



7850 Freeway Circle Cleveland, OH 44133
440.243.2000 t 440.243.3305

ARCHITECT:

[illegible]

Cuyahoga County Public Library
browsing is just the beginning

BEACHWOOD BRANCH RENOVATION

BEACHWOOD, OHIO 44122
ISSUED FOR: PERMIT

PROJECT ISSUANCE DATE: 09-09-2011

CLIENT PROJECT NUMBER: 15313.00

UNIT HEATER SCHEDULE	
MARK	CUH-1
TYPE	WALL MTD
CAPACITY (MBH)	51.8
WATER FLOW (GPM)	3.0
9 K H 8 @ K H 1 5 : 1	200/164
WATER PRESS DROP (FT)	1.5
STEAM - RATE (LB/HR)	-
STEAM - PRESSURE (PSIG)	-
AIR DELIVERY (CFM)	520
9 5 H 1 5 : 1	60
EXT. STATIC PRESS. ("WG)	-
MOTOR HP	1/25
ELECTRICAL DATA (VOLT./PH.)	120/1
MOUNTING ARRANGEMENT	SURF MTD
RECESS DEPTH	-
MANUFACTURER	RITTLING
MODEL NUMBER	RW-270-04
REMARKS	1,2,3,4

REMARKS:

1. GRAVITY DAMPER
2. MOTOR OPERATED DAMPER (120V/1 PH)
3. DISCONNECT SWITCH

REMARKS:

1. REFER TO DRAWINGS FOR INDIVIDUAL TERMINAL UNIT MAXIMUM AND MINIMUM SETPOINTS.
MAXIMUM PRIMARY AIR FLOW RATE SETPOINT SHALL BE THE SUM OF THE CONNECTED SUPPLY
OUTLETS. MINIMUM PRIMARY AIR FLOW RATE SETPOINT SHALL BE ZERO UNLESS OTHERWISE
NOTED IN PLAN DESIGNATION.
2. THE DIFFERENTIAL STATIC PRESSURE FOR ANY SIZE TERMINAL UNIT AT AN INLET
VELOCITY OF 2000 FPM SHALL NOT EXCEED 0.19" W.G.
3. MAXIMUM ROOM DISCHARGE COEFFICIENT VALUES ARE BASED UPON A TERMINAL STATIC PRESSURE
DROP OF 1" W.G. AND MANUFACTURER'S TERMINAL DISCHARGE CRITERIA.

REVISIONS:		
ISS REV	PURPOSE	DATE
1	ISSUED FOR PERMIT	09-09-2011
2	ISSUED FOR BID	09-30-2011
3	RECORD DOCUMENTS	07-18-2012

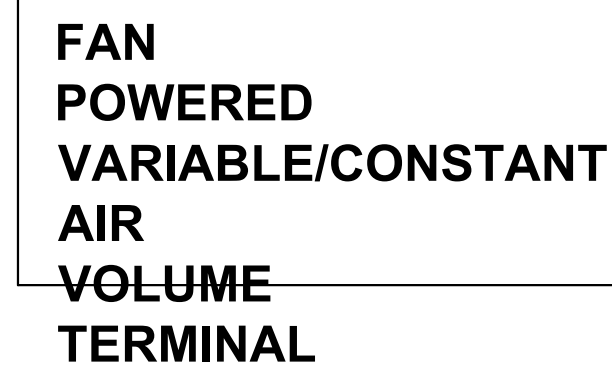
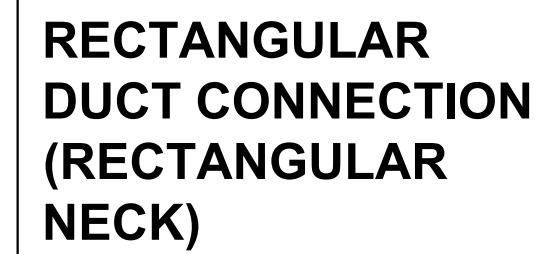
DRAWING TITLE:

□ GENERAL NOTES

DRAWING NUMBER.

114

M0-1



- GENERAL NOTES:**



- NOTES:



- ## GENERAL NOTES

BID PACKAGE NUMBER:							

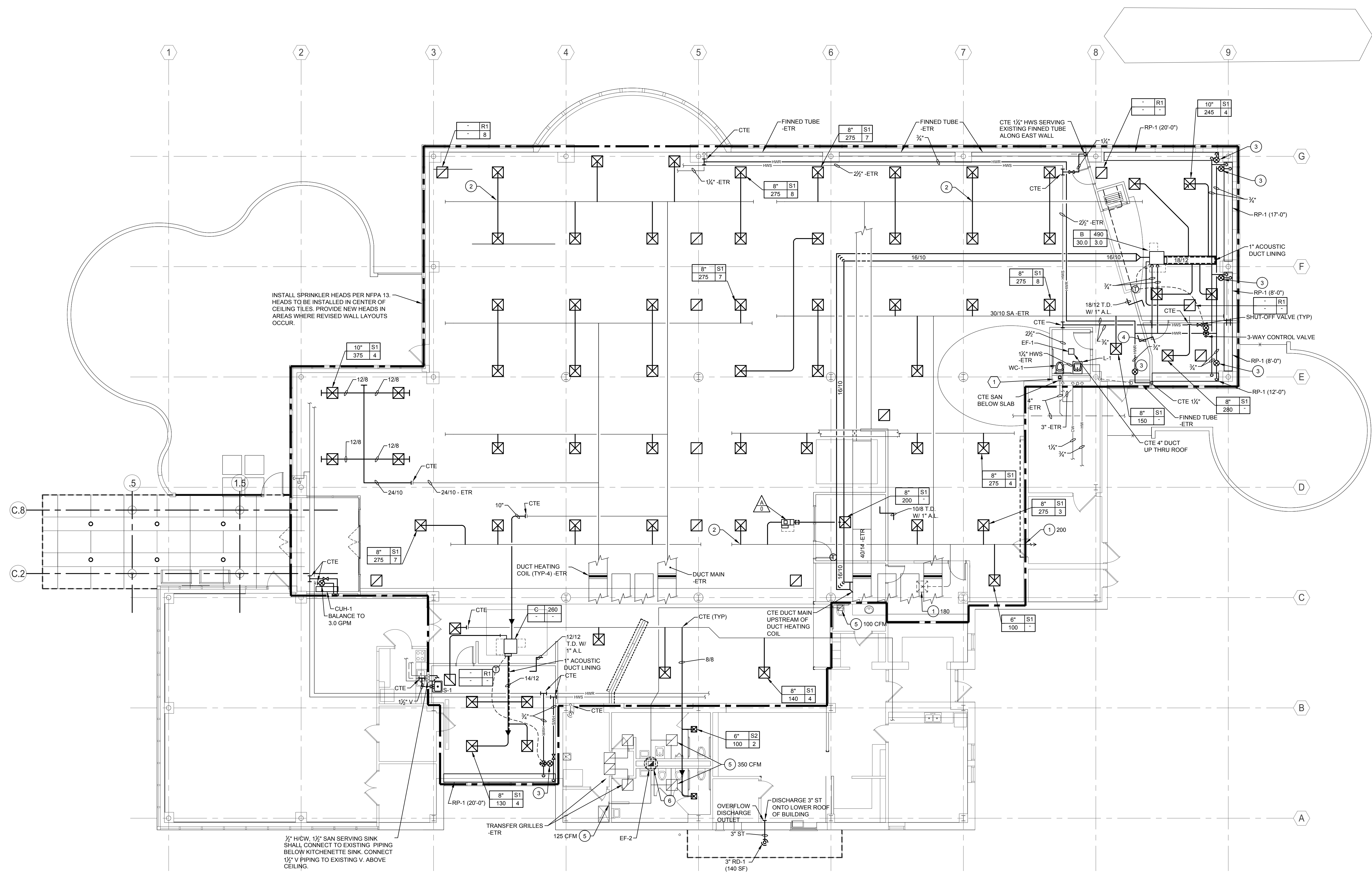
REVISIONS:		
ISS REV	PURPOSE	DATE
1	ISSUED FOR PERMIT	09-09-2011
2	ISSUED FOR BID	09-30-2011
3	RECORD DOCUMENTS	07-18-2012

PROJECT NUMBER: 15313

DRAWING TITLE:

MECHANICAL DETAILS

DRAWN BY: EJH	DRAWING NUMBER: M0-2
CHECKED BY: JGM	



MECHANICAL PLAN

0 4' 8' 16'

SCALE: 1/8" = 1'-0"

- PLUMBING PLAN NOTES**
1. EXTEND SAN PIPING INTO PLUMBING CHASE TO SERVE WC - L. CTE 2 1/2" V IN CEILING. EXTEND EXISTING 1 1/2" CW TO WC. EXTEND EXISTING 1/2" CW 1/2" HW TO L.
- HVAC PLAN NOTES**
1. BALANCE EXISTING SUPPLY GRILLE/DIFFUSER TO CFM INDICATED.
 2. CONNECT 8" BRANCH DUCT TO EXISTING DUCT MAIN (TYP)
 3. BALANCE CALIBRATED BALANCING VALVE TO 0.5 GPM
 4. 10/10 T.D. W/ 1" A.L.
 5. BALANCE EXISTING EXHAUST GRILLE TO CFM INDICATED
 6. MOUNT FAN ONTO EXISTING ROOF CURB.

BID PACKAGE NUMBER:

REVISIONS:		
ISS	PURPOSE	DATE
1	ISSUED FOR PERMIT	09-09-2011
2	ISSUED FOR BID	09-30-2011
3	RECORD DOCUMENTS	07-18-2012

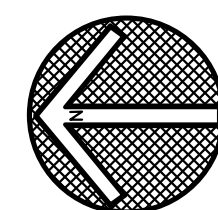
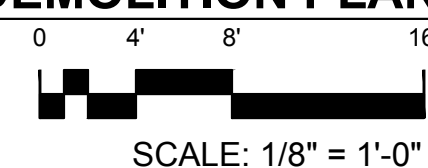
PROJECT NUMBER: 15313

DRAWING TITLE:
HVAC PLAN



1. REX 1/2" H/CW SUPPLY PIPING TO SINK. CAP PIPING AT MAINS ABOVE CEILING. REX 1 1/2" SAN - V PIPING TO SINK. CAP PIPING ABOVE CEILING OR BELOW FLOOR AND PATCH SLAB TO MATCH EXISTING.
2. REX LIGHT TROFFER DIFFUSER AND BRANCH DUCTWORK TO MAIN - CAP.
3. REX BRANCH DUCT TO MAIN - CAP.
4. REX DUCT TO THIS POINT.
5. REX VAV/FVAV BOX CONTROLS
6. SAW CUT FLOOR SLAB - REX CLOSET FLANGE - SAN PIPING TO POINT INDICATED.
7. REX ROUGH-IN SAN/VENT - H/CW PIPING SERVING EXISTING WC - L.

MECHANICAL DEMOLITION PLAN



BID PACKAGE NUMBER:

REVISIONS:

[illegible]

PROJECT NUMBER: 15313

DRAWING TITLE:

MECHANICAL DEMOLITION PLAN

DRAWN BY: EJH	DRAWING NUMBER: MD-1
CHECKED BY: JGM	

ELECTRICAL SYMBOL LEGEND	
SYMBOL	DESCRIPTION
-----	CONDUIT INSTALLED BELOW GRADE OR BELOW FINISHED FLOOR
E1--/ E1-->	ELECTRICAL CONNECTION TO E-UIPMENT ITEM E-1 (LETTER DESIGNATION AS APPLICABLE) - SEE CORRESPONDING E-UIPMENT CONNECTION SCHEDULE
Ⓢ	DUPLEX RECEPTACLE (20A, 125V) AT 18" AFF, UON 'TV' = MOUNTED NEXT TO VIDEO OUTLET
ⓈⓈ	DOUBLE DUPLEX RECEPTACLE AT 18" AFF, UON, TYPE AS INDICATED ON DRAWINGS
ⓈⓈ	DUPLEX RECEPTACLE (20A, 125V) GROUND FAULT CIRCUIT INTERRUPTER TYPE AT 18" AFF, UON 'E' = ON EMERGENCY CIRCUIT
ⓈⓈ	DOUBLE DUPLEX RECEPTACLE (20A, 125V) GROUND FAULT CIRCUIT INTERRUPTER TYPE AT 18" AFF, UON
Ⓢ	DUPLEX RECEPTACLE (20A, 125V) TAMPER RESISTANT SAFETY TYPE AT 18" AFF, UON
Ⓢ	DUPLEX RECEPTACLE (20A, 125V) MOUNTED 8" ABOVE COUNTER, UON
Ⓢ	DUPLEX RECEPTACLE (20A, 125V) GROUND FAULT CIRCUIT INTERRUPTER MOUNTED 8" ABOVE COUNTER, UON
Ⓢ	SPECIAL PURPOSE SINGLE RECEPTACLE - NEMA CONFIGURATION AND HEIGHT AS INDICATED ON DRAWINGS 'TL' = TWISTLOCK
Ⓢ	COMBINATION SWITCH AND DUPLEX RECEPTACLE AT 48" AFF, UON
Ⓢ	DUPLEX RECEPTACLE (20A, 125V) - IN FLOOR BOX 'F' = FLUSH MOUNTED 'S' = SURFACE MOUNTED
Ⓢ	COMBINATION DUPLEX RECEPTACLE (20A, 125V) AND VOICE/DATA ROUGH-IN OUTLET - IN FLUSH FLOOR BOX
Ⓢ	COMBINATION POWEROICE/DATA SERVICE BOX - RECESSED IN FLOOR. NUMBER INDICATES QUANTITY OF DUPLEX (20A, 125V) RECEPTACLES AND QUANTITY OF VOICE/DATA ROUGH-INS.
Ⓢ	SURFACE RACEWAY - REFER TO DRAWINGS FOR REQUIREMENTS
Ⓢ	JUNCTION BOX - MOUNTING HEIGHT AND SIZE AS REQUIRED BY CODE OR AS NOTED ON DRAWINGS
\$	SWITCH (20A, 120/277V, SINGLE POLE) AT 48" AFF, UON 'E' = EMERGENCY CIRCUIT 'LV' = LOW VOLTAGE 'MS' = MANUAL MOTOR STARTER - SURFACE MOUNTED 'MP' = MANUAL MOTOR STARTER - FLUSH MOUNTED '3' = THREE-WAY '4' = FOUR-WAY
\$	TWO SWITCHES IN COMMON BOX - FOR MULTILEVEL CONTROL AT 48" AFF, UON
Ⓢ	PUSHBUTTON STATION AT 48" AFF, UON. LETTER DENOTES DETAIL.
Ⓢ	PUSHBUTTON OPERATOR FOR MOTOR CONTROL AT 48" AFF, UON
Ⓢ	D 5 B 9 @ 6 C 5 F B 11 & S, M # % & S J 2 ' ' & 2 (' K - F 9 L
Ⓢ	SURGE PROTECTION DEVICE
Ⓢ	NON-FUSED DISCONNECT SWITCH - SIZE AS INDICATED
Ⓢ	FUSED DISCONNECT SWITCH - SIZE AND FUSING AS INDICATED
Ⓢ	COMBINATION MAGNETIC MOTOR STARTER/DISCONNECT SWITCH - FUSING AS INDICATED
Ⓢ	TRANSFORMER
Ⓢ	THERMOSTAT FURNISHED BY MECHANICAL CONTRACTOR - INSTALLED AND WIRED BY ELECTRICAL CONTRACTOR AT 48" AFF, UON
Ⓢ	SINGLE OR THREE PHASE MOTOR - SEE DRAWINGS FOR DESCRIPTION
Ⓢ	LIGHTING FIXTURE - AT CEILING, SURFACE OR RECESSED MOUNTED
Ⓢ	LIGHTING FIXTURE WITH MULTILEVEL CONTROL AS INDICATED ON DRAWINGS - AT CEILING, SURFACE OR RECESSED MOUNTED
Ⓢ	LIGHTING FIXTURE DESIGNATED FOR EGRESS WIRED TO LIFE SAFETY CIRCUIT - AT CEILING, SURFACE OR RECESSED MOUNTED
Ⓢ	LIGHTING FIXTURE, OUTER LAMPS DESIGNATED FOR EGRESS WIRED TO LIFE SAFETY CIRCUIT - AT CEILING, SURFACE OR RECESSED MOUNTED
Ⓢ	LIGHTING FIXTURE - MOUNTED AS INDICATED ON DRAWINGS
Ⓢ	TRACK LIGHTING FIXTURE AND TRACK - MOUNTED AS INDICATED ON DRAWINGS
Ⓢ	MONOPOINT TRACK LIGHTING FIXTURE - MOUNTED AS INDICATED ON DRAWINGS
Ⓢ	LIGHTING FIXTURE, WALL WASHER OR ADJUSTABLE - AT CEILING

ELECTRICAL SYMBOL LEGEND	
SYMBOL	DESCRIPTION
Ⓢ	LIGHTING FIXTURE - WALL MOUNTED AT HEIGHT AS INDICATED ON DRAWINGS
Ⓢ	LIGHTING FIXTURE - AT CEILING, SURFACE OR RECESSED MOUNTED
Ⓢ	ILLUMINATED EXIT SIGN WITH INDICATING FACE - CEILING MOUNTED
Ⓢ	ILLUMINATED EXIT SIGN WITH INDICATING FACE AND ARROW(S) WALL MOUNTED
Ⓢ	EMERGENCY LIGHTING BATTERY PACK, SURFACE MOUNTED
Ⓢ	SINGLE POST TOP SITE LIGHTING FIXTURE
Ⓢ	LIGHTING CONTROL, OCCUPANCY SENSOR - CEILING MOUNTED 'DC' = DUAL TECHNOLOGY 'PC1' = PASSIVE INFRARED, LOW VOLTAGE, EXTENDED RANGE LENS 'PC2' = PASSIVE INFRARED, LOW VOLTAGE, HIGH DENSITY LENS 'PC3' = PASSIVE INFRARED, 120/277V, EXTENDED RANGE LENS 'PC4' = PASSIVE INFRARED, 120/277V, HIGH DENSITY LENS 'UC1' = ULTRASONIC, SINGLE-SIDED 'UC2' = ULTRASONIC, TWO-SIDED
Ⓢ	LIGHTING CONTROL, OCCUPANCY SENSOR - WALL MOUNTED 'DS1' = DUAL TECHNOLOGY, SINGLE LEVEL SWITCHING, MOUNTED AT 48" AFF, UON 'DS2' = DUAL TECHNOLOGY, DUAL LEVEL SWITCHING, MOUNTED AT 48" AFF, UON 'DW' = DUAL TECHNOLOGY, WIDE ANGLE LENS MOUNTED AT 10" AFF, UON, MOUNTED AT SAME HEIGHT AS BOTTOM OF PENDANT FIXTURES, UON 'PS1' = PASSIVE INFRARED, SINGLE LEVEL SWITCHING, TWO LEVEL DETECTION, MOUNTED AT 48" AFF, UON 'PS2' = PASSIVE INFRARED, DUAL LEVEL SWITCHING, TWO LEVEL DETECTION, MOUNTED AT 48" AFF, UON 'PS3' = PASSIVE INFRARED, SINGLE LEVEL SWITCHING, TWO LEVEL DETECTION, MOUNTED AT 48" AFF, UON 'PW' = PASSIVE INFRARED, WIDE ANGLE LENS MOUNTED AT 10" AFF, UON, MOUNTED AT SAME HEIGHT AS BOTTOM OF PENDANT FIXTURES, UON 'PW' = PASSIVE INFRARED, TWO-SIDED ASLE WAY LENS MOUNTED AT 10" AFF, UON, MOUNTED AT SAME HEIGHT AS BOTTOM OF PENDANT FIXTURES, UON 'PWC' = PASSIVE INFRARED, TWO-SIDED ASLE WAY LENS MOUNTED AT 10" AFF, UON, MOUNTED AT SAME HEIGHT AS BOTTOM OF PENDANT FIXTURES, UON
Ⓢ	FIRE ALARM PULL STATION AT 48" AFF, UON
Ⓢ	FIRE ALARM AUDIO/VISUAL DEVICE WITH HORN ROUGH-IN SUCH THAT BOTTOM OF VISUAL LENS IS NO LESS THAN 80" AFF
Ⓢ	FIRE ALARM VISUAL DEVICE ROUGH-IN SUCH THAT BOTTOM OF LENS IS NO LESS THAN 80" AFF
Ⓢ	FIRE ALARM SMOKE DETECTOR - CEILING MOUNTED, UON
Ⓢ	FIRE ALARM DUCT SMOKE DETECTOR WITH REMOTE INDICATOR - COORDINATE DUCT MOUNTING WITH THE MECHANICAL CONTRACTOR. LOCATE INDICATOR IN NEAREST ELECTRICAL ROOM AND PROVIDE ENGRAVED NAMEPLATE. 'R' = RETURN DUCT 'S' = SUPPLY DUCT
Ⓢ	FIRE ALARM CONTROL PANEL - WALL MOUNTED AT 72" AFF TO TOP, UON

LIGHTING CIRCUITING GUIDE	
SYMBOL	DESCRIPTION
Ⓢ	LIGHTING CIRCUITING DESIGNATION. 'X' REFER TO PANEL SCHEDULE ABBREVIATION KEY, PER DRAWING. 1: CIRCUIT NUMBER.
Ⓢ	SWITCHING SCHEME NOTE: ALL WIRING SHALL BE 12 WITH E-UIPMENT GROUNDING CONDUCTOR, UON, INCREASE TO 10 FOR CIRCUITS WITH DISTANCES AS LISTED IN SPECIFICATIONS. ALL HOMERUNS ARE TO A 20 AMPERE, SINGLE POLE CIRCUIT BREAKER, UON. PROVIDE QUANTITY OF CONDUCTORS AS NECESSARY TO ACCOMMODATE CIRCUITS AND CONDUCTOR, INDICATED ON DRAWINGS.
Ⓢ	LIGHTING DESIGNATION - REFER TO LIGHTING FIXTURE SCHEDULE

POWER CIRCUITING GUIDE	
SYMBOL	DESCRIPTION
Ⓢ	POWER CIRCUITING DESIGNATION. 'X' REFER TO PANEL SCHEDULE ABBREVIATION KEY, PER DRAWING. 1: CIRCUIT NUMBER.
Ⓢ	DEVICE, JUNCTION BOX, FLOOR BOX, ETC. NOTE: ALL WIRING SHALL BE 12 WITH E-UIPMENT GROUNDING CONDUCTOR, UON, INCREASE TO 10 FOR CIRCUITS WITH DISTANCES AS LISTED IN SPECIFICATIONS. ALL HOMERUNS ARE TO A 20 AMPERE, SINGLE POLE CIRCUIT BREAKER, UON. PROVIDE QUANTITY OF CONDUCTORS AS NECESSARY TO ACCOMMODATE CIRCUITS INDICATED ON DRAWINGS.

ELECTRICAL ABBREVIATIONS	
ABBREVIATION	DESCRIPTION
A	AMPERES
ADA	AMERICANS WITH DISABILITIES ACT
AF	AMP FUSED
AFB	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AS	AMP SWITCH
ATS	AUTOMATIC TRANSFER SWITCH
BAS	BUILDING AUTOMATION SYSTEM
BFB	BELOW FINISHED FLOOR
BFG	BELOW FINISHED GRADE
C	DEVICE MOUNTED AT 8" ABOVE COUNTER
C/B	CIRCUIT BREAKER
CM	CONSTRUCTION MANAGER
EC	ELECTRICAL CONTRACTOR
EMT	ELECTRICAL METALLIC TUBING
EPO	EMERGENCY POWER OFF
EW	ELECTRIC WATER COOLER
GC	GENERAL CONTRACTOR
GCI	GROUND FAULT CIRCUIT INTERRUPTER - PERSON PROTECTION
HPF	HIGH POWER FACTOR
HVC	HEATING, VENTILATING, AND AIR CONDITIONING
KW	KILOWATTS CONNECTED
KWD	KILOWATTS DEMAND
MC	MECHANICAL CONTRACTOR
MCB	MAIN CIRCUIT BREAKER
MLO	MAIN LUGS ONLY
NEC	NATIONAL ELECTRICAL CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT WIRED AHEAD OF LOCAL LIGHTING CONTROL
OB	OHIO BUILDING CODE
OFE	OWNER FURNISHED E-UIPMENT
PC	PLUMBING CONTRACTOR
PH	PHASE
TB	TELECOMMUNICATIONS BACKBOARD
TC	TECHNOLOGY CONTRACTOR
TCC	TEMPERATURE CONTROL CONTRACTOR
TGB	TELECOMMUNICATIONS GROUNDING BUSBAR
TMB	TELECOMMUNICATIONS MAIN GROUNDING BUSBAR
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS
W	WIRE
WP	WEATHERPROOF

