STATE OF CALIFORNIA DEPARTMENT OF GENERAL SERVICES

REAL ESTATE SERVICES DIVISION
PROJECT MANAGEMENT AND DEVELOPMENT BRANCH

Date: December 20, 2024 **DOCUMENT 00 91 13**

ADDENDUM No. 1 TO THE CONTRACT DOCUMENTS

NEW Bid Due Date – January 21, 2025

DSH – COALINGA HYDRONIC LOOP REPLACEMENT
DEPARTMENT OF STATE HOSPITALS
COALINGA, FRESNO COUNTY, CALIFORNIA

PROJECT NO. 0000000008666

ACKNOWLEDGE RECEIPT OF THIS ADDENDUM ON BID FORM AND
REVISE THE CONTRACT DOCUMENTS AS FOLLOWS:

PROJECT MANUAL

BIDDING REQUIREMENTS

1. DOCUMENT 00 11 00 - INVITATION TO BID

   A. REMOVE DOCUMENT 00 11 00 INVITATION TO BID AND
   ADD DOCUMENT 00 11 00 Addendum 01 dated December 20, 2024 making the following changes:
   CHANGE bid due date from January 8, 2024 to January 21, 2025.
   CHANGE bid opening date January 9, 2024 to January 22, 2025.

2. DOCUMENT 00 21 00.1 – APPENDIX 1 RFBI

   A. CHANGE RFBI submission due date from December 17, 2024 to December 27, 2024.

3. DOCUMENT 00 41 00 – BID FORM

   A. CHANGE bid due date from January 8, 2025 to January 21, 2025.
   Revised Bid Forms will not be issued to Bidders. Bidders shall change date on originally issued Bid Forms.

4. DIVISION 01 SPECIFICATIONS

   A. ADD DIVISION 01 SPECIFICATIONS Addendum 1 dated December 20, 2024 IN ITS ENTIRETY.

DRAWINGS

DRAWINGS SET

A. REMOVE ORIGINALLY ISSUED DRAWING SET IN ITS ENTIRETY AND ADD DRAWING SET Addendum 01 dated December 20, 2024.

FOR REFRENCE ONLY MATERIAL

A. ADD Bid Walk Photos.

END OF ADDENDUM NO. 1

ATTACHMENTS:

Document 00 11 00, Invitation for Bids, pages 1 through 4.
Specifications, Division 01, pages 1 through 119.
Addendum No. 01 Drawing Set, T-1.00 through CE-1.2.
Bid Walk Photos.

STATE OF CALIFORNIA
DEPARTMENT OF GENERAL SERVICES
REAL ESTATE SERVICES DIVISION
PROJECT MANAGEMENT AND DEVELOPMENT BRANCH

DOCUMENT 00 11 00

INVITATION FOR BIDS

This project is being bid informally to select prime Contractors in accordance with Public Contract Code §10122(d). Bid forms will be provided to bidders via email.

SEALED BIDS: DGS will receive sealed bids at 707 Third Street, West Sacramento, California 95605, **before 2:00 P.M., January 21, 2025. Bids received after this date/time will not be considered received on time.**

A public bid opening will be held on **January 22, 2025 at 10:00A.M**. at 707 Third Street, West Sacramento, CA 95605. Bidders may attend virtually or in person. Bidders attending the bid opening in-person will need to meet and sign in at the security guard station in the lobby at the mailing address below. At the public bid opening, all bids received before **2:00 P.M., January 21, 2025** will be opened and recorded onto a Preliminary Bid Tabulation. Bidders do not need to attend the bid opening as the Preliminary Bid Tabulation will be made available immediately after the bid opening is completed and it will be emailed to invited bidders.

The bid opening may be attended virtually via the following link:

Teams meeting link: https://teams.microsoft.com/l/meetup-join/19%3ameeting_ZWViYjEzYzMtZWJiOS00NzA0LWE3MzctZjAzNTY1Y2Q2OTQ5%40thread.v2/0?context=%7b%22Tid%22%3a%22ea45f7b1-07d7-49a8-b8f5-37136ec9382d%22%2c%22Oid%22%3a%223b64f837-4256-46bc-9349-e8174cd968a7%22%7d
Teams meeting ID: 249 372 744 248
Teams Passcode: W4a4jx7y

HAND DELIVERED BIDS: Shall be placed in the DGS/OBAS Bid/Proposal Drop Box located in the lobby at 707 3rd Street in West Sacramento. The Drop Box will be opened at 2:00 p.m. Tuesday through Thursday and bids/proposals in the box will be certified as being received before 2:00 p.m. that day.

If mailing bids, ensure the outside of the mailing reads:

ATTENTION: HECTOR CAVAZOS
DSH - COALINGA HYDRONIC LOOP REPLACEMENT
DEPARTMENT OF STATE HOSPITALS
COALINGA STATE HOSPITAL
COALINGA, FRESNO COUNTY, CALIFORNIA
DO NOT OPEN
DEPARTMENT OF GENERAL SERVICES
OFFICE OF BUSINESS AND ACQUISTION SERVICES
707 3RD STREET, MS 508, WEST SACRAMENTO, CA 95605

The bids shall include all Work pursuant to the Drawings and Project Manual, and Addenda as may be issued prior to bid opening date.

Scope of Work: Major components of Project Work consist of The project consists of a new underground heating hot water (HHW) Piping hydronic loop. This shall consist of direct buried piping, pre-insulated, prefabricated, HHW piping adjacent to where the existing HHW piping is direct-buried. Where system routes on or through the building, it shall consist of above-ground, pre-insulated, prefabricated, HHW piping. The existing HHW will be abandoned in place where piping is underground and demo'd by the contractor where existing piping is above ground.

The project includes new manual isolation valves in the new HHW piping at the places on the main HHW loop where the pipe branches enter the existing buildings. These manual isolation valves shall be installed on the mains on either side of the piping junction, as well as valves on the pipe branches. These manual isolation valves shall be installed in pre-fabricated or concrete pipe vaults for ease of access. New manual isolation valves, replacing existing valves, on the existing direct-buried hydronic CHW piping will also be installed in similar fashion. The existing HHW Hydronic Loop shall remain operational while the new HHW hydronic loop is installed and tested.

A new chilled water supply and return piping, direct-buried, pre-insulated, pre-fabricated, connection from existing CHWS and CHWR of building 39 to building 38 and building 37 is to be installed, as well as a new chilled water supply and return piping, direct-buried, pre-insulated, pre-fabricated, connection from existing CHWS & CHWR at the mechanical building to Building 36.

License: Contractors' State License Classification required to bid Project is **A or B.**

Certificate of Reported Compliance (CRC) – Fleet Vehicles: As a condition of Contract award, prior to Contract execution, Contractor shall submit copies of the valid CRCs for any fleet retained by the Contractor or any listed Subcontractor, for which any vehicles subject to the California Air Resources Board In-Use Off-Road Diesel Fueled Fleet Regulations, Section 2449(i), Title 12, California Code of Regulations, are used in the completion of the work included in the Contract.
More information on the In-Use Off-Road Diesel-Fueled Fleets Regulation can be found at the following link: https://ww2.arb.ca.gov/our-work/programs/use-road-diesel-fueled-fleets-regulation

Generative Artificial Intelligence (GenAI) Reporting: The State of California seeks to realize the potential benefits of GenAI through the development and deployment of GenAI tools, while balancing the risks of these new technologies. Bidders must notify the State in writing if their solution or service includes, or makes available, any GenAI technology, including GenAI from third parties or subcontractors. The State has developed a GenAI Reporting and Factsheet (STD 1000) to be completed by the Bidder. Failure to disclose GenAI to the State and submit the GenAI Reporting and Factsheet (STD 1000) will result in disqualification of the Bidder and may void any resulting contract. The State reserves its right to seek any and all relief it may be entitled to as a result of such non-disclosure. Upon receipt of a Bidder GenAI Reporting and Factsheet (STD 1000), the State reserves the right to incorporate GenAI Special Provisions into the final contract or reject bids that present an unacceptable level of risk to the State.

Generative Artificial Intelligence (GenAI) Disclosure & Factsheet (STD 1000) can be viewed and downloaded at the following internet site: https://www.documents.dgs.ca.gov/dgs/fmc/pdf/std1000.pdf

Completed form GenAI Reporting and Factsheet (STD 1000) must be included in the bid submission, as part of Project Manual Document 00 41 00 "Bid Form". If the GenAI Disclosure & Factsheet is not submitted by the bidder, the bid shall be deemed nonresponsive.

Availability of Funds: Award of this contract is subject to the availability of funds through the State's normal budget process and/or transfer of funds to the Department of General Services through the Architecture Revolving Fund.

Pre-bid Site Inspection: Bids will only be accepted from those Contractors having attended the **MANDATORY** pre-bid site inspection tour on **December 11, 2024, at 11:00 A.M,** at which time representatives of the State and prospective bidders shall meet at Department of State Hospital Coalinga: 24511 W Jayne Ave, Coalinga, CA 93210 (gather In front of BLDG 31). The State's requirements for Disabled Veteran Business Enterprise (DVBE) participation and other Contract requirements will be presented. Prime Contractors are encouraged to have their Key Administrator and DVBE office coordinator attend to receive this information and to have their questions answered. **Attendance for the entire inspection is required in order for bidders to be eligible to submit a bid.**

Security Clearance:
California Driver's License will be required to enter the facility. Clothing restrictions as follows: Tan, khaki and camouflage clothing, cameras, phones and recording devices will not be allowed (not applicable for virtual pre-bid inspections). See Section 01 35 53, Correctional Security Project Procedures, for additional requirements. Cell phones and all other electronic devices are not permitted in the secured area.

Bidders can contact Sagar Gupta, Project Director, at sagar.gupta@dgs.ca.gov / (916) 591-2691 for any further clarification.

Executive Order N-6-22: The Bidder must be advised of Executive Order N-6-22 Russia Sanctions. On March 4, 2022, Governor Gavin Newsom issued Executive Order (EO) N-6-22 regarding Economic Sanctions against Russia and Russian entities and individuals. "Economic Sanctions" refers to sanctions imposed by the U.S. government in response to Russia's actions in Ukraine, as well as any sanctions imposed under state law. By submitting a bid, Bidder represents that it is not a target of Economic Sanctions. Should the State determine Bidder is a target of Economic Sanctions or is conducting prohibited transactions with sanctioned individuals or entities, that shall be grounds for rejection of the Bidder's bid any time prior to contract execution, or, if determined after contract execution, shall be grounds for termination by the State.

Bid: Submit Lump Sum basis in accordance with the bid documents.

DVBE: Participation in Disabled Veterans Business Enterprises (DVBE) program **may** be required for this project. Refer to Project Manual Document 00 21 00, Project Manual Document 00 22 10 and Bid Forms for requirements. Bidders are advised to commence the required DVBE procedures immediately upon receipt of drawings and project manual.

DVBE Bid Incentive: The DVBE Incentive program is being applied on this project. Refer to Project Manual Document 00 21 00, Article 18.5.

Small Business Preference: Refer to Project Manual Document 00 21 00, Article 5.5

Non-Small Business Subcontractor Preference: Refer to Project Manual Document 00 21 00, Article 5.6

Bonds: Successful bidder shall furnish payment and performance bonds, each in the amount of 100 percent of the Contract price.

Non-Discrimination Program (Gov. Code, Section 12990): Refer to Project Manual Document 00 72 00, General Conditions of the Contract for Construction.

Labor Code: Pursuant to Labor Code, Section 1774, the Contractor to whom the contract is awarded, and any subcontractor under him, shall pay not less than the specified general prevailing rates of per diem to all workers employed in the execution of the contract. Pursuant to Labor Code, Section 1770 et seq., the Department of Industrial Relations (DIR) has ascertained general prevailing rate of per diem wages in the locality in which the work is to be performed. Copies of the general prevailing rate of per diem wages are available from the Department of Industrial Relations, Labor Statistics & Research Division, P.O. Box 420603, San Francisco, CA 94142, (415) 703-4780; or general prevailing rate of per diem may be accessed on the internet at Department of Industrial Relations website (https://www.dir.ca.gov) for the August 2024 published general prevailing rate of per diem wages for this contract. Copies of the general prevailing rate of per diem wages are on file at DGS' principal office, which shall be made available to any interested party on request. Note that when the general prevailing rate of per diem determination shows an expiration date (noted by a double asterisk**), to expire during the term of the contract, the Contractor must call or write the DIR to obtain the new rates and incorporate them in this contract for submittal of bid. The Contractor is responsible to comply with the Labor Code Sections and general prevailing rate of per diem determinations, including all the guidelines and the fine print in the general prevailing rate of per diem determinations. Refer to Project Manual Document 00 72 00, General Conditions of the Contract for Construction.

Labor Compliance Monitoring and Enforcement: This project is subject to monitoring and enforcement by the Department of Industrial Relations (DIR), Compliance Monitoring Unit. All Contractors and subcontractors, regardless of tier, shall be required to comply with the Monitoring and Enforcement Program, including, but not limited to, contractor registration, submittal of electronic certified payroll reports directly to the DIR as applicable and cooperation with on-site monitoring by DIR personnel. Refer to Labor Code 1771.4 et seq. and the General Conditions of the Contract for Construction, Document 00 72 00, Article 3.3.3 for more information.

END OF DOCUMENT

SECTION 01 11 00

SUMMARY

PART 1 GENERAL

1.01 WORK INCLUDED

A. Work required to be performed by the Contractor comprises:

DSH-COALINGA STATE HOSPITAL
HYDRONIC LOOP REPLACEMENT
DEPARTMENT OF STATE HOSPITALS

1.02 WORK NOT INCLUDED

A. Except for such auxiliary work as is shown or specified or is necessary as a part of the construction, the following work is NOT included in this Contract.

1. Work shown, but marked "NIC" (Not in Contract). "BUA" (By Using Agency), or otherwise designated to be done by others.

1.03 LOCATION OF SITE

A. The site of the work is on State of California property located at : 24511 W Jayne Ave, Coalinga, CA 93210

1.04 SPECIFICATIONS

A. The Specifications are those bound in the Project Manual in Books I and II and enumerated in the Table of Contents. The General Conditions of the Contract for Construction, Supplementary Conditions, and Division 01 of the Specifications apply to all Work of this Contract.

1.05 DRAWINGS

A. The Drawings consist of Drawing Sheets as listed in Document 00 01 15 of Project Manual.

1.06 CONTRACTOR'S SETS OF DRAWINGS AND PROJECT MANUALS

A. State Furnished Drawings and Project Manuals: Upon award of Contract, the State will provide Drawings and Project Manuals upon Contractor request as follows:

1. Electronic Files
2. Drawings: 1 set
3. Project Manuals: 1 set

B. Additional Sets shall be the responsibility of the contractor.

1.07 SECURITY REGULATIONS

A. Contractor shall cooperate with the Hospital authorities and shall observe and comply with all regulations presently in force on Hospital grounds. Refer to Sections 01 31 00, Project Management and Coordination, and 01 35 54, Hospital Project Procedures.

B. After award of Contract, there will be a project start meeting, at which time security regulations will be reviewed with Contractor and subcontractor.

1.08 INTERRUPTION OF SERVICES

A. Contractor shall make provisions to accomplish the work of this Contract without undue interference with Hospital operations. Interruptions to services for the purpose of making or breaking connection shall be made only after consultation with the State a minimum of one week in advance of connection break, and shall be at such time and of such duration as may be directed.

B. In addition, existing electrical, mechanical and sec lines disconnected for work of this Contract shall not remain disconnected for more than 4 hours. If electrical power cannot be restored within the 4 hour period, Contractor shall provide temporary electrical service to restore required electrical power at Contractor's expense.

1.09 SEQUENCE OF CONSTRUCTION OPERATIONS

A. Before starting construction operations, Contractor shall confer with the State to review sequence of construction operations.

B. Contractor shall prepare schedules as set forth in Section 01 32 16, Progress Schedules and Reports.

1.10 HOURS OF WORK

A. Contractor shall perform Work of this Contract on normal workdays and within normal work hours; 7:30 am to 4:30 pm. After hours work and work on Saturdays, Sundays, and holidays, may be permitted if approval is received from the State at least 3 working days in advance.

1.11 SITE CONDITIONS AND REQUIREMENTS

A. Contractor shall keep drainage facilities, walks, and paved areas clean and free of mud and dirt, obstacles, etc. so that normal drainage and pedestrian and vehicular travel may be maintained.

B. Do not use landscaped area(s) for work operations or storage.

1.12 EXCAVATIONS OR TRENCHING FOR UNDERGROUND UTILITIES

A. Time intervals between excavation or trenching and installation of conduit or piping or other work concerned, and backfilling operations shall be kept to absolute minimum.
B. Excavations or trenching crossing roadways, walks, or other trafficways shall be provided with traffic bearing steel plate or wood planking temporary covers; as most suitable.

C. Contractor shall conduct operations on the basis that underground installations exist which are not indicated on the Contract Drawings. Refer to the following Article 1.14 for additional requirements.

1.13 DE-WATERING EXCAVATIONS

A. Divert water from excavations. Do not use footing excavations for drainage trenches. Remove water from excavations by pumping.

B. Provide pumps, well points, piping, and hoses or a combination of these, as may be required, to keep excavations dry and to carry the water off the site.

C. Continue de-watering operations until concrete and backfill are placed.

D. No debris, soil, silt, sand, rubbish, oil, cement washing, etc., shall be allowed to enter into or placed so that it may be washed by rainfall or runoff into storm drains or surface drains to cause damage to or have deleterious effect upon the drainage system, or to fish or wildlife at the site, adjacent areas, or streams to which the drainage system is a tributary.

1.14 PROTECTION OF EXISTING STRUCTURES AND UTILITIES

A. Refer to the General Conditions of the Contract for Construction for Contractor responsibilities.

B. Damage to existing improvements caused by Contractor's operations shall be repaired to restore damaged items to their original condition. Cost of such repair shall be borne entirely by Contractor.

C. Drawings indicate existing structures, drainage lines, water, gas, electrical and other similar items and utilities which are known to the State.

D. Locate known existing structures and utilities before proceeding with operations which may damage same. Maintain them in service, except as otherwise specified, provide protection and repair damage to them caused by the Work at no increase in Contract price.

E. Additional utilities whose locations are unknown to the State may exist. Contractor shall be alert to their existence. If encountered, immediately report to the State for disposition of same.

F. Contractor shall have City-accepted plans prior to beginning construction work within street right of way.

1.16 STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

A. A SWPPP has not been prepared for the site. Contractor shall prepare the SWPPP in its entirety in accordance with all of the requirements of the General Construction Storm Water Permit. Contractor shall retain a Qualified SWPPP Developer (QSD), licensed/certified in the State of California, to prepare this Plan by showing the Best Management Practices for the prevention and control of pollutants and erosion on the site. Contractor is responsible to implement the SWPPP and make revisions to the Plan as necessary. Contractor shall comply with all requirements as specified in Section 31 25 00.

END OF SECTION

SECTION 01 21 00

ALLOWANCES

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Description and monetary amount of Allowance in Contract Sum.

B. Costs in Contract Sum other than in Allowance.

C. Procedures for administration of Allowance.

1.02 RELATED REQUIREMENTS

A. Document 00 72 00: General Conditions of the Contract for Construction: Article 6, Changes in the Work.

B. Section 01 33 00: Submittal Procedures.

1.03 ALLOWANCE(S)

A. Allow the lump sum of $500,000 for unforeseen conditions and utility interferences encountered during the installation of the HHW Hydronic Loop and CHW future connection.

1.04 COSTS INCLUDED IN ALLOWANCE

A. Cost of the work to Contractor, excluding overhead, profit and other costs included in Contract Sum; as specified in following Article 1.05.

B. Execution at the site.

C. Labor required under the Allowance.

D. Applicable taxes.

1.05 CONTRACTOR COSTS INCLUDED IN CONTRACT SUM

A. Handling at site.

B. Protection from damage.

C. Other expenses required to complete the work.

D. Contractor's overhead and profit.

1.06 WORK INCLUDED UNDER ALLOWANCE

A. The State will review and determine Allowance work with Contractor.

1.07 CONTRACTOR RESPONSIBILITY FOR ALLOWANCE ITEMS

A. Make all arrangements for performance of Allowance work.

B. Provide State with certified copies of invoices, bills of sale or other documents authenticating costs incurred by Contractor for Allowance items.

1.08 ADJUSTMENT OF COSTS

A. Should net cost be more or less than specified amount of Allowance, the Contract Sum will be adjusted accordingly by Change Order in accordance with requirements of the General Conditions of the Contract for Construction, Article 6.

END OF SECTION

SECTION 01 31 00

PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.01 PROJECT CONTROL

A. The State's Representative will outline and detail communication, correspondence and coordination procedures at Project start meeting.

B. Examination of Site: Contractor and subcontractors shall visit the site prior to bidding and prosecution of the Work and shall familiarize themselves with existing conditions and be prepared to carry out the Work within existing limitations.

C. Condition of Work in Place: Inspect and take responsibility for previously prepared or installed work of other contractors before applying subsequent materials or finishes. If work is in unsatisfactory condition, notify the State. Do not proceed until defective work has been corrected.

D. Coordination:

1. Subletting and Subcontracting Responsibilities: Refer to General Conditions of the Contract for Construction, Article 4.

2. Contractor shall coordinate the Work with related work being done by the State and other contractors operating in the area. This coordination shall include reasonable adjustments of schedule in order to allow other contractors or State to do their work.

3. Contractor shall coordinate electrical/mechanical work, particularly between general trades and mechanical/electrical trades so that sleeves, hangers, chases, openings, etc., required for pipe, conduit, and other installations of like character are duly and properly provided for and installed as work progresses.

4. Contractor shall carefully examine Drawings relating to entire work with actual conditions so that Work will be accommodated in spaces provided. General arrangement and location of elements of various systems is shown on the Drawings or specified. Final locations, levels, etc., shall be governed by actual material size used, by building conditions encountered, and by work of all trades. Space conflicts and interferences shall be resolved before work is installed.

5. Contractor shall utilize the Contract Documents, submittals, and layout drawings of the various trades to check and coordinate the Work so that no interferences or conflicts between trades will occur. This checking and coordination shall be performed and completed before construction is commenced in each affected area.

6. Coordinate work to assure efficient and orderly sequence of installation of construction elements. Make provisions for accommodating items installed by the State or under separate contracts.

7. Verify characteristics of interrelated operating equipment are compatible; coordinate work having interdependent responsibilities for installing, connection to, and placing such equipment in service.

1.02 LOCATIONS, ELEVATIONS, AND LAYOUT OF WORK

A. Property lines, location ties, and elevations of components of the Project to be built under this Contract are shown on the Drawings. Grade elevations shown for various parts of the Work are taken from a bench mark shown on the Drawings, or if not shown, will be designated by the State. In case of conflict therein, notify the State in writing before starting work.

B. Contractor shall lay out the Work and furnish surveys required for alignment and elevations of the Work, and shall pay all costs therefor. Contractor shall furnish necessary lines, levels, locations, measurements and markers for all on the Work and be responsible for their accuracy.

1.03 SCHEDULES AND MEETINGS

A. Planning and Scheduling: Refer to Section 01 32 16.

B. Project and Preinstallation Meetings: Contractor or his duly appointed representative shall attend project meetings at regular intervals as set by the State and shall attend preinstallation meetings as required by pertinent Specification Sections. Attendance shall be limited to the Contractor and his immediate subordinates, subcontractors where so specified, the State, and representatives of the Architect and Consultants, as requested. State, or State's duly appointed representative, will keep minutes of meetings; with copies sent to all who attend. Meetings shall be held at job site at 24511 W Jaye Ave, Coalinga, CA 93210

C. Project Construction Phases: Work of this Contract shall be executed in one phase.

1.04 ALLOWABLE ENTRANCE

A. Contractor, subcontractors, their employees, suppliers and delivery persons shall enter and exit property via designated entrance.

END OF SECTION

SECTION 01 31 25

WEB-BASED PROJECT MANAGEMENT SYSTEM

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Administrative and procedural requirements for the use of State's web-based project management software system for purposes of hosting and managing Project communication and documentation until Acceptance of the Work.

B. Use of this web-based project management system will not change any contractual responsibilities of the construction team members.

1.2 DEFINITIONS

A. System: A real time web-based software that shares data, translates data, organizes data, facilitates communication, archives actions, and offers status prompts to identified Users.

B. Users: Authorized participants of this project furnished with a unique password and authorized to access the system to view/input/export data. State, Construction Manager (as applicable), Architect or Engineer, and the Contractors are all Users. Other Users may be added as necessary.

C. Contacts: Entities identified to automatically receive specific transmissions or entities selected to receive specific information sent by the system through to an e-mail address.

D. Signees: Those individuals identified, by the Contractors, authorized to sign change orders and payment applications via electronic signature. This electronic signature is as contractually binding as an original signature on paper.

1.3 SOFTWARE AND HARDWARE REQUIREMENTS

A. Each User shall provide and maintain a computer with high-speed internet access and an email address.

B. License(s) to Use System: State will provide licenses to use the system for this project.

1.4 USE OF SYSTEM

A. Use of the system is mandatory for the documentation of the transmittal of all non-oral information, even if the actual transmission of the information is by another means.

1. The State will **NOT** accept faxed, emailed, and/or handwritten documentation of Requests for Information, Sketches, Drawings, and/or Submittals.

B. Use of the system will be mandatory by the Contractor to send, retrieve, and respond to data.

C. The State will provide each Project team member with an invitation to web-based project management system, and the supporting documentation of each Project team member's responsibility and how to operate within web-based project management system.

D. Official Records:

1. Documentation and records uploaded and maintained in Aconex will be the "Official Records" for the project and the sole property of the State.

1.5 SYSTEM DESCRIPTION

A. The web-based project management system is Aconex (www.aconex.com) and is updated monthly.

1. Access into the various applications within Aconex will be role based.

B. Aconex applications shall be made available to the Project team for the following areas:

1. Tasks.
2. Documents.
3. Workflows.
4. Mail.
5. Cost.

1.6 SUBMITTALS

A. Submit to the State the contact information, including email address, of the Contractor's key personnel that will administer the system on behalf of the Contractor.

1.7 QUALITY ASSURANCE

A. A four-hour initial training session in the use of software for this project will be offered by the State at a location convenient to the project site. Instructional guides will be provided for the most common tasks.

1. Attendees shall have sufficient computer skills and previous experience with web-based project management software systems.

B. Web-based support is available at Aconex Support Central site (help.aconex.com).

C. Acceptance via automated system notifications or audit logs extends only to the face value of the submitted documentation and does not constitute validation of the Contractor's submitted information.

D. Contractor shall be solely responsible for:

1. Training its staff on how to use the Aconex beyond the training provided by the State at no additional costs to the contract.

2. Validity of their information placed in Aconex.
3. Scanning of documents as necessary for the electronic submittal and attachment of necessary information related to Contractor's supporting documentation.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 RESPONSIBILITIES

A. All documents submitted shall be in PDF file format unless otherwise requested.

B. The following documents shall be managed inside the system:

1. Correspondence, using Mail module.
2. RFIs
3. Submittals
    a. Placeholders
    b. Request for Substitutions
4. Financials
    a. Contract
    b. Payment Applications
    c. Change Events and Change Orders
5. Schedules including but not limited to:
    a. Baseline
    b. Monthly Progress
    c. Recovery
    d. Short Interval
6. Addenda
7. Specifications
8. Drawings, including ADI.
9. Reference Documents
10. Daily Reports
11. SWPPP
12. Inspection Reports (including Special Inspections)
13. Punchlists
14. Meeting Minutes
15. Regulatory Agency's Permits
16. Photographs
17. Closeout Documentation

3.2 QUALITY CONTROL

A. Contractor is responsible for its own connectivity to the Internet. The State will not be liable for any delays associated from the usage of Aconex including, but not limited to slow response time, down time periods, connectivity problems, or loss of information. Under no circumstances shall the usage of the Aconex be grounds for a time extension or cost adjustment to the contract.

B. The document control system shall be available for Contractor use at all times unless system maintenance (i.e., backups, upgrades, etc.) is being performed. System maintenance will generally be limited to non-core business hours. In the event a Contractor's authorized user cannot access the control system, the Contractor shall notify the State. In the event the control system becomes unavailable during normal business hours for an extended period, the Contractor may issue correspondence requiring immediate attention by the State in hard copy format. The hard copy correspondence must be entered into Aconex immediately upon becoming available again. Inability by the Contractor to gain access to the Aconex for any reason shall not be grounds for claim.

END OF SECTION

SECTION 01 32 16

PROGRESS SCHEDULES AND REPORTS

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Work under this Section shall consist of furnishing computerized Time Scaled Cost Loaded Critical Path Method (CPM) Progress Schedule showing in detail how Contractor plans to execute and coordinate the Work; and submitting schedules, logs, updates and reports.

1.02 RELATED REQUIREMENTS

A. Document 00 72 00 - General Conditions of the Contract for Construction; Paragraph 3.10 and Article 7.

B. Document 00 73 00: Supplementary Conditions; Contract time and liquidated damages.

C. Section 01 31 00: Project Management and Coordination.

D. Section 01 33 00: Submittal Procedures.

1.03 SCHEDULE DESCRIPTION

A. Schedule shall be based on and incorporate Contract Milestone and Completion Dates specified in the Contract Documents. Schedule shall furnish or comply with the following requirements:

1. Time scaled cost loaded CPM type schedule.

2. No activity on schedule shall have duration longer than 21 calendar days, with exception of fabrication and procurement activities, unless otherwise approved by the State. Activity durations shall be total number of actual days required to perform that activity including consideration of weather impact on completion of that activity. The schedule shall include all construction activities and related activities, on and off site. All activities shall have “Earliest Start Date” and “Latest Start Date” and “Earliest Finish Date” and “Latest Finish Date”. Specific activities shall be included, as indicated in this Section, and shall also include, but not be limited to Mobilization, Construction of Temporary Facilities and Start-Up and Testing Activities.

3. Procurement of major equipment, through receipt and inspection at job site, identified as separate activity.

4. State-furnished materials and equipment, if any, shall be identified as separate activities.

5. Dependencies (or relationships) between activities.

6. Processing/approval of submittals and shop drawings for major equipment. Activities dependent on submittal acceptance and/or material delivery shall not be scheduled to start earlier than expected acceptance or delivery dates.

7. Total cost of performing each activity. Cost shall be total of labor, material, equipment, including overhead and profit. Sum of cost for activities shall equal total contract value.

8. Responsibility code for each activity corresponding to subcontractor responsibility for performing the Work.

9. Allow 30 calendar days for developing punch list(s), completion of punch list items, and final inspection of Work, or designated portion thereof, by the State. No other activities shall be scheduled during this period.

10. Interface with work of other contractors (or entities).

11. Separate buildings and other independent project elements shall be individually identified in network.

B. Overall time of completion and time of completion for each milestone shown on the Schedule shall adhere to the specified Contract time, unless an earlier (advanced) time of completion is requested by Contractor, agreed to by the State, and formalized by Change Order.

C. Schedule shall be the basis for evaluating job progress, progress payments, and time extension requests. Contractor shall develop Schedule and monitor actual progress as compared to Schedule.

D. Contractor shall use Microsoft Project 2010, Primavera Suretrak, Primavera P6 Professional Project Management software, or equal.

If Contractor chooses to use an equal to specified software, submit software data for approval and provide the State with licensed copy of latest revision of approved software registered to the State. Software shall be compatible with MS /Windows 7 operating system.

1.04 SUBMITTALS

A. Schedule for First 90 Days: Within 10 calendar days after the Start Date stated in the Notice to Proceed, and prior to proceeding with any work on site, submit an electronic pdf Schedule presenting orderly and realistic plan for completion of the Work for the first 90 days, in conformance with requirements of this Section.

1. Provide MS-Windows files electronically containing Schedule files.

2. The State will review submitted Schedule for conformance with requirements. Within 7 calendar days after receipt, the State will accept Schedule or will return it with comments. If proposed Schedule is not accepted, Contractor shall revise Schedule to incorporate comments and resubmit Schedule for acceptance within 7 calendar days after receiving it.

3. Acceptance of Schedule by State, failure of Schedule to include an element of work, or inaccuracy in Schedule will not relieve Contractor from responsibility for accomplishing Work in accordance with the Contract.

B. Procurement Log: Submit 4 copies of a Procurement log, cross-referenced to Schedule, including the following information for each type of material or equipment to be provided:

1. Material or equipment description.

2. Technical specification reference.

3. Duration in calendar days required for preparation and review of submittals.

4. Duration in calendar days required for fabrication and delivery.

5. Cross reference to activities which will be affected by delivery date of material or equipment item.

6. Scheduled delivery dates.

C. Official Progress Schedule: Within 30 calendar days after the Start Date stated in the Notice to Proceed and prior to the first progress payment, submit an electronic copy of the detailed Schedule presenting orderly and realistic plan from the start date to completion of the Work in conformance with requirements of this Section.

1. Provide MS-Windows files electronically containing Schedule files.

2. The State will review submitted Schedule for conformance with requirements. Within 14 calendar days after receipt, the State will accept Schedule or will return it with comments. If proposed Schedule is not accepted, Contractor shall revise Schedule to incorporate comments and resubmit Schedule for acceptance within 7 calendar days after receiving it. Accepted Schedule shall become the Official Progress Schedule.

3. Acceptance of Schedule by State, failure of Schedule to include an element of work, or inaccuracy in Schedule will not relieve Contractor from responsibility for accomplishing Work in accordance with the Contract.

D. Updates, Reports, and Revisions: Submit electronic copies of updates, reports, and revisions, as required under Articles 1.05, 1.06, and 1.07 of this Section.

1.05 SCHEDULE UPDATES

A. Contractor shall submit to State an up-to-date status report of the Work, at uniform intervals, once each month, prior to progress payment. Status report shall include:

1. Contractor's estimated percentage complete for each activity not yet complete.

2. Actual start/finish dates for activities as appropriate.

3. Identification of processing errors, if any, on previous update reports.

4. Revisions, if any, to assumed activity durations including revisions for weather impact for activities due to effect of previous update on schedule.

5. Identification of activities which are affected by proposed Change Orders issued during update period. (See Network Window, Article 1.06 B).

6. Resolution of conflict between actual work progress and schedule logic. When out of sequence activities develop in Schedule because of actual construction progress, Contractor shall submit revision to schedule logic to conform to current status and direction.

B. The State will review updated information and meet with Contractor each month to determine status of the Work. If agreement cannot be reached on any issue, the State's determination will be used in processing of update by Contractor.

C. Contractor shall incorporate the State's review comments and submit reports and number of copies as required under Article 1.04 of this Section.

D. Progress payments pursuant to Contract will be based on the update of the Schedule.

E. Partial payment for "mobilization" shall be made in percentages as follows (less retainage):

Contract Amount Completed	Payment for Mobilization
5 %	50% of amount bid for mobilization, or 5% of original Contract amount, whichever is lesser.
10%	75% of amount bid for mobilization, or 7.5% of original Contract amount, whichever is lesser.R
20%	95% of amount bid for mobilization, or 9.5% of original Contract amount, whichever is lesser.
50%	100% of amount bid for mobilization, or 10% of original Contract amount, whichever is lesser.

Upon completion of all Work on the Project, payment of any amount bid for mobilization in excess of 10% of the original Contract amount will be paid.

1.06 SCHEDULE REVISIONS

A. If sequence of construction differs significantly, as determined by the State, from Schedule, Contractor shall submit within 21 calendar days a revised Schedule to the State for review.

B. When proposed Change Order is issued which has potential to impact specified completion dates, a Network Window shall be prepared by Contractor to reflect impact of such changes. After Network Window has been accepted and Contractor ordered to proceed with proposed Change Order, it shall be incorporated into Schedule. No additional cost beyond that provided in the General Conditions will be allowed for incorporation of approved proposed Change Orders into Schedule.

C. Should Contractor, after acceptance of Schedule, intend to change their plan of construction, they shall submit their requested revisions to the State, along with written statement of revision, including description of logic for rescheduling the Work, methods of maintaining adherence to intermediate milestones and other specific dates and reasons for revisions. If requested changes are acceptable to the State, they will be incorporated into Schedule in next reporting period.

D. Schedule revisions shall be submitted at least 7 calendar days prior to date of submission of update information; number of copies as specified in Article 1.04 of this Section.

1.07 SCHEDULE REPORTS

A. Contractor shall submit the following reports for the Schedule, Schedule updates, Schedule revisions and recovery schedules:

1. Schedule Logic Report listing activities, their early/late and actual start and finish dates, duration, float and logic relationship of activities sorted by early start.

2. Cost Report listing each activity and its associated cost, percentage of Work accomplished, earned value to date, previous payments and amount earned for update period.

3. Bar chart showing status of activities.

4. Narrative report with updated progress analysis, which shall include description of problem areas, current and anticipated delaying factors and their impact, explanation of corrective action taken and proposed revisions for recovery. Narrative report on submitted Schedule shall outline Contractor's overall plan, strategy, crew movement and utilization and other considerations in developing the Schedule.

5. Network Plots presenting time scaled network diagram showing activities and their relationships.

6. Cash Flow report calculated by early start, late start and indicating actual progress.

B. In addition to the above reports, the State may request, from month-to-month, any of the following reports:

1. Total float from least to most.

2. Activities by early start.

3. Activities by late start.

4. Activities grouped by subcontractors or selected trades.

5. Activities with scheduled early start dates in a given time frame (i.e. 30 or 60 day outlook).

C. Contractor shall submit electronic copies of Schedule reports as specified in Article 1.04 of this Section.

1.08 TIME EXTENSIONS

A. Contractor shall submit network window for claimed time extension requests, showing impact of claimed delay on Schedule.

B. Float or Slack Time is the amount of time between earliest start date and late start date or between earliest finish date and latest finish date of activities of Schedule. No time extensions or delay costs will be allowed for delays caused by the State, on paths or activities containing float time, providing such delay does not exceed float time in latest updated version of Schedule.

C. The State shall have no obligation to consider time extension request unless requirements of Contract Documents are complied with; the State shall not be responsible or liable to Contractor for constructive acceleration due to failure of the State to grant time extensions under the Contract Documents, should Contractor fail to comply with submission requirements and justification requirements of this Contract for time extension requests. Contractor's failure to perform in accordance with Schedule shall not be excused because Contractor has submitted time extension requests, until and unless such requests are approved by the State.

1.09 SHORT INTERVAL SCHEDULE

A. Short Interval Scheduling (SIS) shall be used throughout onsite construction activity.

B. Interval shall be a 3 week projection and shall include week submitted and two weeks thereafter.
C. It shall contain sufficient detail to evaluate daily milestones and manpower/equipment loading and shall identify/tie into monthly updated Schedule.

D. Short Interval Schedule shall be submitted weekly.

E. A weekly meeting will be scheduled by the State to review and discuss Short Interval Schedules.

1.10 RECOVERY SCHEDULE

A. If Schedule falls 14 calendar days behind schedule on milestone dates or completion dates, Contractor shall prepare and submit Recovery Schedule, form and detail appropriate to the need, to explain and display how Contractor intends to reschedule those activities to regain compliance with Schedule during immediate subsequent pay period.

B. Recovery schedule, upon acceptance by the State, shall be incorporated into Schedule by Contractor.

1.11 DAILY REPORTS

A. Contractor shall submit Daily Activity Report to the State for each workday, including weekends and holidays, when worked.

B. Contractor may use Contractor's own report form, provided it contains same information included in standard form furnished by the State.

1.12 PAYMENTS WITHHELD

A. Progress Payments may be withheld in whole or in part should Contractor fail to comply with requirements of this Section.

B. Refer to Document 00 72 00, General Conditions of the Contract for Construction.

END OF SECTION

SECTION 01 32 33

CONSTRUCTION PHOTOGRAPHS

PART I - GENERAL

1.01 SECTION INCLUDES

A. Photography.

B. Digital Files.

C. Prints.

D. Submittals.

1.02 RELATED SECTIONS

A. Document 00 72 00 - General Conditions of the Contract for Construction; Payment procedures.

B. Section 01 11 00: Summary.

C. Section 01 33 00: Submittal Procedures.

D. Section 01 35 16: Alteration Project Procedures.

E. Section 01 35 53: Correctional Project Procedures.

F. Section 01 77 00 - Closeout Procedures: Project record documents.

1.03 PHOTOGRAPHY

A. Provide full-color digital photography of site and construction throughout progress of Work produced by commercial photographer or other experienced photographer acceptable to the State.

B. Provide non-aerial photographs from four cardinal views, minimum, at each specified event, for each building or construction activity area, until completion of Project. Provide additional oblique angles of view and/or close-ups as required to properly communicate stage of construction process being recorded.

C. Provide factual presentation. Prints and/or digital files shall not be manipulated in any manner except as to correct for exposure/contrast and/or sharpness shortcomings.

D. Provide images with optimal exposure, contrast, sharpness/resolution and maximum depth-of-field and minimum distortion.

E. Take photographs not more than three calendar days prior to each scheduled application for payment, and as required to record the following events:

1. Underground piping
2. Expansion Loops
3. Excavations/Backfilling.

3. Underground utility/infrastructure connections.

4. Above ground utilities
5. Final completion.

F. Provide digital photos and digital video of existing conditions. Refer to Section 01 35 16 for additional requirements. Contractor shall pay particular attention to any historic elements.

1.04 DIGITAL FILES

A. Digital capture shall be utilized.

B. Digital files shall have date (month/day/year) and time imprinted/recorded by camera at time of exposure.

C. Submitted digital files shall be in JPEG or TIFF format.

D. Digital files shall be a minimum of 640x480 pixels.

1.05 SUBMITTALS

A. Deliver digital files to State within 10 calendar days after exposing photographs of each event with transmittal letter as specified under Section 01 33 00.

B. Maintain one set of digital files, identical to those submitted to the State, at the Project site.

C. Deliver digital files to State on accordingly labeled CD-R or flash drive. Catalog and index files in chronological sequence.

D. All digital files shall become the property of the State without restriction on their use.

END OF SECTION

SECTION 01 33 00

SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.01 DESCRIPTION

A. To ensure that specified products are furnished and installed in accordance with Drawings and Specifications, transmittal procedures have been established for submittals for review by the State.

B. Make all following submittals in strict accord with provisions of this Section and with requirements of the General Conditions of the Contract for Construction.

1. Progress Schedule and Reports; including the Schedule of Values.

2. Product Certification.

3. Shop Drawings.

4. Descriptive Data/Material Lists.

5. Samples.

6. Substitutions.

7. Construction Waste Estimate.

8. Certification of Recycled Content.

9. Photography

10. Alteration Project Procedures

1.02 RELATED REQUIREMENTS

A. Document 00 72 00: General Conditions of the Contract for Construction.

B. Section 01 32 16: Progress Schedules and Reports.

C. Section 01 60 00: Product Requirements.

D. Section 01 74 19: Construction Waste Management; submittal of Construction Waste Estimate.

E. Section 01 74 20: Recycled Content Certification.

F. Section 01 77 00: Closeout Procedures; Submittal of operating and maintenance manuals, record documents, guaranties/warranties, Construction Waste Management Report, State Agency Buy Recycled Campaign Procurement Summary, and other closeout documentation.

G. Test Reports: Pertinent Specification Sections.

H. Individual Submittals Required: Pertinent Specification Sections.

PART 2 - PRODUCTS

2.01 PROGRESS SCHEDULE

A. Prepare and submit Progress Schedule of operations as required by Section 01 32 16.

B. Relate Progress Schedule to entire Project. Indicate dates for submission of required submittals.

C. Submit Schedule of Values with Progress Schedule. Refer to General Conditions of the Contract for Construction, Paragraph 3.10, Contractor's Progress Schedule, and to Section 01 32 16, Progress Schedules and Reports, for additional cost breakdown requirements.

2.02 PRODUCT CERTIFICATIONS

A. Where specifically indicated by pertinent Specification Sections, submit proper certification by recognized producer or association. Certifications shall attest to product's compliance with requirements of Contract Documents.

2.03 SHOP DRAWINGS

A. Submittals shall include one reproducible transparency of each original and 6 prints of each transparency, name and location of project, name of Contractor, work order and contract numbers and cross references to contract documents. Number shop drawings consecutively. Make drawings legible and complete in every respect. Refer to General Conditions of the Contract for Construction, Paragraph 3.12.

B. If Shop Drawings show variations from Contract requirements because of standard shop practice or other reason, make specific mention of such variations in letter of transmittal, as well as on drawings, in order that (if acceptable) suitable action may be taken for proper adjustment of Contract. Unless specific changes have been noted and accepted, no deviations from Contract Documents will be permitted.

C. Transparencies will be returned to Contractor for Contractor's reproduction and use. State will make prints for its own use.

2.04 PRODUCT DATA/MATERIAL LISTS

A. Manufacturer's Standard Schematic Drawings:

1. Modify drawings to delete information which is not applicable to Project.

2. Supplement standard information to provide additional information applicable to Project.

B. Manufacturer's catalog sheets, brochures, diagrams, schedules, performance charts, illustrations and other standard descriptive data:

1. Clearly mark each copy to identify pertinent materials, products or models.

2. Show dimensions and clearances required.

3. Show performance characteristics and capacities.

4. Show wiring diagrams and controls.

5. Include calculations when applicable.

C. Material Safety Data Sheets (MSDS): Include for materials which require manufacturer's warnings and application instructions listed on MSDS provided by the product manufacturer.

2.05 SAMPLES

A. Physical examples to illustrate materials, equipment or workmanship, and to establish standards by which completed work is judged.

B. Where size of samples is not specified, office samples should be of sufficient size and quantity to clearly illustrate:

1. Functional characteristics of product or material, with integrally related parts and attachment devices.

2. After review, samples may be used in construction of Project.

C. Field Samples and Mockups:

1. Erect at Project site at location acceptable to State, unless otherwise approved.

2. Construct each sample or mockup complete, including work of all trades required in finished work.

2.06 SUBSTITUTIONS

A. State's Acceptance required:

1. All material substitution requests must be submitted prior to receipt of bid from the contractor.

2. Contract is based on materials, equipment and methods described in Contract Documents.

3. State will consider proposals for alternative materials, equipment and methods only when such proposals are accompanied by full and complete technical data and all other information required by State to evaluate proposed substitution.

4. Do not use alternative materials, equipment or methods unless such substitution has been specifically accepted for this work by the State.

5. Refer to General Conditions of the Contract for Construction, Subparagraph 3.12.10, Substitutions and Approved Equals, and Section 01 60 00, Product Requirements.

B. Coordination: Acceptance of substitution shall not relieve Contractor from responsibility for compliance with all requirements of the Drawings and Specifications, and Contractor shall be responsible at Contractor's own expense for changes in other parts of Contractor's work or work of others, including, but not limited to redesign costs of the Project which may be caused by acceptance of substitution.

C. Submit separate request for each product and support each request with:

1. Product identification.
2. Manufacturer's literature.
3. Samples, as applicable.
4. Comparison of proposed product with specified product.
5. Name and address of similar projects on which product has been used, and date of installation.

D. Submit data relating to changes in construction schedule, if any.

E. Substitute products shall not be ordered without written acceptance of the State.

F. The State will determine acceptability of proposed substitutions (alternatives) and reserves the right to reject proposals due to insufficient information.

2.07 CONSTRUCTION WASTE ESTIMATE

A. Submit Construction Waste Estimate form within 10 calendar days after the Start Date stated in the Notice to Proceed.

B. Refer to Section 01 74 19, Article 1.04 and Appendix 01 74 19.1, Construction Waste Estimate.

2.08 SUBMITTAL OF RECYCLED CONTENT CERTIFICATION

A. Product submittals from one or more of the eleven product categories as outlined in Section 01 74 20, Recycled Content Certification, shall be accompanied by a completed Recycled Content Certification Worksheet, Appendix 01 74 20.1.

B. An electronic copy of the form will be provided by the State at the Project start meeting, for Contractor's use.

C. Refer to Document 00 72 00, General Conditions of the Contract for Construction, Paragraph 3.21, Certification by Contractor of Recycled Content, and to Section 01 77 00, Closeout Procedures, for submittal of the State Agency Buy Recycled Campaign (SABRC) Procurement Report.

PART 3 - EXECUTION

3.01 SUBMISSION REQUIREMENTS

A. Schedule submissions at least three weeks before dates reviewed submittals will be needed and within the time periods specified in 3.01C. The State will review submittals within 21 calendar days unless the State notifies the Contractor in writing that a review of a specific submittal will take longer. Should the State review a submittal sooner, the Contractor shall not assume that a new timeline has been established.

B. The Contractor is herein made aware that deferred approval submittals, including but not limited to submittals requiring design review by the State's consultants and/or controlling agencies, such as the SFM, OSHPD, DSA, will have longer review periods. The Contractor shall contact these

agencies at the onset of the start of construction to determine the length of time for review, back-checks and approval and appropriately include this time in their Progress Schedule to avoid delays.

C. Except as otherwise specified for substitutions in Document 00 72 00, General Conditions of the Contract for Construction, Clause 3.12.10.1, and for certain other items in this Section 01 33 00, make submissions within the following number of days after the Start Date of the Work.

1. Items needed in initial stages of Work or requiring long lead-time for ordering: 30 calendar days.

2. Deferred Approval submittals, for review and approval by agencies such as SFM, OSHPD, DSA: 30 calendar days.

3. Electrical, mechanical and equipment items other than those covered by B.1. above: 60 calendar days.

4. All other items: 90 calendar days.

D. Identification: Identify submittals with names and location of Project, name of Contractor and work order and Contract numbers.

1. Submittals shall be accompanied by letter of transmittal addressed to State, to parties as identified in State's letter of instruction to be issued to Contractor at start of Project.

2. Each submittal shall be consecutively numbered and shall contain list of items submitted, properly identified as to drawing numbers, Specifications Section or other identification.

3. Submittals not adequately identified will be returned to Contractor for correction and resubmittal.

E. State will review submittals for conformance with contract documents: Acceptance of submittals by State covers only such conformance. Effort will be made by State to discover errors, but responsibility for accuracy and correction and resubmittal shall be the Contractor's.

F. Acceptance of submittals will be general and shall not relieve Contractor from responsibility for proper fitting and construction of Work, nor from furnishing materials and work required by Contract which may not be indicated on submittals.

G. No portion of work requiring submittals shall be commenced until submittal has been accepted by State. All such portions of work shall be in accordance with accepted submittals.

H. Number of copies required by State: Provide copies as follows; or greater quantity where so specified in individual Specification Sections. Add number of copies required by Contractor for Contractor’s distribution to the following numbers:

1. Progress Schedule, including Schedule of Values: One reproducible and 3 copies. Include diskettes when CPM schedule is provided.

2. Certification: 3 copies

3. Shop Drawings: Reproducible transparencies - one transparency of each original drawing, and 6 prints of each transparency.

4. Product Data/Material Lists: 6 copies

5. Samples: As specifically indicated in pertinent Specification Section.

6. Samples for Color/Pattern Selection. One set of manufacturer's complete range for initial selection: and additional samples as requested of selected color/pattern for inclusion in final color schedule.

7. Substitutions: 6 copies of required related data and information.

I. Submittals shall include:

1. Date and revision dates.

2. Project title and work order number.

3. Names of Contractor, subcontractor, and supplier or manufacturer.

4. Identification of product or material.

5. Relation to adjacent structure or material.

6. Field dimensions, clearly identified as such.

7. Specification Section number.

8. Consecutive submittal number.

9. Blank space for State's stamp.

10. Contractor's stamp, initialed or signed, certifying to review of submittal, verification of field measurements and compliance with Contract Documents.

END OF SECTION

SECTION 01 33 29.08

BUY CLEAN CALIFORNIA REPORTING

PART 1 - GENERAL

1.01 SUMMARY

A. Section includes general requirements and procedures for reporting the embodied carbon emissions of construction materials used in public works projects.

B. Submit current facility-specific environmental product declaration for each eligible material proposed to be used on the Project.

1.02 DEFINITIONS

A. Environmental Product Declaration (EPD): Type III environmental impact label, as defined by the International Organization for Standardization (ISO) standard 14025, or similarly robust life cycle assessment methods that have uniform standards in data collection consistent with ISO standard 14025, industry acceptance, and integrity.

B. Facility-specific EPD: Product EPD in which the environmental impacts can be attributed to a single manufacturer and manufacturing facility.

C. Eligible Materials: Any of the following:

1. Carbon steel rebar.
2. Flat glass.
3. Mineral wool board insulation.
4. Structural steel.

1.03 SUBMITTALS

A. General: Buy Clean California submittals are required to be submitted along with other required submittal items for eligible materials as described in the Specifications.

B. Facility-specific Environmental Product Declaration: For each eligible material proposed to be used on the Project.

1. Facility-specific EPDs must comply with ISO 14025. An expired EPD will not be accepted.

C. Eligible Materials Cost Data: Prior to project closeout, provide statement indicating total cost for eligible materials used on the Project. Costs exclude labor, overhead, and profit. Include breakout of costs for each eligible material.

D. Eligible Materials Quantity Data: Prior to project closeout, provide statement indicating total quantity for eligible materials used on the Project. Include breakout of quantities for each eligible material.

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION – Not Used

END OF SECTION

SECTION 01 35 16

ALTERATION PROJECT PROCEDURES

1.01 GENERAL

A. Requirements hereunder apply to alteration work shown on Drawings and specified in Sections pertaining to crafts or trades involved.

1.02 ALTERATIONS

A. Provide labor, materials, equipment and transportation as required to complete construction. Alteration work shall be performed by applicable crafts or trades involved.

1.03 REMOVAL WORK

A. Perform removal work, including wrecking and cutting necessary to alteration work, changing or elimination of old features, installation of new work, or joining and keying of new work to existing work. Items removed temporarily for convenience of Contractor shall be removed and replaced by Contractor, as approved.

1.04 ADJACENT SURFACES OR FEATURES

A. Replace, patch and finish in kind, adjacent surfaces or features displaced or disturbed in performance of alteration work. Broken and cut units shall be replaced with whole units.

B. Except as otherwise shown or specified, join new work to existing work to match similar existing adjoining work. Prepare existing surfaces to receive new work.

C. Prior to start of construction, in the presence of the State's Representative, Contractor shall provide digital video w/audio and take digital photo documentation of existing conditions (Refer to Section 01 32 33 for additional requirements) and survey buildings and grounds affected by this Project and submit itemized list of defects, e.g. broken glass, window screens, salvage items, paving, walks, etc. Contractor shall make a copy of digital photos and video for Contractor's use and deliver the original to the State for use at Project close out. At completion of Project, defects not noted on that list or digital photos shall be corrected or replaced by Contractor at no cost to the State.

1.05 SALVAGED ITEMS

A. When specifically indicated, salvable items removed in alteration work may be reused; otherwise new items shall be provided. Removed items and materials not of value to State and not reused in the Work shall be disposed of off premises at Contractor's expense.

B. Salvaged items of value to State, and not reused in the Work, shall remain State property; store on site where directed. Salvaged items of value to State include:

1.06 LAYOUT OF WORK

A. Establish exact layouts, locations, lines and elevations of work in relation to existing work. Obtain and verify measurements for new work in existing areas.

B. Refer also to Section 01 31 00, Project Management and Coordination.

1.07 PROTECTION OF EXISTING WORK AND NEW WORK

A. Provide protection against weather and construction operations for existing equipment, finishes, floors and floor coverings, furniture, fixtures, hardware and other improvements in and about altered areas.

1.08 SHORING, BRACING, UNDERPINNING

A. Provide temporary support for work as required by construction operations and to ensure safety.

1.09 INTERFERENCE

A. Interference with or inconvenience to occupants shall be kept to a minimum. Contractor shall, however, not be required by the State to work overtime.

1.10 NOISE

A. Noisy motors, cutting, drilling, and fastening equipment shall be operated without disturbance to occupants of the building or adjacent buildings.

1.11 DUST AND RUBBISH

A. Premises shall be kept clean and in a safe condition. Rubbish shall be removed as it accumulates.

B. Temporary dust-retarding partitions and barricades shall be built around work areas as indicated on the Drawings.

1.12 INTERRUPTION OF SERVICES

A. Interruption of electrical power for performance of work may be permitted only after consultation with the onsite State Representative. Temporary electrical power shall be provided to meet requirements of this Article. Added cost to Contractor due to necessity of complying with this Article shall be deemed to have been included in lump sum bid amount for Work of this Contract. Refer to requirements in Section 01 11 00 for interruption of services.

B. Contractor shall provide his own temporary construction lighting and power as required in areas where work is being performed, when normal site power is disrupted.

1.13 ACCESS, DELIVERY, AND HAULING

A. Materials and equipment shall be delivered and rubbish removed through passages designated by the State. Deliveries of materials and equipment to jobsite shall be made with a Contractor's representative present.

B. Keep corridors and entrances, for use of occupants, and reasonable access thereto, clear of building materials, refuse, and the like.

C. Refer to Section 01 60 00 for transportation, handling, and storage requirements.

1.14 CONSTRUCTION AREA

A. Contractor's employees, equipment, and materials shall be restricted to immediate area of construction.

1.15 CONSTRUCTION OFFICES/STAGING/STORAGE SPACE

A. Spaces used by Contractor and subcontractors for materials storage, staging and/or office space within building, shall be protected and restored before completion of Contract to prior existing or better than prior existing condition.

END OF SECTION

SECTION 01 35 53

CORRECTIONAL SECURITY PROJECT PROCEDURES

PART 1 - GENERAL

1.01 GENERAL

A. The following special requirements for Department of State Hospitals are applicable to the DSH-Coalinga site; hereinafter referred to as Institution. Security regulations include, but are not limited to, the given provisions in this Section.

B. Reference: Contractor, subcontractors, and their on-site employees will be required to attend the orientation training for DSH-Coalinga security requirements and procedures.

1.02 USE OF PROPERTY

A. Contractor shall confine work operations to the areas of work indicated on the Drawings. Material storage, shop facilities, and the like, shall be located as near to the working areas as custodial regulations permit. However, entering and exiting of Institution grounds from and to lay-down, material storage, fabrication, and tool storage areas will be required. Contractor shall make allowances in bid for delays caused by routine gate inspections and checking in and out. Contractor shall allow up to 1 hour each way for access arrival/departure of employees and material to and from Institution grounds.

B. The Chief of Plant Operations, or Chief's designee, will designate an appropriate material storage, tool storage or shop facility area, and the like, on Institution grounds for Contractor's use.

C. Materials, supplies and persons shall be subject to inspection by Custodial Officers at gates before entering or leaving Institution grounds.

1.03 CONTRACTOR'S WORKERS

A. Contractor's personnel must receive C.I. & I. clearance prior to entering the Institution. C.I. & I. clearance will include fingerprinting, photography and orientation by the personnel office at the Institution. Approximately 3 hours should be included with Contractor's bid for each person entering the Institution. This will be required of each new worker only once.
B. Workers will be required to show photo identification and their Institution-issued identification. Construction foreman will assemble and submit list of crew members each day. Construction crew will be escorted through security passageways to the construction area.
C. Workers will be allowed to park their private vehicles outside the security perimeter by Plant Operations, as directed by the Correctional Officer. One vehicle with company logo will be permitted to park at the construction area during the work period.
D. No firearms, ammunition, narcotics, knives, drugs, intoxicants, handcuffs, alarm keys, cellular telephones, cameras, audio recording devices or explosives will be allowed on the premises. All persons shall remove ignition keys from their vehicles and lock the vehicle when it is not in use.
E. Construction personnel will not be permitted into occupied areas without being escorted at all times by a Correctional employee.
F. Construction zone is separated from patients by a security fence. Workers are not expected to be in the same vicinity of inmates. There is potential for distant vocal and visual connection between crew members and patients through the existing fences and exterior windows. Custodial Officers will advise workers and inmates of standard procedures to maintain separation.

F. Contractor's personnel will be required to work in clothing different from that worn by the inmates. Khaki (brown, tan or green) colored trousers will not be allowed. Recommend clothing with company logo and temporary construction badges must be worn at all times at the DSH-Coalinga facility. Reflective vests recommended.

G. Within 10 calendar days after award of Contract, Contractor shall provide list of personnel who will be working on Project site. Contractor shall provide 48 hours notice of changes or additions in personnel as such changes or additions occur.

1. Listing shall include the following information:

   Name
   Driver's License Number
   Social Security Number
   Date of Birth

2. Prior arrest/conviction record may or may not affect the eligibility of a worker. The Superintendent of the Institution will decide in each individual case. The Institution stresses that Contractor's personnel should be as truthful and divulging as possible to assist in these decisions. Information about work arrest/conviction records will be kept confidential.

3. Name of Contractor's pre-approved personnel working on Project site, separated according to trade classification, shall be submitted to Institution at least 24 hours before commencing work of that trade.

4. Workers may enter Project site with temporary gate passes issued each day after security clearance has been obtained, prior to obtaining C.I. & I. identification.

5. Allow 5 working days for security clearance, prior to new employee being permitted on Project site. Workers are subject to eviction from Institution at any time when a question of security clearance arises. Eviction for this reason is not a statement as to the character of the employee being evicted. Allow 30 days to verify security clearance where a question has arisen.

1.04 WORK HOURS

A. Normal work hours are from 7:00 a.m. to 4:30 p.m. However, the State shall reserve the right to adjust start/quit times in the best interest of the Project.

B. Contractor shall make special arrangements for overtime work with the Associate Warden of Custody through the State Inspector for the Project. No overtime will be allowed unless prior approval has been obtained.

C. Contractor shall pay for necessary Institution custodial services for time before and after normal working hours and time worked on Saturday, Sunday or State holiday. Arrangements for extra custodial service shall be made 48 hours in advance. A minimum of two Custodial staff are required. Staffing requirements will be determined by the Institution. Charges to Contractor for extra custodial services will be $32.50 per hour for each staff member.

1.05 SECURITY

A. If Institution officials deem it necessary to declare a "State of Emergency", work may be curtailed or terminated for the duration of said emergency. Contractor shall be aware that events of this nature are considered potentially every day occurrences on project sites of this nature. Requests for additional compensation for occurrences of the aforementioned type will not be considered.

B. All persons shall remove ignition keys from their vehicles when they are out of the vehicle. Contractor's equipment shall be rendered temporarily inoperative when not in use; by locking or other means.

C. In order to maintain Institution security, inspection searches on the project site may become necessary; therefore, keys shall be furnished to provide access to all locked areas or places on the project site and for periodic fire prevention inspection. The Institution will not be responsible for Contractor's loss due to fire.

D. Personal search is not normally required. However, the Institution reserves the right to search workers when there is probable cause, as determined by the Institution.

E. Lunch boxes, tool boxes and vehicles are inspected on a regular basis, as determined by the Custodial staff.

F. Contractor is responsible for missing tools. In the event of missing tools, the expense of search by Custodial staff shall be paid for by Contractor.

G. Debris loading into trucks or dumpsters shall be observed by a Custodial Officer. In the event an officer is not notified and present to view a loading, Contractor shall remove the debris from the truck or dumpster to the satisfaction of the officer in order to make an inspection. Costs for such actions shall be paid for by the Contractor.

H. Restaurant facilities are not available for Contractor's personnel. Workers will have to carry lunch boxes and shall eat in designated areas only. Aluminum cans are permitted. Glass bottles and metal utensils are not permitted.

I. Contractor will be required to provide the Institution, or its representative, with a master inventory list of tools brought into the Institution. These tools, and the like, shall be stored in locked boxes outside Institution gates.

J. Under the administration of the Correctional Officer Escorts, the master inventory list will be checked once at beginning of each work period, once during work period, and once again at end of work period. Master inventory list will be held by Correctional Officer Escorts. Correctional Officer Escorts shall report lost or broken tools to their Supervisor. This loss shall also be reported on "Loss of Tools Report" form, to be completed by Contractor.

K. Contractor shall include in the bid all costs necessary to accommodate Correctional Officer Escorts in the inventories (tool checks), described above, to the satisfaction of the Correctional Officer.

L. Tools and equipment not necessary for completion of Project should be removed from vehicles and tool boxes prior to arriving at Institution. Removal of unnecessary tools and equipment will facilitate required searches.

M. Broken tools shall be disposed of off Institution grounds. Contractor shall also ensure that metals, or other items deemed dangerous in the opinion of the Institution, are stored away and protected from inmate pilferage.

N. Mismanagement of tools, equipment or materials will result in Contractor's personnel being removed and barred from Institution property. The Institution reserves the right to determine any mismanagement concerned.

O. The following tools are considered "escape priority tools" and shall be color coded by Contractor, as directed by the Institution.

1. Contractor shall notify Institution personnel prior to use of the following items

a. Hacksaws.
b. Bolt cutters.
c Oxygen-acetylene equipment.
d. Hydraulic jacks.
e. Blocks and tackles.
f. Ropes.
g. Ladders over 6 feet.
h. Portable scaffolds.
i. Files.
j. Steel pipe cutters.
k. Pneumatic jackhammers with equipment.
l. Welding torches and cutting tips.
m. Impact hammers and bits.
n. Powder activated tools.

2. Items including, but not limited to the following, are considered dangerous tools and stock:

a. Knives.
b. Hatchets.
c. Axes.
d. Chisels.
e. Hammers.
f. Screwdrivers.
g. Prick punches.
h. Scribes.
i. Sharp pointed tools.
j. Electric grinders and/or belt grinders.
k. Shears and scissors.
l. Grinders, stationary or portable.
m. Shears - metal cutting (capable of shearing 1/16" metal stock).
n. Plexiglass, plastic or fiberglass.
o. Any other tools as designated by the Institution.

P. Control of Hacksaw, Do-All Saw and Bandsaw Blades: Contractor shall notify the Institution prior to bringing hacksaws, do-all saws and/or bandsaw blades onto Institution grounds. Controlled items will be issued and stored in accordance with Institution policy. Lost blades or missing parts of broken blades shall be reported to the Correctional Officer Escort. Under no circumstances shall blades be brought into the Institution other than through outlined procedure.

Q. Use and Control of Ladders: Ladders shall be used and transported under direct and constant supervision of Institution personnel. Ladders 6 feet in height and over, and which are not in use, shall be under chain and padlock furnished by Contractor. They shall be accounted for on a daily basis. At the end of work day, ladders shall be stored in an area designated by the Institution.

R. Use and Control of Scaffolding: Contractor shall notify the Correctional Officer Escort prior to scaffolding being used in order that clearances may be obtained. When it is necessary to leave scaffolding at the project site overnight or longer, the Custodial Coordinator will be notified so that he/she may evaluate security precautions that must be taken in the area that the scaffolding is to be left. Scaffolding shall be placed in an area which provides adequate security measures, as determined by the Institution. Scaffold shall be securely chained and padlocked in such a manner to prevent it from being moved. Chain and padlocking devices shall encompass more than single rungs or struts of scaffolding and thereby provide adequate protection from becoming freed from such security. When not in use on project site, scaffolding shall be broken down and stored in an area designated by Custodial Coordinator. Chains shall be furnished by Contractor. Locks shall be furnished by Correctional Officer.

S. Control/Storage of Volatile Materials: Custodial control shall be maintained over volatile, quick and evaporating liquids and alcohol based thinners.

T. Locks on equipment, tool boxes, ladders and scaffolding shall be installed by Contractor to the satisfaction of the Custodial staff.

U. Gang boxes for storage of tools shall be specially constructed to allow for "shadow boards" or other means to quickly identify contents by Custodial staff.

V. Storage Tools/Materials in Occupied Cell Blocks and patient areas not allowed.

W. In Unoccupied patient areas: Authorized hand tools on inventory list may be secured in gang box and left inside of unoccupied construction area which is being worked on by Contractor. Power and other larger tools that cannot be secured in gang box shall be removed at end of work day and stored overnight in the staging area outside the secured area. Ropes, ladders over 6 feet in height, cutting/welding torches and other equipment designated by Custodial staff shall be stored in area designated by Custodial staff. Welding torches shall be broken down to separate gas tank from cutting tip. Tips may be secured in tool box, but gas tank shall not be stored inside security perimeter. Hacksaw, bandsaw, and do-all blades shall be stored as previously described.

1.06 HOSTAGES

A. Attention is directed to Title 15, Department of Corrections, Article 3304, hostages, which states: "Employees must not permit inmates or others to use hostages to escape from custody or otherwise interfere with orderly institutional operations. Hostages will not be recognized for bargaining purposes. All inmates, visitors and staff will be informed of this regulation."

B. Responsible subcontractor personnel shall attend security briefing at Preconstruction Meeting.

1.07 REMOVAL OF DEBRIS

A. Debris, waste materials, and other trash resulting from work of this project, shall be disposed of daily. Disposal shall be off of State property and Contractor shall pay fees required for use of public dumps. Burning on State property is prohibited. Containers/dumpsters in which debris is placed will be subject to clearance by Correctional Officers as stated in Article 1.05 of this Section. Arrangements for outside waste companies to enter Institution grounds to pick-up/drop-off dumpsters shall be made with the Custodial Coordinator. Dumpsters shall be off Project site by no later than 4:00 p.m.

1.08 WORKING INMATES

A. Guarded inmates may be performing work at the Institution at the same time as Contractor. Under such conditions, Contractor shall cooperate with the State and conform to certain security requirements, as may be directed by the State.

1.09 CORRECTIONAL OFFICERS FOR SECURITY

A. During the time of this Contract, the Institution will maintain Correctional Officers at the Project site for protection of persons and properties, at no charge to Contractor, while work is actually being performed during regular work hours. Should Contractor have no work force present on any particular working day, Contractor will be required to pay Institution guarding costs for each missed work day; unless Contractor notifies the Institution, through the State Inspector, at least 24 hours in advance of each particular working day on which Contractor expects no work force to be present.

1.10 CAMERAS AND AUDIO OR VISUAL RECORDING DEVICES

A. Comply with requirements and restrictions set forth in Title 15, Department of Corrections, Article 3261.7, Cameras and other Audio or Visual Recording Devices. Contractor shall obtain approval from Institution prior to use of such devices within Institution grounds.

END OF SECTION

SECTION 01 35 54

HOSPITAL PROJECT PROCEDURES

PART 1 – GENERAL

1.01 SPECIAL SECURITY

A. General: Contractor shall be aware that the construction site is on California State Hospital property. In addition, State Hospital has patients which occupy housing adjacent to the Contractor's work area.

B. Cooperation: Contractor shall cooperate with State Hospital authorities, observe and comply with all regulations presently in force on Hospital grounds, and shall not cause interference with operations of existing Hospital areas nor completed areas which have been occupied by State.

C. Occupied Facilities: State may begin occupancy of completed areas on day immediately following completion and the following restrictions apply to all occupied areas. Occupied facilities are those facilities, existing or new, which have patient or employee occupants.

1. Construction personnel will not be permitted into any occupied area without being escorted at all times by a State Representative.

2. Personnel going into occupied areas must have both Contractor identification (reference Paragraph G.2) and valid California identification.

3. Work conducted in occupied portions of Hospital must be carefully coordinated with State Hospital personnel 48 hours in advance to allow scheduling of escorts.

4. Restrictions may be placed on quantity and type of tools and materials taken by construction workers into occupied areas. Workers will be required to account for tools and materials taken into occupied areas every time workers with escorts depart for breaks, meals, or end of workday.

5. Occupied areas operate on a round-the-clock basis, therefore, Contractor shall at all times conduct his/her operations so as not to interrupt or disrupt the functioning of Hospital staff or plant. All work which will affect the operation of the Hospital must be scheduled 48 hours in advance and be accepted by State.

D. Use of Property:

1. Contractor shall confine Project operations to areas shown on Project Drawings. State will coordinate use of property areas with Contractor to ascertain that Contractor's needs are fulfilled to fullest extent possible within project constraints and Hospital regulations.

2. Contractor shall submit layout plan showing proposed location of offices, employee parking, material storage, shop facilities, and other major work areas to State for

acceptance prior to site mobilization.

3. Clear access for emergency vehicles, food delivery, trash services, etc., shall be maintained at all times.

4. Contractor access to site shall be as directed by State.

5. No open burning or trash dumping will be allowed.

6. Contractor shall make site available to State's operations personnel and inspectors at all times. Contractor shall anticipate that State personnel will visit site on frequent, irregular basis to observe progress of work.

7. Use of explosive powered tools and other explosives shall be by special arrangement with State.

8. Tools, both worker and Contractor owned, shall be stored at close of working hours and located in a place of security provided by Contractor, as accepted and directed by State.

9. Contractor shall report to State, immediately on discovery, of loss of tools, equipment, or materials stored or used on site. State will not be responsible for losses due to theft or otherwise.

10. Custodial control shall be maintained for volatiles, quick evaporating liquids, alcoholic base thinners, cutting instruments and tools, files, ropes and ladders. Custodial regulations may require alteration as job progresses as directed by State.

11. In order to maintain Hospital security, Contractor will be required keep construction access and items under custodial control; locked at all times. Contractor shall provide construction access keys to the State as directed.

E. Safety Precautions:

1. Refer to Document 00 72 00, General Conditions of the Contract for Construction, Article 10.

2. Open Trenches and Excavations: After working hours, or when workmen are not present, provide secure safety barriers, such as properly sized cable, lumber, pipe railings or, where practical, temporary fencing, with warning lights, to prevent patients, staff and other pedestrians from falling into openings.

3. Hazardous Materials: Prevent access by patients to hazardous materials, such as pieces of pipe, conduit, reinforcing bars, wire, cords, rope, bricks, broken concrete or other material. Remove hazardous spilled liquid materials immediately.

4. Oxygen and acetylene cylinders shall be protected by fastening to walls or rigid posts, with screw caps replaced at end of each day.

F. Utilities: Utilities shall not be interrupted except with approval of State. Forty eight hour written notice followed by State's approval is required prior to interruptions. Schedule

interruptions so as to minimize duration and disruption to existing operation.

G. Personnel Security:

1. Prior to beginning work on site, Contractor will be required to submit to State a list of employees working on this Project. Employees may be required to submit to fingerprinting. Contractor will be responsible for ensuring that its employees read and comply with Hospital regulations.

2. Contractor shall develop a construction company identification card for its employees assigned to the site. I.D. card shall list Contractor's name and address, employee's name, date of issue and shall be signed by authorized Contractor's representative, and individual employee. I.D. card shall contain affixed minimum 1" x 1-1/2" full face photograph of employee. Construction personnel will not be permitted access to site without this I.D. card.

3. No firearms, narcotics, drugs, intoxicants, or other restricted materials shall be allowed on site.

H. Vehicle Security:

1. Vehicles, equipment, and supplies entering State Hospital property may be given a cursory inspection by State personnel each time they enter or leave site. Vehicles, equipment, and supplies may also be thoroughly searched when State staff determines this as a necessity.

2. Parking area will be provided by State for general employee parking. Cars parked in area may not be searched on a daily basis but will be subject to search as required by State.

3. When Contractor schedules delivery of materials or equipment to site other than during Contractor's normal working hours, Contractor shall alert State ahead of time so that arrangements can be made to provide entrance to site. Contractor must have a representative present to receive deliveries.

4. All persons shall remove ignition keys from their vehicles when they are out of vehicle. Unattended vehicles shall be locked at all times.

5. Contractor's equipment shall be rendered temporarily inoperative when not In use, by locking and/or other means.

I. State of Emergency: If State deems it necessary to declare a State of Emergency, work may be curtailed or terminated for duration of said emergency. Requests for additional compensation for occurrences of State of Emergency will not be considered.

J. Guard Agencies: Should Contractor elect to use a private security firm on construction site, security firm and its on-site personnel shall be subject to acceptance of State.

END OF SECTION 01 35 54

SECTION 01 41 00

QUALITY REQUIREMENTS

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Regulatory Requirements

B. Inspection and Field Quality Control

C. Field Samples.

D. Manufacturers' Field Services and Reports.
E. Delegated Design Performance Requirements

1.02 RELATED DOCUMENTS AND SECTIONS

A. Document 00 72 00: General Conditions of the Contract for Construction.

B. Section 01 33 00: Submittal Procedures; Submission of Manufacturers' Instructions and Certificates.

C. Section 01 45 29: Testing Laboratory Services.

D. Section 01 60 00: Product Requirements; Requirements for material and product quality.

E. Pertinent Specification Sections.

1.03 REGULATORY REQUIREMENTS

A. Refer to Document 00 72 00, General Conditions of the Contract for Construction.

B. Refer to pertinent Specification Sections.

1.04 INSPECTION AND FIELD QUALITY CONTROL

A. Refer to Document 00 72 00, General Conditions of the Contract for construction.

B. Refer to pertinent Specification Sections.

1.05 FIELD SAMPLES

A. When Field Sample is required, perform no installation or application until Field Sample is approved.

B. Submit schedule for Field Sample construction; show date and relationship to Approved Contract Schedule.

C. Construct Field Samples required by individual Specifications Sections in locations as approved by the State.

D. The State will review Field Sample for conformance with Drawings and Specifications.

E. Modify or replace Field Sample until Field Sample is approved.

F. Approved Field Samples:

1. Shall remain until remainder of work of Section requiring Field Sample is complete.

2. Will be used as the standard of acceptable quality for that work for remainder of Project.

3. May be incorporated into the Work at the discretion of the State.

4. Shall be removed at completion of the work of that Section when required by Section or when not incorporated into the Work.

1.06 MANUFACTURERS' FIELD SERVICES AND REPORTS

A. Submit qualifications of manufacturer's representative to the State 30 days in advance of required observations by manufacturer's representative. Manufacturer's representative is subject to approval of the State.

B. Manufacturer's representative shall report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.

C. Submit report in duplicate within 30 days of observation to the State Representative for review.

1.07 DELEGATED DESIGN PERFORMANCE REQUIREMENTS

A. Qualifications

1. Engineer shall be a California licensed professional with current registration in the field and product requiring delegated design.

2. A minimum of five years of experience is required by the engineer responsible for the design, calculations, documentation, and engineering of the specification section requiring delegated design.

B. Submittals

1. All delegated design shall be stamped and signed by the California registered engineer responsible for the design, preparation and engineering of the fabrication and/or construction of the product or element requiring delegated design.

END OF SECTION

SECTION 01 45 29

TESTING LABORATORY SERVICES

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

A. The State will employ and pay for services of an independent testing laboratory to perform specified testing for CCR Title 24.

1. Contractor shall cooperate with laboratory to facilitate execution of its required services.

2. Employment of laboratory shall in no way relieve Contractor's obligations to perform work of the Contract.

B. Contractor shall employ and pay for services for testing, adjusting, and balancing of systems specified under Section 01 86 19.

1.02 RELATED REQUIREMENTS

A. Document 00 72 00: General Conditions of the Contract for Construction, Paragraph 3.13, Tests and Inspections: Inspections and testing required by laws, ordinances, rules, regulations, orders or approvals of public authorities.

B. Section 01 86 19: Testing, Adjusting and Balancing Procedures.

C. Individual Sections: Certification of products, Qualifications of testing, organizations and specific services required.

1.03 REQUIRED TESTS AND INSPECTIONS

A. By the State, CCR Title 24 Tests and Inspections: Except as noted otherwise, these tests and inspections shall be performed by State's testing laboratory in conformance with State of California Code of Regulations (CCR), Title 24 as noted herein.

1. Earthwork (Chapter 18, Title 24)
   a. Earth Fill compaction.
   b. Inspection of footing excavations.
   c. Placing of backfill.

2. Concrete (Chapter 19, Title 24)
   a. Materials:
      (1) Portland Cement Tests.
      (2) Concrete Aggregates.
      (3) Reinforcing Bars.
      (4) Batch Plant Inspection.
      (5) Core tests.
      (6) Admixtures.

   b. Concrete Quality:
      (1) Proportions of Concrete.

(2) Strength Tests of Concrete.
(3) Slump test of concrete

c. Concrete Inspection:
(1) Job Site Inspection.
(2) Batch Plant or Weighmaster Inspection.
(3) Curing.
(4) Construction Joints.

4. Structural Steel (Chapter 22, Title 24)
a. Materials:
(1) Material Identification.
(2) Structural Steel.

b. Tests and Inspection of Structural Steel:
(2) Shop Fabrication Inspection.
(3) Welding Inspection.
(4) Welding of Reinforcing Bars.
(5) Anchor Pull testing for pipe supports

B. By the Contractor, Testing, Adjusting, and Balancing of Systems: These services shall be provided by approved testing organization in conformance with requirements for services specified in individual sections pertaining to each system.

1.04 CONTRACTOR'S RESPONSIBILITIES

A. Cooperate with laboratory personnel, provide access to work and to manufacturer's operations.

B. Provide to laboratory adequate quantities of representational samples of materials proposed to be used and which require testing.

C. Provide to laboratory preliminary design mix proposed to be used for concrete, and other material mixes which require control by testing laboratory.

D. Furnish copies of products test reports as required.

E. Furnish incidental labor and facilities:

1. To provide access to work to be tested.

2. To obtain and handle samples at Project site or at source of product to be tested.

3. To facilitate inspections and tests.

4. For storage and curing of test samples.

F. Notify State's Inspector 48 hours in advance of operations to allow for laboratory assignment of personnel and scheduling of tests. When tests or inspections cannot be performed after such notice, reimburse the State for laboratory personnel and travel expenses incurred due to Contractor's negligence.

G. When additional testing services are needed for Contractor's convenience, employ and pay for services of separate, equally qualified independent testing laboratory; or make arrangements with State's laboratory and pay for additional samples and tests required for Contractor's convenience.

H. The State or its representative shall have the right to reject materials and workmanship which are defective or to require their correction. Rejected workmanship shall be satisfactorily corrected and rejected materials shall be removed from the premises without charge to the State. If Contractor does not correct such rejected work within a reasonable time, fixed by written notice, the State may correct same and charge the expense to Contractor.

I. Should it be considered necessary or advisable by the State at any time before Acceptance of the Work to make examination of work already completed by removing or tearing out same, Contractor shall, on request, promptly furnish necessary facilities, labor and materials. If such work is found to be defective in any respect due to fault of Contractor or subcontractor, shall defray all expenses of such examinations and of satisfactory reconstruction. If, however, such work is found to meet requirements of the Contract, additional cost of labor and material necessarily involved in the examination and replacement will be allowed the Contractor.

END OF SECTION

SECTION 01 51 00

TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Furnish and install temporary facilities as hereunder specified, plus other unspecified temporary facilities, including labor, materials, services, utilities, and equipment, as may be required for proper performance of Contract, except as otherwise provided. Temporary facilities shall be approved by the State and other authorities having legal jurisdiction. Locate facilities where and as directed and maintain in safe and sanitary condition at all times until completion of Work.

B. Costs, permits, fees, or use charges for temporary facilities shall be included in the contract. Allow other entities to use temporary services and facilities without cost, including, but not limited to, State, construction forces, testing agencies, and authorities having jurisdiction.

C. Costs of hook-up, installation, distribution, delivery, operation, maintenance, recurring, disconnect, and removal of all temporary facilities and controls shall be paid by the Contractor.

D. At completion of work, or sooner when no longer needed, remove all temporary facilities, except where certain facilities are specified to remain or to be relocated for use under future contracts.

1.02 RELATED REQUIREMENTS

A. Document 00 72 00: General Conditions of the Contract for Construction.

B. Section 01 31 00: Project Management and Coordination

C. Section 01 33 00: Submittal Procedures

D. Section 01 74 19: Construction Waste Management.

E. Section 01 74 23: Cleaning.

F. Section 01 77 00: Closeout Procedures.

1.03 FIELD OFFICE

A. Field Office for State: Required. Furnish, install and maintain a field office (s) for State Project Management and Inspections Staff as directed below. Provide shop drawings showing custom layout of partitions, equipment, furniture and workstations including an equipment list with descriptive data for the State's review and approval prior to procurement or placement. Locate on Project Site and show location on shop drawings for the State's review and approval. Offices shall be of sufficient size to accommodate needs of construction personnel. Furniture and furnishings as shown or equal as approved by the State. In additional to the requirements below, all spaces shall be air conditioned/heated to maintain 67-79 degrees year around, be well lighted and have high speed internet.

B. Field Office for State: Provide wheel mounted office trailer in good condition, nominal box size 14 X 66 feet minimum. Trailer shall display California Commercial Coach Insignia as evidence of meeting or exceeding minimum Construction and Fire Safety requirements of Title 25, California Code of Regulations (CCR), Chapter 3, Sub Chapter 2, Article 3.

1. Wind and snow load design requirements shall meet most stringent criteria for project location during Contract period. Design load criteria shall be posted within unit per Section 4360.1 of referenced CCR.

2. Partition trailer provide (2) private offices, a restroom, and an open room with room for (3) cubicle workstations, plan table, plan rack and conference table for meetings.

3. Provide heating and air conditioning unit mounted on end of trailer; of sufficient function, capacity and ductwork for equal distribution of air conditioning to both rooms. Roof mounted units are not acceptable.

4. Install trailer as directed by State and in accordance with above referenced 25 CCR 3.2.3. Jack up trailer and level both ways; mount on concrete piers (with load off wheels). Furnish and install required tie down accessories per Section 4368 of referenced 25 CCR 3.2.3.

5. Provide two exterior doors, with steps and entry platform at each exterior door as required.

6. Windows, doors, security grills and vents shall be provided with insect screens; maintain in good condition during Contract.

7. Restroom(s) include hot and cold running water, lavatory, soap dispenser (continuous supply until office is vacated), paper towel dispenser (continuous supply until office if vacated), mirror, toilet paper holder/ toilet paper (continuous supply until office is vacated) and toilet.

8. Provide furnishings in good condition, built-in equivalents, or modular systems furniture, as follows:

a. Two (2) Private Offices ea. per office:

ITEM	**QTY**	**DESCRIPTION**	**MODEL NO.**	**DIMENSIONS**
Desks	1	HON-Metro Series Steel	P3266L-ML	29-1/2” H x 66” W x 30” D
Chairs	2	Global, Executive, Gray	4736BK-KT60	41 ½ ‘ H x 24 ¾ ‘ W x 28”
Tables	2	Global, folding table	VCE3096WWW-16G	29” H x 72” W x 36” D
Bookcase	1	HON, Putty, Steel,4 Shelves	S60ABC-L	59” H x 34 ½” w x 12 5/8” D
File Cabinet	2	HON, Legal Size, Putty	D562C-L	29” H x 18 ¼” W x 25” D
Waste Baskets	2			Approx. 20 quarts
Dry Erase Boards	1	Boone, Non-Magnetic Dry Erase	BON10389	3’ H x 4’ W with markers & eraser & cleaner

* Furniture may be used but must be in good condition.

Equipment & Requirements

- Duplex power (4 per office)
- Network cables (2 per office)

b. One (1) Open office work areas/stations:

ITEM	QTY	DESCRIPTION	MODEL NO.	DIMENSIONS
Desks	1	HON-Metro Series Steel	38055-QQ	29-1/2” H x 60” W x 30” D
Returns	1	HON-Metro Series Steel	P3236L-MR	26-1/2” H x 42” W x 24” D
Chairs	1	Office Star, Gray	D101GRY	35” H x 17 ½” W x 21” D
Dry Erase Boards	1	Boone, Non-Magnetic Dry Erase	BON10389	4’ H x 8’ W with markers & eraser & cleaner
Waste Baskets	1			Approx. 20 quarts

* Furniture may be used but must be in good condition.

Equipment & Requirements

- Duplex power (1 per workstation)
- Network cables (1 per workstation)

c. One (1) open office area:

ITEM		DESCRIPTION	MODEL NO.	DIMENSIONS
Conference Table/or folding table	1	Accommodate (10) people		
Side Chairs/folding chairs	12	For conference area		
Plan tables**	2	Custom made		96” W x 48” D x 42” H ea.
Drafting Stool	2	steel with casters		
Bookcase*	1	HON, Putty, Steel, 4 Shelves	S60ABC-L	59” H x 34 ½” w x 12 5/8” D
File Cabinets*	1	HON, Legal Size, Putty	D564C-L	52” H x 18 ¼” W x 25” D
Plan Racks	1	Safeco – Mobile Stand	SAF5060	w/ 12 hanging plan clamps ea.
Wall Mount Marker Board	1	Boone, Non-Magnetic Dry Erase		4’ H x 8’ W with markers & eraser & cleaner
Corkboard with Thumbtacks	1			3’x4’ minimum
Waste Baskets	2			Approx. 20 quarts

* Furniture may be used but must be is good working condition.

*** Custom made plan tables to hold full size drawings. Built attached to wall. Two (2) each.*

Equipment & Requirements

- Duplex power (6)
- Network cables (2)

d. One (1) Break Room Area:

Refrigerator	1			7.4 Cubic Feet (min)
Microwave Oven	1			1.3 cubic feet (min)
Coffee Brewer	1		Keurig single serving style	TBD
Bottled Water Service or dispenser	1			NA
Waste Receptacle	1			18 Gallon min capacity

Equipment & Requirements

- Duplex power (3)

9. Other Equipment:

a. (1) ea. Combination color printer/scanner/copier and required paper. Free-Standing, low or no emission, high cycle, sorter/collator, and double sited copies. Contractor will pay monthly fees and service. Must have automatic feed from at least two trays for 8 1/2x 11 and 11x17. (Contractor furnished and maintained throughout contract).

b. (1) ea. paper shredder. Reference brand, Fellowes, PS-79Ci or equivalent. (Contractor furnished and maintained throughout contract).

c. (1) Large paper recycling bins with recycling service. (continuous until office is vacated).

f. 1 ea. 65” LED Smart TV/Monitor with internet connection installed at conference area. (Contractor furnished and maintained throughout contract).

g. 1 ea. first aid kits.

h. Portable fire extinguishers, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.

10. Services (Continuous service until office is vacated.)

a. Janitorial Service (minimum once per week)

1) Clean/Vacuum floor.
2) Empty Waste Baskets.
3) Remove Trash from premises.
4) Clean Restrooms.

b. Security

1) Intrusion Alarm System (contractor furnished, maintained and monitored until office is vacated)
2) Provide 6 sets of keys for the exterior locking doors and sets for interior office doors.

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c. Supplies (Continuous service until office is vacated)

1) Bathroom supplies (paper towels, toilet paper, hand soap, sanitizer)
2) Break Room supplies (bottles water, paper towels, hot/cold beverage cups)
3) Office Supplies (Copy/printer paper, printer ink)

11. Utilities
    1) Power
    2) High Speed Internet with WIFI
    3) Water
    4) Sewer

12. Trailer office and furnishings shall remain property of Contractor, remove from site upon completion of Contract.

C. Internet Service: The contractor shall establish and pay for internet service through the duration of the contract.

1. Internet Services shall be provided and paid for by the Contractor for the full duration of the contract. Internet service shall provide for high-speed wireless connection at State Trailer with speeds sufficient to conduct work as required. Speed shall be no less than 100Mps.

2. The Contractor shall supply all IT support, routers, cables, connects, service as necessary to provide Internet Service for the full duration of the contract.

3. Telephone service required by Contractor shall be provided and paid for by Contractor needed in performance of the Work.

D. Contractor's Field Office: Contractor may provide field office facilities for Contractor's use as desired. Contractor's field office shall be neat and substantial, and expenses therefor shall be paid by Contractor.

1. Provide sheds sized, furnished and equipped to accommodate materials and equipment for Contractor's construction operations.

1.04 CONSTRUCTION EQUIPMENT

A. Erect, equip, operate, and maintain construction equipment in strict accordance with applicable statutes, laws, ordinances, rules, and regulations of authorities having jurisdiction.

B. Provide and maintain scaffolding, staging, runways, and similar equipment, as needed.

1.05 SAFETY PRECAUTIONS

A. Provide and maintain barricades, fencing, shoring, pedestrian walkways including attached lights, other lights, and other safety precautions to properly guard against personal injury and property damage as prescribed by authority having jurisdiction. (See also General Conditions, Article 10.).

B. Wood fences, barricades, walkways, and similar items shall be painted 2 coats; color as directed by the State.

C. Barricades, fencing, shoring, pedestrian walkways, including attached lights, and other existing safety precautions provided under previous contracts, are required to be left in place.

D. Contractor for Work of this Contract shall assume responsibility for maintaining such items for duration of Work of this Contract, and shall repair, replace, and relocate them as necessary for safe protection.

E. In addition, Contractor for Work of this Contract shall provide such additional safety precautions as may be prescribed by authorities having jurisdiction. (See also General Conditions, Articles 10.).

F. Attention is directed to Safety Orders issued by State of California, Division of Industrial Safety. Contractor shall obtain copies of Safety Orders applicable to type of work to be performed, and shall be governed by requirements thereof in construction operations.

G. Fully inform each subcontractor and material supplier as to requirements of applicable Safety Orders. (See General Conditions, Article 10.).

1.06 ROADS AND ACCESSWAYS

A. Entrance to Work Site: Contractor and Contractor's employees and subcontractors shall use certain access roads or entrance ways as indicated on the Drawings or as directed by State.

1. Maintain these roads in satisfactory condition during Contract time, and repair damages attributable to Work of this Project at intervals as needed. At completion of Contract, roads and entrance ways shall be left in condition at least equal to that existing at start of Contract, except as may be otherwise required by Contract documents.

B. Permanent Improvements: Where Contract calls for permanent sidewalk, road, and other ground improvements, and such permanent improvements are completed, or essentially completed within construction period, Contractor does not have vested right to use such improvements as temporary facilities.

C. Contractor shall retain responsibility pursuant to General Conditions, Paragraph 3.2. Use of permanent improvements by Contractor shall be subject to approval by State.

D. Refer to 01 55 00 for additional information.

1.07 USE OF STATE PROPERTY

A. On Site Storage and Work Areas: The State will allocate available on-site storage and work areas to Contractor, subject to change as may be necessary by job progress, such as site development or other intervening work.

B. State Property: Operations shall be confined to State property to greatest possible extent, and shall not encroach on areas other than those designated or approved for such use by State. (See General Conditions, Paragraph 3.14.)

1. Ascertain, observe, and comply with rules and regulations in effect at occupied State facilities, including, but not restricted to, parking and traffic regulations, security restrictions, hours of allowable in-gress and egress as to main arteries, occupied buildings, and the like.

C. Use of Sidewalks and Streets: Contractor shall make arrangements with City authorities for temporary use of streets and sidewalks for offices, shops, storage, etc., and shall abide by City rules, regulations, and ordinances, obtain permits, and pay fees therefore.

D. Parking and Traffic Regulations: Persons involved in construction operations shall comply with parking and traffic regulations for use of City streets, as enforced by City authorities, except for other arrangements as may be agreed to between Contractor and City authorities.

E. Existing Improvements in Sidewalks and Streets: Existing street signs, electroliers, traffic signals, fire hydrants, underground valves and meter boxes, manholes, trees and other items occurring in sidewalk areas or in streets adjacent to the site shall be left undisturbed, unobstructed, and easily accessible at all times during construction, except as otherwise indicated or agreed to between Contractor and City authorities.

F. Covering, moving, trimming, or altering which may become necessary shall be done only with consent of and in cooperation with City authorities having jurisdiction. Contractor shall pay costs which may be incurred.

G. Contractor shall make detailed examination of such City property at start of work and conditions shall be noted and confirmed by State.

1. City streets, sidewalks and curbs, and other existing improvements therein adjacent to site, if damaged by this work, shall be repaired by Contractor at intervals as needed. At completion of project, all such items not included in Contract shall be left in condition at least equal to that at start of operations.
2. Repair work shall conform to requirements of public authorities having jurisdiction. This includes, but is not restricted to, temporary walks for pedestrians, cleaning of mud and debris, air pollution control, and traffic control.

H. Protection of State-Owned Trees and Shrubs: Existing State-owned trees and shrubs to remain shall not be injured during the course of this work. (See “Site Clearing”, Section 31 10 00).

1. Refer to 01 56 00 for additional information.

I. Protection of Existing Utilities: Utility service lines found entering site and not indicated to remain or to be incorporated in new work, shall be plugged, capped, or otherwise abandoned by Contractor in manner satisfactory to Utility Companies whose services are involved, except as otherwise required. (See also General Conditions, Paragraphs 3.1 and 10.1, and “Site Clearing”, Section 31 10 00).

J. Protection of Existing Utilities: Protect from damage, existing utility lines not specified to be altered by work of this Contract; any such features damaged shall be repaired or replaced to condition equal to that existing prior to commencing work of this Contract. (See also General Conditions, Paragraphs 3.1 and 10.1, and “Site Clearing”, Section 31 10 00).

1.08 SIGNS

A. Directional Signage:

Construct signage no larger than 4’x4’ to direct construction deliveries to the contractor’s laydown/trailer location. One sign shall be placed near the public entrance to the facility and additional signages along the route to the laydown yard. Signage shall identify the contractor name/logo and DGS logo, project name and directional arrows. Mounting shall be on a post no less than a nominal 4”x4” and firmly anchored in the ground. Upon contract completion all signage shall be removed and area restored to original condition.

D

B. Identification Sign for State Field Office: Furnish and install sign about 18” x 24” size. Sign material, lettering and mounting location as directed by State.

C. Other Signs or Advertising: Not permitted, except that Contractor’s name may be placed on Contractor’s field office.

1.09 CLEAN UP OF WORK AND DISPOSAL OF TRASH

A. Attention of Contractor is directed to General Conditions, Paragraph 3.16, and Specification Sections 01 74 23 and 01 77 00. Keep work and storage areas clean and free of rubbish and perform protective and clean up work within one day of being so notified by State.

B. Dispose of trash resulting from work, off State property, as it accumulates. Pay fees required for use of public dumps. Burning on State property is prohibited.

1.10 NOISE AND DUST ABATEMENT

A. Contractor shall coordinate noisy operations and activities in order to minimize impacts on local residences and business;

B. Control dust resulting from indoor construction operations by localizing it to greatest practicable extent using temporary partitions, curtains, or other means which will prevent spread of dust beyond immediate work area. Duct opening and other opening communicating with other portions of building shall have effective temporary closures.

C. Use water wagons or spray from hoses to control dust created by outdoor work operations in areas on State property during entire period of this Contract as directed by State; also, satisfactorily control dust created by operations on property used, other than State property, to satisfaction of all concerned.

D. Refer to 01 57 00 for additional information.

1.11 SANITARY FACILITIES

A. Toilet Facilities: Provide sufficient suitably enclosed chemical toilets, conforming to ANSI Z4.3., with urinal for workmen and separate chemical toilet building, with padlock on door, for exclusive use of State.

B. Washing Facilities: Provide properly mounted and adequate wash sinks connected to water supply. Locate sinks where directed by State.

C. Drinking Water Facilities: Provide clean, sanitary and adequate drinking water.

1.12 TEMPORARY WATER

A. Make arrangements for water required for construction purposes; furnish and install temporary piping or hose to carry water to every part of construction.

B. Pay for all water used during time of this Contract. Make arrangements with water company for transfer of water payment responsibility.

1.13 SANITARY SERVICE

A. Provide temporary service as require to support construction operations.

B. Toilet Facilities: Provide sufficient suitably enclosed chemical toilets, confirming to ANSI Z.4.3, with urinal for workmen.

C. Washing Facilities: Provide properly mounted and adequate sinks connected to water supply.

1.14 TEMPORARY HEAT

A. Provide and pay all costs for temporary heat, including equipment, fuel, and operators which may be required during Contract time to provide adequate temperatures for storage, application, and drying of installed materials.

1. Provide temporary closures for windows and doors, and temporary general building ventilation, for proper storage and drying of materials and safe working conditions.

2. Provide adequate heat and ventilation at underside of poured in place of gypsum concrete decks as recommended by deck installer and approved by State as necessary for proper and timely drying of installed decks and formboards. Temporarily close structure if necessary'; use mechanical (forced) ventilation where natural ventilation is not available or sufficient.

3. Areas in which wood finish flooring will be stored or installed shall be properly ventilated and, if. necessary, heated to between 50 and 70 degrees F for at least 10 days immediately prior to start of flooring installation and continuing thereafter until final acceptance of Project.

4. Areas in which gypsum wallboard will be applied shall be properly ventilated and, if necessary, heated until ambient temperature in range 55 to 70 degrees F is maintained, day and night during and 24 hours before and after application.

B. Use of Permanent Heating System for Temporary Heat:

1. Agreement for Use: Permanent heating system shall not be used for temporary heat until it has undergone operational testing and is approved by the State. No demand shall be made by Contractor for use of permanent heating system for temporary heat, except with consent of State and by agreement in writing for use mutually acceptable to State and Contractor.

2. Operation and Maintenance: Provide operator, maintain permanent heating system, and continue to do so during entire time temporary heat is required, and until entire Work of this Contract is accepted by State. Maintenance shall include replacement of filters and other dispensable items

a. Refer to technical specifications for requirements relating to replacement of filters and other items used for temporary heating.

3. Payment for Use: Cost of fuel, operators, and maintenance for permanent heating system shall be borne by Contractor until acceptance of building by State.

1.14 TEMPORARY ELECTRICAL FACILITIES

A. Provide and pay for all such temporary electrical facilities as necessary for the Work, and to supply temporary lighting for work operations and temporary power for portable power driven tools.

B. Location of Temporary Electrical Facilities: Before temporary electrical facilities are installed either by utility company or Contractor, exact location of such facilities shall be agreeable to State.

It is essential that facilities be located so as not to interfere with crane placement, materials handling or storage, traffic areas, later project construction or site development, other contracts, or subsequent work.

C. Construction Requirements: Construct and maintain temporary electrical facilities in accordance with California Code of Regulations, Title 24, Part 3, Basic Electrical Regulations, State Building Standards Electrical Code, Public Utilities Commission "Rules for Overhead Line Construction" (G.O.95), and requirements of utility company providing service. Materials, devices, and equipment used for these facilities shall be in good and safe condition, but need not be new.

D. Specific Requirements for Temporary Electrical Facilities:

1. Temporary Service: Provide necessary electrical facilities and their maintenance for specified limited temporary power up to, and including field office service head, and electrical power centers as defined below.

2. Also provide temporary power for heating asphalt used in application of cold storage insulation, for pedestrian walkway lighting, and for field office lighting.

3. Pay temporary service installation and removal (commonly known as "up and Down") charges by serving utility company.

E. Contractor-Installed Construction Power Facilities: Temporary electrical materials and equipment furnished and installed by Contractor for required facilities hereunder shall be removed after serving their purpose.

1. If State should desire to retain portion of Contractor-Installed construction power system, it will be acquired as Change in Work per General Conditions, Article 6.

F. Use of Permanent Electrical System for Temporary Light and Power: Permanent electric system shall be installed in time to provide adequate lighting and power for testing, adjusting, and inspecting permanent heating and cooling system and elevators, electric stairways, and conveyors, and work of other prime contractors performing work for this project who may be dependent thereon prior to completion of their contracts.

1. Upon agreement by parties concerned, State may permit operation or use of portion of permanent electrical system to provide light and power during remaining construction period. Use of permanent electric system shall be subject to regulation by Contractor so as not to interfere with safety or orderly progress of Contractor's work.

2. When permanent electric facilities are ready to be energized, Contractor shall make application to utility company for service, and shall pay power and energy charges until project is accepted by State.

G. Use of Engine Generator Sets: Where economic, time, or other factors indicate advisability of using engine generator sets for construction power in lieu of utility company supply, such source of power may be used.

1. Use of engine generator sets shall be subject to State approval, but State will not be responsible for extra costs occasioned thereby.

H. Payment for Energy Used: Pay costs for energy used from temporary facilities and also energy used for operation of permanent heating and cooling systems until Project Acceptance.

1.15 DEWATERING FACILITIES

A. Provide and maintain dewatering and pumping facilities to keep site reasonably dry, and to protect materials and installed work from water damage until dewatering is no longer required.

1. Dewatering facilities provided by contractor for work of previous contract, will be used by that contractor until completion of that Contract. At such time, that contractor will remove portable dewatering facilities from site, and Contractor for Work of this Contract shall assume responsibility for keeping site dewatered. Coordinate changeover to prevent lapse of protection.

2. Remove dewatering facilities from site when no longer needed.

1.16 SECURITY

A. Contractor is responsible for security of building and grounds involved in this Project, during entire duration of Contract. Make good all damages to work and loss of materials due to vandalism or theft, within this responsibility.

1. Other Prime Contractors concurrently performing work at the site are responsible for security of their own office, storage, and work area.

1.17 CONSTRUCTION MONITORING WEB-CAM

A. Web-cam shall be installed prior to onsite construction activities and shall be maintained through completion of construction with a time-lapse function to record construction progress. The timeframe between captured time-lapse images shall be 15 minutes and camera needs to be operational during times that work is occurring on-site, at minimum.

B. The link to a live camera feed should be password protected with the password provided to members of the project team only.

C. Web-Cam network shall be installed to show the entire construction site and may require multiple cameras.

D. The camera shall be mounted and angled in such a way that the field of view does not encroach upon any portion of the adjacent or nearby properties including but not limited to privately-owned or secure properties and that the privacy of these properties is maintained.

E. If it is necessary to mount the cameras offsite, it shall be the sole responsibility of the contractor to arrange for permission and to bear all costs to achieve this.

F. If it is necessary to mount cameras on poles, to provide for the coverage of the site, contractor to arrange for installation and bear all costs to achieve this.

G. The Contractor shall maintain the web-cam network in continuous operation (at minimum during times that work is occurring on-site) until the completion of the project and shall back up the information to an independent off-site storage facility no less than weekly. At the conclusion of the project, the Contractor shall submit the complete time-lapse recordation to the State on a USB flash drive with the appropriate capacity.

H. Secured facility may waive this requirement per their discretion.

1.18 ENVIRONMENTAL REQUIREMENTS

A. The California Environmental Quality Act (CEQA) requires public agencies to adopt a mitigation reporting or monitoring program for all projects for which a mitigated negative declaration has been prepared. The California Conservation Corps is the lead agency under CEQA. The State shall be responsible for ensuring the implementation of all mitigation measures adopted through the CEQA process.

B. See Project Manual Appendices for CEQA and related permits required for the construction of this project.

C. Biological Resources – Wetlands

1. The State has acquired authorization for fill of jurisdictional areas from United States Army Corps of Engineers via the Section 404 permitting process.

2. The Contractor shall implement measures to minimize erosion and runoff into wetlands. Appropriate runoff controls such as berms, a retention basin, and overflow collection areas, shall be implemented by the Contractor to control siltation and the potential discharge of pollutants.

3. Refer to Section 01 57 23 Storm Water Pollution Control for additional requirements.

D. Cultural Resources

1. If any historical artifactual, archaeological, or paleontological materials are uncovered, discovered, or otherwise detected or observed during project grading and construction activities, Contractor shall cease work immediately. All work must halt within a 100-foot radius of the discovery.

    1. The State shall retain a qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist, to evaluate the potential significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment.

2. Work cannot continue within the no-work radius until the archaeologist conducts sufficient research and data collection to make a determination that the resource is either 1) not cultural in origin; or 2) not potentially significant or eligible for listing on the National Register of Historic Places or California Register of Historic Resources.

3. In the event that evidence of human remains is discovered, construction activities within 100 feet of the discovery will be halted or diverted and the provisions of Section 7050.5 of the California Health and Safety Code, Section 5097.98 of the California Public Resources Code, and Assembly Bill 2641 will be implemented.

    1. When human remains are discovered, state law requires that the discovery be reported to the County Coroner (Section 7050.5 of the Health and Safety Code) and that reasonable protection measures be taken during construction to protect the discovery from disturbance (AB 2641).

    2. If the Coroner determines the remains are Native American, the Coroner notifies the Native American Heritage Commission which then designates a Native

American Most Likely Descendant (MLD) for the project (Section 5097.98 of the Public Resources Code).

E. Noise

1. Noise-generating activities associated with the construction of onsite and offsite facilities shall comply with the City of Willits Noise Ordinance. Unless authorized by the City of Willits, construction activities shall be limited to between the hours of 7:30 AM. and 4:30 PM.

F. Temporary Erosion and Sedimentation Control

1. Complete with requirements specified in the Contract Documents and authorities having jurisdiction.

G. Stormwater Control:

1. Comply with authorities having jurisdiction. Provide and implement a Storm Water Prevention Plan (SWPPP) in conformance with the authorities having jurisdiction, all CEQA documents, and all project permits. Provide required barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains.

1.19 FENCING

A. Temporary construction limit fencing shall conform to the specifications for fencing of similar character as provided in Section 16-2.03, Temporary High-Visibility Fences of the Caltrans Standard Specifications.

1. Allowable materials for temporary construction limit fencing will be Nor Plex Protex, Tenax Beacon Plus, or accepted equivalent high visibility safety fence.

2. The exposed end of all metal posts shall have an orange or red safety cap securely attached.

B. Temporary chain link fencing shall conform to the specifications for fencing of similar character as provided in Section 80, Fences of the Caltrans Standard Specifications.

1. Temporary chain link fencing shall be self-supporting using panel stands or other similar devices, and properly weighted or staked to secure in place and prevent blow down in windy conditions.

C. The following is not required for temporary fencing; galvanizing or painting of steel elements; treating wood with a wood preservative; or concrete footings for metal posts.

D. Used materials may be installed providing the used materials are good, sound, are suitable for the purpose intended, as determined by the State.

1.20 POSTS

A. Posts for temporary construction limit fencing shall be metal conforming to Section 16-2.03, Temporary High-Visibility Fences of the Caltrans Standard Specifications.

END OF SECTION

SECTION 01 60 00

PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

A. This Section describes basic requirements governing products including:

1. Workmanship.

2. Manufacturers' instructions.

3. Transportation and handling.

4. Storage and protection.

5. Substitutions

1.02 RELATED REQUIREMENTS

A. Document 00 72 00: General Conditions of the Contract for Construction.

B. Section 01 33 00: Submittal Procedures.

C. Section 01 77 00 - Closeout Procedures: Operation and maintenance data; warranties and bonds.

1.03 PRODUCTS

A. Products include material, equipment, and systems.

B. Comply with specifications and referenced standards as minimum requirements.

C. Components required to be supplied in quantity within a Specification Section shall be the same, and shall be interchangeable.

D. Reference to materials or methods of construction by name and catalog number is done to establish standards of quality, design, utility, suitability, and cost, and shall not be construed as limiting competition.

E. Where the words "or equal" are used following trade names, patented products, or proprietary products or methods, they shall be deemed to read "or equal in quality, design, utility and suitability"; as solely determined by the State. Where such trade names, products, or methods are without the use of the words "or equal", they shall be deemed to be followed by the words "or equal in quality, design, utility and suitability" as solely determined by the State.

F. Materials and methods of equal standards will be accepted for use if first deemed equal, and approved by the State.

1.04 QUALITY ASSURANCE

A. Comply with industry standards except when more restrictive tolerances or requirements indicate more rigid standards or greater quality.

B. Perform work by persons qualified to produce specified quality.

C. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, and racking.

1.05 MANUFACTURERS' INSTRUCTIONS

A. When work is specified to comply with manufacturers' instructions, submit copies as specified in Section 01 33 00, distribute copies to persons involved, and maintain one set in field office.

B. Perform work in accordance with details of instructions and specified requirements. Should conflict exist between Specifications and instructions, consult with Project Director.

1.06 TRANSPORTATION AND HANDLING

A. Transport products by methods to avoid product damage, deliver in undamaged condition in manufacturer's unopened containers or packaging.

B. Provide equipment and personnel to handle products by methods to prevent soiling or damage.

C. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.

1.07 STORAGE AND PROTECTION

A. Store products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive products in weathertight enclosures; maintain within temperature and humidity ranges required by manufacturer's instructions.

B. For exterior storage of fabricated products, place on sloped supports above ground. Cover products subject to deterioration with impervious sheet covering, provide ventilation to avoid condensation.

C. Store loose granular materials on solid surfaces in well-drained area; prevent mixing with foreign matter.

D. Arrange storage to provide access for inspection. Periodically inspect to assure products are undamaged and maintained under required conditions.

E. After installation, provide coverings to protect products from damage from traffic and construction operations, remove when no longer needed.

1.08 SUBSTITUTIONS (ALTERNATIVES)

A. Refer to Document 00 72 00, General Conditions of the Contract for Construction, Subparagraph 3.12.10, and Section 01 33 00, Submittal Procedures.

END OF SECTION

SECTION 01 73 29

CUTTING AND PATCHING

PART 1 - GENERAL

1.01 WORK INCLUDED

A. General requirements for cutting, fitting and patching of the work to:

1. Make the several parts fit properly.

2. Uncover work to provide for installation, inspection, or both, of ill-timed work.

3. Remove and replace work not conforming to requirements of the Contract Documents.

4. Remove and replace defective work.

5. Reworking and patching to match existing surfaces at removed or demolished items.

1.02 RELATED REQUIREMENTS

A. Document 00 72 00: General Conditions of the Contract for Construction; Paragraph 3.15, Cutting and Patching.

1.03 QUALITY ASSURANCE

A. Patching shall achieve security, strength, and weather protection, and shall preserve continuity of existing fire ratings.

B. Patching shall successfully duplicate undisturbed adjacent finishes, colors, textures, and profiles. Where there is dispute as to whether duplication is successful or has been achieved to a reasonable degree, the State's judgment shall be final.

PART 2 - PRODUCTS

2.01 MATERIALS

A. For replacement of work removed, use only materials which comply with pertinent Sections of these Specifications.

2.02 PAYMENT FOR COSTS

A. Perform cutting and patching required to comply with the Contract Documents at no additional cost to the State.

PART 3 - EXECUTION

3.01 INSPECTION

A. Inspect existing conditions, including elements subject to movement or damage during cutting, excavating, backfilling, and patching.

B. After uncovering the work, inspect conditions affecting installation of new work.

3.02 INSTALLATION

A. Perform cutting and patching in a manner to prevent damage to other work and to provide proper surfaces for the installation of materials, equipment, and repairs.

B. Do not cut nor alter structural members without prior approval of the State.

C. Adjust and fit products to provide a neat installation.

D. Finish or refinish, as required, cut and patched surfaces to match adjacent finishes. Paint over complete surface plane, unless otherwise indicated. Over patched wall or ceiling surfaces, paint to nearest cut-off line for entire surface, such as intersection with adjacent wall or ceiling, beam, pilasters, or to nearest opening frame, unless otherwise indicated. Painted surfaces shall not present a spotty, touched-up appearance.

END OF SECTION

SECTION 01 74 19

CONSTRUCTION WASTE MANAGEMENT

PART 1 – GENERAL

1.01 WORK INCLUDED

A. Waste Management Objective for the Project:

1. The State has established that this Project shall minimize the generation of construction and demolition waste at the site. Factors that contribute to waste, such as over-packaging, improper storage, ordering error, poor planning, breakage, mishandling, and contamination shall be minimized.

2. Of the inevitable waste that is generated, as many of the waste materials as economically feasible shall be reused or recycled. Waste disposal in landfills shall be minimized.

B. Diversion from Landfill: Waste categories appropriate for diversion from landfill shall include, but not be limited to, the following:

1. Land clearing debris
2. Soil
3. Wood: Clean dimensional wood, palette wood
4. Sheet Wood: Plywood, OSB and particle board
5. Concrete
6. Bricks
7. Concrete Masonry Units (CMU)
8. Asphalt Concrete
9. Paper
   a. Bond
   b. Newsprint
   c. Cardboard and paper packaging materials
10. Cement Fiber Products: Shingles, panels, and siding
11. Metals
    a. Ferrous
    b. Non-ferrous
12. Paint
13. Rigid Foam
14. Glass
15. Plastics
16. Carpet and pad
17. Beverage containers
18. Insulation
19. Gypsum Board
20. Porcelain Plumbing Fixtures
21. Fluorescent Light Tubes (per Department of Toxic Substances Control regulations)

1.02 RELATED REQUIREMENTS

A. Appendix 01 74 19.1: Construction Waste Estimate.

B. Appendix 01 74 19.2: Waste Management Report.

C. Section 01 33 00: Submittal Procedures.

D. Section 01 74 23: Cleaning.

E. Section 01 77 00: Closeout Procedures.

1.03 REFERENCES

A. The California Department of Resources Recycling and Recovery (CalRecycle); Telephone (916) 341-6300; https://www.calrecycle.ca.gov/ConDemo.

B. Local Integrated Waste Management Programs and Re-Use Programs in the Project area.

C. The Department of Toxic Substances Control (DTSC)

1.04 CONSTRUCTION WASTE ESTIMATE

A. Within 10 calendar days after Start Date of the Work, or prior to any waste removal, whichever occurs sooner, the Contractor shall submit to the State a Construction Waste Estimate, using the Construction Waste Estimate form included as Appendix 01 74 19.1; containing the following information:

1. Estimate of total job site wastes to be generated, including material types and quantities.
2. Estimate of percentages of waste categories to landfill, to be reused, and to be recycled.

B. The State will provide an electronic copy of Appendix 01 74 19.1 for Contractor's use.

C. Submit Construction Waste Estimate under provisions of Section 01 33 00.

1.05 WASTE MANAGEMENT

A. Manager: Contractor shall designate on-site party (or parties) responsible for instructing workers and subcontractors, and overseeing and documenting results of Waste Management for the Project.

B. Distribution: Contractor shall distribute copies of the Construction Waste Estimate and Waste Management Report forms to the Job Site Foreman, each Subcontractor, and the State's Representative.

C. Meetings: Contractor shall conduct Waste Management meetings with subcontractors who generate construction waste. Contractor shall present current status of the Waste Management Report at regular job-site meetings.

D. Materials Handling Procedures: Provide means by which waste materials will be protected from contamination, and means to be employed in reuse or recycling of waste material consistent with requirements for acceptance by receiving facilities.

1. Separation Facilities: Contractor shall lay out and label a specific area to facilitate separation of materials for reuse and recycling. Recycling and waste bin areas shall be kept neat and clean and clearly marked in order to avoid contamination of materials.

2. Hazardous Wastes: Hazardous wastes shall be separated, stored, and disposed of according to local regulations, and in accordance with specifications for such work as may be included in this Project.

3. Instruction: Contractor shall provide on-site instruction of appropriate separation, handling, and recycling, salvage, reuse, and return methods to be used by all parties at appropriate stages of the Project.

1.06 WASTE MANAGEMENT REPORT

A. Upon completion of Work, including final cleanup, provide a final Waste Management Report containing the information required on Appendix 01 74 19.2, Waste Management Report forms.

1. The total quantity of each waste material generated; and the date(s) removed from the job-site.

2. The percent of the total quantity generated of each material sent to landfill, the identity of the landfill (receiving facility), handling costs, transport costs, tipping fees paid at the landfill, and total landfill costs. Attach copies of manifests, weight tickets, receipts, and invoices.

3. For each material reused or recycled from the Project, include the percent of the total quantity generated, the identity of the receiving facility, the total costs of handling and transportation, and income. Attach manifests, weight tickets, receipts, and/or invoices.

4. Contractor shall edit and use forms included in Appendix 01 74 19.2, Waste Management Report, or use them as a basis for Contractor’s forms.

5. The State will provide electronic copies of Appendix 01 74 19.2 for Contractors' use.

B. Submit Waste Management Report under provisions of Section 01 77 00.

END OF SECTION

CONSTRUCTION WASTE ESTIMATE

Date: _____

Waste Material (Edit to Suit)	Unit	Estimated Quantity Generated	Percent to Landfill	Percent Reused	Percent Recycled
Land Clearing Debris	CY				
Soil	CY				
Wood	CY				
Sheet Wood	CY				
Concrete	CY				
Bricks	CY				
Concrete Masonry Units	CY				
Asphalt Concrete	CY				
Paper	CY				
Cement Fiber Products	CY				
Metal (ferrous)	TON				
Metals (non-ferrous)	LBS				
Paint	GAL				
Rigid Foam	CF				
Glass	CF				
Plastics	CF				
Carpet and Pad	SY				
Beverage Containers	LBS				
Insulation	CF				
Gypsum Board	CF				
Porcelain Plumbing Fixtures	EA				
Fluorescent Light Tubes	EA				

WASTE MANAGEMENT REPORT
QUANTITIES

Waste Material (Edit to Suit)	Unit	Date Removed	Total Quantity Generated	Percent to Landfill	Percent Reused	Percent Recycled
Land Clearing Debris	CY					
Soil	CY					
Wood	CY					
Sheet Wood	CY					
Concrete	CY					
Bricks	CY					
Concrete Masonry Units	CY					
Asphalt Concrete	CY					
Paper	CY					
Cement Fiber Products	CY					
Metal (ferrous)	TON					
Metals (non-ferrous)	LBS					
Paint	GAL					
Rigid Foam	CF					
Glass	CF					
Plastics	CF					
Carpet and Pad	SY					
Beverage Containers	LBS					
Insulation	CF					
Gypsum Board	CF					
Porcelain Plumbing Fixtures	EA					
Fluorescent Light Tubes	EA					

WASTE MANAGEMENT REPORT
COST / INCOME

Waste Material (Edit to Suit)	Unit	Receiving Facility	Landfill Cost			Reused		Recycled	
			Handling	Transport	Fee	Cost	Income	Cost	Income
Land Clearing Debris	CY								
Soil	CY								
Wood	CY								
Sheet Wood	CY								
Concrete	CY								
Bricks	CY								
Concrete Masonry Units	CY								
Asphalt Concrete	CY								
Paper	CY								
Cement Fiber Products	CY								
Metal (ferrous)	TON								
Metals (non-ferrous)	LBS								
Paint	GAL								
Rigid Foam	CF								
Glass	CF								
Plastics	CF								
Carpet and Pad	SY								
Beverage Containers	LBS								
Insulation	CF								
Gypsum Board	CF								
Porcelain Plumbing Fixtures	EA								
Fluorescent Light Tubes	EA								
		TOTALS:							

SECTION 01 74 20

RECYCLED CONTENT CERTIFICATION

PART 1 – GENERAL

1.01 WORK INCLUDED

A. Recycled Content Reporting for the Project:

1. The State has established that all Projects shall document and report the percentage of recycled content in materials, products, equipment and furnishings actually installed and provided for this Project.
2. The State Agency Buy Recycled Campaign (SABRC) is a joint effort between the Department of General Services and the California Department of Resources Recycling and Recovery (CalRecycle) to implement State law. Public Contract Code (PCC) sections 12200–12320 require State agencies to purchase recycled-content products (RCP) instead of non-recycled-content products (non-RCP) in eleven (11) product categories, to ensure that a minimum percentage of purchases in those categories have recycled content, and report these purchases annually to CalRecycle. The certification and reporting will be utilized to comply with those requirements.
3. All products that can be classified as being in one of the eleven (11) categories must be included in the reporting, whether the product is a RCP or non-RCP. Only products that can be classified in one of the categories shall be reported.

B. Recycled Content Categories: Categories identified for purchasing and reporting of products:

1. Paper products.
2. Printing and writing papers.
3. Mulch, compost, and cocompost products.
4. Glass products.
5. Lubricating oils.
6. Plastic products.
7. Paint.
8. Antifreeze.
9. Tires.
10. Tire-derived products.
11. Metal.

1.02 RELATED REQUIREMENTS

A. Section 00 72 00: General Conditions of the Contract for Construction

B. Section 01 33 00: Submittal Procedures.

C. Section 01 77 00: Closeout Procedures.

1.03 REFERENCES

A. CalRecycle:
1. State Agency Buy Recycled Campaign: CalRecycle Publications Catalog Search. Access this website for information on the Buy Recycled Campaign.
2. Construction and Demolition Debris Recycling. Access this website for information on the Construction Waste/Demolition.

1.04 DEFINITIONS

A. Recycled Content Product (RCP): All materials, goods, and supplies that are from one of the eleven (11) Product Categories that contains the minimum percentages of secondary and postconsumer materials stipulated in the Recycled Content Certification Worksheet footnotes.

B. Non-Recycled Content Product (non-RCP): All materials, goods, and supplies that are from one of the eleven (11) Product Categories having no recycled content or less than the minimum percentages of secondary and postconsumer materials stipulated in the Recycled Content Certification Worksheet footnotes.

1.05 RECYCLED PRODUCT CERTIFICATION

A. With each product submittal from one of the eleven (11) Product Categories, submit a Recycled Content Certification Worksheet, Appendix 01 74 20.1, containing the following information:

1. Product Description, with applicable specification section of product.
2. Estimated material dollar value including any taxes and delivery cost.
3. Designate the Product Category for each product listed.
4. Estimate of percentage of material content.
5. Designate whether or not product is a Recycled Content Product.
6. Attach a copy of the manufacturer's or vendor's data sheet showing recycled content percentages if product is reported as a Recycled Content Product.

B. An example of a completed Recycled Content Certification Worksheet is attached as Appendix 01 74 20.1 for Contractor's reference. An electronic version of this Worksheet for Contractor's use will be provided by the State at the Project start meeting.

1.06 CLASSIFICATION OF PRODUCTS

A. RCP's and non-RCP's that are made from multiple material types should be reported in the product category of the material type representing most of the product.

1.07 STATE AGENCY BUY RECYCLED CAMPAIGN PROCUREMENT SUMMARY

A. Manager: Contractor shall designate an individual responsible for instructing suppliers and subcontractors, and overseeing and documenting results of Recycled Content Certification for the Project. Manager shall document results of submitted Recycled Content Certification Worksheets on the SABRC Procurement Summary, Appendix 01 74 20.2, in total for each product category. Only reportable products from one of the eleven (11) categories should be recorded.

B. An example of a completed SABRC Procurement Summary is attached as Appendix 01 74 20.2 for Contractor's reference. An electronic version of this Worksheet for Contractor's use will be provided by the State after Award of contract.

C. Distribution: Manager shall provide copies of the SABRC Procurement Summary at intervals agreed to by the State's Representative for monitoring of the program. At the conclusion of the construction submittals and prior to final payment, Manager shall provide a copy of the final SABRC Procurement Summary under provisions of Section 01 77 00.

END OF SECTION

Recycled-Content Certification Worksheet

This form must be completed by contractor. The contractor must submit worksheet with each product submittal to the State agency, with a row completed for each product supplied to the State. Attach additional sheets if necessary. Information must be included, even if the product does not contain recycled-content material but it is within one of the 11 categories. Refer to footnotes following this form.

CONTRACTOR'S / VENDOR'S NAME: XYZ CONTRACTORS **DATE:** MARCH 15, 2019

ADDRESS: 24511 W JAYNE AVE, COALINGA, CA 93120 **PROJECT DIRECTOR:** BRANDON GRIMES

PHONE: (XXX) XXX-XXXX **FAX**: (XXX) XXX-XXXX

Product Description/ Specification Section	Quantity	Estimated Dollars	Product Category[1]	RCP Y/N?	Virgin Content (Percent)[2]	Postconsumer Material (Percent)[3]	Secondary Material (Percent)[4]	Total Percent[5]
High Impact Resistant Gypsum Board, 09260	N/A	$2,500	Paper	Y	50	10	40	100%
Cellulose Building Insulation, 07213	N/A	$10,000	Paper	Y	20	10	70	100%
Underslab Vapor Barrier, 03300	N/A	$1,500	Plastic	Y	20	20	60	100%
Electrical Cover Plates, 16010	N/A	$2,500	Plastic	N	90	0	10	100%
Interior and Exterior Paint, 09900	300gal	$8,000	Paint	N	100	0	0	100%
Recessed Entrance Mats, 10420	N/A	$1,800	Tire Derived	Y	40	20	40	100%
Ceramic Tile, 09310	N/A	$5,000	Glass	Y	35	10	55	100%
Exterior and Interior Windows, 08800	N/A	$30,000	Glass	N	70	10	20	100%
Metal Studs, 09206	N/A	$6,000	Metal	Y	65	15	10	100%

Public Contract Code sections 10233, 10308.5, and 10354 require all vendors and contractors to certify in writing, under penalty of perjury, the minimum, if not the exact, percentage of postconsumer and secondary material in the products, materials, goods, or supplies provided or used.

Public Contract Code section 12205 (a) requires all State agencies to require all contractors to certify in writing, under penalty of perjury, the minimum, if not the exact percentage, of postconsumer and secondary material in the products, materials, goods, or supplies provided or used.

Printed name of person completing form Title Signature of person completing form

SAMPLE

SAMPLE

Footnotes

You must submit copies of this form and/or other documentation for each product that is reportable.

1. Product category refers to one of the product categories into which the reportable product purchase falls. For products made from multiple materials, choose the category that comprises most of the product, either by a weight or volume criteria. The product categories and corresponding content requirements are defined as follows:
   1. Paper products
   2. Printing and writing papers
   3. Mulch, compost and cocompost.
   4. Glass products
   5. Lubricating oils
   6. Plastic products
   7. Paint
   8. Antifreeze
   9. Tires
   10. Tire-derived products
   11. Metal

   Recycled-content printing and writing papers (PWP) include copy paper and xerographic papers of all colors, and higher-grade papers such as watermarked and cotton fiber papers. High-speed copier paper, offset paper, forms bond, computer printout paper, carbonless paper, ruled tablets, calendars, posters, manila file folders, index cards, white wove envelopes, and other uncoated printing and writing paper such as writing and office paper, book paper, cotton-fiber paper **(containing 25–75 percent cotton fiber)**, and cover stock are all included in the PWP category.

   Recycled metal product means flat rolled metal products with **at least 25 percent** of the total weight consisting of secondary and postconsumer material, with **not less than 10 percent** postconsumer material. Products made with flat rolled metal meeting these content percentages may include automobiles, cans, appliances, and office furniture and supplies.

   Recycled-content product (RCP) for paper products, plastic products, glass products, tires, tire-derived products, compost and co-compost, lubricating oil, paints, solvents, is defined in PCC section 12200 (SB 1915, 1994) as containing **at least 50 percent** of the total weight of which consists of secondary and postconsumer material with **not less than 10 percent** of its total weight consisting of postconsumer material. This definition applies to all product categories that do not have specific statutory definitions.

2. Virgin material content is that portion of the product made from non-recycled material, that is, the material is neither secondary nor postconsumer material.

3. Postconsumer material is defined as “a finished material which would have been disposed of as a solid waste, having completed its life cycle as a consumer item, and does not include manufacturing wastes.” This is material such as newspaper that you read and was recycled and then made into recycled-content newsprint or some other recycled product. Postconsumer material is generally any product that was bought by the consumer, used, and then recycled into another product.

4. Secondary material is defined as “fragments of finished products or finished products of a manufacturing process, which has converted a resource into a commodity of real economic value, and includes postconsumer material, but does not include excess virgin resources of the manufacturing process.” This is material such as newsprint that is trimmed from a roll in the paper plant that is returned to the beginning of the process to make recycled-content newsprint. The material (product) did not get to the consumer before being recycled.

   For example, if a printing and writing paper contained 20 percent postconsumer material, you would indicate 20 percent in the postconsumer column and 80 percent in the virgin column. If the product had 40 percent secondary material and 20 percent postconsumer material, you would

SAMPLE

indicate 40 percent in the secondary column, 20 percent in the postconsumer column, and 40 percent in the virgin column. To meet the 50/10 content requirement of another product category, the product would contain 50 percent recycled-content (40 percent secondary and 10 percent postconsumer material) and 50 percent virgin material.

5. The sum of the virgin column, the postconsumer column, and the secondary column must equal 100 percent.

Note: Products that are made from multiple material types should be reported in the product category of the material type representing most of the product. The amount of material used in the product can be measured by weight or volume. If, for instance, a chair is made from steel, aluminum, and plastic and most of the material, either by weight or volume, is plastic, report it as a plastic product. If, however, most of the product, either by weight or volume, is metal, report the purchase as a metal product.

SAMPLE

PROJECT NAME: _____ PROJECT NO:8666_____

Recycled-Content Certification Worksheet

This form must be completed by contractor. The contractor must submit worksheet with each product submittal to the State agency, with a row completed for each product supplied to the State. Attach additional sheets if necessary. Information must be included, even if the product does not contain recycled-content material but it is within one of the 11 categories. Refer to footnotes following this form.

CONTRACTOR'S / VENDOR'S NAME: _____ **DATE:** _____

ADDRESS: _____ **PROJECT DIRECTOR:** _____

PHONE: _____ **FAX:** _____

Product Description/ Specification Section	Quantity	Estimated Dollars	Product Category[1]	RCP Y/N?	Virgin Content (Percent)[2]	Postconsumer Material (Percent)[3]	Secondary Material (Percent)[4]	Total Percent[5]
								100%
								100%
								100%
								100%
								100%
								100%
								100%
								100%

Public Contract Code sections 10233, 10308.5, and 10354 require all vendors and contractors to certify in writing, under penalty of perjury, the minimum, if not the exact, percentage of postconsumer and secondary material in the products, materials, goods, or supplies provided or used.

Public Contract Code section 12205 (a) requires all State agencies to require all contractors to certify in writing, under penalty of perjury, the minimum, if not the exact percentage, of postconsumer and secondary material in the products, materials, goods, or supplies provided or used.

Printed name of person completing form	Title	Signature of person completing form

Footnotes

You must submit copies of this form and/or other documentation for each product that is reportable.

1. Product category refers to one of the product categories into which the reportable product purchase falls. For products made from multiple materials, choose the category that comprises most of the product, either by a weight or volume criteria. The product categories and corresponding content requirements are defined as follows:
   1. Paper products
   2. Printing and writing papers
   3. Mulch, compost and cocompost.
   4. Glass products
   5. Lubricating oils
   6. Plastic products
   7. Paint
   8. Antifreeze
   9. Tires
   10. Tire-derived products
   11. Metal

   Recycled-content printing and writing papers (PWP) include copy paper and xerographic papers of all colors, and higher-grade papers such as watermarked and cotton fiber papers. High-speed copier paper, offset paper, forms bond, computer printout paper, carbonless paper, ruled tablets, calendars, posters, manila file folders, index cards, white wove envelopes, and other uncoated printing and writing paper such as writing and office paper, book paper, cotton-fiber paper **(containing 25–75 percent cotton fiber)**, and cover stock are all included in the PWP category.

   Recycled metal product means flat rolled metal products with **at least 25 percent** of the total weight consisting of secondary and postconsumer material, with **not less than 10 percent** postconsumer material. Products made with flat rolled metal meeting these content percentages may include automobiles, cans, appliances, and office furniture and supplies.

   Recycled-content product (RCP) for paper products, plastic products, glass products, tires, tire-derived products, compost and co-compost, lubricating oil, paints, solvents, is defined in PCC section 12200 (SB 1915, 1994) as containing **at least 50 percent** of the total weight of which consists of secondary and postconsumer material with **not less than 10 percent** of its total weight consisting of postconsumer material. This definition applies to all product categories that do not have specific statutory definitions.

2. Virgin material content is that portion of the product made from non-recycled material, that is, the material is neither secondary nor postconsumer material.

3. Postconsumer material is defined as “a finished material which would have been disposed of as a solid waste, having completed its life cycle as a consumer item, and does not include manufacturing wastes.” This is material such as newspaper that you read and was recycled and then made into recycled-content newsprint or some other recycled product. Postconsumer material is generally any product that was bought by the consumer, used, and then recycled into another product.

4. Secondary material is defined as “fragments of finished products or finished products of a manufacturing process, which has converted a resource into a commodity of real economic value, and includes postconsumer material, but does not include excess virgin resources of the manufacturing process.” This is material such as newsprint that is trimmed from a roll in the paper plant that is returned to the beginning of the process to make recycled-content newsprint. The material (product) did not get to the consumer before being recycled.

   For example, if a printing and writing paper contained 20 percent postconsumer material, you would indicate 20 percent in the postconsumer column and 80 percent in the virgin column. If the product had 40 percent secondary material and 20 percent postconsumer material, you would indicate 40 percent in the secondary column, 20 percent in the postconsumer column, and 40 percent in the virgin column. To meet the 50/10

content requirement of another product category, the product would contain 50 percent recycled-content (40 percent secondary and 10 percent postconsumer material) and 50 percent virgin material.

5. The sum of the virgin column, the postconsumer column, and the secondary column must equal 100 percent.

Note: Products that are made from multiple material types should be reported in the product category of the material type representing most of the product. The amount of material used in the product can be measured by weight or volume. If, for instance, a chair is made from steel, aluminum, and plastic and most of the material, either by weight or volume, is plastic, report it as a plastic product. If, however, most of the product, either by weight or volume, is metal, report the purchase as a metal product.

State Agency Buy Recycled Campaign Procurement Summary

Attach copies of the recycled-content certification form(s) and/or other documentation for each product that contains any amount of recycled material.

CONTRACTOR'S / VENDOR'S NAME: XYZ CONTRACTORS **DATE:** FEBRUARY 5, 2019

ADDRESS: 4300 PLEASANT VALLEY DR., LINCOLN LOGS, CA 95000 **PROJECT DIRECTOR:** (AS NAMED)

PHONE: (XXX) XXX-XXXX **FAX**: (XXX) XXX-XXXX

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
Product Category[1]	**All Reportable Purchases (QUANTITY)[2]**	**All Reportable Purchases (DOLLARS)[3]**	**RCP Purchases (QUANTITY)[4]**	**RCP Purchases (DOLLARS)[5]**	**Percent of RCP (QUANTITY)[6]**	**Percent of RCP (DOLLARS)[7]**
Paper products		$ 18,000.00		$ 12,500.00		70%
Printing and writing paper		$ 0.00		$0.00		0%
Mulch, compost and cocompost	0(cu yd)	$ 0.00	0(cu yd)	$ 0.00	0%	0%
Glass products		$ 35,000.00		$ 5,000		14%
Lubricating oils	0(gal)	$ 0.00	0(gal)	$ 0.00	0%	0%
Plastic products		$ 4,000.00		$ 1,500.00		38%
Paint	300(gal)	$ 8,000.00	300(gal)	$ 0.00	0%	0%
Antifreeze	0(gal)	$ 0.00	0(gal)	$ 0.00	0%	0%
Tires	0	$ 0.00	0	$ 0.00	0%	0%
Tire-derived products		$ 2,000.00		$ 2,000.00		100%
Metal		$ 11,000.00		$ 6,000.00		54%
		Total[8]: $ 78,000		**Total[9]: $ 27,000**		**Total[10]: 34.6%**

EXAMPLE

(See footnotes on the back of this page.)

EXAMPLE

Footnotes

Attach copies of the recycled-content certification forms and/or other documentation for each product.

Note: All purchases within these product categories, regardless of the source of the product or the type of contract used to purchase them, should be included in your report. Include **all** product purchases — RCPs and non-RCPs.

1. Include **all** purchases (RCPs and non-RCPs) within the 11 product categories. RCPs outside of the 11 product categories **cannot** be counted toward attaining the procurement goals, and are not reportable.
2. Indicate the quantity (units) of **all** purchases (RCPs and non-RCPs) in each product category during the course of the project. Quantities do not need to be reported for the product categories with shading.
3. Indicate the total dollars spent on **all** purchases (RCPs and non-RCPs) in each product category purchased during the course of the project.
4. Indicate the total quantity (units) of RCPs purchased during the course of the project. Quantities do not need to be reported for the product categories with shading.
5. Indicate the total dollars spent on RCPs during the course of the project for each category.
6. Indicate the percentage of RCPs purchased. The percent recycled is calculated by dividing the figure in column 4 by the figure in column 2 and multiplying by 100. Percentages do not need to be calculated for the product categories with shading.
7. Indicate the percentage of total dollars spent on RCPs in each category. The percent recycled is calculated by dividing the figure in column 5 by the figure in column 3 and multiplying by 100.
8. The total of column 3 should be equivalent to the total estimated dollars spent on **all** products (RCPs and non-RCPs) during the course of the project.
9. The total of column 5 should be equivalent to the estimated total dollars spent on reportable RCPs during the course of the project.
10. Column 7 is calculated by dividing the figure in column 5 by the figure in column 3 and multiplying by 100.

EXAMPLE

PROJECT NAME: _____ PROJECT NO.: 00000000008666

State Agency Buy Recycled Campaign Procurement Summary

Attach copies of the recycled-content certification form(s) and/or other documentation for each product that contains any amount of recycled material.

CONTRACTOR'S / VENDOR'S NAME: _____ **DATE:** _____

ADDRESS: _____ **PROJECT DIRECTOR:** _____

PHONE: _____ **FAX:** _____

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
Product Category[1]	**All Reportable Purchases (QUANTITY)[2]**	**All Reportable Purchases (DOLLARS)[3]**	**RCP Purchases (QUANTITY)[4]**	**RCP Purchases (DOLLARS)[5]**	**Percent of RCP (QUANTITY)[6]**	**Percent of RCP (DOLLARS)[7]**
Paper products		$		$		%
Printing and writing paper		$		$		%
Mulch, compost and cocompost	(cu yd)	$	(cu yd)	$	%	%
Glass products		$		$		%
Lubricating oils	(gal)	$	(gal)	$	%	%
Plastic products		$		$		%
Paint	(gal)	$	(gal)	$	%	%
Antifreeze	(gal)	$	(gal)	$	%	%
Tires		$		$	%	%
Tire-derived products		$		$		%
Metal		$		$		%
		Total[8]: $ _____		**Total[9]: $ _____**		**Total[10]: _____%**

(See footnotes on the back of this page.)

