



**ADDENDUM #1**  
**INVITATION FOR BID**  
**No. 2015-004**

---

**Effective:** October 30, 2014  
**Project:** Water Park Roof Replacement and Bathhouse Renovation Project  
**Issued By:** Sunil Prithviraj, Capital Projects Program Manager  
Department of Public Works  
800 Rabbit Road  
Gaithersburg, Maryland 20878

Please be advised the following drawings, which are attached hereto, are additions to and hereby made part of Exhibit A (PLANS AND SPECIFICATIONS) of the Solicitation for the above project:

- ↳ Sheet A401
- ↳ Sheet A402
- ↳ Sheet M100
- ↳ Sheet M101

# NEW WORK NOTES

1. NEW 6" dia. 11 GAUGE METAL PIPE BOLLARD FILLED WITH 2500 PSI CONCRETE. SEE DETAIL 2/A401.



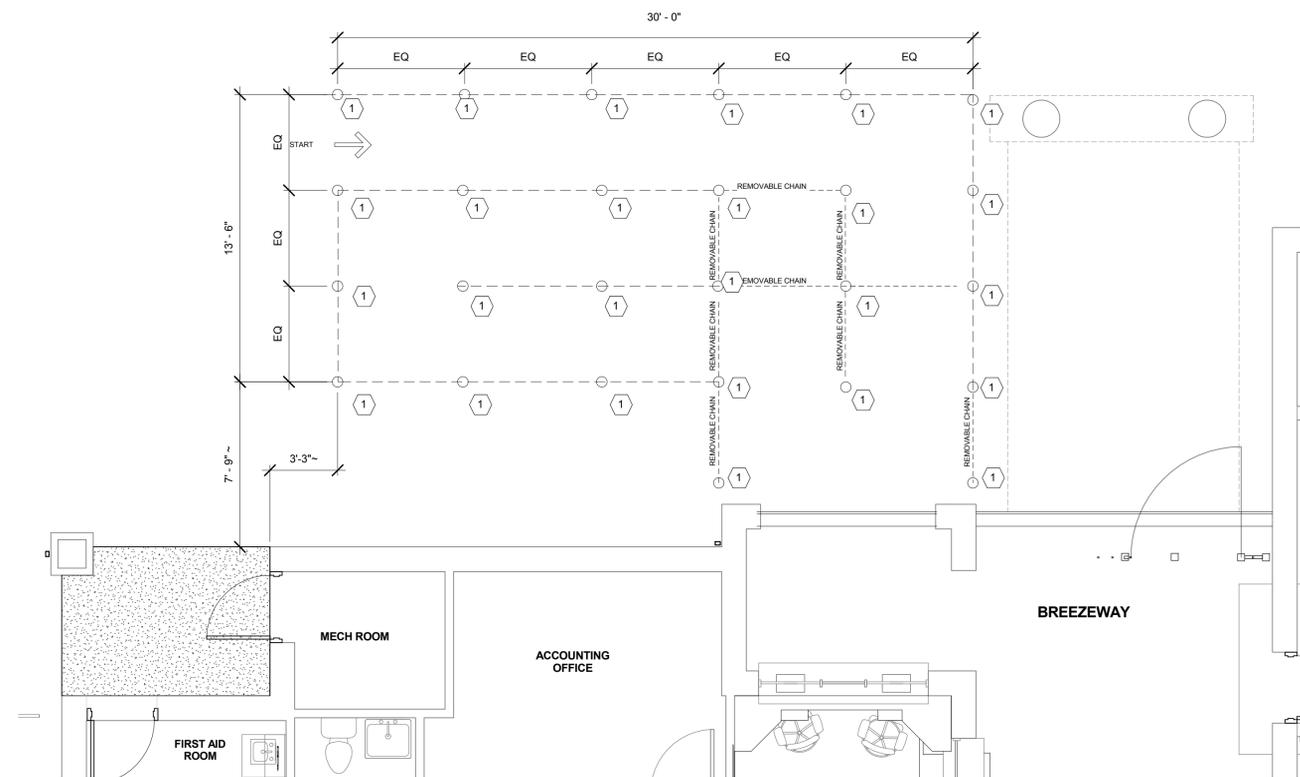
**Gaithersburg**  
A CHARACTER COUNTS! CITY

