

SECTION 009117
ADDENDUM NUMBER 7

PARTICULARS

- 1.1 DATE: January 21, 2022
- 1.2 PROJECT: Orangetown Town Hall Addition and Alterations
- 1.3 Owner: Town of Orangetown
- 1.4 Architect: Lothrop Associates LLP Architects

TO: ALL HOLDERS OF BID DOCUMENTS:

- 2.1 This Addendum forms a part of the Contract Documents and modifies the Original Bid Documents dated November 9, 2021, with amendments and additions noted below.
- 2.2 Acknowledge receipt of this Addendum in the space provided in the Bid Form. Failure to do so will disqualify the Bidder.
- 2.3 GENERAL:
 - A. Questions raised by RFI via email:
 - 1. Addendum #5, Question 23 changed the Estimated Sequence Schedule. This changed Sequence 2 from 9 months to 7 months and Sequence 3 from 9 months to 7 months. We assume that both Sequence 2 and Sequence 3 are for the construction of the new addition which would equal 14 months as it will be physically impossible to complete the new addition in 7 months. Please confirm. (Architect's RFI #1G.23)
 - a. **Sequence 2 and Sequence 3 both apply to the construction of the new addition.**
 - 2. Addendum #5, Question 18 states that the General Liability limits of \$10,000,000/\$20,000,000 are correct. Our insurance consultants insist that this coverage is not needed and is far and above anything they have ever seen for a New York State Public Works Construction Project. Please advise. (Architect's RFI #1G.23)
 - a. **Refer to revised Section 007300 - Supplementary Conditions, attached to this Addendum.**
 - 3. Per addenda released, it is stated that the General Liability insurance for this project is \$10M/\$20M, is that the same for the Mechanical Contract as well? (Architect's RFI #1G.24)
 - a. **Refer to revised Section 007300 - Supplementary Conditions, attached to this Addendum.**
 - 4. The insurance limits are extremely high for this project. the cost for the insurance required would add a considerable amount of money to the Owner for all 4 contracts and will discourage contractors from bidding. Can the insurance premiums be revised to a much lower, more reasonable amount that is typically in line with many other

- projects? (Architect's RFI #1G.25)
- a. **Refer to revised Section 007300 - Supplementary Conditions, attached to this Addendum.**
5. Volume 3 of the specifications has voluminous Stormwater Pollution Prevention Plan (SWPPP) prepared by Tectonic Engineering. Can we assume the contents of this report have been incorporated into the site plans in the form of the Soil Erosion Control Drawing? Can we also assume that the SWPPP bound within the specifications are merely for informational purposes and all provisions in the SWPP have been included in the drawings? Can we assume that all costs for permits for the SWPPP will be borne by the Owner? (Architect's RFI #1G.26)
- a. **The SWPPP is part of the Contract Documents. See note B(4) of the General Notes on Plan Sheet C-100 and Section 312500 - Erosion and Sediment Control, paragraphs 1.2(D) and 3.4(A).**
 - b. **The Contractor shall obtain, and pay for, all required permits for the work, including application and re-application fees. Refer to Addendum 1 and note A(14) of the General Notes on Plan Sheet C-100.**
6. On Drawing P-201, are the underground piping (storm/sanitary) and gas all new? (Architect's RFI #2P.04)
- a. **Yes.**
7. On Drawing P-202, Are the piping (gas/water/sanitary/vent/storm) indicated in this drawing new? If yes, can you clarify the pipe size? (Architect's RFI #2P.04)
- a. **Yes. Storm piping sizes are shown on plan. For domestic water, gas, sanitary and vent, see revised drawings P-301 and P-302, attached to this Addendum.**
8. On Drawing P-203, clarify piping size (water/sanitary/gas/storm). Are the roof drain and overflow roof drains new? If yes, provide specs. (Architect's RFI #2P.04)
- a. **Yes, roof drains and overflow roof drains are new. Storm piping sizes are shown on plan. For domestic water, gas, sanitary and vent, see revised drawing P-301 and P-302, attached to this Addendum.**
9. On Drawing P-204, please provide piping size for CW and Gas. (Architect's RFI #2P.04)
- a. **See revised drawings P-301 and P-302, attached to this Addendum.**
10. On Drawing P-205, are roof drain and overflow roof drains new? If yes, provide specs. (Architect's RFI #2P.04)
- a. **Yes, roof drains and overflow roof drains are new. See revised drawing P-302, attached to this Addendum.**
11. On Drawing P-206, please clarify point of connection for new RPZ and DCDA. Please clarify new 2" gas service connection to existing gas meter(s). (Architect's RFI #2P.04)
- a. **See revised drawing P-206, attached to this Addendum.**
12. On Drawing P-301 - Is the piping (sanitary, vent, water) shown below each floor new? If yes, please provide pipe size. (Architect's RFI #2P.04)
- a. **Yes, see revised drawing P-301, attached to this Addendum.**
13. On Drawing P-302, Detail #2: Please clarify gas piping to equipment listed (RTU-1/B1/B2/BX1/BX2/WHX-1) (Architect's RFI #2P.04)

- a. **See revised drawing P-204, attached to this Addendum for piping to RTU-1, B1 and B2. See drawing P-201 for piping to BX1, BX2 and WHX-1.**

2.4 This Addendum consists of 5 PAGES.

CHANGES TO THE PROJECT MANUAL - INTRODUCTORY REQUIREMENTS,
PROCUREMENT REQUIREMENTS AND CONTRACTING REQUIREMENTS:

3.1 SECTION 009117 - Addendum 7

- A. Add: **Section 009117 - Addendum 7.**

3.2 SECTION 004100.04 - Bid Form Contract #4E

- A. **Remove and replace Section 004100.04 - Bid Form with revised section attached to this Addendum.**

3.3 SECTION 004323 - ALTERNATES FORM

- A. **Remove and replace Section 004323 - Alternates Form with revised section attached to this Addendum.**

3.4 SECTION 007300 - SUPPLEMENTARY CONDITIONS

- A. **Remove and replace Section 007300 - Supplementary Conditions with revised section attached to this Addendum.**

3.5 SECTION 012300 - ALTERNATES

- A. **Remove and replace Section 012300 - Alternates with revised section attached to this Addendum.**

CHANGES TO THE PROJECT MANUAL - TECHNICAL SPECIFICATIONS:

4.1 SECTION 263213 - GENERATOR

- A. **Remove and replace page 5 of Section 263213 - Generator with new page 5 of Section 263213 - Generator, attached to this Addendum.**

CHANGES TO DRAWINGS:

- 5.1 DRAWING E-001 - ELECTRICAL SYMOLS LIST, LIGHTING FIXTURE SCHEDULE AND ABBREVIATIONS
 - A. **Remove and replace Drawing E-001, Issue 2 with new Drawing E-001, Revision 2 Addendum No. 7, attached to this Addendum.**

- 5.2 DRAWING E-101 - ELECTRICAL BASEMENT LEVEL FLOOR PLAN (REMOVALS)
 - A. **Remove and replace Drawing E-101, Issue 1 with new Drawing E-101, Revision 1 Addendum No. 7, attached to this Addendum.**

- 5.3 DRAWING E-202 - ELECTRICAL BASEMENT LEVEL FLOOR PLAN (POWER)
 - A. **Remove and replace Drawing E-202, Issue 1 with new Drawing E-202, Revision 1 Addendum No. 7, attached to this Addendum.**

- 5.4 DRAWING E-206 - ELECTRICAL BASEMENT LEVEL FLOOR PLAN (FIRE ALARM)
 - A. **Remove and replace Drawing E-206, Issue 1 with new Drawing E-206, Revision 1 Addendum No. 7, attached to this Addendum.**

- 5.5 DRAWING E-216 - ELECTRICAL LEVEL 02 PLAN (FIRE ALARM)
 - A. **Remove and replace Drawing E-216, Issue 1 with new Drawing E-216, Revision 1 Addendum No. 7, attached to this Addendum.**

- 5.6 DRAWING E-221 - ELECTRICAL LEVEL 03 PLAN (FIRE ALARM)
 - A. **Remove and replace Drawing E-221, Issue 1 with new Drawing E-221, Revision 1 Addendum No. 7, attached to this Addendum.**

- 5.7 DRAWING E-301 - ELECTRICAL ONE-LINE DIAGRAM
 - A. **Remove and replace Drawing E-301, Revision 1 Addendum 1 with new Drawing E-301, Revision 2 Addendum No. 7, attached to this Addendum.**

- 5.8 DRAWING P-204 - LEVEL 03 CONSTRUCTION PLAN AND NOTES
 - A. **Remove and replace Drawing P-204, Issue 1 with new Drawing P-204, Issue 2 Addendum No. 7, attached to this Addendum.**

- 5.9 DRAWING P-206 - SITE PLAN, BACKFLOW PIPING AND NOTES
 - A. **Remove and replace Drawing P-206, Issue 2 Addendum 3 with new Drawing P-206, Issue 3 Addendum No. 7, attached to this Addendum.**

- 5.10 DRAWING P-301 - RISER DIAGRAMS
 - A. **Remove and replace Drawing P-301, Issue 1 with new Drawing P-301, Issue 2 Addendum No. 7, attached to this Addendum.**

5.11 DRAWING P-302 - SCHEDULES AND DETAILS

- A. **Remove and replace Drawing P-302, Issue 1 with new Drawing P-302, Issue 2 Addendum No. 7, attached to this Addendum.**

END OF SECTION

SECTION 004100.04
BID FORM

CONTRACT #4E - ELECTRICAL

THE PROJECT AND THE PARTIES

TO:

Town of Orangetown (Owner)
26 West Orangeburg Road
Orangeburg, New York 10962

FOR: ELECTRICAL CONTRACT No. 4E

Project: Orangetown Town Hall Addition and Alterations

Architect's Project Number: 2219-05
26 West Orangeburg Road
Orangeburg, New York 10962

DATE: _____ (Bidder to enter date)

SUBMITTED BY: (Bidder to enter name and address)

Bidder's Full Name _____
Address _____
City, State, Zip _____

BIDDER

Having examined The Work and all matters referred to in the Instructions to Bidders and the Bid Documents prepared by Lothrop Associates, LLP Architects for the above mentioned project, we, the undersigned, hereby propose to enter into a Contract to perform the Work for the Sum of:

_____ dollars
(\$ _____), in lawful money of the United States of America.

The security deposit required by the Instruction to Bidders is included.

The Performance and Payment Assurance Bonds in the Bid Amount as required by the Instructions to Bidders is included.

The cost of the required Performance and Payment Assurance bonds is _____ dollars (\$ _____), in lawful money of the United States of America.

All Cash and Quantity Allowances described in Section 012100 - Allowances are included in the Bid Sum.

ACCEPTANCE

This Bid shall be open to acceptance and irrevocable for sixty days from the bid closing date.

If this bid is accepted by Owner within the time period stated above, the undersigned shall:

1. Execute the Agreement within seven days of receipt of Notice of Award.
2. Furnish the required Bonds within seven days of receipt of Notice of Award.
3. Commence construction work within seven days after issuance of permits for the Work of this Contract.

If this bid is accepted within the time stated, and the undersigned fails to commence the Work or fails to provide the required Bond(s), the security deposit shall be forfeited as damages to Owner by reason of our failure, limited in amount to the lesser of the face value of the security deposit or the difference between this bid and the bid upon which a Contract is signed.

In the event our bid is not accepted within the time stated above, the required security deposit shall be returned to the undersigned, in accordance with the provisions of the Instructions to Bidders; unless a mutually satisfactory arrangement is made for its retention and validity for an extended period of time.

CONTRACT TIME

If this Bid is accepted, we will:

Complete the Work in 540 calendar days from Notice to Proceed. (Bidder to enter number of weeks.)

