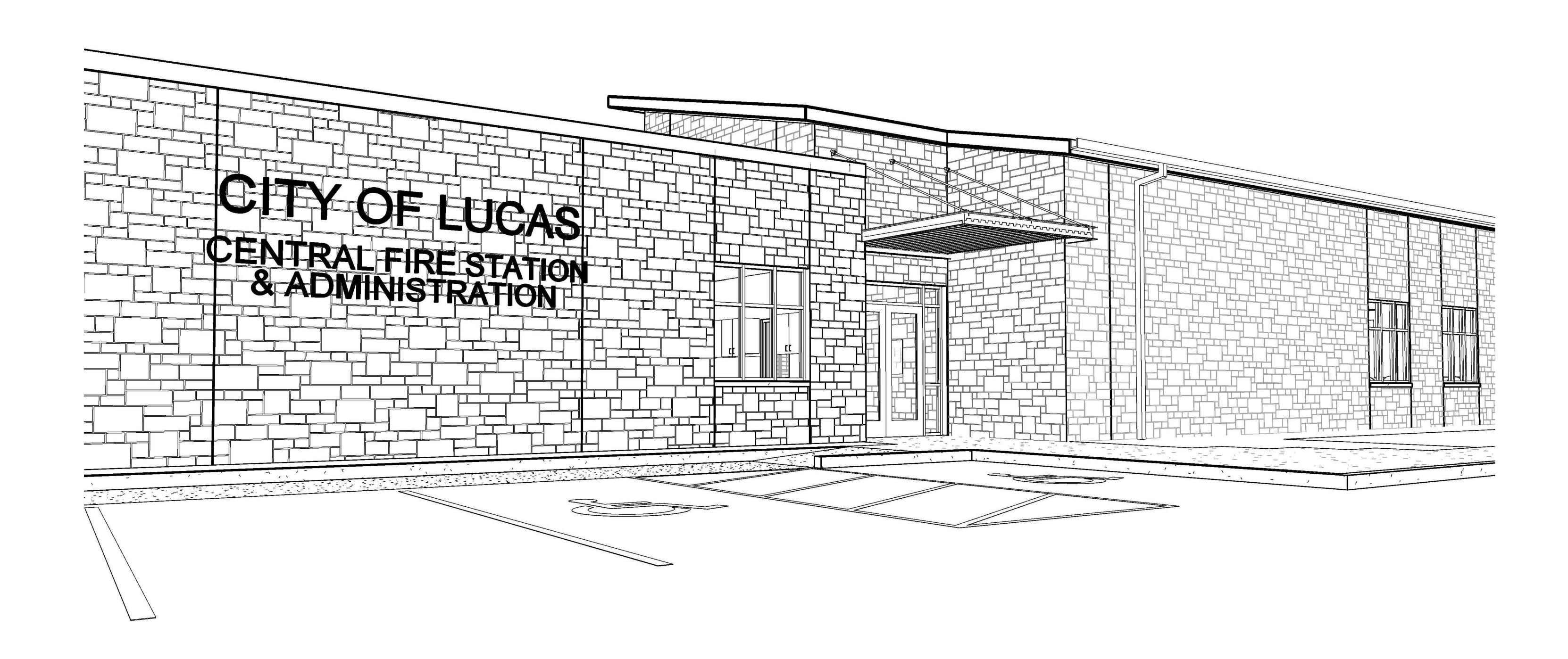
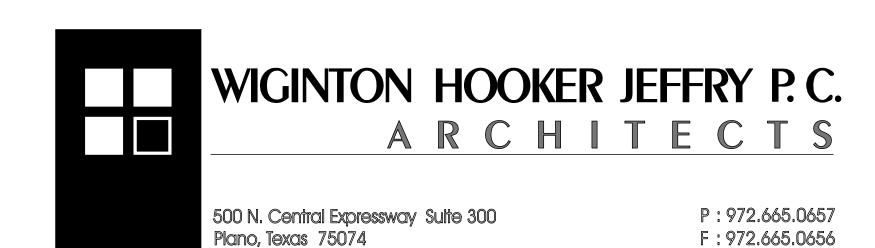
CITY OF LUCAS



CENTRAL FIRE STATION & ADMINISTRATION

50% CONSTRUCTION DOCUMENTS



CIVIL ENGINEER

HALFF ASSOCIATES, INC. 1001 Cross Timbers Road, Ste 2020 Flower Mound, Texas 75028-8829 972-956-0801 972-956-0842 (f)

LANDSCAPE **ENGINEER**

HALFF ASSOCIATES, INC. 1001 Cross Timbers Road, Ste 2020 Flower Mound, Texas 75028-8829 972-956-0801 972-956-0842 (f)

STRUCTURAL ENGINEER

HALFF ASSOCIATES, INC. 1201 North Bowser Road Richardson, TX 72081 214-346-6200 214-739-0095 (f)

MEP **ENGINEER**

MD Engineering, LLP 500 N. Central Expressway Suite 310 Plano, TX 75074 469-467-0200 469-467-0300 (f)

PROJECT NUMBER:

CENTRAL FIRE STATION & ADMINISTRATION

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PROJECT DATA

BUILDING CODE: IBC 2003 OCCUPANCY CLASS: TOTAL SQUARE FEET: 9,717 CONSTRUCTION TYPE: SPRINKLERED: YES PARKING COUNT:

ISSUE DATE: 04/04/14

SET NUMBER

C0.01

CONSTRUCTION PLANS

FOR

LUCAS FIRE STATION

ON-SITE PAVING, GRADING, AND UTILITY IMPROVEMENTS
CITY OF LUCAS, TEXAS
JANUARY 2014

CITY COUNCIL

MAYOR: REBECCA MARK

MAYOR PRO TEM: KATHLEEN PEELE

COUNCIL MEMBERS: WAYNE MILLSAP
JIM OLK
STEVE DUKE
PHILLIP LAWRENCE
DEBBIE FISHER

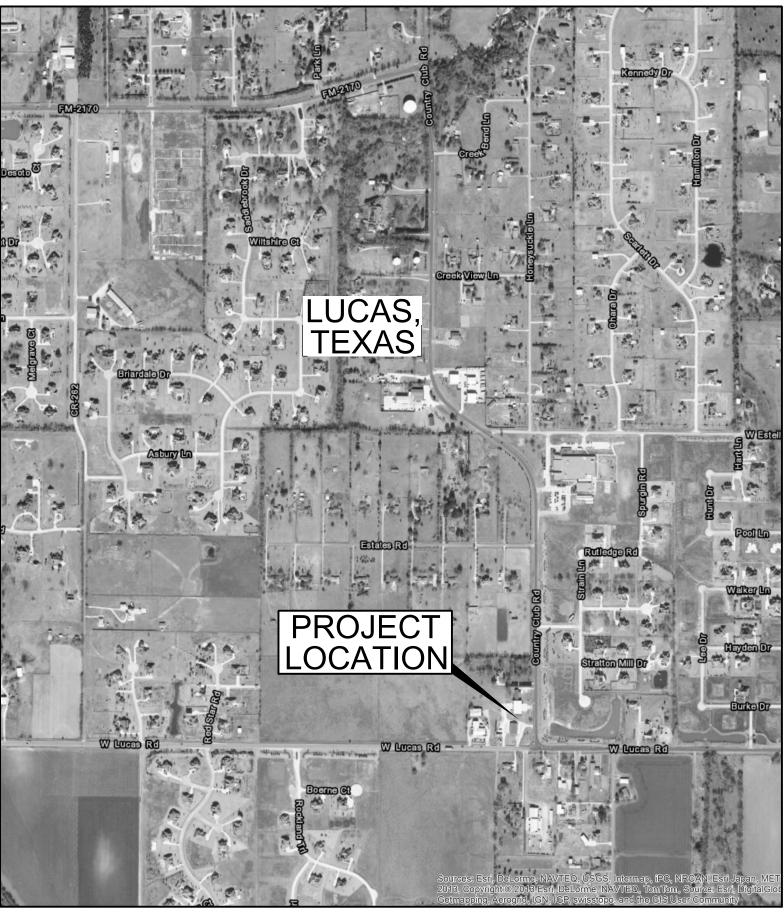
CITY MANAGER: JONI GLARKE

PUBLIC WORKS DIRECTOR: STANTON FOERSTER, PE

FIRE CHIEF: JIM KITCHENS







LOCATION MAP

PREPARED FOR CITY OF LUCAS, TEXAS

665 COUNTRY CLUB ROAD~ LUCAS, TEXAS 75002



1001 CROSS TIMBERS ROAD, SUITE 2020 ~ FLOWER MOUND, TEXAS 75028 PROJECT MANAGER: JAMES GAERTNER, P.E. (972) 956-0801

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C2.01 C2.02 C2.03	EROSION CONTROL PLAN EROSION CONTROL DETAILS EROSION CONTROL DETAILS
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IRRIGATION DETAILS

HALFF ASSOCIATES, INC.
ENGINEERS • SURVEYORS • SCIENTISTS

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These documents are for Interim Review and not intended for Construction, Bidding, or Permit Purposes. They were prepared by, or under the supervision of:

James S. R. Gaertner

AVO 29051 APRIL 2013

HALFF ASSOCIATES, INC. - TBPE #F-312

GENERAL NOTES:

- Contractor is responsible for, and must obtain prior to construction, all necessary construction permits required by the City of Lucas.
- 2. The Contractor shall abide by all applicable federal, state, and local laws governing excavation. The Contractor shall provide detailed plans and specifications for trench safety systems that comply with applicable laws governing excavation. These plans shall be sealed by an Engineer experienced in the design of trench safety systems and licensed by the State of Texas. Submit plan to the Owner prior to commencing work. The Contractor shall be solely responsible for all aspects of work related to excavation.
- 3. Existing utility locations shown are taken from available records provided by the utility Owner and field locations of surface appurtenances. Locations shown are generally schematic in nature and may not accurately reflect the size and location of each particular utility. Some utility lines may not be shown. Contractor shall assume responsibility for actual field location and protection of existing facilities whether shown or not. Contractor shall also assume responsibility for repairs to existing facilities, whether shown or not, damaged by contractor's activities. Differences in horizontal or vertical location of existing utilities shall not be a basis for additional expense.
- 4. Contractor shall locate and adjust existing utility manhole lids, cleanouts, water valves and other surface appurtenances as required for new construction. Contractor shall coordinate utility adjustments with other disciplines and the appropriate utility agencies and provide for all fees for permits, connections, inspections, etc.
- 5. The Contractor shall protect existing property monumentation and primary control. Any such points which the Contractor believes will be destroyed shall have offset points established by the Contractor prior to construction. Any monumentation destroyed by the Contractor shall be reestablished at his expense.
- 6. Barricading and traffic control during construction shall be the responsibility of the Contractor and shall conform to the 2006 Texas Manual on Uniform Traffic Control Devices (TMUTCD), PartVI in particular. Traffic flow and access shall be maintained during all phases of the construction. The Contractor is responsible for providing traffic safety measures for work on project.
- 7. Any damages that may occur to real property or existing improvements shall be restored by the Contractor to at least the same condition that the real property or existing improvements were in prior to the damages. This restoration shall be subject to the Owner's approval; moreover, this restoration shall not be a basis for additional compensation to the Contractor. Restoration shall include, but not be limited to, regrassing, revegetation, replacing fences, replacing trees,
- 8. It shall be the responsibility of the Contractor to:
 A. Prevent any damage to private property and property owner's poles, fences, shrubs, etc.
 - B. Provide access to all drives during construction.
 C. Protect all underground utilities to remain in service.
 D. Notify allutility companies and verify location of allutilities prior to start of construction.
- 9. Contractor shall maintain positive drainage at all time during construction. Ponding of water in streets, drives, truck courts, trenches, etc. will not be allowed.
- 10. Contractor shall maintain existing sanitary sewer and water service at all times during construction.11. Contractor is responsible for coordination with utility companies and
- other appurtenances to new grade as required.

 12. Pavement removal and repair shall conform to the City Lucas requirements. All sawcuts shall be full depth cuts. Contractor shall make efforts to protect concrete and/or asphalt edges. Any large spalled or broken edges shall be removed by sawcutting pavement prior to replacement.

adjustment of existing sanitary sewer cleanouts, water meters and any

GRADING NOTES:

- 1. The Contractor shall administer sprinklers for dust control, earthwork or base construction as required or as directed by the Engineer in accordance with TxDOT specifications Item 204.
- 2. Contractor's work shallinclude pavement removaland disposalrequired for new walk, drive, curb, gutter and other grading features. Contractor shallbe responsible for all coordination, inspection and testing required by the Owner and/or the City of Lucas.
- 3. All sidewalks and handicap parking shall meet current ADA standards for minimum and maximum slopes.

PRIVATE UTILITY NOTES:

1. All materials and workmanship for private utility construction shall conform to the Standard Specifications for Public Works Construction for North Central Texas, latest edition, and the City of Lucas requirements.

2. Pipe material for water and waste water lines shall conform to the notes shown on this drawing and to the requirements of the project specifications. Water line shall be C900 PVC, DR 14 Class 150. Unless otherwise specified.

3. Water mains shall have the following minimum cover below finished street grades:

Size Cover 8" 3.5' 10" 4.0' 12" 4.0'

4. Coordinate utility service locations with most current Architectural/MEP Plans for this project.

5. Fire service shall be sized and designed by a State of Texas licensed fire protection engineer/contractor registered in the State of Texas.6. All underground fire lines shall be installed by a state licensed fire protection contractor.

7. Sanitary sewer line shall be SDR- 35 PVC. Embed sewer pipe in accordance with City of Lucas design standards.

- 8. Refer to City of Lucas standard details for DDC valve and vault construction, Water and Sanitary Sewer embedment and water thrust blocking.
- 9. All fire line valve covers must be marked in blue, labeled (F.D.)

 10. Field adjustments shall not be made without notification of the Owner and engineer.

<u>PAVING NOTES</u>:

- 1. Pavement removaland repair shallconform to City of Lucas and TxDOT requirements. All sawcuts shall be full depth cuts. Contractor shall make efforts to protect concrete and/or asphalt edges. Any large spalled or broken edges shall be removed by sawcutting pavement prior to replacement.
- 2. Contractor's work shallinclude pavement removal and disposal required for new walk, drive, curb, gutter and other paving features. Contractor shall be responsible for all coordination, inspection and testing required by the City of Copperas Cove.
- 3. All travellane pavement shall be 7" thick and a minimum 3,500 psi compressive strength reinforced concrete pavement with #3 bars at 18" on center in both directions, per geotech report prepared by Alpha Testing Inc. Report No. G132036 dated December 18, 2013.
- 4. Concrete paving joints shallbe constructed as recommended in the geotechnical report noted below. Expansion joints shallbe placed at changes in direction of paving, at driveways and/or as shown on the drawings. Seal all joints as shown on the drawings. (See sheet C7.04 for details).
- 5. Unless otherwise indicated on plans, all dimensions are to face of curb or face of building and are perpendicular to boundary line. These dimensions are provided to tie the Architect's Site Plan to the boundary lines.
- 6. All sidewalks and handicap parking areas shall meet current ADA standards for minimum and maximum slopes.
- 7. Refer to paving and grading requirements from geotechnical report prepared by Alpha Testing Inc. No. G132036 dated December 18, 2013.

UTILITY CONTACTS

Gas Company Cable Company

COSERV
SHAWN MEAD
940-321-7800 ext.7509 (Office)
5420 LBJ Freeway, Suite 1822
Dallas, Texas 75240

ENERGY TRANSFER Celeste Waterwall (713) 989-2831 (Phone) 1300 Main St. HOUSTON, TX 77002

Electric Company

TXU Electric Delivery 1-800-711-9112 email: constructionservices@txu.com

ONCOR ELECTRIC DISTRIBUTION Robert Martinez (888) 313-6862 (Phone) 115 W 7th Street FT WORTH, TX 76102

GRAYSON-COLLIN ELECTRC COOPERATIVE DENNIS FURGUSON MANAGER OF OVERHEAD CONSTRUCTION email: dennis.furguson@grayson-collin.coop 903-482-7100 (Phone) 1096 N. WACO VAN ALSTYNE, TX 75495

Phone Companies

VERIZON Larry Guay email: larry.d.guay@verizon.com 972-318-0264 (Phone) 972-318-5299 (Fax) 2094 McGee Lane Lewisville, TX 75077

Water and Trash Serivce

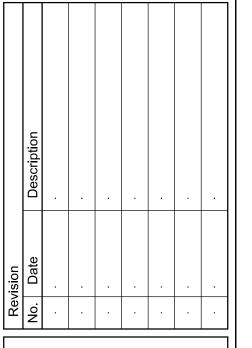
CITY OF LUCAS Delta Moody (972) 727-8999, ext. 409 (Phone) (972) 727-0091 (Fax) 665 Country Club Lucas, TX 75002 CHARTER COMMUNICATIONS Mr. Greg Piatt 817-298-3625 15100 Trinity Blvd. Fort Worth, TX 76155

Century Link Jim Tankersley (940)321-1920 (Phone) 450 Main Street LAKE DALLAS, TX 75065

GRANDE COMMUNICATIONS -(877)238-6891(Phone) 501 N. Shady Shore Road LAKE DALLAS, TX 75065 CITY OF LUC FIRE STATION LUCAS, TEXAS



1001 CROSS TIMBERS RD, SUITE 2020 FLOWER MOUND, TEXAS 75028-8829 TEL (972) 956-0891 FAX (972) 956-0842



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James S. R. Gaertner 100431

NAME P.E. NO.

DATE 4/11/2014

TBPE FIRM # F-312

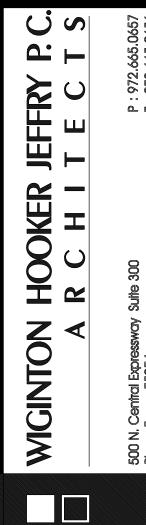
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Issued: JANUARY 2014
Drawn By: CAD
Checked By: JSRG
Scale: AS NOTED
Sheet Title
GENERAL
NOTES

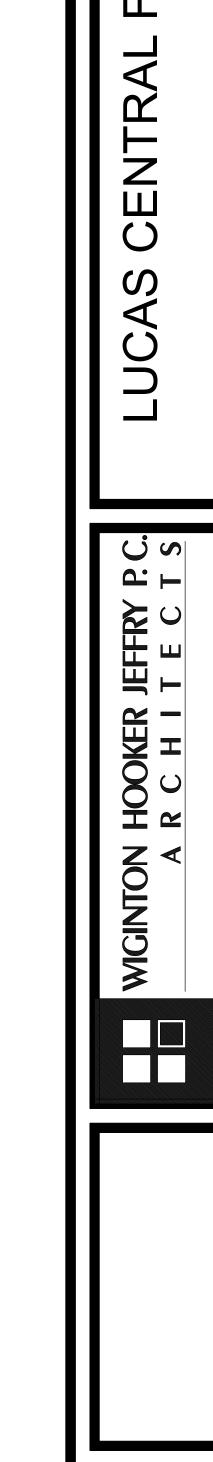
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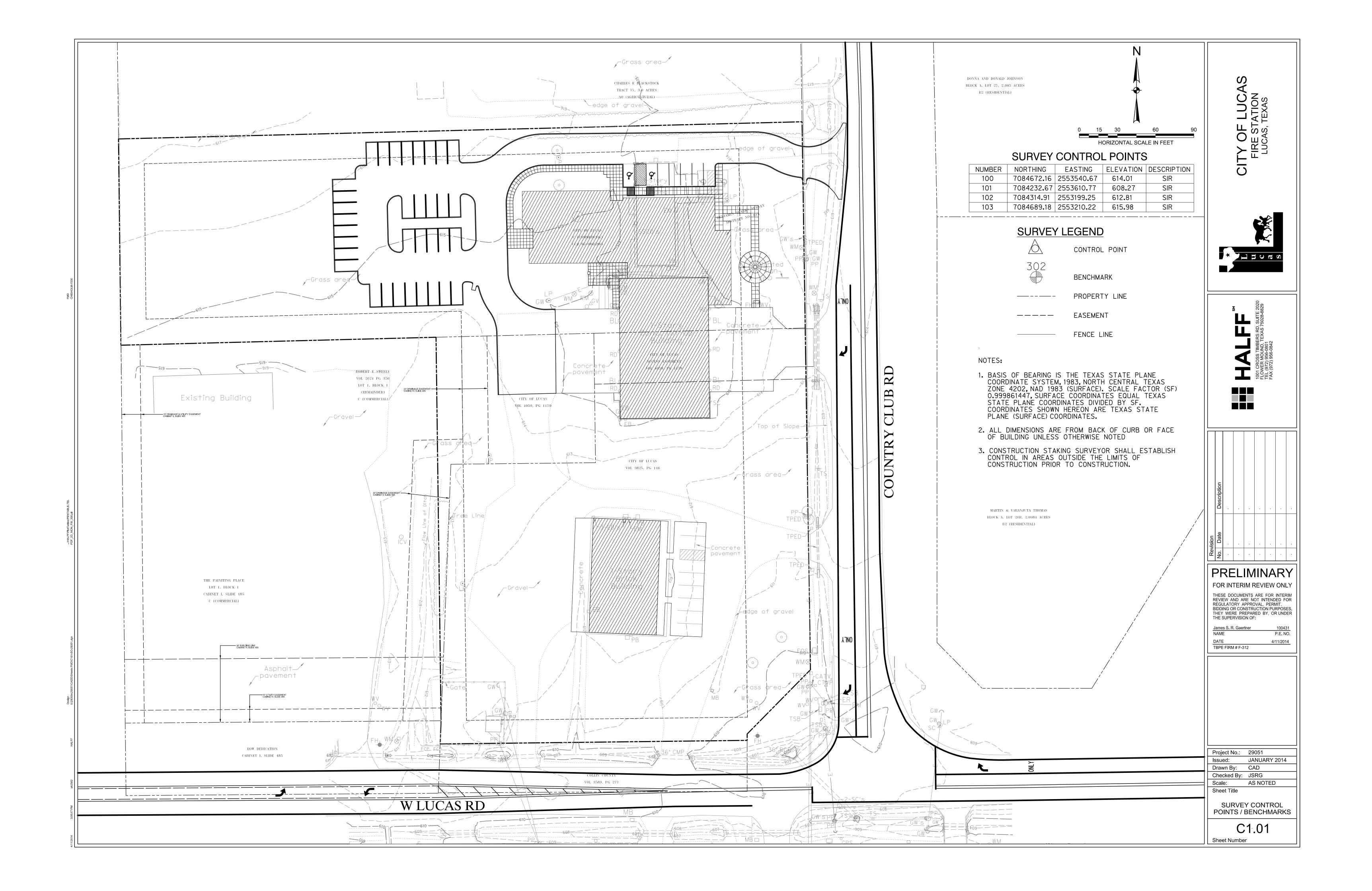
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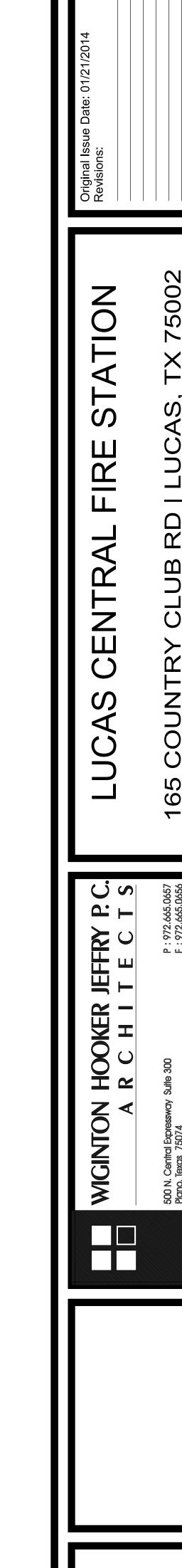
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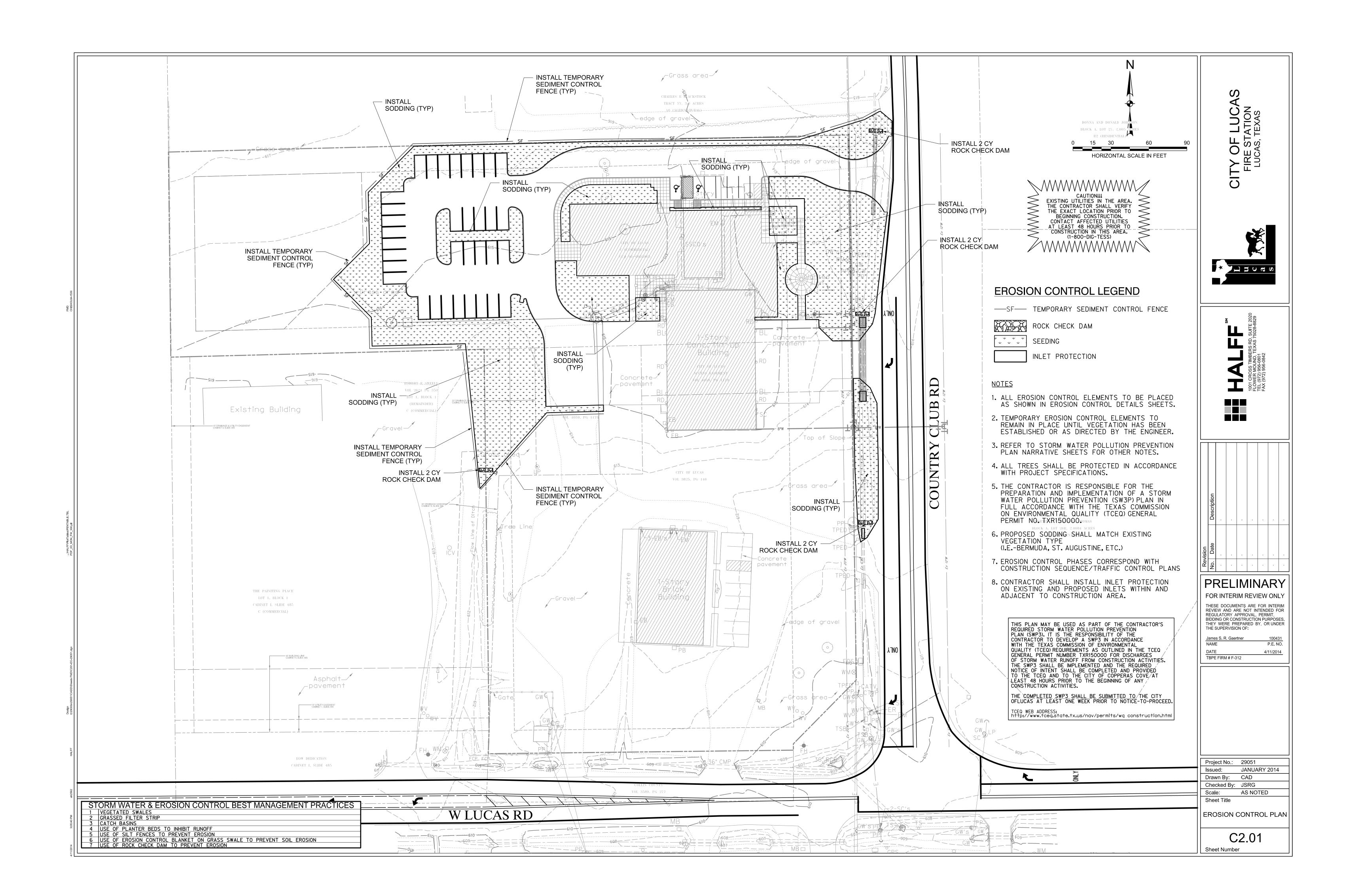












Job

C2 01

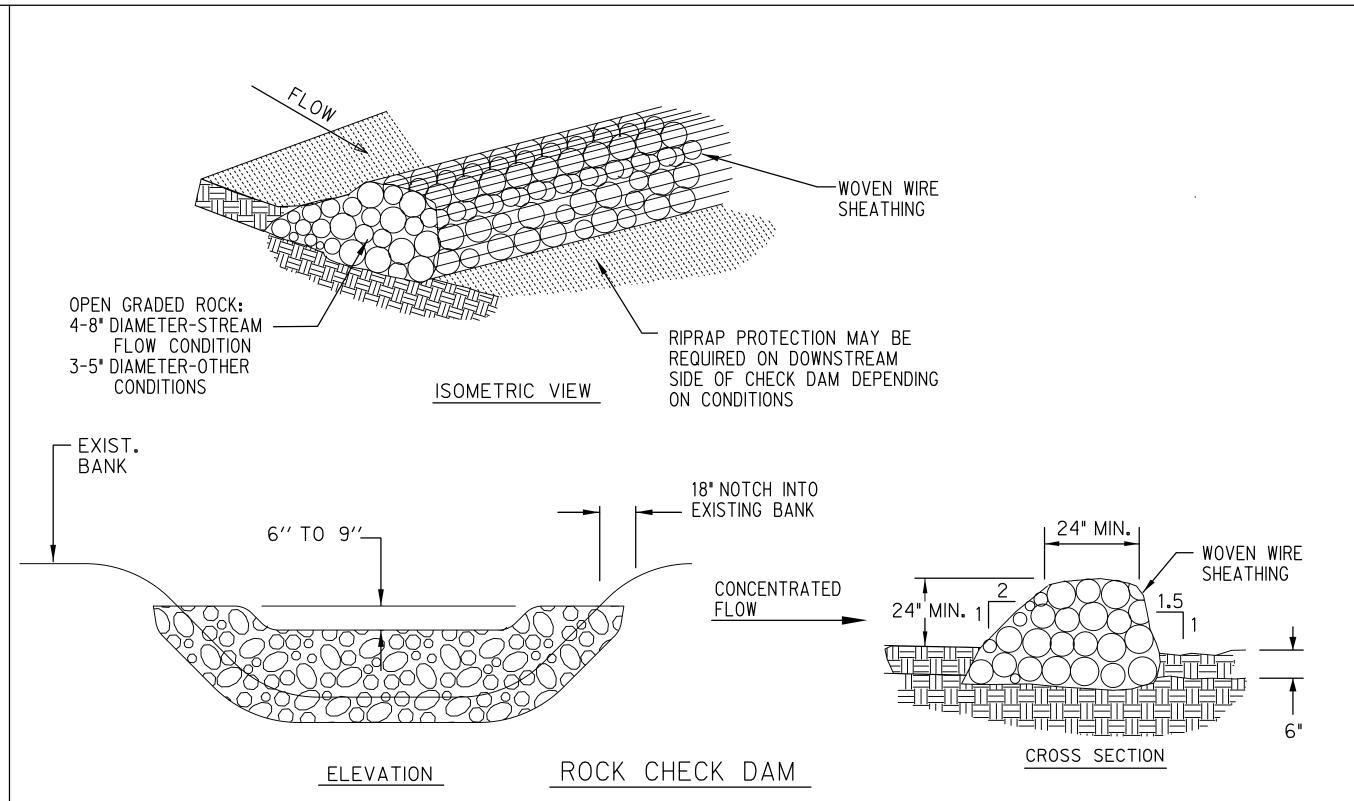
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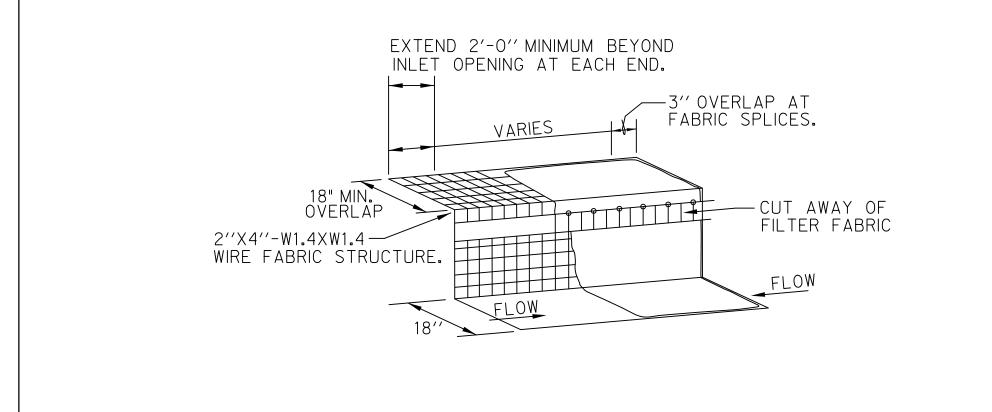
Erosion Control Notes

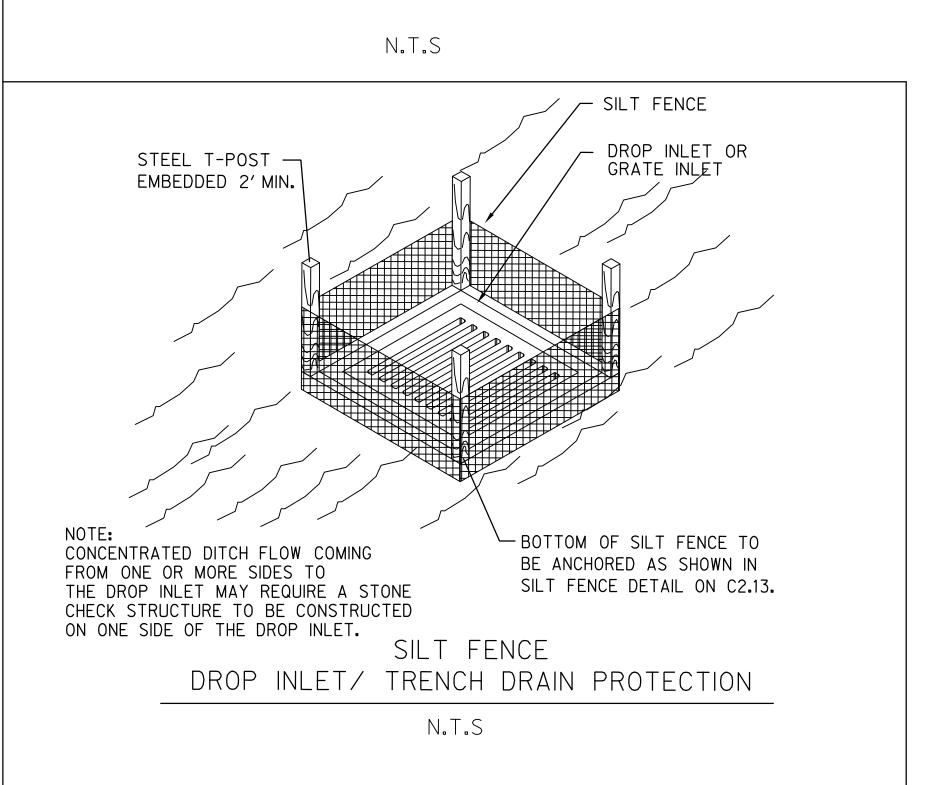
- 1. The Contractor is responsible for preparing and implementing a Storm Water Pollution Prevention Plan (SWP3) in accordance with TCEQ Texas Pollutant Discharge Elimination System (TPDES) Permit No. TXR150000 (PERMIT). The details shown on this sheet represent typical methods for controlling erosion during construction and are intended for the Contractors guidance in preparing his Pollution Prevention Plan. The Contractors plan shall comply with the PERMIT and Federal, State and local requirements. The Contractors plan shall include, but not be limited to, preparation and submittal of a Notice of Intent (NOI) to the TCEQ, if the project is 5 acres or larger and preparation of all plans and documentation as required by the PERMIT.
- 2. It is the intent of the information provided on these documents to be used as a general guideline for the Contractor. The SWP3 to be prepared by the Contractor shall meet the current requirements set forth in the TCEQ's TPDES general permit for storm water discharges from construction sites as well as any local requirements.
- 3. The Contractor shall be responsible for maintaining erosion control during construction and for obtaining any required construction related drainage permits, or making any construction related notifications. An inspection report that summarizes inspection activities and implementation of the SWP3 shall be performed as required by the PERMIT and retained by the Contractor and made a part of the construction documents. The Contractor shall provide copies of all SWP3 documents including, but not limited to, inspection records, original plans, and modified plans to the Owner at contract close-out. During construction the contractor shall provide copies of the inspection reports to the Owner on a monthly basis.
- 4. Temporary storm drainage and/or erosion control material shall be suitable for this application and shall be installed with the proper techniques by the Contractor as required by NCTCOG Standard Specifications for Public Works Construction. Temporary storm drainage and/or erosion control material shall be removed by the Contractor, in addition to any excavations backfilled by the Contractor, in accordance with NCTCOG Standard Specifications for Public Works Construction when temporary erosion control devices are no longer needed as specified in the PERMIT. Maintenance of the permanent erosion control measures at the site will be assumed by the Owner at contract close out and acceptance of the work.
- 5. The Contractor shall maintain his SWP3 in accordance with the TCEQ Permit and make his SWP3 available, upon request, to the TCEQ, and/or City.
- 6. The Contractor must amend his SWP3 whenever there is a change in design, construction, operation, or maintenance of the SWP3, or when the existing SWP3 proves ineffective. Modifications shall not compromise the intent of the requirements of the PERMIT. Modifications including design and all additional materials and work shall be accomplished by the Contractor at no additional expense to the Owner.
- 7. The Contractor shallinspect his stabilization and erosion control measures at a minimum of once every 14 days, and within 24 hours after any storm event greater than 0.5 inches, or once every 7 days. The Contractor shall repair inadequacies revealed by the inspection before the next storm event and he shall modify his SWP3 within 7 days of the inspection.
- 8. The Contractor shall adopt and implement appropriate construction site management practices to prevent the discharge of oils, grease, paints, gasoline, and other pollutants to storm water. Appropriate practices shall include, but not be limited to: designating areas for equipment maintenance and repair; collecting wastes periodically; maintaining conveniently located waste receptacles, and designating and controlling equipment washdown.
- 9. Borrow areas, if excavated, shall be protected and stabilized by the Contractor in a manner acceptable to the Owner and in accordance with PERMIT requirements.
- 10. All non-paved areas shall be seeded and mulched with erosion protection grass by the Contractor immediately upon completion of final grading. This includes all ditches and embankments. The Contractor shall maintain final grading, and keep seeded areas watered until fully established and accepted by Owner.

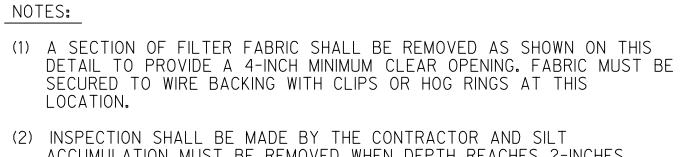
THIS IS NOT A STORM WATER POLLUTION PREVENTION PLAN. CONTRACTOR MUST ADD HIS OPERATION SPECIFIC INFORMATION PER THE PERMIT REQUIREMENTS & INCLUDE ALL DOCUMENTATION & CERTIFICATES AS REQUIRED BY THE PERMIT.

- 11. The Contractor shall construct a silt fence at locations suggested on plans as appropriate or as modified in his SWP3 to fit site conditions at the time of placement, and all borrow and stock pile areas. The silt fence shall be constructed as detailed on this plan. The Contractor shall remove accumulated silt when it reaches a depth of 1/3 the height of the silt fence. The Contractor shall dispose of the removed silt in a location approved by the Owner and in such a manner as to not contribute to erosion and sedimentation. The Contractor shall remove the silt fence when the site is completely stabilized in accordance with the PERMIT.
- 12. The Contractor shall designate material and equipment storage areas mutually agreed to by the Owner. The storage areas shall be graded for positive drainage, and the surface stabilized with a minimum of 2 inches of compacted flex base on 6 inches of scarified and recompacted subgrade by the Contractor. A silt fence shall be installed by the Contractor around the storage areas to prevent eroded material from leaving the site.
- 13. All inlets (onsite and offsite) receiving drainage water from disturbed areas shall be protected by the Contractor as per details shown or other Owner approved methods to prevent eroded material from being transported into inlets. The inlet protection shall be constructed as shown on these plans.
- 14. The notes and details contained herin do not relieve the Contractor and Owner of meeting and implementing the requirements of the PERMIT.



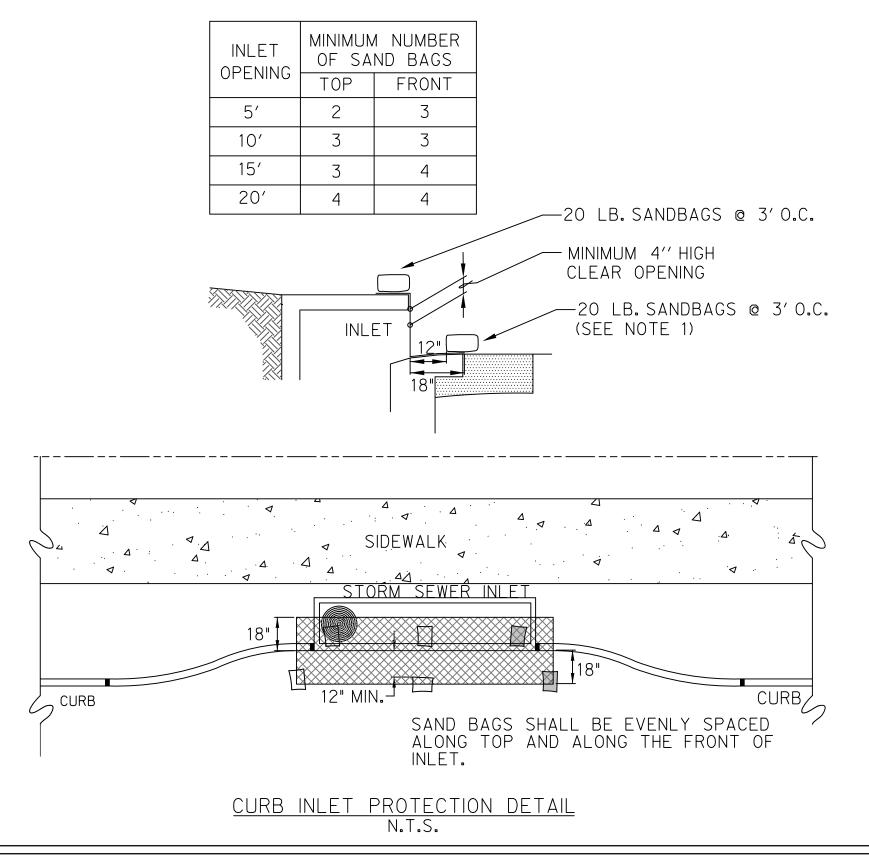


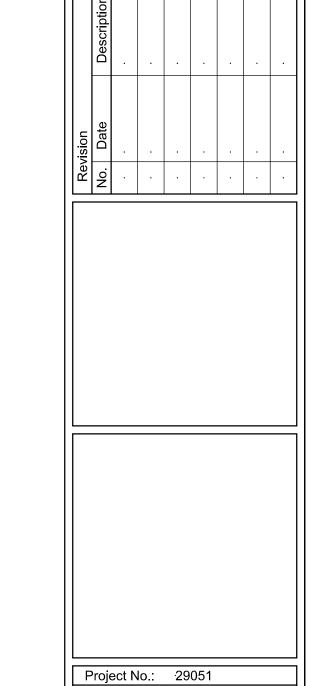




- ACCUMULATION MUST BE REMOVED WHEN DEPTH REACHES 2-INCHES.
- (3) CONTRACTOR SHALL MONITOR THE PERFORMANCE OF INLET PROTECTION DURING EACH RAINFALL EVENT AND IMMEDIATELY REMOVE THE INLET PROTECTIONS IF THE STORM-WATER BEGINS TO OVERTOP THE CURB.

(4) INLET PROTECTIONS SHALL BE REMOVED AS SOON AS THE SOURCE OF SEDIMENT IS STABILIZED.





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Project No.: 29051
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EROSION CONTROL
DETAILS

C2.02
Sheet Number

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DATE
TBPE FIRM # F-312

Project No.: 29051

Drawn By: CAD Checked By: JSRG

Sheet Title

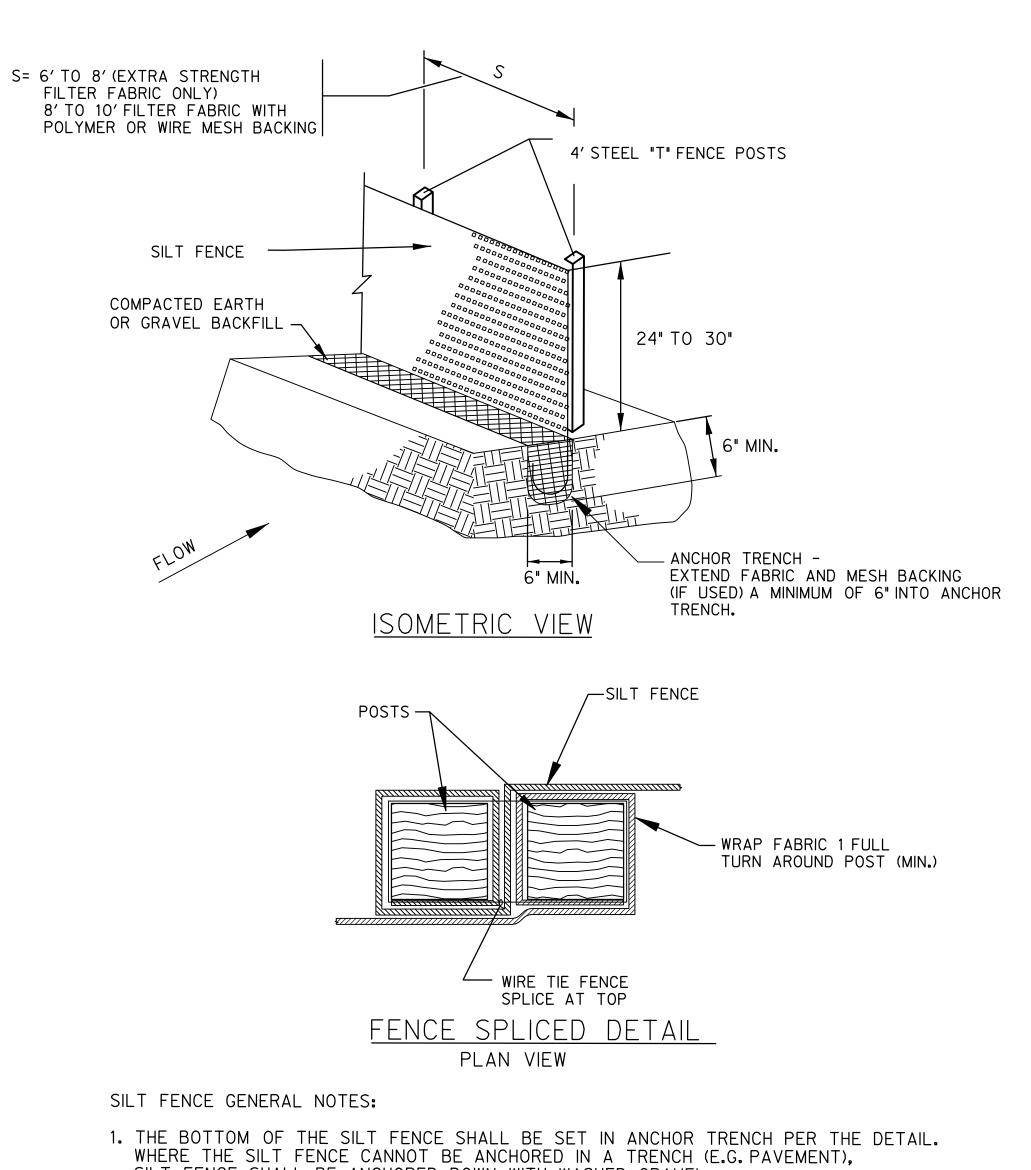
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Issued: JANUARY 2014

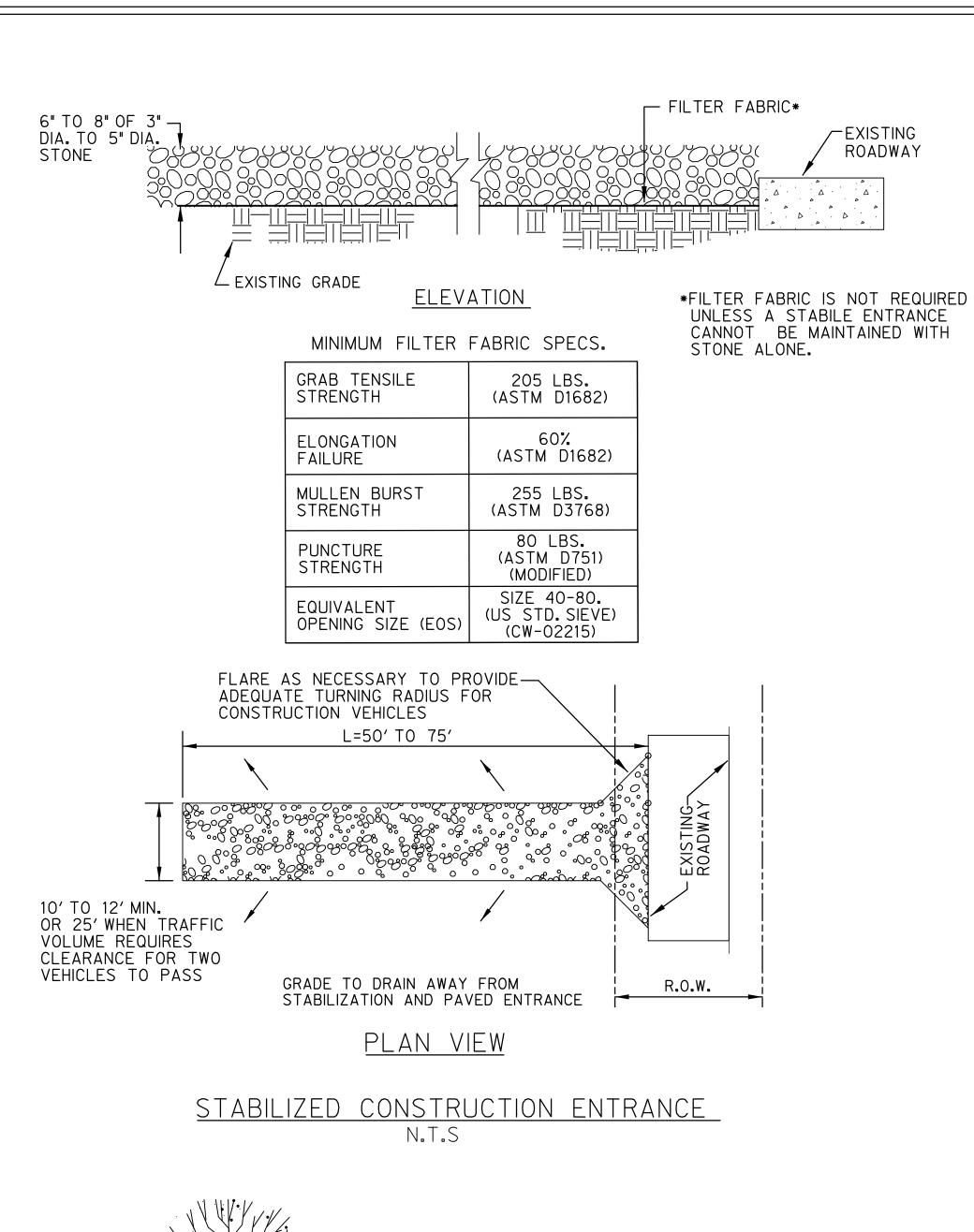
EROSION CONTROL DETAILS

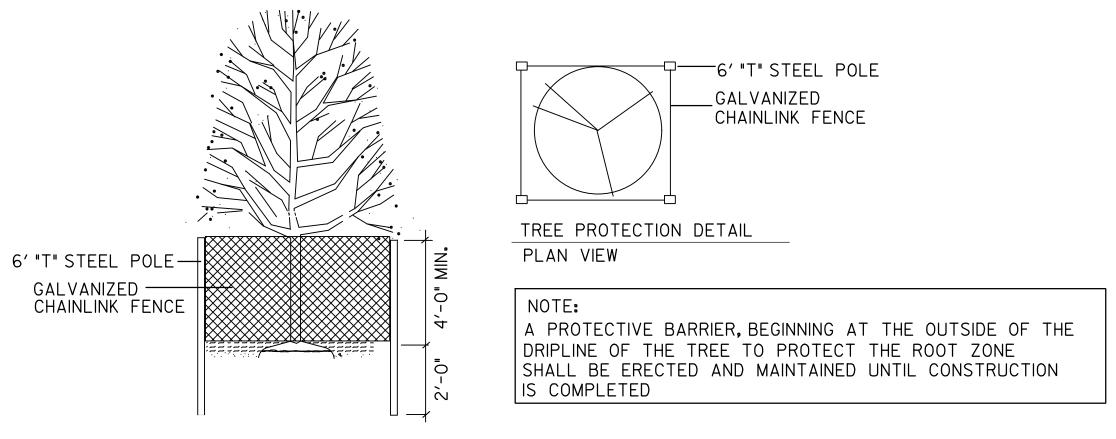
C2.03



- SILT FENCE SHALL BE ANCHORED DOWN WITH WASHED GRAVEL.
- 2. AT SPLICES IN THE SILT FENCE, THE SILT FENCE SHALL BE WRAPPED AROUND EACH END POST, ONE FULL TURN, POSTS DRIVEN ADJACENT TO EACH OTHER WITH THE TOPS OF THE POSTS SECURED TIGHTLY TOGETHER WITH WIRE TO PREVENT SEDIMENT FLOWING THROUGH THE SPLICED JOINT.
- 3. SILT FENCE SHALL BE SECURELY FASTENED TO EACH SUPPORT POST.
- 4. ACCUMULTED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 1/3 THE HEIGHT OF THE SILT FENCE OR AS NECESSARY TO MAINTAIN THE SILT FENCE IN GOOD OPERATING ORDER. THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.
- 5. SILT FENCE AND OTHER SEDIMENT CONTROLS SHALL BE MAINTAINED PER THE REQUIREMENTS OF THE PERMIT AND IT SHALL BE REMOVED AS REQUIRED BY THE PERMIT AT COMPLETION.

SILT FENCE DETAIL N.T.S

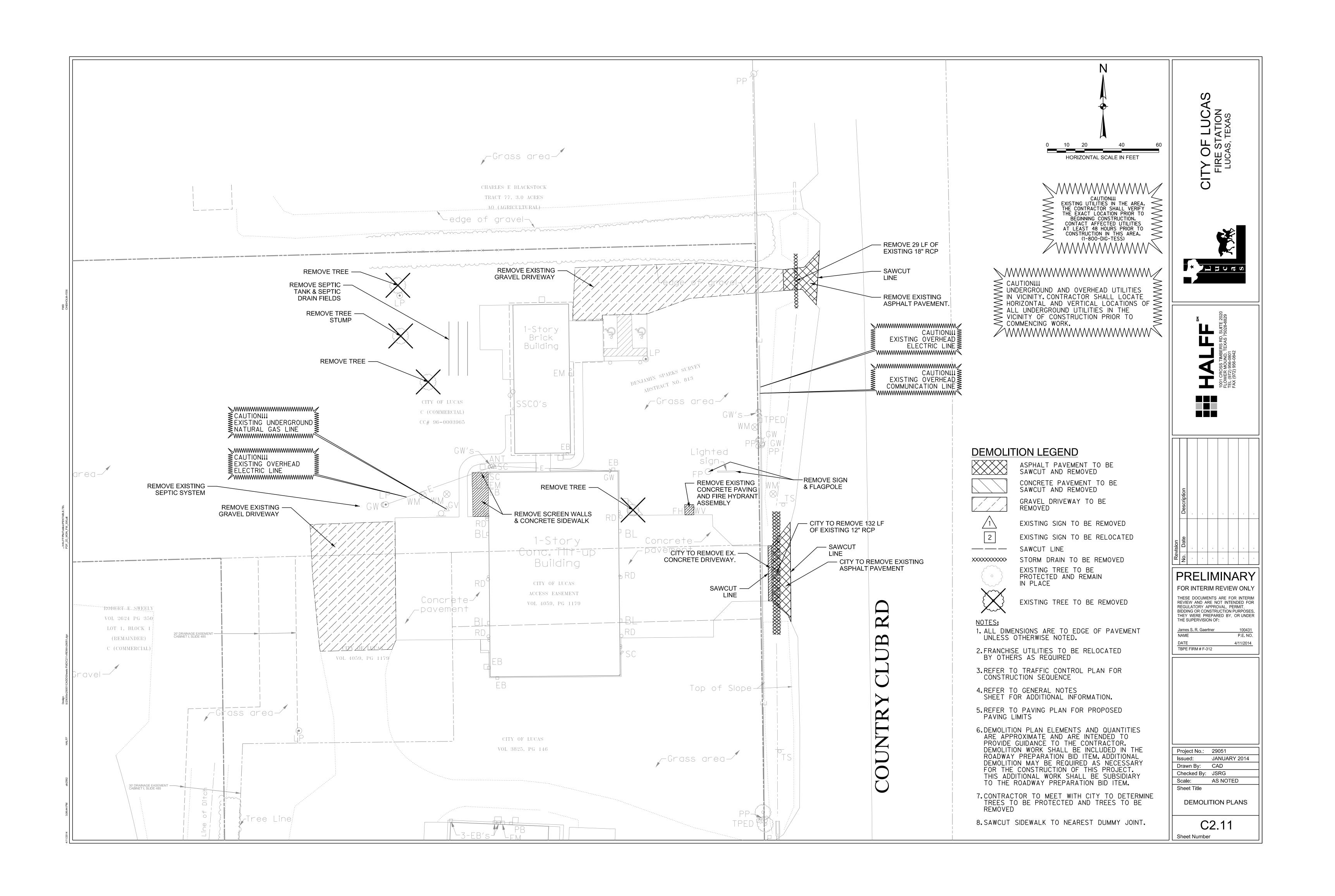




TREE PROTECTION DETAIL N.T.S

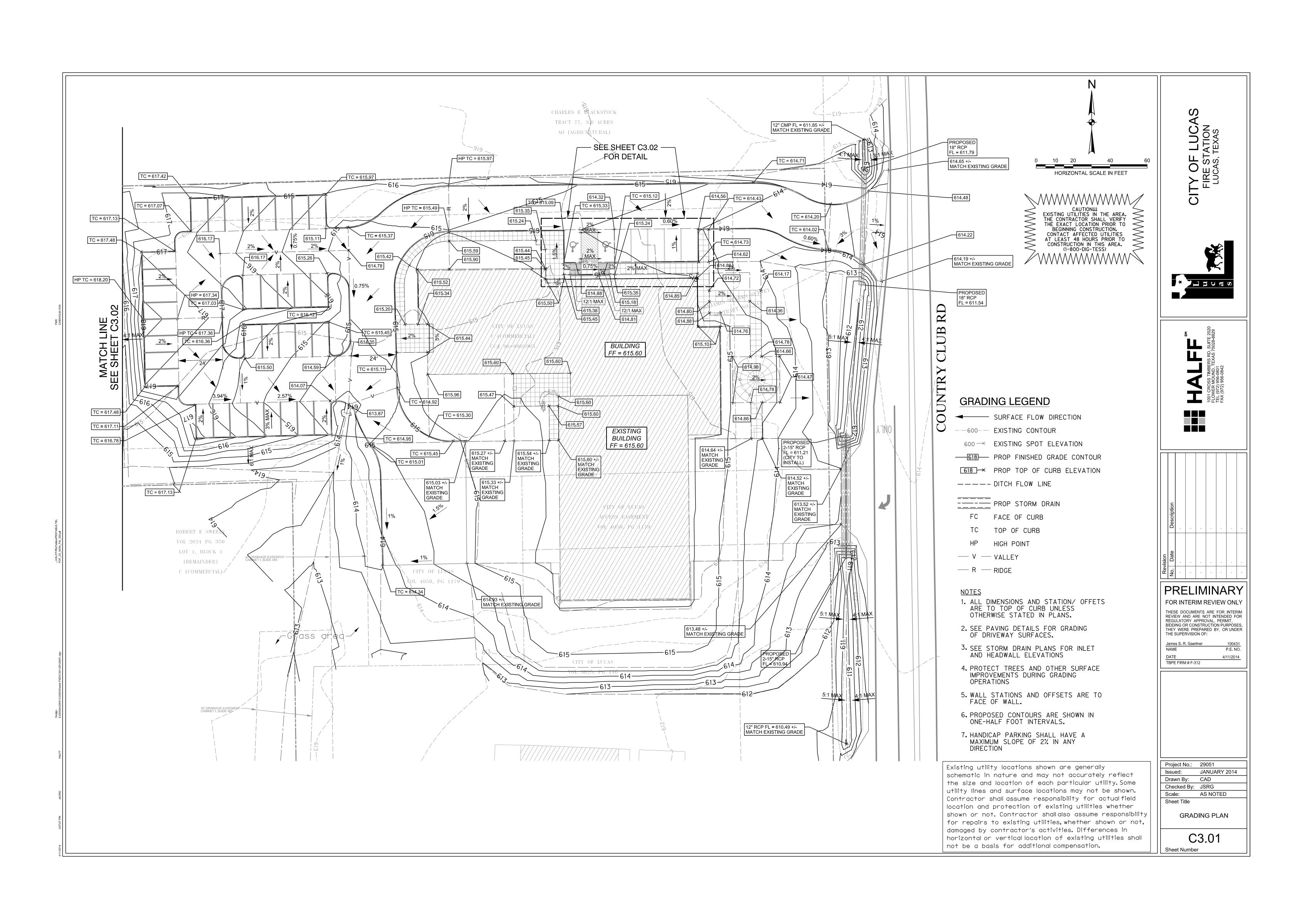
THIS IS NOT A STORM WATER POLLUTION PREVENTION PLAN. CONTRACTOR MUST ADD HIS OPERATION SPECIFIC INFORMATION PER THE PERMIT REQUIREMENTS & INCLUDE ALL DOCUMENTATION & CERTIFICATES AS REQUIRED BY THE PERMIT.





Job No.

Sheet No.



SINTON HOOKER JEFFRY P. C.

A R C H I T E C T S

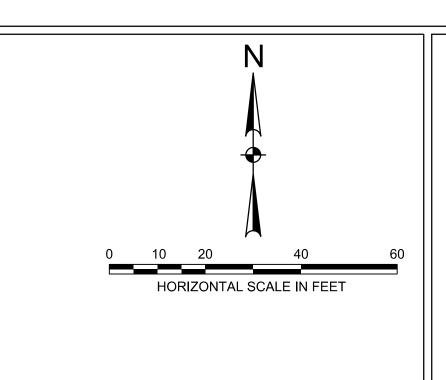
entral Expressway Suite 300

P: 972.665.0657

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1215

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SURFACE FLOW DIRECTION

--600-- EXISTING CONTOUR 600 - EXISTING SPOT ELEVATION

——618— PROP FINISHED GRADE CONTOUR

618 → PROP TOP OF CURB ELEVATION

---- DITCH FLOW LINE

PROP STORM DRAIN

FC FACE OF CURB

TC TOP OF CURB

— R — RIDGE

ALL DIMENSIONS AND STATION/ OFFETS ARE TO TOP OF CURB UNLESS OTHERWISE STATED IN PLANS.

SEE PAVING DETAILS FOR GRADING OF DRIVEWAY SURFACES.

3. SEE STORM DRAIN PLANS FOR INLET AND HEADWALL ELEVATIONS

4. PROTECT TREES AND OTHER SURFACE IMPROVEMENTS DURING GRADING

OPERATIONS

5. WALL STATIONS AND OFFSETS ARE TO FACE OF WALL.

6. PROPOSED CONTOURS ARE SHOWN IN ONE-HALF FOOT INTERVALS.

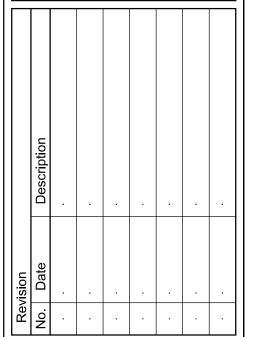
7. HANDICAP PARKING SHALL HAVE A MAXIMUM SLOPE OF 2% IN ANY DIRECTION

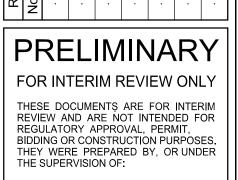
Existing utility locations shown are generally schematic in nature and may not accurately reflect the size and location of each particular utility. Some utility lines and surface locations may not be shown. Contractor shall assume responsibility for actual field location and protection of existing utilities whether shown or not. Contractor shallalso assume responsibility for repairs to existing utilities, whether shown or not, damaged by contractor's activities. Differences in horizontal or vertical location of existing utilities shall not be a basis for additional compensation.









