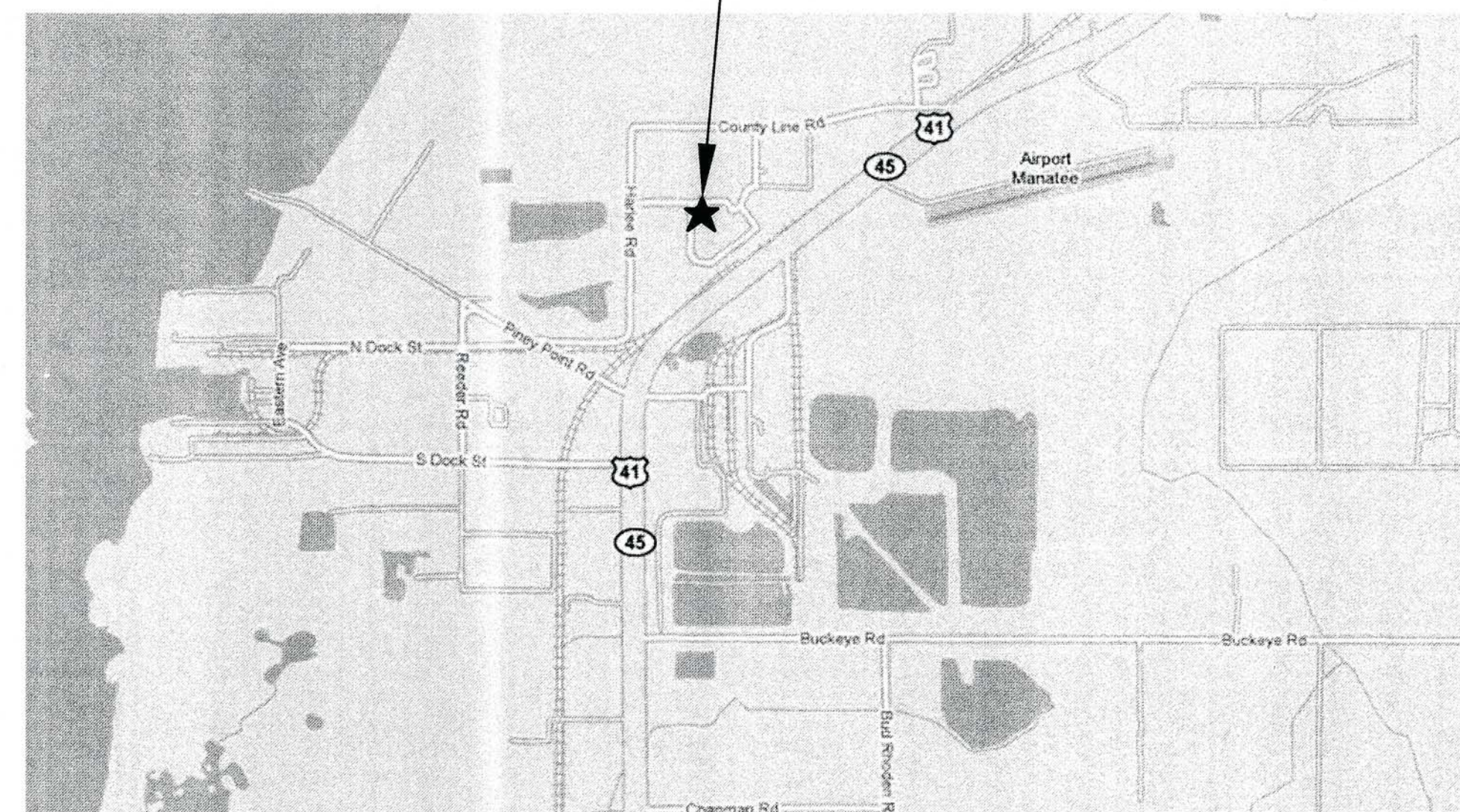


DETENTION FACILITY MANATEE COUNTY GOVERNMENT 14470 HARLEE RD. PALMETTO, FLORIDA 34221 IFAS# W1500318, WORK ASSIGNMENT #41



LOCATION MAP
FLORIDA

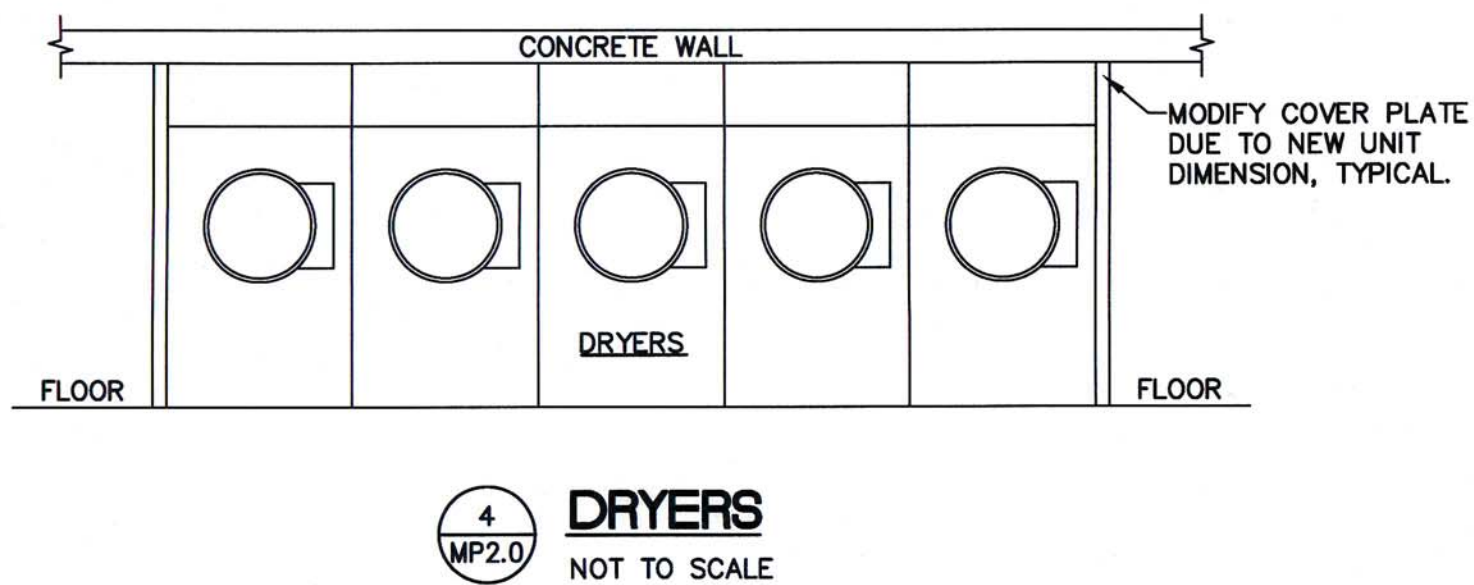
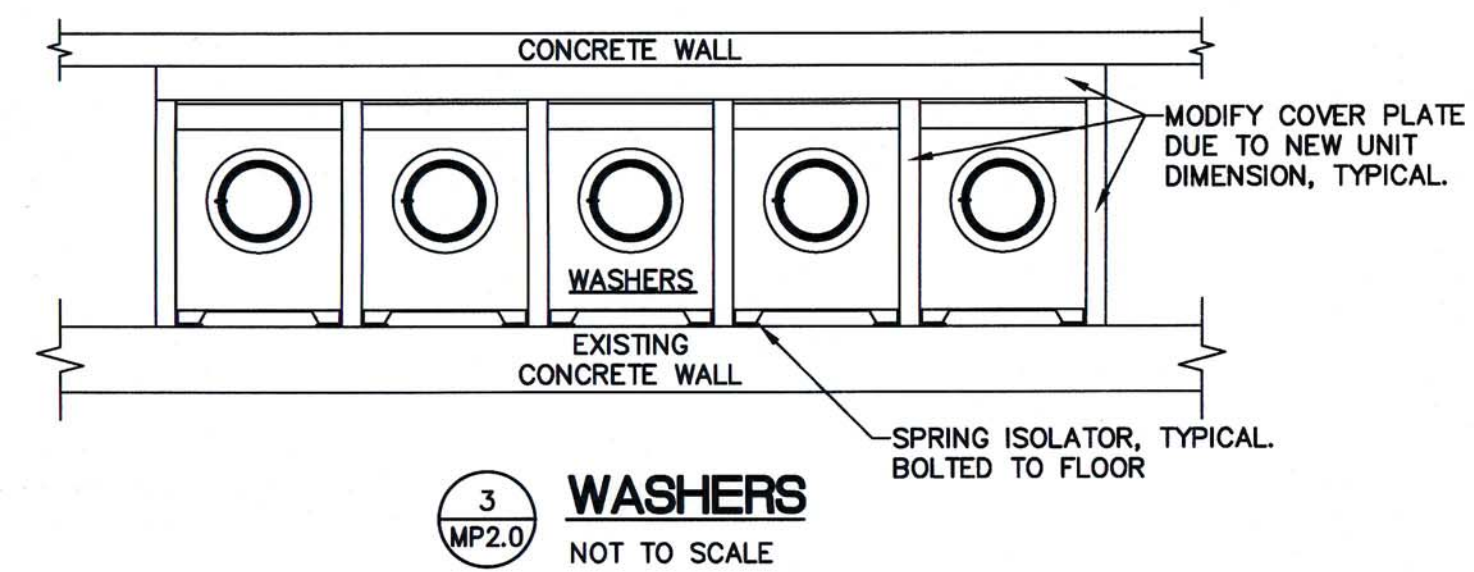


