

May 28, 2019

IDEA PUBLIC SCHOOLS  
IDEA EDINBURG CAMPUS PHASE III

GOMEZ, MENDEZ, SAENZ, INC.  
1150 PAREDES LINE RD.  
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(956) 546-0110

## **ADDENDUM NO. 1**

### **A. PURPOSE AND INTENT**

This addendum is issued for the purpose of modifying the plans and specifications for the Idea Public Schools – Edinburg Campus Phase III project.

This addendum shall become part of the contract and all CONTRACTORS shall be bound by its content. All aspects of the specification and drawings not covered herein shall remain the same.

The General Conditions and Special Conditions of the specifications shall govern all parts of the work and apply full force to this addendum.

### **B. SCOPE**

#### **CLARIFICATION**

List Lockers is an approved equal.

#### **SPECIFICATIONS**

##### **DIVISION 2 – SITE WORK**

Delete 02930 – Lawns from specification book and replace with attached 02930 – Lawns (7 pages)

#### **PLANS**

##### **L3.03 Landscape Schedules and Details**

- Revised Soccer Field material quantities

Ethos Engineering Addendum No. 1 (13 Pages) dated May 24, 2019, will become part of this addendum.

## **SECTION 02930 – LAWNS**

### **PART 1 - GENERAL**

#### **1.01 SUMMARY**

- A. Section Includes: The establishment of a complete and uniform lawn by sodding and/or hydromulching.
- B. Related Sections:
  - 1. Section 02810-Irrigation
  - 2. Section 02900-Planting

#### **1.02 QUALIFICATIONS**

- A. Lawn work to be performed by a single firm specializing in commercial landscape work with a minimum of five (5) years experience on similar type projects. Owner/SSP Design to review qualifications and approve subcontractor prior to commencing work.

#### **1.03 SUBMITTALS**

- A. Submittals shall be formatted electronically in a pdf file with a table of contents and tabs identifying each section. The following submittals are required for this section:
  - 1. Product Data: Manufacturer's specifications and application instructions for fertilizer.
  - 2. Hydromulch mixes, percentages, lbs per acre, etc. for SSP review and approval before application.
  - 3. Samples: Topsoil, compost, silica sand for SSP review and approval before installation.
  - 4. Certificates: Inspection certificate from Texas Department of Agriculture indicating sod has been found free of diseases, insects and larvae.
  - 5. Certificates: Breakdown of seed types, percentages, and mixture composition.
  - 6. Sod Delivery Tickets: One per truckload indicating sod species, nursery certification, date and time of cutting.

#### **1.04 DELIVERY, STORAGE AND HANDLING**

- A. Sod Delivery: Have sod delivered within forty-eight hours of cutting. Stack sod with roots to roots, protected from exposure to elements during shipment.
- B. Storage: Lay sod as soon as practicable after delivery. If installation is delayed more than four hours, store sod under shade and keep constantly moist. Sod must be laid within forty-eight hours of cutting. Do not pile more than two foot

## SECTION 02930 – LAWNS

depth of sod. Do not tear, stretch or drop sod. Do not allow soil to break free of turf roots.

### 1.05 PROJECT CONDITIONS

- A. Utility Construction: Do not lay sod or begin hydro-mulching until all underlying utility work is complete, trenches backfilled, compacted and graded, and topsoil placed and fine graded and sports fields laser leveled and approved by Owner/SSP.

### 1.06 MAINTENANCE/WARRANTY

- A. Maintenance Service: Maintain the work of this Section throughout construction until the Date of Substantial Completion and ninety (90) days thereafter until a complete and uniform lawn has been established and accepted by the Owner / SSP.
1. Establish hydro-mulched or sodded lawns per planting plans. Reapply hydro-mulch or re-sod as necessary until **full and uniform** coverage is obtained.
  2. Mow general lawn areas **at least once per week** to maintain height of grass at 2 inches or as directed by Owner/SSP. Mowing of general lawn areas may be carried out using standard rotary type mowing equipment.
  3. Mow Sports Fields **at least twice per week** to maintain an initial height of 2" for the establishment period then begin lowering the height over the next 90-days to achieve a final height of one inch. Mowing of Sports Field areas shall be carried out using reel type mowers only. Rotary mowers will not be accepted for Sports Field maintenance.
  4. Trim/edge all lawn areas adjacent to watering basins, pavements, driveways, walls, structures, curbs, planting beds, edges and islands.
  5. Provide insect and disease control to maintain health of grass.
  6. Apply pre and post emergent herbicides as required or directed to control weed growth throughout the establishment and maintenance periods.
  7. Fertilize general lawn areas (minimum two applications) with balanced commercial grade lawn fertilizer until complete and uniform coverage is obtained.
  8. Fertilize Sports Field areas (minimum four applications) using a high nitrogen formula such as HJ 25-0-0 with Wolftrax or Scotts Sierrablen 27+5+5+Fe or Scotts Fairwaymaster 20+5+8 or approved equal.  
Note: Submit fertilizer type for SSP review and approval prior to application. Depending on time of year, SSP may require a fertilizer that includes pre or post emergent herbicide.
  9. Verti-cut or de-thatch Sports Field turf at least one time during the maintenance period.
  10. Apply top dressing (clean inorganic sand) to level any divots, depressions or low spots during the maintenance period.
  11. Irrigation:
    - a) If the irrigation system is operating, program and monitor the system to provide adequate water for grass.
    - b) If the irrigation system is not operating, hand water grass.
  12. Submit receipts/dates of all maintenance operations to SSP Design for approval.

## SECTION 02930 – LAWNS

- B. Warranty: Warranty shall cover all lawn grasses for a period of three months from the date of final acceptance. Final acceptance will not be approved until full and uniform lawns are completely established and proof of all fertilizations including receipts have been reviewed and accepted.

### PART 2 PRODUCTS

#### 2.01 MATERIALS

- A. Topsoil: Fertile, agricultural soil, typical for locality, capable of sustaining vigorous plant growth, taken from drained site; free of subsoil, clay or impurities, plants, weeds and roots; minimum pH value of 5.4 and maximum 7.0; organic matter to exceed 1.5%, magnesium to exceed 100 units; phosphorus to exceed 150 units; potassium to exceed 120 units; soluble salts/conductivity not to exceed 900 ppm/0.9 mmhos/cm in soil.
- B. Sand: For athletic/sports fields. Silica sand, clean, screened and free of debris. (Mathis Sand, Wright Materials Plant-3, Tel. (361) 387-0293 or approved equal).
- C. Sod: (See schedule for type). Provide premium #1 certified sod grown in a sod nursery on sandy soil, at least 1 yr. old with a heavy top and a strong, well-knit root system, and not more than five percent weeds or foreign grasses.
- D. Hydromulch Material. Material for hydraulic mulching shall consist of virgin wood fibers manufactured expressly from clean whole wood chips. The chips shall be processed in such a manner as to contain no growth or germination inhibiting factors. Fiber shall not be produced from recycled materials such as sawdust, paper, cardboard, or residue from pulp and pure plants. The wood cellulose fiber mulch shall be dyed green to aid in visual metering during application. The dye shall be biodegradable and not inhibit plant growth. The wood cellulose fibers of the mulch must maintain uniform suspension in water under agitation. Upon application, the moist material shall form a blotter-like mat covering the ground. This mat shall have the characteristics of moisture absorption, percolation, and shall cover and hold seed in contact with the soil. The Contractor shall obtain certifications from suppliers that laboratory, field-testing of their product has been accomplished, and that it meets all of the foregoing requirements pertaining to wood cellulose fiber mulch. Terra-Mulch Terra-Blend with UltraGro or approved equal.
- E. Fertilizer: Starter fertilizer (BCF 15-15-15) shall be used in hydro-mulch mix. The Contractor shall provide a Soil Analysis Report and shall use report to determine quantity and ratio of fertilizer for sustained growth of grass.

## SECTION 02930 – LAWNS

- F. Soil and Mulch Tackifier: Tackifier used with mulch shall be organic. Tackifier shall be mixed and applied with the hydromulch at an appropriate rate to stabilize soils and minimize erosion. Tackifier shall be pH stable with fertilizer and shall hydrate and disperse in mixing tank with water and other materials to form homogeneous slurry. Tackifier shall leave loose, chain-like stabilizing film on surface of soil, allow moisture to percolate into soil during seed germination and seedling growth, and break itself down through microbial action. Tackifier shall not inhibit plant germination or growth.
1. Organic Tackifier. Organic tackifier shall be, starch-based tackifier formulated for use with conventional mulches. Active ingredient in tackifier shall be 100 percent derived from plant starch.
  2. Dry powder tackifier shall be blended with insolubilizer. After blending and mixing with water, tackifier shall swell, become sticky, and be suitable for use during heavy rain. Tackifier shall be applied at rate of 80 pounds per acre. Emulsion shall cure on surface of soil and become insoluble. Tackifier shall not inhibit plant germination or growth.
- G. Fertilizer: 12-4-8 (N-P-K), formulated for slow-release Nitrogen.

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Verification of Conditions: Examine the site and conditions under which this work is to be performed. Have the installer notify the Contractor in writing, with a copy to SSP Design, if the site is unsatisfactory. Do not begin the work until unsatisfactory conditions have been corrected in a manner acceptable to installer. Beginning of work indicates acceptance of the site as satisfactory by the installer.

#### **3.02 PREPARATION**

- A. Topsoil: Refer to Section 02900 'Landscaping' for topsoil amendment.
- B. Site Preparation: Contractors must visit and review site prior to bidding. Compacted soils and sub-soils from construction activities must be ripped and tilled until a loose, friable and free-draining condition is met. All existing weeds, grass, stabilized sub-base material, rubble, excavated soil and other material shall be removed from the site and disposed of by the contractor prior to starting any new landscape work. Soil conditions around entire site must be approved by SSP Design prior to rough and finished grading operations. Contractor shall not install any fill or topsoil in landscape areas prior to site condition approval by SSP Design.

#### **3.03 INSTALLATION – HYDROMULCH**

- A. All exterior ground within the limit of contract or any other areas site areas disturbed by construction for egress, laydown areas, storage areas, staging areas, etc. shall be hydromulched or planted as shown on drawings. Furnish

## SECTION 02930 – LAWNS

topsoil, finish grading, hydromulch and maintain areas as indicated on the drawings.

- B. Lawn Area Preparations - Grade areas to finish grades, filling as needed or removing surplus material. Float all lawn areas to a smooth, uniform grade as indicated on engineers grading plans. All lawn areas shall slope to drain away from structures and planting beds. Where no grades are shown, areas shall have a smooth and continual grade between existing or fixed controls (such as walks, curbs, catch basin, elevational steps or structures) and elevations shown on plans. Contractor to ensure proper drainage around all structures. Adjust grades as necessary to direct water away from structures and planting beds. Report any discrepancies on all drainage issues in writing to SSP Design or the project engineer.
- C. Roll, scarify, rake and level as necessary to obtain true, even lawn surfaces. All finish grades shall meet approval of the SSP, before seeding/hydromulching operations. Loosen soil to a depth of three inches (3") in lawn areas by approved method of scarification and grade to remove edges and depressions. Remove stones or foreign matter over one half inch (1/2") in diameter from the top two inches (2") of soil. Float lawn areas to finish grades as shown on civil plans.
- D. Lawn areas should be permitted to settle or should be firmed by rolling before seeding/hydromulching.
- E. Hydromulching shall not be performed in windy weather.
- F. Lawn areas shall be seeded by hydro-mulching evenly with an approved mechanical hydro-mulcher. Hydromulch mixture shall include a minimum of 3 lbs. seed, 45-50 lbs. of wood fiber mulch, 20 lbs. of fertilizer, and tackifier per 1000 sq. ft. Contractor shall add fresh annual rye grass seed if hydromulching between the months of November to April. In areas inaccessible to hydro-mulching equipment, the seeded ground shall be lightly raked with flexible rakes and rolled with a water ballast roller. After rolling, seeded areas are to be lightly mulched with wheat straw or approved erosion control material.
- G. Lawns shall be maintained by the Contractor for at least 90 days after substantial completion or as long as necessary to establish a uniform stand of the specified grasses, or until final acceptance of lawns, whichever is later.
- H. Water seeded/hydromulched areas twice the first week to a minimum depth of six inches (6") with a fine spray and once per week thereafter as necessary to supplement natural rain to the equivalent of one inch (1") or to a six-inch (6") depth.
- I. The surface layer of soil for seeded/hydromulched areas must be kept moist during the germination period. After first cutting, water as specified above.
- J. Make weekly inspections to determine the moisture content of the soil and adjust the watering schedule established by the irrigation system installer to fit conditions

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- K. After grass growth has started, all areas or parts of areas, which fail to show a uniform stand of grass for any reason whatsoever shall be reseeded/hydromulched in accordance with the plans and as specified herein. Such areas and parts of areas shall be reseeded, hydromulched or sodded repeatedly until all area are covered with a satisfactory growth of grass at no additional cost to the Owner.
- L. Watering shall be done in such a manner and as frequently as is deemed necessary by SSP to assure continued growth of healthy grass. All areas of the site shall be watered in such a way as to prevent erosion due to excessive quantities applied over small areas and to avoid damage to the finished surface due to the watering equipment.
- M. Water for the execution and maintenance of this work shall be provided by the Owner at no expense to the Contractor. The Contractor shall, however, furnish his own portable tanks, pumps, hose, pipe, connections, nozzles, and any other equipment required to transport the water from the available outlets and apply it to the seeded area in an approved manner.
- N. Mowing of the seeded, hydromulched or sodded areas shall be initiated when the grass has attained a height of one and one-half to two inches (1-1/2" to 2"). Grass height shall be maintained between one and one-half inches (1' to 1½") at subsequent cutting depending on the time of year. Not more than one third (1/3) of the grass leaf shall be removed at any cutting and cutting shall not occur more than seven (7) days apart. Mowing of these general site areas can be completed using a rotary type mower. Sports and athletic fields shall be mowed at a height of one inch (1") and may require mowing more than once per week during the growing season and must be accomplished utilizing a reel type mower. Rotary mowers will not be accepted for cutting grass on sports and athletic fields.
- O. When the amount of grass is heavy, it shall be removed to prevent destruction of the underlying turf. If weeds or other undesirable vegetation threaten to smother the planted species, such vegetation shall be mowed or, in the case of rank growths, shall be uprooted, raked and removed from the area by methods approved by the SSP.
- P. Protect seeded/hydromulched areas against trespassing while the grass is germinating. Furnish and install fences, signs, barriers or any other necessary temporary protective devices. Damage resulting from trespass, erosion, washout, settlement or other causes shall be repaired by the Contractor at their expense.
- Q. Remove all fences, signs, barriers or other temporary protective devices after final acceptable.

### 3.04 INSTALLATION – SOD

- A. Sod shall be installed to all areas as indicated on plans.

## **SECTION 02930 – LAWNS**

- B. Sod Bed Preparation - Grade areas to finish grade, filling as needed or removing surplus dirt, stone, debris, etc. and floating areas to a smooth, uniform grade as indicated on grading plans. All lawn areas are to slope to drain.
- C. Sod shall be laid within 24 hrs of being cut. Only healthy vigorous growing sod is to be laid.
- D. Always lay sod across slope and tightly together so as to make a solid area.
- E. Roll all new sod with a 1 ton mechanical vibratory roller sufficiently to set or press sod into underlying soil and to level all seams and joints.
- F. Contractor to fill any gaps or seams in the sodded areas using clean top dressing sand.
- G. After sodding has been completed, clean up and thoroughly moisten by sprinkler newly sodded areas.

### **3.05 FERTILIZING – GRASS**

- A. General lawn areas shall have fertilizer applied in two (2) applications with a thorough watering immediately following each application. The first application shall be one (1) week after the hydro-seeding using a 'starter fertilizer' at manufacturer's recommended rates. The second application shall be done after 30-60 days with an approved turf builder fertilizer at manufacturer's recommended rates and as approved by SSP.
- B. Sports Field areas shall have a minimum of four (4) applications with a thorough watering immediately following each application. The first application shall be one (1) week after the hydro-seeding using a 'starter fertilizer' at manufacturer's recommended rates. Subsequent applications shall be done after 30 days, 60 days and 90 days with a balanced or higher nitrogen fertilizer at manufacturer's recommended rates and as approved by SSP.
- C. Soil analysis and time of year shall be considered with SSP to determine fertilizer type, composition and final application rates. Submit fertilizer type and analysis to SSP for approval before any application. Document fertilizer application with photos and receipts of fertilizer purchases.

### **3.06 CLEANUP AND PROTECTION**

- A. Remove debris from landscaped areas daily and sweep clean adjacent pavements, if soiled by landscape activities.
- B. Protect lawns from damage, theft or vandalism until final acceptance. Install stakes and flagging or temporary fencing if required to keep traffic off newly established lawn areas until final acceptance.

END OF SECTION



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May 24, 2019  
IDEA – Edinburg College Prep Phase III

## **ADDENDUM NO. 1**

### **A. PURPOSE AND INTENT**

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This addendum shall become part of the contract and all contractors shall be bound by its content.

All aspects of the specifications and drawings not covered herein shall remain the same.

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### **B. SCOPE**

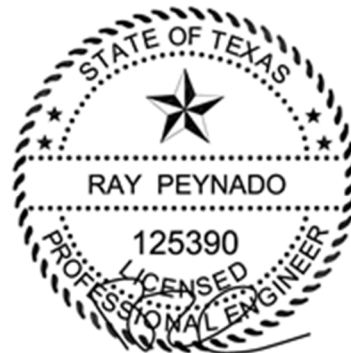
#### **I. Specifications:**

- 1) Section 237413.2 – Packaged, Outdoor, Central-Station Large AHUS:
  - a) 2.1 Manufactures: Add Greenheck to the manufactures list. It shall meet or exceed the performance and specifications.
- 2) Section 267210 – Fire Alarm System:
  - a) 2.6 Notification Appliances: Provide wire guard protective covers for all gymnasium devices.

#### **II. Drawings:**

- 1) Sheet MEP1.01:
  - a) Revised MEP Site Plan. See attached sheet.
- 2) Sheet M3.01:
  - a) Revised Mechanical Plan. See attached sheet.
- 3) Sheet M4.01:

- a) Revised Mechanical Elevations. See attached sheet.
- 4) Sheet E2.01:
  - a) Revised Electrical Scope of Work and Symbols Legend. See attached sheet.
- 5) Sheet E3.01:
  - a) Revised Lighting Plan. See attached sheet.
- 6) Sheet E4.01:
  - a) Revised Luminaire Schedule. See attached sheet.
- 7) Sheet E5.01:
  - a) Revised Electrical Riser Diagram and Schedules. See attached sheet.
- 8) Sheet E6.01:
  - a) Revised and Added Electrical Details. See attached sheet.
- 9) Sheet P2.01:
  - a) Revised Plumbing Plan. See attached sheet.
- 10) Sheet P3.01:
  - a) Revised Waste & Vent Plan. See attached sheet.
- 11) Sheet P5.01:
  - a) Revised Plumbing Schedule. See attached sheet.





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GENERAL NOTES:

1. COORDINATE WORK AMONG ALL DISCIPLINES. IT IS NOT THE INTENT OF THESE DOCUMENTS TO DICTATE WHO MUST DO THE WORK. ALL WORK SHOWN IS THE RESPONSIBILITY OF THE (PRIME) CONTRACTOR.
2. FIELD VERIFY PROJECT SITE EXISTING CONDITIONS AND ELEVATIONS PRIOR TO BEGINNING ANY WORK.
3. COORDINATE ELECTRICAL AND PLUMBING WITH GENERAL CONSTRUCTION.
4. PHASING AND SEQUENCE OF CONSTRUCTION SHALL BE PER ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
5. FIELD VERIFY/SPOT EXACT LOCATIONS AND EXISTING CONDITIONS OF EXISTING PLUMBING, AND ELECTRICAL. IT IS THE INTENT OF THESE PLANS TO PROVIDE A COMPLETE AND WORKABLE SYSTEMS. SHOULD BIDDER FIND OMISSIONS OR DISCREPANCIES IN THE PLANS, BIDDER SHALL NOTIFY THE ENGINEER PRIOR TO THE BID DATE AND A WRITTEN CLARIFICATION WILL BE ISSUED.
6. DAMAGED ITEMS SHALL BE REPAIRED AT NO ADDITIONAL COST TO OWNER. CONTRACTORS ARE REQUIRED TO SEARCH AND INVESTIGATE FOR EXISTING UTILITIES BEFORE EXCAVATING.
7. ALL MATERIALS AND LABOR, WHETHER SPECIFICALLY INDICATED ON PLANS OR NOT, WHICH ARE NECESSARY FOR THE PROPER INSTALLATION AND FUNCTION OF THE SYSTEM SHALL BE FURNISHED BY THIS CONTRACTOR. INCLUDE ALL COSTS OF CHANGES, IF/AS REQUIRED IN BID PROPOSAL.
8. PROVIDE J-BOXES (POLYMER CONCRETE) AS REQUIRED FOR PULL WIRING.
9. ELECTRICAL WIRING SHALL NOT BE SPLICED BELOW GRADE.
10. PERFORM ALL WORK PER LATEST VERSION OF NATIONAL ELECTRICAL CODE, AND APPLICABLE LOCAL CODES AND ORDINANCES, UNLESS DRAWINGS OR SPECIFICATIONS HAVE MORE STRINGENT REQUIREMENTS.
11. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS AND FEES ASSOCIATED WITH PROJECT, INCLUDING FEES FOR INSPECTIONS, APPLICATIONS, AND PROVISION OF NEW SERVICES.
12. CONTRACTOR WHO WILL ACTUALLY PERFORM WORK MUST APPLY FOR ALL REQUIRED PERMITS.
13. NOTIFY ENGINEER OF ANY ASPECTS OF DESIGN WHICH ARE THOUGHT TO BE IN NONCOMPLIANCE WITH APPLICABLE CODES.
14. COORDINATE ALL WORK WITH OTHER TRADES; COORDINATE SCHEDULE OF WORK WITH ALL SUB-CONTRACTORS TO ACHIEVE SMOOTH FLOW OF CONSTRUCTION.
15. SEAL AROUND ELECTRICAL RACEWAYS AT ALL WALLS, A/C ROOMS AND WALL LOUVER PENETRATIONS WITH FIREPROOF CAULKING, RE. SPECS. PROVIDE FLASHING AROUND PENETRATION, BOTH INSIDE AND OUTSIDE, TO PROVIDE FINISHED LOOK.
16. TIME OR MONEY ALLOWANCES WILL NOT BE MADE TO ACCOMMODATE UTILITY CONFLICTS THAT CAN BE REASONABLY RESOLVED BY COORDINATION DURING SHOP DRAWING PHASE.
17. CONTRACTOR SHALL REVIEW COMPLETE DOCUMENTS PRIOR TO SUBMITTAL OF PROPOSAL, TO GAIN COMPLETE UNDERSTANDING OF PROJECT SCOPE, WORK BY OTHERS, AND ELECTRICAL WORK ASSOCIATED WITH OTHER DISCIPLINES.
18. MAINTAIN MANUFACTURER RECOMMENDED CLEARANCE AROUND ALL EQUIPMENT.
19. AFFIX ID TAGS TO ALL DIVISION 26 EQUIPMENT.
20. CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH MECHANICAL AND PLUMBING CONTRACTOR REGARDING EQUIPMENT SIZES AND TYPES OF ELECTRICAL INTERFACE EQUIPMENT REQUIRED.
21. FIELD VERIFY ALL CONDITIONS AND MEASURE DIMENSIONS WITHIN THE BUILDING PRIOR TO ORDERING EQUIPMENT AND/OR PROCEEDING WITH INSTALLATION.
22. ALL EQUIPMENT SHALL BE FACTORY TESTED, AND CONTRACTOR SHALL VERIFY THEIR CONDITION PRIOR TO INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR EQUIPMENT DAMAGED DURING MOVING AND INSTALLATION.
23. EQUIPMENT FOUND DEFECTIVE PRIOR TO FINAL ACCEPTANCE SHALL BE REPLACED AT NO COST TO OWNER.
24. WORK TO BE DONE UNDER ALLOWANCES BECOMES AN INTEGRAL PART OF THE PROJECT AND RESPONSIBILITY OF CONTRACTOR once allowance is approved.
25. SLEEVE ALL EXTERIOR WALL PENETRATIONS.
26. CONTRACTOR SHALL NOT PROCEED WITH ANY WORK INVOLVING A CHANGE IN PROJECT SCOPE OR COST WITHOUT FIRST HAVING OBTAINED ENGINEER'S APPROVAL. IN WRITING, UNLESS ENGINEER HAS AGREED TO SUCH CHANGE PRIOR TO IT BEING DONE, AND HAS AGREED THAT AN INCREASE IN COST ASSOCIATED WITH SUCH CHANGE IS WARRANTED, CONTRACTOR WILL NOT BE REIMBURSED FOR SUCH CHANGE.

ELECTRICAL KEYED NOTES:

- 1 EXISTING MAGIC VALLEY COOP ELECTRIC 3ø UNDERGROUND SERVICE LINES.
- 2 EXISTING MAGIC VALLEY COOP SECTIONALIZER.
- 3 PROVIDE UNDERGROUND PRIMARY ELECTRICAL RACEWAYS, CONDUCTORS BY MAGIC VALLEY COOP.
- 4 NEW SECTIONALIZER BY MAGIC VALLEY COOP.
- 5 PROVIDE PAD MOUNT TRANSFORMER CONCRETE PAD.
- 6 PROVIDE UNDERGROUND SECONDARY ELECTRIC LINE, METER AND MAIN SWITCH DISCONNECT.
- 7 PROVIDE NEW FEEDER TO NEW PANELBOARD.
- 8 CONNECT ELECTRIC DRIVE UNIT (2ØBV, 10), BRANCH CIRCUIT: 2" - 2#4 & #8G. PROVIDE 3/4" x 10" COPPER CLAD GROUND ROD WITHIN 3'-0" OF GATE OPERATOR COORDINATE EXACT LOCATION ON SHEETS OF COMPONENTS BY ARCHITECT PRIOR TO ANY ROUGH-IN. PROVIDE SHIELDING SHIELD PROVIDE ALL INTERNAL WIRING INCLUDING SAFETY LOOPS & PHOTO EYES. SEE DETAIL ON DRAWING E6.82. PROVIDE A NEW 2ØA/2P IN EXISTING PANELBOARD FOR EACH.
- 9 ACCESS CONTROL PEDESTAL AND VIDEO DOOR STATION. SEE DETAIL ON SHEET E9.83.
- 10 PROVIDE POLE LIGHTS AS SCHEDULED - TYPICAL. SEE DETAIL.
- 11 SWITCH EXTERIOR POLE LIGHTS THROUGH TIME CLOCK. BRANCH CIRCUIT: 1" - 2#6 & #16G. PROVIDE A NEW 2ØA/2P BREAKER IN EXISTING PANELBOARD.
- 12 APPROXIMATE LOCATION OF EXISTING DATA RACK.
- 13 APPROXIMATE LOCATION OF EXISTING PANELBOARDS:  
1" - 271/2ØBV, 3øA, 2ØA, 2ØB, 2ØC, PROVIDE 365-4D, ASTRONOMICAL, 2-CHANNEL, PROGRAMMABLE TIME CLOCK ADJACENT TO PANEL TO CONTROL NEW PARKING LOT LIGHTING.  
1" - 12Ø/2ØBV, 3ØX, 4W, 225A, SIEMENS.
- 14 RISE FROM EXISTING DRIVEWAY.
- 15 RACEWAYS TO RISE AT DATA RACK.
- 16 PROVIDE THE FOLLOWING:  
1-2" RACEWAY WITH PULLWIRE - (INTERCOM)  
1-2" RACEWAY WITH PULLWIRE - (SPARE)  
1-4" RACEWAY WITH PULLWIRE - (DATA)
- 17 PROVIDE ABOVE ACCESSIBLE CEILING SPACE. PROVIDE ABOVE ACCESSIBLE CEILING SPACE.
- 18 APPROXIMATE LOCATION OF EXISTING CARE HAWK CH100 INTERCOM CARD CAGE.
- 19 PROVIDE NEW 12"x12" TIER 22 RATED POLYMER CONCRETE PULL BOX WITH "ELECTRICAL" COVER LOGO - SEE DETAIL.
- 20 PROVIDE NEW 24"x24" TIER 22 RATED POLYMER CONCRETE PULL BOX WITH "COMMUNICATIONS" COVER LOGO - SEE DETAIL.
- 21 PROVIDE 1-2" RACEWAY WITH PULLWIRE AND FIBER OPTIC CABLE FOR NETWORKING EXISTING NOTIFIER NFS-328 CONTROL PANELS.
- 22 APPROXIMATE LOCATION OF EXISTING NOTIFIER NFS-328 CONTROL PANEL.
- 23 APPROXIMATE LOCATION OF EXISTING REMOTE ANNUNCIATOR TO BE REPLACED. PROVIDE NEW NEWWORKABLE ANNUNCIATOR.

PLUMBING KEYED NOTES:

- 1 PROVIDE 3" DOMESTIC WATER LINE. SEE CIVIL DRAWINGS FOR CONNECTION AND CONTINUATION.
- 2 PROVIDE 4" SANITARY SEWER LINE. PROVIDE TWO WAY YARD CLEANOUT (NOT SHOWN FOR CLARITY). SEE CIVIL DRAWINGS FOR CONNECTION AND CONTINUATION.
- 3 PROVIDE LINE SIZE VALVE IN QUAZITE BOX.

FIRE SUPPRESSION KEYED NOTES:

- ① PROVIDE 6" FIRE SPRINKLER LINE COORDINATE WITH CIVIL DRAWING FOR FIRE LINE CONTINUATION. VARY SIZE OF FIRE SPRINKLER LINE BY MEANS OF CALCULATION AND COORDINATE WITH GENERAL CONTRACTOR. COORDINATE FIRE STANDING CLOSURE AND PROVISION OF FIRE SPRINKLER SYSTEM WITH GENERAL CONTRACTOR. FIRE LINE SHALL BE PROVIDED TO SERVE BUILDINGS UNDER THIS CONTRACT AND THE FUTURE BUILDING EXPANSION OF AN APPROXIMATE 20,000 SQ. FT. AREA. PROVIDE 4" FIRE SPRINKLER LINES, BRANCHES, VALVES, AND FITTINGS TO SERVE THE FUTURE FIRE ADDITION. COORDINATE WITH A/E TEAM DURING SHOP DRAWING SUBMITTAL PHASE. REFER TO PLUMBING SHEETS AND SPECIFICATIONS FOR MORE INFORMATION. FIRE SUPPRESSION SYSTEM SHALL COMPLY WITH INTERNATIONAL FIRE CODE 2015.
- ② PROVIDE DEDICATED FIRE SPRINKLER LINE FROM FIRE HOSE TO THE MAIN FIRE LINE AND FIRE SPRINKLER LINE. FIRE SPRINKLER LINE SHALL BE PROVIDED TO SERVE THE FUTURE BUILDING EXPANSION. PROVIDE HEADS, VALVES, BRANCHES, ETC. AS NECESSARY TO ACCOMMODATE FUTURE ADDITION. COORDINATE WITH A/E TEAM DURING SHOP DRAWING SUBMITTAL PHASE.

DETAIL  
KEYED NOTES

- ① SLEEVE.
- ② PROVIDE 1" CLOSED-CELL INSULATION WITH ALUMINUM METAL JACKET ON EXPOSED PIPING.
- ③ PIPE TO SERVE FDC OUTSIDE THE BUILDING.

FIRE RISER RISER  
ENTRANCE DETAIL

05 ENTRAIN  
SCALE: NONE

KEYED NOTES:

- 1 PROVIDE POLYMER CONCRETE PULL BOX TIER 22 RATED. COMPLYING WITH ANSI/SCTE 77 AND NEC 314.30.
- 2 PROVIDE 8" OF GRAVEL OR CRUSHED ROCK.
- 3 PROVIDE ONE PIECE LOCKING COVER WITH LOGO TIER 22 RATED. INSTALL COVER LEVEL WITH GRADE.

