

Renovation of QEK - Corporate Office

1225 E. Maple, Troy, Mi. 48083
 Building Permit - November 13, 2014
 For Bids - December 5, 2014

PROJECT:
 QEK - Corporate Office
 1225 E. Maple
 Troy, Mi. 48083

No.	INDEX TITLE
COVER	COVER SHEET
C-1	PLOT PLAN
A-1	FLOOR PLAN - EXISTING (OVERALL)
D-1	DEMOLITION PLAN - MAIN LEVEL (WEST)
D-2	DEMOLITION PLAN - MAIN LEVEL (BREAKROOM)
D-3	DEMOLITION PLAN - MAIN LEVEL (EAST)
D-4	DEMOLITION PLAN - UL - OFFICES & TOILET ROOMS
A-2	FLOOR PLAN - PROPOSED (OVERALL)
A-3	FLOOR PLAN - MAIN LEVEL (WEST)
A-4	FLOOR PLAN - MAIN LEVEL (BREAKROOM)
A-5	FLOOR PLAN - MAIN LEVEL (EAST)
A-6	UPPER LEVEL - OFFICES & TOILET ROOMS
A-7	SCHEDULES
A-8	REFLECTED CEILING PLAN - MAIN LEVEL (WEST & BREAK ROOM)
A-9	REFLECTED CEILING PLAN - MAIN LEVEL (EAST)
A-10	STRUCTURAL DETAILS & SECURITY OFFICE

E100	ELECTRICAL SYMBOLS & NOTES
E300	ELECTRICAL DEMO PLAN
E301	ELECTRICAL DEMO PLAN
E400	ELECTRICAL LIGHTING PLAN - OFFICE AREA
E401	ELECTRICAL LIGHTING PLAN - BREAK ROOM
E500	ELECTRICAL POWER PLAN - OFFICE AREA
E501	ELECTRICAL POWER PLAN - BREAK ROOM
E900	ELECTRICAL SCHEDULES

M100	MECHANICAL SYMBOLS & NOTES
M300	MECHANICAL DEMO PLAN - OFFICE AREA
M301	MECHANICAL DEMO PLAN - BREAK ROOM
M400	MECHANICAL PLAN - OFFICE AREA
M401	MECHANICAL PLAN - BREAK ROOM
M700	MECHANICAL DETAILS
M900	MECHANICAL SCHEDULES

SHEET TITLE:
 COVER SHEET

DATE:
 11 / 13 / 2014: Building Permit
 12 / 5 / 2014: For Bids

JOB:
 14-003

SHEET:
 COVER

OWNER:

QEK
 1255 East Maple Road
 Troy, Michigan 48083
 Contact: Jill Lajdziak
 586-268-8050 p
 248-535-7947 m

ARCHITECT:

Al Paas
 2392 Grant Drive
 Ann Arbor, Michigan 48108
 313-702-6247 p

MECH. & ELEC.

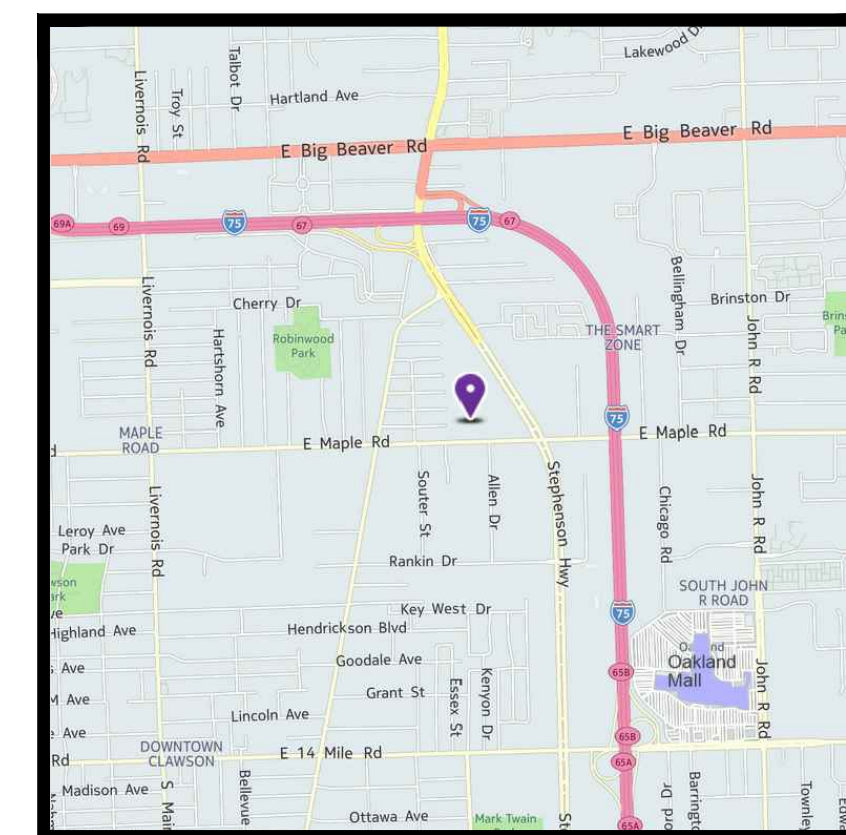
ENGINEERS:
 Keen Technical Solutions, LLC
 800 Cottageview Drive
 Traverse City, MI 49684
 231-394-1581 p

MECH. & ELEC.

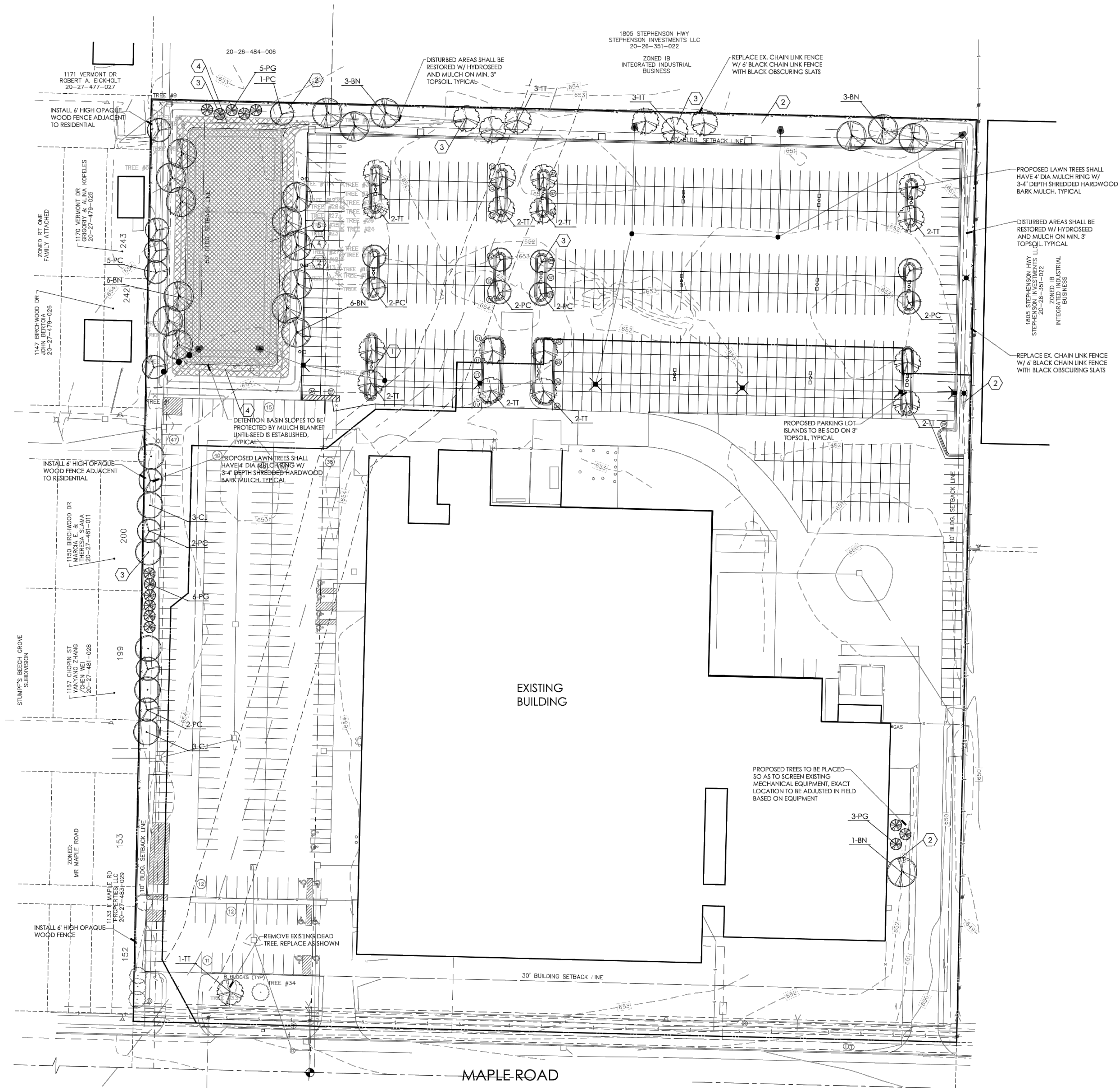
ENGINEERS:
 Synergy Consulting Engineers
 6250 Jupiter Ave. NE, Suite B
 Belmont, MI 49306
 616-726-5038 p
 616-726-5320 f

GENERAL

CONTRACTOR:
 Regional General Contracting, LLC
 450 W. Ann Arbor Trail
 Plymouth MI 48170
 734-582-9700 p
 866-287-4454 f



LOCATION MAP
 NOT TO SCALE



PROJECT:
QEK - Corporate Office
 1225 E. Maple
 Troy, Mi. 48083

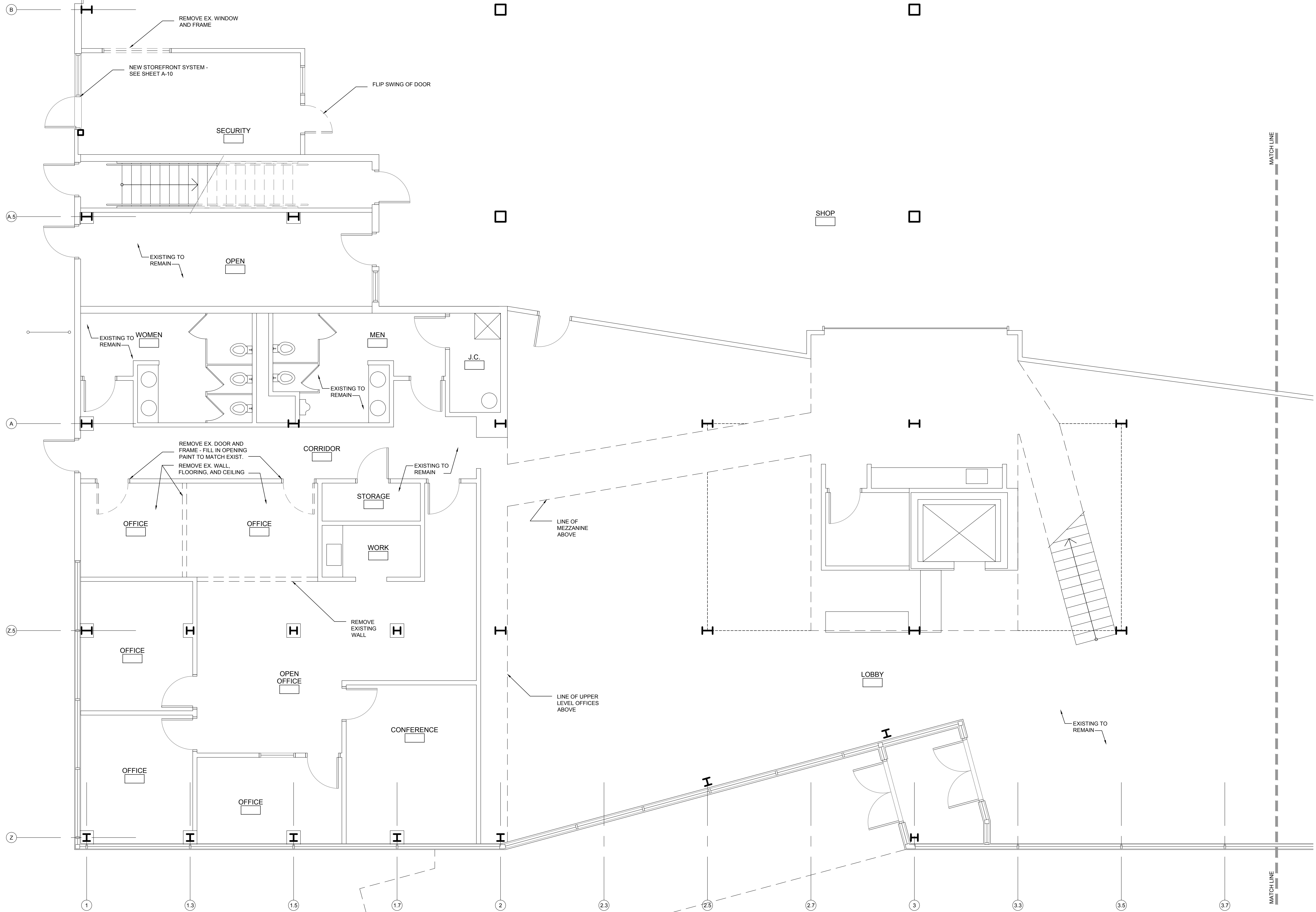
SHEET TITLE:
PLOT PLAN

DATE:
 11 / 13 / 2014: Building Permit
 12 / 5 / 2014: For Bids

JOB:
 14-003

PLOT PLAN
 Scale: 1" = 50'

SHEET:
C-1



PROJECT:
 QEK - Corporate Office
 1225 E. Maple
 Troy, Mi. 48083

SHEET TITLE:
 DEMOLITION PLAN -
 MAIN LEVEL (WEST)

DATE:
 11 / 13 / 2014: Building Permit
 12 / 5 / 2014: For Bids

JOB:
 14-003

SHEET:
 D-1

DEMOLITION PLAN - MAIN LEVEL (WEST)
 Scale: 1/4" = 1'-0"

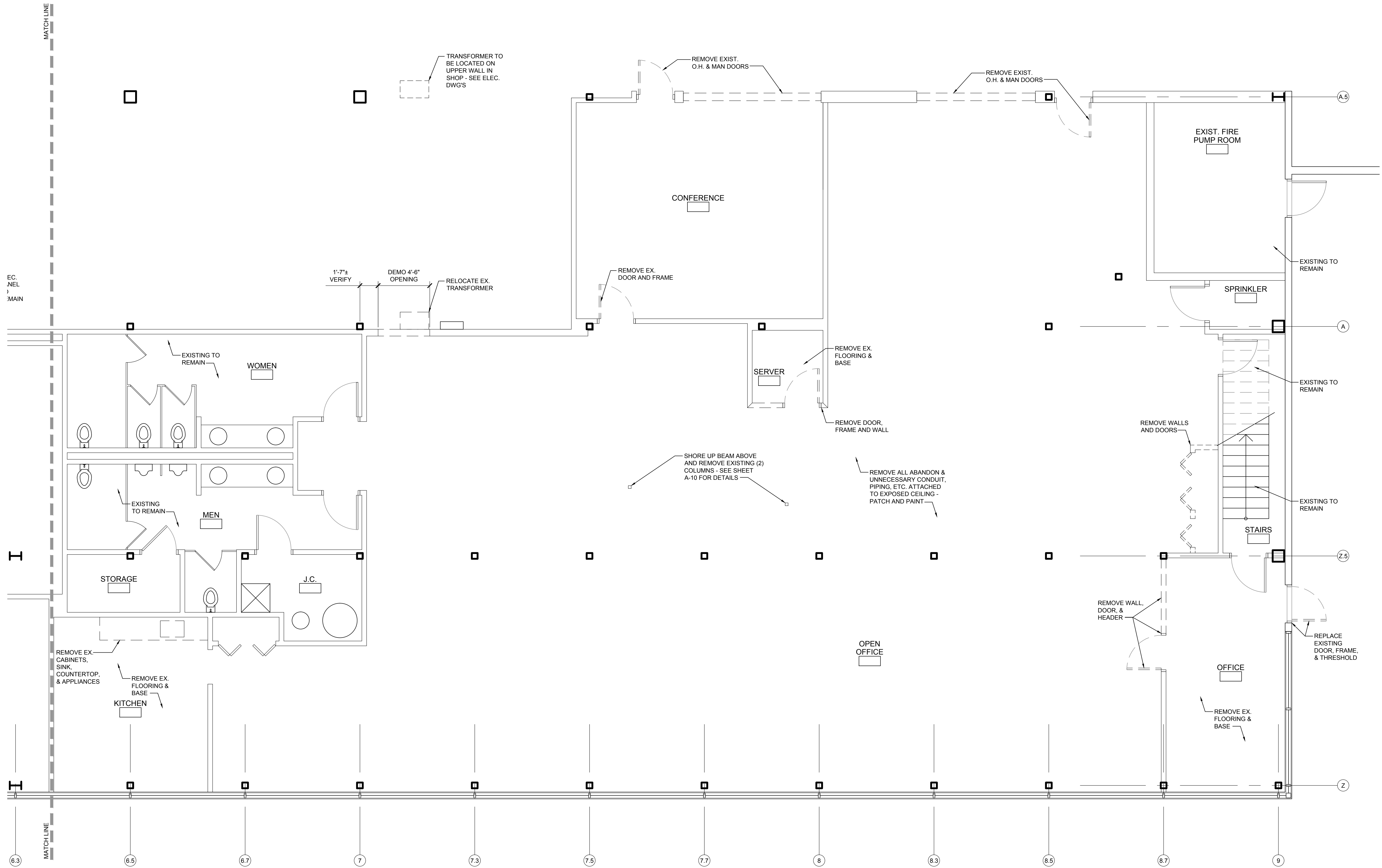
PROJECT:
QEK - Corporate Office
 1225 E. Maple
 Troy, Mi. 48083

SHEET TITLE:
DEMOLITION PLAN - MAIN LEVEL (EAST)

DATE:
 11 / 13 / 2014: Building Permit
 12 / 5 / 2014: For Bids

JOB:
 14-003

SHEET:
D-3



 **DEMOLITION PLAN - MAIN LEVEL (EAST)**
 Scale: 1/4" = 1'-0"

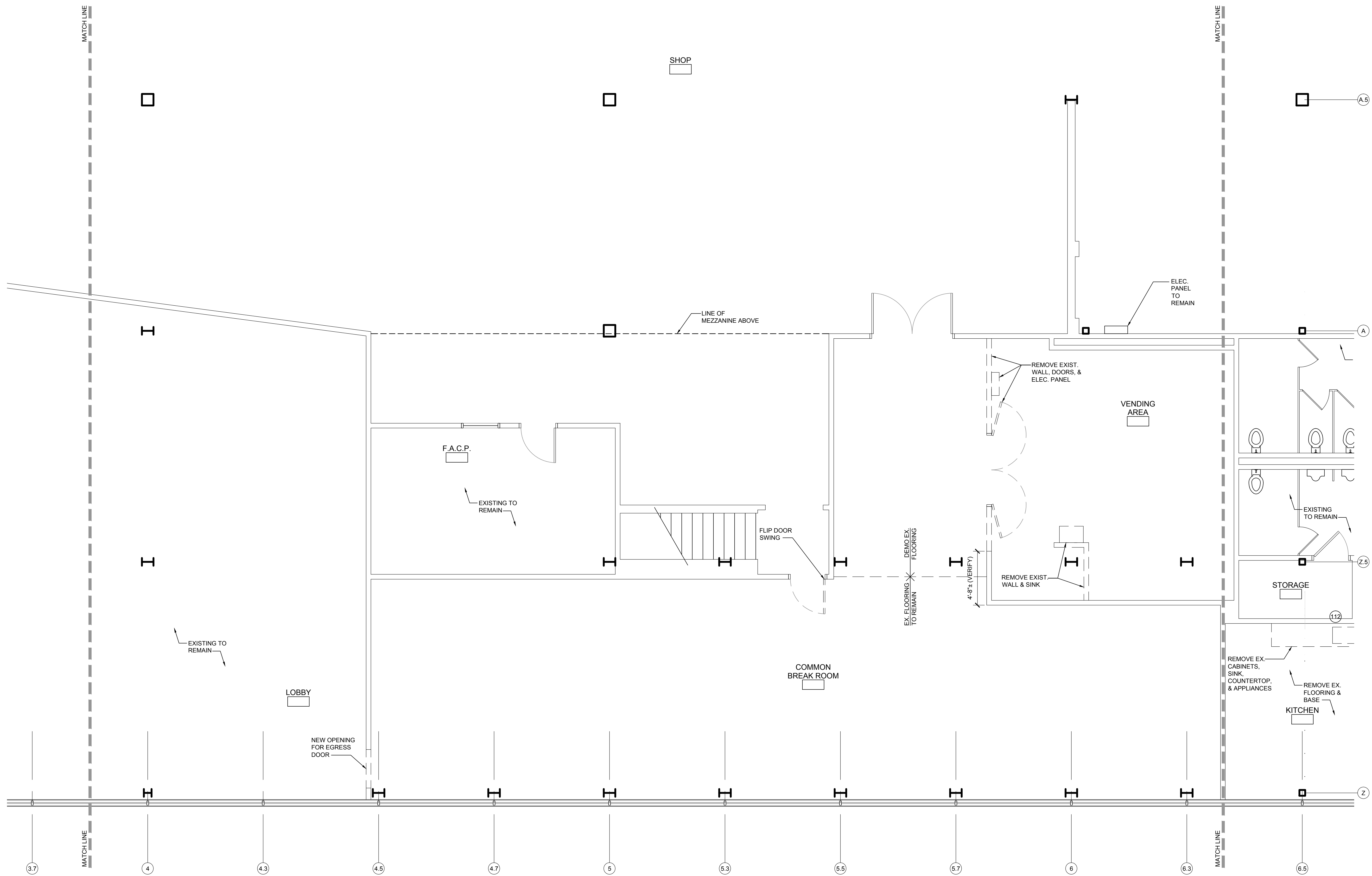
PROJECT:
 QEK - Corporate Office
 1225 E. Maple
 Troy, Mi. 48083

SHEET TITLE:
**DEMOLITION PLAN -
 MAIN LEVEL
 (BREAKROOM)**

DATE:
 11 / 13 / 2014: Building Permit
 12 / 5 / 2014: For Bids

JOB:
 14-003

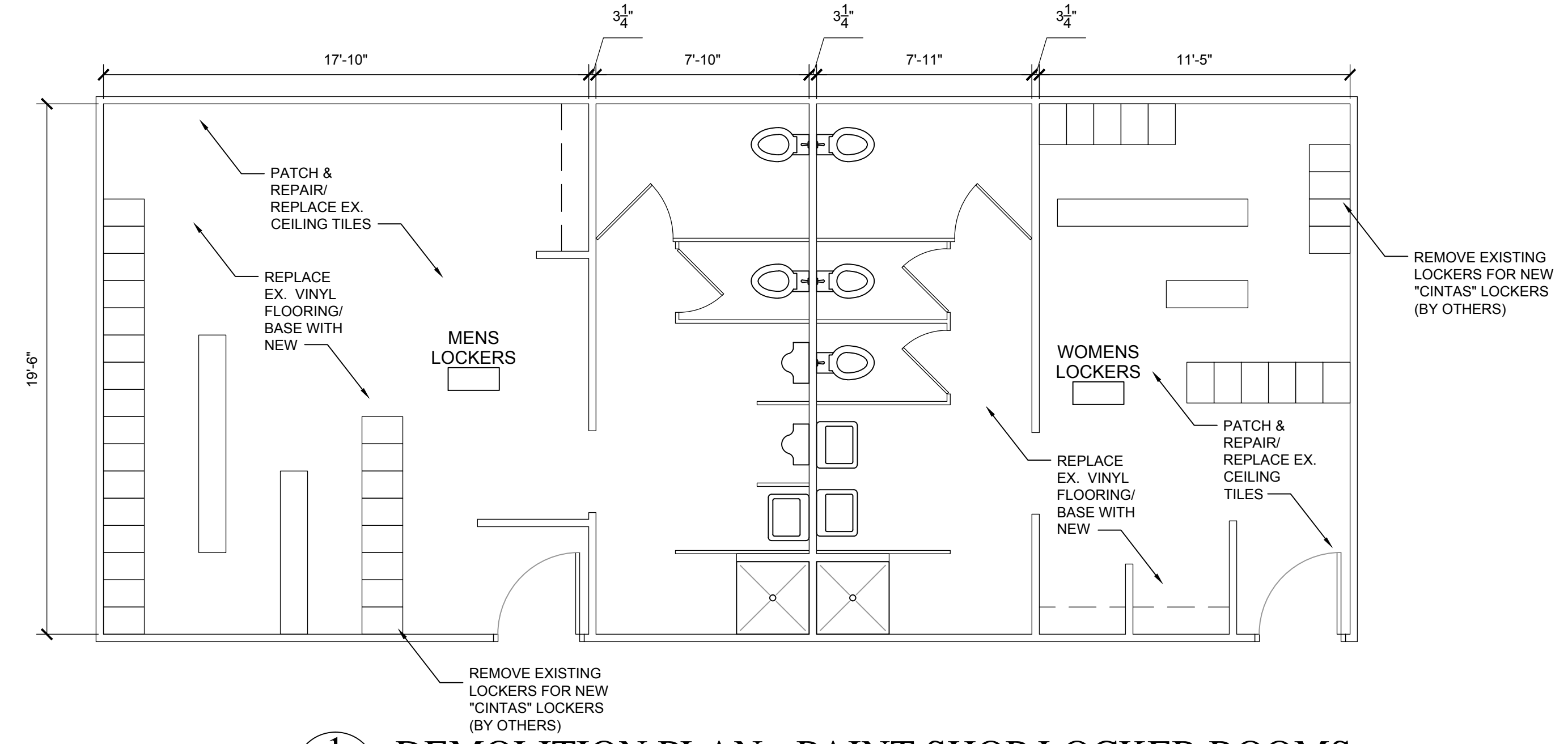
SHEET:
D-2



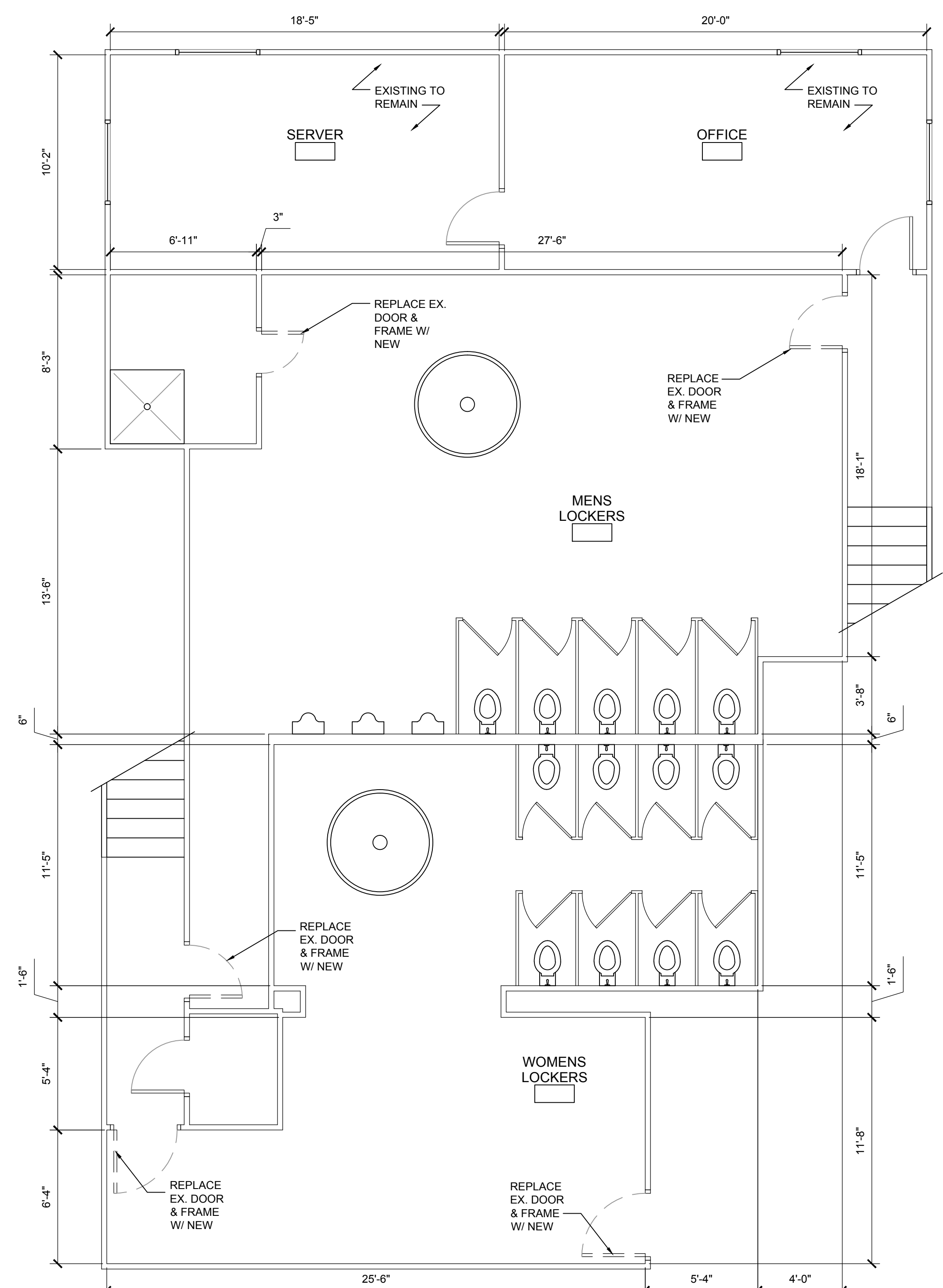
DEMOLITION PLAN - MAIN LEVEL (BREAK ROOM)
 Scale: 1/4" = 1'-0"