GENERAL ELECTRICAL NOTES

- ALL CONDUIT PENETRATIONS THROUGH FIRE RATED WALLS SHALL BE SEALED IN ACCORDANCE WITH ELECTRICAL FIRESTOPPING SPECIFICATIONS.
- CONTRACTOR SHALL COORDINATE LOCATIONS OF ALL LIGHTING FIXTURES AND CEILING MOUNTED DEVICES WITH THE ARCHITECTURAL REFLECTED CEILING PLANS, ELEVATIONS, SECTIONS AND DETAILS. CONTRACTOR SHALL ALSO COORDINATE LOCATIONS OF RECEPTACLES AND OTHER WALL MOUNTED DEVICES WITH THE ARCHITECTURAL WALL ELEVATIONS AND FINISHES.
- THE ROUTING OF ALL SURFACE MOUNTED/EXPOSED CONDUIT IN UNFINISHED AREAS (OR WHERE NOTED ON THE DRAWINGS) SHALL BE COORDINATED WITH, AND SHALL BE APPROVED BY THE ARCHITECT PRIOR TO INSTALLATION.
- CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF MECHANICAL E-UIPMENT WITH THE MECHANICAL CONTRACTOR. EXACT ELECTRICAL REQUIREMENTS SHALL BE VERIFIED IN THE FIELD WITH THE E-UIPMENTS NAMEPLATE DATA. THE CONTRACTOR SHALL MAKE APPROPRIATE ADJUSTMENTS TO WIRE AND FUSE SIZES IN ACCORDANCE WITH THE NAMEPLATE DATA.
- THE ELECTRICAL WIRING, CONNECTION AND PROTECTION REQUIREMENTS FOR OWNER FURNISHED E-UIPMENT SHALL BE VERIFIED IN THE FIELD WITH THE OWNER'S E-UIPMENT SUPPLIER, AND WITH THE NAMEPLATE DATA. CONTRACTOR SHALL FURNISH THE PROPER NEMA RECEPTACLE CONFIGURATIONS, CONNECTIONS, CORDS AND PLUGS, AND CIRCUITS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- ALL BRANCH CIRCUITS AND FEEDERS SHALL CONTAIN AN INSULATED GROUNDING CONDUCTOR IN ACCORDANCE WITH ELECTRICAL SERVICE AND POWER DISTRIBUTION SPECIFICATIONS. NEUTRAL CONDUCTORS SHALL NOT BE SHARED IN ACCORDANCE WITH ELECTRICAL BASIC MATERIALS AND METHODS SPECIFICATIONS.
- THE DISCONNECTING MEANS FOR ALL MOTORS AND E-UIPMENT SHALL BE INSTALLED IN A "READILY ACCESSIBLE" LOCATION AND SHALL HAVE PROPER WORKING SPACE AS DEFINED IN NEC ARTICLE 100 AND 110.
- UTILIZATION OF THE PHRASE "PROVIDED BY" WITHIN THE CONTEXT OF THESE DOCUMENTS SHALL EXPLICITLY REPRESENT "FURNISHED AND INSTALLED BY".
- THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL CUTTING AND PATCHING NECESSARY FOR INSTALLATION OF WORK. CUTTING OF A STRUCTURAL MEMBER IS PROHIBITED WITHOUT SPECIFIC WRITTEN PERMISSION FROM THE ARCHITECT.

ELECTRICAL AND TECHNOLOGY DIVISION OF SCOPE					
WORK SCOPE		ELECTRICAL CONTRACTOR		TECHNOLOGY CONTRACTOR	OWNER
SYSTEM	DIVISION	FURNISH SYSTEM E-UIPMENT, WIRING, AND INSTALLATION	FURNISH AND INSTALL ROUGH-IN	FURNISH SYSTEM E-UIPMENT, WIRING, AND INSTALLATION	INSTALLATION AND WIRING
LIGHTING	26	X	X		
POWER	26	X	X		
VOICE / DATA	27		X	X	X
CATV	27		X	X	
AUDIO VISUAL	27		X		X
FIRE ALARM	26	X	X		
SECURITY / CCTV	28		X		X
CLOCKS	27				

BIDDING NOTES:

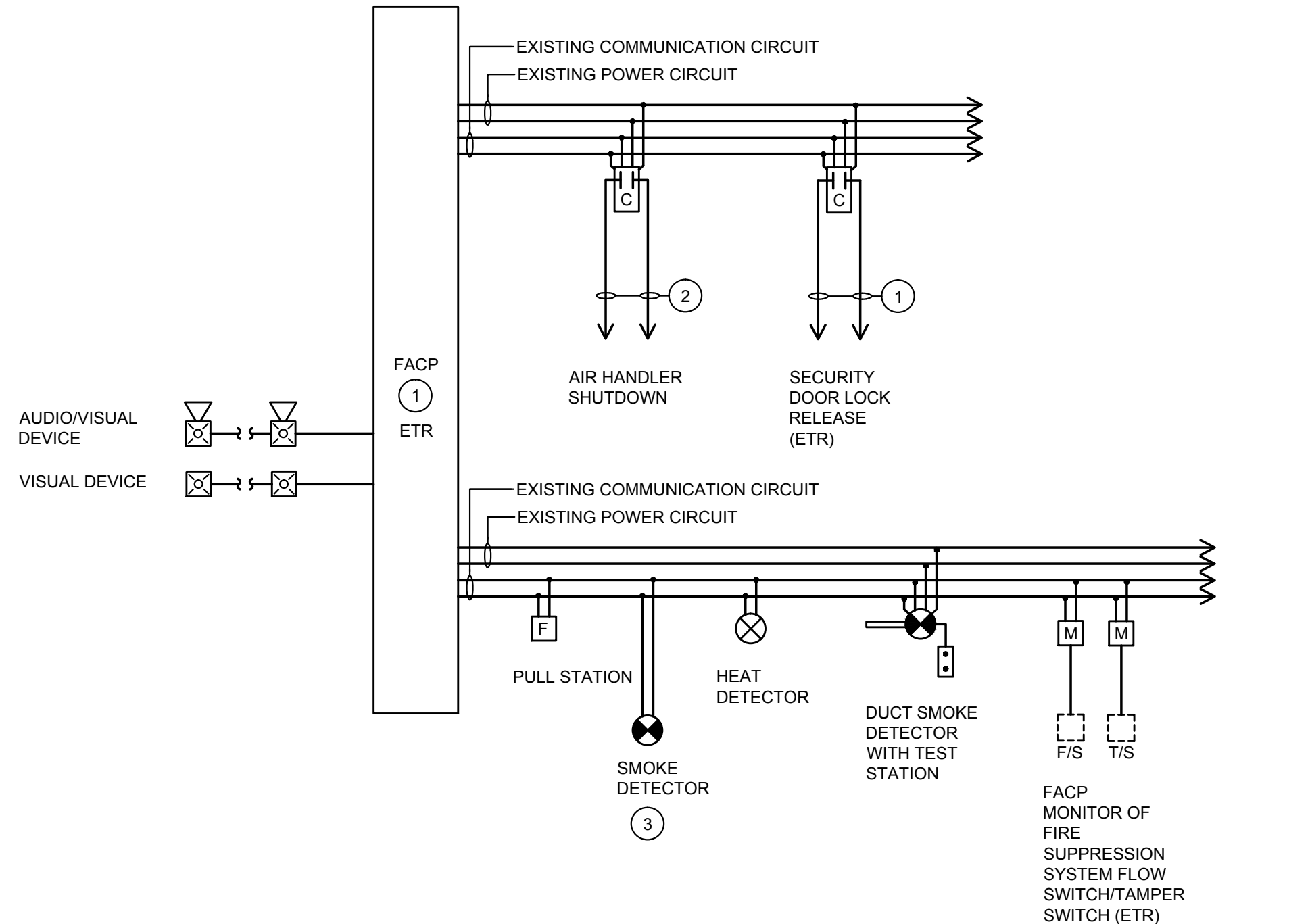
- ELECTRICAL CONTRACTOR SHALL BE PRIME CONTRACTOR AND SHALL BE RESPONSIBLE FOR COMPLETE DIVISION 26, 27 AND 28 WORK SCOPE. REFER TO DIVISION 1 BIDDING INSTRUCTIONS. IF ELECTRICAL CONTRACTOR IS NOT QUALIFIED TO PERFORM ALL WORK PER SPECIFICATIONS, ELECTRICAL CONTRACTOR SHALL SUB-CONTRACT SUCH WORK TO QUALIFIED TECHNOLOGY CONTRACTOR(S).
- CONTRACTORS SHALL EXAMINE ALL ELECTRICAL AND TECHNOLOGY SPECIFICATIONS (DIVISIONS 26, 27 AND 28) AS IT PERTAINS TO THEIR SCOPE OF WORK AND SHALL INCLUDE ALL SUCH COSTS IN BIDS.
- ROUGH-IN INCLUDES ALL CONTINUOUS PATHWAYS (INCLUDING BUT NOT LIMITED TO CONDUITS, CABLE TRAYS, CONDUIT SLEEVES AND CONTINUOUS RACEWAYS) AND ASSOCIATED BACK BOXES, JUNCTION BOXES, AND RELATED HARDWARE REQUIRED FOR ALL TECHNOLOGY CABLING ROUGH-INS AND E-UIPMENT INSTALLATIONS AS INDICATED ON THE TECHNOLOGY DRAWINGS AND IN THE TECHNOLOGY SPECIFICATIONS, UON. REFER TO DRAWINGS FOR MINIMUM SIZES OF RACEWAYS.
- THE FOLLOWING IS PROVIDED TO CLARIFY SPECIFIC WORK SCOPE OF ELECTRICAL CONTRACTOR AND POTENTIAL TECHNOLOGY SUB-CONTRACTOR(S):
 - THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL UPS'S OR OTHER POWER QUALITY DEVICES INDICATED ON THE ELECTRICAL DRAWINGS OR AS SPECIFIED WITHIN THE ELECTRICAL SPECIFICATIONS, UON.
 - THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL LINE VOLTAGE DEVICES, E-UIPMENT, WIRING AND TERMINATIONS AS INDICATED ON THE TECHNOLOGY DRAWINGS.
 - THE TECHNOLOGY CONTRACTOR SHALL PROVIDE ALL BONDING CONDUCTORS AND RELATED HARDWARE REQUIRED TO BOND ALL RE-UIRED TECHNOLOGY E-UIPMENT TO THE TELECOMMUNICATIONS GROUNDING SYSTEM.
 - THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL BONDING CONDUCTORS AND RELATED HARDWARE REQUIRED TO BOND ALL CABLE TRAY.
 - THE TECHNOLOGY CONTRACTOR SHALL PROVIDE ALL OTHER CABLING, CONNECTORS, NON-CONTINUOUS PATHWAY HARDWARE, AND ALL OTHER RELATED MATERIALS AND LABOR REQUIRED TO PROVIDE COMPLETE AND FUNCTIONAL SYSTEMS AS INDICATED ON THE TECHNOLOGY DRAWINGS AND IN THE TECHNOLOGY SPECIFICATIONS.
 - ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT SLEEVES INTO ALL SPACES CONTAINING DISTRIBUTION OF TECHNOLOGY SERVICES, UON. ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT SIZE AND QUANTITY OF CONDUITS WITH TECHNOLOGY CONTRACTOR PRIOR TO ROUGH-IN. ALL CONDUIT SLEEVES SHALL BE A MINIMUM OF 3" UON. CONDUIT FILL SHALL NOT EXCEED 28%.
- THE ELECTRICAL CONTRACTOR FIRESTOPS AROUND PENETRATION SLEEVE. THE TECHNOLOGY CONTRACTOR SEALS INNER/CONDUIT PENETRATION UPON COMPLETION OF CABLING WITH APPROVED FIRESTOP AND/OR APPROVED SEALANT PRODUCT.
- WHERE "ROUGH IN" FOR SECURITY DOORS IS REQUIRED, PROVIDE ALL BACK BOXES AND PATHWAYS NORMALLY REQUIRED FOR THE TYPE OF DOOR. INCLUDE PULL STRINGS THROUGH ALL SECTIONS OF RACEWAY AND DOOR FRAME.
- OWNER-SECURITY VENDOR SHALL PROVIDE ALL WIRING, TERMINATIONS, AND E-UIPMENT.

FIRE ALARM SYSTEM RISER NOTES:

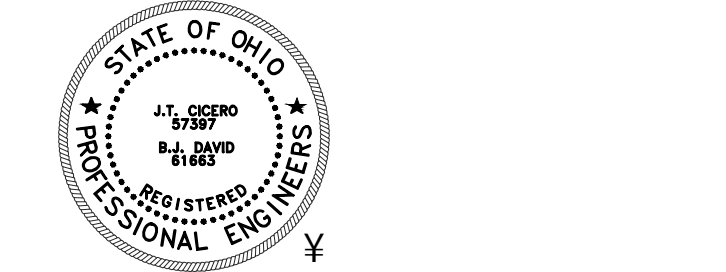
- EXISTING FIRE ALARM CONTROL PANEL (FACP) TO REMAIN.
- PROVIDE WIRING TO STARTER(S) FOR FAN SHUTDOWN OF AIR HANDLING E-UIPMENT WITH DUCT SMOKE DETECTORS.
- LOCATE 3 FEET MINIMUM FROM DIFFUSERS AND RETURN AIR GRILLS.
- SECURITY DOOR LOCKS: PROVIDE WIRING AND ONE AUXILIARY CONTACT TO EACH POWER SUPPLY LOCATION FOR UNLOCKING OF SECURITY DOORS DURING A FIRE ALARM CONDITION. COORDINATE TYPE OF CONTACT AND EXACT REQUIREMENTS WITH SECURITY SYSTEM SUPPLIER.