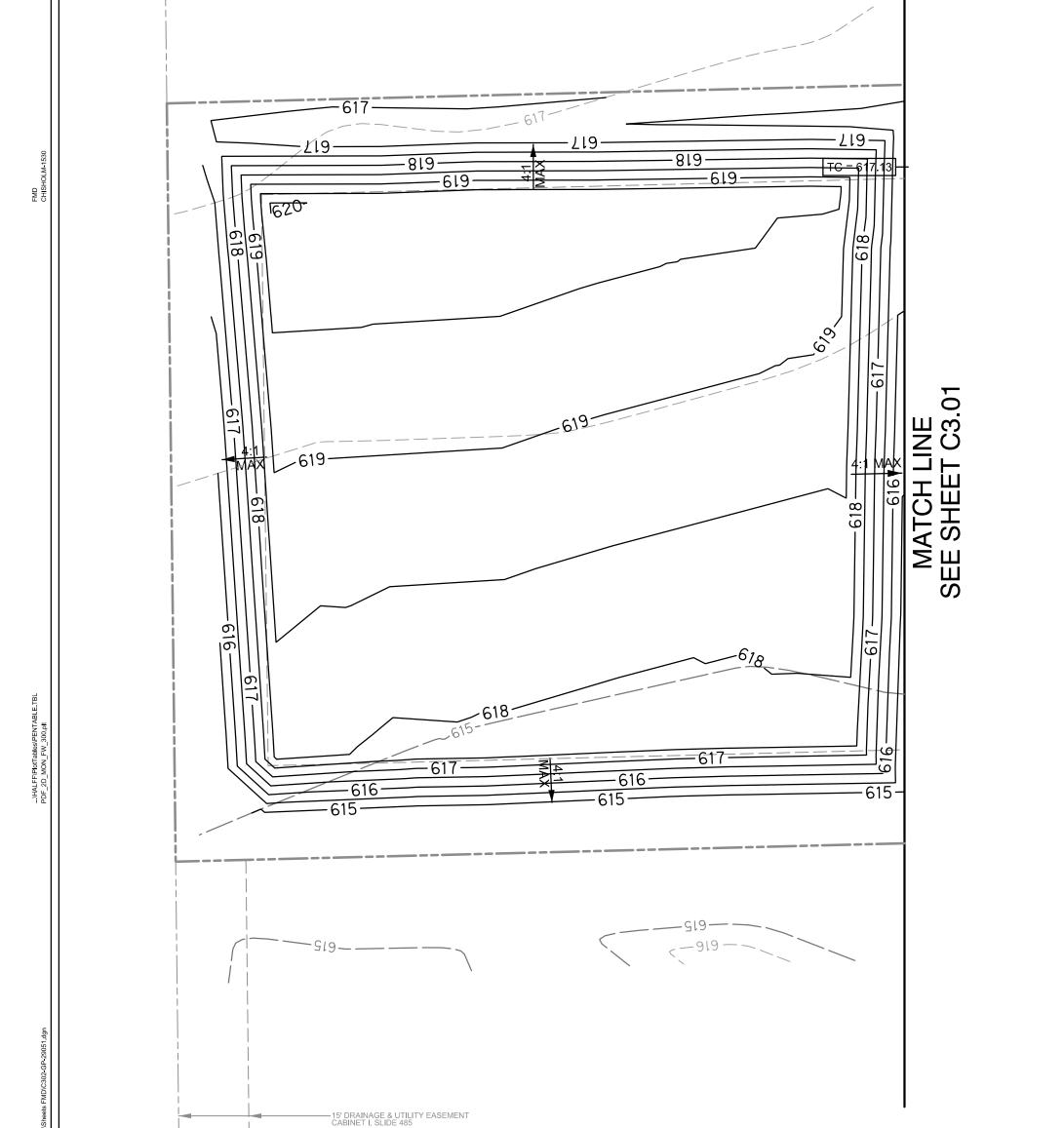


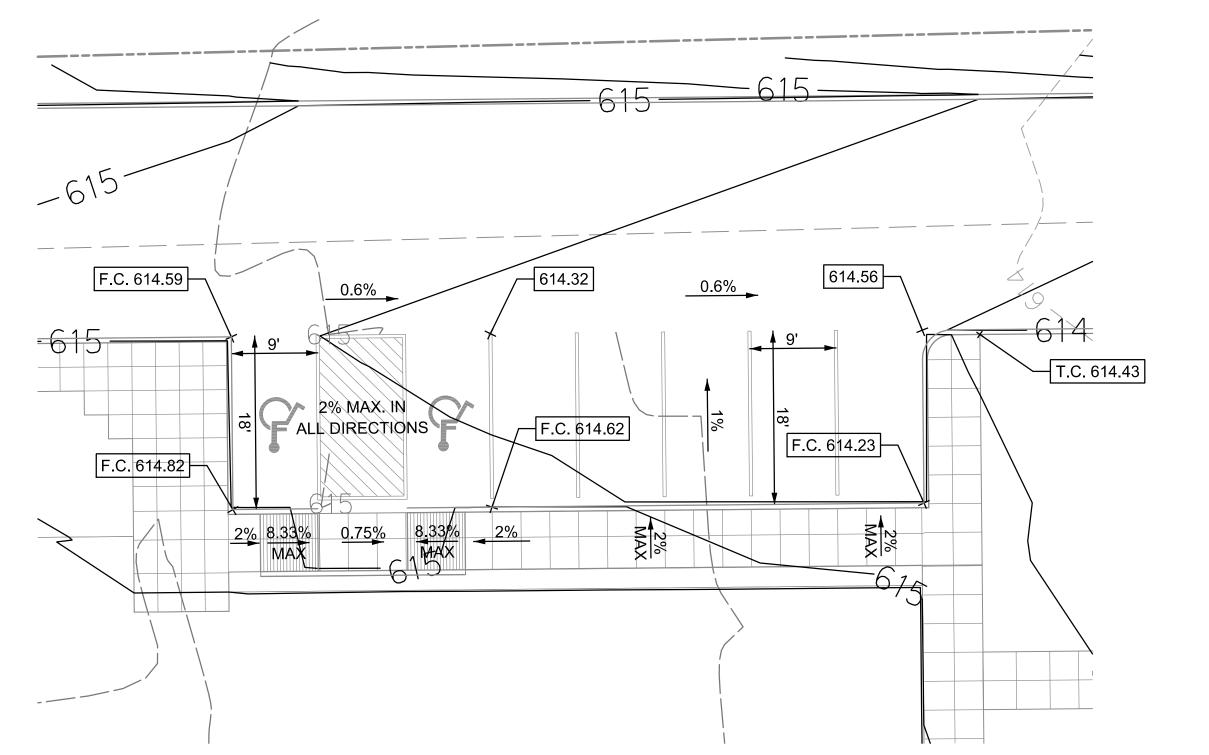
THE SUPERVISION OF:	
James S. R. Gaertner	100431
NAME	P.E. NO.
DATE	4/11/2014
TBPE FIRM # F-312	

Project No.:	29051
Issued:	JANUARY 2014
Drawn By:	CAD
Checked By:	JSRG
Scale:	AS NOTED
Sheet Title	
GRAD	ING PLAN

GRADING PLAN

C3.02 Sheet Number





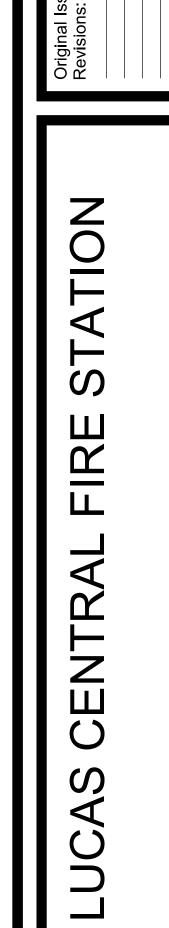
HANDICAP AND GENERAL PARKING

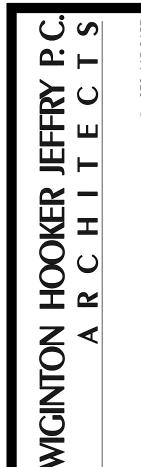
SCALE: 1"=40'

1. T.C. = TOP OF CURB

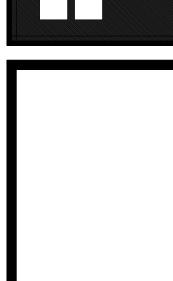
2. F.C. = FACE OF CURB

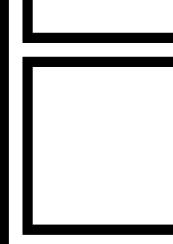
3. HANDICAP SPACE AND REGULAR PARKING SPACES MEASURE 9'X 18'



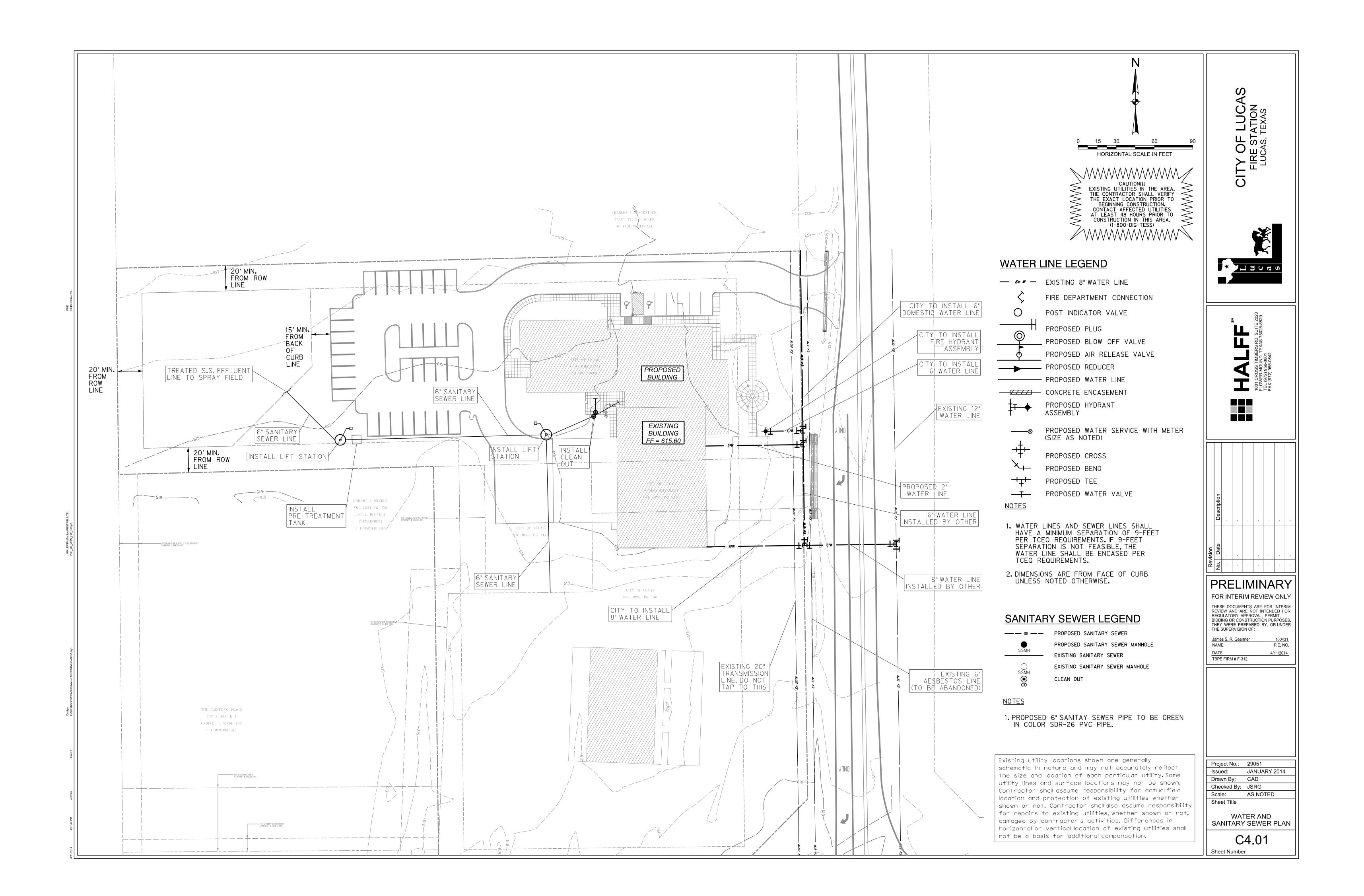


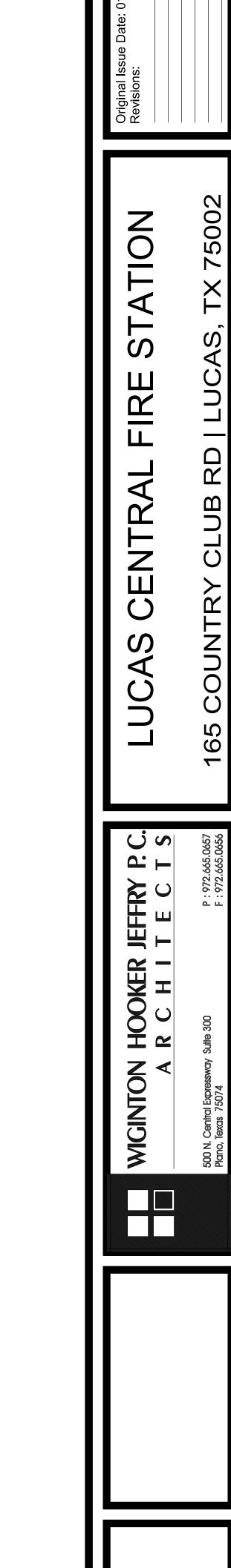


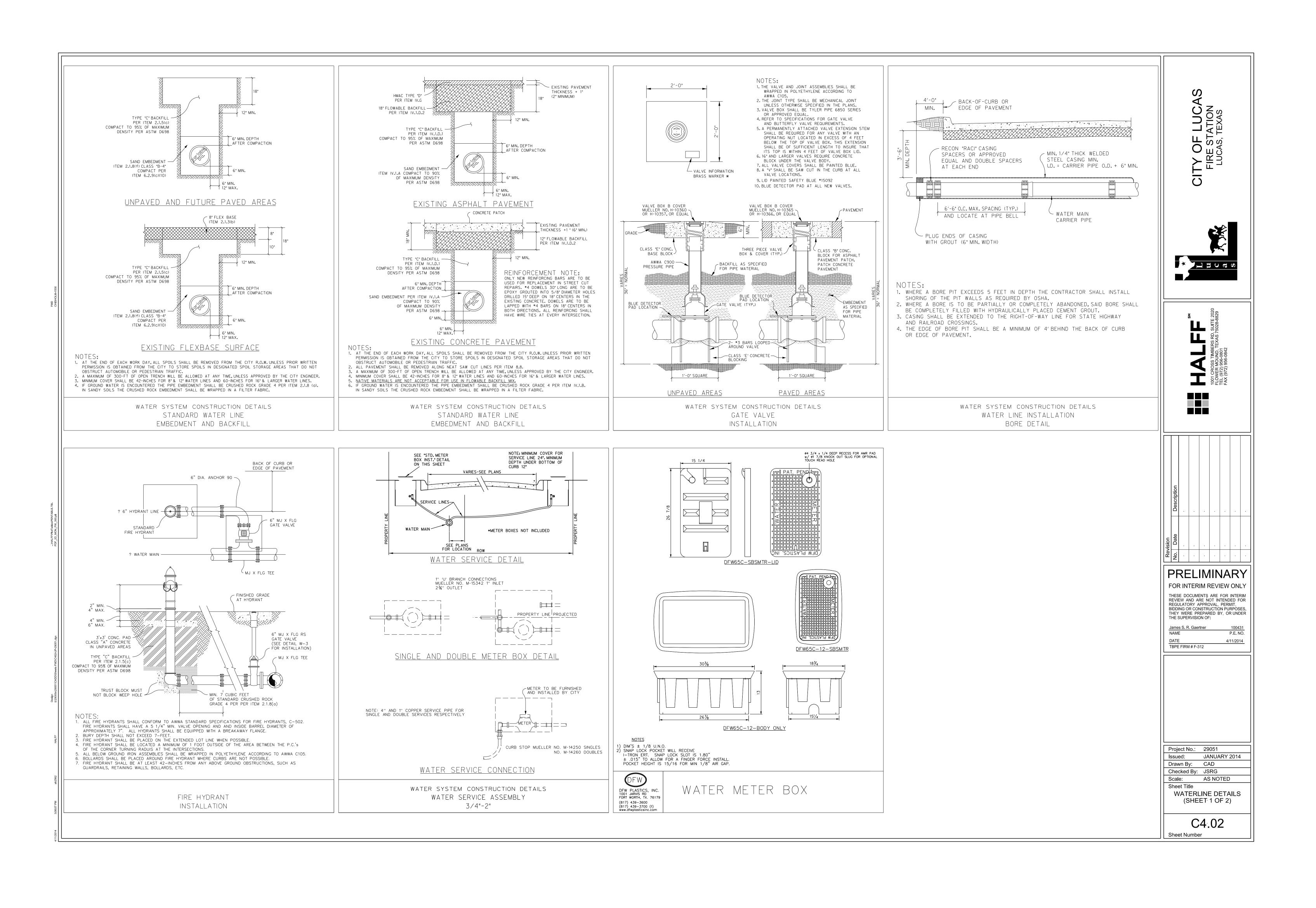




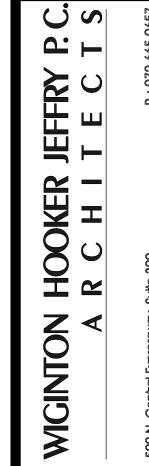
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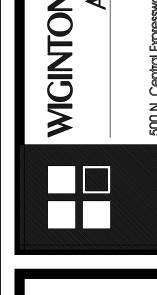


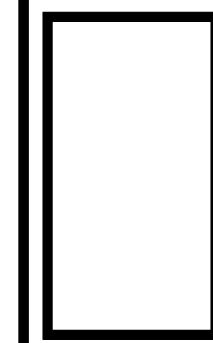






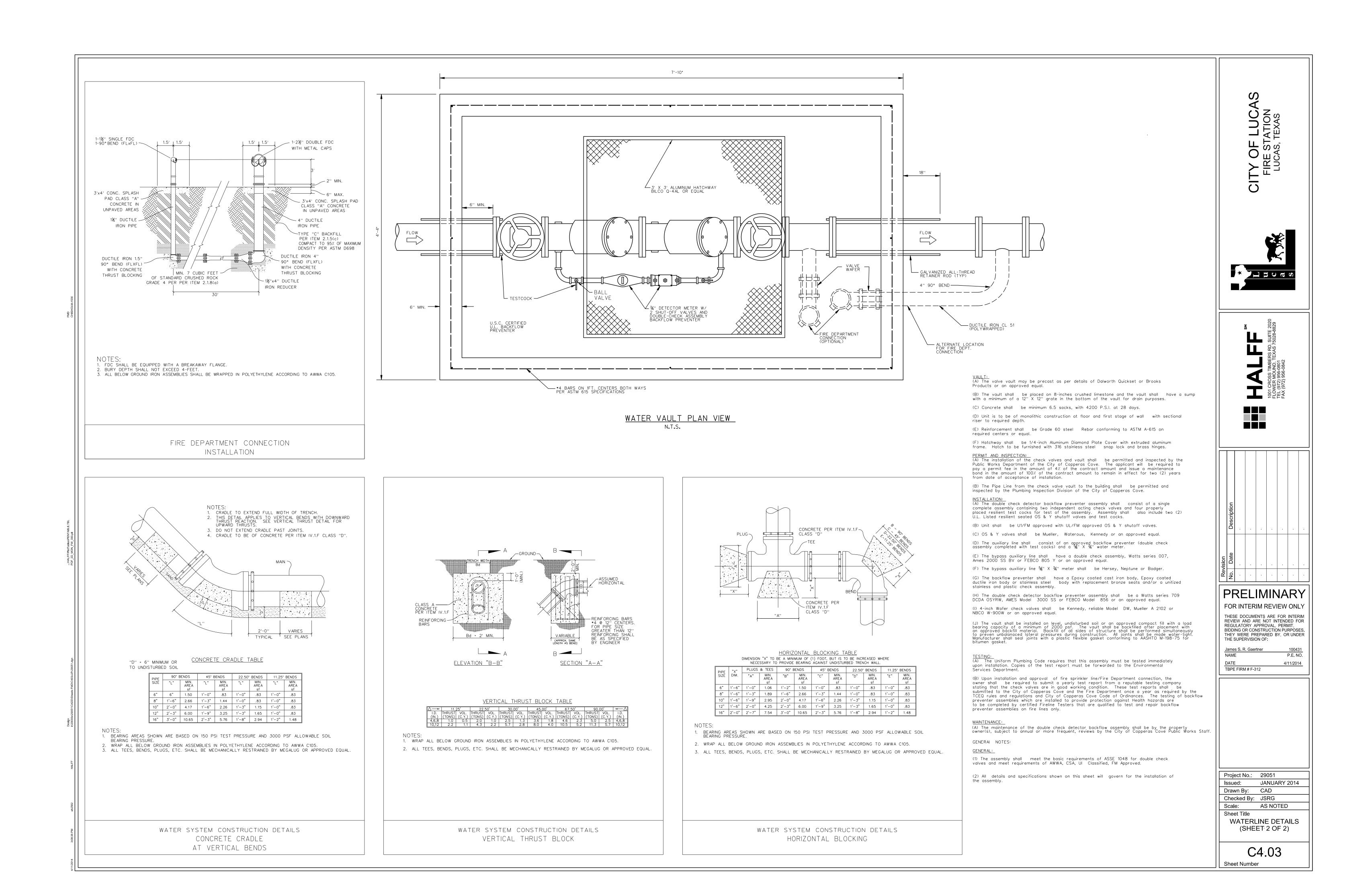


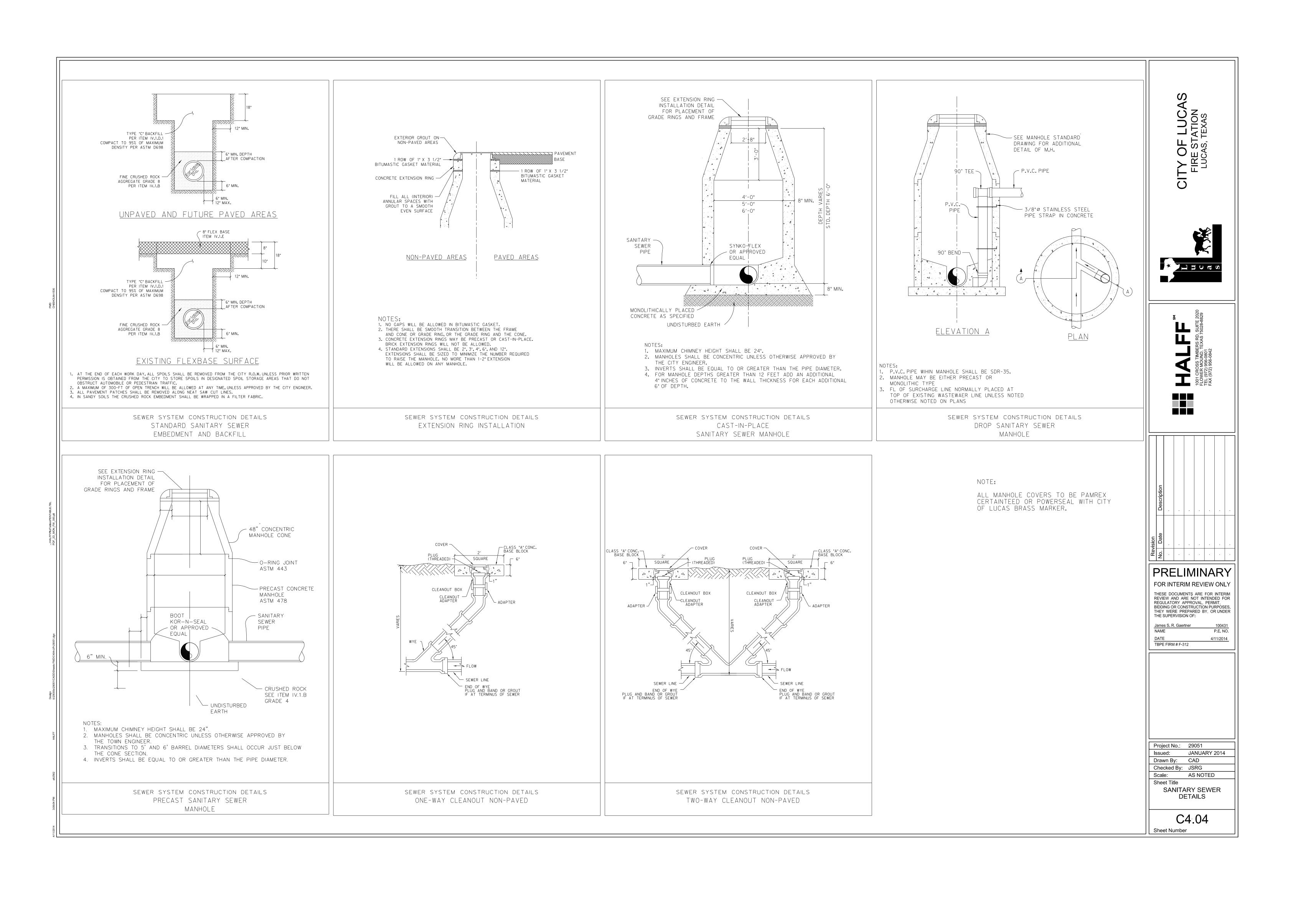




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AS CENTRAL FIRE STATION

TON HOOKER JEFFRY P.C.

A R C H I T E C T S

Expressway Suite 300

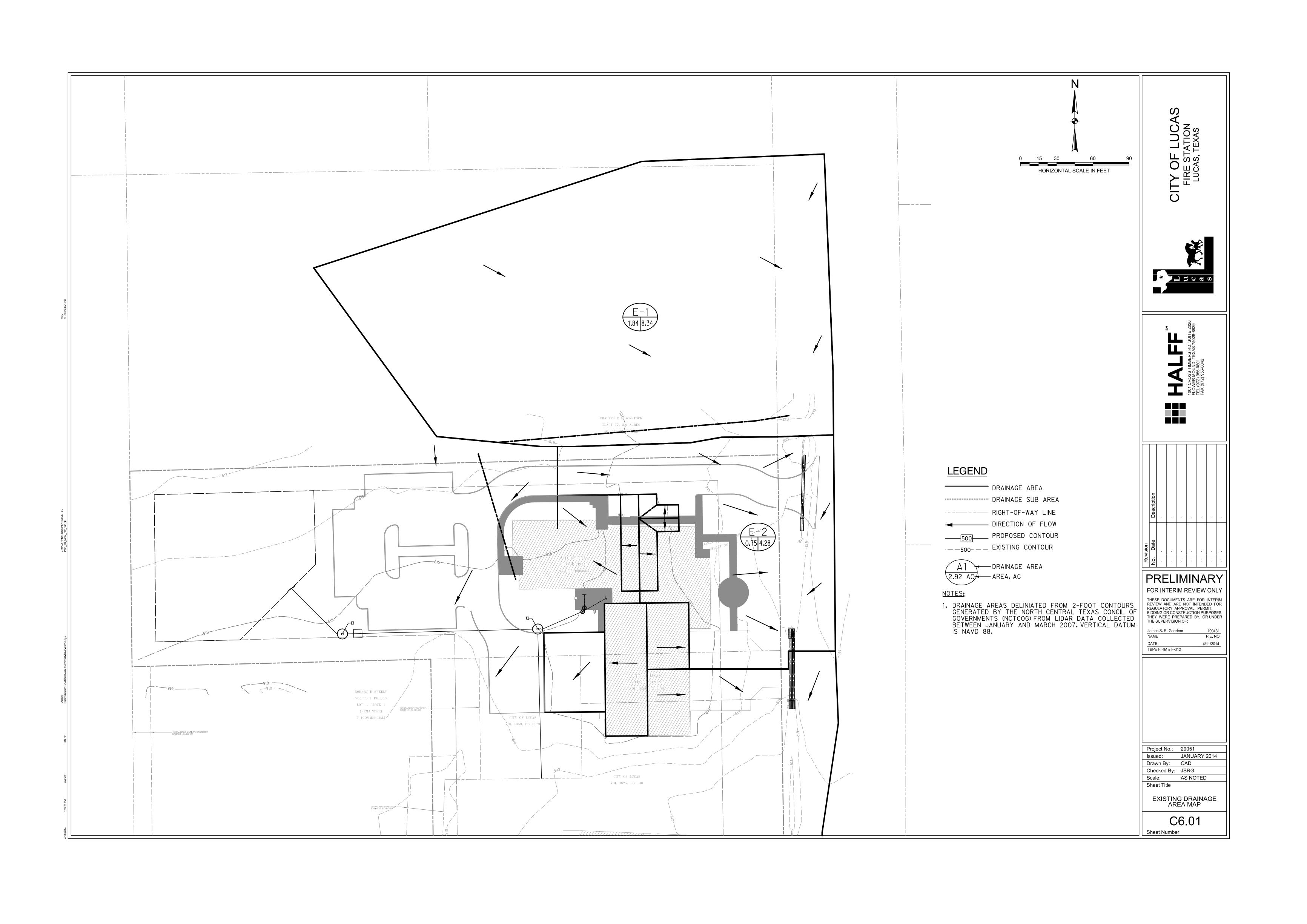
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Soon. Soon.

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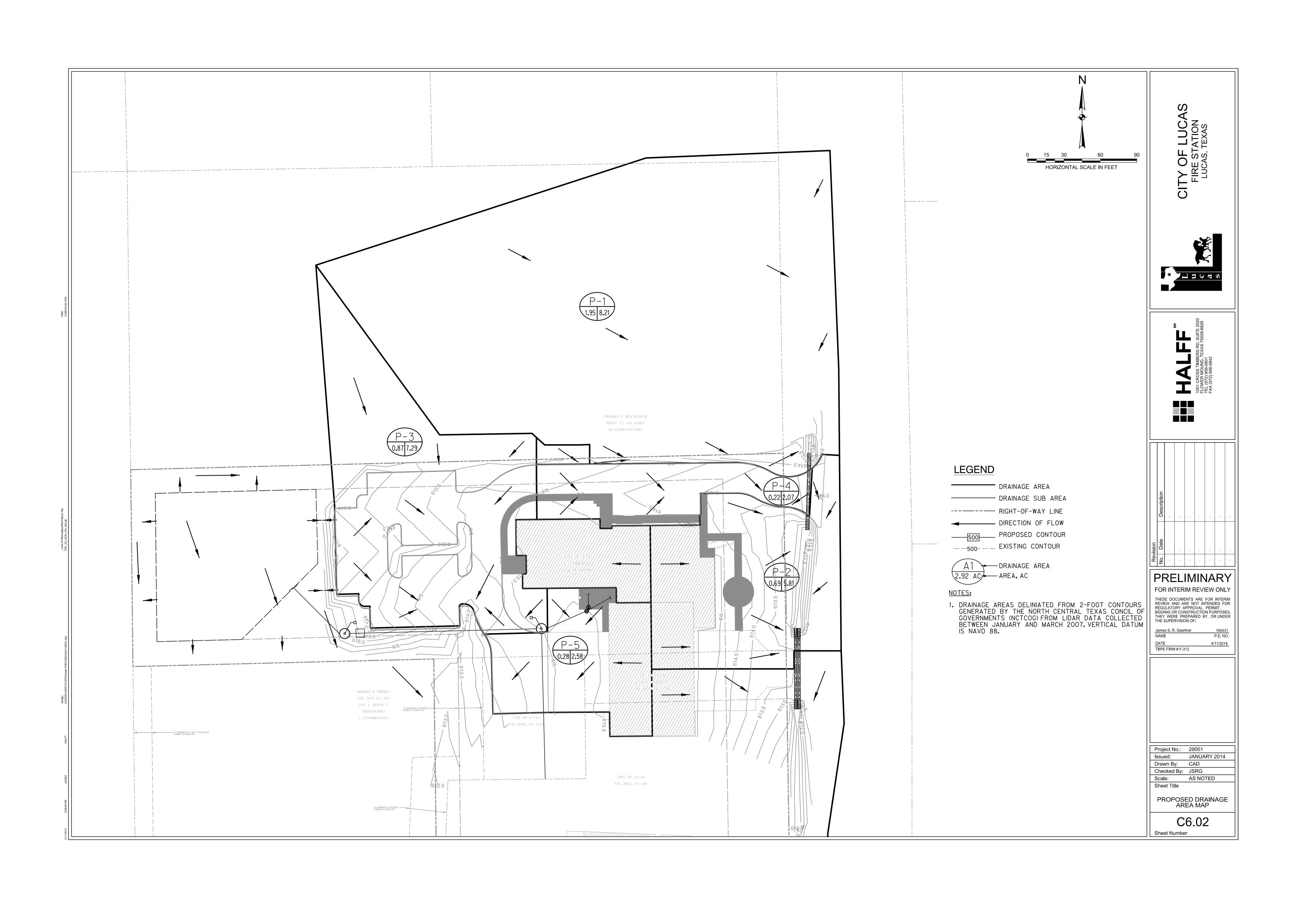
CENTRAL FIRE STATION

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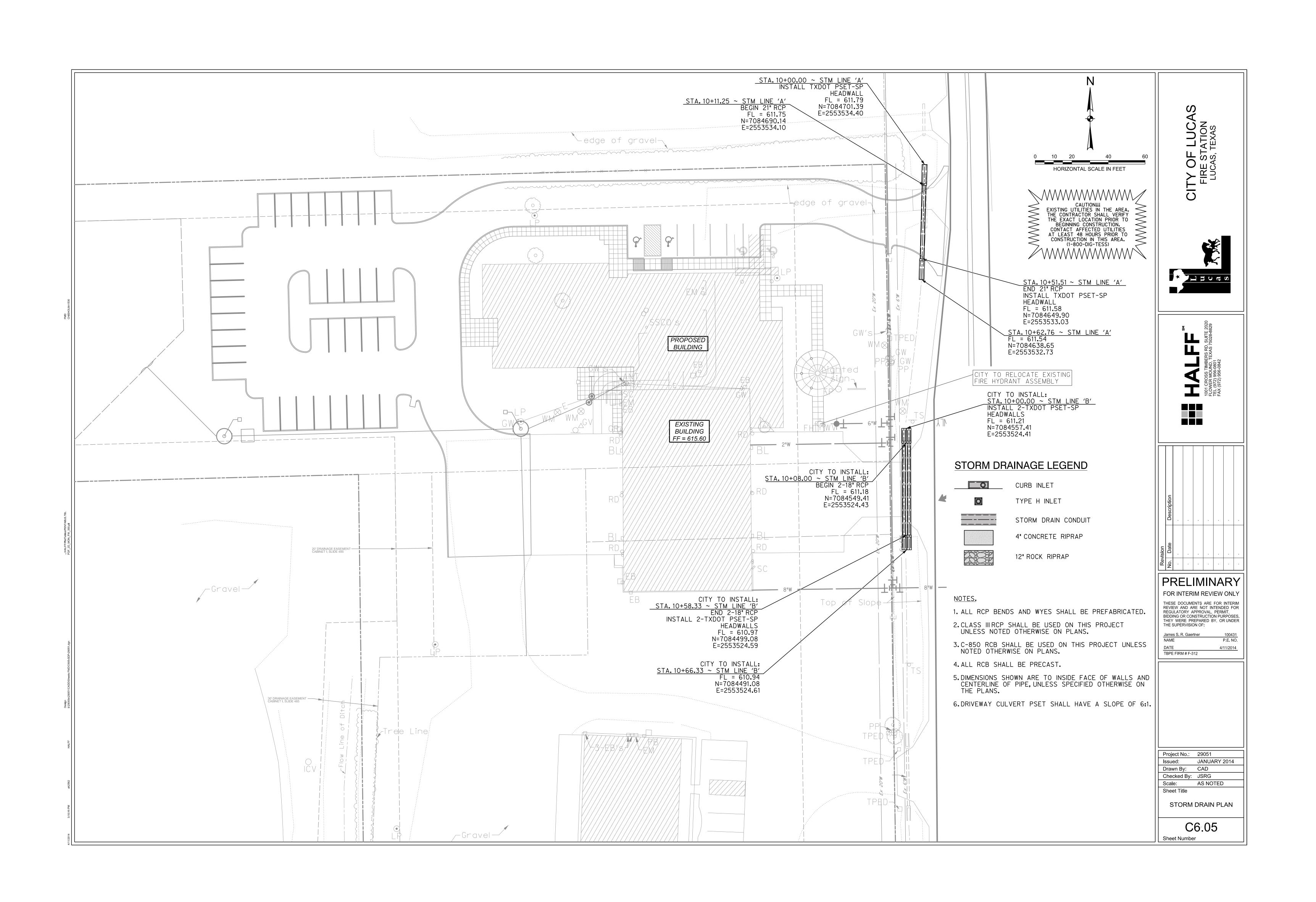
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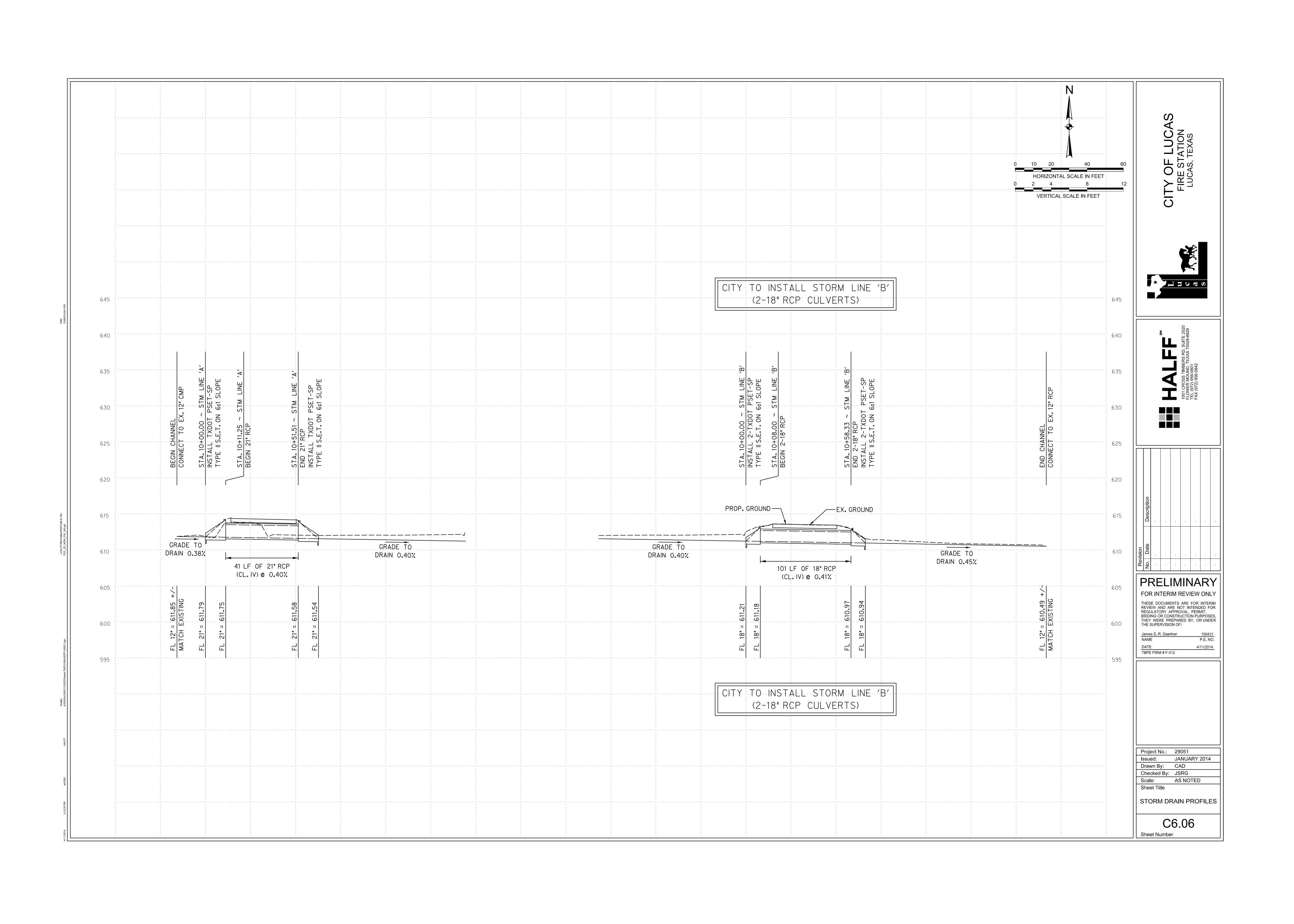
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N. Central Expressway Suite 300
P: 972.665.0657

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STATION

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HOOKER JEFFRY P.C.

R.C. H. I. T. E. C. T. S.

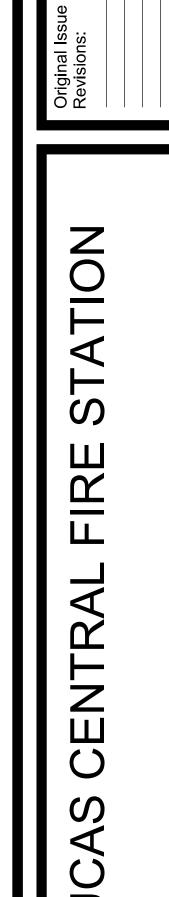
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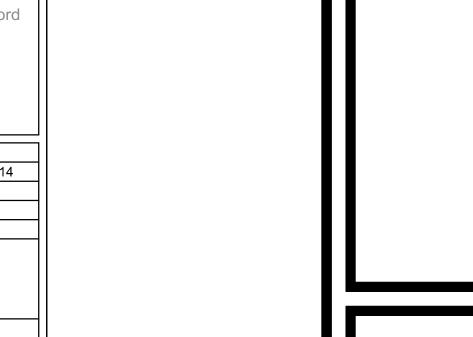
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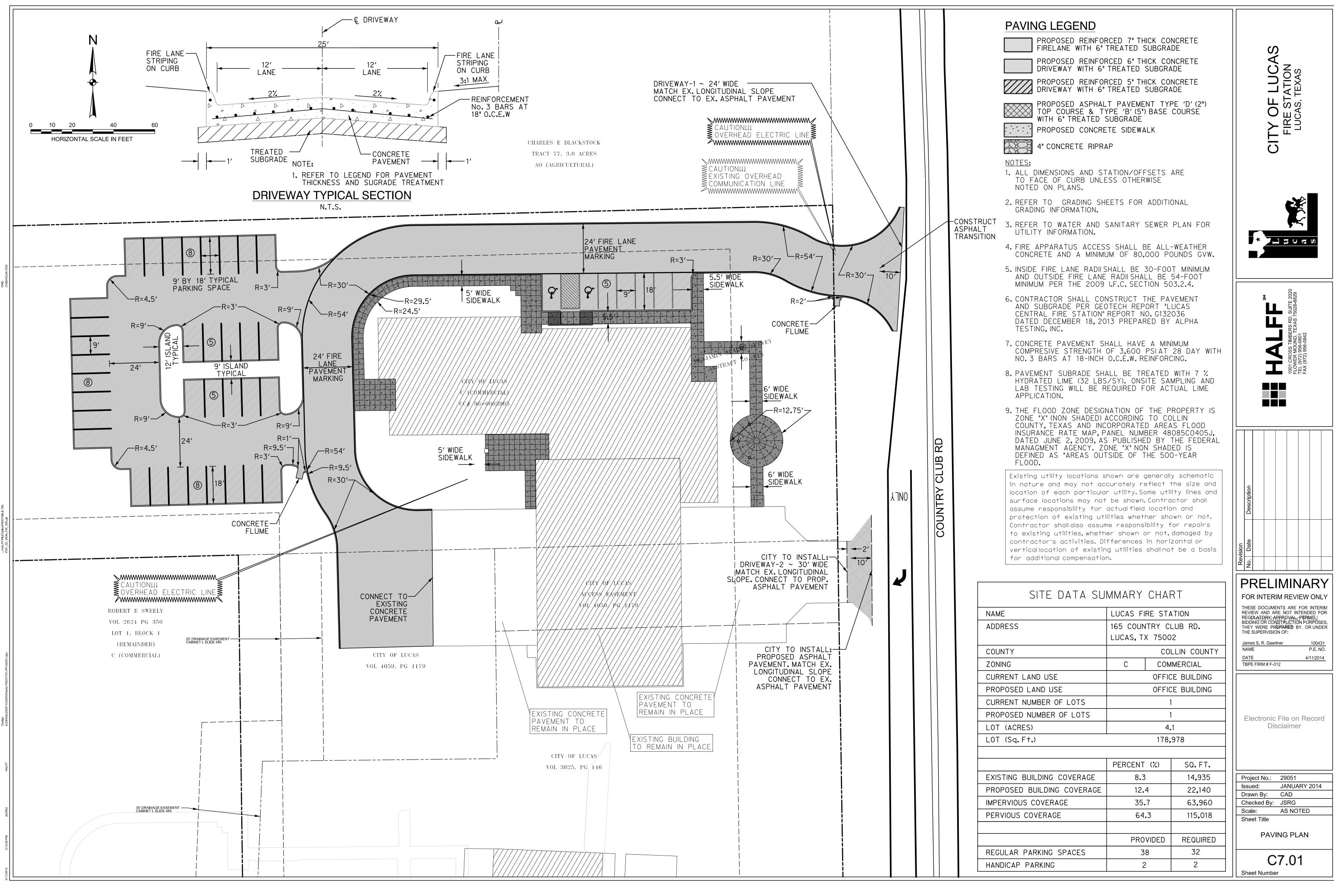


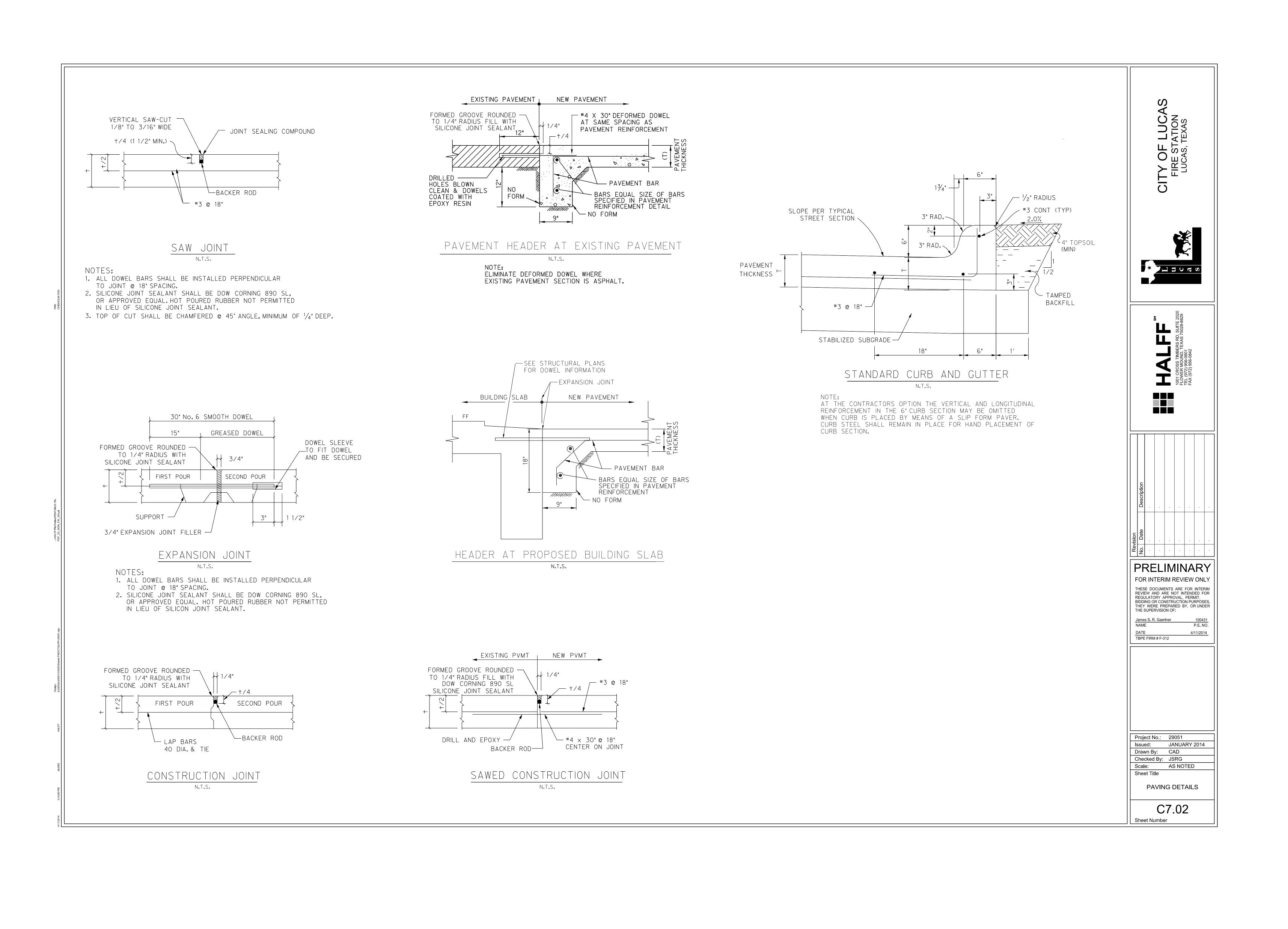












CAS CENTRAL FIRE STATION

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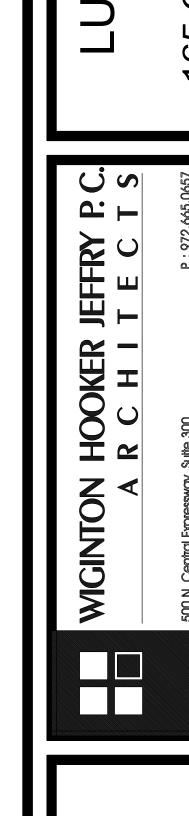
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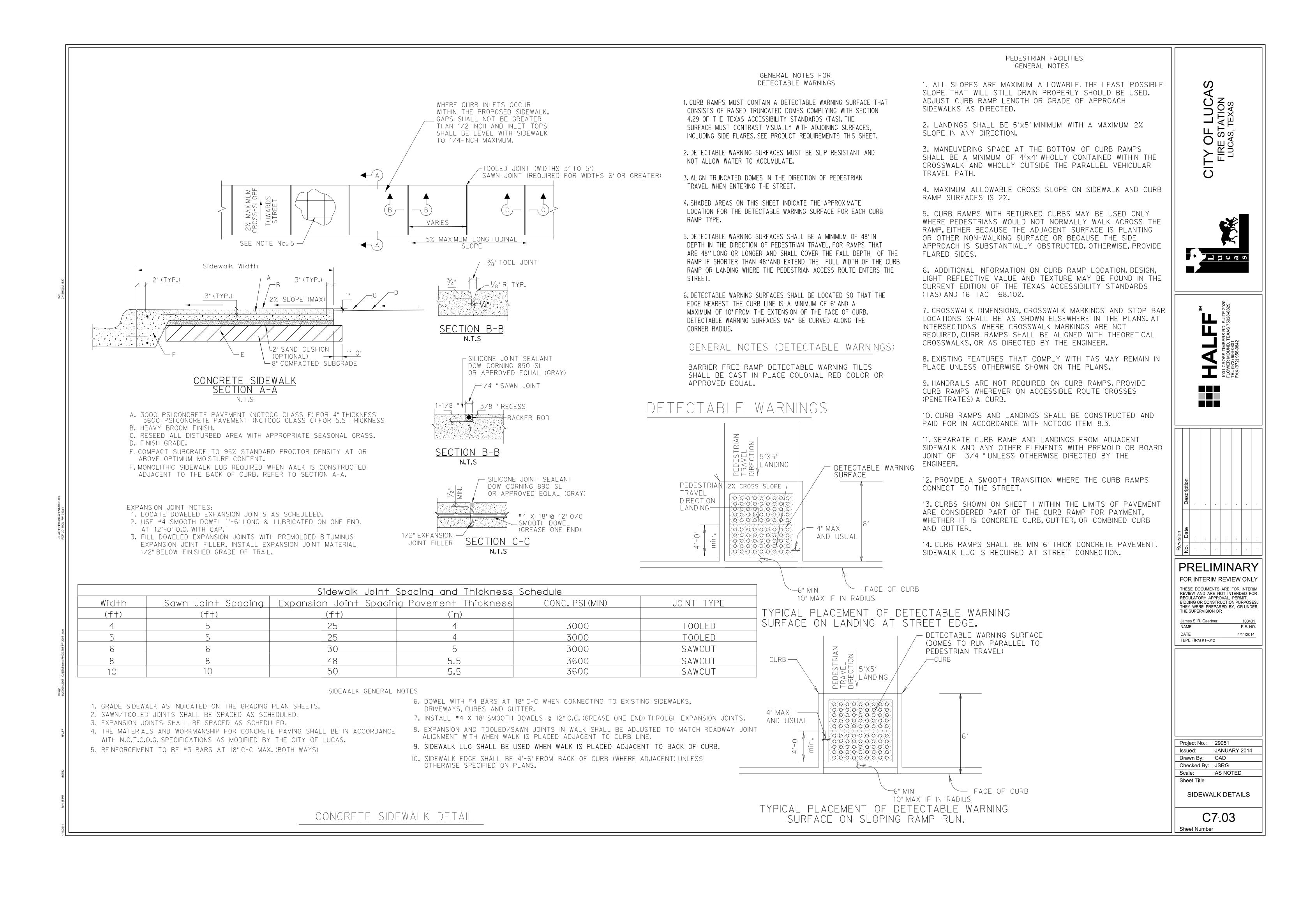
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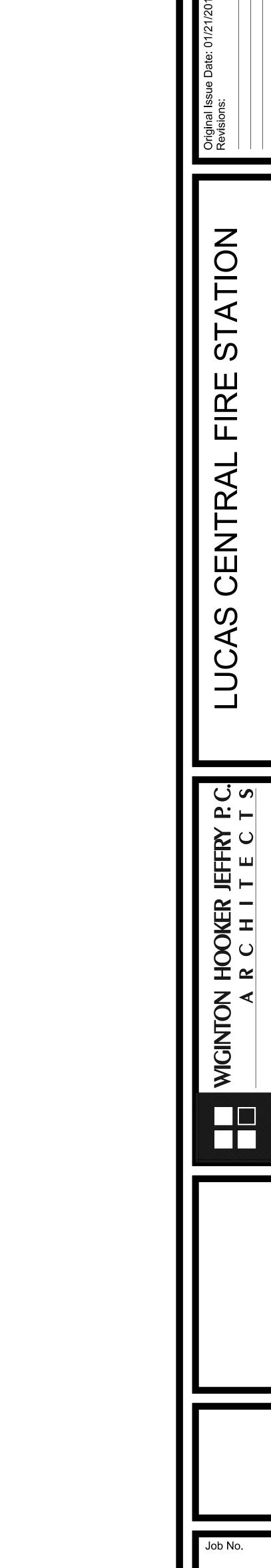
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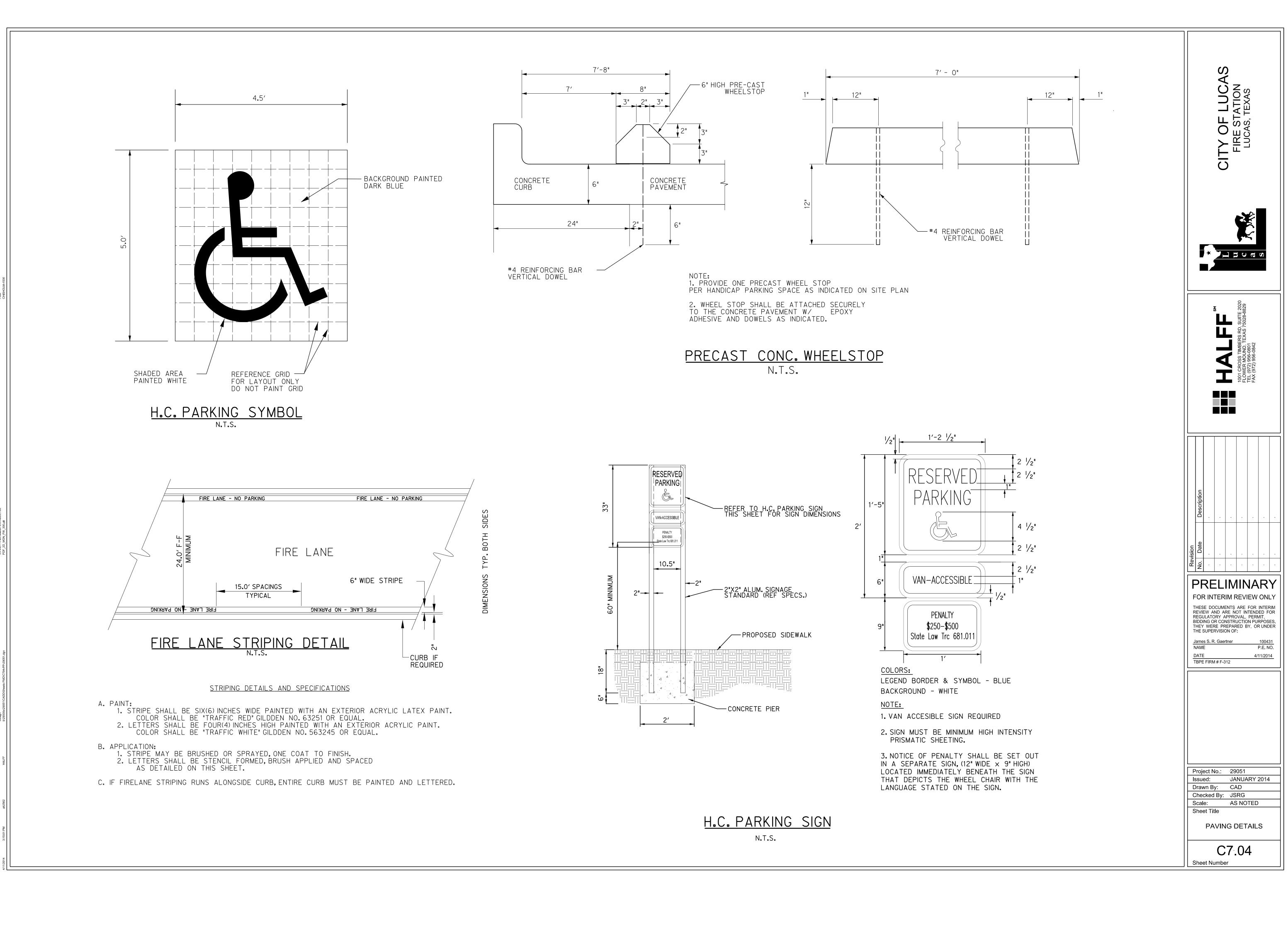
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C7.04

C8:01

Sheet Number

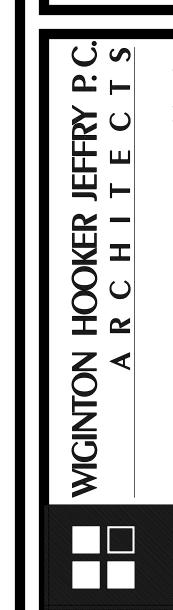
TRAFFIC FLOW DIRECTION TYPE III BARRICADE ROAD WORK TEMPORARY TRAFFIC CONTROL BARRIER G20-2A (36"X18") * Pao a w TEMPORARY TRAFFIC CONTROL SIGN **NOTES** 1. TRAFFIC CONTROL PLAN SHALL CONFORM TO TMUTCD (LATEST EDITION). 2. CONTRACTOR SHALL MAINTAIN DRIVEWAY ACCESS AT ALL TIMES. 3. SPEED LIMIT ON COUNTRY CLUB ROAD AND WEST LUCAS ROAD IS 50 MPH. PRELIMINARY FOR INTERIM REVIEW ONLY THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR REGULATORY APPROVAL, PERMIT, BIDDING OR CONSTRUCTION PURPOSES. THEY WERE PREPARED BY, OR UNDER THE SUPERVISION OF: /C1TY/OF/LUCAS/ /CC#/96/0003965/ DATE
TBPE FIRM # F-312 CATY OF LUCAS ACCESS EASEMENT NOV 4059, PG 1179 END G2 Project No.: 29051 Issued: JANUARY 2014 Drawn By: CAD Checked By: JSRG Scale: AS NOTED CITY OF LUCAS VOL 4059, PG 1179 Sheet Title ROBERT E SWEELY VOL 2624 PG 350 LOT 1, BLOCK 1 (REMAINDER) TRAFFIC CONTROL PLAN

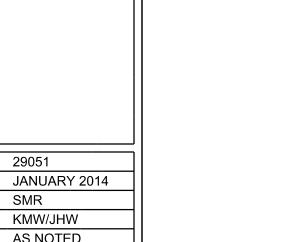
ROAD

HORIZONTAL SCALE IN FEET

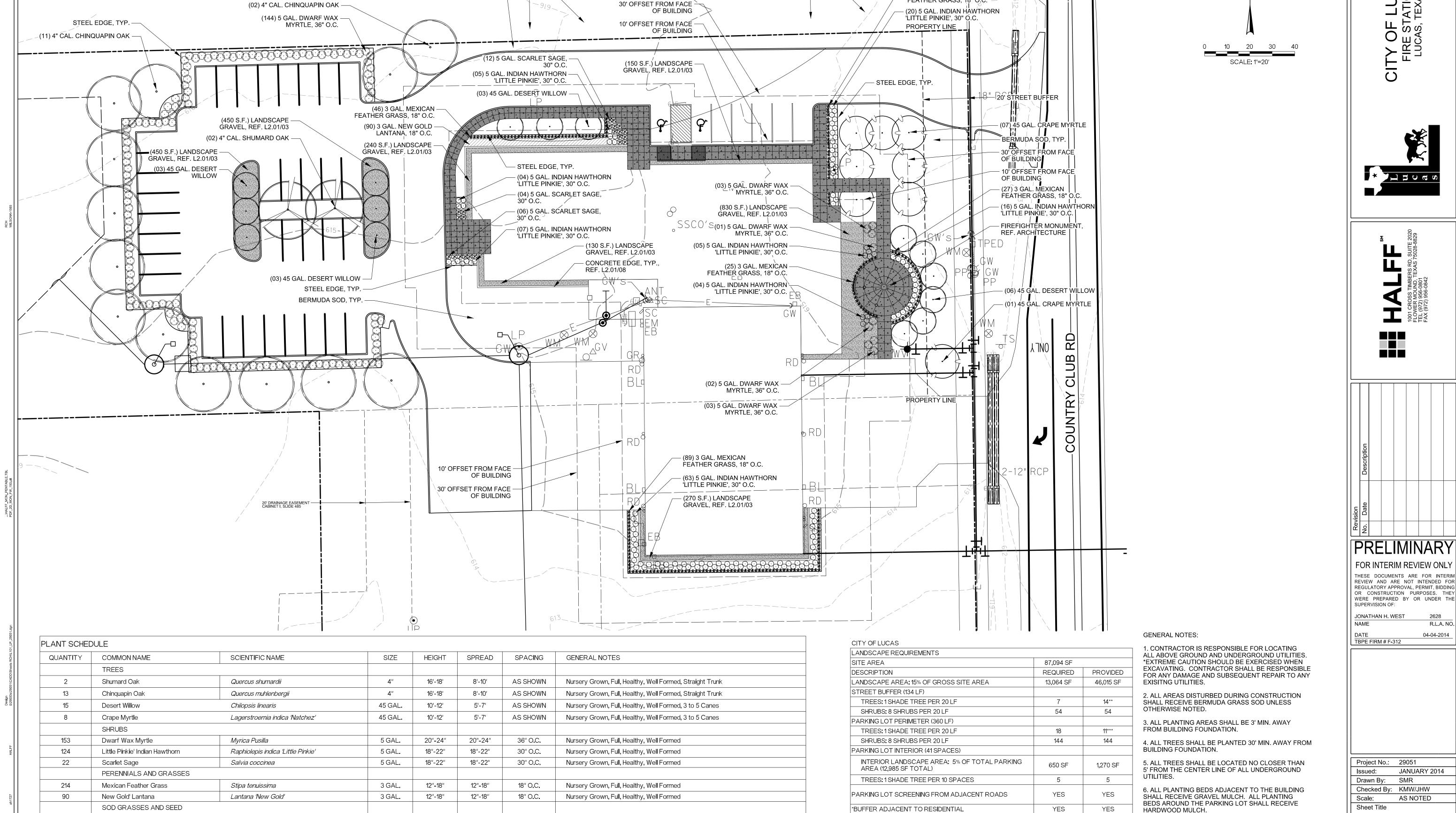
<u>LEGEND:</u>







LANDSCAPE PLAN



Solid Sod, Full, Healthy, Weed Free

SOD

Apache Brown Gravel, 1"-2" Diameter

Cynodon dactylon

Bermuda Sod

Landscape Gravel

2730 SF

LANDSCAPE MATERIAL

BUFFER PLANTING TO REMAIN, -

REF. NOTE UNDER LANDSCAPE

REQUIREMENTS

BUFFER PLANTING TO REMAIN, -

REF. NOTE UNDER LANDSCAPE

BERMUDA SOD, TYP. —

REQUIREMENTS

_1₂29"_CMP

*NOTE; BUFFER PLANT MATERIAL IS PROVIDED THROUGH PRESERVATION OF EXISTING

AT THE CITY'S DISCRETION IF DAMAGED OR DESTROYED DURING CONSTRUCTION.

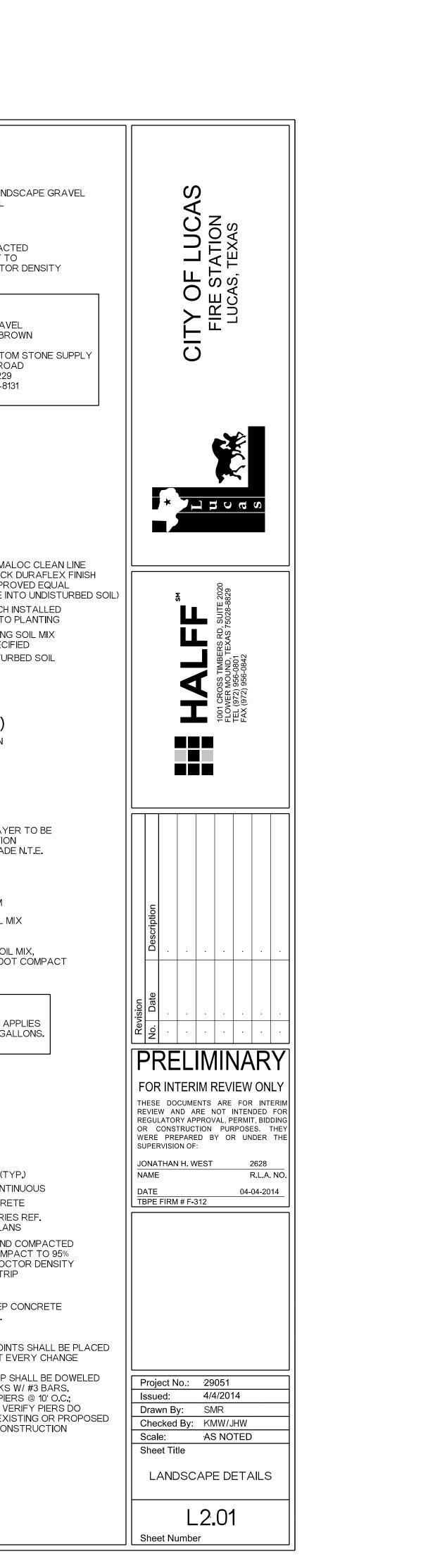
***FEWER TREES PROVIDED DUE TO LIMITED AVAILABLE LANDSCAPE AREA

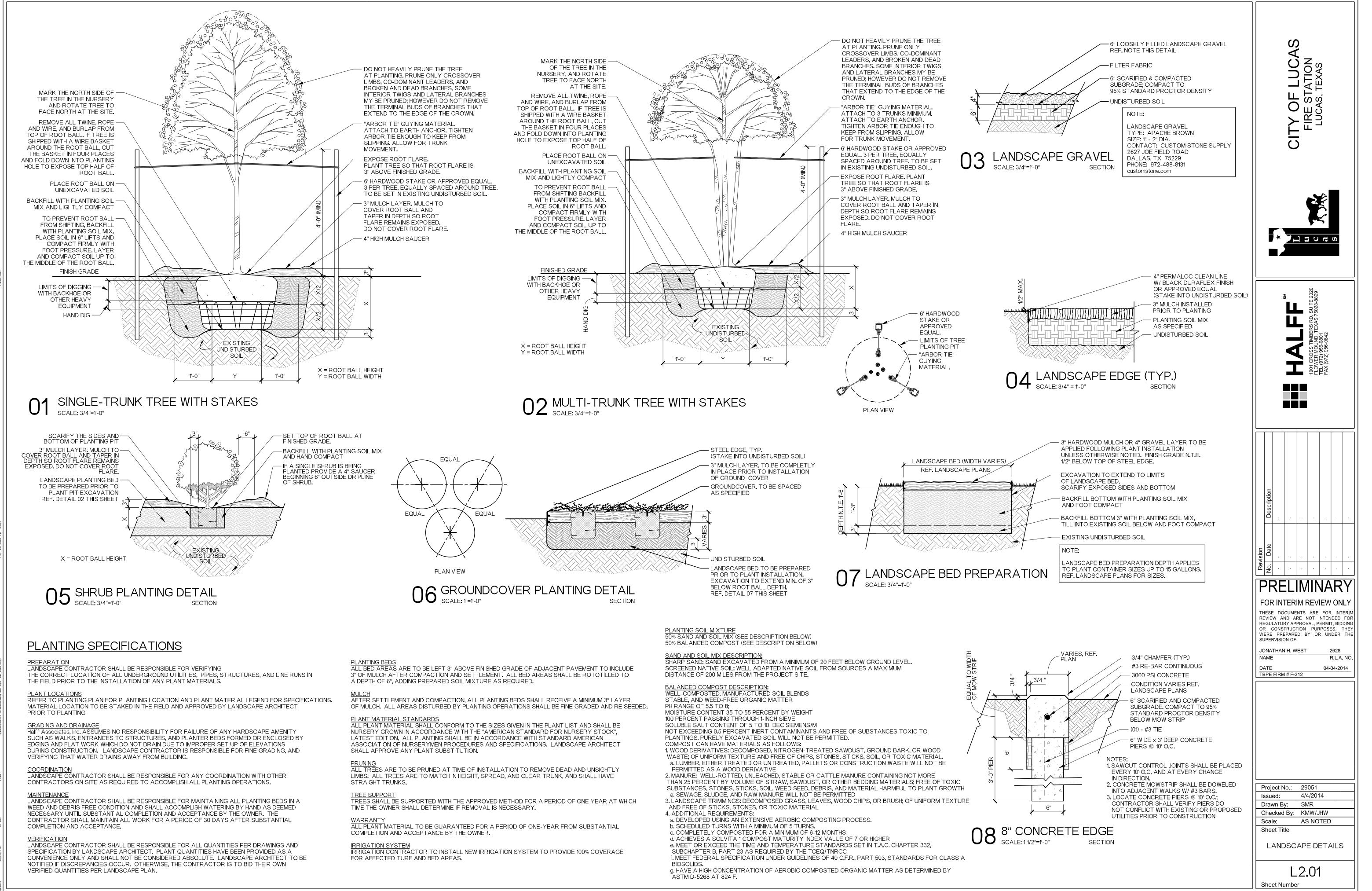
**ORNAMENTAL TREES PROVIDED

LIVING SCREEN ALONG NORTH PROPERTY LINE. BUFFER PLANTING SHALL BE REPLACED

- (27) 3 GAL. MEXICAN FEATHER GRASS, 18" O.C.

