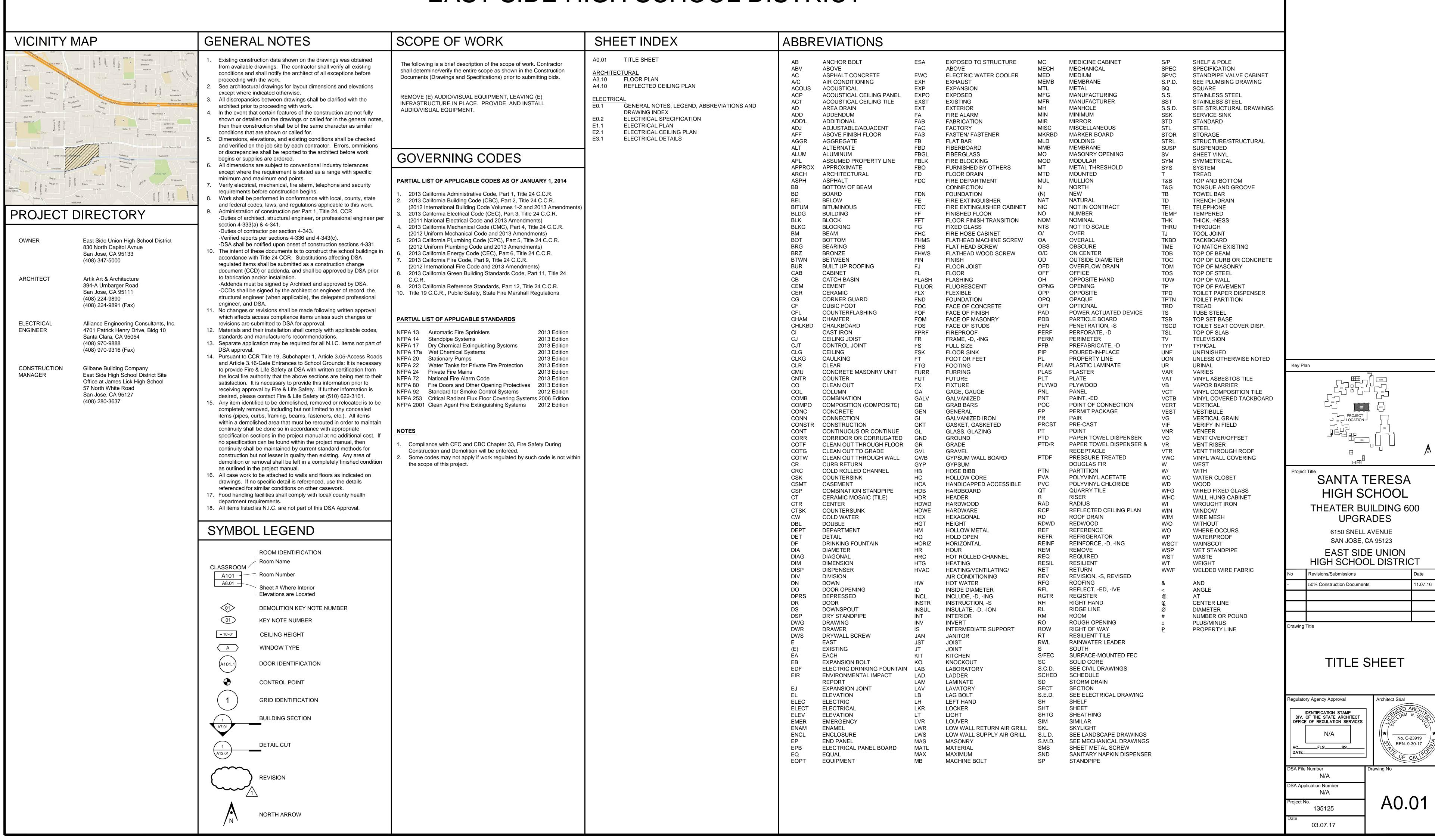
# SANTA TERESA HIGH SCHOOL THEATER BUILDING 600 UPGRADES

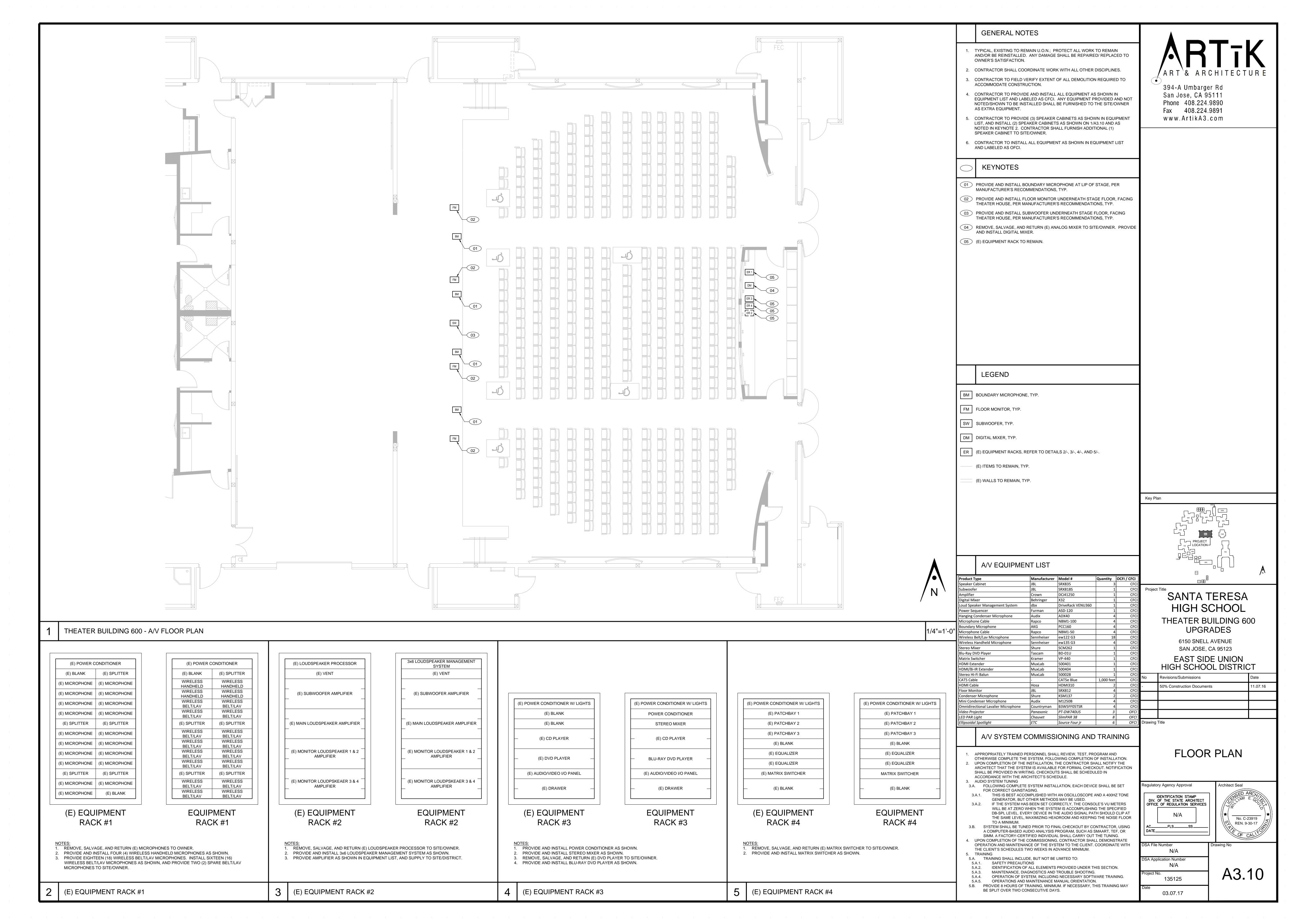
1650 SNELL AVENUE SAN JOSE, CA 95123

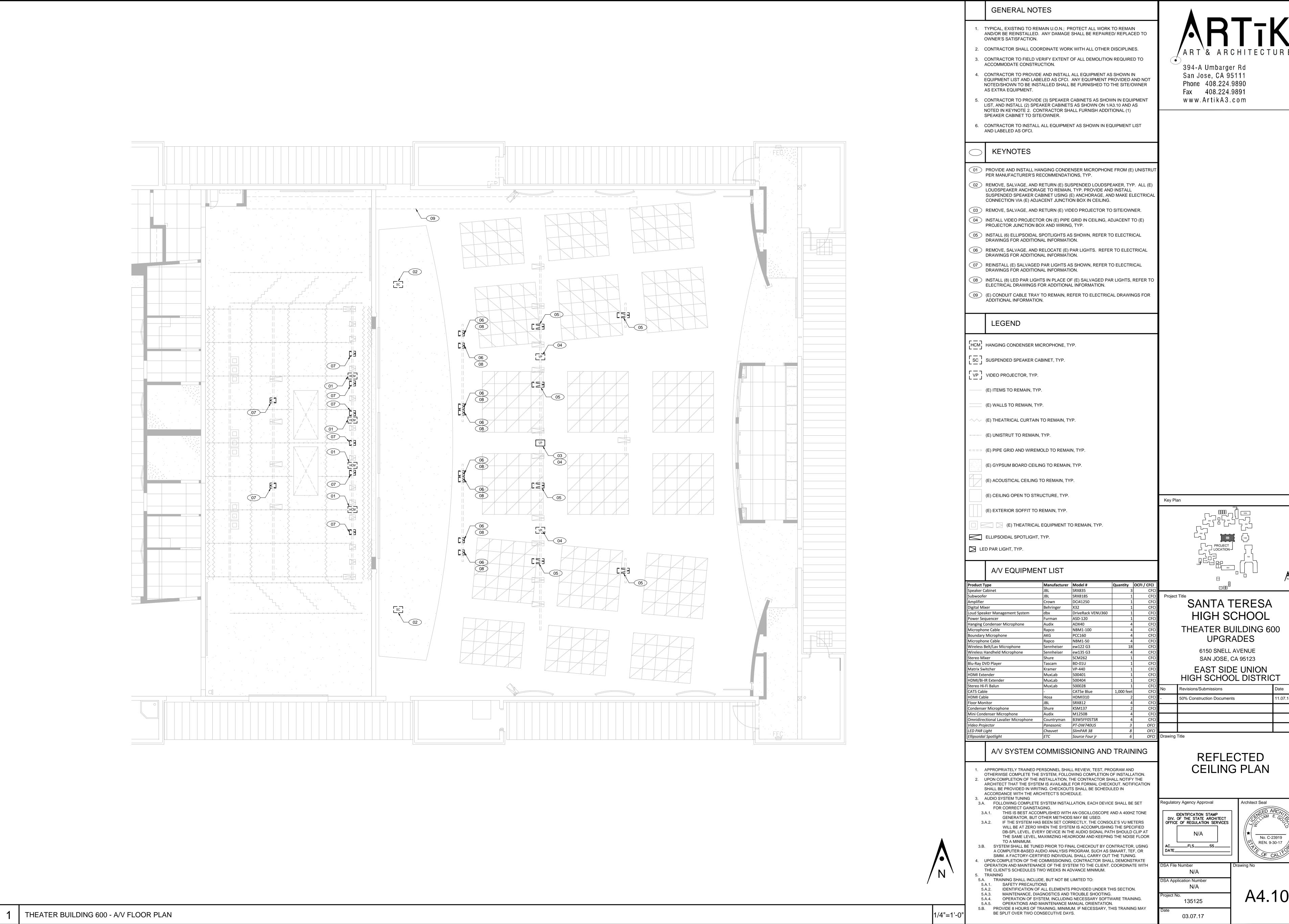
# EAST SIDE HIGH SCHOOL DISTRICT





394-A Umbarger Rd San Jose, CA 95111 Phone 408.224.9890 Fax 408.224.9891 www.ArtikA3.com





38. RECEPTACLES VERTICALLY INSTALLED SHALL HAVE THE "U" GROUND UP AND HORIZONTALLY

INSTALLED SHALL HAVE THE NEUTRAL ON TOP.

39. ALL WIRES SHALL BE IN CONDUIT.

DSA Application Number

135125 11.07.16

## 1.01 SCOPE

- A. The scope of work shall include all labor, materials, equipment and services necessary for the complete installation of all electrical work as herein specified and as shown on the Drawings, including, but not limited to the following:
  - 1. Power circuits to all equipment and devices.
- 2. Wiring devices, necessary conduit, wiring and interconnections
- 3. All necessary cutting, patching, trenching and backfilling.
  4. Painting, labeling and equipment identification as specified.
- 5. Test the complete work. Correct any deficiencies to the satisfaction of the Owner or his designated representative.

#### 1.02 PRODUCT HANDLING

- A. Contractor shall be responsible for delivery, storage, protection and placing of all equipment and materials.
- B. Protection: Contractor shall protect from damage during construction, work and materials of other trades as well as electrical work and material. Electrical equipment stored and installed on job site shall be protected from dust, water, or any other damage.

#### 1.03 RULES AND REGULATIONS

- A. All work and materials shall be in full accordance with regulations of the California Administrative Code, Title 24, State Building Standards, National Electrical Code, Local City and County Code, applicable regulations of local utility companies, and any other applicable
