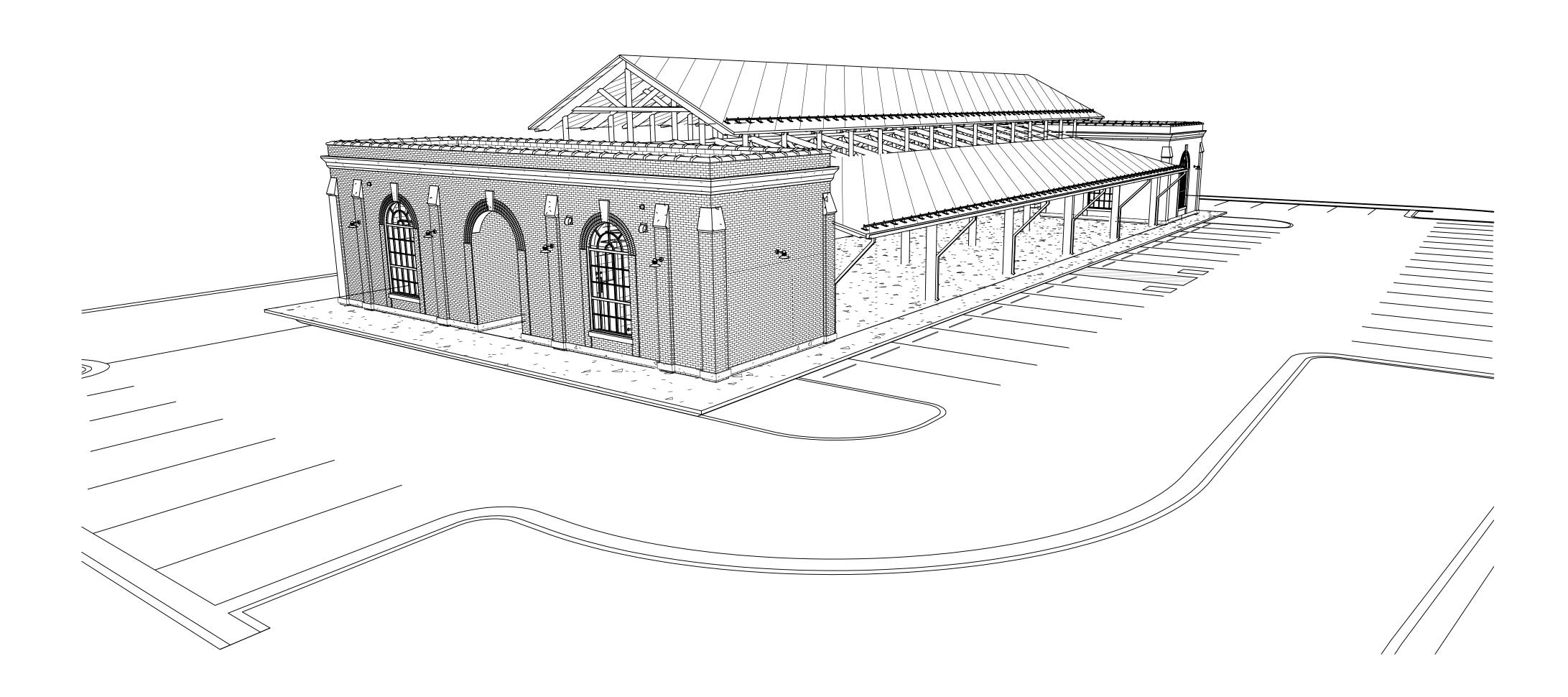
CITY OF PARAGOULD

FARMERS MARKET

PARAGOULD, ARKANSAS



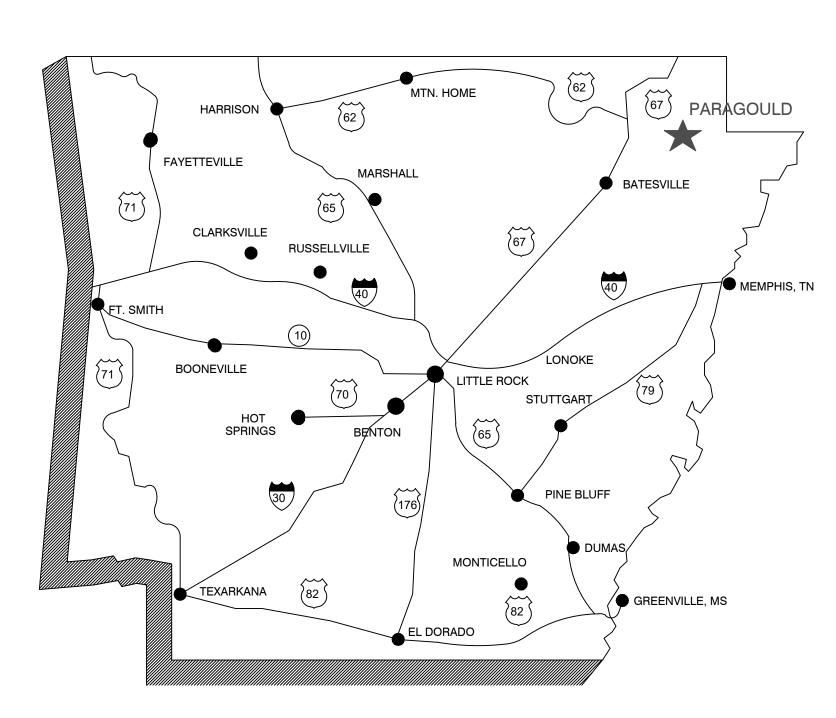
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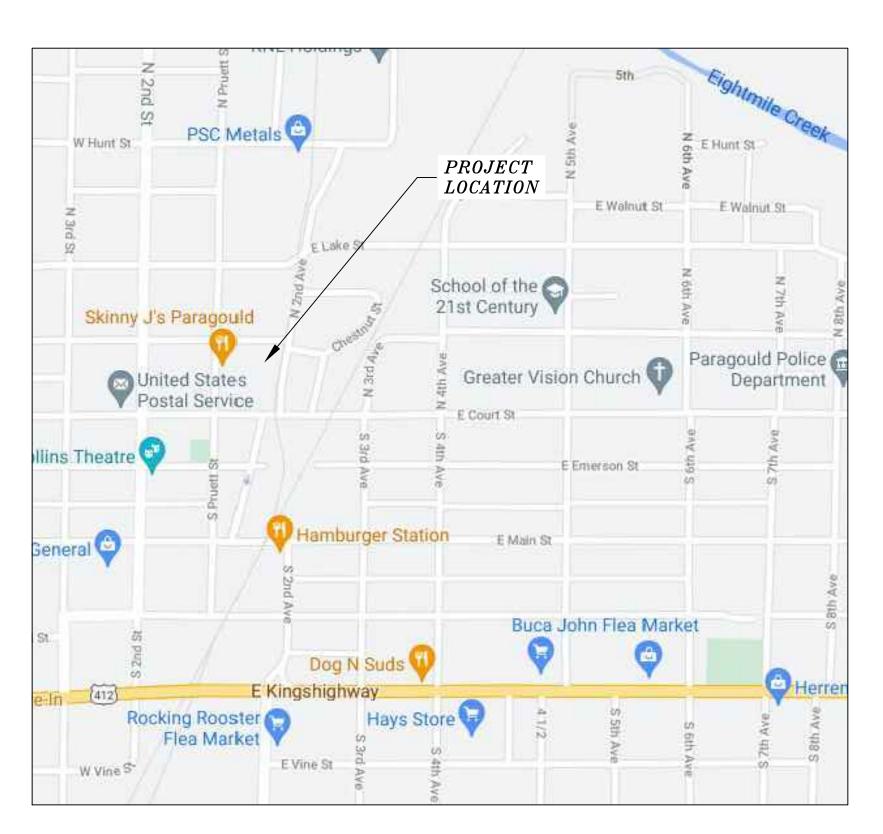
ENGINEERING & ARCHITECTURAL CONSULTANTS, CONSTRUCTION MANAGERS