### POLYMER CONCRETE PULLBOX DETAIL

02 FULLBO  
SCALE : NONE

## M.E.P SITE PLAN

01 M.E.P.S.  
SCALE : 1" = 40' - 0"



## BURIAL DETAIL FOR ELECTRICAL RACEWAYS

03 EL  
SCALE: NONE

## TRENCHING DETAIL

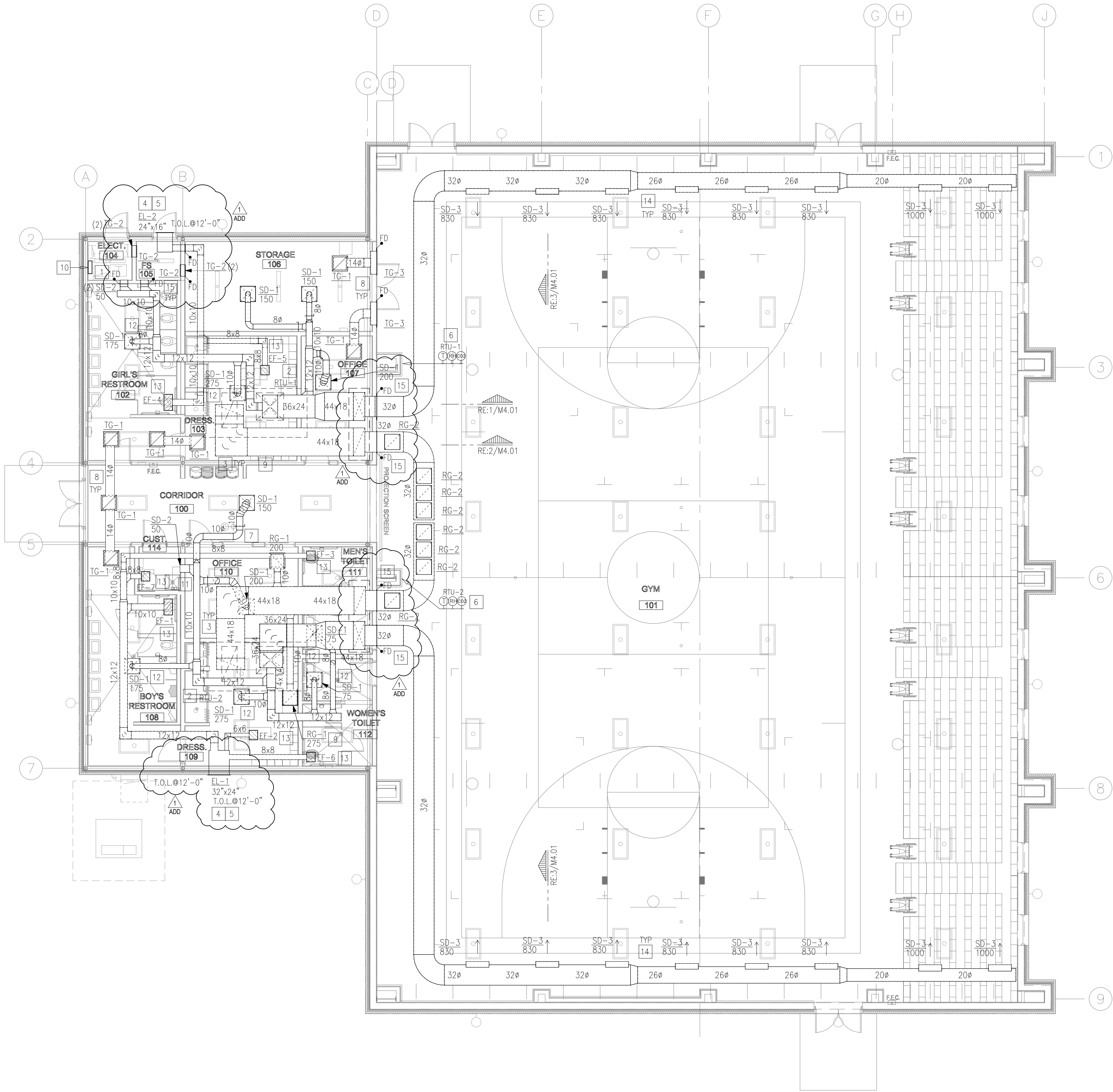
04 TREND  
SCALE : NONE

MECHANICAL FLOOR PLAN KEYED NOTES:

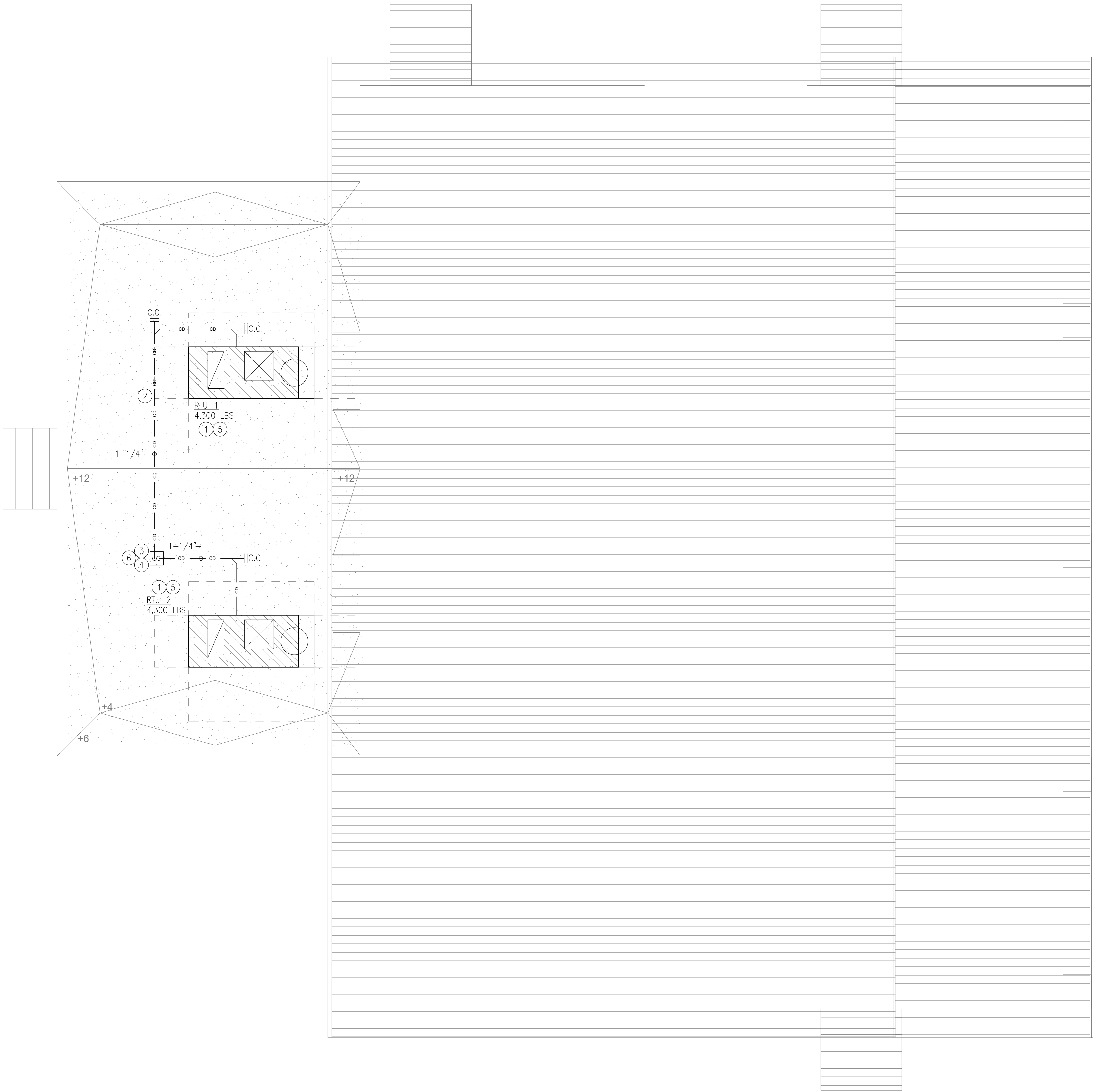
- 1 CODE AND WORKING CLEARANCE FOR ELECTRICAL PANELS. DO NOT ROUTE DUCT OR PIPING DIRECTLY ABOVE ELECTRICAL EQUIPMENT FOOTPRINT. SEE ELECTRICAL PLANS FOR EXACT LOCATION. (TYP.)
- 2 PROVIDE RTU ON ROOF CURB AS SCHEDULED. REFER TO MECHANICAL ROOF PLAN FOR MORE INFORMATION
- 3 DUCTWORK ROUTING SHOWN IS DIAGRAMMATIC IN NATURE. FIELD-VERIFY STRUCTURE AND SPACE AVAILABILITY PRIOR TO SUBMITTING SHOP DRAWINGS. COORDINATE WITH ARCHITECT AND ENGINEER IN CASE OF CONFLICTS.
- 4 SLEEVE ALL WALL PENETRATIONS PER SPECIFICATIONS. SEAL AROUND DUCTS & PIPING AT ALL WALLS, AC ROOMS AND WALL LOUVER PENETRATIONS WITH FIRE-PROOF CAULKING. PROVIDE ESCUTCHEON PLATES AND FLASHING AROUND PENETRATION, BOTH INSIDE AND OUTSIDE TO PROVIDE A FINISH LOOK. (TYP.)
- 5 PROVIDE LOUVER AS SCHEDULED. COORDINATE FINAL FINISH, SIZE AND LOCATION WITH ARCHITECT PRIOR TO ORDERING. (TYP.)
- 6 PROVIDE THERMOSTAT, RH, AND CO2 SENSORS WHERE INDICATED. INSTALL 48" A.F.F. COORDINATE WITH ARCHITECT AND OWNER TO MEET ADA REQUIREMENTS. PROVIDE CLEAR LOCKING COVER FOR ALL SENSORS. (TYPICAL)
- 7 PROVIDE ROUND SPIRAL LOCK-SEAM DUCT. LONGITUDINAL SEAM TYPE IS NOT ACCEPTABLE. (TYPICAL)
- 8 PROVIDE ACOUSTICAL LINING FOR TRANSFER DUCT. SEE SPECIFICATIONS. (TYPICAL)
- 9 PROVIDE FABRICATED RETURN AIR PLENUM BOX ABOVE RETURN GRILLE. INSTALL ACOUSTICAL LINING IN PLENUM BOX. CONNECT WITH FLEX DUCT TO MAIN RETURN TRUNK DUCT WHERE SHOWN ON DRAWING AND INSTALL BALANCING DAMPER WHERE INDICATED. FOR AREAS WHERE FLEX DUCT IS NOT SHOWN, PROVIDE ACOUSTICAL LINING FOR CONNECTION TO MAIN RETURN TRUNK DUCT. SEE DETAIL SHEET. (TYPICAL)
- 10 REFER TO SPECIFICATION FOR DDC CONTROLS AND SEQUENCES OF OPERATION.
- 11 ROUTE CONDENSATE PIPING DOWN FROM ROOF AT THIS APPROXIMATE LOCATION. SECURE PIPING TO WALL AND DISCHARGE CONDENSATE PIPING INTO MOP SINK.
- 12 PROVIDE ROUND NECK OPPOSED BLADE BALANCING DAMPER TITUS MODEL AG-75 OR APPROVED EQUAL FOR VOLUME CONTROL IN ROUND NECK DIFFUSER. DAMPER SHALL BE OPERABLE THRU THE FACE OF THE DIFFUSER. TYPICAL ON SQUARE DIFFUSERS LOCATED IN HARD CEILING AREAS.
- 13 PROVIDE EXHAUST FAN AS SCHEDULED. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
- 14 PROVIDE DOUBLE WALL EXPOSED-PAINTED ROUND DUCT AS PER SPECIFICATIONS WITH DIFFUSERS AS SCHEDULED. PROVIDE HIGH PERFORMANCE PAINT AND COORDINATE FINAL COLOR OF DUCTS AND DIFFUSERS WITH ARCHITECT BEFORE ORDERING AND INSTALLING. ALL EXPOSED DUCTS SHALL BE PAINTED. COORDINATE FINISH AND COLOR WITH ARCHITECT.
- 15 PROVIDE 1-1/2 HOUR RATING, DYNAMIC FIRE DAMPER EQUAL TO RUSKIN DIB02 AND DUCT ACCESS DOOR EQUAL TO RUSKIN ADH-22 FOR RECTANGULAR DUCT, ACODOR RD FOR ROUND DUCT.

MECHANICAL ROOF PLAN KEYED NOTES:

- 1 PROVIDE RTU ON ROOF CURB AS SCHEDULED. ORIENT RTUS TO OPTIMIZE DUCTWORK. SEAL ALL OPENINGS AND ENSURE THAT INSTALLATION IS WEATHER-TIGHT. PROVIDE COPPER CONDENSATE DRAIN LINES WITH P-TRAPS, AND EXTEND TO NEAREST CONDENSATE DRAIN RECEPTOR. SUPPORT PIPING IN PIPING SUPPORTS AS DETAILED. PROVIDE ROOF CURB TO INSTALL EQUIPMENT ON ROOF. SECURE EQUIPMENT TO ROOF CURB AND ROOF CURB TO ROOF STRUCTURE AS PER DIV. 7 SPECIFICATIONS. ATTACHMENTS SHALL BE CAPABLE OF WITHSTANDING THE LOCAL WIND PRESSURES.
- 2 PROVIDE COPPER CONDENSATE PIPING ON ROOF AND PROVIDE SUPPORTS AS PER DETAIL. REFER TO DETAIL SHEET. (TYPICAL)
- 3 ROUTE CONDENSATE LINE DOWN TO CEILING SPACE BELOW AT THE APPROXIMATE LOCATION. REFER TO PLUMBING DRAWINGS.
- 4 PROVIDE ROOF PENETRATION SYSTEM FOR CONDENSATE PIPING. SEE ASSOCIATED DETAIL ON DETAIL SHEET. COORDINATE INSTALLATION WITH PLUMBING CONTRACTOR.
- 5 PROVIDE FACTORY INSTALLED CONVENIENCE ELECTRICAL OUTLET AT INDICATED RTUS. COORDINATE WITH EQUIPMENT MANUFACTURER. COORDINATE WITH ELECTRICAL CONTRACTOR.
- 6 SLEEVE ALL PENETRATIONS PER SPECIFICATIONS. SEAL AROUND PIPING WITH FIRE PROOF CAULKING. PROVIDE ESCUTCHEON PLATES AND FLASHING AROUND PENETRATION BOTH INSIDE AND OUTSIDE TO PROVIDE FINISHED LOOK.

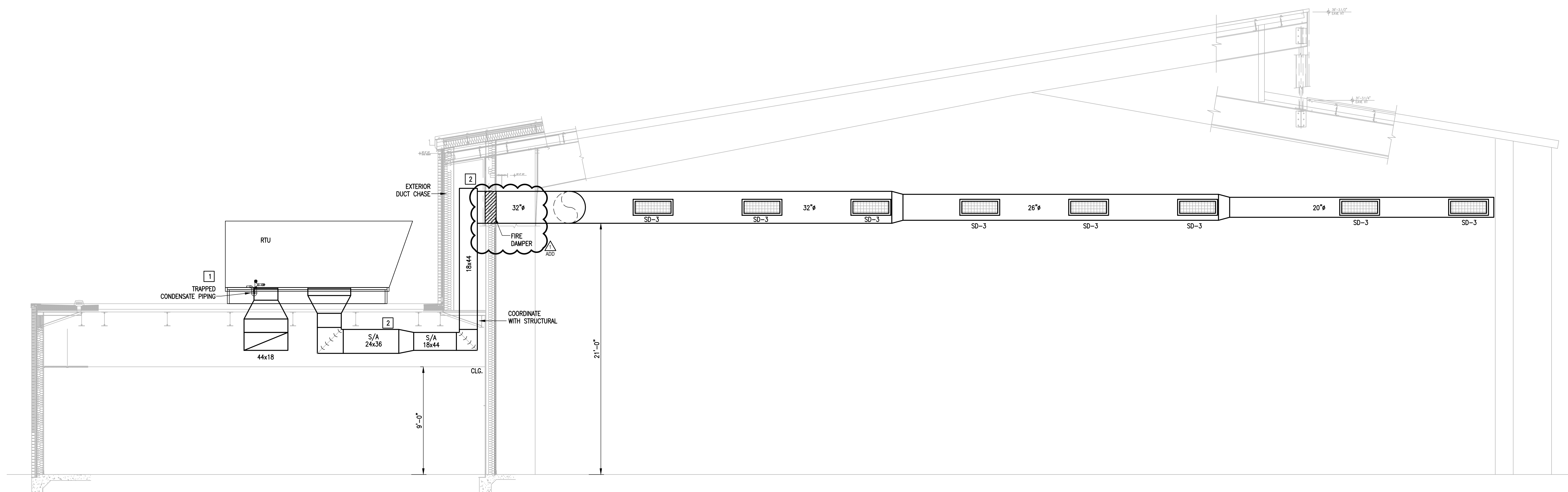


01 MECHANICAL FLOOR PLAN (GYM)  
SCALE: 1/8" = 1'-0"

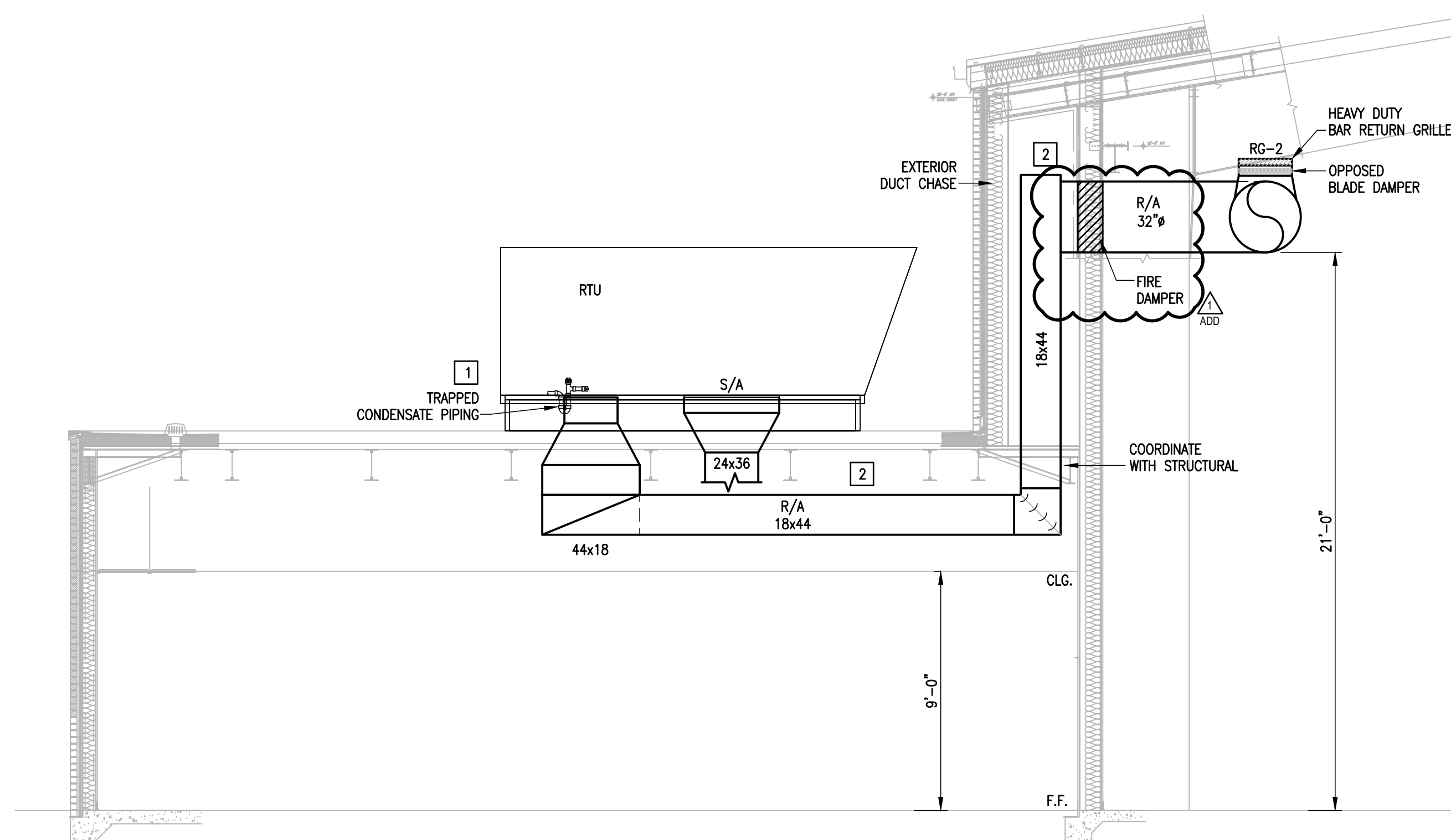


02 MECHANICAL ROOF PLAN (GYM)  
SCALE: 1/8" = 1'-0"

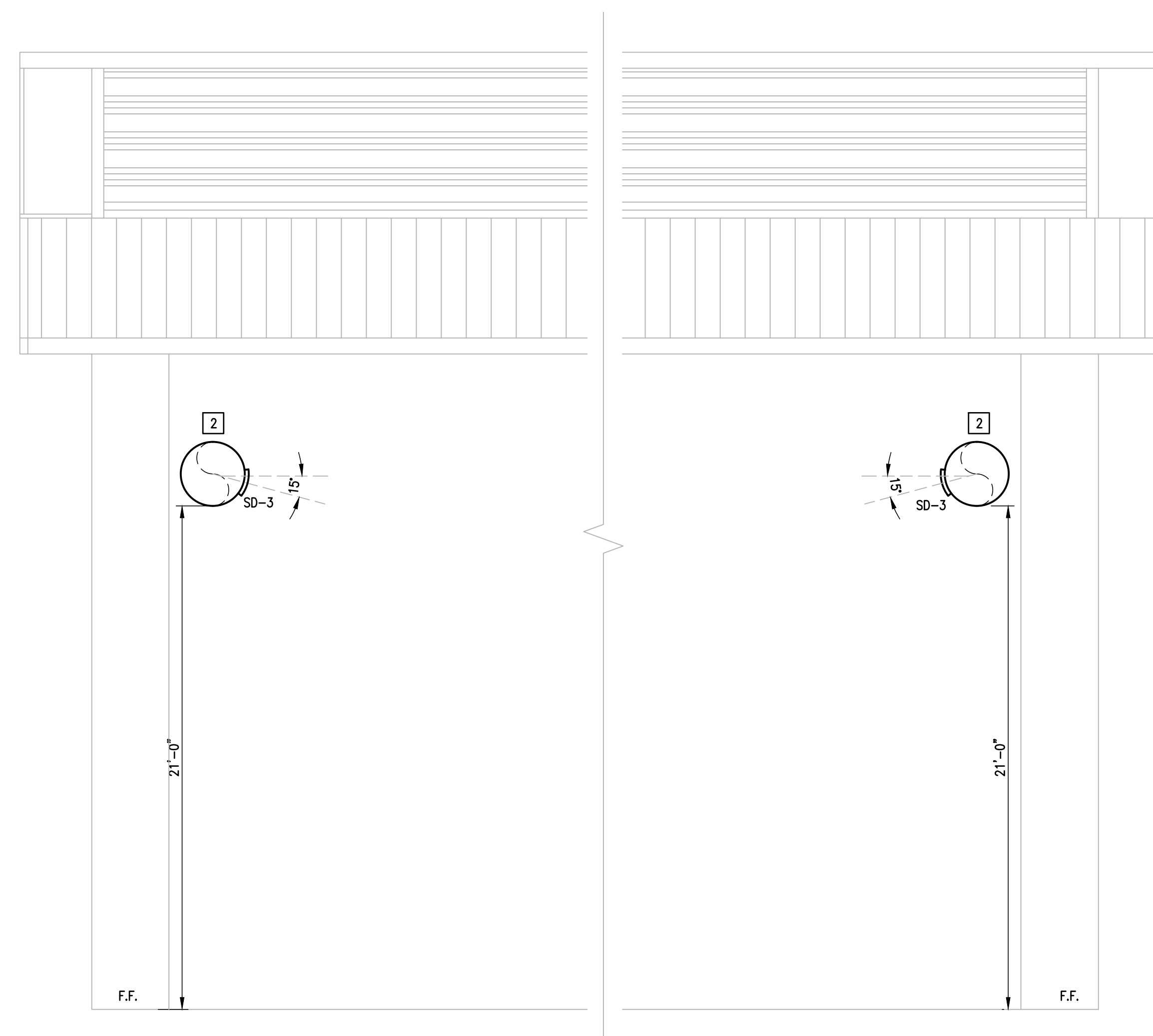




01 MECHANICAL ELEVATION  
SCALE: 1/4" = 1'- 0"



02 MECHANICAL ELEVATION  
SCALE: 1/4" = 1'- 0"



03 MECHANICAL ELEVATION  
SCALE: 1/4" = 1'- 0"

KEYED NOTES:

- 1 SYMBOL IS DIAGRAMMATIC. COORDINATE CONDENSATE TRAP SIZE AND DEPTH WITH AHU SUPPLIER. PROVIDE INSULATED COPPER CONDENSATE DRAIN LINE ON UNISTRUT SLEEPERS, AND ROUTE LINE TO DRAIN RECEPTOR. PROVIDE INSULATION. PROVIDE COPPER TUBING FROM AIR VENT DISCHARGE TO DRAIN.
- 2 DUCTWORK ROUTING SHOWN IS DIAGRAMMATIC IN NATURE. FIELD-VERIFY STRUCTURE AND SPACE AVAILABILITY PRIOR TO SUBMITTING SHOP DRAWINGS. COORDINATE WITH ARCHITECT AND ENGINEER IN CASE OF CONFLICTS. (TYPICAL)

## SCOPE OF WORK

- GENERAL:** THE "IDEA EDINBURG PHASE III" CONSISTS OF NEW SINGLE-STORY BUILDING, APPROXIMATE 75,000 S.F. THIS BUILDING WILL GENERALLY BE OPERATED FROM 7:00AM TO 6:00PM. (MONDAY THROUGH FRIDAY) WITH OCCASIONAL AFTER HOURS AND WEEKENDS USE.
- ELECTRICAL:** PROVIDE ALL MATERIALS AND LABOR ASSOCIATED WITH COMPLETE OPERATIONAL ELECTRICAL DISTRIBUTION SYSTEM. MAJOR ITEMS OF WORK INCLUDE, BUT ARE NOT LIMITED TO:
  - ELECTRICAL SERVICE: PROVIDE A NEW UNDERGROUND ELECTRICAL SERVICE; IT SHALL CONSIST OF UNDERGROUND ELECTRICAL RACEWAYS AND CONCRETE PAD FOR UTILITY FURNISHED TRANSFORMER.
  - UTILITY COMPANY SHALL PROVIDE MEDIUM VOLTAGE CONDUCTORS AND PAD TRANSFORMER.
  - SINGLE PHASE PROTECTION: PROVIDE AS NOTED ON SWITCHBOARD AND PANELS SCHEDULES.
  - LIGHTING SYSTEMS: INTERIOR AND EXTERIOR LIGHTING SYSTEM SHALL CONSIST OF LED TYPE.
  - LIGHTING CONTROLS (SWITCHES, VACANCY SENSORS, ETC.): PROVIDE AS NOTED ON PLANS SPECIFICATIONS. IN SOME CASES, THEY WILL BE CEILING MOUNTED AND OTHERS WALL MOUNTED. IT'S THE INTENT FOR THEM TO BE WIRED TO AUTOMATICALLY CONTROL THE LUMINARIES IN THEIR RESPECTIVE AREAS.
  - COMMISSIONING: PROVIDE FOR THE LIGHTING EQUIPMENT AND LIGHTING CONTROLS AS REQUIRED PER IECC 2015.
  - POWER SYSTEMS: PROVIDE MISCELLANEOUS DUPLEX RECEPTACLES, CONNECTIONS, AND POWER FOR H.V.A.C. AND PLUMBING EQUIPMENT.
  - FIRE ALARM SYSTEM: PROVIDE AN ADDRESSABLE CONTROL PANEL WITH VOICE EVACUATION, CELL/WIRELESS MONITORING, MANUAL AND AUTOMATIC INITIATION DEVICES. MONITORING AND INTERFACING WITH FIRE SPRINKLE TAMPER AND FLOW SWITCHES. INDICATING DEVICES SHALL ALSO BE PROVIDED TO COMPLY WITH TOLR. NEW BUILDING SHALL BE INTERFACED WITH EXISTING HIGH SCHOOL BUILDING.
  - COMMUNICATION AND DATA PROCESSING EQUIPMENT: PROVIDE CABLING, CONNECTORS, PATCH PANELS, RACKS, ETC.
  - MULTIMEDIA SYSTEM: PROVIDE MULTIMEDIA OUTLET FOR PROJECTORS INCLUDING CONNECTORS, CABLING AND OUTLETS.
  - SCHOOL INTERCOM SYSTEM: EXPAND AS REQUIRED EXISTING CONTROL PANEL TO ACCOMMODATE NEW BUILDING SPEAKERS AND CALL-IN SWITCHES THROUGHOUT, HALLWAYS AND BUILDING EXTERIOR WALLS WITH SPEAKERS TO TRANSMIT GENERAL ANNOUNCEMENTS.
  - GYMNASIUM SOUND SYSTEM: SPEAKER, MICROPHONE OUTLETS, MICROPHONE, MICROPHONE STANDS, AND WIRING. SEE SPECIFICATIONS.
  - INTRUSION DETECTION SYSTEM: IT SHALL CONSIST OF A CONTROL PANEL WITH WIRELESS/RADIO MONITORING, KEYPADS, GLASS BREAK SENSORS, MOTION DETECTORS AND MAGNETIC CONTACTS AS NOTED ON DRAWINGS.
  - BUILDING ACCESS: PROVIDE POWER TO VEHICLE GATES, INTERCOM AND CAMERA AT VEHICLE GATES ENTRANCE.

## ABBREVIATIONS:

A	AMPS	EF	EXHAUST FAN	MECH	MECHANICAL
ABC	ABOVE CEILING LINE	EMS	ENERGY MANAGEMENT SYSTEM	MS	MOTOR STARTER
AC	ABOVE COUNTER BACKSPLASH	EXT.	EXTERNAL OR EXTERIOR	NTS	NOT TO SCALE
ACCU	AIR COOLED CONDENSING UNIT	FACP	FIRE ALARM CONTROL PANEL	OA	OUTSIDE AIR
AHU	AIR HANDLING UNIT	FCU	FAN COIL UNIT	OAU	OUTSIDE AIR UNIT
AFF	ABOVE FINISHED FLOOR	FD	FIRE DAMPER	P	POLE(S)
B.	BOTTOM	FS	FLAT SCREEN	PA	PUBLIC ADDRESS
BLC.	BELOW CEILING LINE	G.	GROUND	PH	PHASE
C.	CONDUIT OR COMMON	GA.	GAGE	RM.	ROOM
CLG.	CEILING	GALV.	GALVANIZED	SS	STAINLESS STEEL
COMB.	COMBINATION	GRND.	GROUND	TSTAT	THERMOSTAT
COND.	CONDUIT	HP	HORSEPOWER	UG	UNDERGROUND
CU.	COPPER	HVAC	HEATING, VENTILATION, & AIR CONDITIONING	UNO	UNLESS OTHERWISE NOTED
DDC	DIRECT DIGITAL CONTROLS			V	VOLTS
DISC.	DISCONNECT	IG	ISOLATED GROUND	VFD	VARIABLE FREQUENCY DRIVE
EDH	ELECTRIC DUCT HEATER	INT.	INTRUSION DETECTION	WACU	WALL AIR CONDITIONING UNIT.
				W	WIRE

## GENERAL SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
	DISCONNECT SWITCH – NON FUSED	AS REQUIRED
	DISCONNECT SWITCH – FUSED	AS REQUIRED
	EQUIPMENT CONNECTION	AS REQUIRED
	MOTOR CONNECTION	AS REQUIRED
	ELECTRICAL PANELBOARD – SURFACE MOUNTED	AS REQUIRED
	UNDERGROUND RACEWAY	AS REQUIRED
	CONCEALED RACEWAY	AS REQUIRED
	CONDUIT OR EMT HOMERUN TO PANELBOARD CONCEALED IN WALLS OR ABOVE CEILING. LONG CROSSMARKS DENOTE NUMBER OF "HOT" CONDUCTORS SHORT CROSSMARKS INDICATE NEUTRALS AND DOTS INDICATE NUMBER OF GROUND CONDUCTORS. ARROW INDICATES HOME RUN TO ELECTRICAL PANEL.	AS REQUIRED
	SURGE PROTECTION DEVICE	- - - -

## LUTRON CONTROL SYMBOLS:

	DIMMING WALLSTATION – LUTRON PX-2BR-L-OWH-101	48" AFF
	WALLSTATION – LUTRON QSW52-3BRLL-WH	48" AFF
	WALLSTATION – LUTRON QSW52-5BRLL-WH	48" AFF
	OCCUPANCY SENSOR – LUTRON LOS-COT-2000-WH	CLG.
	OCCUPANCY SENSOR – LUTRON LUT-WSPSM24V-360-CPN6111	CLG.
	TIME CLOCK – LUTRON QSGR-TC-3S-WH-CPN5825	---
	CONTROLLER INTERFACE – LUTRON QSE-CI-AP-D	ABV. CLG.
	ENERGI SAVR NODE – LUTRON QSN-4T16-S	AS REQUIRED
	WIRELESS SENSOR MODULE – LUTRON QSM2-4W-C	CLG.
	OCCUPANCY WALL SENSOR SWITCH LUTRON MS-OPSM2-DV-WH	48" AFF
	KIT – LUTRON C-ESN-SETUP	AS REQUIRED
	PICO WIRED WALL SWITCH – LUTRON PX-2B-GXX-101	48" AFF

### NOTES:

- 1.) 48" AFF INDICATES TO TOP OF DEVICE; ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE. REFERENCE LIGHTING CONTROL SCHEMATIC DETAILS FOR ALL LUTRON CONTROLS WIRING REQUIREMENTS.