3
D-4 DEMOLITION PLAN - UPPER LEVEL (WEST)
 Scale: 1/4" = 1'-0"



1
D-4 DEMOLITION PLAN - PAINT SHOP LOCKER ROOMS
 Scale: 1/4" = 1'-0"



2
D-4 DEMOLITION PLAN - MAIN SHOP TOILET ROOMS
 Scale: 1/4" = 1'-0"

PROJECT:
 QEK - Corporate Office
 1225 E. Maple
 Troy, Mi. 48083

SHEET TITLE:
 DEMOLITION PLAN -
 UL - OFFICES &
 TOILET ROOMS

DATE:
 11 / 13 / 2014: Building Permit
 12 / 5 / 2014: For Bids

JOB:
 14-003

SHEET:
D-4

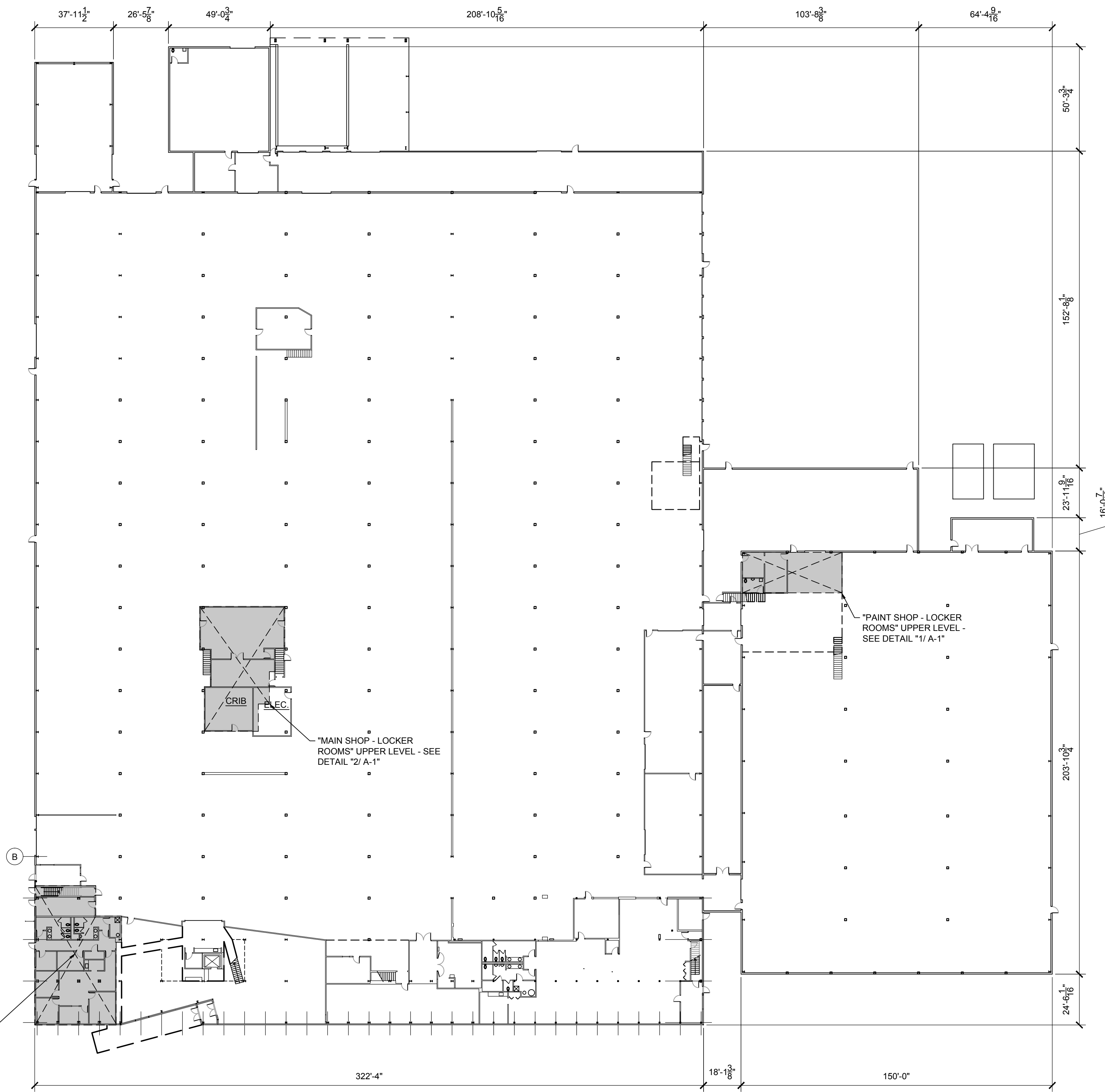
PROJECT:
 QEK - Corporate Office
 1225 E. Maple
 Troy, Mi. 48083

SHEET TITLE:
 FLOOR PLAN -
 EXISTING (OVERALL)

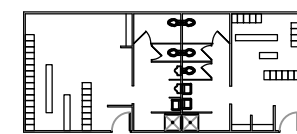
DATE:
 11 / 13 / 2014: Building Permit

JOB:
 14-003

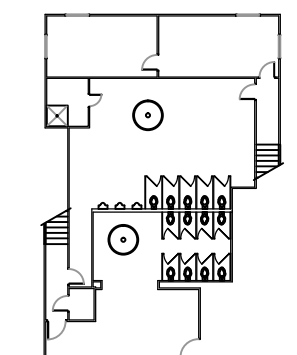
SHEET:
A-1



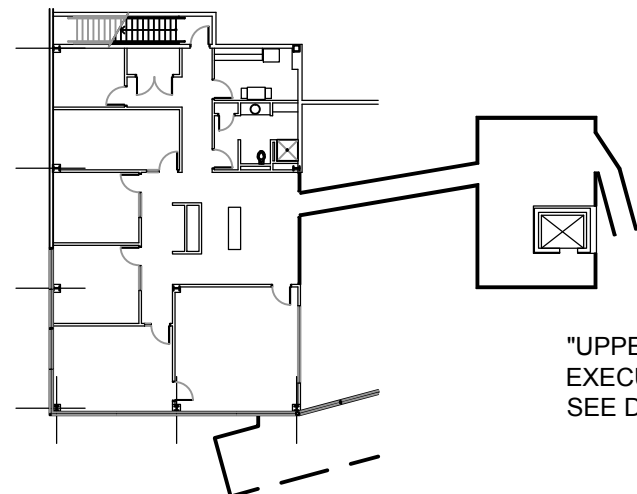
1
 A-1 **PAINT SHOP - LOCKER ROOMS**
 Scale: 1/32" = 1'-0"



2
 A-1 **MAIN SHOP - LOCKER ROOMS**
 Scale: 1/32" = 1'-0"



3
 A-1 **UPPER LEVEL - EXECUTIVE OFFICES**
 Scale: 1/32" = 1'-0"



FLOOR PLAN - EXISTING (OVERALL)
 Scale: 1/32" = 1'-0"

AREA OF EXISTING ENVELOPE
 (NOT INCLUDING COURTYARD,
 LOADING DOCK WELLS,
 MEZZANINES, OR UPPER LEVEL
 OFFICES):
 175,970 SQ. FT. (TOTAL)

AREA BREAKDOWN (MAIN LEVEL):
 OFFICES (FRONT) 15,635 SQ. FT.
 SHOP 123,790 SQ. FT.
 PAINT SHOP 36,545 SQ. FT.
 TOTAL 175,970 SQ. FT.

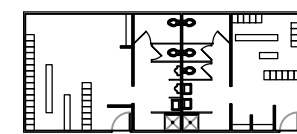
AREA BREAKDOWN (UPPER LEVEL & MEZZANINES):
 OFFICES (FRONT U.L. & CATWALK) 3,415 SQ. FT.
 OPEN OFFICE (FRONT MEZZANINE) 9,925 SQ. FT.
 SHOP (MEZZANINE) 1,855 SQ. FT.
 PAINT SHOP (MEZZANINE) 2,305 SQ. FT.

PROJECT:
 QEK - Corporate Office
 1225 E. Maple
 Troy, Mi. 48083

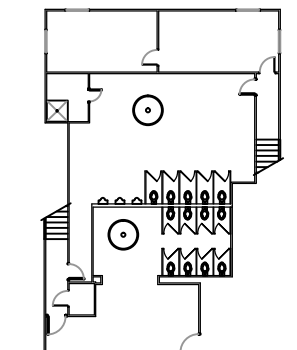
SHEET TITLE:
 FLOOR PLAN -
 PROPOSED (OVERALL)

DATE:
 11 / 13 / 2014: Building Permit
 12 / 5 / 2014: For Bids

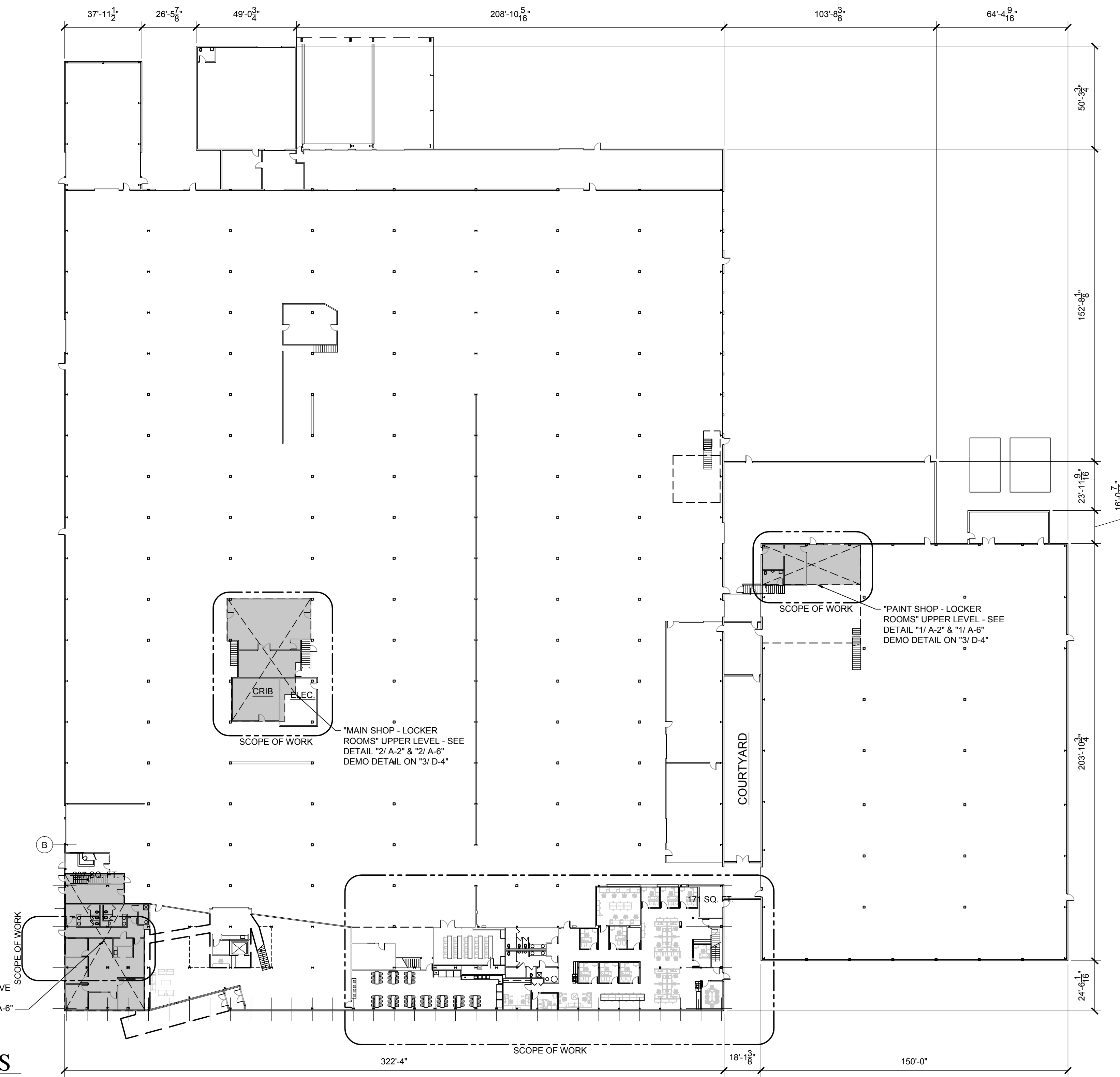
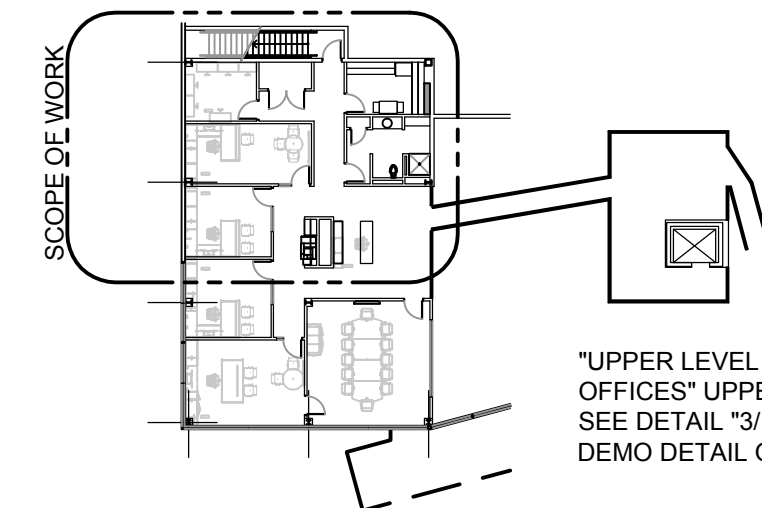
1
 A-2 PAINT SHOP - LOCKER ROOMS
 Scale: 1/32" = 1'-0"



2
 A-2 MAIN SHOP - LOCKER ROOMS
 Scale: 1/32" = 1'-0"



3
 A-2 UPPER LEVEL - EXECUTIVE OFFICES
 Scale: 1/32" = 1'-0"



 **FLOOR PLAN - PROPOSED (OVERALL)**
 Scale: 1/32" = 1'-0"

JOB:
 14-003

SHEET:
 A-2

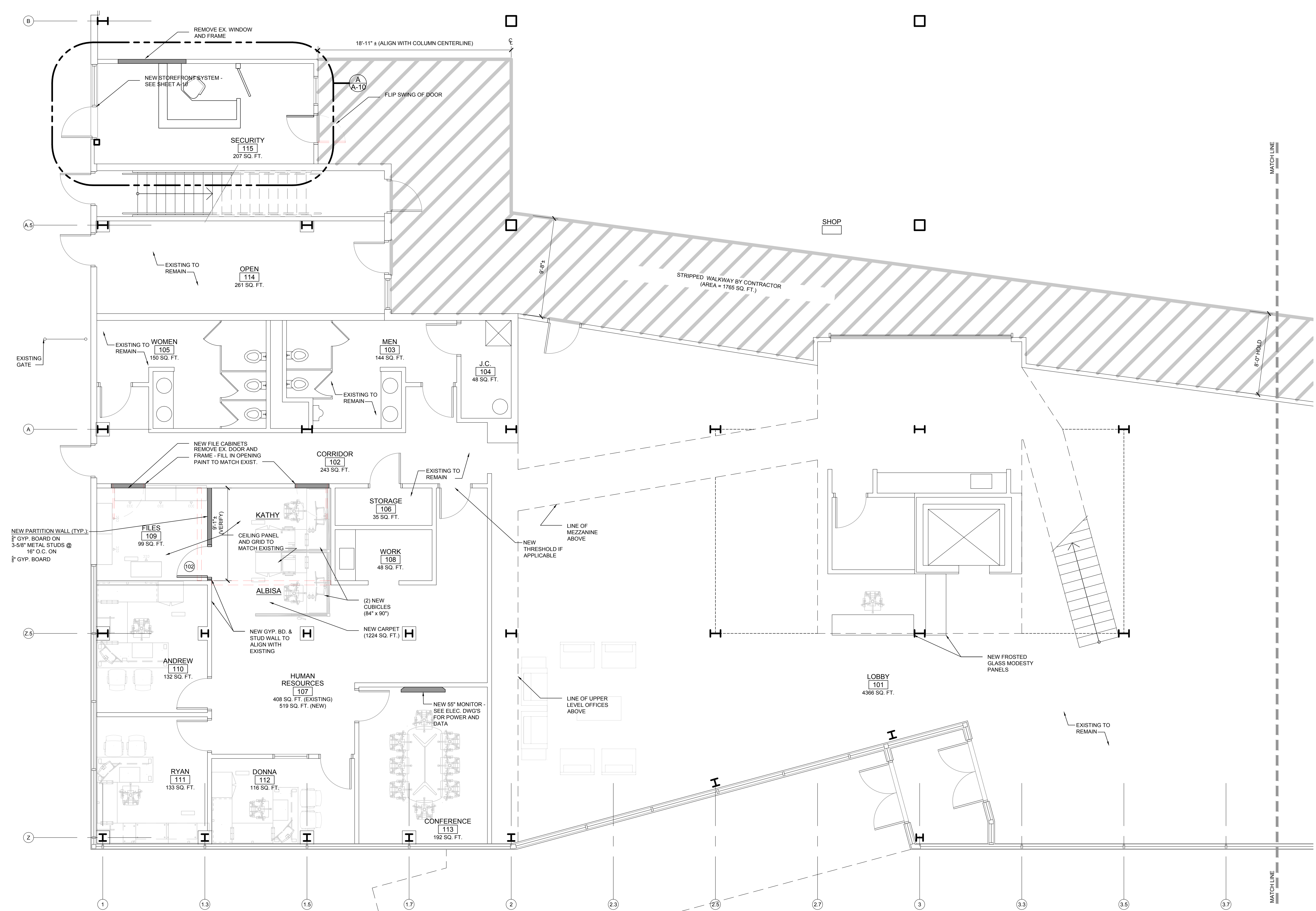
PROJECT:
QEK - Corporate Office
 1225 E. Maple
 Troy, Mi. 48083

SHEET TITLE:
FLOOR PLAN - MAIN LEVEL (WEST)

DATE:
 11 / 13 / 2014: Building Permit
 12 / 5 / 2014: For Bids

JOB:
14-003

SHEET:
A-3



FLOOR PLAN - MAIN LEVEL (WEST)
 Scale: 1/4" = 1'-0"

NOTE:
 ALL ELECTRICAL/ MECHANICAL SHOWN IS
 FOR REFERENCE ONLY - SEE ELECTRICAL &
 MECHANICAL SHEETS WITHIN THIS SET

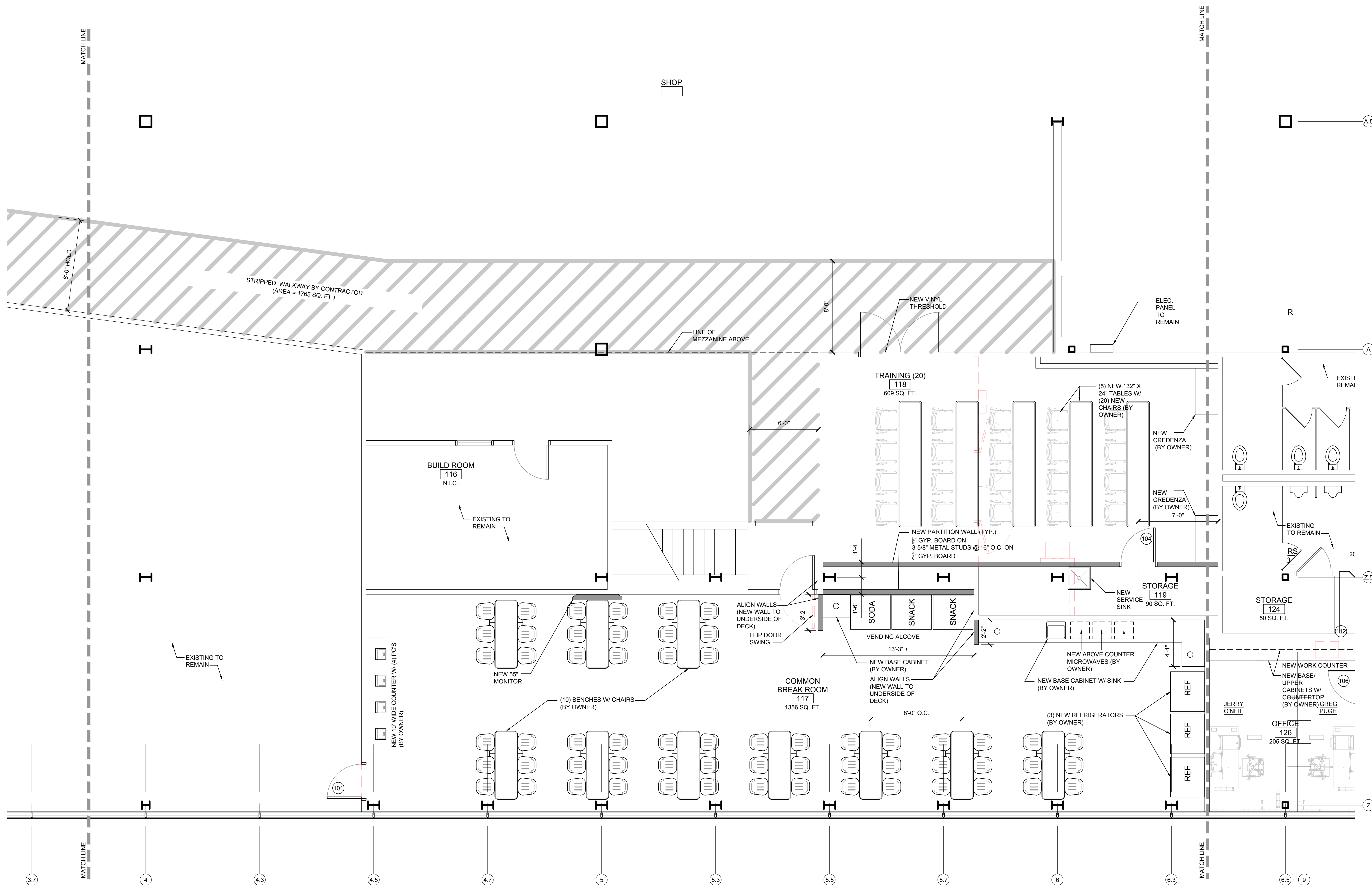
PROJECT:
QEK - Corporate Office
 1225 E. Maple
 Troy, Mi. 48083

SHEET TITLE:
FLOOR PLAN - MAIN LEVEL (BREAKROOM)

DATE:
 11 / 13 / 2014: Building Permit
 12 / 5 / 2014: For Bids

JOB:
14-003

SHEET:
A-4



FLOOR PLAN - MAIN LEVEL (BREAK ROOM)
 Scale: 1/4" = 1'-0"

NOTE:
 ALL ELECTRICAL/ MECHANICAL SHOWN IS
 FOR REFERENCE ONLY - SEE ELECTRICAL &
 MECHANICAL SHEETS WITHIN THIS SET

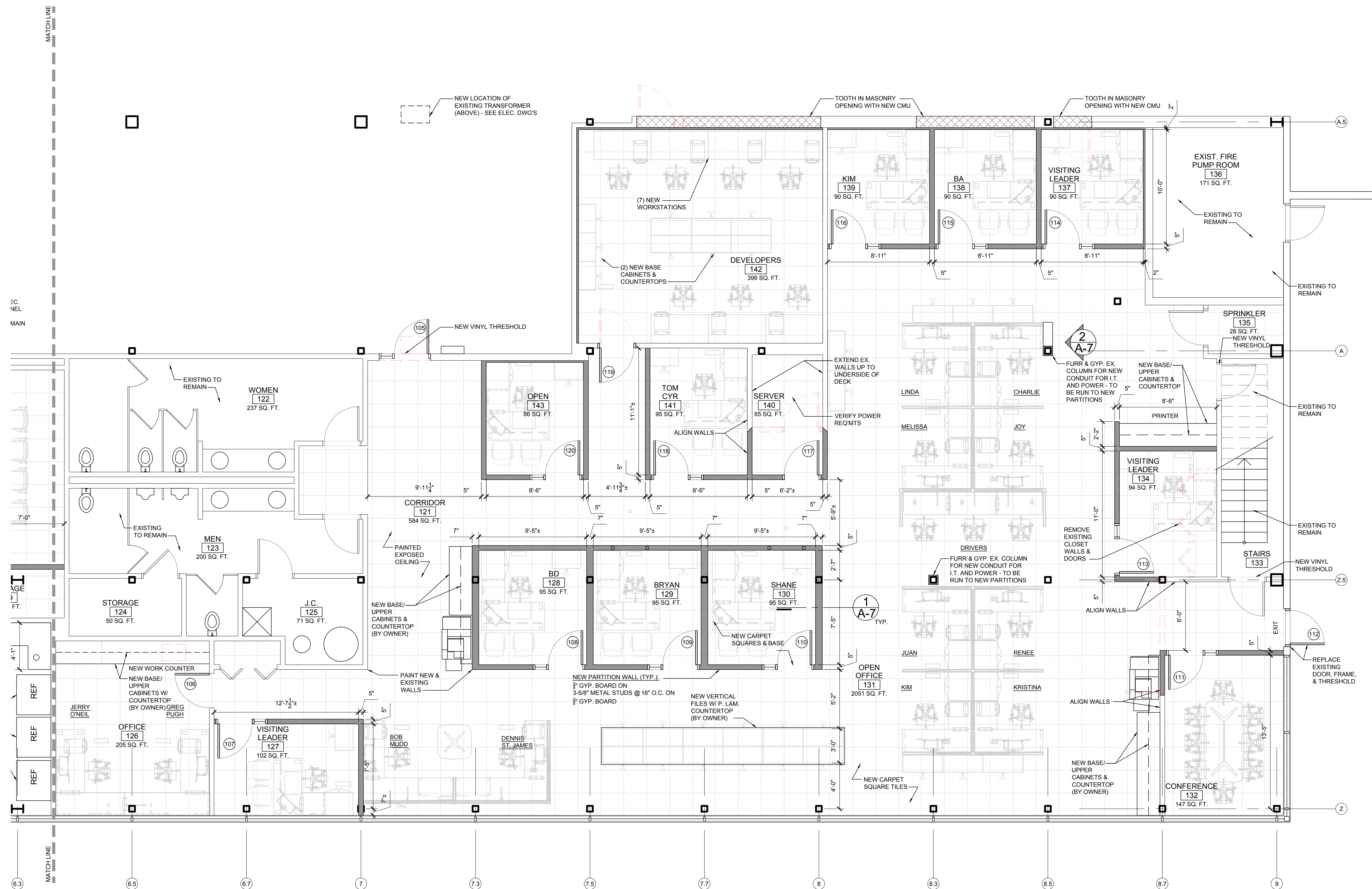
PROJECT:
QEK - Corporate Office
 1225 E. Maple
 Troy, Mi. 48083

SHEET TITLE:
FLOOR PLAN - MAIN LEVEL (EAST)