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STATE MAP



LOCATION MAP

SUMMARY OF SITE WORK QUANTITIES

- THE CONSTRUCTION CONTRACT IS LUMP SUM.
- THESE QUANTITIES ARE GIVEN SOLELY AS AN AID FOR THE CONTRACTOR.
- THE LIST OF QUANTITY ITEMS IS **NOT** COMPLETE.
- THE ENGINEER DOES NOT GIVE ANY ASSURANCE THAT THESE QUANTITIES ARE ACCURATE.
- CONTRACTOR IS RESPONSIBLE FOR CALCULATING ALL QUANTITIES ASSOCIATED WITH THE LUMP SUM BID.

ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY
IMPORTED FILL BALANCE	CY	2,512
CLASS 7 GRAVEL FOR DRIVEWAY	CY	680
AND PARKING LOT	CY	080
SIDEWALK CONCRETE	SFT	2,800
CONCRETE GUTTER	SFT	536
CURB AND GUTTER	LF	1,350
STRAIGHT CURB	LF	90
STANDARD DUTY ASPHALT	TONS	210
HEAVY DUTY ASPHALT	TONS	192
SOD WITH IRRIGATION	SY	490

2,735

UTILITIES SHOWN WITHIN THE EXTENT OF CONSTRUCTION HAVE EITHER BEEN OBTAINED FROM AS-BUILT DRAWINGS OR ABOVE GROUND FEATURES SUCH AS FIRE HYDRANTS, VALVES, OR METERS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING THE EXACT LOCATION OF UTILITIES PRIOR TO ANY EXCAVATION BY CALLING ONE-CALL AT 1-800-482-8998. THE UTILITY LOCATION MARKING SHALL BE MAINTAINED UNTIL NO FURTHER EXCAVATION IS REQUIRED.

LANDSCAPING WITH IRRIGATION SFT

NOTES / SPECIAL INSTRUCTIONS

SAFETY NOTICE TO CONTRACTOR

IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY

THE DUTY OF THE ENGINEER TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY

MEASURES, IN, OR NEAR THE CONSTRUCTION SITE.

CONTINUOUSLY AND NOT BE LIMITED TO NORMAL

WORKING HOURS.

ENGINEER'S NOTICE TO

CONTRACTOR THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE DRAWINGS ARE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO EXISTING UTILITIES

ASSUME NO RESPONSIBILITY AS TO THE ACCURACY OF

EXCEPT AS SHOWN ON THESE DRAWINGS AND WE

THEIR DEPICTED LOCATION ON THESE DRAWINGS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN, AND ALL OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE DRAWINGS BY VERIFICATION OF THEIR LOCATION IN THE FIELD PRIOR TO THE INITIATION OF THE ACTUAL PORTION OF THEIR WORK.

INDEX OF DRAWINGS

COVER SHEET

LOCATION MAPS, INDEX, NOTES

CIVIL DRAWINGS

- EXISTING CONDITIONS AND DEMOLITION PLAN
- SITE AND UTILITY PLAN
- GRADING, DRAINAGE, AND EROSION CONTROL PLAN
- **DETAILS**
- **DETAILS**
- LANDSCAPE AND IRRIGATION PLAN

STRUCTURAL DRAWINGS

- GENERAL NOTES
- SPECIAL INSPECTIONS
- ROOF LOADING DIAGRAMS
- FOUNDATION PLAN
- TYP FOUNDATION DETAILS
- FOUNDATION SECTIONS
- FOUNDATION SECTIONS ROOF FRAMING PLAN
- TYP FRAMING DETAILS
- TYP FRAMING SECTIONS
- CMU OPENING ELEVATIONS
- TRUSS SECTIONS

ARCHITECTURAL DRAWINGS

- A1.01 FLOOR PLAN
- A1.11 REFLECTED CEILING PLAN
- A1.21 ROOF PLAN
- A2.01 ELEVATIONS A2.02 ELEVATIONS
- A3.01 BUILDING SECTIONS
- A3.02 BUILDING SECTIONS
- A3.11 WALL SECTIONS
- A3.12 WALL SECTIONS
- A4.01 ENLARGED PLANS / ACCESSORIES
- A5.01 INTERIOR ELEVATIONS
- A6.01 DOOR SCHEDULES & DETAILS
- A6.02 WINDOW SCHEDULE & DETAILS
- A7.01 FINISH SCHEDULE