- laws or regulations.

  B. Nothing in these specifications is to be construed to permit work not
- conforming to the above codes.

  C. Drawings and/or specifications shall take precedence when work and material called for exceed code requirements.

#### 1.04 DRAWINGS AND SPECIFICATIONS

- A. Any error or omissions of detail in either Drawings or Electrical Specifications shall not relieve Contractor from correctly installing all materials necessary
- for complete and operating electrical systems.

  B. Locate and install all equipment so that it will be readily accessible for operation and maintenance.

# 1.05 MATERIAL AND EQUIPMENT

- A. Unless otherwise noted, all material and equipment shall be new, of the type, capacity and quality specified and free from defects. Material shall bear the label of, or be listed by the Underwriter's Laboratories unless of
- a type for which label or listing service is not provided.

  B. Materials shall be of the same brand or manufacturer throughout for each class of material or equipment wherever possible.

# 1.06 SUBMITTALS

- A. Forward all submittals in related groups. Individual or incomplete submittals are not acceptable. Submit six copies of shop drawings for the following items:
- Conduits and wires
   Wiring devices.

# 07 SITE EXAMINATION

A. Examine the site and premises prior to bidding to determine the conditions under which the work is to be performed. No allowances will be made for extra expenses incurred due to failure to examine the premises or to discover site conditions which affect the work.

