KEYNOTES

D1. SAWCUT AS NEEDED/SHOWN TO REMOVE (E) CONCRETE SLAB, WALLS (NON-BEARING), FLOOR DRAINS, FLOOR SINKS AND ALL UNDERSLAB PLUMBING UP TO POINT OF CONNECTION. SEE ALSO PLUMBING DRWGS. 

D2. REMOVE ALL EXISTING WALLS, GYP BOARD CEILING TO EXPOSED FRAMING.

D3. REMOVE ALL DOOR ASSEMBLIES, WINDOW SYSTEM AND OVERHEAD COILING DOORS

D4. REMOVE (E) AC PARKING FOR NEW CONCRETE SIDEWALK.

D5. REMOVE (E) AC PAVEMENT FOR NEW GREASE TRAP SEE PLUMBING & FOOD SERVICES DRWGS.

D6. REMOVE (E) POWER PANEL. SEE ELECTRICAL DRAWINGS

* CONTRACTOR'S OPTION TO REMOVE (E) CONC SLAB AS NECESSARY TO INSTALL ALL NEW UNDERSLAB PLUMBING OR REMOVE/REPLACE ENTIRE SLAB.

D7. AREA OF (N) DEPRESSED SLAB

E1. (E) COVERED WALKWAY COLUMNS TO REMAIN.

E2. (E) WF COLUMNS TO REMAIN.

E3. (E) 3'-0" x 3'-0" x 20" D COLUMN FOOTING TO REMAIN.

E4. (E) 6" PRECAST CONCRETE PANELS TO REMAIN.

E5. (E) RWL TO REMAIN.

LEGEND

EXTENT OF NEW UNDERSLAB PLUMBING SHOWN FOR REFERENCE / DEMO SCOPE. SEE ALSO PLUMBING PLAN DWG. 1/ P2.2
GENERAL NOTES

1. SINGLE-PLY ROOFING OVER 1" RIGID INSULATION - PROTECT. LESS THAN 5% OF ENTIRE ROOF TO BE PATCHED OR REPLACED.
2. COPPER FACIA - PAINT.
3. CAP OVER PRECAST CONCRETE PANELS - PAINT.
4. ROOF FRAMING & WALLS SHOWN DASHED.
5. ROOF TOP MECHANICAL EQUIPMENT SHOWN.
6. CRS-4 REFRIGERATION RACK ON ROOF PLATFORM.
7. ROOF ACCESS LADDER.
8. ROOF FRAMING & WALLS SHOWN DASHED.
9. 4x6 (KILN DRIED) w/ HU46 @ EACH END
10. 4x8 (KILN DRIED) w/ HU48 @ EACH END

NOTES:

SEE ROOF PLAN A1.51 FOR ALL ROOF TOP UNITS
SEE REFLECTED CEILING PLAN A4.10 FOR DATA NOT SHOWN.
KEYNOTES

1. (E) GM COPING/CORNICE TO REMAIN - PROTECT
2. (E) PRECAST CONCRETE PANELS - POWER WASH
3. (E) DATA CABLES - PROTECT
4. REMOVE (E) VENT DUCT FOR NEW FIRE RISER PENETRATION
5. REMOVE (E) ROLL UP DOOR ASSEMBLY
6. REMOVE (E) WALL, DOOR & WINDOW ASSEMBLY
7. REMOVE (E) VERTICAL VENTILATION
8. REMOVE (E) DECK PANELS FOR NEW ACCESSIBLE ROLLER DOORS
9. DRILL OPENING IN CONC PANEL FOR (N) DRYER VENT - SEE DETAIL 5/A5.60
10. REMOVE (E) SCONCE LIGHTING - SEE ELECT DWG
11. (E) COVER - PROTECT
12. (E) DOOR & WINDOW ASSEMBLY TO REMAIN

LEGEND

- - - - - - (E) TO BE REMOVED

1. North Elevation - Demo
   SCALE: 1/4" = 1'-0"

2. East Elevation - Demo
   SCALE: 1/4" = 1'-0"

3. South Elevation - Demo
   SCALE: 1/4" = 1'-0"
KEYNOTES

1. EXISTING GROUND - EARTH
2. BULKHEAD CONCRETE WALL - PAINT
3. EXISTING CONCRETE WALL - PAINT
4. PRECAST CONCRETE PANEL - PAINT
5. REBAR CONCRETE WALL - GRADE LEVEL 
6. EXISTING DOORS - PAINT
7. NEW FIRE SPRINKLER SYSTEM - PRIOR TO BACKFILL
8. INSTALL NEW ROOF ACCESS LADDER - PAINT
9. SEE DETAIL DWG 2 / A5.30
10. INSTALL DATA CABLES - PROTECT
11. NEW FIRE SPRINKLER RISER - SEE FIRE FP DWGS.
12. 09 24 00 - INSTALL NEW 3-COAT CEMENT PLASTER FINISH OVER " PLYWOOD.
13. 08 41 10 - INSTALL NEW STOREFRONT WINDOW ASSEMBLY.
14. 08 11 10 - INSTALL NEW METAL DOOR AND FRAME SEE DETAIL 7 / A5.50
15. INSTALL NEW DRYER VENT. SEE DETAIL 5 / A5.60
16. 08 41 10 - INSTALL NEW STOREFRONT ENTRY ASSEMBLY
17. 03 33 00 - INSTALL NEW WALKWAY SEE DETAIL 4 / A5.50
18. INSTALL NEW 7'-0" HIGH CHAINLINK FENCE WITH MANGATE. SEE DETAIL 6, 7 / A5.60
19. INSTALL COVER - PROTECT
20. INSTALL LIGHT FIXTURE SEE ELECTRICAL DWG.

- (E) GM COPING / CORNICE - PAINT
- (E) PRECAST CONCRETE PANELS - POWERWASH
- (E) DATA CABLES - PROTECT
- (N) LIGHT FIXTURE SEE ELECTRICAL DWG.