PLUMBING DRAWINGS

- P1.01 WATER & WASTE PLANS
- P1.02 RISER, SCHEDULE AND DETAILS

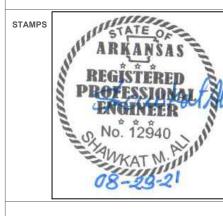
MECHANICAL DRAWINGS

- M1.01 MECHANICAL PLAN
- M1.02 MECHANICAL SCHEDULES

ELECTRICAL DRAWINGS

- E0.01 LEGEND AND NOTES
- E1.01 SITE ELECTRICAL PLAN
- E1.02 LIGHTING PLAN
- E1.03 POWER PLAN



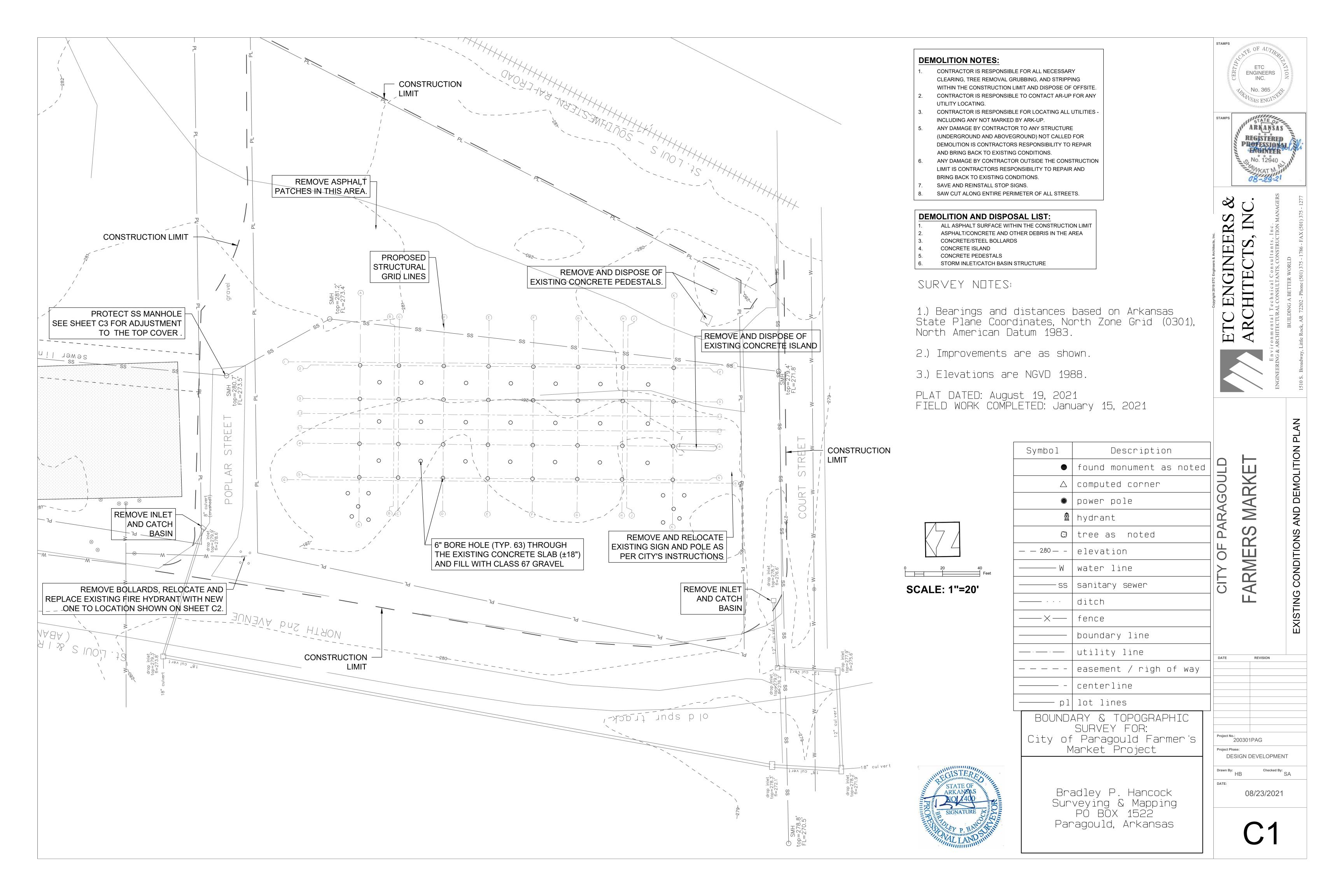


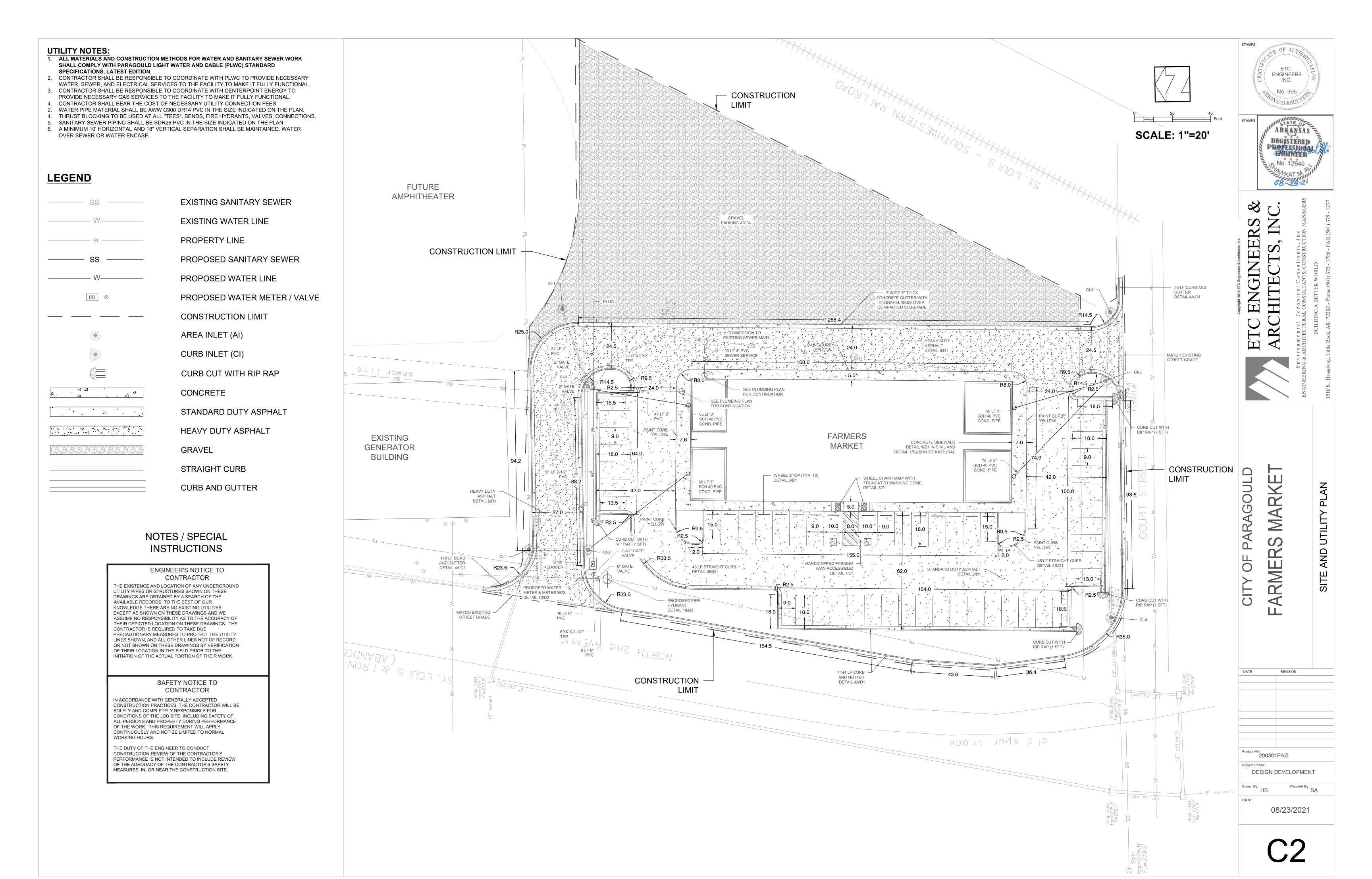
REVISION

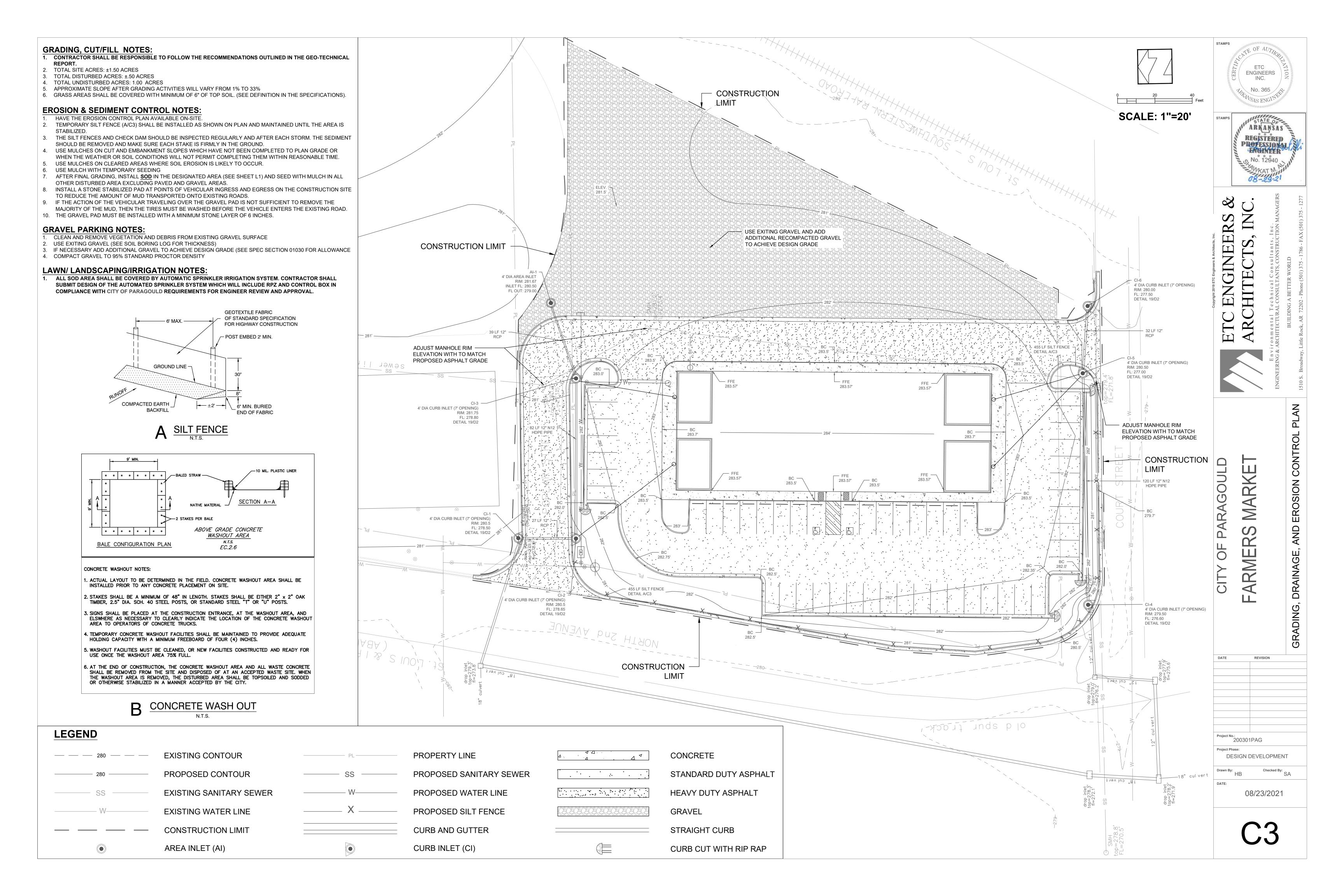
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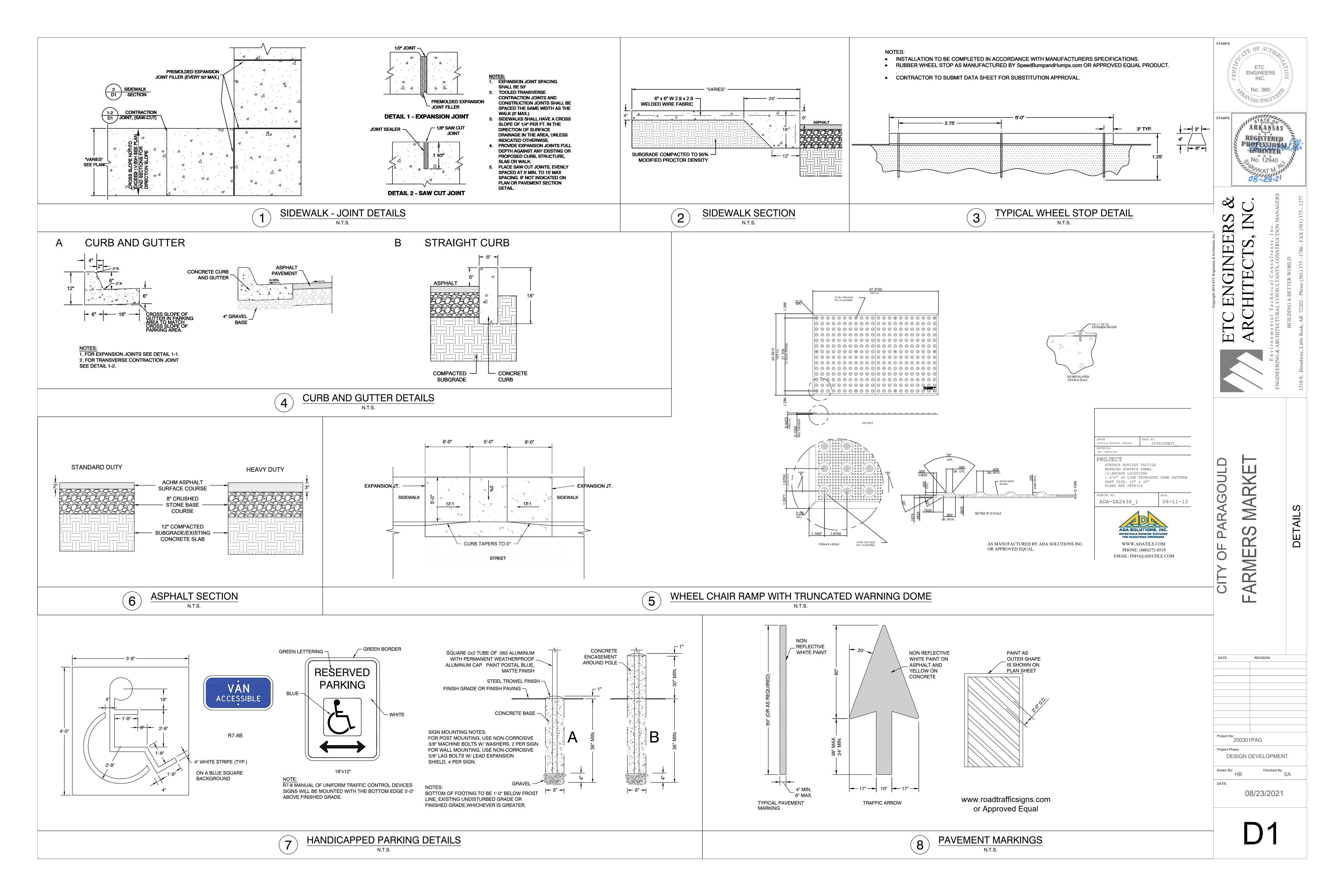
DESIGN DEVELOPMENT