FIRE ALARM SYSTEM GENERAL NOTES

- THIS RISER REPRESENTS A TYPICAL SYSTEM EXTENSION AND IS NOT INTENDED FOR INSTALLATION. THE SYSTEM SUPPLIER SHALL PROVIDE INSTALLATION DRAWINGS AND WIRING DIAGRAMS. EXACT SYSTEM REQUIREMENTS SHALL BE COORDINATED WITH SYSTEM SUPPLIER.
- SYSTEM SUPPLIER SHALL SUPERVISE INSTALLATION, RE-PROGRAM AND TEST SYSTEM.
- ALL FIRE ALARM WIRING SHALL BE IN MINIMUM 3/4" CONDUIT. ALL WIRING SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR AND VERIFIED WITH THE SYSTEM SUPPLIER PRIOR TO BID. PROVIDE WIRING TO ALL DEVICES AS INDICATED AND AS RECOMMENDED BY THE SYSTEM SUPPLIER.
- PROVIDE ADDRESSABLE CONTROL MODULES AND MONITOR MODULES FOR EACH SYSTEM FUNCTION LISTED OR DEVICE INDICATED ON RISER. PROVIDE ADDITIONAL ADDRESSABLE CONTROL AND MONITOR MODULES AS RECOMMENDED BY THE SYSTEM SUPPLIER FOR FUNCTIONS OR SYSTEM COMPONENTS NOT INDICATED ON RISER.
- REFER TO SPECIFICATION FOR ADDITIONAL REQUIREMENTS. REFER TO FLOOR PLANS FOR DEVICE QUANTITIES AND LOCATIONS.
- THIS ADDRESSABLE FIRE ALARM SYSTEM COMPLIES WITH THE FIRE ALARM ZONING REQUIREMENTS OF THE OBC AND NFPA. ALL INITIATING DEVICES INDIVIDUALLY REPORT TO THE FIRE ALARM CONTROL PANEL FOR SEPARATE ANNUNCIATION.
- DUCT SMOKE DETECTOR TEST STATIONS SHALL BE PROVIDED WITH AN ENGRAVED NAMEPLATE. NAMEPLATE SHALL INCLUDE LOCATION AND NAME OF ASSOCIATED AIR HANDLING UNIT AND/OR FUNCTION.
- SUBMITTALS (CONSTRUCTION DOCUMENT SHOP DRAWINGS) SHALL INCLUDE A BOUND MANUAL WITH DATA SHEETS FOR ALL E-UIPMENT SPECIFIED AND INSTALLATION DRAWINGS INCLUDING SYSTEM WIRING DIAGRAMS.
- CONSTRUCTION DOCUMENT SHOP DRAWING SUBMITTALS SHALL INDICATE EXACT CONDUIT AND WIRING REQUIREMENTS AND SHALL INCLUDE E-UIPMENT LOCATIONS SHOWN ON FLOOR PLANS (1/16" SCALE, MINIMUM). THE FOLLOWING ITEMS SHALL ALSO BE INCLUDED FOR PLAN REVIEW: BATTERY CALCULATIONS, VOLTAGE DROP CALCULATIONS, AND MANUFACTURER'S MODEL NUMBERS AND LISTING INFORMATION FOR E-UIPMENT, DEVICES AND MATERIALS.
- THE FIRE ALARM SYSTEM SHALL BE PROVIDED BASED ON THE OBC BUILDING CLASSIFICATIONS AND THE REQUIREMENTS OF THE OBC, CHAPTER 9 - FIRE PROTECTION SYSTEMS. ANY SUSPECTED ERRORS OR OMISSIONS IN THE BID/DESIGN DRAWINGS AS DETERMINED BY THE SYSTEM SUPPLIER DURING BID REVIEW SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER. THE SYSTEM SUPPLIER'S BID COST SHALL INCLUDE ANY REQUIRED CHANGES IN THE DESIGN IN ORDER TO MEET CODE COMPLIANCE.
- THE CONTRACTOR SHALL PROVIDE A COPY OF THE SUBMITTALS TO THE LOCAL AUTHORITY RESPONSIBLE FOR PERMIT APPROVAL.



EXTENSION OF EXISTING ADDRESSABLE FIRE ALARM SYSTEM RISER
(TYPICAL NEW DEVICES INDICATED) SCALE: NONE



ISS	REV	PURPOSE	DATE
1	1	ISSUED FOR PERMIT	09-09-2011
2	2	ISSUED FOR BID	09-30-2011
3	3	RECORD DOCUMENTS	07-18-2012

LIGHTING FIXTURE SCHEDULE										
DESIGNATION	LAMP(S)			BALLAST(S)		FIXTURE		FIXTURE DESCRIPTION	CATALOG SERIES	NOTES
	TYPE	WATTS	QUANTITY	TYPE	QUANTITY	WATTAGE	VOLTAGE			
D	CF TRT	42	1	E	1	45	120	COMPACT FLUORESCENT 10" DIAMETER, 7" DEEP MAX, OPEN REFLECTOR, RECESSED DOWNLIGHT WITH SELF-FLANGED, SEMI-DIFFUSE (HAZE) CLEAR, LOW IRIDESCENT REFLECTOR, AND WHITE PAINTED FLANGE.	PORTFOLIO C72 LITHONIA GOTHAM AF OMEGA OMB2H-PL PRESCOLITE CFFR8 LIGHTOLIER 8056 INDY 708R	1
DE	CF TRT	32	1	EM	1	35	120	COMPACT FLUORESCENT 8" DIAMETER, 7" DEEP MAX, OPEN REFLECTOR, RECESSED DOWNLIGHT WITH SELF-FLANGED, SEMI-DIFFUSE (HAZE) CLEAR, LOW IRIDESCENT REFLECTOR, AND WHITE PAINTED FLANGE.	PORTFOLIO C72 LITHONIA GOTHAM AF OMEGA OMB2H-PL PRESCOLITE CFFR8 LIGHTOLIER 8056 INDY 708R	1,9
DL	CF TRT	32	1	CS	1	0	120	COMPACT FLUORESCENT 8" DIAMETER, 7" DEEP MAX, RECESSED LENSED DOWNLIGHT WITH SELF-FLANGED, REGRESSED PRISMATIC LENS, AND WHITE PAINTED FLANGE.	PORTFOLIO M60 LITHONIA GOTHAM LGH OMEGA OM10 PRESCOLITE LFHL-V9 LIGHTOLIER LD7V INDY 3600	5,8
DLE	CF TRT	32	1	CS	1	0	120	COMPACT FLUORESCENT 8" DIAMETER, 7" DEEP MAX, RECESSED LENSED DOWNLIGHT WITH SELF-FLANGED, REGRESSED PRISMATIC LENS, WHITE PAINTED FLANGE, AND EMERGENCY REMOTE BATTERY.	PORTFOLIO M60 LITHONIA GOTHAM LGH OMEGA OM10 PRESCOLITE LFHL-V9 LIGHTOLIER LD7V INDY 3600	5
ES	INC	8	2	NA	NA	20	120	EMERGENCY SURFACE MOUNTED FIXTURE WITH WHITE POLYCARBONATE HOUSING, NICKEL CADMIUM BATTERY, 90 MINUTES MINIMUM BATTERY CAPACITY, BATTERY CHARGER, TEST SWITCH, INDICATOR LIGHT AND (2) ADJUSTABLE LAMP HEADS.	SURE LITES CC5-NC LITHONIA LUMINUM BELM2 N EMERG-LITE ESCORT ECC PRESCOLITE W3N-9W LIGHTOLIER E2 LIGHTGUARD U18N	3,5,19
L	TSHO	54	1	E	1	60	120	FLUORESCENT SUSPENDED 9"W X 4'L X 3"D LINEAR INDIRECT/DIRECT STEEL FIXTURE WITH WHITE BAFFLES, ACRYLIC OVERLAY, AND WHITE FINISH.	FOCAL POINT VERVE IV PRUDENTIAL MOLLY DAY-O-LITE JOSA	6,10,12
LE	TSHO	54	1	EM	2	60	120	FLUORESCENT SUSPENDED 9"W X 4'L X 3"D LINEAR INDIRECT/DIRECT STEEL FIXTURE WITH WHITE BAFFLES, ACRYLIC OVERLAY, AND WHITE FINISH.	FOCAL POINT VERVE IV PRUDENTIAL MOLLY DAY-O-LITE JOSA	6,9,10,12
P1	CF TRT	27	1	E	1	30	120	PENDANT MOUNTED FLUORESCENT FIXTURE WITH 8"D GLASS EXTERIOR, FROSTED GLASS INTERIOR, SATIN NICKEL CABLE SUSPENSION, WHITE CEILING CANOPY WITH FINISH AND SUSPENSION LENGTH AS SELECTED BY ARCHITECT.	TECH LIGHTING FIRE GRANDE PENDANT	1,2,6,15
P2	BIAX	39	4	E	1	160	120	PENDANT MOUNTED 24"D X 6" HIGH CIRCULAR FLUORESCENT FIXTURE WITH SUSPENSION ROD WITH FINISH AND SUSPENSION LENGTH AS SELECTED BY ARCHITECT.	MANNING DISCOH	1,2,6
RDA	INC R20	75	1	NA	NA	75	0	RELOCATED INCANDESCENT DOWNLIGHT WITH 4" APERTURE.		
RDB	T8	32	2	E	1	60	120	RELOCATED 2" X 4" RECESSED FLUORESCENT FIXTURE WITH PARABOLIC LOUVER.		
RSD	T8	32	6	E	2	180	120	RECESSED FLUORESCENT FIXTURE 4" X 4" X 9" WITH ROUND CONVEX FROSTED ACRYLIC LENS AND WHITE FINISH.	FOCAL POINT SKYDOME	
RSDE	T8	32	6	E	3	180	120	RECESSED FLUORESCENT FIXTURE 4" X 4" X 9" WITH ROUND CONVEX FROSTED ACRYLIC LENS AND WHITE FINISH.	FOCAL POINT SKYDOME	
S3	T8	25	2	E	1	50	120	FLUORESCENT 3' LONG, STANDARD STRIP FIXTURE WITH STEEL HOUSING AND BAKED WHITE ENAMEL FINISH.	METALUX SSF LITHONIA C DAY-BRITE T COLUMBIA CS LIGHTOLIER SW HE WILLIAMS 763	7
S4	T8	32	2	E	1	60	120	FLUORESCENT 4' LONG, STANDARD STRIP FIXTURE WITH STEEL HOUSING AND BAKED WHITE ENAMEL FINISH.	METALUX SSF LITHONIA C DAY-BRITE T COLUMBIA CS LIGHTOLIER SW HE WILLIAMS 764	7
T	HAL MR16	50	1 (PER HEAD)	NA	NA	50	120	HALOGEN TRACK FIXTURE WITH ADJUSTABLE GIMBLE RING, 12" STEM AND SATIN NICKEL FINISH ON SURFACE MOUNTED TRACK. REFER TO DRAWINGS FOR TRACK LENGTH AND QUANTITY OF HEADS.	TECH LIGHTING TRACK-MONORAIL HEAD-JOHN HEAD	5,14
UC3	T8	25	1	E	1	25	0	FLUORESCENT 3' LONG, LESS THAN 2" DEEP UNDERCABINET FIXTURE WITH 0.125" THICK ACRYLIC PRISMATIC LENS, SOLID FRONT, STEEL HOUSING AND BAKED WHITE ENAMEL FINISH.	FAIL-SAFE MAS LITHONIA NZS DAY-BRITE UCS ALKCO SF325 HE WILLIAMS 2SF	8
W	LED BLUE	12/FT	NA	NA	NA	100	120	LED SURFACE MOUNTED 2"W X 2"D X 8'L FIXTURE, EXTRUDED ALUMINUM HOUSING, ACRYLIC LENS, 30 DEGREE DISTRIBUTION, LESS THAN 50 LUMENS/FT, BLACK FINISH AND INTEGRAL 24V DRIVER. PROVIDE REMOTE 250VA 120V-24V TRANSFORMER.	IO LIGHTING 2.0 LINE	4,13
WB	T8	32	2	E	1	60	120	FLUORESCENT 4' LONG WALL MOUNTED FIXTURE WITH STEEL HOUSING, WHITE FINISH, AND 0.125" THICK ACRYLIC PRISMATIC DIFFUSER.	SHAPER 605 LITHONIA PREISE COLUMBIA LIGHTOLIER LEA HE WILLIAMS	11
WS	CF TRT	26	2	E/EM	2	55	120	COMPACT FLUORESCENT WALL MOUNTED FIXTURE 10"W X 8"H X 8"D WITH ONE PIECE ALUMINUM HOUSING, IMPACT RESISTANT CLEAR TEMPERED GLASS LENS, TYPE IV DISTRIBUTION AND FINISH AS SELECTED BY ARCHITECT.	INVUE ENC SERIES	2
X	LED	4	NA	NA	NA	4	120	LED EDGE-LIT EXIT SIGN WITH 6" HIGH RED LETTERS, CLEAR ACRYLIC PANELS, MIRRORRED BACKGROUND FOR DOUBLE FACE SIGNS, BRUSHED ALUMINUM HOUSING, FACES, ARROWS AND MOUNTING AS INDICATED ON DRAWINGS.	SURE-LITES ELX LITHONIA PREISE LRP MCPHILBEN 45VL PRESCOLITE LEP LIGHTOLIER LEA LIGHTGUARD SLDLX	3

LIGHTING FIXTURE SCHEDULE KEY:

1. LAMP TYPE:
CF = COMPACT FLUORESCENT
DTT = DOUBLE TWIN TUBE, COMPACT FLUORESCENT "U"UAD"
HAL = HALOGEN
INC = INCANDESCENT
LED = LIGHT EMITTING DIODE
T8 = HIGH OUTPUT LINEAR FLUORESCENT
T8 = LINEAR FLUORESCENT
TRT = TRIPLE TUBE, COMPACT FLUORESCENT
2. BALLAST TYPE:
CS = COLD STARTING
D = DIMMING BALLAST
E = ELECTRONIC
NA = NOT APPLICABLE
P = PROGRAMMED START ELECTRONIC

FLUORESCENT ELECTRONIC BALLAST SCHEDULE					
LAMP(S)		ADVANCE BALLAST SERIES			NOTES
TYPE	WATTS	INSTANT START	PROGRAMMED START		
BIAX	18	N/A	N/A		③
	24/27	N/A	ICN-2S24		
	36/39	N/A	ICN-2S39		
	40	XCN-XTTP40-SC	ICN-2S39		
	50	N/A	ICN-2S54		
	55	N/A	ICN-2S54		
DTT	18	N/A	ICF-2S18-XX-XX		②
	26	N/A	ICF-2S26-XX-XX		
TSHO	24	N/A	ICN-2S24		②
	54	N/A	ICN-2S54		
T8	17	OP-P32SC	IOP-XS32-SC		
	32	IOPX-P32SC	IOP-XS32-SC		
TRT	32	N/A	ICF-2SXX-XX-XX		

BALLAST SCHEDULE NOTES:

1. PROVIDE PROGRAMMED START BALLASTS FOR OCCUPANCY SENSOR APPLICATIONS.
2. BALLASTS UTILIZING INTEGRAL DUAL LEVEL CONTROL (SUFFIX -2LS) SHALL NOT BE PROVIDED.

