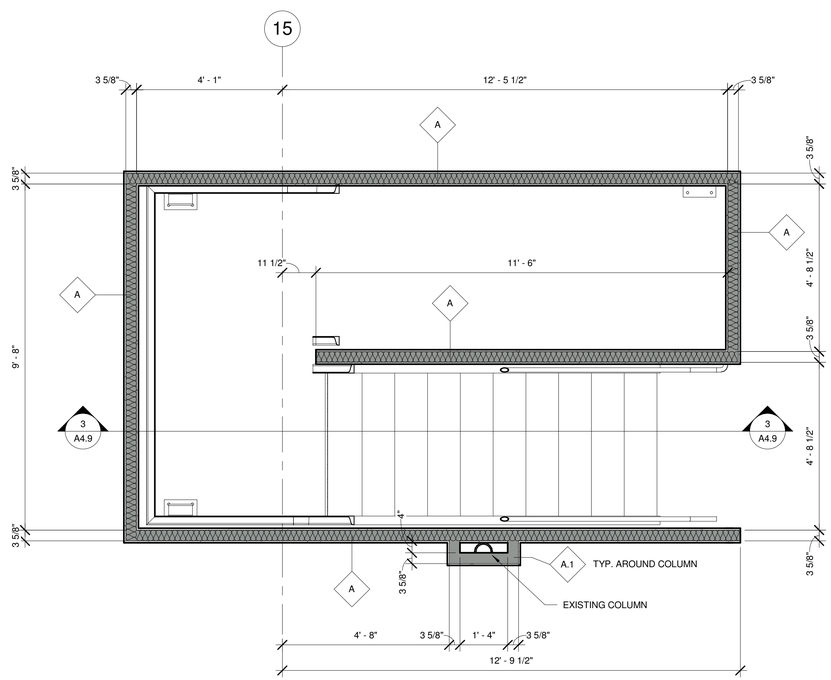
STAIR A DETAILS



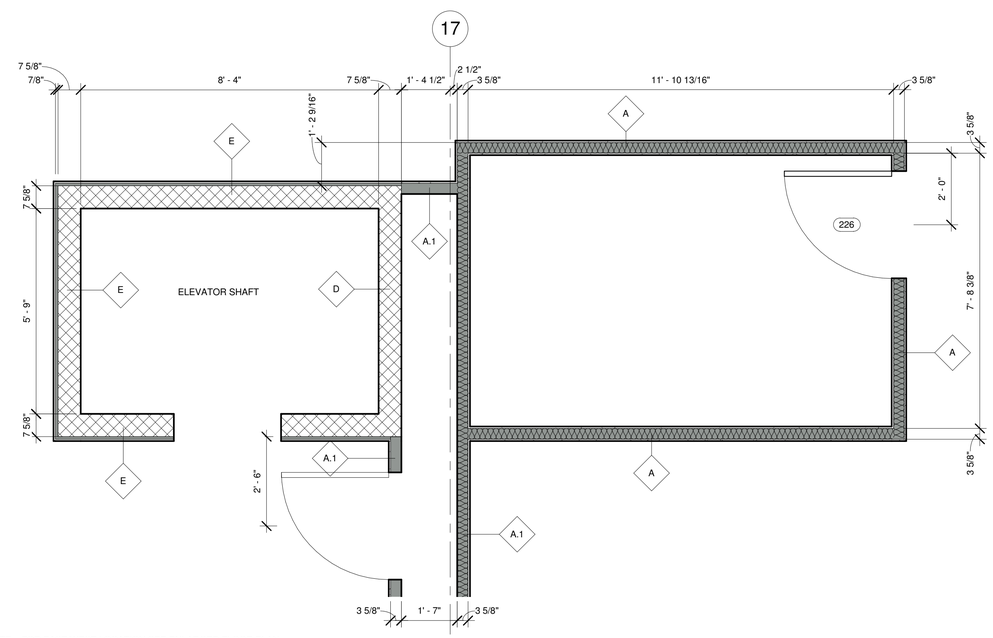
2 STAIR B & ELEV. - SECOND FLOOR
1/2" = 1'-0"



3 STAIRWELL SECTION
3/8" = 1'-0"



1 STAIR B & ELEV. - MAIN LEVEL
1/2" = 1'-0"



NOTE: FOR EAST/WEST LOCATION SEE ENLARGED FLOOR PLAN

MISSOURI DEPARTMENT OF TRANSPORTATION: WAREHOUSE RENOVATION PHASE II

830 MoDOT Drive
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STATE OF MISSOURI
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RIMILLER ARCHITECTS
licensed business company
Rimiller Architects LLC
Missouri Certificate of Authority # A-2007030604
Matthew James Rimiller - Architect
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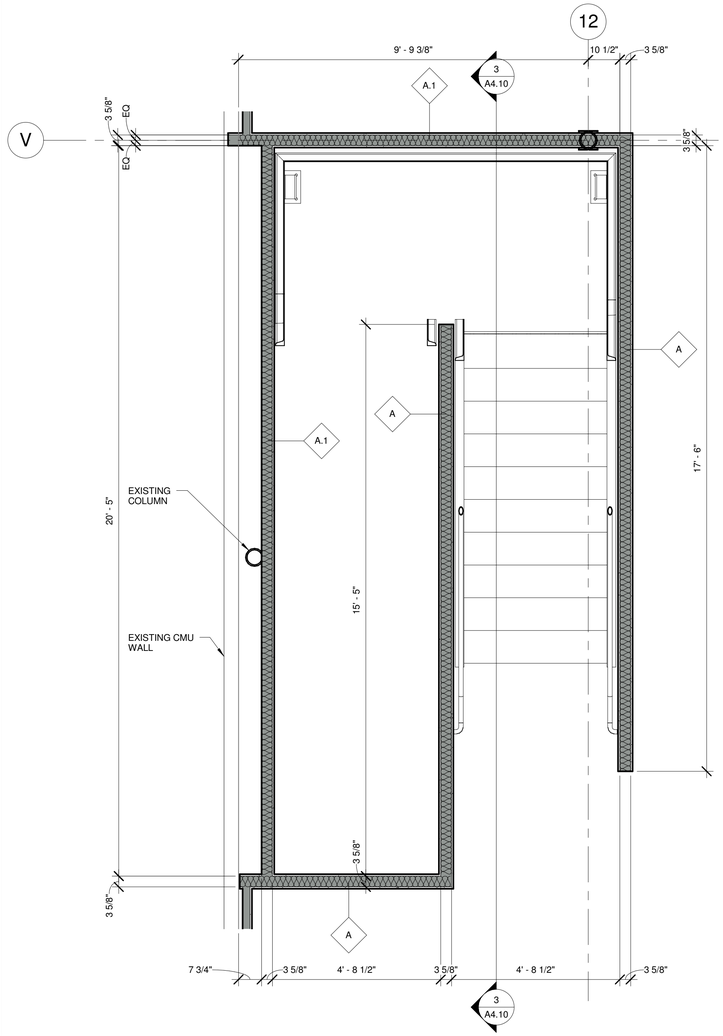
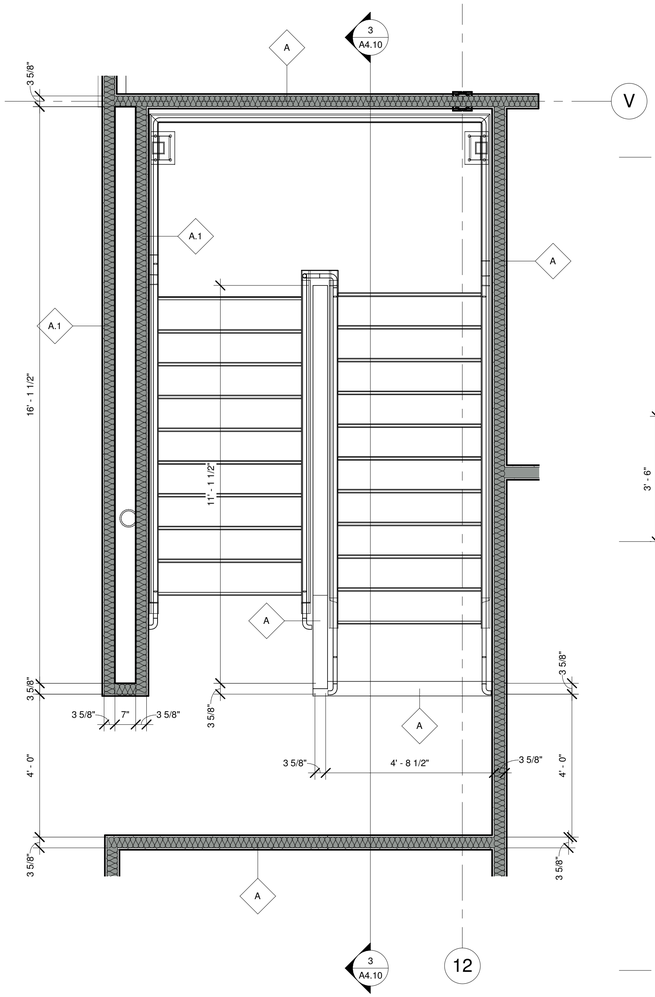
A4.9

STAIR B DETAILS



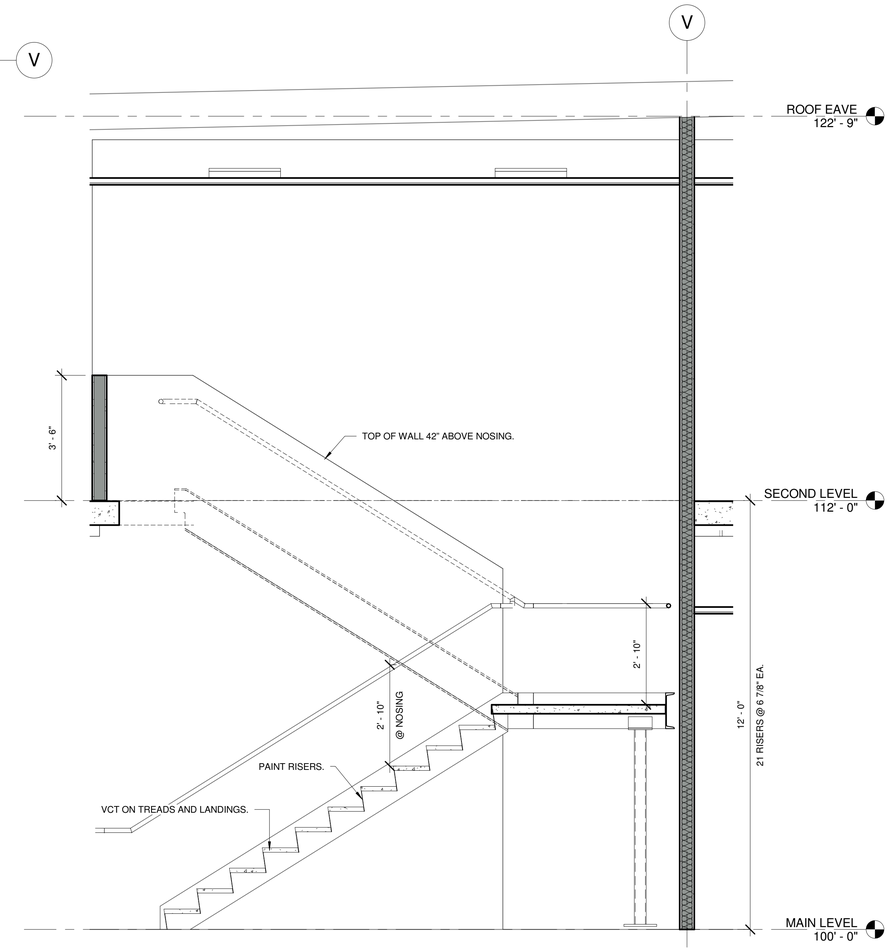
1 STAIR C - MAIN LEVEL

1/2" = 1'-0"



2 STAIR C - SECOND FLOOR

1/2" = 1'-0"



3 STAIRWELL SECTION

1/2" = 1'-0"

MISSOURI DEPARTMENT OF TRANSPORTATION: WAREHOUSE RENOVATION PHASE II

830 MoDOT Drive
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STATE OF MISSOURI
MATTHEW JAMES RIMILLER
NUMBER A-2007019928
ARCHITECT
1-11-2010

Rimiller Architects LLC
Missouri Certificate of Authority # A-2007030604
Matthew James Rimiller - Architect
MO # A-2007019928

RIMILLER ARCHITECTS

1630 WEST McCARTY STREET
JEFFERSON CITY, MISSOURI 65109

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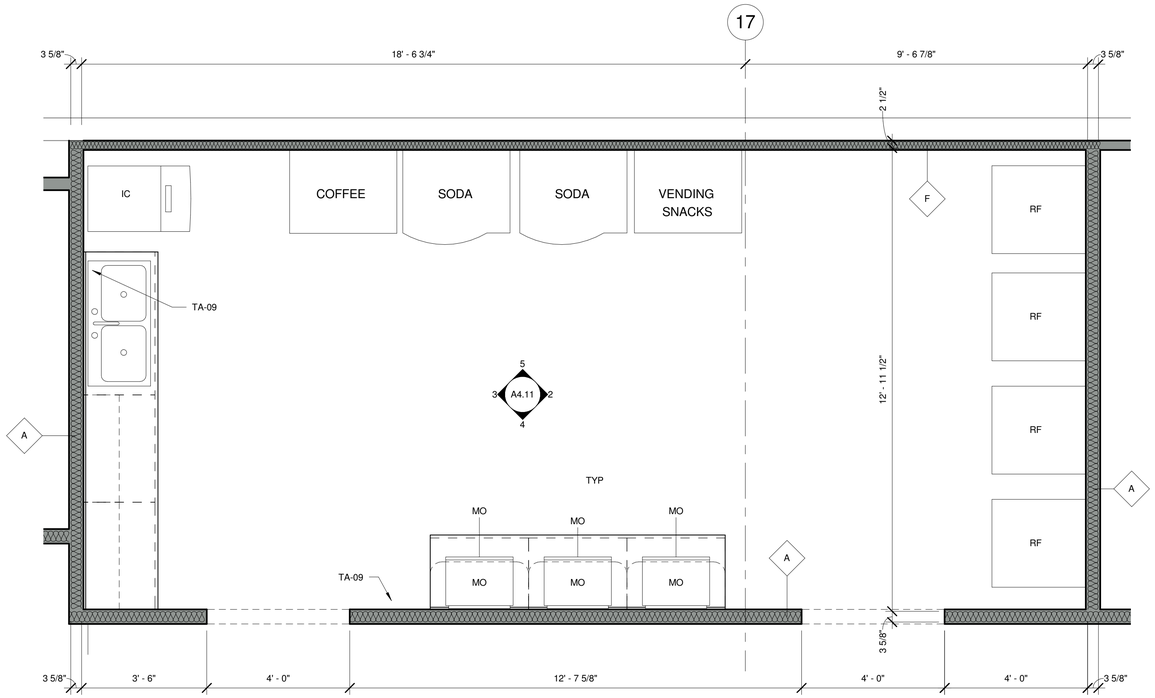
A4.10

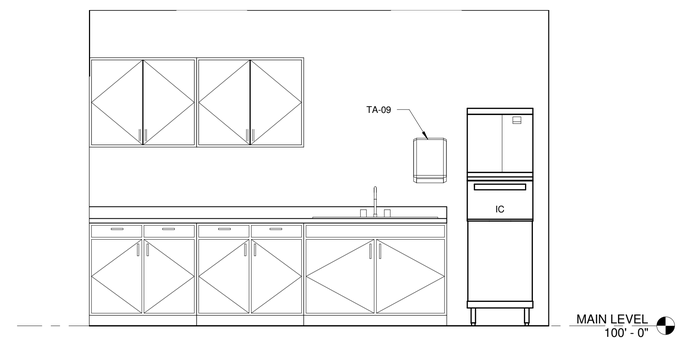
STAIR C DETAILS

Equipment Schedule					
Mark	Description	Manufacturer	Model	Comments	Count
CB	Coffee Brewer	Supplied By Owner			2
COFFEE	Coffee Vending Machine	Supplied By Owner			1
IC	Modular Cube Ice Maker	Supplied By Owner			2
MO	Microwave Oven	Whirlpool	GT4175SPQ		9
RF	Refridgerator	Whirlpool	W9RXXMFWQ		7
SODA	Sode Vending Machine	Supplied By Owner			4
TA-09	Paper Towel Dispenser	San Jamer	T1400TBK	See Spec Section 10801	6
VENDING - SNACKS	Snack Vending Machine	Supplied By Owner			2

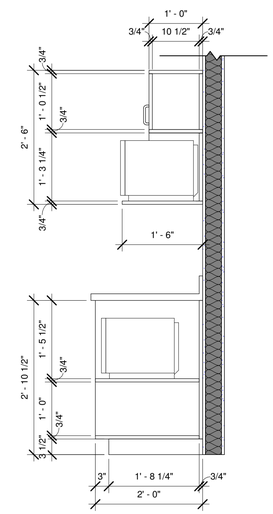


1 **MAIN LEVEL BREAK ROOM**
1/2" = 1'-0"

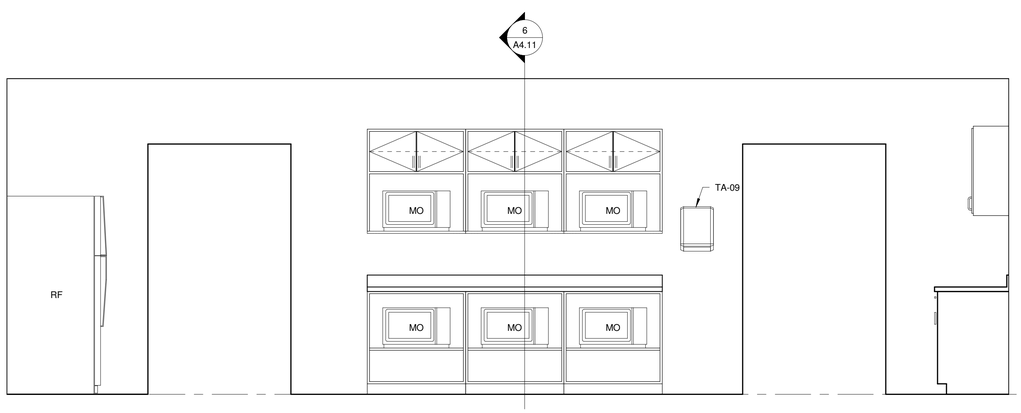
2 **NORTH WALL**
1/2" = 1'-0"



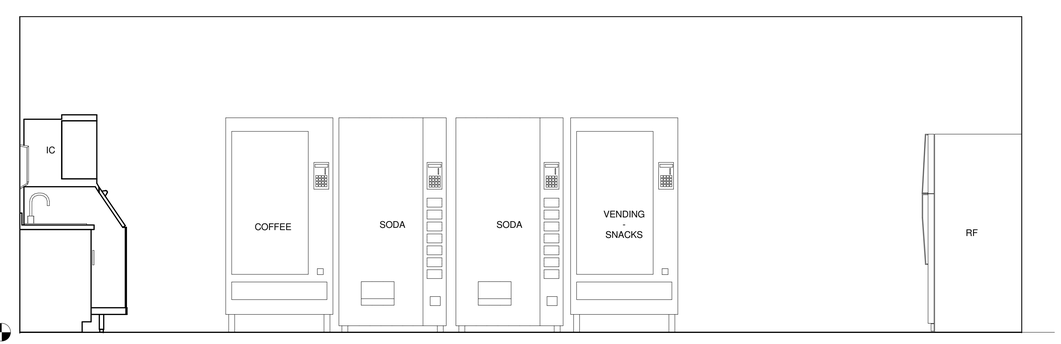
3 **SOUTH WALL**
1/2" = 1'-0"



6 **CABINET SECTION**
3/4" = 1'-0"



4 **EAST WALL**
1/2" = 1'-0"



5 **WEST WALL**
1/2" = 1'-0"

MISSOURI DEPARTMENT OF TRANSPORTATION: WAREHOUSE RENOVATION PHASE II

830 MoDOT Drive
Cole County - City of Jefferson, Missouri 65109

Revision Schedule	
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RIMILLER ARCHITECTS
business building company
1630 WEST McCARTY STREET
JEFFERSON CITY, MISSOURI 65109
T. (573) 761-5600
F. (573) 761-5605

ISSUE DATE: 1-11-2010

PROJECT NUMBER: 09-031

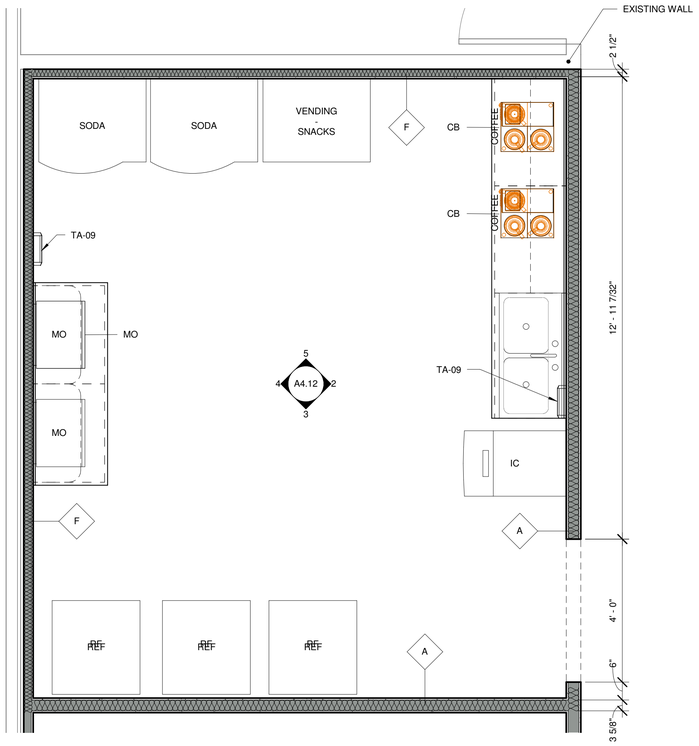
STATE OF MISSOURI
MATTHEW JAMES RIMILLER
NUMBER A-2007019928
ARCHITECT
1-11-2010

Rimiller Architects LLC
Missouri Certificate of Authority # A-2007030604
Matthew James Rimiller - Architect
MO.# A-2007019928

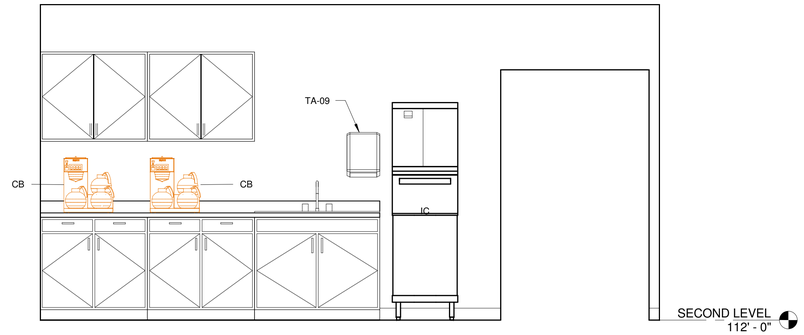
A4.11

ENLARGED PLANS & DETAILS

Equipment Schedule					
Mark	Description	Manufacturer	Model	Comments	Count
CB	Coffee Brewer	Supplied By Owner			2
COFFEE	Coffee Vending Machine	Supplied By Owner			1
IC	Modular Cube Ice Maker	Supplied By Owner			2
MO	Microwave Oven	Whirlpool	GT4175SPQ		9
RF	Refridgerator	Whirlpool	W9RXXMFWQ		7
SODA	Sode Vending Machine	Supplied By Owner			4
TA-09	Paper Towel Dispenser	San Jamer	T1400TBK	See Spec Section 10801	6
VENDING - SNACKS	Snack Vending Machine	Supplied By Owner			2

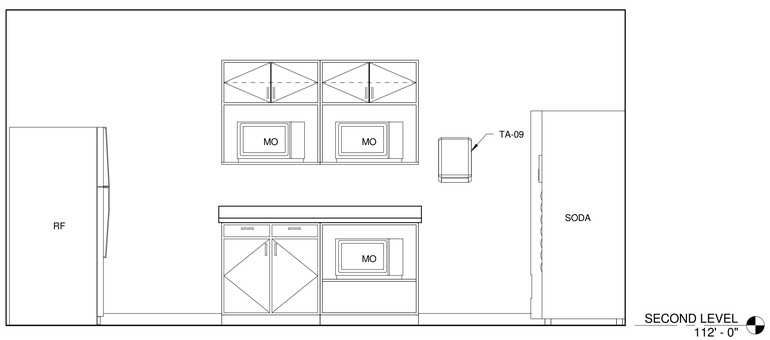


1 SECOND LEVEL BREAK ROOM
1/2" = 1'-0"

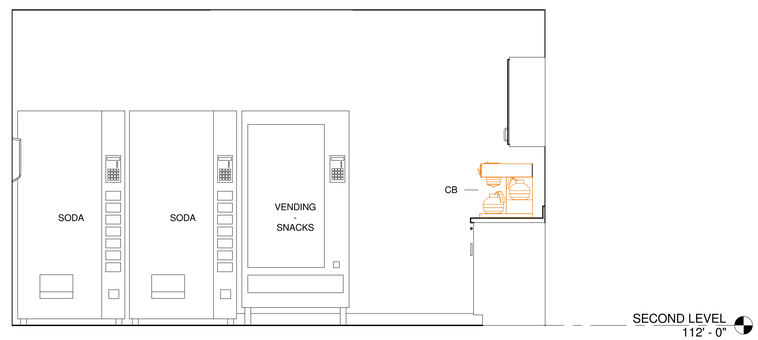


2 BREAK ROOM SECOND FLOOR NORTH WALL
1/2" = 1'-0"

3 BREAK ROOM SECOND FLOOR EAST WALL
1/2" = 1'-0"



4 BREAK ROOM SECOND FLOOR SOUTH WALL
1/2" = 1'-0"



5 BREAK ROOM SECOND FLOOR WEST WALL
1/2" = 1'-0"

MISSOURI DEPARTMENT OF TRANSPORTATION: WAREHOUSE RENOVATION PHASE II

830 MoDOT Drive
Cole County - City of Jefferson, Missouri 65109

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limited liability company

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RIMILLER ARCHITECTS

STATE OF MISSOURI
MATTHEW JAMES RIMILLER
NUMBER A-2007019928
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1-11-2010

Rimiller Architects LLC
Missouri Certificate of Authority # A-2007030604
Matthew James Rimiller - Architect
MO.# A-2007019928

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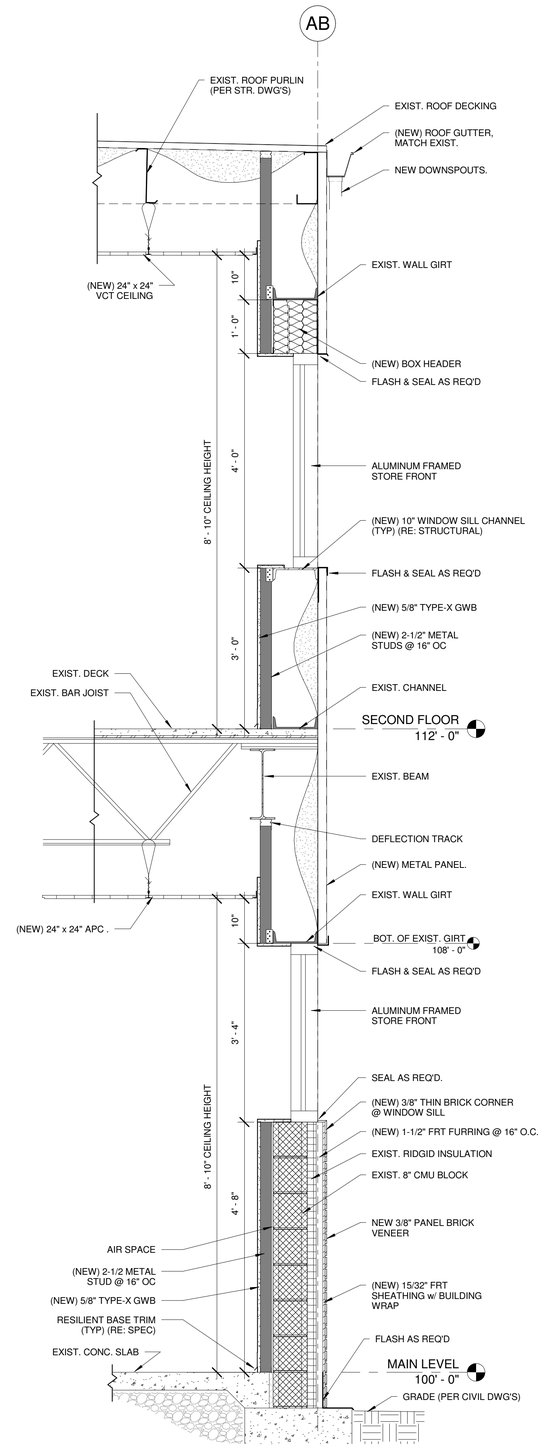
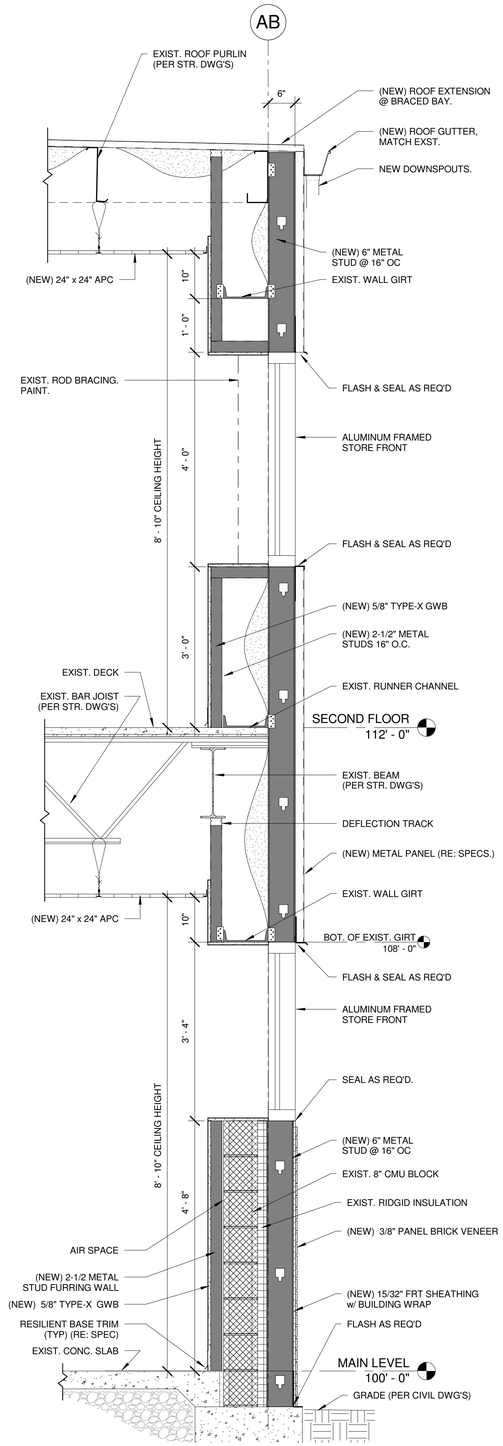
A4.12

ENLARGED PLANS & DETAILS



1 EAST WALL SECTION

3/4" = 1'-0"



2 BRACED BAY EAST WALL SECTION

3/4" = 1'-0"

MISSOURI DEPARTMENT OF TRANSPORTATION: WAREHOUSE RENOVATION PHASE II

830 MoDOT Drive
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RIMILLER ARCHITECTS

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STATE OF MISSOURI
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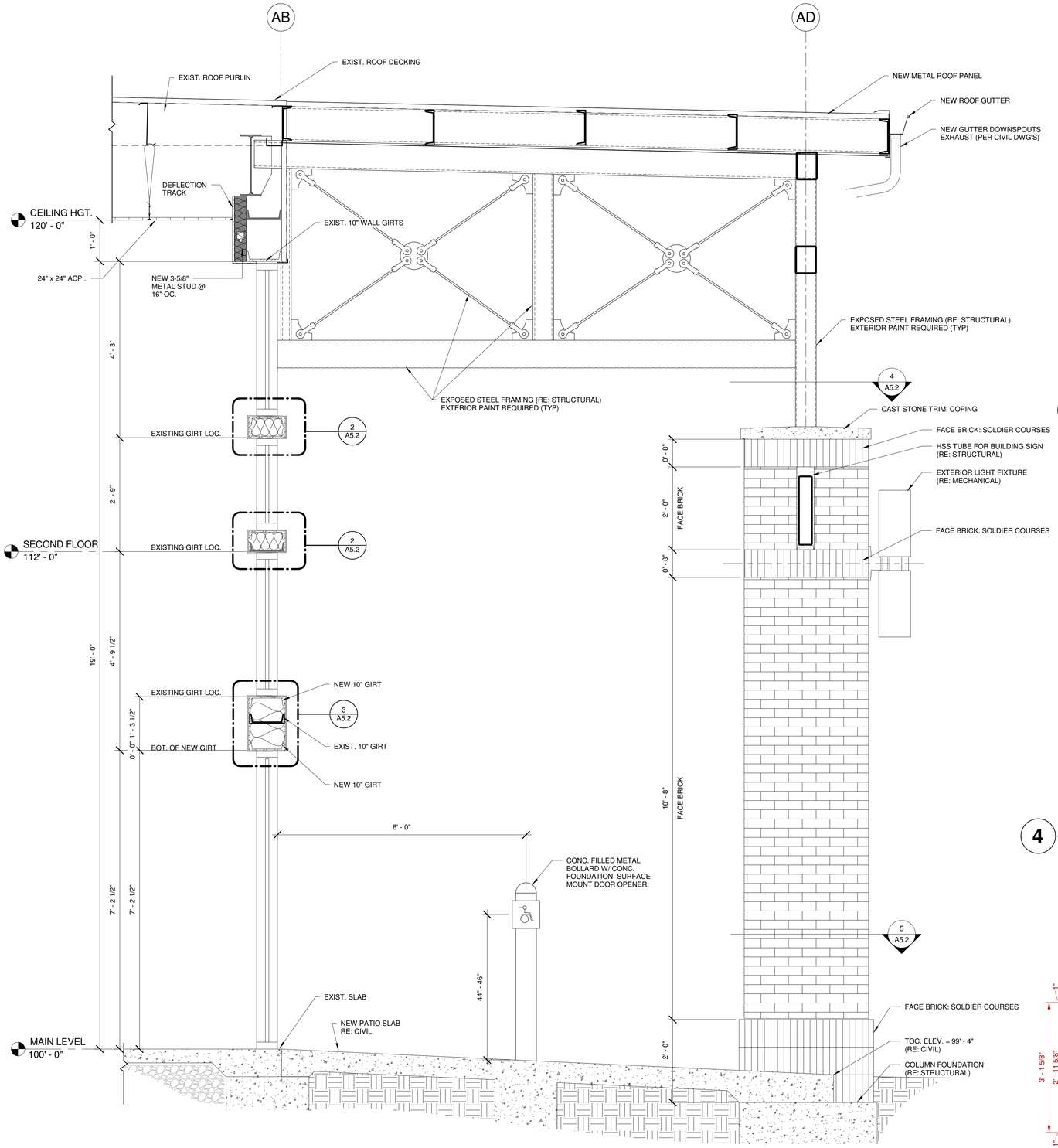
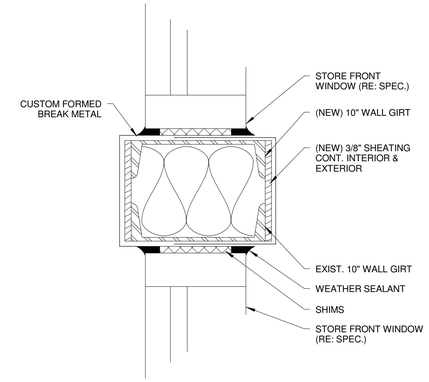
A5.1

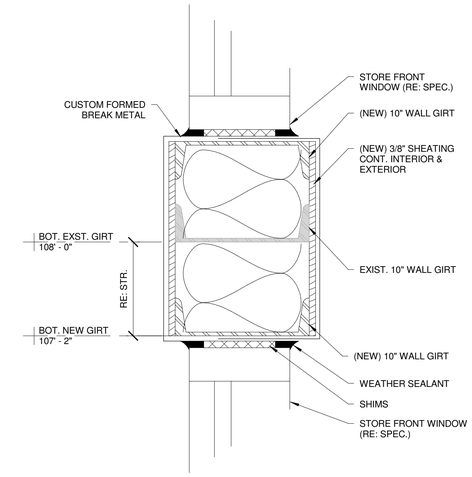
WALL SECTIONS



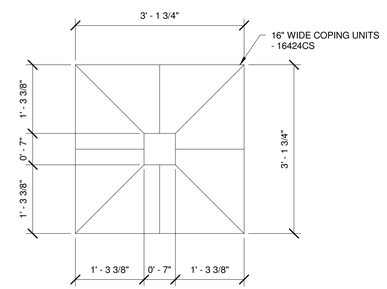
1 EAST CANOPY WALL SECTION
3/4" = 1'-0"



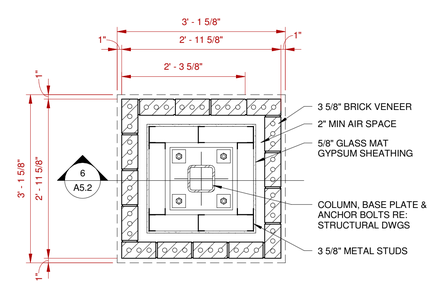
2 EXISTING GIRT FINISH DETAIL
3/4" = 1'-0"



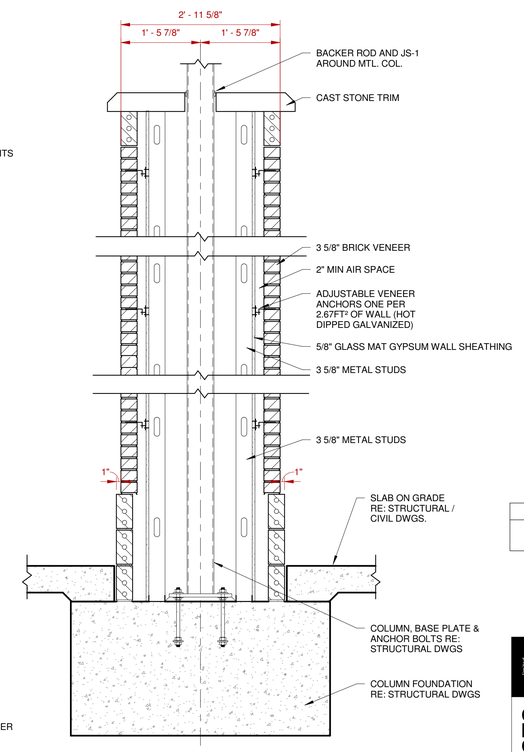
3 EXISTING GIRT FINISH DETAIL
3/4" = 1'-0"



4 COLUMN CAP STONE DETAIL
3/4" = 1'-0"



5 ENLARGED PLAN
3/4" = 1'-0"



ANCHORAGE NOTES:
1. PROVIDE AT LEAST ONE ANCHOR FOR EACH 2.67FT OF WALL.

2. SPACE ANCHORS AT A MAXIMUM OF 32" HORIZONTALLY AND 18" VERTICALLY.

3. PROVIDE ADDITIONAL ANCHORS AROUND ALL OPENINGS LARGER THAN 16" IN EITHER DIMENSION. PLACE ANCHORS AROUND PERIMETER OF OPENING AT A MAXIMUM OF 3' OC PLACE ANCHORS WITHIN 12" OF OPENINGS.

4. ANCHORS ATTACHED WITH (2) 38 MM (MIN) 1 1/2" LONG CORROSION RESISTANCE SCREWS.

6 ENLARGED SECTION
3/4" = 1'-0"

MISSOURI DEPARTMENT OF TRANSPORTATION: WAREHOUSE RENOVATION PHASE II

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MO # A-2007019928

RIMILLER ARCHITECTS

1630 WEST McCARTY STREET
JEFFERSON CITY, MISSOURI 65109

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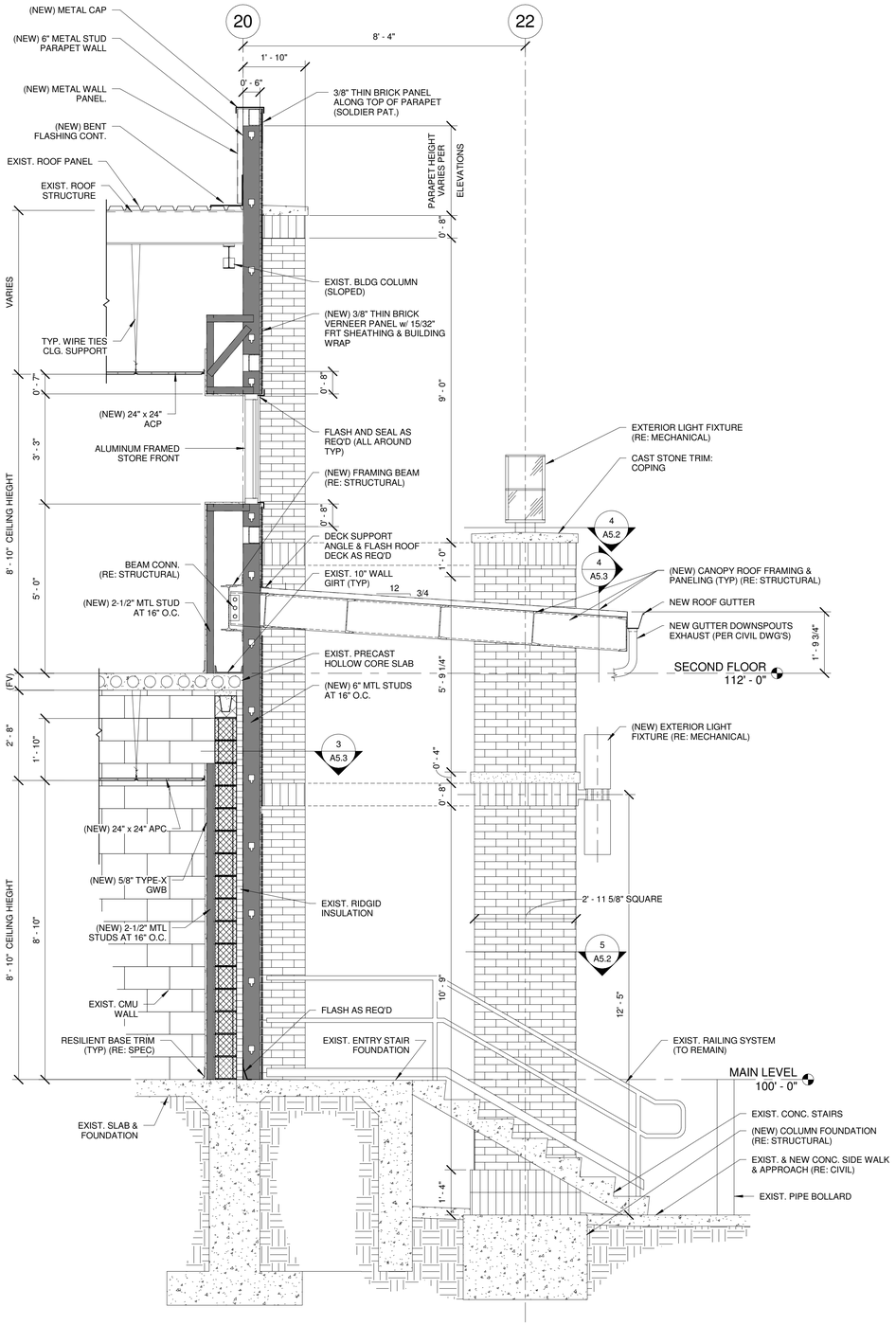
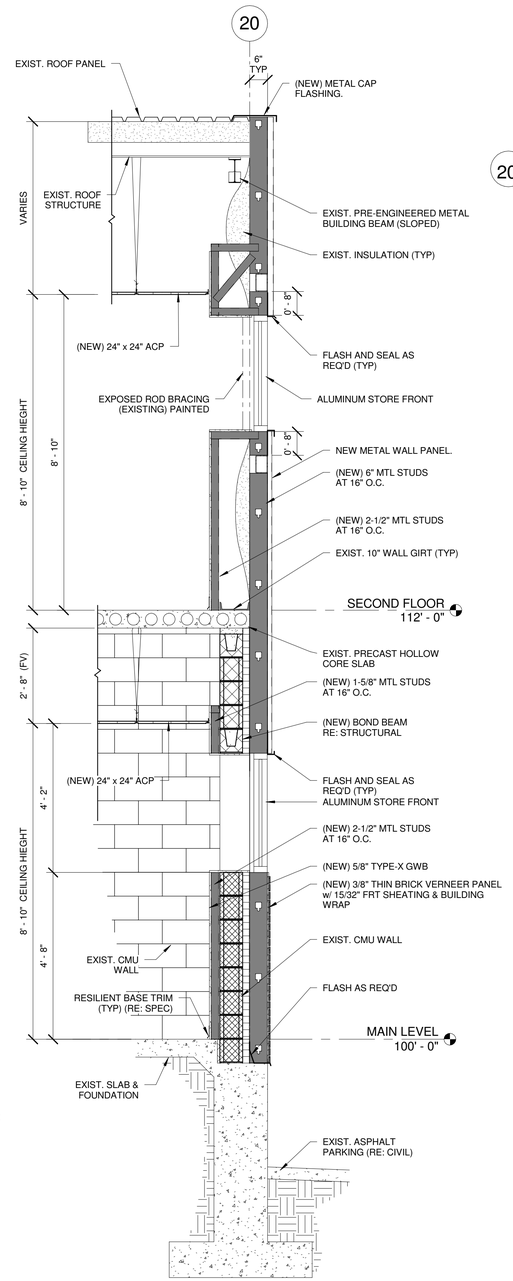
A5.2

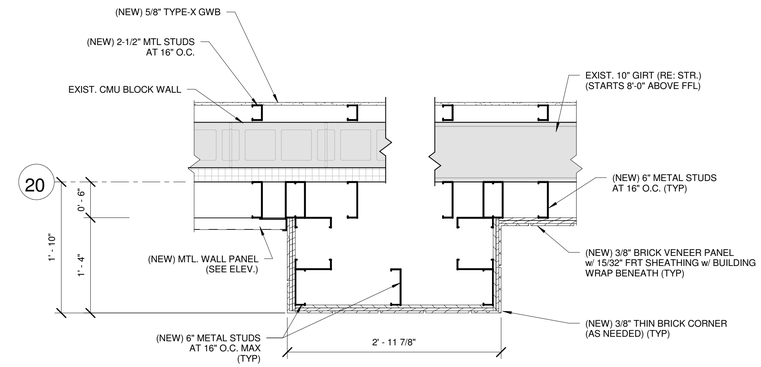
WALL SECTION



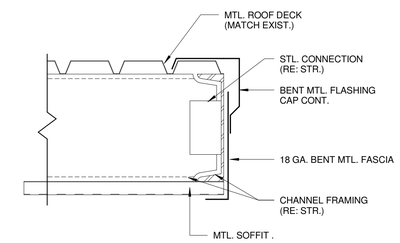
1 NORTH CANOPY WALL SECTION
1/2" = 1'-0"



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



3 COLUMN FRAMING DETAIL
1" = 1'-0"



4 EAVE DETAIL
1 1/2" = 1'-0"

MISSOURI DEPARTMENT OF TRANSPORTATION: WAREHOUSE RENOVATION PHASE II

830 MoDOT Drive
Cole County - City of Jefferson, Missouri 65109

Revision Schedule	
Revision Number	Revision Date

ISSUE DATE: 1-11-2010

PROJECT NUMBER: 09-031

STATE OF MISSOURI
MATTHEW JAMES RIMILLER
NUMBER A-2007019928
ARCHITECT
1-11-2010

RIMILLER ARCHITECTS

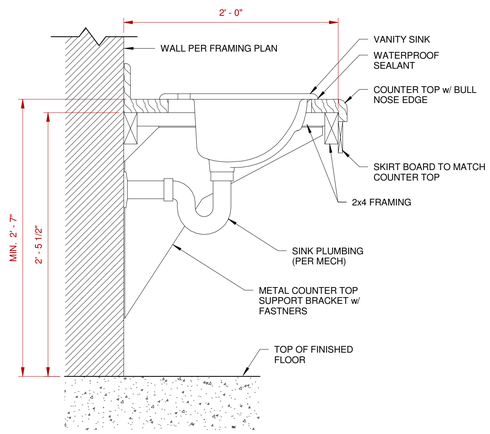
Rimiller Architects LLC
Missouri Certificate of Authority # A-2007030604
Matthew James Rimiller - Architect
MO # A-2007019928

1830 WEST McCARTY STREET
JEFFERSON CITY, MISSOURI 65109

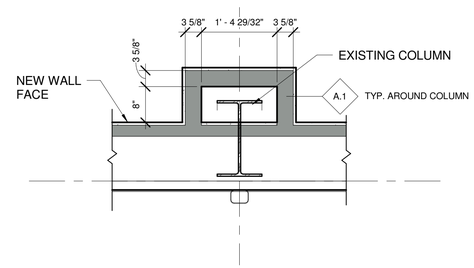
T. (573) 761-5600
F. (573) 761-5605

A5.3

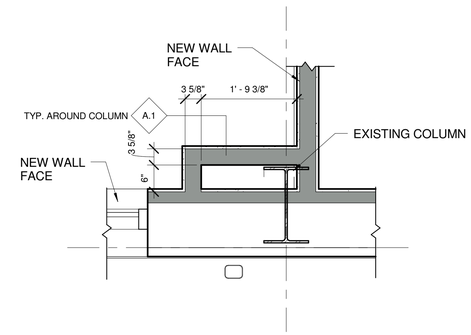
WALL SECTIONS



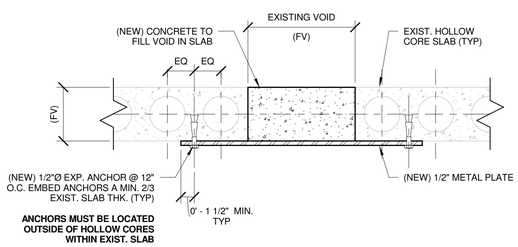
1 VANITY SINK DETAIL
1 1/2" = 1'-0"