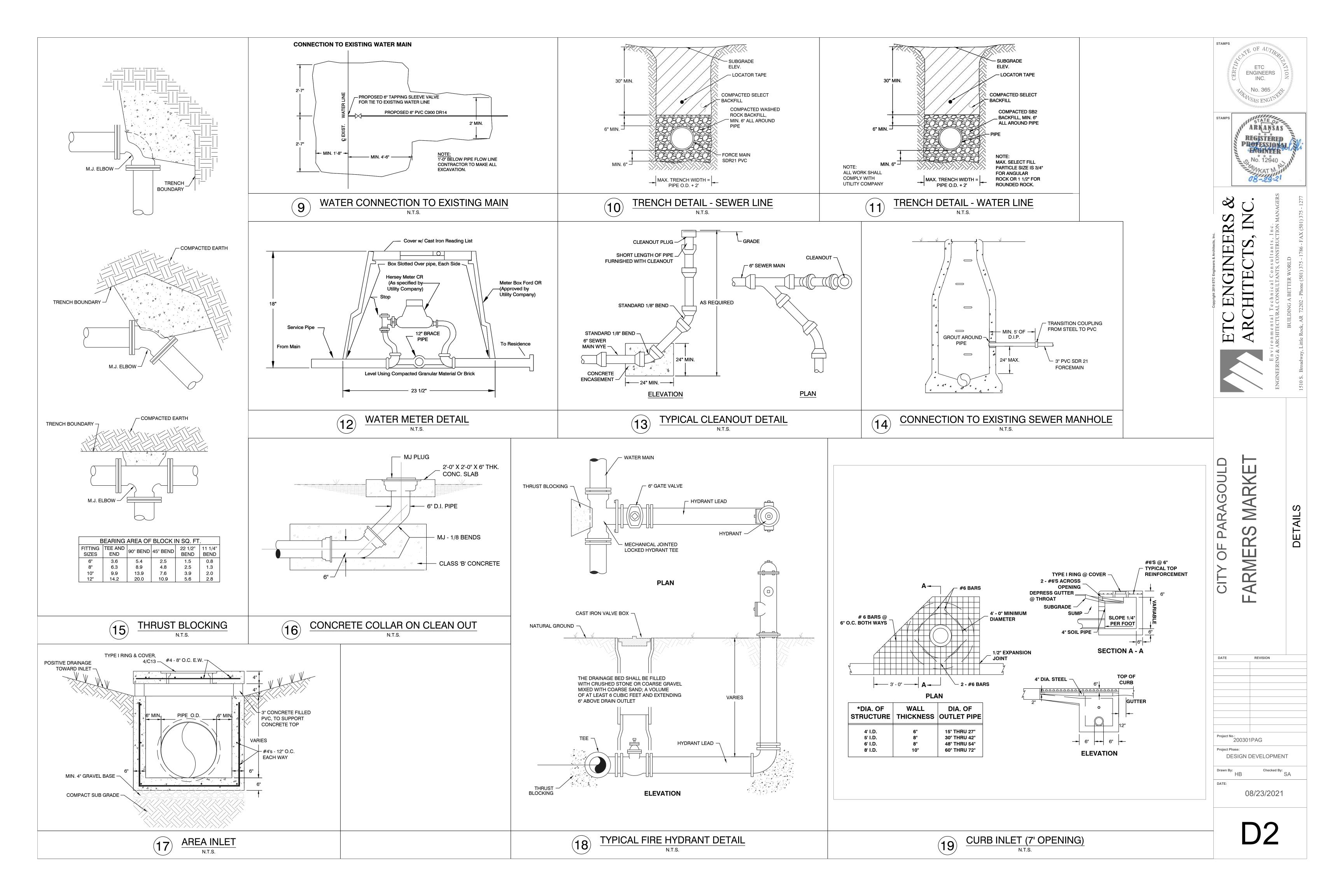
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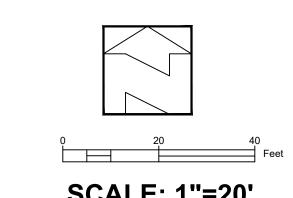


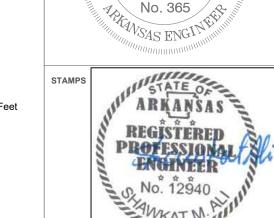












ETC **ENGINEERS** INC.

SCALE: 1"=20'

LEGEND

TELEPHONE LINE

DECIDUOUS TREE

EVERGREEN TREE

DECIDUOUS SHRUB

EVERGREEN SHRUB

BENCHMARK

GROUNDCOVER

CONCRETE

ASPHALT

SCIENTIFIC NAME

SCIENTIFIC NAME

SCIENTIFIC NAME NANDIAN DOMESTICA

SCIENTIFIC NAME

ILEX SPECIES NANDIAN DOMESTICA JUNIPERIUS SPECIES PRIMARY

LAGERSTROEMIA INDIC DWARF PURPLELEAF BERBERIS THUNBERGI ATROPURPUREA

QUERCUS PALUSTRIS

QUERCUS NIGRA

PINUS TAEDA

ILEX VOMITORIA

QUERCUS PHELLOS LAGERSTROEMIA INDICA CERCOS CANADENSIS

BOUNDARY LINE FIRE HYDRANT THIS SURVEY ADJOINING PROPERTY LINES PLOTTED _____ FROM DEEDS GLO SUBDIVISION LINES _____ CENTER LINE EXISTING FENCE OVERHEAD ELECTRIC — E — E — WATER LINE — w — w — w — SANITARY SEWER — s —— s —

<u> — т — т — т — </u>

.

FOUND MONUMENT SET MONUMENT GUY WIRE POWER POLE LIGHT POLE ELECTRICAL BOX CABLE PEDESTAL PHONE PEDESTAL TELEPHONE MANHOLE TELEPHONE MARKER WATER VALVE WATER METER GAS VALVE GAS METER SANITARY MANHOLE STORM SEWER MANHOLE CATCH BASIN

ME 2

REVISION

Project No.: 200301PAG

DESIGN DEVELOPMENT

08/23/2021

.



LANDSCAPE NOTES

A COMBINATION THEREOF.

10. 75% OF SHRUBS SHALL BE EVERGREEN.

2. ALL TREES AND SHRUBS SHALL HAVE AN AUTOMATIC

ACCEPTABLE PLANT LIST

COMMON NAME

COMMON NAME

COMMON NAME

DWARF CREPE MYRTLE YEW Japanese barberry

COMMON NAME

EVERGREEN HOLLIES JUNIPER SPECIES

LOBLOLLY PINE

YAUPON HOLLY

HONEY LOCUST

PIN DAK SAWTOOTH DAK

WILLOW DAK CREPE MYRTLE

PROTECTED BY A 6" CURB.

CONTAINER SIZE.

MATERIAL.

IRRIGATION NOTES

NURSERYMEN INC., DR EQUIVALENT.

1. PLANT MATERIAL USED SHALL CONFORM TO THE "AMERICAN STANDARDS FOR NURSERY STOCK, 1-73," GRADE #1, AMERICAN ASSOCIATION OF

2. SINGLE TRUNK TREES SHALL BE MINIMUM OF 3" CASLIPER MEASURED 12 (TWELVE) INCHES ABOVE GRADE AT TIME OF PLANTING FOR 50% OF THE TREES AND 2" CALIPER FOR THE REMAINING 50%.

3. ALL PLANT MATERIAL EXCEPT TREES SHALL BE MIN. 1 GALLON

4. ALL AREAS DESIGNATED TO RECEIVE GROUND COVER SHALL BE

HAVE ALL SOIL FULLY COVERED WITH MULCH, ROCKS, BARK OR

5. ALL PLANTS MUST BE MULCHED NO MORE THAN 3" WITH A NATURAL

6. IN ALL LANDSCAPED AREAS TREES ARE REQUIRED TO BE SETBACK

8. PLANT MATERIAL INSTALLED PER THIS PLAN ARE DEFINED AND SHALL BE SELECTED FROM THE LISTS BELOW.

A MINIMUM DISTANCE OF 4' FROM CURBS OR PAVING. 7. ALL PLANTERS WITHIN THE VEHICULAR USE AREA SHALL BE

9. 50% OF TREES SHALL BE DECIDUOUS AND 50% EVERGREEN.

