

January 30, 2019
BOARD OF COUNTY COMMISSIONERS
ORANGE COUNTY, FLORIDA
Y19-725-JS / ADDENDUM # 3
ORANGE COUNTY CONVENTION CENTER
WEST BUILDING HALL "A" NATURAL GAS RETROFIT

Bid Opening Date: February 12, 2019

This addendum is hereby incorporated into the bid documents of the project referenced above. The following items are clarifications, corrections, additions, deletions and/or revisions to and shall take precedence over the original documents. Underlining indicates additions, deletions are indicated by ~~strikethrough~~.

A. The Bid Opening Date has changed from ~~February 5, 2019~~ to February 12, 2019.

B. The following are questions/responses/clarifications:

1. Revision to Part G.3. - CONSTRUCTION SCHEDULE.

The following are considered non-work days for year 2019.

Hall A1 and Hall A2

March: 15 thru 25; 28 thru 31.

April: 7 thru 11; 27 thru 30.

May: 1 thru 5; 10 thru 24.

June: 6 thru 17.

July: 1 thru 9; 17 thru 21; 27 thru 31.

August: 1 thru 5; 29 thru 31.

Hall A3

March: 15 thru 29.

April: 3 thru 11; 27 thru 30.

May: 1 thru 5; 25 thru 31.

June: 1 thru 17; 20 thru 28.

July: 27 thru 31.

August: 1 thru 5; 29 thru 31.

Hall A4

March: 1 thru 11; 15 thru 29.

April: 3 thru 15; 27 thru 30.

May: 1 thru 5; 25 thru 31.

June: 1 thru 17; 20 thru 28.

July: 27 thru 31.

August: 1 thru 5; 29 thru 31.

Hall B1

March: 1 thru 11; 15 thru 29.

April: 12 thru 15; 27 thru 30.

May: 1 thru 5; 16 thru 31.

June: 1 thru 17; 20 thru 28.

July: 27 thru 31.

August: 1 thru 5; 29 thru 31.

2. Revision to Part G.3. - CONSTRUCTION SCHEDULE.

NOTE: ~~The “non-construction work days” listed above are included in the number of consecutive calendar days for Substantial and Final Completion dates. Per the “non-construction work days” listed above, the Construction Schedule will be extended 70 days so the contractor can account for the non-work days for Substantial and Final Completion dates.~~

3. Revision to Part G.9. – LICENSES/PERMITS/FEEES.

NOTE: Building Permit Number: ~~“To be provided upon award of the contract to General Contractor”~~ B19900158

4. No new Expansion/V Loop compensators Depicted.

Response: Expansion loops have been added to the drawings. Refer to revised sheets included with the addendum.

5. Should new roofing system information be included?

Response: A clarification has been included with the addendum for the contractor to refer to the Owner for recent roof warranty information for all new roof penetrations as part of this project.

6. What is the raceway for new power circuits for EGO buttons?

Response: General note #23 was revised as part of the addendum.

7. Keynote for EGO-7A1 is missing.

Response: Keynotes have been updated accordingly as part of the addendum.

8. Symbol for EGO-7A1 is missing.

Response: Symbols have been updated accordingly as part of the addendum.

9. GV-4D, what is the existing EGO control Scheme?

Response: Sheet note #2 was revised as part of the addendum.

10. GV-4D, does this require upsizing existing circuiting/breakers?

Response: A circuit breaker upsize is not required.

11. Are the electronic gas valves (EGV) intrinsically safe?

Response: Solenoid gas valves shall be intrinsically safe. Contractor is to provide solenoid valves rated as “intrinsically safe” by the valve manufacturer. Manufacturers shall be equal to those listed in 231123, Part 2.5B. Contractor shall submit valve shop drawings to engineer for approval.

12. Dashed v. Solid owner provided lines?

Response: This is a line type difference in AutoCAD. Both represent the same extensions of the Owner-provided flexible piping.

13. New Gas lines cross existing building expansion joints, no expansion joints depicted.

Response: Expansion loops have been added to the drawings. Refer to revised sheets included with the addendum.

14. Are ½” ports on manifolds required to be plugged per contract?

Response: The detail on Sheet P-001 has been revised to include caps as part of the addendum.

15. EGV not shown on plumbing drawings

Response: The gas solenoid valves are shown on the plumbing drawings. These are electric by design.

16. Welded V. threaded connections

Response: Welded piping is not required.

17. Access/work clearances for work on Gas Manifolds

Response: Clearance has been provided per existing manifold setups within the Hall B catwalks.

18. Requirement for mandatory 3rd party Security?

Response: Third-party security is not required. A clarification has been included with the addendum.

19.A: Division 09 “sections for painting interior and exterior natural-gas piping” is not included in specifications.

Response: Specification has been updated as part of the addendum.

20.A: Normally required to paint systems piping black, this indicates requirement to be painted yellow? Is this required?

Response: Specification has been updated as part of the addendum.

21.A: Pipes requirements for Threaded V. Welded, how are adapters addressed?

Response: Welded piping is not required.

22. Requirement for Pipe dope/PTFE, product data?

Response: Part 2.3 says that joint compound materials and tape shall be suitable for natural gas.

C. ATTACHMENTS:

1. Revised IFB, Part G, Item #3 and Item #9.
2. Revised Plumbing Drawing Sheets: P-001, P-407D, P-411A, P-411B, P-411C, P-412A AND P-801 & Revised Electrical Drawing Sheets: E-001, E-207A, E-209B, E-407A.
3. Revised Spec Section 010100, Part 1.11.A.
4. Revised Spec Section 231123, Parts 3.10. A and 3.10.B.

D. All other term and conditions of the IFB remain the same.

E. The Proposer shall acknowledge receipt of this addendum by completing the applicable section in the solicitation or by completion of the acknowledgement information on the addendum. Either form of acknowledgement must be completed and returned not later than the date and time for receipt of the proposal.

Receipt acknowledged by:

Authorized Signature

Date Signed

Title

Name of Firm

REVISED via Addendum #3: PART G: SUPPLEMENTAL CONDITIONS/SPECIAL PROVISIONS

1. **PROJECT DESCRIPTION:** Retrofit of natural gas piping within the West Building Exhibit Hall "A" catwalks above the exhibit space to serve the needs on the exhibit floor below in order to provide natural gas utility service connections for exhibitors on the show floor. Piping will connect to the existing natural gas piping terminating at the end of Hall "B" and be extended into Hall "A". Piping shall include solenoid valves for automatic gas supply shut-off via emergency push buttons located in the exhibit floor. The Electrical scope includes new 120v wiring for the natural gas piping electronic valves and emergency shut-off push buttons.

2. **SECURITY AND IDENTIFICATION:**

A. A Level 1 (5 years) FDLE Background check for the Contractor's staff and its Subcontractors must be approved by Orange County's Security team prior to working in any County facility. Contractors are responsible for obtaining the necessary forms for background checks for work at the Convention Center. All background checks will be sent to OCCC Project Manager for approval. Contractor's staff and its Subcontractors will not be allowed in Orange County facilities without a completed and approved background investigation. The Convention Center will inform the Contractor of their Background Check results.

B. Contractor shall be responsible for all costs for background investigations. The County shall have the right to request any additional investigative background information including, but limited to, the employment record, Right-To-Know records, E-Verify system records (if the Contractor uses this service as a means to determine employment eligibility, available through www.uscis.gov), training records, payroll records, position for which hired including site location of any personnel assigned to perform the services. The Contractor shall furnish, in writing, such information to the extent allowed by law, prior to commencement of services. The County reserves the right to conduct its own investigation of any employee of the Contractor.

For security purposes and to maintain privacy when submitting FDLE Background Checks via e-mail the subject line of the email must contain the following **EXEMPT******

C. Upon Background Check approval, the Contractor's staff shall arrange an appointment with the Convention Center staff to obtain an Orange County photo ID badge. An affidavit of Identity form (issued by the Contractor) and a State of Florida ID or Driver's License will be required from the staff. Cost associated with lost or stolen badges is \$25.00.