**GAITHERSBURG WATER PARK PHASE III**

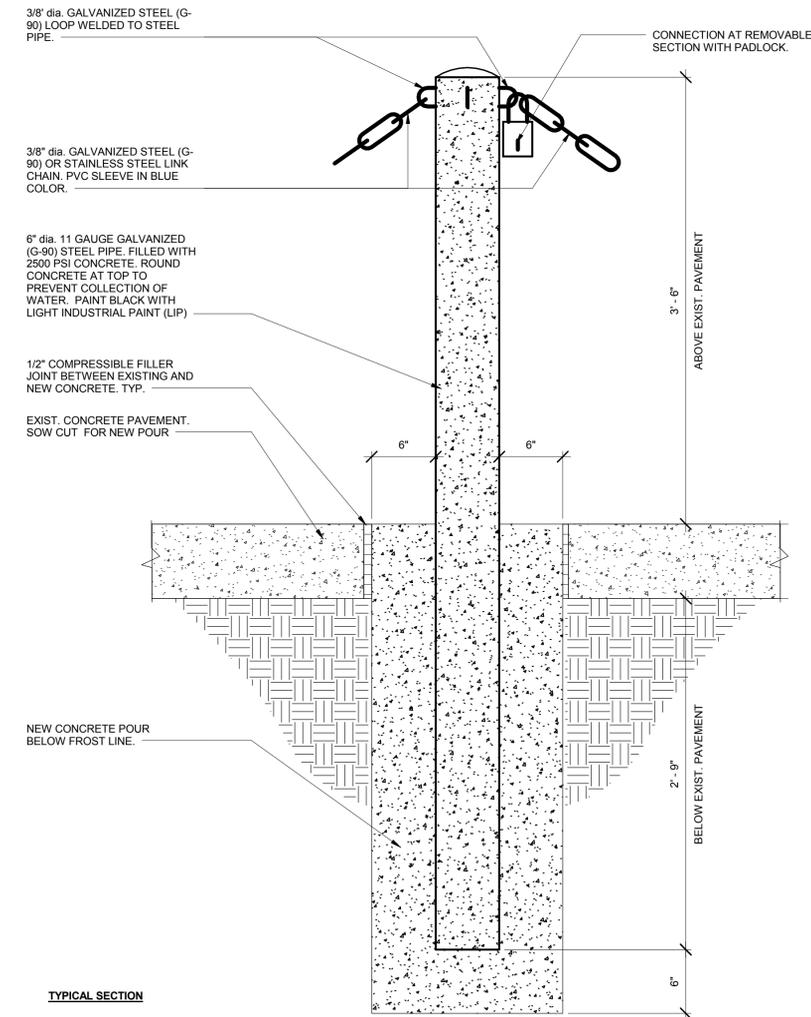
512 S Frederick Ave  
Gaithersburg, MD 20877

**NIKA ARCHITECTS + ENGINEERS**

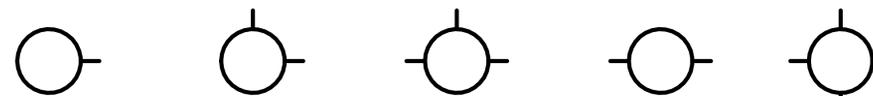
NIKA A+E  
451 HUNGERFORD DRIVE (P)301.770.3520  
4TH FLOOR (F)301.770.3521  
ROCKVILLE, MD 20850 www.nika-ae.com



1 ENLARGED ARCHITECTURAL FLOOR PLAN - QUEUE CONTROL  
1/4" = 1'-0"



TYPICAL SECTION



PLAN CONDITIONS

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

No.	Description	Date

Revisions

Drawing Title

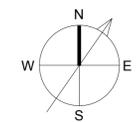
**ENLARGED ARCHITECTURAL PLAN - QUEUE CONTROL**

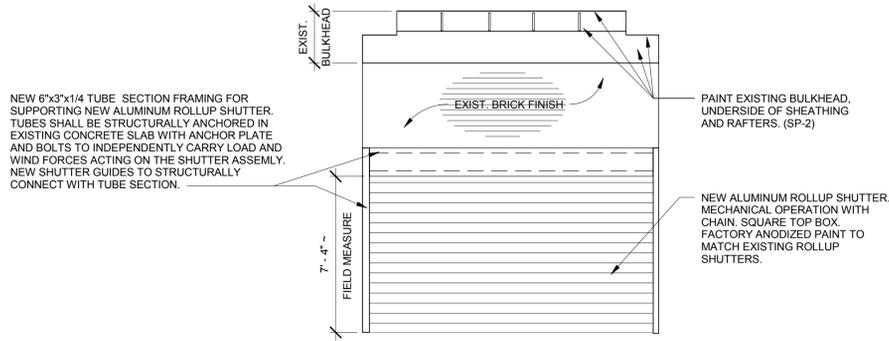
Phase  
 CONCEPT  30%  60%  90%  100%

A/E Project Number: 12.0009-011  
Date: 10.29.2014  
Drawing Scale: AS NOTED  
CADD Filename: Revit Model  
CADD Plot Scale: 1:1