UNIT PRICES

The following are Unit Prices for specific portions of the Work as listed. The following is the list of Unit Prices:

ITEM DESCRIPTION - UNIT QUANTITY - UNIT PRICE - ITEM VALUE

Unit Price E-1: Electrical Outlet, Switch or Receptacle - each, including associated wiring Each \$

Unit Price E-2: Data Outlet - each, including associated conduit and wiring Each \$

Unit Price E-3: Access Control Reader Infrastructure Each \$.....

- A. Unit Price E-1 General Requirements:
 1. Provide all labor, materials, equipment, and services necessary to satisfactorily complete the work in this item: as specified in the Contract Documents, as detailed in Section 262726, as required to deliver a completed project, and in a manner acceptable to the Owner's Representative.
 2. Included in the Electrical Outlet installation shall be the outlet mounting box, wiring devices, fifty (50) feet of wiring to the appropriate distribution panel or junction box, and cover plate.

- B. Unit Price E-2 General Requirements:
 1. Provide all labor, materials, equipment, and services necessary to satisfactorily complete the work in this item: as specified in the Contract Documents, as detailed on Drawing E-307, as required to deliver a completed project, and in a manner

acceptable to the Owner's Representative.

2. Included in the Data Outlet installation shall be the outlet mounting box, conduit, wiring devices, two hundred (200) feet of home run wiring to the appropriate patch panel, termination at each end, testing, and cover plate.

C. Unit Price E-3 General Requirements:

1. Provide all labor, materials, equipment, and services necessary to satisfactorily complete the work in this item: as specified in the Contract Documents, as detailed in Section 087100 and drawing E-305, as required to deliver a completed project, and in a manner acceptable to the Owner's Representative.

2. Included in the Access Control Reader Infrastructure installation shall be the reader mounting, wiring harness for connection to the appropriate access control door hardware, conduit (if required), power supply, and wiring to the appropriate distribution panel or junction box in accordance with drawing E-305.

ADDENDA

The following Addenda have been received. The modifications to the Bid Documents noted below have been considered and all costs are included in the Bid Sum.

- 1. Addendum # _____ Dated _____.
- 2. Addendum # _____ Dated _____.
- 3. Addendum # _____ Dated _____.
- 4. Addendum # _____ Dated _____.
- 5. Addendum # _____ Dated _____.
- 6. Addendum # _____ Dated _____.
- 7. Addendum # _____ Dated _____.
- 8. Addendum # _____ Dated _____.

BID FORM SUPPLEMENTS

The following information is included with Bid submission:

- 1. Unit Prices: E-1, E-2, and E-3
- 2. Alternates: E-01 and E-02.
- 3. State the lead times for materials and equipment for all major portions of the work including, but not limited to, the following:
 - a. Electrical light fixtures, wiring, and devices
 - b. Electrical equipment - panels, switchboard, etc.
 - c. Generator

The following Supplements are attached to this Bid Form and are considered an integral part of this Bid Form:

- 1. Document 004323 - Alternates Form: Include the cost variations to the Bid Sum applicable to the Work as described in Section 012300 - Alternates.
- 2. Qualification Form AIA A305 - Contractor's Qualification Form.
- 3. Substitution Request Form - CSI/CSC Form 1.5C - During Procurement

BID FORM SIGNATURE(S)

The Corporate Seal of

(Bidder - print the full name of firm)

was hereunto affixed in the presence of:

(Authorized signing officer, Title)

(Seal)

(Authorized signing officer, Title)

- 3.2 If the Bid is a joint venture or partnership, add additional forms of execution for each member of the joint venture in the appropriate form or forms as above.

END OF SECTION

SECTION 004323
ALTERNATES FORM

PARTICULARS

- 1.1 THE FOLLOWING IS THE LIST OF ALTERNATES REFERENCED IN THE BID SUBMITTED BY:
- 1.2 (Bidder) _____
- 1.3 TO (Owner): Town of Orangetown
- 1.4 Dated _____ and which is an integral part of the Bid Form.

ALTERNATES LIST

- 2.1 THE FOLLOWING AMOUNTS SHALL BE ADDED TO OR DEDUCTED FROM THE BID AMOUNT. REFER TO SECTION 012300 - Alternates for descriptions.

ALTERNATE NO. GC-01: ADD / (DEDUCT) \$ _____

ALTERNATE NO. GC-02: ADD / (DEDUCT) \$ _____

ALTERNATE NO. GC-03: ADD / (DEDUCT) \$ _____

ALTERNATE NO. GC-04: ADD / (DEDUCT) \$ _____

ALTERNATE NO. GC-05: ADD / (DEDUCT) \$ _____

ALTERNATE NO. GC-06: ADD / (DEDUCT) \$ _____

ALTERNATE NO. P-01: ADD / (DEDUCT) \$ _____

ALTERNATE NO. P-02: ADD / (DEDUCT) \$ _____

ALTERNATE NO. HV-01: ADD / (DEDUCT) \$ _____

ALTERNATE NO. E-01: ADD / (DEDUCT) \$ _____

ALTERNATE NO. E-02: ADD/(DEDUCT) \$ _____

END OF SECTION

SECTION 007300 - SUPPLEMENTARY CONDITIONS

The following supplements modify AIA Document A201-2017, General Conditions of the Contract for Construction. Where any portion of the General Conditions is modified or deleted by these Supplementary Conditions, the unaltered portions of the General Conditions shall remain in effect.

ARTICLE 1 - GENERAL PROVISIONS

1.2 CORRELATION AND INTENT OF THE CONTRACT DOCUMENTS

Add the following to Section 1.2.2:

The items listed under the SUMMARY ARTICLE in each section of the specifications are intended as a guide without limiting the scope of the work.

Add the following new Sections 1.2.4, 1.2.5, and 1.2.6:

1.2.4 Sections of Division 1 – General Requirements govern the execution of the work of all sections of the specifications.

1.2.5 If in the interpretation of Contract Documents it appears that the Drawings and Specifications are not in agreement, in whole or in part, the document requiring the greater specificity, quantity or superior quality shall prevail, as decided by the Architect.

1.2.6 Addenda shall supersede the document(s) they amend.

ARTICLE 2 - OWNER

2.3 INFORMATION AND SERVICES REQUIRED OF THE OWNER

Delete Section 2.3.6 in its entirety and replace with the following:

2.3.6 The Contractor will be furnished, free of charge, an electronic file in PDF format of the Drawings and Project Manual.

ARTICLE 3 – CONTRACTOR

3.5 WARRANTY

Add the following Sections 3.5.3 and 3.5.4:

3.5.3 The warranty provided in paragraph 3.5 shall be in addition to and not a limitation of any other warranty or remedy required by law or by the Contract Documents.

3.5.4 The Contractor shall deliver to the Owner upon completion of all Work under this Contract, its written guarantee made out to the Owner in form satisfactory to the Owner, guaranteeing (and it does hereby so guarantee), that all the Work performed under the Contract is free from defects in labor, workmanship, and materials. This guarantee shall be made to cover (and does cover) a period of one year from the date of **Substantial Completion** of all Work under the Contract, or for a longer period where so stipulated in the Contract Documents. The warranty set forth herein shall survive expiration and/or termination of this Contract.

3.6 TAXES

Delete Section 3.6 and substitute the following:

The Owner is exempt from payment of federal, state, and local sales and use taxes, on all material and supplies incorporated into the project. Note, this exemption does not, however, apply to tools, machinery, equipment, or other personal property leased, rented or purchased by any Contractor, or Subcontractor, in connection with the work to be performed and the Contractor and each of his Sub-contractors shall be responsible for and pay any and all applicable taxes, including sales, VAT and compensating use taxes, on any tools, machinery, equipment or other personal property leased, rented or purchased in furtherance of the work to be performed herein .

3.8 ALLOWANCES

Delete Section 3.8.2 and substitute the following:

See Section 010200 for Allowance information

3.9 SUPERINTENDENT

Delete Section 3.9.1 and substitute the following:

The Contractor shall employ a competent Superintendent, and as many assistants as necessary, all capable of speaking and writing the English language and who shall be in regular and constant attendance at the project site throughout the duration of the Work. The Superintendent shall represent the Contractor, and communications given to the Superintendent shall be deemed binding and have the same force and effect as if given directly to the Contractor.

ARTICLE 7 - CHANGES IN THE WORK

7.3 CONSTRUCTION CHANGE DIRECTIVES

Add the following new Sections 7.3.11 and 7.3.12:

7.3.11 The allowance for the combined overhead and profit included in the total cost to the Owner shall be based on the following schedule:

7.3.11.1 For the Contractor, and for Work performed by the Contractor's own forces, 15 percent of the cost.

7.3.11.2 For the Subcontractor, 10 percent of the amount due the Subcontractor.

7.3.11.3 Cost to which overhead and profit are to be applied shall be determined in accordance with Subparagraph 7.3.7.

7.3.11.4 All proposals, except those so minor as to be reasonably deemed de minimis shall be accompanied by a complete itemization of costs, including labor, all materials, and Sub contractors. Each proposal shall be submitted in typewritten form, on letterhead of each respective Subcontractor.

7.3.12 Delays and any approved extensions of time amending either (i) the Contract Time or (ii) the Progress Schedule shall not be considered a Change in the Work and accordingly shall not entitle the Contractor to any additional compensation.

ARTICLE 9 - PAYMENTS AND COMPLETION

9.3 APPLICATIONS FOR PAYMENT

Delete Section 9.3.1 and insert the following:

9.3.1 The Owner will make partial payments to the Contractor monthly based on a duly certified estimate of the work performed during the preceding calendar month as prepared by the Contractor and determined by the Architect to be properly due. At least ten business days before the date established for each progress payment, the Contractor shall submit to the Architect an itemized Application for Payment, notarized, subscribed, and acknowledged in conformity with the laws of the State of New York, supported by such data substantiating the Contractor's right to payment as the Owner or the Architect may require, such as copies of requisitions from Subcontractors and material suppliers. In making such partial payment monthly, there shall be retained Five (5) percent of the payment amount due. The form of Application for Payment shall be a notarized AIA Document G-702, application and Certification for Payment, supported by AIA G-703, Continuation Sheet, and a monthly transcript of payroll records.

ARTICLE 11 - INSURANCE AND BONDS

11.1 CONTRACTOR'S INSURANCE AND BONDS

Delete Sections 11.1.1 through 11.1.4 in their entirety and substitute the following: Add new Section 11.1.5.

11.1.1 Contractor shall obtain, at its own cost and expense insurance as specified herein from insurance companies licensed and admitted in the State of New York, carrying a Best's financial rating of 'A-' (A-minus) or better, and shall provide evidence of such insurance in a form satisfactory to the Owner. Insurance coverage is required as follows as a minimum:

A. Workers' Compensation and Employer's Liability Policy: Covering operations in New York State pursuant to General Municipal Law, Section 108. The Contract shall be void and of no effect unless the Contractor shall secure compensation for the benefit of, and keep insured during the life of such Contract, such employees in compliance with the workers' compensation law.

B. General Contractor's Comprehensive General Liability Policy: General Contractor shall provide policy(ies) with limits totaling no less than \$10,000,000 Bodily Injury and Property Damage. Total coverage can be achieved through any combination of primary and Umbrella/Excess Liability policies. General Liability Policy shall include coverage for:

1. Products/Completed Operations
2. Independent Contractors
3. Contractual Liability (including a Hold Harmless provision)
4. Broad Form Property damage liability (including completed operations)
5. Personal Injury including hazards i, ii, iii, above.
6. The Town of Orangetown, the Architect, and the Engineers shall be named as "Additionally Insured" parties on the policy and the certificate of insurance shall show this as to the liability coverage on the certificate.

C. Mechanical, Electrical, and Plumbing Contractor's Comprehensive General Liability Policy: With limits of no less than \$1,000,000/\$2,000,000 Bodily Injury and Property Damage, and including coverage for:

1. Products/Completed Operations
2. Independent Contractors

3. Contractual Liability (including a Hold Harmless provision)
4. Broad Form Property damage liability (including completed operations)
5. Personal Injury including hazards i, ii, iii, above.
6. The Town of Orangetown, the Architect, and the Engineers shall be named as "Additionally Insured" parties on the policy and the certificate of insurance shall show this as to the liability coverage on the certificate.