North Elevation - New
SCALE: 1/4" = 1'-0"

East Elevation - New
SCALE: 1/4" = 1'-0"

South Elevation - New
SCALE: 1/4" = 1'-0"
Roof Access Ladder

Building Section

KEYNOTES

1. INSTALL (N) FIBERGLASS MATT WITH RESIN @ 1'-0" O.C. BETWEEN ROOF JOISTS @ 4'-0" O.C.
2. INSTALL 3/8" THICK NON-WOVEN BATT W/ VLV INSULATION @ 4'-0" O.C.
3. INSTALL 3/8" THICK INSULATION W/ VLV @ 4'-0" O.C.
4. INSTALL 3/8" THICK INSULATION W/ VLV @ 4'-0" O.C.
5. INSTALL 3/8" THICK INSULATION W/ VLV @ 4'-0" O.C.
6. INSTALL 3/8" THICK INSULATION W/ VLV @ 4'-0" O.C.
7. INSTALL 3/8" THICK INSULATION W/ VLV @ 4'-0" O.C.
8. INSTALL 3/8" THICK INSULATION W/ VLV @ 4'-0" O.C.
9. INSTALL 3/8" THICK INSULATION W/ VLV @ 4'-0" O.C.
10. INSTALL 3/8" THICK INSULATION W/ VLV @ 4'-0" O.C.

Roof Access Ladder

Building Section

SCALE: 3/8" = 1'-0"

Roof Access Ladder

Building Section

SCALE: 3/8" = 1'-0"
KEYNOTES

1. 09 51 20 INSTALL NEW SUSPENDED ACOUSTICAL TILE CEILING.
2. D1 REMOVE (E) SUSPENDED LIGHT FIXTURE ASSEMBLY AND RETURN TO OWNER. SEE ELECTRICAL DRAWINGS.
3. D2 REMOVE (E) POWER DROPS SEE ELECTRICAL DRAWINGS.
4. D3 REMOVE (E) SUSPENDED ACOUSTICAL TILE CEILING SYSTEM AND BATT INSULATIONS. SEE ELECTRICAL DRAWINGS.
5. D4 REMOVE (E) GYP BOARD CEILINGS/FRAMING/LIGHT FIXTURE IN THEIR ENTRY. SEE ELECTRICAL DRAWINGS.
6. D5 REMOVE ALL (E) MECHANICAL DUCTS, SUPPORTS, ETC. SEE MECHANICAL DRAWINGS.
7. 209 29 00 INSTALL NEW 5/8" GYP'D CEILING, TAPED, TEXTURED AND PAINTED STEEL JOIST.
8. 3 NEW LIGHT FIXTURE. SEE ELECTRICAL DRAWINGS.
9. 4 NEW SUPPLY AND RETURN REGISTERS. SEE MECHANICAL DRAWINGS.
10. 5 NEW EXHAUST HOODS. SEE FOOD SERVICE DRAWINGS.
11. 6 NEW EXHAUST FAN. SEE MECHANICAL DRAWINGS.
12. 7 (E) 4 x 12 ROOF JOIST WITH R-30 THERMAL INSULATION AND VINYL SHEET SUPPORTS. ALL EXISTING EXPOSED FRAMING TO BE PAINTED.
13. 8 NEW WALL MOUNTED TV MONITOR. SEE DETAIL 4/ A5.60
14. 9 CUSTOM REFRIGERATOR & FREEZER CEILINGS. SEE FOOD SERVICES DRAWINGS.
15. 10 NEW AIR CURTAIN. SEE FOOD SERVICES DWG.

LEGEND

- SUSPENDED DIRECTIONAL LIGHTING FIXTURE
- 2 X 4 RECESSED LIGHTING FIXTURE
- 1 X 4 LOW PROFILE LIGHTING FIXTURE
- 1 X 4 GONDOLA LIGHT FIXTURE
- 1 X 4 COIN CELL LIGHTING FIXTURE
- (E) 2 X 4 HOBBYIST LIGHTING FIXTURE
- CUSTOM RECESSED & PROJECTION FIXTURE
- (E) 2 X 4 UPRIGHT FIRE SPRINKLER
- (E) 2 X 4 PENDENT FIRE SPRINKLER
- (E) 2 X 4 LOW PROFILE LIGHTING FIXTURE
- (E) 2 X 4 LIGHT FIXTURE
- (E) 2 X 4 CEILING MOUNTED LIGHTING FIXTURE
- HVAC AIR SUPPLY REGISTER
- HVAC AIR RETURN REGISTER
- EMPLOYEE FIRE HOSE REEL 300' 1-1/2" DIA.
- 4" PUMPED FIRE SPRINKLER
- 2" PUMPED FIRE SPRINKLER
- 4" LIGHT FIXTURE
1-HR RATED EXTERIOR INFILL WALL

**W3**

**SCALE: 1" = 1'-0"**

**2-HR RATED NON-LOAD BEARING WALL ASSEMBLY (ClarkDietrich Design Wall Assembly) COMPLIES WITH FEI EVALUATION SERVICE ITEM AER-12061**

**PARTITION TYPE W3:** One layer of Type X Gypsum Board applied at right angle and perpendicular to each other and secured with 1” screws @ 8” O.C. The assembled wall is a 2-hour Rated Non-Load Bearing Partition. All construction details, including the attachment of the metal framing, must comply with the manufacturer’s specifications.