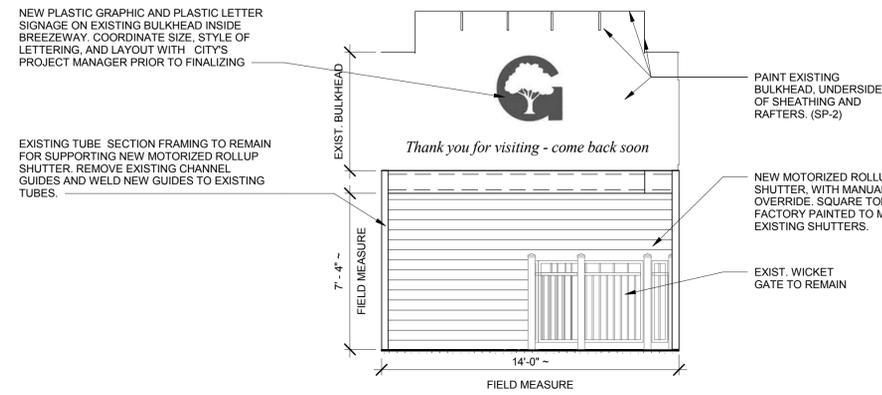
Drawn By: Author  
Checked By: Checker

Sheet Number: **A401**

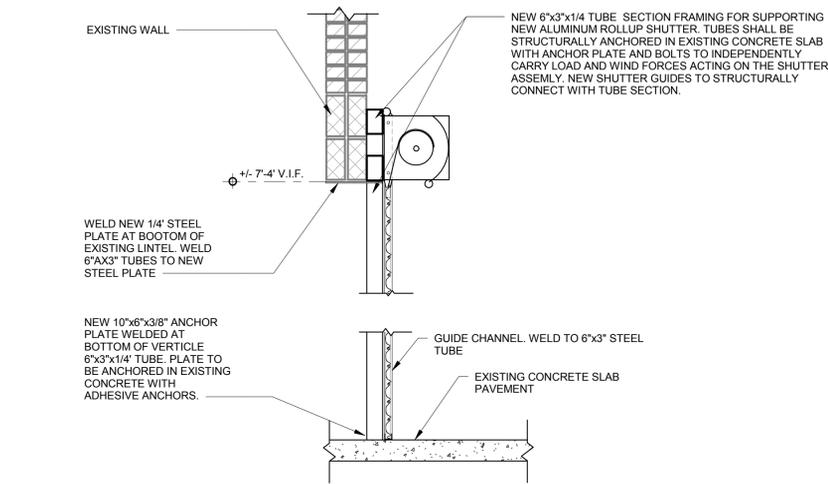




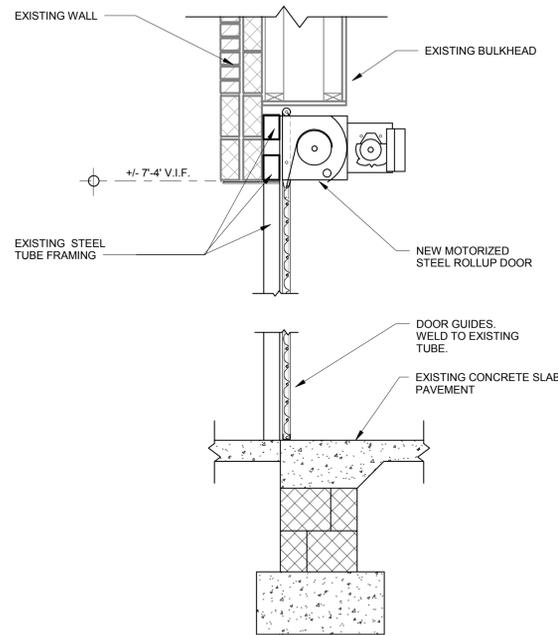
3 BREEZEWAY ELEVATION - 3  
1/4" = 1'-0"



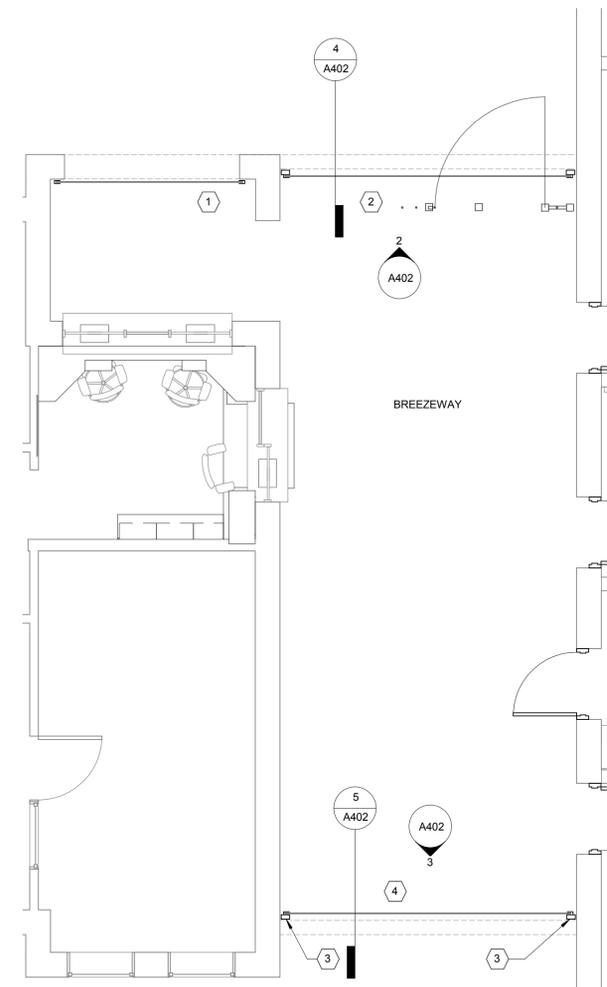
2 BREEZEWAY ELEVATION - 2  
1/4" = 1'-0"