2 TYP. DETAIL
3/4" = 1'-0"



3 TYP. DETAIL
3/4" = 1'-0"



4 HOLLOW CORE DECK REPAIR DETAIL
1 1/2" = 1'-0"

MISSOURI DEPARTMENT OF TRANSPORTATION: WAREHOUSE RENOVATION PHASE II

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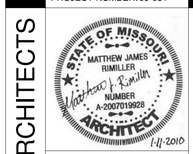

RIMILLER ARCHITECTS

Rimiller Architects LLC
Missouri Certificate of Authority # A-2007030604
Matthew James Rimiller - Architect
MO.# A-2007019928

1630 WEST McCARTY STREET
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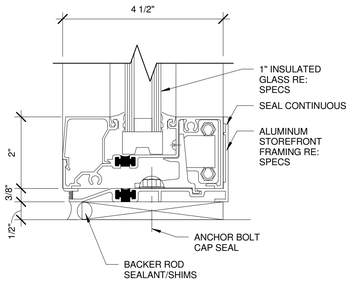
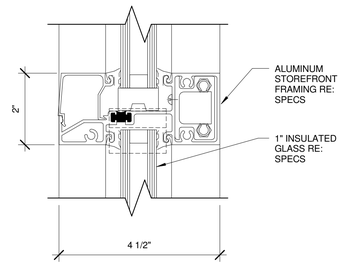
A5.4

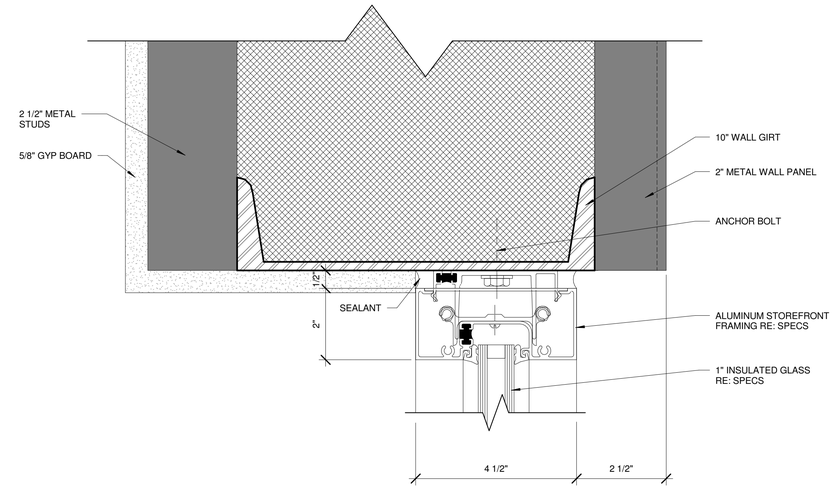
DETAILS



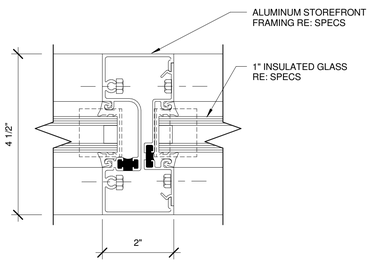
4 TYP MULLION SILL - METAL PNL
6" = 1'-0"



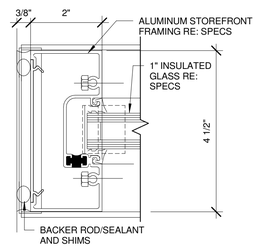
2 TYP MULLION HORIZ
6" = 1'-0"



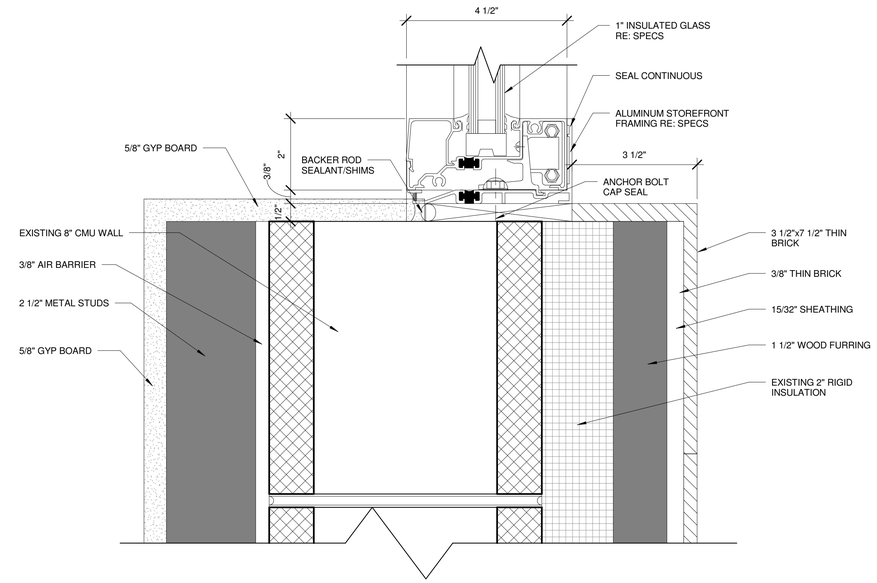
1 TYP MULLION HEADER
6" = 1'-0"



5 TYP MULLION VERTICAL
6" = 1'-0"



6 TYP MULLION VERTICAL - EXTR
6" = 1'-0"



3 TYP MULLION SILL
6" = 1'-0"

MISSOURI DEPARTMENT OF TRANSPORTATION: WAREHOUSE RENOVATION PHASE II

830 MoDOT Drive
Cole County - City of Jefferson, Missouri 65109

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Rimiller Architects LLC
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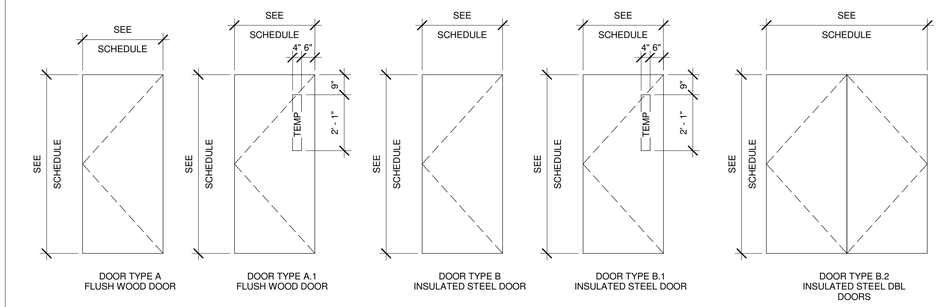
A5.5

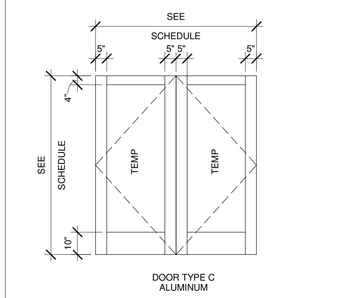
STOREFRONT DETAILS

DOOR SCHEDULE

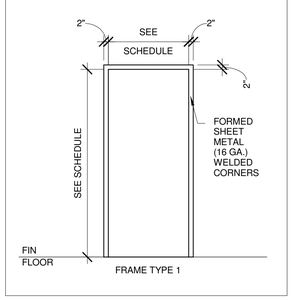
Door Number	Door Type	Width	Height	Thickness	Label	*Hardware Set	Door Remarks	Frame Type	Frame Label	Frame Material	Frame Remarks	Head Detail	Jamb Detail
201	C	6' - 0"	8' - 0"	0' - 1 3/4"		SET #4		DETAIL L A6.2		ALUMINUM			
202	C	6' - 0"	8' - 0"	0' - 1 3/4"		SET #4		DETAIL L A6.2		ALUMINUM			
203	A.1	3' - 0"	7' - 0"	0' - 1 3/4"		SET #3		1		STEEL		1/A6.1	2/A6.1
204	A	3' - 0"	7' - 0"	0' - 1 3/4"		SET #1		1		STEEL		1/A6.1	2/A6.1
205	A	3' - 0"	7' - 0"	0' - 1 3/4"		SET #3		1		STEEL		1/A6.1	2/A6.1
206	B.1	3' - 0"	7' - 0"	0' - 1 3/4"		SET #5	INSULATED	1		STEEL			
207	A	3' - 0"	7' - 0"	0' - 1 3/4"		SET #3		1		STEEL			
208	A.1	3' - 0"	7' - 0"	0' - 1 3/4"		SET #3		1		STEEL			
209	A	3' - 0"	7' - 0"	0' - 1 3/4"		SET #3		1		STEEL			
210	A.1	3' - 0"	7' - 0"	0' - 1 3/4"	3/4 HR	SET #8		1	3/4 HR	STEEL			
211	A	3' - 0"	7' - 0"	0' - 1 3/4"		SET #3		1		STEEL			
212	A.1	3' - 0"	7' - 0"	0' - 1 3/4"	3/4 HR	SET #6		1	3/4 HR	STEEL		1/A6.1	2/A6.1
213	A	3' - 0"	7' - 0"	0' - 1 3/4"		SET #3		1		STEEL		1/A6.1	2/A6.1
214	A	3' - 0"	7' - 0"	0' - 1 3/4"		SET #2		1		STEEL		1/A6.1	2/A6.1
215	A	3' - 0"	7' - 0"	0' - 1 3/4"		SET #2		1		STEEL		1/A6.1	2/A6.1
216	A	3' - 0"	7' - 0"	0' - 1 3/4"		SET #7		1		STEEL		1/A6.1	2/A6.1
217	A	3' - 0"	7' - 0"	0' - 1 3/4"		SET #7		1		STEEL		1/A6.1	2/A6.1
218	A.1	3' - 0"	7' - 0"	0' - 1 3/4"		SET #3		1		STEEL		1/A6.1	2/A6.1
219	B.1	3' - 0"	7' - 0"	0' - 1 3/4"		SET #5	INSULATED	1		STEEL			
220a	A	3' - 0"	7' - 0"	0' - 1 3/4"		SET #1		1		STEEL		1/A6.1	2/A6.1
220b	A	3' - 0"	7' - 0"	0' - 1 3/4"		SET #3		1		STEEL		1/A6.1	2/A6.1
221	A.1	3' - 0"	7' - 0"	0' - 1 3/4"		SET #3		1		STEEL		1/A6.1	2/A6.1
222	A.1	3' - 0"	7' - 0"	0' - 1 3/4"		SET #1		1		STEEL		1/A6.1	2/A6.1
223	B.1	3' - 0"	7' - 0"	0' - 1 3/4"		SET #5	INSULATED	1		STEEL			
224	A.1	3' - 0"	7' - 0"	0' - 1 3/4"		SET #1		1		STEEL		1/A6.1	2/A6.1
225	A	3' - 0"	7' - 0"	0' - 1 3/4"		SET #3		1		STEEL		1/A6.1	2/A6.1
226	A	3' - 0"	7' - 0"	0' - 1 3/4"		SET #3		1		STEEL		1/A6.1	2/A6.1
227	A.1	3' - 0"	7' - 0"	0' - 1 3/4"		SET #1		1		STEEL		1/A6.1	2/A6.1
228	A.1	3' - 0"	7' - 0"	0' - 1 3/4"		SET #1		1		STEEL		1/A6.1	2/A6.1
229	A.1	3' - 0"	7' - 0"	0' - 1 3/4"		SET #1		1		STEEL		1/A6.1	2/A6.1
230	A.1	3' - 0"	7' - 0"	0' - 1 3/4"		SET #1		1		STEEL		1/A6.1	2/A6.1
231	A.1	3' - 0"	7' - 0"	0' - 1 3/4"		SET #1		1		STEEL		3/A6.1	4/A6.1
232	A.1	3' - 0"	7' - 0"	0' - 1 3/4"		SET #1		1		STEEL		3/A6.1	4/A6.1
233	A.1	3' - 0"	7' - 0"	0' - 1 3/4"		SET #1		1		STEEL		3/A6.1	4/A6.1
234	A.1	3' - 0"	7' - 0"	0' - 1 3/4"		SET #1		1		STEEL		3/A6.1	4/A6.1
235	A.1	3' - 0"	7' - 0"	0' - 1 3/4"		SET #1		1		STEEL		3/A6.1	4/A6.1
236	A.1	3' - 0"	7' - 0"	0' - 1 3/4"		SET #1		1		STEEL		3/A6.1	4/A6.1
237	A.1	3' - 0"	7' - 0"	0' - 1 3/4"		SET #1		1		STEEL		1/A6.1	2/A6.1
238	A.1	3' - 0"	7' - 0"	0' - 1 3/4"		SET #1		1		STEEL		1/A6.1	2/A6.1
239	A.1	3' - 0"	7' - 0"	0' - 1 3/4"		SET #1		1		STEEL		1/A6.1	2/A6.1
240	A.1	3' - 0"	7' - 0"	0' - 1 3/4"		SET #1		1		STEEL		1/A6.1	2/A6.1
241	A	3' - 0"	7' - 0"	0' - 1 3/4"		SET #3		1		STEEL		1/A6.1	2/A6.1
242	A.1	3' - 0"	7' - 0"	0' - 1 3/4"		SET #1		1		STEEL		1/A6.1	2/A6.1
243	A	3' - 0"	7' - 0"	0' - 1 3/4"		SET #3		1		STEEL		1/A6.1	2/A6.1
244	A.1	3' - 0"	7' - 0"	0' - 1 3/4"		SET #3		1		STEEL		1/A6.1	2/A6.1
245	A.1	3' - 0"	7' - 0"	0' - 1 3/4"		SET #3		1		STEEL		1/A6.1	2/A6.1
246	A.1	3' - 0"	7' - 0"	0' - 1 3/4"		SET #3		1		STEEL		1/A6.1	2/A6.1
247	A	3' - 0"	7' - 0"	0' - 1 3/4"		SET #2		1		STEEL		1/A6.1	2/A6.1
248	A	3' - 0"	7' - 0"	0' - 1 3/4"		SET #2		1		STEEL		1/A6.1	2/A6.1
249	A.1	3' - 0"	7' - 0"	0' - 1 3/4"		SET #1		1		STEEL		1/A6.1	2/A6.1
250	A.1	3' - 0"	7' - 0"	0' - 1 3/4"		SET #3		1		STEEL		1/A6.1	2/A6.1
251	A.1	3' - 0"	7' - 0"	0' - 1 3/4"		SET #1		1		STEEL		1/A6.1	2/A6.1
252	A.1	3' - 0"	7' - 0"	0' - 1 3/4"		SET #1		1		STEEL		1/A6.1	2/A6.1
253	A.1	3' - 0"	7' - 0"	0' - 1 3/4"		SET #1		1		STEEL		1/A6.1	2/A6.1
254	B.2	8' - 0"	7' - 0"	0' - 2"	3/4 HR	SET #9		1	3/4 HR	STEEL			
255	A.1	3' - 0"	7' - 0"	0' - 1 3/4"	3/4 HR	SET #6		1	3/4 HR	STEEL			

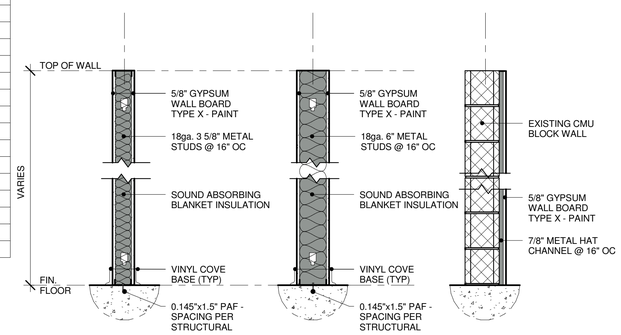
DOOR TYPES





DOOR FRAME TYPES





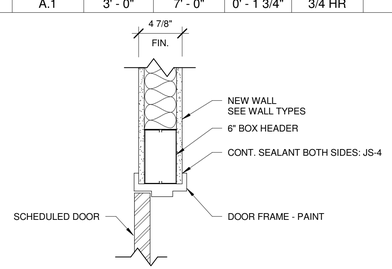
WALL TYPE A

WALL TYPE A.1
(SIM WITH 5/8" GYP ONE SIDE. USE 2" BACKING PLATE SPACED 24" OC VERT. TO SUPPORT INSULATION ON UNFINISHED SIDE.)

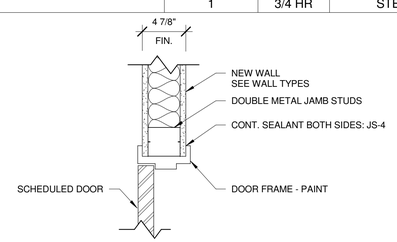
WALL TYPE B

WALL TYPE B.1
(SIM WITH 5/8" GYP ONE SIDE. USE 2" BACKING PLATE SPACED 4" OC VERT. TO SUPPORT INSULATION ON UNFINISHED SIDE.)

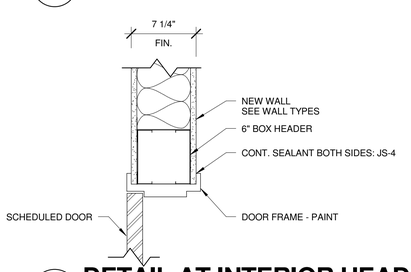
WALL TYPE C



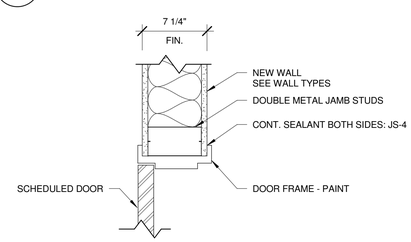
1 DETAIL AT INTERIOR HEADER (4 7/8")
1 1/2" = 1'-0"



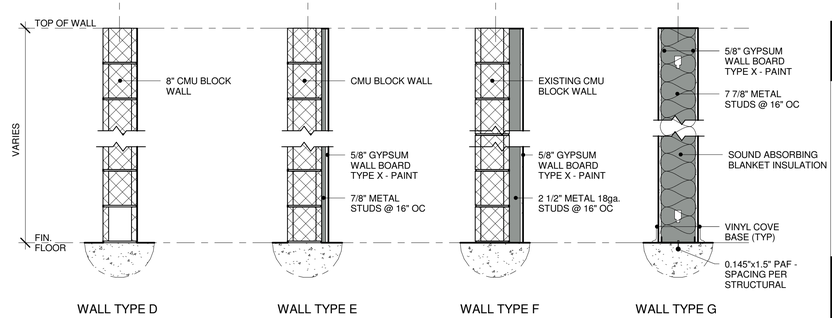
2 DETAIL AT INTERIOR JAMB (4 7/8")
1 1/2" = 1'-0"



3 DETAIL AT INTERIOR HEADER (7 1/4")
1 1/2" = 1'-0"



4 DETAIL AT INTERIOR JAMB (7 1/4")
1 1/2" = 1'-0"



WALL TYPE D | WALL TYPE E | WALL TYPE F | WALL TYPE G

WALL TYPES PHASE II
3/4" = 1'-0"

MISSOURI DEPARTMENT OF TRANSPORTATION: WAREHOUSE RENOVATION PHASE II

830 MoDOT Drive
Cole County - City of Jefferson, Missouri 65109

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MATTHEW JAMES RIMILLER
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1-11-2010

Rimiller Architects LLC
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RIMILLER ARCHITECTS

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JEFFERSON CITY, MISSOURI 65109

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A6.1

DOOR & WALL SCHEDULES

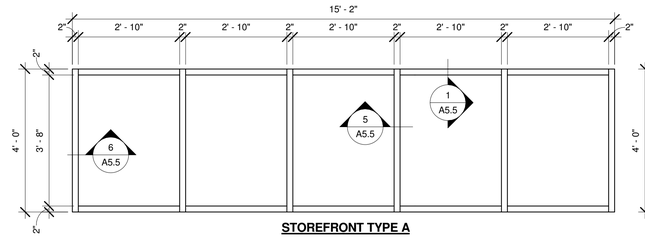
Finish Schedule Key	
APC	Acoustical Panel Ceiling
E	Existing
P	Interior Latex Primer & Interior High-Performance Architectural Latex Paint
V	Vinyl Cove Base 4"
VCT	Vinyl Composition Tile
C	Carpet Tile

Room Schedule Phase II

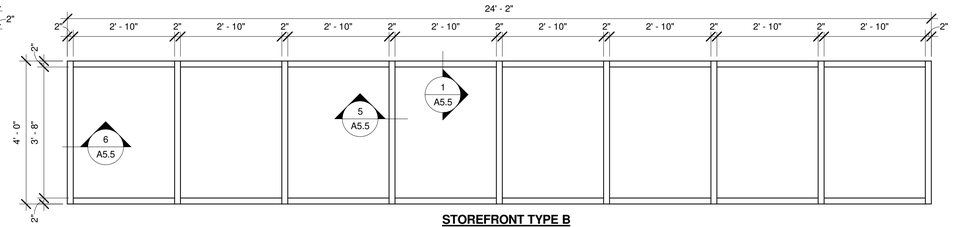
Number	Name	Floor Finish	Base Finish	Wall Finish	Ceiling Finish	Notes
301	Entry	VCT	V	P	APC	
302	Receptionist	C	V	P	APC	
303	Data/Telcom	C	V	P	APC	
304	Lobby	C	V	P	APC	
305	MO Director	C	V	P	APC	
306	Survey Storage	VCT	V	P	APC	
307	Mechanical	E	E	E	E	
308	Mechanical	E	E	E	E	
309	Scan Rm	C	E	E	E	
310	Conference Rm 3	C	V	P	APC	
311	CADD Training	C	V	P	APC	
312	MO Storage	C	V	P	APC	
313	Conference Rm 2	C	V	P	APC	
314	Womens Restroom	VCT	V	P	APC	
315	Mens Restroom	VCT	V	P	APC	
316	Assist. RR	VCT	V	P	APC	
317	Nursing	VCT	V	P	APC	
318	Break Rm 1	VCT	V	P	APC	
319	Conference Rm 4	C	V	P	APC	
320	TS Storage	C	V	P	APC	
321	Travel Services	C	V	P	APC	
322	Travel Services	C	V	P	APC	
323	TS 1	C	V	P	APC	
324	GS Storage	C	V	P	APC	
325	GS Director	C	V	P	APC	
326	EO Director	C	V	P	APC	
327	Equal Opp.	C	V	P	APC	
328	EO Storage	C	V	P	APC	
329	General Services	C	V	P	APC	
330	GS 4	C	V	P	APC	
331	GS 3	C	V	P	APC	
332	Kardex Rm	C	V	P	APC	
333	GS 2	C	V	P	APC	
334	GS 1	C	V	P	APC	
335	Multi Modal	C	V	P	APC	
336	MO1	C	V	P	APC	
337	MO 2	C	V	P	APC	
338	MO 3	C	V	P	APC	
339	MO 4	C	V	P	APC	
340	MO 5	C	V	P	APC	
341	MO 6	C	V	P	APC	
342	MO 7	C	V	P	APC	
343	MO 8	C	V	P	APC	
344	Tire Storage	E	E	E	E	
345	CADD	C	V	P	APC	
346	CADD 3	C	V	P	APC	
347	CADD 1	C	V	P	APC	
348	CADD 2	C	V	P	APC	
349	Photogrammetry	C	V	P	APC	
350	Roof Access/ Mech. Rm	E	E	E	E	
351	CADD Storage	C	V	P	APC	
352	Break Rm 2	VCT	V	P	APC	
353	Conference Rm 1	C	V	P	APC	
354	D/T ROOM 2	E	E	E	APC	
355	Womens Restroom	VCT	V	P	APC	
356	Mens Restroom	VCT	V	P	APC	
357	Organizational Results	C	V	P	APC	
358	OR 3	C	V	P	APC	
359	OR Storage	C	V	P	APC	
360	OR Director	C	V	P	APC	
361	OR 4	C	V	P	APC	
362	OR Admin.	C	V	P	APC	

WINDOW SCHEDULE

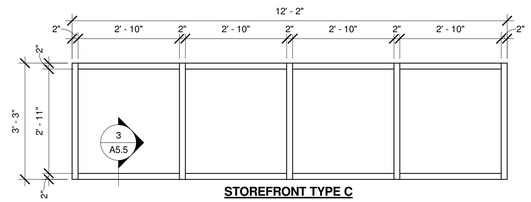
MARK	CONSTRUCTION	ROUGH WIDTH	ROUGH HEIGHT	HEAD HEIGHT
115	STEEL (COLD ROLLED)	2' - 0"	3' - 0"	7' - 0"
116	STEEL (COLD ROLLED)	4' - 0"	4' - 0"	8' - 0"



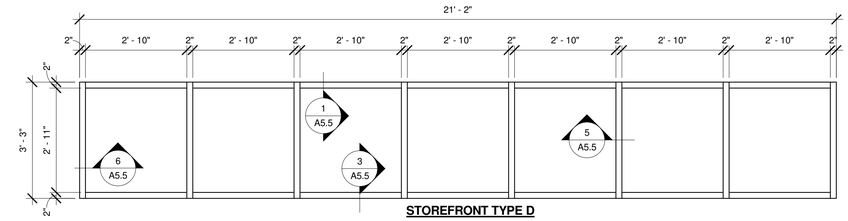
STOREFRONT TYPE A



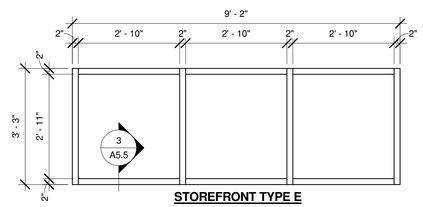
STOREFRONT TYPE B



STOREFRONT TYPE C



STOREFRONT TYPE D



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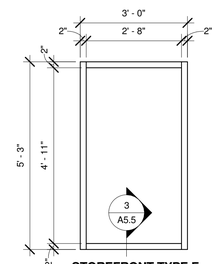
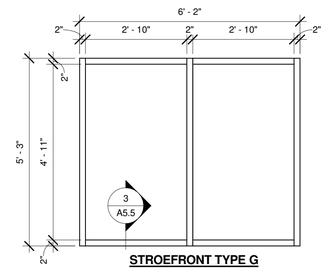
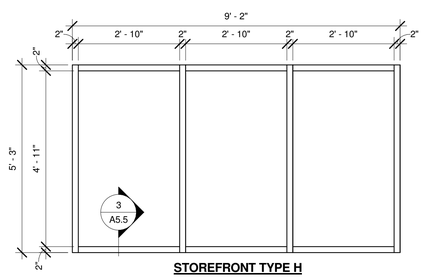


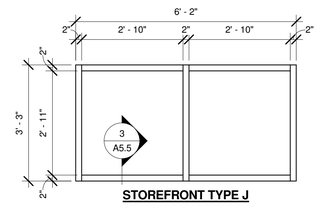
STOREFRONT TYPE F



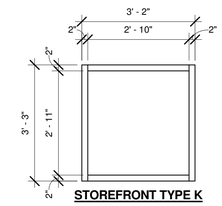
STROEFRONT TYPE G



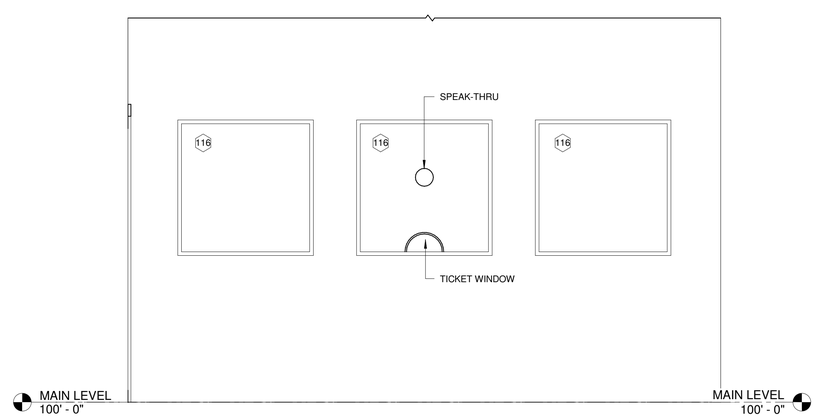
STOREFRONT TYPE H



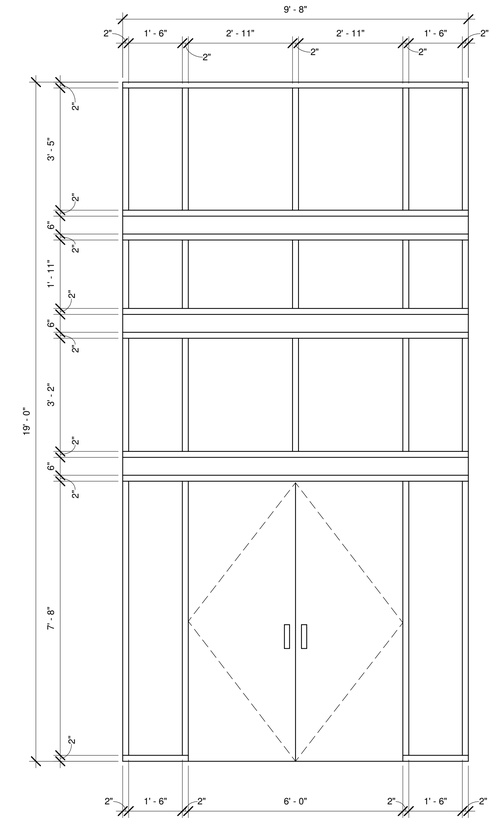
STOREFRONT TYPE J



STOREFRONT TYPE K



1 TRANSFER WINDOW BETWEEN ENTRY/RECEPTIONEST
1/2" = 1'-0"



STOREFRONT TYPE L

MISSOURI DEPARTMENT OF TRANSPORTATION: WAREHOUSE RENOVATION PHASE II

830 MoDOT Drive
Cole County - City of Jefferson, Missouri 65109

Revision Schedule	
Revision Number	Revision Date

limited liability company

ISSUE DATE: 1-11-2010

PROJECT NUMBER: 09-031

STATE OF MISSOURI
MATTHEW JAMES RIMILLER
NUMBER A-2007019928
ARCHITECT
1-11-2010

Rimiller Architects LLC
Missouri Certificate of Authority # A-2007030604
Matthew James Rimiller - Architect
MO.# A-2007019928

RIMILLER ARCHITECTS

1630 WEST McCARTY STREET
JEFFERSON CITY, MISSOURI 65109

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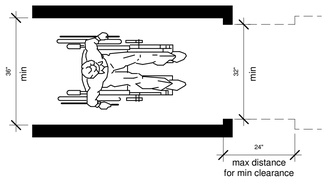
A6.2

ROOM & WINDOW SCHEDULES

Figure 1
Minimum Clear Width for Single Wheelchair



The minimum clear passage for a single wheelchair shall be 36" min. along an accessible route, but may be redced to 32" minimum at a point for a maximum depth of 24", such as at a doorway.

Figure 2
Minimum Clear Width for Two Wheelchairs

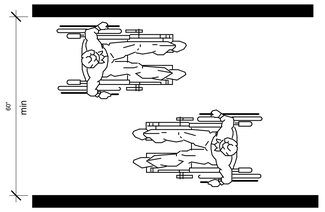
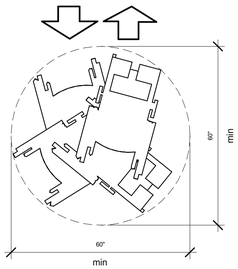
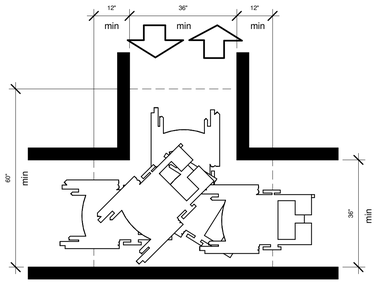


Figure 3
Wheelchair Turning Space

(a) 60-in Diameter Space



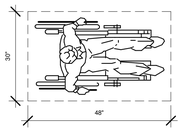
(b) T-Shaped Space for 180 Degree Turns



The T-shape space is 36 inches wide at the top and stem within a 60 inch by 60 inch square.

Figure 4
Clear Floor or Ground Space for Wheelchairs

(a) Clear Floor Space



Clear floor space shown to be 30 by 48 inches minimum.

(b) Forward Approach

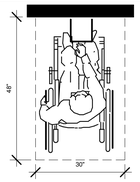
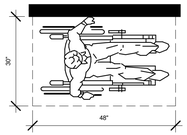
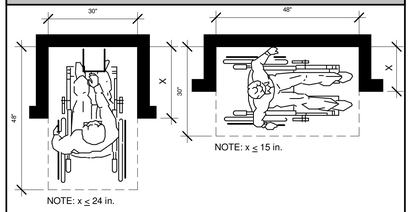


Figure 4 Continued
Clear Floor or Ground Space for Wheelchairs

(c) Parallel Approach

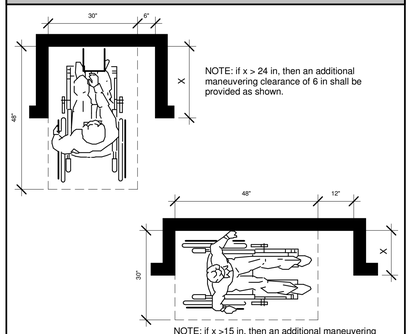


(d) Clear Floor Space in Alcoves



For a front approach, where the depth of the alcove is equal to or less than 24 inches, the required clear floor space is 30 inches by 48 inches.
For a side approach, where the depth of the alcove is equal to or less than 15 inches, the required clear floor space is 30 inches by 48 inches.

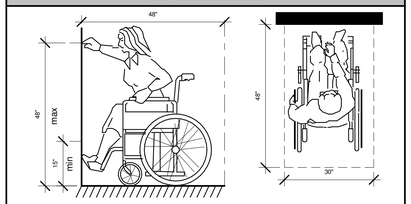
(e) Additional Maneuvering Clearance for Alcoves



For a front approach, if the depth of the alcove is greater than 24 inches, then in addition to the 30 inch width, a maneuvering clearance of 6 inches in width is required.
For a side approach, where the depth of the alcove is greater than 15 inches, then in addition to the 48 inch length, an additional maneuvering clearance of 12 inches in length is required.

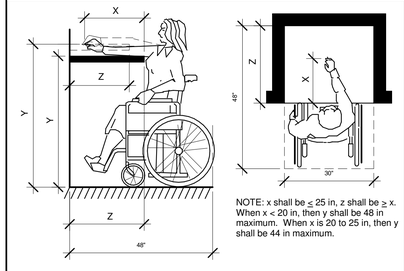
Figure 5
Forward Reach

(a) High Forward Reach Limit



Forward reach range shown in profile and plan view to be 48 inches maximum and 15 inches minimum.

(b) Maximum Forward Reach Over an Obstruction

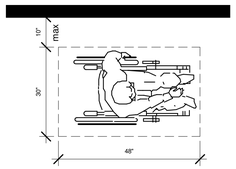


NOTE: x shall be ≤ 25 in, z shall be ≥ x. When x < 20 in, then y shall be 48 in maximum. When x is 20 to 25 in, then y shall be 44 in maximum.

The maximum level forward reach over an obstruction with knee space below is 25 inches. When the obstruction is less than 20 inches deep, the maximum high forward reach is 48 inches. When the obstruction projects 20 to 25 inches, the maximum high forward reach is 44 inches. (4.2.5, 4.25.3).

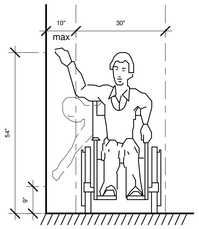
Figure 6
Side Reach

(a) Clear Floor Space - Parallel Approach



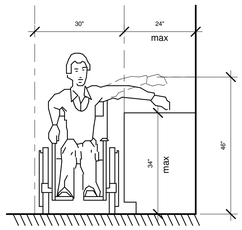
The 30 by 48 inch clear floor space is located a maximum 10 inches from the wall.

(b) High and Low - Side Reach Limits



The 30 by 48 inch wheelchair clear floor space is located a maximum 10 inches from the wall.

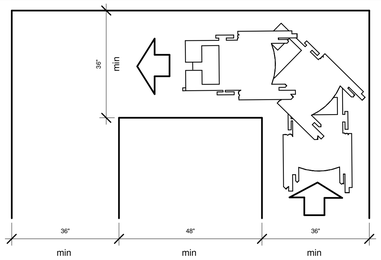
(c) Maximum Side Reach over Obstruction



If the depth of the obstruction is 24 inches and the maximum height of the obstruction is 34 inches, the maximum high side reach over the obstruction is 46 inches.

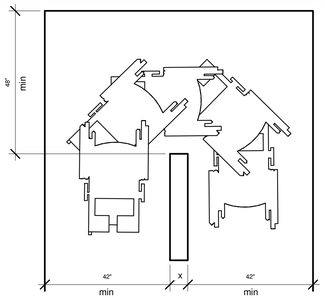
Figure 7
Accessible Route

(a) Accessible Route - 90 Degree Turn



A 90 degree turn can be made from a 36 inch wide passage into another 36 inch passage if the depth of each leg is a minimum of 48 inches on the inside dimensions of the turn.

(b) Accessible Route - Turns Around an Obstruction

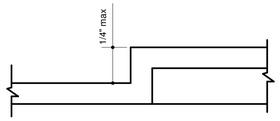


NOTE: Dimensions shown apply when x < 48 in.

A U-turn around an obstruction less than 48 inches wide may be made if the passage width is a minimum of 42 inches and the base of the U-turn space is a minimum of 48 inches wide.

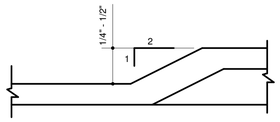
Figure 7 Continued
Accessible Route

(c) Accessible Route - Changes in Level



Cross section drawing showing a maximum 1/4 inch vertical change in level.

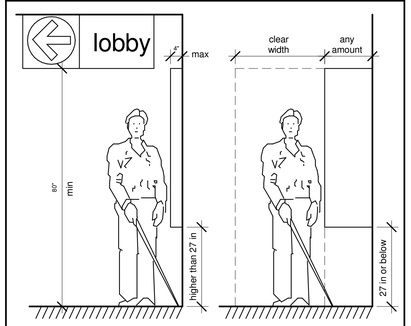
(d) Accessible Route - Changes in Level



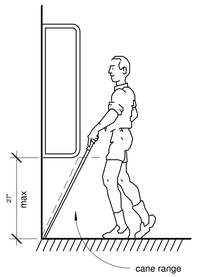
Cross section drawing showing a change in level 1/4 to 1/2 inch high with a 1:2 slope.

Figure 8
Protruding Objects

(a) Protruding Objects - Walking Parallel to a Wall



(b) Protruding Objects - Walking Perpendicular to a Wall



(c) Protruding Objects - Free-Standing Overhanging Objects

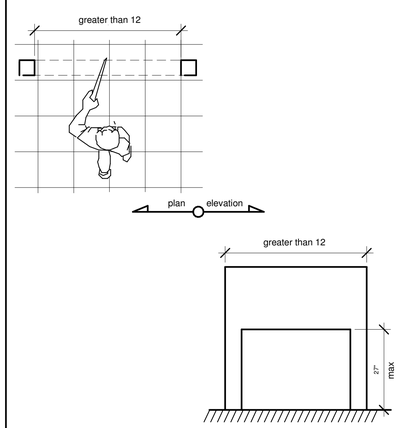
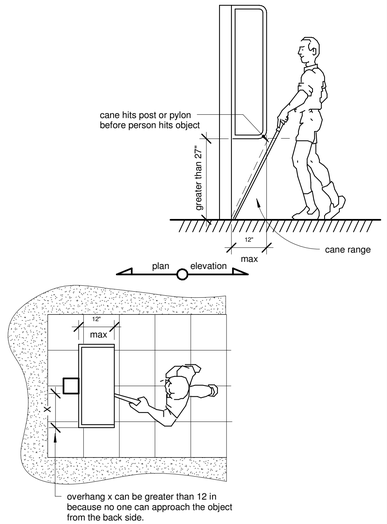


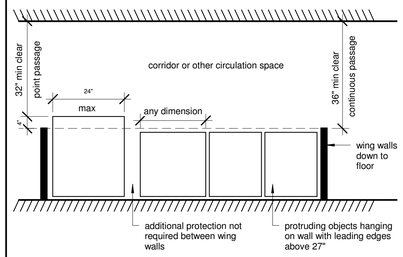
Figure 8 Continued
Protruding Objects

(d) Protruding Objects - Objects Mounted on Posts or Pylons



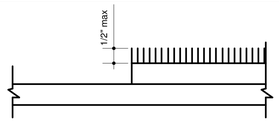
The diagram illustrates an area where an overhang can be greater than 12 inches because the object cannot be approached in the direction of the overhang.

(e) Protruding Objects - Protection Around Wall Mounted Objects and Measurements of Clear Widths

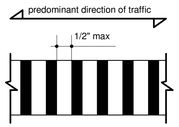


The minimum clear width for continuous passage is 36 inches. Thirty two (32) inches is the minimum clear width for a maximum distance of 24 inches. The maximum distance an object can protrude beyond a wing wall is 4 inches.

(f) Carpet Pile Thickness

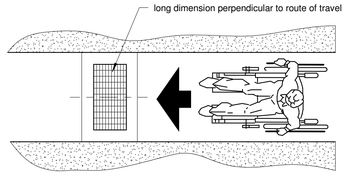


(g) Gratings



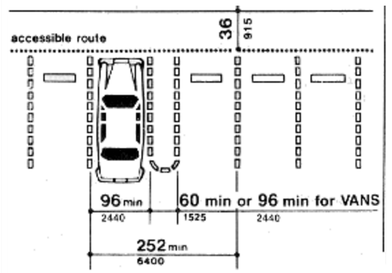
Gratings shown with one dimension 1/2 inch maximum measured parallel to the predominant direction of travel.

(h) Gratings Orientation



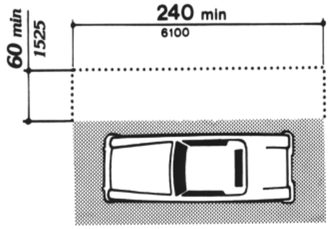
Gratings shown with long dimension perpendicular to route of travel.

Figure 9
Dimensions of Parking Spaces



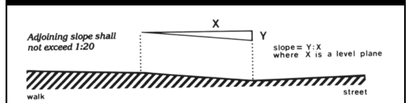
The access aisle shall be a min. of 60" wide for cars or a min. of 96" wide for vans. The accessible route connected to the access asile at the front of the parking spaces shall be a min. of 36".

Figure 10
Access Aisle at Passenger Loading Zones



An access aisle is required at a passenger loading zone which is 240 inches min., measured parallel to the vehicle pull-up area, and 60 inches min., measured perpendicular to the vehicle area. This aisle must be clear of obstructions and at the same level as the vehicle area.

Figure 11
Measurement of Curb Ramp Slopes



The ramp slope is a ratio equal to the vertical rise (y) divided by the horizontal run (x). It is equal to the tangent of the angle that the plane of the ramp surface makes with a horizontal (level) plane. For a curb ramp, the adjoining slope at walk or street shall not exceed 1:20.

MISSOURI DEPARTMENT OF TRANSPORTATION: WAREHOUSE RENOVATION PHASE II

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ISSUE DATE: 1-11-2010

PROJECT NUMBER: 09-031

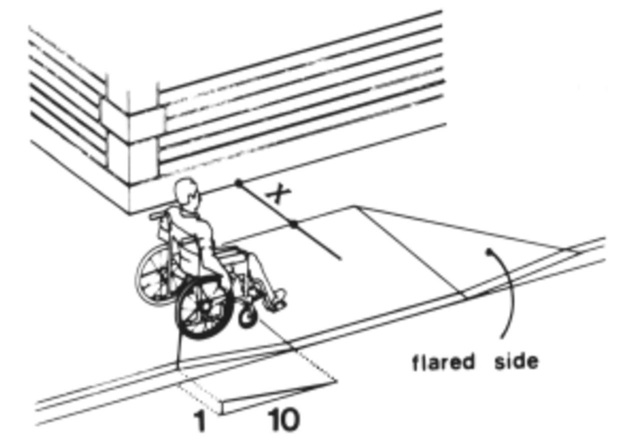
STATE OF MISSOURI — MATTHEW JAMES RIMILLER — NUMBER A-2007019928 — ARCHITECT — 1-11-2010

ADA-1

ADA FIGURES 1 - 11

Figure 12
Sides of Curb Ramps

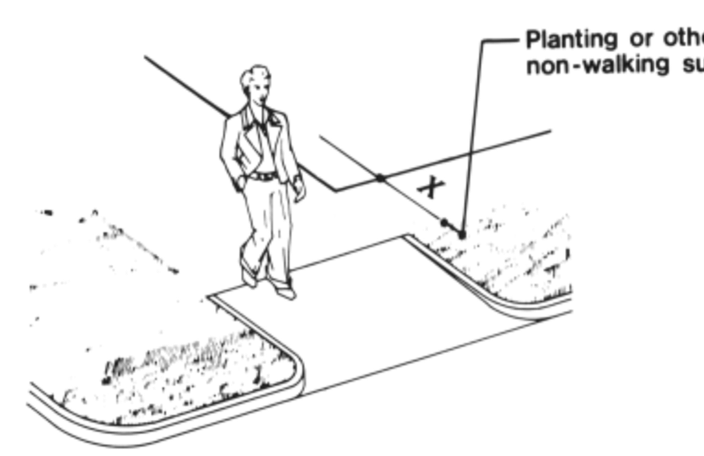
(a) Flared Sides



Note: If X is less than 48 inches, then the slope of the flared side shall not exceed 1:12

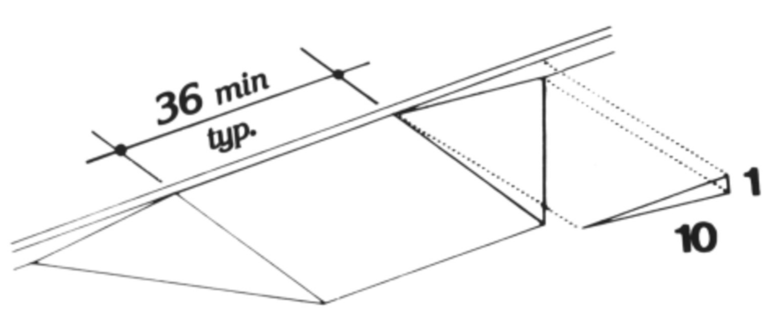
This figure shows a typical curb ramp, cut into a walkway perpendicular to the curb face, with flared sides having a maximum slope of 1:10. The landing at the top, measured from the top of the ramp to the edge of the walkway or closest obstruction is denoted as "x". If x, the landing depth at the top of a curb ramp, is less than 48 inches, then the slope of the flared side shall not exceed 1:12.

(b) Returned Curb



Where the curb ramp is completely contained within a planting strip or other non-walking surface, so that pedestrians would not normally cross the sides, the curb ramp sides can have steep sides including vertical returned curbs.

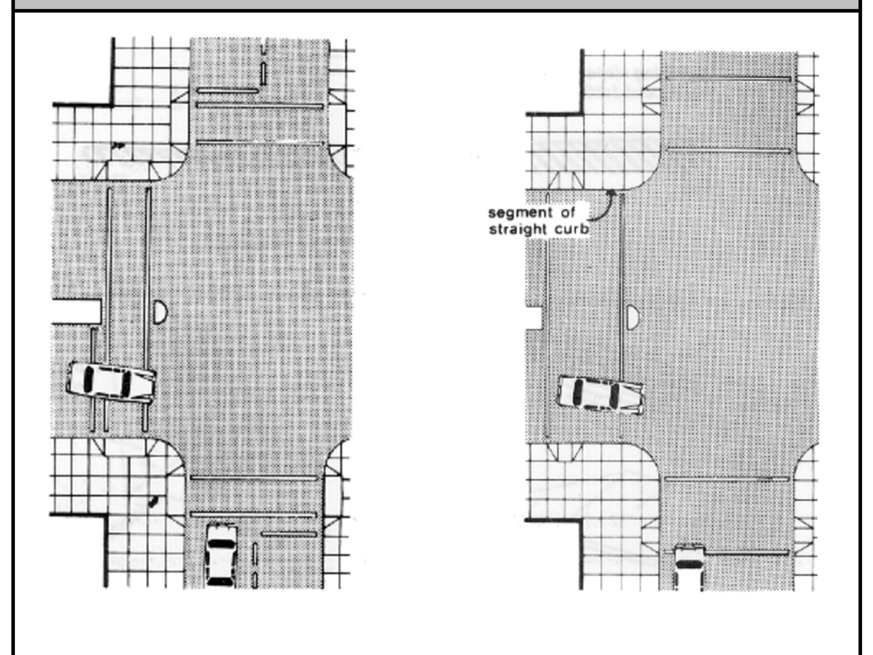
Figure 13
Built-Up Curb Ramp



A built-up curb ramp extends outward from the curb and slopes to the ground surface. The sides must also be tapered from the ramp surface to the ground, with a maximum slope of 1:10, so that there are no drop-offs along the edges.