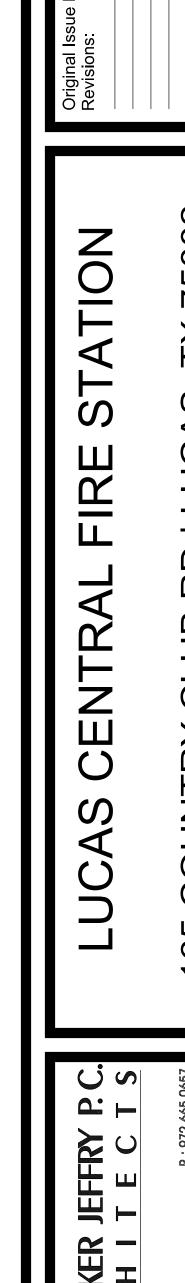
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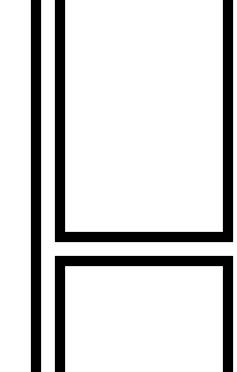
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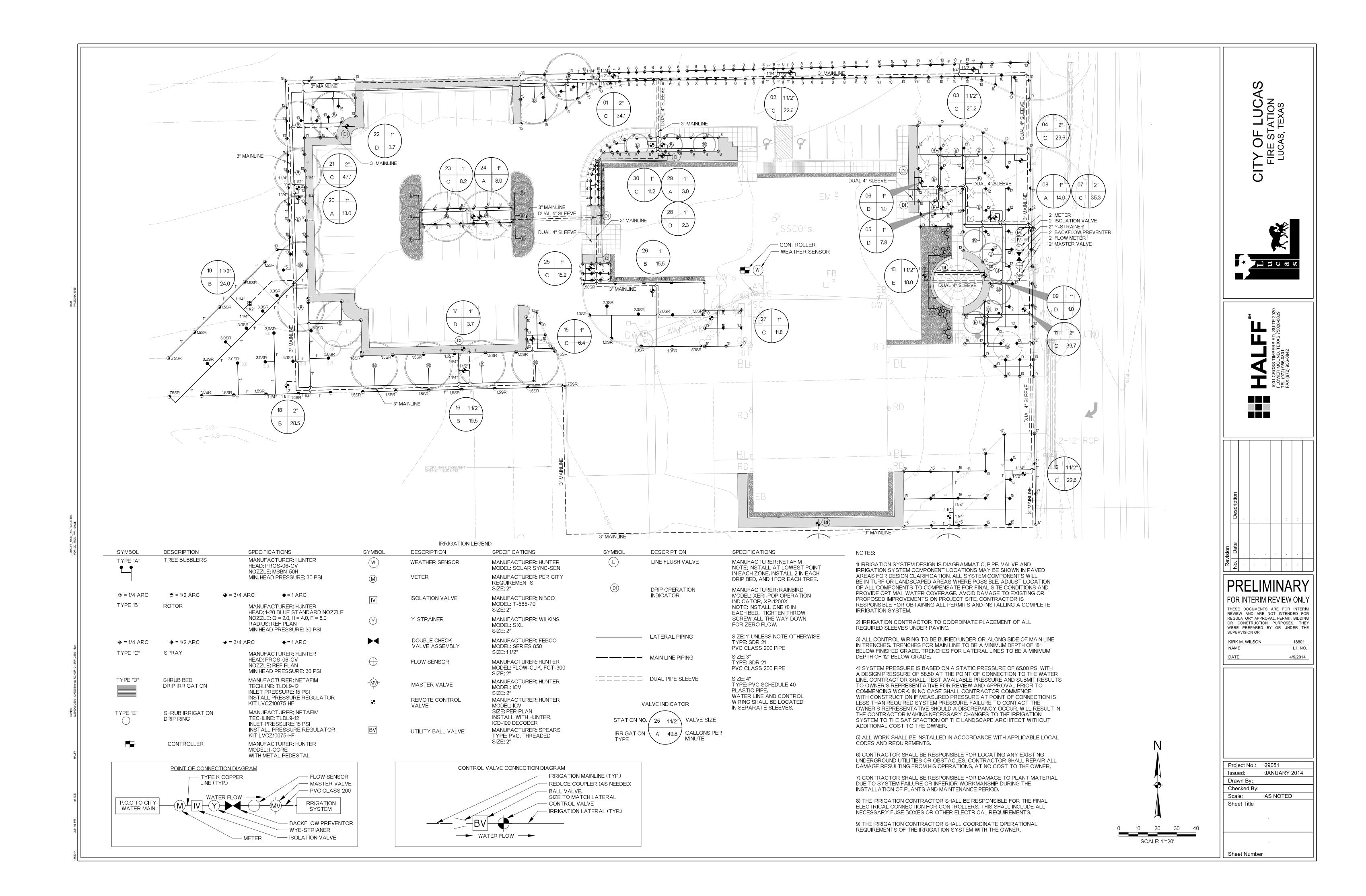


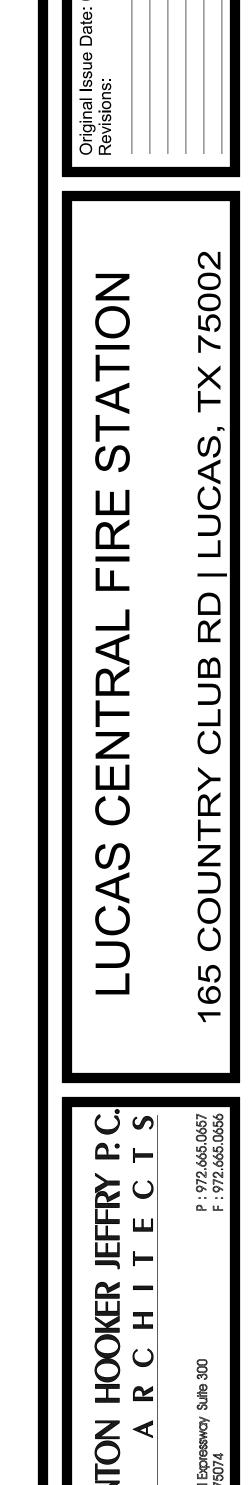


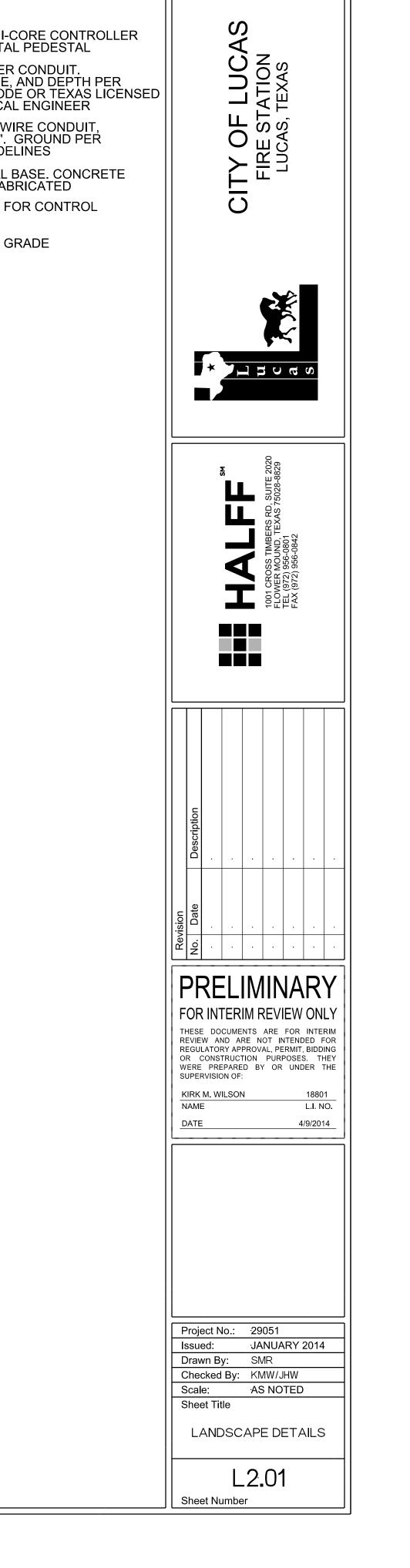


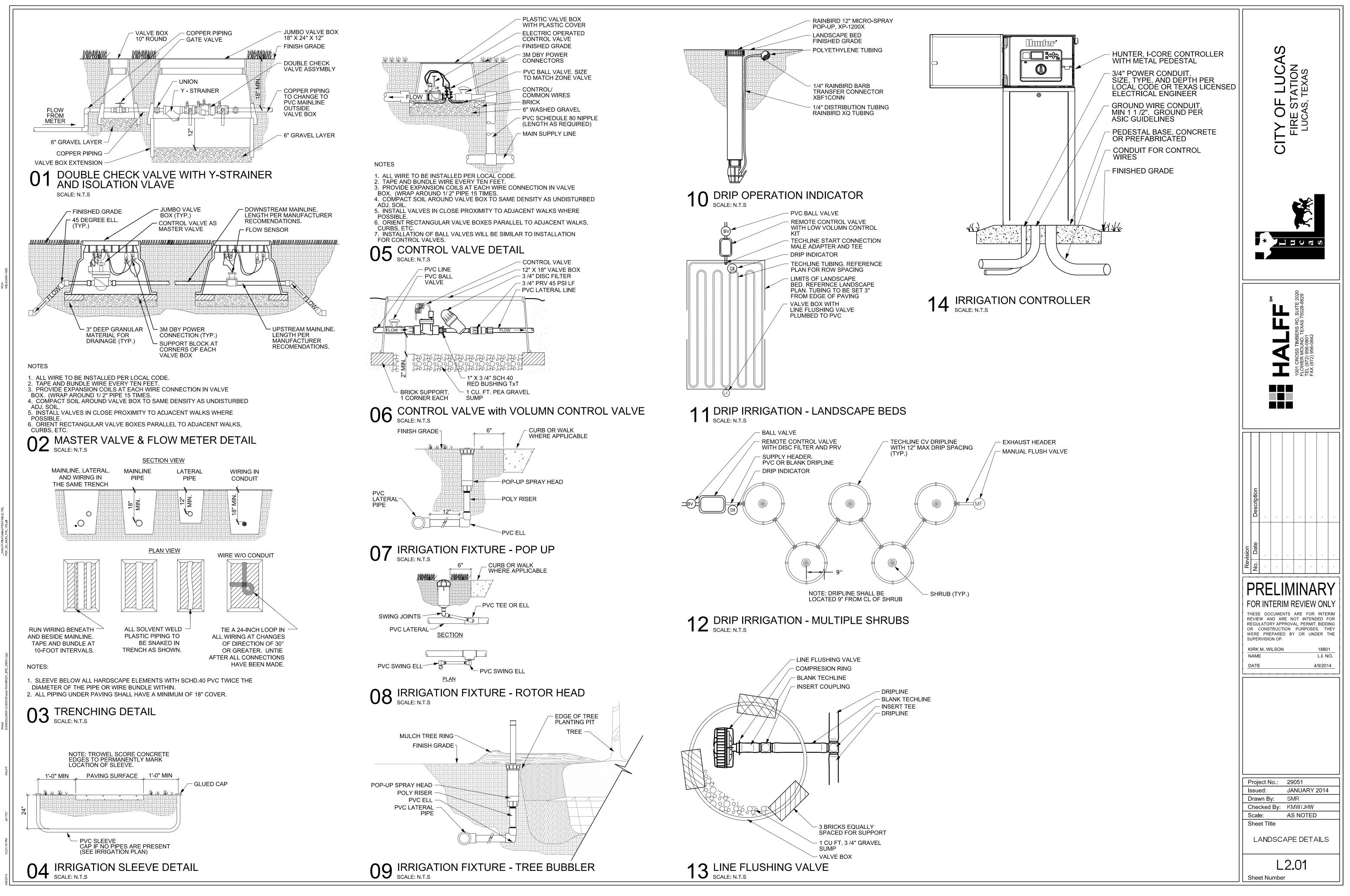
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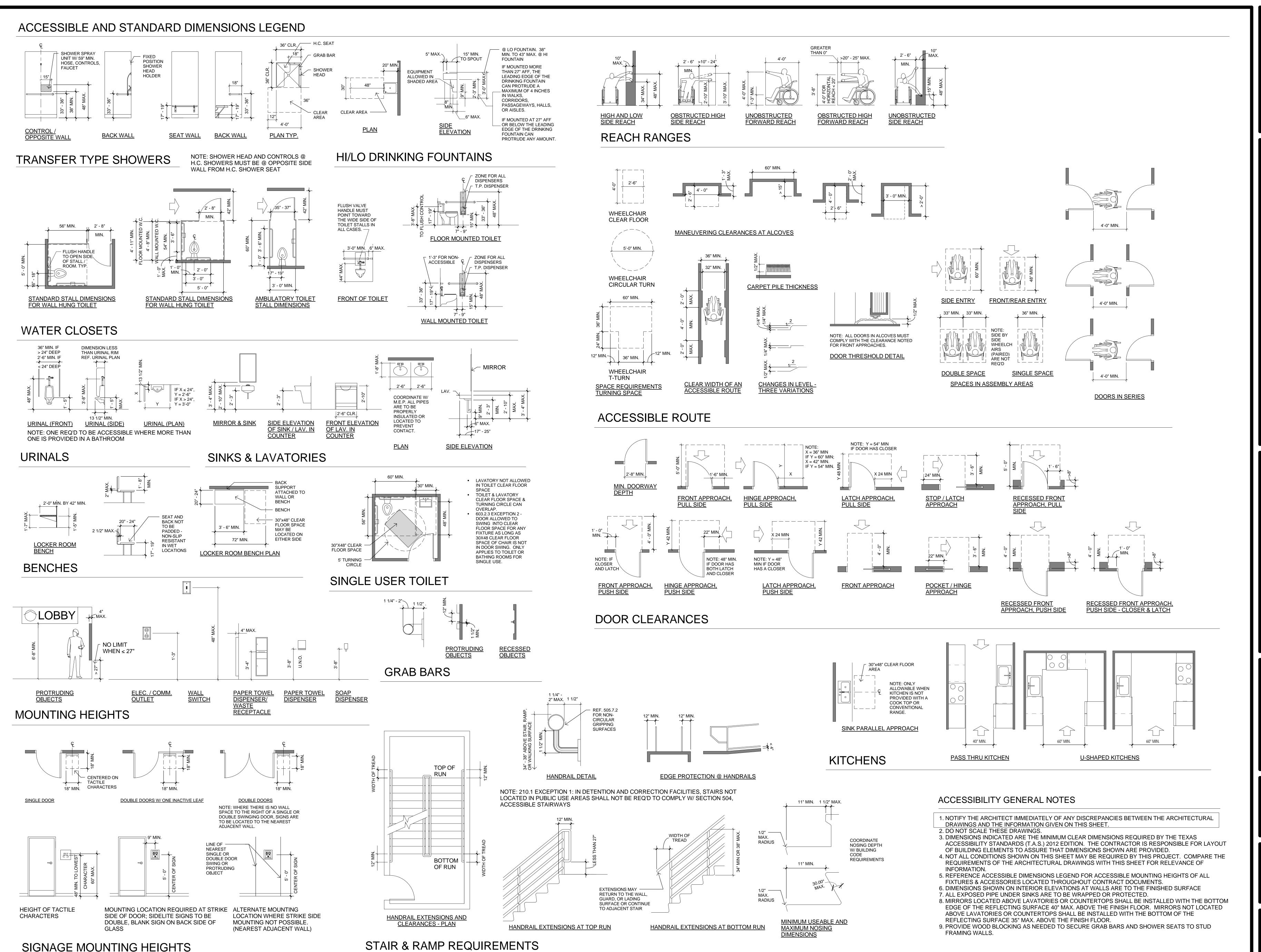
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Original Issue Date: 04/04/14 50°
Revisions:

LUCAS CENTRAL FS

WIGINTON HOOKER JEFFRY P.C.

A R C H I T E C T S

300 N. Central Expressway Suffe 300
P: 972.665.0657

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NOT INTENDED FOR BIDDING, PERMI' OR CONSTRUCTION PURPOSES) ANTHONY JEFFRY TEXAS REGISTRATION No. 12901

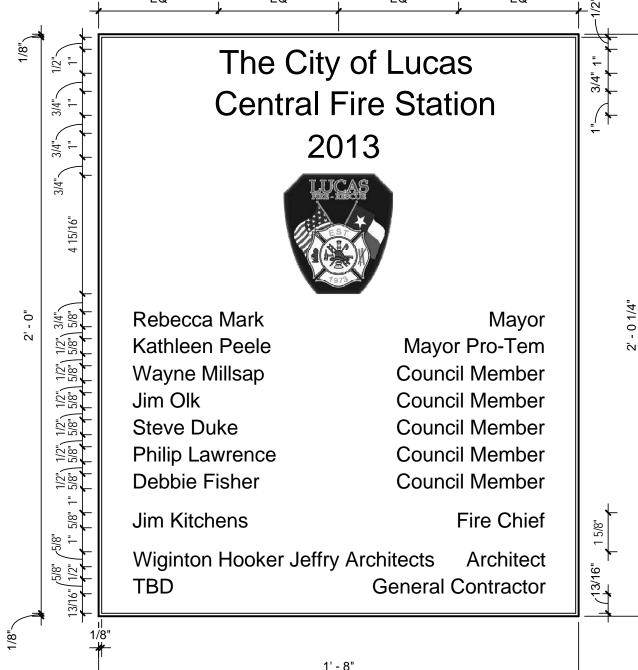
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1215

Sheet No.

ADA REQUIREMENTS

<u>DEDICATION PLAQUE</u>



CAST ALUMINUM PLAQUE, SINGLE LINE BOARDER, LEATHERETTE BACKGROUND AND BLACK ENAMEL FINISH. ALL RAISED SURFACES TO HAVE SATIN FINISH. PLAQUE TO HAVE CONCEALED FASTENERS. ALL TEXT TO BE OPTIMA.

GENERAL NOTES

1. ALL WORK RELATING TO THIS CONSTRUCTION SHALL COMPLY WITH U.S. DEPARTMENT OF LABOR, THE OCCUPATIONAL SAFETY AND HEALTH STANDARDS AND ALL RELATED BUILDING CODES AND ORDINANCES. DO NOT SCALE THE DOCUMENTS. 3. ALL DIMENSIONS ARE TO BE FIELD VERIFIED AND BACK CHECKED FOR CORRECTNESS. IF ANY DEVIATIONS OR

DISCREPANCIES OCCUR, CONTACT THE ARCHITECT FOR VERIFICATION PRIOR TO PROCEEDING WITH THE WORK. 4. THE GENERAL CONTRACTOR IS TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS ON SITE PRIOR TO THE BEGINNING OF THE WORK AND ADVISE THE ARCHITECT OF ANY AND ALL DISCREPANCIES. 5. THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL CAREFULLY REVIEW THE DRAWINGS, SPECIFICATIONS, DETAILS, AND NOTES FOR INFORMATION REGARDING THE SCOPE OF THE WORK INTENDED PRIOR TO 6. THE GENERAL CONTRACTOR SHALL COORDINATE ALL BUILDING MANAGEMENT SYSTEMS, SECURITY SYSTEMS, AND LOCKING HARDWARE WITH THE OWNER PRIOR TO INSTALLATION.

PENETRATIONS REQUIRED BY THE WORK WHETHER EXPLICITLY NOTED IN THE DOCUMENTS OR NOT. 8. ALL WOOD INDICATED IN THESE DOCUMENTS IS TO BE TREATED FOR FIRE RETARDANCY UNLESS NOTED OTHERWISE 9. FIRE SPRINKLER HEAD LOCATIONS ARE TO BE COORDINATED WITH LIGHTING, HVAC, AND BE CENTER BOTH WAYS IN CEILING TILES, GYP, BD, REVEALS, AND CEILINGS, ETC. 10. THE COMPLETE SPRINKLER SYSTEMS IS NOT SHOWN ON THESE DRAWINGS. THE CONTRACTOR IS ADVISED THAT SPECIAL CARE MUST BE TAKEN IN LAYING OUT THE SPRINKLER SYSTEM FOR A NEAT, ORDERLY, AND AESTHETICALLY APPROPRIATE LAYOUT. ARCHITECT'S DECISIONS SHALL BE FINAL IN AESTHETIC JUDGEMENT WITH RESPECT TO THE LOCATION OF HEADS. ADDITIONAL HEADS SHALL BE ADDED BY THE CONTRACTOR AS MAY BE REQUIRED TO SATISFY

7. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ALL MECHANICAL, ELECTRICAL, AND PLUMBING

11. THE CONTRACTOR SHALL REVIEW THE CIVIL DOCUMENTS, THE SOIL REPORT, AND THESE DOCUMENTS (ALL IN THEIR ENTIRETY) TO ENSURE THAT ALL REQUIRED EARTHWORK, PAVING, CURB, AND STRUCTURAL SLAB WORK IS FULLY COVERED IN THE SCOPE OF THE CONTRACTOR'S BID. THE CONTRACTOR SHALL FULLY COORDINATE ALL OF THE ABOVE REFERENCED WORK WITH THE OWNER'S REPRESENTATIVE, THE ARCHITECT, AND CIVIL ENGINEER TO INSURE THAT ALL WORK IS FULLY COORDINATED AND COMPLETE.

THE ARCHITECT'S AESTHETIC JUDGEMENT, ARCHITECT'S REVIEW OF HEAD LOCATIONS WILL OCCUR DURING THE

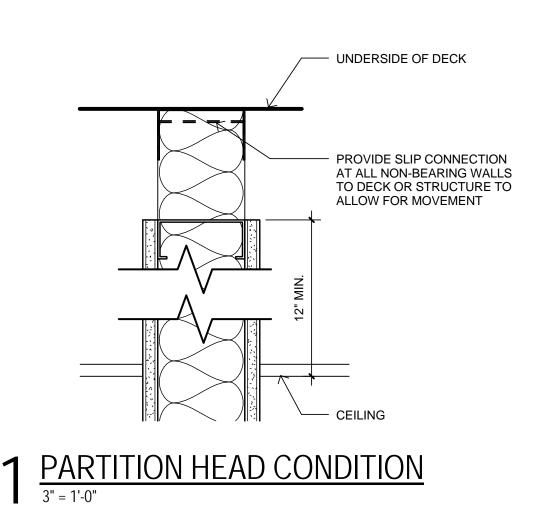
12. ALL MATERIALS SHALL BE INSTALLED ACCORDING TO INDUSTRY STANDARDS, ALL AGENCIES OR "STANDARD" RECOMMENDATIONS REFERENCED IN THE SPECIFICATIONS, OR MANUFACTURERS RECOMMENDED INSTALLATION PROCEDURES, WHICH EVER IS THE MOST STRINGENT, IN ORDER TO PROVIDE A COMPLETE AND HIGH QUALITY 13. THE CONTRACTOR REPRESENTS AND WARRANTS THAT IT HAS EXAMINED THE PLANS, DRAWINGS, SPECIFICATIONS, AND ALL CONSTRUCTION CRITERIA OF THE OWNER AND HAS SATISFIED ITSELF THAT THE INFORMATION CONTAINED

14. IN THE EVENT OF A CONFLICT WITHIN THE CONSTRUCTION DOCUMENTS, THE MORE EXPENSIVE, GREATER QUALITY, AND LARGER SCOPE SHALL GOVERN. 15. ALL ELECTRICAL, TELEPHONE, AND OTHER OUTLET LOCATIONS ARE TO BE COORDINATED WITH THE OWNER AND THE INTERIOR ELEVATIONS PRIOR TO INSTALLATION OF THE OUTLETS OR MILLWORK/CASEWORK. 16. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY WOOD AND METAL BLOCKING IN WALLS/PARTITIONS FOR THE

MOUNTING OF EQUIPMENT, ACCESSORIES, CASEWORK, RAILS, ETC. THAT ARE PROVIDED BY THE CONTRACTOR AND

HEREIN IS SUFFICIENT TO FULLY AND COMPLETELY CONSTRUCT THE PROJECT.

ITEMS THAT ARE PROVIDED BY THE OWNER OR ONE OF THE OWNER'S VENDORS. 17. NO EXPOSED CONDUIT WILL BE ALLOWED.



CODE SUMMARY

2003 INTERNATIONAL BUILDING CODE 2003 INTERNATIONAL PLUMBING CODE 2003 INTERNATIONAL MECHANICAL CODE 2003 INTERNATIONAL FUEL GAS CODE 2003 INTERNATIONAL ENERGY CONSERVATION CODE 2003 INTERNATIONAL FIRE CODE 2006 NATIONAL ELECTRICAL CODE

OTHER REGULATIONS AND STANDARDS: AMERICANS WITH DISABILITIES ACT, TITLE II TEXAS ACCESSIBILITY STANDARD OF THE ARCHITECTURAL BARRIERS ACT ILLUMINATING ENGINEERING SOCIETY DESIGN GUIDELINES

<u>LLOWABLE HEIGHT AND BUILDING AREA (TABLE 503):</u> TYPE V-B CONSTRUCTION GROUP B: 2 STORIES, 40 FEET, 9,000 SF PER FLOOR

AUTOMATIC SPRINKLER SYSTEM INCREASE (504.2):
ENTIRE BUILDING FULLY SPRINKLERED PER SECTION 903.1.1 AND NFPA 13 INCREASE MAXIMUM HEIGHT BY 20' AND INCREASE THE NUMBER OF STORIES BY ONE. GROUP B: 3 STORIES, 60 FEET

AREA MODIFICATIONS (506):
AREA INCREASES DUE TO AUTOMATIC SPRINKLER PROTECTION

AUTOMATIC SPRINKLER SYSTEM INCREASE = AREA CAN BE INCREASED BY AN ADDITIONAL 200% FOR SINGLE-STORY

ALLOWABLE AREA PER FLOOR = TABULAR AREA + (TABULAR AREA X SPRINKLER INCREASE / 100) ALLOWABLE AREA PER FLOOR = 9,771 + (9,771 X 200/100) = 29,313 SF PER FLOOR

ACTUAL AREAS:
GROUP B: FIRST FLOOR: 9,771 SF

FIRE-RESISTIVE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE (TABLE 602): < 5 FEET = 1 HOUR 5 FEET TO < 10 FEET = 1 HOUR 10 FEET OR GREATER = 0 HOURS

ALLOWABLE AREA OF WALL OPENINGS (TABLE 704.8)
ALL EXTERIOR WALL OPENINGS ARE PERMITTED TO BE UNPROTECTED BECAUSE THE FIRE SEPARATION DISTANCE

PARAPETS ARE NOT REQUIRED (704.11, EXCEPTION 1).

 $\frac{\texttt{CONCEALED SPACES (717):}}{\texttt{DRAFTSTOPPING IS NOT REQUIRED IN FULLY SPRINKLERED BUILDINGS (717.4.3 EXCEPTION2).}}$

<u>AUTOMATIC SPRINKLER SYSTEM (903):</u>
SPRINKLER SYSTEM SHALL CONFORM TO REQUIREMENTS OF NFPA 13 (903.3.1.1)

MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT (TABLE 1004.1.1): BUSINESS AREAS: 100 GROSS SF/OCCUPANT

OTHER: 0.15 INCHES/OCCUPANT

DOORS OPENING INTO THE PATH OF EGRESS TRAVEL SHALL NOT REDUCE THE REQUIRED WIDTH TO LESS THAN ONE HALF DURING THE SWING AND SHALL NOT PROJECT MORE THAN 7 INCHES WHEN FULLY OPEN.

COMMON PATH OF EGRESS TRAVEL (1014.3): GROUP B FULLY SPRINKLERED: 100 FEET MAXIMUM

SPACES WITH ONE MEANS OF EGRESS (TABLE 1015.1):

WHERE TWO EXITS ARE REQUIRED, THE DOORS SHALL BE PLACED A DISTANCE APART EQUAL TO AND NOT LESS THAN ONE HALF THE LENGTH OF THE MAXIMUM DIAGONAL OF THE AREA SERVED (1015.2.1). EXIT TRAVEL DISTANCE IN SPRINKLERED BUILDING (1016.1): GROUP B: 300 FEET

CORRIDOR FIRE-RESISTANCE RATING, WITH SPRINKLERS (TABLE 1017.1) GROUP B: 0 HOURS

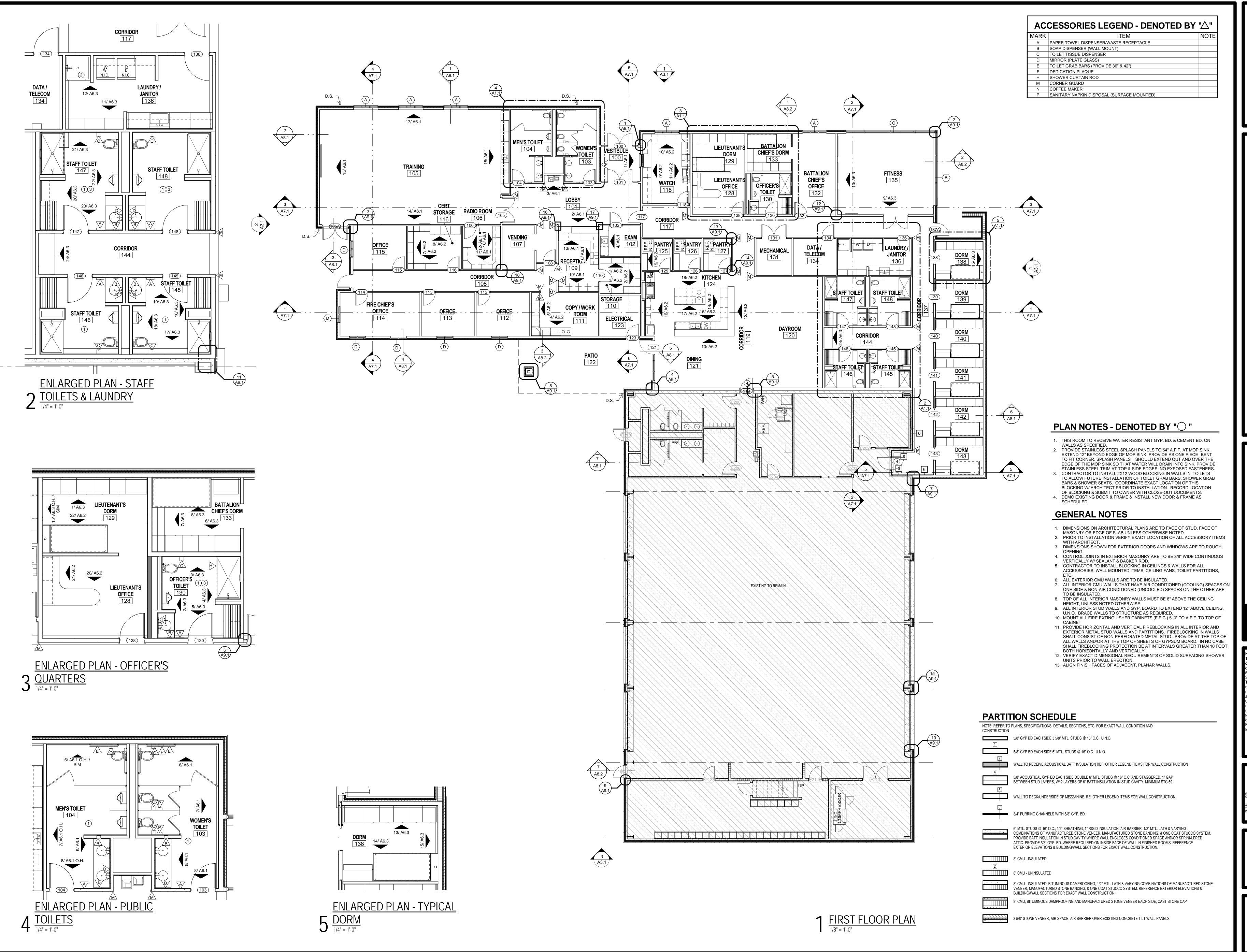
MINIMUM CORRIDOR WIDTH SHALL NOT BE LESS THAN 44 INCHES (1017.2); 36 INCHES IN A DWELLING UNIT (1017.2, EXCEPTION 3).

CORRIDOR DEAD ENDS SHALL NOT EXCEED 50 FEET FOR GROUP B (1017.2).

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Original Issue Date: 04/04/14 50% Revisions:

JCAS CENTRAL FS

ARCHITECTS

ARCHITECTS

entral Expressway Suite 300

P:972.665.0657

200 :

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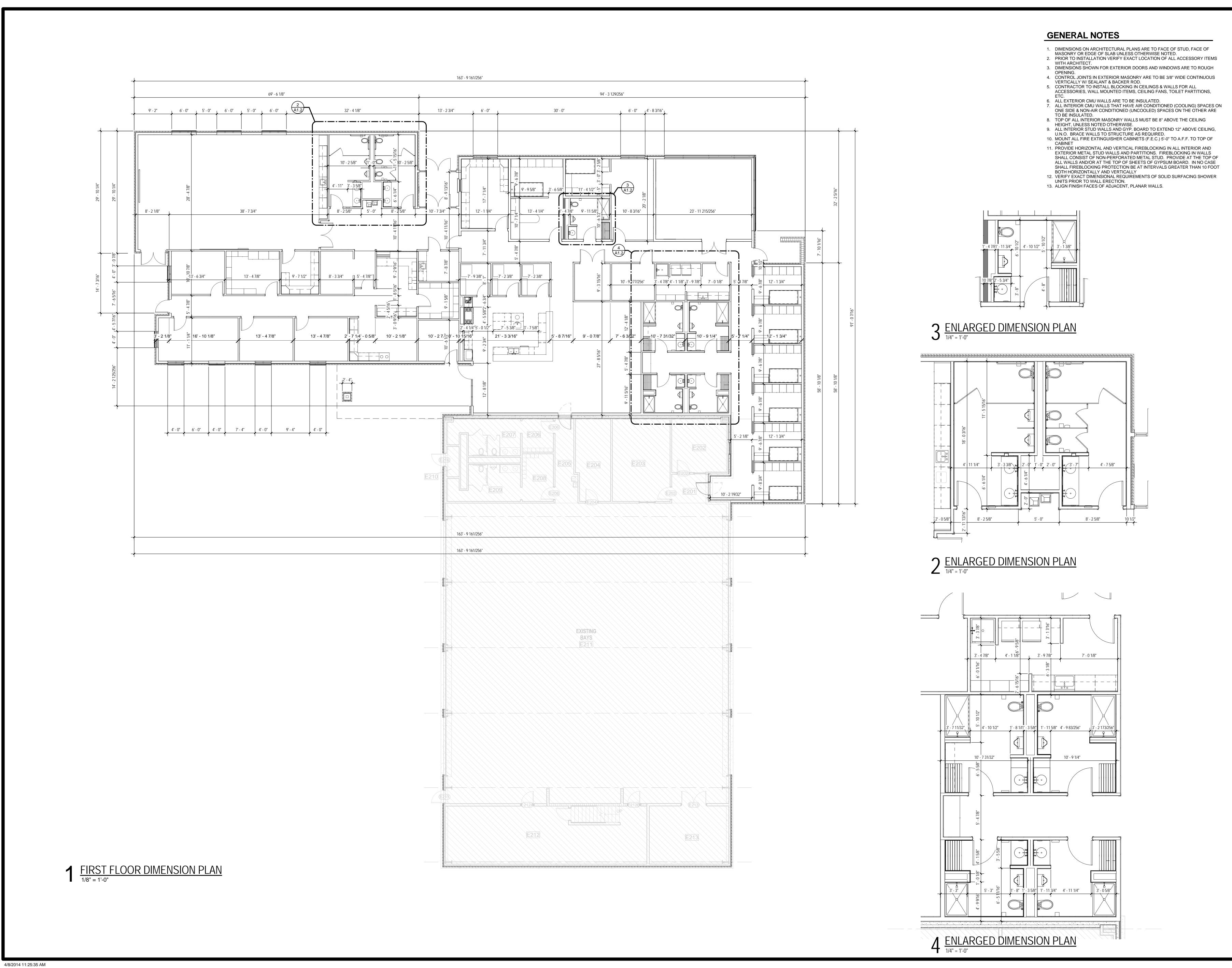
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FLOOR PLAN

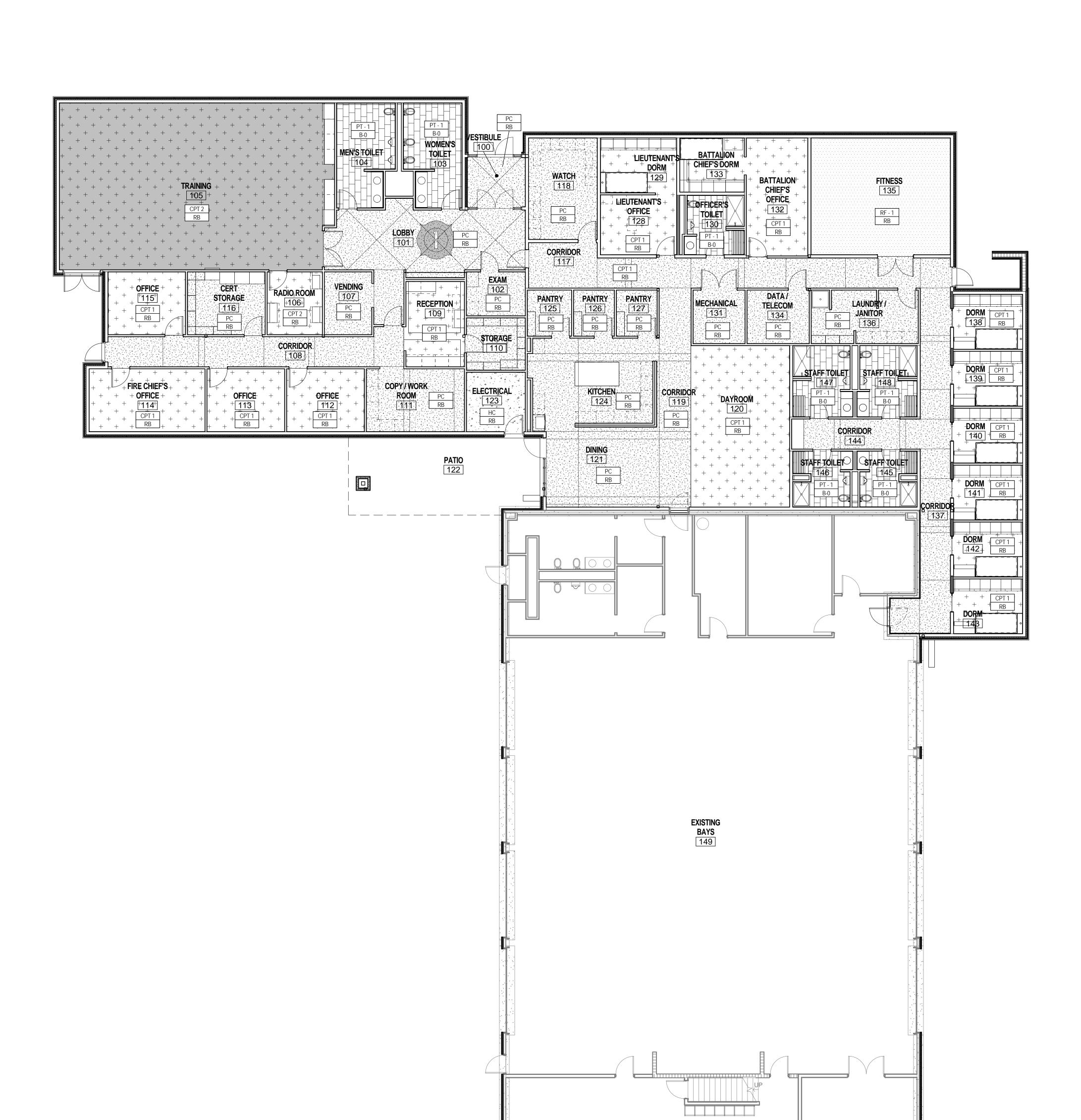


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1215

__DIMENSION PLAN__



		FINISH MA	TERIAL LEGEND			
CODE	MATERIAL	MANUFACTURER	STYLE	COLOR/FINISH	SIZE	COMMENTS
Walls						
PT-2	PORCELAIN TILE TYPE 2	DALTILE	TIMBER GLEN RUSTIC	HEATH P613	4"x24"	
PT-3	PORCELAIN TILE TYPE 3	DALTILE	CITY VIEW	SKYLINE GRAY CY02	12"X12"	
PT-4	PORCELAIN TILE TYPE 4	DALTILE	TBD	TBD	MOSAIC	
Generic Mode						
AP-1	ACOUSTIC PANEL	MAHARAM	MESSENGER	CLOUD		
Furniture WD-1	WOOD VENEER & SOLID WOOD		RED OAK	STAIN TO MATCH ARCHITECTS SAMPLE		
Floors	I			I	1	<u> </u>
HC	HARDENED CONCRETE			HARDENED CONCRETE		
B-0	NO BASE - METAL EDGE COVE TRIM		SCHULTER			
PC-1	POLISHED CONCRETE	TBD	TBD	NATURAL GRAY	1011 0 111	2
PT-1	PORCELAIN TILE TYPE 1	DALTILE	CITY VIEW	VILLAGE CAFE CY07	12"x24"	
RB-1	RUBBER BASE TYPE 1			COLOR/FINISH		
RF-1	RUBBER FLOOR TYPE 1			COLOR/FINISH		
Casework						
PL-1	PLASTIC LAMINATE TYPE 1					
SSF-1	SOLID SURFACE TYPE 1			COLOR/FINISH		
WD-1	WOOD VENEER & SOLID WOOD		RED OAK	STAIN TO MATCH ARCHITECTS SAMPLE		

GENERAL FINISH NOTES

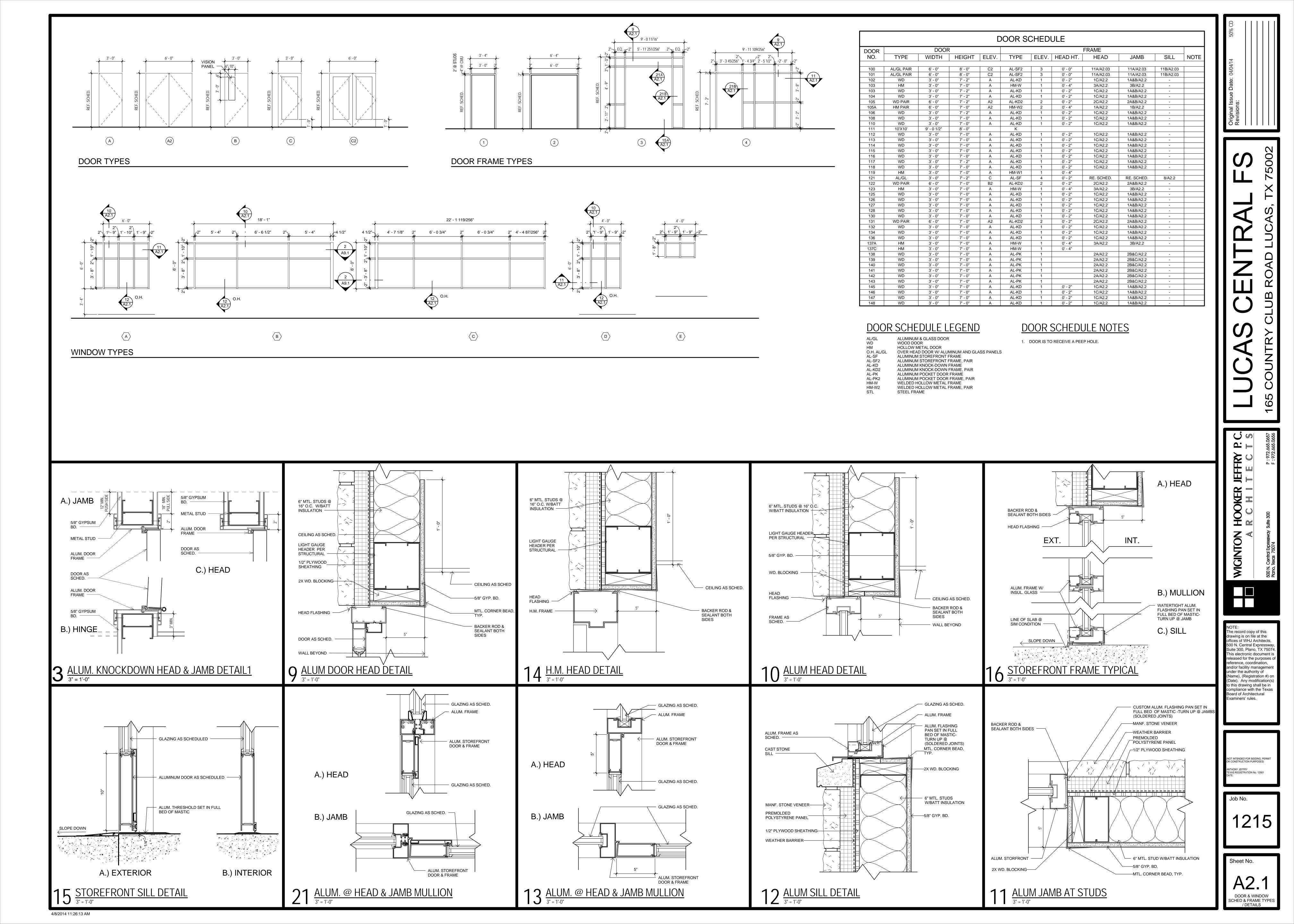
- PT-1 FIELD TILE IN CORRIDORS TO BE FULL SIZE TILES IN WIDTH. PT-2 BORDER MAY BE CUT IN WIDTH AS REQUIRED.
- ALL FLOOR MATERIAL TRANSITIONS ARE TO OCCUR AT THE CENTERLINE OF
- REFER TO SPECIFICATIONS FOR WALL AND CEILING TEXTURES. WALLS & CEILINGS OF KITCHEN TO BE SEMIGLOSS FINISH.
 REFER TO OTHER PORTIONS OF THE CONTRACT DOCUMENTS FOR OTHER

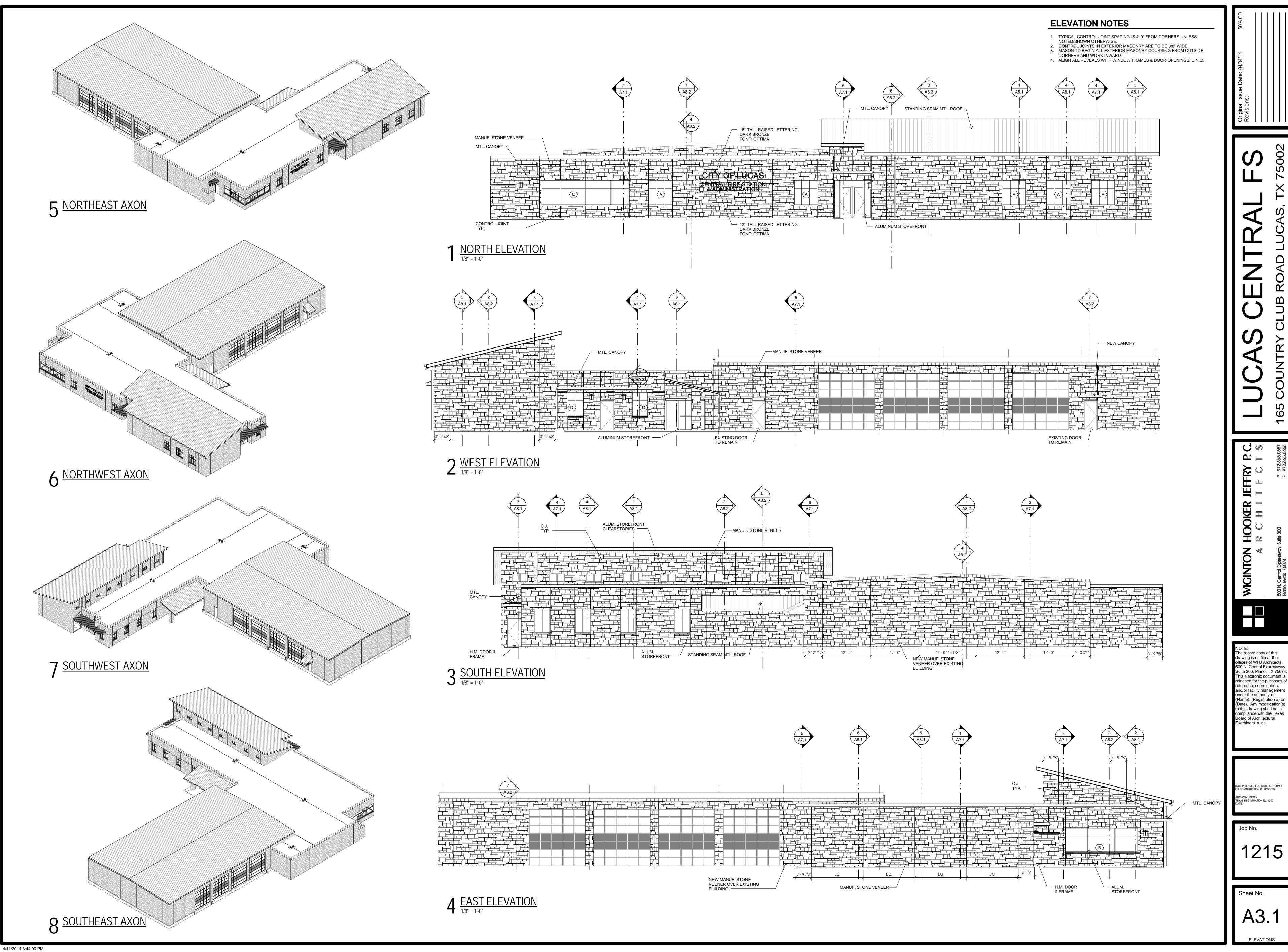
MATERIALS/PRODUCTS NOT INCLUDED IN THE FINISH MATERIAL LEGEND.
CUT TILES TO 4" HEIGHT FOR BASE. ALIGN BASE JOINTS WITH ADJACENT FLOOR TILE JOINTS.

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FINISH PLAN & SCHEDULE

 $\frac{\text{FINISH PLAN}}{1/8" = 1'-0"}$

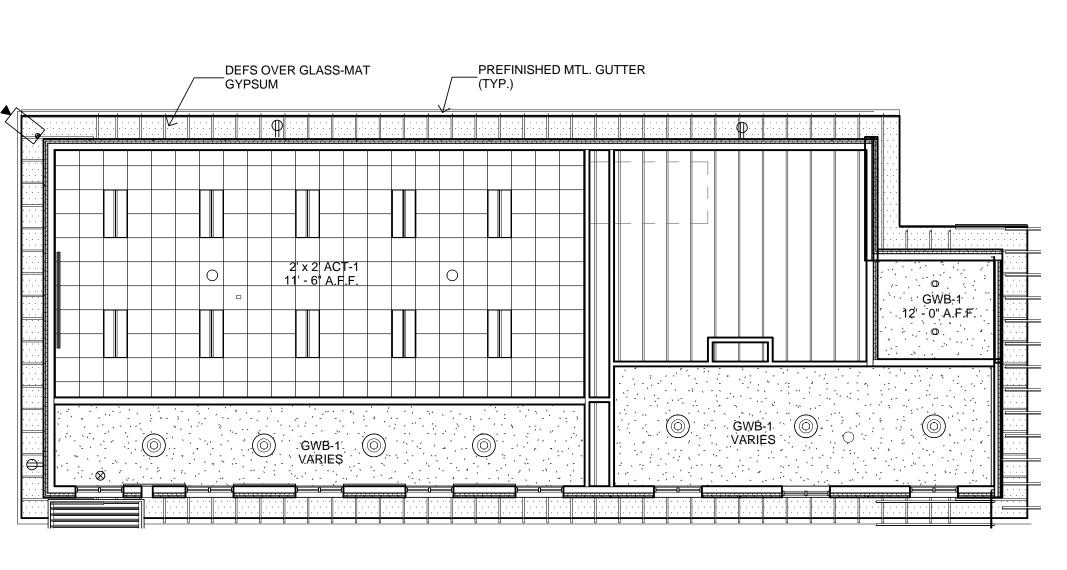




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ELEVATIONS

REFLECTED CEILING PLAN NOTES 1. DIMENSIONS ON ARCHITECTURAL PLANS ARE TO FACE OF STUD, FACE OF MASONRY OR EDGE OF SLAB UNLESS OTHERWISE NOTED. 2. ACOUSTICAL CELING TILE TO BE CENTERED IN TOOM UNLESS OTHERWISE NOTED. 3. RECESSED EIXTURES ARE TO BE CENTERED IN THE ROOM/CORRIDOR IF NO DIMENSION IS GIVEN. 4. REFER TO INTERIOR ELEVATION FOR LOCATION OF UNDER-COUNTER LIGHTING. 5. STABLIZE CEILING FANS IN BOTH DIRECTIONS IMMEDIATELY ABOVE ACT GRID. STORY OF THE PROPERTY OF THE P



2 REFLECTED CEILING PLAN - HIGH

		C	EILING LEGEND			
CODE	MATERIAL	MANUFACTURER	STYLE	COLOR/FINISH	SIZE	COMMENTS
ACT-1	ACOUSTIC CEILING TILE TYPE 1	ARMSTRONG	FISSURED - 705	TEGULAR EDGE - WHITE	2'X2'	
ACT-2	ACOUSTIC CEILING TILE TYPE 2	ARMSTRONG	CLEAN ROOM VL - 868	STRAIGHT EDGE - WHITE	2'X2'	
GWB-1	PAINTED GYPSUM WALL BOARD CEILING - SUSPENSION SYSTEM			PNT-5 (U.N.O.)		
GWB-2	PAINTED GYPSUM WALL BOARD CEILING - MTL. STUD FRAMING			PNT-5 (U.N.O.)		

NOTE: GWB-2 - PROVIDE STUD BRACING & SUPPORT FROM STRUCTURAL FRAMING.

JCAS CENTRAL F
SOUNTRY CLUB ROAD LUCAS, TX 75

CINION HOOKEK JEFFKY P.C.

A R C H I T E C T S

Central Expressway Suite 300

P: 972.665.0657

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NOT INTENDED FOR BIDDING, PERMI' OR CONSTRUCTION PURPOSES) ANTHONY JEFFRY TEXAS REGISTRATION No. 12901

Job No.
1915

Sheet No.

1 REFLECTED CEILING PLAN
1/8" = 1'-0"

DEFS OVER GLASS-MAT

2' x 2' ACT-1 11' - 6" A.F.F. PREFINISHED MTL. GUTTER

2'-x 2' ACT-1

) 0 2' x 2' ACT-1 0 0

- MTL. CANOPY

2' x 2' A©T-1 10' - 0" A.F.F.

> GWB-2 8' - 6" A.F.F.

9 - 0" A.F.F.

10 - 0" A.F.F.

2' x 2' ACT-1 9' - 0" A.F.F. 2' x 2' ACT-1 10' - 6" A.F.F.

9' - 0" A.F.F.

2' x 2' ACT-1^O |9' - 0" A.F.F. MTL. CANOPY

2' x 2' ACT-1 9' - 0" A.F.F.

9' - 0" A.F.F.

2' x 2' ACT-1 9' - 0" A.F.F.

2' × 2' × 0'7 9' - 0" A.F.E.

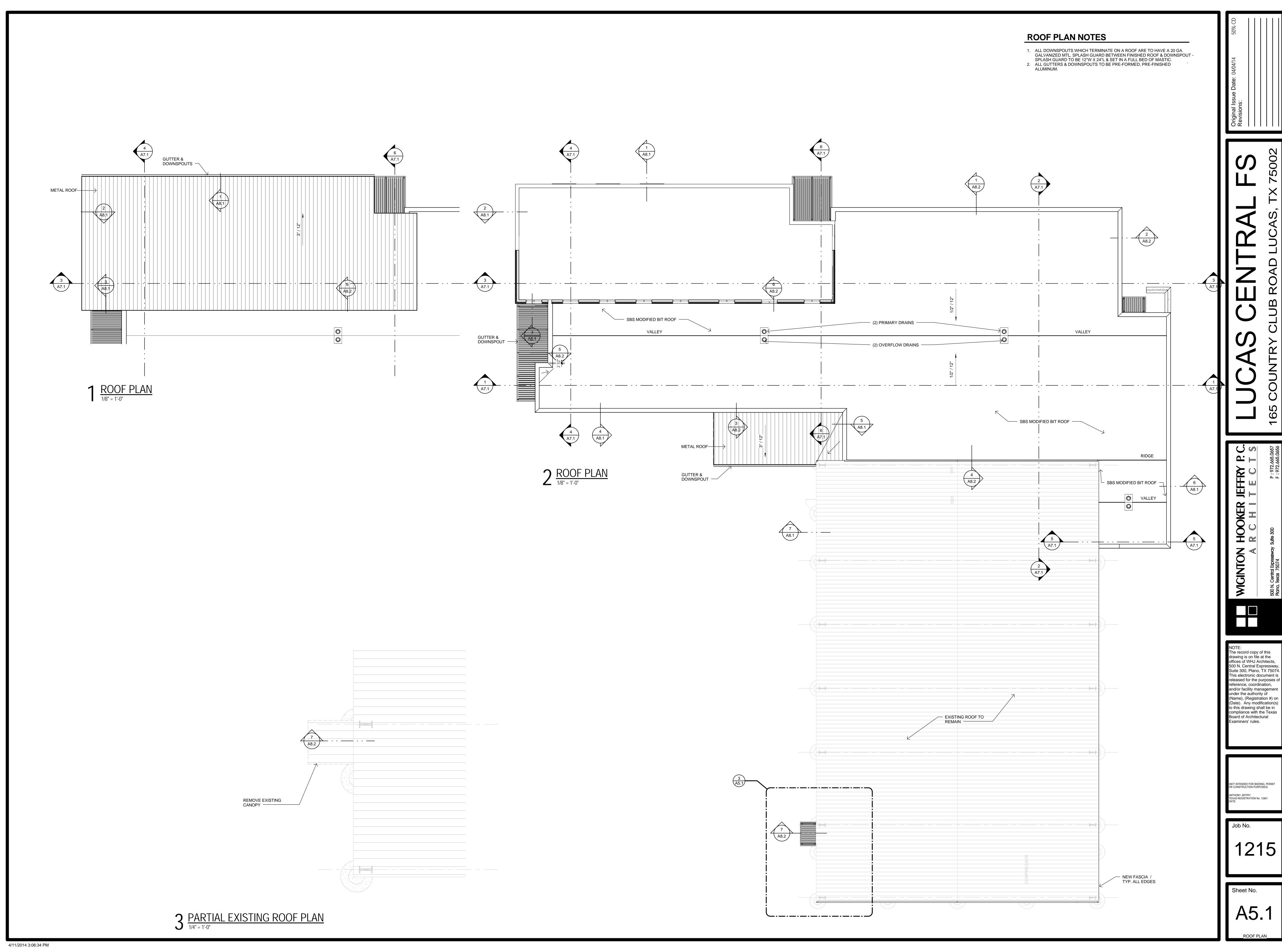
`1,2',- 0" A.F.**F**.:

9' - 0" A.F.F

GWB-1 VARIES A8.2

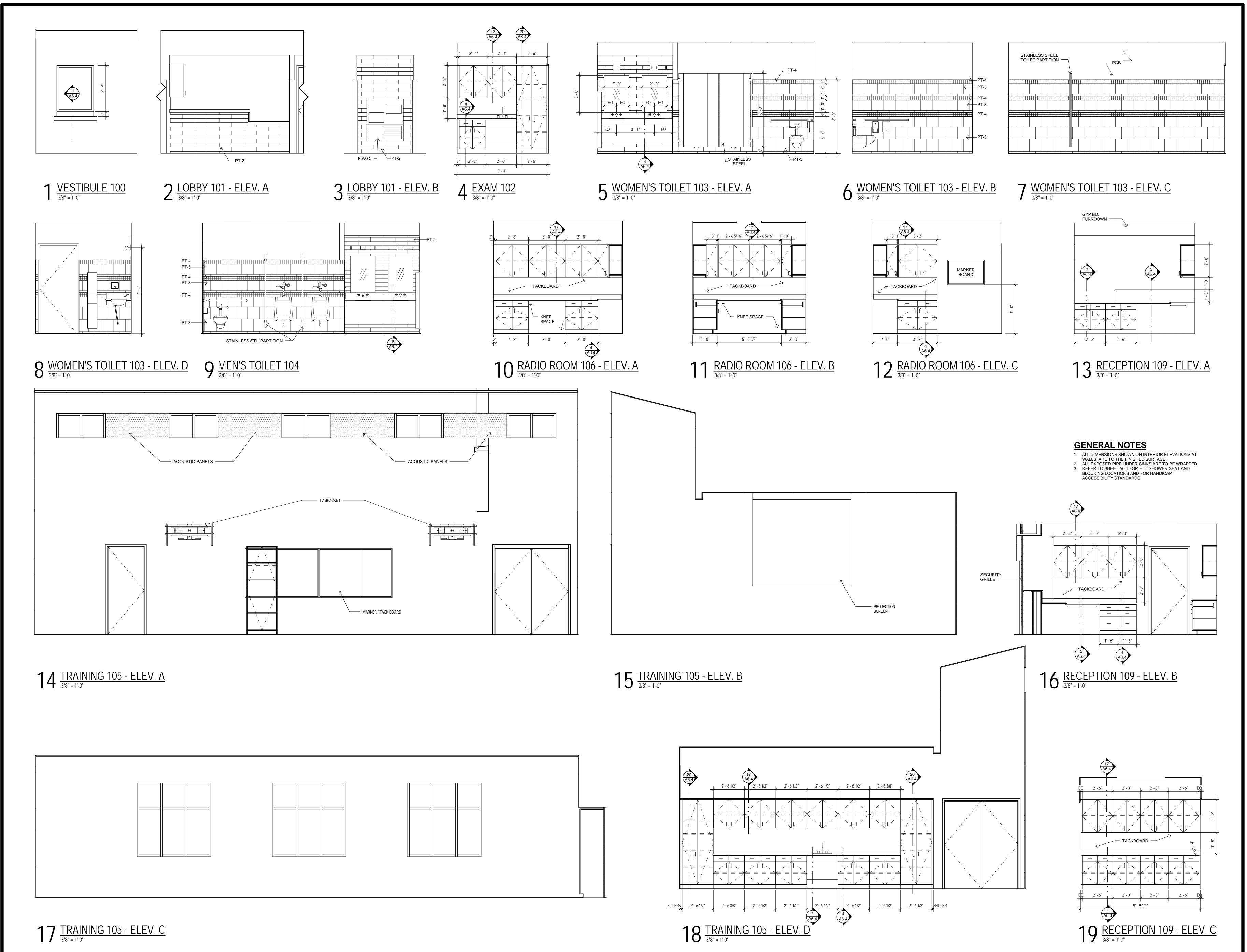
> 2' x 2' ACT-1 9' - 0" A.F.F.

DEFS OVER GLASS-MAT__ GYPSUM



1215

A5.1



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Original Issue Date: 04/04/14
Revisions:

LUCAS CENTRAL FS

165 COUNTRY CLUB ROAD LUCAS, TX 7500

WIGINTON HOOKER JEFFRY P.C.

A R C H I T E C T S

500 N. Central Expressway Sulte 300

F: 972.665.0657

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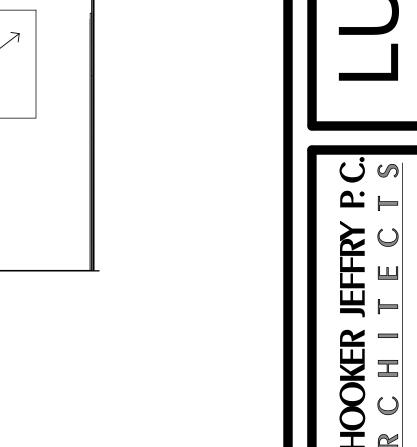
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DATE:

Job No.
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INTERIOR ELEVATIONS

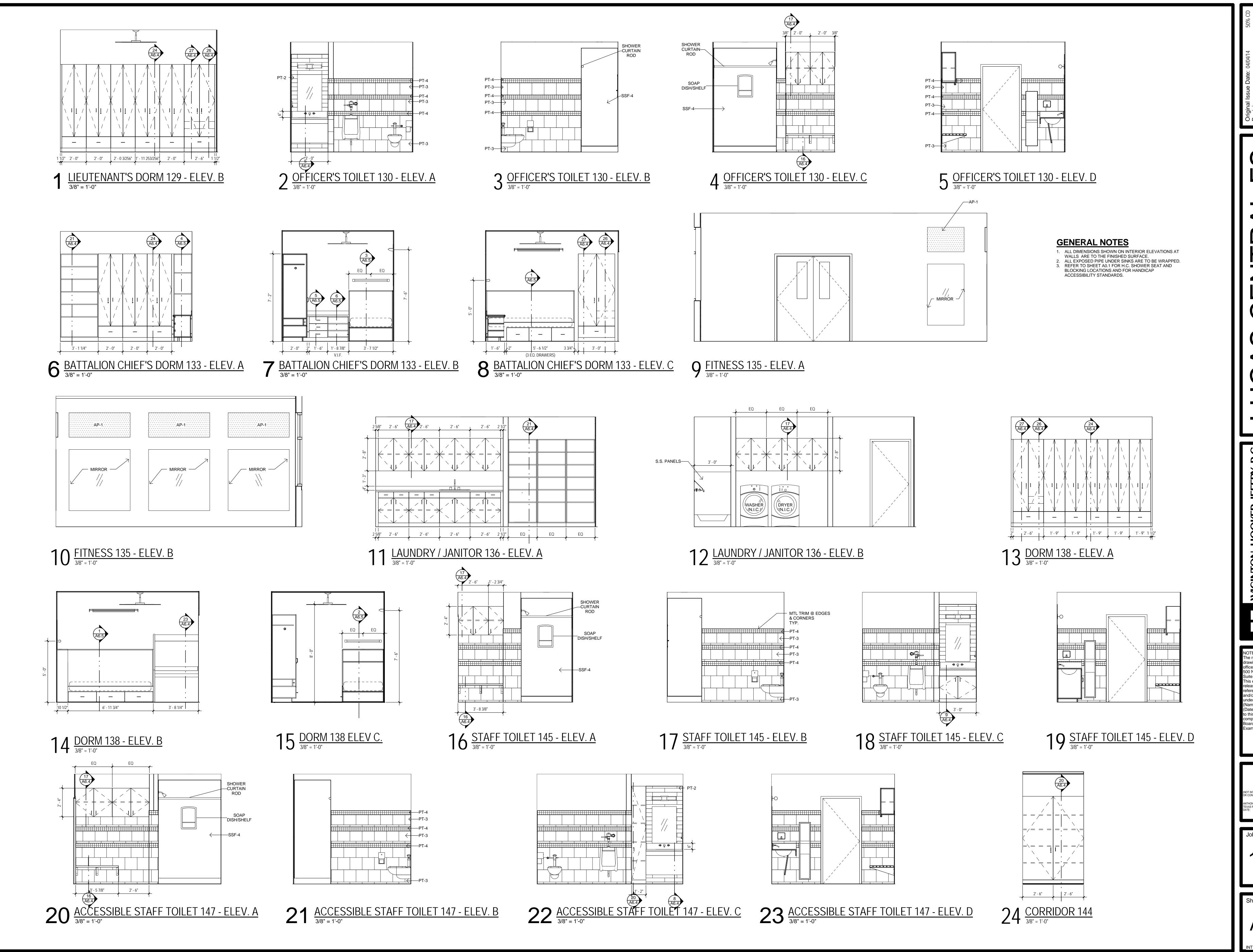


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A6.2

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Original Issue Date: 04/04/14 50

MARY CHIR ROAD LICAS TX 75002

GINTON HOOKER JEFFRY P.C.