5 ALUMINUM ROLLING DOOR DETAIL  
3/4" = 1'-0"



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



1 ENLARGED ARCHITECTURAL FLOOR PLAN - BREEZEWAY GATES  
1/4" = 1'-0"

# NEW WORK NOTES

1. INSTALL NEW MECHANICALLY (CHAIN) OPERATED STEEL ROLLUP DOOR WITH PADLOCKS IN BREEZEWAY. FIELD MEASURE EXISTING OPENING PRIOR TO ORDERING. ROLLUP DOOR ASSEMBLY TO BE FACTORY PAINTED. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
2. INSTALL NEW MOTORIZED STEEL ROLLUP DOOR WITH MECHANICAL (CHAIN) OVERRIDE. ROLLUP DOOR TO BE LOCKABLE FROM INSIDE BREEZEWAY WITH PADLOCK. FIELD MEASURE EXISTING OPENING PRIOR TO ORDERING. ROLLUP DOOR ASSEMBLY TO BE FACTORY PAINTED. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
3. NEW 6"x3"x1/4" STEEL TUBE FRAME. ANCHOR WITH ADHESIVE ANCHORS AND ANCHOR PLATE INTO EXISTING PAVEMENT. WELD GUIDES OF ROLLUP DOOR TO TUBE FRAMING. WELD TOP OF TUBE FRAMING WITH EXISTING STEEL LINTEL.
4. INSTALL NEW MECHANICALLY (CHAIN) OPERATED ALUMINUM ROLLUP DOOR WITH PADLOCKS IN BREEZEWAY. FIELD MEASURE EXISTING OPENING PRIOR TO ORDERING. ROLLUP DOOR ASSEMBLY TO BE FACTORY PAINTED. INSTALL PER MANUFACTURER'S INSTRUCTIONS.



Gaithersburg  
A CHARACTER COUNTS! CITY

**GAITHERSBURG  
WATER PARK  
PHASE III**

512 S Frederick Ave  
Gaithersburg, MD 20877

**NIKA** ARCHITECTS  
+ ENGINEERS

NIKA A+E  
451 HUNGERFORD DRIVE (P)301.770.3520  
4TH FLOOR (F)301.770.3521  
ROCKVILLE, MD 20850 www.nika-ae.com

No.	Description	Date

Revisions

Drawing Title  
**ENLARGED ARCHITECTURAL  
PLAN - BREEZEWAY**

Phase  
 CONCEPT  30%  60%  90%  100%

A/E Project Number  
12.0009-011

Drawing Scale: AS NOTED

Date  
10.29.2014

CADD Filename  
Revit Model

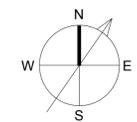
CADD Plot Scale  
1:1

AMENDMENT 1

Drawn By  
Author

Checked By  
Checker

Sheet Number  
**A402**



## MECHANICAL GENERAL NOTES\*

THE SCOPE OF THIS WORK CONSISTS OF FURNISHING AND INSTALLING COMPLETE MECHANICAL SYSTEMS. THE CONTRACTOR SHALL PROVIDE ALL SUPERVISION, LABOR, MATERIALS, EQUIPMENT, MACHINERY, AND ALL OTHER ITEMS NECESSARY TO COMPLETE THE SYSTEM. IT IS THE INTENT OF THESE PLANS AND DOCUMENTS TO PROVIDE COMPLETELY FINISHED, TESTED, AND OPERATIONAL SYSTEMS. ALL APPARATUS, APPLICATIONS, MATERIALS, AND INCIDENTAL ACCESSORIES NECESSARY TO MAKE THE WORK COMPLETE AND READY FOR OPERATION SHALL BE PROVIDED BY THE CONTRACTOR WITHOUT ADDITIONAL EXPENSE TO THE OWNER. THE TERM "PROVIDE", WHERE USED IN THESE SPECIFICATIONS AND ON THE DRAWINGS, SHALL BE DEFINED AS PURCHASE, FABRICATE, INSTALL AND CONNECT TO THE SYSTEMS AS STATED ABOVE.

ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE BOCA INTERNATIONAL CODES, NFPA, AND ALL OTHER STATE AND LOCAL REGULATIONS. THE MANUFACTURER'S RECOMMENDATIONS SHALL BE FOLLOWED. ALL EQUIPMENT SHALL BE NEW AND U.L. LISTED.

THE PREMISES WILL REMAIN OCCUPIED DURING THE COURSE OF THIS PROJECT. THE CONTRACTOR SHALL COORDINATE ALL ACTIVITIES WITH THE OCCUPANT'S AND LANDLORD'S REPRESENTATIVES. REFER TO THE INSTRUCTIONS TO BIDDERS AND GENERAL TERMS AND CONDITIONS OF THE CONTRACT FOR AVAILABLE WORKING HOURS. TAKE PRECAUTIONS TO INSURE THAT THE PREMISES ARE NOT ADVERSELY AFFECTED BY THE WORK. PROTECT ALL ADJACENT SURFACES, EQUIPMENT, FURNITURE, AND ALL OTHER ITEMS IN THE AREA OF THE WORK. PROVIDE FIVE (5) DAYS WRITTEN NOTICE TO THE OWNER'S REPRESENTATIVE FOR ANY OWNER EQUIPMENT THAT MUST BE RELOCATED TO ACCOMMODATE THE WORK. CLEAN THE WORK AREA AFTER EACH DAILY WORK SESSION AND RESTORE THE AREA TO A CLEAN AND USEABLE CONDITION.

THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND PAY ALL FEES NECESSARY FOR THE EXECUTION AND COMPLETION OF THE WORK.

THE CONTRACTOR SHALL PROVIDE ACCESS DOORS FOR ALL MECHANICAL EQUIPMENT WHICH IS INSTALLED IN INACCESSIBLE LOCATIONS. BUILDING COMPONENTS REQUIRING ACCESS DOORS SHALL INCLUDE, BUT NOT BE LIMITED TO, ALL NON LAY-IN TYPE CEILINGS, CONCEALED SPLINE CEILINGS, CHASES, CRAWL SPACES, ATTICS, FLOORS, AND WALLS. ACCESS DOORS SHALL BE MINIMUM 24" X 24" FOR HAND ACCESS AND LARGER IF HUMAN ACCESS IS REQUIRED. COORDINATE INSTALLATION OF MECHANICAL SYSTEMS WITH ARCHITECTURAL PLANS. PROVIDE THE GENERAL CONTRACTOR A SCHEDULE OF THE QUANTITY AND SIZE FOR ALL ACCESS DOORS REQUIRED FOR THIS PROJECT.