D. The Contractor shall arrange an appointment with OCCC Project Manager to receive, when applicable, keys to the project areas the Contractor requires access. The Contractor shall be responsible for returning all the keys to OCCC Project Manager during the project close-out phase. If any of the keys are lost, the Contractor shall reimburse OCCC for replacement of the core and/or cores associated with the key (s) that was lost. The cost for each core is \$50.00. The Contractor shall also request OCCC parking hang tags for Contractor's staff to park on OCCC designated parking lots during construction work hours. The Contractor shall submit the required forms given by the OCCC Project Manager for the issuance of hang tags. Cost associated with lost or stolen parking hang tags is \$25.00.

3. CONSTRUCTION SCHEDULE: The Convention Center is an occupied and active space that is operational at all times. Availability of the work site is limited due to the Convention Center scheduled show events. During the project, Contractor shall sequence their work to accommodate the scheduled show events. The project site will be available to the Contractor seven (7) days per week. Contractor work hours (night work only) are anticipated to be from **9:00 PM to 6:00 AM, exceptions to the work hours must be approved in advance by the County Project Manager**. Any permissible work activities during the non-construction work days will be determined at County Project Manager's discretion. With the advance approval of the County Project Manager, specific dates may be coordinated with the Contractor. Owner will provide show schedules, as necessary, to the Contractor. The show schedule will be for informational purposes only. Contractor must obtain approval from the County Project Manager for their work schedule.

The following are considered non-construction work days: ~~OCCE will provide to successful General Contractor.~~ **Non-work days are listed in Addendum 3.**

Note: ~~The "non-construction work days" listed above are included in the number of consecutive calendar days for Substantial and Final Completion dates.~~ **Per the "non-construction work days" listed in Addendum 3, the construction schedule will be extended 70 days so the contractor can account for the non-work days for the Substantial and Final Completion dates.**

The County has made every effort to provide the estimated dates for non-construction work days (no construction activity) based on the most current information available; however, the show event schedule is subject to change based on show activities.

In the event that the available scheduled work times/days are cancelled or rescheduled by the Owner, the Contractor may submit a request for additional work times/days, if required to meet the scheduled completion date. This request must be accompanied by adequate justification. If the Contractor is given or requests additional time that includes nights or weekends in order to meet scheduled completion date, no shift differential costs will be allowed.

4. WORK RESTRICTIONS: The Contractor shall be responsible for covering exposed work areas during non-working hours. The work areas shall be covered to prevent visible exposure from all angles of sight. Contractor shall obtain approval from the County Project Manager for covering material prior to installation.

Contractor is responsible for providing their own equipment and method of construction waste disposal. Accessibility for equipment such as scissor lifts or electric powered maintenance carts shall be permitted with limited access areas, as coordinated and approved with the County Project Manager.

Availability of space for staging/lay down area will determine whether County will permit the Contractor to set up a staging area. The County Project Manager will make reasonable staging/storage accommodations on property. Contractor staging area on site will depend on availability of space; however, relocation of staging area may be required during the project.

After completion of the work, the Contactor shall replace or restore to the original condition all affected areas within the project limits. Contractor is required to provide all materials for patching and painting per the finishes information to the County Project Manager.

5. **PERSONAL TRANSPORT DEVICES:** Personal transport equipment such as rollerblades, razor scooters, skates, hover-boards, and skateboards are not permitted on OCCC premises. However, electric wheelchairs and electric motor vehicles (e.g. Segways®) are permitted to operate on OCCC premises.

Contractor shall obtain prior approval from the County Project Manager for operation of electric motor vehicles (e.g. Segways®) on the show floor. Safe operating practices shall be used at all times. Segways® and electric scooter-style wheelchairs are currently the only personal transport equipment with rubber wheels allowed in OCCC concourses, lobbies, and registration areas. Non-gasoline powered motorized vehicles, such as electric carts and bicycles, may be operated in OCCC's exhibit halls during move-in and move-out days only. Bicycles must be walked, not ridden, across any OCCC concourse, lobby or registration area. All vehicles, transport devices, and equipment must be operated in a safe manner.

Motorized vehicles, such as personnel carts, forklifts, pallet jacks, and other related motorized vehicles with steel and/or hard metallic wheels are not permitted on the OCCC's concourses, lobbies, and registration areas. Lifts or other wheeled vehicles approved for use in carpeted areas shall have non-marking tires, or tires that are covered with carpet tape or heavy-duty polyethylene sheeting.

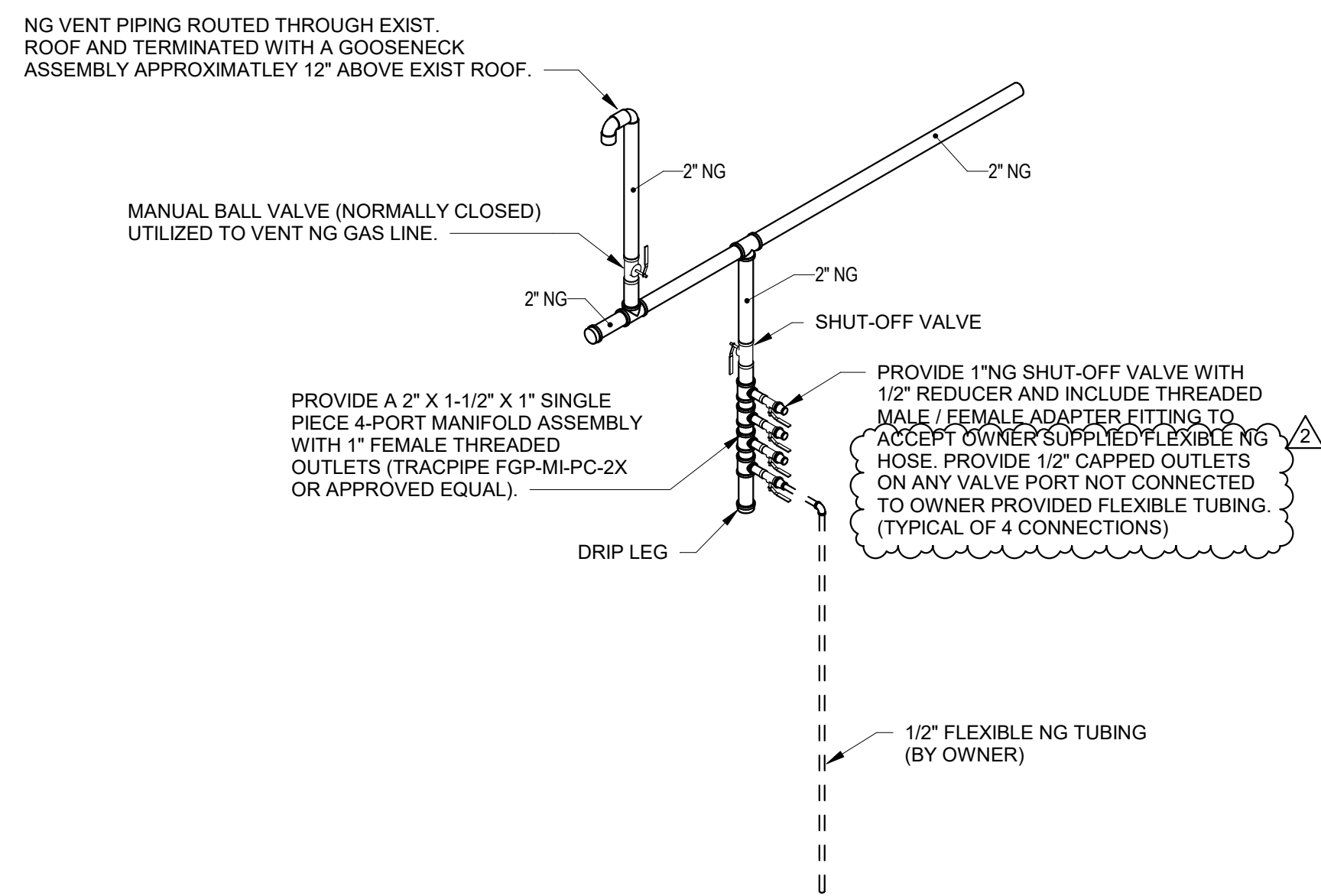
6. **OWNER PROVIDED EQUIPMENT (OPE)/CONTRACTOR INSTALLED:** If the Contractor is provided with owner equipment and/or material, Contractor shall install, connect, erect, use, clean and condition, as required, in accordance with the instructions of the applicable manufacturer warranty. Contractor shall schedule and coordinate with the County Project Manager the inspections and delivery of equipment and/or material during normal business hours between 8 am - 5 pm EST. Any request outside of normal business hours would be approved by County Project Manager at least forty-eight (48) hours in advance. Contractor shall inspect the equipment and/or material prior to accepting it. After acceptance, Contractor shall assume and accept full and complete responsibility and liability for the storage, custody, security, care and safe-keeping of the equipment and/or material in the event of theft, pilferage, fire or any other damage or loss until such time as said material and/or equipment is incorporated in the Work, and the Work is completed and accepted by the County. Any delivered equipment/material found to be damaged shall be reported to County Project Manager within 48 hours (via email with pictures and serial number and description of damages). Owner will be responsible for contacting suppliers regarding any warranty issues. After installation, Contractor shall guarantee the workmanship during the equipment/material warranty period.
7. **CHANGE OF CONTRACT AMOUNT AND CONTRACT TIME:** Proposals or Claims for adjustment shall be in accordance to Part F, General Conditions, Article 13. The Contractor shall submit in the form prescribed by the County an itemized cost breakdown together with supporting data. This submittal shall be presented using the OCCC Capital Planning Potential Change Order form (CP_501E) on MS Excel format.