SITE MAP

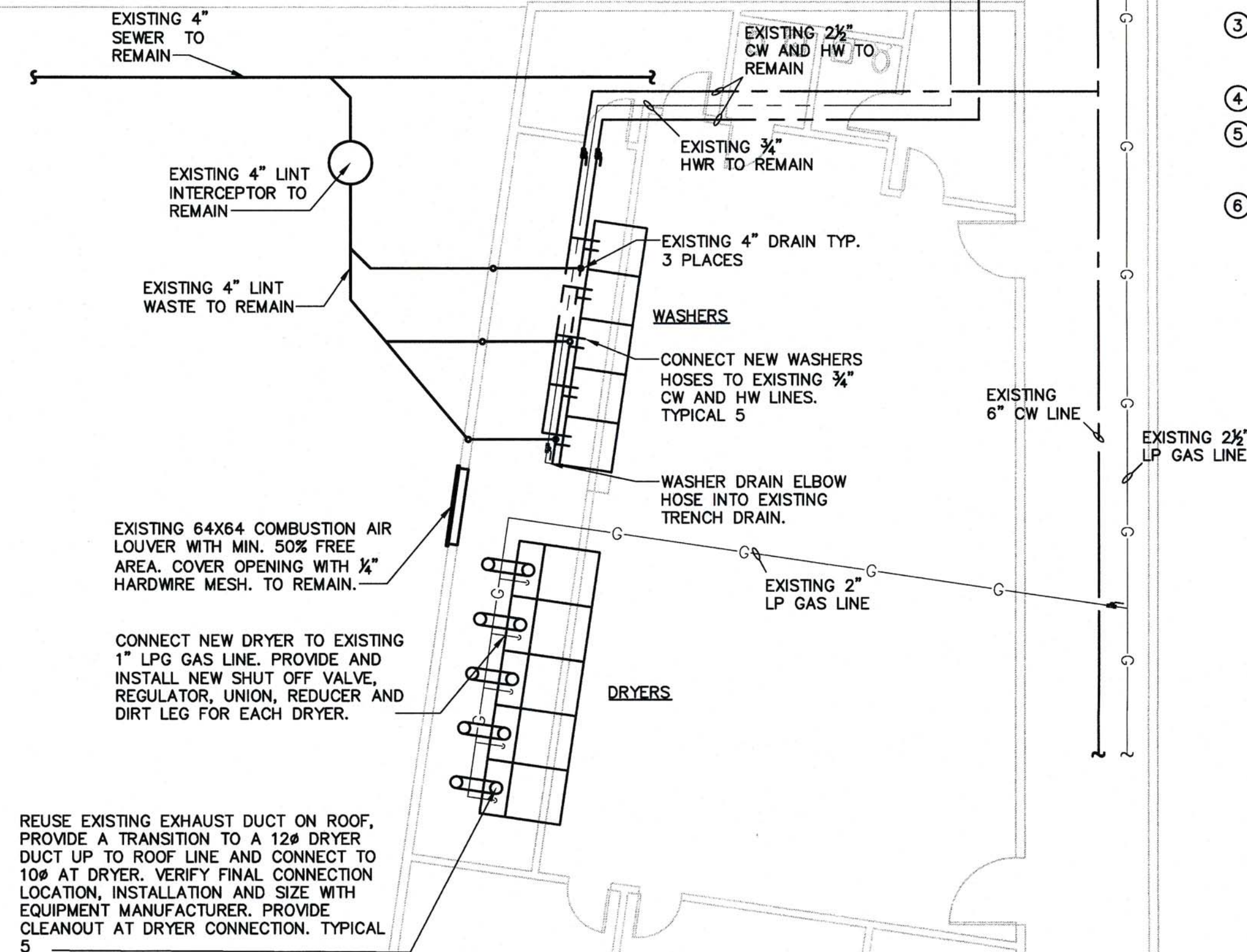
| SHEET SCHEDULE | |
|----------------|---|
| SHEET | DESCRIPTION |
| COVER | PROJECT NAME, LOCATION and SITE MAPS, SHEET SCHEDULE |
| MP1.0 | MECHANICAL AND PLUMBING LEGENDS AND GENERAL NOTES |
| MP2.0 | MECHANICAL AND PLUMBING DEMOLITION AND NEW PLANS |
| MP3.0 | MECHANICAL AND PLUMBING SPECIFICATIONS |
| E1.0 | ELECTRICAL SYMBOLS, LEGENDS, GENERAL NOTES AND SPECIFICATIONS |
| E2.0 | ELECTRICAL POWER PLAN AND ONE-LINE RISER DIAGRAM |
| | |
| | |
| | |

