CONSTRUCTION DOCUMENTS

Andrada Polytechnic High School
FIELD LIGHTING

VAIL UNIFIED SCHOOL DISTRICT #20

applicable codes
- 2018 INTERNATIONAL BUILDING CODE W/ LOCAL AMENDMENTS
- 2017 NATIONAL ELECTRICAL CODE
- 2018 INTERNATIONAL ENERGY CONSERVATION CODE
- 2018 INTERNATIONAL EXISTING BUILDING CODE
- 2018 INTERNATIONAL FUEL GAS CODE
- 2018 INTERNATIONAL MECHANICAL CODE
- 2018 INTERNATIONAL PLUMBING CODE
- 2018 INTERNATIONAL RESIDENTIAL CODE
- 2018 INTERNATIONAL FIRE CODE
- 2018 CITY OF TUCSON/PIMA COUNTY OUTDOOR LIGHTING CODE
- ZONING CODE
- UNIFIED DEVELOPMENT CODE W/ SUPPORTING DOCUMENTS
- ADMINISTRATIVE MANUAL
- TECHNICAL STANDARDS MANUAL
- SUPPLEMENT NO. 1

add alternates
ALT #1 TENNIS COURT LIGHTING
1. COORDINATE WITH CIVIL AND STRUCTURAL.
2. COORDINATE MATERIAL DELIVERIES WITH THE SCHOOL SCHEDULE.
3. MAINTAIN SITE DRAINAGE.
4. SCHOOL WILL BE IN SESSION DURING THIS PROJECT.

**general notes**

- CONTRACTOR YARD AND PROJECT ACCESS
  - 1. 5'-0" H CHAINLINK FENCE REQUIRED
  - 2. REPAIR TO PREVIOUS CONDITION
  - 3. REPAIR CONCRETE CURBS AS NECESSARY

**keynotes**

1. PAINT NEW WALL MOUNTED CONDUIT TO MATCH WALL.
2. REMOVE & REPLACE CONCRETE SIDEWALK, JOINT TO JOINT, TO ALLOW INSTALLATION OF NEW CONDUIT.
3. AFTER INSTALLATION OF CONDUIT, RAKE OUT AREA, SUPPLEMENT DECOMPOSED GRAVEL TO MATCH EXISTING.
**CONSULTING ELECTRICAL ENGINEERS**

**ADDITION. EDG-WEST, INC.**

**PRESENTATION**

**HALL PANEL H8A**

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2.5"C. COMPACT STRANDED, (AL) EG, ALL TYPE XHHW-2

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3-#250KCMIL (AL)

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NEW PULL BOX, REFER TO REFERENCE PLAN, SHEET E2.0 FOR LOCATION.

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NEW TRANSFORMER T-8 SHALL BE 480V DELTA TO 200A SPACE - - - - - - - - -

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EXISTING SERVICE ENTRANCE FEEDER 65KAIC BREAKER IN GB

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3Ø-4W 1Ø-3W 277/480V 120/240V

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POWER SYSTEM

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EXISTING 2500A SERVICE IS ADEQUATE.

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1+9.159

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TOTAL VOLT-AMPS DATE - - - - - - - - - - - - - - -

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15 KVA 63 AMPS MAX POSSIBLE LOADING INCLUDING FUTURE

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POWER SYSTEM BACKFEED 2,500A MAX. = 49,241A

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FAULT #2: $f = 1.73 \times 49,241 \times 663 = 480$

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CIRCUIT DESCRIPTION

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LOAD CALCULATIONS

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FAULT CURRENT CALCULATIONS

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LOAD CALCULATIONS

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keynotes

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1. GROUND BAR BONDED TO BOX.

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2. INSULATED NEUTRAL BAR. DO NOT GROUND THE NEUTRAL IN THE PANEL.

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4. (E) #4 (CU) GROUND TO BUILDING STEEL FRAME.

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5. (E) #3/0 (CU) BOND TO METAL BLDG. FRAME.

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6. (E) #2 (CU) GROUND TO BUILDING STEEL FRAME.

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7. (E) #2 (CU) GROUND TO BUILDING STEEL FRAME.

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8. #2 (CU) GROUND TO BUILDING STEEL FRAME.

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9. #2 (CU) BOND TO METALLIC PIPING.

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10. NEW TRANSFORMER T-8 SHALL BE 480V DELTA TO 200A SPACE - - - - - - - - -

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NEW EATON TYPE PRL3A

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NEC 250.30.
A. Coordinate with owner so that work can be scheduled not to interrupt operations, normal activities, building access, access to different areas.
B. Coordinate the exact location of existing utilities and equipment prior to commencement of work.
C. Maintain electrical continuity of existing systems.

1. Route feeders from top of service entrance enclosure, tight to bottom of structure, to exterior wall.
2. Continue conduit from exterior wall penetration, down wall, and route underground to new electrical panel.
3. Provide (3) #10, (1) #8 ground in 1” conduit.
4. (6) #10, (1) #8 ground in 1.25” conduit.
5. Provide (2) separate conduit runs of (6) #10, (1) #8 ground in 1.25” conduit.
6. Provide (3) #10, (1) #8 ground in 1” conduit.
7. Mount on weatherproof unistrut with vandal resistant hardware.

General notes:

1. "1" = 30'-0"