DATE:
 11 / 13 / 2014: Building Permit
 12 / 5 / 2014: For Bids

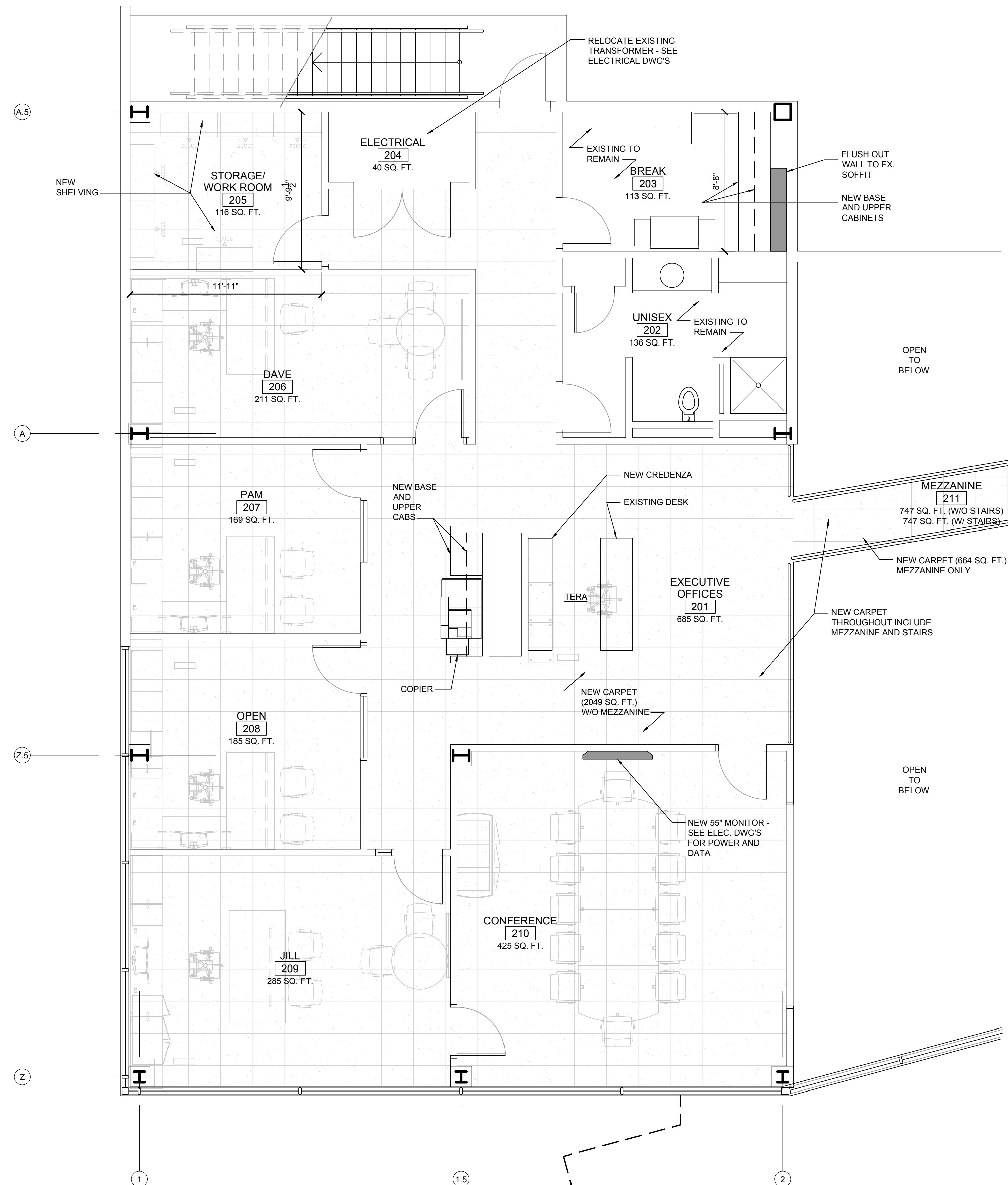
JOB:
14-003

SHEET:
A-5

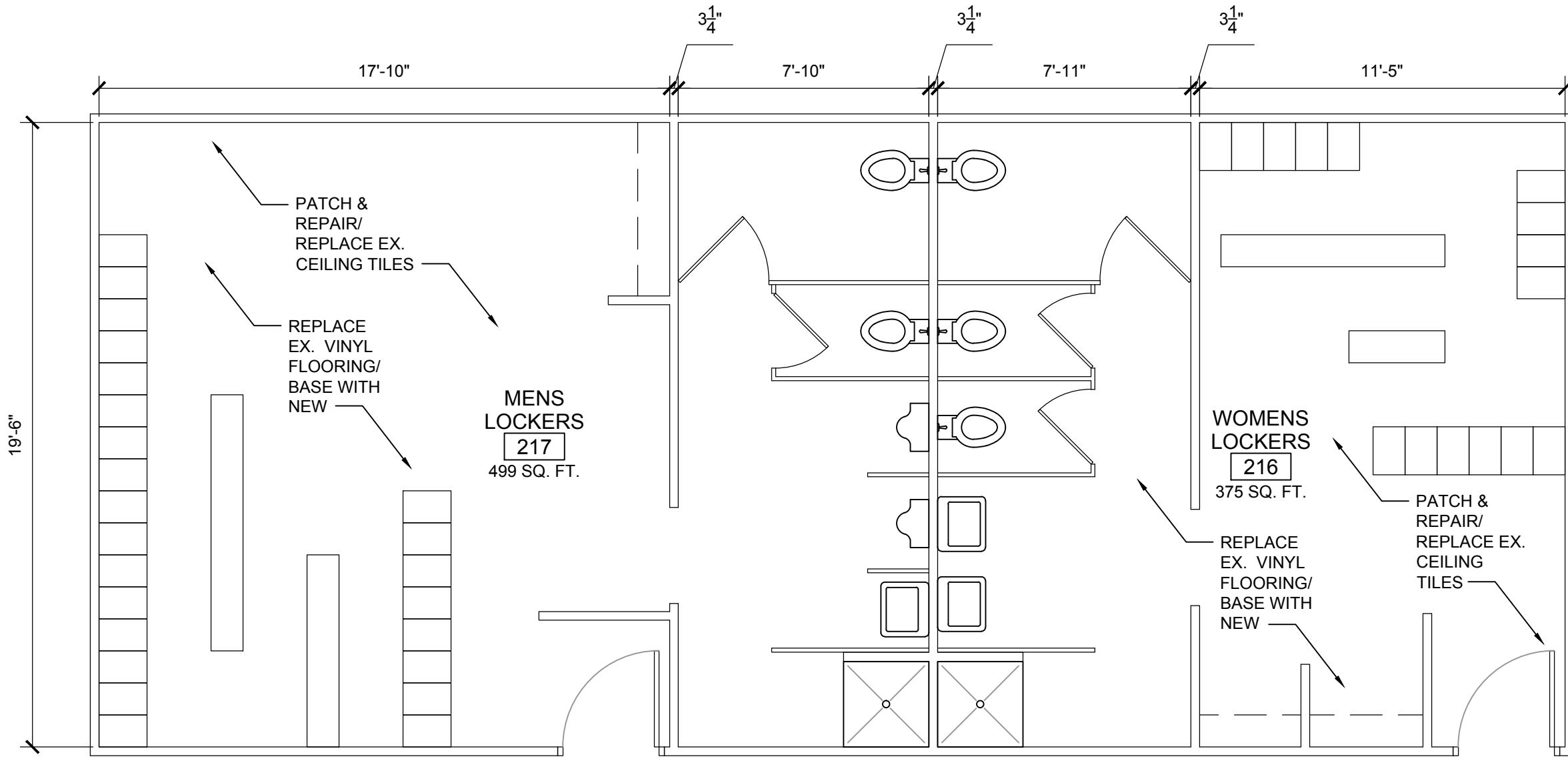


FLOOR PLAN - MAIN LEVEL (EAST)
 Scale: 1/4" = 1'-0"

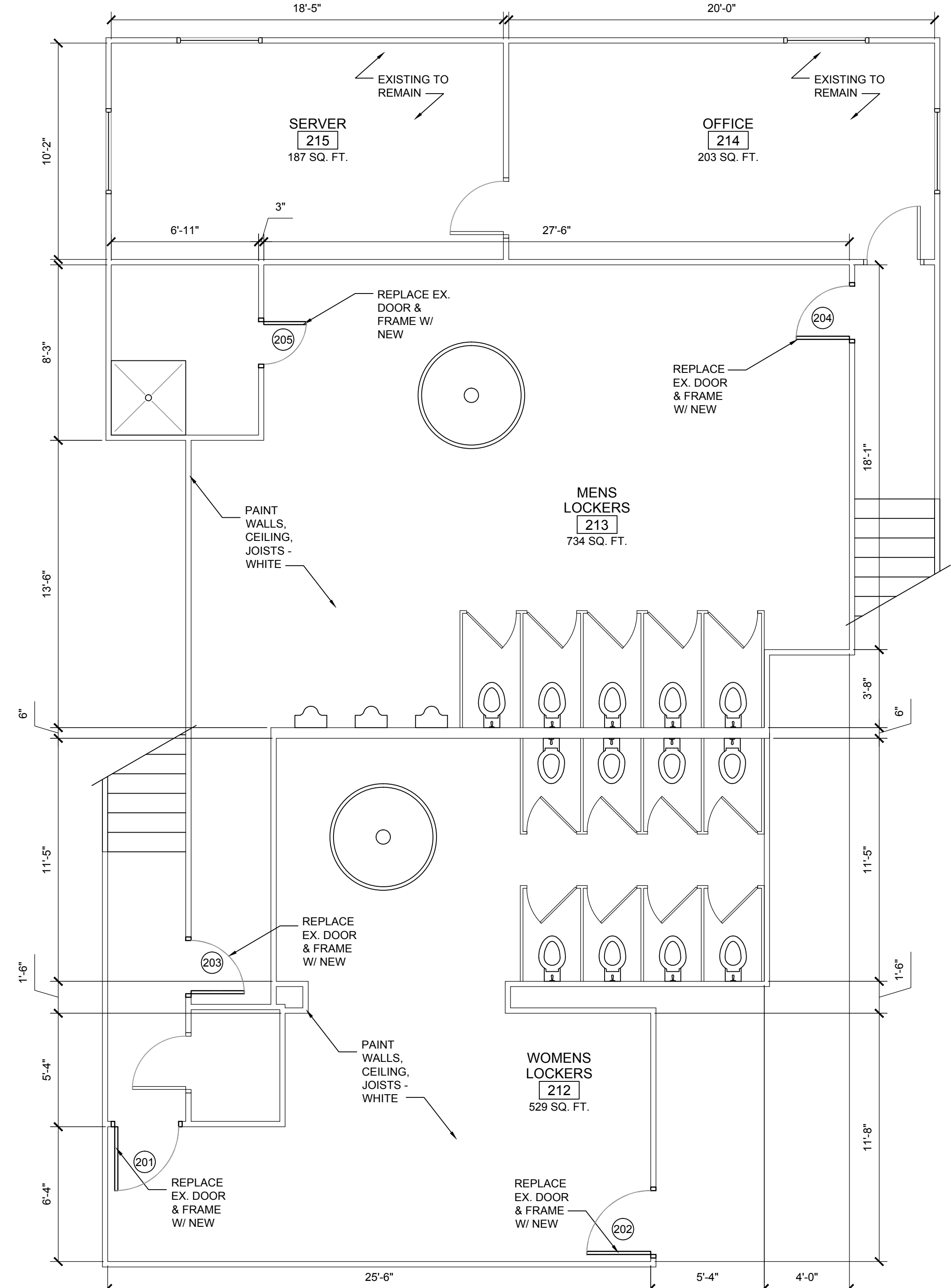
NOTE:
 ALL ELECTRICAL/ MECHANICAL SHOWN IS
 FOR REFERENCE ONLY - SEE ELECTRICAL &
 MECHANICAL SHEETS WITHIN THIS SET



3
A-6 FLOOR PLAN - UPPER LEVEL (WEST)
 Scale: 1/4" = 1'-0"



1
A-6 FLOOR PLAN - PAINT SHOP LOCKER ROOMS
 Scale: 1/4" = 1'-0"



2
A-6 FLOOR PLAN - MAIN SHOP TOILET ROOMS
 Scale: 1/4" = 1'-0"

PROJECT:
 QEK - Corporate Office
 1225 E. Maple
 Troy, Mi. 48083

SHEET TITLE:
 UPPER LEVEL -
 OFFICES & TOILET
 ROOMS

DATE:
 11 / 13 / 2014: Building Permit
 12 / 5 / 2014: For Bids

JOB:
 14-003

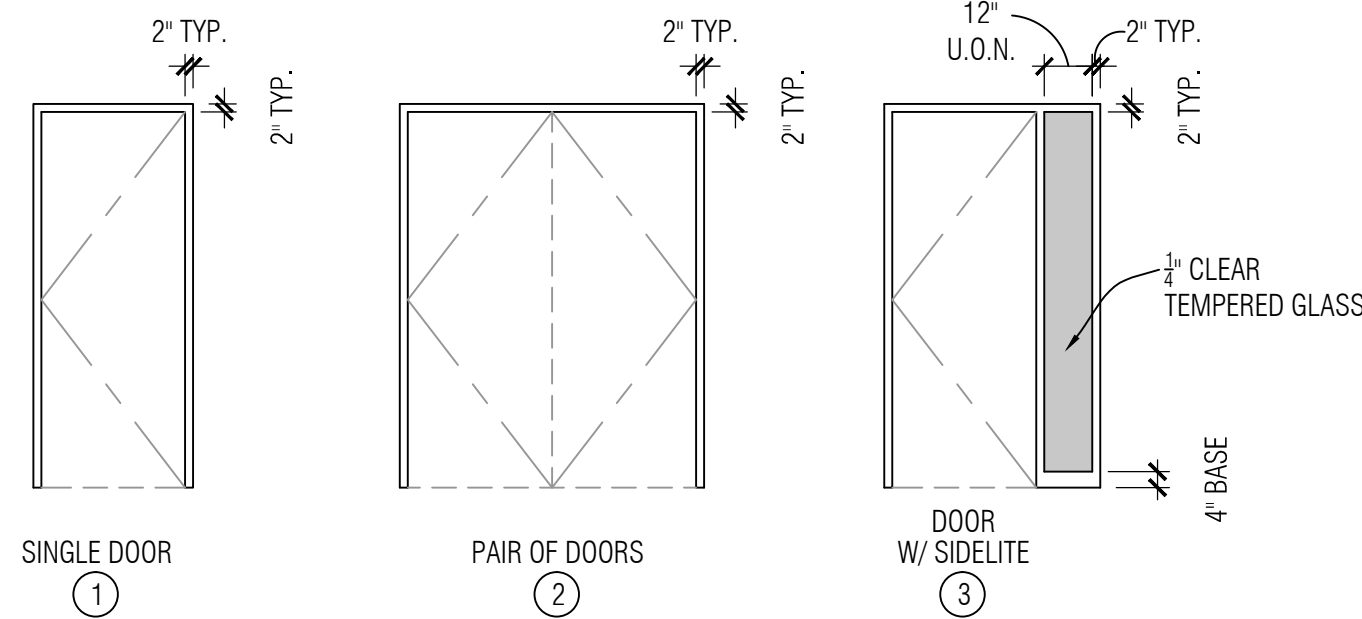
SHEET:
A-6

NOTE:
 ALL ELECTRICAL/ MECHANICAL SHOWN IS
 FOR REFERENCE ONLY - SEE ELECTRICAL &
 MECHANICAL SHEETS WITHIN THIS SET

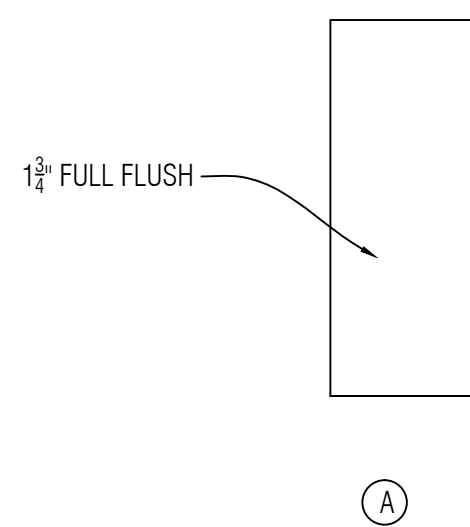
DOOR, FRAME, AND HARDWARE SCHEDULE													
LOCATION	DOOR #	DOOR TYPE	DOOR MAT.	DOOR SIZE	FRAME STYLE	FRAME MAT.	LATCH/ LOCKSET	HAND	CLOSER	STOP	KICK PLATE	NOTES	
LOBBY 101	101	A	SCWD	3070	1	HM	PANIC BAR	RHR	PUSH SIDE	110°		DOOR ALARM	
FILES 109	102	A	SCWD	3070	1	HM	STOREROOM	LH		WALL			
	103											NOT USED	
TRAINING 118	104	PR. A	SCWD	3070	2	HM	DUMMY (2)	LHR/ RHR		FLOOR			
CORRIDOR 120	105	A	SCWD	3070	3	HM	PASSAGE	LHR	PUSH SIDE	110°	BOTH SIDES	ELECTRIC STRIKE	
OFFICE 126	106	A	SCWD	3070	1	HM	CLASSROOM	RH		FLOOR			
VISITING LEADER 127	107	A	SCWD	3070	3	HM	CLASSROOM	RH		WALL			
BD 128	108	A	SCWD	3070	3	HM	CLASSROOM	RH		WALL			
BRYAN 129	109	A	SCWD	3070	3	HM	CLASSROOM	RH		WALL			
SHANE 130	110	A	SCWD	3070	3	HM	CLASSROOM	RH		WALL			
CONFERENCE 132	111	A	SCWD	3070	3	HM	CLASSROOM	RH		WALL			
OPEN OFFICE 131	112						M A T C H E X I S T I N G						
VISITING LEADER 134	113	A	SCWD	3070	3	HM	CLASSROOM	RH		WALL			
VISITING LEADER 137	114	A	SCWD	3070	3	HM	CLASSROOM	LH		WALL			
BA 138	115	A	SCWD	3070	3	HM	CLASSROOM	LH		WALL			
KIM 139	116	A	SCWD	3070	1	HM	CLASSROOM	LH		WALL			
SERVER 140	117	A	SCWD	3070	1	HM	STOREROOM	RH	PULL SIDE	WALL	BOTH SIDES	ELECTRIC STRIKE	
TOM CYR 141	118	A	SCWD	3070	3	HM	CLASSROOM	LH		WALL			
DEVELOPERS 142	119	A	SCWD	3070	1	HM	CLASSROOM	LHR	PUSH SIDE	110°			
OPEN 143	120	A	SCWD	3070	3	HM	CLASSROOM	RH		WALL			
WOMENS LOCKERS 211	201	A	HM	3070	1	HM	PUSH/ PULL	RH	PULL SIDE	110°	BOTH SIDES		
WOMENS LOCKERS 211	202	A	HM	3070	1	HM	PUSH/ PULL	LH	PULL SIDE	110°	BOTH SIDES		
WOMENS LOCKERS 211	203	A	HM	3070	1	HM	PUSH/ PULL	RH	PULL SIDE	110°	BOTH SIDES		
MENS LOCKERS 212	204	A	HM	3070	1	HM	PUSH/ PULL	LH	PULL SIDE	110°	BOTH SIDES		
MENS LOCKERS 212	205	A	HM	3070	1	HM	PUSH/ PULL	RHR	PUSH SIDE	110°	BOTH SIDES		

NOTE #1: ALL SCWD DOORS & HM FRAMES ARE 60 MIN. UL LABEL
 NOTE #2: PROVIDE TEMPORARY DOOR & HOLLOW METAL FRAME. TO BE REPLACED WITH ALL GLASS DOOR & PSS FRAME AT THE TIME OF SPACE 'BUILD-OUT'
 NOTE #3: ALL HARDWARE TO BE POLISHED CHROME OR POLISHED STAINLESS STEEL
 NOTE #4: CLOSER TO BE LCN SERIES 400 SMOOTHIE - FINISH TO BE POLISHED CHROME
 NOTE #5: KICK PLATES TO BE POLISHED STAINLESS STEEL. SCREWLESS INSTALLATION @ PULL SIDE WIDTH OF PLATE TO BE NOMINAL DOOR WIDTH LESS 1/2". ON PUSH SIDE, WIDTH OF PLATE TO BE NOMINAL DOOR SIZE, LESS 1 1/2". HEIGHT TO BE 12". MOUNT WITH ADHESIVE @ 1/4" ABOVE BOTTOM OF DOOR
 NOTE #6: ALL LOCK/ LATCH SETS TO BE LEVER HANDLE. STYLE AS SELECTED BY OWNER

FRAME ELEVATIONS



DOOR TYPES



NOTES TO THE DOOR SCHEDULE:

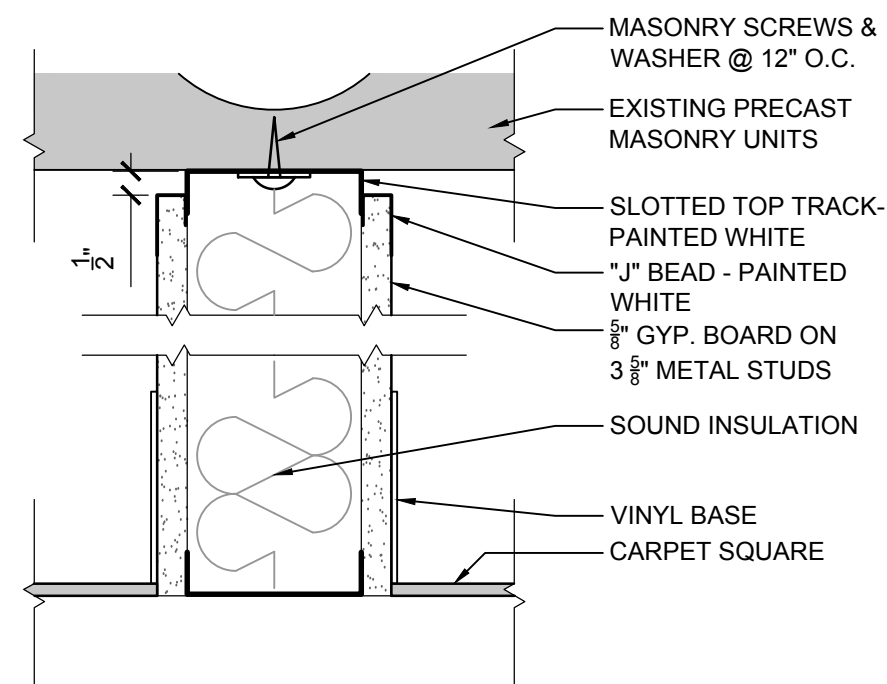
ABBREVIATIONS:
 WOOD = WOOD FRAME BY MILLWORK CONTRACTOR
 HM = HOLLOW METAL DOOR OR WELDED HOLLOW METAL FRAME
 ALUM = ALUMINUM ENTRANCE SYSTEM FRAME
 GALV = GALVANIZED HOLLOW METAL
 GLASS = ALL GLASS ENTRANCE SYSTEM
 PR = PAIR OF DOORS
 AL/GL = ALUMINUM ENTRANCE SYSTEM DOOR
 HM/GL = HOLLOW METAL DOOR W/ TEMPERED GLASS LITE
 SCWD = SOLID CORE WOOD DOOR
 P.S.S. = POLISHED STAINLESS STEEL OR CHROME FINISH

SIZE DESIGNATION:
 30710 = TYPICAL DOOR 3'-0" WIDE x 7'-10" HIGH
 ALL WOOD, & HOLLOW METAL DOORS ARE 1 3/4" THICK.

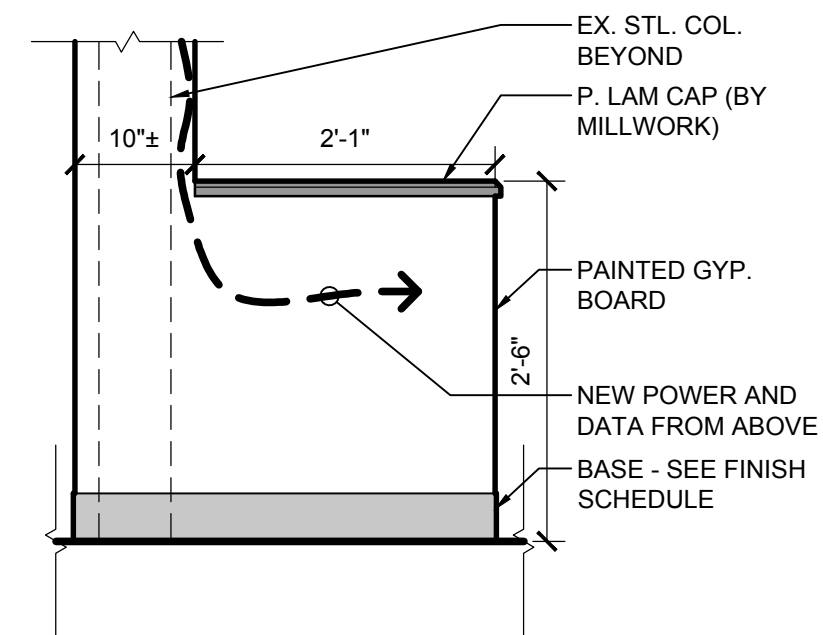
FINISH:
 ALL WOOD DOORS ARE PAINT FINISH U.O.N.
 ALL HOLLOW METAL DOORS & FRAMES ARE PAINTED

ROOM FINISH SCHEDULE												
ROOM NO.	NAME	AREA (SQ. FT.)	CEILING FINISH	CEILING HEIGHT	WALL COVER	COLOR	FLOORING	BASE	NOTES			
101	LOBBY	4366							EXISTING TO REMAIN			
102	CORRIDOR	243			PAINT	WHITE						
103	MEN	144							EXISTING TO REMAIN			
104	J.C.	48							EXISTING TO REMAIN			
105	WOMEN	150							EXISTING TO REMAIN			
106	STORAGE	35			PAINT	WHITE						
107	HUMAN RESOURCES	519	2x2	MATCH EXISTING	PAINT	WHITE	CARPET	VINYL				
108	WORK	48			PAINT	WHITE	CARPET	VINYL				
109	FILES	99	2x2	8'-0" AFF	PAINT	WHITE	CARPET	VINYL				
110	ANDREW	132			PAINT	WHITE	CARPET	VINYL				
111	RYAN	133			PAINT	WHITE	CARPET	VINYL				
112	DONNA	116			PAINT	WHITE	CARPET	VINYL				
113	CONFERENCE	192			PAINT	WHITE	CARPET	VINYL				
114	OPEN	261							EXISTING TO REMAIN			
115	SECURITY	207	2x2	MATCH EXISTING	PAINT	WHITE	TILE #1	TILE #1	TILE #1 (PENSKE OWNED) PHASE 4" N.I.C.			
116	BUILD ROOM											
117	COM. BREAK ROOM	1356	PAINT		PAINT	WHITE	EPOXY	VINYL				
118	TRAINING	609	PAINT		PAINT	WHITE	CARPET	VINYL				
119	STORAGE	90	PAINT		PAINT	WHITE	CARPET	VINYL				
120	N/A											
121	CORRIDOR	590	PAINT		PAINT	WHITE	CARPET	VINYL				
122	WOMEN	237			PAINT	WHITE						
123	MEN	200			PAINT	WHITE						
124	STORAGE	50	PAINT		PAINT	WHITE						
125	J.C.	71	PAINT		PAINT	WHITE						
126	OFFICE	205	2x2	8'-0" AFF	PAINT	WHITE	CARPET	VINYL				
127	VISITING LEADER	102	2x2	8'-0" AFF	PAINT	WHITE	CARPET	VINYL				
128	BD	97	2x2	8'-0" AFF	PAINT	WHITE	CARPET	VINYL				
129	BRYAN	97	2x2	8'-0" AFF	PAINT	WHITE	CARPET	VINYL				
130	SHANE	97	2x2	8'-0" AFF	PAINT	WHITE	CARPET	VINYL				
131	OPEN OFFICE	2045	PAINT		PAINT	WHITE	CARPET	VINYL				
132	CONFERENCE	147	2x2	8'-0" AFF	PAINT	WHITE	CARPET	VINYL				
133	STAIRS								EXISTING TO REMAIN			
134	VISITING LEADER	94	2x2	8'-0" AFF	PAINT	WHITE	CARPET	VINYL				
135	SPRINKLER	28			PAINT	WHITE	CARPET	VINYL				
136	PUMP ROOM								EXISTING TO REMAIN			
137	VISITING LEADER	90	2x2	8'-0" AFF	PAINT	WHITE	CARPET	VINYL				
138	BA	90	2x2	8'-0" AFF	PAINT	WHITE	CARPET	VINYL				
139	KIM	90	2x2	8'-0" AFF	PAINT	WHITE	CARPET	VINYL				
140	SERVER	65	PAINT		PAINT	WHITE	CARPET	VINYL				
141	TOM CYR	141	2x2	8'-0" AFF	PAINT	WHITE	CARPET	VINYL				
142	DEVELOPERS	399	2x2	8'-0" AFF	PAINT	WHITE	CARPET	VINYL				
143	OPEN	86	2x2	8'-0" AFF	PAINT	WHITE	CARPET	VINYL				
201	EXECUTIVE OFFICES	685			PAINT	WHITE	CARPET	VINYL				
202	UNISEX	136			PAINT	WHITE	CARPET	VINYL				
203	BREAK	113			PAINT	WHITE						
204	ELECTRICAL	40							EXISTING TO REMAIN			
205	WORK ROOM	116			PAINT	WHITE	CARPET	VINYL				
206	DAVE	211			PAINT	WHITE	CARPET	VINYL				
207	PAM	169			PAINT	WHITE	CARPET	VINYL				
208	OPEN	185			PAINT	WHITE	CARPET	VINYL				
209	JILL	285			PAINT	WHITE	CARPET	VINYL				
210	CONFERENCE	425			PAINT	WHITE	CARPET	VINYL				
211	MEZZANINE	747										
212	WOMENS LOCKERS	529	PAINT		PAINT	WHITE	VINYL	VINYL				
213	MENS LOCKERS	213	PAINT		PAINT	WHITE	VINYL	VINYL				
214	OFFICE	203							EXISTING TO REMAIN			
215	SERVER	187							EXISTING TO REMAIN			
216	WOMENS LOCKERS	375					VINYL	VINYL				
217	MENS LOCKERS	499					VINYL	VINYL				

FINISHES:
 THE CARPET TILE: "PATCRAFT"; FLEX, COLOR-TORQUE (BY OWNER).
 EPOXY FLOOR: TO MATCH EXISTING
 CEILING TILE AND GRID: "ARMSTRONG" WHITE GRID, 2X2. TILES-ARMSTRONG, CIRRUS TEGULAR.
 WALL PAINT: TBD
 WALL BASE: "ROPPE" #193 BLACK BROWN STRAIGHT BASE
 WHITE CEILING PAINT: SHERWIN WILLIAMS, #7007 CEILING BRIGHT WHITE (LOCATION T.B.D.)
 BLACK CEILING PAINT: SHERWIN WILLIAMS, #6258 TRICORN BLACK (LOCATION T.B.D.)