## DOOR ACCESS SYSTEMS SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
	DOOR POWER SUPPLY – CONNECT TO NEAREST 120V NON-GFCI CIRCUIT.	12" ABC
	CONNECT DOOR ELECTRIC STRIKE – PROVIDE BACK BOX WITH 1/2" RACEWAY STUBBED TO POWER SUPPLY ABOVE ACCESSIBLE CLG.	12" ABC
	CONNECT DOOR RELEASE BUTTON – BOSCH MODEL #47107; PROVIDE BACK BOX WITH 1/2" RACEWAY STUBBED TO POWER SUPPLY ABOVE ACCESSIBLE CLG.	48" AFF
	CONNECT SLIDE GATE AUDIO/MASTER MASTER STATION – PROVIDE BACK BOX WITH 1/2" RACEWAY STUBBED INTO ACCESSIBLE CLG. SEE DETAIL.	4" ACB

### NOTES:

- 1.) 48" AFF INDICATES TO TOP OF DEVICE; ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE. REFER TO DOOR ACCESS SYSTEM DETAIL.

## LIGHTING SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
	2'X4' LIGHT FIXTURE – TYPE AS NOTED	- - - -
	EMERGENCY 2'X4' LIGHT FIXTURE-TYPE AS NOTED CONNECT BATTERY PACK TO BE ON AT ALL TIMES (UNSWITCHED)	- - - -
	SURFACE/WRAPAROUND LIGHT FIXTURE	- - - -
	SURFACE/WRAPAROUND EMERGENCY LIGHT FIXTURE CONNECT BATTERY PACK TO BE ON AT ALL TIMES (UNSWITCHED)	- - - -
	SINGLE FACE EXIT SIGN CEILING OR WALL MOUNTING (DIRECTIONAL ARROWS WHERE INDICATED)	12" ABV. EGRESS OPENING
	DOUBLE FACE EXIT SIGN CEILING OR WALL MOUNTING (DIRECTIONAL ARROWS WHERE INDICATED)	12" ABV. EGRESS OPENING
	EMERGENCY LIGHTING UNIT	8'-0" AFF
	WALL MOUNT LIGHT FIXTURE – TYPE AS NOTED	

### NOTES:

- 1.) REFERENCE LIGHT FIXTURE SCHEDULE FOR ALL MOUNTING HEIGHTS.

## WIRING DEVICES SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
	SINGLE POLE TOGGLE SWITCH – HUBBELL MODEL #HBL1221X	48" AFF
	THREE WAY TOGGLE SWITCH – HUBBELL MODEL #HBL1223X	48" AFF
	FOUR WAY TOGGLE SWITCH – HUBBELL MODEL #HBL1224X	48" AFF
	KEYED TOGGLE SWITCH CORBIN TYPE – HUBBELL MODEL #HBL1221RKLX	48" AFF
	VACANCY DIMMING WALL SENSOR SWITCH – LUTRON MODEL #MS-2101-W-WH. PROVIDE 0-10V SIGNAL WIRE IN RACEWAY FROM SWITCH TO EACH CONTROLLED LIGHT FIXTURE.	48" AFF
	2-BUTTON CONTROL STATION – LUTRON MODEL #QSW52-2BI-WH	48" AFF
	1P TOGGLE SWITCH-THERMAL TYPE – SQUARE "D" CLASS 2510 W/ RED PILOT LIGHT & HANDLE GUARD/LOCK OFF	AS REQUIRED
	DIGITAL SWITCH – ACUTY MODEL #CH1 X X PMH	48" AFF
	EXHAUST FAN TIMER SWITCH – SENSOR SWITCH MODEL #PTS 720 X	48" AFF
	DIGITAL OUTDOOR PHOTO CELL WALL MOUNTED – LC&D SEE DETAIL	12' AFF
	STANDARD RANGE LOW VOLTAGE DUAL TECH CEILING VACANCY SENSOR – LUTRON MODEL #LOS-COT-500-WH. PROVIDE A POWER PACK – LUTRON MODEL #PP-DV	CLG.
	EXTENDED RANGE LOW VOLTAGE DUAL TECH CEILING VACANCY SENSOR – LUTRON MODEL #LOS-COT-1000-WH. PROVIDE A POWER PACK – LUTRON MODEL #PP-DV	CLG.
	HIGH BAY LOW VOLTAGE DUAL TECH CEILING VACANCY SENSOR – LUTRON MODEL #LOS-WSPSM24V-360-CPN611. PROVIDE A POWER PACK – LUTRON MODEL #PP-DV	CLG.
	POWER PACK FOR EXISTING FAN – LUTRON MODEL #PP-DV. INTERFACE WITH ROOM OCCUPANCY SENSOR.	ABV. CLG.

### NOTES:

- 1.) 48" AFF INDICATES TO TOP OF DEVICE; ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE.

## WIRING DEVICES SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
	DUPLEX TAMPER RESISTANT RECEPTACLE – HUBBELL MODEL #BR20XTR	18" AFF
	DUPLEX RECEPTACLE TAMPER RESISTANT W/ GROUND FAULT INTERRUPTING TYPE – HUBBELL MODEL #GFRSTR20X	18" AFF
	DUPLEX RECEPTACLE TAMPER RESISTANT W/ GROUND FAULT INTERRUPTING TYPE – HUBBELL MODEL #GFTWRST20X AND WHILE IN USE WEATHERPROOF COVER – PASS & SEYMOUR MODEL #WP26EH	18" AFF
	DUPLEX RECEPTACLE TAMPER RESISTANT – HUBBELL MODEL #R300XTR MOUNT @ +4" HORIZONTALLY ABOVE COUNTER BACKSPLASH (U.N.O.)	4" ACB
	DUPLEX RECEPTACLE FOR FLAT SCREEN – HUBBELL MODEL #CRS352X	84" AFF
	SPECIAL RECEPTACLE – TYPE AS NOTED	18" AFF
	JUNCTION BOX W/ BLANK STAINLESS STEEL COVERPLATE	AS REQUIRED
	DUPLEX TAMPER RESISTANT RECEPTACLE AND USB RECEPTACLE COMBINATION – HUBBELL MODEL #USB20X2X	18" AFF
	DUPLEX RECEPTACLE FOR WHITE BOARD PROJECTOR – HUBBELL MODEL #CRS352X	AS REQUIRED
	POLYMER CONCRETE PULL BOX W/ LOGO COVER – SEE DETAIL.	AS REQUIRED

### NOTES:

- 1.) 48" AFF INDICATES TO TOP OF DEVICE; 18" AFF INDICATES TO TOP OF DEVICE; ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE. AC INDICATES 4" ABOVE COUNTER TO BOTTOM OF DEVICE. U.N.O. INDICATES UNLESS NOTED OTHERWISE.

## FLOOR BOX SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
	FLOOR BOX W/ COVER PLATES FOR WIRING DEVICES AS INDICATED. PROVIDE SPECIAL SYSTEMS RACEWAYS, TWO – 1.5" OR AS NOTED ON ELECTRICAL DRAWINGS. PROVIDE BLANK COVERS FOR UNUSED COMPARTMENTS – HUBBELL MODEL #CFB6G30/610GCCRBRZC.	FLOOR

### NOTES:

- 1.) TOP OF FLOOR BOX TO BE FLUSH WITH FINISHED FLOOR. SEE ARCHITECTURAL DRAWINGS FOR FLOOR TYPES.

## FIRE ALARM SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
	FIRE ALARM MANUAL PULLSTATION – PROVIDE BACKBOX WITH 1/2" AND PULLWIRE.	48" AFF
	FIRE ALARM STROBE HORN CEILING OR WALL MOUNTED – PROVIDE 15/75 CANDELA U.N.O. – PROVIDE BACKBOX WITH 1/2" AND PULLWIRE.	80" AFF
	FIRE ALARM SPEAKER STROBE CEILING OR WALL MOUNTED – PROVIDE BACKBOX WITH 1/2" AND PULLWIRE. PROVIDE WIREGUARD "WG" WHERE DESIGNATED.	80" AFF
	FIRE ALARM SPEAKER STROBE CEILING OR WALL MOUNTED – PROVIDE BACKBOX WITH 1/2" AND PULLWIRE.	80" AFF
	FIRE ALARM STROBE LIGHT CEILING OR WALL MOUNTED – PROVIDE BACKBOX WITH 1/2" AND PULLWIRE.	80" AFF
	FIRE ALARM SMOKE DETECTOR CEILING OR WALL MOUNTED – PROVIDE BACKBOX WITH 1/2" AND PULLWIRE.	CLG.
	FIRE ALARM HEAT DETECTOR CEILING OR WALL MOUNTED – PROVIDE BACKBOX WITH 1/2" AND PULLWIRE.	CLG.
	FIRE ALARM H.V.A.C. DUCT SMOKE DETECTOR W/ SHUNT TRIP RELAY – PROVIDE BACKBOX WITH 1/2" AND PULLWIRE. PROVIDE A REMOTE TEST SWITCH.	- - - -
	FIRE SPRINKLER FLOW SWITCH	- - - -
	FIRE SPRINKLER TAMPER SWITCH – PROVIDE BACKBOX WITH 1/2" AND PULLWIRE.	- - - -
	FIRE ALARM CONTROL/VOICE EVACUATION PANEL (FLUSH MOUNTED)	- - - -
	FIRE ALARM ANNUNCIATOR PANEL (SURFACE MOUNTED)	- - - -
	FIRE ALARM HVAC DUCT SMOKE DETECTOR REMOTE TEST SWITCH – PROVIDE BACKBOX WITH 1/2" AND PULLWIRE.	48" AFF

### NOTES:

- 1.) 48" AFF INDICATES TO TOP OF DEVICE; ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE.

## SPECIAL SYSTEMS SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
	3-GANG FLAT SCREEN OUTLET – PROVIDE LARGE CAPACITY WALL BOX HUBBEL MODEL NO. HBL263 WITH 1.5" RACEWAY STUBBED INTO ACCESSIBLE CLG., PULL WIRE, MUD RING AND HBL981 LOW VOLTAGE DIVIDER.	72" AFF
	MULTIMEDIA OUTLET – PROVIDE 2-GANG MUD RING SECURED TO METAL STUDS WITH METAL STRAP WITH 1.5" RACEWAY STUBBED INTO ACCESSIBLE CLG. W/ PULL WIRE AND MUD RING – SEE DETAIL. NUMBER INDICATES AMOUNT OF DROPS.	18" AFF
	DATA OUTLET/VOICE OVER IP – PROVIDE BACK BOX WITH 1" RACEWAY STUBBED INTO ACCESSIBLE CLG. WITH PULL WIRE – SEE DETAIL. NUMBER INDICATES AMOUNT OF DROPS.	18" AFF
	WIRELESS ACCESS POINT – PROVIDE BACK BOX WITH 1" RACEWAY STUBBED INTO ACCESSIBLE CLG. WITH PULL WIRE – SEE DETAIL. NUMBER INDICATES AMOUNT OF DROPS.	CLG.

### NOTES:

- 1.) 48" AFF INDICATES TO TOP OF DEVICE; ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE.

## INTRUSION DETECTION SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
	INTRUSION DETECTION MOTION DETECTOR FULL COVERAGE TYPE – PROVIDE BACKBOX WITH 1/2" AND PULLWIRE.	9'-0" AFF
	INTRUSION DETECTION MOTION DETECTOR HALLWAY COVERAGE TYPE – PROVIDE BACKBOX WITH 1/2" AND PULLWIRE.	9'-0" AFF
	INTRUSION DETECTION GLASS BREAK SENSOR	ABV. CLG.
	INTRUSION DETECTION KEYPAD PROVIDE WITH STI COVER – PROVIDE BACKBOX WITH 1/2" AND PULLWIRE.	48" AFF
	INTRUSION DETECTION DOOR MAGNETIC CONTACT – PROVIDE WITH 1/2" AND PULLWIRE.	- - - -
	INTRUSION DETECTION INDOOR SIREN – PROVIDE BACKBOX WITH 1/2" AND PULLWIRE.	80" AFF
	INTRUSION DETECTION OUTDOOR SIREN – PROVIDE BACKBOX WITH 1/2" AND PULLWIRE.	10'-0" AFF

### NOTES:

- 1.) 48" AFF INDICATES TO TOP OF DEVICE; ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE.

## INTERCOM SYSTEMS SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
	INTERCOM OUTDOOR HORN WEATHER PROOF – PROVIDE BACKBOX WITH 1/2" AND PULLWIRE.	9'-6" AFF
	INTERCOM BUTTON – PROVIDE BACKBOX WITH 1/2" AND PULLWIRE .	48" AFF
	INTERCOM SPEAKER CEILING MOUNT	CLG.
	INTERCOM ADMINISTRATION CONTROL STATION HANDSET – PROVIDE BACKBOX WITH 1/2" AND PULLWIRE STUBBED INTO ACCESSIBLE CLG.	18" AFF

### NOTES:

- 1.) 48" AFF INDICATES TO TOP OF DEVICE; ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE.

## CAFETERIA & GYMNASIUM SOUND SYSTEMS SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
	SPEAKER – PROVIDE BACK BOX WITH 1" RACEWAY STUBBED INTO ACCESSIBLE CLG. WITH PULL WIRE.	SEE DETAIL
	MICROPHONE OUTLET – PROVIDE BACK BOX WITH 1" RACEWAY STUBBED INTO ACCESSIBLE CLG. WITH PULL WIRE.	18" AFF
	ASSISTIVE LISTENING TRANSMITTER	24" BLC
	AMPLIFIER (FLUSH MOUNTED)	- - - -

### NOTES:

- 1.) 18" AFF INDICATES TO TOP OF DEVICE; ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE.

## GENERAL LIGHTING NOTES:

1. LIGHTING BRANCH CIRCUIT HOMERUNS SHALL BE 3/4" - 2#12 & #126. 20A/277V HOMERUNS EXCEEDING 200FT THE WIRE SIZE SHALL BE #10 & #8 FOR 175'.
2. INTERIOR LIGHTING CONTROLS SHALL BE BY VACANCY SENSORS.
3. MULTIPLE VACANCY SENSORS CONTROLLING A SINGLE OR MULTIPLE SCHEMATIC AND POWER PACKS SHALL BE CONNECTED WITH CLASS II #18 WIRING IN 1/2" RACEWAY.
4. EXTERIOR LIGHTING CONTROLS SHALL BE BY LIGHTING MANAGEMENT PANEL.
5. PROVIDE 0-10V SIGNAL WIRING TO EACH DIMMED LIGHT FIXTURE DRIVER AND WALL SWITCH.
6. EACH 20A/1P BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL.
7. UTILIZE J-HOOKS FOR LIGHTING LOW VOLTAGE CABLING.

## LIGHTING KEYED NOTES:

1. PROVIDE UNISTRUT/THREADED ROD AND SUSPEND LIGHT FIXTURE AT 9'-0" AFF. COORDINATE INSTALLATION WITH HVAC DUCT WORK.
2. CONNECT EMERGENCY BATTERY PACK TO BE CHARGING AT ALL TIMES (UNSWITCHED). LIGHT FIXTURE SHALL BE OPERATED BY THE CORRESPONDING SWITCH - TYPICAL.
3. NO DUCTWORK OR PIPING TO BE ROUTED ABOVE PANELBOARDS. COORDINATE WITH OTHER TRADES - TYPICAL.
4. VIA CORRESPONDING LIGHTING CONTROL RELAY PANEL.
5. PROVIDE CLEAR LOOKING COVER.
6. PROVIDE J-BOX AND 3/4" RACEWAY ROUTED ABOVE CEILING BACK TO LOGO SIGN POWER SUPPLIES LOCATION. COORDINATE EXACT LOCATIONS WITH SIGN CONTRACTOR PRIOR TO ANY ROUGH-IN. INDICATED HEIGHT IS APPROXIMATE - TYPICAL OF 3.
7. CONNECT LOGO SIGN POWER SUPPLIES ABOVE CEILING. COORDINATE EXACT LOCATION WITH SIGN CONTRACTOR.
8. NIGHT LIGHT TO REMAIN UNSWITCHED.
9. MOUNT FIXTURE TYPE "E1" AT 80" ABOVE TOP OF BLEACHERS.
10. MOUNT FIXTURE TYPE "E1" AT 12'-0" A.F.F. (U.N.O.) TO TOP OF FIXTURE.
11. SEE DETAIL 07/E6.01 FOR MOUNTING - TYPICAL.
12. MOUNT LIGHT FIXTURE TYPE "ME" AT 12'-0" AFF TO TOP OF FIXTURE - TYPICAL.
13. MOUNT LIGHT FIXTURE TYPE "M" AT 12'-0" AFF TO CENTER OF FIXTURE TYPICAL.
14. MOUNT LIGHT FIXTURE TYPE "N" AT 20'-0" AFF TO CENTER OF FIXTURE (U.N.O.) - TYPICAL.
15. SWITCH VIA LIGHTING MANAGEMENT PANEL (ESN).

## GENERAL NOTES:

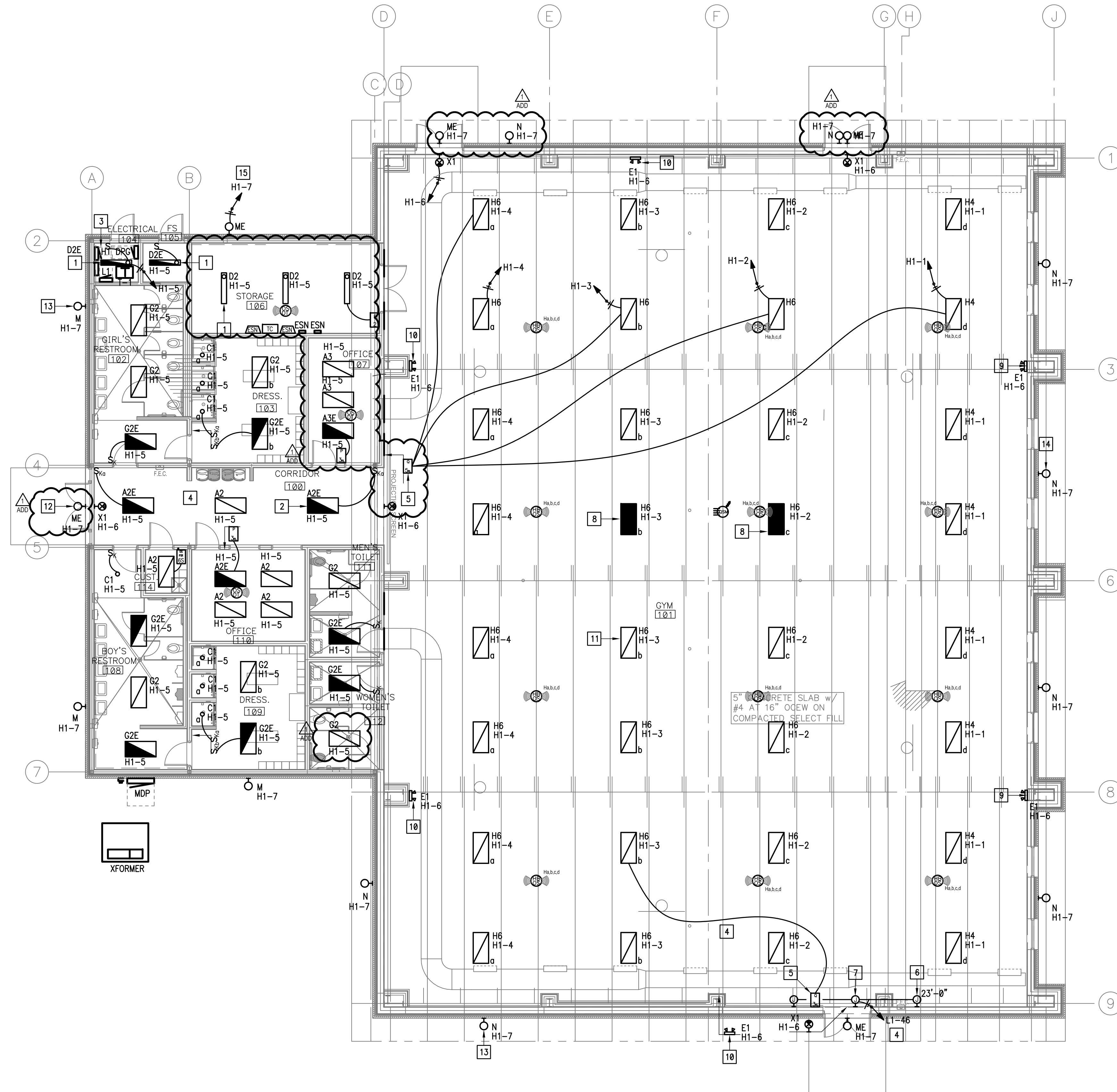
1. ELECTRICAL BRANCH CIRCUIT HOMERUNS SHALL BE 3/4" - 2#12 & #126. 20A/120V HOMERUNS EXCEEDING 100FT, THE WIRE SIZE SHALL BE #10 & #8 FOR 175'.
2. HOMERUNS - INSTALL NO MORE THAN THREE PER RACEWAY (INCLUDING LIGHTING BRANCH CIRCUITS); 3 INSULATED "HOT", 3 INSULATED "NEUTRAL" AND 1 SHARED "GROUND".
3. PROVIDE ALL ELECTRICAL RECEPTACLES INSTALLED WITH THE GROUND OPENING IN THE "UP" POSITION.
4. PROVIDE J-HOOKS TO SUPPORT THE FIRE ALARM, INTRUSION DETECTION, VOICE, INTERCOM, DATA CABLING, LIGHTING LOW VOLTAGE CONTROLS & HVAC CONTROLS CABLING ABOVE ACCESSIBLE CEILING SPACES. PROVIDE IN RACEWAY AT EXPOSED CEILING.
5. PROVIDE FIRE STOPPING AT ALL FIRE WALL PENETRATIONS; PROVIDE EXPANSION PLATES & BONDING JUMPERS AT BUILDING EXPANSION JOINTS.
6. CONNECT EACH ISOLATED GROUND CIRCUIT HOMERUN WITH A "HOT", DEDICATED NEUTRAL, ISOLATED GROUND (IG) AND A SHARED MECHANICAL GROUND.
7. PROVIDE ISOLATED GROUND (IG) RECEPTACLES WITH 4 INSULATED CONDUCTORS, "HOT", NEUTRAL, ISOLATED GROUND (IG) AND EQUIPMENT GROUND THAT CONNECTS TO THE BOX ENCLOSURE. PROVIDE ISOLATED GROUND CONDUCTOR WITH A YELLOW TRACER.
8. THERE SHALL BE NO SPLICES IN THE ISOLATED GROUND (IG) FEEDING THE BUS.
9. PROVIDE 1-2" RACEWAY (SLEEVE) 12" ABOVE CEILING AT ALL CLASSROOMS, RESTROOMS, OFFICES, ETC. DOORS THAT LEAD TO CORRIDORS (FLOOR TO CEILING WALLS) FOR SPECIAL SYSTEMS WIRING.
10. USE TAMPER RESISTANT RECEPTACLES THROUGHOUT.
11. EACH 20A/1P BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL.

## ELECTRICAL KEYED NOTES:

1. PROVIDE INFRARED RECESSED MOUNTED HAND DRYER. HAND DRYER SHALL BE BOBBICK B-750 (NO SUBSTITUTION). BRANCH CIRCUIT: 3/4" C 2#10 & #106. MOUNT @ +48" A.F.F. (BOTTOM). VERIFY THE EXACT LOCATION WITH THE ARCHITECTURAL PLANS.
2. PROVIDE INFRARED RECESSED MOUNTED HAND DRYER. HAND DRYER SHALL BE BOBBICK B-750 (NO SUBSTITUTION). BRANCH CIRCUIT: 3/4" C 2#10 & #106. MOUNT @ +48" A.F.F. (BOTTOM). VERIFY THE EXACT LOCATION WITH THE ARCHITECTURAL PLANS.
3. CONNECT ELECTRIC DRINKING FOUNTAIN. BRANCH CIRCUIT: 1/2" C 2#12 & #126. ROUGH-IN AT 17'-7/16" TO CENTER OF J-BOX. COORDINATE WITH PLUMBING CONTRACTOR - TYPICAL.
4. CONNECT FLOW SWITCH; BRANCH CIRCUIT: 1/2" - 2#2 & #126.
5. PROVIDE 3/4" RACEWAY W/ PULLWIRE (SCOREBOARD CONTROLS RACEWAY).
6. PROVIDE 1.25" RACEWAY W/ PULLWIRE (P.A. SYSTEM RACEWAY).
7. INSTALL DEVICES INSIDE FLUSH MOUNTED FLOORBOX. COORDINATE THE SCORE KEYPERS TABLE EXACT LOCATION PRIOR TO ROUGH-IN (COVER PLATE FLUSH MOUNTED).
8. ATTACH RECEPTACLE TO THE STRUCTURAL STEEL & CONNECT MOTORIZED BACKSTOP. VERIFY POINT OF CONNECTION WITH BACKSTOP SUPPLIER PRIOR TO ROUGH-IN.
9. MOUNT AT 80" ABOVE TOP OF BLEACHERS.
10. TO MOTORIZED BACKBOARD KEYED SWITCH - SEE DETAIL. FURNISHED BY BACKSTOP SUPPLIER; INSTALLED & CONNECTED BY ELECTRICAL CONTRACTOR.
11. TO CONTROL MOTORIZED BACKBOARDS.
12. PROVIDE BACK BOX FOR MOTORIZED PROJECTION SCREEN SWITCH. PROVIDE 1/2" RACEWAY WITH PULLWIRE TO MOTORIZED SCREEN LOCATION.

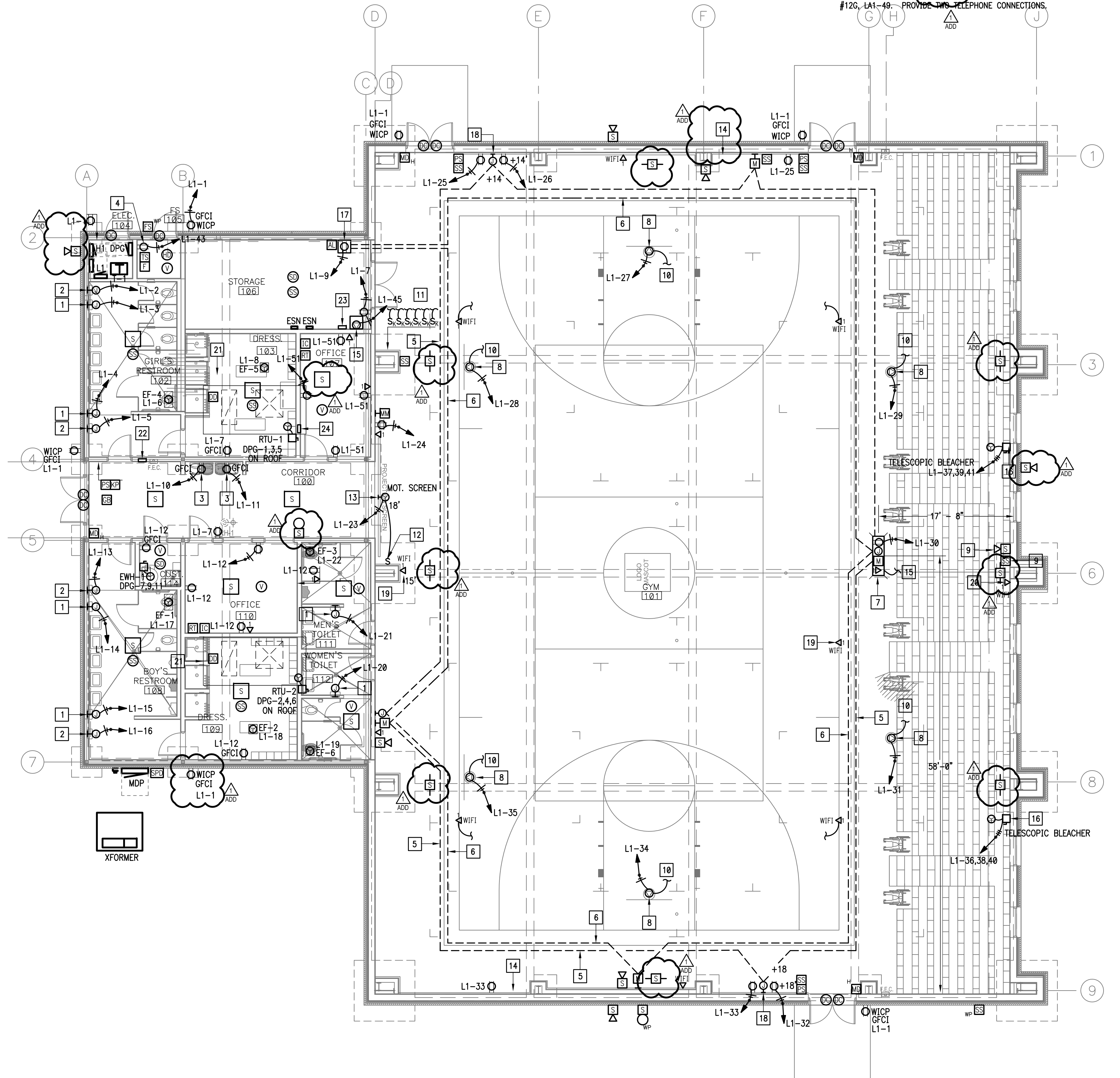
## ELECTRICAL KEYED NOTES:

13. CONNECT MOTORIZED PROJECTION SCREEN BELOW BEAM. BRANCH CIRCUIT: 1/2" C 2#12 & #126. SEE ARCHITECT DRAWINGS FOR EXACT LOCATION. PRIOR TO ROUGH-IN COORDINATE LEFT OR RIGHT SIDE POINT OF CONNECTION.
14. PROVIDE AN EXTENSION RING ON WIRING DEVICES LOCATED ON THIS WALL TO INSTALL FLUSH MOUNTED WITH PROTECTIVE PADDING - TYPICAL.
15. PROVIDE WALL MOUNT DATA RACK AND SPECIAL RECEPT FOR UPS (NEMA L5-30P); BRANCH CIRCUIT: 3/4" - 2#10 & #106.
16. CONNECT MOTORIZED TELESCOPIC BLEACHERS. COORDINATE EXACT POINT OF CONNECTION AND LOCATION OF SAFETY SWITCH BELOW BLEACHERS WITH EQUIPMENT SUPPLIER PRIOR TO ANY ROUGH-IN. SEE CONNECTION SCHEDULE.
17. PROVIDE RACK MOUNTED AMPLIFIER AND ASSISTIVE LISTENING TRANSMITTER; BRANCH CIRCUIT: 1/2" - 2#12 & #126.
18. CONNECT SCOREBOARD ABOVE BEAM; BRANCH CIRCUIT: 1/2" - 2#12 & #126. COORDINATE WITH EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.
19. MOUNT AT 15' AFF. STUB-OUT CONDUIT TO NEAREST ACCESSIBLE CEILING SPACE TO ALLOW FOR CABLING TO MDF/IDF ROOM - TYPICAL.
20. MOUNT AT 80" ABOVE TOP OF BLEACHERS. STUB-OUT CONDUIT TO NEAREST ACCESSIBLE CEILING SPACE TO ALLOW FOR CABLING TO MDF/IDF ROOM.
21. CONNECT ROOF TOP UNIT. ROUTE CONNECTION THROUGH ROOF CURB AND SECURE DISCONNECT TO EQUIPMENT. COORDINATE DISCONNECT LOCATION WITH HVAC CONTRACTOR TO ENSURE NOT TO OBSTRUCT ACCESSIBLE PANELS. CONNECT INTEGRAL GFCI RECEPTACLE TO NEAREST 120V NON-GFCI CIRCUIT - TYPICAL.
22. PROVIDE NETWORKABLE REMOTE ANNUNCIATOR (FLUSH MOUNTED).
23. PROVIDE INTRUSION DETECTION SYSTEM CONTROL PANEL. BRANCH CIRCUIT: 1/2" - 2#12 & #126. L1-47. PROVIDE A WIRELESS COMMUNICATOR.
24. PROVIDE FIRE ALARM CONTROL PANEL WITH EMERGENCY VOICE SYSTEM (FLUSH MOUNTED AND NO OFFICE) BRANCH CIRCUIT: 1/2" - 2#12 & #126. L1-48. PROVIDE TWO TELEPHONE CONNECTIONS.