# 1.08 WORKMANSHIP

- A. Good workmanship shall be evidenced in the installation of all electrical materials and equipment. Equipment shall be level, plumb and true with the structure and other equipment. All materials shall be firmly secured in place and adequately supported and permanent. The requirements of the codes are minimum standards.
- B. Work covered or concealed before being inspected and approved shall be opened and uncovered upon request without any cost to the Owner and/or the Architect.

# 1.09 MANUFACTURER'S DIRECTIONS

A. Follow manufacturer's directions where these directions cover points not included on the Drawings or in the Specifications.

#### 1.10 DEMOLITION

A. Provide as required to accommodate new work called for and as noted. Work shall be done carefully to avoid damage to surfaces not being replaced.

#### 1.11 SERVICE INTERRUPTIONS

A. The facility shall remain in operation during the period of construction. Interruption of power service, if required, shall be done on weekends or nightshift hours with no added expense to the Owner. Any interruptions must be scheduled in writing with the Owner, forty—eight (48) hours in advance and must meet with their approval.

#### 1.12 AS- BUILT DRAWINGS

A. The Contractor shall furnish one set of clean "AS—BUILT" marked blue line prints to the Owner at completion of the project showing all work including the circuiting.

#### 1.13 GUARANTEI

A. The Contractor shall guarantee that all work executed under this Section will be free from defects of materials and workmanship for a period of one year from the date of final acceptance of this work and further guarantee that he will, at his own expense, repair and replace all such defective work, and all other work damaged thereby, which becomes defective during the term of the guarantee.