1 SECTION - PARTITION HEAD
 Scale: 3" = 1'-0"



2 ELEVATION - PONY WALL
 Scale: 3/4" = 1'-0"

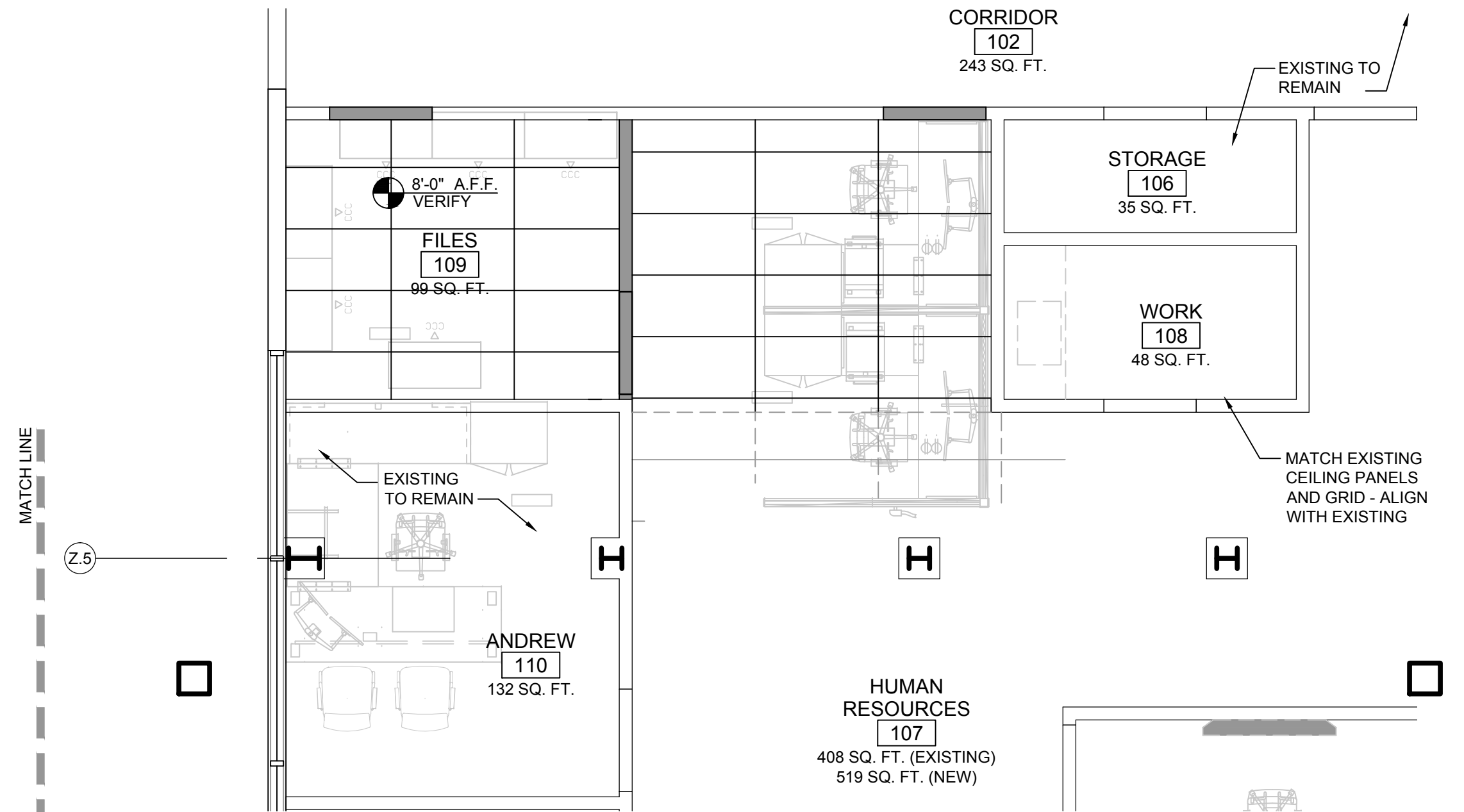
PROJECT:
QEK - Corporate Office
 1225 E. Maple
 Troy, Mi. 48083

SHEET TITLE:
SCHEDULES

DATE:
 11 / 13 / 2014: Building Permit
 12 / 5 / 2014: For Bids

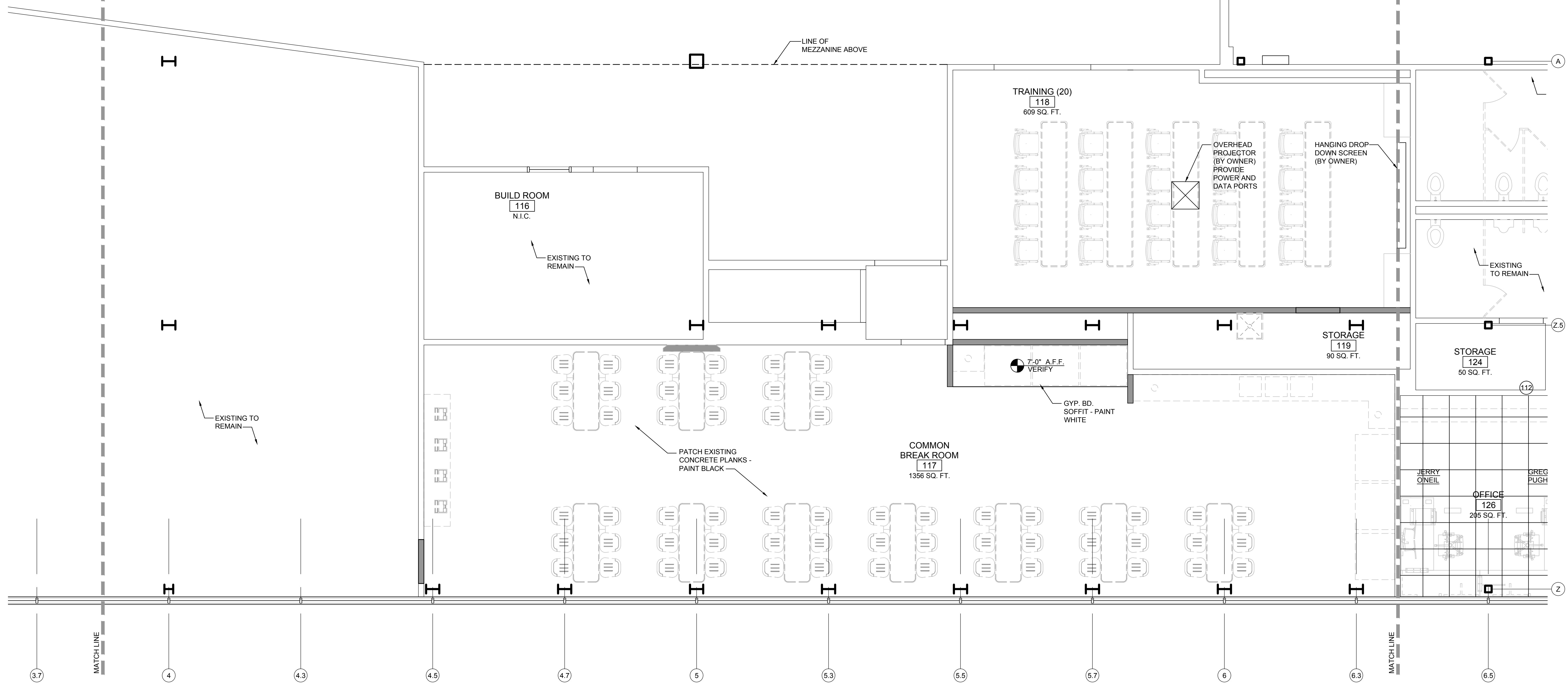
JOB:
 14-003

SHEET:
A-7



REFLECTED CEILING PLAN - MAIN LEVEL (WEST)
 Scale: 1/4" = 1'-0"

PROJECT:
QEK - Corporate Office
 1225 E. Maple
 Troy, Mi. 48083



REFLECTED CEILING PLAN - MAIN LEVEL (BREAK ROOM)
 Scale: 1/4" = 1'-0"

SHEET TITLE:
REFLECTED CEILING PLAN - MAIN LEVEL (WEST & BREAK ROOM)

DATE:
 11 / 13 / 2014: Building Permit
 12 / 5 / 2014: For Bids

JOB:
14-003

NOTE:
 ALL ELECTRICAL/ MECHANICAL SHOWN IS FOR REFERENCE ONLY - SEE ELECTRICAL & MECHANICAL SHEETS WITHIN THIS SET

SHEET:
A-8

PROJECT:
QEK - Corporate Office
 1225 E. Maple
 Troy, Mi. 48083

SHEET TITLE:
REFLECTED CEILING PLAN - MAIN LEVEL (EAST)

DATE:
 11 / 13 / 2014: Building Permit
 12 / 5 / 2014: For Bids

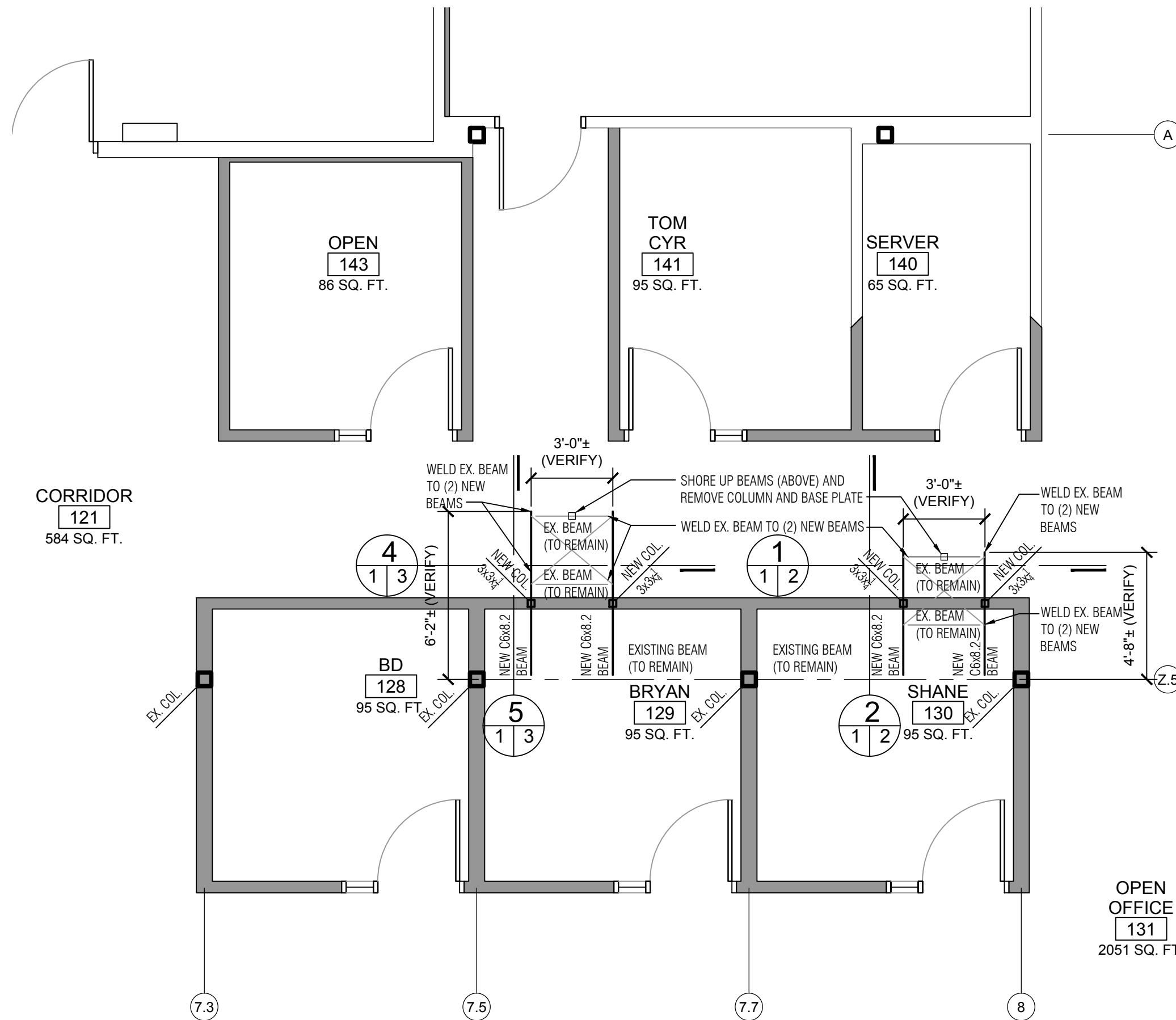
JOB:
14-003

SHEET:
A-9

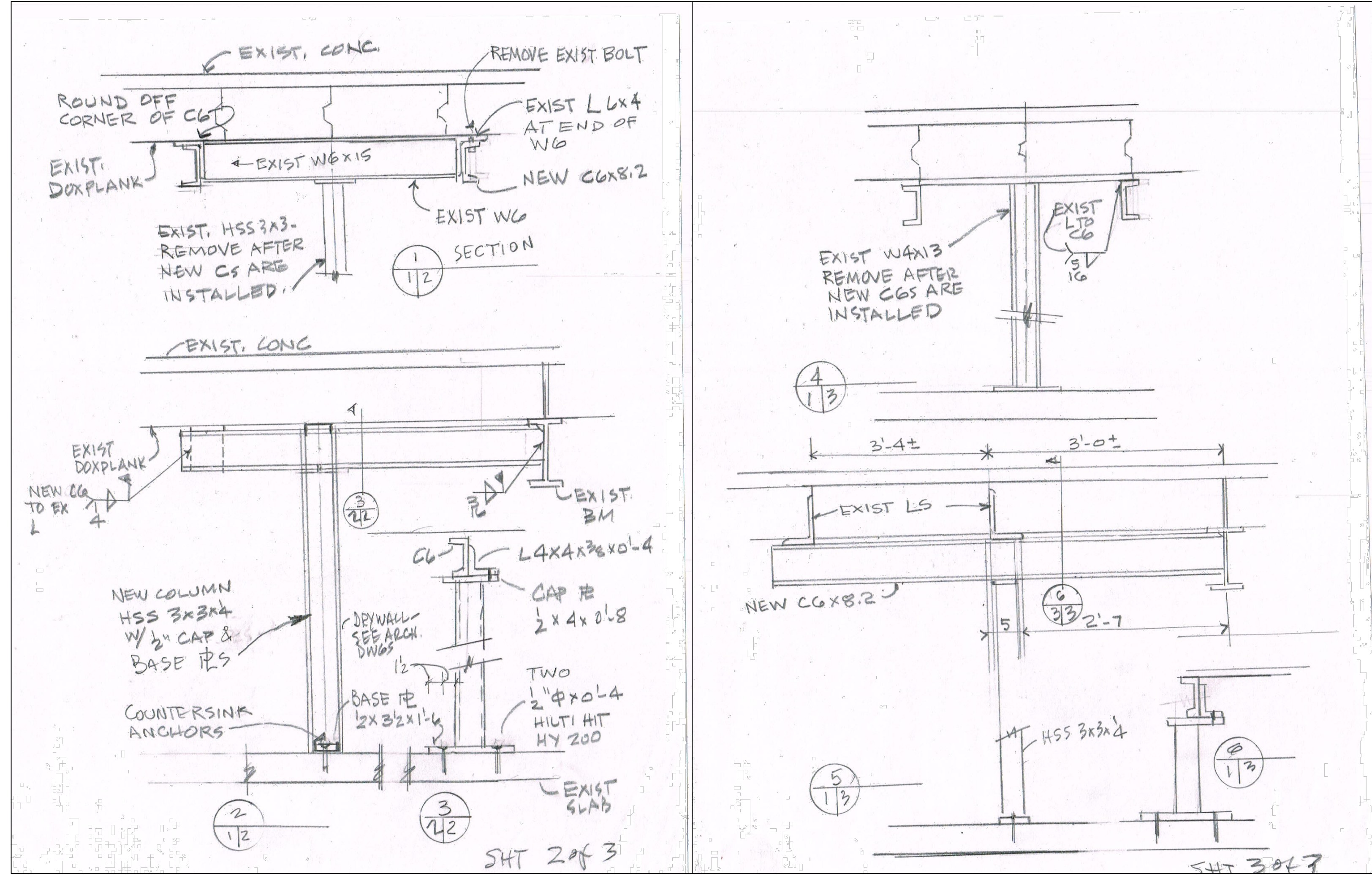


REFLECTED CEILING PLAN - MAIN LEVEL (EAST)
 Scale: 1/4" = 1'-0"

NOTE:
 ALL ELECTRICAL/ MECHANICAL SHOWN IS
 FOR REFERENCE ONLY - SEE ELECTRICAL &
 MECHANICAL SHEETS WITHIN THIS SET

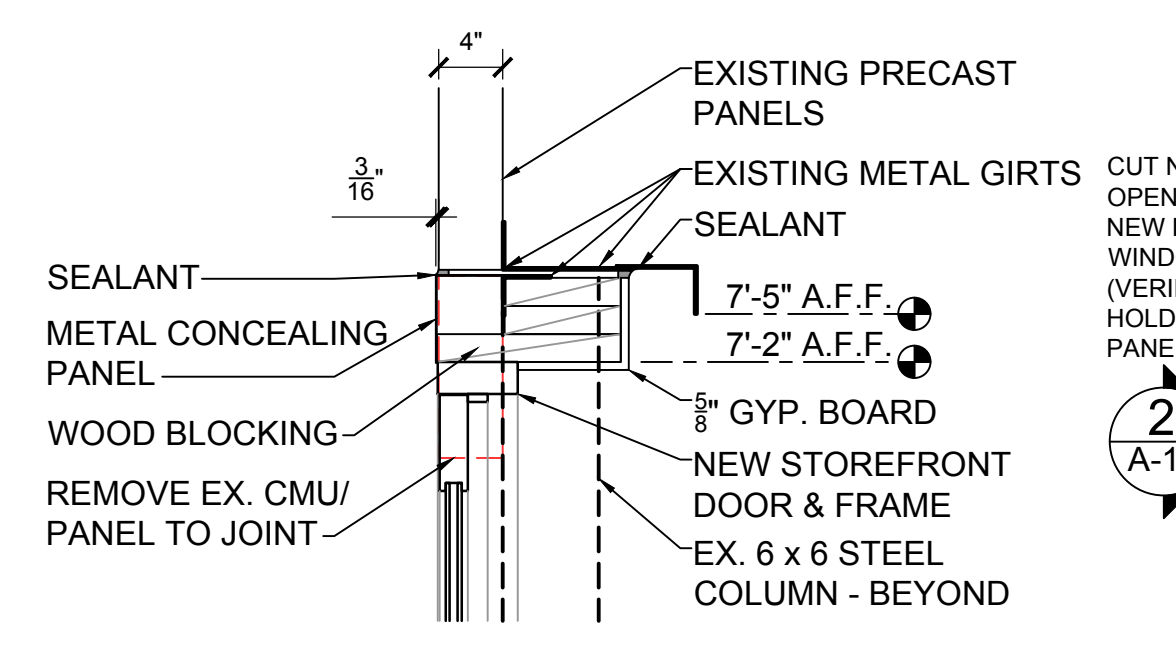


B STRUCTURAL PLAN
 A-10 Scale: 1/4" = 1'-0"

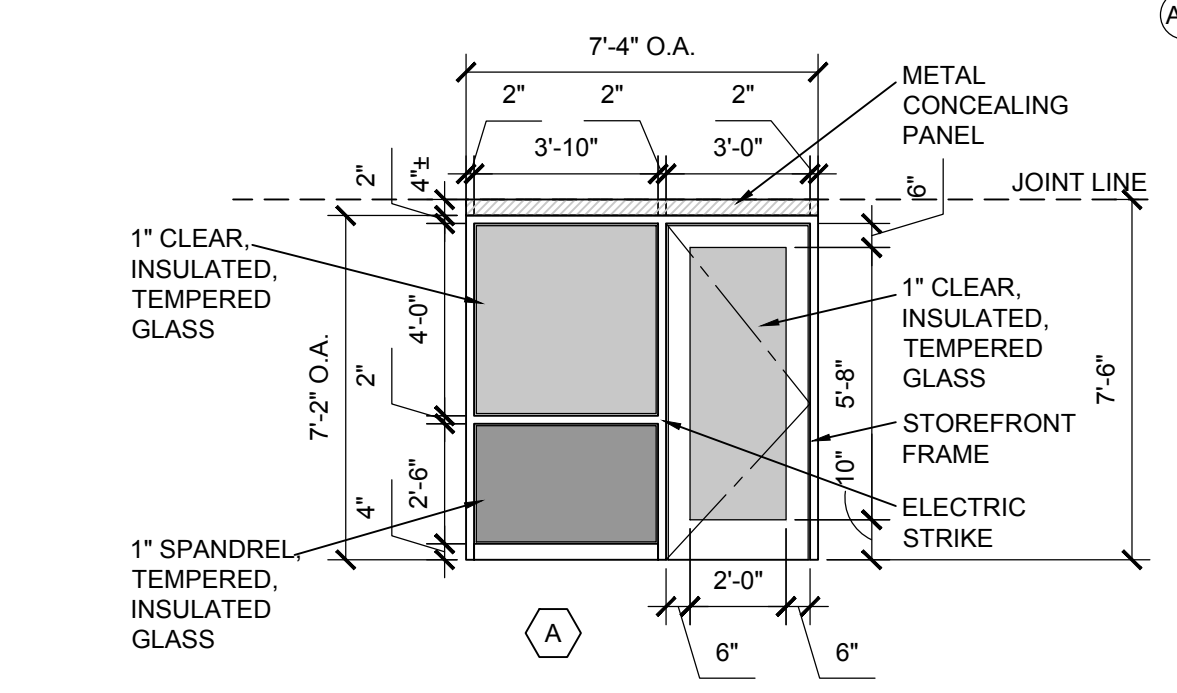


PROJECT:
 QEK - Corporate Office
 1225 E. Maple
 Troy, Mi. 48083

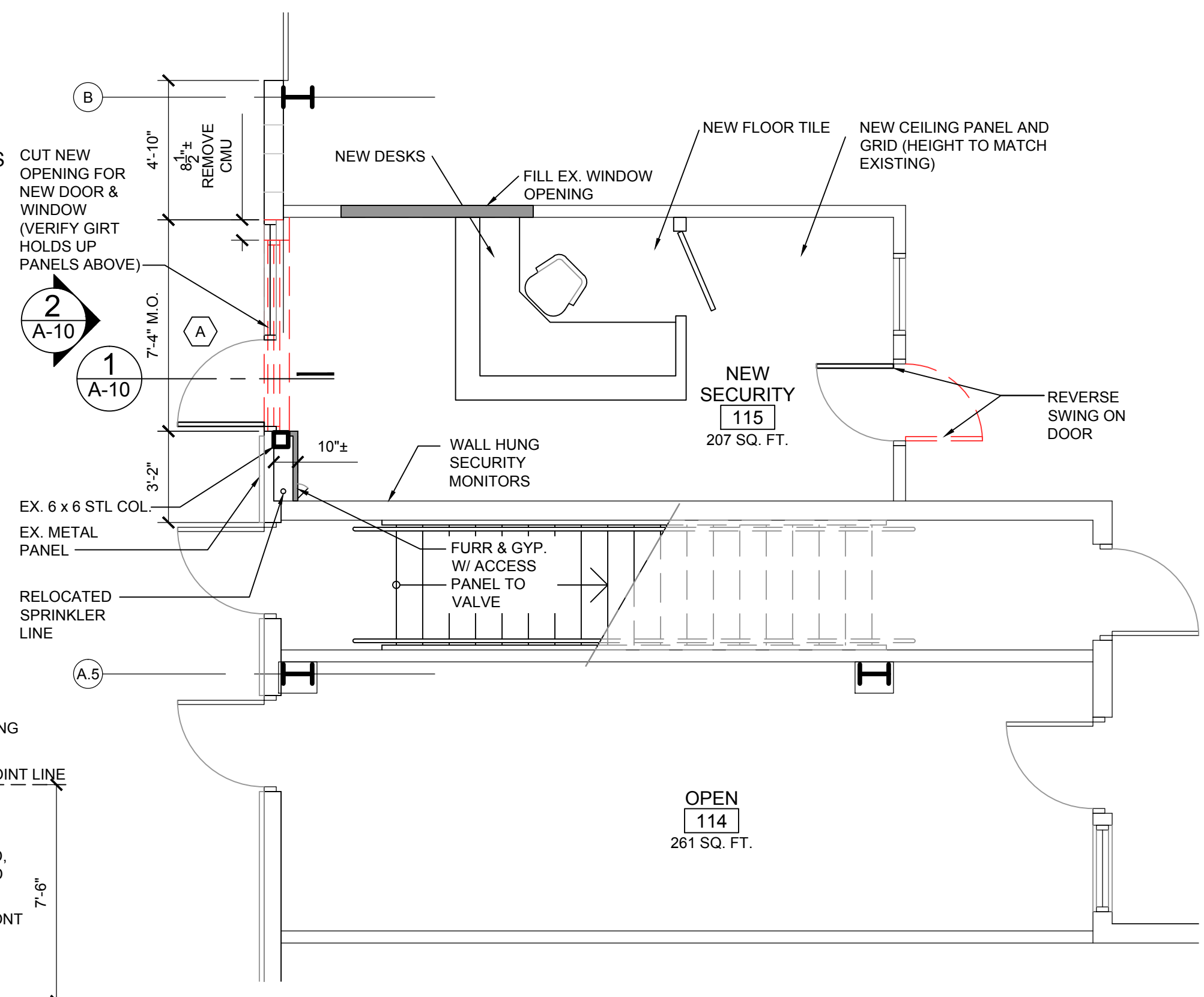
SHEET TITLE:
 STRUCTURAL
 DETAILS & SECURITY
 OFFICE



1 SECTION - NEW DOOR
 A-10 Scale: 1" = 1'-0"



2 ELEVATION - ENTRY DOOR
 A-10 Scale: 1/4" = 1'-0"



A FLOOR PLAN - SECURITY OFFICE
 A-10 Scale: 1/4" = 1'-0"

DATE:
 12 / 5 / 2014: For Bids

JOB:
 14-003

SHEET:
A-10

REVISIONS:

MARK	DATE	ISSUED FOR
△		
△		
△		
△		
△		
△		
△		
△		



ISSUED FOR:

- ◇ AS-BUILT RECORD DWGS
- ◆ CONSTRUCTION DOCUMENTS
- ◇ DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION
- ◇ PRELIMINARY - NOT FOR CONSTRUCTION
- ◇ M/E/P SYSTEMS STUDY - NOT FOR CONSTRUCTION

DRAWN BY: JAR
CHECKED BY: HMN
DATE: 8-DEC-2014
SHEET NUMBER

ELECTRICAL ABBREVIATIONS

A	AMPS	LG	LIGHT CONTROL
AC	ABOVE COUNTER	LT	LIGHT LIGHTING
ACS	ACCESSIBLE CEILING SPACE	LTS	LIGHTING
ACU-	AIR CONDITIONING UNIT	LT-FLEX	LIQUID TIGHT FLEX METAL CONDUIT
AFF	ABOVE FINISHED FLOOR		
AHJ	AUTHORITY HAVING JURISDICTION	MAX	MAXIMUM
AHU-	AIR HANDLING UNIT	MC	MECHANICAL CONTRACTOR
AIG	AMPS INTERRUPTING CAPACITY	MCC	MOTOR CONTROL CENTER
AS	ABOVE SHELF	MIN	MINIMUM
ATS	AUTOMATIC TRANSFER SWITCH	MLO	MAIN LUG ONLY
		MT	MOUNT
		MTD	MOUNTED
B-	BOILER	MTG	MOUNTING
BC	BELOW COUNTER	MJAU-	MAKE-UP AIR UNIT
BLDG	BUILDING		
		NC	NORMALLY CLOSED
CHLR-	CHILLER	NC	NOT IN CONTRACT
OND (C)	CONDENSING UNIT	NL	NIGHT LIGHT
CKT	CIRCUIT	NO	NORMALLY OPEN
CKT BKR	CIRCUIT BREAKER	NTS	NOT TO SCALE
CT-	COOLING TOWER		
CU-	CABINET UNIT HEATER	P	POLE
CUH-		P-	PUMP
		FB	FULL BOX
DPI-	DUCT FURNACE	PNL	PANEL
DISC	DISCONNECT	PRV-	POWER ROOF VENTILATOR
DWS	DRAWING	PVC	POLY VINYL CHLORIDE
DWH-	DOMESTIC WATER HEATER	PWR	POWER
EBB-	ELECTRIC BASEBOARD	RECEPT	RECEPTACLE
EG	ELECTRICAL CONTRACTOR	RGC	RIGID GALVANIZED STEEL CONDUIT
EF-	EXHAUST FAN	RTU-	ROOF TOP UNIT
EMT	ELECTRICAL METALLIC TUBING		
ENG	ELECTRIC WATER COOLER	RF-	REFLECTOR FAN
EXIST (E)	EXISTING	RSC	RIGID GALVANIZED STEEL CONDUIT
		RTU-	ROOF TOP UNIT
		SF-	SUPPLY FAN
FLA	FULL LOAD AMPS	SPEC	SPECIFICATIONS
FLEX	FLEXIBLE CONDUIT	SW	SWITCH
FLOOR	FLOOR	SWBD	SWITCHBOARD
FLUOR	FLUORESCENT		
FU-	FURNACE	TCC	TEMPERATURE CONTROL CONTRACTOR
		TR	TAMPER PROOF RECEPTACLE
GC	GENERAL CONTRACTOR	TS	TAMPER PROOF SWITCH
GFI	GROUND FAULT INTERRUPTER	TYP	TYPICAL
GND	GROUND		
		UF	UNDER FLOOR
H-	HUMIDIFIER	UH-	UNIT HEATER
HID	HIGH INTENSITY DISCHARGE	UL	UNDERWRITERS' LABORATORIES, INC.
HOA	HAND-OFF-AUTO SWITCH	UNO	UNLESS NOTED OTHERWISE
HP	HORSEPOWER		
HR	HOUR	V	VOLTS
		VL	VERIFY LOCATION WITH OWNER
IG	ISOLATED GROUND	W	WATTS
IMC	INTERMEDIATE METAL CONDUIT	W	WITH
		W/O	WITHOUT
		WP	WEATHER PROOF
		XFMR	TRANSFORMER

NOTE:
ALL CONTRACTORS SHALL BE RESPONSIBLE TO VERIFY ALL EXISTING CONDITIONS SHOWN AND NOT SHOWN ON PRINTS. EXISTING CONDITIONS VERIFIED SHALL BE APPLIED TO FINAL BIDS, DEMOLITION & NEW CONSTRUCTION.
CONTRACTORS ARE RESPONSIBLE TO FIELD VERIFY AND COORDINATE WITH EQUIPMENT MANUFACTURER FOR EXTENTS OF DEMOLITION AND TAKE ON THEIR OWN RISK FOR ALL EXISTING CONDITIONS THAT AFFECT CONSTRUCTION FOR THIS PROJECT.