A R C H I T E C T S

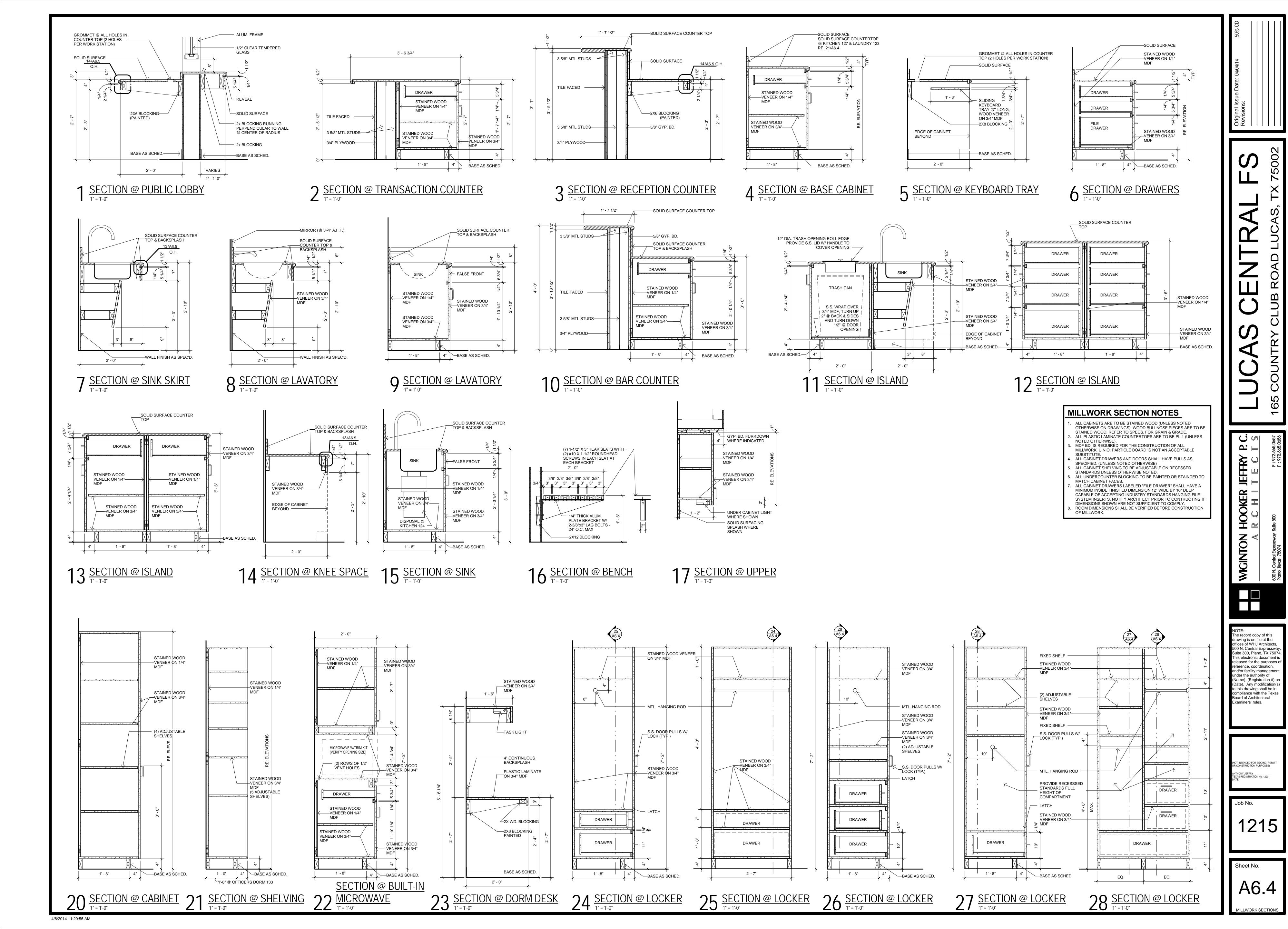
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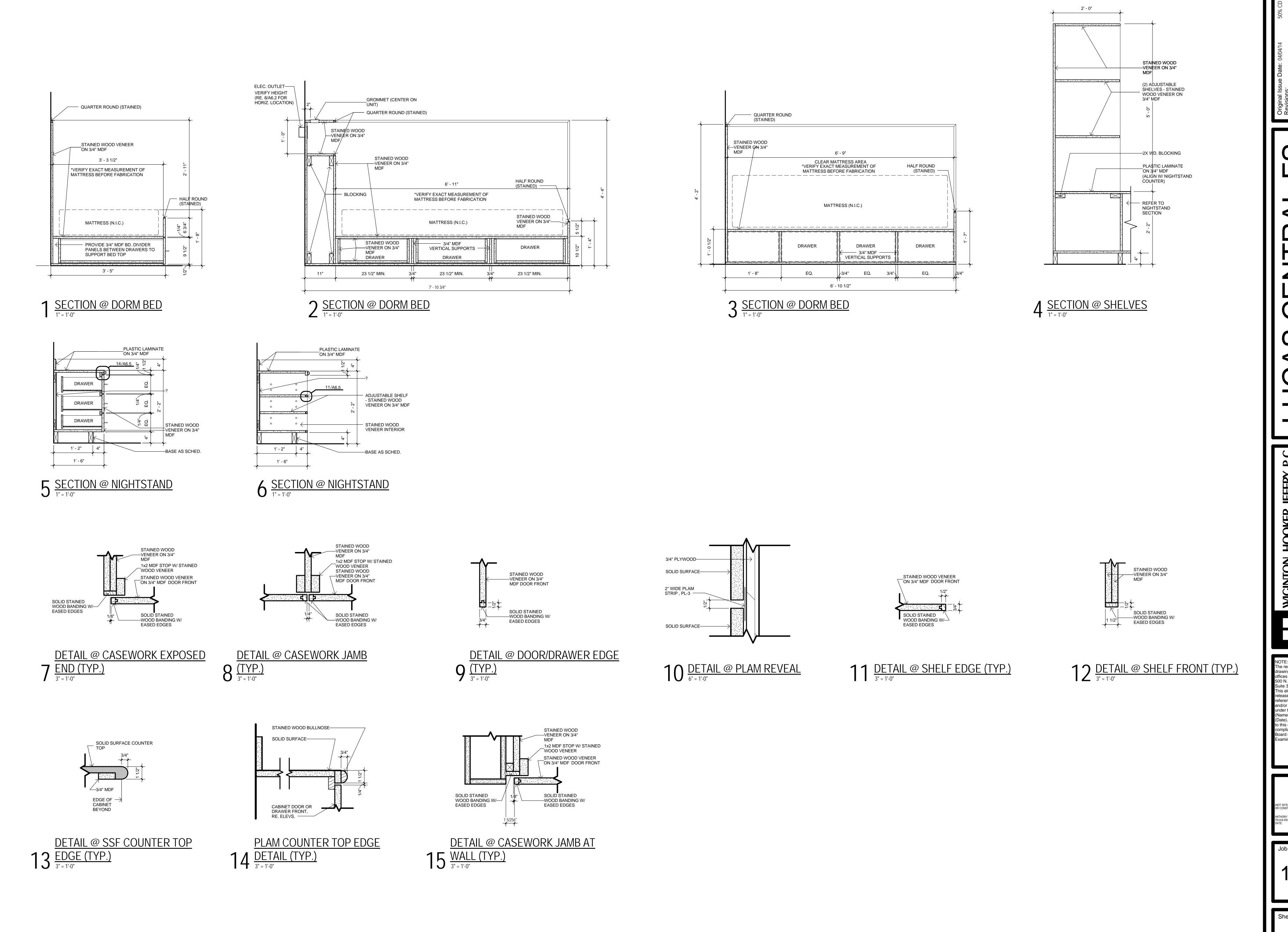
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Sheet No.

A6.3



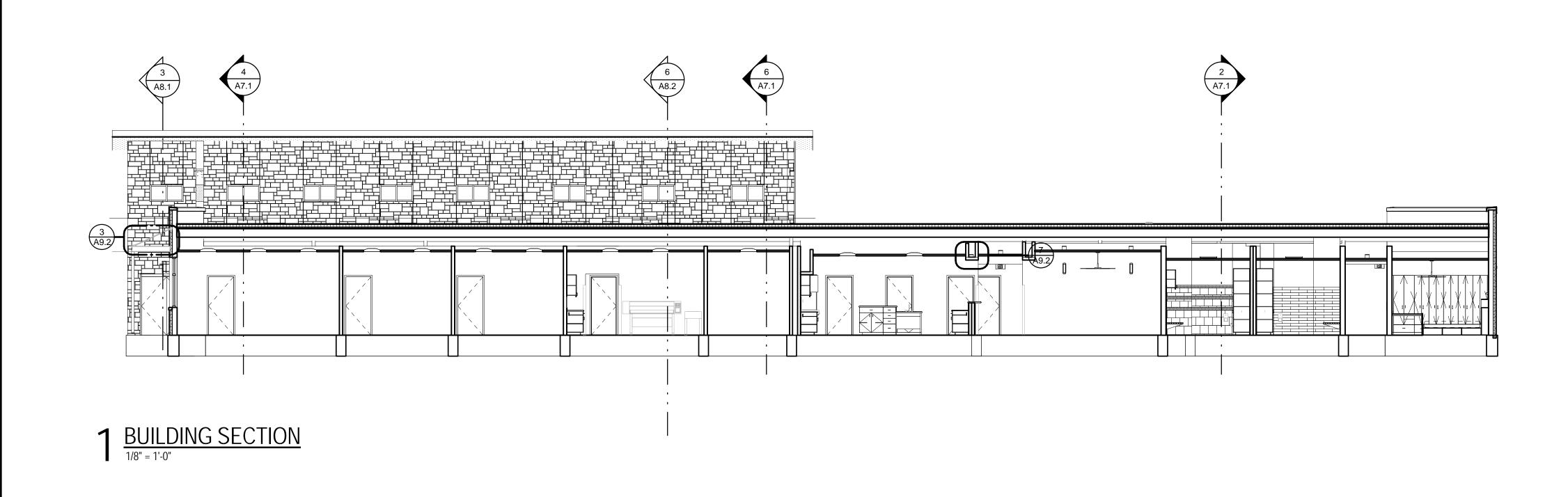


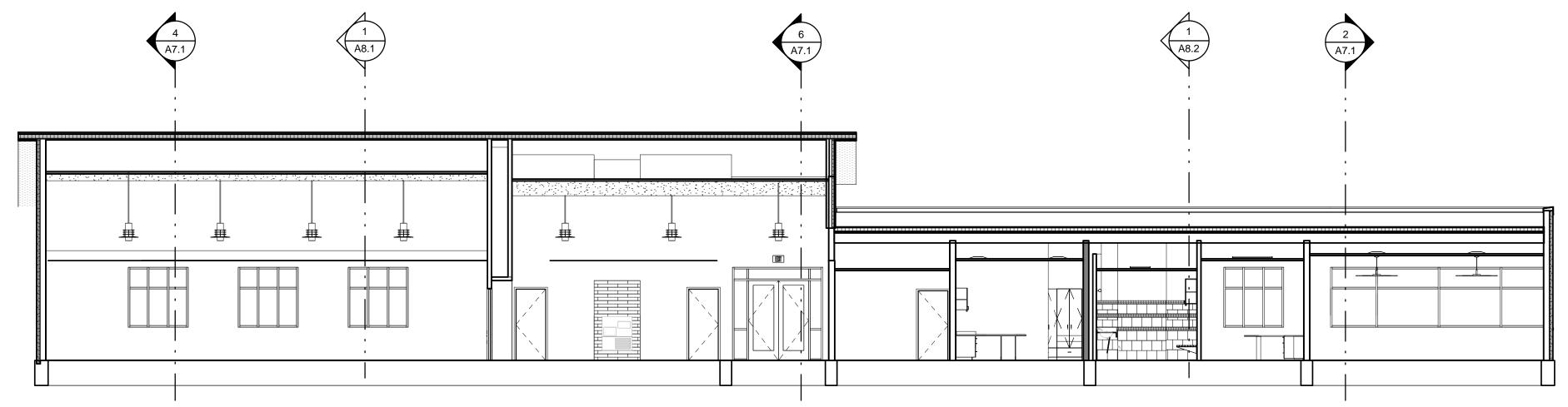
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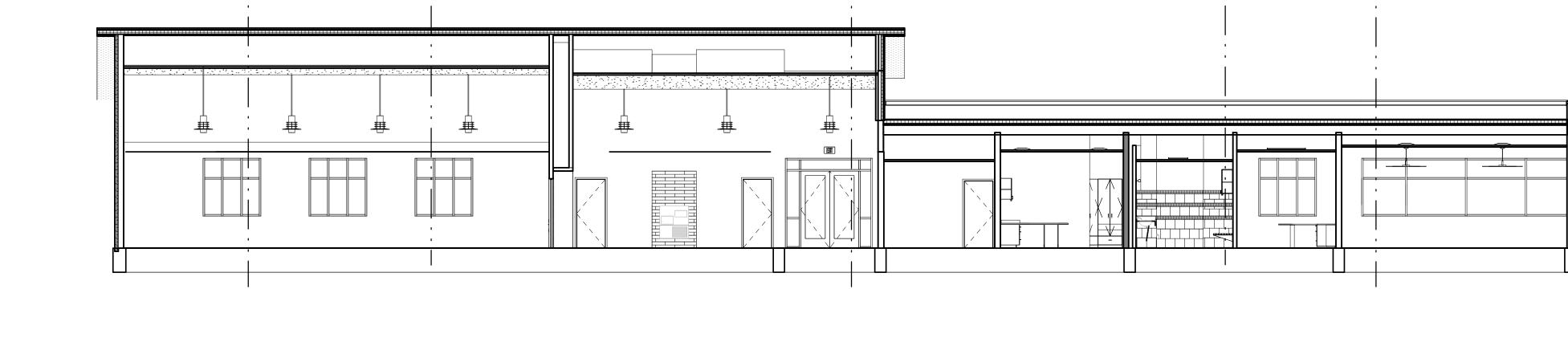
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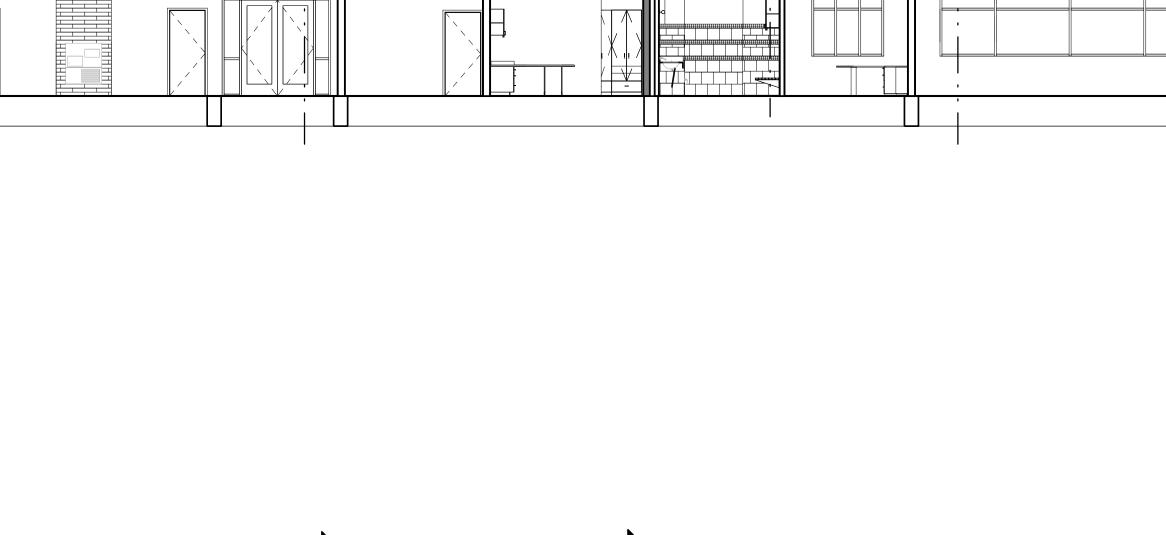
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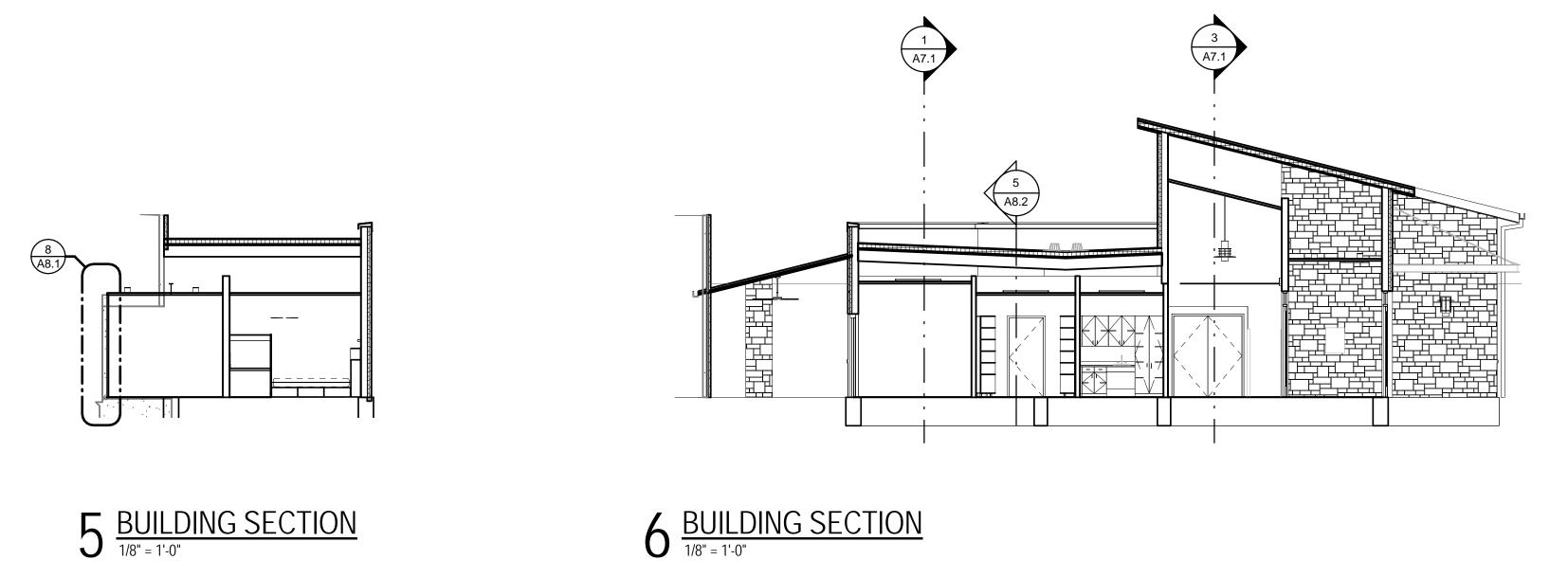
A6.5 MILLWORK SECTIONS & DETAILS

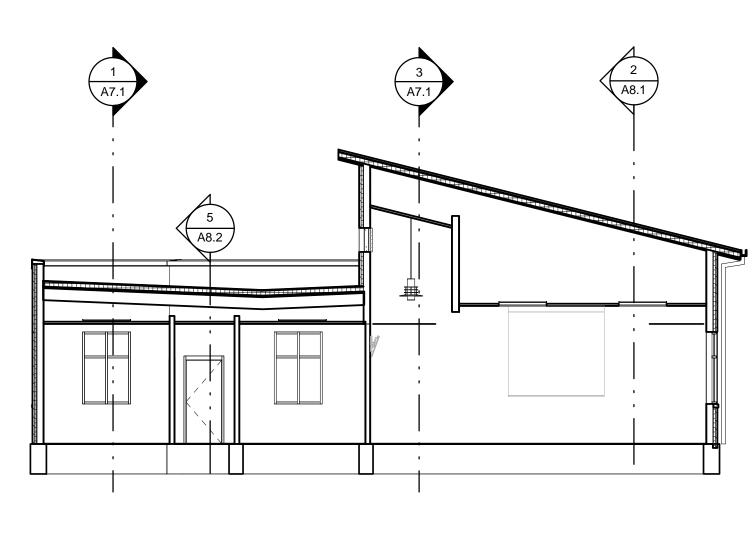










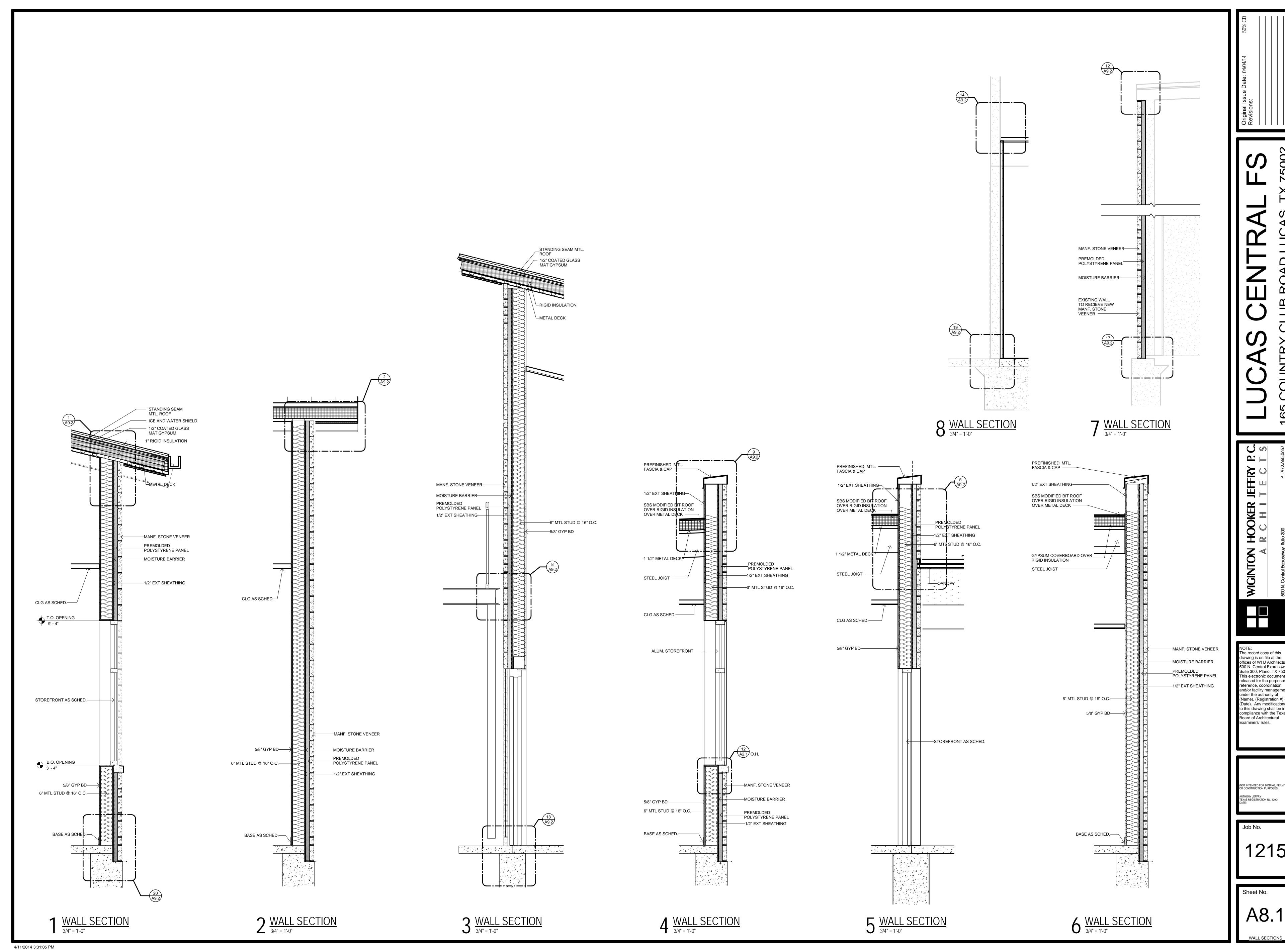


 $4 \frac{\text{BUILDING SECTION}}{1/8" = 1'-0"}$

2 SECT - BLDG - E/W THRU TOILET

 $\frac{\text{BUILDING SECTION}}{1/8" = 1'-0"}$

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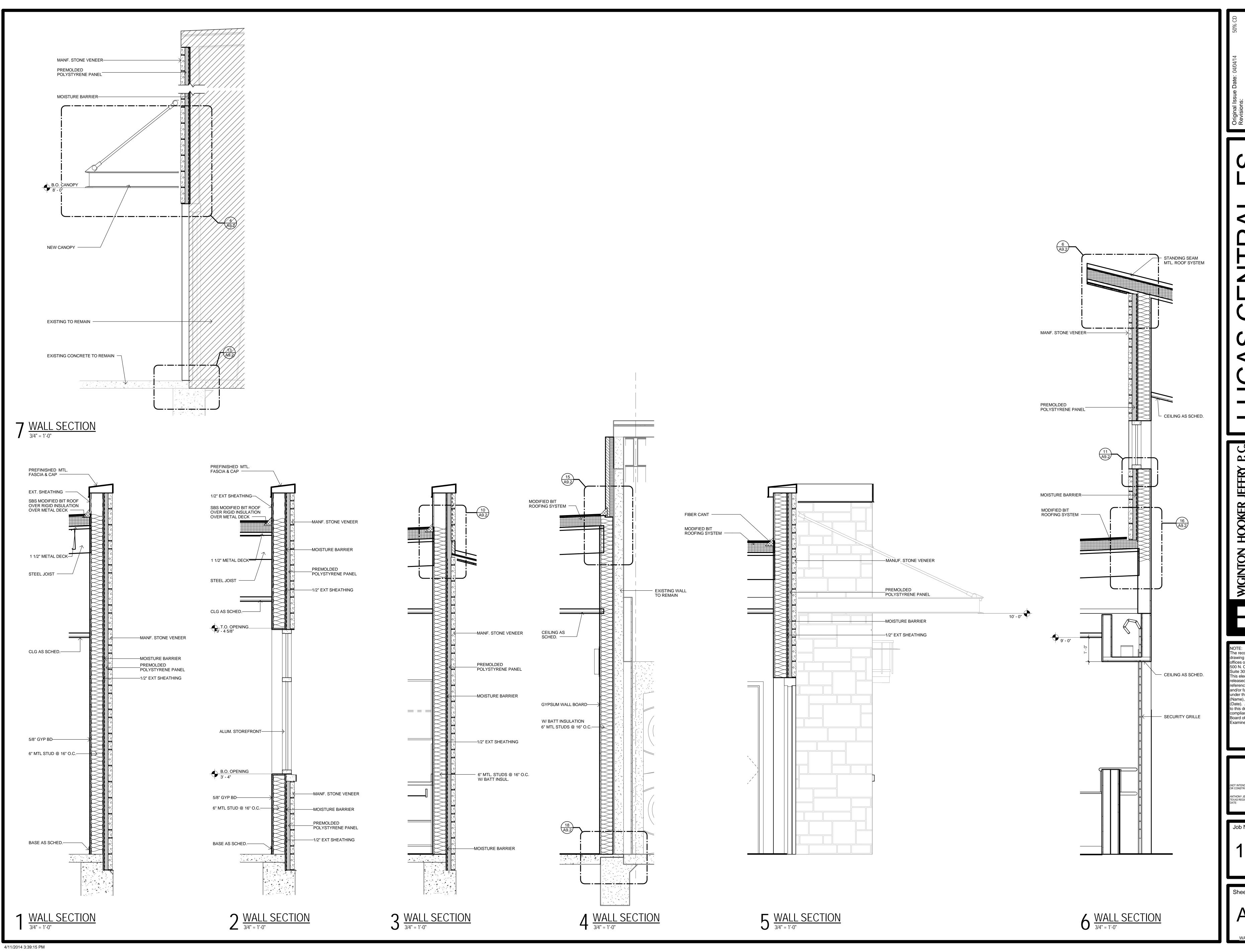


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A8.1



Original Issue Date: 04/04/14 Revisions:

S CENTRAL FS

MGINTON HOOKER JEFFRY P.C.

A R C H I T E C T S

OO N. Central Expressway Suite 300
P: 972.665.0657
F: 972.665.0656

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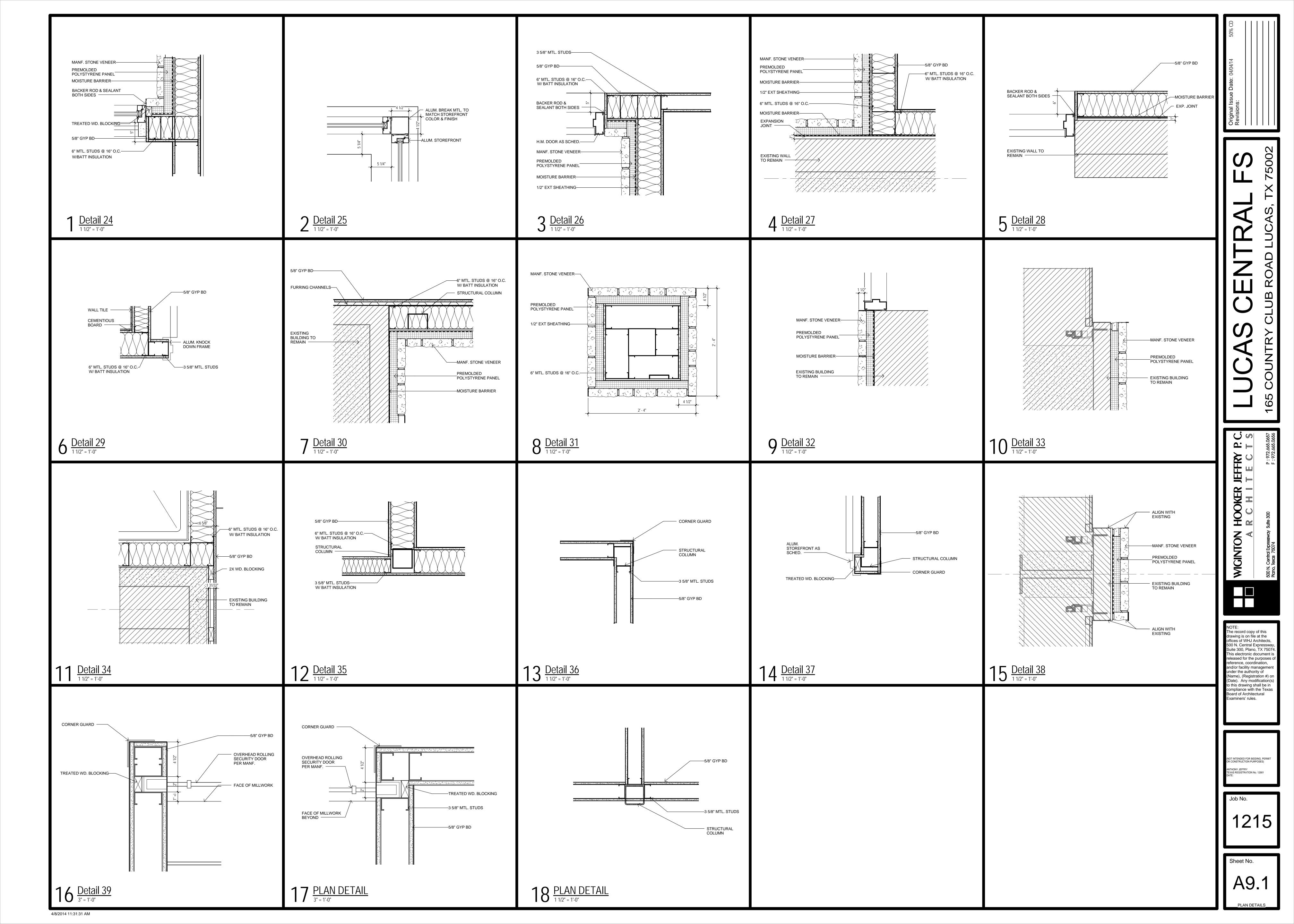
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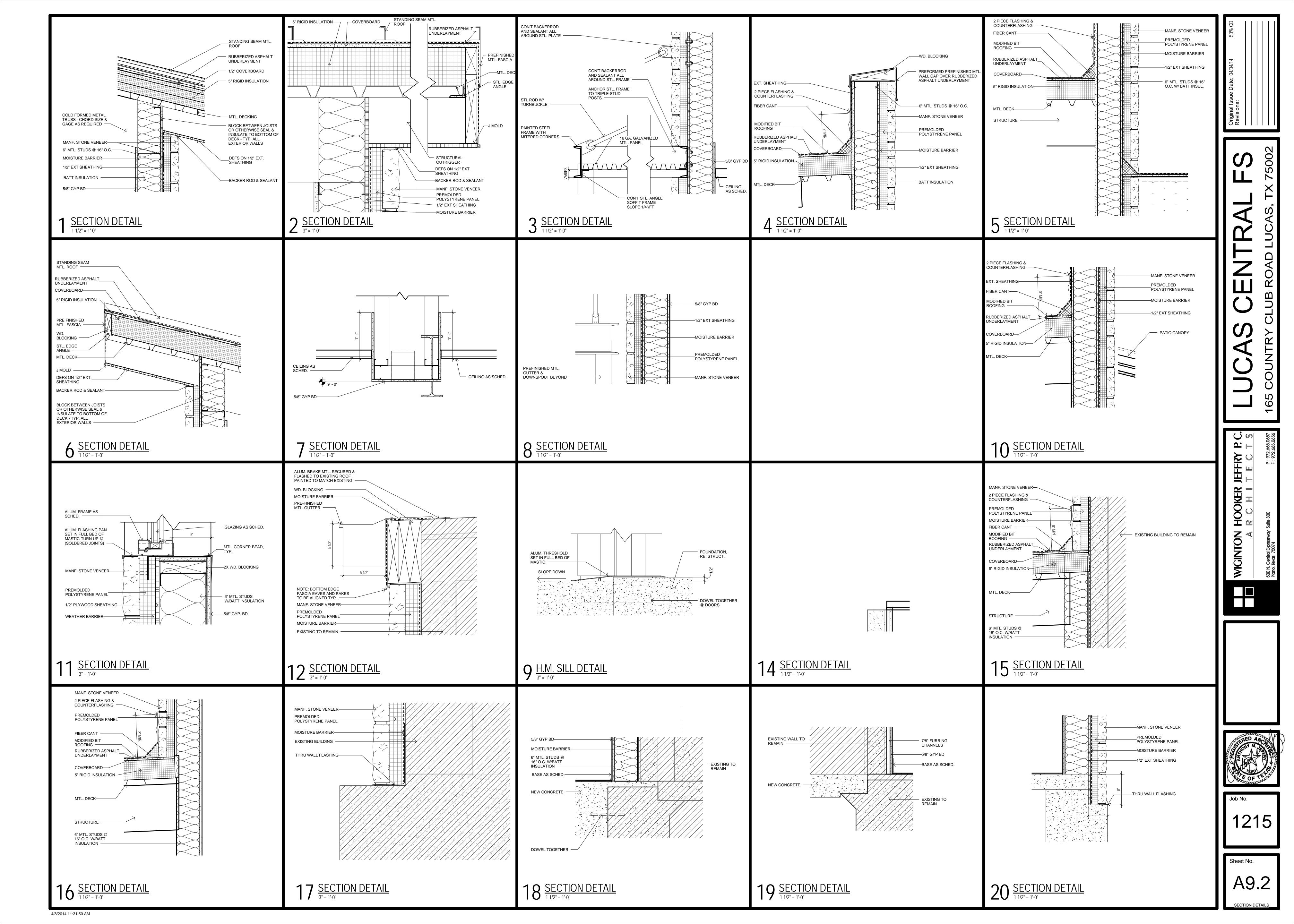
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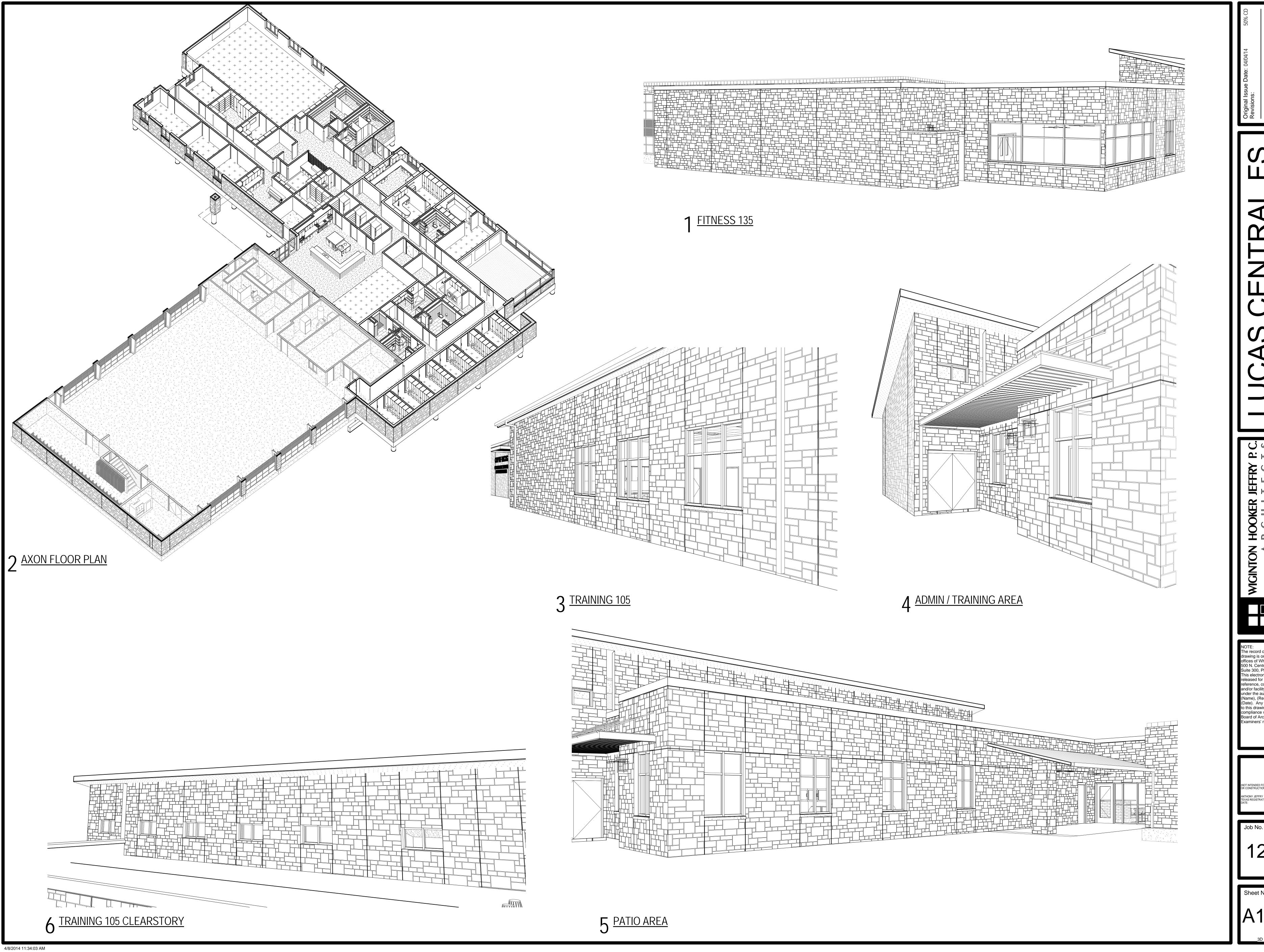
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WALL SECTIONS



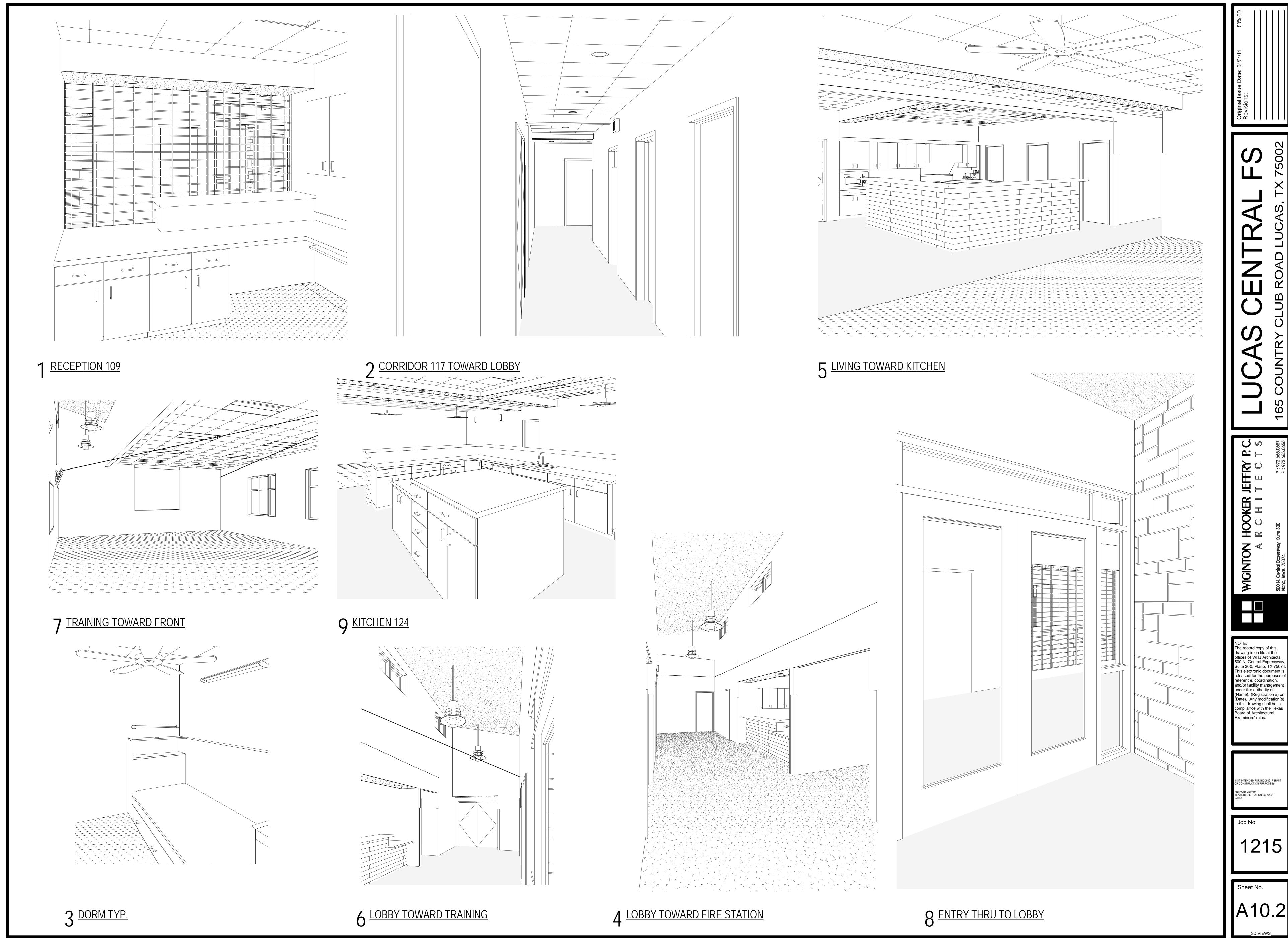




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1215

A10.1



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Examiners' rules.

1215

A10.2

DEAD LOADS:	
DEAD LOADS HAVE BEEN CALCULATED TO INCLUDE THE ACTUAL WEIGHT OF ALL WORK SHOW ON THE STRUCTURAL, ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWING	
ROOF DEAD LOADS:	

3.0 PSF 1.0 PSF 2.0 PSF . 2.0 PSF 4.0 PSF TOTAL DEAD LOAD 18.0 PSF ROOF LIVE LOAD (BEFORE REDUCTIONS)

SNOW LOAD:

GROUND SNOW LOAD (Pg) = 10 psfSNOW IMPORTANCE FACTOR = 1.2 (CATAGORY IV)

FLOOR LIVE LOADS:

CORRIDORS AND STAIRWAYS. 100 PSF .100 PSF ASSEMBLY AREAS.. LIGHT STORAGE AREAS. .125 PSF ALL OTHER AREAS. .100 PSF

WIND LOADS

WIND PRESSURES IN ALL DIRECTIONS HAVE BEEN CALCULATED BASED ON A WIND SPEED OF 90

WIND LOADS ARE CALCULATED IN ACCORDANCE WITH ASCE 7-05 "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES".

WIND IMPORTANCE FACTOR - I = 1.15 (CATEGORY IV) WIND EXPOSURE CATEGORY - C

UPLIFT ON ROOF:

REFER TO DIAGRAMS ON S0.02.

SEISMIC LOADS:

BASED ON INTERNATIONAL BUILDING CODE (IBC 2009)

BUILDING CLASSIFICATION. IMPORTANCE FACTOR, I OCCUPANCY CATEGORY SHORT PERIOD SPECTRAL ACCELERATION. Ss = XXXONE SECOND SPECTRAL ACCELERATION. S1 = XXXSITE CLASSIFICATION.. SPECTRAL RESPONSE COEFFICIENT SDS = XXXSPECTRAL RESPONSE COEFFICIENT SD1 = XXXSEISMIC DESIGN CATEGORY. BASIC SEISMIC-FORCE-RESISTING SYSTEM ... ORDINARY STEEL CONCENTRICALLY BRACED DESIGN BASE SHEAR XXX

SEISMIC RESPONSE COEFFICIENT CS XXX RESPONSE MODIFICATION FACTOR R . EQUIVALENT LATERAL FORCE ANALYSIS PROCEDURE

- COMPLETE SHOP DRAWINGS FOR THE STRUCTURAL WORK SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO COMMENCEMENT OF CONSTRUCTION IN ACCORDANCE WITH THE SPECIFICATIONS. REVIEW OF SHOP DRAWINGS BY THE ENGINEER DOES NOT RELIEVE THE CONTRACTOR OF FULL RESPONSIBILITY FOR CORRECT FABRICATION AND CONSTRUCTION OF THE WORK.
- ANY DEVIATION FROM, ADDITION TO, SUBSTITUTION FOR, OR MODIFICATION TO THE STRUCTURE OR ANY PART OF THE STRUCTURE SHOWN ON THESE DRAWINGS SHALL BE SUBMITTED IN WRITING TO THE ENGINEER FOR REVIEW. SHOP DRAWINGS THAT ARE SUBMITTED FOR REVIEW DO NOT CONSTITUTE "IN-WRITING" UNLESS IT IS CLEARLY NOTED THAT SPECIFIC CHANGES ARE BEING SUGGESTED.
- THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR ELEVATIONS NOT SHOWN AND FOR EXACT LOCATIONS AND DIMENSIONS OF ALL ARCHITECTURAL DETAILS.
- 6. THE CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS AT THE SITE AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.
- PRINCIPAL OPENINGS ARE SHOWN ON THE STRUCTURAL DRAWINGS. THE CONTRACTOR SHALL REFER TO ARCHITECTURAL, MECHANICAL, ELECTRIC, AND PLUMBING DRAWINGS FOR SLEEVES CURBS, INSERTS AND SIMILAR DETAILS NOT SHOWN. SIZE AND LOCATION OF ALL OPENINGS SHALL BE VERIFIED BY THE CONTRACTOR. ANY DEVIATION FROM OPENINGS SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR APPROVAL PRIOR TO CONSTRUCTION.
- THE STRUCTURAL DRAWINGS ARE NOT TO BE SCALED FOR DETERMINATION OF QUANTITIES, LENGTHS. OR FIT OF MATERIALS.
- THE STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHODS OF CONSTRUCTION UNLESS SO STATED OR NOTED. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE WORKMEN AND OTHER PERSONS DURING CONSTRUCTION.
- 10. THE CONTRACTOR SHALL PROVIDE TEMPORARY ERECTION BRACING AND SHORING OF ALL STRUCTURAL WORK AS REQUIRED FOR STABILITY OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY CONDITION WHICH, IN HIS OPINION, MIGHT ENDANGER THE STABILITY OF THE STRUCTURE OR CAUSE DISTRESS IN THE STRUCTURE.
- 11. CONSTRUCTION MATERIALS SHALL NOT BE STORED ON FLOORS OR ROOFS IN EXCESS OF THE DESIGN LIVE LOADS. IMPACT SHALL BE AVOIDED WHEN PLACING MATERIALS ON FLOORS OR ROOFS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENFORCE THESE REQUIREMENTS.
- 12. IF ANY INCONSISTENCIES OR DISCREPANCIES OCCUR WITHIN OR BETWEEN THE DRAWINGS AND SPECIFICATIONS. THE GREATER QUANTITY OF ITEMS SHOWN, AND THE MOST COSTLY PRODUCT OR INSTALLATION METHOD SHALL BE PROVIDED. UNLESS INSTRUCTED OTHERWISE BY THE ENGINEER. IT SHALL BE DEEMED THAT THE CONTRACTOR BID AND INTENDS TO EXECUTE THE MORE STRINGENT OR HIGHER QUALITY REQUIREMENTS WITHOUT ANY INCREASE TO THE CONTRACT SUM OR CONTRACT TIME.
- 13. THE CONSTRUCTION DATUM AT FINISHED FLOOR = 100' 0". REFER TO THE CIVIL PLANS FOR THE ACTUAL ELEVATION AT THE BUILDING.

METAL DECKING

- . ALL METAL DECKING SHALL COMPLY WITH THE SPECIFICATIONS OF THE STEEL DECK INSTITUTE FOR DESIGN AND ERECTION.
- 2. METAL DECKING SHALL BE INSTALLED CONTINUOUSLY ACROSS 3 OR MORE SPANS. DECKING SHALL BE ATTACHED TO STEEL AND FRAMEWORK IMMEDIATELY AFTER ALIGNMENT.
- 3. TYPICAL ROOF DECK SHALL BE 22 GAGE. 3" DEEP WIDE RIB DECK, ASTM A446, MINIMUM YIELD POINT OF 33,000 PSI, WITH MANUFACTURER'S STANDARD BAKED ON COATING, U.N.O. AT APPARATUS BAYS. ATTACH TO SUPPORTS IN 24/4 PATTERN WITH 5/8" DIA. PUDDLE WELDS. PROVIDE 8-#10 TEK SCREW SIDELAP FASTENERS PER SPAN. METAL DECK SHALL HAVE A DIAPHRAGM SHEAR CAPACITY OF 310 PLF.

EARTHWORK AND FOUNDATIONS

- 1. THE FOUNDATION DESIGN IS IN ACCORDANCE WITH A GEOTECHNICAL REPORT BY ALPHA TESTING, INC. DATED DECEMBER 18, 2013 (PROJECT NUMBER G132036) EXCERPTS FROM THE ABOVE REFERENCED REPORT ARE PROVIDED FOR INFORMATIONAL PURPOSES. REFER TO THE GEOTECHNICAL REPORT FOR SUBGRADE PREPARATION REQUIREMENTS.
- 2. RECOMMENDATIONS FROM THE GEOTECHNICAL REPORT ALLOW FOR MAXIMUM TOTAL MOVEMENT AFTER CONSTRUCTION OF 1".
- 3. A QUALIFIED GEOTECHNICAL ENGINEER SHALL BE RETAINED BY THE OWNER, TO OBSERVE ALL GRADING OPERATIONS AND THE REQUIRED TESTING FOR IMPLEMENTING THE RECOMMENDATIONS OF THE AFOREMENTIONED GEOTECHNICAL REPORT AND THE SPECIFICATIONS. THESE TESTS AND OBSERVATIONS SHOULD INCLUDE BUT NOT NECESSARILY BE LIMITED TO THE FOLLOWING:
- OBSERVATION AND TESTING DURING SITE PREPARATION AND EARTHWORK CONSULTATION AS REQUIRED DURING CONSTRUCTION
- VERIFY THAT THE BUILDING PAD IS SUITABLE FOR CONSTRUCTION OBSERVATION OF THE PIER DRILLING OPERATION AND VERIFICATION THAT THE BEARING STRATA OF THE DESIGN BEARING CAPACITY HAS BEEN ENCOUNTERED.
- LOCATE ALL UTILITIES AND UNDERGROUND SERVICES PRIOR TO FOUNDATION 4. EXCAVATION. THE ENGINEER SHALL BE NOTIFIED IN CASE OF CONFLICT.
- THE SUBGRADE SHALL BE STRIPPED OF ANY EXISTING PAVEMENTS, STRUCTURES. SURFACE VEGETATION, HIGHLY ORGANIC SOIL, AND ANY OTHER DELETERIOUS MATERIALS. EXCAVATE TO PROPOSED BEARING ELEVATIONS, AND REMOVE ANY LOOSE MATERIALS, DETACHED ROCK OR UNSUITABLE FILL MATERIAL, AND BACKFILL WITH LEAN CONCRETE AS OUTLINED IN THE GEOTECHNICAL REPORT.
- THE CONCTRACTOR SHALL ENGAGE A REGISTERED SURVEYOR TO PERFORM 6. SURVEYS, LAYOUTS, AND MEASUREMENTS FOR PIER WORK. THIS INCLUDES LAYOUT WORK FOR EACH PIER TO LINES AND LEVELS REQUIRED BEFORE EXCAVATION, AND MEASUREMENTS OF EACH PIER'S ACTUAL FINAL LOCATION. PIERS SHALL BE CONSTRUCTED WITHIN THE FOLLOWING CENTERLINE TOLERANCES:
- MAXIMUM PERMISSIBLE VARIATION OF LOCATION: NOT MORE THAN 1".
- SHAFTS OUT OF PLUMB: NOT MORE THAN 1% OR 2". CONCRETE CUT-OFF ELEVATION: PLUS 1" TO MINUS 2".
- THE CONTRACTOR SHALL NOTIFY THE GEOTECHNICAL ENGINEER 24 HOURS PRIOR TO 7. COMMENCEMENT OF DRILLING. EACH PIER EXCAVATION SHALL BE INSPECTED BY THE GEOTECHNICAL ENGINEER PRIOR TO CONCRETING.
- DRILLED PIERS ARE DESIGNED FOR AN ALLOWABLE END BEARING OF 20,000 PSF FOR BEARING IN TAN WEATHERED SHALY LIMESTONE AND/OR GRAY SHALY LIMESTONE, AND AN ALLOWABLE SKIN FRICTION OF 3,000 PSF AT A MINIMUM PENETRATION OF 3'-0" INTO TAN WEATHERED SHALY LIMESTONE. A QUALIFIED GEOTECHNICAL ENGINEER SHALL VERIFY THAT THESE VALUES ARE APPROPRIATE FOR THE MATERIALS ENCOUNTERED.

CONCRETE AND REINFORCING STEEL SHALL BE PLACED IMMEDIATELY AFTER THE EXCAVATION HAS BEEN COMPLETED AND INSPECTED BY THE GEOTECHNICAL ENGINEER 9. TO ASSURE COMPLIANCE WITH DESIGN ASSUMPTIONS AND TO VERIFY:

THE BEARING STRATUM

14.

- THE MINIMUM PENETRATION
- THE REMOVAL OF ALL SMEAR ZONES AND CUTTINGS THAT GROUNDWATER SEEPAGE IS CORRECTLY HANDLED
- THE COMPETENCE OF THE BEARING STRATUM FOR THE FULL SECTION OF THE DESIGN PENETRATION

PROVIDE PIER BOLSTERS AND CENTERING DEVICES FOR PIER REINFORCEMENT BY PIERESEARCH OR APPROVED EQUAL

- "MUSHROOMING" AT THE TOP OF THE PIERS IS PROHIBITED.
- 11. EXCAVATIONS FOR THE SHAFTS MUST BE MAINTAINED IN THE DRY, IT SHOULD BE ANTICIPATED THAT SEEPAGE WILL BE ENCOUNTERED DURING EXCAVATION OF THE 12. SHAFT AND THAT CASING WILL BE REQUIRED. THE CASING SHALL BE SEATED IN THE TOP OF THE ROCK BEARING STRATUM WITH ALL SOIL. WATER AND LOOSE MATERIAL OR DETACHED ROCKS REMOVED PRIOR TO BEGINNING THE DESIGN PENETRATION. CARE MUST THEN BE TAKEN THAT A SUFFICIENT HEAD OF PLASTIC CONCRETE IS MAINTAINED WITHIN THE CASING DURING EXTRACTION.
- PIER EXCAVATIONS SHALL BE DRY AND FREE OF SOIL AND DELETERIOUS MATERIALS PRIOR TO CONCRETE PLACEMENT. THE PENETRATION OF INDIVIDUAL SHAFTS SHALL BE 13. EXCAVATED IN A CONTINUOUS OPERATION AND CONCRETE PLACED AS SOON AS PRACTICAL AFTER COMPLETION OF THE DRILLING IN ORDER TO PREVENT DETERIORATION OF BEARING SURFACES AND TO REDUCE THE POSSIBILITY OF SEEPAGE PROBLEMS. NO SHAFT SHALL BE LEFT OPEN FOR MORE THAN 8 HOURS.

THE GRADE BEAMS SHALL BE FORMED ON BOTH SIDES. EARTH FORMING IS PROHIBITED.

- JOINTS IN CONCRETE ABUTTING THE BUILDING SHALL BE THOROUGHLY SEALED TO PREVENT THE INFILTRATION OF SURFACE WATER.
- A 10 MIL POLYETHYLENE VAPOR BARRIER SHALL BE PLACED BENEATH THE SLAB TO RETARD MOISTURE MIGRATION THROUGH THE SLAB.
- AFTER THE AREA BENEATH THE SLAB HAS BEEN STRIPPED, 5 FEET OF EXISTING SOIL SHALL BE REMOVED AND REPLACED WITH 5 FEET OF SELECT FILL

CAST IN PLACE CONCRETE

- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE MOST RECENT EDITION OF ACI 318, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE".
- MILD STEEL REINFORCING BARS SHALL CONFORM TO ASTM A 615, GRADE 60.
 - 3. WELDED STEEL WIRE FABRIC SHALL CONFORM TO ASTM A 185. ALL WELDED STEEL WIRE FABRIC SHALL BE SUPPLIED IN FLAT SHEETS, NOT IN ROLLS.
 - 4. MILD STEEL REINFORCEMENT AND ACCESSORIES SHALL BE DETAILED AND FABRICATED IN ACCORDANCE
- PORTLAND CEMENT SHALL BE A SINGLE BRAND CONFORMING TO ASTM C 150, TYPE I OR II, UNLESS OTHERWISE NOTED.
- 6. NORMAL WEIGHT AGGREGATES SHALL CONFORM TO ASTM C 33. ALL CONCRETE SHALL USE NORMAL WEIGHT AGGREGATES, UNLESS NOTED OTHERWISE.
- 7. ALL ADDITIVES FOR AIR ENTRAINMENT, WATER REDUCTION, AND SET CONTROL SHALL BE USED IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS. THE USE OF CALCIUM CHLORIDE IS PROHIBITED.
- 8. MIXES SHALL BE DESIGNED TO PROVIDE CONCRETE WITH A COMPRESSIVE STRENGTH AT 28 DAYS (f'c)

-PIERS	3,000
-STRUCTURAL SLAB AND GRADE BEAMS	5,000 PS
-ALL OTHER CONCRETE	3.000 P

9. THE MAXIMUM NOMINAL SIZE OF COARSE AGGREGATE SHALL BE AS FOLLOWS: -ELEVATED SLABS AND BEAMS.

-PIERS AND SLABS-ON-GRADE. -ALL OTHER CONCRETE.

10. CONCRETE EXPOSED TO WEATHER SHALL BE AIR ENTRAINED AS FOLLOWS -3/4" MAX. AGGREGATE ..3 1/2% TO 6 1/2% -1' MAX. AGGREGATE. ..3% TO 6% ..3% TO 6% -1 1/2" MAX. AGGREGATE

AIR CONTENT SHALL BE CHECKED BY AN ACI APPROVED TESTER WITH AN AIR METER.

11. CONCRETE SLUMPS SHALL BE AS FOLLOWS:

..3" MAX. -RAMPS AND SLOPING SURFACES. -CONCRETE CONTAINING SUPERPLASTICIZER. ..8" MAX. ..6" MAX. -ALL OTHER CONCRETE ..4" MAX.

- 12. MILD STEEL REINFORCEMENT SHALL BE PLACED AND SECURED IN ACCORDANCE WITH CRSI "RECOMMENDED PRACTICE FOR PLACING REINFORCING BARS".
- 13. CONCRETE PROTECTION FOR REINFORCEMENT SHALL BE AS FOLLOWS (UNLESS NOTED OTHERWISE ON

...1 1/2" TOP AND SIDES -GRADE BEAMS. .3" BOTTOM -SUSPENDED SLAB. .1 1/2" TOP .2" BOTTOM -SLABS-ON-GRADE. ..1 1/2" TOP .3" BOTTOM .3" SIDES AND BOTTOM

- 14. REINFORCING BARS NO. 11 AND SMALLER SHALL BE CONTACT LAP SPLICED 65 BAR DIAMETERS, UNLESS NOTED OTHERWISE. BARS LARGER THAN NO. 11 SHALL BE MECHANICALLY SPLICED WITH APPROVED DEVICES. WELDED WIRE FABRIC SHALL BE SPLICED BY LAPPING ONE FULL MESH AND LACING THE SPLICES WITH WIRE. ALL SPLICES SHALL BE STAGGERED.
- 15. WELDING OF MILD STEEL REINFORCEMENT SHALL CONFORM TO THE AMERICAN WELDING SOCIETY "STRUCTURAL WELDING CODE – REINFORCING STEEL," AWS D-1.4.
- 16. THE TESTING LABORATORY SHALL BE NOTIFIED AFTER THE MILD STEEL REINFORCEMENT AND EMBEDS ARE POSITIONED PRIOR TO EACH CONCRETE PLACEMENT. NO CONCRETE SHALL BE PLACED UNTIL THESE ITEMS ARE CHECKED AND APPROVED BY THE TESTING LABORATORY.
- 17. EACH AREA OF CONCRETE WORK SHALL BE FINISHED AND CURED IN ACCORDANCE WITH THE SPECIFICATIONS. CHAMFERS SHALL BE PROVIDED IN ACCORDANCE WITH THE ARCHITECTURAL DRAWINGS.
- 18. THE USE OF FLY ASH AS A PARTIAL REPLACEMENT FOR CEMENT WILL BE ALLOWED AT THE CONTRACTOR'S OPTION. FLY ASH SHALL MEET THE REQUIREMENTS OF ASTM C 618, CLASS F OR C, WITH THE FOLLOWING AMENDMENTS: A CLASS F FLY ASH CAN REPLACE 20 TO 30 PERCENT OF THE PORTLAND CEMENT AND A CLASS C FLY ASH CAN REPLACE 25 TO 35 PERCENT. REFER TO SPECIFICATIONS FOR MINIMUM CONTENT REQUIREMENTS AND SUBMITTAL REQUIREMENTS. FLY ASH SHALL NOT BE USED IN CONCRETE MIXES FOR STRUCTURAL SLAB AND OTHER ARCHITECTURALLY EXPOSED CONCRETE.
- 19. EMBEDDED ITEMS WITH HEADED CONCRETE ANCHORS (HCA) SHALL BE INSTALLED IN PLASTIC CONCRETE IN ORDER TO MINIMIZE ADJACENT VOIDS AND ENSURE PROPER BEHAVIOR OF HCA. THE CONCRETE SURROUNDING THESE EMBEDDED ITEMS SHALL BE THOROUGHLY CONSOLIDATED.
- 20. FLOOR SLAB THICKNESS IS BASED UPON SERVICE LOADS ONLY. PLACEMENT OF A CRANE OR TRUCK ON THE FLOOR SLAB FOR ERECTION PURPOSES IS STRICTLY PROHIBITED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR PROVIDING AND ADEQUATE SLAB TO SUPPORT CRANE LOADS IF CRANES ARE REQUIRED TO BE PLACED ON THE SLAB.
- 21. CONCRETE SHALL REACH 75% OF SPECIFIED STRENGTH BEFORE CONSTRUCTION LOADS ARE APPLIED.
- 22. IF THE AIR TEMPERATURE IS EXPECTED TO BE GREATER THAN 90 DEGREES WITHIN 24 HOURS AFTER PLACEMENT, HOT WEATHER CONCRETE PROCEDURES SHALL BE USED. CURING COMPOUNDS SHALL NOT BE USED ON STRUCTURAL SLAB.