THE CONTRACTOR SHALL PROVIDE FIRE DAMPERS IN ACCORDANCE WITH UL 555 IN ALL FIRE RATED ASSEMBLIES. PROVIDE DUCT ACCESS DOORS FOR ALL FIRE DAMPERS AND OTHER EQUIPMENT REQUIRING IN-DUCT ACCESS.

THE CONTRACTOR SHALL COOPERATE WITH OTHERS DOING WORK ON THE BUILDING AS MAY BE NECESSARY FOR THE PROPER EXECUTION OF THE WORK OF THE VARIOUS TRADES EMPLOYED IN THE CONSTRUCTION OF THE BUILDING. THE CONTRACTOR SHALL OBTAIN A COMPLETE AND CURRENT SET OF PLANS AND SPECIFICATIONS FOR THIS PROJECT. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL, STRUCTURAL, CIVIL AND ELECTRICAL DRAWINGS TO THE END THAT UNNECESSARY DELAYS MAY BE AVOIDED. NO EXTRAS WILL BE ALLOWED BECAUSE OF CONFLICTS CAUSED BY THE USE OF INCOMPLETE OR OUTDATED PLANS AND SPECIFICATIONS.

THE DATA GIVEN HEREIN AND ON THE DRAWINGS IS AS EXACT AS CAN BE SECURED; BUT THE ABSOLUTE ACCURACY IS NOT GUARANTEED. THE SPECIFICATIONS AND DRAWINGS ARE FOR THE ASSISTANCE AND GUIDANCE OF THE CONTRACTOR. EXACT LOCATION, DISTANCES, AND LEVELS WILL BE GOVERNED BY THE BUILDINGS. THE CONTRACTOR SHALL USE THE DATA CONTAINED WITH THIS UNDERSTANDING. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS ACTUAL CONSTRUCTION AND WORK OF ALL OTHER CONTRACTORS WILL PERMIT. ALL DEVIATIONS FROM DRAWINGS REQUIRED TO MAKE THE MECHANICAL AND PLUMBING WORK CONFORM TO THE BUILDING AS CONSTRUCTED AND TO THE WORK OF OTHERS SHALL BE MADE BY THE CONTRACTOR AT NO EXTRA COST TO THE OWNER.

THE CONTRACTOR SHALL VERIFY ALL MEASUREMENTS AT THE BUILDINGS AND SHALL BE RESPONSIBLE FOR THE CORRECTNESS OF SAME. NO EXTRA COMPENSATION WILL BE ALLOWED BECAUSE OF DIFFERENCES BETWEEN WORK SHOWN ON THE DRAWINGS AND MEASUREMENTS AT THE BUILDING.

ALL WORK AND MATERIALS COVERED BY THE SPECIFICATIONS SHALL BE SUBJECT TO INSPECTION AND, AT ALL TIMES, BY REPRESENTATIVES OF THE ARCHITECT, ENGINEER, OR THE OWNER. IF THE ARCHITECT'S, ENGINEER'S, OR OWNER'S INSPECTOR FIND THAT ANY MATERIAL DOES NOT CONFORM TO THESE SPECIFICATIONS, THE CONTRACTOR SHALL, WITHIN 3 DAYS AFTER BEING NOTIFIED BY THE ARCHITECT, ENGINEER, OR OWNER, REMOVE THE MATERIAL FROM THE PREMISES. IF SAID MATERIAL HAS BEEN INSTALLED, THE ENTIRE EXPENSE OF REMOVING AND REPLACING SAME, INCLUDING ALL CUTTING AND PATCHING THAT MAY BE NECESSARY, SHALL BE BORNE BY THE CONTRACTOR.

THE CONTRACTOR SHALL REMOVE ALL MATERIALS NOT INSTALLED IN THEIR WORK WHICH WOULD INTERFERE WITH THE WORK OF ALL OTHER CONTRACTORS, IF SO DIRECTED BY THE ARCHITECT, ENGINEER, OR THE OWNER. AT THE COMPLETION OF THE WORK, THE CONTRACTOR SHALL CLEAN UP AND REMOVE FROM THE PREMISES ALL DEBRIS AND MATERIALS NOT INSTALLED SO THAT THE PREMISES WILL BE LEFT CLEAN.

UPON COMPLETION OF THE WORK AND ADJUSTMENT OF ALL EQUIPMENT, ALL SYSTEMS SHALL BE TESTED IN THE PRESENCE OF THE ARCHITECT AND ENGINEER TO DEMONSTRATE THAT ALL EQUIPMENT FURNISHED AND INSTALLED UNDER THE PROVISIONS OF THESE SPECIFICATIONS FUNCTIONS IN THE MANNER REQUIRED.

THE CONTRACTOR SHALL LEAVE ALL SYSTEMS IN PROPER WORKING ORDER AND SHALL, AT THEIR EXPENSE, REPLACE ALL WORK, MATERIAL, AND EQUIPMENT FURNISHED BY THEM WHICH DEVELOP DEFECTS WITHIN TWO YEARS FROM THE DATE OF ACCEPTANCE. PROVIDE AN ADDITIONAL 5 YEAR WARRANTY (TOTAL OF 5 YEARS) ON ALL REFRIGERATION SYSTEM COMPRESSORS. DELIVER ALL WARRANTY CERTIFICATES TO THE OWNER PRIOR TO FINAL ACCEPTANCE AND BUILDING TURN OVER.

