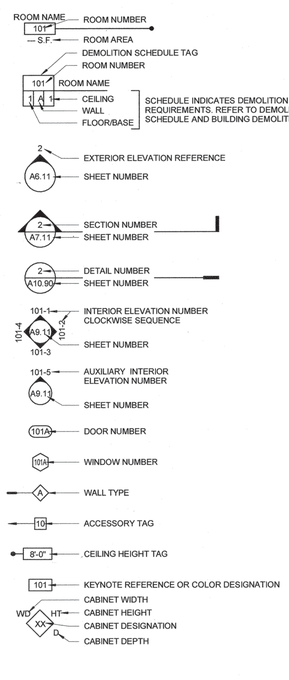
ABBREVIATIONS

A	- ACCESSIBLE	JT	- JOINT
AC	- ASPHALT CONCRETE	LAM	- LAMINATE (D)
A/C	- AIR CONDITIONING	MATL	- MATERIAL
ACOUS	- ACOUSTICAL	MAX	- MAXIMUM
ADD	- ADDENDUM	MECH	- MECHANICAL
ADJ	- ADJUSTABLE or ADJACENT	MIN	- MINIMUM
		MIR	- MIRROR
ALUM	- ALUMINUM	MISC	- MISCELLANEOUS
ARCH	- ARCHITECT (URAL)	MTL	- METAL
BD	- BOARD	(N)	- NEW
BLDG	- BUILDING	NIC	- NOT IN CONTRACT
BLKG	- BLOCKING	NO	- NUMBER
BM	- BEAM	NTS	- NOT TO SCALE
BOT	- BOTTOM	O/	- OVER
BUR	- BUILT UP ROOFING	OC	- ON CENTER
C	- CARPET	OD	- OUTSIDE DIAMETER
CB	- CATCH BASIN	OPP	- OPPOSITE
CJ	- CONTROL JOINT	PL	- PROPERTY LINE
CLG	- CEILING	PLAM	- PLASTIC LAMINATE
CT	- CERAMIC MOSAIC (TILE)	PLAS	- PLASTER
CMU	- CONCRETE MASONRY UNIT	PLT	- PLATE
		PLWD	- PLYWOOD
CO	- CLEAN OUT	PNL	- PANEL
COL	- COLUMN	POC	- POINT OF CONNECTION
CONC	- CONCRETE	PTDF	- PRESERVATIVE TREATED DOUGLAS FIR
CSK	- COUNTERSINK		
CW	- COLD WATER	PTN	- PARTITION
DET	- DETAIL	PVC	- POLYVINYL CHLORIDE
DF	- DRINKING FOUNTAIN	R	- RISER
DIA	- DIAMETER	RD	- ROOF DRAIN
DIAG	- DIAGONAL	REF	- REFERENCE
DIM	- DIMENSION	REFR	- REFRIGERATOR
DIV	- DIVISION	REQ'D	- REQUIRED
DS	- DOWNSPOUT	RDWD	- REDWOOD
DWG	- DRAWING	RWL	- RAIN WATER LEADER
E	- ENAMEL	SCH	- SCHEDULE
(E)	- EXISTING	SD	- STORM DRAIN
EA	- EACH	SEC	- SECTION
EJ	- EXPANSION JOINT	SF	- SQUARE FEET
ELEV	- ELEVATION	SHT	- SHEET
ELECT	- ELECTRICAL	SHTG	- SHEATHING
EQ	- EQUAL	SIM	- SIMILAR
EXT	- EXTERIOR	SPEC	- SPECIFICATIONS
(F)	- FUTURE	SQ	- SQUARE
FAB	- FABRICATION	SS	- STAINLESS STEEL
FAC	- FACTORY	STN	- STAIN
FD	- FLOOR DRAIN	STD	- STANDARD
FF	- FINISHED FLOOR	STL	- STEEL
FIN	- FINISH	TEMP	- TEMPERED
FND	- FOUNDATION	T&G	- TONGUE-AND-GROOVE
FOC	- FACE OF CONCRETE	THRU	- THROUGH
FOF	- FACE OF FINISH	TJ	- TOOL JOINT
FOP	- FACE OF PLYWOOD	TOC	- TOP OF CURB,
FOS	- FACE OF STUD	CRICKET,	
FRP	- FIBERGLASS REINFORCED PLASTIC PANELS		or CONCRETE
		TOP	- TOP OF PARAPET
FTG	- FOOTING	TOS	- TOP OF SLAB, SHEATHING, or STEEL
GA	- GAUGE	TS	- TOP OF SHEATHING
GB	- GYPSUM BOARD	TV	- TELEVISION
GL	- GLASS or GLAZING	TYP	- TYPICAL
GLV	- GALVANIZED	UON	- UNLESS OTHERWISE NOTED
GSM	- GALVANIZED SHEET METAL	VCT	- VINYL COMPOSITION TILE
GYP	- GYPSUM		
HB	- HOSE BIBB	VCTB	- VINYL COVERED TACKBOARD
HDW	- HARDWOOD		
HM	- HOLLOW METAL	VIF	- VERIFY IN FIELD
HOR	- HORIZONTAL	VWC	- VINYL WALL COVERING
HT	- HEIGHT	W/	- WITH
HW	- HOT WATER	WD	- WOOD
ID	- INSIDE DIAMETER	WF	- WIDE FLANGE
INV	- INVERT	WS	- WOOD SCREW
		WSCT	- WAINSCOT
		@	- AT
		±	- PLUS/MINUS

GENERAL NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE CALIFORNIA CODE OF REGULATIONS (TITLE DOCUMENTS) AND ALL OTHER LOCAL CODES AND ORDINANCES OF THE GOVERNING AUTHORITY HAVING JURISDICTION AND AS IDENTIFIED UNDER APPLICABLE CODES ON THIS SHEET. IT IS THE INTENT OF THESE DOCUMENTS TO COMPLY HERETO.
2. ALL DRAWINGS SHALL BE USED IN CONCERT WITH EACH OTHER. IF THE CONTRACTOR DISCOVERS ANY DISCREPANCY BETWEEN THE DOCUMENTS, THE CONTRACTOR SHALL REQUEST IN WRITING A CLARIFICATION FROM THE ARCHITECT. REFER TO THE ARCHITECTURAL AND ENGINEERING DRAWINGS FOR PLACEMENT, ORIENTATION AND COORDINATION OF WORK. INFORMATION SHOWN IN LARGER SCALE IS INTENDED TO SUPPLEMENT INFORMATION OF SMALLER. PRECEDING REFERENCE DRAWINGS. LARGER SCALE DRAWINGS TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS.
3. NOTATIONS MARKED "TYPICAL" (TYP.) SHALL BE CONSISTENT THROUGHOUT ALL SUCH REFERENCE NOMENCLATURE, SYMBOLS AND DRAWING INDICATIONS OF LIKE OR SIMILAR KIND.
4. DO NOT SCALE DRAWINGS. THE CONTRACTOR SHALL FIELD VERIFY CONSTRUCTION CONDITIONS AND DIMENSIONS PRIOR TO ORDERING, FABRICATING OR INSTALLING ANY ASSOCIATED WORK. IF DISCREPANCIES ARE FOUND, THE CONTRACTOR SHALL REQUEST IN WRITING A CLARIFICATION FROM THE ARCHITECT PRIOR TO COMMENCEMENT OF ANY ASSOCIATED WORK.
5. CONTRACTOR SHALL VERIFY, AT THE SITE, ALL EXISTING CONDITIONS PRIOR TO SUBMITTAL OF BIDS. SITE VISITS DURING BIDDING SHALL BE COORDINATED WITH THE OWNER IN ACCORDANCE WITH THE PROVISIONS OF THE SPECIFICATIONS.
6. CONTRACTOR SHALL PROTECT ALL EXISTING WORK. ANY DAMAGED WORK SHALL BE REPLACED WITH THE SAME MATERIALS, INCLUDING MATCHING THE EXISTING COLORS AND TEXTURES.
7. EXISTING WORK IS SHOWN FOR REFERENCE ONLY. THE OWNER AND/OR ARCHITECT DO NOT GUARANTEE EXISTING CONDITIONS AS SHOWN ON THESE DOCUMENTS.
8. CONTRACTOR(S) SHALL BE RESPONSIBLE FOR THEIR OWN CLEANUP AS WORK PROGRESSES.
9. MATERIALS SUSPECTED OF CONTAINING HAZARDOUS MATERIALS THAT ARE DISCOVERED DURING THE PROGRESS OF THE WORK, SHALL BE REPORTED TO THE OWNER IN WRITING. WORK IN THAT PARTICULAR AREA SHALL BE SUSPENDED UNTIL THE OWNER TESTS THE SUSPECT MATERIAL AND IT IS FOUND TO BE SAFE, OR THE MATERIAL HAS BEEN PROPERLY ABATED.
10. ALL WORK IS NEW UNLESS OTHERWISE NOTED.
11. IN THE EVENT CERTAIN FEATURES OF THE CONSTRUCTION ARE NOT FULLY SHOWN ON THE CONSTRUCTION DOCUMENTS, THEN THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS FOR SIMILAR CONDITIONS THAT ARE SHOWN.
12. STORAGE OF CONSTRUCTION MATERIAL AND EFFECT OF WORK ON EXISTING OCCUPIED AREAS SHALL BE APPROVED BY THE LOCAL FIRE AUTHORITY.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL WORK PROVIDED BY OTHERS UNDER SEPARATE CONTRACT.
14. KEYNOTES USED ON THE ARCHITECTURAL DRAWINGS ARE FOR ASSEMBLIES, MATERIAL REFERENCES AND NOTES. REFER TO THE KEYNOTE LIST ON THE RESPECTIVE DRAWING FOR THE INFORMATION WHICH RELATES TO EACH KEYNOTE.
15. DURING CONSTRUCTION, COMPLIANCE WITH CFC CHAPTER 33, FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION WILL BE ENFORCED.
16. DURING CONSTRUCTION, COMPLIANCE WITH CBC CHAPTER 33, SAFETY WILL BE ENFORCED.
17. NO CHANGES OR REVISIONS SHALL BE MADE FOLLOWING WRITTEN APPROVAL WHICH AFFECTS ACCESS COMPLIANCE ITEMS UNLESS SUCH CHANGES OR REVISIONS ARE SUBMITTED TO DSA FOR APPROVAL.
18. SUBSTITUTIONS AFFECTING DSA REGULATIONS SHALL BE SUBMITTED AS A CONSTRUCTION CHANGE DOCUMENT OR ADDENDA AND APPROVED BY DSA PRIOR TO FABRICATION AND INSTALLATION
19. "Deterioration or Existing Non-Compliant Construction: If any condition is discovered which, if left uncorrected, would make the building non-compliant with the requirements of the edition of the CBC in force at the time of original construction, the condition must be corrected in accordance with current code requirements. A construction change document, or a separate set of plans and specifications detailing and specifying the required repair work shall be submitted to and approved by DSA before proceeding with the repair work."

SYMBOLS LEGEND



DSA ADMIN. REQUIREMENTS

ADMINISTRATIVE REQUIREMENTS:

1. A COPY OF PARTS 1,2,3,4, & 5 TITLE 24, C.C.R. SHALL BE KEPT ON THE JOB SITE AT ALL TIMES.
2. ALL CONSTRUCTION CHANGE DOCUMENTS - C.C.D. (CHANGE ORDERS) - AND ADDENDA TO BE SIGNED BY ARCHITECT AND THE OWNER AND APPROVED BY DSA. CONSTRUCTION CHANGE DOCUMENTS - C.C.D. (CHANGE ORDERS) -AND ADDENDA ARE NOT VALID UNTIL APPROVED BY DSA PER SECTION 4- 338, PART 1, TITLE 24.
3. ALL TESTS TO CONFORM TO THE REQUIREMENTS OF SECTION 4-335, PART 1, TITLE 24, AND APPROVED TESTS AND INSPECTIONS SHEET.
4. TESTS OF MATERIALS SHALL AND TESTING LABORATORY SHALL BE IN ACCORDANCE WITH SECTION 4-335, PART 1, TITLE 24 AND THE DISTRICT SHALL EMPLOY AND PAY THE LABORATORY. COSTS OF RE-TEST SHALL BE PER GENERAL CONDITIONS.
5. DSA SHALL BE NOTIFIED AT THE START OF CONSTRUCTION AND PRIOR TO THE PLACEMENT OF CONCRETE PER SECTION 4-331, PART 1, TITLE 24.
6. INSPECTOR SHALL BE APPROVED BY DSA. INSPECTION SHALL BE IN ACCORDANCE WITH SECTION 4-333(b). THE DUTY OF THE INSPECTOR SHALL BE IN ACCORDANCE WITH SECTION 4-342, PART 1, TITLE 24.
7. SUPERVISION OF CONSTRUCTION BY DSA SHALL BE IN ACCORDANCE WITH SECTION 4-334, PART 1, TITLE 24.
8. CONTRACTOR, INSPECTOR, ARCHITECT, AND ENGINEERS SHALL SUBMIT VERIFIED REPORTS (Form SSS-6) IN ACCORDANCE WITH SECTIONS 4-336 AND 4-343, PART 1, TITLE 24.
9. THE ARCHITECT AND THE STRUCTURAL ENGINEER SHALL PERFORM THEIR DUTIES IN ACCORDANCE WITH SECTIONS 4-333(a) AND 4-341, PART 1, TITLE 24.
10. THE CONTRACTOR SHALL PERFORM HIS DUTIES IN ACCORDANCE WITH SECTIONS 4-336 AND 4-343, PART 1, TITLE 24.
11. THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF ALTERATION, REHABILITATION OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHERE IN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS, A CHANGE DOCUMENT (C.C.D), OR SEPARATE SET OF PLANS AND SPECIFCATIONS, DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE WORK.
12. DSA INSPECTOR LEVEL 3 REQUIRED.
13.

APPLICABLE CODES

CALIFORNIA CODE OF REGULATIONS, TITLE 24 - BUILDING STANDARDS

- **2016 CALIFORNIA ADMINISTRATIVE CODE (CAC)** (Title 24, Part 1, CCR)
- **2016 CALIFORNIA BUILDING CODE (CBC)**, Volumes 1 & 2 (Title 24, Part 2, CR) (2015 International Building Code with 2016 California amendments)
- **2016 CALIFORNIA ELECTRICAL CODE,** Title 24, Part 3, CCR) (2014 National Electrical Code with 2016 California amendments)
- **2016 CALIFORNIA MECHANICAL CODE (CMC)**, Title 24, Part 4, CCR) (2015 Uniform Mechanical Code with 2016 California amendments)
- **2016 CALIFORNIA PLUMBING CODE (CPC)**, Title 24, Part 5, CCR) (2015 Uniform Plumbing Code with 2016 California amendments)
- **2016 CALIFORNIA ENERGY CODE,** (Title 24, Part 6)
- **2016 CALIFORNIA HISTORICAL BUILDING CODE**, (Title 24, Part 8, CCR) (2015 International Building Code with 2016 California amendments)
- **2016 CALIFORNIA FIRE CODE (CFC)**, Title 24, Part 9, CCR) (2015 International Fire Code with 2016 California amendments)
- **2016 CALIFORNIA EXISTING BUILDING CODE,** (Title 24, Part 10, CCR) (2015 International Building Code with 2016 California amendments)
- **2016 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN)**, (Title 24, Part 11, CCR) - 2016 California Green Building Standards Code applies at those portions designated by California Building Standards Commission.
- **2016 CALIFORNIA REFERENCE STANDARDS CODE**, (Title 24, Part 12, CCR)

2010 ADA STANDARDS FOR ACCESSIBILITY DESIGN, U.S. Department of Justice

2016 NFPA 13, STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS, 2015 Edition

2016 NFPA 72, NATIONAL FIRE ALARM CODE AND SIGNALING CODE, 2015 Edition

NOTE: SOME CODES MAY NOT APPLY IF WORK REGULATED BY SUCH CODES IS NOT WITHIN THE SCOPE OF THIS PROJECT.

SCOPE OF WORK

THE FOLLOWING IS A BRIEF DESCRIPTION OF THE SCOPE OF WORK AS REQUIRED BY DSA. CONTRACTOR SHALL DETERMINE/VERIFY THE ENTIRE SCOPE AS SHOWN ON THE DRAWINGS AND SPECIFICATIONS PRIOR TO SUBMITTING BIDS

1. RELOCATION OF (1) 40x48 MODULAR LIBRARY BUILDING 'R49', FROM STOCKPILE. TO BE USED AS TEMPORARY BUILDING. (NIC)
   - A# 04-117381(PC# 04-114027)
2. RELOCATION OF (7) 24x40 MODULAR CLASSROOM BUILDINGS 'R50-R56' FROM STOCKPILE. TO BE USED AS TEMPORARY BUILDINGS. (NIC)
   - A# 04-101966 (PC# 04-101055)
   - A# 04-105203 (PC# 04-101055)
   - A# 04-100246 (PC# PC# 253)
3. RELOCATION OF (1) 36x40 MODULAR ADMINISTRATION BUILDING 'R57', FROM SEPARATE SITE. (NIC)
   - A# 56960
4. RELOCATION OF (1) 24x40 ADMINISTRATION BUILDING - 'R58', FROM STOCKPILE. TO BE USED AS TEMPORARY BUILDING (NIC)
   - A# 04-100929 (PC# 266)
5. INSTALLATION OF NEW FIRE HYDRANT
6. INSTALLATION OF ELECTRICAL UTILITES
7. MINOR IMPROVEMENTS TO EXISTING PARKING LOT
8. MINOR IMPROVEMENTS TO EXISTING RESTROOM 'RR'. A# 02-113432.
9. ASSOCIATED SITE IMPROVEMENTS
10. REMOVAL & REPLACEMENT OF FIRE ALARM AT EXISTING RESTROOM-'RR' AND EXISTING MODULAR BUILDINGS 'R42' THRU 'R48'
11. NEW FIRE ALARM CONTROL PANEL & TERMINAL CABINET AT EXISTING M.P. BUILDING 'A'. A# 51488
12. POWER RE-DISTRIBUTION OF ROOF-TOP HVAC UNITS AT EXISTING M.P. BUILDING 'A'. A# 51488
13. NEW ELECTRICAL PANEL AT EXISTING KINDERGARTEN BUILDING 'B'.
14. NEW FIRE ALARM & POWER AT EXISTING BUILDING "ASP". A# 28584

GENERAL

1G0000	COVER SHEET
1G1200	FIRE ACCESS

Total: 2

LANDSCAPE

1L-1.00	IRRIGATION PLAN

Total: 1

CIVIL

1C1200	GRADING AND PAVING PLAN
1C1201	UTILITY PLAN
1C1202	ACCESSIBLE PATH OF TRAVEL
1C1203	DETAILS

Total: 4

ARCHITECTURAL

1A1000	OVERALL SITE PLAN, CODE ANALYSIS & FLOOD ZONE MAP
1A1001	PARTIAL SITE PLAN - DEMOLITION
1A1200	ENLARGED SITE PLANS
1A1201	ENLARGED FLOOR PLANS & DETAILS
1A8000	DETAILS

Total: 5

ELECTRICAL

E100	SYMBOLS, GENERAL NOTES, ABBREVIATIONS
E200	PARTIAL SITE ELECTRICAL PLAN (WEST)
E201	PARTIAL SITE ELECTRICAL PLAN (EAST)
E202	SIGNAL PLAN (TEMP CLASSROOM/ADMIN & PARENT CENTER)
E203	POWER PLAN (TEMP CLASSROOM/ADMIN & PARENT CENTER)
E204	MULTI-PURPOSE BUILDING ROOF POWER PLAN
E300	FIRE ALARM PLAN (TEMP CLASSROOMS & EXISTING RESTROOM & MODULAR CLASSROOMS R42-R48)
E301	FIRE ALARM PLAN (TEMP ADMIN & PARENT CENTER)
E302	EXISTING RESTROOM & MODULAR CLASSROOMS R42-R48 FIRE ALARM DEMOLITION PLAN, FIRE ALARM DETAILS
E303	FIRE ALARM RISER DIAGRAM
E304	FIRE ALARM VOLTAGE DROP AND BATTERY CALCULATIONS
E400	EXISTING SINGLE LINE DIAGRAM
E401	PROPOSED SINGLE LINE DIAGRAM
E500	ELECTRICAL DETAIL
E501	ELECTRICAL DETAILS

Total: 15

BESSIE OWENS E.S. (9) TEMPORARY MOD. BLDGS. & (1) PERMANENT MOD. BLDG.

CONSTRUCTION DOCUMENTS

DSA FILE NO.:15-6 **DSA APP NO.: 03-120134** **AGENCY TRACKING NO.: 63321-355**

DISTRICT PROJECT NO: 19122.00-38

MODULAR R49 - TEMP. LIBRARY (48X40)
ELITE - A#04-117381 (PC # 04-114027)
SER#: 13546/47/48/49

A-0N	COVER SHEET
A-1.03N	FLOOR PLAN
A-1.04N	FLOOR BLOCKING PLAN
A-2.03N	REFELECTED CEILING PLAN
A-4.04N	EXTERIOR ELEVATIONS
A-6.03N	INTERIOR ELEVATIONS
M-1.03N	MECHANICAL PLAN
E-1.03N	ELECTRICAL PLAN
A-0	COVER SHEET
A-0.2	SCHEDULES
A-2.20	CEILING DETAILS
A-3.03	ROOF PLAN
A-3.50	ROOF DETAILS
A-5.50	ARCHITECTURAL DETAILS
A-5.80	ARCHITECTURAL DETAILS
F-0.24	WOOD FOUNDATION PLAN
F-0.50	FOUNDATION DETAILS
S-1.01	FLOOR FRAMING PLAN
S-1.50	FLOOR FRAMING DETAILS - WOOD FLOOR
S2.11	ROOF FRAMING PLAN
S2.50	ROOF FRAMING DETAILS - MONO SLOPE
R-1.01	STANDARD RAMP PLAN
R-2.01	RAMP DETAILS

Total: 23

MODULAR R50 - TEMP. CLASSROOM (24X40)
AURORA - A# 04-101966 (PC# 04-101055)
SER#: 27883/27884

0	COVER SHEET, SHEET INDEX, BUILDING DATA
A1.0	FLOOR PLAN
A2.0	EXTERIOR ELEVATIONS
A3.0	INTERIOR ELEVATIONS
A4.0	ROOF PLAN
A5.0	REFLECTED CEILING PLAN
S1.0	BUILDING SECTIONS, WALL FRAMING, GABLE ROOF WOOD STUDS
S3.0	TYPICAL DETAILS PLYWOOD EXTERIOR
S4.2	GABLE ROOF, FLOOR FRAMING, ROOF FRAMING, STRUCTURAL DETAILS
S5.0	GABLE ROOF, STEEL TRUSS SECTION AND DETAILS
S6.1	STRUCTURAL DETAILS AND NOTES
E1.0	ELECTRICAL POWER & LIGHTING FLOOR PLAN & PANEL SCHEDULE
9	GENERAL NOTES SPECIFICATIONS
9.1	DOOR SCHEDULE, WINDOW SCHEDULE, FINISH SCHEDULE
R1.0	RAMP PLAN & DETAILS
M1	AIR CONDITIONING PLAN VIEW

WOOD FOUNDATION A# 04-116392 :

CP	COVER SHEET
WFS-01	STRUCTURAL SPECIFICATIONS WOOD FOUNDATIONS
WF-04	WOOD FOUNDATION PLAN
WFD-01	FOUNDATIONS DETAILS

Total: 20

MODULAR R51/R52-TEMP. CLASSROOMS (24X40)
AURORA - A# 04-105203 (PC# 04-101055)
R51 SER#: 37272/37272
R52 SER#: 37411/37412

0	COVER SHEET, SHEET INDEX, BUILDING DATA
A1.0	FLOOR PLAN
A2.0	EXTERIOR ELEVATIONS
A3.0	INTERIOR ELEVATIONS
A4.0	ROOF PLAN
A5.0	REFLECTED CEILING PLAN
S1.0	BUILDING SECTIONS, WALL FRAMING, GABLE ROOF WOOD STUDS
S3.0	TYPICAL DETAILS PLYWOOD EXTERIOR
S4.2	GABLE ROOF, FLOOR FRAMING, ROOF FRAMING, STRUCTURAL DETAILS
S5.0	GABLE ROOF, STEEL TRUSS SECTION AND DETAILS
E1.0	ELECTRICAL POWER & LIGHTING FLOOR PLAN & PANEL SCHEDULE
R1.0	RAMP PLAN & DETAILS
M1	AIR CONDITIONING PLAN VIEW

WOOD FOUNDATION A# 04-116392 :

CP	COVER SHEET
WFS-01	STRUCTURAL SPECIFICATIONS WOOD FOUNDATIONS
WF-04	WOOD FOUNDATION PLAN
WFD-01	FOUNDATIONS DETAILS

Total: 17

MODULAR R53/R54/R55/R56 - TEMP. (24X40)
AURORA - A# 04-100246 (PC# 253)
R53 SER #: 21600/21601
R54 SER #: 21606/21607
R55 SER #: 21624/21625
R56 SER #: 21810/21811

0	COVER SHEET, SHEET INDEX, BUILDING DATA
1	FLOOR PLAN, ROOF PLAN, BUILDING ELEVATIONS
3	BUILDING SECTIONS & WALL FRAMING
4	TYPICAL DETAILS
5	FLOOR FRAMING, ROOF FRAMING & STRUCTURAL ELEVATIONS
5.1	STEEL TRUSS SECTION & DETAILS
6B	STRUCTURAL DETAILS AND NOTES
7	REFLECTED CEILING PLAN & DETAILS
8	ELECTRICAL POWER & LIGHTING PLAN AND PANEL SCHEDULE
9	SPECIFICATIONS, INTERIOR & EXTERIOR FINISH SCHEDULES
R-1A	RAMP PLAN & DETAILS
M-1	AIR CONDITIONING FLOOR PLAN

WOOD FOUNDATION A# 04-116392 :

CP	COVER SHEET
WFS-01	STRUCTURAL SPECIFICATIONS WOOD FOUNDATIONS
WF-04	WOOD FOUNDATION PLAN
WFD-01	FOUNDATIONS DETAILS

Total: 16

MODULAR R57 - PERM. ADMINISTRATION (36X40)
MODTECH - A#56960
SER#: 10145/10146/10147

0.0	COVER SHEET
1.0	FLOOR PLAN, INTERIOR ELEVATIONS, ROOF PLAN
1.1	EXTERIOR ELEVATIONS
2.0	STRUCTURAL FRAMING
2.1	TYPICAL DETAILS
2.2	TYPICAL DETAILS
2.3	WALL FRAMING
3.0	WOOD FOUNDATION
4.0	ELECTRICAL AND LIGHTING PLAN
4.2	REFLECTED CEILING PLAN
6.0	GENERAL NOTES AND SPECIFICATIONS
M-1	AIR CONDITIONING PLAN
P-1	PLUMBING PLAN
R-1	RAMP PLAN
R-2	RAMP DETAILS

Total: 15

MODULAR R58 - TEMP. ADMINISTRATION (24X40)
MODTECH - A# 04-100929 (PC# 266)
SER#: 38551/38552

A.0.0	COVER SHEET
A1.0	FLOOR PLAN 24'X40'
AA2.0	ROOF PLAN (MONO PITCH) 24',40'
AA3.0	EXTERIOR ELEVATIONS
A4.0	INTERIOR ELEVATIONS 24'X40'
A5.0	DOOR, WINDOW, FINISH, HARDWARE SCHEDULES
A6.0	ARCHITECTURAL DETAILS (WOOD STUD)
A6.1	ARCHITECTURAL DETAILS (WOOD STUD)
A7.0	REFLECTED CEILING PLAN (24'X40')
A7.1	REFLECTED CEILING DETAILS
F1.0	CL FOUNDTATION PLAN AND DETAILS (PC 04-113776)
F2.1	CL FOUNDTATION PLAN AND DETAILS (PC 04-113776)
SA1.0	FLOOR FRAMING PLAN 50+20 PSI LL
SA2.0	ROOF FRAMING PLAN (MONO PITCH)
SA3.0	STRUCTURAL ELEVATIONS/DETAILS
S 3.1	STRUCTURAL DETAIL
S4.0	STRUCTURAL DETAILS
S5.0	WALL FRAMING (WOOD)
S5.1	WALL FRAMING DETAILS (WOOD)
S5.2	WALL FRAMING DETAILS (WOOD)
M1.0	HVAC PLAN 24'X40'
E1.0	ELECTRICAL PLAN 24'X40'
R1.0	RAMP / LOADING PLAN
R2.0	RAMP / STAIRS DETAILS

Total: 24

SHEET GRAND TOTAL: 142 SHEETS

PROJECT DIRECTORY

OWNER:
BAKERSFIELD CITY SCHOOL DISTRICT
1501 FELIZ DRIVE
BAKERSFIELD, CA 93307
PHONE: (661) 631-5884
FAX: (661) 834-9986
CONTACT: ROBERT VANTASSEL, RANDY ROWLES

CIVIL:
AECOM
5001 E. COMMERCE CENTER DR.; SUITE 170
BAKERSFIELD, CA 93309
PHONE: (661) 283-2331
CONTACT: DANIEL CRONQUIST

ARCHITECT:
IBI GROUP ARCHITECTURE PLANNING
4119 BROAD STREET, SUITE 210
SAN LUIS OBISPO, CA 93401
PHONE: (805) 546-0433
FAX: (805) 546-0504
CONTACT: RICK MELLO, PRINCIPAL

ELECTRICAL:
FERRANTI ENGINEERING
1211 MARICOPA HWY #250
OJAI, CA 93023
PHONE: (805) 705-4772
CONTACT: DALE FERRANTI

LANDSCAPE:
OASIS ASSOCIATES
3427 MIGUELITO COURT
SAN LUIS OBISPO, CA 93401
PHONE: (805) 541-4509
FAX: (805) 546-0525
CONTACT: MICHAEL CRIPE

STATEMENT OF GENERAL CONFORMANCE

FOR ARCHITECTS/ENGINEERS WHO UTILIZE PLANS,
INCLUDING BUT NOT LIMITED TO SHOP DRAWINGS, PREPARED BY OTHER LICENSED DESIGN PROFESSIONALS AND/OR CONSULTANTS

☒ The drawings or sheets listed on the cover or sheet index
☐ This drawing, page of specifications/ calculations

have been prepared by other design professionals or consultants who are licensed and/or authorized to prepare such drawings in this state. It has been examined by me for:

1) design intent and appears to meet the appropriate requirements of Title 24, California Code of Regulations and the project specifications prepared by me, and
2) coordination with my plans and specifications and is acceptable for incorporation into the construction of this project.

The Statement of General Conformance "shall not be construed as relieving me of my rights, duties, and responsibilities under Sections 17302 and 81138 of the Education Code and Sections 4-336, 4-341 and 4-344" of Title 24, Part 1. *(Title 24, Part 1, Section 4-317 (b))*

I certify that: ☒ All drawings or sheets listed on the cover or index sheet
☐ This drawing or page
☐ is/are in general conformance with the project design, and
☒ has/have been coordinated with the project plans and specifications.

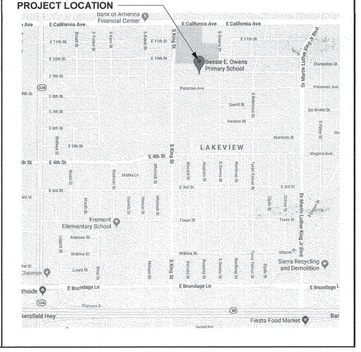
Signature 08/26/2019 Date

Architect or Engineer designated to be in general responsible charge

RICK MELLO (Print Name Architect) C-18079 (License Number) 10 /19 (Expiration Date)

VICINITY MAP

PROJECT LOCATION



AGENCY INFORMATION:

AGENCY TRACKING NO. 63321-355
FILE NO. 15-6

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
03-120134
AC MP FLS SS
DATE SEP 30 2019

SEAL

LICENSED ARCHITECT RICHARD A. MELLO No. C18079 REN. 10/19 STATE OF CALIFORNIA

COPYRIGHT:

Any reproduction or distribution for any purpose other than authorized by IBI Group is forbidden.

COPYRIGHT 2019 IBI GROUP

REVISIONS

NO.	DATE SUBMITTED	DATE APPROVED	DESCRIPTION

CONSULTANT

PRIME CONSULTANT

IBI ARCHITECTURE PLANNING
San Luis Obispo
4119 Broad Street, Suite 210
San Luis Obispo, CA 93401
805.546.0433 fax: 805.546.0504
ibigroup.com

BAKERSFIELD CITY SCHOOL DISTRICT

BAKERSFIELD CITY SCHOOL DISTRICT "Where The Child Comes First"

BESSIE OWENS E.S. TEMPORARY MODULAR BUILDINGS
815 POTOMAC AVE, BAKERSFIELD, CA 93307

OPSC or OSHPD PROJ. NO:	N/A
PROJECT NO:	118932
DRAWN BY:	rRr
CHK'D BY:	RM
ISSUE DATE:	08/26/2019

SHEET TITLE

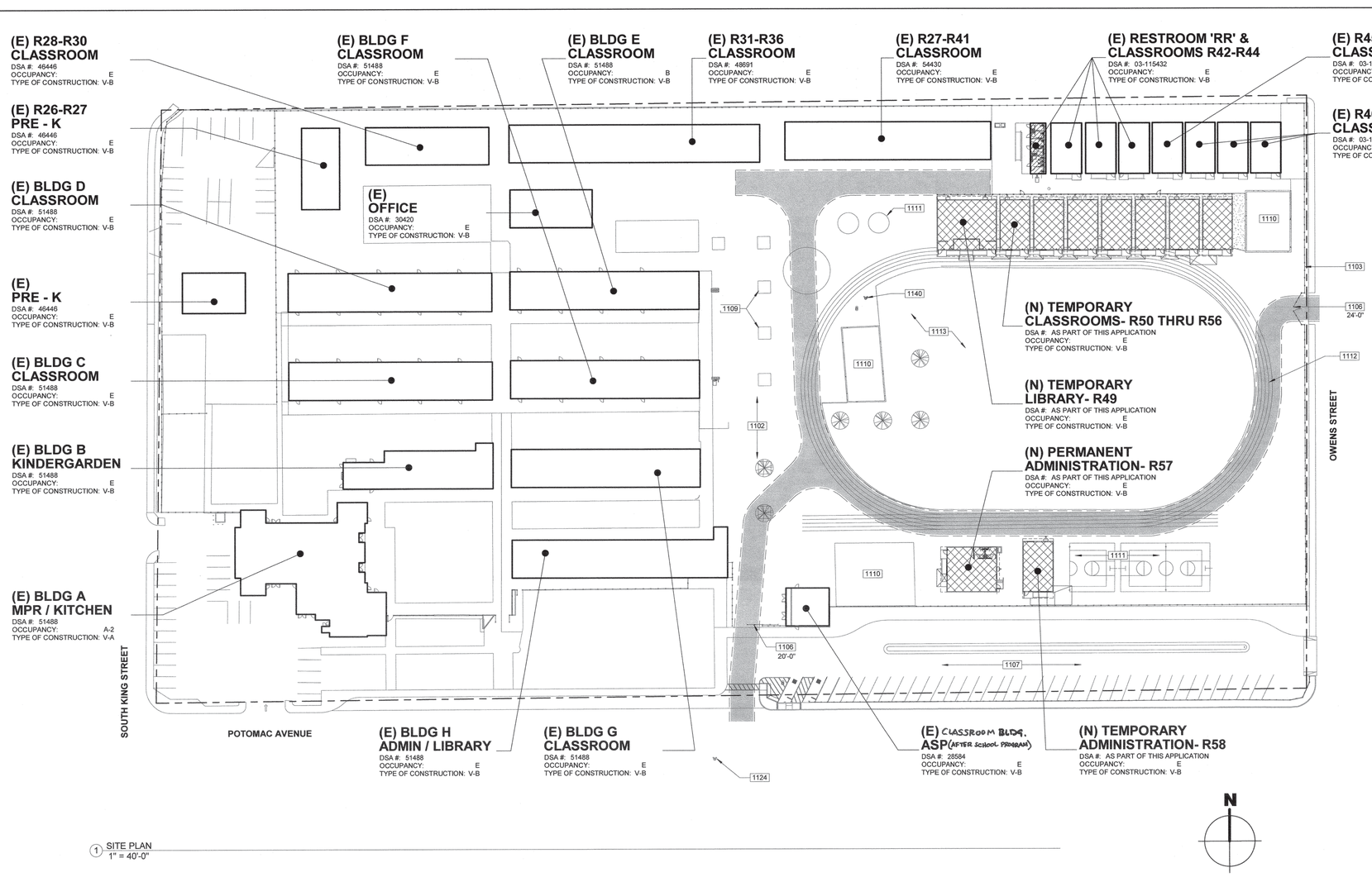
COVER SHEET

SHEET NUMBER

1G0000

CONSTRUCTION DOCUMENTS

PLOT DATE 2019-08-29 9:07:51 AM C:\Users\ruben.ruiz\Documents\REVIT2018\ATW-118932-SITE-06-03-19-V2018_CENTRAL_ruben.ruiz.rvt



1 SITE PLAN
1" = 40'-0"

1100 - KEYNOTES

1102	(E) A.C. PAVED AREA TO REMAIN
1103	(E) CHAIN LINK FENCE TO REMAIN
1106	(E) FIRE ACCESS GATE TO REMAIN, SIZE AS SPECIFIED. PROVIDE KNOX BOX, SEE DETAIL 13/1A8000
1107	(E) PARKING LOT TO REMAIN. A# 03-115432
1109	(E) PLANTER TO REMAIN
1110	(E) SAND PLAY BOX TO REMAIN
1111	(E) PLAY COURTS/STRUCTURE TO REMAIN
1112	(E) PLAY STRIPING TO REMAIN
1113	(E) TURF AREA TO REMAIN
1124	EXISTING FIRE HYDRANT TO REMAIN, SEE FIRE FLOW TEST ON 1G1200
1140	PROPOSED FIRE HYDRANT, AS PART OF THIS DSA APPLICATION. SEE CIVIL

LEGEND

- FIRE DEPARTMENT ACCESS. WIDTH 20'-0"
- PROPERTY LINE
- FIRE HOSE PATH. LENGTH AS SPECIFIED
- EXISTING BUILDING TO REMAIN
- NEW MODULAR BUILDING TO BE CONSTRUCTED AS PART OF DSA APPLICATION NUMBER
- CONCRETE WALK

California Water Service Company
Fire Flow Test

6/17/2019

Test Date: 06/17/2019 Time: 9:30
District BAKERSFIELD Zone: LOW Plat: 33-38
Address: 815 POTOMAC AVE
Cross Street: S KING ST
Requested By: BK CITY SCHOOLS DIST
Conducted By: R BROWN,J HUNTINGTON
Purpose Of Test: FIRE FLOW
Witnessed By: Calwater:
Others: DAN PEREZ/COB

Outlet No.	Outlet Size	PITOT	Observed	Static Pressure	Residual Pressure	Flow Observed	Flow Avail @20
Location 1 Hydrant No.: 3089			Address: POTOMAC AVE-100 YRDS E/S KING				
1	4.00	15	1664	60	50	1664	3517
2							
3							
4							
Location 2 Hydrant No.:			Address:				
1							
2							
3							
4							
Location 3 Hydrant No.			Address:				
1							
2							
3							
4							
			Total Flow Observed Available @20:			1664	3517

Remarks: GPM 1665

Static/Residual Location: S/E CORNER S KING-POTOMAC AVE HYD #3088

Note:

Regardless of the results of this test, California Water Service Company assumes no liability beyond that stated in the following excerpt from the P.U.C. Tarriff Schedule: "The utility (California Water Service Company) will supply only such water at such presssure as may be available from time to time as a result of its normal operation of the system."

DSA 810

FIRE & LIFE SAFETY SITE CONDITIONS SUBMITTAL

To facilitate the Division of the State Architect's (DSA) fire and life safety plan review of project site conditions, DSA requires the design professional to provide the following information at time of project submittal for projects consisting of construction of a new campus, construction of new building(s), additions to existing buildings, and for site alternate design means for fire department emergency vehicle access, and fire suppression water supply.

Information associated with compliance items 1–3 below is to be provided for all project types indicated above. Information associated with items 4–7 is to be completed when an alternate means is utilized. Acknowledgement by the school district and signature from the local fire authority (LFA) is only required when an alternate design means is being requested.

Page 1 of the completed form must be imaged onto the fire access site plan. When an alternate design/means is proposed, completed pages 1 *and* 2 are to be imaged on the fire access site plan.

For additional information refer to the instructions at the end of this form and DSA Policy 09-01.

PROJECT INFORMATION
School District/Owner: Bakersfield City School District
Project Name/School: Bessie Owens Primary School
Project Address: 815 Potomac Ave; Bakersfield, CA 93307

FIRE & LIFE SAFETY INFOMATION				
1.	Has a fire hydrant flow test been performed within the past 12 months? *(If yes, provide a copy of the test data.)*	Yes ☒		No ☐
2.	Was the fire hydrant water flow test performed as part of this LFA review?	Yes ☒		No ☐
3.	Is the project located within a designated fire hazard severity zone as established by Cal-Fire? *(If yes, indicate fire hazard zone classification below)*	Yes ☐		No ☒
	Refer to the following for fire hazard zone locations: www.fire.ca.gov/fire_prevention/fire_prevention_wildland_zones_maps	Moderate ☐	High ☐	Very High ☐
	Wildland Interface Area (WIFA) *(If any designations are checked, project design must meet the requirements of CBC Chapter 7A.)*			WIFA ☐

CONDITION MEANS AND METHODS RESOLUTION		ALTERNATE ACCEPTED			
		Yes	No	N/A	N/R
4.	Emergency vehicle access roadways do not meet CFC requirements.			☒	
4a.	**Acceptable Alternate:** Emergency vehicle and personnel access as proposed by the project architect is acceptable for providing fire suppression and protection of life and property.				
5.	**Fire Hydrants:** Number and spacing does not meet CFC requirements.			☒	
5a.	**Acceptable Alternate:** Number of fire hydrants and spacing as proposed by the project architect is acceptable for fire suppression and protection of life and property.				
6.	**Fire Hydrants:** Water flow and pressure are less than CFC minimum.			☒	
6a.	**Acceptable Alternate:** The available flow and pressure is acceptable for providing fire suppression and protection of life and property.				
7.	Location of fire department connection(s) serving fire sprinkler systems or standpipe systems does not meet CFC requirements.			☒	
7a.	**Acceptable Alternate:** The location of fire department connection serving the fire sprinkler system and/or standpipe system is acceptable for providing fire suppression and protection of life and property.				

AGENCY INFORMATION:

AGENCY TRACKING NO. 63321-355
FILE NO. 15-6

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
03-120134
AC FLS SS
DATE SEP 30 2019

SEAL

LICENSED ARCHITECT RICHARD MORRIS No. C18079 REN. 10/19 STATE OF CALIFORNIA

COPYRIGHT:

Any reproduction or distribution for any purpose other than authorized by IBI Group is forbidden.