D. Comprehensive Automobile Policy: With limits no less than \$1,000,000 Bodily Injury and Property Damage liability including coverage for owned, non-owned, and hired private passenger and commercial vehicle.

E. Umbrella Excess Liability: With limits no less than \$5,000,000, no exceptions.

F. Owner's Protective Liability Policy: With limits no less than \$1,000,000 shall be taken out and maintained during the life of this contract which will protect the owner from claims for damages for personal injury, liability, accidental or wrongful death, as well as property damage which may arise from operations under this contract whether such operations be performed by the Contractor by any Subcontractor, or by anyone acting directly or indirectly on behalf of the Contractor or any Subcontractor.

G. Property Insurance: The Contractor shall provide insurance covering all supplies and materials while in transit and/ or brought to, stored, and installed onsite.

H. Contractor's Equipment: The Contractor shall provide insurance for all equipment, tools, portable enclosures, and vehicles owned, leased, or used by them and shall provide evidence of insurance coverage by providing the Architect with a Certificate of Insurance evincing same. The Contractor shall hold the Owner harmless for any loss or damage including theft, to all equipment, tools, etc. and associated materials.

I. Builder's Risk Insurance: Only the General Contractor shall provide insurance, with limits no less than \$2,000,000 to protect the Owner's property, including the building(s), materials, supplies, and equipment, from fire, lightning, hail, explosion, theft, vandalism, and acts of God.

J. All Policies and Certificate of Insurance of the Contractor shall contain the following clause:

1. Insurers shall have no right to recovery or subrogation against the Owner, Architect, or Engineer (including its employees and other agencies), it being the intention of the parties that the insurance policies so effected shall protect both parties and be primary coverage for all losses covered by the above described insurance.

K. All insurance policies required except Workers' Compensation shall be endorsed to provide coverage to: "Town of Orangetown, and their respective officers, employees, volunteers, and agents, and any consultant for or on the Project and their officers, agents, and employees, including Architect and its' consultants."

L. Certificates: Each Insurance Certificate shall provide thirty (30) days written notice, by registered mail with return receipt requested, prior to cancellation or expiration will be given to the Owner and Architect. Policies that lapse and/or expire during term of work shall be re- certified and received by the Owner no less than thirty (30) days prior to expiration or cancellation.

11.1.2 The Contractor shall furnish to the Owner Certificates of Insurance evidencing coverage in compliance with this section within ten (10) days of signing the Agreement.

11.1.3 The cost of furnishing the above insurance shall be borne by the Contractor; there will be no direct payment for this work. All costs will be deemed to have been included in the price bid for all scheduled items. The Contractor shall require all Subcontractors to provide this same insurance coverage as outlined herein.

11.1.4 All policies except the Workers' Compensation Policy, shall contain Contractor Indemnification pursuant to Section 13.8

Add new Section 11.1.5.

11.1.5 In accordance with the Bidding and Contract Documents, the Contractor shall, at his sole cost and expense, furnish a Performance and Payment Bond, acceptable to the Owner, covering faithful performance of this Contract and payment of all obligations that may arise thereunder, in such form as the Owner may prescribe and with such sureties as it may approve. The Performance and Payment Bond shall be in the amount of 100 percent of the Contract Amount.

Maintenance Bond, which shall remain in effect during the term of any warranty or guarantee to be furnished hereunder, and in no event for a period of less than one year following the issuance of a final certificate. The Maintenance Bond shall be in the amount of 10 percent of the Final Contract Price and shall cover all work..

The Contractor shall keep the bonding company informed of any changes of his contract with the Owner. The Contractor shall require the attorney-in-fact who executes the required bonds on behalf of the surety to affix thereto a certified and current copy of the power of attorney.

ARTICLE 13 - MISCELLANEOUS PROVISIONS

13.2 SUCCESSORS AND ASSIGNS

Add the following new Section 13.2.1.1:

13.2.1.1 No successful bidder to whom a contract or purchase order is let, granted, or awarded shall assign, transfer, or convey, its right, title, or interest herein, including the performance of the contract or purchase order or the right to receive monies due or to become due, or of its power to execute the contract or purchase order without the prior written consent of the Owner. In the event the Contractor, without prior written notice, assigns, transfers or conveys its rights, title, or interest in the contract or purchase order, including the performance of this contract or purchase order, or the right to receive monies due or to become due, or its power to execute such contract or purchase order to any other person or corporation, or upon receipt by the Owner of an attachment against the successful bidder, the Owner shall be relieved and discharged from any and all liability and obligation growing out of such contract or purchase order to such Contractor, and the person or corporation to which such contract or purchase order shall have been assigned, its assignees, and transferees shall forfeit and lose all monies theretofore assigned under the contract or purchase order. This subsection shall not apply to agreements made by the Contractor with subcontractors who will work in conjunction with the Contractor to complete the work outlined in the Contract Documents.

13.4 TESTS AND INSPECTIONS

Add the phrase "or public utility companies" after the words "public authority" in the first and second sentences of Subparagraph 13.4.1.

Add the phrase "or public utility companies" after the words "public authority" in the first sentence of Subparagraph 13.4.2.

13.5 INTEREST

Delete Section 13.5.

Add the following new Sections 13.6, 13.7 and 13.8:

13.6 LABOR REQUIREMENTS

13.6.1 The Contractor and each Subcontractor performing the Work under this Contract shall comply with all applicable labor laws, rules, and regulations, including but not limited to all safety, health, and environmental standards.

13.6.2 State of New York, Department of Labor, Bureau of Public Work, Contract Requirements and Schedules of Prevailing Hourly Wage Rates and Supplements are contract requirements. Current schedules and requirements are included under another Section.

13.6.3 The Contractor shall submit to the Owner monthly transcripts of payroll records in a form accepted by the New York State Department of Labor.

13.7 CONSTRUCTION SAFETY AND HEALTH TRAINING

13.7.1 Pursuant to New York State Labor Law Section 220-h, all public work contracts of \$250,000.00 or more requires that every worker employed in the performance of such contract shall be certified as having completed an OSHA 10 safety training course. Accordingly, the Contractor shall ensure that all employees engaged in this project shall have received such training prior to the performing any work on the project and, where necessary, shall provide training in OSHA 10 to those persons lacking the requisite training.

13.7.2 The Contractor and Subcontractors must attach a copy of proof of completion of the OSHA10 course to the first certified payroll submitted to the Owner and on each succeeding payroll where any new or additional employee is first listed.

13.7.3 The Contractor must attach a copy of proof of completion of the OSHA30 course to the first certified payroll submitted to the Owner, for at least one employee directly involved on the project.

13.8 DEFENSE AND INDEMNIFICATION

The Contractor shall protect, defend, indemnify, and hold the Town of Orangetown (the Owner), and their respective officers, employees, volunteers, and agents free and harmless from and against any and all losses, penalties, damages, settlements, costs, charges, professional fees, or other expenses or liabilities of every kind and character arising out of or relating to any and all claims, liens, demands, obligations, actions, proceedings or causes of action of every kind and character in connection with or arising directly or indirectly out of this Agreement and/or the performance hereof; without limiting the generality of the foregoing, any and all such claims, etc., relating to personal injury, death, damage to property, defects in materials or workmanship, actual or alleged infringement of any patent, trademark, copyright (or application for any thereof), or of any other tangible or intangible personal or property right, or any actual or alleged violation of any applicable statute, law, ordinance, administrative order, rule, regulation, decree of any court, shall be included in the indemnity hereunder. The Owner further agrees to investigate, handle, respond to, provide defense for, and defend any such claims, etc., at his sole expense and agrees to bear all other costs and expenses related thereto, even if it (claims, etc.) is groundless, false, or fraudulent. In any case where such indemnification would violate any application provision of New York State law or regulation, or any other applicable legal prohibition, the foregoing provisions concerning indemnification shall not be construed to indemnify the Owner for damage arising out of bodily injury to persons or damage to property caused by or resulting from the sole negligence of the Owner, its officers, employees, volunteers, or agents. This paragraph shall survive any termination or completion of performance of the Contract.

Contractor- Company Name:

Address:

(signature)

(print name)

(title)

(dated)

NOTARY

Subscribed and sworn to before me this

_____ day of _____ 2022

THIS STATEMENT SHALL BE SUBMITTED ON CONTRACTOR’S LETTERHEAD.

END OF SECTION

SECTION 012300
ALTERNATES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Description of Alternates.

1.2 RELATED REQUIREMENTS

- A. Document 002113 - Instructions to Bidders: Instructions for preparation of pricing for Alternates.
- B. Document 004323 - Alternates Form: List of Alternates as supplement to Bid Form.
- C. Document 005200 - Agreement Form: Incorporating monetary value of accepted Alternates.

1.3 ACCEPTANCE OF Alternates

- A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at Owner's option. Accepted Alternates will be identified in the Owner-Contractor Agreement.
- B. Coordinate related work and modify surrounding work to integrate the Work of each Alternate.

1.4 SCHEDULE OF ALTERNATES - GENERAL CONSTRUCTION

A. ADD ALTERNATE No. GC-01 - TOILET ROOM REFURBISHMENT

State the amount to be added to the Base Bid to refurbish existing Toilet Rooms Nos. 014, 017, 023, 024, 103, 123, 126, 128, and 138 as indicated on Drawings A900 through A903.

Coordinate with corresponding Alternates in Plumbing, HVAC, and Electrical Contracts.

Base Bid shall include no General Construction work in existing Toilet Rooms 014, 017, 023, 024, 103, 123, 126, 128, and 138.

B. ADD ALTERNATE No. GC-02 - TOILET ROOM FIT-OUT

State the amount to be added to the Base Bid to fitout Toilet Rooms Nos. 311 and 312 as indicated on Drawing A904. Fit out shall include but not be limited to paint and tile finishes and toilet room accessories.

Coordinate with corresponding Alternates in Plumbing, HVAC, and Electrical Contracts.

Base Bid shall include drywall partitions, door and hardware, suspended ceilings in Toilet Rooms 311 and 312.

Alternate Item: Alternate items include plumbing fixtures and finishes.

C. ADD ALTERNATE No. GC-03 - FOLDING PARTITION

State the amount to be added to the Base Bid to provide Folding Partition assemblies, including structural support, at Lobby No. 100 as specified in Section 102226 and as indicated on Drawing A905.

Base bid shall include aluminum and glass doors, frames and hardware, Door Nos. 100A, 100B, 100C, and 100D as indicated on drawings.

D. ADD ALTERNATE No. GC-04 - NEW CONFERENCE TABLES

State the amount to be added to the Base Bid to provide new Conference Tables Type CT-2 and CT-3 in Room 171 as scheduled on Furniture Tag Legend, Drawing A001. Base Bid shall include the relocation and installation of two (2) existing Conference Tables into Room 171 from locations as directed by the Owner.

E. ADD ALTERNATE No. GC-05 - ALTERNATING TREAD STAIRS

State the amount to be added to the Base Bid to provide two (2) Alternating Tread Stairs instead of two (2) ships ladders as indicated on Drawing A114(B) and as specified in Specification Section 055123.23.

Base Bid shall include two (2) ships ladders as indicated on Drawing A114(B).d installtion of vehicle charging stations.

F. ADD ALTERNATE NO. GC-06 - PARKING LOT PAVEMENT

State the amount to be added to the Base Bid to delete crack repair and seal coat and provide mill and overlay pavement at the Police Department Parking Lot as indicated on Drawing C-101.

Base Bid shall include crack repair, seal coat, and striping but no milling or overlay pavement in this area.

1.5 SCHEDULE OF ALTERNATES - PLUMBING AND FIRE PROTECTION

A. ADD ALTERNATE NO. P-01 - TOILET ROOM REFURBISHMENT

State the amount to be added to the Base Bid to modify existing plumbing roughing, provide new plumbing fixtures, and modify sprinklers in existing Toilet Rooms Nos. 014, 017, 023, 024, 103, 123, 126, 128, and 138 as indicated on Drawings P-030, P-031, FP-030 and A900 through A903.