#### PART 2 PRODUCTS

#### 2.01 MATERIALS

- A. Unless otherwise noted, all material and equipment shall be new, of the type, capacity and quality specified and free from defects. Material shall bear the label of, or be listed by, the Underwriter's Laboratories unless of a type for which label of listing service is not provided.
- B. Materials shall be of the same brand or manufacturer throughout for each class of material or equipment wherever possible.
  C. Equipment shall be the product of a manufacturer who has, for a period of not
- C. Equipment shall be the product of a manufacturer who has, for a period of not less than five (5) years, been in successful manufacture of the equipment and who has a nationally distributed catalog covering ratings and specifications of said equipment.

# 2.02 RACEWAY

- A. All conduits installed indoors shall be electrical metallic tubing (EMT) with compression type fittings. Conduits exposed outdoors shall be rigid steel. Raceway exposed or other finished areas shall be Wiremold or equal. Underground conduit shall be schedule 40 PVC.
- B. Conduits shall be 3/4 inch minimum in size.

# 2.03 CONDUCTORS

A. All conductors shall be in conduit. Minimum size shall be #12 AWG. B. Color code all branch circuits and feeders as follows:

120/208 Volts		277/480 Volts	
Phase A	Black	Phase A	Brown
Phase B Phase C	Red Blue	Phase B Phase C	Orange Yellow
Neutral	White	Neutral	Gray
Ground	Green	Ground	Green

- C. Conductors in sizes up through #10 AWG shall have solid color finish as listed
- D. Color coding shall be continuous and consistent throughout the work.
- E. All insulation shall be 600V minimum type THHN/THWN. F. Conductors shall be copper, 98% conductivity.
- G. All conductors shall be identified and tagged at all electrical panels, pullboxes, devices and termination points with Partex PA sleeve type markers.
- H. Splices: For conductors #10 and smaller, pre—insulated type connectors, 3M Scotchloks, T & B Piggys or equal, nylon self—insulated type. Splices #8 and larger use compression type connector, insulated with Scotchtape No. 88. Wire splicing devices shall be sized according to manufacturer's recommendations.

  I. Cable Ties: For wire training and clamping in cabinets and enclosures use nylon
- cable ties.

  J. Swab conduits before installing cables, and exercise care in pulling to avoid damage or disarrangement of conductors, use approved grips.

# 2.04 BOXES

A. Shall be of size and shape best suited for particular application, properly code sized for number of wires and conduits passing through or terminating therein. Support boxes directly to structural members, framing or blocking by means of screws, anchors or bolts.

#### 5 MOTOR DISCONNECT SWITCH

- A. Motor disconnect switch shall be heavy duty type HD, fused, fully enclosed, Nema 1 for indoor installation and Nema 3R for outdoor installation . The fused disconnect switch shall be provided with resection clips and fuses rated as required by the manufacturer of the equipment that is to disconnect.
- B. Switch shall be provided with a cover interlock to prevent opening of the switch door when switch is in the "on" position, means of defeating the interlock mechanism shall be provided to allow authorized personnel to access the switch interior with the switch in the on position.

## 2.06 SUPPORT SYSTEMS

- A. As manufactured by Unistrut, Kindorf or Power strut.
- B. Clamp, one hole malleable iron.

#### 2.07 GROUNDING SYSTEMS

A. Acceptable device manufacturer's: Burndy, O.Z., Appleton and "Erico" Caldwell. B. Install ground wire in all feeder and branch circuit conduits.

# PART 3 EXECUTION

#### 3.01 COORDINATION

A. Coordinate work with that of all contractors on the job for an efficient and effective completion of the project. Refer to the contract documents of other trades for construction details.

# 3.02 WORKING SPACE

A. Adequate working space shall be provided around electrical equipment in strict compliance with the N.E.C. and Electrical Safety Orders.

#### 3.03 GROUNDING

- A. Permanently and effectively ground all services, raceway systems, supports, and utilization apparatus. Obtain good contact between conduit, tubing and fittings, cabinets, outlet boxes, and equipment.
- B. Provide grounding conductor inside all conduits.

# 3.04 RACEWAY INSTALLATION

A. Exposed raceways shall run parallel or at right angles to wall or ceiling.

B. Paint all exposed conduits, Wiremold and boxes to match existing architectural finishes

# 3.05 MOTOR DISCONNECT SWITCH INSTALLATION

- A. Motor disconnect switch shall be installed near the motor that is disconnect.
- A. Motor disconnect switch shall be installed hear the motor that is disconn

  B. Disconnect switch shall be mounted on building wall or on steel channel
- structures as required for each particular equipment.
- C. Provide nameplate indicating panel and circuit designation. Nameplate shall be phenolic, black face with white core.
- D. Fuses for motors shall be dual element time delay type.

# 3.06 WIRING, EMERGENCY SYSTEM

- A. Wiring from an emergency source or emergency source distribution overcurrent protection to emergency loads shall be kept entirely independent of all other wiring and equipment.
- B. Identification of all boxes and enclosures for emergency circuits shall be permanently marked so they will be readily identified as a component of emergency circuit or system.

# 3.07 TEST

A. Test all wiring and connections for continuity and grounds before the equipment are connected and where such tests indicate faulty insulation or other defects, they shall be located, repaired and tested again. Electrical loads shall be balanced at the panelboard.