Figure 15
Curb Ramp at Marked Crossings

(a) Curb Ramp at Marked Crossings | (b) Curb Ramp at Marked Crossings



(c) Curb Ramp at Marked Crossings | (d) Curb Ramp at Marked Crossings

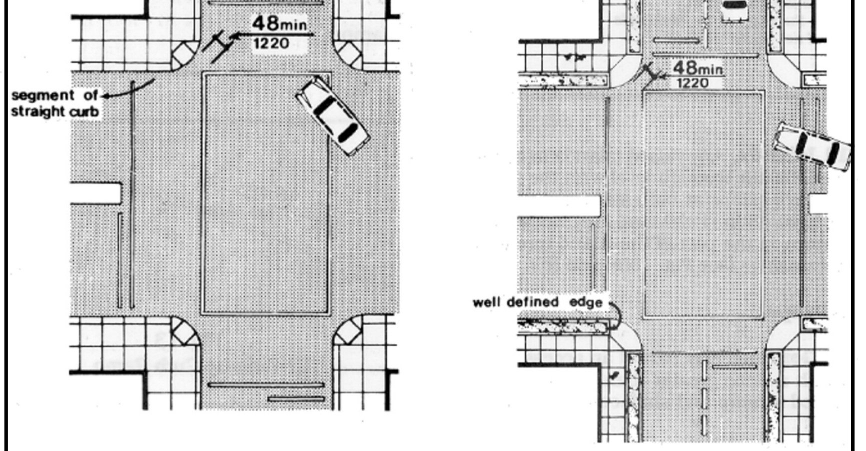
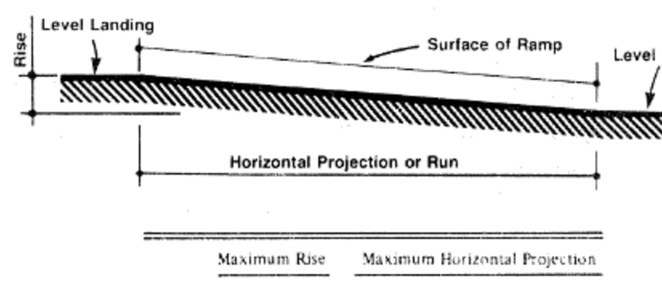


Figure 16
Components of a Single Ramp Run and Sample Ramp Dimensions



	Maximum Rise		Maximum Horizontal Projection	
Slope	in	mm	ft	m
1:12 to < 1:16	30	760	30	9
1:16 to < 1:20	30	760	40	12

If the slope of a ramp is between 1:12 and 1:16, the maximum rise shall be 30 inches (760 mm) and the maximum horizontal run shall be 30 feet (9 m). If the slope of the ramp is between 1:16 and 1:20, the maximum rise shall be 30 inches (760 mm) and the maximum horizontal run shall be 40 feet (12 m).

Figure 17
Examples of Edge Protection and Handrail Extensions

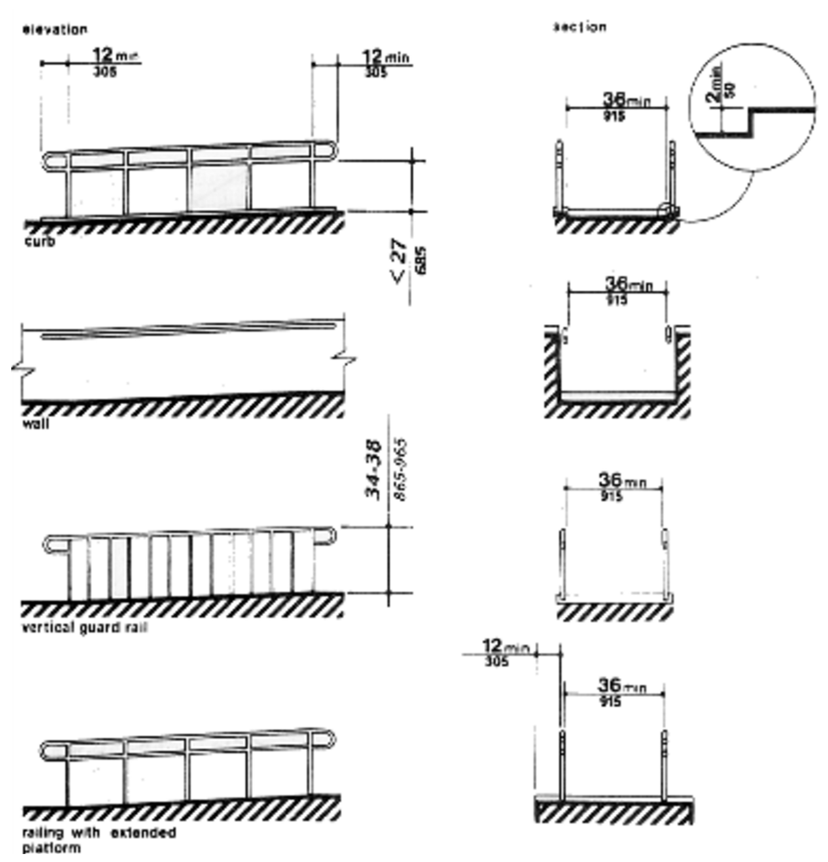


Figure 18
Usable Tread Width and Examples of Acceptable Nosings

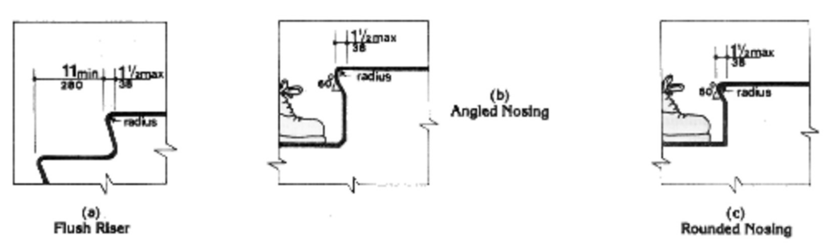
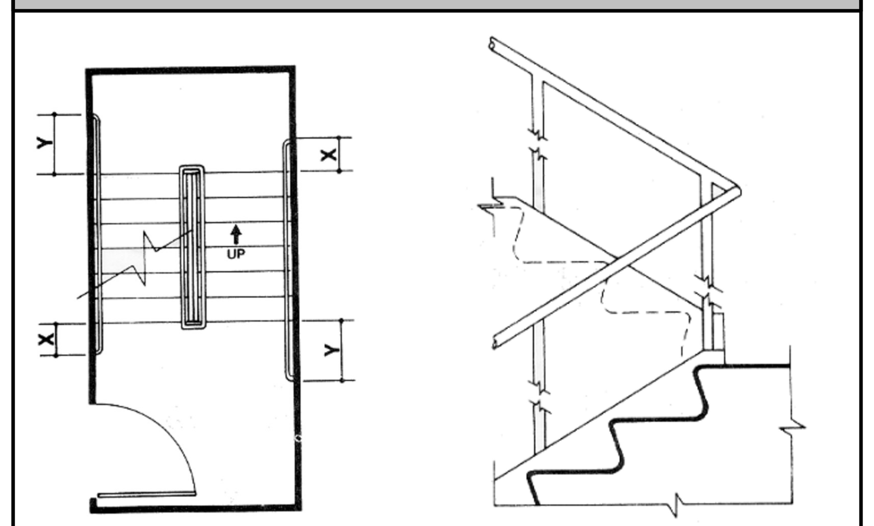


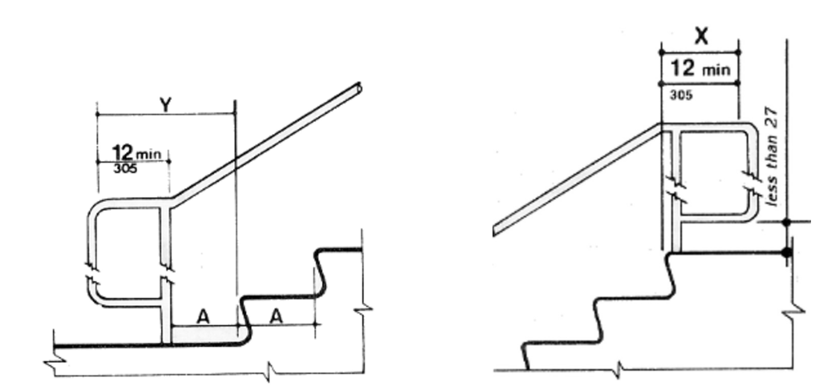
Figure 19
Stair Handrails

(a) Stair Handrails - Plan | (b) Stair Handrails - Elevation of Center Handrail



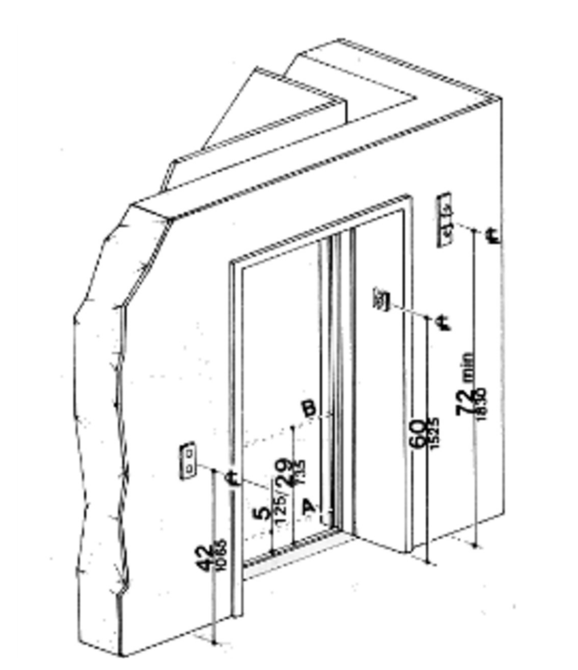
NOTE:
X is the 12 in minimum handrail extension required at each top riser.
Y is the minimum handrail extension of 12 plus the width of one tread that is required at each bottom riser.

(c) Stair Handrails - Extension at Bottom of Run | (d) Stair Handrails - Extension at Top of Run



NOTE:
X is the 12 in minimum handrail extension required at each top riser.
Y is the minimum handrail extension of 12 plus the width of one tread that is required at each bottom riser.

Figure 20
Hoistway and Elevator Entrances



NOTE:
The automatic door reopening device is activated if an object passes through either line A or line B. Line A and line B represent the vertical locations of the door reopening device not requiring contact.

Figure 21
Graph of Timing Equation

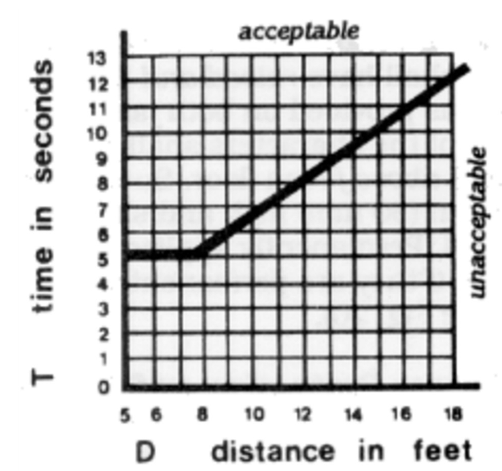


Figure 22
Minimum Dimensions of Elevator Cars

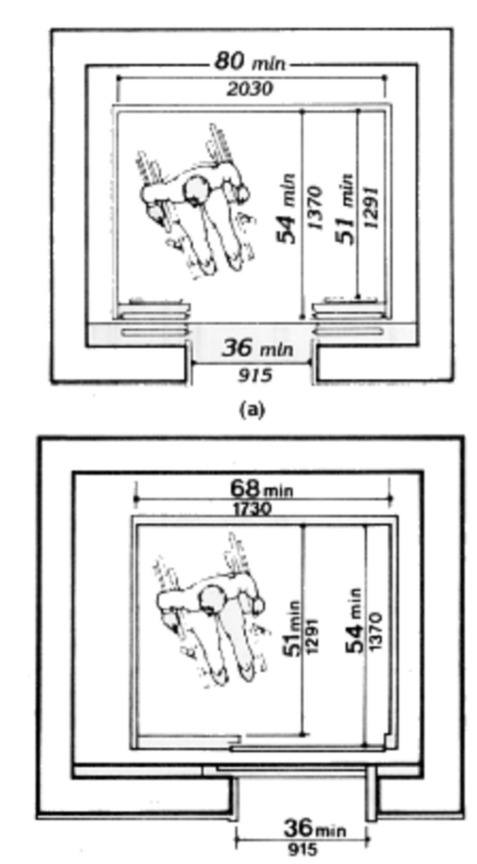
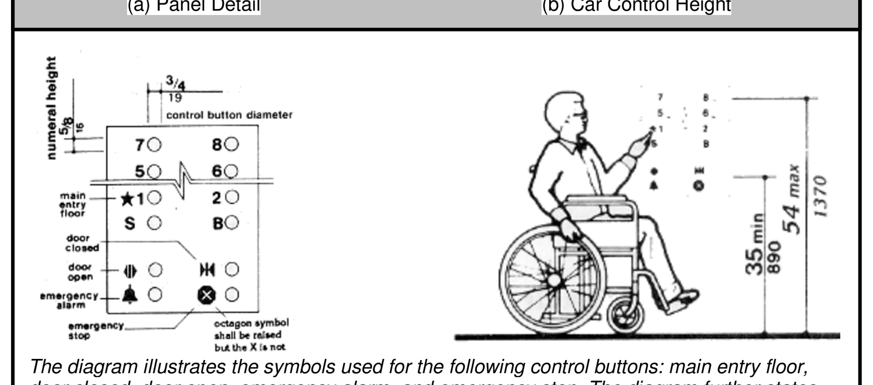


Diagram (a) illustrates an elevator with a door providing a 36 inch (915 mm) minimum clear width, in the middle of the elevator. The width of the elevator car is a minimum of 80 inches (2030 mm). The depth of the elevator car measured from the back wall to the elevator door is a minimum of 54 inches (1370 mm). The depth of the elevator car measured from the back wall to the control panel is a minimum of 51 inches (1291 mm).
Diagram (b) illustrates an elevator with door providing a minimum 36 inch (915 mm) clear width, located to one side of the elevator. The width of the elevator car is a minimum of 68 inches (1730 mm). The depth of the elevator car measured from the back wall to the elevator door is a minimum of 54 inches (1370 mm). The depth of the elevator car measured from the back wall to the control panel is a minimum of 51 inches (1291).

Figure 23
Car Controls

(a) Panel Detail | (b) Car Control Height



The diagram illustrates the symbols used for the following control buttons: main entry floor, door closed, door open, emergency alarm, and emergency stop. The diagram further states that the octagon symbol for the emergency stop shall be raised but the X (inside the octagon) is not.

Figure 23 Continued
Car Controls

(c) Alternate Locations of Panel with Center Door Opening | (d) Alternate Locations of Panel with Side Opening Door

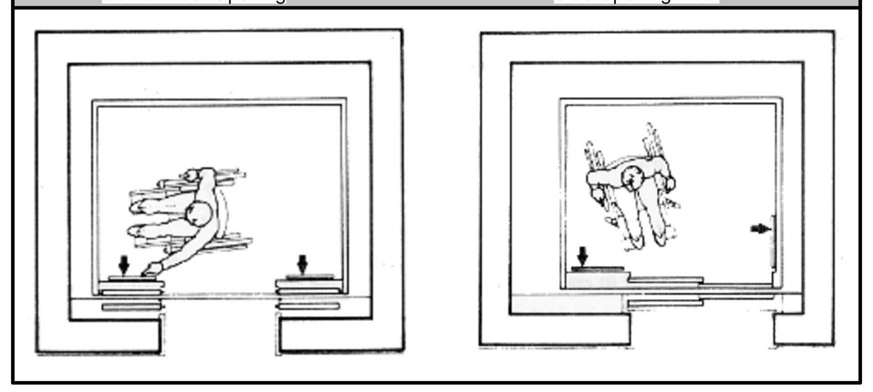
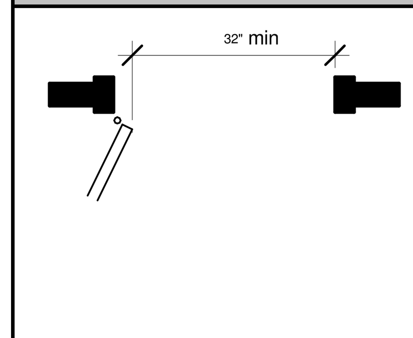
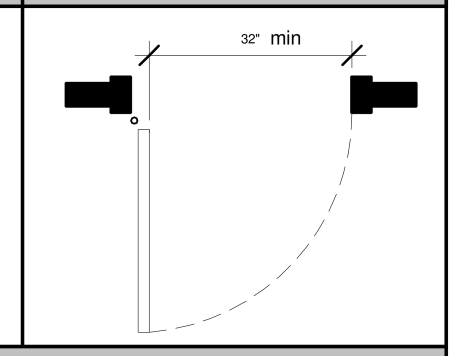


Figure 24
Clear Doorway and Depth Detail

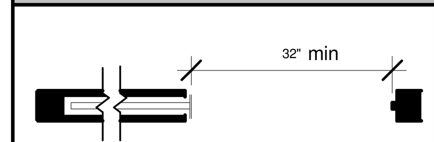
(a) Detail



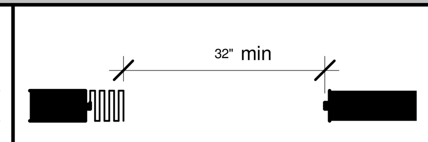
(b) Hinged Door



(c) Sliding Door



(d) Folding Door



(e) Clear Doorway Width and Depth - Maximum Doorway Depth

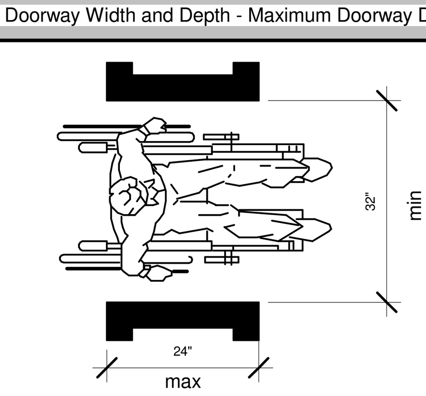


Figure 25
Maneuvering Clearances at Doors

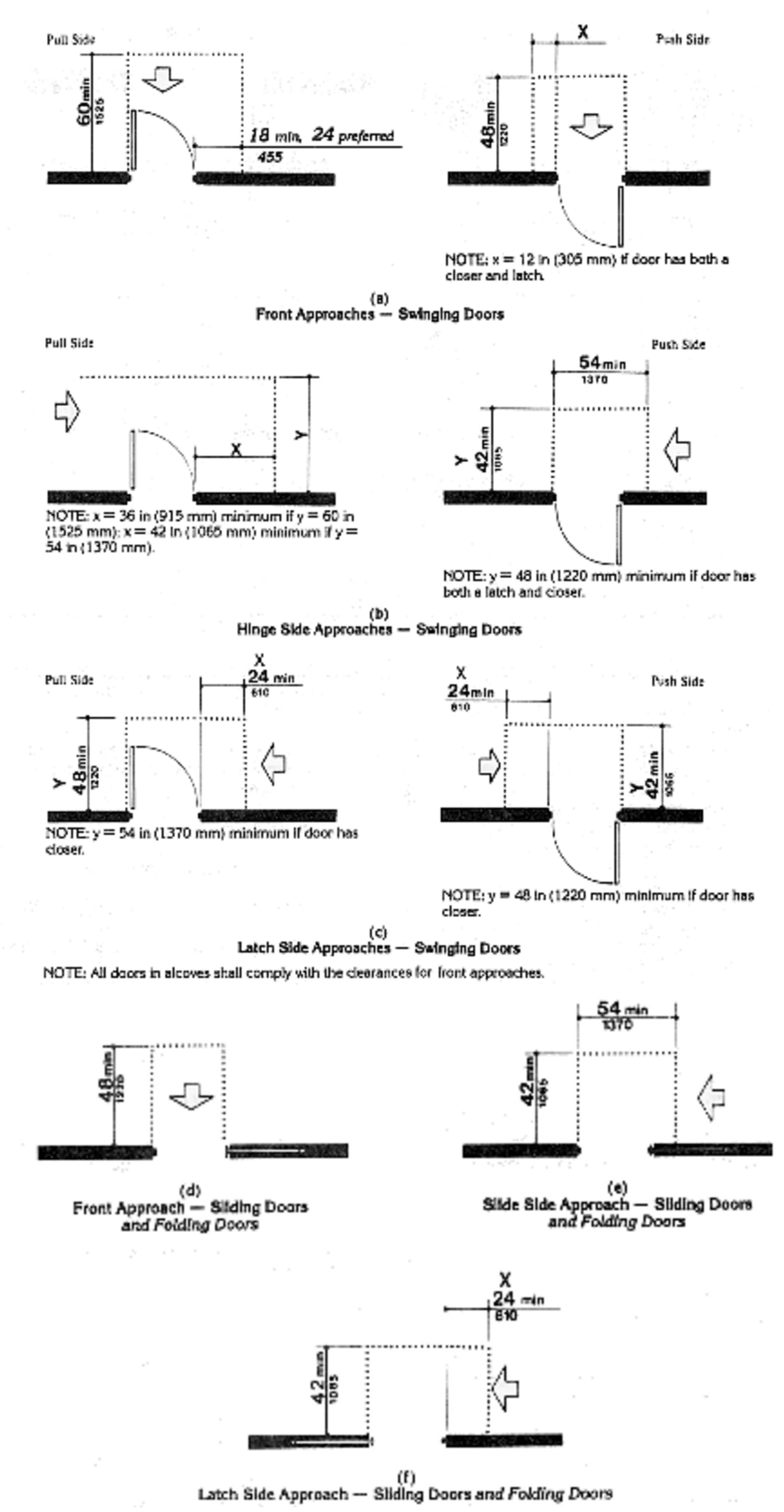


Figure 25 Continued
Maneuvering Clearances at Doors

NOTE: All doors in alcoves shall comply with the clearances for front approaches.
Diagram (a) Front Approaches -- Swinging Doors. Front approaches to pull side of swinging doors shall have maneuvering space that extends 18 in (455 mm) minimum beyond the latch side of the door and 60 in (1525 mm) minimum perpendicular to the doorway.
Front approaches to push side of swinging doors, equipped with both closer and latch, shall have maneuvering space that extends 12 in (305 mm) minimum beyond the latch side of the door and 48 in (1220 mm) minimum perpendicular to the doorway.
Front approaches to push side of swinging doors, not equipped with latch and closer, shall have maneuvering space that is the same width as door opening and extends 48 in (1220 mm) minimum perpendicular to the doorway.
Diagram (b) Hinge Side Approaches. Hinge-side approaches to pull side of swinging doors shall have maneuvering space that extends 36 in (915 mm) minimum beyond the latch side of the door if 60 in (1525 mm) minimum is provided perpendicular to the doorway or maneuvering space that extends 42 in (1065 mm) minimum beyond the latch side of the door shall be provided if 54 in (1370 mm) minimum is provided perpendicular to the doorway.
Hinge-side approaches to push side of swinging doors, not equipped with both latch and closer, shall have a maneuvering space of 54 in (1370 mm) minimum, parallel to the doorway and 42 in (1065 mm) minimum, perpendicular to the doorway.
Hinge side approaches to push side of swinging doors, equipped with both latch and closer, shall have maneuvering space of 54 in (1370 mm) minimum, parallel to the doorway, 48 in (1220 mm) minimum perpendicular to the doorway.
Diagram (c) Latch Side Approaches -- Swinging Doors. Latch-side approaches to pull side of swinging doors, with closers, shall have maneuvering space that extends 24 in (610 mm) minimum beyond the latch side of the door and 54 in (1370 mm) minimum perpendicular to the doorway.
Latch-side approaches to pull side of swinging doors, not equipped with closers, shall have maneuvering space that extends 24 in (610 mm) minimum beyond the latch side of the door and 48 in (1220 mm) minimum perpendicular to the doorway.
Latch-side approaches to push side of swinging doors, with closers, shall have maneuvering space that extends 24 in (610 mm) minimum parallel to the doorway beyond the latch side of the door and 48 in (1220 mm) minimum perpendicular to the doorway.
Latch-side approaches to push side of swinging doors, not equipped with closers, shall have maneuvering space that extends 24 in (610 mm) minimum parallel to the doorway beyond the latch side of the door and 42 in (1065 mm) minimum perpendicular to the doorway.
Diagram (d) Front Approach -- Sliding Doors and Folding Doors. Front approaches to sliding doors and folding doors shall have maneuvering space that is the same width as the door opening and shall extend 48 in (1220 mm) minimum perpendicular to the doorway.
Diagram (e). Slide-side approaches to sliding doors and folding doors shall have a maneuvering space of 54 in (1370 mm) minimum, parallel to the doorway, and 42 in (1065 mm) minimum, perpendicular to the doorway.
Diagram (f) Latch Side Approach -- Sliding Doors and Folding Doors. Latch-side approaches to sliding doors and folding doors shall have a maneuvering space that extends 24 in (610 mm) minimum beyond the latch side of the door and extends 42 in (1065 mm) minimum perpendicular to the doorway.
Depending on the direction of approach, diagrams (a) through (f) illustrate minimum maneuvering space depths and latch side clearances for both push and pull sides of swinging, sliding and folding doors. (4.13.6).

Figure 26
Two Hinged Doors In Series

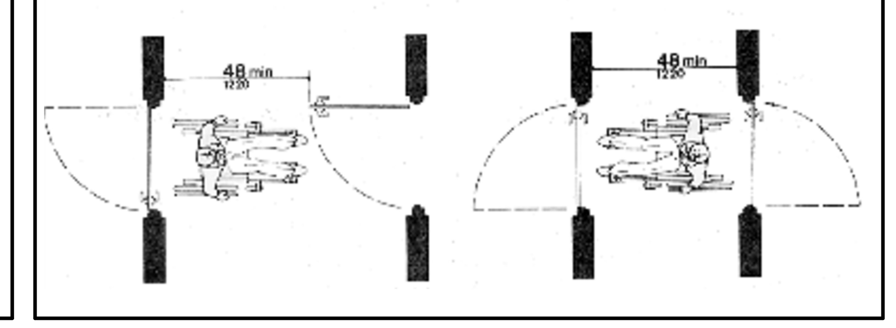
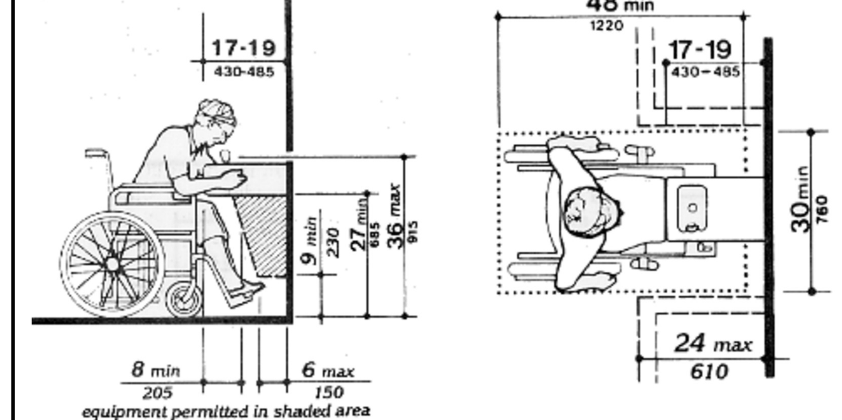


Figure 27
Drinking Fountains and Water Coolers

(a) Spout Height and Knee Clearance | (b) Clear Floor Space



In addition to clearances discussed in the text, the following knee clearance is required underneath the fountain: 27 inches (685 mm) minimum from the floor to the underside of the fountain which extends 8 inches (205 mm) minimum measured from the front edge underneath the fountain back towards the wall; if a minimum 9 inches (230 mm) of toe clearance is provided, a maximum of 6 inches (150 mm) of the 48 inches (1220 mm) of clear floor space required at the fixture may extend into the toe space. (4.15.2, 4.15.5)

(c) Free-Standing Fountain or Cooler | (d) Built-In Fountain or Cooler

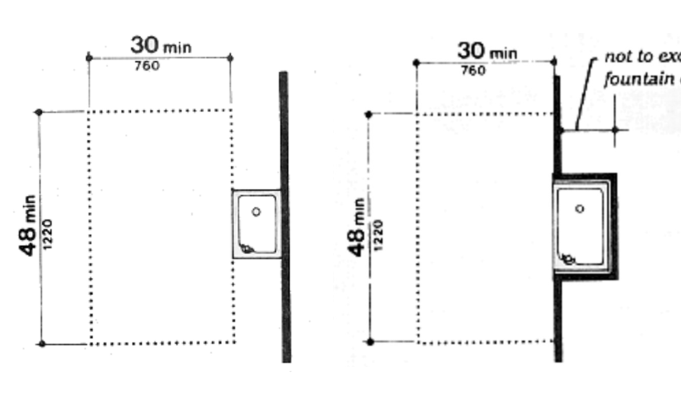
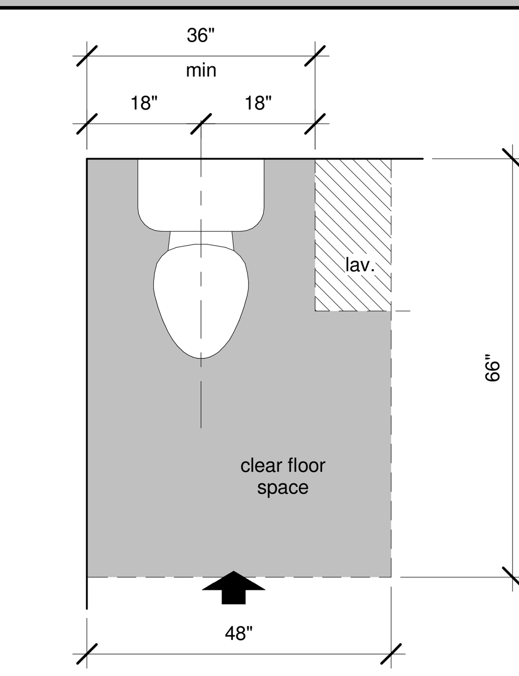
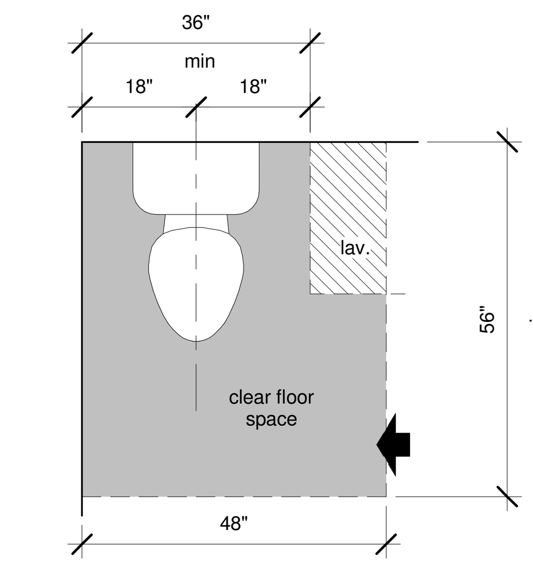


Figure 28
Clear Floor Space at Water Closets

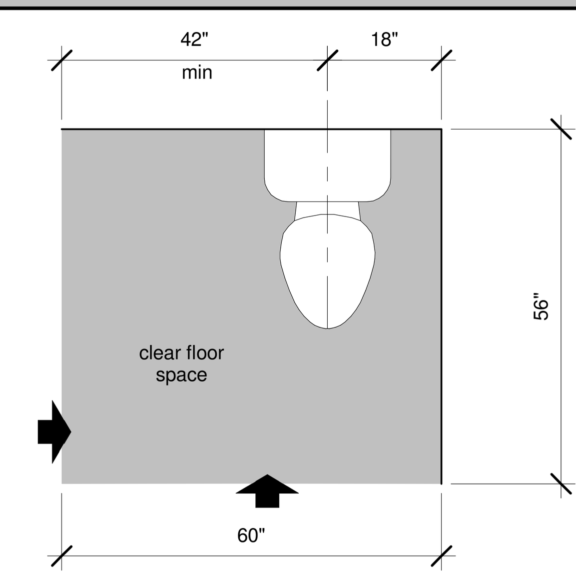
(a) Front Transfer



(b) Diagonal Transfer



(c) Side Transfer



For a front transfer to the water closet, the minimum clear floor space at the water closet is a minimum 48 inches (1220 mm) in width by a minimum of 66 inches (1675 mm) in length. For a diagonal transfer to the water closet, the minimum clear floor space is a minimum of 48 inches (1220 mm) in width by a minimum of 56 inches (1420 mm) in length. For a side transfer to the water closet, the minimum clear floor space is a minimum of 60 inches (1525 mm) in width by a minimum of 56 inches (1420 mm) in length. (4.16.2, A4.22.3)

MISSOURI DEPARTMENT OF TRANSPORTATION: WAREHOUSE RENOVATION PHASE II

RIMILLER ARCHITECTS
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ISSUE DATE: 1-11-2010

PROJECT NUMBER: 09-031

STATE OF MISSOURI
MATTHEW JAMES RIMILLER
NUMBER A-2007019928
ARCHITECT
1-11-2010

ADA-2

ADA FIGURES 12 - 28

Figure 29
Grab Bars at Water Closets

(a) Back Wall (b) Side Wall

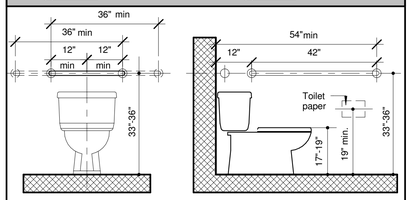
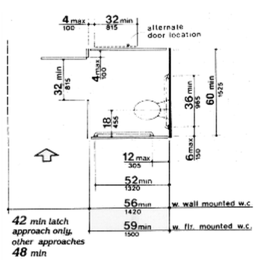


Fig. 29(a) Back Wall. A 36 inch (915 mm) minimum length grab bar is required behind the water closet mounted at a height between 33 and 36 inches (840-915 mm). The grab bar must extend a minimum of 12 inches (305) beyond the center of the water closet toward the side wall and a minimum of 24 inches (610 mm) toward the open side for either a left or right side approach.

A 42 inch (1065 mm) minimum length grab bar is required to the side of the water closet spaced 12 inches (305 mm) maximum from the back wall and extending a minimum of 54 inches (1370 mm) from the back wall at a height between 33 and 36 inches (840-915 mm). The toilet paper dispenser shall be mounted at a minimum height of 19 inches (485 mm). (4.16.3, 4.16.4, 4.16.6)

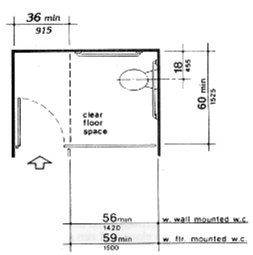
Figure 30
Toilet Stalls

(a) Standard Stall



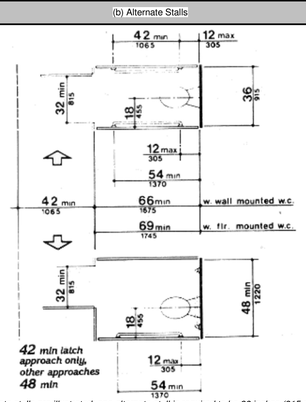
The location of the door is illustrated to be in front of the clear space (next to the water closet), with a maximum stile width of 4 inches (100 mm). An alternate door location is illustrated to be on the side of the toilet stall with a maximum stile width of 4 inches (100 mm). The minimum width of the standard stall shall be 60 inches (1525 mm). The centerline of the water closet shall be 18 inches (455 mm) from the side wall.

(a1) Standard Stall (end of row)



If a standard stall is provided at the end of a row of stalls, the door (if located on the side of the stall) may swing into to the stall, if the length of the stall is extended at least a minimum of 36 inches (915 mm) beyond the required minimum length.

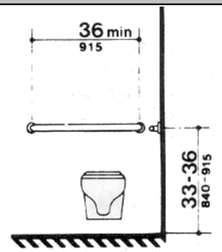
(b) Alternate Stalls



Two alternate stalls are illustrated; one alternate stall is required to be 36 inches (915 mm) in width. The other alternate stall is required to be a minimum of 48 inches (1220 mm) in width. If a wall mounted water closet is used, the depth of the stall is required to be a minimum of 66 inches (1675 mm). If a floor mounted water closet is used, the depth of the stall is required to be a minimum of 69 inches (1745 mm). The 36 inch wide stall shall have parallel grab bars on the side walls. The 48 inch minimum stall shall have a grab bar behind the water closet and one on the side wall next to the water closet. In each alternate, the centerline of the water closet is 18 inches (455 mm) from a side wall.

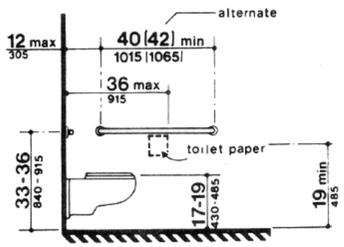
Figure 30 Continued
Toilet Stalls

(c) Rear Wall of Standard Stall



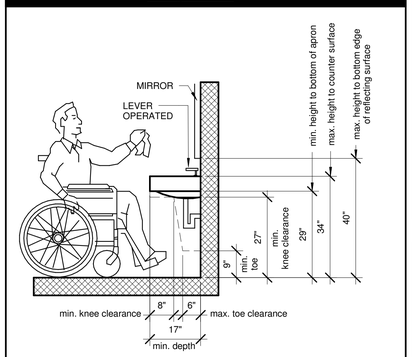
The grab bar on the back wall shall be 36 inches minimum in length, extending from the wall toward the open side of the water closet, 33-36 inches above the finish floor.

(d) Side Wall of Standard Stall



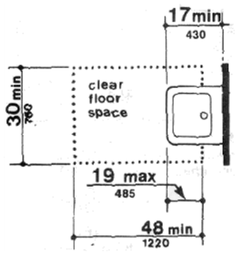
The side grab bar shall be 40-42 inches in length, beginning 12 inches maximum from the rear wall, 33-36 inches above the finish floor.

Figure 31
Lavatory Clearances



In addition to clearances discussed in the text, the following knee clearance is required underneath the lavatory: 27 inches minimum from the floor to the underside of the lavatory which extends 8 inches minimum measured from the front edge underneath the lavatory back towards the wall; if a minimum 9 inches of toe clearance is provided, a maximum of 6 inches of the 48 inches of clear floor space required at the fixture may extend into the toe space. (4.19.2, 4.19.6)

Figure 32
Clear Floor Space at Lavatories



The minimum depth of the lavatory is 17 inches (430 mm). (4.19.3, 4.24.5)

Figure 33
Clear Floor Space at Bathtubs

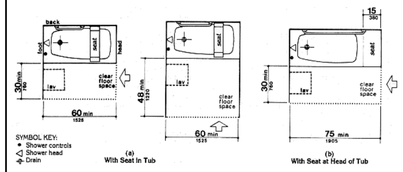


Fig. 33(a) With Seat in Tub. If the approach is parallel to the bathtub, a 30 inch (760 mm) minimum width by 60 inch (1525 mm) minimum length clear space is required alongside the bathtub. If the approach is perpendicular to the bathtub, a 48 inch (1220 mm) minimum width by 60 inch (1525 mm) minimum length clear space is required.

Fig. 33(b) With Seat at Head of Tub. If the approach is parallel to the bathtub, a 30 inch (760 mm) minimum width by 75 inch (1905 mm) minimum length clear space is required alongside the bathtub. The seat width must be 15 inches (380 mm) and must extend the full width of the bathtub.

Figure 34
Grab Bars at Bathtubs

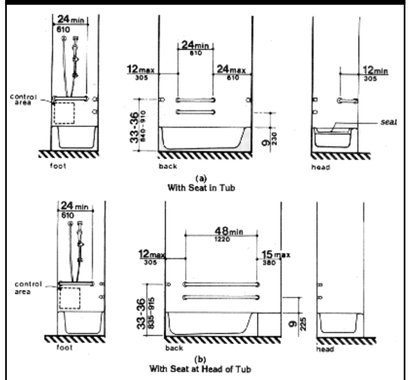
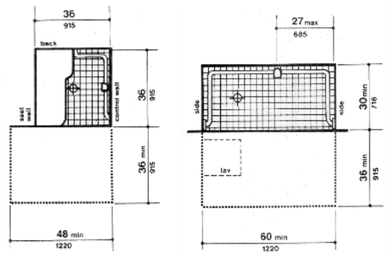


Fig. 34(a) With Seat in Tub. At the foot of the tub, the grab bar shall be 24 inches (610 mm) minimum in length measured from the outer edge of the tub. On the back wall, two grab bars are required. The grab bars mounted on the back (long) wall shall be a minimum 24 inches (610 mm) in length located 12 inches (305 mm) maximum from the foot of the tub and 24 inches (610 mm) maximum from the head of the tub. One grab bar shall be located 9 inches (230 mm) above the rim of the tub. The others shall be 33 to 36 inches (840 mm to 910 mm) above the bathroom floor. At the head of the tub, the grab bar shall be a minimum of 12 inches (305 mm) in length measured from the outer edge of the tub.

Fig. 34(b) With Seat at Head of Tub. At the foot of the tub, the grab bar shall be a minimum of 24 inches (610 mm) in length measured from the outer edge of the tub. On the back wall, two grab bars are required. The grab bars mounted on the back wall shall be a minimum of 48 inches (1220 mm) in length located a maximum of 12 inches (305 mm) from the foot of the tub and a maximum of 15 inches (380 mm) from the head of the tub. Heights of grab bars are as described above.

Figure 35
Shower Size and Clearances

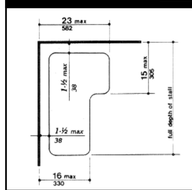
(a) 36"x36" Stall (b) 30"x60" Stall



The clear floor space shall be a minimum of 48 inches (1220 mm)in length by a minimum of 36 inches (915 mm) in width and allow for a parallel approach. The clear floor space shall extend 1 foot beyond the shower wall on which the seat is mounted.

The clear floor space alongside the shower shall be a minimum of 60 inches (1220 mm) in length by a minimum of 36 inches (915 mm) in width.

Figure 36
Shower Seat Design



The diagram illustrates an L-shaped shower seat extending the full depth of the stall. The seat shall be located 1-1/2 inches (38 mm) maximum from the wall. The front of the seat (nearest to the opening) shall extend a maximum 16 inches (330 mm) from the wall. The back of the seat (against the back wall) shall extend a maximum of 23 inches (582 mm) from the side wall and shall be a maximum of 15 inches (305 mm) deep.

Figure 37
Grab Bars at Shower Stalls

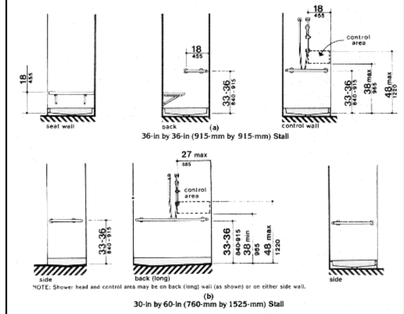
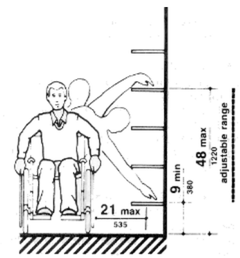


Fig. 37(a) 36 inches by 36 inches (915 mm by 915 mm) Stall. The diagram illustrates an L-shaped grab bar that is located along the full depth of the control wall (opposite the seat) and halfway along the back wall. The grab bar shall be mounted between 33 to 36 inches (840-915 mm) above the shower floor. The bottom of the control area shall be a maximum of 38 inches (965 mm) high and the top of the control area shall be a maximum of 48 inches (1220 mm) high. The controls and spray unit shall be within 18 inches (455 mm) of the front of the shower.

Fig. 37(b) 30 inches by 60 inches (760 mm by 1525 mm) Stall. The diagram illustrates a U-shaped grab bar that wraps around the stall. The grab bar shall be between 33 to 36 inches (840-915 mm) high. The controls are placed in an area between 38 inches and 48 inches (965 mm and 1220 mm) above the floor. If the controls are located on the back (long) wall they shall be located 27 inches (685 mm) from the side wall. The shower head and control area may be located on either side wall.

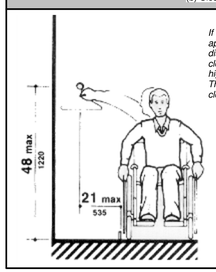
Figure 38
Storage Shelves and Closets

(a) Storage Shelves



If the clear floor space allows a parallel approach by a person in a wheelchair and the distance between the wheelchair and the shelf exceeds 10 inches, the maximum high side reach shall be 48 inches (1220 mm) above the floor and the low side reach shall be a minimum of 9 inches (230 mm) above the floor. The shelves can be adjustable. The maximum distance from the user to the shelf shall be 21 inches (535 mm).

(b) Closets



If the clear floor space allows a parallel approach by a person in a wheelchair and the distance between the wheelchair and the clothes rod exceeds 10 inches, the maximum high side reach shall be 48 inches (1220 mm). The maximum distance from the user to the clothes rod shall be 21 inches (535 mm).

Figure 39
Size and Spacing of Handrails and Grab Bars

(a) Handrail (b) Handrail (c) Handrail (d) Handrail

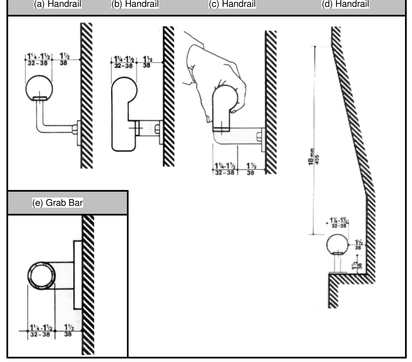
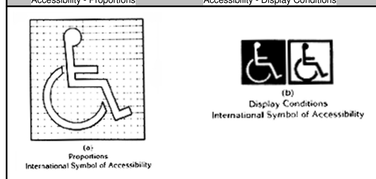


Figure 43
International Symbols

(a) International Symbol of Accessibility - Proportions (b) International Symbol of Accessibility - Display Conditions



The diagram illustrates the International Symbol of Accessibility on a grid background.

The symbol contrast shall be light on dark, or dark on light.

(c) International TYY Symbol (d) International Symbol of Access for Hearing Loss

Fig. 43
International Symbols

Figure 44
Mounting Heights and Clearances for Telephones

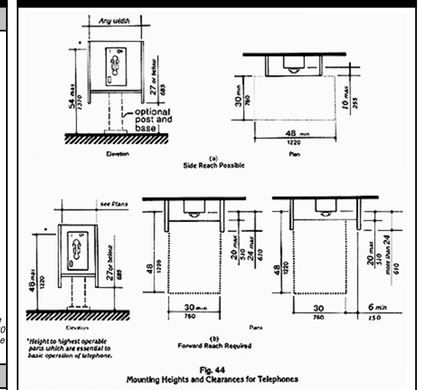


Fig. 44
Mounting Heights and Clearances for Telephones

Fig. 44(a) Side Reach Possible. If a parallel approach is provided at a telephone in an enclosure, the wing walls and shelf may extend beyond the face of the telephone a maximum of 10 inches (255 mm).

Fig. 44(b) Forward Reach Required. If a front approach is provided at a telephone with an enclosure, the shelf can extend beyond the face of the telephone a maximum of 20 inches (510 mm). A wing wall may extend beyond the face of the telephone a maximum of 24 inches (610 mm). If the wing wall extends more than 24 inches (610 mm) beyond the face of the telephone, an additional 6 inches (150 mm) in width of clear floor space shall be provided.

Figure 45
Minimum Clearance for Seating and Tables

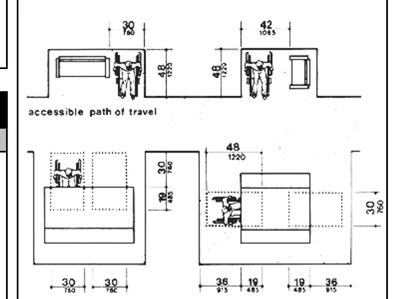


Fig. 45
Minimum Clearances for Seating and Tables

Figure 46
Space Requirements for Wheelchair Seating Spaces in Series

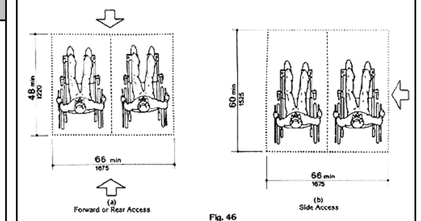


Fig. 46
Space Requirements for Wheelchair Seating Spaces in Series

Fig. 46(a) Forward or Rear Access. If seating space for two wheelchair users is accessed from the front or rear, the minimum space required is 48 inches (1220 mm) deep by 66 inches (1675 mm) wide.
Fig. 46(b) Side Access. If seating space for two wheelchair users is accessed from the side, the minimum space required is 60 inches (1525 mm) deep by 66 inches (1675 mm) wide.

Figure 47
Size of Bench

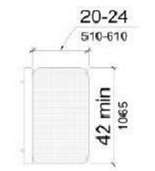


Fig. 47
Size of Bench

Figure 47 - Bench size shown in plan view to be 20 inches minimum to 24 inches maximum wide and 42 inches long minimum.

Figure 48
Bench Back Support

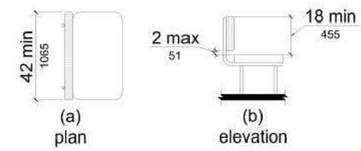


Fig. 48
Bench Back Support

Figure 48(a) shows bench back support in plan view 42 inches in length minimum; figure (b) side elevation of back support extending 2 inches maximum above the top of the seat to a point 18 inches minimum above the seat.