THE CONTRACTOR SHALL INCLUDE A TWO-YEAR LABOR WARRANTY FOR ALL OWNER-FURNISHED, CONTRACTOR-INSTALLED EQUIPMENT IN THE BASE BID FOR THIS PROJECT. THIS WARRANTY SHALL COVER ALL LABOR CHARGES FOR ALL REPAIRS TO THE EQUIPMENT FOR 24 MONTHS BEGINNING ON THE DATE OF SUBSTANTIAL COMPLETION, OR WHEN THE EQUIPMENT IS PLACED INTO ACTIVE SERVICE, WHICHEVER OCCURS LATER. THE PARTS WARRANTY WILL BE PROVIDED BY THE MANUFACTURER.

THE CONTRACTOR SHALL PROVIDE ENGRAVED PLASTIC NAMEPLATES FOR ALL MECHANICAL EQUIPMENT FOR THIS PROJECT. PROVIDE FLOW DIRECTION ARROWS AND SYSTEM IDENTIFIERS EVERY 25 FEET FOR ALL MECHANICAL PIPING SYSTEMS. IN MULTI-TENANT BUILDINGS, INCLUDE THE OWNER'S NAME ON THE EQUIPMENT NAMEPLATE.

THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 8 MANHOURS OF OWNER TRAINING BY THE MANUFACTURER'S REPRESENTATIVES FOR THE MECHANICAL SYSTEM(S) BEING INSTALLED. THIS WORK SHALL BE INCLUDED IN THE BASE BID AND SCHEDULED WITH THE OWNER'S REPRESENTATIVE AFTER SUBMISSION OF THE OPERATION AND MAINTENANCE MANUALS. THE CONTRACTOR SHALL REQUIRE THE MANUFACTURER'S REPRESENTATIVES TO CONDUCT THE OWNER TRAINING SESSION(S).

THE CONTRACTOR SHALL DEMOLISH, DISASSEMBLE, AND REMOVE FROM THE PREMISES ALL EXISTING EQUIPMENT AND MATERIAL AS INDICATED THAT IS NOT BEING REUSED AND BECOMING PROPERTY OF THE OWNER. THE CONTRACTOR SHALL LEGALLY DISPOSE OF SUCH EQUIPMENT AND MATERIAL IN ACCORDANCE WITH LOCAL REGULATIONS.

THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING AND BECOME INFORMED AS TO THE EXISTING CONDITIONS OF THE PREMISES. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH ALL EXISTING SYSTEMS AND WITH THE NEW WORK THAT IS REQUIRED. NO CONSIDERATION WILL BE GRANTED FOR ALLEGED MISUNDERSTANDING OF THE WORK THAT IS TO BE DONE. ANY DIFFICULTIES IN COMPLYING WITH THE DRAWINGS OR SPECIFICATIONS, OR QUESTIONS OF CLARIFICATION, SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER BEFORE BIDDING.

THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL "OWNER FURNISHED REQUIREMENTS" REQUIRED BY LOCAL PUBLIC WORKS DEPARTMENT TO PROVIDE SEWER, GAS, AND WATER SERVICE. COORDINATION WITH THE LOCAL UTILITY COMPANIES AND BUILDING LANDLORD (IF APPLICABLE) SHALL BE PART OF THIS WORK.

THE CONTRACTOR SHALL PROVIDE ALL PENETRATIONS TO THE BUILDINGS AS REQUIRED FOR THE INSTALLATION OF ALL MECHANICAL EQUIPMENT AND MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SEALING ALL PENETRATIONS TO THE EXTERIOR OF THE BUILDING AS A RESULT OF THE WORK. PROVIDE TEMPORARY AND/OR PERMANENT CLOSURE OF BUILDING OPENINGS AS A RESULT OF DEMOLITION WORK. PROVIDE SLEEVES AND INSERTS AS REQUIRED. ADHERE TO ALL APPLICABLE PORTIONS OF THE ARCHITECTURAL SPECIFICATIONS FOR ROOF, WALL AND FLOOR PENETRATIONS. THE CONTRACTOR SHALL COORDINATE WITH THE ROOFING CONTRACTOR AND ALL OTHER TRADES AS REQUIRED.

THE CONTRACTOR SHALL PROVIDE ALL OPENINGS REQUIRED IN THE EXISTING BUILDING TO INSTALL THE NEW SYSTEMS AND EQUIPMENT. PROVIDE CUTTING AND PATCHING OF EXISTING WALLS, PARTITIONS, CEILINGS, FLOORS, AND ROOFS, AS REQUIRED. PATCH TO MATCH ADJACENT SURFACES UNLESS OTHERWISE NOTED. REFER TO THE ARCHITECTURAL PLANS FOR FINISHES. SLEEVE ALL PIPE PENETRATIONS AND SEAL ALL OPENINGS. REFER TO THE ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

WHERE THE DRAWINGS INDICATE CONNECTIONS AND COORDINATION WITH EXISTING UTILITIES, ABOVE AND BELOW THE FLOOR OR GRADE, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXACT LOCATION, TYPE, SIZE, INVERTS, CAPACITY, AND COMPATIBILITY OF EXISTING UTILITIES THROUGH ACTUAL FIELD MEASUREMENTS AND INVESTIGATIONS AT THE JOB SITE PRIOR TO FABRICATION OR INSTALLATION OF ANY PIPING AND EQUIPMENT. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER IMMEDIATELY IF SIGNIFICANT DEVIATIONS FROM THE PLANS ARE DISCOVERED. THE CONTRACTOR SHALL ADHERE TO ALL APPLICABLE NOTIFICATION LAWS PRIOR TO ALL DIGGING OPERATIONS.