**W4**

**SCALE: 1" = 1'-0"**

**1-HR RATED EXTERIOR INFILL WALL**

**W2**

**SCALE: 1" = 1'-0"**

**1-HR RATED NON-LOAD BEARING/LOAD BEARING PARTITION**

**W5**

**SCALE: 1" = 1'-0"**

**NON-LOAD BEARING/Load Bearing Partition**

---

**APP.
INC:
REVIEWED FOR
SS
FLS
ACS
DATE:
IDENTIFICATION STAMP
 DIV. OF THE STATE ARCHITECT
02-117832
✔
✔
✔
01/21/20**
AS SHOWN

LIGHT GAUGE METAL FRAMING DETAILS

TYPICAL STUD WALL ELEVATION

TYPICAL BACKING PLATE

TYPICAL WALL BRIDGING

TYPICAL HEADER CONDITION @ INTERIOR WALLS, U.N.

TYPICAL STUD WALL SCHEDULE

METAL STUD SCHEDULE

STEEL STUD SCHEDULE

STEEL CEILING JST. NOTES

CEILING JOIST PERP. TO FULL-HT WALL

CEILING JOIST PARALLEL TO FULL-HT WALL

CEILING JOIST BRACING

TYP BOTT TRACK @ JAMB

TYP. TOP TRACK SPLICE

TYPICAL WALL BOTTOM TRACK

STEEL CEILING JST SCHED

TOP TRACK AT NON-BRG RATED PARTITIONS

TYP. INTERSECTIONS & CORNERS

REV.

CHECKED BY

DRAWN BY

REVISIONS

No.

Issue Description

Date

www.dcaaia.com

Silicon Valley

95 S Market St, Suite 480
San Jose, CA  95113

(408) 320-4871

CLASSROOM MODERNIZATION

CTE - CULINARY ARTS

Central Valley

3031 W March Ln, Suite 334
Stockton, CA  95219

(209) 462-2873

19.010

A5.40
MONITOR MOUNT IS 12 GA., 50 ksi (MIN.)

T.V. C.G. WT=190 LBS. (MAX) (INCLUDES 175 LB. (MAX) MONITOR FRONT SIDE)

NOTE:
WHERE REQUIRED, PROVIDE 6 x 16 GA BACKING PLATE, PER 8/A5.4 FOR MONITOR MOUNT.

NOTE: REFER TO SPECIFICATION 32 31 13 FOR CHAIN LINK FENCING.
ALL CHAIN LINK FENCE MATERIAL SHALL BE GALVANIZED.

NOTE: SEE DETAIL 7/A5.60 FOR DATA THAT NOT SHOWN HERE

NOTES:
1. REFER TO SPECIFICATION 32 31 13 FOR CHAIN LINK FENCING.
2. ALL CHAIN LINK FENCE MATERIAL SHALL BE GALVANIZED.

KEYNOTES

AS SHOWN A5.60
DETAILS 2019-12-20
JWE
CAS

1     4" FURRED WALL - SEE WALL SCHEDULE.
2     HM DOOR/FRAME ASSEMBLY. SEE WALL SCHEDULE
3     1-HOUR FIRE BARRIER WALL. SEE WALL SCHEDULE
4     ADDITIONAL 1" FOAM ON STUDENT RETURN W/B TO ACCOMMODATE FLUSH MOUNT ELECTRICAL
5     FLUSH MOUNT ELECTRICAL PANEL WITH CLAMPS, SEE PARTS LIST, 10, 12, 20, 21, 22, B2, AND TOOLS
6     VIRO FORMWORK 2" WITH 3" MIN. FLUSH WITH TILE WORK, SEE PARTS LIST, 10, 12, 20, 21, 22, B2, AND TOOLS
7     6" 16 GA BACKING PLATE PER 8/A5.4 FOR E/BOX MOUNTING. UL LISTED METALLIC OR NON-METALLIC OUTLET BOX-SEE ELECT. FIRE STOP PUTTY AT POWER CABLE.
8     LARSEN'S SEMI-RECESSED FIRE-BLANKET CABINETS, FS-B2409-R7 OR EQUAL ATTACHEMENT PER MANUFACTURER'S RECOMMENDATION. PROVIDE TYPE "K" IN KITCHENS AND 2A-10BC IN LECTURE AREA.
9     6" STUDS @ 16" O.C. FRAMED SOFFIT WALL-SEE A5.4
10    12 GA TV MONITOR MOUNT-ATTACH TO STUDS OR BACKING PLATE WITH 2-1/4" Ø TEX SCREWS-4 TOTAL.
11    (E) 6" CONC. TILT-UP PANEL.
12    4" Ø ALUMINUM DRYER VENT, SEIHO MODEL #SFB-P/SFB-PH WITH DAMPER OR EQUAL. INSTALL PER MANUFACTURER'S INSTRUCTION. X-RAY AND CODE DRILL (E) CONC. PANEL TO AVOID REINFORCEMENT.
13    REMOVE (E) "PEBBLE-FINISH" TO FACILITATE VENT INSTALLATION.
14    PERIMETER SEALANT AND CAulk.
**DOOR SCHEDULE**

<table>
<thead>
<tr>
<th>Room</th>
<th>Location</th>
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<tbody>
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**DOOR FINISH SCHEDULE**

<table>
<thead>
<tr>
<th>Door Number</th>
<th>Location</th>
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**WEATHER RESISTANCE**

<table>
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<th>WEATHER RESISTANCE</th>
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**DOOR HARDWARE SCHEDULE**

<table>
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<tr>
<th>Door Hardware</th>
<th>Schedule</th>
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**DOOR & LITE SCHEDULE ABBREVIATIONS**

<table>
<thead>
<tr>
<th>Door Types</th>
<th>Abbreviations</th>
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<tbody>
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</table>

**DOOR HARDWARE NOTES**

**DOOR SCHEDULE NOTES**

1. Operable hardware must be installed no higher than 48" A.F.F. nor lower than 84" A.F.F.

2. Hardware must be operable with one hand, not requiring tight grasping, pinching, or twisting of the wrist. The force required to activate operable parts shall be 15 pounds maximum.

3. Swing doors and gate surfaces within 5 inches of the finished floor or ground measured vertically shall have a smooth surface on the push side extending the full length of the door or gate. Parts creating horizontal or vertical joints in these surfaces shall be within 1/16 inch of the same plane as the other and free of sharp or abrasive edges. Catches created by added kick plates shall be capped.

4. Closers must be adjusted so that, from an open position of 90°, door will take 2 seconds minimum to travel to 1/2" from latch.

5. Threshold height must not exceed 1/2", where threshold height exceeds 1/2", edge must be beveled with a slope not steeper than 1:12.

6. Exit doors shall be operable from the inside without using a key, special knowledge, or effort.

**ROOM FINISH SCHEDULE**

<table>
<thead>
<tr>
<th>Room Finish</th>
<th>Schedule</th>
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<tbody>
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**DOOR & FINISH SCHEDULE**

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<thead>
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<th>Door &amp; Finish</th>
<th>Schedule</th>
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**ROOM FINISH MATERIALS**

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<th>Room Finish Materials</th>
<th>Schedule</th>
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</thead>
<tbody>
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</tbody>
</table>

**GROUNDS**

**PAINT**

- All painted surfaces to be washable

**GROUT**

- All grout joints to be sealant

**CEILING**

- Ceiling shall be installed and finished as shown

**LIGHTING**

- All lights to be installed and finished as shown

**ROOM FINISH SCHEDULE**

<table>
<thead>
<tr>
<th>Room Number</th>
<th>Room Name</th>
<th>Floor</th>
<th>Base</th>
<th>Walls</th>
<th>Ceiling</th>
<th>Notes</th>
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**DOOR & FINISH SCHEDULE**

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<th>Schedule</th>
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**ROOM FINISH SCHEDULE**

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<tr>
<th>Room Finish Schedule</th>
<th>Schedule</th>
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<tbody>
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</tbody>
</table>
**TOLBrace™ Seismic Sealing Calculations**

### Nevada Union High School

**Location:**
- **Street:** Nevada Union High School Ridge Road
- **City:** Grass Valley, CA 95945

**Contact:**
- **Phone:** 530-273-3600

**Design:**
- **Architect:** Castellanos Architects
- **Address:** 3031 W March Ln, Suite 334, Stockton, CA 95219
- **Phone:** (209) 462-2873

**Seismic Information:**
- **Foundation:** Pile Foundation
- **Seismic Zone:** Zone 3 (3% velocity, 25% probability of exceedance in 50 years)
- **Ductility:** Dl = 3

**Brace Information:**
- **Type of Brace:** TOLBrace™
- **Material:** Steel
- **System:** Universal
- **Type:** Universal

**Bracing Details:**
- **Number of Braces:** 10
- **Length:** 20 ft (6.096 m)
- **Material:** Steel

**Calculation Method:**
- **Type:** Manual

---

**Summary of Pipe within Zone of Influence**

<table>
<thead>
<tr>
<th>Pipe Type</th>
<th>Length (ft)</th>
<th>Diameter (in)</th>
<th>Material</th>
<th>Velocity (mph)</th>
<th>Pressure (psi)</th>
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<tbody>
<tr>
<td>Schedule 40</td>
<td>20</td>
<td>2</td>
<td>Steel</td>
<td>30</td>
<td>150</td>
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</tbody>
</table>

---

**Notes:**
- All calculations were performed by Castellanos Architects.
- The calculations comply with the requirements of the California Building Code (2019).
FIRE SPRINKLER SECTION PLAN

FIRE SPRINKLER SECTION PLAN

FIRE SPRINKLER SECTION PLAN
### PLUMBING SHEET INDEX

<table>
<thead>
<tr>
<th>Sheet No.</th>
<th>Sheet Title</th>
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<tbody>
<tr>
<td>P2.1</td>
<td>PLUMBING LEGEND</td>
</tr>
<tr>
<td>P2.2</td>
<td>PLUMBING SHEET INDEX</td>
</tr>
<tr>
<td>P0.3</td>
<td>WATER AND WASTE MAINS CALCULATIONS</td>
</tr>
<tr>
<td>P0.2</td>
<td>NATURAL GAS SIZING TABLE</td>
</tr>
<tr>
<td>P0.1</td>
<td>PLUMBING LEGEND</td>
</tr>
</tbody>
</table>

### SAFETY PRECAUTIONS

- Wear appropriate safety glasses and gloves when handling flammable and toxic materials.

### NATURAL GAS SIZING TABLE

<table>
<thead>
<tr>
<th>Pipe Size (in)</th>
<th>Minimum Diameter (in)</th>
<th>Maximum Diameter (in)</th>
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<tbody>
<tr>
<td>1/2</td>
<td>0.65</td>
<td>0.85</td>
</tr>
<tr>
<td>3/4</td>
<td>1.0</td>
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<td>1.37</td>
<td>1.57</td>
</tr>
<tr>
<td>1.25</td>
<td>1.63</td>
<td>1.83</td>
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</table>

### WATER AND WASTE MAINS CALCULATIONS

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<tr>
<th>Main Type</th>
<th>Flow Rate (gpm)</th>
<th>Pressure Loss (psi)</th>
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<tbody>
<tr>
<td>Cold Water</td>
<td>50</td>
<td>1</td>
</tr>
<tr>
<td>Hot Water</td>
<td>30</td>
<td>2</td>
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<tr>
<td>Sanitary</td>
<td>20</td>
<td>3</td>
</tr>
</tbody>
</table>

### EQUIPMENT ANCHORAGE NOTES

- Secure equipment with appropriate hardware as specified.

### PIPING AND DUCTWORK DISTRIBUTION SYSTEM BRACING NOTES

- Use hangers and supports at intervals as specified.