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Key Plan

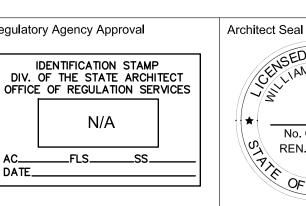
SANTA TERESA
HIGH SCHOOL
THEATER BUILDING 600

UPGRADES 6150 SNELL AVENUE SAN JOSE, CA 95123

EAST SIDE UNION HIGH SCHOOL DISTRICT

No	Revisions/Submissions	Date
-	50% Construction Documents	11.07.16

ELECTRICAL SPECIFICATION



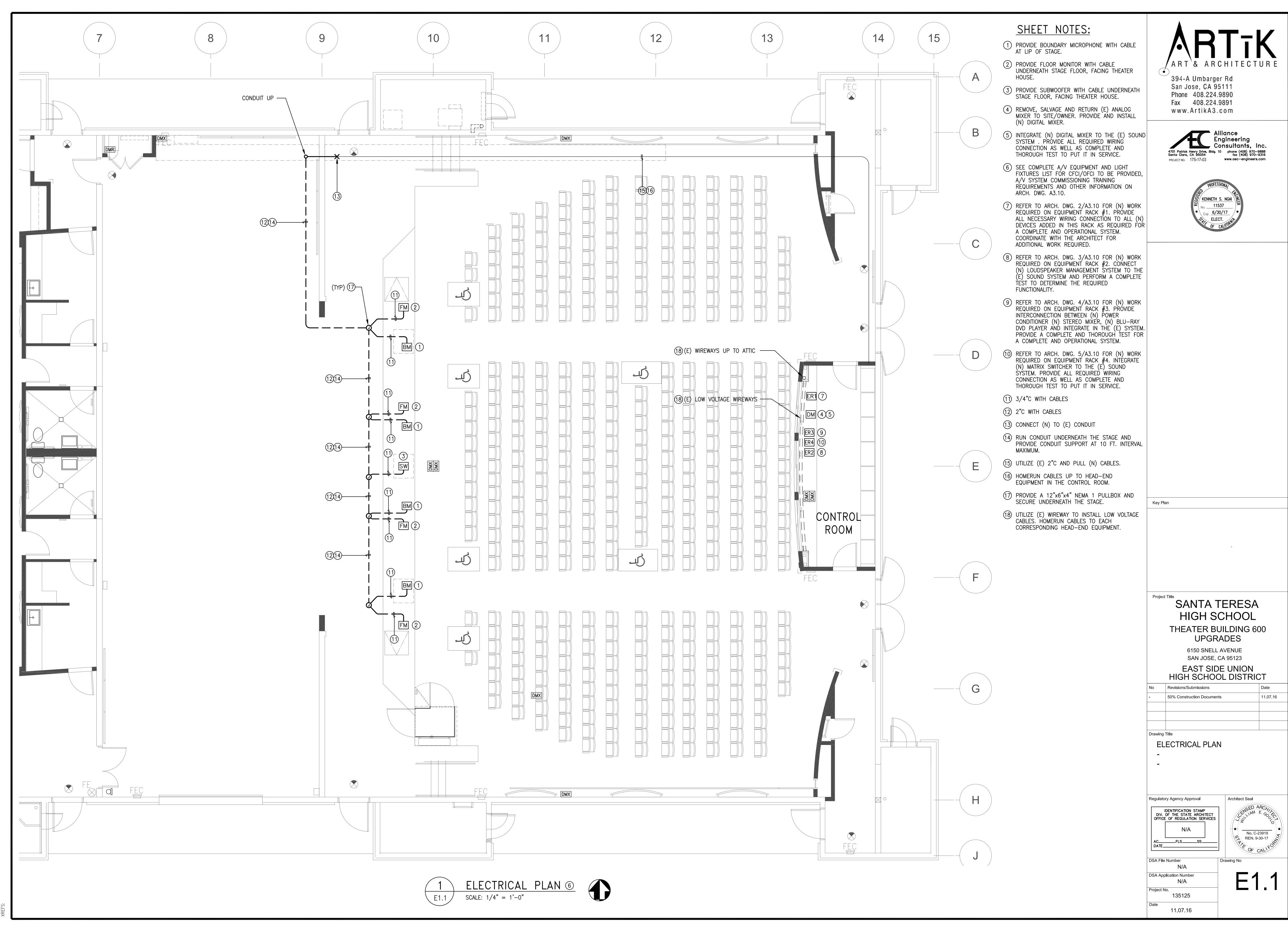