PROVIDE ALL OPERATING AND SAFETY CONTROLS FOR ALL MECHANICAL AND PLUMBING EQUIPMENT. PROVIDE AND INSTALL ALL CONTROL WIRING, CONDUITS, RELAYS, THERMOSTATS, SENSORS, CONTROL VALVES, CONTROLLERS, AND ALL OTHER ITEMS REQUIRED TO OPERATE ALL MECHANICAL AND PLUMBING EQUIPMENT AND SYSTEMS PROPERLY AND IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND ALL APPLICABLE CODES. ADHERE TO THE MANUFACTURER'S INSTRUCTION WHERE APPLICABLE. PROVIDE SHOP DRAWINGS, WIRING DIAGRAMS, PNEUMATIC AND ELECTRIC SCHEMATIC CONTROL DIAGRAMS, AND EQUIPMENT CUT SHEETS TO DESCRIBE THE METHOD OF IMPLEMENTATION. SUBMIT 6 SETS OF DRAWINGS FOR APPROVAL.

THE CONTRACTOR SHALL OBTAIN AND ADHERE TO THE LANDLORD'S RULES AND REGULATIONS FOR CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADHERING TO ALL LANDLORD REQUIREMENTS INCLUDING, BUT NOT LIMITED TO, ALLOWABLE WORKING HOURS, PARKING, CORE DRILLING, NOISE, SECURITY, FREIGHT ELEVATOR USAGE, FLOOR LOADING, DUST CONTROL, TRASH REMOVAL, STAGING AREAS, STORAGE OF MATERIALS, CLEANUP, TOILET AVAILABILITY, ALL TEMPORARY UTILITIES, AND ALL UTILITY SERVICE INTERRUPTION. THE CONTRACTOR SHALL COORDINATE ALL ACTIVITIES WITH ALL OTHER TRADES AND THE LANDLORD'S DESIGNATED REPRESENTATIVE.

THE CONTRACTOR SHALL DEVELOP AND SUBMIT COORDINATION DRAWINGS FOR ALL MECHANICAL AND PLUMBING SYSTEMS PRIOR TO FABRICATION OR INSTALLATION OF ANY MATERIAL AND EQUIPMENT. REFER TO THE PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS.

ALL HVAC DUCTWORK SHALL BE INSULATED WITH 1.5" THICK, 3 POUNDS PER CUBIC FOOT DENSITY INSULATION WITH ALUMINUM FOIL VAPOR BARRIER, UNLESS OTHERWISE NOTED.

ALL DUCT SIZES INDICATE CLEAR INSIDE DIMENSIONS.

ALL DUCTWORK SHALL BE MADE ACCORDING TO SMACNA STANDARDS.

SHOP DRAWINGS: THE CONTRACTOR SHALL PROVIDE SIX SETS OF SHOP DRAWINGS AND PRODUCT LITERATURE FOR ALL MECHANICAL AND PLUMBING EQUIPMENT AND SYSTEMS.

OPERATION AND MAINTENANCE MANUALS: THE CONTRACTOR SHALL PROVIDE OPERATION AND MAINTENANCE (O/M) MANUALS FOR ALL MECHANICAL AND PLUMBING EQUIPMENT. ALL O/M MANUALS SHALL BE BOUND IN A THREE-RING BINDER. THE CONTRACTOR SHALL PREPARE TWO COMPLETE SETS OF O/M MANUALS AND DELIVER TO THE OWNER'S REPRESENTATIVE PRIOR TO FINAL ACCEPTANCE OF THE WORK.

AS-BUILT DRAWINGS: DURING PROGRESS OF WORK, MAINTAIN AN ACCURATE RECORD OF THE INSTALLATION OF THE SYSTEM, LOCATING ALL DUCTWORK, PIPING AND EQUIPMENT PRECISELY BY DIMENSION. UPON COMPLETION OF THE INSTALLATION, TRANSFER ALL RECORD DATA TO BLUE-LINE PRINTS OF THE ORIGINAL DRAWINGS. DELIVER 6 SETS OF AS-BUILT DRAWINGS TO THE ARCHITECT / ENGINEER AND OWNER'S REPRESENTATIVE.