MISSOURI DEPARTMENT OF TRANSPORTATION: WAREHOUSE RENOVATION PHASE II

RIMILLER ARCHITECTS
limited liability company

ISSUE DATE: 1-11-2010
PROJECT NUMBER: 09-031

STATE OF MISSOURI
MATTHEW JAMES RIMILLER
NUMBER A-2007019928
ARCHITECT
1-11-2010

1630 WEST McCARTY STREET
JEFFERSON CITY, MISSOURI 65109

T. (573) 761-5600
F. (573) 761-5605

ADA-3

ADA FIGURES 29 - 48

ABBREVIATION LEGEND

ADNDM	ADDENDUM
ADD'N	ADDITION
ABC	AGGREGATE BASE COURSE
AFF	ABOVE FINISH FLOOR
AGG	AGGREGATE
AL	ALUMINUM
AB	ANCHOR BOLT
APPROX	APPROXIMATE
ARCH	ARCHITECT
ASP	ASPHALT
BLKG	BLOCKING
BSMT	BASEMENT
BM	BEAM
BRG	BEARING
BS	BOTH SIDES
BTWN	BETWEEN
BOT	BOTTOM
BLDG	BUILDING
CAB'T	CABINET
CIP	CAST IN PLACE
CB	CATCH BASIN
CLG	CEILING
CL	CENTERLINE
CHAN	CHANNEL
CLR	CLEAR
CLOS	CLOSET
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CJ	CONTROL JOINT/CONSTRUCTION JOINT
CONT	CONTINUOUS
CONTR	CONTRACTOR
COORD	COORDINATE
COR'G	CORRUGATED
CRNR	CORNER
CMU	CONCRETE MASONRY UNIT
CNTR	CENTER
DBA	DEFORMED BAR ANCHOR
DBL	DOUBLE
DWA	DEFORMED WIRE ANCHOR
DTL	DETAIL
DIAG	DIAGONAL
DIA	DIAMETER
DIM	DIMENSION
DWL	DOWEL
DN	DOWN
DS	DOWNSPOUT
DWG	DRAWING
EA	EACH
EF	EACH FACE
EW	EACH WAY
EWEF	EACY WAY EACH FACE
ELEC	ELECTRIC
EL	ELEVATION
ELEV	ELEVATOR
EMBED	EMBEDMENT
ENGR	ENGINEER
EOD	EDGE OF DECK
EOR	ENGINEER OF RECORD
EOS	EDGE OF SLAB
EQ	EQUAL
EQUIV	EQUIVALENT
EXP	EXPANSION
EJ	EXPANSION JOINT
EXIST	EXISTING
EXT	EXTERIOR
F'c=	28 DAY CONCRETE STRENGTH
FAB	FABRICATE
FOB	FACE OF BRICK
FOC	FACE OF CONCRETE
FS	FAR SIDE
FT	FEET/FOOT
FV	FIELD VERIFY
FIN	FINISH(ED)
FFL	FINISHED FLOOR
FL	FLASHING
FLR	FLOOR
FD	FLOOR DRAIN
FTG	FOOTING
FND	FOUNDATION
FR	FRAME
GA	GAUGE
GEN	GENERAL
GR	GRADE
GND	GROUND
GALV	GALVANIZE(D)
GYP	GYPSUM
GWB	GYPSUM WALL BOARD
H	HORIZONTAL REACTION
HR	HAND RAIL
HGR	HANGER
HD	HARDENED
HSA	HEADED STUD ANCHOR
HT	HEIGHT
HP	HIGH POINT
HM	HOLLOW METAL
HSS	HOLLOW STRUCTURAL STEEL
HORIZ	HORIZONTAL
ID	INSIDE DIAMETER
IJ	ISOLATION JOINT
IN	INCH/INCHES
INSUL	INSULATION
INT	INTERIOR
JT	JOINT
JST	JOIST
K	KIPS (1000 LBS)
KP	KICK PLATE
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
ld	DEVELOPMENT LENGTH
LAM	LAMINATED
LBS	POUNDS
LDG	LANDING
LH	LEFT HAND
LTH	LATH
LG	LENGTH
LOC	LOCATION
LLBB	LONG LEG BACK TO BACK
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LONG	LONGITUDINAL
LSH	LONG SIDE HORIZONTAL
LSLP	LONG-SLOTTED HOLE PARALLEL
LSLT	LONG-SLOTTED HOLE TRANSVERSE
LSV	LONG SIDE VERTICAL
LWC	LIGHT WEIGHT CONCRETE
LVR	LOUVER
MOM	MOMENT
MAS	MASONRY
MO	MASONRY OPENING
MAT'L	MATERIAL
MFR	MANUFACTURER
MAX	MAXIMUM
MECH	MECHANICAL
MTL	METAL
MEZZ	MEZZANINE
MIN	MINIMUM
MISC	MISCELLANEOUS
MLDG	MOLDING
MC	MOMENT CONNECTION
MULL	MULLION
NG	NATURAL GRADE
NS	NEAR SIDE
NOM	NOMINAL
NWC	NORMAL WEIGHT CONCRETE
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
NO./#	NUMBER
OC	ON CENTER
OPNG	OPENING
OPP	OPPOSITE
OPH	OPPOSITE HAND
OA	OVERALL
OD	OUTSIDE DIAMETER
OFS	OVERFLOW SCUPPER
OFD	OVERFLOW DRAIN
OHD	OVERHEAD DOOR
OSL	OUTSTANDING LEG
OVS	OVERSIZED HOLE
P	AXIAL LOAD
PR	PAIR
PNL	PANEL
PAR	PARALLEL
PJP	PARTIAL JOINT PENETRATION
PTN	PARTITION
PERP	PERPENDICULAR
PL	PLATE
PLYWD	PLYWOOD
PCF	POUNDS PER CUBIC FOOT
PLF	POUNDS PER LINEAR FOOT
PSI	POUNDS PER SQUARE INCH
PSF	POUNDS PER SQUARE FOOT
PT	POST-TENSION(ED)
PNT	POINT
PC	PRECAST
PCC	PRECAST CONCRETE
PRELIM	PRELIMINARY
PROP	PROPERTY
QTY	QUANTITY
R	RADIUS, REACTION
RAD	RADIUS
RB	RESILIENT BASE
REINF	REINFORCING
REQ'D	REQUIRED
REV	REVISION
RF'G	ROOFING
RGH	ROUGH
RO	ROUGH OPENING
RM	ROOM
RND	ROUND
SCHED	SCHEDULE
SC	SEALED CONCRETE
SCS	SELF DRILLING SCREW
SCR	SCREW
SECT	SECTION
SEL	SELECT
SHG	SHEATHING
SHT	SHEET
SLBB	SHORT LEG BACK TO BACK
SSLP	SHORT-SLOTTED HOLE PARALLEL
SSLT	SHORT-SLOTTED HOLE TRANSVERSE
SDG	SIDING
SIM	SIMILAR
SLDG	SLIDING
SC	SLIP CRITICAL, SHEAR CONNECTION
SPA	SPACING
SPEC	SPECIFICATION
SQ	SQUARE
STD	STANDARD
STL	STEEL
STIF	STIFFENER
STIR	STIRUP
STRUC	STRUCTURE, STRUCTURAL
SPRT	SUPPORT
SYMM	SYMMETRICAL
SYS	SYSTEM
t	PLATE THICKNESS, TREAD
THD	THREADED
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOM	TOP OF MASONRY
TOS	TOP OF STEEL, TOP OF SLAB
TOW	TOP OF WALL
T&B	TOP AND BOTTOM
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
VG	VERTICAL GRAIN
VEST	VESTIBULE
WT	WEIGHT
WWF	WELDED WIRE FABRIC
WF	WIDE FLANGE
W/	WITH
W/O	WITHOUT
WD	WOOD
WP	WORK POINT

SYMBOLS LEGEND

BRICK UNO
CMU
CONCRETE
EARTH
EXISTING BUILDING
GRAVEL
RIGID INSULATION
SAND, PLASTER, GROUT
STEEL

WELD SYMBOL

Name / Elevation — ELEVATION DESIGNATION

SIM / 1 / A101 — WALL/BUILDING SECTION CALLOUT

SIM / 1 / A101 — DETAIL CALLOUT

1 / S200 — EXTERIOR ELEVATION CALLOUT
VIEW NUMBER
SHEET NUMBER

1 / S200 — INTERIOR ELEVATION CALLOUT
VIEW NUMBER
SHEET NUMBER

1 View Name
1/8" = 1'-0"
DETAIL VIEW NAME AND SCALE

WIDE FLANGE STEEL COLUMN

HSS STEEL COLUMN

BRACE — VERTICAL BRACING

BEAM MOMENT CONNECTION

N — NORTH ARROW

F11 — FOOTING MARK, SEE SCHEDULE

P10 — PEDESTAL MARK, SEE SCHEDULE

A — COLUMN CENTER LINE

WELDED WIRE FABRIC

WP — WORK POINT

A — KEYED NOTE

BOLTED JOIST SEAT

BEAM/TRUSS SPLICE

MATCHLINE

1 — KEYED NOTES

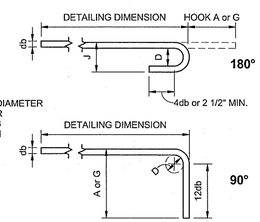
Wall Types

SEE WALL TYPES LEGEND — **New Frame Partition**

SEE WALL TYPES LEGEND — **New Frame Partition - Not Full Height**

Existing Wall: no work

HOOK DETAILS FOR ASTM STANDARD REBARS

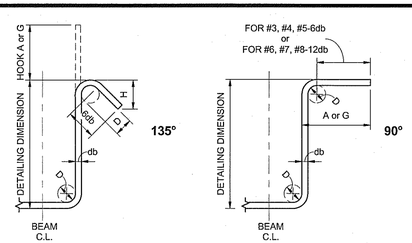


ALL GRADES OF STEEL

D = FINISHED INSIDE BEND DIAMETER
db = NOMINAL BAR DIAMETER
MIN. D = 6db FOR #3 THROUGH #8
MIN. D = 8 db FOR #9, #10 AND #11
MIN. D = 10db FOR #14 AND #18

RECOMMENDED END HOOKS, ALL GRADES OF STEEL

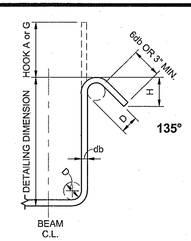
BAR SIZE	D	180° HOOKS		90° HOOKS
		A or G	J	A or G
#3	2 1/4"	5"	3"	3"
#4	3"	6"	4"	4"
#5	3 3/4"	7"	5"	5"
#6	4 1/2"	8"	6"	6"
#7	5 1/4"	10	7"	7"
#8	6"	11"	8"	8"
#9	9 1/2"	1'-3"	11 3/4"	11 3/4"
#10	10 3/4"	1'-5"	1'-1 1/4"	1'-1 1/4"
#11	12"	1'-7"	1'-2 3/4"	1'-2 3/4"
#14	18 1/4"	2'-3"	1'-9 3/4"	1'-9 3/4"
#18	24"	3'-0"	2'-4 1/2"	2'-4 1/2"



STIRRUP HOOKS (TIE BENDS SIMILAR)

BAR SIZE	D	90° HOOKS	135°	
		A or G	A or G	H*
#3	1 1/2"	4"	4"	2 1/2"
#4	2"	4 1/2"	4 1/2"	3"
#5	2 1/2"	6"	5 1/2"	3 3/4"
#6	4 1/2"	1'-0"	8"	4 1/2"
#7	5 1/4"	1'-2"	9"	5 1/4"
#8	6"	1'-4"	10 1/2"	6"

H* dimension is appoximate



SEISMIC STIRRUP / TIE

BAR SIZE	D	135° SEISMIC HOOK	
		A or G	H*
#3	1 1/2"	4 1/4"	3"
#4	2"	4 1/2"	3"
#5	2 1/2"	5 1/2"	3 3/4"
#6	4 1/2"	8"	4 1/2"
#7	5 1/4"	9"	5 1/4"
#8	6"	10 1/2"	6"

H* dimension is appoximate

NO.	DATE	REVISIONS	BY	APP'D

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Checked By: MJR
Issue Date: 1-11-2010

1-8-10

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MISSOURI DEPARTMENT OF TRANSPORTATION
JEFFERSON CITY, COLE COUNTY, MISSOURI

WAREHOUSE RENOVATION PHASE II
ABBREVIATIONS AND SYMBOLS (PHASE II)

800160-040

SHEET NO.
S001

1/8/2010 1:36:27 PM
PLOT DATE & TIME:
P:\800160-040_Acad\Revit Models\Phase II Model\Local Files\800160-040 Modot Structural - Phase II_jbasinger.rvt

GENERAL REQUIREMENT:

1. DESIGN CRITERIA:
   A. GENERAL BUILDING CODE:
      1) INTERNATIONAL BUILDING CODE (IBC 2006)
      2) ASCE 7-05
   B. CONCRETE:
      1) BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-05).
   C. STRUCTURAL STEEL:
      1) AISC STEEL CONSTRUCTION MANUAL (LATEST EDITION) ALLOWABLE STRESS DESIGN
      2) STEEL JOIST INSTITUTE (SJI - LATEST EDITION)
   D. MASONRY:
      1) ALL CONCRETE MASONRY WORK SHALL CONFORM TO THE REQUIREMENTS OF "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 530-05/ASCE 5-05)" AND "SPECIFICATIONS FOR MASONRY STRUCTURE.
2. STRUCTURAL DESIGN DRAWINGS SHOW THE INTENT OF REQUIRED CONSTRUCTION AND SPECIFIC CONSTRUCTION AS NEEDED TO FACILITATE CLEAR DETAILING. FOR SPECIFIC CONDITIONS NOT SHOWN, THE CONTRACTOR SHALL PROVIDE DETAILS OF CONSTRUCTION SIMILAR TO THOSE SHOWN. VERIFY ALL EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO COMMENCING WORK. NOTIFY THE STRUCTURAL ENGINEER, IN WRITING, OF DISCREPANCIES OR CONTRADICTIONS ENCOUNTERED PRIOR TO EXECUTING ANY AFFECTED CONSTRUCTION.
3. CONSTRUCTION PRACTICE AND THE DESIGN, ADEQUACY, AND SAFETY OF TEMPORARY BRACING, SHORING, SUPPORTS, ETC., SHALL REMAIN THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
4. BEFORE EXECUTING ANY WORK, THE CONTRACTOR SHALL EXAMINE ACTUAL JOB CONDITIONS AND REPORT TO THE ENGINEER ANY ERROR, OMISSION, OR DISCREPANCY AFFECTING WORK. REFER TO THE ADDITIONAL DRAWINGS IN THIS SET FOR INSERTS, SLEEVES, OPENINGS, EMBEDS, PADS, CURBS, ATTACHMENTS, AND OTHER ITEMS NOT SHOWN HEREIN AFFECTING STRUCTURAL WORK BUT NOT INDICATED ON THE STRUCTURAL PLANS.
5. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND CONNECTION CALCULATIONS FOR EACH CONNECTION TYPE TO REVIEW FOR CONFORMANCE WITH THE DESIGN CONCEPT. THE SHOP DRAWINGS AND SEALED CALCULATION SHALL BE PREPARED UNDER THE DIRECT SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER, REGISTERED IN THE STATE WHERE THE PROJECT IS TO BE CONSTRUCTED. SHOP DRAWINGS MUST BE SUBMITTED TO, AND BE CHECKED BY, THE CONTRACTOR AND SUBCONTRACTOR; AND BEAR THE CHECKERS INITIALS BEFORE SUBMISSION TO THE ENGINEER OF RECORD FOR APPROVAL. NO FABRICATION SHALL PROCEED BEFORE SHOP DRAWINGS COVERING THAT WORK HAVE BEEN APPROVED.
6. DO NOT USE SCALED DIMENSIONS, USE WRITTEN DIMENSIONS OR WHERE NO DIMENSION IS PROVIDED, CONSULT THE ENGINEER FOR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.
7. DETAILS SHOWN SHALL BE INCORPORATED INTO THE PROJECT AT ALL APPROPRIATE LOCATIONS WHETHER SPECIFICALLY CALLED OUT OR NOT.
8. SEE SPECIFICATIONS OR NOTES ON DRAWINGS FOR MATERIALS OF CONSTRUCTION.
9. IN FIELD LAYOUT AND SHOP DETAILING, THE CONTRACTOR MUST VERIFY AND COORDINATE DIMENSIONS ON ARCHITECTURAL, MECHANICAL AND STRUCTURAL DRAWINGS AND REPORT ANY DISCREPANCIES TO THE ARCHITECT. CONTRACTOR MUST VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS.
10. DESIGN LOADS:

FLOOR LIVE LOAD: TABLE 1607.1 (IBC2006)
COMMERCIAL OFFICE BUILDING:
OFFICES = 50 PSF
CORRIDORS ABOVE FIRST FLOOR = 80 PSF
FIRST FLOOR CORRIDORS (PUBLIC) = 100 PSF

ROOF LIVE LOAD: TABLE 1607.1 (IBC2006)
ORDINARY, FLAT, PITCH, & CURVED ROOF = 20 PSF

ROOF SNOW LOAD: (ASCE 7-05)
GROUND SNOW LOAD (PG)(SECTION 7.2) = 20 PSF
FLAT ROOF SNOW LOAD (PF)(SECTION 7.3) = 14.0 PSF MIN. (USE 20 PSF)
SNOW EXPOSURE FACTOR (CE)(SECTION 7.3.1) = 1.0
ROOF THERMAL FACTOR (CT)(SECTION 7.3.2) = 1.0
SNOW LOAD IMPORTANCE (I)(SECTION 7.3.3) = 1.0
SNOW DRIFT: REFER TO ASCE 7-05, SECTION 7.7

WIND LOAD: (ASCE 7-05)
ANALYTICAL PROCEDURE (METHOD 2 - SECTION 6.5)
BASIC WIND SPEED (FIG. 6-1) = 90 MPH
EXPOSURE (SECTION 6.5.6.3) = B
WIND LOAD IMPORTANCE (I) (TABLE 6-1) = 1.0

EARTHQUAKE LOAD:
SITE CLASS D
OCCUPANCY CATEGORY II
SEISMIC DESIGN CATEGORY C
SPECTURAL RESPONSE COEFFICIENTS:
SDS = 0.26
SDL = 0.16

ALLOWABLE SOIL BEARING:
FIRM NATURAL SOILS
CONTINUOUS.....= 1500 PSF
INDIVIDUAL FOOTING.....= 1500 PSF

CONCRETE

1. MIXING AND PLACING OF ALL CONCRETE AND SELECTION OF MATERIALS SHALL BE IN ACCORDANCE WITH THE BUILDING CODE AND THE SPECIFICATIONS.
2. N/A
3. PROPORTIONS OF AGGREGATE TO CEMENT SHALL CREATE A DENSE, WORKABLE MIX WHICH CAN BE PLACED WITHOUT SEGREGATION OR EXCESS SURFACE WATER.
4. UNLESS SPECIFIED OTHERWISE, ALL TOLERANCES FOR CONCRETE SHALL CONFORM TO ACI 117.
5. ALL FORMWORK SHALL BE DESIGNED, ERECTED, SUPPORTED, BRACED AND MAINTAINED IN ACCORDANCE WITH ACI STANDARD 347.
6. WALLS AND SLABS MAY BE CORE DRILLED ONLY AS DETAILED OR AS APPROVED IN WRITING BY THE ENGINEER. VERIFY LOCATION OF REINFORCING BEFORE CORE DRILLING; NO REINFORCING SHALL BE CUT.
7. THE CONTRACTOR SHALL SUBMIT DRAWINGS SHOWING THE PROPOSED CONSTRUCTION AND CONTROL JOINTS FOR ALL CONCRETE, INCLUDING WALLS, SLABS ON GRADE, ETC., TO THE ENGINEER FOR REVIEW PRIOR TO PLACING ANY CONCRETE.
8. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE CURRENT EDITIONS OF "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, ACI-318".
9. REINFORCED CONCRETE SHALL HAVE THE FOLLOWING 28 DAY COMPRESSIVE STRENGTHS:
   SLABS ON METAL DECK.....4000 PSI NORMAL WEIGHT
   FOUNDATIONS..... 3000 PSI NORMAL WEIGHT
   SLABS ON GRADE.....4000 PSI NORMAL WEIGHT

CONCRETE (CONT)

10. CONCRETE MIXES SHALL BE IN ACCORDANCE WITH THE FOLLOWING MIX DESIGNS OF THE MIDWEST CONCRETE INDUSTRY BOARD AS FOLLOWS:
    A. EXPOSED TO WEATHER = 4000 PSI, MCIB MIX DESIGN WA552-3/4-4
    B. PROTECTED CONCRETE = 4000 PSI, MCIB MIX DESIGN W534-3/4-4
11. PROVIDE PROTECTION FOR REINFORCING BARS AS FOLLOWS:
    CAST-IN-PLACE CONCRETE:
    CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH.....3"
    CONCRETE EXPOSED TO EARTH AND WEATHER (FORMED)
    #5 AND SMALLER.....11/2"
    #6 AND LARGER.....2"
    CONCRETE NOT EXPOSED TO WEATHER AND NOT IN CONTACT WITH GROUND:
    SLABS AND WALLS.....3/4"
    BEAMS AND COLUMNS.....11/2"
12. ALL CONCRETE EXPOSED TO WEATHER SHALL HAVE 6%(+-1%) AIR ENTRAINMENT.
13. LAP ALL BARS AT SPLICES ACCORDING TO THE ACI CODE REQUIREMENTS BUT NOT LESS THAN 42 BAR DIAMETERS NOR LESS THAN 18 INCHES UNLESS OTHERWISE NOTED. ALL HORIZONTAL WALL BARS SHALL BE DEVELOPED AT CORNERS EITHER BY BENDING NOT LESS THAN 40 BAR DIAMETERS AROUND CORNERS OR WITH PROPERLY PLACED HOOKED AND LAPPED CORNER BARS.
14. ALL VERTICAL BARS SHALL LAP NOT LESS THAN 30 BAR DIAMETERS NOR LESS THAN 2'-6" UNLESS OTHERWISE NOTED.
15. MAXIMUM LENGTH OF CONTINUOUS POUR FOR CONCRETE WALLS SHALL BE 60'-0".
16. ALL CONCRETE WALLS SHALL BE PROPERLY BRACED AND HELD IN LINE UNTIL SUPPORTING SLABS OR FLOORS ARE IN PLACE.
17. ALL BAR STEEL SHALL BE PROPERLY SUPPORTED AND HELD ACCURATELY IN PLACE AS RECOMMENDED BY THE CONCRETE REINFORCING STEEL INSTITUTE, EXCEPT THAT MAXIMUM SPACING OF ANY BAR SUPPORT SHALL BE 3'-0". ALL TOP SLAB BARS SHALL BE SUPPORTED BY CONTINUOUS HIGH CHAIRS.
18. ALL DOWELS SHALL BE ACCURATELY PLACED AND SECURELY HELD IN POSITION BEFORE CONCRETE IS POURED. STICKING OF DOWELS INTO FRESH OR PARTIALLY HARDENED CONCRETE WILL NOT BE ACCEPTABLE.
19. ALL OPENINGS IN SLABS AND WALLS SHALL HAVE ADDITIONAL 2-#5X4'-0" DIAGONAL BARS AT EACH CORNER OF OPENING EXTENDING 2'-0" INTO ADJACENT EXCEPT WHERE SHOWN OTHERWISE.
20. PROVIDE WATERSTOPS IN ALL BELOW GRADE CONSTRUCTION JOINTS AND AT OTHER LOCATIONS AS SHOWN.
21. SLEEVES AND OPENINGS IN WALLS, BEAMS AND SLABS NOT SHOWN ON STRUCTURAL DRAWINGS OR OUTSIDE THE PARAMETERS OF TYPICAL SLEEVE DETAILS ARE NOT PERMITTED, UNLESS APPROVED BY THE STRUCTURAL ENGINEER.
22. CONDUIT AND PIPES EMBEDDED IN SLABS, WALLS OR BEAMS SHALL BE NO LARGER IN OUTSIDE DIMENSION THAN 1/3 THE OVERALL MEMBER THICKNESS, AND SHALL BE PLACED NO CLOSER THAN 3 DIAMETERS OR WIDTHS ON CENTER.

CONCRETE REINFORCING

1. ALL CONCRETE IS REINFORCED CONCRETE UNLESS SPECIFICALLY INDICATED OTHERWISE. REINFORCE ALL CONCRETE NOT SPECIFICALLY DETAILED IN ACCORDANCE WITH TYPICAL DETAILS AND OTHER, SIMILAR CONDITIONS AND WITH THE ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" SPECIFICATIONS.
2. MILD REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60.
3. DEFORMED BAR ANCHORS ARE TO BE RESISTANCE WELDED, CONFORMING TO ASTM A496, WITH A MINIMUM YIELD STRENGTH OF 70,000 PSI.
4. PROTECTION OF BARS (COVER): SEE 03 00 00 CONCRETE -ITEM #11
5. REINFORCING STEEL SHALL NOT BE TACK WELDED FOR ANY REASON. NO REINFORCING BARS SHALL BE WELDED (EXCEPT DEFORMED ANCHORS).
6. FIELD BENDING OR REINFORCING PARTIALLY EMBEDDED IN CONCRETE WILL NOT BE ALLOWED UNLESS SPECIFICALLY NOTED ON THE DRAWINGS OR APPROVED BY THE STRUCTURAL ENGINEER.
7. ALL REINFORCING SHALL BE CONTACT LAP SPLICED OR DOWELED AS FOLLOWS, UNLESS NOTED OTHERWISE:
   #4 BAR - 29"
   #5 BAR - 36"
   #6 BAR - 43"
   WELDED PLAIN WIRE REINFORCING - LAP EDGES 8" TO 10" (TYP)
8. DOWELS BETWEEN FOUNDATION AND WALLS SHALL BE INSTALLED AND SHALL BE THE SAME GRADE, SIZE, AND SPACING AS THE VERTICAL WALL REINFORCING, UNLESS NOTED OTHERWISE.
9. PROVIDE CORNER BARS TO MATCH HORIZONTAL REINFORCING.
10. PROVIDE CORNER BARS IN THE OUTSIDE FACE AND AT WALL JUNCTURES TO MATCH HORIZONTAL WALL BARS. USE 3 - #5 VERTICAL CONSTRUCTION RODS AT CORNERS.
11. STANDARD HOOKS (ACI 318-05: SECTION 7.1) DEFORMED BARS w/:
    - 180-DEG. BEND PLUS 4 BAR DIAMETERS EXTENSIONS, BUT NOT LESS THAN 2-1/2" @ FREE END OF BAR.
    - 90 DEG. BEND PLUS 12 BAR DIAMETERS EXTENSIONS AT FREE END OF BAR.
    - FOR STIRRUPS AND TIE HOOKS:
      #5 BAR & SMALLER, 90 DEG. BEND PLUS 6 BAR DIA. EXTENSION @ FREE END OF BAR.
      #6 BAR - # BAR, 90 DEG. BEND PLUS 12 BAR DIAMETERS EXTENSION @ FREE END OF BAR.
      #6 BAR & SMALLER, 135 DEG. BEND PLUS 6 BAR DIA. EXTENSION @ FREE END OF BAR.

MASONRY

1. ALL CONCRETE MASONRY WORK SHALL CONFORM TO THE REQUIREMENTS OF "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 530-99/ASCE 5-99)" AND "SPECIFICATIONS FOR MASONRY STRUCTURES (ACI 530.1-99/ASCE 6-99)".
2. ALL CONCRETE MASONRY UNITS SHALL BE LIGHTWEIGHT AGGREGATE UNITS WITH A 28 DAY COMPRESSIVE STRENGTH (f'm) OF 2000 PSI.
3. CONCRETE BLOCK SHALL BE NORMAL WEIGHT HOLLOW LOAD BEARING MASONRY UNITS CONFORMING TO ASTM C-90, GRADE N-1.
4. CEMENT USED IN THE MORTAR AND GROUT SHALL CONFORM TO ASTM C-150. MASONRY CEMENT SHALL NOT BE USED.
5. MORTAR SHALL BE TYPE N OR S AND CONFORM TO ASTM C-270.
6. COARSE GROUT USED IN WALLS SHALL CONFORM TO ASTM C-476. GROUT COMPRESSIVE STRENGTH SHALL BE 3000 PSI AT 28 DAYS, WITH A SLUMP OF 7" USING 3/8" MAXIMUM SIZE COURSE AGGREGATE.
7. STEEL REINFORCING BARS SHALL CONFORM TO ASTM A-615, GRADE 60. JOINT (HORIZONTAL) REINFORCEMENT SHALL BE 9 GAGE DUR-O-WALL TRUSS TYPE, OR AN APPROVED EQUAL. REINFORCING BARS TO BE LAPPED 48 BAR DIAMETERS AT SPLICES, JOINT REINFORCEMENT TO BE LAPPED 6 INCHES AT SPLICES.
8. MASONRY SHALL NOT BE CONSTRUCTED IN TEMPERATURES BELOW 40°F. PROVIDE A HEAT SOURCE AND PROTECTION AS REQUIRED TO MAINTAIN TEMPERATURE ABOVE 40°F IN ACCORDANCE WITH ACI-530.1, SECTION 1.8.C.
9. HOT WEATHER CONSTRUCTION TECHNIQUES, ACI 530.1, SECTION 1.8.D, SHALL BE IMPLEMENTED WHEN THE AMBIENT AIR TEMPERATURE EXCEEDS 100°F, OR 90°F IF THE WIND SPEED EXCEEDS 8 MPH.
10. ALL VERTICAL CELLS WITH REINFORCING BARS OR BOLTS SHALL BE GROUTED SOLID. CELLS TO BE GROUTED SOLID SHALL HAVE A MINIMUM CLEAR OPENING OF 3" x 2 1/2". THE ENTIRE PERIMETER OF THE CELL SHALL BE FULLY BEDDED WITH MORTAR. CROSS WEBS OF ALL UNITS IN SHEARWALLS ARE TO BE FULLY BEDDED IN MORTAR. CONSOLIDATE ALL GROUT POURS EXCEEDING 12 INCHES IN HEIGHT BY MECHANICAL VIBRATION AND RECONSOLIDATE BY MECHANICAL VIBRATION AFTER INITIAL WATER ABSORPTION AND SETTLEMENT HAS OCCURRED, APPROXIMATELY 5 TO 10 MINUTES.
11. ALL MASONRY SHALL BE RUNNING BOND.
12. ALL BLOCK CELLS AND CAVITIES BELOW GRADE SHALL BE FILLED WITH GROUT.
13. PROVIDE PROTECTION FOR REINFORCING BARS AS FOLLOWS:
    MASONRY:
    VERTICAL REINFORCEMENT 3/4" bond
    BEAM 1"

MASONRY (CONT)

14. WHEN REINFORCING IS SPECIFIED, PROVIDE AT EACH SIDE OF CONTROL JOINTS, OPENINGS, AND WALL ENDS.
15. REINFORCE ALL CMU WALLS 8" THICK AND GREATER VERTICALLY WITH #5 REBAR FULL HEIGHT AT 24" O.C. CENTERED IN CELL UNLESS NOTED OTHERWISE.
16. DOWELS TO SUPPORTING STRUCTURE TO MATCH VERTICAL WALL REINFORCING.
17. ALL MASONRY WALLS SHALL HAVE LADDER TYPE HORIZONTAL REINFORCEMENT WITH THREE 9 GAUGE WIRES, UNLESS NOTED OTHERWISE. SPACE JOINT REINFORCEMENT AT 16" O.C. VERTICALLY TYPICAL.
18. ALL BOND BEAMS SHALL BE GROUTED SOLID AND REINFORCED WITH TWO (2) #5 REBAR UNLESS NOTED OTHERWISE.
19. PROVIDE BOND BEAMS AT ALL MASONRY WALLS SUPPORTING ROOF TRUSSES AND FLOOR SLABS.
20. GROUT SOLID UNDER THE ENDS OF ALL BEAMS AND LINTELS FOR FULL HEIGHT OF WALL.

METALS

1. ALL WIDE FLANGE BEAMS SHALL BE ASTM A992, GRADE 50.
2. ALL ANGLES, CHANNELS AND OTHER MEMBERS SHALL BE ASTM A36 UNLESS NOTED OTHERWISE.
3. STRUCTURAL STEEL PIPE SHALL BE ASTM A53 TYPE E OR S, GR B.
4. STRUCTURAL STEEL TUBING SHALL BE ASTM A500, GRADE B, 46 KSI MINIMUM YIELD STRENGTH.
5. BASE PLATES AND CONNECTION PLATES SHALL BE ASTM A36.
6. EMBEDDED ANCHOR BOLTS SHALL BE ASTM F1554 THREADED ROUND STOCK.
7. ANCHOR BOLT NUTS SHALL BE ASTM A325 HEAVY HEX HEAD.
8. FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH THE AISC MANUAL OF STEEL CONSTRUCTION, EXCEPT THE SECOND SENTENCE OF PARAGRAPH 4.2.1 OF THE CODE OF STANDARD PRACTICE SHALL BE DELETED. STEEL FABRICATOR SHALL BE AISC CERTIFIED.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ERECTION AIDS AND JOINT PREPARATIONS THAT INCLUDE, BUT ARE NOT LIMITED TO:
   ERECTION ANGLES, LIFT HOLES, AND OTHER AIDS, WELDING PROCEDURES, REQUIRED ROOT OPENINGS, ROOT FACE DIMENSIONS, GROOVE ANGLES, BACKING BARS, COPES, SURFACE ROUGHNESS VALUES, AND TAPERS OF UNEQUAL PARTS.
10. CONNECTING OR SPLICING OF STRUCTURAL STEEL WHERE NOT DETAILED IS PROHIBITED WITHOUT PRIOR WRITTEN APPROVAL OF THE ENGINEER.
11. BOLTED CONNECTIONS SHALL BE 3/4" DIAMETER, A325N, UNLESS NOTED OTHERWISE. TIGHTENED TO PRETENSIONED LEVELS.
12. OVERSIZED AND LONG-SLOTTED HOLES UNLESS SHOWN ON THE STRUCTURAL DRAWINGS ARE NOT ALLOWED.
13. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS CLEARLY INDICATE THE SIZE AND TYPE OF BOLT USED IN EACH CONNECTION AND THE ALLOWABLE VALUES USED FOR THE VARIOUS BOLT TYPES.
14. ALL SHOP AND FIELD WELDING SHALL CONFORM TO THE AWS STRUCTURAL STEEL WELDING CODE, ANSI/AWS D1.1. SHOP DRAWINGS SHALL SHOW ALL WELDING WITH AWS A2.4 SYMBOLS.
15. ALL WELDING SHALL BE PERFORMED BY AWS CERTIFIED WELDERS HAVING CURRENT CERTIFICATION IN TYPE OF WELD SHOWN ON THE DRAWING OR NOTES.
16. MINIMUM WELD SHALL BE 3/16" THICK THROAT. INCREASE WELD SIZES TO AWS MINIMUM SIZES, BASED ON PLATE THICKNESSES.
17. ALL WELDING SHALL BE DONE USING E70 SERIES LOW HYDROGEN ELECTRODES.
18. WELDING PROCEDURES SHALL BE SUBMITTED TO THE OWNER'S TESTING AGENCY FOR REVIEW PRIOR TO STARTING FABRICATION OR ERECTION.
19. SET ALL ANCHOR BOLTS IN CONCRETE WITH TEMPLATES. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS SHOWING DETAILS OF ALL TEMPLATES.
20. WASHERS FOR ALL BASE PLATES SHALL BE 1/4" THICK ASTM A36 PLATES EXTENDING MINIMUM 1" FROM EDGE OF BASE PLATE HOLES ON EACH SIDE 1/16" LARGER THAN THE NOMINAL BOLT DIAMETER. WITH HOLES.
21. ALL STEEL ANCHORS, TIES, AND OTHER ITEMS EMBEDDED IN CONCRETE OR MASONRY SHALL BE LEFT UNPAINTED.
22. AFTER FABRICATION STRUCTURAL STEEL SHALL BE CLEANED OF ALL RUST, LOOSE MILL SCALE AND OTHER FOREIGN MATERIALS. ONE SHOP COAT OF ALKYD PRIMER IS REQUIRED FOR ALL STRUCTURAL STEEL, EXCEPT IN AREAS TO BE FIREPROOFED. FINISH PAINT AS REQUIRED PER SPECIFICATIONS.
23. EXAMINE DRAWINGS FOR ITEMS TO BE GALVANIZED. NOTED ITEMS AND ALL SHOP ATTACHED SUBMATERIAL ARE TO BE HOP DIP GALVANIZED AFTER FABRICATION.
24. EXCEPT WHERE SHOWN OTHERWISE, FRAMED BEAM CONNECTIONS SHALL BE CAPABLE OF SUPPORTING A TOTAL SHEAR EQUAL TO 60% OF MAXIMUM UNIFORM LOAD AS TABULATED IN PART 3 OF THE AISC HANDBOOK, 13TH EDITION ALLOWABLE STRESS DESIGN.
25. ENDS OF BEAMS WHICH HAVE COPES TO THE EXTENT THAT ALLOWABLE SHEAR OR BENDING STRESS OF STEEL IS EXCEEDED SHALL HAVE WEB PLATES OF SUFFICIENT SIZE WELDED TO THE BEAM TO REDUCE SUCH STRESSES.
26. ALL CONNECTION BOLTS SHALL BE TIGHTENED TO THE TENSION SHOWN IN TABLE 3 OF THE AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS".(F1852-98 "TWIST-OFF" BOLTS MAY BE USED AT STANDARD BEARING-TYPE CONNECTIONS.)
27. ALL BEAM CONNECTIONS OVER TUBE COLUMNS SHALL BE WELDED COMPLETE TO DEVELOP THE BEAM SECTION.
28. WELDING SHALL TO THE GREATEST POSSIBLE EXTENT BE SHOP WELDING.
29. SHIM AND GROUT COLUMN BASE PLATES TO PROPER ELEVATION. GROUT SHALL BE NON-METALLIC, NON-SHRINK GROUT SUCH AS 5 STAR OR EQUIVALENT. GROUT PLATES ARE PROHIBITED.
30. PROVIDE 2-1/2"X2-1/2"X1/4" ANGLES AS REQUIRED TO SUPPORT DECK AT COLUMNS, ENDS OF BEAMS, AROUND OPENINGS, ETC. EXCEPT AS NOTED OTHER OTHERWISE.
31. ALL BACKING STRIPS, EXTENSION BARS, OR RUN-OFF PLATES, IF ANY, SHALL BE NEAT CUT TO EDGE OF ABUTTING PARTS.
32. STRUCTURAL STEEL SHOP DRAWINGS SHALL SHOW SIZE, LENGTH, & TYPE OF WELD FOR ALL WELDED CONNECTIONS AND SIZE & TYPE OF BOLT FOR ALL BOLTED CONNECTIONS.

WOOD, PLASTICS & COMPOSITES

1. FRAMING LUMBER SHALL BE AS FOLLOWS:
   A. 2x4 HEADERS, STUDS AND PLATES, #2 GRADE SPF OR DOUGLASS FIR (MIN) UNLESS NOTED OTHERWISE
   B. BEAMS AND POST (8X8 OR LARGER), #1 SOUTHERN PINE OR APPROVED EQUAL
   C. LVL LOUISIANA PACIFIC "GANG LAM" OR EQUAL FB = 2950 PSI E = 2,000 KSI
   D. ENGINEERED WOOD JOISTS LOUISIANA PACIFIC OR EQUAL, LPI JOISTS
2. MEMBERS SPECIFIED FOR USE IN STRUCTURAL COLUMNS AND BEAMS (INCLUDING HEADERS) SHALL BE VOID OF ANY SIGNIFICANT DEFECTS (I.E. CHECKING, WARPING, ETC.) AT THE TIME OF ERECTION.
3. ALL WOOD FRAMING IN DIRECT CONTACT WITH CONCRETE SHALL BE NO. 2 SYP CCA., OR OTHERWISE PROTECTED FROM DEGRADING ELEMENTS.

NO.	DATE	REVISIONS	BY	APP'D

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MISSOURI CERTIFICATE OF AUTHORITY: F0013930

Designed By: Designer
Drawn By: Author
Checked By: Checker
Issue Date: 1-11-2010

1-8-10

STATE OF MISSOURI RICHARD R. KLEIN E-13489 PROFESSIONAL ENGINEER REGISTERED PROFESSIONAL ENGINEER
RICHARD R. KLEIN, PE
MO # E-13489

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MISSOURI DEPARTMENT OF TRANSPORTATION
JEFFERSON CITY, COLE COUNTY, MISSOURI

WAREHOUSE RENOVATION PHASE II
STRUCTURAL GENERAL NOTES

800160-040

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S002

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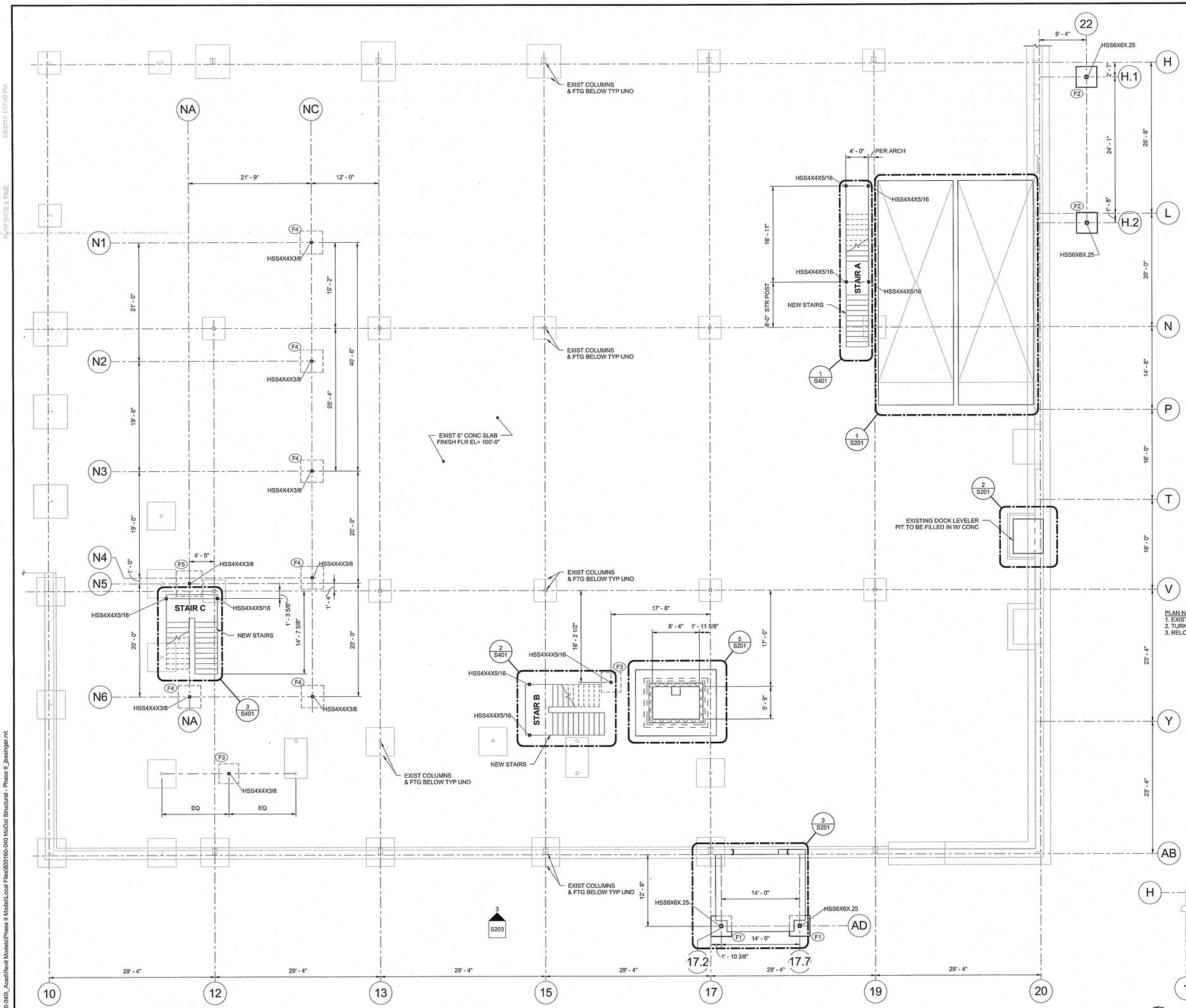
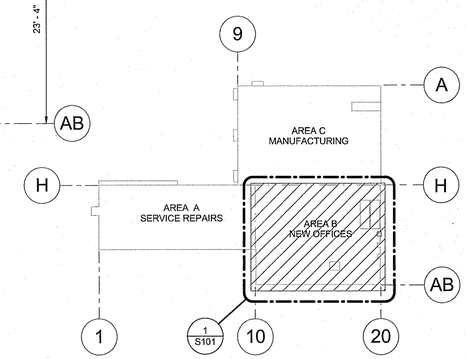


FOUNDATION SCHEDULE				
MARK	FOOTING SIZE L x W x D	TOP OF FOOTING	BOTTOM OF FOOTING	DETAIL
F1	44" x 44" x 30"	99' - 4"	96' - 10"	8,9/S301
F2	44" x 44" x 30"	96' - 0"	93' - 6"	8,9/S301
F3	42" x 42" x 18"	99' - 4"	97' - 10"	11/S301
F4	48" x 48" x 18"	99' - 4"	97' - 10"	11/S301
F5	54" x 54" x 18"	99' - 4"	97' - 10"	11/S301

PLAN NOTES:
1. EXISTING MAIN FLOOR CONCRETE SLAB ELEVATION = 100'-0".
2. TURN OF EXISTING WATER SUPPLY LINES PRIOR TO SLAB DEMOLITION.
3. RELOCATE UNDERGROUND PLUMBING AS REQUIRED FOR CLEARANCE AT NEW FOOTINGS.

1 FOUNDATION PLAN
1/8" = 1'-0"



KEY PLAN OF EXISTING BUILDING
MAIN FLOOR

NO.	DATE	REVISIONS	BY	APP'D

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Designed By: RRH
Drawn By: JJB
Checked By: MJR
Issue Date: 1-11-2010

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MISSOURI DEPARTMENT OF TRANSPORTATION
JEFFERSON CITY, COLE COUNTY, MISSOURI

WAREHOUSE RENOVATION PHASE II
FOUNDATION PLAN

800160-040

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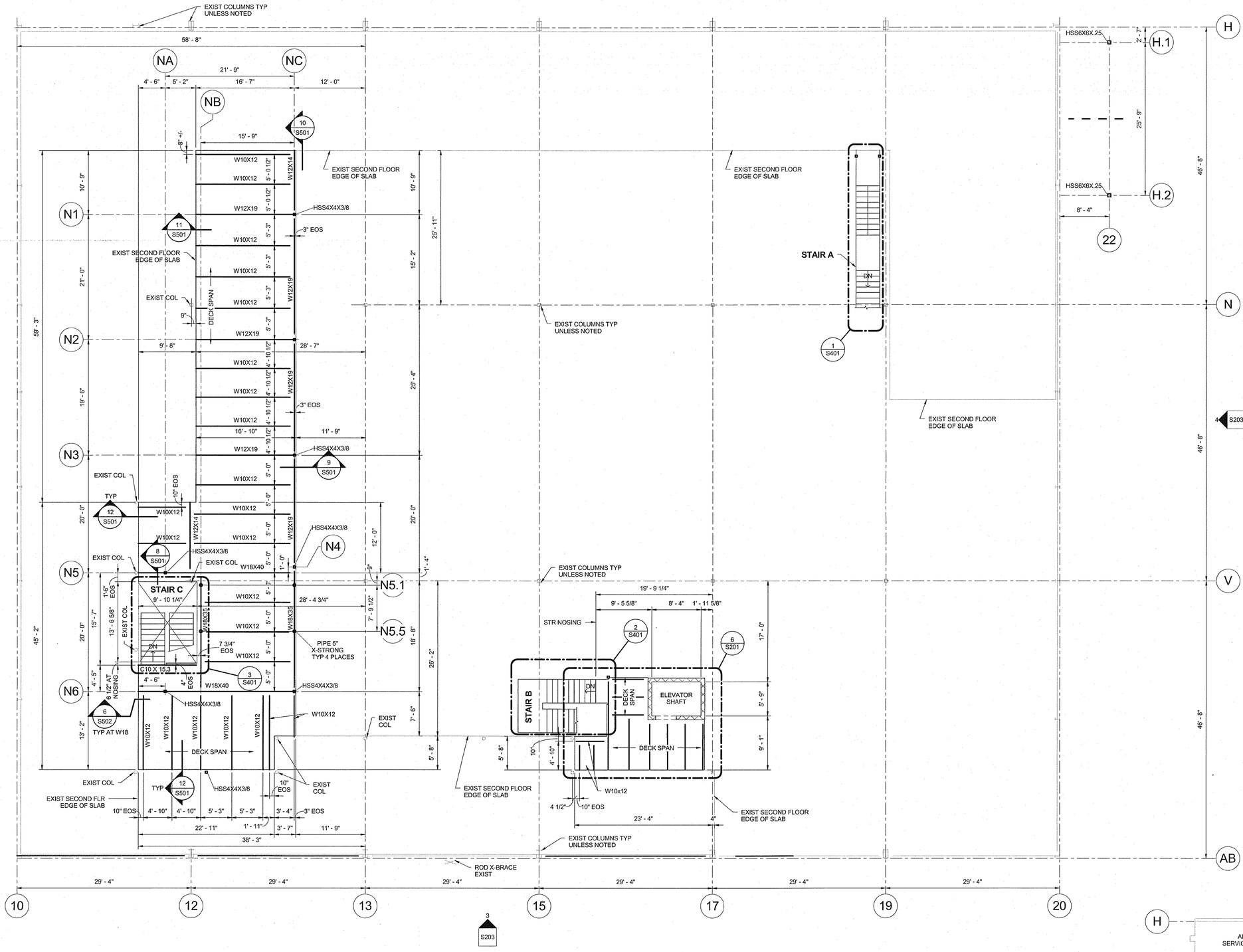
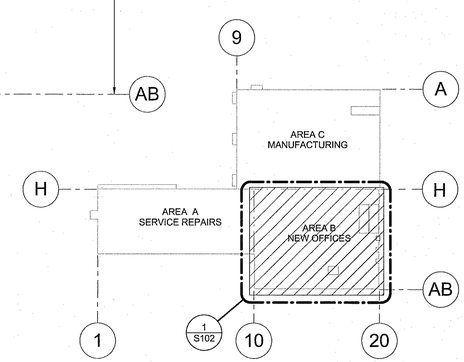


1 SECOND FLOOR FRAMING PLAN

1/8" = 1'-0"

PLAN NOTES:
1. 2 1/2" NW CONCRETE ON 1 1/2" 20 GAGE NON-COMPOSITE METAL DECK, 4" TOTAL THICKNESS, TOP OF SLAB ELEVATION = 112' - 0".
2. TOP OF NEW STEEL BEAM ELEVATIONS = 111' - 8" UNO.