01 LIGHTING PLAN (GYM)

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



01 ELECTRICAL PLAN (GYM)

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



# LUMINAIRE SCHEDULE

CALLOUT	LAMP	DESCRIPTION	DRIVER	MOUNTING	MODEL	INPUT WATTS	VOLTS	NOTE	LUMENS / LAMP	LUMEN MAINT.	HOURS
A2	LED	2'X4' LAY-IN INDIRECT TROFFER	0-10V	RECESSED	LITHONIA: 2BLT4 40L E21 LP840 LSI: LPASC24 LED 40L UNV DIM1 40 U	34	277V 1P 2W		4032	L80	60,000
A2E	LED	2'X4' LAY-IN INDIRECT TROFFER	0-10V	RECESSED	LITHONIA: 2BLT4 40L E21 LP840 EL14L LSI: LPASC24 LED 40L UNV DIM1 40 EM U	34	277V 1P 2W	PROVIDE WITH AN EMERGENCY BATTERY PACK.	4032	L80	60,000
A3	LED	2'X4' LAY-IN INDIRECT TROFFER	0-10V	RECESSED	LITHONIA: 2BLT4 48L E21 LP840 LSI: LPASC24 LED 48L UNV DIM1 40 U	45	277V 1P 2W		5234	L80	60,000
A3E	LED	2'X4' LAY-IN INDIRECT TROFFER	0-10V	RECESSED	LITHONIA: 2BLT4 48L E21 LP840 EL14L LSI: LPASC24 LED 48L UNV DIM1 40 EM U	45	277V 1P 2W	PROVIDE WITH AN EMERGENCY BATTERY PACK.	5234	L80	60,000
C1	LED	6" LENSED DOWN LIGHT	0-10V	CEILING	LITHONIA: LDN6 40/5 L06AR 277 VANTAGE: ABV4 LED 2 07 40 C601 SCL MD WHT	12	277V 1P 2W		662	L70	50,000
D2	LED	4' WRAPAROUND	0-10V	CHAIN/SURFACE	LITHONIA: SBL4 40L E21 LP840 LSI: N410 LED SS NW UE	32	277V 1P 2W		3994	L90	50,000
D2E	LED	4' WRAPAROUND	0-10V	CHAIN/SURFACE	LITHONIA: SBL4 40L E21 EL14L LP840 LSI: N410 LED SS NW UE EM	32	277V 1P 2W	PROVIDE WITH AN EMERGENCY BATTERY PACK.	3994	L90	50,000
E1	INC.	EMERGENCY LIGHTING UNIT		WALL	LITHONIA: IND12100 W H5012S SEL ELA W62M MULE: NM4 12 100 2 12V(SBH) SD NC TD	20	277V 1P 2W	PROVIDE WITH A WIREGUARD, SELF-DIAGNOSTICS, LOAD DISCONNECT, & TIME DELAY.	2950		
G2	LED	2'X4' FLANGED TROFFER	0-10V	RECESSED	LITHONIA: 2GLT F 4 40L E21 LP840 LSI: GA24 LED SS NW UE FK24	39	277V 1P 2W		4290	L80	72,000
G2E	LED	2'X4' FLANGED TROFFER	0-10V	RECESSED	LITHONIA: 2GLT F 4 40L E21 LP840 EL14L LSI: GA24 LED SS NW UE EM FK24	39	277V 1P 2W	PROVIDE WITH AN EMERGENCY BATTERY PACK.	4290	L80	72,000
H4	LED	24" X 48" HIGH BAY	0-10V	SURFACE	LITHONIA: IBE L24 15000LM SD080 MD MVOLT G210 40K 80CRI DWH WGBE GE: ABV2 0 18 T 48 90 Q V ST K Q W	137	277V 1P 2W	PROVIDE A WIRE GUARD.	15000	L70	100,000
H6	LED	24" X 48" HIGH BAY	0-10V	SURFACE	LITHONIA: IBE L24 22000LM SD080 MD MVOLT G210 40K 80CRI DWH WGBE GE: ABV2 0 24 T 48 90 Q V ST K Q W	217	277V 1P 2W	PROVIDE WITH A WIRE GUARD.	22000	L70	100,000
M	LED	WALLPACK	0-10V	SURFACE	LITHONIA: WSR LED 1 10A700/40K SR4 MVOLT X RAYON: T650LED DL 30 UN112 40 WT	22	277V 1P 2W	PROVIDE UL LISTED FOR WET LOCATIONS.	2655	L80	175,200
ME	LED	WALLPACK	0-10V	SURFACE	LITHONIA: WSR LED 1 10A700/40K SR4 MVOLT E10WH X RAYON: T650LED DL 30 UN112 40 WT EM	22	277V 1P 2W	PROVIDE UL LISTED FOR WET LOCATIONS AND WITH AN EMERGENCY BATTERY PACK. STANDARD COLOR FINISH TO BE SELECTED AT A LATER DATE.	2655	L80	175,200
N	LED	WALLPACK	0-10V	SURFACE	LITHONIA: WSR LED 2 10A700/40K SR4 MVOLT X RAYON: T650LED DL 45 UN112 40 WT MTO	45	277V 1P 2W	PROVIDE UL LISTED FOR WET LOCATIONS. STANDARD COLOR FINISH TO BE SELECTED AT A LATER DATE.	3404	L80	175,200
NE	LED	WALLPACK	0-10V	SURFACE	LITHONIA: WSR LED 2 10A700/40K SR4 MVOLT E20WC X RAYON: T650LED DL 45 UN112 40 WT MTO	45	277V 1P 2W	PROVIDE UL LISTED FOR WET LOCATIONS AND WITH AN EMERGENCY BATTERY PACK. STANDARD COLOR FINISH TO BE SELECTED AT A LATER DATE.	3404	L80	175,200
P1	LED	ARCHITECTURAL AREA LUMINAIRE	0-10V	POLE	LITHONIA: KAD LED 60C 700 40K R4 480 RPD 06 PIRH1FC3V DDBXD KW: RTAP25-7.0-7-BRZ-BC LSI: XGBM FT LED SS 40 NW 480 BRZ RPP2 PM05480 LSI: RTPB5 A156 25 X BRZ SR5AC VD	117	480V 2P 2W	PROVIDE FIXTURE UL LISTED FOR WET LOCATIONS AND WITH A MOTION SENSOR. POLE SHALL BE 25 FOOT ROUND TAPERED ALUMINUM & RATED FOR 140MPH WINDS. PROVIDE POLE WITH A VIBRATION DAMPER. STANDARD COLOR FINISH TO BE SELECTED AT A LATER DATE.	15982	L79-08	100,000
P2	LED	ARCHITECTURAL AREA LUMINAIRE	0-10V	POLE	LITHONIA: KAD LED 60C 700 40K R5 480 RPD 06 PIRH1FC3V DDBXD KW: RTAP25-7.0-7-BRZ-BC LSI: XGBM FT LED SS 40 NW 480 BRZ RPP2 PM05480 LSI: RTPB5 A156 25 X BRZ SR5AC VD	125	480V 2P 2W	PROVIDE FIXTURE UL LISTED FOR WET LOCATIONS AND WITH A MOTION SENSOR. POLE SHALL BE 25 FOOT ROUND TAPERED ALUMINUM & RATED FOR 140MPH WINDS. PROVIDE POLE WITH A VIBRATION DAMPER. STANDARD COLOR FINISH TO BE SELECTED AT A LATER DATE.	16961	L79-08	100,000
X1	LED	SINGLE SIDED EXIT SIGN		WALL/CEILING	BEGHELLI: FTZ-SA-LR1-UWW MULE LIGHTING: WLX-1-R-W-U-SD	3	277V 1P 2W	PROVIDE WITH A UNIVERSAL MOUNTING CANOPY, LIGHT EMITTING DIODES, & A NI-CAD BATTERY PACK.	0		

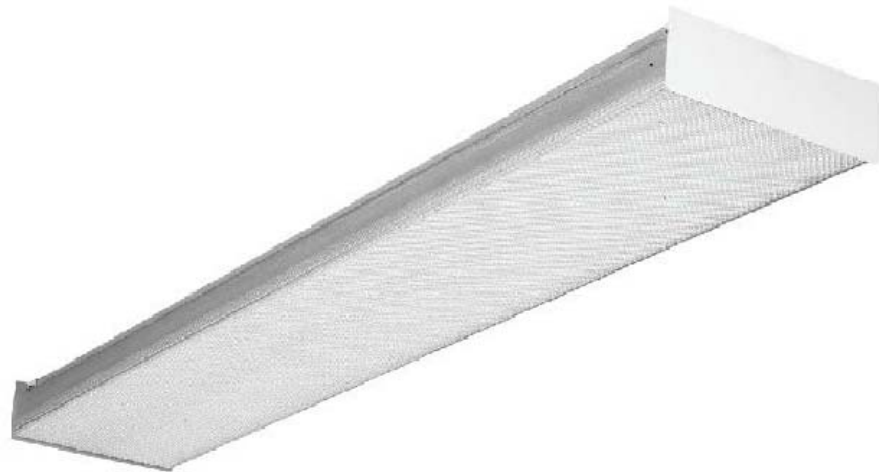
GENERAL NOTES:  
 1. OTHER LIGHT FIXTURE MANUFACTURERS THAN THOSE LISTED ON THIS SCHEDULE ARE REQUIRED TO OBTAIN PRIOR APPROVAL BY SUBMITTING CUT SHEETS OF THEIR SUBSTITUTIONS AT LEAST (10) DAYS PRIOR TO BID. CUT SHEETS SHALL INDICATE/HIGHLIGHT PHOTOMETRIC CURVE, EFFICIENCY & CONSTRUCTION FOR DIRECT COMPARISON WITH SPECIFIED FIXTURES.  
 2. EXTRA MATERIALS: SEE SPECIFICATIONS.  
 3. EMERGENCY BATTERY PACKS SHALL BE COMPLETE FACTORY INSTALLED WITH NI-CAD BATTERY, CHARGER INDICATING LIGHT, ELECTRONIC CIRCUITRY, 1400 LUMENS OUTPUT, 90 MINUTES DURATION & FIVE FULL YEARS WARRANTY.  
 4. FURNISH ALL 2' X 4' LAY-IN LIGHT FIXTURES WITH INTEGRAL CEILING CLIPS.



01 TYPE A2,A2E, A3, A3E, G2  
SCALE: NOT TO SCALE



TYPE C1  
SCALE: NOT TO SCALE



TYPE D2, D2E  
SCALE: NOT TO SCALE



TYPE E1  
SCALE: NOT TO SCALE



TYPE H4, H6  
SCALE: NOT TO SCALE



TYPE G3,G3E  
SCALE: NOT TO SCALE



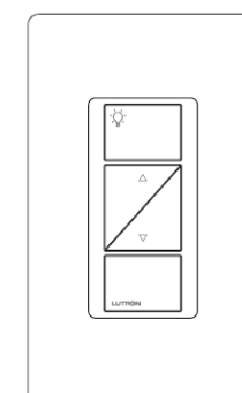
TYPE M, ME, N, NE  
SCALE: NOT TO SCALE



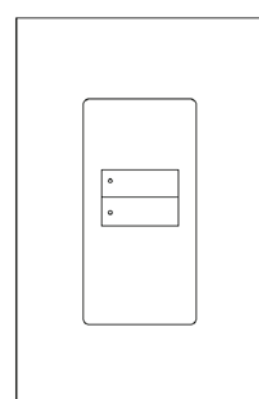
TYPE P1, P2  
SCALE: NOT TO SCALE



TYPE X1, X2  
SCALE: NOT TO SCALE



LUTRON PX-2BRL  
DIMMING WALLSTATION  
SCALE: NOT TO SCALE



LUTRON QSW2-2B1  
WALLSTATION  
SCALE: NOT TO SCALE



LUTRON QSW2-2BR1  
WALLSTATION  
SCALE: NOT TO SCALE



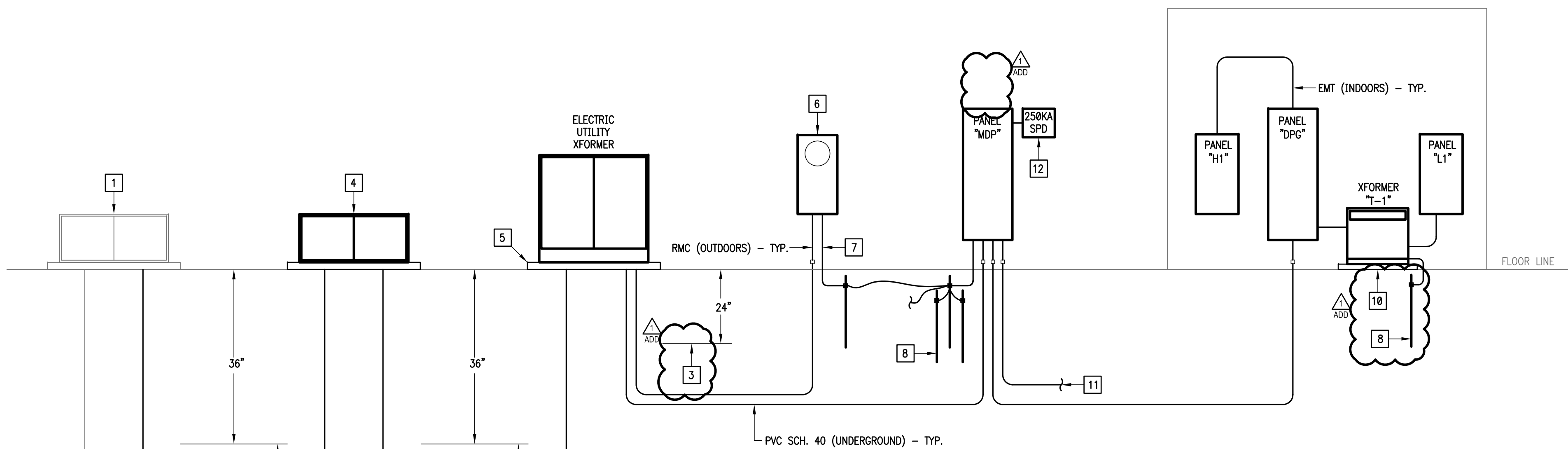
LUTRON QSW2-5BR1  
WALLSTATION  
SCALE: NOT TO SCALE



LUTRON QSW2-KIS13MOC  
KEYED WALLSTATION  
SCALE: NOT TO SCALE



LUTRON SENSOR  
SCALE: NOT TO SCALE



01 ELECTRICAL RISER DIAGRAM

SCALE : NONE

## RACEWAYS EMBEDDED IN FOUNDATION GENERAL NOTES:

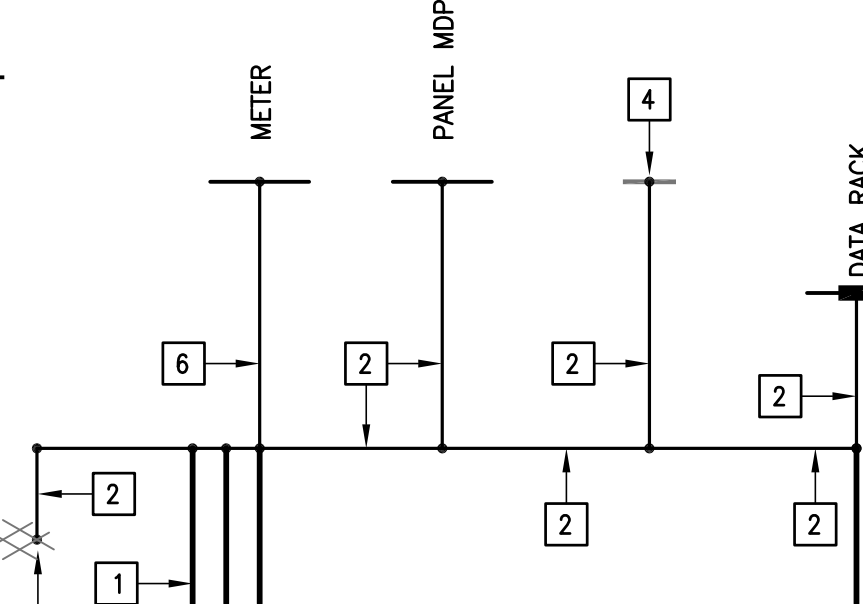
- RACEWAYS EMBEDDED WITHIN THE SLAB SHALL COMPLY WITH THE FOLLOWING:
1. SHALL HAVE A MINIMUM SPACING OF 2".
2. SHALL NOT BE LARGER THAN 1".
3. SHALL NOT BE RUN THROUGH THE SURFACE AREA OF THE FOOTING.
4. SHALL NOT BE CROSSED OVER/UNDER EACH OTHER WITH THE SLAB.
5. SHALL NOT BE TIED TO THE REBAR.
6. SHALL BE A MINIMUM OF 1.5" AWAY FROM SLAB REBAR. IF SPACING CANNOT BE ACCOMPLISHED, IT SHALL BE PROVIDED BELOW GRADE.

## ELECTRICAL RISER DIAGRAM KEYED NOTES:

- EXISTING MVEC SECTIONALIZER.
- PROVIDE 2-4" PVC CONDUITS. PROVIDE LONG SWEEP RADIUS ELBOWS.
- PROVIDE CONTINUOUS DETECTABLE UNDERGROUND WARNING TAPE.
- NEW SECTIONALIZER PROVIDED BY MVEC.
- PROVIDE UTILITY TRANSFORMER CONCRETE PAD - SEE DETAIL.
- PROVIDE ELECTRIC UTILITY METER.
- PROVIDE 1-1/4" - #6.
- SEE GROUNDING RISER DIAGRAM - TYPICAL.
- NOT USED.
- PROVIDE 4" HOUSEKEEPING CONCRETE PAD - TYPICAL.
- PROVIDE 1" RACEWAY WITH PULLWIRE FOR BACNET COMMUNICATION. STUB UP ABOVE ACCESSIBLE AND TERMINATE AT DATA RACK.
- PROVIDE 270KA SPD EXTERNALLY MOUNTED ACT COMMUNICATIONS MODEL NO. ACT4711-277Y/278-SEL-F-D-C1-SWM\*\*.

## GROUNDING DIAGRAM KEYED NOTES:

- 3/4" X 10' COPPER CLAD GROUND ROD. INSTALL THREE(3) GROUNDING ELECTRODES IN A TRIANGULAR PATTERN. MIN SPACING 6".
- #4 BARE COPPER GROUND ELECTRODE CONDUCTOR.
- CADWELD TO BUILDING REBAR.
- BOND/CLAMP TO COPPER WATER LINE.
- GROUNDING BUS BAR - TYPICAL.
- #1/0 BARE COPPER GROUND ELECTRODE CONDUCTOR.



02 GROUNDING RISER DIAGRAM

SCALE:N.T.S.

### DPG

ROOM 104				VOLTS 480Y/277V 3P 4W				AIC 65,000			
MOUNTING SURFACE				BUS AMPS 400				MAIN BKR 400			
FED FROM MDP				NEUTRAL 100%				LUGS STANDARD			
NOTE: PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.											
CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA			CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA		
			A	B	C				A	B	C
1	110/3	* RTU-1	27.4			2	110/3	* RTU-2	27.4		
3				27.4		4				27.4	
5					27.4	6					27.4
7	30/3	EWH-1	6			8	60/3	** XFMR T-1 (30KVA)	10.5		
9				6		10				15.2	
11					6	12					11.9
13	60/3	PANEL H1	3.32			14	20/3	SPACE	0		
15				3.47		16				0	
17					1.27	18					0
19	20/3	SPACE	0			20	20/3	SPACE	0		
21				0		22				0	
23					0	24					0
TOTAL CONNECTED KVA BY PHASE									74.5	79.4	73.9
CONN KVA			CALC KVA			CONN KVA			CALC KVA		
LIGHTING	8.16	10.2	(125%)			RECEPTACLES	30.3	20.1	(50%/10)		
LARGEST MOTOR	0.915	0.229	(25%)			CONTINUOUS	4.18	5.23	(125%)		
MOTORS	3.07	3.07	(100%)			NONCONTINUOUS	18	18	(100%)		
						HEATING	164	164	(100%)		
TOTAL LOAD							221				
BALANCED 3-PHASE AMPS							266				

- \* PROVIDE SHUNT TRIP HACR TYPE CIRCUIT BREAKER.
- \*\* PROVIDE ELECTRONIC TYPE WITH L.S.T. DIALS.

### H1

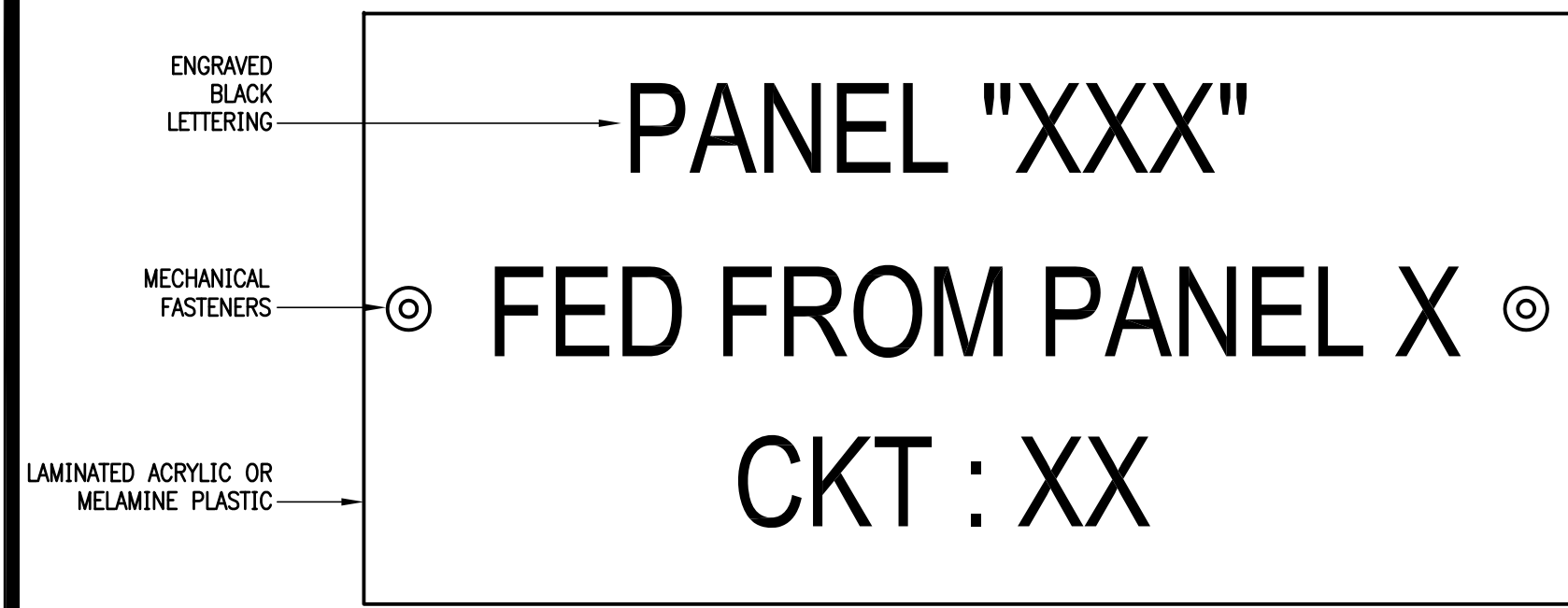
ROOM 104				VOLTS 480Y/277V 3P 4W				AIC 14,000			
MOUNTING SURFACE				BUS AMPS 100				MAIN BKR MLO			
FED FROM DPG				NEUTRAL 100%				LUGS STANDARD			
NOTE: PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.											
CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA			CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA		
			A	B	C				A	B	C
1	20/1	LIGHTING	1.1			2	20/1	LIGHTING	1.74		
3	20/1	LIGHTING		1.74		4	20/1	LIGHTING		1.74	
5	20/1	LIGHTING			1.13	6	20/1	LIGHTING			0.135
7	20/1	LIGHTING	0.492			8	20/1	SPARE	0		
9	20/1	SPARE		0		10	20/1	SPARE		0	
11	20/1	SPARE			0	12	20/1	SPARE			0
13	20/1	SPARE			0	14	20/1	SPARE	0		
15	20/1	SPARE				16	20/1	SPARE		0	
17	20/1	SPARE				18	20/1	SPARE			
19	20/1	SPARE	0			20	20/1	SPARE	0		
21	20/1	SPARE			0	22	20/1	SPARE			
23	20/1	SPARE				24	20/1	SPARE			0
TOTAL CONNECTED KVA BY PHASE									3.32	3.47	1.27
			CONN KVA		CALC KVA				CALC KVA		
LIGHTING		8.06	10.1	(125%)		TOTAL LOAD		10.1			
						BALANCED 3-PHASE AMPS		12.1			

### L1

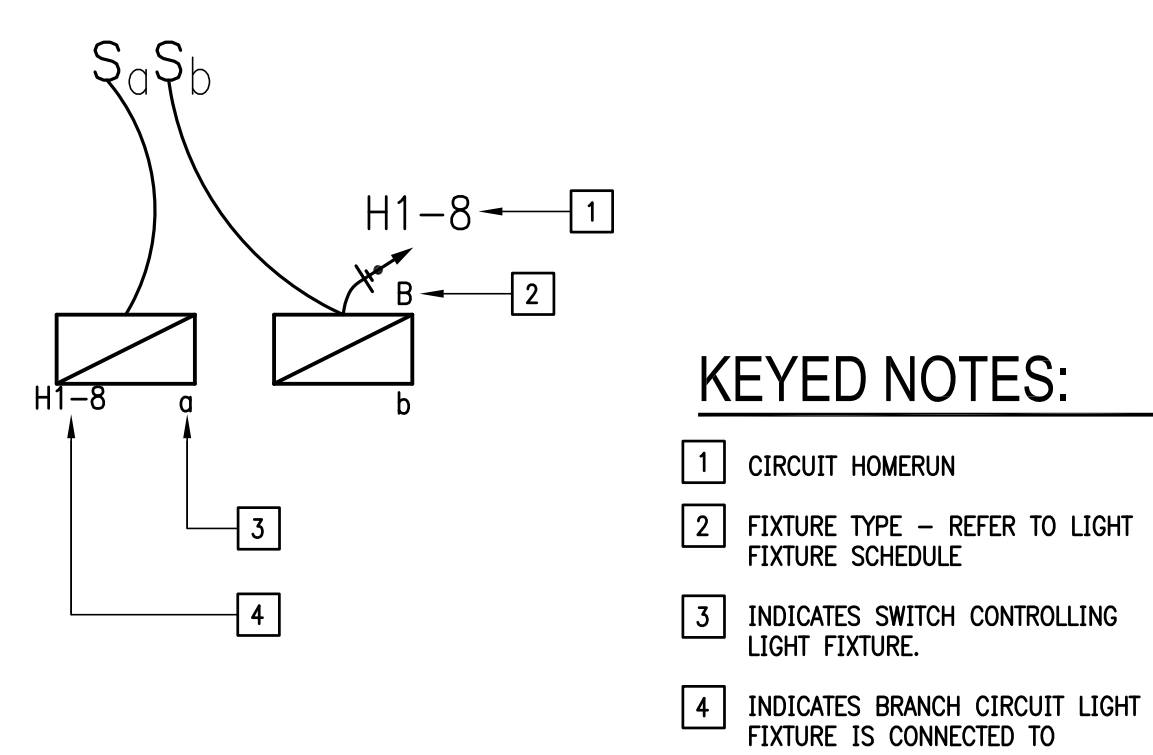
ROOM 104 MOUNTING SURFACE FED FROM T-1 NOTE: PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.				VOLTS 208Y/120V 3P 4W BUS AMPS 100 NEUTRAL 100% GROUNDING 750				AIC 10,000 MAIN BKR 100 LUGS STANDARD			
CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA			CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA		
			A	B	C				A	B	C
1	20/1	RECEPT.	1.26			2	20/1	HAND DRYER	1.5		
3	20/1	HAND DRYER		1.5		4	20/1	HAND DRYER		1.5	
5	20/1	HAND DRYER			1.5	6	20/1	EF-4			0.388
7	20/1	RECEPT.	0.54			8	20/1	EF-5	0.09		
9	20/1	AMPLIFIER		1.2		10	20/1	DRINKING FOUNTAIN		0.8	
11	20/1	DRINKING FOUNTAIN			0.8	12	20/1	RECEPT.			1.08
13	20/1	HAND DRYER	1.5			14	20/1	HAND DRYER	1.5		
15	20/1	HAND DRYER				16	20/1	HAND DRYER	1.5	1.5	
17	20/1	EF-1			0.388	18	20/1	EF-2			0.09
19	20/1	EF-2	0.09			20	20/1	HAND DRYER	1.5		
21	20/1	HAND DRYER		1.5		22	20/1	EF-3		0.09	
23	20/1	MOT. SCREEN			0.1	24	20/1	RECEPT.			0.36
25	20/1	RECEPT.	0.36			26	20/1	SCOREBOARD	1.4		
27	20/1	MOT. BACKBOARD		0.8		28	20/1	MOT. BACKBOARD		0.8	
29	20/1	MOT. BACKBOARD			0.8	30	20/1	RECEPT.			0.18
31	20/1	MOT. BACKBOARD	0.8			32	20/1	SCOREBOARD	1.4		
33	20/1	RECEPT.		0.36		34	20/1	MOT. BACKBOARD		0.8	
35	20/1	MOT. BACKBOARD			0.8	36	20/3	TELESCOPIC BLEACHER			0.305
37	20/3	TELESCOPIC BLEACHER	0.305			38			0.305		
39				0.305		40				0.305	
41					0.305	42	20/2	SPARE			0
43	20/1	FLOW SWITCH	0.18			44					
45	30/1	IDF - UPS		2.88		46	20/1	LOGO SIGN		0.1	
47	20/1	INTRUSION PANEL			0.1	48	20/1	SPARE			0
49	20/1	FIRE ALARM CONTROL PANEL	1.2			50	20/1	SPARE	0		
51	20/1	RECEPT.		0.72		52	20/1	SPARE		0	
53	20/1	SPARE			0	54	20/1	SPARE			0
55	20/1	SPARE	0			56	20/1	SPARE	0		
57	20/1	SPARE		0		58	20/1	SPARE		0	
59	20/1	SPARE			0	60	20/1	SPARE			
TOTAL CONNECTED KVA BY PHASE									13.9	16.7	7.2
CONN KVA			CALC KVA			CONN KVA			CALC KVA		
LIGHTING			0.1	0.125	(125%)	MOTORS			3.07	3.07	(100%)
LARGEST MOTOR			0.915	0.229	(25%)	RECEPTACLES			30.4	20.2	(50%+10)
						CONTINUOUS			4.18	5.23	(125%)
						TOTAL LOAD			28.9		
						BALANCED 3-PHASE AMPS			80.1		

### MDP

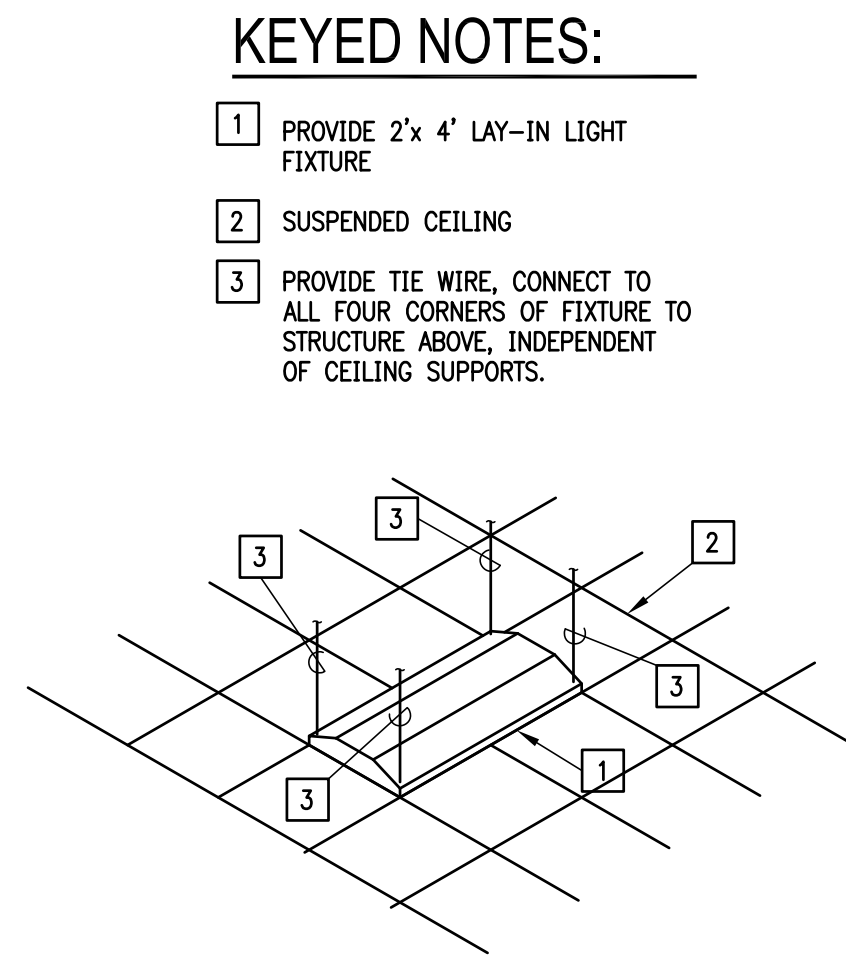
ROOM OUTDOORS MOUNTING SURFACE FED FROM UTILITY NOTE: PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.						VOLTS 480Y/277V 3P 4W BUS AMPS 800 NEUTRAL 100%						AIC 100,000 MAIN BKR MLO LUGS STANDARD					
CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA			CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA								
			A	B	C				A	B	C						
1	400/3	PANEL DPG	74.6			2	400/3	SPARE	0	0	0						
3				79.5		4											
4	100/3	SPACE			74	6											
7			0			8	100/3	SPACE	0	0	0						
10				0		10											
12				0		12											
13	200/3	SPACE				14	200/3	SPACE	0	0	0						
15			0			16											
17				0		18											
TOTAL CONNECTED KVA BY PHASE									74.6	79.5	74						
CONN KVA			CALC KVA			CONN KVA			CALC KVA								
LIGHTING			8.23	10.3	(125%)	RECEPTACLES			30.4	20.2	(50%+10)						
LARGEST MOTOR			0.915	0.229	(25%)	CONTINUOUS			4.18	5.23	(110%)						
MOTORS			3.07	3.07	(100%)	NONCONTINUOUS			18	18	(100%)						
						HEATING			164	164	(100%)						
						TOTAL LOAD			221								
						BALANCED 3-PHASE AMPS			266								