ATP ENGINEERING SOUTH, PL
SARASOTA, FLORIDA
ENGR. BUSINESS #8908
941-360-2181

SEA
MATTHEW J. CAMDEN
LICENSED PROFESSIONAL ENGINEER
NO. 2284
STATE OF FLORIDA
REGISTERED PROFESSIONAL ENGINEER

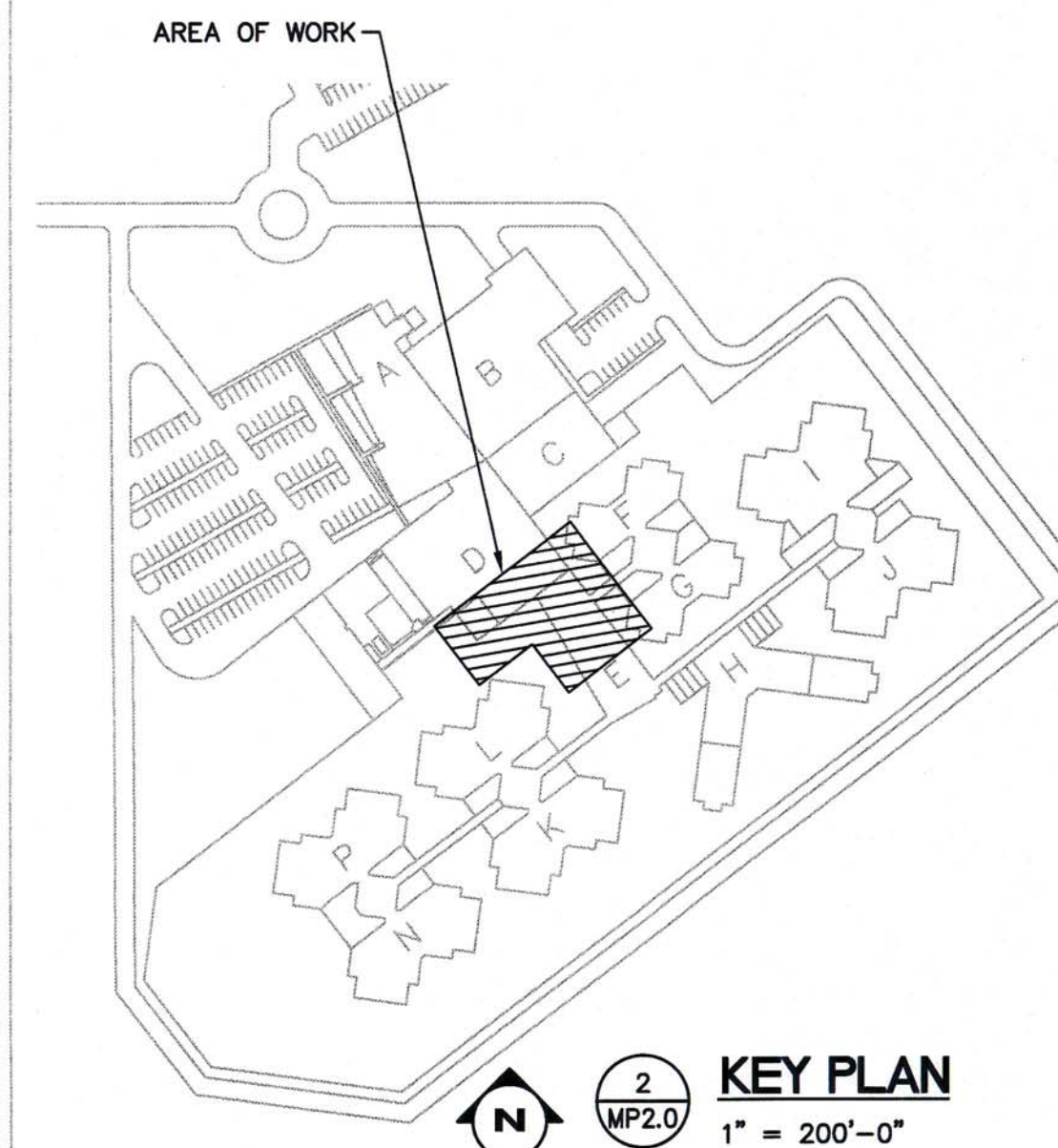


1 MECHANICAL AND PLUMBING FLOOR PLAN
 1/8"=1'-0"



GENERAL NOTES:

- REFER TO PLANS AND SPECIFICATIONS FOR ADDITIONAL SCOPE OF WORK.
- CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF WORK. ANY QUESTIONS SHALL BE ANSWERED BY THE OWNER'S REPRESENTATIVE PRIOR TO START WORK.
- ITEMS IN GRAYSSCALE ARE EXISTING AND TO REMAIN. FOR DUCTWORK THAT ARE "TO REMAIN" PRESERVE EXISTING LOCATION.
- EXISTING UTILITIES TO REMAIN AND OLD DUCT CONNECTION.
- PROVIDE AND INSTALL ONE DRYER OR ONE WASHER AT A TIME. DO NOT HAVE MORE THAN ONE OUT OF SERVICE AT A TIME.
- VERIFY CONNECTIONS FOR HOSES, GAS, GAS PRESSURE, AND VENT ON WASHERS AND DRYERS PRIOR TO INSTALLATION. RUN GAS PIPING VENT TO BUILDING EXTERIOR IF REGULATOR REQUIRES RELIEF VENT. COORDINATE LOCATION.



| MARK | DESCRIPTION | COMPONENTS PROVIDED BY P.C. | FIXTURE | | FIXTURE RUNOUT SIZE | | | | | REMARKS |
|--------|-----------------------------------|---|--|--|---|------|------|----------|----------------------------------|---|
| | | | BASIC FIXTURE | TRIM AND ACCESSORIES | DRAIN WASTE | VENT | C.W. | H.W. | OTHER | |
| WASHER | 80-Lb WASHERS EXTRACTOR HARDMOUNT | COMPLETE UNIT WITH ALL TRIM & ACCESSORIES | HUEBSCH 9 CYCLE 8 SEGMENT ADVANCED MICRO CONTROL 480/3/60 MODEL# HCN080HNV 200 G FORCE HIGH SPIN | PROVIDE NEW 4 HOSES FOR EACH MACHINE. 2 FOR CW INLET AND AUXILIARY AND 2 FOR INLET AND AUXILIARY | 3" TO EXIST TRENCH | --- | 3/4" | (2) 3/4" | 2 1/2" OVER FLOW TO EXIST TRENCH | COORDINATE INSTALLATION WITH G.C. PRIOR TO START WORK. COORDINATE MODEL PRIOR TO ORDER. |
| DRYER | 120-Lb GAS DRYER TUMBLER | COMPLETE UNIT WITH ALL TRIM & ACCESSORIES | HUEBSCH GAS DRYER TUMBLER 280/3/60 NATURAL GAS MODEL# HT120RE | PROVIDE NEW SHUT OFF VALVE, REGULATOR, UNION AND FLEX CONNECTION | --- | --- | --- | --- | 1" GAS LINE LOW PRESS. | COORDINATE INSTALLATION WITH G.C. PRIOR TO START WORK. REGULATOR, SHUTOFF, DIRT LEG, DIELECTRIC BY SUPPLIER. COORDINATE MODEL PRIOR TO ORDER. |
| WHA | WATER HAMMER ARRESTOR | COMPLETE UNIT WITH ALL TRIM & ACCESSORIES | J.R. SMITH "HYDROTROL" MODEL# 5005-5020. JOSAM SERIES-75000. ZURN "SHOKSTOP" MODEL# Z-1700. | SEE P.D.I. SIZES. P.D.I. SIZE PIPE SIZE FIXTURE UNIT ZURN JOSAM J.R. SMITH | 1-11 100 75001 5005 12-32 200 75002 5010 33-60 300 75003 5020 | --- | --- | --- | --- | SIZES TO MATCH MAINS. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. SEE WATER DISTRIBUTION DIAGRAM FOR LOCATION. |

SCHEDULES NOTES:
 1. PROVIDE AND INSTALL A WATER HAMMER ARRESTOR ON ALL EXISTING AND NEW HOT AND COLD WATER DROPS TO WASHERS. (ONE EXISTING WASHER IS ALREADY REPLACED.)