Coordinate with corresponding Alternates in General Construction, HVAC, and Electrical Contracts.

Base Bid shall include no Plumbing or Fire Protection work in existing Toilet Rooms Nos. 014, 107, 023, 024, 103, 123, 126, 128, and 138 as indicated on Drawings P-030, P-031, FP-030 and A900 through A903.

B. ADD ALTERNATE NO. P-02 - TOILET ROOM FIT-OUT

State the amount to be added to the Base Bid to fit out Plumbing for Toilet Rooms Nos. 311 and 312 as indicated on Drawing P-204 and A904. Plumbing fit-out shall include but not be limited to scheduled plumbing fixtures, faucets and trim, and hot owater heater.

Coordinate with cooresponding Alternates in General Construction, HVAC, and Electrical Contracts.

Base Bid shall include new sprinklers and plumbing roughing only in Toilet Rooms Nos. 311 and 312 as indicated on Drawings FP-203, P-204, and A904.

1.6 SCHEDULE OF ALTERNATES - HVAC

A. ADD ALTERNATE NO. HV-01 - TOILET ROOM REFURBISHMENT

State the amount to be added to the Base Bid to modify or replace existing HVAC work in existing Toilet Rooms Nos. 014, 017, 023, 024, 103, 123, 126, 128, and 138 as indicated on Drawings M-030 and M-031.

Coordinate with cooresponding Alternates in General Construction, Plumbing, and Electrical Contracts.

Base Bid shall include no HVAC work in existing Toilet Rooms Nos. 014, 017, 023, 024, 103, 123, 126, 128, and 138 as indicated on Drawings M-030 and M-031.

1.7 SCHEDULE OF ALTERNATES - ELECTRICAL

A. ADD ALTERNATE NO. E-01 - TOILET ROOM REFURBISHMENT

State the amount to be added to the Base Bid to modify or replace existing electrical work in existing Toilet Rooms Nos. 014, 107, 023, 024, 103, 123, 126, 128, and 138 as indicated on Drawings E-030 and E-031.

Coordinate with corresponding Alternates in General Construction, Plumbing, and HVAC Contracts.

Base Bid shall include no Electrical work in existing Toilet Rooms Nos. 014, 017, 023, 024, 103, 123, 126, 128, and 138 as indicated on Drawings E-030 and E-031.

B. ADD ALTERNATE NO. E-02 - REPLACEMENT OF ELECTRICAL EQUIPMENT

State the amount to be added to the Base Bid to replace existing electrical equipment as indicated on Drawings E-101, E-202, AND E-301.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

ADDENDUM NO 7
1-21-2022

service organization. Include monthly generator exercising with Owner's Representative to check for proper, starting, load transfer, and running under load. Schedule visits with Owner's Representative two weeks prior to exercising. Include routine preventive maintenance as recommended by manufacturer and adjusting as required for proper operation. Provide parts and supplies as used in the manufacture and installation of original equipment.

1.11 EXTRA MATERIALS

- A. Provide extra materials described below that match products installed, are packaged with protective covering for storage, and are identified with labels describing contents. Deliver extra materials to Owner.
1. Filters: 1 sets each of lubricating oil, fuel, and combustion air filters.
 2. Belts: 1 of each type.
 3. Hose: 1 of each type with clamp.

PART 2 - PRODUCTS

2.01 PRODUCTS

- A. Generator(s): Generac (or approved equal) 600kw 3 Phase Outdoor stationary enclosed fuel oil fired generator with Level 1 acoustical enclosure. Complete with long run base mounted 2000 Gallon fuel tank with all required monitoring.
- B. Batteries: 12 volt sintered AGM lead acid storage batteries (in series as required) rated as recommended by the engine manufacturer for cyclic cranking of standby generating sets of this size shall be provided for the engine. Provide, inter-cell connections and cable connections with lugs and mounting supports shall be provided for each battery for mounting in the generator enclosure. Each battery shall have sufficient capacity to provide 120 seconds total cranking time without recharging. The batteries shall carry a two-year full replacement guarantee followed by a ten year prorated warranty. The battery manufacturer shall provide detailed battery sizing calculations for this project for review as a shop drawing.
- C. Engine Cooling System
1. Cooling system coolant solution of 50% inhibited long life ethylene glycol and 50% water.
 2. Coolant hoses with flexible silicon impregnated assemblies with non-porous rubber inside surface and aging, ultraviolet and abrasion resistant fabric outer covering. The ratings shall be 50 psig maximum working pressure with 180°F coolant, and non-collapsible under vacuum. Hoses and belts shall not be painted.
 3. Provide a complete coolant recovery system designed to collect and contain any coolant lost due to overflow of over pressure release.
- D. Air Cleaner

ISSUE NO.	ISSUE DATE	DESCRIPTION
3	1/21/2022	ADDENDUM NO 7
2	1/11/2022	ADDENDUM NO 5
1	11/9/2021	RELEASE FOR BID

ISSUE NO.	ISSUE DATE	DESCRIPTION
3	1/21/2022	ADDENDUM NO 7
2	1/11/2022	ADDENDUM NO 5
1	11/9/2021	RELEASE FOR BID



ORANGETOWN TOWN HALL ADDITION AND ALTERATIONS

26 ORANGETOWN RD
ORANGETOWN, NEW YORK 10962

ELECTRICAL SYMBOLS LIST, LIGHTING FIXTURE SCHEDULE AND ABBREVIATIONS

PROJECT NO.: 2219-05

DRAWING NO.: E-001

LIGHTING FIXTURE SCHEDULE

IN ADDITION TO THE SPECIFIED FEATURE ON THIS SCHEDULE, WHERE FIXTURE TYPE IS INDICATED WITH AN "E" AND/OR FIXTURE SYMBOL IS HALF SHADED, PROVIDE BATTERY BACK-UP EMERGENCY PACK TO AUTOMATICALLY ILLUMINATE FIXTURE FOR 2 HOUR ON LOSS OF UTILITY POWER