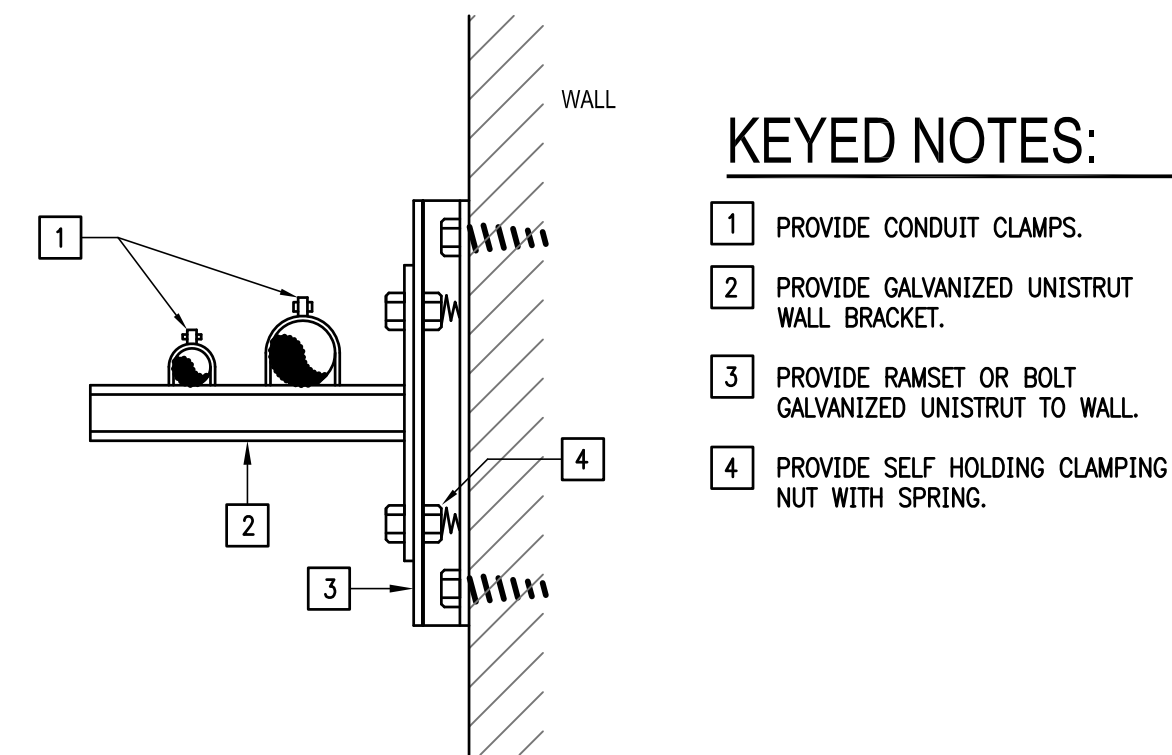
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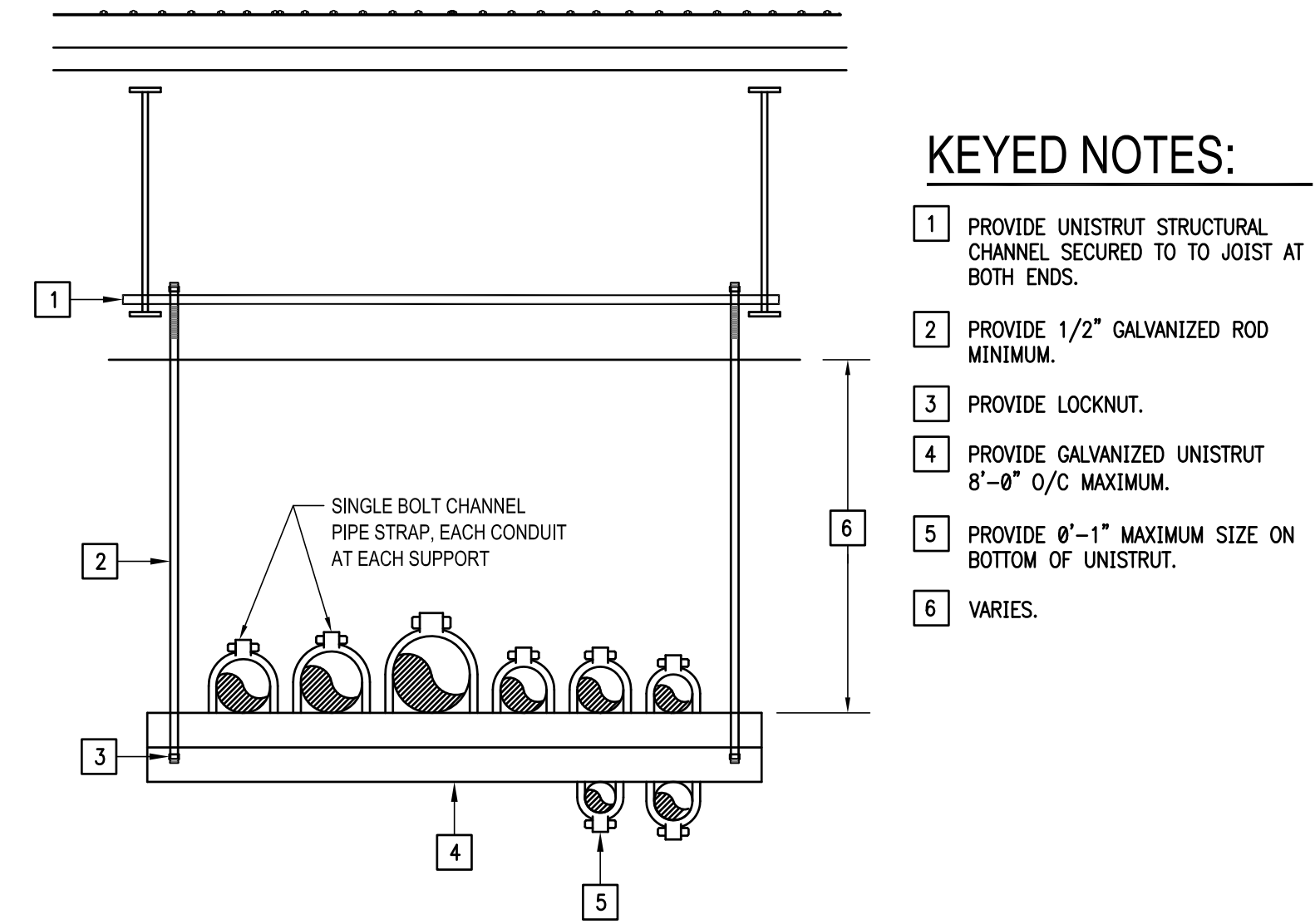
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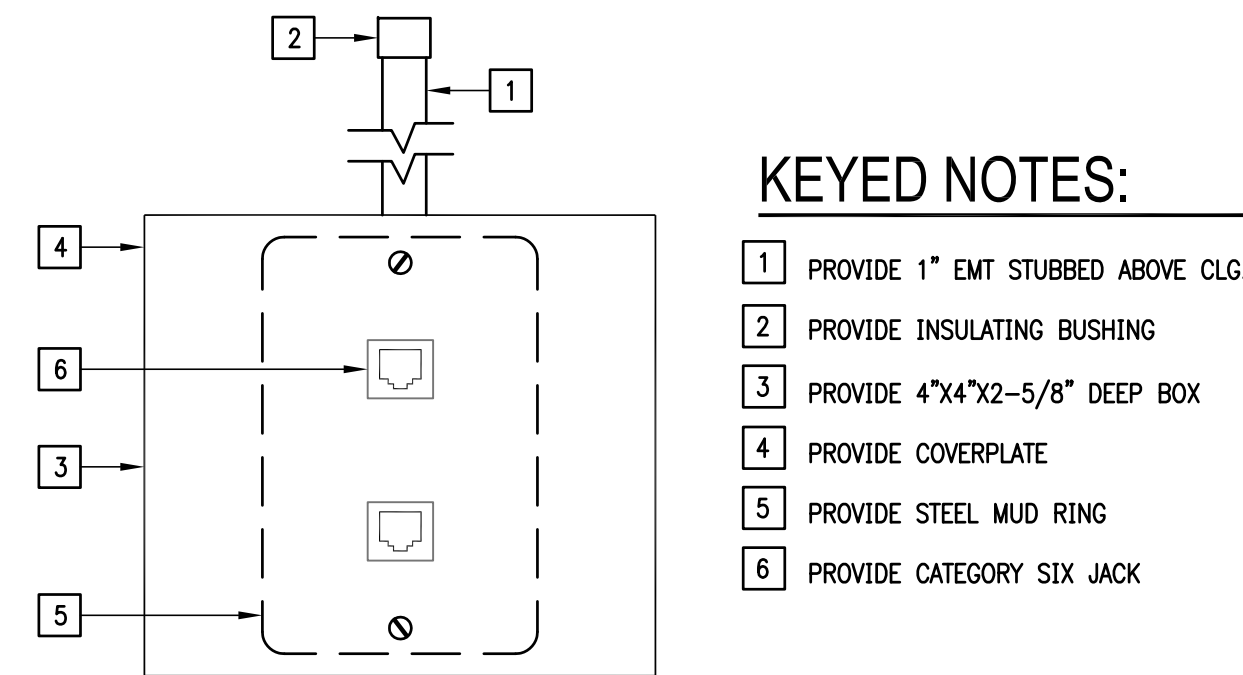
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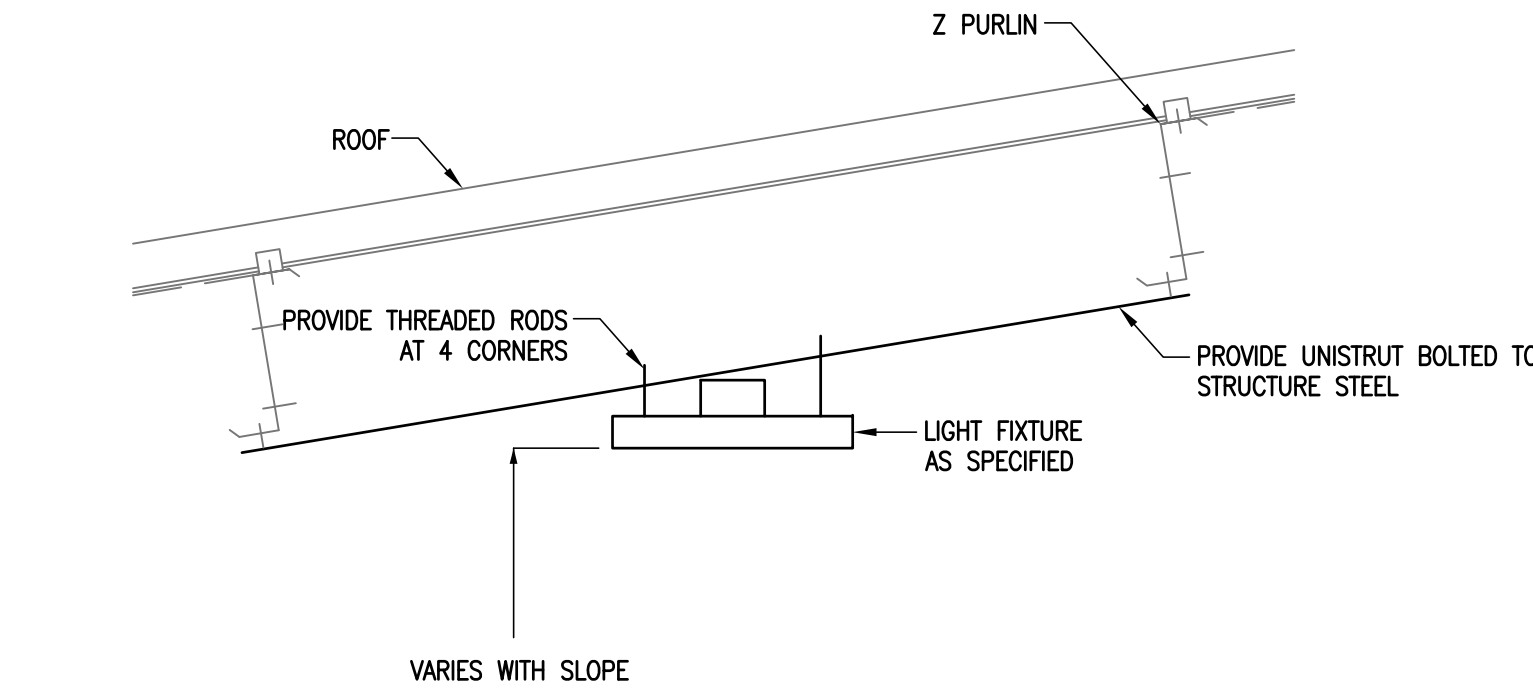
04 RACEWAY RUNS SUPPORT DETAIL  
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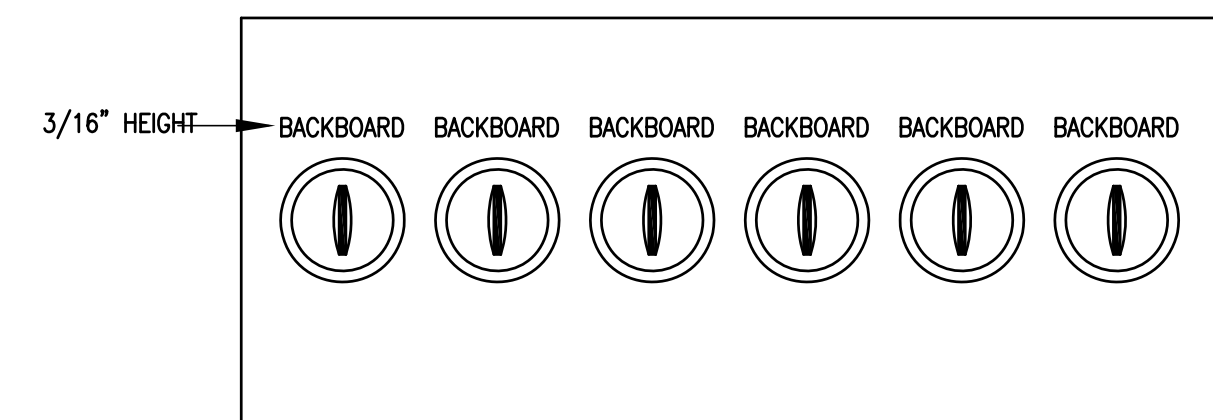
05 HORIZONTAL RACEWAYS SUPPORT DETAIL  
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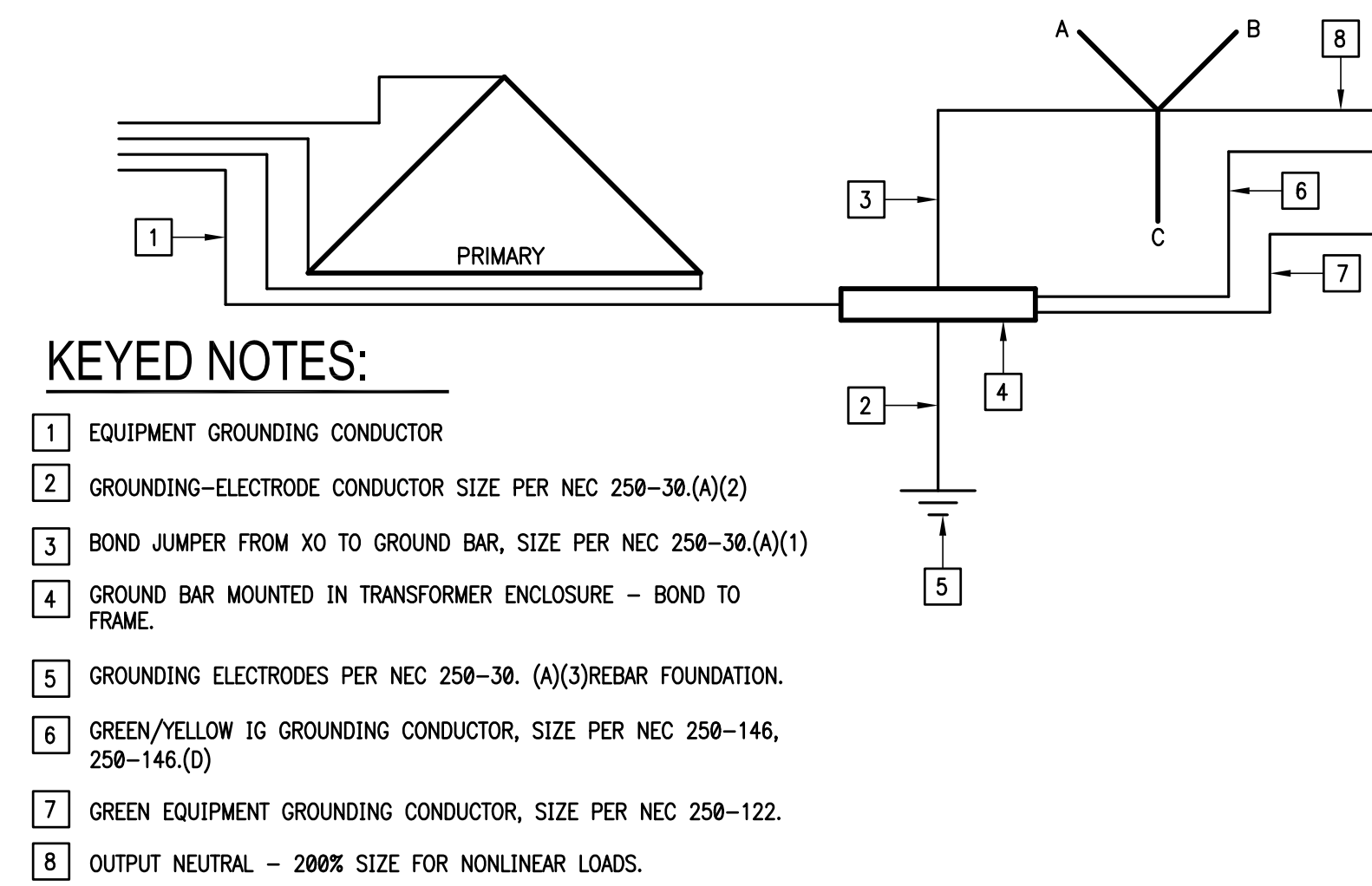
06 TYPICAL DATA OUTLET DETAIL  
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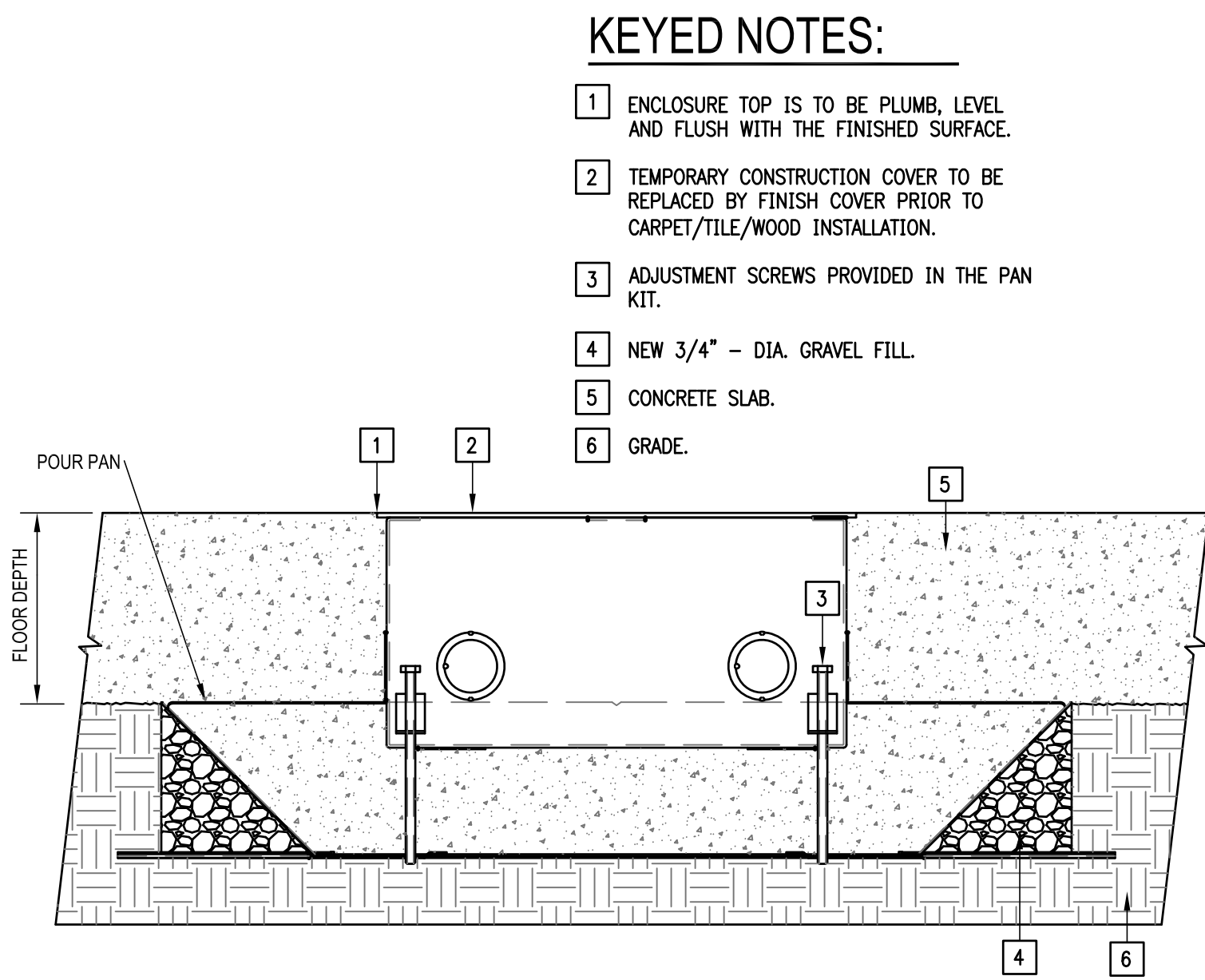
07 GYMNASIUM LIGHT FIXTURE MOUNTING DETAIL  
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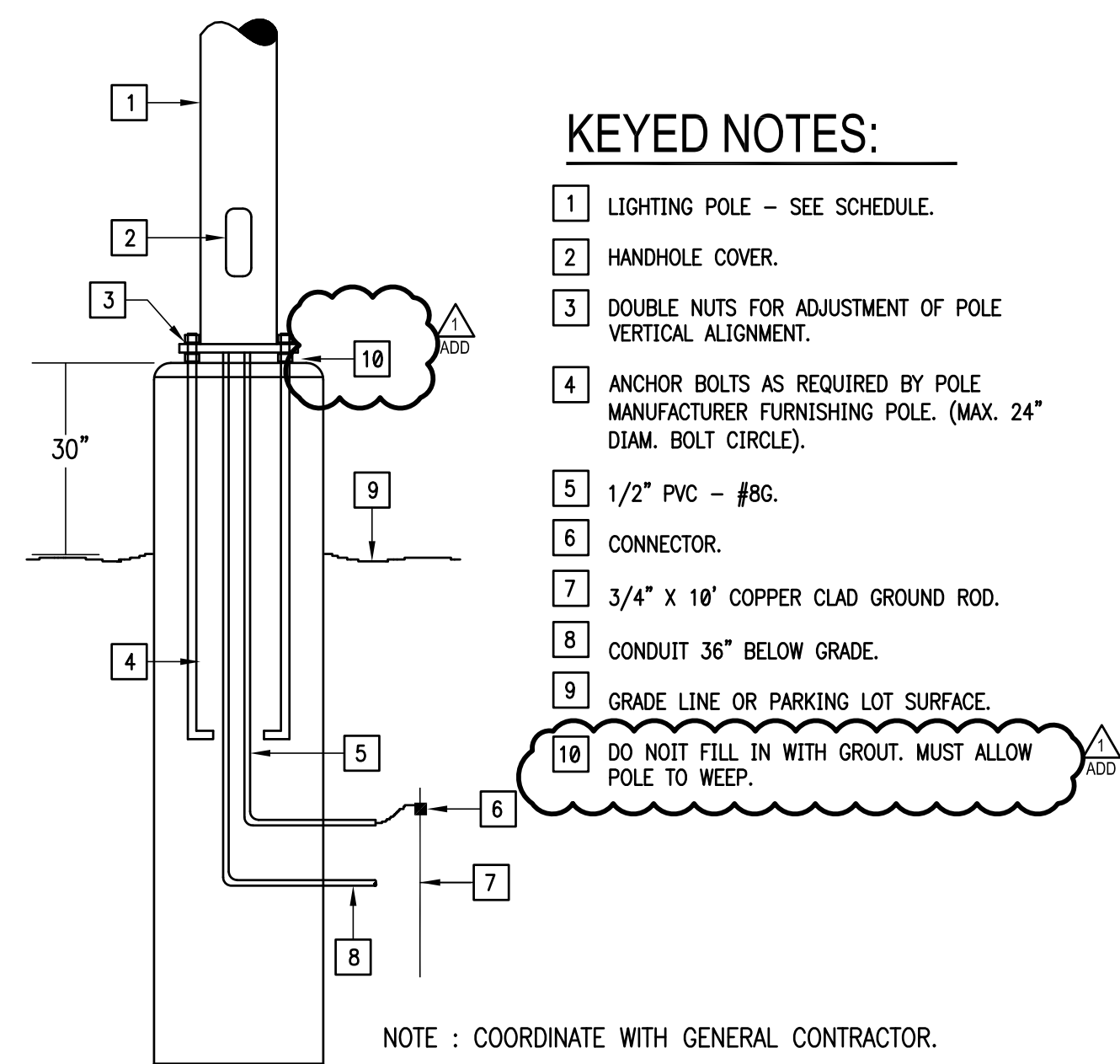
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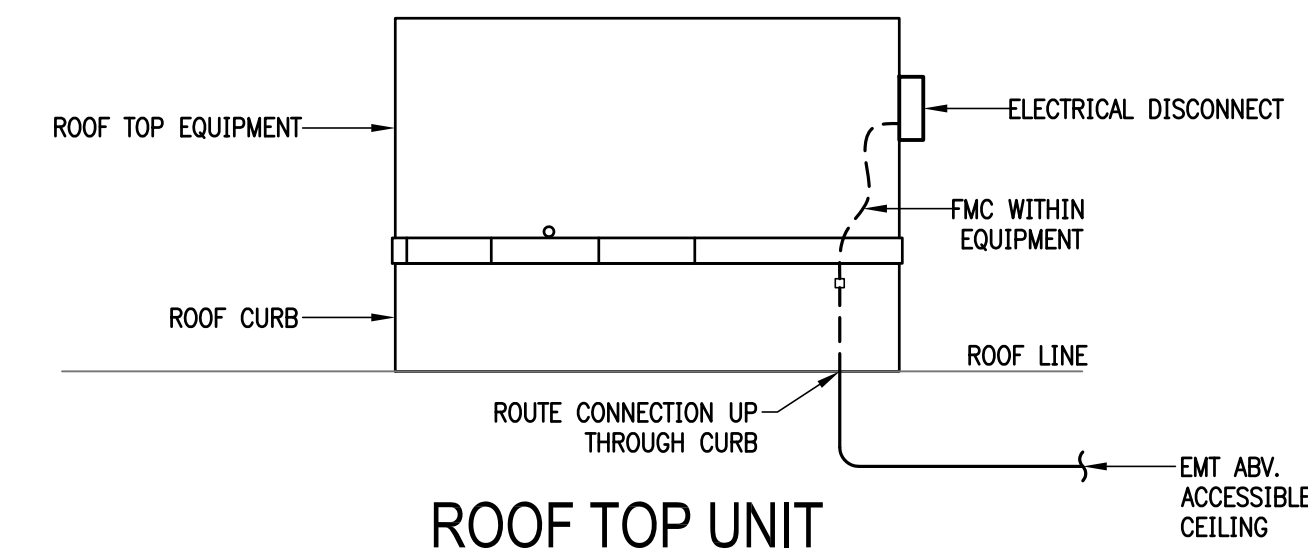
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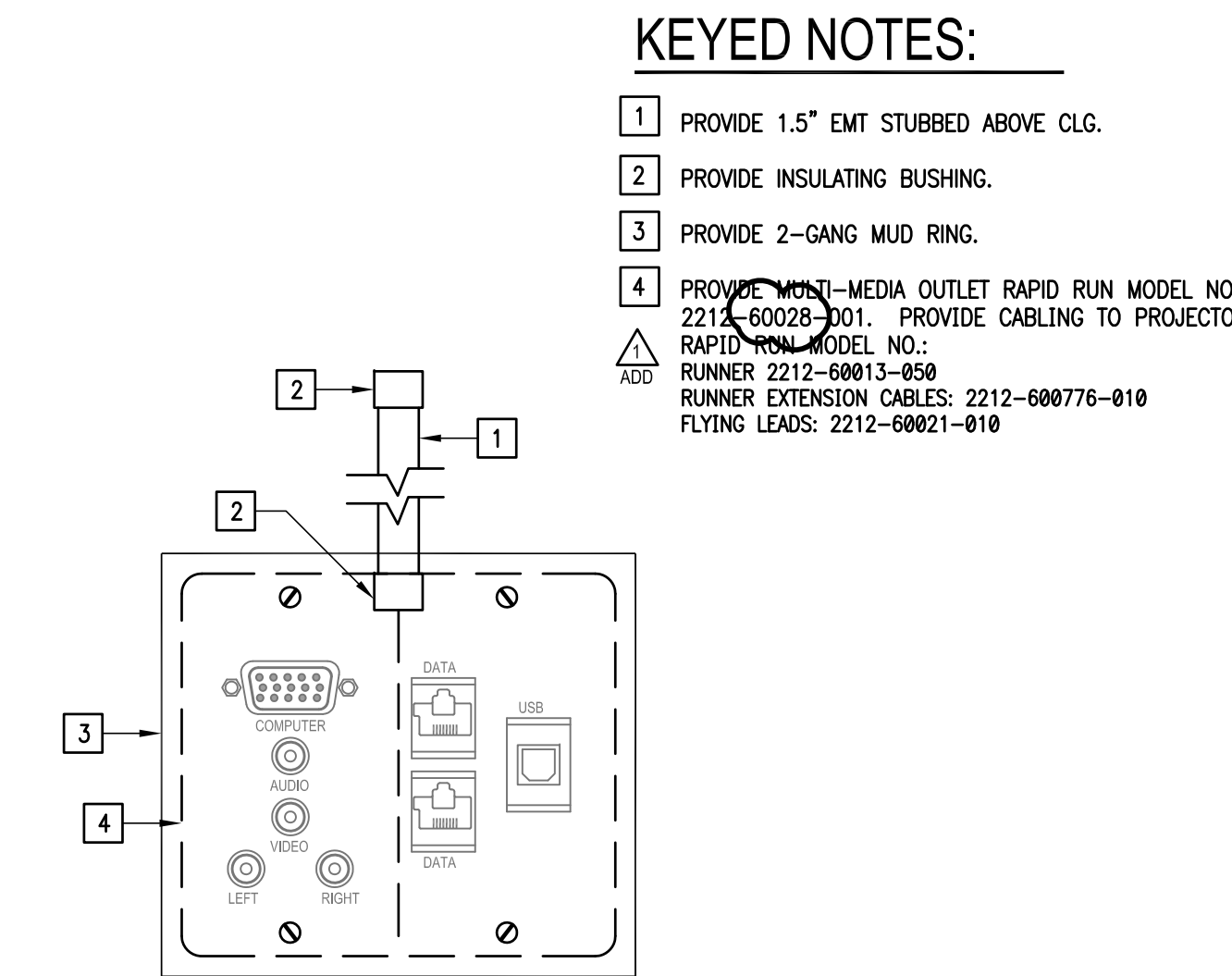
10 FLOOR BOX WITH POUR PAN DETAIL  
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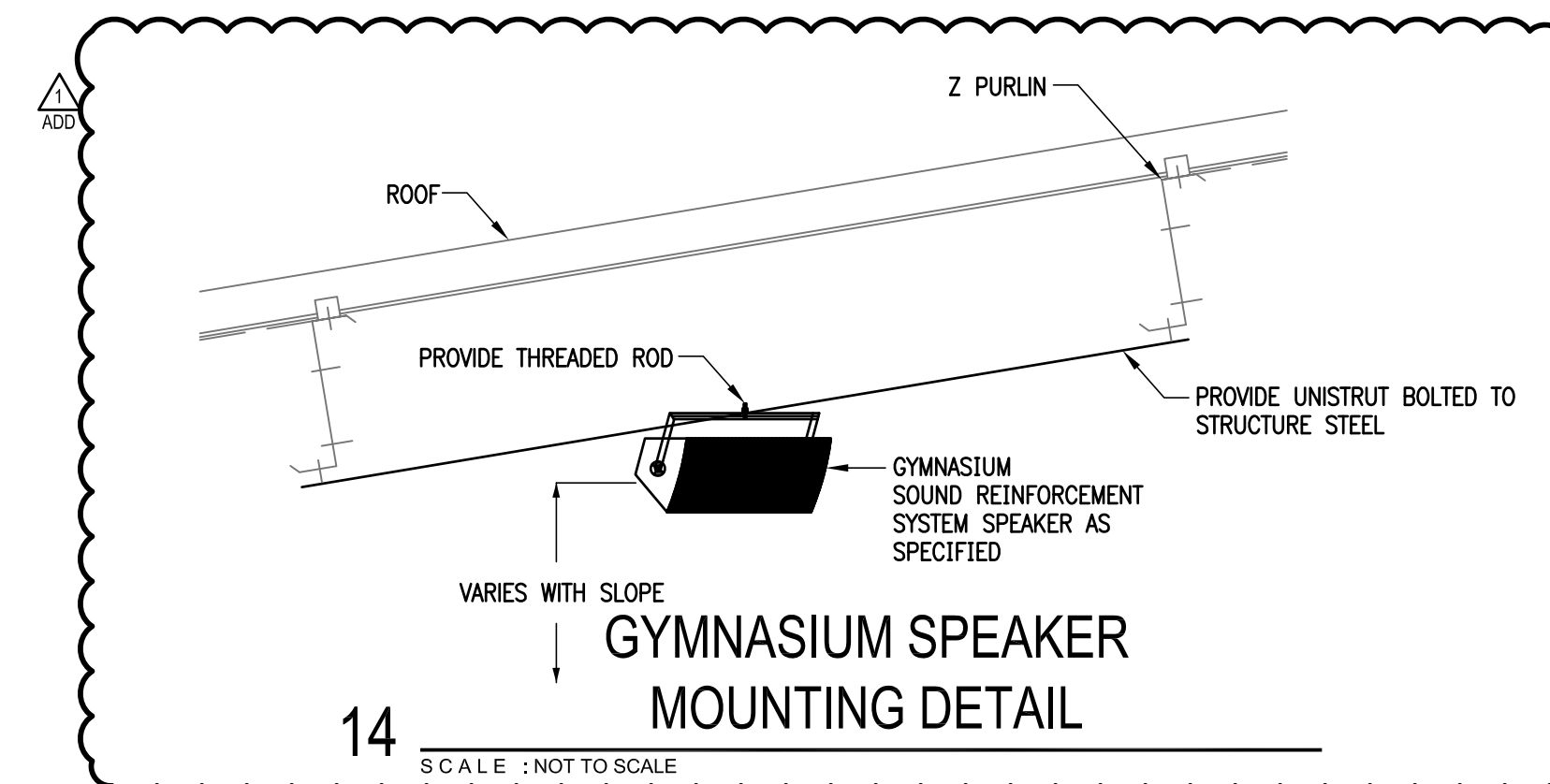
11 LIGHT POLE FOUNDATION DETAIL  
SCALE : NOT TO SCALE