KEY PLAN OF EXISTING BUILDING

SECOND FLOOR

NO.	DATE	REVISIONS	BY	APP'D

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JEFFERSON CITY, COLE COUNTY, MISSOURI

WAREHOUSE RENOVATION PHASE II
SECOND FLOOR FRAMING PLAN

800160-040

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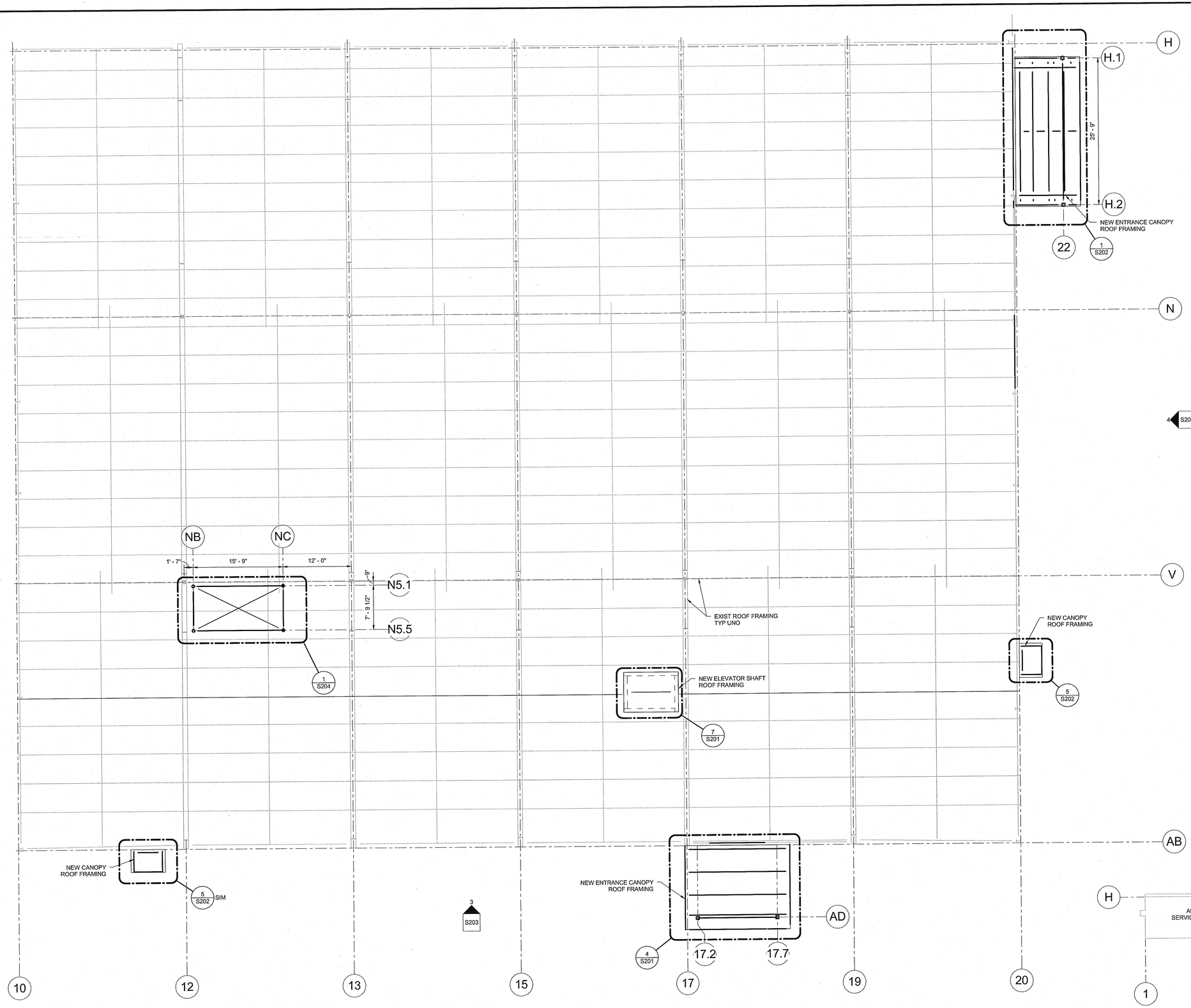

1 ROOF FRAMING PLAN

1/8" = 1'-0"

PLAN NOTES:
1. SEE ENLARGED FRAMING PLANS AND SECTIONS FOR ELEVATIONS AND NEW FRAMING MEMBERS.

KEY PLAN OF EXISTING BUILDING

ROOF LEVEL

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Drawn By: JJB
Checked By: MJR
Issue Date: 1-11-2010

1-8-10

REGISTERED PROFESSIONAL ENGINEER
STATE OF MISSOURI
RICHARD R. KLEIN
NUMBER E-13489
RICHARD R. KLEIN, PE
MO # E-13489

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MISSOURI DEPARTMENT OF TRANSPORTATION
JEFFERSON CITY, COLE COUNTY, MISSOURI

WAREHOUSE RENOVATION PHASE II
ROOF FRAMING PLAN

800160-040

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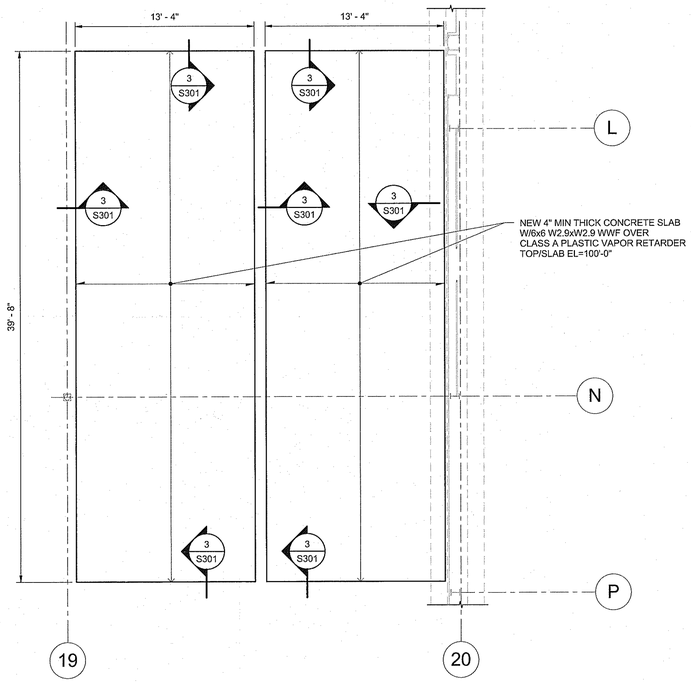
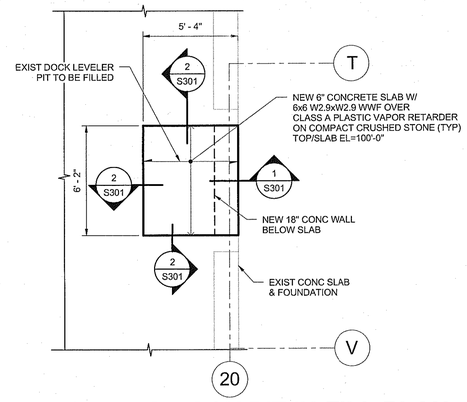
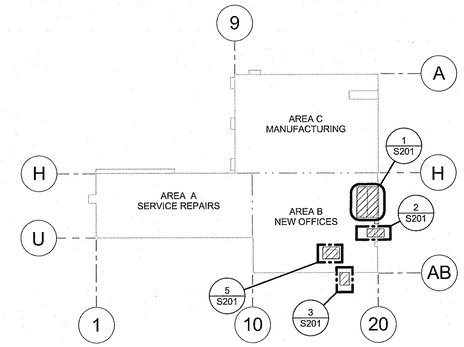


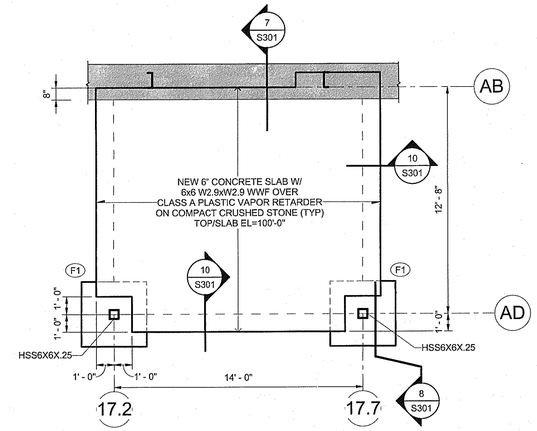
1 NEW FLOOR SLAB AT EXISTING CHEMICAL ROOMS
3/16" = 1'-0"



2 LOADING DOCK PIT IN-FILL PLAN
1/4" = 1'-0"

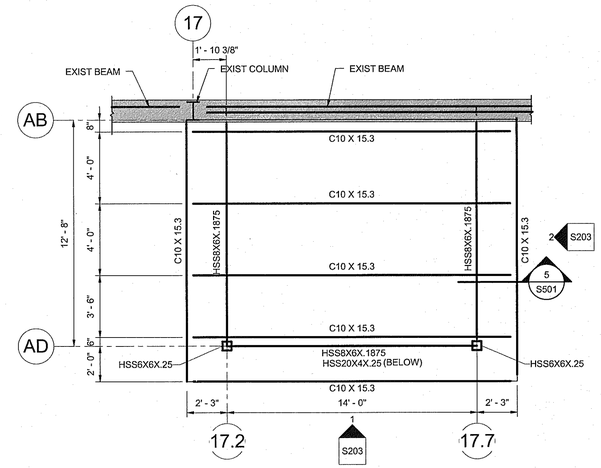


KEY PLAN OF EXISTING BUILDING



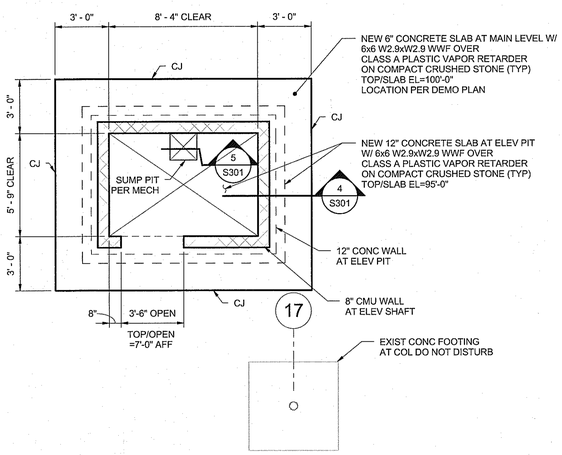
3 ENTRANCE CANOPY FOUNDATION PLAN
1/4" = 1'-0"

PLAN NOTES:
1. SEE 4/S101 FOR ENTRANCE CANOPY ROOF FRAMING PLAN.



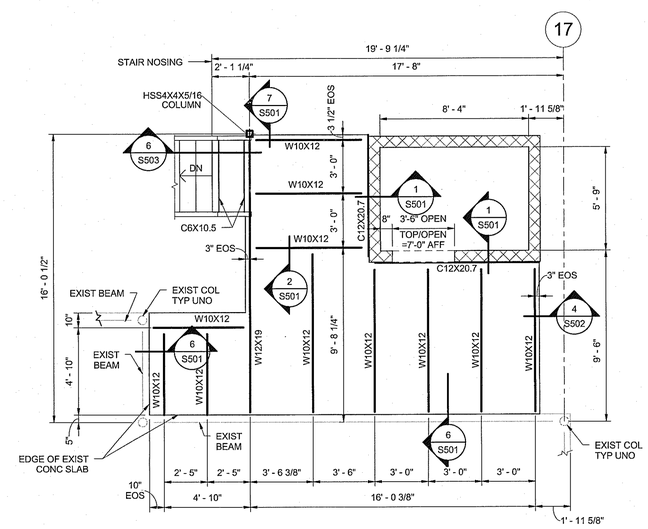
4 ENTRANCE CANOPY FRAMING PLAN
1/4" = 1'-0"

PLAN NOTES:
1. TOP OF STEEL BEAM ELEVATIONS VARIE SEE SECTIONS AND FRAMING ELEVATIONS.
2. METAL ROOF DECK PER ARCH.



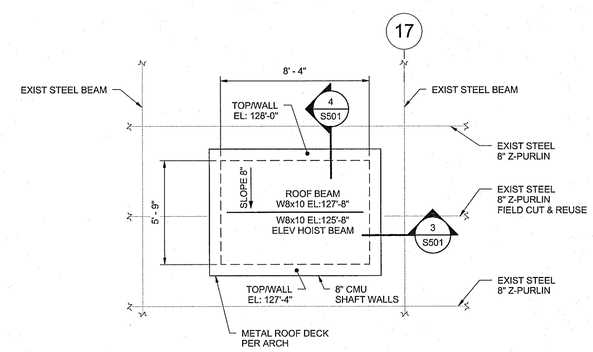
5 ELEVATOR SHAFT MAIN LEVEL PLAN
1/4" = 1'-0"

PLAN NOTES:
1. SEE 6 & 7/S101 FOR ADDITIONAL ELEVATOR SHAFT FRAMING PLANS.



6 ELEVATOR SHAFT SECOND LEVEL PLAN
1/4" = 1'-0"

PLAN NOTES:
1. 4" CONCRETE SLAB ON 1 1/2" 20 GAGE NON-COMPOSITE METAL DECK TOP OF SLAB ELEVATION = 112' - 0".
2. TOP OF NEW STEEL BEAM ELEVATIONS = 111' - 8" UNO.



7 ELEVATOR SHAFT ROOF LEVEL PLAN
1/4" = 1'-0"

NO.	DATE	REVISIONS	BY	APP'D

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Drawn By: JJB
Checked By: MJR
Issue Date: 1-11-2010

1-8-10

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MISSOURI DEPARTMENT OF TRANSPORTATION
JEFFERSON CITY, COLE COUNTY, MISSOURI

WAREHOUSE RENOVATION PHASE II
ENLARGED PLANS

800160-040

SHEET NO.
S201

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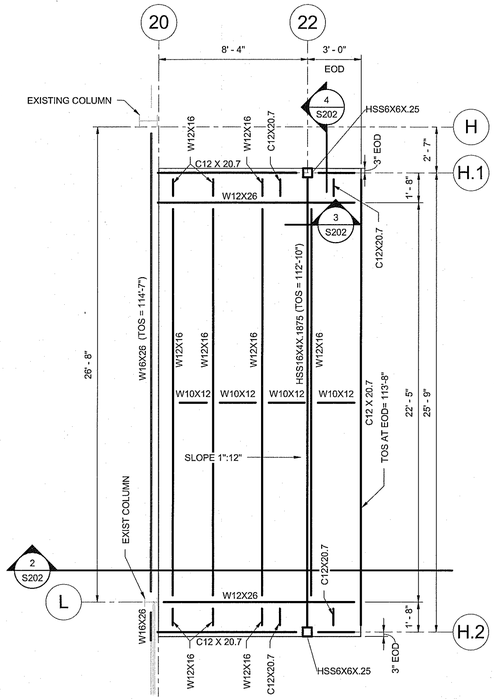
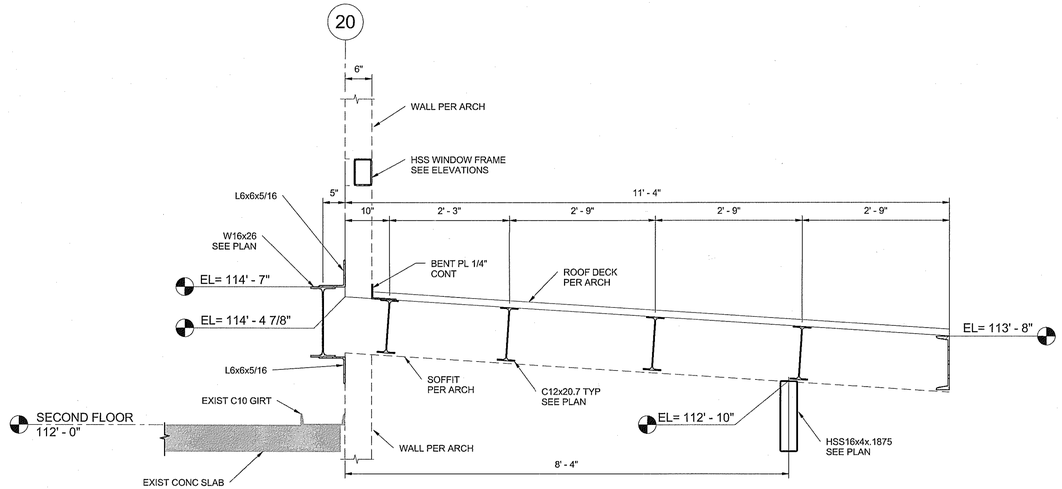
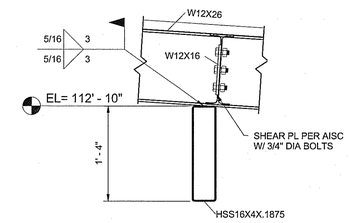


1 NORTH CANOPY ROOF FRAMING PLAN
1/4" = 1'-0"

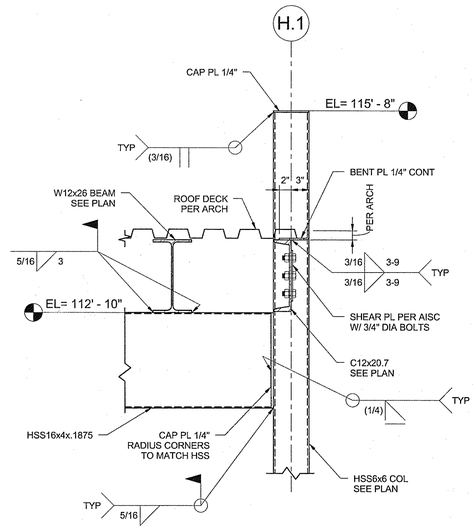
NOTE:
1.SEE SECTIONS FOR ELEVATIONS NOT SHOWN ON PLAN.



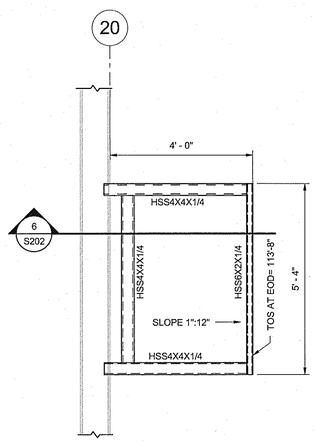
2 NORTH CANOPY SECTION
3/4" = 1'-0"



3 NORTH CANOPY SECTION
1" = 1'-0"

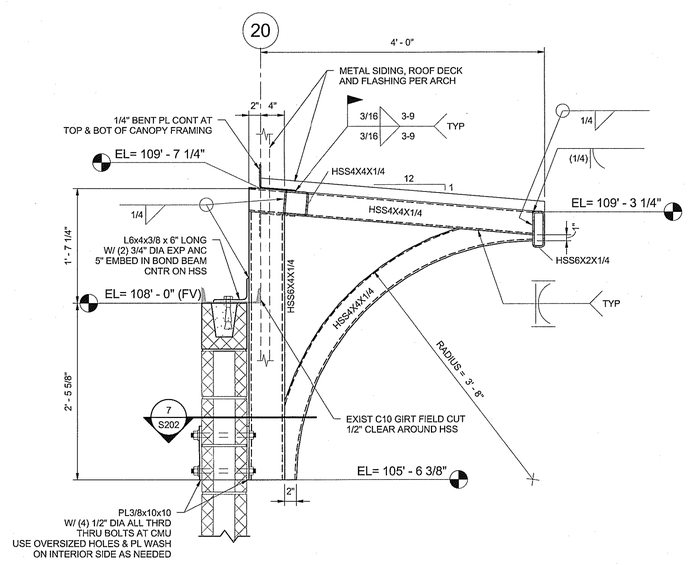


4 NORTH CANOPY SECTION
1" = 1'-0"



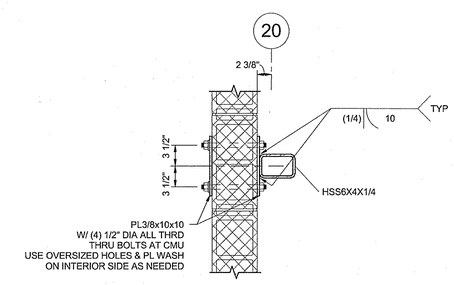
5 SMALL CANOPY ROOF FRAMING PLAN
1/2" = 1'-0"

NOTE:
1.SEE SECTIONS FOR ELEVATIONS NOT SHOWN ON PLAN.



6 SECTION
1" = 1'-0"

NOTES:
1.CLOSE ALL CUT ENDS OF HSS SECTIONS WITH 1/4" PLATE.
2. RADIUS CORNERS OF 1/4" CLOSURE PLATE TO MATCH HSS CORNER RADIUS.



7 SECTION
1" = 1'-0"

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Designed By: RKK
Drawn By: JJB
Checked By: MJR
Issue Date: 1-11-2010

1-8-10

RICHARD KEITH KIRKHAM
NUMBER E-13489
STATE OF MISSOURI
REGISTERED PROFESSIONAL ENGINEER
RICHARD KEITH KIRKHAM
MO # E-13489

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JEFFERSON CITY, COLE COUNTY, MISSOURI

WAREHOUSE RENOVATION PHASE II
ENLARGED PLANS AND DETAILS

800160-040

SHEET NO.
S202

PLOT DATE & TIME
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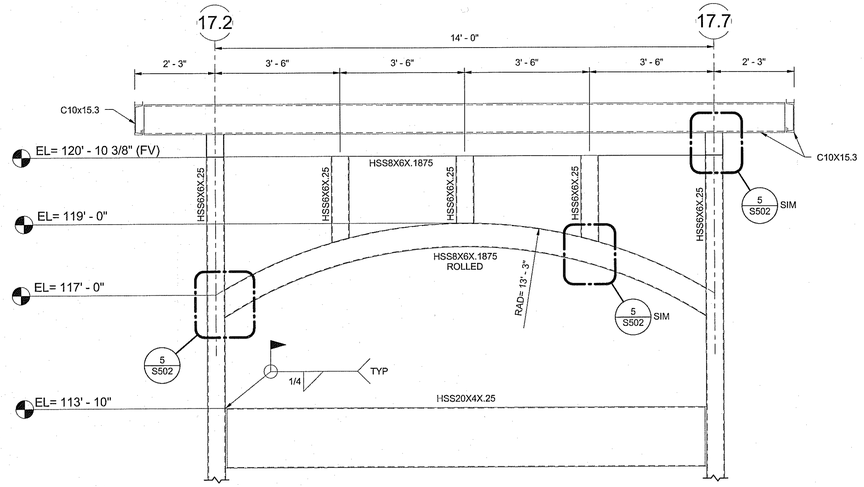
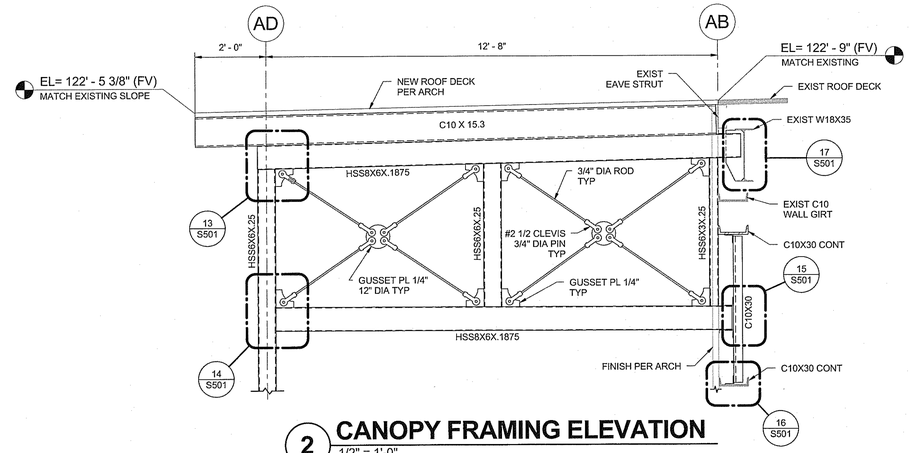


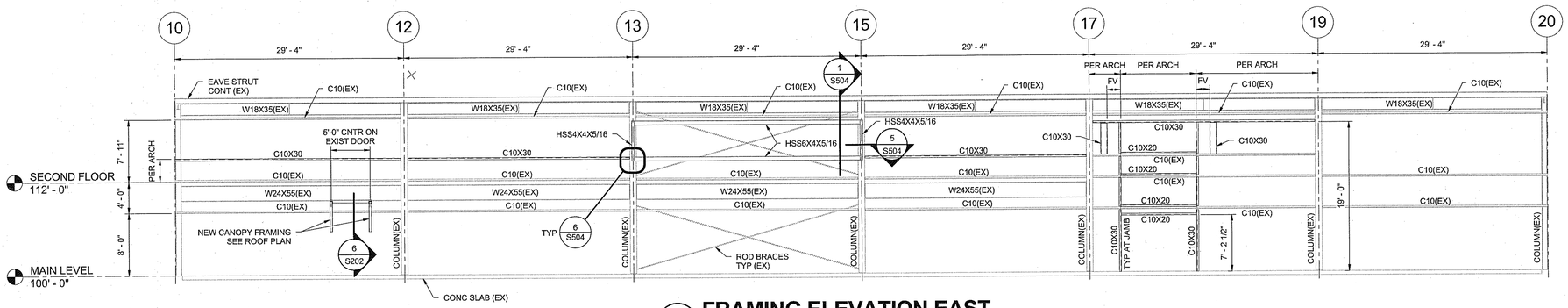
1 CANOPY FRAMING ELEVATION
1/2" = 1'-0"

NOTES:
1. PROVIDE 1/4" CAP PLATE AT ENDS OF HSS FRAMING TO FACILITATE FIELD WELDING.
2. HSS FRAMING MEMBERS ARE ARCHITECTURALLY EXPOSED GRIND ALL SHOP AND FIELD WELDS SMOOTH FOR FINISH APPEARANCE.



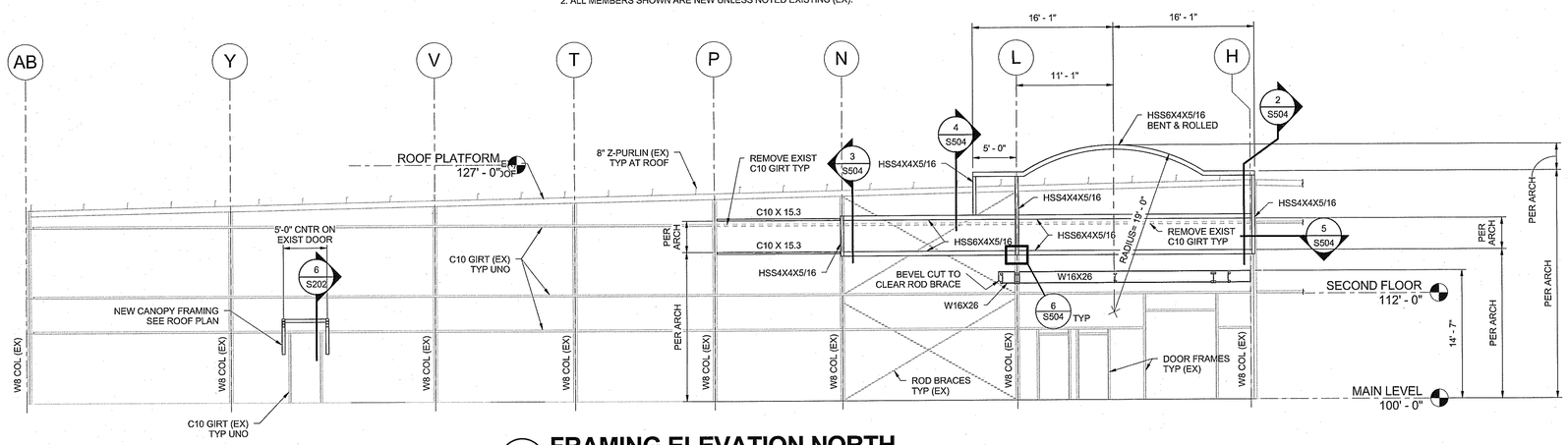
2 CANOPY FRAMING ELEVATION
1/2" = 1'-0"

NOTES:
1. USE 1/4" CAP PLATE AT ENDS OF ALL HSS FRAMING TO FACILITATE FIELD WELDING.
2. HSS FRAMING MEMBERS & ROD BRACE CONNECTIONS ARE ARCHITECTURALLY EXPOSED GRIND ALL FIELD WELDS SMOOTH FOR FINISH APPEARANCE.



3 FRAMING ELEVATION EAST
1/8" = 1'-0"

NOTES:
1. (EX) DENOTES EXISTING MEMBER.
2. ALL MEMBERS SHOWN ARE NEW UNLESS NOTED EXISTING (EX).



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

NOTES:
1. (EX) DENOTES EXISTING MEMBER.
2. ALL MEMBERS SHOWN ARE NEW UNLESS NOTED EXISTING (EX).

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Checked By: MJR
Issue Date: 1-11-2010

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MISSOURI DEPARTMENT OF TRANSPORTATION
JEFFERSON CITY, COLE COUNTY, MISSOURI

WAREHOUSE RENOVATION PHASE II
FRAMING ELEVATIONS

800160-040

SHEET NO.
S203

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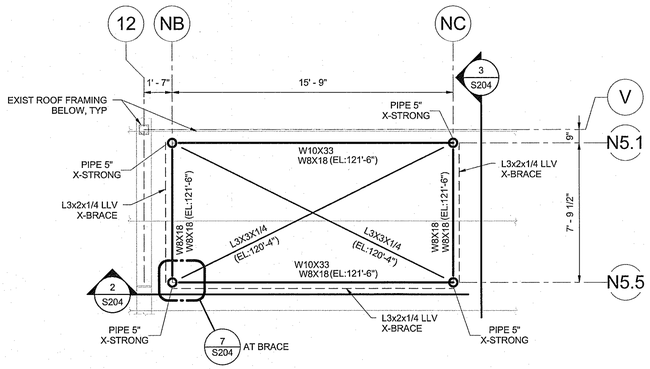
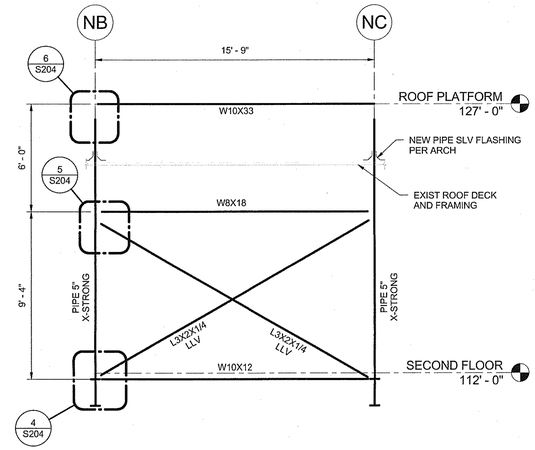
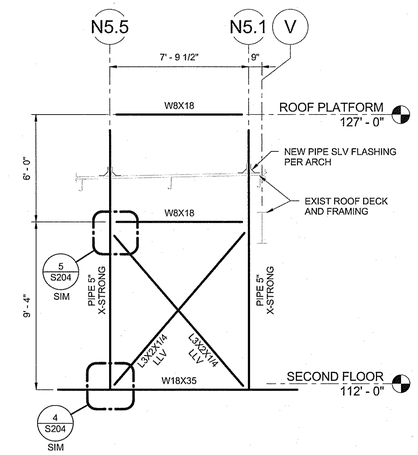


1 RTU SUPPORT FRAMING PLAN
1/4" = 1'-0"

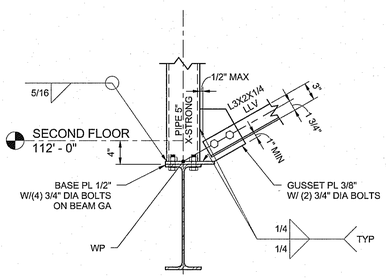
NOTES:
1. TOP OF STEEL BEAM ELEVATIONS = 127'-0" UNLESS NOTED OTHERWISE (EL: X'-X").
2. USE (1) 3/4" DIA BOLT WITH 3/8" STITCH PLATE AT ALL X-BRACE INTERSECTIONS.



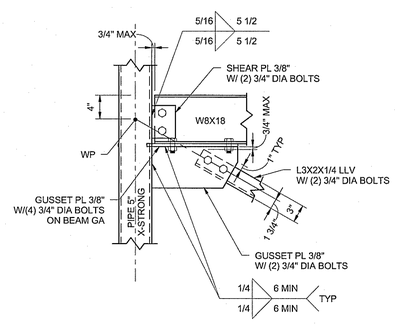
2 RTU FRAMING ELEVATION GRID N5.5
1/4" = 1'-0"



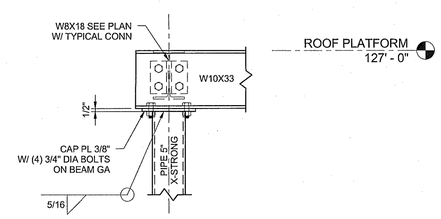
3 RTU FRAMING ELEVATION GRID NB & NC
1/4" = 1'-0"



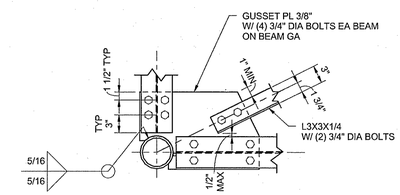
4 TYPICAL DETAIL
1" = 1'-0"



5 TYPICAL DETAIL
1" = 1'-0"



6 TYPICAL DETAIL
1" = 1'-0"



7 TYPICAL DETAIL
1" = 1'-0"

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Drawn By: JJB
Checked By: MJR
Issue Date: 1-11-2010

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STATE OF MISSOURI REGISTERED PROFESSIONAL ENGINEER RICHARD B. KLINE NUMBER E-13-4693

SHAFER, KLINE, & WARREN, INC.
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JEFFERSON CITY, COLE COUNTY, MISSOURI

WAREHOUSE RENOVATION PHASE II
RTU SUPPORT FRAMING

800160-040

SHEET NO.
S204

1/5/2010 1:41:20 PM
PLOT DATE & TIME
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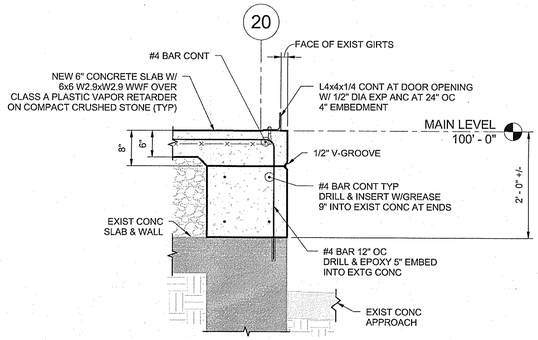
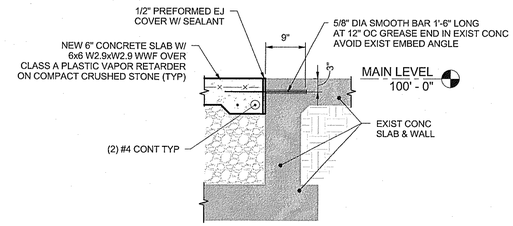
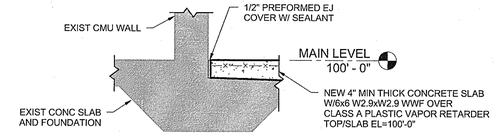


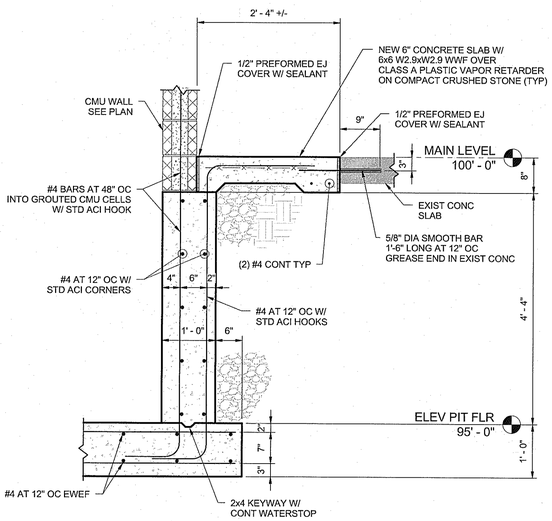
1 SECTION AT EXISTING DOCK LEVELER PIT
3/4" = 1'-0"



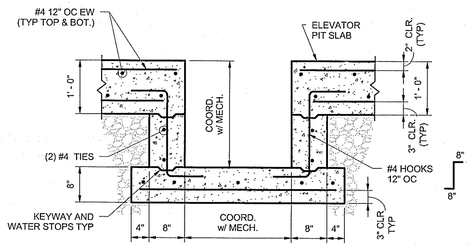
2 SECTION AT EXISTING DOCK LEVELER PIT
3/4" = 1'-0"



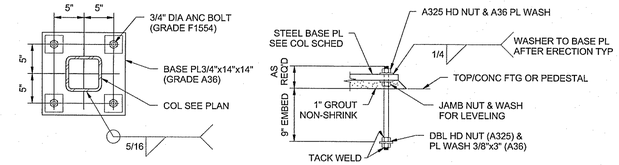
3 SECTION AT FLOOR SLAB FILL
3/4" = 1'-0"



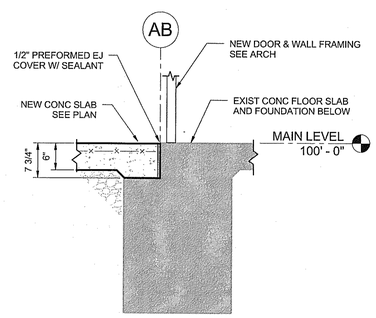
4 ELEVATOR PIT SECTION
3/4" = 1'-0"



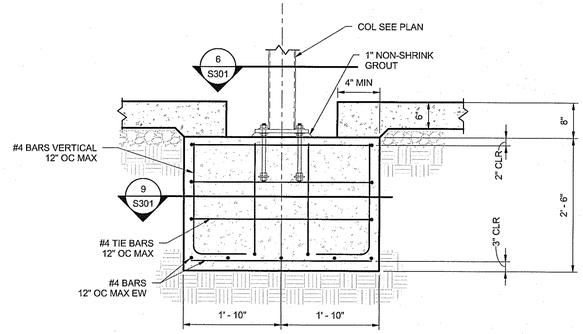
5 ELEVATOR SUMP PIT DETAIL
3/4" = 1'-0"



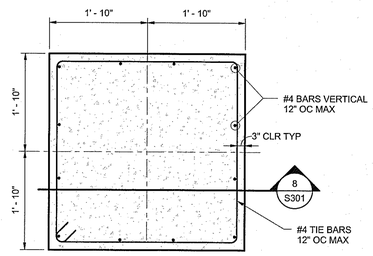
6 TYPICAL COLUMN BASE PLATE
1" = 1'-0"



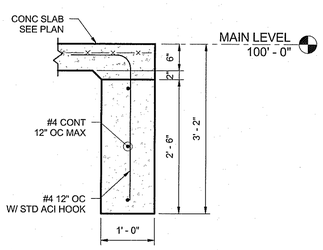
7 CANOPY SECTION
3/4" = 1'-0"



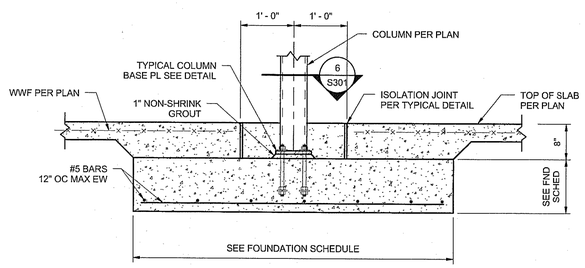
8 F1 FOOTING SECTION VIEW
3/4" = 1'-0"



9 F1 FOOTING PLAN VIEW
3/4" = 1'-0"



10 CANOPY SLAB EDGE
3/4" = 1'-0"



11 TYPICAL FOOTING SECTION VIEW
3/4" = 1'-0"

NO.	DATE	REVISIONS	BY	APP'D

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MISSOURI CERTIFICATE OF AUTHORITY: F0113930

Designed By: RRK
Drawn By: JJB
Checked By: MJR
Issue Date: 1-11-2010

1-8-10

RICHARD R. KLEIN, PE
MO # E-13489

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MISSOURI DEPARTMENT OF TRANSPORTATION
JEFFERSON CITY, COLE COUNTY, MISSOURI

WAREHOUSE RENOVATION PHASE II
FOUNDATION SECTIONS

800160-040

SHEET NO.
S301

PLOT DATE & TIME: 1/12/2010 1:18:25 PM
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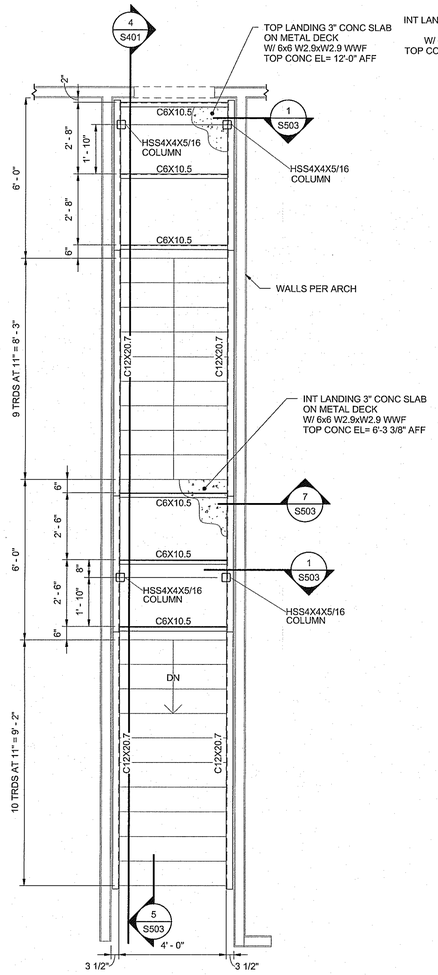
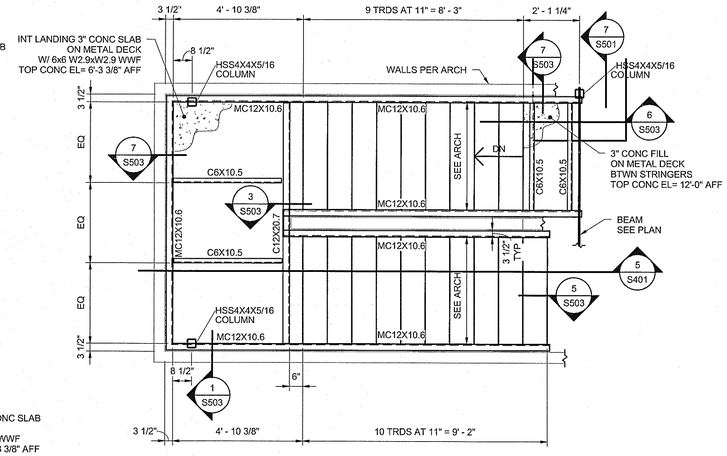
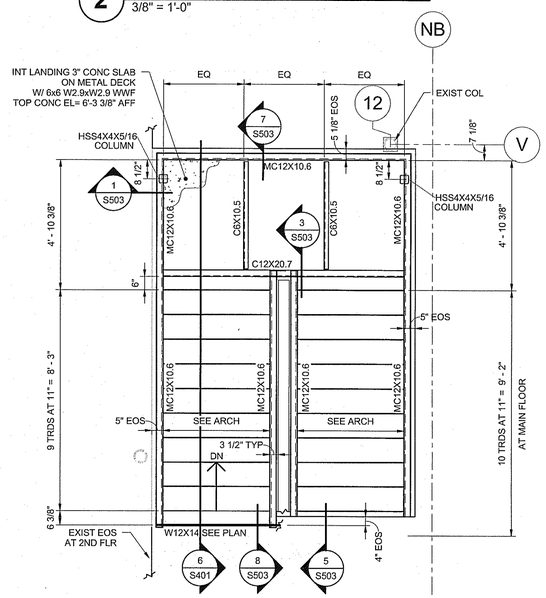


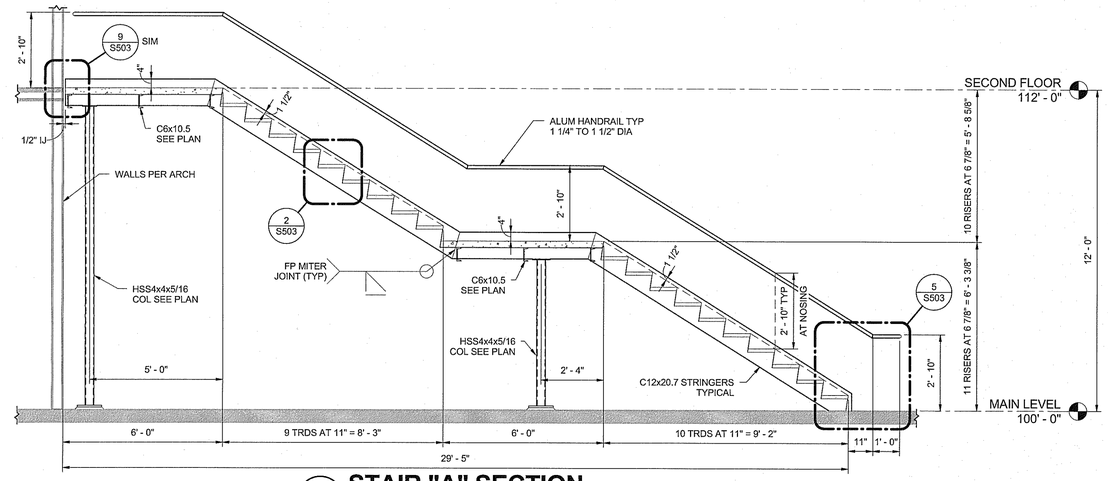
1 STAIR "A" PLAN
3/8" = 1'-0"



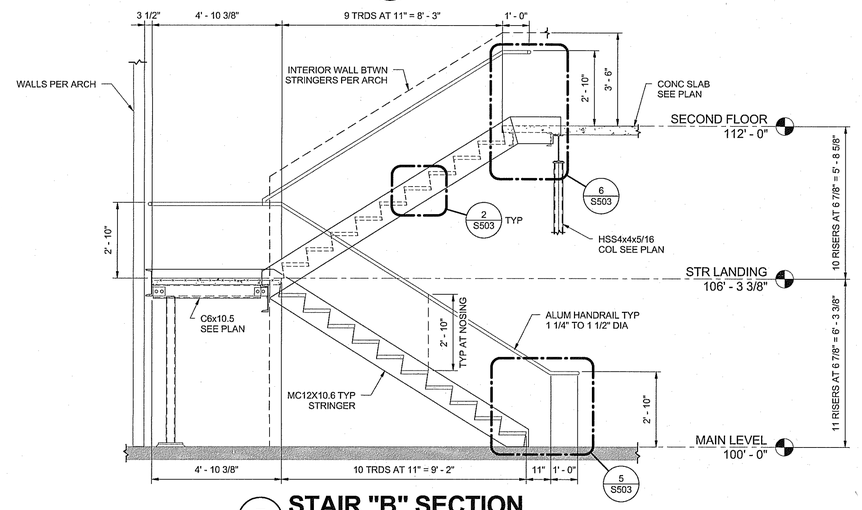
2 STAIR "B" PLAN
3/8" = 1'-0"



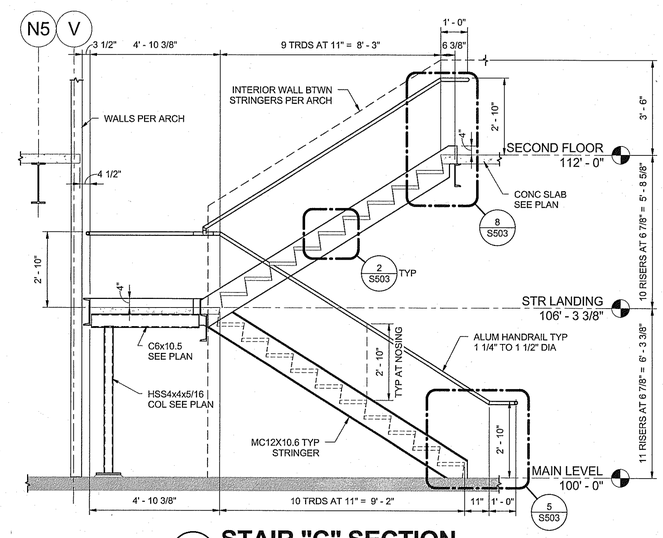
3 STAIR "C" PLAN
3/8" = 1'-0"



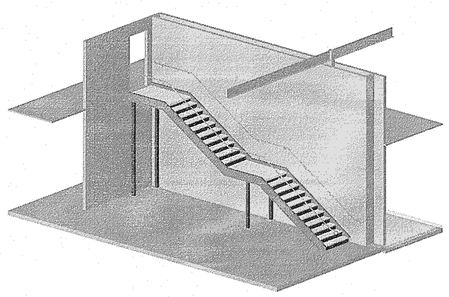
4 STAIR "A" SECTION
3/8" = 1'-0"



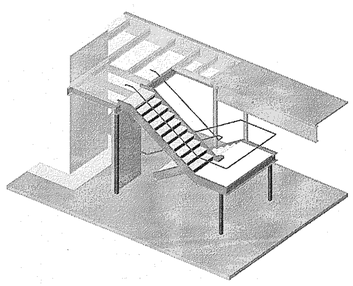
5 STAIR "B" SECTION
3/8" = 1'-0"



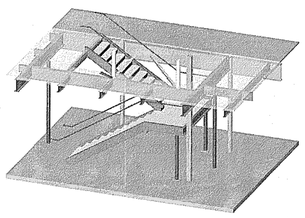
6 STAIR "C" SECTION
3/8" = 1'-0"



20 STAIR TOWER "A"



21 STAIR TOWER "B"



22 STAIR TOWER "C"

NO.	DATE	REVISIONS	BY	APP'D

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Drawn By: JJB
Checked By: MJR
Issue Date: 1-11-2010

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MO # E-13489

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MISSOURI DEPARTMENT OF TRANSPORTATION
JEFFERSON CITY, COLE COUNTY, MISSOURI