WATTS PER FIXTURE	TYPE	LAMPS	DESCRIPTION	MANUFACTURER AND MODEL	REMARKS
22W	A	LED	6" RECESSED DOWN LIGHT FOR GENERAL LIGHTING.	HALO COMMERCIAL H0620010-HM612840-61MDW	
40W	B	LED	47.9"x23.8"x3.9" RECESSED TROFFER LOW PROFILE GENERAL OFFICE LIGHTING	LSI LPEC24-LED-48L-UNV-DIM1-35-(EM10)	
	BB	LED	47.9"x23.8"x3.9" RECESSED TROFFER LOW PROFILE GENERAL OFFICE LIGHTING	LSI LPEC24-LED-30L-UNV-DIM1-35-(EM10)	
20W	BA	LED	2'X2' RECESSED TROFFER FIXTURE GENERAL OFFICE LIGHTING	LSI OPT22-LED-LENSED-TROFFER-40	
32W	C	LED	DECO DRUM 1-SERIES S16 ENERGY STAR VERSION 24" ROUND DRUM PENDANT	LEGION LIGHTING CO., INC MODEL 2408 516-2408-WMA-LL4-30-120-F1000-CM3-WH-8"	WHERE INDICATED WITH "E" IN TYPE AND/OR WHERE SYMBOL IS HALF SHADED, PROVIDE WITH DC BATTERY EMERGENCY PACK IN SEPARATE NEMA-1 ENCLOSURE (CONCEALED IN CLOSEST INTERIOR ACCESSIBLE CEILING CAVITY, CIRCUIT TO ILLUMINATE LIGHT ON LOSS OF POWER.
-W	D	LED	LOBBY TRIPLE RING PENDANT	STONE LIGHTING RINGS SUSPENSION CH143-CR-BB-604233	
77W	F	LED	LINEAR PENDANT	KUZZO EERIE PD19359 PENDANTS PD19359-AN ANTIQUE BRASS	
106W	H	LED	RING PENDANT	KUZZO PD22753 PENDANT LAMP BS BRUSHED SILVER	
37W	HA	LED	PROFESSIONAL TRACK WITH LED LIGHT HEADS	TARGETTI #STP-0-10V-PW-L2-35-WF (LIGHT HEADS)	PROVIDE TARGETTI 9000-ULB-B-ST-120 (9004/W, 9001/9002/W/3C, ETC.) TRACK LENGTHS (MODIFIED AS REQUIRED) AS DEPICTED BY THE LINE(S) ON THE DRAWINGS. PROVIDE TRACK HEADS AS DEPICTED BY THE TRIANGULAR SYMBOLS SHOWN ON THE LINE(S) REPRESENTING THE TRACK(S)
	HB	LED	LUX ILLUMINAIRE LED WALL MOUNTED DIRECT LINEAR LIGHTING FIXTURE. 4' SECTIONS AS REQUIRED, WITH JONER AND END CAPS, TO ACCOMMODATE THE RUN LENGTHS.	LUX ILLUMINAIRE E05-30-W-D-ASY-750-4-35K-4-UNV (-EB WHERE INDICATED AS TYPE "HBE")	
6.1W PER FOOT	J	LED	RECESSED LINEAR	METALUMEN RAIL 4 RMD4 RM40-1L35K-2-M-W-L1-1-T-4	
	K	LED	2' LONG RECESSED LINEAR FIXTURE	METALUMEN RAIL 4 RMD4 RM40-1L35K-2-M-W-L1-1-T-4	
XXW	KK	LED	RING PENDANT	G LIGHTING ORBIS II ACRYLIC INTERIOR PENDANT GL-2739-Z-01-1A	
17W	L	LED	WALL MOUNTED 4' LONG ROTATIONAL SIGNAGE LIGHT WITH SINGLE PIECE EXTRUDED ALUMINUM HOUSING	STARTER LIGHTING # OPTD-4-1000-SD-35K-PBR -EBR-RWM-UMB10	
8.3W	M	LED	ELEVATOR WALL SCIENCE	TECH LIGHTING LINER WALL 700WSL-11-N-LED930	WHERE INDICATED WITH "E" IN TYPE AND/OR WHERE SYMBOL IS HALF SHADED, PROVIDE WITH DC BATTERY EMERGENCY PACK IN SEPARATE NEMA-1 ENCLOSURE (CONCEALED IN CLOSEST INTERIOR ACCESSIBLE CEILING CAVITY, CIRCUIT TO ILLUMINATE LIGHT ON LOSS OF POWER.
31.45W	N	LED	PENDANT MOUNT LINEAR NET LOCATION	LSI #EG3 4 WET LOCATION EG3-4-LED-04L-DAS-5-UNV-DM-4080-(EM)	
15W	O	LED	SURFACE MOUNT HEIGHT 3" DIAMETER 12" WALL OR CEILING MOUNT	LIGHTWAY BRCC-12-LED-FIP-4-B99-WSP-DM	WHERE INDICATED WITH "E" IN TYPE AND/OR WHERE SYMBOL IS HALF SHADED, PROVIDE WITH DC BATTERY EMERGENCY PACK IN SEPARATE NEMA-1 ENCLOSURE (CONCEALED IN CLOSEST INTERIOR ACCESSIBLE CEILING CAVITY, CIRCUIT TO ILLUMINATE LIGHT ON LOSS OF POWER.
8W	P	LED	SIGN LIGHT	HK USA LIGHTING GROUP #KALF-CPW-NBR-12V-B-30-ACL-W/#XE-120-12	WP. CIRCUIT VIA POWER SUPPLY. LOSS OF POWER SUPPLY IN THE ASSOCIATED ACCESSIBLE INTERIOR CEILING CAVITY AT THE CORRESPONDING FLOOR.
19W	Q	LED	WALL SCIENCE	G LIGHTING LUX EXTERIOR-A-EM 6L-6018-B-R3-01-A-EM	WP. PROVIDE WITH DC BATTERY EMERGENCY PACK IN SEPARATE NEMA-1 ENCLOSURE (CONCEALED IN CLOSEST INTERIOR ACCESSIBLE CEILING CAVITY, CIRCUIT TO ILLUMINATE LIGHT ON LOSS OF POWER.
20.3W	R	LED	VANITY LIGHT	MODERN FORMS COMPANY MINI LOFT WS-14824-BN-20.3-1826-1588	
12W	S	LED	SHOWER LIGHT NET AREA	TECH LIGHTING ENTRA CL 3" LED ENCL3R-F-L12 (HOUSING) ENCL3R-F-D-935-B-W (TRM)	
	T	LED	WALL MOUNT LED FIXTURE WITH INTEGRAL OCCUPANCY SENSOR AND DUAL LIGHT LEVEL CONTROL. FIXTURE MAINTAIN LOW LIGHTING LEVEL AT ALL TIMES AND ILLUMINATES TO FULL OUTPUT WHEN OCCUPANCY IS DETECTED. WITH EMERGENCY BALLAST.	COLUMBIA# LB1435MLUE114	PROVIDE PENDANT MOUNTING WHERE NOT WALL MOUNTED.
	HR	LED	FLEX LED STRIP LIGHTING BUILT-IN TO ARCHITECTURAL HAND RAIL. 2.8 WATTS/FT. REMOTE 120-24V POWER SUPPLY. CONCEALED ACCESS. ANGLE FITTINGS. HAND RAIL TRACK WITH LENS.	LEDSCAPE #LEX-T-HP-30-65-HR19-D-P WITH P2400240U POWER SUPPLIES IN NEMA 1 ENCLOSURE	CUSTOM WIRE TO REMOTE POWER SUPPLY. CONCEALED LIGHTING STRIPS AND WIRING
48	V	LED	OUTDOOR LED AREA LIGHT	LSI MIRADA MEDIUM OUTDOOR LED AREA LIGHT MRW LED-07L-SIL-FT-30-70CRI	PROVIDE WITH LSI #48P-83-510G-10"-S-STANDARD COLOR-GA-4SRBS. PROVIDE (2) ADDITIONAL RGS SPARE 3/4" C FROM POLE BASE THROUGH CONCRETE BASE TO BELOW GRADE. PROVIDE MSBT INTEGRATED MOTION SENSOR PROGRAMMED TO CONTROL BI-LEVEL ILLUMINATION.
48	VA	LED	OUTDOOR LED AREA LIGHT WITH SHIELDING	LSI MIRADA MEDIUM OUTDOOR LED AREA LIGHT MRW LED-07L-SIL-FT-30-70CRI-IL	PROVIDE WITH LSI #48P-83-510G-10"-S-STANDARD COLOR-GA-4SRBS. PROVIDE (2) ADDITIONAL RGS SPARE 3/4" C FROM POLE BASE THROUGH CONCRETE BASE TO BELOW GRADE. PROVIDE MSBT INTEGRATED MOTION SENSOR PROGRAMMED TO CONTROL BI-LEVEL ILLUMINATION.
48	W	LED	OUTDOOR LED AREA LIGHT	LSI IRADA MEDIUM OUTDOOR LED AREA LIGHT MRW LED-07L-SIL-SW-30-70CRI	PROVIDE WITH LSI #48P-83-510G-10"-S-STANDARD COLOR-GA-4SRBS. PROVIDE (2) ADDITIONAL RGS SPARE 3/4" C FROM POLE BASE THROUGH CONCRETE BASE TO BELOW GRADE. PROVIDE MSBT INTEGRATED MOTION SENSOR PROGRAMMED TO CONTROL BI-LEVEL ILLUMINATION.
23	X	LED	SEE SYMBOL LIST FOR FIXTURE DESCRIPTION	RAB LIGHTING #WP2LED34L750PCU	
85	Y	LED	OUTDOOR LED AREA LIGHT	LSI MIRADA MEDIUM OUTDOOR LED AREA LIGHT MRW LED-12L-SIL-FT-30-70CRI	PROVIDE WITH LSI #48P-83-510G-10"-S-STANDARD COLOR-GA-4SRBS. PROVIDE (2) ADDITIONAL RGS SPARE 3/4" C FROM POLE BASE THROUGH CONCRETE BASE TO BELOW GRADE. PROVIDE MSBT INTEGRATED MOTION SENSOR PROGRAMMED TO CONTROL BI-LEVEL ILLUMINATION.
85	YA	LED	OUTDOOR LED AREA LIGHT WITH SHIELDING	LSI MIRADA MEDIUM OUTDOOR LED AREA LIGHT MRW LED-12L-SIL-FT-30-70CRI-IL	PROVIDE WITH LSI #48P-83-510G-10"-S-STANDARD COLOR-GA-4SRBS. PROVIDE (2) ADDITIONAL RGS SPARE 3/4" C FROM POLE BASE THROUGH CONCRETE BASE TO BELOW GRADE. PROVIDE MSBT INTEGRATED MOTION SENSOR PROGRAMMED TO CONTROL BI-LEVEL ILLUMINATION.
27	Z	LED	OUTDOOR RADIAL EMISSION LED BOLLARD	TARGETTI RADIAL EMISSION OUTDOOR LED BOLLARD MB844038L330FE	PROVIDE (2) ADDITIONAL RGS SPARE 3/4" C FROM POLE BASE THROUGH CONCRETE BASE TO BELOW GRADE
11	AB	LED	OUTDOOR IN-GROUND MOUNTED MONUMENT LIGHT ENCLOSED AND GASKETED. COMPOSITE BRONZE WELL LIGHT	KIM LIGHTING #LTV82E183XUVPL	
	EB	LED	AUTOMATIC EMERGENCY LIGHTING UNIT WITH 2 LED HEADS		
3.8		LED	CEILING MOUNTED EDGE LIT EXIT SIGN WITH GREEN LETTERS AND INTEGRATED BATTERY BACK-UP	PHILIPS 44RLU2R-NYC-C-EM	SHADED ARE DENOTES ILLUMINATED FACE. ARROWS AS INDICATED
3.8		LED	WALL MOUNTED EDGE LIT EXIT SIGN WITH GREEN LETTERS AND INTEGRATED BATTERY BACK-UP	PHILIPS 44RLU1R-NYC-C-EM	SHADED ARE DENOTES ILLUMINATED FACE. ARROWS AS INDICATED
3.8		LED	WALL MOUNTED EXIT SIGN WITH DUAL EMERGENCY LIGHTS, GREEN LETTERS AND INTEGRATED BATTERY BACK-UP	PHILIPS 44RLU1R-NYC-BH-C-EM	SHADED ARE DENOTES ILLUMINATED FACE. ARROWS AS INDICATED

- STATIONARY ELECTRIC GENERATOR.
- PORTABLE TRAILER MOUNTED ELECTRIC GENERATOR.
- UTILITY POLE
- TRANSFORMER
- AUTOMATIC TRANSFER SWITCH.
- LIGHTNING PROTECTION AIR TERMINAL AND ASSOCIATED COMPONENTS.
- GROUNDING/BONDING CONNECTION. CADDIED UNON.
- GROUND ROD. COPPER CLAD 5/8" 10' LONG UNON.
- COPPER GROUND BAR.
- WIRE MANAGEMENT TRAY SYSTEM. SNAKE TRAY.
- CAT 6A ETHERNET (LAN) PATCH CORD WITH RIAS TERMINATED ENDS. RING OUTER JACKET. PROVIDE FOR INTERCONNECTIONS BETWEEN LIGHTING CONTROL DEVICES. RUN CONCEALED. WHERE EXPOSED (NO CEILING, MECHANICAL ROOMS, OUTDOORS) PROVIDE IN RACEWAY. PROGRAM SYSTEM TO CONTROL(S) AS DESIGNATED BY SUB-LETTERS ON THE DOCUMENTS.
- CONVENTIONAL HARD WIRED LIGHTING CONTROL SWITCH/VACUANCY SENSOR/WALL SWITCH.
- CONVENTIONAL HARD WIRED ULTRASONIC OCCUPANCY SENSOR. WATT STOPPER.
- POWER SUPPLY "S" (DESIGNATION WIRE) FOR LED LIGHTING. PROVIDE IN NEMA 1 ENCLOSURE. PROVIDE CONCEALED LOW VOLTAGE CIRCUITRY TO LED.
- EMERGENCY CALL ANNUNCIATOR/CONTROLLER/SYSTEM WITH AUDIO AND VISUAL INDICATING OF EMERGENCY CALL STATION ACTIVATION. CIRCUIT TO ORIGINAL CIRCUIT.
- EMERGENCY CALL ELECTRIC STRIKE RELEASE. CIRCUIT TO RELEASE DOOR ON ACTIVATION OF EMERGENCY CALL STATION ACTIVATION.
- IN TOILETS: EMERGENCY CALL PULL STATION WITH PULL CORD. INTERCONNECT WITH SYSTEM. CIRCUIT TO ACTIVATE ASSOCIATED AUDIO-VISUAL ANNUNCIATING DEVICE. PROVIDE COMPLETE SYSTEM AND POWER SUPPLY.
- SURFACE MOUNTED CAMERA. POWERED OVER ETHERNET (POE). PROVIDE WITH CAT6A CABLE IN RACEWAY BACK TO THE NEAREST IT/DATA CLOSET/ROOM
- CHARGING STATION FOR ELECTRIC VEHICLES. DUAL STATION TO ACCOMMODATE 2 VEHICLES. LEVITON EVR-GREEN 4000 LEVEL 2 STATION. #CH4U2-CBMBX-CPAP-B-CPBX-CPOM-CPW3-CPAL
- ADJUSTABLE FREQUENCY DRIVE. SEE MECHANICAL DOCUMENTS FOR ADDITIONAL INFORMATION.
- MOTOR CONTROLLER/STARTER. SEE MECHANICAL DOCUMENTS FOR ADDITIONAL INFORMATION.
- WALL MOUNTED LIGHT FIXTURE. CIRCUITRY/FIXTURE TYPE AS INDICATED. WHERE NO TYPE IS INDICATED PROVIDE TYPE "X" WITH BATTERY BACKUP.

- ### LIST OF ELECTRICAL DRAWINGS
- E-001 ELECTRICAL SYMBOLS LIST, LIGHTING FIXTURE SCHEDULE AND ABBREVIATIONS.
 - E-030 BASEMENT LEVEL 01 PART PLANS ALTERNATE 01
 - E-031 LEVEL 01 PART PLANS ALTERNATE 01
 - E-101 ELECTRICAL BASEMENT LEVEL FLOOR PLAN (GREEN/VALS).
 - E-102 ELECTRICAL LEVEL 01 PLAN (REMOVALS).
 - E-103 EXISTING RUDF PLAN (REMOVALS).
 - E-201 ELECTRICAL SITE PLAN.
 - E-202 ELECTRICAL BASEMENT LEVEL FLOOR PLAN (POWER).
 - E-203 ELECTRICAL BASEMENT LEVEL FLOOR PLAN (LIGHTING).
 - E-204 ELECTRICAL BASEMENT LEVEL FLOOR PLAN (LIGHTING).
 - E-205 ELECTRICAL BASEMENT LEVEL FLOOR PLAN (LIGHTING).
 - E-206 ELECTRICAL BASEMENT LEVEL FLOOR PLAN (FIRE ALARM).
 - E-207 ELECTRICAL LEVEL 01 FLOOR PLAN (POWER).
 - E-208 ELECTRICAL LEVEL 01 FLOOR PLAN (LIGHTING).
 - E-209 ELECTRICAL LEVEL 01 FLOOR PLAN (LIGHTING).
 - E-210 ELECTRICAL LEVEL 01 FLOOR PLAN (LIGHTING).
 - E-211 ELECTRICAL LEVEL 01 FLOOR PLAN (FIRE ALARM).
 - E-212 ELECTRICAL LEVEL 02 FLOOR PLAN (POWER).
 - E-213 ELECTRICAL LEVEL 02 FLOOR PLAN (LIGHTING).
 - E-214 ELECTRICAL LEVEL 02 FLOOR PLAN (LIGHTING).
 - E-215 ELECTRICAL LEVEL 02 FLOOR PLAN (LIGHTING).
 - E-216 ELECTRICAL LEVEL 02 FLOOR PLAN (FIRE ALARM).
 - E-217 ELECTRICAL LEVEL 03 FLOOR PLAN (POWER).
 - E-218 ELECTRICAL LEVEL 03 FLOOR PLAN (LIGHTING).
 - E-219 ELECTRICAL LEVEL 03 FLOOR PLAN (LIGHTING).
 - E-220 ELECTRICAL LEVEL 03 FLOOR PLAN (LIGHTING).
 - E-221 ELECTRICAL LEVEL 03 FLOOR PLAN (FIRE ALARM).
 - E-222 ELECTRICAL RUDF PLAN.
 - E-223 ELECTRICAL RUDF PLAN (LIGHTNING PROTECTION PLAN).
 - E-301 ELECTRICAL ONE-LINE DIAGRAM.
 - E-302 ELECTRICAL PART ONE-LINE POWER DIAGRAM.
 - E-303 IT/COMMUNICATIONS RISER DIAGRAM
 - E-304 ELECTRICAL PANEL SCHEDULES.
 - E-305 ELECTRICAL DETAILS.
 - E-306 GENERATOR DETAILS.
 - E-307 IT/DATA SPECIFICATIONS AND DETAILS.