Footnotes

Attach copies of the recycled-content certification worksheets and/or other documentation for each product.

Note: All purchases within these product categories, regardless of the source of the product or the type of contract used to purchase them, should be included in your report. Include **all** product purchases — RCPs and non-RCPs.

1. Include **all** purchases (RCPs and non-RCPs) within the 11 product categories. RCPs outside of the 11 product categories **cannot** be counted toward attaining the procurement goals, and are not reportable.
2. Indicate the quantity (units) of **all** purchases (RCPs and non-RCPs) in each product category during the course of the project. Quantities do not need to be reported for the product categories with shading.
3. Indicate the total dollars spent on **all** reportable purchases (RCPs and non-RCPs) in each product category purchased during the course of the project.
4. Indicate the total quantity (units) of reportable RCPs purchased during the course of the project. Quantities do not need to be reported for the product categories with shading.
5. Indicate the total dollars spent on reportable RCPs during the course of the project for each category.
6. Indicate the percentage of reportable RCPs purchased. The percent recycled is calculated by dividing the figure in column 4 by the figure in column 2 and multiplying by 100. Percentages do not need to be calculated for the product categories with shading.
7. Indicate the percentage of total dollars spent on reportable RCPs in each category. The percent recycled is calculated by dividing the figure in column 5 by the figure in column 3 and multiplying by 100.
8. The total of column 3 should be equivalent to the total estimated dollars spent on **all** reportable products (RCPs and non-RCPs) during the course of the project.
9. The total of column 5 should be equivalent to the estimated total dollars spent on reportable RCPs during the course of the project.
10. Column 7 is calculated by dividing the figure in column 5 by the figure in column 3 and multiplying by 100.

SECTION 01 74 23

CLEANING

PART 1 - GENERAL

1.01 DESCRIPTION

A. Perform cleaning and disposal work as specified, complete. This Section forms a part of all other Sections of the specifications and shall be coordinated with such additional cleaning and disposal requirements as may be specified in other Sections.

1.02 RELATED REQUIREMENTS

A. Document 00 72 00: General Conditions of the Contract for Construction; Paragraph 3.16, Cleaning Up.

B Section 01 74 19: Construction Waste Management.

C. Pertinent Specification Sections: Specific requirements for cleaning.

1.03 CLEANING IN GENERAL

A. Contractor shall at all times keep premises free from accumulations of waste material or rubbish caused by Contractor’s employees or work, or employees or work of subcontractors, and shall remove rubbish from and about areas of Work and Contractor’s and subcontractors' tools, scaffolding and surplus materials and shall leave the Work "broom clean", or its equivalent, except as hereinafter specified. In case of dispute between Contractor and other contractors employed on or about the work areas, as to responsibility for removal of rubbish, etc., or in case debris is not promptly removed as herein required, the State may remove rubbish, etc., and backcharge the Contractor.

B. At all times, Project working area and site shall be kept clean and orderly. Dirt, debris, waste, rubbish and disused implements and equipment shall be removed frequently and not allowed to accumulate more than 24 hours. Flammable and toxic materials shall not be stored in structures.

1.04 FINAL CLEANING

A. Within Contract limits, clean interior and exterior surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.

1. Clean equipment and fixtures to sanitary condition, clean or replace filters of mechanical equipment.

B. Clean site: Sweep paved areas, rake clean other surfaces.

C. Remove waste and surplus materials, rubbish and construction facilities from Project and from site.

D. Dust, dirt, stains, hand marks, paint spots, and like defects shall be completely removed from surfaces. Metal surfaces shall be cleaned, using only non-corrosive and non-abrasive materials.

E. Final Inspection: Deficient cleaning operations, as determined by the State, shall be immediately corrected as directed.

1.05 DISPOSAL

A. Under no circumstances shall rubbish or waste material be disposed of in site fills or backfills. Debris, rubbish, and waste or surplus material shall be removed from the State property daily and legally disposed of.

END OF SECTION

SECTION 01 75 00

STARTING AND ADJUSTING

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Procedures for starting of systems, including the following:

1. Heating, Ventilating, and Air Conditioning

1.02 RELATED SECTIONS

A. Section 01 33 00: Submittal Procedures.

B. Section 01 79 00: Demonstration and Training.

C. Section 01 86 19: Testing, Adjusting, and Balancing Procedures.

E. Section 23 05 00: Heating, Ventilating, and Air Conditioning Equipment.

1.03 QUALITY CONTROL

A. When so specified in individual Sections, require manufacturer to provide authorized representative to be present at Project site to inspect, check, and approve equipment installation prior to start-up; to supervise placing of equipment in operation; and to provide written report that equipment has been properly installed and lubricated, is in accurate alignment, is free from any undue stress imposed by connecting lines or anchor bolts, and has been satisfactorily operated under full load conditions.

1.04 SUBMITTALS

A. Sequencing Schedule: Submit preliminary schedule listing times and dates for start-up of each item of equipment, in sequence, two weeks prior to proposed dates. Approved Schedule shall be the sequencing schedule.

B. Reports: Submit manufacturer representative's reports within one week after start-up, listing start-up dates.

1.05 PROJECT CONDITIONS

A. Ensure building is enclosed and weathertight.

B. Ensure excess packing and shipping bolts are removed.

C. Ensure interdependent systems have been checked and are operational.

1.06 INSPECTION

A. Verify that Project conditions comply with specified and manufacturer's requirements.

B. Verify that status of work meets requirements for start-up of equipment and systems.

1.07 PREPARATION

A. Coordinate sequence of start-up for various items of equipment.

B. Notify the State Inspector 7 days prior to start-up of each item of equipment.

C. Have Contract Documents, shop drawings, product data, and operation and maintenance data at hand during entire start-up process.

D. Verify that each piece of equipment has been checked for proper lubrication, drive rotation, belt tension, control sequence and other conditions which may cause damage.

E. Verify control systems are fully operational in automatic mode.

F. Verify that tests, meter readings, and specific electrical characteristics agree with those specified by electrical equipment manufacturer.

G. Verify wiring to motors and controls, required by mechanical work for operational smoke and fire protection demonstrations, is complete.

H. Bearings: Inspect for cleanliness; clean and remove foreign matter. Verify alignment and take corrective measures, if required.

I. Drives: Inspect for tension on belt drives, adjustment of varipitch sheaves and drives, alignment, proper equipment speed and cleanliness. Take corrective measures, if required.

J. Motors: Verify that motor amperage agrees with nameplate value. Inspect for conditions which produce excessive current flow and which exist due to equipment malfunction. Take corrective measures, if required.

1.08 STARTING SYSTEMS

A. Execute start-up under supervision of Contractor's personnel; or manufacturer's representative when so specified.

B. Place equipment for operation in proper sequence, in accordance with approved sequencing schedule.

END OF SECTION

SECTION 01 77 00

CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

A. Closeout Procedures.

B. Project Record Documents.

C. Operation and Maintenance Data.

D. Guaranties, Warranties and Bonds.

E. Spare Parts and Maintenance Materials.

F. Certification of Recycled Content.

G. Waste Management Report.

H. Certification of Small Business/Disabled Veteran Business Enterprise Participation

1.02 RELATED REQUIREMENTS

A. Documents 00 72 00 and 00 73 00: General Conditions of the Contract for Construction, and Supplementary Conditions: Fiscal provisions, legal submittals and other administrative requirements.

B. Section 01 11 00: Summary.

C. Section 01 32 33: Construction Photographs; submittal of digital files and video with Project Record Documents.

D. Section 01 33 00: Submittal Procedures.

E. Section 01 51 00: Temporary Facilities and Controls.

F. Section 01 74 19: Construction Waste Management and Appendix 01 74 19.2, Waste Management Report.

G. Section 01 74 20: Recycled Content Certification.

H. Section 01 74 23: Cleaning.

1.03 CLOSEOUT PROCEDURES

A. Comply with procedures stated in General Conditions of the Contract for Construction, Document 00 72 00, Article 8, for final inspection, Completion of the Work and Acceptance of the Work, payment and retention procedures.

B. Contractor shall start developing and completing punch list items a minimum of 30 calendar days prior to the end of the Contract Time as specified in Section 01 32 16, Article 1.03.

C. When Contractor considers the Work complete, the Contractor shall request, in writing, a final inspection to be conducted by the State. The State Representative shall conduct a final inspection within 14 days of receipt of the written request. Prior to requesting a final inspection, the Contractor shall have the entire Work completed in accordance with all Contract Requirements, including, but not limited to, all punch list items, and submittal of all documents and products listed in this section and other sections of the Project Manual. It is recommended that the Contractor request the final inspection as early as possible, and prior to the end of Contract Time, to allow for completion of punch list items discovered to be incomplete during the final inspection and for a final re-inspection, to avoid assessment of liquidated damages.

D. The date of Completion of the Work and Acceptance of the Work will be determined as specified in Document 00 72 00, Article 8.6.

E. Final cleaning shall be completed prior to occupancy or requesting a final inspection, whichever comes first. Refer to Section 01 74 23, Cleaning.

1.04 PROJECT RECORD DOCUMENTS ("AS-BUILTS")

A. Maintain, on current basis, record drawings showing "as-built" conditions of project; subject to monthly review by State Inspector. The State will furnish reproducible prints to Contractor, who shall transfer installed locations to reproducible prints and submit prints for review by the State. Monthly pay estimates will not be processed without review and approval of record drawings by State Inspector. Final inspection will not be scheduled until reproducible record drawings are turned over to State Inspector.

B. Store Project record documents separate from those used for construction.

C. At time of installation, installed locations of work relating to aboveground and underground utilities, architectural, structural, heating, ventilation, air conditioning, plumbing, electrical, and other scopes of work as may be required, shall be recorded on prints by Contractor, and reviewed with State Inspector. Do not conceal work until required information is recorded.

1. Information entered on reproducible prints shall be neat, legible, and emphasized by drawing "balloons" around changed items.

2. Symbols and designations used in preparing record drawings shall match those used in Contract Drawings.

3. Locate and dimension work, including stubs for future connections, with reference to permanent landmarks or buildings and indicate approximate depth below finish grade.

D. Prior to requesting a final inspection, submit Project record documents with transmittal letter containing date, Project title, Contractor's name and address, list of documents and signature of Contractor.

1.05 OPERATION AND MAINTENANCE DATA

A. Provide data for Sections as required by the Contract Documents; including:

1. Mechanical Equipment and Controls - Division 23.
2. Electrical Equipment and Controls - Division 26.

B. Submit 5 sets of operating/maintenance manuals prior to requesting a final inspection, bound in 8-1/2 x 11 inch three ringside binders with durable plastic covers; with identification on, or readable through, front cover stating general nature of manual.

C. Provide separate volume for each system, with table of contents and index tabs for each volume; all material neatly typewritten; each volume containing:

1. Part 1: Directory, listing names, addresses and telephone numbers of Project Director, State Inspector and Contractor; and index furnishing complete information as to location in manual of emergency data regarding installation.

2. Part 2: Operation and maintenance instructions, arranged by system. For each system, give names, addresses and telephone numbers of subcontractors and suppliers; and include the following:
   a. Appropriate design criteria.
   b. List of equipment.
   c. Parts list; including complete nomenclature, current costs, and names and address of nearest vendor of parts.
   d. Detailed operating instructions.
   e. Maintenance instructions, equipment, including routine maintenance cards with time frequency of routine maintenance noted.
   f. Maintenance instructions, finishes.
   g. Shop drawings and product data, including changes made during construction.
   h. Copies of Guaranties/Warranties.

D. Extraneous Data: Where contents of manuals include manufacturers' catalog pages, clearly indicate precise items included in this installation and delete, or otherwise clearly indicate, manufacturer's data with which this installation is not concerned.

E. Final inspection will not be scheduled until operation/maintenance manuals are delivered to the State Inspector.

1.06 GUARANTIES, WARRANTIES AND BONDS

A. Standard Guaranty: Guarantee Work executed under this Contract to be free of defects of workmanship and materials for a period of one year after the date of Completion of the Work. Refer to General Conditions of the Contract for Construction, Document 00 72 00, Article 3.5. Submittal is not required for standard one year guaranty for Work of this project.

B. Additional Guaranties/Warranties: Provide additional guaranties/warranties (in excess of one year) where specifically required by pertinent Specification Sections. The start date of the Guaranty will commence on the date of Completion of the Work as established by the State Representative.

1. Provide duplicate, notarized copies. Execute Contractor's submittals and assemble documents executed by subcontractors, suppliers and manufacturers. Provide table of contents and assemble in binder with durable plastic cover.

2. Submit guaranties/warranties prior to requesting a final inspection.

C. For equipment put into use with State's permission during construction, submit guaranties/warranties within 10 days after first operation.
D. This Project includes separate buildings connections and the Guarantee will commence as specified in Document 00 72 00, Article 8.5.2.

1.07 SPARE PARTS AND MAINTENANCE MATERIALS

A. Provide products, spare parts, and maintenance materials in quantities specified in each Section, in addition to that used for construction of work. Coordinate with State Inspector; deliver to Project site, and obtain a receipt.

1.08 CERTIFICATION OF RECYCLED CONTENT

A. Refer to General Conditions of the Contract for Construction, Document 00 72 00, Article 3.21, Certification by Contractor of Recycled Content and to Section 01 74 20, Recycled Content Certification, for final submittal of the State Agency Buy Recycled Campaign (SABRC) Procurement Report.

B. Final Submittal: Upon completion of all construction submittals, and prior to requesting a final inspection, submit the form provided by the State. The summary shall show totals for all purchases of material, goods, or supplies offered or products used in the performance of Work of this Contract; that are from one of the eleven (11) product categories defined in Section 01 74 20. Attach supporting documentation for materials, goods, supplies, or products that contain any amount of recycled materials.

C. Final inspection will not be scheduled until the completed final SABRC Procurement Summary with supporting documentation is submitted by Contractor and received by the State.

1.09 WASTE MANAGEMENT REPORT

A. Upon completion of Work, and prior to requesting a final inspection, submit an itemized Waste Management Report summarizing the waste generated, sent to landfill, reused, and recycled which is attributed to Work of this Project.

B. Refer to Section 01 74 19, Construction Waste Management, and Appendix 01 74 19.2, Waste Management Report.

C. Final inspection will not be scheduled until completed Waste Management Report is submitted by Contractor and received by the State.

1.10 CONTRACTOR'S CERTIFICATION OF DISABLED VETERAN BUSINESS ENTERPRISE (DVBE) PARTICIPATION

A. Upon Completion of the Work, together with a Final Payment Application, the Contractor shall submit complete and accurate Form STD 817 “Prime Contractor’s Certification – DVBE Subcontracting Report”. The State shall review the Form STD 817, and if it is determined to be complete and accurate, the payment will be authorized.

B. If the Form STD 817 is late or determined to be incomplete or inaccurate, the State shall withhold ten thousand dollars ($10,000) from the final payment, or the full final payment if less

than ten thousand dollars ($10,000), and provide the Contractor with a notice allowing at least 15 days, but not more than 30 days to cure the defect.

1. If the Contractor does not comply by the deadline identified in the Cure Notice, the State shall permanently deduct the ten thousand dollars ($10,000) from the final payment, or the full final payment if less than ten thousand dollars ($10,000).

1.11 CONTRACTOR'S CERTIFICATION OF SMALL BUSINESS (SB) PARTICIPATION

A. If final payment has been made to Small Business, upon Completion of the Work, Contractor shall submit the two-page certification, "Contractor’s Certification of SB Participation” located in Section 01 77 00, Appendix A.

B. If retention has been withheld and final payment to Small Business subcontractors will not be made until the Contractor has received Final Payment from the State, Contractor shall: 1. upon completion of the Work submit the two-page certification, "Contractor’s Certification of SB Participation” located in Section 01 77 00, Appendix A; and mark the box entitled “PRELIMINARY REPORT” 2. within 30 days of receipt of Final Payment submit an updated report and mark the box entitled “FINAL REPORT”.

C. When completing the Certification, the Contractor shall include all Small Business even if the firms were not listed at bid time when completing percentage calculations. If SB utilization was different than that approved in original agreement, provide comments. The second page of the Certification may be copied as needed to list all firms.

END OF SECTION

State of California
Department of General Services - Procurement Division
Prime Contractor's Certification - DVBE Subcontractor Report
STD 817, Formerly DGS PD 810P

STATE DEPARTMENT AND CONTRACT INFORMATION

State Department Information		Contract Information		Prime Contractor Information:		FOR STATE USE ONLY	
State Department Name:		Contract #:		Name:		Date Received:	
State Department Address:		FI$Cal Supplier ID#:		Address:			
Contract Manager Name:		Contract Execution Date:		Phone #:			
Contract Manager Phone #:		Date Work Completed:		Email:			
Contract Manager Email Address:		Contract Award Amount:		Date Last Payment Received:			
				Contract Received Amount:			

SECTION 3 — List all Disabled Veteran Business Enterprise firms involved with this contract.

	(A) DVBE Subcontractor(s) Name	(B) DVBE Subcontractor(s) Address	(C) DVBE Certification ID Number	(D) Total Contract Commitment Percentage to DVBE	(E) Total Contract Commitment Amount to DVBE	(F) Total Payment Amount to DVBE	(G) Difference in Amount Paid to DVBE (F - E)	(H) Percentage Paid to DVBE (F/Contract Received Amount)
Number of DVBE Subcontractors			Grand Total		$ 0.00	$ 0.00	$ 0.00	0.00%
1.				0.00%			0.00	0.00%
2.				0.00%			0.00	0.00%
3.				0.00%			0.00	0.00%
4.				0.00%			0.00	0.00%
5.				0.00%			0.00	0.00%
6.				0.00%			0.00	0.00%
7.				0.00%			0.00	0.00%
8.				0.00%			0.00	0.00%
9.				0.00%			0.00	0.00%
10.				0.00%			0.00	0.00%
11.				0.00%			0.00	0.00%
12.				0.00%			0.00	0.00%
13.				0.00%			0.00	0.00%
	(I) Comments/Explanations							

Use next page for additional lines

I certify under penalty of perjury under the laws of the State of California that all information submitted is true and correct.

Prime Contractor	Print Name:		Date:	
	Title:			
	Signature:			

Return upon completion of contract.

Americans with Disabilities (ADA) Notice: Persons with disabilities requiring reasonable modifications should contact the OSDS Report Coordinator at OSDSReports@dgs.ca.gov

State of California
Department of General Services - Procurement Division
Prime Contractor's Certification - DVBE Subcontractor Report
STD 817, Formerly DGS PD 810P

STATE DEPARTMENT AND CONTRACT INFORMATION

State Department Information		Contract Information		Prime Contractor Information		FOR STATE USE ONLY	
State Department Name:		Contract #:		Name:		Date Received:	
State Department Address:		FI$Cal Supplier ID#:		Address :			
Contract Manager Name:		Contract Execution Date:		Phone #:			
Contract Manager Phone #:		Date Work Completed:		Email:			
Contract Manager Email Address:		Contract Award Amount:		Date Last Payment Received:			
				Contract Received Amount:			

List all Disabled Veteran Business Enterprise firms involved with this contract.

	(A) DVBE Subcontractor(s) Name	(B) DVBE Subcontractor(s) Address	(C) DVBE Certification ID Number	(D) Total Contract Commitment Percentage to DVBE	(E) Total Contract Commitment Amount to DVBE	(F) Total Payment Amount to DVBE	(G) Difference in Amount Paid to DVBE (F - E)	(H) Percentage Paid to DVBE (F/Contract Received Amount)
	Number of DVBE Subcontractors		**Total**		$ 0.00	$ 0.00	$ 0.00	0.00%
14.				0.00%			0.00	0.00%
15.				0.00%			0.00	0.00%
16.				0.00%			0.00	0.00%
17.				0.00%			0.00	0.00%
18.				0.00%			0.00	0.00%
19.				0.00%			0.00	0.00%
20.				0.00%			0.00	0.00%
21.				0.00%			0.00	0.00%
22.				0.00%			0.00	0.00%
23.				0.00%			0.00	0.00%
24.				0.00%			0.00	0.00%
25.				0.00%			0.00	0.00%
26.				0.00%			0.00	0.00%
27.				0.00%			0.00	0.00%
28.				0.00%			0.00	0.00%
29.				0.00%			0.00	0.00%
30.				0.00%			0.00	0.00%
31.				0.00%			0.00	0.00%
32.				0.00%			0.00	0.00%
33.				0.00%			0.00	0.00%
34.				0.00%			0.00	0.00%
35.				0.00%			0.00	0.00%
36.				0.00%			0.00	0.00%

Attach copies of this page for additional lines

I certify under penalty of perjury under the laws of the State of California that all information submitted is true and correct.

Americans with Disabilities (ADA) Notice: Persons with disabilities requiring reasonable modifications should contact the OSDS Report Coordinator at OSDSReports@dgs.ca.gov

Form Completion Instructions

GENERAL INFORMATION: Military and Veteran Code (MVC) 999.5(d), 999.7 and Government Code (GC) 14841, and California Code of Regulations (CCR) 1896.78(e) requires all Prime Contractors that committed to have a Disabled Veteran Business Enterprise (DVBE) perform an element of work for a contract to report DVBE subcontractor participation information and certify to the state that all DVBE subcontracting payments were made. Departments are required to withhold $10,000 from the final payment, or the full payment if less than $10,000, on contracts until the Prime Contractor complies with the certification requirements by submitting this form.

If prime contractors do not comply with the requirements after given notice to cure by the state departments, the withheld amount will be permanently deducted.

All contracted work must be completed before submission of invoice(s) and this certification form.

Prime Contractors are required to maintain records supporting the information submitted on this form and that all payments to DVBE subcontractor(s) were made. Upon request, proof of payment must be provided (MVC 999.5(d)).

INCLUDE

- **ONLY ONE contract per Report**
- **All DVBEs that performed an element of work for this contract regardless of tier**

State Department Information:

State Department Name: Enter the State Department name

State Department Address: Enter the State Department address

Contract Manager Name: Enter the Contract Manager name

Contract Manager Phone Number: Enter the Contract Manager phone #

Contract Manager Email Address: Enter the Contract Manager email address

Contract Information

Contract Number: Enter the Contract Number

Contractor's FI$Cal Supplier ID Number: Enter your FI$Cal supplier ID number

Contract Execution Date: Enter the date contract was signed

Date Work Completed: Enter the date the work was completed on the contract

Contract Award Amount: Enter the total dollar amount awarded for this contract including all financial amendments

State of California
Department of General Services Procurement Division
Prime Contractor's Certification - DVBE Subcontracting
Report STD 817, Formerly DGS PD 810P
(Rev. 10/2021)

Form Completion Instructions

Prime Contractor Information:

Prime Contractor Name: Enter your name as shown on the contract

Prime Contractor Address: Enter your address

Phone Number: Enter your number (with area code)

Email Address: Enter your email address

Date Last Payment Received: Enter the date the last payment for work performed was received

Contract Received Amount: Enter the dollar amount of the last payment received

For State Use Only

Date STD 817 Received: Enter date the Contract Manager received the STD 817 from the Prime Contractor

TABLE INSTRUCTIONS

A) DVBE Subcontractor(s) Name: Enter the name of all DVBEs that are listed to perform an element of work or supplies for this contract and any formal approved substitution(s). (Use additional lines if the name does not fit on a single line) Use page two for additional lines.

B) DVBE Subcontractor(s) Address: Enter the address of each DVBE (Use page 2 for additional lines if address does not fit on a single line)

C) DVBE Certification ID Number: Enter each DVBE's certification number

D) Total Contract Commitment Percentage to DVBE: Enter the total percentage of contracted dollars to each DVBE at the time of award

E) Total Contract Commitment Amount to DVBE: Enter the entire amount contracted to each DVBE at the time of award

F) Total Payment Amount to DVBE: Enter the total amount paid to all DVBEs that performed an element of work or were suppliers for this contract

Form Completion Instructions

G) **Difference in Amount Paid to DVBE**: The form will compute the difference of DVBE dollars contracted compared to dollars paid

H) **Percentage Paid to DVBE:** The form will compute the percentage paid to DVBEs using the Contract Received Amount entered under State and Contract Information

Instructions I

I) **Comments/Explanations:** Enter any relevant comments and explanations for any differences between the DVBE amounts or percentages committed and paid. Reference the line number if comments and explanations are used.

SIGNATURE BLOCK

Prime Contractor's Signature: Enter your printed name, title, sign with an electronic signature or a wet signature, and date

Note: Complete and accurate certifications are due upon completion of contract.

CONTRACTOR'S CERTIFICATION OF SB PARTICIPATION

TO: Real Estate Services Division (Construction Services Area Office Address)	Date:
	Project Number:
	Contract Number:

FROM:

PROJECT TITLE:

THIS IS TO CERTIFY THAT I, _____
(Print Name)

AS AN AUTHORIZED OFFICIAL OF _____
(Firm or Corporation)

WORKING IN THE CAPACITY OF _____
(Title)

AND HAVE BEEN PROPERLY AUTHORIZED BY SAID FIRM OR CORPORATION TO SIGN THE FOLLOWING STATEMENT PERTAINING TO SUBJECT CONTRACT.

Pursuant to Section 14841 of the Government Code,

I, the undersigned, hereby certify that to the best of my knowledge, the Small Business participation information listed on the attached report for the above contract is complete and correct.

SIGNED: DATE:

☐ **PRELIMINARY REPORT**

CONTRACTOR'S CERTIFICATION OF SB PARTICIPATION

☐ **FINAL REPORT**

CONTRACT NUMBER	PROJECT NUMBER	CONTRACT COMPLETION DATE	CONTRACT ACCEPTANCE DATE

PRIME CONTRACTOR	ORIGINAL CONTRACT AMOUNT	FINAL CONTRACT AMOUNT

DESCRIPTION OF WORK PERFORMED AND MATERIALS PROVIDED	SB BUSINESS NAME AND ADDRESS	SB CERT. NO.	SB CONTRACT PAYMENTS			
			PAYMENT AMOUNT	DATE WORK COMPLETED	DATE OF FINAL PAYMENT	COMMENTS
		TOTAL $				

ORIGINAL SMALL BUSINESS COMMITMENT: _____%

ACTUAL SMALL BUSINESS ACHIEVED: _____%

SECTION 01 79 00

DEMONSTRATION AND TRAINING

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Procedures for demonstration of equipment and systems operation and instruction of up to 15 State personnel.

1.02 RELATED SECTIONS

A. Section 01 11 00 - Summary: Work sequencing.

B. Section 01 32 16: Progress Schedule and Reports.

C. Section 01 75 00: Starting and Adjusting.

D. Section 01 77 00 - Closeout Procedures: Operation and maintenance data.

E. Section 01 91 00: Commissioning.

F. Section 01 86 19: Testing, Adjusting, and Balancing Procedures.

G. Individual Sections: Specific requirements for demonstrating equipment and systems.

1.03 QUALITY ASSURANCE

A. When so specified in individual Sections, provide demonstration and instruction to State personnel, performed by a representative approved by the equipment or system manufacturer. (

B. Demonstration and instruction shall be specific to each type of equipment or system supplied by the manufacturer. At a minimum, demonstration and instruction shall include: operational theory; maintenance; trouble shooting/repair; and calibration.

C. State will provide list of personnel to receive instructions and will coordinate their attendance at agreed upon times.

1.04 SUBMITTALS

A. Submit preliminary schedule for State's approval, listing times and dates for demonstration and instruction of each item of equipment and each system, 3 weeks prior to proposed dates.

B. Submit proposed training materials and a detailed outline of each demonstration and instruction at least 30 days in advance of training.

C. Submit reports within one week after completion of demonstrations indicating that demonstrations and instructions have been satisfactorily completed. List time and date of each demonstration and hours devoted to demonstration and instruction, and list names of persons present.

D. Submit digital recording with audio of demonstrations and instructions with each report.

1.05 PREPARATION

A. Verify equipment and systems have been inspected and put into operation in accordance with Section 01 75 00 or 01 91 00; testing, adjusting and balancing has been performed in accordance with Section 01 79 00, and equipment and systems are fully operational.

B. Furnish training materials, books, etc. to each student attending the training classes and have copies of completed operation and maintenance manuals at hand for use in demonstrations and instructions.

1.06 DEMONSTRATION AND INSTRUCTIONS

A. Prior to acceptance of equipment or systems, demonstrate operation and maintenance of equipment and systems to State's personnel as scheduled.

B. Use operation and maintenance manuals as basis of instruction. Review contents of manual with personnel in detail to explain all aspects of operation and maintenance.

C. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance and shutdown of each item of equipment or system at agreed upon times, at equipment or system location.

D. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instructions.

E. Provide digital recording with audio of demonstrations and instructions. Recording shall clearly show equipment or systems as they are being described. Audio portion of recording shall include entire session narrative, including questions and answers.

F. All demonstrations and training described in this section and all other sections shall take place and be completed prior to the Contractor requesting a final inspection.

1.07 TIME ALLOCATED FOR INSTRUCTIONS

A. Amount of time required for instruction on each item of equipment and system shall be as specified in individual Sections.

END OF SECTION

SECTION 01 86 00

PLANT PERFORMANCE CRITERIA AND ACCEPTANCE TEST PROGRAM

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Prepare performance acceptance test procedures.

B. Complete performance acceptance test program.

C. Prepare calculations documenting satisfactory completion of performance acceptance test.

1.02 RELATED SECTIONS

A. Section 01 33 0: Submittal Procedures.

B. Section 01 77 00: Closeout Procedures.

C. Section 01 91 00: Commissioning.

1.03 REFERENCES

A. ASME Power Test Codes.

B. Air Conditioning and Refrigeration Institute (ARI).

1.04. SUBMITTALS

C. Instrument Calibration Documentation: Submit proof of instrument calibration and predicted accuracy to State for instrumentation to be used for Performance Acceptance Test. Submit documentation at least 2 weeks prior to commencement of Performance Acceptance Test.

D. Performance Acceptance Test Data and Calculations: Following successful completion of Performance Acceptance Test, submit test data and calculations demonstrating that all Performance Acceptance Criteria have been achieved. Submittal shall include all raw data collected during test period and a clear explanation of Contractor's calculations.

PART 2 – PRODUCTS

Not Used.

PART 3 - EXECUTION

3.01 GENERAL

A. Contractor shall be responsible for conducting performance tests to verify attainment of minimum performance criteria. Performance test shall be successfully completed to the satisfaction of the State as a condition of project completion.

3.02 PREPARATION

A. Complete installation, hydrotest, flush, functionally test, and place into operation equipment and systems for cogeneration plant and chiller system prior to commencement of Performance Acceptance Test.

B. Prepare proposed Performance Acceptance Test Procedures and submit to State for review and approval. Test procedures shall conform generally to procedures specified in the applicable ASME Power Test Code, or ARI Test Code.

C. Calibrate instrumentation to be used in each Performance Acceptance Test and submit proof of calibration to State.

D. Following completion of items A through D, provide 2 weeks notice to State prior to commencement of Performance Acceptance Tests.

3.03 EXECUTION

A. Cogeneration System: Conduct a Performance Acceptance Test to demonstrate reliability, electrical output, thermal output, efficiency, and air emissions of cogeneration system.

B. Chiller System: Conduct Performance Acceptance Tests to demonstrate reliability, electrical use, thermal output and efficiency of each chiller package system.\

Performance Acceptance (Factory) Test shall:

1. Demonstrate reliability, electrical use, thermal output, and efficiency of chiller system by maintaining Acceptance Criteria per requirements of ARI standards and these specifications for 100 percent of the time during a continuous 24 hour (1 day) period (factory tests). Values for Acceptance Criteria shall be met or bettered for all 24 hours during this period.

2. Demonstrate chilled water thermal output and reliability of each chiller system by maintaining Thermal Output for 30 days, (720 hours) while the chiller is operating at full rated conditions.

C. Measurements shall be made on calibrated devices installed as part of this Project. Accepted accuracy of instrumentation shall be plus or minus 2.0 percent.

END OF SECTION

SECTION 01 86 19

TESTING, ADJUSTING, AND BALANCING PROCEDURES

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Provide testing organization services under provisions specified in Section 01 45 29; for testing, adjusting, and balancing specified for systems in individual Sections, including the following:

1. Heating, Ventilating, and Air Conditioning.

1.02 RELATED REQUIREMENTS

A. Document 00 72 00: General Conditions of the Contract for Construction, General requirements for inspections, tests and approvals.

B. Document 00 73 00, Supplementary Conditions: Withholding of payment pending final completion of services through one full range of seasons.

C. Section 01 33 00: Submittal Procedures

D. Section 01 45 29: Testing Laboratory Services: Employment of testing agency(ies) and payment for services.

E. Section 01 75 00: Starting and Adjusting.

F. Section 01 75 00: Testing, Adjusting, and Balancing; Qualifications of testing organizations and specific services required.

1.03 SUBMITTALS

A. Prior to start of work, submit name of organization or personnel proposed to perform services. Designate managerial responsibilities for coordination of entire testing, adjusting, and balancing.

B. Submit documentation to confirm organization or personnel qualifications.

C. Submit 3 preliminary specimen copies of each report form proposed for use.

D. Prior to requesting a final inspection, submit 3 copies of final reports of testing, adjusting, and balancing performed to date. Submit reports of testing, adjusting, and balancing which is postponed due to seasonal, climatic, occupancy, or other reasons beyond Contractor's control, promptly after execution of those services.

1.04 PREPARATION

A. Provide instruments required for testing, adjusting, and balancing operations. Make instruments available to the State Inspector to facilitate spot checks during testing. Retain possession of instruments and remove upon completion of services.

B. Verify installation of system to be tested is complete and in continuous operation.

C. Verify ambient conditions and related facilities required to conduct testing, adjusting, and balancing are in full operation.

1.05 GENERAL PROCEDURES

A. Comply with procedural standards of certifying association under whose standards service will be performed.

B. Notify the State Inspector 3 days prior to beginning operations.

C. Accurately record data for each step.

D. Report to State Inspector defects or deficiencies noted during performance of services.

1.06 FINAL REPORTS

A. Organization having managerial responsibility shall make reports.

B. Each form shall bear signature of recorder and supervisor of reporting organization.

C. Identify each instrument used, and latest date of calibration of each.

1.07 CONTRACTOR RESPONSIBILITIES

A. Prepare each system for testing and balancing.

B. Cooperate with testing organization and provide access to equipment and systems. Operate systems at designated times, and under conditions required for proper testing, adjusting, and balancing.

C. Notify testing organization 7 days prior to time the system will be ready for testing, adjusting, and balancing.

END OF SECTION

SECTION 01 91 00

COMMISSIONING REQUIREMENTS

PART 1 – GENERAL

1.01 SECTION INCLUDES

A. Procedures for Pre-Functional Testing.

B. Procedures for Functional Performance Testing.

1.02 RELATED SECTIONS

A. Section 01 33 00: Submittal Procedures.

B. Section 01 75 00: Starting and Adjusting

C. Section 01 79 00: Demonstration and Training

D. Section 23 08 00: Mechanical Systems Commissioning

E. Division 23: Mechanical

1.03 DEFINITIONS

A. CxA: Commissioning Authority.

B. Commissioning Plan: A document that outlines the organization, schedule, allocation of resources, and documentation requirements of the commissioning process.

1.04 COMMISSIONING PROCESS

A. Commissioning is a comprehensive and systematic process to verify that the building systems perform as designed to meet the State's requirements. Commissioning during the construction and warranty phases is intended to achieve the following specific objectives:

1. Verify and document that energy related systems are installed, calibrated, and perform according to the Owner's Project Requirements (OPR), Basis of Design (BOD), and Contract Documents.

2. Verify and document that equipment is installed and started per manufacturer's recommendations and the technical specifications.

3. Verify and document that equipment and systems receive complete installation and operational checkout by installation Contractors.

4. Verify and document equipment and system performance.

B. The commissioning process shall meet the requirements as specified in the technical sections of this specification, including Section 23 08 00 Mechanical Systems Commissioning.

1.05 CONTRACTOR'S RESPONSIBILITIES

A. Contractor shall assign representative(s) with expertise and authority to act on its behalf and shall schedule them to participate in and perform commissioning process activities including, but not limited to, the following:

1. Cooperate with the State in the scheduling of activities to be included in the commissioning plan.

2. Cooperate with the State for resolution of issues recorded in the Commissioning Issues Log.

3. Attend commissioning team meetings as requested by the State including, but not limited to the following:

a. Cx Kick-off Meeting

b. Controls Coordination Meeting

c. Equipment Startup Sequencing/ Coordination Meeting

d. Testing and Air Balance (TAB) Coordination Meeting

e. Cx Progress Meetings

f. Pre-Training Meeting

g. Warranty Review Meeting

4. Integrate and coordinate commissioning process activities with the Official Progress Schedule.

5. The contractor shall conduct the Pre-Functional Testing as specified in the technical specifications.

6. Complete the Pre-Functional Checklists and submit to State when Checklists are completed.

7. The contractor shall conduct the Functional Tests as specified in the technical specifications.

8. Complete the commissioning process and Functional Performance Test procedures and requirements.

9. The commissioning process does not relieve the Contractor’s responsibility to provide fully finished and fully functioning systems.

PART 2 – PRODUCTS

2.01 TEST EQUIPMENT

A. Standard testing equipment required to perform startup and initial checkout and required to functional performance testing shall be provided by the Contractor.

B. Special equipment, tools, and instruments (only available from vendor, specific to a piece of equipment) required for testing or calibrating equipment shall become property of the State.

C. Testing equipment shall be of sufficient quality and accuracy to test and/or measure system performance with the tolerances specified. If not otherwise noted, the following minimum requirements apply:

1. Temperature sensors and digital thermometers shall have a certified calibration within the past year to the accuracy of ±0.5°F and a resolution of ±0.1°F.

2. Pressure sensors shall have an accuracy of ±0.2% of the value range being measured (not full range of meter) and have been calibrated within the last year.

D. All equipment shall be calibrated according to the manufacturer's recommended intervals and when dropped or damaged. Calibration tags shall be affixed and certificates readily available and submitted for record.

PART 3 - EXECUTION

3.01 START-UP, PREFUNCTIONAL CHECKLISTS AND INITIAL CHECKOUT

A. The following procedures apply to all equipment and systems that shall be commissioned, as listed in Section 23 08 00 Mechanical Systems Commissioning. Each piece of equipment shall receive pre-functional checkout. No sampling strategies are permitted. The pre-functional testing for a given system must be successfully completed prior to formal functional performance testing of equipment or subsystems of the given system.

B. Start-up and Initial Checkout Plan:

1. Contractor shall draft detailed start-up plans.

2. Submit draft detailed start-up plans to State for review.

3. Contractor shall collaborate with State's CxA to finalize start-up plans to be approved and issued by State's CxA.

4. Refer to the testing requirements in indiviual sections for additional requirements.

C. Execution of Pre-Functional Checklists and Startup.

1. Thirty-calendar days prior to startup, schedule startup and checkout with the State's CxA.

2. The performance of the pre-functional checklists, startup and checkout are directed and executed by Contractor.

3. Pre-functional checklists may require multiply signatures for verification of the completion of the work.

4. The State's CxA shall observe the procedures as follows:

    a. Observe each piece of equipment for single units

    b. For lower-level components of equipment, (e.g., VAV boxes, sensors, controllers), the State's CxA shall observe a sampling of the pre-functional and start-up procedures.

5. The Contractor shall execute startup and provide the State's CxA with a signed and dated copy of the completed start-up and pre-functional tests and checklists.

    a. Only individuals that have direct knowledge and witnessed that a line item task on the pre-functional checklist was actually performed shall initial or check that item off. It is not acceptable for witnessing supervisors to fill out these forms.

D. Deficiencies, Non-Conformance, and Approval of Checklists and Startup.

1. The Contractor shall clearly list any outstanding items of the initial start-up and pre-functional procedures that were not completed successfully. The procedures form and any outstanding deficiencies shall be provided to the State's CxA within two days of test completion.

2. The State's CxA shall review the report and submit either a non-compliance report or an approval form to the Contractor.

3. The Contractor shall correct all areas that are deficient or incomplete in the checklists and tests in a timely manner, and shall notify the State's CxA when outstanding items have been corrected and resubmit an updated start-up report and a Statement of Correction on the original non-compliance report.

4. When satisfactorily completed, the State's CxA shall approve the execution of the checklists and startup.

5. Items left incomplete, which later cause deficiencies or delays during functional testing are the responsibility of the Contractor.

3.02 PROCEDURES FOR FUNCTIONAL PERFORMANCE TESTING (FPT)

A. Contractor shall provide labor, equipment, and services to perform the functional performance testing.

B. Contractor shall provide a minimum of 30-calendar days notice prior to the start of the functional performance tests. Contractor shall provide workers required to make adjustments and correct deficiencies during equipment and system testing. It is anticipated that functional performance testing will be in progress continuously over extended periods.

D. After systems have been successfully functionally performance tested and FPT checklist completed for systems to be commissioned to satisfaction of the State's Representative.

3.03 FUNCTIONAL PERFORMANCE TESTING

A. The general list of equipment and systems that shall be commissioned are listed in Section 23 08 00 Mechanical Systems Commissioning. The specific equipment, systems, and modes to be tested are listed in the individual technical sections.1

B. The Contractor shall review FPT procedures tests for conformance with codes, equipment operations, and manufacturer requirements.

C. The individual technical specification sections specify which methods shall be used for each test.

D. The State's CxA may substitute specified methods or require an additional method to be executed. The State's CxA shall determine which method is most appropriate for tests that do not have a method specified.

E. Simulated Conditions:

1. Simulating conditions shall be allowed, though timing the testing to experience actual conditions is encouraged wherever practical. Before simulating conditions, sensors, transducers and devices shall be calibrated.

F. Overwritten Values:

1. Overwriting sensor values to simulate a condition, such as overwriting the outside air temperature reading in a control system to be something other than the actual value, shall be allowed, but shall be used with caution and avoided when possible. Before simulating conditions, sensors, transducers and devices shall be calibrated.

G. Simulated Signals:

1. Using a signal generator, which creates a simulated signal, to test and calibrate transducers and DDC constants is generally recommended over using the sensor to act as the signal generator via simulated conditions or overwritten values.

H. Altering Setpoints:

1. Altering setpoints, rather than overwriting sensor values, to test a sequence is acceptable.

I. Indirect Indicators:

1. Relying on indirect indicators for responses or performance shall be allowed only after visually and directly verifying and documenting, over the range of the tested parameters, that the indirect readings through the control system represent actual conditions and responses. Much of this verification is completed during pre-functional testing.

J. Setup:

1. Each function and test shall be performed under conditions that simulate normal operating conditions as closely as possible.

2. The Contractor shall provide all necessary materials, system modifications and the like to produce the flows, pressures, temperatures and other process variables as necessary to execute the test according to the specified conditions.

3. At completion of the test, the Contractor shall return all affected building equipment and systems, due to these temporary modifications, to their pre-test condition.

K. Sampling:

1. Multiple identical pieces of non-life-safety or otherwise non-critical equipment may be functionally tested using a sampling strategy. Significant application differences and significant sequence of operation differences in otherwise identical equipment invalidates their common identity. A sampling strategy must be submitted and approval of the State.

2. A small size or capacity difference, alone, does not constitute a difference.

3. The specific recommended sampling rates are specified with each type of equipment in the individual sections.

4. If at any point, frequent failures are occurring and testing is becoming more troubleshooting than verification, the State's CxA may stop the testing and require the Contractor to perform and document a checkout of the remaining units, prior to continuing by functionally testing the remaining units.

5. No sampling is allowed in Pre-functional checklist execution.

3.04. COORDINATION AND SCHEDULING

A. The Contractors shall provide a 10-day notice to the State's CxA regarding their completion schedule for the pre-functional checklists and startup of all equipment and systems.

B. The State's CxA shall direct, witness, and document the functional performance testing of equipment and systems. The Contractors shall execute the tests.

3.05 DOCUMENTATION, NON-CONFORMANCE, AND APPROVAL OF TESTS

A. Documentation:

1. The State's CxA shall witness and document the results of all functional performance tests using the specific procedural forms developed for that purpose. The Contractor shall include the completed forms in the O&M manuals.

B. Non-Conformance:

1. The State's CxA shall record the results of the functional performance test. All deficiencies or non-conformance issues shall be noted and reported.

2. Corrections of minor deficiencies identified may be made during the testing at the discretion of the State's CxA. In such cases the deficiency and resolution will be documented on the procedure form.

3. Non-disputed deficiencies:

   a. The State's CxA shall document the deficiency on a non-compliance form.

   b. Once the Contractor corrects the deficiency, signs the statement of correction on the non-compliance form certifying that the equipment is ready to be retested, a repeat test is scheduled.

4. Disputed deficiencies:

   a. The deficiency shall be documented on the non-compliance form. Testing shall proceed to the next step or sequence.

   b. Final interpretive authority and acceptance authority is with the State. The State's CxA shall document the resolution process.

5. Cost of Retesting:

   a. The cost for the Contractor to retest a pre-functional or functional test shall be borne by the Contractor.

   b. For a deficiency identified, not related to any pre-functional checklist or start-up fault, the following shall apply:

      1) The State shall direct the retesting of the equipment once at no "charge" to the Contractor for the time spent in retesting. Additional retesting beyond the first retest shall be charged to the Contractor.

      2) Retesting required because a specific pre-functional checklist or start-up test item, reported to have been successfully completed, but determined during functional performance testing to be faulty, will be back charged to the Contractor.

6. The Contractor shall respond in writing regarding the status of each apparent outstanding discrepancy identified during commissioning. Contractor's response shall cover explanations of any disagreements and proposals for their resolution.

7. Required retesting by Contractor shall not be considered as a justified reason for a claim of delay or for a time extension.

C. Failure Due to Manufacturer Defect:

1. If 10% or three, whichever is greater, of identical pieces (size alone does not constitute a difference) of equipment fail to perform to the Contract Documents, not allowing it to meet its submitted performance specifications, due to manufacturing defect, either mechanically or substantively, all identical units may be considered unacceptable and the Contractor shall comply with the following:

a. Within one week of notification, the Contractor or manufacturer's representative shall examine all other identical units making a record of the findings. The findings shall be provided to the State within 14 calendar days of the original notice.

b. Within 14 calendar days of the original notification, the Contractor or manufacturer shall provide a signed and dated written explanation of the problem, cause of failures, other pertinent information and proposed solutions which shall include full equipment submittals. The proposed solutions shall not significantly exceed the specification requirements of the original installation.

c. The State shall determine whether a repair is acceptable or the replacement of all identical units is required.

d. Two samples of the proposed solution shall be installed, tested, and operated for a minimum of 7 calendar days, upon which the State will decide whether to accept the solution.

e. Upon acceptance, the Contractor shall replace or repair all identical items, at its expense and extend the warranty accordingly. The replacement or repair work shall proceed without delay.

D. Approval:

1. Satisfactorily demonstrated functionality shall be noted on the test form. Formal approval of the functional performance test will be made by the State after review.

3.06 OPERATION AND MAINTENANCE MANUALS AND SYSTEMS MANUAL

A. Standard O&M Manuals:

1. The specific content and format requirements for the standard O&M manuals are detailed in Section 01 77 0 Closeout Procedures. Special requirements for the controls contractor and TAB contractor are found in Divisions 23 and 33.

B. Systems Manual:

1. The Contractor shall be responsible for developing the Systems Manual. The Systems Manual is the repository of information and shall provide the information needed to understand, operate, and maintain the systems and assemblies.

2. The Systems manual shall contain all elements to meet the requirements of all codes and sustainability programs, and include, but not be limited to, the following:

    a. Section 1: Executive Summary

    b. Section 2: Design & Construction

        1) Owner's Project Requirements (OPR) document

        2) Basis of Design (Basis of Design) document

        3) Project design and record documents

    c. Section 3: Systems and Assemblies Information

        1) Equipment specifications

        2) Approval submittals

        3) Manufacturer's Operation and Maintenance (O&M) manuals and data, equipment model and serial numbers, and final sequences of operation

        4) Equipment and system warranties

        5) Testing, Adjusting, and Balancing report

        6) Contactor and supplier listing and contact information

    d. Section 4: Facility Operations

        1) Equipment operating schedules, setpoints, parameters, ranges, capacities, and limits

        2) Basic operations and maintenance procedures

        3) Emergency power operation and configuration

    e. Section 5: Training

        1) Training plans and materials

        2) Training records

    f. Commissioning Records

        1) Commissioning plan

        2) Design review reports

        3) Submittal review reports

4) Equipment and System start-up reports

5) Completed Pre-functional Checklists

6) Completed Functional Performance Tests

7) Issue and resolution logs

8) Commissioning progress reports

9) Commissioning report

3. In the event the Contractor does not have access to all the documents listed, a section shall be included in the Systems Manual for inclusion of these documents by the responsible party.

4. The System Manual shall be submitted in hard copy (paper) and electronic format (PDF) on compatible compact disc.

3.07 TRAINING OF STATE PERSONNEL

A. The Contractor shall be responsible for training coordination and scheduling and ultimately for ensuring that training is completed as per the technical sections of these specifications.

B. The State's CxA shall be responsible for approving the content and adequacy of the training sessions per contract documents.

1. The specific training requirements for commissioned systems to be provided of State personnel are specified in individual sections. A Pre-instruction Training meeting shall be conducted to review the training materials and sessions to be provided including Contractor's instructor's training qualifications, type of training to be provided, field level, classroom, format, and number and schedule for State staffs to be trained.

2. Contractor shall submit within 45 calendar days after the Pre-instruction Training meeting a written training plan to the State for review and approval prior to training. The plan shall cover the following elements:

a. System Description

b. Intended audience

c. Location of training

d. Learning Objectives

e. Equipment (included in training)

f. Subjects covered (description, duration of discussion, special methods, etc.)

g. Duration of training on each subject

h. Instructor for each subject and Instructor qualifications

i. Methods (classroom lecture, video, site walk-through, actual operational demonstrations, written handouts, etc.)

3. For the primary equipment and controls, the Contractor shall provide a short discussion of the sequence of control of the equipment, including modes and schedules, and adjustment of set points during the mechanical or electrical training.

4. Contractor shall provide digital audio and visual recording of the training sessions with CD's cataloged and added to the O&M manuals.

3.08 DEFERRED TESTING

A. Unforeseen Deferred Tests:

1. If any test cannot be completed due to required occupancy condition or other deficiency, execution of functional testing may be delayed upon approval of the State. These tests will be conducted in the same manner as the functional performance tests.

3.09 WRITTEN WORK PRODUCTS

A. The commissioning process generates a number of written work products described in various parts of the Specifications. The Construction Phase Commissioning Plan lists all the formal written work products, describes briefly their contents, who is responsible to create them, due dates, who receives and approves documents and the location of the specification to create documents. In summary, the written products are:

	Product	***Developed By***
1	Commissioning plan	State's CxA
2	Commissioning meeting minutes	State's CxA
3	Commissioning schedules	Contractor
4	Equipment documentation submittals	Contractor
5	Controls Sequence narrative and clarifications	Contractor
6	Pre-functional checklists	State's CxA
7	Startup and initial checkout plan documents	Contractor with input from State's CxA
8	Startup and initial checkout forms completed	Contractor
9	Final TAB report	Contractor
10	Issues log (deficiencies)	State's CxA
11	Commissioning Progress Record	State's CxA
12	Issue Log/Deficiency reports	State's CxA
13	Functional performance test procedures	State's CxA
14	Completed functional performance tests	State's CxA with input from Contractor

	Product	***Developed By***
15	O&M manuals	Contractor
	Systems Manual	State's CxA with input from Contractor
17	Training plan	Contractor with CxA review
18		
19	Final commissioning report	State's CxA

3.10 SYSTEMS TO BE COMMISSIONED

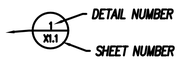
A. Refer to Section 23 08 00 Mechanical Systems Commissioning.

END OF SECTION 01 91 00

ABBREVIATIONS AND LEGEND

(E)	Existing
(N)	New
AC	Asphalt Concrete
ACV	Air Control Valve
AD	Area Drain
BFP	Back Flow Preventer
CB	Catch Basin
CFH	Cubic Feet per Hour
CHWS	Chilled Water Supply
CHWR	Chilled Water Return
CL	Centerline
CN	Concrete
CS	Control System
Cu	Cubic
CW	Cold Water
CWP	Cold Water Pipe
CWR	Cold Water Return
CWS	Cold Water Supply
DHW	Domestic Hot Water
DHWR	Domestic Hot Water Return
DI	Drainage Inlet
DIP	Ductile Iron Pipe
DW	Domestic Water
E	Electrical Conduit
EL	Elevation
FC	Face of Curb
FCO	Field Change Order
FDC	Fire Department Connection
FG	Fuel Gas
FL	Flow Line
FW	Fire Water
G	Gas
GV	Gate Valve
HHWS	Heating Hot Water Supply
HHWR	Heating Hot Water Return
INV	Invert
MAX	Maximum
MIN	Minimum
NTS	Not to Scale
O.R.	Official Records
P.U.E.	Public Utility Easement
PCC	Portland Cement Concrete
PL	Property Line
PVC	Polyvinyl Chloride Pipe
R.O.W.	Right of Way
RCP	Reinforced Concrete Pipe
RPPA	Reduced Pressure Principle Assembly
SD	Storm Drain
SDCO	Storm Drain Cleanout
SDMH	Storm Drain Manhole
SDR	Storm Drain Return
SS	Sanitary Sewer
SSCO	Sanitary Sewer Cleanout
SSMH	Sanitary Sewer Manhole
TBC	Top Back of Curb
TCA	Temperature Control Air
TYP	Typical
W	Water
WV	Water Valve
WYE	Wye Fitting

DETAIL NOTE WITH NUMBER



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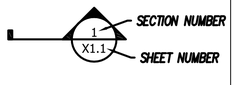

SCOPE OF WORK

PROVIDE A NEW HEATING HOT WATER (HHW) PIPING HYDRONIC LOOP. THIS SHALL CONSIST OF DIRECT–BURIED, PRE–INSULATED, PRE–FABRICATED, HHW PIPING ADJACENT TO WHERE THE EXISTING HHW PIPING IS DIRECT–BURIED. IT SHALL CONSIST OF ABOVE–GROUND, INSULATED, HHW PIPING WHERE IT ROUTES ON AND THROUGH THE BUILDINGS.

PROVIDE NEW MANUAL ISOLATION VALVES IN THE NEW HHW PIPING AT THE PLACES ON THE MAIN HHW LOOP WHERE THE PIPE BRANCHES GO OFF TO THE BUILDINGS. THESE MANUAL ISOLATION VALVES SHALL BE INSTALLED ON THE MAINS ON EITHER SIDE OF THE PIPING JUNCTION, AS WELL AS VALVES ON THE PIPE BRANCHES. THESE MANUAL ISOLATION VALVES SHALL BE INSTALLED IN PRE–FABRICATED OR CONCRETE PIPE VAULTS FOR EASE OF ACCESS.

PROVIDE NEW MANUAL ISOLATION VALVES, REPLACING EXISTING VALVES, ON THE EXISTING DIRECT–BURIED HYDRONIC CHW PIPING IN A SIMILAR FASHION.

THE EXISTING HHW HYDRONIC PIPING LOOP SHALL REMAIN OPERATIONAL WHILE THE NEW HHW HYDRONIC PIPING LOOP IS INSTALLED AND TESTED.

PROVIDE NEW CHILLED WATER SUPPLY AND RETURN (CHWS&R) PIPING, DIRECT–BURIED, PRE–INSULATED, PRE–FABRICATED, CONNECT FROM EXISTING CHWS&R OF BUILDING 39 TO BUILDING 38 AND BUILDING 37.

PROVIDE NEW CHILLED WATER SUPPLY AND RETURN (CHWS&R) PIPING, DIRECT–BURIED, PRE–INSULATED, PRE–FABRICATED, CONNECT FROM EXISTING CHWS&R OF MECHANICAL BUILDING TO BUILDING 36.

GENERAL NOTES:

1. CONTRACTOR SHALL EXECUTE WORK MONDAY THROUGH FRIDAY 8:00AM TO 5:00PM. WORK ON SATURDAYS, SUNDAYS, AND HOLIDAYS IS SUBJECT TO AUTHORIZATION BY THE STATE. SCHEDULE WEEKEND WORK WITH THE STATE A MINIMUM OF 7–DAYS IN ADVANCE OF WORK.
2. CONTRACTOR SHALL PROVIDE AND MAINTAIN PUBLIC ACCESS TO BUILDINGS AND ACCESS AROUND THE BUILDINGS INCLUDING PARKING AT ALL TIMES DURING THE CONSTRUCTION PERIOD. CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH FACILITY TO MINIMIZE INTERRUPTION TO FACILITY OPERATIONS. ALL CONSTRUCTION PHASING PLANS SHALL BE APPROVED BY THE STATE PRIOR TO START OF CONSTRUCTION OPERATIONS.
3. CONTRACTOR SHALL COMPLY WITH 2022 CALIFORNIA FIRE CODE, CHAPTER 14, FIRE SAFETY DURING CONSTRUCTION.
4. ONE SET OF APPROVED PLANS AND SPECIFICATIONS SHALL BE AVAILABLE ON THE PROJECT SITE AT ALL TIMES.
5. STATE APPROVAL OF THESE PLANS DOES NOT AUTHORIZE OR APPROVE ANY OMISSION OR DEVIATION FROM APPLICABLE REGULATIONS.THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPORTING ALL CONCERNS INCLUDING, BUT NOT LIMITED TO, CONFLICTS, ERRORS AND OMISSIONS TO THE STATE IMMEDIATELY UPON DISCOVERY. IF SO DIRECTED BY THE STATE, THE CONTRACTOR SHALL STOP WORK UNTIL MITIGATION CAN BE MADE. COSTS INCURRED RESULTING FROM THE CONTRACTOR'S FAILURE TO STOP WORK AS DIRECTED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
6. A LOCATION FOR THE CONTRACTOR'S CORPORATION YARD SHALL BE DESIGNATED WITHIN THE PROJECT SITE AS APPROVED BY THE STATE. CONTRACTOR IS PERMITTED TO FENCE THIS AREA TO PROTECT OFFICES, STORED MATERIAL AND EQUIPMENT. CONTRACTOR IS RESPONSIBLE FOR SECURING HIS/HER FACILITIES FROM THEFT OR VANDALISM.
7. THE CONTRACTOR IS RESPONSIBLE FOR SITE CONDITIONS INCLUDING PUBLIC SAFETY, DUST CONTROL, AND EROSION AND SEDIMENT CONTROL CONTINUALLY DURING THE CONTRACT PERIOD.
8. CONTRACTOR SHALL PROTECT EXISTING DRAINAGE IMPROVEMENTS DURING CONTRACT PERIOD AND REMOVE ALL CONSTRUCTION DEBRIS PRIOR TO FINAL INSPECTION.
9. CONTRACTOR SHALL PROTECT EXISTING UTILITIES AND IMPROVEMENTS DURING CONSTRUCTION. REPAIR AND RESTORE DAMAGES CAUSED BY CONSTRUCTION BACK TO ORIGINAL CONDITIONS AND TO STATE'S SATISFACTION.
10. CONTRACTOR SHALL KEEP THE PREMISES FREE FROM WASTE MATERIALS OR RUBBISH ACCUMULATED BY HIS/HER WORK. REMOVE ALL RUBBISH, TOOLS, SURPLUS MATERIALS AND LEAVE THE JOB IN BROOM CLEAN CONDITION UPON COMPLETION OF THE PROJECT.
11. CONNECTIONS AND ACTIVATION OF NEW UTILITIES INTO THE FACILITY SHALL BE COORDINATED WITH THE STATE AND LOCAL MUNICIPALITIES.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ALL EXISTING SURVEY MONUMENTS AND OTHER SURVEY MARKERS DURING CONSTRUCTION. ALL SUCH MARKERS OR MONUMENTS DESTROYED DURING CONSTRUCTION SHALL BE REPLACED AND RE–ESTABLISHED AT THE CONTRACTOR'S EXPENSE. RE–ESTABLISHMENT OF SURVEY MONUMENTS SHALL BE IN ACCORDANCE WITH THE CALIFORNIA STATE LAND SURVEYOR'S ACT.
13. THE CONTRACTOR IS FINANCIALLY RESPONSIBLE FOR THE MAINTENANCE OR REPAIR OF OFFSITE STREET SURFACES WHERE DAMAGE HAS BEEN SUSTAINED BECAUSE OF THE CONSTRUCTION TRAFFIC.
14. CONSTRUCTION NOISE SHALL BE IN COMPLIANCE WITH THE LOCAL AGENCY. CONSULT THE LOCAL AGENCY FOR SPECIFIC RESTRICTIONS AND HOURS OF OPERATION.
15. CONTRACTOR SHALL APPLY FOR, PAY FOR, AND ACQUIRE ALL PERMITS REQUIRED TO PERFORM AND COMPLETE WORK.
16. ALL VALVES SHALL BE: 2" AND SMALLER–BALL VALVES; 2–1/2" AND LARGER–BUTTERFLY VALVES.

APPLICABLE CODES

TITLE 24 CODES:
2022 California Administrative Code (CAC) ..... (Part 1, Title 24, CCR)
2022 California Building Code (CBC), Volumes 1 and 2 ..... (Part 2, Title 24, CCR)
2022 California Electrical Code ..... (Part 3, Title 24, CCR)
2022 California Mechanical Code (CMC) ..... (Part 4, Title 24, CCR)
2022 California Plumbing Code (CPC) ..... (Part 5, Title 24, CCR)
2022 California Energy Code ..... (Part 6, Title 24, CCR)
2022 California Fire Code (CFC) ..... (Part 9, Title 24, CCR)
2022 California Green Building Standards Code..... ….(Part 11, Title 24, CCR)
2022 California Referenced Standards Code .....(Part 12, Title 24, CCR)

REFERENCE CODE SECTIONS FOR APPLICABLE STANDARDS:
2022 CBC, Chapter 35
2022 CFC, Chapter 80

SHEET INDEX:

Sheet No.	Drawing Title
GENERAL	
T-1.00	Title Sheet
ARCHITECT (FOR REFERENCE ONLY)	
A0.00-01	COVER SHEET VOLUME 1 OF 6
A0.01-01	ALLOWABLE AREA BUILDING CALCULATIONS VOLUME 1 OF 6
MECHANICAL: Existing & Proposed Conditions	
M-1.00	Mechanical Notes, Legends, & Existing Facility Site Plan
M-1.01	Mechanical North Proposed Site Plan
M-1.02	Mechanical South Proposed Site Plan
M-1.03	Construction Sequencing
MECHANICAL: Improvement	
M-3.01	Mechanical Partial Improvement Plan
M-3.02	Mechanical Partial Improvement Plan
M-3.03	Mechanical Partial Improvement Plan
M-3.04	Mechanical Partial Improvement Plan
M-3.05	Mechanical Partial Improvement Plan
M-3.06	Mechanical Partial Improvement Plan
M-3.07	Mechanical Partial Improvement Plan
M-3.08	Mechanical Partial Improvement Plan
M-3.09	Mechanical Partial Improvement Plan
M-3.10	Mechanical Partial Improvement Plan
M-3.11	Mechanical Partial Improvement Plan
M-3.12	Mechanical Partial Improvement Plan
M-3.13	Mechanical Partial Improvement Plan
M-3.14	Mechanical Partial Improvement Plan
M-3.15	Mechanical Partial Improvement Plan
M-4.01A	Mechanical Piping Plan-Building 1
M-4.01B	Mechanical Piping Plan-Building 1 Roof
M-4.03A	Mechanical Piping Plan-Building 3
M-4.03B	Mechanical Piping Plan-Building 3 Roof
M-4.03C	Mechanical Piping Plan-Building 3 Roof
M-4.03D	Mechanical Piping Plan-Building 3 Roof
M-4.05A	Mechanical Piping Plan-Building 5
M-4.05B	Mechanical Piping Plan-Building 5 Roof
M-4.05C	Mechanical Piping Plan-Building 5 Roof
M-4.05D	Mechanical Piping Plan-Building 5 Roof
M-4.07A	Mechanical Piping Plan-Building 7
M-4.07B	Mechanical Piping Plan-Building 7 Roof
M-4.07C	Mechanical Piping Plan-Building 7 Roof
M-4.07D	Mechanical Piping Plan-Building 7 Roof
M-4.18	Mechanical Piping Plan-Building 18
M-4.23A	Mechanical Piping Plan-Building 23
M-4.23B	Mechanical Piping Plan-Building 23 Roof
M-4.27A	Mechanical Piping Plan-Building 27
M-4.27B	Mechanical Piping Plan-Building 27 Roof
M-4.27C	Mechanical Piping Plan-Building 27 Roof
M-4.27D	Mechanical Piping Plan-Building 27 Roof
M-4.30	Mechanical Piping Plan-Building 30
M-4.31	Mechanical Piping Plan-Building 31
M-4.36	Mechanical Piping Plan-Building 36
M-4.37	Mechanical Piping Plan-Building 37
M-4.38A	Mechanical Piping Plan-Building 38
M-4.38B	Mechanical Piping Plan-Building 38
M-4.38C	Mechanical Piping Plan-Building 38 Roof
M-4.38D	Mechanical Piping Plan-Building 38 Roof
M-4.39	Mechanical Piping Plan-Building 39
M-4.41	Mechanical Piping Plan-Building 41
M-4.42	Mechanical Piping Plan-Building 42
M-4.44A	Mechanical Piping Plan-Building 44
M-4.44B	Mechanical Piping Plan-Building 44 Roof
M-4.44C	Mechanical Piping Plan-Building 44 Roof
MECHANICAL: Details	
M-5.00	Mechanical Details
STRUCTURAL: Improvement And Slab Plan	
S-0.01	General Notes
S-0.02	General Notes
S-0.21	Typical Concrete Details
S-0.22	Typical Concrete Details
S-0.31	Typical Light Gauge Details
S-1.0	Overall Layout Plan
S-1.1	Partial Plan - 1.1
S-1.2	Partial Plan - 1.2
S-1.3	Partial Plan - 1.3
S-1.4	Partial Plan - 1.4
S-1.5	Partial Plan - 1.5
S-1.6	Partial Plan - 1.6
S-1.7	Partial Plan - 1.7
S-1.8	Partial Plan - 1.8
S-1.9	Partial Plan - 1.9
S-1.10	Partial Plan - 1.10
S-1.11	Partial Plan - 1.11
S-1.12	Partial Plan - 1.12
S-1.13	Partial Plan - 1.13
S-1.14	Partial Plan - 1.14
S-1.15	Partial Plan - 1.15
S-2.00	Pipe Support Framing Plan Building 1
S-2.1	Pipe Support Framing Plan Building 3
S-2.2	Pipe Support Framing Plan Building 5
S-2.3	Pipe Support Framing Plan Building 7
S-2.4	Pipe Support Framing Plan Building 23
S-2.5	Pipe Support Framing Plan Building 27
S-2.6	Pipe Support Framing Plan Building 38
S-2.7	Pipe Support Framing Plan Building 44
S-3.00	Pipe Support Details
S-3.01	Pipe Support Details
S-4.00	Pipe Cover Details
S-4.01	Pipe Cover Details
S-4.02	Pipe Cover Details

Sheet No.	Drawing Title
CIVIL: Existing Conditions and Keymap	
CS-1.1	Existing Facility Site Plan
CS-2.1	North Proposed Site Plan and Key Map
CS-2.2	South Proposed Site Plan and Key Map
CIVIL: Demolition	
CD-1.1	Demolition Plan
CD-1.2	Demolition Plan
CD-1.3	Demolition Plan
CD-1.4	Demolition Plan
CD-1.5	Demolition Plan
CD-1.6	Demolition Plan
CD-1.7	Demolition Plan
CD-1.8	Demolition Plan
CD-1.9	Demolition Plan
CD-1.10	Demolition Plan
CD-1.11	Demolition Plan
CD-1.12	Demolition Plan
CD-1.13	Demolition Plan
CIVIL: Improvement	
C-1.1	Partial Improvement Plan
C-1.2	Partial Improvement Plan
C-1.3	Partial Improvement Plan
C-1.4	Partial Improvement Plan
C-1.5	Partial Improvement Plan
C-1.6	Partial Improvement Plan
C-1.7	Partial Improvement Plan
C-1.8	Partial Improvement Plan
C-1.9	Partial Improvement Plan
C-1.10	Partial Improvement Plan
C-1.11	Partial Improvement Plan
C-1.12	Partial Improvement Plan
C-1.13	Partial Improvement Plan
CIVIL: Details	
C-4.1	Civil Details
C-4.2	Civil Details
C-4.3	Civil Details
CIVIL: Profiles	
C-5.1	Main Hydronic Loop Plan and Profile
C-5.2	Main Hydronic Loop Plan and Profile
C-5.3	Main Hydronic Loop Plan and Profile
C-5.4	Main Hydronic Loop Plan and Profile
C-5.5	Main Hydronic Loop Plan and Profile
C-5.6	Main Hydronic Loop Plan and Profile
C-5.7	Main Hydronic Loop Plan and Profile
C-5.8	Main Hydronic Loop Plan and Profile
C-5.9	Main Hydronic Loop Plan and Profile
C-5.10	Main Hydronic Loop Plan and Profile
C-5.11	Main Hydronic Loop Plan and Profile
C-5.12	Branch 1 Plan and Profile
C-5.13	Branch 2 Plan and Profile
C-5.14	Branch 3 Plan and Profile
C-5.15	Branch 4 Plan and Profile
C-5.16	Branch 5 Plan and Profile
C-5.17	Branch 6 Plan and Profile
C-5.18	Branch 6 Plan and Profile
C-5.19	Branch 7 Plan and Profile
C-5.20	Branch 8 Plan and Profile
C-5.21	Branch 8 Plan and Profile
C-5.22	Branch 8 Plan and Profile
C-5.23	Branch 9 Plan and Profile
C-5.24	Branch 9 & 15 Plan and Profile
C-5.25	Branch 10 & 10A Plan and Profile
C-5.26	Branch 11 Plan and Profile
C-5.27	Branch 12 Plan and Profile
C-5.28	Branch 13 Plan and Profile
C-5.29	Branch 14 Plan and Profile
CE-1.1	Erosion Control Plan
CE-1.2	Erosion Control Plan

State of California
Department of General Services

Real Estate Services Division
Project Management and Development Branch
Architecture & Engineering Section
707 Third Street, Suite 4-105
West Sacramento, California 95605

Project Director: Brandon Grimes
916-205-6537 Phone Number

Brandon.Grimes@dgs.ca.gov

OFFICE OF THE STATE FIRE MARSHAL
APPROVED FIRE AND PANIC ONLY
11/27/23
23-1693
Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

PROJECT TITLE:

DSH-Coalinga
Hydronic Loop Replacement

PROJECT NUMBER: 000000000008666

PROJECT LOCATION: 24511 West Jayne Ave
Coalinga, CA

CLIENT AGENCY:

DEPARTMENT OF STATE HOSPITALS

PROJECT DIRECTOR: Brandon Grimes, CCM, Project Director
State of California - Department of General Services
Real Estate Services Division
Project Management and Development Branch
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Telephone Number: (916) 205-6537
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PROJECT TEAM: OWEN GROUP:
RICHARD HENRIKSON, P.E., MECHANICAL ENGINEER
MEHDI KESHMIRI, P.E., CIVIL ENGINEER
NADER NAMDAR, S.E., STRUCTURAL ENGINEER

LOCATION MAP:

N
NO SCALE

DGS GENERAL SERVICES
Department of General Services
Architecture & Engineering Sections
State of California
Real Estate Services Division
Project Management & Development Branch
707 Third Street, Suite 4-105
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PROFESSIONAL STAMP
REGISTERED PROFESSIONAL ENGINEER
EXP. 12/31/23

OWEN
220 TECHNOLOGY DRIVE, SUITE 100
IRVINE, CA 92618
TEL: (949) 860-4800
FAX: (949) 860-4810
www.owengroup.com

Issue

No.	Date	Description
	01/31/2022	Preliminary Plans
	08/31/2022	50% Working Drawings
	10/31/2022	95% Working Drawings
	03/31/2023	100% Working Drawings

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210

DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH
DSA App No. -	SFM Permit No. 22-S-4509-O-DR	

Sheet Title
TITLE SHEET

Project Number
000000000008666

Reference North

Sheet Scale
NTS

Sheet Number
T-1.00
V4

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CAD File: S:\owendesign\Projects\2018 Projects\15438248 DGS DSH Coalinga Hydronic Loop Replacement - WD & BA\Drafting\CAD\Mechanical\T-1.00 Title Sheet.dwg Plot Date: Oct 03, 2023 - 6:00pm Plotted by: khanho

RELATIVE BORDER SCALE IN INCHES 0 1 2 3

SECURE TREATMENT FACILITY

24511 WEST JAYNE AVENUE, COALINGA, CALIFORNIA 93210

STATE OF CALIFORNIA
DEPARTMENT OF GENERAL SERVICES

DGS PROJECT NUMBER 103557

BID PACKAGE NO. 2 - FACILITIES AND INFRASTRUCTURE

APRIL 15, 2002

ABBREVIATION LIST

AND	AND	JAN.	JANITOR
∠	ANGLE	JT.	JOINT
@	AT	J.C.	JANITOR CLOSET
℄	CENTERLINE	KIT.	KITCHEN
⌀	CHANNEL	K.P.	KICK PLATE
⌀	DIAMETER OR ROUND	L.F.	LINEAR FEET
(E)	EXISTING	L.P.	LOW POINT
(N)	NEW	LAM.	LAMINATED
(R)	REMOVE	LAUN.	LAUNDRY
A.B.	ANCHOR BOLT	LAV.	LAVATORY
A.D.	AREA DRAIN	LKR.	LOCKER
ADA	AMERICANS WITH DISABILITIES ACT	LT.	LIGHT
A.G.	ABOVE GRADE	M.O.	MASONRY OPENING
A.P.	ACCESS PANEL	MACH.	MACHINE
A.P.S.	ACCESS PANEL(SECURITY)	MAT.	MATERIAL
ACOUS.	ACOUSTIC	MAX.	MAXIMUM
AC. TILE	ACOUSTICAL TILE	MECH.	MECHANICAL
ADJ.	ADJUSTABLE	MEMB.	MEMBRANE
ADMIN.	ADMINISTRATION OR ADMINISTRATIVE	MET.	METAL
		MFR.	MANUFACTURER
ALT.	ALTERNATE	MH.	MANHOLE
AL.	ALUMINUM	MIN.	MINIMUM
APPROX.	APPROXIMATE	MIR.	MIRROR
ARCH.	ARCHITECTURAL	MISC.	MISCELLANEOUS
ASPH.	ASPHALT	MTD.	MOUNTED
ASST.	ASSISTANT	M.R.	MOP RACK
ANNUNC.	ANNUNCIATOR		
A.C.	ASPHALTIC CONCRETE	N	NORTH
		N.I.C.	NOT IN CONTRACT
BD.	BOARD	N.T.S.	NOT TO SCALE
BITUM.	BITUMINOUS	NO.	NUMBER
BLDG.	BUILDING	NOM.	NOMINAL
BLK.	BLOCK		
BLKG	BLOCKING	O.A.	OVERALL
BM.	BEAM	O.C.	ON CENTER
BOT.	BOTTOM	O.C.	OWNER SUPPLIED, CONTRACTOR INSTALLED
B.U.R.	BUILT UP ROOFING		
C.B.	CONCRETE BENCH	O.D.	OVERFLOW DRAIN
CBC	CALIFORNIA BUILDING CODE	O.H.	OPPOSITE HAND
C.C.T.V.	CLOSED CIRCUIT TELEVISION	OFF.	OFFICE
		O.F.O.I.	OWNER FURNISHED OWNER INSTALLED
C.C.	CONTRACTOR FURNISHED CONTRACTOR INSTALLED	OPNG.	OPENING
C.G.	CORNER GUARD	OPP.	OPPOSITE
C.I.	CAST IRON	OVHD.	OVERHEAD
C.I.P.	CAST IN PLACE		
C.J.	CONTROL JOINT	P.B.	PHOTO BOOTH: O.C.
C.M.U.	CONCRETE MASONRY UNIT	P.B.O.	PROVIDED BY OWNER
C.S.	CLINICAL SINK	P.B.X.	TELEPHONE SWITCHBOARD
C.T.	CERAMIC TILE	P.T.D.	PAPER TOWEL DISPENSER
CAB.	CABINET	PAT.	PATIENT
CEM.	CEMENT	PAV.	PAVING
CER.	CERAMIC	P.LAM.	PLASTIC LAMINATE
CLR.	CLEAR	PL.	PLATE
CLG.	CEILING	PLAS.	PLASTER
CL.	CLEAN	PLBG.	PLUMBING
CLO.	CLOSET	PLYWD.	PLYWOOD
COL.	COLUMN	PR.	PAIR
CONC.	CONCRETE	PRCST.	PRECAST
CONF.	CONFERENCE	PT.	POINT
COMM.	COMMUNICATION	P.T.	PRESSURE TREATED
CONN.	CONNECTION	PTN.	PARTITION
CONSTR.	CONSTRUCTION		
CONT.	CONTINUOUS	QTY.	QUANTITY
CORR.	CORRIDOR		
CNTR.	COUNTER	R.	RISER OR RADIUS
CTR.	CENTER	R.D.	ROOF DRAIN
CSFM	CALIFORNIA STATE FIRE MARSHAL	R.H.	ROBE HOOK
C/W	COMPLETE WITH	R.O.	ROUGH OPENING
		R.W.L.	RAIN WATER LEADER
D.F.	DRINKING FOUNTAIN	RECP.	RECEPTOR
D.O.	DOOR OPENING	RECT.	RECTANGULAR
D.S.	DOWNSPOUT	REF.	REFERENCE
D.S.P.	DRY STANDPIPE	REINF.	REINFORCING
DBL.	DOUBLE	REQ.	REQUIRED
DEPT.	DEPARTMENT	RESIL.	RESILIENT
DET.	DETENTION	REV.	REVERSE
DIA.	DIAMETER	RM.	ROOM
DIM.	DIMENSION	RP	RADIUS POINT
DISP.	DISPENSER	RUB.	RUBBER
DN.	DOWN		
DR.	DOOR	S.C.R.	SHOWER CURTAIN ROD
D.T.P.H.	DETENTION TOILET PAPER HOLDER	S.	SINK
		S.C.	SOLID CORE
DWG.	DRAWING	S.A.D.	SEE ARCHITECTURAL DWG.
DWR.	DRAWER	S.D.	SOAP DISPENSER
D.M.	DETENTION MIRROR	S.N.D.	SANITARY NAPKIN DISPENSER
E.	EAST	S.ST.	STAINLESS STEEL
E.J.	EXPANSION JOINT	S.S.D.	SEE STRUCTURAL DWG.
E.P.	ELECTRICAL PANELBOARD	S.SK.	SERVICE SINK
EA.	EACH	S.V.	SHEET VINYL
ELEC.	ELECTRICAL	SCHED.	SCHEDULE
EL.	ELEVATION	SECUR.	SECURITY
ENCL.	ENCLOSURE	SECT.	SECTION
ENGR.	ENGINEER	SHR.	SHOWER
ENT.	ENTRANCE	SHT.	SHEET
EQPT.	EQUIPMENT	SHTG.	SHEATHING
EXAM.	EXAMINATION	SIM.	SIMILAR
EXC.	EXCAVATE	SPEC.	SPECIFICATION
EXP.	EXPANSION	SPKR.	SPEAKER
EXPO.	EXPOSED	SQ.	SQUARE
EXST.	EXISTING	STAG.	STAGGERED
EXT.	EXTERIOR	STD.	STANDARD
EW	EACH WAY	STL.	STEEL
		STOR.	STORAGE
F.A.	FIRE ALARM	STRL.	STRUCTURAL
F.D.	FLOOR DRAIN	STRUCT.	STRUCTURAL
F.E.	FIRE EXTINGUISHER	SUSP.	SUSPENDED
F.E.C.	FIRE EXTINGUISHER CABINET	SYM.	SYMETRICAL
F.H.C.	FIRE HOSE CABINET		
F.O.B.	FACE OF BUILDING		
F.O.C.	FACE OF CONCRETE	T.C.	TOP OF CURB
F.O.F.	FACE OF FINISH	T.O.C.	TOP OF CONCRETE
F.O.S.	FACE OF STUDS	T.O.P.	TOP OF PARAPET
F.O.W.	FACE OF WALL	T.P.H.	TOILET PAPER HOLDER
FIN.	FINISH	T.P.D.	TOILET PAPER DISPENSER
FLR.	FLOOR	T.V.	TELEVISION
FLEX.	FLEXIBLE	T.W.	TOP OF WALL
FLUOR.	FLUORESCENT	TEL.	TELEPHONE
FLASH.	FLASHING	TEMP.	TEMPERED
FPRF.	FIREPROOF	THRES.	THRESHOLD
FTG.	FOOTING	THK.	THICK
FURR.	FURRING	TLT.	TOILET
FUT.	FUTURE	TRD.	TREAD
F.N.D.	FEMININE NAPKIN DISPOSAL	TYP.	TYPICAL
		T.C.D.	TOILET SEAT COVER DISPENSER
FDN.	FOUNDATION		
F.S.S.	FOLDING SHOWER SEAT		
G.B.	GRAB BAR	U.O.N.	UNLESS OTHERWISE NOTED
G.W.B.	GYPSUM WALL BOARD		
GA.	GAUGE	UNF.	UNFINISHED
GALV.	GALVANIZED	U/S	UNDERSIDE
GL.	GLASS OR GLAZED		
GND.	GROUND	V or VAC.	VACUUM
GR.	GRADE	V.C.T.	VINYL COMPOSITION TILE
GYP.	GYPSUM	V.I.F.	VERIFY IN FIELD
		V.P.	VISION PANEL
H.	HIGH	VENT.	VENTILATION
HC	HANDICAPPED	VERT.	VERTICAL
H.B.	HOSE BIB	VEST.	VESTIBULE
H.P.	HIGH POINT		
H.M.	HOLLOW METAL	W	WEST
HDWE.	HARDWARE	W.C.	WATER CLOSET
HGT.	HEIGHT	WD.	WOOD
HR.	HOUR	W.G.	WIRE GLASS
HORIZ.	HORIZONTAL	WP.	WATERPROOF
H.C.	HOLLOW CORE	W.S.	WEATHERSTRIPPING
		WSCT.	WAINSCOT
I.D.	INSIDE DIAMETER (DIM.)	WT.	WEIGHT
IN.	INCH	W/	WITH
INSUL.	INSULATION	W/O	WITHOUT
INT.	INTERIOR	W.O.	WHERE OCCURS
ISOL.	ISOLATION	W.W.T.P.	WASTE WATER TREATMENT PLANT (FACILITY)
INTERVW.	INTERVIEW		
INV.	INVERT		

ARCHITECTURAL SYMBOLS

- COLUMN LINE — A.01 / 1.01
- BUILDING SECTION — A6.03-01 / A6.03-01 — SECTION IDENTIFICATION; SHEET WHERE SECTION IS DRAWN
- WALL SECTION — A9.03-01 / A9.03-01 — SECTION IDENTIFICATION; SHEET WHERE SECTION IS DRAWN
- ELEVATION — 1 / A5.03-01 — ELEVATION IDENTIFICATION; SHEET WHERE ELEVATION IS DRAWN
- INTERIOR ELEVATION — D 1 / A9.01-01 — ELEVATION IDENTIFICATION; SHEET WHERE ELEVATION IS DRAWN
- ENLARGED PLAN OR ELEVATION — 1 / A7.03-01 — PLAN IDENTIFICATION; SHEET WHERE PLAN IS DRAWN; CIRCLED AREA SHOWN ON LARGE SCALE PLAN OR ELEVATION
- WINDOW NUMBER/ LOUVER NUMBER — X — WINDOW OR LOUVER IDENTIFICATION
- ROOM TITLE & NUMBER — OFFICE 01-216 — TITLE; NUMBER; FIRST DIGIT IS BUILDING NUMBER
- DOOR NUMBER — 216A — DOOR SUFFIX FOR MULTIPLE DOORS; GENERALLY CORRESPONDS TO ROOM NUMBER WHERE DOOR OCCURS
- CEILING HEIGHT — 8'-0" — CEILING HEIGHT (ON PLANS)
- 9'-0" / AT-1 — CEILING HEIGHT & FINISH
- MATCH LINE — FOR CONTINUATION SEE SHEET "A2.01-01"
- KEY OR SHEET NOTES — 1 — NUMBERED (OR KEY) NOTES
- GENERAL NOTE — 1. APPLIES TO ENTIRE SHEET
- ELEVATION REFERENCE — ELEVATION REFERENCE (ON PLANS)
- ELEVATION ABOVE PROJECT DATUM — EL. 100'-0" / FL. 8
- EQUIPMENT REFERENCE — 2 — EQUIPMENT IDENTIFICATION
- NORTH ARROW — TRUE NORTH; SHEET NORTH
- REVISION — 1 — CLOUD AROUND REVISION OPTIONAL
- PARTITION SYMBOL CODE — SW 1B — PARTITION TYPE; SECURITY WALL, WHERE OCCURS SEE SHEETS A1.20-00 TO A1.25-00
- OTHER — WORK POINT, CONTROL POINT OR DATUM POINT; PROPERTY LINE; VCT — FLOORING TYPE; PT-17 — PAINT FINISH; EXTENT OF PAINT FINISH; 4 — ACCESSORY IDENTIFICATION SEE SHEET A9.60-50; 15A — MILLWORK UNIT SEE SHEET A9.60-50; R2 — ROOF TYPE; DIRECTION OF ROOF SLOPE
- FIRE RATING SYMBOLS
  - 1 HR FIRE RATED WALL ASSEMBLY
  - 1 HR FIRE AND SMOKE WALL ASSEMBLY
  - 1 HR FIRE AND OCCUPANCY SEPARATION
  - 1 HR FIRE SMOKE BARRIER WALL ASSEMBLY
  - 2 HR FIRE RATED WALL ASSEMBLY AND OCCUPANCY SEPARATION
  - 3 HR OCCUPANCY SEPARATION
  - 4 HR AREA SEPARATION
  - 1 HR BEDROOM WALL SEPARATION TO CEILING

MATERIAL DESIGNATIONS

SECTIONS

ALUMINUM, STEEL, EARTH, BRASS/ BRONZE, ACOUSTICAL CEILING PANEL, STONE, SHIM, GYPSUM BOARD, BLOCKING, GYPSUM SHEATHING, PLYWOOD, FIRE-SAFING, WOOD, INSULATION [BATT], BRICK, INSULATION [RIGID], CONCRETE, CONCRETE MASONRY UNIT, CERAMIC TILE, WATER-PROOFING, CRUSHED ROCK/ GRAVEL

ELEVATIONS

CMU, CERAMIC TILE, COILING DOORS, GRILLES, GYPSUM BOARD, LOUVERS, MDF, METAL PANEL 1, PLASTER, PRECAST 1, STONE 1, GLASS [SPANDREL]

BUILDING CODES & REGULATIONS

(WITH APPLICABLE REVIEWING CALIFORNIA AGENCY AND RESPONSIBLE FEDERAL AGENCY)

1. APPLICABLE BUILDING CODES AND REGULATIONS
   - UNIFORM BUILDING CODE, 1997 EDITION – 1998 CALIFORNIA AMENDMENTS CSFM; OSHPD INCLUDING SEISMIC REQUIREMENTS)
   - NFPA 101, LIFE SAFETY CODE, 1985 EDITION – CHAPTERS 5 AND 12 (CSFM, SMOKE BARRIERS; STATE LICENSING)
   - NFPA 70 NATIONAL ELECTRICAL CODE, 1996 EDITION –1998 CALIFORNIA AMENDMENTS (CSFM)
   - NFPA 13, SPRINKLER SYSTEMS, 1996 EDITION (CSFM)
   - UNIFORM MECHANICAL CODE,1997 EDITION,WITH 1998 CALIFORNIA AMENDMENTS (CSFM)
   - UNIFORM PLUMBING CODE, 1997 EDITION, WITH 1998 CALIFORNIA AMENDMENTS
   - NATIONAL ELECTRIC CODE, 1996 EDITION, WITH 1998 CALIFORNIA AMENDMENTS (CSFM)
   - UNIFORM FIRE CODE 1997 – 1998 CALIFORNIA AMENDMENTS (CSFM)
   - TITLE 19 – PUBLIC SAFETY, STATE FIRE MARSHAL CALIFORNIA CODE OF REGULATIONS (CCR) (CSFM, STATE LICENSING)
   - TITLE 22 – SOCIAL SECURITY DIVISION 5, LICENSING & CERTIFICATION OF HEALTH FACILITIES, CCR. (STATE LICENSING)
   - TITLE 24 – CALIFORNIA CODE OF REGULATIONS, AMERICANS WITH DISABILITES ACT ACCESSIBILITY GUIDELINES (ADAAG), MINUS ELEVATOR EXCEPTION OR UNIFORM ACCESSIBILITY STANDARDS IN NON– PUBLIC I–3 AREAS
   - ADA REGULATION FOR TITLE III – 1994 – STANDARDS FOR ACCESSIBILITY DESIGN (DEPARTMENT OF JUSTICE, CIVIL RIGHTS DIVISION)
   - ACCREDITATION MANUAL FOR HOSPITALS – JOINT COMMISSION ON ACCREDITATION OF HEALTHCARE ORGANIZATIONS, 1997 (STATE LICENSING)

   APPLICABLE STANDARDS
   - UL – UNDERWRITERS LABORATORIES FIRE RESISTIVE DIRECTORY, 2000 EDITION (CSFM)
   - UL – UNDERWRITERS LABORATORY BUILDING MATERIALS DIRECTORY, 2000 EDITION (CSFM)
   - SMACNA – FIRE, SMOKE & RADIATION DAMPER INSTALLATION GUIDE FOR HVAC SYSTEMS, 3RD EDITION, 1986 (NOT ADOPTED BY CSFM)

CORE BUILDING (BLDGS. 1–28) – CODE ANALYSIS

1. SMOKE COMPARTMENTS REQUIRED AT TREATMENT UNITS ONLY PER NFPA 101 SECTION 12–6.3.7 AND 1998 CBC.
2. MAXIMUM TRAVEL DISTANCE TO ONE EXIT: 250 FEET PER CBC 1004.2.5.2.2 OR 350 FEET IF LAST 100 FEET IS IN A FIRE RATED CORRIDOR. (CBC 1004.2.5.2.3)
3. TREATMENT UNIT EXIT STAIRS WHICH TERMINATE IN AN EXIT COURTYARD SHALL BE PROVIDED WITH TWO EXITS FROM THE COURTYARD PER CBC APPENDIX CHAPTER 3A, SECTION 333A.2.
4. STAIRS FROM SECOND FLOOR OF TREATMENT UNITS TO THE CENTRAL CORRIDOR ARE NOT CONSIDERED AN EXIT STAIR PER CODE SECTION 331A.2.
5. A FOUR HOUR SEPARATION WALL IS PROVIDED AT THE GYMNASIUM TO ALLOW THIS STRUCTURE TO BE CONSIDERED AS TYPE II–1HR PER TABLE 5B. THE STEEL ROOF AND ROOF STRUCTURE SHALL BE RATED ONE HOUR.
6. HOSPITAL FUNCTIONS, CLASSROOMS, VOCATIONAL SHOPS, DAYROOMS, ASSEMBLY AREAS, CONFERENCE AND DINING ROOMS WITHIN THE I–3 AREA ARE CLASSIFIED WITH THE OCCUPANCY GROUP THEY MOST RESEMBLE, PER CBC APPENDIX 3A, SECTION 331A.1, EXCEPTION. REQUIRED EXITS MAY BE LOCKED IN CONFORMANCE WITH CODE PROVISIONS FOR I–3 OCCUPANCIES.
7. WHERE THERE IS A CONFLICT BETWEEN CALIFORNIA (ADAAG) AND FEDERAL (ADA) DISABLED ACCESS REQUIREMENTS, GENERALLY THE MOST STRINGENT REQUIREMENT WILL APPLY.

ADMINISTRATION BUILDING (BLDG. 30) – CODE ANALYSIS

BUILDING TYPE:	TYPE II ONE HOUR
OCCUPANCY:	GROUP B (UNLESS NOTED OTHERWISE)
MAX. ALLOWABLE AREA:	72,000 SQ. FT. (63,500 SQ. FT. ACTUAL)
SPRINKLERED:	YES, FULLY AUTOMATIC
EXITS:	MINIMUM 2 REQUIRED (3 PROVIDED)
ELEVATOR LOBBIES:	ENCLOSURE REQ'D AT 2ND FLOOR ONLY
CORRIDORS:	ONE HOUR RATED EXIT CORRIDORS; NON–RATED AT TENANT AREAS LESS THAN 10,000 SQ. FT.
INTERVENEING ROOMS:	ONE INTERVENING ROOM ALLOWED IN THE EXIT ACCESS SYSTEM UNLESS LOBBY IS ENCLOSED BY A ONE HOUR RATED PARTITION
EXIT SEPARATION:	ONE–HALF THE DIAGONAL OF THE SPACE WHICH THE EXIT SERVES WHERE 2 EXITS ARE REQUIRED
TENANT AREA EXITS:	TWO EXITS ARE REQUIRED FROM ANY TENANT AREA IN EXCESS OF 3000 SQ. FT. (OCCUPANT LOAD OF 30 OR GREATER)
TWO STOREY LOBBY	A LOBBY WITH AN OPEN STAIR BECOMES AN EXIT AND REQUIRES A ONE HOUR SEPARATION FROM THE REST OF THE BUILDING
STAIR SHAFTS:	ONE HOUR RATED
ELEVATOR SHAFTS:	ONE HOUR RATED
MECHANICAL SHAFTS:	ONE HOUR RATED
FLOORS AND ROOFS:	ONE HOUR RATED
STRUCTURAL STEEL:	ONE HOUR RATED

DEFERRED APPROVALS

1. AUTOMATIC FIRE SPRINKLER SYSTEMS (CSFM)
2. FIRE ALARM SYSTEM (CSFM)
3. METAL STAIRS & RAILINGS
4. ELEVATORS & ELEVATOR GUARDRAILS & SUPPORTS (ELEVATOR SUPPLIER CERTIFICATION FOR ASTM A–17.1)
5. KITCHEN HOOD FIRE SUPPRESSION SYSTEM (CSFM)
6. OPEN WEB STEEL TRUSSES
7. WINDOW FRAMES AND MULLIONS
8. METAL LIBRARY SHELVING
9. FOLDING BLEACHERS

LOCATION MAP

G:\esg\esg-101\report\location\coalinga.jpg

COALINGA, JPG

PROJECT DIRECTORY

CLIENT:
- STATE OF CALIFORNIA
  DEPARTMENT OF GENERAL SERVICES
  707 3rd STREET, SUITE 3–305
  WEST SACRAMENTO, CA 95605
  (916) 376–1694
  (916) 376–1690 (FAX)
- STATE OF CALIFORNIA
  DEPARTMENT OF MENTAL HEALTH
  1600 9TH STREET, SUITE 250
  SACRAMENTO, CA 95814
  (916) 654–2652

CLIENT'S CONSTRUCTION MANAGER:
- SANDIS CONSTRUCTION MANAGEMENT
  980 NINTH STREET, SUITE 900
  SACRAMENTO, CA 95814
  (916) 444–3700
  (916) 448–6548 (FAX)

ARCHITECT:
- KAPLAN McLAUGHLIN DIAZ
  222 VALLEJO STREET
  SAN FRANCISCO, CA 94111
  (415) 399–4853
  (415) 399–4848 (FAX)

STRUCTURAL ENGINEER:
- THE CROSBY GROUP
  726 MAIN STREET
  REDWOOD CITY, CA 94063
  (650) 367–8100
  (650) 367–8189 (FAX)

MECHANICAL ENGINEER:
- MCF ENGINEERS, INC.
  452 TEHAMA STREET
  SAN FRANCISCO, CA 94103
  (415) 495–2130 EXT. 12
  (415) 495–2138 (FAX)

CIVIL ENGINEER:
- SANDIS HUMBER JONES
  605 CASTRO STREET
  MOUNTAIN VIEW, CA 94042
  (650) 969–6900
  (650) 969–6472 (FAX)

ELECTRICAL ENGINEER:
- TED JACOB ENGINEERING GROUP, INC.
  1763 BROADWAY
  OAKLAND, CA 94612
  (510) 763–4880
  (510) 763–5099 (FAX)

FOOD SERVICE CONSULTANT:
- THE MARSHALL ASSOCIATES
  401 13TH STREET
  OAKLAND, CA 94612
  (415) 677–1200
  (415) 677–1210 (FAX)

SECURITY ELECTRONICS CONSULTANT:
- HK ENGINEERING
  220 EAST DIVISION STREET
  SHERWOOD, OR 97140
  (503) 625–4443
  (503) 625–4187 (FAX)

LANDSCAPE ARCHITECT:
- PAESAGGIO LANDSCAPE ARCHITECTURE
  17 SE THIRD AVENUE, STUDIO 501
  PORTLAND, OR 97214
  (503) 239–5331
  (503) 239–5846 (FAX)

HARDWARE CONSULTANT:
- DOOR + HARDWARE CONSULTANTS
  388 MARKET STREET, SUITE 500
  SAN FRANCISCO, CA 94111
  (415) 623–2744
  (415) 651–9977 (FAX)

SIGNAGE CONSULTANT:
- ENGLUND DESIGN WORKS INC.
  2261 MORELLO AVENUE, SUITE D
  PLEASANT HILL, CA 94523–1812
  (925) 682–3646
  (925) 682–5464 (FAX)

WASTEWATER TREATMENT CONSULTANT:
- QUAD KNOPF INC.
  5500 MING AVENUE, SUITE 410
  BAKERSFIELD, CA 93309
  (661) 835–8300
  (661) 835–8311 (FAX)

TRAFFIC ENGINEER:
- CHS CONSULTING GROUP
  360 22nd STREET, SUITE 720
  OAKLAND, CA 94612
  (510) 272–9597
  (510) 272–0792 (FAX)

ELEVATOR CONSULTANT:
- HKA
  221 MAIN STREET, SUITE 1580
  SAN FRANCISCO, CA 94106
  (415) 243–0313
  (415) 243–0781 (FAX)

SPECIFICATIONS:
- SPECIFICATIONS WEST
  36889 N. TOM DARLINGTON DRIVE
  P.O. BOX 2800–296
  CAREFREE, AZ 85377
  (800) 646–3820
  (602) 595–9762 (FAX)

COST CONSULTANT:
- JACOBUS & YUANG
  520 D. GRAND AVENUE, SUITE 360
  LOS ANGELES, CA 90071
  (213) 688–1341
  (213) 688–1342 (FAX)

PROJECT BUILDING CODE SUMMARY & CONSTRUCTION DATA

	BLDG No.	BUILDING NAME	OCCUPANCY (1)	CONSTRUCTION TYPE	IMPORTANCE FACTOR	CLASSIFICATION	ACTUAL AREA	ALLOWABLE AREA	ROOF/FLOOR CONST. U.L. NUMBER & FIRE RATING	AUTOMATIC SPRINKLER SYSTEM
CORE BUILDING	01	MEDICAL ASSISTANCE UNIT	I–3	I F.R.	1.50	ESSENTIAL	N.A.	UNLIMITED	P–923/D–907(2 HOURS)	YES
	02	TREATMENT UNIT	I–3	I F.R.	1.50	ESSENTIAL	N.A.	UNLIMITED	P–923/D–907(2 HOURS)	YES
	03	TREATMENT UNIT	I–3	I F.R.	1.50	ESSENTIAL	N.A.	UNLIMITED	P–923/D–907(2 HOURS)	YES
	04	TREATMENT UNIT	I–3	I F.R.	1.50	ESSENTIAL	N.A.	UNLIMITED	P–923/D–907(2 HOURS)	YES
	05	TREATMENT UNIT	I–3	I F.R.	1.50	ESSENTIAL	N.A.	UNLIMITED	P–923/D–907(2 HOURS)	YES
	06	TREATMENT UNIT	I–3	I F.R.	1.50	ESSENTIAL	N.A.	UNLIMITED	P–923/D–907(2 HOURS)	YES
	07	TREATMENT UNIT	I–3	I F.R.	1.50	ESSENTIAL	N.A.	UNLIMITED	P–923/D–907(2 HOURS)	YES
	08	TREATMENT UNIT	I–3	I F.R.	1.50	ESSENTIAL	N.A.	UNLIMITED	P–923/D–907(2 HOURS)	YES
	09	PROGRAM ADMINISTRATION	I–3	I F.R.	1.50	ESSENTIAL	N.A.	UNLIMITED	P–923 (2 HOURS)	YES
	10	PROGRAM ADMINISTRATION	I–3	I F.R.	1.50	ESSENTIAL	N.A.	UNLIMITED	P–923 (2 HOURS)	YES
	11	PROGRAM ADMINISTRATION	I–3	I F.R.	1.50	ESSENTIAL	N.A.	UNLIMITED	P–923 (2 HOURS)	YES
	12	PROGRAM ADMINISTRATION	I–3	I F.R.	1.50	ESSENTIAL	N.A.	UNLIMITED	P–923 (2 HOURS)	YES
	13	RETHERM KITCHEN/PATIENT DINING	I–3	I F.R.	1.50	ESSENTIAL	N.A.	UNLIMITED	P–923 (2 HOURS)	YES
	14	RETHERM KITCHEN/PATIENT DINING	I–3	I F.R.	1.50	ESSENTIAL	N.A.	UNLIMITED	P–923 (2 HOURS)	YES
	15	HOSPITAL POLICE OFFICER STATION	I–3	I F.R.	1.50	ESSENTIAL	N.A.	UNLIMITED	P–923 (2 HOURS)	YES
	16	HOSPITAL POLICE OFFICER STATION	I–3	I F.R.	1.50	ESSENTIAL	N.A.	UNLIMITED	P–923 (2 HOURS)	YES
	17	PATIENT ASSESSMENT	I–3	I F.R.	1.50	ESSENTIAL	N.A.	UNLIMITED	P–923 (2 HOURS)	YES
	18	CENTRAL MEDICAL SERVICES	I–3	I F.R.	1.50	ESSENTIAL	N.A.	UNLIMITED	P–923 (2 HOURS)	YES
	19	RECREATION (SEE CODE ANALYSIS NOTE 5)	I–3	II – 1HR	1.50	ESSENTIAL	10,274	13,500	P–404 (1 HOUR)	YES
	20	PATIENT AND VISITOR MEETING AREAS	I–3	I F.R.	1.50	ESSENTIAL	N.A.	UNLIMITED	P–923 (2 HOURS)	YES
	21	LIBRARY SERVICES	I–3	I F.R.	1.50	ESSENTIAL	N.A.	UNLIMITED	P–923 (2 HOURS)	YES
	22	ACADEMIC EDUCATION/SUBSTANCE ABUSE SERVICES	I–3	I F.R.	1.50	ESSENTIAL	N.A.	UNLIMITED	P–923 (2 HOURS)	YES
	23	PASTORAL SERVICES	I–3	I F.R.	1.50	ESSENTIAL	N.A.	UNLIMITED	P–923 (2 HOURS)	YES
	24	PHARMACY SERVICES/CENTRAL SUPPLY	I–3	I F.R.	1.50	ESSENTIAL	N.A.	UNLIMITED	P–923 (2 HOURS)	YES
	25	CENTRAL HOSPITAL SERVICES/VOC. ED./MUSIC/ CLOTHING CENTER/PATIENT OPS/COMMONS	I–3	I F.R.	1.50	ESSENTIAL	N.A.	UNLIMITED	D–907 (2 HOURS)	YES
	26	VOCATIONAL EDUCATION	I–3	I F.R.	1.50	ESSENTIAL	N.A.	UNLIMITED	P–923 (2 HOURS)	YES
	27	HOSPITAL SUPPORT SERVICES/MUSIC CENTER	I–3	I F.R.	1.50	ESSENTIAL	N.A.	UNLIMITED	P–923 (2 HOURS)	YES
	28	ARTS CENTER/TREATMENT PROGRAM SUPPORT	I–3	I F.R.	1.50	ESSENTIAL	N.A.	UNLIMITED	P–923 (2 HOURS)	YES
		TOTAL FOR CORE BUILDING					916,210			
SUPPORT BUILDINGS	30	ADMINISTRATION BUILDING	B, A–3, F–2	II – 1HR	1.15	NON–ESSENTIAL	63,550	72,000	P–923 (ONE HOUR)	YES
	31	CDC/DPS/STAFF & VISITOR PROCESSING BUILDING	I–3, B	II – 1HR	1.50	ESSENTIAL	11,110	36,000	P–701 (ONE HOUR)	YES (2)
		VEHICLE SALLYPORT	–	–	1.50	ESSENTIAL	–	–	–	–
	32	PEDESTRIAN SALLYPORT GUARDTOWER (1)	B	II – N	1.25	NON–ESSENTIAL	170	12,000	–	NO
	33	VEHICLE SALLYPORT GUARDTOWER (2)	B	II – N	1.25	NON–ESSENTIAL	170	12,000	–	NO
	34	OFFICER'S STATION AT VEHICLE SALLYPORT	B	II – N		NON–ESSENTIAL	128	12,000	–	NO
	35	ELEVATED OFFICER'S STATIONS – TWO (1 & 2)	B	II – N		NON–ESSENTIAL	384	12,000	–	NO
	37	PLANT OPS. SHOP 1	F–1	II – N	1.00	NON–ESSENTIAL	6,923	18,000	–	YES
	38	PLANT OPS. SHOP 2	F–2,H–4,H–7	II – N	1.00	NON–ESSENTIAL	11,222	24,000	–	YES
	39	PLANT OPS./ADMIN./WAREHOUSE	B, S–1	II – N	1.50	ESSENTIAL	12,597	24,000	–	YES
	40	VOLATILE/HAZARDOUS MATERIALS STORAGE	H–2, H–7	II – N	1.25	NON–ESSENTIAL	2,256	7,400	–	YES
	42	CENTRAL PLANT	S–2	II – N	1.50	ESSENTIAL	22,984	49,400	–	YES
	43	WASTEWATER TREATMENT	H–3	II – N	1.50	ESSENTIAL	900	15,000	–	YES
	44	CENTRAL KITCHEN	F–1, S–2	II–FR	1.50	ESSENTIAL	45,221	79,800	D–916 (ONE HOUR)	YES (1)
	46	PUMP HOUSE	S–2	II – N	1.50	ESSENTIAL	996	12,000	–	NO
	48	CHLORINATION BUILDING	H–7	II – N	1.50	ESSENTIAL	192	12,000	–	YES
		TOTAL OF ALL CONDITIONED SPACES					143,655			

NOTES:
(1) KITCHEN HOOD ONLY.
(2) I–3 OCCUPANCY AREA ONLY.

CALIFORNIA STATE FIRE MARSHAL APPROVED

Approval of this plan does not authorize or approve any omission or deviation from applicable resolutions, final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

Reviewed by_____ Date_____

CSFM FIRE MARSHAL

CSFM FILE NUMBER: 19-10-44-0087-000-330-1

LICENSED ARCHITECT JAMES W. MISZLER No. C011536 REN. STATE OF CALIFORNIA

NO.	REVISION	DATE
	B.P. NO.2 – BID ISSUE	APR. 15, 2002

KAPLAN McLAUGHLIN DIAZ
ARCHITECTURE PLANNING
222 VALLEJO SAN FRANCISCO, CA 94111
(800)822-5191 FAX (415) 394-7158

KEY PLAN

STATE OF CALIFORNIA
DEPARTMENT OF GENERAL SERVICES

SECURE TREATMENT FACILITY

BUILDING: **BID PACKAGE NO. 2 VOLUME 1 OF 6 00-SERIES**

DRAWING			
PROJECT NO.	859–101		
DRAWN BY	CHKD.BY	DATE	
DATE	APRIL 15, 2002		
SCALE	N.T.S.		
TITLE	COVER SHEET – VOLUME 1 OF 6 BID PACKAGE NO. 2		
NUMBER	A0.00-00bp2		

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FOR REFERENCE ONLY

OFFICE OF THE STATE FIRE MARSHAL APPROVED FIRE AND PANIC ONLY

11/27/23
23-1693
SINCE 1885

Approval of this plan does not authorize or approve any omission or deviation from applicable resolutions. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

DGS GENERAL SERVICES

Department of General Services
Architecture & Engineering Sections
State of California
Real Estate Services Division
Project Management & Development Branch
707 Third Street, Suite 4-105
West Sacramento, California 95605

PROFESSIONAL STAMP

EXP. 12/31/23

OWEN
220 TECHNOLOGY DRIVE, SUITE 100
IRVINE, CA 92618
TEL: (949) 860-4

ALLOWABLE AREA BUILDING CALCULATIONS FOR CALIFORNIA STATE FIRE MARSHAL
(Tables and references are from the 1998 California Building Code)

1) BUILDINGS 01 THROUGH 28 (CORE BUILDING) – 916,210 SF

I–3 occupancy
Type I – F.R. construction, sprinklered

a) Basic allowable area (Table 5–B): Unlimited, so we're OK.

2) ADMINISTRATION BUILDING 30 – 63,550 SF

B/ A–3/ F–1 occupancies
Type II, 1– HR construction, sprinklered

a) Basic allowable areas (Table 5–B): B = 2 stories x 18,000 SF = 36,000 SF
A–3 = 13,500 SF
F–1 = 18,000 SF

b) Per Section 505.1.2, separation on 3 sides of a building by a yard of 60 feet or more in width allows for a 100% area increase. Therefore the allowable areas are: B : 2 x 36,000 SF = 72,000 SF
A–3 : 2 x 13,500 SF = 27,000 SF
F–1 : 2 x 18,000 SF = 36,000 SF

c) Actual areas of each occupancy are: B = 59,685 SF
A–3 = 1,115 SF
F–1 = 2,750 SF

Per Section 504.3, for mixed occupancies, the sum of the ratios of actual areas of each separate occupancy divided by the total allowable area for each cannot exceed one.
Therefore B = 59,685 SF / 72,000 SF = 0.83; A–3 = 1,115 SF / 27,000 SF = 0.04; F–1 = 2,750 SF / 36,000 SF = 0.08.
The ratios 0.83 + 0.04 + 0.08 = 0.95 < 1.00, so we're OK.

3) VISITOR PROCESSING BUILDING 31 – 11,110 SF

B / I–3 occupancy
Type II, 1 Hr. construction, I–3 Occupancy area sprinkelered

a) Basic allowable area (Table 5–B): B = 18,000 SF
I–3 = 5,200 SF (per Section 308.2.2.2, Exception)

b) Per Section 505.1.2, separation on 3 sides of a building by a yard of 60 feet or more in width allows for a 100% area increase.
Therefore the allowable areas are: B = 2 x 18,000 SF = 36,000 SF.
I–3 = 5,200 SF (no increase allowed)

c) Actual areas of occupancies are: B = 7,026 SF
I–3 = 4,084 SF
Per Section 504.3 for mixed occupancies, the sum of the ratios of actual areas of each separate occupancy divided by the total allowable area for each cannot exceed one.
Therefore B = 7,026 SF / 36,000 SF = .195 ; I–3 = 4,084 SF / 5,200 SF = .785

The ratios of 0.195 + 0.785 = 0.98 < 1.00 so we're OK.
Also, for I–3 4,084 SF < 5,200 SF, so we're OK as well.

4) PEDESTRIAN SALLYPORT GUARD TOWER 32 – 170 SF

B occupancy
Type II–N construction

a) Basic allowable area (Table 5–B): 12,000 SF

b) 170 SF < 12,000 SF, so we're OK.

c) Basic allowable height (Table 5–B): 55 feet

d) Building height of 35 feet < 55 feet, so we're OK.

5) VEHICLE SALLYPORT GUARD TOWER 33 – 170 SF

(same as Guard Tower 32)

6) OFFICER'S STATION AT VEHICLE SALLYPORT 34 – 128 SF

B occupancy
Type II–N construction

a) Basic allowable area (Table 5–B): 12,000 SF

b) 128 SF < 12,000 SF so we're OK.

7) ELEVATED OFFICER'S STATION 35 – 384 SF

B occupancy
Type II–N construction

a) Basic allowable area (Table 5–B): 12,000 SF

b) 384 SF < 12,000 SF, so we're OK.

8) CENTRAL WAREHOUSE 36 – 35,762 SF

see Bid Package 3

9) PLANT OPERATIONS SHOP 1, BUILDING 37 – 6,923 SF

F–1 occupancy
Type II–N construction

a) Basic allowable area (Table 5–B): 12,000 SF

b) Per Section 505.1.1, separation on 2 sides of a building by a yard of 60 feet or more in width allows for a 50% area increase. 1.5 x 12,000 SF = 18,000 SF.

c) 6,923 SF < 18,000 SF, so we're OK

10) PLANT OPERATIONS SHOP 2, BUILDING 38 – 11,222 SF

F–2/ H–4/ H–7 occupancy
Type II–N construction, sprinklered

a) Basic allowable areas (Table 5–B): F–2 = 18,000 SF
H–4 = 7,500 SF
H–7 = 12,000 SF

b) Per section 505.1.1, separation on 2 sides of a building by a yard of 60 feet or more in width allows for a 50% area increase. Therefore the allowable areas are:
F–2: 1.5 x 18,000 = 27,000 SF
H–4: 1.5 X 7,500 = 11,250 SF
H–7: 1.5 X 12,000 = 18,000 SF

c) Actual areas of each occupancy are: F–2 = 6,902 SF
H–4 = 2,640 SF
H–7 = 1,680 SF

Per Section 504.3, for mixed occupancies, the sum of the ratios of actual areas of each separate occupancy divided by the total allowable area for each cannot exceed one. Therefore:
F–2 = 6,902 SF / 27,000 SF = 0.26
H–4 = 2,640 SF / 11,250 SF = 0.24
H–7 = 1,680 SF / 18,000 SF = 0.09
The ratios 0.26 + 0.24 + 0.09 = 0.59 < 1.00, so we're OK.

11) PLANT OPERATIONS/ ADMINISTRATION / WAREHOUSE 39 – 12,597 SF

B / S–1 occupancy
Type II–N, sprinklered

a) Basic allowable area (Table 5–B): B and/or S–1 = 12,000 SF

b) Per Section 505.1.1, separation on 2 sides of a building by a yard of 60 feet or more in width allows for a 50% area increase. 1.5 x 12,000 SF = 18,000 SF.

c) 12,597 SF < 18,000 SF, so we're OK.

d) Actual areas of each occupancy are: B = 4,783 SF
S–1 = 7,551 SF

12) VOLATILE / HAZARDOUS MATERIALS STORAGE 40 – 2,256 SF

H–2/ H–7 occupancy
Type II–N construction, sprinklered per CBC 924.5

a) Basic allowable area (Table 5–B): H–2 = 3,700 SF
H–7 = 12,000 SF

b) Per Section 505.1.2, separation on 3 sides of a building by a yard of 60 feet or more in width allows for a 100% area increase. Therefore, the allowable areas are:
H2: 2 x 3,700 = 7,400 SF
H7: 2 x 12,000 = 24,000 SF

c) Actual areas of each occupancy are: H–2 = 1,824 SF
H–7 = 432 SF

Per Section 504.3, for mixed occupancies, the sum of the ratios of actual areas of each separate occupancy divided by the total allowable area for each cannot exceed one. Therefore:
H–2: 1,824 SF / 7,400 SF = 0.25
H–7: 432 SF / 24,000 SF = 0.02
The ratios 0.25 + 0.02 = 0.27 < 1.00, so we're OK.

13) MOTOR VEHICLE BUILDING 41 – 4,602 SF

see Bid Package 4

14) CENTRAL PLANT 42 – 22,984 SF

S–2 occupancy
Type II–N construction, sprinklered

a) Basic allowable area (Table 5–B): 18,000 SF

b) Per Section 505.1.2, separation on 3 sides of a building by a yard of 60 feet or more in width allows for a 100% area increase. 2 x 18,000 SF = 36,000 SF.

c) 22,984 SF < 36,000 SF, so we're OK .

15) WASTEWATER TREATMENT BUILDING 43 – 900 SF

H–3 occupancy
Type II–N construction, sprinklered

a) Basic allowable area (Table 5–B): 7,500 SF

b) Per Section 505.1.2, separation on 3 sides of a building by a yard of 60 feet or more in width allows for a 100% area increase. 2 x 7,500 SF = 15,000 SF.

c) 900 SF < 15,000 SF, so we're OK.

16) CENTRAL KITCHEN 44 – 45,221 SF

F–1 / S–2 occupancy
Type II – F.R. construction

a) Basic allowable area (Table 5–B): F–1 = 39,900 SF
S–2 = 59,900 SF

b) Per Section 505.1.2, separation on 3 sides of a building by a yard of 60 feet or more in width allows for a 100% area increase. Therefore the allowable areas are:
F–1: 2 x 39,900 SF = 79,800 SF
S–2: 2 x 59,900 SF = 119,800 SF

c) Actual areas of each occupancy are: F–1 = 33,011 SF
S–2 = 12,210 SF

Per Section 504.3, for mixed occupancies, the sum of the ratios of actual areas of each separate occupancy divided by the total allowable area for each cannot exceed one. Therefore:
F–1: 33,011 SF / 79,800 SF = 0.41
S–2: 12,210 SF / 119,800 SF = 0.10
The ratios 0.41 + 0.10 = 0.51 < 1.00, so we're OK.

17) PUMP HOUSE 46 – 996 SF

S–2 occupancy
Type II – N construction

a) Basic allowable area (Table 5–B): 12,000 SF
b) 996 SF < 12,000 SF, so we're OK.

18) CHLORINATION BUILDING 48 – 192 SF

H–7 occupancy
Type II – N construction, sprinklered

a) Basic allowable area (Table 5–B): 12,000 SF
b) 192 SF < 12,000 SF, so we're OK.

FOR REFERENCE ONLY

CALIFORNIA STATE FIRE MARSHAL APPROVED

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Reviewed by_____ Date_____

LICENSED ARCHITECT JAMES W. MUELLER No. C011536 REN. STATE OF CALIFORNIA

NO.	REVISION	DATE
	B.P. NO. 2 – BID ISSUE	APR. 15, 2002

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KEY PLAN

STATE OF CALIFORNIA
DEPARTMENT OF GENERAL SERVICES

SECURE TREATMENT FACILITY

BUILDING: ALLOWABLE AREA BUILDING CALCULATIONS FOR CSFM VOLUME 1 OF 6

PROJECT NO.	859–101		
DRAWN BY		CHKD.BY	DATE
DATE	APRIL 15, 2002		
SCALE	N.T.S.		
TITLE	ALLOWABLE AREA BUILDING CALCULATIONS VOL 1 OF 6		
NUMBER	A0.01-00		

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CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION
11/27/23
23-1693
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DGS GENERAL SERVICES
Department of General Services
Architecture & Engineering Sections
State of California
Real Estate Services Division
Project Management & Development Branch
707 Third Street, Suite 4-105
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PROFESSIONAL STAMP
EXP. 12/31/23

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www.owengroup.com

Issue

No.	Date	Description
	01/31/2022	Preliminary Plans
	08/31/2022	50% Working Drawings
	10/31/2022	95% Working Drawings
	03/31/2023	100% Working Drawings

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210

DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
AVAILABLE AREA BLDG CALCULATIONS VOLUME 1 OF 6

Project Number
000000000008666

Reference North

Sheet Scale
NTS

Sheet Number
A0.01-01
V4

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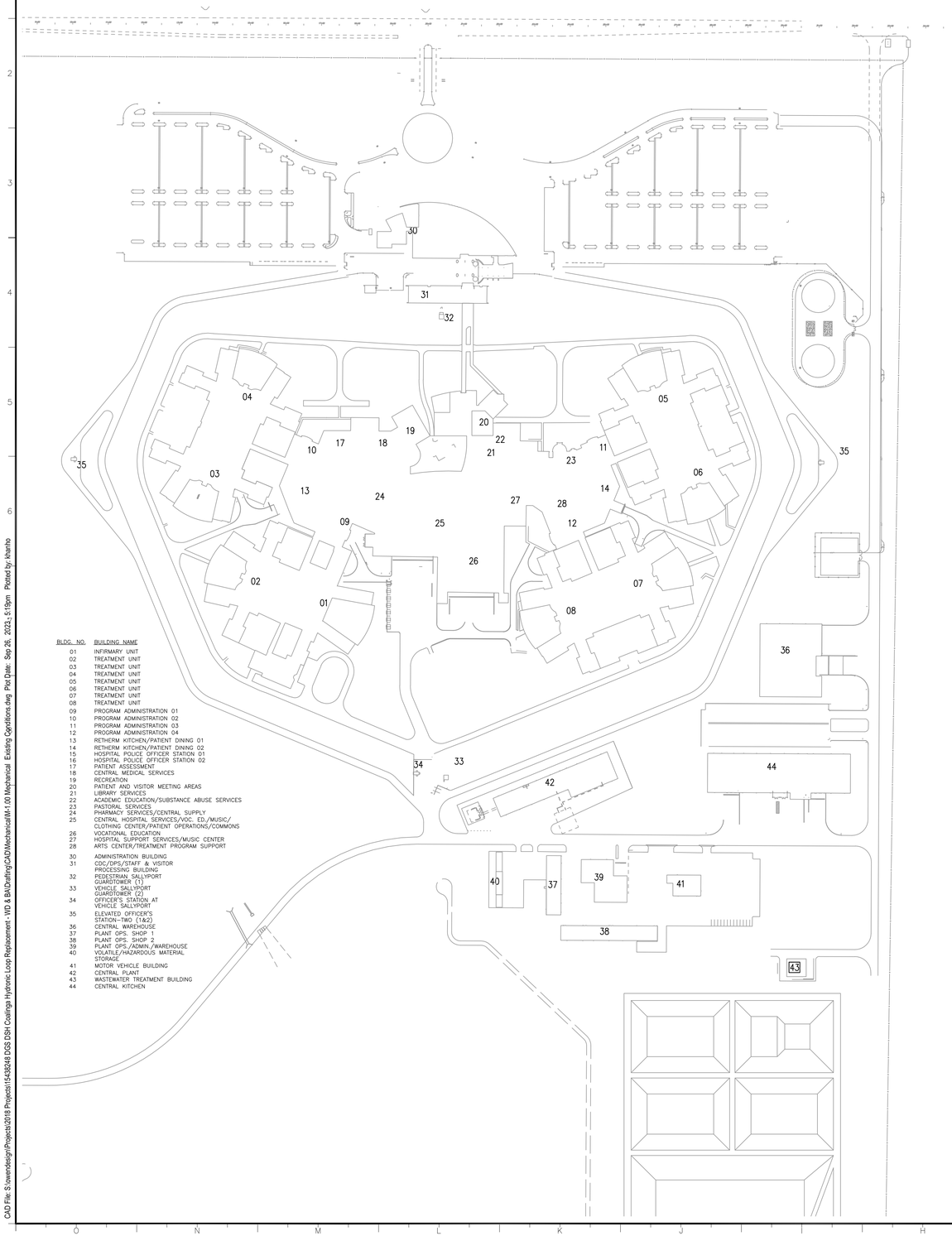
CAD File: S:\owendesign\Projects\2018 Projects\15438248 DGS DSH Coalinga Hydronic Loop Replacement - WD & BA\Drafting\CAD\Mechanical\A0.01.dwg Plot Date: Oct.03, 2023 - 6:06pm Plotted by:ykhanho

24 X 36

RELATIVE BORDER SCALE IN INCHES 0 1 2 3



BLDG. NO.	BUILDING NAME
01	INFIRMARY UNIT
02	TREATMENT UNIT
03	TREATMENT UNIT
04	TREATMENT UNIT
05	TREATMENT UNIT
06	TREATMENT UNIT
07	TREATMENT UNIT
08	TREATMENT UNIT
09	PROGRAM ADMINISTRATION 01
10	PROGRAM ADMINISTRATION 02
11	PROGRAM ADMINISTRATION 03
12	PROGRAM ADMINISTRATION 04
13	RETHERM KITCHEN/PATIENT DINING 01
14	RETHERM KITCHEN/PATIENT DINING 02
15	HOSPITAL POLICE OFFICER STATION 01
16	HOSPITAL POLICE OFFICER STATION 02
17	PATIENT ASSESSMENT
18	CENTRAL MEDICAL SERVICES
19	RECREATION
20	PATIENT AND VISITOR MEETING AREAS
21	LIBRARY SERVICES
22	ACADEMIC EDUCATION/SUBSTANCE ABUSE SERVICES
23	PASTORAL SERVICES
24	PHARMACY SERVICES/CENTRAL SUPPLY
25	CENTRAL HOSPITAL SERVICES/VOC. ED./MUSIC/ CLOTHING CENTER/PATIENT OPERATIONS/COMMONS
26	VOCATIONAL EDUCATION
27	HOSPITAL SUPPORT SERVICES/MUSIC CENTER
28	ARTS CENTER/TREATMENT PROGRAM SUPPORT
30	ADMINISTRATION BUILDING
31	CDC/DPS/STAFF & VISITOR PROCESSING BUILDING
32	PEDESTRIAN SALLYPORT GUARDTOWER (1)
33	VEHICLE SALLYPORT GUARDTOWER (2)
34	OFFICER'S STATION AT VEHICLE SALLYPORT
35	ELEVATED OFFICER'S STATION-TWO (1&2)
36	CENTRAL WAREHOUSE
37	PLANT OPS. SHOP 1
38	PLANT OPS. SHOP 2
39	PLANT OPS./ADMIN./WAREHOUSE
40	VOLATILE/HAZARDOUS MATERIAL STORAGE
41	MOTOR VEHICLE BUILDING
42	CENTRAL PLANT
43	WASTEWATER TREATMENT BUILDING
44	CENTRAL KITCHEN

HVAC & BUILDING LEGEND

GENERAL SYMBOLS

- D/L (SQ.FT.) — DOOR LOUVER (FREE AREA)
- L (SQ.FT.) — WALL LOUVER (FREE AREA)
- U — UNDERCUT DOOR
- SD — DUCT MOUNTED SMOKE DETECTOR
- P-1 — EQUIPMENT DESIGNATION; EQUIPMENT NO.
- 1 M-1 — DETAIL 1/SHEET M-1
- SQUARE OR RECTANGULAR CEILING REGISTER (RETURN OR EXHAUST)
- T — THERMOSTAT
- T — TEMPERATURE SENSOR
- Ø — DIAMETER
- PI — PRESSURE INDICATOR
- PE — PRESSURE ELEMENT
- PDE — PRESSURE DIFFERENTIAL ELEMENT
- TI — TEMPERATURE INDICATOR
- TE — TEMPERATURE ELEMENT
- LE — LEVEL ELEMENT
- FI — FLOW INDICATOR
- FE — FLOW ELEMENT
- ZI — POSITION INDICATOR
- ZE — POSITION ELEMENT
- EMS-CONNECTED ANALOG POINT.
- EMS-CONNECTED DIGITAL POINT
- LOCAL INSTRUMENT
- PNEUMATIC TUBING

PIPING SYMBOLS

- CHWS — CHILLED WATER SUPPLY
- CHWR — CHILLED WATER RETURN
- HHWS — HEATING HOT WATER SUPPLY
- HHWR — HEATING HOT WATER RETURN
- GATE VALVE OR SHUT-OFF VALVE
- CHECK VALVE
- ANGLE VALVE
- GLOBE VALVE
- PLUG COCK
- BALL VALVE
- BUTTERFLY VALVE
- BALANCING VALVE
- THREE-WAY VALVE
- PRV — PRESSURE RELIEF VALVE
- PRESSURE REDUCING VALVE
- STRAINER
- STRAINER WITH HOSE END BLOWDOWN VALVE
- AIR VENT (AUTOMATIC OR MANUAL)
- PRESSURE/TEMPERATURE TAP
- FLEXIBLE CONNECTION
- PIPE CAP
- PIPE RISE
- PIPE DROP
- PIPE CONNECTION, BOTTOM
- PIPE CONNECTION, TOP
- PRESSURE GAUGE
- POINT OF CONNECTION
- POINT OF DISCONNECTION
- CALIBRATED BALANCING VALVE
- FM — FLOW METER
- D — DRAIN VALVE
- ALIGNMENT GUIDE
- EXPANSION LOOP
- FLANGED CONNECTION
- UNION
- REDUCER
- DIRECTION OF FLOW
- THERMOMETER
- PNEUMATIC CONTROL VALVE
- ELECTRIC CONTROL VALVE
- PETE'S PLUG
- ISOLATION VALVE

ABBREVIATIONS

A.A.V.	AUTOMATIC AIR VENT
AD	ACCESS DOOR
AFD	AUTOMATIC FIRE DAMPER
AFF	ABOVE FINISHED FLOOR
AFS	AIR FLOW STATION
AH	AIR HANDLING UNIT
AMB.	AMBIENT
AP	ACCESS PANEL
A.V.	AIR VENT
B	BOILER
BD	BACKDRAFT DAMPER
BHP	BRAKE HORSEPOWER
BTU	BRITISH THERMAL UNIT
BTUH	BTU PER HOUR
CAV	CONSTANT AIR VOLUME
CB	CIRCUIT BREAKER
CD	CEILING DIFFUSER
CDW	CONDENSER WATER
CFM	CUBIC FEET PER MINUTE
CG	CEILING GRILL
CH	CHILLER
CPF	CHEMICAL POT FEEDER
CHP	CHILLED WATER PUMP
CHW	CHILLED WATER
CHWS	CHILLED WATER SUPPLY
CHWR	CHILLED WATER RETURN
CONT	CONTINUOUS
CR	CEILING REGISTER
CT	COOLING TOWER
CU FT	CUBIC FEET
CU IN	CUBIC INCHES
C.V.	CHECK VALVE
C.W.	COLD WATER MAKE-UP
CWS	CONDENSER WATER SUPPLY
CWR	CONDENSER WATER RETURN
DB	DRY BULB
D	DRAIN
D/L	DOOR LOUVER
D.S.	DISCONNECT SWITCH
DP	DIFFERENTIAL PRESSURE
(E)	EXISTING
EA	EXHAUST AIR
EF	EXHAUST FAN
EFF	EFFICIENCY
EG	EXHAUST GRILLE
EMS	ENERGY MANAGEMENT SYSTEM
ESP	EXTERNAL STATIC PRESSURE
E.W.T.	ENTERING WATER TEMPERATURE
F	FILTER
° F	DEGREE FAHRENHEIT
F/A	FROM ABOVE
F/B	FROM BELOW
FC	FAN COIL UNIT
FCV	FLOW CONTROL VALVE (AUTOMATIC)
FD	FIRE DAMPER
F.F.	FOULING FACTOR
F.H.	FUME HOOD
FLA	FULL LOAD AMP
FM	FLOW METER
FPM	FEET PER MINUTE
FSL	FLOW SWITCH LOW
FT	FEET
GAL	GALLON
GEV	GENERAL EXCHANGE VALVE
GL.V.	GLOBE VALVE
GPM	GALLON PER MINUTE
G.V.	GATE VALVE
HEV	HOOD EXCHANGE VALVE
HHW	HEATING HOT WATER
HHWS	HEATING HOT WATER SUPPLY
HHWR	HEATING HOT WATER RETURN
HOA	HAND-OFF-AUTO
HP	HORSEPOWER
HS	HAND SWITCH
HWP	HOT WATER PUMP
HX	HEAT EXCHANGER
HZ	HERTZ
IN	INCHES
IW	INDUSTRIAL WATER
KW	KILOWATT
L	LOUVER
LB	POUND
LSV	LABORATORY SUPPLY VALVE
LWT	LEAVING WATER TEMPERATURE
M.A.V.	MANUAL AIR VENT
MBH	THOUSAND BTU PER HOUR
MCA	MINIMUM CIRCUIT AMP
MCC	MOTOR CONTROL CENTER
MO	MOTORIZED DAMPER
(N)	NEW
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NG	NATURAL GAS
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OBD	OPPOSED BLADE DAMPER
OFD	OVERFLOW DRAIN
OAH	OUTSIDE AIR HOOD
OSA	OUTSIDE AIR
P	PUMP
P.C.	PLUG COCK
PD	PRESSURE DROP
P.G.	PRESSURE GAUGE
PH	PHASE
PICCV	PRESSURE INDEPENDENT CHARACTERIZED CONTROL VALVE
POC	POINT OF CONNECTION
POD	POINT OF DISCONNECTION
P.P.	PORTS PLUG
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PSIG	PSI GAUGE
RA	RETURN AIR
RAH	RETURN AIR HOOD
RF	RETURN FAN
RG	RETURN GRILL
RH	RELATIVE HUMIDITY
RLA	RATED LOAD AMP
RPM	REVOLUTIONS PER MINUTE
RV	RELIEF VALVE
SA	SUPPLY AIR
SD	SMOKE DETECTOR
SEP	AIR SEPARATOR
SFD	SMOKE/FIRE DAMPER
SF	SUPPLY FAN
SG	SUPPLY GRILL
SOV	SHUT-OFF VALVE
SP	STATIC PRESSURE
SQ.FT.	SQUARE FEET
S.S.	STAINLESS STEEL
STR.	STRAINER
SW	SWITCH
T	THROAT
THM	THERMOMETER
THY	THYRICAL
UN	UNION
U/R	UP THROUGH ROOF
VOL	VOLUME
VAV	VARIABLE AIR VOLUME
VD	VOLUME DAMPER
VFD	VARIABLE FREQUENCY DRIVE
WB	WET BULB
WC	WATER COLUMN
WG	WATER GAUGE
WSHP	WATER SOURCE HEAT PUMP

BUILDING LEGEND

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07	TREATMENT UNIT
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42	CENTRAL PLANT
43	WASTEWATER TREATMENT BUILDING
44	CENTRAL KITCHEN

HVAC AND PIPING NOTES

1. ANY HVAC EQUIPMENT FOR WHICH THERE IS A CALIFORNIA STANDARD ESTABLISHED IN THE APPLIANCE EFFICIENCY REGULATIONS SHALL COMPLY WITH THE APPLICABLE STANDARDS.
2. CONTRACTOR SHALL INSTALL PER PLAN & SPECIFICATIONS. SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO INSTALLATION.
3. PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM SHALL COMPLY WITH BRACED TO RESIST THE FORCES PRESCRIBED IN ASCE 7-05 SECTION 13.3 AS DEFINED IN ASCE 7.05 SECTION 13.6.8, 13.6.7 ITEM 6, AND 2013 CBC 1614A.1.13. THE BRACING AND ATTACHMENTS TO THE STRUCTURE SHALL COMPLY WITH ONE OF THE OSHPD PRE-APPROVAL WITH AN OPAF, SUCH AS MASON INDUSTRIES (OPA 340), OR ISAT (OPA 485) AS MODIFIED TO SATISFY ANCHORAGE REQUIREMENTS OF ACI 318, APPENDIX D. COPIES OF THE CODES AND STANDARDS SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF HANGING AND BRACING OF THE PIPE, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS.
4. HORIZONTAL PIPE SUPPORTS ON THE ROOF SHALL BE SPACED NO MORE THAN 5 FEET APART.
5. ABOVE-GROUND PIPING SHALL BE AS SPECIFIED IN SPECIFICATIONS SECTION 23 20 13.
6. UNDERGROUND PIPING SHALL BE AS SPECIFIED IN SPECIFICATIONS SECTION 23 20 16.
7. VALVES FOR ABOVE-GROUND PIPING SHALL BE AS SPECIFIED IN SPECIFICATIONS SECTION 23 20 13, PARAGRAPH 2.04.
8. VALVES FOR UNDERGROUND PIPING SHALL BE AS SPECIFIED IN SPECIFICATIONS SECTION 23 20 16, PARAGRAPH 2.04.
9. ALL OTHER VALVES SHALL BE PROVIDED AS SPECIFIED IN SPECIFICATIONS SECTION 23 20 00.

APPLICABLE CODES

2022	BUILDING STANDARDS ADMINISTRATIVE CODE, PART 1, TITLE 24 C.C.R.
2022	CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 C.C.R.
2022	CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 C.C.R.
2022	CALIFORNIA MECHANICAL CODE (CMC) PART 4, TITLE 24 C.C.R.
2022	CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 C.C.R.
2022	CALIFORNIA ENERGY CODE, PART 6, TITLE 24 C.C.R.
2022	CALIFORNIA ELEVATOR CODE, PART 7, TITLE 24 C.C.R.
2022	CALIFORNIA FIRE CODE PART 9, TITLE 24 C.C.R.
2022	CALIFORNIA REFERENCED STANDARDS, PART 12, TITLE 24 C.C.R.

TITLE 19 C.C.R., PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS.