POWER EQUIPMENT

Ⓜ	SINGLE PHASE MOTOR, # INDICATES HP
Ⓜ	THREE PHASE MOTOR, # INDICATES HP
Ⓜ	MOTORIZED DAMPER (BY M/C U.O.N.)
Ⓜ	TRANSIENT VOLTAGE SURGE SUPPRESSION
Ⓜ	VARIABLE FREQUENCY DRIVE
Ⓜ	TRANSFORMER, DRY (KVA shown)
Ⓜ	TRANSFORMER, PAD MOUNTED
Ⓜ	SPECIAL CONNECTION
30A	FUSED DISCONNECT (SAFETY) SWITCH, AMP RATING SHOWN
Ⓜ	'F' - FUSED 'C' - CIRG BKRR
Ⓜ	UNFUSED DISCONNECT (SAFETY) SWITCH
Ⓜ	COMBINATION FUSABLE SWITCH
50A	COMB FUSABLE STARTER/SWITCH - FULL VOLTAGE
50A	COMB FUSABLE STARTER/SWITCH - REDUCED VOLTAGE
Ⓜ	MAGNETIC STARTER (BY E/C U.O.N.)
Ⓜ	COMB. STARTER (BY E/C U.O.N.)
Ⓜ	PANELBOARD, 208/120V SURFACE MNT
Ⓜ	PANELBOARD, 480/277V SURFACE MNT
Ⓜ	PANELBOARD, 208/120V FLUSH MNT
Ⓜ	PANELBOARD, 480/277V FLUSH MNT
Ⓜ	UTILITY METER, AS REQUIRED
Ⓜ	CURRENT TRANSFORMERS
Ⓜ	SWITCHBOARD / MCC
Ⓜ	TELEPHONE TERMINAL BOARD
Ⓜ	GROUND CONNECTION PER N.E.C.
Ⓜ	WEATHERHEAD
Ⓜ	WIREWAY
Ⓜ	TRANSFER SWITCH
Ⓜ	ENCLOSED CIRCUIT BREAKER
Ⓜ	CAPACITOR
Ⓜ	GENERATOR, KVA SHOWN
Ⓜ	TRANSFER SWITCH
Ⓜ	SWITCHBOARD, SHOWN WITH FUSIBLE SWITCHES
Ⓜ	SWITCHBOARD, SHOWN WITH CIRCUIT BREAKERS

SWITCHES

Ⓜ	SINGLE-POLE SWITCH
Ⓜ	THREE-WAY SWITCH
Ⓜ	FOUR-WAY SWITCH
Ⓜ	SWITCH WITH PILOT LIGHT
Ⓜ	THERMAL OVERLOAD SWITCH
Ⓜ	MANUAL MOTOR SWITCH (FUSED)
Ⓜ	KEY SWITCH
Ⓜ	TIME SWITCH
Ⓜ	DOOR-OPERATED SWITCH
Ⓜ	WEATHERPROOF SWITCH
Ⓜ	DIMMER SWITCH

DEMOLITION NOTES

◇	EXISTING DEVICE TO REMAIN.
◆	EXISTING EQUIPMENT TO REMAIN.
◇	DISCONNECT & REMOVE EXISTING DEVICE, REMOVE ASSOCIATED CONDUIT & WIRE.
◇	DISCONNECT EQUIPMENT FOR REMOVAL BY OTHERS, REMOVE ASSOCIATED CONDUIT & WIRE.
◇	DISCONNECT & RELOCATE EXISTING PANELS, EXTEND EXISTING CONDUIT & WIRE TO NEW LOCATION.
◇	EXISTING LIGHTING TO REMAIN.

OUTLETS

Ⓜ	SINGLE RECEPTACLE (120 VOLT)
Ⓜ	ELECTRIC WATER COOLER RECEPTACLE (LOCATE PER EWC SHOP DRAWINGS)
Ⓜ	DUPLEX RECEPTACLE
Ⓜ	DOUBLE DUPLEX RECEPTACLE
Ⓜ	GFI DUPLEX RECEPTACLE
Ⓜ	WEATHER PROOF DUPLEX RECEPTACLE
Ⓜ	GFI DUPLEX CONVENIENCE OUTLET 'ABOVE COUNTER'
Ⓜ	EMERGENCY RECEPTACLE
Ⓜ	DUPLEX OUTLET WITH ISOLATED GROUND
Ⓜ	DUPLEX IV ISOLATED GROUND & TVSS
Ⓜ	208 / 240V RECEPTACLE
Ⓜ	FLUSH FLOOR BOX
Ⓜ	SURFACE FLOOR BOX
Ⓜ	SPECIAL EQUIPMENT RECEPTACLE
Ⓜ	LOCKING RECEPTACLE
Ⓜ	TELEPHONE OUTLET
Ⓜ	DATA OUTLET
Ⓜ	TELEPHONE / DATA OUTLET
Ⓜ	FAX OUTLET
Ⓜ	FLUSH FLOOR TELEPHONE OUTLET
Ⓜ	SURFACE FLOOR TELEPHONE OUTLET
Ⓜ	TELEPHONE POLE (Telephone, Ppower, Ccomputer)
Ⓜ	JUNCTION BOX
Ⓜ	WALL JUNCTION BOX
Ⓜ	PULL (JUNCTION) BOX
Ⓜ	UNDERFLOOR JUNCTION BOX
Ⓜ	JUNCTION BOX WITH FLEX PIGTAIL
Ⓜ	JUNCTION BOX
Ⓜ	UNDER CABINET LIGHTING (BY OTHERS)

MISCELLANEOUS NOTES

Ⓜ	POINT OF CONNECTION BETWEEN NEW AND EXISTING
Ⓜ	FRONT OF EXISTING TO REMAIN AND EXISTING TO BE REMOVED.
Ⓜ	KEY NOTE
Ⓜ	DEMOLITION NOTE
Ⓜ	REVISION NOTE (ADDENDUM)
Ⓜ	DETAIL BUBBLE DETAIL NUMBER PAGE LOCATION
Ⓜ	SECTION TAG & DIRECTION OF SECTION VIEW
Ⓜ	SECTION ARROW AND SECTION CUT LINE

CONTROLS

Ⓜ	PHOTOCELL (voltage as required)
Ⓜ	TIME CLOCK (24 hour U.O.N.)
Ⓜ	PUSHBUTTON STATION (# of buttons indicated)
Ⓜ	LIGHTING CONTACTOR
Ⓜ	OCCUPANCY SENSOR: WALL MOUNT, MATSTOPPER WA-300
Ⓜ	OCCUPANCY SENSOR: WALL MOUNT, MATSTOPPER WA-300
Ⓜ	OCCUPANCY SENSOR: CLG MOUNT, DUAL TECHNOLOGY MATSTOPPER UT-300-2
Ⓜ	TIME SWITCH SET AT 2HR. MAX. MATSTOPPER TS-400
Ⓜ	OCCUPANCY SENSOR: WALL MOUNT, DIMMER, MATSTOPPER YD-230
Ⓜ	POWER PACK: MATSTOPPER B120E-P.
Ⓜ	LOW VOLTAGE SWITCH
Ⓜ	THERMOSTAT
Ⓜ	SWITCH BYPASS, BODINE STD20 OR EQUAL

CIRCUITING

---	ELECTRICAL SERVICE
---	TELEPHONE SERVICE
---	CONDUIT
---	UNDERGROUND CONDUIT
---	"CONDUIT RUN CONTINUES" INDICATION
---	CONDUIT STUB UP
---	CONDUIT STUB DOWN
---	END OF CONDUIT RUN
---	END OF CONDUIT RUN, CAP AND STAKE
---	WIREMOLD AS SPECIFIED
---	BUS DUCT
PP-2	CIRCUIT HOME RUN TO PANEL "PP-1"

SOUND / SIGNAL

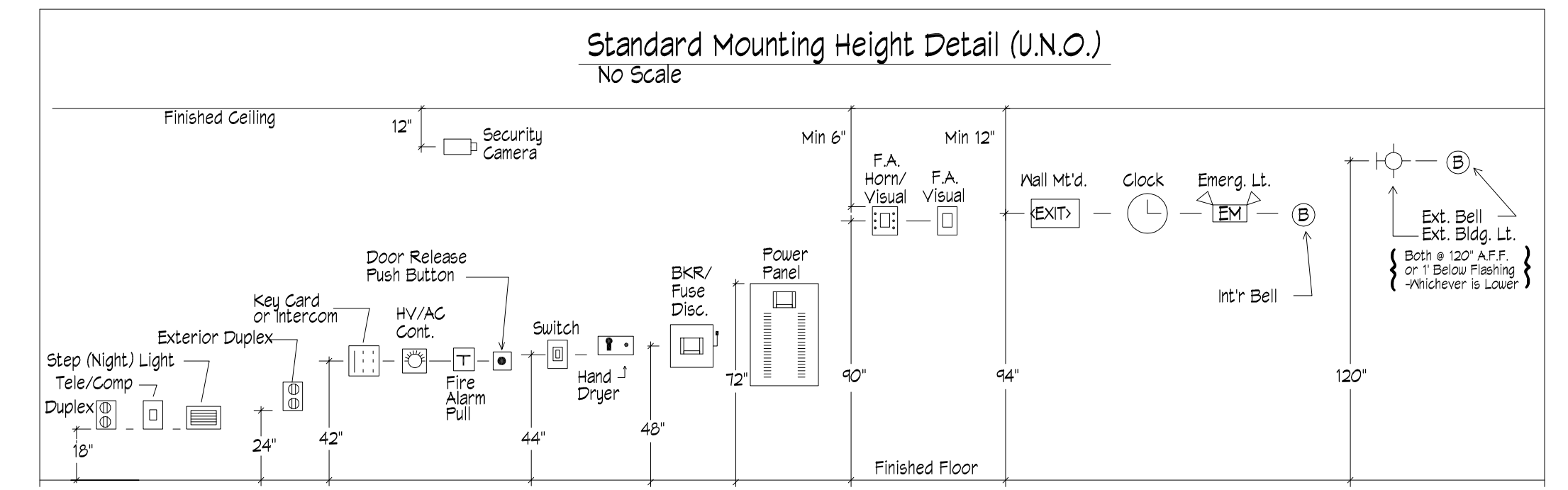
Ⓜ	SPEAKER
Ⓜ	VOLUME CONTROL
Ⓜ	MICROPHONE JACK
Ⓜ	INTERCOM JACK
Ⓜ	CATV COAX JACK
Ⓜ	DOOR CONTACT
Ⓜ	MOTION DETECTOR (PROVIDED BY OTHERS)
Ⓜ	KEY PAD
Ⓜ	CARD READER
Ⓜ	MOTION DETECTOR
Ⓜ	BEAM DETECTOR
Ⓜ	CAMERA
Ⓜ	CAMERA LOCATION BOX AND 3/4" STUB ONLY
Ⓜ	INTERCOM STATION BOX, 3/4" STUB ONLY
Ⓜ	SECURITY SYSTEM CONTROL PANEL
Ⓜ	CCTV CONTROL PANEL
Ⓜ	GENERATOR ANNUNCIATOR PANEL

LIGHT FIXTURES

Ⓜ	LIGHT FIXTURE
Ⓜ	STRIP FIXTURE
Ⓜ	EMERGENCY LIGHT FIXTURE
Ⓜ	NIGHT LIGHT (on 24 hours)
Ⓜ	FIXTURE ON EMERGENCY CIRCUIT
Ⓜ	IN-GRADE LIGHT FIXTURE
Ⓜ	SPOTLIGHT (number of heads shown)
Ⓜ	EXIT SIGN (face & direction as shown)
Ⓜ	WALL MOUNT LIGHT FIXTURE
Ⓜ	RECESSED DOWNLIGHT
Ⓜ	EMERGENCY RECESSED DOWNLIGHT
Ⓜ	PENDANT LIGHT FIXTURE
Ⓜ	EMERGENCY PENDANT LIGHT FIXTURE
Ⓜ	TRACK & FIXTURE
Ⓜ	STREET TYPE POLE FIXTURE
Ⓜ	POLE MOUNTED LIGHT FIXTURE
Ⓜ	BOLLARD LIGHT FIXTURE
Ⓜ	EXTERIOR WALL MOUNT LIGHT FIXTURE
Ⓜ	WALLPACK LIGHT FIXTURE
Ⓜ	HIGH BAY LIGHT FIXTURE
Ⓜ	EMERG EGRESS LIGHT (# of heads shown)
Ⓜ	DOCK LIGHT FIXTURE

GENERAL ELECTRICAL NOTES

- PROVIDE COMPLETE AND ADEQUATE TEMPORARY POWER AND LIGHTS DURING CONSTRUCTION USING APPROVED LAMPHOLDERS AND GFCI CIRCUITING. MAINTAIN ALL LAMPS AS REQUIRED.
- ELECTRICAL CONTRACTOR TO INCLUDE PLAN REVIEW FEES.
- CUTTING AND PATCHING FOR ELECTRICAL ITEMS BY ELECTRICAL CONTRACTOR.
- AS-BUILT DRAWINGS WILL BE REQUIRED TO BE UPDATED ON A WEEKLY BASIS. THESE AS-BUILTS WILL BE EXPECTED TO BE IN A LEGIBLE AND NEAT FORM.
- ALL WIRING TO BE COPPER. ALL WIRING ABOVE 50 VOLTS TO BE IN CONDUIT UNLESS NOTED OTHERWISE. PROPER WIRE TYPE AND SIZE AND CONDUIT SIZE IS REQUIRED FOR BRANCH CIRCUITS. AGING CABLE IS ACCEPTABLE PER CODE FOR BRANCH CIRCUITS EXCEPT FOR HOME RUNS.
- MAKE SURE THAT EXPOSED CABLE IS RATED FOR THE ENVIRONMENT THAT IT IS IN.
- PROVIDE TYPEWRITTEN DIRECTORIES ON ALL PANELS. LABEL ALL DISCONNECTS AND PANELS.
- EXPOSED CABLE AND CONDUIT TO RUN PARALLEL WITH STRUCTURE AND SECURELY ATTACHED TO BUILDING STEEL.
- CONNECT ALL EXT SIGNS AHEAD OF LOGAL LIGHTING CIRCUIT
- ELECTRICAL CONTRACTOR TO PROVIDE SUBMITTALS PRIOR TO ORDERING EQUIPMENT FOR LIGHTING, SWITCHGEAR, SPECIAL EQUIPMENT, ETC.
- UNLESS NOTED OTHERWISE, ALL DEVICE ELEVATIONS REFER TO CENTER OF OUTLET BOX. ELECTRICAL CONTRACTOR SHALL VERIFY ALL OUTLET LOCATIONS WITH OTHER TRADES. MINIMUM OF 18" ABOVE FINISHED FLOOR TO MEET BARRIER FREE REQUIREMENTS.
- SHARING NEUTRALS BETWEEN CIRCUITS IS NOT PERMITTED UNLESS WIRING IS COLOR CODED OR LABELED AT PANEL TO IDENTIFY THE PHASE. ALL HOME RUN NEUTRALS FOR ELECTRONIC EQUIPMENT AND FLUORESCENT LIGHTING TO BE #10.
- REFER TO MECHANICAL DRAWINGS FOR ELECTRICAL DATA PERTAINING TO ALL MECHANICAL EQUIPMENT. VERIFY ACTUAL REQUIREMENTS WITH EQUIPMENT ORDERED AND MAKE ADJUSTMENTS ACCORDINGLY. LOCATIONS SHOWN ARE APPROXIMATE. FIELD VERIFY.
- PROVIDE A CONNECTION, SWITCH AND SO FOR ALL SINK DISPOSERS, DISHWASHERS AND SIMILAR EQUIPMENT TO HAVE SSU OR EQUAL.
- WIRING IN AREA SEPARATION WALLS TO COMPLY WITH ARTICLE 300-22 OF THE N.E.C.
- PROVIDE FIRESTOPPING AT ALL REQUIRED PENETRATIONS.
- SLEEVE ELECTRICAL PENETRATIONS FROM FERROUS SLEEVES AND ALL AREA SEPARATION WALLS.
- AN ELECTRICAL PERMIT SHALL BE ACQUIRED BY A STATE LICENSED ELECTRICAL CONTRACTOR.
- PROVIDE GROUNDING AS PER N.E.C. SECTION 250.
- ALL ELECTRICAL WORK IS SUBJECT TO FIELD REVIEW BY THE ELECTRICAL INSPECTOR AND THE PROJECT ENGINEER.
- PROVIDE PROPER WORKING CLEARANCES AT ALL ELECTRICAL EQUIPMENT.
- MAXIMUM OF EIGHT (8) DUPLEX OUTLETS PER 20 AMP CIRCUIT UNLESS NOTED OTHERWISE.
- ALL WORK TO COMPLY WITH STATE AND LOCAL CODES.
- DO NOT LAY WIRES, FLEX, ETC. ON CEILING TILE.
- WHERE A FLOOR COVERING OR FINAL FLOOR FINISH IS OTHER THAN CARPET OR VINYL TILE, CONDUIT SHALL NOT BE RUN WITHIN CONCRETE SLABS. 1" OF CONCRETE OVER THE TOP OF CONDUITS AND SLABS MUST BE MAINTAINED. 1-1/2" OVER IS PREFERRED.
- PROVIDE SEAL-OFFS WHEN PIPING PASSES THROUGH AREAS OF DIFFERENT AMBIENT TEMPERATURES AND/OR HAZARDOUS AREAS.
- PROPER PROTECTION AGAINST CORROSION REQUIRED FOR ALL ELECTRICAL EQUIPMENT. IT SHALL BE SUITABLE FOR THE ENVIRONMENT IN WHICH THEY ARE TO BE INSTALLED.
- BRANCH CIRCUIT CONDUCTORS SUPPLYING A SINGLE MOTOR SHALL HAVE AN AMPACITY NOT LESS THAN 125% OF THE MOTOR FULL LOAD CURRENT RATING.
- PROPER THERMAL OVERLOAD PROTECTION SHALL BE REQUIRED FOR ALL MOTORS.
- FURNITURE SYSTEM PARTITIONS TO BE FED FROM UNDER FLOOR OR ADJACENT WALL. DO NOT FEED FROM OVERHEAD.
- PROVIDE OPERATION AND MAINTENANCE MANUALS AT PROJECT COMPLETION.
- PROVIDE NECESSARY TRAINING ON ELECTRICAL SYSTEMS TO OWNER.
- PROPER TIME IS TO BE GIVEN TO PRE-CONSTRUCTION COORDINATION OF ALL OTHER SYSTEMS. ELECTRICAL CONTRACTOR TO VERIFY MOUNTING HEIGHTS OF DEVICES WITH FINAL FURNITURE AND CABINET PLANS. FLOOR OUTLETS TO BE FIELD VERIFIED FOR EXACT PLACEMENT.
- PROVIDE PROPER SEPARATION BETWEEN LOW VOLTAGE CONDUCTORS AND HIGHER VOLTAGE CONDUCTORS.
- MAKE SURE THERE ARE RECEPTACLES WITHIN 25 FEET OF MECHANICAL EQUIPMENT FOR SERVICEABILITY.



REVISIONS:

MARK	DATE	ISSUED FOR
▲		
▲		
▲		
▲		
▲		
▲		



PROJECT NAME: **QEK**
CORPORATE OFFICES
1225 E. MAPLE, TROY MI
 SHEET DESCRIPTION: **ELECTRICAL DEMO PLAN - OFFICE AREA**

ISSUED FOR:

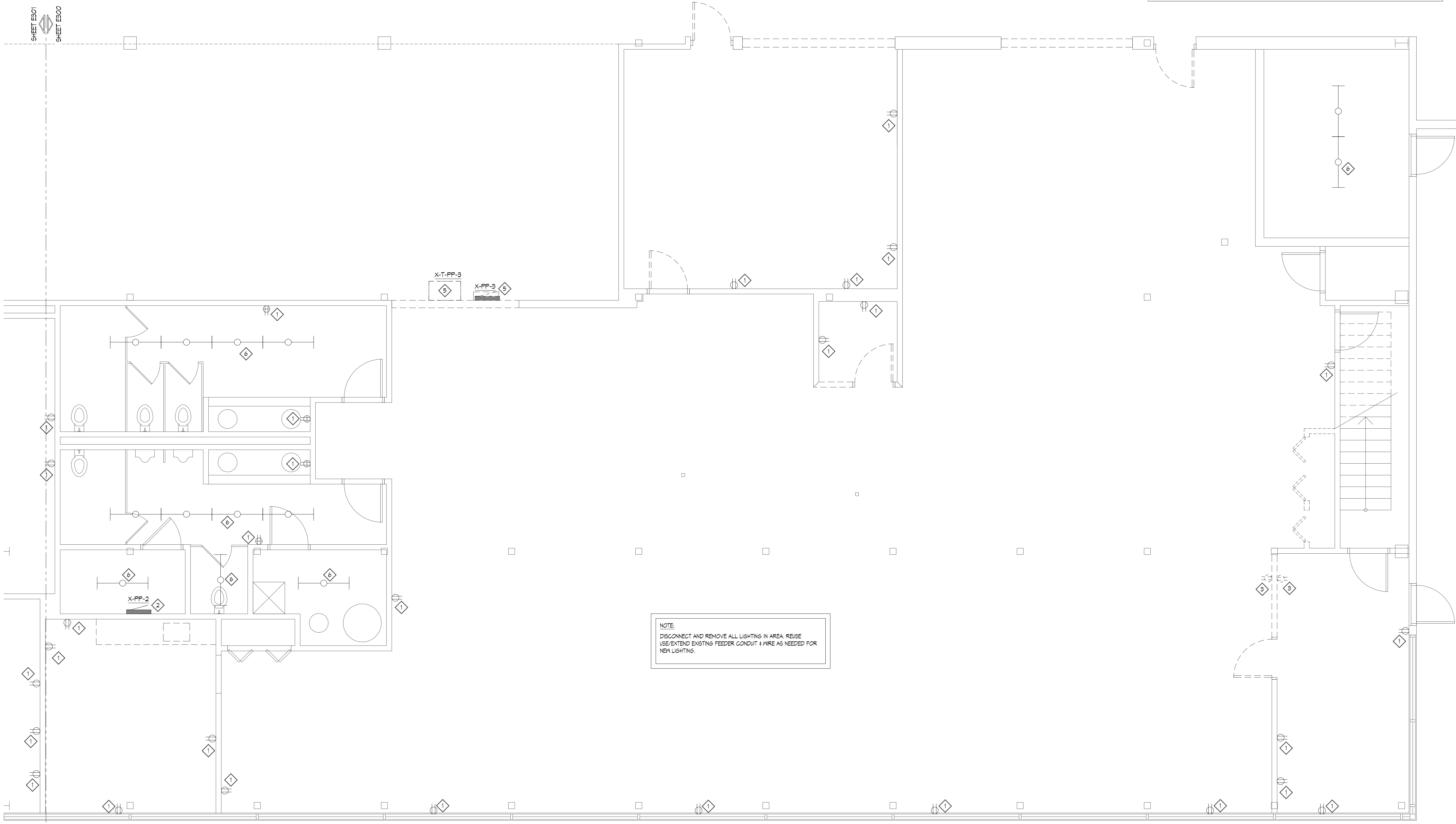
- ◇ AS-BUILT RECORD DWGS
- ◆ CONSTRUCTION DOCUMENTS
- ◇ DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION
- ◇ PRELIMINARY - NOT FOR CONSTRUCTION
- ◇ M/E/P SYSTEMS STUDY - NOT FOR CONSTRUCTION

DRAWN BY: JAR
 CHECKED BY: HMN
 DATE: 8-DEC-2014
 SHEET NUMBER

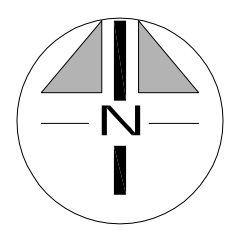
E300
 PROJECT NUMBER
14-123.00

DEMOLITION NOTES

- 1 EXISTING DEVICE TO REMAIN.
- 2 EXISTING EQUIPMENT TO REMAIN.
- 3 DISCONNECT & REMOVE EXISTING DEVICE. REMOVE ASSOCIATED CONDUIT & WIRE.
- 4 DISCONNECT EQUIPMENT FOR REMOVAL BY OTHERS. REMOVE ASSOCIATED CONDUIT & WIRE.
- 5 DISCONNECT & RELOCATE EXISTING PANELS. EXTEND EXISTING CONDUIT & WIRE TO NEW LOCATION.
- 6 EXISTING LIGHTING TO REMAIN.



NOTE:
 DISCONNECT AND REMOVE ALL LIGHTING IN AREA. REUSE
 USE/EXTEND EXISTING FEEDER CONDUIT & WIRE AS NEEDED FOR
 NEW LIGHTING.



ELECTRICAL DEMO PLAN - OFFICE AREA

SCALE: 1/4" = 1'-0"

REVISIONS:

MARK	DATE	ISSUED FOR
△		
△		
△		
△		
△		
△		



DEMOLITION NOTES

- 1 EXISTING DEVICE TO REMAIN.
- 2 EXISTING EQUIPMENT TO REMAIN.
- 3 DISCONNECT & REMOVE EXISTING DEVICE. REMOVE ASSOCIATED CONDUIT & WIRE.
- 4 DISCONNECT EQUIPMENT FOR REMOVAL BY OTHERS. REMOVE ASSOCIATED CONDUIT & WIRE.
- 5 DISCONNECT & RELOCATE EXISTING PANELS. EXTEND EXISTING CONDUIT & WIRE TO NEW LOCATION.
- 6 EXISTING LIGHTING TO REMAIN.