- ## SYMBOLS LIST
- KEYED NOTE
 - ELECTRICAL PANELBOARD SURFACE MOUNTED
 - ELECTRICAL PANELBOARD FLUSH MOUNTED
 - DISCONNECT SWITCH. 3 POLE, 60 AMPS, WP U.O.N.
 - FUSED DISCONNECT SWITCH.
 - MOTOR/HVAC/HWH/FURNACE/FAN. CIRCUIT VIA STARTERS/CONTROLLERS/BROKERS ETC. SEE MECHANICAL PLANS FOR ADDITIONAL INFORMATION.
 - PANEL
 - PANELBOARD (ONE-LINE)
 - SPD OR SPD SURGE PROTECTION DEVICE-JOISLYN SURGITRON II 1455-49
 - METER
 - METERING CURRENT TRANSFORMERS AND POTENTIAL CT'S/TAPS AS APPLICABLE.
 - CIRCUIT TAG
 - CIRCUIT BREAKER - 3 POLE UNON. "SI" INDICATES WITH SHUNT TRIP COIL.
 - CIRCUIT BREAKER - 3 POLE UNON
 - FUSED DISCONNECT (ONE-LINE)
 - GROUND
 - SINGLE POLE HOME-RUN TO PANEL AND CIRCUIT AS INDICATED. #212, #120-3/4"-20A OCPD UNON
 - HOMERUN TO PANEL BOARD AS INDICATED. QUANTITY OF HOMERUNS INDICATE THE NUMBER OF SINGLE POLE CIRCUITS. EACH CIRCUIT WITH DEDICATED NEUTRAL.
 - MULTIPOLE HOMERUN TO PANELBOARD AS INDICATED.
 - CEILING MOUNTED CARBON MONOXIDE DETECTOR. PROGRAM FOR SUPERSTADY ANNUNCIATION
 - DUCT MOUNTED SMOKE DETECTOR WITH PITOT SAMPLING TUBE, HOUSING, HEATER AND WEATHER ENCLOSURE. PROVIDE REMOTE STATION.
 - INTELLIGENT MONITOR MODULE.
 - ADDRESSABLE OPEN AREA CEILING MOUNTED SMOKE DETECTOR.
 - ADDRESSABLE BEAM TYPE SMOKE DETECTOR.
 - MANUAL PULL STATION
 - AUDIO/VISUAL INDICATING APPLIANCE (FIRE-ALARM)
 - VISUAL INDICATING APPLIANCE.
 - FIRE ALARM SUPERVISED EXTENDED POWER SUPPLY WITH AUDIO/VISUAL APPLIANCE CIRCUIT(S).
 - FIRE ALARM CONTROL PANEL (FACP).
 - FIRE ALARM 2 LINE LIQUID CRYSTAL ANNUNCIATOR.
 - PC DESKTOP COMPUTER FOR SPECIFIC SYSTEM (FIRE ALARM, ACCESS CONTROL, ETC.) COMPLETE WITH ALL CONNECTIONS, SOFTWARE AND PROGRAMMING.
 - JACK/OUTLET FOR IT/DATA/TELEPHONE. PROVIDE RECESSED CONCEALED 1800 BOX, PLASTER RING, 1" EMPTY RACEWAY UP INTO ACCESSIBLE CEILING. PROVIDE (2)R4S TELEPHONE AND (2) R4S COMPUTER JACKS EACH WITH COLOR CODED CAT 6A CABLE TERMINATED AND PATCHED IN THE NEAREST IT CLOSET.
 - JACK/OUTLET FOR IT/DATA/TELEPHONE IN MODULAR FURNITURE. PROVIDE AS INDICATED FOR OPEN TRIANGLE SYMBOL EXCEPT EXTENDED INTO THE MODULAR FURNITURE.
 - JACK/OUTLET FOR IT/DATA/TELEPHONE. PROVIDE AS INDICATED FOR OPEN TRIANGLE SYMBOL EXCEPT AT NON-STANDARD MOUNTING HEIGHT
 - IT/DATA OUTLET/JACK R4S WITH CAT 6A CABLE IN ACCESSIBLE CEILING GIMBY FOR POE. WFI ACCESS POINT. EMERGENCY POWER OFF (EPO). SLEEVES PUSH BUTTON. CLEAR FLIP COVER.
 - WALL COAX JACK FOR TELEVISION. WITH 1" EMPTY RACEWAY UP INTO ACCESSIBLE CEILING GIMBY.
 - FIRE ALARM REMOTE INDICATOR STATION. ILLUMINATES WHEN ASSOCIATED (USUALLY CONCEALED) DEVICE IS ACTIVATED.
 - DOOR IDENTIFIER. SEE SECURITY/ACCESS CONTROL DETAILS AND ARCHITECTURAL DRAWINGS/SCHEDULES FOR ADDITIONAL INFORMATION
 - CONCEALED MAGNETIC SWITCHES IN THE HEAD OF THE DOOR/LAMB (LATCH SIDE) AND IN THE ELECTRICAL HINGE HARDWARE.
 - ELECTRIFIED MORTISE LOCK/LATCH SET AND ASSOCIATED ELECTRICAL HINGE HARDWARE. PROVIDE CONCEALED THRU WIRING IN DOOR THROUGH TO HINGE. PROVIDE MORTISE SHIELD BOX WITH RACEWAY UP FRAME/WALL TO SYSTEM.
 - ELECTRIC STRIKE RELEASE. PROVIDE MORTISE SHIELD WITH CONCEALED WIRING UP FRAME/WALL (IN RACEWAY) TO ACCESS CONTROL SYSTEM.
 - ACCESS CONTROL READER.
 - ELECTRIC HINGE WITH CONCEALED MAGNETIC CONTACT AND WIRING THROUGH THE DOOR LEAF TO EML OR STRIKE COMPONENT(S).
 - DOORCHIME/BUZZER WITH ASSOCIATED CONTROL POWER TRANSFORMER. CIRCUIT TO ACTIVATE ON OPERATION OF THE ASSOCIATED PUSHBUTTON
 - PUSHBUTTON. CIRCUIT TO ACTIVATE ASSOCIATED DOORCHIME/BUZZER.

ANY OF THESE SYMBOLS CONSTITUTES NEW WORK PROVIDED UNDER THIS CONTRACT, UNLESS OTHERWISE NOTED. SYMBOLS SHOWN IN (LIGHT CONTINUOUS) LINE TYPE ARE EXISTING DEVICES. SYMBOLS SHOWN IN (DASHED) LINE TYPE ARE TO BE REMOVED. ALL OTHER SYMBOLS, INCLUDING SYMBOLS SHOWN IN (SOLID) LINE TYPE ARE NEW. SYMBOLS INDICATED WITH (CR) ARE EXISTING TO BE RELOCATED. SYMBOLS INDICATED WITH (CR) ARE RELOCATED EXISTING IN THE NEW LOCATION. SYMBOLS WITH AN NUMBER IN PARENTHESES DENOTES MULTIPLE QUANTITIES OF THAT SYMBOL.

IN CERTAIN CASES SYMBOLS FOR NEW WORK MAY BE INDICATED IN LIGHTER LINE TYPES TO EMPHASIZE OTHER WORK ASSOCIATED WITH THAT WORK. IF WORK IS INDICATED ANYWHERE AS NEW IT IS TO BE PROVIDED.

* ADJUST CATALOG NUMBER TO ACCOMMODATE THE NUMBER OF BUTTONS, ROUNDED UP TO EQUAL OR EXCEED THE NUMBER OF CONTROL SUBLETTERS OR NUMBER IN PARENTHESES.