8. **UTILITY COORDINATION:** The Contractor is to coordinate any utility improvements and / or relocations for this project. The Contractor shall not use utility delays as a basis for additional compensation. Contractor shall be responsible for all coordination with utilities and shall cooperate fully with utility companies in the relocation of their facilities.
9. **LICENSES/PERMITS/FEES:** Refer to Part C- Instruction to Bidder, Section 31.
OCCC will pay for all applicable permits & fees. Contractor shall not include the cost of permits & fees in their bid price.

(INSERT PERMIT NUMBER IF ISSUED)

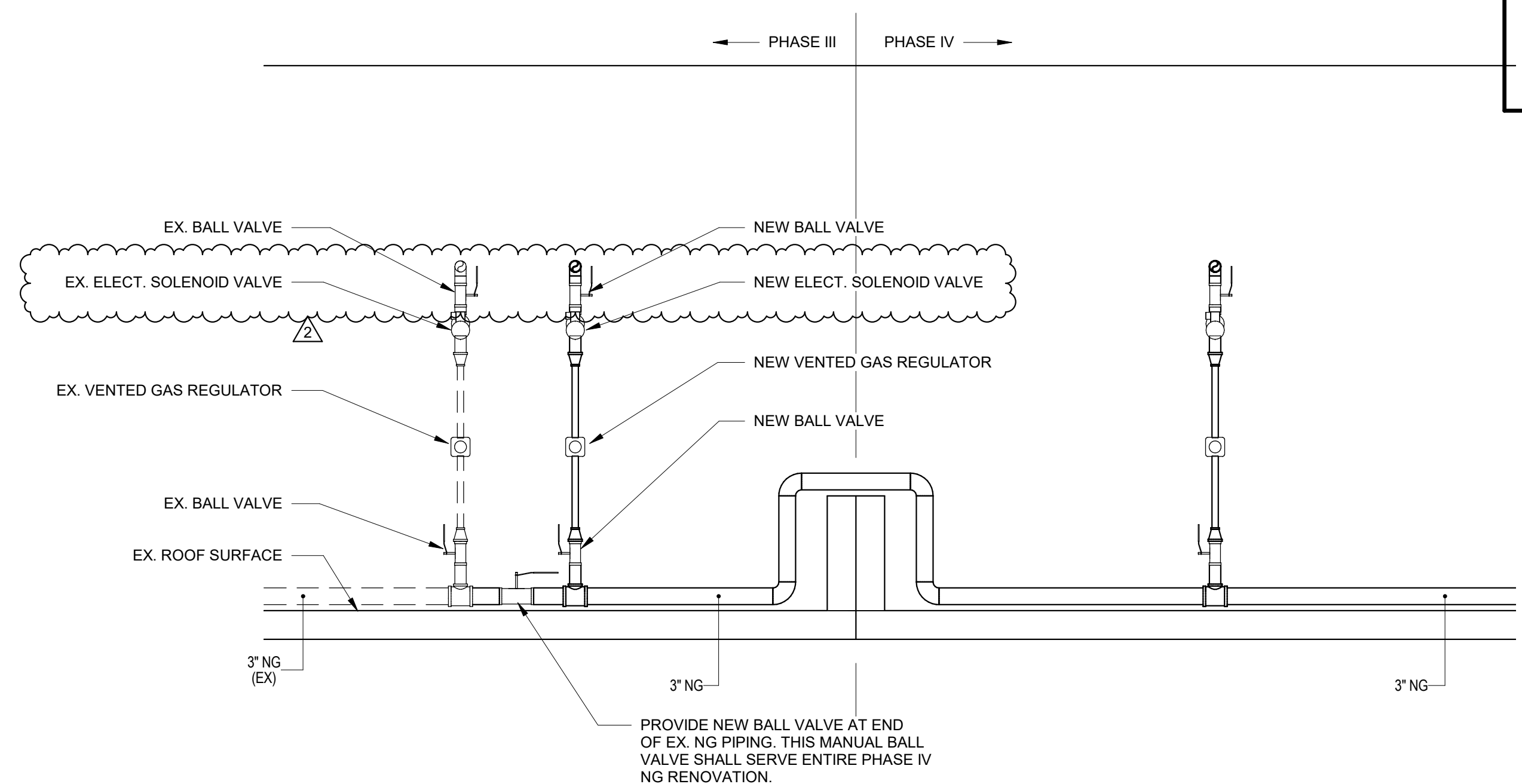
The Orange County Building Division has assigned the following Building Permit Number: ~~“To be provided upon award of the contract.”~~ **B19900158**

10. **REQUEST FOR INTERPRETATION/INFORMATION (RFI):** The County will require a reasonable amount of time, at least 10 business days, to respond to any RFI submitted by the Contractor. Any delays in responding to the RFI shall not be the basis for reimbursement of any additional compensation, including delay claims.