COPYRIGHT 2019 IBI GROUP

REVISIONS

NO.	DATE SUBMITTED	DATE APPROVED	DESCRIPTION

CONSULTANT

PRIME CONSULTANT

IBI ARCHITECTURE PLANNING
San Luis Obispo
4119 Broad Street, Suite 210
San Luis Obispo, CA 93401
805.546.0433 fax: 805.546.0504
ibigroup.com

BAKERSFIELD CITY SCHOOL DISTRICT

BAKERSFIELD CITY SCHOOL DISTRICT "Where The Child Comes First"

BESSIE OWENS E.S. TEMPORARY MODULAR BUILDINGS

815 POTOMAC AVE, BAKERSFIELD, CA 93307

OPSC or OSHPD PROJ. NO:	N/A
PROJECT NO:	118932
DRAWN BY:	rRr
CHK'D BY:	RM
ISSUE DATE:	08/26/2019

SHEET TITLE

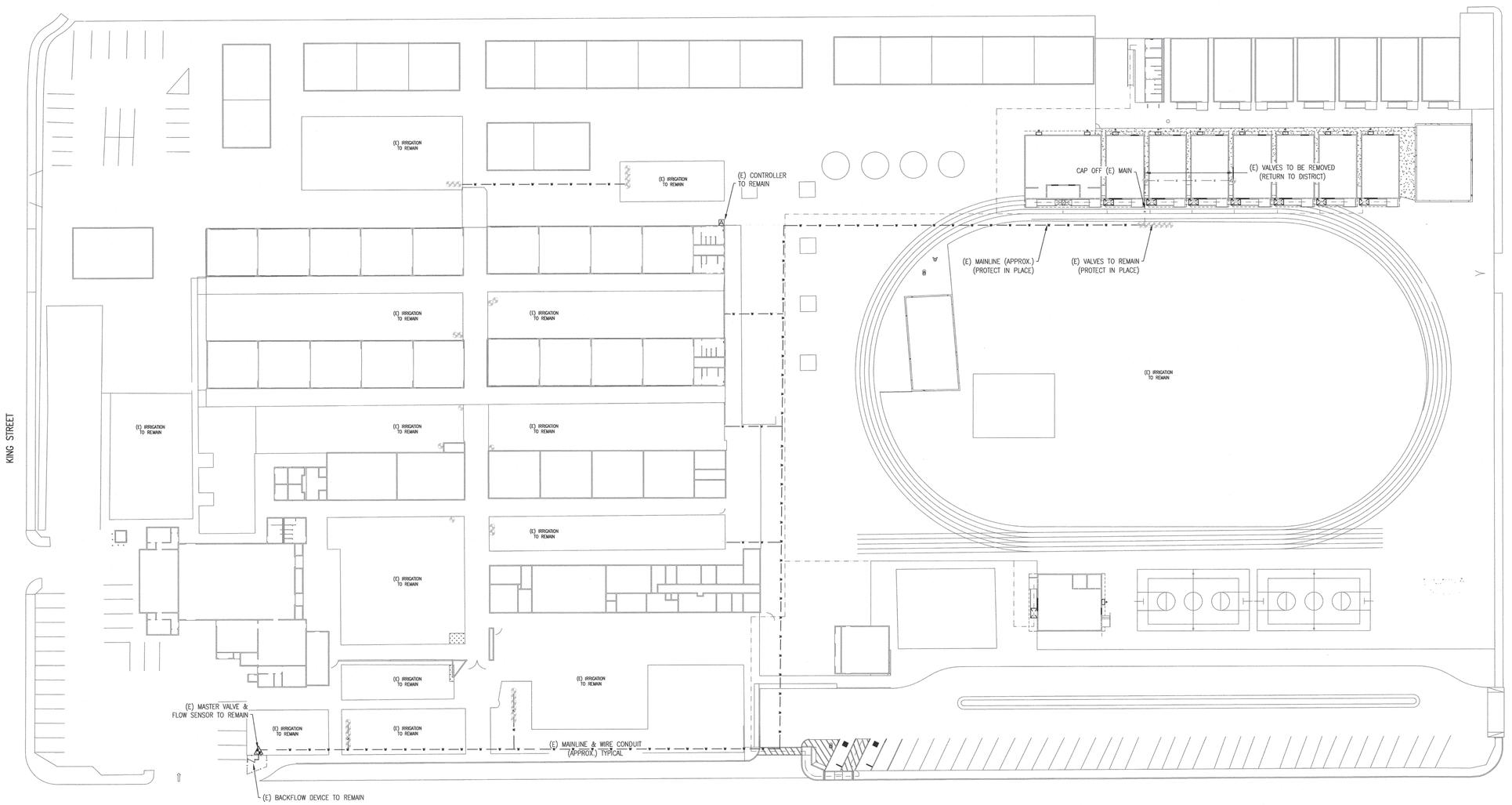
FIRE ACCESS

SHEET NUMBER

1G1200

CONSTRUCTION DOCUMENTS

PLOT DATE 2019-08-23 9:58:01 AM C:\Users\ruben ruiz\Documents\REVIT2018\ATM-118932-SITE-06-03-19-V2018_CENTRAL_ruben ruiz.rvt



SCALE: 1" = 30'-0"

0' 30' 60' 90'

LANDSCAPE ARCHITECT'S SEAL

AGENCY INFORMATION:

AGENCY TRACKING NO. 63321-355
FILE NO. 15-6

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
03-120134
AC FLS SS
DATE SEP 30 2019

SEAL

COPYRIGHT:

Any reproduction or distribution for any purpose other than authorized by IBI Group is forbidden.

COPYRIGHT 2019 IBI GROUP

REVISIONS

NO.	DATE SUBMITTED	DATE APPROVED	DESCRIPTION

CONSULTANT

OASIS ASSOCIATES
LANDSCAPE ARCHITECTURE + PLANNING

3427 MIGUELITO COURT
SAN LUIS OBISPO
CALIFORNIA 93401
P 805.541.4509
F 805.546-0525
RLA 2248 CLARB #907

PRIME CONSULTANT

IBI ARCHITECTURE PLANNING

San Luis Obispo
4119 Broad Street, Suite 210
San Luis Obispo, CA 93401
805.546.0433 fax: 805.546.0504
ibigroup.com

BAKERSFIELD CITY SCHOOL DISTRICT

BESSIE OWENS E.S. MODERNIZATION
815 POTOMAC AVE, BAKERSFIELD, CA 93307

OPSC or OSHPD PROJ. NO:	
PROJECT NO:	118932
DRAWN BY:	Author
CHK'D BY:	Checker
ISSUE DATE:	08/27/2019

SHEET TITLE

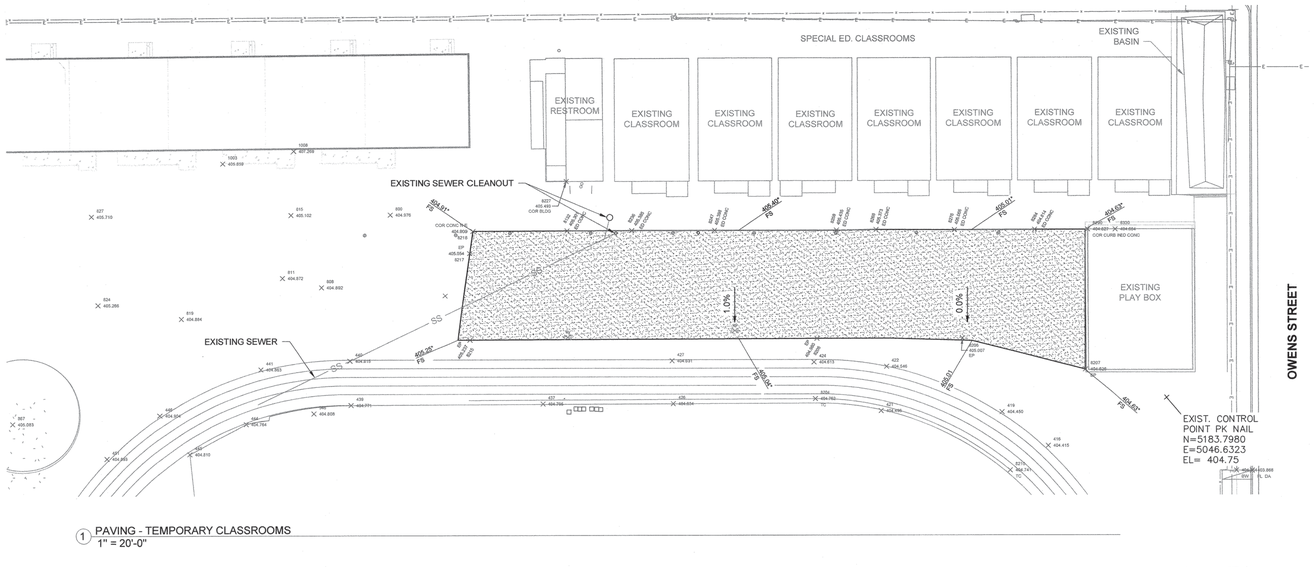
IRRIGATION PLAN

SHEET NUMBER

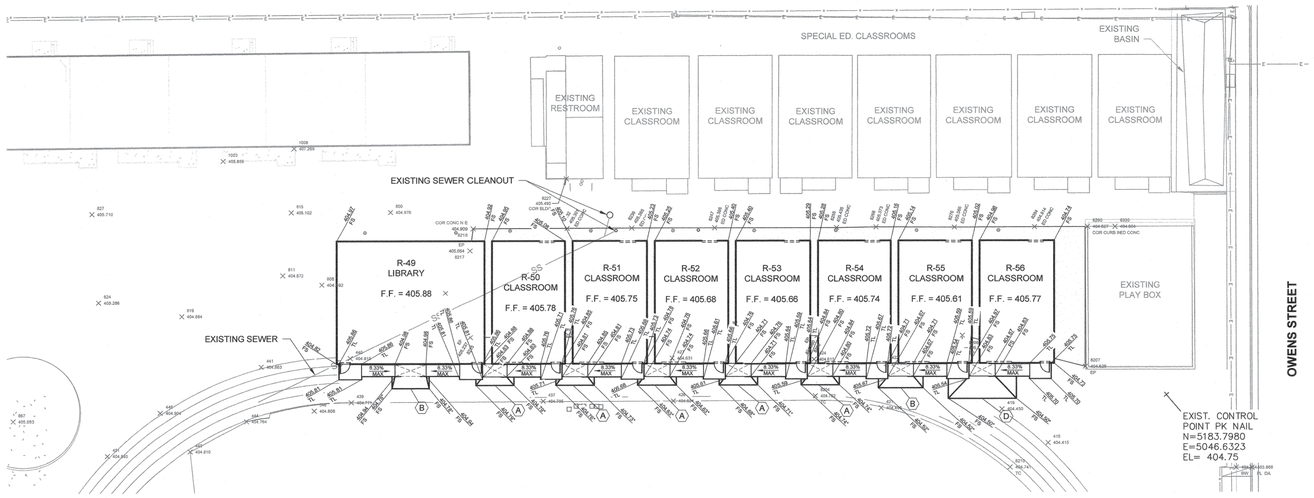
1L-1.00

CONSTRUCTION DOCUMENTS

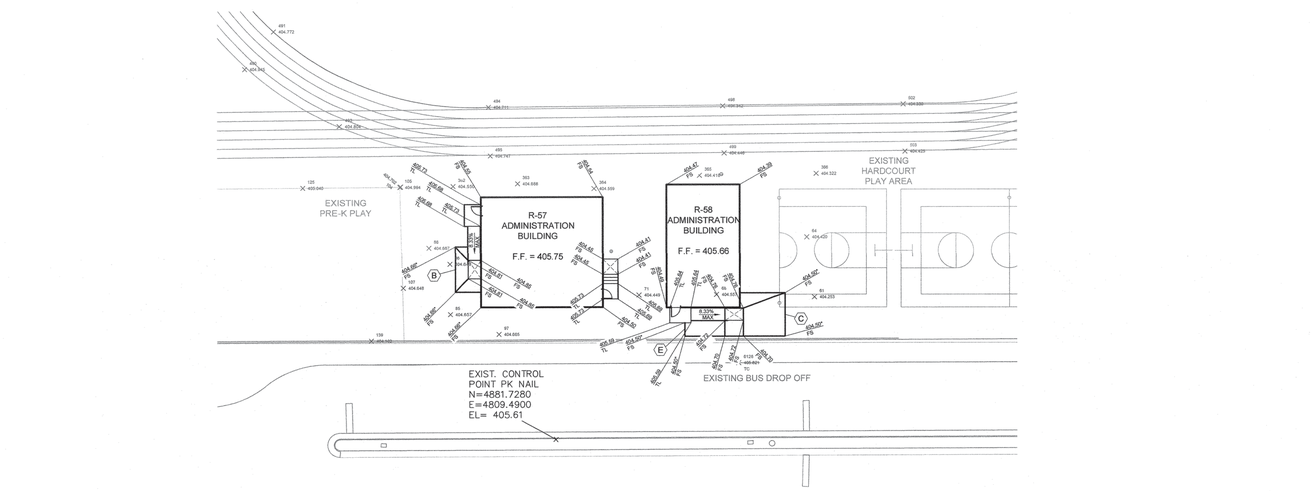
2019-09-26 9:56:06 C:\Users\ruben.ortiz\Documents\REVIT\21-118932-000_BESSIE OWENS_CENTRAL_ruben.ortiz.rvt



1 PAVING - TEMPORARY CLASSROOMS
1" = 20'-0"



2 BUILDING LAYOUT - TEMPORARY CLASSROOMS
1" = 20'-0"



3 BUILDING LAYOUT - TEMPORARY ADMINISTRATION
1" = 20'-0"

2300-GENERAL NOTES

GRADING NOTES

1. CALIFORNIA BUILDING CODE REQUIREMENT: ALL GRADING AND EXCAVATION WORK SHALL CONFORM TO THE CURRENT EDITION OF THE CALIFORNIA BUILDING CODE.
2. GRADING PERMIT: CONTRACTOR SHALL OBTAIN A GRADING PERMIT FROM THE RESPONSIBLE LOCAL AUTHORITY AND CONFORM TO THE REQUIREMENTS THEREIN.
3. DESIGN INTENT: THE INTENT OF THE DESIGN IS FOR THE INSTALLATION OF TEN NEW RELOCATABLE STRUCTURES TO BE USED AS TEMPORARY CLASSROOMS, LIBRARY, AND ADMINISTRATIVE OFFICES.
4. PROTECTION OF OFFSITE UTILITIES: ALL EXISTING IMPROVEMENTS OR UTILITIES OUTSIDE THE LIMITS OF WORK, NOT DESIGNATED TO BE REMOVED WITHIN THE LIMITS OF WORK, THAT ARE REMOVED, DAMAGED OR UNDERCUT, SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE ARCHITECT AT CONTRACTOR'S EXPENSE.
5. NOTIFICATION OF ARCHITECT: NOTIFY ARCHITECT AT LEAST TWO WORKING DAYS IN ADVANCE OF ANY GRADING WORK OR WORK AFFECTING EXISTING IMPROVEMENTS.
6. JOB SITE CONDITIONS: CONTRACTOR ASSUMES SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS SHALL ALSO INCLUDE EXCAVATION RELATED SAFETY. CONTRACTOR SHALL NEVER LEAVE THE SITE WITHOUT PROPERLY SAFEGUARDING THE PUBLIC FROM INJURY RELATED TO CONSTRUCTION OPERATIONS. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
7. UNAUTHORIZED CHANGES AND USES: THE ENGINEER AND ARCHITECT WHO PREPARED THESE PLANS WILL NOT BE RESPONSIBLE OR LIABLE FOR UNAUTHORIZED CHANGES TO PLANS OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS SHALL BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.
8. DUST CONTROL: THE CONTRACTOR SHALL BE RESPONSIBLE TO PREVENT A DUST NUISANCE FROM ORIGINATING AT THE SITE AS A RESULT OF HIS OPERATIONS. THE CONTRACTOR SHALL OBTAIN A DUST PERMIT IF REQUIRED FROM THE REGIONAL AIR POLLUTION CONTROL DISTRICT AND CONFORM TO REQUIREMENTS THEREIN.
9. SWPPP: THE CONTRACTOR SHALL INCORPORATE BEST MANAGEMENT PRACTICES FOR STORM WATER POLLUTION PREVENTION AND CONFORM TO THE REQUIREMENTS. SWALE LOCATIONS OR OTHER AREAS WHERE CONCENTRATED FLOWS OF STORM WATER ARE ANTICIPATED, CONTRACTOR SHALL LINE SAID AREAS WITH GRAVEL OR OTHER BEST MANAGEMENT PRACTICE (BMP) AS DIRECTED BY ARCHITECT.
10. UTILITIES: CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES THAT MAY BE IMPACTED BY CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS PROJECT AND SHALL PRESERVE AND PROTECT THEM THROUGH THE DURATION OF THE PROJECT. ANY DAMAGE TO EXISTING UTILITIES THAT ARE A DIRECT RESULT OF CONSTRUCTION ACTIVITIES SHALL BE REPAIRED AND PAID FOR BY THE CONTRACTOR AT HIS EXPENSE.
11. NEATNESS TO BE MAINTENANCE: CONTRACTOR SHALL KEEP SITE IN A NEAT AND ORDERLY MANNER WITH A MINIMUM OF CONSTRUCTION DEBRIS. AT THE CLOSE OF EVERY BUSINESS DAY, CONTRACTOR SHALL ENSURE THAT DEBRIS IS GATHERED AND DISPOSED OF AS DIRECTED BY THE ARCHITECT.
12. SITE SECURITY: CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING THE SITE AT ALL TIMES. OWNER SHALL NOT BE RESPONSIBLE FOR LOSS OR DAMAGE OF CONTRACTOR'S EQUIPMENT OR MATERIAL DURING THE COURSE OF THE PROJECT.
13. FINISH SURFACE GRADES: DESIGN GRADES SHOWN ON PLANS ARE TO FINISH SURFACE. CONTRACTOR TO SUBTRACT STRUCTURAL SECTION THICKNESS OF PAVEMENT, BASE ROCK, SLAB AND BEDDING MATERIAL THICKNESSES TO ARRIVE AT DESIGN SUB GRADE ELEVATIONS.
14. TOPOGRAPHIC SURVEY BY:
PINNACLE CIVIL ENGINEERING, INC., DATED 8/24/2011
WILEY HUGHES SURVEYING, INC., DATED 4/15/2019
15. GEOTECHNICAL ENGINEERING INVESTIGATION BY:
KRAZAN & ASSOCIATES, INC., DATED 1/25/2019

2300 - KEYNOTES

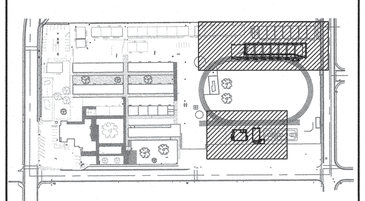
BENCH MARK USED

CHISELED "X" ON TOP OF EXISTING CURB AND GUTTER, NORTHEAST CURB RETURN OF SOUTH KING STREET AND VIRGINIA AVENUE. ELEVATION = 399.26 PER CITY OF BAKERSFIELD BENCHMARK BOOK.

LEGEND

	DECOMPOSED GRANITE AT TEMPORARY PORTABLE LOCATION	1 / 1C1203
FS	FINISH SURFACE	
TL	TOP OF LANDING	
FF	FINISH FLOOR	
EXIST	EXISTING	
*	MATCH EXISTING FINISHED GRADE	
(X)	FLARE LONGITUDINAL DIMENSION	11 / 1C1203
	ASPHALT LANDING	2 / 1C1203

KEY MAP



AGENCY INFORMATION:

AGENCY TRACKING NO. 63321-355
FILE NO. 15-6

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
03-120134
AC MP FLS SS
DATE SEP 30 2019

SEAL



COPYRIGHT:

Any reproduction or distribution for any purpose other than authorized by AECOM is forbidden.

COPYRIGHT 2019 AECOM

REVISIONS

NO.	DATE SUBMITTED	DATE APPROVED	DESCRIPTION

CONSULTANT

PRIME CONSULTANT

AECOM
5001 E Commercenter Drive, Suite 100
Bakersfield, CA 93306
661.283.2323 fax: 661.283.2360
www.aecom.com

BAKERSFIELD CITY SCHOOL DISTRICT

BESSIE OWENS E.S. TEMPORARY MODULAR BUILDINGS
815 POTOMAC AVE, BAKERSFIELD, CA 93307

OPSC or OSHPD PROJ. NO:	
PROJECT NO:	60594420
DRAWN BY:	NR
CHK'D BY:	ACR
ISSUE DATE:	08/06/2019

SHEET TITLE

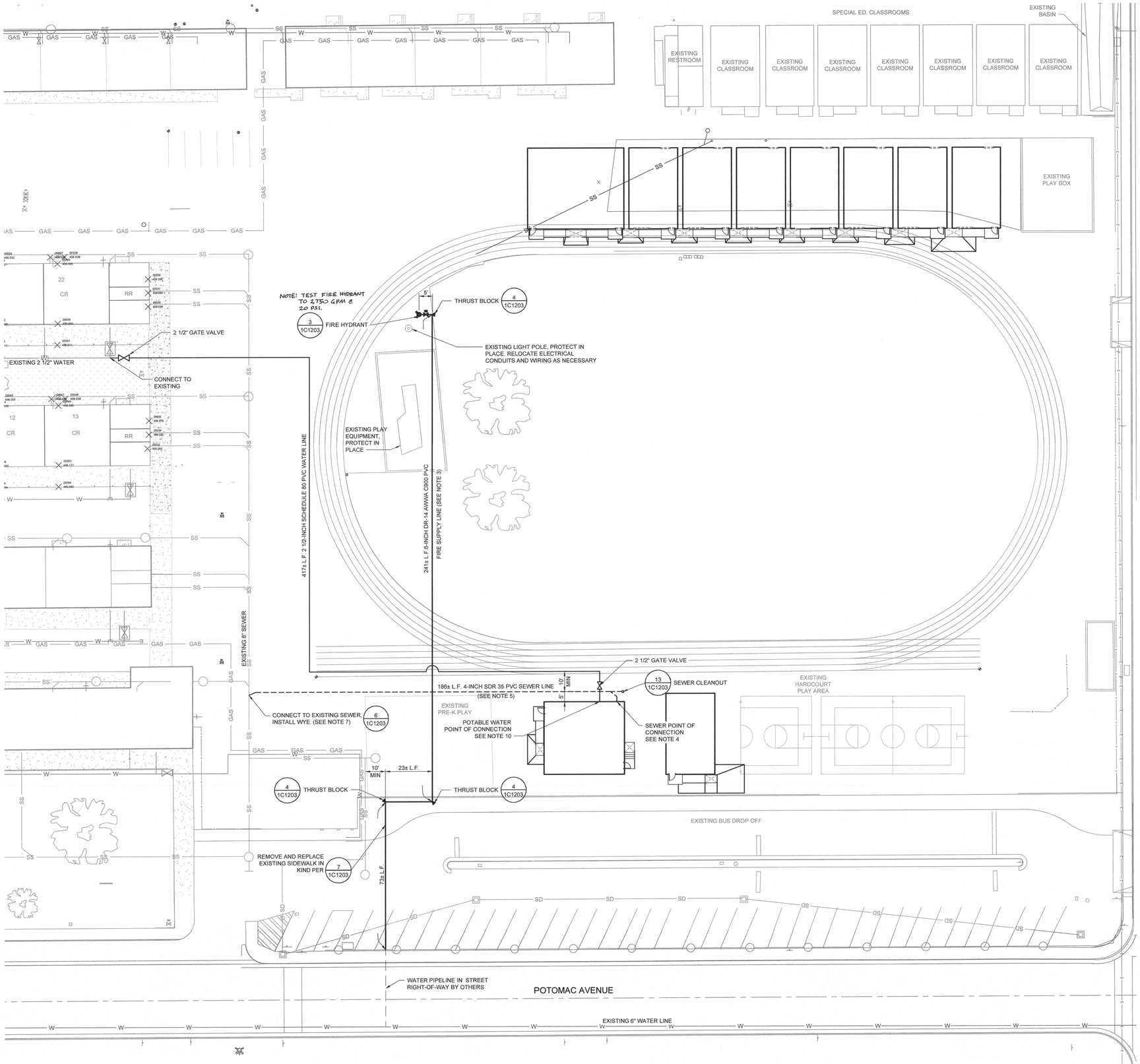
GRADING AND PAVING PLAN

SHEET NUMBER

1C1200

CONSTRUCTION DOCUMENTS

PLOT DATE: 2019-09-31 1:23:48 PM S:\BAKERSFIELD CITY SCHOOL DISTRICT\60594420 - BESSIE OWENS MODERNINIZATION\900_CAD_GIS\910_CAD\20-SHEETS\PHASE 1\60594420 1C1200.DWG



1 UTILITY PLAN
1" = 20'

2300-GENERAL NOTES

1. ONSITE WATER LINE TO BE MAINTAINED BY BAKERSFIELD CITY SCHOOL DISTRICT.
2. LANDSCAPE IRRIGATION LOCATED THROUGHOUT GRASS AREAS. REPAIR AND REPLACE ANY LANDSCAPE IRRIGATION PIPING AS NEEDED.
3. FIRE SUPPLY LINE IS TO PROVIDE NON-POTABLE WATER, AND WILL BE SEPARATE FROM THE PROPOSED POTABLE WATER LINE.
4. ADJUST LENGTH OF PIPE TO MATCH BUILDING SEWER CONNECTION PER BUILDING MANUFACTURER.
5. SLOPE OF PROPOSED SEWER LINE SHALL NOT BE LESS THAN 2%.
6. SEWER PIPES SHALL CROSS AT LEAST 12-INCHES BENEATH WATER PIPES.
7. CONTRACTOR TO POTHOLE PRIOR TO ORDERING MATERIALS TO VERIFY EXISTING PIPE LOCATION AND DEPTH.
8. FIRE SUPPLY LINE REQUIRES A MINIMUM OF 42-INCHES OF COVER.
9. WATER LINE REQUIRES A MINIMUM OF 36-INCHES OF COVER.
10. ADJUST LENGTH OF PIPE TO MATCH BUILDING WATER CONNECTION PER BUILDING MANUFACTURER.
11. WATER AND SEWER TRENCH DETAILS SEE 5 1C1203
12. TEST FIRE HYDRANT TO 2,750 GPM AT 20 PSI.

2300 - KEYNOTES

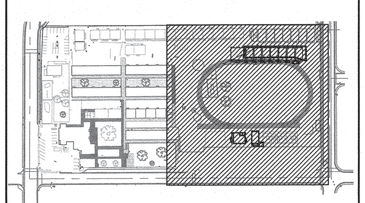
BENCH MARK USED

CHISELED "X" ON TOP OF EXISTING CURB AND GUTTER, NOTHEAST CURB RETURN OF SOUTH KING STREET AND VIRGINIA AVENUE. ELEVATION = 399.26 PER CITY OF BAKERSFIELD BENCHMARK BOOK.

LEGEND

- GAS — EXISTING GAS
- SS — EXISTING SEWER
- W — EXISTING WATER
- PROPOSED SEWER
- PROPOSED WATER
- FIRE SUPPLY LINE
- FIRE SUPPLY LINE BY OTHERS

KEY MAP



AGENCY INFORMATION:

AGENCY TRACKING NO. 63321-355
FILE NO. 15-6

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
03-120134
AC ___ FLS ___ SS 01
DATE SEP 30 2019

SEAL



COPYRIGHT:

Any reproduction or distribution for any purpose other than authorized by AECOM is forbidden.

COPYRIGHT 2019 AECOM

REVISIONS

NO.	DATE SUBMITTED	DATE APPROVED	DESCRIPTION

CONSULTANT

PRIME CONSULTANT

AECOM
5001 E Commercenter Drive, Suite 100
Bakersfield, CA 93306
661.283.2323 fax: 661.283.2360
www.aecom.com

BAKERSFIELD CITY SCHOOL DISTRICT

BESSIE OWENS E.S. TEMPORARY MODULAR BUILDINGS

815 POTOMAC AVE, BAKERSFIELD, CA 93307

OPSC or OSHPD PROJ. NO:	
PROJECT NO:	60594420
DRAWN BY:	NR
CHK'D BY:	ACR
ISSUE DATE:	08/06/2019

SHEET TITLE

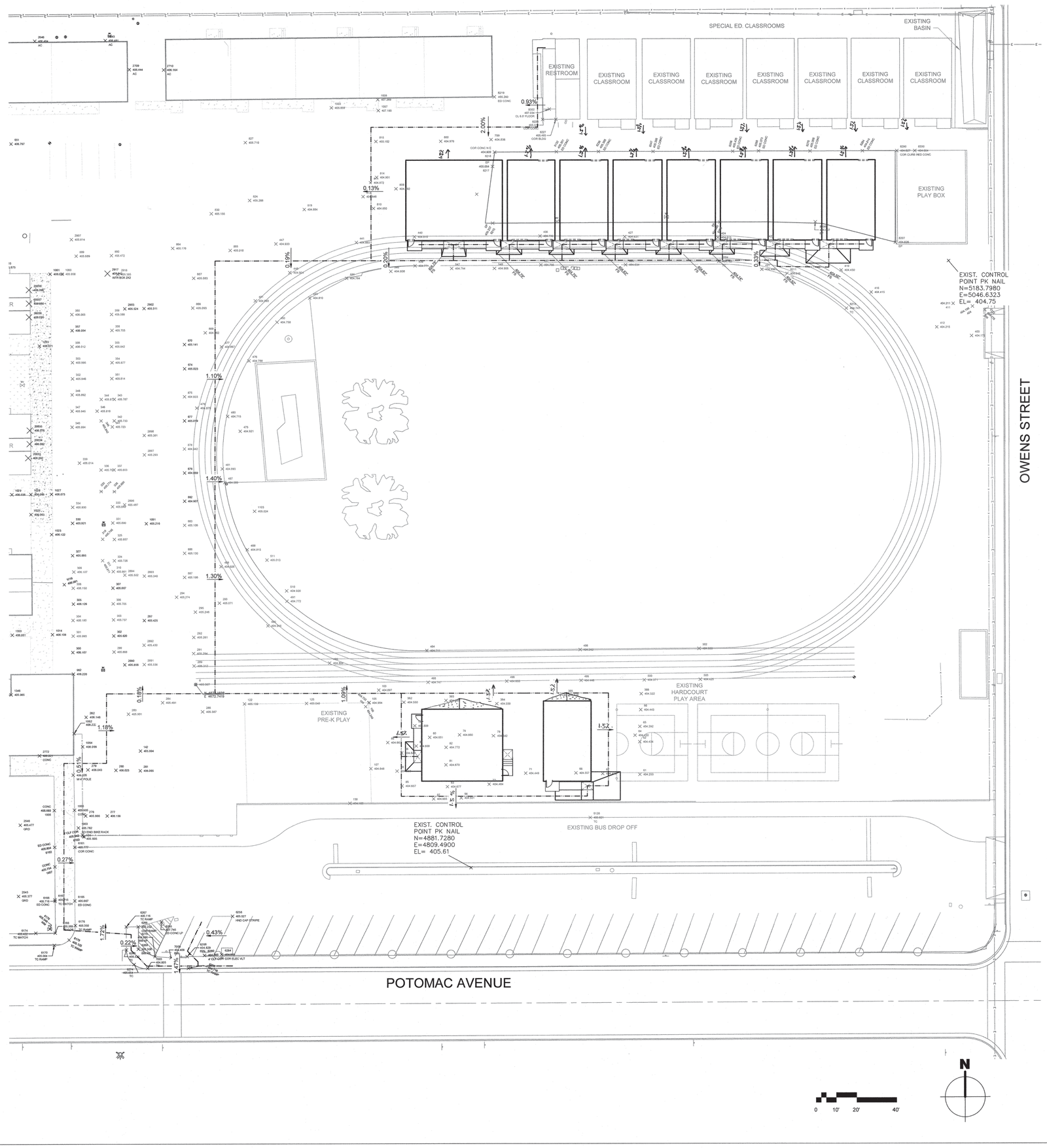
UTILITY PLAN

SHEET NUMBER

1C1201

CONSTRUCTION DOCUMENTS

PLOT DATE: 2019-05-31 1:23:48 PM S:\BAKERSFIELD CITY SCHOOL DISTRICT\60594420 - BESSIE OWENS MODERNIZATION\800_CAD_GIS\910_CAD\20-SHEETS\PHASE 1\60594420 1C1201.DWG



2300-GENERAL NOTES

2300 - KEYNOTES

BENCH MARK USED

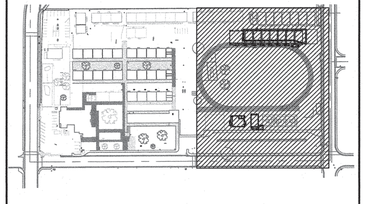
CHISELED "X" ON TOP OF EXISTING CURB AND GUTTER, NOTHEAST CURB RETURN OF SOUTH KING STREET AND VIRGINIA AVENUE. ELEVATION = 399.26 PER CITY OF BAKERSFIELD BENCHMARK BOOK.

LEGEND

PROPOSED PATH OF TRAVEL

MATCH EXISTING GRADE

KEY MAP



AGENCY INFORMATION:

AGENCY TRACKING NO. 63321-355
FILE NO. 15-6

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
03-120134
AC MF FLS SS
DATE SEP 30 2019

SEAL



COPYRIGHT:

Any reproduction or distribution for any purpose other than authorized by AECOM is forbidden.

COPYRIGHT 2019 AECOM

REVISIONS

NO.	DATE SUBMITTED	DATE APPROVED	DESCRIPTION

CONSULTANT

PRIME CONSULTANT

AECOM
5001 E Commercenter Drive, Suite 100
Bakersfield, CA 93306
661.283.2323 fax: 661.283.2360
www.aecom.com

BAKERSFIELD CITY SCHOOL DISTRICT

BESSIE OWENS E.S. TEMPORARY MODULAR BUILDINGS

815 POTOMAC AVE, BAKERSFIELD, CA 93307

OPSC or OSHPD PROJ. NO:	
PROJECT NO:	60594420
DRAWN BY:	NR
CHK'D BY:	ACR
ISSUE DATE:	08/06/2019

SHEET TITLE

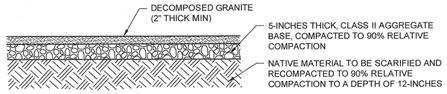
ACCESSBLE PATH OF TRAVEL

SHEET NUMBER

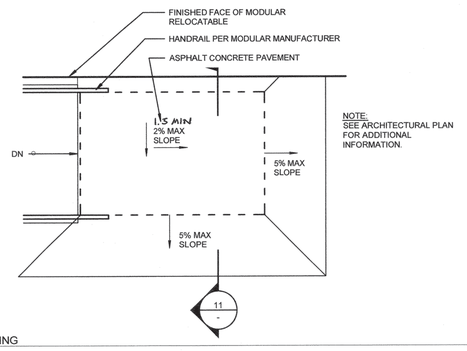
1C1202

CONSTRUCTION DOCUMENTS

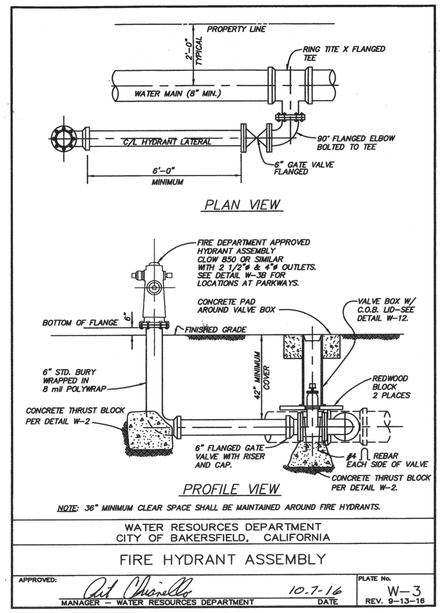
PLOT DATE: 2019-09-31 1:23:48 PM
S:\BAKERSFIELD CITY SCHOOL DISTRICT\60594420 - BESSIE OWENS MODERNIZATION\60_CAD_GIS\01_CAD\SHEET SPS\NSE 60594420 1C1202.DWG



1 DECOMPOSED GRANITE PAVEMENT
NTS

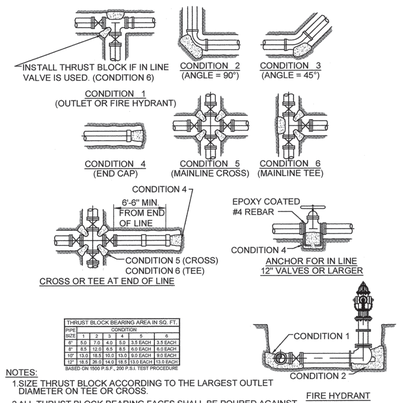


2 RAMP LANDING
1/2" = 1'-0"



NOTE: TEST FIRE HYDRANT TO 2,750 GPM @ 20 PSI.

3 FIRE HYDRANT ASSEMBLY
NTS

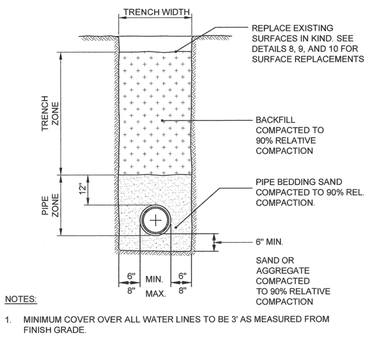


THRUST BLOCK BEARING AREA IN SQ. FT.					
PIPE	CONDITION				
SIZE	1	2	3	4	5
4"	5.0	7.0	3.5	3.5	3.5 EACH
6"	4.5	12.0	6.5	6.5	6.5 EACH
8"	13.0	16.5	10.0	10.0	6.5 EACH
12"	18.5	36.0	14.0	14.0	13.0 EACH

BASED ON 1000 P.S.F. SOIL PER U.B.C. TEST PROCEDURE

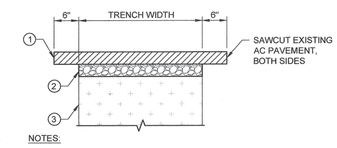
NOTES:
1. SIZE THRUST BLOCK ACCORDING TO THE LARGEST OUTLET DIAMETER ON TEE OR CROSS.
2. ALL THRUST BLOCK BEARING FACES SHALL BE POURED AGAINST UNDISTURBED SOIL OR APPROVED COMPACTED MATERIAL.

4 THRUST BLOCK DETAIL
NTS



NOTES:
1. MINIMUM COVER OVER ALL WATER LINES TO BE 3' AS MEASURED FROM FINISH GRADE.
2. MINIMUM COVER OVER ALL SEWER LINES SHALL BE 48".
3. PERCENT RELATIVE COMPACTION IS THE PERCENT OF THE MAX. DRY DENSITY AS DETERMINED BY ASTM D-1557 (5 LAYER).

5 PIPE BEDDING AND BACKFILL DETAILS
NTS



NOTES:
1. ASPHALT CONCRETE PAVEMENT, 2-INCHES
2. CLASS II AGGREGATE BASE COMPACTED TO 90% RELATIVE COMPACTION, 5-INCHES THICK
3. TRENCH ZONE PER DETAIL 5.
4. REPLACE PAVEMENT STRIPES IN KIND.

6 LATERAL CONNECTION TO EXISTING MAIN
NTS

NOTES:
1. SUBGRADE FOR CURB AND GUTTER SHALL BE THOROUGHLY WATERED AND ROLLED OR TAMPED TO 90% RELATIVE DENSITY TO A DEPTH OF 12 INCHES. SUBGRADE AND FORMS SHALL BE THOROUGHLY WETTED BEFORE PLACING CONCRETE.
2. SUBGRADE FOR SIDEWALK SHALL BE THOROUGHLY WATERED AND ROLLED OR TAMPED TO 90% RELATIVE DENSITY TO A DEPTH OF 6-INCHES.
3. SIDEWALKS SHALL BE SCREENED TO SECTION, COMPACTED WITH METAL GRID TO GIVE A LAYER OF MORTAR 3/8-INCH THICK ON THE SURFACE, FINISHED WITH A WOODEN FLOAT TO A MAXIMUM VARIATION OF 1/8-INCH FROM THE EDGE OF A 5-FOOT STRAIGHTEDGE, TROWELED SMOOTH AND FINISHED WITH A FINE HAIR PUSH BROOM TRANSVERSE TO THE DIRECTION OF TRAFFIC.
4. CONCRETE FOR CURBS, GUTTERS AND SIDEWALKS SHALL BE CLASS "B" (5 SACK) AND TO THE DIMENSIONS SHOWN ON THIS PLAN.
5. EXPANSION JOINTS SHALL BE PLACED AT ENDS OF CURB RETURNS AND 100-FOOT INTERVALS IN CURB AND GUTTER AND 20-FOOT INTERVALS IN SIDEWALKS.
6. TOP AND FACE OF CURB SHALL BE TROWELED SMOOTH AND FINISHED WITH A FINE BRUSH. GUTTERS SHALL BE GIVEN A BROOM FINISH WITH STROKES PARALLEL TO THE LINE OF THE GUTTER.
7. SIDEWALKS SHALL BE SCORED AT SPACING EQUAL TO SIDEWALK WIDTH.
8. CONCRETE SHALL BE SEALED BY IMMEDIATE APPLICATION OF A WHITE PIGMENTED SEALING COMPOUND.
9. PERCENT RELATIVE DENSITY IS THE PERCENT OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-1557 (5 LAYER).

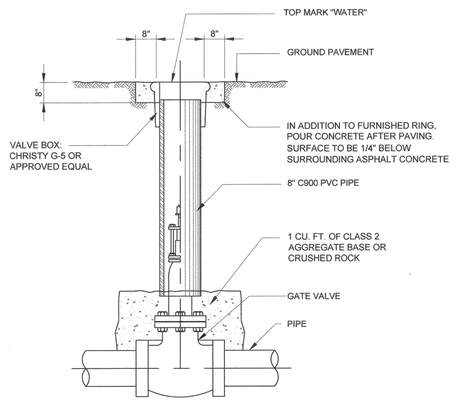
7 CURB, GUTTER, & SIDEWALK DETAILS
NTS

NOTES:
1. REMOVE AND PRESERVE EXISTING GRASS PATCH TO BE REINSTALLED AFTER BACKFILLING. DAMAGED PATCHES TO BE REPLACED IN KIND.
2. TRENCH ZONE PER DETAIL 5.

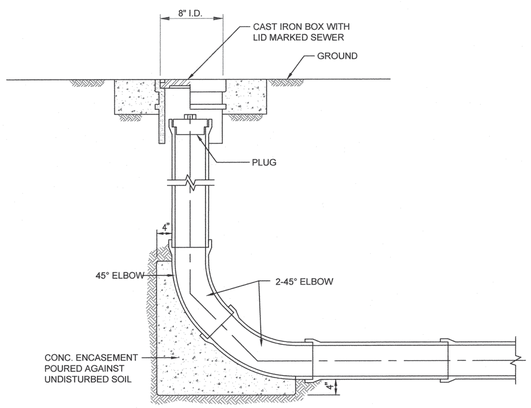
8 GRASS SURFACE
NTS

NOTES:
1. REMOVE EXISTING WOOD CHIP LANDSCAPING AND REPLACE IN KIND.
2. TRENCH ZONE PER DETAIL 5.

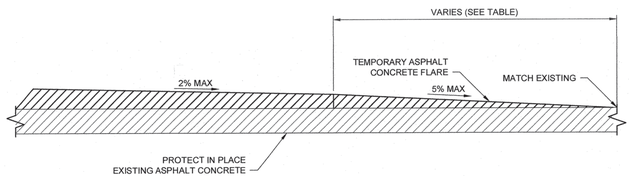
9 WOOD CHIP PLAY SURFACE
NTS



12 VALVE BOX ASSEMBLY
NTS



13 END OF LINE CLEANOUT
NTS



FLARE LONGITUDINAL DIMENSION	
FLARE	SIZE
Ⓐ	3'-0"
Ⓑ	4'-0"
Ⓒ	13'-4"
Ⓓ	7'-6"
Ⓔ	13'-0"

11 TEMPORARY ASPHALT CONCRETE FLARES IN PATH OF TRAVEL
NTS

AGENCY INFORMATION:

AGENCY TRACKING NO. 63321-355
FILE NO. 15-6

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
03-120134
AC. MF FLS SS
DATE SEP 30 2019

SEAL



COPYRIGHT:

Any reproduction or distribution for any purpose other than authorized by AECOM is forbidden.