ATP ENGINEERING SOUTH, FL
 BRADENTON, FLORIDA
 ENGR. BUSINESS #8908
 941-751-6485



| DATE | DESCRIPTION |
|------|-------------|
| | |
| | |
| | |
| | |

DETENTION FACILITY
 MANATEE COUNTY GOVERNMENT
 14470 HARLEE RD.
 PALMETTO, FLORIDA 34221
 IFASH W1500318, WORK ASSIGNMENT #41

MECHANICAL AND PLUMBING DEMOLITION AND NEW PLAN

FILE: MC Jail Laundry
 JOB NO.: 2015.11
 DATE: 09/09/2015
 PLOT SIZE: 1:1
 DRAWN BY: DC/JC
 CHECKED BY: JDC
 SHEET No.:

MP2.0

1. SCOPE

Furnish all necessary labor, materials, and equipment and perform all work called for on the Ecentric Plus Dezurik, Series 400, semi-steel plug and body, lever operated with adjustable memory stop. Or Miliken. Check, Stockham, Model B-310 or B-320, 125 psig, bronze body, swing type, compression disk, soldered or threaded ends. Butterfly, Dezurik or Lunkenheimer, Model 632 semi-steel body and disk, resilient seat, lug type, lever operated, memory stop, 125 psig. Gas Shut-off cocks 1/2" to 1" Hammond 87601 with lever, 125 psi bronze body Hose bibb - Woodford Model 24 without backflow, 125 psi, 3/4 inch or approved equal. Two outlet Hose wye, with unistrut hose support. PRV, B&G, Taco, spring operated, adjustable pressure setting, integral strainer. Control Johnson, Penn, Delta, Belimo, Fischer, Fisher

2. RELATED WORK SPECIFIED ELSEWHERE

All Bidding Documents, Including Contract Conditions, Instructions to Bidders, Supplements, and Addendums are part of this specification. Should any questions or conflicts arise, request written clarification from the Owner's representative or abide the interpretation of the Owner's representative.

3. CODES AND STANDARDS

The following Codes and Standards are in effect or latest approved by the local jurisdiction for the project: Florida Mechanical Code Florida Plumbing Code Florida Fire Prevention Code Florida Building Code National Electrical Code Florida Energy Code NFPA Pamphlets Florida Trench Act Manatee County Local Codes and Ordinances Should any changes be required to the Drawings or Specifications to comply with these codes, request written clarification from the Owner's representative or abide by the interpretation of the Owner's Representative. The current edition of each code shall be the one in effect for the project as adopted by the authority having jurisdiction.

4. PERMITS, LICENSES, FEES, AND INSPECTIONS

Obtain, pay for, and maintain all necessary Permits, Licenses, and Certificates of Inspections, pay for all installation charges, plant investment fees that are required by the Local utility company servicing the project.

5. QUALIFICATION OF CONTRACTOR/SUBCONTRACTOR

The Contractor shall be thoroughly experienced in the installation of the HVAC, plumbing, fire protection, electrical, and general building systems shown on the Drawings and specified herein. All work performed by the Contractor shall be of the highest quality. The Contractor shall be responsible for his Subcontractors to see that the systems are installed in accordance with the Drawings and Specifications.

6. WORK METHODS AND CONDITIONS

The Contractor shall be responsible for working conditions on the project, and shall see that no unsafe working conditions or methods are used. The Owner's representative shall not be responsible for unsafe working conditions or methods used on the project. The Engineer is also not responsible for hazardous materials testing, inspection and remediation of any perceived or actual denoted hazardous material on the job site. It is the responsibility of the Owner to provide proof to the Contractor if any such substance is not on site.

7. ACCESS TO EQUIPMENT

Provide for easy removal of coils, fan shafts, fan wheels, drives, belts, filters, electrical equipment and other parts requiring periodic replacement or maintenance. Arrange for access to all motors, and controls. Provide all access panels in equipment, ducts, walls, ceilings, and floors for same. (ADA) The Americans Disability Act applies to access to all controls, fixtures, and light switches. Refer to Florida Accessibility Building Code for locations of all items.

8. COORDINATION

The Drawings show the general arrangement of the work, piping, equipment, and appurtenances. Follow the Drawings as closely as possible but make necessary offsets, transitions, and fittings that may be required to avoid conflicts. Work shall occur at times beyond the normal Monday-Friday day time schedules; pricing shall include nights, week-ends, and holiday work to perform change-outs so as not to shutdown the operation of public facilities. Only one washer or one dryer can be removed and a new one installed at a time.

9. GUARANTEE

Guarantee all work against any defects in equipment, material, or workmanship for a period of three years after the final date of acceptance. The guarantee does not include maintenance of equipment.

10. EQUIPMENT SUBMITTALS AND SHOP DRAWINGS

Submit four copies of each of the following submittals to the Engineer for approval: Piping, valves, insulation, covering, duct, flexible connections, hoses, valves, hose bibs, gas cocks, and shut off cocks Concrete testing, and compaction testing, and steel material lists. Refer to each specification sheet for each discipline's requirements (Electrical, and Mechanical)

11. OPERATION AND MAINTENANCE MANUALS

Provide four copies of the Operations and Maintenance Manuals consisting of three ring binders, and one CD read write-able disk, plastic pressed base. Provide Manufacturers literature for each piece of equipment including installation instructions, operating instructions, maintenance instructions, replacement parts list, as-built drawings, lubrication schedule, name and address, and phone number of nearest service agency.

12. SEISMIC BRACING and VIBRATION ISOLATION

All equipment, piping, ductwork, interior and exterior electrical, and appurtenances shall be adequately braced to withstand the lateral forces from the seismic event or weather wind occurrence of a magnitude indicated in the Florida Building Code for the project location. As a minimum this shall include anchoring of all equipment to the walls of floors and double diagonal bracing of every fourth duct, conduit, and pipe hanger. All vibration isolation for washers and dryers shall be bolted to the floor stand (concrete) and equipment. Isolators shall be shimmed in place and then bolted after units are dynamically set.

All piping connections shall have stainless steel braid in the rubber water hoses, or in the stainless pipe flexible connections on the natural gas piping. The flexible duct connections from the dryers shall have stainless corrugated flexible connections with stainless steel hose clamps.

13. TEMPORARY SERVICES

The Contractor will provide temporary power, water, sewer, utility services and demolition hauling services. If the Contractor interrupts a service, the Owner's representative shall be notified and repairs or temporary service arrangements will commence within an eight-hour period. Scheduling of service outages will be notified to owners. Notification will be at least in written form within 24 hours of the outage, with verbal notification 4 hours prior to the service outage of each affected Owner.

The use of the Owner's utilities, heating and cooling system, and restrooms is prohibited unless arrangements have been made, prior to contract signing. An on-site trailer with telephone, and portable restroom, and drinking water, and the demolition container shall be part of the contractor's contract. Waste hauling for excess materials shall be by the contractor. Security of the site will be coordinated with the Owner's representative.

14. MATERIALS AND EQUIPMENT

All materials shall be new and of the highest quality of their respective kinds. The

Contractor at no cost to the Owner shall replace any material or equipment that is unsound, unfit, or damaged.

15. EXISTING CONDITIONS

The Contractor shall visit the site prior to bidding to verify existing conditions. Resolve any questions prior to bidding. Refer to all documentation provided by the Owner's representative during the pre-bid walk-through for clarifications.

16. WORKMANSHIP AND COMPLETION OF INSTALLATION

The Contractor shall be skilled in the trades performed and shall be responsible for a complete and proper installation of all work required for the project. If the Contractor damages a portion of the existing facility, he will correct at no expense to the Owner all damages to the original condition including painting and landscape. The Contractor shall also correct at no expense to the Owner all errors in installation and repair all leaks in piping and equipment. The Contractor shall follow the approved manufacturer's recommendations and instructions where details of specific installation instructions are not provided. Close all pipe, duct and conduit openings with caps or plugs during installation. Protect and store on-site in a secure area all materials, fixtures, and equipment against dirt, water, chemical, vandalism, theft, and mechanical damage. Thoroughly clean all surfaces in areas of work upon completion, and deliver in perfect, unblemished condition the project. Store all equipment as required by the manufacturer's instructions including the covering and storing in a container if need be. The Contractor shall receive all materials including the unloading of materials to a mutually agreed location with the Owner on-site.