12 ROOF TOP UNIT CONNECTION DETAIL  
SCALE : NOT TO SCALE



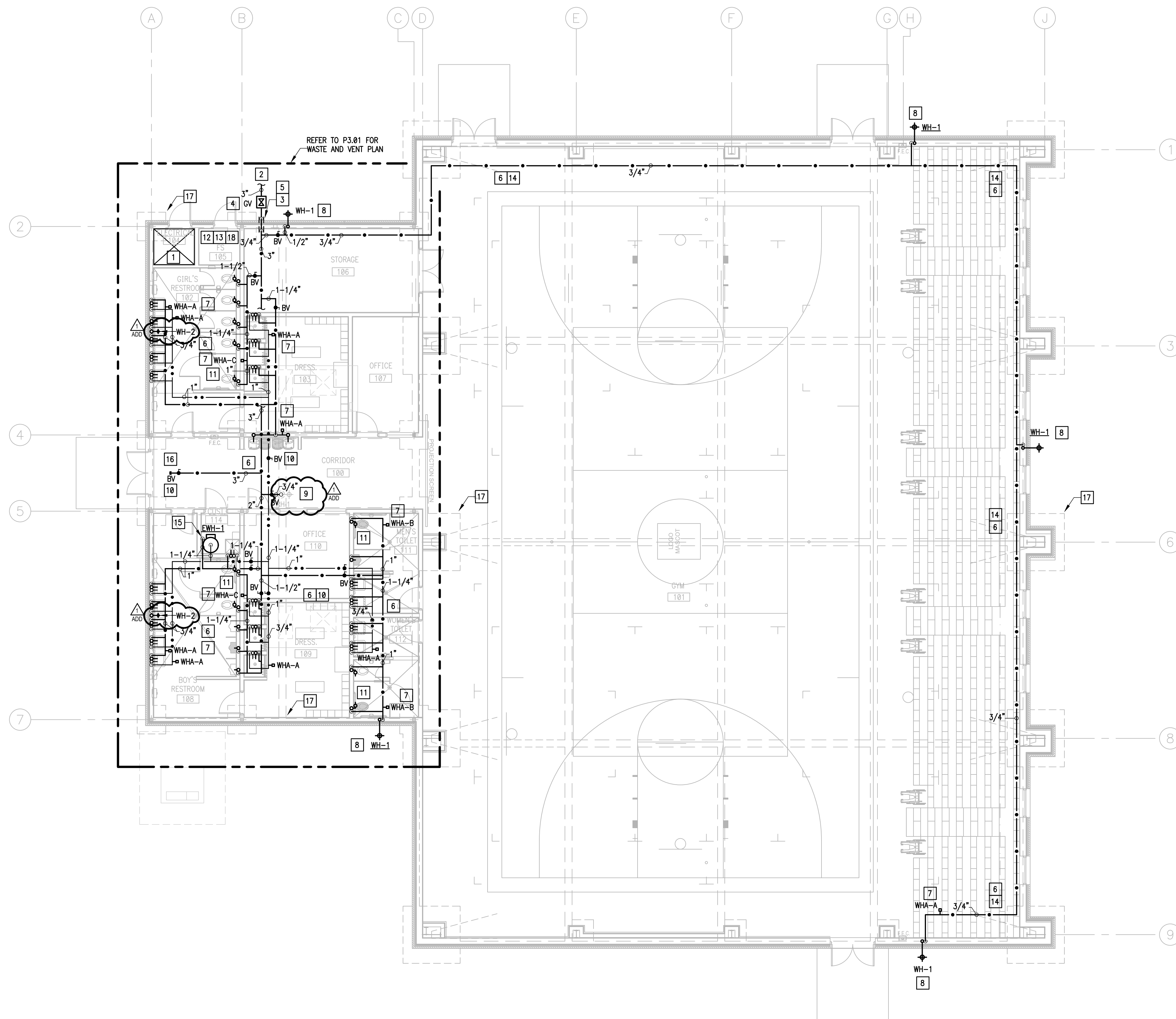
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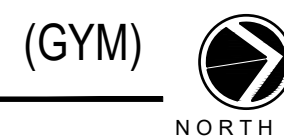
14 GYMNASIUM SPEAKER MOUNTING DETAIL  
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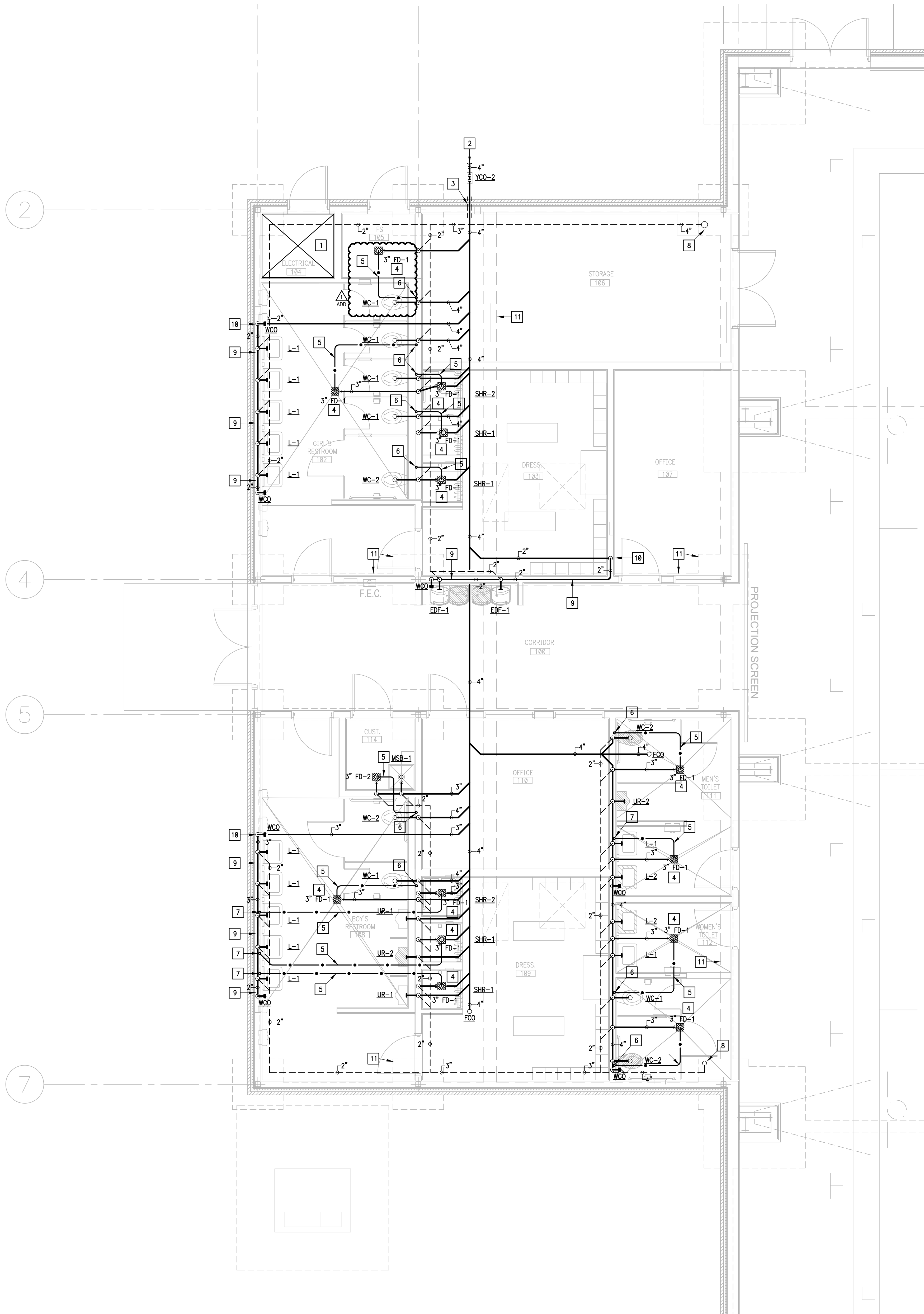
PLUMBING KEYED NOTES:

- CLEARANCE FOR ELECTRICAL PANELS. ROUTE NO PIPING OVER THIS AREA. REFER TO ELECTRICAL PLANS FOR EXACT LOCATION OF ELECTRICAL ROOMS.
- REFER TO MEP SITE PLAN FOR CONTINUATION.
- SLEEVE ALL GRADE BEAMS, FLOOR SLABS AND MASONRY WALL PENETRATIONS PER DETAIL WHETHER SPECIFICALLY INDICATED ON PLANS OR NOT.
- PROVIDE GATE VALVE IN QUARTZITE BOX. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
- PROVIDE 1" CLOSED-CELL INSULATION WITH METAL JACKET ON EXPOSED PIPING. PENETRATE EXTERIOR WALL AS LOW AS POSSIBLE. TURN DOWN TO UNDERGROUND.
- PROVIDE PIPING SUPPORT AS PER SPECS AND DETAIL. SEE ASSOCIATED DETAIL ON DETAIL SHEET. (TYPICAL)
- PROVIDE BELLOW TYPE WATER HAMMER ARRESTOR (WHA), MIFAB OR APPROVED EQUAL. INDICATED MODEL (A,B,C,D,E,F) AS PER MIFAB SIZING CHART. PROVIDE 12"x12" ACCESS PANEL WHERE INSTALLED IN AN INACCESSIBLE AREA. ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY AND PAINT TO MATCH THE WALL/CEILING. (TYPICAL)
- PROVIDE WALL HYDRANT AS SCHEDULED. PROVIDE CLOSE COUPLED HYDRANT TO ENSURE PIPE TURNS UP INSIDE BLOCK WALL. COORDINATE WALL THICKNESS WITH WALL HYDRANT MANUFACTURER DATA. (TYPICAL)
- PROVIDE DOMESTIC WATER PIPING TO ROOF AND CONNECT TO WATER HOSE BIBB. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
- PROVIDE BRONZE ISOLATION BALL VALVE ABOVE CEILING OR BEHIND WALL. PROVIDE 12"x12" ACCESS PANEL WHERE INSTALLED IN AN INACCESSIBLE AREA. ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY AND PAINT TO MATCH THE WALL/CEILING. PROVIDE VALVE IDENTIFICATION TAGS AS PER SPECIFICATIONS. (TYPICAL)
- INSTALL WATER CLOSET FLUSH VALVE. HANDLE TOWARDS WIDE SIDE OF THE ROOM. COORDINATE WITH GENERAL CONTRACTOR.
- FIRE SPRINKLER RISER LOCATION. SEE SPECIFICATION FOR ADDITIONAL INFORMATION.
- COORDINATE FREE STANDING FDC AND PROVISION OF BACK FLOW PREVENTER WITH CIVIL.
- PAINT ALL EXPOSED PIPING TO MATCH ARCHITECTURAL FINISHES. COORDINATE COLOR WITH ARCHITECT.
- PROVIDE ELECTRIC WATER HEATER AS SCHEDULED. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
- CAP END OF DOMESTIC WATER LINE FOR FUTURE ADDITION OF BUILDINGS.
- STRUCTURAL FOUNDATION SHOWN FOR REFERENCE AND COORDINATION PURPOSES. REFER TO STRUCTURAL DRAWINGS FOR MORE DETAILS.
- PROVIDE FIRE SPRINKLER LINE WITH BACK FLOW PREVENTER ON RISER. REFER TO CIVIL DRAWING FOR FIRE LINE CONTINUATION. VERIFY SIZE OF FIRE SPRINKLER LINE BY MEANS OF CALCULATION AND COORDINATE WITH GENERAL CONTRACTOR.



01 PLUMBING PLAN  
SCALE: 1/8" = 1'-0"






02 WASTE & VENT PLAN (GYM)  
SCALE: 1/4" = 1'-0"



- PLUMBING KEYED NOTES:
- 1 CLEARANCE FOR ELECTRICAL PANELS. ROUTE NO PIPING OVER THIS AREA. REFER TO ELECTRICAL PLANS FOR EXACT LOCATION OF ELECTRICAL ROOMS.
  - 2 REFER TO MEP SITE PLAN FOR CONTINUATION.
  - 3 SLEEVE ALL GRADE BEAMS, FLOOR SLABS AND MASONRY WALL PENETRATIONS PER DETAIL WHETHER SPECIFICALLY INDICATED ON PLANS OR NOT.
  - 4 PROVIDE FLOOR DRAIN AS SCHEDULED. SET FLUSH WITH FINISHED FLOOR. SEE ASSOCIATED DETAIL ON DETAIL SHEET (TYPICAL).
  - 5 PROVIDE 1/2" SOFT DRAWN COPPER FROM TRAP-PRIMER. ROUTE PIPING UNDERNEATH THE POLYETHYLENE VAPOR BARRIER. PIPING SHALL NOT BE EMBEDDED IN THE CONCRETE FLOOR SLAB. ENCASE PIPING INSIDE WALL AND UNDER FLOOR SLAB IN POLYETHYLENE SLEEVE, "POLY-SLEEVE" OR EQUAL.
  - 6 CONNECT TO (WC) FLUSH VALVE TRAP-PRIMER. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
  - 7 CONNECT TO LAVATORY P-TRAP PRIMER Z1021 OR APPROVED EQUAL.
  - 8 PROVIDE 4" VENT UP THRU ROOF.
  - 9 RUN SANITARY SEWER PIPING INSIDE WALL CAVITY AND ABOVE CONCRETE SLAB TO CLEAR GRADE BEAM.
  - 10 DROP SANITARY SEWER PIPING AT THIS APPROXIMATE LOCATION.
  - 11 STRUCTURAL FOUNDATION SHOWN FOR REFERENCE AND COORDINATION PURPOSES. REFER TO STRUCTURAL DRAWINGS FOR MORE DETAILS (TYPICAL).

No.	REVISIONS	BY
1	MAY 24, 2019	




GMS ARCHITECTS

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Brownsville TX 78526  
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IDEA-EDINBURG  
COLLEGE PREP PHASE III


IDEA  
Public Schools



5.03.2019

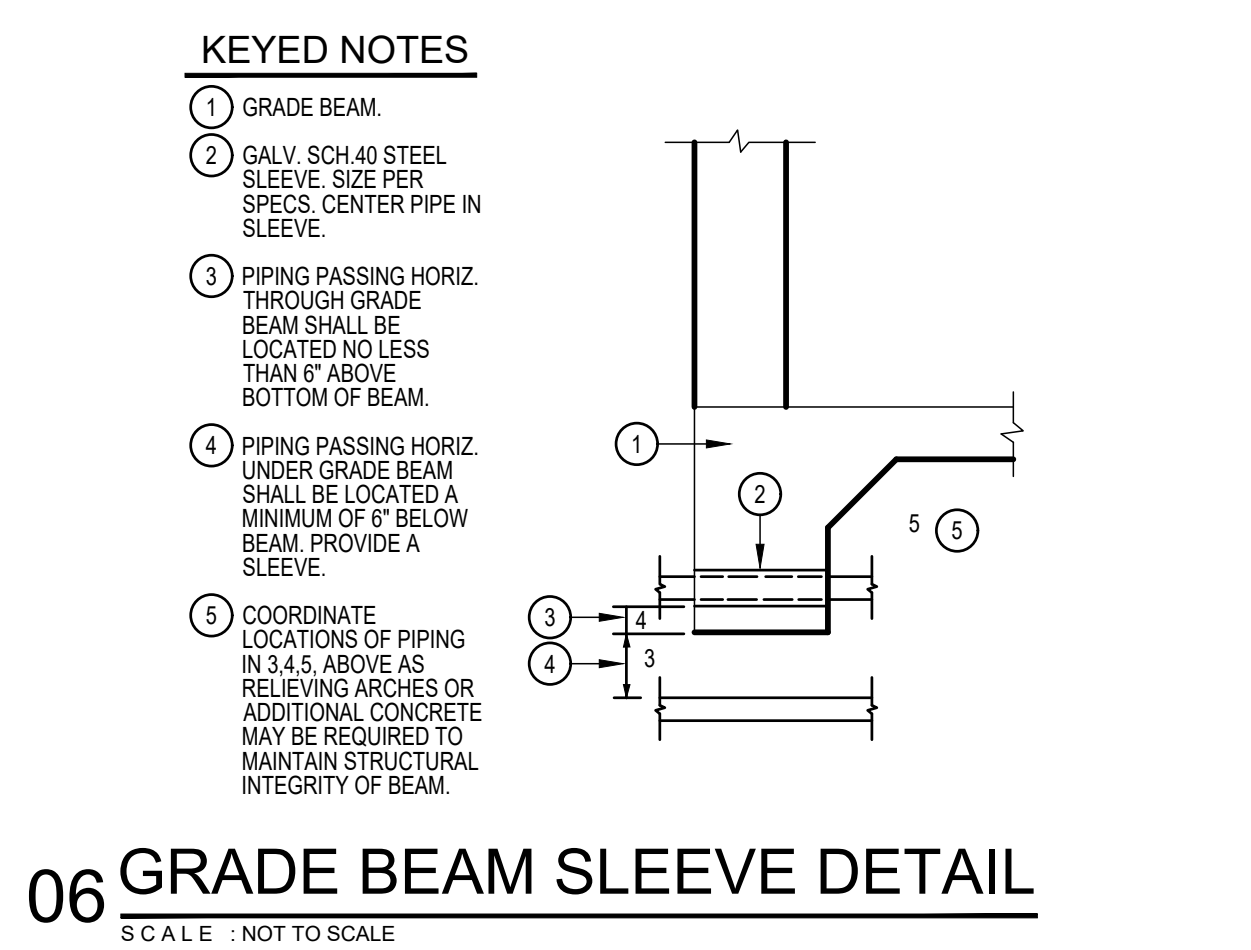
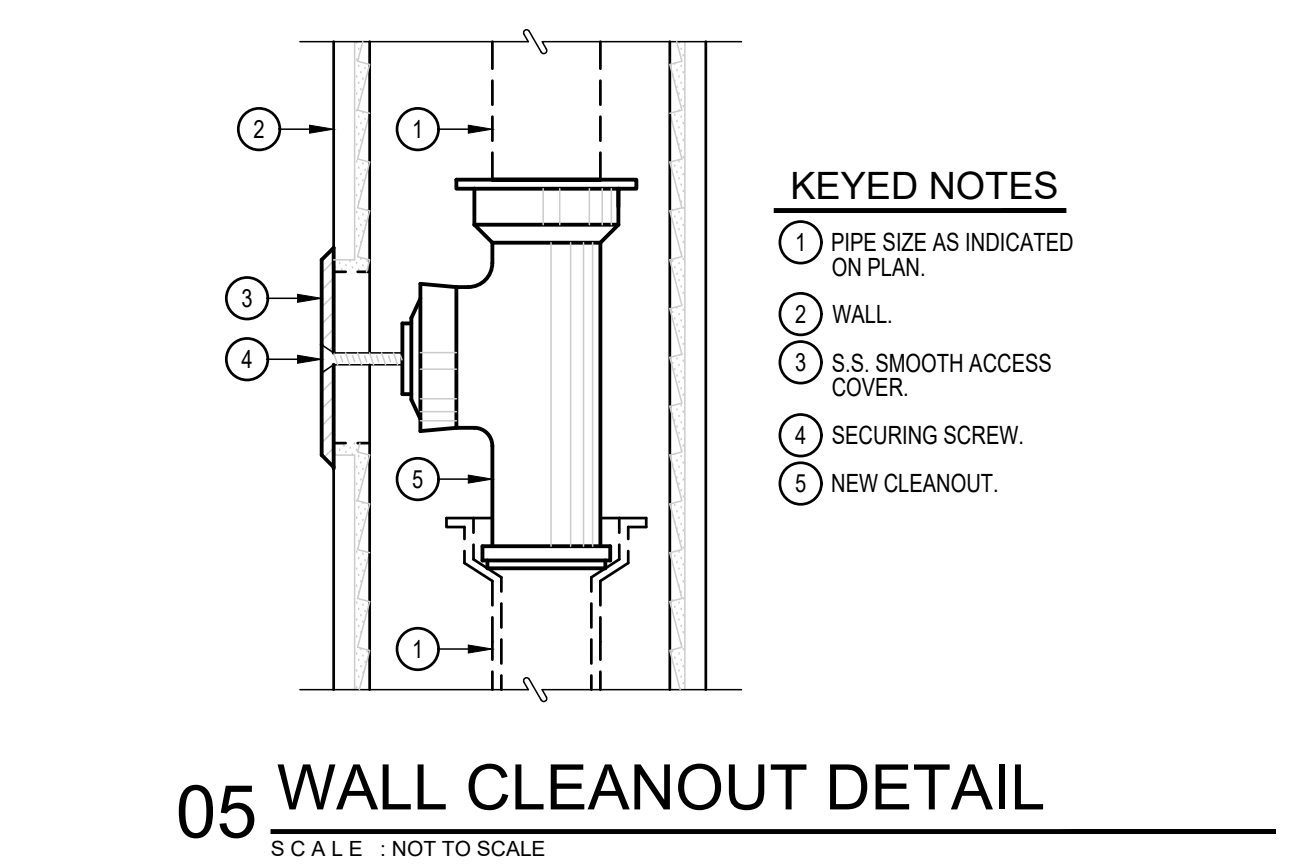
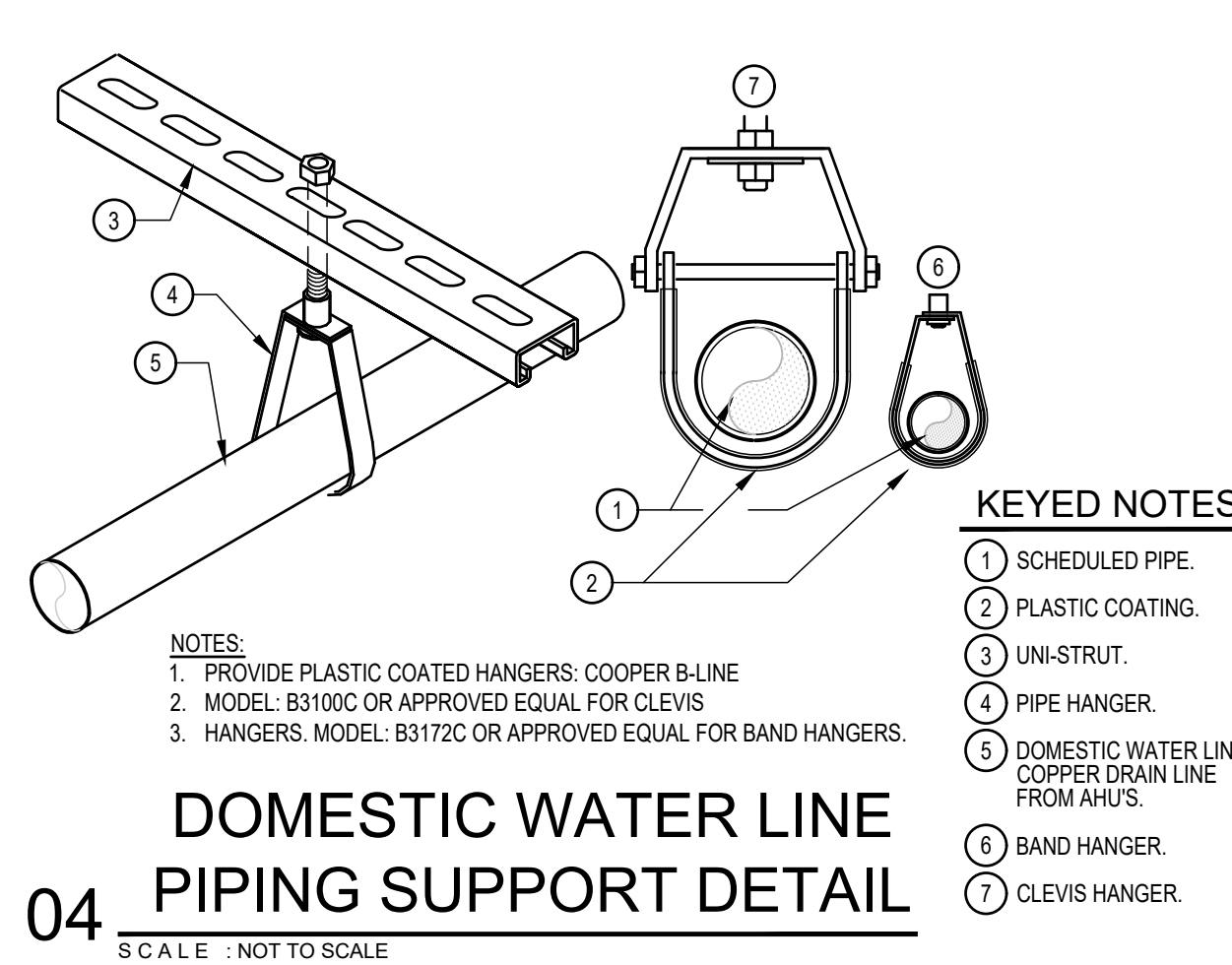
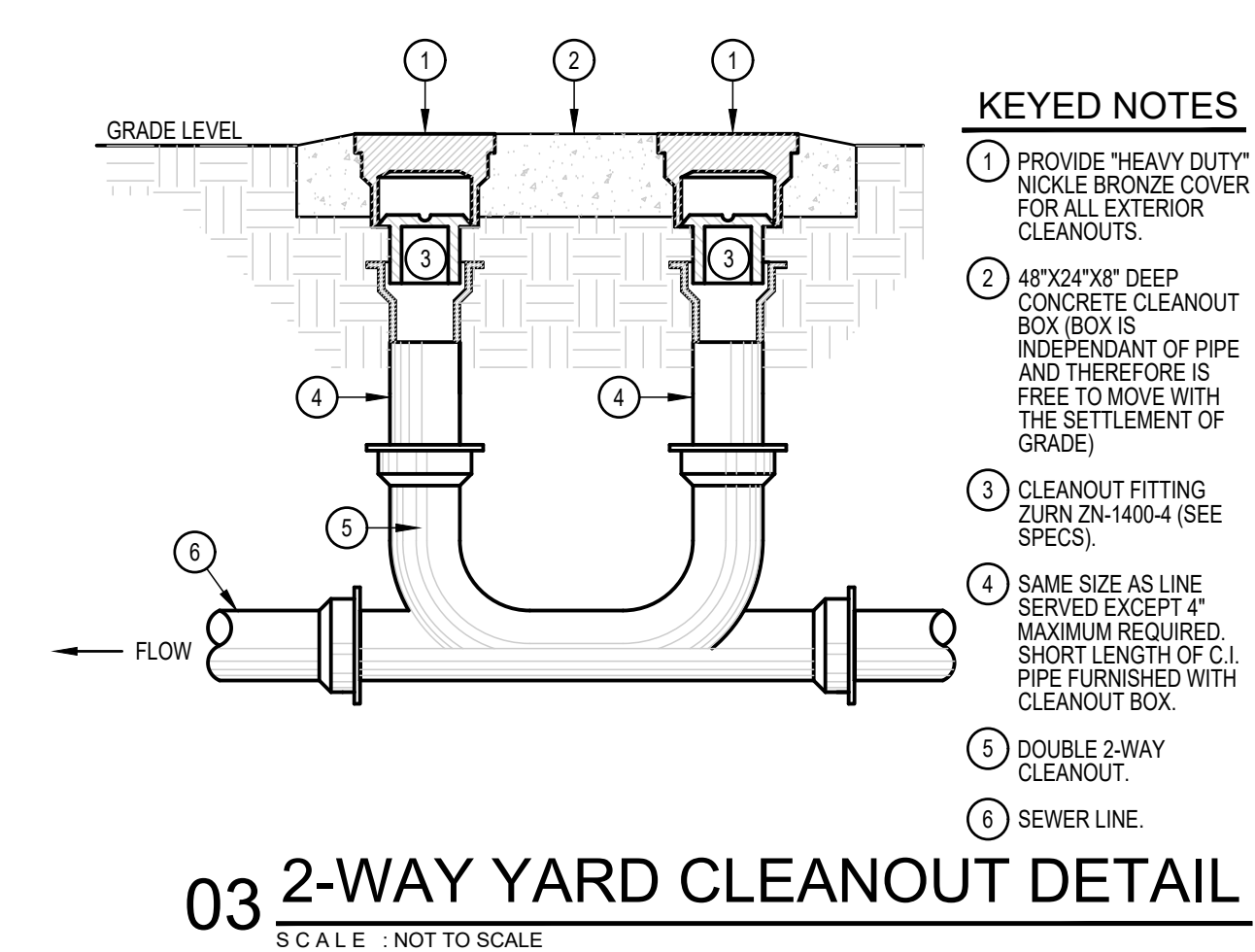
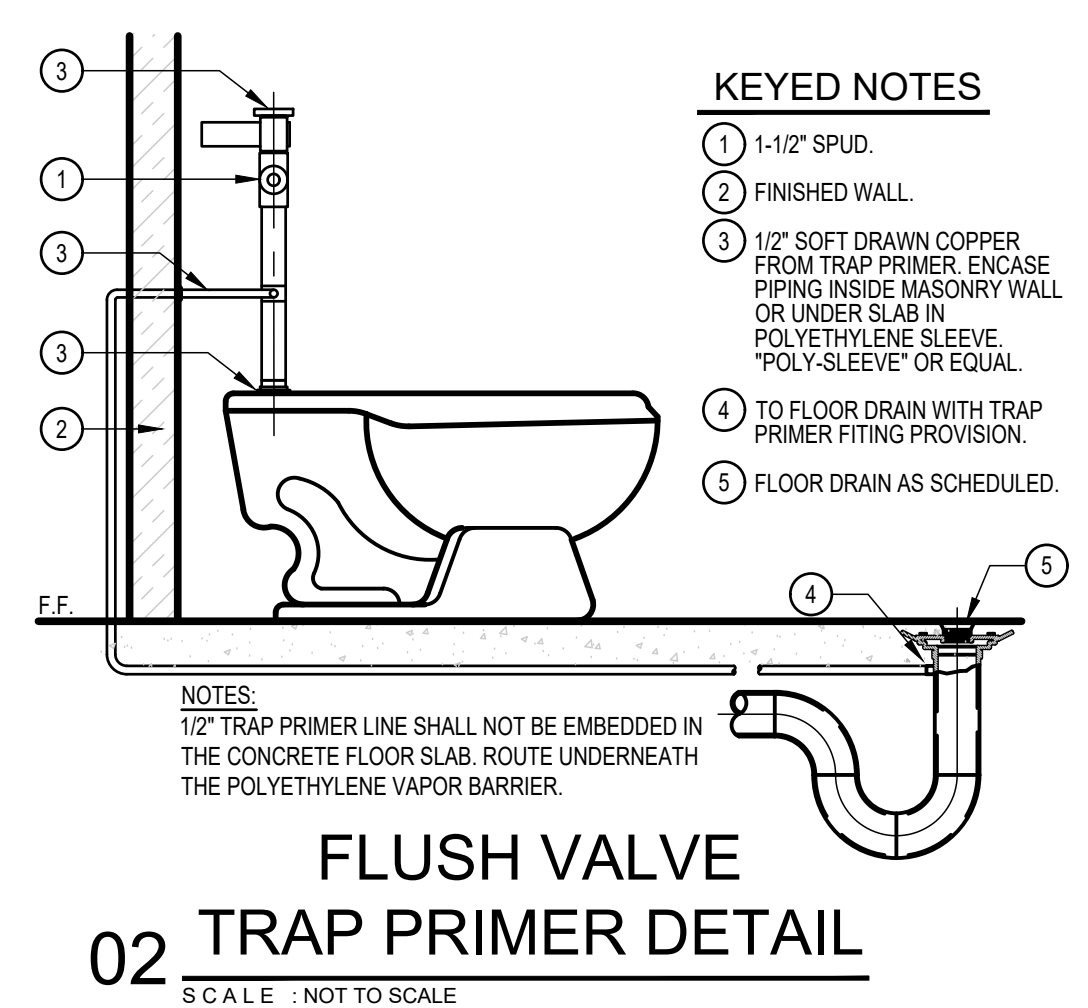
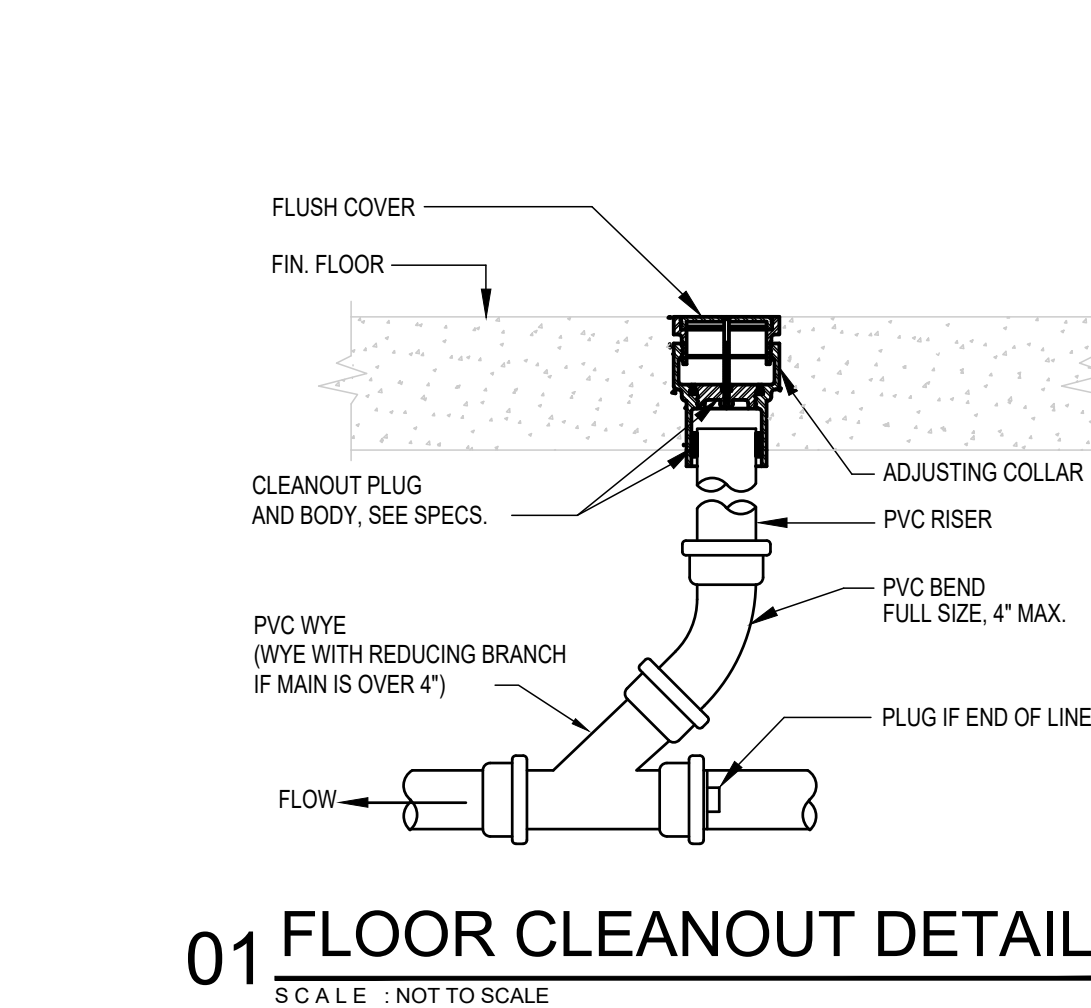
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Date: May 03, 2019  
Scale: As Noted  
Project Architect: Roan G. Gomez, AIA  
Drawn By: ETHOS  
Job No: IDEA EDINBURG PHASE III  
Sheet: P3.01