COPYRIGHT 2019 AECOM

REVISIONS

NO.	DATE SUBMITTED	DATE APPROVED	DESCRIPTION

CONSULTANT

PRIME CONSULTANT

AECOM
5001 E Commercenter Drive, Suite 100
Bakersfield, CA 93306
661.283.2323 fax: 661.283.2360
www.aecom.com

BAKERSFIELD CITY SCHOOL DISTRICT

BESSIE OWENS E.S. TEMPORARY MODULAR BUILDINGS

815 POTOMAC AVE, BAKERSFIELD, CA 93307

OPSC or OSHPD PROJ. NO:	
PROJECT NO:	60594420
DRAWN BY:	NR
CHK'D BY:	ACR
ISSUE DATE:	08/06/2019

SHEET TITLE

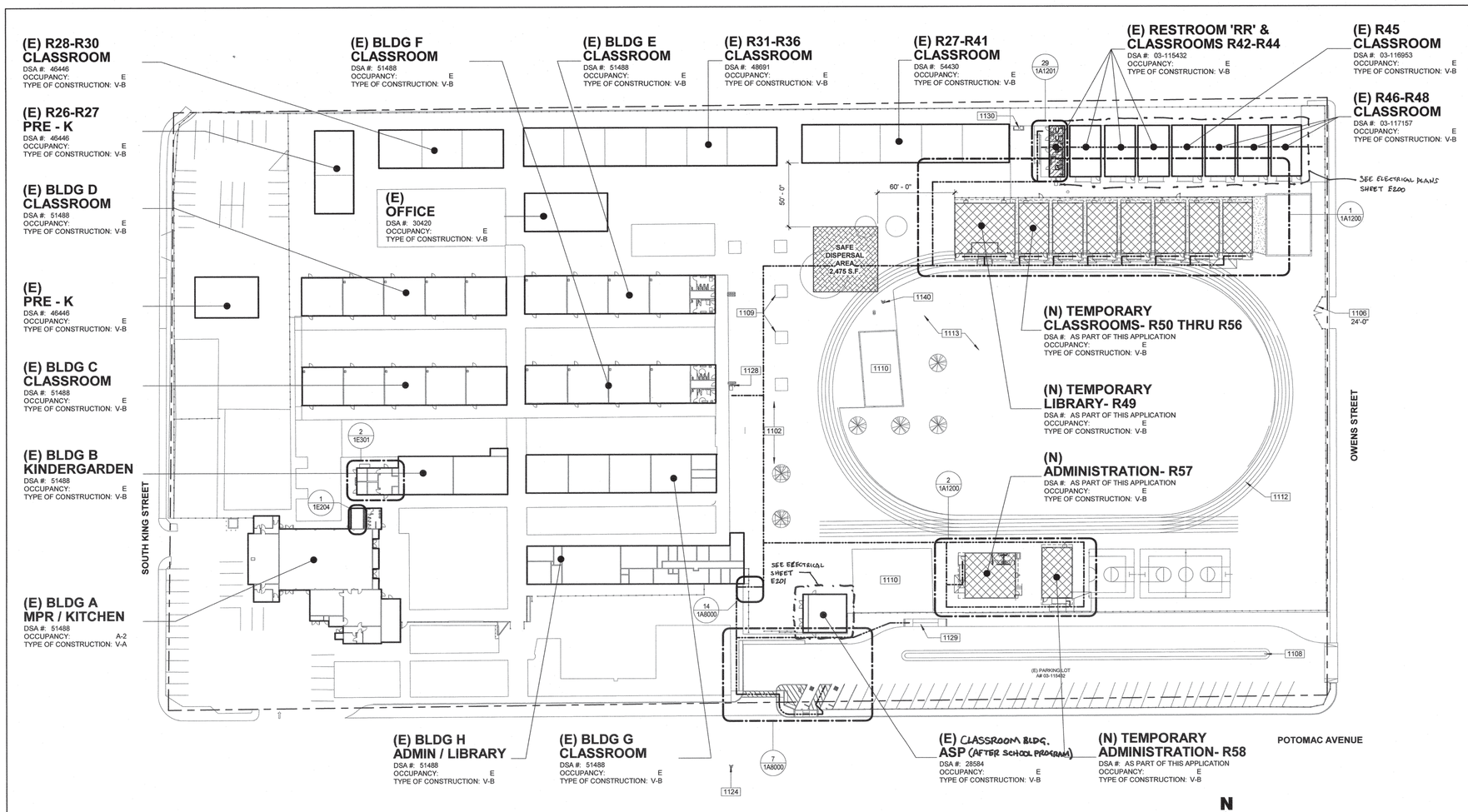
DETAILS

SHEET NUMBER

1C1203

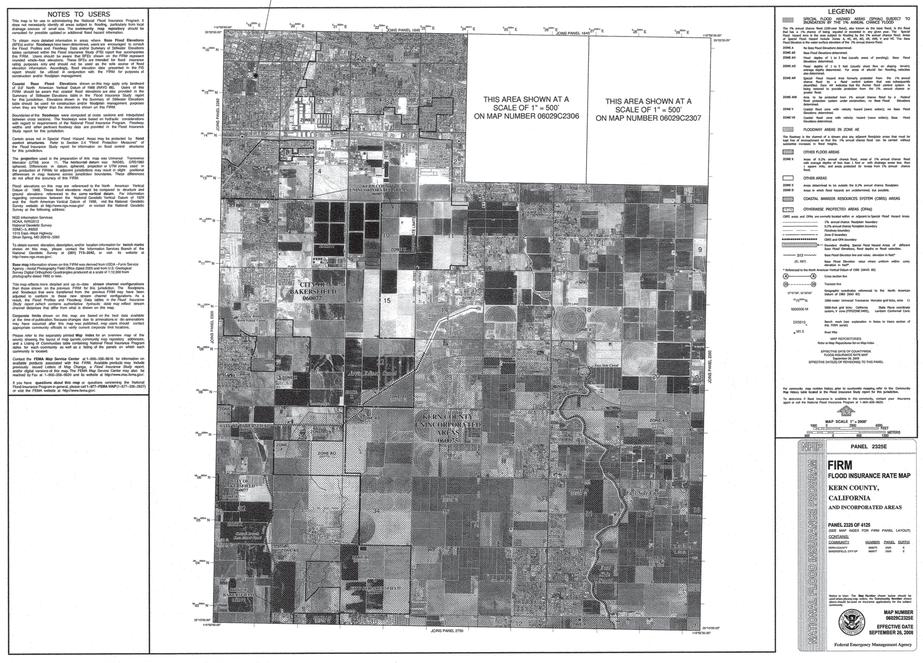
CONSTRUCTION DOCUMENTS

PLOT DATE: 2019-05-31 1:23:48 PM S:\BAKERSFIELD CITY SCHOOL DISTRICT\60594420 - BESSIE OWENS MODERNIZATION\900_CAD_GIS\910_CAD\20-SHEETS\PHASE 1\60594420 1C1203.DWG



1 OVERALL SITE PLAN
1" = 40'-0"

LOCATION OF PROJECT SITE
815 POTOMAC AVE.
BAKERSFIELD, CA 93307



1000-GENERAL NOTES

1. REFER TO CIVIL, PLUMBING, AND ELECTRICAL DRAWINGS FOR UNDERGROUND UTILITIES.
2. PRIOR TO ANY UNDERGROUND SITE WORK, VERIFY LOCATION OF ALL EXISTING UTILITIES WITH UNDERGROUND SERVICE ALERT (U.S.A.).

1100 - KEYNOTES

1102	(E) A.C. PAVED AREA TO REMAIN
1106	(E) FIRE ACCESS GATE TO REMAIN, SIZE AS SPECIFIED. PROVIDE KNOX BOX, SEE DETAIL 13/1A8000
1108	(E) TOW-AWAY SIGN TO REMAIN. A# 03-115432, SEE DETAIL
1109	(E) PLANTER TO REMAIN
1110	(E) SAND PLAY BOX TO REMAIN
1112	(E) PLAY STRIPING TO REMAIN
1113	(E) TURF AREA TO REMAIN
1124	EXISTING FIRE HYDRANT TO REMAIN, SEE FIRE FLOW TEST ON 1G1200
1128	REMOVE EXISTING DRINKING FOUNTAIN AND REPLACE WITH HI-LO DRINKING FOUNTAIN, SEE DETAIL 20/A1A1201
1129	EXISTING LOADING ZONE. A# 03-115432
1130	ELECTRICAL EQUIPMENT, SEE ELECTRICAL DRAWINGS
1140	PROPOSED FIRE HYDRANT, AS PART OF THIS DSA APPLICATION. SEE CIVIL

LEGEND

ASSUMED PROPERTY LINE

PROPERTY LINE

ACCESSIBLE PATH OF TRAVEL AS INDICATED ON PLAN IS A BARRIER-FREE ACCESS ROUTE AT LEAST 48" WIDE, WITHOUT ANY ABRUPT VERTICAL CHANGES EXCEEDING 1/2" AT 1:2 MAX. SLOPE, EXCEPT LEVEL CHANGES THAT DO NOT EXCEED 2% AND SLOPES IN THE DIRECTION OF TRAVEL SHALL NOT EXCEED 5%. "PASSING SPACES" AT LEAST 60"x60" ARE LOCATED NOT MORE THAN 200' APART. PART OF ACCESSIBLE PATH OF TRAVEL WITH CONTINUOUS GRADIENTS HAVE 60' LEVEL AREAS NOT MORE THAN 400' APART. P.O.T. SHALL BE FREE OF OBSTRUCTIONS OVERHANGING WITHIN 80" ABOVE WALKING SURFACE AND PROJECTING GREATER THAN 4" FROM WALL SURFACES BETWEEN 27" AND 80" ABOVE WALKING SURFACE, CBC11338.8.6
THE ARCHITECT SHALL VERIFY THAT ALL BARRIERS ON THE INDICATED PATH OF TRAVEL HAVE BEE REMOVED. GATES IN PATH OF TRAVEL SHALL COMPLY WITH EXIT DOOR REQUIREMENTS PER CBC SECTION 11B-404.1

NEW MODULAR BUILDING TO BE RELOCATED BY OWNER, N.I.C., AS PART OF THIS DSA NUMBER.

EXISTING ACCESSIBLE STUDENT OR STAFF RESTROOM SEE 29/1A1201

SAFE DISPERSAL AREA.
TOTAL OCCUPANTS: 495
AREA PER OCUPANT: 5 SF
TOTAL DISPERSAL AREA REQUIRED: 2,475 SF

POT - STATEMENT OF COMPLIANCE

THE PATH OF TRAVEL (POT) IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS IS COMPLIANT WITH THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE ACCESSIBILITY PROVISIONS FOR **"PATH OF TRAVEL REQUIREMENTS FOR ALTERATIONS, ADDITIONS AND STRUCTURAL REPAIRS".**

AS PART OF THE DESIGN OF THIS PROJECT, THE POT WAS EXAMINED TO DETERMINE COMPLIANCE WITH THESE REQUIREMENTS. ANY ELEMENTS, COMPONENTS OR PORTIONS OF THE POT THAT WERE DETERMINED TO BE NON-COMPLIANT 1) HAVE BEEN IDENTIFIED AND 2) THE CORRECTIVE WORK NECESSARY TO BRING THEM INTO COMPLIANCE HAS BEEN INCLUDED WITHIN THE SCOPE OF THIS PROJECT'S WORK THROUGH DETAILS, DRAWINGS AND SPECIFICATIONS INCORPORATED INTO THESE CONSTRUCTION DOCUMENTS. ANY NON-COMPLIANT ELEMENTS, COMPONENTS OR PORTIONS OF THE POT THAT WILL NOT BE CORRECTED BY THIS PROJECT BASED ON VALUATION THRESHOLD LIMITATIONS OR A FINDING OF UNREASONABLE HARDSHIP ARE SO INDICATED IN THESE CONSTRUCTION DOCUMENTS.

DURING CONSTRUCTION, IF POT ITEMS REPRESENTED AS CODE COMPLIANT ARE FOUND TO BE NON-CONFORMING, THEY SHALL BE BROUGHT INTO COMPLIANCE WITH THE CBC AS A PART OF THIS PROJECT.

BUILDING ANALYSIS

MODULAR WING - R49 THRU R56

R49:
Construction Type:.....V-B
Occupancy:.....E (CBC 303.1.3)
Allowable Area:.....9,500 ft²

Actual Area
w/ Overhangs:.....2,265 ft²

Occupant Load:.....96 OCC

R50 thru R56:
Construction Type:.....V-B
Occupancy:.....E
Allowable Area:.....9,500 ft²

Actual Area
w/ Overhangs:.....7,896 ft²

Occupant Load:.....336 OCC

Allowable Area Frontage (CBC 506.2.3)

A_a=[A_t+(NSx k)]
I_f = [F/P- .025]W/30
I_f = [546/546 - .25]20/30
I_f = .50
A_a=[9,500+(9,500 x .50)]
A_a=14,250 ft²

Total Combined Actual Area....10,161 ft² < 14,250 ft²...ok

ADMINISTRATION - R57

R57: Construction Type:.....V-B
Occupancy:.....B
Allowable Area:.....9,000 ft²

Actual Area
w/ Overhangs:.....1,685 ft² < 9,000 ft²

Occupant Load:.....15 OCC

CLASSROOM - R58

R58: Construction Type:.....V-B
Occupancy:.....E
Allowable Area:.....9,500 ft²

Actual Area
w/ Overhangs:.....1,128 ft² < 9,500 ft²

Occupant Load:.....48 OCC

PARKING ANALYSIS

EXISTING PARKING LOT - A#03-115432
36 PARKING SPACES
ACCESSIBLE SPACES REQUIRED (CBC 11B-208.2).....2
ACCESSIBLE SPACES PROVIDED.....2

VAN ACCESSIBLE SPACES REQUIRED (CBC 11B-208.2.4).....1
VAN ACCESSIBLE SPACES PROVIDED.....1

AGENCY INFORMATION:

AGENCY TRACKING NO. 63321-355
FILE NO. 15-6

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
03-120134
AC MP FLS SCH SS
DATE SEP 30 2019

SEAL

LICENSED ARCHITECT RICHARD MERRITT No. C18079 REN. 10/19 STATE OF CALIFORNIA

COPYRIGHT:

Any reproduction or distribution for any purpose other than authorized by IBI Group is forbidden.

COPYRIGHT 2019 IBI GROUP

REVISIONS

NO.	DATE SUBMITTED	DATE APPROVED	DESCRIPTION

CONSULTANT

PRIME CONSULTANT

IBI ARCHITECTURE PLANNING
San Luis Obispo
4119 Broad Street, Suite 210
San Luis Obispo, CA 93401
805.546.0433 fax: 805.546.0504
ibigroup.com

BAKERSFIELD CITY SCHOOL DISTRICT

BESSIE OWENS E.S. TEMPORARY MODULAR BUILDINGS
815 POTOMAC AVE, BAKERSFIELD, CA 93307

OPSC or OSHPD PROJ. NO:	N/A
PROJECT NO:	118932
DRAWN BY:	rRr
CHK'D BY:	RM
ISSUE DATE:	08/26/2019

SHEET TITLE

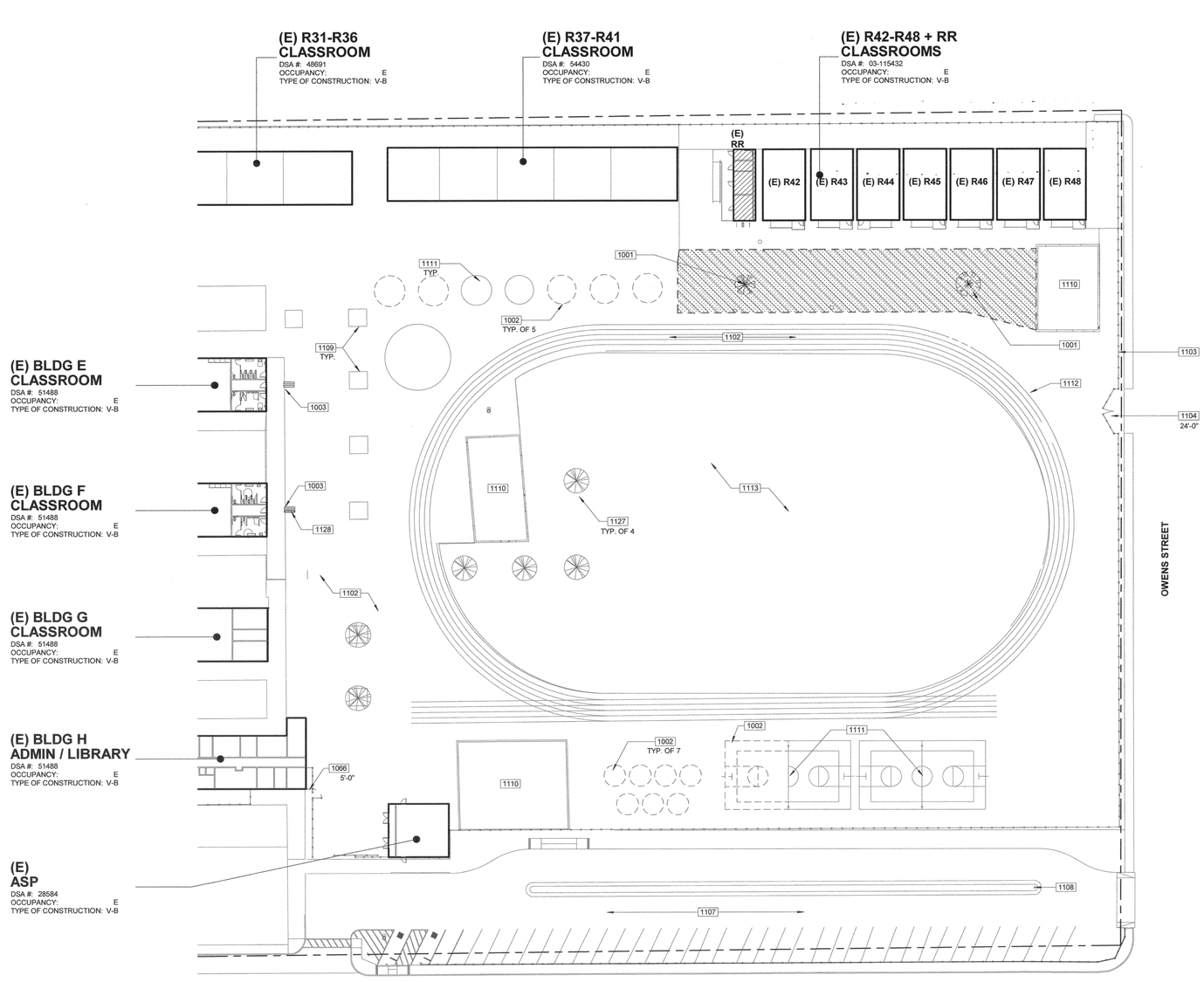
OVERALL SITE PLAN, CODE ANALYSIS & FLOOD ZONE MAP

SHEET NUMBER

1A1000

CONSTRUCTION DOCUMENTS

PLOT DATE 2019-08-23 9:57:42 AM C:\Users\ruben.ruiz\Documents\REVIT2018\RATW-118932-SITE-06-03-19-V2018_CENTRAL_ruben.ruiz.rvt



1 SITE PLAN - DEMOLITION
1" = 30'-0"

1000-GENERAL NOTES

1. REFER TO CIVIL, PLUMBING, AND ELECTRICAL DRAWINGS FOR UNDERGROUND UTILITIES.
2. PRIOR TO ANY UNDERGROUND SITE WORK, VERIFY LOCATION OF ALL EXISTING UTILITIES WITH UNDERGROUND SERVICE ALERT (U.S.A.).

1000 - DEMOLITION KEYNOTES

1001 REMOVE EXISTING TREE AND ASSOCIATED ROOTS, MIN 2'-0" BELOW GRADE
1002 REMOVE EXISTING PLAY STRUCTURE AND ASSOCIATED FOOTINGS. PATCH AND REPAIR SURFACE TO MATCH ADJACENT. PROVIDE FLUSH TRANSITION.
1003 REMOVE EXISTING DRINKING FOUNTAIN
1066 REMOVE EXISTING CHAIN LINK GATE
1102 (E) A.C. PAVED AREA TO REMAIN
1103 (E) CHAIN LINK FENCE TO REMAIN
1104 (E) PEDESTRIAN GATE TO REMAIN. SIZE AS SPECIFIED
1107 (E) PARKING LOT TO REMAIN. A# 03-115432
1108 (E) TOW-AWAY SIGN TO REMAIN. A# 03-115432, SEE DETAIL
1109 (E) PLANTER TO REMAIN
1110 (E) SAND PLAY BOX TO REMAIN
1111 (E) PLAY COURTS/STRUCTURE TO REMAIN
1112 (E) PLAY STRIPING TO REMAIN
1113 (E) TURF AREA TO REMAIN
1127 EXISTING TREES TO REMAIN
1128 REMOVE EXISTING DRINKING FOUNTAIN AND REPLACE WITH HI-LO DRINKING FOUNTAIN, SEE DETAIL 20/A1A1201

LEGEND

PROPERTY LINE

REMOVE EXISTING CONSTRUCTION, REFER TO DEMOLITION KEYNOTES FOR ADDITIONAL INFORMATION.

REMOVE TURF AREA AND ASSOCIATED IRRIGATION LINES. CAP BELOW GRADE. EXCAVATE SOIL TO PROVIDE 6" MIN DECOMPOSED GRANITE, SEE CIVIL.

EXISTING ACCESSIBLE STUDENT OR STAFF RESTROOM PER DSA APPLICATION NUMBER - A#03-115432.(M - MEN, W- WOMEN, B - BOYS , G - GIRLS)

AGENCY INFORMATION:

AGENCY TRACKING NO. 63321-355
FILE NO. 15-6

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
03-120134
AC FLS SS
DATE SEP 30 2019

SEAL

LICENSED ARCHITECT
RICHARD MEIER
No. C18079
REN. 10/19
STATE OF CALIFORNIA

COPYRIGHT:

Any reproduction or distribution for any purpose other than authorized by IBI Group is forbidden.

COPYRIGHT 2019 IBI GROUP

REVISIONS

NO.	DATE SUBMITTED	DATE APPROVED	DESCRIPTION

CONSULTANT

PRIME CONSULTANT

IBI ARCHITECTURE PLANNING
San Luis Obispo
4119 Broad Street, Suite 210
San Luis Obispo, CA 93401
805.546.0433 fax: 805.546.0504
ibigroup.com

BAKERSFIELD CITY SCHOOL DISTRICT

BESSIE OWENS E.S. TEMPORARY MODULAR BUILDINGS

815 POTOMAC AVE, BAKERSFIELD, CA 93307

OPSC or OSHPD PROJ. NO:	N/A
PROJECT NO:	118932
DRAWN BY:	rRr
CHK'D BY:	RM
ISSUE DATE:	08/26/2019

SHEET TITLE

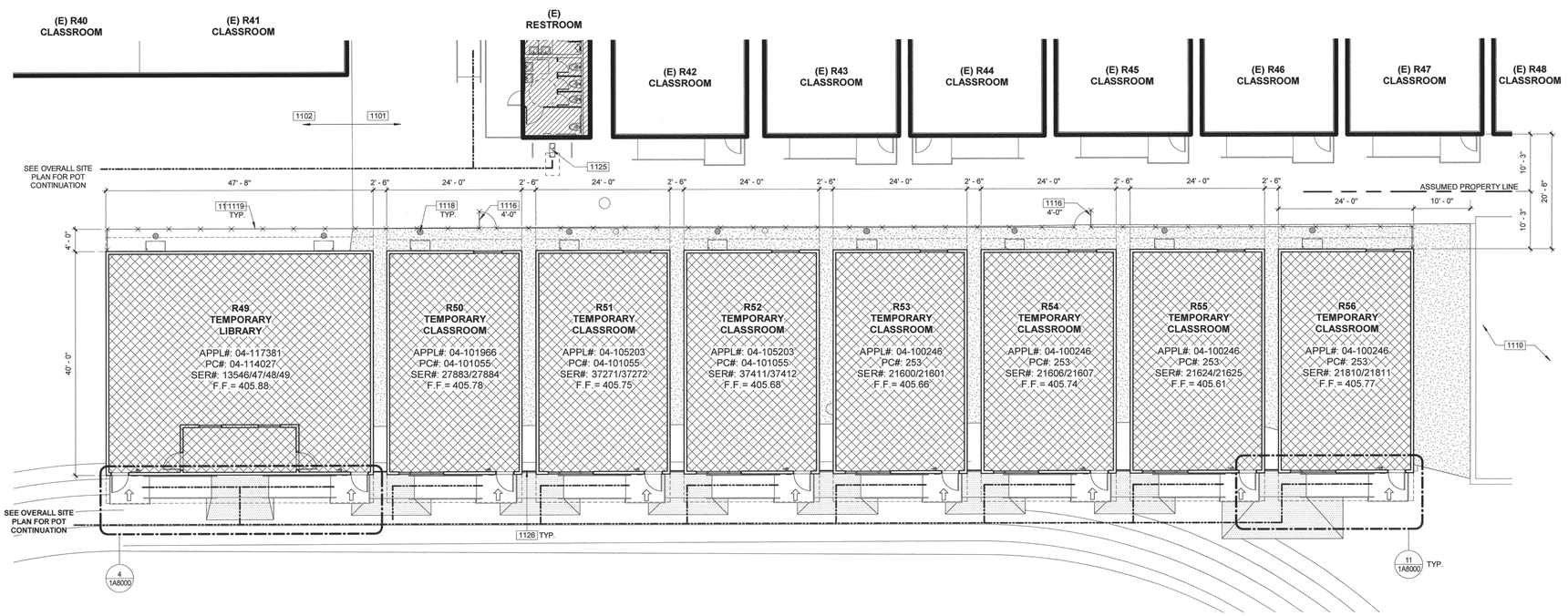
PARTIAL SITE PLAN - DEMOLITION

SHEET NUMBER

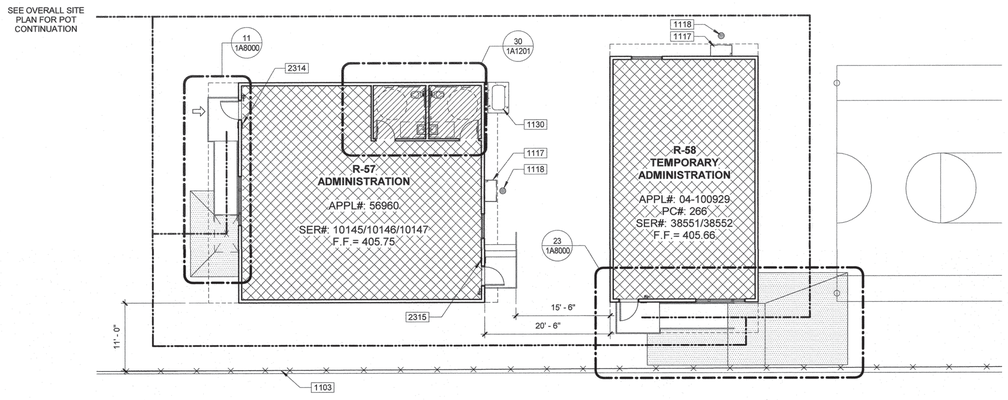
1A1001

CONSTRUCTION DOCUMENTS

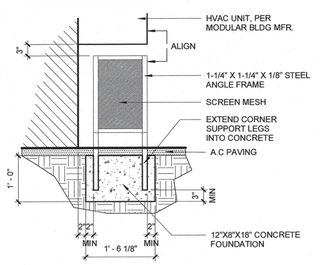
PLOT DATE 2019-09-23 9:57:48 AM C:\Users\chen.ruo\Documents\REVIT2019\BATW-118932-SITE-DEMO_chen.ruo.rvt



1 TEMPORARY CLASSROOM ENLARGED SITE PLAN
1" = 10'-0"



2 MODULAR ADMINISTRATION ENLARGED SITE PLAN
1" = 10'-0"



25 SCREEN SUPPORT 3/4" = 1'-0"

1000-GENERAL NOTES

1. REFER TO CIVIL, PLUMBING, AND ELECTRICAL DRAWINGS FOR UNDERGROUND UTILITIES.
2. PRIOR TO ANY UNDERGROUND SITE WORK, VERIFY LOCATION OF ALL EXISTING UTILITIES WITH UNDERGROUND SERVICE ALERT (U.S.A.).

1100 - KEYNOTES

1101 (E) CONCRETE WALK TO REMAIN
1102 (E) A.C. PAVED AREA TO REMAIN
1103 (E) CHAIN LINK FENCE TO REMAIN
1110 (E) SAND PLAY BOX TO REMAIN
1115 CHAIN LINK FENCE, SEE DETAIL 19/1A8000
1116 CHAIN LINK GATE, SIZE AS SPECIFIED. SEE DETAIL 25/1A8000
1117 MODULAR HVAC UNIT, PROVIDE SCREEN SUPPORT PER DETAIL 18/1A8001
1118 DRYWELL, SEE DETAIL 27/1A8000
1125 HI-LOW DRINKING FOUNTAIN TO REMAIN. A# 03-115432
1126 CLOSURE PANEL. SEE DETAIL 30/1A8000
1130 ELECTRICAL EQUIPMENT, SEE ELECTRICAL DRAWINGS E203.
2314 EXIT RAMP DOWN SIGN, SEE DETAIL D-14/A1A1201
2315 EXIT STAIR DOWN SIGN, SEE DETAIL E-14/A11201

LEGEND

ASSUMED PROPERTY LINE

ACCESSIBLE PATH OF TRAVEL AS INDICATED ON PLAN IS A BARRIER-FREE ACCESS ROUTE AT LEAST 48" WIDE. WITHOUT ANY ABRUPT VERTICAL CHANGES EXCEEDING 1/2" AT 1:2 MAX. SLOPE, EXCEPT LEVEL CHANGES THAT DO NOT EXCEED 2% AND SLOPES IN THE DIRECTION OF TRAVEL SHALL NOT EXCEED 5%. "PASSING SPACES" AT LEAST 60"x60" ARE LOCATED NOT MORE THAN 200' APART. PART OF ACCESSIBLE PATH OF TRAVEL WITH CONTINUOUS GRADIENTS HAVE 60' LEVEL AREAS NOT MORE THAN 400' APART. P.O.T. SHALL BE FREE OF OBSTRUCTIONS OVERHANGING WITHIN 80" ABOVE WALKING SURFACE AND PROJECTING GREATER THAN 4" FROM WALL SURFACES BETWEEN 27" AND 80" ABOVE WALKING SURFACE, CBC1133B.8.6
THE ARCHITECT SHALL VERIFY THAT ALL BARRIERS ON THE INDICATED PATH OF TRAVEL HAVE BEE REMOVED. GATES IN PATH OF TRAVEL SHALL COMPLY WITH EXIT DOOR REQUIREMENTS PER CBC SECTION 11B-404.1

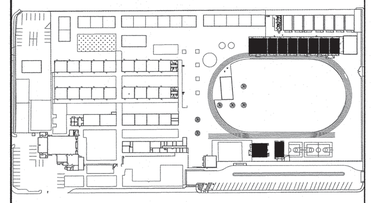
ACCESSIBLE BUILDING ENTRANCE

NEW MODULAR BUILDING TO BE RELOCATED BY OWNER, N.I.C., AS PART OF THIS DSA NUMBER.

EXISTING ACCESSIBLE STUDENT OR STAFF RESTROOM SEE SHEET 1A1201 FOR EXISTING CONDITIONS

DECOMPOSED GRANITE BASE. SEE CIVIL.

KEY PLAN



AGENCY INFORMATION:

AGENCY TRACKING NO. 63321-355
FILE NO. 15-6

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
03-120134
AC MP FLS SPH SS
DATE SEP 30 2019

SEAL

LICENSED ARCHITECT RICHARD T. MOORE NO. C18079 REN. 10/19 STATE OF CALIFORNIA

COPYRIGHT:

Any reproduction or distribution for any purpose other than authorized by IBI Group is forbidden.

COPYRIGHT 2019 IBI GROUP

REVISIONS

NO.	DATE SUBMITTED	DATE APPROVED	DESCRIPTION

CONSULTANT

PRIME CONSULTANT

IBI ARCHITECTURE PLANNING
San Luis Obispo
4119 Broad Street, Suite 210
San Luis Obispo, CA 93401
805.546.0433 fax: 805.546.0504
ibigroup.com

BAKERSFIELD CITY SCHOOL DISTRICT

BESSIE OWENS E.S. TEMPORARY MODULAR BUILDINGS
815 POTOMAC AVE, BAKERSFIELD, CA 93307

OPSC or OSHPD PROJ. NO:	N/A
PROJECT NO:	118932
DRAWN BY:	rRr
CHK'D BY:	RM
ISSUE DATE:	08/26/2019

SHEET TITLE

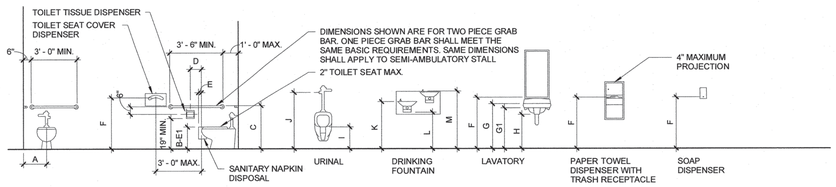
ENLARGED SITE PLANS

SHEET NUMBER

1A1200

CONSTRUCTION DOCUMENTS

PLOT DATE 2019-08-23 9:57:48 AM C:\Users\ruben.ruiz\Documents\REVIT2018\RATM-118932_SITE-RR-03-19-V2018_CENTRAL_ruben.ruiz.rvt



NOTES:

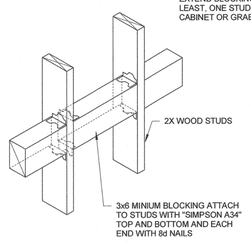
1. NOT ALL FIXTURES/ACCESSORIES SHOWN APPLY TO THIS PROJECT
2. HEIGHTS INDICATED ON INTERIOR ELEVATIONS TAKE PRECEDENCE OVER HEIGHTS SHOWN HERE
3. FIXTURES/ACCESSORIES SHOWN ARE AT HEIGHTS ACCESSIBLE TO PERSONS WITH DISABILITIES
4. MOUNTING HEIGHTS FOR ABLE BODIED PERSONS SHALL BE DETERMINED BY RECOMMENDATIONS FROM THE MANUFACTURER, UNLESS NOTED OTHERWISE.
5. WATER CLOSET FLUSH VALVE SHALL BE ORIENTED ON THE APPROACH SIDE OF ACCESSIBLE TOILET
6. FOR DIMENSIONS INDICATED BY A LETTER REFER TO DETAIL 4 / 1A1201
7. MOUNT GRAB BARS 36" ABOVE FINISHED FLOOR AT TANK TYPE TOILETS. ALLOW 6" CLR TO GRAB BAR

LETTER	DESCRIPTION	ADULT	ELEM.	KINDER
A	FROM WALL TO CENTERLINE OF TOILET	17"-18"	15"	12"
B	TOILET SEAT HEIGHT (TO TOP OF SEAT)	17" - 19"	15"	10" - 12"
C	GRAB BAR HEIGHT	33"-36" TOP	25"-27"	20" - 22"
D	TOILET TISSUE DISPENSER TO TOILET	7"-9"	7"-9"	7"-9"
E	SANITARY NAPKIN DISPOSAL TO TOILET	SEE FIG. 1 / 1A1201	SEE FIG. 1 / 1A1201	N/A
E1	SANITARY NAPKIN DISPOSAL FROM FLOOR TO TOP	17" - 19"	15"	N/A
F	DISPENSER OR MIRROR TO REFLECTIVE SURFACE	40" MAX.	36" MAX.	32" MAX.
G	LAVATORY/ SINK HEIGHT	34" MAX.	31" MAX.	26" MAX.
G1	LAVATORY APRON CLEARANCE	29" MIN.	26" MIN.	21" MIN.
H	KNEE CLEARANCE	27" MIN.	24" MIN.	19" MIN.
I	URINAL RIM HEIGHT	13" - 17"	13" - 15"	13" - 15"
J	URINAL FLUSH HANDLE HEIGHT	44" MAX.	37" MAX.	32" MAX.
K	DRINKING FOUNTAIN BUBBLER HEIGHT	36" MAX.	30" MAX.	30" MAX.
L	DRINKING FOUNTAIN KNEE CLEARANCE	27" MIN.	24" MIN.	22" MIN.
M	D.F. BUBBLER HEIGHT (STANDING UNIT)	38"-43"		

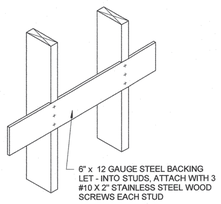
ADULT DIMENSIONS FOR PERSONS 12 YEARS AND OLDER
ELEM. DIMENSIONS FOR ELEMENTARY SCHOOL AGE PERSONS (AGES 6-12)
KINDER DIMENSIONS FOR KINDERGARTEN AND PRE - SCHOOL AGE PERSONS

1 ACCESSIBLE MOUNTING HEIGHTS

1/4" = 1'-0"



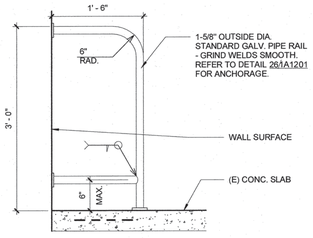
WOOD STUD FRAMING



WOOD FRAMING WITH METAL BACKING

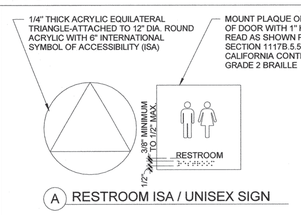
19 BLOCKING

1" = 1'-0"



25 D.F. RAIL

1" = 1'-0"

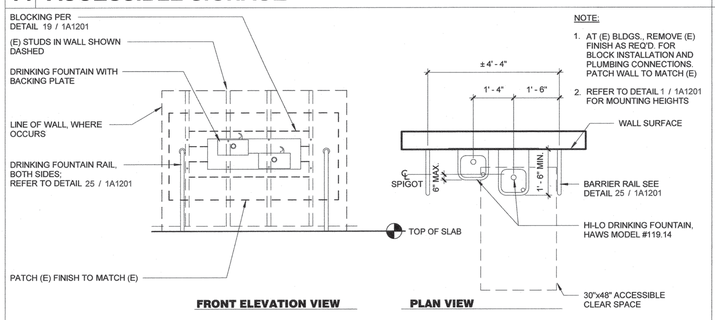


GENERAL NOTES

1. ALL SIGNS AND PLAQUES TO BE 1/4" THICK ACRYLIC
2. RAISE ALL SYMBOLS AND LETTERS 1/32" ABOVE SIGN/PLAQUE SURFACE UNLESS NOTED OTHERWISE
3. CONTRAST BETWEEN SIGN AND SIGN CONTENT SHALL BE 70% MIN. AND HAVE A NON-GLARE FINISH
4. CONTRAST BETWEEN SIGN AND MOUNTING SURFACE SHALL BE 70% MINIMUM.
5. REFER TO DOOR ELEVATION FOR TYPICAL SIGNAGE LOCATION.
6. CALIFORNIA GRADE 2 DOTS SHALL BE DOMES RAISED A MINIMUM OF 1/40" (0.635mm), 1/10" (2.54mm) BETWEEN DOTS WITHIN CELLS, WITH 1/5" (5.08mm) BETWEEN EACH CELL.
7. SIGNAGE SHALL COMPLY WITH TITLE 24, SECTION 1117B.5 THRU 1117.5.10
8. WHERE GLAZING OCCURS ADJACENT TO STRIKE SIDE OF DOOR ADHERE SIGNAGE TO GLAZING
9. TACTILE SIGNS SHALL BE LOCATED 48" MIN. TO BTM. BRAILE AND 60" MAX. TO BASELINE OF TOP LINE OF TACTILE CHARACTER

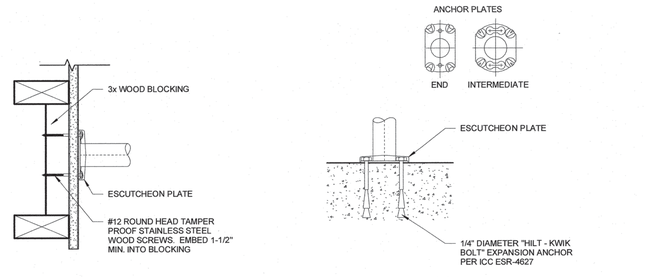
14 ACCESSIBLE SIGNAGE

1 1/2" = 1'-0"



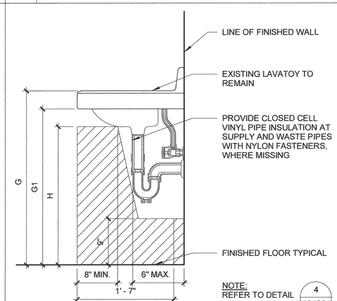
20 DRINKING FOUNTAIN - ELEMENTARY HEIGHT

1/2" = 1'-0"



26 D.F HAND RAIL MOUNTING

3" = 1'-0"

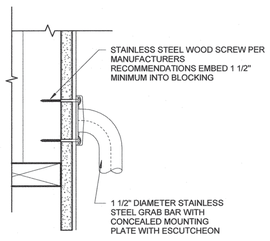


4 MOUNTING HEIGHTS

1/4" = 1'-0"

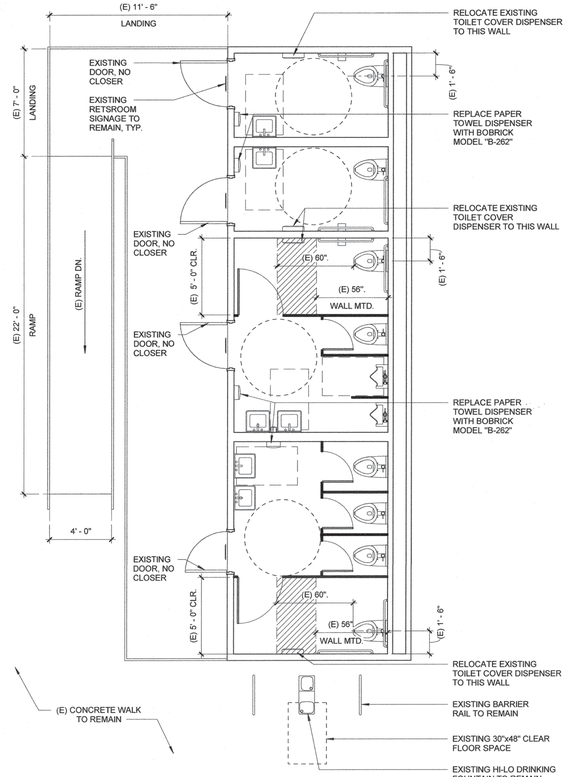
10 ACCESSIBLE SINK

1" = 1'-0"



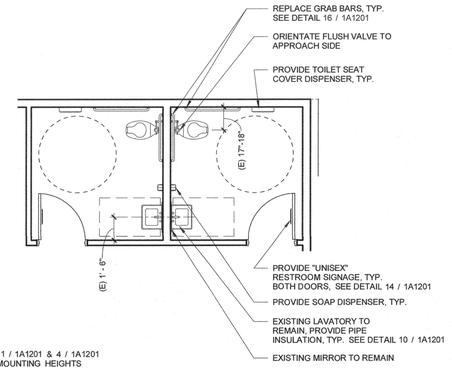
16 GRAB BAR MOUNTING

3" = 1'-0"



NOTE: SEE DETAIL 1 / 1A1201 & 4 / 1A1201 FOR ACCESSIBLE MOUNTING HEIGHTS

29 EXISTING PORTABLE BUILDING - A#03-115432
1/4" = 1'-0"



NOTE: SEE DETAIL 1 / 1A1201 & 4 / 1A1201 FOR ACCESSIBLE MOUNTING HEIGHTS

30 ADMIN ENLARGED RESTROOMS - A#56960
1/4" = 1'-0"

AGENCY INFORMATION:

AGENCY TRACKING NO. 63321-355
FILE NO. 15-6

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
03-120134
AC. MF FLS. SS.
DATE SEP 30 2019

SEAL

LICENSED ARCHITECT RICHARD ★ No. C18079 ★ REN. 10/19 STATE OF CALIFORNIA

COPYRIGHT:

Any reproduction or distribution for any purpose other than authorized by IBI Group is forbidden.