Install all safety devices, request inspection, and obtain approval of the authority having jurisdiction, before placing systems in operation. Demolition includes the following work: disconnect, demolish and remove the work specified, and as indicated. Where pipe, ductwork, insulation, or equipment to remain is damaged or disturbed, remove damaged portions and install new products of equal capacity and quality. Equipment removed by the contractor shall be the contractor's responsibility for clean up, hauling and salvage.

The Owner's representative has full power to condemn or reject any work, materials, and equipment not in accordance with the specifications, and drawings or not in compliance with the manufacturer's installation instructions which are approved by the Owner's Representative. Work that has been rejected shall be removed and replaced to the satisfaction of the Owner's Representative. All decisions made by the Owner's Representative shall be stated in writing, and made binding upon the parties thereto.

17. FINAL ADJUSTMENT

Check equipment for proper operation and complete final adjustments prior to final inspection. After the final acceptance make all necessary adjustments to obtain satisfactory operation of the systems in operation.

18. ACCEPTANCE TESTS

Upon completion of final adjustments, demonstrate to Owner, and the Engineer the operation of each system on simulated operation cycles.

19. OWNER OCCUPANCY

The Owner shall occupy the site and existing buildings during the entire construction period. The Contractor and subcontractors shall cooperate and coordinate all work with the Owner, during construction operations to minimize conflicts and facilitate Owner usage. Perform the work as to not interfere with the Owner's operations.

20. MISCELLANEOUS PROVISIONS

Minor materials and work not specifically mentioned herein but necessary for the Proper completion of the specified work shall be furnished and installed at no additional cost to the owner. Should deteriorated materials of major nature be uncovered in the course of work, it should be brought to the attention of the Owner's Representative prior to the initiating any repairs. Repairs by the Contractor shall be made as approved in the scope and pricing by the Owner's Representative. No allowances for contract completion times shall be made for these repairs. Should the equipment or material be beyond repair, an adjustment will be considered at the convenience to the Owner.

21. EXISTING WORK/ CLEAN UP

Where existing work is changed, removed, or where new work adjoins, connects or abuts to a substantial and workmanship like manner. All new work and replacement, reinstalled work, and repairs shall match the adjacent and/or similar work. Protection of existing areas shall be taken. Clean up by the contractor shall be done and reviewed by the Owner's Representative for acceptance. The Owner's Representative has full rights to reject any and all work performed including clean up.

22. NO SMOKING / NO INTERACTION

There shall be no smoking by the Contractors and subcontractors allowed on the facility at any time unless specifically arranged. There shall be no interaction with the employees of the Owner, inmates, and the Contractors. The Owner's Representative shall receive all discussions. The escort has no control of the work required activities other than security for the project.

23. OSHA

All work shall comply with the US Department Of Labor-Occupational Safety and Health Administration, entities OSHA Standards, National Consensus Standards, and Established Federal Standards.

24. SUBSTANTIAL COMPLETION

The Contractor shall submit application of payment showing 100 percent completion based upon work claimed substantially complete. If 100 percent is not shown, a list of outstanding items is required. Submit all warranties, lien releases, workmanship bonds, and final certifications and documentation as required by Manatee County Purchasing. Submit all record drawings, acad files, and CD's of operations and maintenance manuals and drawings, Building department signed certificates of occupancy. Deliver all spare parts, tools, and extra stock to the Owner's representative. Complete start-up testing and training of maintenance personnel. Complete final clean up. Provide Contractor's affidavit of debts and claims, lien releases, and the Surety Company's consent to final payment to the Owner. Submit evidence of final, continuing insurance coverage complying with the Owner's requirements. Provide maintenance instructions on all equipment, arrange for each installer to provide this service with the factory representative. Provide a written list of all personnel who received training.

25. CONTRACTOR'S BID LIST

The Contractor shall provide a list of all subcontractors used with each major trade for the site security used on the project.

26. PIPE/CONDUIT HANGERS

Type adjustable clevis with threaded rod. Roller type shall be used for expansion of piping or conduit. Shields semi-circular sheet metal, 18 gage under insulation. Materials, steel for all piping except copper, copper plated steel for copper piping. All piping shall be cross-braced for seismic support.

27. PIPE /CONDUIT SLEEVES

Material shall be schedule 40 steel welded. Wall sleeves flush on both sides of wall. Floor Sleeves shall be flush on bottom side of floor, 1/2" above floor on topside. Caulking 3M-fire barrier foam or caulk, UL Labeled for rating of penetration. Finish plates, chrome plated for all exposed pipe/conduit penetrations.

28. VALVES

Gate, Stockham, Model B-107 or B-109, solid wedge, 125 psig, bronze body, rising stem, soldered or threaded ends. Ball, Apollo, chrome plated ball, screwed or soldered ends, 150 psig, bronze body, swing

away design, full port, Teflon seats, lock handle. Globe, Stockham B-29, 150 psig, bronze body, rising stem, union bonnet, plug disk, removable seat, threaded or soldered ends. Drawings and specified herein for complete laundry equipment system with functioning mechanical, general building, and electrical systems and all utility connections as required. Review and consultation with the Owner's representative is required prior to any work being performed and completed. All Manatee County Purchasing requirements take precedence in this project. The project is the direct replacement of washers and natural gas dryers with reuse of existing utilities with adaptation revisions as noted on the plans. Washer and dryer specifications are incorporated within the section. modify all exterior face plate frames and sheet metal covers as noted on the unit surrounding fascia. The work location requirements include all personnel shall be submitted with proper forms to the Manatee County Sheriff. All tools shall be reviewed and checked in through the Sheriff's personnel. All personnel shall be escorted on site at all times. No communication is allowed with any inmate at any time.

29. MOTORS

Manufacturers: Reliance, General Electric, Baldor open drip proof or TEFC, suitable for continuous or intermittent operation unless specified. NEMA Design B minimum, Class F insulation for Variable speed drive motors. Nema 3R minimum installations for exterior use. Service Factor: Minimum of 1.15 at 40 degrees C, full load and at project altitude. Conformance: NEC, AIEE, NEMA. Features: Ball bearings, conduit connection boxes, cast iron yoke, integral supporting feet, grease lubricated bearings, accessible grease inlet and outlet plug and inner bearing dust caps. Voltage: Motors 1/2 HP and larger shall be the voltage and phase shown on the plans. Motors smaller than 1/2 HP shall be 120 volts, single phase, 60 cycle. Speed: 1750 RPM unless noted otherwise. Efficiency: Meet or exceed ASHRAE Energy Standards, latest edition. Voltage Motors shall be designed to operate satisfactorily at voltages +/- 10 % of the designated voltage. Sheave: adjustable slide rails. Motor Mount: adjustable slide rails. Belts: matched set rated at 150% of maximum load. Guards: around belts with holes for Tachometer placement.

30. HANGERS AND SUPPORTS

Support the vertical lines and conduit at the base with a suitable hanger or a pedestal. Install inserts in concrete structures for hanging of pipe or conduit. Hang piping or conduit from lower cord of steel beams or joists in steel frame buildings. Drilling into concrete structures for means of hanging pipe or conduit will be allowed only if the structural engineer approves. Install hangers so as not to interfere with expansion and contraction of the piping. Space hanger installations in accordance with MSS SP-69 and the Florida Building Code.