ETHOS  
engineering

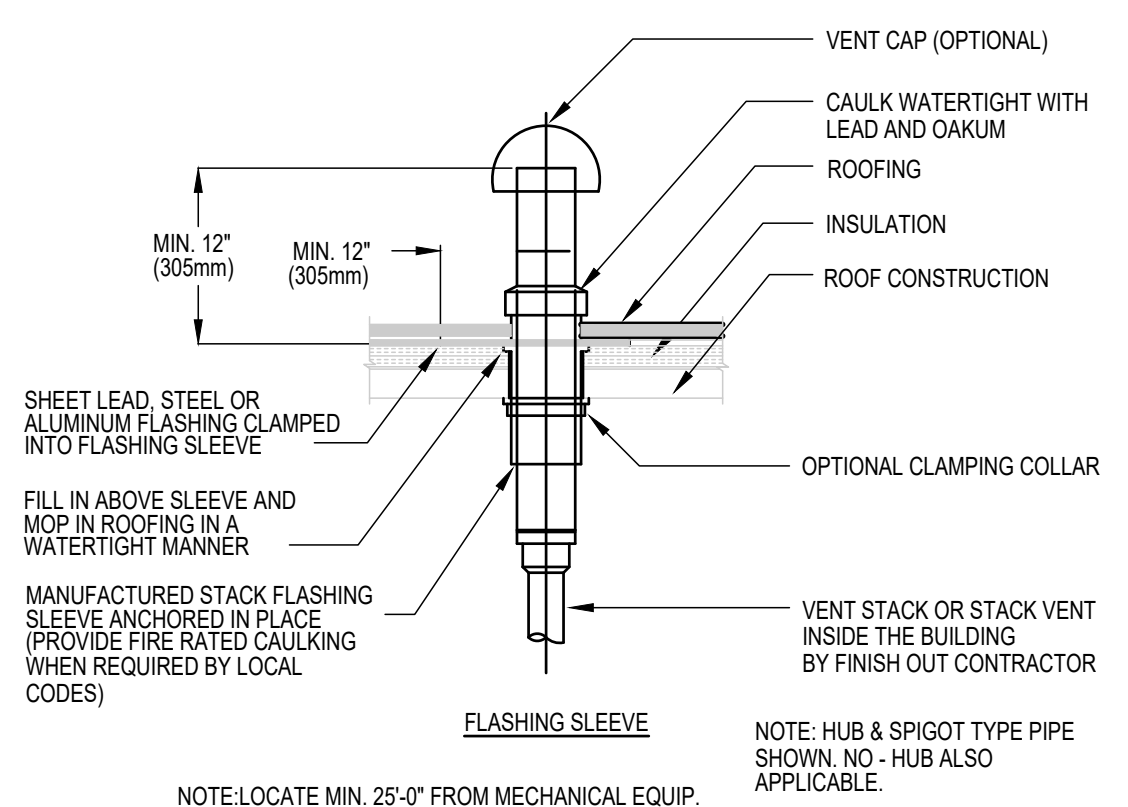
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F-15968




PLUMBING SYMBOLS LEGEND		
COLD WATER SUPPLY	WCO	WALL CLEANOUT
HOT WATER SUPPLY		*GATE VALVE (GV)
GAS LINE		*BALL VALVE (BV)
SOIL & WASTE LINE - ENLARGED PLANS		VALVE IN RISER TYPE AS NOTED
VENT LINE - ENLARGED PLANS	WC	WATER CLOSET
ACID WASTE LINE - ENLARGED PLANS	UR	URINAL
ACID VENT LINE - ENLARGED PLANS	L	LAVATORY
FIRE SPRINKLER LINE	SK	SINK
FLOOR CLEANOUT	EDF	ELECTRIC DRINKING FOUNTAIN
FLOOR CLEANOUT - 2 WAY	MSB	MOP SERVICE BASIN
FLOOR DRAIN (FD) WITH DEEP SEAL TRAP	EESH	EMERGENCY EYESHOWER
HUB DRAIN WITH DEEP SEAL TRAP	TP	TRAP PRIMER
FLOOR SINK	EW	ELECTRIC WATER HEATER
YARD CLEANOUT	VTR	VENT THRU ROOF
YARD CLEANOUT - 2 WAY	CO	CLEANOUT
WALL HYDRANT	A.F.F.	ABOVE FINISH FLOOR
TRAP PRIMER	ADT	ACID DILUTION TANK
	GT	GREASE TRAP
		*WATER HAMMER ARRESTOR (WHA)

\*PROVIDE 12"x12" ACCESS PANEL WHERE INSTALLED IN AN INACCESSIBLE AREA.

- GENERAL NOTES: (APPLY TO ALL PLUMBING SHEETS)
- ALL PLUMBING WORK SHALL BE IN COMPLIANCE WITH ALL APPLICABLE CODES AS ADAPTED AND AMENDED BY THE INSPECTING AUTHORITIES.
  - DRAWING IS DIAGRAMMATIC ONLY. CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF PIPING, DEVICES AND EQUIPMENT WITH BUILDING ELEMENTS AND THE WORK OF OTHER TRADES.
  - ALL PLUMBING WORK SHALL BE INSTALLED SO AS TO AVOID CONFLICT WITH THE WORK OF OTHER TRADES. COORDINATE WITH MECHANICAL, ELECTRICAL AND STRUCTURAL FOR PROPER CLEARANCES.
  - REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR PHASING AND SEQUENCE OF CONSTRUCTION WORK.
  - COORDINATE WORK AMONG ALL DISCIPLINES. IT IS NOT THE INTENT OF THESE DOCUMENTS TO DICTATE WHO MUST DO THE WORK. ALL WORK SHOWN IS THE RESPONSIBILITY OF THE PRIME CONTRACTOR.
  - SLEEVE ALL OUTSIDE WALLS, FOUNDATION GRADE BEAMS, INTERIOR WALL PENETRATIONS, AND FIRE SEAL ALL PENETRATION THROUGH FIRE WALLS AND FLOORS WHETHER SHOWN ON PLANS OR NOT.
  - PROVIDE MINIMUM 15' OF SEPARATION BETWEEN HVAC INTAKES AND VENT THRU ROOFS.
  - RECORD INVERT ELEVATIONS OF ALL YARD CLEAN OUT (YCO) ON "AS-BUILT" DRAWINGS.
  - PROVIDE SHUT-OFF VALVES (STOPS) ON ALL ROUGH-INS TO FIXTURES AND EQUIPMENTS.
  - PROVIDE WATER HAMMER ARRESTORS AS INDICATED ON THE DRAWINGS. AIR CHAMBERS NOT AN APPROVED SUBSTITUTE.
  - PROVIDE ANY BACKFLOW PREVENTION DEVICE REQUIRED BY CODE OR LOCAL AUTHORITIES. CONTRACTOR SHALL VERIFY THIS WITH CITY AND LOCAL AGENCIES AND INCLUDE COST IN BID. CONTRACTOR TO HAVE BACK FLOWS CERTIFIED.
  - REFER TO PLUMBING FIXTURE ROUGH-IN SCHEDULE FOR INDIVIDUAL PIPE CONNECTIONS TO FIXTURES.
  - PRIOR TO POURING FOUNDATION AND ERECTING CMU WALLS, COORDINATE INSTALLATION OF PLUMBING FIXTURE CARRIERS WITH GENERAL CONTRACTOR.
  - METAL STUDS AT DRY WALLS SHALL NOT BE CUT THRU HORIZONTAL DIRECTION. COORDINATE WITH DRY WALL CONTRACTOR.
  - CONTRACTOR SHALL NOT CUT ANY EXTERIOR WALL METAL STUD.



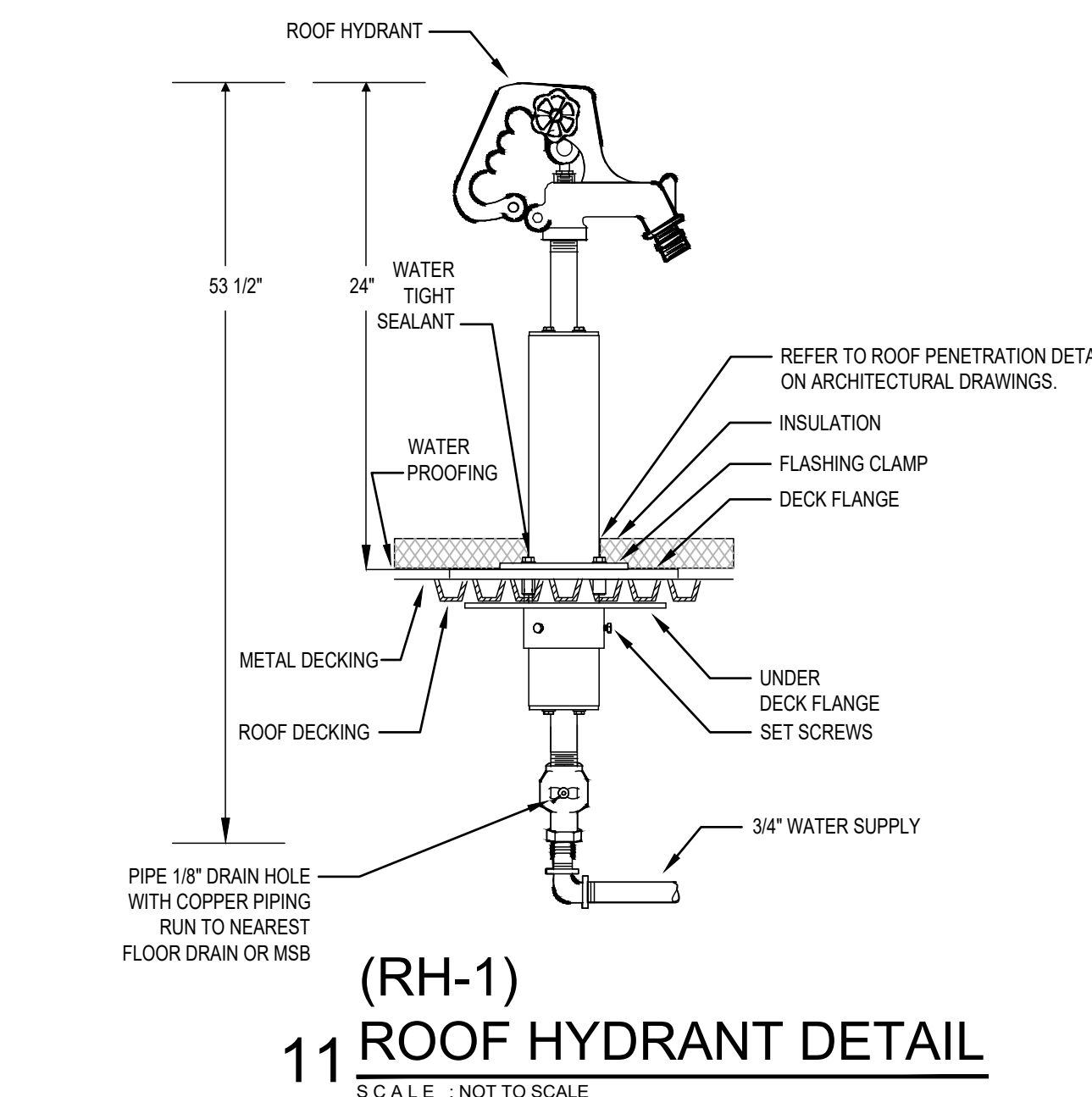
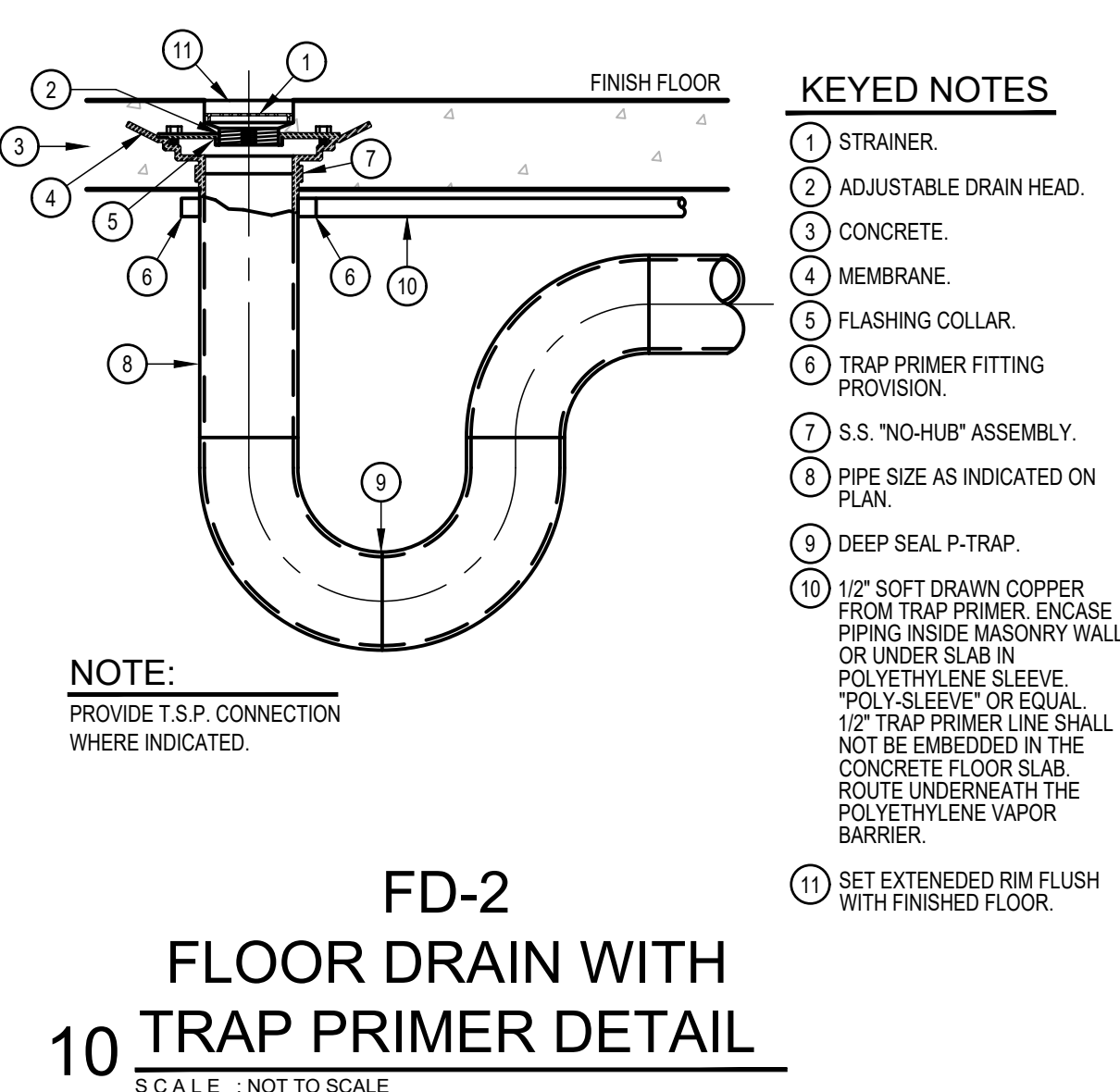
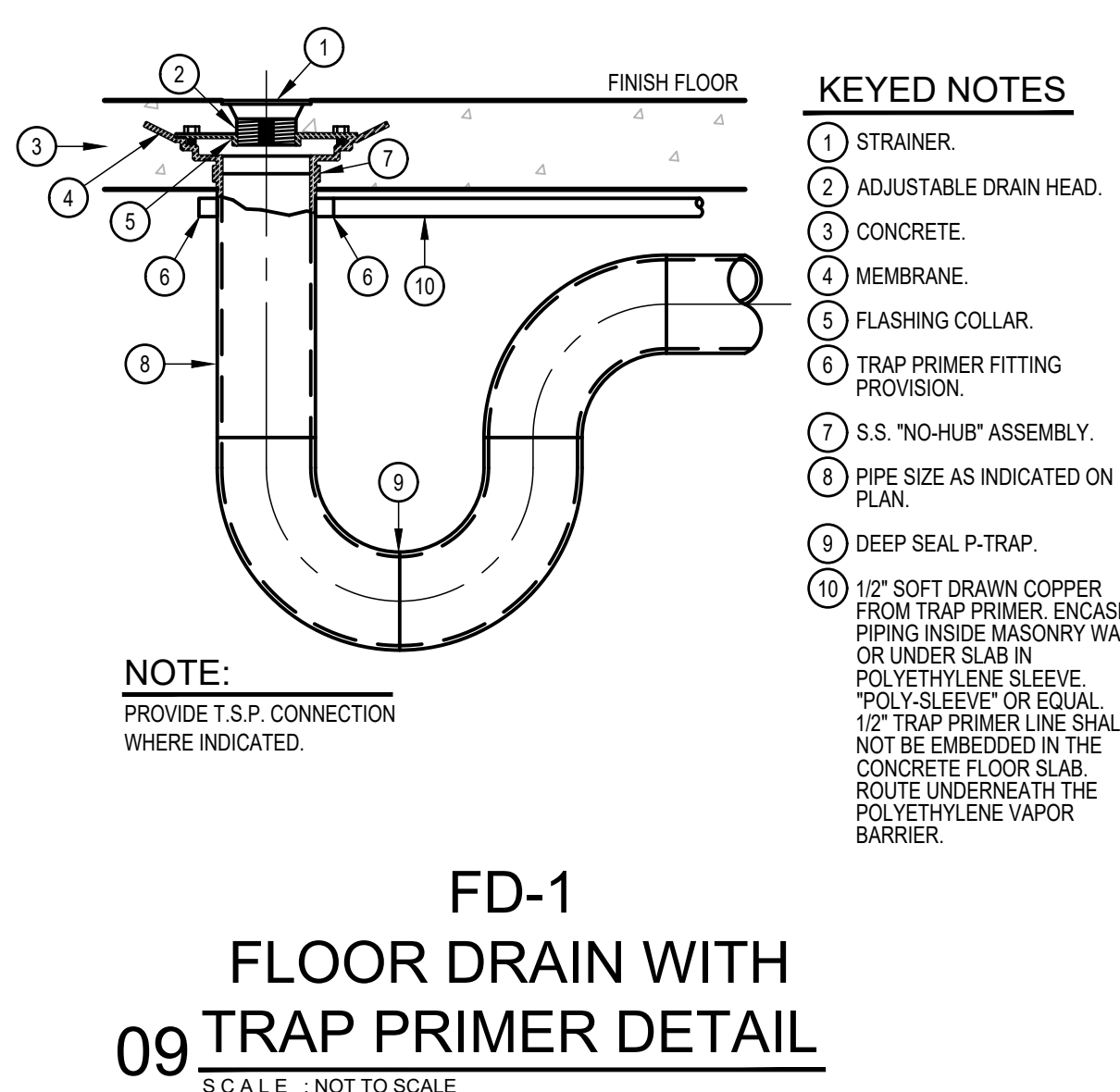
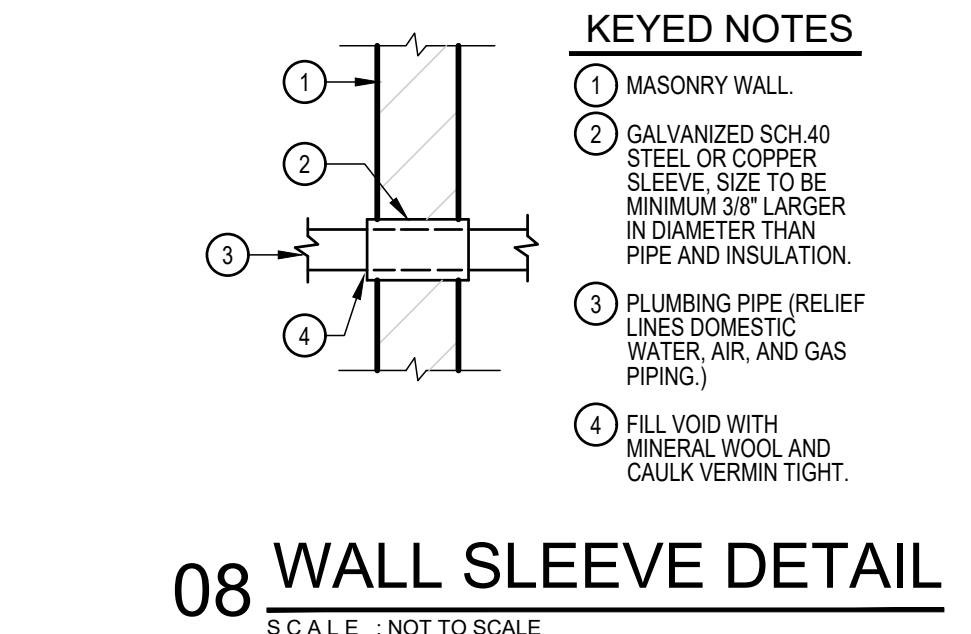
07 VENT THRU ROOF DETAIL  
SCALE: NOT TO SCALE

PLUMBING FIXTURE SCHEDULE									
MARK	MANUFACTURER & MODEL NUMBER	DESCRIPTION	CONNECTIONS				NOTES	REMARKS	
			WASTE	VENT	CW	HW			
WC-1	AMERICAN STD. 3451.001 SLOAN ROYAL #111-1.6 SEAT 5901.100	15" HIGH LOW CONSUMPTION FLUSH VALVE, WHITE VITREOUS CHINA WATER CLOSET WITH ELONGATED SIPHON JET ACTION BOWL, 1.6GPF TOP FLUSH VALVE, WHITE OPEN FRONT SEAT LESS COVER AND BOLT CAPS FOR ADULT STANDARD MOUNTING.	4"	2"	1"	-	1, 3	15" TO TOP OF RIM	
WC-2	AMERICAN STD. 3461.001 SLOAN ROYAL #111-1.6 SEAT 5901.100	16-1/2" HIGH LOW CONSUMPTION FLUSH VALVE, WHITE VITREOUS CHINA WATER CLOSET WITH ELONGATED SIPHON JET ACTION BOWL, 1.6GPF TOP FLUSH VALVE, WHITE OPEN FRONT SEAT LESS COVER AND BOLT CAPS FOR ADULT ADA MOUNTING.	4"	2"	1"	-	1, 2, 3	17"-19" TO TOP OF SEAT	
UR-1	AMERICAN STD. 6590.001 SLOAN ROYAL #186-0.5 ZURN # Z122Z CARRIER	WALL MOUNTED FLUSH VALVE, WHITE VITREOUS CHINA LOW CONSUMPTION 0.5 GPF URINAL WITH 14" DEEP BOWL, 3/4" TOP SPOUT FLUSH VALVE AND CARRIER FOR ADULT STANDARD MOUNTING	3"	2"	3/4"	-	2	22" TO RIM OF BASIN	
UR-2	SAME AS UR-1	SAME AS UR-1 EXCEPT FOR ADULT ADA MOUNTING	3"	2"	3/4"	-	2	17" TO RIM OF BASIN	
L-1	KOHLER KINGSTON K-2005 CHICAGO FAUCETS 420-741E2605ABCP 0.5 GPM AERATOR ZURN #Z1231 CARRIER 17 GA. DRAIN AND 1/4 GA. P-TRAP W/ CLEAN OUT TRUEBRO LAV SHIELD	21" X 18" WALL MOUNTED WHITE VITREOUS CHINA, 4" ON CENTER HOLES LAVATORY WITH FRONT OVERFLOW AND CONCEALED ARMS SUPPORT. SINGLE LEVER, 4" ON CENTER, CHROME PLATED SOLID BRASS CONSTRUCTION FAUCET WITH THERMOSTATIC MIXING VALVE, ASSE 1070 COMPLANT, SCALDING PROTECTION INCLUDED, SET AT 110 DEGREES. CHROME PLATED SUPPLY STOPS AND ESCUTCHEONS WITH STAINLESS STEEL FLEXIBLE CONNECTORS, CHROME PLATED DRAIN GRID AND TAILPIECE, P-TRAP AND CARRIER FOR ADULT STANDARD MOUNTING	2"	2"	1/2"	1/2"	3-6 	32" FROM FLOOR TO RIM	
L-2	SAME AS L-1	SAME AS L-1 EXCEPT FOR ADULT ADA MOUNTING	2"	2"	1/2"	1/2"	3-6	34" FROM FLOOR TO RIM	
SHR-1	LEONARD AQUATROL 4500-H-06-1.5GPM-VS 515PG-QD2L ADA RATED SHOWER	CONCEALED MOUNTED PRESSURE BALANCING VALVE ASSE 1016 LISTED WITH LOW FLOW INSTITUTIONAL 1.5GPM SHOWERHEAD AND VANDAL RESISTANT SCREWS. HIGH SCHOOL STANDARD MOUNTING.	3"	2"	1/2"	1/2"			
SHR-2	LEONARD AQUATROL 4500-H-06-1.5GPM-VS 515PG-QD2L ADA RATED SHOWER	CONCEALED MOUNTED PRESSURE BALANCING VALVE ASSE 1016 LISTED WITH LOW FLOW INSTITUTIONAL 1.5GPM SHOWERHEAD AND VANDAL RESISTANT SCREWS. PROVIDE HAND SHOWER, DIVERter VALVE, STAINLESS STEEL SEAT AND GRAB BARS. HIGH SCHOOL ADA MOUNTING.	3"	2"	1/2"	1/2"			
EDF-1	ELKAY LVRC7LSSC LKAPRZL APRON ZURN 2-1225 CARRIER	B-I-LEVEL FILTERED ELECTRIC DRINKING FOUNTAIN, FRONT AND SIDE TOUCH CONTROLS, 8.0 GPH, FLEXI GUARD SAFETY BUBBLERS, PVC P-TRAP, APRON AND CARRIER, FOR ADULT STANDARD & ADA MOUNTING. OUTDOOR RATED, VANDAL RESISTANT. PROVIDE WATER SENTRY FILTER 51300C.	2"	2"	1/2"	-		SEE ARCHITECTURAL	
MSB-1	FIAT TSB 3000 MOP BASIN #832-AA HOSE & BRACKET #830-AA FAUCET #886-CC MOP BRACKET #882-2424 WALL GUARD #1453-B8 STRAINER	24X24X12 PRECAST TERRAZO MOP SERVICE BASIN WITH HOSE AND HOSE BRACKET, FAUCET, MOP BRACKET, WALL GUARD AND STRAINER.	3"	2"	3/4"	3/4"			
WH-1	ZURN # Z1300-SS-34UN HYDRANT	ENCASED NON-FREEZE ANTI-SIPHON WALL HYDRANT, BRONZE. NON-TURNING OPERATING ROD STOP VALVE IN SUPPLY, KEY OPERATED CONTROL VALVE, STAINLESS STEEL BOX WITH HINGED COVER.	-	-	3/4"	-			
WH-2	ZURN # Z1350 HYDRANT	ENCASED MODERATE CLIMATE WALL HYDRANT FOR NARROW WALL, CHROME, SCREWDRIVER OPERATED STOP VALVE IN SUPPLY, KEY OPERATED CONTROL.	-	-	3/4"	-			
FD-1	ZURN # ZN415B-P	BODY ASSEMBLY WITH TYPE B STRAINER, DURA COATED CAST IRON BODY WITH BOTTOM OUTLET INVERTED MEMBRANE CLAMP AND ADJUSTABLE COLLAR WITH TRAP PRIMER CONNECTION.	3"	2"	-	-			
FD-2	ZURN # ZN415-P	BODY ASSEMBLY WITH TYPE I STRAINER, DURA COATED CAST IRON BODY WITH BOTTOM OUTLET INVERTED MEMBRANE CLAMP AND ADJUSTABLE COLLAR WITH TRAP PRIMER CONNECTION.	3"	2"	-	-			
RD-1	MIFAB 1200-W	15" DIA. LARGE SUMP ROOF DRAIN, GALV. SUMP RECEIVER CAST IRON DRAIN BODY, C.I. WATERPROOFING MEMBRANE CLAMP RING WITH INTEGRAL GRAVEL STOP OVERFLOW STANDPIPE, SELF-LOCKING POLYETHYLENE DOME STRAINER.	SEE PLANS						
RH-1	JAY R. SMITH 5906	NON-FREEZE ROOF HYDRANT WITH GALV. CASING AND ADJUSTABLE FLOW WHEEL LOCK HANDLE WITH DECK FLANGE AND UNDER DECK CLAMP.	-	-	3/4"	-			

- NOTES:
- INSTALL FLUSH VALVE ON THE WIDE SIDE OF WALL.
  - PROVIDE ADA APPROVED FLUSH VALVE HANDLE FOR ALL ADA PLUMBING FIXTURES.
  - REFER TO PLUMBING PLAN FOR FIXTURES THAT WILL REQUIRE TRAP PRIMER CONNECTIONS.
  - PROVIDE TRUEBRO LAVATORY (WHITE) LAV SHIELD MODEL #2018 (K.O.K. PRE-CUT). SHIELD SHALL BE SECURED TO WALL AS PER MANUFACTURER'S RECOMMENDATION.
  - PROVIDE TRUEBRO LAVATORY GUARD MODEL #103 COLOR WHITE. COVER SHALL BE SECURED WITH SNAP-SLIP FLUSH REUSABLE FASTENERS. ANGLE STOPS SHALL HAVE LOCK-UP LOOKING ACCESS COVERS.
  - PROVIDE TRUEBRO (WHITE) BASIN GUARD UNDERSINK PROTECTIVE ENCLOSURE.