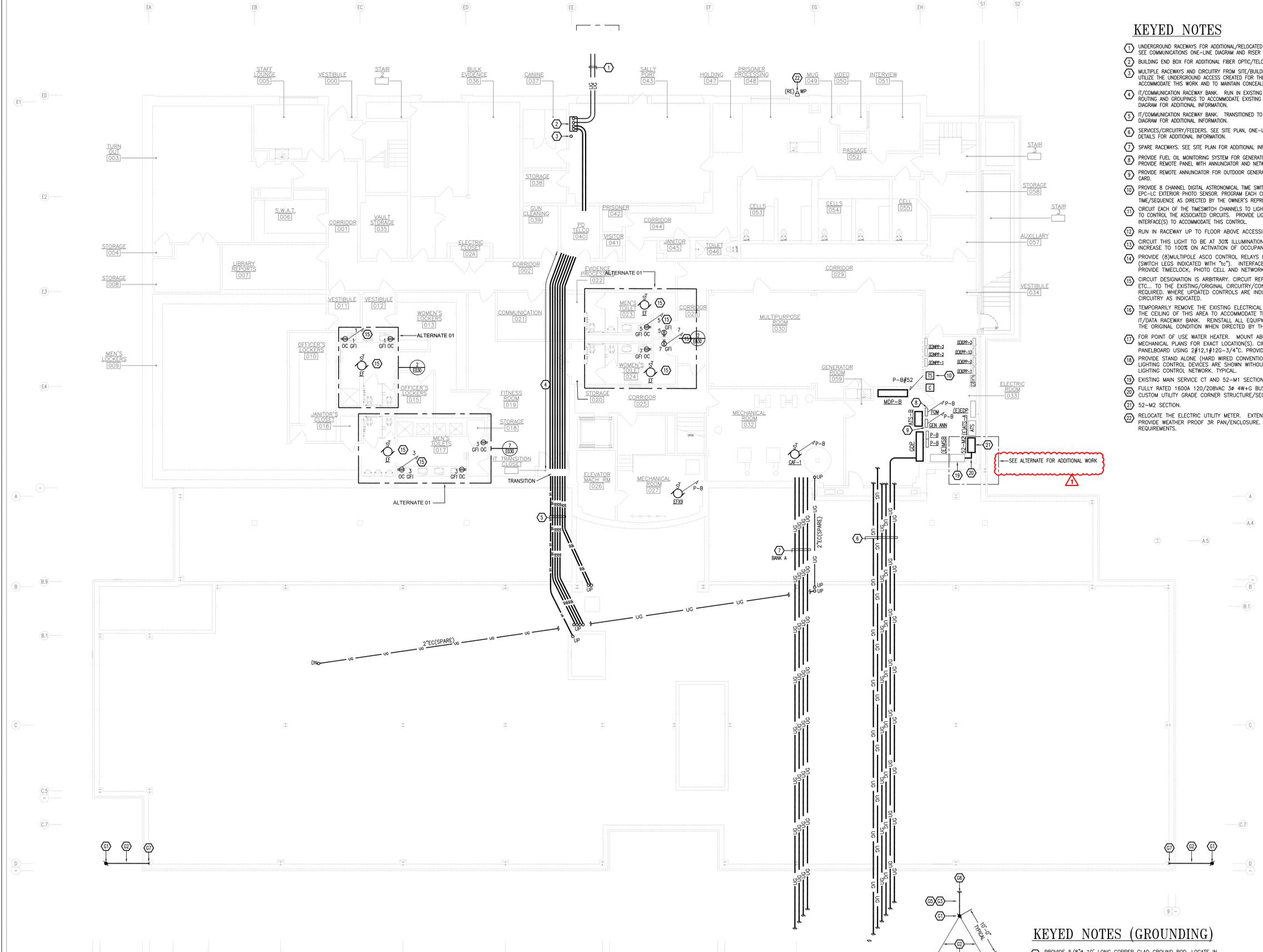
- ## ABBREVIATIONS
- | ABBREVIATION | DESCRIPTION | ABBREVIATION | DESCRIPTION |
|--------------|---|--------------|--------------------------------|
| A | AMPERE | ACT | JUNCTION |
| ACCU | AIR COOLED CONDENSING UNIT ABOVE FINISHED FLOOR | KMIL | THOUSAND CIRCULAR MILS |
| AFB | AMPERE INTERRUPTING CAPACITY | KVA | KILOVOLT-AMPERE |
| AIC | ANNUNCIATOR | KG | KILOGRAM |
| ANN | AMERICAN WIRE GAUGE | LP | LIGHTING PANEL |
| AWG | BREAKER | L(S) | LIGHT(S) |
| BKR | CIRCUIT BREAKER | MCD | MAIN CIRCUIT BREAKER |
| CB | CONTROLLED COLOR TEMPERATURE | MTM | THOUSAND CIRCULAR MILS MINIMUM |
| CC | COLUMN | MLO | MAIN LUGS ONLY MOUNTED |
| DET | DETECTOR | MTR | METER |
| DWG | DRAWING | NEC | NATIONAL ELECTRIC CODE |
| EF | EXHAUST FAN | NO | NORMALLY OPEN |
| ELEC | ELECTRICAL | OC | OVER COUNTER |
| EMER | ELECTRIC MORTISE LOCK | OCPD | OVERCURRENT PROTECTIVE DEVICE |
| EML | ELECTRICAL METALLIC TUBING | P | POLE(S) |
| EMT | ELECTRIC STRIKE RELEASE | PNL | PANEL |
| ESR | EXISTING | PNT | POINT OF ENTRY |
| (E), EX | EXTERIOR | PWR | POWER |
| EXT | FIRE ALARM | (R) | PHASE |
| FA | FIRE ALARM CONTROL PANEL | RP | RECEPTACLE PANEL |
| FACP | FLOOR, FLUORESCENT | RCPP | RECEPTACLE ROOM |
| FL | FURNISHED BY ANOTHER DIVISION. | RM | SCHEDULE |
| FBO | WIRING BY THIS DIVISION | SCH | SURGE PROTECTION DEVICE |
| FIBO | FURNISHED AND INSTALLED BY ANOTHER DIVISION, WIRED BY THIS DIVISION | SPR | SPARE |
| FLA | FULL LOAD AMPERES | STA | STATION |
| FLR, FL | FLOOR, FLUORESCENT | SUSP | SUSPENDED |
| FUT | FUTURE FURNITURE | SW | SWITCH |
| FURN | GROUND | SWSD | SWITCHBOARD |
| G, GND | GROUND | TEL, TELE | TELEPHONE |
| GFF | GAS FIRED FURNACE | TEMP | TEMPORARY |
| GFI | GROUND FAULT CIRCUIT INTERRUPTER | TV | TELEVISION |
| GFP | GROUND FAULT PROTECTIONTYPICAL | UNON | UNLESS OTHERWISE NOTED |
| HP | HORSEPOWER, HEAT PUMP | VF | VERIFY IN FIELD |
| HTR | HOT WATER HEATER | W | WIRE |
| HWH | INTERNATIONAL BUILDING CODE | WH | WATER HEATER |
| IB | JUNCTION BOX | WP | WEATHERPROOF |
| J | JUNCTION BOX | WQ | WEATHER GUARD |
| J-BOX | | XFRM | TRANSFORMER |

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KEYED NOTES

- ① UNDERGROUND RACEWAYS FOR ADDITIONAL/RELOCATED COMMUNICATIONS SERVICES. SEE COMMUNICATIONS ONE-LINE DIAGRAM AND RISER FOR ADDITIONAL INFORMATION.
- ② BUILDING END BOX FOR ADDITIONAL FIBER OPTIC/TELECO SERVICE CABLING.
- ③ MULTIPLE RACEWAYS AND CIRCUITRY FROM SITE/BUILDING EXTERIOR (EAST SIDE). UTILIZE THE UNDERGROUND ACCESS CREATED FOR THE COMMUNICATIONS ENTRY TO ACCOMMODATE THIS WORK AND TO MAINTAIN CONCEALED BUILDING ENTRIES.
- ④ IT/COMMUNICATION RACEWAY BANK. RUN IN EXISTING CEILING CAVITY. MODIFY ROUTING AND GROUPINGS TO ACCOMMODATE EXISTING CONDITIONS. SEE RISER DIAGRAM FOR ADDITIONAL INFORMATION.
- ⑤ IT/COMMUNICATION RACEWAY BANK. TRANSITIONED TO UNDERGROUND. SEE RISER DIAGRAM FOR ADDITIONAL INFORMATION.
- ⑥ SERVICES/CIRCUITRY/FEEDERS. SEE SITE PLAN, ONE-LINE DIAGRAM AND GENERATOR DETAILS FOR ADDITIONAL INFORMATION.
- ⑦ SPARE RACEWAYS. SEE SITE PLAN FOR ADDITIONAL INFORMATION.
- ⑧ PROVIDE FUEL OIL MONITORING SYSTEM FOR GENERATOR BASE MOUNTED FUEL TANK. PROVIDE REMOTE PANEL WITH ANNUNCIATOR AND NETWORK CARD.
- ⑨ PROVIDE REMOTE ANNUNCIATOR FOR OUTDOOR GENERATOR. PROVIDE WITH NETWORK CARD.
- ⑩ PROVIDE 8 CHANNEL DIGITAL ASTRONOMICAL TIME SWITCH. TORX ELC78. PROVIDE EPC-LC EXTERIOR PHOTO SENSOR. PROGRAM EACH CHANNEL FOR CONTROL TIME/SEQUENCE AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
- ⑪ CIRCUIT EACH OF THE TIMESWITCH CHANNELS TO LIGHTING CONTROL DIGITAL INPUTS TO CONTROL THE ASSOCIATED CIRCUITS. PROVIDE LIGHTING CONTROL NETWORK INTERFACE(S) TO ACCOMMODATE THIS CONTROL.
- ⑫ RUN IN RACEWAY UP TO FLOOR ABOVE ACCESSIBLE CEILING CAVITIES.
- ⑬ CIRCUIT THIS LIGHT TO BE AT 30% ILLUMINATION AT ALL TIME AND TO INCREASE TO 100% ON ACTIVATION OF OCCUPANCY SENSOR.
- ⑭ PROVIDE (8)MULTIPOLE ASCO CONTROL RELAYS FOR SITE LIGHTING CONTROL (SWITCH LEGS INDICATED WITH "lc"). INTERFACE WITH DIGITAL CONTROLLER(S). PROVIDE TIMECLOCK, PHOTO CELL AND NETWORK OVERRIDE.
- ⑮ CIRCUIT DESIGNATION IS ARBITRARY. CIRCUIT REPLACEMENT DEVICES, FIXTURE(S) ETC. TO THE EXISTING/ORIGINAL CIRCUITRY/CONTROLS. MODIFY CIRCUITRY AS REQUIRED. WHERE UPDATED CONTROLS ARE INDICATED, PROVIDE CONTROL CIRCUITRY AS INDICATED.
- ⑯ TEMPORARILY REMOVE THE EXISTING ELECTRICAL EQUIPMENT AND DEVICES IN THE CEILING OF THIS AREA TO ACCOMMODATE THE INSTALLATION OF THE IT/DATA RACEWAY BANK. REINSTALL ALL EQUIPMENT AND DEVICES BACK TO THE ORIGINAL CONDITION WHEN DIRECTED BY THE OWNER.
- ⑰ FOR POINT OF USE WATER HEATER. MOUNT ABOVE ACCESSIBLE CEILING. SEE MECHANICAL PLANS FOR EXACT LOCATION(S). CIRCUIT TO THE NEAREST 120VAC PANELBOARD USING 2#12, #12G-3/4"C. PROVIDE 1P-20A OCPD.
- ⑱ PROVIDE STAND ALONE (HARD WIRED CONVENTIONAL) TYPE DEVICES WHERE LIGHTING CONTROL DEVICES ARE SHOWN WITHOUT CONNECTION TO THE LIGHTING CONTROL NETWORK. TYPICAL.
- ⑲ EXISTING MAIN SERVICE CT AND 52-M1 SECTION.
- ⑳ FULLY RATED 1600A 120/208VAC 3Ø 4W+G BUSS TAP 90' ELL. PROVIDE CUSTOM UTILITY GRADE CORNER STRUCTURE/SECTION.
- ㉑ 52-M2 SECTION.
- ㉒ RELOCATE THE ELECTRIC UTILITY METER. EXTEND CIRCUITRY AS REQUIRED. PROVIDE WEATHER PROOF 3R PAN/ENCLOSURE. COMPLY WITH ALL UTILITY REQUIREMENTS.

SEE ALTERNATE FOR ADDITIONAL WORK



one inch = one foot
three eighths inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot
one eighth inch = one foot

② PART BASEMENT LEVEL FLOOR PLAN (POWER)

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



KEYED NOTES (GROUNDING)

- ① PROVIDE 5/8" x 10' LONG COPPER CLAD GROUND ROD, LOCATE IN AREA(S) WITH NORMAL GROUND COVER (EXPOSED TO NORMAL PRECIPITATION). DRIVE INTO EARTH UNTIL TOP OF ROD IS 6" BELOW THE FINISHED GRADE.
- ② #2AWG BARE TINNED COPPER CONDUCTOR, MINIMUM 3/8" BELOW GRADE IN DIRECT CONTACT WITH EARTH. BOND TO ROD(S) USING CADWELD CONNECTION(S) BELOW THE FROST LINE TO PREVENT DAMAGE FROM HEAVING.
- ③ BONDING ELECTRODE CONDUCTOR. BOND TO ROD USING CADWELD CONNECTION. SEE ONE-LINE FOR ADDITIONAL INFORMATION.
- ④ LOCATION OF WATER SERVICE ENTRANCE. BOND BONDING ELECTRODE CONDUCTOR. SEE ONE-LINE FOR ADDITIONAL INFORMATION.
- ⑤ BONDING ELECTRODE CONDUCTOR. RUN BELOW SLAB/GRADE IN FIBERGLASS RACEWAY. SEE ONE-LINE FOR ADDITIONAL INFORMATION.
- ⑥ RUN TO MAIN ELECTRICAL GROUND/BOND POINT UNDER GROUND/SLAB IN FIBERGLASS RACEWAY.
- ⑦ TURN UP THROUGH SLAB (IN FIBERGLASS RACEWAY FOR IN SLAB PORTION), CADWELD TO BASE OF BUILDING STEEL.