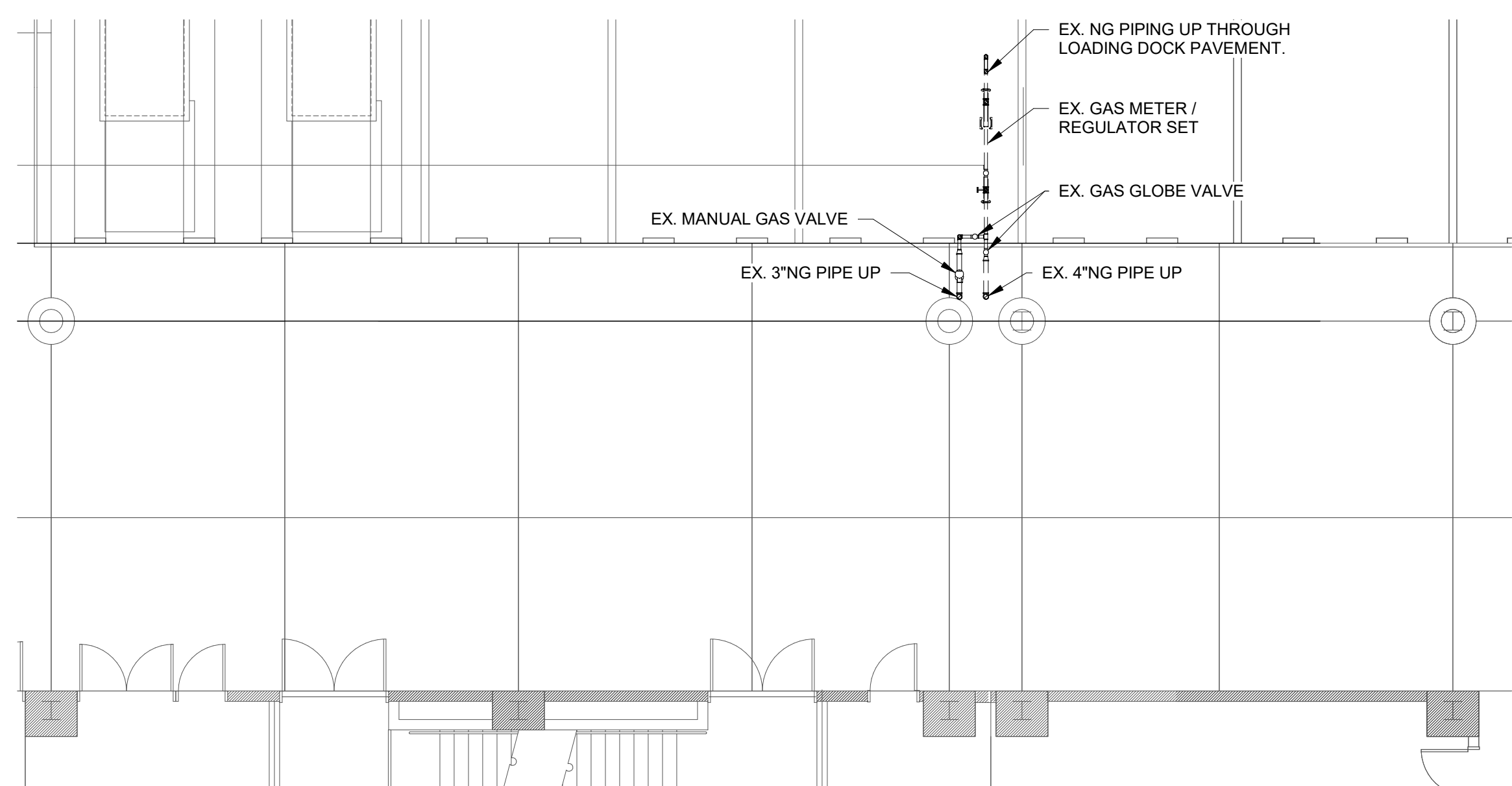
NATURAL GAS ISOMETRIC/RISER OF TYP. CONNECTION DROP

2 SCALE:



SOUTH ELEVATION - NEW CONNECTION TIE-IN

3 SCALE: 1/2" = 1'-0"



PLUMBING OVERALL FLOOR PLAN - LEVEL 2

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

PLUMBING LEGEND

---(CW)---	DOMESTIC COLD WATER PIPING
---(HW)---	DOMESTIC HOT WATER PIPING
---(HWR)---	DOMESTIC HOT WATER RECIRCULATING PIPING
---(NG)---	NATURAL GAS PIPING
---(S)---	SANITARY PIPING
---(GR)---	GREASE PIPING
---(V)---	SANITARY VENT PIPING
---(ST)---	STORM DRAIN PIPING - PRIMARY
---(STO)---	STORM DRAIN PIPING - SECONDARY
---(W)---	WATER METER
---(H)---	HOSE BIBB OR WALL HYDRANT
---(B)---	BALL VALVE
---(C)---	CHECK VALVE
---(A)---	BALANCING VALVE
---(G)---	GAS VALVE
---(P)---	PRESSURE REDUCING (GAS) VALVE
---(R)---	PRESSURE REDUCING VALVE
---(S)---	SOLENOID VALVE
---(B)---	BACKFLOW PREVENTOR (REDUCED PRESSURE)
---(FD)---	FLOOR DRAIN
---(FS)---	FLOOR SINK
---(RD)---	ROOF DRAIN

PLUMBING ABBREVIATIONS

AVV	AIR ADMITTANCE VALVE
AFF	ABOVE FINISH FLOOR
AW	ACID WASTE
AV	ACID VENT
CA	COMPRESSED AIR
CD	CONDENSATE DRAIN
CF	CUBIC FEET PER HOUR
CO	CLEANOUT
CONT	CONTINUATION
DCW	DOMESTIC COLD WATER
DHW	DOMESTIC HOT WATER
DIS	DEIONIZED WATER SUPPLY
DIR	DEIONIZED WATER RETURN
DN	DOWN
DS	DOWNSPOUT
DWG	DRAWING
EXIST	EXISTING
ESH	EMERGENCY SHOWER/EYE WASH
EW	ELECTRIC WATER HEATER
EW	ELECTRIC WATER COOLER
°F	DEGREE FAHRENHEIT
FF	FLOOR CLEANOUT
FD	FLOOR DRAIN
FS	FLOOR SINK
G	GAS
GPM	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GR	KITCHEN WASTE (GREASE)
HB	HOSE BIBB
HD	HUD DRAIN
HWR	DOMESTIC HOT WATER RECIRCULATING
IE	INVERT ELEVATION
IW	INDIRECT WASTE
KW	KILOWATT
LS	POUNDS
LCW	LABORATORY COLD WATER
LHW	LABORATORY HOT WATER
LWWR	LABORATORY HOT WATER CIRCULATING
MH	MANHOLE
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OD	OUTSIDE DIAMETER
PEMB	PRE-ENGINEERING METAL BUILDING
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE PIPE
RD	ROOF DRAIN
RBPB	REDUCED PRESSURE BACKFLOW PREVENTOR
SAN	SANITARY
ST	STORM DRAIN
SF	SQUARE FEET
SH	SHEET
STO	OVERFLOW STORM DRAIN
V	VENT
VAC	VACUUM
VTR	VENT THRU ROOF
WCO	WALL CLEANOUT
WM	WASHING MACHINE SUPPLY AND DRAIN BOX
WTR	WATER