ELECTRIC WATER HEATER SCHEDULE									
MARK	LOCATION	SERVING	GALLON CAPACITY	KW	NUMBER OF ELEMENTS	RECOVERY IN GPH AT 120°F RISE	ELECT. VPH/HP	MANUFACTURER & MODEL	NOTES
EW-H-1	SEE PLANS	SEE PLANS	80	18	3	62	480/360	AO SMITH DVE-80-18 GOLD N SERIES	ALL

- NOTES:
- MANUFACTURER & MODEL NUMBER ARE "OR APPROVED EQUAL".
  - PROVIDE IMMERSION TYPE THERMOSTAT.



## PLANT SCHEDULE

CODE	BOTANICAL NAME	COMMON NAME	TYPE	SIZE	SPACING	QTY
	PALMS					
MED	CHAMAEOROPH HUMILIS	MED. FAN PALM (TRIPLE)	B/B	12" TRUNK	A.S.	2
SABL	SABAL TEXANA	TEXAS SABAL PALM	B/B	6-8" TRUNK	A.S.	5
	TREES					
CEDR	ULMUS CRASSIFOLIA	CEDAR ELM (CONT. GROWN)	24" BOX	2-3" GAL. 10' H X 6' W	A.S.	7
LIVE	QUERCUS VIRGINIANA	LIVE OAK	24" BOX	3-4" GAL. 15' HT X 8 W	A.S.	7
LIVE (R)	QUERCUS VIRGINIANA	LIVE OAK (RELOCATED)	B/B	SEE SCHEDULE SHEET L101	A.S.	16
MESQ	PROSOPIA GLANDULOSA	HONEY MESQUITE (RELOCATED)	B/B	SEE SCHEDULE SHEET L101	A.S.	1
OLIV (R)	CORDIA BOISSIERI	WILD OLIVE (RELOCATED)	B/B	SEE SCHEDULE SHEET L101	A.S.	1
SYCA	PLATANUS MENCIANA	MEXICAN SYCAMORE	B/B	3" GAL. - 10' H X 6 W	A.S.	1
VITX	VITEX AGNUS-CASTUS	CHASTE TREE	15 GAL	6" HT. X 5' W (MULTI)	A.S.	6
	SHRUBS					
CABB	CAESALPINIA PULCHERRIMA	PRIDE OF BARBADOS	5 GAL	36" HT.-BUSHY	A.S.	2
IRIS	DIETES IRIODIDES	WHITE AFRICAN IRIS	3 GAL	18" HT.-BUSHY	A.S.	30
LIRI	LIRIOPE MUSCARI	LIRIOPE MAJESTIC	3 GAL	18" HT.-BUSHY	A.S.	31
THYR	GALPHIMIA GLAUCA	GOLDEN THYRALLIS	3 GAL	18" HT.-BUSHY	A.S.	120
	GROUND COVERS					
FROG	PHYLA INOISA	TEXAS FROG FRUIT	QTS.		12" O.C.	185
JASM	TRACH. ASIATICUM	ASIAN JASMINE	1 GAL		12" O.C.	120
PURP	LANTANA MONTEVIDENSIS	PURPLE TRAILING LANTANA	1 GAL		18" O.C.	280
ZENY	WEDELIA TEXANA	ORANGE ZENEMIA	1 GAL		12" O.C.	215
	GRASS					
BOD	CYNODON DACTYLON	#1 CERTIFIED 418 HYBRID BERMUDA BOD			3/850 S.Y.	
HYDRO	CYNODON DACTYLON	COMMON BERMUDA HYDROMULCH			3/600 S.F.	

NOTE: CONTAINER GROWN MATERIAL SHALL BE GLEN FLORA FARMS OR APPROVED EQUAL.

## MATERIAL SCHEDULE

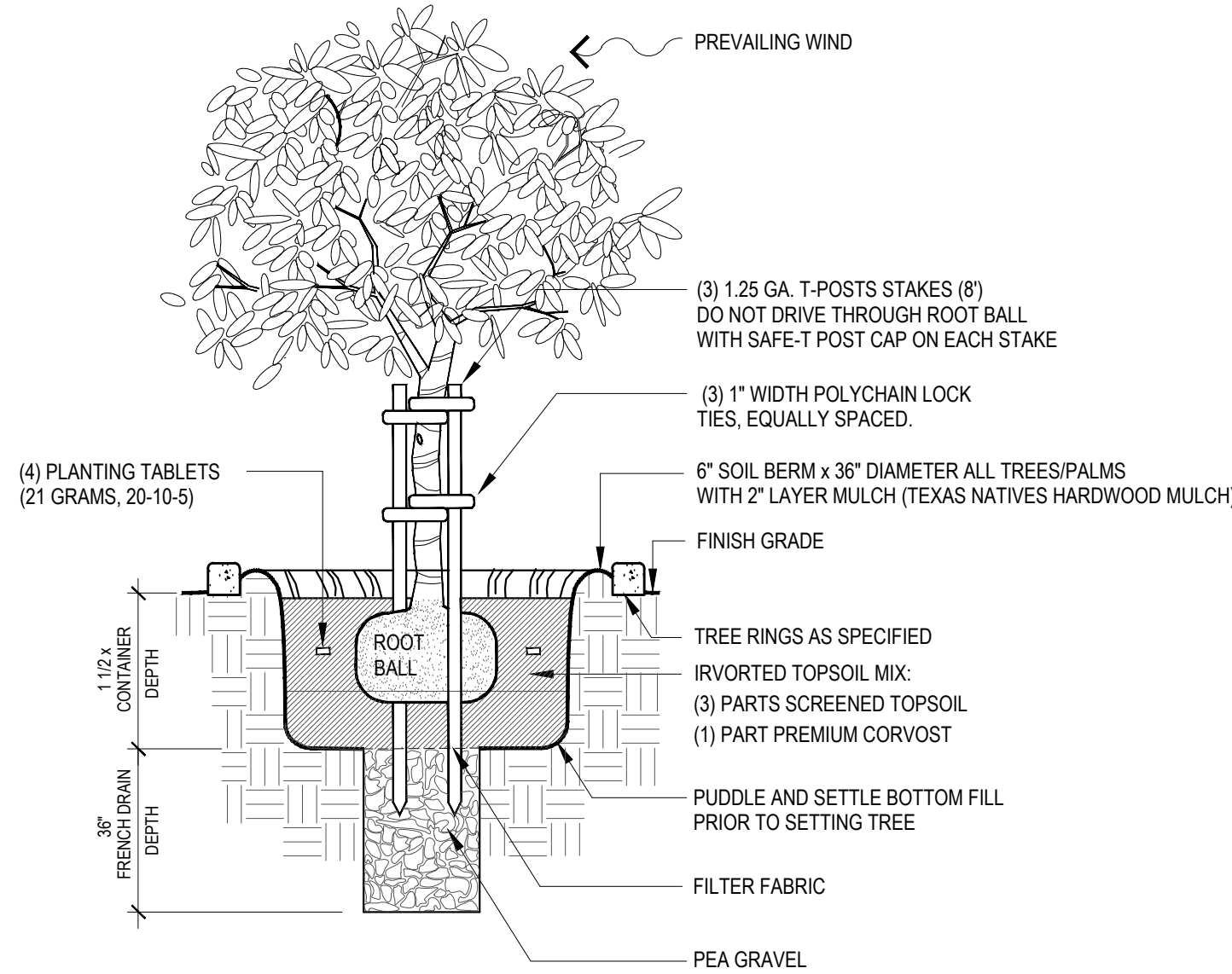
DESCRIPTION	NOTES	QUANTITY
PREMIUM COMPOST	2" LAYER PREMIUM COMPOST (EARTHWISE ORGANICS MIX)	28 C.Y.
SCREENED TOP SOIL	8" FOR ALL PLANTING BEDS	110 C.Y.
MULCH (HARDWOOD)	2" MIN. FOR ALL PLANTING BEDS AND WATERING BASINS (TEXAS NATIVES HARDWOOD)	424 (2 OF BAGS)
HERBICIDE	ALL PLANTING BED AREAS AS SPECIFIED	4480 S.F.
FERTILIZER	ALL PLANT MATERIAL PER DETAILS	4480 S.F.
PLANTING TABLETS	PER DETAILS / AS SPECIFIED	-
PRE-EMERGENT	ALL PLANTING BED AREAS AS SPECIFIED	-
GUTINS / STAKING	ALL TREES/PALMS PER DETAILS	-
DECO	4" DEPTH COMPACTED DECOMPOSED GRANITE (1/4" MINUS FINES) PER PLANS/DETAILS	2700 S.F.
ALUMINUM EDGE	5" BLACK ANODIZED ALUMINUM EDGE (DREAMSCAPES) PER PLANS/DETAIL	60 L.F.
CONCRETE EDGE	4 X 6" EXTRUDED COLORED CONCRETE EDGING PER PLANS/DETAILS	500 L.F.
TREE RINGS	(36" DIA.) 4X6" EXTRUDED COLORED CONCRETE EDGING PER PLANS/DETAILS	15
TREE TRIM/PRUNE	TREE TRIMMING/PRUNING BY ISA CERTIFIED ARBORIST	-
TREE PROTECTION	TREE PROTECTION FENCING AS PER PLANS/DETAILS	-
IRRIGATION SYSTEM	COMPLETE AUTOMATIC IRRIGATION SYSTEM/ADJUSTMENTS BY LICENSED CONTR.	-

NOTE: CONTRACTORS MUST REVIEW TECHNICAL SPECIFICATIONS FOR ADDITIONAL PRODUCT INFORMATION AND PROJECT REQUIREMENTS.

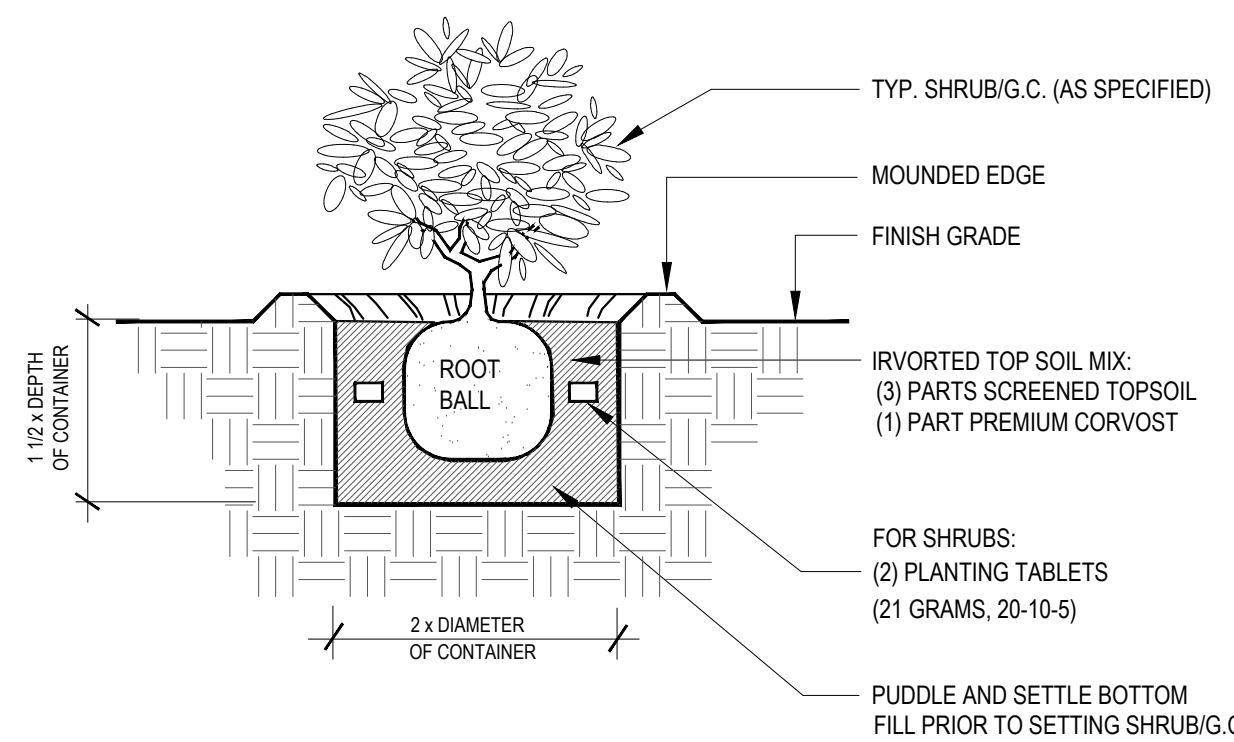
## MATERIAL SCHEDULE - SOCCER FIELD

DESCRIPTION	NOTES	QUANTITY
HERBICIDE	ALL LANDSCAPE AREAS (ROUNDUP OR APPROVED EQUAL)	57100 S.F.
CLEAR/GRUB/SITE PREP	CLEAR ALL DEBRIS FROM TOP LAYER OF EXISTING SITE (BY SITE CONTRACTOR)	57100 S.F.
GRADING	GRADING / LASER LEVELING OF ALL SITE PER PLANS	57100 S.F.
SCREENED TOP SOIL	SCREENED TOPSOIL FOR SOCCER FIELDS (38% of 4" MIX - ADD TO FINISHED GRADES PER CIVIL PLANS)	247 C.Y.
SAND*	MASONRY SAND FOR SOCCER FIELDS (50% OF 4" MIX - ADD TO FINISHED GRADES PER CIVIL PLANS)	353 C.Y.
COMPOST**	PREMIUM COMPOST (9 KIDS COMPOST MIX (15% OF 4" MIX - ADD TO FINISHED GRADES PER CIVIL PLANS)	106 C.Y.
HYDRO (?)	PAN-AM HYBRID BERMUDA HYDROMULCH	57100 S.F.
MAINTENANCE	90 DAY MAINTENANCE OF FIELDS WITH REEL MOWERS + FERTILIZATION	1

\* MASONRY SAND - WRIGHT MATERIALS PLANT 3 (361) 381-0283  
\* NINE KIDS COMPOST (365) 432-4883 OR CITY OF MCALLEN COMPOST (365) 681-4000

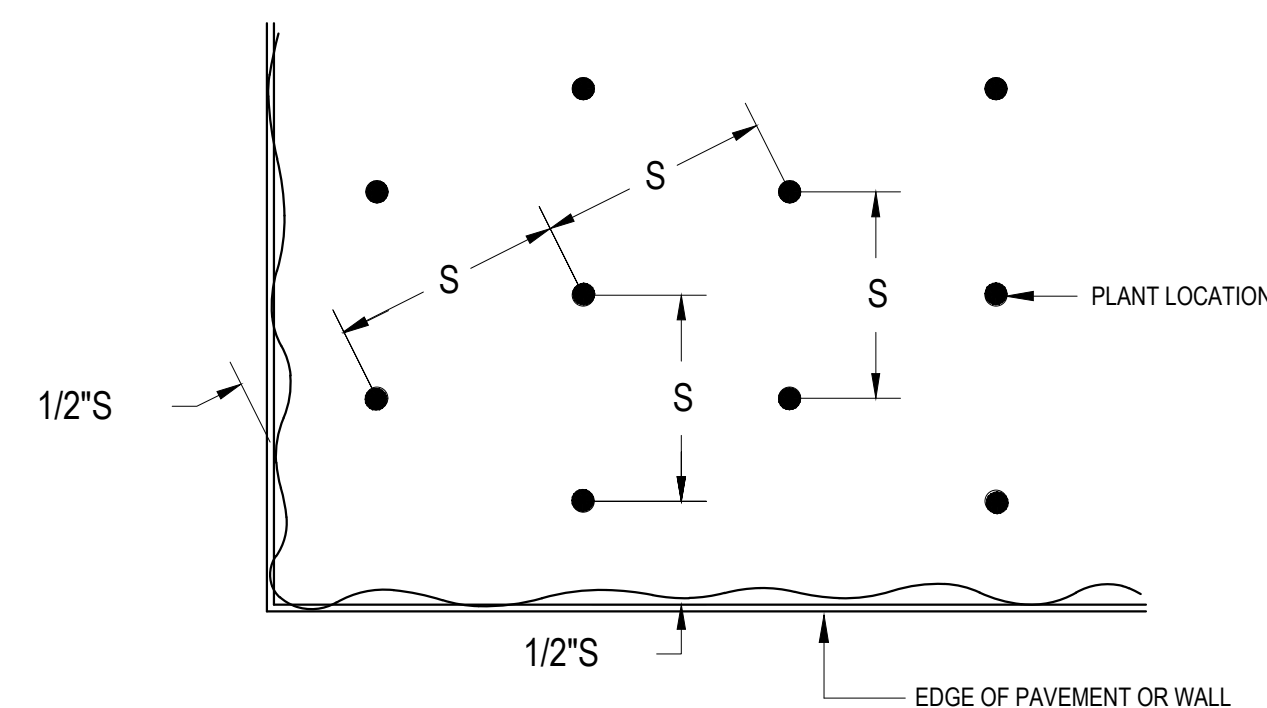


**1 TREE PLANTING DETAIL**  
NOT TO SCALE

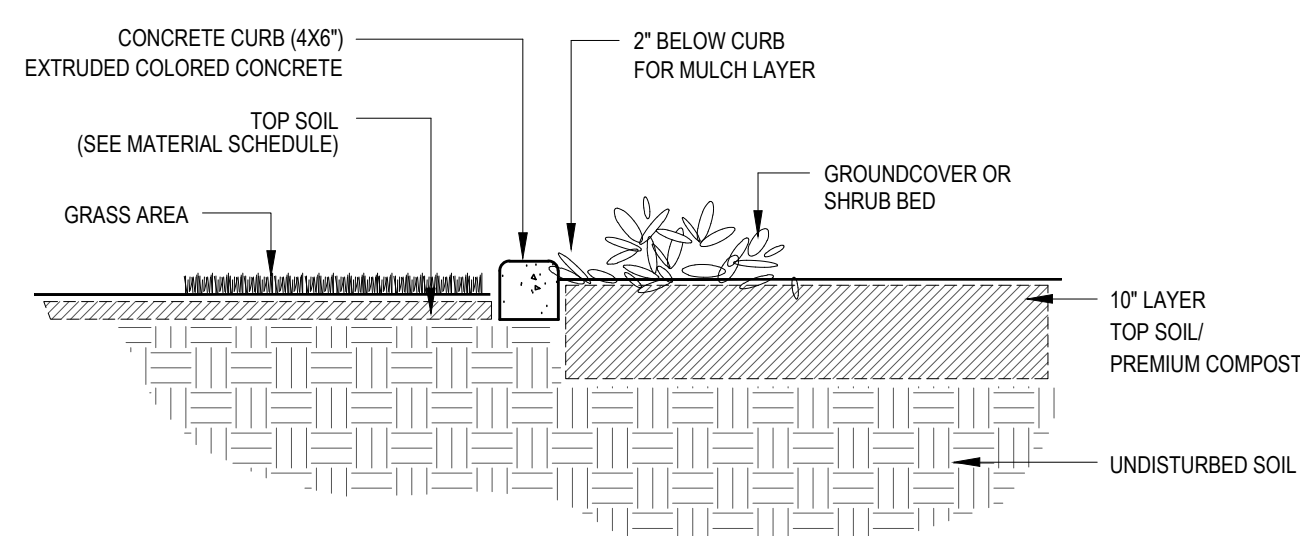


**2 SHRUB/G.C. PLANTING DETAIL**  
NOT TO SCALE

NOTE:  
1. S = SPACING. (REFER PLANT LIST FOR AMOUNT OF SPACING.)  
2. USE SPACING LAYOUT FOR SHRUBS, GROUNDCOVERS AND ANNUALS.

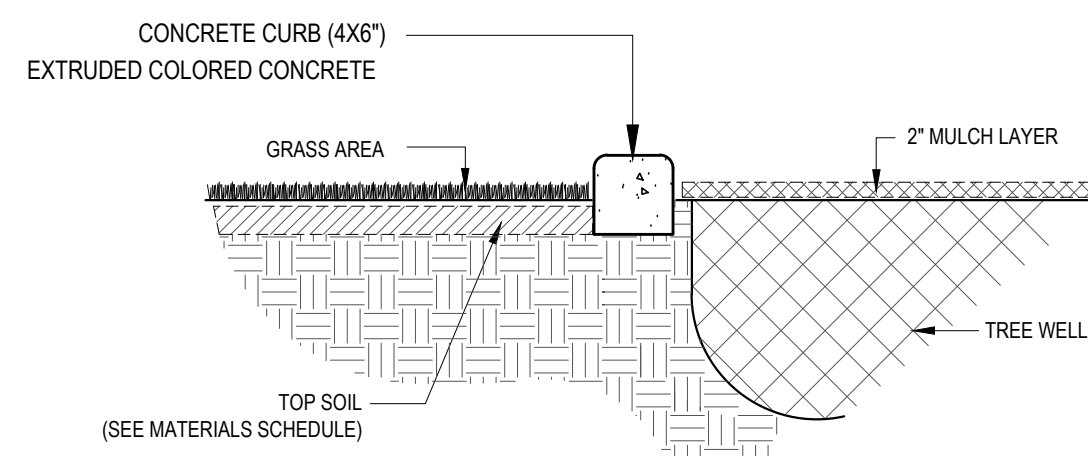


**3 TRIANGULAR PLANT SPACING DIAGRAM**  
NOT TO SCALE



NOTES:  
1. CONCRETE CURBING TO HAVE 1 1/2" DEEP CONTRACTION JOINTS @ 5'-0" SPACING.  
2. CONCRETE CURBING TO HAVE TAPERED DRAINAGE POINTS AT 10' O.C.  
3. 2500-3000 PSI COMPRESSIVE STRENGTH, 480 PSI FLEXURAL STRENGTH.  
4. USE HALF-INCH POLYPROPYLENE FIBER REINFORCEMENT.  
5. NATURAL FINISH AND COLOR.  
6. EQUAL TO CURB APPEAL EDGING (956-867-8350).

**1 CONCRETE EDGE DETAIL**  
NOT TO SCALE



NOTES:  
1. CONCRETE CURBING TO HAVE 1 1/2" DEEP CONTRACTION JOINTS @ 5'-0" SPACING.  
2. CONCRETE CURBING TO HAVE TAPERED DRAINAGE POINTS AT 10' O.C.  
3. 2500-3000 PSI CORPRESSIVE STRENGTH, 480 PSI FLEXURAL STRENGTH.  
4. USE HALF-INCH POLYPROPYLENE FIBER REINFORCEMENT.  
5. NATURAL FINISH AND TEXAS BUFF COLOR.  
6. EQUAL TO CURB APPEAL EDGING (956-867-8350).

**5 TREE RING DETAIL**  
NOT TO SCALE

## LANDSCAPE CONSTRUCTION NOTES

1. WORK UNDER THIS CONTRACT INCLUDES SITE REVIEW AND COORDINATION WITH EXISTING CONDITIONS, SITE CLEANUP, EXCAVATION, BED PREP, TILLING, EDGING, SPORTS FIELD, LASER GRADING, PLANTING, STAKING, MAINTENANCE, AND GUARANTEE.
2. LANDSCAPE CONTRACTOR SHALL FIELD VERIFY ALL QUANTITIES AND DIMENSIONS PRIOR TO BEGINNING. QUANTITIES SHOWN IN SCHEDULE ARE FOR CONVENIENCE ONLY.
3. NOTIFY S&P DESIGN PRIOR TO BID OF ANY DISCREPANCIES IN DRAWINGS/DETAILS OR INSUFFICIENT QUANTITIES DUE TO DIFFERENCES IN PLAN AND ACTUAL FIELD CONDITIONS.
4. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES. SPOTTING OF ALL UTILITIES IS REQUIRED.
5. NOTIFY AND MEET WITH S&P DESIGN PRIOR TO ANY CONSTRUCTION FOR VERIFICATION/INTERPRETATION OF PLANS.
6. LANDSCAPE CONTRACTOR SHALL VERIFY ALL PROPERTY BOUNDARIES AND LIMITS OF WORK WITH GENERAL CONTRACTOR/CIVIL ENGINEER. DO NOT BEGIN LANDSCAPE CONSTRUCTION UNTIL ALL BOUNDARIES, EASEMENTS AND RIGHTS-OF-WAY HAVE BEEN VERIFIED IN THE FIELD.
7. LANDSCAPE CONTRACTOR SHALL STAKE OUT ALL BEDS, TREES, PALM LOCATIONS PRIOR TO INSTALLATION FOR APPROVAL BY S&P DESIGN.
8. LANDSCAPE CONTRACTOR TO COORDINATE WITH S&P DESIGN TO ENSURE PROPER PLACEMENT OF PLANT MATERIAL AND IRRIGATION EQUIPMENT.
9. LANDSCAPE CONTRACTOR TO INSTALL EXTRUDED CONCRETE EDGING AS SHOWN ON PLANS.
10. LANDSCAPE CONTRACTOR TO SUPPLY/INSTALL 36" DIA. TREE RINGS AS SHOWN ON PLANS/DETAILS.
11. NOTIFY S&P DESIGN PRIOR TO PLANTING OPERATIONS FOR APPROVAL OF ALL PLANT MATERIAL ON SITE. ANY PLANT MATERIAL NOT APPROVED BY S&P DESIGN WILL BE SUBJECT TO REJECTION.
12. IRRIGATION CONTRACTOR SHALL SUPPLY AND NSTALL COMPLETE AUTOMATIC IRRIGATION SYSTEM MAINLINE, SLEEVES, LATERALS AND POP-UP HEADS AND ADJUSTMENTS TO COVER ALL LANDSCAPE AREAS AS PER PLANS/DETAILS. IRRIGATION SYSTEM SHALL BE INSTALLED BY A TEXAS LICENSED IRRIGATOR ONLY.
13. LANDSCAPE CONTRACTOR SHALL REMOVE ALL EXISTING GRASS/WEEDS BY HERBICIDING PRIOR TO BED PREP AND SOIL REPLACEMENT.
14. LANDSCAPE CONTRACTOR SHALL REMOVE 12" OF EXISTING SOIL WITHIN ALL BED AREAS AND REPLACE WITH IRVORTED TOP SOIL/PREMIUM CORVOST MIX.
15. LANDSCAPE CONTRACTOR SHALL CONSTRUCT 6"x36" WATERING BASINS AROUND ALL TREES/PALMS WITH A MIN. 2" LAYER OF CYPRESS MULCH.
16. LANDSCAPE CONTRACTOR SHALL LOOSEN / GRADE ALL LAWN AREAS PRIOR TO HYDRO-MULCHING/EDGING TO ENSURE PROPER DRAINAGE AND UNIFORM SURFACE.
17. LANDSCAPE CONTRACTOR SHALL REMOVE ALL EXISTING GRASS AND WEEDS BY HERBICIDING, DISKING, FLOATING AND LIGHT GRADING OF ENTIRE PROJECT AREA PRIOR TO SOODING/HYDROMULCHING.
18. LANDSCAPE CONTRACTOR SHALL ESTABLISH AND MAINTAIN ALL PLANT MATERIAL FOR 90 DAYS AFTER SUBSTANTIAL CORVLETION AND SHALL GUARANTEE ALL TREES/PALMS FOR A PERIOD OF ONE YEAR.
19. IRRIGATION CONTRACTOR SHALL GUARANTEE ALL SYSTEM CORVONENTS FOR A PERIOD OF ONE YEAR.
20. SEE SPECIFICATIONS FOR FURTHER INSTRUCTIONS/REQUIREMENTS.

## SPORTS FIELD NOTES

1. APPLY HERBICIDE/ROUNDUP TO ENTIRE FIELD AREA UNTIL ALL VEGETATED MATTER IS ERADICATED.
2. CLEAR AND GRUB (REMOVE ALL DEBRIS) FROM FIELD AREA.
3. RIP/TILL SOIL WITH AN AGRICULTURAL CULTIVATOR TO A DEPTH OF 3' ON FIELD.
4. ROUGH GRADE FIELDS TO PREPARE FOR SAND/TOPSOIL/CORVOST.
5. APPLY SAND/TOPSOIL/CORVOST MIX TO AND FINE GRADE TO FINISHED ELEVATIONS.
6. CONTRACTOR TO GRADE FIELD WITH SPECIFIED CROWN/GRADERS UTILIZING FULLY AUTOMATED CORVETERIZED DUAL GPS SYSTEM WITH LASER AUGMENTATION TO ACHIEVE GRADES WITHIN 1/4" TOLERANCE. FIELD MUST DRAIN SMOOTHLY WITH NO BIRD BATHS OR LOW SPOTS.
7. INSTALL IRRIGATION PER PLANS/SPECS. THOROUGHLY WATER IN WITH MULTIPLE WATERINGS.
8. FIELD DRAINAGE WILL BE TESTED AND REVIEWED BY S&P PRIOR TO BOD OR HYDROMULCH.
9. INSTALL BOD ROLLS OR HYDROMULCH AS PER PLANS AND SPECIFICATIONS.
10. ROLL FIELDS WITH 2 TON MECHANICAL ROLLER/VIBRATOR. TOP DRESS WITH CLEAN SAND ALL LOW SPOTS OR DIVOTS.
11. MONITOR WATERING FOR CONTINUOUS MOISTURE ON HYDROMULCH UNTIL FULL GERMINATION.
12. COMMENCE MOWING USING A REEL TYPE MOWER ONLY. MOWING SHALL BE AT LEAST ONCE PER WEEK AND MUST BE REVIEWED, CHECKED AND APPROVED BY S&P ON OR ABOUT 45 DAYS AFTER INSTALLATION/GERMINATION. FERTILIZE WITH HJ 15-0-0 WITH WOLFTRAX OR APPROVED EQUAL AT MANUFACTURERS RATES.