1	1/21/2022	ADDENDUM NO 7
1	11/9/2021	RELEASE FOR BID

ISSUE NO.	ISSUE DATE	DESCRIPTION
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**ORANGETOWN
TOWN HALL**
ADDITION AND ALTERATIONS
26 ORANGEBURG RD
ORANGEBURG, NEW YORK 10962

ELECTRICAL BASEMENT LEVEL FLOOR PLAN (POWER)

PROJECT NO.: 2219-05

DRAWING NO.:

E-202

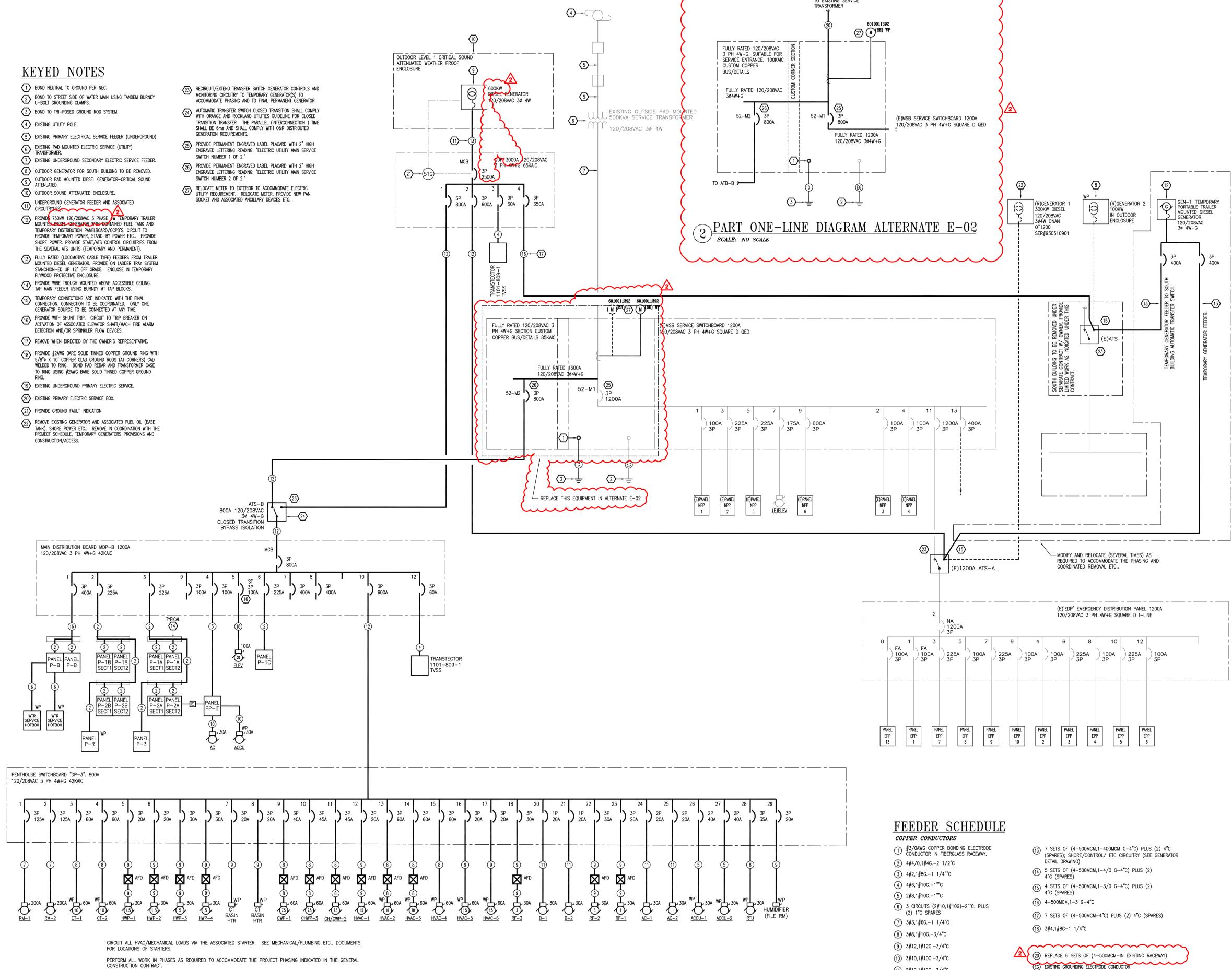
KEYED NOTES

- 1 BOND NEUTRAL TO GROUND PER NEC.
- 2 BOND TO STREET SIDE OF WATER MAIN USING TANDEM BURNDY U-BOLT GROUNDING CLAMPS.
- 3 BOND TO TRI-POSED GROUND ROD SYSTEM.
- 4 EXISTING UTILITY POLE.
- 5 EXISTING PRIMARY ELECTRICAL SERVICE FEEDER (UNDERGROUND).
- 6 EXISTING PAD MOUNTED ELECTRIC SERVICE (UTILITY) TRANSFORMER.
- 7 EXISTING UNDERGROUND SECONDARY ELECTRIC SERVICE FEEDER.
- 8 OUTDOOR GENERATOR FOR SOUTH BUILDING TO BE REMOVED.
- 9 OUTDOOR PAD MOUNTED DIESEL GENERATOR—CRITICAL SOUND ATTENUATED.
- 10 OUTDOOR SOUND ATTENUATED ENCLOSURE.
- 11 UNDERGROUND GENERATOR FEEDER AND ASSOCIATED CIRCUITS.
- 12 PROVIDE 750KW 120/208VAC 3 PHASE 4W+G TEMPORARY TRAILER MOUNTED DIESEL GENERATOR, FUEL TANK AND TEMPORARY DISTRIBUTION PANELBOARD/CPDS. CIRCUIT TO PROVIDE TEMPORARY POWER, STAND-BY POWER ETC.. PROVIDE SHORE POWER. PROVIDE START/ATS CONTROL CIRCUITS FROM THE SEVERAL ATS UNITS (TEMPORARY AND PERMANENT).
- 13 FULLY RATED (LOCOMOTIVE CABLE TYPE) FEEDERS FROM TRAILER MOUNTED DIESEL GENERATOR. PROVIDE ON LADDER TRAY SYSTEM STANCHION—ED UP 12" OFF GRADE. ENCLOSE IN TEMPORARY PLUMBED PROTECTIVE ENCLOSURE.
- 14 PROVIDE WIRE TROUGH MOUNTED ABOVE ACCESSIBLE CEILING. TAP MAIN FEEDER USING BURNDY MT TAP BLOCKS.
- 15 TEMPORARY CONNECTIONS ARE INDICATED WITH THE FINAL CONNECTION CONNECTION TO BE COORDINATED. ONLY ONE GENERATOR SOURCE TO BE CONNECTED AT ANY TIME.
- 16 PROVIDE WITH SHUNT TRIP CIRCUIT TO TRIP BREAKER ON ACTIVATION OF ASSOCIATED ELEVATOR SHUNT/MACH FIRE ALARM DETECTION AND/OR SPRINKLER FLOW DEVICES.
- 17 REMOVE WHEN DIRECTED BY THE OWNER'S REPRESENTATIVE.
- 18 PROVIDE #2AWG BARE SOLID TINNED COPPER GROUND RING WITH 5/8" X 10' COPPER CLAD GROUND RODS (AT CORNERS) CAD WELDED TO RING. BOND PAD REBAR AND TRANSFORMER CASE TO RING USING #2AWG BARE SOLID TINNED COPPER GROUND RING.
- 19 EXISTING UNDERGROUND PRIMARY ELECTRIC SERVICE.
- 20 EXISTING PRIMARY ELECTRIC SERVICE BOX.
- 21 PROVIDE GROUND FAULT INDICATION.
- 22 REMOVE EXISTING GENERATOR AND ASSOCIATED FUEL OIL (BASE TANK), SHORE POWER ETC.. REMOVE IN COORDINATION WITH THE PROJECT SCHEDULE, TEMPORARY GENERATORS PROVISIONS AND CONSTRUCTION/ACCESS.
- 23 RELOCATE/EXTEND TRANSFER SWITCH GENERATOR CONTROLS AND MONITORING CIRCUITRY TO TEMPORARY GENERATOR(S) TO ACCOMMODATE PHASING AND TO FINAL PERMANENT GENERATOR.
- 24 AUTOMATIC TRANSFER SWITCH CLOSED TRANSITION SHALL COMPLY WITH ORANGE AND ROCKLAND UTILITIES GUIDELINE FOR CLOSED TRANSITION TRANSFER. THE PARALLEL INTERCONNECTION TIME SHALL BE 6ms AND SHALL COMPLY WITH O&R DISTRIBUTED GENERATION REQUIREMENTS.
- 25 PROVIDE PERMANENT ENGRAVED LABEL PLACARD WITH 2" HIGH ENGRAVED LETTERING READING: "ELECTRIC UTILITY MAIN SERVICE SWITCH NUMBER 1 OF 2."
- 26 PROVIDE PERMANENT ENGRAVED LABEL PLACARD WITH 2" HIGH ENGRAVED LETTERING READING: "ELECTRIC UTILITY MAIN SERVICE SWITCH NUMBER 2 OF 2."
- 27 RELOCATE METER TO EXTERIOR TO ACCOMMODATE ELECTRIC UTILITY REQUIREMENT. RELOCATE METER. PROVIDE NEW PAN SOCKET AND ASSOCIATED ANCILLARY DEVICES ETC..

one inch = one foot
 three quarters inch = one foot
 one half inch = one foot
 three eighths inch = one foot
 one quarter inch = one foot
 one eighth inch = one foot

2 PART ONE-LINE DIAGRAM ALTERNATE E-02

SCALE: NO SCALE



FEEDER SCHEDULE

- COPPER CONDUCTORS**
- 1 #3/0AWG COPPER BONDING ELECTRODE CONDUCTOR IN FIBERGLASS RACEWAY.
 - 2 #4/0,1#4G-2 1/2" C
 - 3 #2,1#8G-1 1/4" C
 - 4 #6,1#10G-1" C
 - 5 4 SETS OF (4-500MCM,1-3/0 G-4" C) PLUS (2) 4" C (SPARES)
 - 6 3 CIRCUITS (2#10,1#10G)-2" C. PLUS (2) 1" C SPARES
 - 7 #3,1#6G-1 1/4" C
 - 8 #8,1#10G-3/4" C
 - 9 #12,1#12G-3/4" C
 - 10 #10,1#10G-3/4" C
 - 11 #12,1#12G-3/4" C
 - 12 2 SETS (4-600MCM,1#1/0G-4" C)
 - 13 7 SETS OF (4-500MCM,1-4/0 G-4" C) PLUS (2) 4" C (SPARES), SHORE/CONTROL, ETC CIRCUITRY (SEE GENERATOR DETAIL DRAWING)
 - 14 5 SETS OF (4-500MCM,1-4/0 G-4" C) PLUS (2) 4" C (SPARES)
 - 15 4 SETS OF (4-500MCM,1-3/0 G-4" C) PLUS (2) 4" C (SPARES)
 - 16 4-500MCM,1-3 G-4" C
 - 17 7 SETS OF (4-500MCM-4" C) PLUS (2) 4" C (SPARES)
 - 18 #4,1#8G-1 1/4" C
 - 19 REPLACE 6 SETS OF (4-500MCM-IN EXISTING RACEWAY)
 - 20 EXISTING GROUNDING ELECTRODE CONDUCTOR
 - 21 #3/0 AWG COPPER GROUNDING ELECTRODE CONDUCTOR IN 1 1/4" FIBERGLASS RACEWAY

1 ELECTRICAL ONE-LINE DIAGRAM

SCALE: NO SCALE

CIRCUIT ALL HVAC/MECHANICAL LOADS VIA THE ASSOCIATED STARTER. SEE MECHANICAL/PLUMBING ETC., DOCUMENTS FOR LOCATIONS OF STARTERS.
PERFORM ALL WORK IN PHASES AS REQUIRED TO ACCOMMODATE THE PROJECT PHASING INDICATED IN THE GENERAL CONSTRUCTION CONTRACT.

ISSUE NO.	ISSUE DATE	DESCRIPTION
	1/21/2022	ADDENDUM NO 7
	12/3/2021	ADDENDUM NO 1
1	11/9/2021	RELEASE FOR BID



ORANGETOWN TOWN HALL
ADDITION AND ALTERATIONS
26 ORANGEBURG RD
ORANGEBURG, NEW YORK 10962

ELECTRICAL ONE-LINE DIAGRAM

PROJECT NO.: 2219-05
DRAWING NO.:

