ALSEA SCHOOL DISTRICT

POWER SERVICE INFRASTRUCTURE UPGRADE
PHASE 1a.2

98% BID & AGENCY REVIEW ISSUE: 11-11-2021

SHEET SCHEDULE:

A0.0	Cover Sheet
ARCHITECTURAL	
A0.2	Phasing Site Plan
A0.4	Architectural Site Plan
ELECTRICAL	
E0.0	Electrical Symbols & Sheet Index
E1.0D	Electrical Site Plan - Demolition
E1.0E	Electrical Site Plan - New
E3.0	Power Distribution Plan - Demolition
E3.1	Power Distribution Plan - New
E3.2	One Line Diagram - Demolition
E3.3	One Line Diagram - New
E3.4	Electrical Schedules

OWNER:

Address:

ALSEA SCHOOL DISTRICT
301 SOUTH 3rd STREET
ALSEA, OREGON 97324

CONSTRUCTION MANAGER (CM/GC):

Address:

CB Construction
1202 Adams Avenue
LaGrande, Oregon 97850

Contact:
Derek Howard
Office: 541.786.5315
Email: dhoward@cbconst.us

ARCHITECT:

Address:

STRAIGHTLINE Architects
4521 South Cloverdale Road
Suite 102
Boise, Idaho 83709

Contact:
Scott Marshall, AIA - NCARB, Principal
Office: 208.991.0855
Email: Scott@Straightline.biz

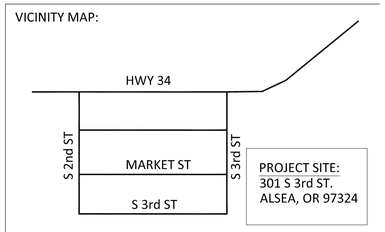
ELECTRICAL ENGINEER:

Address:

E2CO
800 S. Industry Way, Suite 350
Meridian, Idaho 83642

Contact:
Jon Van Stone, PE, Principal
Office: 208-378-4450
Email: jvanstone@e2co.com

VICINITY MAP:



REGISTERED ARCHITECT
SCOTT A. MARSHALL
BOISE, IDAHO
5794
STATE OF OREGON

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ALSEA SCHOOL DISTRICT
1a.2: POWER SERVICE UPGRADE

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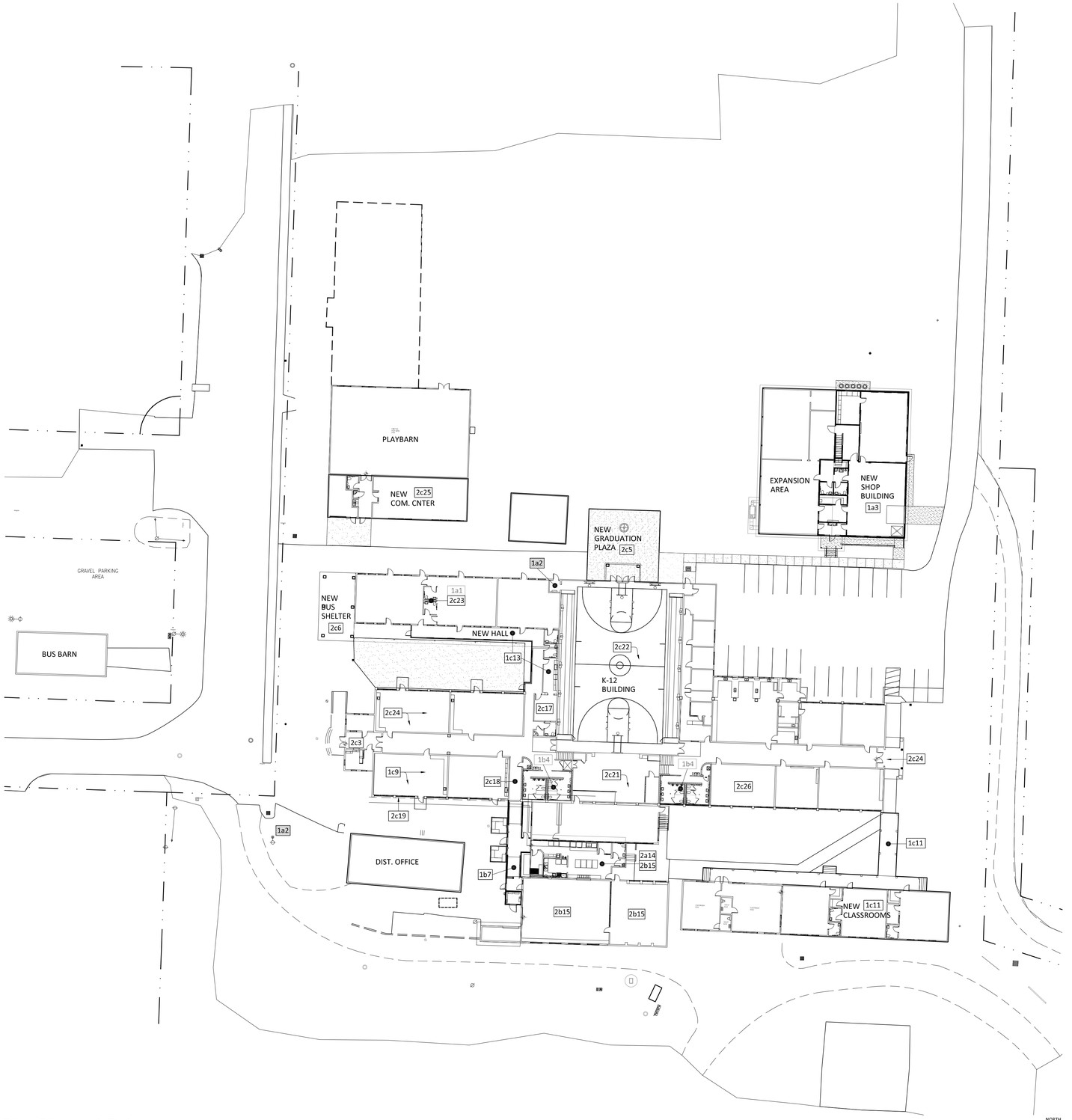
Cover sheet



1 A0.2 Site Plan: Phasing & Reference

SCALE: 1" = 30'-0"

General Notes

APPLICABLE TO THIS SHEET ONLY

1 - see Architectural Site Plan sheets for site details and grading.

2 - see Architectural Site Plan for existing & new topography.

3 - see Architectural Site Plan & electrical sheets for site lighting, underground sleeves, conductors & electrical conduits.

4 - landscape irrigation contractor shall provide sleeves for underground irrigation system

(X")	Height Above Fin. Floor
(TYP)	Typical (x)=#
(NIC)	Not in Contract
(UNO)	Unless Noted Otherwise
(X)	Number or Quantity

Legend

HATCHED AREAS:

AREAS HATCHED ON THIS SHEET SHOW AREAS OF NEW & EXISTING BUILDINGS IN THE SCOPE OF THIS DOCUMENT. ENLARGED SITE PLAN (AS REFERENCED) SHOW REQUIRED SITE WORK IN THIS SCOPE AS DEFINED.

Phasing Narrative & Notation

DATES BELOW REFLECT CONSTRUCTION START TIMES.
SEE 'BOND PROJECT SCHEDULE' FOR OVERALL PROJECT DURATIONS

ALL EXISTING & NEW CONSTRUCTION LISTED BELOW IS GRAPHICALLY SHOWN ON THIS PLAN FOR REFERENCE PURPOSES ONLY

2021 - SPRING

- 1a1 SCOPE EXISTING SEWER

2021 - SUMMER

- 1b4 STUDENT TOILET REMODELS

2021 - WINTER / EARLY SPRING

- 1b7 NEW PANEL ROOM & CAFETERIA HALLWAY
- 1c9 HVAC CLASSROOM UPGRADES
- 1a3 NEW VOC/CTIL SHOP & COVERED EXPANSION AREA
- 1c11 NEW JR. HIGH CLASSROOMS 6-8TH & COVERED WALK

2022 - LATE SPRING

- 1a2 NEW POWER SERVICE CONSTRUCTION
- 2c22 HVAC AT GYMNASIUM
- 1c13 NEW HALL AT METAL BUILDING & TEACHERS BREAK

2022 - SUMMER BREAK

- 2a14 OLD BOILER ROOM DEMOLITION
- 2c3 FRONT OFFICE REMODEL
- 2c5 GRADUATION PLAZA & GYM ENTRY
- 2c6 STUDENT COVERED BUS WAITING
- 2c17 TEACHERS BREAK REMODEL
- 2c18 CONNECTION HALL THRU CLASSROOM
- 2c19 SELECT WINDOW REPLACEMENT
- 2c21 LOCKER ROOM REMODELS
- 2c23 METAL BUILDING TOILET ROOM RE-PURPOSE
- 2c24 INFRASTRUCTURE IMPROVEMENTS

2022 - FALL

- 2b15 CAFETERIA & KITCHEN RE-PURPOSE
- 2c25 COMMUNITY CENTER ADDITION

2022 - WINTER

- 2c26 OLD KITCHEN CLASSROOM RE-PURPOSE

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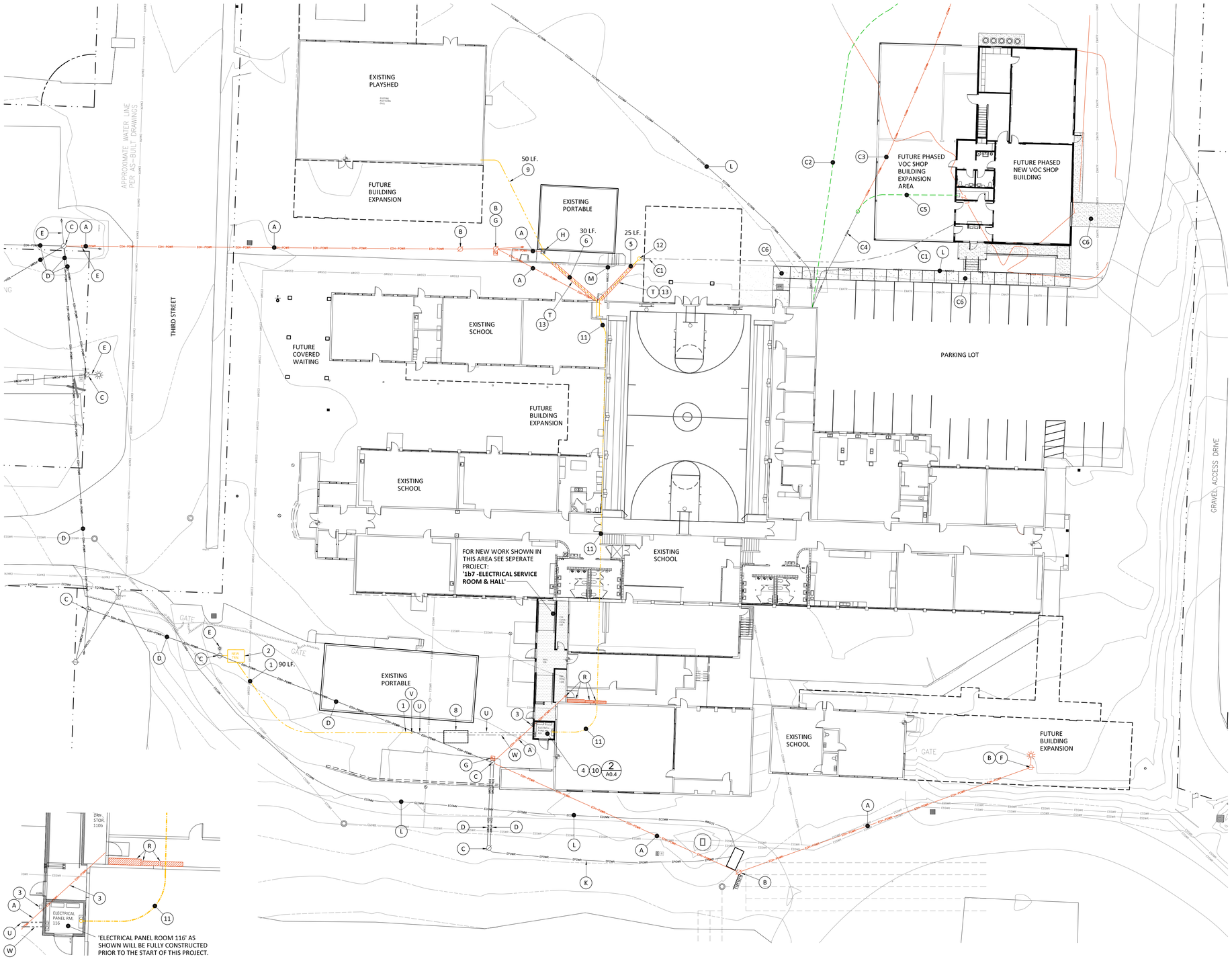
PHASING SITE PLAN
ELECTRICAL SERVICE UPGRADE



2 A0.4 Enlarged Electrical Room

Not to Scale

1 A0.4 Site Plan - Demolition & New (Enlarged)

SCALE: 1:20'

General Notes

APPLICABLE TO THIS SHEET ONLY

1 - Coordinate work with Local Power Company 'Consumers Power Inc.' Contact; Heather Harris-Woffendin 541-929-8619. heatherh@cpi.coop

(X")	Height Above Fin. Floor
(TYP)	Typical (x)=#
(NIC)	Not In Contract
(UNO)	Unless Noted Otherwise
(X)	Number or Quantity

Phasing Narrative & Notation

1a 2021 - (PHASE 1a)

2. DESIGN & ESTABLISH NEW POWER SERVICE

Keyed Notes

Applicable to this Sheet only

NOTE: DEMOLITION SHOWN IS PRESCRIPTIVE IN NATURE - IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM ALL REQUIRED DEMOLITION TO ACCOMPLISH THE COMPLETED NEW OR REMODELED CONDITION SHOWN ON THE PROJECT DOCUMENTS.

EXISTNG & DEMOLITION POWER

A (D) EXISTING OVERHEAD POWER LINES - REMOVAL OF LINES BY UTILITY

B (D) UTILITY POLE - REMOVAL OF POLE BY UTILITY.

C (E) UTILITY POLE - POLE TO REMAIN, DO NOT DISTURB

D (E) OVERHEAD POWER LINES - TO REMAIN, DO NOT DISTURB

E (E) STREET LIGHT - POLE MOUNTED, TO REMAIN, DO NOT DISTURB

F (D) STREET LIGHT - POLE MOUNTED, DEMOLISH WITH POLE BY UTILITY

G (D) POWER METER - POLE MOUNTED, DEMOLISH WITH POLE BY UTILITY

H (D) POWER METER - BUILDING MOUNTED, REMOVE METER AND MAINTAIN BOX FOR NEW UNDERGROUND CONNECTION FROM MAIN SCHOOL BUILDING AND DISTRIBUTION TO PLAY SHED.

J (D) OVERHEAD BUILDING POWER - REMOVE WEATHER HEAD TO WEATHER HEAD, BY CONTRACTOR

K (E) UNDERGROUND POWER - IN CONDUIT, DO NOT DISTURB

L (E) UNDERGROUND COMMUNICATIONS - IN CONDUIT, DO NOT DISTURB

M (E) OVERHEAD COMMUNICATIONS - DO NOT DISTURB, RELOCATION WILL OCCUR IN FUTURE PHASE

R (D) EXISTING SERVICE POWER PANELS- DEMOLISH PANELS AND ROOF TOP WEATHER HEAD ONCE NEW PANELS ARE IN PLACE AND ARE READY TO BE ENERGIZED, REPAIR ROOF PENETRATION, SEE ELECTRICAL SHEETS

T (D) CUT PAVEMENT - DEMOLISH SAWCUT PAVEMENT FOR NEW UNDERGROUND CONDUIT.

U (E) EMPTY CONDUIT - FOR POWER SERVICE CONDUCTORS.

V CONDUIT INTERFACE POINT - CONNECT NEW SERVICE CONDUIT TO EXISTING EMPTY CONDUIT AT LOCATION SHOWN.

W (E) EMPTY CONDUIT - FOR BACK UP GENERATOR

NEW & RENNOVATED POWER

1 (N) SERVICE UNDERGROUND POWER CONDUIT & CONDUCTORS - SERVICE LINE, SEE ELECTRICAL PLANS & UTILITY ENGINEERING. COORDINATE CONDUCTOR INSTALL WITH UTILITY COMPANY.

2 (N) POWER TRANSFORMER - PAD MOUNTED, SEE ELECTRICAL PLANS & UTILITY ENGINEERING. COORDINATE CONDUCTOR INSTALL WITH UTILITY COMPANY.

3 (N) ELECTRICAL METER - EXTERIOR MOUNTED ON NEW ELECTRICAL ROOM. COORDINATE PLACEMENT AND INSTALL WITH UTILITY COMPANY.

4 (N) ELECTRICAL ROOM - LOCATE MAIN SWITCHGEAR, PANELS, ETC. IN THIS AREA, SEE ELECTRICAL SHEETS.

5 (N) UNDERGROUND POWER CONDUIT - FROM GYMNASIUM TO FUTURE VOC BUILDING, STOP AND MARK CONDUIT AS INDICATED. SEE ELECTRICAL SHEETS.

6 (N) UNDERGROUND POWER CONDUIT & CONDUCTORS - FROM BUILDING TO EXISTING METER BOX (METER REMOVED) ON PORTABLE CLASSROOM

7 UNDERGROUND CONDUIT TO EMERGENCY GENERATOR LOCATION - SEE ELECTRICAL

8 (N) EMERGENCY GENERATOR LOCATION - (FUTURE) SIZE & CAPACITY TO BE DETERMINED.

9 (N) UNDERGROUND POWER CONDUIT & CONDUCTORS - FROM METER BOX (METER REMOVED) TO PLAYSHED

10 NEW SERVICE POWER PANELS - SEE ELECTRICAL SHEETS

11 NEW DISTRIBUTION LINES - ROUTE NEW DISTRIBUTION LINES ALONG ROOF TOP MOUNTED CONDUIT FROM NEW SERVICE PANELS TO EXISTING GYMNASIUM ELECTRICAL ROOM, SEE ELECTRICAL SHEETS

12 STOP & MARK - STOP NEW CONDUIT AT THIS POINT INDICATED. MARK FOR FUTURE EXTENSION TO NEW VOC SHOP BUILDING.

13 PATCH PAVEMENT - PATCH BACK PAVEMENT AS REQUIRED.

12 INTERFACE NEW & EXISTING CONDUIT - CONNECT NEW CONDUIT TO EXISTING EMPTY CONDUIT FROM PREVIOUS PROJECT.

Future Phase Coordination Notes

Applicable to this Sheet only

NOTE: THE FOLLOWING NOTES APPLY TO FUTURE PHASED WORK THAT MAY IMPACT OR REQUIRE COORDINATION WITH THE CURRENT PHASE OF WORK.

DO NOT BID THE FOLLOWING WORK:

C1 FUTURE UNDERGROUND POWER CONDUIT - TO FUTURE VOC BUILDING

C2 NEW FIBER OPTIC ROUTE - EXISTING FIBER OPTIC LINE FROM STREET TO BE REROUTED IN FUTURE PHASE WORK

C3 ABANDON EXISTING FIBER OPTIC CONDUIT - EXISTING FIBER OPTIC LINE TO BE ABANDONED IN FUTURE PHASED WORK

C4 MAINTAIN EXISTING FIBER OPTIC CONDUIT - RE-USE EXISTING FIBER OPTIC CONDUIT FOR FUTURE PHASED WORK.

C5 FUTURE NEW FIBER OPTIC CONDUIT - INTERFACED WITH EXISTING CONDUIT TO BE RUN TO FUTURE VOC BUILDING.

C6 FUTURE SIDEWALK / ASPHALT - TO BE CONSTRUCTED IN FUTURE PHASED WORK

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Enlarged Architectural Site SITE PLAN

ELECTRICAL ABBREVIATIONS

A	AMPERES
AC	6" ABOVE BACKSPLASH
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AF	AMP FRAME
AIC	AMPS INTERRUPTING CAPACITY
AT	AMP TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CO	CONDUIT ONLY, PROVIDE PULL-LINE
CT	CURRENT TRANSFORMER
CTL	CONTROL
DC	DIRECT CURRENT
DEMO	DEMOLITION
DET	DETAIL
E	EMPTY/EMERGENCY
(E)	EXISTING
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
EL	EMERGENCY LIGHT
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EXG	EXISTING
F	FUSE
FVNR	FULL VOLTAGE NON-REVERSING
FYR	FULL VOLTAGE REVERSING
G/GND	GROUND
GFI	GROUND FAULT INTERRUPTION
HH	HANDHOLE
HID	HIGH INTENSITY DISCHARGE
HOA	HAND-OFF-AUTO
HPS	HIGH PRESSURE SODIUM
HT	HEIGHT
HVAC	HEATING, VENTILATING, & AIR CONDITIONING
HACR	HEATING, AIR CONDITIONING, REFRIGERATION
IBT	INTERSYSTEM BONDING TERMINATION
IC	INTERRUPTING CAPACITY
IG	ISOLATED GROUND
IPCO	IDAHO POWER COMPANY
J/JB	JUNCTION BOX
KA	KILOAMP
KW	KILOWATT
KWH	KILOWATT HOUR
LTE	LONG TERM EVALUATION
M	MAGNETIC CONTACTOR COIL
MB	MAIN BREAKER
MC	MECHANICAL CONTRACTOR
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MLO	MAIN LUGS ONLY
MS	MOTOR STARTER
MH	MANHOLE
MH	METAL HALIDE
MTG	MOUNTING
N	NEUTRAL
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OH	OVERHEAD
OL	OVERLOAD
OS	OCCUPANCY SENSOR
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
PC	PHOTOCELL
PNL	PANEL
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE
PWR	POWER
PIR	PASSIVE INFARED
REC	RECEPTACLE
(R)	RELOCATED
SF	SQUARE FEET
T	TELEPHONE
TB	TERMINAL BOARD
TBD	TO BE DETERMINED
TC	TIME CLOCK
TDR	TIME DELAY RELAY
TJB	TERMINAL JUNCTION BOX
TSP	TWISTED SHIELDED PAIR
TTB	TELEPHONE TERMINAL BOARD
TYP	TYPICAL
UG	UNDERGROUND
UH	UNIT HEATER
UNO	UNLESS NOTED OTHERWISE
V	VOLT
VA	VOLT-AMPERE
WP	WEATHER PROOF/NEMA 3R
XFMR	TRANSFORMER
X	EXPLOSION PROOF
XFR	TRANSFER

LIGHTING SYMBOLS
see luminaire schedule for mounting and fixture type

- 2'x4' ARCHITECTURAL LUMINAIRE
- 2'x4' PARABOLIC LUMINAIRE
- 2'x4' LUMINAIRE
- 2'x4' LUMINAIRE WITH EMERGENCY POWER SOURCE AS NOTED
- 1'x4' LUMINAIRE
- 1'x4' LUMINAIRE WITH EMERGENCY POWER SOURCE AS NOTED
- 6"x4' LUMINAIRE
- 6"x4' LUMINAIRE WITH EMERGENCY POWER SOURCE AS NOTED
- 2'x2' PARABOLIC LUMINAIRE
- 2'x2' LUMINAIRE
- SURFACE CABLE DOWN LUMINAIRE
- SURFACE PENDANT LUMINAIRE
- STEP LUMINAIRE
- RECESSED WALLWASH LUMINAIRE
- RECESSED SLOPED CEILING LUMINAIRE
- RECESSED ACCENT LUMINAIRE
- RECESSED LUMINAIRE
- RECESSED LUMINAIRE WITH EMERGENCY POWER SOURCE AS NOTED
- INDIRECT LUMINAIRE (LENGTH AS INDICATED ON DWGS) GRID CEILINGS: PROVIDE WITH UL LISTED GRID JUNCTION BOX. EXCESS AIRCRAFT CABLE TO BE COILED AND CONCEALED IN FIXTURE. **DO NOT CUT OFF EXCESS AIRCRAFT CABLE**; VERIFY FINAL MOUNTING HEIGHT WITH OWNER; SEE DETAIL ON DETAIL SHEET(S)
- INDIRECT LUMINAIRE WITH EMERGENCY POWER SOURCE AS NOTED (LENGTH AS INDICATED ON DWGS) GRID CEILINGS: PROVIDE WITH UL LISTED GRID JUNCTION BOX. EXCESS AIRCRAFT CABLE TO BE COILED AND CONCEALED IN FIXTURE. **DO NOT CUT OFF EXCESS AIRCRAFT CABLE**; VERIFY FINAL MOUNTING HEIGHT WITH OWNER; SEE DETAIL ON DETAIL SHEET(S)
- 4' WALL FIXTURE
- 4' WALL FIXTURE WITH EMERGENCY POWER SOURCE AS NOTED
- 2' WALL FIXTURE
- 2' WALL FIXTURE WITH EMERGENCY POWER SOURCE AS NOTED
- 3' WALL FIXTURE
- EMERGENCY LUMINAIRE
- SURFACE/WALL MOUNTED FLOOD LIGHT
- TRACK LUMINAIRE HEAD MOUNTED AS INDICATED
- ROUND LUMINAIRE
- WALL MOUNTED LUMINAIRE
- TC — TIMECLOCK
- P — PHOTOCELL
- OC — OCCUPANCY SENSOR. OCCUPANCY SENSOR TO BE INSTALLED NO LESS THAN 6FT FROM ANY HVAC DIFFUSERS.
- VS — CEILING MOUNTED VACANCY SENSOR. VACANCY SENSOR TO BE INSTALLED NO LESS THAN 6FT FROM ANY HVAC DIFFUSERS. PROVIDE WITH LOW VOLTAGE MOMENTARY WALL SWITCH FOR MANUAL 'ON' CONTROL.
- POLE LIGHT WITH ONE HEAD ARM MOUNTED
- POLE LIGHT WITH TWO HEADS ARM MOUNTED
- WALLPACK LUMINAIRE
- WALLPACK LUMINAIRE WITH EMERGENCY POWER SOURCE AS NOTED
- LIGHTING CONTACTOR TO BE NEMA 1 UNLESS NOTED OTHERWISE. SIZE, POLES, AND TYPE AS INDICATED ON DRAWING
- CEILING MOUNTED EXIT SIGN, DOUBLE FACE
- WALL MOUNTED EXIT SIGN, DOUBLE FACE
- CEILING MOUNTED EXIT SIGN, SINGLE FACE
- WALL MOUNTED EXIT SIGN, SINGLE FACE
- WALL MOUNTED EXIT SIGN/ EMERGENCY LIGHT COMBO UNIT, SINGLE FACE
- ARROW INDICATES DIRECTION TO BE SHOWN ON SIGN

MOUNTING TYPE — X|XX (ALL / UNO) — LAMP TYPE AND NUMBER TO DIFFERENT LUMINAIRE
E-DESIGNATES FIXTURE WITH EMERGENCY BATTERY

FIXTURES WITH AN 'E' DESIGNATION ARE TO BE SUPPLIED WITH BODINE 90 MINUTE EMERGENCY BATTERY PACK (OR EQUAL) SUITABLE FOR THAT FIXTURES LAMP TYPE AND TO PRODUCE 50% OF THE ORIGINAL OUTPUT.

ELECTRICAL DEVICE SYMBOLS
see electrical specifications for further information

- $S — DUAL LEVEL SWITCHING, INSIDE AND OUTSIDE LAMPS OF FIXTURE TO BE SWITCHED SEPARATELY.
- SINGLE RECEPTACLE. MOUNT AT +18" AFF UNLESS NOTED OTHERWISE.
- SINGLE RECEPTACLE. MOUNTED IN FLOOR. TYPE OF BOX AS INDICATED.
- DUPLEX RECEPTACLE. MOUNT AT +18" AFF UNLESS NOTED OTHERWISE.
  C CEILING MOUNTED
- DUPLEX RECEPTACLE, HALF OF RECEPTACLE SHALL BE SWITCHED. MOUNT AT +18" AFF UNLESS NOTED OTHERWISE.
- DUPLEX RECEPTACLE. MOUNTED IN FLOOR. TYPE OF BOX AS INDICATED.
- FOURPLEX RECEPTACLE. MOUNT AT +18" AFF UNLESS NOTED OTHERWISE.
- FOURPLEX RECEPTACLE. MOUNTED IN FLOOR. TYPE OF BOX AS INDICATED.
- $ — SWITCH SUBSCRIPT INDICATES TYPE OF SWITCH. MOUNT AT +46" AFF UNLESS NOTED OTHERWISE

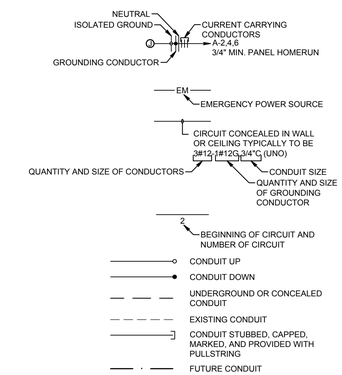
D	DIMMER
K	KEYED
LV	LOW VOLTAGE
M	MOMENTARY CONTACT
OV	OVERRIDE
OC	OCCUPANCY SENSOR; SEE DRAWINGS FOR ADDITIONAL INFORMATION. FOR 2-POLE, LINE VOLTAGE OCCUPANCY SENSOR, FURNISH AND INSTALL DUAL LEVEL SWITCHING. SENSORS MUST BE DUAL TECHNOLOGY AND A MINIMUM OF 1,000 SQUARE FEET OF COVERAGE.
VS	VACANCY SENSOR; SEE DRAWINGS FOR ADDITIONAL INFORMATION. FOR SENSORS MUST BE DUAL TECHNOLOGY AND A MINIMUM OF 1,000 SQUARE FEET OF COVERAGE. VACANCY SENSOR TO BE PROVIDED WITH MANUAL 'ON' OPERATION.
P	PILOT LIGHT
TO	THERMAL OVERLOAD (THE NUMBER OF POLES TO MATCH CIRCUIT REQUIREMENTS AND BE SIZED FOR ASSOCIATED MOTOR LOAD.)
2	DOUBLE POLE
3	THREE WAY
4	FOUR WAY
a	SUPERSCRIPT INDICATES LIGHTS TO BE SWITCHED

- MOTOR STARTER/CONTACTOR TO BE NEMA 1 UNLESS NOTED OTHERWISE. SIZE AND TYPE AS INDICATED ON DRAWING.
- COMBINATION MOTOR STARTER AND DISCONNECT TO BE NEMA 1 UNLESS NOTED OTHERWISE. SIZE AND TYPE AS INDICATED ON DRAWING.
- F — FUSED DISCONNECT SWITCH TO BE NEMA 1 UNLESS NOTED OTHERWISE. SIZE AND POLES AS INDICATED.
- NON-FUSED DISCONNECT SWITCH TO BE NEMA 1 UNLESS NOTED OTHERWISE. SIZE AND POLES AS INDICATED.
- T — THERMOSTAT MOUNTED AT +48" AFF UNLESS NOTED OTHERWISE. MECHANICAL UNIT TO BE CONTROLLED AS INDICATED.
- AQUASTAT
- EQUIPMENT CONNECTION POINT. VERIFY TYPE OF CONNECTION WITH EQUIPMENT SUPPLIER. ELECTRICAL CONTRACTOR TO SUPPLY ALL RACEWAY AND CONDUCTORS UNLESS NOTED OTHERWISE.
- EQUIPMENT CONNECTION POINT MOUNTED IN FLOOR. TYPE OF BOX AS INDICATED. VERIFY TYPE OF CONNECTION WITH EQUIPMENT SUPPLIER. ELECTRICAL CONTRACTOR TO SUPPLY ALL RACEWAY AND CONDUCTORS UNLESS NOTED OTHERWISE
- GROUND ROD; 5/8" BY 10' MINIMUM, COPPER-CLAD
- JUNCTION BOX
- WALL MOUNTED PUSHBUTTON. MOUNT AT +46" AFF UNLESS NOTED OTHERWISE
- 3 BUTTON DOOR CONTROLLER
- 2 BUTTON DOOR CONTROLLER
- T# T or T# — TRANSFORMER. SIZE AND TYPE AS INDICATED # = TRANSFORMER DESIGNATION
- $ TO M — MOTOR WITH THERMAL OVERLOAD
- M — MOTOR
- ## or ## — PANELBOARD. SEE ELECTRICAL SCHEDULES FOR TYPE, SIZE AND MOUNTING # = PANELBOARD DESIGNATION
- EQUIPMENT CABINET, SURFACE MOUNTED
- EQUIPMENT CABINET, FLUSH MOUNTED
- WALL MOUNTED CIRCUIT BREAKER. TYPE AND SIZE AS INDICATED
- WM — WIREMOLD - POWER AND DATA RACEWAY MOUNT RECEPTACLES AS SHOWN. MOUNTING OF RACEWAY AS INDICATED
- PM — PLUGMOLD - POWER ONLY
- # # — MECHANICAL EQUIPMENT CALLOUT
- POWER POLE
- TWO COMPARTMENT POWER POLE

ONE LINE SYMBOLS
see electrical specifications for further information

- ATS #A #P — AUTOMATIC TRANSFER SWITCH, SIZE AND POLES AS INDICATED ON DRAWING
- #A #P — CIRCUIT BREAKER; SIZE AND POLES AS INDICATED ON DRAWING
- PANEL — PANELBOARD; NAME, SIZE, TYPE AS INDICATED ON DRAWINGS
- PAD MOUNTED TRANSFORMER BY LOCAL UTILITY
- M — METER
- GROUND BAR
- S — SECTOR SWITCH

CIRCUITING SYMBOLS
see electrical specifications for further information



LINE TYPES

- EXISTING
- DEMOLITION
- FUTURE
- NEW

ELECTRICAL DRAWING SHEET INDEX

E0.0	ELECTRICAL SYMBOLS AND SHEET INDEX
E1.0D	ELECTRICAL SITE DEMOLITION PLAN
E1.0E	ELECTRICAL SITE PLAN
E3.0	SITE DEMOLITION POWER DISTRIBUTION PLAN
E3.1	SITE - NEW POWER DISTRIBUTION PLAN
E3.2	EXISTING/DEMOLITION ONE LINE DIAGRAM
E3.3	NEW ONE LINE DIAGRAM
E3.4	ELECTRICAL SCHEDULES

1 / E0.0 ELECTRICAL SYMBOLS AND SHEET INDEX
SCALE: NO SCALE

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REGISTERED PROFESSIONAL ENGINEER — OREGON — AUG. 09, 2001 — JON W. VAN STONE — EXPIRATION DATE: 6/30/22

ALSEA SD - NEW VOC SHOP BUILDING & POWER SERVICE INFRASTRUCTURE

STAND ALONE BUILDING & CAMPUS POWER INFRASTRUCTURE IMPROVEMENT

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Date: 4-14-2021
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1b 2c
1c 2d

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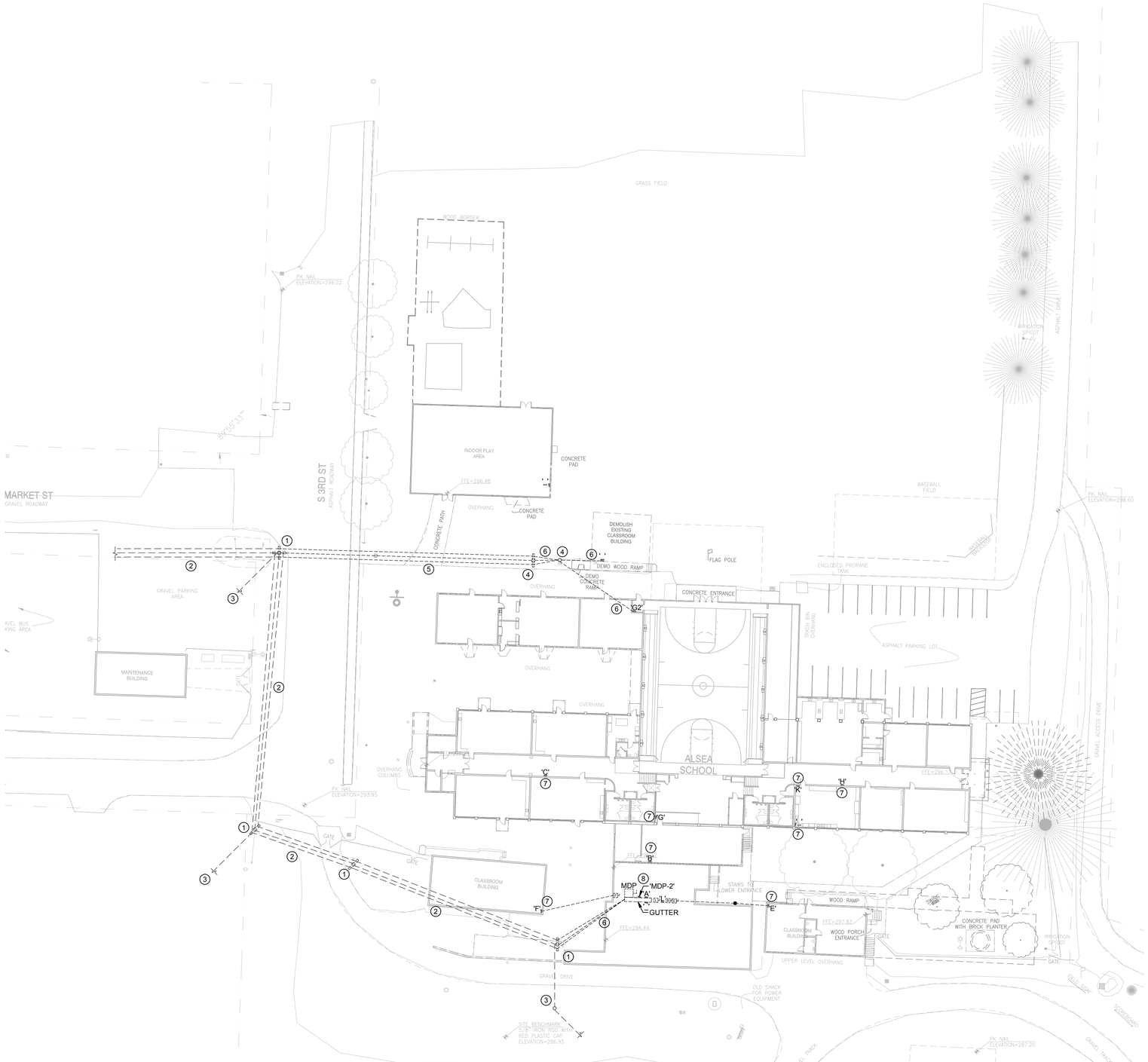
E0.0

ELECTRICAL SYMBOLS AND SHEET INDEX



1 E1.0D ELECTRICAL SITE DEMOLITION PLAN

SCALE: 1" = 30'-0"

GENERAL NOTES:

1. ALL WORK SHALL BE COORDINATED WITH THE LOCAL UTILITY COMPANY AND THE SCHOOL DISTRICT FOR DEMOLITION, PROTECTION OF EXISTING TO REMAIN, CONSTRUCTION SCHEDULING, DOWN TIME WITH OF THE SCHOOL (POWER OUTAGES).
2. ALL EXISTING CONDITIONS SHALL BE FIELD VERIFIED PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY.

KEYED NOTES:

1. EXISTING POWER POLE TO REMAIN, SHOWN FOR REFERENCE ONLY.
2. EXISTING OVERHEAD PRIMARY CONDUCTORS ARE TO REMAIN, SHOWN FOR REFERENCE ONLY.
3. EXISTING OVERHEAD SECONDARY TO REMAIN, SHOWN FOR REFERENCE ONLY,
4. EXISTING POWER POLE TO BE DISCONNECTED AND REMOVED BY LOCAL UTILITY COMPANY. ALL WORK SHALL BE COORDINATED WITH THE UTILITY COMPANY AND THE SCHOOL DISTRICT BY THE ELECTRICAL CONTRACTOR.
5. EXISTING OVERHEAD PRIMARY POWER TO BE DISCONNECTED AND REMOVED BY LOCAL UTILITY COMPANY. ALL WORK SHALL BE COORDINATED WITH THE UTILITY COMPANY AND THE SCHOOL DISTRICT BY THE ELECTRICAL CONTRACTOR.
6. EXISTING OVERHEAD SECONDARY TO BE DISCONNECTED AND REMOVED BY THE ELECTRICAL CONTRACTOR, INCLUDING WEATHER HEADS, SERVICE ENTRANCE PANELS, METER BASES, METERS, AND OTHER ITEMS ASSOCIATED WITH THE POWER DISTRIBUTION SYSTEM. ALL WORK SHALL BE COORDINATED WITH THE UTILITY COMPANY AND THE SCHOOL DISTRICT BY THE ELECTRICAL CONTRACTOR.
7. SEE ONE LINE DIAGRAMS ON SHEET E3.2 AND E3.3 FOR INFORMATION REGARDING THE EXISTING PANELS THAT ARE TO REMAIN AND BE RE-FED FROM THE NEW MSB.
8. ALL SERVICE ENTRANCE EQUIPMENT AND POWER DISTRIBUTION EQUIPMENT IN THIS AREA SHALL BE DISCONNECTED AND REMOVED, SEE DEMOLITION ONE LINE DIAGRAM ON SHEET E3.2 FOR ADDITIONAL INFORMATION. SEE NEW ONELINE DIAGRAM ON SHEET E3.3 FOR RE-FEEDING THE PANELS THAT ARE EXISTING TO REMAIN.

REGISTERED PROFESSIONAL ENGINEER
OREGON
AUG. 09, 1983
JOHN W. VAN STONE
EXPIRATION DATE: 6/30/22

ALSEA SD - NEW VOC SHOP BUILDING & POWER SERVICE INFRASTRUCTURE

STAND ALONE BUILDING & CAMPUS POWER INFRASTRUCTURE IMPROVEMENT

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ELECTRICAL SITE DEMOLITION PLAN

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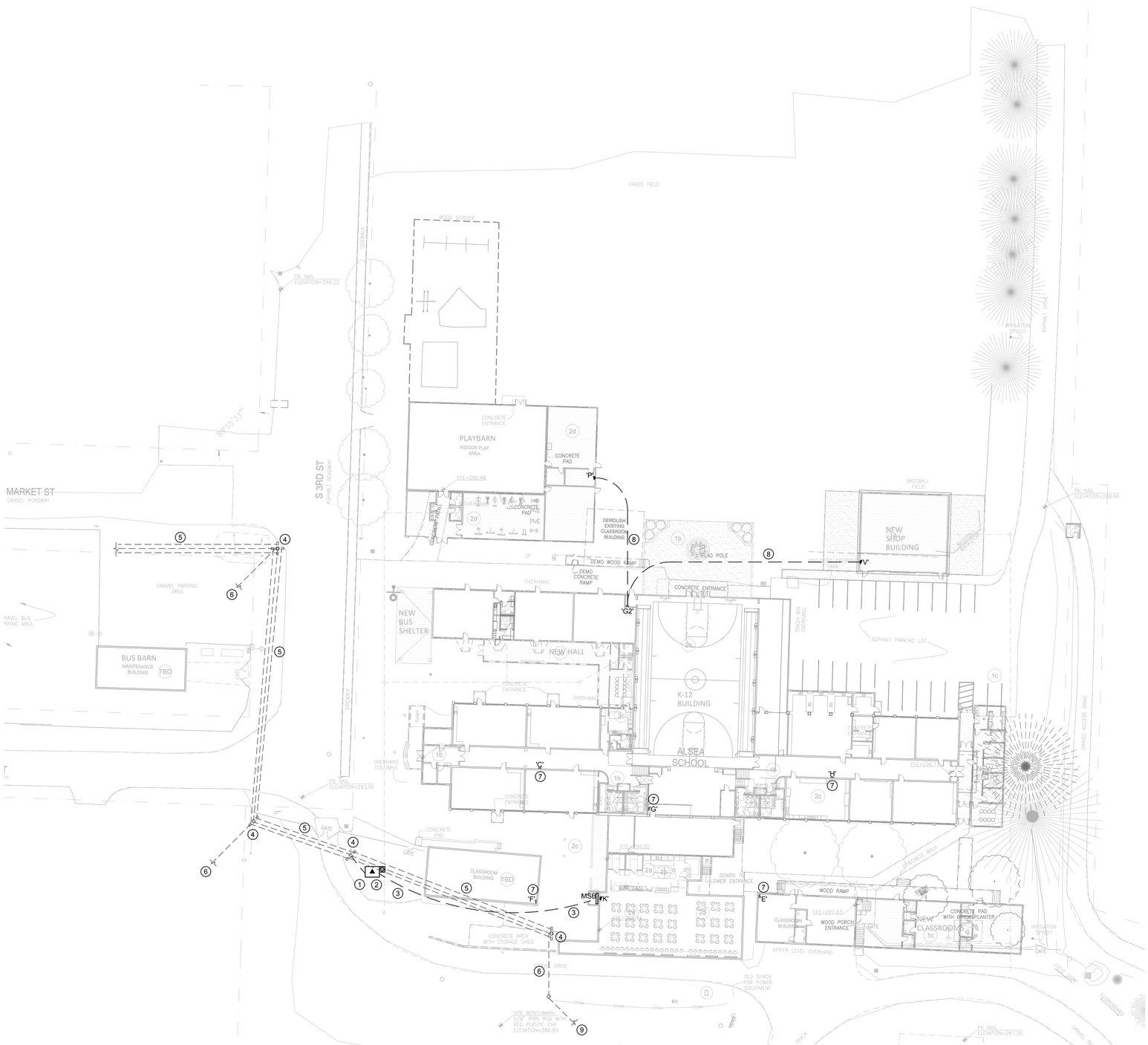
fax: 208.378.4451
e2co project #: 21048



1 E1.0E ELECTRICAL SITE PLAN

SCALE: 1" = 30'-0"

NORTH

GENERAL NOTES:

1. ALL WORK SHALL BE COORDINATED WITH THE LOCAL UTILITY COMPANY AND THE SCHOOL DISTRICT FOR DEMOLITION, PROTECTION OF EXISTING TO REMAIN, CONSTRUCTION SCHEDULING, DOWN TIME WITH OF THE SCHOOL (POWER OUTAGES).
2. ALL EXISTING CONDITIONS SHALL BE FIELD VERIFIED PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY.
3. COORDINATE ALL UNDERGROUND SITE WORK WITH OTHER DISCIPLINES TO AVOID REWORK.
4. ALL IN-GRADE JUNCTION BOXES TO BE FIBERGLASS 12"x12"x18" DEEP. WITH LID LABELED 'ELECTRICAL'. FINISH ELEVATION OF TOP OF LID TO BE FLUSH WITH FINISHED GRADE; UNLESS NOTED OTHERWISE.
5. ALL PENETRATIONS THROUGH SLAB ARE TO BE SCOTCH WRAP RIGID CONDUIT OR PVC COATED RIGID CONDUIT.
6. ALL UNDERGROUND CONDUIT SHALL BE 1" SCHEDULE 40 PVC; UNLESS NOTED OTHERWISE.
7. SEE TRENCH DETAIL ON DETAIL SHEET(S) FOR INSTALLATION OF ALL UNDERGROUND CONDUITS.
8. COORDINATE LOCATION OF POWER, CABLE, AND TELECOMMUNICATION UTILITIES WITH THE LOCAL UTILITY COMPANY PRIOR TO ROUGH-IN OF THE UTILITY CONDUITS.

KEYED NOTES:

1. NEW UNDERGROUND PRIMARY BY LOCAL UTILITY CO. SEE SHEETS E3.1 AND E3.3 FOR FURTHER INFORMATION. COORDINATE LOCATION WITH UTILITY COMPANY PRIOR TO ROUGH-IN.
2. NEW PAD MOUNTED TRANSFORMER, PAD AND METER BY LOCAL UTILITY CO. COORDINATE LOCATION WITH UTILITY COMPANY PRIOR TO ROUGH-IN.
3. UNDERGROUND SECONDARY BY ELECTRICAL CONTRACTOR, SEE ONE-LINE DIAGRAM ON SHEET E3.3 FOR CONDUIT AND CONDUCTOR SIZING. ALL 90'S ARE TO BE LONG SWEEP TYPE.
4. EXISTING POWER POLE TO REMAIN, SHOWN FOR REFERENCE ONLY.
5. EXISTING OVERHEAD PRIMARY CONDUCTORS ARE TO REMAIN, SHOWN FOR REFERENCE ONLY.
6. EXISTING OVERHEAD SECONDARY TO REMAIN, SHOWN FOR REFERENCE ONLY,
7. SEE ONE LINE DIAGRAMS ON SHEET E3.2 AND E3.3 FOR INFORMATION REGARDING THE EXISTING PANELS THAT ARE TO REMAIN AND BE RE-FED FROM THE NEW MSB.
8. NEW UNDERGROUND FEEDERS FROM PANEL G2 TO PANELS P AND V, SEE ONELINE DIAGRAM ON SHEET E3.3 FOR ADDITIONAL INFORMATION.
9. EXISTING UNDERGROUND FEEDERS TO EXISTING FOOTBALL FIELD BRANCH CIRCUITING TO REMAIN.

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ELECTRICAL SITE PLAN

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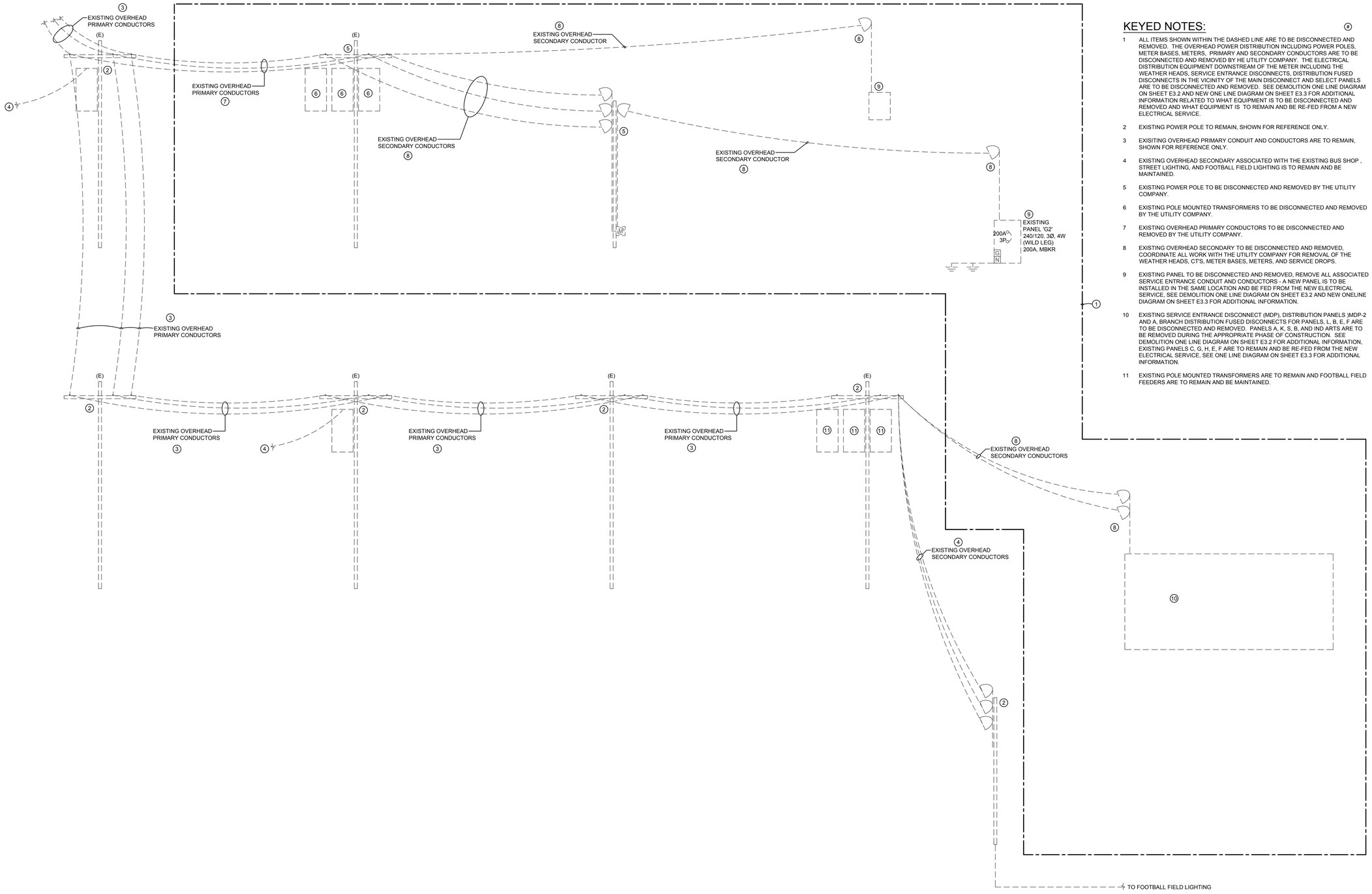

KEYED NOTES:

1 ALL ITEMS SHOWN WITHIN THE DASHED LINE ARE TO BE DISCONNECTED AND REMOVED. THE OVERHEAD POWER DISTRIBUTION INCLUDING POWER POLES, METER BASES, METERS, PRIMARY AND SECONDARY CONDUCTORS ARE TO BE DISCONNECTED AND REMOVED BY HE UTILITY COMPANY. THE ELECTRICAL DISTRIBUTION EQUIPMENT DOWNSTREAM OF THE METER INCLUDING THE WEATHER HEADS, SERVICE ENTRANCE DISCONNECTS, DISTRIBUTION FUSED DISCONNECTS IN THE VICINITY OF THE MAIN DISCONNECT AND SELECT PANELS ARE TO BE DISCONNECTED AND REMOVED. SEE DEMOLITION ONE LINE DIAGRAM ON SHEET E3.2 AND NEW ONE LINE DIAGRAM ON SHEET E3.3 FOR ADDITIONAL INFORMATION RELATED TO WHAT EQUIPMENT IS TO BE DISCONNECTED AND REMOVED AND WHAT EQUIPMENT IS TO REMAIN AND BE RE-FED FROM A NEW ELECTRICAL SERVICE.

2 EXISTING POWER POLE TO REMAIN, SHOWN FOR REFERENCE ONLY.

3 EXISITING OVERHEAD PRIMARY CONDUIT AND CONDUCTORS ARE TO REMAIN, SHOWN FOR REFERENCE ONLY.

4 EXISTING OVERHEAD SECONDARY ASSOCIATED WITH THE EXISTING BUS SHOP , STREET LIGHTING, AND FOOTBALL FIELD LIGHTING IS TO REMAIN AND BE MAINTAINED.

5 EXISTING POWER POLE TO BE DISCONNECTED AND REMOVED BY THE UTILITY COMPANY.

6 EXISTING POLE MOUNTED TRANSFORMERS TO BE DISCONNECTED AND REMOVED BY THE UTILITY COMPANY.

7 EXISTING OVERHEAD PRIMARY CONDUCTORS TO BE DISCONNECTED AND REMOVED BY THE UTILITY COMPANY.

8 EXISTING OVERHEAD SECONDARY TO BE DISCONNECTED AND REMOVED, COORDINATE ALL WORK WITH THE UTILITY COMPANY FOR REMOVAL OF THE WEATHER HEADS, CT'S, METER BASES, METERS, AND SERVICE DROPS.

9 EXISTING PANEL TO BE DISCONNECTED AND REMOVED, REMOVE ALL ASSOCIATED SERVICE ENTRANCE CONDUIT AND CONDUCTORS - A NEW PANEL IS TO BE INSTALLED IN THE SAME LOCATION AND BE FED FROM THE NEW ELECTRICAL SERVICE, SEE DEMOLITION ONE LINE DIAGRAM ON SHEET E3.2 AND NEW ONELINE DIAGRAM ON SHEET E3.3 FOR ADDITIONAL INFORMATION.

10 EXISTING SERVICE ENTRANCE DISCONNECT (MDP), DISTRIBUTION PANELS)MDP-2 AND A, BRANCH DISTRIBUTION FUSED DISCONNECTS FOR PANELS, L, B, E, F ARE TO BE DISCONNECTED AND REMOVED. PANELS A, K, S, B, AND IND ARTS ARE TO BE REMOVED DURING THE APPROPRIATE PHASE OF CONSTRUCTION. SEE DEMOLITION ONE LINE DIAGRAM ON SHEET E3.2 FOR ADDITIONAL INFORMATION, EXISTING PANELS C, G, H, E, F ARE TO REMAIN AND BE RE-FED FROM THE NEW ELECTRICAL SERVICE, SEE ONE LINE DIAGRAM ON SHEET E3.3 FOR ADDITIONAL INFORMATION.