PARTIAL LIST OF APPLICABLE STANDARDS

NFPA 13	AUTOMATIC SPRINKLER SYSTEMS	2022 EDITION
NFPA 14	STANDPIPE SYSTEMS	2022 EDITION
NFPA 17	DRY CHEMICAL EXTINGUISHING SYSTEMS	2022 EDITION
NFPA 17A	WET CHEMICAL SYSTEMS	2022 EDITION
NFPA 20	STATIONARY PUMPS	2022 EDITION
NFPA 24	PRIVATE FIRE MAINS	2022 EDITION
NFPA 72	NATIONAL FIRE ALARM CODE (CALIFORNIA AMENDED) (NOTE SEE UL STANDARD 1971 FOR "VISUAL DEVICES")	2022 EDITION
NFPA 80	FIRE DOOR AND OTHER OPENINGS PROTECTIVES	2022 EDITION
NFPA 253	CRITICAL RADIANT FLUX OF FLOOR COVERING SYSTEMS	2022 EDITION
NFPA 2001	CLEAN AGENT FIRE EXTINGUISHING SYSTEMS	2022 EDITION

REFERENCE CODE SECTION FOR NFPA STANDARDS 2022 CBC (SFM) CHAPTER 35

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24511 WEST JAYNE AVE
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93210

DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL NOTES, LEGENDS, & EXISTING FACILITY SITE PLAN

Project Number
000000000008666

Reference North

Sheet Scale
1"=150'

Sheet Number
M-1.00
V4

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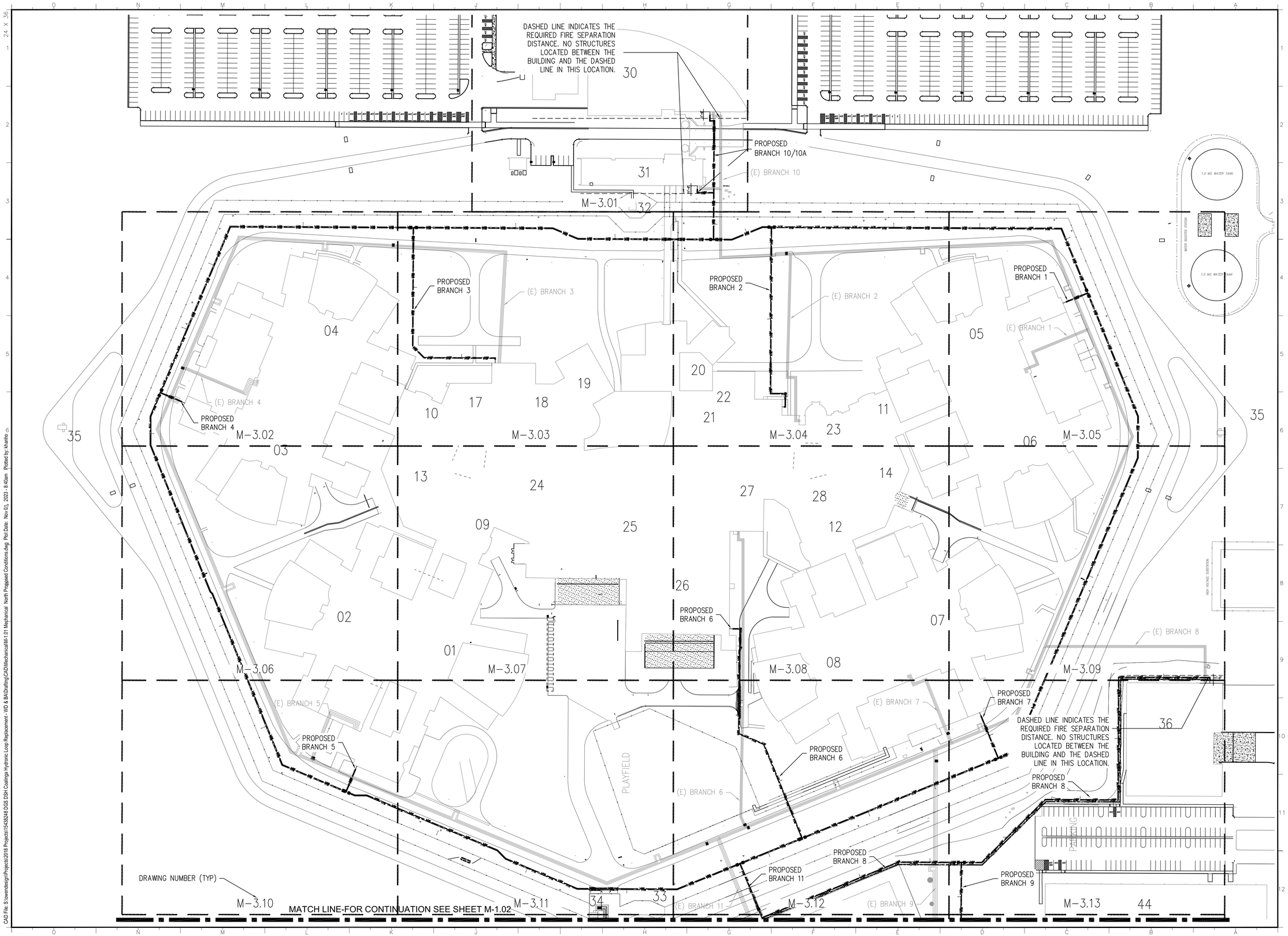
RELATIVE BORDER SCALE IN INCHES 0 1 2 3

CAD File: S:\owendesign\Projects\2018 Projects\154382-48 DGS\ Coalinga Hydronic Loop Replacement - WD & BA\Drafting\CAD\Mechanical\M-1.00 Mechanical Existing Conditions.dwg Plot Date: Sep 26, 2023,5:15pm Plotted by: khanho



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Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL NORTH PROPOSED SITEPLAN

Project Number
000000000008666

Reference North

Sheet Scale
1"=75'

Sheet Number
M-1.01

V4

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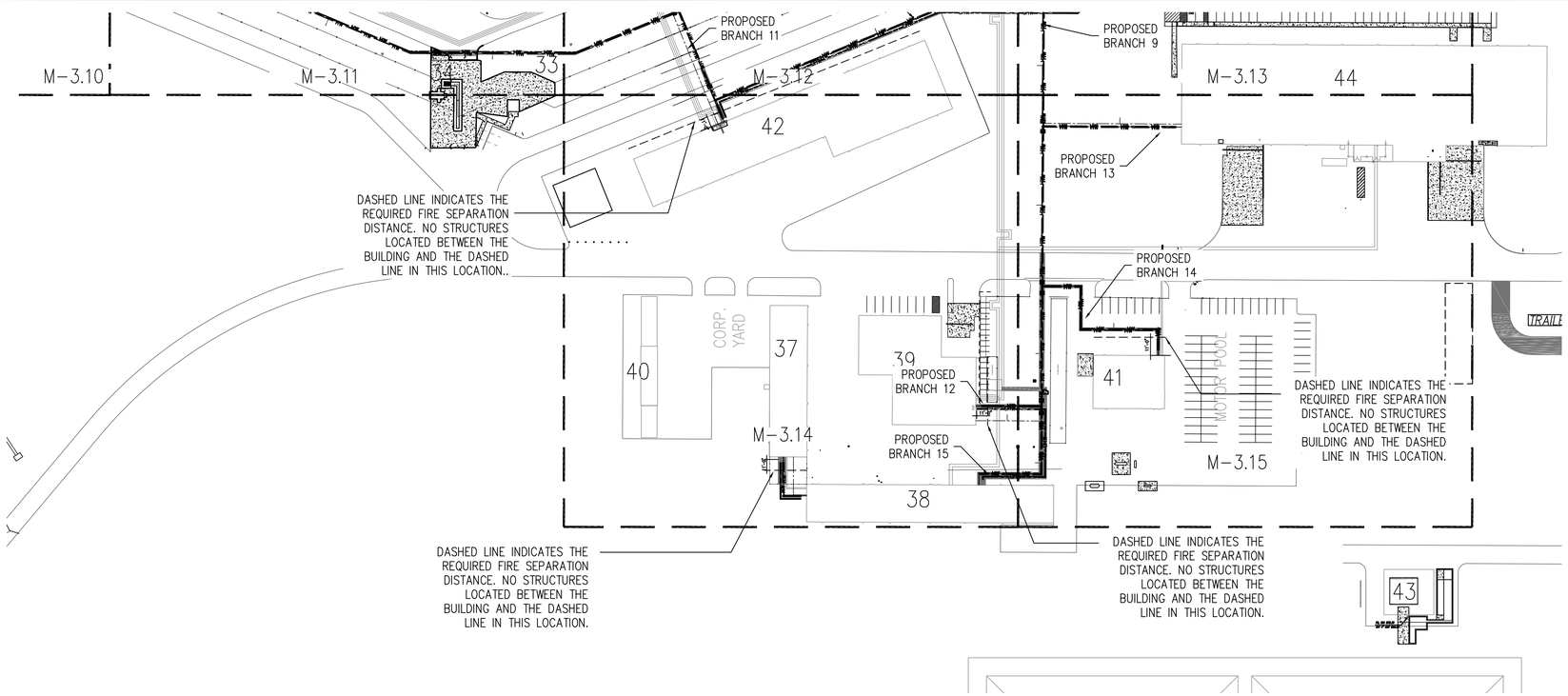
RELATIVE BORDER SCALE IN INCHES

CAD File: S:\owendesign\Projects\2018 Projects\1543624B DGS DSH Coalinga Hydronic Loop Replacement - WD & BA\Drafting\CAD\Mechanical\M-1.01 Mechanical North Proposed Conditions.dwg Plot Date: Nov 01, 2023 - 8:40am Plotted by: khanho



PLAN SUBMITTAL CHECKLIST ADMINISTRATION–BUILDING 30	
NEW CONSTRUCTION OR T.I.	EXISTING BUILDING TO REMAIN
NEW OR EXISTING TENANT SPACE	EXISTING TENANT SPACE
IDENTIFY IF DEFERRED SUBMITTAL	NONE
OCCUPANCY GROUPS AND VARIED USES	B, A–3, F–1 (ALMOST ENTIRELY B)
BUILDING CONSTRUCTION TYPE	II–1HR
NUMBER OF STORIES	2
ACTUAL BUILDING HEIGHT	36'–0"
BUILDING AREA IN SQUARE FEET	63,550 sf
AREA OF PROJECT SQUARE FEET	N/A
SEPARATED, NON–SEPARATED, ACCESSORY USE	NO SEPARATIONS
ALLOWABLE AREA	72,000 sf
AREA INCREASE	N/A
HEIGHT INCREASE	N/A
FIRE SPRINKLERS (TYPE, FULL/PARTIAL)	FULLY–SPRINKLERED
FIRE ALARM	YES
OTHER FIRE PROTECTION SYSTEM	N/A
SMOKE CONTROL SYSTEM	N/A
OCCUPANT LOAD FOR ENTIRE BUILDING	277
OCCUPANT LOAD FOR EACH FLOOR	227(1st)/50(2nd)
YEAR BUILDING WAS CONSTRUCTED	2002
HIGH FIRE HAZARD SEVERITY ZONE	N/A
SEISMIC JOINTS AND LOCATIONS	N/A
EMERGENCY RESPONDER RADIO COVERAGE	N/A

PLAN SUBMITTAL CHECKLIST VISITOR PROCESSING–BUILDING 31	
NEW CONSTRUCTION OR T.I.	EXISTING BUILDING TO REMAIN
NEW OR EXISTING TENANT SPACE	EXISTING TENANT SPACE
IDENTIFY IF DEFERRED SUBMITTAL	NONE
OCCUPANCY GROUPS AND VARIED USED	B, I–3
BUILDING CONSTRUCTION TYPE	II–1HR
NUMBER OF STORIES	1
ACTUAL BUILDING HEIGHT	23'–6"
BUILDING AREA IN SQUARE FEET	11,110 sf
AREA OF PROJECT SQUARE FEET	N/A
SEPARATED, NON–SEPARATED, ACCESSORY USE	NO SEPARATIONS
ALLOWABLE AREA	36,000 sf
AREA INCREASE	N/A
HEIGHT INCREASE	N/A
FIRE SPRINKLERS (TYPE, FULL/PARTIAL)	I–3 AREA FULLY–SPRINKLERED
FIRE ALARM	YES
OTHER FIRE PROTECTION SYSTEM	N/A
SMOKE CONTROL SYSTEM	N/A
OCCUPANT LOAD FOR ENTIRE BUILDING	111
OCCUPANT LOAD FOR EACH FLOOR	111
YEAR BUILDING WAS CONSTRUCTED	2002
HIGH FIRE HAZARD SEVERITY ZONE	N/A
SEISMIC JOINTS AND LOCATIONS	N/A
EMERGENCY RESPONDER RADIO COVERAGE	N/A

PLAN SUBMITTAL CHECKLIST CENTRAL WAREHOUSE–BUILDING 36	
NEW CONSTRUCTION OR T.I.	EXISTING BUILDING TO REMAIN
NEW OR EXISTING TENANT SPACE	EXISTING TENANT SPACE
IDENTIFY IF DEFERRED SUBMITTAL	NONE
OCCUPANCY GROUPS AND VARIED USED	S–1
BUILDING CONSTRUCTION TYPE	II–N
NUMBER OF STORIES	1
ACTUAL BUILDING HEIGHT	26'–6"
BUILDING AREA IN SQUARE FEET	35,762 sf
AREA OF PROJECT SQUARE FEET	N/A
SEPARATED, NON–SEPARATED, ACCESSORY USE	NO SEPARATIONS
ALLOWABLE AREA	500,000
AREA INCREASE	N/A
HEIGHT INCREASE	N/A
FIRE SPRINKLERS (TYPE, FULL/PARTIAL)	YES
FIRE ALARM	YES
OTHER FIRE PROTECTION SYSTEM	N/A
SMOKE CONTROL SYSTEM	N/A
OCCUPANT LOAD FOR ENTIRE BUILDING	72
OCCUPANT LOAD FOR EACH FLOOR	72
YEAR BUILDING WAS CONSTRUCTED	2002
HIGH FIRE HAZARD SEVERITY ZONE	N/A
SEISMIC JOINTS AND LOCATIONS	N/A
EMERGENCY RESPONDER RADIO COVERAGE	N/A

PLAN SUBMITTAL CHECKLIST PLANT OPERATIONS SHOP1–BUILDING 37	
NEW CONSTRUCTION OR T.I.	EXISTING BUILDING TO REMAIN
NEW OR EXISTING TENANT SPACE	EXISTING TENANT SPACE
IDENTIFY IF DEFERRED SUBMITTAL	NONE
OCCUPANCY GROUPS AND VARIED USED	F–1
BUILDING CONSTRUCTION TYPE	II–1HR
NUMBER OF STORIES	1
ACTUAL BUILDING HEIGHT	16'–0"
BUILDING AREA IN SQUARE FEET	6,923 sf
AREA OF PROJECT SQUARE FEET	N/A
SEPARATED, NON–SEPARATED, ACCESSORY USE	NO SEPARATIONS
ALLOWABLE AREA	18,000 sf
AREA INCREASE	N/A
HEIGHT INCREASE	N/A
FIRE SPRINKLERS (TYPE, FULL/PARTIAL)	FULLY–SPRINKLERED
FIRE ALARM	YES
OTHER FIRE PROTECTION SYSTEM	N/A
SMOKE CONTROL SYSTEM	N/A
OCCUPANT LOAD FOR ENTIRE BUILDING	139
OCCUPANT LOAD FOR EACH FLOOR	139
YEAR BUILDING WAS CONSTRUCTED	2002
HIGH FIRE HAZARD SEVERITY ZONE	N/A
SEISMIC JOINTS AND LOCATIONS	N/A
EMERGENCY RESPONDER RADIO COVERAGE	N/A

PLAN SUBMITTAL CHECKLIST PLANT OPERATIONS/ADMINISTRATION/WAREHOUSE/BUILDING 39	
NEW CONSTRUCTION OR T.I.	EXISTING BUILDING TO REMAIN
NEW OR EXISTING TENANT SPACE	EXISTING TENANT SPACE
IDENTIFY IF DEFERRED SUBMITTAL	NONE
OCCUPANCY GROUPS AND VARIED USED	B, S–1
BUILDING CONSTRUCTION TYPE	II–1HR
NUMBER OF STORIES	2
ACTUAL BUILDING HEIGHT	26'–0"
BUILDING AREA IN SQUARE FEET	12,597 sf
AREA OF PROJECT SQUARE FEET	N/A
SEPARATED, NON–SEPARATED, ACCESSORY USE	NO SEPARATIONS
ALLOWABLE AREA	18,000 sf
AREA INCREASE	N/A
HEIGHT INCREASE	N/A
FIRE SPRINKLERS (TYPE, FULL/PARTIAL)	FULLY–SPRINKLERED
FIRE ALARM	YES
OTHER FIRE PROTECTION SYSTEM	N/A
SMOKE CONTROL SYSTEM	N/A
OCCUPANT LOAD FOR ENTIRE BUILDING	20
OCCUPANT LOAD FOR EACH FLOOR	20
YEAR BUILDING WAS CONSTRUCTED	2002
HIGH FIRE HAZARD SEVERITY ZONE	N/A
SEISMIC JOINTS AND LOCATIONS	N/A
EMERGENCY RESPONDER RADIO COVERAGE	N/A

PLAN SUBMITTAL CHECKLIST MOTOR VEHICLE–BUILDING 41	
NEW CONSTRUCTION OR T.I.	EXISTING BUILDING TO REMAIN
NEW OR EXISTING TENANT SPACE	EXISTING TENANT SPACE
IDENTIFY IF DEFERRED SUBMITTAL	NONE
OCCUPANCY GROUPS AND VARIED USED	II–3, S–3
BUILDING CONSTRUCTION TYPE	II–N
NUMBER OF STORIES	1
ACTUAL BUILDING HEIGHT	26'–0"
BUILDING AREA IN SQUARE FEET	4,602 sf
AREA OF PROJECT SQUARE FEET	N/A
SEPARATED, NON–SEPARATED, ACCESSORY USE	SEPARATED
ALLOWABLE AREA	39,000
AREA INCREASE	N/A
HEIGHT INCREASE	N/A
FIRE SPRINKLERS (TYPE, FULL/PARTIAL)	YES
FIRE ALARM	YES
OTHER FIRE PROTECTION SYSTEM	N/A
SMOKE CONTROL SYSTEM	N/A
OCCUPANT LOAD FOR ENTIRE BUILDING	10
OCCUPANT LOAD FOR EACH FLOOR	10
YEAR BUILDING WAS CONSTRUCTED	2002
HIGH FIRE HAZARD SEVERITY ZONE	N/A
SEISMIC JOINTS AND LOCATIONS	N/A
EMERGENCY RESPONDER RADIO COVERAGE	N/A

PLAN SUBMITTAL CHECKLIST CENTRAL–BUILDING 42	
NEW CONSTRUCTION OR T.I.	EXISTING BUILDING TO REMAIN
NEW OR EXISTING TENANT SPACE	EXISTING TENANT SPACE
IDENTIFY IF DEFERRED SUBMITTAL	NONE
OCCUPANCY GROUPS AND VARIED USED	S–2
BUILDING CONSTRUCTION TYPE	II–1HR
NUMBER OF STORIES	1
ACTUAL BUILDING HEIGHT	26'–0"
BUILDING AREA IN SQUARE FEET	22,984 sf
AREA OF PROJECT SQUARE FEET	N/A
SEPARATED, NON–SEPARATED, ACCESSORY USE	NO SEPARATIONS
ALLOWABLE AREA	36,000 sf
AREA INCREASE	N/A
HEIGHT INCREASE	N/A
FIRE SPRINKLERS (TYPE, FULL/PARTIAL)	FULLY–SPRINKLERED
FIRE ALARM	YES
OTHER FIRE PROTECTION SYSTEM	N/A
SMOKE CONTROL SYSTEM	N/A
OCCUPANT LOAD FOR ENTIRE BUILDING	46
OCCUPANT LOAD FOR EACH FLOOR	46
YEAR BUILDING WAS CONSTRUCTED	2002
HIGH FIRE HAZARD SEVERITY ZONE	N/A
SEISMIC JOINTS AND LOCATIONS	N/A
EMERGENCY RESPONDER RADIO COVERAGE	N/A

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Issue

No.	Date	Description
	01/31/2022	Preliminary Plans
	08/31/2022	50% Working Drawings
	10/31/2022	95% Working Drawings
	03/31/2023	100% Working Drawings

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL SOUTH PROPOSED SITEPLAN

Project Number
000000000008666

Reference North

Sheet Scale
1"=75'

Sheet Number
M-1.02

V4

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CAD File: S:\owendesign\Projects\2018 Projects\15438248 DGS DSH Coalinga Hydronic Loop Replacement - WD & BA\Drafting\CAD\Mechanical\M-1.02 Mechanical South Proposed Conditions.dwg Plot Date: Nov 01, 2023 - 8:51am Plotted by: khanho (2)

RELATIVE BORDER SCALE IN INCHES 0 1 2 3

CONSTRUCTION SEQUENCING

DSH-COALINGA STATE HOSPITAL HYDRONIC LOOP REPLACEMENT PROJECT

The following is the construction sequence that the Contractor shall implement on the DSH-Coalinga State Hospital Hydronic Loop Replacement Project. Refer to the plans and specifications as an aid in understanding this required Construction Sequencing.

This addresses functional construction sequencing. The Contractor shall also implement security procedures into this Construction Sequencing, which are specified in specification Section 01 35 53 (Correctional Security Project Procedures) and Section 01 35 54 (Hospital Project Procedures).

Step 1. Construct the New Heating Hot Water (HHW) Hydronic Loops and New Chilled Water (CHW) on the Site

- Construct the new CHWS, CHWR, HHWS, and HHWR pipes as new, pre-insulated, pre-fabricated, direct-buired, CHW & HHW piping around the site as shown on the drawings. This can be done while the existing CHW and existing HHW hydronic loops remain operational because, at the places where the new direct-buried hydronic pipes will cross over the existing direct-buried hydronic pipes, the existing pipes appear to be buried deep enough to avoid construction interference.
- Where the drawings indicate pipe routing up to the rooftop, construct the CHWS, CHWR, HHWS, and HHWR pipes up to and emerging from the direct-buried hydronic pipes termination at the building exterior walls, then construct the building seismic connections and the manual isolation valves, then construct the pipes vertically up the building wall and along the rooftop to the intended points of connection (POCs). Terminate each new CHWS, CHWR, HHWS, and HHWR pipe with a blind flange near the POCs.
- Where the drawings indicate pipe routing to a mechanical room, construct the CHWS, CHWR, HHWS, and HHWR pipes up to and emerging from the direct-buried hydronic pipes termination at the building exterior walls, then construct the building seismic connections, then construct the pipes through the building wall to the intended points of connection (POCs). Terminate each new CHWS, CHWR, HHWS, and HHWR pipe with a manual isolation valve and a blind flange near the intended points of connection (POCs) in the various buildings.
- Pressure test the new HHW hydronic loops and CHW hydronic piping, either in full or in isolatable pipe sections. Pressure test requirements are covered in the Division 23 specifications sections.
- Clean the new HHW hydronic loops piping and CHW hydronic piping. Pipe cleaning requirements are covered in the Division 23 specifications sections.
- Do not proceed to the subsequent steps until the Inspector has approved the construction, testing, and cleaning of the new HHW hydronic loops site piping and CHW hydronic piping as described in Step 1 above and in the Drawings and Specifications.

Step 2. Make HHW Hydronic Loop and CHW Hydronic Piping Connections at the Central Plant

- Construct temporary HHWS, and HHWR pipe connections in the central plant to the existing HHW hydronic loop. This will be done to allow continued operation of the existing HHW hydronic loop while the permanent connections of the HHWS, and HHWR pipes are constructed in the central plant and while the individual building connections are made (see Step 3 below).
- Construct the permanent CHWS, CHWR, HHWS, and HHWR pipe connections in the central plant. CHWS and CHWR shall server Building 36
- Construct the permanent CHWS &R, and connecct them to exsiting CHWS&R from Building 39. CHWS and CHWR shall serve Building 38 and Building 37.
- Construct both the temporary and permanent pipe connections in the central plant such that the existing secondary HHW pumps can pump through both the existing and new HHW hydronic systems respectively.
- Pressure test the new temporary and permanent CHW and HHW piping at the central plant. Pressure test requirements are covered in the Division 23 specifications sections.
- Clean the new temporary and permanent CHW and HHW piping at the central plant. Pipe cleaning requirements are covered in the Division 23 specifications sections.
- Fill the new CHW and HHW hydronic systems with chemically-treated water similar to the existing hydronic loops.
- Pressurize, start-up, and operate the new HHW hydronic loops, CHW hydronic pipng, operating them in parallel with their existing HHW loops respectively.
- Do not proceed to the subsequent steps until the Inspector has approved the construction and testing of the new temporary and permanent HHW piping at the central plant as described in Step 2 above and in the Drawings and Specifications.

Step 3. Make the Individual Building Connections to the New CHW Piping and New HHW Site Hydronic Loops on a Building-By-Building Basis (or Branch-By-Branch Basis)

- Close the building's existing HHWS and HHWR main isolation valves in the existing HHWS and HHWR pipes on the inside of the building where they enter the building. This will isolate the existing building HHW distribution system from the existing site HHW hydronic loop.
- Drain the existing HHWS and HHWR building piping.
- Demolish the small sections of existing HHWS and HHWR piping at the points of disconnection (PODs) Blind flange the pipes at the PODs.
- Remove the blind flanges on the new HHWS and HHWR pipes (previously installed) and construct the new HHWS and HHWR pipe connections in the building or on the roof at the POCs. This will connect the existing HHWS and HHWR building piping to the new HHW site hydronic loop.
- Pressure test the new HHW piping in the building. Pressure test requirements are covered in the Division 23 specifications sections.
- Clean the new HHW piping in the building. Pipe cleaning requirements are covered in the Division 23 specifications sections.
- Open the new HHWS and HHWR main isolation valves. This will allow the building's HHW distribution system to be refilled with treated heating hot water from the new HHW site hydronic system.
- Step 3 should be done on an individual building-by-building basis (or branch-by-branch basis). The order of buildings being interconnected in this way is not necessarily important from a functional standpoint. However, it is recommended that a non-critical building be done first to see how this crossover procedure works prior to embarking on the crossover procedure for all the other buildings.
- Step 3 is intended to do the CWH and HHW crossovers, in any given building, sequentially and independently. This will minimize CHW and HHW system downtime for any given building undergoing this crossover procedure.
- Do not proceed to the next building/branch or subsequent steps until the Inspector has approved the construction, testing, cleaning, and start-up of the new CHW and HHW piping in an individual building, as described in Step 3 above and in the Drawings and Specifications.
- Step 3 will be complete when all buildings are connected in this way to the new HHW site hydronic loops and CHW hydronic piping.

Step 4. Commission the New HHW Site Hydronic Loop

- Close the isolation valves in the temporary HHWS and HHWR piping at the central plant. This will allow the existing secondary HHW pumps to pump through only the new HHW site hydronic system and through the buildings.
- Commission the new HHW site hydronic system.

Step 5. Demolish the Temporary HHW Piping Connections to the Existing Site Hydronic Loops at the Central Plant

- Demolish the temporary HHW piping connections to the existing site hydronic loops at the central plant.
- Abandon in place the existing direct-buried site hydronic HHW piping systems.

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Issue

No.	Date	Description
	01/31/2022	Preliminary Plans
	08/31/2022	50% Working Drawings
	10/31/2022	95% Working Drawings
	03/31/2023	100% Working Drawings

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
CONSTRUCTION SEQUENCING

Project Number
000000000008666

Reference North

Sheet Scale
NTS

Sheet Number
M-1.03
V4

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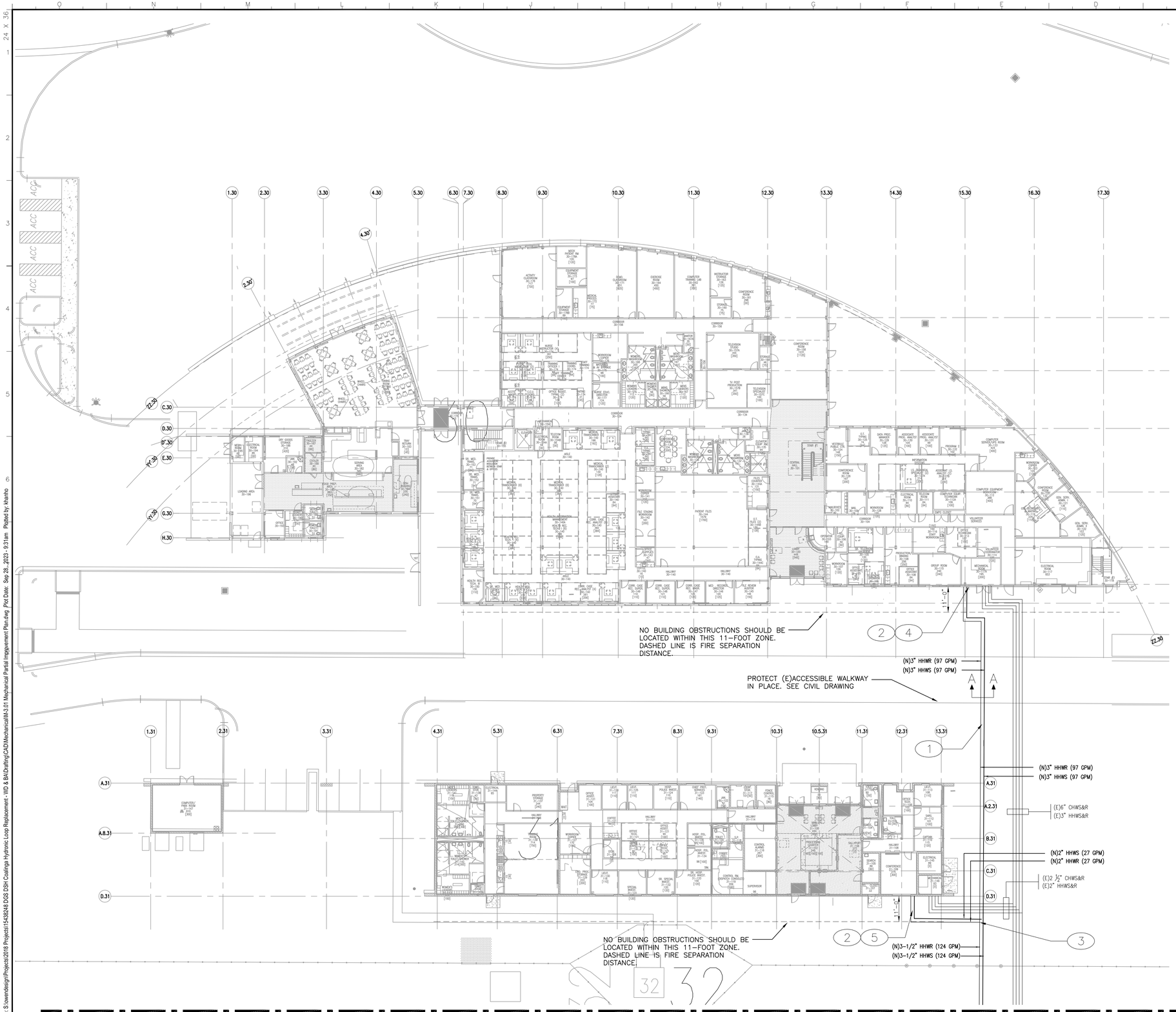
CAD File: S:\owendesign\Projects\2018 Projects\15438248 DGS DSH Coalinga Hydronic Loop Replacement - WD & BA\Drafting\CAD\Mechanical\M-1.03 Mechanical Construction Sequencing.dwg Plot Date: May 08, 2023 - 9:24am Plotted by: khanho

RELATIVE BORDER SCALE IN INCHES 0 1 2 3



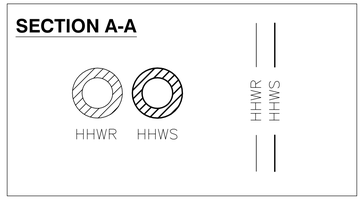
RECONSTRUCTION KEYNOTES:

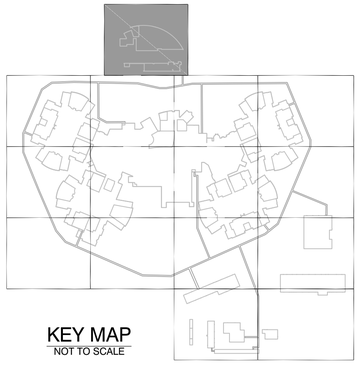
1. NEW HHWS&R HYDRONIC LOOP. SEE DETAIL 1/C-4.2 FOR UTILITY TRENCH AND BEDDING.
2. NEW HYDRONIC PIPELINE SEISMIC BUILDING CONNECTION. SEE DETAIL 1/M-5.00.
3. NEW HYDRONIC PIPELINE LOOP/LATERAL. SEE DETAILS ON C-4.3 FOR LOOP/LATERAL CONNECTION AND LOOP SECTION VIEW AT LATERAL.
4. SEE DRAWING M-4.30 FOR CONTINUATION.
5. SEE DRAWING M-4.31 FOR CONTINUATION.

GENERAL RECONSTRUCTION NOTES:

1. SHOWN ALIGNMENTS ARE TO BE FOLLOWED AND STAKED PRIOR TO CONSTRUCTION. STAKING PLAN SHALL BE PROVIDED TO STATE FOR REVIEW AND APPROVAL.
2. ALL NETWORK APPURTENANCES SHALL BE SELECTED BASED ON SPECIFICATIONS. VALVES SIZING SHALL MATCH THAT OF PIPELINE IN WHICH THEY WILL BE INSTALLED.
3. CONTRACTOR SHALL REFER TO PHASING PLAN AND INFORM FACILITY MANAGEMENT AND SITE SECURITY OF ANY SERVICE INTERRUPTIONS AT LEAST 2 WEEKS PRIOR TO COMMENCEMENT.

SECTION A-A





KEY MAP
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No.	Date	Description
	01/31/2022	Preliminary Plans
	08/31/2022	50% Working Drawings
	10/31/2022	95% Working Drawings
	03/31/2023	100% Working Drawings

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL PARTIAL IMPROVEMENT PLAN

Project Number
000000000008666

Reference North

Sheet Scale
1"=20'

Sheet Number
M-3.01
V4

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CAD File: S:\owendesign\Projects\2018 Projects\1543824B DGS DSH Coalinga Hydronic Loop Replacement - WD & BA\Drafting\CAD\Mechanical\M-3.01 Mechanical Partial Impgovement Plan.dwg Plot Date: Sep 28, 2023 - 9:31am Plotted by: khanho

RELATIVE BORDER SCALE IN INCHES 0 1 2 3

RECONSTRUCTION KEYNOTES:

1. NEW HHWS&R HYDRONIC LOOP. SEE DETAIL 1/C-4.2 FOR UTILITY TRENCH AND BEDDING.
2. NEW HYDRONIC PIPELINE SEISMIC BUILDING CONNECTION. SEE DETAIL 1/M-5.00.
3. NEW HYDRONIC PIPELINE LOOP/LATERAL. SEE DETAILS ON C-4.3 FOR LOOP/LATERAL CONNECTION AND LOOP SECTION VIEW AT LATERAL.
4. SEE DRAWING M-4.03 FOR CONTINUATION.
5. NEW HHWS&HHWR ISOLATION VALVES (SIZE PER PLAN) & VAULT, REFER TO C-4.3 . SEE STRUCTURAL PLANS FOR VAULT DETAIL.
6. REPLACE EXISTING CHWS&CHWR ISOLATION VALVES (SIZE PER PLAN) & VALVE VAULT, REFER TO C-4.2. CONSTRUCT VALVE VAULT PER STRUCTURAL DRAWINGS.

GENERAL RECONSTRUCTION NOTES:

1. SHOWN ALIGNMENTS ARE TO BE FOLLOWED AND STAKED PRIOR TO CONSTRUCTION. STAKING PLAN SHALL BE PROVIDED TO STATE FOR REVIEW AND APPROVAL.
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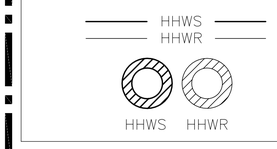
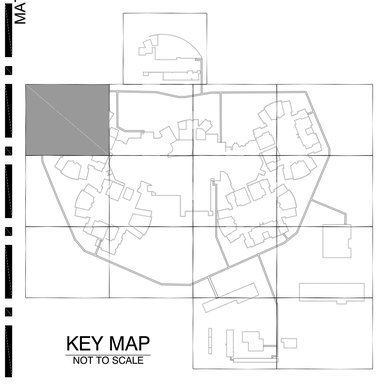
3. CONTRACTOR SHALL REFER TO PHASING PLAN AND INFORM FACILITY MANAGEMENT AND SITE SECURITY OF ANY SERVICE INTERRUPTIONS AT LEAST 2 WEEKS PRIOR TO COMMENCEMENT.

MATCH LINE-FOR CONTINUATION SEE SHEET M-3.03

SECTION A-A





KEY MAP
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	10/31/2022	95% Working Drawings
	03/31/2023	100% Working Drawings

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL PARTIAL IMPROVEMENT PLAN

Project Number
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Reference North

Sheet Scale
1"=20'

Sheet Number
M-3.02
V4

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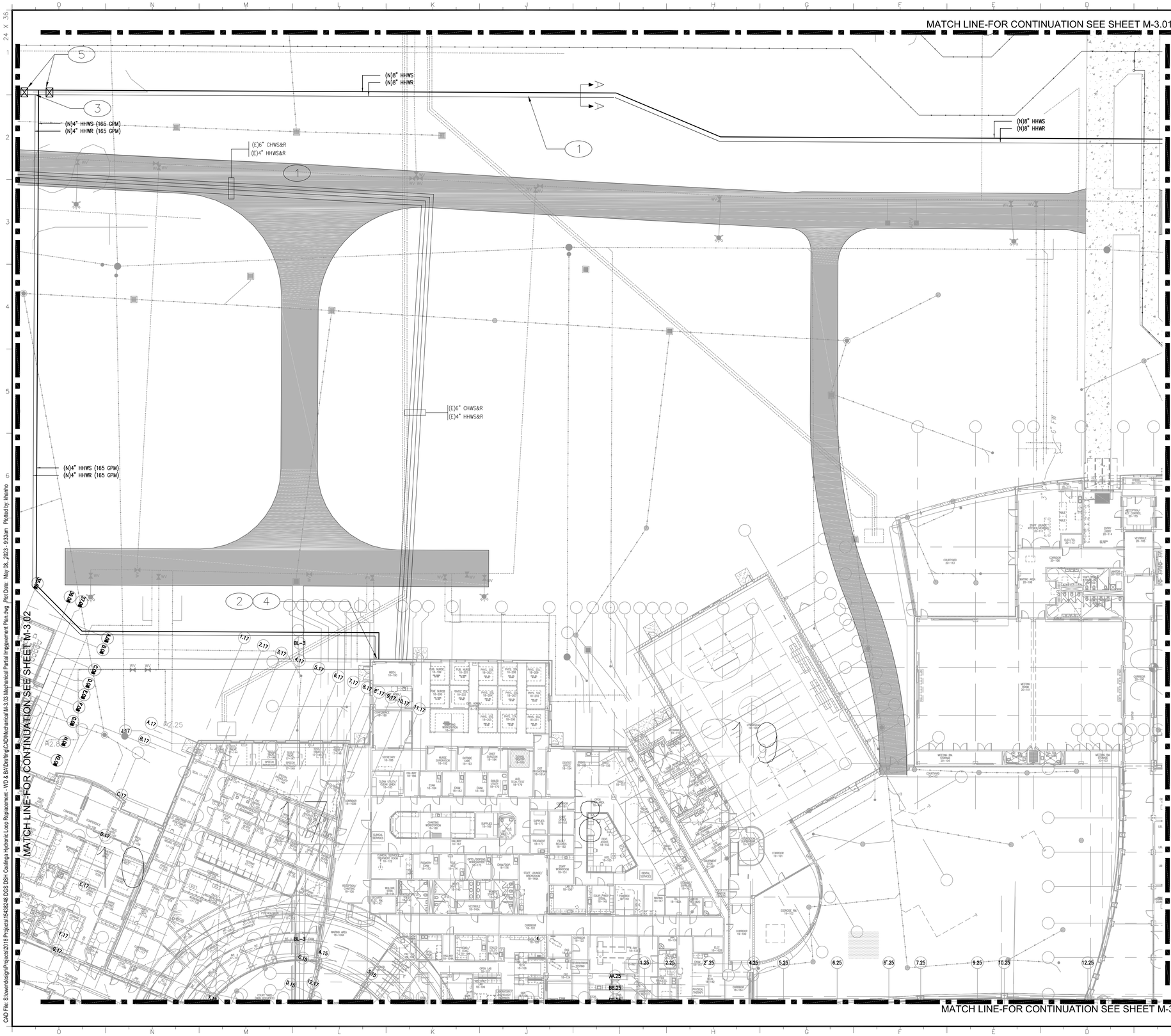
RELATIVE BORDER SCALE IN INCHES 0 1 2 3



RECONSTRUCTION KEYNOTES:

1. NEW HHWS&R HYDRONIC LOOP. SEE DETAIL 1/C-4.2 FOR UTILITY TRENCH AND BEDDING.
2. NEW HYDRONIC PIPELINE SEISMIC BUILDING CONNECTION. SEE DETAIL 1/M-5.00.
3. NEW HYDRONIC PIPELINE LOOP/LATERAL. SEE DETAILS ON C-4.3 FOR LOOP/LATERAL CONNECTION AND LOOP SECTION VIEW AT LATERAL.
4. SEE DRAWING M-4.18 FOR CONTINUATION.
5. NEW HHWS&HHWR ISOLATION VALVES (SIZE PER PLAN) & VAULT, REFER C-4.3. SEE STRUCTURAL PLANS FOR VAULT DETAIL.

GENERAL RECONSTRUCTION NOTES:

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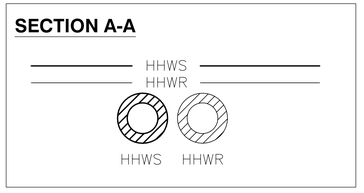
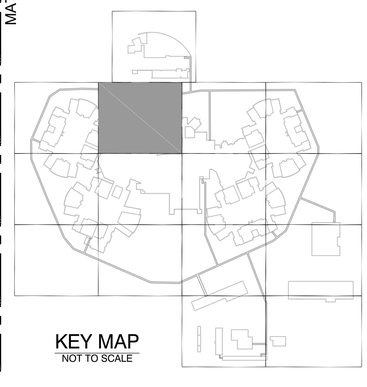
SECTION A-A





KEY MAP
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	10/31/2022	95% Working Drawings
	03/31/2023	100% Working Drawings

Project

DSH-COALINGA HYDRONIC LOOP REPLACEMENT

24511 WEST JAYNE AVE
COALINGA, CA
93210

DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

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Sheet Title

MECHANICAL PARTIAL IMPROVEMENT PLAN

Project Number
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Reference North

Sheet Scale
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Sheet Number
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RELATIVE BORDER SCALE IN INCHES 0 1 2 3

CAD File: S:\owendesign\Projects\2018 Projects\1543848 DGS DSH Coalinga Hydronic Loop Replacement - WD & BA\Drafting\CAD\Mechanical\M-3.03 Mechanical Partial Impgovement Plan.dwg Plot Date: May 08, 2023 - 9:33am Plotted by: khanho

MATCH LINE-FOR CONTINUATION SEE SHEET M-3.01

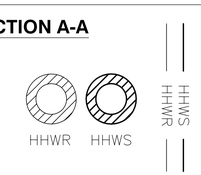
RECONSTRUCTION KEYNOTES:

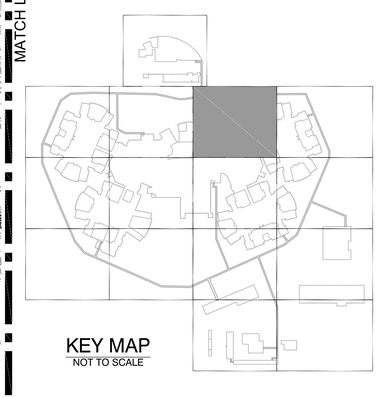
1. NEW HHWS&R HYDRONIC LOOP. SEE DETAIL 1/C-4.2 FOR UTILITY TRENCH AND BEDDING.
2. NEW HYDRONIC PIPELINE SEISMIC BUILDING CONNECTION. SEE DETAIL 1/M-5.00.
3. NEW HYDRONIC PIPELINE LOOP/LATERAL. SEE DETAILS ON C-4.3 FOR LOOP/LATERAL CONNECTION AND LOOP SECTION VIEW AT LATERAL.
4. SEE DRAWING M-4.23 FOR CONTINUATION.
5. NEW HHWS&HHWR ISOLATION VALVES (SIZE PER PLAN) & VAULT, REFER TO C-4.3. SEE STRUCTURAL PLANS FOR VAULT DETAIL.
6. REPLACE EXISTING CHWS&CHWR ISOLATION VALVES (SIZE PER PLAN) & VALVE VAULT, REFER TO C-4.2. CONSTRUCT VALVE VAULT PER STRUCTURAL DRAWINGS.

GENERAL RECONSTRUCTION NOTES:

1. SHOWN ALIGNMENTS ARE TO BE FOLLOWED AND STAKED PRIOR TO CONSTRUCTION. STAKING PLAN SHALL BE PROVIDED TO STATE FOR REVIEW AND APPROVAL.
2. ALL NETWORK APPURTENANCES SHALL BE SELECTED BASED ON SPECIFICATIONS. VALVES SIZING SHALL MATCH THAT OF PIPELINE IN WHICH THEY WILL BE INSTALLED.
3. CONTRACTOR SHALL REFER TO PHASING PLAN AND INFORM FACILITY MANAGEMENT AND SITE SECURITY OF ANY SERVICE INTERRUPTIONS AT LEAST 2 WEEKS PRIOR TO COMMENCEMENT.

SECTION A-A





KEY MAP
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23-1693
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www.owengroup.com

Issue

No.	Date	Description
	01/31/2022	Preliminary Plans
	08/31/2022	50% Working Drawings
	10/31/2022	95% Working Drawings
	03/31/2023	100% Working Drawings

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210

DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL PARTIAL IMPROVEMENT PLAN

Project Number
000000000008666

Reference North

Sheet Scale
1"=20'

Sheet Number
M-3.04
V4

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RELATIVE BORDER SCALE IN INCHES 0 1 2 3

CAD File: S:\overdesign\Projects\2018 Projects\15438248 DGS DSH Coalinga Hydronic Loop Replacement - VID & BA\Drafting\CAD\Mechanical\M-3.04 Mechanical Partial Improvement Plan.dwg Plot Date: May 08, 2023 - 9:37am Plotted by: khanho

RECONSTRUCTION KEYNOTES:

1. NEW HHWS&R HYDRONIC LOOP. SEE DETAIL 1/C-4.2 FOR UTILITY TRENCH AND BEDDING.
2. NEW HYDRONIC PIPELINE SEISMIC BUILDING CONNECTION. SEE DETAIL 1/M-5.00.
3. NEW HYDRONIC PIPELINE LOOP/LATERAL. SEE DETAILS ON C-4.3 FOR LOOP/LATERAL CONNECTION AND LOOP SECTION VIEW AT LATERAL.
4. SEE DRAWING 4.05 FOR CONTINUATION.
5. NEW HHWS&HHWR ISOLATION VALVES (SIZE PER PLAN) & VAULT, REFER TO C-4.3. SEE STRUCTURAL PLANS FOR VAULT DETAIL.

GENERAL RECONSTRUCTION NOTES:

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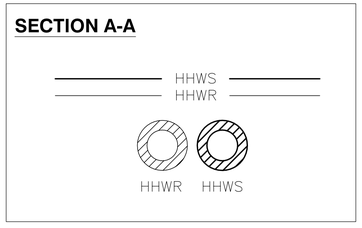
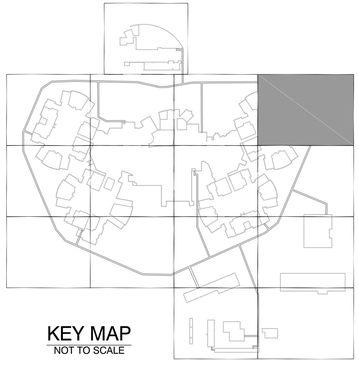
SECTION A-A





KEY MAP
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Issue No.	Date	Description
	01/31/2022	Preliminary Plans
	08/31/2022	50% Working Drawings
	10/31/2022	95% Working Drawings
	03/31/2023	100% Working Drawings

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL PARTIAL IMPROVEMENT PLAN

Project Number
000000000008666

Reference North

Sheet Scale
1"=20'

Sheet Number
M-3.05
V4

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CAD File: S:\owendesign\Projects\2018 Projects\1543624B DGS DSH Coalinga Hydronic Loop Replacement - WD & BA\Drafting\CAD\Mechanical\M-3.05 Mechanical Partial Improvement Plan.dwg Plot Date: May 08, 2023 - 9:40am Plotted by: khanho

RELATIVE BORDER SCALE IN INCHES 0 1 2 3

RECONSTRUCTION KEYNOTES:

1. NEW HHWS&R HYDRONIC LOOP. SEE DETAIL 1/C-4.2 FOR UTILITY TRENCH AND BEDDING.

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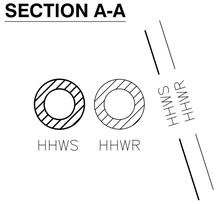
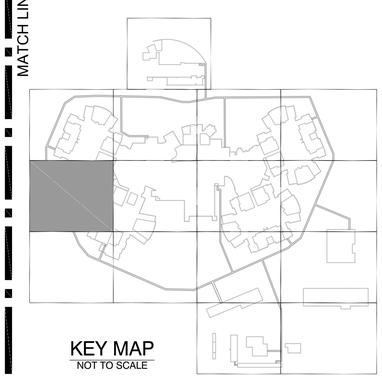
SECTION A-A





KEY MAP
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No.	Date	Description
	01/31/2022	Preliminary Plans
	08/31/2022	50% Working Drawings
	10/31/2022	95% Working Drawings
	03/31/2023	100% Working Drawings

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210

DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL PARTIAL IMPROVEMENT PLAN

Project Number
000000000008666

Reference North

Sheet Scale
1"=20'

Sheet Number
M-3.06
V4

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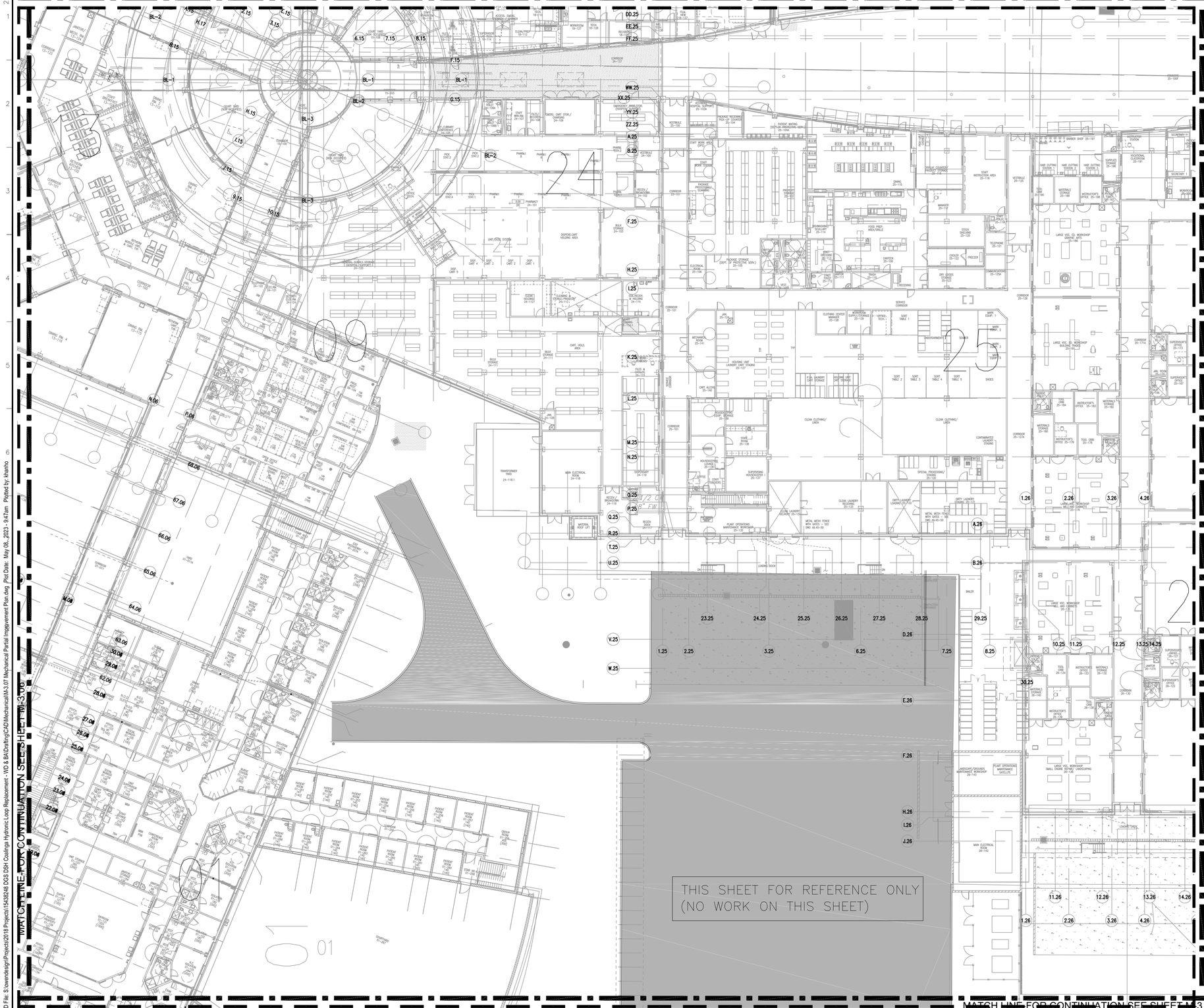
CAD File: S:\owendesign\Projects\2018 Projects\15438248 DGS DSH- Coalinga Hydronic Loop Replacement - WD & BA\Drafting\CAD\Mechanical\M-3.06 Mechanical Partial Improvement Plan.dwg Plot Date: May 08, 2023 - 9:43am Plotted by: khanho

RELATIVE BORDER SCALE IN INCHES 0 1 2 3

MATCH LINE-FOR CONTINUATION SEE SHEET M-3.03



RECONSTRUCTION KEYNOTES:

GENERAL RECONSTRUCTION NOTES:

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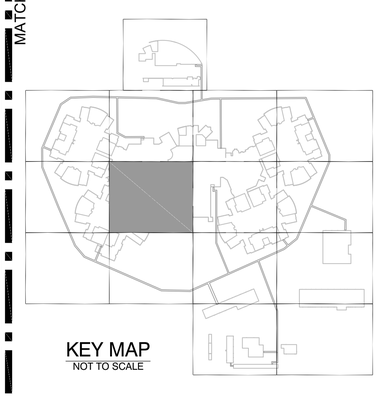

KEY MAP
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11/27/23
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Issue

No.	Date	Description
	01/31/2022	Preliminary Plans
	08/31/2022	50% Working Drawings
	10/31/2022	95% Working Drawings
	03/31/2023	100% Working Drawings

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210

DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL PARTIAL IMPROVEMENT PLAN

Project Number
0000000000008666

Reference North

Sheet Scale
1"=20'

Sheet Number
M-3.07
V4

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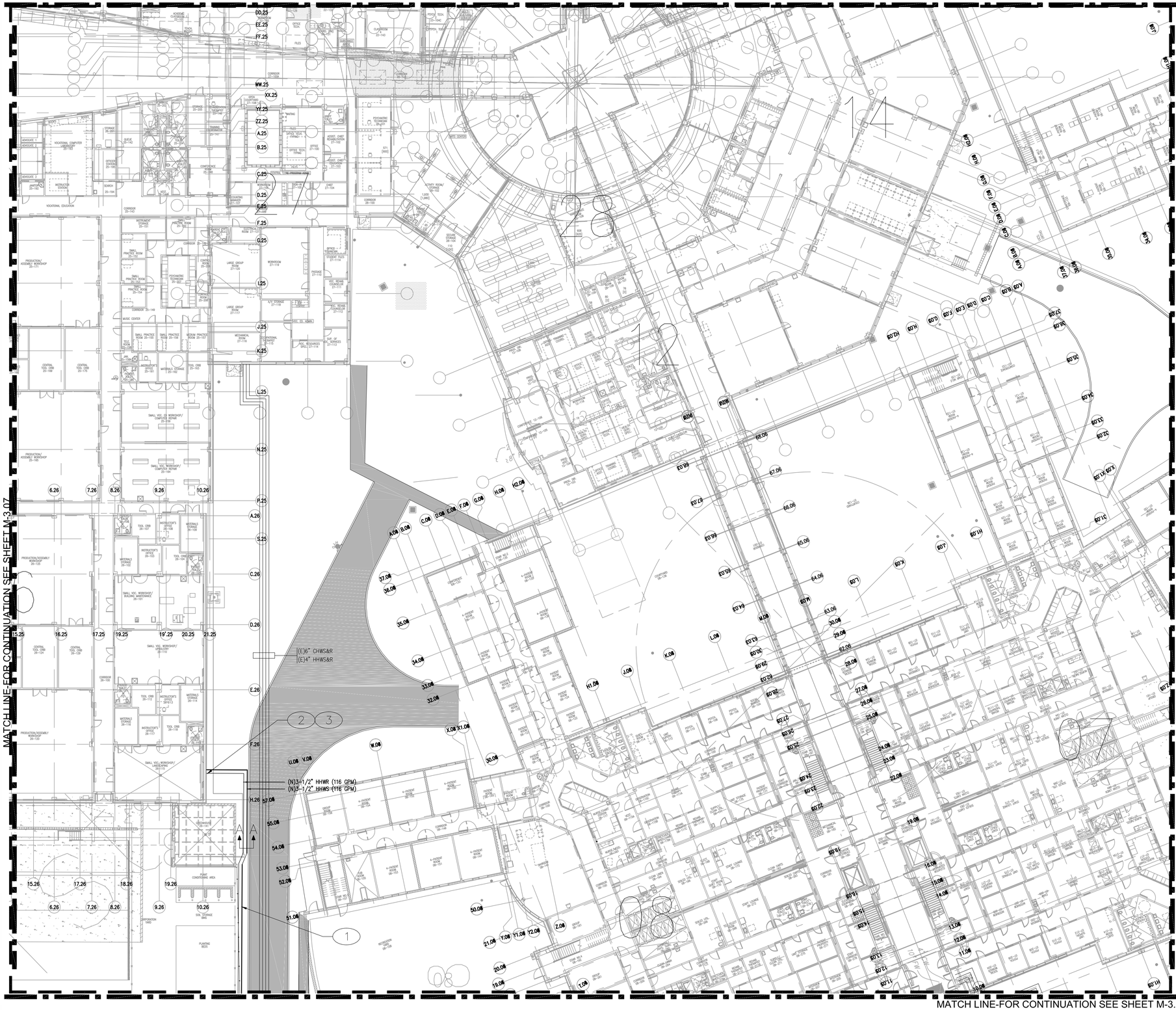
RELATIVE BORDER SCALE IN INCHES 0 1 2 3

CAD File: S:\owendesign\Projects\2018 Projects\154382/48 DGS DSH Coalinga Hydronic Loop Replacement - VID & BA\Drafting\CAD\Mechanical\M-3.07 Mechanical Partial Improvement Plan.dwg Plot Date: May 08, 2023 - 9:47am Plotted by: khanho

MATCH LINE-FOR CONTINUATION SEE SHEET M-3.04



MATCH LINE-FOR CONTINUATION SEE SHEET M-3.07

MATCH LINE-FOR CONTINUATION SEE SHEET M-3.09

MATCH LINE-FOR CONTINUATION SEE SHEET M-3.12

RECONSTRUCTION KEYNOTES:

1. NEW HHWS&R HYDRONIC LOOP. SEE DETAIL 1/C-4.2 FOR PIPING SUPPORTS AND CONFIGURATION.
2. NEW HYDRONIC PIPELINE SEISMIC BUILDING CONNECTION. SEE DETAIL 1/M-5.00.
3. SEE DRAWING M-4.27 FOR CONTINUATION.

GENERAL RECONSTRUCTION NOTES:

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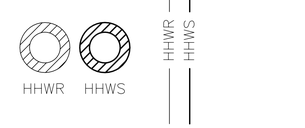
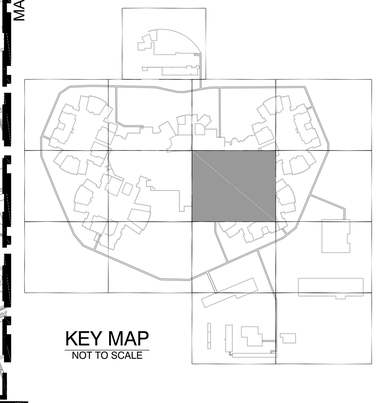
SECTION A-A





KEY MAP
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11/27/23
23-1693

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Issue

No.	Date	Description
	01/31/2022	Preliminary Plans
	08/31/2022	50% Working Drawings
	10/31/2022	95% Working Drawings
	03/31/2023	100% Working Drawings

Project

DSH-COALINGA HYDRONIC LOOP REPLACEMENT

24511 WEST JAYNE AVE
COALINGA, CA
93210

DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title

MECHANICAL PARTIAL IMPROVEMENT PLAN

Project Number
000000000008666

Reference North

Sheet Scale
1"=20'

Sheet Number
M-3.08

V4

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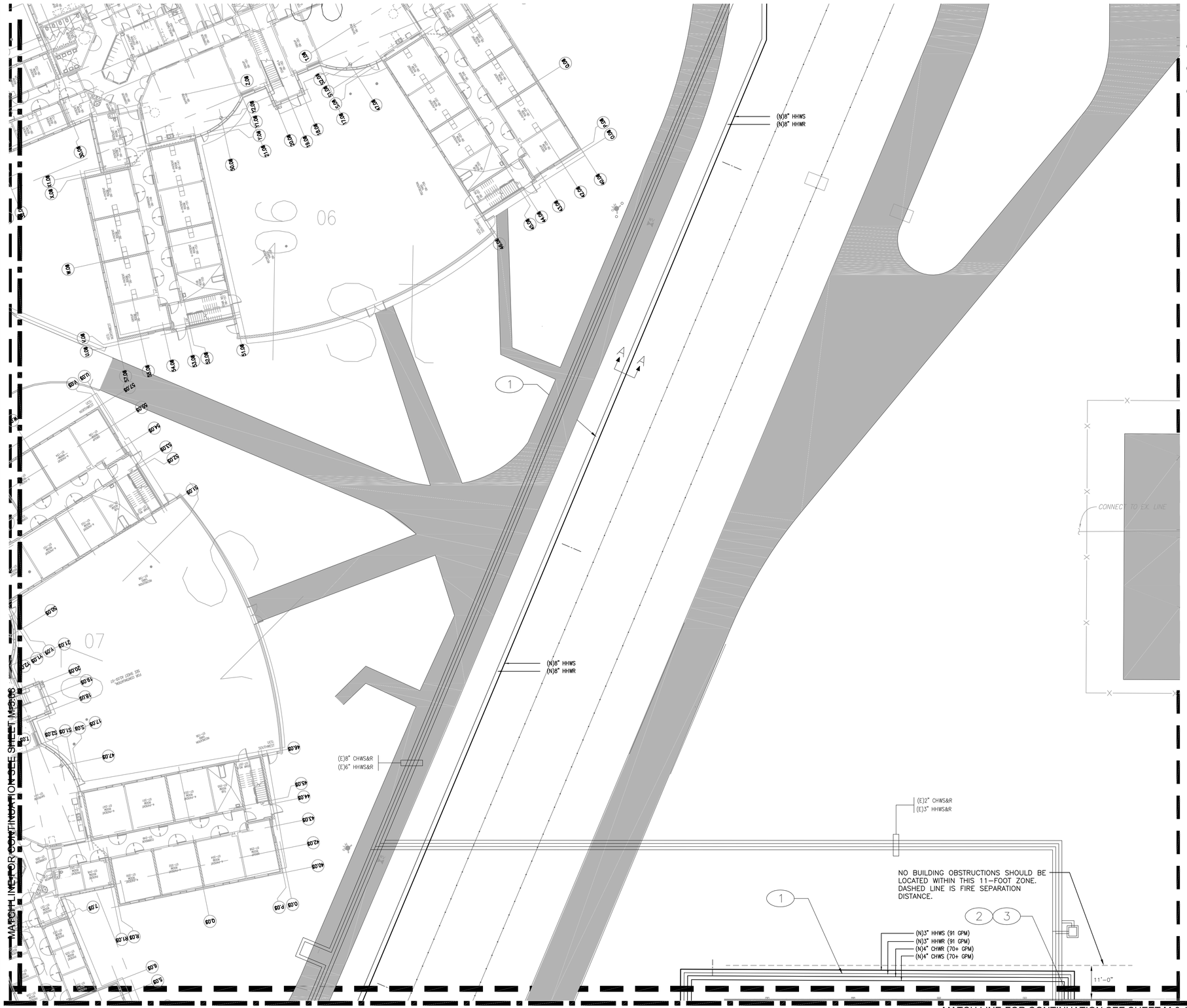
RELATIVE BORDER SCALE IN INCHES 0 1 2 3

CAD File: S:\owendesign\Projects\2018 Projects\1543624B DGS DSH- Coalinga Hydronic Loop Replacement - WD & BA\Drafting\CAD\Mechanical\M-3.08 Mechanical Partial Improvement Plan.dwg Plot Date: May 08, 2023 - 9:51am Plotted by: khanho

MATCH LINE-FOR CONTINUATION SEE SHEET M-3.05



MATCH LINE-FOR CONTINUATION SEE SHEET M-3.13

RECONSTRUCTION KEYNOTES:

1. NEW HHWS&R HYDRONIC LOOP. SEE DETAIL 1/C-4.2 FOR UTILITY TRENCH AND BEDDING.
2. NEW HYDRONIC PIPELINE SEISMIC BUILDING CONNECTION. SEE DETAIL 2/M-5.00.
3. SEE DRAWING M-4.36 FOR CONTINUATION.

GENERAL RECONSTRUCTION NOTES:

1. SHOWN ALIGNMENTS ARE TO BE FOLLOWED AND STAKED PRIOR TO CONSTRUCTION. STAKING PLAN SHALL BE PROVIDED TO STATE FOR REVIEW AND APPROVAL.
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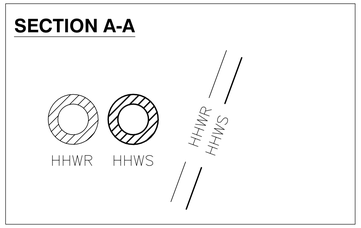
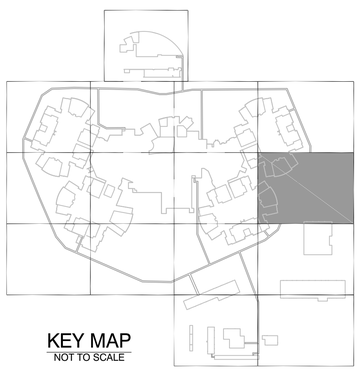
SECTION A-A





KEY MAP
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Issue

No.	Date	Description
	01/31/2022	Preliminary Plans
	08/31/2022	50% Working Drawings
	10/31/2022	95% Working Drawings
	03/31/2023	100% Working Drawings

Project

DSH-COALINGA HYDRONIC LOOP REPLACEMENT

24511 WEST JAYNE AVE
COALINGA, CA
93210

DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title

MECHANICAL PARTIAL IMPROVEMENT PLAN

Project Number
000000000008666

Reference North

Sheet Scale
1"=20'

Sheet Number
M-3.09

V4

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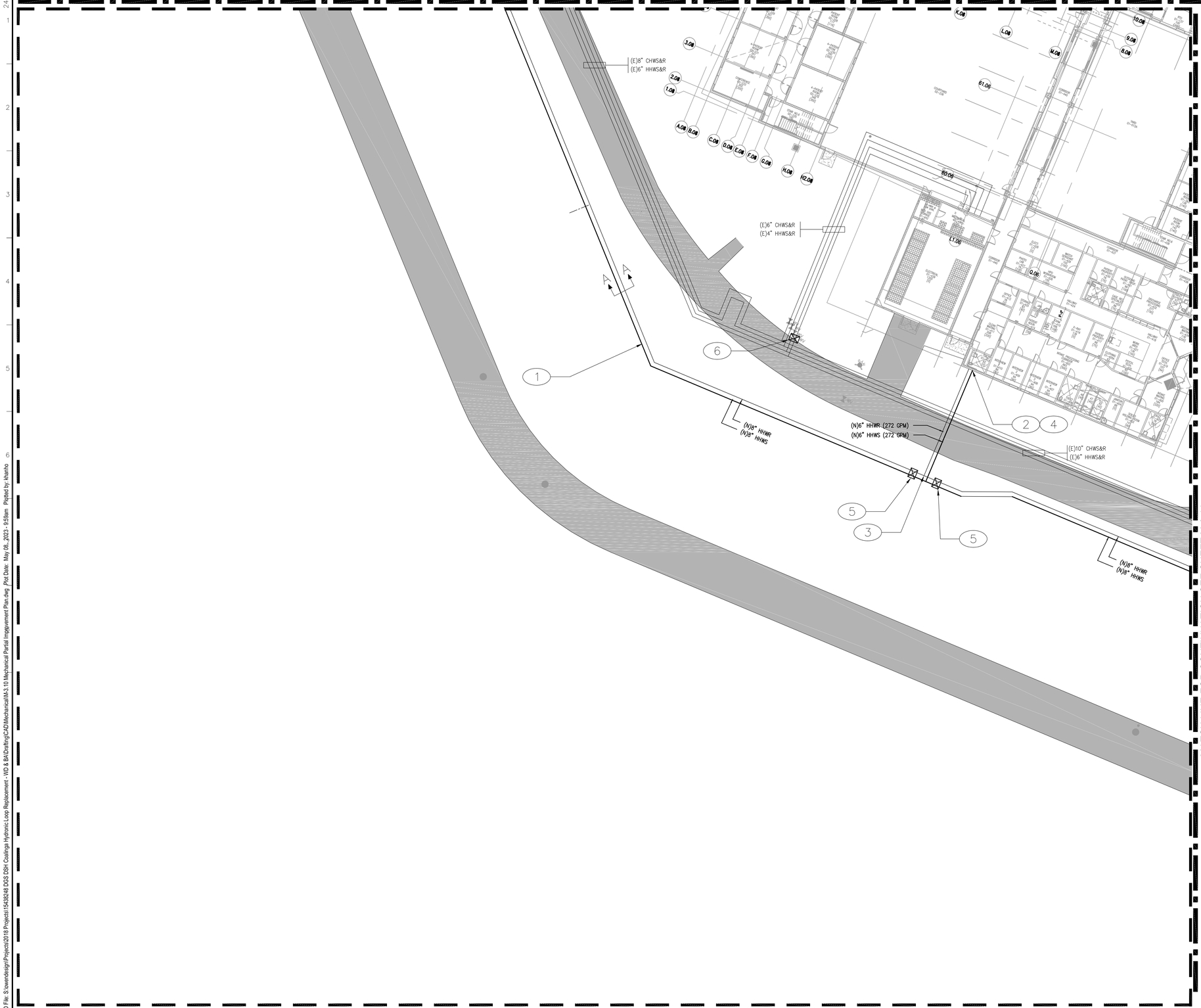
CAD File: S:\owendesign\Projects\2018 Projects\15438248 DGS DSH Coalinga Hydronic Loop Replacement - WD & BA\Drafting\CAD\Mechanical\M-3.09 Mechanical Partial Impjovement Plan.dwg Plot Date: Sep 28, 2023 - 9:53am Plotted by: khanho

RELATIVE BORDER SCALE IN INCHES 0 1 2 3

MATCH LINE-FOR CONTINUATION SEE SHEET M-3.06



MATCH LINE-FOR CONTINUATION SEE SHEET M-3.11

RECONSTRUCTION KEYNOTES:

1. NEW HHWS&R HYDRONIC LOOP. SEE DETAIL 1/C-4.2 FOR UTILITY TRENCH AND BEDDING.
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3. NEW HYDRONIC PIPELINE LOOP/LATERAL. SEE DETAILS ON C-4.3 FOR LOOP/LATERAL CONNECTION AND LOOP SECTION VIEW AT LATERAL.
4. SEE DRAWING M-4.01 FOR CONTINUATION.
5. NEW HHWS&HHWR ISOLATION VALVES (SIZE PER PLAN) & VAULT, REFER TO C-4.3. SEE STRUCTURAL PLANS FOR VAULT DETAIL.
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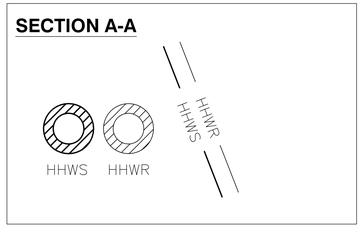
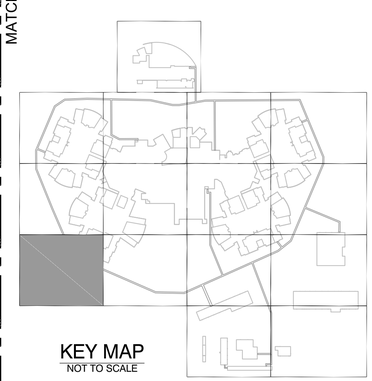
SECTION A-A





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DGS GENERAL SERVICES

Department of General Services
Architecture & Engineering Sections
State of California
Real Estate Services Division
Project Management & Development Branch
707 Third Street, Suite 4-105
West Sacramento, California 95605

PROFESSIONAL STAMP
EXP. 12/31/23

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FAX: (949) 860-4810
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Issue

No.	Date	Description
	01/31/2022	Preliminary Plans
	08/31/2022	50% Working Drawings
	10/31/2022	95% Working Drawings
	03/31/2023	100% Working Drawings

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL PARTIAL IMPROVEMENT PLAN

Project Number
0000000000008666

Reference North

Sheet Scale
1"=20'

Sheet Number
M-3.10
V4

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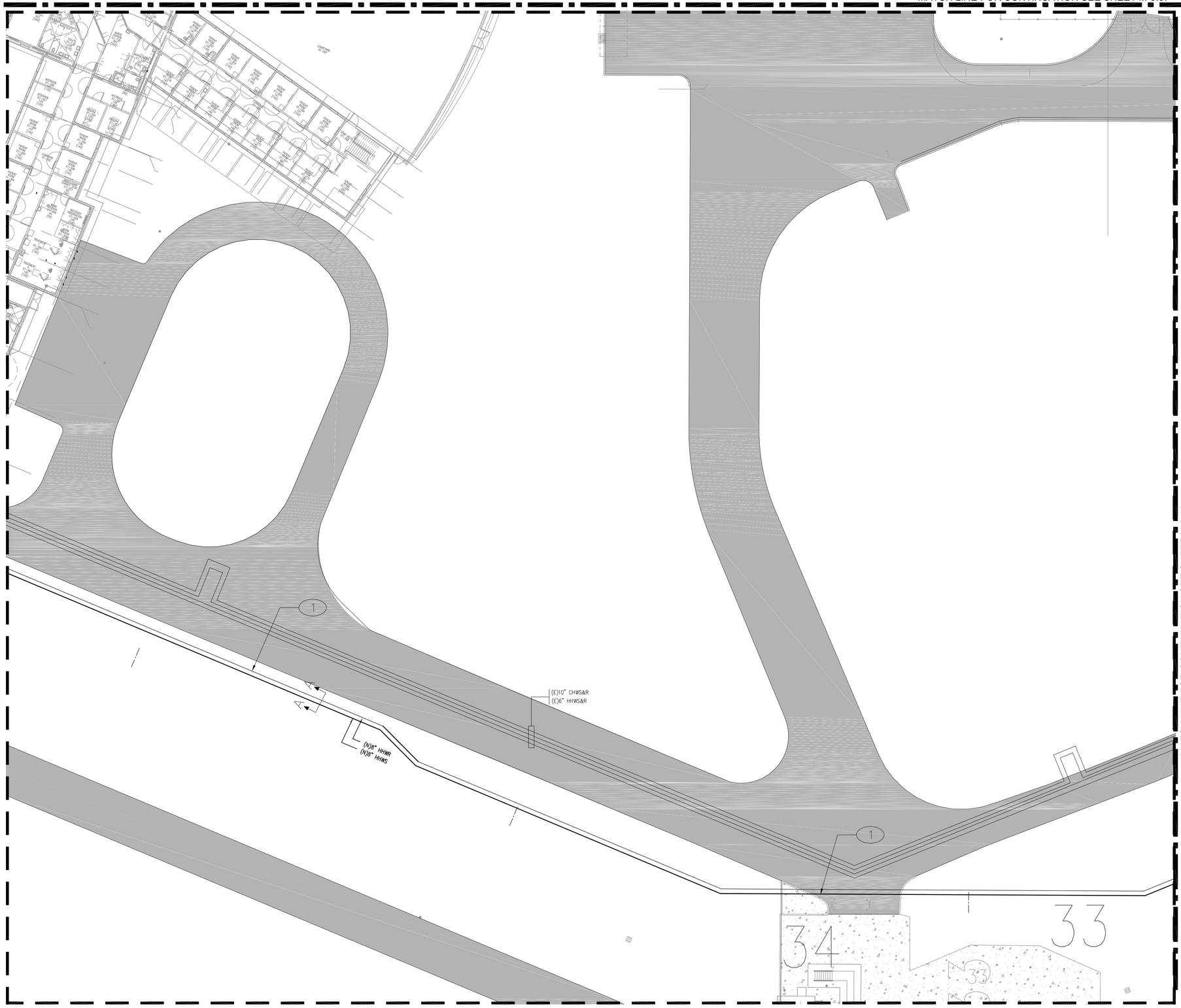
CAD File: S:\owendesign\Projects\2018 Projects\15438246 DGS DSH Coalinga Hydronic Loop Replacement - VID & BA\Drafting\CAD\Mechanical\M-3.10 Mechanical Partial Improvement Plan.dwg Plot Date: May 08, 2023 - 9:59am Plotted by: khanho

RELATIVE BORDER SCALE IN INCHES 0 1 2 3



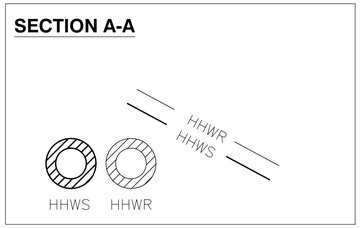
RECONSTRUCTION KEYNOTES:

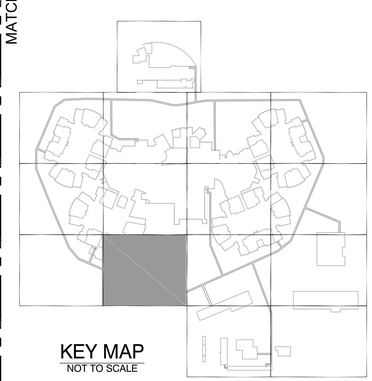
1. NEW HHWS&R HYDRONIC LOOP. SEE DETAIL 1/C-4.2 FOR UTILITY TRENCH AND BEDDING

GENERAL RECONSTRUCTION NOTES:

1. SHOWN ALIGNMENTS ARE TO BE FOLLOWED AND STAKED PRIOR TO CONSTRUCTION. STAKING PLAN SHALL BE PROVIDED TO STATE FOR REVIEW AND APPROVAL.
2. ALL NETWORK APPURTENANCES SHALL BE SELECTED BASED ON SPECIFICATIONS. VALVES SIZING SHALL MATCH THAT OF PIPELINE IN WHICH THEY WILL BE INSTALLED.
3. CONTRACTOR SHALL REFER TO PHASING PLAN AND INFORM FACILITY MANAGEMENT AND SITE SECURITY OF ANY SERVICE INTERRUPTIONS AT LEAST 2 WEEKS PRIOR TO COMMENCEMENT.

SECTION A-A





KEY MAP
NOT TO SCALE

OFFICE OF THE STATE FIRE MARSHAL
APPROVED FIRE AND PANIC ONLY
11/27/23
23-1693
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Project Number
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Sheet Scale
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Sheet Number
M-3.11
V4

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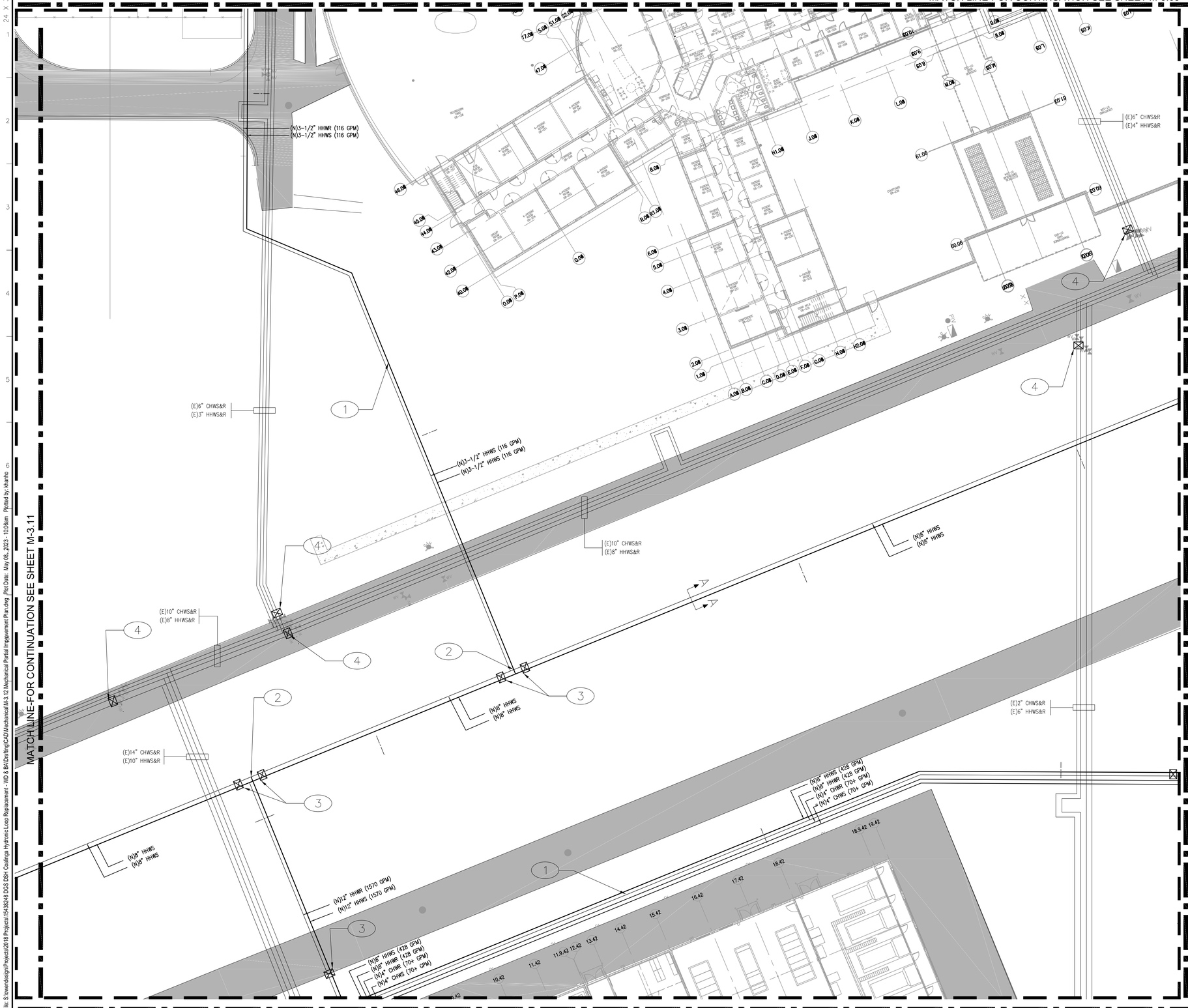
CAD File: S:\owendesign\Projects\2018 Projects\154362\48 DGS DSH Coalinga Hydronic Loop Replacement - VID & BA\Drafting\CAD\Mechanical\M-3.11 Mechanical Partial Improvement Plan.dwg Plot Date: May 08, 2023 - 10:02am Plotted by: khanho

RELATIVE BORDER SCALE IN INCHES 0 1 2 3

MATCH LINE-FOR CONTINUATION SEE SHEET M-3.08



MATCH LINE-FOR CONTINUATION SEE SHEET M-3.11

MATCH LINE-FOR CONTINUATION SEE SHEET M-3.13

MATCH LINE-FOR CONTINUATION SEE SHEET M-3.14

RECONSTRUCTION KEYNOTES:

1. NEW HHWS&R HYDRONIC LOOP. SEE DETAIL 1/C-4.2 FOR UTILITY TRENCH AND BEDDING.
2. NEW HYDRONIC PIPELINE LOOP/LATERAL. SEE DETAILS ON C-4.3 FOR LOOP/LATERAL CONNECTION AND LOOP SECTION VIEW AT LATERAL.
3. NEW HHWS&HHWR ISOLATION VALVES (SIZE PER PLAN) & VAULT, REFER TO C-4.3. SEE STRUCTURAL PLANS FOR VAULT DETAIL.
4. REPLACE EXISTING CHWS&CHWR ISOLATION VALVES (SIZE PER PLAN) & VALVE VAULT, REFER TO M-4.2. CONSTRUCT VALVE VAULT PER STRUCTURAL DRAWINGS.

GENERAL RECONSTRUCTION NOTES:

1. SHOWN ALIGNMENTS ARE TO BE FOLLOWED AND STAKED PRIOR TO CONSTRUCTION. STAKING PLAN SHALL BE PROVIDED TO STATE FOR REVIEW AND APPROVAL.
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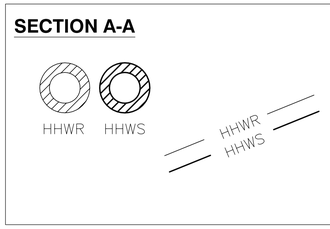
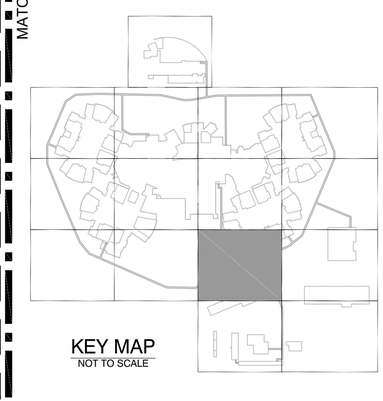
SECTION A-A





KEY MAP
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OFFICE OF THE STATE FIRE MARSHAL
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11/27/23
23-1693

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RH	KH	RH

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-	22-S-4509-O-DR

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Project Number
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Reference North

Sheet Scale
1"=20'

Sheet Number
M-3.12
V4

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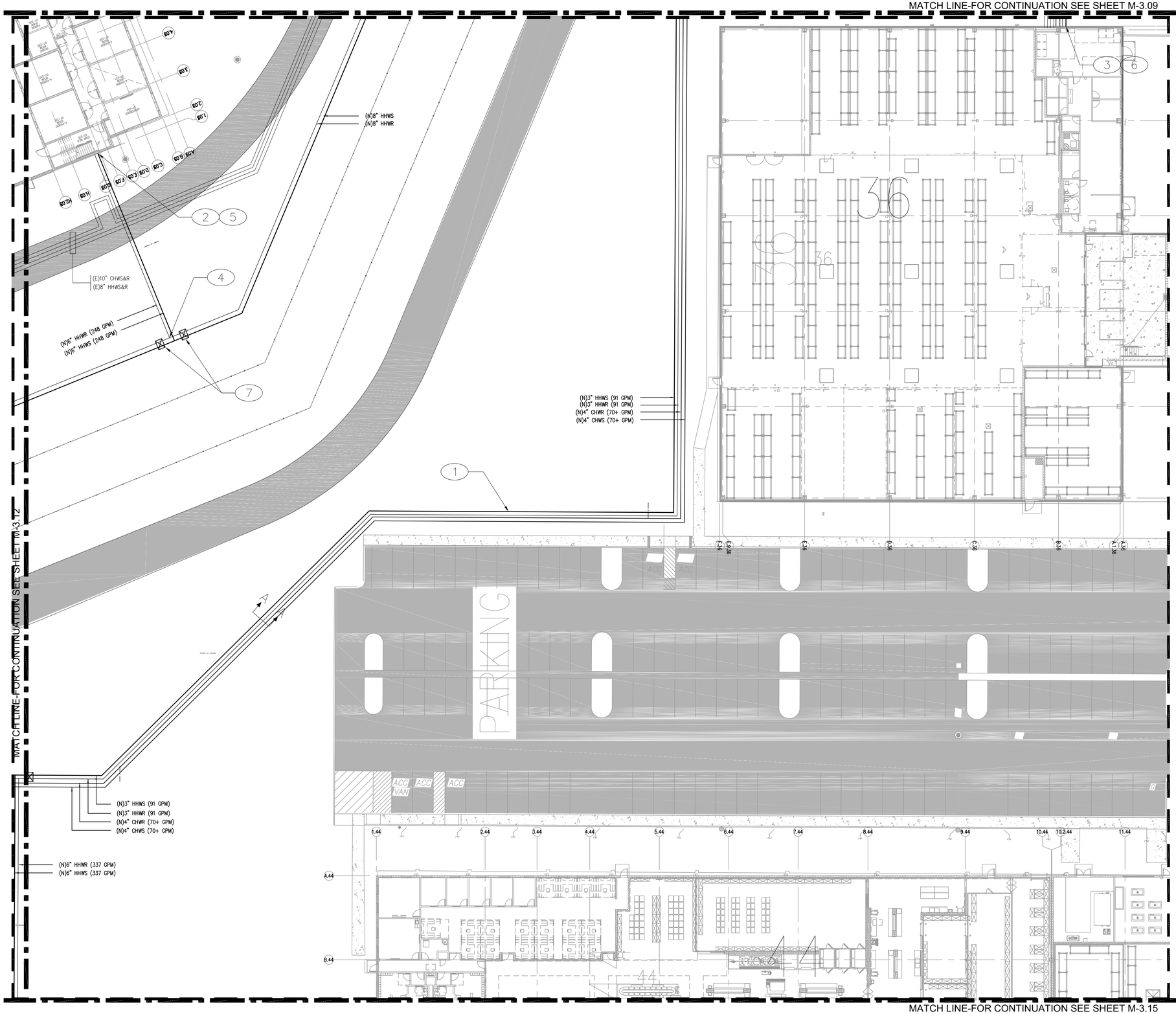
CAD File: S:\overdesign\Projects\2018 Projects\15438246 DGS DSH Coalinga Hydronic Loop Replacement - VID & BA\Drafting\CAD\Mechanical\M-3.12 Mechanical Partial Imprpvement Plan.dwg Plot Date: May 08, 2023 - 10:06am Plotted by: khanho

RELATIVE BORDER SCALE IN INCHES 0 1 2 3

MATCH LINE-FOR CONTINUATION SEE SHEET M-3.09



MATCH LINE-FOR CONTINUATION SEE SHEET M-3.15

MATCH LINE-FOR CONTINUATION SEE SHEET M-3.12

RECONSTRUCTION KEYNOTES:

1. NEW HHWS&R HYDRONIC LOOP. SEE DETAIL 1/C-4.1 FOR UTILITY TRENCH AND BEDDING.
2. NEW HYDRONIC PIPELINE SEISMIC BUILDING CONNECTION. SEE DETAIL 1/M-5.00.
3. NEW HYDRONIC PIPELINE SEISMIC BUILDING CONNECTION. SEE DETAIL 2/M-5.00.
4. NEW HYDRONIC PIPELINE LOOP/LATERAL. SEE DETAILS ON C-4.3 FOR LOOP/LATERAL CONNECTION AND LOOP SECTION VIEW AT LATERAL.
5. SEE DRAWING M-4.07 FOR CONTINUATION.
6. SEE DRAWING M-4.36 FOR CONTINUATION.
7. NEW HHWS&HHWR ISOLATION VALVES (SIZE PER PLAN) & VAULT, REFER TO C-4.3. SEE STRUCTURAL PLANS FOR VAULT DETAIL.

GENERAL RECONSTRUCTION NOTES:

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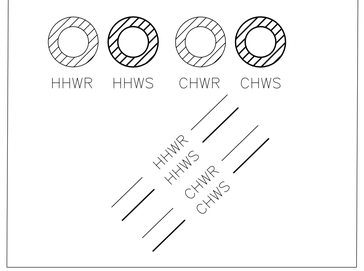
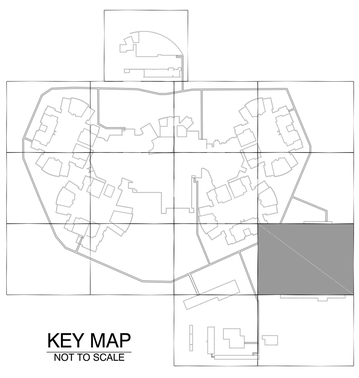
SECTION A-A





KEY MAP
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11/27/23
23-1693
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93210

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RH	KH	RH

DSA App No.	SFM Permit No.
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Sheet Title
MECHANICAL PARTIAL IMPROVEMENT PLAN

Project Number
0000000000008666

Reference North

Sheet Scale
1"=20'

Sheet Number
M-3.13
V4

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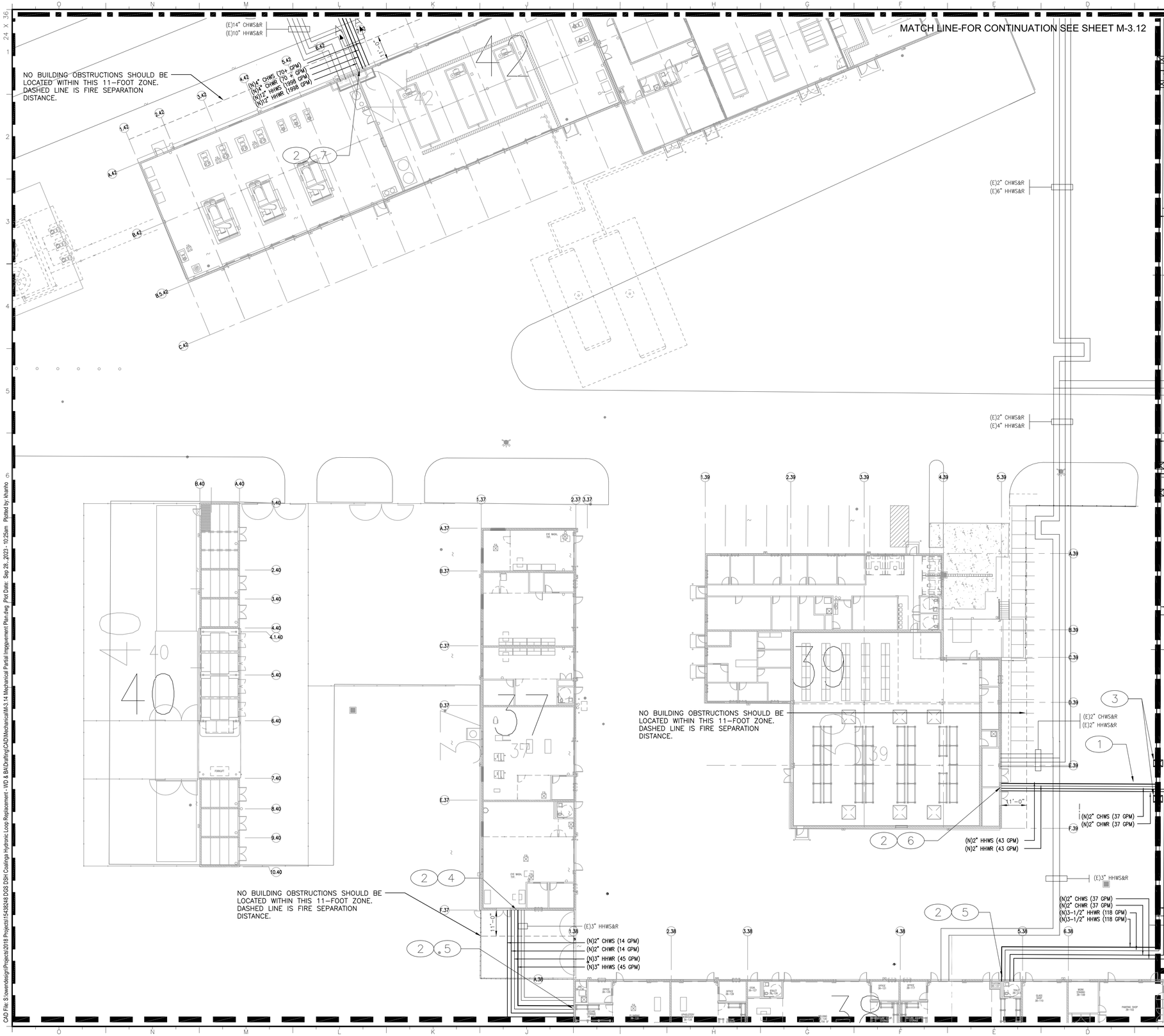
CAD File: S:\newdesign\Projects\2018 Projects\15438246 DGS DSH Coalinga Hydronic Loop Replacement - VID & BA\Drafting\CAD\Mechanical\M-3.13 Mechanical Partial Imprpvement Plan.dwg Plot Date: May 08, 2023 - 10:10am Plotted by: khanho

RELATIVE BORDER SCALE IN INCHES 0 1 2 3



RECONSTRUCTION KEYNOTES:

1. NEW HHWS&R HYDRONIC LOOP. SEE DETAIL 1/C-4.2 FOR UTILITY TRENCH AND BEDDING.
2. NEW HYDRONIC PIPELINE SEISMIC BUILDING CONNECTION. SEE DETAIL 1/M-5.00.
3. NEW HYDRONIC PIPELINE LOOP/LATERAL. SEE DETAILS ON C-4.3 FOR LOOP/LATERAL CONNECTION AND LOOP SECTION VIEW AT LATERAL.
4. SEE DRAWING M-4.37 FOR CONTINUATION.
5. SEE DRAWING M-4.38 FOR CONTINUATION.
6. SEE DRAWING M-4.39 FOR CONTINUATION.
7. SEE DRAWING M-4.42 FOR CONTINUATION.

GENERAL RECONSTRUCTION NOTES:

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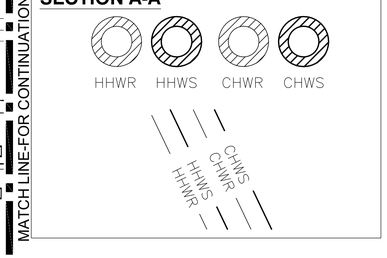
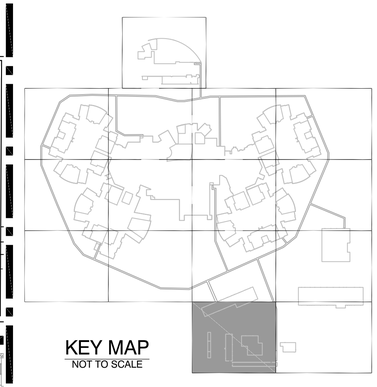
SECTION A-A





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Sheet Title

MECHANICAL PARTIAL IMPROVEMENT PLAN

Project Number
000000000008666

Reference North

Sheet Scale
1"=20'

Sheet Number
M-3.14

V4

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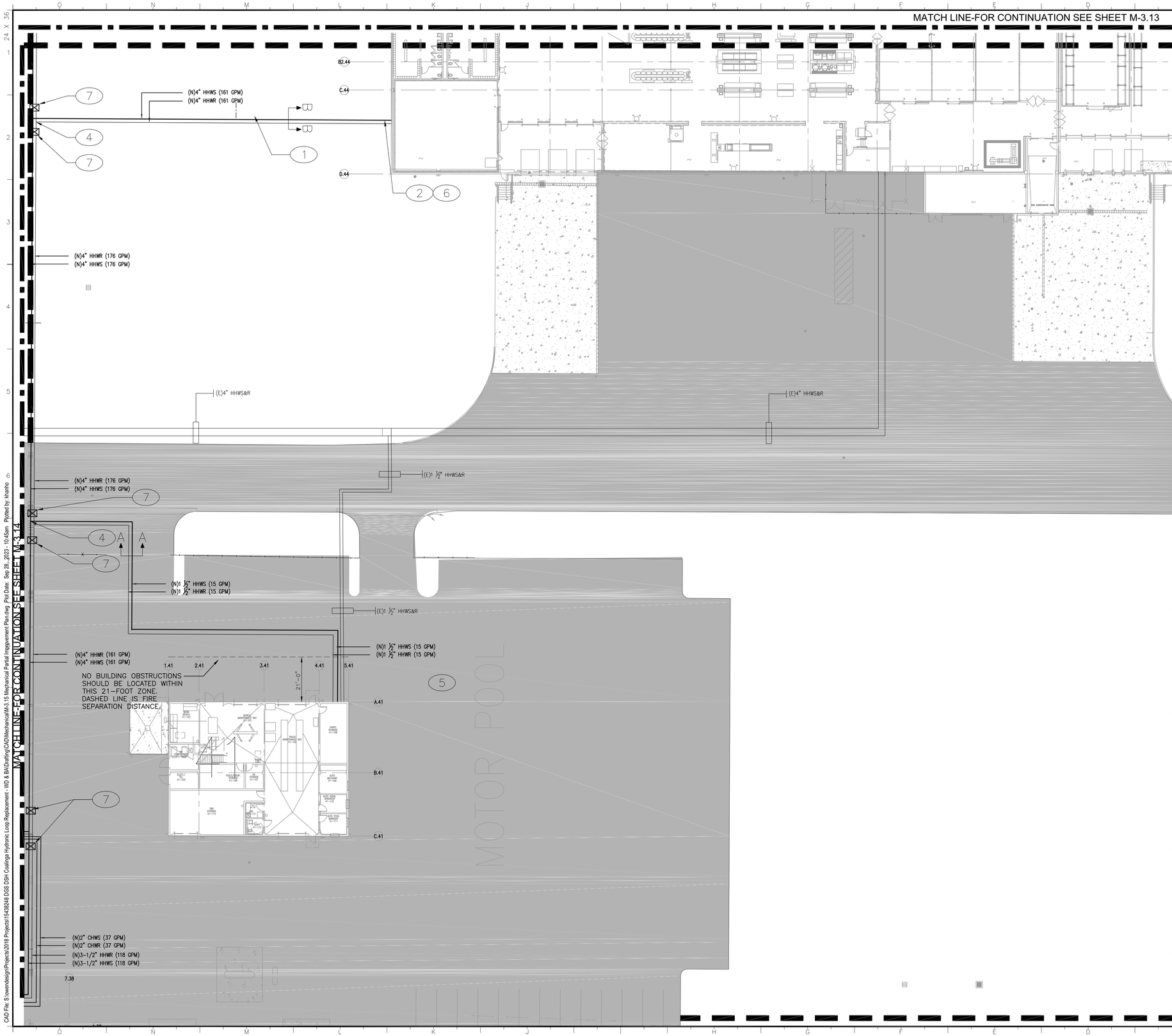
RELATIVE BORDER SCALE IN INCHES 0 1 2 3



RECONSTRUCTION KEYNOTES:

1. NEW HHWS&R HYDRONIC LOOP. SEE DETAIL 1/C-4.2 FOR UTILITY TRENCH AND BEDDING.
2. NEW HYDRONIC PIPELINE SEISMIC BUILDING CONNECTION. SEE DETAIL 1/M-5.00.
3. NEW HYDRONIC PIPELINE SEISMIC BUILDING CONNECTION. SEE DETAIL 2/M-5.00.
4. NEW HYDRONIC PIPELINE LOOP/LATERAL. SEE DETAILS ON C-4.3 FOR LOOP/LATERAL CONNECTION AND LOOP SECTION VIEW AT LATERAL.
5. SEE DRAWING M-4.41 FOR CONTINUATION.
6. SEE DRAWING M-4.44 FOR CONTINUATION.
7. NEW HHWS&HHWR ISOLATION VALVES (SIZE PER PLAN) & VAULT, REFER TO C-4.3. SEE STRUCTURAL PLANS FOR VAULT DETAIL.

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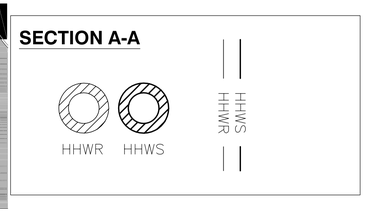
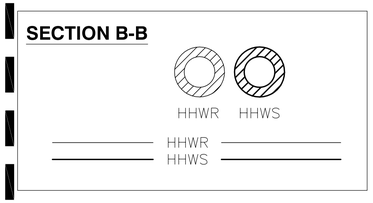
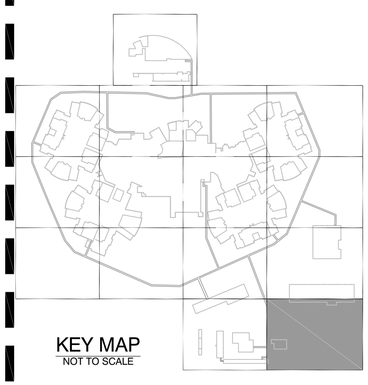
SECTION A-A



SECTION B-B





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RELATIVE BORDER SCALE IN INCHES 0 1 2 3

GENERAL RECONSTRUCTION NOTES:

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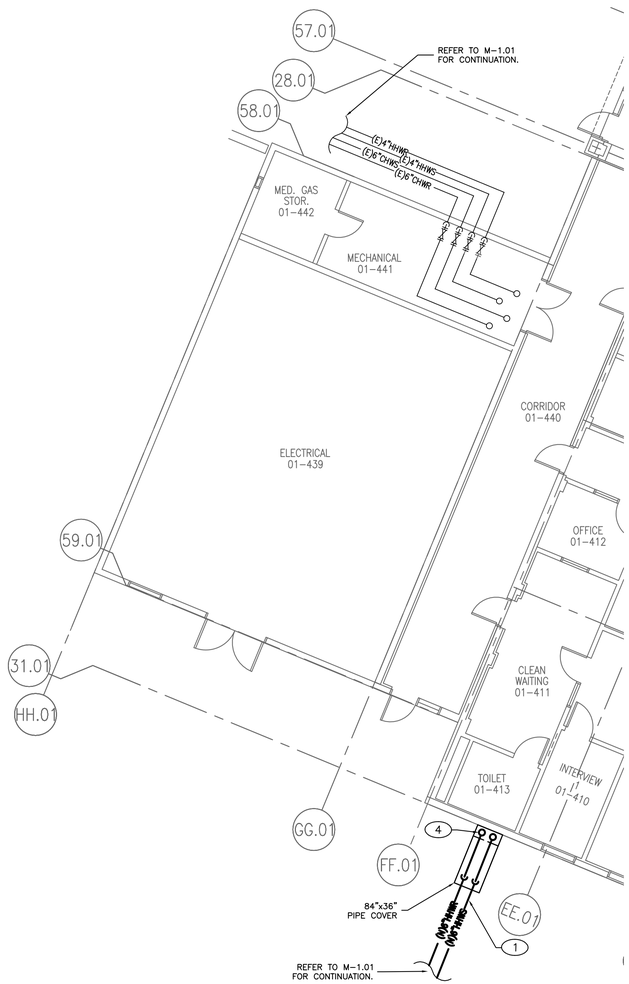
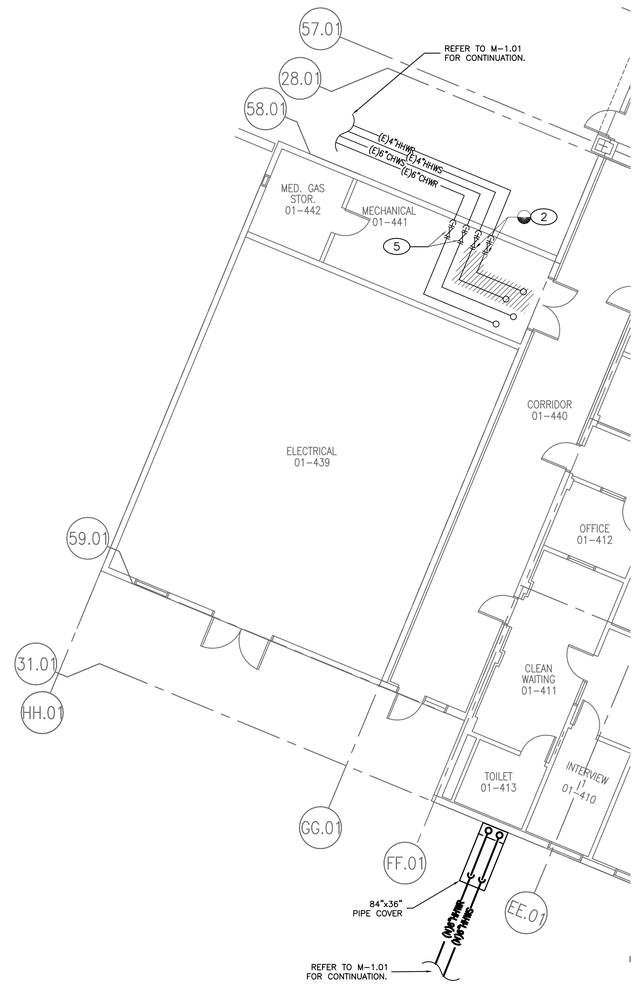
3. CONTRACTOR SHALL REFER TO PHASING PLAN AND INFORM THE OWNERS REPRESENTATIVE AND SITE SECURITY OF ANY SERVICE INTERRUPTIONS AT LEAST 2 WEEKS PRIOR TO REQUESTED COMMENCEMENT OF EACH SERVICE INTERRUPTION.

RECONSTRUCTION KEYNOTES:

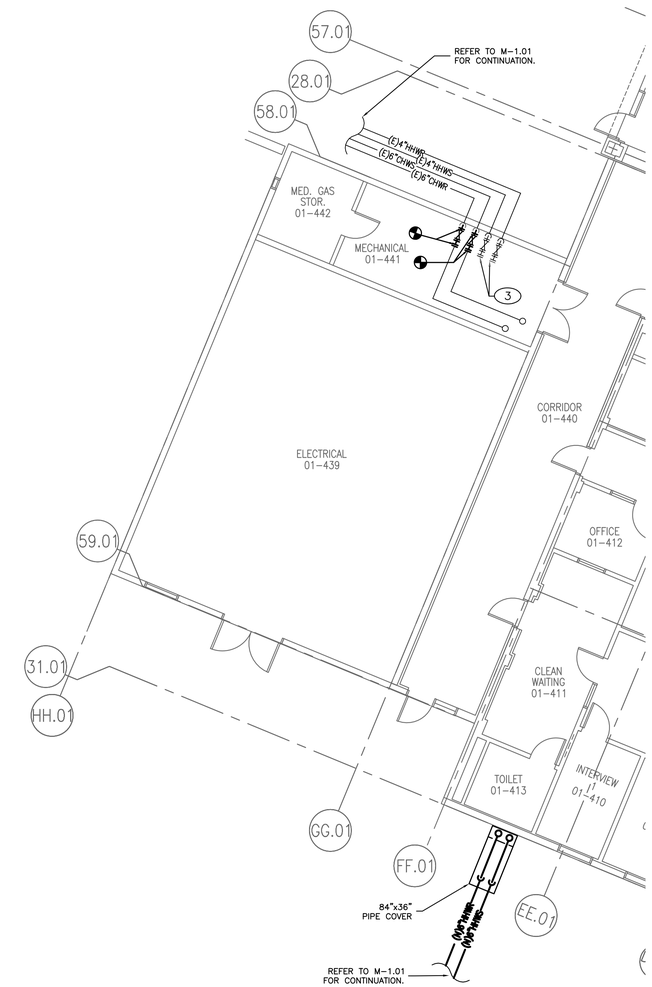
1. CONSTRUCT THE NEW HHWS AND HHWR PIPES IN DIRECT–BURIED, PR–FABRICATED, PRE–INSULATED HHWS AND HHWR PIPES. THE EXISTING HHW HYDRONIC LOOP SHALL REMAIN OPERATIONAL UNTIL AS INDICATED ON DRAWING M–103.
2. CLOSE THE BUILDING'S EXISTING HHWS, AND HHWR MAIN ISOLATION VALVES ON THE WALL. DISCONNECT AND DEMOLISH SMALL SECTIONS OF EXISTING HHWS, AND HHWR PIPING FROM EXISTING VALVES INTO THE BUILDING. DRAIN THE EXISTING HHWS, AND HHWR BUILDING PIPING.
3. BLIND FLANGE EXISTING MAIN ISOLATION VALVES AT POINTS OF DISCONNECTION.
4. REFER TO M–5.0 DETAIL 4 FOR PIPE SUPPORT DETAIL ON WALL. SEE DETAIL–1/M–5.00 FOR PIPE COVER.
5. REPLACE THE EXISTING CHW VALVE WITH A NEW CHW VALVE.



1 **PHASE 1: PROVIDE NEW HHW PIPES**
SCALE: 1/8"=1'-0"



2 **PHASE 2: DEMOLISH AND CAP EXISTING PIPES**
SCALE: 1/8"=1'-0"



3 **PHASE 3: BLIND FLANGE EXISTING HHW PIPES**
SCALE: 1/8"=1'-0"

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11/27/23
23-1693
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Issue

No.	Date	Description
	01/31/2022	Preliminary Plans
	08/31/2022	50% Working Drawings
	10/31/2022	95% Working Drawings
	03/31/2023	100% Working Drawings

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL PIPING PLAN - BUILDING 1

Project Number
000000000008666

Reference North

Sheet Scale
1/8"=1'-0"

Sheet Number
M-4.01A
V4

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CAD File: S:\owendesign\Projects\2018 Projects\15438248 DGS DSH Coalinga Hydronic Loop Replacement - WD & BA\Drafting\CAD\Mechanical\M-4.01 Mechanical Piping Plan Bldg 1.dwg Plot Date: May 08, 2023 - 3:10pm Plotted by: ktanho

24 X 36

RELATIVE BORDER SCALE IN INCHES 0 1 2 3

GENERAL RECONSTRUCTION NOTES:

1. SHOWN ALIGNMENTS ARE TO BE FOLLOWED AND STAKED PRIOR TO CONSTRUCTION. STAKING PLAN SHALL BE PROVIDED TO OWNER FOR REVIEW AND APPROVAL.
2. ALL PIPING APPURTENANCES SHALL BE SELECTED BASED ON THE SPECIFICATIONS. VALVES SIZING SHALL MATCH THAT OF PIPELINE IN WHICH THEY WILL BE INSTALLED.
3. CONTRACTOR SHALL REFER TO PHASING PLAN AND INFORM THE OWNERS REPRESENTATIVE AND SITE SECURITY OF ANY SERVICE INTERRUPTIONS AT LEAST 2 WEEKS PRIOR TO REQUESTED COMMENCEMENT OF EACH SERVICE INTERRUPTION.

RECONSTRUCTION KEYNOTES:

1. TERMINATE EACH NEW HHWS, AND HHWR PIPE WITH A BLIND FLANGE AND MANUAL ISOLATION VALVE NEAR THE INTENDED POINTS OF CONNECTION (POCs).
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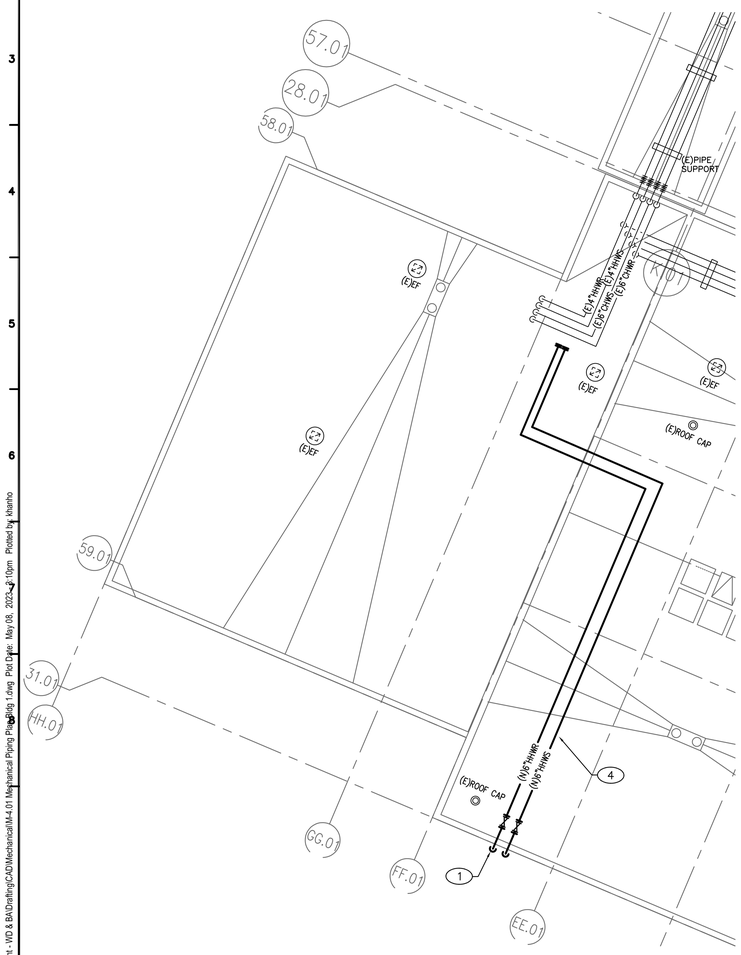
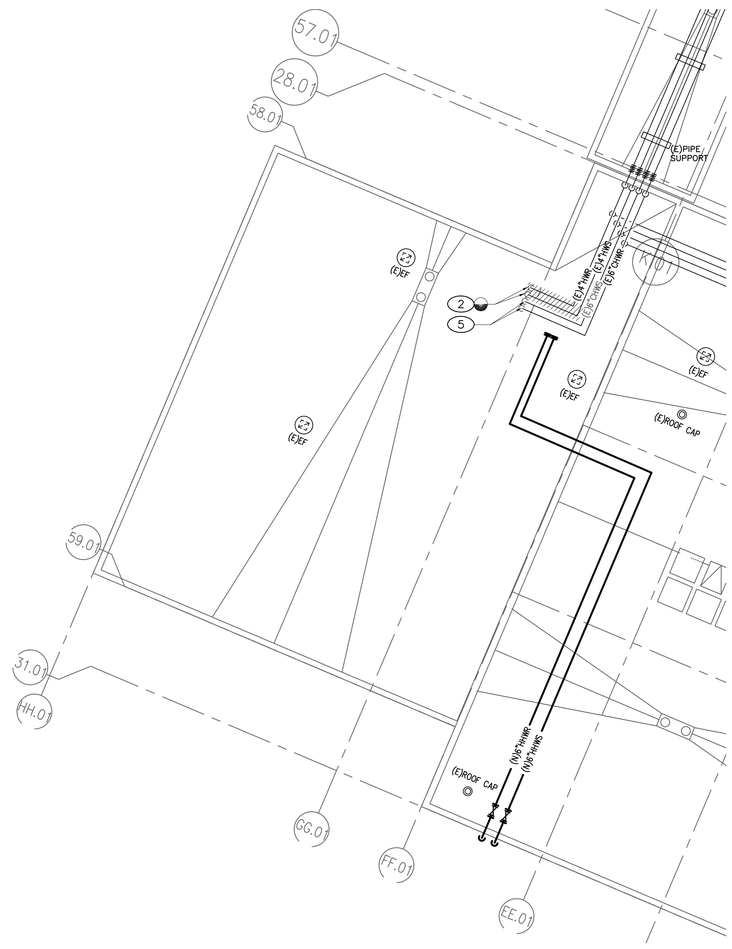
3. REMOVE THE BLIND FLANGES ON THE NEW HHWS, AND HHWR ISOLATION VALVES (PREVIOUSLY INSTALLED) AND CONSTRUCT NEW HHWS, AND HHWR PIPES UP TO POCS.
4. PROVIDE SUPPORT FOR NEW HYDRONIC PIPES PER M-5.00 DETAIL 3.
5. REPLACE THE EXISTING CHW VALVE WITH A NEW CHW VALVE.



1 **PHASE 1 ROOF: PROVIDE NEW HHW PIPES**
SCALE: 1/8"=1'-0"



2 **PHASE 2 ROOF: DEMOLISH AND CAP EXISTING PIPES**
SCALE: 1/8"=1'-0"

3 **PHASE 3 ROOF: PROVIDE NEW HHW PIPES**
SCALE: 1/8"=1'-0"

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Issue

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	01/31/2022	Preliminary Plans
	08/31/2022	50% Working Drawings
	10/31/2022	95% Working Drawings
	03/31/2023	100% Working Drawings

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL PIPING PLAN - BUILDING 1 ROOF

Project Number
000000000008666

Reference North

Sheet Scale
1/8"=1'-0"

Sheet Number
M-4.01B
V4

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CAD File: S:\owendesign\Projects\2018 Projects\15438248 DGS DSH Coalinga Hydronic Loop Replacement - VID & BA\Drafting\CAD\Mechanical\M-4.01 Mechanical Piping Plan - Bldg 1.dwg Plot Date: May 08, 2023 - 2:10pm Plotted by khanho

24 X 36

RELATIVE BORDER SCALE IN INCHES 0 1 2 3

GENERAL RECONSTRUCTION NOTES:

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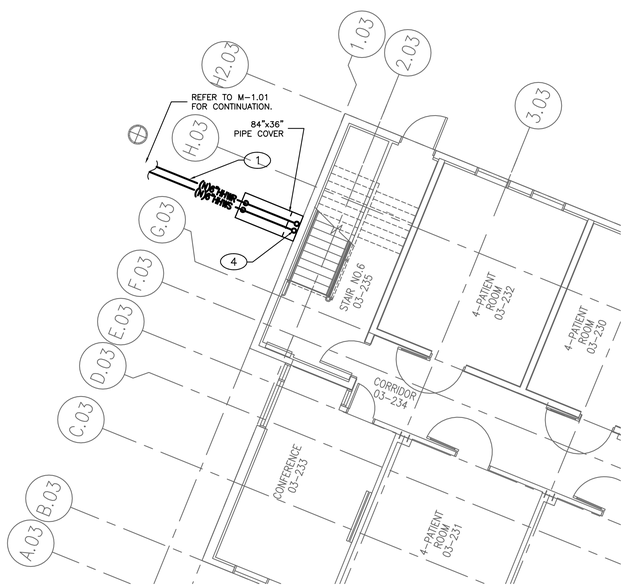
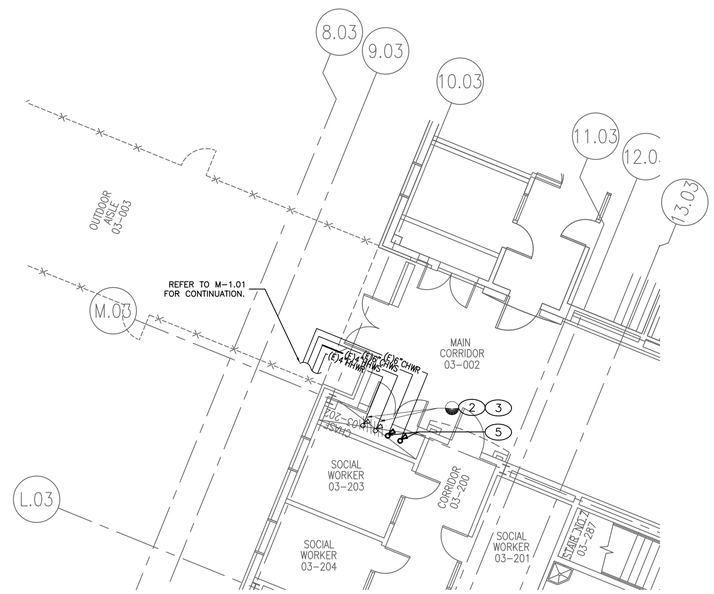


1 **PHASE 1: PROVIDE NEW HHW PIPES**
SCALE: 1/8"=1'-0"



2 **PHASE 2: DEMOLISH AND CAP EXISTING PIPES**
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Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No. -
SFM Permit No. 22-S-4509-O-DR

Sheet Title
MECHANICAL PIPING PLAN - BUILDING 3

Project Number
000000000008666

Reference North
Sheet Scale 1/8"=1'-0"
Sheet Number M-4.03A
V4

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CAD File: S:\owendesign\Projects\2018 Projects\15438248 DGS DSH Coalinga Hydronic Loop Replacement - VID & BA\Drafting\CAD\Mechanical\M4.03 Mechanical Piping Plan-Bldg 3.dwg Plot Date: May 08, 2023 - 2:12pm Plotted by khanho

RELATIVE BORDER SCALE IN INCHES 0 1 2 3

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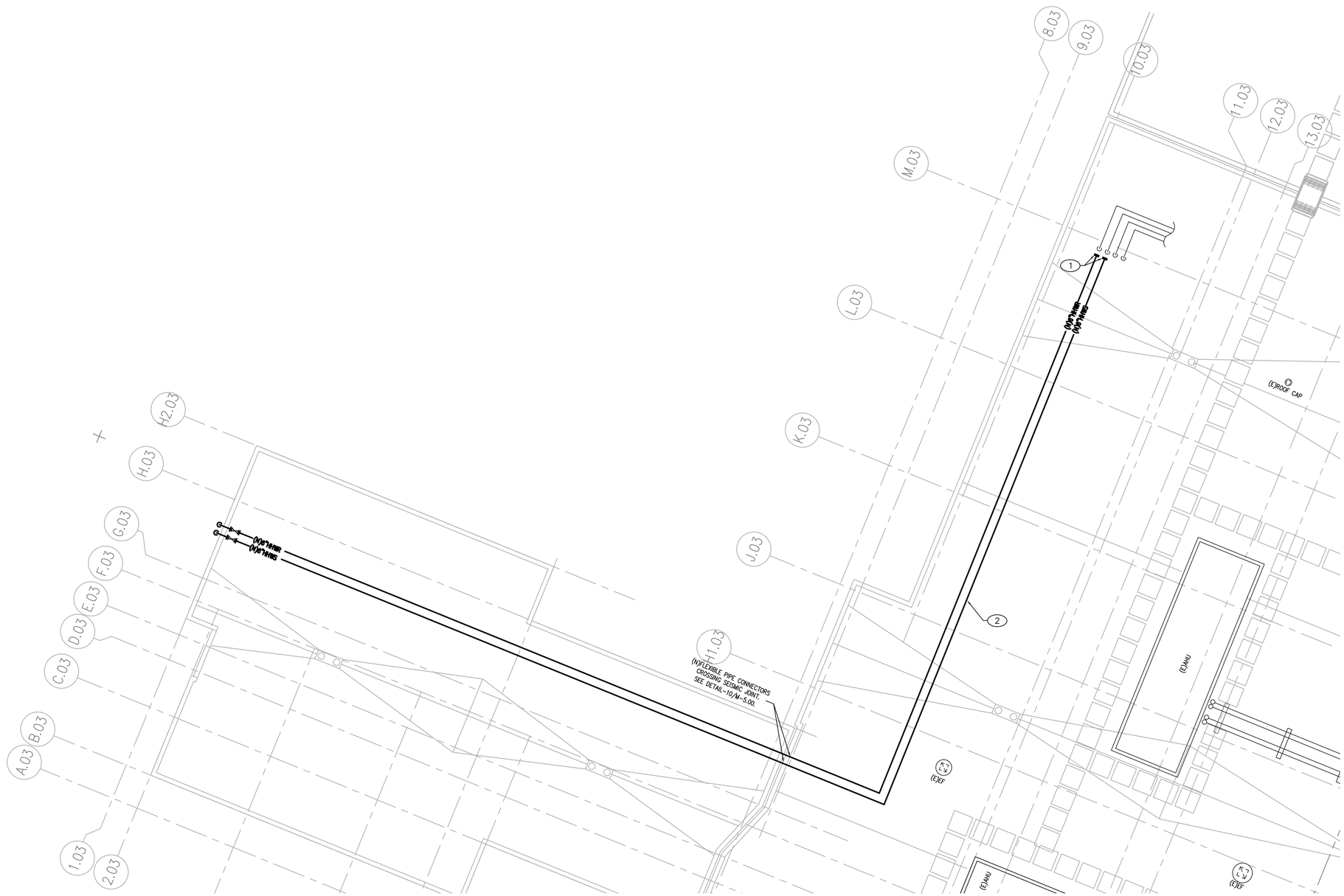

1 **PHASE 1 ROOF: PROVIDE HHW PIPES**
SCALE: 1/8"=1'-0"

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Issue

No.	Date	Description
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Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL PIPING PLAN - BUILDING 3 ROOF

Project Number
000000000008666

Reference North

Sheet Scale
1/8"=1'-0"

Sheet Number
M-4.03B
V4

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CAD File: S:\owendesign\Projects\2018 Projects\1543824B DGS DSH Coalinga Hydronic Loop Replacement - VID & BA\Drafting\CAD\Mechanical\M-4.03 Mechanical Piping Plan - Bldg 3.dwg Plot Date: May 18, 2023 - 2:12pm Plotted by khanho

24 X 36

RELATIVE BORDER SCALE IN INCHES 0 1 2 3

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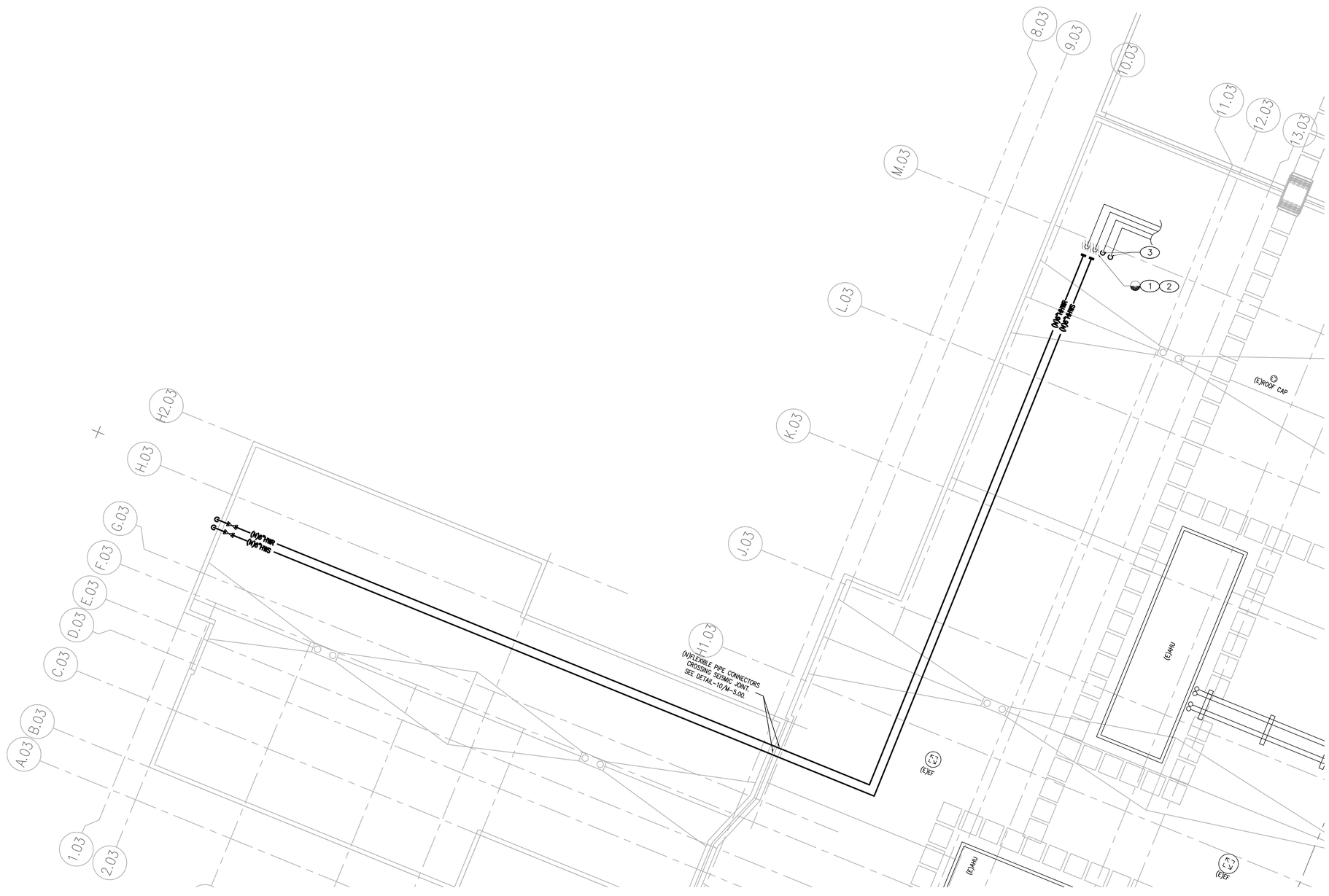

1 PHASE 2 ROOF: DEMOLISH AND CAP EXISTING PIPES

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

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Issue

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Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL PIPING PLAN - BUILDING 3 ROOF

Project Number
0000000000008666

Reference North

Sheet Scale
1/8"=1'-0"

Sheet Number
M-4.03C
V4

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CAD File: S:\owendesign\Projects\2018 Projects\1543524B DGS DSH Coalinga Hydronic Loop Replacement - WD & BA\Drafting\CAD\Mechanical\M-4.03 Mechanical Piping Plan - Bldg 3.dwg Plot Date: May 08, 2023 - 3:12pm Plotted by: khanho

RELATIVE BORDER SCALE IN INCHES 0 1 2 3

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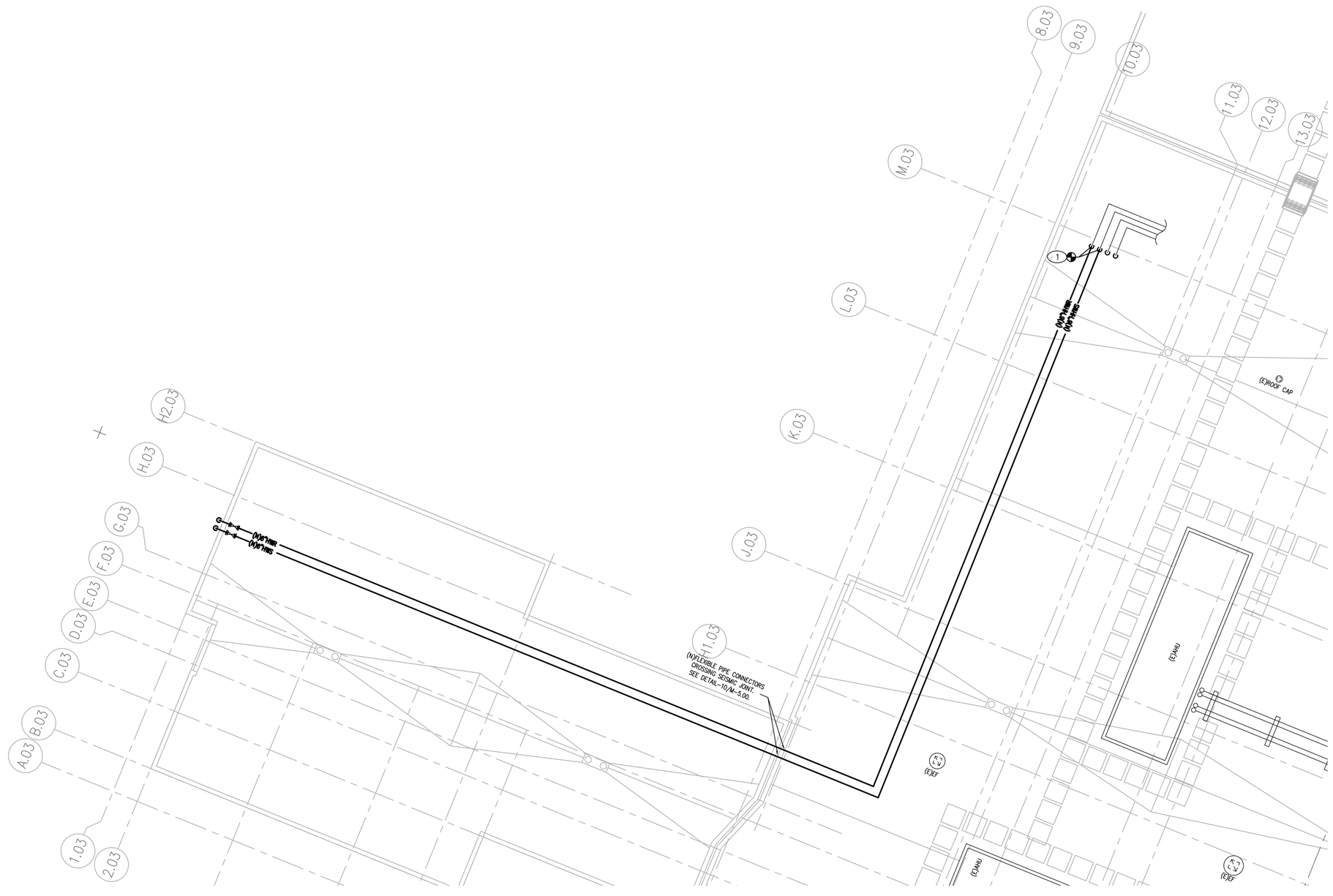
(1) REMOVE THE BLIND FLANGES ON THE NEW HHWS, AND HHWR ISOLATION VALVES (PREVIOUSLY INSTALLED) AND CONSTRUCT NEW HHWS, AND HHWR PIPES UP TO POCS.



(1) **PHASE 3 ROOF: PROVIDE NEW HHW PIPES**
SCALE: 1/8"=1'-0"

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Project
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24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL PIPING PLAN - BUILDING 3 ROOF

Project Number
000000000008666

Reference North

Sheet Scale
1/8"=1'-0"

Sheet Number
M-4.03D
V4

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CAD File: S:\owendesign\Projects\2018 Projects\15438248 DGS DSH Coalinga Hydronic Loop Replacement - VID & BA\Drafting\CAD\Mechanical\M-4.03 Mechanical Piping Plan - Bldg 3.dwg Plot Date: May 08, 2023 - 2:12pm Plotted by khanho

RELATIVE BORDER SCALE IN INCHES 0 1 2 3

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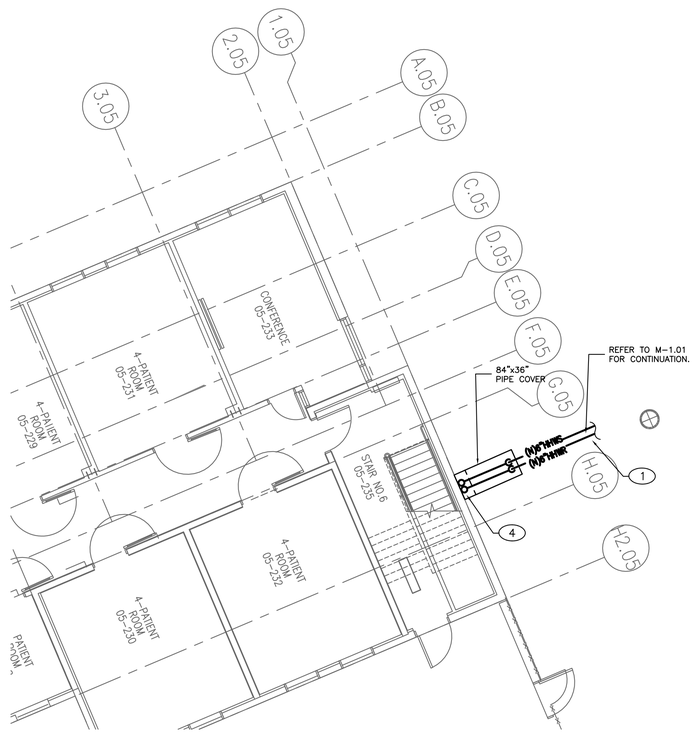
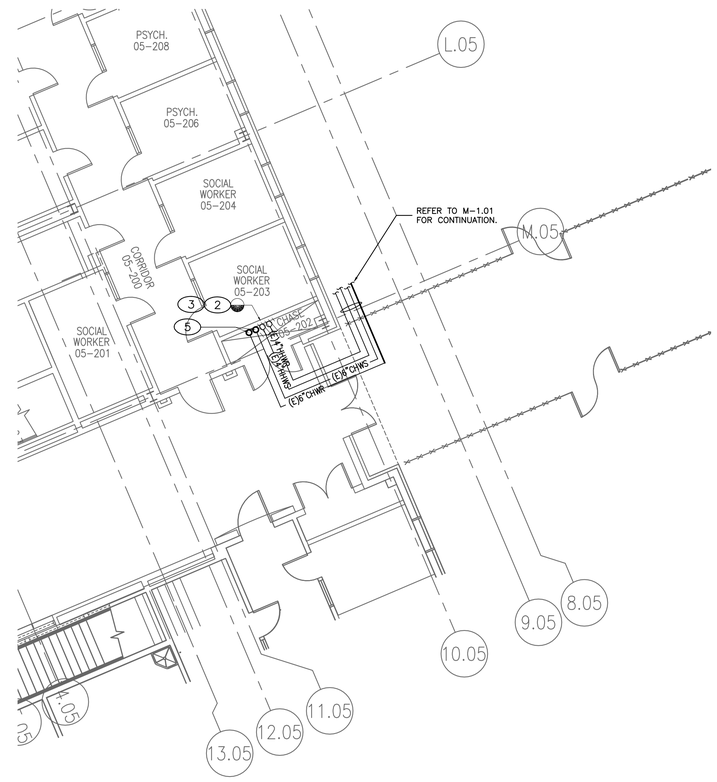


1 **PHASE 1: PROVIDE NEW HHW PIPES**
SCALE: 1/8"=1'-0"



2 **PHASE 2: DEMOLISH AND CAP EXISTING PIPES**
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DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL PIPING PLAN - BUILDING 5

Project Number
000000000008666

Reference North

Sheet Scale
1/8"=1'-0"

Sheet Number
M-4.05A
V4

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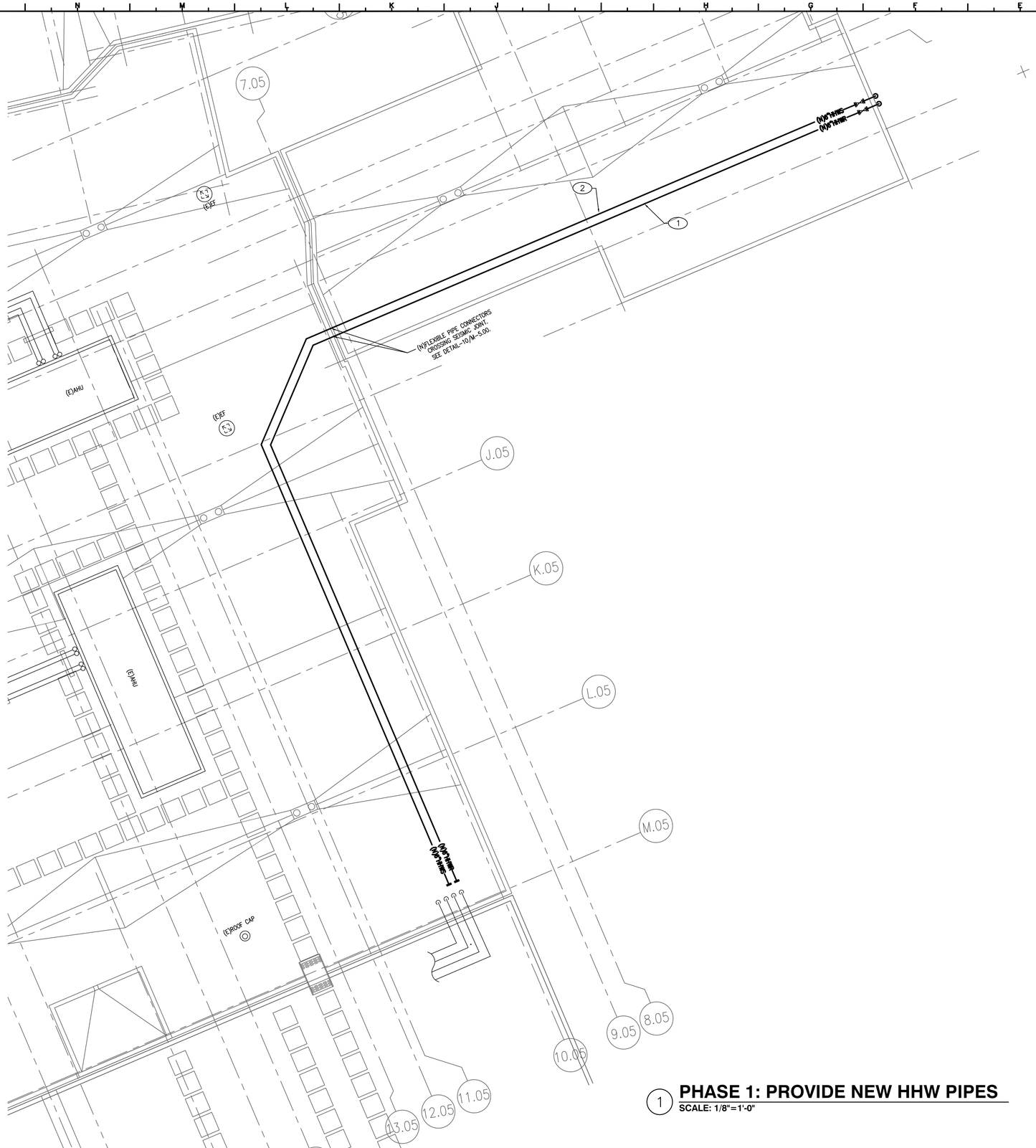
CAD File: S:\owendesign\Projects\2018 Projects\154382\48 DGS DSH Coalinga Hydronic Loop Replacement - WD & BA\Drafting\CAD\Mechanical\M-4.05 Mechanical Piping Plan - Bldg 5.dwg Plot Date: May 08, 2022 - 2:13pm Plotted by khanho

24 X 36

RELATIVE BORDER SCALE IN INCHES 0 1 2 3



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3. CONTRACTOR SHALL REFER TO PHASING PLAN AND INFORM THE OWNERS REPRESENTATIVE AND SITE SECURITY OF ANY SERVICE INTERRUPTIONS AT LEAST 2 WEEKS PRIOR TO REQUESTED COMMENCEMENT OF EACH SERVICE INTERRUPTION.

RECONSTRUCTION KEYNOTES:

1. TERMINATE EACH NEW HHWS, AND HHWR PIPE WITH A BLIND FLANGE AND MANUAL ISOLATION VALVE NEAR THE INTENDED POINTS OF CONNECTION (POCs).
2. PROVIDE SUPPORT FOR NEW HYDRONIC PIPES PER M-5.00 DETAIL 3.

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11/27/23
23-1693
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EXP. 12/31/23

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Issue

No.	Date	Description
	01/31/2022	Preliminary Plans
	08/31/2022	50% Working Drawings
	10/31/2022	95% Working Drawings
	03/31/2023	100% Working Drawings

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL PIPING PLAN - BUILDING 5 ROOF

Project Number
000000000008666

Reference North

Sheet Scale
1/8"=1'-0"

Sheet Number
M-4.05B
V4

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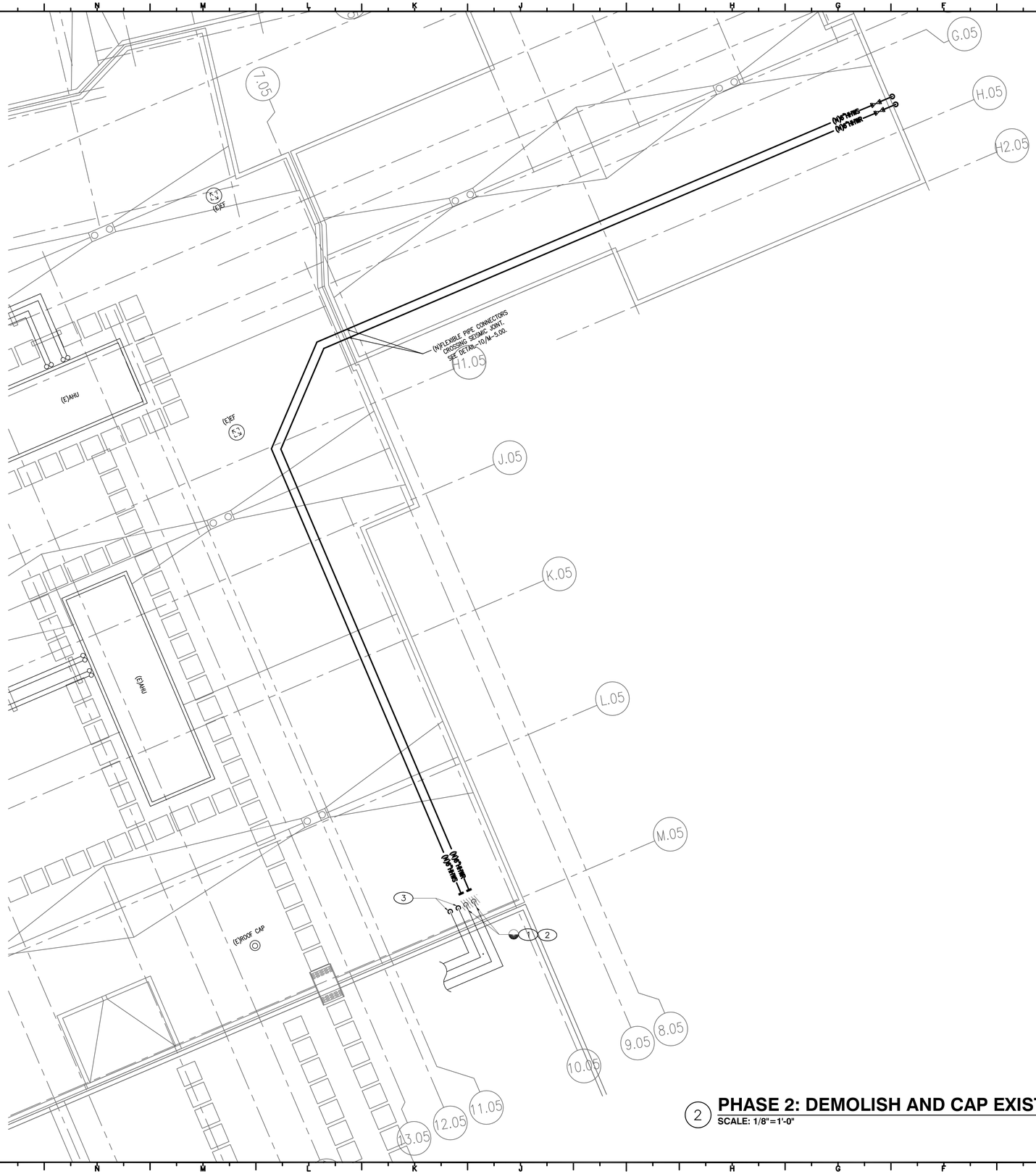
CAD File: S:\owendesign\Projects\2018 Projects\1543248 DGS DSH Coalinga Hydronic Loop Replacement - VID & BA\Drafting\CAD\Mechanical\M-4.05 Mechanical Piping Plan Bldg 5.dwg Plot Date: May 08, 2023 2:13pm Plotted by: khanho

RELATIVE BORDER SCALE IN INCHES 0 1 2 3



2 PHASE 2: DEMOLISH AND CAP EXISTING PIPES

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

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RECONSTRUCTION KEYNOTES:

1. CLOSE THE BUILDING'S EXISTING HHWS, AND HHWR MAIN ISOLATION VALVES ON THE WALL. DISCONNECT AND DEMOLISH SMALL SECTIONS OF EXISTING HHWS, AND HHWR PIPING FROM EXISTING VALVES INTO THE BUILDING. DRAIN THE EXISTING HHWS, AND HHWR BUILDING PIPING.
2. BLIND FLANGE EXISTING MAIN ISOLATION VALVES AT POINTS OF DISCONNECTION.
3. REPLACE THE EXISTING CHW VALVE WITH A NEW CHW VALVE.

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11/27/23
23-1693

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Project

DSH-COALINGA HYDRONIC LOOP REPLACEMENT

24511 WEST JAYNE AVE
COALINGA, CA
93210

DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title

MECHANICAL PIPING PLAN - BUILDING 5 ROOF

Project Number

000000000008666

Reference North

Sheet Scale
1/8"=1'-0"

Sheet Number
M-4.05C
V4

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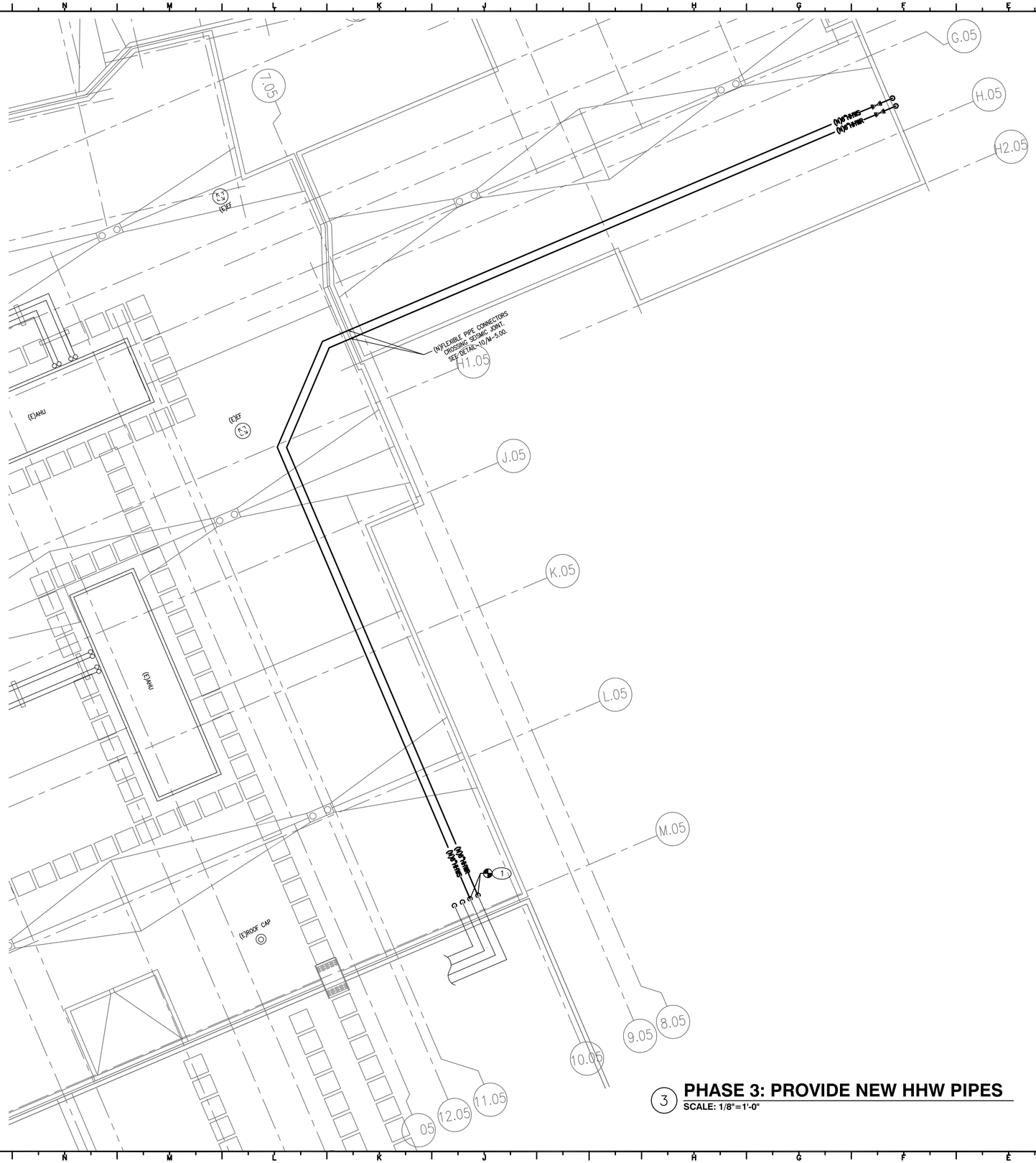
CAD File: S:\owendesign\Projects\2018 Projects\15438248 DGS DSH Coalinga Hydronic Loop Replacement - VID & BA\Drafting\CAD\Mechanical\M-4.05 Mechanical Piping Plan.dwg Plot Date: May 08, 2023 - 2:13pm Plotted by khanho

24 X 36

RELATIVE BORDER SCALE IN INCHES 0 1 2 3



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RECONSTRUCTION KEYNOTES:

1. REMOVE THE BLIND FLANGES ON THE NEW HHWS, AND HHWR ISOLATION VALVES (PREVIOUSLY INSTALLED) AND CONSTRUCT NEW HHWS, AND HHWR PIPES UP TO POCS.

3 PHASE 3: PROVIDE NEW HHW PIPES

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

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APPROVED FIRE AND PANIC ONLY

11/27/23
23-1693

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	03/31/2023	100% Working Drawings

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL PIPING PLAN - BUILDING 5 ROOF

Project Number
0000000000008666

Reference North

Sheet Scale
1/8"=1'-0"

Sheet Number
M-4.05D
V4

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CAD File: S:\owendesign\Projects\2018 Projects\15438248 DGS DSH Coalinga Hydronic Loop Replacement - VID & BA\Drafting\CAD\Mechanical\M-4.05 Mechanical Piping Plan Bldg 5.dwg Plot Date: May 08, 2023 - 3:13pm Plotted by khanho

24 X 36

RELATIVE BORDER SCALE IN INCHES 0 1 2 3

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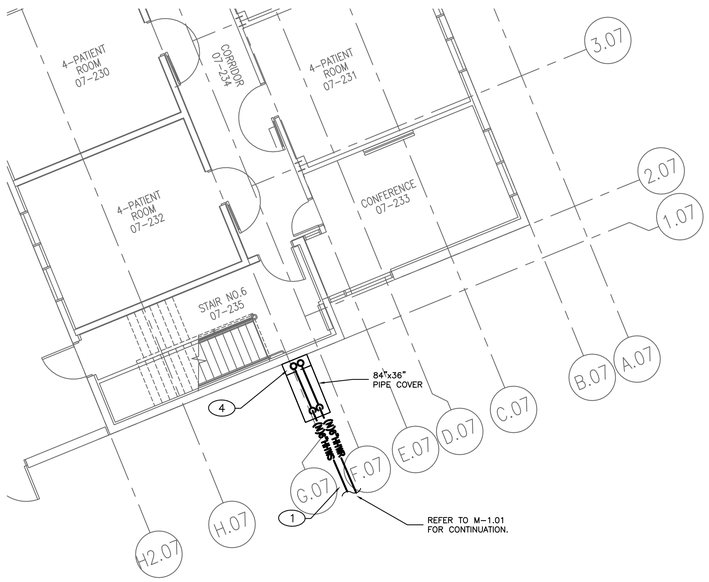
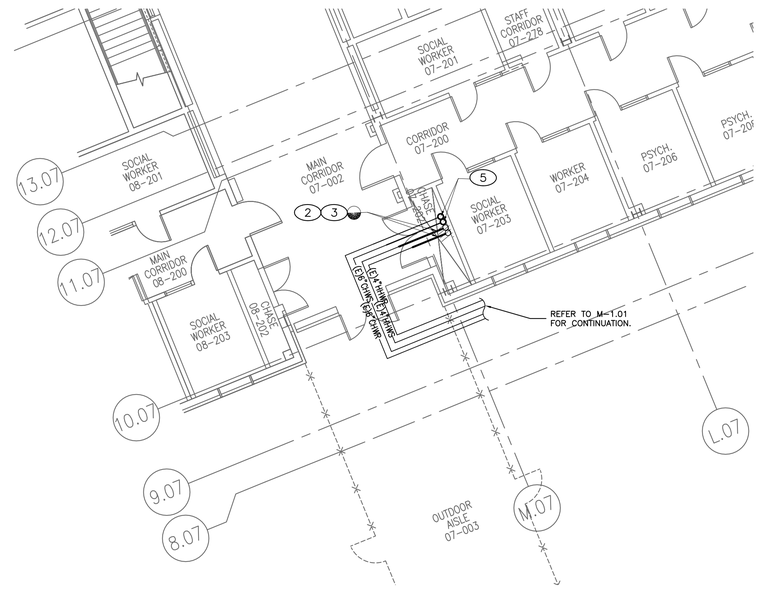
2. CLOSE THE BUILDING'S EXISTING HHWS, AND HHWR MAIN ISOLATION VALVES ON THE WALL. DISCONNECT AND DEMOLISH SMALL SECTIONS OF EXISTING HHWS, AND HHWR PIPING FROM EXISTING VALVES INTO THE BUILDING. DRAIN THE EXISTING HHWS, AND HHWR BUILDING PIPING.
3. BLIND FLANGE EXISTING MAIN ISOLATION VALVES AT POINTS OF DISCONNECTION.
4. REFER TO M–5.0 DETAIL 4 FOR PIPE SUPPORT DETAIL ON WALL.
5. REPLACE THE EXISTING CHW VALVE WITH A NEW CHW VALVE.



1 **PHASE 1: PROVIDE NEW HHW PIPES**
SCALE: 1/8"=1'-0"



2 **PHASE 2: DEMOLISH AND CAP EXISTING PIPES**
SCALE: 1/8"=1'-0"

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Issue

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Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL PIPING PLAN - BUILDING 7

Project Number
0000000000008666

Reference North

Sheet Scale
1/8"=1'-0"

Sheet Number
M-4.07A
V4

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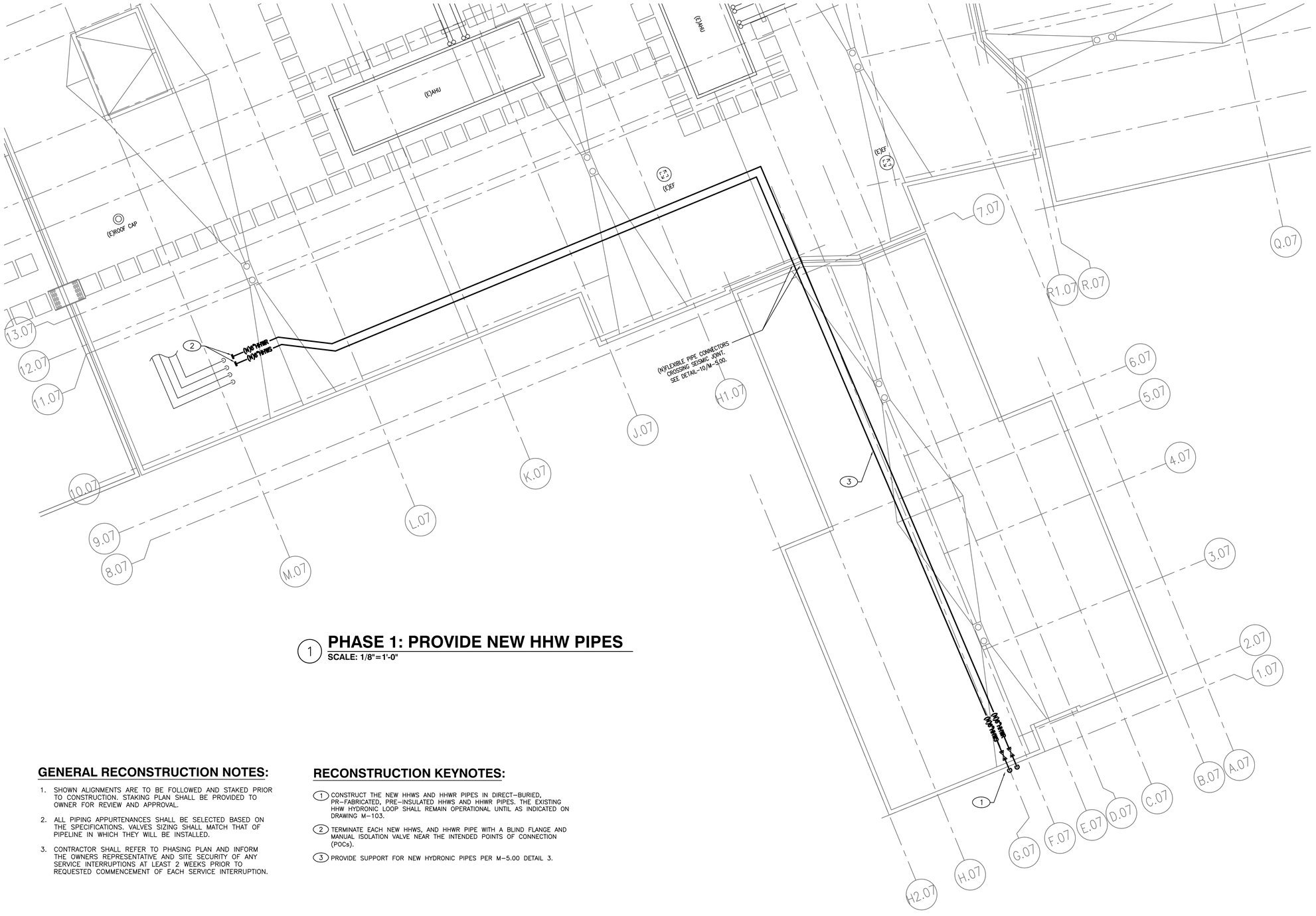
CAD File: S:\owendesign\Projects\2018 Projects\1543624B DGS DSH- Coalinga Hydronic Loop Replacement - WD & BA\Drafting\CAD\Mechanical\M-4.07 Mechanical Piping Plan - Bldg 7.dwg Plot Date: May 08, 2023 - 3:14pm Plotted by khanho

RELATIVE BORDER SCALE IN INCHES 0 1 2 3



1 PHASE 1: PROVIDE NEW HHW PIPES

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

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Project

DSH-COALINGA HYDRONIC LOOP REPLACEMENT

24511 WEST JAYNE AVE
COALINGA, CA
93210

DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title

MECHANICAL PIPING PLAN - BUILDING 7 ROOF

Project Number

000000000008666

Reference North

Sheet Scale 1/8"=1'-0"

Sheet Number M-4.07B

V4

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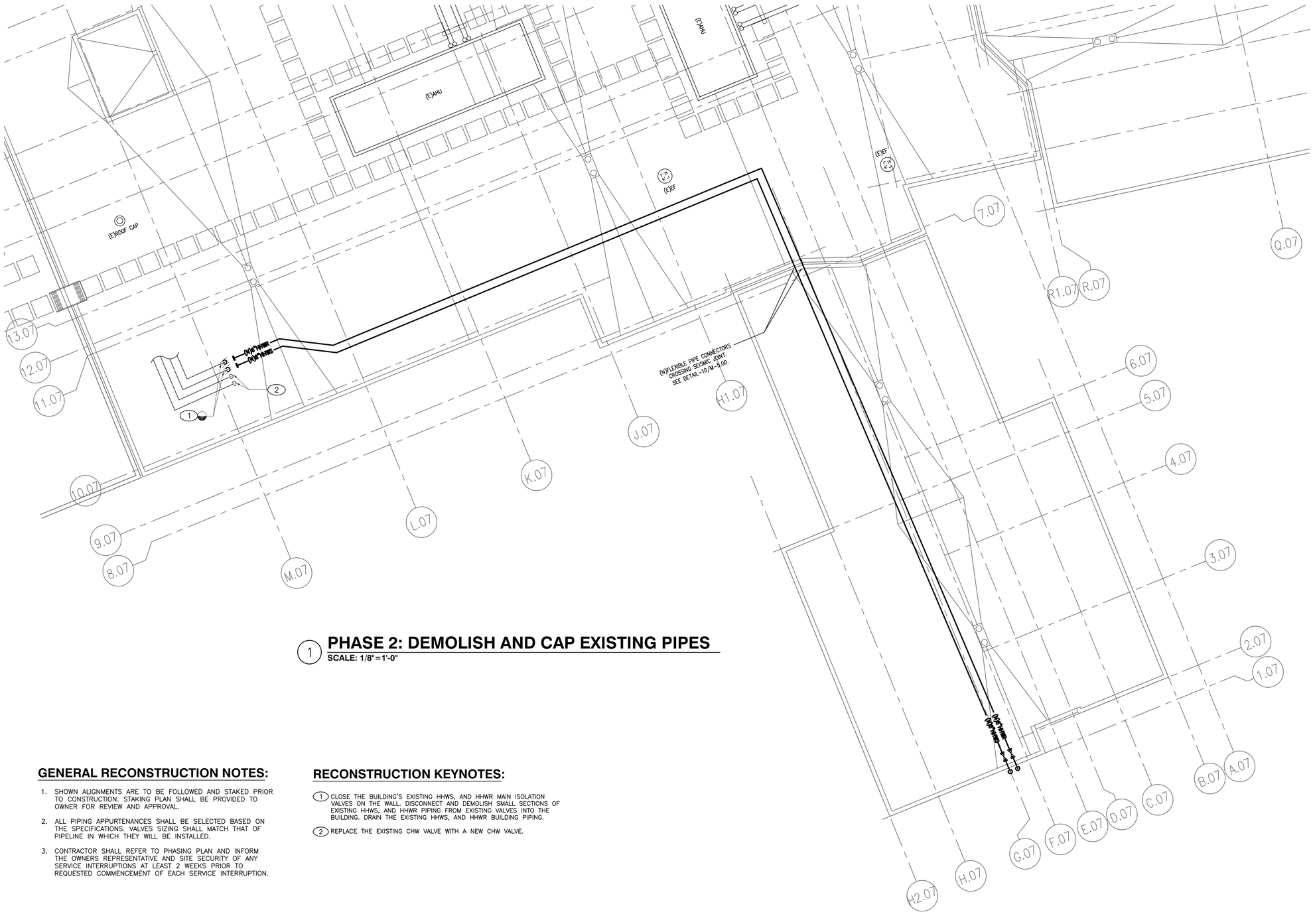
CAD File: S:\owendesign\Projects\2018 Projects\154382-48 DGS DSH Coalinga Hydronic Loop Replacement - VID & BA\Drafting\CAD\Mechanical\M-4.07 Mechanical Piping Plan - Bldg 7.dwg Plot Date: May 08, 2023 - 2:14pm Plotted by khanho

RELATIVE BORDER SCALE IN INCHES 0 1 2 3



1 PHASE 2: DEMOLISH AND CAP EXISTING PIPES

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

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COALINGA, CA
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DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
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Sheet Title
MECHANICAL PIPING PLAN - BUILDING 7 ROOF

Project Number
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Reference North

Sheet Scale
1/8"=1'-0"

Sheet Number
M-4.07C
V4

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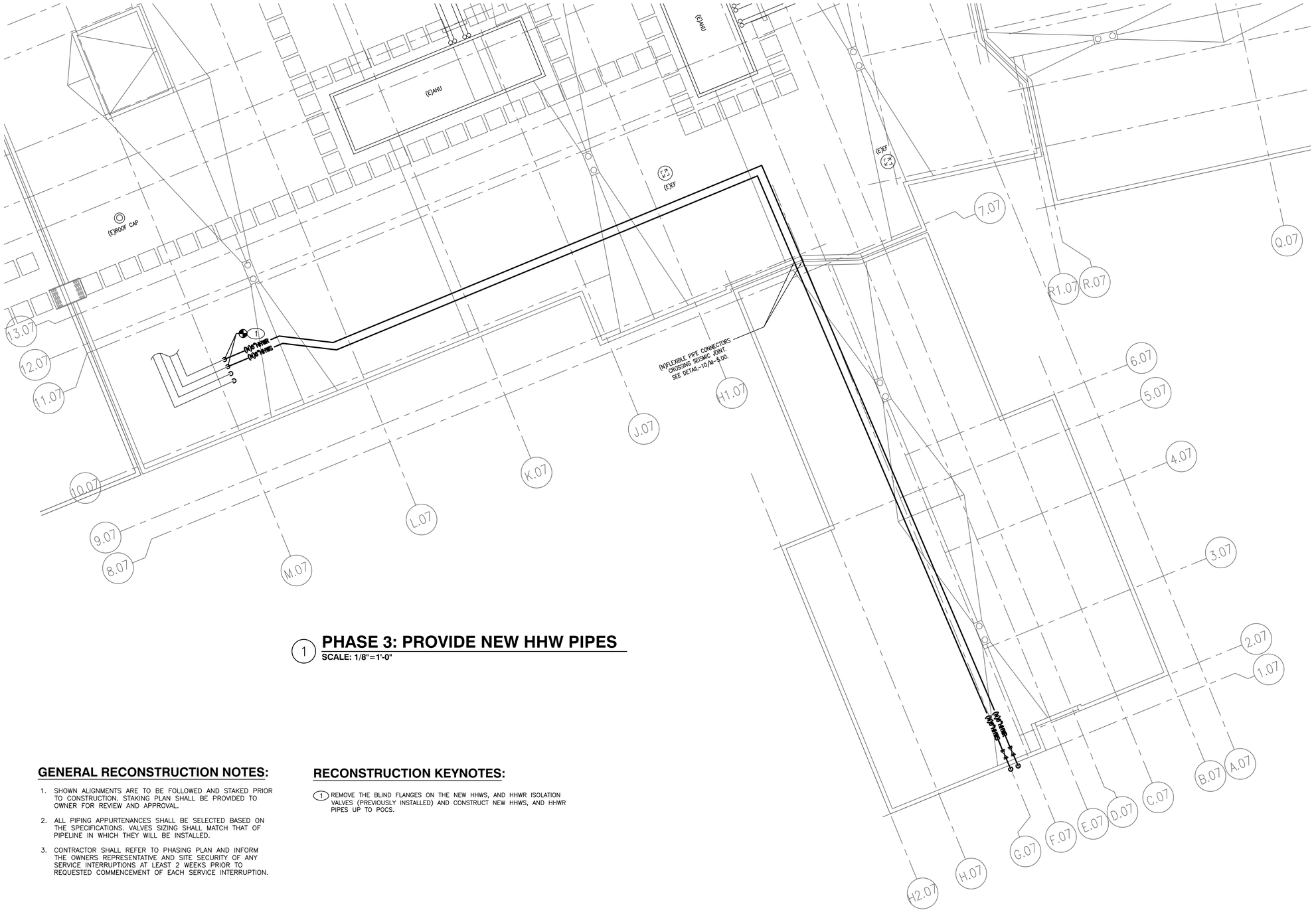
CAD File: S:\owendesign\Projects\2018 Projects\15438248 DGS DSH Coalinga Hydronic Loop Replacement - WD & BA\Drafting\CAD\Mechanical\M-4.07 Mechanical Piping Plan - Bldg 7.dwg Plot Date: May 08, 2022 - 2:14pm Plotted by: khanho

24 X 36

RELATIVE BORDER SCALE IN INCHES 0 1 2 3



1 PHASE 3: PROVIDE NEW HHW PIPES

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COALINGA, CA
93210

DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL PIPING PLAN - BUILDING 7 ROOF

Project Number
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Reference North

Sheet Scale
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Sheet Number
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CAD File: S:\owendesign\Projects\2018 Projects\15438248 DGS DSH Coalinga Hydronic Loop Replacement - VID & BA\Drafting\CAD\Mechanical\M-4.07 Mechanical Piping Plan - Bldg 7.dwg Plot Date: May 08, 2023 - 3:14pm Plotted by: ktanho

RELATIVE BORDER SCALE IN INCHES 0 1 2 3

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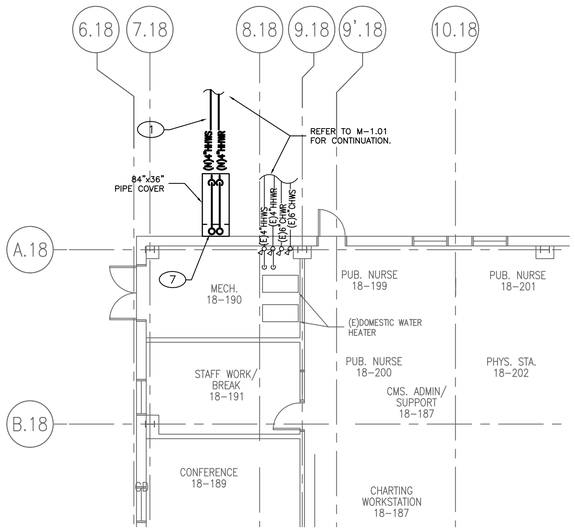
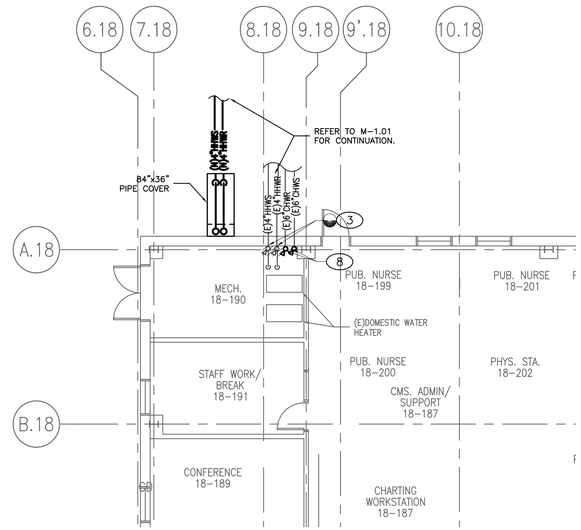
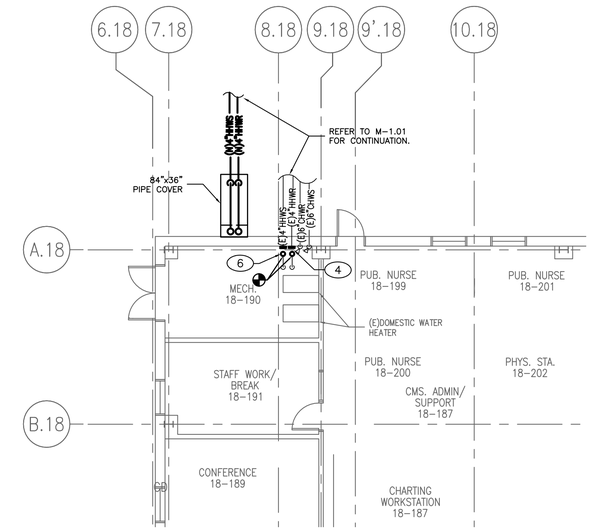
6. REFER TO M–5.0 DETAIL 8 FOR PIPE PENETRATION DETAIL.
7. REFER TO M–5.0 DETAIL 4 FOR PIPE SUPPORT DETAIL ON WALL.
8. REPLACE THE EXISTING CHW VALVE WITH A NEW CHW VALVE.



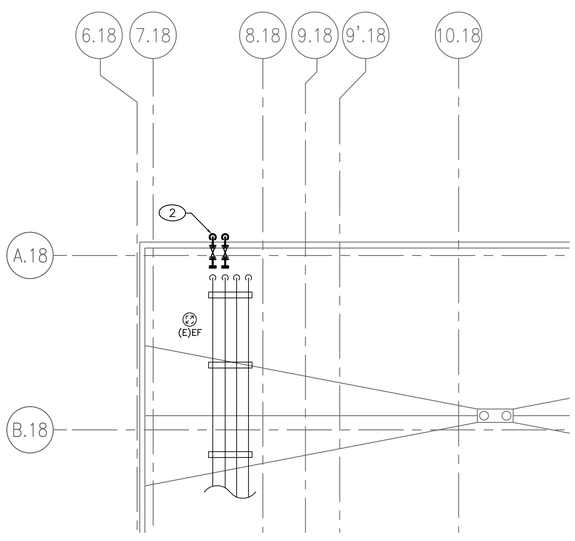
1 PHASE 1: PROVIDE NEW HHW PIPES
SCALE: 1/8"=1'-0"



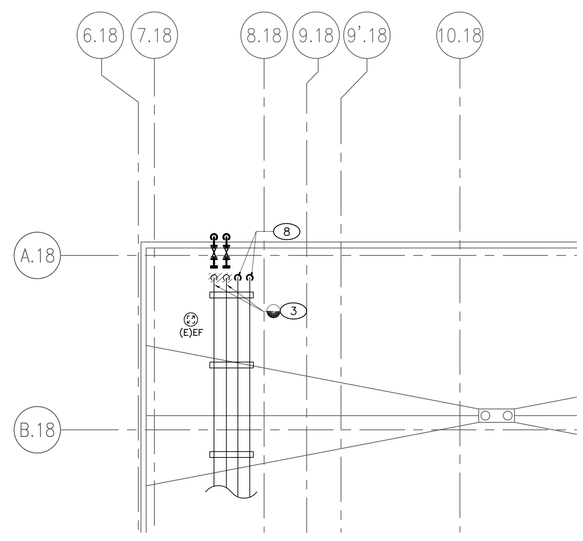
2 PHASE 2: DEMOLISH AND CAP EXISTING PIPES
SCALE: 1/8"=1'-0"



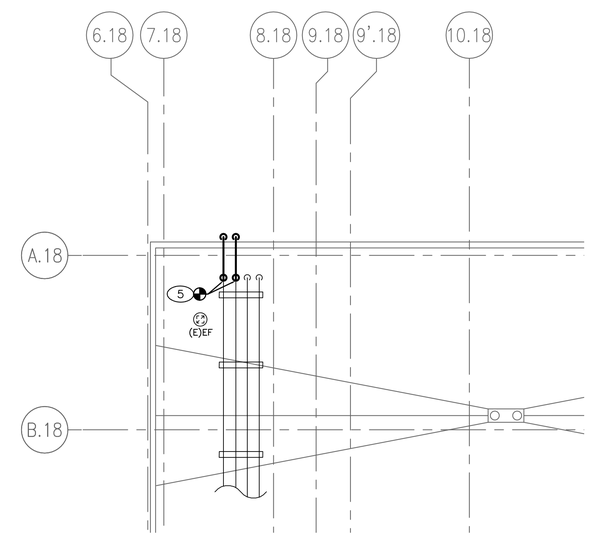
3 PHASE 3: PROVIDE NEW HHW PIPES
SCALE: 1/8"=1'-0"



1 PHASE 1 ROOF: PROVIDE NEW HHW PIPES
SCALE: 1/8"=1'-0"



2 PHASE 2 ROOF: DEMOLISH AND CAP EXISTING PIPES
SCALE: 1/8"=1'-0"



3 PHASE 3 ROOF: PROVIDE NEW HHW PIPES
SCALE: 1/8"=1'-0"

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11/27/23
23-1693
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Issue

No.	Date	Description
	01/31/2022	Preliminary Plans
	08/31/2022	50% Working Drawings
	10/31/2022	95% Working Drawings
	03/31/2023	100% Working Drawings

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL PIPING PLAN - BUILDING 18

Project Number
0000000000008666

Reference North

Sheet Scale
1/8"=1'-0"

Sheet Number
M-4.18
V4

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CAD File: S:\overndesign\Projects\2018 Projects\15438248 DGS DSH Coalinga Hydronic Loop Replacement - VID & BA\Drafting\CAD\Mechanical\M-4.18 Mechanical Piping Plan - Bldg 18.dwg Plot Date: May 08, 2022 3:16pm Plotted by: khanho

RELATIVE BORDER SCALE IN INCHES 0 1 2 3

GENERAL RECONSTRUCTION NOTES:

1. SHOWN ALIGNMENTS ARE TO BE FOLLOWED AND STAKED PRIOR TO CONSTRUCTION. STAKING PLAN SHALL BE PROVIDED TO OWNER FOR REVIEW AND APPROVAL.
2. ALL PIPING APPURTENANCES SHALL BE SELECTED BASED ON THE SPECIFICATIONS. VALVES SIZING SHALL MATCH THAT OF PIPELINE IN WHICH THEY WILL BE INSTALLED.
3. CONTRACTOR SHALL REFER TO PHASING PLAN AND INFORM THE OWNERS REPRESENTATIVE AND SITE SECURITY OF ANY SERVICE INTERRUPTIONS AT LEAST 2 WEEKS PRIOR TO REQUESTED COMMENCEMENT OF EACH SERVICE INTERRUPTION.

RECONSTRUCTION KEYNOTES:

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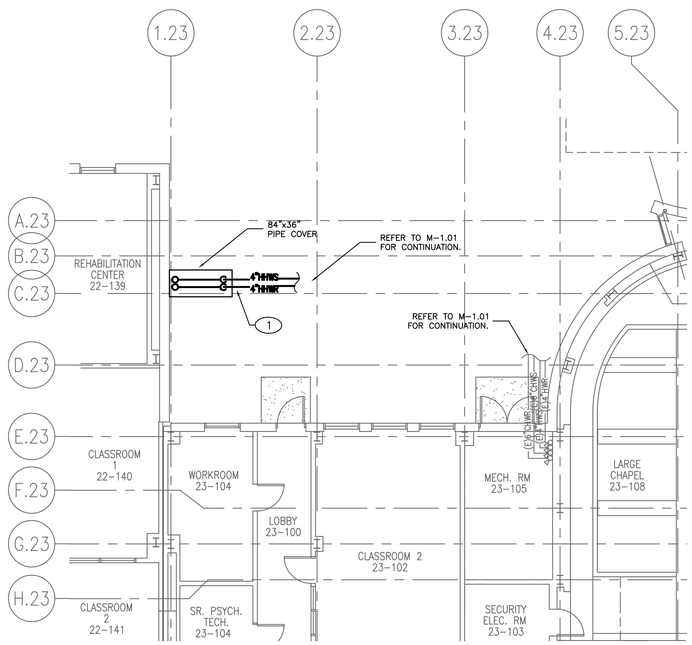
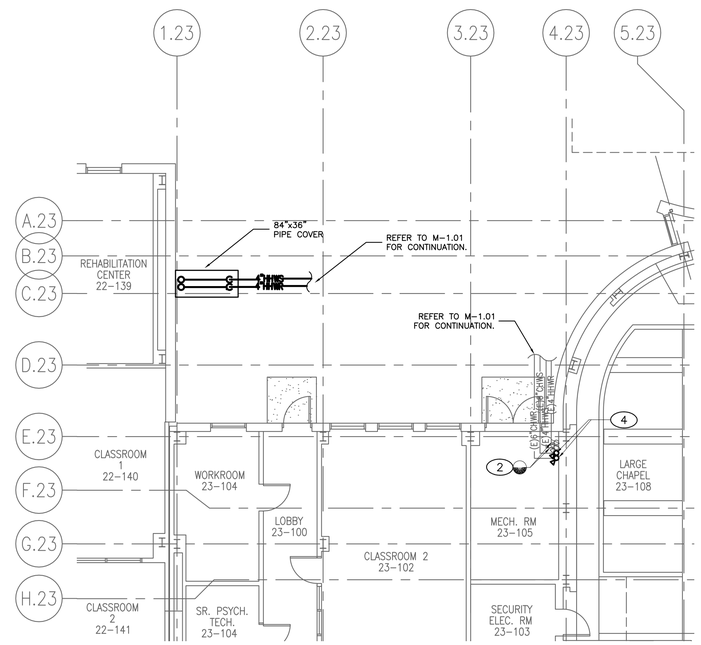
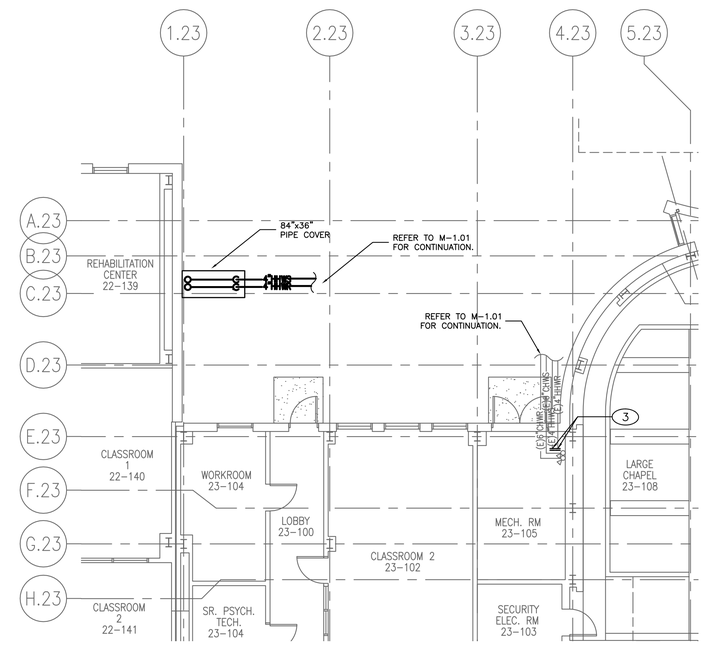
3. BLIND FLANGE EXISTING MAIN ISOLATION VALVES AT POINTS OF DISCONNECTION.
4. REPLACE THE EXISTING CHW VALVE WITH A NEW CHW VALVE.



1 **PHASE 1: PROVIDE NEW HHW PIPES**
SCALE: 1/8"=1'-0"



2 **PHASE 2: DEMOLISH AND CAP EXISTING PIPES**
SCALE: 1/8"=1'-0"



3 **PHASE 3: PROVIDE NEW HHW PIPES**
SCALE: 1/8"=1'-0"

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23-1693
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Issue

No.	Date	Description
	01/31/2022	Preliminary Plans
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	10/31/2022	95% Working Drawings
	03/31/2023	100% Working Drawings

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
WM	KH	WM

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL PIPING PLAN - BUILDING 23

Project Number
000000000008666

Reference North

Sheet Scale
1/8"=1'-0"

Sheet Number
M-4.23A
V4

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CAD File: S:\owendesign\Projects\2018 Projects\15438248 DGS DSH Coalinga Hydronic Loop Replacement - WD & BA\Drafting\CAD\Mechanical\M-4.23 Mechanical Piping Plan - Bldg 23.dwg Plot Date: May 08, 2024 3:17pm Plotted by: khanho

24 X 36

RELATIVE BORDER SCALE IN INCHES 0 1 2 3

GENERAL RECONSTRUCTION NOTES:

1. SHOWN ALIGNMENTS ARE TO BE FOLLOWED AND STAKED PRIOR TO CONSTRUCTION. STAKING PLAN SHALL BE PROVIDED TO OWNER FOR REVIEW AND APPROVAL.
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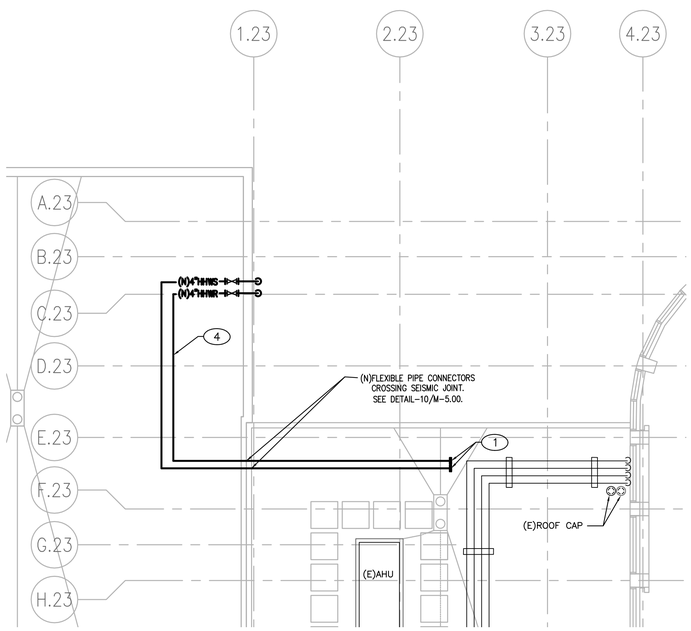
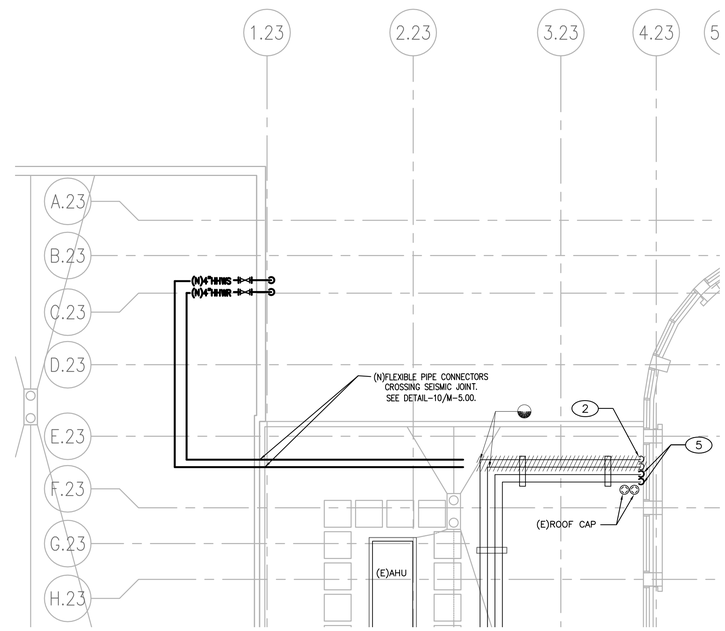
RECONSTRUCTION KEYNOTES:

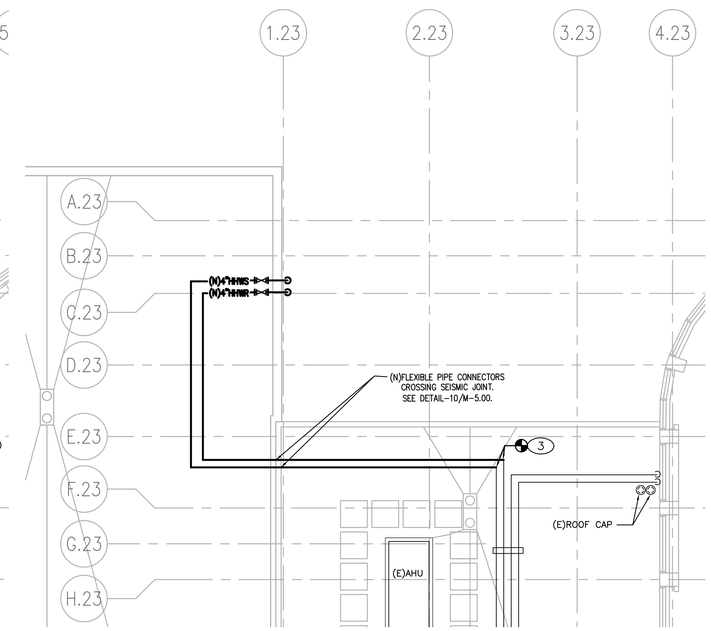
1. TERMINATE EACH NEW HHWS, AND HHWR PIPE WITH A BLIND FLANGE AND MANUAL ISOLATION VALVE NEAR THE INTENDED POINTS OF CONNECTION (POCs).
2. CLOSE THE BUILDING'S EXISTING HHWS, AND HHWR MAIN ISOLATION VALVES ON THE WALL. DISCONNECT AND DEMOLISH SMALL SECTIONS OF EXISTING HHWS, AND HHWR PIPING FROM EXISTING VALVES INTO THE BUILDING. DRAIN THE EXISTING HHWS, AND HHWR BUILDING PIPING.
3. REMOVE THE BLIND FLANGES ON THE NEW HHWS, AND HHWR ISOLATION VALVES (PREVIOUSLY INSTALLED) AND CONSTRUCT NEW HHWS, AND HHWR PIPES UP TO POCS.
4. PROVIDE SUPPORT FOR NEW HYDRONIC PIPES PER M-5.00 DETAIL 3.
5. REPLACE THE EXISTING CHW VALVE WITH A NEW CHW VALVE.



1 **PHASE 1 ROOF: PROVIDE NEW HHW PIPES**
SCALE: 1/8"=1'-0"



2 **PHASE 2 ROOF: DEMOLISH AND CAP EXISTING PIPES**
SCALE: 1/8"=1'-0"



3 **PHASE 3 ROOF: PROVIDE NEW HHW PIPES**
SCALE: 1/8"=1'-0"

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Issue

No.	Date	Description
	01/31/2022	Preliminary Plans
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	10/31/2022	95% Working Drawings
	03/31/2023	100% Working Drawings

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL PIPING PLAN - BUILDING 23 ROOF

Project Number
0000000000008666

Reference North

Sheet Scale
1/8"=1'-0"

Sheet Number
M-4.23B
V4

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CAD File: S:\owendesign\Projects\2018 Projects\154382\48 DGS DSH Coalinga Hydronic Loop Replacement - WD & BA\Drafting\CAD\Mechanical\M-4.23 Mechanical Piping Plan Bldg 23.dwg Plot Date: May 09, 2023 3:17pm Plotted by: khanho

24 X 36

RELATIVE BORDER SCALE IN INCHES 0 1 2 3

GENERAL RECONSTRUCTION NOTES:

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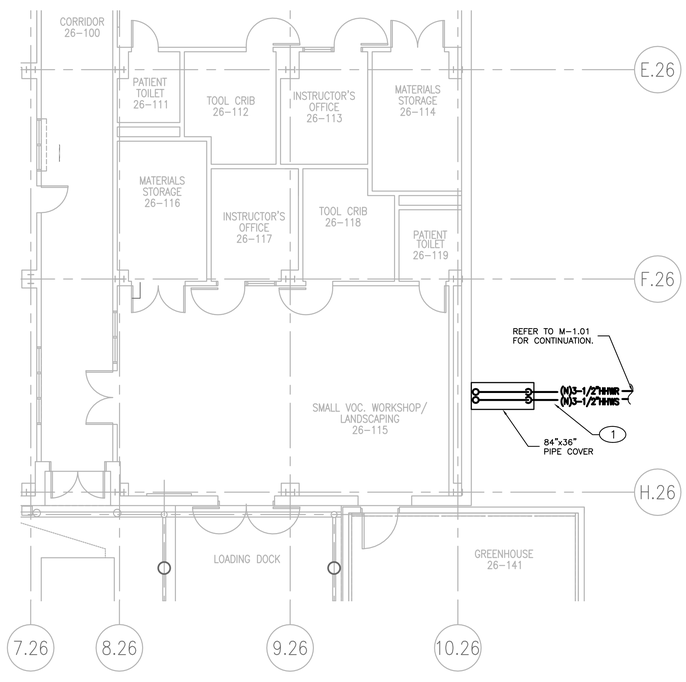
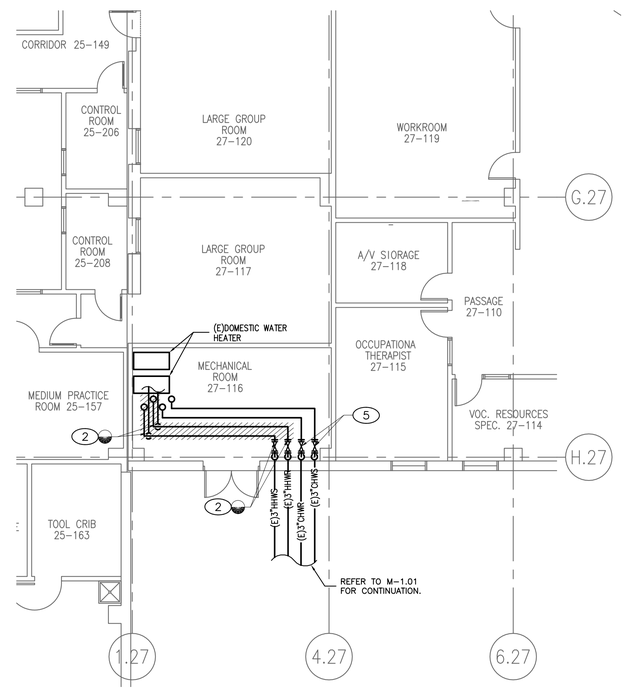
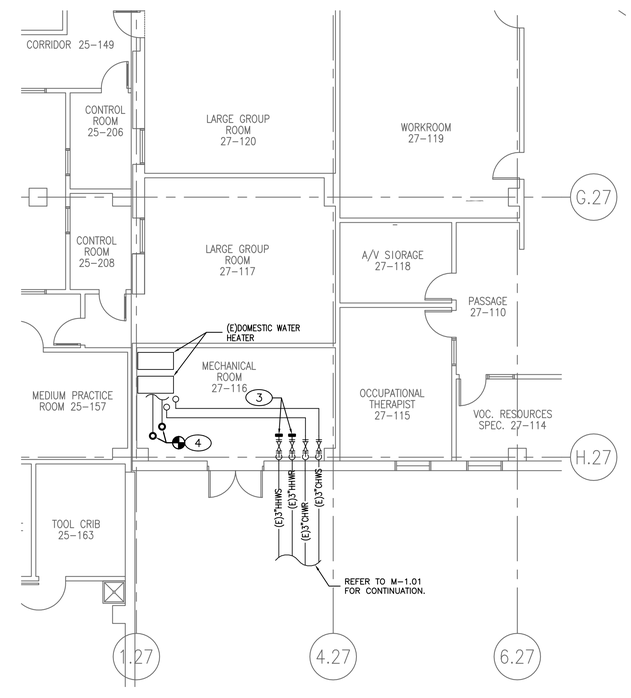
5. REPLACE THE EXISTING CHW VALVE WITH A NEW CHW VALVE.



1 **PHASE 1: PROVIDE NEW HHW PIPES**
SCALE: 1/8"=1'-0"



1 **PHASE 2: DEMOLISH AND CAP EXISTING PIPES**
SCALE: 1/8"=1'-0"



3 **PHASE 3: PROVIDE NEW HHW PIPES**
SCALE: 1/8"=1'-0"

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Issue

No.	Date	Description
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Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL PIPING PLAN - BUILDING 27

Project Number
000000000008666

Reference North

Sheet Scale
1/8"=1'-0"

Sheet Number
M-4.27A
V4

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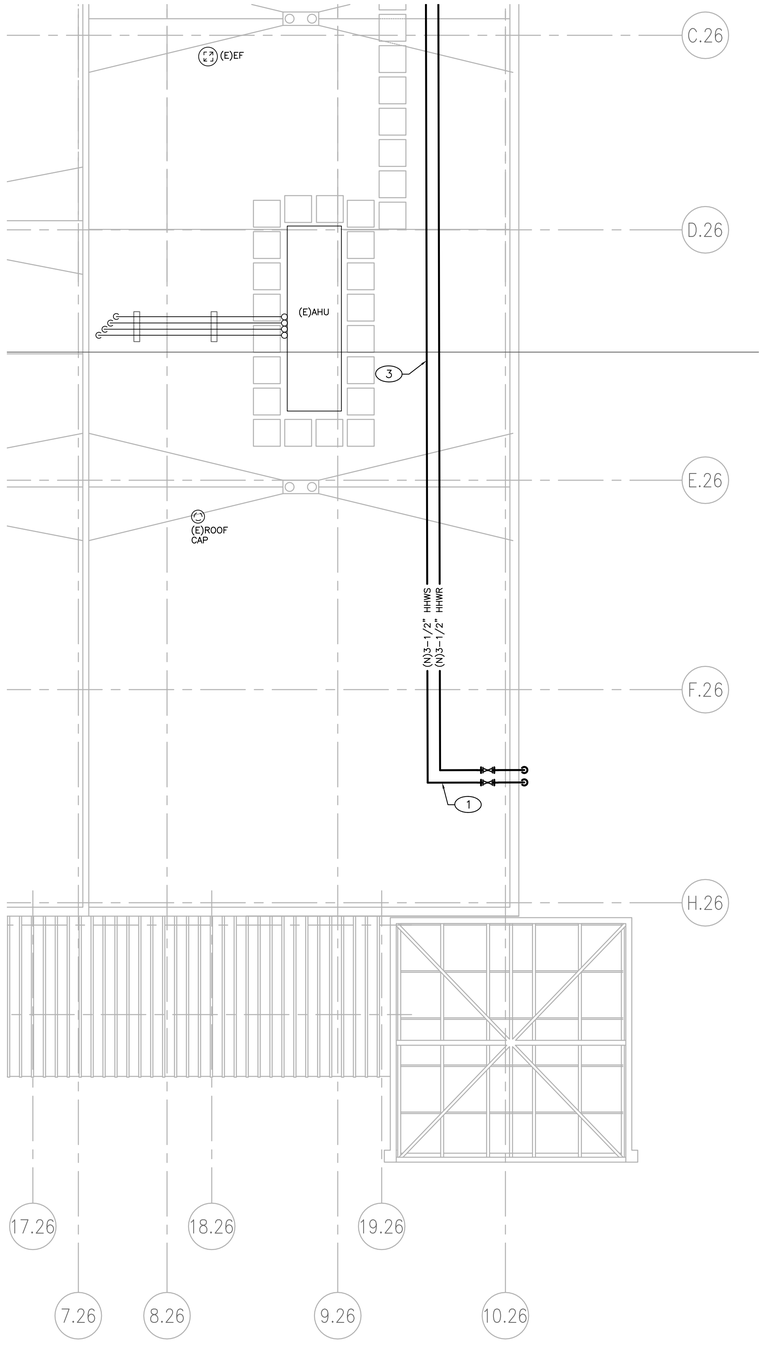
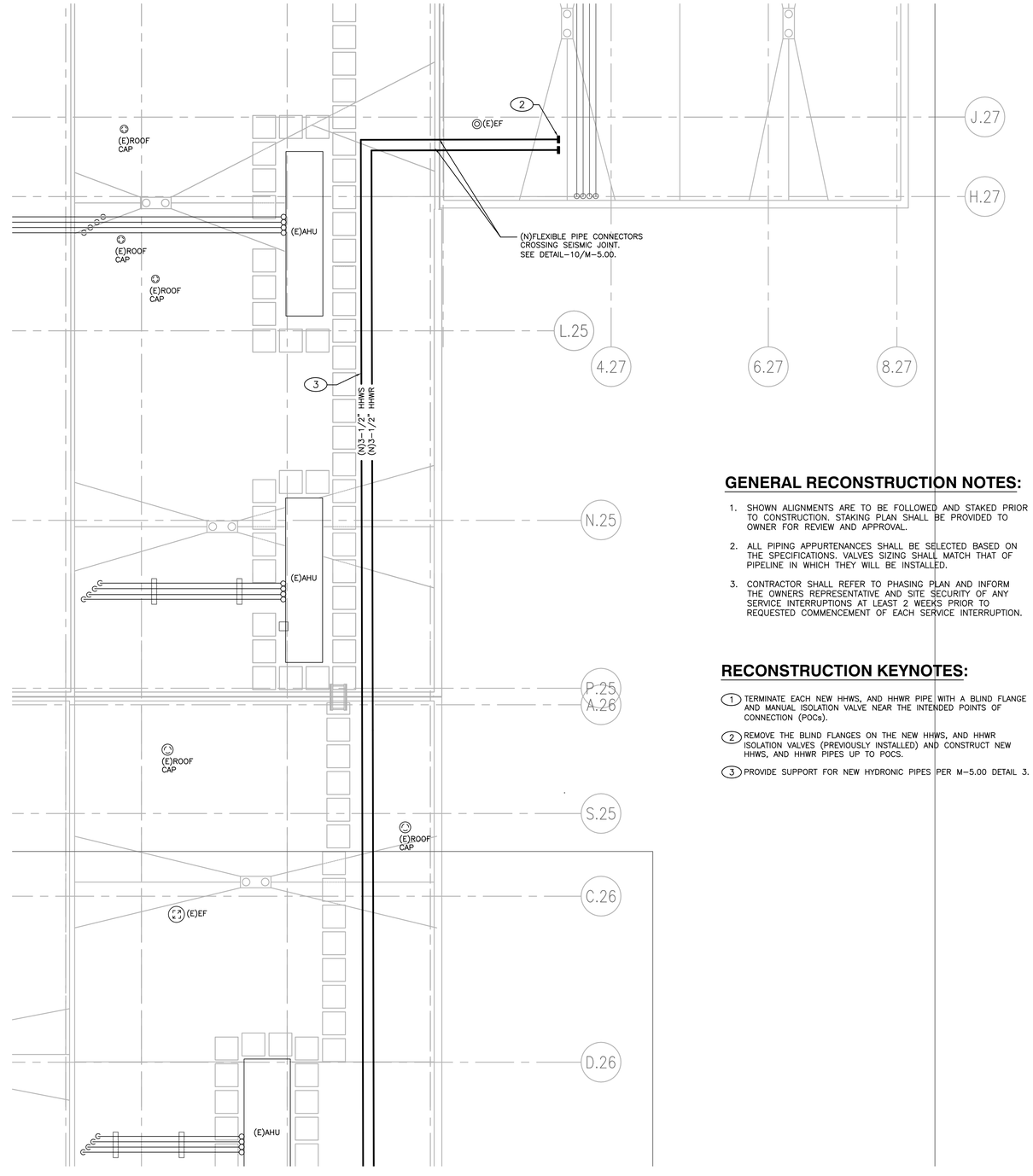
CAD File: S:\owendesign\Projects\2018 Projects\15438248 DGS DSH Coalinga Hydronic Loop Replacement - VID & BA\Drafting\CAD\Mechanical\M-4.27 Mechanical Piping Plan - Bldg 27.dwg Plot Date: May 08, 2024 3:18pm Plotted by: kharho

24 X 36

RELATIVE BORDER SCALE IN INCHES 0 1 2 3



1 **PHASE 1 ROOF: PROVIDE NEW HHW PIPES**
SCALE: 1/8"=1'-0"



2 **PHASE 1 ROOF: PROVIDE NEW HHW PIPES**
SCALE: 1/8"=1'-0"

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Project
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COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL PIPING PLAN - BUILDING 27 ROOF

Project Number
000000000008666

Reference North

Sheet Scale
1/8"=1'-0"

Sheet Number
M-4.27B
V4

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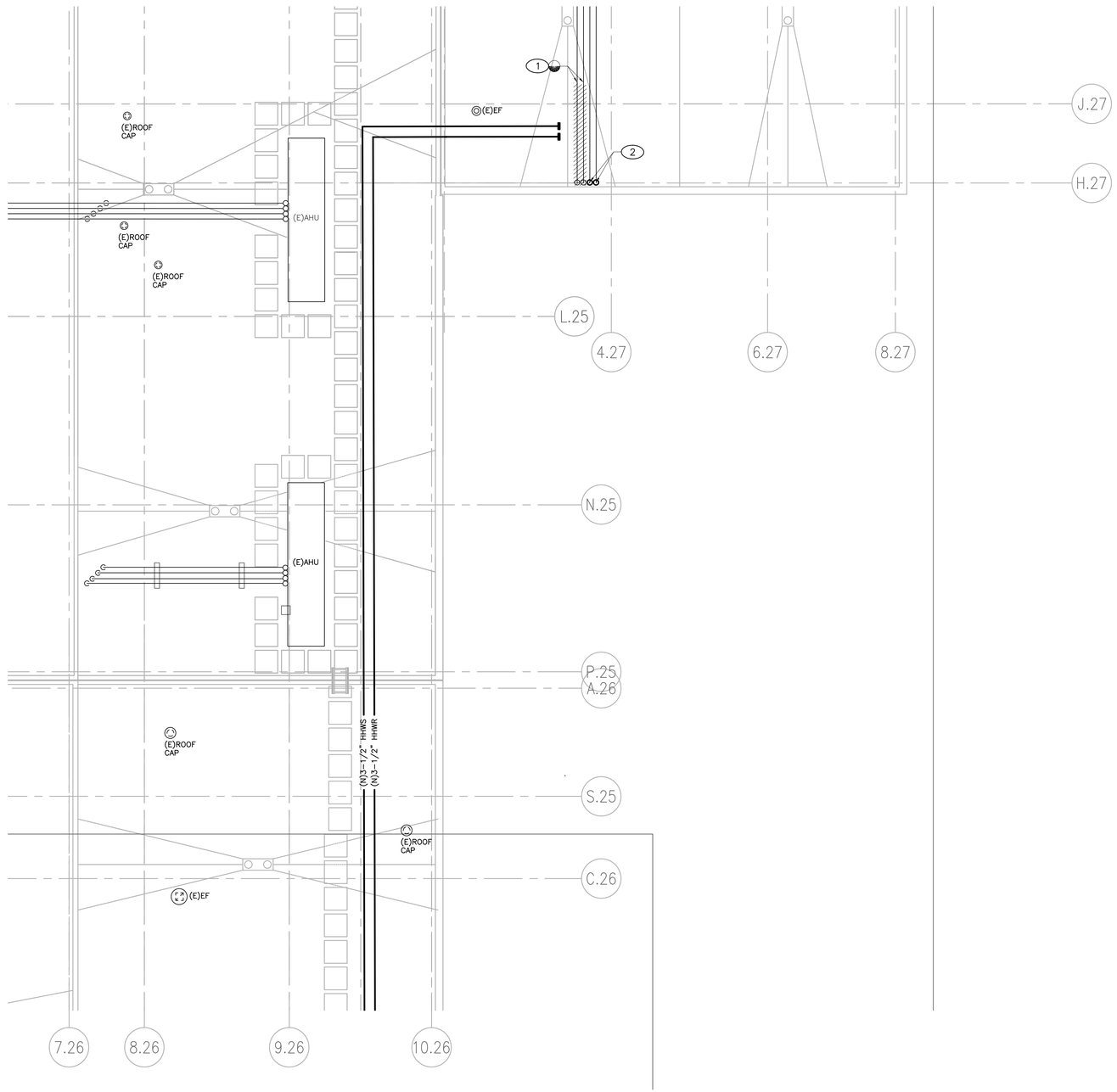
CAD File: S:\owendesign\Projects\2018 Projects\15438248 DGS DSH Coalinga Hydronic Loop Replacement - WD & BA\Drafting\CAD\Mechanical\M-4.27 Mechanical Piping Plan - Bldg 27.dwg Plot Date: May 08, 2023 3:18pm Plotted by: khanho

RELATIVE BORDER SCALE IN INCHES 0 1 2 3



1 PHASE 2: DEMOLISH AND CAP EXISTING PIPES

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

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24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL PIPING PLAN - BUILDING 27 ROOF

Project Number
000000000008666

Reference North

Sheet Scale
1/8"=1'-0"

Sheet Number
M-4.27C
V4

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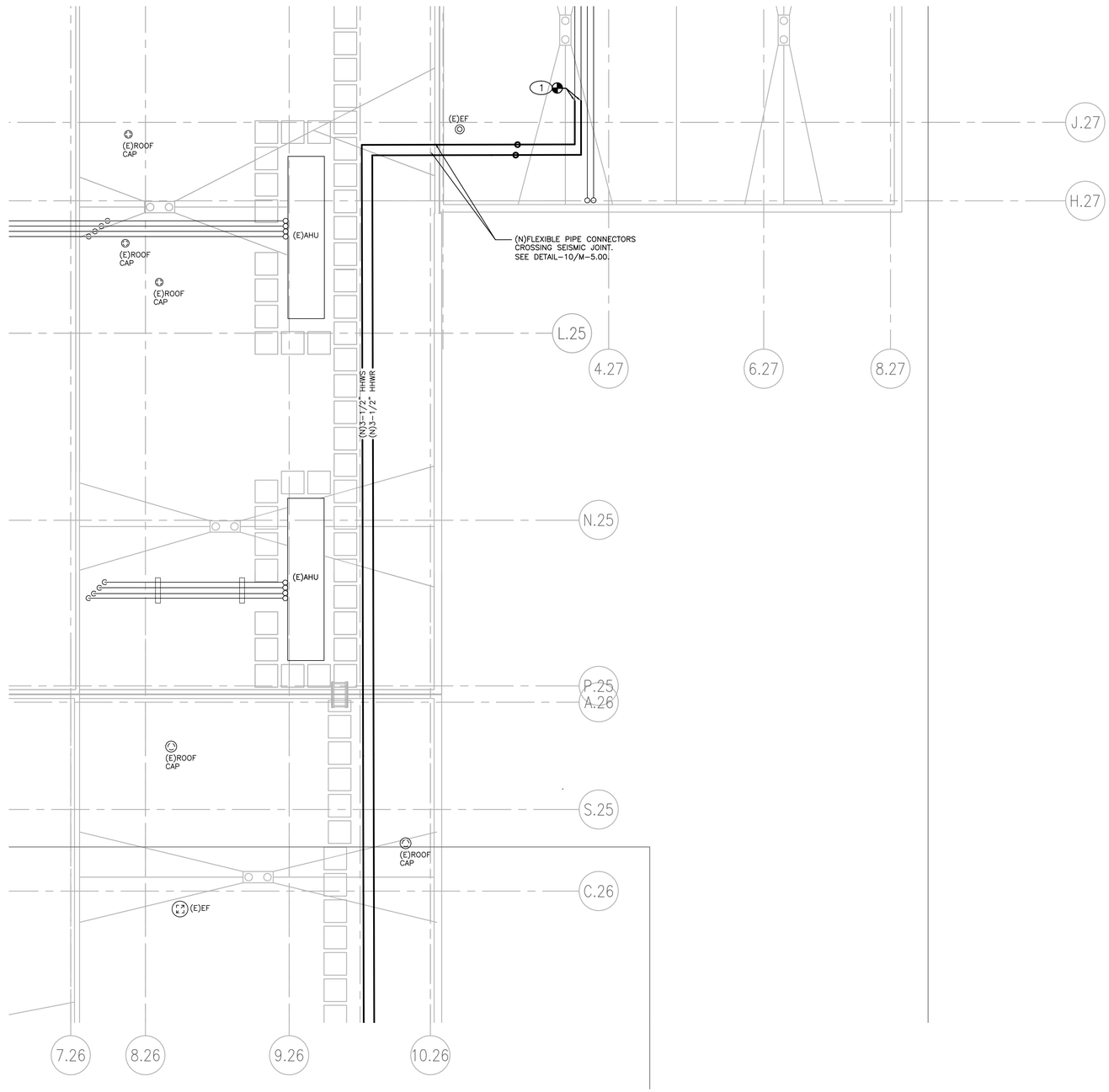
CAD File: S:\owendesign\Projects\2018 Projects\15438248 DGS DSH Coalinga Hydronic Loop Replacement - WD & BA\Drafting\CAD\Mechanical\M-4.27 Mechanical Piping Plan Bldg 27.dwg Plot Date: May 08, 2023 3:18pm Plotted by: khanho

RELATIVE BORDER SCALE IN INCHES



1 **PHASE 3 ROOF: PROVIDE NEW HHW PIPES**
SCALE: 1/8"=1'-0"

GENERAL RECONSTRUCTION NOTES:

1. SHOWN ALIGNMENTS ARE TO BE FOLLOWED AND STAKED PRIOR TO CONSTRUCTION. STAKING PLAN SHALL BE PROVIDED TO OWNER FOR REVIEW AND APPROVAL.
2. ALL PIPING APPURTENANCES SHALL BE SELECTED BASED ON THE SPECIFICATIONS. VALVES SIZING SHALL MATCH THAT OF PIPELINE IN WHICH THEY WILL BE INSTALLED.
3. CONTRACTOR SHALL REFER TO PHASING PLAN AND INFORM THE OWNERS REPRESENTATIVE AND SITE SECURITY OF ANY SERVICE INTERRUPTIONS AT LEAST 2 WEEKS PRIOR TO REQUESTED COMMENCEMENT OF EACH SERVICE INTERRUPTION.

RECONSTRUCTION KEYNOTES:

1 REMOVE THE BLIND FLANGES ON THE NEW HHWS AND HHWR ISOLATION VALVES (PREVIOUSLY INSTALLED) AND CONSTRUCT NEW HHWS AND HHWR PIPES UP TO POCS.

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23-1693
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Architecture & Engineering Sections
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Real Estate Services Division
Project Management & Development Branch
707 Third Street, Suite 4-105
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PROFESSIONAL STAMP
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FAX: (949) 860-4810
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Issue

No.	Date	Description
	01/31/2022	Preliminary Plans
	08/31/2022	50% Working Drawings
	10/31/2022	95% Working Drawings
	03/31/2023	100% Working Drawings

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL PIPING PLAN - BUILDING 27 ROOF

Project Number
0000000000008666

Reference North

Sheet Scale
1/8"=1'-0"

Sheet Number
M-4.27D
V4

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CAD File: S:\owendesign\Projects\2018 Projects\15438248 DGS DSH Coalinga Hydronic Loop Replacement - WD & BID\Drafting\CAD\Mechanical\M-4.27 Mechanical Piping Plan\Bldg 27.dwg Plot Date: May 08, 2024 3:18pm Plotted by: khanho

RELATIVE BORDER SCALE IN INCHES 0 1 2 3

GENERAL RECONSTRUCTION NOTES:

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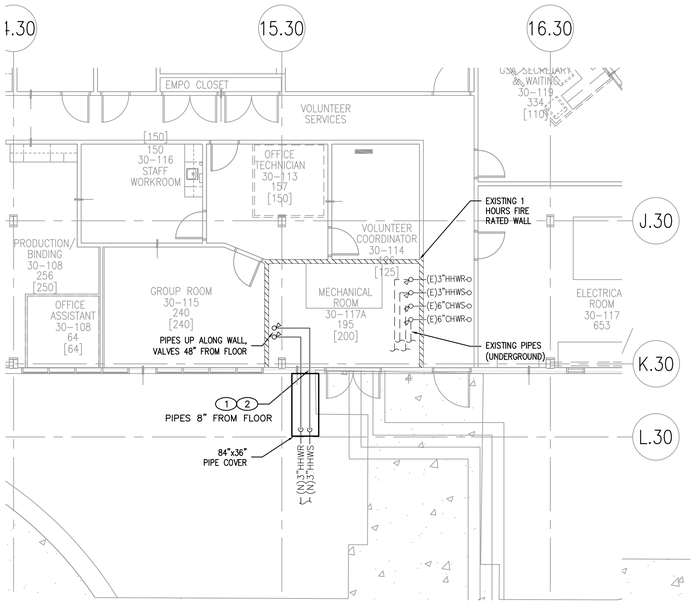
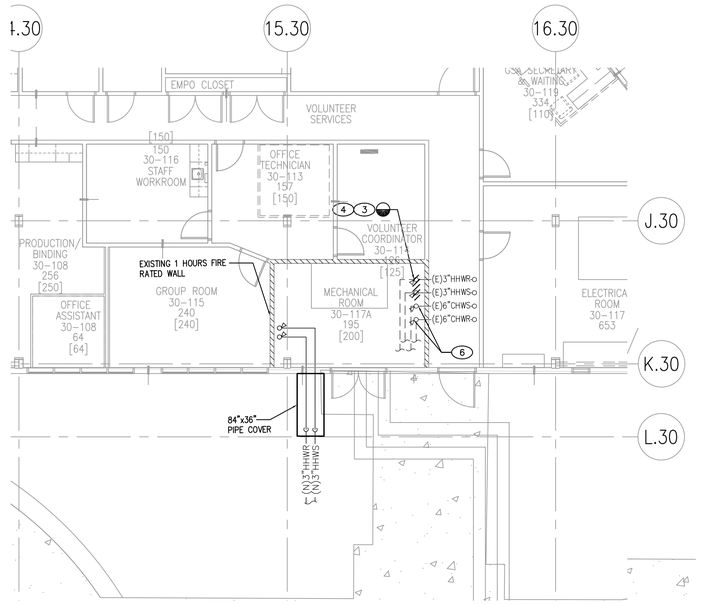
RECONSTRUCTION KEYNOTES:

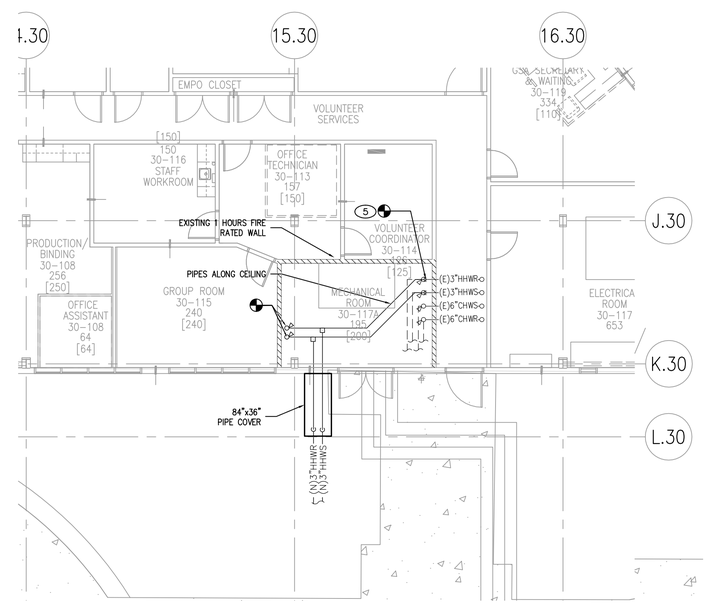
1. CONSTRUCT THE NEW HHWS AND HHWR PIPES IN DIRECT-BURIED, PR-FABRICATED, PRE-INSULATED HHWS AND HHWR PIPES. THE EXISTING HHW HYDRONIC LOOP SHALL REMAIN OPERATIONAL UNTIL AS INDICATED ON DRAWING M-103.
2. TERMINATE EACH NEW HHWS, AND HHWR PIPE WITH A BLIND FLANGE AND MANUAL ISOLATION VALVE NEAR THE INTENDED POINTS OF CONNECTION (POCs). PROVIDE NEW HYDRONIC PIPELINE SEISMIC BUILDING CONNECTION PER M-5.00 DETAIL 1.
3. CLOSE THE BUILDING'S EXISTING HHWS, AND HHWR MAIN ISOLATION VALVES ON THE WALL. DISCONNECT AND DEMOLISH SMALL SECTIONS OF EXISTING HHWS, AND HHWR PIPING FROM EXISTING VALVES INTO THE BUILDING. DRAIN THE EXISTING HHWS, AND HHWR BUILDING PIPING.
4. BLIND FLANGE EXISTING MAIN ISOLATION VALVES AT POINTS OF DISCONNECTION.
5. REMOVE THE BLIND FLANGES ON THE NEW HHWS, AND HHWR ISOLATION VALVES (PREVIOUSLY INSTALLED) AND CONSTRUCT NEW HHWS, AND HHWR PIPES UP TO POCS.
6. REPLACE THE EXISTING CHW VALVE WITH A NEW CHW VALVE.



1 **PHASE 1: PROVIDE NEW HHW PIPES**
SCALE: 1/8"=1'-0"



2 **PHASE 2: DEMOLISH AND CAP EXISTING PIPES**
SCALE: 1/8"=1'-0"



3 **PHASE 3: PROVIDE NEW HHW PIPES**
SCALE: 1/8"=1'-0"

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Issue

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DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL PIPING PLAN - BUILDING 30

Project Number
000000000008666

Reference North

Sheet Scale
1/8"=1'-0"

Sheet Number
M-4.30
V4

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CAD File: S:\owendesign\Projects\2018 Projects\1543824B DGS DSH Coalinga Hydronic Loop Replacement - IWD & BA\Drafting\CAD\Mechanical\M-4.30 Mechanical Piping Plan\Bldg 30.dwg Plot Date: Oct 03, 2023,-4:17pm Plotted by: khanho

RELATIVE BORDER SCALE IN INCHES 0 1 2 3

GENERAL RECONSTRUCTION NOTES:

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RECONSTRUCTION KEYNOTES:

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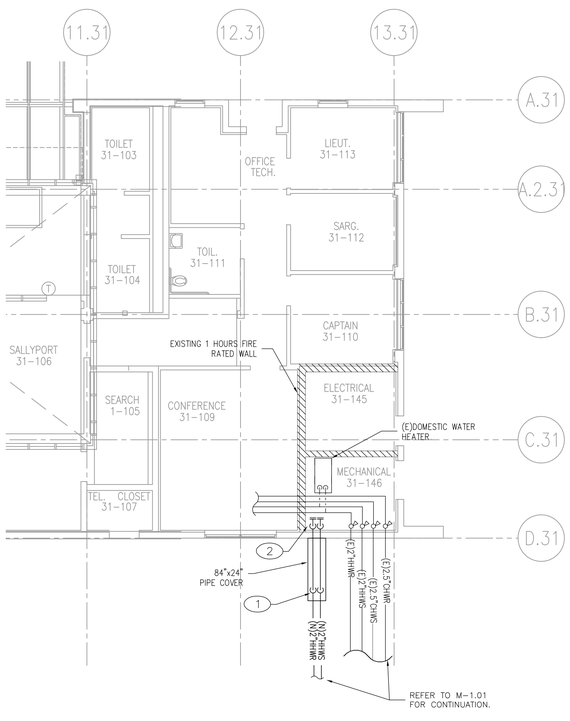
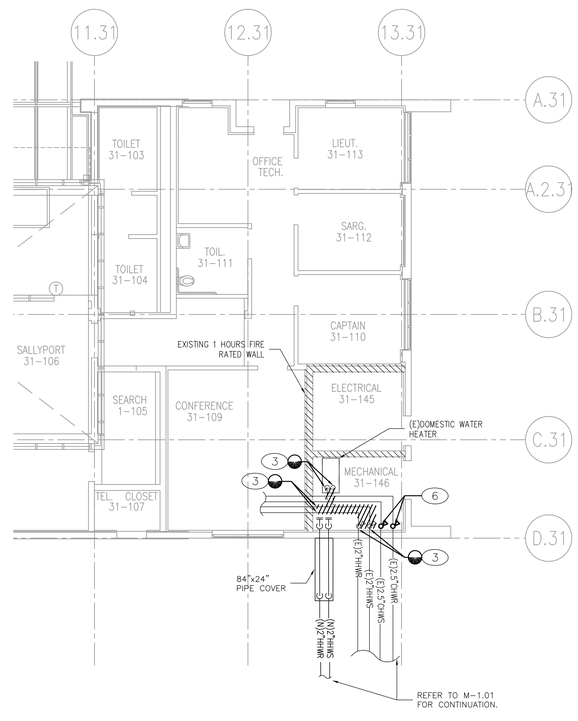
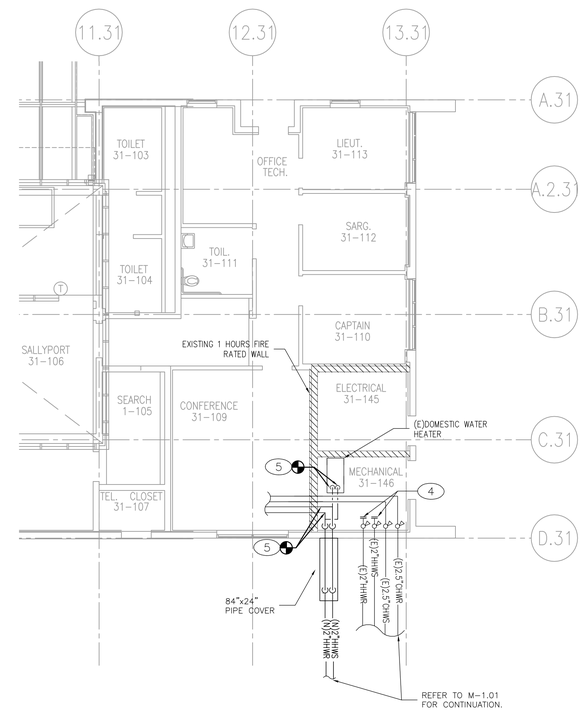
2. TERMINATE EACH NEW HHWS, AND HHWR PIPE WITH A BLIND FLANGE AND MANUAL ISOLATION VALVE NEAR THE INTENDED POINTS OF CONNECTION (POCs). PROVIDE NEW HYDRONIC PIPELINE SEISMIC BUILDING CONNECTION PER M–5.00 DETAIL 2.
3. CLOSE THE BUILDING'S EXISTING HHWS, AND HHWR MAIN ISOLATION VALVES ON THE WALL. DISCONNECT AND DEMOLISH SMALL SECTIONS OF EXISTING HHWS, AND HHWR PIPING FROM EXISTING VALVES INTO THE BUILDING. DRAIN THE EXISTING HHWS, AND HHWR BUILDING PIPING.
4. BLIND FLANGE EXISTING MAIN ISOLATION VALVES AT POINTS OF DISCONNECTION.
5. REMOVE THE BLIND FLANGES ON THE NEW HHWS, AND HHWR ISOLATION VALVES (PREVIOUSLY INSTALLED) AND CONSTRUCT NEW HHWS, AND HHWR PIPES UP TO POCS.
6. REPLACE THE EXISTING CHW VALVE WITH A NEW CHW VALVE.



1 **PHASE 1: PROVIDE NEW HHW PIPES**
SCALE: 1/8"=1'-0"



2 **PHASE 2: DEMOLISH AND CAP EXISTING PIPES**
SCALE: 1/8"=1'-0"



3 **PHASE 3: PROVIDE NEW HHW PIPES**
SCALE: 1/8"=1'-0"

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	10/31/2022	95% Working Drawings
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Project
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24511 WEST JAYNE AVE
COALINGA, CA
93210

DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL PIPING PLAN - BUILDING 31

Project Number
000000000008666

Reference North

Sheet Scale
1/8"=1'-0"

Sheet Number
M-4.31
V4

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CAD File: S:\owendesign\Projects\2018 Projects\15438248 DGS DSH Coalinga Hydronic Loop Replacement - WD & BA\Drafting\CAD\Mechanical\M-4.31 Mechanical Piping Plan\Bldg 31.dwg Plot Date: Oct 03, 2023,-4:32pm Plotted by: kharriho

24 X 36

RELATIVE BORDER SCALE IN INCHES 0 1 2 3

GENERAL RECONSTRUCTION NOTES:

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4. BLIND FLANGE EXISTING MAIN ISOLATION VALVES AT POINTS OF DISCONNECTION.
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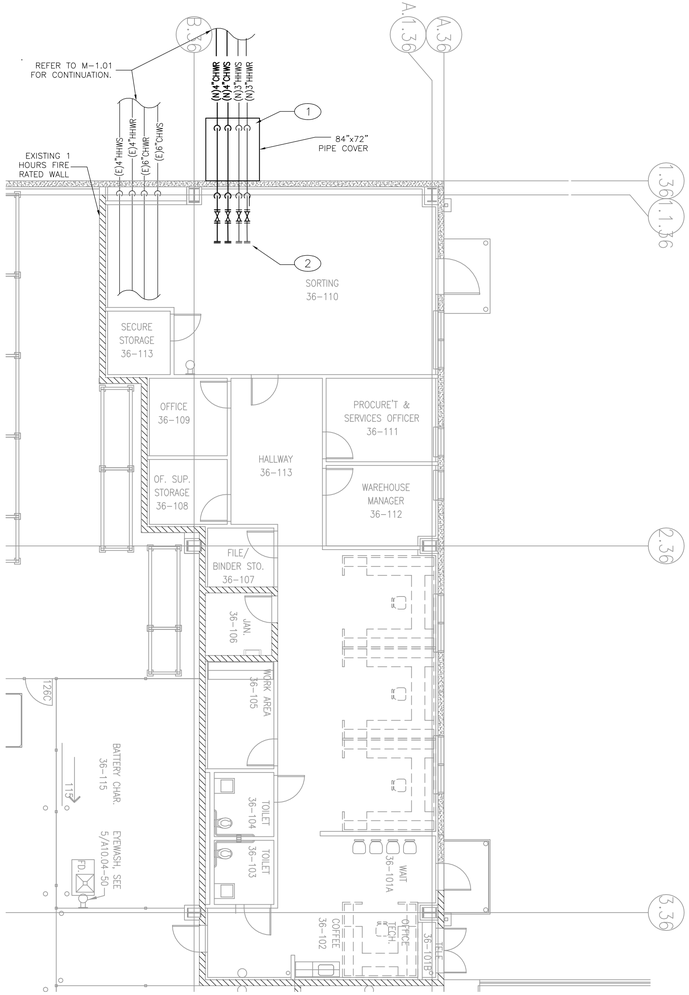
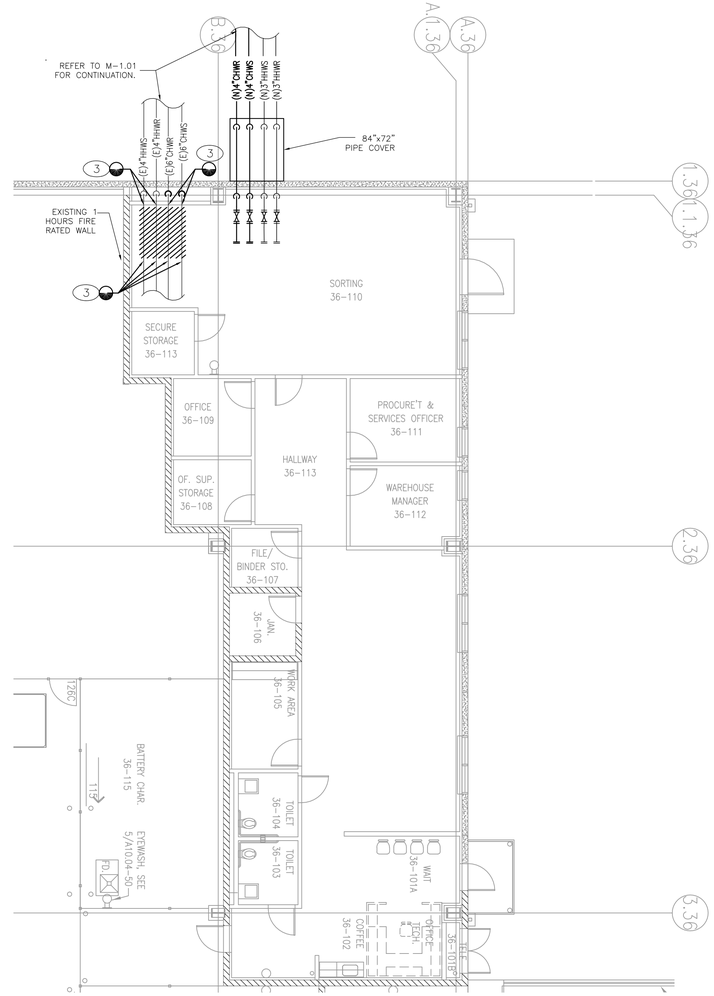
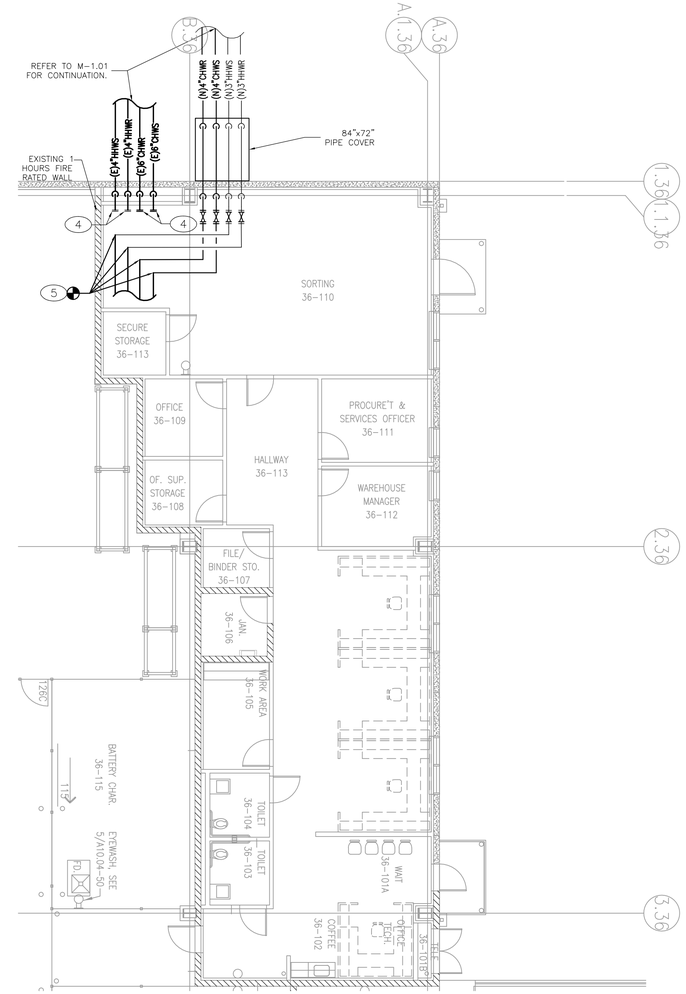


1 **PHASE 1: PROVIDE NEW CHW AND HHW PIPES**
SCALE: 1/8"=1'-0"



2 **PHASE 2: DEMOLISH AND CAP EXISTING PIPES**
SCALE: 1/8"=1'-0"



3 **PHASE 3: PROVIDE NEW CHW AND HHW PIPES**
SCALE: 1/8"=1'-0"

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DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL PIPING PLAN - BUILDING 36

Project Number
0000000000008666

Reference North

Sheet Scale
1/8"=1'-0"

Sheet Number
M-4.36

V4

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CAD File: S:\owendesign\Projects\2018 Projects\1543624E DGS DSH Coalinga Hydronic Loop Replacement - WD & BA\Drafting\CAD\Mechanical\M-4.36 Mechanical Piping Plan\Bldg 36.dwg Plot Date: Oct 03, 2023,-4:45pm Plotted by: khanho
24 X 36
RELATIVE BORDER SCALE IN INCHES

GENERAL RECONSTRUCTION NOTES:

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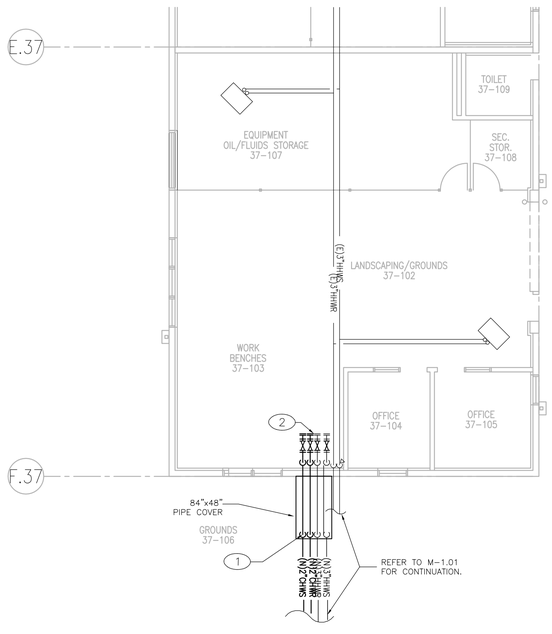
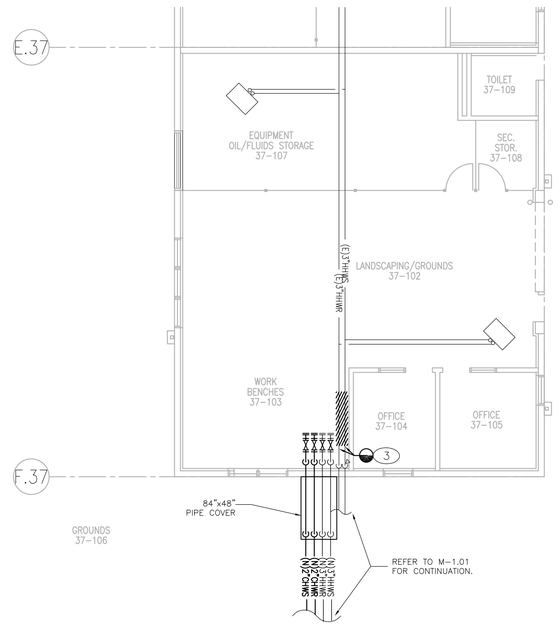
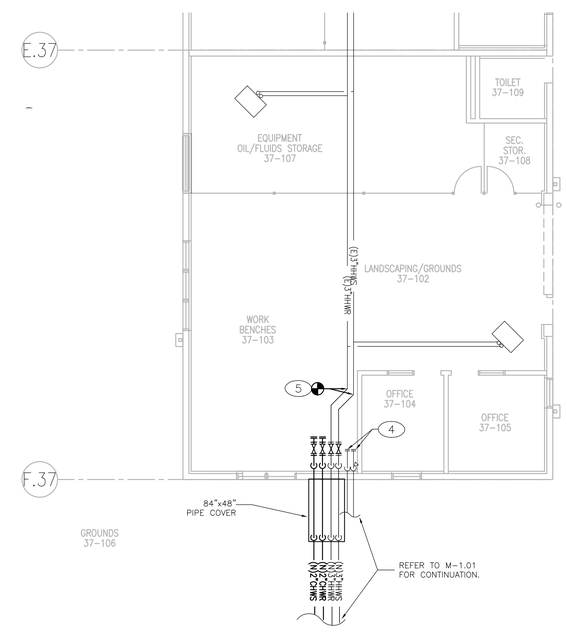


1 **PHASE 1: PROVIDE NEW CHW AND HHW PIPES**
SCALE: 1/8"=1'-0"



2 **PHASE 2: DEMOLISH AND CAP EXISTING PIPES**
SCALE: 1/8"=1'-0"



3 **PHASE 3: PROVIDE NEW HHW PIPES**
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Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
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Sheet Title
MECHANICAL PIPING PLAN - BUILDING 37

Project Number
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Reference North

Sheet Scale
1/8"=1'-0"

Sheet Number
M-4.37

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CAD File: S:\owendesign\Projects\2018 Projects\15438248 DGS DSH Coalinga Hydronic Loop Replacement - VID & BA\Drafting\CAD\Mechanical\M-4.37 Mechanical Piping Plan\Bldg 37.dwg Plot Date: Oct 03, 2023,-5:10pm Plotted by: khanho

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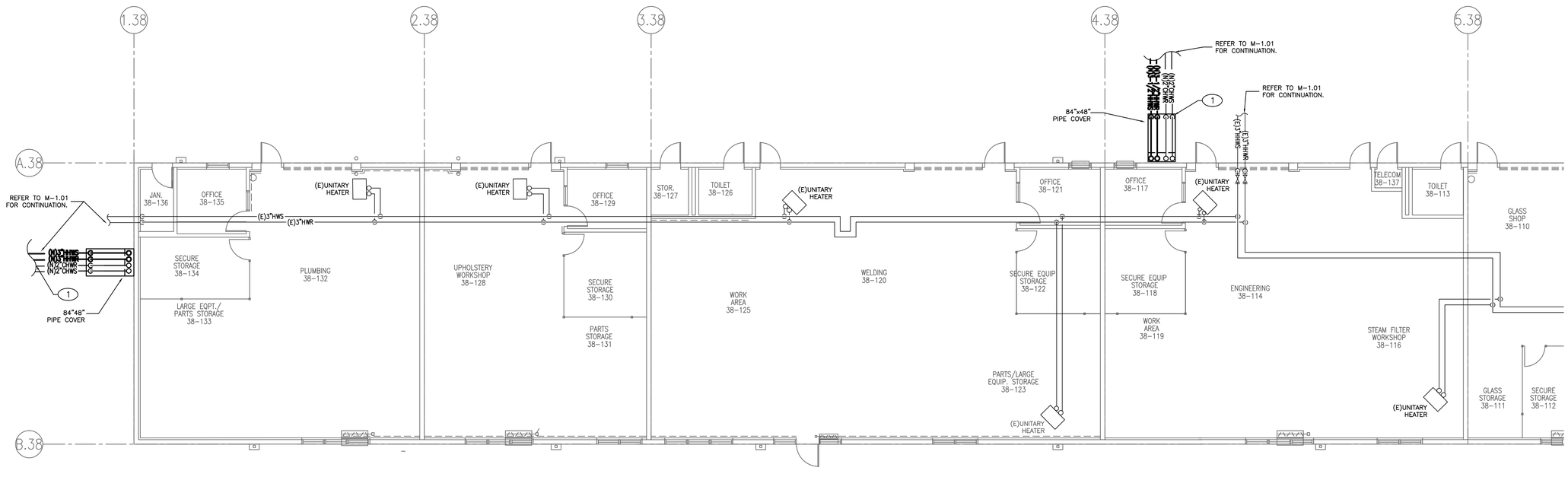

(1) PHASE 1: PROVIDE NEW HHW AND CHW PIPES

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

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FAX: (949) 860-4810
www.owengroup.com

Issue

No.	Date	Description
	01/31/2022	Preliminary Plans
	08/31/2022	50% Working Drawings
	10/31/2022	95% Working Drawings
	03/31/2023	100% Working Drawings

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No. -
SFM Permit No. 22-S-4509-O-DR

Sheet Title
MECHANICAL PIPING PLAN - BUILDING 38

Project Number
000000000008666

Reference North
Sheet Scale 1/8"=1'-0"
Sheet Number M-4.38A
V4

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CAD File: S:\cweridesign\Projects\2018 Projects\15438248 DGS DSH Coalinga Hydronic Loop Replacement - WD & BA\Drafting\CAD\Mechanical\M4-38 Mechanical Piping Plan - Bldg 38.dwg Plot Date: Jul 10, 2023 - 4:55pm Plotted by khanho

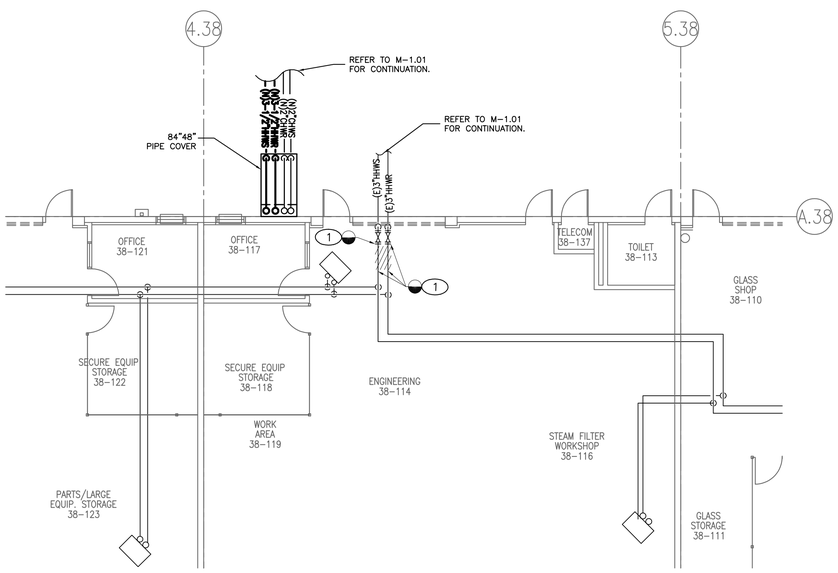
RELATIVE BORDER SCALE IN INCHES 0 1 2 3

GENERAL RECONSTRUCTION NOTES:

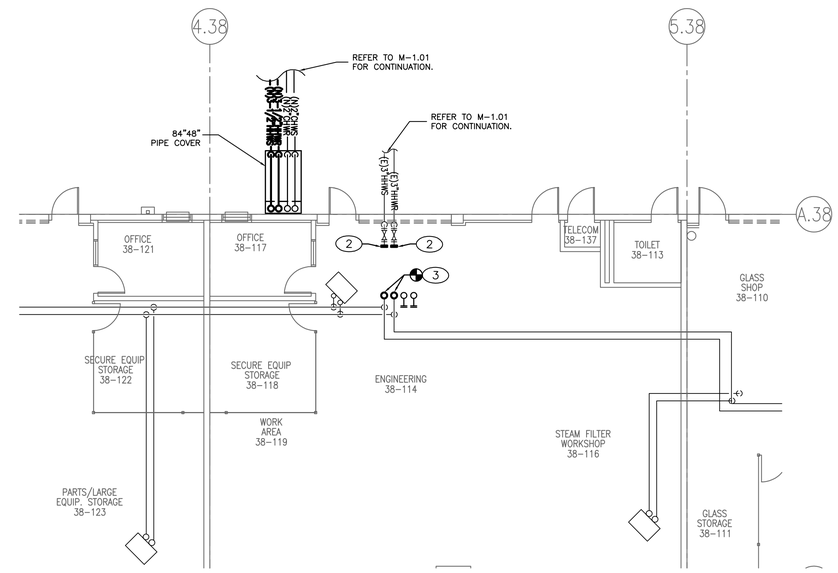
1. SHOWN ALIGNMENTS ARE TO BE FOLLOWED AND STAKED PRIOR TO CONSTRUCTION. STAKING PLAN SHALL BE PROVIDED TO OWNER FOR REVIEW AND APPROVAL.
2. ALL PIPING APPURTENANCES SHALL BE SELECTED BASED ON THE SPECIFICATIONS. VALVES SIZING SHALL MATCH THAT OF PIPELINE IN WHICH THEY WILL BE INSTALLED.
3. CONTRACTOR SHALL REFER TO PHASING PLAN AND INFORM THE OWNERS REPRESENTATIVE AND SITE SECURITY OF ANY SERVICE INTERRUPTIONS AT LEAST 2 WEEKS PRIOR TO REQUESTED COMMENCEMENT OF EACH SERVICE INTERRUPTION.

RECONSTRUCTION KEYNOTES:

1. CLOSE THE BUILDING'S EXISTING HHWS, AND HHWR MAIN ISOLATION VALVES ON THE WALL. DISCONNECT AND DEMOLISH SMALL SECTIONS OF EXISTING HHWS, AND HHWR PIPING FROM EXISTING VALVES INTO THE BUILDING. DRAIN THE EXISTING HHWS, AND HHWR BUILDING PIPING.
2. BLIND FLANGE EXISTING MAIN ISOLATION VALVES AT POINTS OF DISCONNECTION.
3. REMOVE THE BLIND FLANGES ON THE NEW CHWS, CHWR, HHWS, AND HHWR ISOLATION VALVES (PREVIOUSLY INSTALLED) AND CONSTRUCT NEW CHWS, CHWR, HHWS, AND HHWR PIPES UP TO POCS.



1 **PHASE 2: DEMOLISH AND CAP EXISTING PIPES**
SCALE: 1/8"=1'-0"



2 **PHASE 3: PROVIDE NEW CHW AND HHW PIPES**
SCALE: 1/8"=1'-0"

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11/27/23
23-1693
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DGS GENERAL SERVICES

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Architecture & Engineering Sections
State of California
Real Estate Services Division
Project Management & Development Branch
707 Third Street, Suite 4-105
West Sacramento, California 95605

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Issue

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Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
WM	KH	WM

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL PIPING PLAN - BUILDING 38

Project Number
000000000008666

Reference North

Sheet Scale
1/8"=1'-0"

Sheet Number
M-4.38B

V4

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RELATIVE BORDER SCALE IN INCHES

CAD File: S:\owendesign\Projects\2018 Projects\15438248 DGS DSH Coalinga Hydronic Loop Replacement - WD & BA\Drafting\CAD\Mechanical\M-4.38 Mechanical Piping Plan Bldg 38.dwg Plot Date: Jul 10, 2023 4:58pm Plotted by: khanho

GENERAL RECONSTRUCTION NOTES:

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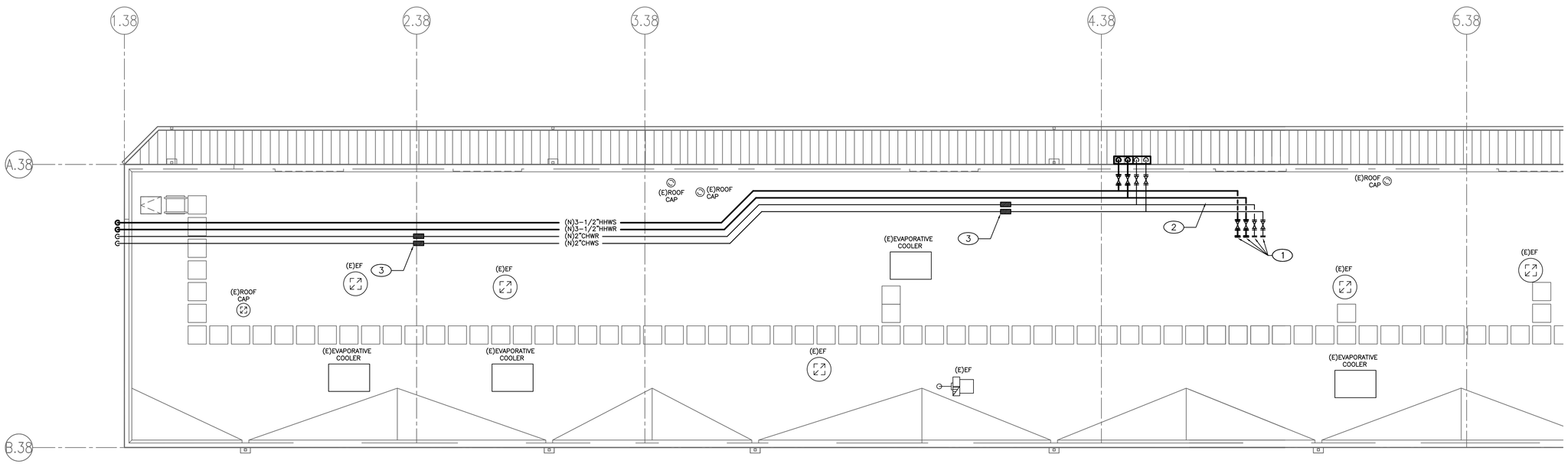
RECONSTRUCTION KEYNOTES:

1. TERMINATE EACH NEW HHWS, AND HHWR PIPE WITH A BLIND FLANGE AND MANUAL ISOLATION VALVE NEAR THE INTENDED POINTS OF CONNECTION (POCs).
2. PROVIDE SUPPORT FOR NEW HYDRONIC PIPES PER M-5.00 DETAIL 3.
3. PROVIDE EXPANSION JOINT FOR CHWS&R PER PER M-5.00 DETAIL 7.



1 **PHASE 1: PROVIDE NEW CHW AND HHW PIPES**
SCALE: 1/8"=1'-0"

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23-1693
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DGS GENERAL SERVICES
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Architecture & Engineering Sections
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EXP. 12/31/23

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Issue

No.	Date	Description
	01/31/2022	Preliminary Plans
	08/31/2022	50% Working Drawings
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	03/31/2023	100% Working Drawings

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL PIPING PLAN - BUILDING 38 ROOF

Project Number
0000000000008666

Reference North

Sheet Scale
1/8"=1'-0"

Sheet Number
M-4.38C
V4

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CAD File: S:\owendesign\Projects\2018 Projects\15432\248 DGS DSH Coalinga Hydronic Loop Replacement - WD & BA\Drafting\CAD\Mechanical\M-4.38 Mechanical Piping Plan Bldg 38.dwg Plot Date: Jul 10, 2023 - 2:00pm Plotted by: khanho

24 X 36

RELATIVE BORDER SCALE IN INCHES 0 1 2 3

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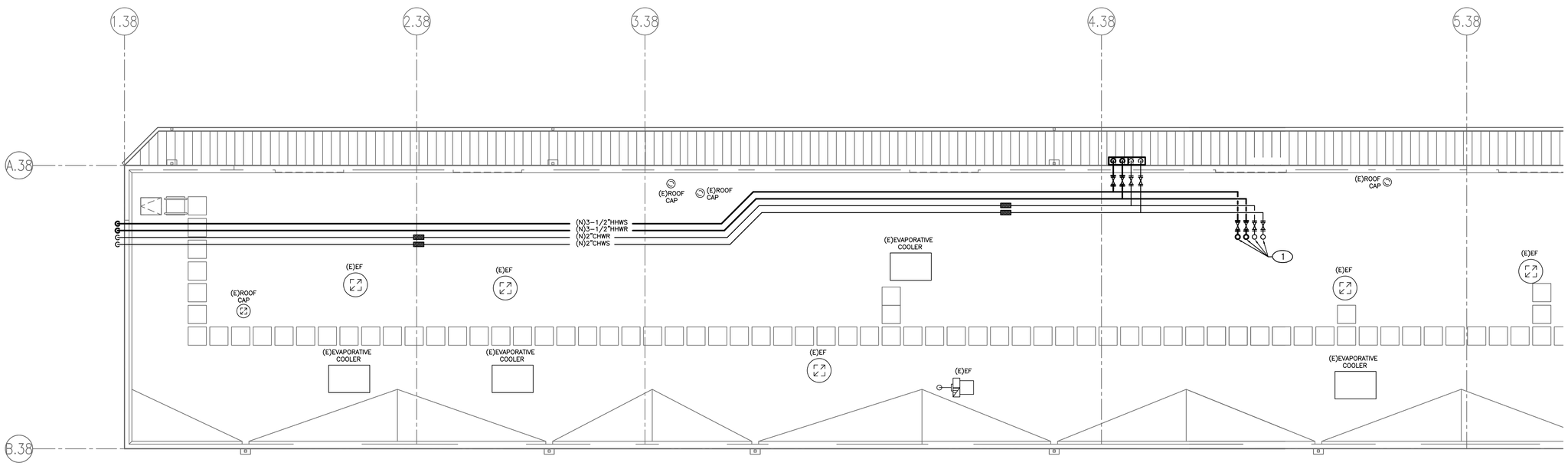
RECONSTRUCTION KEYNOTES:

1. REMOVE THE BLIND FLANGES ON THE NEW CHWS, CHWR, HHWS, AND HHWR ISOLATION VALVES (PREVIOUSLY INSTALLED) AND CONSTRUCT NEW CHWS, CHWR, HHWS, AND HHWR PIPES UP TO POCS.



2 **PHASE 3: PROVIDE NEW CHW AND HHW PIPES**
SCALE: 1/8"=1'-0"

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DGS GENERAL SERVICES

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Issue

No.	Date	Description
	01/31/2022	Preliminary Plans
	08/31/2022	50% Working Drawings
	10/31/2022	95% Working Drawings
	03/31/2023	100% Working Drawings

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL PIPING PLAN - BUILDING 38 ROOF

Project Number
000000000008666

Reference North

Sheet Scale
1/8"=1'-0"

Sheet Number
M-4.38D
V4

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RELATIVE BORDER SCALE IN INCHES

CAD File: S:\owendesign\Projects\2018 Projects\15438248 DGS DSH Coalinga Hydronic Loop Replacement - WD & BA\Drafting\CAD\Mechanical\M-4.38 Mechanical Piping Plan Bldg 38.dwg Plot Date: Jul 10, 2023 - 6:01pm Plotted by: khanho

GENERAL RECONSTRUCTION NOTES:

1. SHOWN ALIGNMENTS ARE TO BE FOLLOWED AND STAKED PRIOR TO CONSTRUCTION. STAKING PLAN SHALL BE PROVIDED TO OWNER FOR REVIEW AND APPROVAL.
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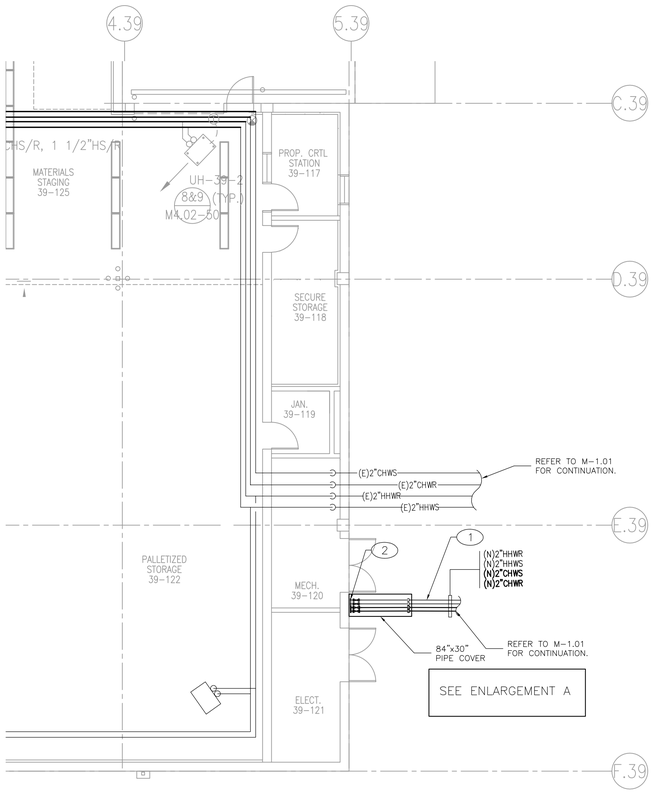
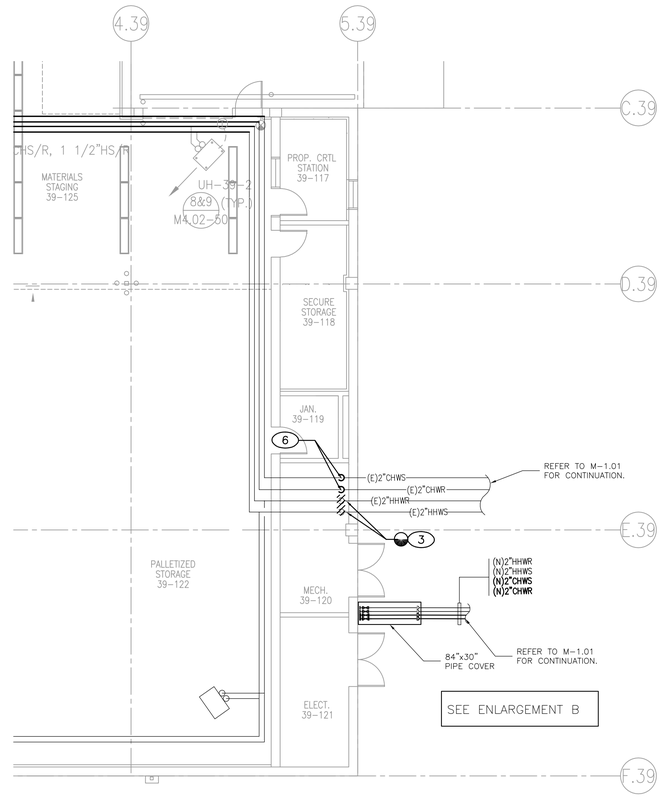
RECONSTRUCTION KEYNOTES:

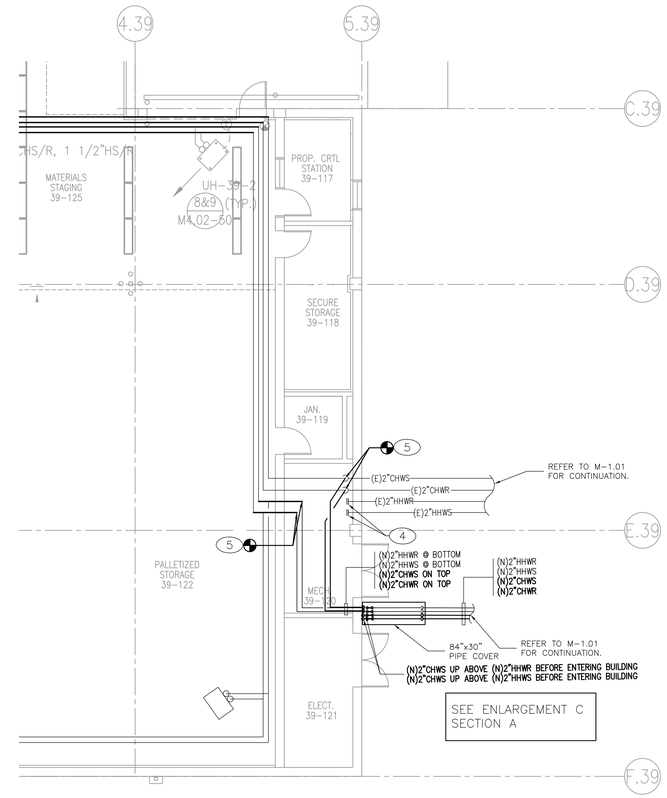
1. CONSTRUCT THE NEW CHWS, CHWR, HHWS AND HHWR PIPES IN DIRECT-BURIED, PR-FABRICATED, PRE-INSULATED CHWS, CHWR, HHWS AND HHWR PIPES. THE EXISTING HHW HYDRONIC LOOP SHALL REMAIN OPERATIONAL UNTIL AS INDICATED ON DRAWING M-103.
2. TERMINATE EACH NEW CHWS, CHWR, HHWS, AND HHWR PIPE WITH A BLIND FLANGE AND MANUAL ISOLATION VALVE NEAR THE INTENDED POINTS OF CONNECTION (POCs). PROVIDE NEW HYDRONIC PIPELINE SEISMIC BUILDING CONNECTION PER M-5.00 DETAIL 2.
3. CLOSE THE BUILDING'S EXISTING HHWS, AND HHWR MAIN ISOLATION VALVES ON THE WALL. DISCONNECT AND DEMOLISH SMALL SECTIONS OF EXISTING HHWS, AND HHWR PIPING FROM EXISTING VALVES INTO THE BUILDING. DRAIN THE EXISTING HHWS, AND HHWR BUILDING PIPING.
4. BLIND FLANGE EXISTING MAIN ISOLATION VALVES AT POINTS OF DISCONNECTION.
5. REMOVE THE BLIND FLANGES ON THE NEW CHWS, CHWR, HHWS, AND HHWR ISOLATION VALVES (PREVIOUSLY INSTALLED) AND CONSTRUCT NEW CHWS, CHWR, HHWS, AND HHWR PIPES UP TO POCS.
6. REPLACE THE EXISTING CHW VALVE WITH A NEW CHW VALVE.



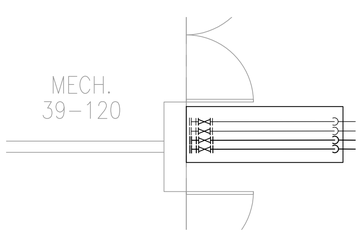
1 PHASE 1: PROVIDE NEW CHW, HHW PIPES
SCALE: 1/8"=1'-0"



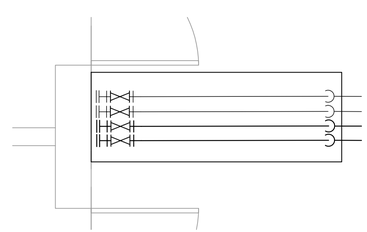
2 PHASE 2: DEMOLISH AND CAP EXISTING PIPES
SCALE: 1/8"=1'-0"



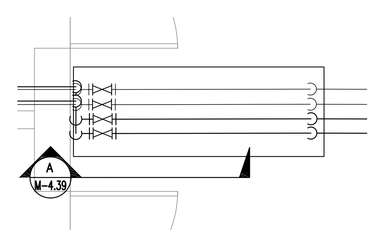
3 PHASE 3: PROVIDE NEW CHW, HHW PIPES
SCALE: 1/8"=1'-0"



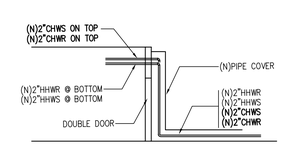
ENLARGEMENT A
SCALE: 1/2"=1'-0"



ENLARGEMENT B
SCALE: 1/2"=1'-0"



ENLARGEMENT C
SCALE: 1/2"=1'-0"



SECTION A
SCALE: 1/4"=1'-0"

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23-1693
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Issue

No.	Date	Description
	01/31/2022	Preliminary Plans
	08/31/2022	50% Working Drawings
	10/31/2022	95% Working Drawings
	03/31/2023	100% Working Drawings

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL PIPING PLAN - BUILDING 39

Project Number
0000000000008666

Reference North

Sheet Scale
1/8"=1'-0"

Sheet Number
M-4.39

V4

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CAD File: S:\owendesign\Projects\2018 Projects\1543624E DGS\DSH-Coalinga Hydronic Loop Replacement - WD & BA\Drafting\CAD\Mechanical\M-4.39 Mechanical Piping Plan\Bldg 39.dwg Plot Date: Oct 04, 2023 - 10:01am Plotted by: khanho

RELATIVE BORDER SCALE IN INCHES 0 1 2 3

GENERAL RECONSTRUCTION NOTES:

1. SHOWN ALIGNMENTS ARE TO BE FOLLOWED AND STAKED PRIOR TO CONSTRUCTION. STAKING PLAN SHALL BE PROVIDED TO OWNER FOR REVIEW AND APPROVAL.
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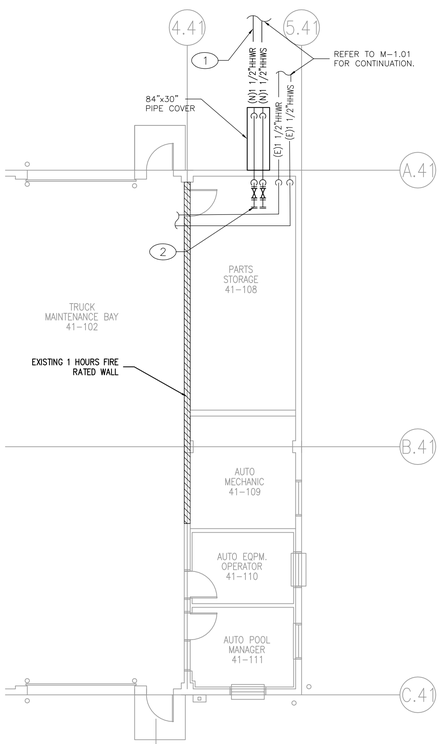
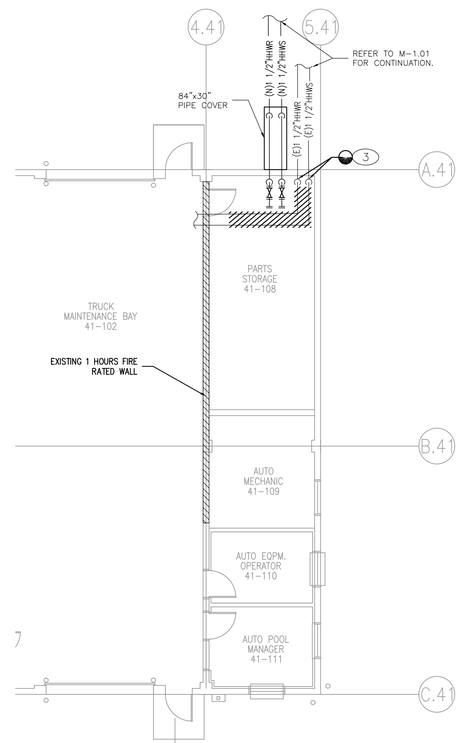
RECONSTRUCTION KEYNOTES:

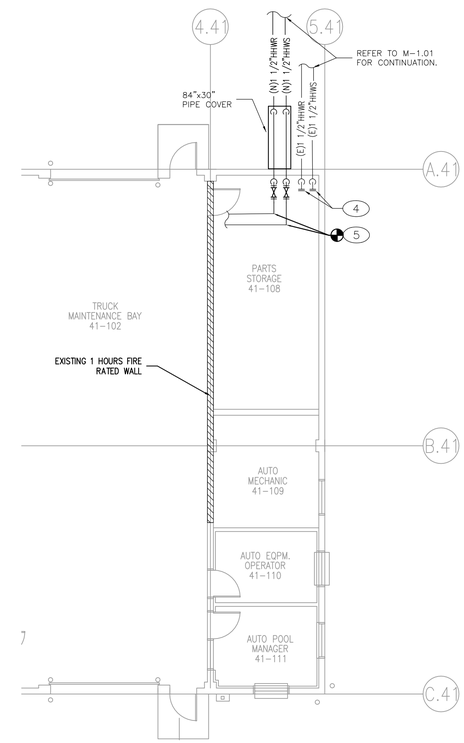
1. CONSTRUCT THE NEW HHWS AND HHWR PIPES IN DIRECT–BURIED, PR–FABRICATED, PRE–INSULATED HHWS AND HHWR PIPES. THE EXISTING HHW HYDRONIC LOOP SHALL REMAIN OPERATIONAL UNTIL AS INDICATED ON DRAWING M–103.
2. TERMINATE EACH NEW HHWS, AND HHWR PIPE WITH A BLIND FLANGE AND MANUAL ISOLATION VALVE NEAR THE INTENDED POINTS OF CONNECTION (POCs). PROVIDE NEW HYDRONIC PIPELINE SEISMIC BUILDING CONNECTION PER M–5.00 DETAIL 2.
3. CLOSE THE BUILDING'S EXISTING HHWS, AND HHWR MAIN ISOLATION VALVES ON THE WALL. DISCONNECT AND DEMOLISH SMALL SECTIONS OF EXISTING HHWS, AND HHWR PIPING FROM EXISTING VALVES UP TO PODS. DRAIN THE EXISTING HHWS, AND HHWR BUILDING PIPING.
4. BLIND FLANGE EXISTING MAIN ISOLATION VALVES AT POINTS OF DISCONNECTION.
5. REMOVE THE BLIND FLANGES ON THE NEW HHWS, AND HHWR ISOLATION VALVES (PREVIOUSLY INSTALLED) AND CONSTRUCT NEW HHWS, AND HHWR PIPES UP TO POCS.



1 **PHASE 1: PROVIDE NEW HHW PIPES**
SCALE: 1/8"=1'-0"



2 **PHASE 2: DEMOLISH AND CAP EXISTING PIPES**
SCALE: 1/8"=1'-0"



3 **PHASE 3: PROVIDE NEW HHW PIPES**
SCALE: 1/8"=1'-0"

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EXP. 12/31/23

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Project
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93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL PIPING PLAN - BUILDING 41

Project Number
000000000008666

Reference North

Sheet Scale
1/8"=1'-0"

Sheet Number
M-4.41
V4

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CAD File: S:\owendesign\Projects\2018 Projects\15438248 DGS DSH Coalinga Hydronic Loop Replacement - WD & BA\Drafting\CAD\Mechanical\M4-41 Mechanical Piping Plans\Bldg 41.dwg Plot Date: Oct 03, 2023–3:10pm Plotted by: khanho

24 X 36

RELATIVE BORDER SCALE IN INCHES 0 1 2 3

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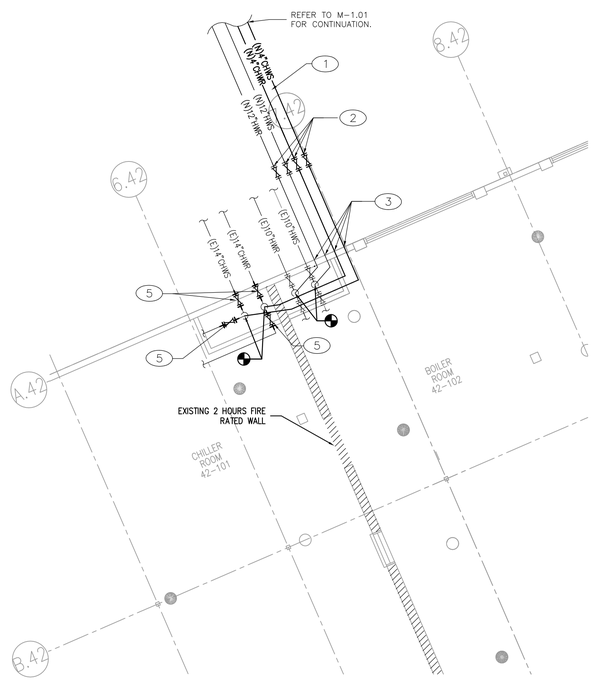
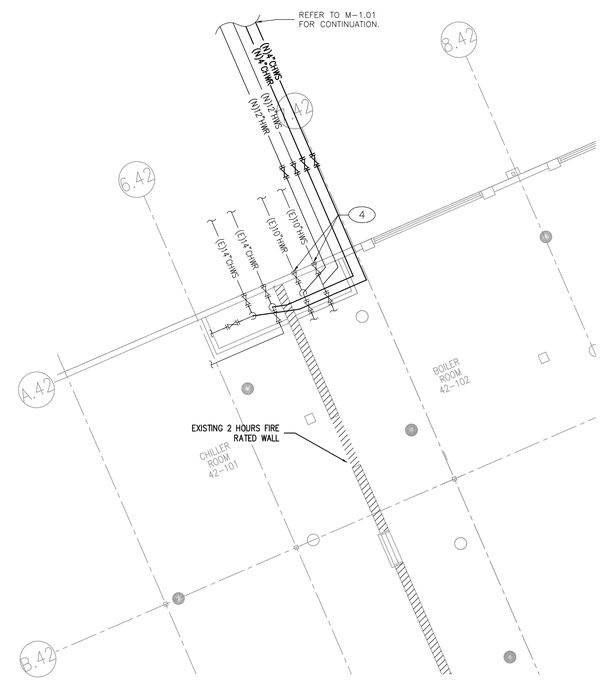
2. CONSTRUCT NEW CHWS, CHWR, HHWS, AND HHWR PIPE CONNECTIONS IN THE CENTRAL PLANT. CONNECT EACH NEW HHWS, AND HHWR PIPE WITH MANUAL ISOLATION VALVE TO THE EXISTING HHW HYDRONIC LOOP NEAR THE INTENDED POINTS OF CONNECTION (POCs).
3. PROVIDE NEW HYDRONIC PIPELINE SEISMIC BUILDING CONNECTION.
4. CLOSE THE ISOLATION VALVES IN THE EXISTING HHWS AND HHWR PIPING AT THE CENTRAL PLANT. THIS WILL ALLOW THE EXISTING SECONDARY HHW PUMPS TO PUMP THROUGH ONLY THE NEW HHW SITE HYDRONIC SYSTEM AND THROUGH THE BUILDINGS.
5. REPLACE THE EXISTING CHW VALVE WITH A NEW CHW VALVE.