GENERAL LAMP AND BALLAST NOTES

1. REFER TO LIGHTING SPECIFICATION SECTION FOR ADDITIONAL BALLAST AND LAMP REQUIREMENTS. LAMP AND BALLAST MANUFACTURERS LISTED SHALL BE PROVIDED. PROVIDE SHOP DRAWINGS AS REQUIRED BY ELECTRICAL GENERAL PROVISIONS SPECIFICATION SECTION. ELECTRONIC BALLASTS SHALL OPERATE ABOVE A FREQUENCY OF 40KHZ. ELECTRONIC BALLASTS SHALL HAVE A MINIMUM POWER FACTOR OF 90%. A MINIMUM BALLAST FACTOR OF 85%. A MAXIMUM CREST FACTOR OF 1.7, AND A MAXIMUM TOTAL HARMONIC DISTORTION OF 10%. WHEN USED AT NOMINAL VOLTAGE WITH PRIMARY LAMP.
2. MANUFACTURER "GENERIC" BALLASTS ARE NOT ACCEPTABLE.
3. BALLASTS SHALL BE AS MANUFACTURED BY ADVANCE, OR EQUAL BY OSRAM-SYLVANIA OR UNIVERSAL. PERFORMANCE CRITERIA SHALL BE EQUIVALENT.
4. ALL LIGHTING FIXTURES WITH DOUBLE ENDED FLUORESCENT LAMPS THAT HAVE A BALLAST(S) SHALL INCORPORATE A LUMINAIRE BALLAST DISCONNECT, PER THE NEC. IF THIS DISCONNECT IS NOT AVAILABLE BY THE FIXTURE MANUFACTURER, THE EC SHALL PROVIDE THE DISCONNECT, AND WIRE PER THE NEC.
5. LOW WATTAGE COMPACT FLUORESCENT LAMPS NOT INDICATED ARE ONLY AVAILABLE WITH MAGNETIC BALLASTS.
6. REFER TO SPECIFICATIONS FOR SPECIAL BALLASTS (DIMMABLE, EMERGENCY, ETC.)

LIGHTING FIXTURE SCHEDULE NOTES:

1. MOUNTED IN EITHER LAY-IN OR DRYWALL CEILING. COORDINATE WITH ARCHITECTURAL REFLECTED CEILING PLANS AND PROVIDE PROPER MOUNTING ACCESSORIES.
2. ALTERNATES FOR FIXTURES WITHOUT EQUALS MUST BE PRE-APPROVED BY ENGINEER AND ARCHITECT PRIOR TO BID.
3. WALL MOUNTED EXIT SIGNS SHALL BE ABOVE DOORS, CENTERED BETWEEN DOOR AND CEILING WHERE PRACTICAL, OR AT A SIMILAR HEIGHT IF NOT ABOVE DOORS. MOUNT EMERGENCY BATTERY PACKS AT SIMILAR HEIGHT. EXIT SIGNS SHALL BE VISIBLE FOR EGRESS INDICATION.
4. MOUNT IN WALL TO BACKLIGHT GLASS BLOCK. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS.
5. AIM FIXTURES FOR OPTIMUM COVERAGE OF TASK AS DIRECTED IN FIELD BY THE ARCHITECT.
6. VERIFY MOUNTING HEIGHT (10'-0" AFF) WITH ARCHITECT. PROVIDE CUSTOM SUSPENSION LENGTH AS REQUIRED.
7. FIXTURES MOUNTED IN COVE. REFER TO ARCHITECTURAL DETAILS. INTERCHANGE 3 FT. AND 4 FT. FIXTURES FOR BEST FIT. BAFFLE OR LENS (IF REQUIRED FOR COVE) PROVIDED BY GC. COORDINATE INSTALLATION REQUIREMENTS WITH ARCHITECT.
8. FIXTURES MOUNTED UNDER CABINETS. REFER TO ARCHITECTURAL DETAILS. COORDINATE INSTALLATION REQUIREMENTS WITH ARCHITECT.
9. WIRE EMERGENCY BATTERY PACK AHEAD OF LOCAL CONTROL.
10. SUSPENDED FIXTURES SHALL BE PROVIDED WITH INTERLOCK MOUNTING ACCESSORIES AS RECOMMENDED BY MANUFACTURER. EC SHALL PROVIDE INTER-WIRING AS REQUIRED. PROVIDE MATCHING PENDANTS AT EACH END OF ROW FOR CONCEALED CIRCUIT WIRING. PROVIDE AIRCRAFT CABLE SUSPENSIONS IN BETWEEN AS RECOMMENDED BY MANUFACTURER. PROVIDE MATCHING CEILING CANOPIES AT PENDANTS AND CABLES. PROVIDE ALL MOUNTING ACCESSORIES, INCLUDING JUNCTION BOXES, UNISTRUT AND THREADED RODS, FOR SUPPORT ABOVE CEILINGS AS RECOMMENDED BY THE MANUFACTURER. SUM OF RATINGS FOR MOUNTING AND SUPPORTING HARDWARE SHALL EXCEED THE WEIGHT OF EACH FIXTURE ASSEMBLY. VERIFY EXACT INSTALLATION METHODS WITH MANUFACTURER PRIOR TO BIDDING. COORDINATE EXACT PENDANT AND AIRCRAFT CABLE LENGTHS REQUIRED (BELOW AND ABOVE CEILING) WITH ARCHITECT'S FINAL FIXTURE ELEVATIONS. SUBMITTALS SHALL BE PROVIDED, INCLUDING 1/8" SCALE INSTALLATION DRAWINGS INDICATING FIXTURE LAYOUTS.
11. MOUNT EXTERIOR FIXTURE OVER DOOR OR AT LOCATION AS DIRECTED BY ARCHITECT. MOUNTING HEIGHTS SHALL BE COORDINATED WITH ARCHITECTURAL ELEVATIONS AND DETAILS. PROVIDE ALL MOUNTING BACKBOXES AND ACCESSORIES AS RECOMMENDED BY FIXTURE MANUFACTURER. ALL CONDUIT SHALL BE CONCEALED, WHERE NOT POSSIBLE, ROUTE WITHIN STRUCTURE AS DIRECTED IN FIELD BY ARCHITECT. PAINT EXPOSED CONDUIT TO MATCH STRUCTURE. SEE DRAWINGS FOR ADDITIONAL MOUNTING REQUIREMENTS.
12. LIGHTING FIXTURES UTILIZING T5 AND T8HO LAMPS SHALL BE MOUNTED 4" FROM DIFFUSERS, MINIMUM.
13. FIXTURES WITH LINE VOLTAGE DRIVERS ARE ACCEPTABLE. COORDINATE MOUNTING OF TRANSFORMER WITH GENERAL TRADES CONTRACTOR.
14. PROVIDE (1) 600VA, 120V-24V TRANSFORMER PER TRACK, UNLESS OTHERWISE INDICATED ON PLAN DRAWING.

CIRCUIT BREAKER PANEL SCHEDULE													
PANEL: LPG			SHORT CIRCUIT RATING:		REFER TO 26 21 00			PROJ. J:		2011-0025			
VOLTAGE: 208/120V, 3 ø 4 W			NUMBER OF POLES: 42		NAME:			CPPL Beachwood					
BUS AMPS: 100 A			MOUNTING: SURFACE		DATE: 7/18/2012								
MAINS: 100 A MLO			NOTES: ---										
NO.	DESCRIPTION	TYPE	LOAD	TRIP AMPS	POLES	PHASE	TRIP AMPS	LOAD	TYPE	DESCRIPTION	NO.		
1	REC RESTROOM	REC	200	20	1	A	1	20	400	REC	CPU OPEN AREA	2	
3	COPPER WEST OPEN AREA	REC	1500	20	1	B	1	20	400	REC	CPU OPEN AREA	4	
5	TV WEST OPEN AREA	VARIES:	800	20	1	C	1	20	400	REC	FLR BOX OPEN AREA	6	
7	REC WORK ROOM	REC	400	20	1	A	1	20	400	REC	FLR BOX OPEN AREA	8	
9	REC WORK ROOM	REC	400	20	1	B	1	20	400	REC	FLR BOX OPEN AREA	10	
11	REC WORK ROOM	REC	400	20	1	C	1	20	400	REC	FLR BOX OPEN AREA	12	
13	FLR BOX WORK ROOM	REC	800	20	1	A	1	20	400	REC	FLR BOX OPEN AREA	14	
15	REC/FLR BOX CONFERENCE ROOM	REC	1000	20	1	B	1	20	0	Undefined	SPARE	16	
17	AUDIO SYS WORK ROOM	VARIES:	600	20	1	C	1	20	800	REC	CPU BRANCH MANAGER, PASSPORTS	18	
19	REC WORK ROOM	REC	800	20	1	A	1	20	800	REC	REC BRANCH MANAGER	20	
21	REC WORK ROOM	REC	800	20	1	B	1	20	1200	REC	REC PASSPORTS	22	
23	REC WORK ROOM	REC	400	20	1	C	1	20	800	VARIES:	TV SOUTH OPEN AREA	24	
25	SPARE	Undefined:	0	20	1	A	1	20	200	REC	REC SOUTH OPEN AREA	26	
27	SPARE	Undefined:	0	20	1	B	1	20	800	MISC	PRINTER SOUTH OPEN AREA	28	
29	SPARE	Undefined:	0	20	1	C	1	20	400	REC	REC SOUTH OPEN AREA	30	
31	SPARE	Undefined:	0	20	1	A	1	20	1200	REC	REC SOUTH OPEN AREA	32	
33	SPARE	Undefined:	0	20	1	B	1	20	1000	REC	REC TOILET, STORAGE, STORYTIME	34	
35	SPARE	Undefined:	0	20	1	C	1	20	600	REC	REC STORYTIME	36	
37	SPARE	Undefined:	0	20	1	A	1	20	1500	MISC	DRYER TOILET	38	
39	SPARE	Undefined:	0	20	1	B	1	20	1200	MISC	MOTOR STORYTIME	40	
41	SPARE	Undefined:	0	20	1	C	1	20	200	MISC	FPVAV-1	42	
LOAD SUMMARY													
				WC		DF		WD		DESIGNED LOAD			
MISC				5.1		0.70		3.6		36.0 KW			
REC (0 - 10 KVA)				10.0		1.00		10.0		16.7 KW			
REC (Over 10 KVA)				6.3		0.50		3.1		19.3 KW			
										SPARE CAPACITY			
										53.6 AMPS			
										SPARE CAPACITY			
										54			
TOTAL				21.4				16.7					
AMPS				59.4				46.4					
										PANEL LOADS		TOTAL	
										Phase A (W):		6900	
										Phase B (W):		8700	
										Phase C (W):		5800	

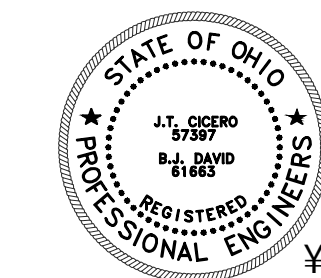
7850 Freeway Circle
440.243.2000 t

Cleveland, OH 44130
440.243.3305 f

CONSULTANTS:

ARCHITECT:

CONSULTANTS:



PROJECT:

Cuyahoga County Public Library
browsing is just the beginning

CUYAHOGA COUNTY PUBLIC LIBRARY

BEACHWOOD BRANCH RENOVATION
25501 SHAKER BOULEVARD
BEACHWOOD, OHIO 44122

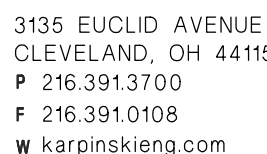
ISSUED FOR PERMIT

PROJECT ISSUANCE DATE: 09-09-2011

CLIENT PROJECT NUMBER: 15313.00

KEY PLAN:

BID PACKAGE NUMBER:

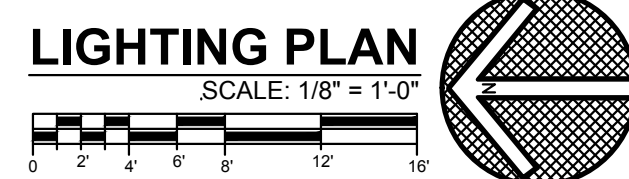


BEACHWOOD BRANCH

ISSUED FOR PERMIT

PROJECT ISSUANCE DATE: 09-09-201
CLIENT PROJECT NUMBER: 15313.00

KEY PLAN



1. ALL NIGHT LIGHTS AND EXIT SIGNS SHALL BE WIRED TO PANEL EM EXISTING EGRESS LIGHTING CIRCUIT SERVING SPACE.

1. ALL NIGHT LIGHTS AND EXIT SIGNS SHALL BE WIRED TO PANEL EM, EXISTING EGRESS LIGHTING CIRCUIT SERVING SPACE.
2. IN SPACES WHERE OCCUPANCY SENSORS OR LOW VOLTAGE PUSHBUTTON STATION AND WALL MOUNTED SWITCHES ARE INDICATED THE OCCUPANCY SENSOR OR LOW VOLTAGE PUSHBUTTON STATION SHALL BE WIRED AHEAD OF ALL OTHER CONTROLS.
3. ALL NEW LIGHTING SHALL BE WIRED TO EXISTING ROOM LIGHTING CIRCUIT, UNLESS OTHERWISE NOTED. MAINTAIN EXISTING CONTROLS AND ADD SUPPLEMENTAL LOCAL CONTROLS AS INDICATED.