WAREHOUSE RENOVATION PHASE II
STAIR PLANS

800160-040

SHEET NO.
S401

PLOT DATE & TIME: 1/3/2010 1:18:30 PM
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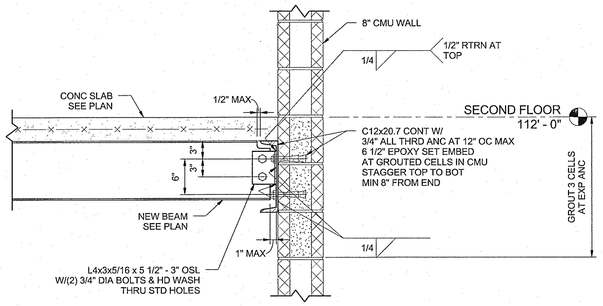
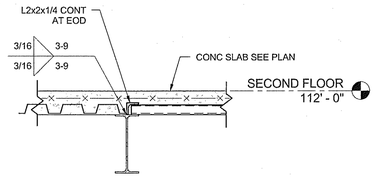
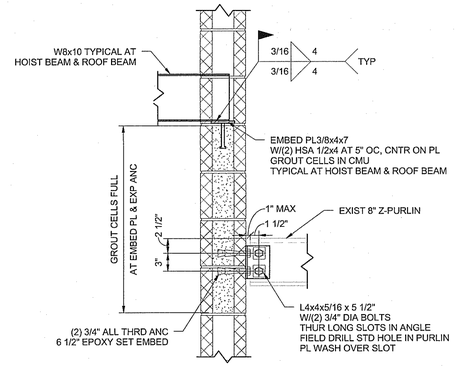


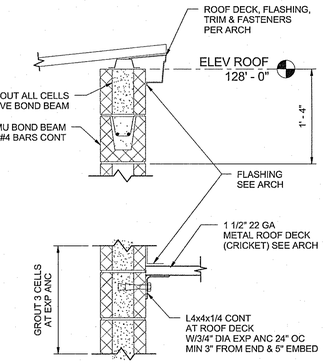
1 ELEVATOR LANDING SECTION
1" = 1'-0"



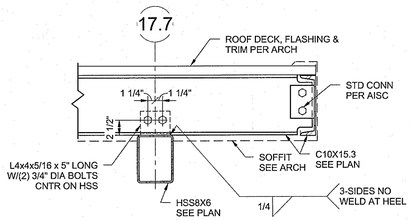
2 SECTION AT DECK SPAN CHANGE
1" = 1'-0"



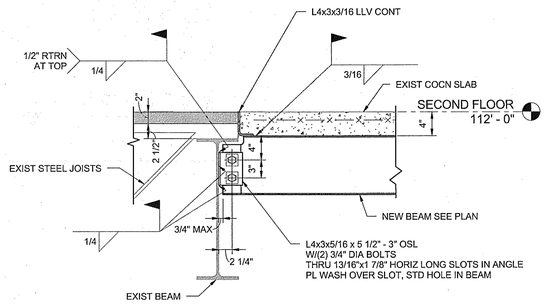
3 ELEVATOR SHAFT BEAM CONNECTIONS
1" = 1'-0"



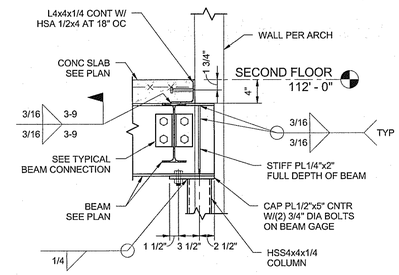
4 ELEVATOR SHAFT ROOF SECTION
1" = 1'-0"



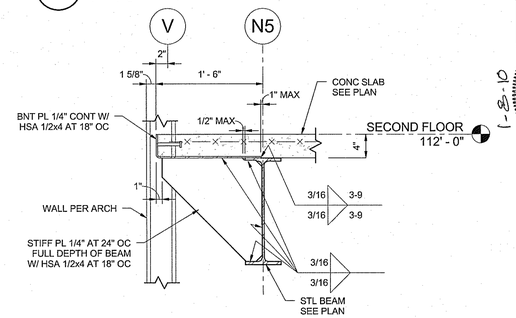
5 CANOPY ROOF SECTION
1" = 1'-0"



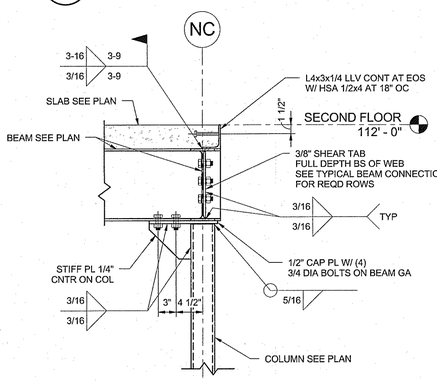
6 BEAM CONNECTION TO EXISTING BEAM
1" = 1'-0"



7 SECOND FLOOR FRAMING SECTION
1" = 1'-0"



8 EDGE OF SLAB AT STAIR C
1" = 1'-0"



9 SECOND FLOOR FRAMING SECTION
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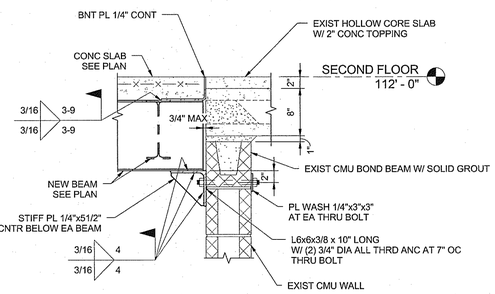
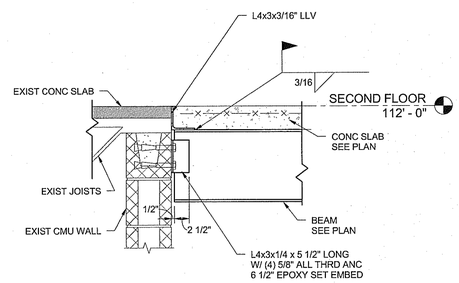


10 SECOND FLOOR FRAMING SECTION
1" = 1'-0"



11 SECOND FLOOR FRAMING SECTION
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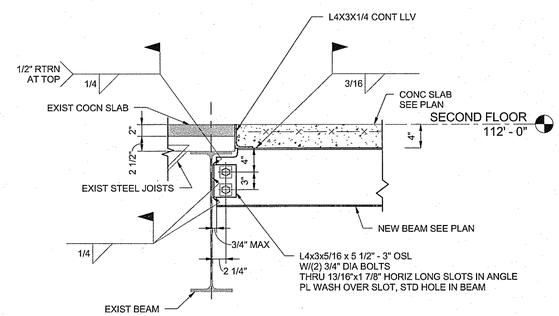
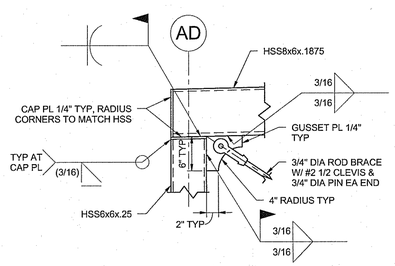
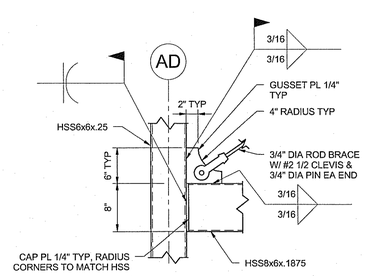


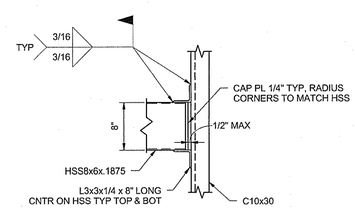
12 BEAM CONNECTION TO EXISTING BEAM
1" = 1'-0"



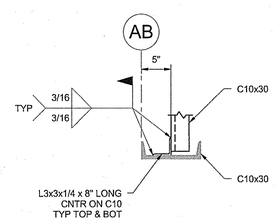
13 TRUSS DETAIL
1" = 1'-0"



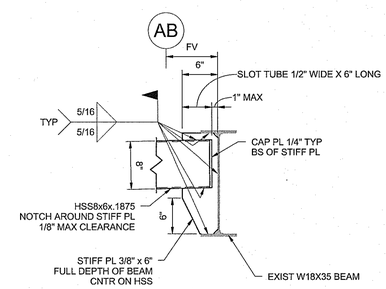
14 TRUSS DETAIL
1" = 1'-0"



15 TRUSS DETAIL
1" = 1'-0"



16 TRUSS DETAIL
1" = 1'-0"



17 TRUSS DETAIL
1" = 1'-0"

NO.	DATE	REVISIONS	BY	APP'D

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MISSOURI CERTIFICATE OF AUTHORITY: F0103950

Designed By: RRK
Drawn By: JJB
Checked By: MJR
Issue Date: 1-11-2010

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MISSOURI DEPARTMENT OF TRANSPORTATION
JEFFERSON CITY, COLE COUNTY, MISSOURI

WAREHOUSE RENOVATION PHASE II
FRAMING SECTIONS

800160-040

SHEET NO.
S501

PLOT DATE & TIME: 1/8/2010 1:18:44 PM
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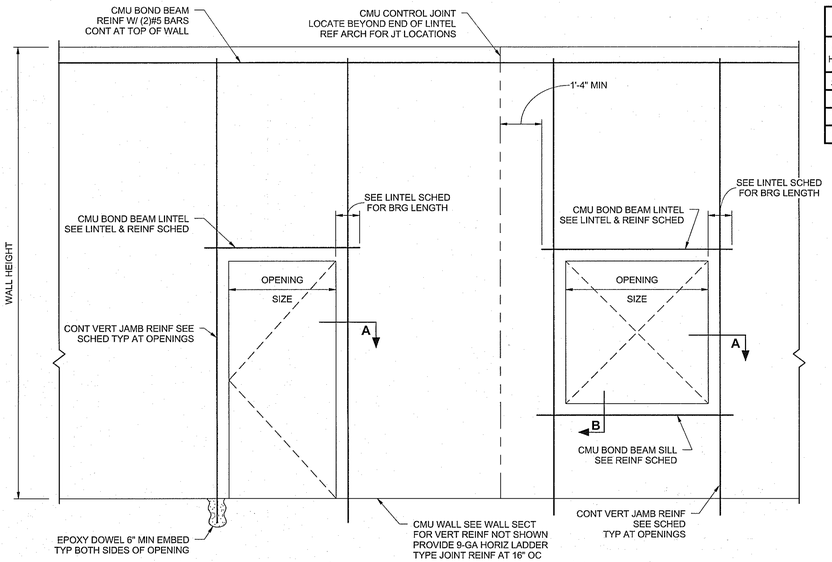
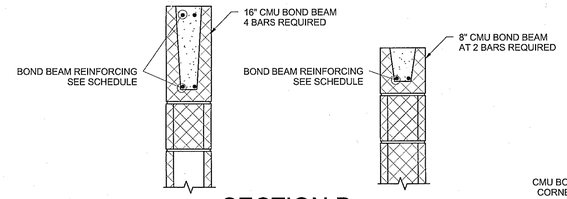


NOTES:
1. SEE WALL SECTIONS FOR BASE OF WALL CONNECTION TO FOUNDATION.
2. SEE WALL SECTIONS FOR TYPICAL VERTICAL WALL REINFORCEMENT.
3. SEE WALL SECTIONS FOR TOP OF WALL CONNECTION TO STRUCTURE.
4. GROUT SOLID AT ALL REINFORCED CMU CELLS.

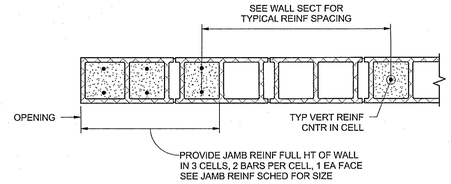
JAMB REINFORCING SCHEDULE (AT EACH SIDE OF CMU OPENING)				
WALL HEIGHT	OPENING SIZE			
	≤8'-0"	10'-0"	12'-0"	14'-0"
≤9'-0"	2-#4	2-#4	2-#4	2-#5
10'-0"	2-#4	2-#5	2-#5	2-#5
12'-0"	2-#5	2-#5	2-#6	2-#6
15'-0"	2-#6	2-#7	2-#7	4-#6

BOND BEAM REINFORCING SCHEDULE				
SILL OPENING	≤8'-0"	10'-0"	12'-0"	14'-0"
REINFORCING	2-#4	2-#5	2-#5	4-#5

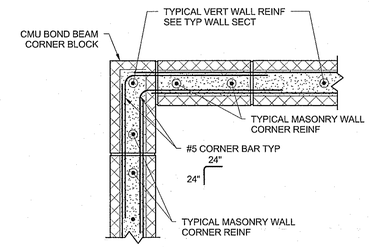
CMU LINTEL SCHEDULE		
OPENING WIDTH	≤8'-0"	>8'-0" TO <16'-1"
CMU BOND BEAM DEPTH	8"	16"
BEARING LENGTH	8"	16"



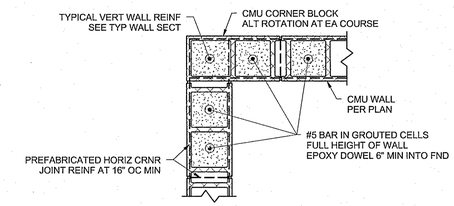
SECTION B



SECTION A

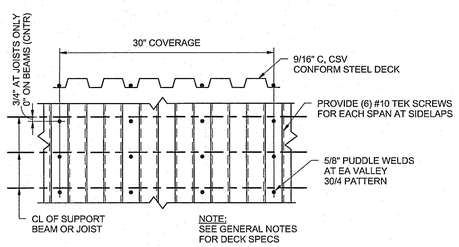


TYPICAL MASONRY BOND BEAM CORNER BAR DETAIL

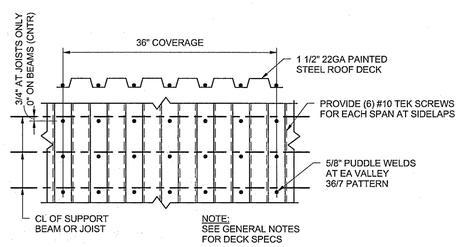


TYPICAL MASONRY WALL CORNER REINFORCING DETAIL

1 TYPICAL OPENING DETAILS AT CMU MASONRY WALL
1" = 1'-0"

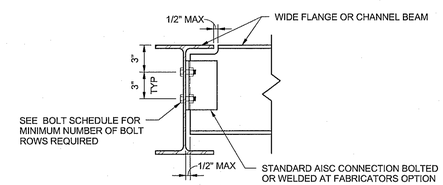


TYPICAL FLOOR DECK ATTACHMENT



TYPICAL ROOF DECK ATTACHMENT

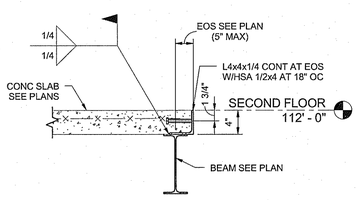
2 TYPICAL DECK FASTENING
1" = 1'-0"



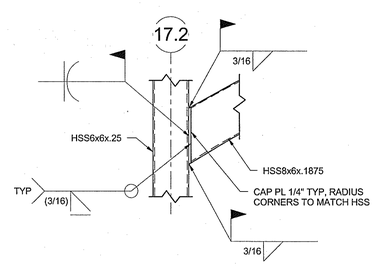
NOTE: WHERE MEMBER POSITION PROHIBITS THE USE OF A STANDARD CONNECTION, A EQUIVALENT CONNECTION SHALL BE PROVIDED.

BOLT SCHEDULE MINIMUM ROWS OF 3/4"Ø A325 BOLTS	
BEAM SIZE	# OF ROWS
W8	2
W10	2
W12	3
W14	3
W16	4
W18	5
W21	6
W24	6
W27	8
W30	9
W33	10

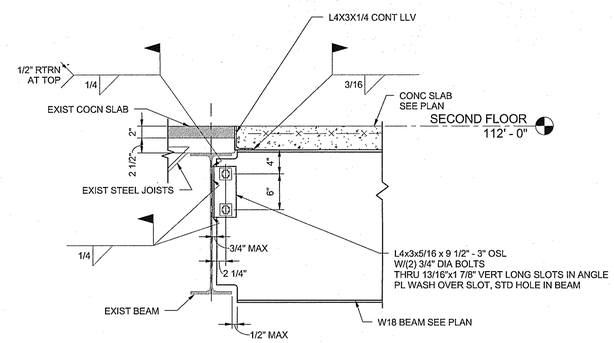
3 TYPICAL BEAM CONNECTION
1 1/2" = 1'-0"



4 TYPICAL SLAB EDGE SECTION
1" = 1'-0"



5 TRUSS DETAIL
1" = 1'-0"



6 TYPCIAL W18 BEAM CONNECTION TO EXISTING BEAM
1" = 1'-0"

NO.	DATE	REVISIONS	BY	APP'D

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MISSOURI CERTIFICATE OF AUTHORITY: F001039850

Designed By: RRK
Drawn By: JJB
Checked By: MJR
Issue Date: 1-11-2010

RICHARD R. KLEIN PE
MO # E-13489

1-8-10

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MISSOURI DEPARTMENT OF TRANSPORTATION
JEFFERSON CITY, COLE COUNTY, MISSOURI

WAREHOUSE RENOVATION PHASE II
FRAMING SECTIONS

800160-040

SHEET NO.
S502

1/5/2010 1:16:42 PM
PLOT DATE & TIME
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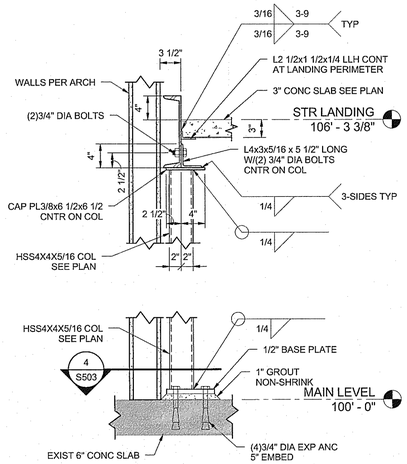
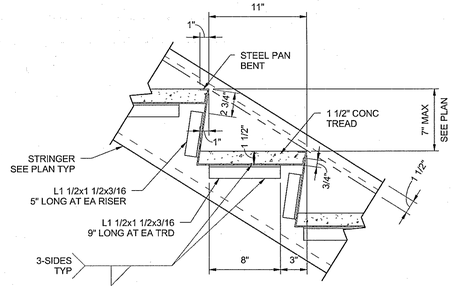
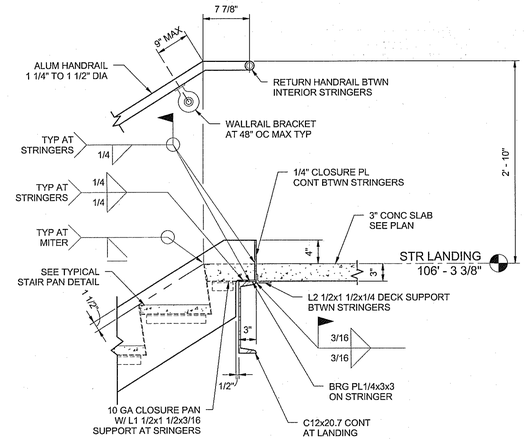


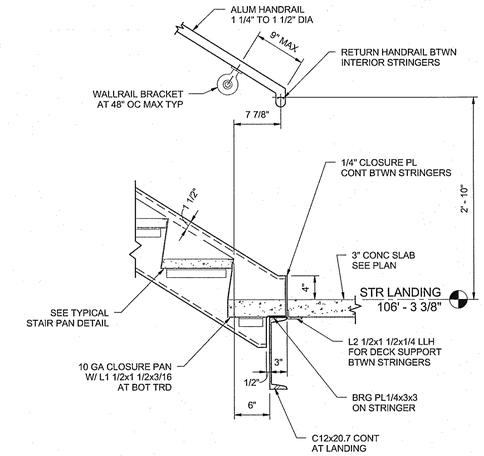
1 STAIR COLUMN CONNECTION
1" = 1'-0"

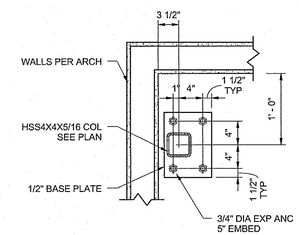


2 TYPICAL STAIR PAN DETAIL
1 1/2" = 1'-0"

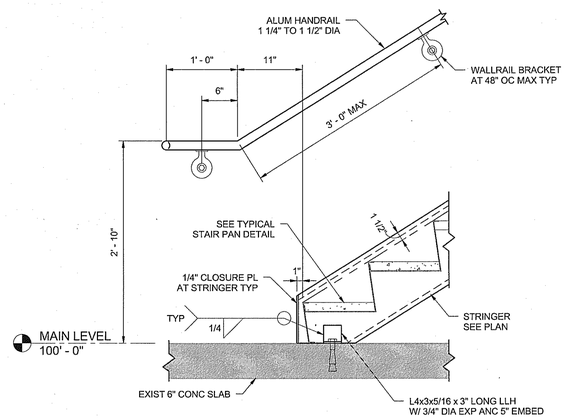


3 INTERIOR STRINGER CONNECTIONS AT LANDING
1" = 1'-0"

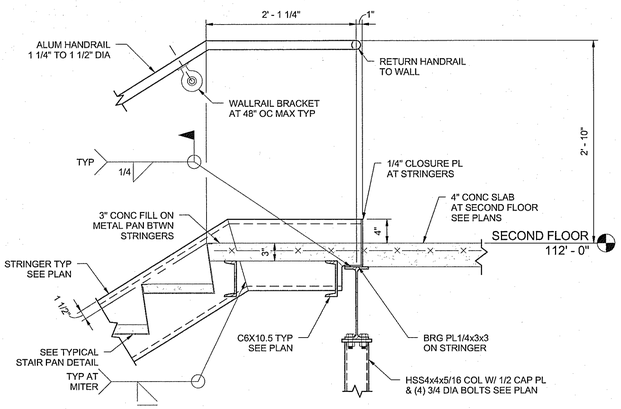




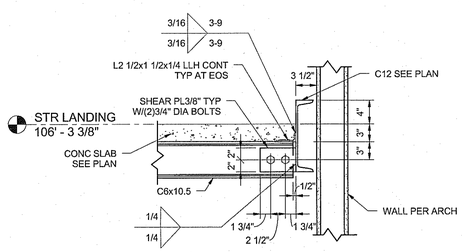
4 STAIR COLUMN BASE PLATE
1" = 1'-0"



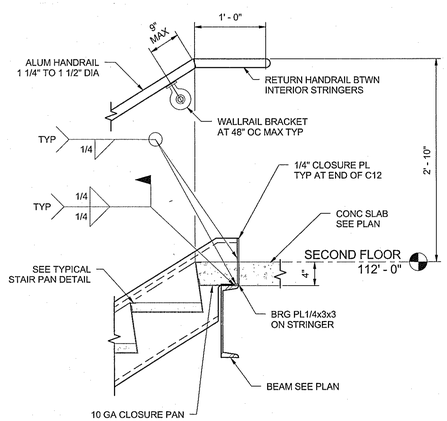
5 STAIR ANCHOR
1" = 1'-0"



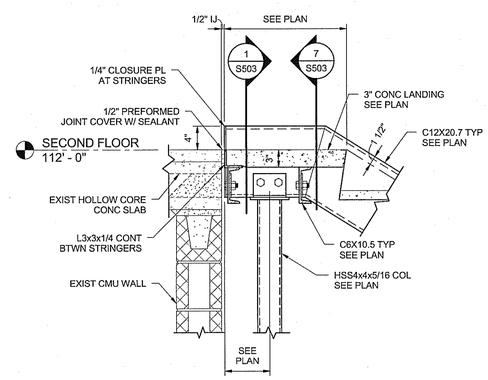
6 SECTION AT SECOND FLOOR LANDING
1" = 1'-0"



7 STAIR LANDING CONNECTION
1" = 1'-0"



8 SECTION
1" = 1'-0"



9 SECTION
1" = 1'-0"

NO.	DATE	REVISIONS	BY	APP'D

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MISSOURI CERTIFICATE OF AUTHORITY: F0013950

Designed By: RBK
Drawn By: JJB
Checked By: MJR
Issue Date: 1-11-2010

1-8-10

SHAFER, KLINE, & WARREN, INC.
1400 Forum Boulevard, Suite 19A, Columbia, MO 65203-1997
573/442-4537 FAX: 620/365-6828
OFFICE LOCATIONS: Chillicothe, MO Columbia, MO Houston, TX
Ida, KS Kansas City, MO Lenexa, KS
Marion, MO North Kansas City, MO Tulsa, OK
CIVIL ENGINEERS - ELECTRICAL ENGINEERS - MECHANICAL ENGINEERS - STRUCTURAL ENGINEERS - LANDSCAPE ARCHITECTS - LAND SURVEYORS - LAND PLANNERS

MISSOURI DEPARTMENT OF TRANSPORTATION
JEFFERSON CITY, COLE COUNTY, MISSOURI

WAREHOUSE RENOVATION PHASE II
STAIR FRAMING SECTIONS

800160-040

SHEET NO.
S503

PLOT DATE & TIME: 1/8/2010 1:18:35 PM
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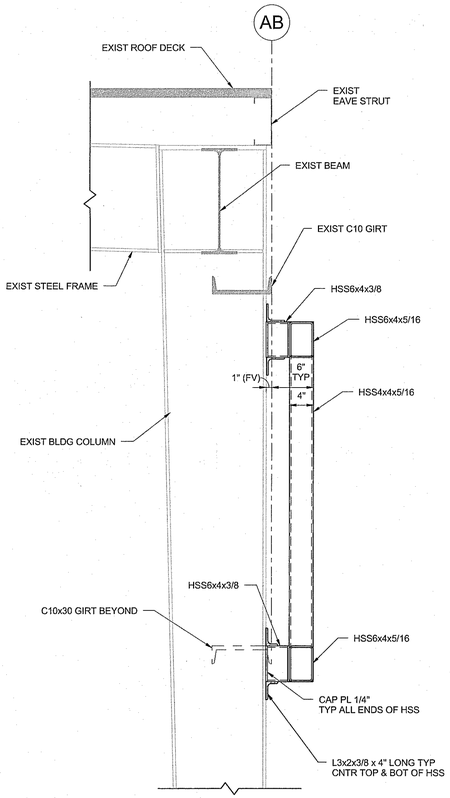

1 SECTION
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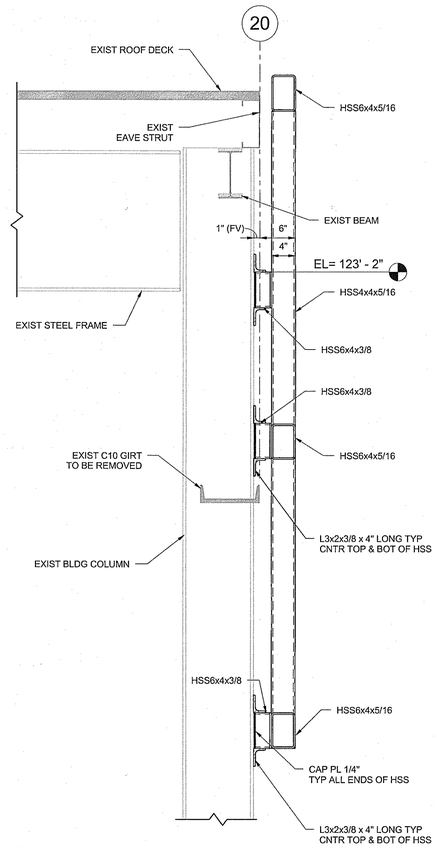
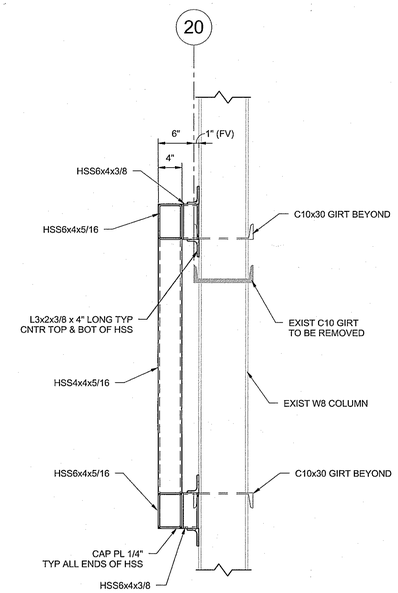


2 SECTION
1" = 1'-0"



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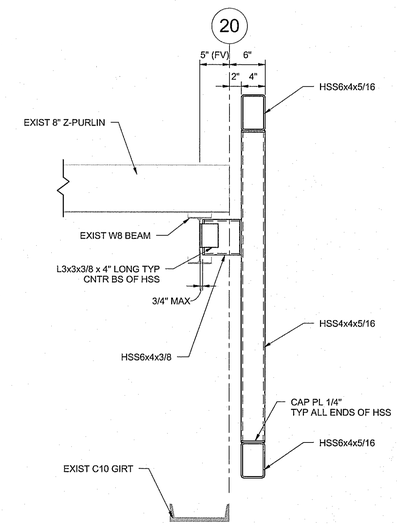

4 SECTION
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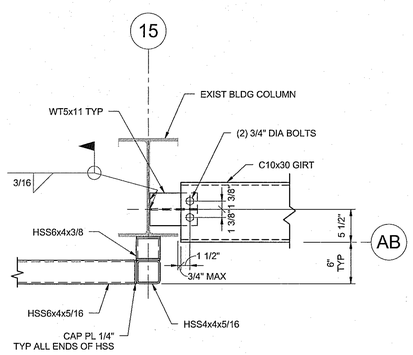

5 SECTION
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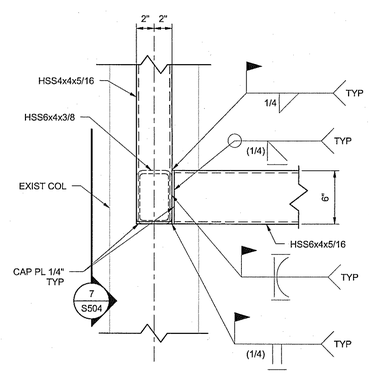
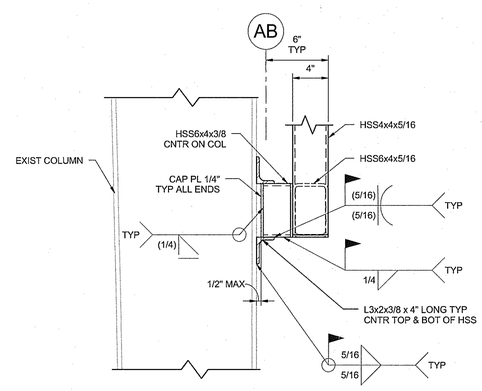


6 TYPICAL WINDOW FRAME DETAIL
1 1/2" = 1'-0"



7 TYPICAL WINDOW FRAME DETAIL
1 1/2" = 1'-0"

NO.	DATE	REVISIONS	BY	APP'D

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MISSOURI CERTIFICATE OF AUTHORITY: F-0013935

Designed By: RRK
Drawn By: JJB
Checked By: MJR
Issue Date: 1-11-2010

1-8-10

SHAFER, KLINE, & WARREN, INC.
1400 Forum Boulevard, Suite 19A, Columbia, MO 65203-1997
573/442-4537 FAX: 620/365-6828
OFFICE LOCATIONS:
Springfield, MO
Columbia, MO
Houston, TX
Ada, KS
Kansas City, MO
Lenexa, KS
Macon, MO
North Kansas City, MO
Tulsa, OK
CIVIL ENGINEERS - ELECTRICAL ENGINEERS - MECHANICAL ENGINEERS - STRUCTURAL ENGINEERS - LANDSCAPE ARCHITECTS - LAND SURVEYORS - LAND PLANNERS

MISSOURI DEPARTMENT OF TRANSPORTATION
JEFFERSON CITY, COLE COUNTY, MISSOURI

WAREHOUSE RENOVATION PHASE II
WINDOW FRAME SECTIONS

800160-040

SHEET NO.
S504

PLOT DATE & TIME: 1/3/2010 1:12:02 PM
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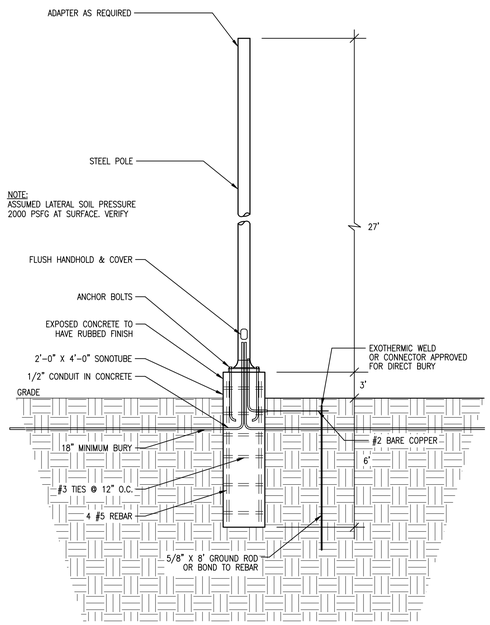
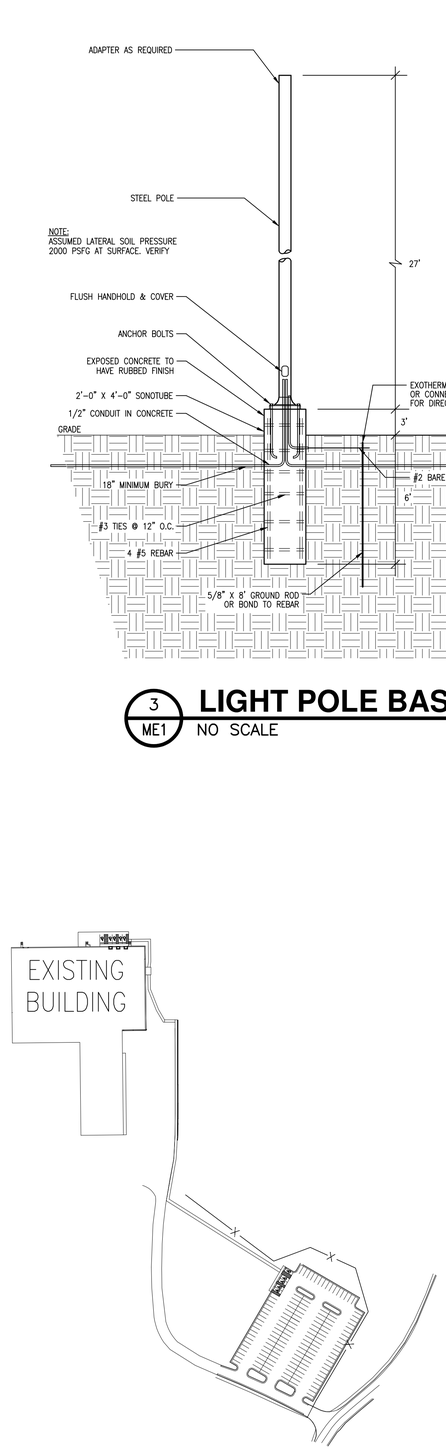
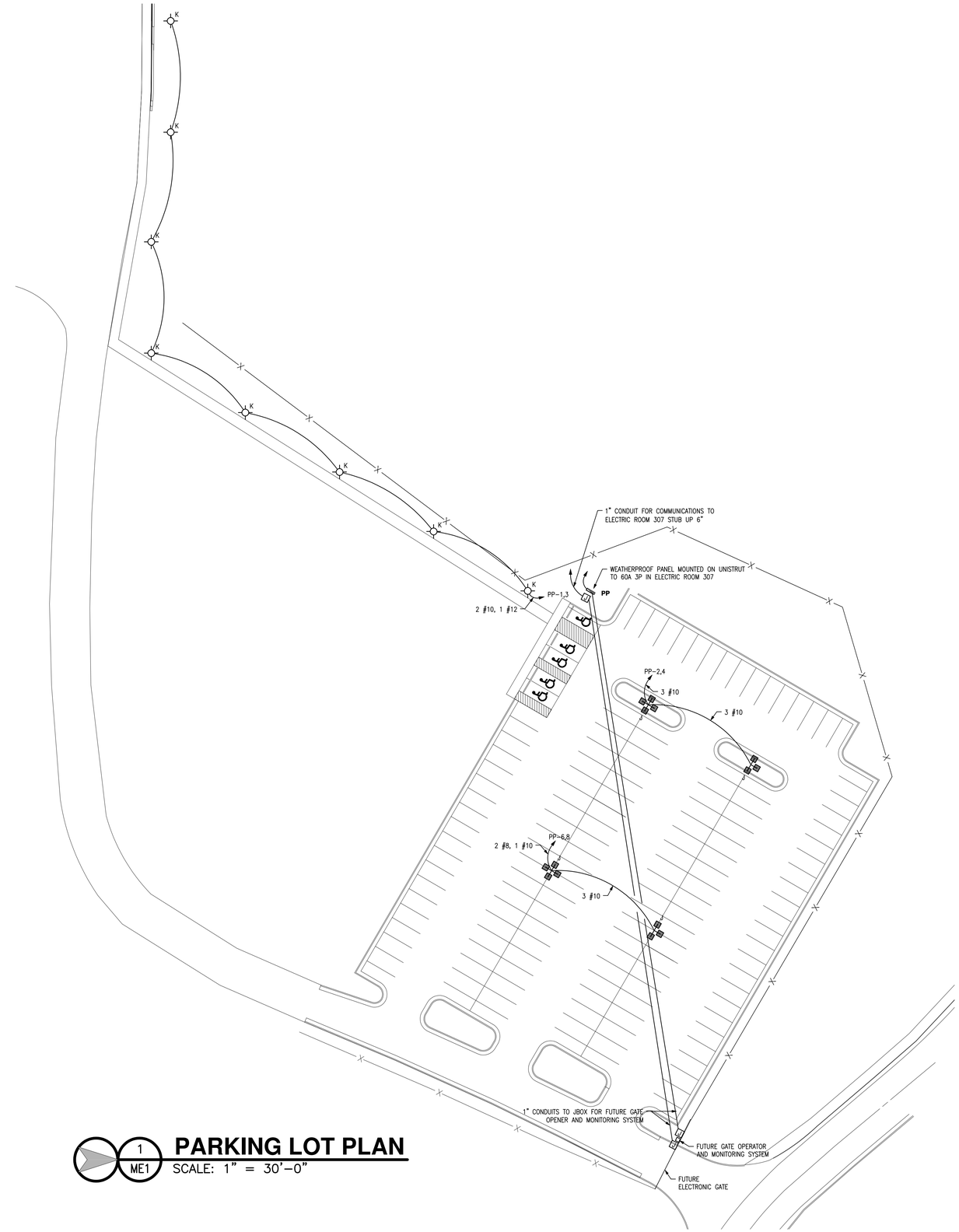


3 ME1 **LIGHT POLE BASE**
NO SCALE



2 ME1 **SITE PLAN**
SCALE: 1" = 150'-0"



1 ME1 **PARKING LOT PLAN**
SCALE: 1" = 30'-0"

FREDDIE L. MALICOAT - ENGINEER
MO# E-16897
STATE OF MISSOURI
FREDDIE L. MALICOAT
NUMBER E-16897
REGISTERED PROFESSIONAL ENGINEER
01-11-10

MALICOAT - WINSLOW ENGINEERS, P.C.
MISSOURI STATE CERTIFICATE OF AUTHORITY #000421
5649 N. CLEARVIEW ROAD
COLUMBIA, MISSOURI 65202
TEL 573-875-1300
FAX 573-875-1305
FREDDIE MALICOAT, P.E.

MODOT: RENOVATION PHASE II
830 MODOT DRIVE
JEFFERSON CITY, MO, COLE COUNTY

CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS & CONDITIONS AT JOB SITE.

DATE : 01-11-10

REVISIONS :

TITLE : **PARKING LOT SITE PLAN**

SHEET : **ME1** OF **ME3**

PROJECT : 09138

\\Server2\Job\09\09138\09138.dwg, 1/11/2010 12:26:07 PM, RussV

MECHANICAL SYMBOL SCHEDULE

WST	WASTE PIPING	
V	VENT PIPING	
VW	VENT PIPING OVER WASTE PIPING	
CW	COLD WATER PIPING	
HW	HOT WATER PIPING	
	VALVE	– CHECK VALVE
	UNION	– STRAINER
	GAS COCK	
	BALANCING COCK	
	DIFFUSER TAG. "Ø" INDICATES MARK ON GRILLE AND REGISTER SCHEDULE.	
	"#"Ø" INDICATES NECK SIZE UNLESS OTHERWISE NOTED ON GRILLE AND REGISTER SCHEDULE.	
	"###" INDICATES AIR VOLUME IN CFM.	
	FIRE DAMPER	
	SMOKE DAMPER	
	MANUAL DAMPER	
	MOTORIZED DAMPER	
T_1	H_1	THERMOSTAT – HUMIDISTAT (ZONE SUBSCRIPT)
WST	V	WASTE – VENT
CO	VTR	CLEAN OUT – VENT THROUGH ROOF
SA	RA	SUPPLY AIR – RETURN AIR
FA	EA	FRESH AIR – EXHAUST AIR
N/E	E/R	NEW CONNECTS TO EXISTING – EXISTING TO REMAIN
		PENDANT MOUNTED SPRINKLER HEAD
		UPRIGHT MOUNTED SPRINKLER HEAD
		PENDANT HEAD BELOW / UPRIGHT HEAD ABOVE
		SIDEWALL SPRINKLER HEAD
		EXTENDED COVERAGE SIDEWALL SPRINKLER HEAD

ELECTRICAL SYMBOL SCHEDULE

P2–22,24	HOME RUN CIRCUIT TO PANEL P2, CIRCUITS 22,24
	EACH ARROW INDICATES ONE CIRCUIT
	SHORT HATCH MARKS INDICATE # OF PHASE CONDUCTORS
	LONG HATCH MARKS INDICATE # OF NEUTRAL CONDUCTORS
	NO HATCH MARK INDICATES TWO CONDUCTORS
E	ELECTRICAL SERVICE OR FEEDER WIRING
	WIRING IN WALL OR CEILING – WIRING IN FLOOR
	RECEPTACLE OUTLET (DUPLEX – QUADRUPLEX – SPLIT WIRED – SPECIAL POWER)
	COMMUNICATIONS OUTLET (TELEPHONE – CATV – DATA/PHONE)
3 D 4 P S K	WALL SWITCH SINGLE POLE (3–WAY – DIMMER – 4–WAY – PILOT – SPEED – KEYED)
	INCANDESCENT OR HID LIGHT FIXTURE (CEILING MOUNTED – WALL MOUNTED)
CS / S	FLUORESCENT LIGHT FIXTURE (ENCLOSED – STRIP) (S INDICATES SPLIT WIRED)
	EXIT LIGHT – EMERGENCY LIGHT – EMERGENCY/EXIT LIGHT
C	CLOCK RECEPTACLE
	ELECTRIC PANEL
S / I	SPEAKER – PUSH TO TALK
J / P	JUNCTION BOX – PULL BOX
F / D	DISCONNECT (FUSED – NONFUSED)
S / C	STARTER
5–208–3	ELECTRIC MOTOR (5 HP – 208V – 3 PHASE)
T_1 / H_1	THERMOSTAT – HUMIDISTAT (ZONE SUBSCRIPT)
GFI	WP GROUND FAULT CIRCUIT INTERUPT – WEATHER PROOF
S / H	SMOKE DETECTOR – HEAT DETECTOR
F / A	MANUAL PULL STATION – ALARM
M / R	MAGNETIC DOOR HOLDER – INTERLOCK RELAY
	END OF LINE RESISTOR
FACP	FIRE ALARM CONTROL PANEL
DIAL	DIALER

PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE	MODEL NUMBER
WC1	WATER CLOSET	TOTO CT708, WHITE VITREOUS CHINA, 15" HEIGHT, ELONGATED BOWL,
		SLOAN ROYAL 111 FLUSH VALVE, SC514 WHITE SEAT, CONCEALED CHAIR CARRIER.
WC2	WATER CLOSET	TOTO CT708, WHITE VITREOUS CHINA, 17 1/2" HEIGHT, ELONGATED BOWL, SLOAN ROYAL
		111 FLUSH VALVE, SC514 WHITE SEAT, CONCEALED CHAIR CARRIER, MOUNT PER ADA.
UR	URINAL	TOTO UT104, WHITE VITREOUS CHINA, 3/4" TOP SPUD, SLOAN ROYAL 186–1 FLUSH VALVE.
L1	LAVATORY	TOTO LT401.4, WHITE VITREOUS CHINA, SELF–RIMMING, MOEN 8915 FAUCET,
		CR1912A SUPPLIES AND STOPS, DEARBORN BRASS 760–1 GRID DRAIN.
		INSULATE HW & WST WITH TRUEBRO INSULATION KIT, MOUNT PER ADA.
L2	LAVATORY	TOTO LT307.4, WHITE VITREOUS CHINA, MOEN 8938 FAUCET, DEARBORN BRASS 760–1 GRID DRAIN,
		CONCEALED CHAIR CARRIER, INSULATE HW & WST WITH TRUEBRO INSULATION KIT, MOUNT PER ADA.
S1	SINK	ELKAY LR–3322–4, 18GA STAINLESS STEEL, LK–35 STRAINER, LKD2423 FAUCET/SPRAY,
		SPEEDWAY CR1912A SUPPLIES AND STOPS.
MS	MOP SINK	SWAN MS 2424–3, MS–5811 FAUCET, MS–2405 HOSE, MS–2408 RIM GUARD, STRAINER, 3" DRAIN.
IMB	ICE MAKER BOX	GUY GRAY BIM875 ICE MAKER CONNECTION BOX.
DISP	DISPOSAL	INSINKERATOR ISE EVOLUTION EXCEL, 1 HP, STAINLESS STEEL GRIND CHAMBER & COMPONENTS,
EWC1	ELEC WATER COOLER	ELKAY EZOSTL8LC DOUBLE COOLER.
EWC2	ELEC WATER COOLER	ELKAY EZO8L SINGLE COOLER.
FD	FLOOR DRAIN	JOSAM 30003–6A, NICKALOY TOP, WITH P–TRAP.
WH1	WATER HEATER	A.O. SMITH GCV–40, 40 GALLON NATURAL GAS, 40,000 BTUH INPUT, LP GAS 37,000 BTUH INPUT.
WH1	WATER HEATER	A.O. SMITH ECT–40, 40 GALLON ELECTRIC, DUAL 4,500W ELEMENTS.
WH1	WATER HEATER	ARISTON GL4Ti, 4 GALLON ELECTRIC, 1,500W.

LIGHTING FIXTURE SCHEDULE

MARK	MANUFACTURER AND MODEL NUMBER	TYPE	LAMPS #	LAMPS SIZE	MOUNTING	REMARKS
A	WILLIAMS HE3G–S24–332–38M–EB3–120	FLUOR	3	32	RECESSED	
B	WILLIAMS HE3G–S24–332–38M–EB2/1–120	FLUOR	3	32	RECESSED	1
C	WILLIAMS 76–8–432–EBLH2ADV/120	FLUOR	4	32	SURFACE	
D	WILLIAMS AW–P33–8–432–EB4	INC	1	100	SURFACE	
E	DUAL LITE LTURW3	LED	2	6	SURFACE	2
F	DUAL LITE LZ30	HALO	2	6	SURFACE	2
G	SISTEMLUX S.4156–120–09	MH	1	70	PILLAR	
H	WILLIAMS OMHC90–70U/700–ED17/MP/MED–OW–120	MH	1	175	SCONCE	
J	WILLIAMS OER2121–400PSMH208	PSMH	1	400	30" POLE	
K	ELA L9020/150PSMH/208	PSMH	1	150	14" POLE	

1. WITH DUAL BALLAST FOR SEPARATE 2 LAMP AND 1 LAMP CONTROL.
2. REMOTE HEADS AS SHOWN.

FREDDIE L. MALICOAT - ENGINEER
MO# E-16897

STATE OF MISSOURI
FREDDIE L. MALICOAT
NUMBER E-16897
REGISTERED PROFESSIONAL ENGINEER
01-11-10

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TEL 573–875–1300
FAX 573–875–1305
FREDDIE MALICOAT, P.E.

MODOT: RENOVATION PHASE II

830 MODOT DRIVE
JEFFERSON CITY, MO, COLE COUNTY

CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS & CONDITIONS AT JOB SITE.

DATE : 01–11–10

REVISIONS :

TITLE : SCHEDULES AND DETAILS

SHEET : ME2 OF ME3

PROJECT : 09138

\\Server2\Job\09\09138\09138.dwg, 1/11/2010 12:25:57 PM, RussV

ROOF TOP UNIT SCHEDULE

UNIT				SUPPLY FAN		WATER – COOLING				OUTSIDE AIR					EXHAUST AIR						ENERGY RECOVERY WHEEL			COOLING					HEATING			LIQUID SUBCOOLING		HOT GAS REHEAT		ELECTRICAL				REMARKS
MARK	MFG	MODEL	MAX WEIGHT LBS	CFM	ESP IN. H_2O	EWT °F	LWT °F	GPM	WPD FT. H_2O	SUMMER °F		WINTER °F		MIN CFM	SUMMER °F		WINTER °F		MIN CFM	ESP IN. H_2O	SUMMER LAT °F		WINTER LAT °F	TOTAL MBH	SENS MBH	THR MBH	LAT °F		TOTAL MBH	THA MBH	LAT °F	LAT °F	RISE °F	MAX LAT °F	MIN RISE °F	V / ø	FLA AMPS	MCA AMPS	MOCP AMPS	
										DB	WB	DB	WB		DB	WB	DB	WB			DB	WB	DB				DB	WB			DB	DB	WB	DB	DB					
RTU1	ADDISON	TRSW210 ECW484	3,800	4,300	1.0	90.0	–	26.8	4.1	95.0	78.0	0.0	–1.0	4,300	75.0	63.0	72.0	54.0	4,300	1.0	81.2	68.7	49.7	199.4	127.2	247.8	54.3	53.9	209.8	164.8	95.4	–	–	79.4	63.4	208/3	92.8	100.2	125	1–7

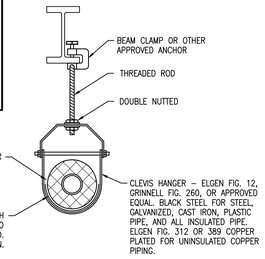
1. OR APPROVED EQUAL
2. SYSTEM SHALL HAVE 40% PROPYLENE GLYCOL
3. UNIT TO HAVE FACTORY FURNISHED, INSTALLED AND TESTED HOT GAS REHEAT AND LIQUID SUBCOOLING COIL TO MAKE NEUTRAL AIR CONDITIONS.
4. UNIT SHALL BE PROVIDED WITH FACTORY DRY BULB ECONOMIZER
5. UNIT SHALL BE PROVIDED WITH 4 ANGSTROM ENERGY RECOVERY WHEEL OF FLUTED / HONEYCOMB GEOMETRY THAT IS ARI CERTIFIED, STOP/START DEFROST ON THE ERV WHEEL, BYPASS DAMPERS AROUND THE ERV WHEEL FOR FULL ECONOMIZER.
6. UNIT SHALL BE PROVIDED WITH HOT GAS REHEAT COIL DOWN STREAM OF DX COIL FOR ACTIVE DEHUMIDIFICATION SEQUENCE.
7. UNIT SHALL BE ROOF MOUNTED WITH FACTORY ROOF CURB AND DOWN DISCHARGE AND RETURN CONNECTIONS.