11 EXISTING POLE MOUNTED TRANSFORMERS ARE TO REMAIN AND FOOTBALL FIELD FEEDERS ARE TO REMAIN AND BE MAINTAINED.

1 / E3.0 SITE DEMOLITION POWER DISTRIBUTION PLAN

SCALE: NO SCALE

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REGISTERED PROFESSIONAL ENGINEER
OREGON
AUG. 09, 1983
JON W. VAN STONE
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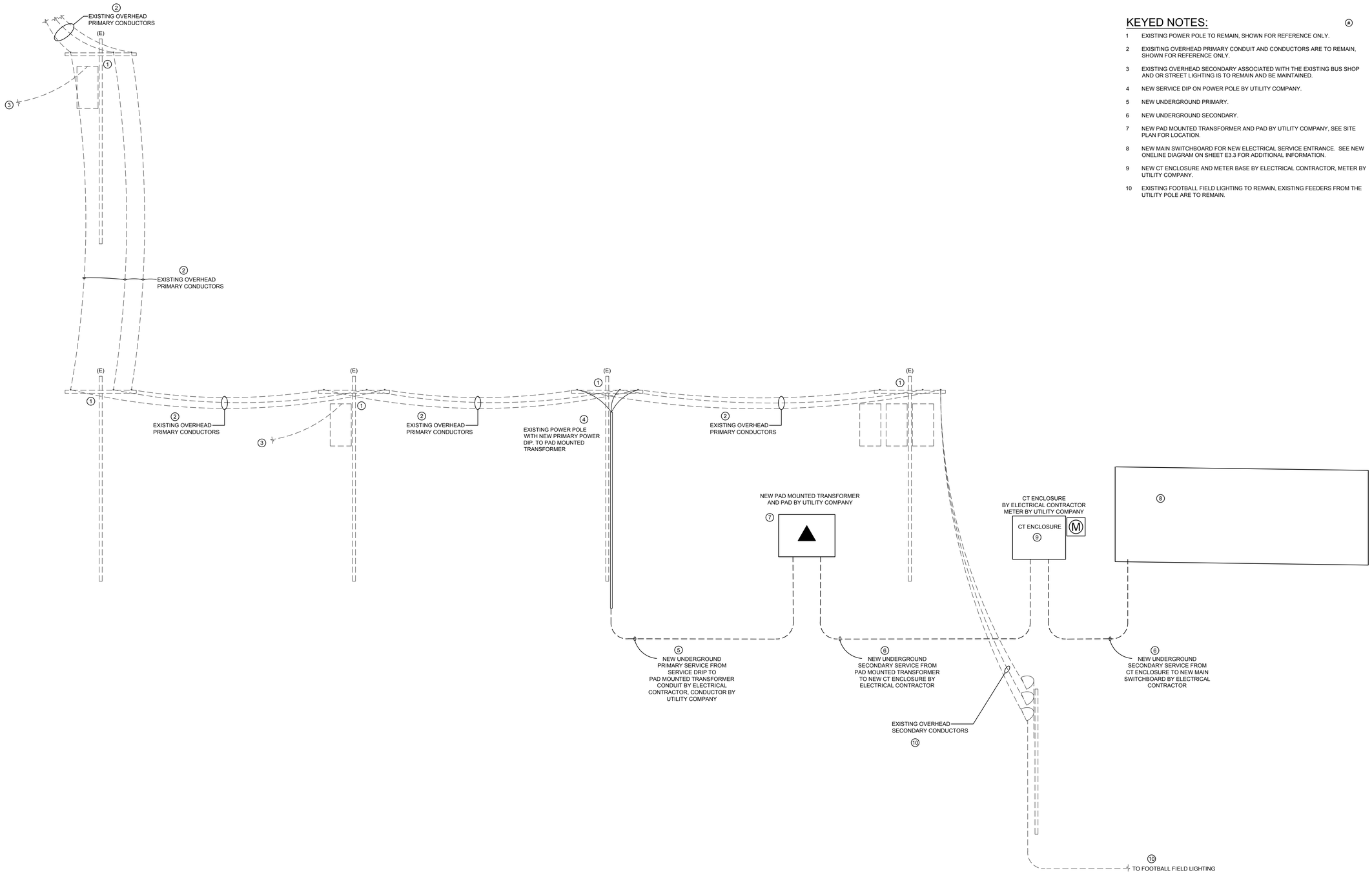

KEYED NOTES:

1. EXISTING POWER POLE TO REMAIN, SHOWN FOR REFERENCE ONLY.
2. EXISITING OVERHEAD PRIMARY CONDUIT AND CONDUCTORS ARE TO REMAIN, SHOWN FOR REFERENCE ONLY.
3. EXISTING OVERHEAD SECONDARY ASSOCIATED WITH THE EXISTING BUS SHOP AND OR STREET LIGHTING IS TO REMAIN AND BE MAINTAINED.
4. NEW SERVICE DIP ON POWER POLE BY UTILITY COMPANY.
5. NEW UNDERGROUND PRIMARY.
6. NEW UNDERGROUND SECONDARY.
7. NEW PAD MOUNTED TRANSFORMER AND PAD BY UTILITY COMPANY, SEE SITE PLAN FOR LOCATION.
8. NEW MAIN SWITCHBOARD FOR NEW ELECTRICAL SERVICE ENTRANCE. SEE NEW ONELINE DIAGRAM ON SHEET E3.3 FOR ADDITIONAL INFORMATION.
9. NEW CT ENCLOSURE AND METER BASE BY ELECTRICAL CONTRACTOR, METER BY UTILITY COMPANY.
10. EXISTING FOOTBALL FIELD LIGHTING TO REMAIN, EXISTING FEEDERS FROM THE UTILITY POLE ARE TO REMAIN.

1 / E3.1 SITE - NEW POWER DISTRIBUTION PLAN

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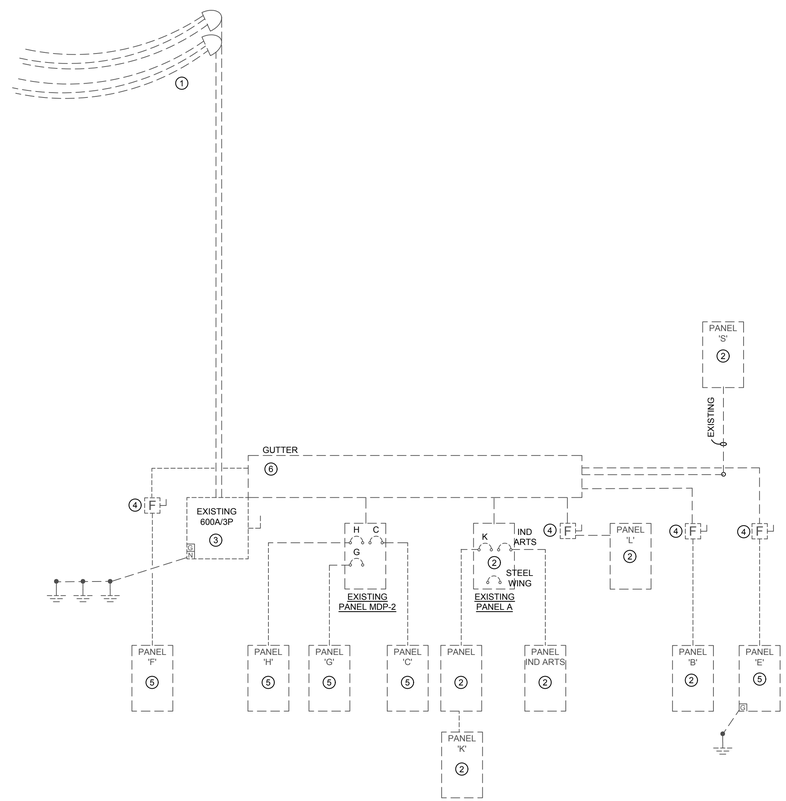
SITE - NEW POWER DISTRIBUTION PLAN



1 E3.2 EXISTING/DEMOLITION ONE LINE DIAGRAM

SCALE: NO SCALE

KEYED NOTES:

1. EXISTING OVERHEAD SECONDARY TO BE DISCONNECTED AND REMOVED, COORDINATE ALL WORK WITH THE UTILITY COMPANY FOR REMOVAL OF THE WEATHER HEADS, CT'S, METER BASES, METERS, AND SERVICE DROPS.
2. EXISTING PANEL TO BE DISCONNECTED AND REMOVED, REMOVE ALL ASSOCIATED SERVICE ENTRANCE CONDUIT AND CONDUCTORS DURING THE APPROPRIATE PHASE OF CONSTRUCTION. SEE DEMOLITION ONE LINE DIAGRAM ON SHEET E3.2 AND NEW ONELINE DIAGRAM ON SHEET E3.3 FOR ADDITIONAL INFORMATION.
3. EXISTING SERVICE ENTRANCE DISCONNECT (MDP), DISTRIBUTION PANELS)MDP-2 AND A, BRANCH DISTRIBUTION FUSED DISCONNECTS FOR PANELS, L, B, E, F ARE TO BE DISCONNECTED AND REMOVED. PANELS A, K, S, B, AND IND ARTS ARE TO BE REMOVED DURING THE APPROPRIATE PHASE OF CONSTRUCTION. SEE DEMOLITION ONE LINE DIAGRAM ON SHEET E3.2 FOR ADDITIONAL INFORMATION, EXISTING PANELS C, G, H, E, F ARE TO REMAIN AND BE RE-FED FROM THE NEW ELECTRICAL SERVICE, SEE ONE LINE DIAGRAM ON SHEET E3.3 FOR ADDITIONAL INFORMATION.
4. EXISTING DISCONNECT TO BE DISCONNECTED AND REMOVED, REMOVE CONDUIT AND CONDUCTORS TO SOURCE. SEE NEW ONE LINE DIAGRAM ON SHEET E3.3 FOR REQUIREMENTS ON HOW TO RE-FEED THE EXISTING PANEL ASSOCIATED WITH THE DISCONNECT.
5. EXISTING PANEL TO REMAIN AND BE RE-FED FROM THE NEW MSB, SEE NEW ONELINE DIAGRAM ON SHEET E3.3 FOR ADDITIONAL INFORMATION. EXISTING CONDUIT TO REMAIN AND BE EXTENDED TO NEW LOCATION OF MSB. EXISTING FEEDERS TO BE DISCONNECTED AND REMOVED, NEW FEEDERS TO BE INSTALLED FROM MSB TO PANEL. FIELD VERIFY EXISTING CONDITIONS.
6. EXISTING GUTTER, SERVICE ENTRANCE CONDUCTORS, AND DISTRIBUTION FEEDERS TO BE DISCONNECTED AND REMOVED DURING THE APPROPRIATE PHASE OF CONSTRUCTION.

REGISTERED PROFESSIONAL ENGINEER
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E3.2
EXISTING/DEMOLITION ONE LINE DIAGRAM

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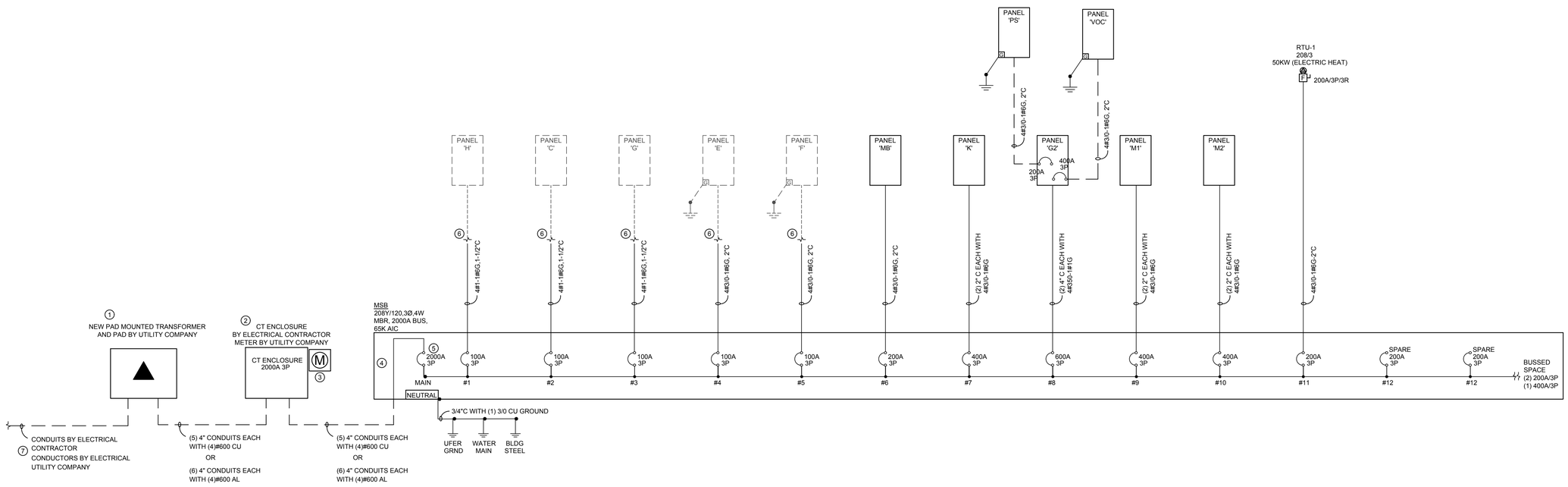
KEYED NOTES:

1. NEW PAD MOUNTED TRANSFORMER AND METER BY UTILITY COMPANY, SEE SITE PLAN FOR LOCATION.
2. ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL METER BASE AND CT ENCLOSURE AT UTILITY TRANSFORMER BASED ON LOCAL UTILITY REQUIREMENTS..
3. METER BY LOCAL UTILITY CO. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL METER BASE.
4. 'MSB' TO BE FURNISHED AND INSTALLED WITH PULL SECTION.
5. MAIN BREAKER IS TO BE FULLY ADJUSTABLE WITH ELECTRONIC TRIP UNIT WITH LSIG ADJUSTABILITY. BREAKER TO ALSO BE FURNISHED WITH ARC FLASH MAINTENANCE MODE SWITCH.
6. INTERCEPT EXISTING CONDUIT AND EXTEND TO LOCATION OF NEW MSB. INSTALL NEW CONDUCTORS AS INDICATED.
7. COORDINATE ALL CONDUIT REQUIREMENTS WITH UTILITY COMPANY. THIS INCLUDES THE NUMBER OF CONDUITS, SIZE OF CONDUITS, AND INSTALLATION (TRENCHING) REQUIREMENTS (INCLUDING BEDDING AND COMPACTION).



1 E3.3 NEW ONE LINE DIAGRAM

SCALE: NO SCALE

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E3.3

NEW ONE LINE DIAGRAM

ELECTRICAL LOAD SUMMARY - MSB (ESTIMATED LOADS)

Alsea Schools

PANEL AND/OR EQUIPMENT	VOLTAGE	ELECTRICAL LOAD (KVA)								CONNECTED LOAD		DEMAND LOAD	
		LIGHTING	REC.	MOTORS	KITCHEN	HVAC	NON-CONT.	ELEC. HEAT	CONT.	KVA	AMPS	KVA	AMPS
PANEL VOC (NEW)	208Y/120	4.50	11.88	-	-	38.40	28.80	-	-	83.6	232	83.8	233
PANEL PS (NEW)	208Y/120	3.00	6.30	-	-	72.00	4.80	-	-	86.1	239	86.9	241
PANEL MB (NEW)	208Y/120	2.40	3.78	-	-	19.20	2.50	-	-	27.9	77	28.5	79
PANEL K (NEW)	208Y/120	8.64	-	-	16.50	91.80	2.50	-	-	119.4	332	115.8	321
PANEL M1 (NEW)	208Y/120	-	1.80	-	-	86.40	-	-	-	88.2	245	88.2	245
PANEL M2 (NEW)	208Y/120	-	1.80	-	-	96.00	-	-	-	97.8	271	97.8	271
PANEL H (EXISTING)	208Y/120	-	-	-	-	-	-	-	-	0.0	0	0.0	0
PANEL C (EXISTING)	208Y/120	-	-	-	-	-	-	-	-	0.0	0	0.0	0
PANEL G (EXISTING)	208Y/120	-	-	-	-	-	-	-	-	0.0	0	0.0	0
PANEL E (EXISTING)	208Y/120	-	-	-	-	-	-	-	-	0.0	0	0.0	0
PANEL F (EXISTING)	208Y/120	-	-	-	-	-	-	-	-	0.0	0	0.0	0
RTU-1 (GYM)	208	-	-	-	-	50.00	-	-	-	50.0	139	50.0	139
TOTAL (NEW)		19	26	0	17	454	39	0	0	**553**	**1535**	**544**	**1510**
EXISTING DEMAND KW:	98												
EXISTING DEMAND X 125%:										122.5	340	122.5	340
TOTAL (NEW + EXISTING):										**676**	**1875**	**667**	**1850**

MAIN SERVICE DISCONNECT/EQUIPMENT RATING: 2000 AMPS

OCPD RATING	
STANDARD RATED	✓

Fault Current at Service Equipment

***MAXIMUM AVAILABLE FAULT CURRENT TO BE FIELD MARKED ON SERVICE EQUIPMENT PER NEC 110.24(A).

AVAILABLE FAULT CURRENT AT TERMINALS OF MAIN DISCONNECT = **42,269** **amperes**
MAIN SERVICE DISCONNECT AIC RATING: **65 K**

NEC DEMAND FACTORS

LOAD TYPE	CONNECTED LOAD (VA)	DEMAND FACTOR	DEMAND LOAD (VA)			
LIGHTING	18,540	125%	23,175			
RECEPTACLES	25,560	-	17,780	FIRST 10,000VA AT 100% + REMAINDER OVER 10,000VA AT 50%		
MOTORS	0	-	0	125% OF LARGEST MOTOR + 100% OF ALL OTHER MOTORS		
KITCHEN EQUIPMENT	16,500	65%	10,725	1-2 UNITS=100%, 3 UNITS=90%, 4 UNITS=80%, 5 UNITS=70%, >=6 UNITS=65%	>6	UNITS
HVAC EQUIPMENT	453,801	100%	453,801			
NON-CONTINUOUS LOADS	38,600	100%	38,600			
ELECTRIC HEAT	0	125%	0			
CONTINOUS LOADS	0	125%	0			
TOTALS	**553,001**	**98%**	**544,081**	**VA**		

*****SERIES RATED EQUIPMENT SHALL BE PROVIDED IN ACCORDANCE WITH N.E.C. , AND SERIES RATED COMBINATIONS SHALL BE LISTED BY UNDERWRITERS LABORATORIES*****

1 E3.4 ELECTRICAL SCHEDULES
SCALE: NO SCALE

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