---

**Note:** Further details and specifications are available in the associated documents and plans.
PLUMBING SCHEDULES

PLUMBING FIXTURE SCHEDULE

KITCHEN EQUIPMENT SCHEDULE

GAS PRESSURE REGULATOR SCHEDULE

VENTED GAS PIPING THRU ROOF

UNDERFLOOR GAS PIPING DETAIL

MAKE-UP AIR UNIT (MAU-1)

WATER SERVICE AND DRAIN CONNECTION

Central Valley
3031 W March Ln, Suite 334
Stockton, CA  95219
(209) 462-2873

Professional Seals
Drawn By:

REVISIONS
No.
Issue Description
Date

Checked By:

Job #: 19-2078
1209 Pleasant Grove Blvd.
Roseville, CA 95678
p 916-771-0778

MEP & FS / Sustainability / CxA

DIV. OF THE STATE ARCHITECT

02-117832
✔
✔
✔
01/21/20

www.lpengineers.com

DE RIVI CASTELLANOS
ARCHITECTS

www.dcaaia.com
Silicon Valley
95 S Market St, Suite 480
San Jose, CA  95113
(408) 320-4871

CLASSROOM MODERNIZATION

CTE - CULINARY ARTS

Make-Up Air Unit (MAU-1)
WASTE AND VENT PLAN

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

KEY NOTES

1. WATER CONNECTIONS MUST BE SECURED TO THE CEILING TO PREVENT SEPARATION DURING SEISMIC ACTIVITY.

2. DRAIN DIP BAY AREA TO ALLOW ROOM FOR FLOOR USABLE SPACE.

3. DRAIN DIP BAY AREA TO ALLOW ROOM FOR FLOOR USABLE SPACE.

4. DRAIN DIP BAY AREA TO ALLOW ROOM FOR FLOOR USABLE SPACE.

5. DRAIN DIP BAY AREA TO ALLOW ROOM FOR FLOOR USABLE SPACE.

GENERAL NOTES

1. ALL SDP PIPE FITTINGS MUST BE HIGH QUALITY, DURABLE AND CAPABLE OF WITHSTANDING SEISMIC ACTIVITY.

2. ALL SANITARY CONNECTIONS MUST BE SECURED TO THE WALL OR FLOOR TO PREVENT SEPARATION DURING SEISMIC ACTIVITY.

3. ALL DRAIN DIP BAY AREAS MUST BE SECURED TO THE CEILING TO ALLOW ROOM FOR FLOOR USABLE SPACE.
### Equipment Anchorage Notes

1. All mechanical equipment and duct work shall be anchored to the structure in accordance with the provisions of the International Building Code, 2021 Edition, and as required by the California Building Code, 2021 Edition.
2. All equipment and duct work shall be rated for the weight of the equipment and duct work and be capable of supporting the weight of the equipment and duct work in accordance with the provisions of the California Building Code, 2021 Edition.

### Piping and Ductwork Distribution System Bracing Notes


### Mechanical Legends

- **MEP & FS:** Mechanical, Electrical, and Plumbing Systems
- **Sustainability:** Sustainability Systems
- **CxA:** Commissioning and Accreditation Systems

### Mechanical Sheet Index

- **M0.1:** Mechanical Schedules, Legends, & Notes
- **M0.2:** Air Distribution Schedule
- **M0.3:** Make-Up Air Unit Schedule
- **M5.1:** VFD Schedule
- **M2.1:** Mechanical Schedules, Legends, & Notes
- **M3.1:** Air Balance Schedule

### Professional Seals

- **Drawn By:**
- **Checked By:**

### Revisions

<table>
<thead>
<tr>
<th>No.</th>
<th>Issue Description</th>
<th>Date</th>
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<tbody>
<tr>
<td>1</td>
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</tbody>
</table>

### Addresses

- **Silicon Valley**
  - 95 S Market St, Suite 480, San Jose, CA 95113
  - (408) 320-4871

- **Central Valley**
  - 3031 W March Ln, Suite 334, Stockton, CA 95219
  - (209) 462-2873

### Other Information

- **www.lpengineers.com**
- **Job #: 19-2078**
- **1209 Pleasant Grove Blvd., Roseville, CA 95678**
  - p 916-771-0778

- **www.dcaaia.com**
- **Silicon Valley**
  - 95 S Market St, Suite 480, San Jose, CA 95113
  - (408) 320-4871

- **www.derivicasellanosarchitects.com**
- **Central Valley**
  - 3031 W March Ln, Suite 334, Stockton, CA 95219
  - (209) 462-2873
Sheet Notes

1. Long name is a label of equipment.
2. A short name is the control number assigned to equipment.
3. Factory-controlled equipment is shown.

Control Components

<table>
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<tr>
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</tbody>
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1. Long name is a label of equipment.
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3. Factory-controlled equipment is shown.
1. MAU-1, 230V/3, 10.7A MCA, 15A MOCP. PROVIDE 20AF, 3PH/30A WEATHERPROOF DISCONNECT SWITCH. PROVIDE ALL INTERCONNECTIONS REQUIRED BETWEEN MAU, HOOD EXHAUST FAN AND THE HOOD CONTROL PANEL PER FOOD SERVICE AND MECHANICAL DRAWINGS.

2. MAU-2, 230V/3, 10.7A MCA, 15A MOCP. PROVIDE 20AF, 3PH/30A WEATHERPROOF DISCONNECT SWITCH. PROVIDE ALL INTERCONNECTIONS REQUIRED BETWEEN MAU, HOOD EXHAUST FAN AND THE HOOD CONTROL PANEL PER FOOD SERVICE AND MECHANICAL DRAWINGS.

3. VFD UNIT, 230V/3, 4.6 FLA, 1 HP, PROVIDE POWER CONNECTION AND ALL INTERCONNECTIONS REQUIRED BETWEEN VFD AND EXHAUST FAN-1 PER FOOD SERVICE AND MECHANICAL REQUIREMENTS.