No. C-23919 REN. 9-30-17

DSA File Number N/A

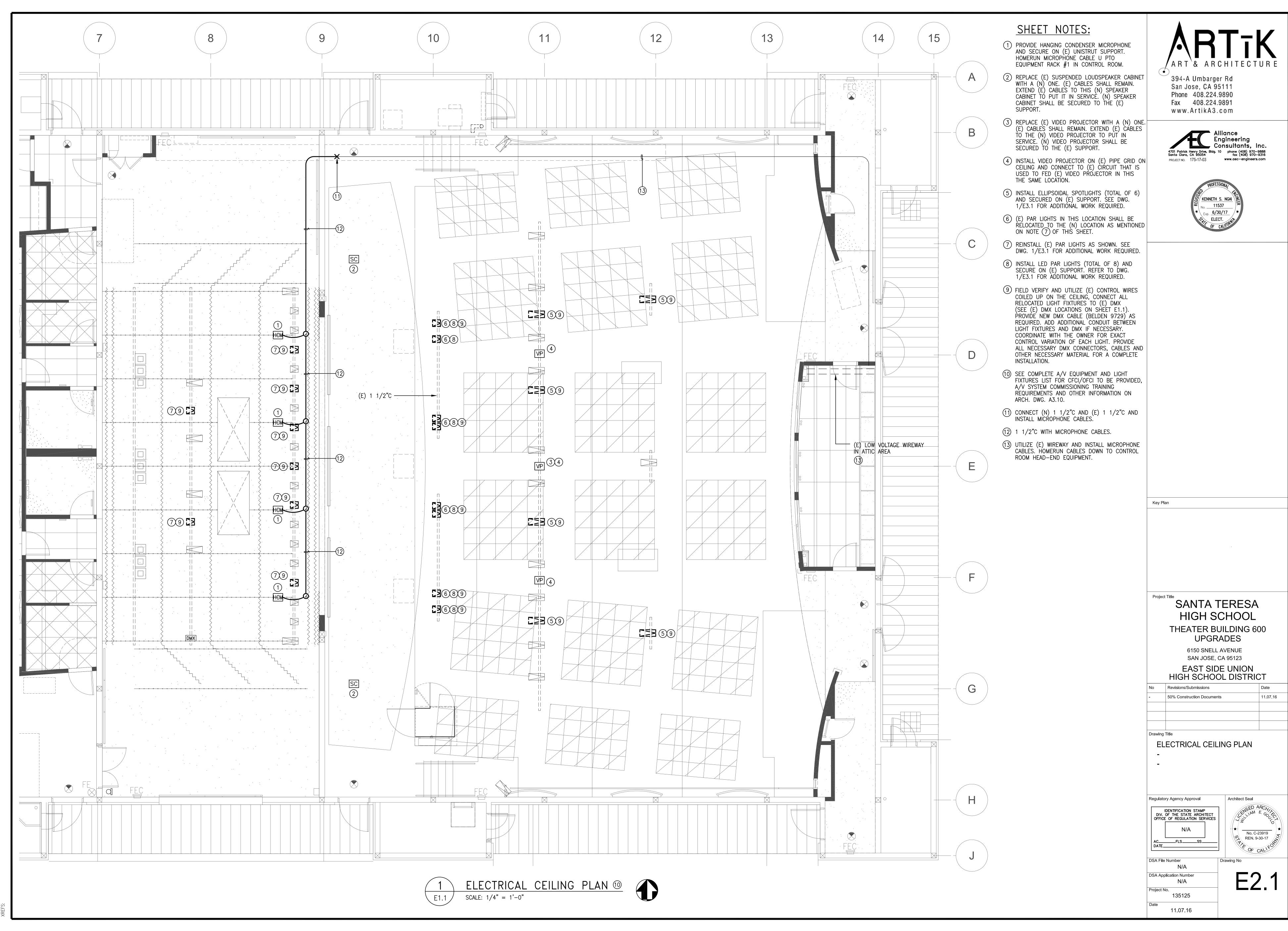
DSA Application Number
N/A

Project No.
135125

11.07.16



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1. ALL ELECTRICAL EQUIPMENTS ARE EXISTING TO REMAIN, UNLESS OTHERWISE NOTED.

**SHEET NOTES:** 

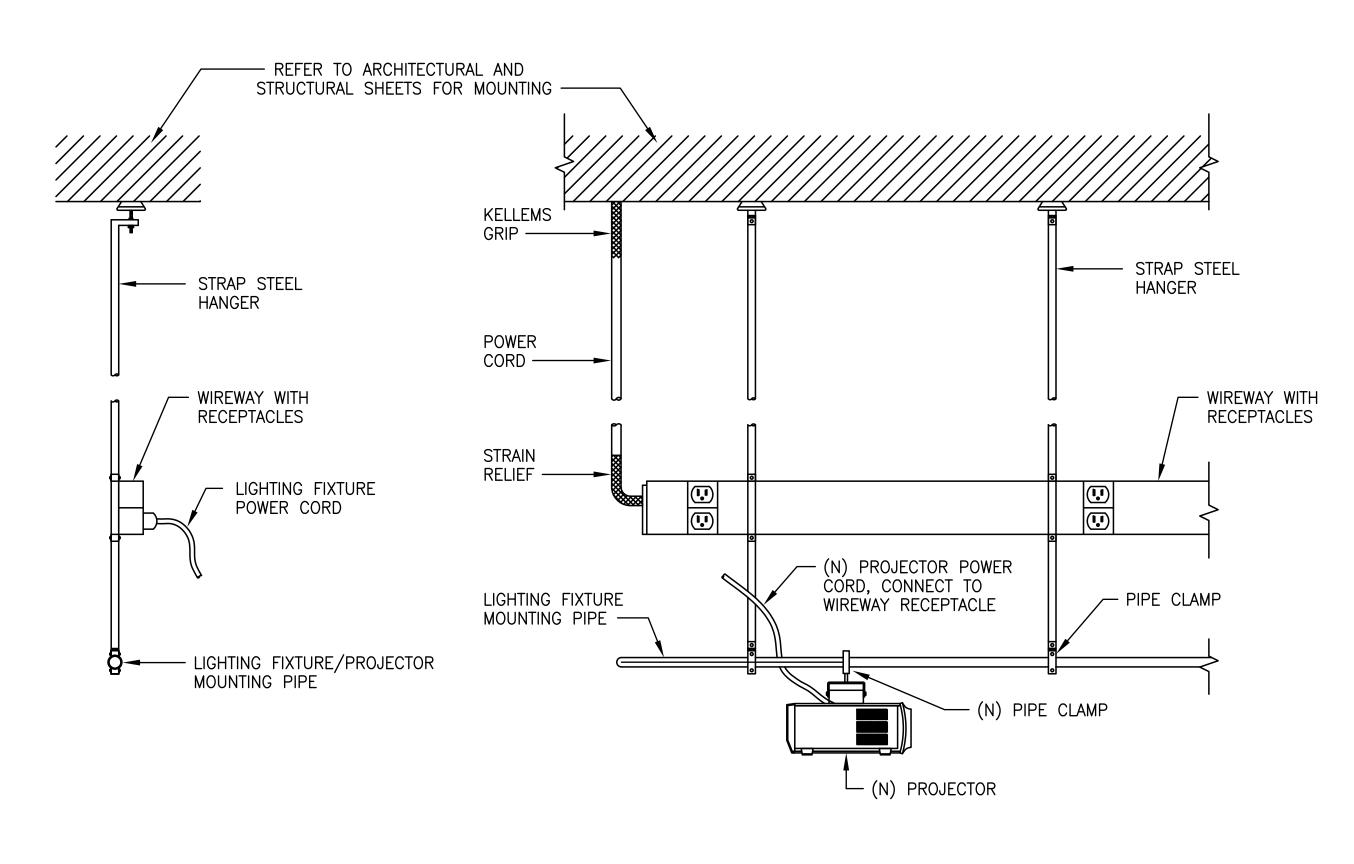
1) SEE NOTE 9 ON SHEET E2.1 FOR WORK REQUIRED.