31. INSTALLATION OF PIPING OR CONDUIT

Support all piping from the structure. Make minor modifications to the Drawings to coordinate with other work. Install all piping or conduit in a neat, workmanlike manner. Verify that all piping, conduit, boxes, devices, valves, etc. will fit in the designated space. Request clarification if pipe size is not apparent. Run piping or conduit concealed in all finished areas unless noted otherwise. Run piping or conduit exposed in all unfinished areas unless noted otherwise. Run piping or conduit vertically within walls where shown near walls for clarity. Do not run horizontal pipes and conduit in walls or partitions. Install exposed risers and runouts as close to the wall or ceiling as practical. Piping and conduit shall not interfere with other work, door or window. In general, run piping and conduit parallel or perpendicular with building lines. Run horizontal lines horizontal or with uniform pitch as indicated. Run vertical lines exactly plumb. Cut piping and conduit accurately on the site. Anchor all piping and conduit securely at the site. Install piping without strain, forcing or cold springing. Make all changes in direction with factory-fabricated fittings (except underground). Install no underground fittings for pressurized systems and other systems. Replace all defective pipe, and fittings for pressurized systems. Handle piping, and conduit carefully to prevent bending and damage. Clean all pieces before installation. Furnish all temporary connections that are required. Patch all holes in walls, ceilings, and floors required for installation of work under this Division.

32. INSULATION - PIPE

Manufacturers: Armstrong, Johns Manville, Owens Corning, CSG Insulation Requirements: The following systems shall be insulated as specified: Domestic Cold water piping interior with 1/2" fiberglass with aluminum exterior or interior foil and paper jacket to 1 1/4" or 1/2" flexible armaflex elastomeric insulation Domestic Hot Water piping interior with 1/2" fiberglass with aluminum exterior or interior foil and paper jacket to 1 1/4" or 1/2" flexible armaflex elastomeric insulation Domestic Hot water circulating piping interior with 1/2" fiberglass with foil and paper jacket to 1 1/4" or 1/2" flexible armaflex elastomeric insulation Install insulation continuous through walls, floors, ceiling, and roofs. Seal vapor barriers on all systems carrying fluids below 70 degrees F. Do not use staples on vapor jackets. Follow manufacturer's installation instructions carefully. Do not exceed the recommended adhesive coverage for each unit. Leave all insulation surfaces clean and ready for painting. Seal all exposed butt ends of insulation with adhesive. Seal all transverse and longitudinal joints with pressure sensitive tape. Use a semicircular shield at all piping hangers and supports. Cover and insulate all valve extensions.

33. PLUMBING PIPING AND SPECIALTIES

Plumbing piping systems within the building including the following: Potable water distribution, including cold and hot water supply and hot water circulation. Drainage and vent systems, including sanitary and storm. Engineered drainage systems including combination waste and vent systems. Plumbing specialties for water distribution systems; soil, waste, and vent systems; and storm drainage systems. Compliance: ASME B31.9. and Florida Plumbing Code with amendments Piping System Working Pressure Ratings: Water Distribution Systems, Below Ground: [150] psig. Soil, Waste, and Vent Systems: [10] foot head of water. Pipes and Tubes: Hard Copper Tube: ASTM B 88, Types K, L, and M, water tube, drawn temper. Soft Copper Tube: ASTM B 88, Types K and L, water tube, annealed temper. Copper Drainage Tube: ASTM B 306, Type DWV, drawn temper. Steel Pipe: ASTM A 53, Type S, Grade A, Schedule 40, galvanized, plain ends. Ductile-Iron Pipe: AWWA C151, Classes 50 and 51, mechanical joint and push-on joint, with AWWA C104 cement-mortar lining. Flanged Ductile-Iron Pipe: AWWA C115, ductile-iron barrel, Class 150 or 300 iron-alloy threaded flanges, with AWWA C104 cement-mortar lining. Hub and Spigot, Cast-Iron Soil Pipe: ASTM A 74, service class. Hubless, Cast-Iron Soil Pipe: CISPI 301. PVC Plastic Water Pipe: ASTM D 1785, Schedules 80; plain ends. PVC Plastic DWV Pipe: ASTM D 2665, Schedule 40, plain ends. PEX plastic pipe 3/8" to 1", ASTM F876, F877 with UV protection, and meets NSF 14, and 61. Fittings and Valves: Pressure and Drainage Fittings for Pipe and Tubes: Suitable for working pressure, pipe, tube, and service. Joining Materials: Solder, brazing and welding filler metals; couplings and coupling and fittings that join PEX pipe. Valves: Gate, globe, ball, butterfly, and check valves suitable for service. Provide rubber neoprene elbow for washer and stainless steel clamp to pvc elbow and nipple to drain. Plumbing Specialties: Miscellaneous Piping Specialties: Strainers, hose bibbs; water hammer arrester Sneeze Penetration Systems: UL 1479, through-penetration firestop assembly.

34. PLUMBING FIXTURES

Plumbing fixtures and trim, fittings, and related accessories and appliances. Compliance: ANSI A117.1; Applicable accessibility regulations, Florida Building Code and Plumbing Code. Plumbing Fixtures: Provide and install washers complete.

35. GAS PIPING

Exterior / interior above grade, NFPA 54, Ansl Z22.1 Schedule 40 black steel pipe Fittings Malleable, 150 psig Joints welded or screwed Cover Min 2 feet with red tape marker and tracer wire Valves Lubricated plug and valve as noted in valve section Riser Schedule 40 black steel with PVC tape wrapping on below grade portion Paint all gas piping yellow Flexible hose Darmond Safety quick hose for natural gas, Gas pressure regulator and solenoid valves by dryer supplier, 13 inches WC incoming natural gas inside building verify. Verify gas supply with dryer installation manual

36. SHEET METAL DUCTWORK

All sheet metal ductwork for the dryer exhaust systems shall be stainless steel to the ductwork as noted on the plans. Provide a cleanout at the base of the fpm velocity and 1" ESP. All ductwork shall be installed in accordance with SMACNA Duct Construction Standards. Refer to the dryer installation manual for ductwork velocity and back pressure requirements.

37. FLEXIBLE DUCT

UL 181 class 1, Novaflex T/L SS, Maximum lengths of 1 foot is allowed for connection to the dryer to prevent vibration.

38. WASHERS - 80 pound washer extractor

Manufacturer Huebsch or Owner approved equal Provide complete unit including installation as a direct replacement Model HCN080HNV, 460 volt, 3 phase Capacity 80 lbs, 44x54.5x58.5 shipping weight 1260 lbs Controls as existing Speed Queen systems Soap / detergent/ softener dispenser system reconnected Stainless steel with baked enamel finish, panels removable insulated panels, Door opening - 18.5 inches Wash cylinder diameter 36 inches, .188 perforation size, 19.6 % perforation .28 kw /hr power consumption at 80 % load One motor in drive train, 5 hp, 6 extraction speeds, low 396 high 626. 200 G force high spin. (76 DBA) wash speed 39 rpm wash / distribution speeds 28-70 rpm 3/4" cold water, 2- 3/4" hot water, 3" drain Provide and install unit with rubber isolators bolted to the 16" thick base floor. Provide and install all hoses and wye connection, and water hammer arrestors on each water hose drop. Provide and install electrical as noted on the plans. Modify all face panels for new washers. All materials on the face panels shall match existing. Provide neoprene rubber outlet with stainless steel connection to pvc elbow and nipple to trench drain. 3 year minimum parts and labor warranty Re-hook all detergent and softener distribution tubing and test system operation for each unit. Provide training for a minimum of four of the Sheriff's personnel.