COPYRIGHT 2019 IBI GROUP

REVISIONS

NO.	DATE SUBMITTED	DATE APPROVED	DESCRIPTION

CONSULTANT

PRIME CONSULTANT

IBI ARCHITECTURE PLANNING
San Luis Obispo
4119 Broad Street, Suite 210
San Luis Obispo, CA 93401
805.546.0433 fax: 805.546.0504
ibigroup.com

BAKERSFIELD CITY SCHOOL DISTRICT

BESSIE OWENS E.S. TEMPORARY MODULAR BUILDINGS

815 POTOMAC AVE, BAKERSFIELD, CA 93307

OPSC or OSHPD PROJ. NO:	N/A
PROJECT NO:	118932
DRAWN BY:	rRr
CHK'D BY:	RM
ISSUE DATE:	08/26/2019

SHEET TITLE

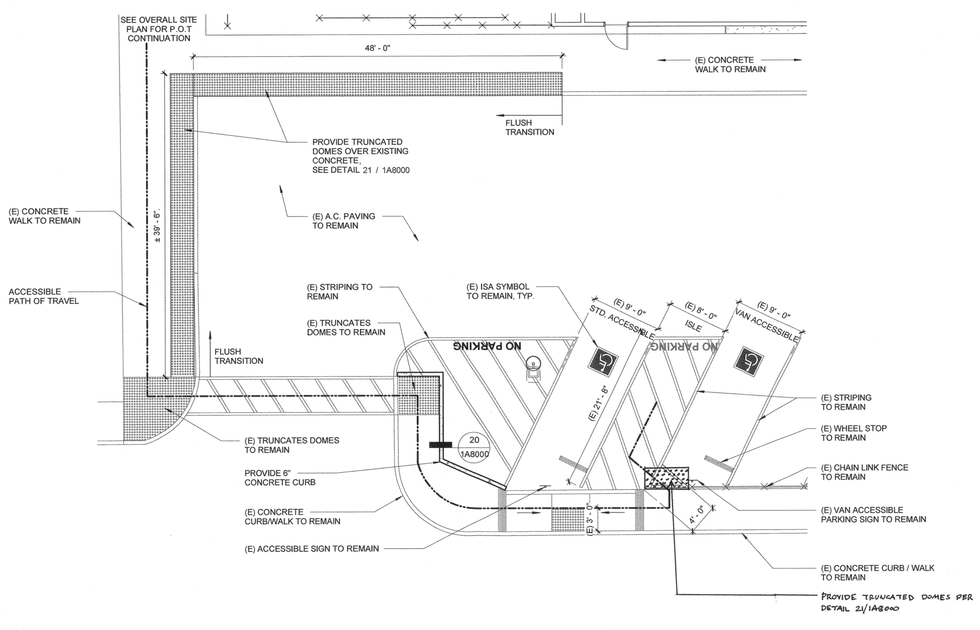
ENLARGED FLOOR PLANS & DETAILS

SHEET NUMBER

1A1201

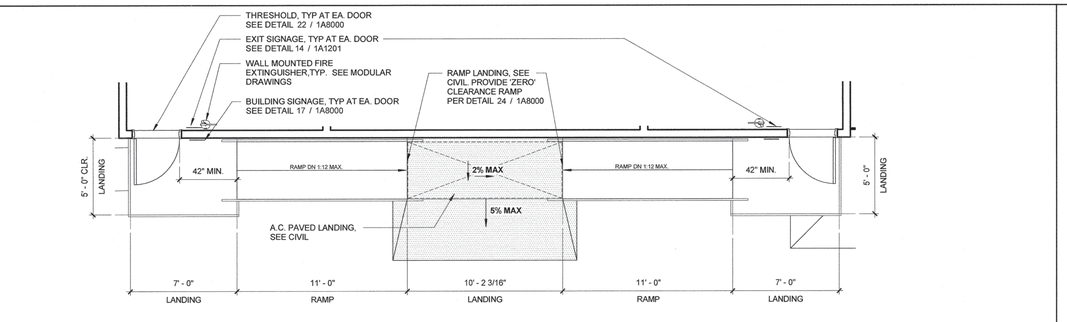
CONSTRUCTION DOCUMENTS

PLOT DATE: 2019-08-23 9:57:49 AM C:\Users\ruben.ruiz\Documents\REVIT20\BATW-118932-SITE-08-05-19-V2018_CENTRAL_ruben.ruiz.rvt



7 EXISTING ACCESSIBLE PARKING - A#03-115432

1/8" = 1'-0"



4 ENLARGED RAMP - LIBRARY

1/4" = 1'-0"

NOTES:

- EXIT DEVICE SHALL BE VON-DUPRIN, No LD99NL-OP W US26D FINISH & IVES VR910NL DOOR PULL

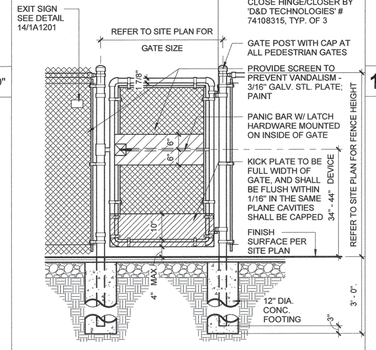
- LOCK SHALL BE SCHLAGE. PRIMUS RIM CYLINDER 20-757. LOCATED ON OUTSIDE OF GATE AND THROUGHT DOOR PULL

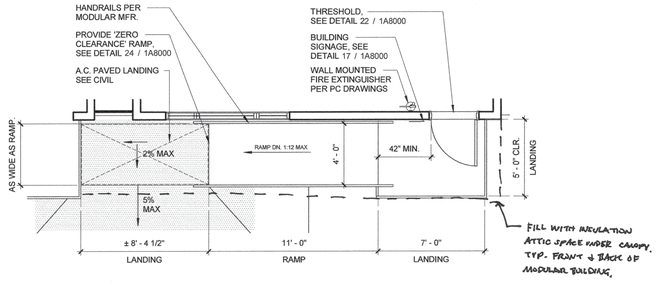
- PROVIDE DOOR STOP ON CONCRETE PAVING BY IVES FS18L OR EQUAL

- PROVIDE STEEL GATE STOP, 1/4" x 3"HT x WIDTH AS REQUIRED- WELDED TO GATE. ROUND CORNERS.

- KEYED DROP BOLT SHALL BE BY LOCINOX, MODEL "KEYDROP". INSTALL ON CAMPUS, INTERIOR SIDE OF GATE. KEY SHALL MATCH GATE LOCK. COLOR: MATCH GATE COLOR. INCLUDE AND INSTALL GROUND CATCHER BY LOCINOX MODEL 'EGS' IN BOTH CLOSED AND FULLY OPEN POSITIONS. COORDINATE WITH DOOR STOP INSTALLATION.

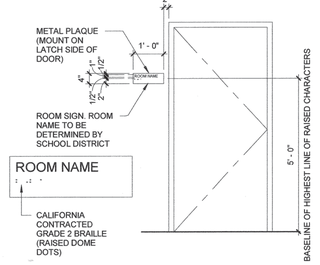
-HARDWARE HEIGHT 34"-44" PER CBC 11B-404.2.7





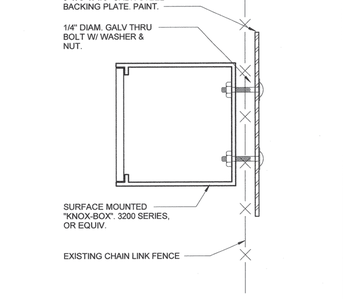
11 ENLARGED RAMP - CLASSROOMS

1/4" = 1'-0"



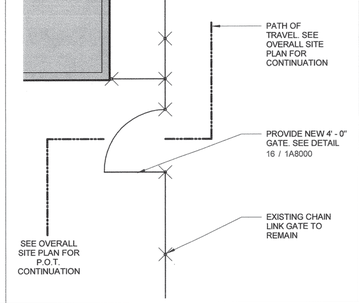
GENERAL NOTES

1. ALL SIGNS AND PLAQUES TO BE 1/4" THICK ACRYLIC
2. RAISE ALL SYMBOLS AND LETTERS 1/32" ABOVE SIGN/PLAQUE SURFACE UNLESS NOTED OTHERWISE
3. CONTRAST BETWEEN SIGN AND SIGN CONTENT SHALL BE 70% MIN. AND HAVE A NON-GLARE FINISH
4. CONTRAST BETWEEN SIGN ANDMOUNTING SURFACE SHALL BE 70% MINIMUM.
5. REFER TO DOOR ELEVATION FOR TYPICAL SIGNAGE LOCATION.
6. CALIFORNIA GRADE 2 DOTS SHALL BE DOMES RAISED A MINIMUM OF 1/40" (0.635mm), 1/10" (2.54mm) BETWEEN DOTS WITHIN CELLS, WITH 1/5" (5.08mm) BETWEEN EACH CELL
7. SIGNAGE SHALL COMPLY WITH TITLE 24, SECTION 11B-216 & 11B-703
8. WHERE GLAZING OCCURS ADJACENT TO STRIKE SIDE OF DOOR ADHERE SIGNAGE TO GLAZING
9. TACTILE SIGNS SHALL BE LOCATED 48" MIN. TO BTM. BRAILE AND 60" MAX. TO BASELINE OF TOP LINE OF TACTILE CHARACTER



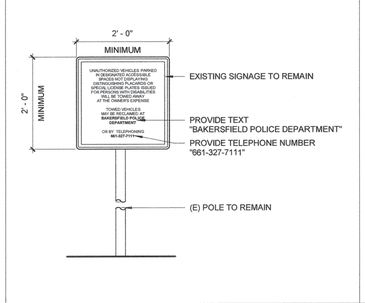
13 KNOX BOX

6" = 1'-0"



14 ACCESSIBLE GATE CLR.

1/4" = 1'-0"



15 PARKING ENTRY SIGN

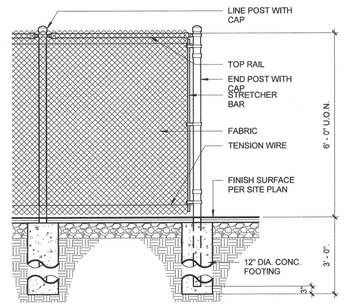
3/4" = 1'-0"

16 ACCESSIBLE GATE

1/2" = 1'-0"

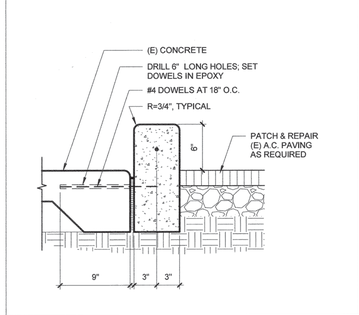
17 ROOM SIGNAGE

1/2" = 1'-0"



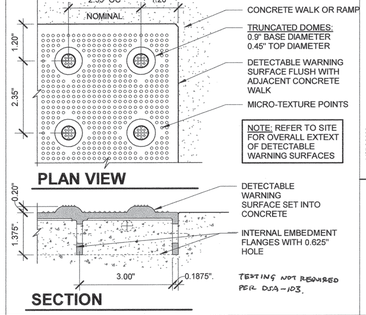
19 CHAIN LINK FENCE

1/2" = 1'-0"



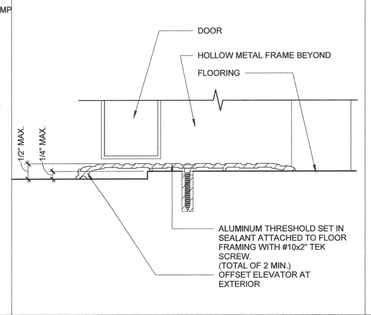
20 CONCRETE CURB

1 1/2" = 1'-0"



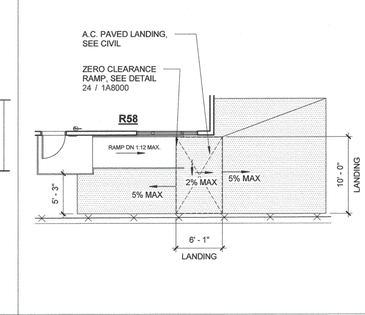
21 TRUNCATED DOMES

6" = 1'-0"



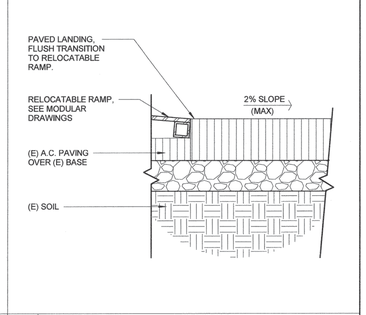
22 THRESHOLD

6" = 1'-0"



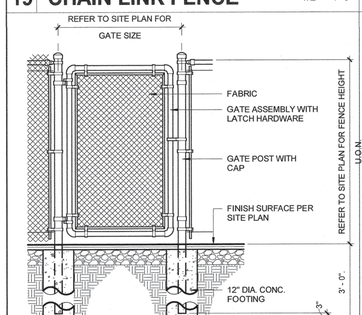
23 RAMP LANDING

1/8" = 1'-0"



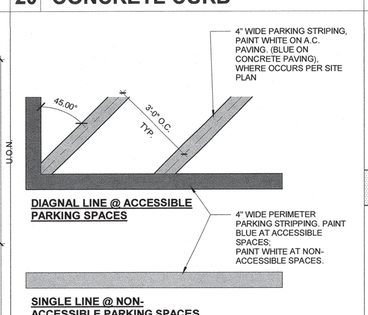
24 A.C. TO RAMP

1 1/2" = 1'-0"



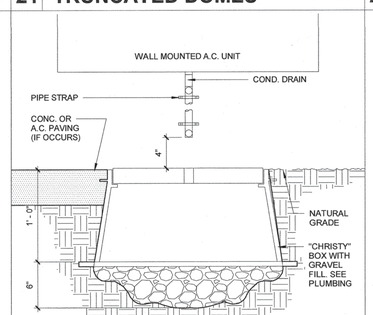
25 CHAIN LINK GATE

1/2" = 1'-0"



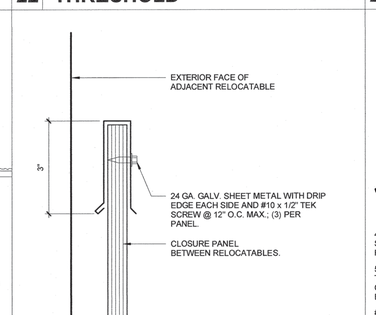
26 PARKING STRIPE

1" = 1'-0"



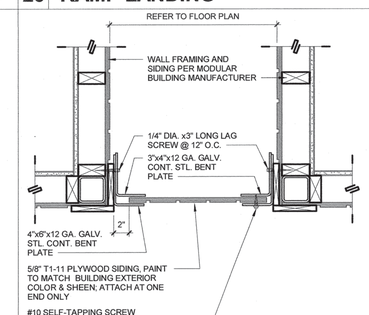
27 DRYWELL

1 1/2" = 1'-0"



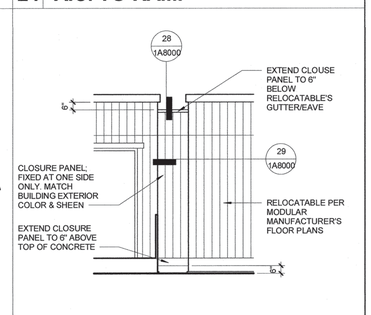
28 PANEL CAP

6" = 1'-0"



29 PANEL PLAN

1 1/2" = 1'-0"



30 CLOSURE PANEL

1/4" = 1'-0"

AGENCY INFORMATION:

AGENCY TRACKING NO. 63321-355
FILE NO. 15-8

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
03-120134
AC MF FLS CEH SS
DATE SEP 30 2019

SEAL

LICENSED ARCHITECT RICHARD MEYER No. C-18079 EXP. 10/19 STATE OF CALIFORNIA

COPYRIGHT:

Any reproduction or distribution for any purpose other than authorized by IBI Group is forbidden.

COPYRIGHT 2019 IBI GROUP

REVISIONS

NO.	DATE SUBMITTED	DATE APPROVED	DESCRIPTION

CONSULTANT

PRIME CONSULTANT

IBI ARCHITECTURE PLANNING
San Luis Obispo
4119 Broad Street, Suite 210
San Luis Obispo, CA 93401
805.546.0433 fax: 805.546.0504
ibigroup.com

BAKERSFIELD CITY SCHOOL DISTRICT

BAKERSFIELD CITY SCHOOL DISTRICT "Where The Child Comes First"

BESSIE OWENS E.S. TEMPORARY MODULAR BUILDINGS

815 POTOMAC AVE, BAKERSFIELD, CA 93307

OPSC or OSHPD PROJ. NO:	N/A
PROJECT NO:	118932
DRAWN BY:	rRr
CHK'D BY:	RM
ISSUE DATE:	08/26/2019

SHEET TITLE

DETAILS

SHEET NUMBER

1A8000

CONSTRUCTION DOCUMENTS

PLOT DATE 2019-09-23 9:57:51 AM C:\Users\ruben.ruiz\Documents\PEVIT2019\BATM-118932-STR_05.15.12019_CENTRAL_ruben.ruiz.rvt

ABBREVIATIONS

A OR AMP	AMPERES	MCB	MAIN CIRCUIT BREAKER
AC	ALTERNATING CURRENT	MCM	THOUSAND CIRCULAR MILS
AF	AMP FRAME/AMP FUSE	MCP	MOTOR CIRCUIT PROTECTOR
AFC	AVAILABLE FAULT CURRENT	MECH	MECHANICAL
AIC	AMPERE INTERRUPTING CAPACITY	MFR	MANUFACTURER
AFF	ABOVE FINISHED FLOOR	MG	MOTOR-GENERATOR
AS	AMP SWITCH RATING	MIN	MINIMUM
AT	AMP TRIP	MISC	MISCELLANEOUS
AFG	ABOVE FINISHED GRADE	MTD	MOUNTED
AUTO	AUTOMATIC	MTG	MOUNTING
AWG	AMERICAN WIRE GAUGE	MTR	MOTOR
ATS	AUTOMATIC TRANSFER SWITCH	(N)	NEW
BD	BOARD	NC	NORMALLY CLOSED
BKR	BREAKER	NEC	NATIONAL ELECTRICAL CODE
BLDG	BUILDING	NF	NON FUSED
CB	CONDUIT	NIC	NOT IN CONTRACT
CBC	CIRCUIT BREAKER	NL	NIGHT LIGHT
CBC	CALIFORNIA BUILDING CODE	NON AUTO	NON AUTOMATIC
CLG	CEILING	N.T.S.	NOT TO SCALE
CO	CONDUIT ONLY WITH PULL ROPE	P	POLE
COMM	COMMUNICATION	PA	PUBLIC ADDRESS
CEC	CALIFORNIA ELECTRICAL CODE	PH OR #	PHASE
CFC	CALIFORNIA FIRE CODE	PNL	PANEL
DIA OR ø	DIAMETER	PRI	PRIMARY
DIAG	DIAGRAM	PVC	POLYVINYL CHLORIDE
DISC	DISCONNECT	PWR	POWER
DNS	DO NOT SCALE	(R)	REMOVED
DWG	DRAWING	RCPT	RECEPTACLE
EC	ELECTRICAL CONTRACTOR	RM	ROOM
FACP	FIRE ALARM CONTROL PANEL	RGS	RIGID GALVANIZED STEEL CONDUIT
F.L.A.	FULL LOAD AMPS	SCHED	SCHEDULE
(F)	FRONT	SEC	SECONDARY
GA	GAUGE	SPEC	SPECIFICATION
GC	GENERAL CONTRACTOR	STD	STANDARD
GFI	GROUND FAULT INTERRUPTING	UNSW	UNSWITCHED
GND	GROUND	TELE	TELEPHONE
HP	HORSEPOWER	TR	TRANSFORMER
HID	HIGH INTENSITY DISCHARGE	TYP	TYPICAL
HT	HEIGHT	UON	UNLESS OTHERWISE NOTED
IG	ISOLATED GROUND	UG	UNDERGROUND
JB	JUNCTION BOX	V	VOLT
KV	KILOVOLT	VA	VOLT-AMPERE
KVA	KILOVOLT-AMPERE	VD	VOLTAGE DROP
KW	KILOWATT	W	WATT
LCL	LONG CONTINUOUS LOAD	W/	WITH
LFMC	LIQUID TIGHT FLEXIBLE METAL CONDUIT	WP	WEATHERPROOF
LTG	LIGHTING	(X)	EXISTING
LTS	LIGHTS	1P	SINGLE POLE
MAG	MAGNET, MAGNETIC	3P	THREE POLE
MAX	MAXIMUM	@	AT

U.I. STANDARD 486B TORQUING RECOMMENDATIONS

TIGHTENING TORQUE FOR SCREWS (σ) TORQUE, POUND – INCHES

WIRE SIZE	SLOTTED HEAD NO. 10 AND LARGER (b) SLOT WIDTH (IN.) TO 3/64	SLOT WIDTH (IN.) OVER 3/64	SLOT LENGTH (IN.) TO 1/4	SLOT LENGTH (IN.) OVER 1/4	HEXAGONAL HEAD/EXTERNAL DRIVE SOCKET WRENCH SPLIT-BOLT CONNECTORS	OTHER CONNECTORS
18–10 AWG	20	35	20	35	80	75
8	25	40	25	40	80	75
6	35	45	35	45	165	110
4	–	45	–	45	165	110
3	–	50	–	50	275	150
2	–	50	–	50	275	150
1	–	50	–	50	275	150
1/0	–	50	–	50	385	180
2/0	–	50	–	50	385	180
3/0	–	50	–	50	500	250
4/0	–	50	–	50	500	250
250 kcmil	–	50	–	50	650	325
300	–	50	–	50	650	325
350	–	50	–	50	650	325
400	–	50	–	50	825	325
500	–	50	–	50	825	375
600	–	50	–	50	1000	375
700	–	50	–	50	1000	375
750	–	50	–	50	1000	375
800	–	50	–	50	1100	500
900	–	50	–	50	1100	500
1000	–	50	–	50	1100	500
1250	–	–	–	–	1100	600
1500	–	–	–	–	1100	600
1750	–	–	–	–	1100	600
2000	–	–	–	–	1100	600

THIS TABLE GIVES RECOMMENDED CONNECTOR INSTALLING TORQUES FOR COPPER AND ALUMINUM CONDUCTORS. THEY ARE FOR GUIDANCE ONLY WHERE NO TIGHTENING INFORMATION IS AVAILABLE AND SHOULD NOT BE USED TO REPLACE MANUFACTURER'S INSTRUCTIONS WHICH SHOULD ALWAYS BE FOLLOWED.

(a) CLAMPING SCREWS WITH MULTIPLE TIGHTENING MEANS; FOR EXAMPLE FOR A SLOTTED HEXAGONAL HEAD SCREW, USE THE HIGHEST TORQUE VALUE ASSOCIATED WITH THE DIFFERENT TIGHTENING MEANS.

(b) FOR VALUES OF SLOT WIDTH OR LENGTH OTHER THAN THOSE SPECIFIED, SELECT THE LARGEST TORQUE VALUE ASSOCIATED WITH CONDUCTOR SIZE.

CEC ART. 310 CONDUCTOR DERATING

NEC §310.15 (B)(2)(A) ADJUSTMENT FACTORS

(a) MORE THAN THREE CURRENT–CARRYING CONDUCTORS IN A RACEWAY OR CABLE. WHERE THE NUMBER OF CURRENT–CARRYING CONDUCTORS IN A RACEWAY OR CABLE EXCEEDS THREE, THE ALLOWABLE AMPACITIES SHALL BE REDUCED AS SHOWN IN THE FOLLOWING TABLE:

NUMBER OF CURRENT–CARRYING CONDUCTORS	PERCENT OF VALUES IN TABLES AS ADJUSTED FOR AMBIENT TEMPERATURE IF NECESSARY
4 THROUGH 6	80
7 THROUGH 9	70
10 THROUGH 20	50
21 THROUGH 30	45
31 THROUGH 40	40
41 AND ABOVE	35

WHERE SINGLE CONDUCTORS OR MULTICONDUCTOR CABLES ARE STACKED OR BUNDLED LONGER THAN 24 INCHES (610 mm) WITHOUT MAINTAINING SPACING AND ARE NOT INSTALLED IN RACEWAYS, THE ALLOWABLE AMPACITY OF EACH CONDUCTOR SHALL BE REDUCED AS SHOWN IN THE ABOVE TABLE.

EXCEPTION NO. 1: WHERE CONDUCTORS OF DIFFERENT SYSTEMS, AS PROVIDED IN SECTION 300–3, ARE INSTALLED IN A COMMON RACEWAY OR CABLE, THE DERATING FACTORS SHOWN ABOVE SHALL APPLY TO THE NUMBER OF POWER AND LIGHTING (ARTICLES 210, 215, 220, AND 230) CONDUCTORS ONLY.

EXCEPTION NO. 2: FOR CONDUCTORS INSTALLED IN CABLE TRAYS, THE PROVISIONS OF SECTION 392.11 SHALL APPLY.

EXCEPTION NO. 3: DERATING FACTORS SHALL NOT APPLY TO CONDUCTORS IN NIPPLES HAVING A LENGTH NOT EXCEEDING 24 INCHES (600mm).

EXCEPTION NO.4: DERATING FACTORS SHALL NOT APPLY TO UNDERGROUND CONDUCTORS ENTERING OR LEAVING AN OUTDOOR TRENCH IF THOSE CONDUCTORS HAVE PHYSICAL PROTECTION IN THE FORM OF RIGID METAL CONDUIT, INTERMEDIATE METAL CONDUIT, OR RIGID NONMETALLIC CONDUIT HAVING A LENGTH NOT EXCEEDING 10 FEET (3.05m) ABOVE GRADE AND THENUMBER OF CONDUCTORS DOES NOT EXCEED FOUR.

CEC WIRE FILL TABLE 370–16

JUNCTION BOX DIMENSION, INCHES TRADE SIZE OR TYPE	MIN. CU. IN. CAP.	MAXIMUM NUMBER OF CONDUCTORS NO. 14	NO. 12	NO. 10	NO. 8	NO. 6
4 x1–1/4 ROUND OR OCTAGONAL	12.5	6	5	5	5	2
4 X1–1/2 ROUND OR OCTAGONAL	15.5	7	6	6	5	3
4 X2–1/8 ROUND OR OCTAGONAL	21.5	10	9	8	7	4
4 x1–1/4 SQUARE	18.0	9	8	7	6	3
4 X1–1/2 SQUARE	21.0	10	9	8	7	4
4 X2–1/8 SQUARE	30.3	15	13	12	10	6
4–11/16 x1–1/4 SQUARE	25.5	12	11	10	8	5
4–11/16 X1–1/2 SQUARE	29.5	14	13	11	9	5
4–11/16 X2–1/8 SQUARE	42.0	21	18	16	14	8
3 x2 x1–1/2 DEVICE	7.5	3	3	3	2	1
3 x2 x2 DEVICE	10.0	5	4	4	3	2
3 x2 x2–1/4 DEVICE	10.5	5	4	4	3	2
3 x2 x2–1/2 DEVICE	12.5	6	5	5	4	2
3 x2 x2–3/4 DEVICE	14.0	7	6	5	4	2
3 x2 x3–1/2 DEVICE	18.0	9	8	7	6	3
4 X2–1/8 X1–1/2 DEVICE	10.3	5	4	4	3	2
4 X2–1/8 X1–7/8 DEVICE	13.0	6	5	5	4	2
4 X2–1/8 X2–1/8 DEVICE	14.5	7	6	5	4	2
3–3/4 X2 X2–1/2 MASONRY BOX / GANG	14.0	7	6	5	4	2
3–3/4 X2 X3–1/2 MASONRY BOX / GANG	21.0	10	9	8	7	4
FS – MINIMUM INTERNAL DEPTH 1–3/4 SINGLE COVER / GANG	13.5	6	6	5	4	2
FD – MINIMUM INTERNAL DEPTH 2–3/8 SINGLE COVER / GANG	18.0	9	8	7	6	3
FS – MINIMUM INTERNAL DEPTH 1–3/4 MULTIPLE COVER / GANG	18.0	9	8	7	6	3
FD – MINIMUM INTERNAL DEPTH 2–3/8 MULTIPLE COVER / GANG	24.0	12	10	9	8	4

GENERAL ELECTRICAL NOTES

SCOPE:
THE DRAWINGS AND THESE GENERAL NOTES DESCRIBE THE SCOPE OF WORK AND SYSTEMS. THE MATERIAL REQUIRED FOR THE WORK SHALL BE CONTRACTOR FURNISHED AND CONTRACTOR INSTALLED, UNLESS SPECIFICALLY NOTED OTHERWISE. THE WORK INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING PRINCIPAL SYSTEMS AND EQUIPMENT.

PERMITS AND CHARGES:
OBTAIN AND PAY FOR ALL NECESSARY CONSTRUCTION PERMITS, INSPECTION FEES, AND OTHER CHARGES BY AGENCIES HAVING JURISDICTION.

REGULATIONS AND CODES:
PROVIDE AND INSTALL ALL MATERIALS IN CONFORMANCE WITH THE NATIONAL ELECTRICAL CODE, CALIFORNIA ADMINISTRATIVE CODE TITLE 8, AND OTHER CODES AND REGULATIONS HAVING JURISDICTION. INSTALL ALL EQUIPMENT IN ACCORDANCE WITH THE REQUIREMENTS OF THE INSPECTING AUTHORITY AND MANUFACTURERS RECOMMENDATIONS.

VERIFYING EXISTING CONDITIONS:
BEFORE SUBMITTING BID, BECOME THOROUGHLY FAMILIAR WITH ACTUAL EXISTING CONDITIONS AT THE BUILDING SITE. THE INTENT OF THE WORK IS SHOWN ON THE DRAWINGS AND DESCRIBED HEREINAFTER. BY THE ACT OF SUBMITTING A BID PROPOSAL FOR THE WORK, THE CONTRACTOR SHALL BE DEEMED TO HAVE MADE SUCH STUDY AND EXAMINATION AND TO ACCEPT ALL CONDITIONS PRESENT AT THE SITE. NO REQUEST FOR ADDITIONAL PAYMENT WILL BE CONSIDERED AS VALID, DUE TO FAILURE TO ALLOW FOR CONDITIONS WHICH MAY EXIST.

COORDINATION:
COORDINATE ALL WORK WITH OTHER TRADES. OBTAIN ALL DRAWINGS THAT WILL REQUIRE COORDINATION AND PROVIDE ALL ELECTRICAL CONNECTIONS REQUIRED WHETHER SHOWN ON ELECTRICAL DRAWINGS OR NOT. ELECTRICAL EQUIPMENT LOCATIONS INDICATED ARE SHOWN DIAGRAMMATICALLY, EXACT LOCATION SHALL BE VERIFIED.

SERVICE CONTINUITY:
UNINTERRUPTED EXISTING ELECTRICAL POWER SHALL BE MAINTAINED TO OTHER TRADES FOR TEMPORARY POWER AREAS OF THE SITE DURING CONSTRUCTION. PROVIDE ANY TEMPORARY SERVICES AS MAY BE REQUIRED. IDENTIFY AT BID TIME. ALL WORK TO BE DONE ON PREMIUM TIME AND THE TOTAL OVERTIME MAN–HOURS REQUIRED FOR COMPLETION.

AS BUILT:
PROVIDE RECORD DRAWINGS TO THE OWNER WITH ALL CHANGES NOTED THEREON AT THE COMPLETION OF THE PROJECT. RECORD DRAWINGS SHALL BE SIGNED AND DATED BY CONTRACTOR PRIOR TO RELEASE OF FINAL RETENTION OF ALL MONIES.

MARK PROJECT RECORD DOCUMENTS DAILY TO INDICATE ALL CHANGES MADE IN THE FIELD.
A.) IN ADDITION TO GENERAL REQUIREMENTS OF PROJECT RECORD DRAWINGS, INDICATE ON DRAWINGS, CHANGES OF EQUIPMENT LOCATIONS AND RATINGS, TRIP SIZES, AND SETTINGS ON CIRCUIT BREAKERS, ALTERATIONS IN RACEWAY RUNS AND SIZES, CHANGES IN WIRE SIZE, CIRCUIT DESIGNATIONS, INSTALLATION DETAILS, ONE–LINE DIAGRAMS, CONTROL DIAGRAMS AND SCHEDULES.

USE GREEN TO INDICATE DELETIONS AND RED TO INDICATE ADDITIONS.
A.) USE THE SAME SYMBOLS AND FOLLOW THE SAME DRAFTING PROCEDURES USED ON THE CONTRACT DRAWINGS.

LOCATE UNDERGROUND CONDUIT STUBBED–OUT FOR FUTURE USE, UNDERGROUND FEEDER CONDUITS, AND FEEDER PULL BOX LOCATIONS USING BUILDING LINES BY INDICATING ON THE PROJECT RECORD DRAWINGS.

AT THE COMPLETION OF UNDERGROUND CONDUIT INSTALLATION, PROVIDE UNDERGROUND CONDUIT RECORD DOCUMENTS TO OWNER'S REPRESENTATIVE.

TWO COPIES, IN BINDER FORM, OF ALL TEST RESULTS AS REQUIRED BY THESE DOCUMENTS.

TWO COPIES OF LOCAL AND/OR STATE CODE ENFORCING AUTHORITIES FINAL INSPECTION CERTIFICATES.

FIRE ALARM SYSTEM RECORDS AND TESTING REPORTS AS OUTLINED IN NFPA 72, CHAPTER 10.

TWO COPIES, IN BINDER FORM, OF ELECTRICAL EQUIPMENT CUT SHEETS, MANUFACTURER'S INSTALLATION INSTRUCTIONS, WARRANTY CERTIFICATES, AND PRODUCT LITERATURE FOR ALL PRODUCTS UTILIZED ON PROJECT.

GUARANTEE:
CONTRACTOR SHALL UNCONDITIONALLY GUARANTEE ALL LABOR AND MATERIALS ON ALL WORK AGAINST DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE YEAR.

SHOP DRAWINGS:
SUBMIT SHOP DRAWINGS AND MATERIAL LIST FOR REVIEW PRIOR TO COMMENCING ANY WORK. ALL EQUIPMENT TO BEAR U.L. LABEL OR THAT OF ANOTHER ACCEPTABLE TESTING AGENCY. EQUIPMENT LABELS MUST BE STAMPED BY THE CONTRACTOR FOR CONFORMANCE PRIOR TO INSTALLATION.
SUBMIT SIX SETS OF SHOP DRAWINGS FOR REVIEW PRIOR TO PURCHASING ALL BREAKER MOUNTING HARDWARE, DISCONNECT SWITCHES, FUSES, CONTROLLERS, LIGHTING FIXTURES, LIGHT SWITCHES, RECEPTACLES, ETC.

CONTRACTOR BID:
CONTRACTOR'S BID SHALL BE BASED ON ALL WORK SHOWN ON THE PLANS AND AS SPECIFIED. IF CONTRACTOR PROPOSES TO SUBSTITUTE FOR EQUIPMENT SPECIFIED, HE SHALL SUBMIT HIS REQUEST FOR CONSIDERATION OF THE OWNER AND ENGINEER PRIOR TO BID IN WRITING. ALL SUBSTITUTIONS SHALL BE REVIEWED BY THE ENGINEER IN WRITING. SUCH REVIEW SHALL NOT RELIEVE THE CONTRACTOR FROM COMPLYING WITH THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS, AND THE CONTRACTOR SHALL BE RESPONSIBLE AT HIS/HER OWN EXPENSE FOR ANY CHARGES RESULTING FROM HIS PROPOSED SUBSTITUTIONS WHICH AFFECT OTHER PARTS OF HIS/HER OWN WORK, THE OWNER, ENGINEER OF RECORD OR THE WORK OF OTHER CONTRACTORS.

MATERIAL AND INSTALLATION:
ALL MATERIALS SHALL BE NEW AND LISTED BY UNDERWRITERS LABORATORY (U.L.).
ALL WORK AND MATERIAL SHALL CONFORM TO THE LATEST RULES OF THE GOVERNING ELECTRICAL CODE AND INSTALLATION SHALL BE OF THE LATEST INDUSTRY STANDARDS OF WORKMANSHIP.

CONDUITS:
CONDUIT SHALL BE EMT, PVC, IMC, RIGID OR FLEXIBLE STEEL TYPE. CONDUIT SHALL BE MANUFACTURED IN ACCORDANCE WITH UL–1. A GROUND WIRE IS REQUIRED IN ALL FLEXIBLE CONDUIT AND UNDERGROUND CONDUIT. BUSHINGS SHALL BE INSTALLED ON ALL COMMUNICATION, TELEPHONE & SPEAKER CONDUITS. PROVIDE 200 LB./7/16" NYLON PULL STRING IN ALL EMPTY CONDUITS. NO MC, BX, OR AC90 SHALL BE PERMITTED.

SWITCHES AND RECEPTACLES:
PROVIDE 20 AMP NEMA RATED SWITCHES AND RECEPTACLES OF SPECIFICATION GRADE. ALL SWITCHES SHALL BE RATED 120 AND/OR 277 VOLT AND RECEPTACLES SHALL BE NEMA 5–20R. IN ALL OFFICES AND OFFICE AREAS, DEVICES SHALL BE DECORA TYPE WITH COLOR SELECTION BY CONTRACTOR/OWNERS REPRESENTATIVE.

FEEDERS AND BRANCH CIRCUITS IDENTIFICATION:
IDENTIFY FEEDERS WITH THE CORRESPONDING CIRCUIT DESIGNATION AT THE OVER–CURRENT DEVICE, LOAD END, AND IN PULL BOXES WITH F–Z CODE OR OTHER APPROVED WIRE MARKER. IDENTIFY BRANCH CIRCUITS WITH I.D. MARKERS, THE CORRESPONDING CIRCUIT DESIGNATION AT THE OVER–CURRENT DEVICE, AT ALL SPLICES, IN JUNCTION BOXES, AND AT PANELBOARDS. USE PLASTIC COATED SELF–STICKING MARKERS SUCH AS THOMAS & BETTS E–Z CODE FOR IDENTIFICATION OF CONDUCTORS. IDENTIFY SIGNAL & COMMUNICATION CABLES AT TERMINAL AND OUTLET.

CONDUCTORS:
DELIVER ALL CONDUCTORS TO THE JOB SITE IN ORIGINAL UNBROKEN CARTON OR REEL, PROPERLY TAGGED WITH U.L. LABEL, SIZE, TYPE, MANUFACTURER, TRADE NAME AND THE DATE OF MANUFACTURE. CONDUCTORS MUST BE MANUFACTURED WITHIN 6 MONTHS. PROVIDE COPPER CONDUCTORS #12 AWG MINIMUM UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS. PROVIDE STRANDED COPPER CONDUCTORS FOR ALL WIRING. USE CONDUCTORS WITH THHN/THWN 600 VOLTS INSULATION, UNLESS OTHERWISE NOTED.

LIGHTING FIXTURES:
PROVIDE LIGHTING FIXTURES WITH ELECTRONIC BALLASTS PER LIGHT FIXTURE SCHEDULE.
PROVIDE WITH LAMPS BY G.E., PHILLIPS, OR SYLVANIA AS STATED IN THE LIGHT FIXTURE SCHEDULE.

PANELBOARDS:
DISTRIBUTION AND LIGHTING PANELBOARDS WITHIN PROJECT AREA SHALL BE OF THE COPPER BUS THREE PHASE, FOUR WIRE DISTRIBUTED PHASING TYPE. CIRCUITING SHALL BE ARRANGED TO PROVIDE, AS NEARLY AS POSSIBLE, AN EVENLY BALANCED LOAD ON ALL PHASES.
PANELBOARDS SHALL BE BOLT–ON CIRCUIT BREAKER TYPE. AVAILABLE FAULT CURRENT IS STATED ON PANELBOARD SCHEDULE. PROVIDE PANEL IDENTIFICATION NAMEPLATE (ENGRAVED ON –ADHESIVE 1/2" MINIMUM LETTERS) AND TYPEWRITTEN LIST OF CIRCUITS IN THE DIRECTORY FRAME.

STRUCTURAL SUPPORT:
EACH SECTION OF FLOOR MOUNTED SWITCHBOARD, DISTRIBUTION BOARD, MCC, ETC. SHALL BE BOLTED TO THE CONCRETE HOUSEKEEPING PAD USING (6) 3/4"–10 GRADE 2 BOLTS AND CONICAL WASHERS TORQUED TO 70LB–FT. PROVIDE MINIMUM 4000 PSI STRENGTH CONCRETE BELOW ALL FLOOR MOUNTED ELECTRICAL EQUIPMENT. TIE THE TOP OF ALL FLOOR MOUNTED ELECTRICAL EQUIPMENT TO THE BUILDING STRUCTURE IN A SEISMICALLY APPROVED MANNER.

DEMOLITION:
NOTIFY THE OWNER IMMEDIATELY WHEREVER EXISTING EQUIPMENT IS ENCOUNTERED WHICH MUST BE RELOCATED DUE TO THE NEW CONSTRUCTION, AND WHICH IS NOT INDICATED ON THE PLANS.

1.) ALL REMOVED MATERIALS AND EQUIPMENT WHICH ARE SALVAGEABLE SHALL REMAIN THE PROPERTY OF THE OWNER. DELIVER SUCH SALVAGED MATERIALS AND EQUIPMENT ON THE PREMISES AS DIRECTED BY THE OWNER, AND NEATLY PILE OR STORE THEM AND PROTECT FROM DAMAGE. REMOVE FROM PREMISES AND DISPOSE OF ALL MATERIALS CONSIDERED BY THE OWNER TO BE SCRAP.

2.) ALL DEVICES, CIRCUIT CONDUCTORS, FEEDERS, ETC., WHEN NOTED TO BE REMOVED, SHALL BE REMOVED TO THE LAST ACTIVE DEVICE. ALL OVER–CURRENT PROTECTION AND DISCONNECT DEVICES NO LONGER UTILIZED BUT REMAINING AS LAST ACTIVE DEVICE SHALL BE LABELED AS "SPARE". COORDINATE ALL OUTAGES WITH OWNER'S REPRESENTATIVE.

EXECUTION:
CAREFULLY PROTECT ALL WALLS, TRIM, FLOORS, EQUIPMENT UTILITY LINES AND MATERIALS. WHEN WORKING ON FINISHED SURFACES, LIMIT DAMAGE TO THE CONFINES AS MUCH AS POSSIBLE AND RESTORE TO THE ORIGINAL CONDITION ALL SURFACES WHICH ARE DAMAGED BECAUSE OF THE INSTALLATION OF THE WORK UNDER THIS CONTRACT.

1.) EQUIPMENT, MATERIALS AND SUPPLIES REMOVED FOR PROTECTION SHALL BE REPLACED IN ORIGINAL LOCATIONS. ANY MATERIALS DAMAGED SHALL BE REPLACED WITH NEW MATERIALS OF LIKE KIND AND QUALITY.

2.) DO ALL DRILLING, CUTTING, CHANNELING AND PATCHING REQUIRED TO INSTALL ELECTRICAL WORK AS INDICATED OR HEREIN SPECIFIED. ALL HOLES, CUTOUTS, ETC., IN FLOORS, CEILINGS AND WALLS SHALL BE PATCHED, UNLESS INDICATED OTHERWISE. PAINT ALL NEW ELECTRICAL RACEWAYS, CABINETS, ENCLOSURES, AND FITTINGS PENETRATING INTO FIRE RATED ENVELOPES, SPACES, ETC.

3.) ALL CONDUIT RUNS SHALL BE CONCEALED, UNLESS SHOWN OTHERWISE. PROVIDE A PULL WIRE IN ALL EMPTY CONDUITS.

4.) EXISTING CONDITION SHOWN IS FROM AVAILABLE RECORD DRAWINGS AND VISUAL FIELD SURVEY AND IS SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL VERIFY ACTUAL EXISTING CONDITION AT SITE.

5.) ALL WORK SHOWN IS NEW UNLESS SPECIFICALLY INDICATED AS EXISTING (X). ALL ELECTRICAL EQUIPMENT MOUNTING AND ANCHORAGE MUST CONFORM WITH LOCAL AND STATE SEISMIC CODES.

TELEPHONE SYSTEMS:
PROVIDE RACEWAYS AND ALL MATERIAL INCLUDING PULLING CABLE IN EACH RACEWAY AS REQUIRED FOR THE TELEPHONE SYSTEM PER THE SERVING TELEPHONE COMPANY REQUIREMENTS.

GROUNDING AND BONDING:
FURNISH AND INSTALL COMPLETE BONDING AND GROUNDING SYSTEM AS REQUIRED BY CODES. CONTINUITY OF GROUNDING SHALL BE MAINTAINED MECHANICALLY AND ELECTRICALLY THROUGHOUT THE SYSTEM. A GREEN GROUNDING CODE SIZED CONDUCTOR SHALL BE CARRIED THROUGH IN ALL CONDUITS.

INSTALLATION:
IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS THAT A COMPLETE AND WORKABLE ELECTRICAL INSTALLATION BE PROVIDED FOR ALL THE EQUIPMENT DESCRIBED OR SHOWN AS BEING IN THIS CONTRACT. TOWARD THIS END FURNISH ALL LABOR AND TOOLS NECESSARY AND FURNISH AND INSTALL ALL APPARATUS, MATERIALS AND EQUIPMENT IN A FASHION COMPLYING WITH ALL APPLICABLE CODES, INCLUDING ITEMS REQUIRED BUT NOT NORMALLY SHOWN, SUCH AS LAMPS, COUPLINGS, HANGERS, BRACKETS, CLAMPS, BOXES, CONNECTORS, AND HARDWARE. REFER ALSO TO WRITTEN SPECIFICATIONS FOR GENERAL, MECHANICAL AND ELECTRICAL SECTIONS.

1.) PROCURE ALL PERMITS FROM LEGALLY CONSTITUTED AUTHORITIES, ARRANGE FOR ALL INSPECTIONS AND PAY ALL COSTS FOR FEES AND TESTS IN CONNECTION THEREWITH. COMPLY WITH CODES: NOTHING IN THESE DRAWINGS AUTHORIZES DEVIATION FROM APPLICABLE CODES.

2.) DETERMINE EXACT ROUTING OF CONCEALED FEEDERS AND BRANCH CIRCUIT HOMERUNS IN COOPERATION WITH OTHER TRADES TO SIMPLIFY INSTALLATION WHEREVER POSSIBLE BUT SUBJECT TO APPROVAL OF ARCHITECT FOR VISUAL AND STRUCTURAL REASONS.

3.) PROVIDE A CODE APPROVED DISCONNECT SWITCH OR CIRCUIT BREAKER WITHIN SIGHT OF EVERY MOTOR AND FEED MOTORS NOT EQUIPPED WITH "BUILT IN" PROTECTION THROUGH A MAGNETIC OR MANUAL STARTER WITH OVERLOAD HEATERS SIZED TO COMPLY WITH MOTOR MANUFACTURER'S RECOMMENDATIONS AND APPLICABLE CODES.

4.) FOR CONNECTIONS TO EXHAUST FANS, PUMPS, COMPRESSORS, SPACE HEATERS, WATER HEATERS, AQUASTATS, SOLENOID VALVES, AND OTHER MECHANICAL EQUIPMENT AND FOR CONDUITS AND WIRE REQUIRED BUT NOT NECESSARILY SHOWN ON THESE DRAWINGS, REFER TO MECHANICAL PLANS AND DETERMINE EXACT LOCATIONS UNDER DIRECTION OF HEATING AND VENTILATING CONTRACTOR.