STEEL

- 1. STRUCTURAL STEEL SHALL BE NEW STEEL AND SHALL CONFORM TO THE AISC "SPECIFICATION FOR THE DESIGN. FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".
- 2. STRUCTURAL STEEL W-SHAPES SHALL CONFORM TO ASTM A 992, UNLESS NOTED OTHERWISE
 - OTHER ROLLED SHAPES AND PLATES SHALL CONFORM TO ASTM A 36, UNLESS NOTED OTHERWISE.
 - 3. STRUCTURAL STEEL PIPE SHALL CONFORM TO ASTM A 53, TYPE "E" OR "S", GRADE B.
 - 4. HOLLOW STRUCTURAL SECTIONS SHALL CONFORM TO ASTM A 500, GRADE B.
 - 5. SHEAR STUDS SHALL CONFORM TO AWS D1.1, TYPE B.
- 6. ALL STRUCTURAL STEEL CONNECTIONS AND DETAILS SHALL CONFORM TO THE AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES", DATED MARCH 2005, EXCLUDING SECTION 4.4.
- 7. ALL CONNECTIONS NOT FULLY DETAILED ON DRAWINGS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF TEXAS. CONNECTION DESIGNS SHALL COMPY WITH ALL APPLICABLE PROVISIONS OF THE AISC MANUAL, THIRTEENTH EDITION LRFD. CONNECTIONS SHALL BE DESIGNED FOR THE FACTORED LOADS SHOWN ON THE DRAWINGS. WHERE DESIGN LOADS ARE NOT SHOWN. THE CONNECTION SHALL BE DESIGNED FOR ONE-HALF OF THE TOTAL UNIFORM LOAD TABULATED IN THE 'FACTORED UNIFORM LOAD TABLES' IN PART 4 OF THE AISC MANUAL FOR THE GIVEN BEAM, SPAN, AND GRADE OF STEEL SPECIFIED. EACH CONNECTION SHALL BE SHOWN IN DETAIL ON THE SHOP DRAWINGS AND SUBMITTED TO THE ENGINEER-OF-RECORD FOR REVIEW.
- 8. UNLESS NOTED OTHERWISE, ANCHOR RODS FOR CONNECTION OF COLUMN BASE PLATES TO CONCRETE FOUNDATION ELEMENTS SHALL CONFORM TO ASTM F 1554, GRADE 36.
- 9. UNFINISHED THREADED FASTENERS SHALL CONFORM TO ASTM A 307, GRADE A BOLTS AND NUTS WITH HEXAGONAL HEADS. UNFINISHED THREADED FASTENERS SHALL BE USED ONLY FOR BOLTED CONNECTIONS OF SECONDARY FRAMING MEMBERS TO PRIMARY MEMBERS, FOR TEMPORARY BRACING TO FACILITATE ERECTION. AND FOR ANCHORAGE TO MASONRY CONSTRUCTION.
- 10. BOLTED CONNECTIONS FOR PRIMARY MEMBERS SHALL CONFORM TO THE REQUIREMENTS OF THE AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A 325 OR A 490 BOLTS", DATED JUNE 30, 2004. UNLESS NOTED OTHERWISE, ALL PRIMARY CONNECTIONS WITH HIGH STRENGTH BOLTS SHALL USE ASTM A 325 BOLTS AND HEAVY HEX NUTS.
- 11. WELDED CONSTRUCTION SHALL CONFORM TO AWS D-1.1, "STRUCTURAL WELDING CODE." WELDING PROCESSES AND OPERATORS SHALL BE QUALIFIED IN ACCORDANCE WITH AWS STANDARD QUALIFICATION PROCEDURE. ELECTRODES FOR FIELD AND SHOP WELDS SHALL BE E70, UNLESS NOTED OTHERWISE. ALL WELDS SHALL BE INSPECTED PER AWS STANDARDS. DEFICIENCIES SHALL BE CORRECTED.
- 12. STEEL MEMBERS SHALL NOT BE SPLICED EXCEPT WHERE SHOWN ON THE DRAWINGS.
- 13. ALL STEEL BEAMS SHALL BE ERECTED WITH NATURAL CAMBER UP.
- 14. ALL ROOF FRAMING SHALL BE PITCHED AND / OR SET ON A SLOPE TO ACHIEVE THE END AND CENTER SPAN ELEVATIONS SHOWN ON THE DRAWINGS.
- 15. ALL STEEL SHAPES, PLATES, AND PIPE SHALL BE PRIMED IN THE SHOP IN ACCORDANCE WITH THE SPECIFICATIONS. ALL BOLTED CONNECTIONS AND FIELD WELDS SHALL BE PAINTED AFTER ERECTION. ANY DAMAGE TO SHOP COATINGS SHALL BE TOUCHED UP AFTER ERECTION.
- 16. ALL EXTERIOR EXPOSED STEEL SHALL BE HOT-DIP GALVANIZED PER THE SPECIFICATIONS. ANY DAMAGE TO GALVANIZED MEMBERS SHALL BE TOUCHED UP AFTER ERECTION.
- 17. WELDS AT ARCHITECTURALLY EXPOSED STEEL SHALL BE GROUND SMOOTH

LIGHTGAGE METAL FRAMING

- 1. ALL STUD AND JOIST MEMBERS SHALL BE BY CLARK. STUDS SHALL HAVE A 1 5/8 INCH FLANGE AND JOISTS SHALL HAVE A 2 INCH FLANGE UNLESS NOTED OTHERWISE. TRACK MEMBERS SHALL HAVE THE SAME GAGE AS THE STUD SPECIFIED. ALL SCREWS SHALL BE Teks BY ITW BUILDEX, OR EQUAL
- 2. ALL MEMBERS AND CONNECTIONS SHALL BE IN ACCORDANCE WITH THE AMERICAN IRON AND STEEL INSTITUTE "SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS" LATEST EDITION.
- 3. WITH EACH TYPE OF METAL FRAMING REQUIRED, PROVIDE MANUFACTURER'S STANDARD STEEL RUNNERS (TRACKS), BLOCKING LINTELS, CLIP ANGLES, SHOES, REINFORCEMENTS, FASTENERS, AND ACCESSORIES AS RECOMMENDED BY MANUFACTURER FOR APPLICATIONS INDICATED. AS NEEDED TO PROVIDE A COMPLETE METAL FRAMING SYSTEM.
- 4. FOR 16 GAUGE AND HEAVIER STUDS AND JOISTS, FABRICATE COMPONENTS OF STEEL SHEET WITH A MINIMUM YIELD POINT OF 50,000 PSI, ASTM A-570, GRADE 50.
- 5. FOR 16 GAUGE AND HEAVIER TRACK, FABRICATE COMPONENTS OF STEEL SHEET WITH A MINIMUM YIELD POINT OF 33,000 PSI, ASTM A-611, GRADE C.
- 6. FOR 18 GAUGE AND LIGHTER STUDS. JOISTS. AND TRACK. FABRICATE COMPONENTS OF STEEL SHEET WITH A MINIMUM YIELD POINT OF 33,000 PSI, ASTM A-611, GRADE C.
- 7. PROVIDE MANUFACTURER'S STANDARD GALVANIZED FINISH TO METAL FRAMING COMPONENTS COMPLYING WITH ASTM A653.
- 8. ALL FRAMING MEMBERS SHALL BE SQUARE CUT FOR A SNUG FIT TO THE ATTACHING MEMBERS. AXIALLY LOADED STUDS SHALL BE INSTALLED TO ENSURE THAT THE ENDS ARE SQUARE AND TOUCH THE RUNNERS. ANY STUDS WHICH DO NOT BEAR DIRECTLY ON THE RUNNERS SHALL HAVE A 14 GAGE CLIP ANGLE ADDED TO THE SIDE OF THE STUD.
- 9. ALL MEMBERS MAY BE INSTALLED WITH SCREWS FOR ERECTION PURPOSES. AFTER ERECTION, ALL CONNECTING MEMBERS SHALL BE WELDED TOGETHER IN THE FIELD. ALL STUDS SHALL BE WELDED TO THE TOP AND BOTTOM TRACKS.
- 10. INSTALL HORIZONTAL BRIDGING IN ALL STUDS AT 4 FEET ON CENTER.
- 11. NO SPLICES OF STUDS IS ALLOWED.
- 12. AT ALL STEEL COLUMNS IN STUD WALLS, WELD A STUD TO EACH FACE OF THE COLUMN WITH A 3 INCH LONG STITCH WELD AT 24 INCHES ON CENTER.
- 13. EXTERIOR WALLS OF LIGHTGAGE FRAMING TO HAVE 1/2" EXTERIOR GRADE PLYWOOD SHEATHING COMPLYING WITH DOC PS 1 OR PS 2. FULL HEIGHT. PLYWOOD SHEATHING SHALL BE ATTACHED TO STEEL FRAMING WITH NO. 8 OR NO. 10. FLAT-HEAD SELF-DRILLING TAPPING SCREWS AT 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE STUDS. PROVIDE SOLID BLOCKING AT ALL PANEL EDGES TO RECEIVE EDGE FASTENERS.
- 14. INTERIOR DESIGNATED SHEAR WALLS OF LIGHTGAGE FRAMING TO HAVE 1/2" PLYWOOD SHEATHING COMPLYING WITH DOC PS 1 OR PS 2, FULL HEIGHT. PLYWOOD SHEATHING SHALL BE ATTACHED TO STEEL FRAMING WITH NO. 8 OR NO. 10, FLAT-HEAD SELF-DRILLING TAPPING SCREWS AT 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE STUDS. PROVIDE SOLID BLOCKING AT ALL PANEL EDGES TO RECEIVE EDGE FASTENERS.
- 15. PROVIDE FLAT STRAP BOTTOM BRIDGING AT LEAST ONE INCH WIDE BY 12 GAGE AT 1/4 POINTS OF JOISTS, OR 8'-0" O.C., WHICHEVER IS LEAST. BRIDGING SHALL BE ATTACHED TO JOISTS WITH A MINIMUM OF TWO #12 TEK SCREWS. ANY TOP FLANGE BRIDGING REQUIRED FOR ERECTION SHALL BE INSTALLED AS REQUIRED.
- 16. CLIPS. HOLD-DOWNS. AND JOIST HANGERS SHALL BE SIMPSON CONNECTORS AND SHALL BE INSTALLED ACCORDING TO THE SPECIFICATIONS OF SIMPSON STRONG-TIE COMPANY, INC.
- 17. SILL PLATES AT EXTERIOR WALLS AND DESIGNATED SHEAR WALLS SHALL BE BOLTED TO THE FOUNDATION WITH EITHER SIMPSON TITAN HD (1/2 INCH DIA., 4 INCH MINIMUM EMBEDMENT) AT 16 INCHES O.C. OR SIMPSON SSTB16 ANCHOR BOLTS AT 24 INCHES O.C.
- 18. HOLD-DOWNS AT EXTERIOR WALLS AND DESIGNATED SHEAR WALLS SHALL BE SIMPSON S/HD15S HOLDOW WITH 1 INCH DIAMETER ANCHOR RODS (12" MIN. EMBEDMENT) OR 1 INCH DIAMETER ANCHOR ROD WITH SET XP ADHESIVE (18 INCH MIN. EMBEDMENT).

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Project Status

GENERAL NOTES

Original Issue Date: 1-21-14
Revisions:

LUCAS CENTRAL FS
165 COUNTRY CLUB ROAD LUCAS, TX 7500

TON HOOKER JEFFRY

A R C H I T E C

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Project Status

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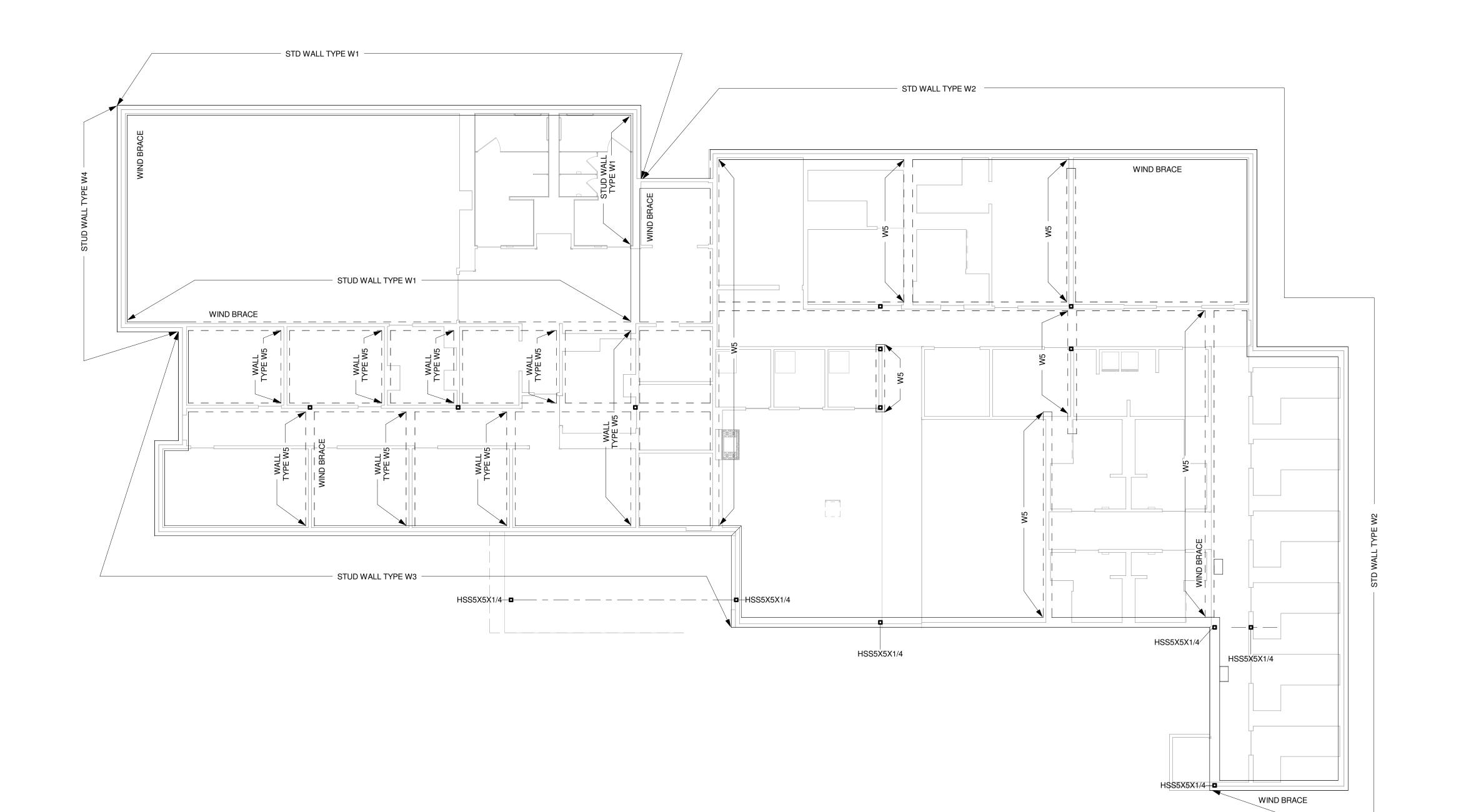
PAUL J RIELLY
TEXAS REGISTRATION No. 61307
DATE: 1-24-2014

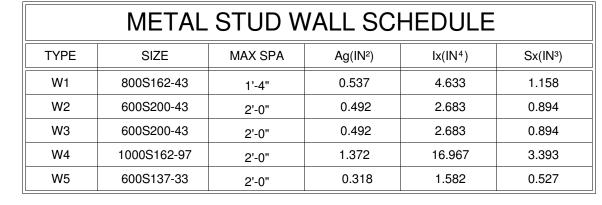
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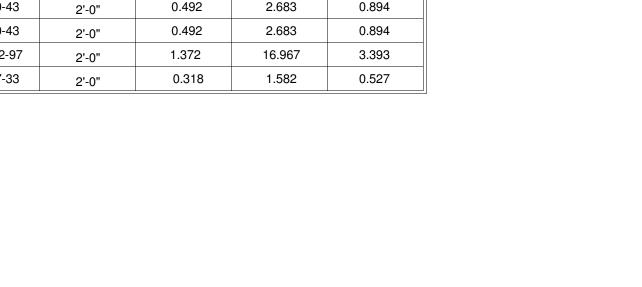
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S.1

SLAB ON GRADE FOUNDATION PLAN







CR RUNNER
AS PERIMETER
CLOSURE

CLOSURE

CLOSURE

CLOSURE

CLOSURE

APPLIED

HOT ROLLED
ANGLE

ANGLE

WELDS AS
REQUIRED

ADDITIONAL
STUDS AS
REQUIRED

HOT-ROLLED
CHANNEL
STUDS AS
REQUIRED

HOT-ROLLED
CHANNEL
STUDS AS
RECUIRED

HOT-ROLLED
CHANNEL
STUDS AS
RECUI

2 TYP WIND BRACE 3/4" = 1'-0"

LOAD BEARING LIGHT GAGE METAL STUD WALL PLAN 1/8" = 1'-0"

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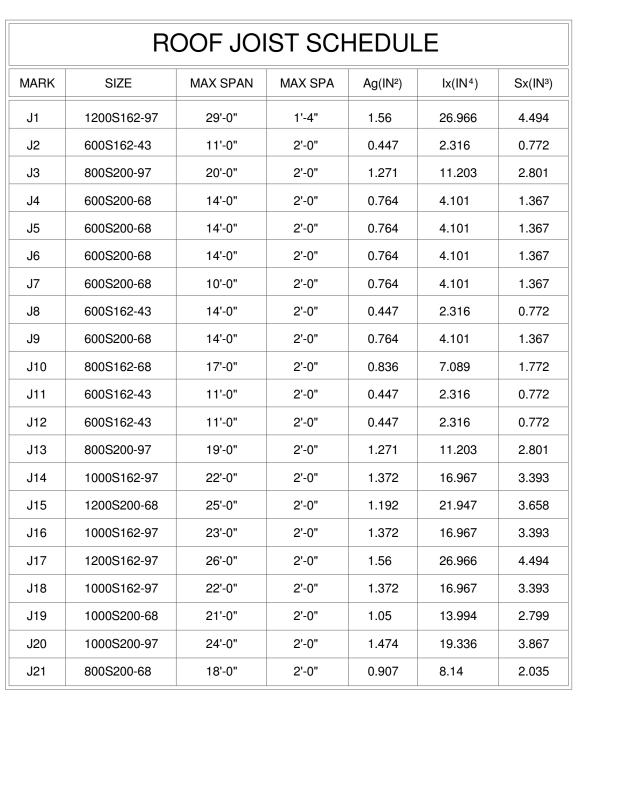
PAUL J RIELLY
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DATE: 1-24-2014

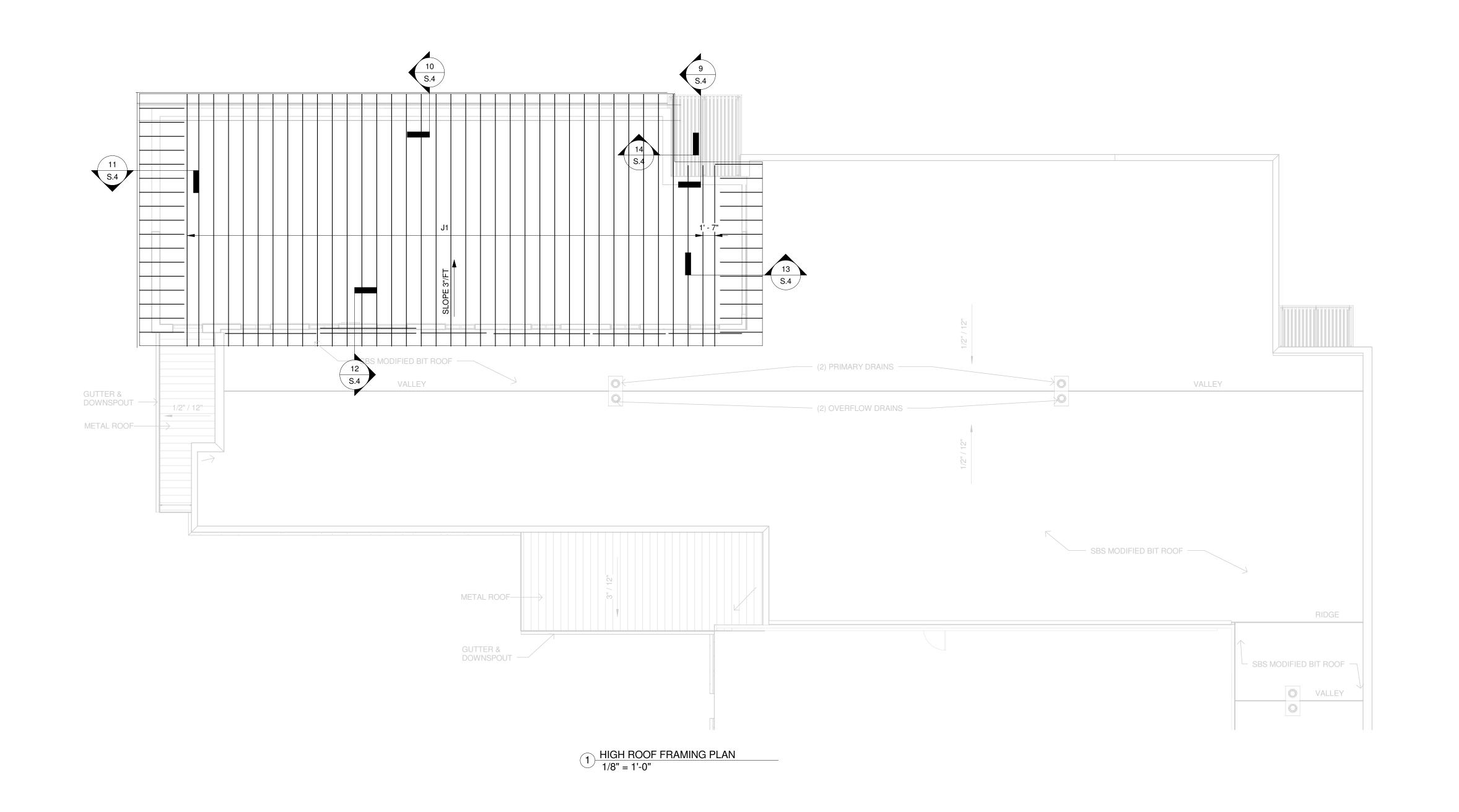
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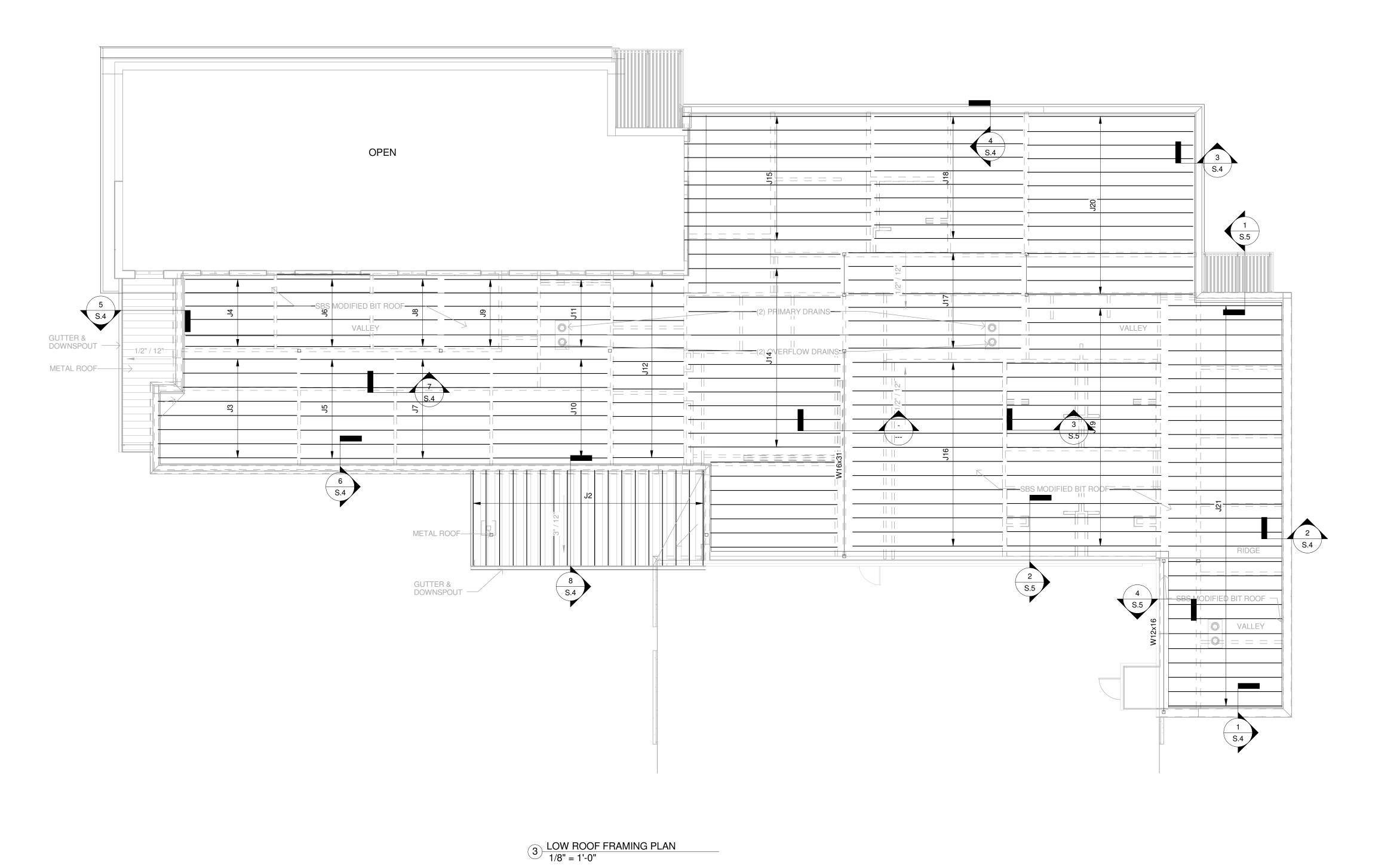
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S.2

LOAD BEARING LIGHT
GAGE METAL STUD
WALL PLAN



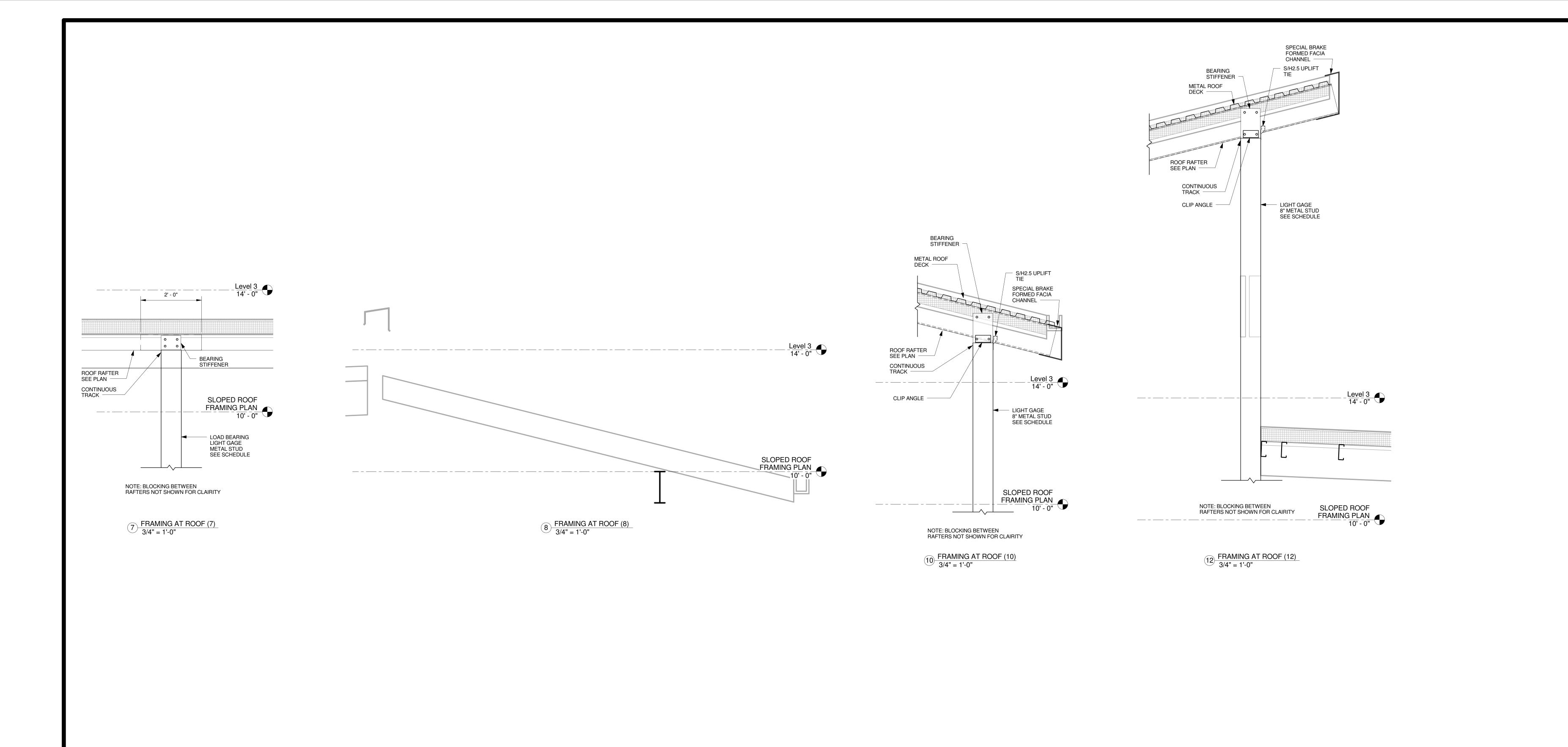




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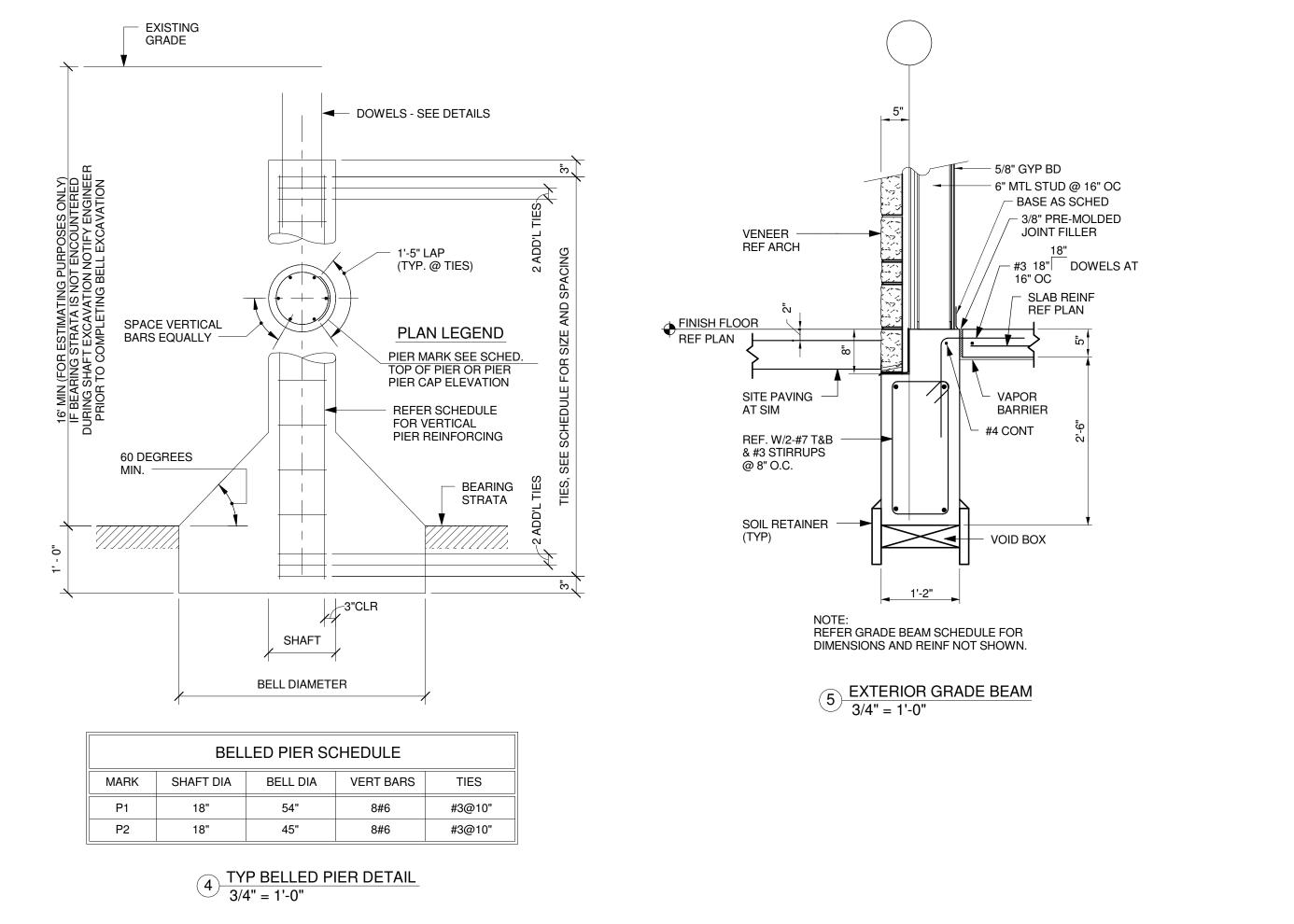
ROOF FRAMING PLAN

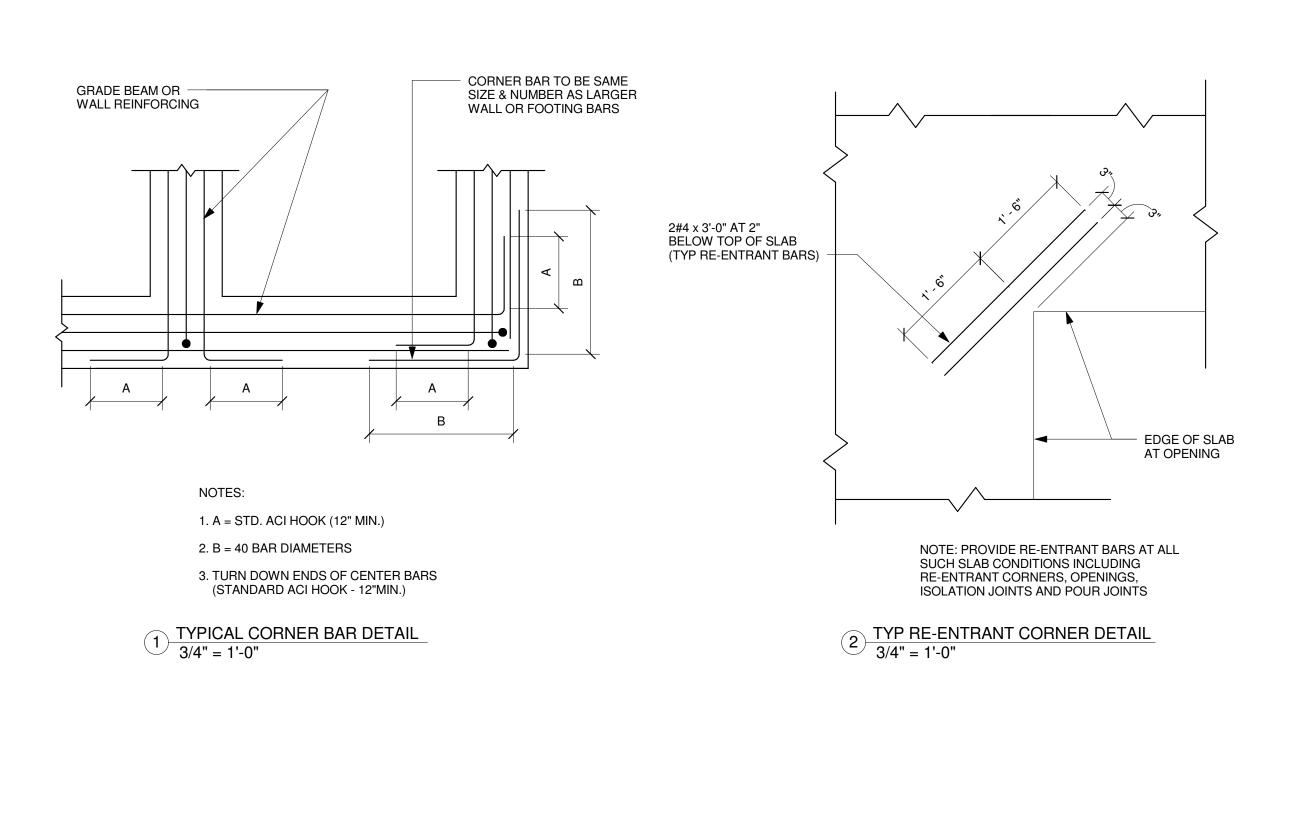


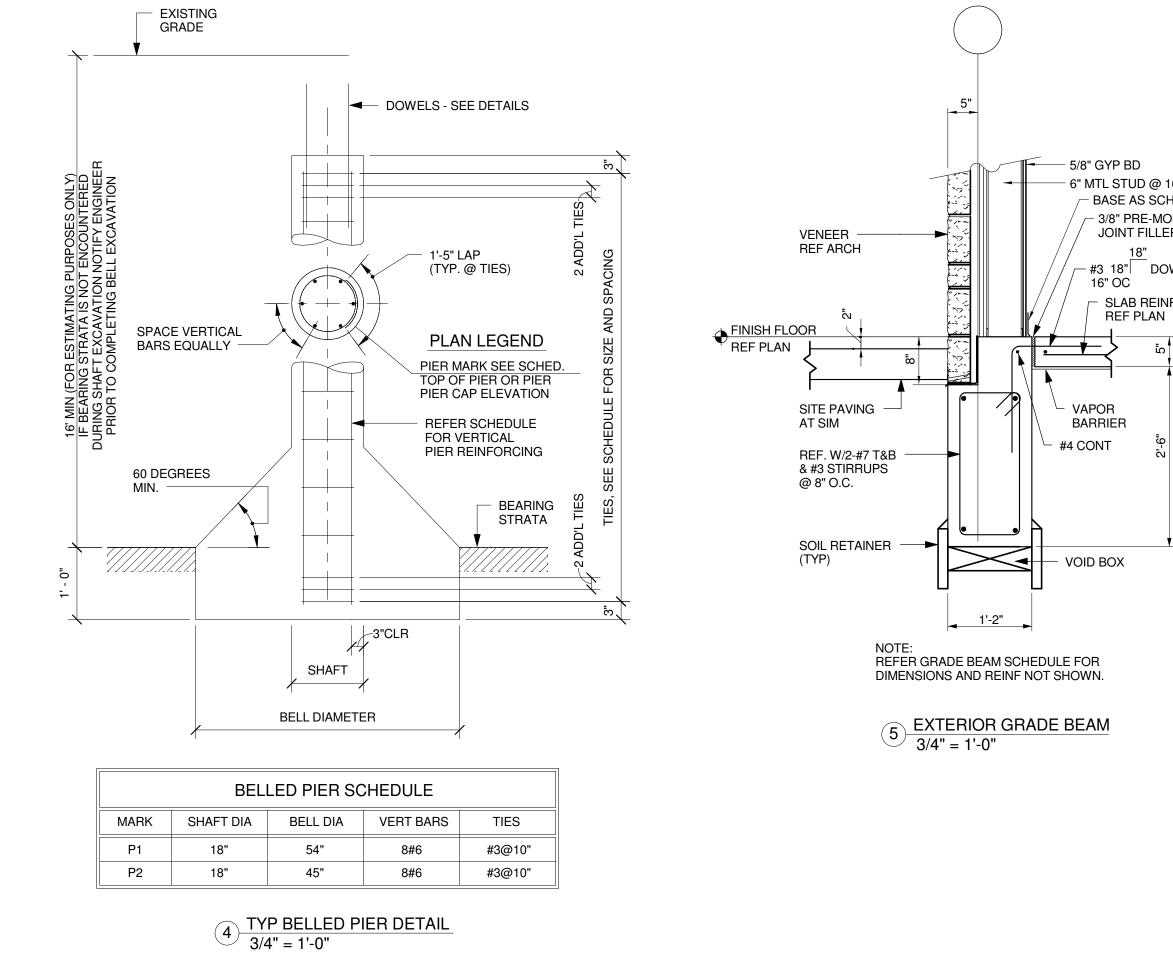
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FRAMING DETAILS







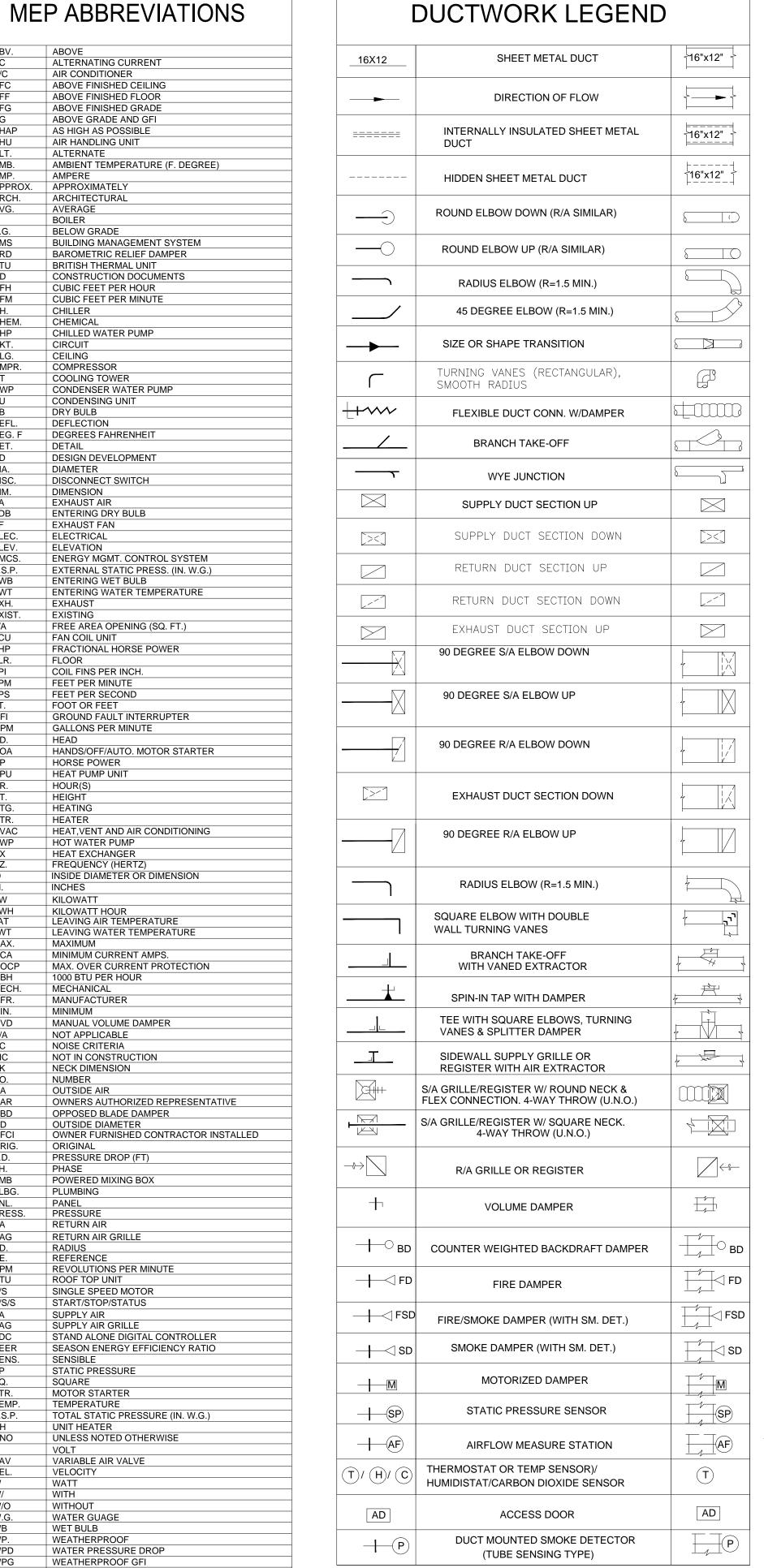
NOTES:
 FOR SLAB THICKNESS "T", REINFORCING AND JOINT LOCATION REF. PLAN.
 1/2" DIA. x 2'-0" LONG SMOOTH DOWELS AT 18" O.C.
 1/8" WIDE SAWCUT AS SOON AS POSSIBLE AFTER FINISHING THE SLAB WITHOUT DISLODGING AGGREGATE. FILL SAWCUT WITH MM80 BY METZGER/ McGUIRE OR APPROVED EQUAL.
 SUBGRADE: REF. EARTHWORK AND FOUNDATION SECTION OF GENERAL NOTES.
 15 MIL POLYOLEFIN VAPOR BARRIER. REF. PLAN FOR LOCATIONS.
 FILL CONSTRUCTION JOINTS WITH SAME MATERIAL USED TO FILL CONTROL JOINTS. SAWCUT AS REQUIRED TO PROVIDE MINIMUM 1/8" WIDE JOINT PRIOR TO FILLING.

3 TYPICAL SLAB ON GRADE DETAILS
3/4" = 1'-0"

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FOUNDATION DETAILS

CHAEL JOSEPH SMITH P.E TEXAS REGISTRATION #8733 04, April 2014



ALL SYMBOLS ON THIS LIST ARE NOT NECESSARILY USED ON THIS PROJECT.

C 700 PPM ---- 15 CFM/PERSON

(C)₄ 500 PPM ---- 20 CFM/PERSON

(C)₂ 350 PPM ---- 30 CFM/PERSON

ASHRAE CO 2 DIFFERENTIAL

ALTERNATING CURRENT

ABOVE FINISHED CEILING

ABOVE FINISHED FLOOR

ABOVE FINISHED GRADE

ABOVE GRADE AND GF

AS HIGH AS POSSIBLE

AIR HANDLING UNIT

ALTERNATE

AVERAGE

CHILLER

CHEMICAL

COMPRESSOR

DRY BULB

DEFLECTION

DIAMETER

DIMENSION

EXHAUST AIR

EXHAUST FAN

ELECTRICAL

ELEVATION

EXHAUST

FAN COIL UNIT

COIL FINS PER INCI

FEET PER SECOND

GALLONS PER MINUTE

FEET PER MINUTE

FOOT OR FEET

HORSE POWER

HEAT PLIMP LINIT

HOT WATER PUMP

HEAT EXCHANGER

FREQUENCY (HERTZ)

LEAVING AIR TEMPERATURE

MINIMUM CURRENT AMPS.

MANUAL VOLUME DAMPER

OPPOSED BLADE DAMPER

PRESSURE DROP (FT)

POWERED MIXING BOX

NOT IN CONSTRUCTION

1000 BTU PER HOUR

HOUR(S)

HEATING

HEATER

INCHES

KILOWAT

MAXIMUM

MECHANICAL

MINIMUM

MANUFACTURER

NOT APPLICABLE

NECK DIMENSION

OUTSIDE AIR

PLUMBING

PANEL PRESSURE

RETURN AIR

REFERENCE

ROOF TOP UNIT

SINGLE SPEED MOTOR

START/STOP/STATUS

SUPPLY AIR GRILLE

STATIC PRESSURE

MOTOR STARTER

TEMPERATURE

JNIT HEATER

VELOCITY

WITHOUT

WATER GUAGE WET BULB

WEATHERPROOF

TRANSFORMER

WATER PRESSURE DROP

WEATHERPROOF GFI

VARIABLE AIR VALVE

RADIUS

RETURN AIR GRILLE

REVOLUTIONS PER MINUTE

NOISE CRITERIA

KILOWATT HOUR

HEIGHT

HTG.

MECH.

PLBG.

EXISTING

FLOOR

COOLING TOWER

CONDENSING UNIT

DEGREES FAHRENHEIT

DESIGN DEVELOPMENT

DISCONNECT SWITCH

ENTERING DRY BULB

ENTERING WET BULB

CIRCUI^{*}

BELOW GRADE

BRITISH THERMAL UNIT

CUBIC FEET PER HOUR

CUBIC FEET PER MINUTE

CHILLED WATER PUMP

CONDENSER WATER PUMP

APPROXIMATELY ARCHITECTURAL

APPROX.

CH. CHEM.

AIR CONDITIONER

COMPRESSED AIR TAP FLOAT AND THERM. TRAP BUCKET STEAM TRAP PIPE SIZE REDUCER (CONCENTRIC) $\longrightarrow \longrightarrow$ PIPE SIZE REDUCER (ECCENTRIC) ALL SYMBOLS ON THIS LIST ARE NOT NECESSARILY USED ON THIS JOB. FIRE PROTECTION SYMBOLS (ALL SYMBOLS MAY NOT APPEAR ON DRAWINGS.) FLOW SWITCH RISE UP ON PIPING DROP IN PIPING POST INDICATOR VALVES (PIV) TAMPER SWITCH FOR VALVES OPEN SCREW AND YOKE VALVE (OS&Y) FIRE DEPARTMENT PENDANT SPRINKLER CONNECTION UPRIGHT SPRINKLER OR UP AND DOWN SPRINKLER AT RISE(SPRIG) SAME LOCATION

TRADE SHALL BE RESPONSIBLE FOR COORDINATION WITH OTHER TRADES. PIPING IS SHOWN IN SCHEMATIC FORM. ROUTE PIPING AS REQUIRED FOR CLEARANCE WITH STRUCTURAL CONDITIONS. COORDINATE WITH OTHER MANUALLY CALIBRATED BALANCING VALVE TRADES AS REQUIRED. PIPING SHALL BE INSTALLED WITH ADEQUATE SLOPE AS REQUIRED FOR EACH PARTICULAR SYSTEM. AUTOMATIC FLOW CONTROL VALVE UNION OR COMPANION FLANGES PRESSURE & TEMPERATURE TAP (PETES PLUG)

PENDANT SPRINKLER ON

SIDEWALL SPRINKLER

DROP

SYMBOL DESCRIPTION SANITARY SEWER ———— SUBSOIL DRAIN PIPING ---- SD ---- STORM DRAIN ---- OD---- OVERFLOW DRAIN ---- PLUMBING VENT —— - — DOMESTIC COLD WATER ——— - - — DOMESTIC TEMPERED WATER (130 F) ————— DOMESTIC TEMPERED WATER RECIRC. — 140 ——— DOMESTIC HOT WATER (140 F) F INE BRANCH FIRE LINE WITH SPRINKLER HEADS —— MG —— MEDIUM PRESSURE NATURAL GAS LINE — G — LOW PRESSURE NATURAL GAS LINE REFRIGERANT LIQUID LINE HOT WATER FOR HEATING RETURN CONDENSATE DRAIN LINE (HVAC) PC PUMPED CONDENSATE ACID WASTE PIPING ACID VENT PIPING COMPRESSED AIR (SHOP) ____MA ____ MEDICAL AIR

LABORATORY AIR

MEDICAL VACUUM

LABORATORY VACUUM

GENERAL HVAC NOTES:

LINER FOR MIXING OR VAV BOXES.

ALL MOTOR DRIVEN EQUIPMENT.

REQUIRED DUCT SIZE SHOWN.

DRAWINGS FOR WALL TYPES.

BOX FANS UPON SMOKE SIGNAL CLEAR.

ARCHITECTS RECOMMENDATIONS.

VALVES AND DRAIN CONNECTION.

EXTERNALLY INSULATED.

PROPER LOCATION.

ALL PIPING AND DUCTS IN FINISHED ROOMS OR SPACES SHALL BE

ALL DUCTWORK SIZES ARE PROVIDED IN CLEAR INSIDE AIRSTREAM

CONCEALED WITHIN FURRED CHASES OR ABOVE SUSPENDED CEILINGS.

DIMENSIONS. INCREASE DUCT SIZES TO ACCOMMODATE ANY INTERNAL

INSULATION REQUIREMENTS (AS SPECIFIED). PROVIDE A MINIMUM OF 15

LINEAR FT. OF INTERNAL ACOUSTIC LINER ON SUPPLY AND RETURN AIR

PROVIDE FLEXIBLE CONNECTIONS ON AT THE INTAKE AND DISCHARGE OF

ALL FLEXIBLE DUCTWORK SHALL HAVE A MAXIMUM DEVELOPED LENGTH OF

PLANS FOR THE EXACT LOCATION OF ALL CEILING MOUNTED M/E/P DEVICES

PROVIDE VIBRATION ISOLATORS FOR MOTOR-DRIVEN MECHANICAL

6. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL REFLECTED CEILING

INCLUDING BUT NOT LIMITED TO LIGHTS, DIFFUSERS, GRILLES ETC..

AIR DEVICE DUCT SIZES SHALL BE THE SAME SIZE AS SHOWN ON THE

DRAWINGS UNLESS NOTED OTHERWISE. REFER TO THE SCHEDULES FOR

THE CFM RANGES. PROVIDE A TRANSITION FROM THE NECK SIZE TO THE

CONTRACTOR SHALL VERIFY THE EQUIPMENT CLEARANCE REQUIREMENTS

SELECTED EQUIPMENT SHALL BE COORDINATED WITH THE STRUCTURE TO

REQUIRED BY CODE AUTHORITIES FOR DUCT PENETRATIONS THROUGH FIRE

WITH THE MANUFACTURER'S RECOMMENDATIONS. EXACT LOCATION OF

PROVIDE RECOMMENDED CLEARANCES FOR MAINTENANCE

PROVIDE FIRE DAMPERS, FIRE/SMOKE DAMPERS AND FIRE STOP AS

OR SMOKE RATED WALL AND CEILINGS. REFER TO ARCHITECTURAL

ACCESS FOR ALL UNIT ACCESS PANELS, CONTROLS AND VALVING.

CONTRACTOR AND WIRED BY THE ELECTRICAL CONTRACTOR. THE

ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS.

DETECTORS SHALL BE PROVIDED IN THE SUPPLY AND THE RETURN

DUCTWORK (PRIOR TO MIXING WITH THE OUTSIDE AIR) FOR ANY AIR

MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR MOUNTING THE

HANDLING UNIT SYSTEM 2000 CFM SUPPLY AIR AND ABOVE. THE DETECTOR

ALARM SIGNAL TO THE FIRE ALARM PANEL (IF PROVIDED). FOR VAV SYSTEMS

THE BMS SHALL DISABLE ASSOCIATED MIXING BOX FANS UPON DETECTION

OF SMOKE AT EITHER OF THE AHU'S SMOKE DETECTORS. ENABLE MIXING

ALL FLOOR BRANCHES OF PIPE RISERS SHALL BE PROVIDED WITH SHUT OFF

NOTIFY THE ARCHITECT/ ENGINEER OF ANY ROOMS WHERE THE ABOVE

AND CONSTRUCTED ACCORDING TO THE LATEST SMACNA STANDARDS.

ALL DUCTWORK IS SHOWN IN SCHEMATIC FORM. DUCT RISES AND DROPS

REQUIREMENTS AND TO AVOID INTERFERENCE WITH OTHER TRADES, EACH

ARE NOT SHOWN. PROVIDE OFFSETS AS REQUIRED TO MEET SPACE

16. DUCTWORK AND ITS CONSTRUCTION WILL BE GALVANIZED SHEET METAL

LOCATION CAN NOT BE MAINTAINED OR WHERE THERE IS A QUESTION ON

MIDISTAT AND CO2 SENSORS 4'-0" (CENTERLINE) ABOVE FINISHED FLOOR

12. ANY DUCTWORK EXPOSED TO VIEW SHALL BE INTERNALLY LINED VERSES

13. FINISH ALL EXPOSED TO VIEW DUCTWORK AND WALL LOUVERS PER

15. UNLESS OTHERWISE SHOWN, LOCATE ALL ROOM THERMOSTATS,

SHALL BE HARDWIRED TO THE UNITS STARTER TO SHUT DOWN THE FAN

UPON DETECTION OF PRODUCTS OF COMBUSTION AS WELL AS SEND AN

SMOKE DETECTOR IN THE DUCTWORK AS SHOWN ON THE DRAWINGS AND IN

SMOKE DETECTORS SHALL BE FURNISHED BY THE FIRE ALARM

10. LOCATE ALL MECHANICAL EQUIPMENT FOR UNOBSTRUCTED MAINTENANCE

DUCTWORK FROM ANY FCU, AHU, AC, OR RTU (UNO). PROVIDE 8LF INTERNAL

HVAC & PLUMBING, VALVE

& FITTINGS SYMBOLS

TEE

TEE, UP

CROSS

LATERAL

90 DEGREE ELBOW UP

⊣ co | CLEAN OUT

FLOOR DRAIN

DOWN SPOUT

ROOF DRAIN

CHECK VALVE

OS & Y VALVE

GLOBE VALVE

GATE VALVE

BALL VALVE

PLUG VALVE

BUTTERFLY VALVE

SOLENOID VALVE

PRESSURE REDUCING VALVE

PRESSURE RELIEF VALVE

CONTROL, 2 WAY VALVE

CONTROL, 3 WAY VALVE

FLOOR CONTROL VALVE

ANGLE GATE VALVE

ANGLE GLOBE VALVE

STRAINER & BLOW OFF VALVE

PRESSURE GAUGE & COCK

THERMOMETER

THERMOSTAT

HUMIDISTAT

FLOW METER

PIPE GUIDE

HOSE BIBB

FLOW SWITCH

PRESSURE SENSOR

 $\overline{}$

UP SPRINKLER

SYSTEM RISER

HOSE VALVE (ANGLE VALVE)

ANCHOR (PIPE)

EXPANSION JOINT

MANUAL AIR VENT

HOSE END DRAIN

AUTOMATIC AIR VENT

THERMOMETER & WELL

TEMPERATURE SENSOR

FIRE HOSE CABINET

OVERFLOW ROOF DRAIN

BALANCING VALVE (WITH PETE'S PLUG EITHER SIDE)

MOTORIZED ISOLATION VALVE (2-POSITION-24v)

MOTORIZED CONTROL VALVE (MODULATING-24v)

VENT THRU ROOF

HUB DRAIN

TEE, DOWN

SINGLE SWEEP TEE

45 DEGREE ELBOW

90 DEGREE ELBOW

90 DEGREE ELBOW DOWN

SINGLE W.F. LATERAL STUB

DOUBLE W.F. LATERAL STUB

SINGLE W.F. LAT. & TRAP

DOUBLE W.F. LAT & TRAP

FLOOR DRAIN RISER W/TRAP

++

+0+

-121-

-+-

 \leftarrow

D.S.

V.T.R.

CWS—CONDENSER WATER SUPPLY ——— CWR—— CONDENSER WATER RETURN ——— CHS — CHILLED WATER SUPPLY ——— CHR — CHILLED WATER RETURN ——— CS —— TEMPERED CHILLED WATER SUPPLY ------ CR----- TEMPERED CHILLED WATER RETURN — D — DISCHARGE ——FOS— FUEL OIL SUPPLY FOD—— FUEL OIL DISCHARGE ——— FOR—— FUEL OIL RETURN ——FOV— FUEL OIL VENT LINE —— FOF— FUEL OIL FILL ——— LPS —— LOW PRESSURE STEAM (15 PSIG AND BELOW) (16 PSIG THRU 59 PSIG) HIGH PRESSURE STEAM (60 PSIG AND ABOVE) -----SV --- STEAM VENT -- -- HPS- -- HIGH PRESS. CONDENSATE RETURN -- - -- MPR- -- MED. PRES. CONDENSATE RETURN

----- VAC---- VACUUM STEAM COND. RETURN

-- - SDR--- STEAM DRIP RETURN

----- SPR---- STEAM PUMPED RETURN

PIPING DESIGNATIONS

(ALL DESIGNATIONS MAY NOT APPEAR ON DRAWINGS.)

SYMBOL

→ DIRECTION OF FLOW

---- UNDERFLOOR

PR—PRESSURE RELIEF DISCHARGE

EXISTING PIPING

- X- X-X---- EXISTING PIPING TO BE REMOVED

CONNECT TO EXISTING

GENERAL PROJECT NOTES: PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE MECHANICAL SYSTEM AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY ALL NATIONAL, STATE AND LOCAL CODES.

2. CONTRACT DRAWINGS FOR MECHANICAL WORK (HVAC, PLUMBING, AND FIRE PROTECTION) ARE DIAGRAMMATIC AND ARE INTENDED TO CONVEY SCOPE AND GENERAL ARRANGEMENT ONLY.

COORDINATE CONSTRUCTION OF ALL MECHANICAL WORK WITH ARCHITECTURAL, STRUCTURAL, CIVIL, ELECTRICAL WORK, ETC., SHOWN ON THE OTHER CONTRACT DRAWINGS.

4. WHEN TWO OR MORE ITEMS OF THE SAME TYPE OF EQUIPMENT ARE REQUIRED, THE PRODUCT OF ONE MANUFACTURE SHALL BE USED.

ALL CONTROL WIRE AND CONDUIT SHALL COMPLY WITH THE LATEST EDITION NATIONAL ELECTRIC CODE AND DIVISION 16 (23) OF THE SPECIFICATION.

6. ALL MISCELLANEOUS STEEL REQUIRED TO ENSURE PROPER INSTALLATION AND AS SHOWN IN DETAILS FOR PIPING, DUCTWORK, AND EQUIPMENT (UNLESS OTHERWISE NOTED) SHALL BE FURNISHED AND INSTALLED BY THE MECHANICAL

MECHANICAL EQUIPMENT, DUCTWORK, AND PIPING SHALL NOT BE SUPPORTED FROM METAL DECK.

8. LOCATION AND SIZES OF ALL FLOOR, WALL, AND ROOF OPENINGS SHALL BE COORDINATED WITH ALL OTHER

CONTRACTOR.

PROVIDE REMOTE BALANCING DAMPERS SIMILAR TO 'YOUNG CONCEALED REGULATORS' FOR ALL TAPS MADE ABOVE INACCESSIBLE CEILINGS OR WALLS. FINISH CONCEALMENT COVERS PER ARCHITECTS RECOMMENDATIONS.

10. ALL AHU AND FCU FANS SHALL OPERATE CONTINUOUSLY DURING THE OCCUPIED MODE OF OPERATION WITH ASSOCIATED OUTSIDE AIR MOTORIZED DAMPERS IN THE FULL OPEN POSITION (UNLESS NOTED OTHERWISE OR DCV SYSTEM). DAMPER SHALL BE CLOSED WITH THE FANS OPERATIONAL IN THE MOURNING WARM UP OR COOL DOWN

11. CONTRACTOR SHALL MAINTAIN A MINIMUM CLEARANCE OF 10'-0" BETWEEN OUTSIDE AIR INTAKE POINTS AND ANY EXHAUST AIR, CONTAMINATED RELIEF AIR OR PLUMBING VENT TERMINATION POINTS.

12. CONDENSATE PIPING DOWN TO A PLUMBING FIXTURE SHALL BE FULLY INSULATED WITHIN WALL. PROVIDE ESCUTCHEON PLATE AT WALL. PIPING SHALL NOT BE ROUTED EXPOSED TO

13. PRESSURIZED LIQUID, GAS, AIR SYSTEM PIPE AND ELECTRICAL CONDUIT SHALL NOT BE ROUTED BENEATH ANY SUSPENDED EQUIPMENT. FIRE PROTECTION, ELECTRICAL AND MECHANICAL CONTRACTORS SHALL COORDINATE TRADES.

14. ALL REMOTE MOUNTED DISCONNECT SWITCHES FOR MECHANICAL EQUIPMENT SHALL HAVE I.D. NAME PLATES.

15. PIPING ON ROOF - CONTRACTOR SHALL PROVIDE ROOF PIPE SUPPORTS ON 10'-0" CENTERS. EACH CHANGE IN DIRECTION. EACH ROOFTOP UNIT AND EACH PIPE PENETRATION THROUGH ROOF. REFER TO MECHANICAL SPECIFICATIONS FOR REQUIRED OFFSETS OR LOOPS FOR PIPE EXPANSION.

DESCRIPTION

EQUIP. OR FIXTURE DRAIN LINE

GENERAL PLUMBING NOTES PLUMBING CONTRACTOR IS TO PROVIDE FIRE STOPS AT ALL PIPING FLOOR PENETRATIONS PER SPECIFICATIONS.

> COORDINATE ROUTING OF ALL PIPING WITH NEW STRUCTURE DUCTWORK, EQUIPMENT, ETC. ALL PIPING WORK SHALL BE COORDINATED WITH ALL TRADES INVOLVED. OFFSETS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.

SLOPE ALL DRAIN PIPING 2-1/2" AND SMALLER @ 1/4"/FT. AND ALL DRAIN PIPING 3" AND LARGER @ 1/8"/FT.

PROVIDE CLEAN OUTS IN SANITARY AND STORM DRAINAGE SYSTEMS AT ENDS OF RUNS, AT CHANGES IN DIRECTION, NEAR THE BASE OF STACKS, EVERY 75 FEET IN HORIZONTAL RUNS AND ELSE WHERE AS INDICATED.

5. UNLESS OTHERWISE NOTED ALL PIPING SHALL BE NO LESS THAN

6. UNLESS OTHERWISE NOTED, ALL PIPING IS OVERHEAD, TIGHT TO UNDERSIDE OF ROOF DECKING, WITH SPACE FOR INSULATION REQUIRED.

INSTALL PIPING SO THAT VALVES, STRAINERS, UNIONS, TRAPS, FLANGES, AND OTHER APPURTENANCES REQUIRING ACCESS ARE ACCESSIBLE.

WHEN DOMESTIC COLD AND HOT WATER PIPING DROPS INTO A PIPE CHASE, THE SIZE SHOWN FOR THE PIPE DROPS SHALL BE USED TO THE LAST FIXTURE.

9. INSTALL ALL PIPING WITHOUT FORCING OR SPRINGING.

10. PROVIDE SHUTOFF VALVES IN ALL DOMESTIC WATER PIPING SYSTEM BRANCHES IN WHICH BRANCH PIPING SERVES TWO OR MORE FIXTURES.

11. UNIONS AND/OR FLANGES SHALL BE INSTALLED AT EACH PIECE OF EQUIPMENT, IN BYPASSES, AND IN LONG PIPING RUNS (100 FEET OR MORE) TO PERMIT DISASSEMBLY FOR ALTERNATION AND

12. PROVIDE ALL PLUMBING FIXTURES WITH ACCESSIBLE QUARTER TURN BALL VALVES.

13. TRAP PRIMERS SHALL BE PROVIDED FOR ALL FLOOR DRAINS AND FLOOR SINKS UNLESS NOTED OTHERWISE ON DRAWINGS. REFER TO SPECIFICATIONS FOR TRAP PRIMER REQUIREMENTS.

14. REFER TO PLUMBING RISER DIAGRAMS FOR ADDITIONAL PIPING AND PIPE SIZES NOT SHOWN ON FLOOR PLANS.

15. TERMINATE GAS VENTS A MINIMUM OF 2'0" ABOVE ROOF WITH RAIN CAP.

16. FIRE PROTECTION PER NFPA 13 AND ALL OTHER APPLICABLE SECTIONS. FP PIPE SHALL NOT BE ROUTED BENEATH SUSPENDED MECHANICAL EQUIPMENT.

17. EXISTING FIRE PROTECTION SPRINKLER HEADS LOCATED IN

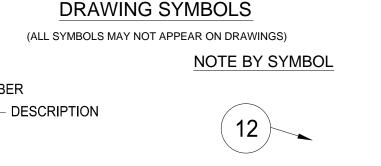
NON-CEILING AREA SHALL BE TO UPRIGHT HEADS MODIFY EXISTING SECONDARY F.P. PIPING AND SWING ARMS AS REQ'D TO PROVIDE FULL COVERAGE TO NEW FLOOR PLAN LAYOUT 18. CONTRACTOR SHALL COORDINATE INSTALLATION OF GAS

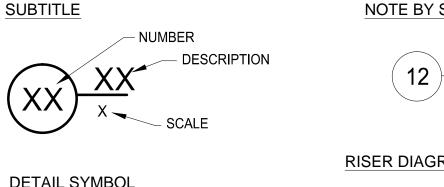
SERVICE AND METER WITH GAS COMPANY. CONTRACTOR SHALL PAY ALL FEES. PERMITS AND CHARGES ASSOCIATED WITH THE INSTALLATION OF BOTH THE GAS METER AND SERVICE. 19. GAS PIPING ON ROOF - CONTRACTOR SHALL PROVIDE ROOF PIPE

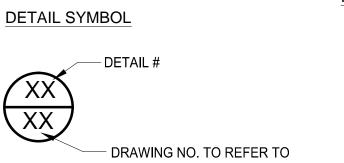
SUPPORTS ON 10'-0" CENTERS, EACH CHANGE IN DIRECTION. EACH ROOFTOP UNIT AND EACH PIPE PENETRATION THROUGH ROOF. REFER TO MECHANICAL SPECIFICATIONS FOR REQUIRED OFFSETS OR LOOPS FOR PIPE EXPANSION.

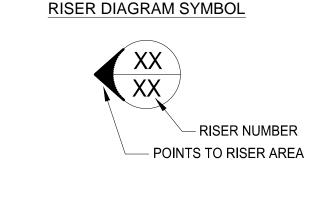
20. GAS PIPING INSIDE BUILDING - ALL GAS PIPING INSIDE BUILDING SHALL BE SLEEVED. CONTRACTOR SHALL EXTEND BOTH ENDS OF SLEEVE OUTSIDE BUILDING. WHERE GAS SLEEVES TERMINATE INTO WALL BOXES, CONTRACTOR SHALL INSTALL A 2" VENT FROM EACH WALL BOX AND EXTEND VENT UP THROUGH ROOF. CONTRACTOR SHALL PROVIDE GOOSENECK VENTS AT EACH ROOF PENETRATION.

21. ALL PIPING (DOM./FP/DRAIN/PRODUCTION) MATERIAL SHALL NOT BE CONSTRUCTED FROM PVC IN THIS AREA ABOVE THE SCHEDULED CEILING, WHICH IS UTILIZED AS A RETURN AIR PLENUM. ALL WIRE THAT IS NOT IN CONDUIT SHALL BE PLENUM RATED WITHIN THIS AREA.





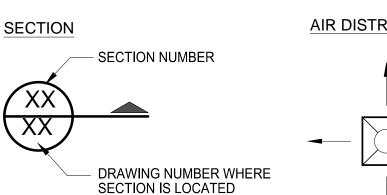


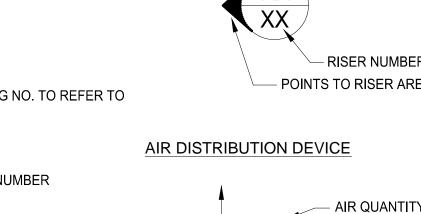


ARROWS INDICATE

DESIGNATION

THROW PATTERN





MECHANICAL LEGEND

SCALE: N.T.S.