GENERAL NOTES

- REFERENCE THE SPECIFICATIONS FOR MATERIAL AND EQUIPMENT INSTALLATION STANDARDS.
- THE PLUMBING INSTALLATION SHALL COMPLY WITH ALL STATE AND LOCAL CODES.
- PLANS ARE NOT COMPLETELY TO SCALE. PIPE ROUTING SHOWN IS SCHEMATIC AND IS NOT INTENDED TO INDICATE EXACT ROUTING. CONTRACTOR SHALL PROVIDE ANY ADDITIONAL OFFSETS AND FITTINGS REQUIRED FOR PROPER INSTALLATION AND TO MAINTAIN CLEARANCES. VERIFY STRUCTURAL, MECHANICAL, AND ELECTRICAL INSTALLATIONS AND OTHER POTENTIAL OBSTRUCTIONS AND ROUTE PIPING TO AVOID INTERFERENCES.
- PROVIDE ALL OFFSETS AND FITTINGS AND MAKE CONNECTION TO THE SITE UTILITIES.
- CONCEAL PIPING ABOVE CEILINGS, WITHIN WALLS OR CHASES EXCEPT IN MECHANICAL ROOMS OR AS SPECIFICALLY NOTED.
- PROVIDE ACCESS PANELS FOR ALL VALVES CONCEALED IN WALLS OR ABOVE NON-ACCESSIBLE CEILINGS.
- SLEEVE AND/OR FIRESTOP ALL PENETRATIONS THROUGH RATED WALLS, CEILINGS, AND FLOORS WITH UL LISTED ASSEMBLIES. FIRESTOP ASSEMBLIES SHALL BE EQUAL TO OR EXCEED THE RATING OF THE WALL, CEILING OR FLOOR. SEE ARCHITECTURAL DRAWINGS FOR FINISH FINISHES.
- FLASH AND COUNTER-FLASH ROOF PENETRATIONS.
- WHEN BEAM SLEEVE PENETRATIONS ARE NECESSARY, COORDINATE PENETRATIONS WITH ALL TRADES, AND THE STRUCTURAL ENGINEER. WRITTEN PERMISSION SHALL BE OBTAINED FROM THE STRUCTURAL ENGINEER BEFORE ANY PENETRATIONS ARE MADE.
- PROVIDE FOUNDATION PAD PENETRATION SLEEVES. ALLOW 1" MINIMUM CLEARANCE BETWEEN SLEEVE INSIDE SURFACE AND PIPE EXTERIOR.
- SEE ARCHITECTURAL DRAWINGS FOR FIXTURE LOCATIONS AND MOUNTING HEIGHTS.
- PROVIDE AUTOMATIC TRAP PRIMERS FOR FLOOR DRAIN TRAP SEALS.
- PROVIDE AN AIR GAP, WHEN REQUIRED BY CODE, SERVING INDIVIDUAL FIXTURE, DEVICES, APPLIANCES AND APPARATUS.
- MOUNT HOSE BIBBS 24" ABOVE FINISHED GRADE. PROVIDE EACH HOSE BIBBS WITH ISOLATION VALVE.
- PROVIDE CLEANOUTS IN ACCORDANCE WITH ALL STATE AND LOCAL CODES. INSTALL CLEANOUT WITH COVER FLUSH TO FINISH SURFACE.
- COORDINATE EXACT FLOOR DRAIN LOCATIONS WITH ARCHITECTURAL DRAWINGS. SET FLOOR DRAINS BELOW FINISHED FLOOR TO ALLOW FOR FLOOR SLOPING TO THE DRAIN.
- COORDINATE PIPING WITH ALL ELECTRICAL EQUIPMENT (PANELS, TRANSFORMERS, ETC.) PRIOR TO ANY INSTALLATION. DO NOT ROUTE ANY PIPING OVER ANY ELECTRICAL PANELS UNDER ANY CIRCUMSTANCES. ANY PIPING RUN OVER PANELS SHALL BE RE-ROUTED AT NO ADDITIONAL COST.
- ALL WALL MOUNTED LAVATORIES SHALL BE ATTACHED TO FLOOR MOUNTED CARRIER DESIGNED TO WITHSTAND A VERTICAL LOAD OF 250 POUNDS OF THE FRONT OF THE FIXTURE.
- PROVIDE SANITARY WASTE, VENT, DOMESTIC WATER, ETC. ROUGH-IN AND MAKE FINAL CONNECTIONS (TO INCLUDE PROVIDING ALL NECESSARY RATED STOPS, VALVES, TRAPS, ETC. AND MAKE READY FOR USE) TO ALL EQUIPMENT, WHETHER FURNISHED BY THIS CONTRACTOR OR FURNISHED BY OTHERS.
- INSTALL ISOLATION (SHUT-OFF) VALVES AT ALL MAIN RISERS AND MAIN BRANCH TAKEOFFS, TO PERMIT ISOLATION OF PIPING SECTIONS OR ENTIRE SYSTEM.
- PROVIDE RIGID SUPPORT SWAY BRACING AT ALL CHANGES IN DIRECTION GREATER THAN 45 DEGREES ON PIPING 4" AND LARGER.
- PROVIDE FIRE WATCH AND INTERIM FIRE PROTECTION MEASURES WHERE REQUIRED BY THE AUTHORITY HAVING JURISDICTION, INSURANCE CARRIER OR OWNER DURING TIMES OF ANY ACTIVE WELDING EVENTS.

CODE COMPLIANCE

- THESE DRAWINGS ARE PREPARED TO COMPLY WITH CURRENT FLORIDA BUILDING CODE. THE CURRENT FLORIDA FIRE PREVENTION CODE, AND OTHER SUCH CODES AS MAY BE REFERENCED.

PLUMBING PIPING SCHEDULE

TYPE/LOCATION	DOMESTIC COLD WATER	DOMESTIC HOT WATER	DRAIN, WASTE & VENT	NATURAL GAS
ABOVE GROUND	CPVC	CPVC	PVC	BLACK STEEL
BELOW GROUND	CPVC	CPVC	PVC	BLACK STEEL
EXPOSED (PUBLIC)	TYPE "L" COPPER	TYPE "L" COPPER	TYPE "L" COPPER	BLACK STEEL

NOTES:

PLUMBING SHEET LIST

NUMBER	NAME
P-001	PLUMBING LEGEND
P-400	LEVEL 4 OVERALL PLAN - PLUMBING
P-407A	PARTIAL LEVEL 4 PLAN - AREA 7A - PLUMBING
P-407D	PARTIAL LEVEL 4 PLAN - AREA 7D - PLUMBING
P-408A	PARTIAL LEVEL 4 PLAN - AREA 8A - PLUMBING
P-408B	PARTIAL LEVEL 4 PLAN - AREA 8B - PLUMBING
P-408C	PARTIAL LEVEL 4 PLAN - AREA 8C - PLUMBING
P-408D	PARTIAL LEVEL 4 PLAN - AREA 8D - PLUMBING
P-411A	PARTIAL LEVEL 4 PLAN - AREA 11A - PLUMBING
P-411B	PARTIAL LEVEL 4 PLAN - AREA 11B - PLUMBING
P-411C	PARTIAL LEVEL 4 PLAN - AREA 11C - PLUMBING
P-411D	PARTIAL LEVEL 4 PLAN - AREA 11D - PLUMBING
P-412A	PARTIAL LEVEL 4 PLAN - AREA 12A - PLUMBING
P-412D	PARTIAL LEVEL 4 PLAN - AREA 12D - PLUMBING
P-801	PLUMBING - NATURAL GAS ISOMETRIC
P-901	PLUMBING DETAILS



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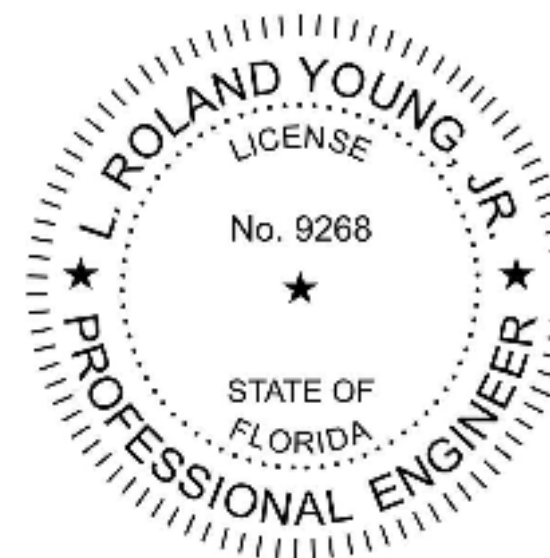
Hanson Professional Services Inc.

EB0007061
AA0003116
IB0001058

CONSULTANTS



220 West 7th Avenue, Suite 210
Tampa, Florida 33602
Tel: 888.891.9713
www.VoltAirInc.com
COA #27158
Project No: 03.18007
Engineer of Record:
L. Roland Young, Jr.
P.E. #9268 FL



Orange County Convention Center

SEAL

OCWC - WEST BUILDING, HALL "A" NATURAL GAS RETROFIT

9800 International Dr.
Orlando, FL. 32819

MARK	DATE	DESCRIPTION
1	1/23/19	Addendum #2

ISSUE: 11/30/18
PROJECT NO: 17G0189
DESIGN BY: RJS
DRAWN BY: RJS
REVIEWED BY:

SHEET TITLE
PLUMBING LEGEND

100% CD'S
P-001

1

2

3

4

5

6

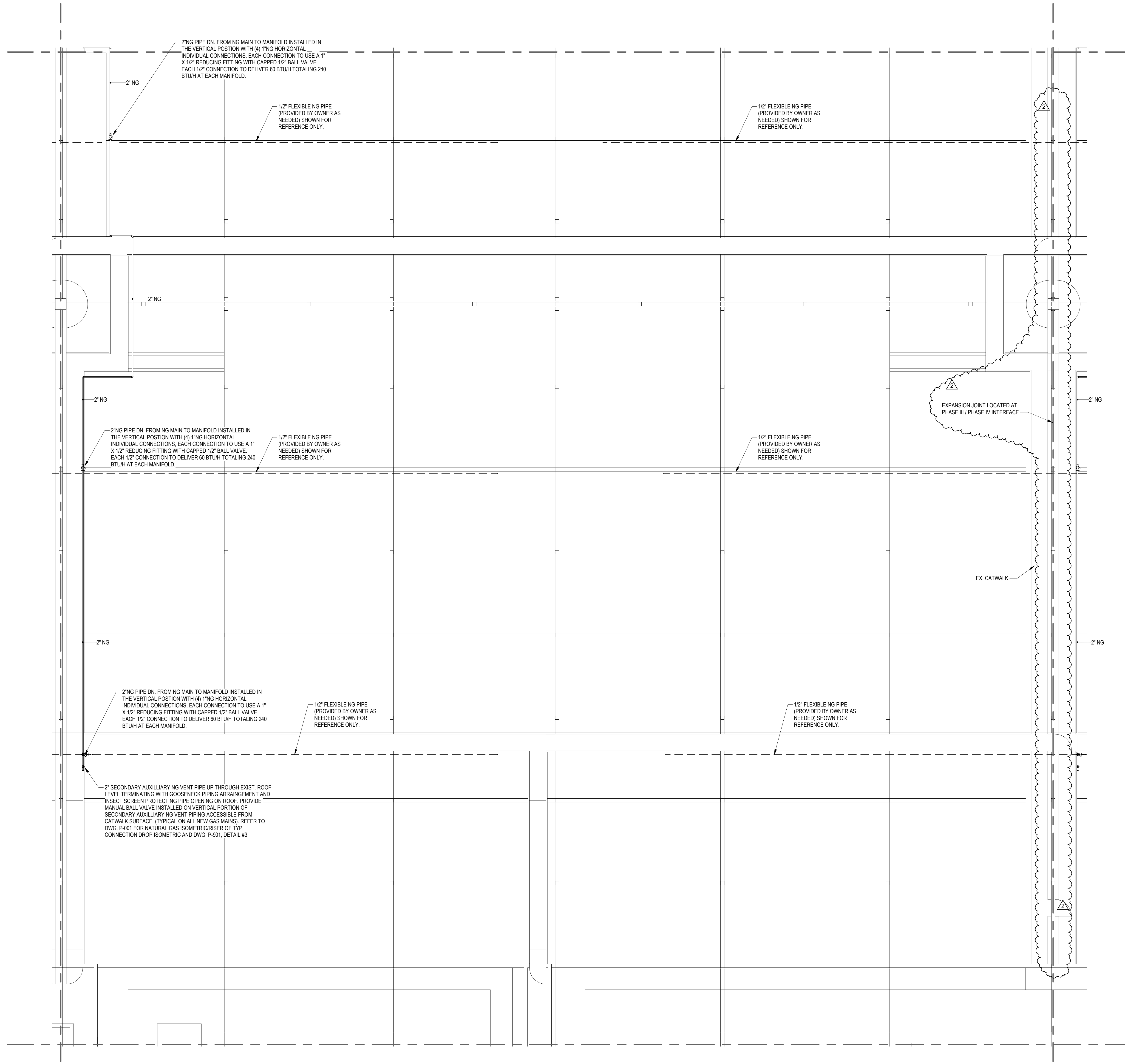
E

D

C

B

A



PRESSURE GENERAL NOTES

- NATURAL GAS PIPING SHOWN INSIDE THE EXISTING BUILDINGS ENVELOPE AND ABOVE CONVENTION FLOOR AREA SHALL BE INSTALLED ABOVE EXISTING CATWALK PATHS. GAS PIPING SHALL BE OFFSET TOWARDS THE RAIL SIDE OF CATWALK PATH TO ALLOW READY ACCESS TO NEW GAS PIPING DROPS TO MANIFOLD AND VALVE ASSEMBLIES AND TO KEEP CATWALK PATH CLEAR.
- NATURAL GAS MANIFOLD SHALL BE INSTALLED IN THE VERTICAL POSITION AND VALVE ASSEMBLIES SHALL BE INSTALLED IN A HORIZONTAL POSITION.
- HORIZONTAL NATURAL GAS VALVE ASSEMBLIES SHALL BE INSTALLED 5'-0" OFF OF EXISTING CATWALK SURFACE (SO THE MIDDLE OF VALVE ASSEMBLY IS 5'-0" ABOVE CATWALK SURFACE).



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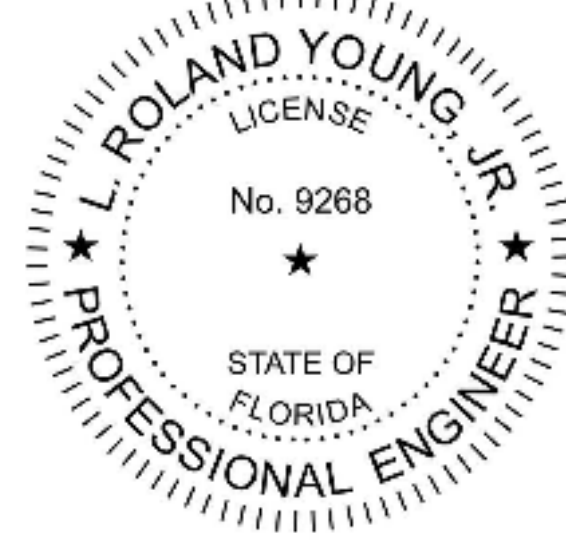
Hanson Professional Services Inc.

EB0007061
 AA0003116
 IB0001058

CONSULTANTS



220 West 7th Avenue, Suite 210
 Tampa, Florida 33602
 Tel: 888.891.9713
 www.VoltAirInc.com
 COA #27158
 Project No: 03.18007
 Engineer of Record:
 L. Roland Young, Jr.
 P.E. #9268 FL



Orange
 County
 Convention
 Center

SEAL
 OCCC - WEST
 BUILDING, HALL "A"
 NATURAL GAS
 RETROFIT

KEYPLAN

			6	5	
12C	12B	7C	7B	4C	
12D	12A	7D	7A	4D	
11C	11B	8C	8B	3C	
11D	11A	8D	8A	3D	
10C	10B	9C	9B	2C	
10D	10A	9D	9A	2D	

9800 International Dr.
 Orlando, FL. 32819

MARK	DATE	DESCRIPTION
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△	1/23/19	Addendum #2

ISSUE: 11/30/18
 PROJECT NO: 17G0189
 DESIGN BY: RJS
 DRAWN BY: RJS
 REVIEWED BY:

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 SHEET TITLE
 PARTIAL LEVEL 4
 PLAN - AREA 11A -
 PLUMBING

100% CD'S
 P-411A

1 FOURTH FLOOR PLAN - AREA 11A
 SCALE: 1/8" = 1'-0"

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12/29/18 4:43:24 PM
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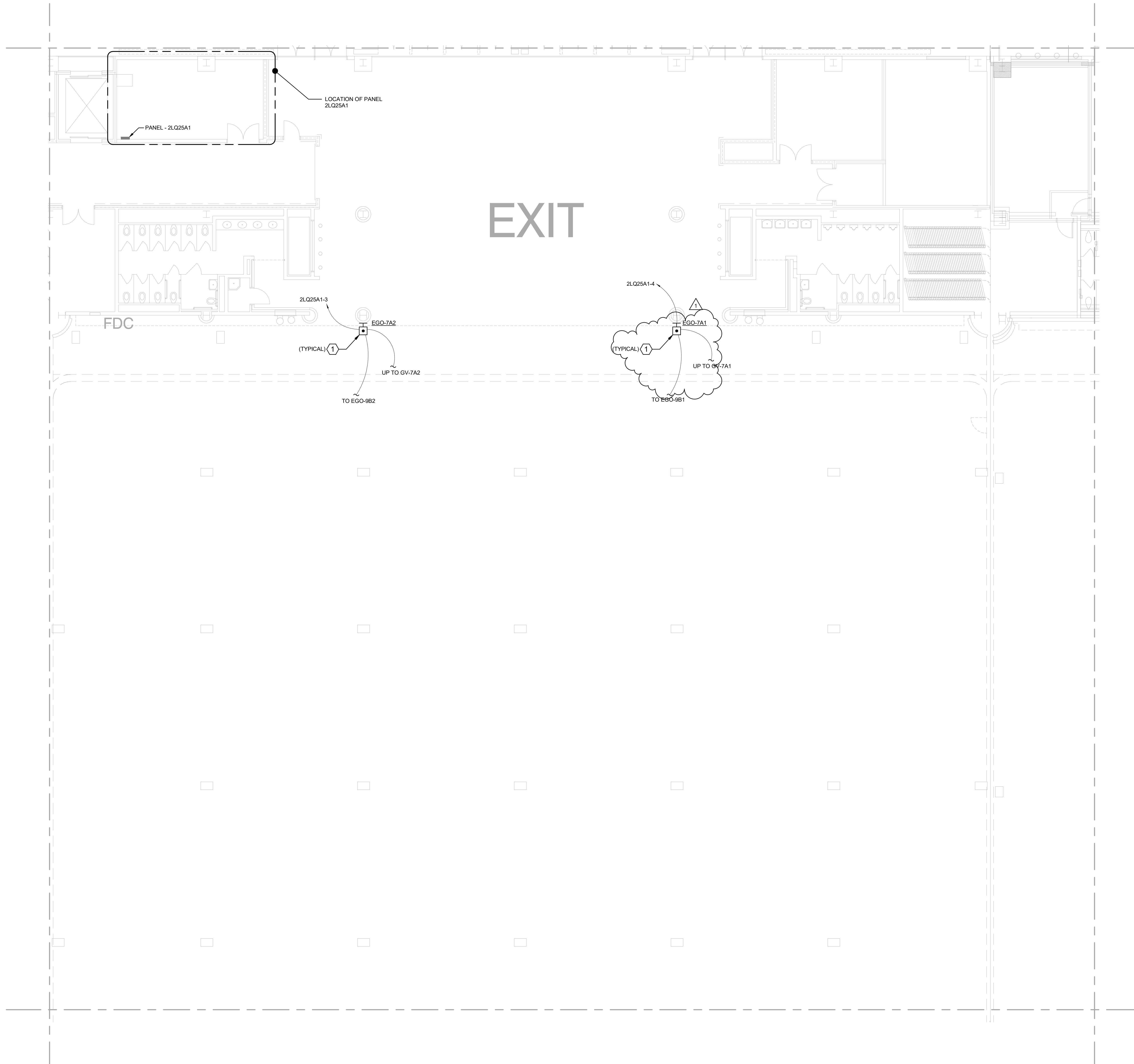
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GENERAL SHEET NOTES

- CONTRACTOR SHALL PROVIDE AND INSTALL NEW ELECTRICAL EQUIPMENT AND DEVICES AS SHOWN ON THE PLANS. CONTRACTOR SHALL PROVIDE NEW BRANCH ELECTRICAL CIRCUITS WHERE NOTED AND PROVIDE THE NEW EQUIPMENT CIRCUITING SCHEME(S) AS SHOWN OR OTHERWISE REQUIRED. CONTRACTOR SHALL CONNECT ALL ELECTRICAL EQUIPMENT AND DEVICES AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM.

SHEET KEYNOTES

- CONTRACTOR TO PROVIDE AND INSTALL PILLA FS-120MPGM EMERGENCY FUEL SHUT OFF OR EQUAL, CONNECT SHUT OFF TO NATURAL GAS SOLENOID FOR THIS EXHIBITION HALL. CONTRACTOR SHALL PROVIDE AND INSTALL ALL WORK AND MATERIALS AS NECESSARY FOR A COMPLETE AND OPERABLE SYSTEM. REFER TO SHEET E-407A FOR SOLENOID LOCATION(S).



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(407) 622-2050
(407) 622-2051

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AA0003116
IB0001058

CONSULTANTS



Orange
County
Convention
Center

SEAL

OCCC - WEST
BUILDING, HALL "A"
NATURAL GAS
RETROFIT

KEYPLAN

			6	5	
12C	12B	7C	7B	4C	
12D	12A	7D	7A	4D	
11C	11B	8C	8B	3C	
11D	11A	8D	8A	3D	
10C	10B	9C	9B	2C	
10D	10A	9D	9A	2D	

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 SHEET TITLE
 PARTIAL LEVEL 2 -
 AREA 7A - POWER

100% CD'S
E-207A

1 PARTIAL LEVEL 2 - AREA 7A - POWER

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

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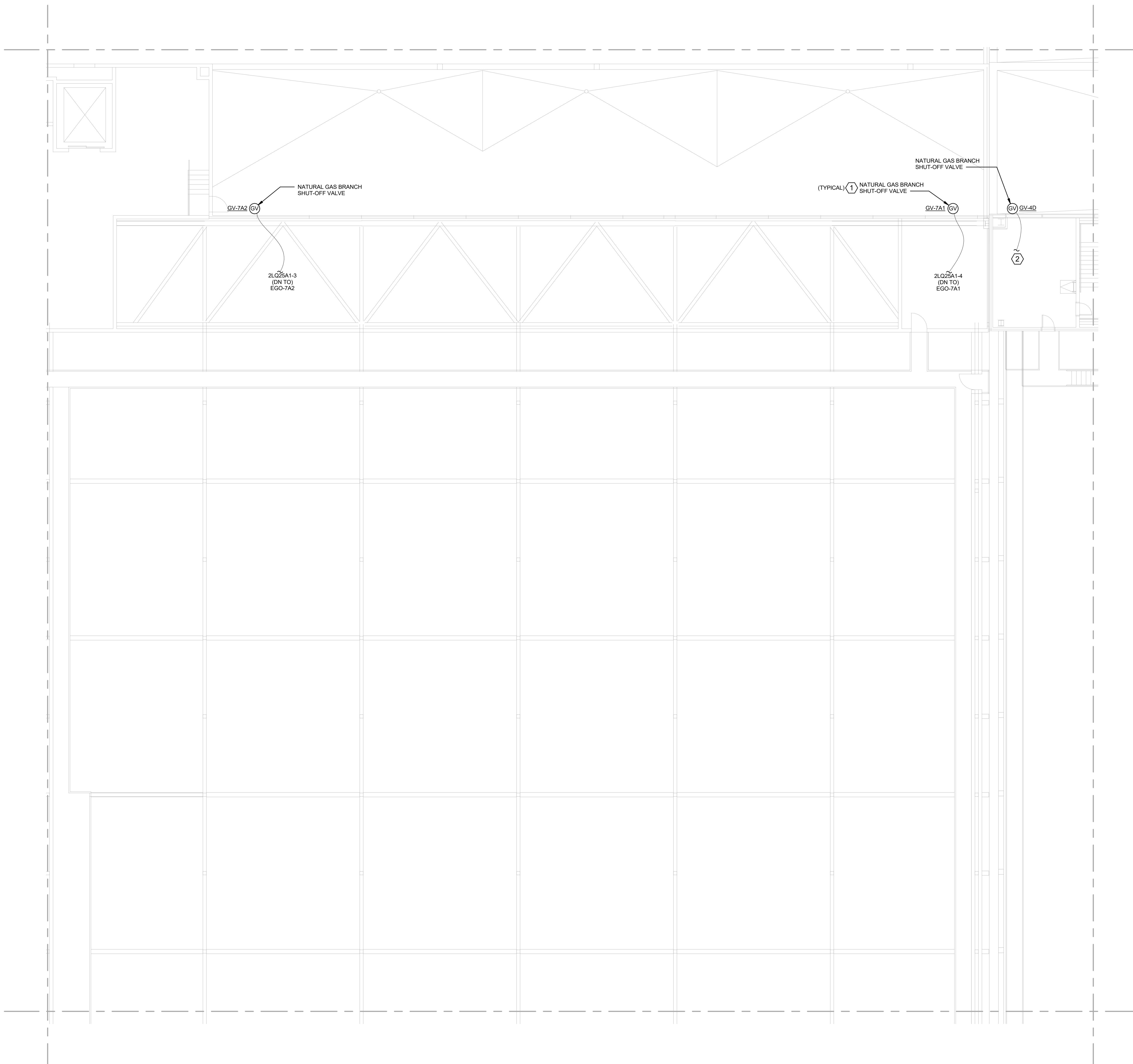
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GENERAL SHEET NOTES

- CONTRACTOR SHALL PROVIDE AND INSTALL NEW ELECTRICAL EQUIPMENT AND DEVICES AS SHOWN ON THE PLANS. CONTRACTOR SHALL PROVIDE NEW BRANCH ELECTRICAL CIRCUITS WHERE NOTED AND PROVIDE THE NEW EQUIPMENT CIRCUITING SCHEME(S) AS SHOWN OR OTHERWISE REQUIRED. CONTRACTOR SHALL CONNECT ALL ELECTRICAL EQUIPMENT AND DEVICES AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM.