5.) DO NOT RUN ANY CONDUIT IN SLAB IF ITS OUTSIDE DIAMETER EXCEEDS 1/3 THE THICKNESS OF THE SLAB. LOCATE CONDUITS WITHIN THE MIDDLE OF THE SLAB. WHERE CONDUITS ARE GROUPED IN PARALLEL RUNS, SPACE THEM 3" OR MORE APART. WHERE CONDUITS CROSS EACH OTHER, THICKEN THE SLAB PROPORTIONATELY OVER A HORIZONTAL AREA EQUAL TO TEN TIMES THE DIAMETER OF THE LARGEST CONDUIT. REFER ALSO TO DETAILS SHOWN.

6.) FOR CIRCUITS FED THROUGH FLUORESCENT FIXTURE CHANNELS AND FEEDS TO RECESSED INCANDESCENT FIXTURES USE INSULATED WIRE OF 105 DEGREES CELSIUS RATING.

7.) SIZE OUTLET BOXES IN CONFORMITY WITH CODE FOR NUMBER AND GUAGE OF CONDUCTORS THEREIN, EXCEPT WHERE NOTED TO BE LARGER, MINIMUM BOX SIZE SHALL BE 4" SQUARE BY 1–1/2" DEEP.

8.) EXAMINE PLANS TO DISCERN CEILINGS WITH A FIRE RATING OF ONE HOUR OR MORE, PROVIDE A ONE HOUR FIRE–RATED ENCLOSURE OVER EACH LIGHT FIXTURE RECESSED THEREIN.

9.) ALL ELECTRICAL WORK SHALL BE INSTALLED SO AS TO BE READILY ACCESSIBLE FOR OPERATING, SERVICING, MAINTAINING AND REPAIRING. ALL CONDUIT SHALL BE CONCEALED WHERE POSSIBLE. EXPOSED CONDUIT SHALL BE IN STRAIGHT LINES PARALLEL WITH, OR AT RIGHT ANGLES TO, COLUMN LINES OR BEAMS AND SEPARATED BY AT LEAST THREE (3) INCHES FROM WARM WATER LINES WHENEVER THEY RUN ALONG SIDE OR ACROSS SUCH LINES. CONDUIT SHALL NOT BE RUN BELOW CABLE TRAYS OR LIGHT FIXTURES WITHOUT SPECIFIC APPROVAL OF THE OWNER'S REPRESENTATIVE. HANGERS SHALL BE FASTENED TO STEEL, CONCRETE OR MASONRY, BUT NOT TO PIPING. HANGERS AND SUPPORT SYSTEMS ARE AN INTEGRAL PART OF THE VISUAL ENVIRONMENT. ALL HANGERS AND SUPPORTS EXPOSED TO PUBLIC VIEW MUST BE SHOWN IN DETAIL ON PLANS SUBMITTED TO LANDLORD FOR APPROVAL OF APPEARANCE. ALL HANGERS MUST BE UNIFORMLY SPACED AND NEATLY INSTALLED WITH NO EXCESS MATERIAL BEYOND WHAT IS REQUIRED FOR SUPPORT FUNCTION. CONTRACTOR SHALL SELECT ACCESSORIES AND HARDWARE WITH A SMOOTH, NEAT FINISHED APPEARANCE AND PAINT ALL EXPOSED CONDUIT HANGERS TO MATCH THE ADJACENT FINISHES.

10.) ALL WALL SWITCHES AND RECEPTACLES SHALL BE MOUNTED BETWEEN 18" AND 48" PER A.D.A. REQUIREMENTS UNLESS OTHERWISE NOTED.

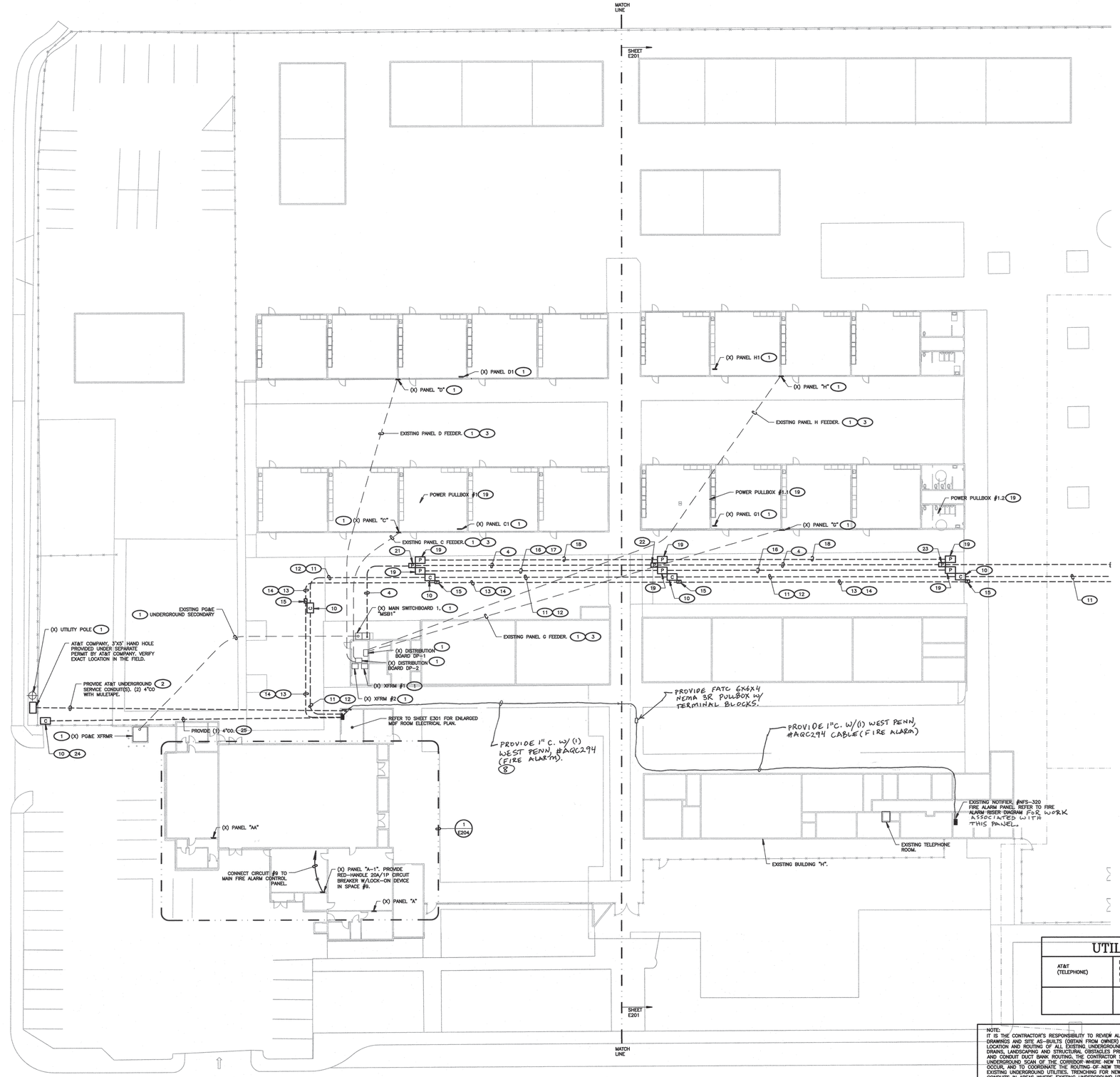
ELECTRICAL SWITCHES: CONTROLS AND SWITCHES INTENDED TO BE USED BY THE OCCUPANT OF THE ROOM OR AREA TO CONTROL LIGHTING AND RECEPTACLE OUTLETS, APPLIANCES OR COOLING, HEATING AND VENTILATING EQUIPMENT, SHALL BE LOCATED NO MORE THAN 48" MEASURED FROM THE TOP OF OUTLET BOX NOR LESS THAN 15" MEASURED FROM THE BOTTOM OF THE OUTLET BOX TO THE LEVEL OF THE FINISHED FLOOR OR WORKING PLATFORM.

ELECTRICAL RECEPTACLE OUTLETS: ELECTRICAL RECEPTACLE OUTLETS ON BRANCH CIRCUITS OF 30 AMPERES OR LESS AND COMMUNICATION SYSTEM RECEPTACLES, SHALL BE LOCATED NO MORE THAN 48" MEASURED FROM THE TOP OF THE RECEPTACLE OUTLET BOX OR RECEPTACLE HOUSING NOR LESS THAN 15" MEASURED FROM THE BOTTOM OF THE RECEPTACLE OUTLET BOX OR RECEPTACLE HOUSING TO THE LEVEL OF THE FINISHED FLOOR OR WORKING PLATFORM.

11.) ALL DISTRIBUTION BOARDS, SWITCHBOARDS AND TRANSFORMERS THAT ARE FLOOR MOUNTED SHALL BE MOUNTED ON 4" THICK HOUSEKEEPING PAD. TRANSFORMER SHALL BE ON VIBRATION ISOLATION PADS AND CONNECTED WITH FLEXIBLE CONDUIT.

12.) CONTRACTOR SHALL EXAMINE PLANS AND VERIFY IN FIELD LOCATIONS OF ALL FIRE RATED WALLS, CEILINGS AND FLOORS. CONTRACTOR SHALL SEAL ALL ELECTRICAL SYSTEM PENETRATIONS THROUGH FIRE RATED WALLS, CEILINGS AND FLOORS WITH U.L. LISTED MATERIAL APPROVED BY THE AUTHORITY HAVING JURISDICTION.

13.) SURFACE MOUNTED RACEWAY COMPLETENESS: CONTRACTOR SHALL PROVI



1 PARTIAL SITE ELECTRICAL PLAN (WEST)
SCALE: 1" = 20'-0"

SHEET NOTES

1. CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT AT 811 TO LOCATE UNDERGROUND UTILITIES AT LEAST 2 WORKING DAYS PRIOR TO DIGGING. CONTRACTOR SHALL FIELD VERIFY LOCATION AND DEPTH OF EXISTING IMPROVEMENTS PRIOR TO START OF CONSTRUCTION.

2. VERIFY LOCATION OF ALL BUILDINGS AND APPENDITURES ON ARCHITECTURAL AND CIVIL PLANS.

3. FIELD VERIFY LOCATION ON ALL UNDERGROUND UTILITIES PRIOR TO TRENCHING. SCHEDULE AND COORDINATE ALL SITE WORK WITH OWNER PRIOR TO ANY TRENCHING.

4. CONTRACTOR SHALL VERIFY LOCATION & REQUIREMENTS OF ALL DEVICES/EQUIPMENT REQUIRING ELECTRICAL CONNECTION PRIOR TO BID PROPOSAL, ROUGH-IN, AND FINISH.

5. CONTRACTOR SHALL, IN ROUTING ALL CIRCUITS, INCREASE CONDUCTOR & CONDUIT SIZE TO ALLOW FOR VOLTAGE DROP SHOULD THE CONTRACTOR EXCEED ROUTING INDICATED ON DRAWINGS. ENGINEER OF RECORD MUST BE NOTIFIED PRIOR TO ANY DEVIATIONS FROM APPROVED PLAN CHECK (PERMIT SET) DRAWINGS.

6. ALL 90 DEGREE CONDUIT BENDS AND RISERS SHALL BE PVC COATED RIGID STEEL.

7. CONTRACTOR SHALL COORDINATE AND PROVIDE ALL SITE ELECTRICAL SERVICE REQUIREMENTS WITH SERVING UTILITY.

8. ALL SERVICE ENTRANCE EQUIPMENT SHOP DRAWINGS SHALL BE SUBMITTED TO THE LOCAL UTILITY COMPANY FOR APPROVAL, WITH WRITTEN APPROVAL RECEIVED PRIOR TO SUBMISSION TO ELECTRICAL ENGINEER FOR APPROVAL.

9. VERIFY LOCATION OF ALL EQUIPMENT ON ARCHITECTURAL AND CIVIL PLANS.

10. MINIMUM CONDUIT BURIAL DEPTH IS 24", 36" MINIMUM BELOW STREETS AND PARKING LOTS. FOR 0-600 VOLT SYSTEMS.

11. PROVIDE CODE SIZED EQUIPMENT GROUNDING CONDUCTORS IN ALL OCCUPIED CONDUITS.

12. 1" CONDUIT MINIMUM UNDERGROUND.

13. COORDINATE WORK WITH OTHER TRADES. OBTAIN ALL DRAWINGS THAT WILL REQUIRE COORDINATION AND PROVIDE ALL ELECTRICAL CONNECTIONS, DEVICES, AND WIRING REQUIRED. WHETHER SHOWN ON THE ELECTRICAL DRAWINGS OR NOT.

14. CONTRACTOR SHALL FURNISH AND INSTALL PULL BOXES AS REQUIRED TO INSTALL CONDUCTORS PER CONDUCTOR MANUFACTURERS RECOMMENDATIONS, PER THE NATIONAL ELECTRICAL CODE, AND PER LOCAL AUTHORITIES HAVING JURISDICTION.

15. FIELD CONDITIONS GOVERN DEMOLITION AND NEW CONSTRUCTION. CONTRACTOR SHALL VERIFY ACTUAL CONDITIONS PRIOR TO START OF WORK. THE ARCHITECT/ENGINEER SHALL BE NOTIFIED OF POSSIBLE FIELD PROBLEMS PRIOR TO DEMOLITION. CONTRACTOR SHALL NOTIFY DISTRICT REPRESENTATIVE OF WORK BEING PERFORMED. COORDINATE WITH DISTRICT REPRESENTATIVE.

16. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH DIMENSIONED NYLON PULL STRING.

17. CONTRACTOR SHALL FIELD VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO ANY EXCAVATION OR TRENCHING. CONTRACTOR SHALL PROTECT ALL EXISTING/REMAINING UTILITIES IN PLACE. CONTRACTOR, AT HIS SOLE EXPENSE, SHALL REPAIR ANY UTILITY SYSTEMS DAMAGED DURING CONSTRUCTION.

18. VERIFY AND PROVIDE ALL UTILITY SYSTEMS PER SERVING UTILITY STANDARD REQUIREMENTS.

19. CONTRACTOR SHALL PROVIDE CONCRETE ENCASEMENT AT ALL VERIZON COMPANY CONDUIT BENDS PER VERIZON COMPANY REQUIREMENTS.

KEY NOTES

(NOTE: THESE NOTES MAY NOT APPEAR ON ALL SHEETS)

1. PROTECT IN PLACE.
2. VERIFY & PROVIDE PER UTILITY COMPANY REQUIREMENTS.
3. SHOWN DIAGRAMATIC. EXACT ROUTING IS UNKNOWN.
4. REFER TO PROPOSED SINGLE LINE DIAGRAM FOR FEEDER INFORMATION.
5. REFER TO PROPOSED SINGLE LINE DIAGRAM.
6. PROVIDE 10"X17" TRAFFIC RATED PULLBOX, WITH STEEL CHECKER PLATE COVER ENGRAVED WITH "FIRE ALARM". #B1017BOX, WITH #B1017-51JH COVER BY, CHRISTY CONCRETE.
7. PROVIDE 17"X30" TRAFFIC RATED PULLBOX W/STEEL CHECKERED PLATE COVER ENGRAVED WITH "COMMUNICATION". #B1730BOX WITH #B1730-51JH COVER. BY, CHRISTY CONCRETE.
8. ROUTE ON TOP OF COVERED WALKWAY.
9. ROUTE ALONG SIDE EXISTING BANK OF CONDUITS.
10. PROVIDE 24"X36" TRAFFIC RATED PULLBOX W/STEEL CHECKERED PLATE COVER ENGRAVED WITH "COMMUNICATION". #B2436BOX WITH #B2436-51JH COVER. BY, CHRISTY CONCRETE.
11. PROVIDE 3"C. W/(5) 12 STRAND MULTIMODE FIBER & (5) 12-PAIR 24 AWG. PROVIDE 3" CO (SPARE).
12. PROVIDE (3) 3"CO (SPARE) COMMUNICATIONS.
13. PROVIDE 2"C. W/(5) WEST PENN, #AQC294 CABLES (22.1A, 2 FOR ANNUNCIATOR) & (1)AQC295 CABLE(1A) & (1)AQ227 (POWER ANNUNCIATOR).
14. PROVIDE (4) 2"CO (SPARE) FIRE ALARM.
15. PROVIDE 17"X30" TRAFFIC RATED PULLBOX W/STEEL CHECKERED PLATE COVER ENGRAVED WITH "FIRE ALARM". #B1730BOX WITH #B1730-51JH COVER. BY, CHRISTY CONCRETE.
16. PROVIDE (4) 3"CO (SPARE FOR FUTURE K1,K2,K3, & K4).
17. PROVIDE (4) 2"CO (SPARE FOR (4) CLASSROOM BLDG. ROOF PANELS.
18. PROVIDE (6) 3"CO (SPARE FOR FUTURE 21 CLASSROOMS.
19. PROVIDE 30"X48" TRAFFIC RATED PULLBOX W/STEEL CHECKERED PLATE COVER ENGRAVED WITH "ELECTRIC". #B3048BOX WITH #B3048-51JH COVER. BY, CHRISTY CONCRETE.
20. PROVIDE (2) 2"CO (SPARE) FIRE ALARM.
21. POWER PULLBOX #1. REFER TO PROPOSED SINGLE LINE DIAGRAM FOR SPECIFICATION.
22. POWER PULLBOX #1.1. REFER TO PROPOSED SINGLE LINE DIAGRAM FOR SPECIFICATION.
23. POWER PULLBOX #1.2. REFER TO PROPOSED SINGLE LINE DIAGRAM FOR SPECIFICATION.
24. COORDINATE EXACT LOCATION WITH BCSD PRIOR TO ROUGH-IN.
25. STUB-UP AT MAIN TELEPHONE BACKBOARD LOCATION.

UTILITY CONTACTS

AT&T (TELEPHONE)	DALE YOUNGBLOOD (661) 546-8252 (OFFICE) (661) 330-4274 (CELL) DY2482@ATT.COM (E-MAIL)

NOTE:
IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL CIVIL ENGINEERING DRAWINGS AND SITE AS-BUILTS (OBTAIN FROM OWNER) TO IDENTIFY THE LOCATION AND ROUTING OF ALL EXISTING UNDERGROUND UTILITIES, METERS, DRAINS, LANDSCAPING AND STRUCTURAL OBSTACLES PRIOR TO TRENCHING AND CONDUIT DUCT BANK ROUTING. THE CONTRACTOR SHALL CONDUCT AN UNDERGROUND SCAN OF THE CORRIDOR WHERE NEW TRENCHING SHALL OCCUR, AND TO COORDINATE THE ROUTING OF NEW TRENCHING IN AREAS OF EXISTING UNDERGROUND UTILITIES. TRENCHING FOR NEW UNDERGROUND CONDUITS IN AREAS WHERE EXISTING UNDERGROUND UTILITIES ARE PRESENT, WHETHER SHOWN ON THESE PLANS OR NOT, SHALL BE EXCAVATED BY HAND AND WITH EXTREME CAUTION SO AS NOT TO DISTURB EXISTING UTILITIES. CONTRACTOR SHALL PROMPTLY REPAIR DAMAGE TO OWNER'S SATISFACTION. UNDERGROUND POWER AND COMMUNICATION PULL BOXES WHERE SHOWN ON THE SITE PLAN TO BE RELOCATED TO A POSITION AS CLOSE AS POSSIBLE TO THE LOCATION SHOWN ON THE DRAWING. CONTRACTOR SHALL PROMPTLY NOTIFY OWNER IF ANY EXISTING UTILITY OR IRRIGATION LINE IS DAMAGED, AND SHALL PROMPTLY REPAIR DAMAGE TO OWNER'S SATISFACTION.

811 Know what's below. Call before you dig.

AGENCY INFORMATION:

AGENCY TRACKING NO. 63321-355
FILE NO.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
03-120134
AC FLS PCH SS
DATE SEP 30 2019

SEAL

COPYRIGHT:
Any reproduction or distribution for any purpose other than authorized by IBI Group is forbidden.
COPYRIGHT 2019 IBI GROUP

REVISIONS

NO.	DATE SUBMITTED	DATE APPROVED	DESCRIPTION

CONSULTANT

FERRANTI ENGINEERING
CONSULTING
ELECTRICAL ENGINEERS
1211 MARICOPA HWY,
SUITE 250
OJAI, CA 93023
(805) 705-4772
DALEFERRANTI@LIVE.COM

CERTIFIED PROFESSIONAL ENGINEER DALE FERRANTI E 17924 EXP. 06/30/21 ELECTRICAL STATE OF CALIFORNIA

PRIME CONSULTANT

IBI ARCHITECTURE PLANNING
San Luis Obispo
4119 Broad Street, Suite 210
San Luis Obispo, CA 93401
805.546.0433
fax: 805.546.0504
ibigroup.com

BAKERSFIELD CITY SCHOOL DISTRICT

BAKERSFIELD CITY SCHOOL DISTRICT "Where The Child Comes First"

BESSIE OWENS E.S. TEMPORARY MODULAR BUILDINGS
815 POTOMAC AVE, BAKERSFIELD, CA 93307

OPSC or OSHPD PROJ. NO:	N/A
PROJECT NO:	118932
DRAWN BY:	V.Z
CHK'D BY:	D.F.
ISSUE DATE:	8/19/2019

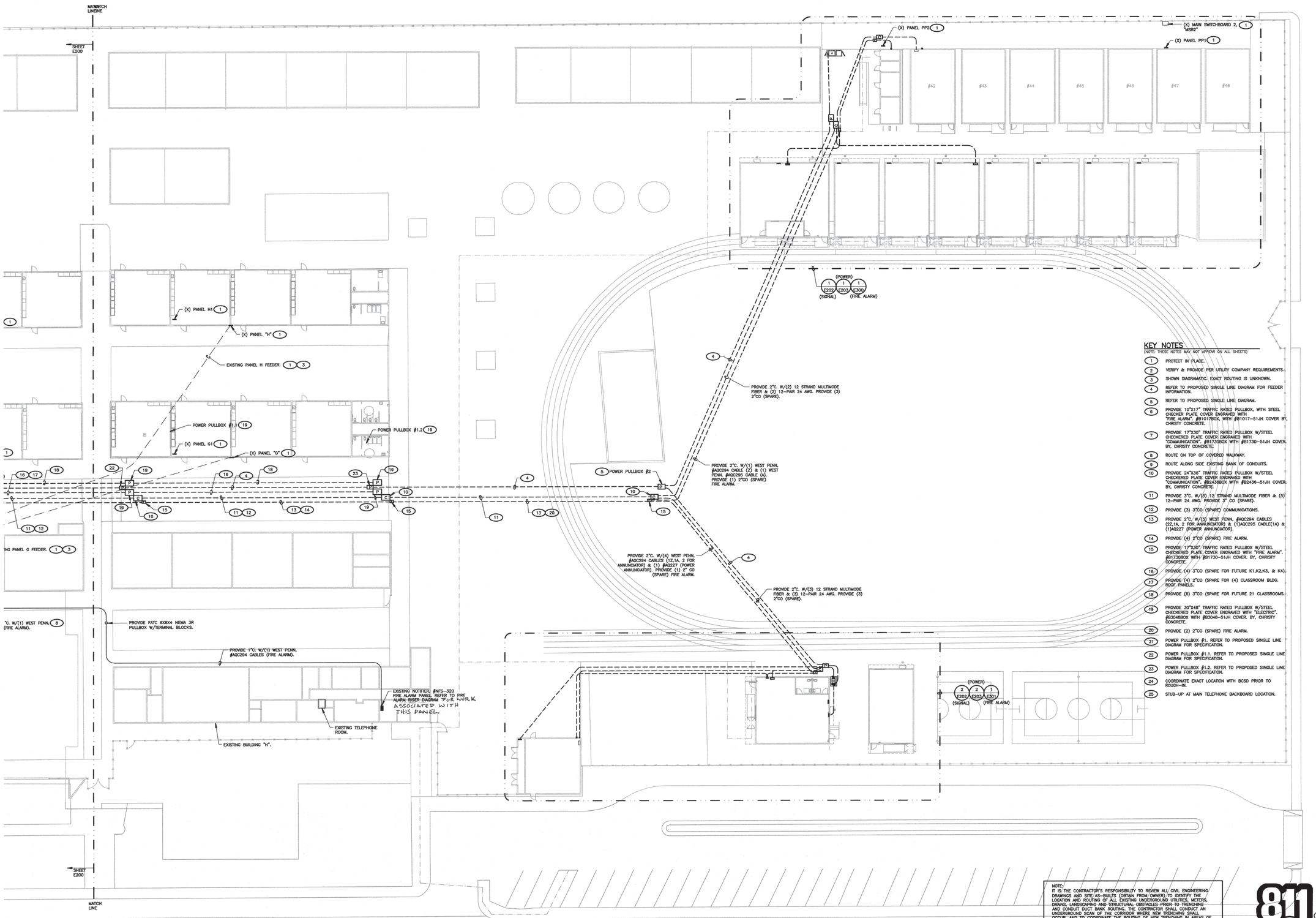
SHEET TITLE

PARTIAL SITE ELECTRICAL PLAN (WEST)

SHEET NUMBER

E200

CONSTRUCTION DOCUMENTS



KEY NOTES

(NOTE: THESE NOTES MAY NOT APPEAR ON ALL SHEETS)

1. PROTECT IN PLACE.
2. VERIFY & PROVIDE PER UTILITY COMPANY REQUIREMENTS.
3. SHOWN DIAGRAMATIC. EXACT ROUTING IS UNKNOWN.
4. REFER TO PROPOSED SINGLE LINE DIAGRAM FOR FEEDER INFORMATION.
5. REFER TO PROPOSED SINGLE LINE DIAGRAM.
6. PROVIDE 10"X17" TRAFFIC RATED PULLBOX, WITH STEEL CHECKER PLATE COVER ENGRAVED WITH "FIRE ALARM". #B1017BOX, WITH #B1017-51JH COVER BY, CHRISTY CONCRETE.
7. PROVIDE 17"X30" TRAFFIC RATED PULLBOX W/STEEL CHECKERED PLATE COVER ENGRAVED WITH "COMMUNICATION". #B1730BOX WITH #B1730-51JH COVER. BY, CHRISTY CONCRETE.
8. ROUTE ON TOP OF COVERED WALKWAY.
9. ROUTE ALONG SIDE EXISTING BANK OF CONDUITS.
10. PROVIDE 24"X36" TRAFFIC RATED PULLBOX W/STEEL CHECKERED PLATE COVER ENGRAVED WITH "COMMUNICATION". #B2436BOX WITH #B2436-51JH COVER BY, CHRISTY CONCRETE.
11. PROVIDE 3"C. W/(5) 12 STRAND MULTIMODE FIBER & (5) 12-PAIR 24 AWG, PROVIDE 3" CO (SPARE).
12. PROVIDE (3) 3"CO (SPARE) COMMUNICATIONS.
13. PROVIDE 2"C. W/(5) WEST PENN, #AQC294 CABLES (2)(1A, 2 FOR ANNUNCIATOR) & (1)AQC295 CABLE(1A) & (1)AQ227 (POWER ANNUNCIATOR).
14. PROVIDE (4) 2"CO (SPARE) FIRE ALARM.
15. PROVIDE 17"X30" TRAFFIC RATED PULLBOX W/STEEL CHECKERED PLATE, COVER ENGRAVED WITH "FIRE ALARM". #B1730BOX WITH #B1730-51JH COVER. BY, CHRISTY CONCRETE.
16. PROVIDE (4) 3"CO (SPARE FOR FUTURE K1,K2,K3, & K4).
17. PROVIDE (4) 2"CO (SPARE FOR (4) CLASSROOM BLDG. ROOF PANELS.
18. PROVIDE (6) 3"CO (SPARE FOR FUTURE 21 CLASSROOMS.
19. PROVIDE 30"X48" TRAFFIC RATED PULLBOX W/STEEL CHECKERED PLATE COVER ENGRAVED WITH "ELECTRIC". #B3048BOX WITH #B3048-51JH COVER. BY, CHRISTY CONCRETE.
20. PROVIDE (2) 2"CO (SPARE) FIRE ALARM.
21. POWER PULLBOX #1. REFER TO PROPOSED SINGLE LINE DIAGRAM FOR SPECIFICATION.
22. POWER PULLBOX #1.1. REFER TO PROPOSED SINGLE LINE DIAGRAM FOR SPECIFICATION.
23. POWER PULLBOX #1.2. REFER TO PROPOSED SINGLE LINE DIAGRAM FOR SPECIFICATION.
24. COORDINATE EXACT LOCATION WITH BCSD PRIOR TO ROUGH-IN.
25. STUB-UP AT MAIN TELEPHONE BACKBOARD LOCATION.

NOTE:
IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL CIVIL ENGINEERING DRAWINGS AND SITE AS-BUILTS (OBTAIN FROM OWNER) TO IDENTIFY THE LOCATION AND ROUTING OF ALL EXISTING UNDERGROUND UTILITIES, METERS, DRAINS, LANDSCAPING AND STRUCTURAL OBSTACLES PRIOR TO TRENCHING AND CONDUIT DUCT BANK ROUTING. THE CONTRACTOR SHALL CONDUCT AN UNDERGROUND SCAN OF THE CORRIDOR WHERE NEW TRENCHING SHALL OCCUR, AND TO COORDINATE THE ROUTING OF NEW TRENCHING IN AREAS OF EXISTING UNDERGROUND UTILITIES. TRENCHING FOR NEW UNDERGROUND CONDUITS IN AREAS WHERE EXISTING UNDERGROUND UTILITIES ARE PRESENT, WHETHER SHOWN ON THESE PLANS OR NOT, SHALL BE EXCAVATED BY HAND AND WITH EXTREME CAUTION SO AS NOT TO DISTURB EXISTING UTILITIES. CONTRACTOR SHALL PROMPTLY REPAIR DAMAGE TO OWNER'S SATISFACTION. UNDERGROUND POWER AND COMMUNICATION PULL BOXES WHERE SHOWN ON THE SITE PLAN TO BE RELOCATED TO A POSITION AS CLOSE AS POSSIBLE TO THE LOCATION SHOWN ON THE DRAWING. CONTRACTOR SHALL PROMPTLY NOTIFY OWNER IF ANY EXISTING UTILITY OR IRRIGATION LINE IS DAMAGED, AND SHALL PROMPTLY REPAIR DAMAGE TO OWNER'S SATISFACTION.

811 Know what's below. Call before you dig.

1 PARTIAL SITE ELECTRICAL PLAN (EAST)
SCALE: 1" = 20'-0"

AGENCY INFORMATION:

AGENCY TRACKING NO. 63321-355
FILE NO.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
03-120134
AC FLS LPH SS
DATE SEP 30 2019

SEAL

COPYRIGHT:

Any reproduction or distribution for any purpose other than authorized by IBI Group is forbidden.

COPYRIGHT 2019 IBI GROUP

REVISIONS

NO.	DATE SUBMITTED	DATE APPROVED	DESCRIPTION

CONSULTANT

FERRANTI ENGINEERING
CONSULTING
ELECTRICAL ENGINEERS
1211 MARICOPA HWY,
SUITE 250
OJAI, CA 93023
(805) 705-4772
DALEFERRANTI@LIVE.COM

DALE FERRANTI E 17024 EXP. 06/30/21 ELECTRICAL STATE OF CALIFORNIA

PRIME CONSULTANT

IBI ARCHITECTURE PLANNING
San Luis Obispo
4119 Broad Street, Suite 210
San Luis Obispo, CA 93401
805.546.0433
fax: 805.546.0504
ibigroup.com

BAKERSFIELD CITY SCHOOL DISTRICT

BAKERSFIELD CITY SCHOOL DISTRICT — Where The Child Comes First

BESSIE OWENS E.S. TEMPORARY MODULAR BUILDINGS
815 POTOMAC AVE, BAKERSFIELD, CA 93307

OPSC or OSHPD PROJ. NO:	N/A
PROJECT NO:	118932
DRAWN BY:	V.Z.
CHK'D BY:	D.F.
ISSUE DATE:	8/19/2019

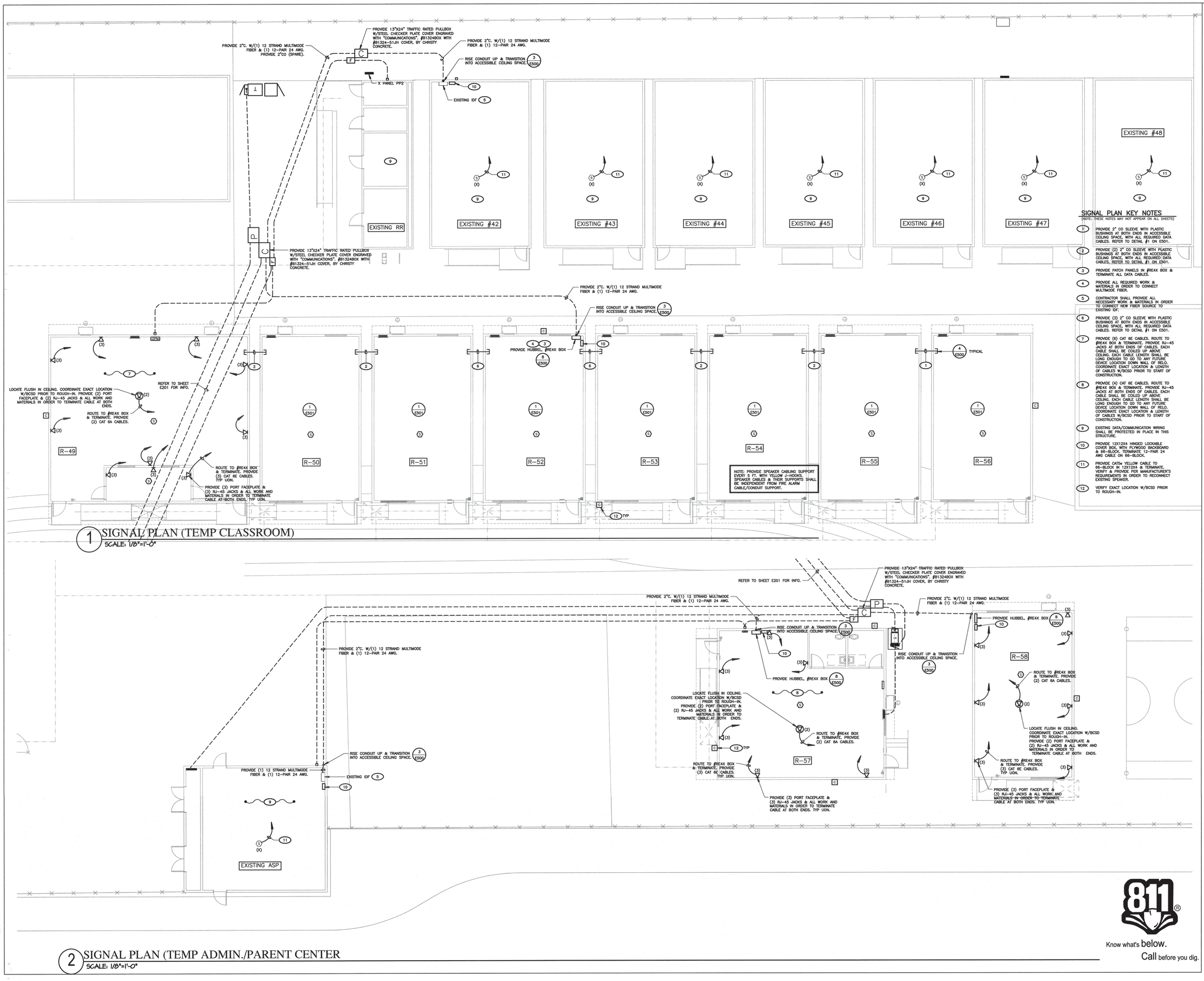
SHEET TITLE

PARTIAL SITE ELECTRICAL PLAN (EAST)

SHEET NUMBER

E201

CONSTRUCTION DOCUMENTS



1 SIGNAL PLAN (TEMP CLASSROOM)
SCALE: 1/8"=1'-0"

2 SIGNAL PLAN (TEMP ADMIN./PARENT CENTER
SCALE: 1/8"=1'-0"

SIGNAL PLAN KEY NOTES

(NOTE: THESE NOTES MAY NOT APPEAR ON ALL SHEETS)

1. PROVIDE 2" CO SLEEVE WITH PLASTIC BUSHINGS AT BOTH ENDS IN ACCESSIBLE CEILING SPACE, WITH ALL REQUIRED DATA CABLES. REFER TO DETAIL #1 ON E501.
2. PROVIDE (2) 2" CO SLEEVE WITH PLASTIC BUSHINGS AT BOTH ENDS IN ACCESSIBLE CEILING SPACE, WITH ALL REQUIRED DATA CABLES. REFER TO DETAIL #1 ON E501.
3. PROVIDE PATCH PANELS IN #RE4X BOX & TERMINATE ALL DATA CABLES.
4. PROVIDE ALL REQUIRED WORK & MATERIALS IN ORDER TO CONNECT MULTIMODE FIBER.
5. CONTRACTOR SHALL PROVIDE ALL NECESSARY WORK & MATERIALS IN ORDER TO CONNECT NEW FIBER SOURCE TO EXISTING IDF.
6. PROVIDE (3) 2" CO SLEEVE WITH PLASTIC BUSHINGS AT BOTH ENDS IN ACCESSIBLE CEILING SPACE, WITH ALL REQUIRED DATA CABLES. REFER TO DETAIL #1 ON E501.
7. PROVIDE (6) CAT 6E CABLES. ROUTE TO #RE4X BOX & TERMINATE. PROVIDE RJ-45 JACKS AT BOTH ENDS OF CABLES. EACH CABLE SHALL BE COILED UP ABOVE CEILING. EACH CABLE LENGTH SHALL BE LONG ENOUGH TO GO TO ANY FUTURE DEVICE LOCATION DOWN WALL OF RELO. COORDINATE EXACT LOCATION & LENGTH OF CABLES W/BCSD PRIOR TO START OF CONSTRUCTION.
8. PROVIDE (4) CAT 6E CABLES. ROUTE TO #RE4X BOX & TERMINATE. PROVIDE RJ-45 JACKS AT BOTH ENDS OF CABLES. EACH CABLE SHALL BE COILED UP ABOVE CEILING. EACH CABLE LENGTH SHALL BE LONG ENOUGH TO GO TO ANY FUTURE DEVICE LOCATION DOWN WALL OF RELO. COORDINATE EXACT LOCATION & LENGTH OF CABLES W/BCSD PRIOR TO START OF CONSTRUCTION.
9. EXISTING DATA/COMMUNICATION WIRING SHALL BE PROTECTED IN PLACE IN THIS STRUCTURE.
10. PROVIDE 12X12X4 HINGED LOCKABLE COVER BOX, WITH PLYWOOD BACKBOARD & 66-BLOCK. TERMINATE 12-PAIR 24 AWG CABLE ON 66-BLOCK.
11. PROVIDE CAT5e YELLOW CABLE TO 66-BLOCK IN 12X12X4 & TERMINATE. VERIFY & PROVIDE PER MANUFACTURER'S REQUIREMENTS IN ORDER TO RECONNECT EXISTING SPEAKER.
12. VERIFY EXACT LOCATION W/BCSD PRIOR TO ROUGH-IN.

Know what's below. Call before you dig.

AGENCY INFORMATION:

AGENCY TRACKING NO. 63321-355
FILE NO.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
03-120134
AC ___ FLS. [PASS]
DATE SEP 30 2019

SEAL

COPYRIGHT:

Any reproduction or distribution for any purpose other than authorized by IBI Group is forbidden.

COPYRIGHT 2019 IBI GROUP

REVISIONS

NO.	DATE SUBMITTED	DATE APPROVED	DESCRIPTION

CONSULTANT

FERRANTI ENGINEERING
CONSULTING
ELECTRICAL ENGINEERS
1211 MARICOPA HWY,
SUITE 250
OJAI, CA 93023
(805) 705-4772
DALEFERRANTI@LIVE.COM

CERTIFIED PROFESSIONAL ENGINEER
DALE FERRANTI
E 17004
EXP. 06/30/21
ELECTRICAL
STATE OF CALIFORNIA

CONSTRUCTION DOCUMENTS

PRIME CONSULTANT

IBI ARCHITECTURE PLANNING
San Luis Obispo
4119 Broad Street, Suite 210
San Luis Obispo, CA 93401
805.546.0433
fax: 805.546.0504
ibigroup.com

BAKERSFIELD CITY SCHOOL DISTRICT

BESSIE OWENS E.S. TEMPORARY MODULAR BUILDINGS
815 POTOMAC AVE, BAKERSFIELD, CA 93307

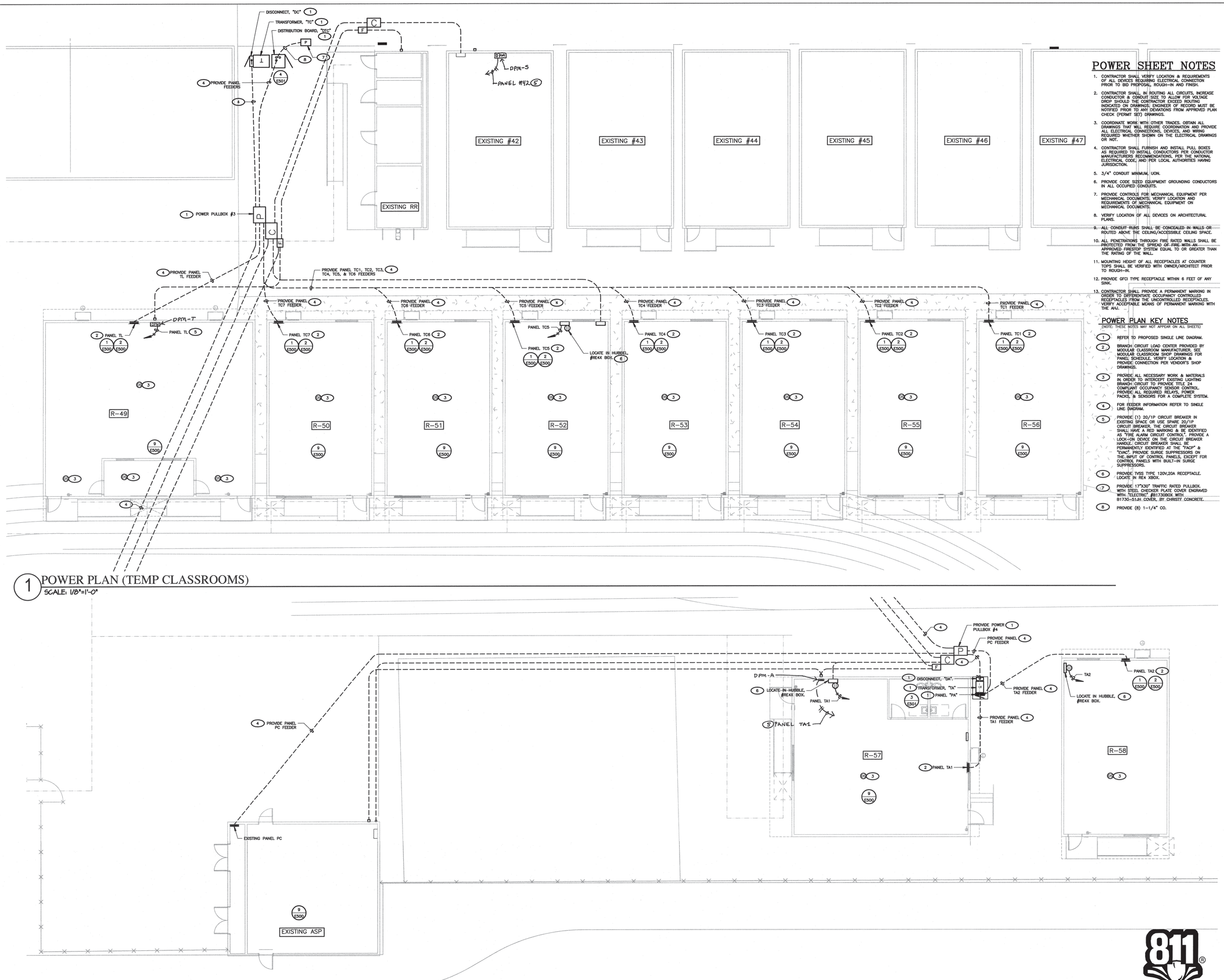
OPSC or OSHPD PROJ. NO:	N/A
PROJECT NO:	118932
DRAWN BY:	V.Z.
CHK'D BY:	D.F.
ISSUE DATE:	8/19/2019

SHEET TITLE

SIGNAL PLAN (TEMP CLASSROOM/ADMIN, & PARENT CENTER)

SHEET NUMBER

E202



1 POWER PLAN (TEMP CLASSROOMS)

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

2 POWER PLAN (TEMP ADMIN/PARENT CENTER)

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

POWER SHEET NOTES

1. CONTRACTOR SHALL VERIFY LOCATION & REQUIREMENTS OF ALL DEVICES REQUIRING ELECTRICAL CONNECTION PRIOR TO BID PROPOSAL, ROUGH-IN AND FINISH.
2. CONTRACTOR SHALL, IN ROUTING ALL CIRCUITS, INCREASE CONDUCTOR & CONDUIT SIZE TO ALLOW FOR VOLTAGE DROP SHOULD THE CONTRACTOR EXCEED ROUTING INDICATED ON DRAWINGS. ENGINEER OF RECORD MUST BE NOTIFIED PRIOR TO ANY DEVIATIONS FROM APPROVED PLAN CHECK (PERMIT SET) DRAWINGS.
3. COORDINATE WORK WITH OTHER TRADES. OBTAIN ALL DRAWINGS THAT WILL REQUIRE COORDINATION AND PROVIDE ALL ELECTRICAL CONNECTIONS, DEVICES, AND WIRING REQUIRED WHETHER SHOWN ON THE ELECTRICAL DRAWINGS OR NOT.
4. CONTRACTOR SHALL FURNISH AND INSTALL PULL BOXES AS REQUIRED TO INSTALL CONDUCTORS PER CONDUCTOR MANUFACTURERS RECOMMENDATIONS, PER THE NATIONAL ELECTRICAL CODE, AND PER LOCAL AUTHORITIES HAVING JURISDICTION.
5. 3/4" CONDUIT MINIMUM, UON.
6. PROVIDE CODE SIZED EQUIPMENT GROUNDING CONDUCTORS IN ALL OCCUPIED CONDUITS.
7. PROVIDE CONTROLS FOR MECHANICAL EQUIPMENT PER MECHANICAL DOCUMENTS; VERIFY LOCATION AND REQUIREMENTS OF MECHANICAL EQUIPMENT ON MECHANICAL DOCUMENTS.
8. VERIFY LOCATION OF ALL DEVICES ON ARCHITECTURAL PLANS.
9. ALL CONDUIT RUNS SHALL BE CONCEALED IN WALLS OR ROUTED ABOVE THE CEILING/ACCESSIBLE CEILING SPACE.
10. ALL PENETRATIONS THROUGH FIRE RATED WALLS SHALL BE PROTECTED FROM THE SPREAD OF FIRE WITH AN APPROVED FIRESTOP SYSTEM EQUAL TO OR GREATER THAN THE RATING OF THE WALL.
11. MOUNTING HEIGHT OF ALL RECEPTACLES AT COUNTER TOPS SHALL BE VERIFIED WITH OWNER/ARCHITECT PRIOR TO ROUGH-IN.
12. PROVIDE GFCI TYPE RECEPTACLE WITHIN 6 FEET OF ANY SINK.
13. CONTRACTOR SHALL PROVIDE A PERMANENT MARKING IN ORDER TO DIFFERENTIATE OCCUPANCY CONTROLLED RECEPTACLES FROM THE UNCONTROLLED RECEPTACLES. VERIFY ACCEPTABLE MEANS OF PERMANENT MARKING WITH THE AHJ.