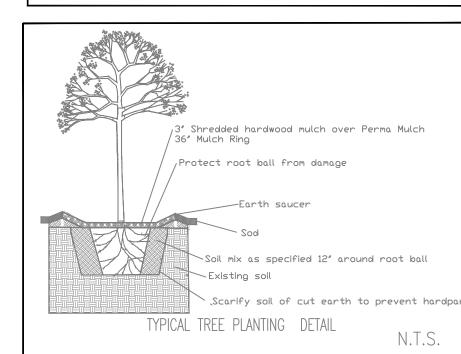
1. ALL SOD AND MULCH AREAS SHALL BE IRRIGATED BY MEANS OF AN AUTOMATIC SPRINKLER SYSTEM. CONTRACTOR SHALL PROVIDE IRRIGATION PLAN FOR ENGINEER / ARCHITECTS APPROVAL.

TREE SPECIES DECIDUOUS:

TREE SPECIES EVERGREEN:

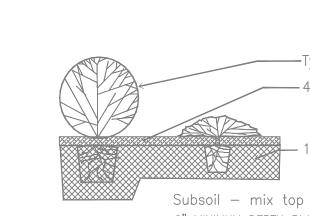
SHRUB SPECIES DECIDUOUS:

SHRUB SPECIES EVERGREEN:



Soil mix shall be enriched with generous amounts of weed—free composted organic material, such as rice hulls, manure, compost, etc. Except for on steep slopes where 100% compost shall be applied, planting medium shall consist of 50% compost and 50% concrete sand, and mixed or tilled in thoroughly. If clay soil exists, it must be amended with generous amounts of sand and compost to improve soil drainage. Subsoil must be scarified to a depth of at least 3" to avoid drainage problems (hardpan). All areas shall have positive drainage away from any building. 36" diameter Perma Mulch rings shall be installed at the base of all newly planted trees. All mulch rings shall have a 3" layer of shredded hardwood

PLANTING DETAILS



—Typical 1 gallon shrub — scarify root ball if root bound -4" Shredded hardwood mulch

- 12" Deep prepared soil for planting

Subsoil — mix top 3" of loosened soil into prepared soil mix to prevent hardpan 6" MINIMUM DEPTH PLANTING SOIL MIXTURE, AS SPECIFIED, UNDER ALL ROOT BALLS.

TYPICAL SHRUB AND GROUND COVER DETAIL N.T.S.

DESIGN PARAMETERS

Discrepancies - When discrepancies exist between the Design Drawings (including this sheet) and the Specifications, the more stringent of the two determined by the engineer shall govern. When discrepancies exist between scaled dimensions in the Design Drawings and the figures written in them, the figures shall govern.

<u>Design Codes</u> - (All latest editions unless noted):

- International Building Code (IBC 2012)
- B. American Society of Civil Engineers (ASCE 7-10)

Minimum Design Loads for Buildings and Other Structures

A. Refer to Geotechnical report by MTA Engineers dated July 20, 2021. Allowable bearing capacity of strip footings and pad footings are 3,000 psf . Some undercutting of building slab and footings can be expected. Geotechnical Engineer shall observe and review site conditions during construction to determine amount of undercut.

- B. If the soil is of questionable bearing value, the Engineer or Architect shall be notified immediately. C. After footing excavations are completed and before placing concrete, the excavated areas shall be inspected and
- approved by the Owner selected independent testing laboratory.
- D. The Soils Engineer is the sole judge of suitability of underlying material to support foundations and shall approve bearing material before foundation installation. See specifications.
- E. Coefficient of horizontal friction between concrete and soil = 0.35 Minimum depth from exterior ground surface to bottom of foundations = 24 inches
- G. Prepare site and place fill in accordance with the recommendations in the soils report noted above. Observe construction recommendations noted in the soils report. All fill material shall be in accordance with soils report
- H. Construct non-basement floor slabs on the granular fill layer required by the plan notes.
- I. Backfill basement and retaining walls with ASTM C-33 No. 57 stone or equivalent approved by the soils Engineer
- Extend stone from the base of walls outward at a 45 degree angle to the vertical. J. Backfilling:
- Do not backfill basement walls and grade beams until bracing floors are in place or temporary bracing is installed.
- Backfill in even lifts alternating from side to side. Backfill under foundations with concrete or as approved by soils Engineer.
- Roof Load

 A. Roof Dead Loads 18 psf @ gable roof; 20 psf @ flat roof 20 psf (Unreducible) B. Roof Live Load . Collateral Load 5 psf @ flat roof only D. Rain Intensity 3.75 in/hr
- 4. Floor Load
 A. Floor Live Load B. Floor Corridor Live Load 80 psf
- Floor Dead Load 32 psf D. Floor MEP Allowance 10 psf
- E. Floor Partition Load 20 psf Wind Load: . Wind Speed 115 mph
- B. Wind Exposure Category $GC_{pi} = \pm 0.18$ Internal Pressure Coefficient
- Snow Load: Ground Snow Load B. Exposure Coefficient Ce 1.0 Thermal Factor Ct 1.0
- Importance Factor for Snow I 1.0 Roof Slope Factor Cs Min. Roof Snow Load Seismic Load: 0.2 Sec Spectral Acceleration = 1.347
- Fa = 1.00.2 Sec Site Coefficient Sds = 0.8980.2 Sec Design Acceleration S1 = 0.471.0 Sec Spectral Acceleration 1.0 Sec Site Coefficient Fv = 1.331.0 Sec Design Acceleration Sd1 = 0.417
- Site Class Risk Category Seismic Importance Factor I = 1.0**ACI Special Provisions** Not Applicable
- AISC Seismic Provisions Not Applicable Seismic Design Category Basic Structural System Cantilevered Column Systems (Gabled Roof) & Bearing Wall Systems (Flat Roof) Steel Special Cantilever Column Systems (Gabled Roof) & Special Reinforced Seismic Force Resisting System

Masonry Shear Walls (Flat Roof)

R = 2.5 (GABLED ROOF); 5 (FLAT ROOF)Response Modification Factor Deflection Amplification Factor Cd = 2.5 (GABLED ROOF); 3.5 (FLAT ROOF)Seismic Response Coefficient Cs = 0.359 (GABLED ROOF) : 0.180 (FLAT ROOF)V = 51.7k (GABLED ROOF); 38.8k (FLAT ROOF) Design Base Shear

Non-Structural Component Seismic Exemption:

Architectural Components:

Architectural components with an Ip=1.0 are exempt from seismic requirements. (SDC=B)

Architectural components must comply with seismic requirements of Chapter 13 ASCE 7. (SDC=C) (SDC=D)

Mechanical and Electrical Components: Mechanical and electrical components are exempt from from seismic requirements of ASCE 7. (SDC=B)

Mechanical and electrical components with an Ip=1.0 are exempt from seismic requirements. Components with Ip>1.0 must comply with seismic requirements. (SDC=C)

Components must comply with Chapter 13 of ASCE 7 seismic requirements. (SDC=D)

Mechanical and electrical components with an Ip=1.0 and either components are mounted 4 ft or less above a floor level and weigh 400 lb or less or flexible connections between the components and the associated duct work, piping and conduit.

Mechanical and electrical components with an Ip=1.0 and the components weight 200 lb or less or for distribution systems weighing 5 lb/ft or less.