____LA ____

_____O ____ MEDICAL OXYGEN

Sheet No.	
MP0.1	
PLUMBING SCHEDULES	

				PLUMBING FIXTURE SCHEDULE										
TAG	FIXTURE TYPE	MANUFACTURER	VALVE / FAUCET	TRAP	WASTE	VENT CW	CW HW DESCRIPTION, TRIM AND NOTES							
WC-1	WATER CLOSET	ZURN Z5610.043.01.00.00	-	INT	4"	2" 1"	1" - WALL MOUNTED, VITREOUS CHINA ELONGATED BOWL WATER CLOSET, HARD WIRED WITH SENSOR OPERATED 1.6 GPF FLUSH VALVE WITH 2" GLAZED TRAPWAY PROVIDE WITH ELONGATED OPEN FRONT SEAT WITH SLOW CLOSING RING.							
WC-1H	ADA WATER CLOSET	ZURN Z5610.043.01.00.00	-	INT	4"	2" 1"	1" - WALL MOUNTED, VITREOUS CHINA ELONGATED BOWL WATER CLOSET, HARD WIRED WITH SENSOR OPERATED 1.6 GPF FLUSH VALVE WITH 2" GLAZED TRAPWAY PROVIDE WITH ELONGATED OPEN FRONT SEAT WITH SLOW CLOSING RING.							
U-1H	URINAL	ZURN Z5798.205.00	-	2"	2"	1-1/2" 3/4"	3/4" - WALL HUNG, WALL OUTLET, ULTRA LOW CONSUMPTION URINAL WITH TOP SPUD BATTERY-POWERED EXPOSED ZEG6003EV HIGH EFFICIENCY FLUSH VALVE. INSTALL IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.							
L-1H	LAVATORY	JUST UOF-1619	KOHLER K-T14415-4 PURIST	1-1/2"	1-1/2"	1-1/4" 1/2"	1/2" PROVIDE UNDERCOUNTER TYPE 304 STAINLESS STEEL LAVATORY (17.5" x 13") WITH OVERFLOW ASSEMBLY AND FULLY COATED UNDERSIDE WITH MCGUIRE 155 LAT WC OFFSET PLUG DRAIN. WALL MOUNT FAUCET WITH ADA LEVER HANDLES AND 1.5 GPM AERATOR. MOUNT VALVES AT 38" A.F.F. (4" ABOVE COUNTER).							
MS-1	MOP SINK	FIAT TERAZZO TSBC 1612	SPEAKMAN SC-5811	3"	3"	1-1/2" 3/4"	3/4" MOP SINK WITH DROPPED FRONT EDGE. CAST BRASS DRAIN BODY, SS STRAINER, LINT BASKET, SS CAPS AND SS THRESHOLD. PROVIDE FAUCET WITH VACUUM BREAKER, INTEGRAL STOPS, ADJUSTABLE WALL BRACE, PAIL HOOK AND 3/4" HOSE THREADS. PROVIDE WITH FIAT 832-AA 30" LONG FLEXIBLE HEAVY DUTY RUBBER HOSE, SS GRIP. PROVIDE FIAT E-UU-AA VINYL GUARD ON ALL EXPOSED SIDES. PROVIDE MOP HOLDER MOUNTED ABOVE MOP SINK.							
SH-1	SHOWER	-	LEONARD PAM II-ST-TB-VP W/ 501P(G) HAND SHOWER, D-2L DIVERTER VALVE AND H-07 SHOWER HEAD	2"	2"	2" 1/2"	CONCEALED IN-WALL SHOWER WITH PRESSURE BALANCING VALVE. SHOWER VALVE SHALL BE BRASS AND STAINLESS STEEL CONSTRUCTION WITH CHECK STOPS AND VANDAL RESISTANT SCREWS. PROVIDE HAND HELD SHOWER WITH 69" CHROME HOSE, 24" GLIDE RAIL, INLINE VACUUM BREAKER, SUPPLY ELBOW AND FLANGE, AND DIVERTER VALVE WITH LEVER HANDLE. SHOWER HEAD SHALL BE BRASS CONSTRUCTION, CHROME PLATED FINISH, BALL JOINT, LEVER ADJUSTABLE SPRAY, VANDAL RESISTANT SCREWS AND 2.5 GPM FLOW RATE. PROVIDE ZURN Z415B SHOWER DRAIN WITH TYPE 'B' STRAINER.							
SH-1H	SHOWER	-	LEONARD PAM II-ST-TB-VP W/ 501P(G) HAND SHOWER, D-2L DIVERTER VALVE AND H-07 SHOWER HEAD	2"	2"	2" 1/2"	CONCEALED, ANTI-SCALD BALANCED PRESSURE SHOWER VALVE WITH INTEGRAL VOLUME CONTROL/DIVERTOR AND INTEGRAL STOPS AND HANDHELD SPRAY COMBINATION. CHROME PLATED BRASS WALL PLATE AND LEVEL HANDLE, ADJUSTABLE TEMPERATURE LIMIT STOP, BRASS BODY. CHROME PLATED BRASS SUPPLY ELL WITH WALL FLAGNES, 60" STAINLESS STEEL HOSE WITH RUBBER LINER, SWIVEL CONNECTOR, IN-LINE VACUUM BREAKER, 42" CHROME PLATED BRASS SLIDE BAR WITH MOUNTING SCREWS. PROVIDE WITH SPEAKMAN VS-1000AF HANDSHOWER WITH FLOW CONTROL DEVICE AND S-2292-E2 SHOWER HEAD AND S-2500 ARM AND FLANGE.PROVIDE ZURN Z415B SHOWER DRAIN WITH TYPE 'B' STRAINER.							
EWC-1H	WALL MOUNTED ELECTRIC WATER COOLER (ADA)	HALSEY TAYLOR HAC8FS-QADA	-	1-1/2"	2"	1-1/2" 1/2"	SELF CONTAINED, WATER COOLER THAT SHALL DELIVER A MINIMUM OF 8.0 GPH OF WATER AT 50°F COOLED FROM 80°F INLET WATER AND 90°F AMBIENT. UNIT SHALL BE ACTIVATED FROM BOTH FRONT AND SIDE PUSH BARS USING LESS THAN 5 POUNDS OF FORCE. BUBBLERS SHALL BE ONE-PICE, CHROME PLATED, TWO-STREAM WITH AN INTEGRALLY DESIGNED NON-SQUIRT FEATURE. TOPS SHALL BE CONSTRUCTED FROM 300 SERIES STAINLESS STEEL AND HAVE AN INTEGRAL DRAIN. CABINETS SHALL BE STAINLESS STEEL. EVAPORATOR SHALL BE AN INSULATED, TUBE ON TANK. COOLING SYSTEM SHALL USE R-134a AND AN ADJUSTABLE THERMOSTAT WITH AN OFF POSITION. PROVIDE UNIT WITH CONCEALED SUPPORT CARRIER.							
FD-1	FLOOR DRAIN	JR SMITH 2005-P050-U	-	3"	3"	2" 1/2"	CAST IRON FLOOR DRAIN WITH BOTTOM OUTLET, REVERSIBLE FLASHING COLLAR, SEEPAGE OPENINGS AND ADJUSTABLE NICKEL BRONZE STRAINER HEAD. PROVIDE VANDAL PROOF SCREWS AND 1/2" TRAP PRIMER CONNECTION. PROVIDE AUTOMATIC TRAP PRIMER AS SPECIFIED AND MAKE FINAL CONNECTION. VERIFY ROUND OR SQUARE HEAD BASED UPON FLOOR COVERING.							

DOWNSPOUT NOZZLE JR SMITH 1770-BS

J.R. SMITH 3001

JR SMITH 4023S-F-C-U

JR SMITH 4103S-F-C-U

JR SMITH 4532S-U

J.R. SMITH 1015-C-U-CID

OFFSET LAVATORY/SINK STRAINERS, SEAMLESS VINYL PIPING INSULATORS FOR P-TRAP, OFFSET DRAIN, ANGLE SUPPLIES AND RISERS.

CONTRACTOR SHALL REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS AND LOCATIONS OF ALL PLUMBING FIXTURES INCLUDING HANDICAPPED (ADA) FIXTURES. ALL PLUMBING FIXTURES DESIGNATED HANDICAPPED (ADA) SHALL BE INSTALLED TO MEET ACCESSIBILITY GUIDELINES FOR BUILDING AND FACILITIES SET FORTH IN THE AMERICANS WITH DISABILITY ACT (ADA). 3 CONTRACTOR SHALL FURNISH AND INSTALL ON EACH PLUMBING FIXTURE REQUIRED THE FOLLOWING: 17 GAUGE CHROME PLATED BRASS P-TRAP W/ CLEANOUT, 17 GAUGE TAILPIECE,

CHROME PLATED HEAVY BRASS NIPPLES AND SET SCREW FLANGES, AND CHROME PLATED BRASS ANGLE SUPPLIES (KEYLESS) WITH RIGID RISERS. LAVATORIES SHALL BE SUPPLIED WITH

FLAT CHROME PLATED BRASS GRID STRAINERS AND SINKS SHALL BE SUPPLIED WITH BASKET STRAINERS AS SPECIFIED ABOVE. 4 ALL PLUMBING FIXTURES DESIGNATED HANDICAPPED (ADA) SHALL HAVE THE FOLLOWING WHERE REQUIRED: FLUSH VALVE INSTALLED WHERE THE HANDLE FACES INTO THE OPEN AREA WITHIN THE STALL,

PUMP SC	PUMP SCHEDULE												
DESIG.	TYPE	SERVES	GPM	HEAD		MOTOR DATA	\ \	MFG	MODEL	NOTES			
				FT	HP	V/PH	RPM		NUMBER				
RCP-1	INLINE	HOT WATER RECIRC	2	15	1/25	1/25 115/1 -		GRUNDFOS	2P310	1			

1. PROVIDE WITH AQUASTAT SET AT 120F TO ENERGIZE/DENERGIZE PUMP

FLOOR SINK

FLOOR CLEAN-OUT

EXTERIOR

FLOOR CLEAN-OUT

WALL CLEAN-OUT

OVERFLOW ROOF DRAIN

FS-1

F.C.O.

D.CO.

W.C.O.

CAST IRON CLEANOUT WITH ROUND ADJUSTABLE SCORIATED SECURED NICKEL BRONZE TOP, TAPER THREAD WITH BRONZE PLUG, FLANGE WITH FLASHIG CLAMP AND VANDAL PROOF TOP.

CAST IRON CLEANOUT WITH ROUND ADJUSTABLE SCORIATED SECURED NICKEL BRONZE TOP (HEAVY DUTY), TAPER THREAD WITH BRONZE PLUG, FLANGE WITH FLASHIG CLAMP AND VANDAL PROOF TOP.

MARK	EL	ELECTRIC DATA		GPH RECOVERY AT	OUTLET	INPUT	COMBUSTION	EXHAUST	STORAGE	MANUFACTURER AND MODEL	REMARKS
	SERVICE	Kw	Amps	AT 100°F RISE	TEMP.	M.B.H.	AIR INTAKE	FLUE	CAPACITY (GAL)		
WH-1	120/1	-	6.0	230	140	199	3''	3''	100	AO SMITH BTH-150	SEE 1 - 4

CAST IRON CLEANOUT TEE WITH COUNTERSUNK TAPER THREAD-BRONZE PLUG, STAINLESS STEEL ROUND COVER AND VANDAL PROOF SCREW.

3" | 3" | 2" | 1/2" | - |12" SQUARE TOP, CAST IRON RECEPTOR WITH TRAP PRIMER. PROVIDE AUTOMATIC TRAP PRIMER AS SPECIFIED AND MAKE FINAL CONNECTION.

CAST BRONZE DOWNSPOUT NOZZLE WITH FLANGE AND BIRDSCREEN.

NOTES: 1. PROVIDE STAINLESS STEEL BRAIDED FLEXIBLE CONNECTORS

2. ALL ITEMS SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS AND IN ACCORDANCE WITH ALL APPLICABLE CODES.

3. PROVIDE COMBUSTION AIR IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

4. PROVIDE AN ACID NEUTRALIZATION CARTRIDGE FOR DRAIN CONDENSATE PROIR TO DISCHARGE INTO MOP SINK.

DUCO CAST IRON BODY WITH ADJUSTABLE EXTENSION SLEEVE, REVERSIBLE COLLAR, COMBINED FLASHING CLAMP AND GRAVEL STOP, UNDERDECK CLAMP, WITH CAST IRON VANDAL PROOF DOME. INSTALL TO PROVIDE OVERFLOW PROTECTION FOR RD-1.

OUTDOOR CONDENSING UNIT SCHEDULE

DESIG.	NOMINAL	COOLING CAP.	HEATING CAP.	REF.	IEER	OUTDOOR		ELECTRICAL	•	MFG	MODEL	WEIGHT (LBS)	NOTES
DEGIO.	TONNAGE	MBTUH	MBTUH	TYPE		DB	V/PH	MCA	MOCP	IVII O	NUMBER	VVLIGITI (LBG)	NOTES
CU-1	8	88.5	87	R410-A	23.0	105	208/3	43	50	DAIKIN	RXYQ96PBTJ	620	2,3,5
CU-2	18	209.5	196	R410-A	17.2	105	208/3	41.3/36.1	1.2	DAIKIN	REYQ216PBTJ	1,133	1-6

NOTES:

1. PROVIDE MANIFOLD KIT.

2. MOUNT CONDENSING UNIT ON LONGITUDINAL FRAME IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

3. PROVIDE UNIT MOUNTED DISCONNECT. 4. HEAT RECOVERY CONDENSING UNIT.

5. PROVIDE WITH INTELLIGENT MANAGER CONTROL SYSTEM WHICH SHALL BE LOCATED IN DATA CLOSET

6. PROVIDE 60 AMP BREAKER FOR CONDENSING UNIT SECTION AND 50 AMP BREAKER FOR OTHER CONDENSING UNIT SECTION. SCCR RATING IS 22 KAIC

ROOF VENTILATOR SCHEDULE												
MARK	SERVICES	MAXIMUM	MAX P.D.	MIN. THROAT AREA (SQ. FT)	DUCT SIZE	MANUF.	MODEL NO.	OP. WEIGHT	REMARKS			
		CFM	(W.G.)					(>200 LBS)				
VH-1	INTAKE	600	0.06	1.45	12"	GREENHECK	GRSE	-	SEE NOTES			

NOTES;

1. PROVIDE BIRDSCREEN

2. PROVIDE MANUFACTURERS ROOF CURB WITH HINGED ADAPTER

DESIGN.	SERVES	TYPE	TOTAL CAP.	SENSIBLE CAP.	HEATING CAP.	CFM	OA	SP		ELECTRICAL		MFG	MODEL	NOTES
DESIGN.	SERVES	ITPE	MBTUH	мвтин	мвтин		CFM	IN W.G.	V/PH	MCA	MOP	WIFG	NUMBER	NOTES
VRV-1A	TRAINING ROOM	CASSETTE	45.2	33.0	57.6	1000	160	-	208/1	1.5	15.0	DAIKIN	FXFQ48PVJU	SEE NOTES
VRV-1B	TRAINING ROOM	CASSETTE	33.9	27.0	42.6	1000	160	-	208/1	1.4	15.0	DAIKIN	FXFQ36PVJU	SEE NOTES
VRV-2	LOBBY	HIGH STATIC UNIT	25.0	23.2	35.6	1050	70	0.6	208/1	2.3	15.0	DAIKIN	FXMQ30PVJU	SEE NOTES
VRV-3	OFFICE 115	CASSETTE	6.1	5.8	8.8	175	15	-	208/1	0.8	15.0	DAIKIN	FXZQ07MVJU9	SEE NOTES
VRV-4	RADIO ROOM 106	WALL MOUNTED	7.3	6.2	9.1	75	-	-	208/1	0.3	15.0	DAIKIN	FXAQ07PVJU	SEE NOTES
VRV-5	RECEPTION/COPY	HIGH STATIC UNIT	17.0	14.1	23.3	415	60	0.6	208/1	1.6	15.0	DAIKIN	FXMQ18PVJU	SEE NOTES
VRV-6	CHIEF 114	CASSETTE	11.8	9.9	18.1	475	20	-	208/1	0.8	15.0	DAIKIN	FXZQ15MVJU9	SEE NOTES
VRV-7	OFFICE 113	CASSETTE	5.9	5.3	8.8	475	15	-	208/1	0.8	15.0	DAIKIN	FXZQ07MVJU9	SEE NOTES
VRV-8	OFFICE 112	CASSETTE	5.9	5.3	8.8	250	15	-	208/1	0.8	15.0	DAIKIN	FXZQ07MVJU9	SEE NOTES
VRV-9	WATCH 118	CASSETTE	6.4	5.7	8.9	200	20	-	208/1	0.8	15.0	DAIKIN	FXZQ07MVJU9	SEE NOTES
VRV-10	LIEUTENANT AREA	HIGH STATIC UNIT	7.1	6.4	9.2	115	25	0.6	208/1	0.6	15.0	DAIKIN	FXMQ07PVJU	SEE NOTES
VRV-11	BATTALION CHIEF AREA	HIGH STATIC UNIT	6.6	6.5	9.0	230	30	0.6	208/1	0.6	15.0	DAIKIN	FXMQ07PVJU	SEE NOTES
VRV-12	FITNESS	CASSETTE	29.3	28.0	41.7	1165	70	-	208/1	1.4	15.0	DAIKIN	FXFQ36PVJU	SEE NOTES
VRV-13	KITCHEN/LIVING AREA	HIGH STATIC UNIT	64.1	54.2	86.4	1905	270	0.6	208/1	9.0	15.0	DAIKIN	FXMQ72MVJU	SEE NOTES
VRV-14	ΙΤ	WALL MOUNTED	5.9	5.9	-	175	-	-	208/1	0.3	15.0	DAIKIN	FXAQ07PVJU	SEE NOTES
VRV-15	DORMS	HIGH STATIC UNIT	33.9	28.3	43.2	920	75	0.6	208/1	2.9	15.0	DAIKIN	FXMQ36PVJU	SEE NOTES
VRV-16	ELEC. ROOM	WALL MOUNTED	6.9	5.6	-	125	-	-	208/1	0.3	15.0	DAIKIN	FXAQ07PVJU	SEE NOTES

NOTES:

1. REFRIGERANT R-410A.

2. PROVIDE BUILT-IN DRAIN PUMP OR OPTIONAL CONDENSATE PUMP.

3. PROVIDE MANUFACTURE'S WASHABLE ANTIBACTERIAL FILTER.

5. EACH INDOOR UNIT WILL HAVE INDIVIDUAL TEMPERATURE CONTROL, NO GROUPING OF INDOOR UNITS WILL BE ACCEPTED.

6. PROVIDE REFRIGERANT BOX LOCATED IN ACCESSIBLE PLACE SERVING UNITS AS INDICATED ON PIPING DIAGRAM. SERVE WITH 208-230 SINGLE PHASE, 0.1 MCA EACH.

7. PROVIDE WITH ONE HVAC SERVICE TOOL KIT (TO INCLUDE NECESSARY TORQUE WRENCHES) FOR PROJECT.

8. PROVIDE FRESH AIR INTAKE KIT (DAIKIN KDDQ44XA60) FOR ALL CASSETTES AND FILTER RACK FOR DUCTED FAN COILS.

FAN SCHEDULE	

DESIG.	SERVES	TYPE	DRIVE	CFM	E.S.P.	FAN	MO ⁻	TOR	MAX	MFG	MODEL	NOTES	
DESIG.	SERVES	ITFE	DRIVE	CFIVI	(IN W.G.)	RPM	HP / WATTS	V/ PH	Dba	WFG	NUMBER	NOTES	
EF-1	TOILET 145	CEILING EXHAUST	DIRECT	185	0.50	1,100	173	120/1	49	GREENHECK	SP-B200	2, 3, 4, 6	
EF-2	TOILET 146	CEILING EXHAUST	DIRECT	185	0.50	1,100	173	120/1	49	GREENHECK	SP-B200	2, 3, 4, 6	
EF-3	TOILET 148	CEILING EXHAUST	DIRECT	185	0.50	1,100	173	120/1	49	GREENHECK	SP-B200	2, 3, 4, 6	
EF-4	TOILET 147	CEILING EXHAUST	DIRECT	185	0.50	1,100	173	120/1	49	GREENHECK	SP-B200	2, 3, 4, 6	
EF-5	LAUNDRY/JAN 136	CEILING EXHAUST	DIRECT	170	0.50	1,027	173	120/1	47	GREENHECK	SP-B200	2, 3, 4, 6	
EF-6	TOILET 130	CEILING EXHAUST	DIRECT	185	0.50	1,100	173	120/1	49	GREENHECK	SP-B200	2, 3, 4, 6	
EF-7	MENS 104	CEILING EXHAUST	DIRECT	185	0.50	1,100	173	120/1	49	GREENHECK	SP-B200	2, 3, 4, 6	
EF-8	WOMENS 103	CEILING EXHAUST	DIRECT	185	0.50	1,100	173	120/1	49	GREENHECK	SP-B200	2, 3, 4, 6	

NOTES:

1. NOT USED

2. SUPPORT WITH VIBRATION ISOLATORS. 3. PROVIDE WITH BACKDRAFT DAMPER

4. PROVIDE WITH SPEED SWITCH

5. INTERLOCK FAN WITH THERMOSTAT (SET AT 85°F)

6. FAN CONTROLLED WITH WALL SWITCH AND TIME DELAY (15 MIN ADJUSTABLE) ACTIVED WHEN FAN IS SWITCHED OFF.

AIR DEVICE SCHEDULE

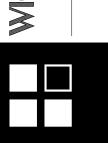
DESIG.	MFG	DESCRIPTION	MAX CFM	MAX NECK VEL (FPM)	MAX NC	NECK SIZE INCHES	MATERIAL	OBD	MODEL NUMBER	NOTES
Α	TITUS	24"X24" ARCHITECTURAL FACE, ROUND	95	500	-	6" Ø	ALUM.	N	OMNI-AA	1,2,3,5
		NECK CEILING SUPPLY DIFFUSER.	210	600	-	8" Ø				
			330	600	-	10" Ø				
			550	700	18	12" Ø				
В	TITUS	24"X24" PERFORATED RETURN GRILLE FOR	95	500	-	6" Ø	ALUM.	N	PAR-AA	1 ,2,3,5
		LAY-IN CEILING.	210	600	-	8" Ø				
			330	600	-	10" Ø				
			550	700	18	12" Ø				
С	TITUS	12"X12" ARCHITECTURAL FACE, ROUND	95	500	-	6" Ø	ALUM.	N	OMNI-AA	1,2,3,5
		NECK CEILING SUPPLY DIFFUSER.	210	600	-	8" Ø				
D	TITUS	12"X12" SURFACE MOUNTED CEILING	100	500	-	6" Ø	ALUM.	N	250-AA	1,2,3,5
		DIFFUSER W/ ROUND NECK	175	500	-	8" Ø				
E	TITUS	SIDEWALL GRILLE WITH LONG FRONT	-	-		18"x6"	ALUM	N	300FL	2,3
		BLADES WITH 3/4". GRILLE FACE SHALL BE 2"								
		LARGER THAN NECK SIZE.								
F	TITUS	12"X12" PERFORATED RETURN AIR GRILLE	100	500	-	6" Ø	ALUM.	N	PAR-AA	1,2,3,4
		FOR SURFACE MOUNT APPLICATIONS.	200	800	24	6"x6"				
G	TITUS	SIDEWALL RETURN AIR GRILLE WITH LONG	600	500	13	18"X12"	ALUM.	N	350FL	2
		FRONT BLADES WITH 3/4". GRILLE FACE	1250	600	22	18"X18"				
		SHALL BE 2"LARGER THAN NECK SIZE.								

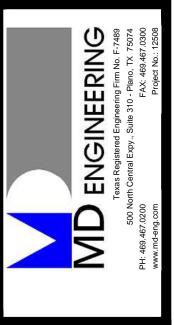
1) MATCH FRAME OF AIR DEVICE WITH CEILING. REFERENCE ARCH. ROOM FINISH SCHEDULE.

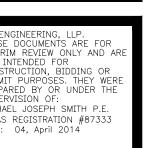
2) COORDINATE COLOR WITH ARHCITECT. 3) REFER TO HVAC DRAWINGS FOR ANY NECK SIZES OTHER THAN THOSE SHOWN ABOVE.

4) ALL RETURN AIR GRILLES NOT DUCTED SHALL HAVE INTERIOR INSULATED BOOT TO PREVENT VISION TO CEILING PLENUM.

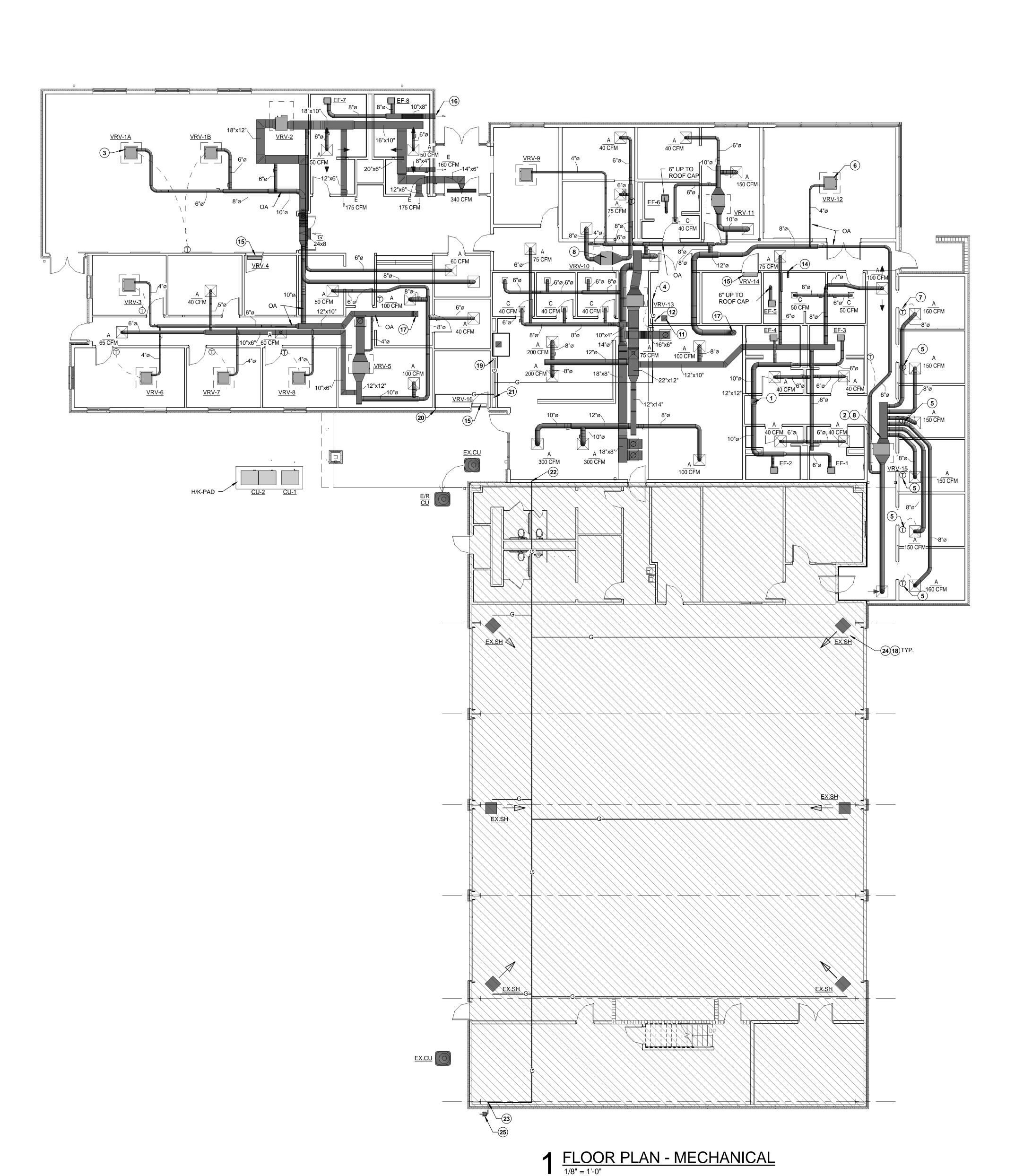
5) ALL SUPPLY GRILLES SHALL HAVE INSULATED PANELS ON BACKSIDE OF GRILLE











GENERAL NOTES:

- 1. COORDINATE WITH ALL TRADES BEFORE INSTALLING ANY EQUIPMENT, CONDENSATE DRAINS, REFRIGERANT LINES, OR
- 2. UNLESS OTHERWISE NOTED ALL AIR DEVICES SHALL BE DESIG.
- ALL DUCTWORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH SMACNA FOR APPROPRIATE PRESSURE.
- 4. ALL SHEET METAL DUCTWORK PENETRATING FIRE RATED WALLS SHALL BE MINIMUM OF 24 GAUGE. ALL OTHER DUCT SHALL BE CONSTRUCTED AS SPECIFIED IN ACCORDANCE WITH THE LATEST
- EDITION OF SMACNA "HVAC DUCT CONSTRUCTION STANDARDS". 5. UNIT SMOKE DETECTORS SHALL BE INSTALLED TO COMPLY WITH
- APPLICABLE CODES AND NFPA. 6. UNLESS OTHERWISE NOTED ALL RETURN AIR GRILLES AND EXHAUST GRILLES DESIG. "B".
- 7. INSTALL CONDENSING UNITS AND SIZE REFRIGERANT LINES PER MANUFACTURER'S GUIDELINES AND REQUIREMENTS.
- 8. PROVIDE MANUFACTURERS RECOMMENDED CLEARANCE FOR SERVICE OF INDOOR VRV UNITS.
- 9. ALL RUNOUTS TO AIR DEVICES SHALL INCLUDE BALANCING DAMPERS IN ALL SUPPLY AIR, RETURN AIR, AND EXHAUST AIR TAPS AND BRANCH DUCTWORK UNLESS OTHERWISE NOTED. PROVIDE REMOTE BALANCING DAMPERS FOR ALL TAPS MADE
- 10. ALL DIFFUSERS SHALL BE 4 WAY UNLESS OTHERWISE NOTED.

ABOVE INACCESSIBLE CEILINGS.

11. PROVIDE CONDENSATE PUMPS FOR ALL CEILING AND WALL MOUNTED UNITS. TERMINATE DRAIN IN CLOSEST APPROVED

NOTES BY SYMBOL "\(\bigcup\)":

- 1. 12" x 12" EXHAUST UP TO ROOF CAP.
- 2. PROVIDE ZONING KIT EQUAL TO DAIKIN DZKO30E4 WITH ONE ZONE CAPPED.
- 3. COORDINATE LOCATION OF VRV UNIT IN CEILING TILE. TYPICAL ALL ROOMS WITH CASSETTES.
- 4. GAS LINE TO WATERHEATER.
- 5. PROVIDE WIRELESS THERMOSTAT (DAIKIN DZK-ZTS-1) IN EACH DORM ROOM. COORDINATE LOCATION.
- 6. COORDINATE VRV LOCATION WITH CEILING FANS AND LIGHTS. VRV SHALL NOT BE ADJACENT TO LIGHT FIXTURES
- 7. PROVIDE MAIN ZONE THERMOSTAT (DAIKIN DZK-MTS-1).
- 8. INSTALL VRV UNITS WITH MANUFACTURER'S RECOMMENDED CLEARANCES REQUIRED FOR MAINTENANCE AND FILTER REMOVAL. COORDINATE WITH ALL OTHER TRADES TO ENSURE FILTER ACCESSIBILITY. TYPICAL ALL TYPES OF VRV UNITS.
- 9. EXHAUST DUCT UP TO ROOF CAP.
- 10. CONTRACTOR SHALL CONNECT DUCTWORK TO KITCHEN HOOD AND EXHAUST CAP. EXHAUST DUCT SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH APPLICABLE CODES.
- 11. 12" x 12" COMBUSTION AIR DUCT HIGH AND LOW IN ACCORDANCE WITH CODE.
- 12. WATER HEATER FLUE UP TO ROOF.
- 13. DIFFUSERS SHALL BE MOUNTED SO THE AIR DISCHARGES TOWARDS THE CENTER OF ROOM. GRILLE SHALL BE
- INSTALLED BE NON-VISIBLE FROM FLOOR ELEVATION. 14. PROVIDE 4"DUCT WORK (CONFIRM EXACT SIZE WITH DRYER
- 15. WALL MOUNTED VRV TO BE INSTALLED ABOVE ROOM DOOR. MOUNT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. COORDINATE INSTALLATION OF

MANUFACTURER) TO WALL MOUNTED DRYER VENT CAP.

16. PROVIDE WALL LOUVER FOR EF-7/8.

THERMOSTAT WITH ROOM EQUIPMENT.

- 17. OUTSIDE AIR UP TO ROOF CAP.
- 18. CONVERT LP INFRARED HEATERS TO NATURAL GAS HEATERS WITH ORIFICE CHANGE. TYPICAL FOR 6 HEATERS.
- 19. GAS LINE DOWN TO RANGE.
- 20. GAS LINE DOWN TO OUTSIDE GRILL.
- 21. GAS LINE UP TO ROOF. SEE M2.2 FOR CONTINUATION.
- 22. GAS LINE THROUGH WALL. SEE M2.2 FOR CONTINUATION.
- 23. GAS LINE UP.
- 24. CONNECT NEW GAS LINE TO EXISTING SPACE HEATERS. TYPICAL FOR 6 HEATERS.
- 25. APPROXIMATE LOCATION OF NEW GAS METER.

GENERAL NOTES:

- COORDINATE LOCATIONS OF ROOF MOUNTED EQUIPMENT TO ALLOW FOR SERVICE ACCESS AND CLEARANCES AS REQUIRED BY MANUFACTURER.
- VERIFY ALL EXHAUST AIR OUTLETS AND PLUMBING VENTS ARE MINIMUM OF 12' FROM ANY FRESH AIR OPENING.

NOTES BY SYMBOL "O":

- 1. KITCHEN EXHAUST FAN.
- 2. ROOF CAP FROM EXHAUST FAN.
- ROOF CAP FOR OUTSIDE AIR TO BE LOCATED IN THIS APPROXIMATE AREA. CONFIRM LOCATION WITH ARCHITECT PRIOR TO SUBMITTAL.
- 4. DRYER VENT.
- 5. WATER HEATER FLUE.
- 6. COMBUSTION AIR INTAKE HOOD.
- GAS LINE DOWN THROUGH ROOF IN PITCH PAN. SEE M2.1 FOR CONTINUATION. SEE DETAIL.
- GAS LINE THROUGH WALL TO EXISTING SPACE HEATERS. SEE M2.1 FOR CONTINUATION.

LUCAS CENTRAL F

A R C H I T E C T S

sway Sulle 300
P: 972.665.0657

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DATE: 04, APRIL 2014

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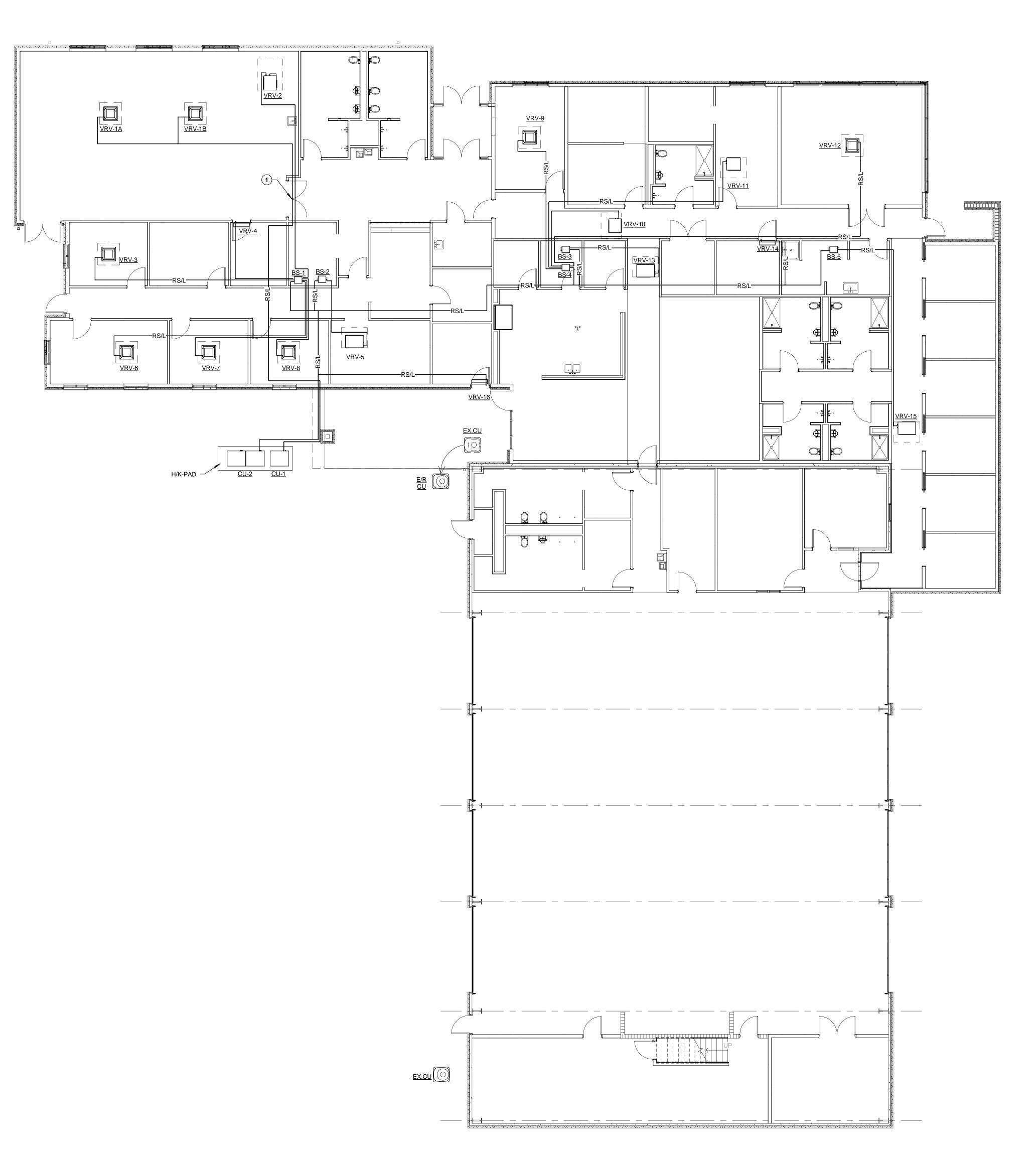
ROOF PLAN HVAC

TRUE NORTH

PIPING TO BE ROUTED IN FURR DOWN. COORDINATE WITH OTHER TRADES.

GENERAL NOTES:

- COORDINATE WITH ALL TRADES BEFORE INSTALLING ANY EQUIPMENT, CONDENSATE DRAINS, REFRIGERANT LINES, OR DUCTWORK.
- PIPING IS INDICATED AS SINGLE LINE. REFER TO SCHEMATIC FOR RECOMMEMDED REFRIGERANT PIPE SIZES.
- INSTALL CONDENSING UNITS AND SIZE REFRIGERANT LINES PER MANUFACTURER'S GUIDELINES AND REQUIREMENTS. THE ROUTING INDICATED ON THIS SHEET IS NOT MEANT TO INDICATE THE ONLY ROUTING FOR THIS PIPING.
- 4. PROVIDE FULL PORT REFRIGERANT VALVES ON ALL EQUIPMENT SUPPLIED BY VRV MANUFACTURER.
- ALL CONDENSATE LINES ARE PUMPED, SHALL BE ROUTED AS HIGH AS POSSIBLE, AND SLOPED AT 1/8" PER FOOT.
- NO EXPOSED PIPING UNLESS APPROVED BY ARCHITECT. PIPING IN APPARATUS BAY SHALL BE TIGHT TO STRUCTURAL AND ADJECT WALLS AND AS HIGH AS POSSIBLE. MAKE EVERY EFFORT TO HIDE PIPING FROM GROUND LEVEL.



1 FLOOR PLAN - PIPING

1/8" = 1'-0"

HVAC PIPING PLAN

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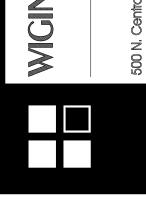
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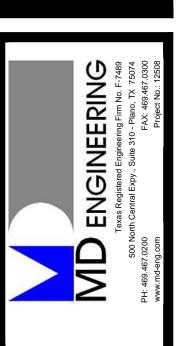
TRUE NORTH

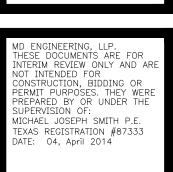
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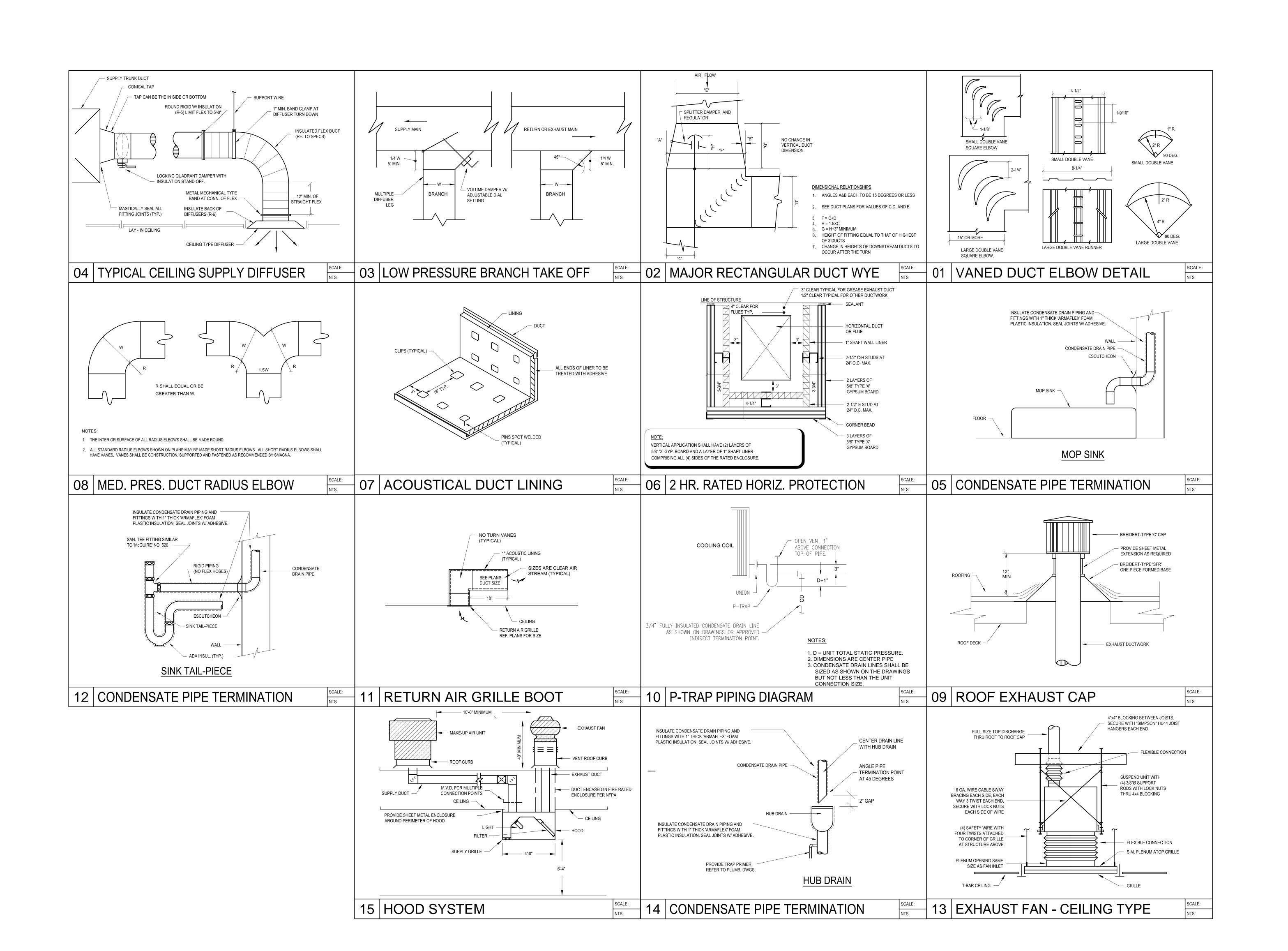


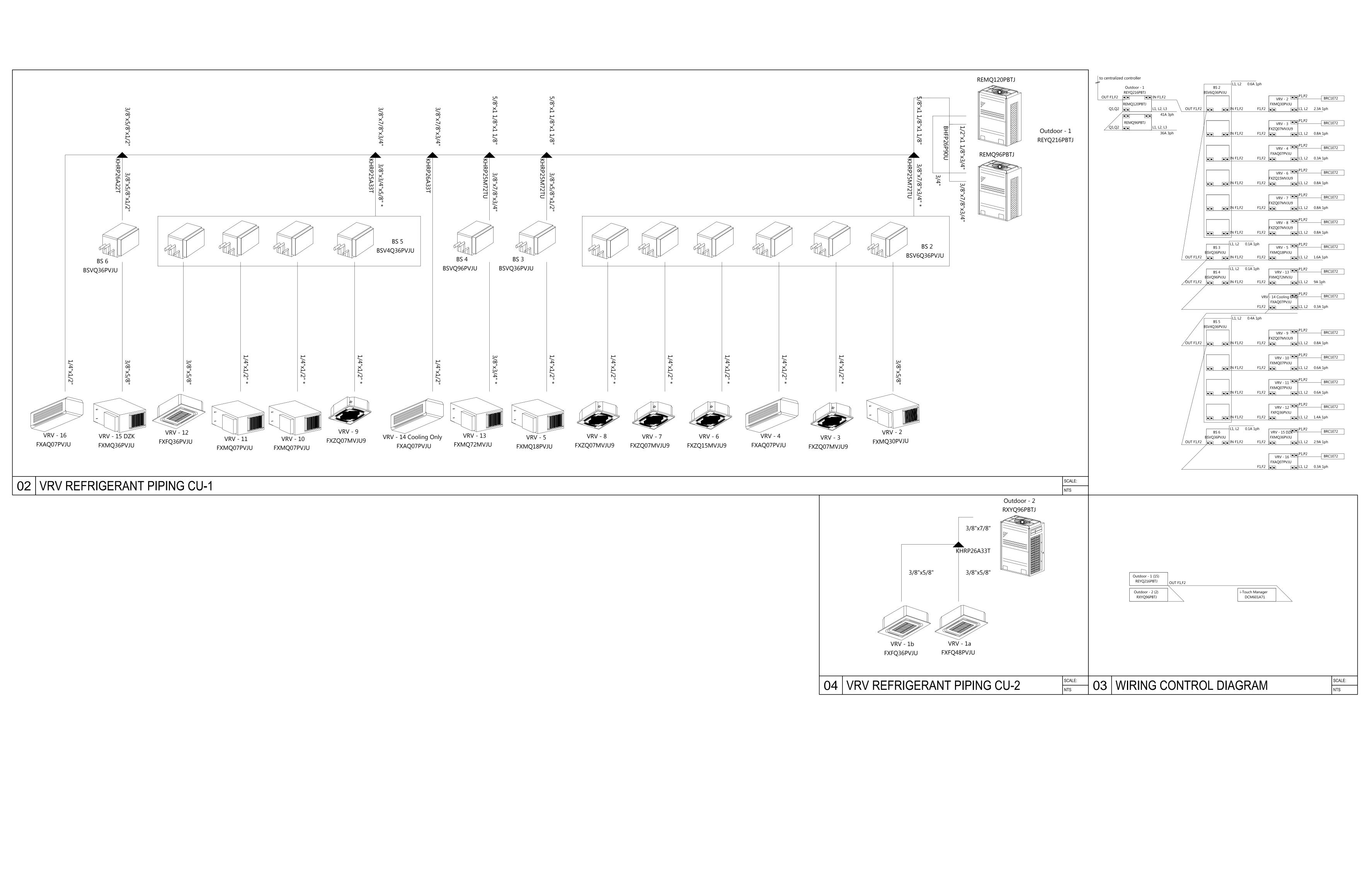




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M4.1MECHANICAL DETAILS





Original Issue Date: 04.04.14 5
Revisions:

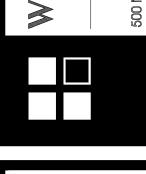
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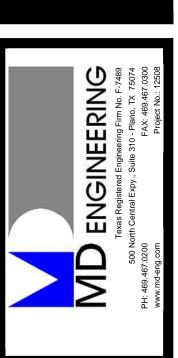
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IN. Central Expressway Sulte 300

P: 972.665.0657

F: 972.665.0656





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VRV

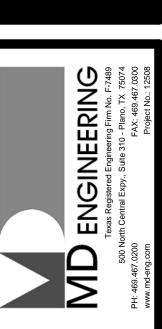
DIAGRAMS

AXONOMETRIC VIEW IS PROVIDED TO SHOW GENERAL DUCT LAYOUT.
 THIS DOES NOT RELIEVE THE CONTRACTOR FROM COORDINATION AND
 ALL PROJECT REQUIREMENTS FOR SHOP DRAWINGS.

Original Issue Date: 04.04.14 5 Revisions:

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AXONOMETRIC DUCT

ELECTRICAL LEGEND

		,	,		
2SCP	2-SPEED, CONSEQUENT POLE	FLEX	FLEXIBLE	NFS	NON-FUSIBLE SAFETY SWITCH
2SSW	2-SPEED, SEPARATE WINDING	FS	FUSIBLE SAFETY SWITCH OR FUSIBLE SWITCH	NIC	NOT IN CONTRACT
		FVNR	FULL VOLTAGE, NON-REVERSING	NL	NIGHT LIGHT
Α	AMPERE(S)	FVR	FULL VOLTAGE, REVERSING	NO	NORMALLY OPEN
AC	ALTERNATING CURRENT	IVIX	TOLE VOLTAGE, REVERSING	NTS	NOT TO SCALE
ACCU	AIR-COOLED CONDENSING UNIT	G	GROUND		
ADA	AMERICANS WITH DISABILITIES ACT	GFCI	GROUND FAULT CIRCUIT INTERRUPT	ОН	OVERHEAD
AFF	ABOVE FINISHED FLOOR				
AFC	ABOVE FINISHED CEILING	HACR	HEATING AND AIR CONDITIONING RATING	Р	POLE(S)
AFG	ABOVE FINISHED GRADE	HID	HIGH INTENSITY DISCHARGE	PA	PUBLIC ADDRESS SYSTEM
AHU	AIR HANDLING UNIT	НОА	HAND-OFF-AUTOMATIC	PF	POWER FACTOR
AIC	AMPERE INTERRUPTING CAPACITY(ROOT MEAN SQUARE	HP	HORSEPOWER	PL	PILOT LIGHT
	SYMMETRICAL)	HPS	HIGH PRESSURE SODIUM	PNL	PANELBOARD
ALT	ALTERNATE	HVAC	HEATING, VENTILATION AND AIR	PVC	POLYVINYL CHLORIDE
APPROX	APPROXIMATE OR APPROXIMATELY		CONDITIONING		
ARCH	ARCHITECT	HZ	HERTZ	RC	REMOTE CONTROL
ATS	AUTOMATIC TRANSFER SWITCH			RCP	REFLECTED CEILING PLAN
AUX	AUXILIARY	IES	ILLUMINATING ENGINEERING	REC	RECEPTACLES(S)
AWG	AMERICAN WIRE GAGE		SOCIETY OF NORTH AMERICA	RGS	RIGID GALVANIZED STEEL
		IG	ISOLATED GROUND	RVSS	REDUCED VOLTAGE, SOLID STATE
BFC	BELOW FINISHED CEILING	IMC	INTERMEDIATE METALLIC CONDUIT		
BFG	BELOW FINISHED GRADE	JBOX	JUNCTION BOX	SF	SQUARE FOOT OR FEET
BLDG	BUILDING			SPDT	SINGLE-POLE, DOUBLE-THROW
		KA	KILOAMPERE(S)	SPST	SINGLE-POLE, SINGLE-THROW
С	CONDUIT OR TUBING	KW	KILOWATTS(S)	SS	START-STOP
CATV	CABLE TELEVISION	KWH	KILOWATT-HOUR(S)	SW	SWITCH
СВ	CIRCUIT BREAKER	KV	KILOVOLT(S)	SWBD	SWITCHBOARD
CCTV	CLOSED-CIRCUIT TELEVISION	KVA	KILOVOLT-AMPERE(S)		
CKT	CIRCUIT	KVAR	KILOVOLT-AMPERE(S) REACTIVE	TA	TRIP AMPERE(S)
CLG	CEILING			TAS	TEXAS ACCESSIBILITY STANDARDS
COMM	COMMUNICATIONS	LPS	LOW PRESSURE SODIUM	TEL	TELEPHONE
CT(S)	CURRENT TRANSFORMER(S)	LTG	LIGHTING	TEMP	TEMPORARY
				TU	TEXAS UTILITIES ELECTRIC
DC	DIRECT CURRENT	m	METER(S)	TV	TELEVISION
DISC	DISCONNECT	MAX	MAXIMUM	TYP	TYPICAL
DPDT	DOUBLE-POLE, DOUBLE THROW	MCA	MAXIMUM CURRENT AMPACITY		
DPST	DOUBLE POLE, SINGLE THROW	MCB	MAIN CIRCUIT BREAKER	UG	UNDERGROUND
DWG(S)	DRAWING(S)	MCC	MOTOR CONTROL CENTER	UL	UNDERWRITERS LABORATORIES, INC.
		MCP	MOTOR CIRCUIT PROTECTOR	UPS	UNINTERRUPTIBLE POWER SUPPLY
EC	EMPTY CONDUIT OR TUBING	MH	METAL HALIDE	UNO	UNLESS NOTED OTHERWISE
EGS	ENGINE-GENERATOR SET	MIC	MICROPHONE		
EHH	ELECTRICAL HANDHOLE	MIN	MINIMUM	V	VOLTAGE OR VOLT(S)
ELEV	ELEVATION	MLO	MAIN LUGS ONLY	VA	VOLT-AMPERE(S)
EMERG	EMERGENCY	mm	MILLIMETER(S)	VFD	VARIABLE FREQUENCY DRIVE
EMH	ELECTRICAL MANHOLE	MMS	MANUAL MOTOR STARTER		
EMT	ELECTRICAL METALLIC TUBING	MOCP	MAXIMUM OVER-CURRENT PROTECTION	W	WATT(S)
E/R	EXISTING TO BE REMOVED AND REINSTALLED AFTER MODIFICATION	MTS	MANUAL TRANSFER SWITCH	WP	WEATHERPROOF
EWC	ELECTRICAL WATER COOLER	MVA	MEGAVOLT-AMPERE(S)	W/	WITH
EX	EXISTING	MVAR	MEGAVOLT-AMPERE(S) REACTIVE	W/O	WITHOUT
		MW	MEGAWATT(S)		
F	FUSE(S)			XFMR	TRANSFORMER
FAAP	FIRE ALARM ANNUNCIATOR PANEL	NC	NORMALLY CLOSED	XP	EXPLOSION-PROOF
FACP	FIRE ALARM CONTROL PANEL	NEC	NATIONAL ELECTRICAL CODE		
FBO	FURNISHED BY OWNER	NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION	\triangle	DELTA
FL	FLOOR	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION	#	NUMBER
FLΔ	FULL LOAD AMPERE(S)				

WIRING METHOD NOTES:

- 1. DON'T COMBINE NEUTRALS AND GROUNDS OF SEPARATE BRANCH CIRCUITS.
- 2. DO NOT USE MC OR AC CABLE.

FULL LOAD AMPERE(S)

3. WIRE SHALL BE COPPER THWN - SOLID FOR SIZES 12, 10, 8; STRANDED FOR SIZES 6 AND LARGER.

	ELECTRICAL S (ALL SYMBOLS MAY NOT A
0 —	CEILING-MOUNTED RECESSED, SURFACE OR
Ø –	SUSPENDED LIGHT FIXTURE. CEILING-MOUNTED RECESSED, SURFACE OR SUSPENDED EMERGENCY LIGHT FIXTURE.
Ю —	WALL-MOUNTED RECESSED OR SURFACE LIGHT FIXTURE.
	CEILING-MOUNTED RECESSED, SURFACE OR SUSPENDED INDIVIDUAL LIGHT FIXTURE.
	CEILING-MOUNTED RECESSED, SURFACE OR SUSPENDED INDIVIDUAL EMERGENCY LIGHT
o —	FIXTURE. CEILING-MOUNTED RECESSED, SURFACE OR SUSPENDED INDIVIDUAL LIGHT FIXTURE.
	CEILING-MOUNTED RECESSED, SURFACE OR SUSPENDED INDIVIDUAL EMERGENCY LIGHT
o —	FIXTURE. CEILING-MOUNTED RECESSED, SURFACE OR SUSPENDED INDIVIDUAL LIGHT FIXTURE.
	CEILING-MOUNTED RECESSED, SURFACE OR SUSPENDED INDIVIDUAL EMERGENCY LIGHT
O	FIXTURE. CEILING-MOUNTED RECESSED, SURFACE OR
⊢⊶ –	SUSPENDED CONTINUOUS-ROW LIGHT FIXTURE. CEILING-MOUNTED SURFACE OR SUSPENDED FLUORESCENT STRIP.
1/2// 4 —	CEILING-MOUNTED SURFACE OR SUSPENDED FLUORESCENT STRIP ON EMERGENCY.
• -	WALL WASH DOWNLIGHT; UNSHADED HALF INDICATES ILLUMINATION DIRECTION. POLE MOUNTED FLOODLIGHTS (2 LUMINAIRS
	SHOWN) CEILING-MOUNTED SURFACE OR SUSPENDED
፟ 🗴 —	SINGLE-FACE EXIT SIGN WITH DIRECTIONAL ARROW AS INDICATED; SHADED QUADRANT INDICATES FACE OF SIGN.
X —	CEILING-MOUNTED SURFACE OR SUSPENDED DOUBLE-FACE EXIT SIGN WITH DIRECTIONAL ARROWS AS INDICATED; SHADED QUADRANT INDICATES FACES OF SIGN.
⊦⊗ —	WALL-MOUNTED EXIT SIGN WITH DIRECTIONAL ARROW(S) AS INDICATED; SHADED QUADRANT(S) INDICATE FACE(S) OF SIGN.
₩ -	EMERGENCY LIGHT FIXTURE
<u> </u>	JUNCTION BOX
-	SINGLE RECEPTACLE; NEMA 5-20R AT 18" ABOVE FINISHED FLOOR UNO.
⊕ —	DUPLEX RECEPTACLE; NEMA 5-20R AT 18" ABOVE FINISHED FLOOR UNO. QUADRAPLEX RECEPTACLE; NEMA 5-20R AT 18"
₩ WP	ABOVE FINISHED FLOOR UNO. RECEPTACLE W/WEATHERPROOF COVERPLATE;
♥ —	DUPLEX NEMA 5-20R 18" ABOVE FINISHED GRADE OR FLOOR UNO.
₩ —	DUPLEX RECEPTACLE WITH DETENTION PLATE
⊖GFI —	GROUND-FAULT CIRCUIT INTERRUPTER RECEPTACLE; DUPLEX NEMA 5-20R 18" ABOVE FINISHED GRADE OR FLOOR UNO.
⊖ ^{IG} —	ISOLATED GROUND RECEPTACLE; DUPLEX NEMA 5-20R AT 18" ABOVE FINISHED FLOOR UNO
⊕ ⁿ —	RECEPTACLE MOUNTED n INCHES ABOVE FINISHED FLOOR OR GRADE; NEMA 5-20R UNO
© _B —	SPECIAL-PURPOSE RECEPTACLE; SEE SPECIAL-PURPOSE RECEPTACLE, CONNECTION AND FLOOR BOX SCHEDULE ON DRAWING.
⊜ B —	HARDWIRE CONNECTION OR PROVISION FOR CONNECTION; SEE SPECIAL-PURPOSE RECEPTACLE, CONNECTION AND FLOOR BOX SCHEDULE ON DRAWING. MULTIOUTLET ASSEMBLY
	FLOOR-MOUNTED SINGLE RECEPTACLE;
	NEMA 5-20R UNO. FLOOR-MOUNTED DUPLEX RECEPTACLE; NEMA 5-20R UNO.
⊘ _B —	FLOOR-MOUNTED SERVICE BOX; SEE SPECIAL PURPOSE RECEPTACLE, CONNECTION AND FLOOR BOX SCHEDULE ON DRAWING.
и —	DATA SYSTEM JACK; SINGLE GANG BOX AT 18" AFF WITH 1" CONDUIT TO ABOVE NEAREST ACCESSIBLE CEILING; SUBSCRIPTED NUMBER MOUNTING HEIGHT AFF
4 —	TELEPHONE SYSTEM VOICE JACK; SINGLE GANG BOX AT 18" AFF WITH 1" CONDUIT TO ABOVE NEAREST ACCESSIBLE CEILING; SUBSCRIPTED NUMBER INDICATES MOUNTING HEIGHT AFF
4 —	COMBINATION VOICE AND DATA JACK; 1-GANG BOX AT 18" AFF WITH 1" CONDUIT TO ABOVE NEAREST ACCESSIBLE CEILING; SUBSCRIPTED NUMBER INDICATES MOUNTING HEIGHT AFF
Ŋ _{F0} —	DATA SYSTEM FIBER OPTIC JACK; SINGLE GANG BOX AT 18" AFF WITH 1" CONDUIT TO ABOVE NEAREST ACCESSIBLE CEILING; SUBSCRIPTED NUMBER MOUNTING HEIGHT AFF
⊌ _{IP} —	INMATE PHONE. VOICE AND DATA JACK; 1-GANG BOX AT 48" AFF WITH 1" CONDUIT TO ABOVE NEAREST ACCESSIBLE CEILING; SUBSCRIPTED NUMBER INDICATES MOUNTING HEIGHT AFF
₩ _{WP} —	WALL PHONE. VOICE AND DATA JACK; 1-GANG BOX AT 48" AFF WITH 1" CONDUIT TO ABOVE NEAREST ACCESSIBLE CEILING; SUBSCRIPTED NUMBER INDICATES MOUNTING HEIGHT AFF