1. EXISTING WALL MOUNTED FIXTURE TO BE REPLACED. MAINTAIN EXISTING CONTROL.

1. EXISTING WALL MOUNTED FIXTURE TO BE REPLACED. MAINTAIN EXISTING CONTROL.
2. WIRE ALL FIXTURES IN ROW TO OPERATE FROM ONE CIRCUIT.
3. CIRCUIT LIGHT FIXTURES IN THIS AREA TO LIGHTING CIRCUIT FREED UP DURING DEMOLITION.
4. CIRCUIT FIXTURES TO EXISTING EXTERIOR LIGHTING CIRCUIT.
5. PROVIDE 250VA, 120-24V TRANSFORMER.
6. LOCATION OF RELOCATED SIGN - EXTEND EXISTING BRANCH CIRCUIT TO SIGN AND MAINTAIN EXISTING CONTROL.

[illegible]

DRAWING TITLE:

DRAWN BY: XX

CHECKED BY: XX

	DRAWING NUMBER
--	----------------

E2-1



BEACHWOOD BRANCH

RENOVATION
25501 SHAKER BOULEVARD
BEACHWOOD, OHIO 44122

ISSUED FOR: PERMIT

PROJECT ISSUANCE DATE: 09-09-2011

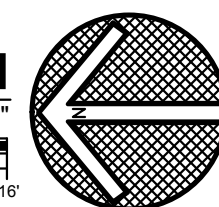
CLIENT PROJECT NUMBER: 15313.00

KEY PLAN:



1. DEVICES SHOWN IN LIGHT PEN WEIGHT ARE EXISTING TO REMAIN AND ARE INDICATED FOR REFERENCE ONLY. CONTRACTOR SHALL TICK TRACE FLOOR SLAB TO LOCATE EXISTING CONDUITS PRIOR TO SAWCUTTING. EXISTING CONDUITS SHALL NOT BE DAMAGED AND CIRCUITING SHALL BE MAINTAINED.

SCALE: 1/8" = 1'-0"



(X) PLAN NOTES

1. SELF CHECK-OUT STATION - 120V, 0.5KW.
2. RECEPTACLES MOUNTED IN MILLWORK. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION. SAWCUT FLOOR FOR INSTALLATION OF BRANCH CIRCUITING.
3. POWERED DOOR OPERATOR - 120V, 1.0KW (ASSUMED) WITH INTEGRAL DISCONNECT SWITCH. EXTEND EXISTING BRANCH CIRCUIT WIRING FROM DEMOLISHED ENTRANCE.
4. TRANSACTION DRAWER AUDIO SYSTEM - 120V, 0.2KW.
5. COPIER - 120V, 1.5KW.
6. CEILING MOUNTED PEOPLE COUNTER (OFF) - 120V, 0.1KW. COORDINATE EXACT LOCATION WITH ARCHITECT. EXTEND EXISTING BRANCH CIRCUIT WIRING FROM DEMOLISHED ENTRANCE.
7. PRINTER - 120V, 0.8KW.
8. ELECTRICAL HAND DRYER - 1.5KW, 120V.
9. VENDING MACHINE - 120V, 1.5KW.
10. PROVIDE TWIN 100A FUSED SWITCHES IN EXISTING SPACE. MDP IS WESTINGHOUSE FDP STYLE.
11. FEED PANEL FROM NEW 100A SWITCH IN MDP WITH 4 2, 1 B/GND IN 1" CONDUIT.
12. MOTOR OPERATED PARTITION - 120V, 15A. PROVIDE CONDUIT FROM OPERATOR TO OUTLET BOX FOR SWITCH FURNISHED WITH PARTITION.
13. CUH-1- $\frac{1}{2}$ "HP, 120V WITH INTEGRAL DISCONNECT SWITCH (ON ROOF). WIRE TO EXISTING BRANCH CIRCUIT FEED UP DURING CONSTRUCTION.
14. EF-2- $\frac{1}{2}$ "HP, 120V. PROVIDE COMBINATION STARTER AND WIRE TO EXISTING

BRANCH CIRCUIT

15. FPVAV-2 - ½HP, 120V WITH INTEGRAL DISCONNECT SWITCH.
16. FPVAV-2 - ½HP, 120V WITH INTEGRAL DISCONNECT SWITCH. WIRE TO EXISTING BRANCH CIRCUIT FREED UP DURING DEMOLITION.
17. EF-2 - 120V, 0.1KW. WIRE TO ROOM LIGHTING CIRCUIT AND CONTROL WITH LIGHTS.
18. JUNCTION BOX FOR AUTOMATIC VALVES. WIRE TO ROOM RECEPTACLE CIRCUIT.

BID PACKAGE NUMBER:

--	--	--	--	--	--	--	--

REVISIONS:

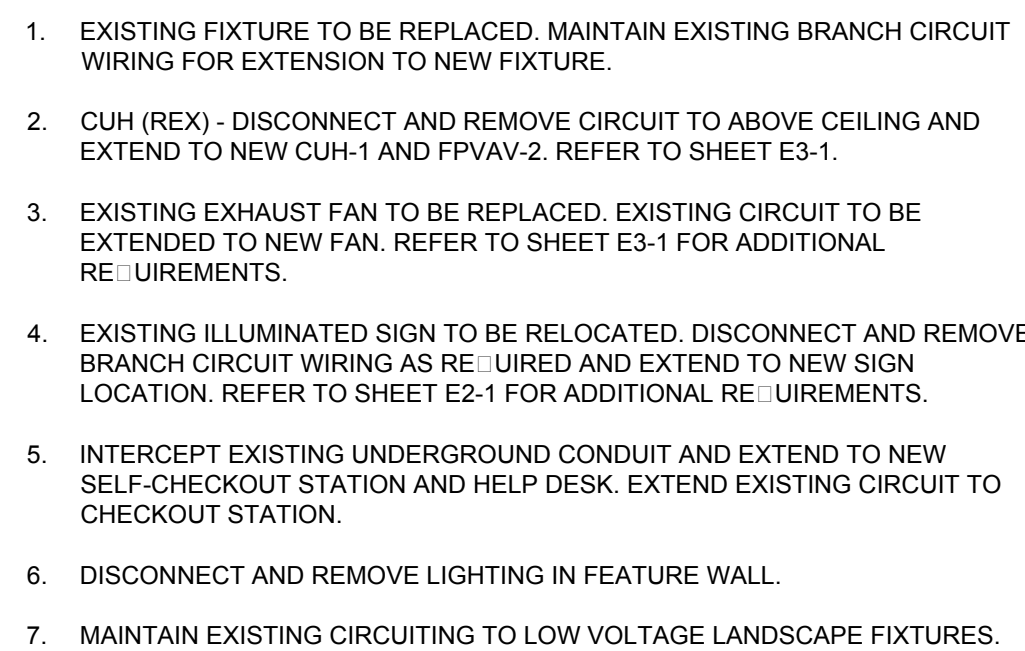
[illegible]

PROJECT NUMBER: 15313

DRAWING TITLE:

POWER AND FIRE ALARM PLAN

DRAWN BY: XXX	DRAWING NUMBER: E3-1
CHECKED BY: XXX	



ED-1

SYMBOL	DESCRIPTION
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISHED FLOOR
BAS	BUILDING AUTOMATION SYSTEM
BEF	BUILDING ENTRANCE FACILITY
BFF	BELOW FINISHED FLOOR
BICSI	BUILDING INDUSTRY CONSULTING SERVICE INTERNATIONAL
CATV	COMMUNITY ANTENNA TELEVISION (CABLE TELEVISION)
CCTV	CLOSED CIRCUIT TELEVISION
CBC	COUPLED BONDING CONDUCTOR
CM	CONSTRUCTION MANAGER
CT	CABLE TRAY
EC	ELECTRICAL CONTRACTOR
EIA	ELECTRONICS INDUSTRIES ASSOCIATION
EMT	ELECTRICAL METALLIC TUBING
ETR	EXISTING TECHNOLOGY DEVICE TO REMAIN
GC	GENERAL CONTRACTOR
HC	HORIZONTAL CROSS-CONNECT
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING
IC	INTERMEDIATE CROSS-CONNECT
IG	ISOLATED GROUND
LAN	LOCAL AREA NETWORK
MC	MAIN CROSS-CONNECT
MM	MULTIMODE
MUTOA	MULTI-USER TELECOMMUNICATIONS OUTLET ASSEMBLY
NEC	NATIONAL ELECTRICAL CODE
NESC	NATIONAL ELECTRICAL SAFETY CODE
NEX	REMOVE EXISTING TECHNOLOGY DEVICE AND INSTALL NEW TECHNOLOGY DEVICE IN EXISTING OUTLET BOX. REFER TO NEW FLOOR PLANS FOR NEW DEVICE TYPE AND CABLING REQUIREMENTS. PROVIDE NEW FACEPLATE.
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NI	NETWORK INTERFACE
NIC	NOT IN CONTRACT
OBC	OHIO BUILDING CODE
OFE	OWNER FURNISHED EQUIPMENT
OSP	OUTSIDE PLANT
POE	POWER OVER ETHERNET
PTZ	PAN, TILT, ZOOM
RCDD	REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
RD	NEW LOCATION OF RELOCATED TECHNOLOGY DEVICE
REX	REMOVE EXISTING TECHNOLOGY DEVICE ALONG WITH RELATED CONDUIT AND CABLING, UON
RR	REMOVE AND RELOCATE EXISTING TECHNOLOGY DEVICE AS SHOWN OR AS NOTED ON DRAWINGS
ScTP	SCREENED TWISTED PAIR
SM	SINGLE MODE
STP	SHIELDED TWISTED PAIR
TB	TELECOMMUNICATIONS BACKBOARD
TBB	TELECOMMUNICATIONS BONDING BACKBONE
TC	TECHNOLOGY CONTRACTOR
TCC	TEMPERATURE CONTROL CONTRACTOR
TGB	TELECOMMUNICATIONS GROUNDING BUSBAR
TIA	TELECOMMUNICATIONS INDUSTRY ASSOCIATION
TMGB	TELECOMMUNICATIONS MAIN GROUNDING BAR
UG	UNDERGROUND
UPS	UNINTERRUPTIBLE POWER SUPPLY
UON	UNLESS OTHERWISE NOTED
WAP	WIRELESS ACCESS POINT
WP	WEATHERPROOF