1 **PHASE 1: MAKE CHW AND HHW HYDRONIC LOOP CONNECTIONS AT THE CENTRAL PLANT**

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



2 **PHASE 2: OPEN THE NEW CHW AND HHW VALVES FOR NEW SITE HYDRONIC LOOP**

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

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23-1693

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Issue

No.	Date	Description
	01/31/2022	Preliminary Plans
	08/31/2022	50% Working Drawings
	10/31/2022	95% Working Drawings
	03/31/2023	100% Working Drawings

Project

DSH-COALINGA HYDRONIC LOOP REPLACEMENT

24511 WEST JAYNE AVE
COALINGA, CA
93210

DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title

MECHANICAL PIPING PLAN - BUILDING 42

Project Number

0000000000008666

Reference North

Sheet Scale

1/8"=1'-0"

Sheet Number

M-4.42

V4

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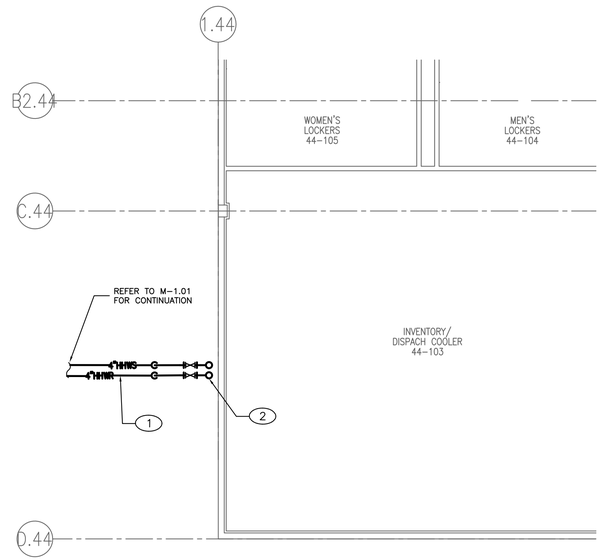
CAD File: S:\owendesign\Projects\2018 Projects\15438248 DGS DSH Coalinga Hydronic Loop Replacement - VID & BA\Drafting\CAD\Mechanical\M-4.42 Mechanical Piping Plan\Bldg 42.dwg Plot Date: Oct 04, 2023 - 10:06am Plotted by: khanho

24 X 36

RELATIVE BORDER SCALE IN INCHES 0 1 2 3



1 PHASE 1: PROVIDE NEW HHW PIPES

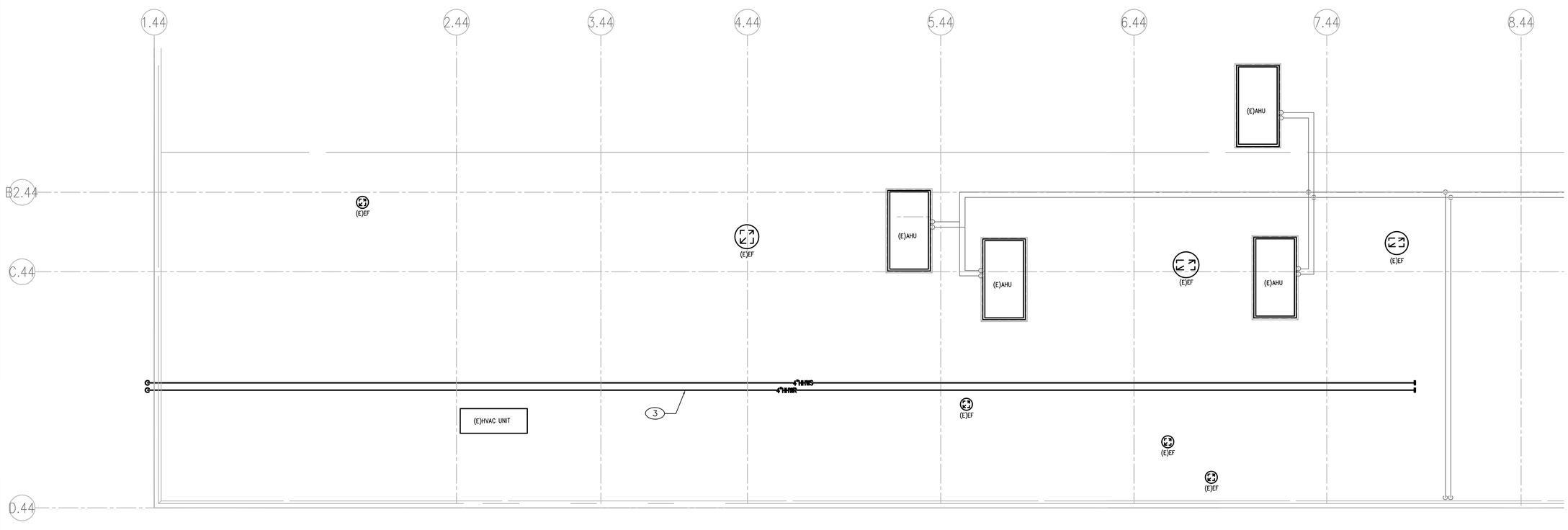
SCALE: 1/8"=1'-0"

GENERAL RECONSTRUCTION NOTES:

1. SHOWN ALIGNMENTS ARE TO BE FOLLOWED AND STAKED PRIOR TO CONSTRUCTION. STAKING PLAN SHALL BE PROVIDED TO OWNER FOR REVIEW AND APPROVAL.
2. ALL PIPING APPURTENANCES SHALL BE SELECTED BASED ON THE SPECIFICATIONS. VALVES SIZING SHALL MATCH THAT OF PIPELINE IN WHICH THEY WILL BE INSTALLED.
3. CONTRACTOR SHALL REFER TO PHASING PLAN AND INFORM THE OWNERS REPRESENTATIVE AND SITE SECURITY OF ANY SERVICE INTERRUPTIONS AT LEAST 2 WEEKS PRIOR TO REQUESTED COMMENCEMENT OF EACH SERVICE INTERRUPTION.

RECONSTRUCTION KEYNOTES:

1. CONSTRUCT THE NEW HHWS AND HHWR PIPES IN DIRECT-BURIED, PR-FABRICATED, PRE-INSULATED HHWS AND HHWR PIPES. THE EXISTING HHW HYDRONIC LOOP SHALL REMAIN OPERATIONAL UNTIL AS INDICATED ON DRAWING M-103.
2. TERMINATE EACH NEW HHWS, AND HHWR PIPE WITH A MANUAL ISOLATION VALVE REACHABLE AT GROUND LEVEL AND A BLIND FLANGE AT THE INTENDED POINTS OF CONNECTION (POCs). PROVIDE NEW HYDRONIC PIPELINE SEISMIC BUILDING CONNECTION PER M-5.00 DETAIL 1.
3. PROVIDE SUPPORT FOR NEW HYDRONIC PIPES PER M-5.00 DETAIL 3.
4. PROVIDE EXPANSION VEE FOR HHWS&R PIPES PER M-5.00 DETAIL 6.



2 PHASE 1 ROOF: PROVIDE NEW HHW PIPES

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

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23-1693
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	01/31/2022	Preliminary Plans
	08/31/2022	50% Working Drawings
	10/31/2022	95% Working Drawings
	03/31/2023	100% Working Drawings

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL PIPING PLAN - BUILDING 44

Project Number
0000000000008666

Reference North

Sheet Scale
1/8"=1'-0"

Sheet Number
M-4.44A
V4

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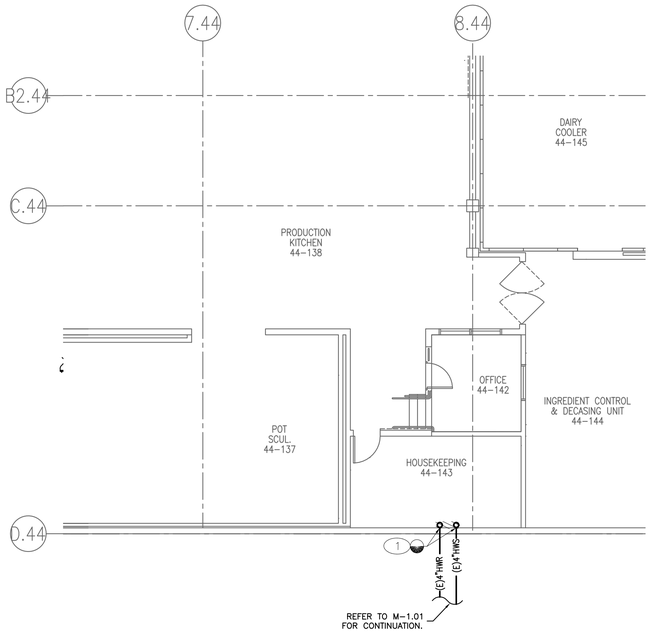
CAD File: S:\owendesign\Projects\2018 Projects\15438248 DGS DSH Coalinga Hydronic Loop Replacement - WD & BA\Drafting\CAD\Mechanical\M-4.44 Mechanical Piping Plan - Bldg 44.dwg Plot Date: May 09, 2023 3:33pm Plotted by: khanho

RELATIVE BORDER SCALE IN INCHES 0 1 2 3



1 PHASE 2: DEMOLISH AND CAP EXISTING PIPES

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

GENERAL RECONSTRUCTION NOTES:

1. SHOWN ALIGNMENTS ARE TO BE FOLLOWED AND STAKED PRIOR TO CONSTRUCTION. STAKING PLAN SHALL BE PROVIDED TO OWNER FOR REVIEW AND APPROVAL.
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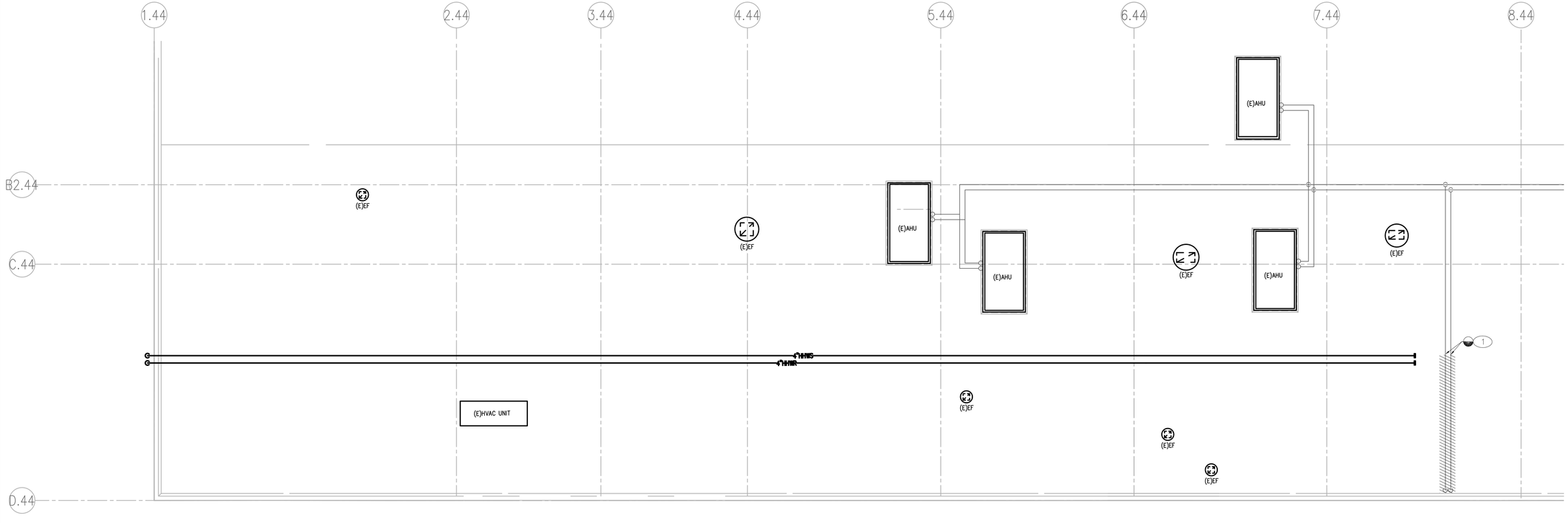
3. CONTRACTOR SHALL REFER TO PHASING PLAN AND INFORM THE OWNERS REPRESENTATIVE AND SITE SECURITY OF ANY SERVICE INTERRUPTIONS AT LEAST 2 WEEKS PRIOR TO REQUESTED COMMENCEMENT OF EACH SERVICE INTERRUPTION.

RECONSTRUCTION KEYNOTES:

1. CLOSE THE BUILDING'S EXISTING HHWS AND HHWR MAIN ISOLATION VALVES ON THE WALL. DISCONNECT AND DEMOLISH SMALL SECTIONS OF EXISTING HHWS AND HHWR PIPING FROM EXISTING VALVES INTO THE BUILDING. DRAIN THE EXISTING HHWS AND HHWR BUILDING PIPING.



2 PHASE 2 DEMO: DEMOLISH AND CAP EXISTING PIPES

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

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	03/31/2023	100% Working Drawings

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
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93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL PIPING PLAN - BUILDING 44 ROOF

Project Number
0000000000008666

Reference North

Sheet Scale
1/8"=1'-0"

Sheet Number
M-4.44B
V4

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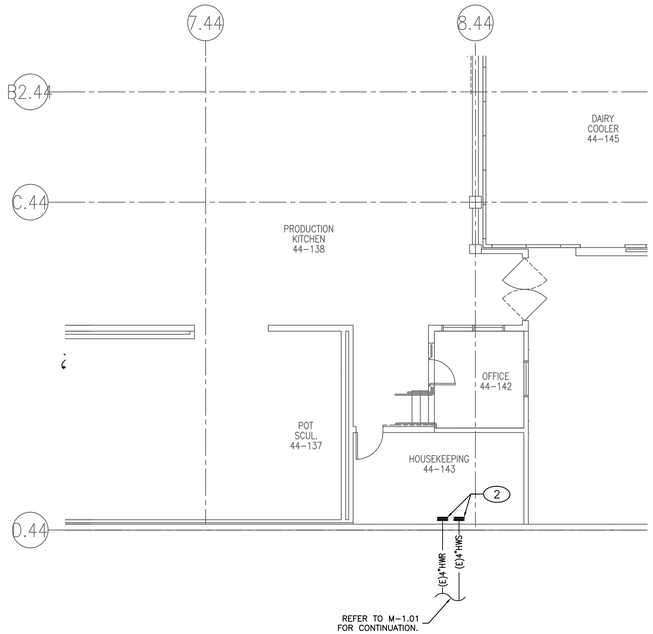
CAD File: S:\owendesign\Projects\2018 Projects\1543824B DGS DSH Coalinga Hydronic Loop Replacement - WD & BA\Drafting\CAD\Mechanical\M-4.44 Mechanical Piping Plan Bldg 44.dwg Plot Date: May 09, 2023 3:33pm Plotted by: khanho

RELATIVE BORDER SCALE IN INCHES 0 1 2 3



1 PHASE 3: PROVIDE NEW HHW PIPES

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

GENERAL RECONSTRUCTION NOTES:

1. SHOWN ALIGNMENTS ARE TO BE FOLLOWED AND STAKED PRIOR TO CONSTRUCTION. STAKING PLAN SHALL BE PROVIDED TO OWNER FOR REVIEW AND APPROVAL.
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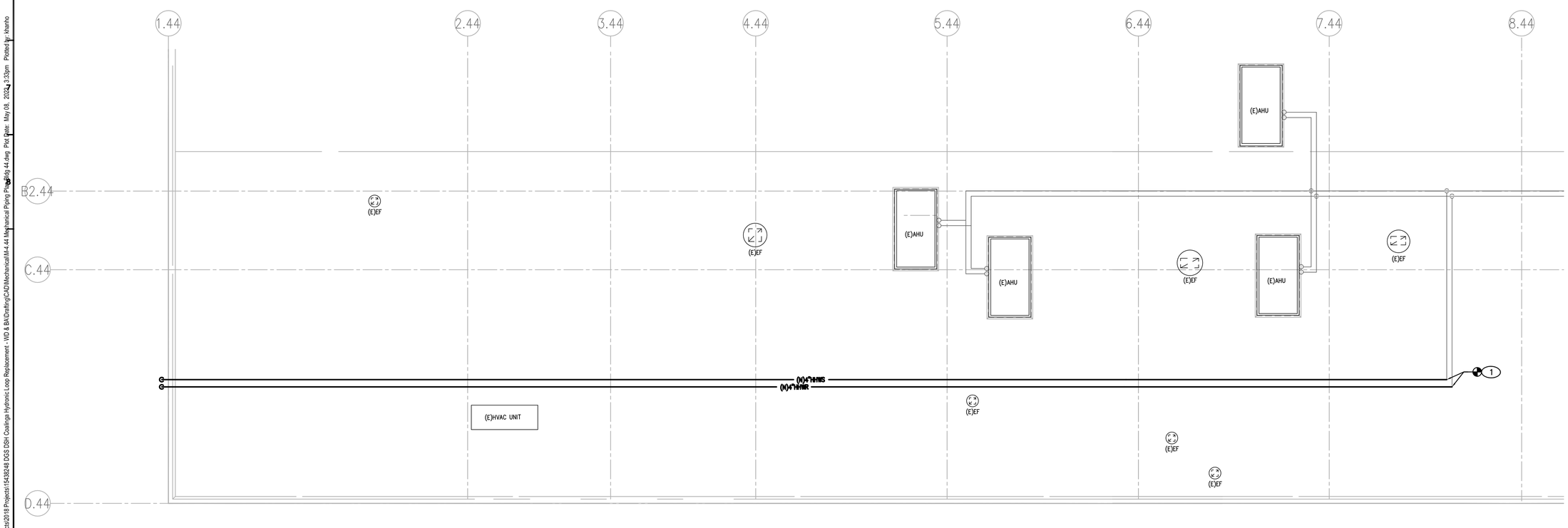
3. CONTRACTOR SHALL REFER TO PHASING PLAN AND INFORM THE OWNERS REPRESENTATIVE AND SITE SECURITY OF ANY SERVICE INTERRUPTIONS AT LEAST 2 WEEKS PRIOR TO REQUESTED COMMENCEMENT OF EACH SERVICE INTERRUPTION.

RECONSTRUCTION KEYNOTES:

1. REMOVE THE BLIND FLANGES ON THE NEW HHWS AND HHWR ISOLATION VALVES (PREVIOUSLY INSTALLED) AND CONSTRUCT NEW HHWS AND HHWR PIPES UP TO POCS.
2. BLIND FLANGE EXISTING MAIN ISOLATION VALVES AT POINTS OF DISCONNECTION.



2 PHASE 3 ROOF: PROVIDE NEW HHW PIPES

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

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Issue

No.	Date	Description
	01/31/2022	Preliminary Plans
	08/31/2022	50% Working Drawings
	10/31/2022	95% Working Drawings
	03/31/2023	100% Working Drawings

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
MECHANICAL PIPING PLAN - BUILDING 44 ROOF

Project Number
000000000008666

Reference North

Sheet Scale
1/8"=1'-0"

Sheet Number
M-4.44C
V4

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CAD File: S:\owendesign\Projects\2018 Projects\154382A6 DGS DSH Coalinga Hydronic Loop Replacement - WD & BA\Drafting\CAD\Mechanical\M-4.44 Mechanical Piping Plan Bldg 44.dwg Plot Date: May 09, 2023 3:33pm Plotted by: khanho

RELATIVE BORDER SCALE IN INCHES 0 1 2 3

SEE DETAILS-1,2/S-4.00

1 | PIPELINE SEISMIC BUILDING CONNECTION | NTS

SEE DETAILS-1,2/S-4.00

2 | PIPELINE SEISMIC BUILDING CONNECTION | NTS

SEE DETAILS-4,5/S-3.00

3 | PIPE SUPPORT ON ROOF | NTS

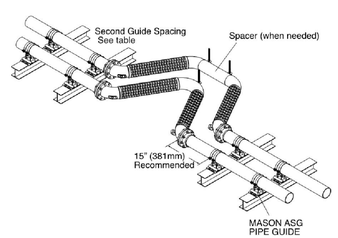
SEE DETAIL-6/S-3.00

4 | PIPE SUPPORT ON WALL | NTS

N/A

5 | PIPE SUPPORT AT CEILING LEVEL DETAIL | NTS

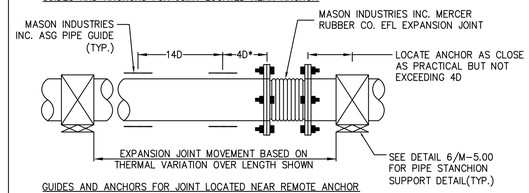
PIPE SIZE (INCHES)	GUIDE SPACING (FEET)
1/2	5
3/4	5
1	5
1 1/4	5
1 1/2	5
2	6
2 1/2	6
3	6
4	6
5	8
6	8
8	8
10	8
12	10
14	12
16	14



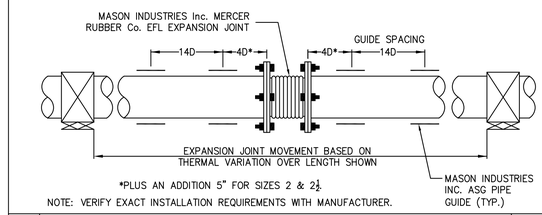
NOTE: VERIFY EXACT INSTALLATION REQUIREMENTS WITH MANUFACTURER.

10 | FLEXIBLE PIPE CONNECTION BETWEEN SEISMIC BUILDING DETAIL

GUIDES AND ANCHORS FOR JOINT LOCATED NEAR ANCHOR



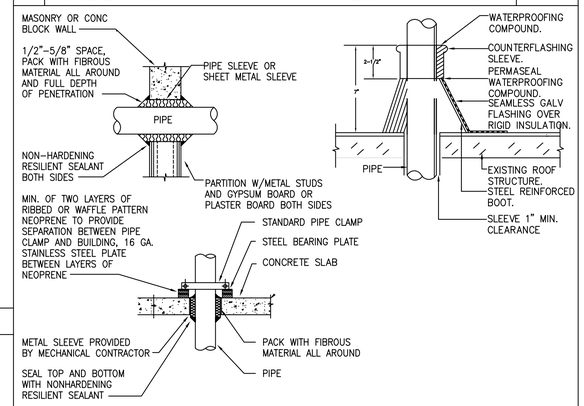
GUIDES AND ANCHORS FOR JOINT LOCATED NEAR REMOTE ANCHOR



*PLUS AN ADDITION 5" FOR SIZES 2 & 2½.

NOTE: VERIFY EXACT INSTALLATION REQUIREMENTS WITH MANUFACTURER.

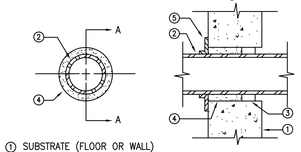
7 | GUIDES AND ANCHOR SPACING FOR EXPANSION JOINTS | NTS



NOTE: NEOPRENE SHOULD BE 40 TO 50 DURAMETER, 40 TO 50 PSI MAXIMUM LOADING.

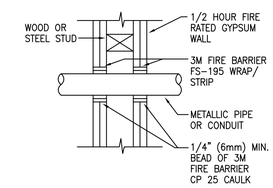
8 | NON-RATED PIPE PENETRATION WALL/ROOF DETAIL | NTS

NOTE: UL #CAJ1044
CSFM #4485-941:100



1. SUBSTRATE (FLOOR OR WALL)
2. PENETRATING ITEM
3. DAMMING MATERIAL
4. 3M BRAND FIRE BARRIER (CAULK CP-25 OR PUTTY 303)
5. REMOVABLE FORM (TAPE OR CARDBOARD)

NOTES:
1. FOR REFERENCE ONLY. THE CONTRACTOR SHALL PROVIDE U.L. LISTED & CSFM APPROVED ASSEMBLIES.
2. FOR PIPE PENETRATIONS THRU ALL TYPES OF RATED WALLS, ANY DEVIATION SHALL BE REVIEWED & APPROVED BY STATE FIRE MARSHAL PRIOR TO INSTALLATION.

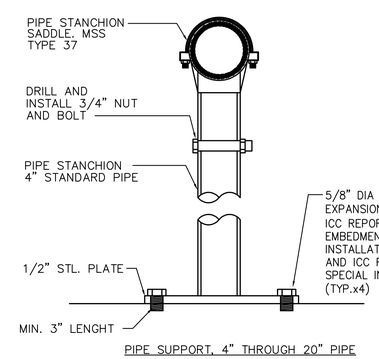


NOTES:
1. THE SPACE BETWEEN THE PENETRATING ITEM AND WALL BOARD MUST ACCOMMODATE AT LEAST ONE WRAP (1/4", 6mm) OF 3M FIRE BARRIER FS-195 WRAP/STRIP.
2. IF THE ANNULAR SPACE IS LESS THAN 1/2" (13mm), ONE WRAP OF FS-195 WRAP/STRIP IS REQUIRED. IF THE ANNULAR SPACE IS 1/2" (13mm) OR GREATER, FILL WITH ADDITIONAL WRAPS OF FS-195 WRAP/STRIP UNTIL ANNULAR SPACE IS LESS THAN 1/4" (6mm). FS-195 WRAP/STRIPS MAY BE FRICTION FIT INTO OPENING, SECURED WITH FOIL TAPE OR 16 GAUGE STEEL TIE WIRE.
3. SLIDE THE FS-195 WRAP/STRIPS INTO THE OPENING, LEAVING A MAXIMUM 3/4" (19mm) EXPOSED WRAP BEYOND THE WALL SURFACE.
4. SEAL THE FS-195 WRAP/STRIPS EDGES AND SEAMS WITH A 1/4" (6mm) MINIMUM BEAD OF 3M FIRE BARRIER CP 25 CAULK.
5. INSTALL 3M FIRESTOP ON BOTH SIDES OF THE WALL.
6. THESE RECOMMENDATIONS ARE BASED ON PRODUCT PERFORMANCE PER ASTM E-814 (UL 1479) FIRE TEST AND UL THROUGH-PENETRATION FIRESTOP SYSTEM #WL1001.

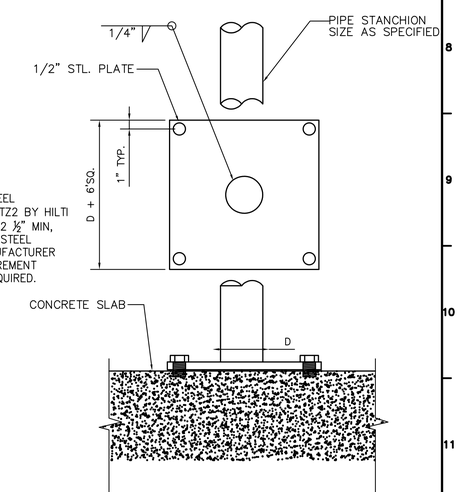
U.L. SYSTEM #WL1001.

NOTE: ALL CMU AND CONCRETE WALLS/SLAB; SHALL BE SCANNED OR XRAYED TO LOCATE OF ALL REINFORCEMENT, NO REINFORCEMENT SHALL BE CUTTED PRIOR TO OBTAINING APPROVAL FROM SEOR.

9 | FIRE-RATED PIPE PENETRATION DETAIL | NTS



PIPE SUPPORT, 4" THROUGH 20" PIPE



NPS OF PIPING (INCHES)	2 1/2"	3"	4"	6"	8"	10"	12"	14"	16"
NPS OF PIPING FORMING LEG (IN)	1 1/2"	2"	3"	4"	6"	8"	8"	10"	12"

6 | PIPE STANCHION SUPPORT | NTS

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93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
RH	KH	RH

DSA App No. -
SFM Permit No. 22-S-4509-O-DR

Sheet Title
MECHANICAL DETAILS

Project Number
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Reference North

Sheet Scale
AS SHOWN

Sheet Number
M-5.00
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CAD File: S:\owendesign\Projects\2018 Projects\15438248 DGS DSH Coalinga Hydronic Loop Replacement - WD & BA\Drafting\CAD\Mechanical\M-5.00 Mechanical Details.dwg Plot Date: Aug 15, 2023 - 10:06am Plotted by: kharriho

RELATIVE BORDER SCALE IN INCHES 0 1 2 3

DEFERRED SUBMITTAL

1. ALL CONSTRUCTION DOCUMENTS FOR THE PRECAST SHALL SUBMIT THE FOLLOWING DOCUMENTS FOR REVIEW AND APPROVAL TO THE DESIGN ENGINEER & STATE PRIOR TO SUBMISSION FOR PLAN CHECK; & SHALL BE DESIGNED BY A REGISTERED CIVIL/STRUCTURAL ENGINEER.

   A. ALL PRECAST CONCRETE SIZES AND LAYOUTS.
   B. ALL REINFORCEMENT SPACING, SIZES, LAYOUT AND CLEARANCES.
   C. ALL THE REQUIRED SPECIFICATION.
   D. ALL THE STRUCTURAL CALCULATIONS.
   E. ALL PIPE COVER WITH ACCESS PANEL.

ABBREVIATIONS

A.B.	ANCHOR BOLT
ABV.	ABOVE
ALT	ALTERNATE
ARCH.	ARCHITECT(URAL)
BM.	BEAM
(B) OR BOTT.	BOTTOM
BTWN.	BETWEEN
CBC	CALIFORNIA BUILDING CODE
CF	CONTINIOUS FOUNDATION
CJP	COMPLETE JOINT PENETRATION
CONC.	CONCRETE
CL	CENTER LINE
CLR.	CLEAR
COL.	COLUMN
CONC.	CONCRETE
CONN.	CONNECTION
CONT.	CONTINUOUS
D.C.W	DESIGN CRITICAL WELD
DIA. OR Ø	DIAMETER
DIM.	DIMENSION
DWG.	DRAWING(S)
(E)	EXISTING
EA.	EACH
EMBED.	EMBEDMENT
ELEC.	ELECTRICAL
ELEV.	ELEVATION
E.O.D.	EDGE OF DECK
E.O.R.	ENGINEER OF RECORD
EQ.	EQUAL
FND.	FOUNDATION
FT.	FOOT (OR) FEET
FTG.	FOOTING
GA.	GAGE
GALV.	GALVANIZED
GB	GRADE BEAM
HORIZ.	HORIZONTAL
HS	HIGH STRENGTH
HSS	HOLLOW STRUCTURAL STEEL
I.F.	INSIDE FACE (OR) INNER FACE
IN.	INCH
INT.	INTERIOR
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
MAX.	MAXIMUM
MECH.	MECHANICAL
MFR.	MANUFACTURER
MIN.	MINIMUM
(N)	NEW
N.I.C.	NOT IN CONTRACT
NO.	NUMBER
NTS	NOT TO SCALE
NWC	NORMAL WEIGHT CONCRETE
O.C.	ON CENTER
OPNG.	OPENING
OSB	ORIENTED STRAND BOARD
O.H.	OTHER HAND
PL	PLATE (OR) PROPERTY LINE
PLY	PLYWOOD
QTY.	QUANTITY
REF.	REFERENCE
REINF.	REINFORCING
REQ.	REQUIRED
S.A.D.	SEE ARCHITECTURAL DRAWINGS
SCHED.	SCHEDULE
SEOR	STRUCTURAL ENGINEER OF RECORD
SIM.	SIMILAR
S.O.G.	SLAB ON GRADE
S.S.	STAINLESS STEEL
STD.	STANDARD
STAGG.	STAGGERED
STIFF.	STIFFENER
STL.	STEEL
STRUCT.	STRUCTURAL
T&B	TOP & BOTTOM
THK.	THICK
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
U.O.N.	UNLES OTHERWISE NOTED
VERT. OR (V)	VERTICAL
W/	WITH

DESIGN LOADS CRITERIA

OCCUPANCY RISK CATEGORY:

- **OPERATIONAL SERVICES TO HOSPITAL: IV**

LIVE LOAD:

- **HL-93 (AASHTO) TRUCK DESIGN**
  AXIAL LOAD: 32^K (16^K WITH 6 FT SPACING)

WIND LOAD CRITERIA:

- WIND IMPORTANCE FACTOR, I_w = 1.00
- WIND DESIGN SPEED:

  a. V_{ult} = 104 MPH
  b. V_{asd} = 73 MPH

- WIND DIRECTIONALITY FACTOR, K_d = 0.85
- EXPOSURE CATEGORY: = "D"
- TOPOGRAPHIC FACTOR, K_{zt} = 1.00
- GUST-EFFECT FACTOR, G = 0.85
- ENCLOSURE CLASSIFICATION: = "ENCLOSED"
- INTERNAL PRESSURE COEFFICIENT, GC_{pi} = ±0.18

VELOCITY PRESSURE (15 FEET), q_h = 29.65 PSF

THE SEISMIC DESIGN CRITERIA:

- SEISMIC IMPORTANCE FACTOR, I_e = 1.50
- SITE LOCATION:
  LATITUDE: 036° 08' 00.821" N
  LOGITUDE: 120° 14' 24.396" W
- SITE CLASS "D - DEFAULT)"
- MAPPED SPECTRAL ACCELERATION AT MCE
  S_S = 1.654 (g), S_1 = 0.548 (g)
  SITE AMPLIFICATION FACTORS
  Fa = 1.2, Fv = N/A
  SITE ADJUSTED MCE SPECTRAL ACCELERATIONS
  S_{MS} = 1.985 (g), S_{M1} = N/A (g)
  DESIGN SPECTRAL ACCELERATIONS
  S_{DS} = 1.323 (g), S_{D1} = N/A (g)
- SEISMIC DESIGN CATEGORY (SDC) = "E"
- **SEISMIC DESIGN REQUIREMENTS OF NONSTRUCTURAL COMPONENTS:**

  1. CONCRETE UTILITY TRENCH RETAINING LESS THAN SIX FEET (6 FT) OF SOIL:
     - NO SEISMIC DESIGN FORCE DUE TO THRUST, PER **1803A.5.12.1, CBC 2022**
  2. PIPING NOT IN ACCORDANCE WITH ASME B31, INCLUDING IN-LINE COMPONENTS, CONSTRUCTED OF HIGH-DEFORMABILITY MATERIALS, WITH JOINSTS MADE BY WELDING OR BRACING (TABLE 13.6-1, ASCE 7-16)
     - a_p = 2½ R_p =9 Ω_0 = 2 (F_p = 0.569 W_p [z/h=0]; F_p = 0.6325 W_p [z/h=1])
  3. PIPING NOT IN ACCORDANCE WITH ASME B31, INCLUDING IN-LINE COMPONENTS, CONSTRUCTED OF HIGH- OR LIMITED-DEFORMABILITY MATERIALS, WITH JOINTS MADE BY THREADING, BONDING, COMPRESSION COUPLINGS, OR GROOVED COUPLINGS WITH JOINSTS MADE BY WELDING OR BRACING (TABLE 13.6-1, ASCE 7-16)
     - a_p = 2½ R_p = 4½ Ω_0 = 2 (F_p = 0.569 W_p [z/h=0]; F_p = 1.265 W_p [z/h=1])

APPLICABLE DESIGN CODES

1. **CALIFORNIA BUILDING CODE 2022 (CBC 2022),** "A" CHAPTER ARE ADOPTED FOR OSHPD-1**, CALIFORNIA CODE AND REGULATION (CCR), TITLE 24 PART 2**. DESIGN SHALL CONFORM TO THE CBC AND THE FOLLOWING CODES, AS AMMEDNED BY THE CBC.

   1.1 DESIGN CODE CRITERIA:

   A. **ASCE 7-16**, *MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES 2016*, AMERICAN SOCIETY OF CIVIL ENGINEERS.

   B. CONCRETE DESIGN:

   a. **ACI 318-18**, *BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE 2014*, AMERICAN CONCRETE INSTITUTE.

GENERAL NOTES

1. ALL WORK SHALL COMPLY WITH **CALIFORNIA BUILDING CODE 2022 (CBC 2022),** PER 1803A.1 **CALIFORNIA CODE AND REGULATION (CCR), TITLE 24 PART 2**.
2. ALL DRAWINGS AND SPECIFICATIONS ARE CONSIDERED TO BE A PART OF THE CONTRACT DOCUMENTS. THE **CONTRACTOR** SHALL BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL DRAWINGS AND SPECIFICATIONS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES THAT OCCUR SHALL BE BROUGHT TO THE ATTENTION OF **CALIFORNIA DEPARTMENT OF GENERAL SERVICES (DGS),** HERE AFTER REFERRED TO AS **OWNER**, PRIOR TO THE START OF CONSTRUCTION SO THAT A CLARIFICATION CAN BE ISSUED. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY CODE REQUIREMENTS SHALL BE CORRECTED BY THE **CONTRACTOR** AT THE **CONTRACTOR'S** OWN EXPENSE, AND AT NO EXPENSE TO THE **OWNER**.
3. ALL SYMBOLS AND ABBREVIATIONS USED ON THE DRAWINGS ARE CONSIDERED TO BE CONSTRUCTION STANDARDS. IF CLARIFICATION IS REQUIRED, THE **CONTRACTOR** SHALL NOTIFY THE **OWNER** PRIOR TO PROCEEDING WITH THE WORK.
4. ALL DIMENSIONS AND THE SITE CONDITIONS SHALL BE VERIFIED BY THE **CONTRACTOR** AT THE JOB SITE PRIOR TO BID SUBMITTAL, START OF SHOP DRAWINGS, START OF CONSTRUCTION, AND/OR FABRICATION OF MATERIALS. IF DISCREPANCIES ARE ENCOUNTERED, OR CONDITIONS DEVELOP NOT COVERED BY THE CONTRACT DOCUMENTS, THE **CONTRACTOR** SHALL NOTIFY THE **OWNER** & **CONSULTING TEAM** FOR CLARIFICATION.
5. **CONTRACTOR** SHALL PROVIDE AND BE RESPONSIBLE FOR THE PROTECTION AND REPAIR OF ADJACENT EXISTING SURFACES AND AREAS, WHICH MAY BE DAMAGED AS A RESULT OF THE NEW WORK.
6. DO NOT SCALE DRAWINGS. PRINTED DIMENSIONS HAVE PRECEDENCE OVER SCALED DRAWINGS AND LARGE SCALE OVER SMALL.
7. WHERE NO SPECIFIC DETAIL IS SHOWN THE FRAMING OR CONSTRUCTION SHALL BE IDENTICAL OR SIMILAR TO THAT INDICATED FOR LIKE CASES OF CONSTRUCTION ON THIS PROJECT.
8. THE CONTRACT DOCUMENTS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE **CONTRACTOR** SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE AND SAFETY OF WORKERS DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT LIMITED TO, BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. OBSERVATION VISITS TO THE SITE BY THE **OWNER** OR **STRUCTURAL ENGINEER** SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS, AND DOES NOT IN ANY WAY RELIEVE THE **CONTRACTOR** OF THE RESPONSIBILITIES FOR THE ABOVE.
9. FOR TRENCHES OR EXCAVATIONS **FIVE FEET (5' - 0")** OR MORE IN DEPTH INTO WHICH A PERSON IS REQUIRED TO DESCEND, THE **CONTRACTOR** IS TO OBTAIN THE NECESSARY PERMIT FROM THE **STATE OF CALIFORNIA, DIVISION OF INDUSTRIAL SAFETY**, PRIOR TO THE ISSUANCE OF A BUILDING PERMIT.
10. NO HOLES, NOTCHES, BLOCKOUTS, ETC. ARE ALLOWED IN STRUCTURAL ELEMENTS UNLESS DETAILED ON THE STRUCTURAL DRAWINGS OR APPROVED BY THE **STRUCTURAL ENGINEER**.
11. IN CASE OF DISCREPANCIES BETWEEN NOTES & SPECIFICATIONS, THESE NOTES SHALL TAKE PRECEDENCE OVER SPECIFICATIONS.
12. PRIOR TO CUTTING, BORING, SAWCUTTING AND/OR DRILLING THROUGH THE NEW OR EXISTING STRUCTURAL ELEMENTS TO BE DONE ONLY WHEN SHOWN IN DETAIL ON THE DRAWINGS OR ACCEPTED BY THE **ARCHITECT (STRUCTURAL ENGINEER)**, WITH THE APPROVAL OF THE **OWNER**. LOCATE (E) REINFORCEMENT / PT TENDONS BY NDT / GPR METHOD. DOCUMENT LOCATION SHALL BE MARKED ON CONCRETE AND REPORT SHALL BE SUBMITTED TO SEOR AND DGS. OTHER VISIBLE STRUCTURAL ELEMENTS (WALLS/COLUMNS). PHOTOGRAPH LOCATION PRIOR TO EXCAVATION. DO NOT CUT EXISTING REINFORCEMENT BARS / PT TENDONS IN CONCRETE COMPONENTS, WHERE SPECIFIED ON DETAILS. IF EXISTING BARS / PT TENDONS ARE ENCOUNTERED DURING DRILLING STOP SEEK INSTRUCTION FROM THE **ENGINEER OF RECORD** AND THE **OWNER**. CONTRACTOR SHALL OBTAIN A COPY OF AS-BUILTS FOR AFFECTED MEMBERS.
13. THE EXACT DEPTH, EXTENT, AND LOCATION OF ALL FLOOR DEPRESSIONS, ELEVATED AREAS, OR OTHER IRREGULARITIES SHALL BE COORDINATED WITH APPLICABLE DRAWINGS. THE STRUCTURAL DRAWINGS DO NOT NECESSARILY INDICATE ALL OF THESE ITEMS.
14. TESTING LABORATORY, EMPLOYED BY THE **OWNER**, SHALL BE APPROVED BY THE **STRUCTURAL ENGINEER**.
15. THE **INSPECTOR OF RECORD (IOR)** EMPLOYED BY THE OWNER, ASSIGNED TO THE PROJECT, SHALL BE APPROVED BY THE **STRUCTURAL ENGINEER**.
16. SUBSTITUTIONS SHALL BE CONSIDERED AS A CHANGE ORDER AND BE APPROVED BY THE **OWNER** PRIOR TO FABRICATION OR USE.
17. FOR NEW OPENING LOCATIONS & DEMOLITION PLANS, REFER TO THE **CIVIL DRAWINGS**.

OFFICE OF THE STATE FIRE MARSHAL
APPROVED FIRE AND PANIC ONLY
11/27/23
23-1693
Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

DGS GENERAL SERVICES

Department of General Services
Architecture & Engineering Sections
State of California
Real Estate Services Division
Project Management & Development Branch
707 Third Street, Suite 4-105
West Sacramento, California 95605

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER NICKEL NAMAK SE. No. 5527 STRUCTURAL Exp. 3/31/23 STATE OF CALIFORNIA

OWEN
220 TECHNOLOGY DRIVE, SUITE 100 IRVINE, CA 92618
TEL: (949) 860-4800
FAX: (949) 860-4810
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Issue

No.	Date	Description
	01/31/2022	PRELIMINARY PLANS
	08/31/2022	50% WORKING DRAWINGS
	10/31/2022	95% WORKING DRAWINGS
	03/31/2023	100% WORKING DRAWINGS

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE.
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
NN	AT	JI

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
GENERAL NOTES

Project Number
000000000008666

Reference North

SheetScale
NTS

Sheet Number
S-0.01
V4

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RELATIVE BORDER SCALE IN INCHES 0 1 2 3

BIM 360://DB18.2111.01 CH-44 - DGS Coalinga State Hospital/DGS STRU 2022.rvt

LIGHT GAGE STEEL FRAMING

1. **APPLICABLE STANDARDS:** CBC CHAPTER 22, DIVISION VII AND "SPECIFICATIONS FOR THE DESIGN OF COLD- FORMED STEEL STRUCTURAL MEMBERS" OF AISI, LATEST EDITION. LIGHT MATERIALS SHALL BE AS FOLLOWS:

   43 MILS (18 GAUGE) AND LIGHTER (33 KSI): GALVANIZED, ASTM A446, GRADE A.
   54 MILS (16 GAUGE) AND HEAVIER (50 KSI): GALVANIZED, ASTM A446, GRADE D

2. **MANUFACTURER AND PROPERTIES:** MEMBER OF STEEL STUD MANUFACTURER'S ASSOCIATION **(SSMA)** COMPLYING WITH ICC-ES EVALUATION REPORT NO. 4943P. PROVIDE STUDS, TRACKS AND JOISTS WITH MINIMUM EFFECTIVE SECTION PROPERTIES PER EVALUATION REPORT.

3. **MINIMUM GAUGE THICKNESS:** INDICATED PROPERTIES ARE BASED ON THE FOLLOWING THICKNESSES:
   12 GA. – 0.1017 INCH, 97 MILS
   14 GA. – 0.0713 INCH, 64 MILS
   16 GA. – 0.0566 INCH, 54 MILS
   18 GA. – 0.0451 INCH, 43 MILS
   20 GA. – 0.0329 INCH, 33 MILS

4. **TRACK MATERIAL:** PROVIDE UNPUNCHED TRACK OF DIMENSIONS TO ENSURE PROPER FIT OF STUDS.

5. **LATERAL BRIDGING FOR STUDS (SEE 1 & 2/S0.31):** REQUIRED WHEN RIGID WALL FINISH DOES NOT CONTINUE FULL HEIGHT OF EITHER OR BOTH SIDES OF STUDS. INSTALL HORIZONTAL STRAPS OR COLD-ROLLED CHANNELS AS SHOWN AND IN ACCORDANCE WITH SECTION D3 OF AISI SPECIFICATION.

6. **STUD AND JOIST PUNCH-OUT LOCATIONS:** WEB PUNCH-OUTS SHALL NOT BE LOCATED CLOSER THAN TWICE THE MEMBER DEPTH FROM THE EDGE OF BEARING SUPPORT OR CONNECTING MEMBER.

7. **SECURING:** PLUMB, ALIGN AND TIGHTLY NEST IN SUPPORTING TRACKS WITH SECURE ATTACHMENT TO BOTH FLANGES OF TRACKS. FASTEN WITH "SCREWS," PER PROPRIETARY ANCHORAGES AND FASTENERS SECTION OF GENERAL NOTES, UNLESS DETAILED OTHERWISE. SPLICES IN JOISTS AND AXIAL LOADED STUDS AND BRACES ARE NOT PERMITTED UNLESS SPECIFICALLY DETAILED.

8. **WELDING:** ANSI/AWS D1.3 AND CBC CHAPTER 22, DIVISION VII.
   A. WELDER CERTIFICATION: GOVERNING CODE AUTHORITY.
   B. ELECTRODES: E60XX AT 33 KSI MEMBERS, 370 XX AT 50 KSI MEMBERS.
   C. TOUGH-UP: ZINC-RICH PAINT AT GALVANIZED MEMBERS AND REGULAR PAINT AT CARBON SHEET STEEL

9. ALL STUDS AND TRACKS SHALL CONFORM TO ASTM A653, A1008 OR A1011.
   18GA AND LIGHTER: MINIMUM YIELD POINT OF 33 KSI
   16GA AND HEAVIER: MINIMUM YIELD POINT OF 50 KSI
   ALL STUDS AND TRACKS SHALL BE MANUFACTURED BY CURRENT MEMBERS OF THE STEEL STUD MANUFACTURERS ASSOCIATION (SSMA) LISTED IN ICC REPORT NO. 4934P. ALL STUDS AND TRACKS SHALL COMPLY WITH ICC REPORT NO. 4934P.

10. ALL FRAMING COMPONENTS SHALL BE CUT SQUARELY OR AN ANGLE (SUCH AS BRACING) TO SQUARELY FIT AGAINST ABUTTING MEMBERS. MEMBERS SHALL BE HELD FIRMLY IN POSITION UNTIL PROPERLY FASTENED.

11. STUDS AND TRACKS SHALL BE ATTACHED BY WELDING AND SHEET METAL SCREWS AS NOTED ON THE DRAWINGS.

12. PUNCH-OUTS MAY BE LOCATED ALONG THE CENTERLINE OF THE WEBS OF FRAMING MEMBERS. PUNCH-OUTS SHALL HAVE A MINIMUM CENTER-TO-CENTER SPACING OF 24" AND SHALL NOT BE LOCATED CLOSER THAN TWICE THE MEMBER DEPTH FROM THE EDGE OF BEARING SUPPORT OR CONNECTING MEMBER. PUNCH-OUTS SHALL HAVE A MAXIMUM WIDTH OF HALF THE MEMBER DEPTH OR 2½" , WHICHEVER IS LESS, AND A MAXIMUM LENGTH OF 4½".

13. SPLICES IN STUDS AND BRACES SHALL NOT BE PERMITTED.

14. ALL FRAMING SHALL BE COORDINATED WITH GLAZING MANUFACTURER, MECHANICAL, ELECTRICAL, PLUMBING AND OTHER TRADES.

15. POWDER ACTUATED FASTENERS (PAF) SHALL BE X-DNI AS MANUFACTURED BY HILTI, ICC-ESR REPORT NO. 1663 OR APPROVED EQUAL. PROVIDE 0.08" THICK x 1.1" SQ OR 1.425" ROUND WASHERS FOR ALL POWDER ACTUATED FASTENERS.

16. PROVIDE SHEET METAL SCREWS (SMS) PER DETAIL 4/S-0.31.

17. SEE DETAIL 1/S-0.31 FOR TYPICAL COLD ROLLED CHANNEL (CRC) BRIDGING ATTACHMENTS AND SPLICES. CRC MAY BE OMITTED WHERE THE FOLLOWING SHEATHING AND ATTACHMENTS ARE PROVIDED ON BOTH SIDES OF STUDS.

REINFORCEMENT

1. **REINFORCING STEEL:**

   A. ALL BARS UNLESS INDICATED OTHERWISE: SHALL BE ASTM A615, GRADE 60

   B. BARS TO BE WELDED: ASTM A706, Grade 60

   C. ADDITIONAL REQUIREMENTS FOR BARS, EXCLUDING TIES, IN DUCTILE MOMENT RESISTING FRAMES AND BOUNDARY ELEMENTS IN SHEAR WALLS: NO ADDITIONAL REQUIREMENTS IF ASTM A706, GRADE 60 BARS USED. ASTM A615, GRADE 60 BARS MAY BE ARE PERMITTED PROVIDED ACTUAL YIELD STRENGTH BASED ON MILL TESTS DOES NOT EXCEED SPECIFIED YIELD STRENGTH BY MORE THAN 18,000 PSI (RETESTS SHALL NOT EXCEED THIS VALUE BY MORE THAN AN ADDITIONAL 3,000 PSI) AND RATIO OF ACTUAL ULTIMATE TENSILE STRESS TO ACTUAL YIELD STRESS IS NOT LESS THAN 1.25.

2. **WIRE AND SPIRAL REINFORCING:**

   A. SMOOTH WELDED WIRE FABRIC (W.W.F.):
   ASTM A185, Fy = 65 KSI, FLAT SHEETS ONLY – DO NOT USE ROLLED MESH.
   LAP 1 – ½ WIRE SPACES (1 FOOT MINIMUM). OFFSET LAPS IN ADJACENT SHEETS TO AVOID CONTINUOUS LAPS.

   B. DEFORMED WIRE STIRRUPS (D4 AND LARGER ONLY): ASTM A497, Fy = 65 ksi

   C. SPIRAL REINFORCING: ASTM A82, GRADE 60

3. **SHOP DRAWINGS:** ACI 315, PART B. SHOW REINFORCING STEEL PLACEMENT INCLUDING SIZES, QUANTITIES, SPACING, CLEARANCES, SPLICE LOCATIONS, LAP LENGTHS, AND CONCRETE COVERAGE AND SUBMIT TO STRUCTURAL ENGINEER. PROMPTLY NOTIFY STRUCTURAL ENGINEER PRIOR TO DEVELOPING SHOP DRAWINGS IF INSUFFICIENT CLEAR DISTANCES BETWEEN REINFORCING STEEL AND OTHER CONGESTION IS ENCOUNTERED. NOTIFY SPECIAL INSPECTOR OF ADJUSTMENTS MADE FROM APPROVED CONTRACT DOCUMENTS WHICH ARE INDICATED ON ACCEPTED SHOP DRAWINGS THAT FACILITATE FIELD PLACEMENT OF REINFORCING STEEL AND CONCRETE.

4. **LAP SPLICES:** PROVIDE CLASS B SPLICES UNLESS INDICATED OTHERWISE. SPLICE #5 BARS AND LARGER ONLY AT LOCATIONS INDICATED. IF ADDITIONAL SPLICE LOCATIONS ARE PROPOSED, PROMPTLY NOTIFY STRUCTURAL ENGINEER PRIOR TO DEVELOPING SHOP DRAWINGS.

   A. SPLICES IN WALLS: LOCATE SPLICES IN HORIZONTAL BARS AT WELL-STAGGERED LOCATIONS. DO NOT SPLICE VERTICAL BARS EXCEPT AT HORIZONTAL SUPPORTS SUCH AS FLOOR AND ROOF DIAPHRAGMS.

5. **MIN. CLEARANCES BETWEEN PARALLEL REINFORCING STEEL INCLUDING DISTANCE BETWEEN SETS OF SPLICED BARS:**

   A. 1 INCH OR 1 BAR DIAMETER, WHICHEVER IS GREATER. 1-1/2 INCHES OR 1-1/2 BAR DIAMETERS, WHICHEVER IS GREATER, AT COLUMNS, PIERS, AND PILASTERS ONLY. FOR BUNDLED BARDS, MINIMUM CLEAR DISTANCES BETWEEN UNITS OF BUNDLED BARS SHALL BE SAME AS SINGLE BARS EXCEPT BAR DIAMETER IS DERIVED FROM EQUIVALENT TOTAL AREA OF BUNDLE.

6. **MINIMUM CONCRETE COVERAGE:** PLACE BARS AS NEAR TO CONCRETE SURFACE AS THE FOLLOWING MINIMUM COVERAGE PERMIT, UNLESS NOTED OTHERWISE:

   A. SLAB ON GRADE
   LOCATE AT CENTER OF SLAB
   B. SLAB SUPPORTING EARTH ABOVE — 1-1/2 INCHES FROM TOP
   C. FORMED CONCRETE IN CONTACT WITH EARTH — 2 INCHES
   D. CONCRETE POURED AGAINST EARTH (UNFORMED) — 3 INCHES
   E. WALLS ABOVE GRADE, EXPOSED TO WEATHER — 2 INCHES
   F. WALLS ABOVE GRADE, NOT EXPOSED TO WEATHER — ¾ INCH
   G. COLUMNS (CLEAR TO FACE OF TIES) — 1-1/2 INCHES
   H. BEAMS (CLEAR TO FACE OF TIES) — 1-1/2 INCHES
   I. STRUCTURAL SLABS (TOP AND BOTTOM) — 1 INCH

7. **DOWELS AT CONSTRUCTION JOINTS:** PROVIDE DOWELS MATCHING SIZE AND QUANTITY OF REINFORCING STEEL INTERRUPTED AT CONSTRUCTION JOINTS, UNLESS DETAILED OTHERWISE.

8. **PLACEMENT OF BARS IN WALLS:** PLACE VERTICAL BARS CLOSEST TO WALL SURFACES AT CURTAINS CONTAINING VERTICAL AND HORIZONTAL BARS OF THE SAME SIZE. IN CURTAINS WHICH VERTICAL AND HORIZONTAL BARS ARE OF DIFFERENT SIZES OR SPACING, PLACE LAYER WITH MOST STEEL AREA CLOSEST TO NEAR WALL SURFACE.

9. **BARS TERMINATING AT WALLS, COLUMNS, BEAMS, AND FOUNDATIONS:** EXTEND BARS TO WITHIN 2 INCHES (3 INCHES AT CONCRETE POURED AGAINST EARTH) OF AR FACE OF WALL, COLUMN, BEAM, OR FOUNDATION AND PROVIDE STANDARD ACI 90-DEGREE HOOK UNLESS DETAILED OTHERWISE.

10. **BARS INTERRUPTED BY STRUCTURAL STEEL:** EXTEND BARS TO WITHIN 2 INCHES OF STEEL FACE AND PROVIDE STANDARD ACI 90-DEGREE HOOK UNLESS DETAILED OTHERWISE.

11. **WELDING:** AWS D1.4, EXCEPT AS MODIFIED BY APPLICABLE CODE STANDARD 19-1.

    A. ACCEPTABLE REINFORCING STEEL FOR WELDING: ASTM A706. IF WELDING REINFORCING STEEL OTHER THAN A706 IS DESIRED, SUBMIT PROPOSED PROCEDURE, INDICATING CONFORMANCE TO APPLICABLE CODE AND REQUIREMENTS OF GOVERNING CODE AUTHORITY, TO STRUCTURAL ENGINEER FOR ACCEPTANCE AND TO GOVERNING CODE AUTHORITY FOR APPROVAL PRIOR TO EXECUTION.

    B. WELDER CERTIFICATION: GOVERNING CODE AUTHORITY.

12. **BENDING:** BEND COLD UNLESS OTHERWISE ACCEPTED BY STRUCTURAL ENGINEER. DO NOT FIELD-BEND REINFORCING STEEL BARS EMBEDDED IN CONCRETE UNLESS OTHERWISE ACCEPTED IN WRITING BY STRUCTURAL ENGINEER.

PRECAST CONCRETE (CONT.)

13. **CONCRETE MIX DESIGN SUBMITTAL REQUIREMENTS:**

    A. **REGISTERED DESIGN PROFESSIONAL**: EACH MIX DESIGN SHALL BE REVIEWED, STAMPED, AND SIGNED, BY A CIVIL ENGINEER REGISTERED IN THE STATE OF CALIFORNIA.
    B. **CEMENTOUS MATERIALS**: TYPES, MANUFACTURING LOCATION(S), SHIPPING LOCATION(S), AND CERTIFICATES SHOWING COMPLIANCE WITH **ASTM C150/C150M (PORTLAND CEMENT), ASTM C618/C648M (POZZOLAN), AND ASTM C989/C989M (SLAG)**.

       a. SUITABILITY OF CEMENTITIOUS MATERIALS COMBINATION EXPOSED TO **WATER-SOLUBLE SULFATE** SHALL MEET MAXIMUM EXPANSION OF **0.10% AT 18 MONTHS** WHEN TESTED UNDER **ASTM C1012/1012M**

    C. **AGGREGATES**:

       a. NORMAL WEIGHT AGGREGATE, COMPLYING WITH **ASTM C33**.

    D. **ADMIXTURES**: TYPE, BRAND NAMES, PRODUCERS' NAMES, MANUFACTURER'S TECHNICAL DATA SHEETS, AND CERTIFICATES SHOWING COMPLIANCE WITH **ASTM C260/C260M**, **ASTM C494/C494M**, **ASTM C1107/C1107M** OR **ASTM D98**.
    E. **WATER**: SOURCE OF SUPPLY, WHEN NON-POTABLE SOURCE IS PROPOSED FOR USE, DOCUMENTATION ON EFFECTS OF WATER ON STRENGTH AND SETTING TIME IN COMPLIANCE WITH **ASTM C1602/C1602M**.
    F. **WATER-SOLUBLE CHLORIDE ION (Cl⁻)**: THE **MAXIMUM** WATER-SOLUBLE CLORIDE ION (Cl⁻) CONTENT IN THE CONCRETE (FROM SOURCE INCLUDING, BUT NOT LIMITED TO, CEMENTIOUS MATERIALS, COURSE AGGREGATE, FINE AGGREGATE, AND WATER), SHALL **0.15%** BY MASS OF THE CEMENTIOUS MATERIAL.
    G. **AIR ENTRAINMENT:** THE TOTAL AIR CONTENT OF THE CONCRETE BETWEEN 4% AND 7%) OF THE CONCRETE VOLUME.
    H. **WATER CEMENT RATIO (W/C):** THE **MAXIMUM** WATER CEMENT RATIO SHALL BE **0.40**.
    I. **STRENGTH PERFORMANCE DOCUMENTATION**: PROVIDE EITHER PRODUCTION FACILITY RECORDS OR A TRIAL MIXTURE:

       a. **FACILITY RECORDS REQUIREMENTS**

       - VALID RECORDS ARE FIELD TEST STRENGTH TESTS PERFORMED WITHIN THE PAST **24 MONTHS** AND SPANNING NO **LESS THAN 45 CALENDAR DAYS** FOR A CLASS OF CONCRETE WITHIN **1,000 PSI** OF THAT SPECIFIED IN THE CONTRACT DOCUMENTS.
       - THE AVERAGE COMPRESSIVE STRENGTH OF VALID RECORDS SHALL EXCEED THE **REQUIRED AVERAGE COMPRESSIVE STRENGTH (f_{cr})**

         1. WHERE **1-14 VALID RECORDS** EXIST, THE **REQUIRED AVERAGE COMPRESSIVE STRENGTH (f_{cr})** SHALL BE:

            A. WHERE **f'_C < 3,000 PSI, f_{cr} = f'_C + 1,000 PSI**
            B. WHERE **3,000 PSI ≤ f'_C ≤ 5,000 PSI, f_{cr} = f'_C +1,200**
            C. WHERE **f'_C > 5,000 PSI, f_{cr} = 1.1 f'_C + 700**

       - WHERE AT **LEAST 15 VALID RECORDS** EXIST FROM A **SINGLE GROUP** OR AT **LEAST 30 VALID RECORDS** FROM **TWO GROUPS** (NEITHER OF THE **TWO GROUPS** SHALL CONSIST OF **LESS THAN 10 RECORDS**), THEN THE **REQUIRED AVERAGE COMPRESSIVE STRENGTH (f_{cr})** SHALL BASED THE **STANDARD DEVIATION (STD DEV)** AND A **FACTOR k (k-FACTOR)**:

         1. **k-FACTOR** SHALL BE AS FOLLOWS (LINEAR INTERPOLATION FOR INTERMEDIATE NUMBERS OF TESTS IS ACCEPTABLE):

            A. **15 VALID TESTS, k = 1.16**
            B. **20 VALID TESTS, k = 1.08**
            C. **25 VALID TESTS, k = 1.03**
            D. **30 VALID TESTS OR MORE, k = 1.00**

         2. WHERE **f'_C < 5,000 PSI**, f'_{cr} SHALL BE THE LARGER OF:

            A. **f'_C + 1.34 k (STD DEV)**
            B. **f'_C + 2.33 k (STD DEV) – 500**

         3. WHERE **f'_C ≥ 5,000 PSI**, F'CR SHALL BE THE LARGER OF:

            A. **f'_C + 1.34 k (STD DEV)**
            B. ***0.9 f'_C* + 2.33 k (STD DEV)**

    b. **TRIAL MIXTURE:**

       - DETERMINE **REQUIRED AVERAGE COMPRESSIVE STRENGTH (f_{cr})**:

         1. WHERE **f'_C < 3,000 PSI, f_{cr} = f'_C + 1,000 PSI**
         2. WHERE **3,000 PSI ≤ f'_C ≤ 5,000 PSI, f_{cr} = f'_C +1,200**
         3. WHERE **f'_C > 5,000 PSI, f_{cr} = 1.1 f'_C + 700**

       - MAKE **AT LEAST THREE (3) TRIAL MIXTURES** FOR EACH CONCRETE CLASS WITH A RANGE OF PROPORTIONS THAT WILL PRODUCE A RANGE OF COMPRESSIVE STRENGTH THAT WILL ENCOMPASS THE **REQUIRED AVERAGE COMPRESSIVE STRENGTH (f_{cr})**.
       - PROPORTION **TRIAL MIXTURES** TO PRODUCE A **SLUMP** IN COMPLIANCE WITH THE **CONTRACT DOCUMENTS**.
       - FOR EACH **TRIAL MIXTURE**, MAKE AND CURE **THREE (3)** COMPRESSIVE STRENGTH CYLINDERS FOR EACH TEST ANGE IN ACCORDANCE WITH **ASTM C192/C192M**. TEST FOR COMPRESSIVE STRENGTH SHALL BE IN ACCORDANCE WITH **ASTM C39/C39M AT 28 DAYS** (OR AT THE DESIGNATED TEST AGE FOR f'_C).
       - ESTABLISH MIXTURE PROPORTIONS BASED ON THE TRAIL BATCH DATA TO ACHIEVE AN AVERAGE COMPRESSIVE STRENGTH OF AT LEAST f'_{cr} AND NOT EXCEEDING SPECIFIED MAXIMUM WATER/CEMENT RATIO.

PRECAST CONCRETE

1. **APPLICABLE STANDARDS:** SEE APPLICABLE CODES.

2. EXPOSURE CATEGORY AND CLASS

   A. FREEZING AND THAWING: **F2**
   B. SULFATE: **S3**
   C. IN CONTACT WITH WATER: **W0**
   D. CORROSION PROTECTION OF REINFORCEMENT: **C2**

3. **CEMENTIOUS MATERIAL:**

   A. PORTLAND CEMENT, ASTM C150, TYPE V: — **50% MINIMUM**
   B. POZZOLAN, ASTM C618 — **25% MAXIMUM**
   C. SLAG, ASTM C989 — **50% MAXIMUM**

4. **AGGREGATES:**

   A. **NORMAL WEIGHT CONCRETE AGGREGATE:** ASTM C33 FOR AGGREGATES OF NATURAL SAND AND ROCK. MAXIMUM AGGREGATE SIZE IS 1-1/2 INCHES AT FOUNDATIONS AND SLABS ON GRADE AND 1" ELSEWHERE.

5. **LEAN CONCRETE:** WHERE SPECIFICALLY INDICATED, CONTAINING 2 SACKS OF CEMENT PER CUBIC YARD OF CONCRETE.

6. **NON-SHRINK GROUT: ASTM C1107**, CEMENTITIOUS, NON-METALLIC ATTAINING A COMPRESSIVE STRENGTH OF **6000 PSI**.

7. **CONSTRUCTION JOINT SUBMITTAL:** SUBMIT TO STRUCTURAL ENGINEER AT LEAST 14 DAYS PRIOR TO PLACING CONCRETE INDICATING LOCATIONS OF CONSTRUCTION JOINTS AND EXTENT OF POURS. PLACE JOINTS AT LOCATIONS TO MINIMIZE EFFECTS OF SHRINKAGE AS WELL AS BEING PLACED AT POINTS WHICH LEAST IMPAIR STRENGTH OF STRUCTURE. PROVIDE DOWELS AS DIRECTED.

8. **EMBEDMENTS AND PENETRATIONS IN CONCRETE:** NO PENETRATIONS THROUGH STRUCTURAL CONCRETE IS PERMITTED UNLESS SPECIFICALLY ACCEPTANCE IN WRITING BY STRUCTURAL ENGINEER.

   A. **PIPES, SLEEVES, CONDUITS, AND DUCTS:** NOT PERMITTED EMBEDDED OR PENETRATING CONCRETE SPREAD FOOTINGS, COLUMNS, WALLS OR CONCRETE CAST OVER METAL DECKING.
   B. **CONDUITS EMBEDDED IN STRUCTURAL CONCRETE SLABS:** NOT PERMITTED UNLESS LIMITED TO TWO LAYERS OF 1 INCH OUTSIDE DIAMETER CONDUITS AND SMALLER SPACED AT LEAST 3 INCHES CENTER TO CENTER AND WITHIN MIDDLE THIRD OF SLAB THICKNESS. NO CONDUIT EMBEDDED IN CONCRETE CAST OVER METAL DECKING IS PERMITTED.

9. **CHAMFERED CORNERS:** PROVIDE ¾-INCH CHAMFER AT EXPOSED CORNERS OF COLUMNS, BEAMS AND WALLS EXCEPT WHERE STRUCTURAL WALLS ARE LAID FLUSH WITH COLUMN OR BEAM FACES, UNLESS DETAILED OTHERWISE.

10. **CONSTRUCTION JOINTS:** CONSTRUCTION JOINTS SHALL HAVE ENTIRE SURFACE REMOVED TO MIN 1/4" TO EXPOSE CLEAN, SOLIDLY EMBEDDED AGGREGATE PER TYP. DETAILS, PROVIDED IN THIS SET. CONSTRUCTION JOINTS SHALL BE PROVIDED TO LIMIT SHRINKAGE CRACKS. A MAX DISTANCE OF 50FT. SHALL BE CONSIDERED IF NO CONTROL JOINTS IS CALLED ON PLANS. THE CONTRACTOR SHALL OBTAIN THE ENGINEER'S APPROVAL OF CONSTRUCTION JOINT LOCATION IN SLABS, WALL AND BEAMS. JOINTS SHALL BE SHOWN ON SHOP DRAWING CONFORMING TO THE ABOVE REQUIREMENT.

    - **CURING:** MAINTAIN CONCRETE ABOVE 50 DEGREES FAHRENHEIT AND IN A MOIST CONDITION FOR A MINIMUM OF 7 DAYS AFTER PLACEMENT UNLESS OTHERWISE ACCEPTED BY STRUCTURAL ENGINEER.

11. **MINIMUM 28-DAY CONCRETE COMPRESSIVE STRENGTH AND TYPES:**

LOCATION IN STRUCTURE	MINIMUM COMPRESSIVE STRENGTH f'_C	TEST DAY	TYPE
ALL CONC., U.N.O.	5,000 PSI	28 DAYS	NORMAL (145 PCF)

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CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION
11/27/23
23-1693
SINCE 1885
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DGS GENERAL SERVICES
Department of General Services
Architecture & Engineering Sections
State of California
Real Estate Services Division
Project Management & Development Branch
707 Third Street, Suite 4-105
West Sacramento, California 95605

PROFESSIONAL STAMP
REGISTERED PROFESSIONAL ENGINEER — NICKI NAHAS — SE, No. 5527 STRUCTURAL — Exp. 3/31/23 — STATE OF CALIFORNIA

OWEN
220 TECHNOLOGY DRIVE, SUITE 100 IRVINE, CA 92618
TEL: (949) 860-4800
FAX: (949) 860-4810
www.owengroup.com

Issue

No.	Date	Description
	01/31/2022	PRELIMINARY PLANS
	08/31/2022	50% WORKING DRAWINGS
	10/31/2022	95% WORKING DRAWINGS
	03/31/2023	100% WORKING DRAWINGS

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE.
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
NN	AT	JI

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title
GENERAL NOTES

Project Number
000000000008666

Reference North

Sheet Scale
NTS

Sheet Number
S-0.02

V4

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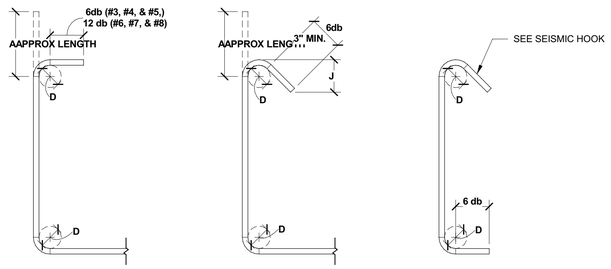
RELATIVE BORDER SCALE IN INCHES 0 1 2 3

STANDARD HOOK DIMENSIONS				
DIM. / BAR SIZE	D	90° HOOK A	135° HOOK A	135° HOOK J
#3	2 1/4"	0' - 4 1/2" (4 1/2")	0' - 7" (7")	0' - 7" (7")
#4	3"	0' - 6" (6")	0' - 9" (9")	0' - 8" (8")
#5	3 3/4"	0' - 7 1/2" (7 1/2")	0' - 11" (11")	0' - 10" (10")
#6	4 1/2"	0' - 9" (9")	1' - 2" (14")	1' - 0" (12")
#7	5 1/4"	0' - 10 1/2" (10 1/2")	1' - 4" (16")	1' - 2" (14")
#8	6"	1' - 0" (12")	1' - 6" (18")	1' - 4" (16")



90° HOOK
STIRRUP / TIE HOOK

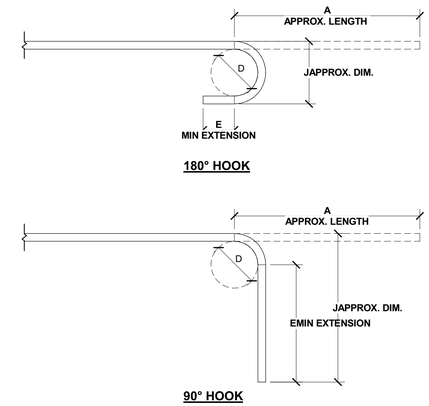
135° HOOK
STIRRUP / TIE / SEISMIC HOOK

CROSS TIE

4 STIRRUP, TIES, & SEISMIC HOOK DIM.

Scale: 1 1/2" = 1'-0" Ref:

STANDARD HOOK DIMENSIONS							
DIM. / BAR SIZE	D	90° HOOK			180° HOOK		
		E	A	J	E	A	J
#3	2 1/4"	0' - 4 1/2" (4 1/2")	0' - 7" (7")	0' - 7" (7")	0' - 2 1/2" (2 1/2")	0' - 7" (7")	0' - 3 1/2" (3 1/2")
#4	3"	0' - 6" (6")	0' - 9" (9")	0' - 8" (8")	0' - 2 1/2" (2 1/2")	0' - 8" (8")	0' - 4" (4")
#5	3 3/4"	0' - 7 1/2" (7 1/2")	0' - 11" (11")	0' - 10" (10")	0' - 2 1/2" (2 1/2")	0' - 10" (10")	0' - 5" (5")
#6	4 1/2"	0' - 9" (9")	1' - 2" (14")	1' - 0" (12")	0' - 3" (3")	1' - 0" (12")	0' - 6" (6")
#7	5 1/4"	0' - 10 1/2" (10 1/2")	1' - 4" (16")	1' - 2" (14")	0' - 3 1/2" (3 1/2")	1' - 2" (14")	0' - 7" (7")
#8	6"	1' - 0" (12")	1' - 6" (18")	1' - 4" (16")	0' - 4" (3")	1' - 3" (15")	0' - 8" (8")
#9	9"	1' - 1 1/2" (13 1/2")	1' - 10" (22")	1' - 8" (20")	0' - 4 1/2" (3 1/2")	1' - 9" (21")	1' - 0" (12")
#10	10"	1' - 3" (15")	2' - 0" (24")	1' - 10" (22")	0' - 5" (3")	1' - 11" (23")	1' - 1" (13")
#11	11"	1' - 4 1/2" (16 1/2")	2' - 3" (27")	2' - 0" (24")	0' - 5 1/2" (3 1/2")	2' - 1" (25")	1' - 2" (14")



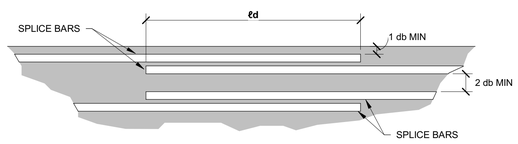
180° HOOK

90° HOOK

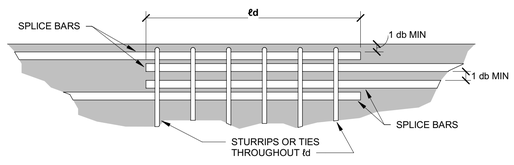
2 STANDARD HOOK DIMENSIONS

Scale: 1 1/2" = 1'-0" Ref:

CLASS "B" TENSION SPLICE LENGTH (ℓd)						
f'c / BAR SIZE	3,000 psi	4,000 psi	5,000 psi	6,000 psi	7,000 psi	8,000 psi
#3	1' - 10" (22")	1' - 7" (19")	1' - 5" (17")	1' - 4" (16")	1' - 2" (14")	1' - 2" (14")
#4	2' - 5" (29")	2' - 1" (25")	1' - 11" (23")	1' - 9" (21")	1' - 7" (19")	1' - 6" (18")
#5	3' - 0" (36")	2' - 7" (31")	2' - 4" (28")	2' - 2" (26")	2' - 0" (24")	1' - 10" (22")
#6	3' - 7" (43")	3' - 1" (37")	2' - 10" (34")	2' - 7" (31")	2' - 4" (28")	2' - 3" (27")
#7	5' - 3" (63")	4' - 6" (54")	4' - 1" (49")	3' - 9" (45")	3' - 5" (41")	3' - 3" (39")
#8	6' - 0" (72")	5' - 2" (62")	4' - 8" (56")	4' - 3" (51")	3' - 11" (47")	3' - 8" (44")
#9	6' - 9" (81")	5' - 10" (70")	5' - 3" (63")	4' - 9" (57")	4' - 5" (53")	4' - 2" (50")
#10	7' - 6" (90")	6' - 6" (78")	5' - 9" (69")	5' - 3" (63")	4' - 11" (59")	4' - 7" (55")
#11	8' - 2" (98")	7' - 1" (85")	6' - 4" (76")	5' - 10" (70")	5' - 5" (65")	5' - 0" (60")



CASE I B



CASE I A

TYPICAL SECTION

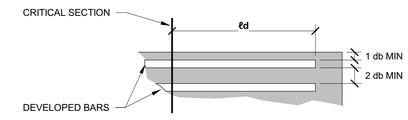
NOTES:

1. ALL SPLICES SHAL BE CLASS B SPLICES UNLESS NOTED OTHERWISE (UNO).
2. SPLICE LENGTHS (ℓd) SPECIFICALLY INDICATED ON DRAWINGS (PLANS, ELEV., ETC.) SHALL GOVEN.
3. LENGTHS APPLY TO GRADE 60 REBAR, IN NORMAL WEIGHT CONCRETE COMPLYING WITH SPACING REQUIREMENTS OF CASE IA OR IB.
4. CASE I
   - CASE IA CLEAR SPACING OF BARS BEING DEVELOPED, INCLUDING SPLICE BARS, NOT LESS THAN db, CLEAR COVER NOT LESS THAN db, AND STIRRUPS OR TIES THROUGHOUT ℓd NOT LESS THAN THE CODE MINIMUM
   - CASE IB CLEAR SPACING OF BARS BEING DEVELOPED, INCLUDING SPLICE BARS, NOT LESS THAN 2db, AND CLEAR COVER NOT LESS THAN db.
   - CASE II ALL OTHER CASES NOT CONFORMING TO CASE I, SHALL MULTIPLY LENGTH BY 1.5
5. FOR GRADE 75 REBAR, MULTIPLY LENGTH BY 1.25
6. FOR LIGHT WEIGHT CONCRETE, MULTIPLY LENGTH BY 1.3
7. FOR TOP BARS, DEFINED AS HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW, MULTIPY BY 1.3
8. FOR EPOXY COATED BARS,
   A. WITH COVER OF LESS THAN 3 BAR DIAMETERS OR CLEAR SPACING MORE THAN 6 BAR DIAMETERS, MULTIPLY LENGTH BY 1.5
   B. ALL OTHER EPOXY CONDITIONS, MULTIPLY BY 1.2
9. THE PRODUCT OF NOTES #7 & #8 NEED NOT EXCEED 1.7
8. WHERE BARS OF DIFFENET SIZES ARE LAP SPLICED, THE SPLICE LENGTH SHALL BE THE LARGER OF THE DEVELOPMENT LENGTH OF LARGER BAR OR SPLICE LENGTH OF SMALLER BAR.
9. LAP SPLICES OF BARS IN A BUNDLE SHALL BE BASED ON THE LAP SPLICE LENGTH REQUIRED FOR INDIVIDUAL BARS WITHIN THE BUNDLE, INCREASE BY:
   20% FOR BUNDLES WITH THREE (3) BARS AND
   33% FOR BUNDLES WITH FOUR (4) BARS
10. INDIVIDUAL BAR SPLICES WITHIN A BUNDLE SHALL NOT OVERLAP.
11. CONTACT LAP SPLICES SHALL BE USED IN ALL CASES, UNLESS NOTED OTHERWISE.

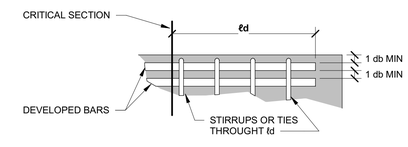
3 CLASS "B" TENSION SPLICE

Scale: 1 1/2" = 1'-0" Ref:

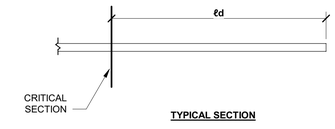
TENSION DEVELOPMENT LENGTH (ℓd)						
f'c / BAR SIZE			5,000 psi	6,000 psi	7,000 psi	8,000 psi
#3			1' - 1" (13")	1' - 0" (12")		
#4			1' - 5" (17")	1' - 4" (16")		
#5			1' - 10" (22")	1' - 8" (20")		
#6			2' - 2" (26")	2' - 0" (24")		
#7			3' - 2" (38")	2' - 10" (34")		
#8			3' - 7" (43")	3' - 3" (39")		
#9			4' - 0" (48")	3' - 8" (44")		
#10			4' - 6" (54")	4' - 1" (49")		
#11			4' - 11" (59")	4' - 6" (54")		



CASE I B



CASE I A



TYPICAL SECTION

NOTES:

1. SPLICE LENGTHS (ℓd) SPECIFICALLY INDICATED ON DRAWINGS (PLANS, ELEV., ETC.) SHALL GOVEN.
2. LENGTHS APPLY TO GRADE 60 REBAR, IN NORMAL WEIGHT CONCRETE COMPLYING WITH SPACING REQUIREMENTS OF CASE IA OR IB.
3. CASE I
   - CASE IA CLEAR SPACING OF BARS BEING DEVELOPED NOT LESS THAN db, CLEAR COVER NOT LESS THAN db, AND STIRRUPS OR TIES THROUGHOUT ℓd NOT LESS THAN THE CODE MINIMUM
   - CASE IB CLEAR SPACING OF BARS BEING DEVELOPED NOT LESS THAN 2db, AND CLEAR COVER NOT LESS THAN db.
   - CASE II ALL OTHER CASES NOT CONFORMING TO CASE I, SHALL MULTIPLY LENGTH BY 1.5
4. FOR GRADE 70 REBAR, MULTIPLY LENGTH BY 1.25
5. FOR LIGHT WEIGHT CONCRETE, MULTIPLY LENGTH BY 1.3
6. FOR TOP BARS, DEFINED AS HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW, MULTIPY BY 1.3
7. FOR EPOXY COATED BARS,
   A. WITH COVER OF LESS THAN 3 BAR DIAMETERS OR CLEAR SPACING MORE THAN 6 BAR DIAMETERS, MULTIPLY LENGTH BY 1.5
   B. ALL OTHER EPOXY CONDITIONS, MULTIPLY BY 1.2
8. THE PRODUCT OF NOTES #6 & #7 NEED NOT EXCEED 1.7
9. DEVELOPMENT LENGTH OF INDIVIDUAL BARS WITHIN A BUNDLE SHALL BE THAT FOR THE LARGEST INDIVIDUAL BAR, INCREASED BY 20% FOR THREE (3) BARS AND 33% FOR FOUR (4) BARS

1 TENSION DEVELOPMENT

Scale: 1 1/2" = 1'-0" Ref:

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23-1693
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Architecture & Engineering Sections
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Real Estate Services Division
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Issue		
No.	Date	Description
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	08/31/2022	50% WORKING DRAWINGS
	10/31/2022	95% WORKING DRAWINGS
	03/31/2023	100% WORKING DRAWINGS

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE.
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
NN	AT	JI
DSA App No. -	SFM Permit No. 22-S-4509-O-DR	

Sheet Title
TYPICAL CONCRETE DETAILS

Project Number
000000000008666

Reference North

Sheet Scale
NTS

Sheet Number
S-0.21

V4

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RELATIVE BORDER SCALE IN INCHES 0 1 2 3

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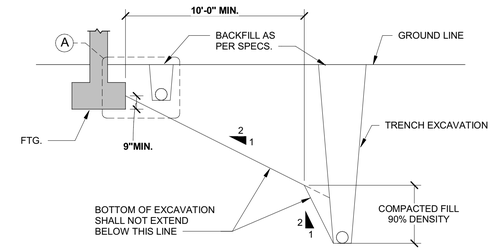

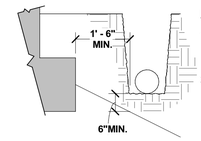

SECTION A

NOTE:

1. EXCAVATIONS SHALL MAINTAIN A MINIMUM **18"** CLEARANCE FROM ADJACENT FOOTING & **6"** FROM THE EXCAVATION LINE, EXCEPT WHERE ALLOWED BY **NOTE #2**.
2. WHERE PENETRATIONS, PERPENDICULAR (**± 2°**)TO FOUNDATION, OCCUR INTRUSION BELOW THE EXCAVATION LINE SHALL BE ALLOWED. TRENCH SHALL NOT CHANGE DIRECTIONS IN PLAN UNTIL OUTSIDE OF THE EXCAVATION LINE AND IN COMPLIANCE WITH **NOTE #1**. INTRUSION SHALL BE KEPT TO A MINIMUM.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR SHORING , SHEATHING, OR OTHERWISE MAINTAINING THE SIDES OF THE EXCAVATION FROM CAVE-IN UNTIL ALL BACKFILLING IS COMPLETE.

1 EXCAVATION AND COMPACTION DETAIL

Scale: 1/4" = 1'-0" Ref:

OFFICE OF THE STATE FIRE MARSHAL
APPROVED FIRE AND PANIC ONLY

11/27/23
23-1693

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DGS GENERAL SERVICES

Department of General Services
Architecture & Engineering Sections
State of California
Real Estate Services Division
Project Management & Development Branch
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West Sacramento, California 95605

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FAX: (949) 860-4810
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Issue

No.	Date	Description
	01/31/2022	PRELIMINARY PLANS
	08/31/2022	50% WORKING DRAWINGS
	10/31/2022	95% WORKING DRAWINGS
	03/31/2023	100% WORKING DRAWINGS

Project

DSH-COALINGA HYDRONIC LOOP REPLACEMENT

24511 WEST JAYNE AVE.
COALINGA, CA
93210

DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
NN	AT	JI

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title

TYPICAL FOUNDATION DETAILS

Project Number
000000000008666

Reference North

SheetScale
NTS

Sheet Number
S-0.23

V4

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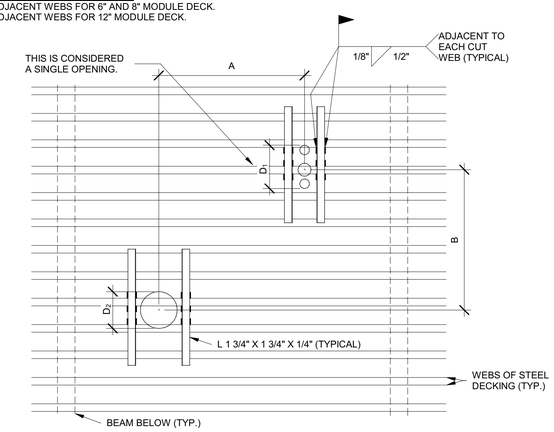
RELATIVE BORDER SCALE IN INCHES

24X36

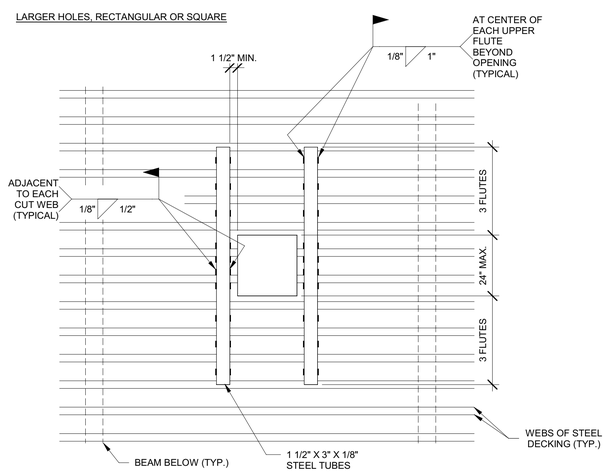
HOLES CUTTING NO MORE THAN:
• 3 ADJACENT WEBS FOR 6" AND 8" MODULE DECK.
• 2 ADJACENT WEBS FOR 12" MODULE DECK.



NOTES:
1. ANGLES SHALL BE PLACED TO THE BOTTOM OF DECK.
2. ANGLES SHALL EXTEND 3 WEBS PAST THE DECK OPENING (TYPICAL).
3. IF DIMENSION A IS >4D1, 4D2, OR 32" WHICHEVER IS LARGER, THERE IS NO RESTRICTION ON DIMENSION B.
4. IF DIMENSION B IS >4D1, 4D2, OR 32" WHICHEVER IS LARGER, THERE IS NO RESTRICTION ON DIMENSION A.
5. IF DIMENSIONS A AND B ARE <4D1, 4D2, OR 32" WHICHEVER IS LARGER, THE OPENING GROUP SHALL BE CONSIDERED AS A SINGLE LARGE HOLE, AND SHALL BE REINFORCED AS REQUIRED FOR THE LARGER OPENING AS SHOWN IN DETAIL 7/S-0.31.

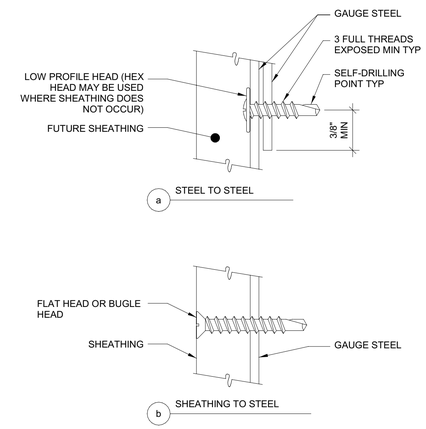
6 DETAIL FOR DECK OPENING TO MAXIMUM OF 6" DIA. OR 6" SQUARE
Scale: 3/4" = 1'-0" Ref:

LARGER HOLES, RECTANGULAR OR SQUARE

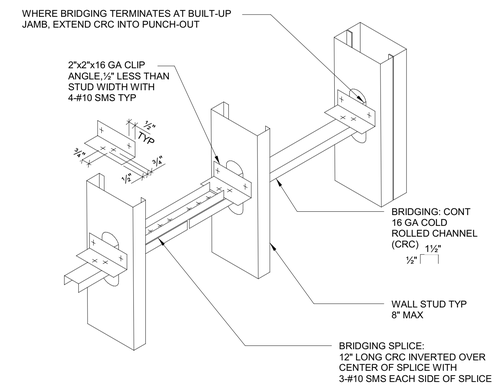


NOTES:
1. TUBES SHALL BE PLACED TO THE BOTTOM OF DECK.

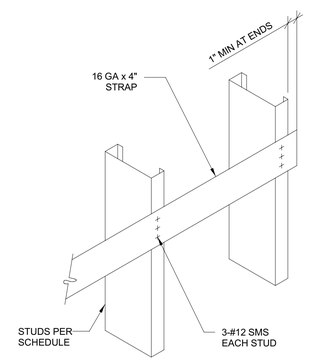
7 DETAIL FOR DECK OPENING TO MAXIMUM OF 24" DIA. OR 24" SQUARE
Scale: 3/4" = 1'-0" Ref:



4 SHEET METAL SCREWS (SMS)
Scale: 12" = 1'-0" Ref:



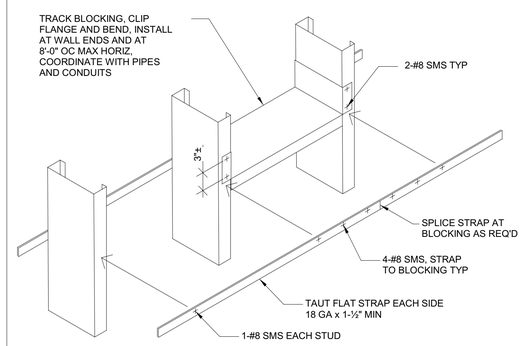
1 BRIDGING
Scale: 12" = 1'-0" Ref:



NOTES:

1. USE FOR MISC ITEMS (EG SURFACE MOUNTED MIRROR, WASTE RECEPTACLE, TOWEL DISPENSERS, WALL MOUNTED DOOR STOP, ETC) MAX WT 50 LB POINT LOAD.
2. VERIFY NUMBER, LENGTH, HEIGHT AND LOCATION OF BACKING PLATE REQUIRED WITH ACCESSORY MANUFACTURERS.
3. USE #12 SHEET METAL SCREWS MIN WHEN ATTACHING ITEM TO BACKING.

5 BACKING
Scale: 12" = 1'-0" Ref:



2 BRIDGING
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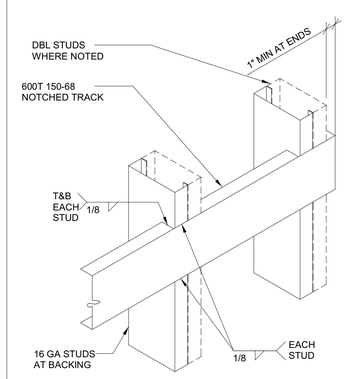

NOTES:

1. USE FOR UPPER WALL HUNG CABINETS, FULL HEIGHT CABINETS, GRAB BARS, HANDRAILS, WALL HUNG EQUIPMENT ETC MAX WT 300 LBS/LIN FT.
2. LENGTH, HEIGHT AND LOCATION TO SUIT ITEMS BEING FASTENED. SEE ANCHORAGE DETAIL OF SPECIFIC ITEMS FOR ADDITIONAL INFORMATION.
3. ATTACH TO THREE STUDS MIN (DBL STUD COUNTS AS ONE STUD).
4. USE #12 SHEET METAL SCREWS MIN WHEN ATTACHING ITEMS.
5. USE DBL STUDS WHEN STUD IS SUPPORTING BACKING ON BOTH SIDES.

3 BACKING
Scale: 12" = 1'-0" Ref:

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Issue

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	01/31/2022	PRELIMINARY PLANS
	08/31/2022	50% WORKING DRAWINGS
	10/31/2022	95% WORKING DRAWINGS
	03/31/2023	100% WORKING DRAWINGS

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
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COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
NN	AT	JI

DSA App No. -
SFM Permit No. 22-S-4509-O-DR

Sheet Title
TYPICAL LIGHT GAUGE DETAILS

Project Number 0000000000008666
Reference North
SheetScale NTS
Sheet Number S-0.31
V4

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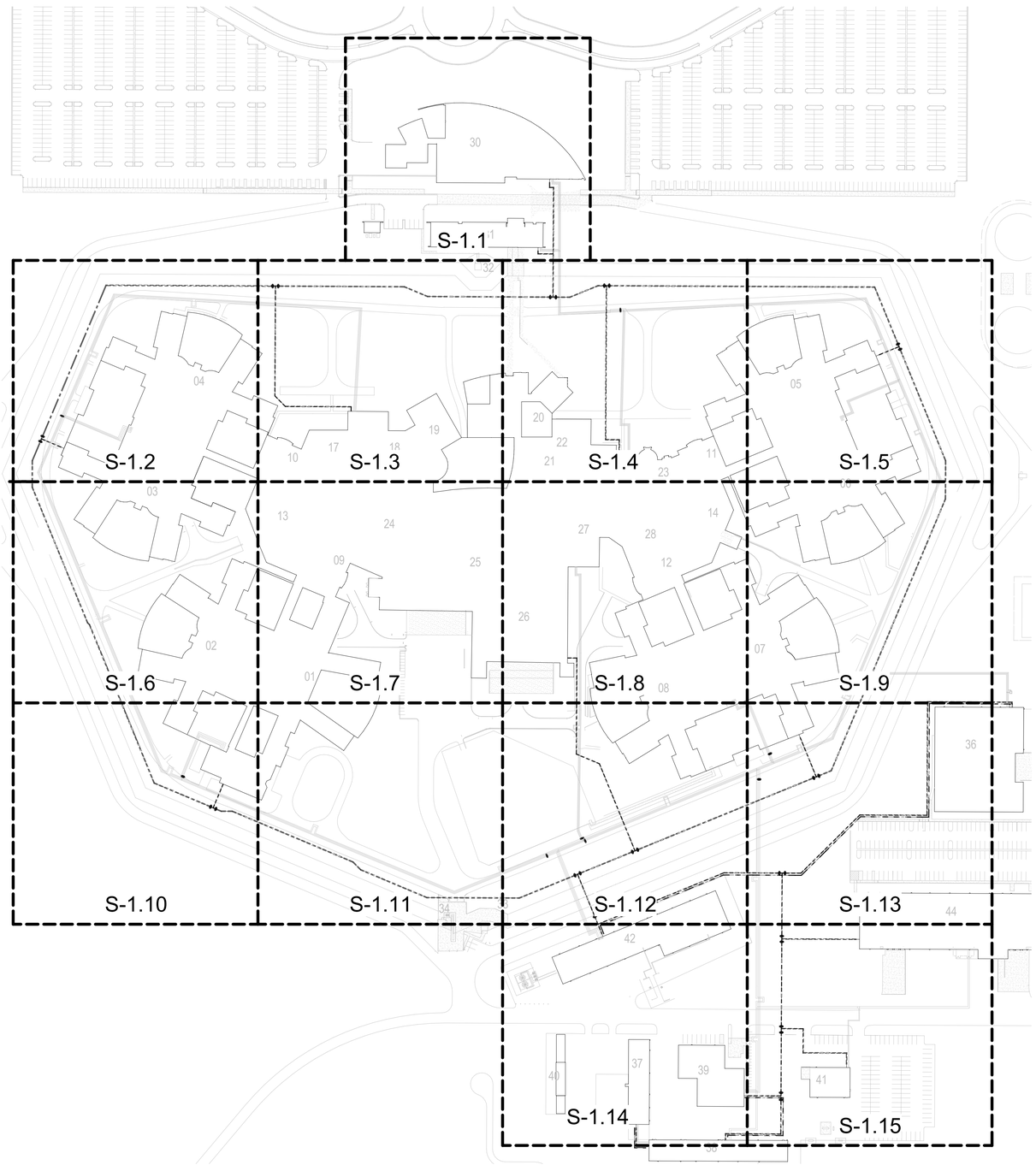
RELATIVE BORDER SCALE IN INCHES 0 1 2 3



1 OVERALL LAYOUT PLAN
Scale: 1 : 1440 Ref:

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Sheet Title
OVERALL LAYOUT PLAN

Project Number
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Reference North
SheetScale
NTS
Sheet Number
S-1.00
V4

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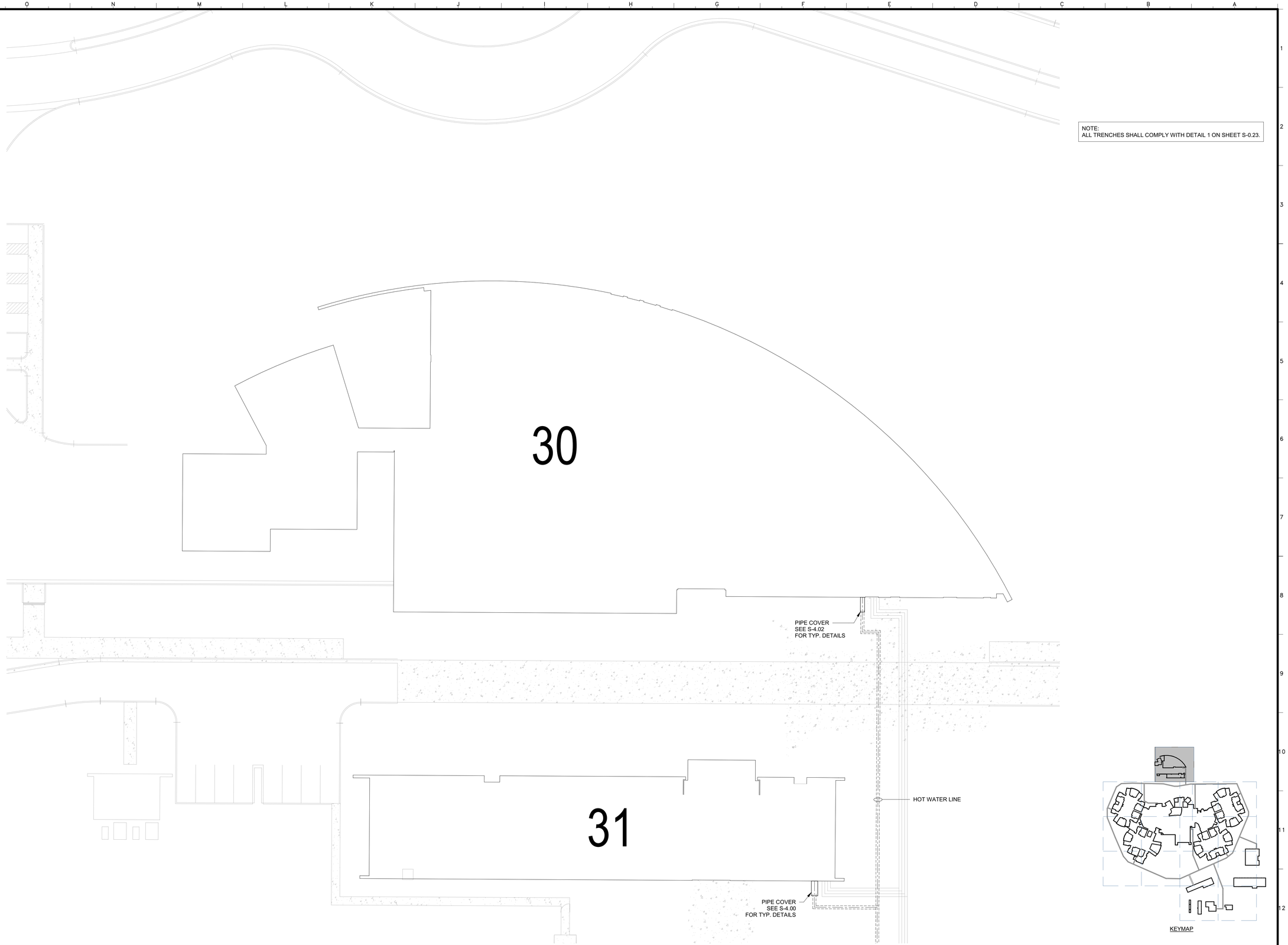

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Sheet Title

PARTIAL PLAN - 1.1

Project Number
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Sheet Number
S-1.1

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Sheet Title

PARTIAL PLAN - 1.2

Project Number
000000000008666

Reference North

SheetScale
NTS

Sheet Number
S-1.2

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RELATIVE BORDER SCALE IN INCHES

32

NEW PRECAST CONCRETE VAULT
FOR PRECAST REINFORCEMENT
AND CONCRETE VAULT,
SEE SHEET S-0.01 & S-0.02

HOT WATER LINE

NEW PRECAST CONCRETE VAULT
FOR PRECAST REINFORCEMENT
AND CONCRETE VAULT,
SEE SHEET S-0.01 & S-0.02

PIPE COVER
SEE S-4.00
FOR TYP. DETAILS

10

17

18

19

NOTE:
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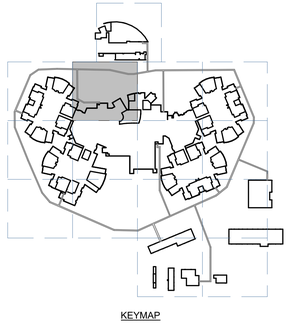

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PARTIAL PLAN - 1.3

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S-1.3

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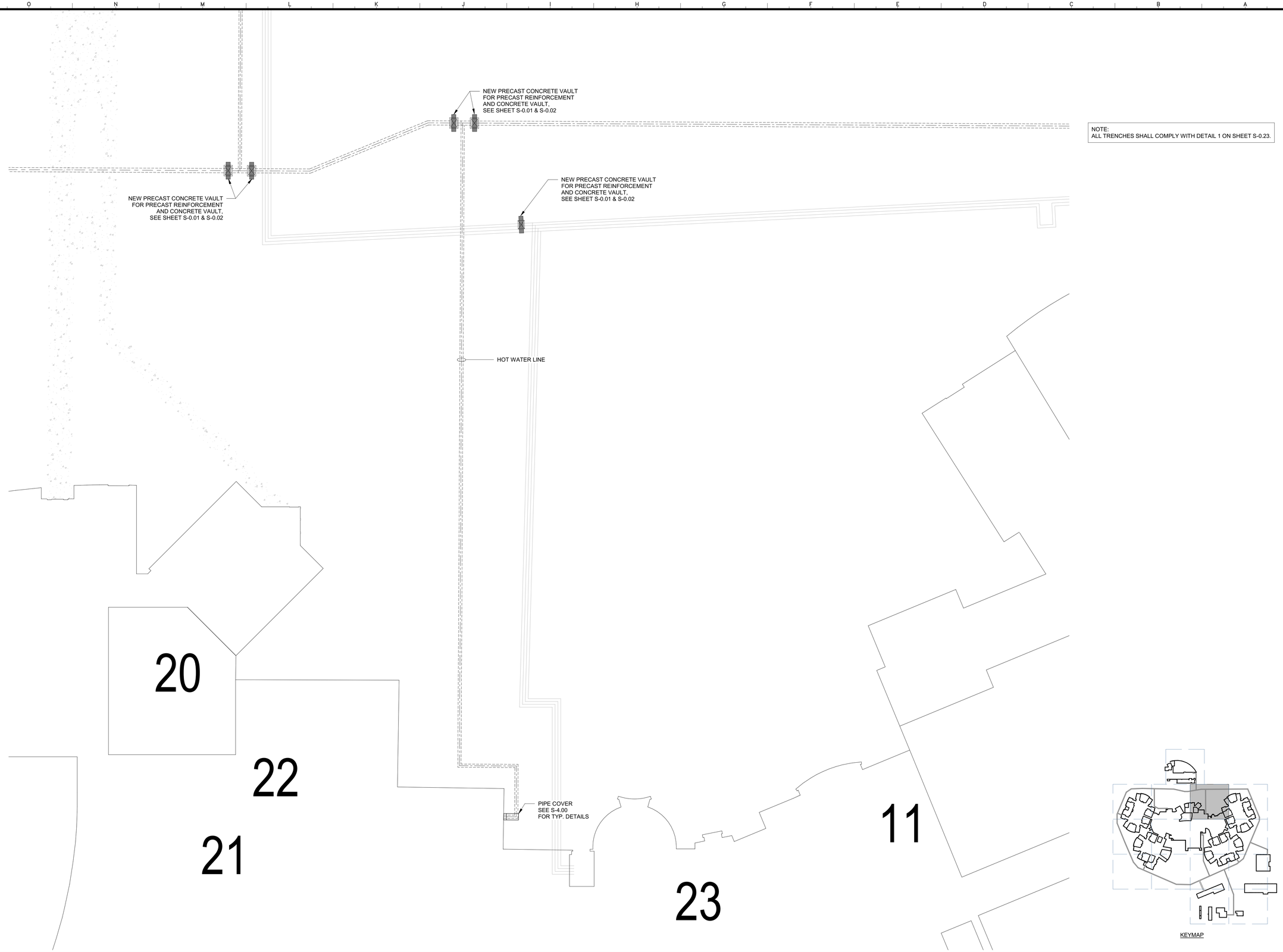

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Sheet Number
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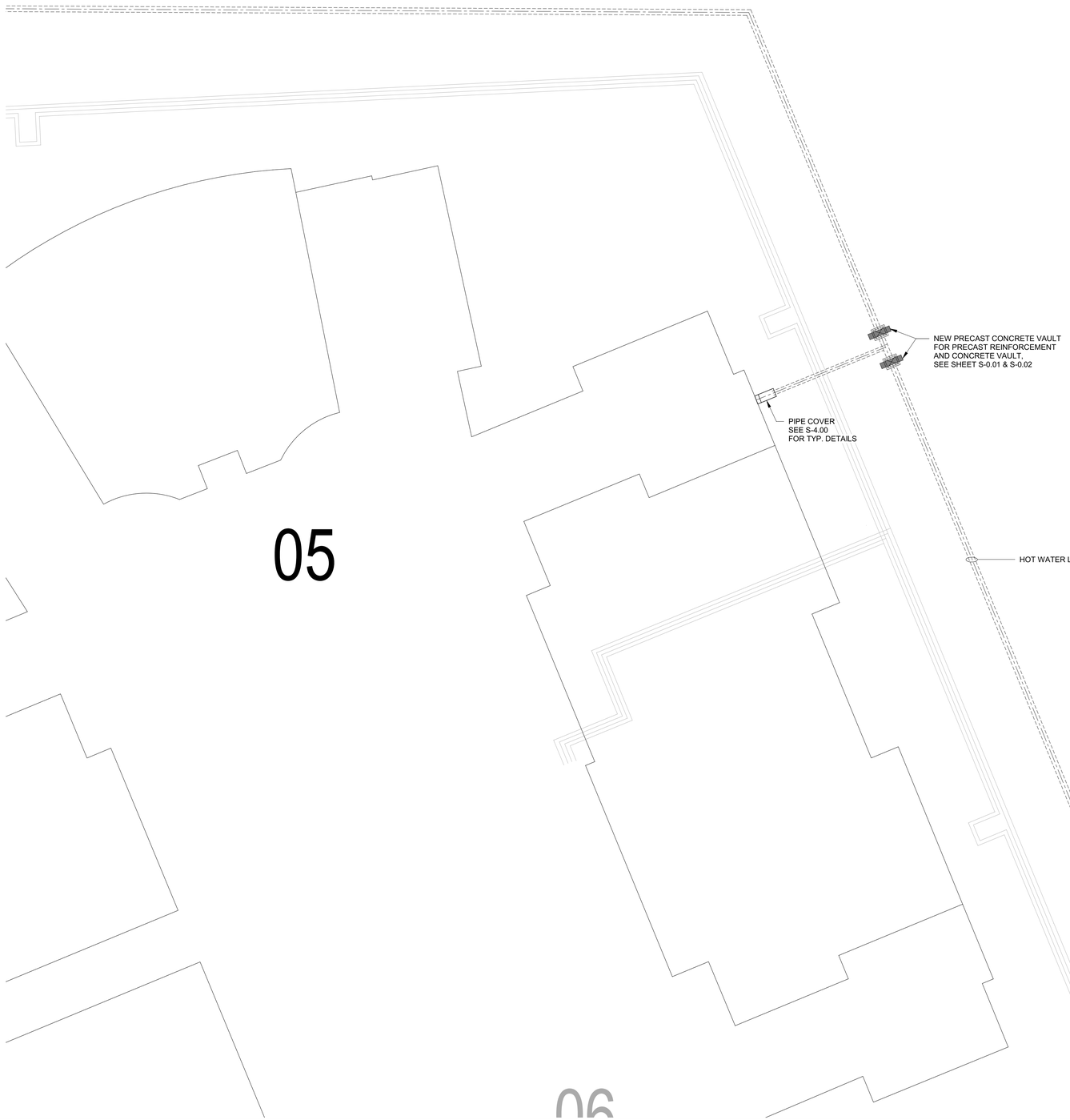

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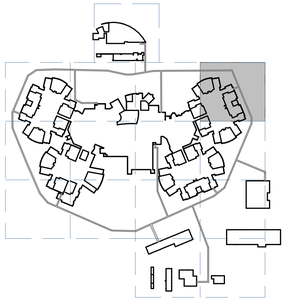

KEYMAP

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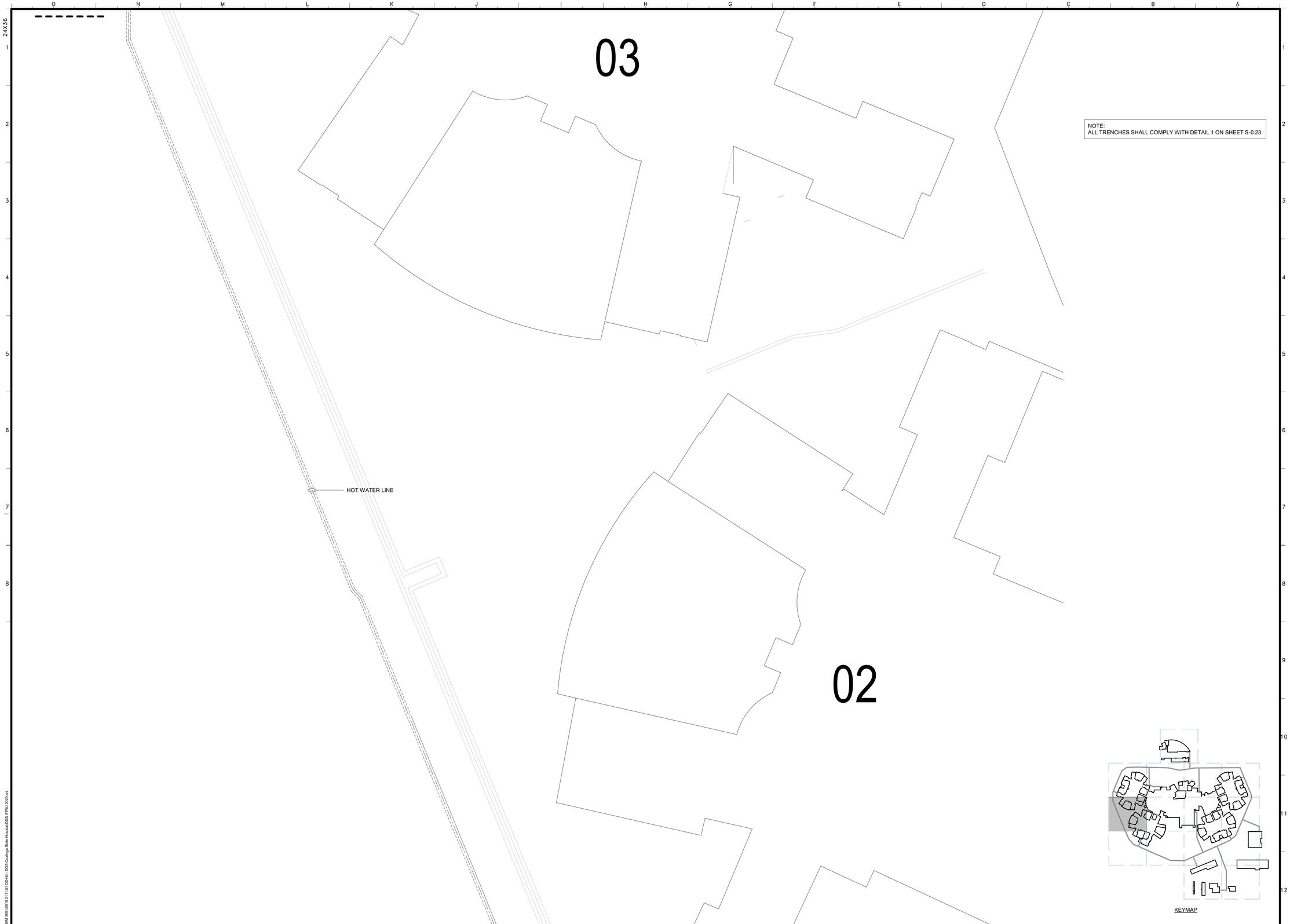

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PARTIAL PLAN - 1.6

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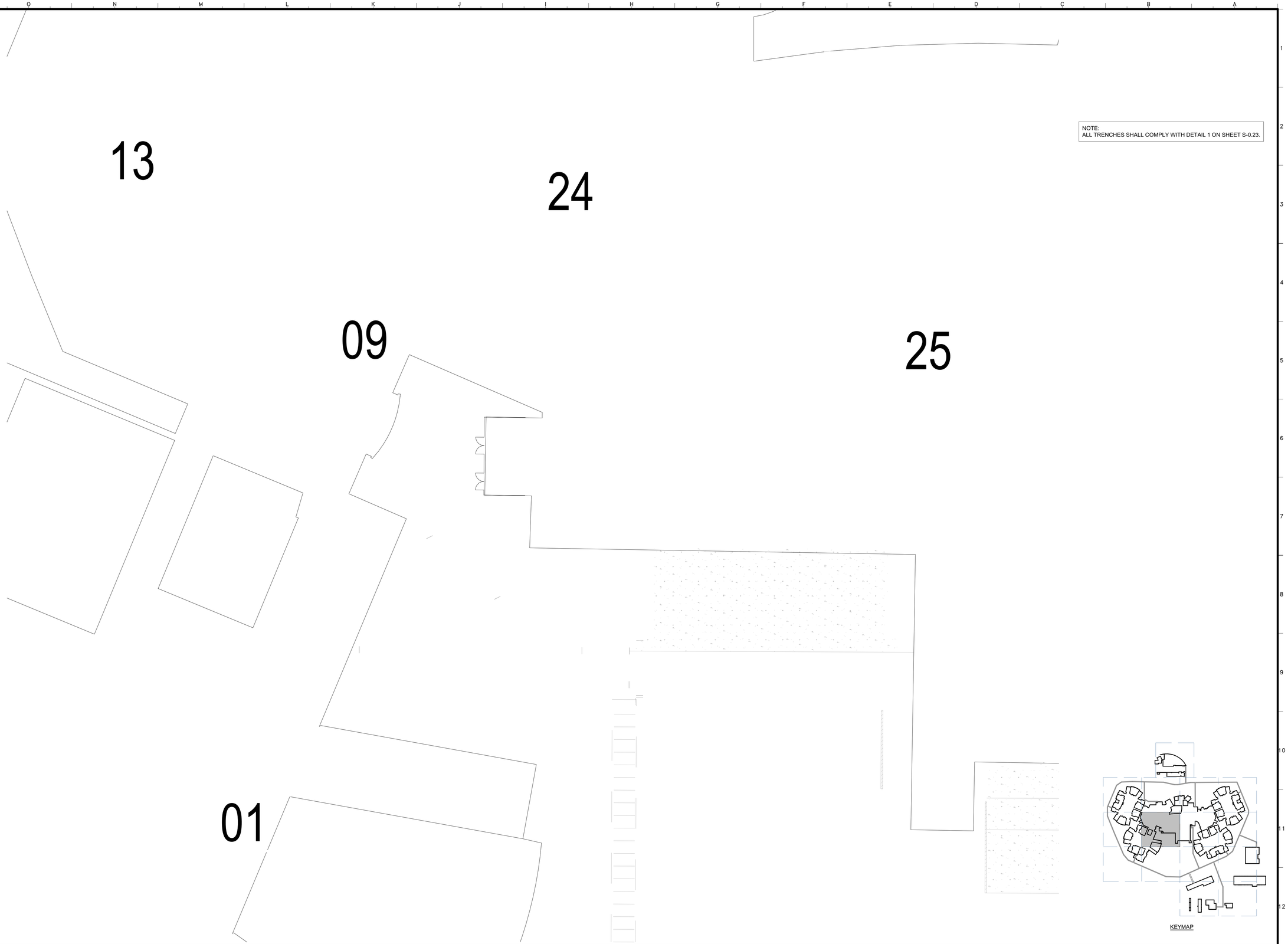

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Sheet Title

PARTIAL PLAN - 1.7

Project Number
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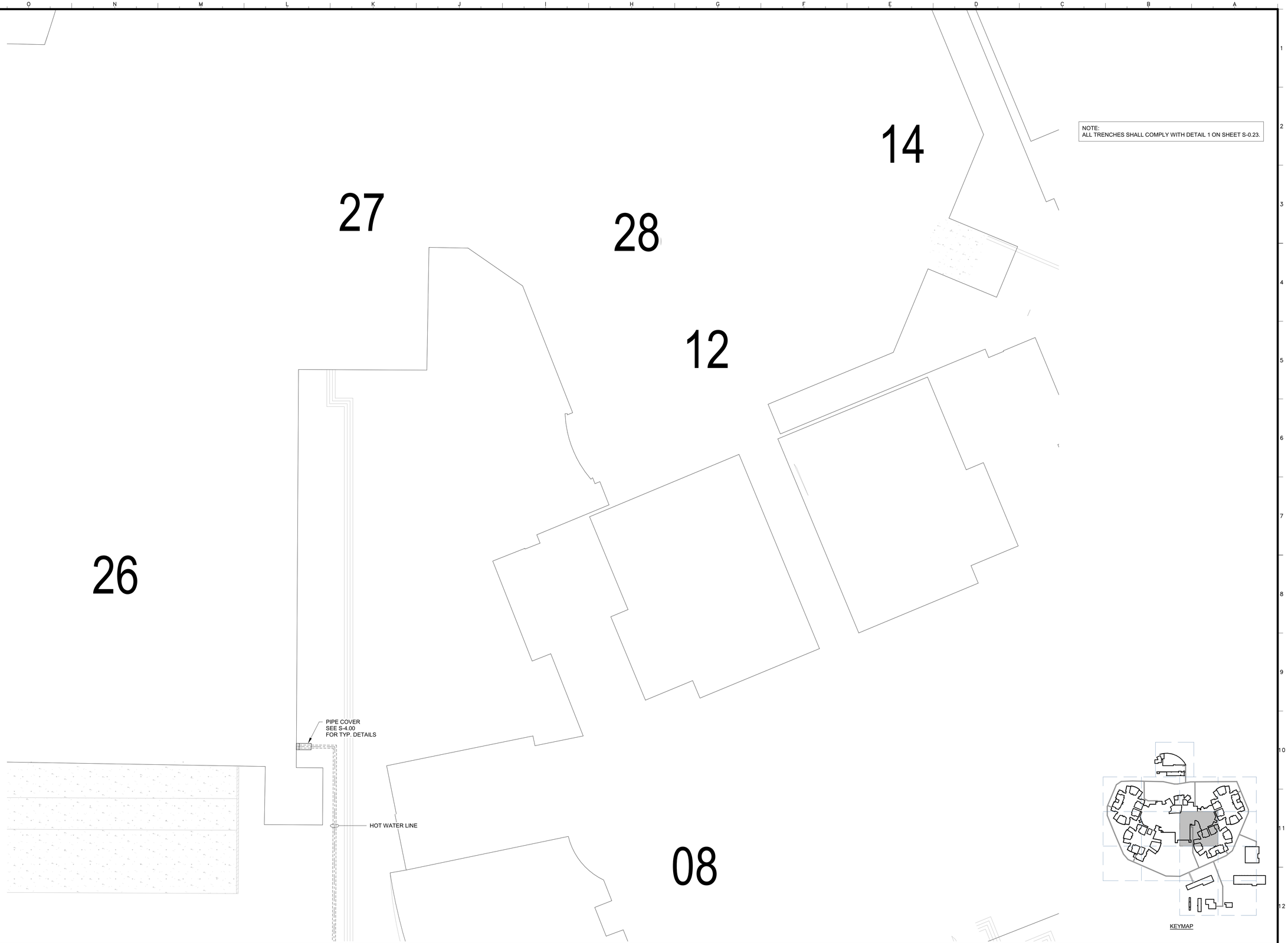

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Sheet Title
PARTIAL PLAN - 1.8

Project Number
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Reference North

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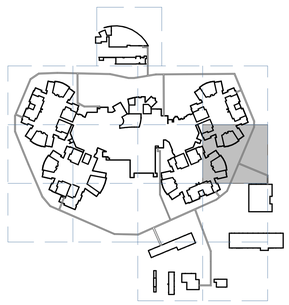

KEYMAP

RELATIVE BORDER SCALE IN INCHES 0 1 2 3

OFFICE OF THE STATE FIRE MARSHAL
APPROVED FIRE AND PANIC ONLY

11/27/23
23-1693

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Issue

No.	Date	Description
	01/31/2022	PRELIMINARY PLANS
	08/31/2022	50% WORKING DRAWINGS
	10/31/2022	95% WORKING DRAWINGS
	03/31/2023	100% WORKING DRAWINGS

Project

DSH-COALINGA HYDRONIC LOOP REPLACEMENT

24511 WEST JAYNE AVE.
COALINGA, CA
93210

DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
NN	AT	JI

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title

PARTIAL PLAN - 1.9

Project Number
0000000000008666

Reference North

SheetScale
NTS

Sheet Number
S-1.9

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NOTE:
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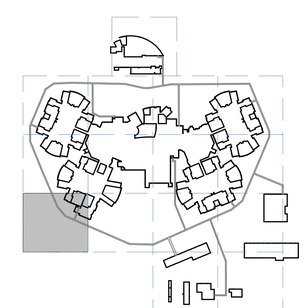
NEW PRECAST CONCRETE VAULT
FOR PRECAST REINFORCEMENT
AND CONCRETE VAULT,
SEE SHEET S-0.01 & S-0.02

PIPE COVER
SEE S-4.00
FOR TYP. DETAILS

HOT WATER LINE

NEW PRECAST CONCRETE VAULT
FOR PRECAST REINFORCEMENT
AND CONCRETE VAULT,
SEE SHEET S-0.01 & S-0.02



KEYMAP

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Project

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DSA App No.	SFM Permit No.	
-	22-S-4509-O-DR	

Sheet Title

PARTIAL PLAN - 1.10

Project Number
000000000008666

Reference North

SheetScale
NTS

Sheet Number
S-1.10

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RELATIVE BORDER SCALE IN INCHES 0 1 2 3

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KEYMAP

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Project

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Sheet Title

PARTIAL PLAN - 1.11

Project Number
000000000008666

Reference North

SheetScale
NTS

Sheet Number
S-1.11

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RELATIVE BORDER SCALE IN INCHES

24X36

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HOT WATER LINE

NEW PRECAST CONCRETE VAULT FOR PRECAST REINFORCEMENT AND CONCRETE VAULT, SEE SHEET S-0.01 & S-0.02

NEW PRECAST CONCRETE VAULT FOR PRECAST REINFORCEMENT AND CONCRETE VAULT, SEE SHEET S-0.01 & S-0.02

NEW PRECAST CONCRETE VAULT FOR PRECAST REINFORCEMENT AND CONCRETE VAULT, SEE SHEET S-0.01 & S-0.02

NEW PRECAST CONCRETE VAULT FOR PRECAST REINFORCEMENT AND CONCRETE VAULT, SEE SHEET S-0.01 & S-0.02

BURIED CHW LINE

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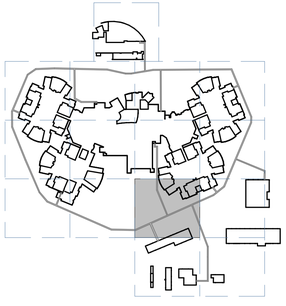

KEYMAP

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-	22-S-4509-O-DR

Sheet Title

PARTIAL PLAN - 1.12

Project Number
0000000000008666

Reference North

SheetScale
NTS

Sheet Number
S-1.12

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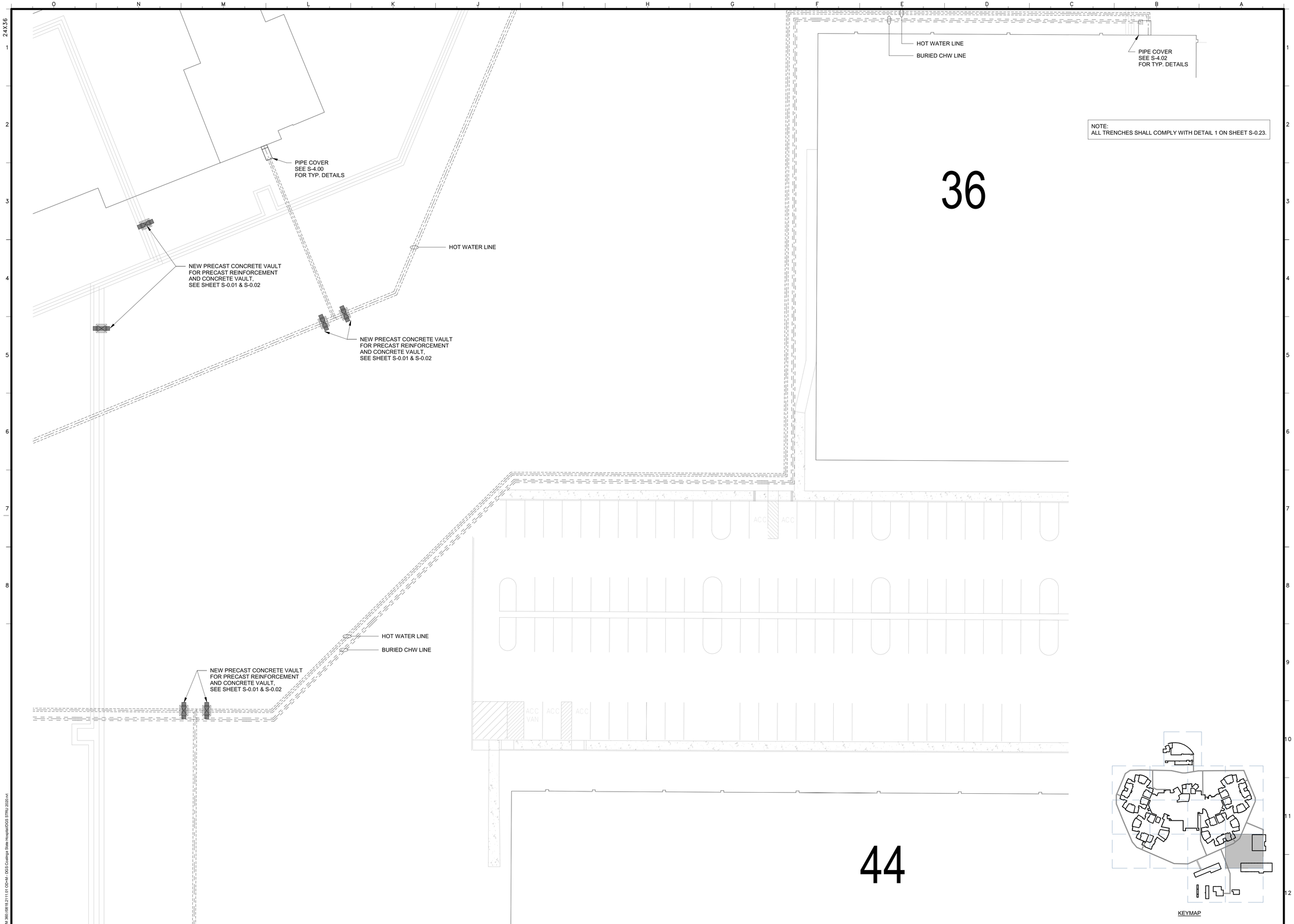
RELATIVE BORDER SCALE IN INCHES 0 1 2 3



NOTE:
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KEYMAP

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Project

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-	22-S-4509-O-DR

Sheet Title

PARTIAL PLAN - 1.13

Project Number
000000000008666

Reference North

SheetScale
NTS

Sheet Number
S-1.13

V4

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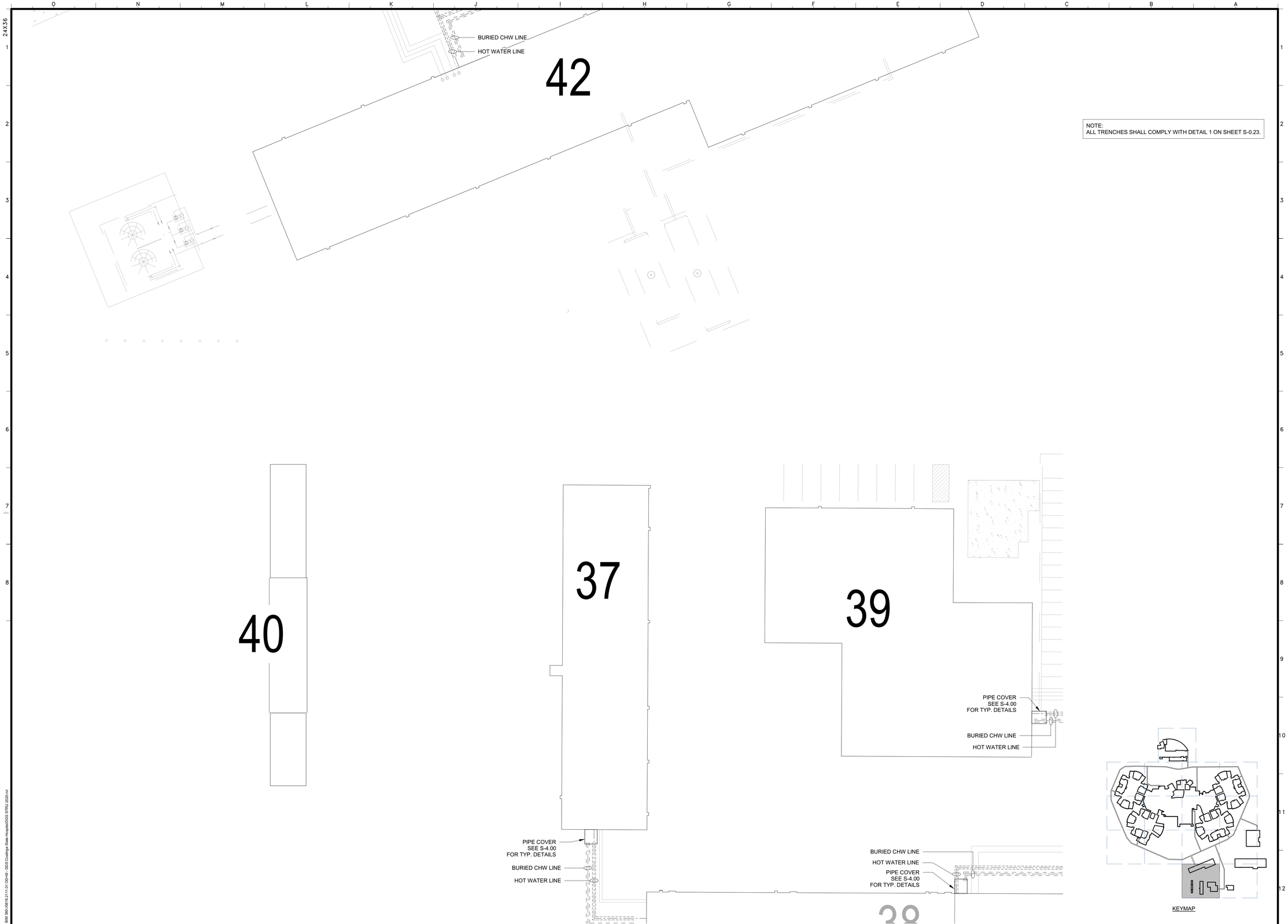
RELATIVE BORDER SCALE IN INCHES



NOTE:
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Project
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93210
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Sheet Title
PARTIAL PLAN - 1.14

Project Number
000000000008666

Reference North

SheetScale
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Sheet Number
S-1.14

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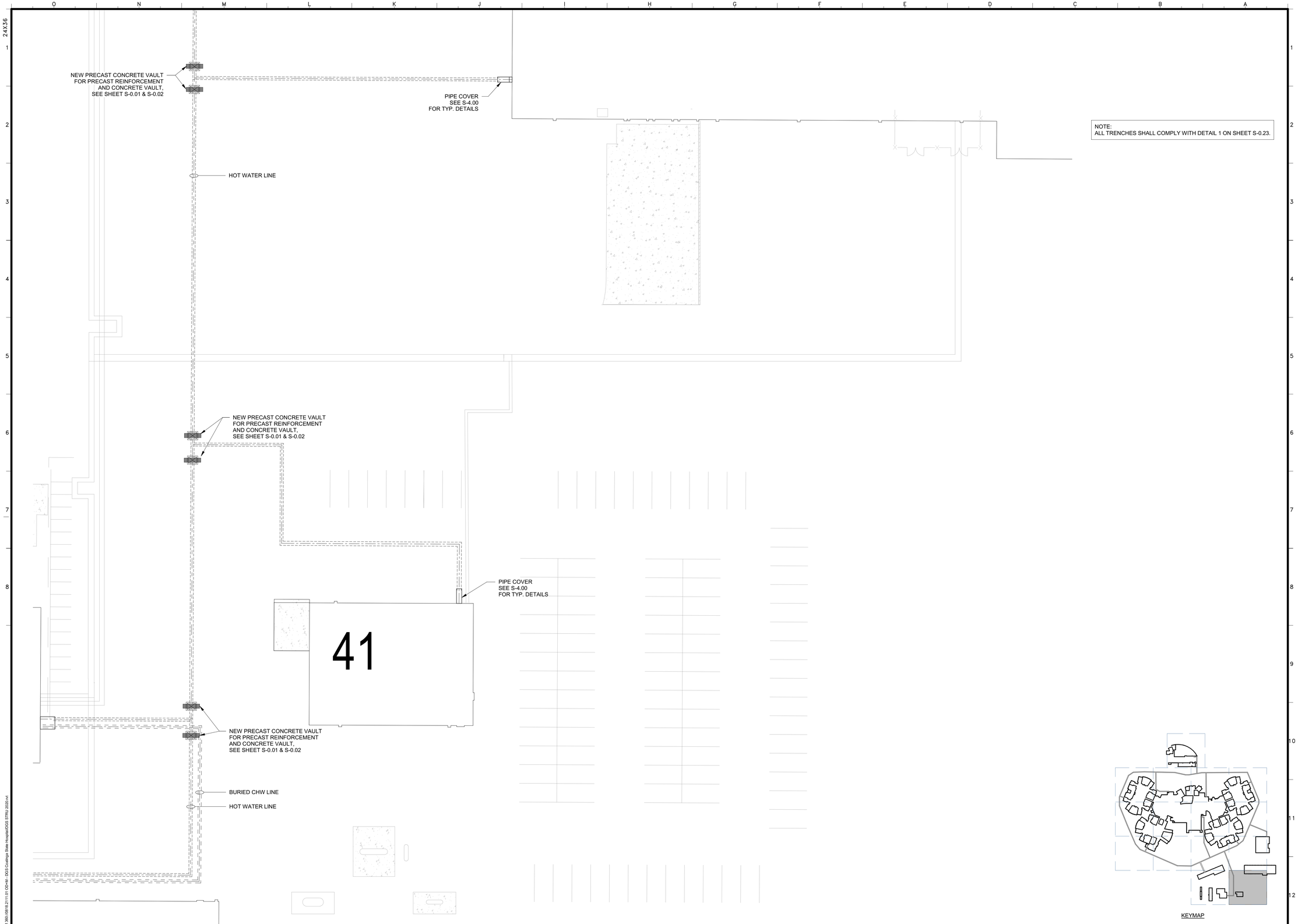
RELATIVE BORDER SCALE IN INCHES



NOTE:
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DEPARTMENT OF STATE HOSPITALS

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Sheet Title
PARTIAL PLAN - 1.15

Project Number
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Reference North

SheetScale
NTS

Sheet Number
S-1.15

V4

RELATIVE BORDER SCALE IN INCHES

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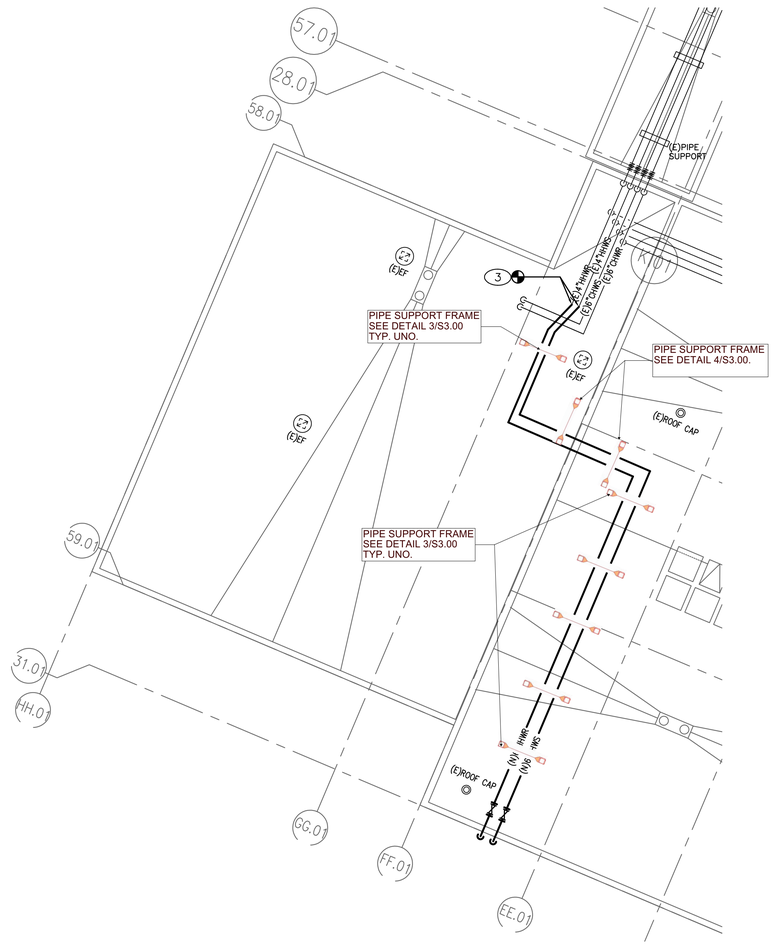

1 PIPE SUPPORT FRAME BLDG 1

Scale: 1/8" = 1'-0" Ref:

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Sheet Title

PIPE SUPPORT FRAMING PLAN BUILDING 1

Project Number
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Reference North

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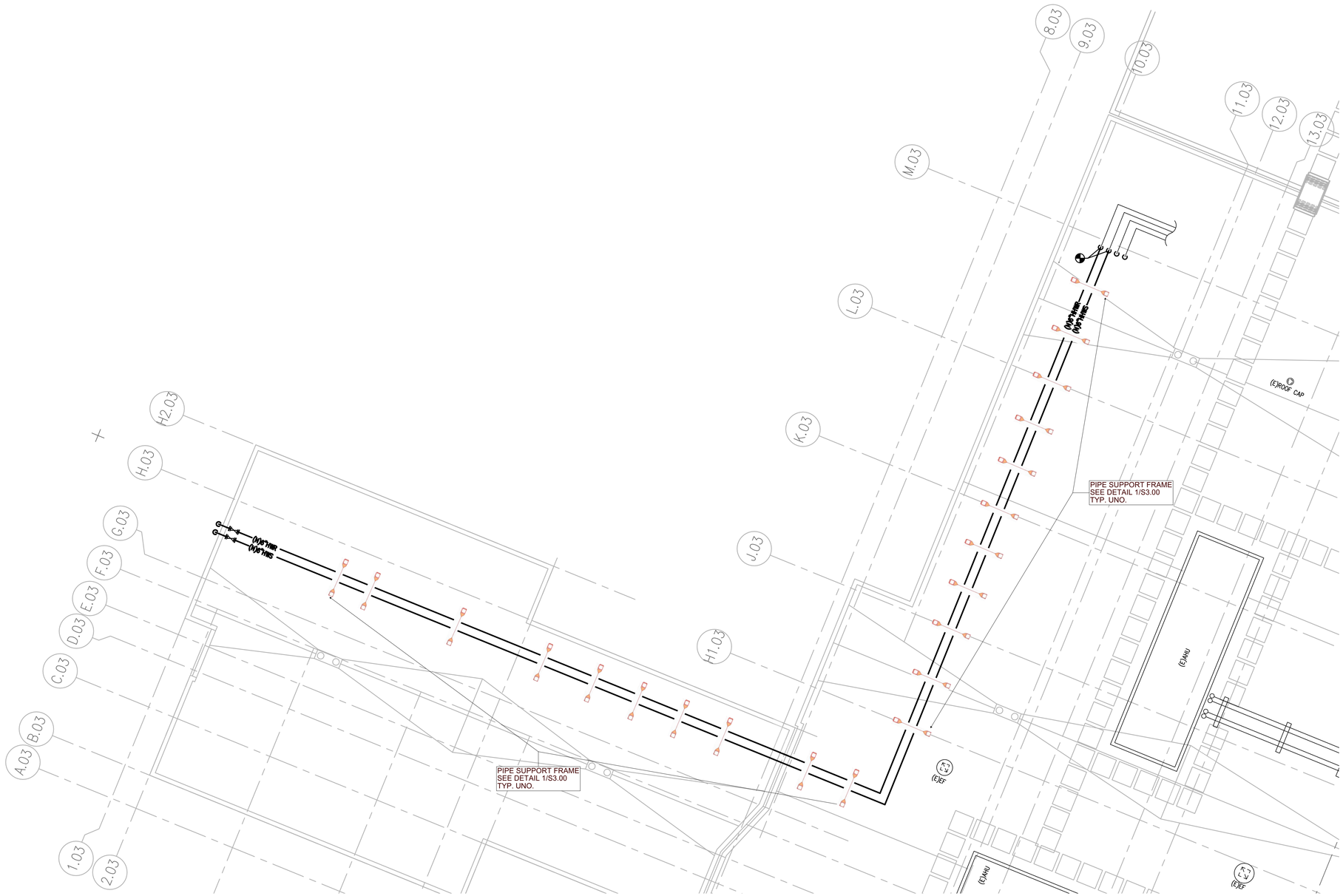
RELATIVE BORDER SCALE IN INCHES 0 1 2 3