39. DRYERS - 120 pound natural gas tumble dryer

Manufacturer Huebsch or Owner approved equal Provide complete unit including installation as a direct replacement Models HT120RE, 208 volt, 3 phase Capacity 120 lbs, 46.38x85.7x67.92 shipping weight 1338 lbs Controls as existing Speed Queen systems Coated steel with baked enamel finish, panels removable insulated panels, Door opening - 32.5 inches Cylinder motor .75 hp, fan motor 1.0 hp Air outlet 10" dia, back pressure .8, 1600 cfm 1" NPT gas connection, 270,000 btuh input Provide and install unit with rubber isolators bolted to the floor Provide and install regulated gas with shut off valve, dirt leg and dielectric union, and flexible connection to each unit. Provide install gas piping as noted on the plans. Provide and install electrical as noted on the plans. Provide and install 316 stainless flexible connection, cleanout, and stainless steel duct transition to existing duct. All duct work for dryer shall be UL listed. Modify all face panels for new washers. All materials on the face panels shall match existing. 3 year minimum parts and labor warranty steel system operation for each unit. Provide training for a minimum of four of the Sheriff's personnel.

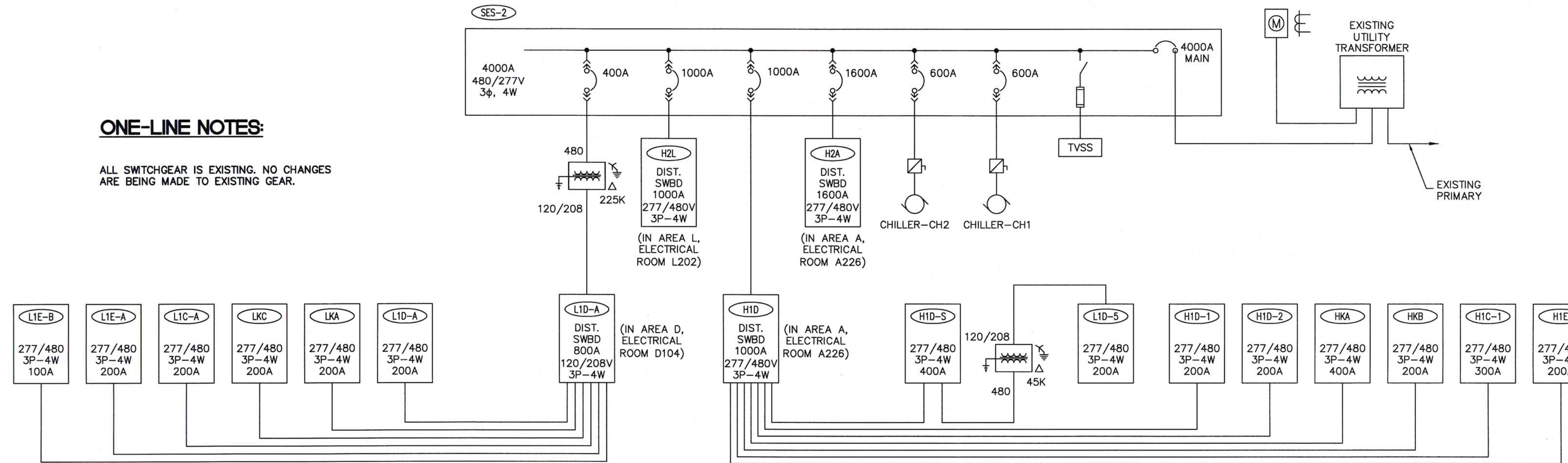
Table with columns: REV, DATE, DESCRIPTION. Includes a stamp for 'ATP ENGINEERING SOUTH, FL' and 'BRADENTON, FLORIDA'.

DETECTION FACILITY
MANATEE COUNTY GOVERNMENT
14470 HARLEE RD.
PALMETTO, FLORIDA 34221
IFASH W1500316, WORK ASSIGNMENT #41

Table with columns: FILE, JOB NO., DATE, PLOT SIZE, DRAWN BY, CHECKED BY, SHEET No. Includes 'MP3.0' stamp.

ONE-LINE NOTES:

ALL SWITCHGEAR IS EXISTING. NO CHANGES ARE BEING MADE TO EXISTING GEAR.



3 PARTIAL ONE-LINE RISER DIAGRAM
E2.0 NTS

PLAN NOTES:

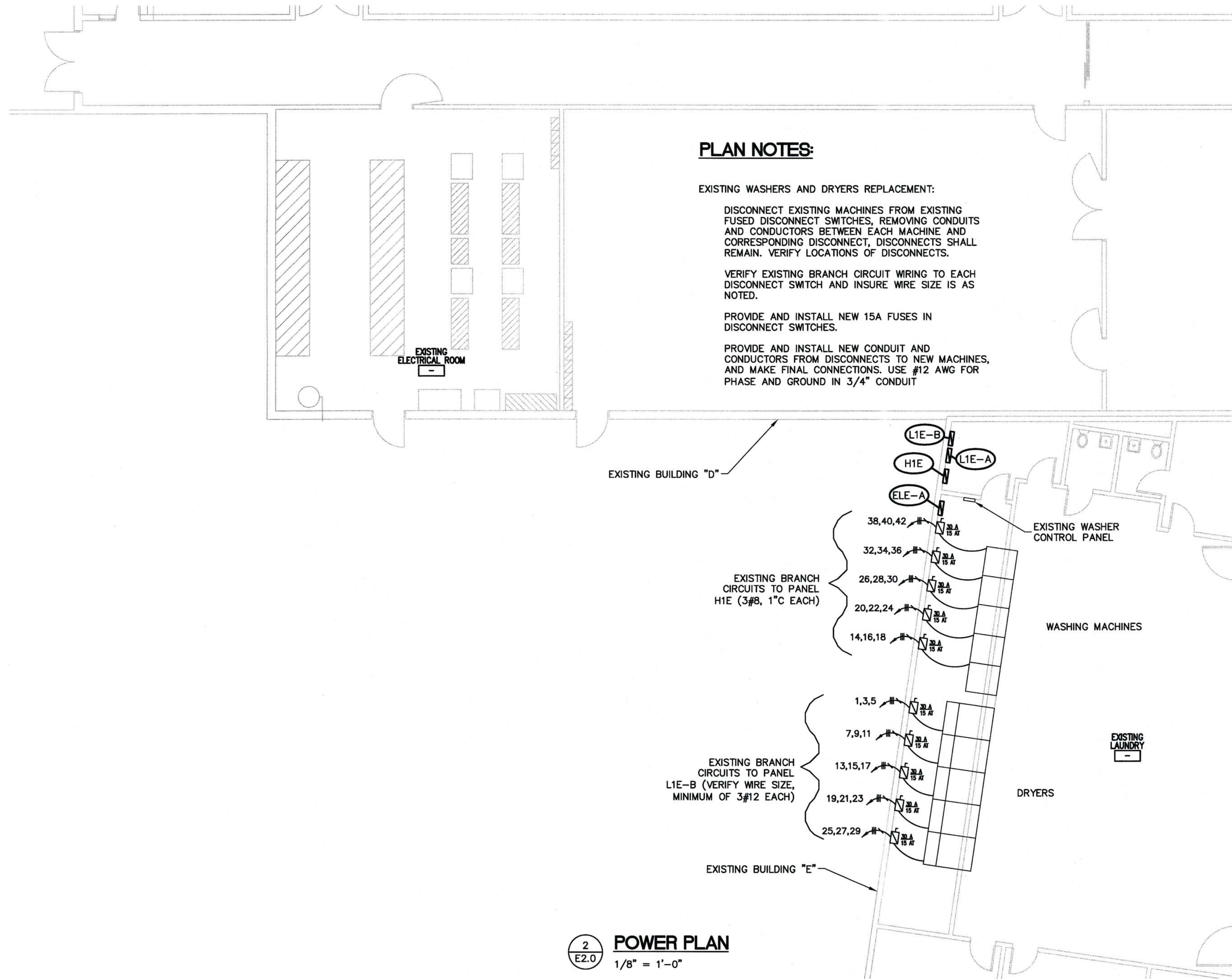
EXISTING WASHERS AND DRYERS REPLACEMENT:

DISCONNECT EXISTING MACHINES FROM EXISTING FUSED DISCONNECT SWITCHES, REMOVING CONDUITS AND CONDUCTORS BETWEEN EACH MACHINE AND CORRESPONDING DISCONNECT. DISCONNECTS SHALL REMAIN. VERIFY LOCATIONS OF DISCONNECTS.