TECHNOLOGY SYMBOL LEGEND	
SYMBOL	DESCRIPTION
	CONDUIT PATHWAY
	J-HOOK PATHWAY
	CONDUIT STUB
	CONDUIT TURNED DOWN
	CONDUIT TURNED UP
	CONDUIT INSTALLED BELOW GRADE OR BELOW FINISHED FLOOR
	WORK AREA DEVICE AT 18" AFF, UON. FOR ADDITIONAL INFORMATION, REFER TO FACEPLATE DETAILS. 'W' = WALL PHONE AT 56" AFF, UON
	VOICE/DATA ROUGH-IN OUTLET BOX AT 18" AFF, UON
	GENERIC VOICE/DATA DEVICE AND OUTLET BOX INDICATED FOR DEMOLITION - REFER TO DRAWINGS FOR ADDITIONAL REQUIREMENTS
	COMBINATION POWER AND WORK AREA DEVICE - IN FLOOR BOX. FLOOR BOX, CONDUIT, POWER DEVICE AND RELATED POWER WIRING PROVIDED BY EC. FOR ADDITIONAL INFORMATION, REFER TO FACEPLATE DETAILS. 'F' = FLUSH MOUNTED 'S' = SURFACE MOUNTED '1' = QUANTITY OF LOCATION
	WORK AREA DEVICE AT 8" ABOVE COUNTER, UON. FOR ADDITIONAL INFORMATION, REFER TO FACEPLATE DETAILS.
	VOICE/DATA ROUGH-IN OUTLET BOX AT 8" ABOVE COUNTER, UON
	DEVICE MOUNTED IN ARCHITECTURAL CASE WORK COORDINATE FINAL LOCATION WITH MILL WORK CONTRACTOR.
	PAGING SPEAKER - SURFACE MOUNTED, UON 'H' = HORN 'WG' = WIRE PROTECTED CAGE 'WP' = WEATHERPROOF
	PAGING SPEAKER - RECESSED IN CEILING, UON 'H' = PAGE HORN 'X' = ZONE ASSIGNMENT
	VIDEO ROUGH-IN OUTLET BOX
	VIDEO ROUGH-IN OUTLET BOX - CEILING MOUNTED
	VIDEO HEADEND
	IN LINE AMPLIFIER
	TWO PORT SPLITTER
	DIRECTIONAL COUPLER
	2 WAY DIRECTIONAL COUPLER
	4 WAY DIRECTIONAL COUPLER
	8 WAY DIRECTIONAL COUPLER
	EQUALIZER
	TERMINATOR
	CLOSED CIRCUIT TELEVISION CAMERA AT 90" AFF, UON - WALL MOUNTED. 'PTZ' = PAN TILT ZOOM 'MP' = MEGAPIXEL
	CLOSED CIRCUIT TELEVISION CAMERA - CEILING MOUNTED 'PTZ' = PAN TILT ZOOM 'MP' = MEGAPIXEL
	SECURITY SYSTEM DEVICE AT 48" AFF, UON 'KP' = KEYPAD 'KS' = KEYSWITCH 'M' = MOTION SENSOR - REFER TO SHEET T4.2 FOR ADDITIONAL INFORMATION.
	SECURITY SYSTEM ROUGH-IN OUTLET BOX - CEILING MOUNTED 'M' = MOTION SENSOR - REFER TO SHEET T4.2 FOR ADDITIONAL INFORMATION.
	SECURITY SYSTEM CARD READER
	SYSTEM CLOCK AT 90" AFF, UON
	SYSTEM CLOCK, DOUBLE-FACED, AT 90" AFF, UON
	19" TECHNOLOGY EQUIPMENT OPEN RACK, DUAL UPRIGHT, UON.
	TECHNOLOGY EQUIPMENT CABINET 'F' = FLOOR MOUNTED 'W' = WALL MOUNTED

ELECTRICAL AND TECHNOLOGY DIVISION OF SCOPE						
WORK SCOPE		ELECTRICAL CONTRACTOR		TECHNOLOGY CONTRACTOR		OWNER
SYSTEM	DIVISION	FURNISH SYSTEM EQUIPMENT, WIRING, AND INSTALLATION	FURNISH AND INSTALL ROUGH-IN	FURNISH SYSTEM EQUIPMENT, WIRING AND INSTALLATION	INSTALLATION AND WIRING	FURNISH SYSTEM EQUIPMENT, WIRING AND INSTALLATION
LIGHTING	26	X				
POWER	26	X	X			
VOICE / DATA	27		X	X		X
CATV	27		X	X		
AUDIO VISUAL	27		X			X
FIRE ALARM	26	X	X			
SECURITY / CCTV	28		X			X
CLOCKS	27					

BIDDING NOTES:

1. ELECTRICAL CONTRACTOR SHALL BE PRIME CONTRACTOR AND SHALL BE RESPONSIBLE FOR COMPLETE DIVISION 26, 27 AND 28 WORK SCOPE. REFER TO DIVISION 1 BIDDING INSTRUCTIONS. ELECTRICAL CONTRACTOR IS NOT QUALIFIED TO PERFORM ALL WORK PER SPECIFICATIONS. ELECTRICAL CONTRACTOR SHALL SUB-CONTRACT SUCH WORK TO QUALIFIED TECHNOLOGY CONTRACTOR(S).
2. CONTRACTORS SHALL EXAMINE ALL ELECTRICAL AND TECHNOLOGY SPECIFICATIONS (DIVISIONS 26, 27 AND 28) AS IT PERTAINS TO THEIR SCOPE OF WORK AND SHALL INCLUDE ALL SUCH COSTS IN BIDS.
3. ROUGH-IN INCLUDES ALL CONTINUOUS PATHWAYS (INCLUDING BUT NOT LIMITED TO CONDUITS, CABLE TRAYS, CONDUIT SLEEVES AND CONTINUOUS RACEWAYS) AND ASSOCIATED BACK BOXES, JUNCTION BOXES, AND RELATED HARDWARE. ROUGH-IN DOES NOT INCLUDE TECHNOLOGY GAGING ROUGH-INS. ROUGH-INS SHALL BE PROVIDED AND INDICATED ON THE TECHNOLOGY PAPERS AND IN THE TECHNOLOGY SPECIFICATIONS, UNLESS REFER TO DRAWINGS FOR MINIMUM SIZES OF RACEWAYS.
4. THE FOLLOWING IS PROVIDED TO CLARIFY SPECIFIC WORK SCOPE OF ELECTRICAL CONTRACTOR AND POTENTIAL TECHNOLOGY SUB-CONTRACTOR(S):
 - A. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL UPS OR OTHER POWER QUALITY DEVICES INDICATED ON THE ELECTRICAL DRAWINGS OR AS SPECIFIED WITHIN THE ELECTRICAL SPECIFICATIONS, UNON.
 - B. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL LINE VOLTAGE DEVICES, E. QUIPMENT, WIRING AND TERMINATIONS AS INDICATED ON THE TECHNOLOGY DRAWINGS.
 - C. THE TECHNOLOGY CONTRACTOR SHALL PROVIDE ALL BONDING CONDUCTORS AND RELATED HARDWARE REQUIRED TO BOND ALL REQUIRED TECHNOLOGY EQUIPMENT TO THE TELECOMMUNICATIONS GROUNDING SYSTEM.
 - D. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL BONDING CONDUCTORS AND RELATED HARDWARE REQUIRED TO BOND ALL CABLE TRAY.
 - E. THE TECHNOLOGY CONTRACTOR SHALL PROVIDE ALL OTHER CABLING, CONNECTORS, NON-CONTINUOUS PATHWAY HARDWARE, AND ALL OTHER RELATED MATERIALS AND LABOR REQUIRED TO PROVIDE COMPLETION OF ALL FUNCTIONAL SYSTEMS AS INDICATED ON THE TECHNOLOGY DRAWINGS AND IN THE TECHNOLOGY SPECIFICATIONS.
 - F. ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT SLEEVES INTO ALL SPACES CONTAINING DISTRIBUTION OF TECHNOLOGY SERVICES, UNLESS ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT SIZE AND QUANTITY OF CONDUITS WITH TECHNOLOGY CONTRACTOR PRIOR TO ROUGH-IN. CONDUIT SLEEVES SHALL BE A MINIMUM OF 3" UNON. CONDUIT FILL SHALL NOT EXCEED 28%.
5. THE ELECTRICAL CONTRACTOR FIRESTOPS AROUND PENETRATION SLEEVE. THE TECHNOLOGY CONTRACTOR SEALS INNER/CONDUIT PENETRATION UNON COMPLETION OF CABLING WITH APPROVED FIRESTOP AND/OR APPROVED SEALANT PRODUCT.
6. WHERE "ROUGH-IN" FOR SECURITY DOORS IS REQUIRED, PROVIDE ALL BACK BOXES AND PATHWAYS NORMALLY REQUIRED FOR THE TYPE OF DOOR. INCLUDE PULL STRINGS THROUGH ALL SECTIONS OF RACEWAY AND DOOR FRAME.
7. OWNER-SPECIFIED VENDOR SHALL PROVIDE ALL WIRING, TERMINATIONS, AND EQUIPMENT.

GENERAL NOTES:

- 1). ALL CONDUIT PENETRATIONS THROUGH FIRE RATED WALLS, FLOORS, OR SHAFTS SHALL BE SEALED IN ACCORDANCE WITH TECHNOLOGY FIRSTSTOPPING SPECIFICATION SECTION
- 2). CONTRACTOR SHALL COORDINATE LOCATIONS OF ALL CEILING MOUNTED DEVICES WITH THE ARCHITECTORIAL REFLECTED CEILING PLANS, ELEVATIONS, SECTIONS AND DETAILS. CONTRACTOR SHALL ALSO COORDINATE LOCATIONS OF WORK AREA OUTLETS AND OTHER WALL MOUNTED DEVICES WITH THE ARCHITECTORIAL WALL ELEVATIONS AND FINISHES.
- 3). THE ROUTING OF ALL SURFACE MOUNTED/EXPOSED CONDUIT OR RACEWAY IN FINISHED AREAS (OR WHERE NOTED ON THE DRAWINGS) SHALL BE COORDINATED WITH, AND SHALL BE APPROVED BY THE ARCHITECT PRIOR TO INSTALLATION.
- 4). CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF MECHANICAL EQUIPMENT WITH THE MECHANICAL CONTRACTOR AND ELECTRICAL EQUIPMENT WITH THE ELECTRICAL CONTRACTOR. THE ELECTRICAL CONTRACTOR SHALL MAKE APPROPRIATE ADJUSTMENTS TO CONDUIT AND RACEWAY LOCATIONS AS REQUIRED. FOR ADDITIONAL REQUIREMENTS, REFER TO TECHNOLOGY PATHWAY HARDWARE SPECIFICATION SECTION.
- 5). ALL CABLE TRAYS SHALL BE INSTALLED SO AS TO BE U.L. LISTED AS BEING ELECTRICALLY CONTINUOUS FOR GROUNDING PURPOSES, AND SHALL BE BONDED TO AN ACCEPTABLE TELECOMMUNICATIONS GROUND ONLY.
- 6). ALL PULLBOXES AND JUNCTION BOXES SHALL BE INSTALLED IN A "READILY ACCESSIBLE" LOCATION AND SHALL HAVE PROPER WORKING SPACE AS DEFINED IN NEC ARTICLE 100 AND 110.
- 7). UTILIZATION OF THE PHRASE "PROVIDED BY" WITHIN THE CONTEXT OF THESE DOCUMENTS SHALL EXPLICITLY REPRESENT "FURNISHED AND INSTALLED BY".

GENERAL TECHNOLOGY DEMOLITION NOTES:

- 1) ALL DEVICES, AND MISCELLANEOUS EXISTING CONDITIONS SHOWN ON THE DEMOLITION PLANS ARE THE RESULT OF FIELD INSPECTIONS AND ARE NOT INTENDED TO REFLECT EXISTING FIELD CONDITIONS. BUT, RATHER THE EXTENT OF TECHNOLOGY DEMOLITION, THE TECHNOLOGY CONTRACTOR SHALL FIELD VERIFY THE EXTENT OF DEMOLITION PRIOR TO SUBMITTING BID.
- 2) REMOVE AND/OR RELOCATE EXISTING TECHNOLOGY DEVICES ON WALLS OR CEILINGS BEING REMOVED. COORDINATE SUCH CONDITIONS WITH ARCHITECTURAL DRAWINGS. SET NEW FLOOR PLANS FOR NEW LOCATIONS OF EXISTING DEVICES BEING RELOCATED.
- 3) EXISTING CONDUITS, CABLEING OR SYSTEMS IN WALLS OR CEILINGS BEING REMOVED WHICH SERVE SURROUNDING UN-REMODELED AREAS SHALL BE REWORKED AND MAINTAINED.
- 4) EXISTING CONDUITS, CABLEING OR SYSTEMS PASSING THROUGH THE REMODELED AREAS WHICH SERVE UN-REMODELED AREAS SHALL REMAIN AND BE PROTECTED DURING DEMOLITION AND REMODELING. RELOCATE AND REROUTE IF RE-REQUIRED.
- 5) RE-SUPPORT EXISTING CONDUIT AND CABLES WHICH REMAIN ABOVE CEILINGS PER NATIONAL, STATE, AND LOCAL CODES, AS WELL AS BY MEANS OF SPECIFIED METHODS.
- 6) MAINTAIN CONTINUITY OF COMMUNICATION CIRCUITS TO ALL DEVICES SHOWN TO REMAIN (ETR). RE-CABLE, RE-TERMINATE, AND RE-TEST AS RE-REQUIRED.
- 7) ALL NEW AND RELOCATED CONDUIT AND WIRING IN REMODELED AREAS SHALL BE CONCEALED UNLESS OTHERWISE NOTED. COORDINATE WITH ARCHITECT IN FIELD.
- 8) FOR ALL DEVICES BEING REMOVED (REX), REMOVE RELATED CONDUIT AND CABLEING TO SOURCE. RE-LABEL EXISTING CONNECTIVITY PORTS AS "SPARE" WHEN CABLEING IS COMPLETELY REMOVED OR REVISE LABEL ON PANEL DIRECTORY APPROPRIATELY.
- 9) WHERE TECHNOLOGY DEVICES ARE DESIGNATED TO BE REMOVED, PROVIDE BLACK COVERPLATES OR REMOVE BACKBOX AND PATCH/REPAIR WALLS AS DIRECTED BY ARCHITECT.
- 10) ALL TECHNOLOGY DISTRIBUTION, CABLEING, AND DEVICES INDICATED AS ETR OR RR SHALL REMAIN AND BE PROTECTED DURING CONSTRUCTION. UNO_ ALL CABLEING REMAINING AFTER CONSTRUCTION SHALL BE ROUTED BY MEANS OF APPROVED CONTINUOUS OR NON-CONTINUOUS PATHWAYS. EXISTENCE OF ANY TECHNOLOGY CABLEING BEING ROUTED BY MEANS OF A CONTINUOUS AND NON-CONTINUOUS PATHWAYS SHALL BE REWORKED TO THE EXTENT OF PROVIDING AN ENTIRELY NEW PATHWAY SYSTEM.