## MECHANICAL ABBREVIATIONS\*

(E)	EXISTING TO REMAIN
(N)	NEW
ABV	ABOVE
AJUH	AIR CONDITIONER & HEATING UNIT
AD	ACCESS DOOR
BDD	BACKDRAFT DAMPER
BEL	BELOW
CAP	CAPACITY
CD	CONDENSATE DRAIN
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CMU	CONCRETE MASONRY UNIT
CO	CLEANOUT
COMP	COMPRESSOR
CR	CONTROL RELAY
DB	DRY BULB
DCV	DUAL/DOUBLE CHECK VALVE
DN	DOWN
DS	DOWN SPOUT
EAT	ENTERING AIR TEMPERATURE
ENT	ENTERING
ESP	EXTERNAL STATIC PRESSURE
EWT	ENTERING WATER TEMPERATURE
FD	FIRE DAMPER / FLOOR DRAIN
FPM	FEET PER MINUTE
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
H2O	WATER
HP	HORSEPOWER
HR	HOUR
HWR	HEATING WATER RETURN
HWS	HEATING WATER SUPPLY
HZ	HERTZ
IAW	IN ACCORDANCE WITH
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LB	POUND
LWT	LEAVING WATER TEMPERATURE
MAV	MANUAL AIR VENT
MBH	1,000 BTU/HR
MOD	MOTOR OPERATED DAMPER
MVD	MANUAL VOLUME DAMPER
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NPS	NOMINAL PIPE SIZE
OA	OUTSIDE AIR
OAT	OUTSIDE AIR TEMPERATURE
OBD	OPPOSED BLADE DAMPER
OED	OPEN END DUCT
OCFI	OWNER FURNISHED CONTRACTOR INSTALLED
PD	PRESSURE DROP
PTAC	PACKAGED TERMINAL AIR CONDITIONER
RA	RETURN AIR
RD	ROOF DRAIN
SA	SUPPLY AIR
SAT	SUPPLY AIR TEMPERATURE
SENS	SENSIBLE
SF	SUPPLY FAN
SP	STATIC PRESSURE
TON	12,000 BTU/HR
TYP	TYPICAL
UJ	UP IN JOIST SPACE
UNO	UNLESS NOTED OTHERWISE
VAV	VARIABLE AIR VOLUME
VEL	VELOCITY
WB	WET BULB

## MECHANICAL LEGEND\*

ENDPOINT OF DEMOLITION	
CONNECT NEW TO EXIST	
FLEXIBLE CONNECTION	
DIRECTION OF FLOW	
DIELECTRIC UNION	
REDUCER	
TWO WAY CONTROL VALVE	
BALL VALVE	
BUTTERFLY VALVE	
DOMESTIC COLD WATER SUPPLY PIPING	
CONDENSER WATER SUPPLY PIPING	
CONDENSER WATER RETURN PIPING	
CONDENSATE/STORM DRAIN PIPING	
SANITARY DRAIN PIPING	
DUCT, DIFFUSER, OR PIPE TO BE DEMOLISHED	
NEW DUCT, DIFFUSER, OR PIPE	
PIPE ELBOW DOWN	
PIPE ELBOW UP	
PIPE TEE DOWN	
PIPE TEE UP	
ELECTRONIC MOTORIZED DAMPER	
NEW THERMOSTAT/TEMPERATURE SENSOR	
BACK DRAFT DAMPER, ARROW SHOWS DIRECTION OF FLOW	
BAROMETRIC DAMPER	
CARBON DIOXIDE SENSOR	
DUCT MOUNTED SMOKE DETECTOR	
FIRE DAMPER	
SI-1	
SI-200	
SI-300	
SI-400	
SI-500	
SI-600	
SI-700	
SI-800	
SI-900	
SI-1000	
SI-1100	
SI-1200	
SI-1300	
SI-1400	
SI-1500	
SI-1600	
SI-1700	
SI-1800	
SI-1900	
SI-2000	
SI-2100	
SI-2200	
SI-2300	
SI-2400	
SI-2500	
SI-2600	
SI-2700	
SI-2800	
SI-2900	
SI-3000	
SI-3100	
SI-3200	
SI-3300	
SI-3400	
SI-3500	
SI-3600	
SI-3700	
SI-3800	
SI-3900	
SI-4000	
SI-4100	
SI-4200	
SI-4300	
SI-4400	
SI-4500	
SI-4600	
SI-4700	
SI-4800	
SI-4900	
SI-5000	
SI-5100	
SI-5200	
SI-5300	
SI-5400	
SI-5500	
SI-5600	
SI-5700	
SI-5800	
SI-5900	
SI-6000	
SI-6100	
SI-6200	
SI-6300	
SI-6400	
SI-6500	
SI-6600	
SI-6700	
SI-6800	
SI-6900	
SI-7000	
SI-7100	
SI-7200	
SI-7300	
SI-7400	
SI-7500	
SI-7600	
SI-7700	
SI-7800	
SI-7900	
SI-8000	
SI-8100	
SI-8200	
SI-8300	
SI-8400	
SI-8500	
SI-8600	
SI-8700	
SI-8800	
SI-8900	
SI-9000	
SI-9100	
SI-9200	
SI-9300	
SI-9400	
SI-9500	
SI-9600	
SI-9700	
SI-9800	
SI-9900	
SI-10000	

## DIFFUSER, REGISTER AND GRILLE SCHEDULE

BASIS OF DESIGN "TITUS" OR APPROVED EQUAL

TAG	MODEL	NECK SIZE (IN)	FACE SIZE (IN)	CFM RANGE	MAX NC	THROW (FT)	MAX TOTAL PRESSURE DROP (IN WG)	MAX NECK VELOCITY (FPM)	SERVICE	REMARKS
EG-1	50FF	8X8	12X24	0-220	14	---	0.05	600	EXHAUST	1
EG-2	50FF	12X12	24X24	0-520	17	---	0.05	600	EXHAUST	1
EG-3	50FF	18X12	24X24	0-850	21	---	0.06	600	EXHAUST	1
EG-4	50FF									