HEAT PUMP SCHEDULE

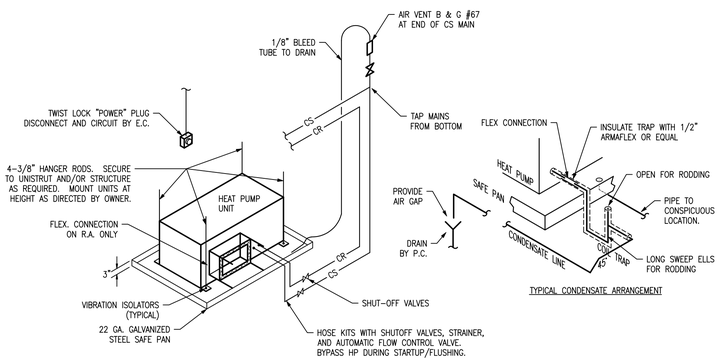
UNIT				FAN		COOLING									HEATING							COIL		ELECTRICAL				REMARKS
MARK	MFG	MODEL	CONFIG	CFM	ESP IN. H_2O	EWT °F	LWT °F	EDB °F	EWB °F	TOTAL MBH	SENS MBH	HT REJ MBH	INPUT KW	EER	EWT °F	LWT °F	EDB °F	TOTAL MBH	HT ABS MBH	INPUT KW	COP	GPM	WPD FT. H_2O	V / ø	FLA AMPS	MCA AMPS	MOCP AMPS	
007	MCQUAY	CCH	HORIZ	200	0.5	90	99.9	80	67	7.8	5.5	9.5	0.779	10.1	60	51.1	70	9.6	9.2	0.755	3.74	1.8	4.9	120/1	9.9	11.9	15	1,2
012	MCQUAY	CCH	HORIZ	400	0.5	90	101.9	80	67	12.7	9.7	15.2	1.140	11.2	60	49.4	70	14.8	12.7	1.119	3.89	2.4	7.1	208/1	6.4	7.8	15	1,2
019	MCQUAY	CCH	HORIZ	600	0.5	90	103.3	80	67	19.5	14.6	25.4	1.640	11.9	60	51.4	70	22.0	17.1	1.577	4.09	3.9	4.5	208/1	11.3	13.4	20	1,2
024	MCQUAY	CCH	HORIZ	800	0.5	90	102.7	80	67	23.2	17.6	30.5	1.998	11.6	60	51.7	70	26.9	20.9	1.896	4.16	4.9	7.1	208/1	12.3	14.6	20	1,2
030	MCQUAY	CCH	HORIZ	1000	0.5	90	102.2	80	67	29.0	21.6	37.7	2.333	12.4	60	51.4	70	33.0	26.1	2.228	4.33	6.1	3.8	208/3	13.4	16.1	25	1,2
036	MCQUAY	CCH	HORIZ	1200	0.5	90	102.1	80	67	34.7	26.1	44.8	2.690	12.9	60	51.4	70	39.6	31.2	2.701	4.29	7.3	5.5	208/3	15.0	17.9	25	1,2
042	MCQUAY	CCH	HORIZ	1400	0.5	90	102.7	80	67	41.4	31.3	52.9	3.215	12.9	60	50.8	70	46.4	37.3	3.080	4.41	8.5	7.8	208/3	16.9	20.2	30	1,2
048	MCQUAY	CCH	HORIZ	1600	0.5	90	102.6	80	67	46.6	35.4	60.6	3.841	12.1	60	50.9	70	53.1	42.1	3.729	4.17	9.8	10.4	208/3	21.3	25.3	40	1,2
060	MCQUAY	CCH	HORIZ	2000	0.5	90	103.3	80	67	69.5	54.6	89.9	5.896	11.8	60	50.7	70	73.2	58.8	5.285	4.06	14.6	17.1	208/3	23.4	28.0	45	1,2

1. OR APPROVED EQUAL
2. SYSTEM SHALL HAVE 40% PROPYLENE GLYCOL

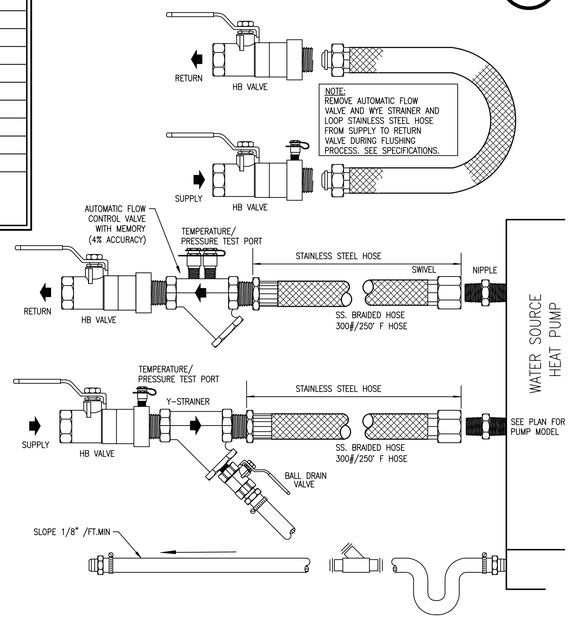
PIPE SIZE	H. SPACING CU/STEEL	H. SPACING PLASTIC	ROD SIZE
1/4" – 1/2"	8'	4'	3/8"
1/2" – 2"	10'	4'	3/8"
2 1/2" – 3"	12'	4'	1/2"
4" – 5"	15'	5'	3/4"
6"	15'	5'	3/4"
8" & UP	15'	5'	7/8"



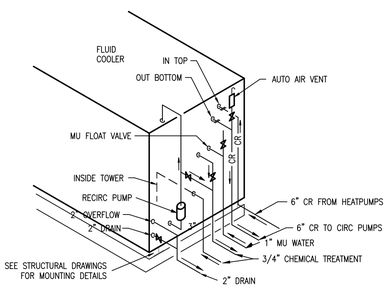
6 / ME3 PIPE HANGAR DETAIL
NO SCALE



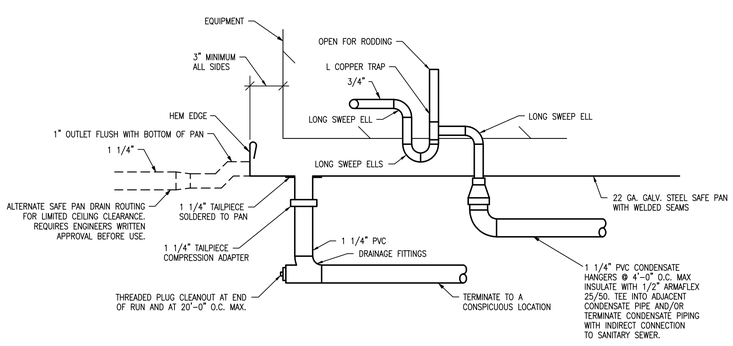
3 / ME3 HEAT PUMP MOUNTING DETAIL
NO SCALE



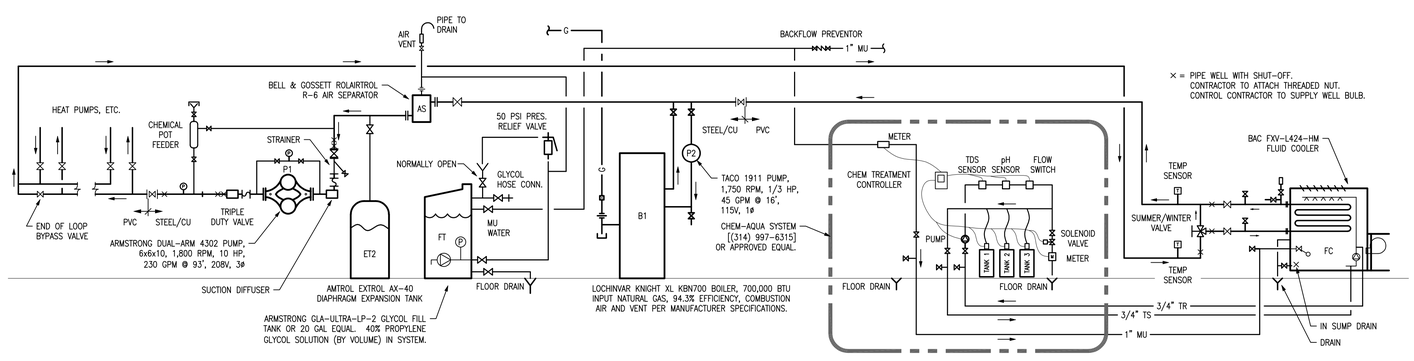
4 / ME3 HEAT PUMP HOSE CONNECTION
NO SCALE



2 / ME3 FLUID COOLER DETAIL
NO SCALE



5 / ME3 SAFE PAN AND CONDENSATE
NO SCALE



1 / ME3 HYDRONIC PIPING SCHEMATIC
NO SCALE

FREDDIE L. MALICOAT - ENGINEER
MO# E-16897
STATE OF MISSOURI — FREDDIE L. MALICOAT — NUMBER E-16897 — REGISTERED PROFESSIONAL ENGINEER
01-11-10

MALICOAT - WINSLOW ENGINEERS, P.C.
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5649 N. CLEARVIEW ROAD
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TEL 573-875-1300
FAX 573-875-1305
FREDDIE MALICOAT, P.E.

MODOT: RENOVATION PHASE II
830 MODOT DRIVE
JEFFERSON CITY, MO, COLE COUNTY

CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS & CONDITIONS AT JOB SITE.

DATE : 01-11-10

REVISIONS :

TITLE : SCHEDULES AND DETAILS

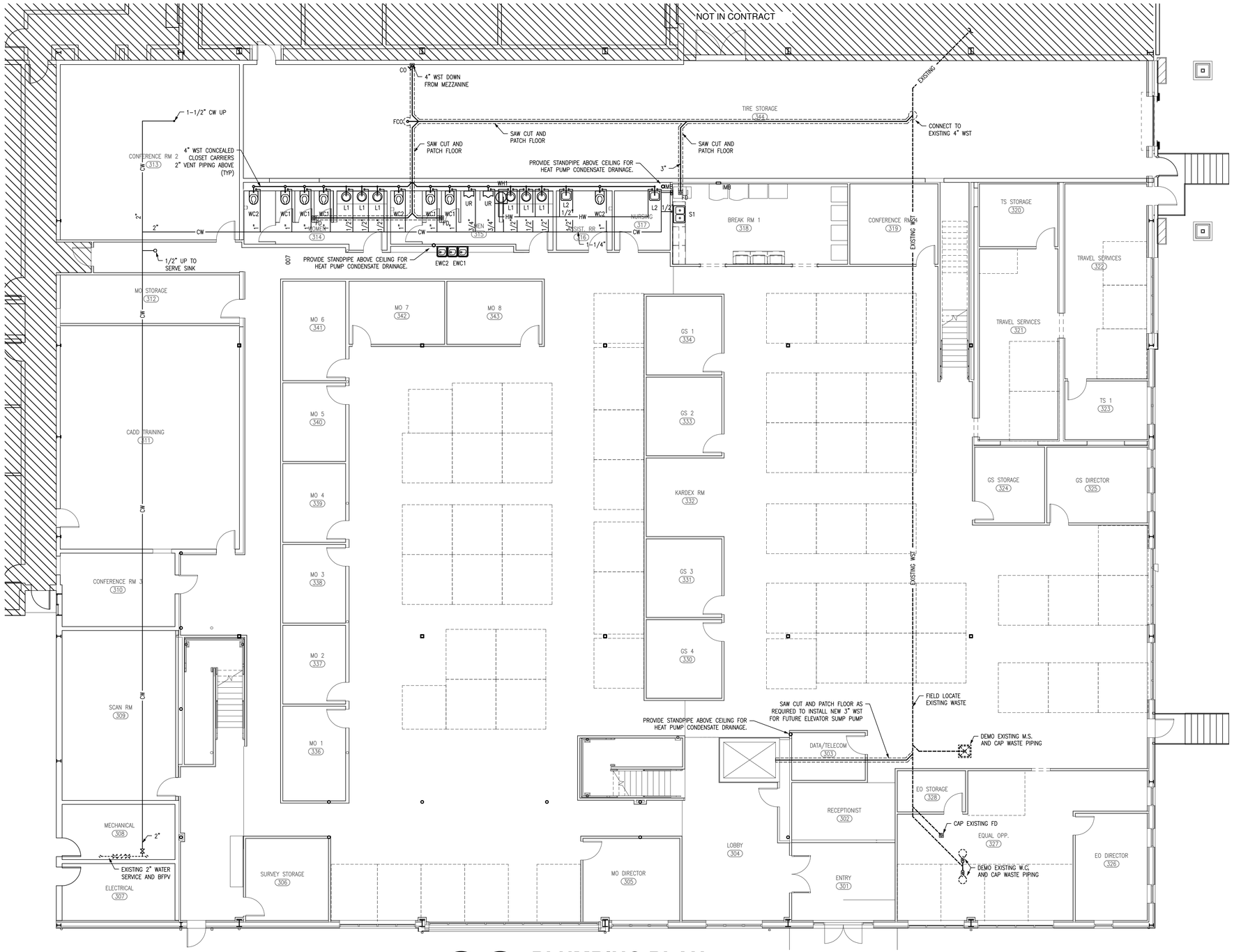
SHEET : ME3 OF ME3

PROJECT : 09138

\\Server2\Job\09\09138\09138.dwg, 1/11/2010 12:25:49 PM, RussV

GENERAL NOTES:

1. COORDINATE WORK IN TIRE STORAGE AREA TO AVOID INTERRUPTION OF NORMAL OPERATIONS. MAY REQUIRE WEEKEND WORK.



1 / M1 **PLUMBING PLAN**

SCALE: 1/8" – 1'-0" MAIN LEVEL

FREDDIE L. MALICOAT - ENGINEER
MO# E-16897

STATE OF MISSOURI — FREDDIE L. MALICOAT — NUMBER E-16897 — REGISTERED PROFESSIONAL ENGINEER

01-11-10

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MODOT: RENOVATION PHASE II

830 MODOT DRIVE
JEFFERSON CITY, MO, COLE COUNTY

CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS & CONDITIONS AT JOB SITE.

DATE : 01-11-10

REVISIONS :

TITLE : **MAIN LEVEL PLUMBING PLAN**

SHEET : **M1** OF **M6**

PROJECT : 09138

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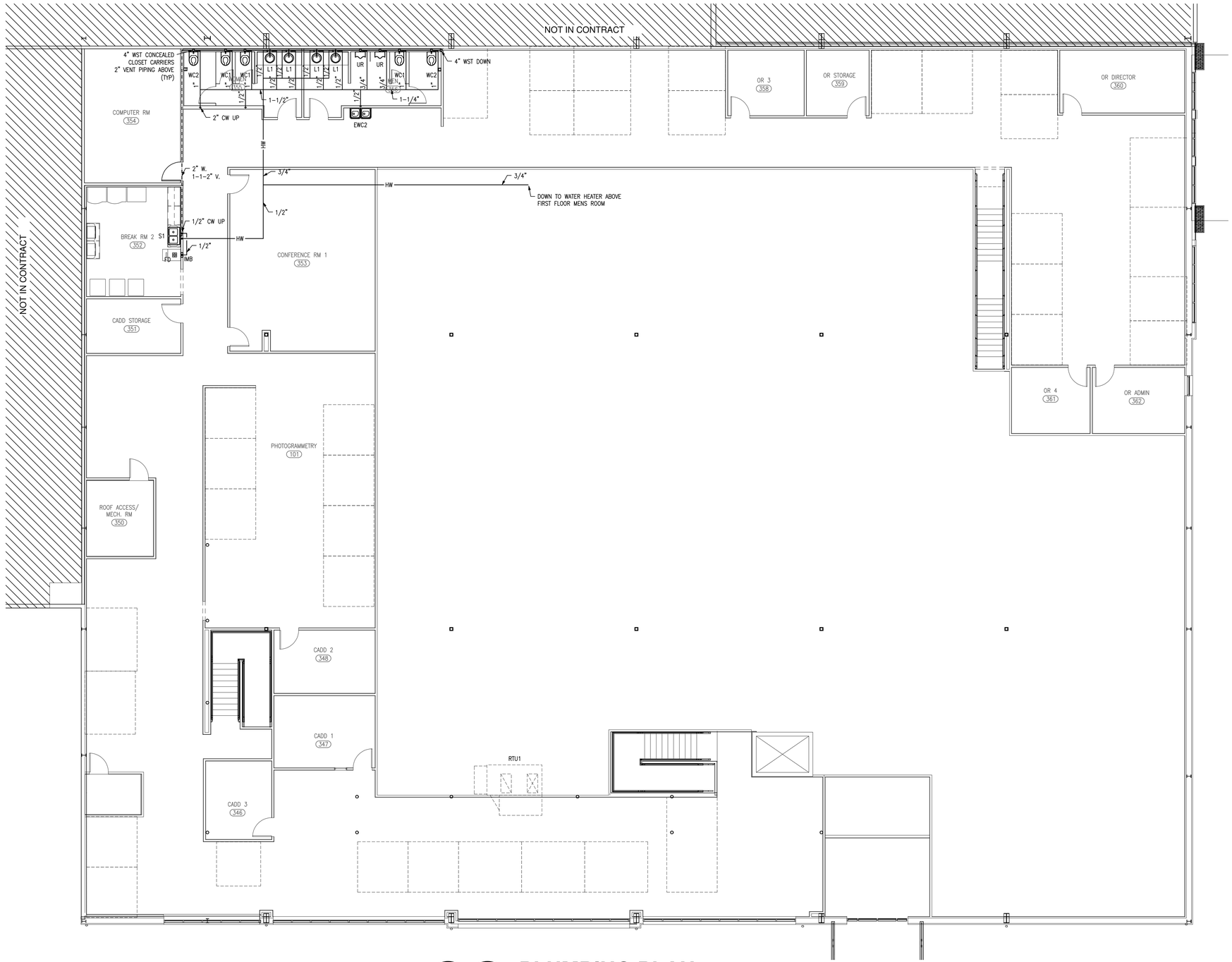

1 M2 **PLUMBING PLAN**

SCALE: 1/8" – 1'-0" MEZZANINE

FREDDIE L. MALICOAT - ENGINEER
MO# E-16897

STATE OF MISSOURI — FREDDIE L. MALICOAT — NUMBER E-16897 — REGISTERED PROFESSIONAL ENGINEER

01-11-10

MALICOAT - WINSLOW ENGINEERS, P.C.

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COLUMBIA, MISSOURI 65202

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FAX 573-875-1305

FREDDIE MALICOAT, P.E.

MODOT: RENOVATION PHASE II

830 MODOT DRIVE
JEFFERSON CITY, MO, COLE COUNTY

CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS & CONDITIONS AT JOB SITE.

DATE : 01-11-10

REVISIONS :

TITLE : **MEZZANINE PLUMBING PLAN**

SHEET : **M2** OF **M6**

PROJECT : 09138

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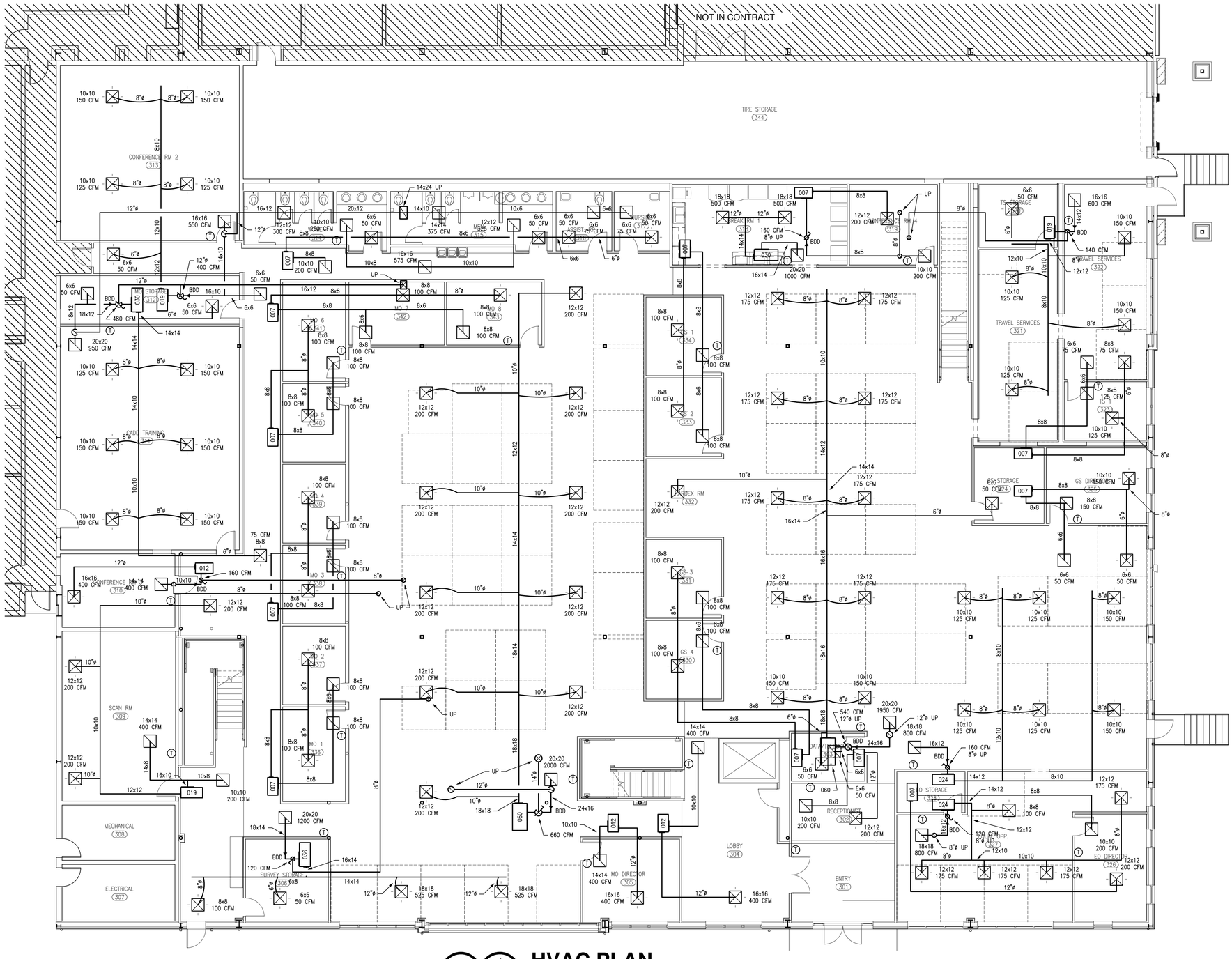

HVAC PLAN

1 / M3

SCALE: 1/8" – 1'–0"

MAIN LEVEL

FREDDIE L. MALICOAT - ENGINEER
MO# E-16897

STATE OF MISSOURI
FREDDIE L. MALICOAT
NUMBER E-16897
REGISTERED PROFESSIONAL ENGINEER

01-11-10

MALICOAT - WINSLOW ENGINEERS, P.C.

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FAX 573-875-1305

FREDDIE MALICOAT, P.E.

MODOT: RENOVATION PHASE II

830 MODOT DRIVE
JEFFERSON CITY, MO, COLE COUNTY

CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS & CONDITIONS AT JOB SITE.

DATE : 01–11–10

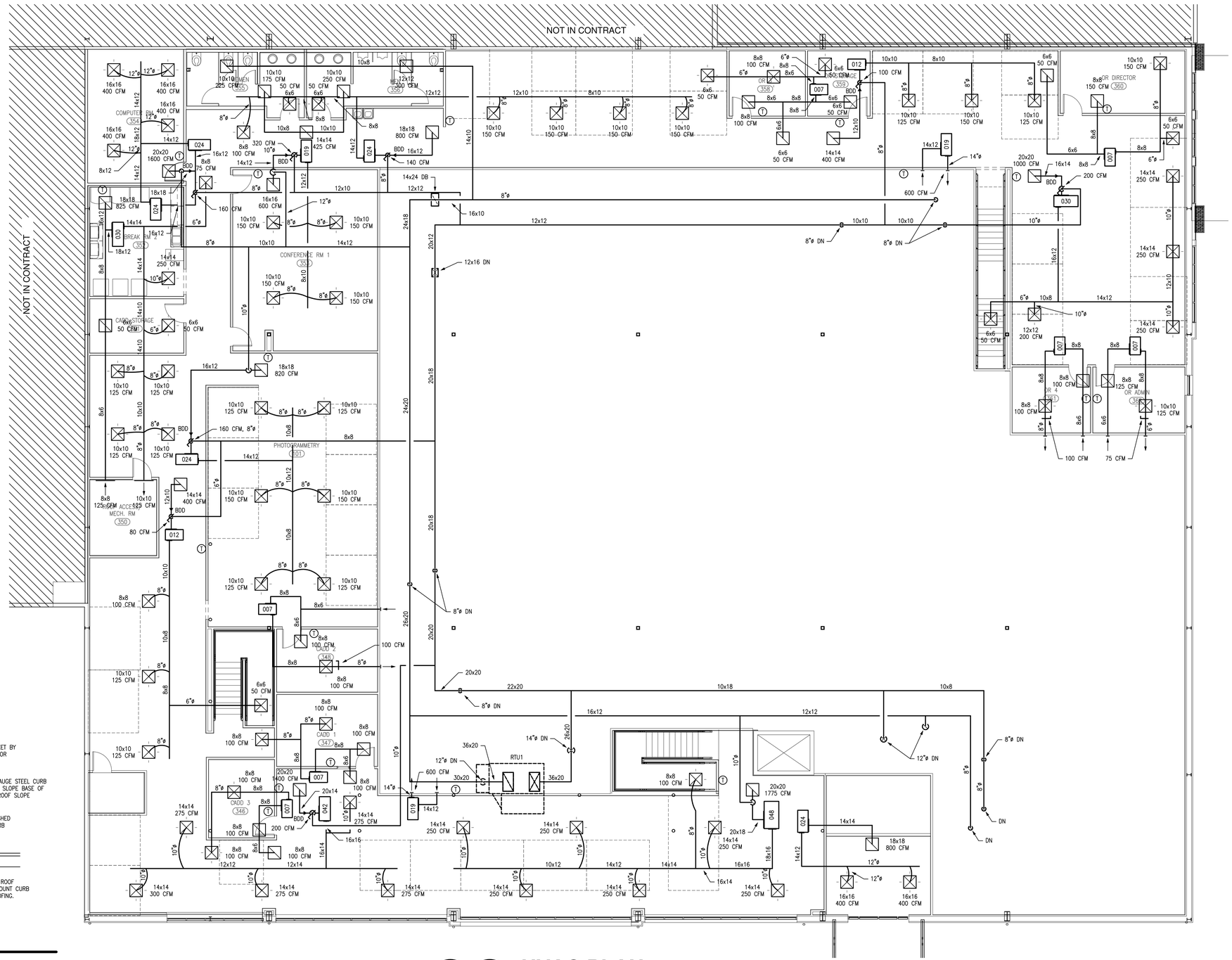
REVISIONS :

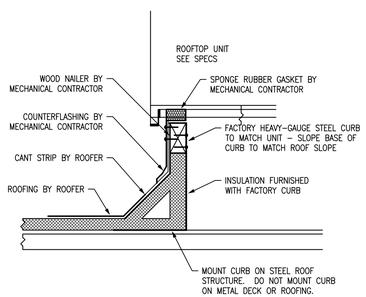
TITLE : MAIN LEVEL HVAC PLAN

SHEET : M3 OF M6

PROJECT : 09138

\\Server2\Job\09\09138\09138.dwg, 1/11/2010 12:25:20 PM, RussV





2 / M4 **ROOFTOP UNIT CURB**
NO SCALE

1 / M4 **HVAC PLAN**
SCALE: 1/8" – 1'–0" MEZZANINE

FREDDIE L. MALICOAT - ENGINEER
MO# E-16897
STATE OF MISSOURI — FREDDIE L. MALICOAT — NUMBER E-16897 — REGISTERED PROFESSIONAL ENGINEER
01-11-10

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MODOT: RENOVATION PHASE II

830 MODOT DRIVE
JEFFERSON CITY, MO, COLE COUNTY

CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS & CONDITIONS AT JOB SITE.

DATE : 01–11–10

REVISIONS :

TITLE : **MEZZANINE HVAC PLAN**

SHEET : **M4** OF **M6**

PROJECT : 09138

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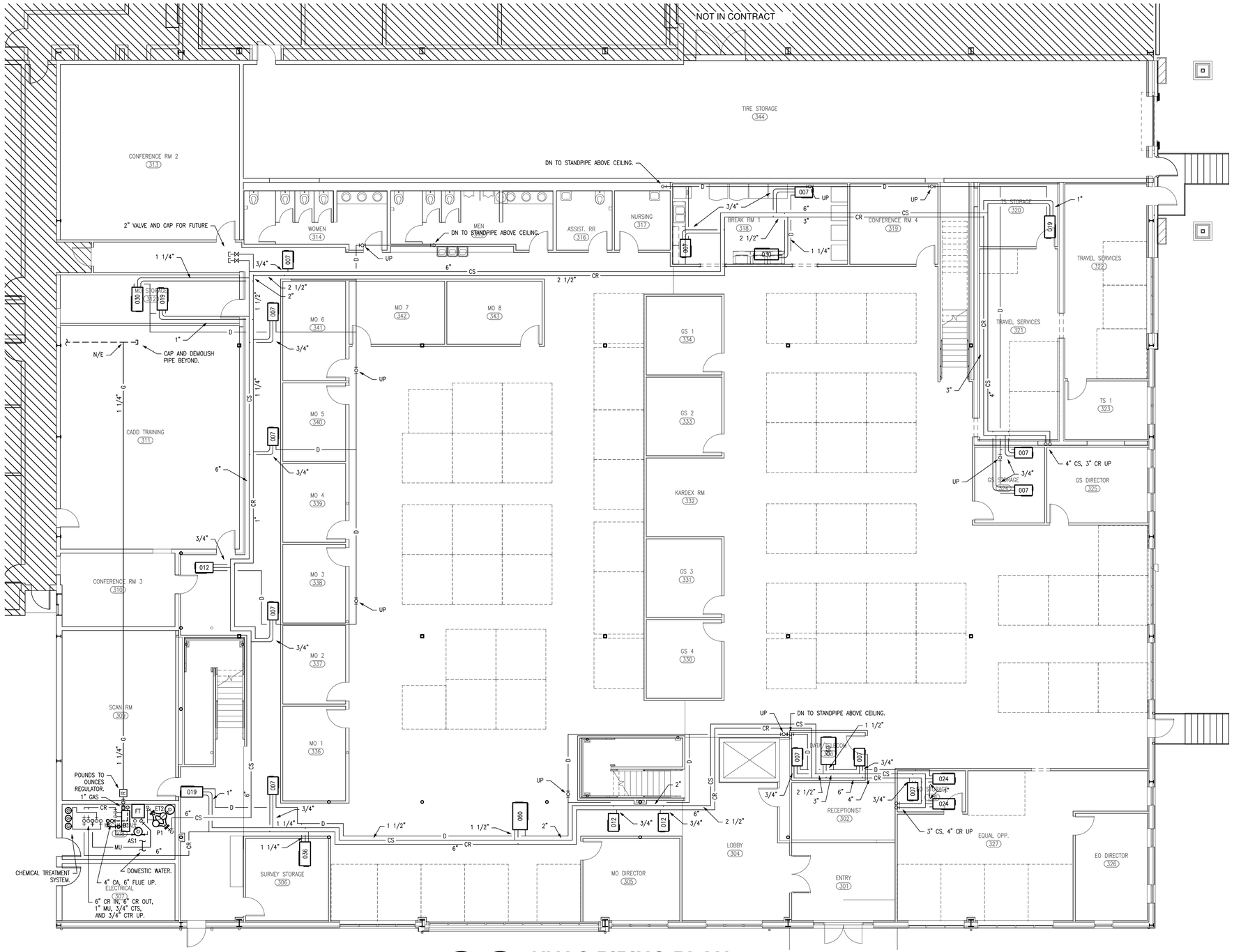

1 / M5 **HVAC PIPING PLAN**

SCALE: 1/8" – 1'-0" MAIN LEVEL

FREDDIE L. MALICOAT - ENGINEER
MO# E-16897

STATE OF MISSOURI — FREDDIE L. MALICOAT — NUMBER E-16897 — REGISTERED PROFESSIONAL ENGINEER

01-11-10

MALICOAT - WINSLOW ENGINEERS, P.C.

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FREDDIE MALICOAT, P.E.

MODOT: RENOVATION PHASE II

830 MODOT DRIVE
JEFFERSON CITY, MO, COLE COUNTY

CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS & CONDITIONS AT JOB SITE.

DATE : 01-11-10

REVISIONS :

TITLE : MAIN LEVEL HVAC PIPING PLAN

SHEET : M5 OF M6

PROJECT : 09138

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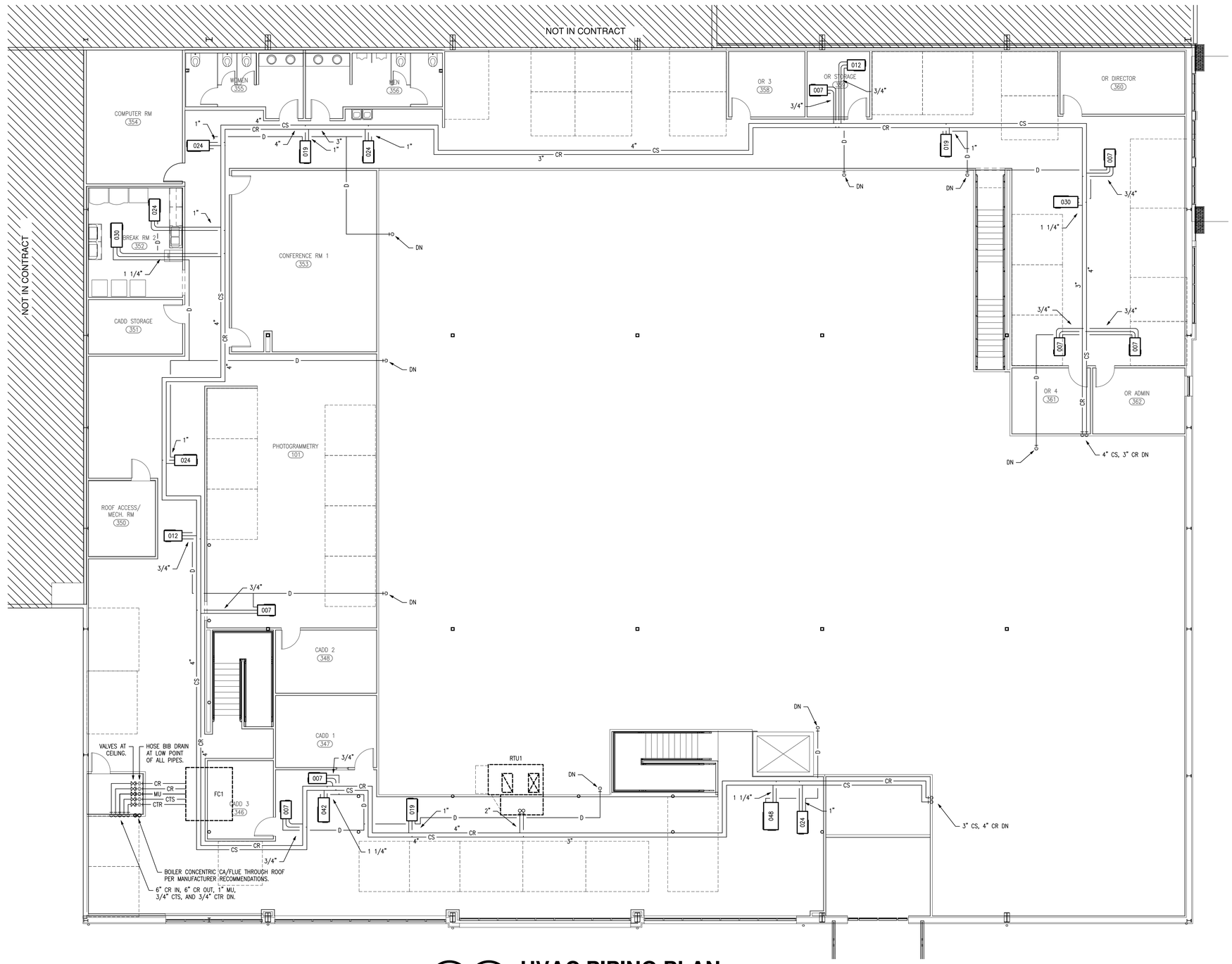

1 M6 **HVAC PIPING PLAN**

SCALE: 1/8" – 1'-0" MEZZANINE

FREDDIE L. MALICOAT - ENGINEER
MO# E-16897

STATE OF MISSOURI FREDDIE L. MALICOAT NUMBER E-16897 REGISTERED PROFESSIONAL ENGINEER

01-11-10

MALICOAT - WINSLOW ENGINEERS, P.C.

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FREDDIE MALICOAT, P.E.

MODOT: RENOVATION PHASE II

830 MODOT DRIVE
JEFFERSON CITY, MO, COLE COUNTY

CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS & CONDITIONS AT JOB SITE.

DATE : 01-11-10

REVISIONS :

TITLE : **MEZZANINE HVAC PIPING PLAN**

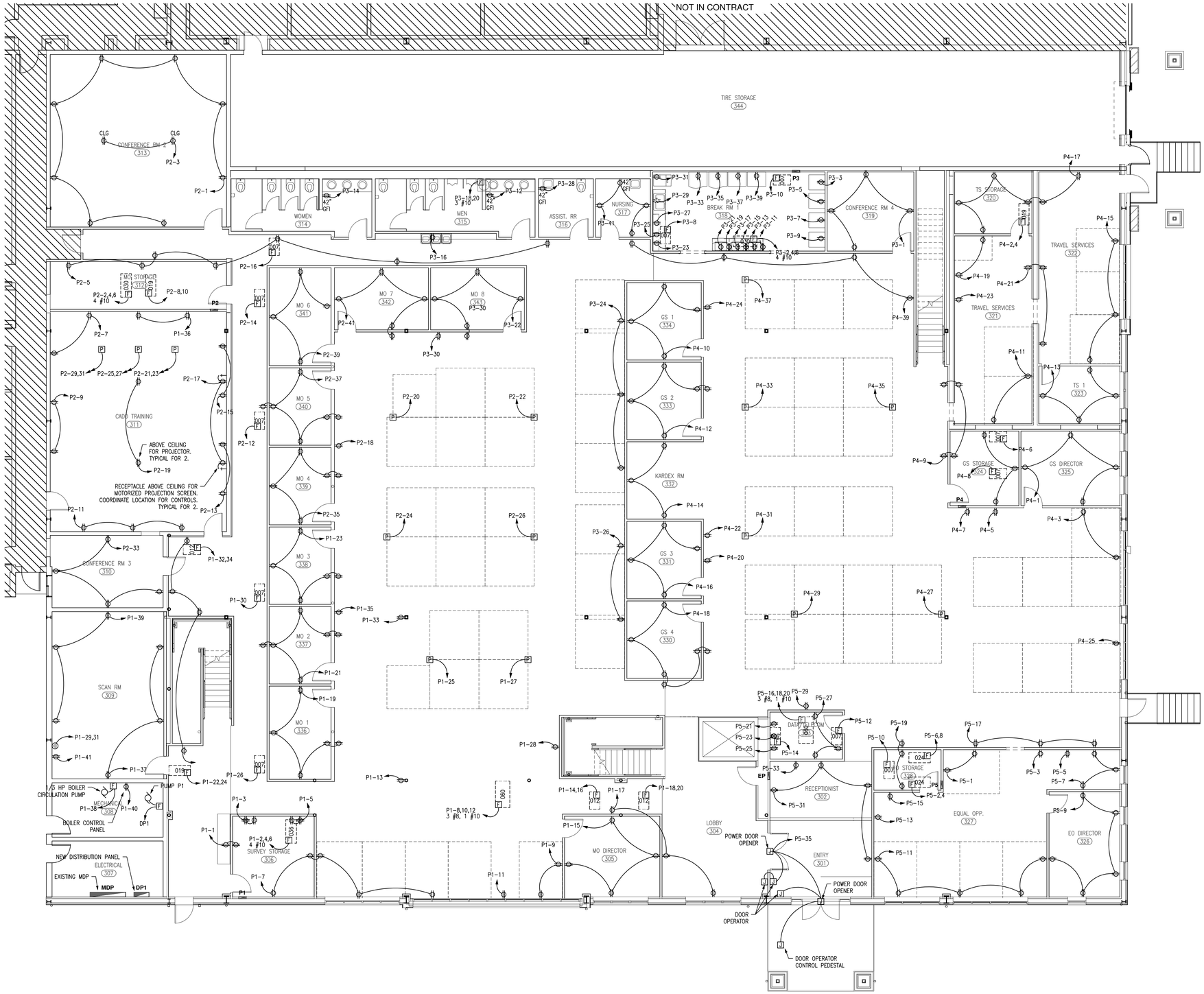
SHEET : **M6** OF **M6**

PROJECT : 09138

\\Server2\Job\09\09138\09138.dwg, 1/11/2010 12:24:51 PM, RussV

GENERAL NOTES:

1. COORDINATE ALL ELECTRICAL REQUIREMENTS WITH OWNER'S EQUIPMENT PRIOR TO ROUGH-IN.



POWER PLAN

1 / E1

SCALE: 1/8" – 1'-0" MAIN LEVEL

FREDDIE L. MALICOAT - ENGINEER
MO# E-16897

STATE OF MISSOURI — FREDDIE L. MALICOAT — NUMBER E-16897 — REGISTERED PROFESSIONAL ENGINEER — 01-11-10

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MODOT: RENOVATION PHASE II

830 MODOT DRIVE
JEFFERSON CITY, MO, COLE COUNTY

CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS & CONDITIONS AT JOB SITE.

DATE : 01-11-10

REVISIONS :

TITLE : MAIN LEVEL POWER PLAN

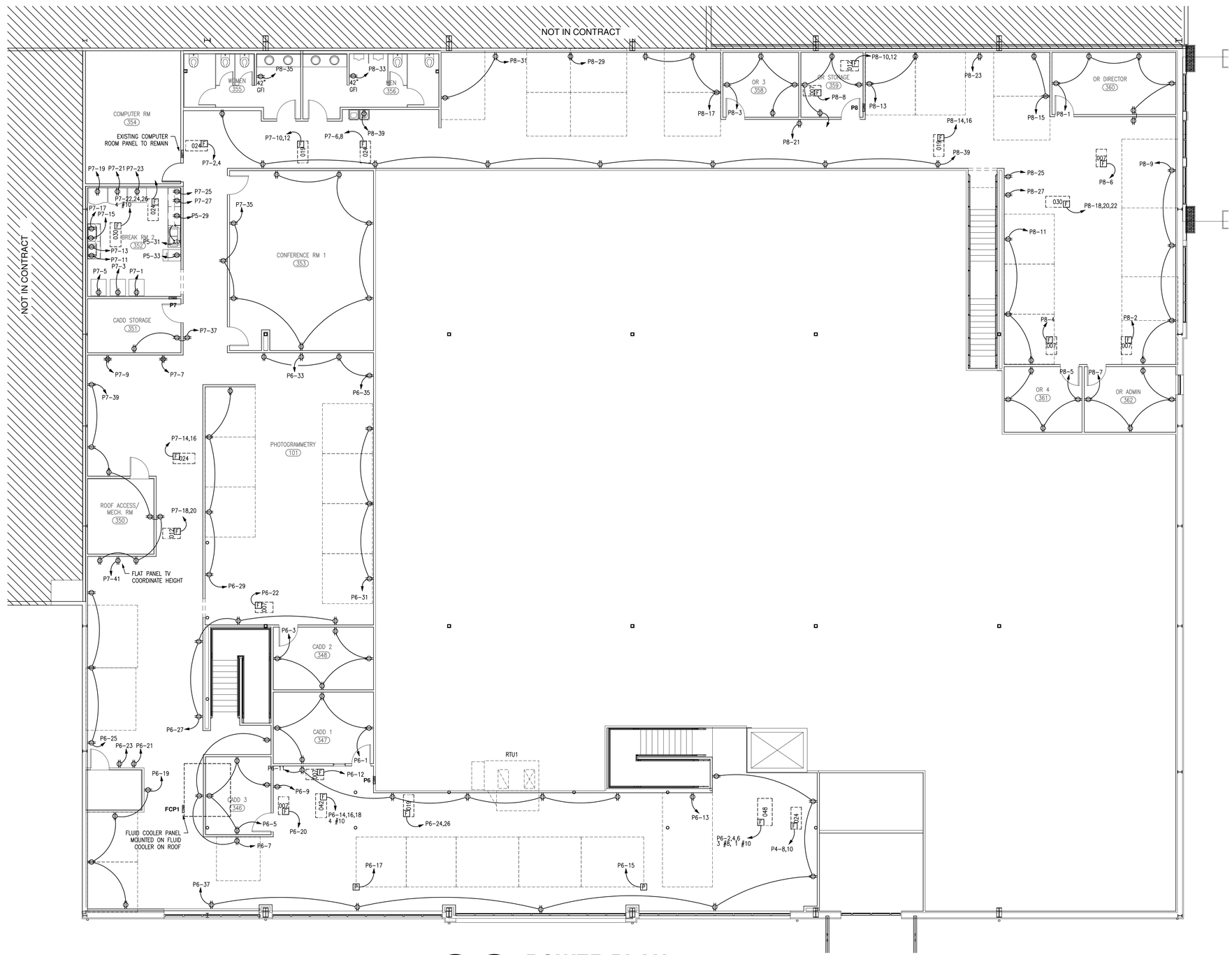
SHEET : E1 OF E7

PROJECT : 09138

\\Server2\Job\09\09138\09138.dwg, 1/11/2010 12:24:41 PM, RussV

GENERAL NOTES:

1. COORDINATE ALL ELECTRICAL REQUIREMENTS WITH OWNER'S EQUIPMENT PRIOR TO ROUGH-IN.



POWER PLAN

1 / E2

SCALE: 1/8" – 1'-0"

MEZZANINE

FREDDIE L. MALICOAT - ENGINEER
MO# E-16897

STATE OF MISSOURI — FREDDIE L. MALICOAT — NUMBER E-16897 — REGISTERED PROFESSIONAL ENGINEER

01-11-10

MALICOAT - WINSLOW ENGINEERS, P.C.

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FAX 573-875-1305

FREDDIE MALICOAT, P.E.

MODOT: RENOVATION PHASE II

830 MODOT DRIVE
JEFFERSON CITY, MO, COLE COUNTY

CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS & CONDITIONS AT JOB SITE.