1 PIPE SUPPORT FRAME BLDG 3

Scale: 1/8" = 1'-0" Ref:

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Sheet Title

PIPE SUPPORT FRAMING PLAN BUILDING 3

Project Number
000000000008666

Reference North

SheetScale
NTS

Sheet Number
S-2.1

V4

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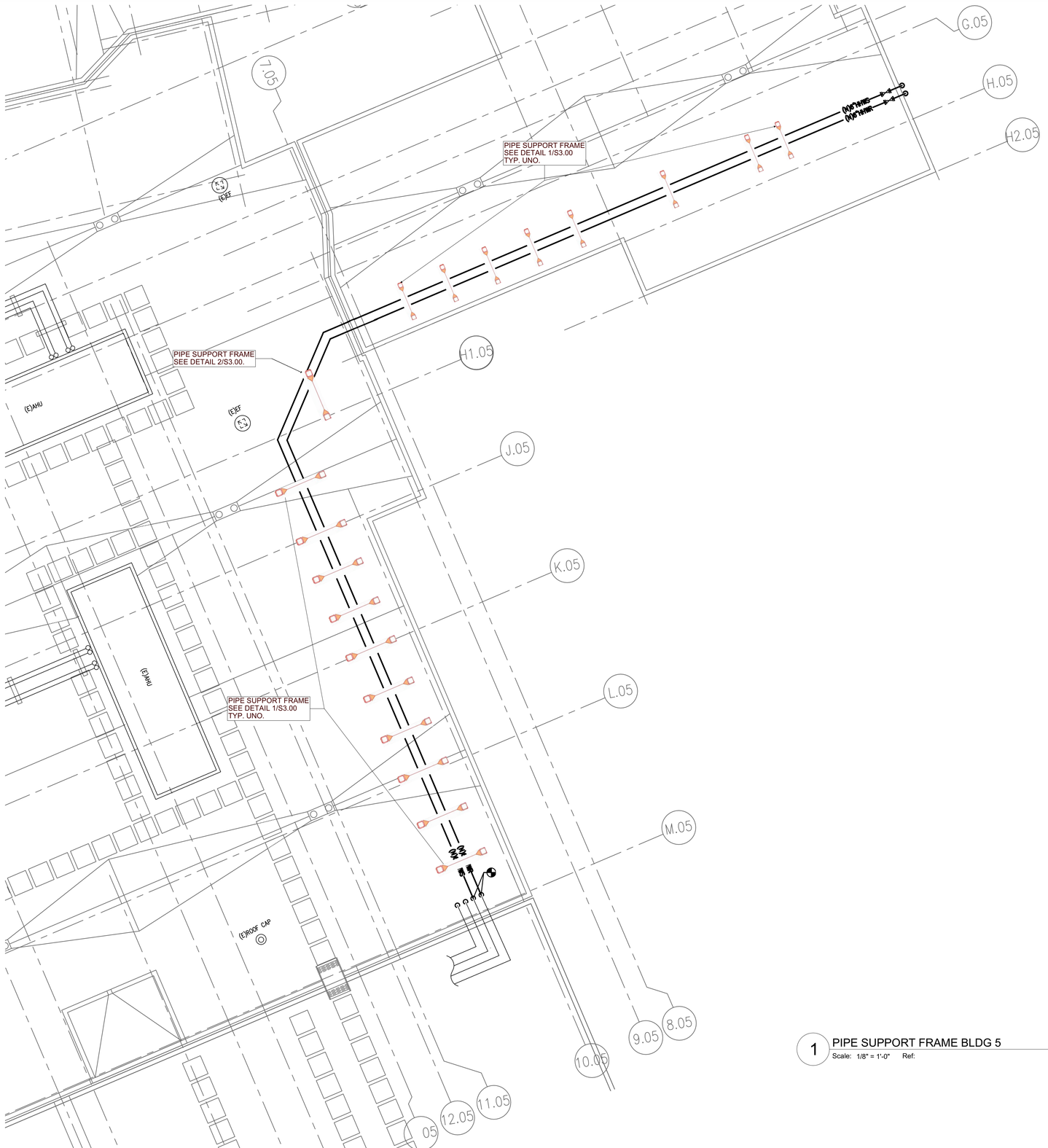
RELATIVE BORDER SCALE IN INCHES



1 PIPE SUPPORT FRAME BLDG 5

Scale: 1/8" = 1'-0" Ref:

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11/27/23

23-1693

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Project

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Sheet Title

PIPE SUPPORT FRAMING PLAN BUILDING 5

Project Number
000000000008666

Reference North

SheetScale
NTS

Sheet Number
S-2.2

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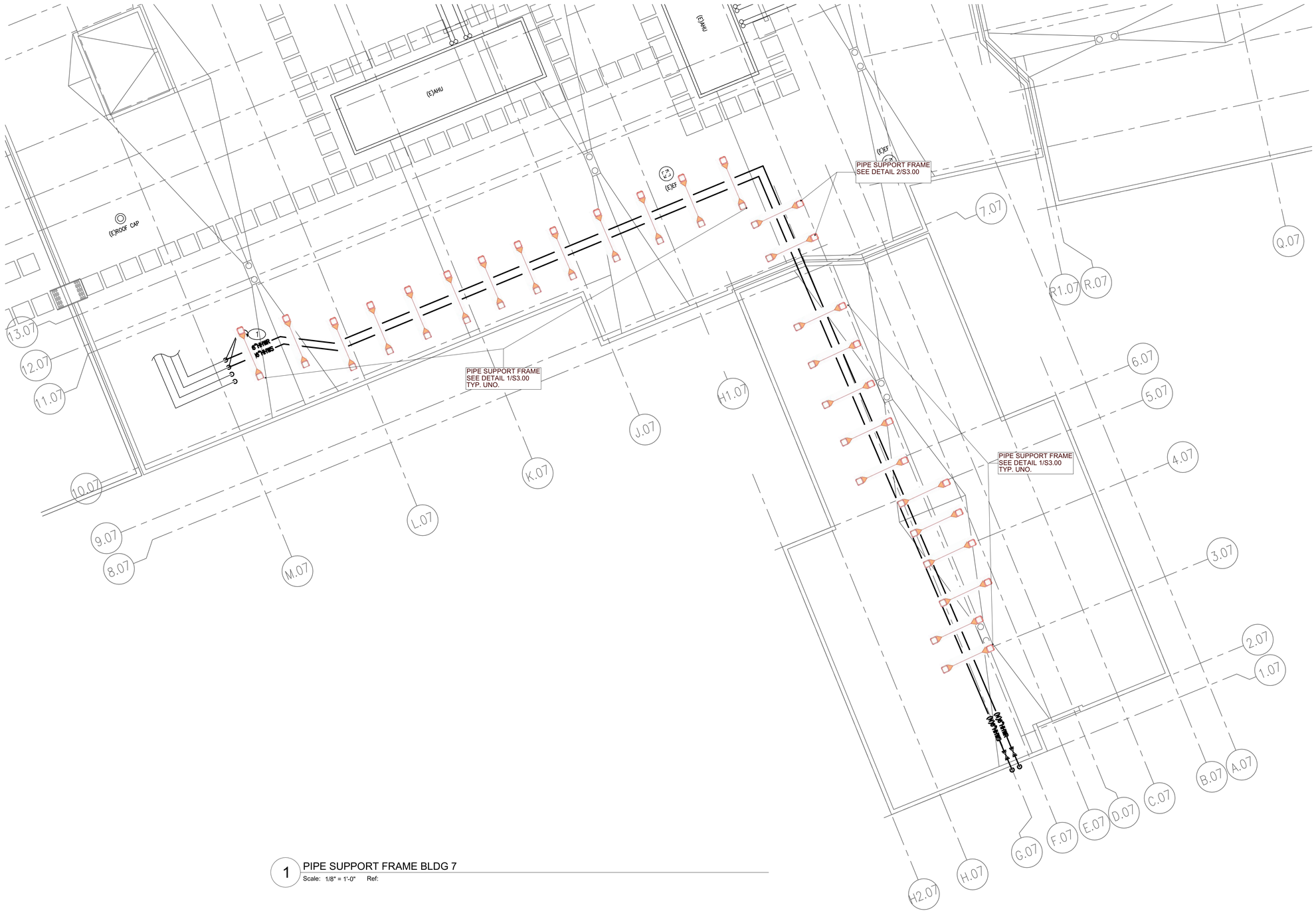
RELATIVE BORDER SCALE IN INCHES



1 PIPE SUPPORT FRAME BLDG 7

Scale: 1/8" = 1'-0" Ref:

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Project

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Sheet Title

PIPE SUPPORT FRAMING PLAN BUILDING 7

Project Number
000000000008666

Reference North

SheetScale
NTS

Sheet Number
S-2.3

V4

RELATIVE BORDER SCALE IN INCHES

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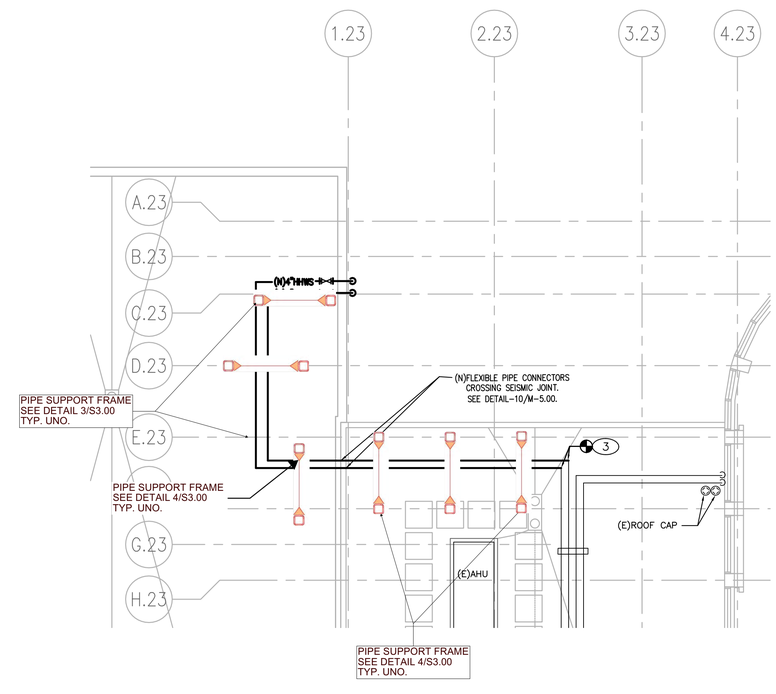

1 PIPE SUPPORT FRAME BLDG 23

Scale: 1/8" = 1'-0" Ref:

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Project

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Sheet Title

PIPE SUPPORT FRAMING PLAN BUILDING 23

Project Number
000000000008666

Reference North

SheetScale
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Sheet Number
S-2.4

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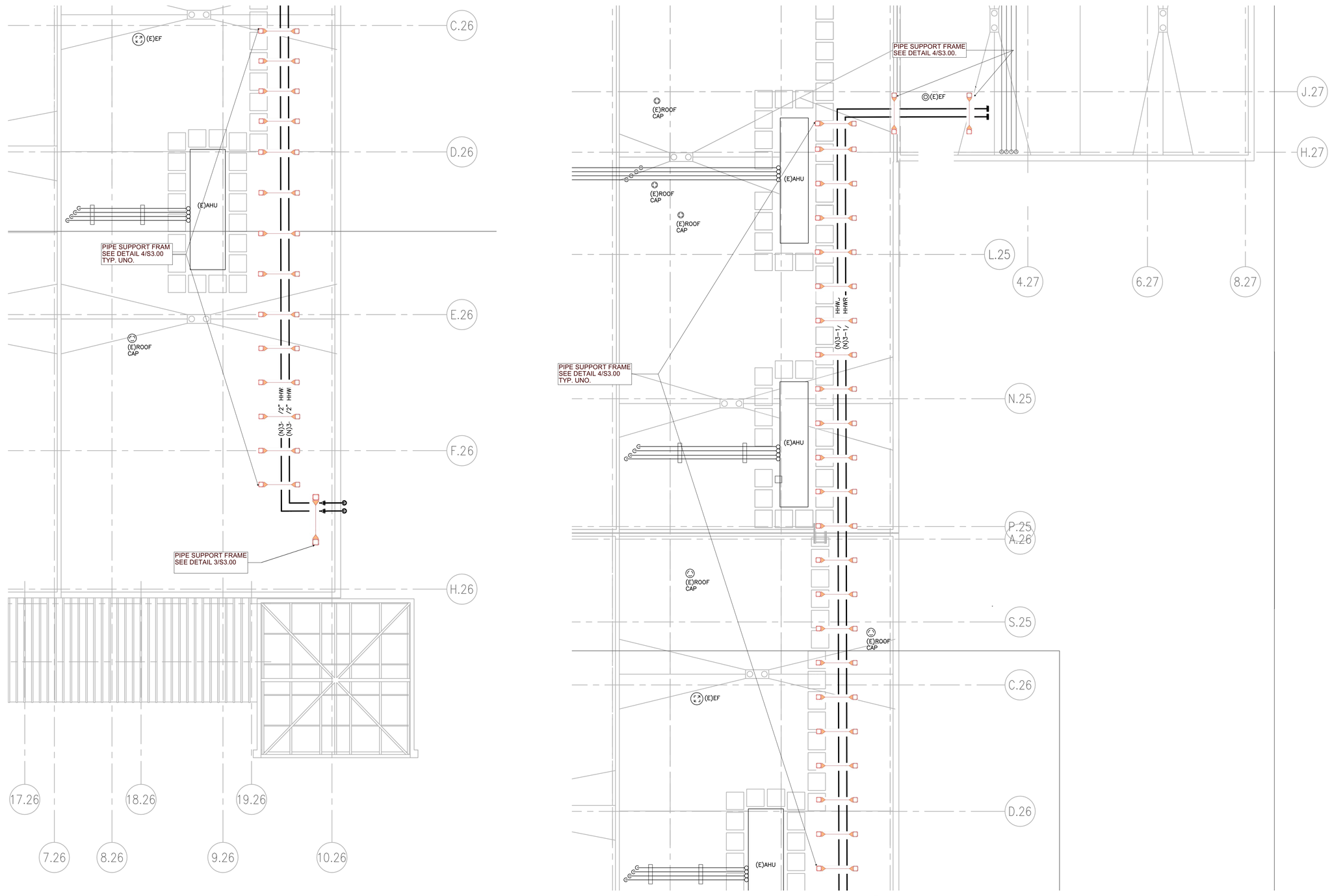

1 PIPE SUPPORT FRAME BLDG 27

Scale: 1/8" = 1'-0" Ref:

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Issue

No.	Date	Description
	01/31/2022	PRELIMINARY PLANS
	08/31/2022	50% WORKING DRAWINGS
	10/31/2022	95% WORKING DRAWINGS
	03/31/2023	100% WORKING DRAWINGS

Project

DSH-COALINGA HYDRONIC LOOP REPLACEMENT

24511 WEST JAYNE AVE.
COALINGA, CA
93210

DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
NN	AT	JI

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title

PIPE SUPPORT FRAMING PLAN BUILDING 27

Project Number
000000000008666

Reference North

SheetScale
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Sheet Number
S-2.5

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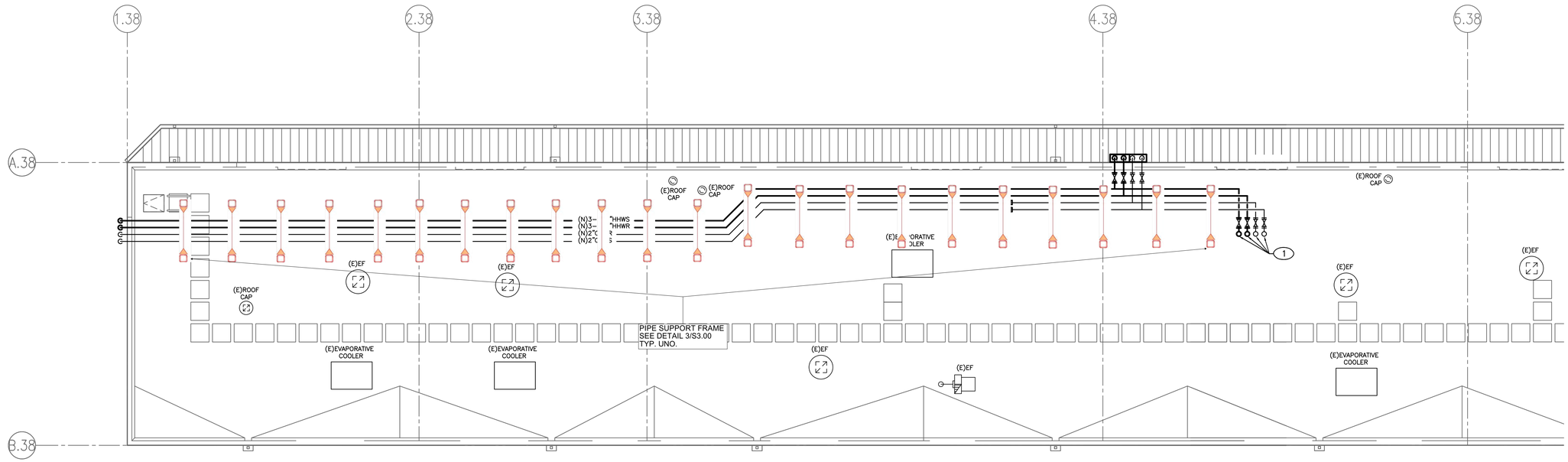

1 PIPE SUPPORT FRAME BLDG 38

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Sheet Title

PIPE SUPPORT FRAMING PLAN BUILDING 38

Project Number
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Reference North

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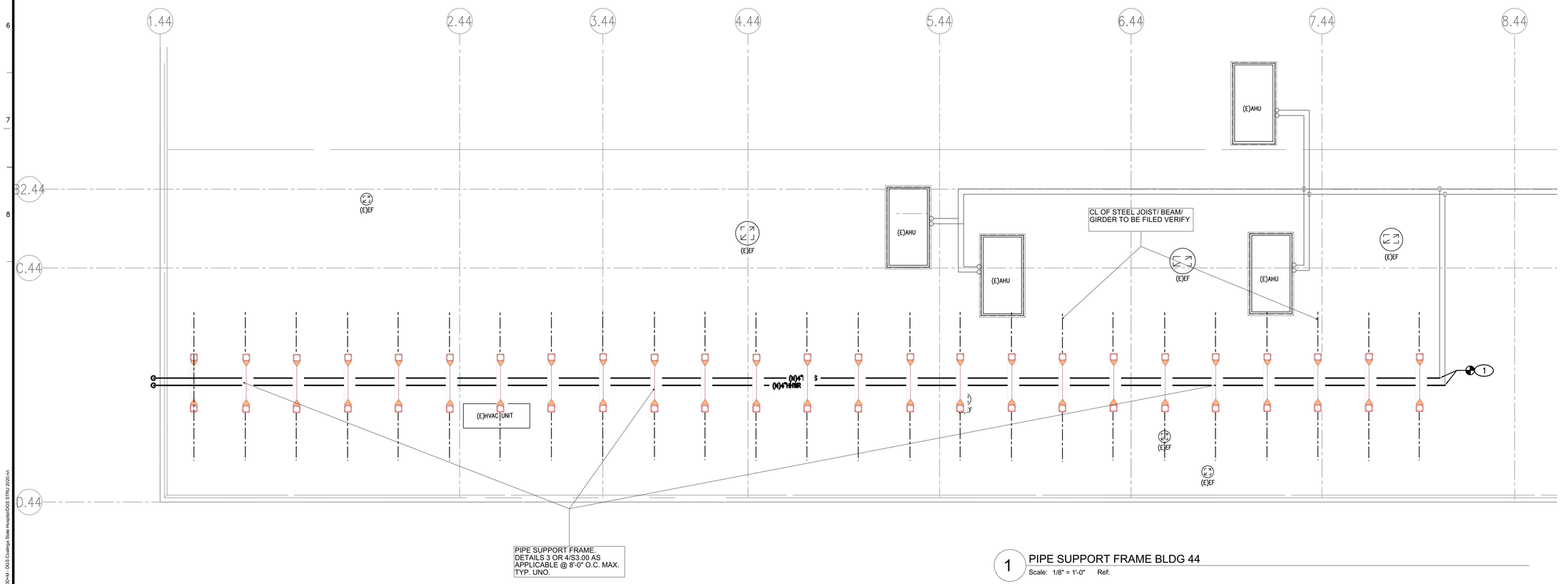

1 PIPE SUPPORT FRAME BLDG 44

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REGISTERED PROFESSIONAL ENGINEER
NICKEL NGUYEN
SE, No. 5527
STRUCTURAL
Exp. 3/31/23
STATE OF CALIFORNIA

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PIPE SUPPORT FRAMING PLAN BUILDING 44

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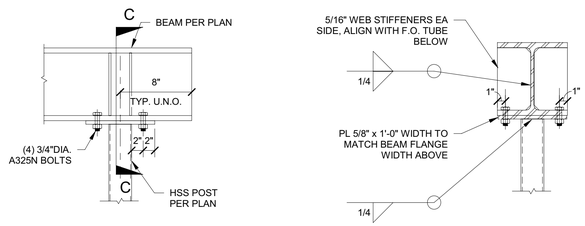

SECTION C-C

5 PIPE SUPPORT BEAM CONNECTION

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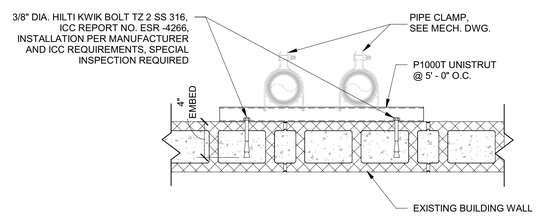

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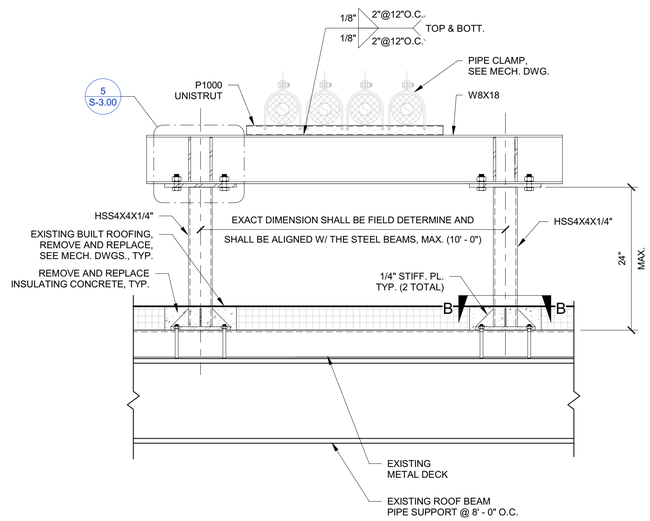

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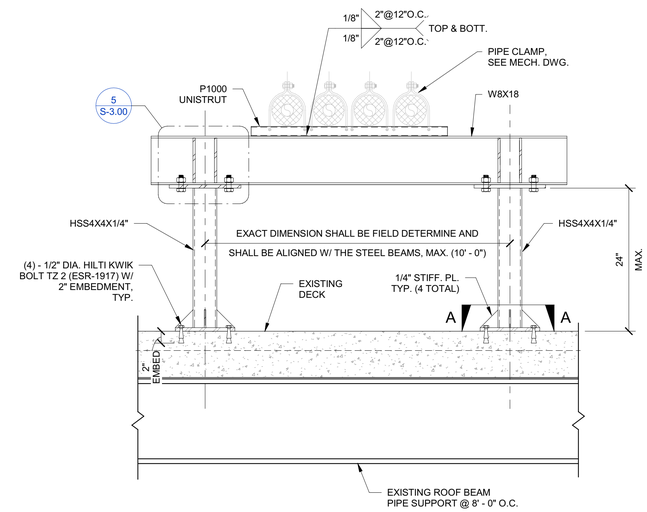

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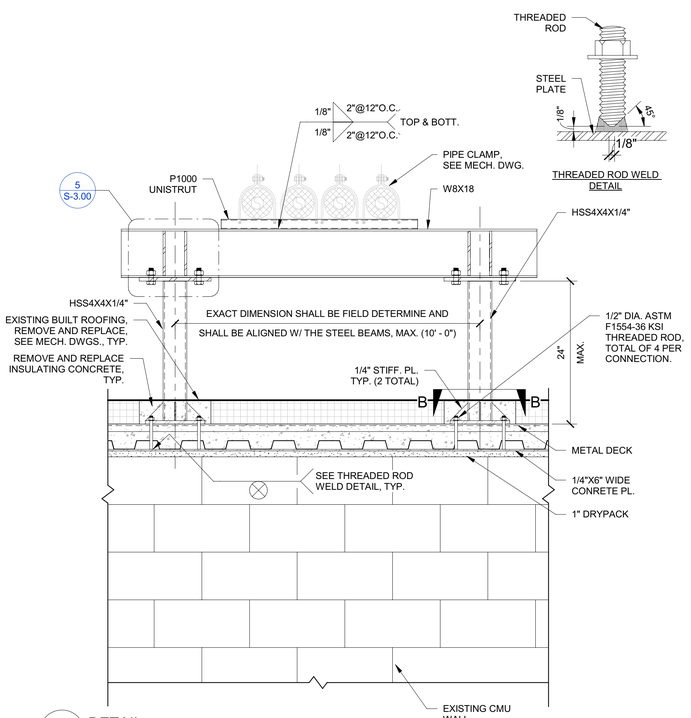

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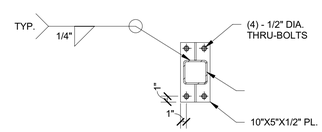
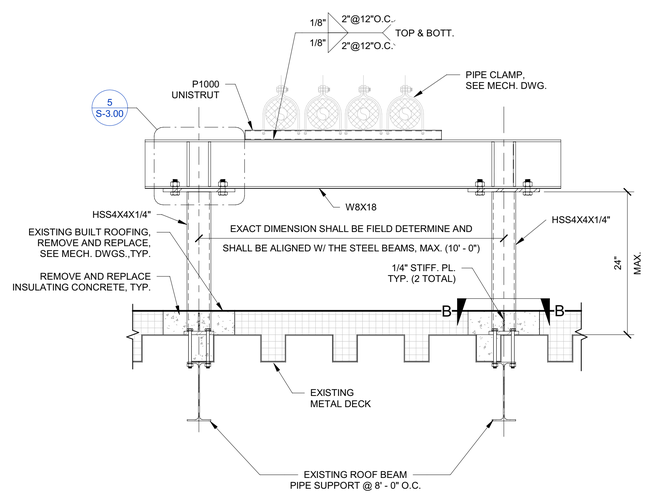


SECTION B



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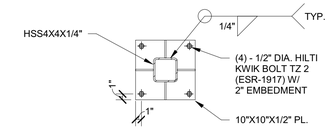
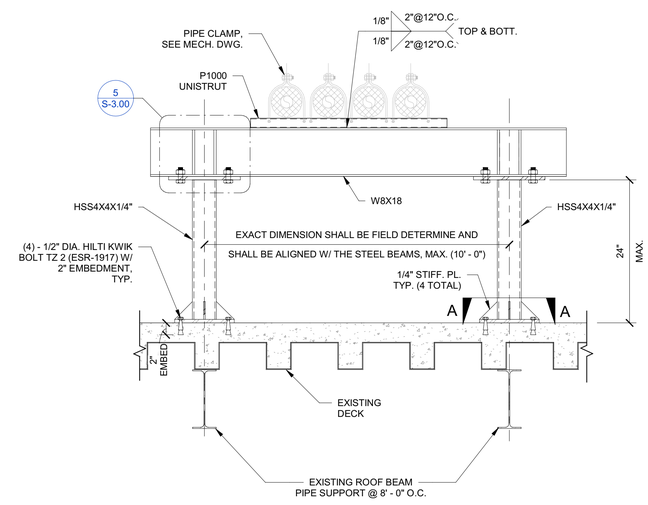


SECTION A-A



2 DETAIL

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Project

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93210

DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
NN	AT	JI

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-	22-S-4509-O-DR

Sheet Title

PIPE SUPPORT DETAILS

Project Number
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Reference North

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Sheet Number
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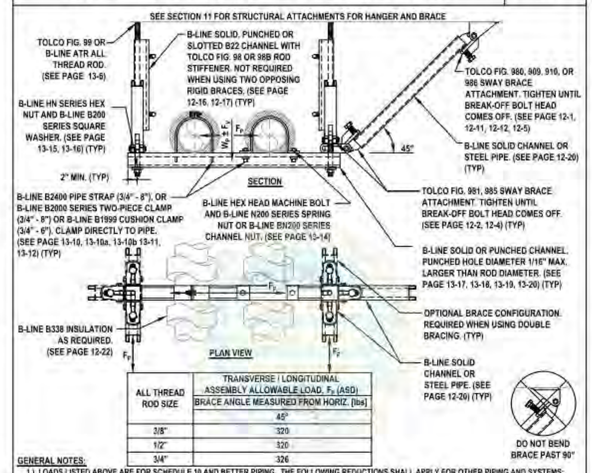
TRANSVERSE AND LONGITUDINAL COMBINATION RIGID BRACING FOR TRAPEZE SUPPORTED PIPE OR CONDUIT WITH SINGLE TRAPEZE STRUT

DETAIL 3/4

SEE SECTION 11 FOR STRUCTURAL ATTACHMENTS FOR HANGER AND BRACE



ALL THREAD ROD SIZE	TRANSVERSE / LONGITUDINAL ASSEMBLY ALLOWABLE LOAD, F_T (ASD) BRACE ANGLE MEASURED FROM HORIZ. [lbs]
	45°
3/8"	320
1/2"	320
3/4"	326

GENERAL NOTES:

1.) LOADS LISTED ABOVE ARE FOR SCHEDULE 10 AND BETTER PIPING. THE FOLLOWING REDUCTIONS SHALL APPLY FOR OTHER PIPING AND SYSTEMS:
   a.) PIPING WITH INSULATION - REDUCE LOADS BY 6%
   b.) THIN WALL PIPING - REDUCE LOADS BY 6%.
   c.) CONDUITS INCLUDING EMT - REDUCE LOADS BY 6%.
2.) SEE PAGE 4-21, 4-22, 4-23, 4-24, 4-25 FOR OPTIONAL AND/OR ADDITIONAL BRACE CONFIGURATIONS.
3.) BRACES MAY BE INSTALLED IN OPPOSING DIRECTION.
4.) THE ABOVE ASSEMBLY ALLOWABLE LOADS CAN BE APPLIED CONCURRENTLY TO BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS WITHOUT REDUCTION.
5.) VERIFY THE ADEQUACY OF THE SYSTEM ATTACHMENT TO THE STRUT. THE ATTACHMENT MUST BE ADEQUATE TO TRANSFER TRANSVERSE, LONGITUDINAL AND VERTICAL SEISMIC LOADS TO STRUT AS PER SECTION 13.
6.) THE FIG 905 AND FIG 910 ARE FOR USE ONLY WITH STEEL PIPE BRACES, PER PAGES 12-11 AND 12-12.
7.) DESIGN PROFESSIONAL SHALL CONSIDER ECCENTRIC LOAD DISTRIBUTION WHEN DETERMINING THE F_T VALUE USED IN DESIGN.

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EATON'S B-LINE BUSINESS
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P: (618) 654-7415 | F: (800) 356-1438

Structural Engineer: Mohammad Hariri
California SE No. S3545

PAGE: 4-3
DATE: NOVEMBER 29, 2016

1

12/06/2016 DPM-0052-13: Reviewed for Code Compliance by Jeffrey Kikumoto Page 132 of 531

STEEL PIPE (STANDARD SCHEDULE) INSULATED AND FILLED WITH WATER MAXIMUM SEISMIC BRACE SPACING (ASD)

Pipe Diameter (in)	Pipe Schedule	Max. Weight (plf)	Max Gravity Support Spacing (ft)	Max Transverse Spacing per Lateral g Force (ft)			
				0.5g	0.75g	1.0g	1.31g
3/4	40	2.6	7	21	19	17	15
1	40	2.8	7	25	22	20	18
1-1/4	40	3.8	7	30	26	24	21
1-1/2	40	4.5	8	32	29	26	23
2	40	6.2	10	36	32	30	27
2-1/2	40	9.1	11	40	36	34	31
3	40	12.1	12	44	40	37	34
4	40	18.3	14	50	45	42	39
5	40	26.6	15	54	49	46	42
6	40	34.8	17	59	54	50	46
8	40	55.1	19	67	61	56	52
10	40	89.2	20	75	67	63	58
12	STD	109.6	20	79	72	67	62

NOTES:

1. MAXIMUM BRACE SPACING IS BASED ON ASME B31E DESIGN BY ANALYSIS EQUATION. PIPE SIZE, MATERIALS, PRESSURES, ETC. NOT USED TO DETERMINE THESE TABLES MAY USE ASME B31E DESIGN BY ANALYSIS TO DETERMINE THE MAXIMUM SEISMIC BRACE SPACINGS ON A PROJECT BY PROJECT BASIS.
2. MAXIMUM GRAVITY SUPPORT SPACING IS BASED ON MSS SP- 58- 2009 TABLE 4 LIMITED TO 20 FEET. PIPE WEIGHTS USED ARE BASED ON STANDARD SCHEDULE STEEL PIPES (40S) INCLUDING WATER AND INSULATION (REFER TO APPENDIX). PIPES WITH THICKER WALLS AND / OR FILLED WITH VAPOR OR GAS MAY USE SPACINGS AS TABULATED.
3. BRACE AND / OR CONNECTION CAPACITY MAY GOVERN MAXIMUM SPACING IN SOME CASES. SEE SECTIONS 2, 3, 4, 5, 6, 7, 8, & 9.
4. BRACE SPACINGS ARE BASED ON STEEL PIPE CONFORMING TO ASTM SPECIFICATION A53, TYPE E, GRADE B WITH MINIMUM Fy = 35 ksi AND SA=14.8 ksi AT MAXIMUM OPERATING PRESSURE AND TEMPERATURE OF 400psi AND 650° F, RESPECTIVELY. FOR ASTM A53, TYPE E, GRADE A WITH MINIMUM Fy=30 ksi AND SA= 11.7ksi, REDUCE SPACINGS BY FACTOR BY 1.2 UP TO 14" Ø PIPE, 1.33 UP TO 30"Ø PIPE. STEEL PIPES, INCLUDING STAINLESS, WITH Fy AND SA VALUES MEETING OR EXCEEDING ABOVE STATED MINIMUMS PER ASME B31. APPENDIX A MAY USE TABULATED SPACINGS WITH APPROPRIATE REDUCTION FACTORS, WHERE APPLICABLE.
5. PIPE FITTINGS AS IDENTIFIED IN ASME B31 APPENDIX D MAY INCLUDE THE FOLLOWING: LONG OR SHORT RADIUS ELBOWS, WELDING TEES, BRANCH WELD-ON FITTINGS, WELDED-IN CONTOUR FITTINGS AND CONCENTRIC REDUCERS. FOR FABRICATED TEES REDUCE SPACING BY A FACTOR OF 1.33 UP TO 12"Ø PIPE. (FABRICATED TEES ARE ACCEPTABLE FOR 14"Ø TO 30"Ø PIPE)
6. ACCEPTABLE PIPE CONNECTIONS INCLUDE BUTT WELDS, FILLET WELDS, OR FLANGES AND RIGID GROOVED COUPLINGS. RIGID GROOVED COUPLINGS LISTED FOR UL STANDARD 213 MAY USE LISTED MAXIMUM BRACE SPACINGS (REF. A10.6, NOTES.)
7. FOR VALUES BETWEEN 0.5g, 0.75g AND 1.0g, IT IS ACCEPTABLE TO INTERPOLATE FOR INTERMEDIATE VALUES. IT IS INTENDED THAT 1.31g BE THE MAXIMUM.

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PAGE: 14-1
DATE: NOVEMBER 29, 2016

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Sheet Title
PIPE SUPPORT DETAILS

Project Number
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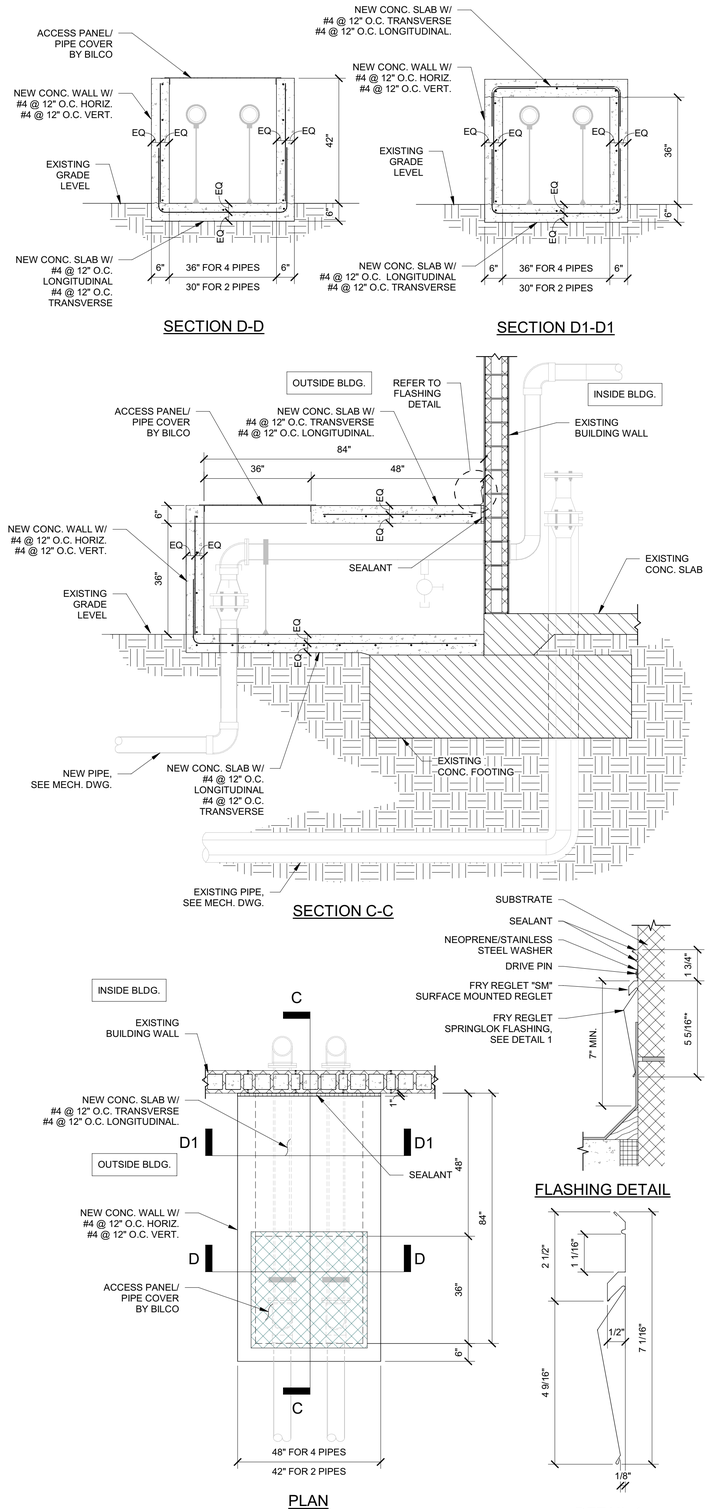

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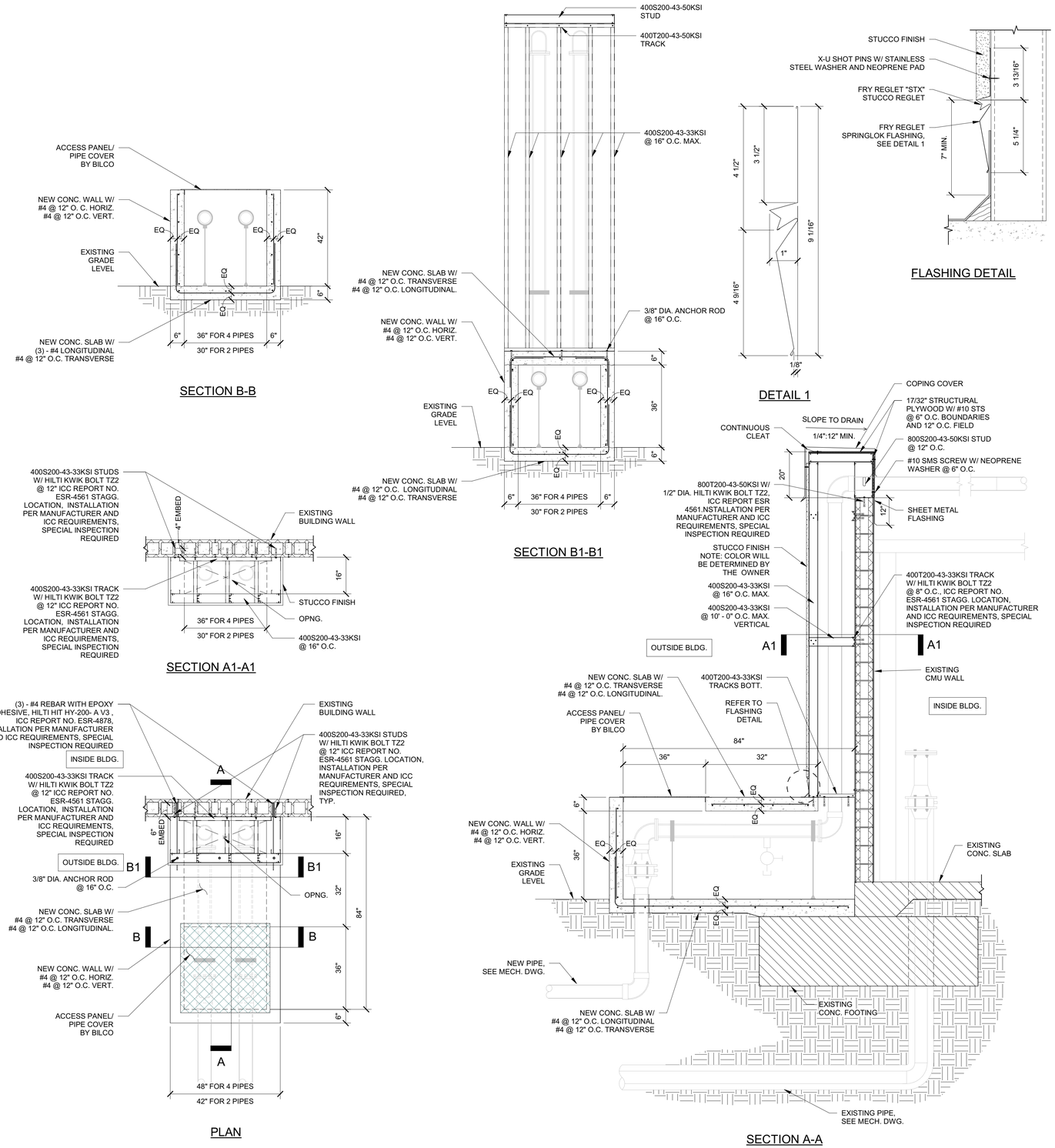

1 PIPE COVER AND ACCESS PANEL DETAIL

Scale: 1/2" = 1'-0" Ref: S-4.00

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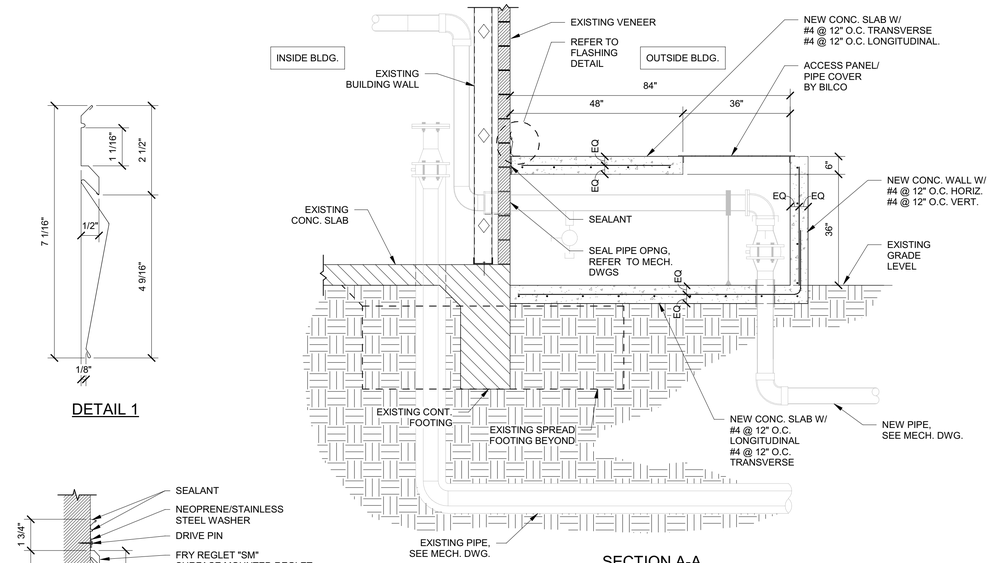
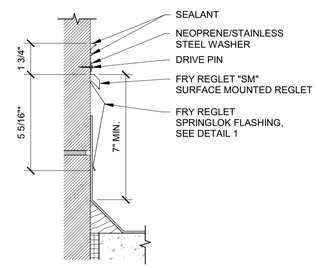


SECTION A-A

DETAIL 1



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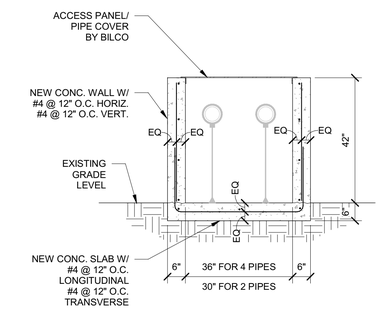
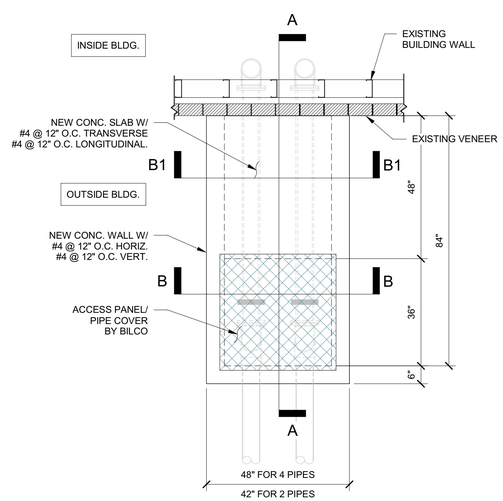
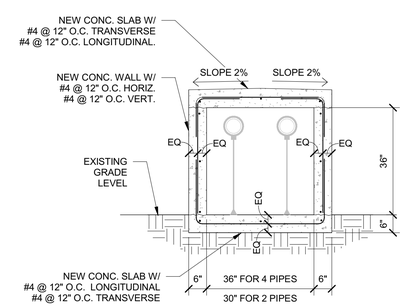


SECTION B-B



PLAN



SECTION B1-B1

1 PIPE COVER AND ACCESS PANEL DETAIL

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Issue

No.	Date	Description
	01/31/2022	PRELIMINARY PLANS
	08/31/2022	50% WORKING DRAWINGS
	10/31/2022	95% WORKING DRAWINGS
	03/31/2023	100% WORKING DRAWINGS

Project

DSH-COALINGA HYDRONIC LOOP REPLACEMENT

24511 WEST JAYNE AVE.
COALINGA, CA
93210

DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
NN	AT	JI
DSA App No. -	SFM Permit No. 22-S-4509-O-DR	

Sheet Title

PIPE COVER DETAILS

Project Number
000000000008666

Reference North

SheetScale
NTS

Sheet Number
S-4.01

V4

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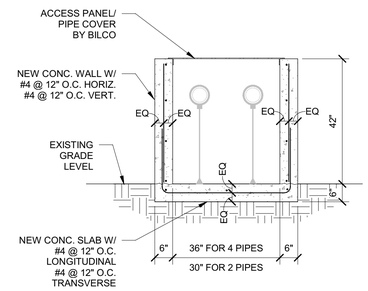
BIM 360://0818.211.01-DD-M4 - DGS Coalinga State Hospital/DGS STRU 2020.rvt

RELATIVE BORDER SCALE IN INCHES 0 1 2 3



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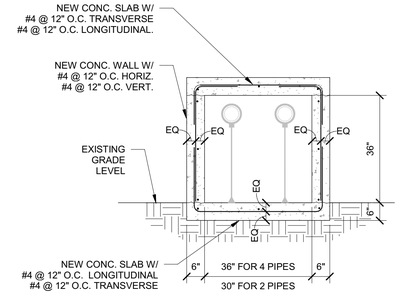

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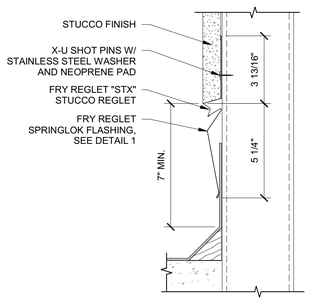

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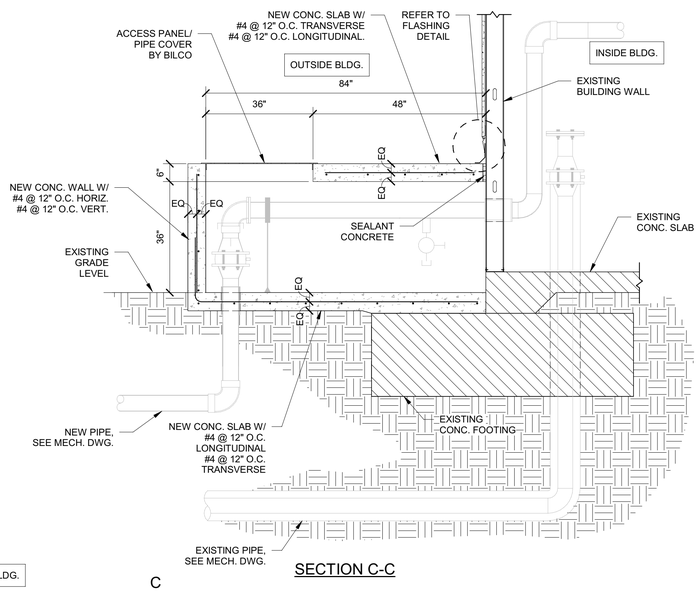

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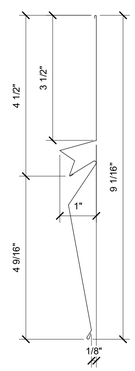

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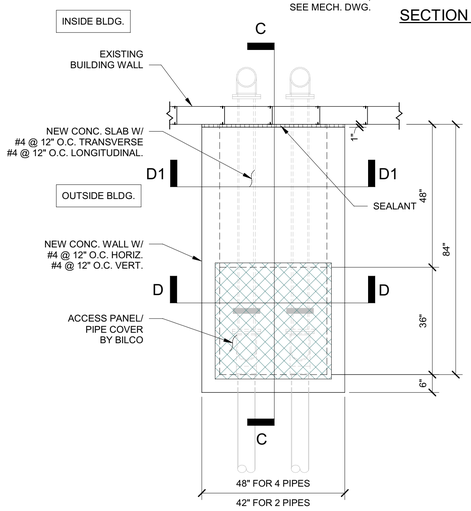

PLAN

2 PIPE COVER AND ACCESS PANEL DETAIL

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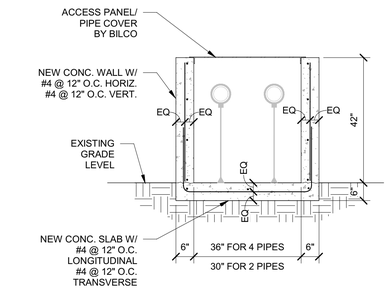

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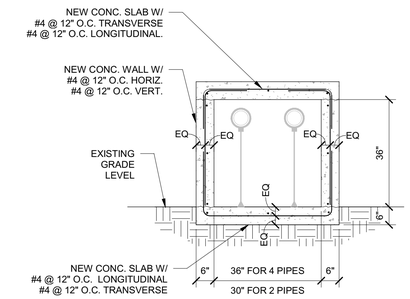

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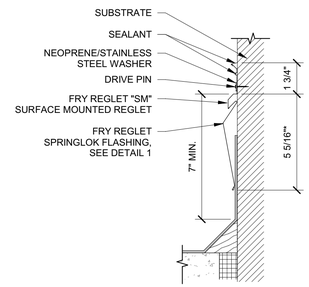

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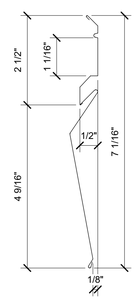

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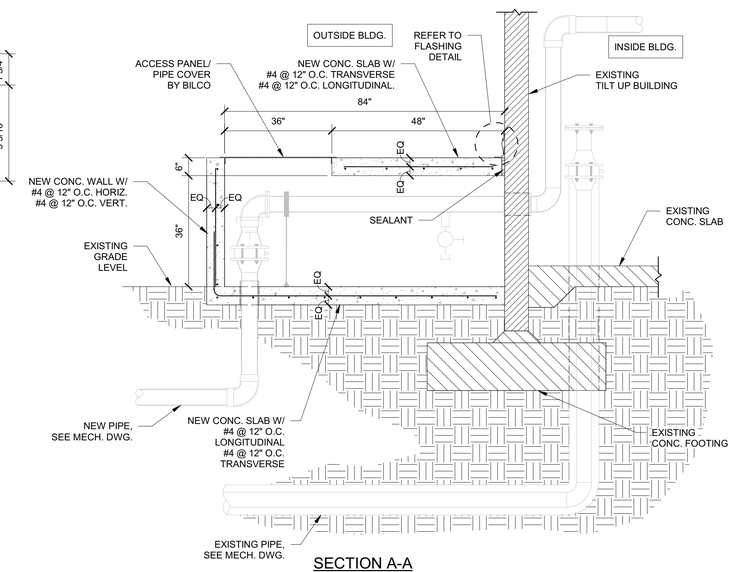

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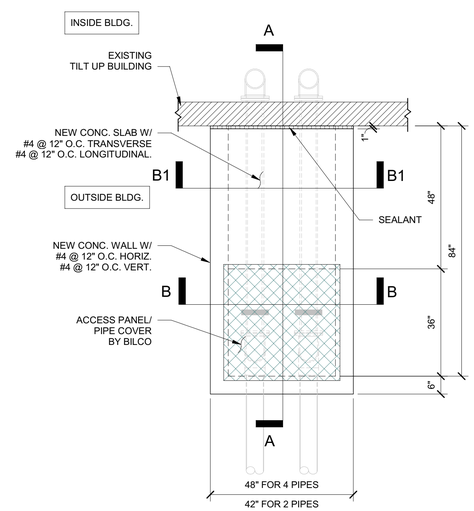

PLAN

1 PIPE COVER AND ACCESS PANEL DETAIL

Scale: 1/2" = 1'-0" Ref:

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11/27/23
23-1693

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DGS GENERAL SERVICES

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DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
NN	AT	JI

DSA App No.	SFM Permit No.
-	22-S-4509-O-DR

Sheet Title

PIPE COVER DETAILS

Project Number
000000000008666

Reference North

Sheet Scale
NTS

Sheet Number
S-4.02

V4

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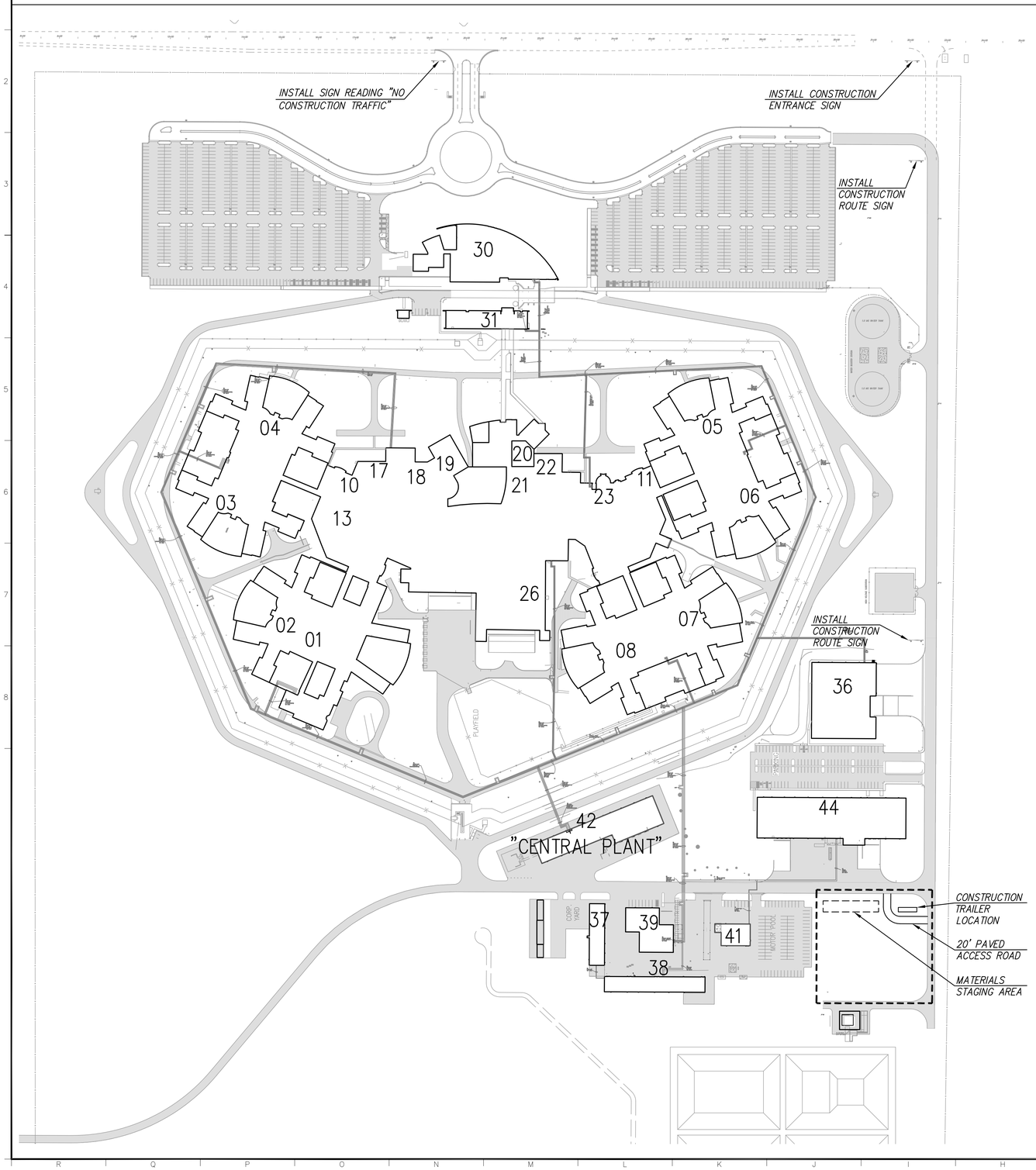
RELATIVE BORDER SCALE IN INCHES 0 1 2 3

24X36

BIM 360 /05.18.211.01 CD-I-4 : DGS Coalinga State Hospital\DGS STRU 2020.rvt

SCOPE OF WORK

PROVIDE NEW HYDRONIC HW LOOP TO REPLACE EXISTING, FAILING HW HYDRONIC LOOP. IN ADDITION, REPLACE VALVES ON EXISTING CHW RETURN & SUPPLY LINES. EXISTING HW LOOP SHALL REMAIN OPERATIONAL WHILE NEW HW LOOP IS INSTALLED AND TESTED.



EXISTING UTILITY VERIFICATION NOTE:

1. UTILITIES INFORMATION SHOWN HEREON, BOTH HORIZONTAL AND VERTICAL ARE BASED ON THE BEST AVAILABLE RECORD INFORMATION AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS. CONTRACTOR TO FIELD VERIFY LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF WORK.

2. EXISTING UTILITY DEPTH INFORMATION BASED ON POTHOLING REPORT. CONTRACTOR TO REVIEW POTHOLE REPORT PROVIDED AND VERIFY HORIZONTAL AND VERTICAL LOCATION, AND NOTIFY ENGINEER OF RECORD FOR DISCREPANCIES PRIOR TO CONSTRUCTION.

BUILDING LEGEND

BLDG. NO.	BUILDING NAME
01	INFIRMARY UNIT
02	TREATMENT UNIT
03	TREATMENT UNIT
04	TREATMENT UNIT
05	TREATMENT UNIT
06	TREATMENT UNIT
07	TREATMENT UNIT
08	TREATMENT UNIT
09	PROGRAM ADMINISTRATION 01
10	PROGRAM ADMINISTRATION 02
11	PROGRAM ADMINISTRATION 03
12	PROGRAM ADMINISTRATION 04
13	RETHERM KITCHEN/PATIENT DINING 01
14	RETHERM KITCHEN/PATIENT DINING 02
15	HOSPITAL POLICE OFFICER STATION 01
16	HOSPITAL POLICE OFFICER STATION 02
17	PATIENT ASSESSMENT
18	CENTRAL MEDICAL SERVICES
19	RECREATION
20	PATIENT AND VISITOR MEETING AREAS
21	LIBRARY SERVICES
22	ACADEMIC EDUCATION/SUBSTANCE ABUSE SERVICES
23	PASTORAL SERVICES
24	PHARMACY SERVICES/CENTRAL SUPPLY
25	CENTRAL HOSPITAL SERVICES/VOC. ED./MUSIC/ CLOTHING CENTER/PATIENT OPERATIONS/COMMONS
26	VOCATIONAL EDUCATION
27	HOSPITAL SUPPORT SERVICES/MUSIC CENTER
28	ARTS CENTER/TREATMENT PROGRAM SUPPORT
30	ADMINISTRATION BUILDING
31	CDC/DPS/STAFF & VISITOR PROCESSING BUILDING
32	PEDESTRIAN SALLYPORT GUARDTOWER (1)
33	VEHICLE SALLYPORT GUARDTOWER (2)
34	OFFICER'S STATION AT VEHICLE SALLYPORT
35	ELEVATED OFFICER'S STATION–TWO (1&2)
36	CENTRAL WAREHOUSE
37	PLANT OPS. SHOP 1
38	PLANT OPS. SHOP 2
39	PLANT OPS./ADMIN./WAREHOUSE
40	VOLATILE/HAZARDOUS MATERIAL STORAGE
41	MOTOR VEHICLE BUILDING
42	CENTRAL PLANT
43	WASTEWATER TREATMENT BUILDING
44	CENTRAL KITCHEN

UTILITY LEGEND:

- (E) FIRE HYDRANT
- (E) WATER LINE VALVE
- (E) POST INDICATOR VALVE
- (E) REDUCED PRESSURE PRINCIPLE ASSEMBLY
- (E) BACK FLOW PREVENTER
- (E) SEWER MANHOLE
- (E) YARD DRAIN
- (E) CATCH BASIN
- (E) STORM DRAIN MANHOLE
- (E) WATER LINE
- (E) SEWER LINE
- (E) GAS LINE
- (E) ELECTRICAL LINE
- (E) TELECOM LINE
- (E) DRAIN LINE
- (E) FIRE EXT. WATER
- (E) SECURITY FENCE
- (E) HYDRONIC LOOP

ABBREVIATIONS

AC	ASPHALT CONCRETE
AD	AREA DRAIN
BLDG	BUILDING
CAB	CRUSHED AGGREGATE BASE
CB	CATCH BASIN
CC/CONC	CONCRETE
CHW	CHILLED WATER LINE
CHW–R/S	CHILLED WATER RETURN/SUPPLY LINES
DW	DOMESTIC WATER
E	ELECTRIC
EG	EXISTING GRADE/GROUND
EL	ELEVATION
EPB	ELECTRIC PULLBOX
EX./E./(EX)	EXISTING
FF	FINISHED FLOOR
FG	FINISHED GRADE/GROUND
FL	FLOWLINE
FS	FINISHED SURFACE/SLAB
FW	FIRE WATER
G	GAS
GB	GRADE BREAK
H	HORIZONTAL
HW	HOT WATER LINE
HW–R/S	HOT WATER RETURN/SUPPLY LINES
LT	LIGHT POLE
INV	INVERT
MON	MOTION MONITOR
O.C.	ON/OFF CENTER
PLTR	PLANTER
PNL	PANEL
PROP	PROPOSED
SD	STORM DRAIN
SMH	SEWER MANHOLE
SS	SANITARY SEWER
SSCO	SANITARY SEWER CLEANOUT
STA	STATION
TC	TOP OF CURB
TG	TOP OF GRATE
UNKN	UNKNOWN
UTIL	UTILITY
TOP	TOP OF PIPE
TOJ	TOP OF JACKET
V	VERTICAL
W	WATER LINES
WV	WATER VALVE

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23-1693
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DGS GENERAL SERVICES

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PROFESSIONAL STAMP

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Issue

No.	Date	Description
	01/31/22	Preliminary Plans
	08/31/22	50% Working Drawings
	10/31/22	95% Working Drawings
	03/31/23	100% Working Drawings

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210

DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn

DSA App No.	SFM Permit No.
	22–S–4509–0–DR

Sheet Title
EXISTING FACILITY SITE PLAN

Project Number
00000000000008666

Reference North

Sheet Scale
1"=150'

Sheet Number
CS-1.1

V4

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CAD File: C:\Users\bekang\OneDrive - Bureau Veritas\Coalinga\CS1.1 Existing Conditions.dwg Plot Date: Jun 23, 2023 - 1:42pm Plotted by: bekang

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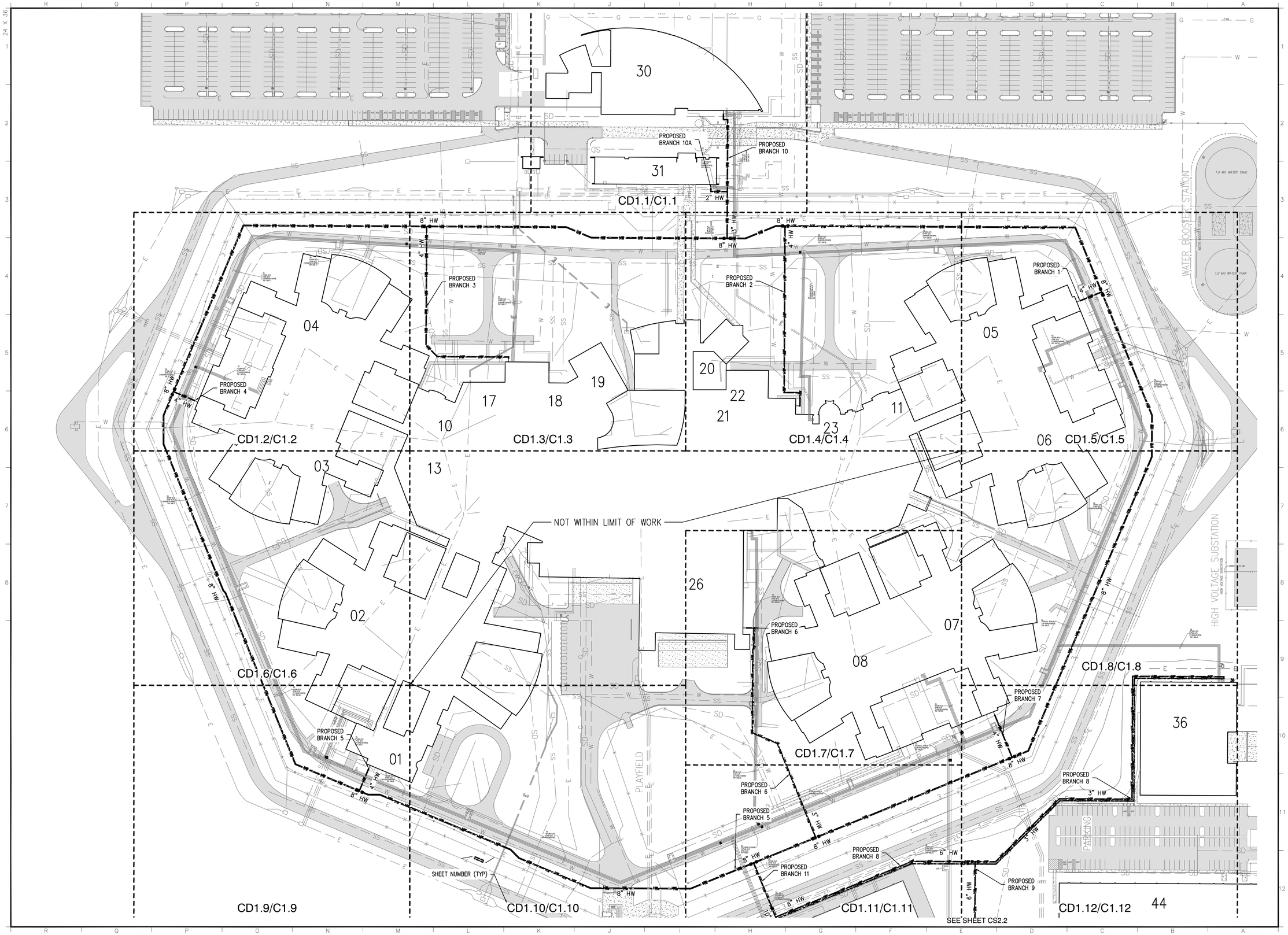

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DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn

DSA App No.	SFM Permit No.
	22-S-4509-0-DR

Sheet Title
NORTH PROPOSED SITEPLAN AND KEYMAP

Project Number
00000000008666

Reference North

Sheet Scale
1"=75'

Sheet Number
CS-2.1
V4

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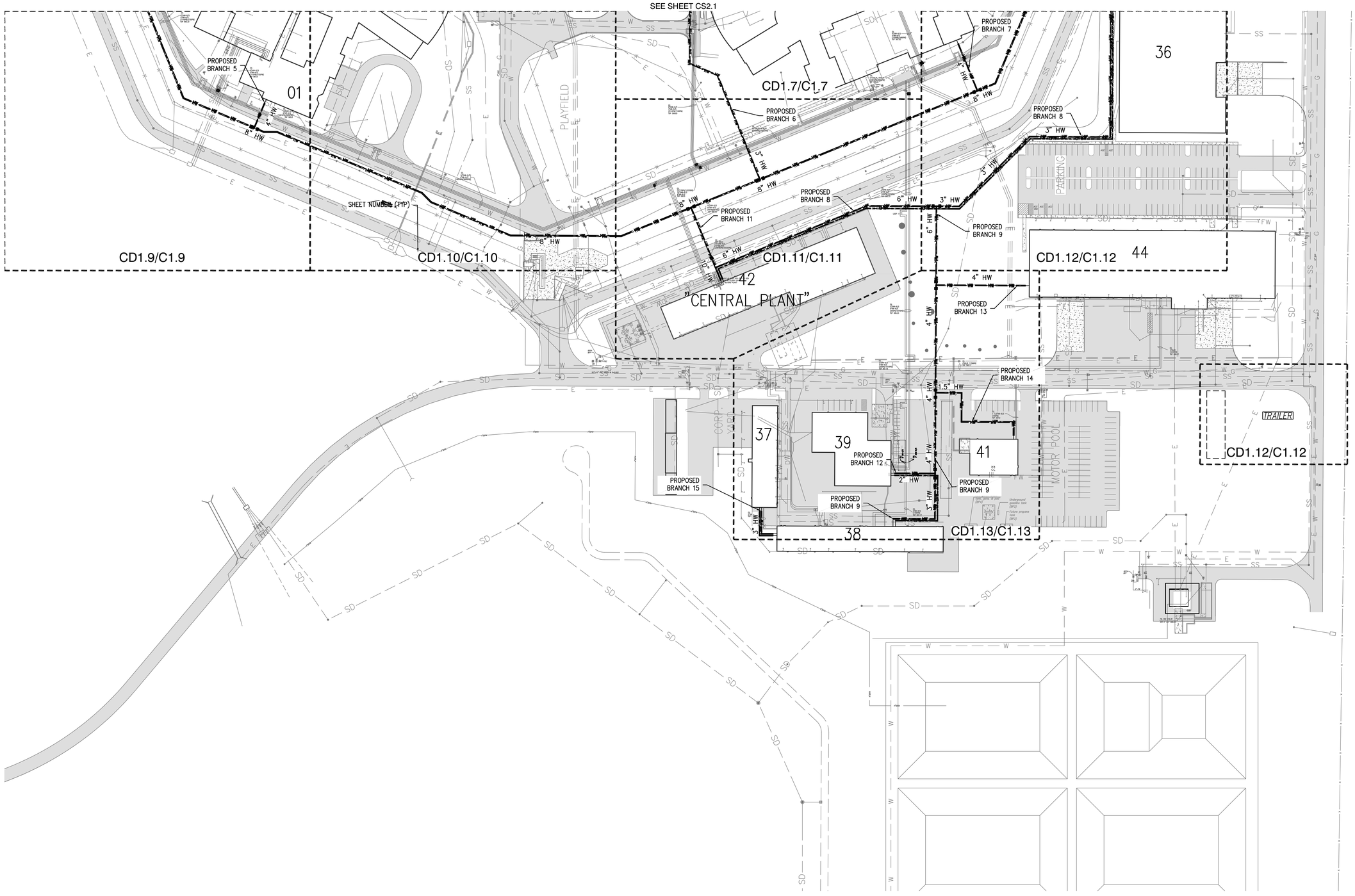

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DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn

DSA App No.	SFM Permit No.
	22-S-4509-0-DR

Sheet Title
SOUTH PROPOSED SITE PLAN AND KEY MAP

Project Number
000000000008666

Reference North

Sheet Scale
1"=75'

Sheet Number
CS-2.2
V4

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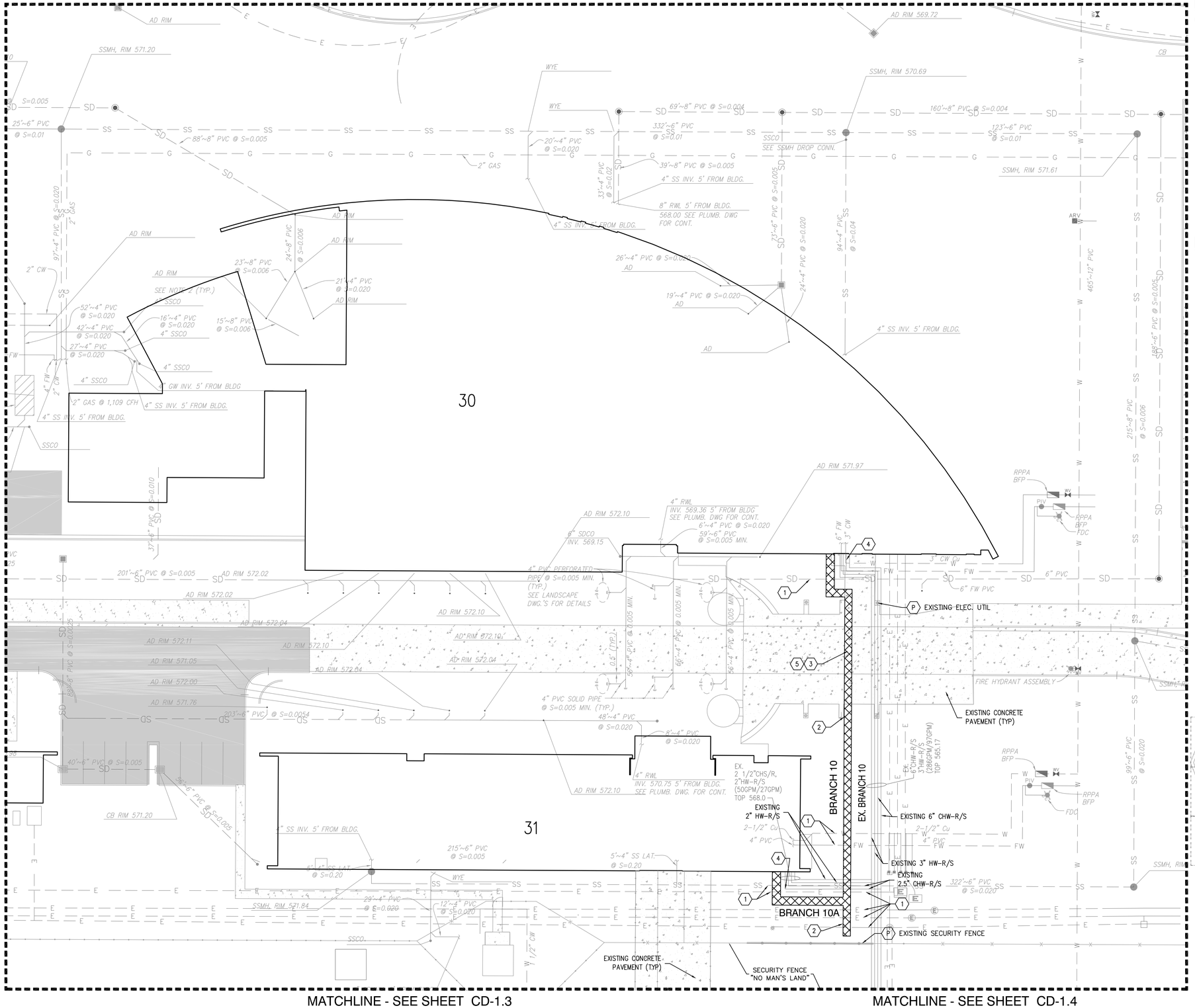
CAD File: C:\Users\bekang\OneDrive - Bureau Veritas\Coalinga\CS2.2 South Proposed Site Plan.dwg Plot Date: Jun 23, 2023 - 1:49pm Plotted by: bekang

RELATIVE BORDER SCALE IN INCHES



DEMOLITION PLAN KEYNOTES:

(NOT ALL KEYNOTES USED ON ALL SHEETS)

1. PROTECT EXISTING UTILITY IN PLACE DURING ALL PHASES OF CONSTRUCTION. SEE SHEETS C-5.1 TO C-5.29 FOR EXISTING UTILITY CROSSINGS AND RELOCATION INFORMATION
2. EXCAVATE & TRENCH EARTH TO ACCOMMODATE PROPOSED CONSTRUCTION PER LEGEND HEREON
3. SAWCUT & DISPOSE OF EX. ASPHALT/CONCRETE PAVEMENT PER LEGEND HEREON
4. EXISTING HYDRONIC LOOP TO BE PROTECTED IN PLACE DURING CONSTRUCTION; AFTER NEW HW-R/S CONNECTIONS ARE MADE, CAP EXISTING HW HYDRONIC PIPING AND ABANDON IN PLACE.
5. INSTALL TEMPORARY STEEL PLATES OVER EXCAVATIONS IN ASPHALT AND/OR CONCRETE TRAVELED WAYS
6. REMOVE EXISTING CHW VALVES; REMOVE & CAP PORTIONS OF EXISTING HW PIPE INTERFERING WITH PROPOSED VALVE BOX; INSTALL NEW VALVE PER IMPROVEMENT PLANS

P. ITEM TO BE PROTECTED IN PLACE PER PLAN

LEGEND:

- REMOVE EXISTING EARTH
- REMOVE EXISTING CONCRETE
- REMOVE EXISTING AC
- EXISTING CONCRETE
- EXISTING AC
- 05 BUILDING #

DEMOLITION GENERAL NOTES:

1. CONTRACTOR TO NOTIFY & GET APPROVAL FROM STATE & FACILITY MANAGEMENT PRIOR TO ANY UTILITY SERVICE DISRUPTION.
2. (E) SURFACE FEATURES SHALL BE PROTECTED AND ALLOWED ACCESS DURING CONSTRUCTION.
3. (E) BUILDINGS SHALL BE PROTECTED FROM DEMOLITION WORK DURING CONSTRUCTION. SECURITY SHALL ALSO BE MAINTAINED PER CDCR AND DSH INSTRUCTIONS.
4. EXISTING COLD WATER VALVE REMOVAL & INSTALL TO BE PHASED AFTER NEW HOT WATER SYSTEM IS INSTALLED & IN USE.

KEY MAP
NOT TO SCALE

0 20' 40'

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Sheet Title
DEMOLITION PLAN

Project Number
000000000008666

Reference North

Sheet Scale
1"=20'

Sheet Number
CD-1.1
V4

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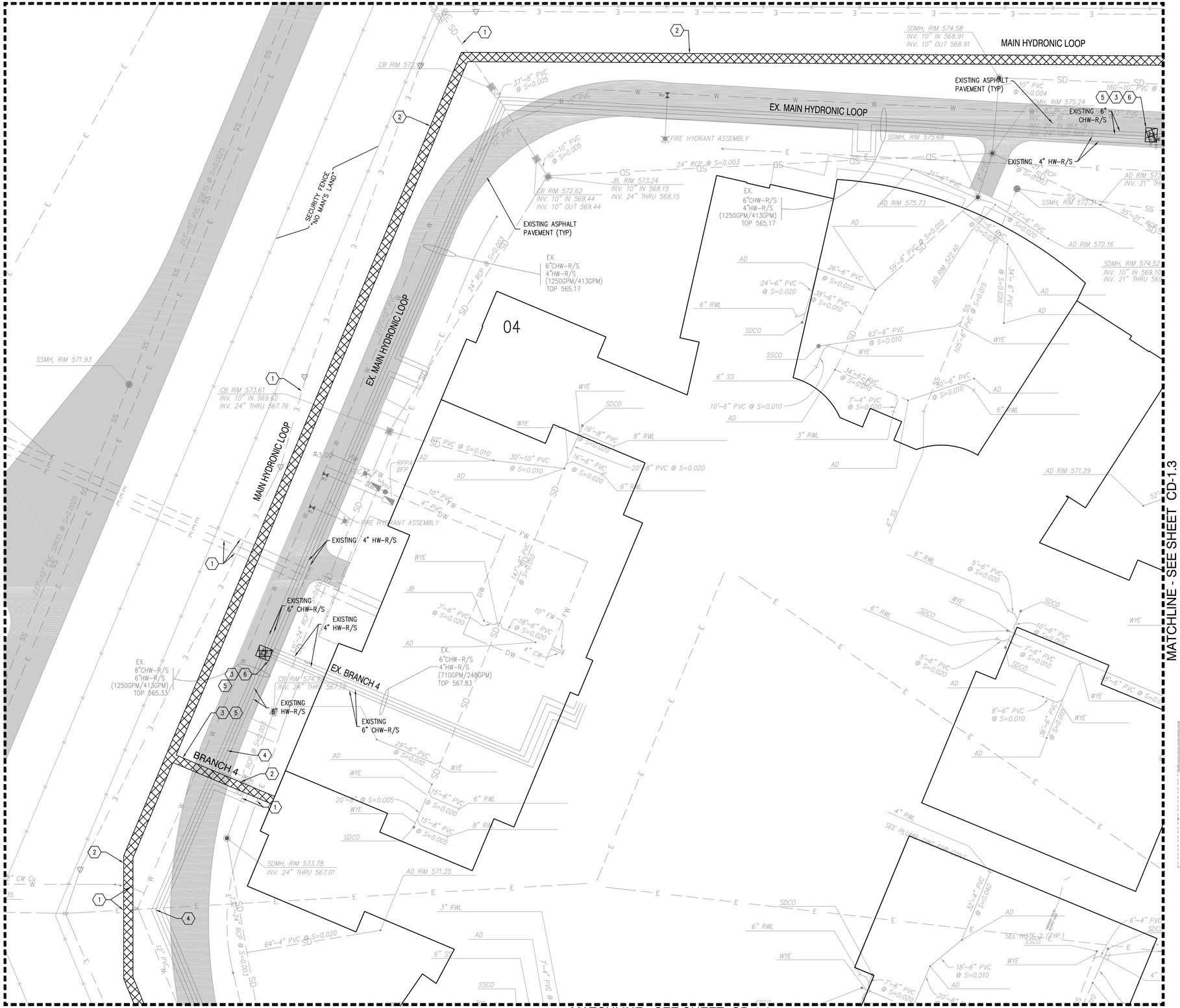
24 X 36

RELATIVE BORDER SCALE IN INCHES 0 1 2 3



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5. INSTALL TEMPORARY STEEL PLATES OVER EXCAVATIONS IN ASPHALT AND/OR CONCRETE TRAVELED WAYS
6. REMOVE EXISTING CHW VALVES; REMOVE & CAP PORTIONS OF EXISTING HW PIPE INTERFERING WITH PROPOSED VALVE BOX; INSTALL NEW VALVE PER IMPROVEMENT PLANS

P. ITEM TO BE PROTECTED IN PLACE PER PLAN

LEGEND:

- REMOVE EXISTING EARTH
- REMOVE EXISTING CONCRETE
- REMOVE EXISTING AC
- EXISTING CONCRETE
- EXISTING AC
- 05 BUILDING #

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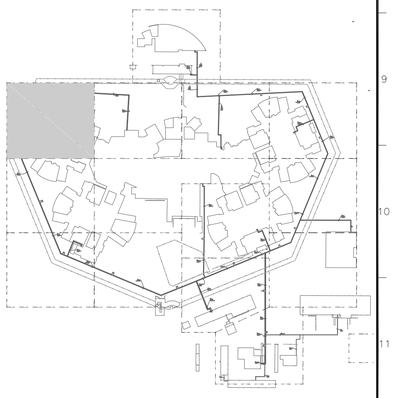

KEY MAP
NOT TO SCALE

0 20' 40'

OFFICE OF THE STATE FIRE MARSHAL
APPROVED FIRE AND PANIC ONLY
11/27/23
23-1693
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Architecture & Engineering Sections
State of California
Real Estate Services Division
Project Management & Development Branch
707 Third Street, Suite 4-105
West Sacramento, California 95605

PROFESSIONAL STAMP
REGISTERED PROFESSIONAL ENGINEER MEHDI KESHMIRI C 64833 CIVIL STATE OF CALIFORNIA

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IRVINE, CA 92618
TEL: (949) 860-4800
FAX: (949) 860-4810
www.owengroup.com

Issue

No.	Date	Description
	01/31/22	Preliminary Plans
	08/31/22	50% Working Drawings
	10/31/22	95% Working Drawings
	03/31/23	100% Working Drawings

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn

DSA App No.	SFM Permit No.
	22-S-4509-0-DR

Sheet Title
DEMOLITION PLAN

Project Number
000000000008666

Reference North

Sheet Scale 1"=20'

Sheet Number
CD-1.2
V4

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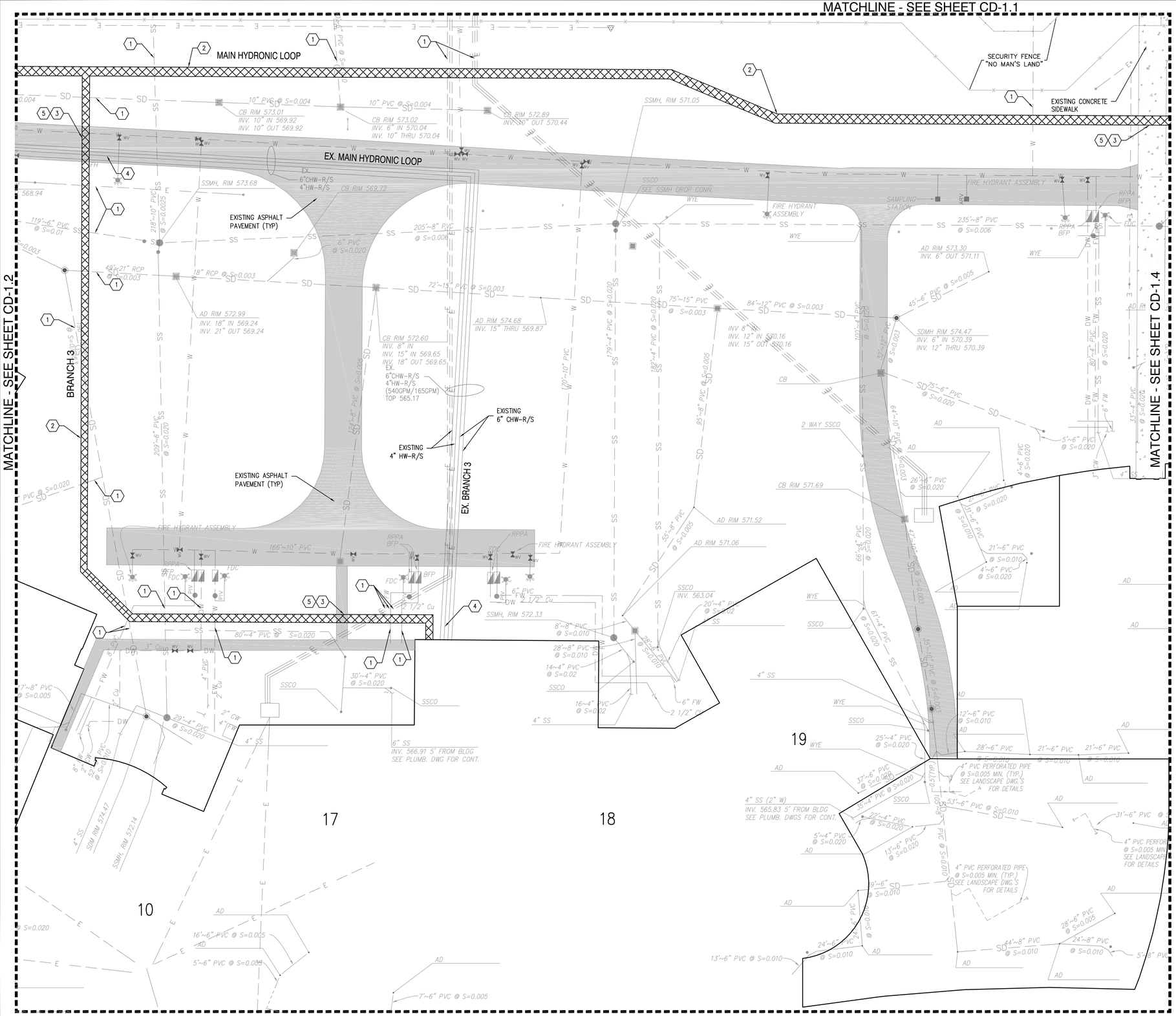
CAD File: C:\Users\bekang\OneDrive - Bureau Veritas\Coalinga\CD1.2 Existing and Demolition Plan.dwg Plot Date: Jun 23, 2023 - 12:59pm Plotted by: bekang

24 X 36

RELATIVE BORDER SCALE IN INCHES 0 1 2 3



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P ITEM TO BE PROTECTED IN PLACE PER PLAN

LEGEND:

- REMOVE EXISTING EARTH
- REMOVE EXISTING CONCRETE
- REMOVE EXISTING AC
- EXISTING CONCRETE
- EXISTING AC
- 05 BUILDING #

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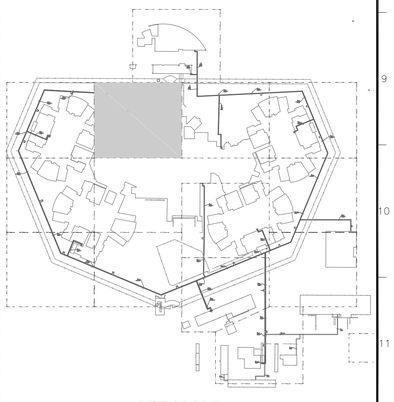

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93210

DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
DSA App No.	SFM Permit No. 22-S-4509-0-DR	

Sheet Title
DEMOLITION PLAN

Project Number
0000000000008666

Reference North

Sheet Scale 1"=20'

Sheet Number
CD-1.3

V4

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RELATIVE BORDER SCALE IN INCHES 0 1 2 3

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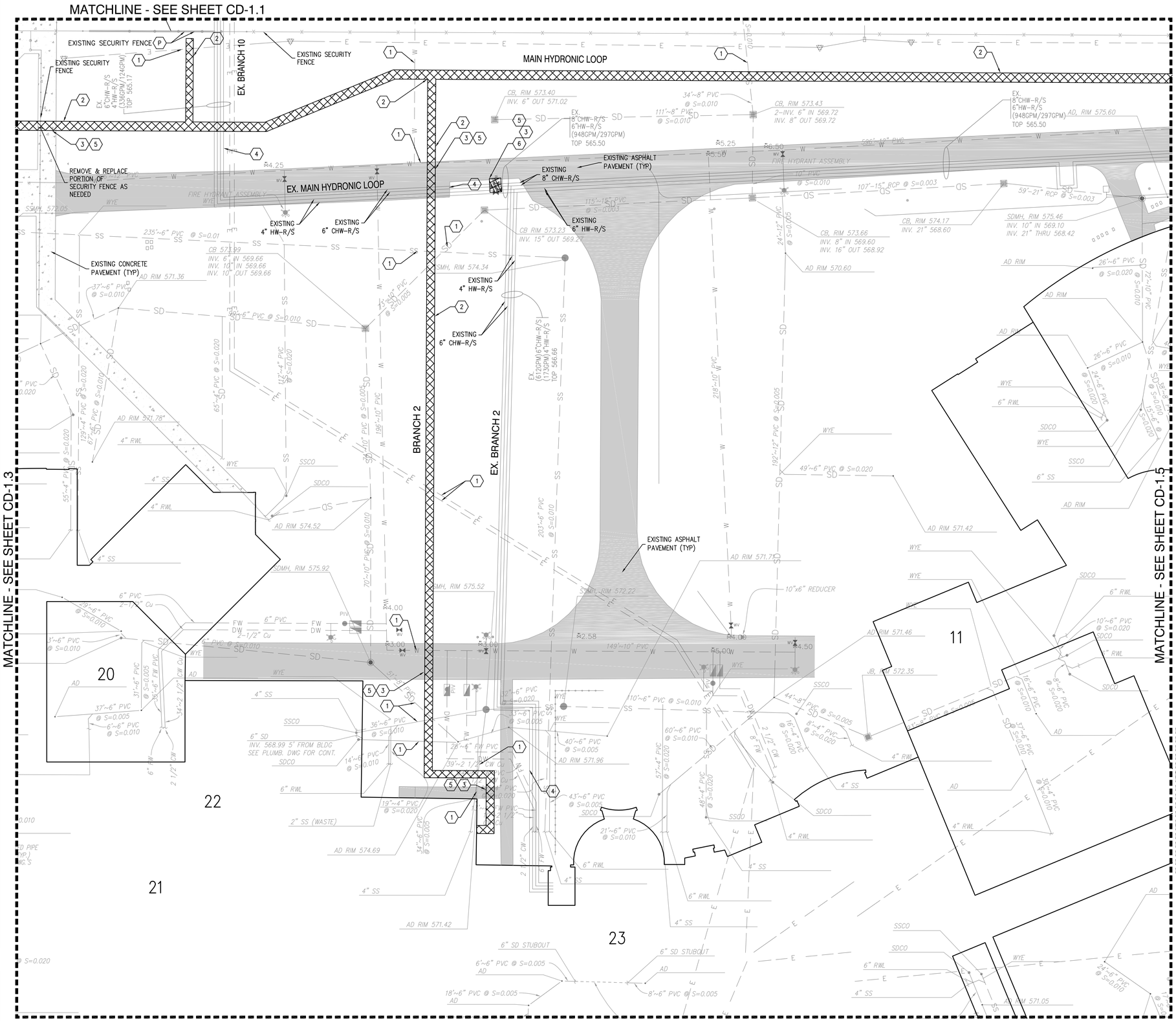

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- EXISTING CONCRETE
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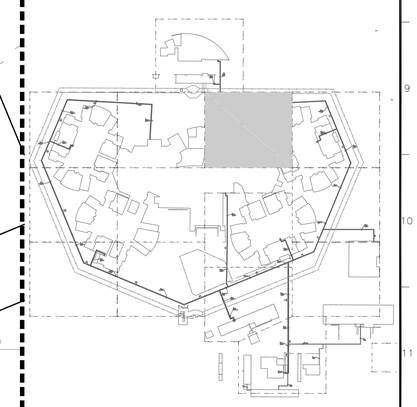

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Supervisor	Designed	Drawn

DSA App No.
SFM Permit No. 22-S-4509-0-DR

Sheet Title
DEMOLITION PLAN

Project Number
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Reference North
Sheet Scale 1"=20'
Sheet Number CD-1.4
V4

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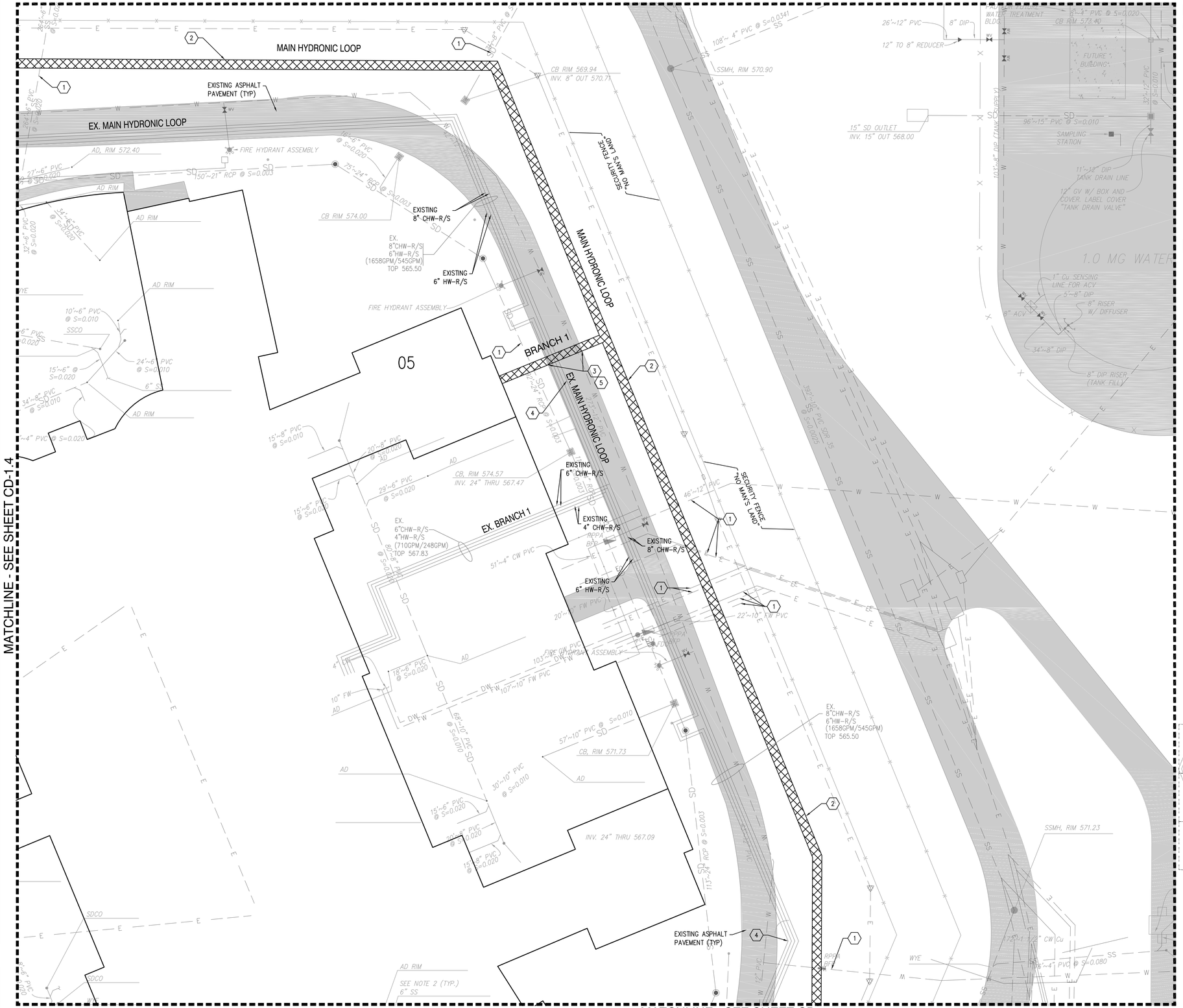
RELATIVE BORDER SCALE IN INCHES

CAD File: C:\Users\bekang\OneDrive - Bureau Veritas\Coalinga\CD1.4 Existing and Demolition Plan.dwg Plot Date: Jun 23, 2023 - 1:06pm Plotted by: bekang



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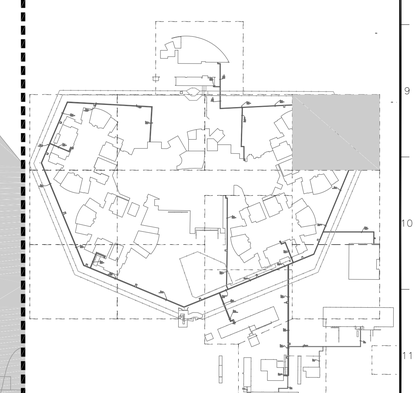

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DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn

DSA App No. | SFM Permit No. 22-S-4509-0-DR

Sheet Title
DEMOLITION PLAN

Project Number
0000000000008666

Reference North

Sheet Scale 1"=20'

Sheet Number CD-1.5

V4

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RELATIVE BORDER SCALE IN INCHES 0 1 2 3

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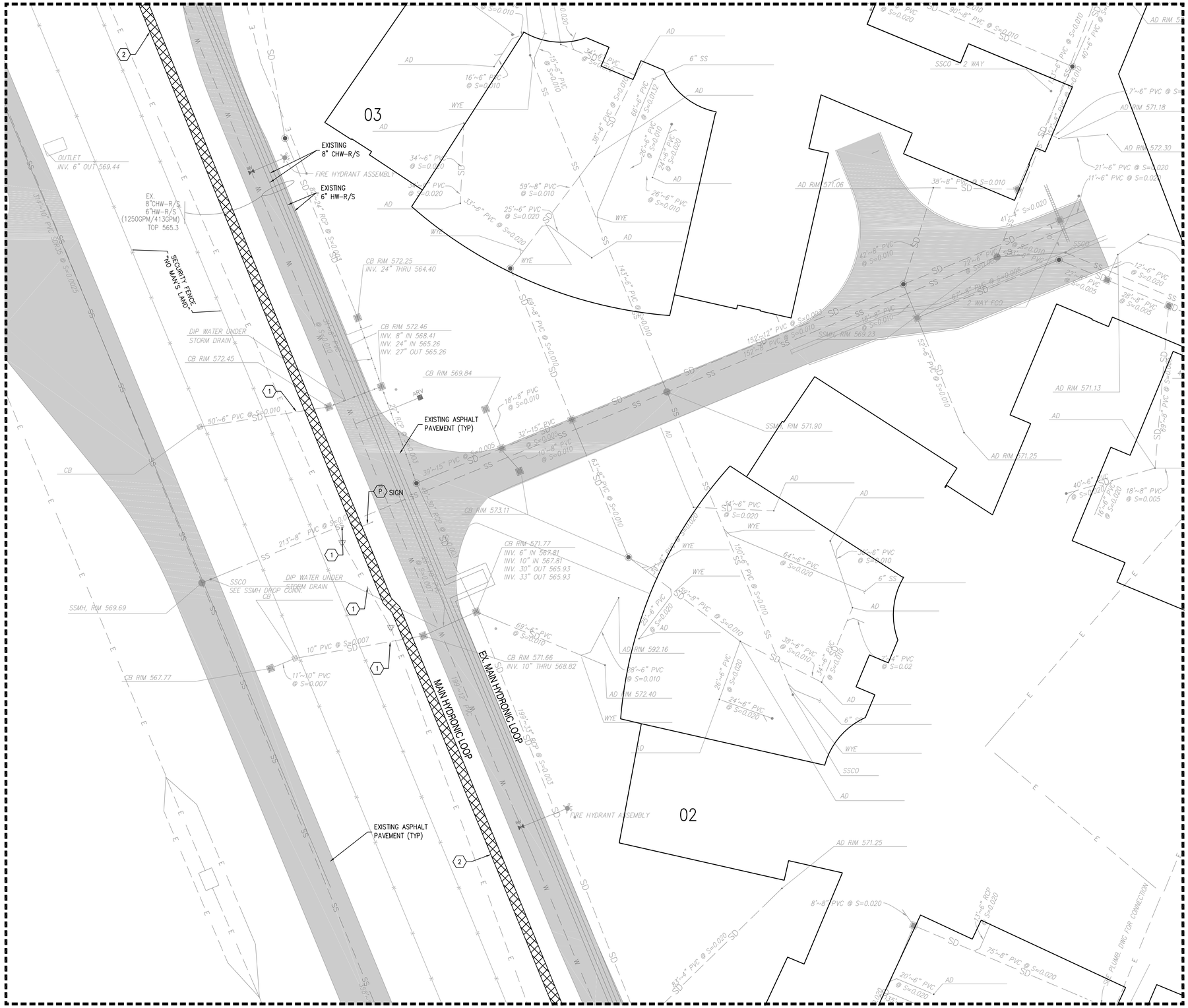
MATCHLINE - SEE SHEET CD-1.2



MATCHLINE - SEE SHEET CD-1.9

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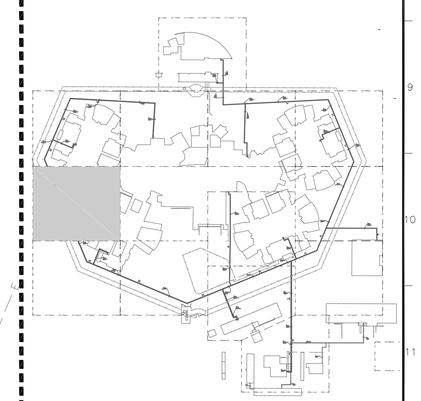

KEY MAP
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Project Number
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Reference North

Sheet Scale 1"=20'

Sheet Number
CD-1.6

V4

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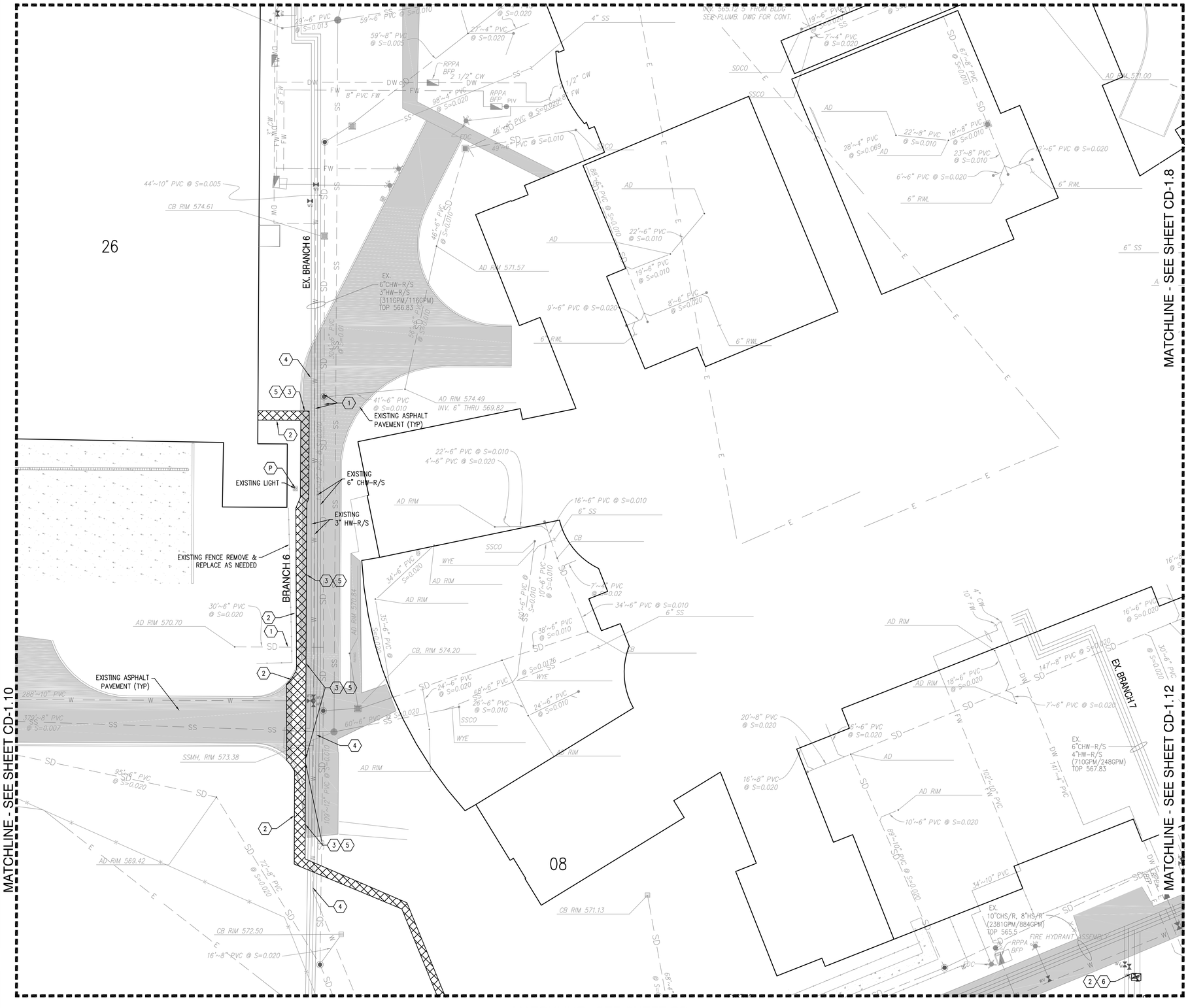
24 X 36

RELATIVE BORDER SCALE IN INCHES 0 1 2 3



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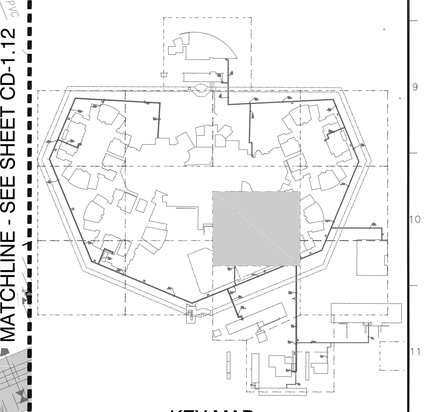

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Reference North

Sheet Scale 1"=20'

Sheet Number CD-1.7

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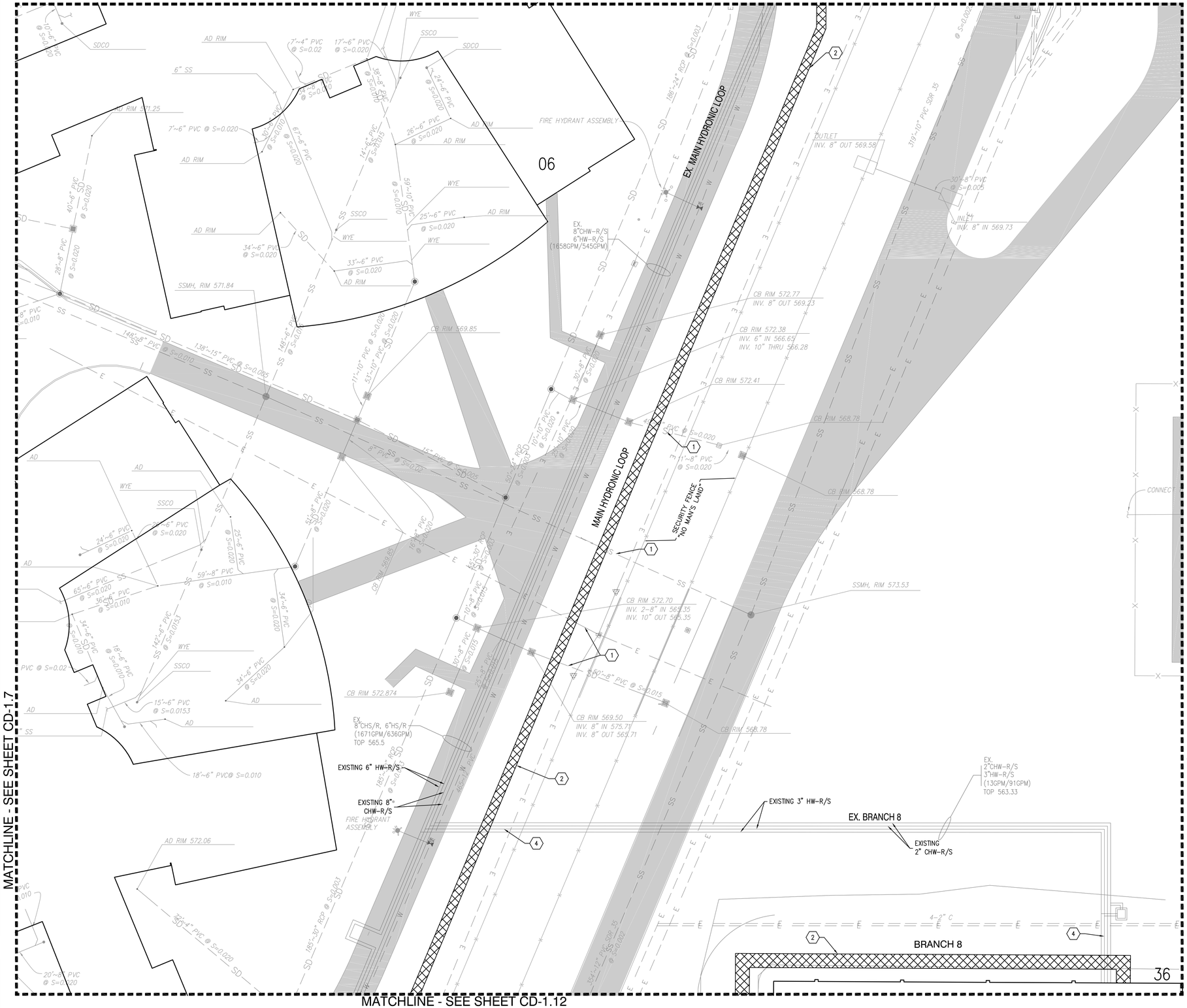
RELATIVE BORDER SCALE IN INCHES

MATCHLINE - SEE SHEET CD-1.5



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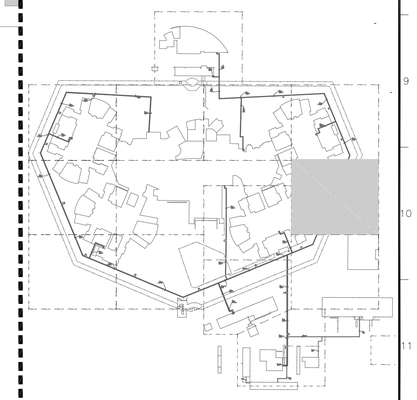

KEY MAP
NOT TO SCALE

0 20' 40'

OFFICE OF THE STATE FIRE MARSHAL
APPROVED FIRE AND PANIC ONLY
11/27/23
23-1693
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DGS GENERAL SERVICES

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707 Third Street, Suite 4-105
West Sacramento, California 95605

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER SENDI KESHAVARZ C 84833 CIVIL STATE OF CALIFORNIA

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IRVINE, CA 92618
TEL: (949) 860-4800
FAX: (949) 860-4810
www.owengroup.com

Issue

No.	Date	Description
	01/31/22	Preliminary Plans
	08/31/22	50% Working Drawings
	10/31/22	95% Working Drawings
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Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn

DSA App No. | SFM Permit No. 22-S-4509-O-DR

Sheet Title
DEMOLITION PLAN

Project Number
0000000000008666

Reference North

Sheet Scale 1"=20'

Sheet Number
CD-1.8

V4

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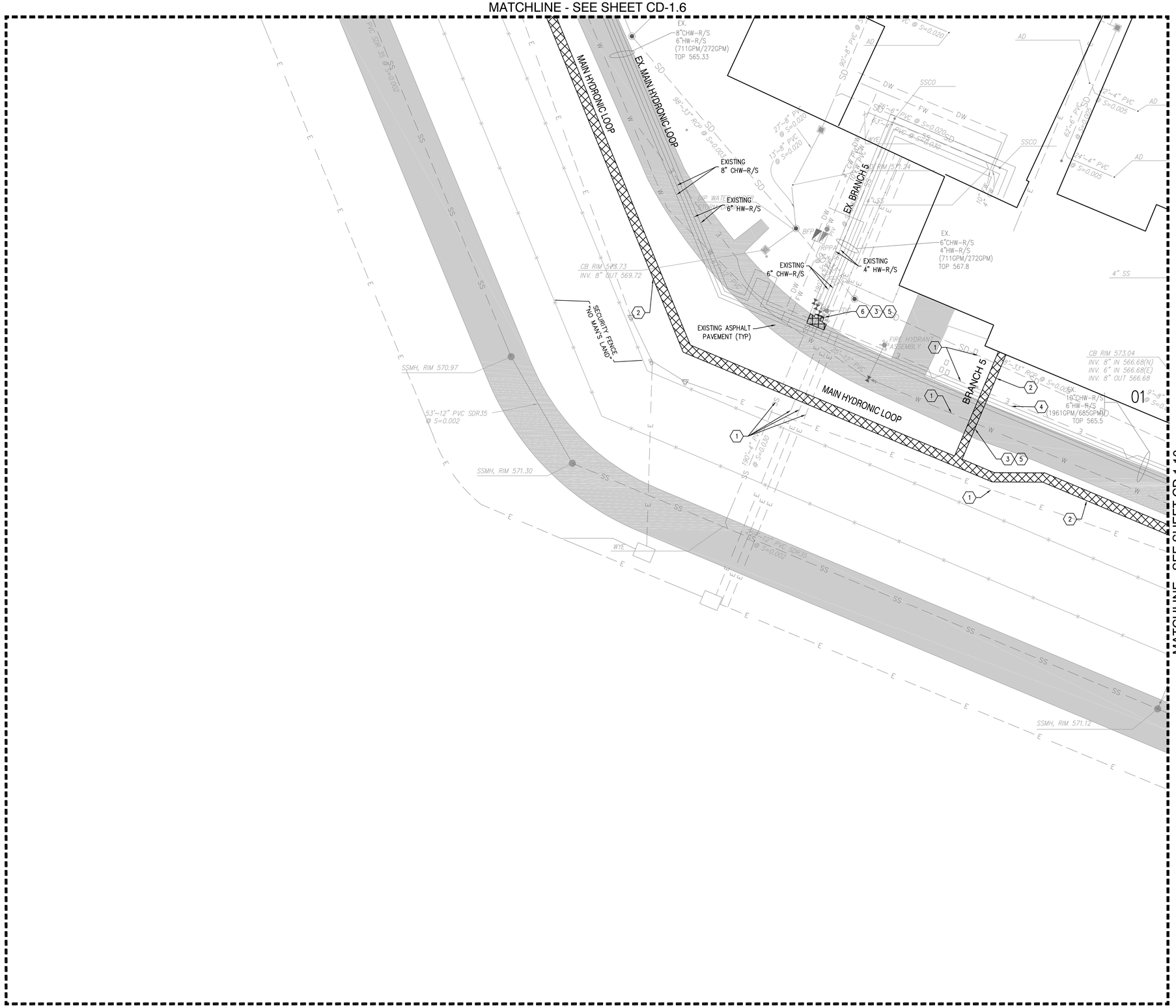
CAD File: C:\Users\bekang\OneDrive - Bureau Veritas\Coalinga\CD1.8 Existing and Demolition Plan.dwg Plot Date: Jun 23, 2023 - 1:20pm Plotted by: bekang

RELATIVE BORDER SCALE IN INCHES 0 1 2 3

MATCHLINE - SEE SHEET CD-1.6



MATCHLINE - SEE SHEET CD-1.10

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(P) ITEM TO BE PROTECTED IN PLACE PER PLAN

LEGEND:

- REMOVE EXISTING EARTH
- REMOVE EXISTING CONCRETE
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- EXISTING CONCRETE
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- 05 BUILDING #

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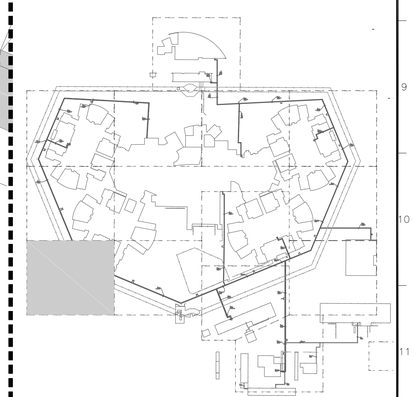

KEY MAP
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Issue

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24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor | Designed | Drawn

DSA App No. | SFM Permit No. 22-S-4509-0-DR

Sheet Title
DEMOLITION PLAN

Project Number
000000000008666

Reference North | Sheet Scale 1"=20'

Sheet Number
CD-1.9
V4

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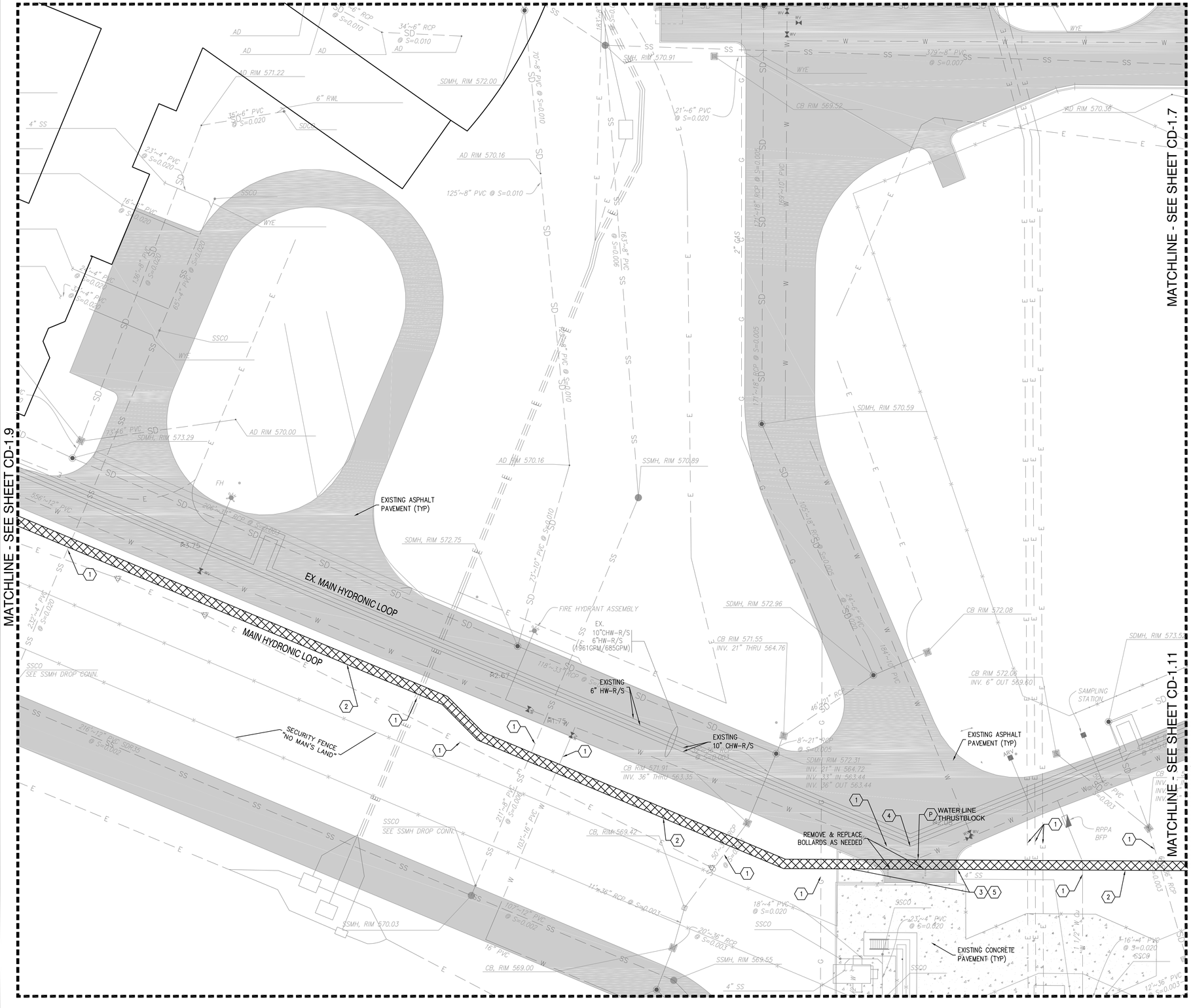
24 X 36

RELATIVE BORDER SCALE IN INCHES 0 1 2 3



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P. ITEM TO BE PROTECTED IN PLACE PER PLAN

LEGEND:

- REMOVE EXISTING EARTH
- REMOVE EXISTING CONCRETE
- REMOVE EXISTING AC
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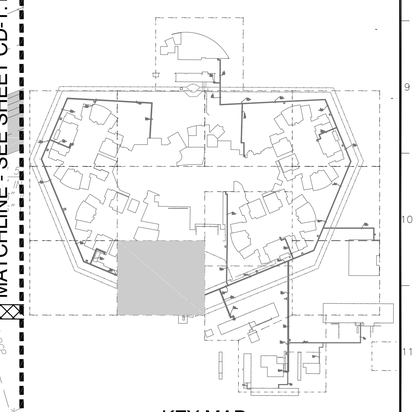

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Issue

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DEPARTMENT OF STATE HOSPITALS

Supervisor | Designed | Drawn

DSA App No. | SFM Permit No. 22-S-4509-0-DR

Sheet Title
DEMOLITION PLAN

Project Number
000000000008666

Reference North

Sheet Scale 1"=20'

Sheet Number CD-1.10

V4

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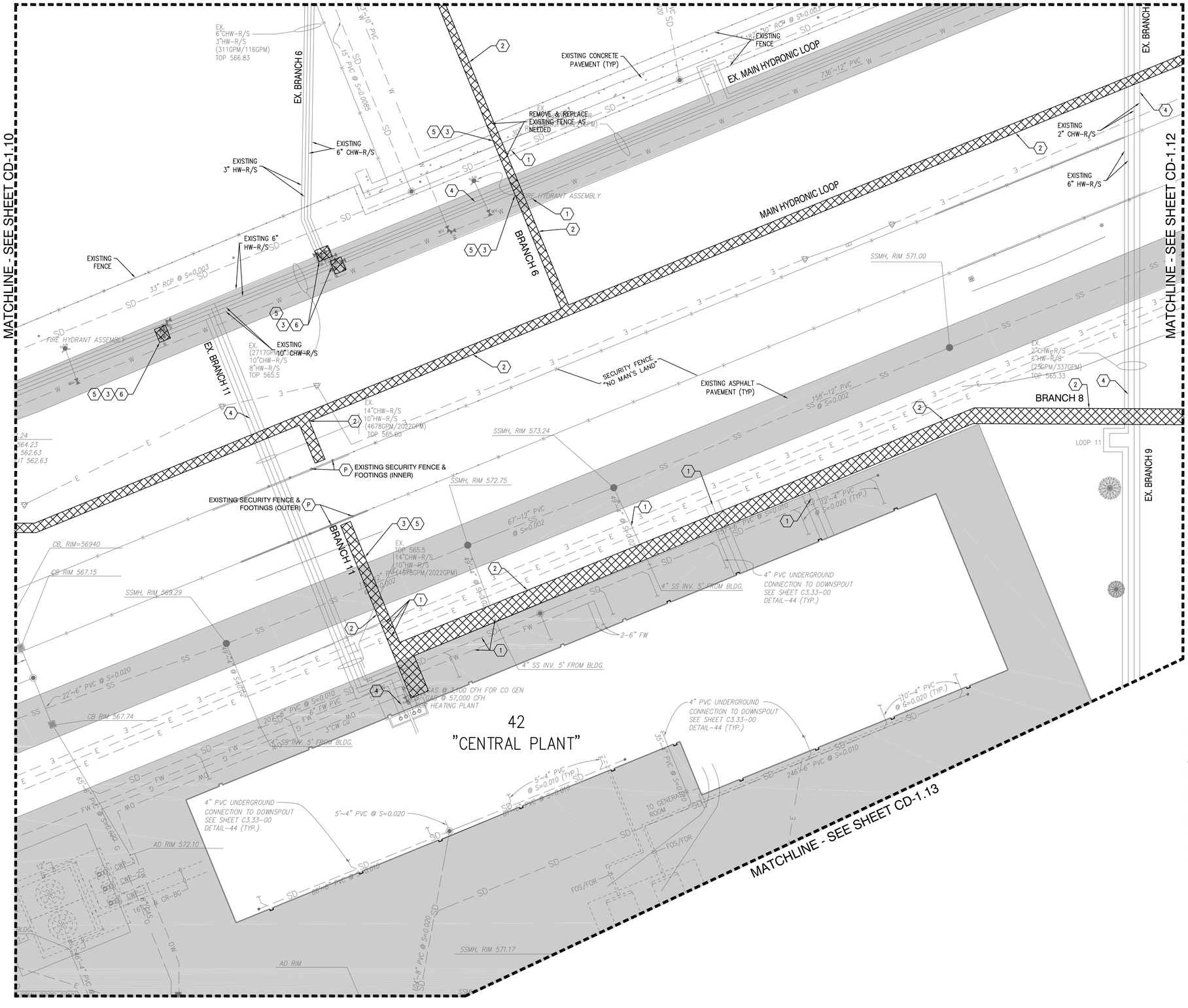
24 X 36

RELATIVE BORDER SCALE IN INCHES 0 1 2 3



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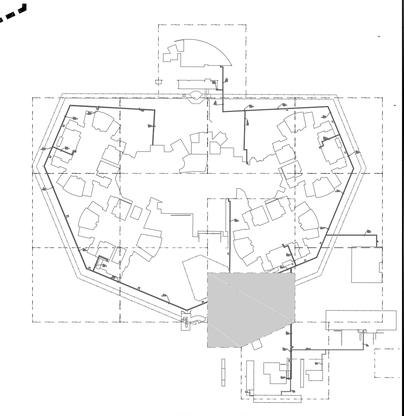

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Supervisor	Designed	Drawn

DSA App No. | SFM Permit No. 22-S-4509-0-DR

Sheet Title
DEMOLITION PLAN

Project Number
000000000008666

Reference North

Sheet Scale 1"=20'

Sheet Number
CD-1.11
V4

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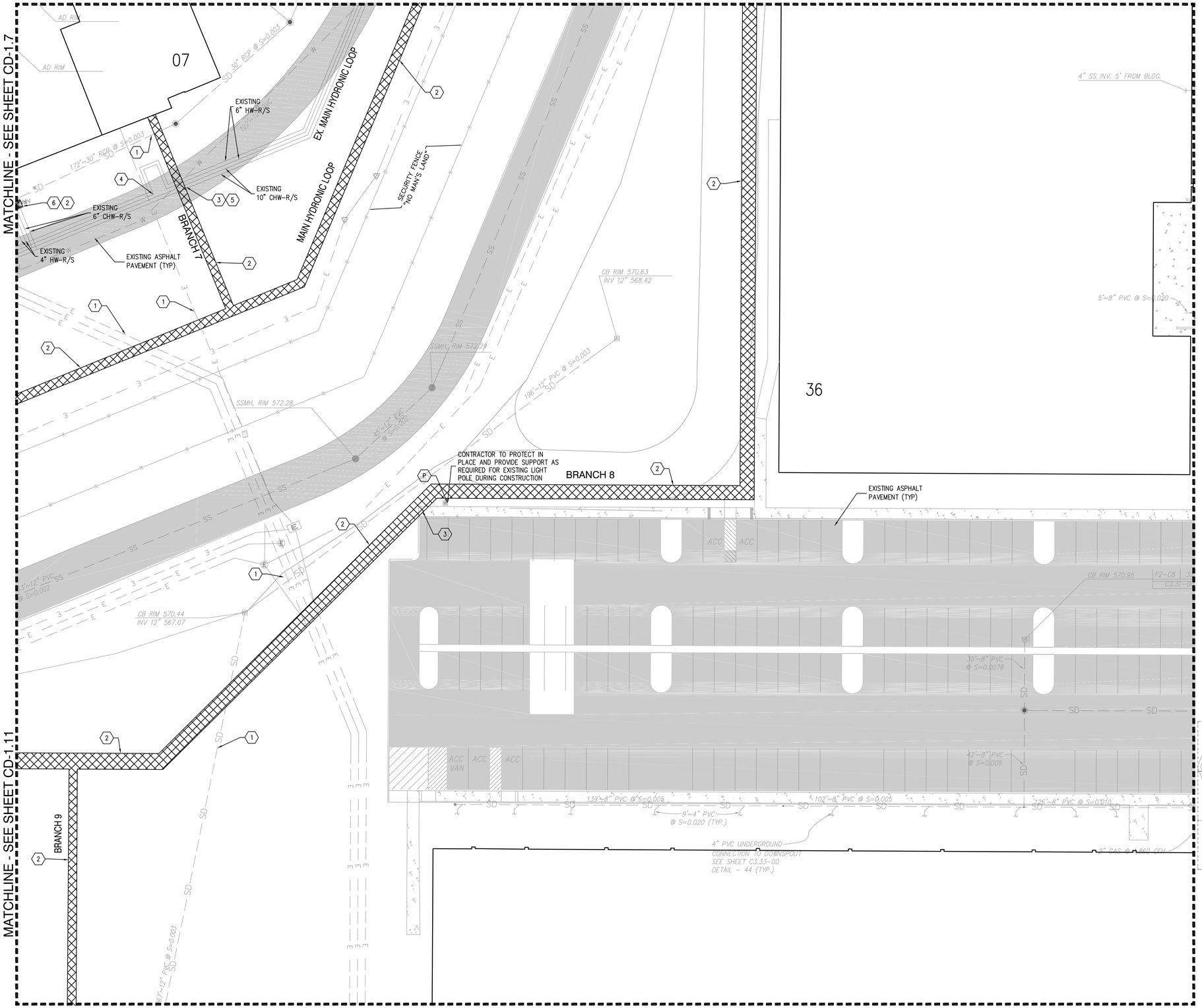
RELATIVE BORDER SCALE IN INCHES 0 1 2 3



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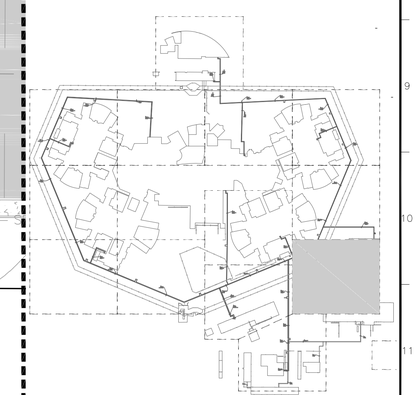

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Supervisor	Designed	Drawn

DSA App No.	SFM Permit No.
	22-S-4509-0-DR

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Project Number
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Sheet Scale 1"=20'

Sheet Number
CD-1.12
V4

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RELATIVE BORDER SCALE IN INCHES 0 1 2 3

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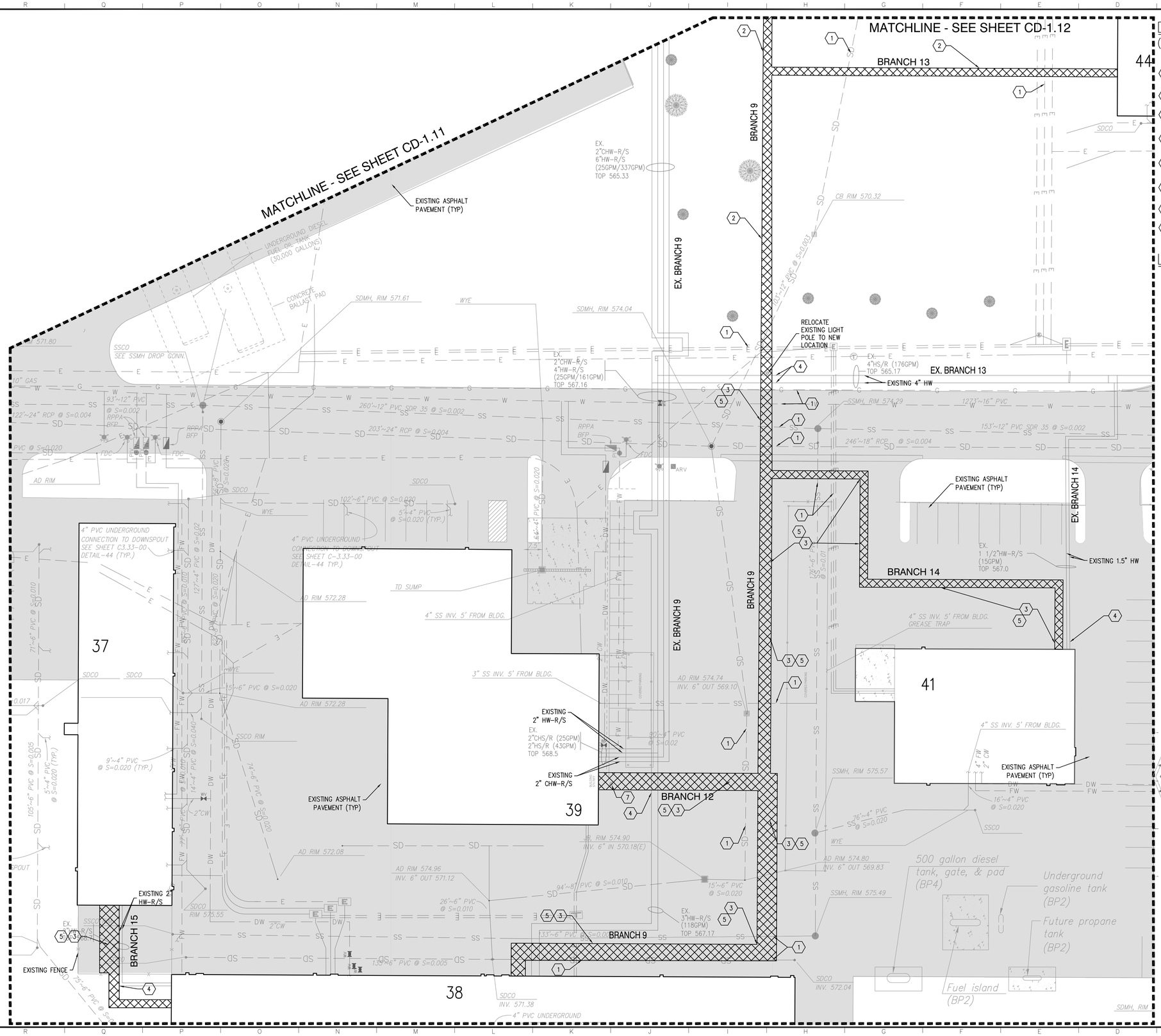

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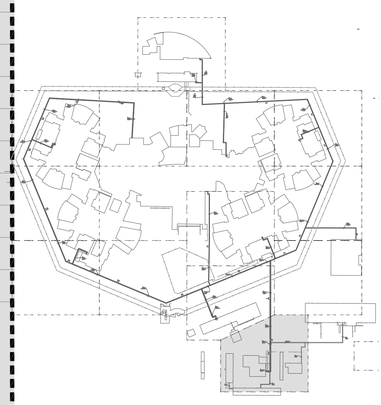

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Sheet Title
DEMOLITION PLAN

Project Number
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Reference North

Sheet Scale 1"=20'