POWER PLAN KEY NOTES

(NOTE: THESE NOTES MAY NOT APPEAR ON ALL SHEETS)

1. REFER TO PROPOSED SINGLE LINE DIAGRAM.
2. BRANCH CIRCUIT LOAD CENTER PROVIDED BY MODULAR CLASSROOM MANUFACTURER. SEE MODULAR CLASSROOM SHOP DRAWINGS FOR PANEL SCHEDULE. VERIFY LOCATION & PROVIDE CONNECTION PER VENDOR'S SHOP DRAWINGS.
3. PROVIDE ALL NECESSARY WORK & MATERIALS IN ORDER TO INTERCEPT EXISTING LIGHTING BRANCH CIRCUIT TO PROVIDE TITLE 24 COMPLIANT OCCUPANCY SENSOR CONTROL. PROVIDE ALL REQUIRED RELAYS, POWER PACKS, & SENSORS FOR A COMPLETE SYSTEM.
4. FOR FEEDER INFORMATION REFER TO SINGLE LINE DIAGRAM.
5. PROVIDE (1) 20/1P CIRCUIT BREAKER IN EXISTING SPACE OR USE SPARE 20/1P CIRCUIT BREAKER. THE CIRCUIT BREAKER SHALL HAVE A RED MARKING & BE IDENTIFIED AS "FIRE ALARM CIRCUIT CONTROL". PROVIDE A LOCK-ON DEVICE ON THE CIRCUIT BREAKER HANDLE. CIRCUIT BREAKER SHALL BE PERMANENTLY IDENTIFIED AT "FACP" & "EVAC". PROVIDE SURGE SUPPRESSORS ON THE INPUT OF CONTROL PANELS, EXCEPT FOR CONTROL PANELS WITH BUILT-IN SURGE SUPPRESSORS.
6. PROVIDE TVSS TYPE 120V,20A RECEPTACLE. LOCATE IN RE4 XBOX.
7. PROVIDE 17"X30" TRAFFIC RATED PULLBOX, WITH STEEL CHECKER PLATE COVER ENGRAVED WITH "ELECTRIC". #B1730BOX WITH B1730-51JH COVER, BY CHRISTY CONCRETE.
8. PROVIDE (8) 1-1/4" CO.

Know what's below.
Call before you dig.

AGENCY INFORMATION:

AGENCY TRACKING NO. 63321-355
FILE NO.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
03-120134
AC ELE CPE SS
DATE SEP 30 2019

SEAL

COPYRIGHT:

Any reproduction or distribution for any purpose other than authorized by IBI Group is forbidden.

COPYRIGHT 2019 IBI GROUP

REVISIONS

NO.	DATE SUBMITTED	DATE APPROVED	DESCRIPTION

CONSULTANT

FERRANTI ENGINEERING
CONSULTING
ELECTRICAL ENGINEERS
1211 MARICOPA HWY,
SUITE 250
OJAI, CA 93023
(805) 705-4772
DALEFERRANTI@LIVE.COM

CERTIFIED PROFESSIONAL ENGINEER
DALE FERRANTI
E 17972
EXP. 06/30/21
ELECTRICAL
STATE OF CALIFORNIA

PRIME CONSULTANT

IBI ARCHITECTURE PLANNING
San Luis Obispo
4119 Broad Street, Suite 210
San Luis Obispo, CA 93401
805.546.0433
fax: 805.546.0504
ibigroup.com

BAKERSFIELD CITY SCHOOL DISTRICT

BAKERSFIELD CITY SCHOOL DISTRICT
Where The Child Comes First

BESSIE OWENS E.S. TEMPORARY MODULAR BUILDINGS
815 POTOMAC AVE, BAKERSFIELD, CA 93307

OPSC or OSHPD PROJ. NO:	N/A
PROJECT NO:	118932
DRAWN BY:	V.Z.
CHK'D BY:	D.F.
ISSUE DATE:	8/19/2019

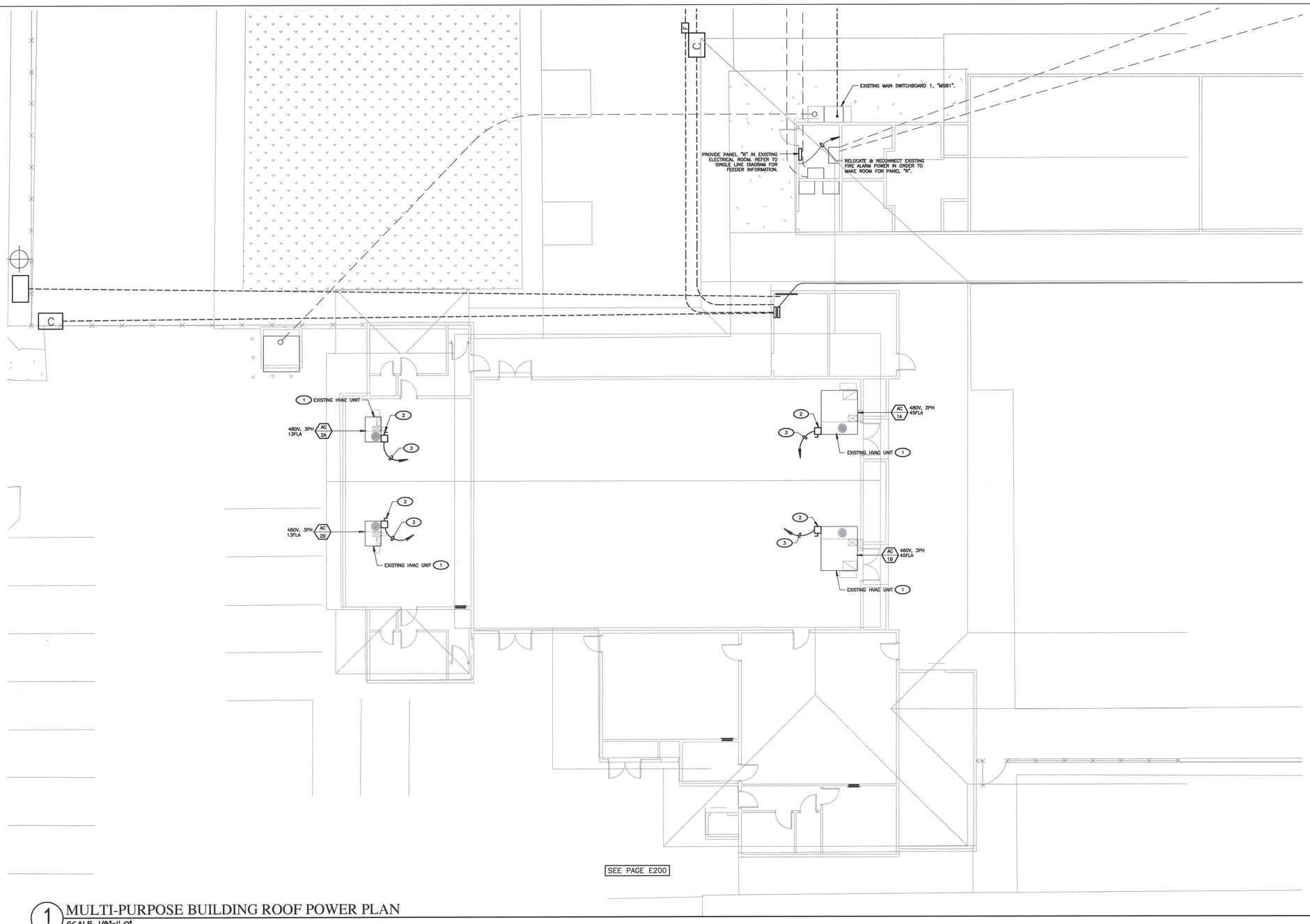
SHEET TITLE

POWER PLAN (TEMP CLASSROOM/ADMIN, & PARENT CENTER)

SHEET NUMBER

E203

CONSTRUCTION DOCUMENTS



1 MULTI-PURPOSE BUILDING ROOF POWER PLAN
SCALE: 1/8"=1'-0"

MECHANICAL PLAN SHEET NOTES

1. FIELD VERIFY MECHANICAL EQUIPMENT LOCATIONS.
2. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES.
3. THE LOCATION OF ALL ROOF PENETRATIONS SHALL BE COORDINATED WITH THE ARCHITECTURAL AND MECHANICAL DRAWINGS.
4. PROVIDE ROOF JACKS AND PROPERLY SEAL ALL ROOF PENETRATIONS TO A LEAK FREE CONDITION.
5. THE FINAL CONNECTIONS TO EQUIPMENT SHALL BE LIQUID TIGHT FLEXIBLE METAL CONDUIT. INSTALL WITH ENOUGH SLACK TO PRECLUDE VIBRATION TRANSMISSION. SUPPORT SHALL BE PER THE NATIONAL ELECTRICAL CODE.
6. PROVIDE WEATHERPROOF AND EXTERIOR RATED DEVICES IN ALL EXTERIOR AREAS.
7. PROVIDE ALL DEVICES AND CONNECTIONS AS REQUIRED ON MECHANICAL CONTRACTOR SHOP DRAWINGS AND APPROVED SUBMITTALS.
8. ALL DISCONNECTS SHALL BE MOUNTED ON UNISTRUT ON MECHANICAL (HVAC) UNIT.
9. CONTRACTOR SHALL VERIFY LOCATION AND REQUIREMENTS OF ALL ELECTRICAL DEVICES PRIOR TO BID, ROUGH-IN, AND INSTALLATION.
10. CONTRACTOR SHALL, IN ROUTING ALL CIRCUITS, INCREASE CONDUCTOR & CONDUIT SIZE TO ALLOW FOR VOLTAGE DROP SHOULD THE CONTRACTOR EXCEED ROUTING INDICATED ON DRAWINGS. ENGINEER OF RECORD MUST BE NOTIFIED PRIOR TO ANY DEVIATIONS FROM APPROVED PLAN CHECK (PERMIT SET) DRAWINGS.
11. EACH DISCONNECT OR STARTER AND A SPARE SET OF FUSES SHALL BE CONTARCTOR PROVIDED.
12. CONTRACTOR SHALL FURNISH AND INSTALL PULL BOXES AS REQUIRED TO INSTALL CONDUCTORS PER CONDUCTOR MANUFACTURERS RECOMMENDATIONS, PER THE NATIONAL ELECTRICAL CODE, AND PER LOCAL AUTHORITIES HAVING JURISDICTION.
13. 3/4" CONDUIT MINIMUM, UON.
14. PROVIDE CODE SIZED EQUIPMENT GROUNDING CONDUCTORS IN ALL OCCUPIED CONDUITS.
15. VERIFY AND PROVIDE CONTROLS TO ALL UNITS, PER MECHANICAL CONTRACTOR APPROVED SHOP DRAWINGS AND SUBMITTALS.

KEY NOTES

(NOTE: THESE NOTES MAY NOT APPEAR ON ALL SHEETS)

1. APPROXIMATE LOCATION. VERIFY EXACT LOCATION IN THE FIELD.
2. EXISTING SAFETY SWITCH. REFER TO SINGLE LINE DIAGRAM FOR WORK.
3. PROVIDE FEEDER TO PANEL "R". REFER TO SINGLE LINE DIAGRAM FOR FEEDER INFORMATION.

PANEL R — VOLTAGE 480V — PHASE 3 — WIRE 3 — MAIN 225A MCB
SOURCE MSB1 — A.I.C. 14,000 — ENCLOSURE NEMA 1
PANEL LOC/ BLDG SEE PLAN — BUS AMPERE RATING: 225 — MOUNTING SURFACE

CKT	VA LOAD LINE A	VA LOAD LINE B	VA LOAD LINE C	LOAD DESCRIPTION	LCL	OUTLETS MIS	OUTLETS REC	OUTLETS LTS	CIRCUIT BREAKER POL	CIRCUIT BREAKER TRP	BUS A	BUS B	BUS C	CIRCUIT BREAKER TRP	CIRCUIT BREAKER POL	OUTLETS LTS	OUTLETS REC	OUTLETS MIS	LCL	LOAD DESCRIPTION	VA LOAD LINE A	VA LOAD LINE B	VA LOAD LINE C	CKT
1	12166			EXISTING AC-1A						70				70						EXISTING AC-1B	12166			2
3		12166		EXISTING AC-1A																EXISTING AC-1B		12166		4
5			12166	EXISTING AC-1A					3					3						EXISTING AC-1B			12166	6
7	3742			EXISTING AC-2A					30					30						EXISTING AC-2B	3742			8
9		3742		EXISTING AC-2A																EXISTING AC-2B		3742		10
11			3742	EXISTING AC-2A					3					3						EXISTING AC-2B			3742	12
13																								14
15																								16
17																								18
19																								20
21																								22
23																								24
25																								26
27																								28
29																								30
31																								32
33																								34
35																								36
37																								38
39																								40
41																								42
	15908	15908	15908	SUBTOTALS																	15908	15908	15908	

NOTES:
REFER TO SINGLE LINE DIAGRAM FOR SPEC.

	LINE A	LINE B	LINE C
LINE TOTALS	31,816	31,816	31,816
LCL ADDER			
TOTAL VA/PH	31,816	31,816	31,816
LINE AMPS	115	115	115

Know what's below. Call before you dig.

AGENCY INFORMATION:

AGENCY TRACKING NO. 63321-355
FILE NO.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
03-120134
AC FLS 1 CH SS
DATE SEP 30 2019

SEAL

COPYRIGHT:
Any reproduction or distribution for any purpose other than authorized by IBI Group is forbidden.

COPYRIGHT 2019 IBI GROUP

REVISIONS

NO.	DATE SUBMITTED	DATE APPROVED	DESCRIPTION

CONSULTANT

FERRANTI ENGINEERING
CONSULTING
ELECTRICAL ENGINEERS
1211 MARICOPA HWY,
SUITE 250
OJAI, CA 93023
(805) 705-4772
DALEFERRANTI@LIVE.COM

REGISTERED PROFESSIONAL ENGINEER
DALE FERRANTI
E 17024
EXP. 06/30/21
ELECTRICAL
STATE OF CALIFORNIA

PRIME CONSULTANT

IBI ARCHITECTURE PLANNING
San Luis Obispo
4119 Broad Street, Suite 210
San Luis Obispo, CA 93401
805.546.0433
fax: 805.546.0504
ibigroup.com

BAKERSFIELD CITY SCHOOL DISTRICT

BESSIE OWENS E.S. TEMPORARY MODULAR BUILDINGS
815 POTOMAC AVE, BAKERSFIELD, CA 93307

OPSC or OSHPD PROJ. NO:	N/A
PROJECT NO:	118932
DRAWN BY:	V.Z.
CHK'D BY:	D.F.
ISSUE DATE:	8/19/2019

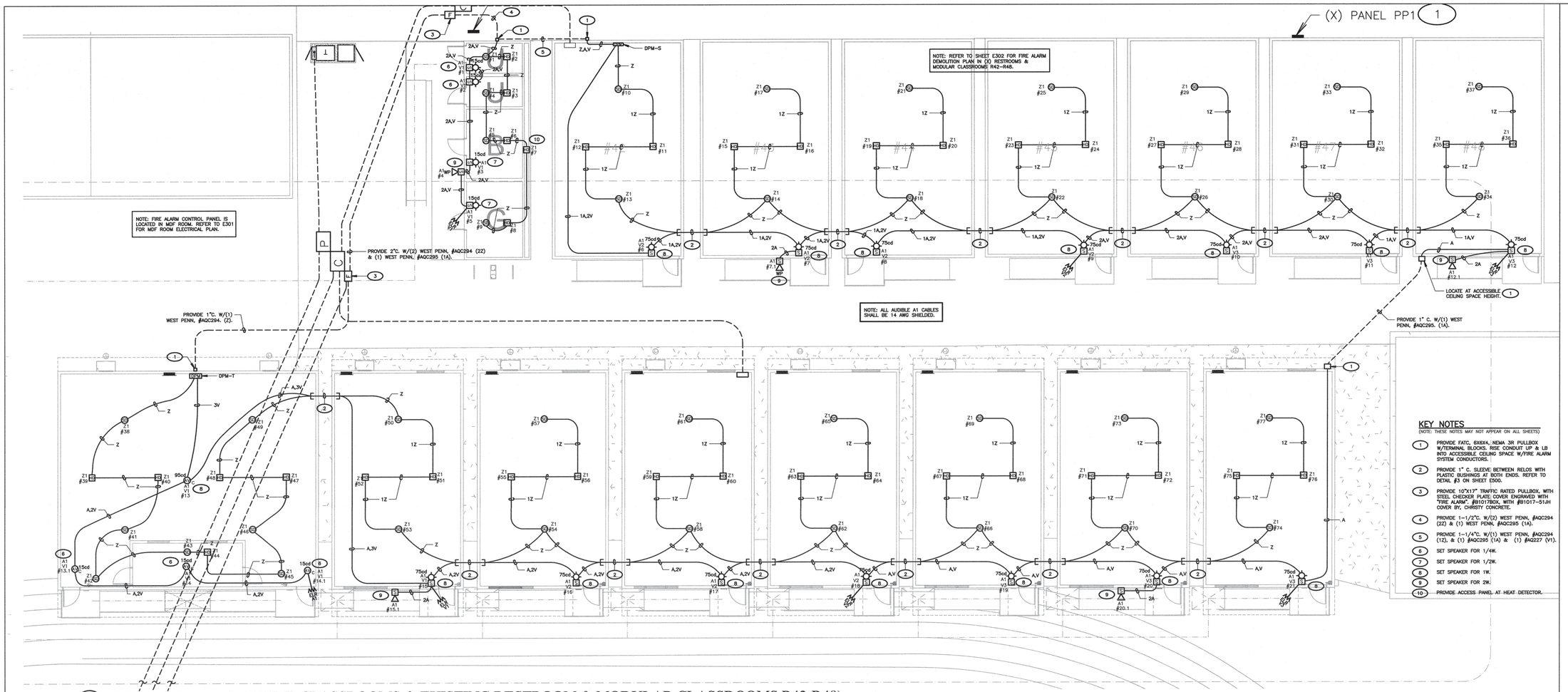
SHEET TITLE

MULTI-PURPOSE BUILDING ROOF POWER PLAN

SHEET NUMBER

E204

CONSTRUCTION DOCUMENTS



KEY NOTES

(NOTE: THESE NOTES MAY NOT APPEAR ON ALL SHEETS)

1. PROVIDE FATC, 6X6X4, NEMA 3R PULLBOX W/TERMINAL BLOCKS. RISE CONDUIT UP & LB INTO ACCESSIBLE CEILING SPACE W/FIRE ALARM SYSTEM CONDUCTORS.
2. PROVIDE 1" C. SLEEVE; BETWEEN RELOS WITH PLASTIC BUSHINGS AT BOTH ENDS. REFER TO DETAIL #3 ON SHEET E500.
3. PROVIDE 10"X17" TRAFFIC RATED PULLBOX, WITH STEEL CHECKER PLATE COVER ENGRAVED WITH "FIRE ALARM", #B1017BOX, WITH #B1017-51JH COVER BY, CHRISTY CONCRETE.
4. PROVIDE 1-1/2"C. W/(2) WEST PENN, #AQC294 (22) & (1) WEST PENN, #AQC295 (1A).
5. PROVIDE 1-1/4"C. W/(1) WEST PENN, #AQC294 (12), & (1) #AQC295 (1A) & (1) #AQ227 (V1).
6. SET SPEAKER FOR 1/4W.
7. SET SPEAKER FOR 1/2W.
8. SET SPEAKER FOR 1W.
9. SET SPEAKER FOR 2W.
10. PROVIDE ACCESS PANEL AT HEAT DETECTOR.

1 FIRE ALARM PLAN (TEMP CLASSROOMS & EXISTING RESTROOM & MODULAR CLASSROOMS R42-R48)

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

CODE, RULES & REGULATIONS

ALL WORK AND MATERIALS SHALL COMPLY WITH THE LATEST REGULATIONS OF THE STATE FIRE MARSHAL, CALIFORNIA CODE OF REGULATIONS, SERVING UTILITY COMPANIES AND OTHER APPLICABLE STATE ORDINANCES. NOTHING IN THESE PLANS OR SPECIFICATIONS IS TO BE CONSTRUED AS TO PERMIT WORK NOT CONFORMING TO THESE CODES. WHERE WORK OF A HIGHER DEGREE IS INDICATED IN THE PLANS OR SPECIFICATIONS THIS REQUIREMENT SHALL GOVERN.

FIRE ALARM LEVEL OF AUDIBILITY

ALARM INDICATING DEVICES OF A FIRE ALARM SYSTEM INTENDED TO ALERT ALL OCCUPANTS SHALL BE SO LOCATED AND UNOBSTRUCTED AS TO CAUSE A LEVEL OF AUDIBILITY OF NOT LESS THAN 15db ABOVE AMBIENT NOISE LEVELS MEASURED FOUR FEET ABOVE THE FLOOR INSIDE BUILDING.

AMBIENT NOISE LEVELS SHALL BE CONSTRUED TO MEAN THAT WHICH CAN NORMALLY BE EXPECTED TO EXIST WHEN THE FACILITY, BUILDING, ROOM OR AREA IS FUNCTIONING UNDER NORMAL OPERATIVE OR WORKING CONDITIONS.

THE FIRE ALARM SIGNAL SHALL COMPLY WITH THE CALIFORNIA EDUCATION CODE, SECTIONS 32000 AND 32004, AND BE A TEMPORAL PATTERN, CODE 3.

FIRE ALARM MONITORING NOTE

AUTOMATIC FIRE ALARM SYSTEMS SHALL TRANSMIT THE ALARM, SUPERVISORY AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION AS REQUIRED BY NFPA 72 AS AMENDED BY ARTICLE 91. THE SUPERVISING STATION SHALL BE LISTED AS EITHER UUFX OR UUJS BY UNDERWRITERS LABORATORY OF SHALL MEET THE REQUIREMENTS OF FACTORY MUTUAL RESEARCH APPROVAL STANDARD 3011. SUPERVISION OF SYSTEM AND LEASED TELEPHONE LINES SHALL BE ARRANGED BY OWNER.

COMPLETE AUTOMATIC FIRE ALARM PLAN SUBMITTAL

THE FIRE ALARM SYSTEM SHOWN ON THESE PLANS HAS BEEN SUBMITTED AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT. ANY SUBSTITUTION OF THE FIRE ALARM SYSTEM SHALL BE RESUBMITTED TO THE ARCHITECT FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL PAY ANY ADDITIONAL FEES THAT ARE INCURRED DUE TO THIS SUBSTITUTION.

THE FIRE ALARM SYSTEM SHALL BE A TOTAL (COMPLETE) AUTOMATIC HEAT AND SMOKE DETECTION SYSTEM, PER C.F.C SECTION 907.2.3.A, AND SHALL COVER EVERY ROOM AND/OR AREA, UPON THE ACTIVATION OF ANY INITIATION DEVICE THE FIRE ALARM SYSTEM SHALL ALERT ALL OCCUPANTS AND TRANSMIT THE ALARM, SUPERVISORY, AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION (C.F.C. SECTION 907.2.3.5).

SCHOOLS FIRE ALARM REQUIREMENTS

THE FIRE ALARM SYSTEM SHALL CONFORM TO CALIFORNIA BUILDING CODE, SECTION 907.2.3; CALIFORNIA ELECTRICAL CODE, ARTICLE 760 AND CALIFORNIA FIRE CODE, CHAPTER 9, SECTION 907.

UPON COMPLETION OF THE INSTALLATION OF THE FIRE PROTECTIVE SIGNALING EQUIPMENT, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF THE AUTHORITY HAVING JURISDICTION, NFPA 72. IF TESTING RESULTS DETERMINE FIRE ALARM AUDIBILITY DOES NOT MEET 15db OVER AMBIENT NOISE LEVELS, ADDITIONAL FIRE ALARM SIGNALING DEVICES MAY BE REQUIRED BY THE AUTHORITY HAVING JURISDICTION.

FIRE ALARM SYSTEM CERTIFICATION AND DESCRIPTION SHALL BE PROVIDED FOR TESTING AND A PLASTIC LAMINATED COPY SHALL REMAIN (WITH INSTRUCTIONS) AT THE FIRE ALARM CONTROL PANEL PER NFPA 72.

THE FIRE ALARM "RECORD OF COMPLETION" FORM, FIGURE 10, 18, 2, 1 IN NFPA 72, SHALL BE COMPLETED, SIGNED AND SUBMITTED TO THE SCHOOL DISTRICT AND THE LOCAL AUTHORITY (K.C.F.D.) HAVING JURISDICTION AT THE COMPLETION OF THE TEST.

F.A. SYSTEM WIRE SCHEDULE

TAG	CONDUCTORS	DEVICE/FUNCTION
V	2#12, THWN/THHN	VISIBLE NOTIFICATION DEVICES--STROBE LIGHTS
Z	1--PAIR #16 TWISTED, SHIELDED PAIR WEST PENN AQC294 (BLDG. EXTERIOR & UNDERGROUND) 1--PAIR #16 TWISTED, WEST PENN D990 (BLDG. INTERIOR)	CAMPUS/BLDG. SLC INTELLIGENT LOOP INITIATING DEVICES (PULL STATIONS, SMOKE AND HEAT DETECTORS, WATER FLOW AND TAMPER SWITCHES, MONITOR AND CONTROL MODULES, ETC.)
P	2#14, THWN/THHN	DEVICE POWER--24VDC
A	1--PAIR #16 TWISTED SHIELDED PAIR, WEST PENN AQC294 (BLDG. EXTERIOR & UNDERGROUND) 1--PAIR #16 TWISTED SHIELDED PAIR, WEST PENN 991. (BLDG. INTERIOR).	AUDIBLE NOTIFICATION DEVICES--SPEAKERS

FIRE ALARM LEGEND

1A2, 2V1, 1Z1

F.A. SYSTEM WIRING, TAG IDENTIFIES THE FOLLOWING: FIRST NUMBER INDICATES QUANTITY OF LOOPS OR CIRCUITS; LETTER NOTATION INDICATES TYPE OF LOOP OR CIRCUIT, INCLUDING CONDUCTOR REQUIREMENTS, PER "F.A. SYSTEM WIRE SCHEDULE" ON THIS SHEET; NUMBER AFTER LETTER INDICATES LOOP NUMBER.

AUDIBLE CIRCUIT NO. 1
VISIBLE CIRCUIT NO. 1
DEVICE I.D. NO.
INTELLIGENT LOOP NO.

DENOTES F.A. DEVICE CONNECTED TO NOTIFICATION CIRCUITS, OR INTELLIGENT LOOP CIRCUITS AND CONSECUTIVE DEVICE I.D. NO. FOR THIS LOOP.

NOTES (FIRE ALARM EQUIPMENT SPECIFICATIONS SCHEDULE)

(NOTE: THESE NOTES MAY NOT APPEAR ON ALL SHEETS)

1. END OF LINE RESISTORS SHALL BE 10K FOR NOTIFICATION APPLIANCE CIRCUITS FEEDING FORM FIRE ALARM CONTROL PANEL AND 2.2K FOR NOTIFICATION APPLIANCE CIRCUITS FEEDING FROM FIRE ALARM POWER EXPANDER PANELS.
2. SET FOR 194 DEGREES.
3. THIS EQUIPMENT IS EXISTING. REFER TO FIRE ALARM RISER DIAGRAM.
4. PROVIDE TRIM RING, #TRC-2
5. PROVIDE TRANSIENT SUPPRESSORS.

FIRE ALARM EQUIPMENT SPECIFICATIONS SCHEDULE

SYMBOL	MODEL. NO	DESCRIPTION	MANUFACTURER	CSFM. LISTING #	BACKBOX REQUIREMENTS	MOUNTING HEIGHT (TO CENTER U.O.N.)	REMARKS
FACP	NFS2-3030 UDACT-2 DVC-EM DVC-KD CMIC-1 DAA2-7525 ACPS-610 SBB-D4R DR-D4R	FIRE ALARM CONTROL PANEL	NOTIFIER	7165-0028:0224	EQUIPMENT CABINET	+60	5
FPS	ACPS-610 CAB-PS1	FIRE ALARM REMOTE POWER SUPPLY	NOTIFIER	7315-0028:0248	EQUIPMENT CABINET	+60	
S	FSP-951	ADDRESSABLE SMOKE DETECTOR W/BASE, #B300-6	NOTIFIER	7272-0028:0503	4" SQ. X. 2 1/8" DP. OUTLET BOX WITH S.G. RAISED RING		
H	FST-951H	ADDRESSABLE HEAT DETECTOR W/BASE, #B300-6	NOTIFIER	7270-0028:0502	4" SQ. X. 2 1/8" DP. OUTLET BOX WITH S.G. RAISED RING	--	2
SPKR	SPRK(A)	OUTDOOR WALL MOUNT SPEAKER	SYSTEM SENSOR	7320-1653:0201	MWBB(A) OUTDOOR BACKBOX	--	
SPKR	SPSRL(A)	WALL MOUNTED COMBINATION SPEAKER & STROBE LIGHT (CANDELA VALUE AS SHOWN ON PLANS)	SYSTEM SENSOR	7320-1653:0505	4" SQ. X 2 1/8" DP. OUTLET BOX	-- --	
MM	LCD-160	REMOTE ANNUNCIATOR	NOTIFIER	7120-0028:0227			
EOL	--	END OF LINE RESISTOR 1		--	4" SQ. X 2 1/8" DP. OUTLET BOX 3	--	
					4" SQ. X. 2 1/8" DP. OUTLET BOX		
SIM-5		SIX ZONE INTERFACE MODULE	NOTIFIER	7300-0028:0219	LOCATE IN FIRE ALARM REMOTE POWER SUPPLY		3
SPKR	SPSCRL(A)	CEILING MOUNTED COMBINATION SPEAKER & STROBE LIGHT(CANDELA) VALVE AS SHOWN ON PLANS)	SYSTEM SENSOR	7320-1653:0505	4" SQ. X. 2 1/8" DP. OUTLET BOX		4

NOTE: EXISTING FIRE ALARM SHALL NOT BE REMOVED UNTIL NEW SYSTEM IS INSTALLED AND TESTED.

GENERAL NOTES

1. SMOKE DETECTORS SHALL BE INSTALLED 3' AWAY FROM SUPPLY AND RETURN AIR GRILLES.
2. FINAL FIRE ALARM TEST OF ALL DEVICES SHALL BE WITNESSED BY THE PROJECT INSPECTOR. TEST SHALL INCLUDE ALL INFORMATION PER NFPA 72, FIGURE 14.6.2.4 AND READ OUT VERIFICATION FORM FROM CENTRAL STATION. TEST SHALL ALSO BE WITNESSED BY THE LOCAL AUTHORITY HAVING JURISDICTION (A.H.J.).
3. UNDERGROUND AND EXTERIOR CONDUITS WILL HAVE WATER--TIGHT FITTINGS (C.E.C. 110.11 AND 300.6).
4. AUDIBLE DEVICE(S) SHALL BE AT LEAST 15dbA ABOVE AVERAGE AMBIENT SOUND LEVEL BUT NOT LESS THAN 75dbA AT 10' OR MORE THAN 110 dbA IN TOTAL, THROUGHOUT! (NFPA 72 18.4.1 AND C.F.C. 907.6.2).
5. AUDIBLE DEVICES SHALL SOUND THE CALIFORNIA CODE IN TEMPORAL PATTERN, CODE 3.
6. VISUAL DEVICES SHALL NOT EXCEED TWO FLASHES PER SECOND AND SHALL NOT BE SLOWER THAN ONE FLASH PER SECOND. (NFPA 72 18.5.5.2.1).
7. PROVIDE AN ENGRAVED NAMEPLATE INDICATING THE D.S.A. APPLICATION NUMBER, FILE NUMBER AND DATE OF INSTALLATION AT FIRE ALARM POWER EXPANDER PANEL. WHITE LETTERS ON A RED BACKGROUND.
8. PROVIDE A COPY OF THE BATTERY CALCULATION AT THE FIRE ALARM POWER EXPANDER PANEL. BATTERY CALCULATION SHALL CONTAIN INFORMATION AS NOTED ON SCHEDULES AND BE PLASTIC LAMINATED. MOUNT ONTO INSIDE FACE OF DOOR.
9. MORE THAN TWO VISIBLE NOTIFICATION APPLIANCES OR GROUPS OF SYNCHRONIZED APPLIANCES IN THE SAME ROOM OR ADJACENT SPACE WITHIN THE FIELD OF VIEW SHALL FLASH IN SYNCHRONIZATION (NFPA 72 18.5.4.3.2(4)).
10. THE AUTOMATIC ALARM SYSTEM SHALL BE INSTALLED, TESTED AND MAINTAINED IN ACCORDANCE WITH THE STATE FIRE MARSHAL'S REGULATIONS (C.F.C. 907.0).
11. THE FIRE ALARM SYSTEM SHALL CONFORM TO ARTICLE 760 OF THE CALIFORNIA ELECTRICAL CODE, CURRENT CALIFORNIA TITLE 24 REQUIREMENTS, CALIFORNIA FIRE CODE, NFPA 72 AND 101 STANDARDS, AMERICAN WITH DISABILITY ACT (ADA) REQUIREMENTS.
12. DRAWINGS DO NOT SHOW ALL THE NECESSARY J--BOXES AND PULL BOXES WHICH WILL BE REQUIRED THROUGHOUT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL THESE BOXES AS NECESSARY TO TERMINATE CONDUITS AND RACEWAYS. PAINT BOXES TO MATCH COLOR OF THE FINISHED BUILDING WALLS.
13. ALL JUNCTIONS BOXES AND DEVICES INDICATED ON BUILDING EXTERIORS SHALL BE WEATHERPROOF TYPE.
14. FIRE ALARM WIRES SHALL BE COPPER TYPE THWN/THHN.
15. ALL SIGNAL WIRING IN UNDERGROUND CONDUITS SHALL BE WET LOCATION TYPE.
16. WHEN ALL FIRE ALARM DEVICES ARE INSTALLED AND PROGRAMMING IS COMPLETE, PROVIDE A FIRE ALARM DEVICE MAP IN THE SCHOOL MAIN OFFICE TO INDICATE TO SCHOOL PERSONNEL THE LOCATIONS OF THE NEW DEVICES.
17. JUNCTION BOXES SHALL NOT CONTAIN SPLICES. CONDUCTORS SHALL BE PULLED THROUGH. TERMINATIONS SHALL BE PERFORMED.
18. ALL EXPOSED CONDUITS AND BOXES SHALL BE PAINTED TO MATCH THE SURFACE WHERE INSTALLED.

FIRE ALARM SYSTEM INSTALLATION NOTES

ALL DRAWINGS ARE DIAGRAMMATIC ONLY, AND SHALL NOT BE USED IN DETERMINING ACTUAL CONDUIT ROUTING. THE CONTRACTOR SHALL VERIFY ALL CONDUIT ROUTING CONDITIONS AT THE PROJECT SITE AS CONSTRUCTION PROGRESSES.

ALL FIRE ALARM DATA COMMUNICATIONS AND INITIATING CIRCUITS SHALL BE INSTALLED UTILIZING SOLID COPPER CONDUCTORS WITH OUTER COVERING COLORS PER THE SPECIFICATIONS AND AS SHOWN ON THE DRAWINGS. ALL SMOKE DAMPER AND REMOTE TROUBLE INDICATOR CIRCUITS SHALL BE YELLOW. ALL CIRCUITS SHALL BE INDIVIDUALLY LABELED, BOTH AT THE DEVICE END AND AT THE SIGNAL TERMINAL CABINET AND/OR FIRE ALARM MASTER PANEL TERMINATION POINT.

ALL FIRE ALARM CIRCUITS SHALL BE CONTINUOUS FROM DEVICE TO DEVICE. SPLICES ARE NOT ALLOWED UNLESS IN COVERED JUNCTION BOXES ON APPROVED TERMINAL BLOCKS. 'T' TAPPING IS ALLOWED ONLY UNDER THESE CONDITIONS.

SEQUENCE OF OPERATIONS

		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
		ANNUNCIATE/DISPLAY AT FACP ALARM, TROUBLE (SUPERVISORY)	SOUND FACP TROUBLE BUZZER (ALARM, TROUBLE OR SUPERVISORY)	ANNUNCIATE AT REMOTE FIRE ALARM ANNUNCIATOR (ALARM, TROUBLE OR SUPERVISORY)	ACTIVATE RELAY FOR CENTRAL STATION MONITORING. (ALARM, TROUBLE OR SUPERVISORY)	ACTIVATE AUDIBLE/VISUAL ALARM SIGNAL THROUGHOUT BUILDING.								SYSTEM WILL FUNCTION FOR UP TO 24 HOURS ON BATTERY BACKUP.					SHUT DOWN AIR HANDLER UNITS
1	MANUAL PULL STATIONS	•	•	•	•	•													
2	SMOKE DETECTORS	•	•	•	•	•													•
3	FIRE ALARM SYSTEM AC POWER FAIL	•	•	•	•									•					
4	FIRE ALARM SYSTEM LOW BATTERY	•	•	•	•														
5	OPEN CIRCUIT	•	•	•	•														
6	GROUND FAULT	•	•	•	•														
8	HEAT DETECTORS	•	•	•	•	•													
9	NOTIFICATION CIRCUIT SHORT	•	•	•	•														
10																			

AGENCY INFORMATION:

AGENCY TRACKING NO. 63321-355
FILE NO.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
03-120134
AC MF FLS PH SS
DATE SEP 30 2019

SEAL

COPYRIGHT:

Any reproduction or distribution for any purpose other than authorized by IBI Group is forbidden.