4. EXHAUST FAN-1, 230V/3, 0.97 HP; PROVIDE POWER CONNECTION. PREWIRED DISCONNECT SWITCH PROVIDED BY FACTORY.

5. EXHAUST FAN-2, 230V/1, 1.7 HP; PROVIDE POWER CONNECTION. PREWIRED DISCONNECT SWITCH PROVIDED BY FACTORY.

6. AC UNIT-1, 208V/3, 37.4A MCA, 50A MOCP. POWERED EXHAUST; 0.5HP, 2.3A FLA. PROVIDE 50AF/3/60A WEATHERPROOF DISCONNECT SWITCH, W/ 1" C.- 3 # 6 CU + 1 # 10 CU GND FOR AC. PROVIDE 15AF/3/30A WEATHERPROOF DISCONNECT SWITCH, W/ 3/4" C.- 3 # 12 CU + 1 # 12 CU GND FOR POWERED EXHAUST.

7. AC UNIT-2, 208V/1, 19.5A MCA, 30A MOCP. PROVIDE 30AF/1/30A WEATHERPROOF DISCONNECT SWITCH, W/ 3/4" C.- 2 # 10 CU + 1 # 10 CU GND.

8. REFRIGERATION UNIT; 208V/3, 18.5 AMP. PROVIDE 30AF/3/30A WEATHERPROOF DISCONNECT SWITCH, W/ 3/4" C.- 3 # 10 CU + 1 # 10 CU GND.

PLEASE SEE SHEET E1.2. TO KITCHEN EQUIPMENTS SCHEDULE FOR MORE INFORMATION.

GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN CONFORMITY WITH THE DRAWINGS. NOTIFY ARCHITECT/EQUIPMENT MANUFACTURER OF ANY CONFLICTS OR ERRORS.

2. INTERCONNECTIONS SHALL BE MADE ON THE ROOF. EXPOSED WIRING SHALL BE COVERED WITH CONDUIT OR OTHER PROTECTION. ROUTE ALL CONDUITS BELOW ROOF AND STUB-UP AT LEAST 2 FEET (60CM) ABOVE FINISHED FLOORS. COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT LOCATION OF MECHANICAL UNITS. PROVIDE PROPER ENSURE CURRENT CLAMPING AND VOLTAGE TESTING BEFORE OPERATING ANY EQUIPMENT. INTERPRET THE CONTRACT DOCUMENTS, DETAILS AND SPECIFICATIONS.
# Lighting Schedule

## Indoor Lighting Controls Sequence of Operation

<table>
<thead>
<tr>
<th>Room Type</th>
<th>Room Number</th>
<th>Small Switch</th>
<th>Dimmer</th>
<th>Occupancy Sensing</th>
<th>Time Clock</th>
<th>Daylight Sensing</th>
<th>System</th>
<th>Hvac Zone</th>
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<tbody>
<tr>
<td>Teacher Cook Station</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>X</td>
</tr>
<tr>
<td>Custodian</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Restroom</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Teacher Cook Stations</td>
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<tr>
<td>Student Cook Stations</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Cafeteria</td>
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## Electrical Schedule

<table>
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<th>Panel</th>
<th>Circuit Breaker Notes</th>
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<tbody>
<tr>
<td>N PANEL &quot;E9&quot;</td>
<td>[Notes]</td>
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</table>

--

### Notes

- Multiple circuits supply the same circuit and routing.
- Small, single-phase circuits.
- All circuits are single-phase.
- All circuits are rated 20 A.
- All circuits are rated 30 A.
- All circuits are rated 20 A.
- All circuits are rated 30 A.

---

### Additional Details

- **Panel and Circuit Breaker Notes**: Multiple circuits supply the same circuit and routing. Small, single-phase circuits are used. All circuits are single-phase. Each circuit is rated at 20 A. The fire alarm panel is connected to the fire alarm circuit.

---

### Electrical Schedule

- **Panel E9**: [Details]
- **Panel E10**: [Details]
<table>
<thead>
<tr>
<th>Energy Level</th>
<th>Days To Complete</th>
<th>Days Stacked</th>
<th>Days Performed</th>
<th>Days Delays</th>
<th>Days Open</th>
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<tr>
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<td>10</td>
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<td>2.0</td>
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<td>6</td>
<td>3</td>
<td>4</td>
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<td>7</td>
<td>4</td>
<td>5</td>
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<td>5.0</td>
<td>24</td>
<td>18</td>
<td>9</td>
<td>6</td>
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**Title 24 Calculations**

- **Methodology**: Using California Energy Commission (CEC) guidelines for Title 24 compliance.
- **Tools**: EnergyPlus, RETScreen.
- **Key Figures**: Efficiency improvements, energy consumption reduction.

---

**Additional Details**

- Site: Nevada Union High School District, Grass Valley, CA.
- Project: Classroom Modernization.
- CTE - Culinary Arts.
- Lead Architect: DeriCastelanos Architects.

---

**Contact Information**

- **Silicon Valley**
- 95 S Market St, Suite 480
- San Jose, CA 95113
- (408) 320-4871

- **Central Valley**
- 3031 W March Ln, Suite 334
- Stockton, CA 95219
- (209) 462-2873

---

**Project Details**

- **Project Name**: DERICASTELANOS ARCHITECTS.
- **Job #: 19-2078**
- **Location**: 1209 Pleasant Grove Blvd., Roseville, CA 95678
- **Contact**: 916-771-0778

---

**Title 24 Status**

- **Status**: In Progress.
- **Target**: 2020.