Component Seismic Importance Factor:

- The component importance factor lp shall be =1.5 if any of the following conditions apply: A. The component is required to function for life-saftey purposes after and earthquake, including fire protection sprinkler
- B. The component contains hazardous materials. C. The structure is in or attached to an occupancy category IV structure and it is needed for the continued operation of
- the facility. All other components shall be assigned and importance factor lp=1.0.

I hereby certify that the structural plans submitted herewith are designed with the structural load carrying elements to resist the anticipated forces of the designated seismic zone in which the structure is located in accordance with Arkansas Code Annotated 12-80-101 et. seq.

Date: August 13 ,2021

Arkansas Registration No. 9260

Wenduo "Roger" Yin, P.E., S.E.

GENERAL INFORMATION

- . All columns shall be centered on grid lines unless noted otherwise.
- All column footings shall be centered on columns unless noted otherwise. All wall footings shall be centered on walls unless noted otherwise.
- . Unless otherwise noted or detailed, concrete pads for mechanical equipment shall be 4" thick (minimum) and reinforced with #3 @ 12" OC each way centered.
- Substitution of expansion anchors for embedded anchors shall not be permitted, Unless Approved by Engineer. Contractor is responsible for coordinating weights, size, and location of actual mechanical units ordered.
- Unless Directed Otherwise By Geotechnical Engineer all fill material under structure shall be sandy clay or clayey sand exhibiting a liquid limit less than 35. Fill material shall be placed in loose lifts not to exceed 8" and compacted to a density of not less than 95% of Modified Proctor Maximum Dry Density (ASTM D-1557) at or slightly wet of optimum moisture content. In place moisture and density of each lift shall be determined by in-situ field tests prior to placing additional fill. 8. Permanent stability of the building and components is not provided until the erection is completed as shown on the
- contract drawings. Erection stability and temporary supports required for construction including guys, braces, and shoring are the responsibility of the contractor.
- Testing: A. Refer to specifications for specific requirements regarding sampling and testing.
- B. Where sampling and testing requirements are omitted from the specifications sample and test concrete as follows: Contractor shall engage a testing laboratory acceptable to the owner and Architect. Test conducted shall be paid
- Prepare field samples of 4 compressive test cylinders in accordance with ASTM C31 and one slump test for each class of concrete placed each day. Samples shall be taken not less than once per day for each 50 cubic yards of concrete. Test for cylinders shall be conducted one at 7 days and 2 at 28 days, with remaining cylinders retained for future testing in case of low test results.
- 10. Before construction starts, contractor shall coordinate with owner to identify all underground utility lines and protect them from any damage during construction.

SLAB ON GRADE

area of Slab within joints shall be 250 sq. ft.

- 1. Provide a 4-inch clean medium-to-coarse sand or gravel compacted drainage fill below all interior slabs-on-grade unless noted or detailed otherwise.
- 2. A 10-mil minimum polyethylene film vapor retarder shall be placed below all interior slabs-on-grade. 3. Cut 75% of welded wire fabric or deformed rebar 3 inches on either side of a sawcut or construction control joint.
- 4. Provide bolsters or supports as needed to maintain reinforcement at proper location in slab. Maximum water cement ratio shall not exceed the amount specified.
- 6. Saw cutting control joints shall proceed as soon as possible without chipping or spalling concrete. Lapsed time between casting and sawcutting shall not exceed 8 hours. The length to width ratios of slab areas shall not exceed 1.25. The Max
- 7. Refer to specifications and Architectural drawings for slab finish requirements.

SLAB FLATNESS AND LEVELNESS:

- 1. The slab on grade shall comply with either the straight edge tolerance or the F-number tolerances outlined below for flatness and levelness per ACI 117. The tolerance shall be confirmed by field testing.
- 2. Elevated floors shall comply with the moderately flat design for FF only. The FL levelness tolerance shall not apply to slabs placed on unshored form surfaces or shored form sufaces after removal of shores, nor to cambered or inclined surfaces. FF and FL shall be tested in accordance with ASTM E 1155. Straight edge shall be placed on two high spots anywhere on slab surface and measurements taken. Sampling shall be per ACI 117 and not less than 1 measurement per 100 sq. ft. Measurements must be taken and results supplied to contractor within 72 hrs. of pouring.
- . Unless specifically defined otherwise on the drawings, the floor profile category shall apply to the following building types:
- A. Conventional: Utility building not to receive finishes.
- B. Moderately Flat: Low speed traffic areas, elevated floor slabs Churches, schools, office buildings, retail, any floor to receive finishes. C. Flat:
- Industrial floors, floors subject to forklifts, gymnasiums D. Very Flat: Special use floors including TV studios, warehouse traffic isles E. Super Flat:

F-NUMBERS FOR VARIOUS FLOOR PROFILE CATEGORIES					
	Specified O	verall Value	Minumum L	ocal Value	
Floor Profile Category	FF	FL	FF	FL	
Conventional	20	15	13	10	
Moderately Flat	25	20	15	12	
Flat	35	25	21	15	
Very Flat	45	35	27	21	
Super Flat	60	40	36	24	

REQUIRED DEPTH BELOW 10 FOOT STRAIGHT EDGE						
	Maximum Gap					
	90% Compliant 100% Compliant					
Conventional	1/2"	3/4"				
Moderately Flat	3/8"	5/8"				
Flat	1/4"	3/8"				
Very Flat	N/A	N/A				
Super Flat	N/A	N/A				

CONCRETE MASONRY

- 1. Material specifications
- Concrete Masonry Units f'm = 2,500 psi
- f'c = 2,500 psi Grout Mortar Type S (ASTM C476)
- Grade 60 (ASTM A615) Reinforcing Bars
- Reinforcing Wire ASTM A82
- 2. Load bearing CMU shall be light weight type 1 and conform to ASTM C90. Grout shall conform to ASTM C476 and be tested in accordance with ASTM C1019. Mortar shall comply with Table 1, Proportion specification requirements of ASTM C270.
- 5. Masonry joint reinforcement shall be welded wire units in lengths not less than 10 feet, with matching corner and tie units. Reinforcement shall be w2.8 (9 gage) ladder or truss type with deformed continuous side rods and plain cross rods and shall have a width of 11/2" to 2" less than thickness of wall or partition. reinforcement shall be placed at first bed joint above and below
- concrete slabs and spaced no more than 16" OC unless noted otherwise in contract documents. Refer to Architectural elevation drawings for location of wall control joints. If wall control joints are not shown on contract drawings place interior and exterior wall control joints at spacings not to
- exceed 30 feet on center. Vertical CMU cells scheduled for filling with grout shall be kept clean of mortar droppings and
- debris. The unobstructed opening shall not be less than 2" x 3" on plan dimension. 8. Provide vertical reinforcing, same size as adjacent bar, at: Corners, ends, jambs, each side of control and expansion joints
- . Continue vertical reinforcing floor to floor (or roof) and extend to top of parapet. 10. Provide standard hooks on bars terminating into a masonry face:
- In walls at openings, heads, jambs, expansion joints, ends: In beams at top, bottom, and ends.
- 11. Coordinate blockouts, reveals, holes, openings and built in items with all contract documents and 12. Coordinate with architect the masonry block type required at firewalls
- 13. Unless otherwise noted on drawings, top of CMU walls shall have masonry bond BM filled w/ grout and reinforced with 2-#5. Vert reinf shall extend into bond BM w/ std hook. 14. Corrosion protection for carbon steel accessories used in exterior wall construction or interior walls exposed to a mean relative humidity exceeding 75 percent shall comply with current building code requirements for masonry structures (TMS 402-11 / AISC 530-11 / ASCE 5-11). Specifically steel items exposed to wet conditions noted shall be stainless steel, hot dipped galvanized, or epoxy
- 15. Special reinforced masonry Shear Wall systems apply under Seismic Design Category of "D"

coated. Wall ties, anchors and inserts may be mill galvanized, hot dipped galvanized, or stainless