Sheet Number CD-1.13

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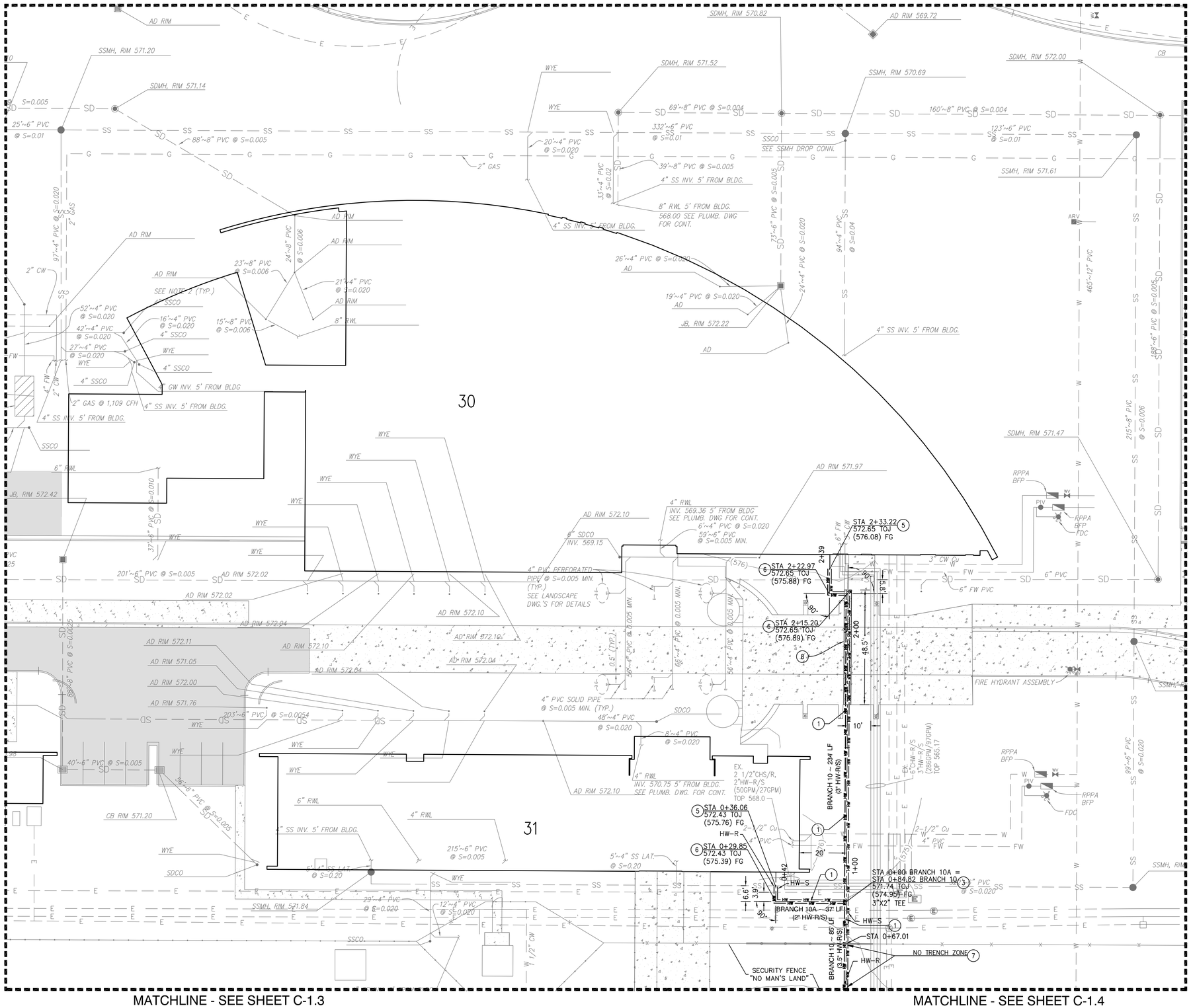
RELATIVE BORDER SCALE IN INCHES 0 1 2 3



IMPROVEMENT PLAN KEYNOTES:

(NOT ALL KEYNOTES USED ON ALL SHEETS)

1. INSTALL PRE-INSULATED SDR9 PIPING HW-R/S (SIZE PER PLAN); HW TRENCH ℄ PER PLAN, TRENCH PER DETAIL 1/C-4.2
1B. INSTALL PRE-INSULATED SDR11 PIPING CHW-R/S (SIZE PER PLAN);CHW TRENCH ℄ SHOWN AS OFFSET FROM HW TRENCH ℄, TRENCH PER DETAIL 1/C-4.2
2. REPLACE EXISTING CHW-R/S ISOLATION VALVES (SIZE PER PLAN) & VALVE VAULT PER DETAIL 3/C-4.2; CONSTRUCT PRECAST CONCRETE VAULT PER MANUFACTURER.
3. INSTALL FACTORY WELDED & PRE-INSULATED TEE CONNECTION ASSEMBLY (SIZE PER PLAN) PER MANUFACTURER'S RECOMMENDTATION
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LEGEND

- EXISTING AC
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5. PIPE STATIONS DEPICT CENTERLINE OF HW TRENCH, CHW TRENCH CENTERLINE SHOWN AS OFFSET OF HW TRENCH CENTERLINE.
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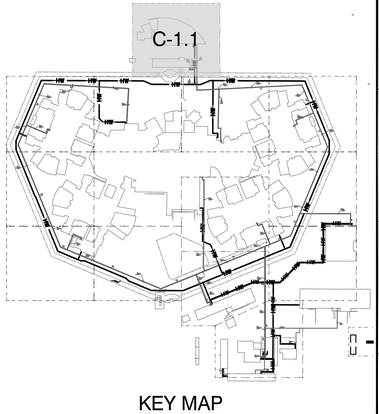

KEY MAP
NOT TO SCALE

0 20' 40'

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Issue

No.	Date	Description
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24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn

DSA App No. | SFM Permit No. 22-S-4509-0-DR

Sheet Title
PARTIAL IMPROVEMENT PLAN

Project Number
0000000000008666

Reference North

Sheet Scale 1"=20'

Sheet Number C-1.1

V4

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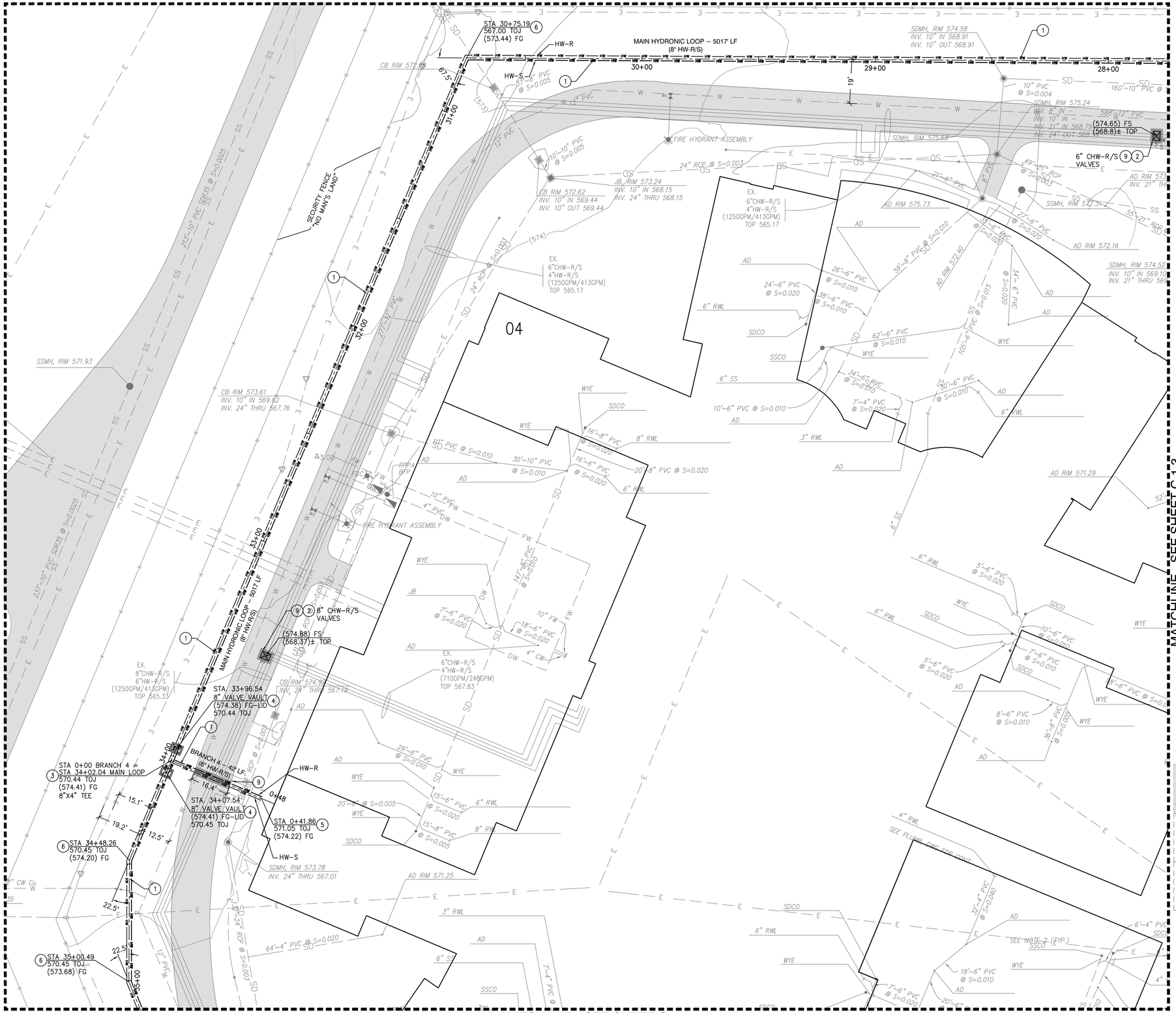
24 X 36

RELATIVE BORDER SCALE IN INCHES



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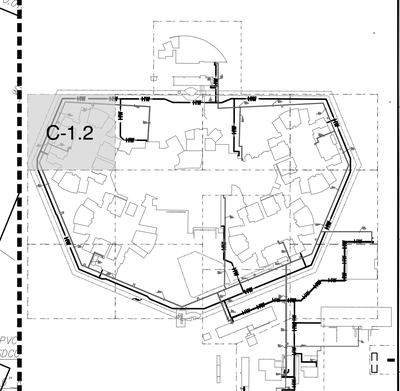

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24511 WEST JAYNE AVE
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DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn

DSA App No.	SFM Permit No.
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Sheet Title
PARTIAL IMPROVEMENT PLAN

Project Number
000000000008666

Reference North

Sheet Scale
1"=20'

Sheet Number
C-1.2

V4

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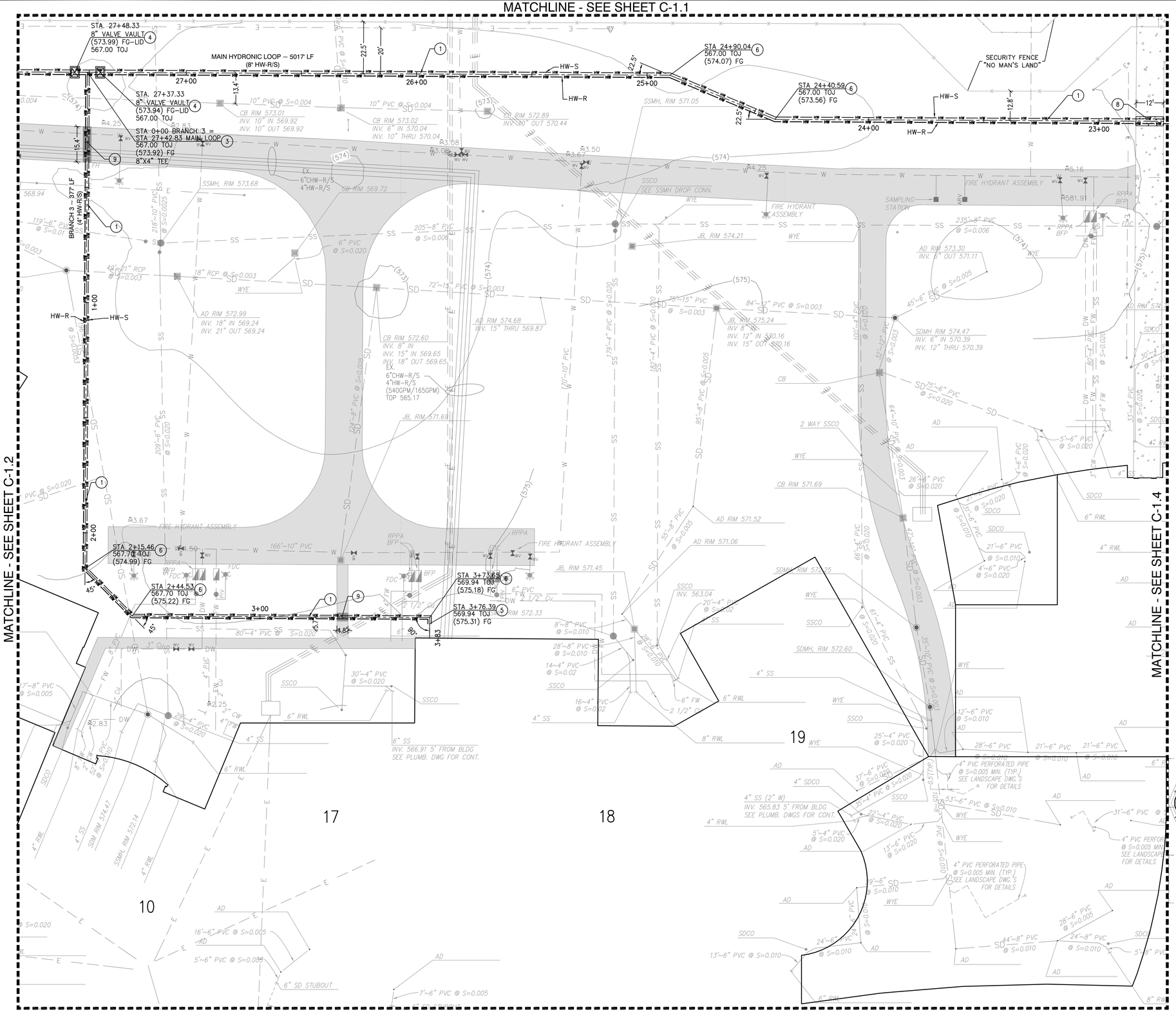

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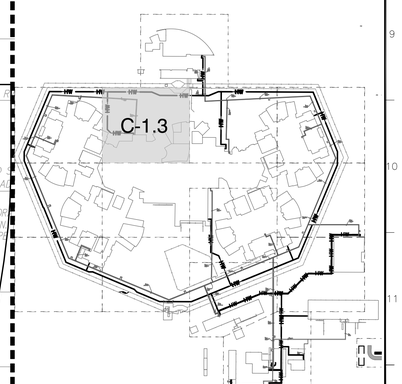

KEY MAP
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PROFESSIONAL STAMP

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DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
DSA App No.	SFM Permit No. 22-S-4509-0-DR	

Sheet Title
PARTIAL IMPROVEMENT PLAN

Project Number
000000000008666

Reference North

Sheet Scale 1"=20'

Sheet Number C-1.3

V4

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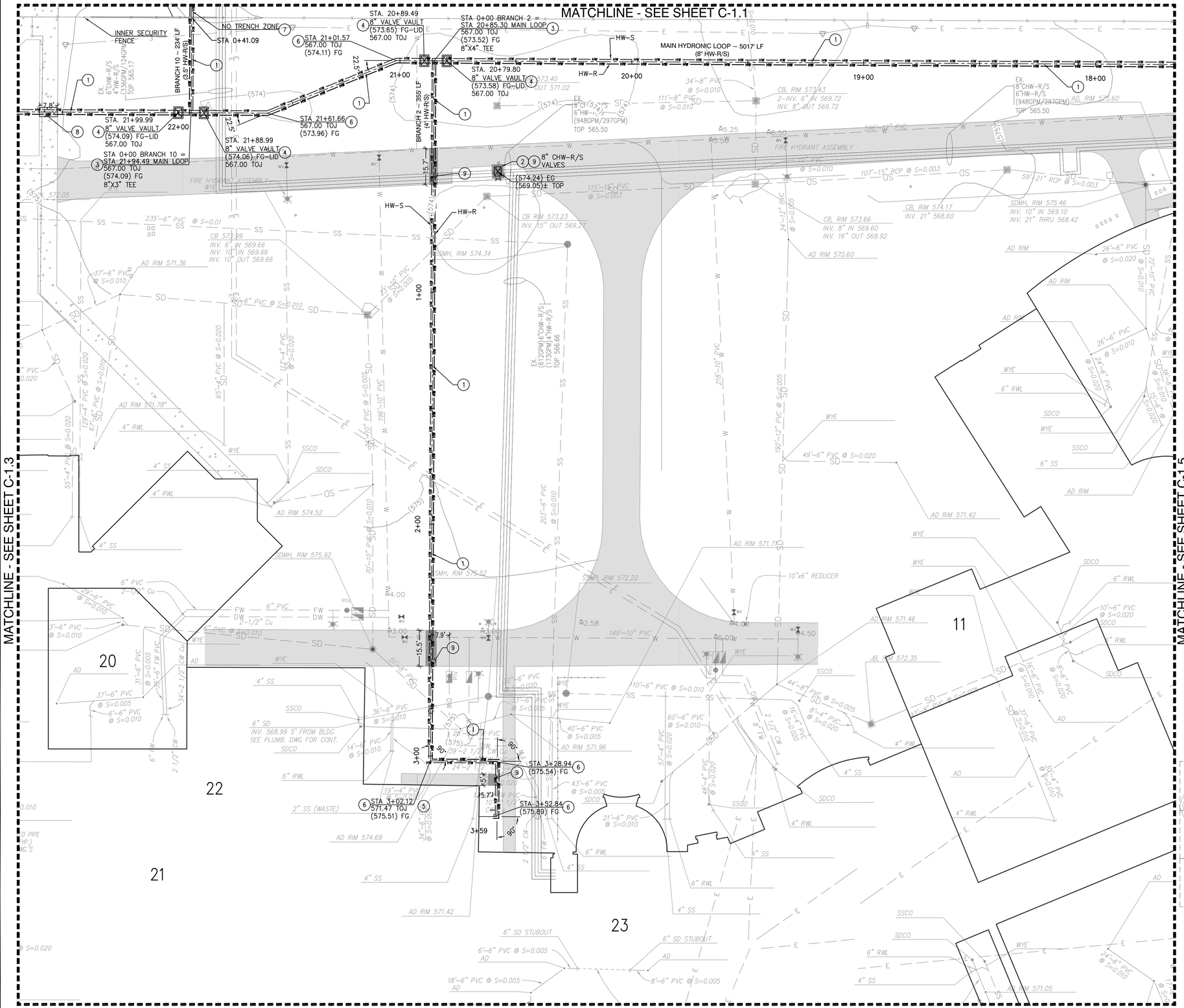
RELATIVE BORDER SCALE IN INCHES 0 1 2 3



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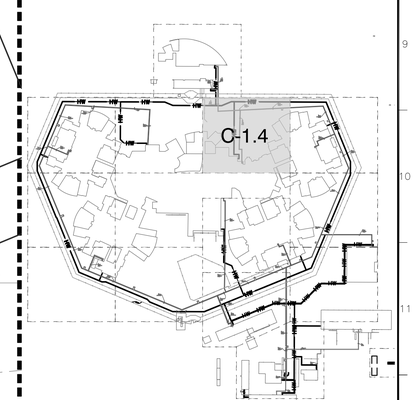

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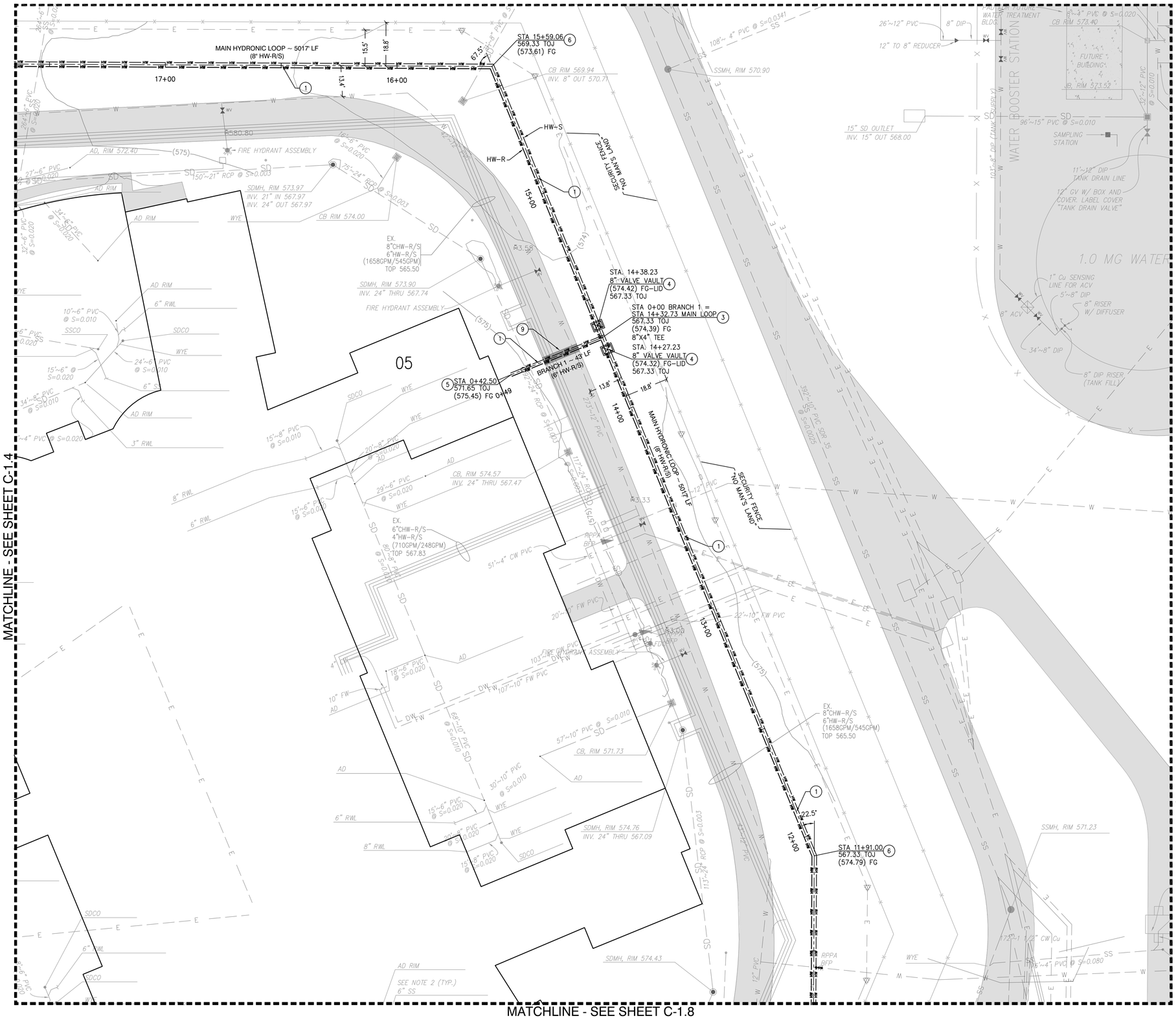

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LEGEND

- EXISTING AC
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- PROPOSED AC
- PROPOSED CONCRETE

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3. CONTRACTOR TO NOTIFY AND GET APPROVAL FROM STATE & FACILITY MANAGEMENT PRIOR TO ANY UTILITY SERVICE DISRUPTIONS.
4. SEE SHEETS 33-61 FOR PROPOSED BURIED PIPE PLAN & PROFILES.
5. PIPE STATIONS DEPICT CENTERLINE OF HW TRENCH, CHW TRENCH CENTERLINE SHOWN AS OFFSET OF HW TRENCH CENTERLINE.
6. ALL PIPE & FITTINGS TO BE PRE-INSULATED AS APPROVED BY OWNER.
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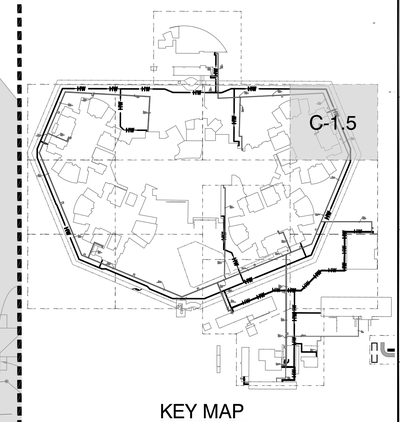

KEY MAP
NOT TO SCALE

0 20' 40'

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Issue

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Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT

24511 WEST JAYNE AVE
COALINGA, CA
93210

DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
DSA App No.	SFM Permit No. 22-S-4509-0-DR	

Sheet Title
PARTIAL IMPROVEMENT PLAN

Project Number
0000000000008666

Reference North

Sheet Scale 1"=20'

Sheet Number
C-1.5

V4

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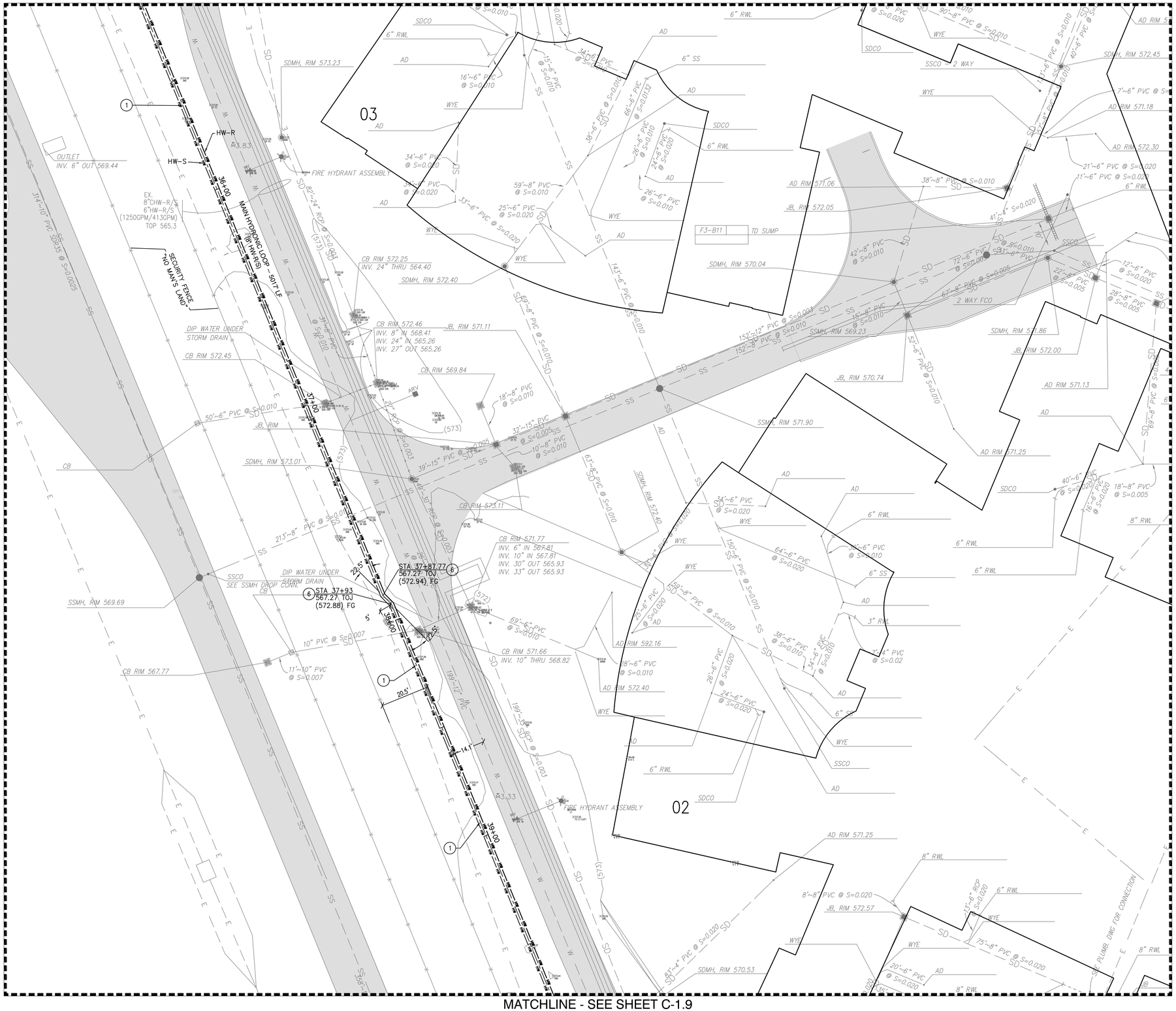
RELATIVE BORDER SCALE IN INCHES 0 1 2 3

MATCHLINE - SEE SHEET C-1.2



MATCHLINE - SEE SHEET C-1.9

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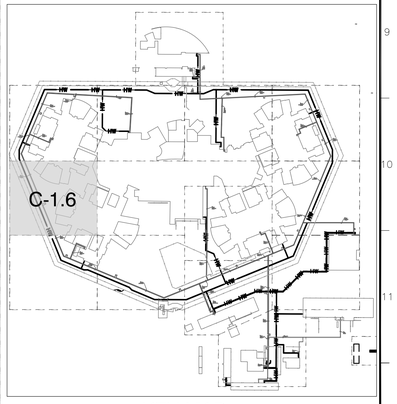

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Supervisor	Designed	Drawn

DSA App No.	SFM Permit No.
	22-S-4509-0-DR

Sheet Title
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Project Number
0000000000008666

Reference North

Sheet Scale
1"=20'

Sheet Number
C-1.6

V4

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RELATIVE BORDER SCALE IN INCHES 0 1 2 3

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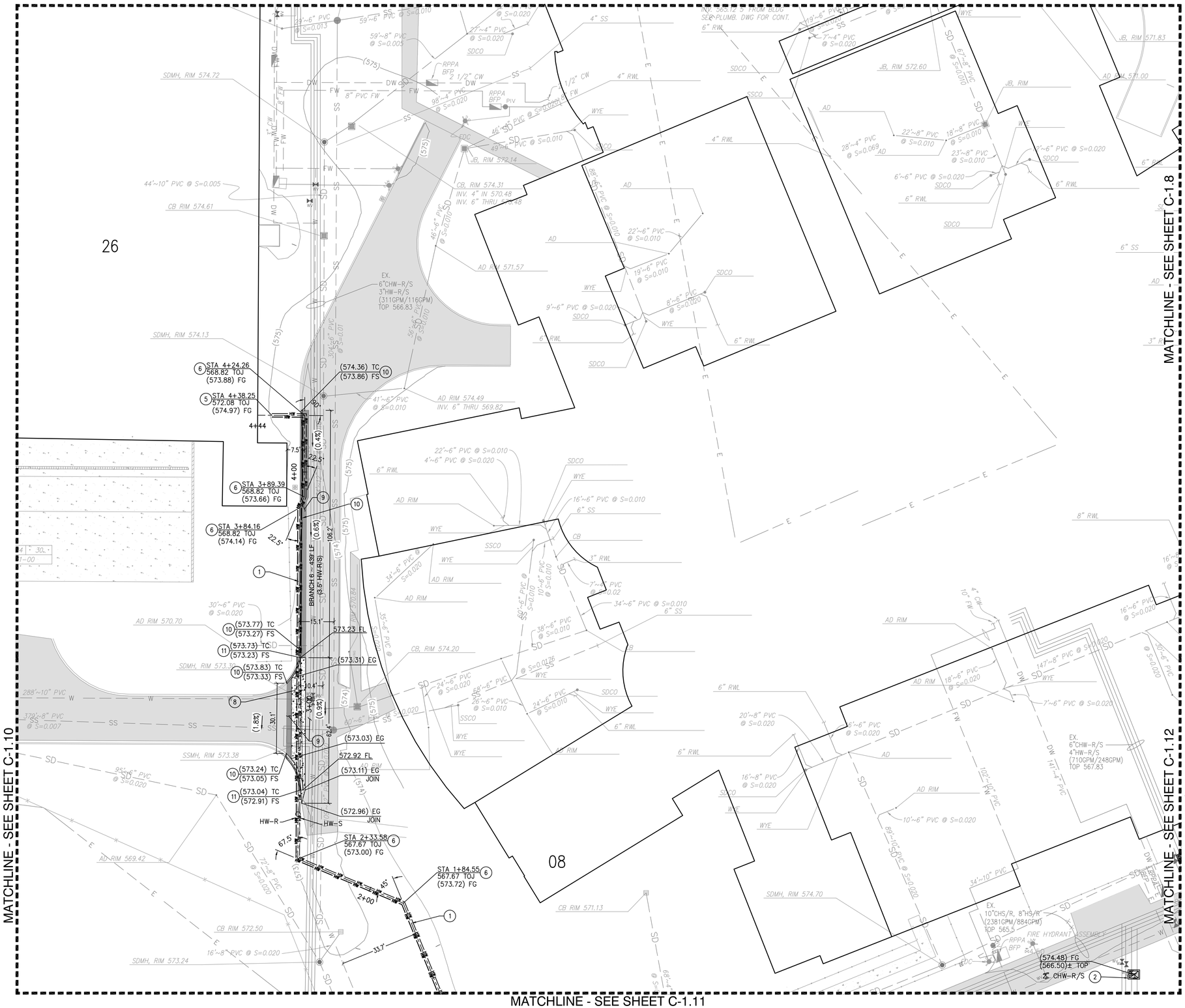

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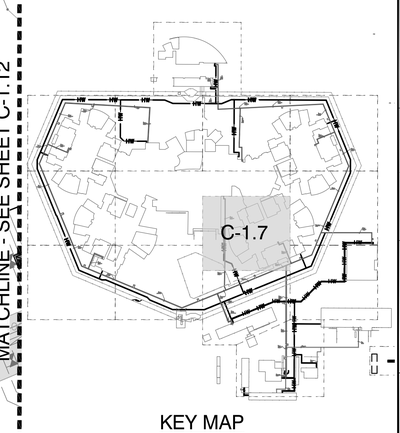

KEY MAP
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COALINGA, CA
93210

DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
DSA App No.	SFM Permit No. 22-S-4509-0-DR	

Sheet Title
PARTIAL IMPROVEMENT PLAN

Project Number
000000000008666

Reference North

Sheet Scale 1"=20'

Sheet Number C-1.7

V4

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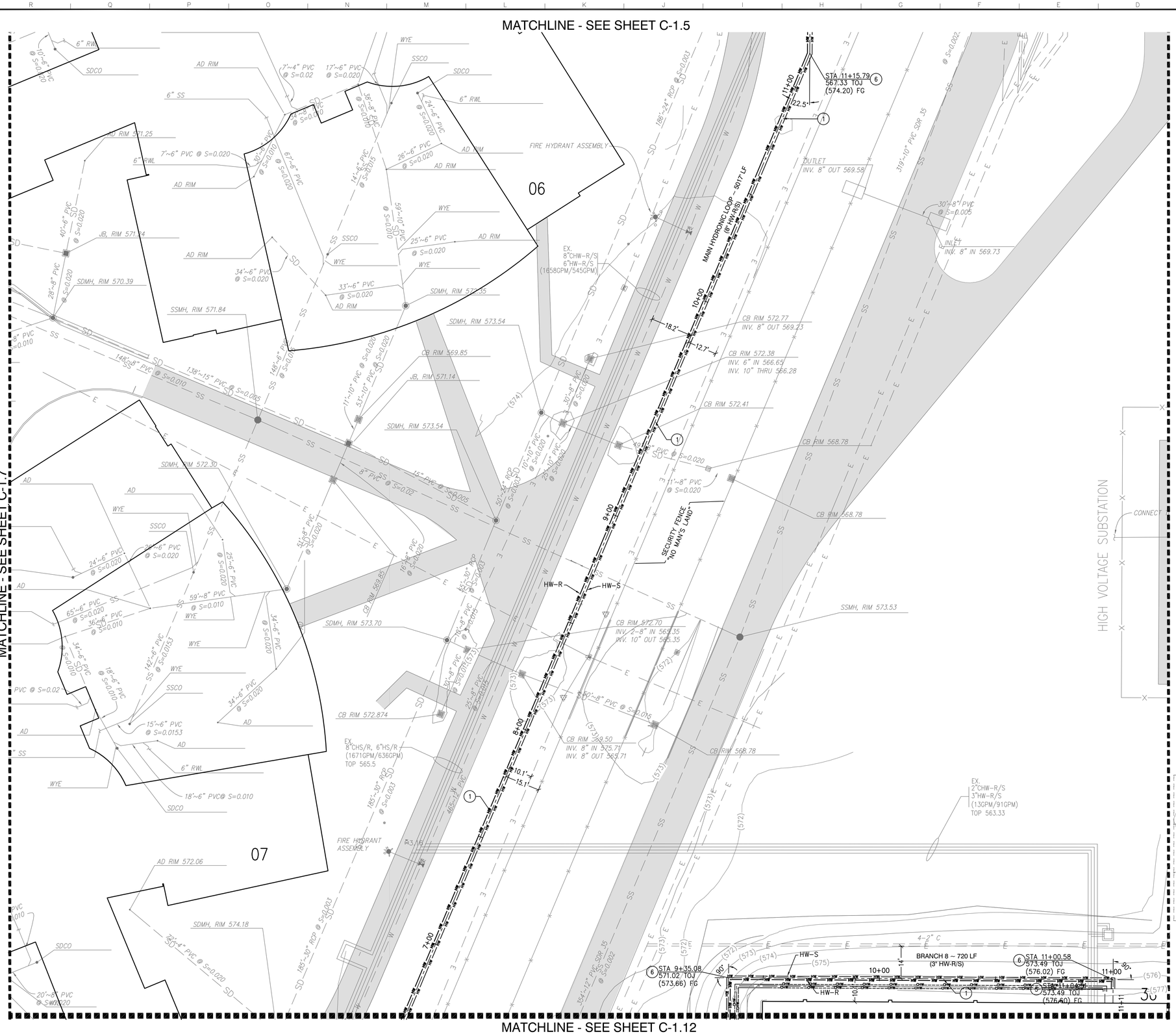
RELATIVE BORDER SCALE IN INCHES 0 1 2 3



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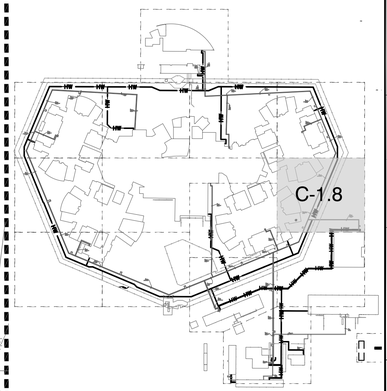

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Sheet Scale
1"=20'

Sheet Number
C-1.8
V4

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RELATIVE BORDER SCALE IN INCHES

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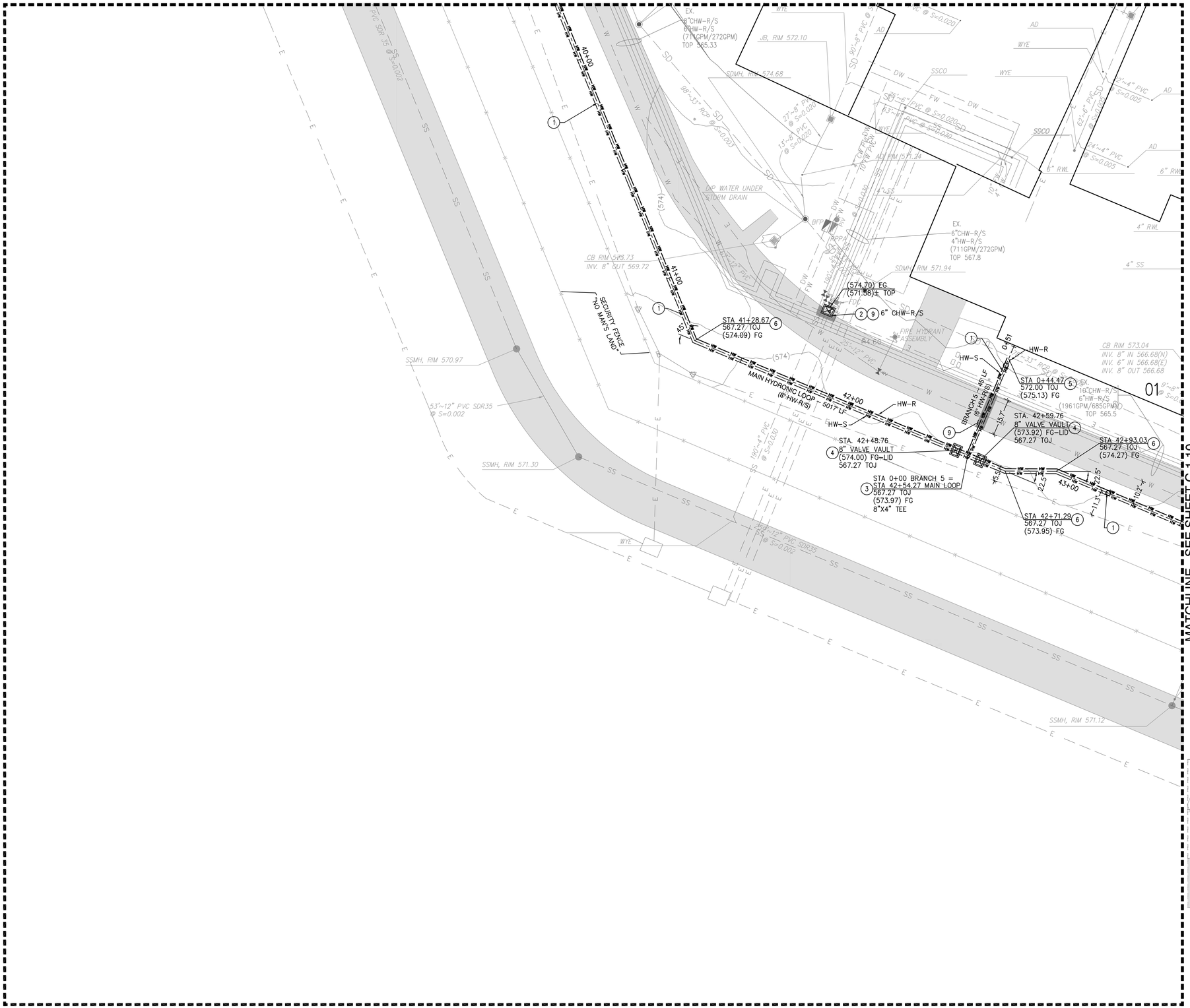

MATCHLINE - SEE SHEET C-1.10

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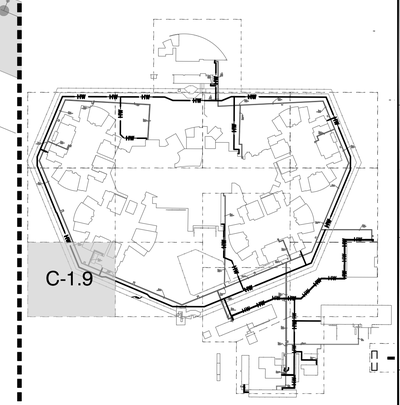

KEY MAP
NOT TO SCALE

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11/27/23
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PROFESSIONAL STAMP

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Issue

No.	Date	Description
	01/31/22	Preliminary Plans
	08/31/22	50% Working Drawings
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Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT

24511 WEST JAYNE AVE
COALINGA, CA
93210

DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn

DSA App No.	SFM Permit No.
	22-S-4509-0-DR

Sheet Title
PARTIAL IMPROVEMENT PLAN

Project Number
000000000008666

Reference North

Sheet Scale
1"=20'

Sheet Number
C-1.9

V4

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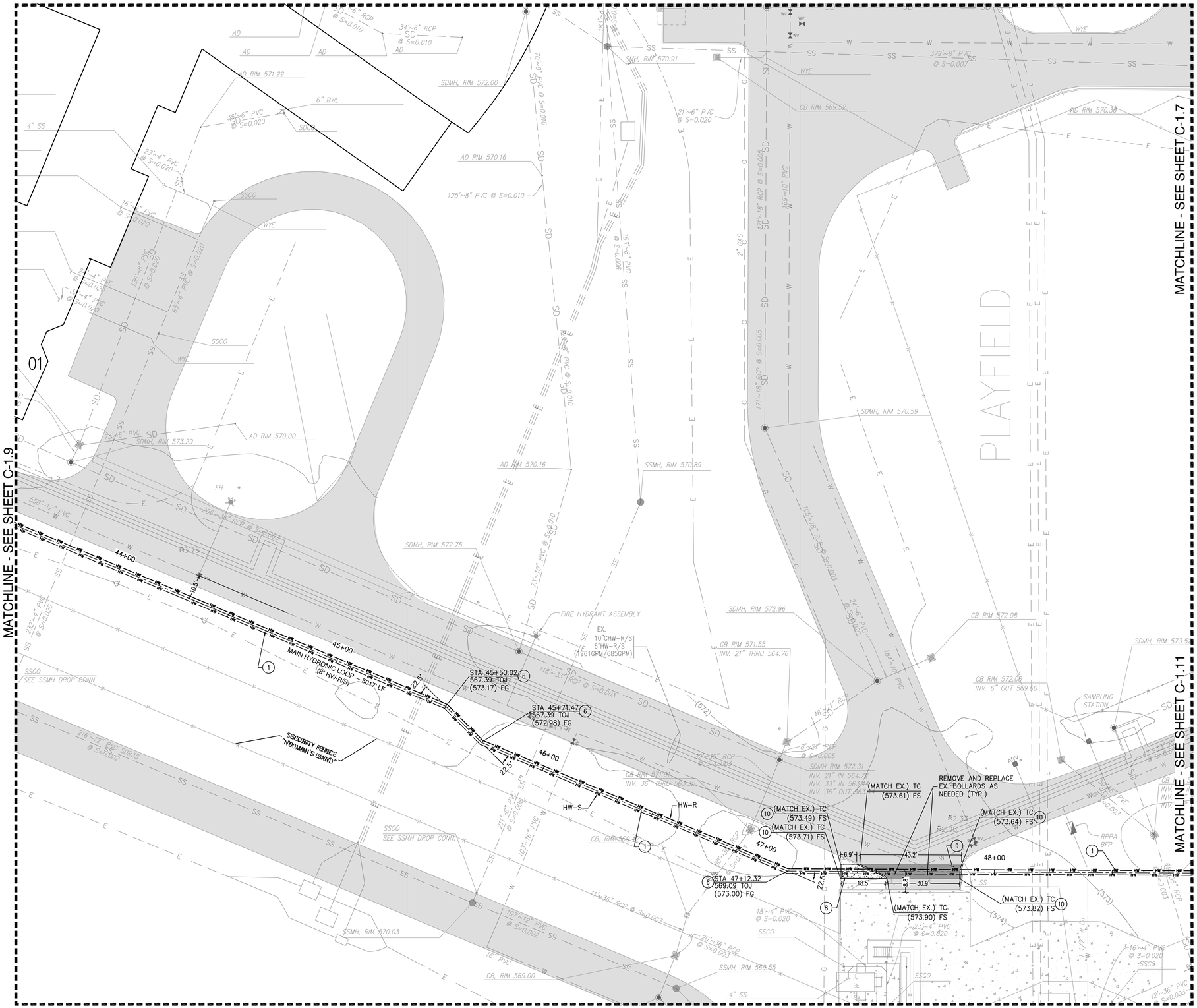
RELATIVE BORDER SCALE IN INCHES 0 1 2 3



IMPROVEMENT PLAN KEYNOTES:

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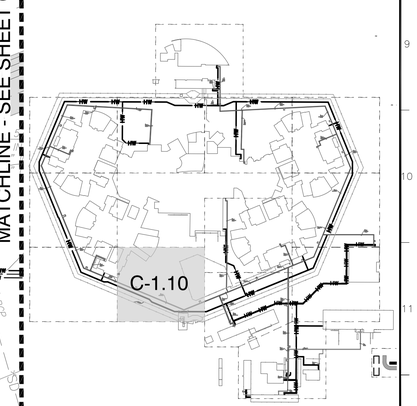

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Supervisor	Designed	Drawn
DSA App No.	SFM Permit No. 22-S-4509-0-DR	

Sheet Title
PARTIAL IMPROVEMENT PLAN

Project Number
0000000000008666

Reference North

Sheet Scale
1"=20'

Sheet Number
C-1.10
V4

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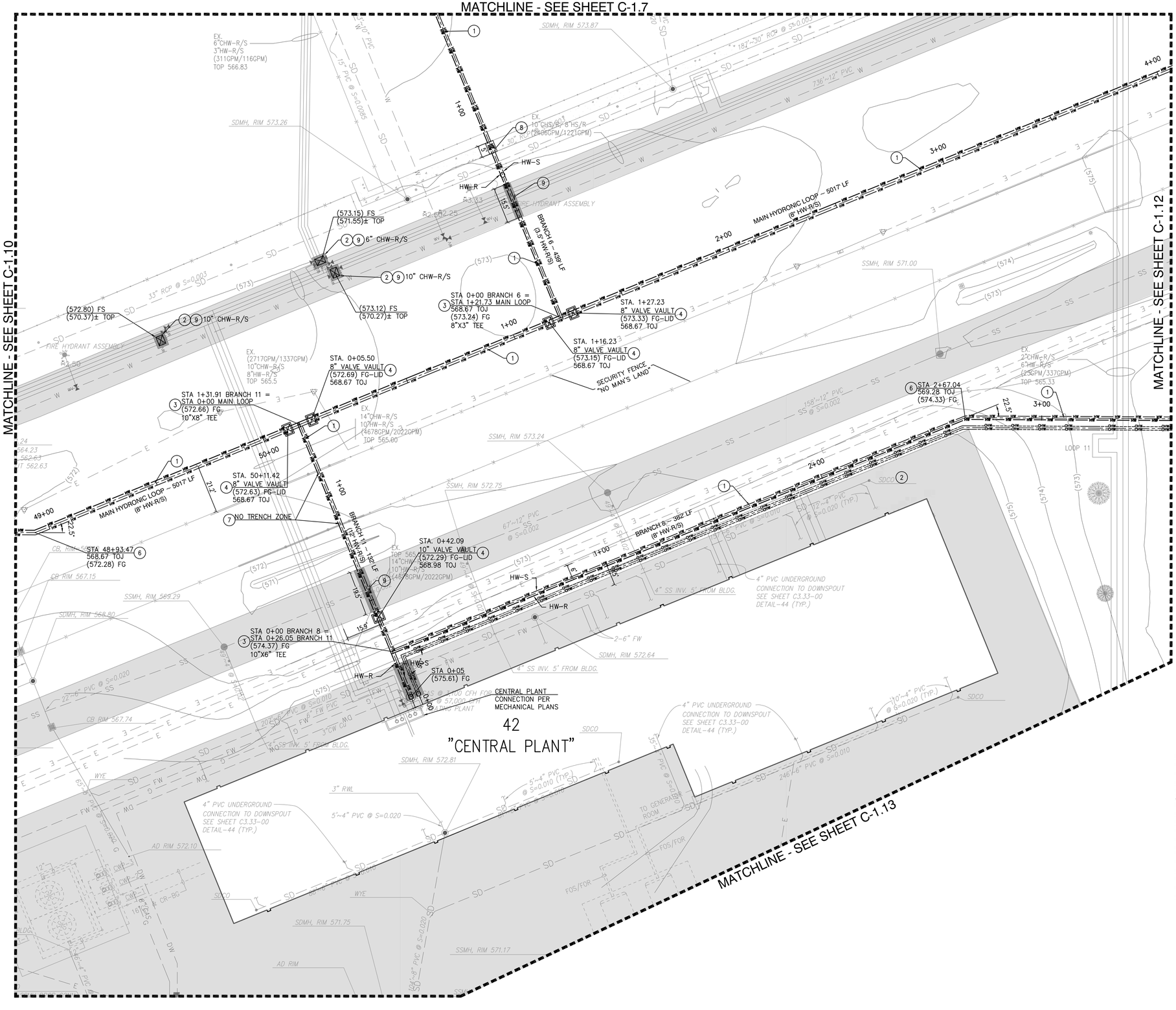
24 X 36

RELATIVE BORDER SCALE IN INCHES 0 1 2 3



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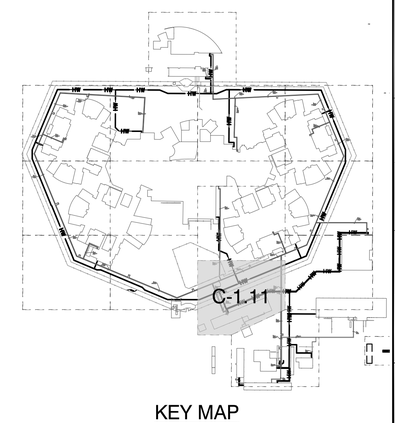

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93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
DSA App No.	SFM Permit No. 22-S-4509-0-DR	

Sheet Title
PARTIAL IMPROVEMENT PLAN

Project Number
000000000008666

Reference North

Sheet Scale 1"=20'

Sheet Number C-1.11

V4

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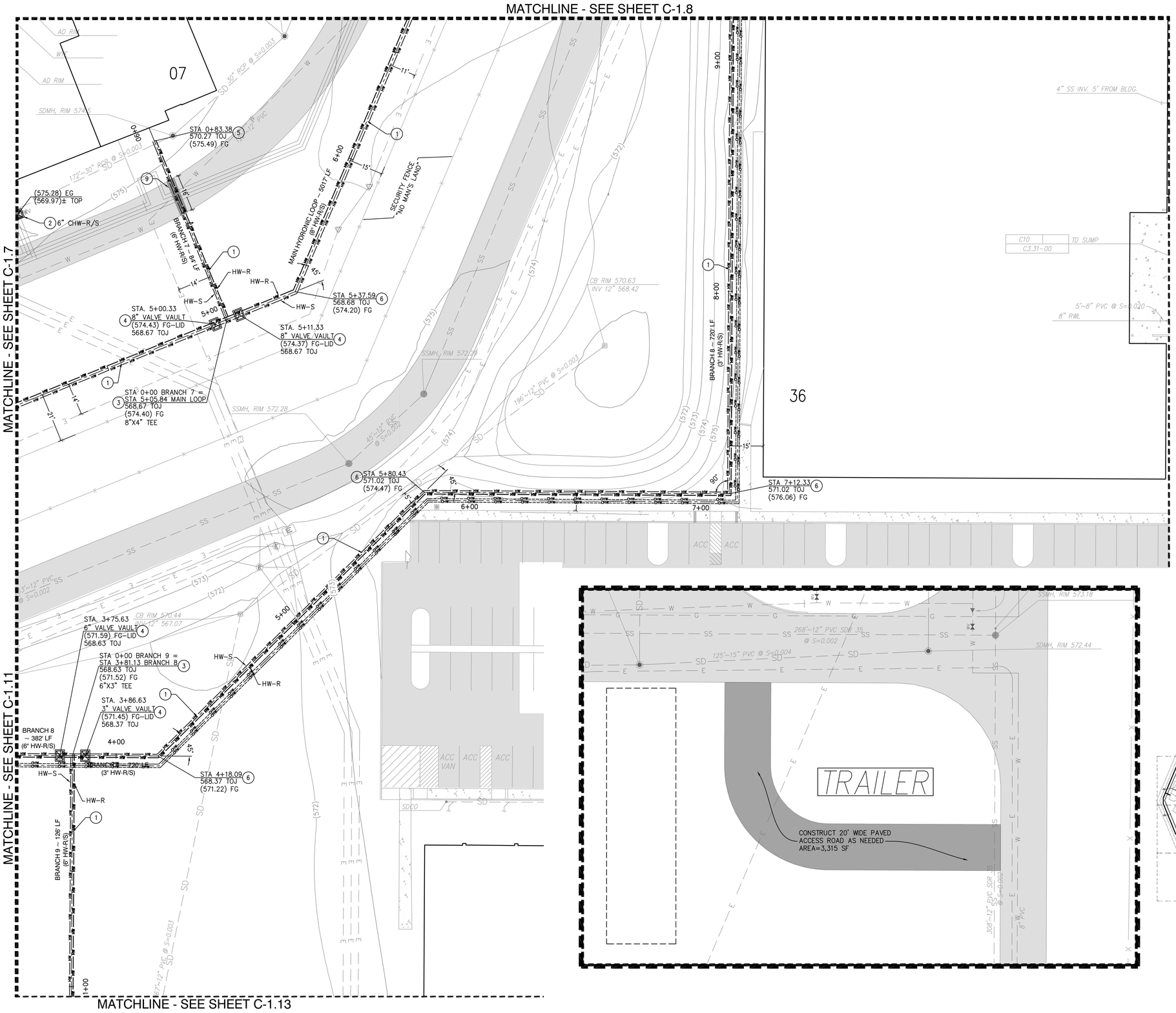

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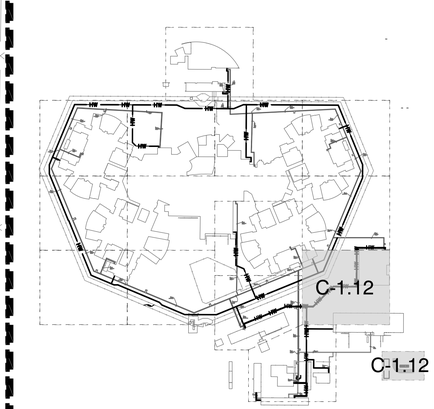

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1"=20'

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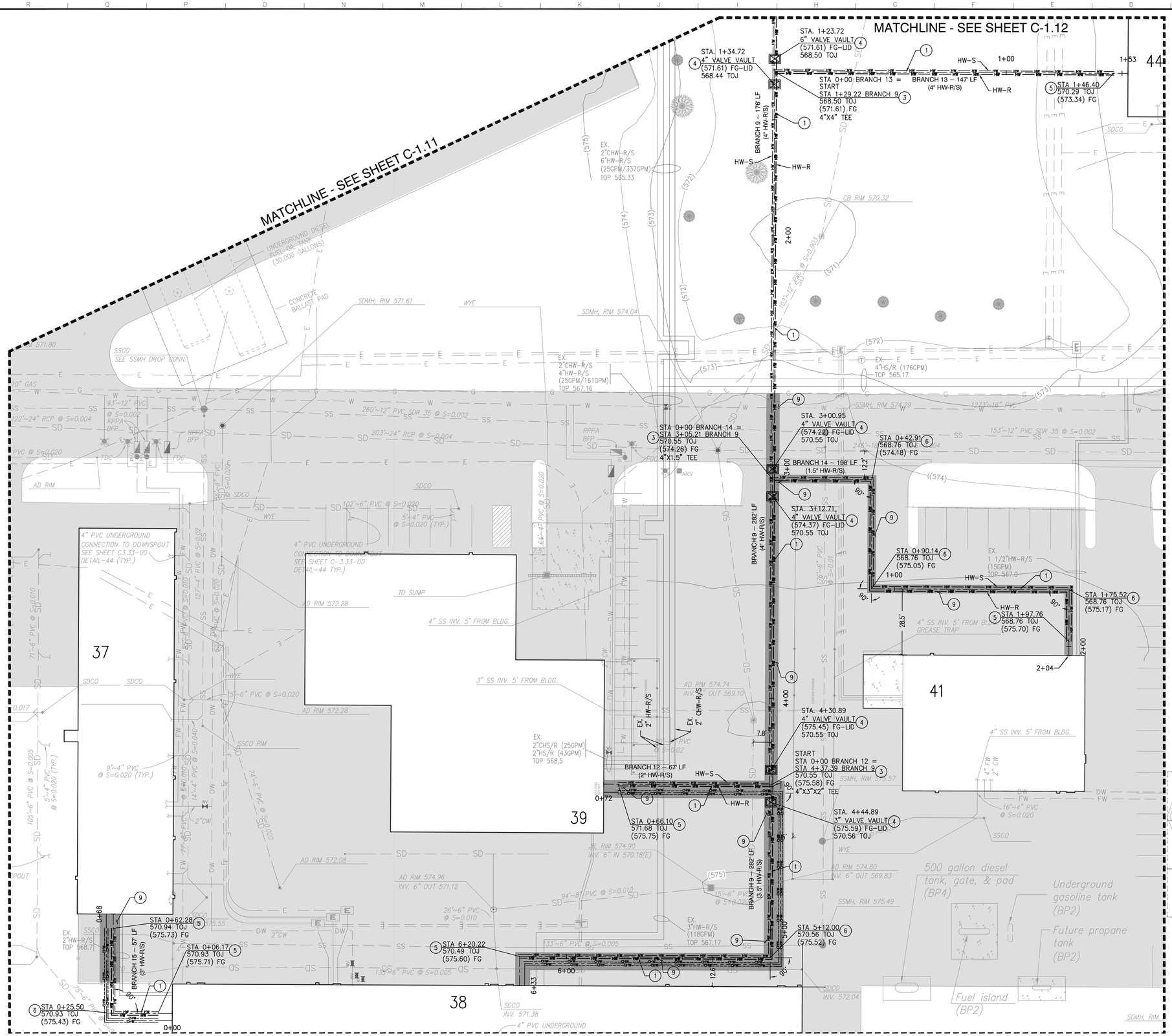
RELATIVE BORDER SCALE IN INCHES 0 1 2 3



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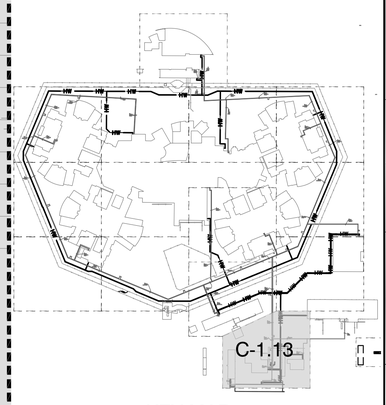

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Architecture & Engineering Sections
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Project Management & Development Branch
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PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER MENGI KESSANG C 84533 STATE OF CALIFORNIA

OWEN
220 TECHNOLOGY DRIVE, SUITE 100
IRVINE, CA 92618
TEL: (949) 860-4800
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Issue

No.	Date	Description
	01/31/22	Preliminary Plans
	08/31/22	50% Working Drawings
	10/31/22	95% Working Drawings
	03/31/23	100% Working Drawings

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT

24511 WEST JAYNE AVE
COALINGA, CA
93210

DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn

DSA App No.	SFM Permit No. 22-S-4509-0-DR

Sheet Title
PARTIAL IMPROVEMENT PLAN

Project Number
0000000000008666

Reference North

Sheet Scale 1"=20'

Sheet Number C-1.13

V4

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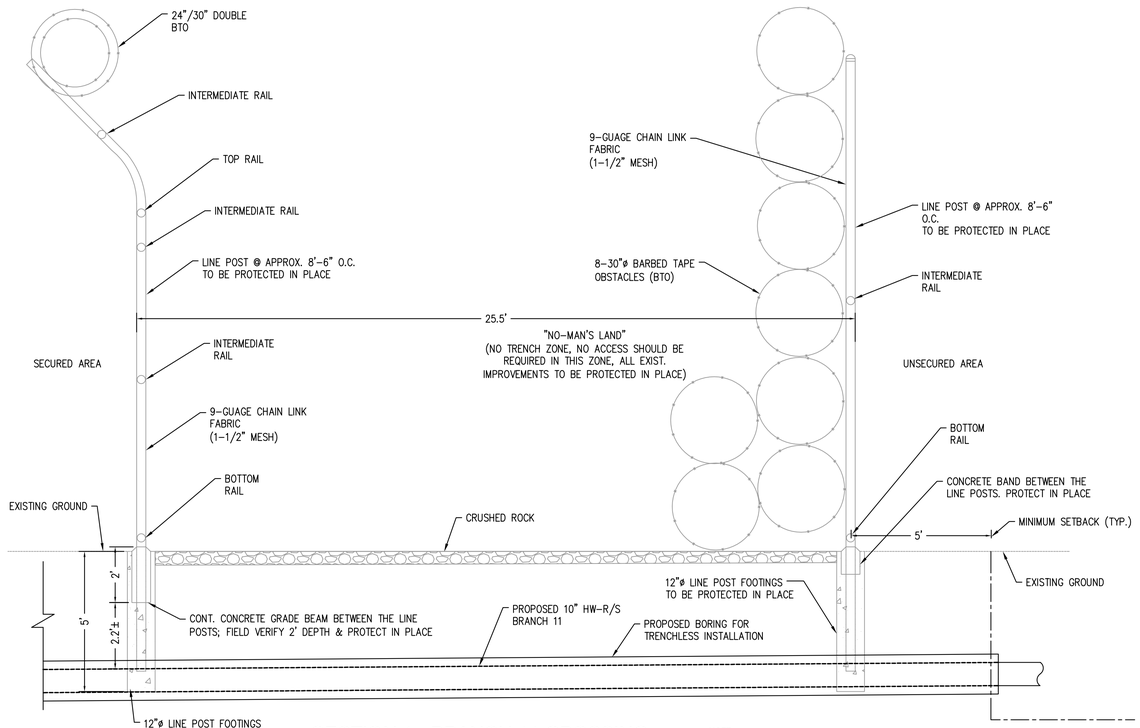
CAD File: C:\Users\bekang\OneDrive - Bureau Veritas\Coalinga\C1.13 Partial Improvement Plan.dwg Plot Date: Jul 12, 2023 - 11:08am Plotted by: bekang

24 X 36

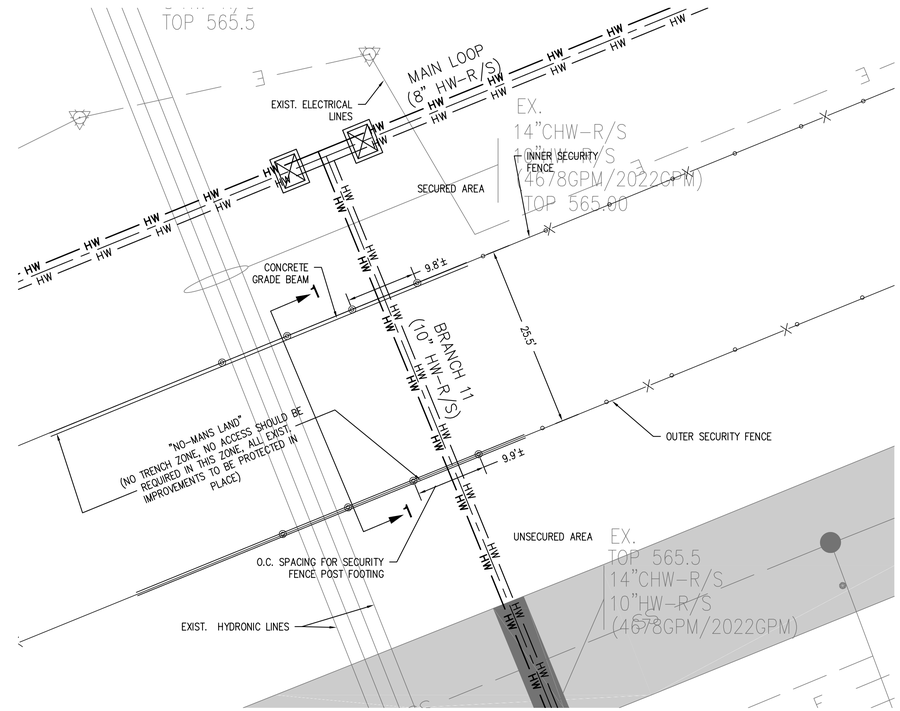
RELATIVE BORDER SCALE IN INCHES 0 1 2 3



SECTION 1 - BRANCH 11 CROSSING

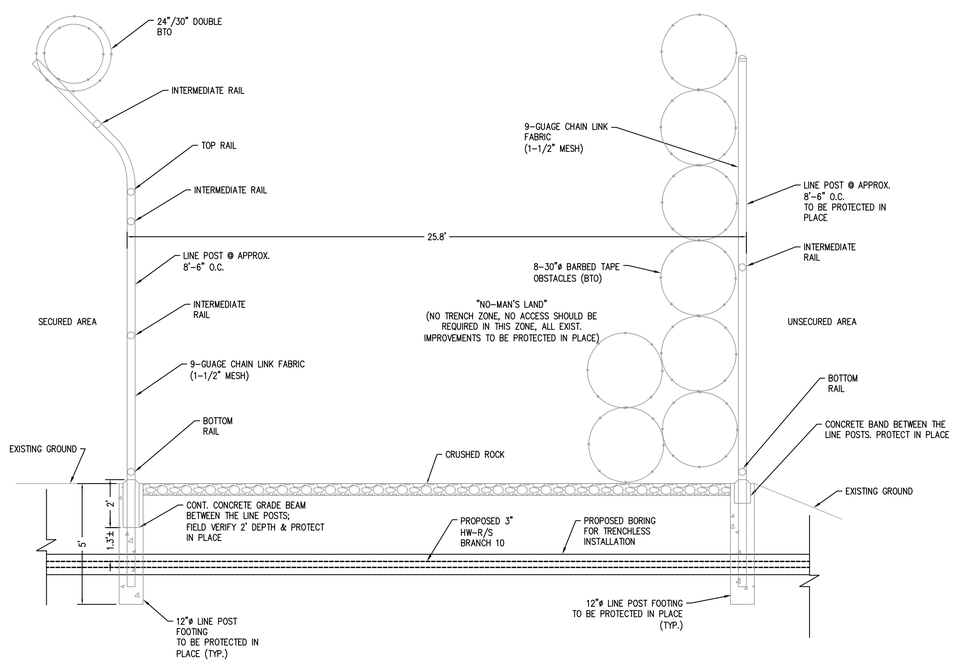
NOT TO SCALE

NOTE:
1. FOR TOP OF PIPE ELEVATIONS; SEE BRANCH 11 PROFILE PER SHEET C-5.26



PLAN VIEW - BRANCH 11 CROSSING

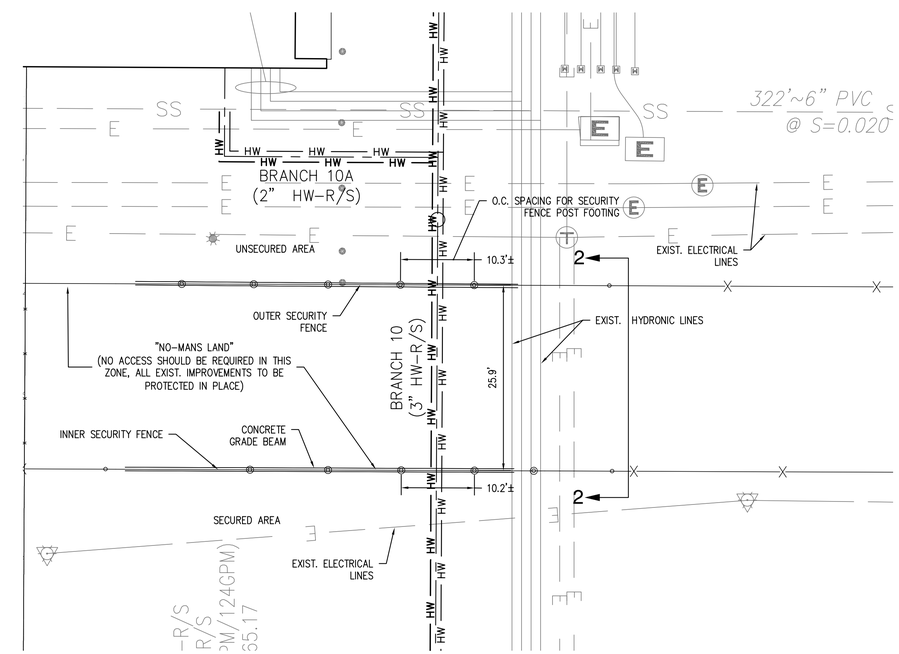
SCALE: 1" =10'



SECTION 2 - BRANCH 10 CROSSING

NOT TO SCALE

NOTE:
1. FOR TOP OF PIPE ELEVATIONS; SEE BRANCH 10 PROFILE PER SHEET C-5.25



PLAN VIEW - BRANCH 10 CROSSING

SCALE: 1" =10'

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Supervisor	Designed	Drawn

DSA App No.	SFM Permit No.
	22-S-4509-O-DR

Sheet Title
CIVIL DETAILS

Project Number
000000000008666

Reference North

Sheet Scale
AS SHOWN

Sheet Number
C-4.1
V4

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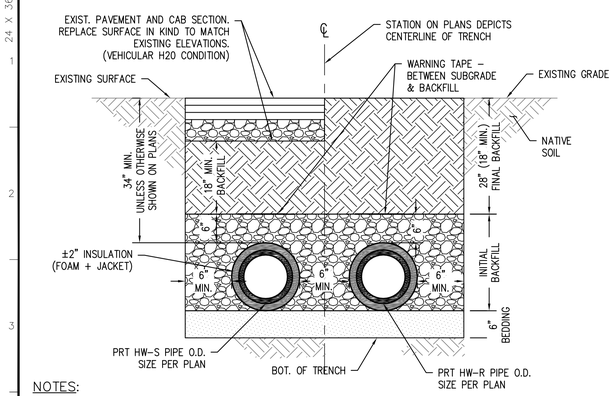
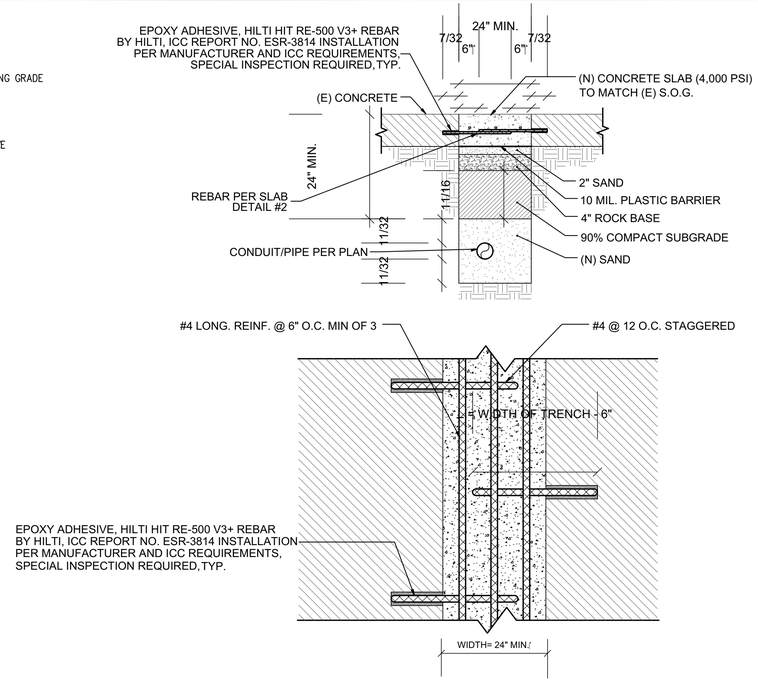
RELATIVE BORDER SCALE IN INCHES

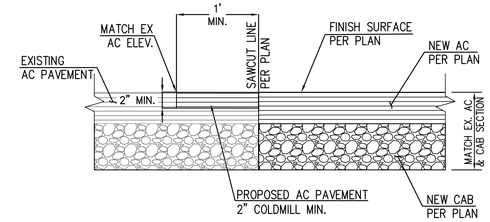


NOTES:

1. BEDDING SHALL BE CLASS I-A WORKED BY HAND. IF GROUNDWATER IS ANTICIPATED, THEN BEDDING SHALL BE CLASS I-B COMPACTED TO 90% STANDARD PROCTOR.
2. HAUNCHING SHALL BE WORKED AROUND THE PIPE BY HAND TO ELIMINATE VOIDS AND SHALL BE CLASS I-A OR CLASS I-B OR CLASS II COMPACTED TO 90% PROCTOR.
3. INITIAL BACKFILL SHALL BE CLASS I-A WORKED BY HAND, OR CLASS I-B OR CLASS II COMPACTED TO 90% STANDARD PROCTOR.
4. INITIAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS III COMPACTED TO 90% STANDARD PROCTOR.
5. FINAL BACKFILL SHALL BE CLASS I, II, OR III COMPACTED AS NOTED IN NOTES 3 AND 4.
6. FINAL BACKFILL NOT UNDER PAVED AREAS SHALL BE CLASS IV-A COMPACTED TO 90% STANDARD PROCTOR.
7. ALL MATERIALS ARE CLASSIFIED IN ACCORDANCE WITH ASTM D 2321-89.
8. ALL MATERIALS SHALL BE INSTALLED IN MAXIMUM 8" LOOSE LIFTS IN ACCORDANCE WITH ASTM D 698. CLASS III AND IV-A MATERIALS SHALL BE COMPACTED NEAR OPTIMUM MOISTURE CONTENT.
9. FILL SALVAGED FROM EXCAVATION SHALL BE FREE OF DEBRIS, ORGANICS AND ROCKS LARGER THAN 3".
10. ALL TRENCH EXCAVATIONS SHALL BE SLOPED, SHORED, SHEETED, BRACED, OR OTHERWISE SUPPORTED IN COMPLIANCE WITH OSHA REGULATIONS AND LOCAL ORDINANCES. (SEE SPECIFICATIONS)



1 UTILITY TRENCH & BEDDING (NON-VEHICULAR & VEHICULAR H20 CONDITION)



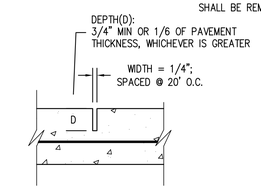
(N) ASPHALT TO (E) ASPHALT

GENERAL NOTES:

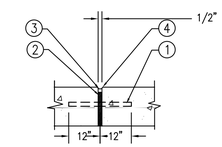
A. MATERIALS, PROCEDURES, AND INSPECTION SHALL MEET MOST CURRENT STATE D.O.T. STANDARDS FOR CRACK SEALING.

B. EXISTING, ADJOINING PAVEMENT SHALL BE DRY AND FREE OF DEBRIS.

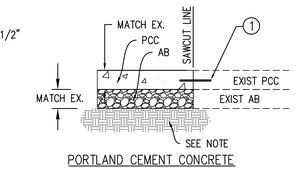
C. EXISTING GRANULAR BASE OR SUBGRADE REPAIRS SHALL BE MADE PRIOR TO PATCHING. MATERIALS SHALL BE STATE D.O.T. EQUIVALENTS FOR PATCHING. IF THE DAMAGED PAVEMENT IS DIRECTLY ON GRADE, 4" – 6" OF THE DAMAGED SUBGRADE SHALL BE REMOVED AND REPLACED WITH COMPACTED #57 CRUSHED STONE, IF APPLICABLE.



WEAKENED PLANE JOINT DETAIL



CONTROL JOINT DETAIL



PORTLAND CEMENT CONCRETE

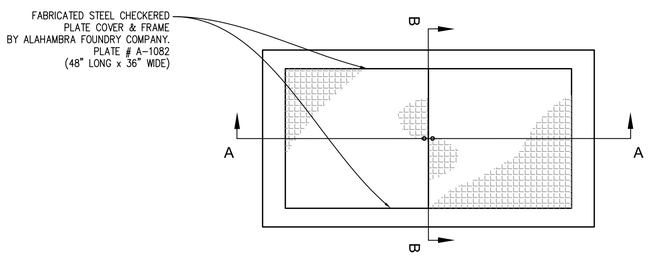
LEGEND:

1. HILTI EPOXY "HIT- RE 500 V3+Rebar" ICC REPORT ESR-3814, INSTALLATION SHALL BE INA CCORDANCE WITH MANUFACTURER AND ICC REPORT REQUIREMENTS SPECIAL INSPECTION REQUIRED.
2. 1/2" THICK ASPHALT-IMPREGNATED FELT; FULL JOINT DEPTH.
3. JOINT SEALANT; COLOR TO MATCH ADJACENT PAVING.
4. 1/4" RADIUS TOOLED EDGE.

NOTE:
COMPACT SUBGRADE TO 95% RELATIVE COMPACTION

2 PAVEMENT REPLACEMENT

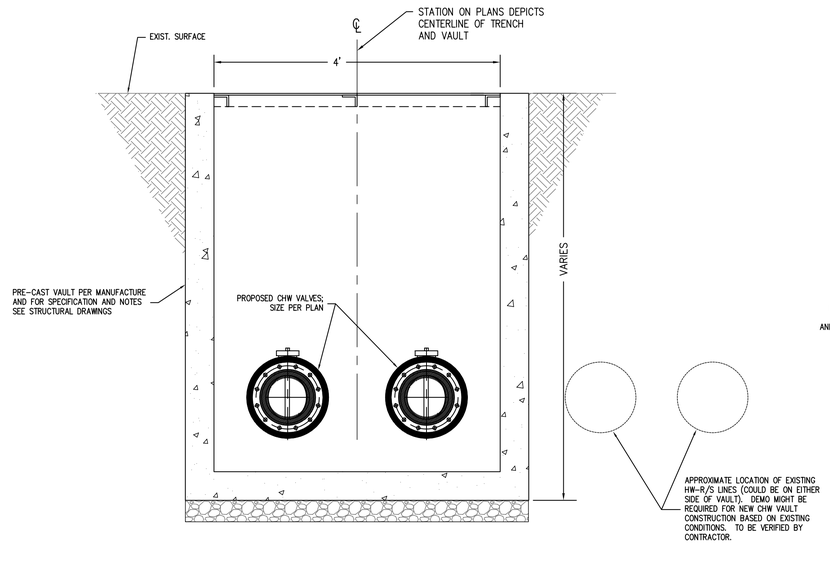
NTS



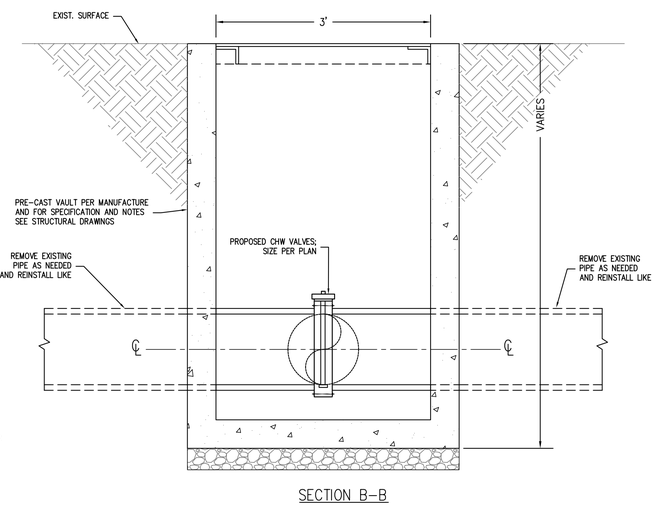
PLAN VIEW

NOTE:

CONTRACTOR TO FIELD VERIFY EXISTING CHW-R/S VALVE SIZES BEFORE ORDERING NEW VALVES. CONTRACTOR TO ANTICIPATE REMOVAL & RE-INSTALL OF PORTIONS OF EXISTING CHW-R/S PIPE MATERIAL AND/OR FITTINGS FOR NEW CHW-R/S VALVE & VAULT INSTALL.



SECTION A-A



SECTION B-B

3 CHW-R/S VALVE VAULT

NTS

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COALINGA, CA
93210

DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
DSA App No.	SFM Permit No. 22-S-4509-O-DR	

Sheet Title
CIVIL DETAILS

Project Number
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Reference North

Sheet Scale
AS SHOWN

Sheet Number
C-4.2
V4

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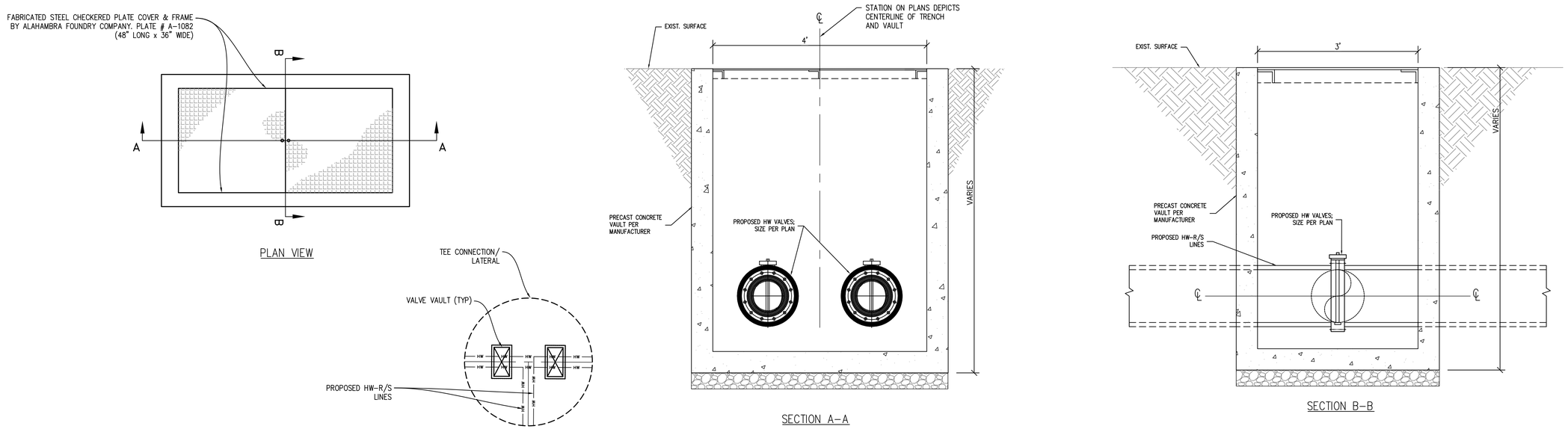
RELATIVE BORDER SCALE IN INCHES 0 1 2 3



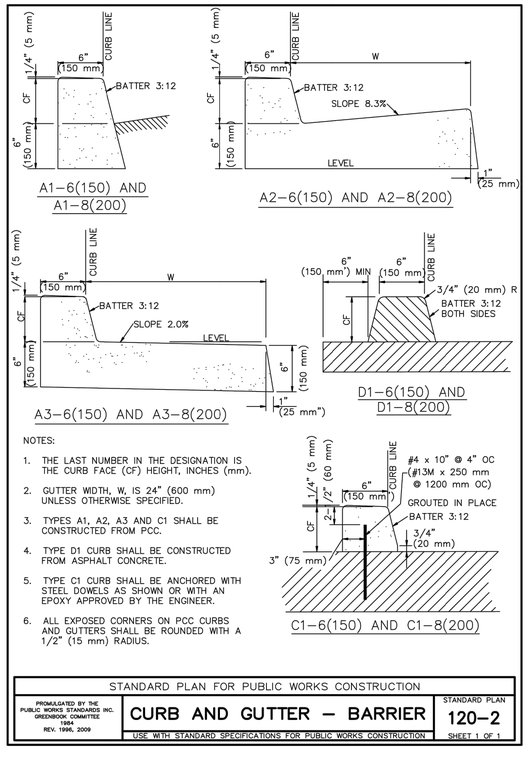
PLAN VIEW

SITE PLAN

SECTION A-A

SECTION B-B

4 HW-R/S VALVE VAULT N.T.S.



A1-6(150) AND A1-8(200)

A2-6(150) AND A2-8(200)

A3-6(150) AND A3-8(200)

D1-6(150) AND D1-8(200)

NOTES:

1. THE LAST NUMBER IN THE DESIGNATION IS THE CURB FACE (CF) HEIGHT, INCHES (mm).
2. GUTTER WIDTH, W, IS 24" (600 mm) UNLESS OTHERWISE SPECIFIED.
3. TYPES A1, A2, A3 AND C1 SHALL BE CONSTRUCTED FROM PCC.
4. TYPE D1 CURB SHALL BE CONSTRUCTED FROM ASPHALT CONCRETE.
5. TYPE C1 CURB SHALL BE ANCHORED WITH STEEL DOWELS AS SHOWN OR WITH AN EPOXY APPROVED BY THE ENGINEER.
6. ALL EXPOSED CORNERS ON PCC CURBS AND GUTTERS SHALL BE ROUNDED WITH A 1/2" (15 mm) RADIUS.

C1-6(150) AND C1-8(200)

STANDARD PLAN FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE PUBLIC WORKS STANDARDS INC. GREENBOOK COMMITTEE 1984 REV. 1996, 2009

CURB AND GUTTER – BARRIER

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN 120-2 SHEET 1 OF 1

5 PCC CURB N.T.S.

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Sheet Title
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Sheet Number C-4.3

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RELATIVE BORDER SCALE IN INCHES

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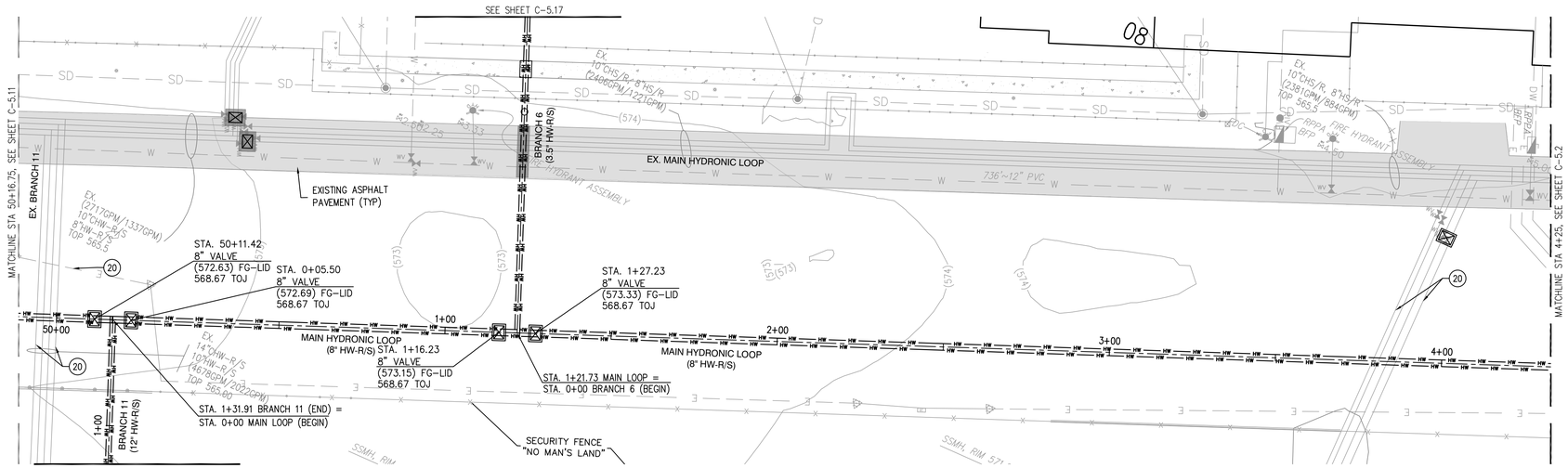
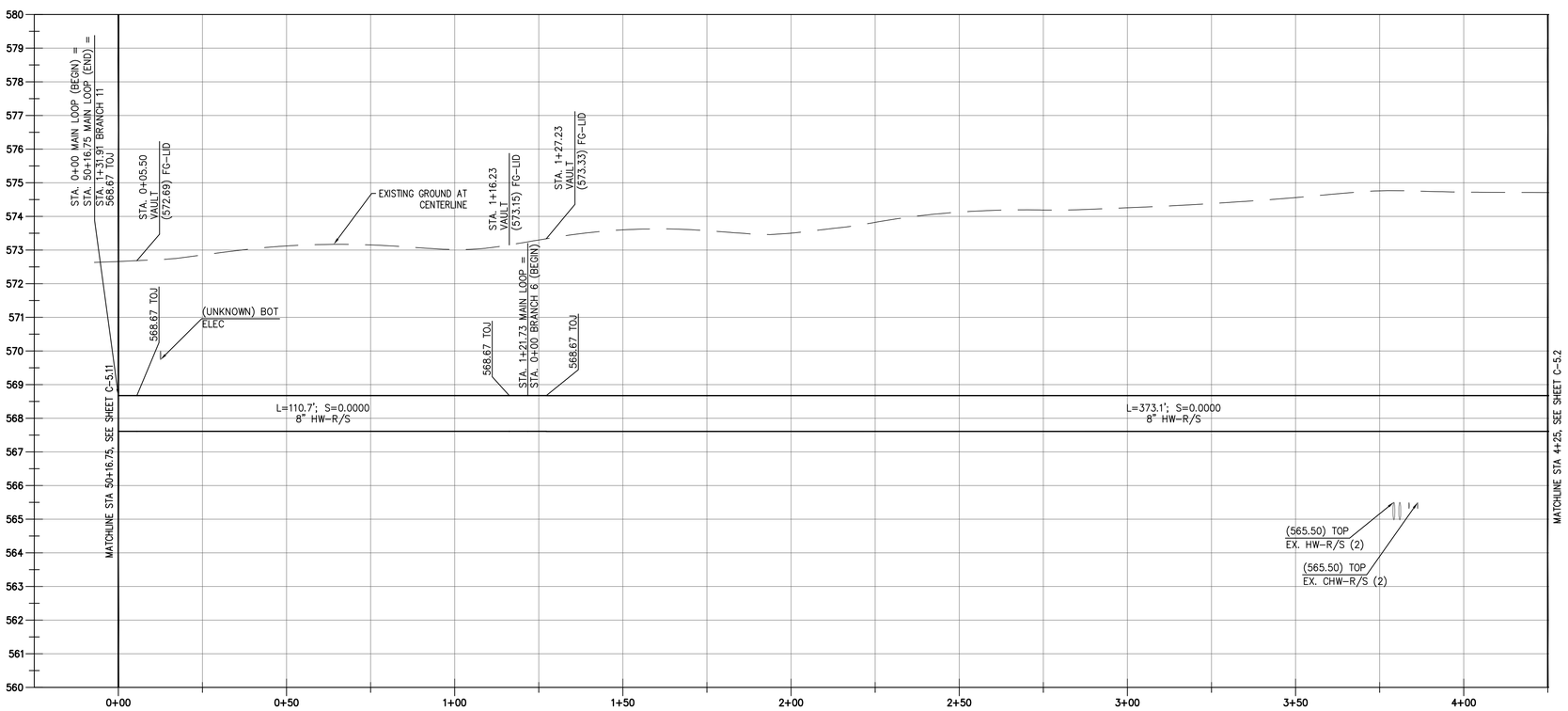


MAIN HYDRONIC LOOP – PLAN



PROFILE: MAIN LOOP
VIEW SCALE (H|V): 1" = 20'|2'

IMPROVEMENT PLAN KEYNOTES:
(NOT ALL KEYNOTES USED ON ALL SHEETS)

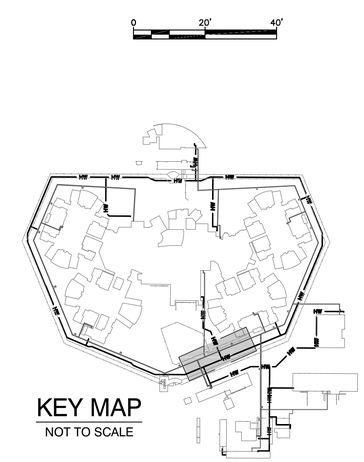
(20) EXISTING UTILITY CROSSING. CONTRACTOR TO FIELD VERIFY DEPTH AND SIZE OF EXISTING UTILITY BEFORE CONSTRUCTION.

(21) INSTALL VERTICAL AQUATHERM RESTRAINED JOINT PIPE FITTING PER MANUFACTURER'S SPECS; ANGLE PER PLAN.

(22) INSTALL 1" AIR RELEASE VALVES, MUELLER CO. MODEL NUMBER 330AR1884-BLN ON SUPPLY & RETURN LINES PER MANUFACTURER'S SPECS; INSTALL INSIDE GATE VALVE VAULT PER DETAIL 6/C-4.3 WHERE POSSIBLE, INSTALL WITH SHELL ASSEMBLY OTHERWISE

GENERAL NOTES:

1. SHOWN ALIGNMENTS ARE TO BE FOLLOWED AND STAKED PRIOR TO CONSTRUCTION. STAKING PLAN SHALL BE PROVIDED TO THE STATE FOR REVIEW AND APPROVAL.
2. SEE MECHANICAL PLANS FOR BUILDING POC'S AND PIPE INSTALL WITHIN BUILDINGS.
3. CONTRACTOR TO NOTIFY AND GET APPROVAL FROM STATE & FACILITY MANAGEMENT PRIOR TO ANY UTILITY SERVICE DISRUPTIONS.
4. SEE SHEETS 17–29 FOR PROPOSED BURIED PIPE PLAN.
5. PIPE STATIONS DEPICT CENTERLINE OF TRENCH PER DETAIL 1/C-4.2.
6. ALL AQUATHERM PIPE & FITTINGS TO BE PRE-INSULATED BY THERMACOR PROCESS INC. OF FORT WORTH, TEXAS OR AS APPROVED BY OWNER.
7. COLD WATER VALVE REMOVAL & INSTALL TO BE PHASED AFTER NEW HOT WATER SYSTEM IS INSTALLED & OPERATIONAL.
8. CONTRACTOR TO FIELD VERIFY EXISTING CHW-R/S PIPE MATERIAL AND VALVE SIZE PRIOR TO CONSTRUCTION; AND ANTICIPATE REMOVAL & RE-INSTALL OF PORTIONS OF EXISTING CHW-R/S PIPE & FITTINGS FOR INSTALLATION OF NEW CHW-R/S VALVE & VAULT.
9. CONTRACTOR TO ORDER CUSTOM MADE FACTORY WELDED & PRE-INSULATED TEE CONNECTION ASSEMBLIES FROM THE MANUFACTURER.



KEY MAP
NOT TO SCALE

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Sheet Title
MAIN HYDRONIC LOOP PLAN AND PROFILE

Project Number
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Reference North

Sheet Scale 1"=20'

Sheet Number C-5.1

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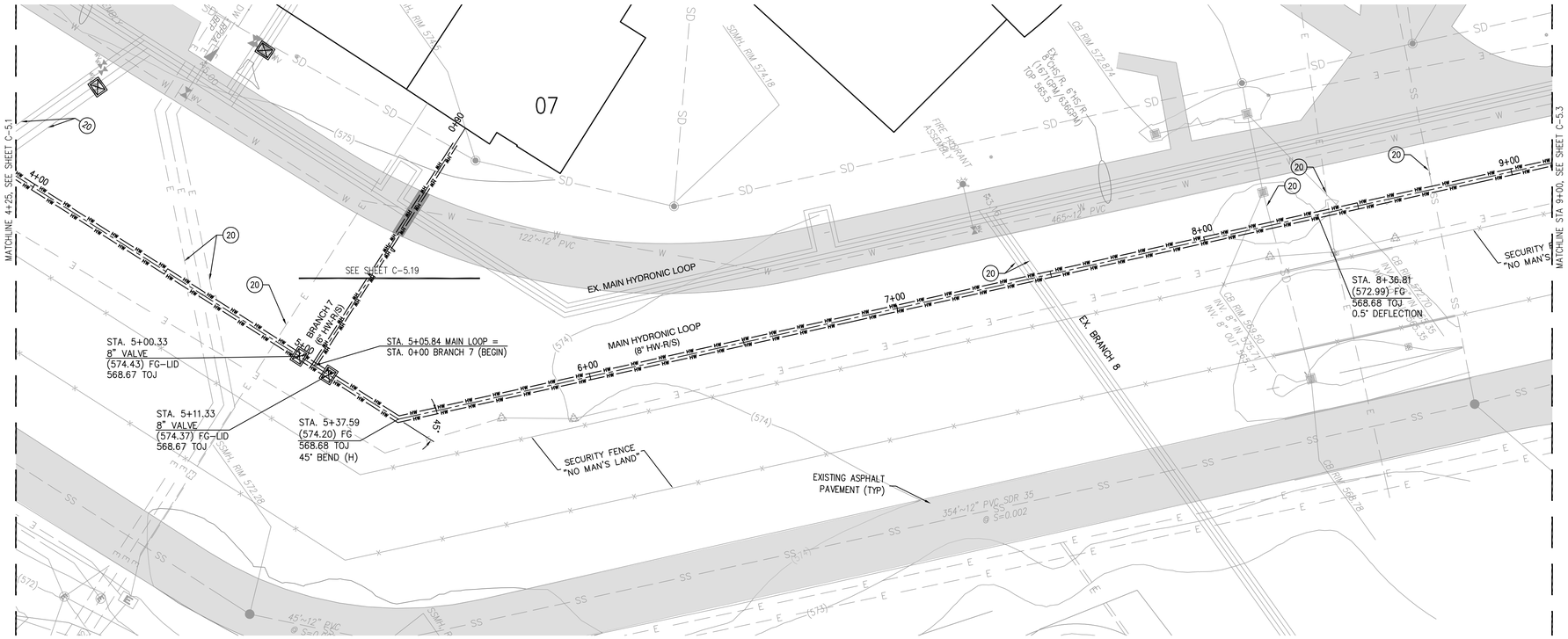
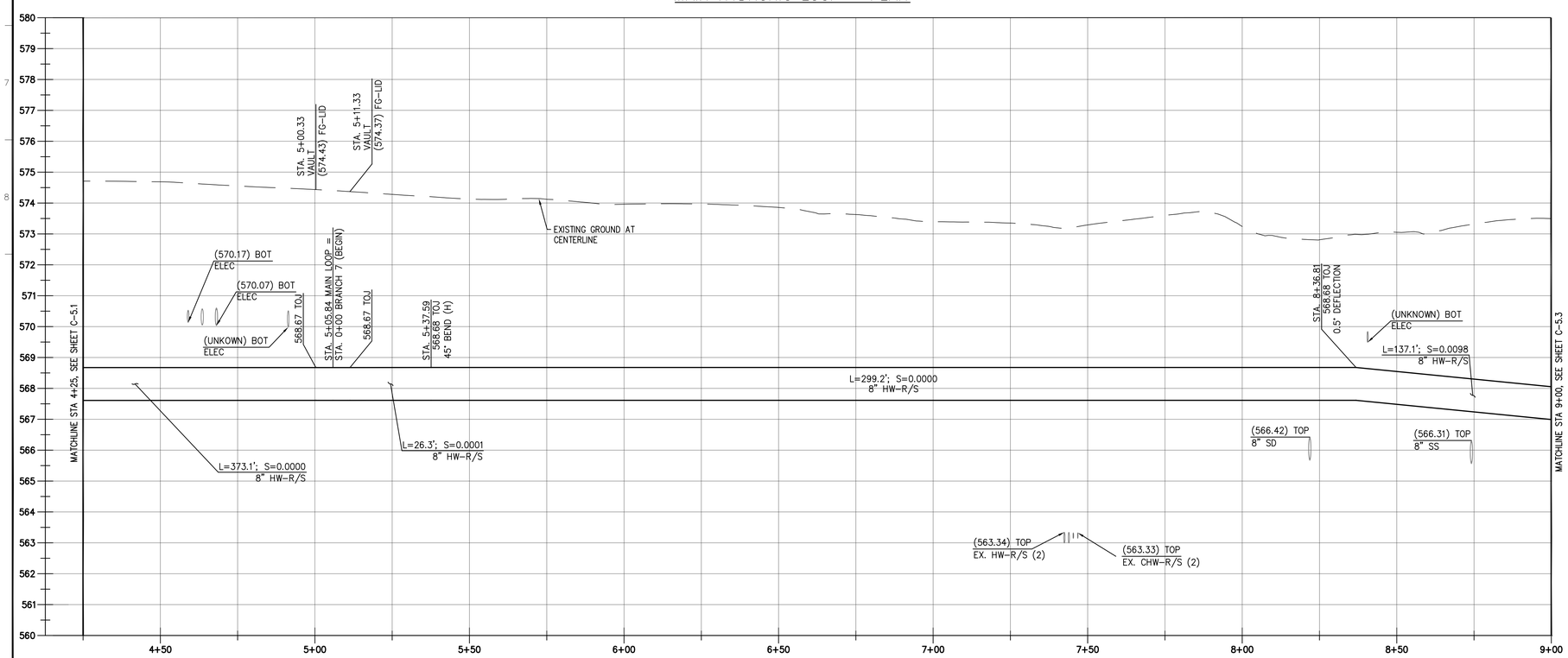


MAIN HYDRONIC LOOP – PLAN



PROFILE: MAIN LOOP
VIEW SCALE (H|V): 1" = 20'|2'

IMPROVEMENT PLAN KEYNOTES:
(NOT ALL KEYNOTES USED ON ALL SHEETS)

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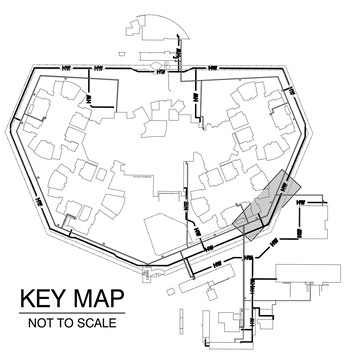

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24511 WEST JAYNE AVE
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93210
DEPARTMENT OF STATE HOSPITALS

Supervisor | Designed | Drawn

DSA App No. | SFM Permit No. 22-S-4509-O-DR

Sheet Title
MAIN HYDRONIC LOOP PLAN AND PROFILE

Project Number
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Reference North | Sheet Scale 1"=20'

Sheet Number
C-5.2
V4

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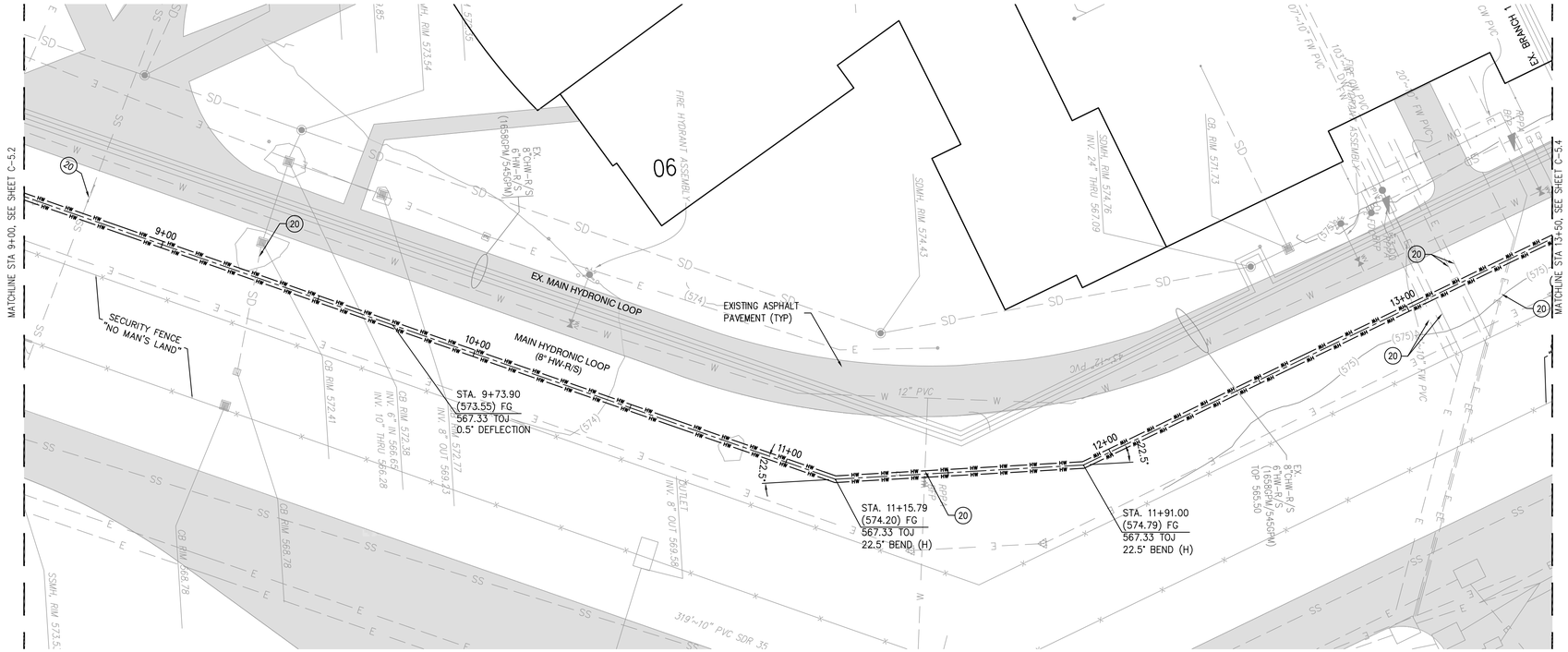
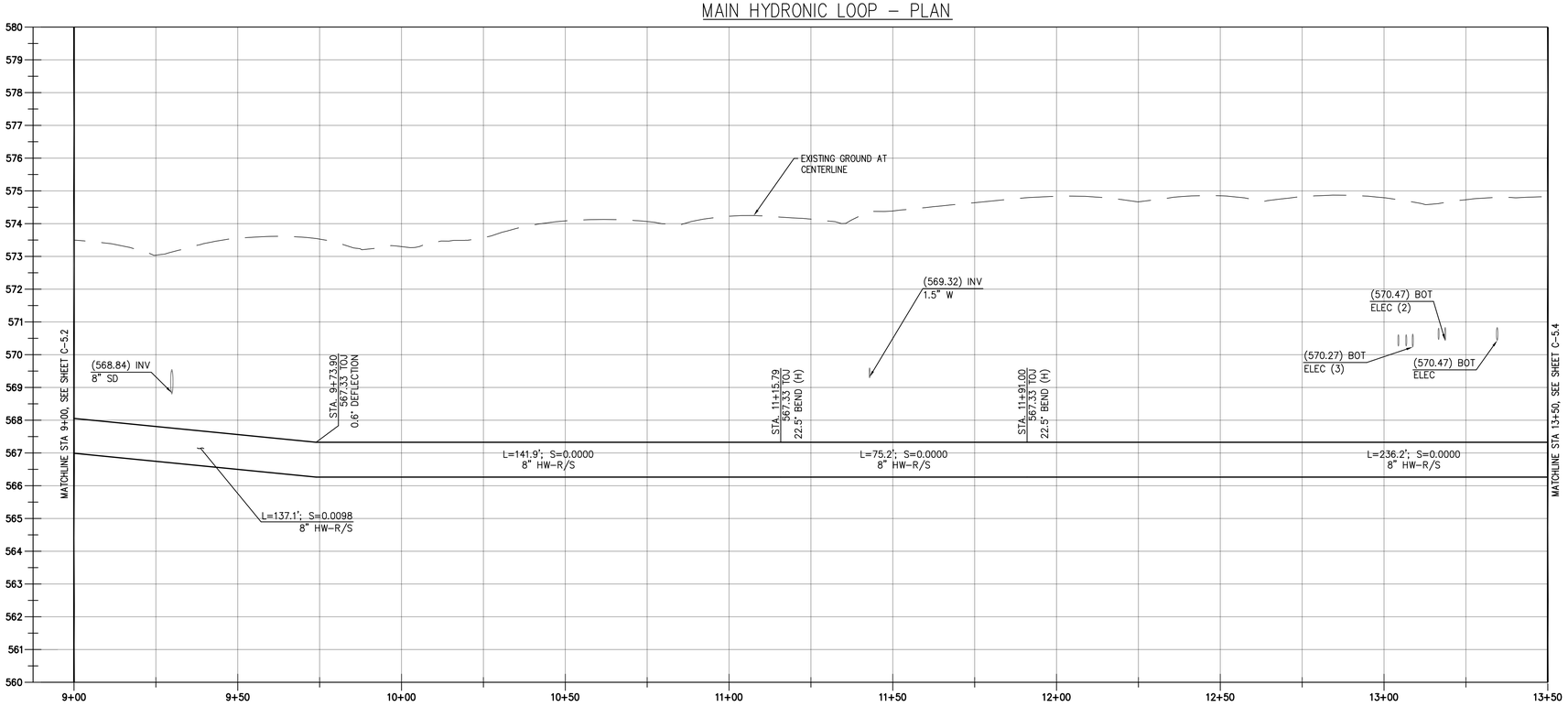
RELATIVE BORDER SCALE IN INCHES 0 1 2 3



MAIN HYDRONIC LOOP – PLAN



PROFILE: MAIN LOOP
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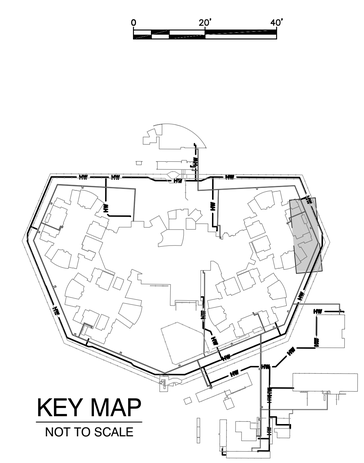

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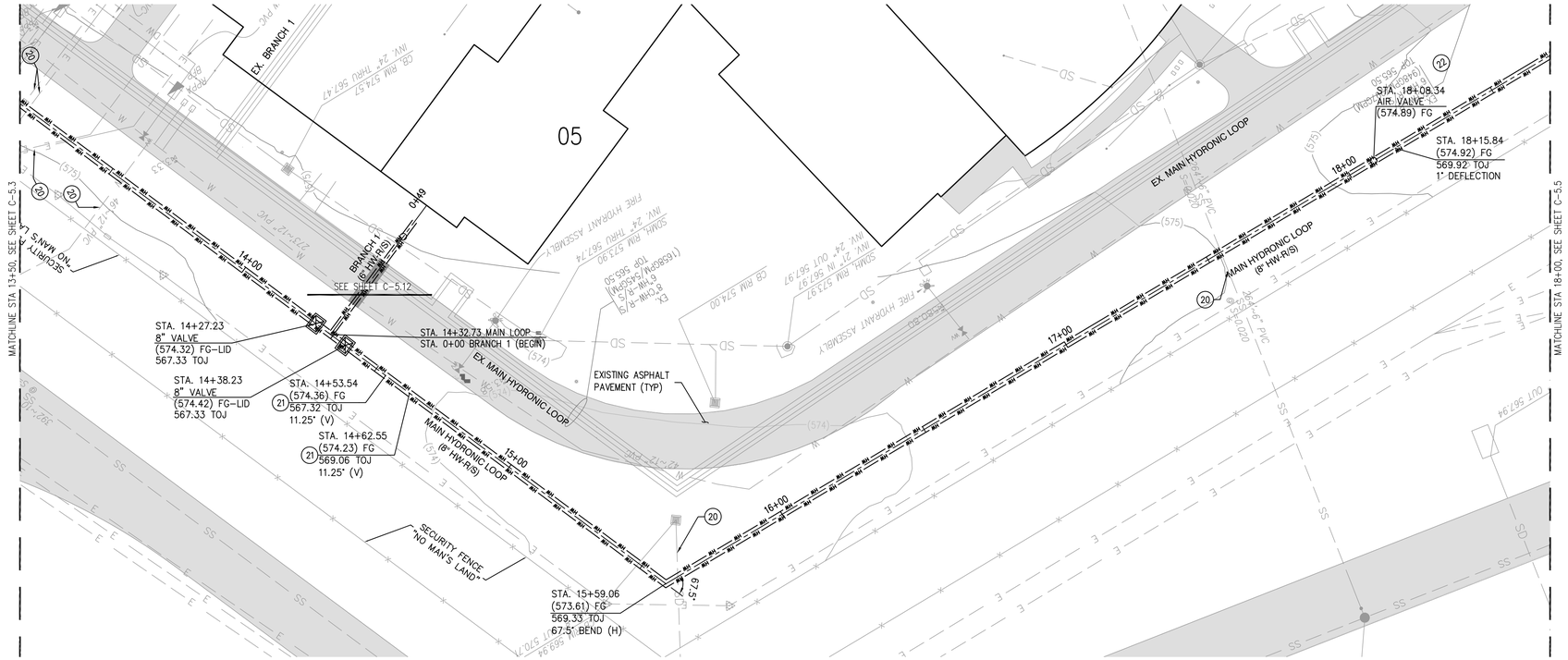
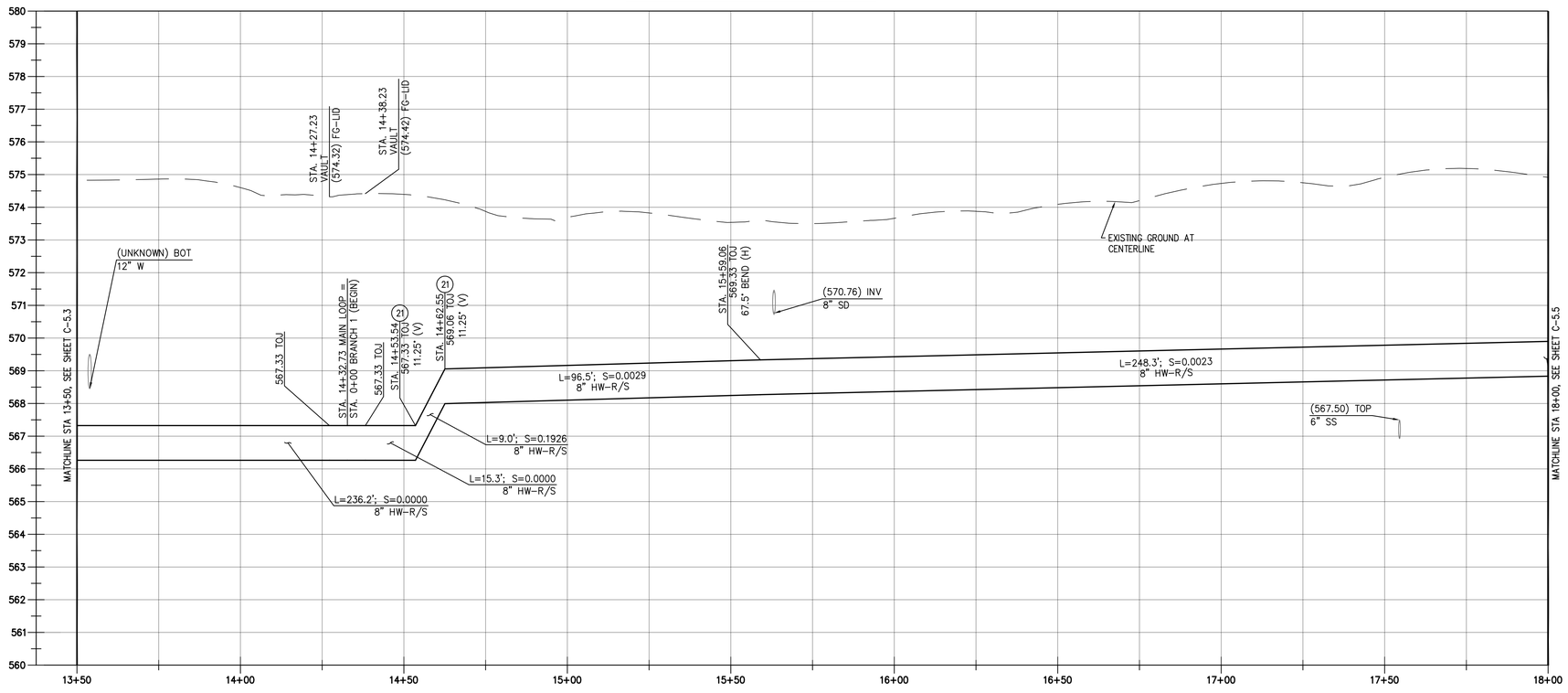


MAIN HYDRONIC LOOP – PLAN



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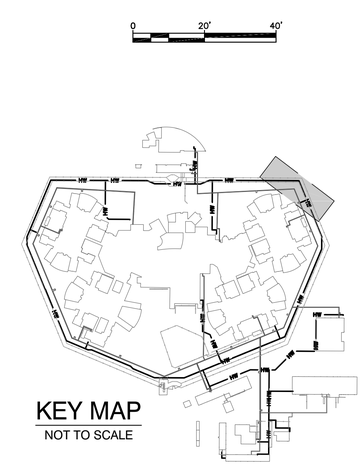

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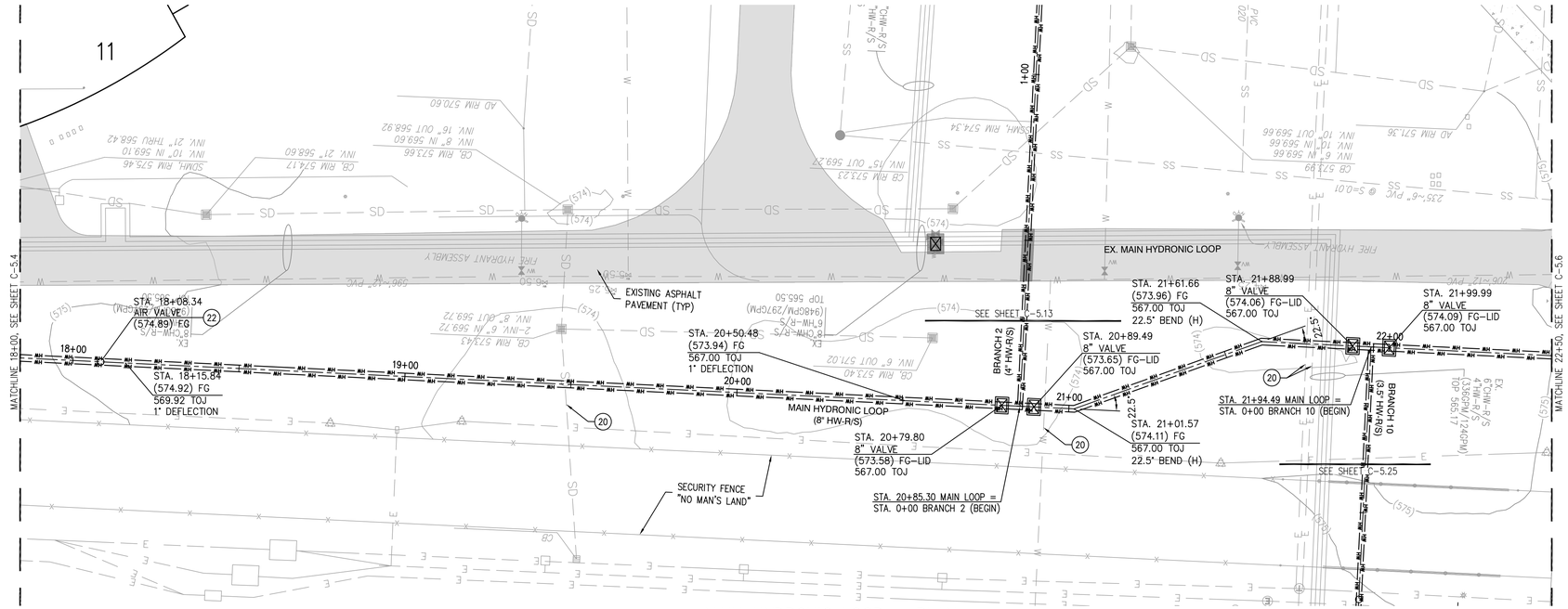
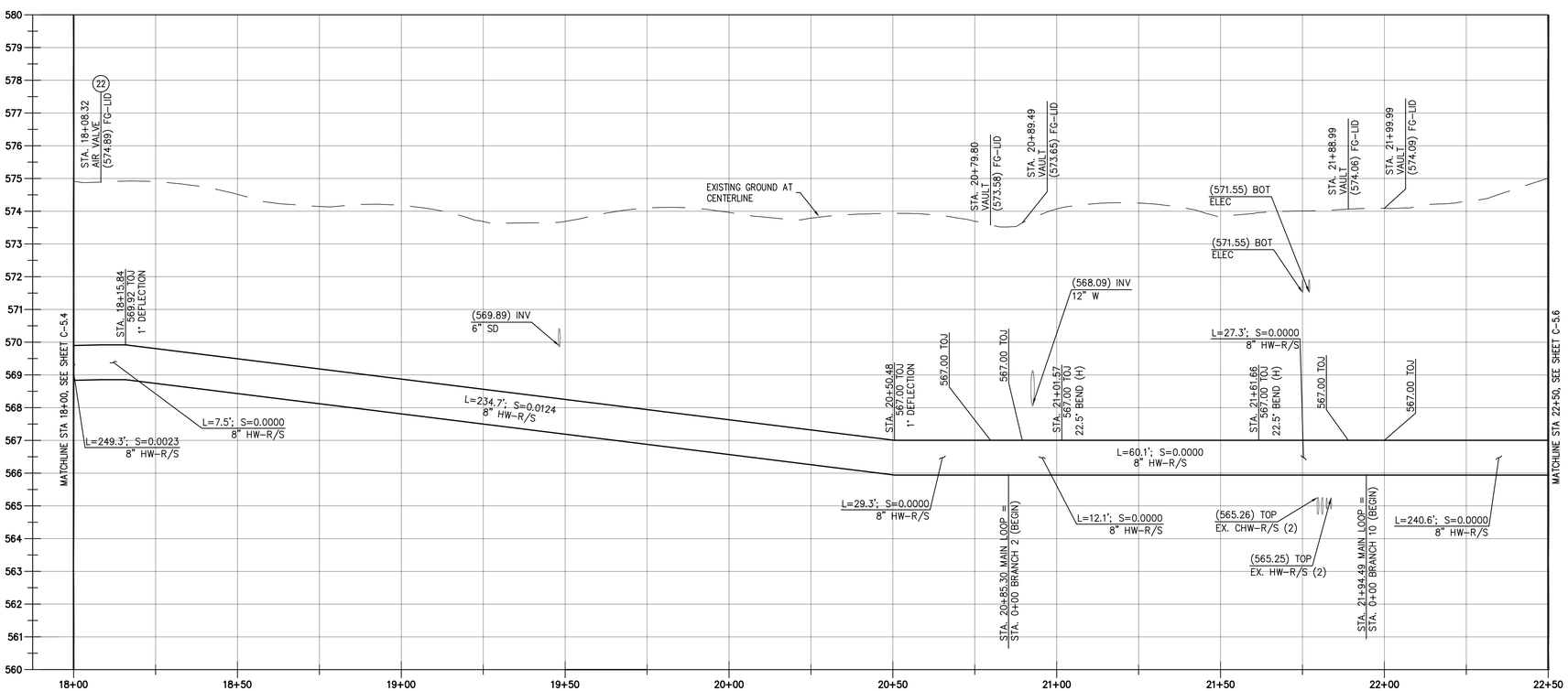


MAIN HYDRONIC LOOP – PLAN



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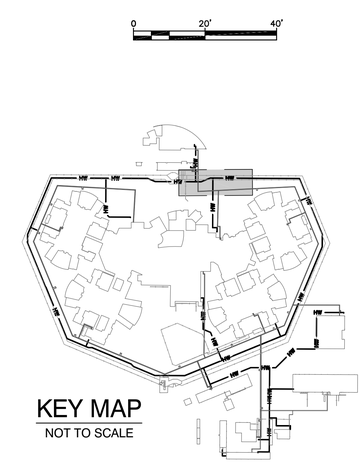

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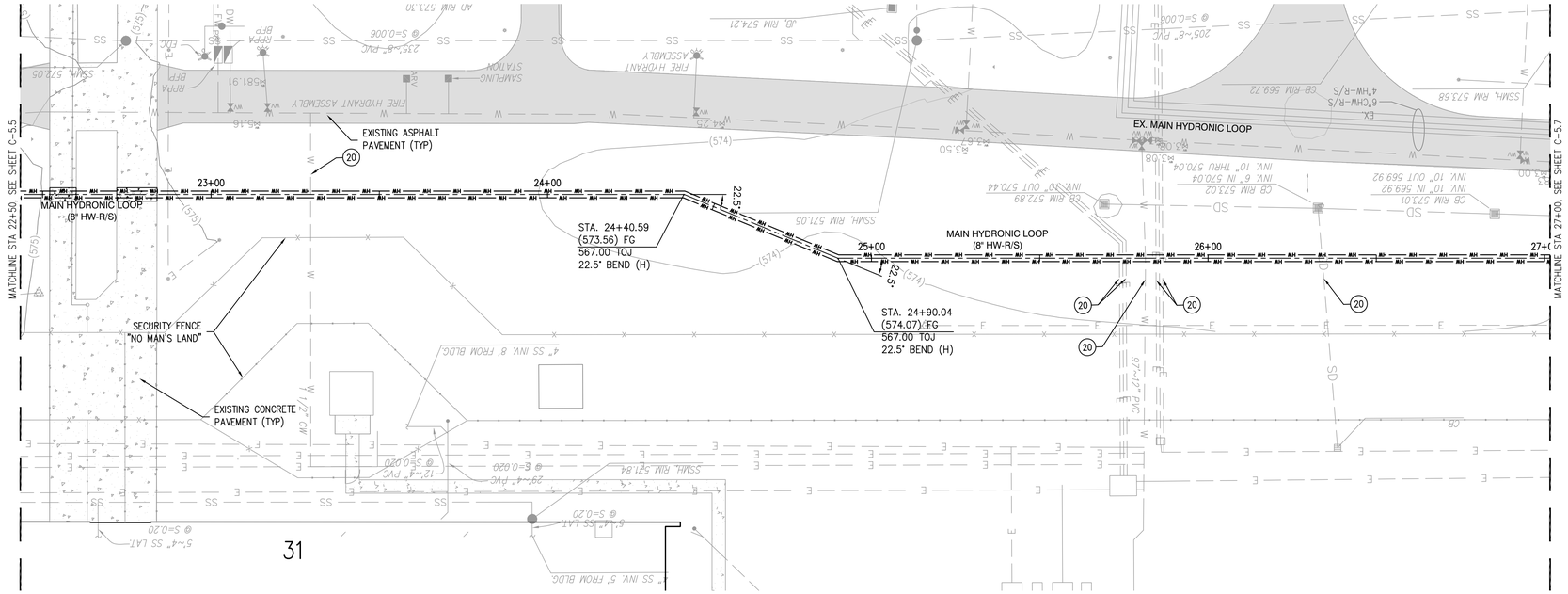
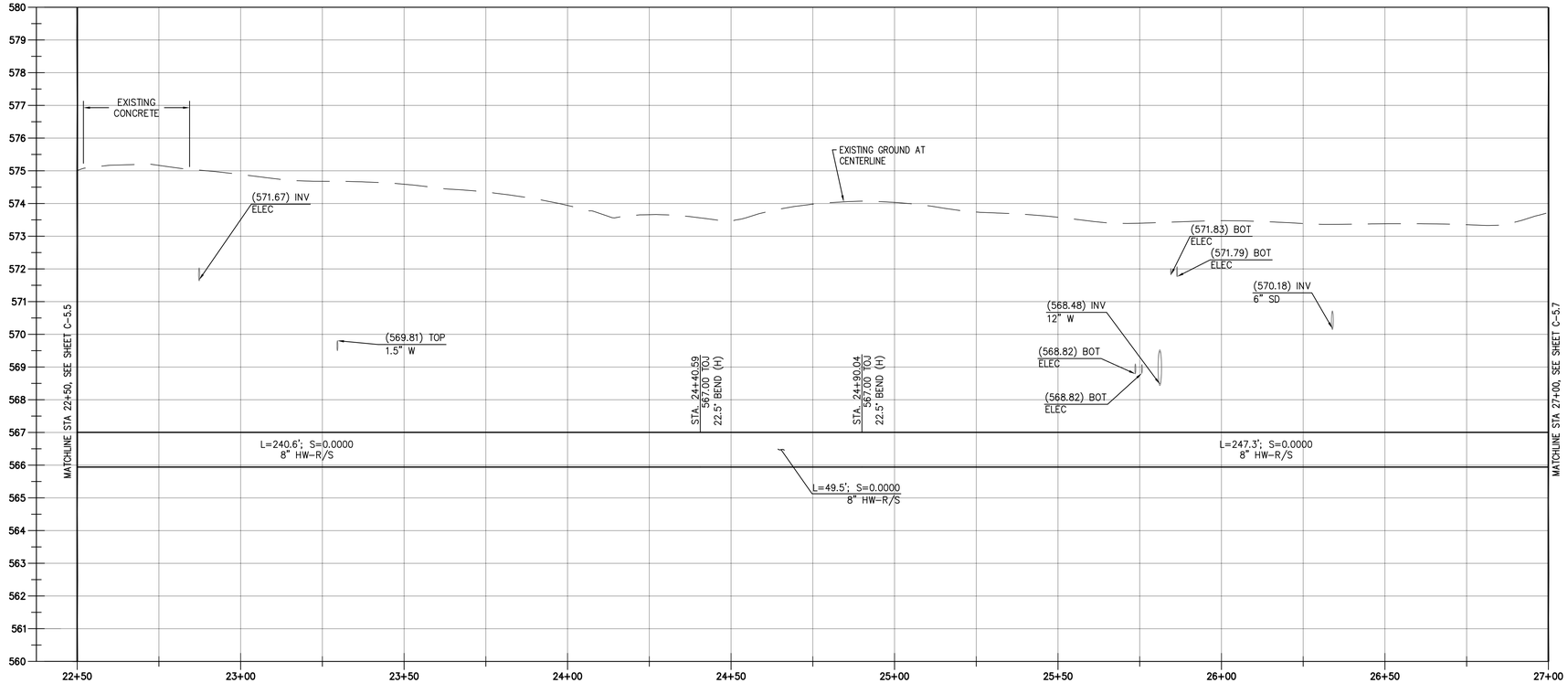


MAIN HYDRONIC LOOP – PLAN



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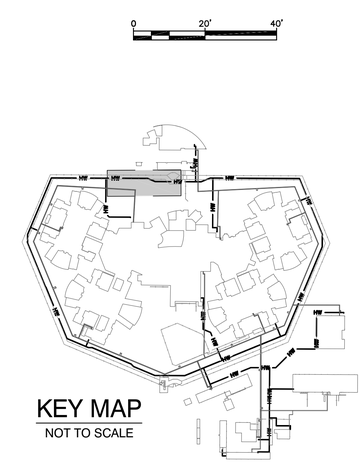

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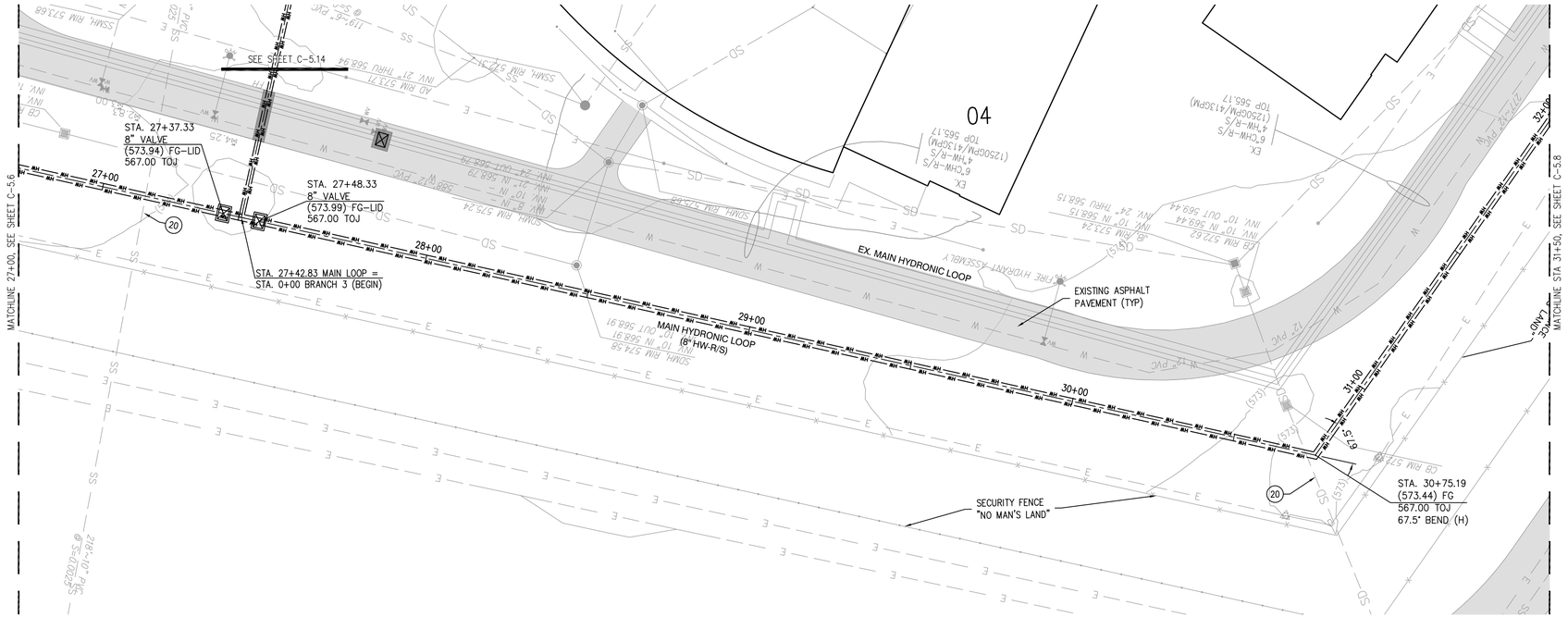

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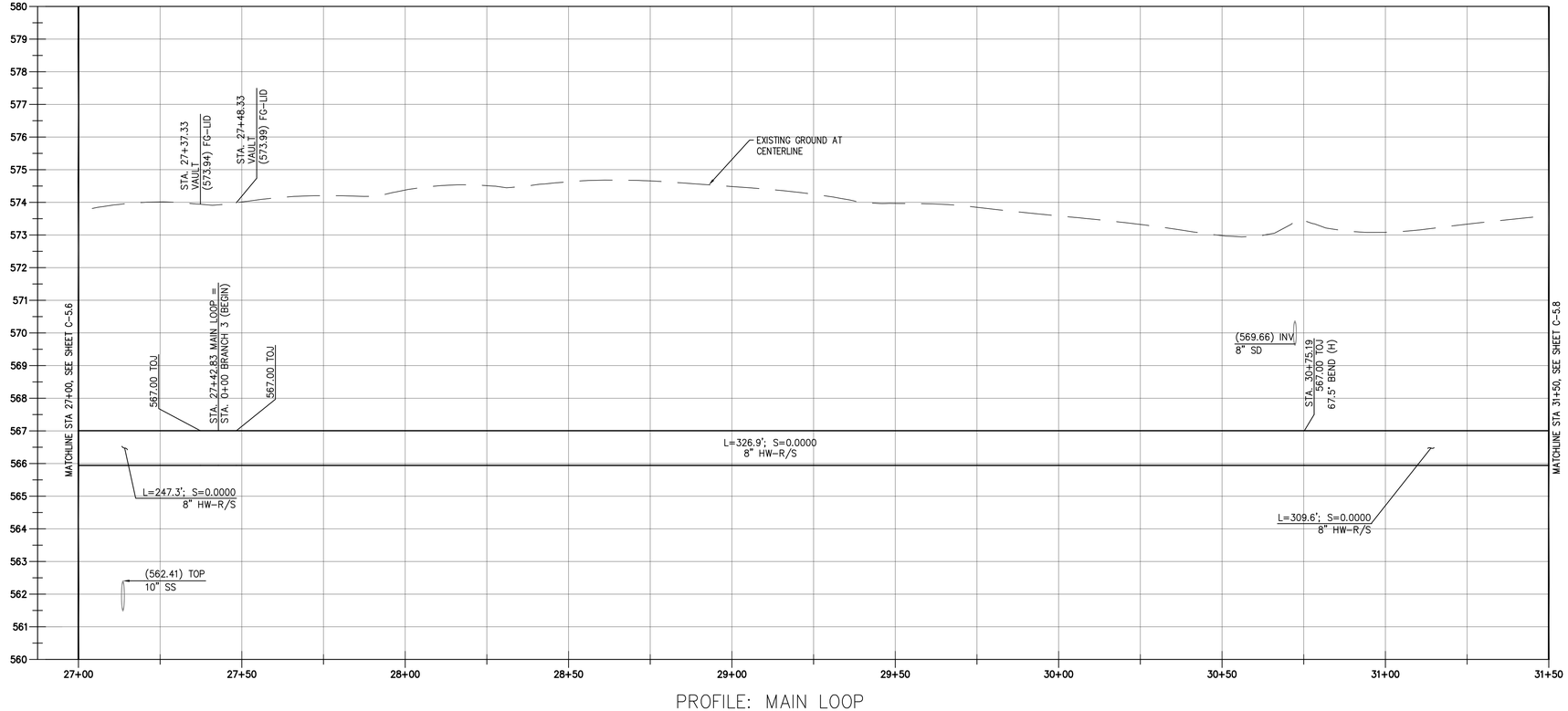