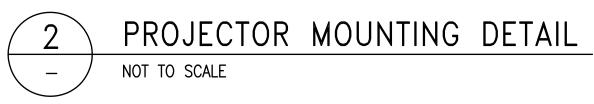


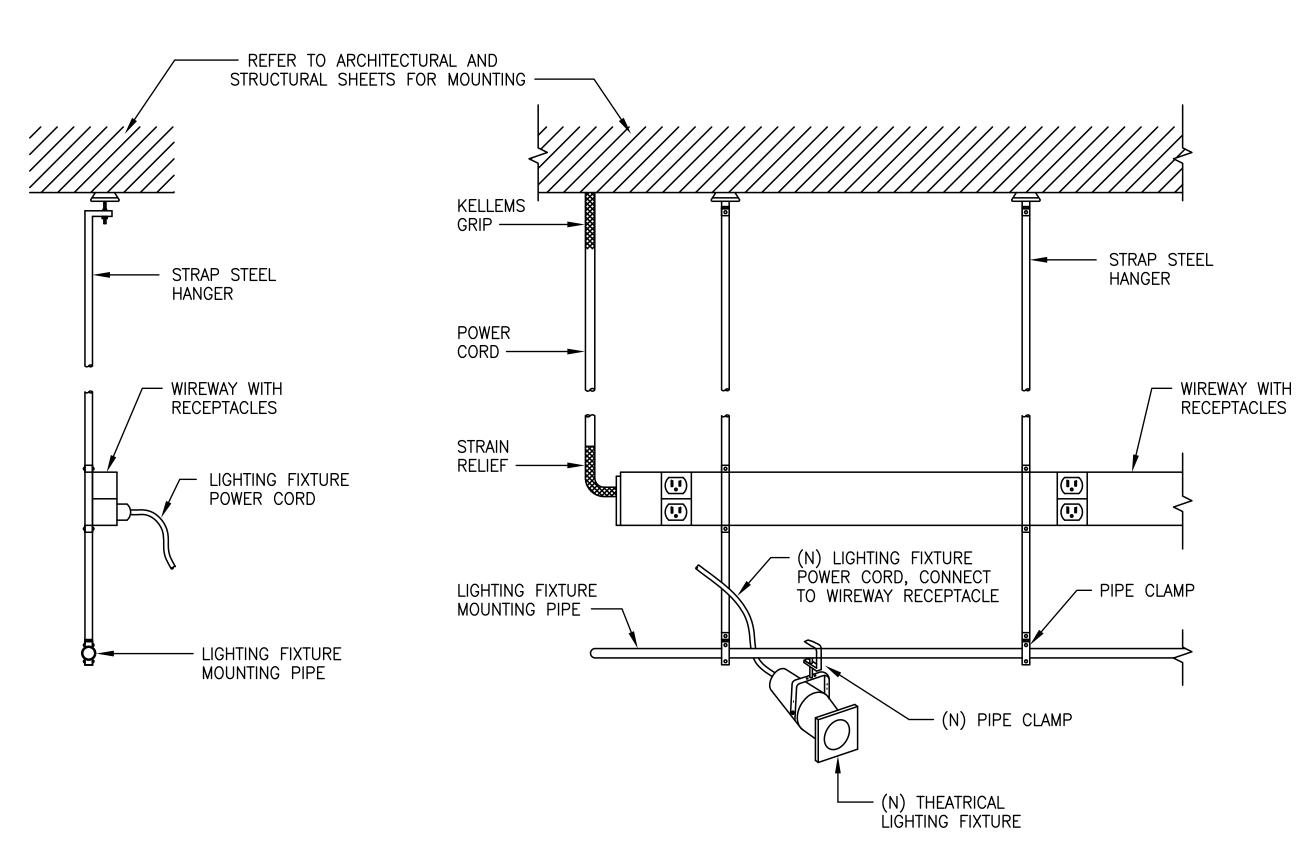
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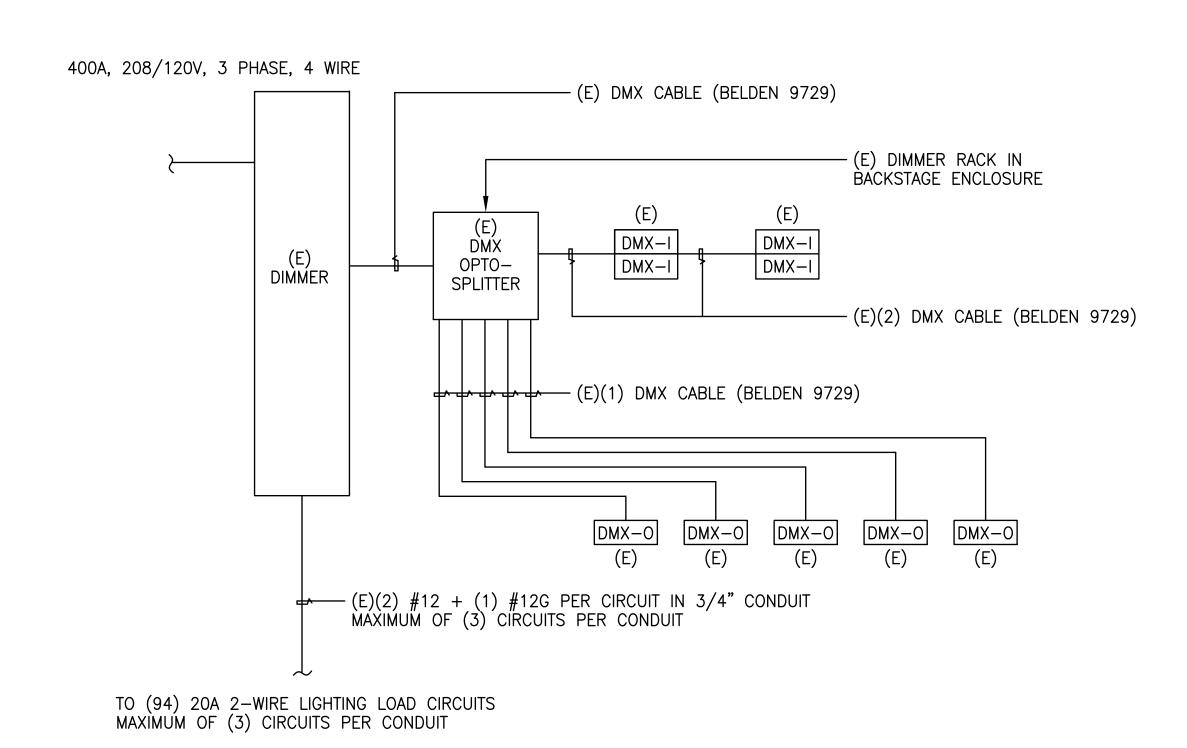