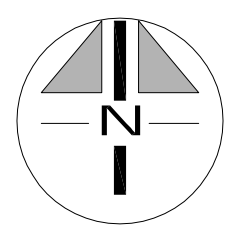
NOTE:
 DISCONNECT AND REMOVE ALL LIGHTING IN AREA. REUSE USE/EXTEND EXISTING FEEDER CONDUIT & WIRE AS NEEDED FOR NEW LIGHTING.

PROJECT NAME:
QEK
 CORPORATE OFFICES
 1225 E. MAPLE, TROY MI
 SHEET DESCRIPTION:
 ELECTRICAL DEMO PLAN - BREAK ROOM

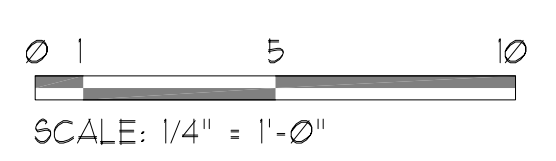
ISSUED FOR:

- ◇ AS-BUILT RECORD DWGS
- ◆ CONSTRUCTION DOCUMENTS
- ◇ DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION
- ◇ PRELIMINARY - NOT FOR CONSTRUCTION
- ◇ M/E/P SYSTEMS STUDY NOT FOR CONSTRUCTION

DRAWN BY: JAR
 CHECKED BY: HMN
 DATE: 8-DEC-2014
 SHEET NUMBER



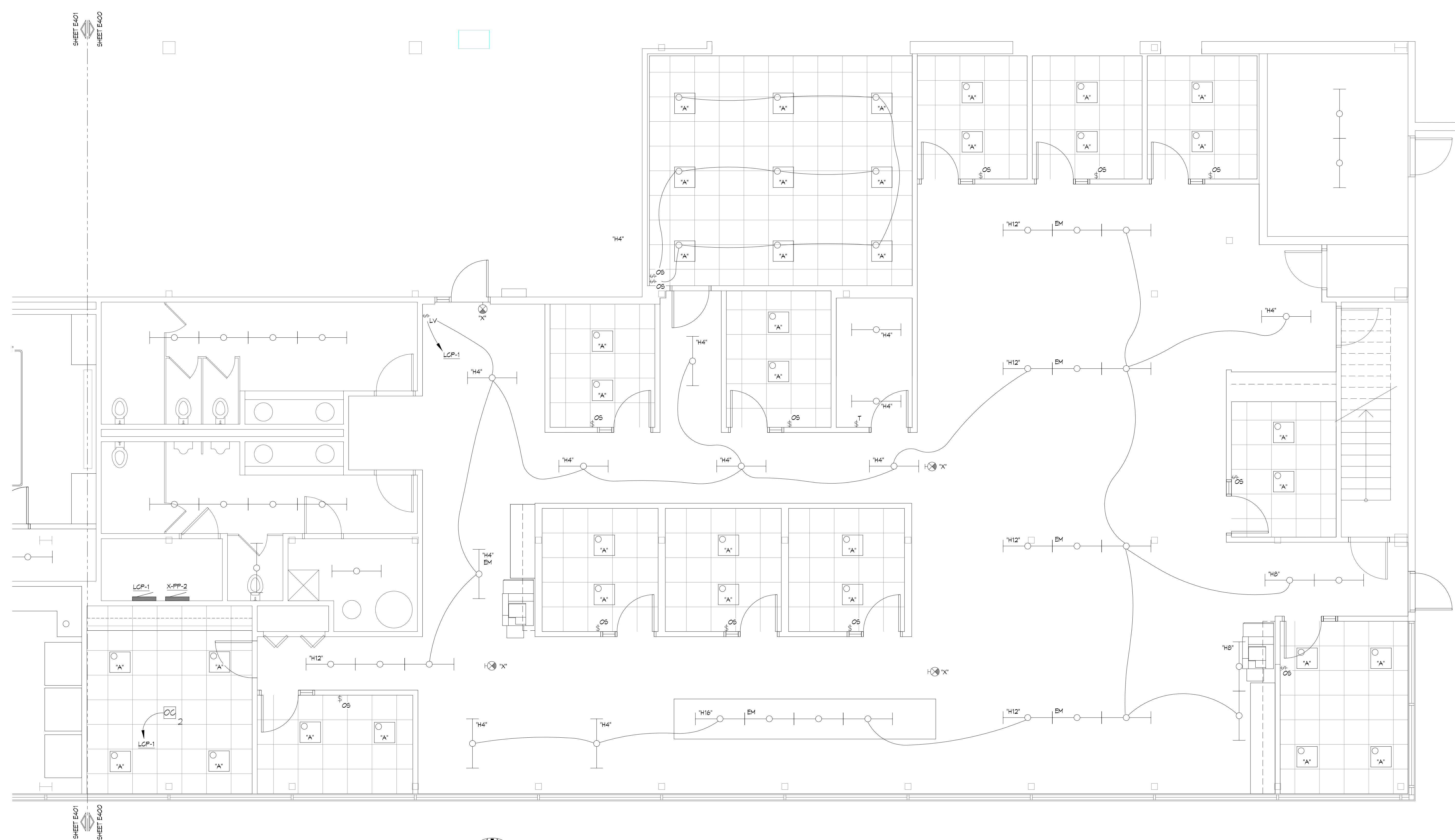
ELECTRICAL DEMO PLAN - BREAK ROOM



E301

PROJECT NUMBER
 14-123.00

REVISIONS:	MARK	DATE	ISSUED FOR



PROJECT NAME: **QEK**
CORPORATE OFFICES
1225 E. MAPLE, TROY MI
SHEET DESCRIPTION: **ELECTRICAL LIGHTING PLAN - OFFICE AREA**

- ISSUED FOR:
- ◇ AS-BUILT RECORD DWGS
 - ◆ CONSTRUCTION DOCUMENTS
 - ◇ DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION
 - ◇ PRELIMINARY - NOT FOR CONSTRUCTION
 - ◇ M/E/P SYSTEMS STUDY - NOT FOR CONSTRUCTION
- DRAWN BY: JAR
CHECKED BY: HMN
DATE: 8-DEC-2014
SHEET NUMBER

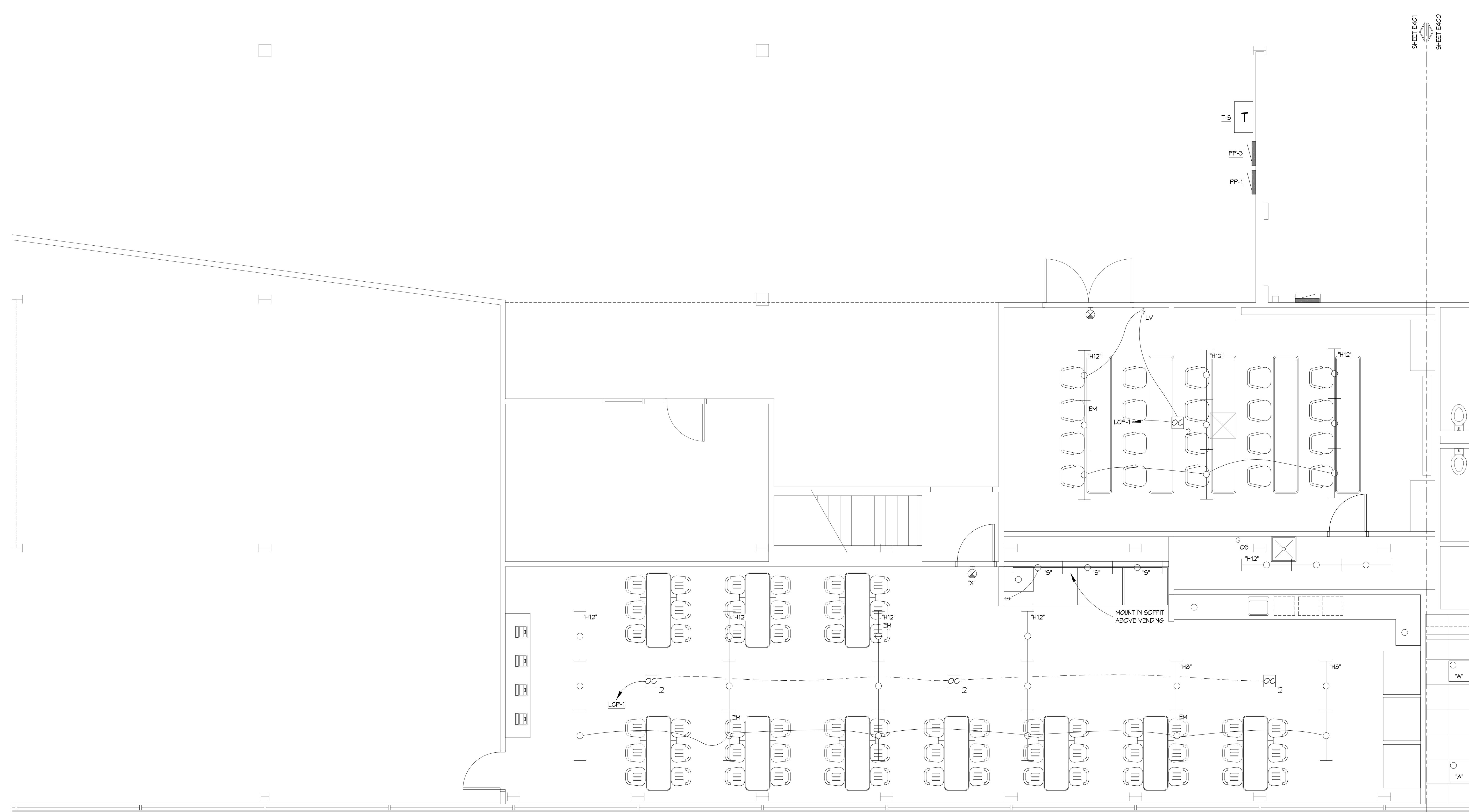
ELECTRICAL LIGHTING PLAN - OFFICE AREA

SCALE: 1/4" = 1'-0"

E400
PROJECT NUMBER
14-123.00

REVISIONS:

MARK	DATE	ISSUED FOR
△		
△		
△		
△		
△		
△		



PROJECT NAME:
QEK
 CORPORATE OFFICES
 1225 E. MAPLE, TROY MI
 SHEET DESCRIPTION:
 ELECTRICAL LIGHTING PLAN - BREAK ROOM

ISSUED FOR:

- ◇ AS-BUILT RECORD DWGS
- ◆ CONSTRUCTION DOCUMENTS
- ◇ DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION
- ◇ PRELIMINARY - NOT FOR CONSTRUCTION
- ◇ M/E/P SYSTEMS STUDY - NOT FOR CONSTRUCTION

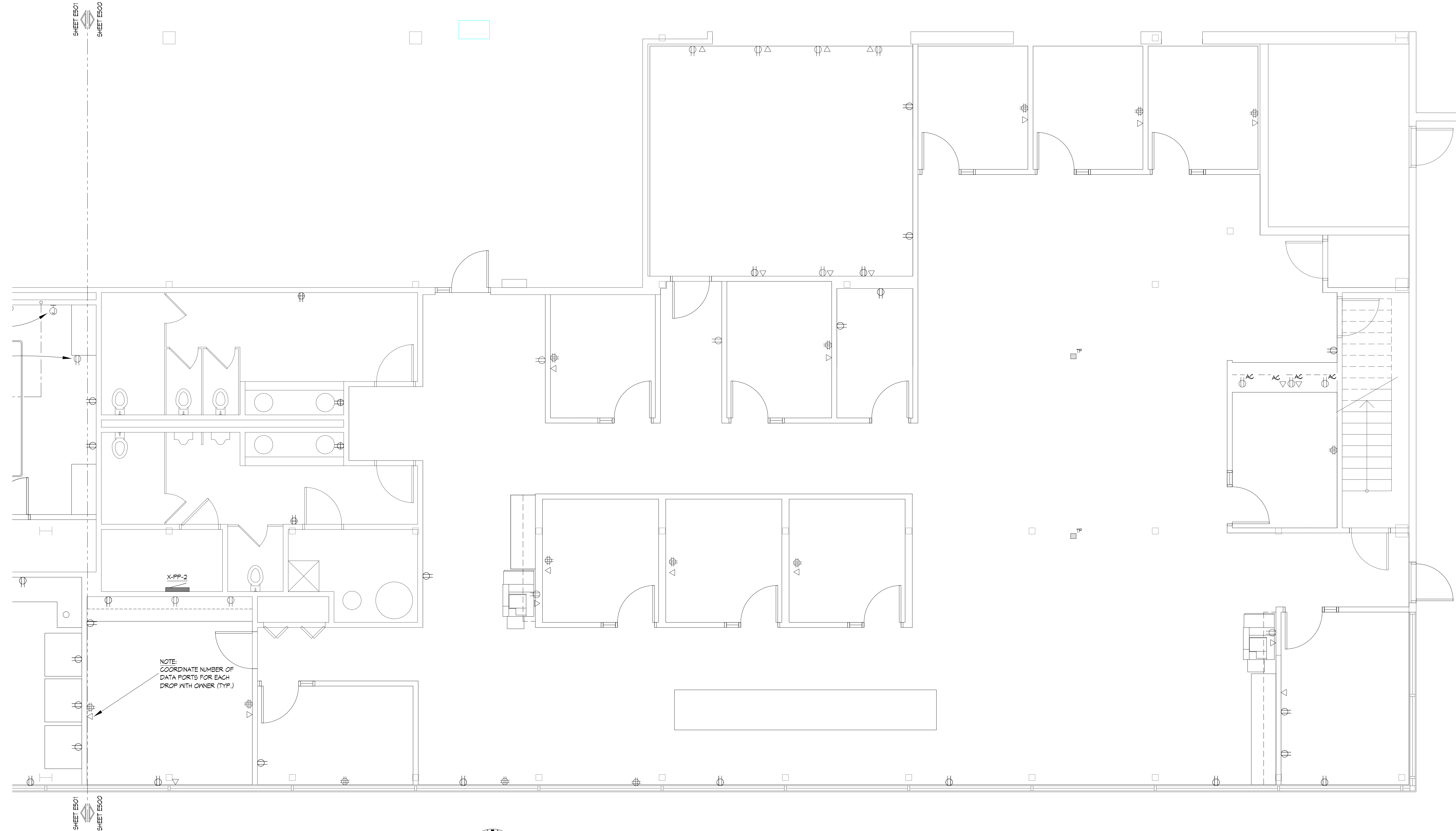
DRAWN BY: JAR
 CHECKED BY: HMN
 DATE: 8-DEC-2014
 SHEET NUMBER

ELECTRICAL LIGHTING PLAN - BREAK ROOM

0 1 5 10
 SCALE: 1/4" = 1'-0"

E401
 PROJECT NUMBER
 14-123.00

REVISIONS:		
MARK	DATE	ISSUED FOR
△		
△		
△		
△		
△		
△		



PROJECT NAME:
QEK
 CORPORATE OFFICES
 1225 E. MAPLE, TROY MI
 SHEET DESCRIPTION:
 ELECTRICAL POWER PLAN - OFFICE AREA

ISSUED FOR:	
◇	AS-BUILT RECORD DWGS
◆	CONSTRUCTION DOCUMENTS
◇	DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION
◇	PRELIMINARY - NOT FOR CONSTRUCTION
◇	M/E/P SYSTEMS STUDY NOT FOR CONSTRUCTION

DRAWN BY: JAR
 CHECKED BY: HMN
 DATE: 8-DEC-2014
 SHEET NUMBER

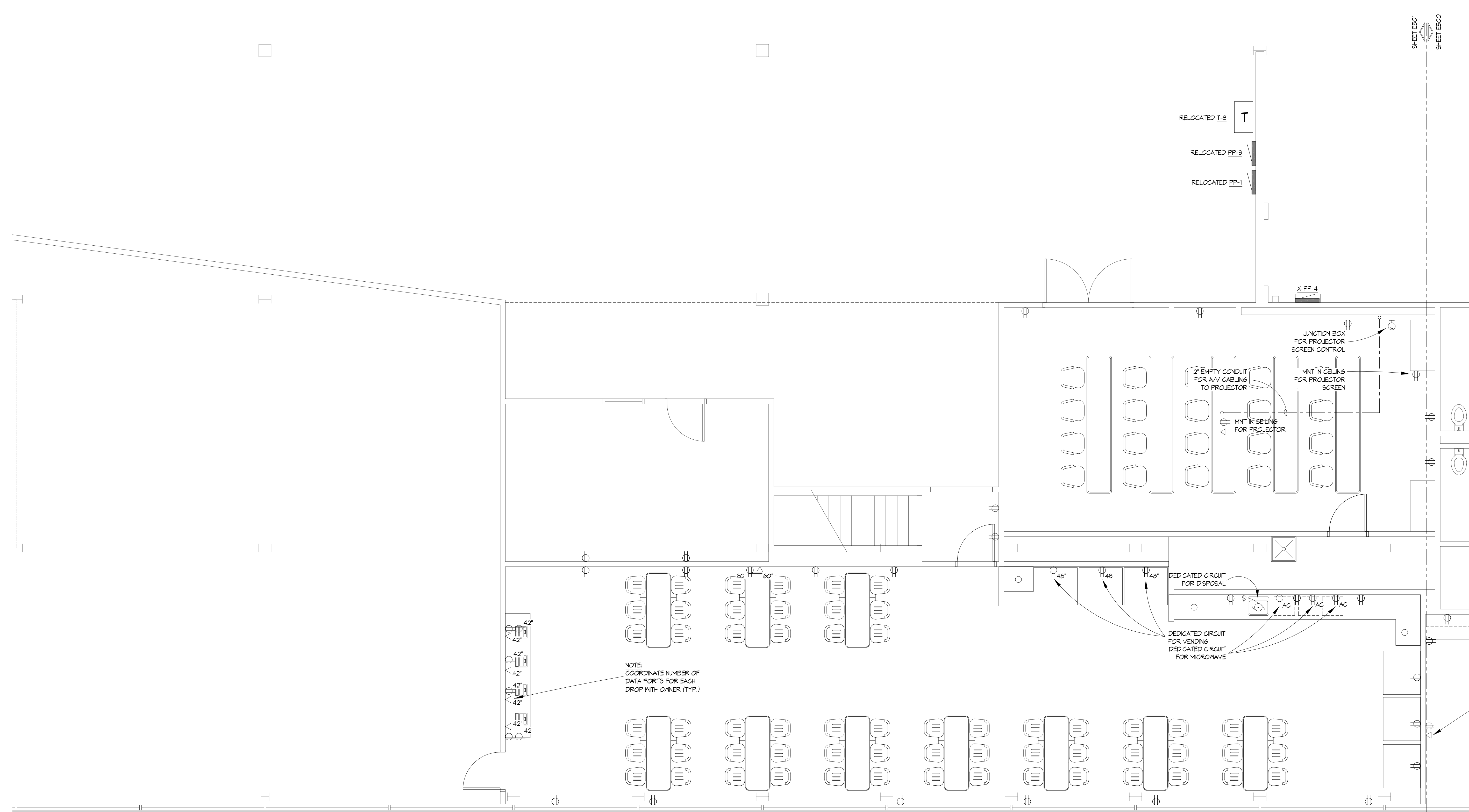
ELECTRICAL POWER PLAN - OFFICE AREA

SCALE: 1/4" = 1'-0"

E500
 PROJECT NUMBER
 14-123.00

REVISIONS:

MARK	DATE	ISSUED FOR
△		
△		
△		
△		
△		
△		



PROJECT NAME:
QEK
 CORPORATE OFFICES
 1225 E. MAPLE, TROY MI
 SHEET DESCRIPTION:
 ELECTRICAL POWER PLAN - BREAK ROOM

ISSUED FOR:

- ◇ AS-BUILT RECORD DWGS
- ◆ CONSTRUCTION DOCUMENTS
- ◇ DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION
- ◇ PRELIMINARY - NOT FOR CONSTRUCTION
- ◇ M/E/P SYSTEMS STUDY - NOT FOR CONSTRUCTION

DRAWN BY: JAR
 CHECKED BY: HMN
 DATE: 8-DEC-2014
 SHEET NUMBER

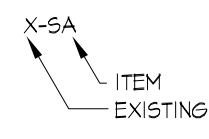
ELECTRICAL POWER PLAN - BREAK ROOM

0 1 5 10
 SCALE: 1/4" = 1'-0"

E501
 PROJECT NUMBER
 14-123.00

MECHANICAL ABBREVIATIONS

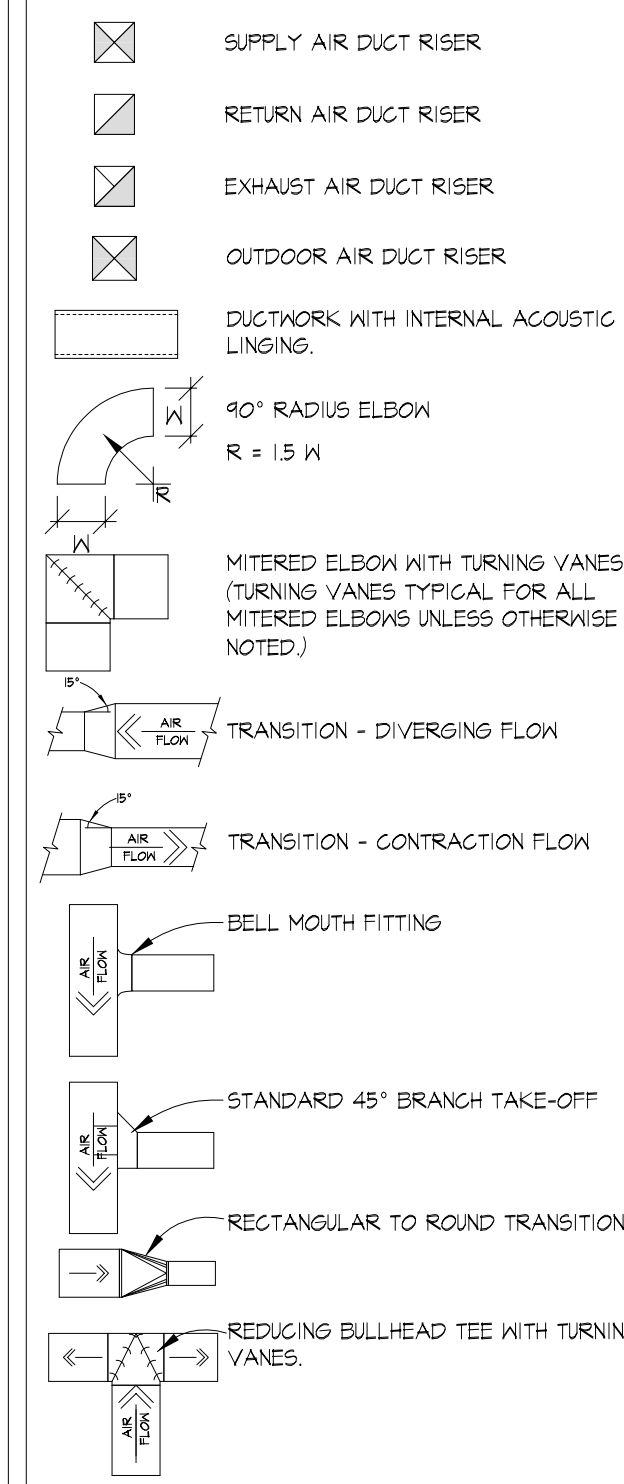
AFF	ABOVE FINISH FLOOR	HWP	HEATING WATER PUMP
AC	AIR COMPRESSOR	HX	HEAT EXCHANGER
AHU	AIR HANDLING UNIT	ID	INSIDE DIAMETER
AS	AIR SEPARATOR	I.E.	INVERT ELEVATION
A.T.C.	ARCHITECTURAL TRADES CONTRACTOR	ITH	INTAKE HOOD
B	BOILER	LAT	LEAVING AIR TEMPERATURE
B.A.S.	BUILDING AUTOMATION SYSTEM	LH	LATENT HEAT (MBH)
BOD	APPROX. ELEVATION TO THE BOTTOM OF A DUCT	LWT	LEAVING WATER TEMPERATURE
CAF	COMBUSTION AIR FAN	MAX	MAXIMUM
CC	COOLING COIL	MBH	BTU PER HOUR (THOUSAND)
CFM	CUBIC FEET PER MINUTE	MIN	MINIMUM
CHLR	CHILLER	M.T.C.	MECHANICAL TRADES CONTRACTOR
CHP	CONSOLE HEAT PUMP	N.C.	NOISE CRITERIA
CONV	CONVECTOR	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
CT	COOLING TOWER	NTS	NOT TO SCALE
CU	CONDENSING UNIT	P	PUMP
CJH	CABINET UNIT HEATER	PCR	PUMPED CONDENSATE RETURN
CV	CONTROL VALVE	PD	PRESSURE DROP
CWP	CHILLED WATER PUMP	RCP	RADIANT CEILING PANEL
DB	DRY BULB	REQ'D	REQUIRED
DFU	DUCT FURNACE	RG	RETURN GRILLE
DIA	DIAMETER	RH	RELATIVE HUMIDITY
DN	DOWN	RLH	RELIEF HOOD
DPR	DAMPER	RTU	ROOF TOP UNIT
DS	DUCT SILENCER	SD	SUPPLY DIFFUSER
EAT	ENTERING AIR TEMPERATURE	SF	SUPPLY FAN
EF	EXHAUST FAN	SG	SUPPLY GRILLE
EG	EXHAUST GRILLE	SH	SENSIBLE HEAT (MBH)
E.T.C.	ELECTRICAL TRADES CONTRACTOR	SM	SHEET METAL
EVR	EVAPORATOR	SQ. FT.	SQUARE FEET
EWT	ENTERING WATER TEMPERATURE	SST	SATURATED SUCTION TEMPERATURE
EXH	EXHAUST	STR	STRAINER
EXIST	EXISTING	TC	TOTAL COOLING (MBH)
FF	FINISH FLOOR	TCL	TEMPERATURE CONTROL
FFM	FEET PER MINUTE	T4P	TEMPERATURE & PRESSURE RELIEF VALVE
FT	FEET	TOD	APPROX. ELEVATION TO THE TOP OF A DUCT
FTR	FINNED TUBE RADIATION	TOD	APPROX. ELEVATION TO THE TOP OF A GRILLE OR DIFFUSER
FU	FURNACE	TYP	TYPICAL
GAL	GALLON	VAV	VARIABLE AIR VOLUME BOX
GFRH	GAS FIRED RADIANT HEATER	VRH	VARIABLE AIR VOLUME REHEAT BOX
GR	GRILLE	FPVAV	FAN POWERED VARIABLE AIR VOLUME BOX
H	HUMIDIFIER	V.F.D.	VARIABLE FREQUENCY DRIVE
HC	HEATING COIL	ZD	ZONE DAMPER
HD	HEAD (FT)		
HP	HORSE POWER		
HHP	HORIZONTAL HEAT PUMP		
HTG	HEATING		
HVAC	HEATING, VENTILATION, & AIR CONDITIONING		



GENERAL HVAC NOTES:

- LOCATE EXHAUST OUTLETS OF VENTILATION SYSTEMS, COMBUSTION EQUIPMENT STACKS, MEDICAL-SURGICAL VACUUM SYSTEMS, & PLUMBING VENTS AT LEAST 25 FEET FROM OUTDOOR AIR INTAKES.
- LOCATE OUTDOOR INTAKES AT LEAST 6 FEET ABOVE GROUND LEVEL OR 3 FEET ABOVE ROOF LEVEL, UNLESS OTHERWISE INDICATED.
- ALL EXISTING SYSTEMS (INCLUDING EXHAUST FANS; AIR HANDLING UNITS; PUMPS) THAT SERVES AREAS BEING RENOVATED SHALL BE REBALANCED AS REQUIRED.
- NOTIFY OWNER OF ANY PIPING OR DUCTWORK DEMOLITION THAT MAY AFFECT NORMAL OPERATION OF OTHER AREAS.
- FIELD VERIFY LOCATIONS OF EXISTING PIPING THAT MAY CONFLICT WITH NEW CONSTRUCTION AND RELOCATE AS NEEDED.
- FIRE DAMPERS & COMBINATION FIRE/SMOKE DAMPERS SHALL BE 1 HR RATED UNLESS NOTED OTHERWISE.
- INTERLOCK FIRE/SMOKE DAMPERS BY ELECTRICAL TRADES. PROVE OPEN BEFORE AIR HANDLING UNITS FANS' START.
- COORDINATE LOUVER SIZES WITH ARCHITECTURAL TRADES PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER DISCIPLINES PRIOR TO CONSTRUCTION TO AVOID CONFLICTS.
- PROVIDE MANUAL AIR VENTS WITH 3/4" HOSE CONNECTION AT ALL HIGH POINTS.
- OFFSET PIPING TO ACCOMMODATE LARGE DUCTWORK.
- SMOKE DETECTORS SHALL BE FURNISHED AND CONNECTED BY ELECTRICAL CONTRACTOR. INSTALLATION BY MECHANICAL CONTRACTORS.
- THE CONTRACTOR SHALL FIELD VERIFY THE SIZES, LOCATION, ELEVATIONS, AND DETAILS OF ALL EXISTING CONDITIONS THAT MAY AFFECT THE WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE INTEGRITY OF ALL EQUIPMENT AND MATERIALS IN A "NEW" CONDITION DURING CONSTRUCTION.
- ALL WORK SHALL BE PERFORMED BY LICENSED CONTRACTORS AND SUBCONTRACTORS AS REQUIRED BY LAW.
- DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CODES AND REGULATIONS ENFORCED BY LOCAL BUILDING OFFICIALS.
- ALL WORK SHALL CONFORM TO MICHIGAN MECHANICAL CODE, LATEST APPLICABLE EDITION.
- CONTRACTOR SHALL USE LOW PRESSURE LOSS DUCT FITTINGS IN ACCORDANCE WITH SMACNA. (WYES, RADIUSSED OR VANED TEES, ETC.) DUCTWORK SHALL BE GALVANIZED SHEET METAL, MIN. 26 GA.
- ALL DUCT DIMENSIONS SHOWN ARE INSIDE CLEAR DIMENSION.
- ALL EXTERNALLY ISOLATED HVAC EQUIPMENT SHALL HAVE FLEXIBLE DUCT CONNECTORS.
- ALL CONDENSATE DRAIN PIPING SET @ MIN. 1% SLOPE.
- ALL CONDENSATE DRAIN PIPING TO TERMINATE TO DRAIN VIA AIR GAP.
- THE CONTRACTOR SHALL FIELD VERIFY THE EXISTENCE OF ANY HAZARDOUS MATERIALS (I.E. ASBESTOS) IN AREAS THAT ARE WITHIN THE SCOPE OF THE WORK. NOTIFY OWNER IMMEDIATELY UPON DISCOVERY OF SUCH MATERIALS. DO NOT COMMENCE CONSTRUCTION IN SUCH AREAS. OWNER WILL NOTIFY CONTRACTOR TO PROCEED AFTER ABATEMENT IS COMPLETED OR MATERIAL IS CLEARLY IDENTIFIED AND ISOLATED.
- REFER TO ABATEMENT SPECIFICATIONS FOR IDENTIFICATION AND REMOVAL OF HAZARDOUS MATERIALS.