---

**Acknowledgments**

- **Drawn By**: Silicon Valley
- **Checked By**: Central Valley

---

**Revisions**

- **Issue Description**: Review and revisions as per Title 24 guidelines.
- **Date**: 01/21/20

---

**Identification Stamp**

- **Stamp**: 02-117832
- **Date**: 01/21/20
### Title 24 Calculations

#### General Landscape Lighting Power Allowance from Table 148-7 A

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<th>Direction</th>
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<tr>
<td>South</td>
<td>0.00 kW</td>
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<tr>
<td>East</td>
<td>0.00 kW</td>
</tr>
<tr>
<td>West</td>
<td>0.00 kW</td>
</tr>
</tbody>
</table>

#### School’s Total Landscape Lighting Power Allowance

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<tr>
<th>Description</th>
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</thead>
<tbody>
<tr>
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</tr>
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<td>0.00 kW</td>
</tr>
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<td>East</td>
<td>0.00 kW</td>
</tr>
<tr>
<td>West</td>
<td>0.00 kW</td>
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#### School’s Total Electrical Power Allowance

<table>
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<tr>
<th>Description</th>
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<tbody>
<tr>
<td>Total</td>
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### Remarks

The calculations are based on the data provided and comply with Title 24 requirements. Further verification is recommended for specific project requirements. **Title 24 2023 Compliance.**
VOLTAGE DROP CALCULATIONS FAEP-6

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<th>DOC</th>
<th>DIST</th>
<th>AMPS</th>
<th>IN-DOOM</th>
<th>OUT-DOOM</th>
<th>RESISTANCE</th>
<th>VOLT DROP</th>
<th>TOTAL DROP</th>
<th>% DROP</th>
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<td>12</td>
<td>12</td>
<td>100</td>
<td>2.16V</td>
<td>2.16V</td>
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FIRE ALARM RISER NOTES

1. ALL FIRE ALARM POWER SOURCES SHALL BE CONNECTED TO THE CONTINUOUS POWER SOURCE AS SHOWN ON THE SHEET. USE 14 AWG WIRE FOR CONNECTIONS.
2. ALL FIRE ALARM POWER SOURCES SHALL BE CONNECTED TO THE CONTINUOUS POWER SOURCE AS SHOWN ON THE SHEET. USE 14 AWG WIRE FOR CONNECTIONS.
3. ALL FIRE ALARM POWER SOURCES SHALL BE CONNECTED TO THE CONTINUOUS POWER SOURCE AS SHOWN ON THE SHEET. USE 14 AWG WIRE FOR CONNECTIONS.
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6. ALL FIRE ALARM POWER SOURCES SHALL BE CONNECTED TO THE CONTINUOUS POWER SOURCE AS SHOWN ON THE SHEET. USE 14 AWG WIRE FOR CONNECTIONS.

FIRE ALARM REMOTE PANEL 'FAEP-6'

BATTERY CALCULATIONS

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<th>COMPONENT</th>
<th>STANDBY CURRENT</th>
<th>ALARM CURRENT</th>
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<tbody>
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<td>O1</td>
<td>0.500A</td>
<td>1.100A</td>
</tr>
<tr>
<td>O2</td>
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</tr>
<tr>
<td>O5</td>
<td>0.500A</td>
<td>1.100A</td>
</tr>
</tbody>
</table>

**SUMMARY**

- Standby Main Power Supply 1: 0.500A
- Standby Main Power Supply 2: 0.500A
- Standby Main Power Supply 3: 0.500A
- Standby Main Power Supply 4: 0.500A
- Standby Main Power Supply 5: 0.500A
- Total Standby: 2.500A

**SPECIFICATIONS**

- Standby Main Power Supply 1: 0.500A
- Standby Main Power Supply 2: 0.500A
- Standby Main Power Supply 3: 0.500A
- Standby Main Power Supply 4: 0.500A
- Standby Main Power Supply 5: 0.500A
- Total Standby: 2.500A

**NOTES**

- All fire alarm power sources are connected to the continuous power source as shown on the sheet.
- Use 14 AWG wire for connections.
TYPICAL FLOOR SINK W/ DOME STRAINER

- 3/4 GRATE W/ OPEN 1/4 FOR DRAIN PIPES SET ON TOP OF FLOOR SINK
- NO GAP BETWEEN SINK AND FLOOR
- REMOVABLE GRATE FOR ACCESS TO CLEAN DOME STRAINER

NOTE: FLOOR SINK DETAIL IS FOR REFERENCE ONLY. FOR FLOOR SINK TYPE AND SIZE REFER TO PLUMBING DIVISION PLANS.

SEE FS2.0 PLAN FOR GRATE ARRANGEMENT
**PLUMBING SCHEDULE**

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**PLUMBING KEY NOTES**

1. FURNISH AUTOMATIC GAS SHUT-OFF VALVE INTO SHUTOFF VALVE. TECHNOLOGICAL GUIDE STANDARD BY PLUMBER IN SUPPLY LINE.
2. WATER PRESSURE 90-95 PSI HIGHER FURNISH PRESSURE REGULATOR VALVE WITH INTERNAL THERMAL EXPANSION TAPstery BY PLUMBER.
3. PEER TO WATER FILTER ITEM 29.2 DRAIN TO F.S. P1. PROVIDE S.O.V., RUN PIPING TO UNIT CONNECTION.
4. PROVIDE S.O.V., RUN PIPING TO UNIT CONNECTION.
5. PROVIDE S.O.V., RUN PIPING TO UNIT CONNECTION 3/8" WATER INLET CHARCOAL OR PAINT SILVER.
6. PROVIDE S.O.V., RUN PIPING TO UNIT CONNECTION 1/2" DIRECT WASTE TO F.S. 1/2" PER FOOT PROVIDE S.O.V., RUN PIPING TO UNIT CONNECTION.
7. PROVIDE S.O.V., RUN PIPING TO UNIT CONNECTION.
8. PROVIDE S.O.V., RUN PIPING TO UNIT CONNECTION.
9. PROVIDE S.O.V., RUN PIPING TO UNIT CONNECTION MANIFOLD FOR 1" MIN AIR GAP AT F.S. WITH 'P' TRAP.
10. PROVIDE S.O.V., RUN PIPING TO UNIT CONNECTION.
11. PROVIDE S.O.V., RUN PIPING TO UNIT CONNECTION MANIFOLD FOR 1/2" INDIRECT DRAIN TO F.S. P1. SLOPE 1/2" PER FOOT. PROVIDE S.O.V., RUN PIPING TO UNIT CONNECTION.
12. PROVIDE S.O.V., RUN PIPING TO UNIT CONNECTION.
13. PROVIDE S.O.V., RUN PIPING TO UNIT CONNECTION.
14. PROVIDE S.O.V., RUN PIPING TO UNIT CONNECTION MANIFOLD FOR 1/2" INDIRECT DRAIN TO F.S. P1. SLOPE 1/2" PER FOOT. PROVIDE S.O.V., RUN PIPING TO UNIT CONNECTION.
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MAKE DUCT CONNECTION AT HOOD COLLAR