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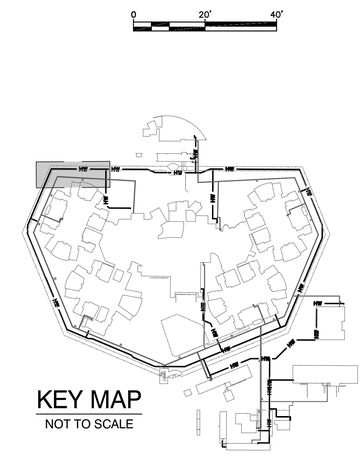

KEY MAP
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23-1693
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Issue

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	01/31/22	Preliminary Plans
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24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn

DSA App No.	SFM Permit No.
	22-S-4509-O-DR

Sheet Title
MAIN HYDRONIC LOOP PLAN AND PROFILE

Project Number
0000000000008666

Reference North

Sheet Scale
1"=20'

Sheet Number
C-5.7
V4

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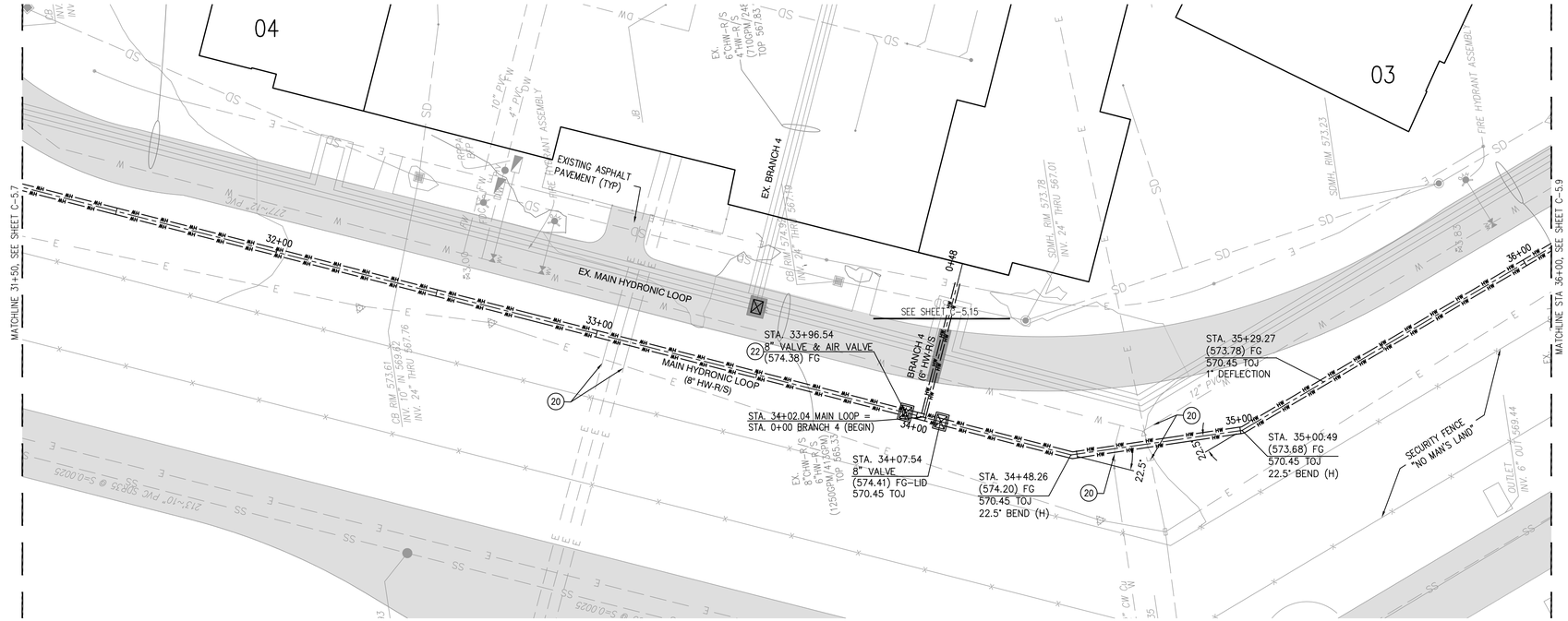
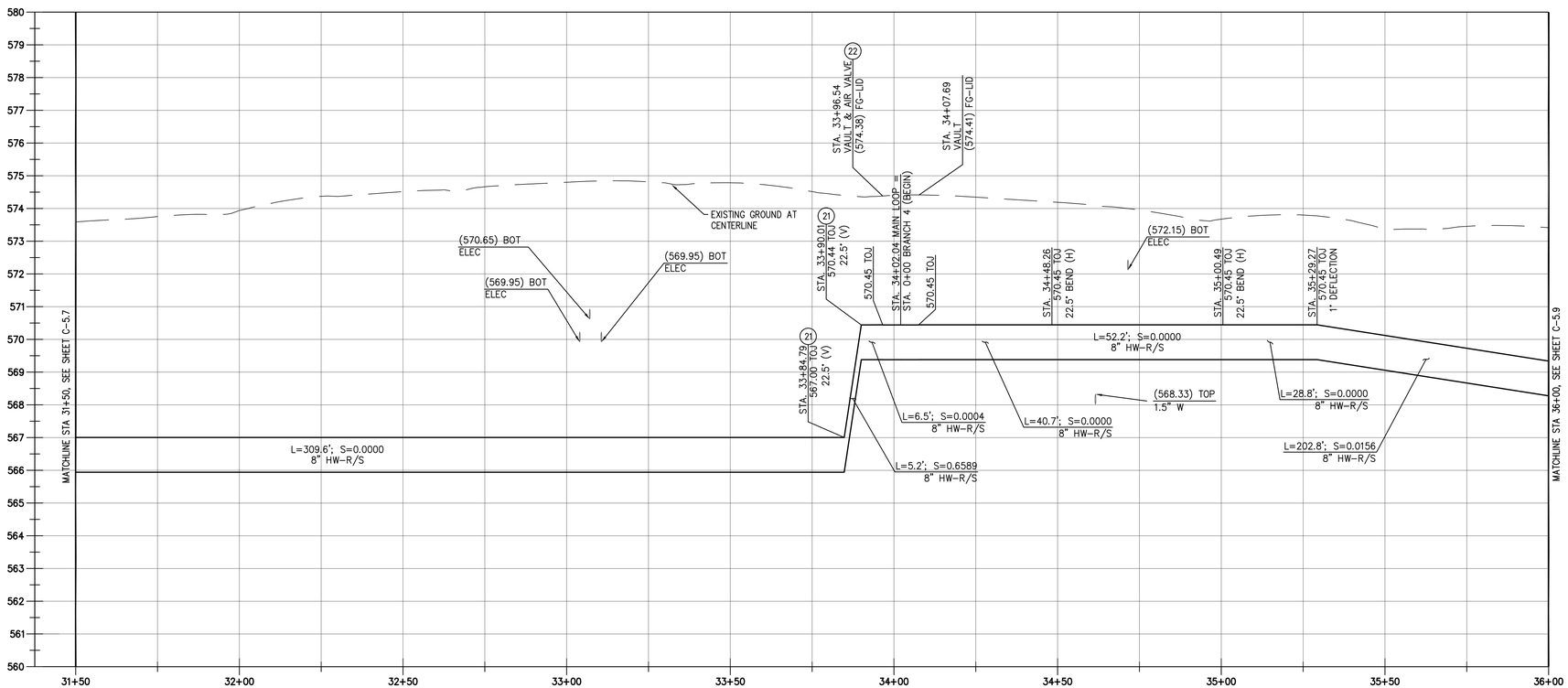
24 X 36

RELATIVE BORDER SCALE IN INCHES 0 1 2 3



MAIN HYDRONIC LOOP – PLAN



PROFILE: MAIN LOOP
VIEW SCALE (H|V): 1" = 20'|2'

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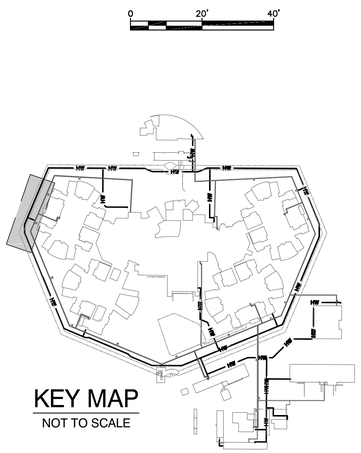

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Project Number
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Reference North | Sheet Scale 1"=20' | Sheet Number C-5.8

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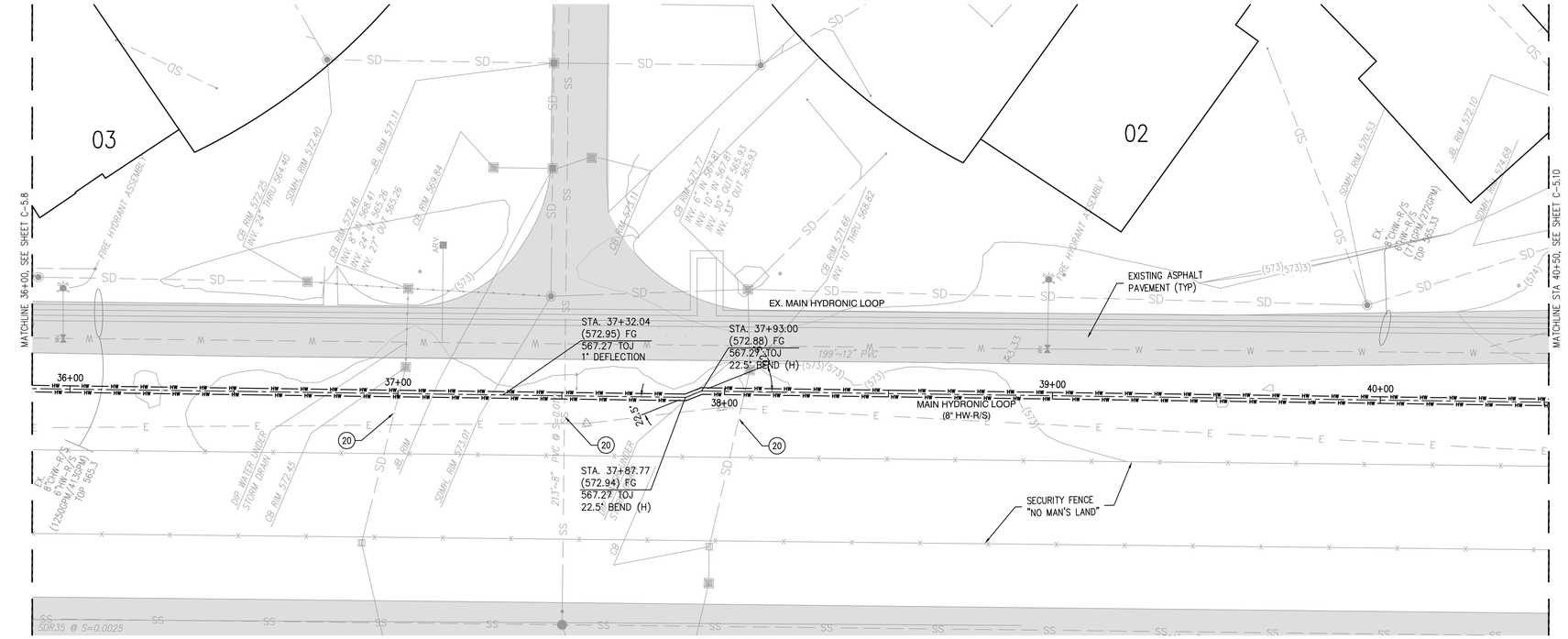
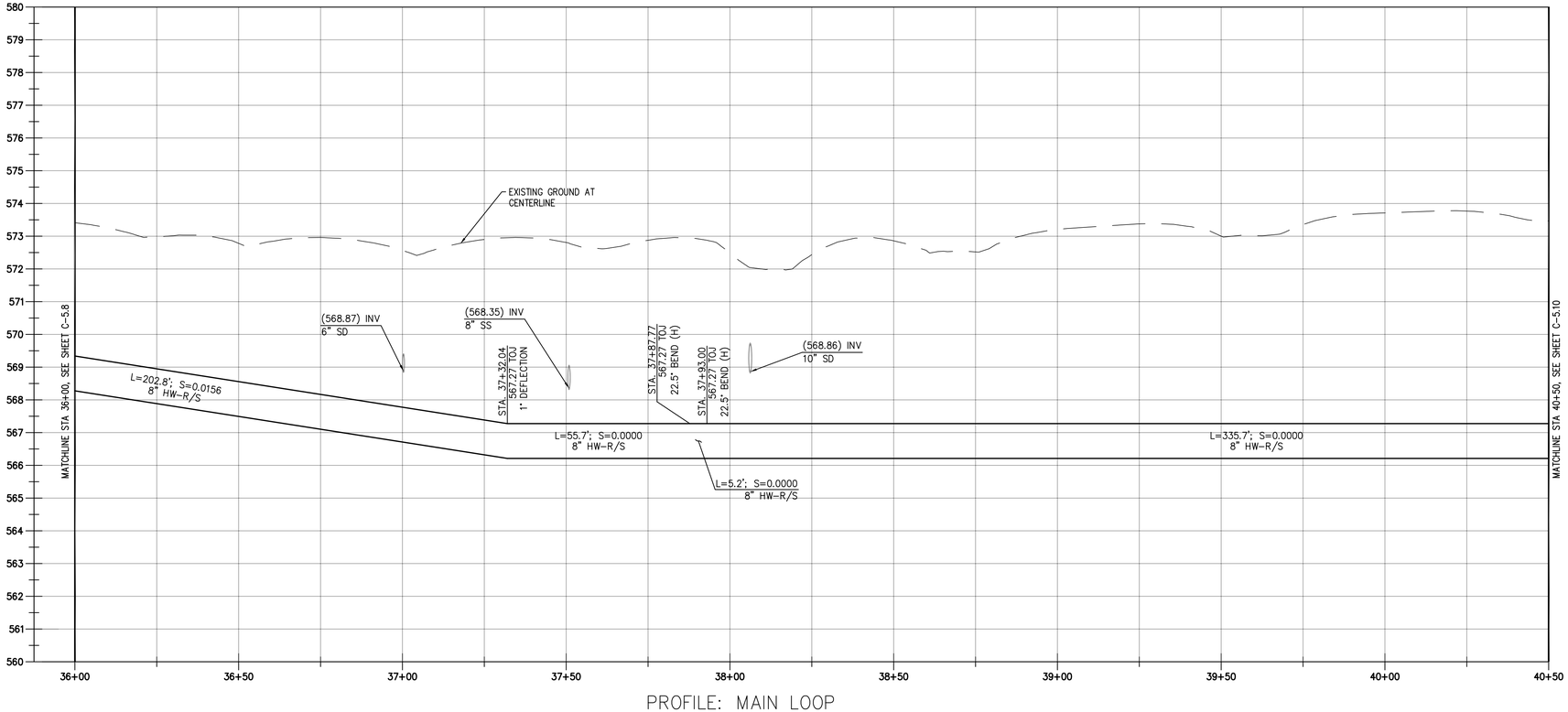


MAIN HYDRONIC LOOP – PLAN



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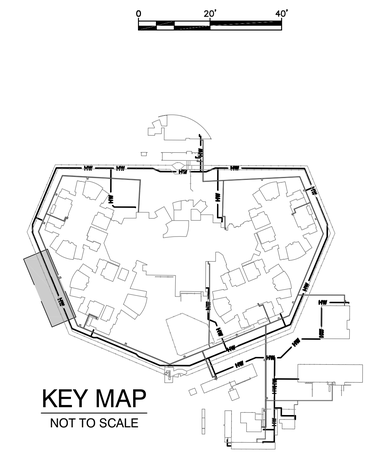

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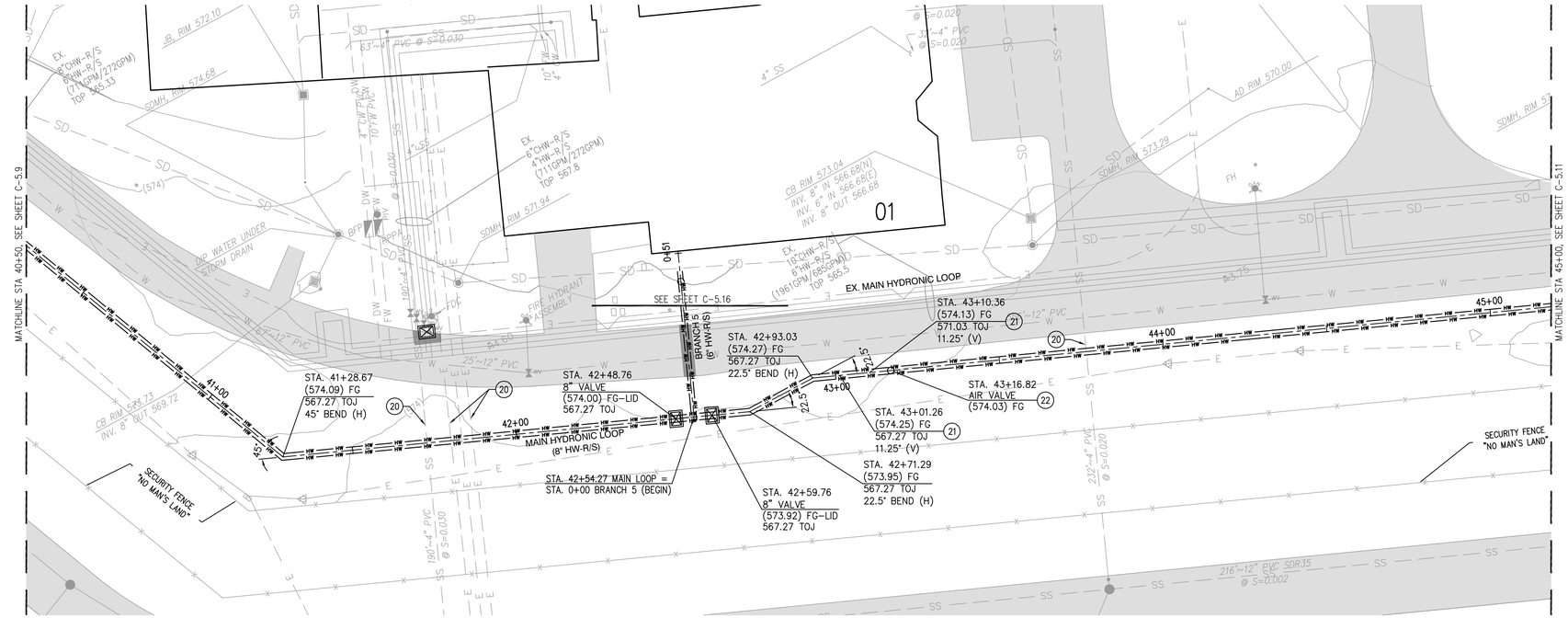
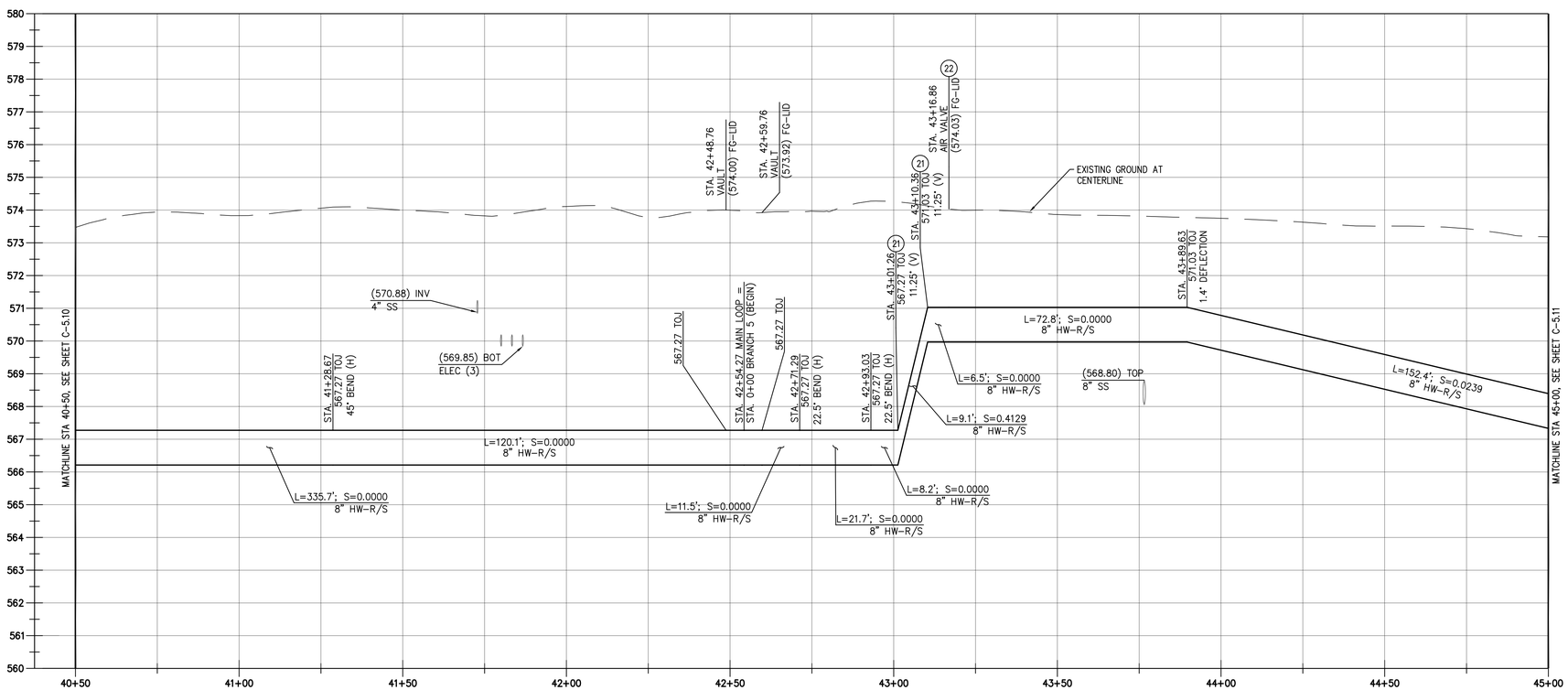


MAIN HYDRONIC LOOP – PLAN



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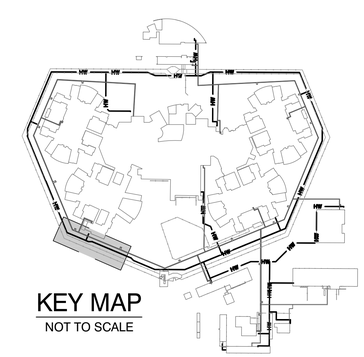

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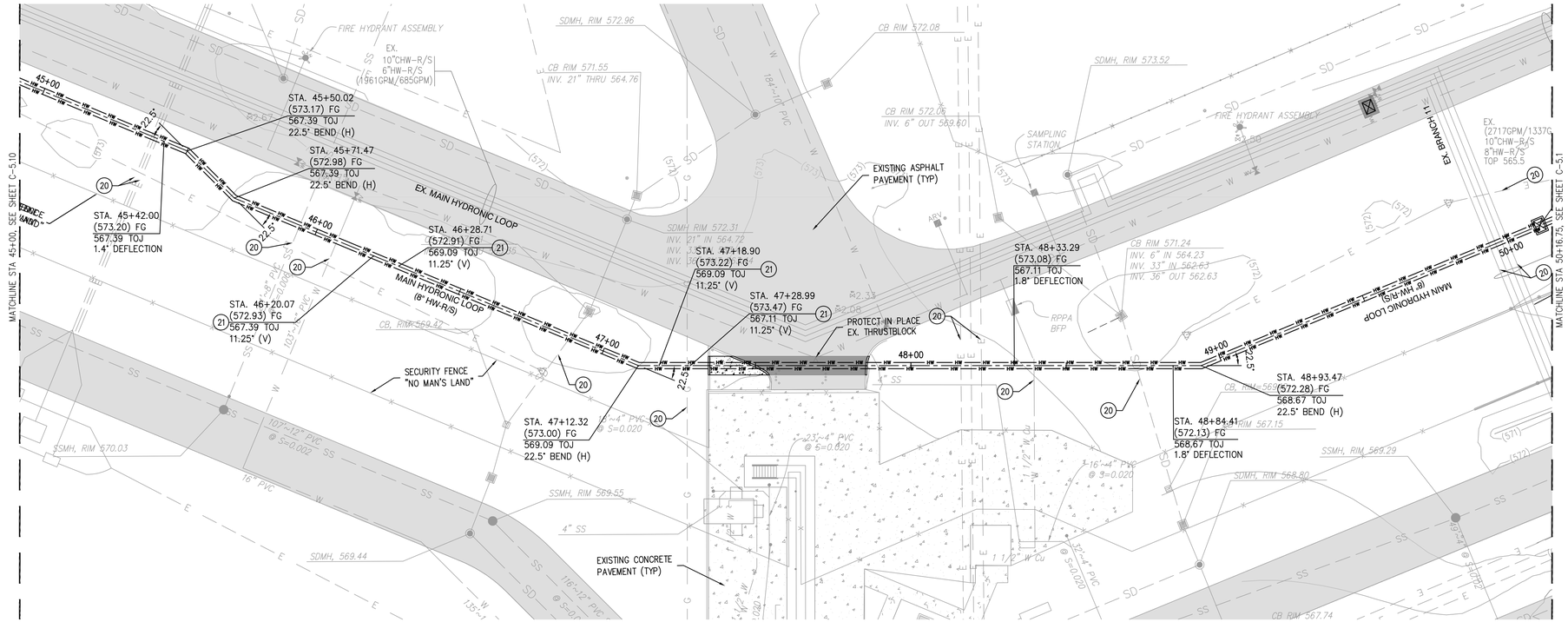
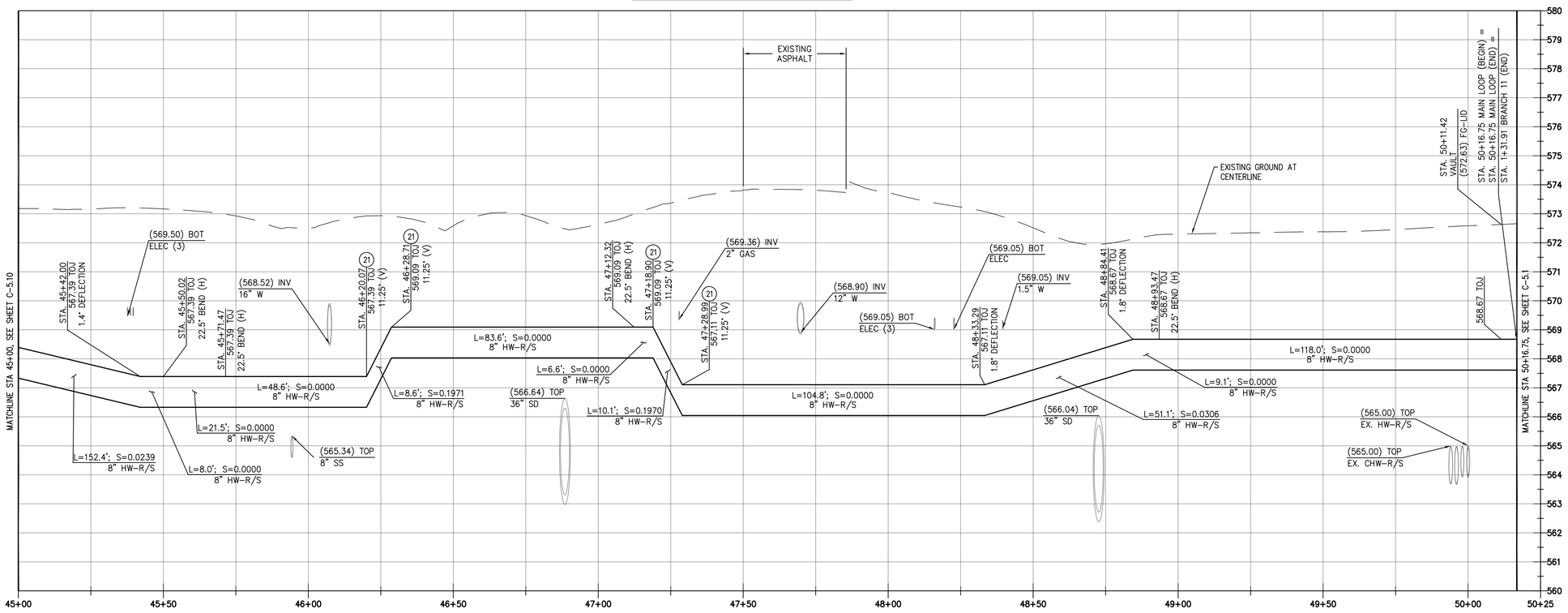


MAIN HYDRONIC LOOP – PLAN



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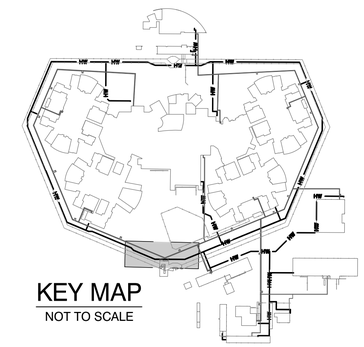

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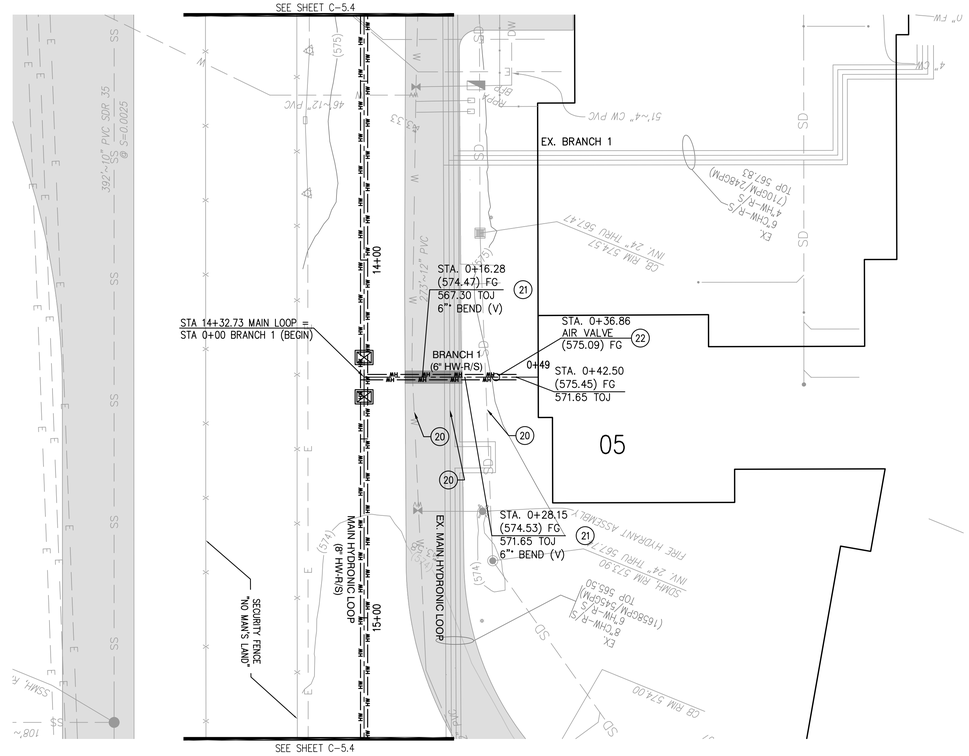
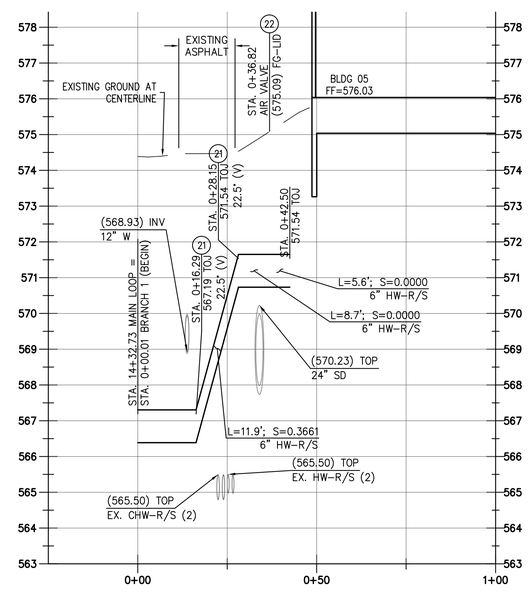


BRANCH 1 – PLAN



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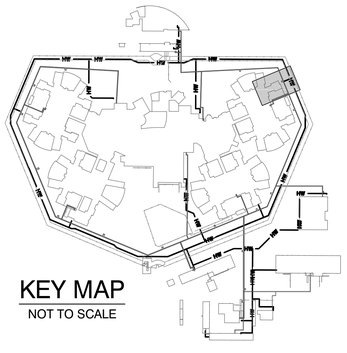

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	01/31/22	Preliminary Plans
	08/31/22	50% Working Drawings
	10/31/22	95% Working Drawings
	03/31/23	100% Working Drawings

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
DSA App No.	SFM Permit No. 22-S-4509-O-DR	

Sheet Title
BRANCH 1 PLAN AND PROFILE

Project Number
000000000008666

Reference North

Sheet Scale
1"=20'

Sheet Number
C-5.12
V4

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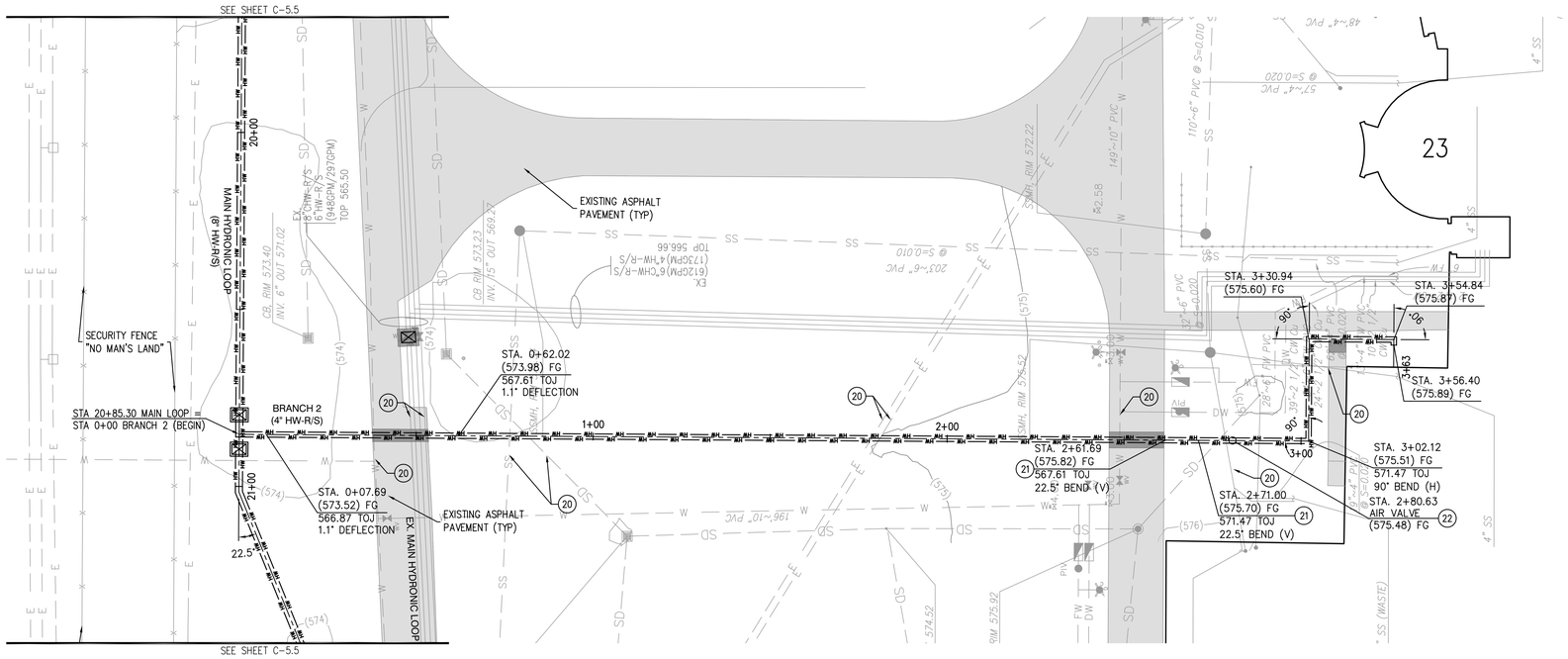
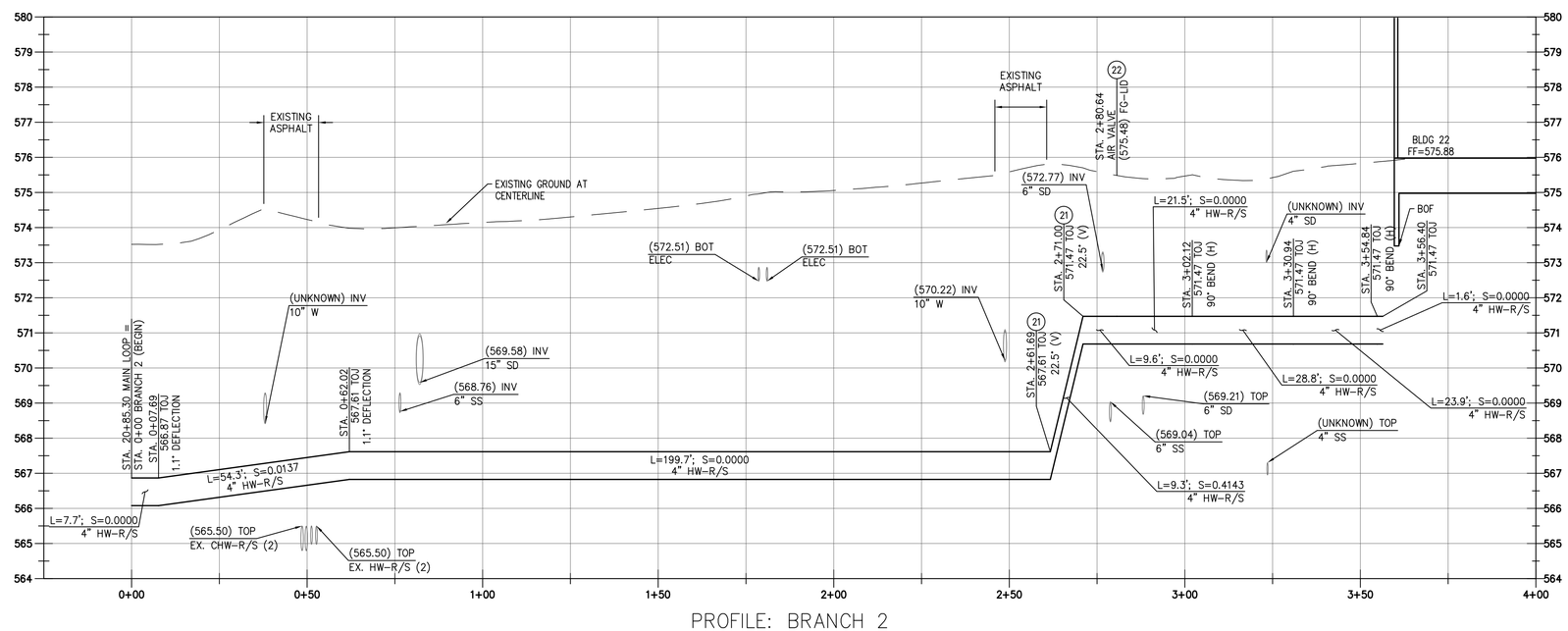
CAD File: S:\owendesign\Projects\2018 Projects\12352972 DGS - Coalinga State Hospital - Preliminary Plans\Drafting\CAD\Civil\03-Civil Design\CD\Xref\3D\cgp01_align.dwg Plot Date: Jun 23, 2023 - 2:11pm Plotted by: bekaing

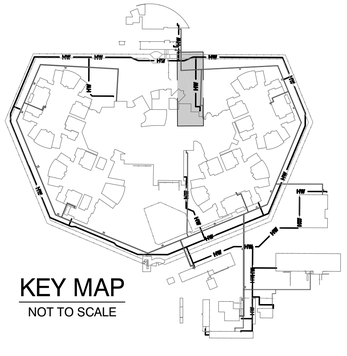
RELATIVE BORDER SCALE IN INCHES 0 1 2 3



BRANCH 2 – PLAN



PROFILE: BRANCH 2
VIEW SCALE (H|V): 1" = 20'|2'



KEY MAP
NOT TO SCALE

IMPROVEMENT PLAN KEYNOTES:
(NOT ALL KEYNOTES USED ON ALL SHEETS)

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(21) INSTALL VERTICAL AQUATHERM RESTRAINED JOINT PIPE FITTING PER MANUFACTURER'S SPECS; ANGLE PER PLAN.

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Sheet Title
BRANCH 2 PLAN AND PROFILE

Project Number
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Reference North

Sheet Scale 1"=20'

Sheet Number
C-5.13
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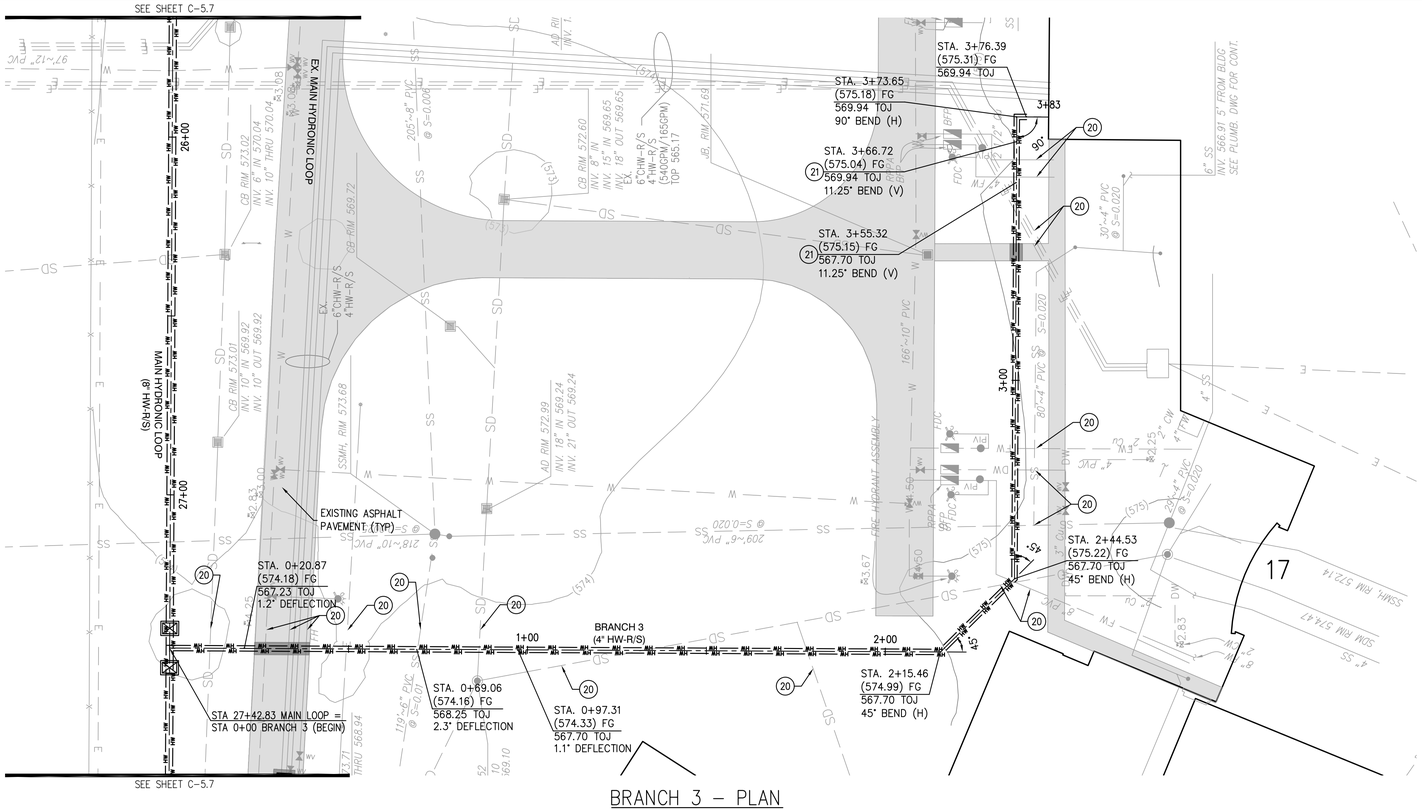
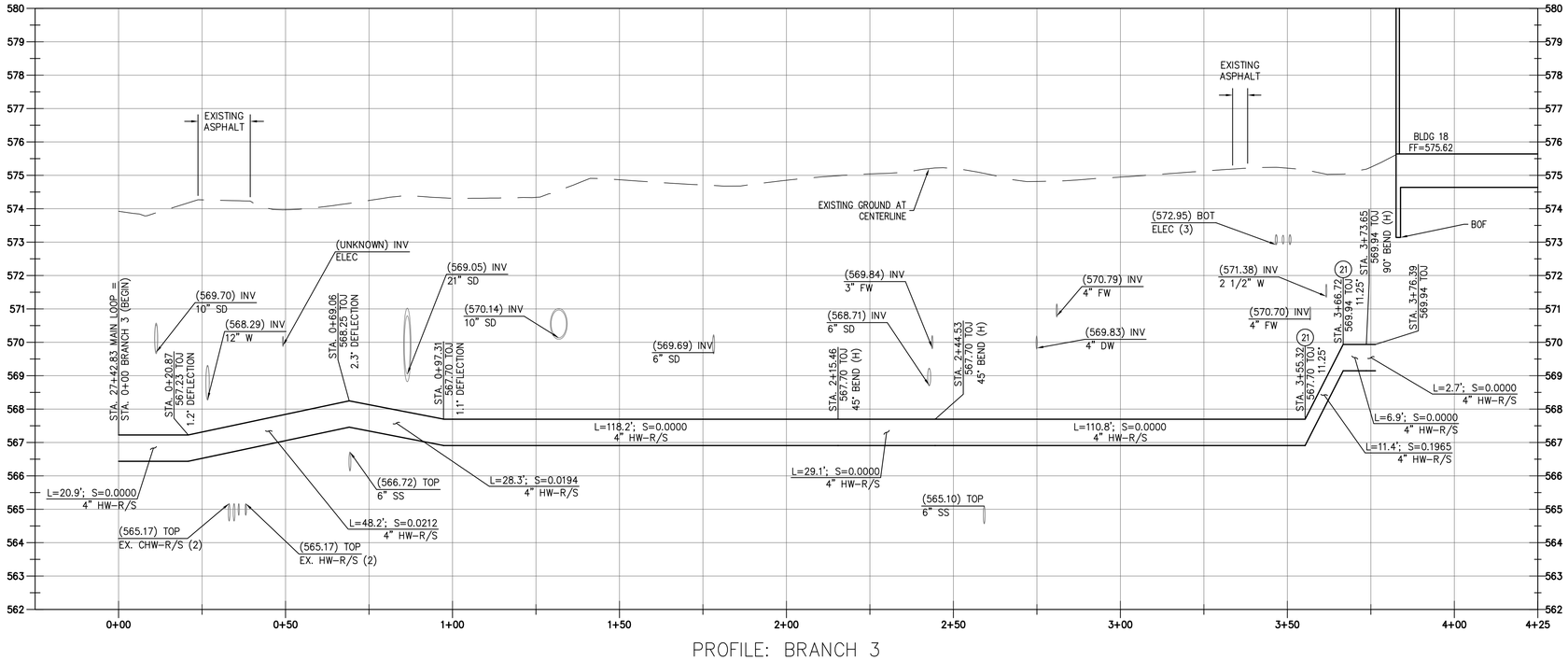


BRANCH 3 – PLAN



PROFILE: BRANCH 3
VIEW SCALE (H|V): 1" = 20'|2'

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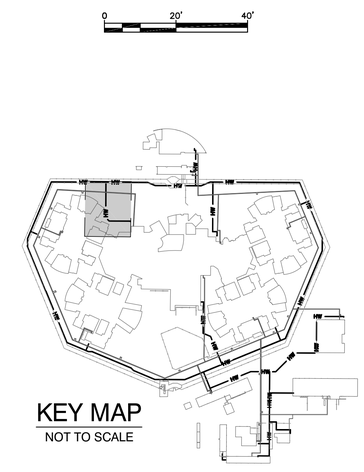

KEY MAP
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DSA App No.	SFM Permit No. 22-S-4509-0-DR	

Sheet Title
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Reference North

Sheet Scale
1"=20'

Sheet Number
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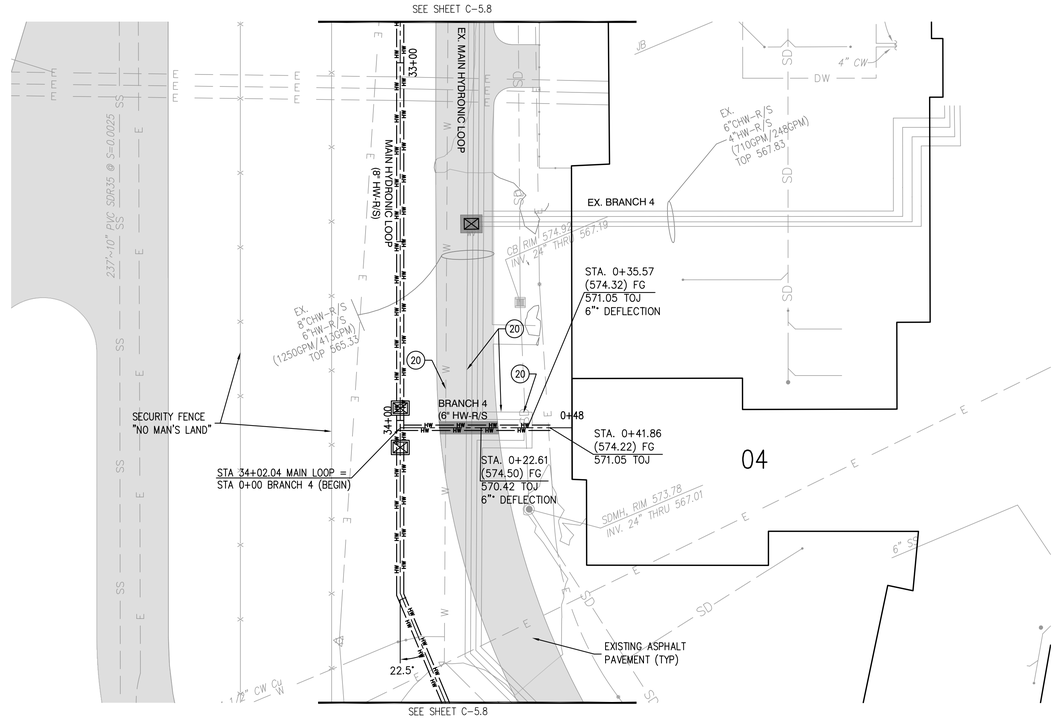
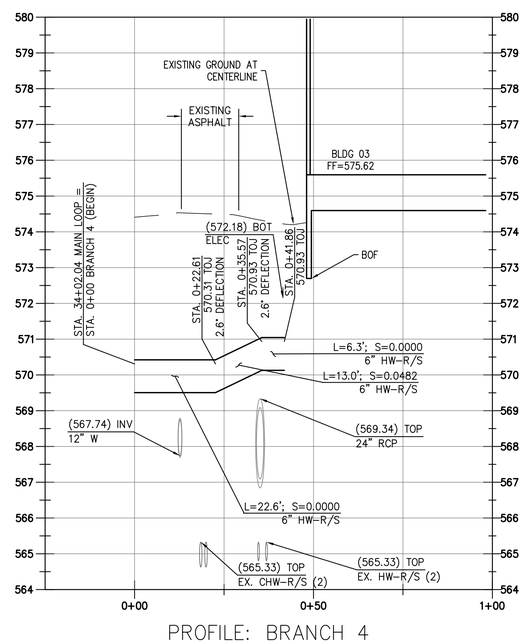
24 X 36

RELATIVE BORDER SCALE IN INCHES 0 1 2 3



BRANCH 4 – PLAN



PROFILE: BRANCH 4
VIEW SCALE (H|V): 1" = 20'|2'

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DEPARTMENT OF STATE HOSPITALS

Supervisor | Designed | Drawn
DSA App No. | SFM Permit No. 22-S-4509-0-DR

Sheet Title
BRANCH 4 PLAN AND PROFILE

Project Number
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Reference North
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Sheet Number C-5.15
V4

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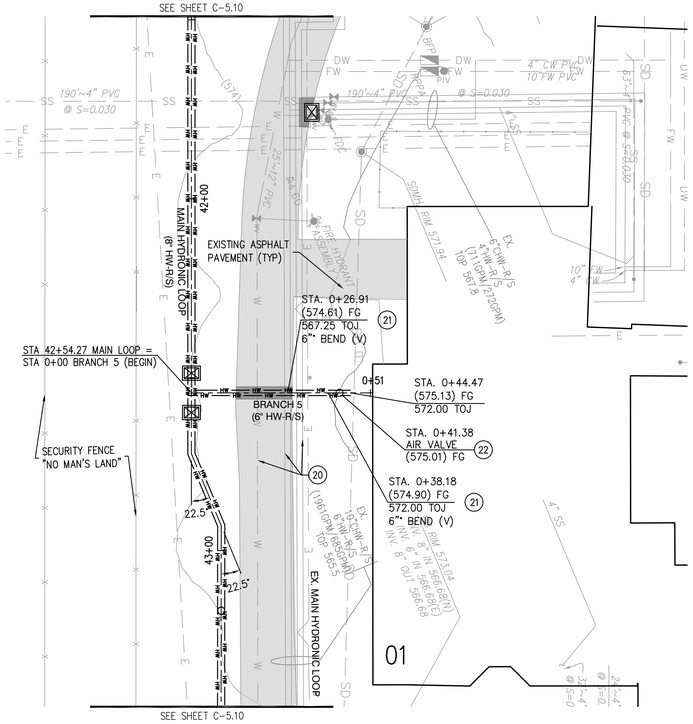
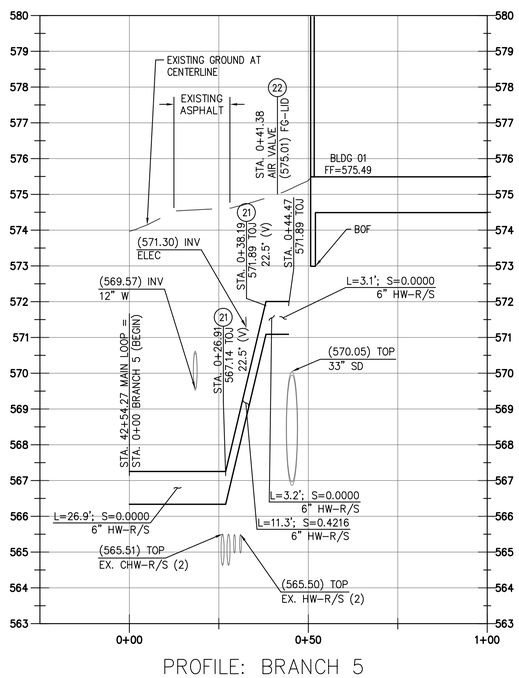
RELATIVE BORDER SCALE IN INCHES



BRANCH 5 – PLAN



PROFILE: BRANCH 5
VIEW SCALE (H|V): 1" = 20'|2'

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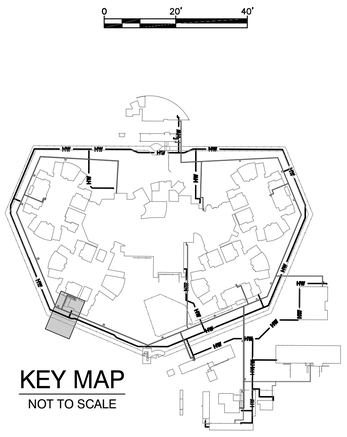

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Sheet Title
BRANCH 5
PLAN
PROFILE

Project Number
000000000008666

Reference North

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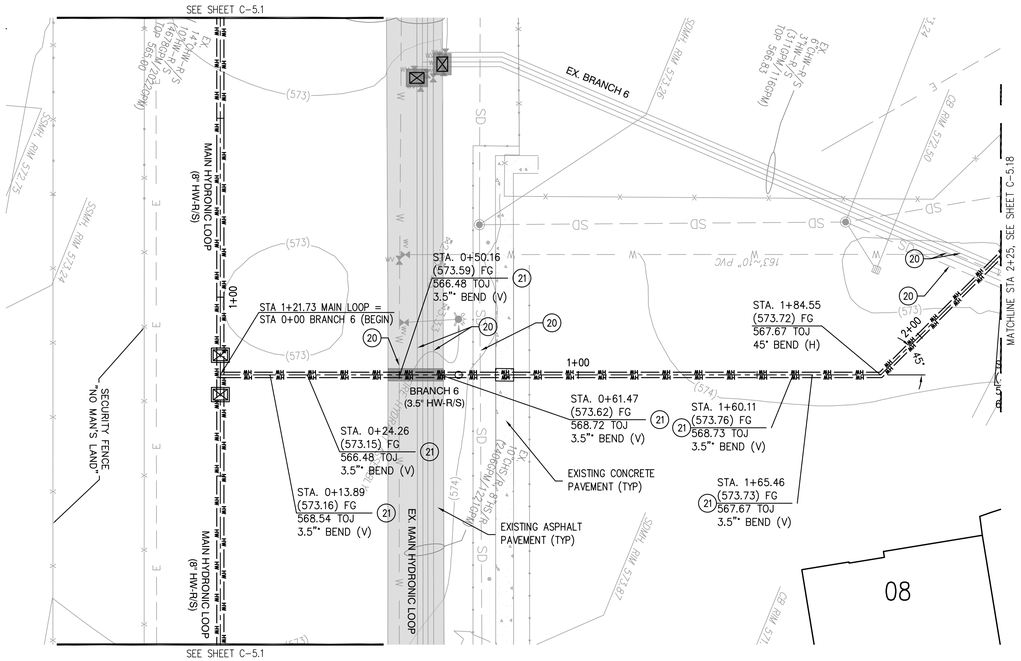
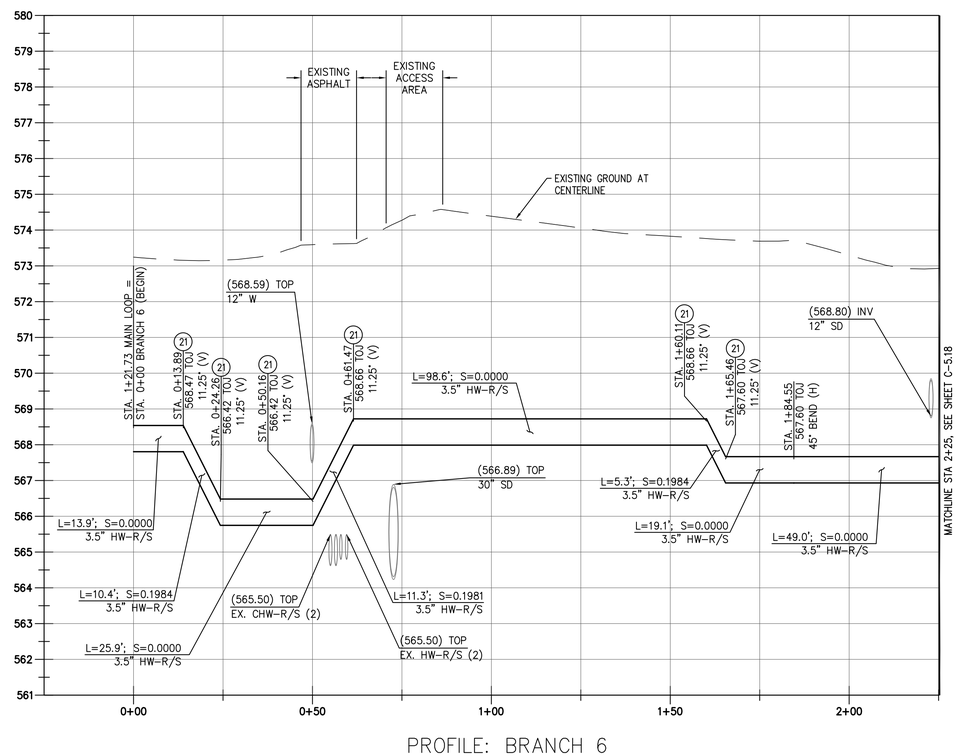


BRANCH 6 – PLAN



PROFILE: BRANCH 6
VIEW SCALE (H|V): 1" = 20'|2'

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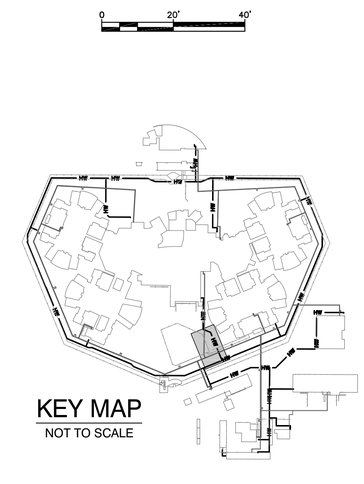

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Sheet Scale 1"=20'

Sheet Number
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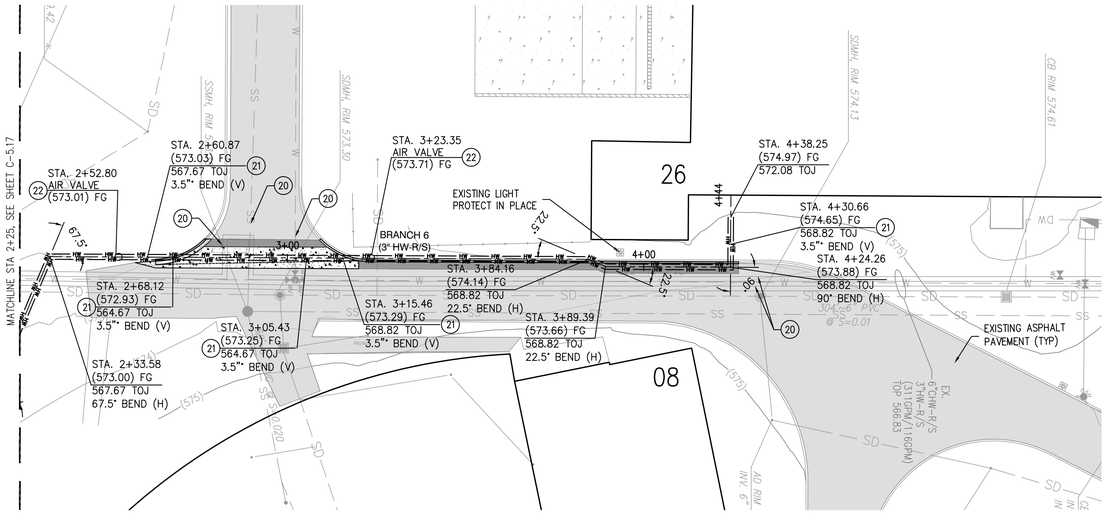
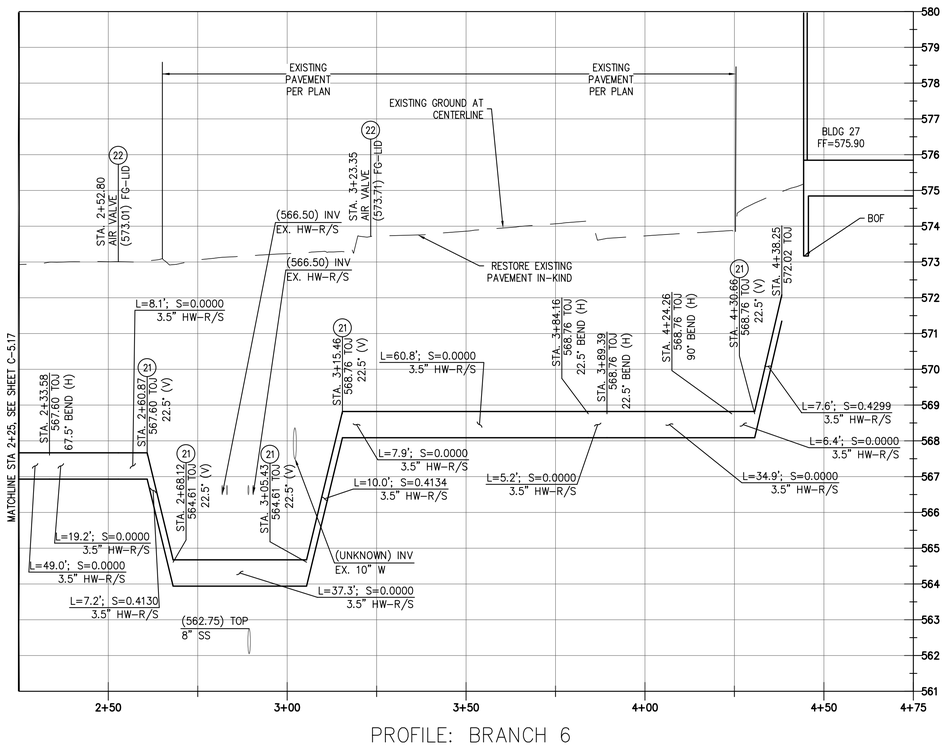
CAD File: S:\owendesign\Projects\2018 Projects\12352972 DGS - Coalinga State Hospital - Preliminary Plans\Drafting\CAD\Civil\03-Civil Design\CD\Xref\3D\cgp01_align.dwg Plot Date: Jun 23, 2023 - 2:14pm Plotted by: bekaing

24 X 36
RELATIVE BORDER SCALE IN INCHES 0 1 2 3



BRANCH 6 – PLAN



PROFILE: BRANCH 6
VIEW SCALE (H|V): 1" = 20'|2'

IMPROVEMENT PLAN KEYNOTES:
(NOT ALL KEYNOTES USED ON ALL SHEETS)

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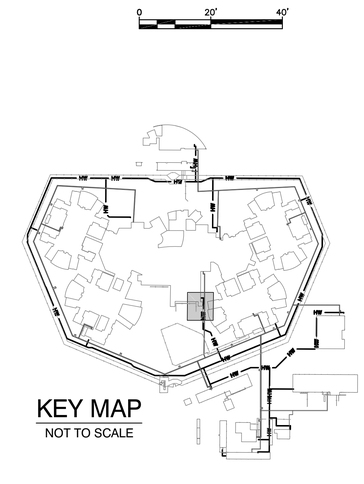

KEY MAP
NOT TO SCALE

OFFICE OF THE STATE FIRE MARSHAL
APPROVED FIRE AND PANIC ONLY
11/27/23
23-1693
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DGS GENERAL SERVICES

Department of General Services
Architecture & Engineering Sections
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Project Management & Development Branch
707 Third Street, Suite 4-105
West Sacramento, California 95605

PROFESSIONAL STAMP
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IRVINE, CA 92618
TEL: (949) 860-4800
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Issue

No.	Date	Description
	01/31/22	Preliminary Plans
	08/31/22	50% Working Drawings
	10/31/22	95% Working Drawings
	03/31/23	100% Working Drawings

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor | Designed | Drawn
DSA App No. | SFM Permit No. 22-S-4509-O-DR

Sheet Title
BRANCH 6 PLAN AND PROFILE

Project Number
000000000008666

Reference North
Sheet Scale 1"=20'
Sheet Number C-5.18
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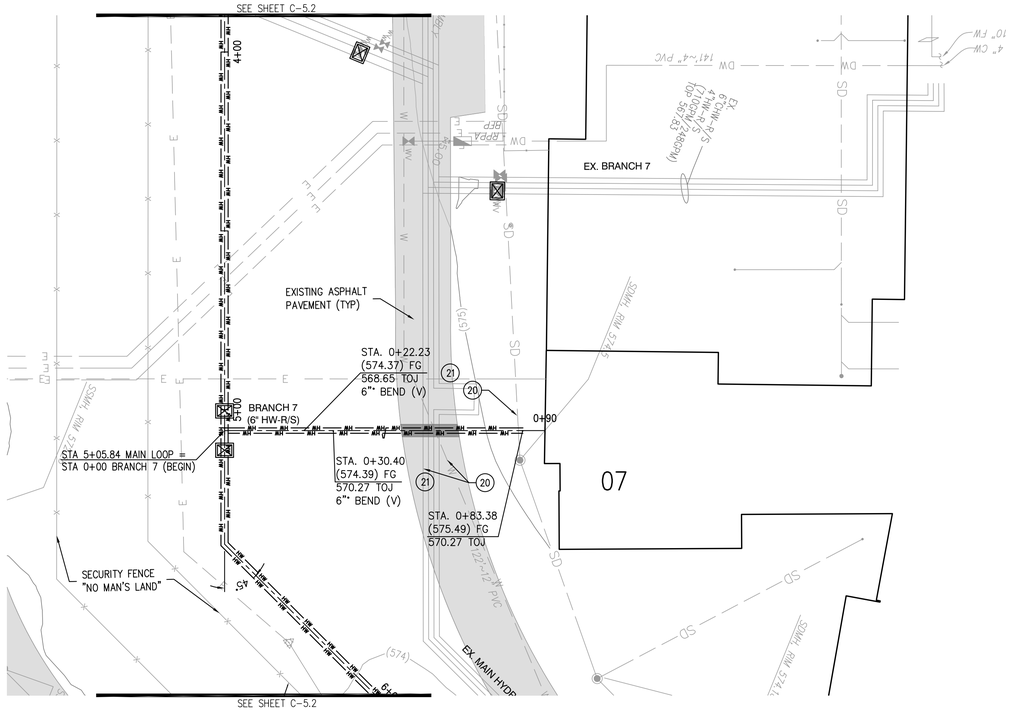
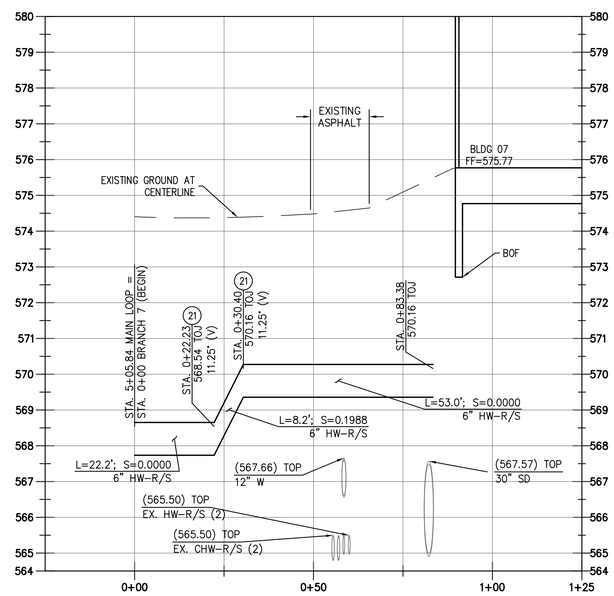


BRANCH 7 – PLAN



PROFILE: BRANCH 7
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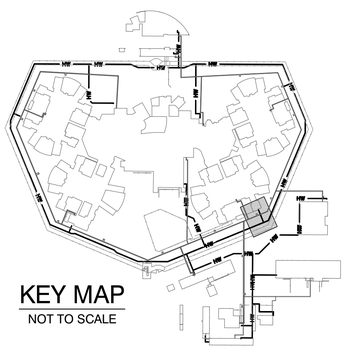

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Supervisor	Designed	Drawn

DSA App No. | SFM Permit No. 22-S-4509-O-DR

Sheet Title
BRANCH 7 PLAN AND PROFILE

Project Number
00000000008666

Reference North

Sheet Scale 1"=20'

Sheet Number
C-5.19
V4

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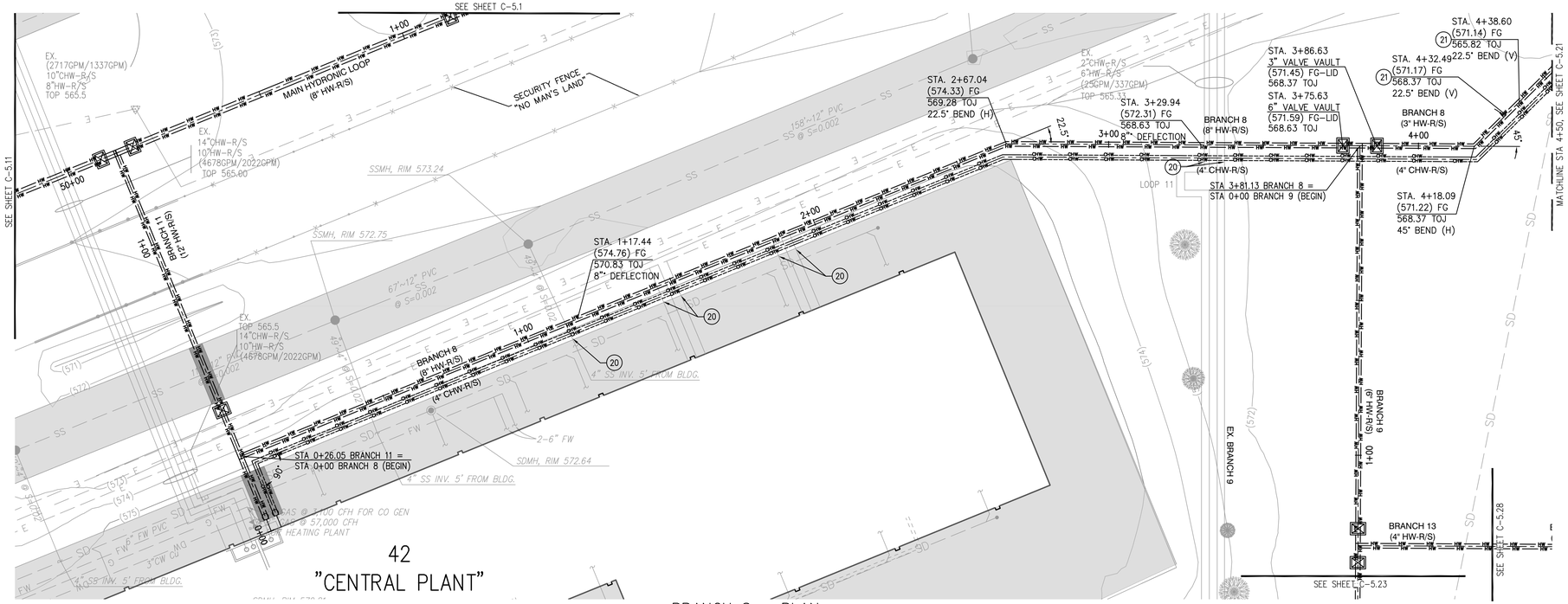
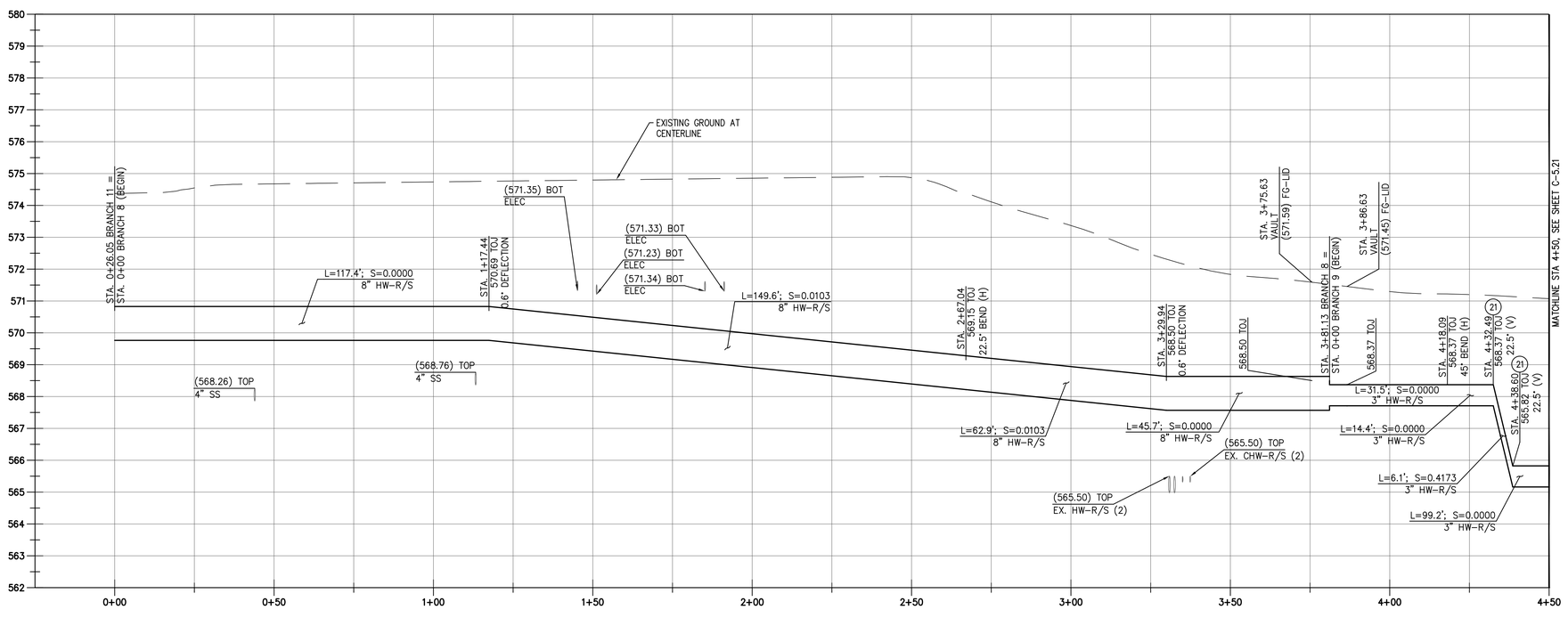
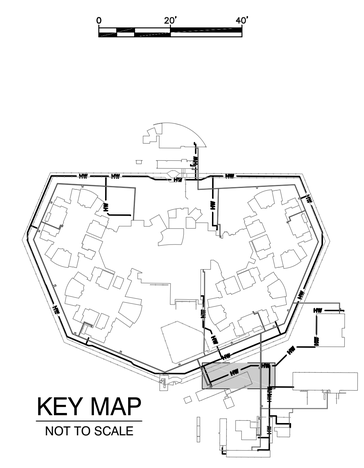


BRANCH 8 – PLAN



PROFILE: BRANCH 8
VIEW SCALE (H|V): 1" = 20'|2'



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Sheet Title
BRANCH 8 PLAN AND PROFILE

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Reference North

Sheet Scale 1"=20'

Sheet Number
C-5.20
V4

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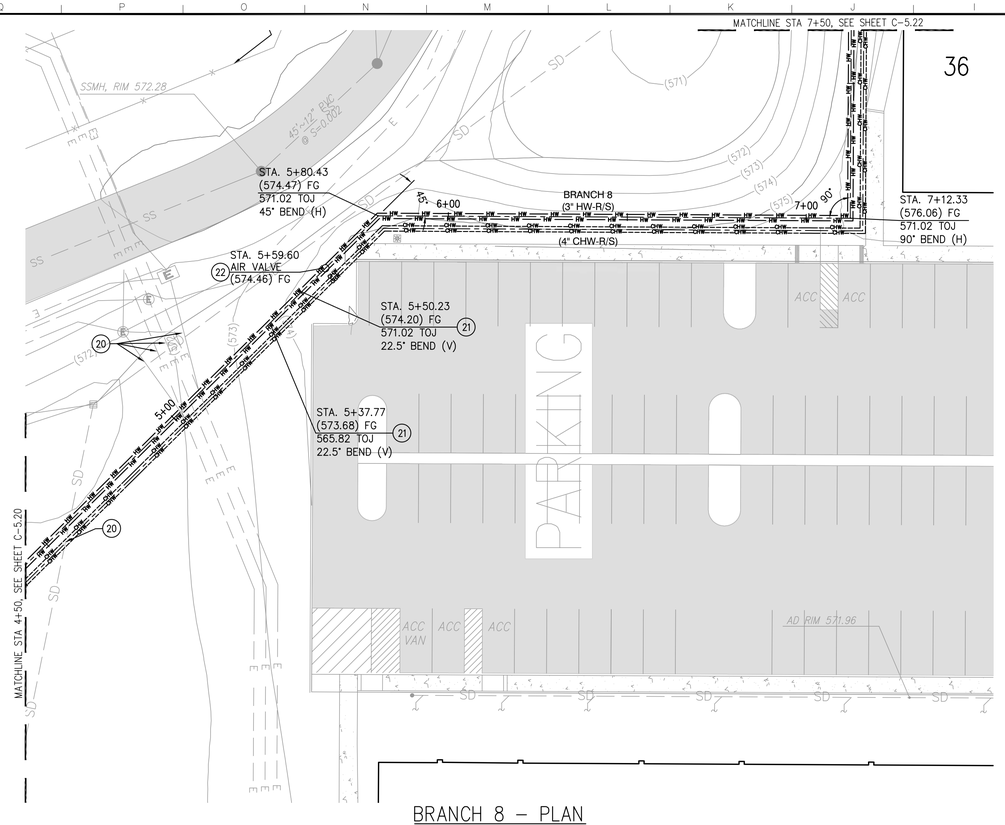
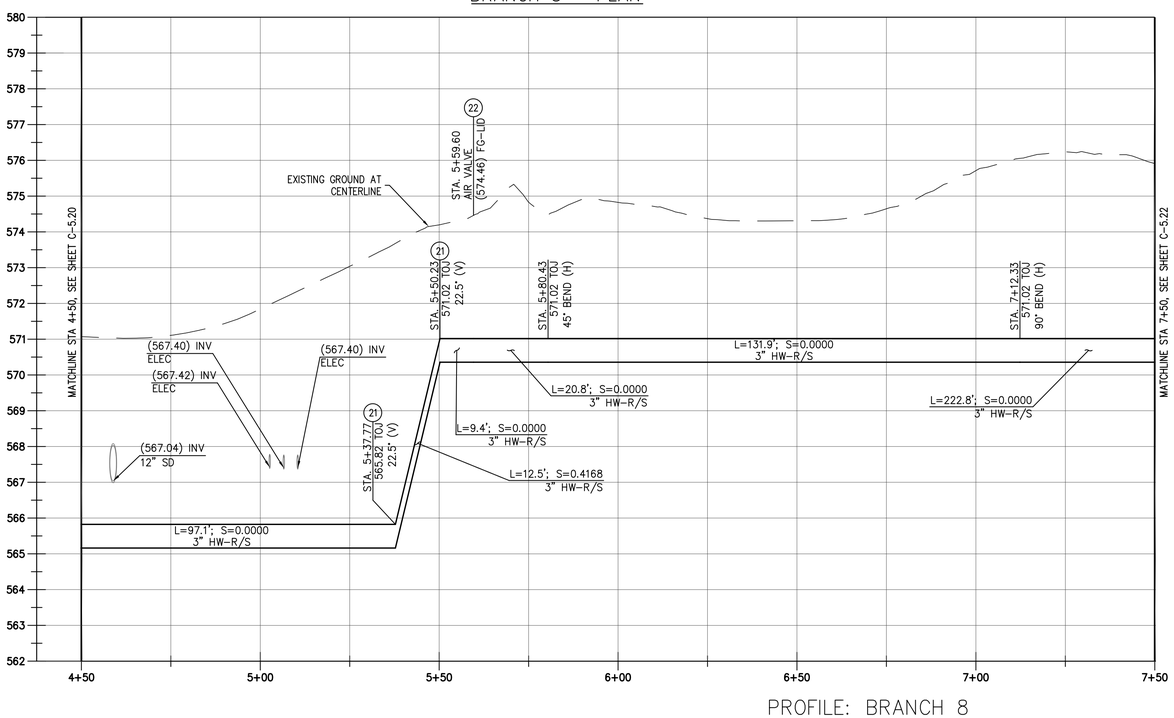


BRANCH 8 – PLAN



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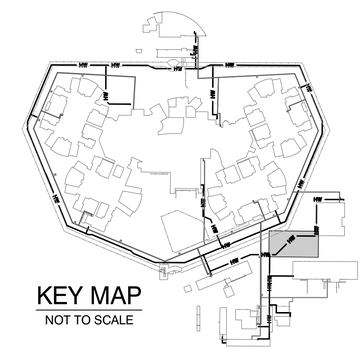
0 20' 40'



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Sheet Title
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Project Number
00000000000008666

Reference North

Sheet Scale
1"=20'

Sheet Number
C-5.21
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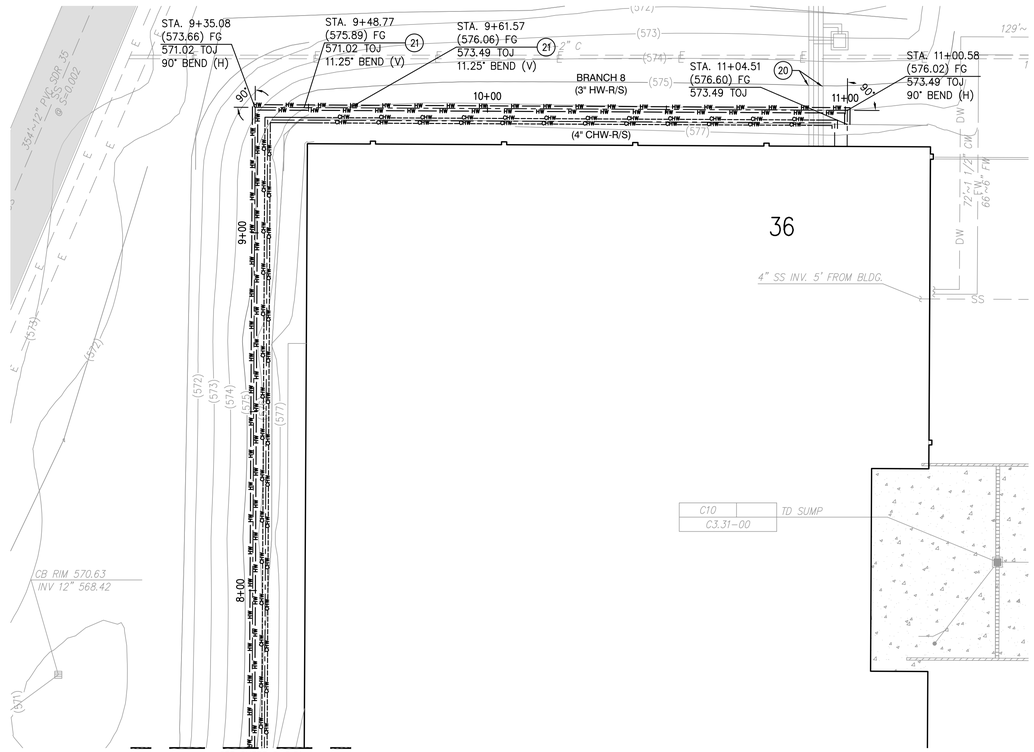
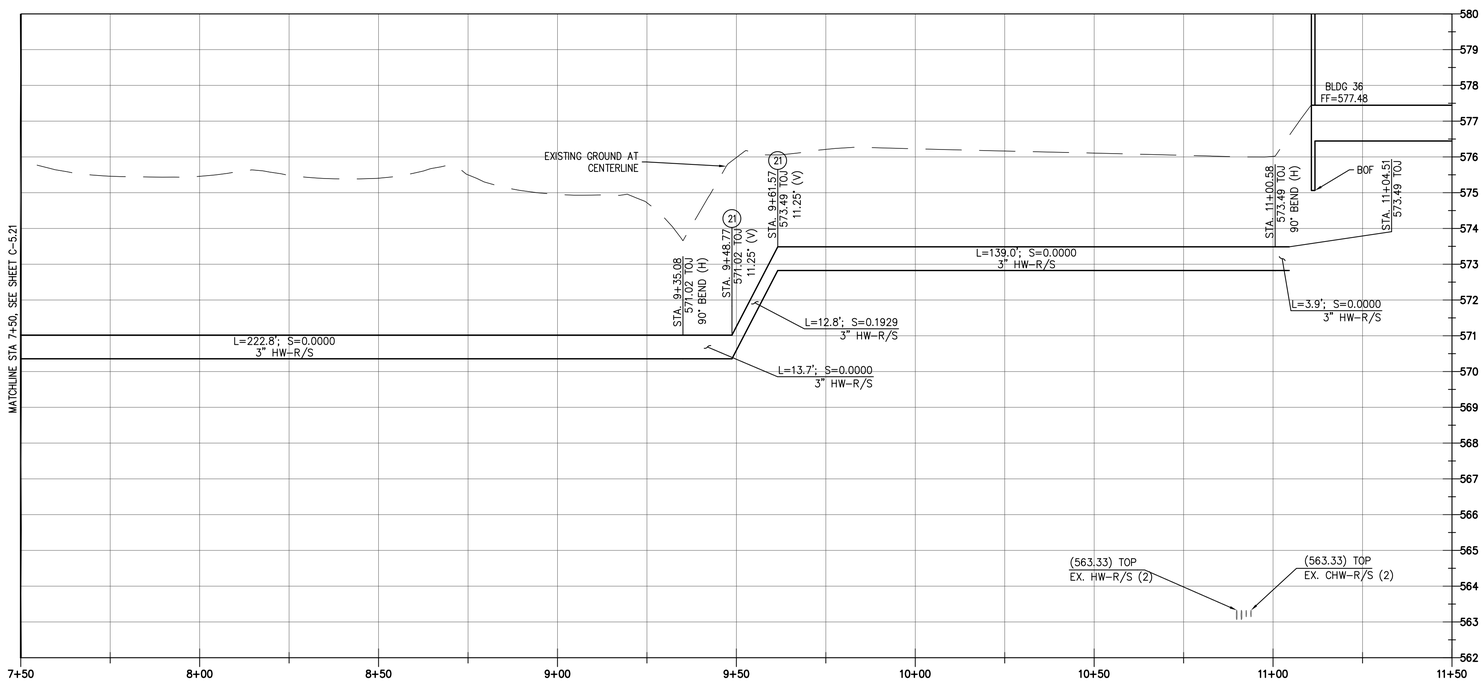


BRANCH 8 – PLAN



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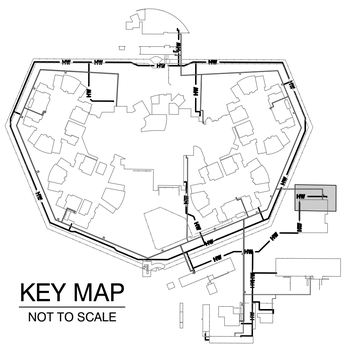

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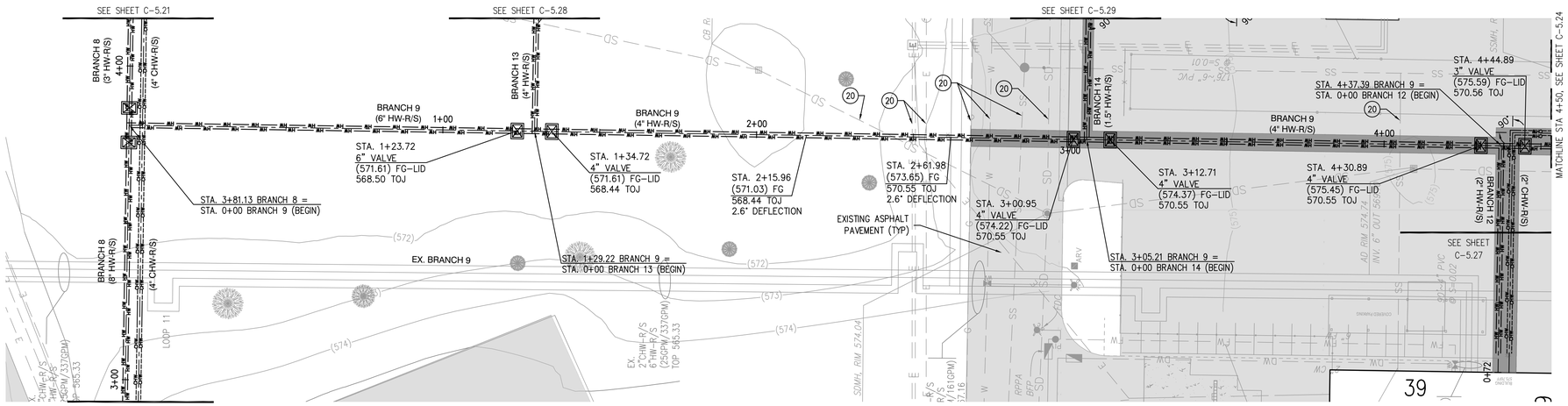
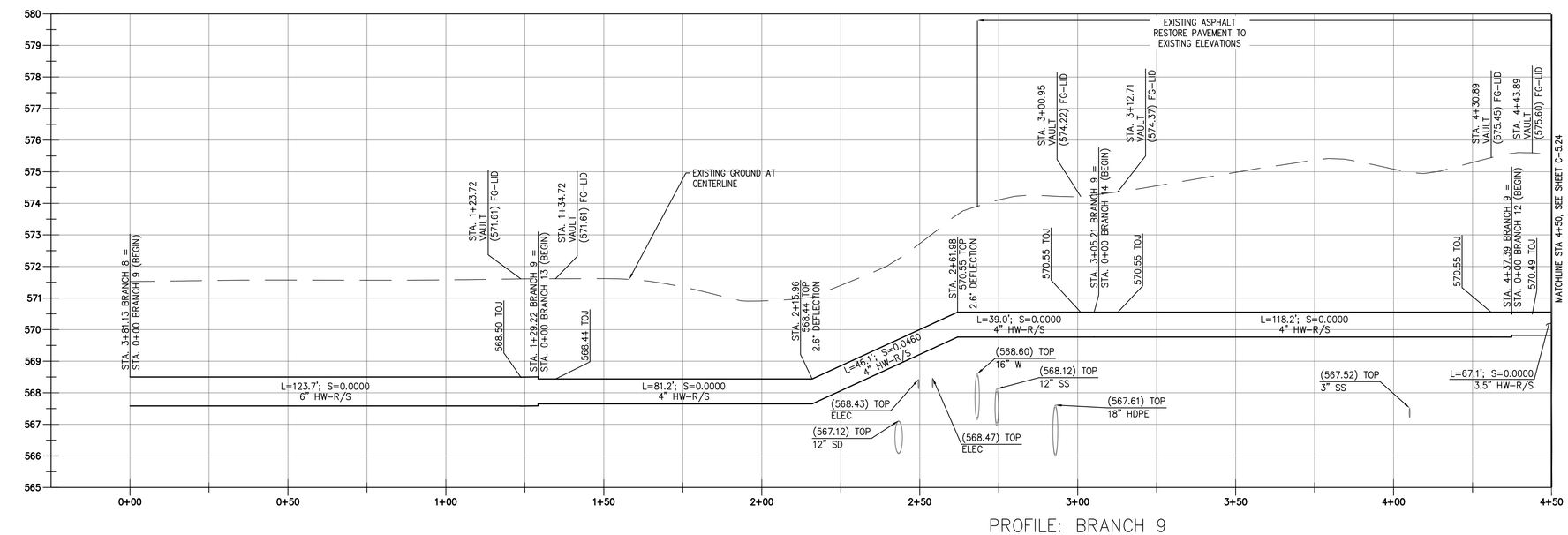
CAD File: S:\owendesign\Projects\2018 Projects\12352972 DGS - Coalinga State Hospital - Preliminary Plans\Drafting\CAD\Civil\03-Civil Design\CD\Xref\3D\cgp01_align.dwg Plot Date: Jun 23, 2023 - 2:16pm Plotted by: bekaing

24 X 36

RELATIVE BORDER SCALE IN INCHES 0 1 2 3



BRANCH 9 – PLAN



PROFILE: BRANCH 9
VIEW SCALE (H|V): 1" = 20'|2'

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(NOT ALL KEYNOTES USED ON ALL SHEETS)

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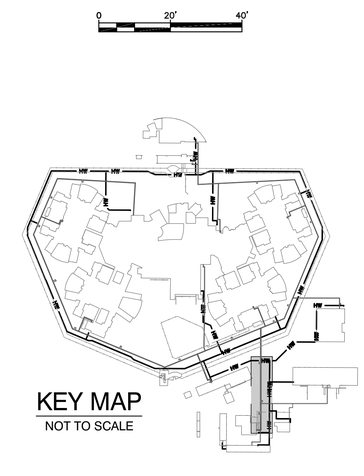

KEY MAP
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11/27/23
23-1693
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Project Management & Development Branch
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West Sacramento, California 95605

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IRVINE, CA 92618
TEL: (949) 860-4800
FAX: (949) 860-4810
www.owengroup.com

Issue

No.	Date	Description
	01/31/22	Preliminary Plans
	08/31/22	50% Working Drawings
	10/31/22	95% Working Drawings
	03/31/23	100% Working Drawings

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn

DSA App No.	SFM Permit No.
	22-S-4509-0-DR

Sheet Title
BRANCH 9 PLAN AND PROFILE

Project Number
000000000008666

Reference North

Sheet Scale
1"=20'

Sheet Number
C-5.23
V4

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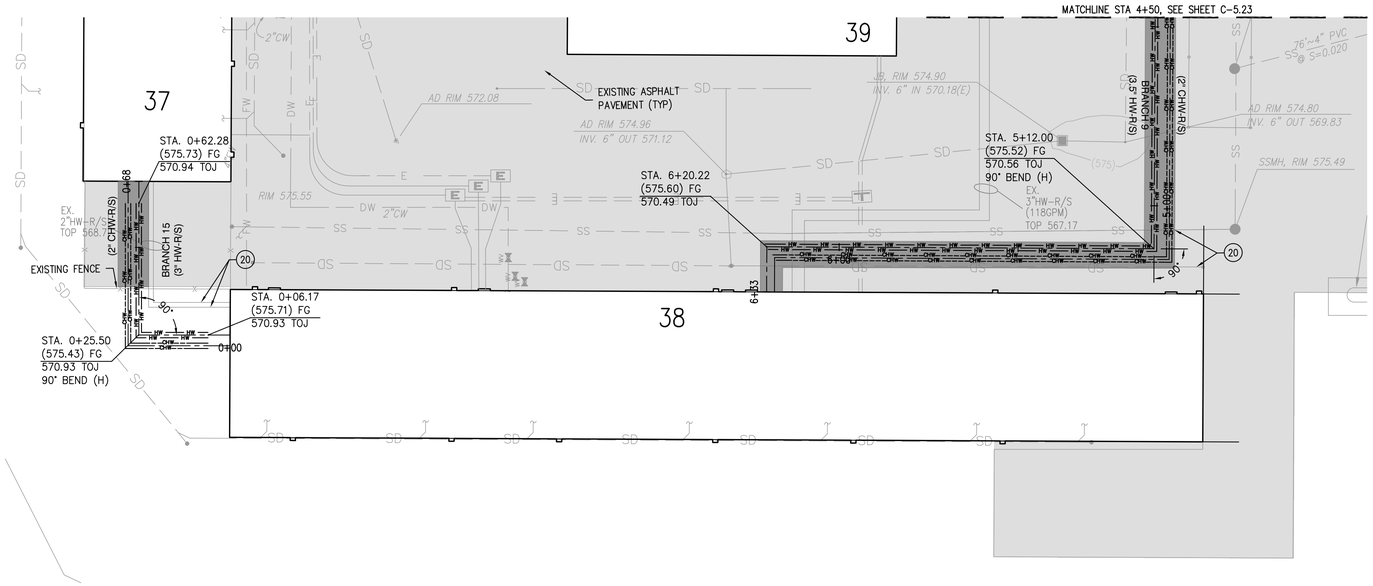
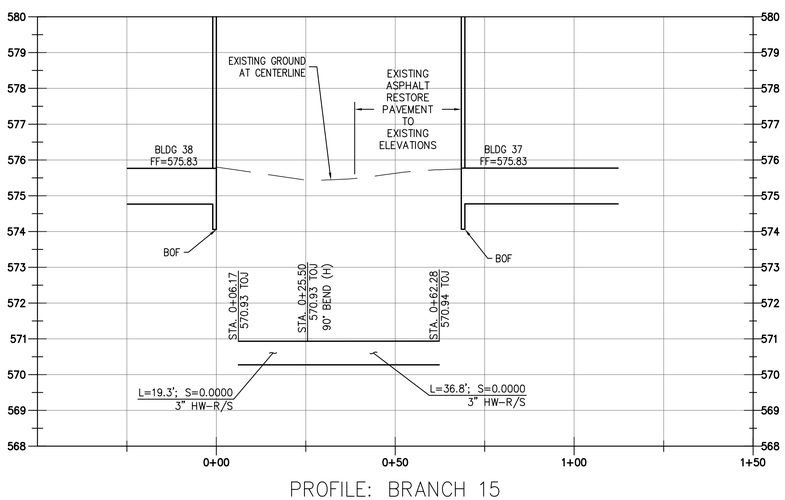
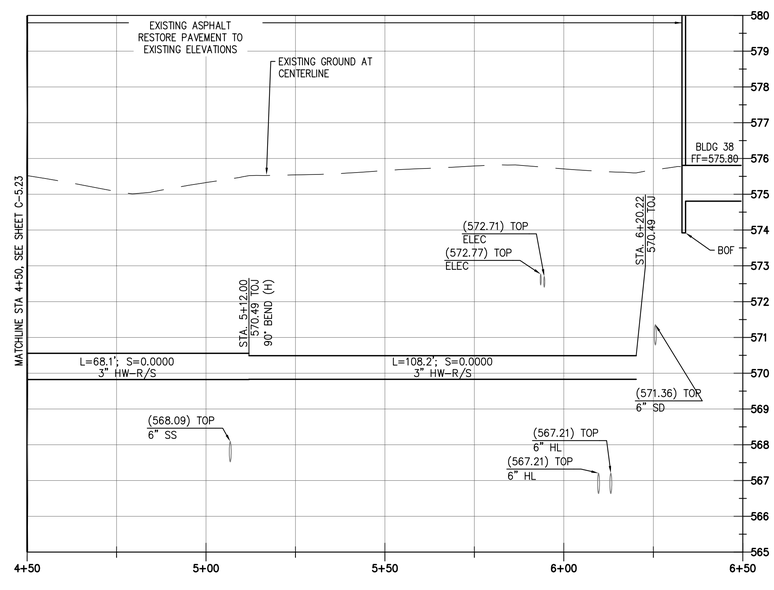


BRANCH 15 – PLAN

BRANCH 9 – PLAN



PROFILE: BRANCH 15
VIEW SCALE (H|V): 1" = 20'|2'



PROFILE: BRANCH 9
VIEW SCALE (H|V): 1" = 20'|2'

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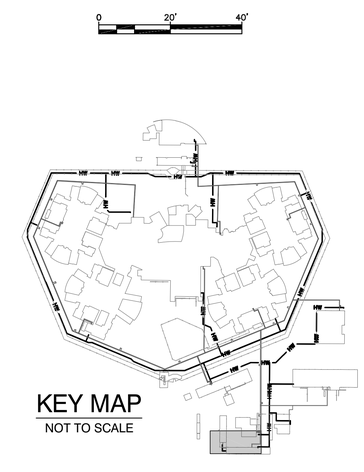

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COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn
DSA App No.	SFM Permit No. 22-S-4509-0-DR	

Sheet Title
BRANCH 9 & 15 PLAN AND PROFILE

Project Number
000000000008666

Reference North

Sheet Scale 1"=20'

Sheet Number
C-5.24
V4

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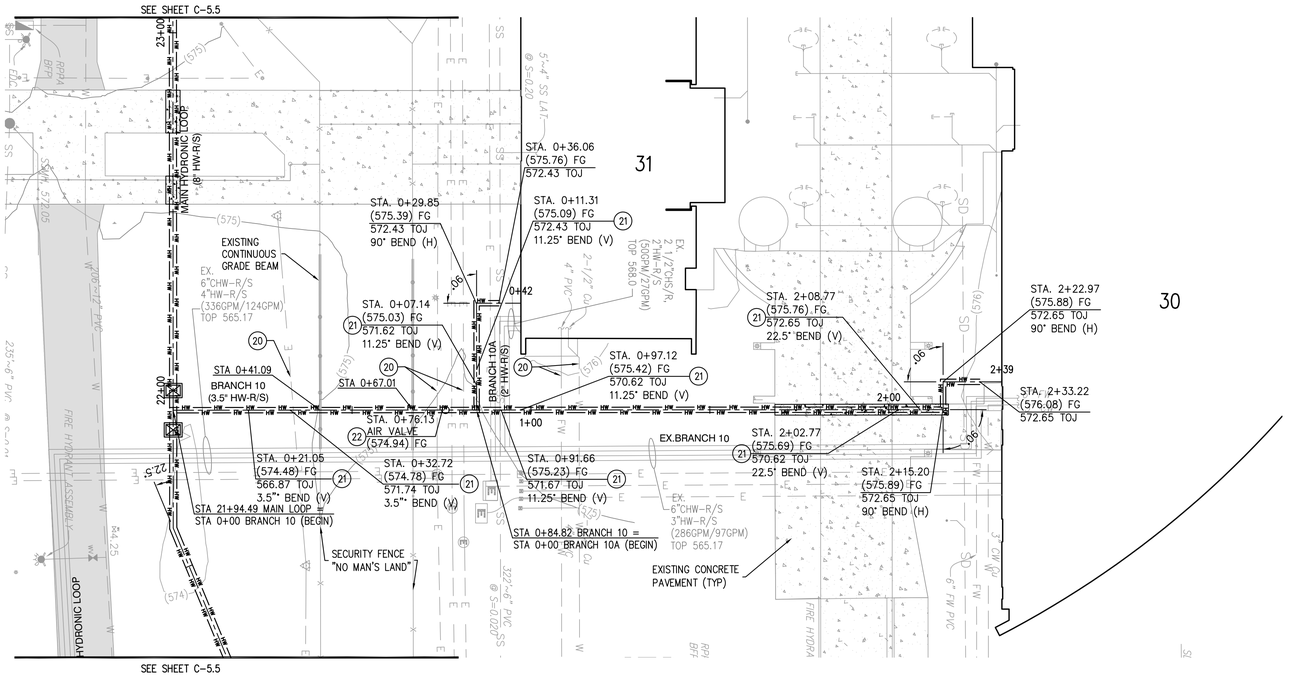
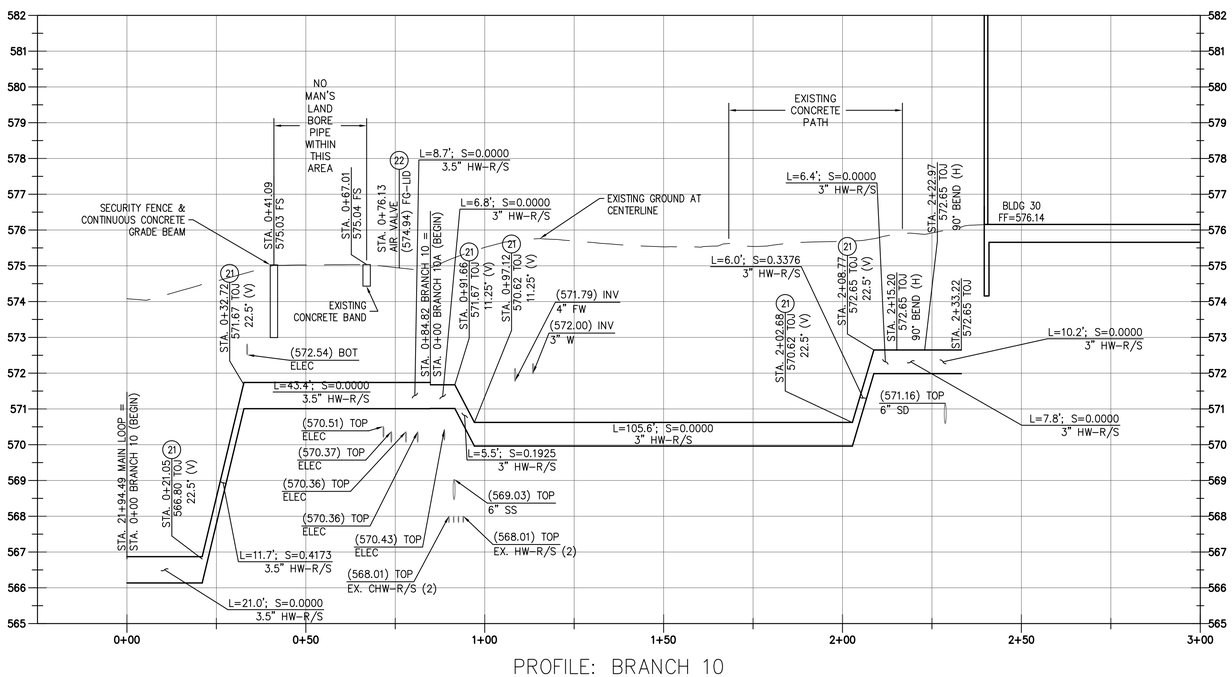
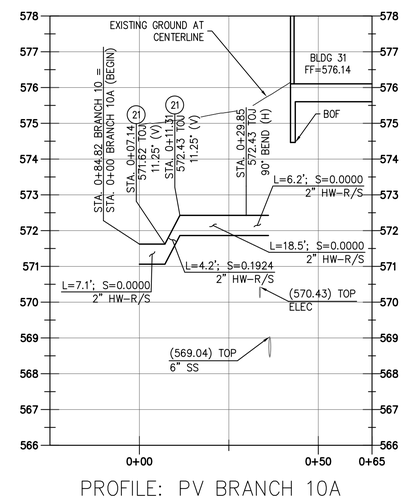


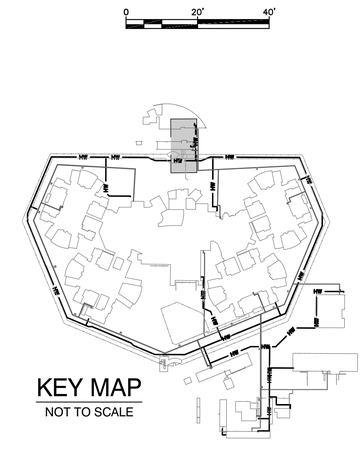
BRANCH 10 – PLAN



PROFILE: BRANCH 10
VIEW SCALE (H|V): 1" = 20'|2'



PROFILE: PV BRANCH 10A
VIEW SCALE (H|V): 1" = 20'|2'



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Issue

No.	Date	Description
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Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210

DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn

DSA App No.	SFM Permit No.
	22-S-4509-O-DR

Sheet Title
BRANCH 10 & 10A PLAN AND PROFILE

Project Number
000000000008666

Reference North

Sheet Scale
1"=20'

Sheet Number
C-5.25
V4

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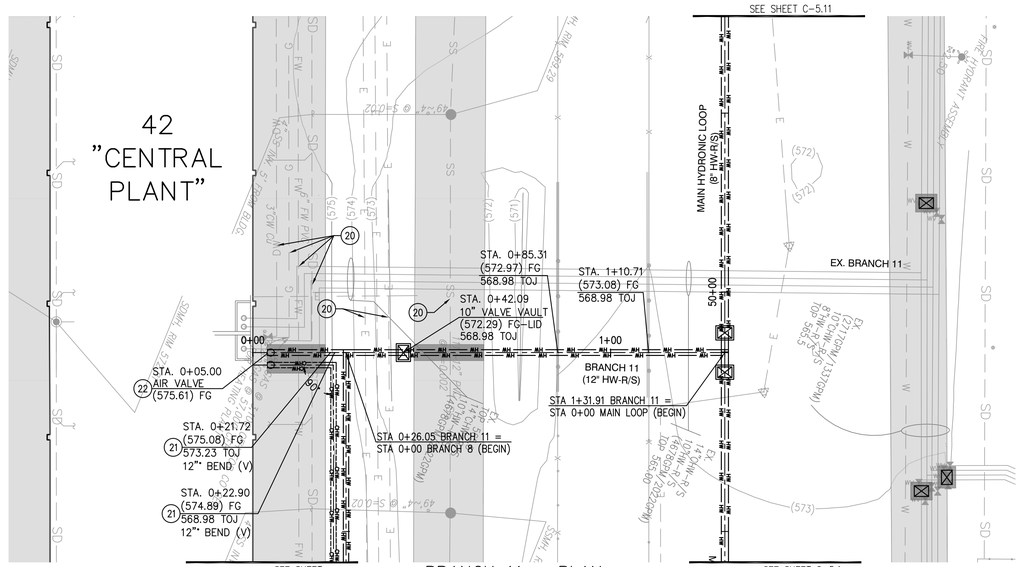
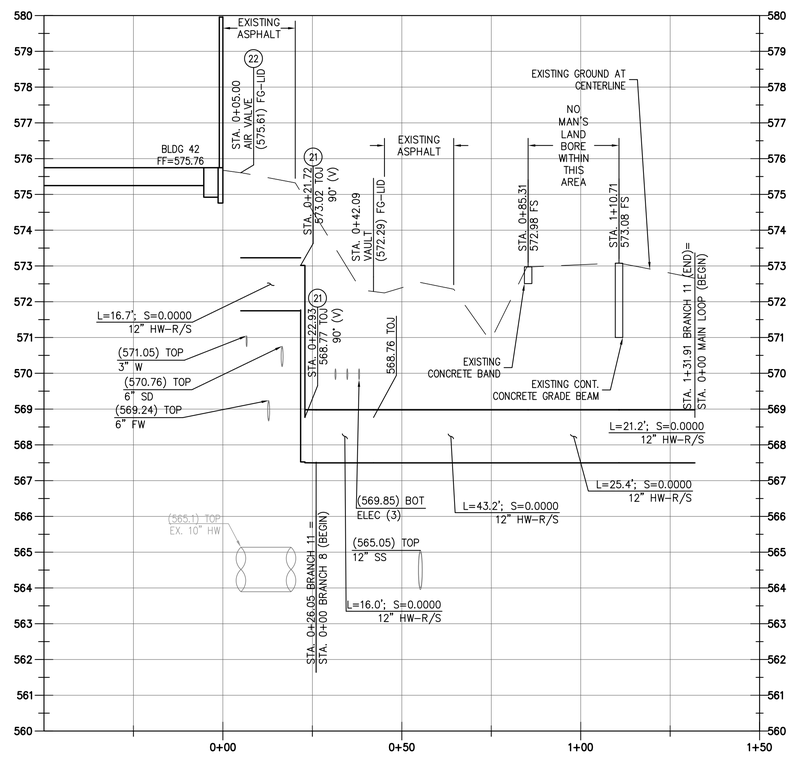
RELATIVE BORDER SCALE IN INCHES 0 1 2 3



BRANCH 11 – PLAN



PROFILE: BRANCH 11
VIEW SCALE (H|V): 1" = 20'|2'

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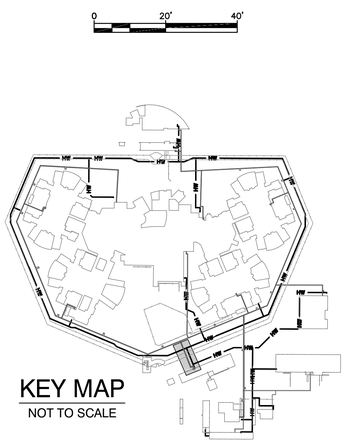

KEY MAP
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Supervisor	Designed	Drawn

DSA App No. | SFM Permit No. 22-S-4509-O-DR

Sheet Title
BRANCH 11
PLAN AND
PROFILE

Project Number
000000000008666

Reference North

Sheet Scale
1"=20'

Sheet Number
C-5.26
V4

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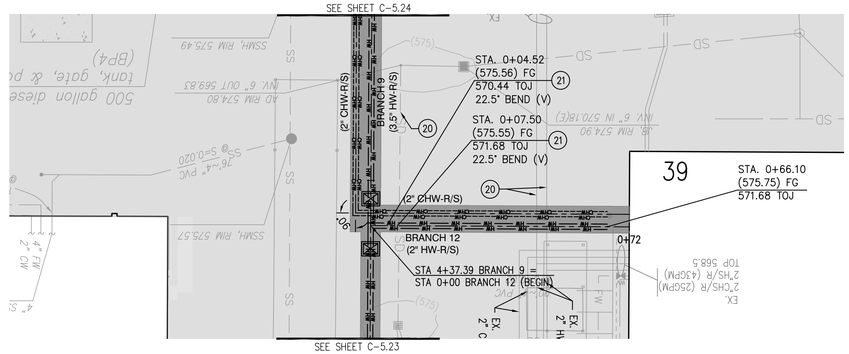
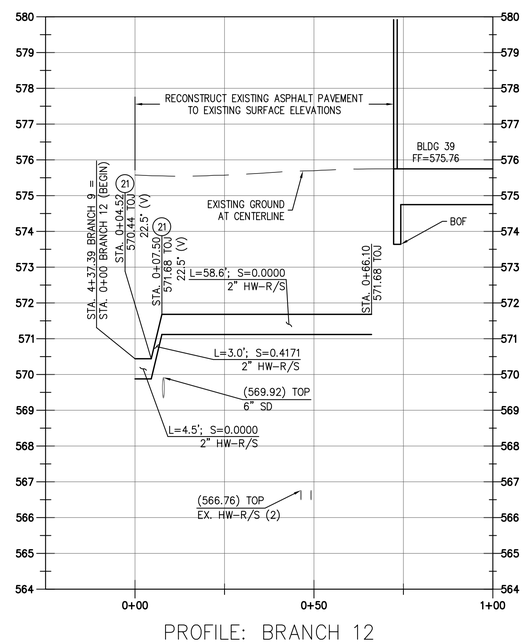


BRANCH 12 – PLAN



PROFILE: BRANCH 12
VIEW SCALE (H|V): 1" = 20'|2'

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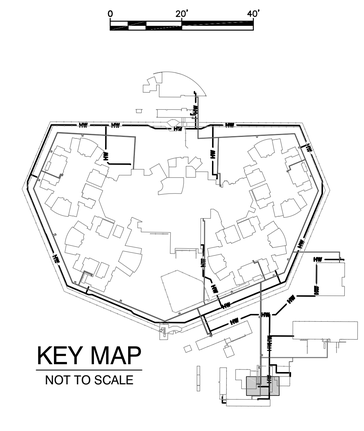

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	01/31/22	Preliminary Plans
	08/31/22	50% Working Drawings
	10/31/22	95% Working Drawings
	03/31/23	100% Working Drawings

Project
DSH-COALINGA HYDRONIC LOOP REPLACEMENT
24511 WEST JAYNE AVE
COALINGA, CA
93210
DEPARTMENT OF STATE HOSPITALS

Supervisor	Designed	Drawn

DSA App No.	SFM Permit No.
	22-S-4509-O-DR

Sheet Title
BRANCH 12 PLAN AND PROFILE

Project Number
000000000008666

Reference North

Sheet Scale
1"=20'

Sheet Number
C-5.27
V4

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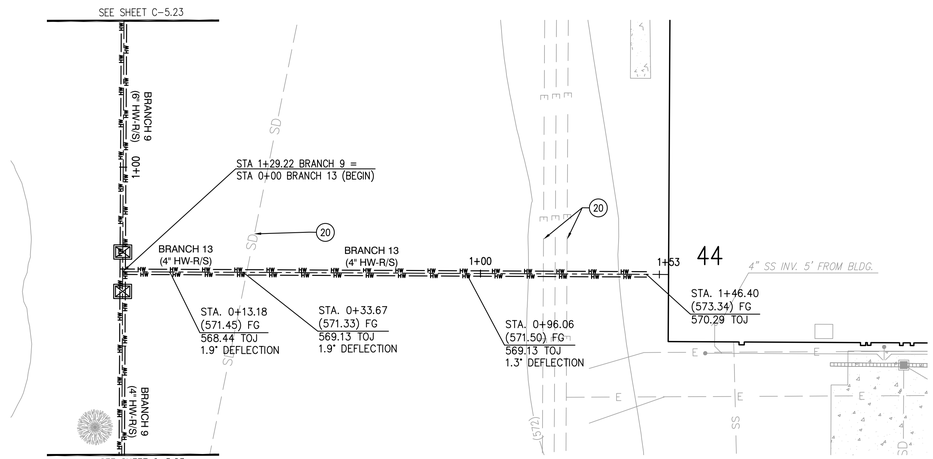
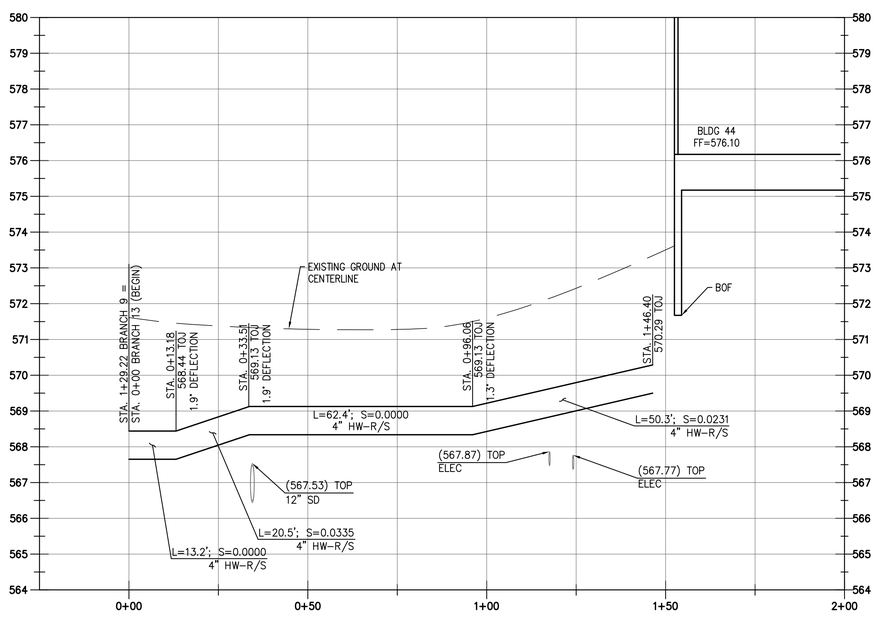
CAD File: S:\owendesign\Projects\2018 Projects\12352972 DGS - Coalinga State Hospital - Preliminary Plans\Drafting\CAD\Civil\03-Civil Design\CD\Xref\3D\cgp01_align.dwg Plot Date: Jun 23, 2023 - 2:18pm Plotted by: bekaing

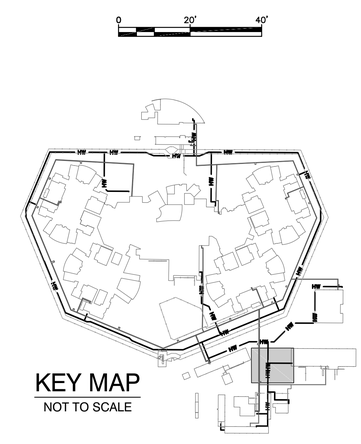
RELATIVE BORDER SCALE IN INCHES 0 1 2 3



BRANCH 13 – PLAN



PROFILE: BRANCH 13
VIEW SCALE (H|V): 1" = 20'|2'



KEY MAP
NOT TO SCALE

IMPROVEMENT PLAN KEYNOTES:
(NOT ALL KEYNOTES USED ON ALL SHEETS)

(20) EXISTING UTILITY CROSSING. CONTRACTOR TO FIELD VERIFY DEPTH AND SIZE OF EXISTING UTILITY BEFORE CONSTRUCTION.

(21) INSTALL VERTICAL AQUATHERM RESTRAINED JOINT PIPE FITTING PER MANUFACTURER'S SPECS; ANGLE PER PLAN.

(22) INSTALL 1" AIR RELEASE VALVES, MUELLER CO, MODEL NUMBER 330AR1884–BLN ON SUPPLY & RETURN LINES PER MANUFACTURER'S SPECS; INSTALL INSIDE GATE VALVE VAULT PER DETAIL 6/C–4.3 WHERE POSSIBLE, INSTALL WITH SHELL ASSEMBLY OTHERWISE

GENERAL NOTES:

1. SHOWN ALIGNMENTS ARE TO BE FOLLOWED AND STAKED PRIOR TO CONSTRUCTION. STAKING PLAN SHALL BE PROVIDED TO THE STATE FOR REVIEW AND APPROVAL.
2. SEE MECHANICAL PLANS FOR BUILDING POC'S AND PIPE INSTALL WITHIN BUILDINGS.
3. CONTRACTOR TO NOTIFY AND GET APPROVAL FROM STATE & FACILITY MANAGEMENT PRIOR TO ANY UTILITY SERVICE DISRUPTIONS.
4. SEE SHEETS 17–29 FOR PROPOSED BURIED PIPE PLAN.
5. PIPE STATIONS DEPICT CENTERLINE OF TRENCH PER DETAIL 1/C–4.2.
6. ALL AQUATHERM PIPE & FITTINGS TO BE PRE–INSULATED BY THERMACOR PROCESS INC. OF FORT WORTH, TEXAS OR AS APPROVED BY OWNER.
7. COLD WATER VALVE REMOVAL & INSTALL TO BE PHASED AFTER NEW HOT WATER SYSTEM IS INSTALLED & OPERATIONAL.
8. CONTRACTOR TO FIELD VERIFY EXISTING CHW–R/S PIPE MATERIAL AND VALVE SIZE PRIOR TO CONSTRUCTION; AND ANTICIPATE REMOVAL & RE–INSTALL OF PORTIONS OF EXISTING CHW–R/S PIPE & FITTINGS FOR INSTALLATION OF NEW CHW–R/S VALVE & VAULT.
9. CONTRACTOR TO ORDER CUSTOM MADE FACTORY WELDED & PRE–INSULATED TEE CONNECTION ASSEMBLIES FROM THE MANUFACTURER.

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APPROVED FIRE AND PANIC ONLY
CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION
11/27/23
23-1693
CAL FIRE
SINCE 1885
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Real Estate Services Division
Project Management & Development Branch
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West Sacramento, California 95605

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www.owengroup.com

Issue

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DEPARTMENT OF STATE HOSPITALS

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DSA App No.	SFM Permit No.
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Sheet Title
BRANCH 13 PLAN AND PROFILE

Project Number
000000000008666

Reference North

Sheet Scale
1"=20'

Sheet Number
C-5.28
V4

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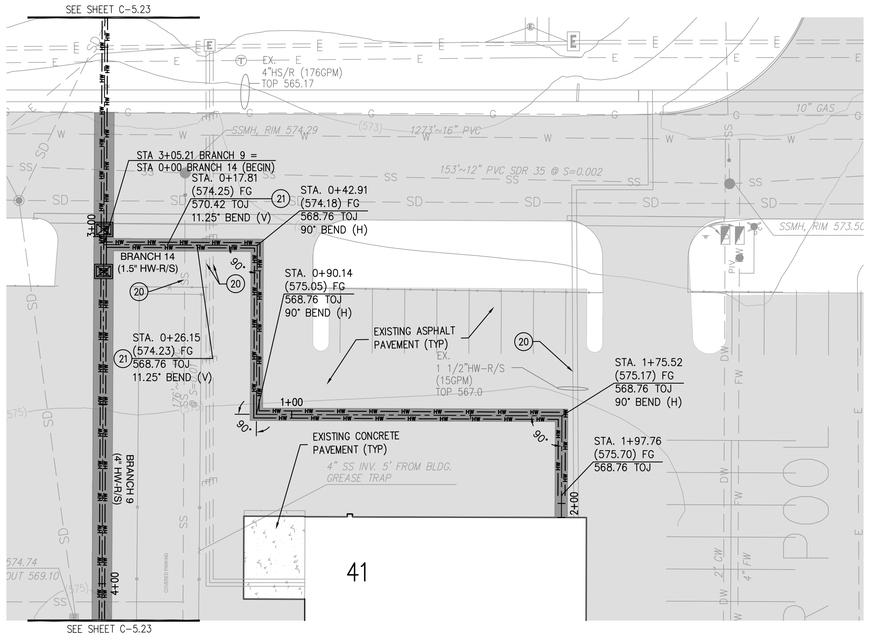
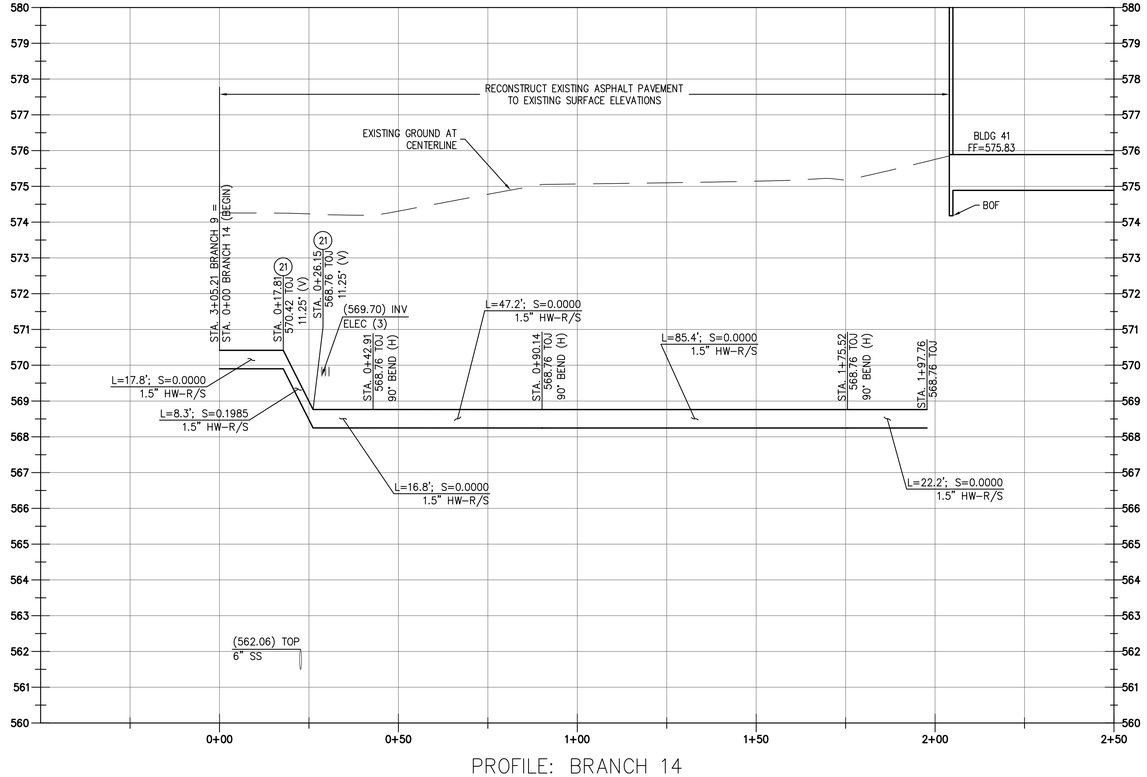
RELATIVE BORDER SCALE IN INCHES 0 1 2 3



BRANCH 14 – PLAN



PROFILE: BRANCH 14
VIEW SCALE (H|V): 1" = 20'|2'

IMPROVEMENT PLAN KEYNOTES:
(NOT ALL KEYNOTES USED ON ALL SHEETS)

(20) EXISTING UTILITY CROSSING. CONTRACTOR TO FIELD VERIFY DEPTH AND SIZE OF EXISTING UTILITY BEFORE CONSTRUCTION.

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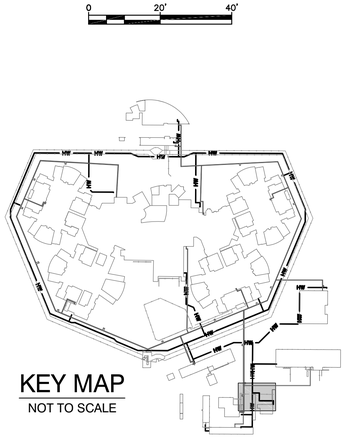

KEY MAP
NOT TO SCALE

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Issue

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Sheet Title
BRANCH 14 PLAN AND PROFILE

Project Number
000000000008666

Reference North | Sheet Scale 1"=20'

Sheet Number
C-5.29
V4

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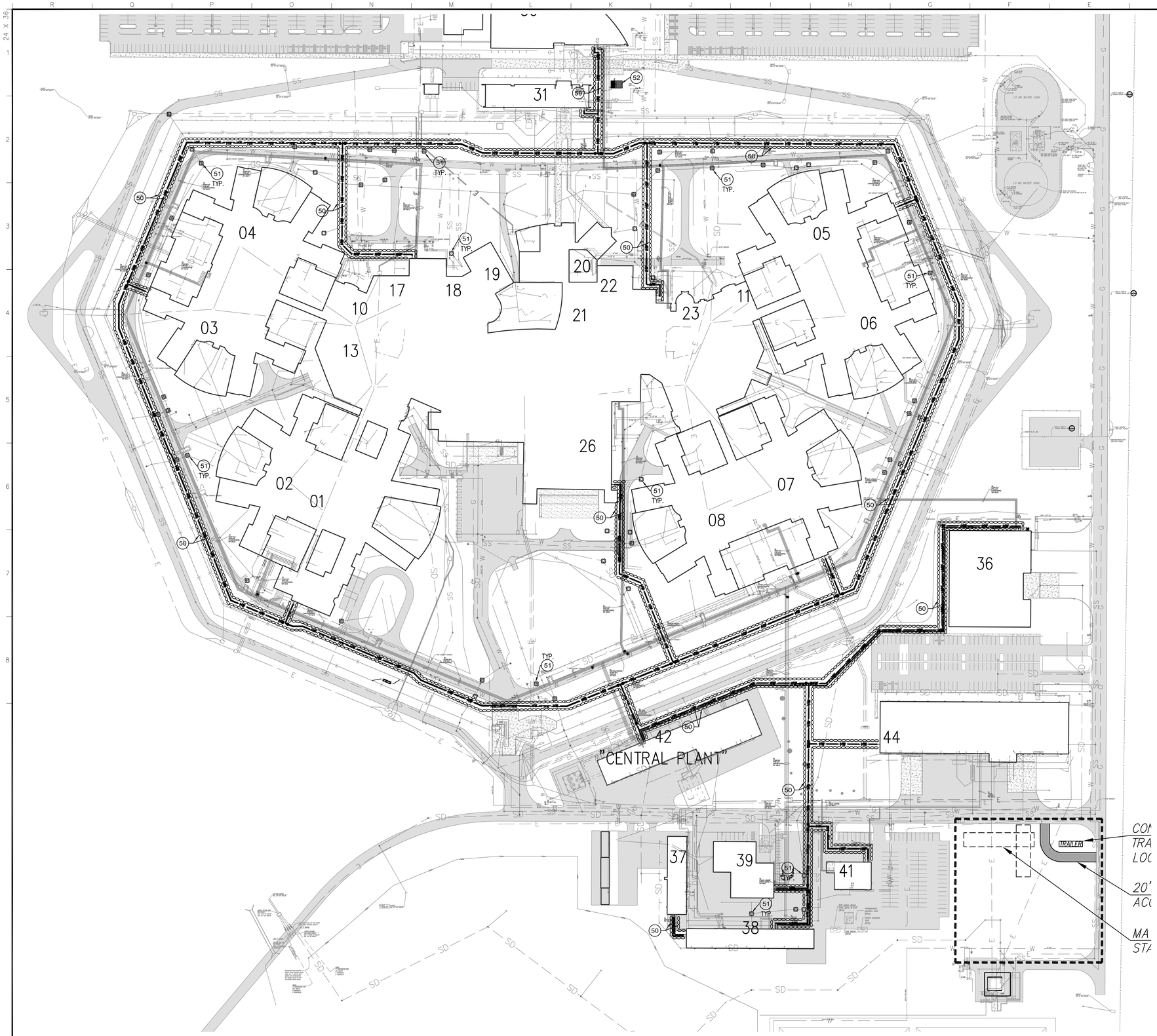
24 X 36

RELATIVE BORDER SCALE IN INCHES 0 1 2 3



EROSION CONROL PLAN KEYNOTES:

(50) INSTALL GRAVEL BAG BARRIER PER DETAIL 50 ON SHEET CE-1.2

(51) INSTALL STORM DRAIN INLET PROTECTION PER CASQA STD. SE-10 AND PER DETAIL 51 ON SHEET CE-1.2

(52) INSTALL TIRE WASH PER CASQA BMP TC-3 AND DETAIL 52 ON SHEET CE-1.2

LEGEND

GRAVEL BAGS

0 100' 200'

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EROSION CONTROL PLAN

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000000000008666

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1"=100'

Sheet Number
CE-1.1

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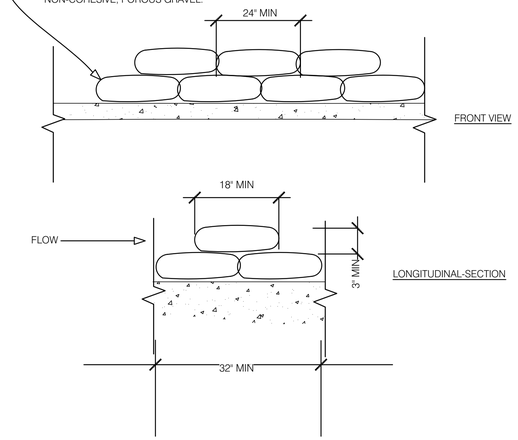
CAD File: C:\Users\bekang\OneDrive - Bureau Veritas\Coalinga\CE1.1-1.2 Erosion Control Plan.dwg Plot Date: Jun 23, 2023 - 1:40pm Plotted by: bekang

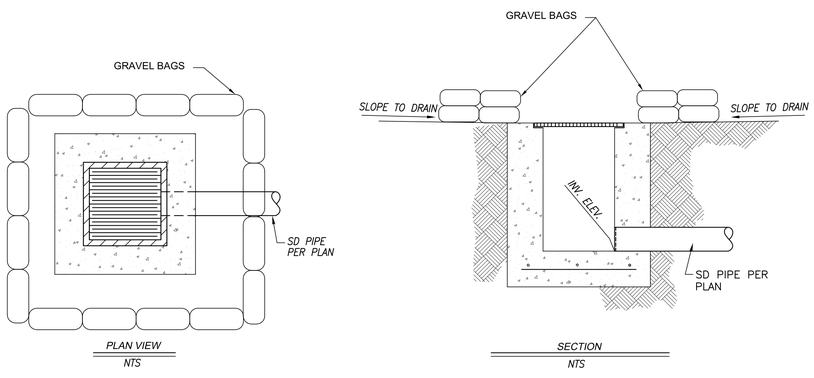
24 X 36

RELATIVE BORDER SCALE IN INCHES 0 1 2 3

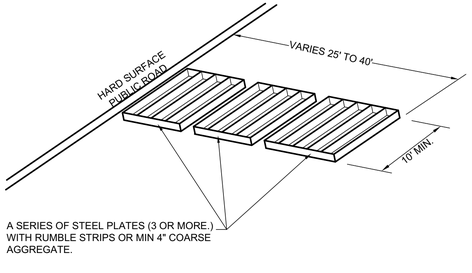
WOVEN POLYPROPYLENE, POLYTHYLENE, OR POLYAMIDE FABRIC OR BURLAP BAGS WITH A MINIMUM WEIGHT OF 4 OUNCES PER SQUARE YARD. BAGS SHOULD HAVE A MULLEN BURST STRENGTH OF 300 POUNDS PER SQUARE INCH AND ULTRAVIOLET STABILITY EXCEEDING 70%. FILL MATERIAL SHOULD BE 0.5" TO 1" CLASS 2 AGGREGATE BASE, CLEAN AND FREE FROM CLAY, ORGANIC MATTER, AND OTHER DELETERIOUS MATERIAL, OR SUITABLE OPEN GRADED, NON-COHESIVE, POROUS GRAVEL.



50 GRAVEL BAG BARRIER
NTS



51 GRAVEL BAG BARRIER AT CATCH BASIN INLET
NTS



52 TIRE WASH
NTS

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Sheet Title
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Project Number
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Reference North

Sheet Scale
N/A

Sheet Number
CE-1.2
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