VERIFY EXISTING BRANCH CIRCUIT WIRING TO EACH DISCONNECT SWITCH AND INSURE WIRE SIZE IS AS NOTED.

PROVIDE AND INSTALL NEW 15A FUSES IN DISCONNECT SWITCHES.

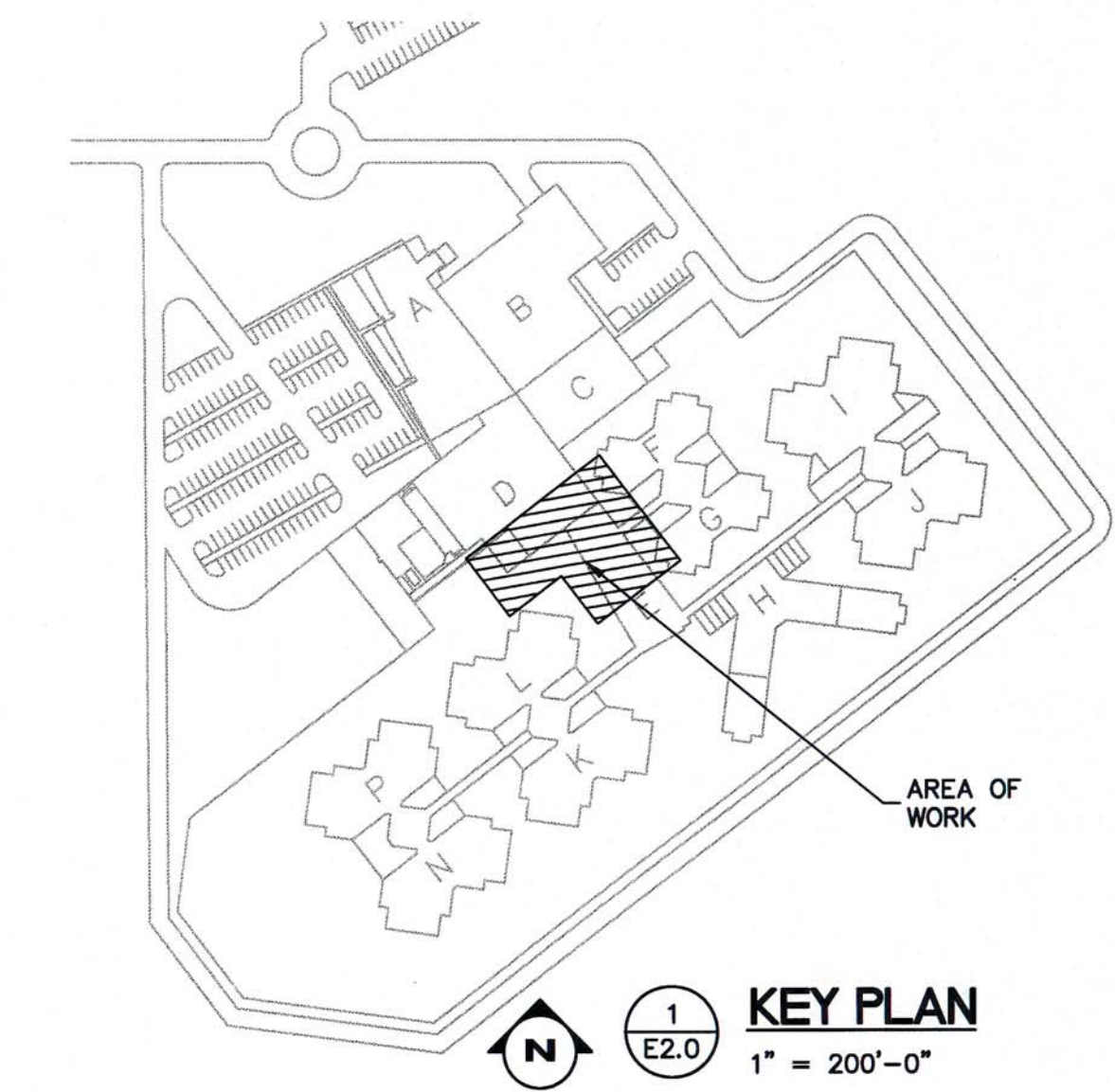
PROVIDE AND INSTALL NEW CONDUIT AND CONDUCTORS FROM DISCONNECTS TO NEW MACHINES, AND MAKE FINAL CONNECTIONS. USE #12 AWG FOR PHASE AND GROUND IN 3/4" CONDUIT



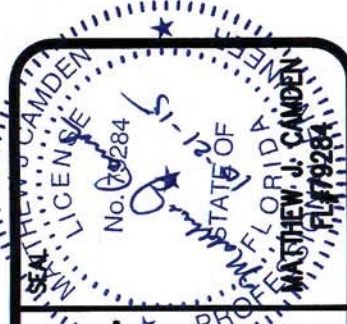
2 POWER PLAN
E2.0 1/8" = 1'-0"

| LOAD ANALYSIS | | | |
|--------------------------|-----|----------------|------------|
| 480V-3 PHASE Panel H1E | | | |
| EQUIPMENT | QTY | LOAD (in Amps) | TOTAL AMPS |
| EXISTING WASHERS | 5 | 6 | 30 |
| NEW WASHERS | 5 | 6 | 30 |
| | | DIFFERENCE | 0 |
| 208V-3 PHASE Panel L1E-B | | | |
| EXISTING DRYERS | 5 | 6.7 | 33.5 |
| NEW DRYERS | 5 | 7.7 | 38.5 |
| | | DIFFERENCE | 5 |

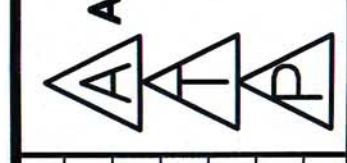
NEW LOAD ON BUILDING = 5A @ 208V/3P
DISTRIBUTED OVER (5) CIRCUITS



1 KEY PLAN
E2.0 1" = 200'-0"



ATP ENGINEERING SOUTH, FL
BRADENTON, FLORIDA
ENGR. BUSINESS #8908
941-751-6485



| REV# | DESCRIPTION | DATE |
|------|-------------|------|
| | | |
| | | |
| | | |
| | | |

DETENTION FACILITY
MANATEE COUNTY GOVERNMENT
14470 HARLEE RD.
PALMETTO, FLORIDA 34221
IF&S W500318, WORK ASSIGNMENT #41

BRANNING TITLE:
**ELECTRICAL POWER
PLAN AND ONE-LINE
RISER DIAGRAM**

FILE: MC Jail Laundry
JOB NO.: 2015.11
DATE: 09/09/2015
PLOT SIZE: 1:1
DRAWN BY: CMD/MC
CHECKED BY: JDC
SHEET No.:

E2.0