COPYRIGHT 2019 IBI GROUP

REVISIONS

NO.	DATE SUBMITTED	DATE APPROVED	DESCRIPTION

CONSULTANT

FERRANTI ENGINEERING
CONSULTING
ELECTRICAL ENGINEERS
1211 MARICOPA HWY,
SUITE 250
OJAI, CA 93023
(805) 705-4772
DALEFERRANTI@LIVE.COM

REGISTERED PROFESSIONAL ENGINEER
DALE E. FERRANTI
E 17024
EXP. 06/30/21
ELECTRICAL
STATE OF CALIFORNIA

PRIME CONSULTANT

IBI ARCHITECTURE PLANNING
San Luis Obispo
4119 Broad Street, Suite 210
San Luis Obispo, CA 93401
805.546.0433
fax: 805.546.0504
ibigroup.com

BAKERSFIELD CITY SCHOOL DISTRICT

BESSIE OWENS E.S. TEMPORARY MODULAR BUILDINGS
815 POTOMAC AVE, BAKERSFIELD, CA 93307

OPSC or OSHPD PROJ. NO:	N/A
PROJECT NO:	118932
DRAWN BY:	V.Z.
CHK'D BY:	D.F.
ISSUE DATE:	8/19/2019

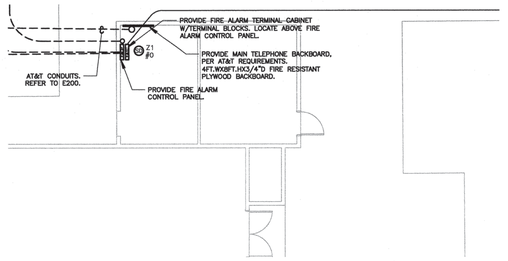
SHEET TITLE

FIRE ALARM PLAN (TEMP CLASSROOMS & EXISTING RESTROOM & MODULAR CLASSROOMS R42-R48)

SHEET NUMBER

E300

CONSTRUCTION DOCUMENTS



2 MDF ROOM ELECTRICAL PLAN
SCALE: 1/8" = 1'-0"

GENERAL NOTES

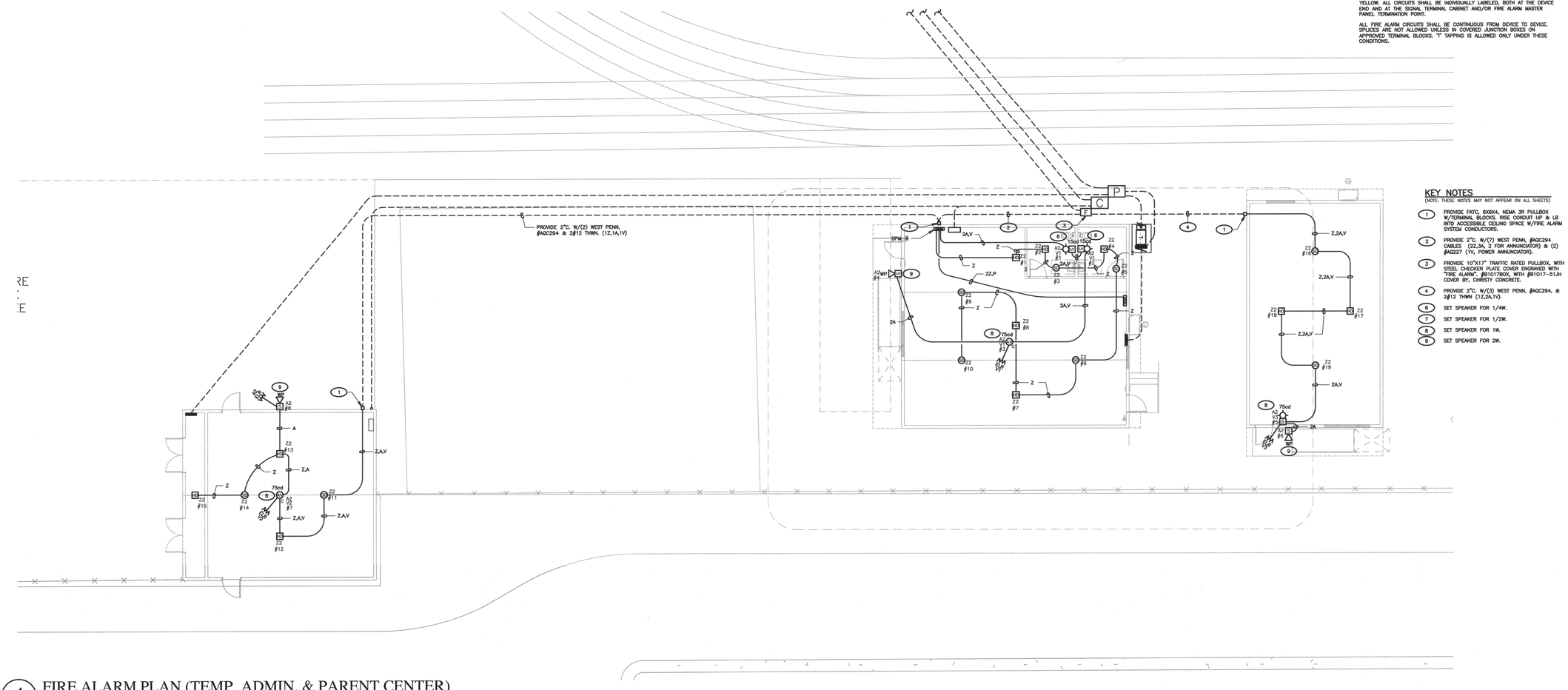
1. SMOKE DETECTORS SHALL BE INSTALLED 3' AWAY FROM SUPPLY AND RETURN AIR GRILLES.
2. FINAL FIRE ALARM TEST OF ALL DEVICES SHALL BE WITNESSED BY THE PROJECT INSPECTOR. TEST SHALL INCLUDE ALL INFORMATION PER NFPA 72, FIGURE 14.6.2.4 AND READ OUT VERIFICATION FORM FROM CENTRAL STATION. TEST SHALL ALSO BE WITNESSED BY THE LOCAL AUTHORITY HAVING JURISDICTION (A.H.J.).
3. UNDERGROUND AND EXTERIOR CONDUITS WILL HAVE WATER-TIGHT FITTINGS (C.E.C. 110.11 AND 300.6).
4. AUDIBLE DEVICE(S) SHALL BE AT LEAST 15dbA ABOVE AVERAGE AMBIENT SOUND LEVEL BUT NOT LESS THAN 75dbA AT 10' OR MORE THAN 110 dbA IN TOTAL, THROUGHOUT (NFPA 72 18.4.1 AND C.F.C. 907.6.2).
5. AUDIBLE DEVICES SHALL SOUND THE CALIFORNIA CODE IN TEMPORAL PATTERN, CODE 3.
6. VISUAL DEVICES SHALL NOT EXCEED TWO FLASHES PER SECOND AND SHALL NOT BE SLOWER THAN ONE FLASH PER SECOND. (NFPA 72 18.5.2.1).
7. PROVIDE AN ENGRAVED NAMEPLATE INDICATING THE D.S.A. APPLICATION NUMBER, FILE NUMBER AND DATE OF INSTALLATION AT FIRE ALARM POWER EXPANDER PANEL. WHITE LETTERS ON A RED BACKGROUND.
8. PROVIDE A COPY OF THE BATTERY CALCULATION AT THE FIRE ALARM POWER EXPANDER PANEL. BATTERY CALCULATION SHALL CONTAIN INFORMATION AS NOTED ON SCHEDULES AND BE PLASTIC LAMINATED. MOUNT ONTO INSIDE FACE OF DOOR.
9. MORE THAN TWO VISIBLE NOTIFICATION APPLIANCES OR GROUPS OF SYNCHRONIZED APPLIANCES IN THE SAME ROOM OR ADJACENT SPACE WITHIN THE FIELD OF VIEW SHALL FLASH IN SYNCHRONIZATION (NFPA 72 18.5.4.3.2(4)).
10. THE AUTOMATIC ALARM SYSTEM SHALL BE INSTALLED, TESTED AND MAINTAINED IN ACCORDANCE WITH THE STATE FIRE MARSHAL'S REGULATIONS (C.F.C. 907.9).
11. THE FIRE ALARM SYSTEM SHALL CONFORM TO ARTICLE 760 OF THE CALIFORNIA ELECTRICAL CODE, CURRENT CALIFORNIA TITLE 24 REQUIREMENTS, CALIFORNIA FIRE CODE, NFPA 72 AND 101 STANDARDS, AMERICAN WITH DISABILITY ACT (ADA) REQUIREMENTS.
12. DRAWINGS DO NOT SHOW ALL THE NECESSARY J-BOXES AND PULL BOXES WHICH WILL BE REQUIRED THROUGHOUT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL THESE BOXES AS NECESSARY TO TERMINATE CONDUITS AND RACEWAYS. PAINT BOXES TO MATCH COLOR OF THE FINISHED BUILDING WALLS.
13. ALL JUNCTIONS BOXES AND DEVICES INDICATED ON BUILDING EXTERIORS SHALL BE WEATHERPROOF TYPE.
14. FIRE ALARM WIRES SHALL BE COPPER TYPE THWN/THHN.
15. ALL SIGNAL WIRING IN UNDERGROUND CONDUITS SHALL BE WET LOCATION TYPE.
16. WHEN ALL FIRE ALARM DEVICES ARE INSTALLED AND PROGRAMMING IS COMPLETE, PROVIDE A FIRE ALARM DEVICE MAP IN THE SCHOOL MAIN OFFICE TO INDICATE TO SCHOOL PERSONNEL THE LOCATIONS OF THE NEW DEVICES.
17. JUNCTION BOXES SHALL NOT CONTAIN SPLICES. CONDUCTORS SHALL BE PULLED THROUGH. TERMINATIONS SHALL BE PERFORMED.
18. ALL EXPOSED CONDUITS AND BOXES SHALL BE PAINTED TO MATCH THE SURFACE WHERE INSTALLED.

FIRE ALARM SYSTEM INSTALLATION NOTES

ALL DRAWINGS ARE DIAGRAMMATIC ONLY, AND SHALL NOT BE USED IN DETERMINING ACTUAL CONDUIT ROUTING. THE CONTRACTOR SHALL VERIFY ALL CONDUIT ROUTING CONDITIONS AT THE PROJECT SITE AS CONSTRUCTION PROGRESSES.

ALL FIRE ALARM DATA COMMUNICATIONS AND INITIATING CIRCUITS SHALL BE INSTALLED UTILIZING SOLID COPPER CONDUCTORS WITH OUTER COVERING COLORS PER THE SPECIFICATIONS AND AS SHOWN ON THE DRAWINGS. ALL SMOKE DAMPER AND REMOTE TROUBLE INDICATOR CIRCUITS SHALL BE YELLOW. ALL CIRCUITS SHALL BE INDIVIDUALLY LABELED, BOTH AT THE DEVICE END AND AT THE SIGNAL TERMINAL CABINET AND/OR FIRE ALARM MASTER PANEL TERMINATION POINT.

ALL FIRE ALARM CIRCUITS SHALL BE CONTINUOUS FROM DEVICE TO DEVICE. SPLICES ARE NOT ALLOWED UNLESS IN COVERED JUNCTION BOXES ON APPROVED TERMINAL BLOCKS. "T" TAPPING IS ALLOWED ONLY UNDER THESE CONDITIONS.



1 FIRE ALARM PLAN (TEMP. ADMIN. & PARENT CENTER)
SCALE: 1/8" = 1'-0"

AGENCY INFORMATION:

AGENCY TRACKING NO. 63321-355
FILE NO.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
03-120134
AC NF FLS SPH SR
DATE SEP 30 2019

SEAL

COPYRIGHT:

Any reproduction or distribution for any purpose other than authorized by IBI Group is forbidden.

COPYRIGHT 2019 IBI GROUP

REVISIONS

NO.	DATE SUBMITTED	DATE APPROVED	DESCRIPTION

CONSULTANT

FERRANTI ENGINEERING
CONSULTING
ELECTRICAL ENGINEERS
1211 MARICOPA HWY,
SUITE 250
OJAI, CA 93023
(805) 705-4772
DALEFERRANTI@LIVE.COM

REGISTERED PROFESSIONAL ENGINEER
DALE F. FERRANTI
E 17526
EXP 06/30/21
ELECTRICAL
STATE OF CALIFORNIA

PRIME CONSULTANT

IBI ARCHITECTURE PLANNING
San Luis Obispo
4119 Broad Street, Suite 210
San Luis Obispo, CA 93401
805.546.0433
fax: 805.546.0504
ibigroup.com

BAKERSFIELD CITY SCHOOL DISTRICT

BESSIE OWENS E.S. TEMPORARY MODULAR BUILDINGS
815 POTOMAC AVE, BAKERSFIELD, CA 93307

OPSC or OSHPD PROJ. NO:	N/A
PROJECT NO:	118932
DRAWN BY:	V.Z.
CHK'D BY:	D.F.
ISSUE DATE:	8/19/2019

SHEET TITLE

FIRE ALARM PLAN (TEMP ADMIN & PARENT CENTER)

SHEET NUMBER

E301

CONSTRUCTION DOCUMENTS

GENERAL NOTES

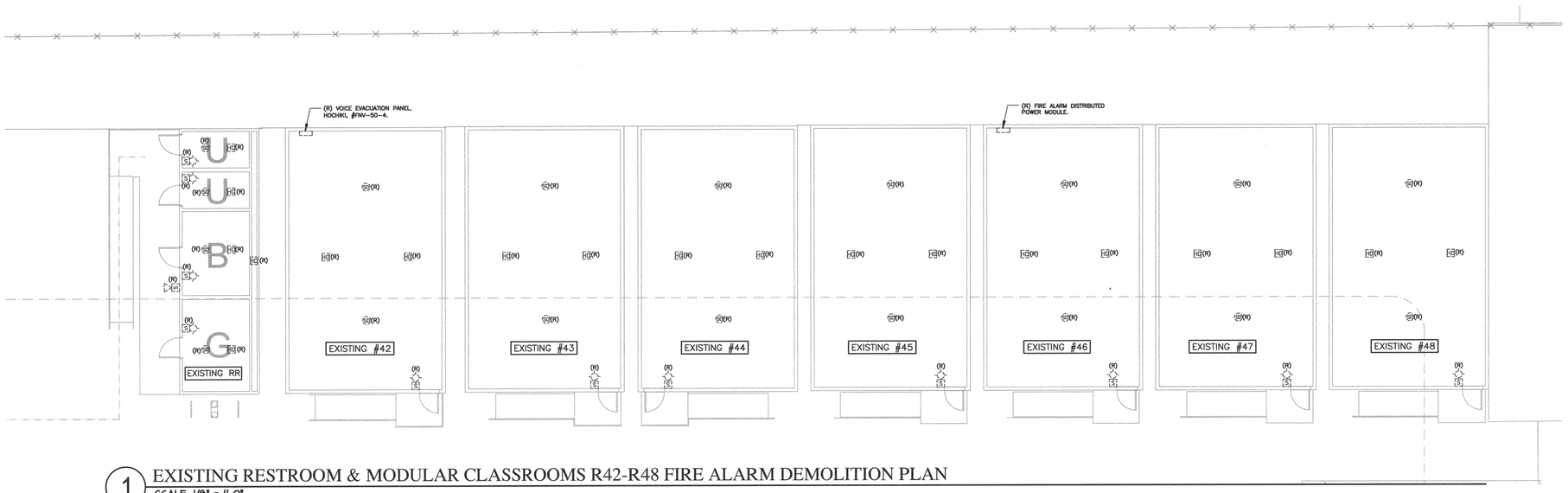
1. SMOKE DETECTORS SHALL BE INSTALLED 3' AWAY FROM SUPPLY AND RETURN AIR GRILLES.
2. FINAL FIRE ALARM TEST OF ALL DEVICES SHALL BE WITNESSED BY THE PROJECT INSPECTOR. TEST SHALL INCLUDE ALL INFORMATION PER NFPA 72, FIGURE 14.6.2.4 AND READ OUT VERIFICATION FORM FROM CENTRAL STATION. TEST SHALL ALSO BE WITNESSED BY THE LOCAL AUTHORITY HAVING JURISDICTION (A.H.J.).
3. UNDERGROUND AND EXTERIOR CONDUITS WILL HAVE WATER-TIGHT FITTINGS (C.E.C. 110.11 AND 300.6).
4. AUDIBLE DEVICE(S) SHALL BE AT LEAST 15dbA ABOVE AVERAGE AMBIENT SOUND LEVEL BUT NOT LESS THAN 75dbA AT 10' OR MORE THAN 110 dbA IN TOTAL, THROUGHOUT (NFPA 72 18.4.1 AND C.F.C. 907.6.2).
5. AUDIBLE DEVICES SHALL SOUND THE CALIFORNIA CODE IN TEMPORAL PATTERN, CODE 3.
6. VISUAL DEVICES SHALL NOT EXCEED TWO FLASHES PER SECOND AND SHALL NOT BE SLOWER THAN ONE FLASH PER SECOND. (NFPA 72 18.5.2.1).
7. PROVIDE AN ENGRAVED NAMEPLATE INDICATING THE D.S.A. APPLICATION NUMBER, FILE NUMBER AND DATE OF INSTALLATION AT FIRE ALARM POWER EXPANDER PANEL. WHITE LETTERS ON A RED BACKGROUND.
8. PROVIDE A COPY OF THE BATTERY CALCULATION AT THE FIRE ALARM POWER EXPANDER PANEL. BATTERY CALCULATION SHALL CONTAIN INFORMATION AS NOTED ON SCHEDULES AND BE PLASTIC LAMINATED. MOUNT ONTO INSIDE FACE OF DOOR.
9. MORE THAN TWO VISIBLE NOTIFICATION APPLIANCES OR GROUPS OF SYNCHRONIZED APPLIANCES IN THE SAME ROOM OR ADJACENT SPACE WITHIN THE FIELD OF VIEW SHALL FLASH IN SYNCHRONIZATION (NFPA 72 18.5.4.3.2(4)).
10. THE AUTOMATIC ALARM SYSTEM SHALL BE INSTALLED, TESTED AND MAINTAINED IN ACCORDANCE WITH THE STATE FIRE MARSHAL'S REGULATIONS (C.F.C. 907.9).
11. THE FIRE ALARM SYSTEM SHALL CONFORM TO ARTICLE 760 OF THE CALIFORNIA ELECTRICAL CODE, CURRENT CALIFORNIA TITLE 24 REQUIREMENTS, CALIFORNIA FIRE CODE, NFPA 72 AND 101 STANDARDS, AMERICAN WITH DISABILITY ACT (ADA) REQUIREMENTS.
12. DRAWINGS DO NOT SHOW ALL THE NECESSARY J-BOXES AND PULL BOXES WHICH WILL BE REQUIRED THROUGHOUT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL THESE BOXES AS NECESSARY TO TERMINATE CONDUITS AND RACEWAYS. PAINT BOXES TO MATCH COLOR OF THE FINISHED BUILDING WALLS.
13. ALL JUNCTIONS BOXES AND DEVICES INDICATED ON BUILDING EXTERIORS SHALL BE WEATHERPROOF TYPE.
14. FIRE ALARM WIRES SHALL BE COPPER TYPE THWN/THHN.
15. ALL SIGNAL WIRING IN UNDERGROUND CONDUITS SHALL BE WET LOCATION TYPE.
16. WHEN ALL FIRE ALARM DEVICES ARE INSTALLED AND PROGRAMMING IS COMPLETE, PROVIDE A FIRE ALARM DEVICE MAP IN THE SCHOOL MAIN OFFICE TO INDICATE TO SCHOOL PERSONNEL THE LOCATIONS OF THE NEW DEVICES.
17. JUNCTION BOXES SHALL NOT CONTAIN SPLICES. CONDUCTORS SHALL BE PULLED THROUGH. TERMINATIONS SHALL BE PERFORMED.
18. ALL EXPOSED CONDUITS AND BOXES SHALL BE PAINTED TO MATCH THE SURFACE WHERE INSTALLED.

FIRE ALARM SYSTEM INSTALLATION NOTES

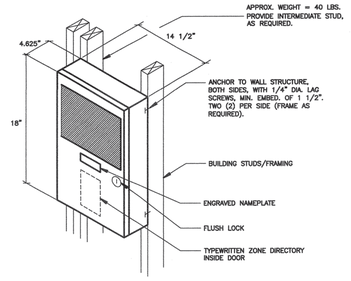
ALL DRAWINGS ARE DIAGRAMMATIC ONLY, AND SHALL NOT BE USED IN DETERMINING ACTUAL CONDUIT ROUTING. THE CONTRACTOR SHALL VERIFY ALL CONDUIT ROUTING CONDITIONS AT THE PROJECT SITE AS CONSTRUCTION PROGRESSES.

ALL FIRE ALARM DATA COMMUNICATIONS AND INITIATING CIRCUITS SHALL BE INSTALLED UTILIZING SOLID COPPER CONDUCTORS WITH OUTER COVERING COLORS PER THE SPECIFICATIONS AND AS SHOWN ON THE DRAWINGS. ALL SMOKE DAMPER AND REMOTE TROUBLE INDICATOR CIRCUITS SHALL BE YELLOW. ALL CIRCUITS SHALL BE INDIVIDUALLY LABELED, BOTH AT THE DEVICE END AND AT THE SIGNAL TERMINAL CABINET AND/OR FIRE ALARM MASTER PANEL TERMINATION POINT.

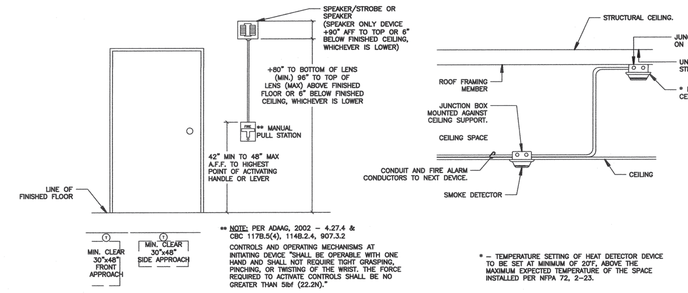
ALL FIRE ALARM CIRCUITS SHALL BE CONTINUOUS FROM DEVICE TO DEVICE. SPLICES ARE NOT ALLOWED UNLESS IN COVERED JUNCTION BOXES ON APPROVED TERMINAL BLOCKS. "T" TAPPING IS ALLOWED ONLY UNDER THESE CONDITIONS.



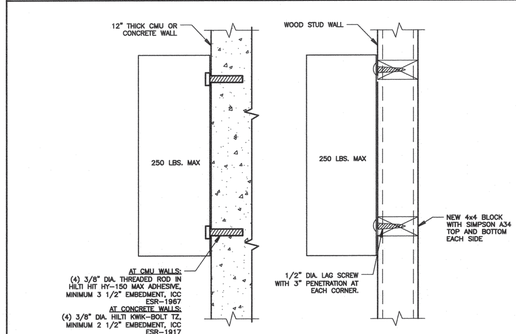
1 EXISTING RESTROOM & MODULAR CLASSROOMS R42-R48 FIRE ALARM DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



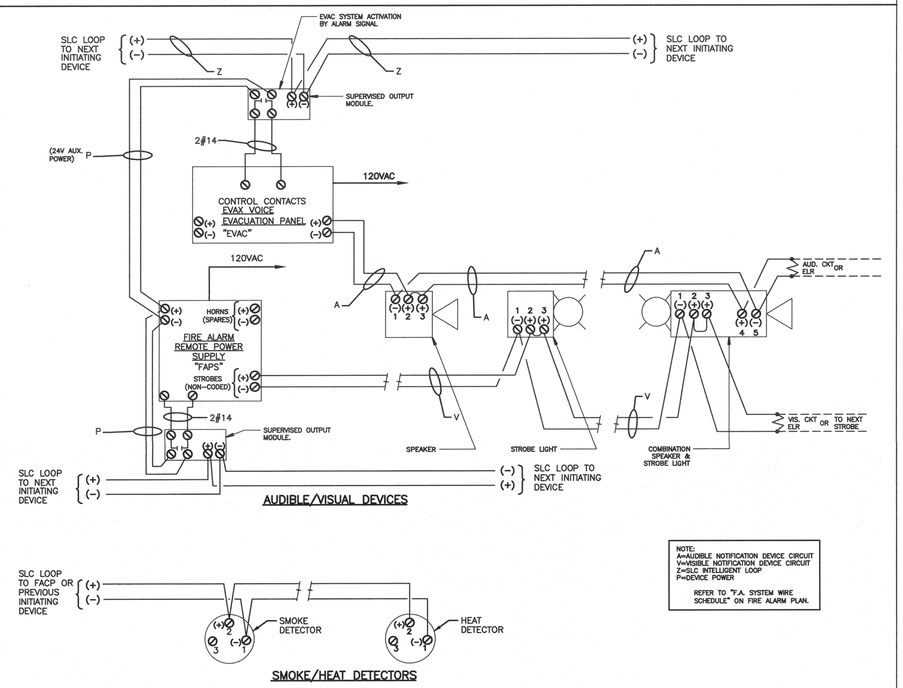
4 FIRE ALARM REMOTE POWER SUPPLY (FAPS), MOUNTING DETAIL
NOT TO SCALE



2 TYPICAL FIRE ALARM DEVICE MOUNTING DETAILS
SCALE: NOT TO SCALE



5 FIRE ALARM CONTROL PANEL MOUNTING DETAIL
SCALE: NOT TO SCALE



3 TYPICAL DEVICES WIRING DIAGRAMS DETAIL
NOT TO SCALE

AGENCY INFORMATION:

AGENCY TRACKING NO. 63321-355
FILE NO.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
03-120134
AC MF FLS SMS
DATE SEP 30 2019

SEAL

COPYRIGHT:
Any reproduction or distribution for any purpose other than authorized by IBI Group is forbidden.
COPYRIGHT 2019 IBI GROUP

REVISIONS

NO.	DATE SUBMITTED	DATE APPROVED	DESCRIPTION

CONSULTANT

FERRANTI ENGINEERING
CONSULTING
ELECTRICAL ENGINEERS
1211 MARICOPA HWY,
SUITE 250
OJAI, CA 93023
(805) 705-4772
DALEFERRANTI@LIVE.COM

REGISTERED PROFESSIONAL ENGINEER DALE FERRANTI E 17024 EXP. 06/30/21 ELECTRICAL STATE OF CALIFORNIA

PRIME CONSULTANT

IBI ARCHITECTURE PLANNING
San Luis Obispo
4119 Broad Street, Suite 210
San Luis Obispo, CA 93401
805.546.0433
fax: 805.546.0504
ibigroup.com

BAKERSFIELD CITY SCHOOL DISTRICT

BESSIE OWENS E.S. TEMPORARY MODULAR BUILDINGS
815 POTOMAC AVE, BAKERSFIELD, CA 93307

OPSC or OSHPD PROJ. NO:	N/A
PROJECT NO:	118932
DRAWN BY:	V.Z.
CHK'D BY:	D.F.
ISSUE DATE:	8/19/2019

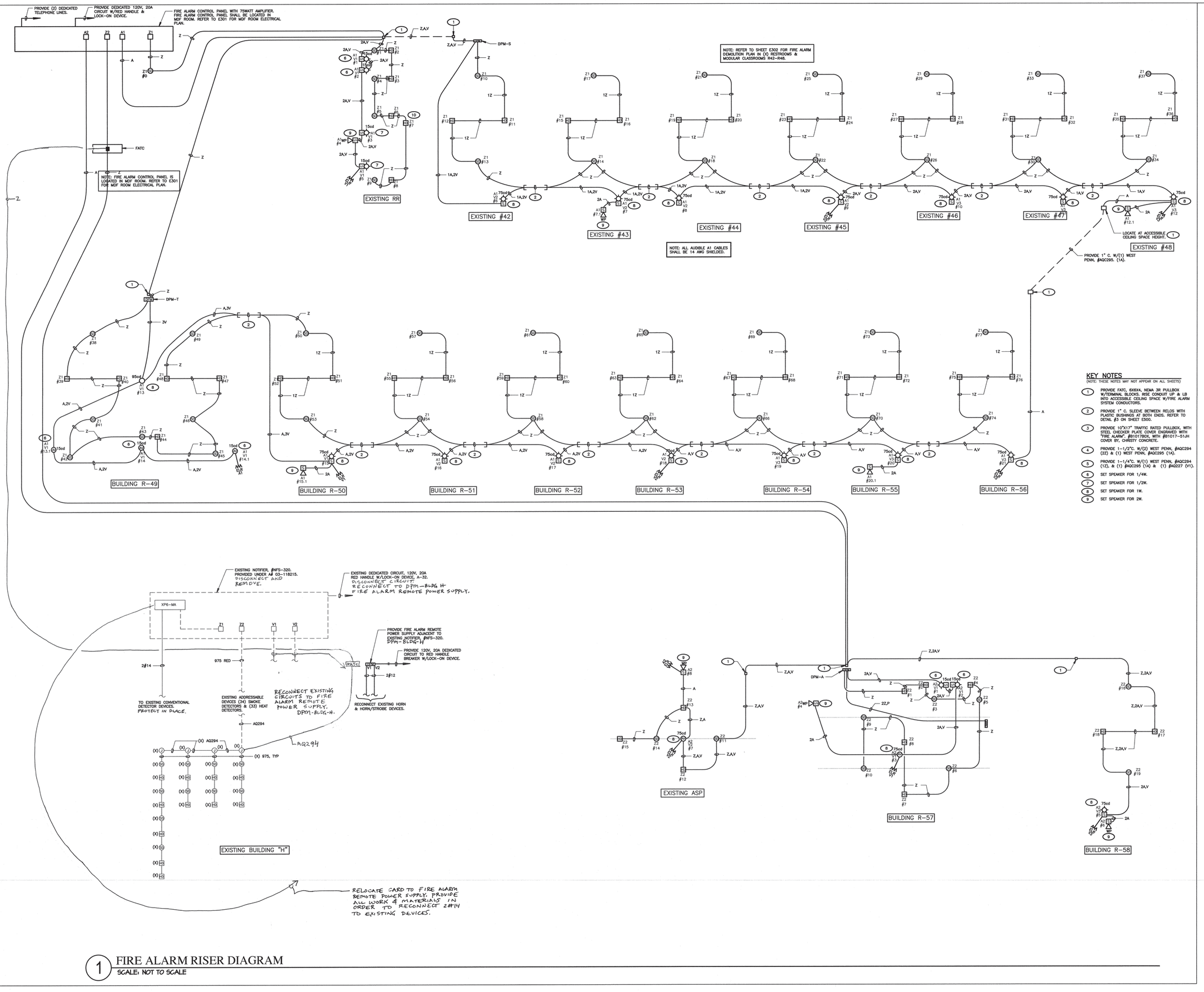
SHEET TITLE

EXISTING RESTROOM & MODULAR CLASSROOMS R42-R48 FIRE ALARM DEMOLITION PLAN, FIRE ALARM DETAILS

SHEET NUMBER

E302

CONSTRUCTION DOCUMENTS



KEY NOTES

(NOTE: THESE NOTES MAY NOT APPEAR ON ALL SHEETS)

1. PROVIDE FATC, 6X6X4, NEMA 3R PULLBOX W/TERMINAL BLOCKS. RISE CONDUIT UP & LB INTO ACCESSIBLE CEILING SPACE W/FIRE ALARM SYSTEM CONDUCTORS.
2. PROVIDE 1" C. SLEEVE BETWEEN RELOS WITH PLASTIC BUSHINGS AT BOTH ENDS. REFER TO DETAIL #3 ON SHEET E500.
3. PROVIDE 10"X17" TRAFFIC RATED PULLBOX, WITH STEEL CHECKER PLATE COVER ENGRAVED WITH "FIRE ALARM". #B1017BOX, WITH #B1017-51JH COVER BY, CHRISTY CONCRETE.
4. PROVIDE 1-1/2"C. W/(2) WEST PENN, #AQC294 (2Z) & (1) WEST PENN, #AQC295 (1A).
5. PROVIDE 1-1/4"C. W/(1) WEST PENN, #AQC294 (12), & (1) #AQC295 (1A) & (1) #AQ227 (V1).
6. SET SPEAKER FOR 1/4W.
7. SET SPEAKER FOR 1/2W.
8. SET SPEAKER FOR 1W.
9. SET SPEAKER FOR 2W.

1 FIRE ALARM RISER DIAGRAM
SCALE: NOT TO SCALE

AGENCY INFORMATION:

AGENCY TRACKING NO. 63321-355
FILE NO.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
03-120134
AC MF PLS SPFT SS
DATE SEP 30 2019

SEAL

COPYRIGHT:
Any reproduction or distribution for any purpose other than authorized by IBI Group is forbidden.
COPYRIGHT 2019 IBI GROUP

REVISIONS

NO.	DATE SUBMITTED	DATE APPROVED	DESCRIPTION

CONSULTANT

FERRANTI ENGINEERING
CONSULTING
ELECTRICAL ENGINEERS
1211 MARICOPA HWY,
SUITE 250
OJAI, CA 93023
(805) 705-4772
DALEFERRANTI@LIVE.COM

REGISTERED PROFESSIONAL ENGINEER DALE FERRANTI E 17904 EXP. 06/30/21 ELECTRICAL STATE OF CALIFORNIA

PRIME CONSULTANT

IBI ARCHITECTURE PLANNING
San Luis Obispo
4119 Broad Street, Suite 210
San Luis Obispo, CA 93401
805.546.0433
fax: 805.546.0504
ibigroup.com

BAKERSFIELD CITY SCHOOL DISTRICT

BAKERSFIELD CITY SCHOOL DISTRICT Where The Child Comes First

BESSIE OWENS E.S. TEMPORARY MODULAR BUILDINGS
815 POTOMAC AVE, BAKERSFIELD, CA 93307

OPSC or OSHPD PROJ. NO:	N/A
PROJECT NO:	118932
DRAWN BY:	V.Z.
CHK'D BY:	D.F.
ISSUE DATE:	8/19/2019

SHEET TITLE

FIRE ALARM RISER DIAGRAM

SHEET NUMBER

E303

CONSTRUCTION DOCUMENTS

STROBE CIRCUIT VOLTAGE DROP CALCULATIONS

POWER SUPPLY #	LOCATED IN	LOOP TYPE & No.	DEVICES: FA. BELL	DOOR HOLDER	WALL 15cd	WALL 75cd	STROBES 15cd	STROBES 30cd	STROBES 75cd	STROBES 95cd	WIRE SIZE	WIRE DC RESIST. /1000'	TOTAL ALARM CURRENT	ONE-WAY LOOP LENGTH FROM POWER SUPPLY TO MIDDLE OF	TOTAL VD	VOLTAGE DROP	MINIMUM BATTERY SIZE	BATTERY SELECTED
			Alarm Current - I(a) (Amp)															
			0.03	0.02	0.043	0.107	0.041	0.063	0.111	0.134	AWG	OHMS	AMPS	FEET	VOLTS	%	AH	AH
DPM-S		V1				4					12	1.93	0.172	88	0.058	0.24		SEE DPM-S BATTERY CALCS
		V2					4				12	1.93	0.428	177	0.292	1.22		
		V3					3				12	1.93	0.321	273	0.336	1.41		
		V4									12	1.93						
											12	1.93					1.87	4.0
											12	1.93						
											12	1.93						
											12	1.93						

STROBE CIRCUIT VOLTAGE DROP CALCULATIONS

POWER SUPPLY #	LOCATED IN	LOOP TYPE & No.	DEVICES: FA. BELL	DOOR HOLDER	WALL 15cd	WALL 75cd	STROBES 15cd	STROBES 30cd	STROBES 75cd	STROBES 95cd	WIRE SIZE	WIRE DC RESIST. /1000'	TOTAL ALARM CURRENT	ONE-WAY LOOP LENGTH FROM POWER SUPPLY TO MIDDLE OF	TOTAL VD	VOLTAGE DROP	MINIMUM BATTERY SIZE	BATTERY SELECTED
			Alarm Current - I(a) (Amp)															
			0.03	0.02	0.043	0.107	0.041	0.063	0.111	0.134	AWG	OHMS	AMPS	FEET	VOLTS	%	AH	AH
DPM-T		V1				1	3			1	12	1.93	0.364	273	0.384	1.60		SEE DPM-T BATTERY CALCS
		V2				3					12	1.93	0.321	213	0.264	1.10		
		V3				3					12	1.93	0.321	297	0.368	1.53		
		V4									12	1.93						
											12	1.93					1.87	4.0
											12	1.93						
											12	1.93						
											12	1.93						

STROBE CIRCUIT VOLTAGE DROP CALCULATIONS

POWER SUPPLY #	LOCATED IN	LOOP TYPE & No.	DEVICES: FA. BELL	DOOR HOLDER	WALL 15cd	WALL 75cd	STROBES 15cd	STROBES 30cd	STROBES 75cd	STROBES 95cd	WIRE SIZE	WIRE DC RESIST. /1000'	TOTAL ALARM CURRENT	ONE-WAY LOOP LENGTH FROM POWER SUPPLY TO MIDDLE OF	TOTAL VD	VOLTAGE DROP	MINIMUM BATTERY SIZE	BATTERY SELECTED
			Alarm Current - I(a) (Amp)															
			0.03	0.02	0.043	0.107	0.041	0.063	0.111	0.134	AWG	OHMS	AMPS	FEET	VOLTS	%	AH	AH
DPM-A		V1				2				1	12	1.93	0.197	85	0.085	0.27		SEE DPM-A BATTERY CALCS
		V2								1	12	1.93	0.111	215	0.092	0.38		
		V3					1				12	1.93	0.107	169	0.070	0.29		
		V4									12	1.93						
											12	1.93					1.87	4.0
											12	1.93						
											12	1.93						
											12	1.93						

FORMULAS USED FOR CALCULATIONS:

FORMULA FOR BATTERY SIZING:
FOR FACP/FAPS/DPM – 24 HOURS STANDBY & 15 MIN IN ALARM:
AMP HOUR = 1.2D [(24 HOURS X I(S)) + (15/60 HOUR X I(A))]

WHERE,
1.2D = BATTERY DERATING VALUE
I(S) = TOTAL SUPERVISORY CURRENT (0 FOR NOTIFICATION DEVICES AND 48 mA FOR FCPS-24)
I(A) = TOTAL ALARM CURRENT

FORMULA FOR VOLTAGE DROP CALCULATIONS

TOTAL DC RESISTANCE = # OF WIRES X Rdc/1000 X ONE-WAY LOOP LENGTH FROM POWER SUPPLY TO MIDDLE OF LOAD

TOTAL VD = TOTAL DC RESISTANCE X TOTAL ALARM CURRENT

MINIMUM VOLTAGE AT DEVICES = 20.4V – TOTAL VD
20.4V = MINIMUM VOLTAGE AT END OF USEFUL BATTERY LIFE (85% OF 24VDC)

NOTE:
THE MANUFACTURER'S OPERATING VOLTAGE IS BETWEEN 16VDC AND 33 VDC (FOR 24VDC NOMINAL)

BCSD OWENS PRIMARY()

"DPM-BLDG H" POWER & BATTERY CALCULATION

DEVICE / PANEL	STAND-BY (mA)	ALARM (mA)	QUANTITY	FACP STAND-BY (mA)	FACP ALARM (mA)
FIRE ALARM REMOTE POWER SUPPLY	130	130	1	130	130
EXISTING EXTERIOR HORN		66	7		462
EXISTING INTERIOR HORN		44	1		44
EXISTING INTERIOR STROBE 15cd		43	9		387
TOTALS (AMPS):				I(s) 0.130	I(a) 1.044
Amp Hour:				4.06	
Battery to be provided -				7.0	

Application Drawing

APP-02
0102R2

Field Wiring Guidelines

Wire Type:
The speaker circuits of most voice evacuation systems will typically be classified as power limited wiring. As such, these speaker circuits can be run with other fire alarm wiring without ill effects.

No special cabling is required for the speaker circuits. Standard FPL or FPLP wire is sufficient. Twisted pair or shielding twisted pair wiring is not necessary.

There is one exception, however. Certain addressable systems may generate extraneous noise from their addressable loop, and cannot be run using shielded cable. In this case, shielding of the evacuation speaker circuit will help to eliminate noise picked up by and heard in speakers during standby operation, and possible interference with the addressable loop.

Wire Gauge:
Generally, #18 AWG will be adequate for speaker circuits. The only time that heavier wire is needed is when load is high, and wire runs are long. But remember, it never hurts to go with heavier wire. So if a #16 or #14 AWG pair is being pulled for strobes, it is often easier and less costly to pull the same wire for the evacuation speaker circuits.

The table below illustrates typical wire lengths for specific wire gauge and speaker load:*

At 25VRMS Output:

Power	#18 AWG	#16AWG	#14 AWG	#12AWG
10W	1,900	3,050	4,850	7,700
15W	1,280	2,030	3,230	5,140
25W	760	1,220	1,930	3,080

At 70VRMS Output:

Power	#18 AWG	#16AWG	#14 AWG	#12AWG
10W	15,200	24,200	38,360	61,100
15W	10,130	16,130	25,570	40,730
25W	6,080	9,680	15,340	24,440

* This table assumes that there is an even distribution of the speaker load on the speaker circuit, and that a 20% drop at the last device is allowable. If an even distribution of load is not the case, reduce all wire runs by 1/2.

1 SPEAKER CIRCUIT WIRING GUIDELINES
NOT TO SCALE

SPEAKER CIRCUIT OPERATING VOLTAGE = 25V RMS
SPEAKER CIRCUIT A1 LOAD = 27.25 WATTS
APPROXIMATE LENGTH OF SPEAKER CIRCUIT A1 = 1,803 FEET
REFER TO SPEAKER CIRCUIT WIRING GUIDELINES. A MAXIMUM SPEAKER CIRCUIT LENGTH OF 1,930 FEET IS ALLOWED FOR #14 AWG CONDUCTORS AT A 25W LOAD.

SPEAKER CIRCUIT A2 LOAD = 9.5 WATTS
APPROXIMATE LENGTH OF SPEAKER CIRCUIT A2 = 1,500 FEET
REFER TO SPEAKER CIRCUIT WIRING GUIDELINES. A MAXIMUM SPEAKER CIRCUIT LENGTH OF 3,050 FEET IS ALLOWED FOR #16 AWG CONDUCTORS AT A 10W LOAD.

2 SPEAKER CIRCUIT WATTAGE AND CIRCUIT LENGTH INFORMATION
NOT TO SCALE

OWENS PRIMARY

"FACP" POWER & BATTERY CALCULATION

DEVICE / PANEL	STAND-BY (mA)	ALARM (mA)	QUANTITY	FACP STAND-BY (mA)	FACP ALARM (mA)
FIRE ALARM CONTROL PANEL	120	120	1	120	120
LCD-160 (BACKLIGHT OFF)	75	100	1	75	100
ACPS-610	130	130	1	130	130
KEYBOARD DISPLAY	220	220	1	220	220
UDACT-2	52	87	1	52	87
EXISTING XP6-MA		90	1		90
SLC LOOP		200	2		400
DVC-EM	300	300	1	300	300
DVC-KD	60	60	1	60	60
DAA2-7525	400	500	1	400	500
SMOKE DETECTORS	0.2	4.5	49	9.8	220.5
HEAT DETECTORS	0.2	4.5	48	9.6	216
LCM-320	130	130	1	130	130
LEM-320	100	100	1	100	100
EXISTING SMOKE DETECTORS	0.2	4.5	34	6.8	153
EXISTING HEAT DETECTORS	0.2	4.5	33	6.6	148.5
TOTALS (AMPS):				I(s) 1.620	I(a) 2.795
Amp Hour:				47.54	
Battery to be provided -				55.0	

BCSD OWENS PRIMARY()

"DPM-S" POWER & BATTERY CALCULATION

DEVICE / PANEL	STAND-BY (mA)	ALARM (mA)	QUANTITY	FACP STAND-BY (mA)	FACP ALARM (mA)
FIRE ALARM REMOTE POWER SUPPLY	130	130	1	130	130
SPEAKER/STROBE INTERIOR CEILING 75cd		111			
SPEAKER/STROBE INTERIOR CEILING 30cd		63			
SPEAKER/STROBE INTERIOR CEILING 15cd		41			
SPEAKER/STROBE INTERIOR WALL MOUNT 15cd		43	4		172
SPEAKER/STROBE INTERIOR WALL MOUNT 75cd		107	7		749
TOTALS (AMPS):				I(s) 0.130	I(a) 1.051
Amp Hour:				4.06	
Battery to be provided -				7.0	

BCSD OWENS PRIMARY()

"DPM-T" POWER & BATTERY CALCULATION

DEVICE / PANEL	STAND-BY (mA)	ALARM (mA)	QUANTITY	FACP STAND-BY (mA)	FACP ALARM (mA)
FIRE ALARM REMOTE POWER SUPPLY	130	130	1	130	130
SPEAKER/STROBE INTERIOR CEILING 95cd		134	1		134
SPEAKER/STROBE INTERIOR CEILING 75cd		111			
SPEAKER/STROBE INTERIOR CEILING 30cd		63			
SPEAKER/STROBE INTERIOR CEILING 15cd		41	3		123
SPEAKER/STROBE INTERIOR WALL MOUNT 15cd		43			
SPEAKER/STROBE INTERIOR WALL MOUNT 75cd		107	7		749
TOTALS (AMPS):				I(s) 0.130	I(a) 1.136
Amp Hour:				4.08	
Battery to be provided -				7.0	

BCSD OWENS PRIMARY()

"DPM-A" POWER & BATTERY CALCULATION

DEVICE / PANEL	STAND-BY (mA)	ALARM (mA)	QUANTITY	FACP STAND-BY (mA)	FACP ALARM (mA)
FIRE ALARM REMOTE POWER SUPPLY	130	130	1	130	130
SPEAKER/STROBE INTERIOR CEILING 95cd		134			
SPEAKER/STROBE INTERIOR CEILING 75cd		111	2		222
SPEAKER/STROBE INTERIOR CEILING 30cd		63			
SPEAKER/STROBE INTERIOR CEILING 15cd		41			
SPEAKER/STROBE INTERIOR WALL MOUNT 15cd		43	2		86
SPEAKER/STROBE INTERIOR WALL MOUNT 75cd		107	1		107
TOTALS (AMPS):				I(s) 0.130	I(a) 0.545
Amp Hour:				3.91	
Battery to be provided -				7.0	

AGENCY INFORMATION:

AGENCY TRACKING NO. 63321-355
FILE NO.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
03-120134
AC FLS CPH SS
DATE SEP 30 2019

SEAL

COPYRIGHT:

Any reproduction or distribution for any purpose other than authorized by IBI Group is forbidden.

COPYRIGHT 2019 IBI GROUP

REVISIONS

NO.	DATE SUBMITTED	DATE APPROVED	DESCRIPTION

CONSULTANT

FERRANTI ENGINEERING
CONSULTING
ELECTRICAL ENGINEERS
1211 MARICOPA HWY,
SUITE 250
OJAI, CA 93023
(805) 705-4772
DALEFERRANTI@LIVE.COM

REGISTERED PROFESSIONAL ENGINEER
DALE FERRANTI
E 17004
EXP. 06/30/21
ELECTRICAL
STATE OF CALIFORNIA

PRIME CONSULTANT

IBI ARCHITECTURE PLANNING
San Luis Obispo
4119 Broad Street, Suite 210
San Luis Obispo, CA 93401
805.546.0433
fax: 805.546.0504
ibigroup.com

BAKERSFIELD CITY SCHOOL DISTRICT

BESSIE OWENS E.S. TEMPORARY MODULAR BUILDINGS
815 POTOMAC AVE, BAKERSFIELD, CA 93307

OPSC or OSHPD PROJ. NO:	N/A
PROJECT NO:	118932
DRAWN BY:	V.Z.
CHK'D BY:	D.F.
ISSUE DATE:	8/19/2019

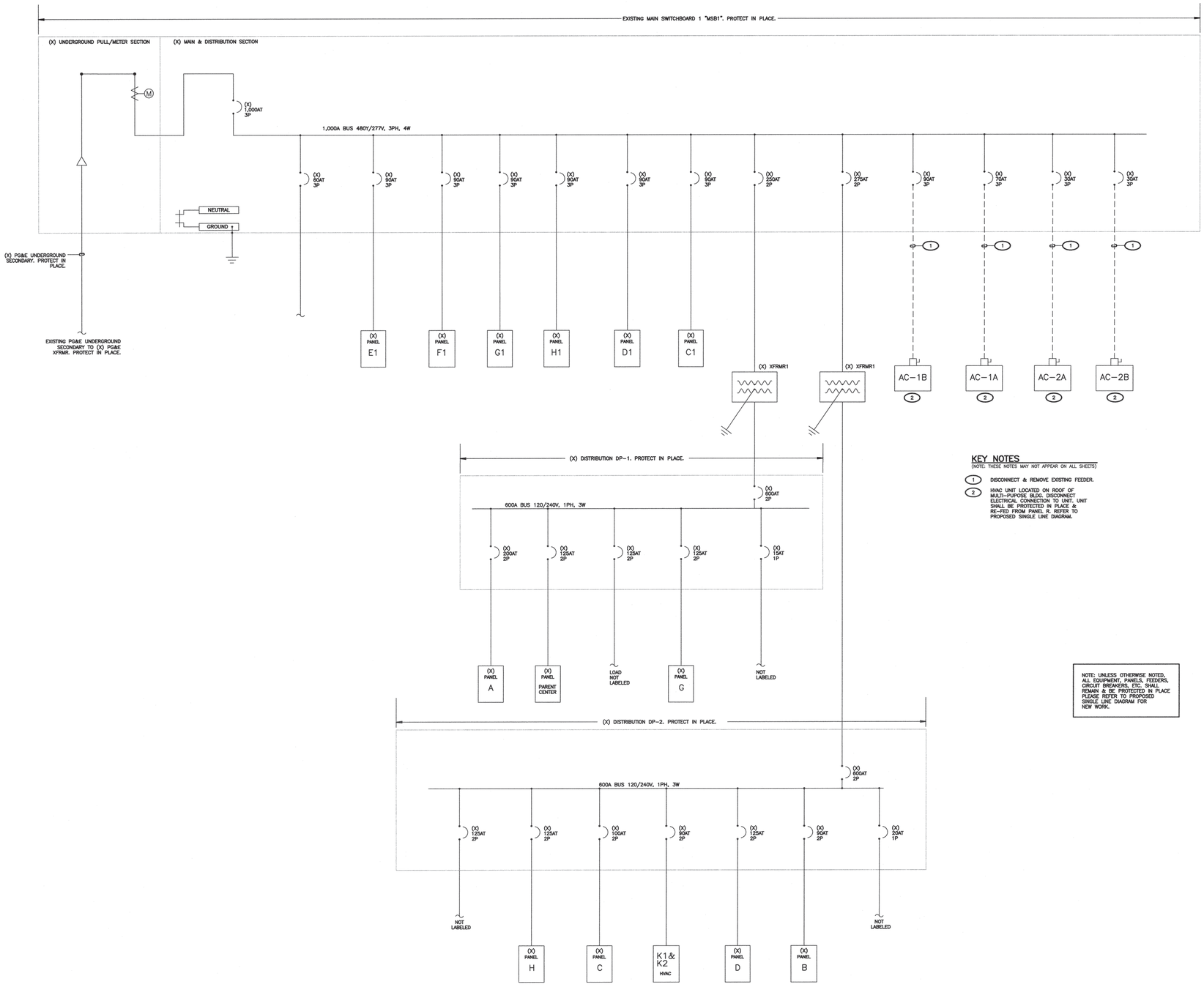
SHEET TITLE

FIRE ALARM VOLTAGE DROP AND BATTERY CALCULATIONS

SHEET NUMBER

E304

CONSTRUCTION DOCUMENTS



KEY NOTES
(NOTE: THESE NOTES MAY NOT APPEAR ON ALL SHEETS)

1. DISCONNECT & REMOVE EXISTING FEEDER.
2. HVAC UNIT LOCATED ON ROOF OF MULTI-PURPOSE BLDG. DISCONNECT ELECTRICAL CONNECTION TO UNIT. UNIT SHALL BE PROTECTED IN PLACE & RE-FED FROM PANEL R. REFER TO PROPOSED SINGLE LINE DIAGRAM.