COOKING EXHAUST HOOD NOTES:

1. EACH AREA CONTAINING COOKING EXHAUST HOOD(S) WILL HAVE A DUCT CONNECTION AT THE HOOD COLLAR.

2. MAKE-UP AIR INTAKE MUST CLEAR AIR EXHAUST DISCHARGE BY A MINIMUM OF TEN (10) FEET, OR AS REQUIRED BY CODE(S).

3. COOKING HOOD(S) EXHAUST AND MAKE-UP AIR SYSTEM(S) WILL BE CONNECTED IN A MANNER NOT TO CREATE UNDUE AIR TURBULENCE IN THE WORKING AREAS.

4. MAKE-UP AIR SHALL BE DELIVERED IN THE PROXIMITY OF THE EXHAUST HOOD(S) USING A MAXIMUM MATERIAL RISER SIZE 12" HIGH.

5. LOCATION OF COOKING HOOD EXHAUST DUCT(S) AND MAKE-UP AIR SYSTEM(S) ARE TO BE VERIFIED AT THE JOB SITE.

6. ITEMS REQUIRED BY CODE(S), MAKE-UP AIR SYSTEM(S) SHALL BE CAPABLE OF HANDLING EXHAUST VOLUME AS DESIGNED.

7. CONNECTIONS FOR THE EXHAUST VENTILATION TO THE EXHAUST HOOD(S) TAKE OFF AT ONE SHALL BE IMPLEMETED WITH A ISOLATION W/ #10 WS WITH 1 1/2" EMBED. FOR METAL VENT (SEE WALL BACKING SCHEDULE FOR NO. OF SCREWS @ EA. LOC.).

8. PERFORMANCE TESTING FOR THE OPERATION OF THE TYPE EXHAUST HOOD PER NFPA 96. REFER TO 1/FS5.1.


WALL BACKING SCHEDULE:

- **Wall Studs**: Refer to 1/FS4.1 for Wall Backing Location and Size.
- **Hand Sink**: Refer to 2/FS5.1 for Wall Backing Details.
- **Dry Stool Shelves**: Refer to 3/FS5.1 for Wall Backing Details.
- **Cold Stool Shelves**: Refer to 4/FS5.1 for Wall Backing Details (WEA 2 EA PER EA. EACH).
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All fans must have inverter duty motors, control/provides 2-wire signal, and VFDs are provided by others.
Room Temperature Sensor
- Install on wall approximately 5 ft. above floor.
- Under the hood or close to an appliance so that the reading is not affected by it.

CABINET MOUNTED DCV

TEMPERATURE SWITCH

FACE TEMPERATURE SENSOR
WIRING DIAGRAM FOR FREEZER COIL

WIRING DIAGRAM FOR WALK-IN FREEZER

REQUESTED FOR WALK-IN TEMPERATURE MONITORING EQUIPMENT
DEPARTMENT OF ENVIRONMENTAL PROTECTION
WALK-IN TEMPERATURE MONITORING EQUIPMENT

DEMAND DEFROST
- KE2 LOW TEMP
- ELECTRICAL SUPPLIED BY 208V-1PH-60HZ
- RS-485
- RS-485
- 115V
- FAN
- DRAIN HEATER
- T-STAT
- COIL SENSOR (T2)
- ACCESSORY KIT.
- AIR SENSOR (T1)
- ACCESS TO COIL. INSTALLER MUST PUNCTURE PLUG TO INSERT SENSOR
- NOTE: INSERT PLUG (ITEM G FROM THE PARTS LIST) INTO THE COIL HOUSING WHEN THE SENSOR NEEDS TO BE AS FAR AWAY FROM THE DEFROST HEAT SOURCES AS 1-1/2 INCHES FROM THE RIGHT OR LEFT ENDS OF THE ACTIVE COIL SURFACE, AND ACCURATELY SENSE THE RETURN AIR TEMPERATURE.

COIL SENSOR LOCATED IN 1.5" LEGEND

B. THE SINGLE LOOP'S END IS DESIGNED TO BE MOUNTED WITH THE SCREW INCLUDED.
C. THE END WITH MULTIPLE LOOPS IS DESIGNED TO HOLD THE SENSOR.

ACCESS THE COIL. INSTALLER MUST PUNCTURE PLUG TO INSERT SENSOR

NOTE: INSERT PLUG (ITEM G FROM THE PARTS LIST) INTO THE COIL HOUSING WHEN THE SENSOR NEEDS TO BE AS FAR AWAY FROM THE DEFROST HEAT SOURCES AS 1-1/2 INCHES FROM THE RIGHT OR LEFT ENDS OF THE ACTIVE COIL SURFACE, AND ACCURATELY SENSE THE RETURN AIR TEMPERATURE.

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A. TYPICAL UPPER ATTACHMENT

B. ROD STIFFENER DETAIL

C. DIAGONAL HOOD BRACING

D. HOOD HANGING SUPPORT

E. EXHAUST HOOD ATTACHMENT DETAIL

F. STRUCTURAL ROOF DECK, HANGERS EACH END, TYP.

G. NOT USED

H. NOT-USED

I. NOT-USED
FOR REFERENCE ONLY - SHOWN FOR REFERENCE TO (E) STRUCTURAL FRAMING ONLY