SHEET KEYNOTES

- CONTRACTOR SHALL CONNECT 120V CIRCUIT TO NATURAL GAS SHUT-OFF VALVE. CONNECT TO NEW SHUT-OFF BUTTONS SHOWN ON LEVEL 2 FOR THIS EXHIBITION HALL. CONTRACTOR SHALL PROVIDE AND INSTALL ALL WORK AND MATERIALS AS NECESSARY FOR A COMPLETE AND OPERABLE SYSTEM.
- TIE IN TO EXISTING EMERGENCY FUEL SHUT-OFF LOCATED IN EXHIBITION HALL B AREA 4D. CONTRACTOR SHALL PROVIDE AND INSTALL ALL WORK AND MATERIALS AS NECESSARY FOR A COMPLETE AND OPERABLE SYSTEM. REFER TO OVERALL PLAN ON SHEET E-102. VERIFY EXACT CONTROL SCHEME EXISTING IN FIELD.



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CONSULTANTS



**Orange
 County
 Convention
 Center**

SEAL
 OCCC - WEST
 BUILDING, HALL "A"
 NATURAL GAS
 RETROFIT

KEYPLAN

			6	5	
12C	12B	7C	7B	4C	
12D	12A	7D	7A	4D	
11C	11B	8C	8B	3C	
11D	11A	8D	8A	3D	
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 PARTIAL LEVEL 4 -
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1 PARTIAL LEVEL 4 - AREA 7A - POWER
 SCALE: 1/8" = 1'-0"

100% CD'S
 E-407A

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- allowed by law, prior to commencement of services. The County reserves the right to conduct its own investigation of any employee or subcontractor of the Contractor.
- B. Background Checks for the Contractor's staff must be approved by Orange County's security team prior to working in any County facility. Obtain necessary forms for background checks for work at Orange County. All Contractor's staff background checks will be sent to the Orange County project Manager for approval.
 - C. For security purposes and to maintain privacy, please submit a FDLE Background Checks via email. The subject line of the email must contain the following *****EXEMPT*****
 - D. The Orange County Convention Center will inform the Contractor of their Background Check results. Upon Background Check approval, the contractor's staff shall arrange an appointment with the Orange County Convention Center staff to obtain an Orange County ID Badge. An Affidavit of Identity form (Issued by Contractor) and a State of Florida ID or Driver's License will be required.
 - E. Contractor's employees will not be allowed in Orange County facilities without completed and approved background investigations.

~~1.11 BUILDING/SITE SECURITY REQUIREMENTS~~

- ~~A. Provide security for each and every day that work is being performed on Site. The security firm that will be used is:~~

~~G4S Security Systems (USA), Inc.
Contact: Jose Troche, MBA
Phone: 407-207-3221
Jose.troche@usa.g4s.com~~

1.12 OWNER OCCUPANCY

- A. The Owner will occupy the building and areas next to the Work area. Normal hours are 7:00 AM to 5:00 PM Monday thru Friday. Coordinate with the Owner's representative for Work areas that can be performed on during normal work hours. Work can be performed after hours provided the area where Work is done is fully operational and back in original condition prior to beginning the next business day. Such placing of equipment and partial occupancy shall not constitute acceptance of the total Work.
 - 1. A certificate of Substantial Completion will be executed for each specific portion of the Work to be occupied prior to Owner occupancy
 - 2. Obtain a Certificate of Occupancy from the local building officials prior to Owner occupancy.
 - 3. Prior to partial occupancy, mechanical and electrical systems shall be fully operational. Required inspections and tests shall have been successfully completed. Upon occupancy, the Owner will provide operation and maintenance of mechanical and electrical systems in occupied portions of the building.

- A. Pipe hangers and supports are specified in Division 22 Section "Hangers and Supports for Plumbing Piping and Equipment." Install the following:
- B. Install hangers for horizontal steel piping with the following maximum spacing and minimum rod sizes:
 - 1. NPS 1 and Smaller: Maximum span, 96 inches; minimum rod size, 3/8 inch.
 - 2. NPS 1-1/4: Maximum span, 108 inches; minimum rod size, 3/8 inch.
 - 3. NPS 1-1/2 and NPS 2: Maximum span, 108 inches; minimum rod size, 3/8 inch.
 - 4. NPS 2-1/2 to NPS 3-1/2: Maximum span, 10 feet; minimum rod size, 1/2 inch.

3.8 CONNECTIONS

- A. Connect to utility's gas main according to utility's procedures and requirements.
- B. Install natural-gas piping electrically continuous, and bonded to gas appliance equipment grounding conductor of the circuit powering the appliance according to NFPA 70.
- C. Install piping adjacent to appliances to allow service and maintenance of appliances.
- D. Connect piping to appliances using manual gas shutoff valves and unions. Install valve within 72 inches of each gas-fired appliance and equipment. Install union between valve and appliances or equipment.
- E. Sediment Traps: Install tee fitting with capped nipple in bottom to form drip, as close as practical to inlet of each appliance.

3.9 LABELING AND IDENTIFYING

- A. Comply with requirements in Division 22 Section "Identification for Plumbing Piping and Equipment" for piping and valve identification.

3.10 PAINTING

- ~~A. Comply with requirements in Division 09 painting Sections for painting interior and exterior natural-gas piping.~~
- B. Paint metal piping, valves, service regulators, service meters and meter bars, earthquake valves, and piping specialties, except components, with factory applied paint or protective coating. The exterior NG piping shall be painted "Safety Yellow". The interior NG piping is scheduled to utilize black iron pipe & fittings, so there is no interior NG piping painting required.
 - 1. ~~Alkyd System: MPI EXT 5.1D.~~
 - a. ~~Prime Coat: Alkyd anticorrosive metal primer.~~
 - b. ~~Intermediate Coat: Exterior alkyd enamel matching topcoat.~~
 - c. ~~Topcoat: Exterior alkyd enamel (semigloss).~~
 - d. ~~Color: Safety Yellow.~~

- C. Damage and Touchup: Repair marred and damaged factory-applied finishes with materials and by procedures to match original factory finish.

3.11 FIELD QUALITY CONTROL

- A. Perform tests and inspections.
- B. Tests and Inspections:
 - 1. Test, inspect, and purge natural gas according to NFPA 54 or Local Code requirements and authorities having jurisdiction.
- C. Natural-gas piping will be considered defective if it does not pass tests and inspections.
- D. Prepare test and inspection reports.

3.12 OUTDOOR PIPING SCHEDULE

- A. Aboveground natural-gas piping shall be one of the following:
 - 1. Steel pipe with malleable-iron fittings and threaded joints, 2" and smaller diameter.
 - 2. Steel pipe with wrought-steel fittings and welded joints, 2 1/2" and larger diameter.

3.13 INDOOR PIPING SCHEDULE:

- A. Aboveground piping 2" and smaller shall be the following:
 - 1. Steel pipe with malleable-iron fittings and threaded joints.

3.14 INDOOR PIPING SCHEDULE:

- A. Aboveground, piping 2 1/2" and larger shall be one of the following:
 - 1. Steel pipe with wrought-steel fittings and welded joints.

3.15 ABOVEGROUND MANUAL GAS SHUTOFF VALVE SCHEDULE

- A. Valves for pipe sizes NPS 2 and smaller shall be listed for use with natural gas and shall be one of the following:
 - 1. Two-piece, full-port, bronze ball valves with bronze trim.
- B. Valves for pipe sizes NPS 2-1/2 and larger shall be listed for use with natural gas and shall be one of the following:
 - 1. Two-piece, full-port, bronze ball valves with bronze trim.