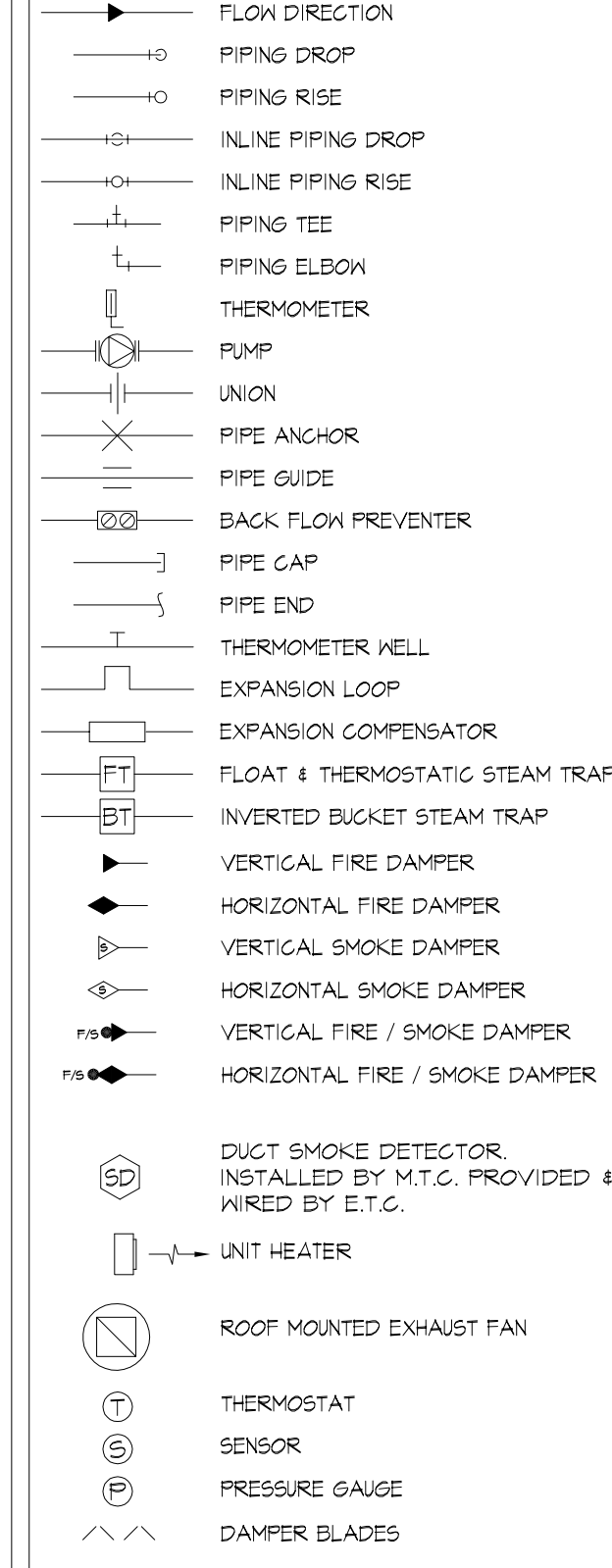
HVAC DUCTWORK



SINGLE LINED

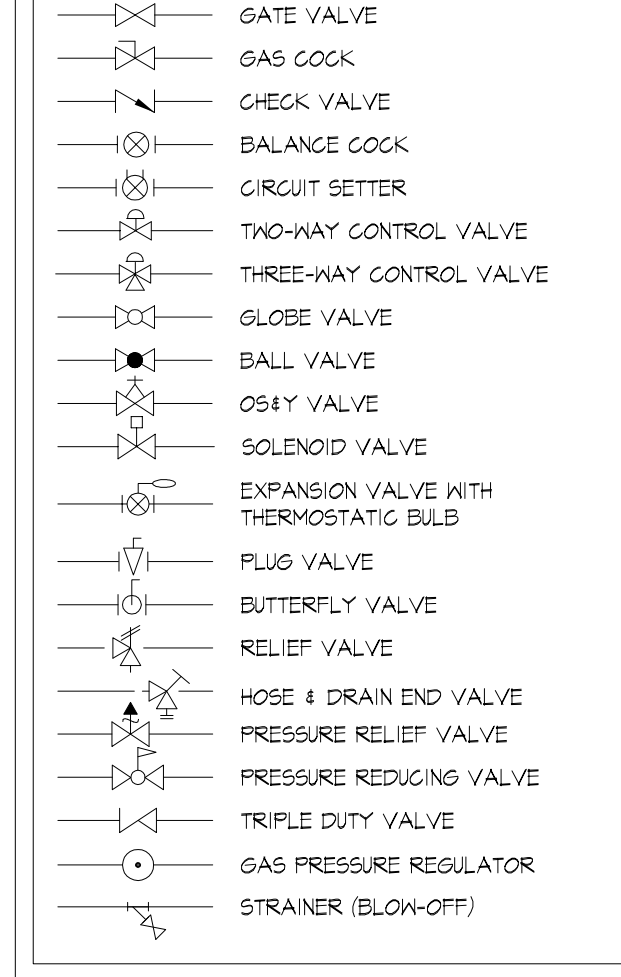
- SA — SUPPLY AIR DUCT
- X-SA — EXIST SUPPLY AIR DUCT
- RA — RETURN AIR DUCT
- X-RA — EXIST RETURN AIR DUCT
- OA — OUTSIDE AIR DUCT
- X-OA — EXIST OUTSIDE AIR DUCT
- EA — EXHAUST AIR DUCT
- X-EA — EXIST EXHAUST AIR DUCT

HVAC EQUIPMENT

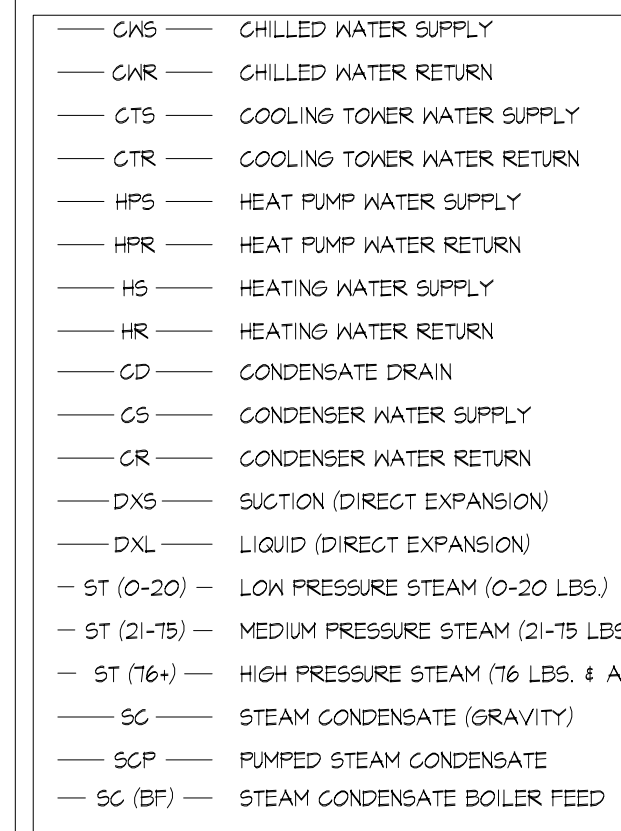


NOTE:
ALL CONTRACTORS SHALL BE RESPONSIBLE TO VERIFY ALL EXISTING CONDITIONS SHOWN AND NOT SHOWN ON PRINTS. EXISTING CONDITIONS VERIFIED SHALL BE APPLIED TO FINAL BIDS, DEMOLITION & NEW CONSTRUCTION.
CONTRACTORS ARE RESPONSIBLE TO FIELD VERIFY AND COORDINATE WITH EQUIPMENT MANUFACTURER FOR EXTENTS OF DEMOLITION AND TAKE ON THEIR OWN RISK FOR ALL EXISTING CONDITIONS THAT WILL EFFECT CONSTRUCTION FOR THIS PROJECT.

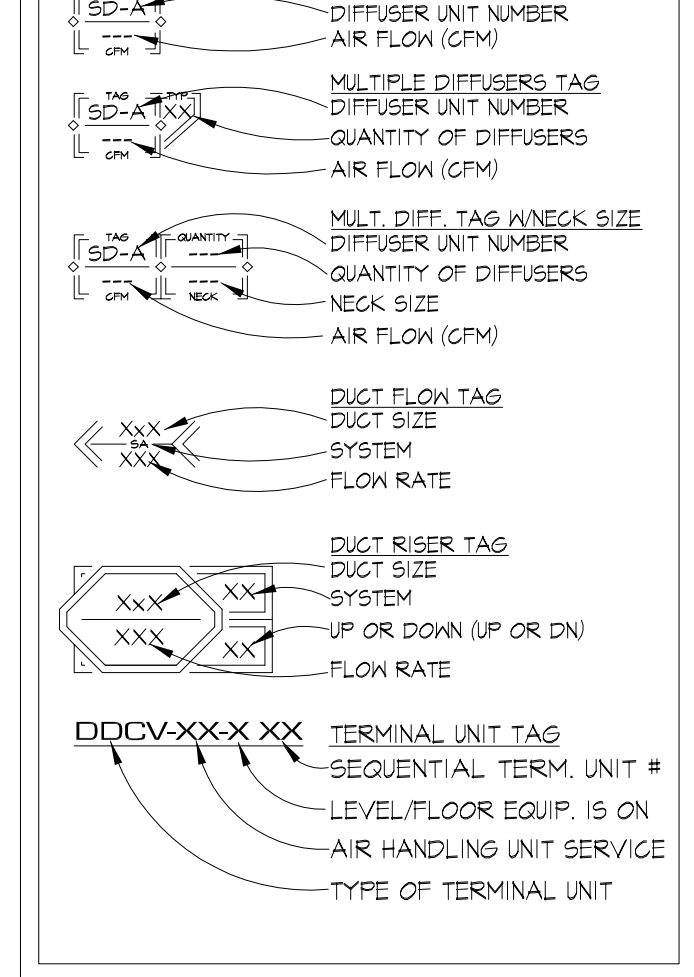
VALVES



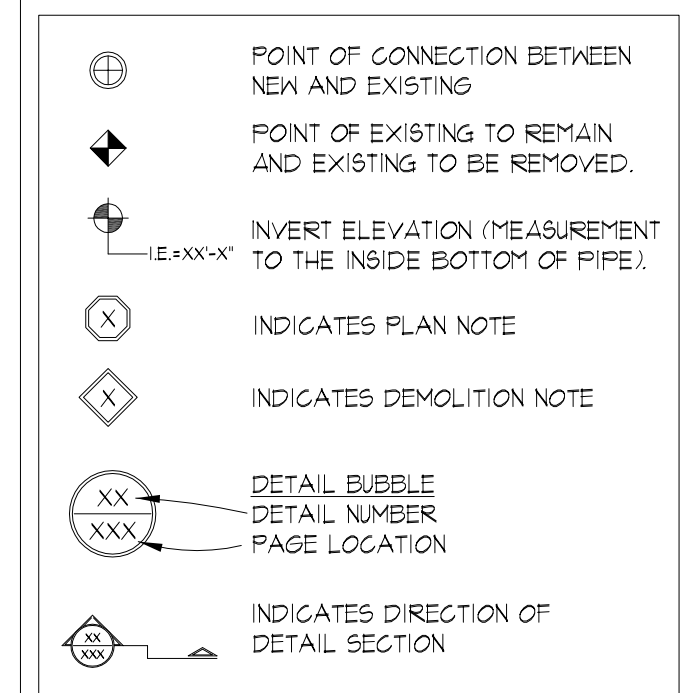
PIPING



HVAC TAGS



MISC SYMBOLS



HVAC DEMOLITION NOTES:

- REMOVE EXISTING DUCTWORK AND ASSOCIATED CONTROLS AND DAMPERS AS SHOWN.
- EXISTING DUCTWORK UP TO ROOF TO REMAIN AS SHOWN.
- REMOVE EXISTING ROOFTOP UNIT AND CURB. REUSE EXISTING NAT GAS PIPING FOR NEW UNIT.
- EXISTING ROOFTOP UNIT TO REMAIN.
- RELOCATE DHX, DCN, AND SANITARY PIPING TO RELOCATED MOP SINK.
- DISCONNECT AND REMOVE EXISTING SINK. REMOVE WATER PIPING AND CAP ABOVE CEILING. CUT SANITARY BELOW FINISHED FLOOR AND CAP.

HVAC PLAN NOTES:

- 12x8 TRANSFER DUCT, DUCTWORK TO HAVE (2) 90° ELBOWS. DUCTWORK SHALL BE LINED FOR ACOUSTIC PURPOSES. RG TO BE 12x8 (RG-B)

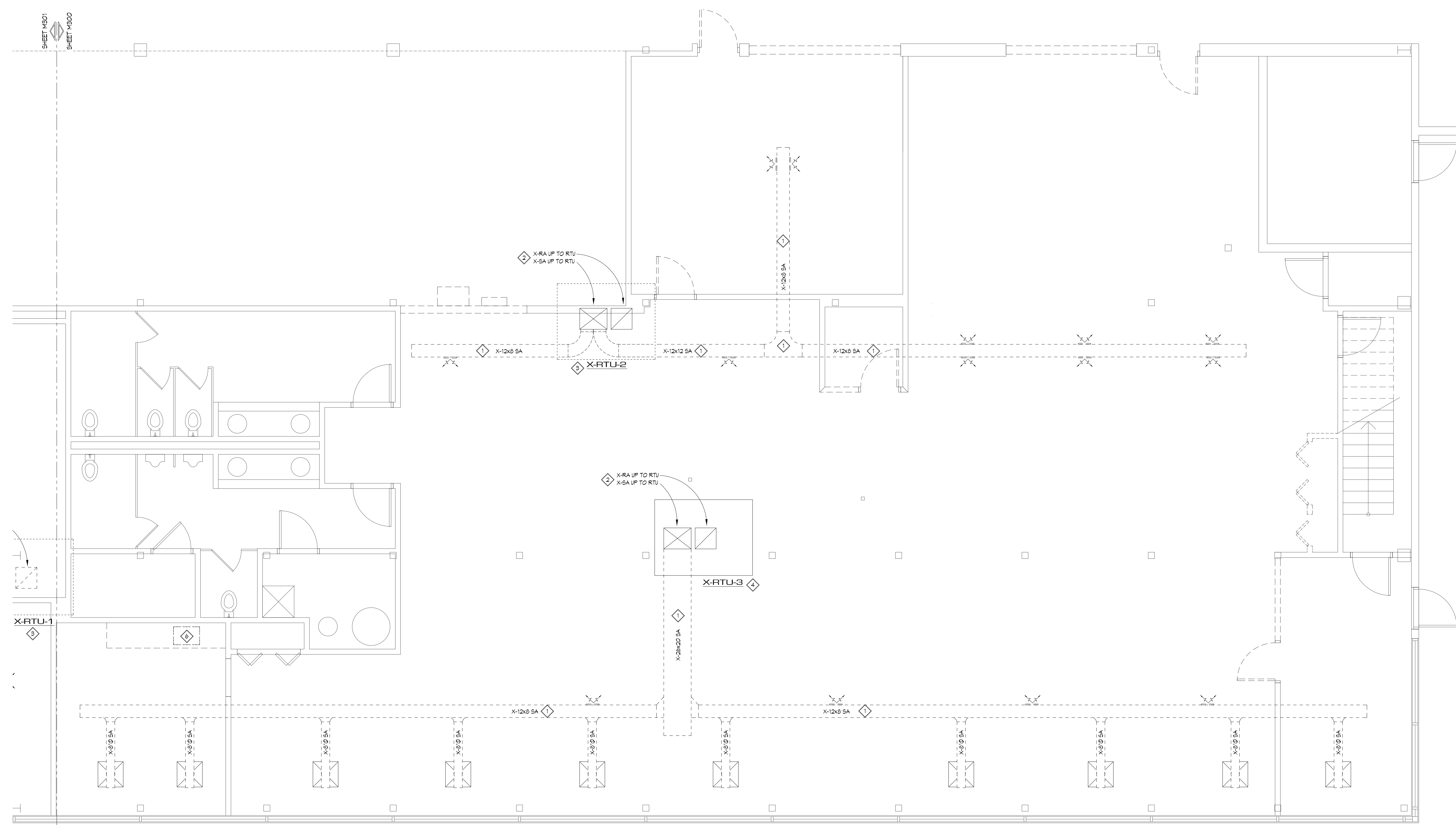
REVISIONS:		
MARK	DATE	ISSUED FOR

ISSUED FOR:	
◇ AS-BUILT RECORD DWGS	
◆ CONSTRUCTION DOCUMENTS	
◇ DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION	
◇ PRELIMINARY - NOT FOR CONSTRUCTION	
◇ M/E/P SYSTEMS STUDY NOT FOR CONSTRUCTION	
DRAWN BY: JAR	
CHECKED BY: HMN	
DATE: 8-DEC-2014	
SHEET NUMBER	

- HVAC DEMOLITION NOTES:**
- 1 REMOVE EXISTING DUCTWORK AND ASSOCIATED CONTROLS AND DAMPERS AS SHOWN.
 - 2 EXISTING DUCTWORK UP TO ROOF TO REMAIN AS SHOWN.
 - 3 REMOVE EXISTING ROOFTOP UNIT AND CURB. REUSE EXISTING NAT GAS PIPING FOR NEW UNIT.
 - 4 EXISTING ROOFTOP UNIT TO REMAIN.
 - 5 RELOCATE DHX, DCK, AND SANITARY PIPING TO RELOCATED MOP SINK.
 - 6 DISCONNECT AND REMOVE EXISTING SINK, REMOVE WATER PIPING AND CAP ABOVE CEILING. CUT SANITARY BELOW FINISHED FLOOR AND CAP.

REVISIONS:

MARK	DATE	ISSUED FOR
△		
△		
△		
△		
△		
△		



PROJECT NAME:
QEK
 CORPORATE OFFICES
 1225 E. MAPLE, TROY MI
 SHEET DESCRIPTION:
 MECHANICAL DEMO PLAN - OFFICE AREA

ISSUED FOR:

- ◇ AS-BUILT RECORD DWGS
- ◆ CONSTRUCTION DOCUMENTS
- ◇ DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION
- ◇ PRELIMINARY - NOT FOR CONSTRUCTION
- ◇ M/E/P SYSTEMS STUDY NOT FOR CONSTRUCTION

DRAWN BY: JAR
 CHECKED BY: HMN
 DATE: 8-DEC-2014
 SHEET NUMBER

MECHANICAL DEMO PLAN - OFFICE AREA

0 1 5 10
 SCALE: 1/4" = 1'-0"

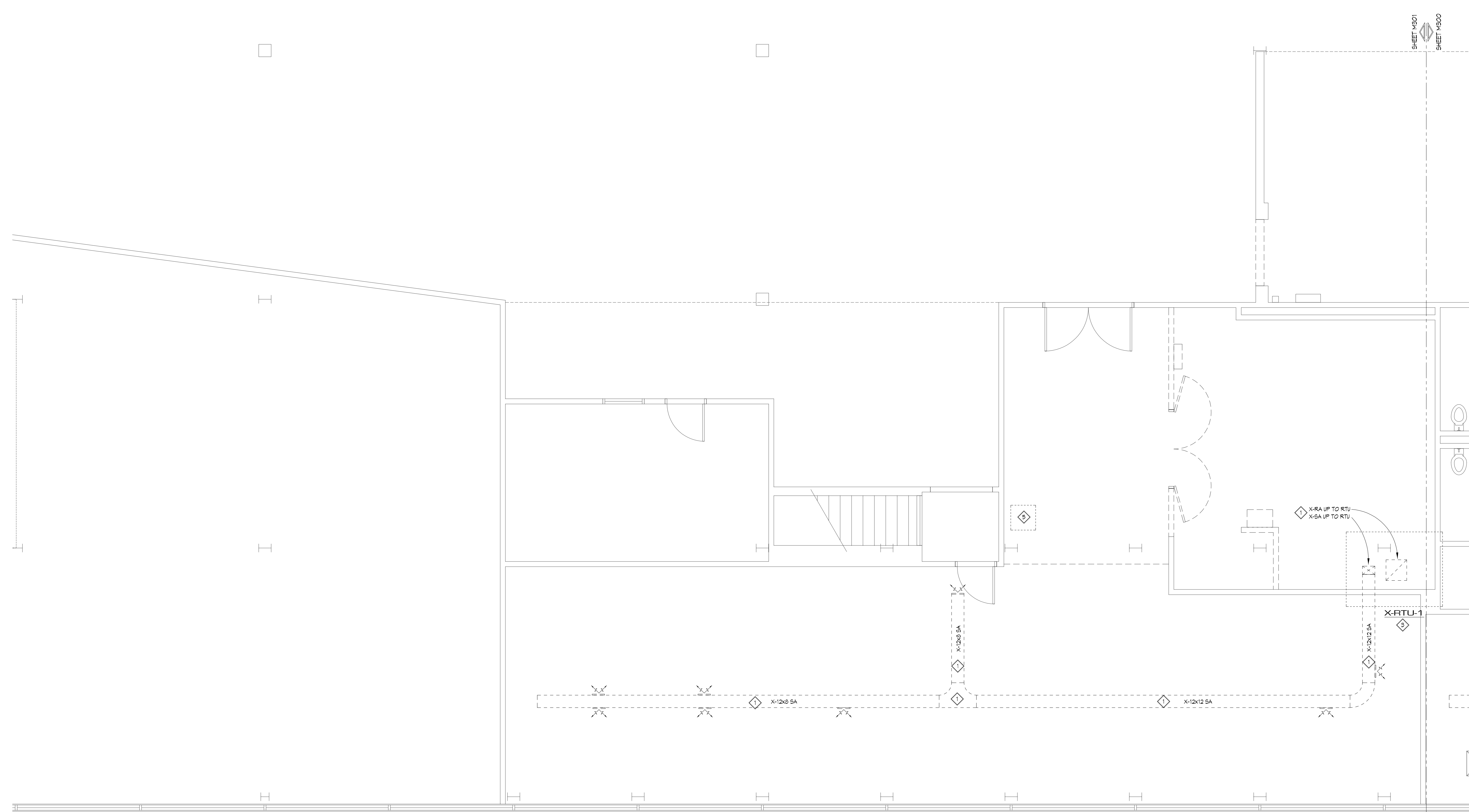
M300
 PROJECT NUMBER
 14-123.00

HVAC DEMOLITION NOTES:

- 1 REMOVE EXISTING DUCTWORK AND ASSOCIATED CONTROLS AND DAMPERS AS SHOWN.
- 2 EXISTING DUCTWORK UP TO ROOF TO REMAIN AS SHOWN.
- 3 REMOVE EXISTING ROOFTOP UNIT AND CURB. REUSE EXISTING NAT GAS PIPING FOR NEW UNIT.
- 4 EXISTING ROOFTOP UNIT TO REMAIN.
- 5 RELOCATE DHX, DGH, AND SANITARY PIPING TO RELOCATED MOP SINK.