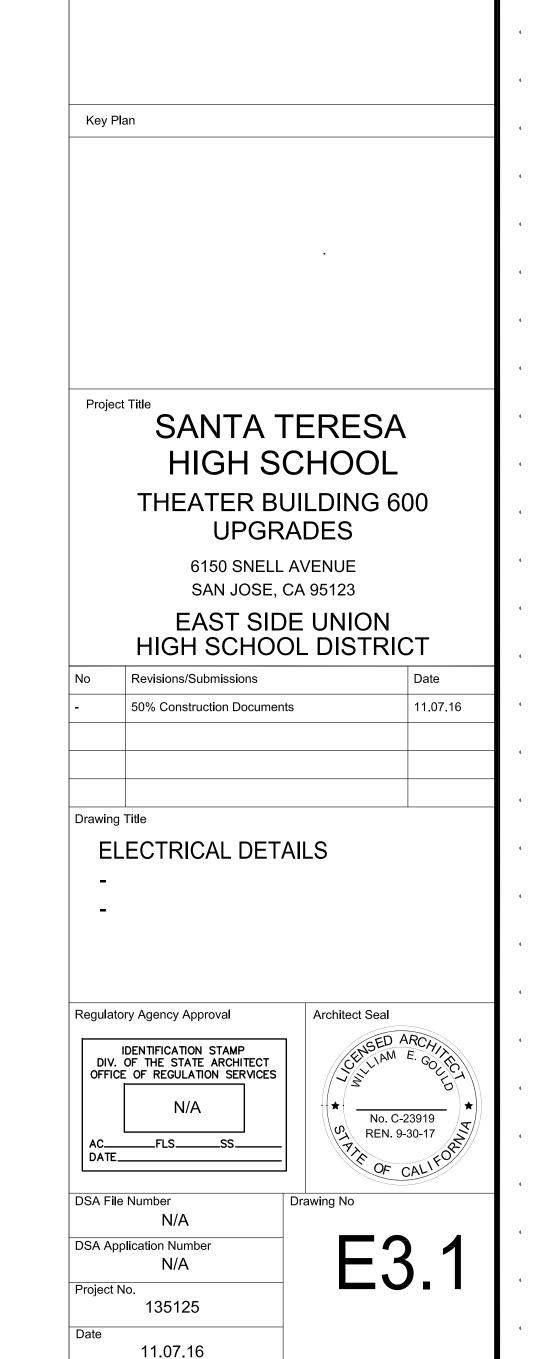












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