(ALL SYMBOLS MAY NO		
(ALL OTWIDGED WAT NO	TAIT LAR ON BRAWN	1400.)
CEILING-MOUNTED RECESSED, SURFACE OR SUSPENDED LIGHT FIXTURE.	\$ ^S —	SINGLE POLE SWITCH AT 48" ABOVE FINISHED FLOOR WITH SECURITY DETENTION PLATE.
CEILING-MOUNTED RECESSED, SURFACE OR SUSPENDED EMERGENCY LIGHT FIXTURE.	\$ —	SINGLE-POLE SWITCH AT 48" ABOVE FINISHED FLOOR UNO.
WALL-MOUNTED RECESSED OR SURFACE LIGHT FIXTURE.	\$ _D —	SINGLE-POLE DIMMING SWITCH AT 48" ABOVE FINISHED FLOOR UNO.
CEILING-MOUNTED RECESSED, SURFACE OR SUSPENDED INDIVIDUAL LIGHT FIXTURE.	\$ 2 —	_ TWO-POLE SWITCH AT 48" ABOVE FINISHED FLOOR UNO.
CEILING-MOUNTED RECESSED, SURFACE OR	\$ 3 —	_ THREE-WAY SWITCH AT 48" ABOVE FINISHED FLOOR UNO.
SUSPENDED INDIVIDUAL EMERGENCY LIGHT FIXTURE.	\$ 4 —	FOUR-WAY SWITCH AT 48" ABOVE FINISHED FLOOR UNO.
CEILING-MOUNTED RECESSED, SURFACE OR SUSPENDED INDIVIDUAL LIGHT FIXTURE.	\$к —	KEY-OPERATED SWITCH AT 48" ABOVE FINISHED FLOOR UNO.
CEILING-MOUNTED RECESSED, SURFACE OR SUSPENDED INDIVIDUAL EMERGENCY LIGHT	\$p —	SINGLE-POLE SWITCH AND PILOT LIGHT AT 48" ABOVE FINISHED FLOOR UNO.
FIXTURE. CEILING-MOUNTED RECESSED, SURFACE OR	\$T —	TIME SWITCH AT 48" ABOVE FINISHED FLOOR UNO.
SUSPENDED INDIVIDUAL LIGHT FIXTURE.	\$wp —	SINGLE-POLE SWITCH WITH WEATHERPROOF COVERPLATE AT 48" ABOVE FINISHED GRADE OR FLOOR UNO
CEILING-MOUNTED RECESSED, SURFACE OR SUSPENDED INDIVIDUAL EMERGENCY LIGHT FIXTURE.	H2 —	NURSE CALL SYSTEM DEVICE; SEE NURSE CALL SYSTEM DEVICE SCHEDULE ON DRAWINGS.
CEILING-MOUNTED RECESSED, SURFACE OR SUSPENDED CONTINUOUS-ROW LIGHT FIXTURE.	₩ -	PAGING SYSTEM DEVICE; SEE PAGING SYSTEM DEVICE SCHEDULE ON DRAWINGS.
CEILING-MOUNTED SURFACE OR SUSPENDED FLUORESCENT STRIP.	F —	FIRE ALARM SYSTEM MANUAL PULL STATION AT 48" ABOVE FINISHED FLOOR UNO.
CEILING-MOUNTED SURFACE OR SUSPENDED FLUORESCENT STRIP ON EMERGENCY.	\$ —	FIRE ALARM SYSTEM SMOKE DETECTOR; SUBSCRIPTED D INDICATES DUCT MOUNTING AND SUBSCRIPTED U INDICATES UNDER FLOOR MOUNTING.
WALL WASH DOWNLIGHT; UNSHADED HALF INDICATES ILLUMINATION DIRECTION. POLE MOUNTED FLOODLIGHTS (2 LUMINAIRS	⊕ —	FIRE ALARM SYSTEM HEAT DETECTOR FIRE ALARM SYSTEM STROBE LIGHT AT 80" AFF
SHOWN) CEILING-MOUNTED SURFACE OR SUSPENDED		OR 6" BFC, WHICHEVER IS LOWER; SUBSCRIPTED 1 INDICATES 110 CANDELA
SINGLE-FACE EXIT SIGN WITH DIRECTIONAL ARROW AS INDICATED; SHADED QUADRANT INDICATES FACE OF SIGN.	EA —	INTENSITY FIRE ALARM SYSTEM HORN AT 90" AFF OR 6" BFC, WHICHEVER IS LOWER.
CEILING-MOUNTED SURFACE OR SUSPENDED DOUBLE-FACE EXIT SIGN WITH DIRECTIONAL		FIRE ALARM SYSTEM BELL AT 90" AFF OR 6" BFC, WHICHEVER IS LOWER.
ARROWS AS INDICATED; SHADED QUADRANT INDICATES FACES OF SIGN.		FIRE ALARM SYSTEM HORN/STROBE LIGHT AT 80" AFF OR 6" BFC, WHICHEVER IS LOWER; SUBSCRIPTED 1 INDICATES 110 CANDELA INTENSITY.
WALL-MOUNTED EXIT SIGN WITH DIRECTIONAL ARROW(S) AS INDICATED; SHADED QUADRANT(S) INDICATE FACE(S) OF SIGN.	F-700	FIRE ALARM SYSTEM BELL/STROBE LIGHT AT
		80" AFF 1 INDICATES 110 CANDELA INTENSITY.
EMERGENCY LIGHT FIXTURE		- SPRINKLER SYSTEM TAMPER SWITCH
JUNCTION BOX SINGLE RECEPTACLE; NEMA 5-20R AT 18"		- SPRINKLER SYSTEM FLOW SWITCH
ABOVE FINISHED FLOOR UNO. DUPLEX RECEPTACLE; NEMA 5-20R AT 18"		SPRINKLER SYSTEM PRESSURE SWITCH CLOCK SYSTEM SINGLE RECEPTACLE: NEMA
ABOVE FINISHED FLOOR UNO. QUADRAPLEX RECEPTACLE; NEMA 5-20R AT 18" ABOVE FINISHED FLOOR UNO.	⊬0 — ⊬1 —	5-15R AT 80" ABOVE FINISHED FLOOR UNO. SOUND SYSTEM DEVISE; SEE SOUND SYSTEM DEVICE SCHEDULE ON DRAWINGS.
RECEPTACLE W/WEATHERPROOF COVERPLATE;	<u> </u>	SOUND SYSTEM SPEAKER; CEILING-MOUNTED
DUPLEX NEMA 5-20R 18" ABOVE FINISHED GRADE OR FLOOR UNO.	• —	2-GANG, 4" DEEP BOX WITH 1" CONDUIT TO ABOVE NEAREST ACCESSIBLE CEILING PUSHBUTTON
DUPLEX RECEPTACLE WITH DETENTION PLATE	D —	- ELECTRIC DOOR OPENER
GROUND-FAULT CIRCUIT INTERRUPTER RECEPTACLE; DUPLEX NEMA 5-20R 18" ABOVE FINISHED GRADE OR FLOOR UNO.	TV —	TELEVISION OUTLET; SINGLE GANG 2.5" DEEP BOX AT 72" AFF, UNLESS NOTED OTHERWISE, (WITH 1" CONDUIT TO ABOVE NEAREST CEILING) AND ADJACENT NEMA 5-20R DUPLEX
ISOLATED GROUND RECEPTACLE; DUPLEX NEMA 5-20R AT 18" ABOVE FINISHED FLOOR UNO		RECEPTACLE.
RECEPTACLE MOUNTED n INCHES ABOVE FINISHED FLOOR OR GRADE; NEMA 5-20R UNO	D	- DUCT SMOKE DETECTOR
SPECIAL-PURPOSE RECEPTACLE; SEE SPECIAL-		 SECURITY CAMERA MOTOR SYMBOL; THE NUMBER INSIDE
PURPOSE RECEPTACLE, CONNECTION AND FLOOR BOX SCHEDULE ON DRAWING.	(2)\ —	INDICATES HP.
HARDWIRE CONNECTION OR PROVISION FOR CONNECTION; SEE SPECIAL-PURPOSE	\boxtimes	COMBINATION DISCONNECT SWITCH/MOTOR STARTER.
RECEPTACLE, CONNECTION AND FLOOR BOX SCHEDULE ON DRAWING.	□ –	NON FUSED DISCONNECT SWITCH
MULTIOUTLET ASSEMBLY FLOOR-MOUNTED SINGLE RECEPTACLE;	₽ –	- FUSED DISCONNECT SWITCH
NEMA 5-20R UNO. FLOOR-MOUNTED DUPLEX RECEPTACLE;	_	- LOW VOLTAGE PANEL
NEMA 5-20R UNO.		HIGH VOLTAGE PANEL
FLOOR-MOUNTED SERVICE BOX; SEE SPECIAL PURPOSE RECEPTACLE, CONNECTION AND FLOOR BOX SCHEDULE ON DRAWING.	M -	MICROPHONE RECEPTACLE
DATA SYSTEM JACK; SINGLE GANG BOX AT 18"	~	- SWITCH
AFF WITH 1" CONDUIT TO ABOVE NEAREST ACCESSIBLE CEILING; SUBSCRIPTED NUMBER MOUNTING HEIGHT AFF	—— —	- FUSE
TELEPHONE SYSTEM VOICE JACK; SINGLE GANG	 1	- GROUND
BOX AT 18" AFF WITH 1" CONDUIT TO ABOVE NEAREST ACCESSIBLE CEILING; SUBSCRIPTED NUMBER INDICATES MOUNTING HEIGHT AFF		- OVERLOADS
COMBINATION VOICE AND DATA JACK; 1-GANG		- CIRCUIT BREAKER
BOX AT 18" AFF WITH 1" CONDUIT TO ABOVE NEAREST ACCESSIBLE CEILING; SUBSCRIPTED NUMBER INDICATES MOUNTING HEIGHT AFF		- TRANSFORMER
DATA SYSTEM FIBER OPTIC JACK; SINGLE GANG BOX AT 18" AFF WITH 1" CONDUIT TO ABOVE NEAREST ACCESSIBLE CEILING; SUBSCRIPTED NUMBER MOUNTING HEIGHT AFF	4	- AUTOMATIC TRANSFER SWITCH
INMATE PHONE. VOICE AND DATA JACK; 1-GANG BOX AT 48" AFF WITH 1" CONDUIT TO ABOVE NEAREST ACCESSIBLE CEILING; SUBSCRIPTED	¶− −	 OCCUPANCY SENSOR OCCUPANCY SENSOR "SWITCH PACK" OR "POWER PACK" REFER TO DETAIL 8 ON SHEET E3
NUMBER INDICATES MOUNTING HEIGHT AFF WALL PHONE. VOICE AND DATA JACK; 1-GANG	MDL —	- MAGNETIC DOOR LOCK
BOX AT 48" AFF WITH 1" CONDUIT TO ABOVE NEAREST ACCESSIBLE CEILING; SUBSCRIPTED NUMBER INDICATES MOUNTING HEIGHT AFF		– PUSH BUTTON - OPEN, STOP, CLOSE
REMOTE DOOR UNLOCK PUSH BUTTON	₩ -	– PUSH BUTTON - DOOR OPENER
CEILING MOUNTED WIRELESS WIFI ANTENNA	CR) —	- CARD READER
		- CONTROLLED DOOR
		MOTION DETECTOR

MD — MOTION DETECTOR

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ELECTRICAL CONVENTIONS
                  (ALL CONVENTIONS MAY NOT APPEAR ON DRAWINGS.)
  GENERAL NOTES APPLY TO ELECTRICAL DRAWING SET.
  DRAWING NOTES APPLY TO DRAWING ON WHICH NOTE APPEARS.
  SYMBOL NOTES APPLY TO DRAWING ON WHICH AND WHERE SYMBOL APPEARS.
  WIRE SIZES ARE INDICATED BY AMERICAN WIRE GAGE OR CIRCULAR MILS.
 LB-3,5 ——PANELBOARD, SWITCHBOARD OR MOTOR CONTROL
                   CENTER DESIGNATION; ARROWHEADS INDICATE
                   NUMBER OF BRANCH CIRCUITS
         BRANCH CIRCUIT HOMERUN TO PANELBOARD, SWITCHBOARD
          OR MOTOR CONTROL CENTER; ARROWHEADS INDICATE
          NUMBER OF BRANCH CIRCUITS
  — - — CENTER LINE
TYPICAL LIGHTING NOTATIONS SHOWN ON LIGHTING PLAN:
          INDICATES FIXTURE TYPE - SEE LIGHT FIXTURE SCHEDULE
  LIGHTING FIXTURE
           INDICATES FIXTURE TO BE UNSWITCHED (NIGHT LIGHT)
             INDICATES PANEL CIRCUIT OR RELAY NUMBER
           (RELAY NUMBERS START WITH RPHA OR RPLA)
TYPICAL POWER NOTATIONS SHOWN ON POWER PLAN:

    NUMBER OF POLES

                  RATING OF SWITCH
                   RATING OF FUSES OR NON-FUSIBLE
                  / NEMA ENCLOSURE TYPE.
          3P/60A/NF/3R
          DISCONNECT SWITCH
        ALL DIMENSIONS GIVEN SHALL BE INTERPRETED AS DIMENSION
        TO THE TOP OF THE ELECTRICAL BOX IN ACCORDANCE WITH ADA.
                   DRAWING SYMBOLS
               (ALL SYMBOLS MAY NOT APPEAR ON DRAWINGS.)
                      —RISER NUMBER
                 — POINTS TO RISER AREA
                      —DRAWING NO. TO REFER TO
                    — SECTION NUMBER
                     DRAWING NUMBER WHERE SECTION IS LOCATED
```

3 LIGHTING SCHEDULE SCALE: N.T.S.

7. REFER TO SPECIFICATIONS SECTIONS FOR ADDITIONAL REQUIREMENTS

PE A	DESCRIPTION RECESSED LED 2' X 4' FIXTURE, APPROX. 6100 LUMENS, 0-10V CONTINUOUS DIMMING	VOLTS 120	LAMPS LED	WATT
	DRIVER (STANDARD), ELECTRONIC DRIVERS ACCESSED IN PLENUM, 4000K 85 <cri, 24en-ld1-58-unv-l840-cd1-u="" 60,000+hrs="" ansi="" ar24-40l-40k-10v<="" cree="" metalux="" per="" th="" tm-21.=""><th></th><th></th><th></th></cri,>			
	COLUMBIA LSER24-40HLG-R-EDU LITHONIA 2VTL4 48L ADP D47 LP840 NX			
ΑE	SAME AS TYPE "A" EXCEPT WITH BATTERY BACK-UP.	120	LED	67
В	RECESSED LED 2' X 4' FIXTURE, APPROX. 4200 LUMENS , 0-10V CONTINUOUS DIMMING DRIVER (STANDARD), ELECTRONIC DRIVERS ACCESSED IN PLENUM, 4000K 85 <cri,< td=""><td>120</td><td>LED</td><td>42</td></cri,<>	120	LED	42
	60,000+HRS PER ANSI TM-21. METALUX 24EN-LD1-30-UNV-L840-CD1-U CREE AR24-40L-40K-10V COLUMBIA LSER24-40LWG-R-EDU			
	LITHONIA 2VTL4 40L ADP D40 LP840 NX			
3E	SAME AS TYPE "B" EXCEPT WITH BATTERY BACK-UP.	120	LED	42
С	RECESSED 4" LED CAN, APPROX. 1300 LUMENS, 4000K 85 <cri, 0-10v="" 4lw1li="" continuous="" cree="" dimming="" dimming)<="" driver(standard),="" drivers,="" electronic="" erw4a13840="" kr4-9l-40k-120-(triac="" ld4a20d010te="" portfolio="" reflector="" td="" trim,="" white=""><td>120</td><td>LED</td><td>22</td></cri,>	120	LED	22
D	VANITY LIGHT ABOVE MIRROR, ELECTRONIC DRIVER (<10% THD), MOUNT HORIZONTAL	120	LED	39
	ABOVE MIRROR.AS DIRECTED. BRUSHED NICKEL FINISH. 2"-0" LENGTH. 3500K			
	ARCHITECTURAL LTG WKS TR[W-2-HP14-LED-120-BN MODERN FORMS WS-3226-BN OXYGEN LTG 3-5134-24			
	LIGHTWAY VLXV-24-LED-U-25W-4-BN-WSA XAL LTG N622-634-732-7160-H-66-0220			
F1	CEILING FAN WITH LOW PROFILE MOUNTING, 42", HANG TRUE CANOPY, EXTRA QUITE MOTOR ,	120	4-7W	95
	BRUSHED SATIN NICKEL FINISH WITH LIGHT KIT. 3(4)-WAY ROCKER SWITCH AT ENTRY AND BED. WHITE FAN SPEED CONTROL 7-1305-0 AT BED.		EIKO LEDP7W	30w
	QUORUM 43425-65/2409-865		PAR20/FL/841/ DIM7 LED	65w
F2	CEILING FAN WITH LOW PROFILE MOUNTING, 52", HANG TRUE CANOPY, EXTRA QUITE MOTOR , SATIN NICKEL FAN WITH SATIN NICKEL/WALNUT BLADES AND WHITE FAN SPEED CONTROL .	120	NO LAMPS	65
	INSTALL SATIN NICKEL SIDE DOWN ON BLADES.			
	QUORUM 43525-65			
F3	CEILING FAN WITH LOW PROFILE MOUNTING, 52", HANG TRUE CANOPY, EXTRA QUITE MOTOR, SATIN NICKEL FAN WITH SATIN NICKEL/WALNUT BLADES AND WHITE FAN SPEED CONTROL. INSTALL SATIN NICKEL SIDE DOWN ON BLADES.	120	2-7W EIKO	80 15
	QUORUM 136525-6/1378-808 LIGHT KIT		LEDP7W PAR20/FL/841/ DIM7	15 65w
G	RECESSED LED 2' X 2' FIXTURE, APPROX. 3456 LUMENS, 0-10V CONTINUOUS DIMMING	120	LED LED	35
	DRIVER (STANDARD), ELECTRONIC DRIVERS ACCESSED IN PLENUM, 4000K 85 <cri, 60,000+hrs="" ansi="" per="" td="" tm-21.<=""><td></td><td></td><td></td></cri,>			
	METALUX 22EN-LD1-34-UNV-L840-CD1-U			
	CREE AR22-32L-40K-10V FOCAL POINT FARL22-AC-LL1-L35-LD1-120-G1-WH LITHONIA 2VTL2 24L ADP D24 LP840 NX			
31	RECESSED LED 2' X 2' FIXTURE, APPROX. 3456 LUMENS, 0-10V CONTINUOUS DIMMING	120	LED	35
	DRIVER (STANDARD), ELECTRONIC DRIVERS ACCESSED IN PLENUM, 4000K 85 <cri, 60,000+hrs="" ansi="" complete="" dry-wall="" for="" frame-in="" hard<="" kit="" per="" td="" tm-21.="" with=""><td></td><td></td><td>-</td></cri,>			-
	CEILINGS.			
	METALUX 22EN-LD1-34-UNV-L840-CD1-U-DF-22-U CREE AR22-32L-40K-10V FOCAL POINT FARL22-AC-LL3-L35-LD1-120-G1-WH			
	LITHONIA 2VTL2 36L ADP D36 LP840 NX			
1E	SAME AS TYPE "G1" EXCEPT WITH BATTERY BACK-UP.	120	LED	35
Н	RECESSED 4" LED CAN, APPROX 450 LUMENS, SHOWER LIGHT RATED FOR DAMP LOCATIONS.	120	LED	14
	0-10V CONTINUOUS DIMMING DRIVER(STANDARD), ELECTRONIC DRIVERS, 4000K 85 <cri,< td=""><td></td><td></td><td></td></cri,<>			
	HALO H455TCPUNVD010-EL4-05-840-TL402WHS PHILIPS LIGHTOLIER CP430K6//P4 (P4ASIC for Insulated Ceilings)			
	PRESCOLITE BX4QL-120-LB4LEDA30K-WH TECH E3RF-LXWD60DN/E4RFF-HW			
J	WALL MOUNTED BED LIGHT, MOUNT AS DIRECTED, DIMMER SWITCH MOUNTED ON WALL,	120	LED	50
	RAL CUSTOM FINISH SELECTED BY ARCHITECT, ACRYLIC OPEL LENS. 0-10V DIMMING. PROVIDE ADDITIONAL WALL DIMMER FOR SOLERA.			
	STILE SLWZ-1-ZYNNLED-L16.0WA-45K-120-2-0-LBC-004-XX-AFL-DML SOLERA CURVE-LED-120-OPL-U/D-WM-CC			
	BIRCHWOOD HAI-LED-225-RSM-L9LRH-40-2-SC-FW-120-EB-D1-HLA2			
K	WALL MOUNTED LIGHT, 4' LONG WITH BATTERY BACK-UP, WHITE FINISH, WITH HOWARD F32T88XX/LED/22W/IS LED LAMP-INSTANT START BALLAST.	120	LED	25
	CORONET 850WM-4FT-1-32WT8-UNV-WB-EM			
	ALERA CV-4-1T8-PERF-WM-E120-MW METALUMEN O5WA1T8-4-UP-7-W-4120-INSTANT START			
L	RECESSED 6" LED CAN, APPROX. 3000 LUMENS, RATED FOR DAMP LOCATIONS.	120	LED	55
	OPEN SPECULAR CLEAR REPLECTOR,0-10V CONTINUOUS DIMMING DRIVER(STANDARD), ELECTRONIC DRIVERS, 4000K 85 <cri,< td=""><td></td><td></td><td></td></cri,<>			
	PORTFOLIO LD6A20DE010-ERW6A30-840-6LW0-L1 CREE KR620L-40K-120-10V			
	PRESCOLITE LF6LED - 6LFLED7 40K DMF LIGHTING LD6-30-NC-1-0/LD6-30-DL-40-D-W			
_E	SAME AS TYPE "L" EXCEPT WITH BATTERY BACK-UP.	120	LED	43
P	DENDANT HANG OTDAIGUT OVARUEL A COCK TOTAL	46-		
Р	PENDANT, HANG STRAIGHT SWIVEL, 4,000K, TITANIUM GRAY FINISH, NON DIMMING . DRIVER STEM LENGTH AS SPECIFIED BY ARCHITECT. OPAL LENS.	120	LED	54
	LUMINIS W775-LTW56-120-GRT-SH US ARCH CLX-WA-48LED-MT-NW-350MA-SM(4 FT MAX)-STD FINISH			
_				
PE	SAME AS TYPE "P" EXCEPT WITH BATTERY BACK-UP.	120	LED	54
JC	LED UNDERCOUNTER/CLOSET LIGHT, 2'-0" WITH ROCKER SWITCH FOR SEPARATE SWITCHING.	120	LED	16
	METALUX HU10-24-D-80-30-P INSIGHT LIGHTING PL-5-35K-160-INT-ACV-MW-			
	LITHONIA RAZ24 JESCO S401-24-40-WH			
V1	WALL MOUNT, CAST ALUMINUM BODY, ACRYLIC LENS/METAL REFLECTOR, DARK BRONZ	120	LED	60
	FINISH. ELECTRONIC DRIVER -WET LOCATION LISTED, BATTERY BACK-UP. ELA ARC-24WB-OP-75LED-120-CA-DB-TSS-GR-BBU			
	ELA ARC-24WB-OP-75LED-120-CA-DB-TSS-GR-BBU LIGHTWAY MERW-1126-LED-D-U-42W-4-Z1-WSA VISA CB6252-LCW2700-PAINTED			
V2	WALL MOUNT, WHITE ACRYLIC DIFFUSER, OPEN TOP AND BOTTOM, MATT SILVER FINISH,	120	LED	20
	ELECTRONIC DRIVER - WALL MOUNT			
	TLI TGR-CNC-L120.0-100-277-TE350-SM-40K LIGHTWAY ACJW-16-LED-U-21W-4-PZ-WSADIM VISA CB6252-LCW2700-PAINTED			
S1	POST TOP, ALUMINUM BODY, APPROX. 4100 LUMENS, SPUN ALUMINUM SHADE, 4000K COLOR	120	LED	54
	TEMPERATURE, BE SEALED. ELECTRONIC DRIVER 16' POLE MOUNT. MATTE SILVER FINISH			
	LUMINIS W603-L1W56-120-MST-/PAA516			
S2	POST TOP, ALUMINUM BODY, APPROX. 4100 LUMENS EACH , SPUN ALUMINUM SHADE, 4000K COLOR TEMPERATURE, BE SEALED. ELECTRONIC DRIVER 16' POLE MOUNT. MATTE SILVER	120	LED	108
	FINISH			
	LUMINIS (2)W603-L1W56-120-MST-EC3P/PAA516			
Х	SINGLE/DUAL FACE EXIT SIGN WITH RED LED LAMPS, UNIVERSAL ARROWS, UNIVERSAL MOUNTING, THERMOPLASTIC HOUSING, EXTRA PANEL FOR FIELD CONVERSON	120	LED	4
	TO DOUBLE -FACE			
	DUALLITE LX-U-R-W- LITHONIA LQM S W 3 R 120/277 EL N			
	SURE-LITES LPX-70-RWH BEGHELLI VA4SALR			
	'			
ŒS:	1. ALL DRIVERS ARE SPECIFICATION GRADE , ELECTRONIC <10%THD			

ARC FLASH HAZARDS:

for the incident energy.

wearing PPE.

Warning - Arc Flash Hazards exist when open panels are energized. Do not work on energized equipment without personal protection equipment (PPE) rated

The Arc Flash Boundary has been calculated at 28 inches.

Remain 28 inches away from open energized panels unless

The Incident Energy has been calculated at 9.2 Joules/cm².

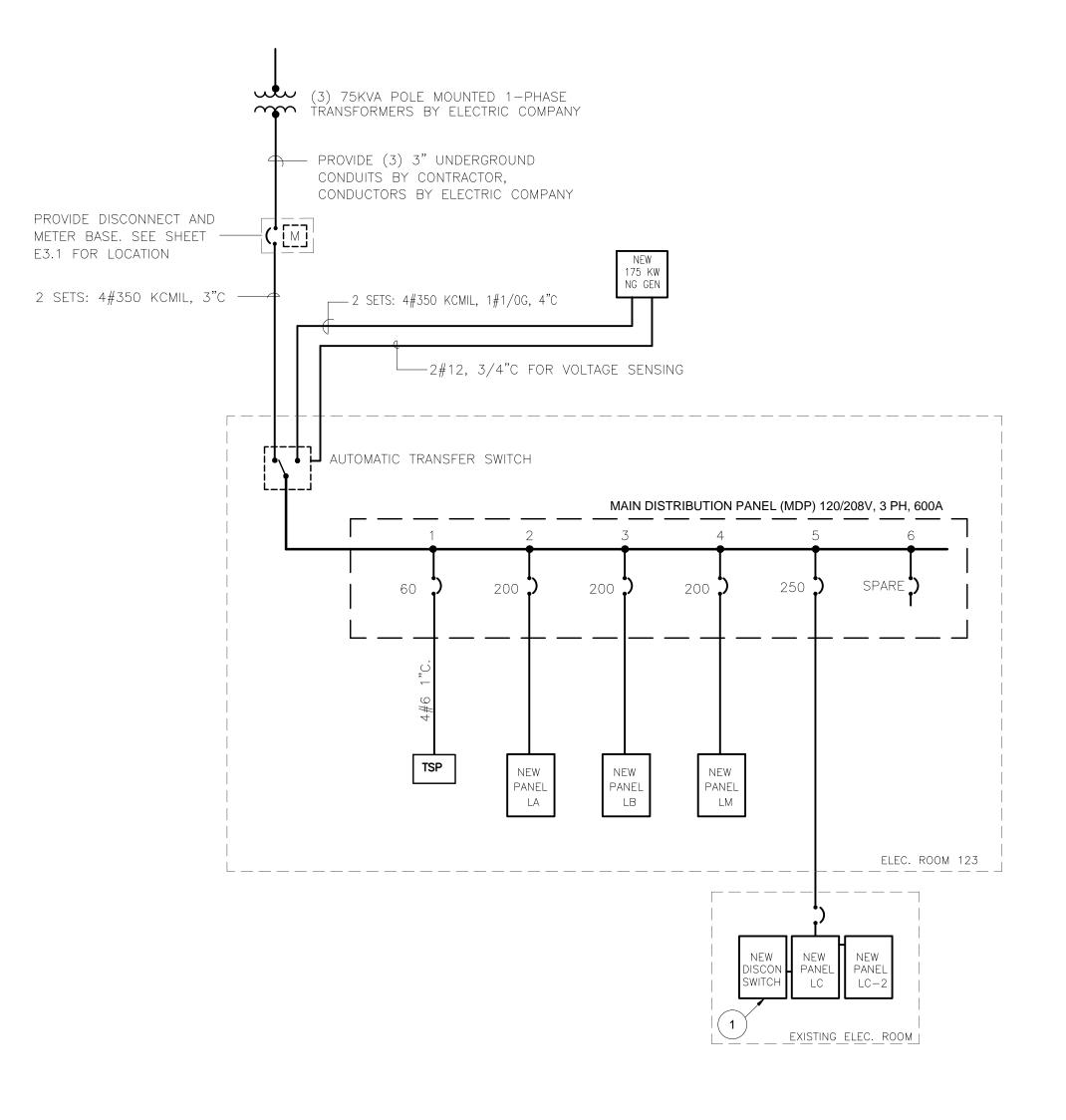
PPE should equal or exceed this rating.

2 POLE BASE DETAIL

N.T.S.

3/4" STEEL BASE AND 1/4" STEEL LEVELING __ CONNECT GROUND WIRE TO POLE NON-SHRINK GROUT ----— ANCHOR BASE COVER REFER TO ARCHITECTURAL ——— GRADING OR PAVING ----24" BELOW GRADE MIN. — _ ANCHOR BOLTS SUPPLIED BY POLE MANUFACTURER #10 COPPER GROUND — __ CONDUIT 30" BELOW GRADE MIN. SEE SPECIFICATIONS RIGID METAL CONDUIT 90'S AND VERTICAL VERIFY POLE BASE HEIGHT WITH STRUCTURAL AND ARCHITECT. DETAIL SHOWN FOR CLARIFICATION OF ELECTRICAL REQUIREMENTS. 6' GROUND ROD ---

1 ONE LINE DIAGRAM SCALE: N.T.S.



NOTES BY SYMBOL "O" REPLACE EXISTING 120/240 VOLT SINGLE PHASE PANELS WITH NEW 120/208 VOLT 3 PHASE PANELS.

		LOAD S	UMMAR	Y - DIS	TRIBUT	ION PAI	NEL DP				
CKT	DESCRIPTION		С	ONNECTED	LOAD (KV	A)		CONNEC	TED LOAD	DESIG	N LOAD
CKI	DESCRIPTION	LTG	RCPT	MTR	HEAT	KITCH	MISC	KVA	AMPS	KVA	AMPS
1	SPD										
2	PANEL LA	0.00	33.30	1.10	0.00	0.00	0.00	34.40	95.48	22.75	63.15
3	PANEL LB	7.91	5.70	0.00	0.00	0.00	0.00	13.61	37.78	15.59	43.27
4	PANEL LM	0.00	0.00	43.38	0.00	0.00	6.68	50.06	138.95	60.91	169.06
5	EXISTING PANEL (NOTE 1) LC	6.00	6.50	17.00	10.00	2.50	8.00	50.00	138.79	54.88	228.65
6	BLANK/SPARE										
	CONNECTED LOAD	13.91	45.50	61.48	10.00	2.50	14.68				
	DIVERSITY (N.E.C.)	1.25	NEC	10.85	1.00	0.65	1.00				
	DESIGN LOAD (N.E.C.)	17.39	27.75	72.33	10.00	1.63	14.68				

DESIGN KVA 14.38 SPARE 10% DESIGN AMPS

VOLTAGE: 120/208V, 3PH, 4 W MAIN SIZE (A): AIC RATING: MOUNTING: SURFACE

NOTES: 1. PEAK DEMAND OBTAINED FROM ELECTRIC COMPANY- 40KW 125% of 40KW = 50KW

							PAN	NELB	OA	RD	SC	HEDI	ULE							
	MAIN SIZE: AIC RATING:	150 18	A ,000	MAIN T MOUN			ACE					SECTI VOLTA				NAME: 3PH,4\				
	DESCRIPTION	AMPS			LOAD	(KVA)								LOAD	(KVA)			AMPS	DESCRIPTION	
	DEGCKII HON	POLE	LTG	RCPT	MTR	HEAT	KITCH	MISC				MISC	KITCH	HEAT	MTR	RCPT	LTG	POLE	DESCRIPTION	
1	RCPT WATCH 118	20/1		1.26					1	Α	2					1.08		20/1	RCPT FLR TRAIN 105	2
3	RCPT WATCH 118	20/1		1.08					3	В	4					1.08		20/1	RCPT FLR TRAIN 105	4
5	RCPT LT DORM 129	20/1		0.72					5	С	6				1.10			20/1	MOTORIZED WINDOW	6
7	RCPT LT OFFICE 128	20/1		0.90					7	Α	8					0.54		20/1	RCPT TRAINING 105	8
9	RCPT B-CHF DORM 133	20/1		0.72					9	В	10					0.90		20/1	RCPT TRAINING 105	10
11	RCPT B-CHF OFF 133	20/1		0.90					11	С	12					0.72		20/1	RCPT TRAINING 105	12
13	RCPT FITNESS 135	20/1		0.90					13	Α	14					0.90		20/1	RCPT TOIL 103/104, WO	14
15	RCPT FITNESS 135	20/1		0.90					15	В	16					0.90		20/1	RCPT OFF 115, STR 11	16
17	RCPT PANTR 125/6/7	20/1		0.72					17	С	18					0.90		20/1	RCPT RADIO 106	18
19	RCPT PANTR 125/6/7	20/1		0.72					19	Α	20					0.72		20/1	RCPT RAD 106, VEN 10	20
21	RCPT DATA 135	20/1		0.72					21	В	22					0.54		20/1	RCPT VENDING 107	22
23	RCPT DATA 135	20/1		0.72					23	С	24					0.90		20/1	RCPT EXM 102, STR 11	24
25	RCPT KITCHEN 124	20/1		0.54					25	Α	26					0.90		20/1	RCPT COPY 111	26
27	RCPT KITCHEN 124	20/1		0.54					27	В	28					0.90		20/1	RCPT COPY 111	28
29	RCPT KITCHEN 124	20/1		0.96					29	С	30					0.72		20/1	RCPT OFFICE 112	30
31	RCPT KITCHEN 124	20/1		0.54					31	Α	32					0.72		20/1	RCPT OFFICE 113/114	32
33	RCPT KITCHEN 124	20/1		0.36					33	В	34					1.08		20/1	RCPT OFFICE 113/114	34
35	RCPT WASHER	20/1		1.44					35	С	36					1.08		20/1	RCPT DDORM BED	36
37	RCPT TOIL 145/6/7/8	20/1		0.90					37	Α	38					1.08		20/1	RCPT DORM DESK	38
39	RCPT DINING 120	20/1		0.90					39	В	40					1.20		20/1	RCPT KITCHEN	40
41	SPARE	20/1							41	С	42							20/1	SPARE	42
	TOTALS		0.00	16.44	0.00	0.00	0.00	0.00				0.00	0.00	0.00	1.10	16.86	0.00		TOTALS	

	PANELBOARD SCHEDULE																			
	MAIN SIZE:		Α	MAIN T	YPE:	MLO						SECTI	ON 1	Р	ANEL	NAME:	LC			
	AIC RATING:	18	,000	MOUN	TING:	SURF	ACE		_			VOLTA	\GE:	208	/120V	3PH,4\	Ν			
	DESCRIPTION	AMPS			LOAD	(KVA)								LOAD	(KVA)			AMPS	DESCRIPTION	
	DEGORII TION	POLE	LTG	RCPT	MTR	HEAT	KITCH	MISC				MISC	KITCH	HEAT	MTR	RCPT	LTG	POLE	DEGCINI NON	
1	LTGS RM 101, 102, 103								1	Α	2							100/3	SUB PANEL C2	2
3	VENT WOMENS RR								3	В	4									4
5	LTGS HIGH BAY								5	С	6									6
7	LTGS HIGH BAY								7	Α	8							20/1	RCPT REFRIGERATOR	8
9	LTGS HIGH BAY								9	В	10							20/1	RCPT ICE MACHINE	10
11	LTGS RM 111								11	С	12							20/1	RCPT RM 102 WEST	12
13	LTGS RM 112								13	Α	14							20/1	RCPT RM 102 EAST	14
15	STOVE	20/2							15	В	16							20/1	RCPT RM 101	16
17									17	С	18							20/1	SUMP PUMP	18
19	WATER HEATER	20/2							19	Α	20							20/1	VENT FAN	20
21									21	В	22							20/1	WASHER	22
23	DRYER	30/2							23	С	24							20/1	RCPT REST ROOM	24
25									25	Α	26							20/1	LTGS REST ROOM	26
27	HEAT	60/2							27	В	28							20/1	OH DOOR WEST	28
29									29	С	30							20/1	OH DOOR WEST	30
31	AIR COMPRESSOR	50/2							31	Α	32							20/1	OH DOOR EAST	32
33									33	В	34							20/1	OH DOOR EAST	34
35	COMPRESSOR SCBA	60/2							35	С	36							20/1	RCPT H/BAY EAST	36
37									37	Α	38							20/1	RCPT H/BAY WEST	38
39	RCPT RM 102								39	В	40							20/1	RCPT RM 111	40
41	RCPT RM 112								41	С	42							20/1	VENT MENS RR	42
	TOTALS		0.00	0.00	0.00	0.00	0.00	0.00				0.00	0.00	0.00	0.00	0.00	0.00		TOTALS	

MAXIMUM DEMAND OBTAINED FROM ELECTRIC COMPANY (GCEC) INDICATES 40 KW FOR EXISTING PANELS C AND C-2.

TRANSISTION ALL CIRCUITS FROM EXISTING 120/240 SINGLE PHASE PANEL TO THIS NEW PANEL C. INFORMATION WAS TAKEN FROM SITE OBSERVATIONS. CONTRACTOR TO VERIFY ALL CIRCUITS BEFORE STARTING WORK.

			VR	/ INDOO	R UNIT MOD	ELS		
ITEM	SERVES	E	LECTRICA	L	CIRCUIT	C/B	WIRE & CONDUIT	DISCONNECT
II LIVI	SEINVES	V/PH	MCA	MOCP	CINCOIT	C/B	WINE & CONDON	DISCONNECT
VRV-1A	TRAINING ROOM	208/1	1.5	15			2 #12, 1 #12G, 3/4" C	MANUAL MOTOR STARTER
VRV-1B	TRAINING ROOM	208/1	1.4	15			2 #12, 1 #12G, 3/4" C	MANUAL MOTOR STARTER
VRV-2	LOBBY	208/1	2.3	15			2 #12, 1 #12G, 3/4" C	MANUAL MOTOR STARTER
VRV-3	OFFICE 115	208/1	0.8	15	LM-1/3	15/2	2 #12, 1 #12G, 3/4" C	MANUAL MOTOR STARTER
VRV-4	RADIO ROOM 106	208/1	0.3	15			2 #12, 1 #12G, 3/4" C	MANUAL MOTOR STARTER
VRV-5	RECEPTION/COPY	208/1	1.6	15			2 #12, 1 #12G, 3/4" C	MANUAL MOTOR STARTER
VRV-6	CHIEF 114	208/1	0.8	15			2 #12, 1 #12G, 3/4" C	MANUAL MOTOR STARTER
VRV-7	OFFICE 113	208/1	0.8	15			2 #12, 1 #12G, 3/4" C	MANUAL MOTOR STARTER
VRV-8	OFFICE 112	208/1	0.8	15			2 #12, 1 #12G, 3/4" C	MANUAL MOTOR STARTER
VRV-9	WATCH 118	208/1	0.8	15	LM-5/7	15/2	2 #12, 1 #12G, 3/4" C	MANUAL MOTOR STARTER
VRV-10	LIEUTENANT AREA	208/1	0.6	15	LIVI-5/7	15/2	2 #12, 1 #12G, 3/4" C	MANUAL MOTOR STARTER
VRV-11	BATTALION CHIEF AREA	208/1	0.6	15			2 #12, 1 #12G, 3/4" C	MANUAL MOTOR STARTER
VRV-12	FITNESS	208/1	1.4	15			2 #12, 1 #12G, 3/4" C	MANUAL MOTOR STARTER
VRV-13	KITCHEN/LIVING AREA	208/1	9.0	15	LM-9/11	15/2	2 #12, 1 #12G, 3/4" C	MANUAL MOTOR STARTER
VRV-14	IT	208/1	0.3	15			2 #12, 1 #12G, 3/4" C	MANUAL MOTOR STARTER

208/1 0.3 15

ELEC ROOM

	BRANCH SELECTOR SCHEDULE													
ITEM	LOCATION	E	LECTRICA	L	CIRCUIT	C/B	WIRE & CONDUIT	DISCONNECT						
II LIVI	LOCATION	V/PH	MCA	MOCP		C/D	WINE & CONDON	DISCONNECT						
BS-1	VENDING 107	208/1	0.6	15			2 #12, 1 #12G, 3/4" C	MANUAL MOTOR STARTER						
BS-2	VENDING 107	208/1	0.1	15			2 #12, 1 #12G, 3/4" C	MANUAL MOTOR STARTER						
BS-3	PANTRY 126	208/1	0.1	15	LM-2/4	15/2	2 #12, 1 #12G, 3/4" C	MANUAL MOTOR STARTER						
BS-4	LAUNDRY/JANITOR 136	208/1	0.4	15			2 #12, 1 #12G, 3/4" C	MANUAL MOTOR STARTER						
		•		1		1								

2 #12, 1 #12G, 3/4" C MANUAL MOTOR STARTER

2 #12, 1 #12G, 3/4" C MANUAL MOTOR STARTER

	FAN SCHEDULE													
ITEM	SERVES	MOT	OR	CIRCUIT	C/B	WIRE & CONDUIT	DISCONNECT							
II EIVI	3ERVE3	WATTS	V/ PH	CIRCUIT	C/B	WIRE & CONDON	DISCONNECT							
EF-1	TOILET 145	173	120/1	SAME CIRCUIT AS LI	GHT IN ROOM	2 #12, 1 #12G, 3/4" C	MANUAL MOTOR STARTER							
EF-2	TOILET 146	173	120/1	SAME CIRCUIT AS L	IGHT IN ROOM	2 #12, 1 #12G, 3/4" C	MANUAL MOTOR STARTER							
EF-3	TOILET 148	173	120/1	SAME CIRCUIT AS L	IGHT IN ROOM	2 #12, 1 #12G, 3/4" C	MANUAL MOTOR STARTER							
EF-4	TOILET 147	173	120/1	SAME CIRCUIT AS L	IGHT IN ROOM	2 #12, 1 #12G, 3/4" C	MANUAL MOTOR STARTER							
EF-5	LAUNDRY/JAN 136	173	120/1	SAME CIRCUIT AS L	IGHT IN ROOM	2 #12, 1 #12G, 3/4" C	MANUAL MOTOR STARTER							
EF-6	TOILET 130	173	120/1	SAME CIRCUIT AS L	IGHT IN ROOM	2 #12, 1 #12G, 3/4" C	MANUAL MOTOR STARTER							
EF-7	TOILET 104	173	120/1	SAME CIRCUIT AS LI	GHT IN ROOM	2 #12, 1 #12G, 3/4" C	MANUAL MOTOR STARTER							
EF-8	TOILET 103	173	120/1	SAME CIRCUIT AS L	IGHT IN ROOM	2 #12, 1 #12G, 3/4" C	MANUAL MOTOR STARTER							
KEF-1	ROOF													

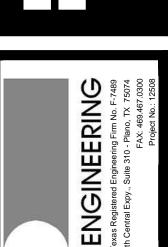
			OUTDOO	R CONDE	NSING UNIT SCH	HEDULE			
ITEM	LOCATION		ELECTRICAL	-	CIRCUIT	C/B	WIRE & CONDUIT	DISCONNECT	
II LIVI	LOCATION	V/PH	MCA	MOCP	CINCOIT	C/D	VVIINE & CONDOIT	DISCONNECT	
CU-1	EXTERIOR	208/3	43	60	LM-19/21/23	60/3	3 #6, 1 # 10G, 1"C	3P/60A/NF/3R	
CU-1	EXTERIOR	208/3	41.3	60	LM-14/16/18	60/3	3 #6, 1 #10G, 1" C	3P/60A/NF/3R	
CU-2	EXTERIOR	208/3	36.1	50	LM-20/22/24	50/3	3 #6, 1 #10G, 1" C	3P/60A/NF/3R	

							PAN	NELB	OΑ	RD	SC	HFD	UI F							
	MAIN SIZE:	150	Α	MAIN T	YPE:	MLO		1222				SECTI		Р	ANEL	NAME:	LB			
	AIC RATING:	18		MOUN			ACE					VOLT/	\GE:	208	/120V	3PH,4\	Ν			
	DECODIDITION	AMPS			LOAD	(KVA)]					LOAD		·		AMPS	DECODIDATION	
	DESCRIPTION	POLE	LTG	RCPT	MTR	HEAT	КІТСН	MISC	1			MISC	KITCH	HEAT	MTR	RCPT	LTG	POLE	DESCRIPTION	
1	BLANK								1	Α	2					1.80		20/1	RCPT EXT WALLS	2
3	BLANK								3	В	4					0.90		20/1	RCPT ROOF	4
5	BLANK								5	С	6					1.00		20/1	RCPT GENSET	6
7	BLANK								7	Α	8					1.00		20/1	RCPT GENSET	8
9	BLANK								9	В	10					1.00		20/1	RCPT FIRE ANN. PANE	10
11	BLANK								11	С	12							20/1	SPARE	12
13	BLANK								13	Α	14							20/1	SPARE	14
15	BLANK								15	В	16							20/1	SPARE	16
17	BLANK								17	С	18							20/1	SPARE	18
19	BLANK								19	Α	20							20/1	SPARE	20
21	BLANK								21	В	22						0.06	20/1	LTGS PATIO	22
23	BLANK								23	С	24						0.69	20/1	LTGS KITCHEN	24
25	BLANK								25	Α	26						1.12	20/1	LTGS OFFICES	26
27	BLANK								27	В	28						1.12	20/1	MEETING, R-R, ENTRY	28
29	BLANK								29	С	30						1.01	20/1	OFFICER FITNESS	30
31	BLANK								31	Α	32						0.91	20/1	LTGS DORMS	32
33	BLANK								33	В	34						1.15	20/1	LTGS LIVING, TOILETS	34
35	BLANK								35	С	36						1.29	20/1	LTGS CORRIDOR	36
37	BLANK								37	Α	38							20/1	LTGS EXT (TIMER)	38
39	BLANK								39	В	40						0.56	20/1	LTGS EMER EXIT	40
41	BLANK								41	С	42							20/1	SPARE	42
	TOTALS		0.00	0.00	0.00	0.00	0.00	0.00				0.00	0.00	0.00	0.00	5.70	7.91		TOTALS	

PANELBOARD SCHEDULE																				
	MAIN SIZE:		Α	MAIN 7	ΓΥΡΕ:	MLO			O / 1.			SECTI		Р	ANEL	NAME:	LC-2			
	AIC RATING:	18	,000	MOUN	ITING:							VOLTA	AGE:	208	/120V	3PH,4\	Ν			
	DESCRIPTION	AMPS			LOAD	(KVA)			1					LOAD	(KVA)			AMPS	DESCRIPTION	
	DESCRIPTION		LTG	RCPT	MTR	HEAT	KITCH	MISC	1			MISC	KITCH	HEAT	MTR	RCPT	LTG	POLE	DESCRIPTION	
1	OFF								1	Α	2							20/2	HEATER- SHOP	2
3	OFF								3	В	4									4
5	OFF								5	С	6							40/2	AC	6
7	OFF	20/1							7	Α	8									8
9	OCCUPIED	20/1							9	В	10							20/1	OCCUPIED	10
11	OCCUPIED	20/1							11	С	12							20/1	OCCUPIED	1:
13	OCCUPIED	20/1							13	Α	14							20/1	OCCUPIED	14
15	RCPT WATER FTN	20/1							15	В	16							20/1	OCCUPIED	16
17	BLANK	20/1							17	С	18							20/1	OCCUPIED	18
19	BLANK	20/1							19	Α	20								BLANK	2(
21	BLANK	20/1							21	В	22								BLANK	22
23	BLANK	20/1							23	С	24								BLANK	24
25	BLANK	20/1							25	Α	26								BLANK	20
27	BLANK	20/1							27	В	28								BLANK	28
29	BLANK	20/1							29	С	30								BLANK	3(
	TOTALS		0.00	0.00	0.00	0.00	0.00	0.00				0.00	0.00	0.00	0.00	0.00	0.00		TOTALS	

MAXIMUM DEMAND OBTAINED FROM ELECTRIC COMPANY (GCEC) INDICATED 40 KW FOR EXISTING PANELS C AND C-2. TRANSISTION ALL CIRCUITS FROM EXISTING 120/240 SINGLE PHASE PANEL TO THIS NEW PANEL C-2. INFORMATION WAS TAKEN FROM SITE OBSERVATIONS. CONTRACTOR TO VERIFY ALL CIRCUITS BEFORE STARTING WORK.

		•		•			PAN	IELB	OA	RD	SC	HED	ULE							
	MAIN SIZE:	150	Α	MAIN 1	YPE:	MLO						SECTI	ON 1	P.	ANELI	NAME:	LM			
	AIC RATING:	18	,000	MOUN	TING:	SURF.	ACE					VOLTA	∖GE:	208	/120V	3PH,4\	N			
	DESCRIPTION	AMPS			LOAD	(KVA)								LOAD	(KVA)			AMPS	DESCRIPTION	•
	DESCRIPTION	POLE	LTG	RCPT	MTR	HEAT KITCH		MISC				MISC	KITCH	HEAT	MTR	RCPT	LTG	POLE	DESCRIPTION	
1	VRV-1A, 1B,	15/2						0.91	1	Α	2	0.11						15/2	BS-1 TO BS-4	2
3	VRV-2 TO VRV-6							0.91	3	В	4	0.11								4
5	VRV-7 TO VRV-12	15/2						0.52	5	С	6									6
7								0.52	7	Α	8									8
9	VRV-13	15/2						0.94	9	В	10								KEF-1	10
11								0.94	11	С	12									12
13	VRV-14 TO VRV-16	15/2						0.36	13	Α	14				4.96			50/3	CU-2	14
15								0.36	15	В	16				4.96					16
17	GAS CUT OFF VALVES	15/1						1.00	17	С	18				4.96					18
19	CU-1	60/3			5.16				19	Α	20				4.34			60/3	CU-2	20
21					5.16				21	В	22				4.34					22
23					5.16				23	С	24				4.34					24
25	SPARE								25	Α	26								SPARE	26
27	SPARE								27	В	28								SPARE	28
29	SPARE								29	С	30								SPARE	30
	TOTALS		0.00	0.00	15.48	0.00	0.00	6.46		•		0.22	0.00	0.00	27.90	0.00	0.00		TOTALS	 S



PANELBOARD SCHEDULES

ALL EXTERIOR ELECTRICAL DEVICES SHALL BE REMOVED DURING REMODELING OF EXTERIOR WALL SURFACE. EXTEND EXISTING RECESSED ELECTRICAL BOXES AND REINSTALL EXTERIOR DEVICES TO SAME LOCATION.

TEMPORARILY REMOVE ALL EXTERIOR WALL MOUNTED CONDUITS FOR REMODELING OF EXTERIOR WALL SURFACE. REINSTALL ALL AFTER REMODEL.

NOTES BY SYMBOL "O":

CARD READER.

LED LIGHT FIXTURE.

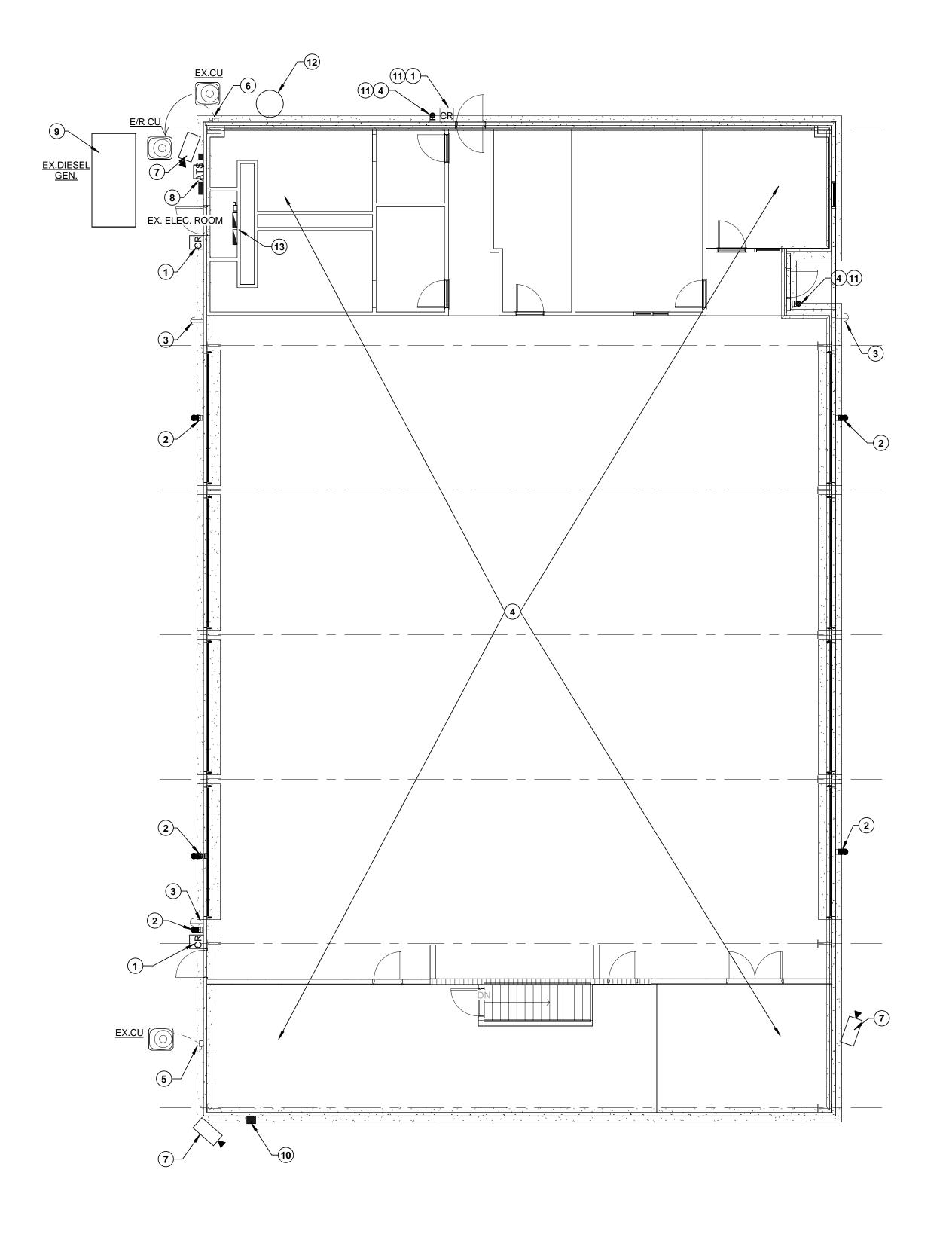
3. RECEPTACLE WITH WEATHER PROOF COVER.

4. WALL SCONCE LIGHT FIXTURE.

5. DISCONNECT SWITCH FOR HVAC CONDENSING UNIT.

45KW GENERATOR TO BE DEMOLISHED AND RETURNED TO OWNER.

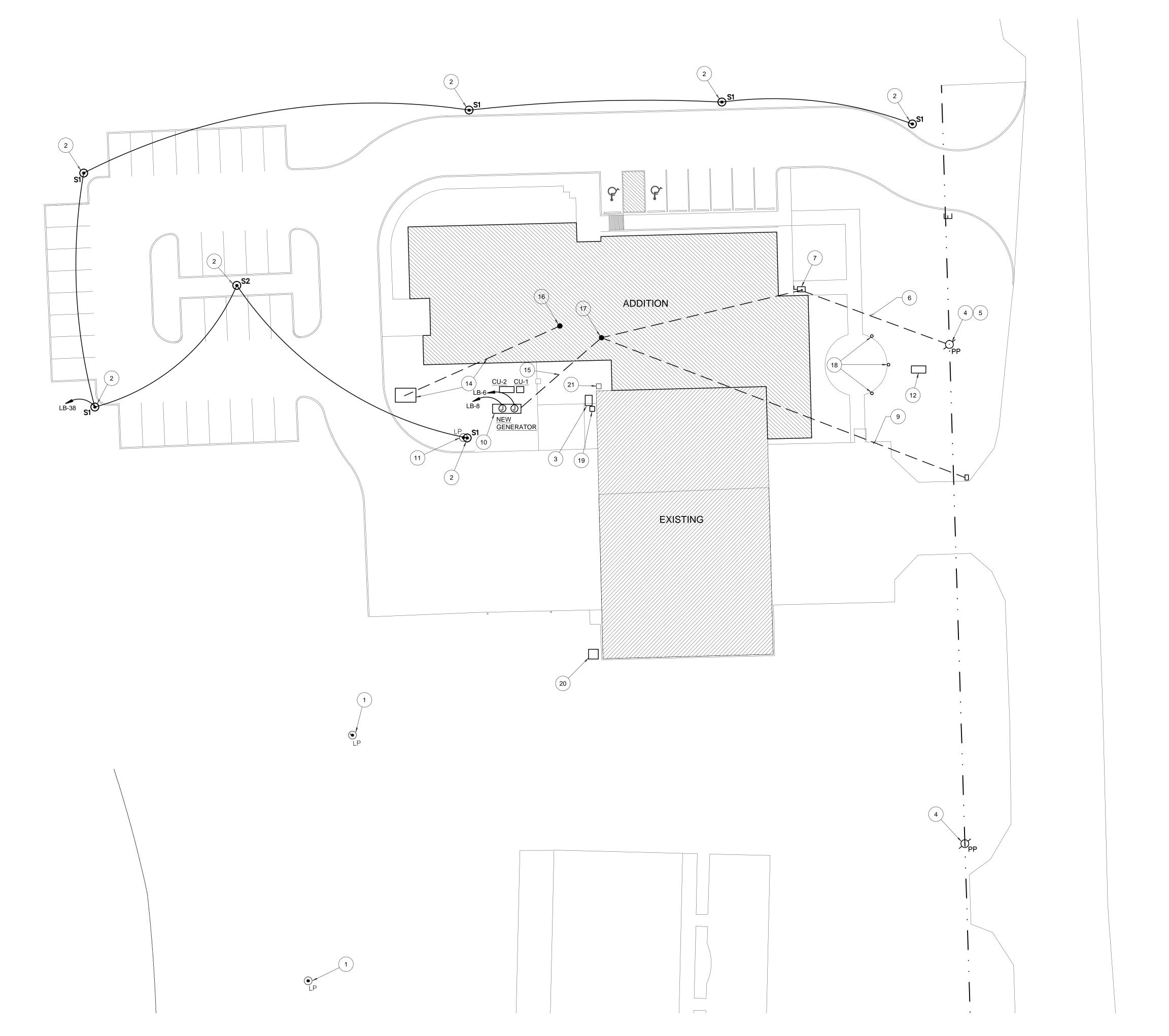
13. EXISTING ELECTRICAL PANELS. REMOVE AND REPLACE WITH NEW 120/208 3 PHASE. SEE SHEET E3.1



1 FLOOR PLAN - DEMO
1/8" = 1'-0"



MD ENGINEERING, LLP.
PRELIMINARY
FOR INTERIM REVIEW ONLY
THESE DOCUMENTS ARE FOR
INTERIM REVIEW AND ARE NOT
INTENDED FOR CONSTRUCTION,
BIDDING OR PERMIT PURPOSES.
THEY WERE PREPARED BY OR
UNDER THE SUPERVISION OF:



1 ELECTRICAL SITE PLAN

SCALE: 1" = 20' - 0"

GENERAL NOTES:

- A. MEET WITH THE ELECTRIC UTILITY COMPANY REPRESENTATIVE PRIOR TO BIDDING THE PROJECT. REVIEW THE SITE PLAN AND THE ELECTRICAL RISER DIAGRAM AND VERIFY THE REQUIREMENTS FOR PROVIDING ELECTRIC SERVICE TO THE BUILDING. DETERMINE WHAT WORK WILL BE PERFORMED BY THE POWER COMPANY AND WHAT WORK WILL BE PERFORMED BY THE CONTRACTOR. OBTAIN COPIES OF APPROPRIATE DETAILS, STANDARDS AND INSTRUCTIONS. UTILITY LOCATIONS SUBJECT TO CHANGE DURING THIS COORDINATION. ALL CHANGES MUST BE ACCOUNTED FOR IN THE BID. NO ADDITIONAL FUNDS WILL BE PROVIDED FOR FAILING TO COORDINATE THIS WORK. REQUEST THE AMOUNT OF ANY UTILITY CHARGES TO BE CHARGED TO THE PROJECT. INCLUDE THESE COSTS IN THE BID.
- B. PROVIDE ALL EQUIPMENT, MATERIALS, LABOR, SUPERVISION, AND SERVICES NECESSARY FOR OR INCIDENTAL TO THE INSTALLATION OF ELECTRICAL SERVICE AS DIRECTED BY THE UTILITY COMPANY.
- C. WORK INCLUDED:
- 1. FURNISH AND INSTALL UNDERGROUND PRIMARY 4" CONDUITS WITH ONE SPARE, FOR THE PRIMARY SERVICE CONDUCTORS.
- 2. FURNISH AND INSTALL CONDUITS, WIRES, TRANSFORMER PADS AND METERING EQUIPMENT TO PROVIDE AN ELECTRICAL SERVICE ENTRANCE AS SHOWN ON THE DRAWINGS AND/OR SPECIFIED HEREIN. COORDINATE WORK WITH THE CITY ELECTRIC AND COMMUNICATION UTILITY COMPANIES, VERIFY ALL REQUIREMENTS, AND INSTALL SERVICE ENTRANCE EQUIPMENT IN EXACT COMPLIANCE WITH UTILITY COMPANY AND LOCAL GOVERNMENTAL AGENCY REQUIREMENTS.
- 3. ARRANGE WITH THE UTILITY COMPANIES TO INSPECT THE
- 4. INCLUDE IN THE BID, ALL UTILITY COMPANY CHARGES AND COSTS RELATED TO THE INSTALLATION OF THE SERVICES.
- D. PROVIDE WIRE AND CONDUIT TO SITE LIGHTING. CALCULATE VOLTAGE DROP PER N.E.C.
- E. PROVIDE LUTRON PHOTOCELL TIMECLOCK(S) CONTROL FOR ALL EXTERIOR AND SITE LIGHT FIXTURES UNLESS NOTED OTHERWISE.
- F. COORDINATE ALL SITE WORK WITH CIVIL ENGINEER PRIOR TO

G. SEE SPECIFICATIONS FOR WIRE AND CONDUIT REQUIREMENTS.

NOTES BY SYMBOL " ":

- 1. EXISTING POLE MOUNTED LIGHT FIXTURE TO REMAIN.
- 2. NEW POLE MOUNTED LIGHT FIXTURES. SEE LIGHTING SCHEDULE.
- 3. EXISTING GENERATOR SET. REMOVE AND RETURN TO OWNER.
- 4. EXISTING POWER POLE AND OVERHEAD CABLES.
- 5. EXISTING LOCATION OF DATA/ VOICE/ TV CONNECTIONS.
- 6. UNDERGROUND UTILITY TRENCH BY CONTRACTOR TO GCEC SPECIFICATIONS. COORDINATE ROUTE WITH CIVIL ENGINEER.
- 7. MAIN DISCONNECT SWITCH. SEE SHEETS E0.1 AND E3.1.
- 8. APPROXIMATE LOCATION OF NEW ELECTRICAL ROOM.
- LIGHT. TERMINATE IN 4"X4" JUNCTION BOX AND PLACE MARKER. COORDINATE EXACT LOCATION WITH OWNER. 10. NEW 175 KW NATURAL GAS GENSET. PROVIDED BY OWNER,

9. PROVIDE 2 - 1" UNDERGROUND CONDUITS FOR FUTURE TRAFFIC

- INSTALLED BY CONTRACTOR.
- 11. EXISTING POLE MOUNTED LIGHT FIXTURE. REMOVE AND REPLACE WITH NEW. DISCONNECT FROM EXISTING CIRCUIT AND RE-WIRE TO NEW ELECTRICAL ROOM 123.
- 12. MAINTAIN EXISTING MONUMENT LIGHT FED FROM EXISTING
- ELECTRICAL ROOM.
- 13. NEW PARKING AREA LIGHTS. REFER TO LIGHT FIXTURE SCHEDULE.
- 14. RELOCATED RADIO ANTENNA BY OTHERS. PROVIDE 2 2" UNDERGROUND CONDUITS TO RADIO ROOM.
- 15. UNDERGROUND CONDUIT FOR SECONDARY CONDUCTORS.
- COORDINATE EXACT LOCATION WITH CIVIL ENGINEER.
- 16. APPROXIMATE LOCATION OF RADIO ROOM 106.
- 17. APPROXIMATE LOCATION OF ELECTRICAL ROOM 123.
- 18. THREE NEW FLAG POLE LIGHTS. PROVIDE 1 1" UNDER GROUND CONDUIT AND CAP 6" A.F.G.
- 19. RELOCATED CONDENSING UNIT FOR EXISTING FACILITY. SEE NOTE 21.
- 20. EXISTING CONDENSING UNIT TO REMAIN.
- 21. EXISTING CONDENSING UNIT TO BE RELOCATED. SEE SHEET E4.1.

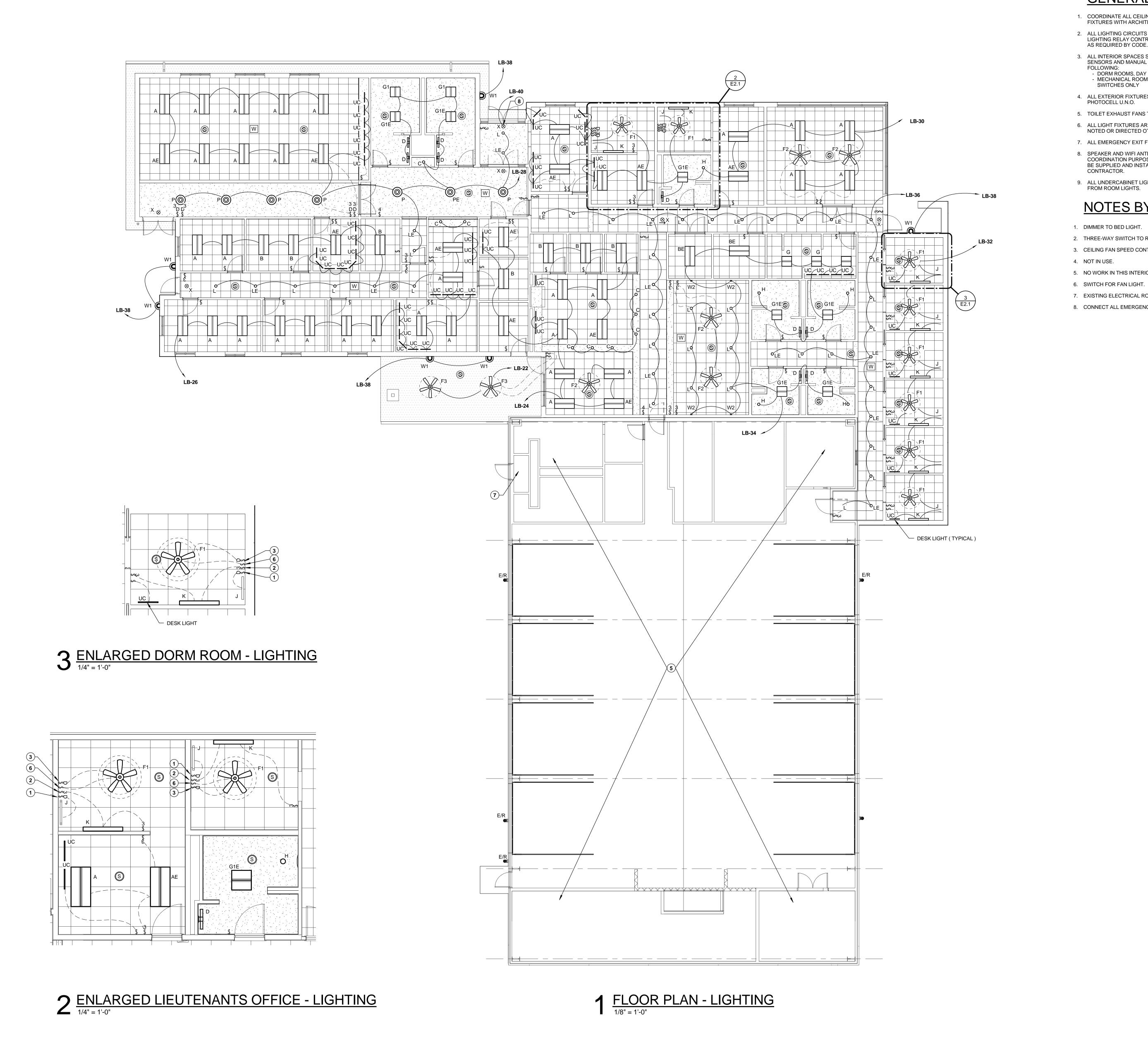
1. DIMMER TO BED LIGHT.

4. NOT IN USE.

1215

FLOOR PLAN -LIGHTING

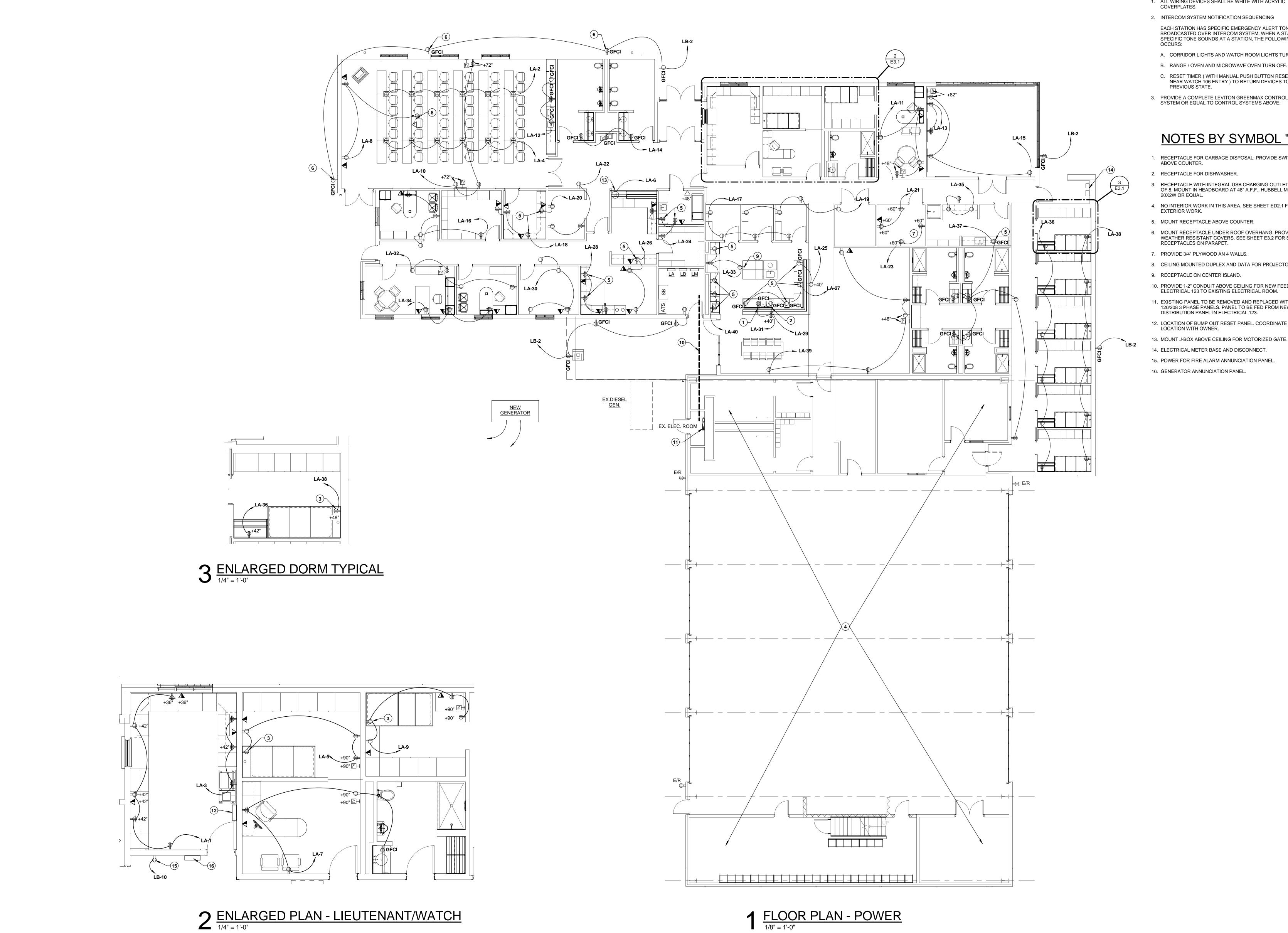
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E3.1 FLOOR PLAN - POWER



2. INTERCOM SYSTEM NOTIFICATION SEQUENCING EACH STATION HAS SPECIFIC EMERGENCY ALERT TONES BROADCASTED OVER INTERCOM SYSTEM. WHEN A STATION'S

SPECIFIC TONE SOUNDS AT A STATION, THE FOLLOWING

C. RESET TIMER (WITH MANUAL PUSH BUTTON RESET ON WALL NEAR WATCH 106 ENTRY) TO RETURN DEVICES TO PREVIOUS STATE.

PROVIDE A COMPLETE LEVITON GREENMAX CONTROL SYSTEM OR EQUAL TO CONTROL SYSTEMS ABOVE.

NOTES BY SYMBOL "O":

RECEPTACLE FOR GARBAGE DISPOSAL. PROVIDE SWITCH ABOVE COUNTER.

3. RECEPTACLE WITH INTEGRAL USB CHARGING OUTLET. TYPICAL OF 8. MOUNT IN HEADBOARD AT 48" A.F.F.. HUBBELL MODEL US

4. NO INTERIOR WORK IN THIS AREA. SEE SHEET ED2.1 FOR

5. MOUNT RECEPTACLE ABOVE COUNTER.

6. MOUNT RECEPTACLE UNDER ROOF OVERHANG. PROVIDE WEATHER RESISTANT COVERS. SEE SHEET E3.2 FOR SIMILAR RECEPTACLES ON PARAPET.

7. PROVIDE 3/4" PLYWOOD AN 4 WALLS.

8. CEILING MOUNTED DUPLEX AND DATA FOR PROJECTOR.

10. PROVIDE 1-2" CONDUIT ABOVE CEILING FOR NEW FEED FROM ELECTRICAL 123 TO EXISTING ELECTRICAL ROOM.

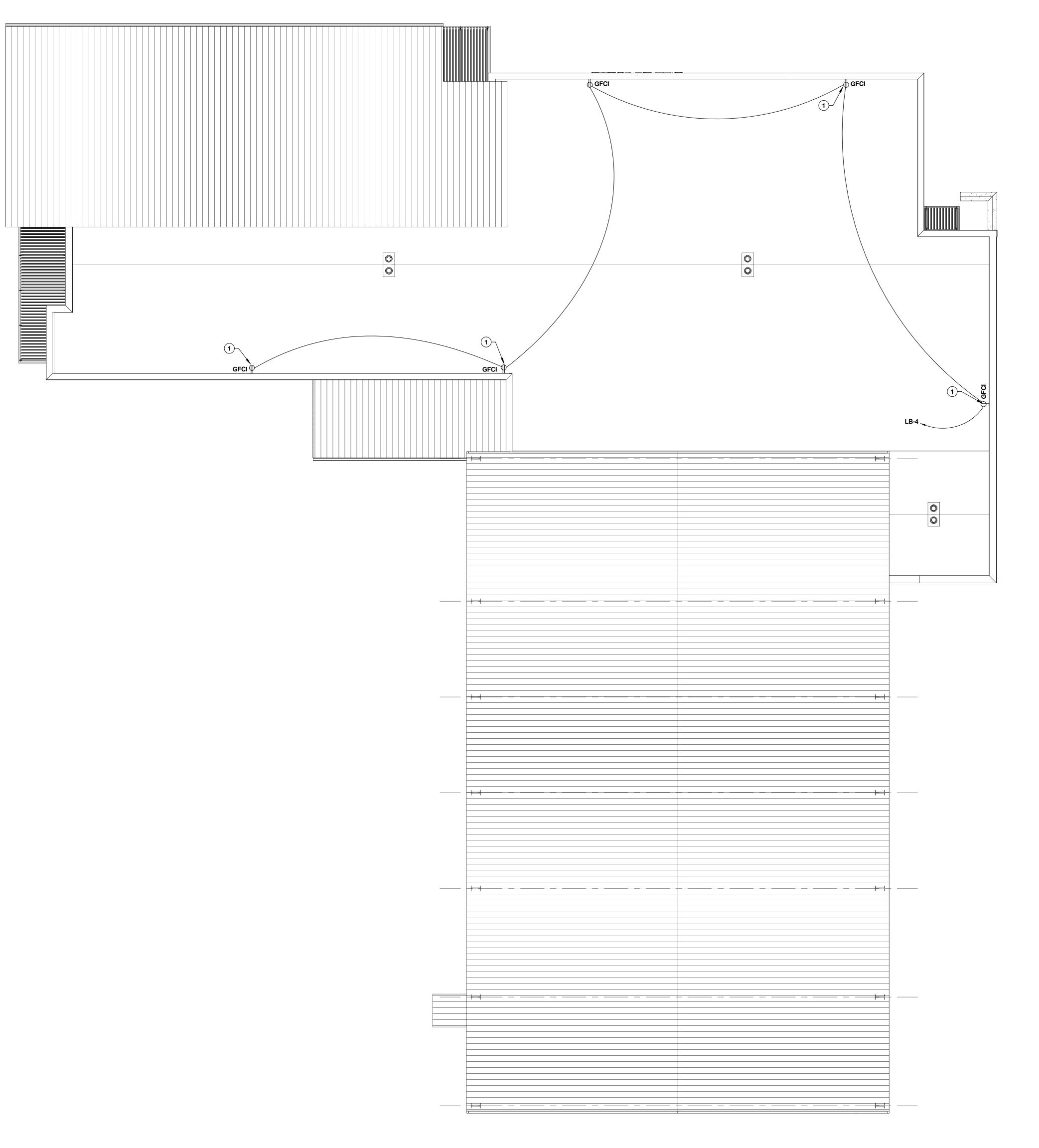
11. EXISTING PANEL TO BE REMOVED AND REPLACED WITH NEW 120/208 3 PHASE PANELS. PANEL TO BE FED FROM NEW DISTRIBUTION PANEL IN ELECTRICAL 123.

12. LOCATION OF BUMP OUT RESET PANEL. COORDINATE EXACT LOCATION WITH OWNER. 13. MOUNT J-BOX ABOVE CEILING FOR MOTORIZED GATE.

14. ELECTRICAL METER BASE AND DISCONNECT.

15. POWER FOR FIRE ALARM ANNUNCIATION PANEL.

TRUE NORTH



1 ROOF PLAN - POWER

1/8" = 1'-0"



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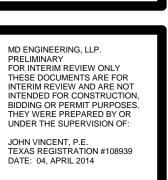
ROOF PLAN - POWER

- REFER TO THE "POWER TO MECHANICAL" SCHEDULE FOR BRANCH CIRCUIT REQUIREMENTS OF MECHANICAL EQUIPMENT. VERIFY VOLTAGE, PHASE, MCA AND MOCP OF EQUIPMENT SUBMITTALS WITH THIS SCHEDULE.
- COORDINATE THE PROVISION OF DISCONNECT SWITCHES AND MOTOR STARTERS WITH MECHANICAL CONTRACTOR.
- 3. WHERE EQUIPMENT IS SCHEDULED BUT NOT SHOWN ON THESE DRAWINGS, REFER TO THE MECHANICAL FOR LOCATION.
- 4. COORDINATE WITH MECHANICAL, PLUMBING AND FIRE PROTECTION TRADES AND IDENTIFY ALL MISCELLANEOUS MECHNANICAL EQUIPMENT REQUIRING POWER. PROVIDE CONDUIT, WIRE, DISCONNECT SWITCH, OVER CURRENT AND SHORT CIRCUIT PROTECTION FOR ALL EQUIPMENT, WHETHER SHOWN OR NOT.
- 5. EXACT MECHANICAL EQUIPMENT LOCATION AND TYPE SHALL BE COORDINATED WITH MECHANICAL PLANS AND MECHANICAL
- 6. ALL CONDUIT AND/OR WIRING SHALL BE INSTALLED BETWEEN THE BOTTOM AND TOP OF CORD OF JOIST. DO NOT INSTALL CONDUIT WITHIN 3'-0" OF ANY A/C UNITS UNLESS THE CONDUIT AND/OR WIRING SERVICES THE A/C UNIT.

NOTES BY SYMBOL "\(\big)\)":

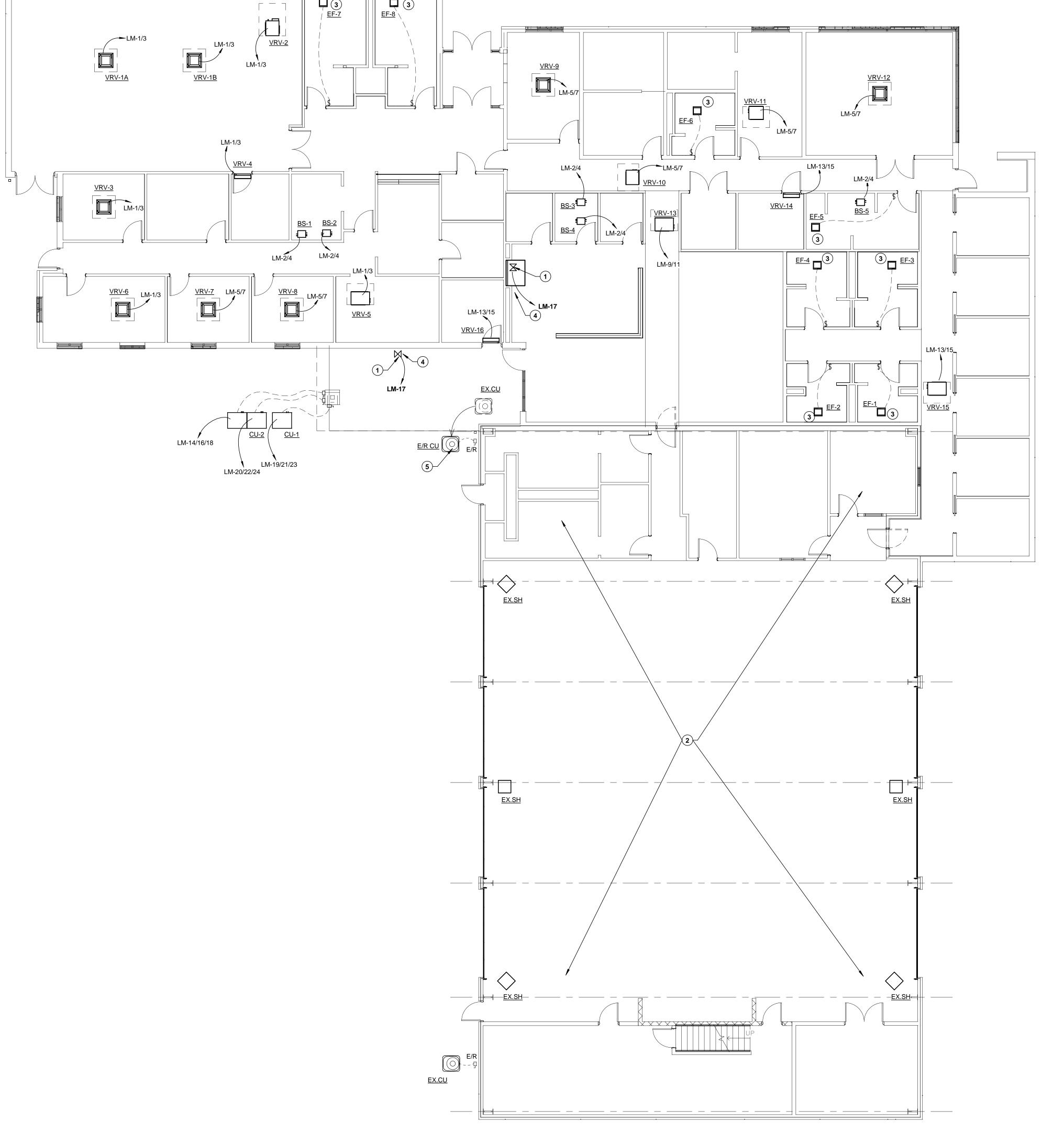
- 1. PROVIDE GAS VALVE CUT-OFF WIRING TO BUMP OUT SYSTEM.
- 2. NO WORK IN THIS AREA.
- 3. FAN ON SAME CIRCUIT AS LIGHT IN ROOM. DEDICATED SWITCH
- 4. INSTALL GAS VALVE RESET BUTTON NEXT TO DEVICE.
- 5. RELOCATED CONDENSING UNIT. RE-USE CIRCUIT.





FLOOR PLAN - POWER TO MECHANICAL

TRUE NORTH



GENERAL NOTES:

SHOWN OR NOT.

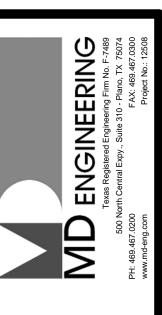
- REFER TO THE "POWER TO MECHANICAL" SCHEDULE FOR BRANCH CIRCUIT REQUIREMENTS OF MECHANICAL EQUIPMENT. VERIFY VOLTAGE, PHASE, MCA AND MOCP OF EQUIPMENT SUBMITTALS WITH THIS SCHEDULE.
- COORDINATE THE PROVISION OF DISCONNECT SWITCHES AND MOTOR STARTERS WITH MECHANICAL CONTRACTOR.
- 3. WHERE EQUIPMENT IS SCHEDULED BUT NOT SHOWN ON THESE DRAWINGS, REFER TO THE MECHANICAL FOR LOCATION. 4. COORDINATE WITH MECHANICAL, PLUMBING AND FIRE PROTECTION TRADES AND IDENTIFY ALL MISCELLANEOUS MECHNANICAL EQUIPMENT REQUIRING POWER. PROVIDE
- 5. EXACT MECHANICAL EQUIPMENT LOCATION AND TYPE SHALL BE COORDINATED WITH MECHANICAL PLANS AND MECHANICAL CONTRACTOR.

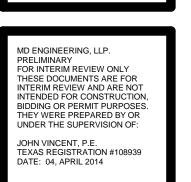
CONDUIT, WIRE, DISCONNECT SWITCH, OVER CURRENT AND SHORT CIRCUIT PROTECTION FOR ALL EQUIPMENT, WHETHER

6. ALL CONDUIT AND/OR WIRING SHALL BE INSTALLED BETWEEN THE BOTTOM AND TOP OF CORD OF JOIST. DO NOT INSTALL CONDUIT WITHIN 3'-0" OF ANY A/C UNITS UNLESS THE CONDUIT AND/OR WIRING SERVICES THE A/C UNIT.

NOTES BY SYMBOL "O":







ROOF PLAN - POWER TO MECHANICAL

TRUE NORTH

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GENERAL NOTES:

1. MOUNT ALL CARD READERS AT 48" A.F.F..

NOTES BY SYMBOL "O":

- 1. CEILING MOUNTED CAMERA. NO WORK HERE. NIC.
- PROVIDE 1-GANG RECESSED BOX FOR CAMERA. STUB 3/4"
 CONDUIT ABOVE CEILING. INSTALL BOX AT HEIGHT INDICATED.
 NOT REQUIRED FOR CEILING MOUNTED CAMERAS. CAMERA AND
 WIRING BY OTHERS.
- PROVIDE 2-3/4" CONDUITS FROM DEVICES TO ABOVE CEILING. SEE DETAIL 2. TYPICAL FOR ALL ACCESS CONTROLS.
 FIRE ALARM PANEL.

Original Issue Date: 04.04.14 50% Revisions:

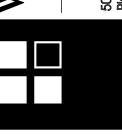
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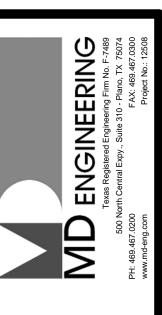
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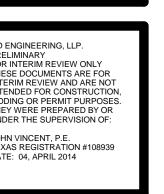
WIGINION HOOK

A R C F

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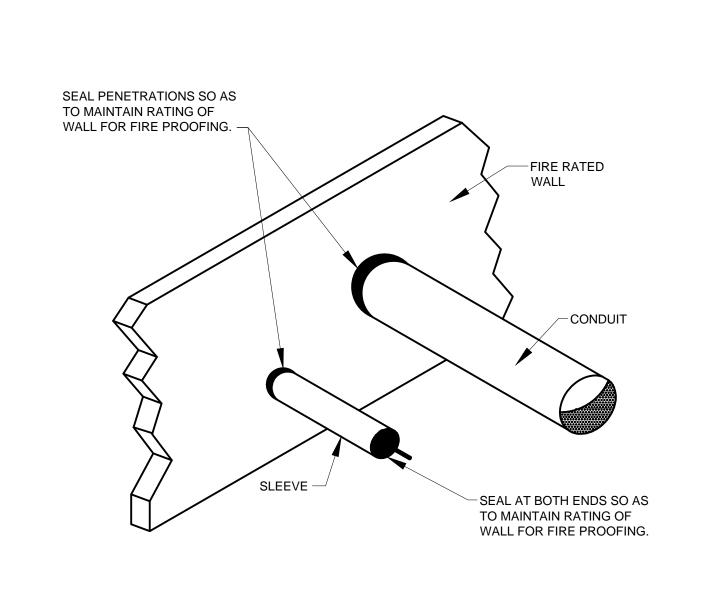
FLOOR PLAN -SECURITY

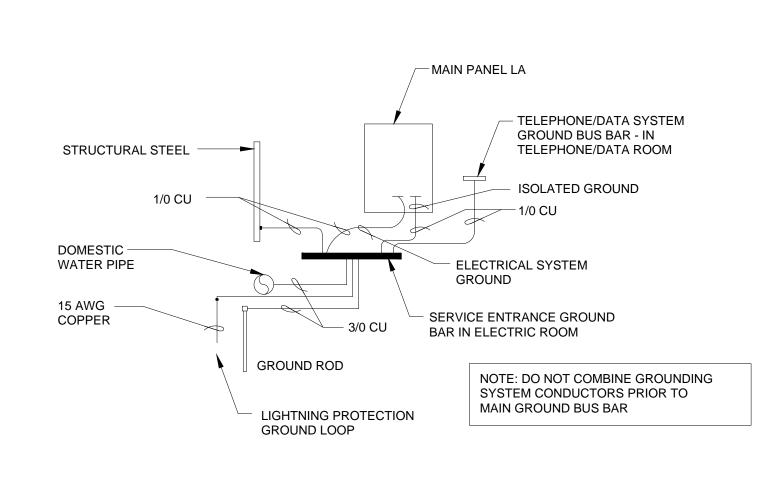
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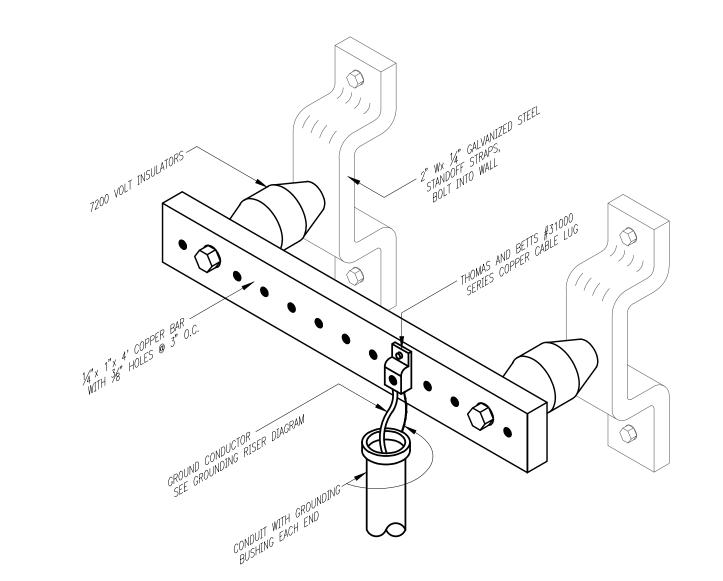
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E6.1



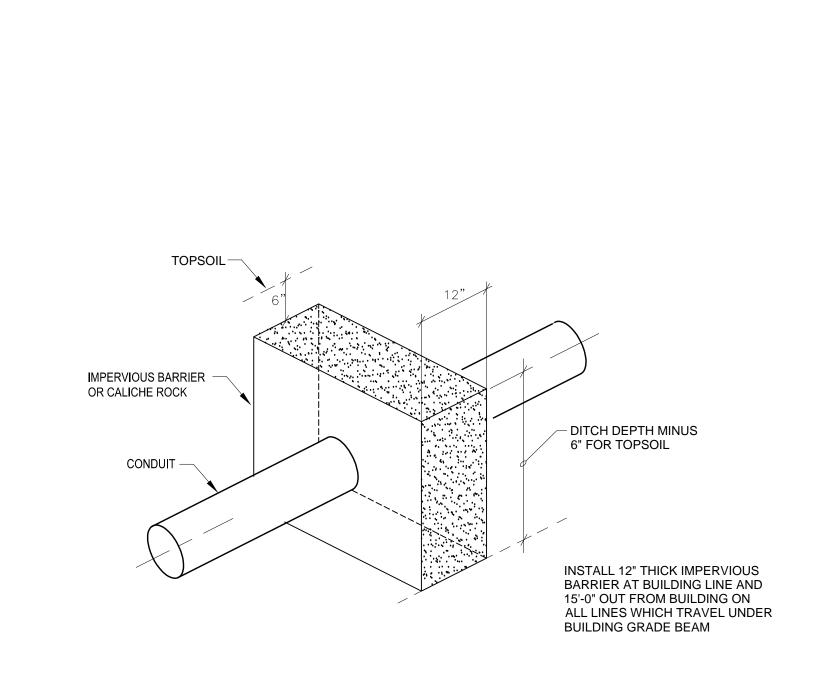


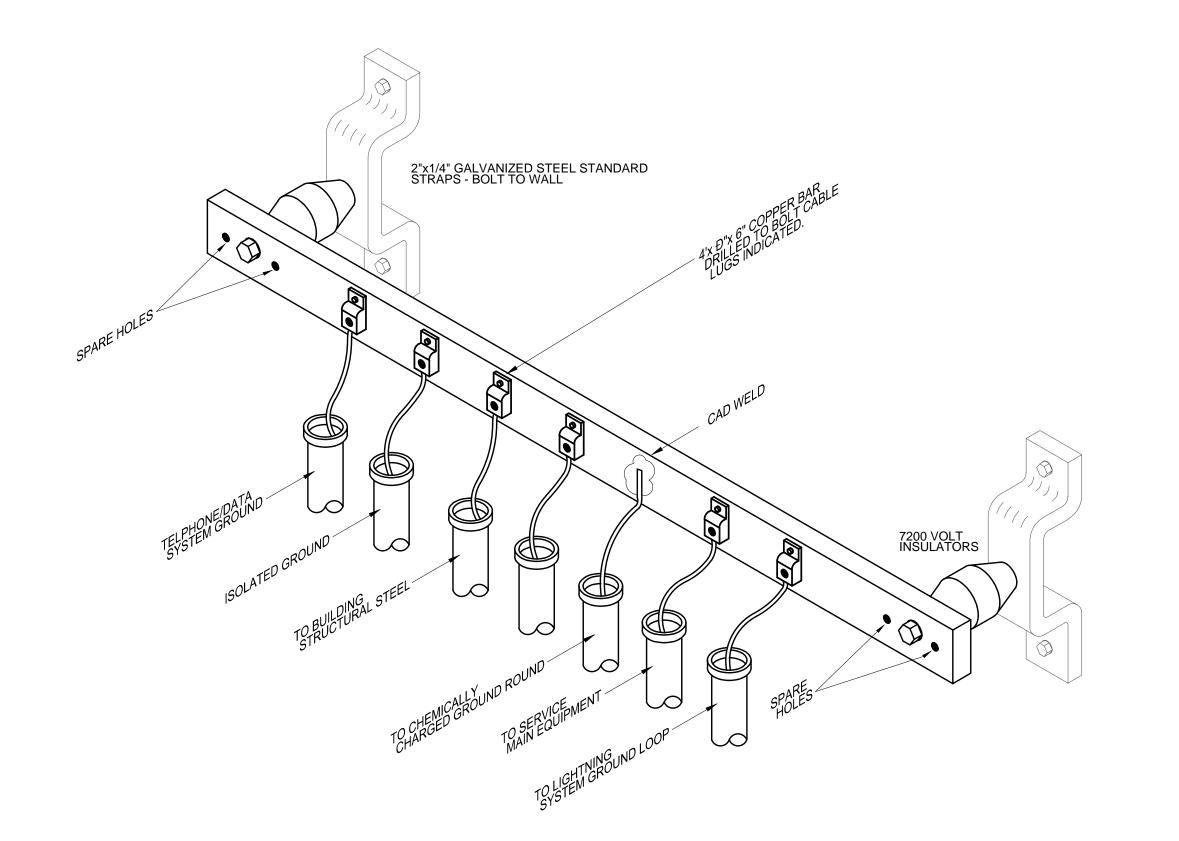


3 RATED WALL PENETRATION SCALE: N.T.S.

2 GROUNDING RISER DETAIL
SCALE: N.T.S.

1 PHONE/DATA GROUND BAR SCALE: N.T.S.





5 IMPERVIOUS BARRIER SCALE: N.T.S.

4 SERVICE ENTRANCE GROUNDING BAR SCALE: N.T.S.

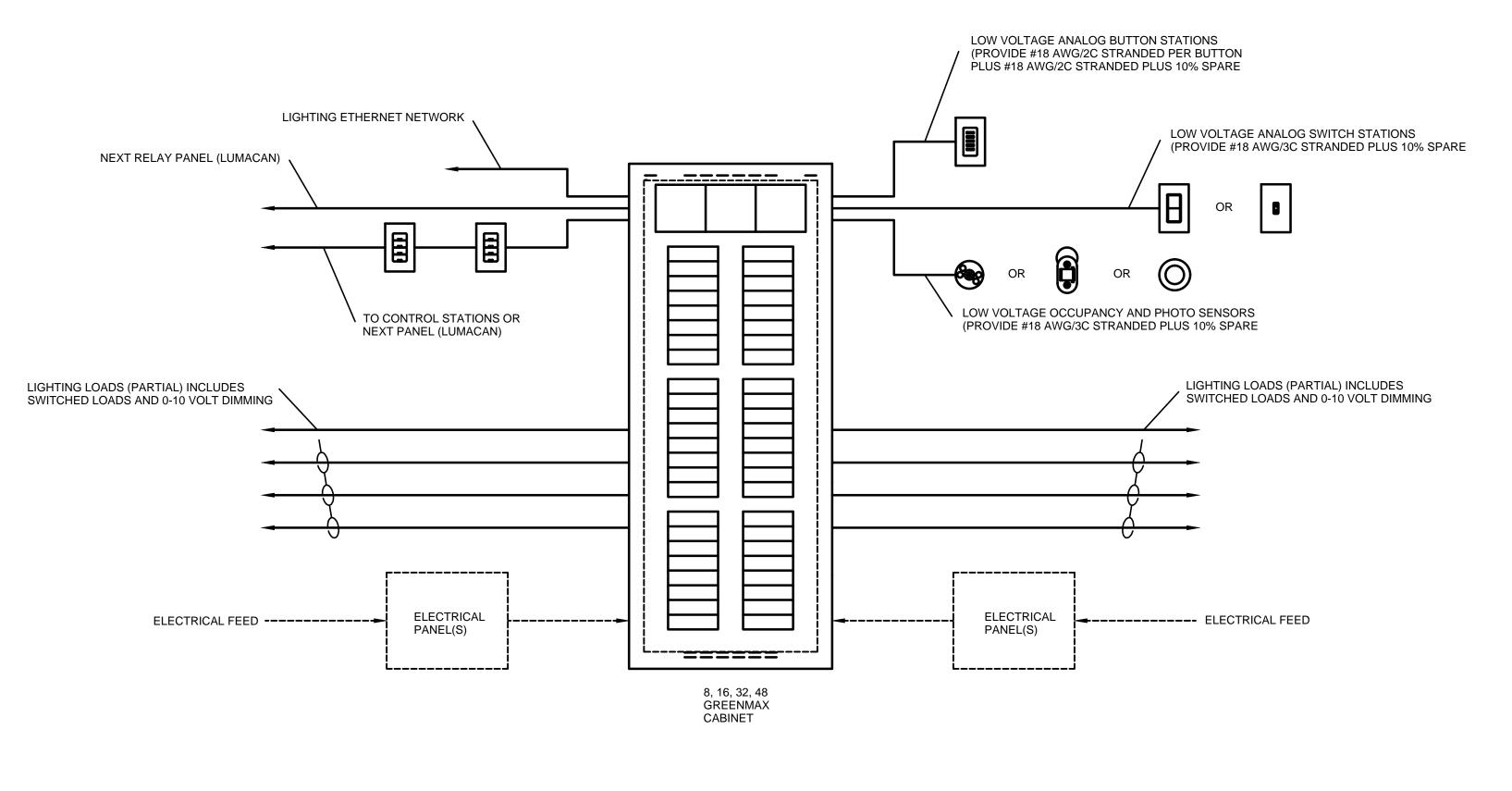
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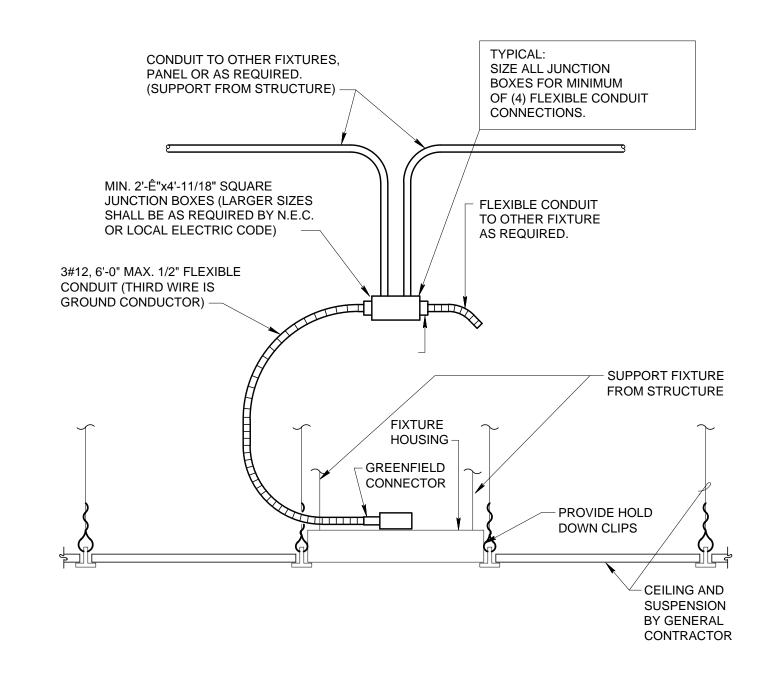
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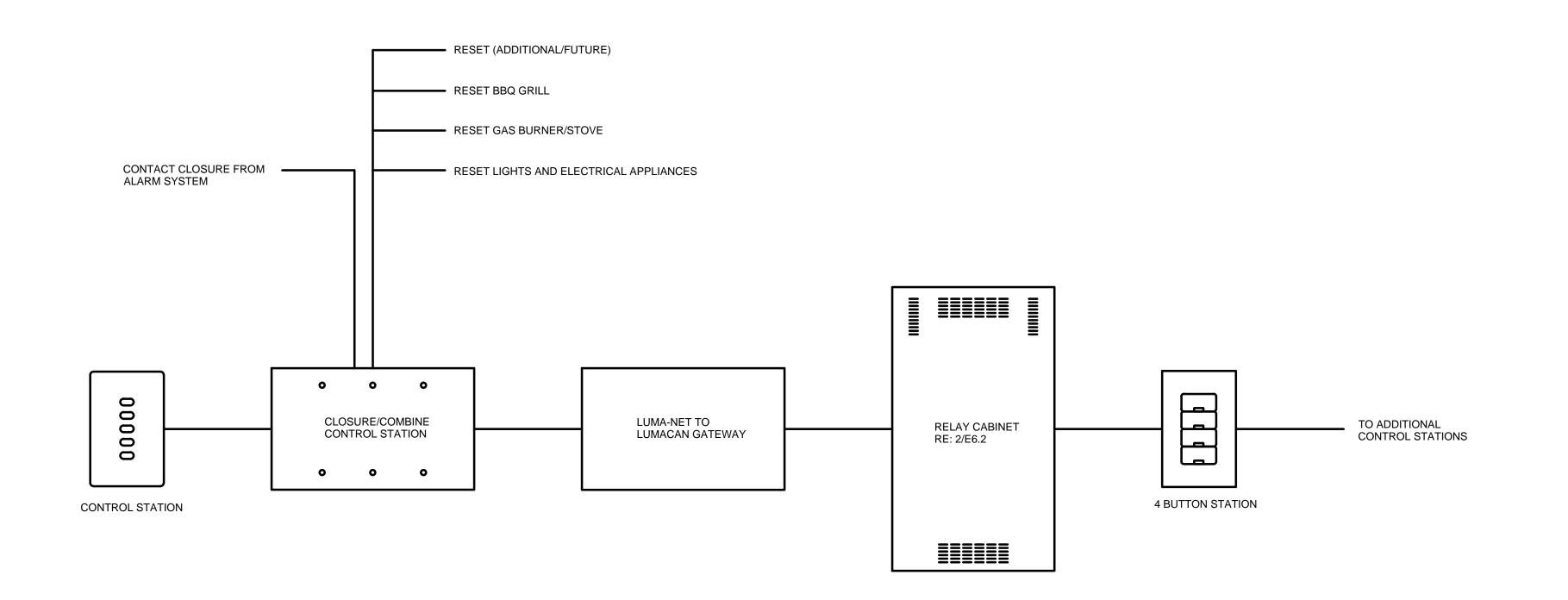
ELECTRICAL
DETAILS



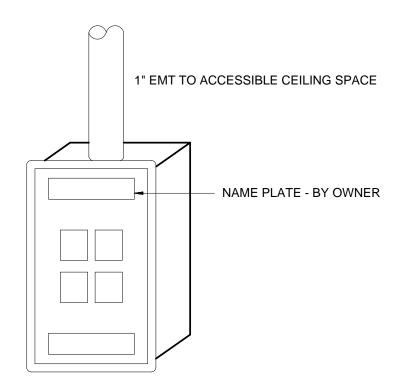
2 RELAY PANEL SYSTEM INTERCONNECTIONS - ONE-LINE SCALE: N.T.S.



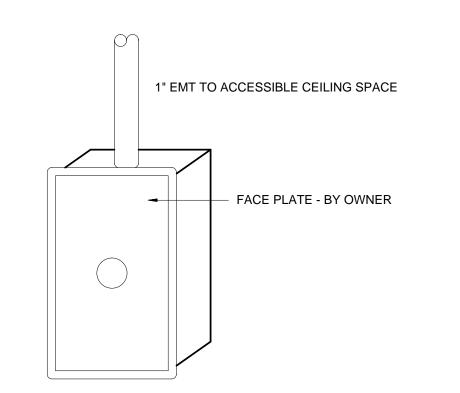
1 FIXTURE MOUNTING/WIRING DETAIL SCALE: N.T.S.



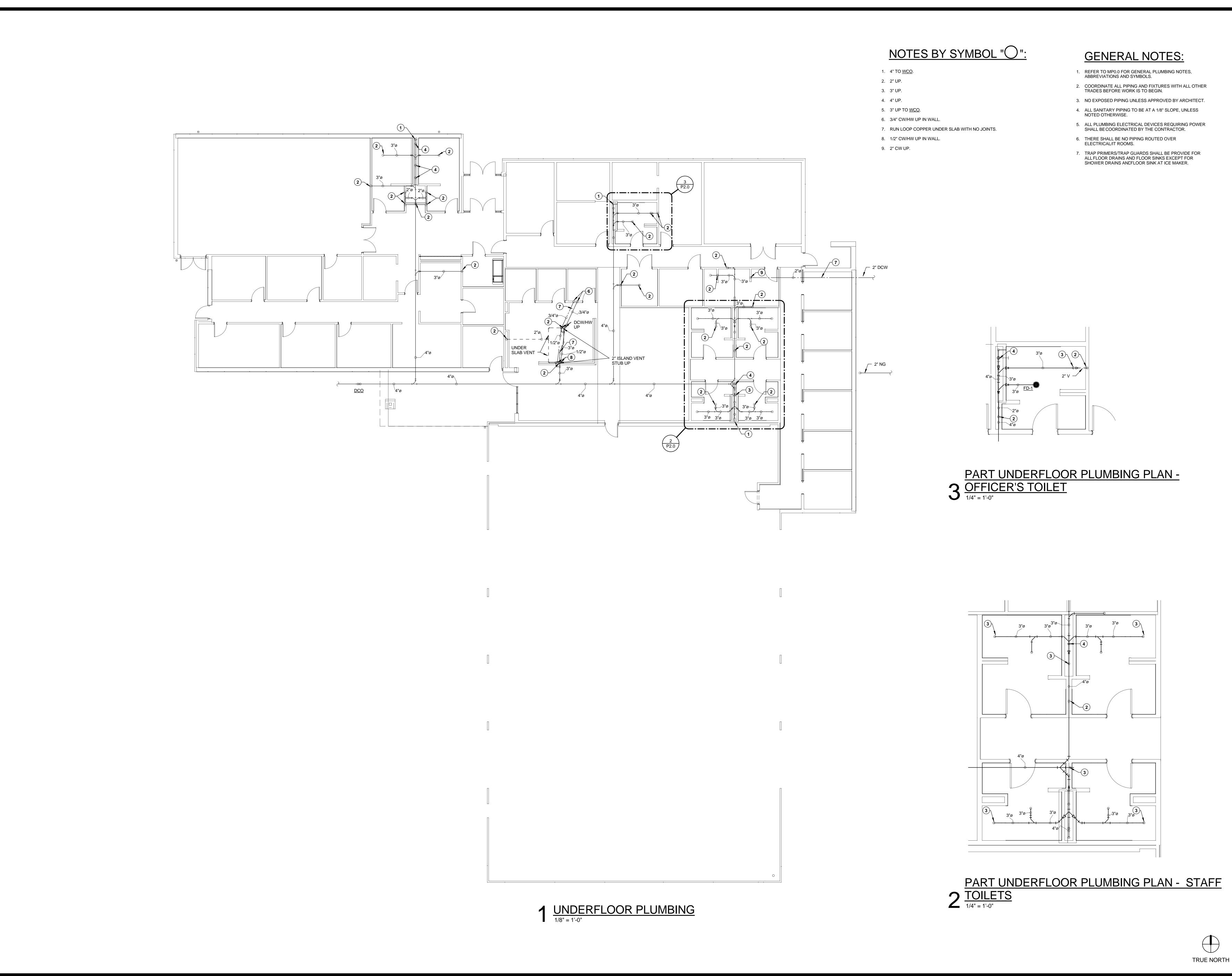
5 LIGHTING/ BUMP OUT CONTROL SCHEMATIC - ONE LINE SCALE: N.T.S.



4 VOICE/DATA OUTLET DETAIL
SCALE: N.T.S.



3 TV ANTENNA OUTLET DETAIL
SCALE: N.T.S.



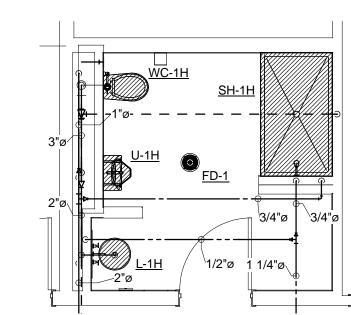
UNDER FLOOR -PLUMBING

NOTES BY SYMBOL "O":

- 1. NOT USED.
- 2. 2" DOMESTIC COLD WATER DOWN.
- 3. PROVIDE 3/8" DCW LINE TO REFRIGERATOR WITH 1/4" TURN
- 4. SINK SHALL BE VENTED BY ISLAND VENT REFER TO DETAIL.
- 5. 1" NATURAL GAS DOWN IN PLUMBING CHASE, SLEEVEDUNDER PATIO VENTED AT STUB OUT THRU WALL PROVIDE PIPING WITH REMOVABLE CAP AND PLUG VALVE FOR GAS GRILLE.
- 6. NATURAL GAS DOWN TO RANGE.
- 7. NATURAL GAS TO WATER HEATER.
- 8. x" NATURAL GAS LINE FROM PROPERTY LINE T(NATURAL GAS REGULATOR FOR 5LB TO 14 OZ. CONFIRM SIZE WITH NATURAL GAS PROVIDER.
- 9. 2" VENT THRU ROOF.
- 10. 4" VENT IN WALL.
- 11. 3" VENT THRU ROOF.12. 2" UP TO RD-1.
- 13. 2" UP TO <u>RD-2</u>.
- 14. NOT USED.
- 15. 1/2" DCW AND DHW UP FROM UNDER SLAB
- 16. 1/4" LINE TO ICE MAKER. PROVIDE 1/4" TURN VALVE IN ACCESSIBLE LOCATION FOR WATER SHUT-OFF. PROVIDE RPZ (AS REQUIRED BY LOCAL AHJ) FILTER AND WATER HAMMER ARRESTOR. LOCATE SO ACCESSIBLE FOR FUTURE TESTING ON RPZ AND FILTER MAINTENANCE.
- 17. 3/8" LINE TO COFFEE MAKER. PROVIDE 1/4 TURN VALVE IN ACCESSIBLE LOCATION FOR WATER SHUT-OFF. PROVIDE RPZ (AS REQUIRED BY LOCAL AHJ) AND WATER HAMMER ARRESTOR.

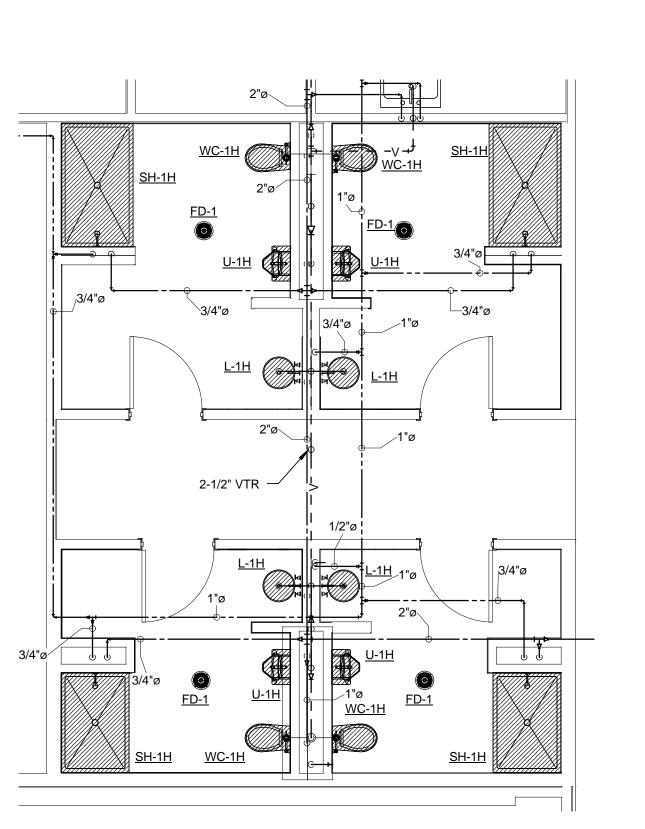
GENERAL NOTES:

- REFER TO MP0.0 FOR GENERAL PLUMBING NOTES, ABBREVIATIONS, AND SYMBOLS.
- 2. COORDINATE ALL PIPING AND FIXTURES WITH ALL OTHER TRADES BEFORE WORK IS TO BEGIN.
- 3. NO EXPOSED PIPING UNLESS APPROVED BY ARCHITECT.
- ALL SANITARY PIPING TO BE AT A 1/8" SLOPE, UNLESS NOTED
- ALL PLUMBING ELECTRICAL DEVICES REQUIRING POWER SHALL BE COORDINATED BY THE CONTRACTOR.
- 6. THERE SHALL BE NO PIPING ROUTED OVER ELECTRICAL/IT ROOMS.
- TRAP PRIMERS/TRAP GUARDS SHALL BE PROVIDE FOR ALL FLOOR DRAINS AND FLOOR SINKS EXCEPT FOR SHOWER DRAINS AND FLOOR SINK AT ICE MAKER.
- 8. INFRARED HEATERS ARE SUPPLIED AND INSTALLED BY MECHANICAL CONTRACTOR AND CONNECTED TO THE NATURAL GAS BY THIS CONTRACTOR.



PART ABOVE FLOOR PLUMBING PLAN OFFICER'S TOILET

1/4" = 1'-0"



PART ABOVE FLOOR PLUMBING PLAN - STAFF

TOILETS

1/4" = 1'-0"



P2.1

ABOVE FLOOR - PLUMBING

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Original Issue Date: 04.04.14
Revisions:

CENTRAL FS

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Texas Registered Engineering Firm No. F-7489
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2200
FAX: 469.467.0300
Project No.: 12508

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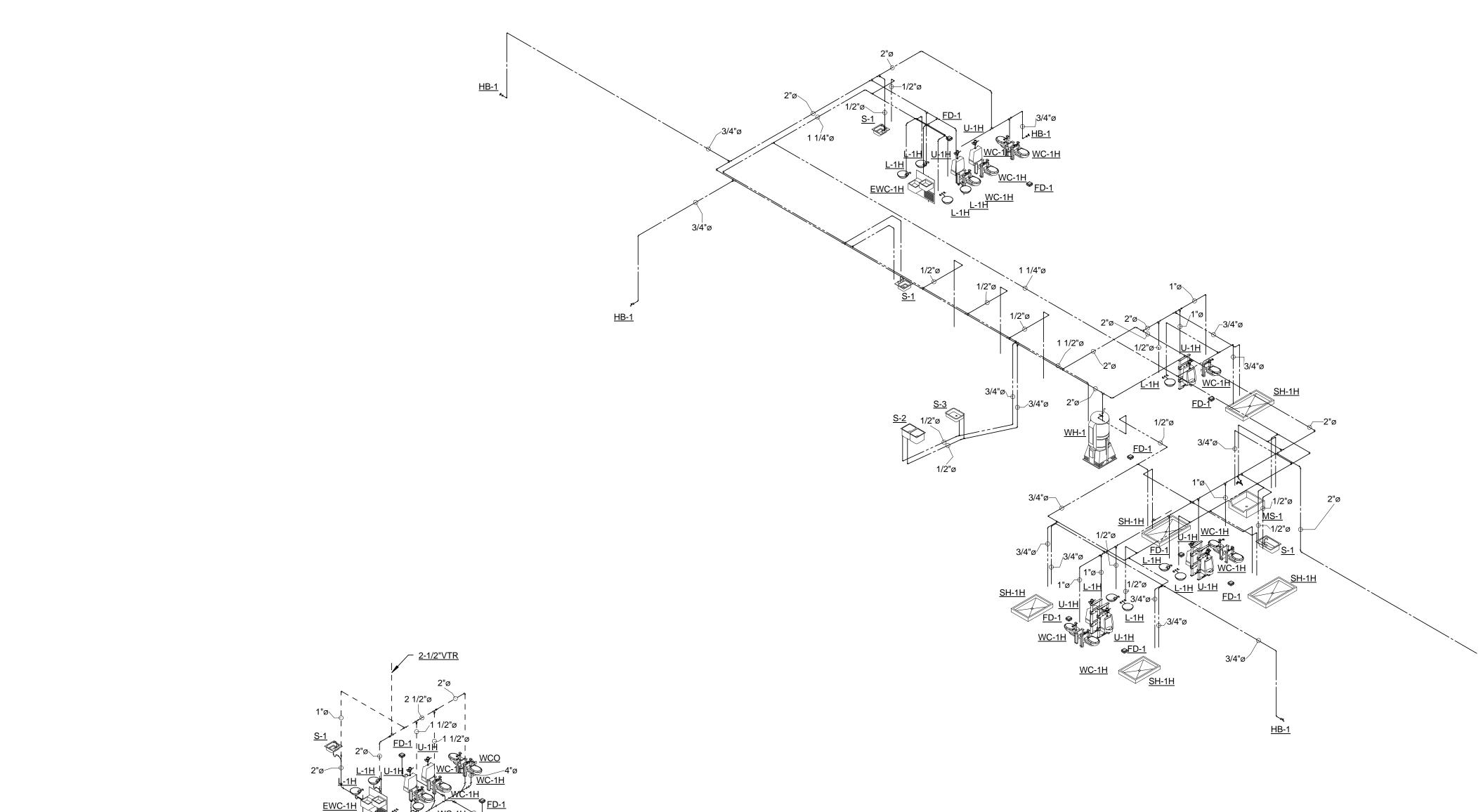
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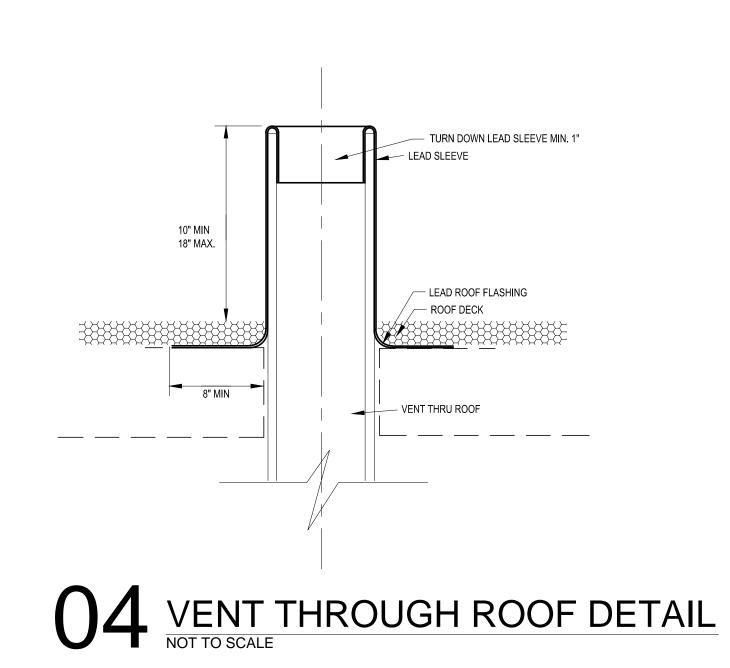
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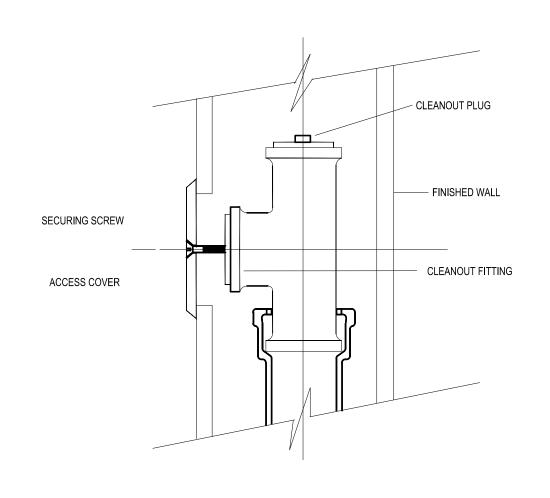
SANITARY SEWER / DOMESTIC RISERS

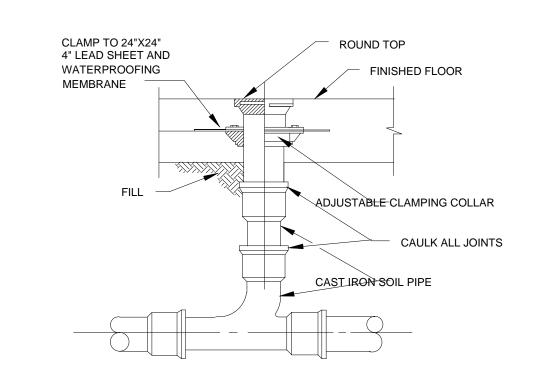


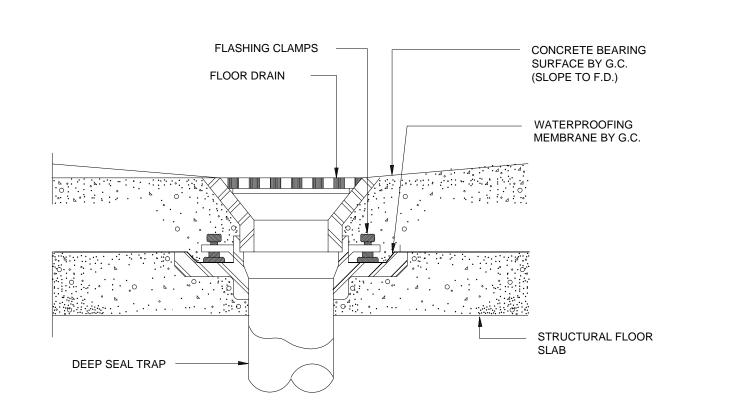
2 DOMESTIC WATER RISER

SANITARY SEWER RISER



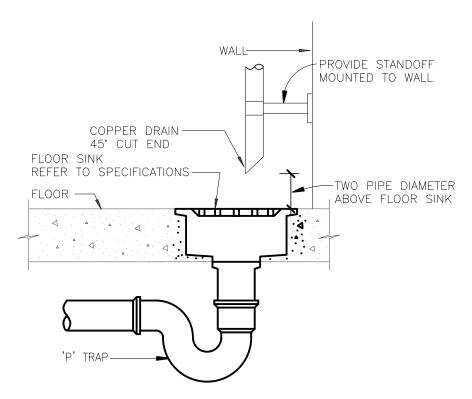


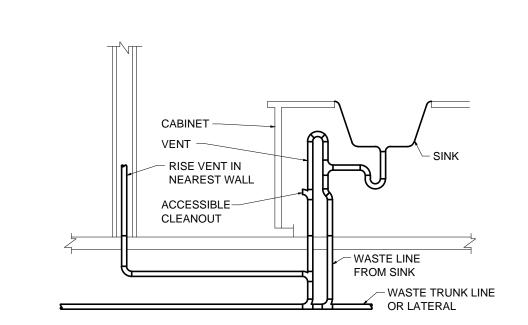


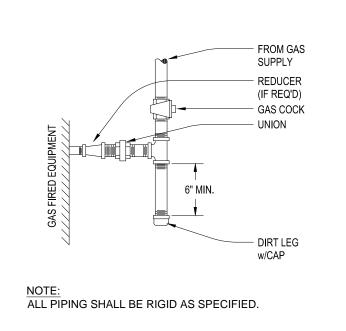


03 WALL CLEANOUT DETAIL

02 FLOOR CLEAN-OUT DETAIL 01 FLOOR DRAIN INSTALLATION DETAIL







HOT OR COLD WATER SUPPLY F IF HORIZONTAL BRANCH IS LESS THAN 20' VALVE WATER CLOSET | 10 TANK WATER CLOSET 5 | F | 2" | 154-330 SHOWER/BATHTUB PC TO PROVIDE WATER HAMMER ARRESTERS BY SIOUX CHIEF, PRECISION AND 0-RING CONSTRUCTION, HAVING PDI #WH-201, ASSE #1010 AND ANSI #A112.26.1M CERTIFICATION. INSTALL IN HORIZONTAL OR VERTICAL POSITION, BUT NEVER UPSIDE DOWN. INSTALL IN LINE WITH WATER FLOW DIRECTION IF POSSIBLE. SIZE THE UNITS AS SHOWN ON THE DRAWINGS AND/OR PER THE TABLES SHOWN ABOVE.

08 INDIRECT WASTE DETAIL

07 ISLAND VENT DETAIL

06 TYPICAL GAS PIPING CONNECTION DETAIL

05 WATER HAMMER ARRESTOR DETAIL

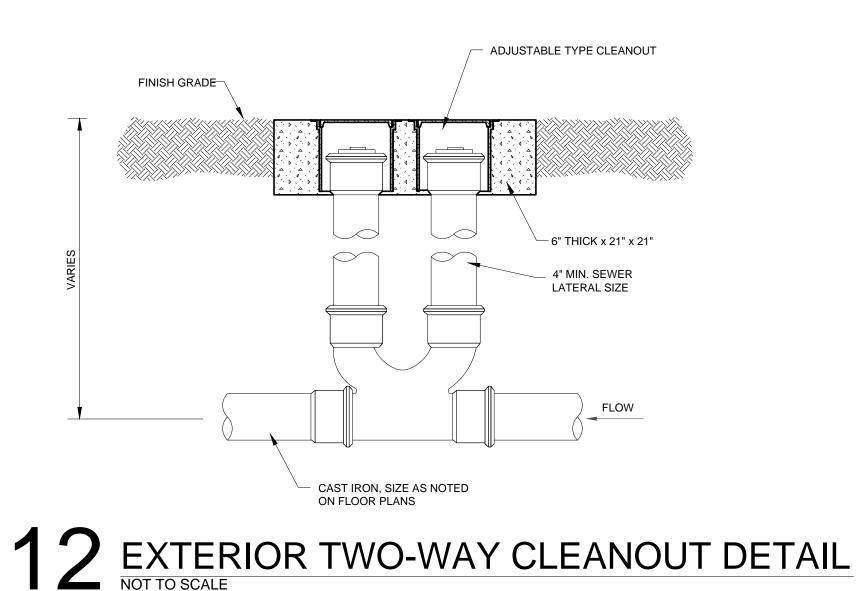
TEMPERED FIXTURES

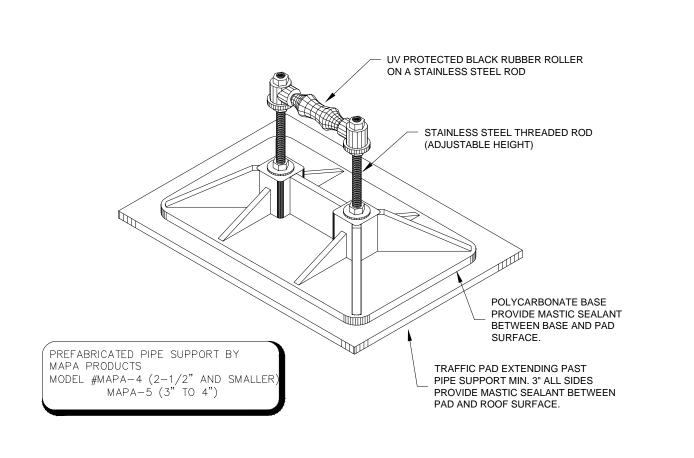
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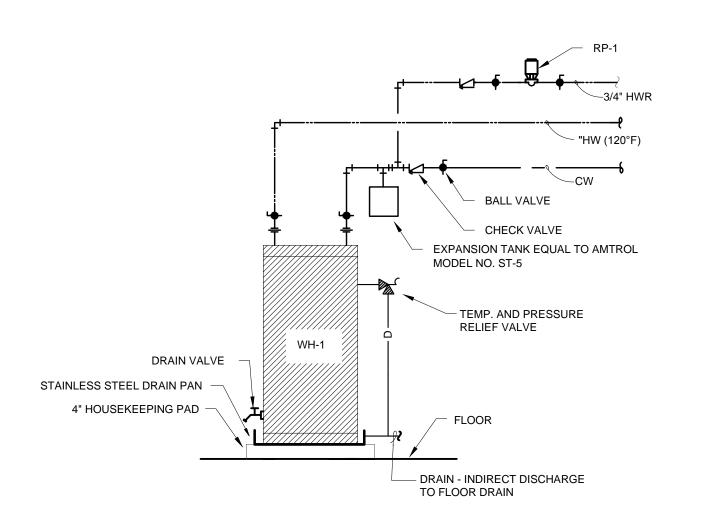
ISOLATION VALVE

TEMPERED WATER

RECIRCULATION PUMP







COLD WATER SUPPLY 1. MAKE SURE NO WATER IS BEING DRAWN IN THE BUILDING. OPEN BALANCING VALVE APPROX. HALF WAY AND START CIRCULATOR. OBSERVE TEMPERATURE UNITL IT STABILIZES. 3. CLOSE BALANCING VALVE SLIGHTLY IF TEMPERATURE IS TOO HOT, OR OPEN IT SLIGHTLY IF TEMPERATURE IS TOO COLD AND ALLOW TEMPERATURE TO STABILIZE. REPEAT UNITL DESIRED CIRCULATION TEMPERATURE IS SET.

BALANCING

VALVE

1 1 ROOF PIPE SUPPORT DETAIL
NOT TO SCALE

10 WATER HEATER DETAIL

09 MIXING VALVE PIPING DIAGRAM NOT TO SCALE



EXISTING FIRE RISER. CONTRACTOR TO VERIFY FLOW AND PRESSURE PRIOR TO DESIGNING SYSTEM.

<u>LEGEND</u>



2. FIRE PROTECTION CONTRACTOR SHALL PROVIDE WET PIPE SPRINKLER AND STAND PIPE SYSTEM FOR THE AREA OF WORK IN ACCORDANCE WITH NFPA 13, NFPA 14 AND CITY OF LUCAS FIRE REQUIREMENTS. FIRE SPRINKLER SYSTEM IS TO BE PERMITTED BY FIRE MARSHAL. CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND STRUCTURAL DISCIPLINES TO ENSURE THAT A COMPLETELY COORDINATED INSTALLATION IS A CHIEVED. THESE PLANS SERVE AS A GENERAL

(1) CHECK VALVE

(2) UNDERGROUND FIRE MAIN

(3) MAIN ALARM VALVE DRAIN

(5) WATER MOTOR GONG

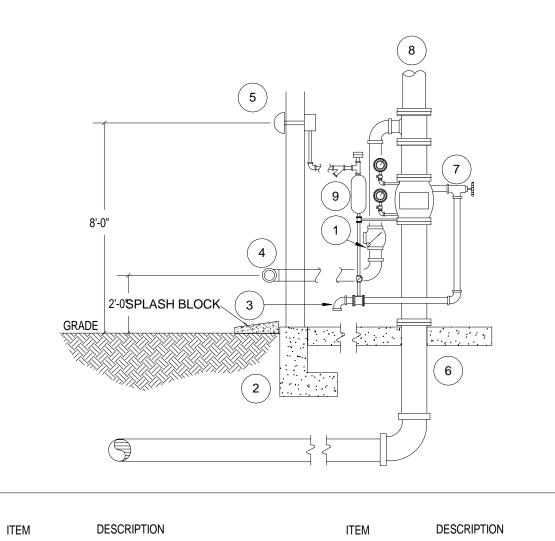
(4) FIRE DEPARTMENT CONNECTION

GUIDE ONLY AND DO NOT REPRESENT ACTUAL BID DOCUMENTS. 3. PROVIDE WET PIPE SPRINKLER PROTECTION WITH 0.10 GPM PER SQUARE FOOT DENSITY OVER MOST LIGHT 1500 SQUARE FOOT OR THE ENCLOSED AREA PER NFPA 13. LIGHT HAZARD SPRINKLER SPACING, 165°F TEMPERATURE RATING, FOR ALL

GENERAL NOTES:

REFER TO MP0.0 FOR GENERAL PLUMBING NOTES, ABBREVIATIONS AND SYMBOLS.

- AREAS EXCEPT MECHANICAL ROOM. 4. THE FIRE SPRINKLER PIPING SHOWN IS INTENDED TO INDICATE THE LOCATION OF MAIN SUPPLY PIPING AND STANDPIPES, AS
- WELL AS THE AREAS INTENDED FOR FIRE SPRINKLERS. THE INCLUSION OF THIS INFORMATION SHALL IN NO WAY DIMINISH THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE A FULLY DESIGNED, SIZED AND INSTALLED FIRE SPRINKLER SYSTEM, AS REQUIRED BY THE PROJECT SPECIFICATIONS AND THE LAWS OF THE STATE OF TEXAS.
- FIRE SPRINKLER SHOP DRAWINGS SHALL BE COORDINATED WITH ALL TRADES AND EXISTING CONDITIONS PRIOR TO SUBMISSION TO FIRE MARSHALL.
- FIRE PROTECTION DESIGN AND NOMENCLATURE SHALL MATCH EXISTING CITY OF LUCAS FACILITY STANDARDS.
- THE OWNER AND FIRE DEPARTMENT SHALL BE NOTIFIED 48
 HOURS PRIOR TO ANY CONNECTIONS TO THE EXISTING FIRE
 SYSTEM.



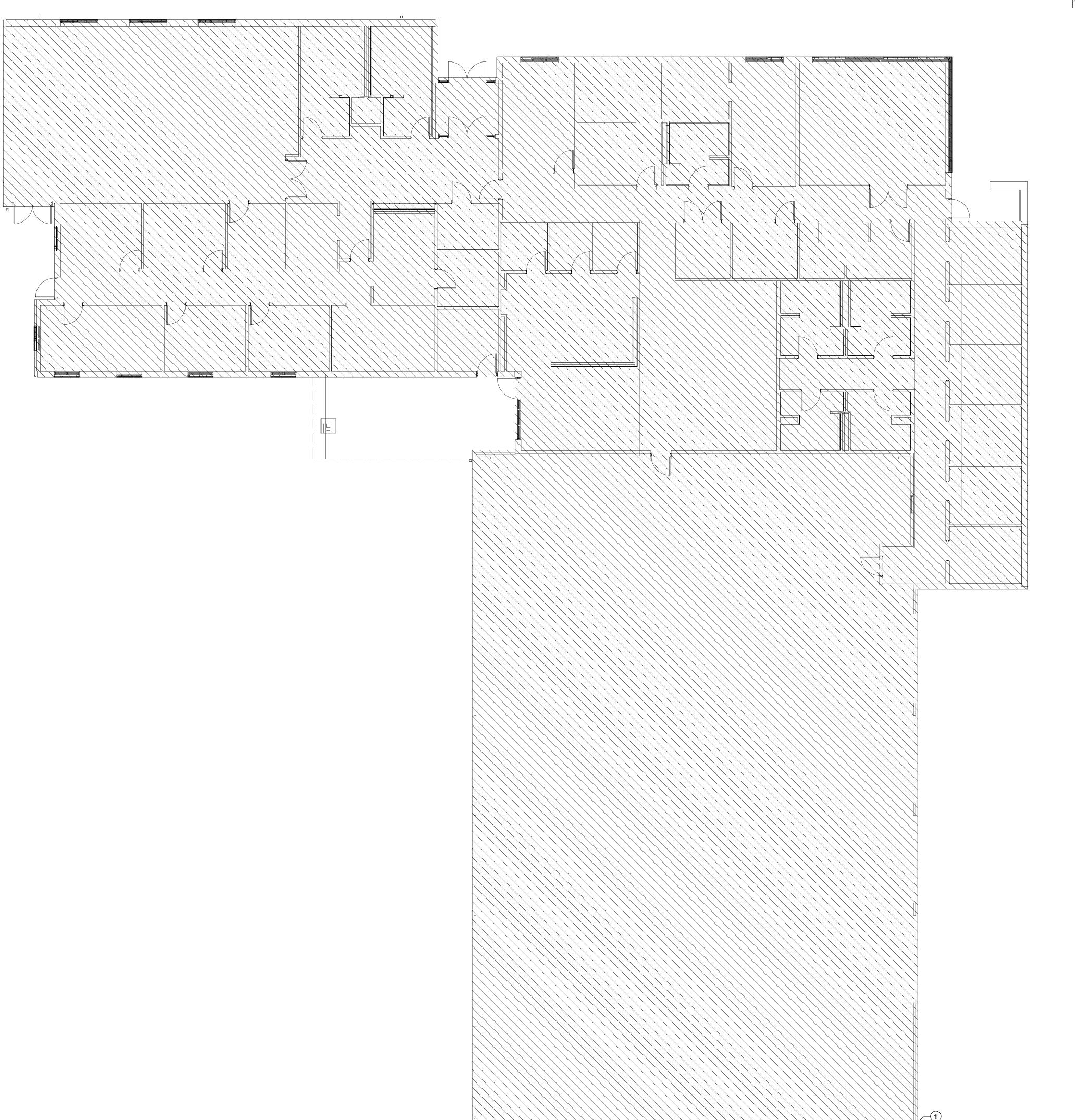
2 FIRE PROTECTION RISER
1/8" = 1'-0"

(6) EXISTING RISER TO SPRINKLER SYSTEM

7) WET PIPE ALARM VALVE

8 SYSTEM PIPING

9 RETARD CHAMBER



1 FIRST FLOOR - FIRE PROTECTION PLAN

1/8" = 1'-0"