REVISIONS:

MARK	DATE	ISSUED FOR
△		
△		
△		
△		
△		
△		

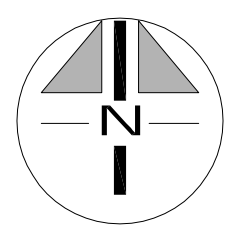


QEK
 CORPORATE OFFICES
 1225 E. MAPLE, TROY MI
 SHEET DESCRIPTION:
 MECHANICAL DEMO PLAN - BREAK ROOM

ISSUED FOR:

- ◇ AS-BUILT RECORD DWGS
- ◆ CONSTRUCTION DOCUMENTS
- ◇ DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION
- ◇ PRELIMINARY - NOT FOR CONSTRUCTION
- ◇ M/E/P SYSTEMS STUDY - NOT FOR CONSTRUCTION

DRAWN BY: JAR
 CHECKED BY: HMN
 DATE: 8-DEC-2014
 SHEET NUMBER



MECHANICAL DEMO PLAN - BREAK ROOM

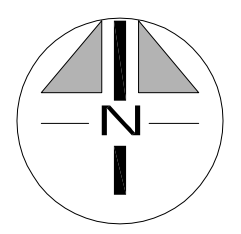
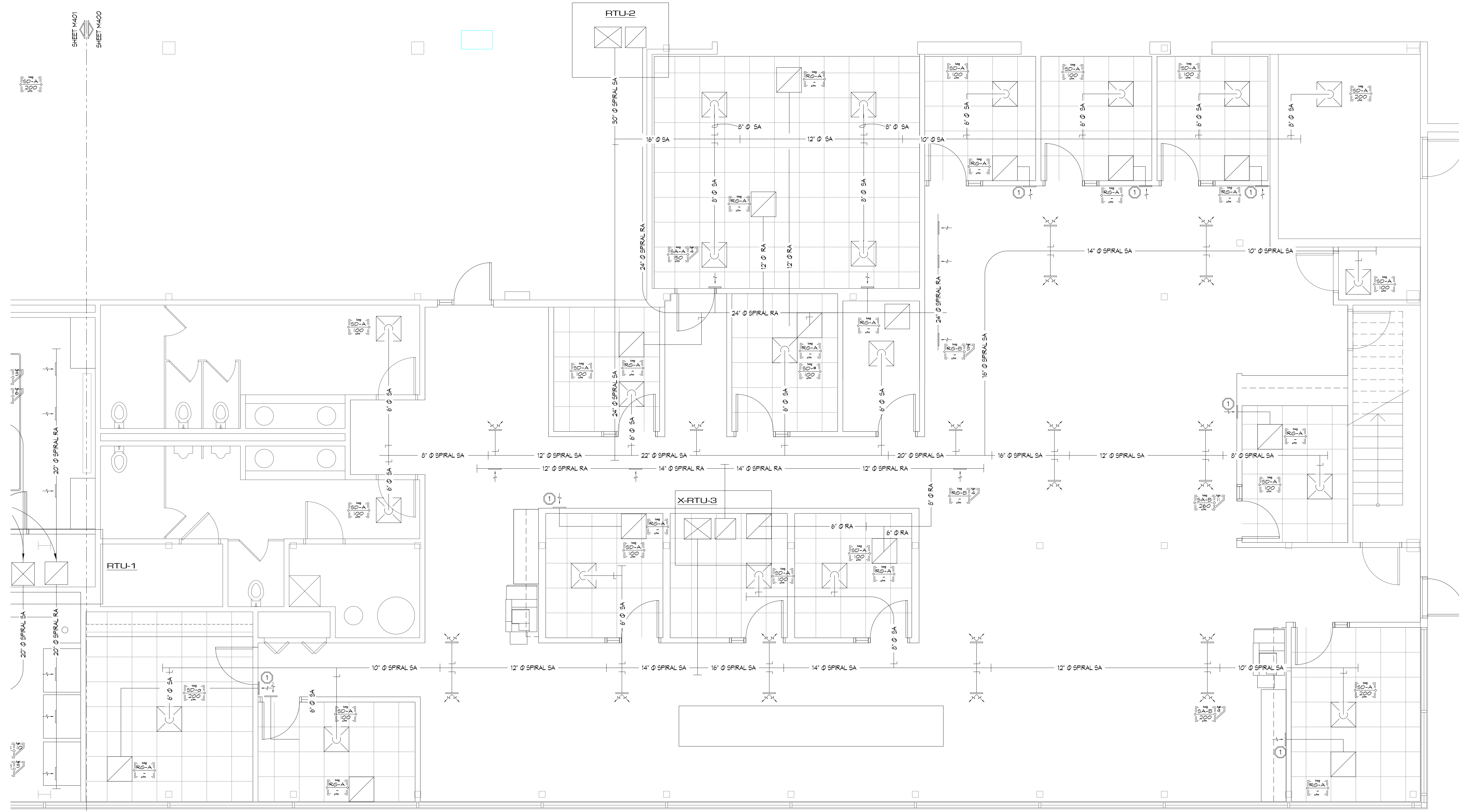
0 1 5 10
 SCALE: 1/4" = 1'-0"

M301
 PROJECT NUMBER
 14-123.00

HVAC PLAN NOTES:

- ① 12" Ø TRANSFER DUCT, DUCTWORK TO HAVE (2) 90° ELBOWS. DUCTWORK SHALL BE LINED FOR ACOUSTIC PURPOSES. RG TO BE 12" Ø (RG-B)

REVISIONS:	MARK	DATE	ISSUED FOR
▲			
▲			
▲			
▲			
▲			



MECHANICAL PLAN - OFFICE AREA

SCALE: 1/4" = 1'-0"

PROJECT NAME:
QEK
CORPORATE OFFICES
1225 E. MAPLE, TROY MI
SHEET DESCRIPTION:
MECHANICAL PLAN - OFFICE AREA

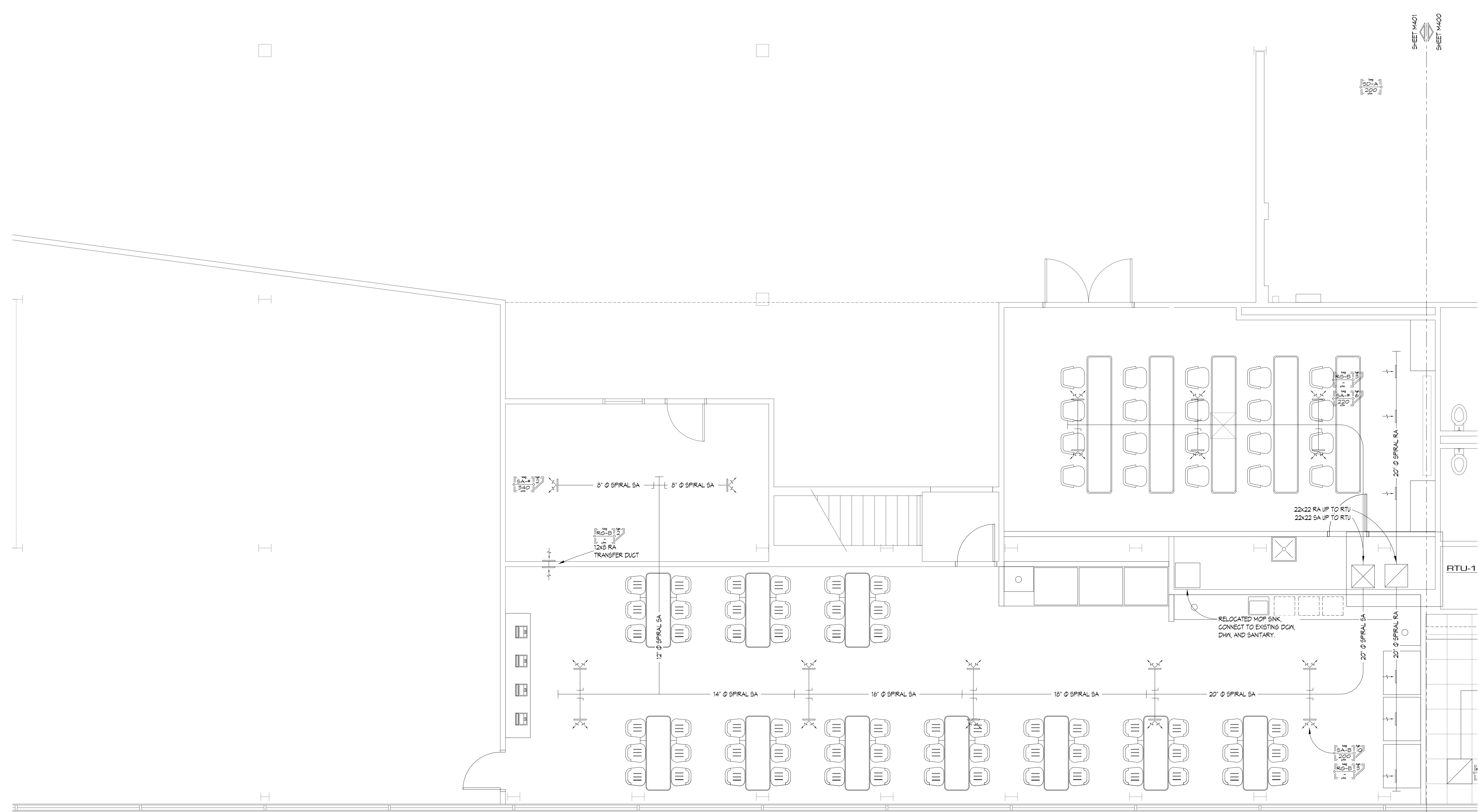
ISSUED FOR:
◇ AS-BUILT RECORD DWGS
◆ CONSTRUCTION DOCUMENTS
◇ DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION
◇ PRELIMINARY - NOT FOR CONSTRUCTION
◇ M/E/P SYSTEMS STUDY - NOT FOR CONSTRUCTION

DRAWN BY: JAR
CHECKED BY: HMN
DATE: 8-DEC-2014
SHEET NUMBER

M400
PROJECT NUMBER
14-123.00

REVISIONS:

MARK	DATE	ISSUED FOR
△		
△		
△		
△		
△		
△		



MECHANICAL PLAN - BREAK ROOM

0 1 5 10
 SCALE: 1/4" = 1'-0"

PROJECT NAME: **QEK**
CORPORATE OFFICES
1225 E. MAPLE, TROY MI
 SHEET DESCRIPTION: **MECHANICAL PLAN - BREAK ROOM**

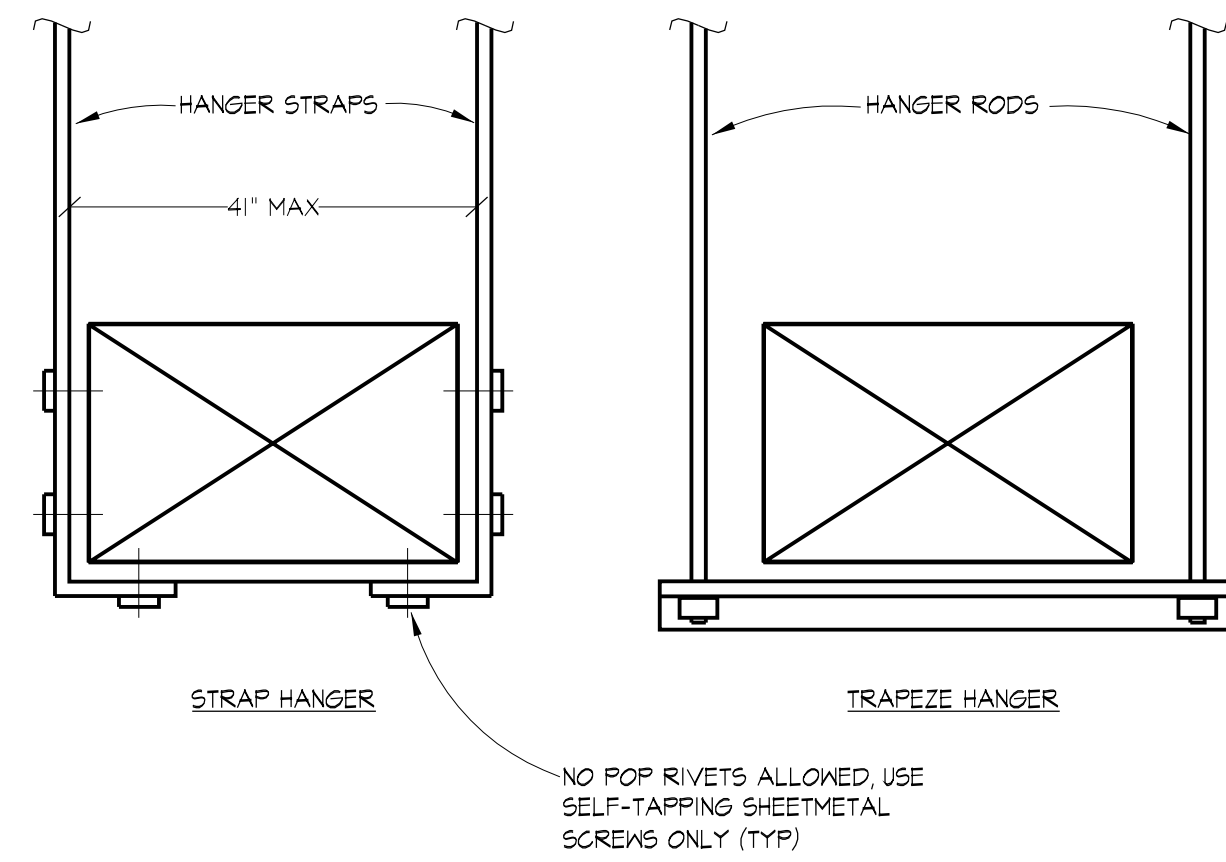
ISSUED FOR:

- ◇ AS-BUILT RECORD DWGS
- ◆ CONSTRUCTION DOCUMENTS
- ◇ DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION
- ◇ PRELIMINARY - NOT FOR CONSTRUCTION
- ◇ M/E/P SYSTEMS STUDY - NOT FOR CONSTRUCTION

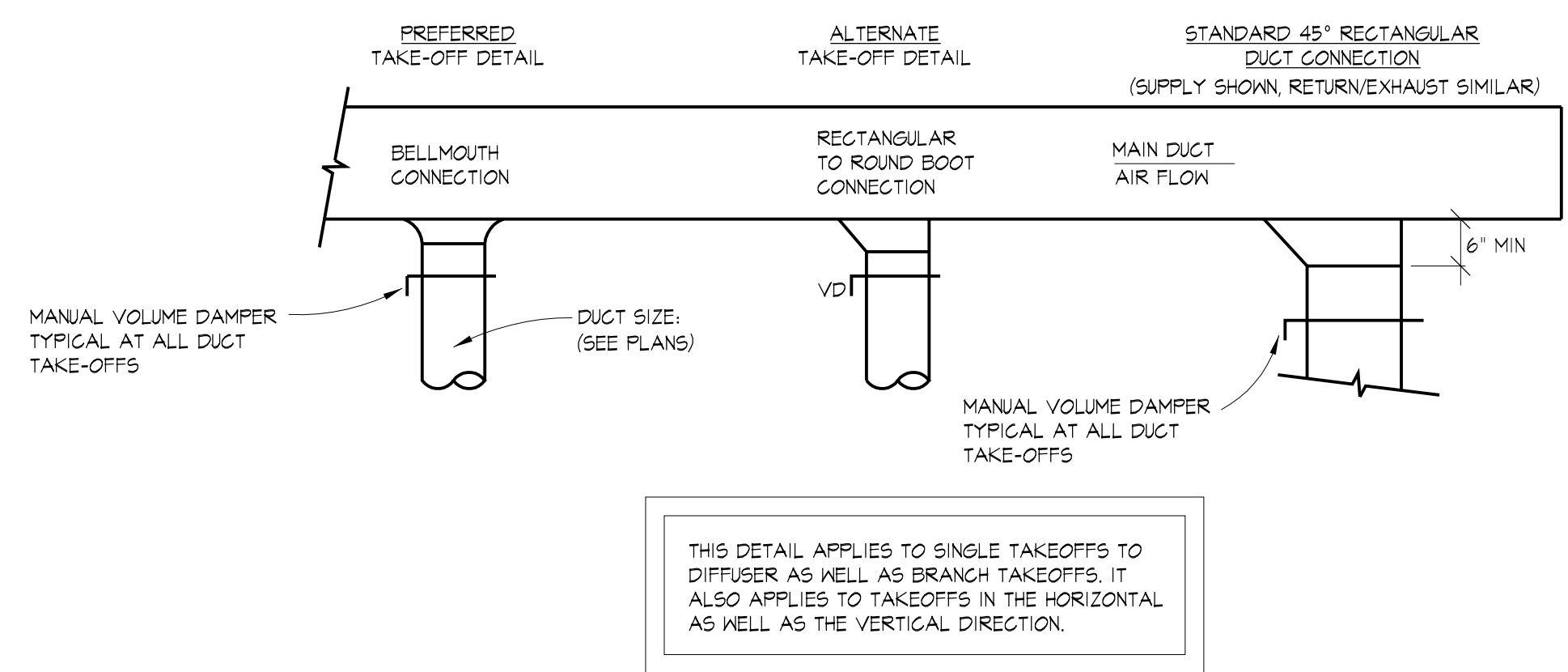
DRAWN BY: JAR
 CHECKED BY: HMN
 DATE: 8-DEC-2014
 SHEET NUMBER

M401

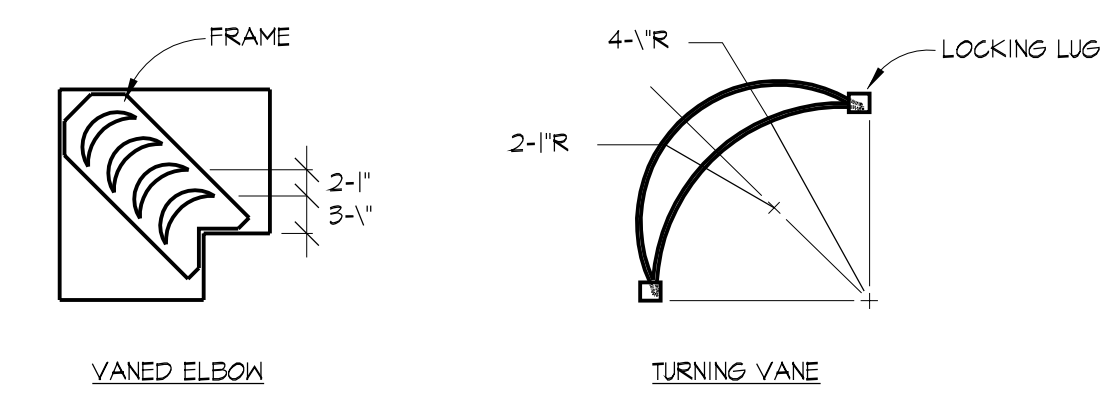
PROJECT NUMBER
14-123.00



DUCT HANGER DETAIL
 N.T.S.

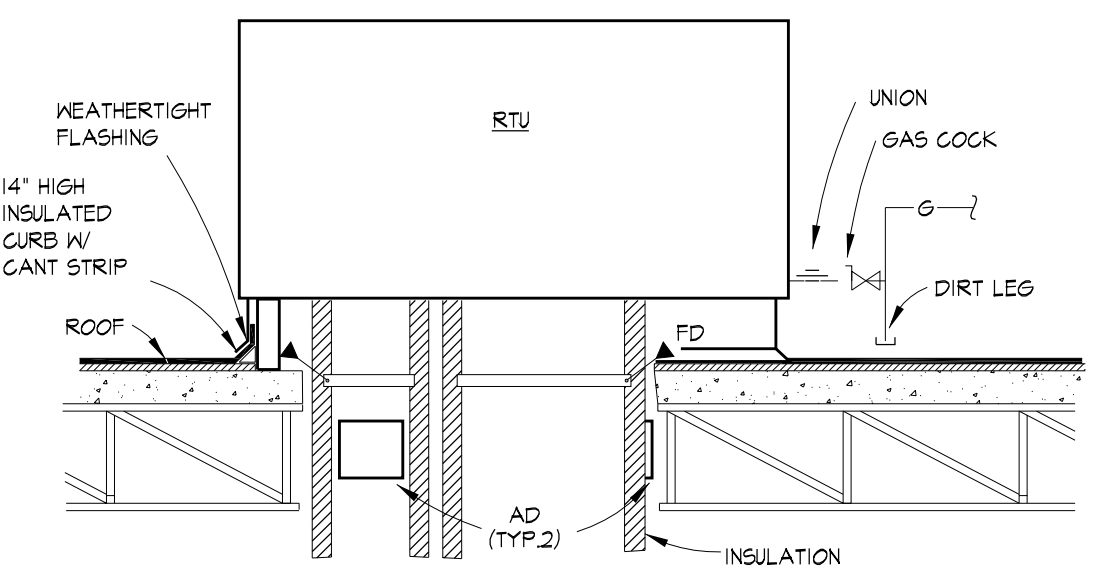


DUCT TAKE-OFFS DETAIL
 N.T.S.

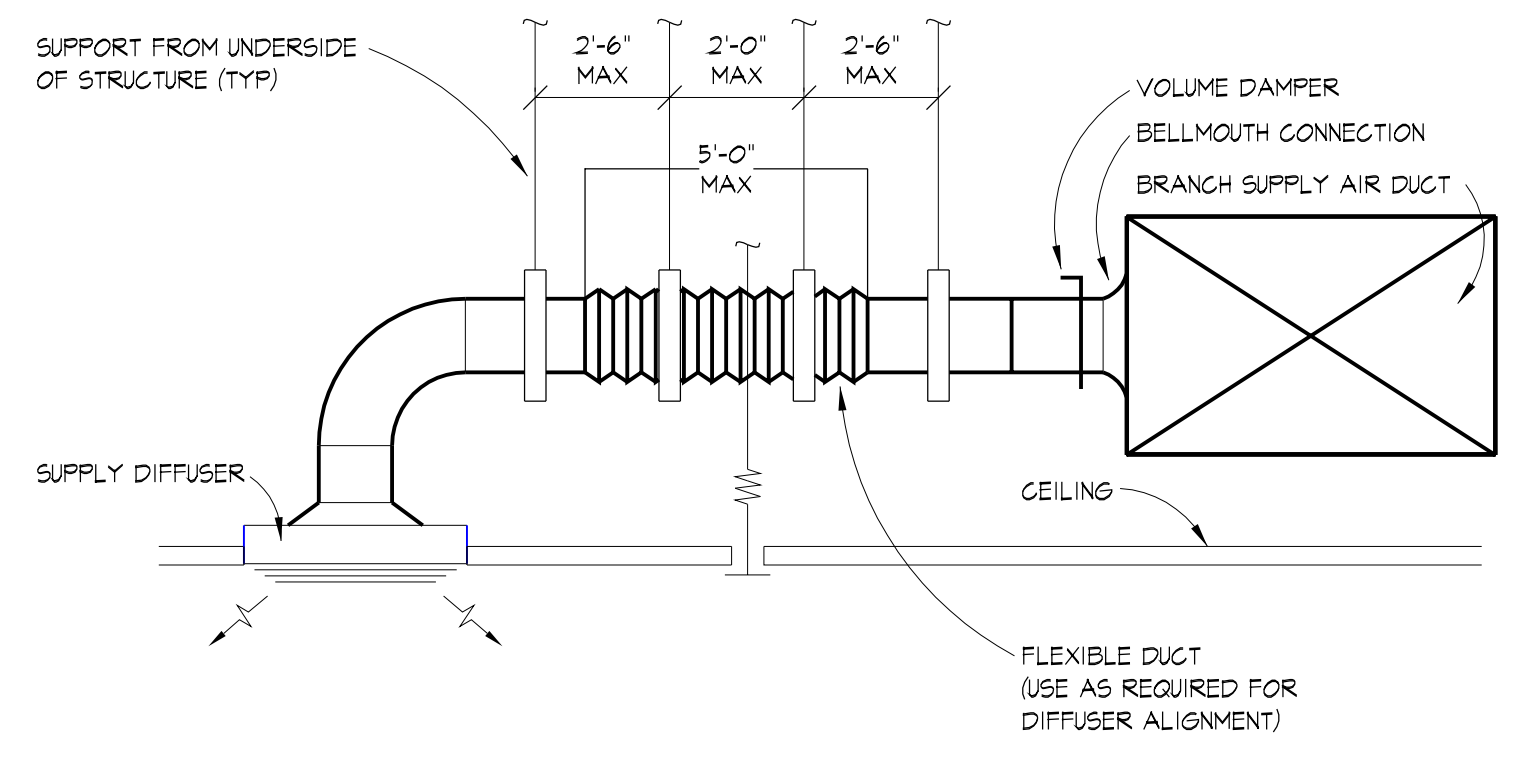


- NOTES:
1. LOCKING LUGS INTEGRAL WITH VANE
 2. MAXIMUM UNSUPPORTED VANE LENGTH 48"
 3. FRAMES - BOLTED OR RIVETED TO ELBOW
 4. VANES AND FRAMES - SAME GAUGE AS ELBOW

TURNING VANES FOR SQUARE ELBOW DETAIL
 N.T.S.



ROOF TOP UNIT DETAIL
 N.T.S.



CEILING DIFFUSER BRANCH DUCT W/ FLEX CONNECTION DETAIL
 N.T.S.

REVISIONS:

MARK	DATE	ISSUED FOR
△		
△		
△		
△		
△		
△		



PROJECT NAME:
QEK
 CORPORATE OFFICES
 1225 E. MAPLE, TROY MI
 SHEET DESCRIPTION:
 MECHANICAL DETAILS

ISSUED FOR:

- ◇ AS-BUILT RECORD DWGS
- ◇ CONSTRUCTION DOCUMENTS
- ◇ DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION
- ◇ PRELIMINARY - NOT FOR CONSTRUCTION
- ◇ M/E/P SYSTEMS STUDY - NOT FOR CONSTRUCTION

DRAWN BY: JAR
 CHECKED BY: HMN
 DATE: 8-DEC-2014
 SHEET NUMBER

M700
 PROJECT NUMBER
 14-123.00

ROOF TOP UNIT SCHEDULE

TAG	SERVICE	MODEL	SA CFM	MIN OA CFM	HP	FAN RPM	BHP	COOLING				GAS HEATING		GAS PRESSURE		VOLTS & PHASE	CIRCUIT NO.	CIRCUIT PROTECTION DEVICE	CIRCUIT SIZE	MCA	CONTROLLER DISCONNECT				CONTROLLER				NOTES	TAG
								MEH	TONS	EER/SEER	INPUT	OUTPUT	MIN	MAX	TYPE						BY	LOCATE	TYPE	SIZE	BY	LOCATE				
															3												4	3		
RTU-1	BreakRoom	DC6120.2104BX3RA	3,200	640	2.0	743	1.09	116	10	11.3 / 11.5	210 MEH	168 MEH	3	4	480/3	Existing	60/3 CB	3/4" (3) #6 & (1) #10	45.0	FDS	60A/60P	EG	ON UNIT	-	-	-	-	1,2,3	RTU-1	
RTU-2	Office Area	DC6150.3503BX3RA	4,260	850	3.0	NA	1.45	100	15	10.8 / 11.0	350 MEH	262 MEH	3	4	480/3	Existing	80/3 CB	3/4" (3) #6 & (1) #10	75.0	FDS	100A/90P	EG	ON UNIT	-	-	-	-	1,2,3	RTU-2	

BASED ON: Daikin Comfort

- NOTES:
1. EBP INCLUDES .25" FOR DIRTY FILTER PLUS ECONOMIZER LOSSES.
 2. ACCESSORIES:
 - EZ - ECONOMIZER
 - CB - ON GRADE CURB
 - HZ - HORIZONTAL DUCT CONNECTION
 - EP - POWERED EXHAUST
 - OM - OVERSIZED MOTOR
 - LA - LOW AMBIENT
 - SD - STAINLESS STEEL HX.
 - CO - Convenience outlet
 - SD - supply Air smoke detector

- ELECTRICAL ABBREVIATIONS:
- FDS - FUSED DISCONNECT SWITCH
 - NFDS - NON-FUSED DISCONNECT SWITCH
 - MMS - MANUAL MOTOR SWITCH
 - CS - COMBINATION STARTER / DISCONNECT
 - VFD - VARIABLE FREQUENCY DRIVE
 - MS - MAGNETIC MOTOR STARTER

DIFFUSER, REGISTER, & GRILLE SCHEDULE

TAG	MODEL	NECK SIZE	FACE SIZE	CFM RANGE (MIN-MAX)	PATTERN	MOUNTING	MATERIAL	COLOR	100 FPM THROW	REMARKS
SD-A	TMS	8"	24x24	50-135	3 CORE / 4-WAY	LAY-IN	STEEL	OFF WHITE	8'	
SD-A	TMS	8"	24x24	140-245	3 CORE / 4-WAY	LAY-IN	STEEL	OFF WHITE	8'	
SD-A	TMS	10"	24x24	250-350	3 CORE / 4-WAY	LAY-IN	STEEL	OFF WHITE	8'	
SD-A	TMS	12"	24x24	365-550	3 CORE / 4-WAY	LAY-IN	STEEL	OFF WHITE	8'	
SD-A	TMS	14"	24x24	480-750	3 CORE / 4-WAY	LAY-IN	STEEL	OFF WHITE	10'	
SD-B	1100L	8x4	8x4	55-125	REV. CORE	SURFACE	ALUMINUM	FACTORY	7-15'	REV. CORE 5" OR 15" VV ADJ BK BLDG
SD-B	1100L	8x8	8x8	115-275	REV. CORE	SURFACE	ALUMINUM	FACTORY	11-22'	REV. CORE 5" OR 15" VV ADJ BK BLDG
SD-B	1100L	16x4	16x4	125-240	REV. CORE	SURFACE	ALUMINUM	FACTORY	10-20'	REV. CORE 5" OR 15" VV ADJ BK BLDG
SD-B	1100L	22x6	22x6	245-560	REV. CORE	SURFACE	ALUMINUM	FACTORY	15-31'	REV. CORE 5" OR 15" VV ADJ BK BLDG
SD-B	1100L	30x6	30x6	320-750	REV. CORE	SURFACE	ALUMINUM	FACTORY	18-36'	REV. CORE 5" OR 15" VV ADJ BK BLDG
RG-A	50P	8x8	8x8	200	1/2x1/2x1/2 GRID	SURFACE	ALUMINUM	OFF WHITE	-	
RG-A	50P	12x12	12x12	500	1/2x1/2x1/2 GRID	SURFACE	ALUMINUM	OFF WHITE	-	
RG-A	50P	24x4	24x4	300	1/2x1/2x1/2 GRID	LAY-IN	ALUMINUM	OFF WHITE	-	
RG-A	50P	24x8	24x8	650	1/2x1/2x1/2 GRID	LAY-IN	ALUMINUM	OFF WHITE	-	
RG-A	50P	24x12	24x12	1,000	1/2x1/2x1/2 GRID	LAY-IN	ALUMINUM	OFF WHITE	-	
RG-A	50P	24x24	24x24	2,000	1/2x1/2x1/2 GRID	LAY-IN	ALUMINUM	OFF WHITE	-	
RG-B	23RL	10x6	10x6	50-100	3/4 9FC - 45° DPL	SURFACE	STEEL	OFF WHITE	-	20GA BORDER
RG-B	23RL	14x6	14x6	75-145	3/4 9FC - 45° DPL	SURFACE	STEEL	OFF WHITE	-	20GA BORDER
RG-B	23RL	12x12	12x12	135-265	3/4 9FC - 45° DPL	SURFACE	STEEL	OFF WHITE	-	20GA BORDER
RG-B	23RL	18x12	18x12	210-405	3/4 9FC - 45° DPL	SURFACE	STEEL	OFF WHITE	-	20GA BORDER

BASED ON: TITUS

NOTES:

- 1- MAX. NG = 30
- 2- MAX. APD = 0.10 INCHES
- 3- SELECT BORDER TO MATCH ROOM FINISH SCHEDULE



REVISIONS:

MARK	DATE	ISSUED FOR
△		
△		
△		
△		
△		
△		
△		



PROJECT NAME: **QEK**
CORPORATE OFFICES
1225 E. MAPLE, TROY MI
SHEET DESCRIPTION: **MECHANICAL SCHEDULES**

- ISSUED FOR:
- ◇ AS-BUILT RECORD DWGS
 - ◇ CONSTRUCTION DOCUMENTS
 - ◇ DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION
 - ◇ PRELIMINARY - NOT FOR CONSTRUCTION
 - ◇ M/E/P SYSTEMS STUDY - NOT FOR CONSTRUCTION
- DRAWN BY: JAR
CHECKED BY: HMN
DATE: 23-November-2014
SHEET NUMBER

M900
PROJECT NUMBER
14-123.00