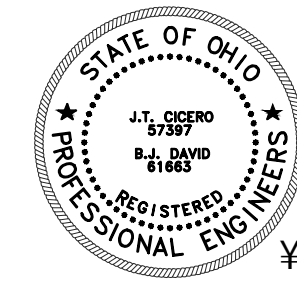
CBLH
DESIGN

Architecture
Planning
Interior Design

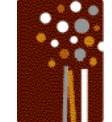
7850 Freeway Circle Cleveland, OH 44130
440.243.2000 t 440.243.3305 f

CONSULTANTS:

ARCHITECT:



PROJECT:



Cuyahoga County Public Library
browsing is just the beginning

CUYAHOGA COUNTY
PUBLIC LIBRARY

BEACHWOOD BRANCH
RENOVATION
25501 SHAKER BOULEVARD
BEACHWOOD, OHIO 44122
ISSUED FOR: PERMIT
PROJECT ISSUANCE DATE: 09-09-2011
CLIENT PROJECT NUMBER: 15313.00

KEY PLANS:

BID PACKAGE NUMBER:

REVISIONS:

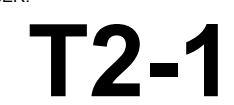
ISS REV	PURPOSE	DATE
1	ISSUED FOR PERMIT	09-09-2011
2	ISSUED FOR BID	09-30-2011
3	RECORD DOCUMENTS	07-18-2012

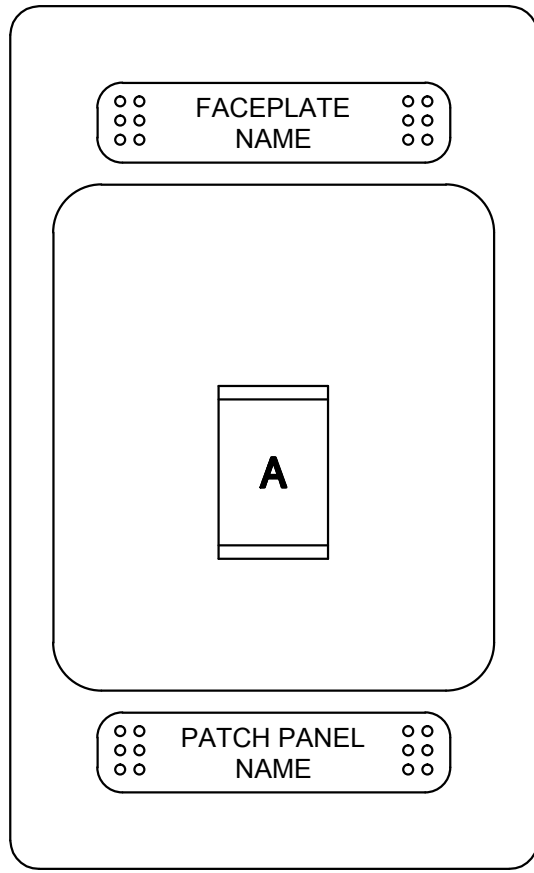
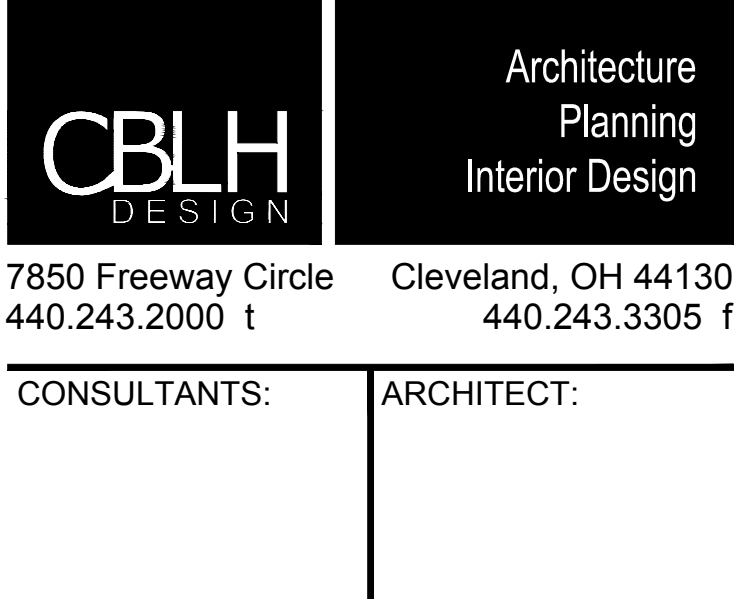
PROJECT NUMBER: 15313

DRAWING TITLE:

SYMBOL LEGEND, ABBREVIATIONS, AND GENERAL NOTES

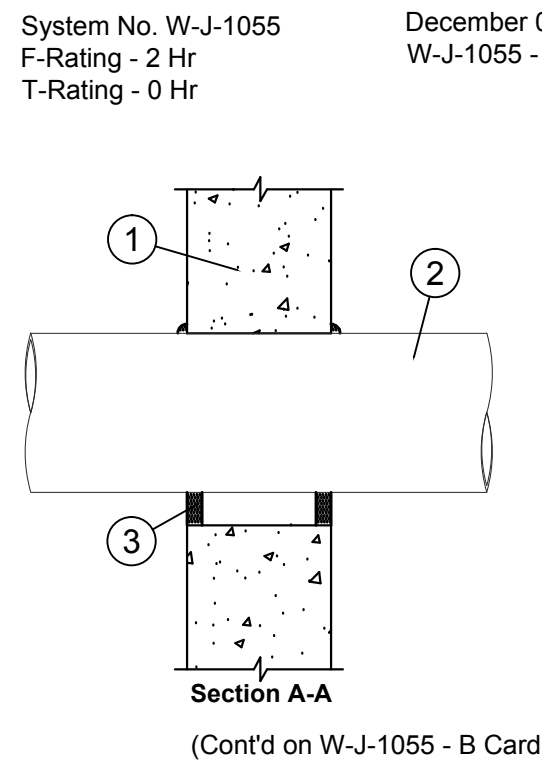
DRAWN BY: XXX	DRAWING NUMBER: T0-1
CHECKED BY: XXX	





TYPE "W" "W" FACEPLATE DETAIL
SCALE: NONE

POSITION	JACK TYPE	JACK COLOR	ICON TYPE	ICON COLOR	CABLE TYPE	CABLE COLOR
A	CAT6 RJ45	RED	VOICE	RED	CAT6	RED



FIRESTOP DETAILS

SCALE: NONE

The diagram illustrates a fire-rated wall assembly with the following components and labels:

- STEEL STUD**: Points to the vertical structural member on both the front and side views.
- CONDUIT (EMT)**: Points to the EMT conduit passing through the wall assembly in both views.
- 1 OR 2 HOUR FIRE RATED GYPSUM BOARD WALL ASSEMBLY**: Points to the main wall structure in the side view.
- FIRE BARRIER MOLDABLE PUTTY PAD**: Points to the fire-resistant sealant used to seal the conduit penetration in both views.
- FRONT VIEW**: Labeled at the bottom left of the diagram.
- SIDE VIEW**: Labeled at the bottom right of the diagram.

TECHNOLOGY BOX FIRESTOP DETAIL

APPLIES TO BOXES GREATER THAN 4" SQUARE IN FIRE RATED WALLS, OR IF MULTIPLE BOXES ARE LOCATED WITHIN 24" IN THE SAME FIRE RATED WALL.

FURNISH AND INSTALL MOLDBABLE PUTTY PADS FOR USE WITH FLUSH LU LISTED METALLIC ELECTRICAL BOXES. MOLDBABLE PUTTY PADS ARE TO BE INSTALLED TO COMPLETELY COVER THE EXTERIOR SURFACES OF THE BOX WITHIN THE STUD CAVITY. PROVIDE PUTTY MATERIAL TO PLUG THE END OF EACH ELECTRICAL METALLIC TUBE OR CONDUIT AT ITS CONNECTION TO THE BOX. A MINIMUM 1/4" THICKNESS OF PUTTY MATERIAL IS REQUIRED ON THE EXTERIOR SURFACES OF FLUSH BOXES IN 1 AND 2 HR FIRE RATED ASSEMBLIES. WHEN THE MOLDBABLE PUTTY PAD MATERIAL IS USED AS DIRECTED, THE HORIZONTAL SEPARATION BETWEEN BOXES ON OPPOSITE SIDES OF THE WALL MAY BE LESS THAN 24" PROVIDED THAT THE BOXES ARE NOT INSTALLED BACK TO BACK.



- 1) REFER TO TECHNOLOGY SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- 2) REFER TO FLOOR PLANS FOR OUTLET QUANTITY AND LOCATIONS.
- 3) BLANK COVERPLATES ARE NOT REQUIRED BY THE ELECTRICAL CONTRACTOR.
- 4) ALL DEVICES INSTALLED IN INACCESSIBLE CEILING SPACES SHALL HAVE CONDUIT AND BACKBOX ROUGH-IN WITH CONDUIT EXTENDED TO NEAREST ACCESSIBLE CEILING SPACE.
- 5) PROVISION AND INSTALLATION OF TELEPHONE AND COVERPLATES, DATA JACKS AND TERMINATIONS, AS WELL AS RELATED TELEPHONE AND DATA CABLING (PLENUM APPROVED AS REQUIRED, UON), IS BY THE TECHNOLOGY CONTRACTOR.
- 6) PROVISION AND INSTALLATION OF TELEVISION CABLING (PLENUM APPROVED AS REQUIRED, UON) AND TERMINATIONS ARE BY THE TECHNOLOGY CONTRACTOR.
- 7) EC SHALL COORDINATE DEVICE LOCATIONS AND ROUGH-IN REQUIREMENTS WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN. EC SHALL PROVIDE PULLBOXES PER NEC.
- 8) TC SHALL PROVIDE J-HOOK SUPPORT EVERY 5' ON CENTER FOR ALL CABLING WHICH WILL SPAN 5' OR MORE WITHOUT OTHER APPROVED CABLE SUPPORT MECHANISM, UON.
- 9) PRIOR TO ROUGH-IN OF WALLPHONE PROPER CLEARANCES SHALL BE VERIFIED. WALLPHONE OUTLETS SHALL HAVE AT LEAST 6" OF CLEAR SPACE ALL AROUND ROUGH-IN.

TYPICAL TECHNOLOGY DEVICE ROUGH-IN
SCALE=NONE

BID PACKAGE NUMBER:

REVISIONS:

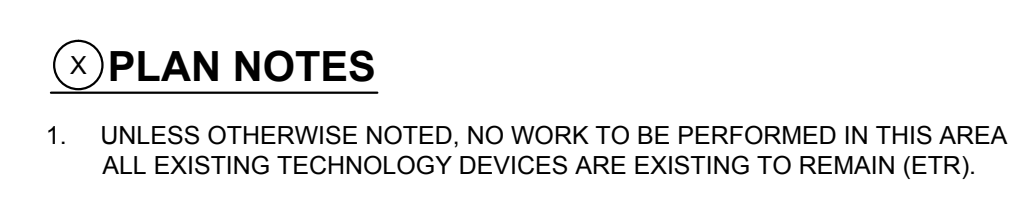
ISS REV	PURPOSE	DATE
1	ISSUED FOR PERMIT	09-09-2011
2	ISSUED FOR BID	09-30-2011
3	RECORD DOCUMENTS	07-18-2012

PROJECT NUMBER: 15313

DRAWING TITLE:

TECHNOLOGY DIAGRAMS AND DETAILS

DRAWN BY: XXX	DRAWING NUMBER: T3-1
CHECKED BY: XXX	



DRAWN BY: XXX	DRAWING NUMBER: TD-1
CHECKED BY: XXX	

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

6/6/2013 4:32:25 PM

in

Case No(s). 13-0152-EL-EEC

Summary: Application - Part 9 of 10 - Application to Commit Energy Efficiency/Peak Demand Reduction Programs of The Cleveland Electric Illuminating Company and Cuyahoga County Public Library electronically filed by Ms. Jennifer M. Sybyl on behalf of The Cleveland Electric Illuminating Company and Cuyahoga County Public Library