DATE : 01-11-10

REVISIONS :

TITLE : MEZZANINE POWER PLAN

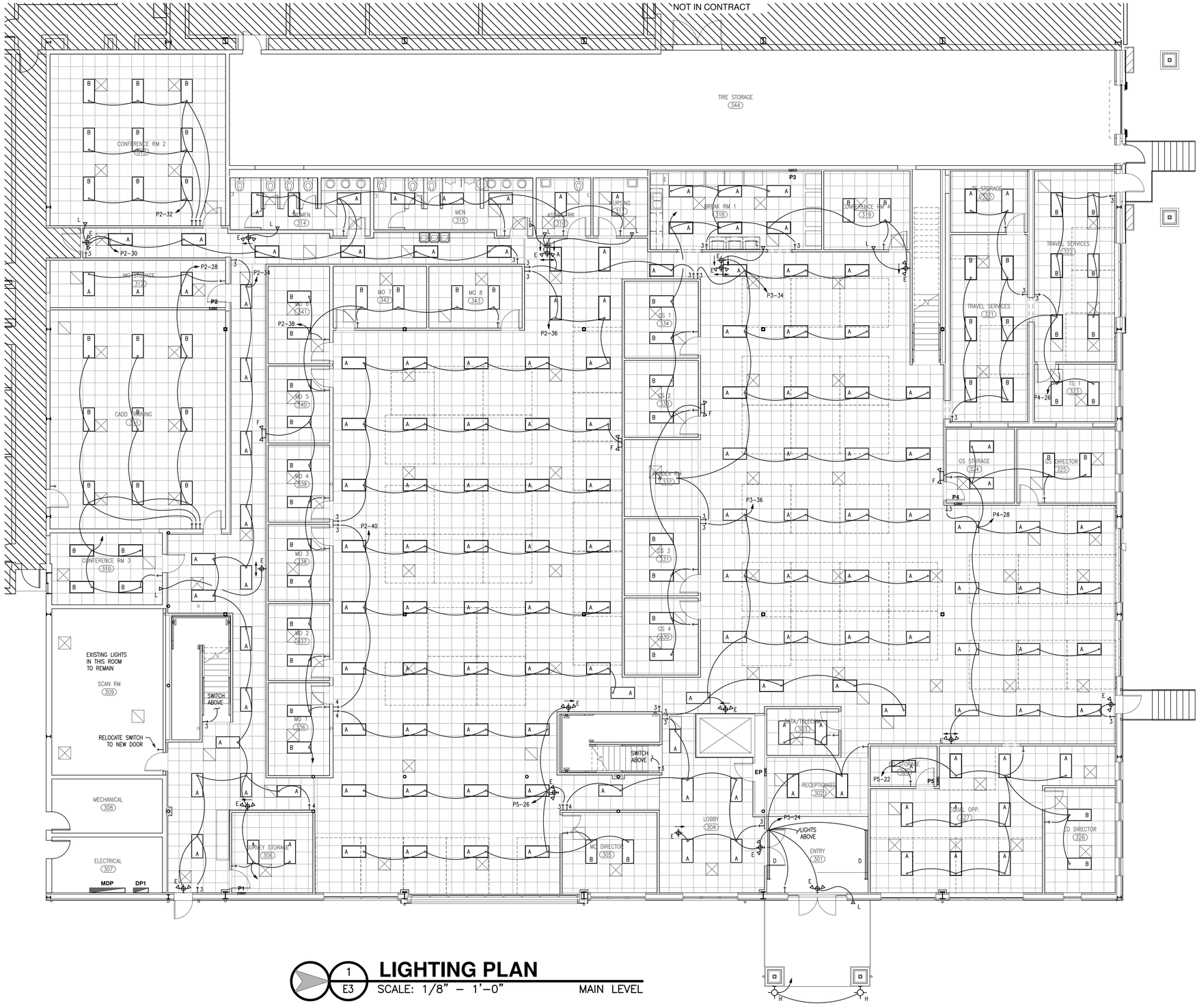
SHEET : E2 OF E7

PROJECT : 09138

\\Server2\Job\09\09138\09138.dwg, 1/11/2010 12:24:32 PM, RussV

GENERAL NOTES:

1. ALL LIGHT SWITCHES FOR INTERIOR LIGHTING SHALL BE LEVITON ACENTI MOTION DETECTION OCCUPANCY SWITCHES WITH MANUAL "ON" OPTION.
2. 'B' FIXTURES HAVE DUAL BALLASTS FOR OPERATION OF 1, 2 OR ALL 3 LAMPS. PROVIDE SEPARATE SWITCHING FOR CENTER LAMPS AND OUTER LAMPS FOR EACH ROOM WITH 'B' FIXTURES. EXTRA SWITCHES NOT SHOWN ON PLAN.



1 / E3 **LIGHTING PLAN**
SCALE: 1/8" – 1'-0" MAIN LEVEL

FREDDIE L. MALICOAT - ENGINEER
MO# E-16897

STATE OF MISSOURI — FREDDIE L. MALICOAT — NUMBER E-16897 — REGISTERED PROFESSIONAL ENGINEER — 01-11-10

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FREDDIE MALICOAT, P.E.

MODOT: RENOVATION PHASE II

830 MODOT DRIVE
JEFFERSON CITY, MO, COLE COUNTY

CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS & CONDITIONS AT JOB SITE.

DATE : 01-11-10

REVISIONS :

TITLE : **MAIN LEVEL LIGHTING PLAN**

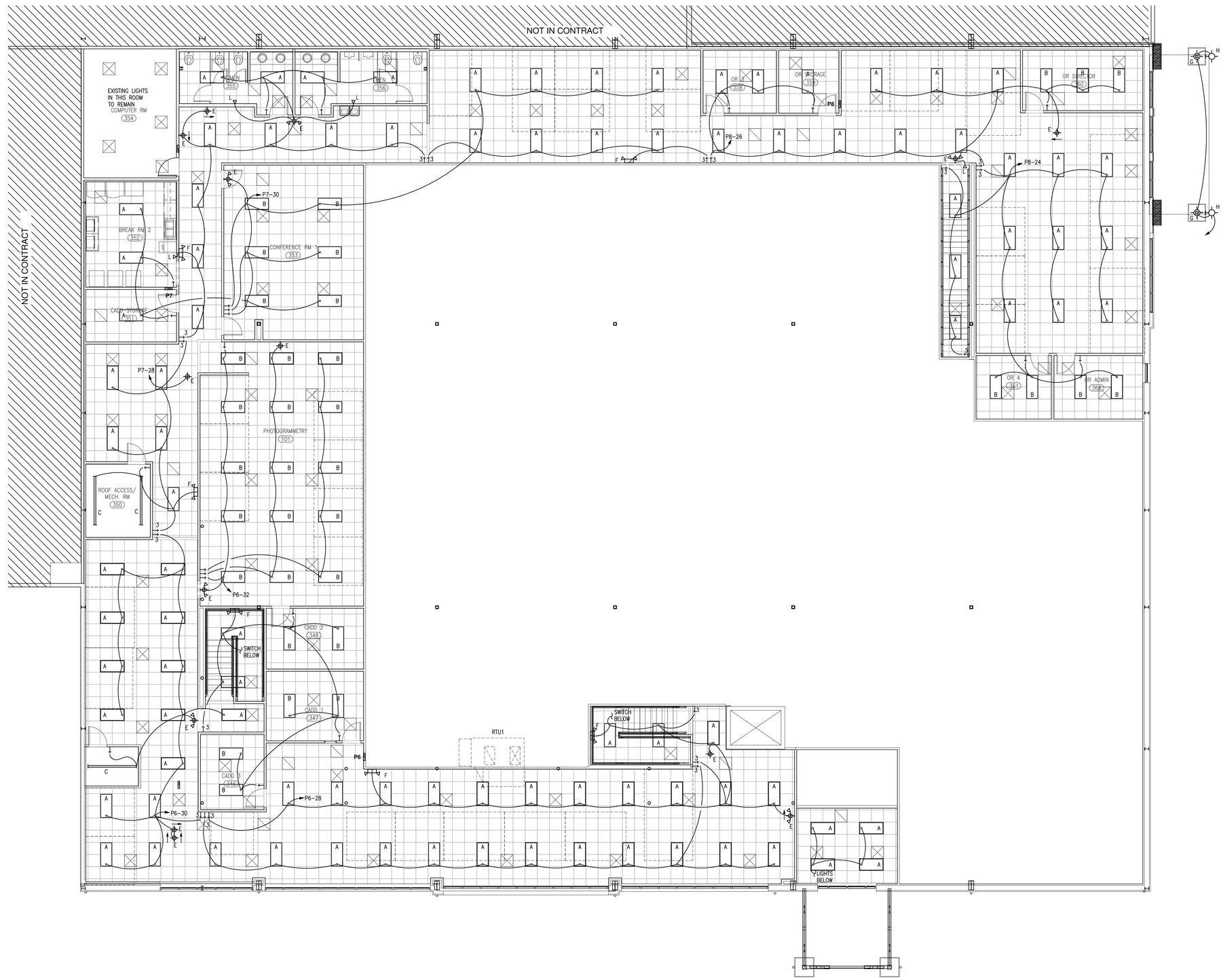
SHEET : **E3** OF **E7**

PROJECT : 09138

\\Server2\Job\09\09138\09138.dwg, 1/11/2010 12:24:22 PM, RussV

GENERAL NOTES:

1. ALL LIGHT SWITCHES FOR INTERIOR LIGHTING SHALL BE LEVITON ACENTI MOTION DETECTION OCCUPANCY SWITCHES WITH MANUAL "ON" OPTION.
2. 'B' FIXTURES HAVE DUAL BALLASTS FOR OPERATION OF 1, 2 OR ALL 3 LAMPS. PROVIDE SEPARATE SWITCHING FOR CENTER LAMPS AND OUTER LAMPS FOR EACH ROOM WITH 'B' FIXTURES. EXTRA SWITCHES NOT SHOWN ON PLAN.



LIGHTING PLAN

1 / E4

SCALE: 1/8" – 1'-0"

MEZZANINE

FREDDIE L. MALICOAT - ENGINEER
MO# E-16897

STATE OF MISSOURI — FREDDIE L. MALICOAT — NUMBER E-16897 — REGISTERED PROFESSIONAL ENGINEER

01-11-10

MALICOAT - WINSLOW ENGINEERS, P.C.

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FREDDIE MALICOAT, P.E.

MODOT: RENOVATION PHASE II

830 MODOT DRIVE
JEFFERSON CITY, MO, COLE COUNTY

CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS & CONDITIONS AT JOB SITE.

DATE : 01-11-10

REVISIONS :

TITLE : MEZZANINE LIGHTING PLAN

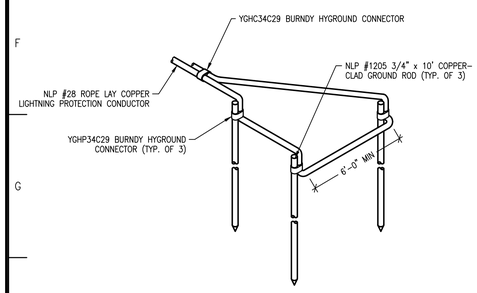
SHEET : E4 OF E7

PROJECT : 09138

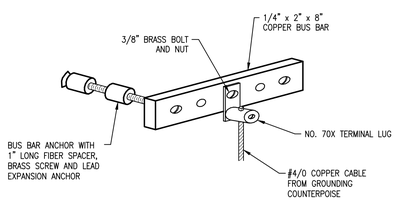
\\Server2\Job\09\09138\09138.dwg, 1/11/2010 12:24:12 PM, RussV

GENERAL NOTES:

1. ROUTE MAIN LEVEL DATA CABLES TO DATA/TELECOM CLOSET 303 OR COMPUTER ROOM 354 WHERE INDICATED ON PLAN.
2. MAINTAIN ALL DATA CABLE LENGTH UNDER 100 METERS (328 FEET).
3. COORDINATE ALL PHONE/DATA LOCATIONS WITH OWNER PRIOR TO ROUGH-IN.
4. VERIFY FURNITURE LAYOUT AND COORDINATE INSTALLATION WITH OWNER'S EQUIPMENT NEEDS.
5. PROVIDE (2) CABLE PULLS TO EACH BOX LOCATION SHOWN ON PLAN FOR VOIP PHONE AND DATA. BOXES WITH NUMBERS INDICATE MULTIPLE SETS OF VOIP PHONE AND DATA PULLS. (EXAMPLE: 4 INDICATES 8 CABLES, 4 VOIP, 4 DATA)



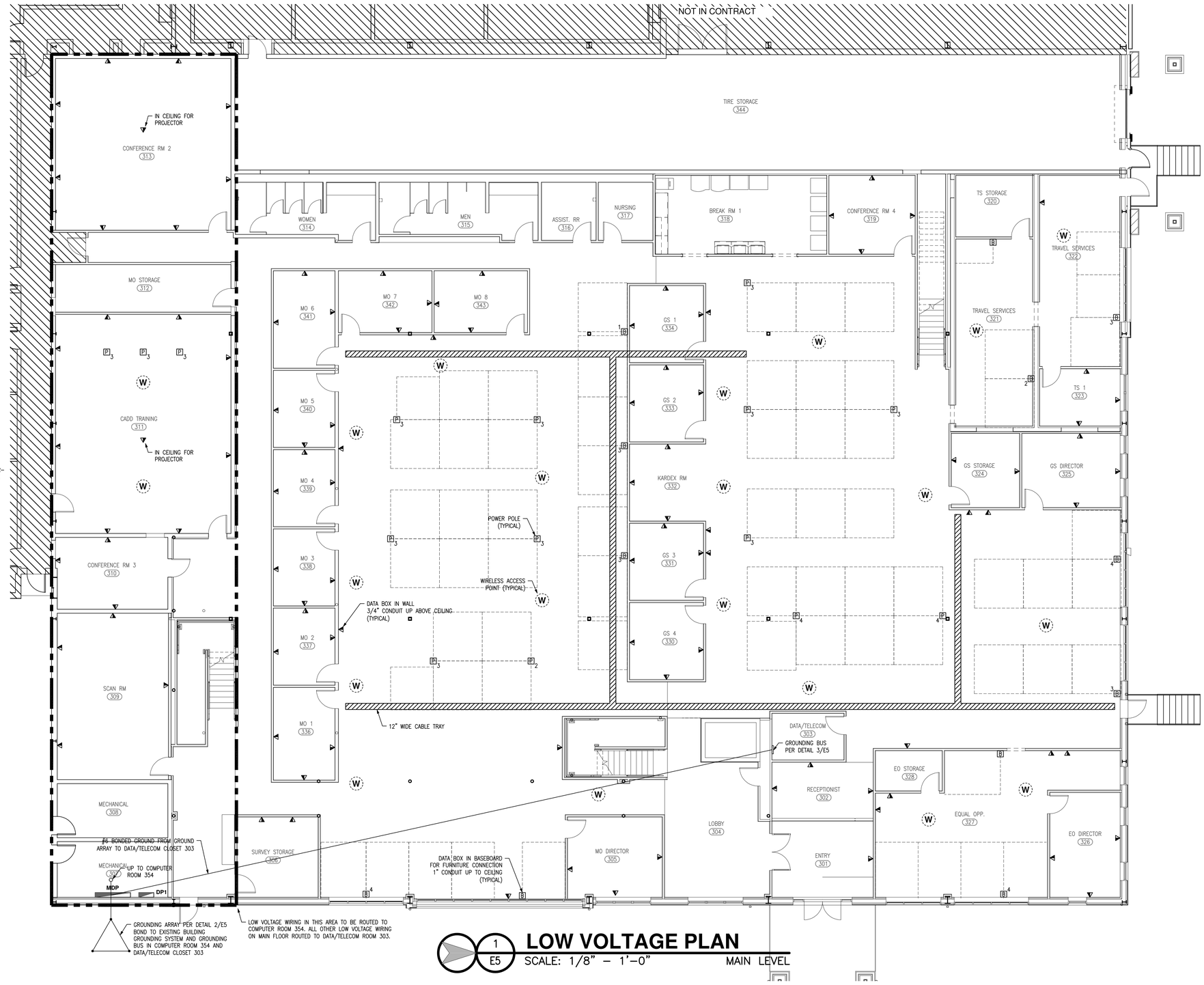
2 / E5 **GROUND ARRAY**
NO SCALE



NOTES:

1. CONCRETE PAD PER POWER COMPANY REQUIREMENTS.
2. FURNISH AND INSTALL 4" THICK REINFORCED CONCRETE HOUSEKEEPING PADS FOR ALL FLOOR MOUNTED ELECTRIC PANELS AND TRANSFORMERS.
3. #4/0, 3/4"C TO GROUND GRID.

3 / E5 **GROUNDING BUS**
NO SCALE



1 / E5 **LOW VOLTAGE PLAN**
SCALE: 1/8" – 1'-0" MAIN LEVEL

FREDDIE L. MALICOAT - ENGINEER
MO# E-16897

STATE OF MISSOURI
FREDDIE L. MALICOAT
NUMBER E-16897
REGISTERED PROFESSIONAL ENGINEER
01-11-10

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FREDDIE MALICOAT, P.E.

MODOT: RENOVATION PHASE II
830 MODOT DRIVE
JEFFERSON CITY, MO, COLE COUNTY

CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS & CONDITIONS AT JOB SITE.

DATE : 01-11-10

REVISIONS :

TITLE : MAIN LEVEL LOW VOLTAGE PLAN

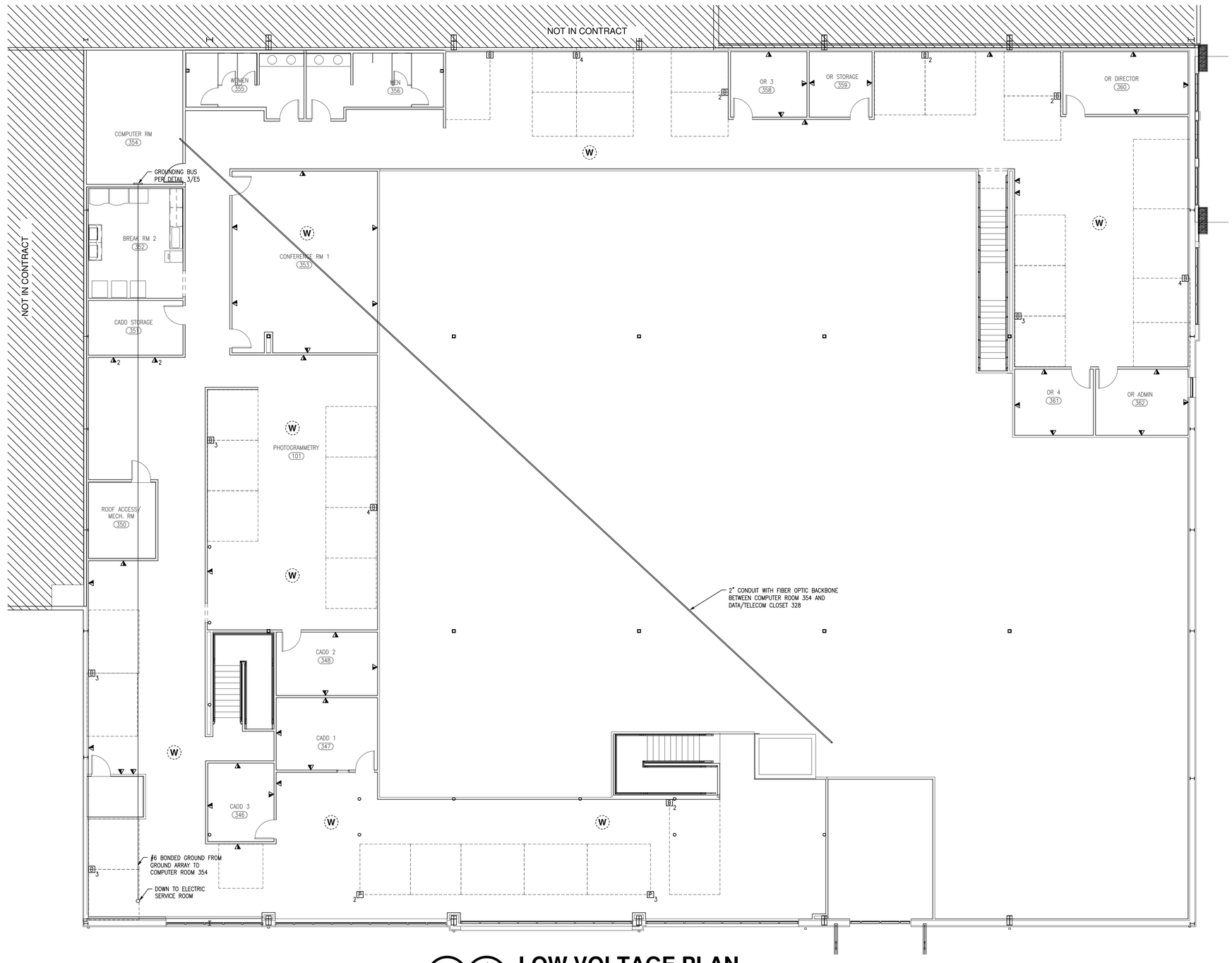
SHEET : E5 OF E7

PROJECT : 09138

\\Server2\Job\09\09138\09138.dwg, 1/11/2010 12:24:03 PM, RussV

GENERAL NOTES:

1. ALL LOW VOLTAGE WIRING FOR THE MEZZANINE TO BE ROUTED TO COMPUTER ROOM 354.
2. MAINTAIN ALL DATA CABLE LENGTH UNDER 100 METERS (328 FEET).
3. COORDINATE ALL PHONE/DATA LOCATIONS WITH OWNER PRIOR TO ROUGH-IN.
4. VERIFY FURNITURE LAYOUT AND COORDINATE INSTALLATION WITH OWNER'S EQUIPMENT NEEDS.
5. PROVIDE (2) CABLE PULLS TO EACH BOX LOCATION SHOWN ON PLAN FOR VOIP PHONE AND DATA. BOXES WITH NUMBERS INDICATE MULTIPLE SETS OF VOIP PHONE AND DATA PULLS. (EXAMPLE: 4 INDICATES 8 CABLES, 4 VOIP, 4 DATA)



1 / E6 **LOW VOLTAGE PLAN**
SCALE: 1/8" – 1'-0" MEZZANINE

FREDDIE L. MALICOAT - ENGINEER
MO# E-16897
STATE OF MISSOURI · FREDDIE L. MALICOAT · NUMBER E-16897 · REGISTERED PROFESSIONAL ENGINEER
01-11-10

MALICOAT - WINSLOW ENGINEERS, P.C.
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FREDDIE MALICOAT, P.E.

MODOT: RENOVATION PHASE II
830 MODOT DRIVE
JEFFERSON CITY, MO, COLE COUNTY

CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS & CONDITIONS AT JOB SITE.

DATE : 01-11-10

REVISIONS :

TITLE : **MAIN LEVEL LOW VOLTAGE PLAN**

SHEET : **E6** OF **E7**

PROJECT : 09138

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P1

SURVEY STORAGE 306

VOLTS 120/208 | PHASE 3 | WIRE 4 | MAIN CAPACITY 225A MLO | BUSS MATERIAL ALUMINUM | MOUNTING RECESSED

A WATTS 12,275 | B WATTS 12,495 | C WATTS 11,220 | TOTAL WATTS 35,990

CIRC	LOCATION / DESCRIPTION	BRKR	WATTS	ø	WATTS	BRKR	LOCATION / DESCRIPTION	CIRC
1	SURVEY STORAGE RECEPTACLES	20–1	360	A	2320	40–3	036 HEAT PUMP	2
3	SURVEY STORAGE RECEPTACLES	20–1	540	B	2320	–	--	4
5	SURVEY STORAGE RECEPTACLES	20–1	540	C	2320	–	--	6
7	CUBICLE RECEPTACLES	20–1	900	A	2810	50–3	060 HEAT PUMP	8
9	CUBICLE RECEPTACLES	20–1	360	B	2810	–	--	10
11	PRINTER RECEPTACLE	20–1	180	C	2810	–	--	12
13	PRINTER RECEPTACLE	20–1	180	A	665	20–2	012 HEAT PUMP	14
15	MO DIRECTOR RECEPTACLES	20–1	720	B	665	–	--	16
17	LOBBY RECEPTACLES	20–1	540	C	665	20–2	012 HEAT PUMP	18
19	MO 1 RECEPTACLES	20–1	900	A	665	–	--	20
21	MO 2 RECEPTACLES	20–1	1080	B	1175	20–2	019 HEAT PUMP	22
23	MO 3 RECEPTACLES	20–1	900	C	1175	–	--	24
25	CUBICLE POWER	20–1	720	A	1190	20–1	007 HEAT PUMP	26
27	CUBICLE POWER	20–1	1080	B	180	20–1	PRINTER RECEPTACLE	28
29	SCANNER	20–2	180	C	1190	20–1	007 HEAT PUMP	30
31	--	–	180	A	665	20–2	012 HEAT PUMP	32
33	PRINTER RECEPTACLE	20–1	180	B	665	–	--	34
35	PRINTER RECEPTACLE	20–1	180	C	360	20–1	CADD TRAINING RECEPTACLE	36
37	SCAN ROOM	20–1	540	A	180	20–1	BOILER CIRC PUMP	38
39	SCAN ROOM	20–1	540	B	180	20–1	BOILER CONTROL PANEL	40
41	SCANNER	20–1	180	C	0	20–1	SPARE	42

P2

MO STORAGE 312

VOLTS 120/208 | PHASE 3 | WIRE 4 | MAIN CAPACITY 225A MLO | BUSS MATERIAL ALUMINUM | MOUNTING RECESSED

A WATTS 14,065 | B WATTS 13,525 | C WATTS 11,990 | TOTAL WATTS 39,580

CIRC	LOCATION / DESCRIPTION	BRKR	WATTS	ø	WATTS	BRKR	LOCATION / DESCRIPTION	CIRC
1	CONFERENCE RECEPTACLES	20–1	1440	A	1800	30–3	030 HEAT PUMP	2
3	CONFERENCE RECEPTACLES		360	B	1800	–	--	4
5	HALL RECEPTACLES	20–1	1260	C	1800	–	--	6
7	CADD TRAINING RECEPTACLES	20–1	360	A	1175	20–2	019 HEAT PUMP	8
9	CADD TRAINING RECEPTACLES		360	B	1175	–	--	10
11	CADD TRAINING RECEPTACLES		540	C	1190	20–1	007 HEAT PUMP	12
13	CADD TRAINING RECEPTACLES		360	A	1190	20–1	007 HEAT PUMP	14
15	CADD TRAINING RECEPTACLES		360	B	1190	20–1	007 HEAT PUMP	16
17	CADD TRAINING RECEPTACLES		360	C	180	20–1	PRINTER RECEPTACLE	18
19	CADD TRAINING RECEPTACLES		360	A	1080	20–1	CUBICLE POWER	20
21	CADD TRAINING POWER POLE		720	B	1080	20–1	CUBICLE POWER	22
23	CADD TRAINING POWER POLE		720	C	1080	20–1	CUBICLE POWER	24
25	CADD TRAINING POWER POLE		720	A	1080	20–1	CUBICLE POWER	26
27	CADD TRAINING POWER POLE		720	B	1440	20–1	LIGHTS	28
29	CADD TRAINING POWER POLE		720	C	810	20–1	LIGHTS	30
31	CADD TRAINING POWER POLE		720	A	1260	20–1	LIGHTS	32
33	CONFERENCE ROOM RECEPTACLES	20–1	720	B	1440	20–1	LIGHTS	34
35	MO 4 RECEPTACLES		900	C	1530	20–1	LIGHTS	36
37	MO 5 RECEPTACLES		1080	A	1440	20–1	LIGHTS	38
39	MO 6 RECEPTACLES		720	B	1440	20–1	LIGHTS	40
41	MO 7 RECEPTACLES		900	C	0	20–1	SPARE	42

P3

BREAK RM 318

VOLTS 120/208 | PHASE 3 | WIRE 4 | MAIN CAPACITY 225A MLO | BUSS MATERIAL ALUMINUM | MOUNTING RECESSED

A WATTS 13,570 | B WATTS 10,190 | C WATTS 11,070 | TOTAL WATTS 34,830

CIRC	LOCATION / DESCRIPTION	BRKR	WATTS	ø	WATTS	BRKR	LOCATION / DESCRIPTION	CIRC
1	CONFERENCE ROOM RECEPTACLES	20–1	720	A	1800	30–3	030 HEAT PUMP	2
3	REFRIGERATOR	20–1	500	B	1800	–	--	4
5	REFRIGERATOR	20–1	500	C	1800	–	--	6
7	REFRIGERATOR	20–1	500	A	1190	20–1	007 HEAT PUMP	8
9	REFRIGERATOR	20–1	500	B	1190	20–1	007 HEAT PUMP	10
11	MICROWAVE	20–1	1000	C	180	20–1	MENS ROOM RECEPTACLE	12
13	MICROWAVE	20–1	1000	A	180	20–1	WOMENS ROOM RECEPTACLE	14
15	MICROWAVE	20–1	1000	B	500	20–1	WATER COOLER RECEPTACLE	16
17	MICROWAVE	20–1	1000	C	2250	30–2	WATER HEATER	18
19	MICROWAVE	20–1	1000	A	2250	--	--	20
21	MICROWAVE	20–1	1000	B	900	20–1	MO 8 RECEPTACLES	22
23	COFFEE MACHINE RECEPTACLE	20–1	1000	C	1440	20–1	CUBICLE RECEPTACLES	24
25	COFFEE MACHINE RECEPTACLE	20–1	1000	A	1080	20–1	CUBICLE RECEPTACLES	26
27	BREAK ROOM COUNTER RECEP	20–1	180	B	180	20–1	ASSIST RR RECEPTACLE	28
29	BREAK ROOM DISPOSAL	20–1	500	C	180	20–1	PRINTER RECEPTACLE	30
31	BREAK ROOM ICE MACHINE	20–1	1000	A	1350	20–1	LIGHTS	32
33	VENDING MACHINE	20–1	500	B	1440	20–1	LIGHTS	34
35	VENDING MACHINE	20–1	500	C	0	20–1	SPARE	36
37	VENDING MACHINE	20–1	500	A	0	20–1	SPARE	38
39	VENDING MACHINE	20–1	500	B	0	20–1	SPARE	40
41	NURSING RECEPTACLES	20–1	720	C	0	20–1	SPARE	42

P4

GS STORAGE 324

VOLTS 120/208 | PHASE 3 | WIRE 4 | MAIN CAPACITY 225A MLO | BUSS MATERIAL ALUMINUM | MOUNTING RECESSED

A WATTS 9,745 | B WATTS 9,635 | C WATTS 7,310 | TOTAL WATTS 26,690

CIRC	LOCATION / DESCRIPTION	BRKR	WATTS	ø	WATTS	BRKR	LOCATION / DESCRIPTION	CIRC
1	GS DIRECTOR RECEPTACLES	20–1	720	A	1175	20–2	019 HEAT PUMP	2
3	CUBICLE RECEPTACLES	20–1	720	B	1175	–	--	4
5	PRINTER RECEPTACLE	20–1	180	C	1190	20–1	007 HEAT PUMP	6
7	PRINTER RECEPTACLE	20–1	180	A	1190	20–1	007 HEAT PUMP	8
9	TRAVEL SERVICES RECEPTACLES	20–1	720	B	720	20–1	GS 1 RECEPTACLES	10
11	TRAVEL SERVICES RECEPTACLES	20–1	360	C	900	20–1	GS 2 RECEPTACLES	12
13	TS 1 RECEPTACLES	20–1	720	A	540	20–1	KARDEX RM RECEPTACLES	14
15	TRAVEL SERVICES RECEPTACLES	20–1	540	B	720	20–1	GS 3 RECEPTACLES	16
17	TRAVEL SERVICES RECEPTACLES	20–1	1080	C	1080	20–1	GS 4 RECEPTACLES	18
19	TRAVEL SERVICES RECEPTACLES	20–1	360	A	180	20–1	GS PRINTER	20
21	TRAVEL SERVICES RECEPTACLES	20–1	540	B	180	20–1	GS PRINTER	22
23	TRAVEL SERVICES PRINTER	20–1	180	C	180	20–1	GS PRINTER	24
25	CUBICLE RECEPTACLES	20–1	1080	A	1440	20–1	LIGHTS	26
27	CUBICLE RECEPTACLES	20–1	1080	B	1440	20–1	LIGHTS	28
29	CUBICLE RECEPTACLES	20–1	1080	C	0	20–1	SPARE	30
31	CUBICLE RECEPTACLES	20–1	1080	A	0	20–1	SPARE	32
33	CUBICLE RECEPTACLES	20–1	1080	B	0	20–1	SPARE	34
35	CUBICLE RECEPTACLES	20–1	1080	C	0	20–1	SPARE	36
37	CUBICLE RECEPTACLES	20–1	1080	A	0	20–1	SPARE	38
39	RECEPTACLES	20–1	720	B	0	20–1	SPARE	40
41	SPARE	20–1	0	C	0	20–1	SPARE	42

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EO STORAGE 328

VOLTS 120/208 | PHASE 3 | WIRE 4 | MAIN CAPACITY 225A MLO | BUSS MATERIAL ALUMINUM | MOUNTING RECESSED

A WATTS 11,160 | B WATTS 9,340 | C WATTS 11,060 | TOTAL WATTS 31,560

CIRC	LOCATION / DESCRIPTION	BRKR	WATTS	ø	WATTS	BRKR	LOCATION / DESCRIPTION	CIRC
1	EQUAL OPP. RECEPTACLES	20–1	360	A	1280	20–2	024 HEAT PUMP	2
3	EQUAL OPP. PRINTER	20–1	180	B	1280	–	--	4
5	EQUAL OPP. PRINTER	20–1	180	C	1280	20–2	024 HEAT PUMP	6
7	EQUAL OPP. RECEPTACLES	20–1	540	A	1280	–	--	8
9	EO DIRECTOR RECEPTACLES	20–1	900	B	1190	20–1	007 HEAT PUMP	10
11	EQUAL OPP. RECEPTACLES	20–1	1440	C	1190	20–1	007 HEAT PUMP	12
13	EQUAL OPP. PRINTER	20–1	180	A	1190	20–1	007 HEAT PUMP	14
15	EQUAL OPP. PRINTER	20–1	180	B	2810	50–3	060 HEAT PUMP	16
17	RECEPTACLES	20–1	540	C	2810	–	--	18
19	RECEPTACLES	20–1	540	A	2810	–	--	20
21	DATA ROOM RECEPTACLES	20–1	1000	B	1080	20–1	LIGHTS	22
23	DATA ROOM RECEPTACLES	20–1	1000	C	1440	20–1	LIGHTS	24
25	DATA ROOM RECEPTACLES	20–1	1000	A	1260	20–1	LIGHTS	26
27	DATA ROOM RECEPTACLES	20–1	540	B	0	20–1	SPARE	28
29	DATA ROOM PRINTER	20–1	180	C	0	20–1	SPARE	30
31	RECEPTIONIST RECEPTACLES	20–1	720	A	0	20–1	SPARE	32
33	RECEPTIONIST PRINTER	20–1	180	B	0	20–1	SPARE	34
35	ENTRY DOOR POWER	20–1	1000	C	0	20–1	SPARE	36
37	SPARE	20–1	0	A	0	20–1	SPARE	38
39	SPARE	20–1	0	B	0	20–1	SPARE	40
41	SPARE	20–1	0	C	0	20–1	SPARE	42

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CADD 347

VOLTS 120/208 | PHASE 3 | WIRE 4 | MAIN CAPACITY 225A MLO | BUSS MATERIAL ALUMINUM | MOUNTING RECESSED

A WATTS 15,130 | B WATTS 12,065 | C WATTS 12,860 | TOTAL WATTS 40,055

CIRC	LOCATION / DESCRIPTION	BRKR	WATTS	ø	WATTS	BRKR	LOCATION / DESCRIPTION	CIRC
1	CADD 1 RECEPTACLES	20–1	720	A	2560	40–3	048 HEAT PUMP	2
3	CADD 2 RECEPTACLES	20–1	720	B	2560	–	--	4
5	CADD 3 RECEPTACLES	20–1	720	C	2560	–	--	6
7	CADD RECEPTACLES	20–1	540	A	1280	20–2	024 HEAT PUMP	8
9	CADD PRINTER RECEPTACLE	20–1	180	B	1280	–	--	10
11	CADD RECEPTACLES	20–1	900	C	1190	20–1	007 HEAT PUMP	12
13	CADD RECEPTACLES	20–1	360	A	2715	50–3	042 HEAT PUMP	14
15	CUBLCLE POWER POLE	20–1	1080	B	2715	–	--	16
17	CUBLCLE POWER POLE	20–1	720	C	2715	–	--	18
19	CADD RECEPTACLES	20–1	720	A	1190	20–1	007 HEAT PUMP	20
21	CADD PRINTER RECEPTACLE	20–1	180	B	1190	20–1	007 HEAT PUMP	22
23	CADD PRINTER RECEPTACLE	20–1	180	C	1175	20–2	019 HEAT PUMP	24
25	CADD RECEPTACLES	20–1	720	A	1175	–	--	26
27	CADD RECEPTACLES	20–1	720	B	1260	20–1	LIGHTS	28
29	PHOTOGRAMMETRY RECEPTACLES	20–1	720	C	1440	20–1	LIGHTS	30
31	PHOTOGRAMMETRY RECEPTACLES	20–1	540	A	1350	20–1	LIGHTS	32
33	PHOTOGRAMMETRY RECEPTACLES	20–1	180	B	0	20–1	SPARE	34
35	PHOTOGRAMMETRY RECEPTACLES	20–1	540	C	0	20–1	SPARE	36
37	RECEPTACLES	20–1	1260	A	0	20–1	SPARE	38
39	SPARE		0	B	0	20–1	SPARE	40
41	SPARE		0	C	0	20–1	SPARE	42

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CADD STORAGE 351

VOLTS 120/208 | PHASE 3 | WIRE 4 | MAIN CAPACITY 225A MLO | BUSS MATERIAL ALUMINUM | MOUNTING RECESSED

A WATTS 12,055 | B WATTS 12,595 | C WATTS 10,160 | TOTAL WATTS 34,810

CIRC	LOCATION / DESCRIPTION	BRKR	WATTS	ø	WATTS	BRKR	LOCATION / DESCRIPTION	CIRC
1	REFRIGERATOR	20–1	500	A	1280	20–2	024 HEAT PUMP	2
3	REFRIGERATOR	20–1	500	B	1280	–	--	4
5	REFRIGERATOR	20–1	500	C	1280	20–2	024 HEAT PUMP	6
7	CADD RECEPTACLES	20–1	360	A	1280	–	--	8
9	CADD RECEPTACLES	20–1	360	B	1175	20–2	019 HEAT PUMP	10
11	MICROWAVE	20–1	1000	C	1175	–	--	12
13	MICROWAVE	20–1	1000	A	1280	20–2	024 HEAT PUMP	14
15	MICROWAVE	20–1	1000	B	1280	–	--	16
17	BREAK ROOM COUNTER RECEPTACLE	20–1	180	C	665	20–2	012 HEAT PUMP	18
19	VENDING MACHINE	20–1	500	A	665	–	--	20
21	VENDING MACHINE	20–1	500	B	1800	30–3	030 HEAT PUMP	22
23	VENDING MACHINE	20–1	500	C	1800	–	--	24
25	COFFEE MACHINE	20–1	1000	A	1800	–	--	26
27	COFFEE MACHINE	20–1	1000	B	1440	20–1	LIGHTS	28
29	BREAK ROOM COUNTER RECEPTACLE	20–1	180	C	1260	20–1	LIGHTS	30
31	BREAK ROOM DISPOSAL	20–1	500	A	1350	20–1	LIGHTS	32
33	BREAK ROOM ICE MACHINE	20–1	1000	B	0	20–1	SPARE	34
35	CONFERENCE ROOM RECEPTACLES	20–1	1440	C	0	20–1	SPARE	36
37	CADD STORAGE RECPETACLES	20–1	540	A	0	20–1	SPARE	38
39	RECEPTACLES	20–1	1260	B	0	20–1	SPARE	40
41	FLAT PANEL TV RECEPTACLE	20–1	180	C	0	20–1	SPARE	42

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OR STORAGE 359

VOLTS 120/208 | PHASE 3 | WIRE 4 | MAIN CAPACITY 225A MLO | BUSS MATERIAL ALUMINUM | MOUNTING RECESSED

A WATTS 10,935 | B WATTS 9,870 | C WATTS 9,415 | TOTAL WATTS 30,220

CIRC	LOCATION / DESCRIPTION	BRKR	WATTS	ø	WATTS	BRKR	LOCATION / DESCRIPTION	CIRC
1	OR DIRECTOR RECEPTACLES	20–1	1260	A	1190	20–1	007 HEAT PUMP	2
3	OR 3 RECEPTACLES	20–1	900	B	1190	20–1	007 HEAT PUMP	4
5	OR 4 RECEPTACLES	20–1	720	C	1190	20–1	007 HEAT PUMP	6
7	OR ADMIN RECEPTACLES	20–1	720	A	1190	20–1	007 HEAT PUMP	8
9	OR RECEPTACLES	20–1	1440	B	665	20–2	012 HEAT PUMP	10
11	OR RECEPTACLES	20–1	1080	C	665	–	--	12
13	OR RECEPTACLES	20–1	720	A	1175	20–2	019 HEAT PUMP	14
15	OR RECEPTACLES	20–1	720	B	1175	–	--	16
17	OR RECEPTACLES	20–1	720	C	1800	30–3	030 HEAT PUMP	18
19	OR STORAGE RECEPTACLES	20–1	720	A	1800	–	--	20
21	OR PRINTER	20–1	180	B	1800	–	--	22
23	OR PRINTER	20–1	180	C	1440	20–1	LIGHTS	24
25	OR PRINTER	20–1	180	A	1260	20–1	LIGHTS	26
27	OR PRINTER	20–1	180	B	0	20–1	SPARE	28
29	CUBICLE RECEPTACLES	20–1	1440	C	0	20–1	SPARE	30
31	CUBICLE RECEPTACLES	20–1	360	A	0	20–1	SPARE	32
33	MENS ROOM RECEPTACLE	20–1	180	B	0	20–1	SPARE	34
35	WOMENS ROOM RECEPTACLE	20–1	180	C	0	20–1	SPARE	36
37	WATER COOLER	20–1	360	A	0	20–1	SPARE	38
39	RECEPTACLES	20–1	1440	B	0	20–1	SPARE	40
41	SPARE	20–1	0	C	0	20–1	SPARE	42

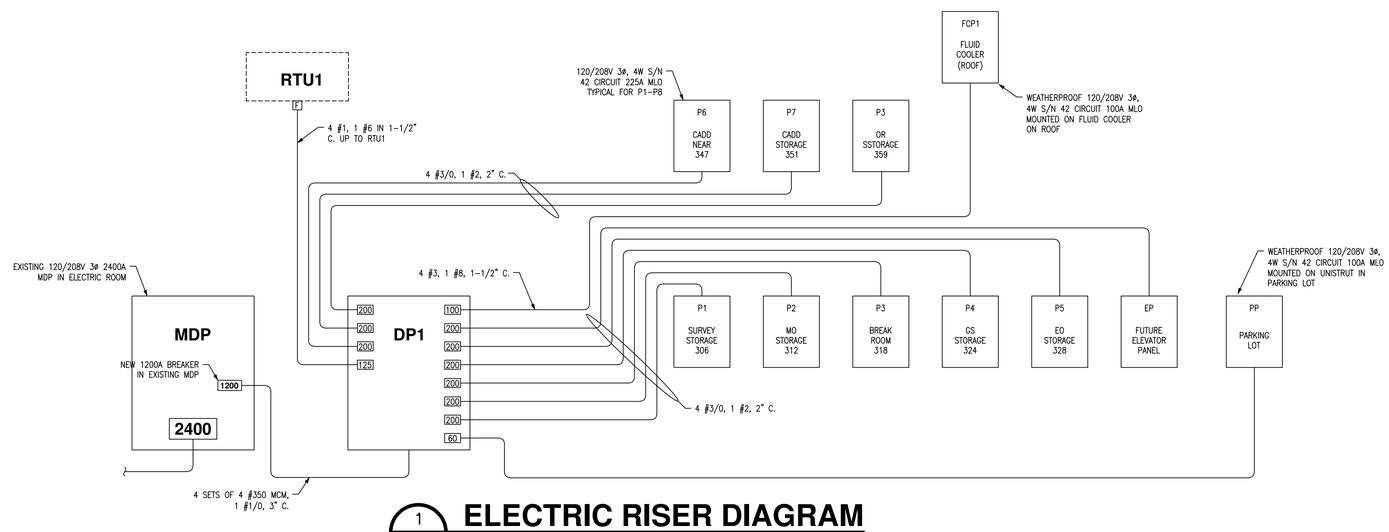
PP

PARKING LOT

VOLTS 120/208 | PHASE 3 | WIRE 4 | MAIN CAPACITY 100A MLO | BUSS MATERIAL ALUMINUM | MOUNTING UNISTRUT

A WATTS 3,910 | B WATTS 2,300 | C WATTS 1,610 | TOTAL WATTS 7,820

CIRC	LOCATION / DESCRIPTION	BRKR	WATTS	ø	WATTS	BRKR	LOCATION / DESCRIPTION	CIRC
1	WALKWAY LIGHTS	20–2	690	A	1610	30–2	PARKING LOT LIGHTS	2
3	--	–	690	B	1610	–	--	4
5			0	C	1610	30–2	PARKING LOT LIGHTS	6
7			0	A	1610	–	--	8
9			0	B	0			10
11			0	C	0			12
13			0	A	0			14
15			0	B	0			16
17			0	C	0			18
19			0	A	0			20
21			0	B	0			22
23			0	C	0			24
25			0	A	0			26
27			0	B	0			28
29			0	C	0			30
31			0	A	0			32
33			0	B	0			34
35			0	C	0			36
37			0	A	0			38
39			0	B	0			40
41			0	C	0			42



1 / E7 **ELECTRIC RISER DIAGRAM**

NO SCALE

FREDDIE L. MALICOAT - ENGINEER
MO# E-16897

MALICOAT - WINSLOW ENGINEERS, P.C.
MISSOURI STATE CERTIFICATE OF AUTHORITY #000421
5649 N. CLEARVIEW ROAD
COLUMBIA, MISSOURI 65202
TEL 573-875-1300
FAX 573-875-1305
FREDDIE MALICOAT, P.E.

MODOT: RENOVATION PHASE II

830 MODOT DRIVE
JEFFERSON CITY, MO, COLE COUNTY

CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS & CONDITIONS AT JOB SITE.

DATE : 01-11-10

REVISIONS :

TITLE : PANEL SCHEDULES

SHEET : E7 OF E7

PROJECT : 09138

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1 FA1 **FIRE ALARM PLAN**
SCALE: 1/8" – 1'–0" MAIN LEVEL

FREDDIE L. MALICOAT - ENGINEER
MO# E-16897

STATE OF MISSOURI
FREDDIE L. MALICOAT
NUMBER E-16897
REGISTERED PROFESSIONAL ENGINEER
01-11-10

MALICOAT - WINSLOW ENGINEERS, P.C.
MISSOURI STATE CERTIFICATE OF AUTHORITY #000421
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TEL 573–875–1300
FAX 573–875–1305
FREDDIE MALICOAT, P.E.

MODOT: RENOVATION PHASE II
830 MODOT DRIVE
JEFFERSON CITY, MO, COLE COUNTY

CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS & CONDITIONS AT JOB SITE.

DATE : 01–11–10

REVISIONS :

TITLE : **MAIN LEVEL FIRE ALARM PLAN**

SHEET : **FA1** OF **FA2**

PROJECT : 09138

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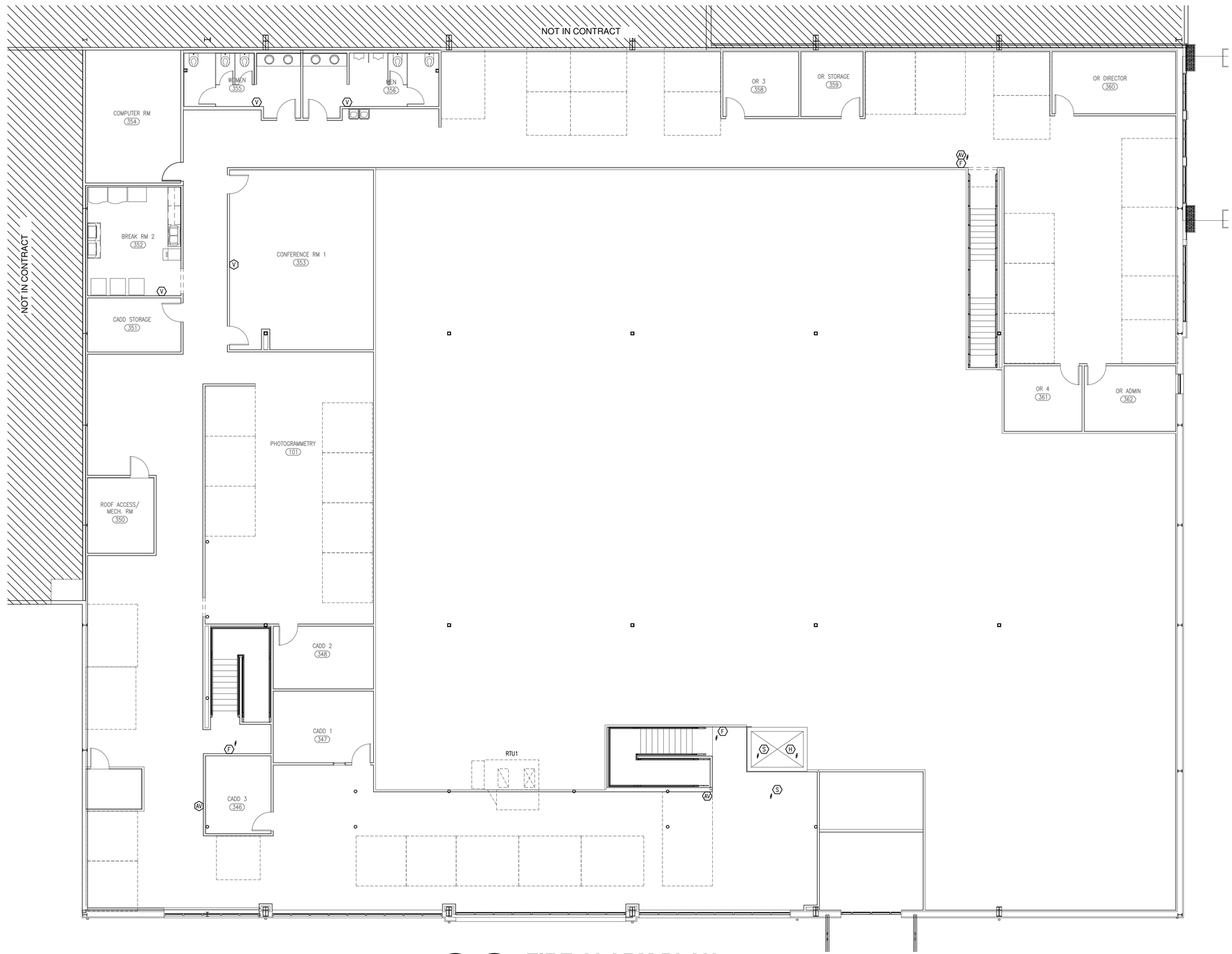

1 FA2 **FIRE ALARM PLAN**

SCALE: 1/8" – 1'–0" MEZZANINE

FREDDIE L. MALICOAT - ENGINEER
MO# E-16897

STATE OF MISSOURI
FREDDIE L. MALICOAT
NUMBER E-16897
REGISTERED PROFESSIONAL ENGINEER
01-11-10

MALICOAT - WINSLOW ENGINEERS, P.C.

MISSOURI STATE CERTIFICATE OF AUTHORITY #000421

5649 N. CLEARVIEW ROAD
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FREDDIE MALICOAT, P.E.

MODOT: RENOVATION PHASE II

830 MODOT DRIVE
JEFFERSON CITY, MO, COLE COUNTY

CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS & CONDITIONS AT JOB SITE.

DATE : 01–11–10

REVISIONS :

TITLE : **MAIN LEVEL FIRE ALARM PLAN**

SHEET : **FA2** OF **FA2**

PROJECT : 09138

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