NOTE: UNLESS OTHERWISE NOTED, ALL EQUIPMENT, PANELS, FEEDERS, CIRCUIT BREAKERS, ETC. SHALL REMAIN & BE PROTECTED IN PLACE PLEASE REFER TO PROPOSED SINGLE LINE DIAGRAM FOR NEW WORK.

SHEET NOTES

1. VERIFY LOCATION OF ALL BUILDINGS AND APPENDITURES ON ARCHITECTURAL AND CIVIL PLANS.
2. CONTRACTOR SHALL VERIFY LOCATION & REQUIREMENTS OF ALL DEVICES/EQUIPMENT REQUIRING ELECTRICAL CONNECTION PRIOR TO BID PROPOSAL, ROUGH-IN, AND FINISH.
3. CONTRACTOR SHALL, IN ROUTING ALL CIRCUITS, INCREASE CONDUCTOR & CONDUIT SIZE TO ALLOW FOR VOLTAGE DROP SHOULD THE CONTRACTOR EXCEED ROUTING INDICATED ON DRAWINGS. ENGINEER OF RECORD MUST BE NOTIFIED PRIOR TO ANY DEVIATIONS FROM APPROVED PLAN CHECK (PERMIT SET) DRAWINGS.
4. ALL 90 DEGREE CONDUIT BENDS AND RISERS SHALL BE PVC COATED RIGID STEEL.
5. VERIFY LOCATION OF ALL EQUIPMENT ON ARCHITECTURAL AND CIVIL PLANS.
6. PROVIDE CODE SIZED EQUIPMENT GROUNDING CONDUCTORS IN ALL OCCUPIED CONDUITS.
7. 1" CONDUIT MINIMUM UNDERGROUND.
8. COORDINATE WORK WITH OTHER TRADES. OBTAIN ALL DRAWINGS THAT WILL REQUIRE COORDINATION AND PROVIDE ALL ELECTRICAL CONNECTIONS, DEVICES, AND WIRING REQUIRED. WHETHER SHOWN ON THE ELECTRICAL DRAWINGS OR NOT.
9. CONTRACTOR SHALL FURNISH AND INSTALL PULL BOXES AS REQUIRED TO INSTALL CONDUCTORS PER CONDUCTOR MANUFACTURERS RECOMMENDATIONS, PER THE NATIONAL ELECTRICAL CODE, AND PER LOCAL AUTHORITIES HAVING JURISDICTION.
10. FIELD CONDITIONS GOVERN DEMOLITION AND NEW CONSTRUCTION. CONTRACTOR SHALL VERIFY ACTUAL CONDITIONS PRIOR TO START OF WORK. THE ARCHITECT/ENGINEER SHALL BE NOTIFIED OF POSSIBLE FIELD PROBLEMS PRIOR TO DEMOLITION.
11. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH DIMENSIONED NYLON PULL STRING.
12. CONTRACTOR SHALL FIELD VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO ANY EXCAVATION OR TRENCHING. CONTRACTOR SHALL PROTECT ALL EXISTING/REMAINING UTILITIES IN PLACE. CONTRACTOR, AT HIS SOLE EXPENSE, SHALL REPAIR ANY UTILITY SYSTEMS DAMAGED DURING CONSTRUCTION.
13. UNLESS NOTED OTHERWISE, ALL DEVICES AND TERMINATIONS SHALL BE RATED FOR 75 DEGREES CELSIUS.
14. ALL CONDUCTORS #8 AND SMALLER SHALL BE THHN/THWN CU. ALL CONDUCTORS #6 AND LARGER SHALL BE XHHW-2 CU.
15. PER CEC 110.24, SERVICE EQUIPMENT SHALL BE LEGIBLY MARKED IN THE FIELD WITH THE MAXIMUM AVAILABLE FAULT CURRENT. THE FIELD MARKING(S) SHALL INCLUDE THE DATE THE FAULT CURRENT CALCULATION WAS PERFORMED AND BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED.
16. PER CEC 110.16, ELECTRICAL EQUIPMENT, SUCH AS SWITCHBOARDS, PANELBOARDS, INDUSTRIAL CONTROL PANELS, METER SOCKET ENCLOSURES, AND MOTOR CONTROL CENTERS SHALL BE FIELD MARKED TO WARN QUALIFIED PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS. THE MARKING SHALL BE LOCATED SO AS TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS BEFORE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE OF THE EQUIPMENT.

1 EXISTING SINGLE LINE DIAGRAM
SCALE: 1/8" = 1'-0"

AGENCY INFORMATION:

AGENCY TRACKING NO. 63321-355
FILE NO.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
03-120134
AC FLS 1PH SS
DATE SEP 30 2019

SEAL

COPYRIGHT:
Any reproduction or distribution for any purpose other than authorized by IBI Group is forbidden.
COPYRIGHT 2019 IBI GROUP

REVISIONS

NO.	DATE SUBMITTED	DATE APPROVED	DESCRIPTION

CONSULTANT

FERRANTI ENGINEERING
CONSULTING
ELECTRICAL ENGINEERS
1211 MARICOPA HWY,
SUITE 250
OJAI, CA 93023
(805) 705-4772
DALEFERRANTI@LIVE.COM

CERTIFIED PROFESSIONAL ENGINEER
DALE E. FERRANTI
E17934
EXP. 06/30/21
ELECTRICAL
STATE OF CALIFORNIA

PRIME CONSULTANT

IBI ARCHITECTURE PLANNING
San Luis Obispo
4119 Broad Street, Suite 210
San Luis Obispo, CA 93401
805.546.0433
fax: 805.546.0504
ibigroup.com

BAKERSFIELD CITY SCHOOL DISTRICT

BESSIE OWENS E.S. TEMPORARY MODULAR BUILDINGS
815 POTOMAC AVE, BAKERSFIELD, CA 93307

OPSC or OSHPD PROJ. NO:	N/A
PROJECT NO:	118932
DRAWN BY:	V.Z.
CHK'D BY:	D.F.
ISSUE DATE:	8/19/2019

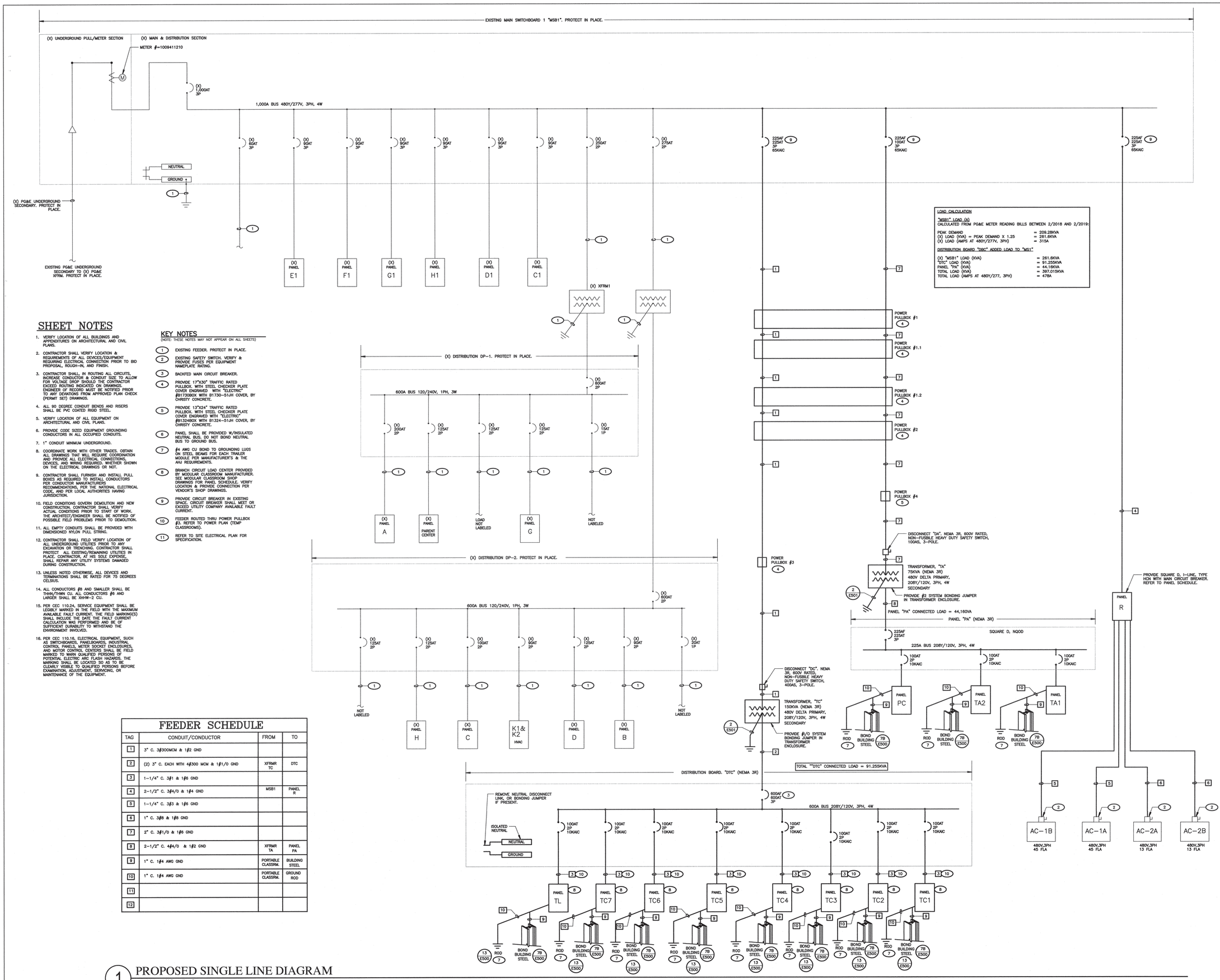
SHEET TITLE

EXISTING SINGLE LINE DIAGRAM

SHEET NUMBER

E400

CONSTRUCTION DOCUMENTS



LOAD CALCULATION

"MSB1" LOAD (A)
CALCULATED FROM PG&E METER READING BILLS BETWEEN 2/2018 AND 2/2019:

PEAK DEMAND	= 209.28KVA
(X) LOAD (KVA) = PEAK DEMAND X 1.25	= 261.6KVA
(X) LOAD (AMPS AT 480Y/277V, 3PH)	= 315A

DISTRIBUTION BOARD "DBC" ADDED LOAD TO "MS1"

(X) "MSB1" LOAD (KVA)	= 261.6KVA
"DTC" LOAD (KVA)	= 91.255KVA
PANEL "PA" (KVA)	= 44.16KVA
TOTAL LOAD (KVA)	= 397.015KVA
TOTAL LOAD (AMPS AT 480Y/277, 3PH)	= 478A

SHEET NOTES

1. VERIFY LOCATION OF ALL BUILDINGS AND APPENDITURES ON ARCHITECTURAL AND CIVIL PLANS.
2. CONTRACTOR SHALL VERIFY LOCATION & REQUIREMENTS OF ALL DEVICES/EQUIPMENT REQUIRING ELECTRICAL CONNECTION PRIOR TO BID PROPOSAL, ROUGH-IN, AND FINISH.
3. CONTRACTOR SHALL, IN ROUTING ALL CIRCUITS, INCREASE CONDUCTOR & CONDUIT SIZE TO ALLOW FOR VOLTAGE DROP SHOULD THE CONTRACTOR EXCEED ROUTING INDICATED ON DRAWINGS. ENGINEER OF RECORD MUST BE NOTIFIED PRIOR TO ANY DEVIATIONS FROM APPROVED PLAN CHECK (PERMIT SET) DRAWINGS.
4. ALL 90 DEGREE CONDUIT BENDS AND RISERS SHALL BE PVC COATED RIGID STEEL.
5. VERIFY LOCATION OF ALL EQUIPMENT ON ARCHITECTURAL AND CIVIL PLANS.
6. PROVIDE CODE SIZED EQUIPMENT GROUNDING CONDUCTORS IN ALL OCCUPIED CONDUITS.
7. 1" CONDUIT MINIMUM UNDERGROUND.
8. COORDINATE WORK WITH OTHER TRADES. OBTAIN ALL DRAWINGS THAT WILL REQUIRE COORDINATION AND PROVIDE ALL ELECTRICAL CONNECTIONS, DEVICES, AND WIRING REQUIRED. WHETHER SHOWN ON THE ELECTRICAL DRAWINGS OR NOT.
9. CONTRACTOR SHALL FURNISH AND INSTALL PULL BOXES AS REQUIRED TO INSTALL CONDUCTORS PER CONDUCTOR MANUFACTURERS RECOMMENDATIONS, PER THE NATIONAL ELECTRICAL CODE, AND PER LOCAL AUTHORITIES HAVING JURISDICTION.
10. FIELD CONDITIONS GOVERN DEMOLITION AND NEW CONSTRUCTION. CONTRACTOR SHALL VERIFY ACTUAL CONDITIONS PRIOR TO START OF WORK. THE ARCHITECT/ENGINEER SHALL BE NOTIFIED OF POSSIBLE FIELD PROBLEMS PRIOR TO DEMOLITION.
11. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH DIMENSIONED NYLON PULL STRING.
12. CONTRACTOR SHALL FIELD VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO ANY EXCAVATION OR TRENCHING. CONTRACTOR SHALL PROTECT ALL EXISTING/REMAINING UTILITIES IN PLACE. CONTRACTOR, AT HIS SOLE EXPENSE, SHALL REPAIR ANY UTILITY SYSTEMS DAMAGED DURING CONSTRUCTION.
13. UNLESS NOTED OTHERWISE, ALL DEVICES AND TERMINATIONS SHALL BE RATED FOR 75 DEGREES CELSIUS.
14. ALL CONDUCTORS #8 AND SMALLER SHALL BE THHN/THWN CU. ALL CONDUCTORS #6 AND LARGER SHALL BE XHHW-2 CU.
15. PER CEC 110.24, SERVICE EQUIPMENT SHALL BE LEGIBLY MARKED IN THE FIELD WITH THE MAXIMUM AVAILABLE FAULT CURRENT. THE FIELD MARKING(S) SHALL INCLUDE THE DATE THE FAULT CURRENT CALCULATION WAS PERFORMED AND BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED.
16. PER CEC 110.16, ELECTRICAL EQUIPMENT, SUCH AS SWITCHBOARDS, PANELBOARDS, INDUSTRIAL CONTROL PANELS, METER SOCKET ENCLOSURES, AND MOTOR CONTROL CENTERS SHALL BE FIELD MARKED TO WARN QUALIFIED PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS. THE MARKING SHALL BE LOCATED SO AS TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS BEFORE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE OF THE EQUIPMENT.

KEY NOTES

(NOTE: THESE NOTES MAY NOT APPEAR ON ALL SHEETS)

1. EXISTING FEEDER. PROTECT IN PLACE.
2. EXISTING SAFETY SWITCH. VERIFY & PROVIDE FUSES PER EQUIPMENT NAMEPLATE RATING.
3. BACKFED MAIN CIRCUIT BREAKER.
4. PROVIDE 17"X30" TRAFFIC RATED PULLBOX. WITH STEEL CHECKER PLATE COVER ENGRAVED WITH "ELECTRIC" @B1730BOX WITH B1730-51JH COVER, BY CHRISTY CONCRETE.
5. PROVIDE 13"X24" TRAFFIC RATED PULLBOX. WITH STEEL CHECKER PLATE COVER ENGRAVED WITH "ELECTRIC" @B1324BOX WITH B1324-51JH COVER, BY CHRISTY CONCRETE.
6. PANEL SHALL BE PROVIDED W/INSULATED NEUTRAL BUS. DO NOT BOND NEUTRAL BUS TO GROUND BUS.
7. #4 AWG CU BOND TO GROUNDING LUGS ON STEEL BEAMS FOR EACH TRAILER MODULE PER MANUFACTURER'S & THE AHJ REQUIREMENTS.
8. BRANCH CIRCUIT LOAD CENTER PROVIDED BY MODULAR CLASSROOM MANUFACTURER. SEE MODULAR CLASSROOM SHOP DRAWINGS FOR PANEL SCHEDULE. VERIFY LOCATION & PROVIDE CONNECTION PER VENDOR'S SHOP DRAWINGS.
9. PROVIDE CIRCUIT BREAKER IN EXISTING SPACE. CIRCUIT BREAKER SHALL MEET OR EXCEED UTILITY COMPANY AVAILABLE FAULT CURRENT.
10. FEEDER ROUTED THRU POWER PULLBOX #3. REFER TO POWER PLAN (TEMP CLASSROOMS).
11. REFER TO SITE ELECTRICAL PLAN FOR SPECIFICATION.

FEEDER SCHEDULE

TAG	CONDUIT/CONDUCTOR	FROM	TO
1	3" C. 3#300MCM & 1#2 GND		
2	(2) 3" C. EACH WITH 4#300 MCM & 1#1/0 GND	XFRMR TC	DTC
3	1-1/4" C. 3#1 & 1#6 GND		
4	2-1/2" C. 3#4/0 & 1#4 GND	MSB1	PANEL R
5	1-1/4" C. 3#3 & 1#6 GND		
6	1" C. 3#8 & 1#8 GND		
7	2" C. 3#1/0 & 1#6 GND		
8	2-1/2" C. 4#4/0 & 1#2 GND	XFRMR TA	PANEL PA
9	1" C. 1#4 AWG GND	PORTABLE CLASSRM.	BUILDING STEEL
10	1" C. 1#4 AWG GND	PORTABLE CLASSRM.	GROUND ROD
11			
12			

1 PROPOSED SINGLE LINE DIAGRAM
SCALE: 1/8" = 1'-0"

AGENCY INFORMATION:

AGENCY TRACKING NO. 63321-355
FILE NO.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
03-120134
AC FLS SS
DATE SEP 30 2019

SEAL

COPYRIGHT:

Any reproduction or distribution for any purpose other than authorized by IBI Group is forbidden.

COPYRIGHT 2019 IBI GROUP

REVISIONS

NO.	DATE SUBMITTED	DATE APPROVED	DESCRIPTION

CONSULTANT

FERRANTI ENGINEERING
CONSULTING
ELECTRICAL ENGINEERS
1211 MARICOPA HWY,
SUITE 250
OJAI, CA 93023
(805) 705-4772
DALEFERRANTI@LIVE.COM

DALE FERRANTI E 17024 EXP. 06/30/21 ELECTRICAL STATE OF CALIFORNIA REGISTERED PROFESSIONAL ENGINEER

PRIME CONSULTANT

IBI ARCHITECTURE PLANNING
San Luis Obispo
4119 Broad Street, Suite 210
San Luis Obispo, CA 93401
805.546.0433
fax: 805.546.0504
ibigroup.com

BAKERSFIELD CITY SCHOOL DISTRICT

BESSIE OWENS E.S. TEMPORARY MODULAR BUILDINGS
815 POTOMAC AVE, BAKERSFIELD, CA 93307

OPSC or OSHPD PROJ. NO:	N/A
PROJECT NO:	118932
DRAWN BY:	V.Z.
CHK'D BY:	D.F.
ISSUE DATE:	8/19/2019

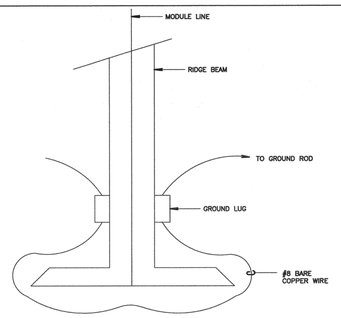
SHEET TITLE

PROPOSED SINGLE LINE DIAGRAM

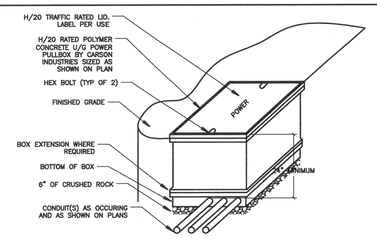
SHEET NUMBER

E401

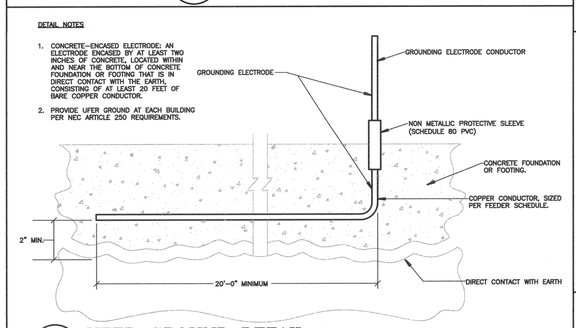
CONSTRUCTION DOCUMENTS



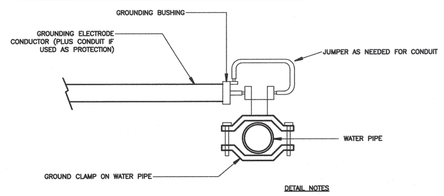
9 RELOCATABLE MODULE BONDING DETAIL
NOT TO SCALE



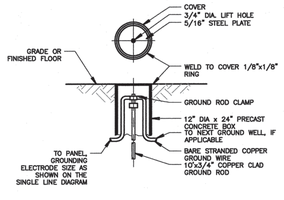
10 TYPICAL PULL BOX DETAIL
SCALE: NOT TO SCALE



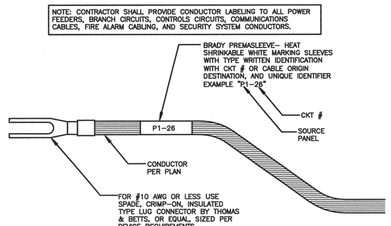
11 UFER GROUND DETAIL
SCALE: NOT TO SCALE



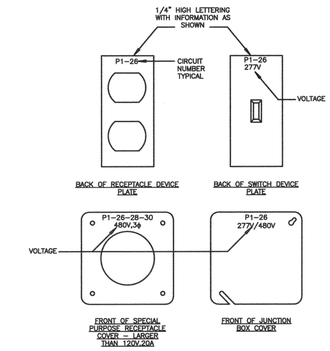
12 COLD WATER GROUND DETAIL
SCALE: NOT TO SCALE



13 GROUND ROD DETAIL
SCALE: NOT TO SCALE

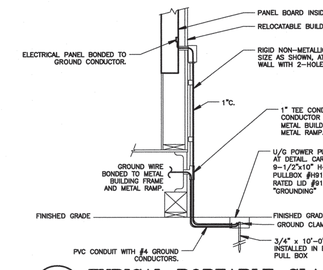


TYPICAL CONDUCTOR LABEL



TYPICAL DEVICE COVER PLATE LABELING

6 TYPICAL LABELING DETAIL
SCALE: NOT TO SCALE

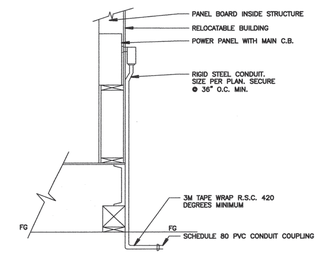


1. GROUND CONDUCTORS SHALL BE #4 COPPER
2. BOND SEPARATE CONDUCTORS FROM GROUND ROD TO ELECTRICAL PANEL AND TO METAL BUILDING FRAME. IN ADDITION TO THE DETAIL SHOWN ABOVE, BOND THE ELECTRICAL GROUND TO METAL WATER PIPE EMBEDDED AT LEAST 10FT INTO THE SOIL IF AVAILABLE.
3. ALL MODULES OF METAL FRAME BUILDING SHALL BE ELECTRICALLY BONDED TOGETHER (BOLTING ONLY IS NOT ACCEPTABLE BONDING). PROVIDE #6 BONDING JUMPER BETWEEN FRAMES IN ACCESSIBLE AREA.
4. CHECK RESISTANCE TO GROUND. IF RESISTANCE EXCEEDS 25 OHMS, INSTALL ONE ADDITIONAL GROUND ROD, SEPARATED BY A MINIMUM OF 6', WITH CONDUCTORS AS SHOWN.
5. BOND ALL RAMP STEEL RAILING WITH A #6 COPPER SOLID BONDING JUMPER TO THE ELECTRICAL PANEL OR THE STEEL FRAME OF THE UNIT.
6. THE SITE INSPECTOR SHALL WITNESS THE GROUNDING TEST.

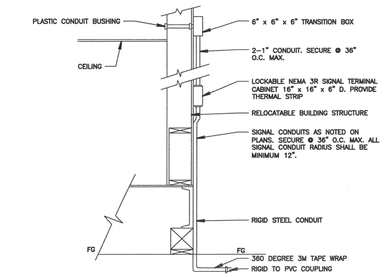
NOTE: PER DSA IR E-1 METAL MODULAR BUILDINGS: EACH BUILDING COMPONENT, INCLUDING STEEL RAMPS, MUST BE ELECTRICALLY BONDED TOGETHER IN A MANNER ACCEPTABLE TO THE DIVISION OF THE STATE ARCHITECT (DSA).

ALL METAL BUILDING COMPONENTS MUST BE ELECTRICALLY BONDED TOGETHER, AND EACH BUILDING MUST BE INDEPENDENTLY GROUNDED. MULTIPLE BUILDINGS ARE NOT TO BE GROUNDED THROUGH THE ELECTRICAL SYSTEM. ALL GROUNDING SYSTEMS ARE TO BE TESTED WITH A MEGGER UNIT, OR IN AN OTHERWISE ACCEPTABLE MANNER. REFER TO THE 2004 OR 2007 CEC. SECTION 250.52 FOR SPECIFIC GROUNDING REQUIREMENTS.

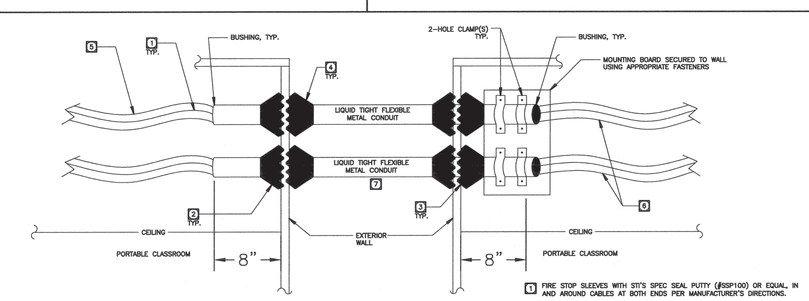
1 TYPICAL PORTABLE CLASSROOM GROUNDING DETAIL
SCALE: NOT TO SCALE



2 TYPICAL PORTABLE CLASSROOM POWER DETAIL
SCALE: NOT TO SCALE



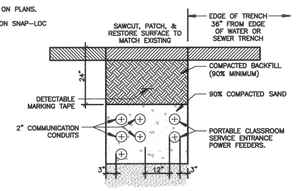
3 TYPICAL PORTABLE CLASSROOM SIGNAL DETAIL
SCALE: NOT TO SCALE



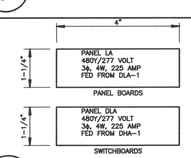
1. FIRE STOP SLEEVES WITH STI'S SPEC SEAL PUTTY (#SSP100) OR EQUAL, IN AND AROUND CABLES AT BOTH ENDS PER MANUFACTURER'S DIRECTIONS.
2. 1/2" BEAD 30-YEAR SILICONE CAULK (CLEAR) INTERIOR WALL TYPICAL. DO NOT BOLT/CLAMP THIS SIDE.
3. SILICONE CAULK PUSHED INTO BOTH WALL VOIDS FOR A WEATHERTIGHT SEAL.
4. 1/2" BEAD 50-YEAR SILICONE CAULK (CLEAR) EXTERIOR WALL TYPICAL.
5. CABLES TO BE SUPPORTED WITHIN 24" OF BUSHING. PROVIDE SLACK FOR SEISMIC EXPANSION.
6. MAINTAIN MINIMUM 2" BEND RADIUS FOR CABLES. PROVIDE SLACK FOR SEISMIC EXPANSION.
7. CONTRACTOR SHALL INSTALL LIQUID TIGHT SIDE BY SIDE W/ MINIMUM 2" SEPARATION. ENVIRONMENT WILL DICTATE BEST APPROACH. CONFIRM WITH AHJ PRIOR TO INSTALLATION.

4 TYPICAL CONDUIT EXPANSION DETAIL
NOT TO SCALE

NOTES:
1. CONDUIT QUANTITIES AS INDICATED ON PLANS.
2. ALL CONDUITS SHALL BE ON CARLON SNAP-LOC SPACERS - 8'-0" ON CENTER.



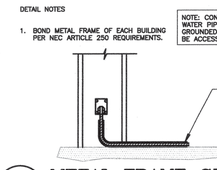
7 TYPICAL DUCT BANK SECTION
SCALE: NOT TO SCALE



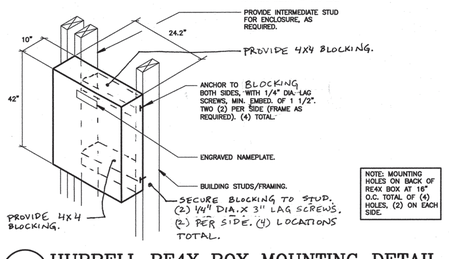
NOTE:
CONTRACTOR SHALL PROVIDE NAMEPLATES ON ALL ELECTRICAL EQUIPMENT INCLUDING, BUT NOT LIMITED TO, PANELBOARDS, FEEDER BREAKERS, PULLBOXES, GENERATORS, TRANSFER SWITCHES, DISCONNECTS, ETC.

IDENTIFICATION SHALL MATCH PROJECT SPECIFIC DETAILS

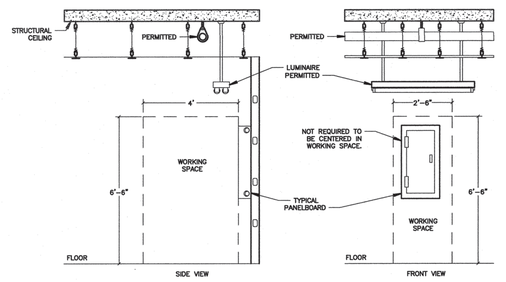
7A TYPICAL NAMEPLATE DETAILS
NOT TO SCALE



7B METAL FRAME GROUNDING DETAIL
SCALE: NOT TO SCALE



8 HUBBELL RE4X BOX MOUNTING DETAIL
NOT TO SCALE



5 TYPICAL PANELBOARD WORKING CLEARANCE
SCALE: NOT TO SCALE

AGENCY INFORMATION:

AGENCY TRACKING NO. 63321-355
FILE NO.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
03-120134
AC FLS SCH SS
DATE SEP 30 2019

SEAL

COPYRIGHT:

Any reproduction or distribution for any purpose other than authorized by IBI Group is forbidden.

COPYRIGHT 2019 IBI GROUP

REVISIONS

NO.	DATE SUBMITTED	DATE APPROVED	DESCRIPTION

CONSULTANT

FERRANTI ENGINEERING
CONSULTING
ELECTRICAL ENGINEERS
1211 MARICOPA HWY,
SUITE 250
OJAI, CA 93023
(805) 705-4772
DALEFERRANTI@LIVE.COM

REGISTERED PROFESSIONAL ENGINEER DALE FERRANTI E 17024 EXP. 06/30/21 ELECTRICAL STATE OF CALIFORNIA

PRIME CONSULTANT

IBI ARCHITECTURE PLANNING
San Luis Obispo
4119 Broad Street, Suite 210
San Luis Obispo, CA 93401
805.546.0433
fax: 805.546.0504
ibigroup.com

BAKERSFIELD CITY SCHOOL DISTRICT

BESSIE OWENS E.S. TEMPORARY MODULAR BUILDINGS
815 POTOMAC AVE, BAKERSFIELD, CA 93307

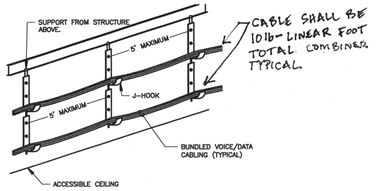
OPSC or OSHPD PROJ. NO:	N/A
PROJECT NO:	118932
DRAWN BY:	V.Z
CHK'D BY:	D.F.
ISSUE DATE:	8/19/2019

SHEET TITLE

ELECTRICAL DETAILS

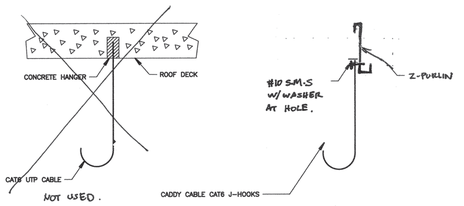
SHEET NUMBER

E500

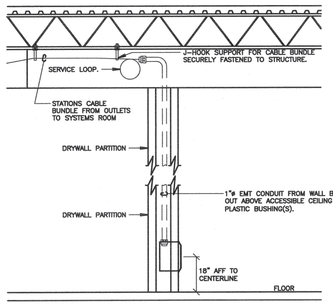


NOTE:
1. MOUNT J-HOOKS ON WALL PARTITIONS AT A MINIMUM OF 3" ABOVE FINISHED CEILING

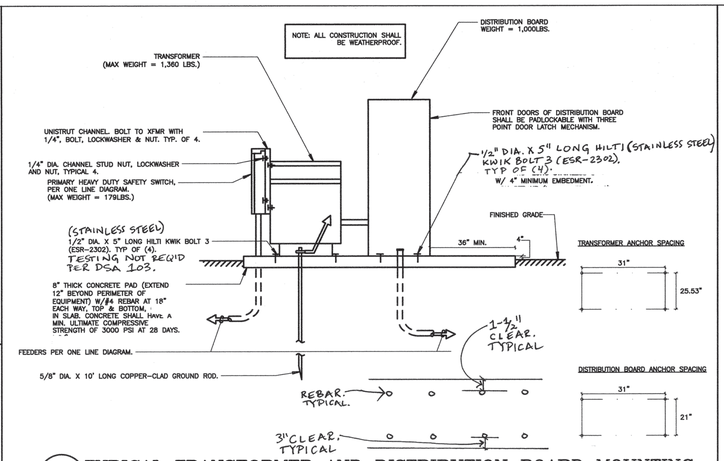
7 STRUCTURE MOUNTED J-HOOK DETAIL
NOT TO SCALE



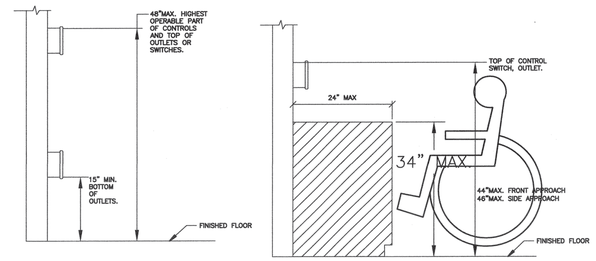
8 CABLE HANGER
NOT TO SCALE



9 TYPICAL WALL MOUNTED COMMUNICATION OUTLET
NOT TO SCALE

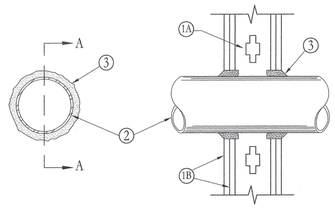


4 TYPICAL TRANSFORMER AND DISTRIBUTION BOARD MOUNTING
NOT TO SCALE



5 MOUNTING HEIGHT OVER OBSTRUCTION
NOT TO SCALE

System No. W-L-1001
June 15, 2005
F Ratings – 1, 2, 3 and 4 Hr (See Items 2 and 3)
T Ratings – 0, 1, 2, 3, and 4 Hr (See Item 3)
L Rating At Ambient – less than 1 CFM/sq ft
L Rating At 400 F – less than 1 CFM/sq ft



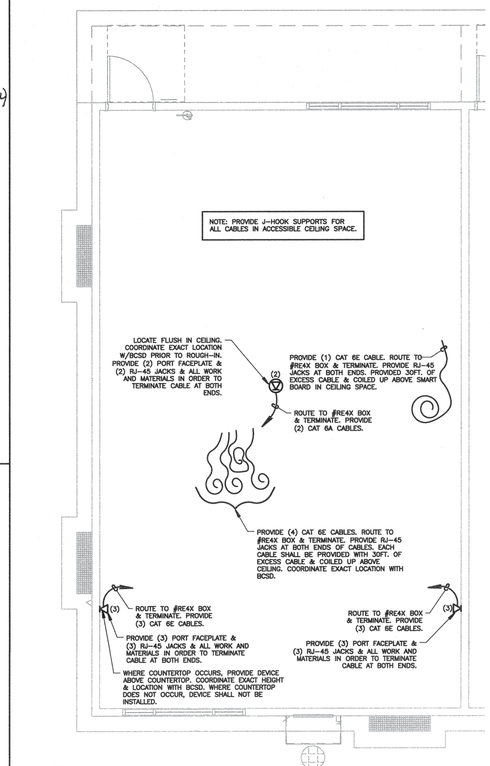
SECTION A-A

1. **Wall Assembly** – The 1, 2, 3 or 4 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
   A. **Studs** – Wall framing may consist of either wood studs (max 2 hr fire rated assemblies) or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC with nom 2 by 4 in. (51 by 102 mm) lumber end plates and cross braces. Steel studs to be min 3-5/8 in. (92 mm) wide by 1-3/8 in. (35 mm) deep channels spaced max 24 in. (610 mm) OC.
   B. **Gypsum Board*** – Nom 1/2 or 5/8 in. (13 or 16 mm) thick, 4 ft. (122 cm) wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Designs in the UL Fire Resistance Directory. Max diam of opening is 26 in. (660 mm).
2. **Through Penetrant** – One metallic pipe, conduit or tubing installed either concentrically or eccentrically within the firestop system. The annular space between pipe, conduit or tubing and periphery of opening shall be min of 0 in. (0 mm) (point contact) to max 2 in. (51 mm). Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:
   A. **Steel Pipe** – Nom 24 in. (610 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
   B. **Iron Pipe** – Nom 24 in. (610 mm) diam (or smaller) service weight (or heavier) cast iron soil pipe, nom 12 in. (305 mm) diam (or smaller) or Class 50 (or heavier) ductile iron pressure pipe.
   C. **Conduit** – Nom 6 in. (152 mm) diam (or smaller) steel conduit or nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing
   D. **Copper Tubing** – Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing
   E. **Copper Pipe** – Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.
   F. **Through Penetrating Product*** – **Flexible Metal Piping** – The following types of steel flexible metal gas piping may be used:
      1. Nom 2 in. (51 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.
         OMEGA FLEX INC
      2. Nom 1 in. (25 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.
         TITEFLEX CORP
         A BUNDY CO
      3. Nom 1 in. (25 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.
         WARD MFG INC
3. **Fill, Void or Cavity Material*** – **Caulk or Sealant** – Min 5/8. 1-1/4,1-7/8 and 2-1/2 in. (16, 32, 48 and 64 mm) thickness of caulk for 1, 2, 3 and 4 hr rated assemblies, respectively, applied within annulus, flush with both surfaces of wall. Min 1/4 in. (6 mm) diam bead of caulk applied to gypsum board/penetrant interface at point contact location on both sides of wall. The hourly F Rating of the firestop system is dependent upon the hourly fire rating of the wall assembly in which it is installed, as shown in the following table. The hourly T Rating of the firestop system is dependent upon the type or size of the pipe or conduit and the hourly fire rating of the wall assembly in which it is installed, as tabulated below:

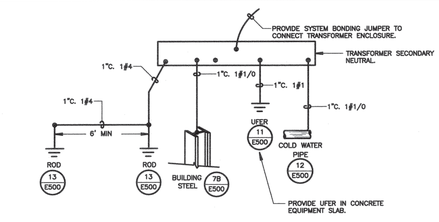
Max Pipe or Conduit Diam In. (mm)	F Rating Hr	T Rating Hr
1 (25)	1 or 2	0+, 1 or 2
1 (25)	3 or 4	3 or 4
4 (102)	1 or 2	0
6 (152)	3 or 4	0
12 (305)	1 or 2	0

+When copper pipe is used, T Rating is 0 hr.
3M COMPANY – CP 25WB+ caulk or FB-3000 WT sealant,
*Bearing the UL Classification Marking

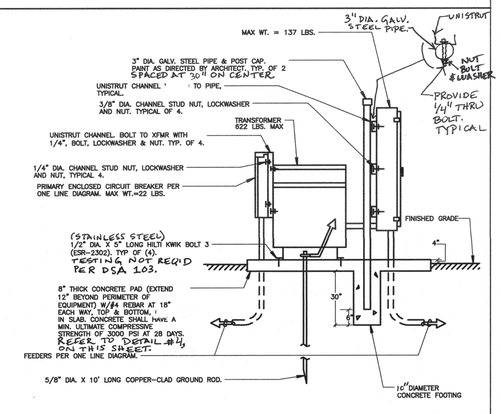
6 TYPICAL THROUGH PENETRATION FIRESTOP
SCALE: NOT TO SCALE



1 TYPICAL RELO CLASSROOM SIGNAL PLAN
NOT TO SCALE



2 SEPARATELY DERIVED SYSTEM GROUNDING & BONDING
SCALE: NOT TO SCALE



3 TYPICAL TRANSFORMER AND PANEL MOUNTING
NOT TO SCALE

AGENCY INFORMATION:

AGENCY TRACKING NO. 63321-355
FILE NO.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
03-120134
AC MF FLS SEH SS
DATE SEP 30 2019

SEAL

COPYRIGHT:

Any reproduction or distribution for any purpose other than authorized by IBI Group is forbidden.

COPYRIGHT 2019 IBI GROUP

REVISIONS

NO.	DATE SUBMITTED	DATE APPROVED	DESCRIPTION

CONSULTANT

FERRANTI ENGINEERING
CONSULTING
ELECTRICAL ENGINEERS
1211 MARICOPA HWY,
SUITE 250
OJAI, CA 93023
(805) 705-4772
DALEFERRANTI@LIVE.COM

REGISTERED PROFESSIONAL ENGINEER DALE FERRANTI E 17304 EXP. 06/30/21 ELECTRICAL STATE OF CALIFORNIA

PRIME CONSULTANT

IBI ARCHITECTURE PLANNING
San Luis Obispo
4119 Broad Street, Suite 210
San Luis Obispo, CA 93401
805.546.0433
fax: 805.546.0504
ibigroup.com

BAKERSFIELD CITY SCHOOL DISTRICT

BESSIE OWENS E.S. TEMPORARY MODULAR BUILDINGS
815 POTOMAC AVE, BAKERSFIELD, CA 93307

OPSC or OSHPD PROJ. NO:	N/A
PROJECT NO:	118932
DRAWN BY:	V.Z.
CHK'D BY:	D.F.
ISSUE DATE:	8/19/2019

SHEET TITLE

ELECTRICAL DETAILS

SHEET NUMBER

E501