EPOXY ANCHORS

- 1. Where epoxy anchorage of threaded rods and rebar is approved by Engineer of Record in concrete filled cells of cmu use
- Powers AC100+ Gold. 2. Where epoxy anchorage of threaded rods and rebar is approved by Engineer of Record in concrete use Powers Pure 110.
- 3. Where anchorage is required into hollow or multi-wythe masonry contractor shall use Powers AC100+ Gold w/ mesh screen. 4. Unless depth of embedment is shown on contract drawings contact Engineer of record for depth of embedment. As a
- minimum depth of embedment shall be indicated by manufacturer to develop full tensile strength of anchorage. Install anchors per the manufacturer's installation instructions.
- 6. Contractor shall arrange for an anchor manufacturer's representative to provide onsite installation training for all of their anchoring products specified. The structural Engineer of record must receive documented confirmation that all of the contractor's personnel who install anchors are trained prior to the commencement of anchor installation.

ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS):

. Only structural steel exposed to view will be subject to AESS requirements, of AISC 2016 Code of Standard Practice The AESS Categories for exposed structural steel shall be as follows unless noted otherwise: A. Exposed exterior steel in Gabled Roof area - AESS 1

	Category	AESS C	AESS 4	AESS 3	AESS 2	AESS 1
ld	Characteristics	Custom Elements	Showcase Elements	Feature Elements in close view	Feature Elements not in close view	Basic Elements
1.1	Surface preparation to SSPC-SP 6		•	•	•	•
1.2	Sharp edges ground smooth		•	•	•	•
1.3	Continous weld appearance		•	•	•	•
1.4	Standard structural bolts		•	•	•	•
1.5	Weld spatters removed		•	•	•	•
2.1	Visual samples		•	•	optional	
2.2	One-half standard fabrication tolerances		•	•	•	
2.3	Fabrications marks not apparent		•	•	•	
2.4	Welds uniform and smooth		•	•	•	
3.1	Mill marks removed		•	•		
3.2	Butt and plug welds ground smooth and filled		•	•	1	
3.3	HSS weld seam oriented for reduced visability		•	•]	
3.4	Cross sectional abutting surface aligned		•	•]	
3.5	Joint gap tolerances minimized		•	•]	
3.6	All welded connections		optional	optional]	
4.1	HSS seam not apparent		•		-	
4.2	Welds contoured and blended		•	1		
4.3	Surfaces filed and sanded		•	1		
4.4	Weld show through minimized		•			
C.1				-		
C.2			1			
C.3			1			
C.4			1			
C.5		1	1			

- 1.1 Prior to blast cleaning, grease and oil are to be removed by solvent cleaning to meet SSPC-SP1.
- 1.2 Rough surfaces are deburred and ground smoth. Sharp edges resulting from flame cutting, grinding and especially 1.3 - Intermittent welds are made continous, either with additional welding, caulking or body filler. For corrosive
- enviroments, all joints are seal welded. Seams of hollow structural sections are acceptable as produced. 1.4 - All bolt heads in connections are on the same side, as specified, and consistent from one connection to another.

1.5 - Weld spatter, slivers, surface discontinuities are removed. Weld projection up to 1/16 in. (2 mm) is acceptable for

- 2.1 Visual samples are either a 3-D rendering, a physical sample, a first-off inspection, a scaled mock-up or a full
- scale mock up, as specified in the contract documents. 2.2 - These tolerances are one-half of those for standard structural steel as specified in this Code.
- 2.3 Members markings during the fabrication and erection processes are not visible.
- 3.1 All mill marks are not visible in the finished product.
- 3.2 Caulking or body filler is acceptable.
- 3.3 Seams are oriented away from view or as indicated in contract documents. 3.4 - The matching of abutting cross sections is required.
- 3.6 Hidden bolts may be considered.
- 4.1 HSS seams are treated so they are not apparent.
- 4.2 In addition to a contoured and blended appearance, welded transitions between members are also contoured and
- 4.3 The steel surface imperfections are filled and sanded. Weld show-through on the back side of a welded element can be minimized by hand grinding the back side
- surface. The degree of weld show-through is a function of weld size and material.

3.5 - This characteristic is similiar to 2.2 above. A clear distance between abutting members of 1/8 in. (3 mm) is

Additional characteristics may be added for custom elements.

LIGHT GAUGE METAL FRAMING

- 1. Light gauge structural studs shall be as follows:
- A. Exterior non-load bearing wall framing = 6"x18 ga.x1 5/8 " @ 16" OC (600S162-43) B. Interior non-load bearing partition studs = See Architectural drawings for size.
- C. For stud and track gages greater than and equal to 16GA, Fy=50ksi 2. All stud tracks shall match stud gage but not less than 18 ga. Tracks above or below glass curtain walls greater than 10 feet in height shall be a minimum of 16 ga.
- 3. All window and door openings in load bearing walls are to have double joist headers with double studs each end for 4. All walls shall have horizontal bridging spaced at intervals not exceeding 4'-0" OC maximum.
- 5. Non-load bearing walls shall be provided with slip-type support clips (deflection clips) to allow adjacent support deflection without damaging studs. Long leg slip tracks are not allowed on exterior walls but can be used in interior 6. For multi-story projects or projects with more than a single gage of stud, studs shall have ends color coded or size
- and gage permanently labeled on studs. 7. Load bearing studs shall be squarely seated against top and bottom tracks with gap not exceeding 1/8". Fasten both flanges of stud to top and bottom tracks.
- supplementary support is not indicated comply with stud manufactures recommendations and industry standards in

fixtures, equipment, services, casework, heavy trim, furnishings, and similar work requiring attachment to framing. If

- 9. Tracks bearing on concrete shall be attached with a minimum 0.145"Ø P.D.F. @ 8" OC or as noted on drawings.
- P.D.F. shall be placed min. of 3" from conc. edge. 10. At jambs, heads and sill of curtain wall window systems provide minimum 16GA support members unless detailed

8. Install supplementary framing, blocking, in stud framing as indicated in the Architectural drawings to support

11. Unless noted otherwise on drawings use the following fasteners:

D A E to Ctool	DAE to Come	C	Matariala	\Malel Thickers
P.A.F. to Steel	P.A.F. to Conc.	Screws	<u>Materials</u>	Weld Thickness
Hilti X-U	Hilti X-U	ITW Buildex TEKS	33 mil	No Welding
Ramset 1500/1600	Ramset 1500/1600		43 mil	1/8"
Powers Spiral CSI	Powers Spiral CSI		54 mil	1/8"
	Simpson PDPA		68 mil	1/8"
			97 mil	5/32"

STRUCTURAL STEEL

1. Steel shape and plate materials: W Shapes - ASTM A992 or A572 Grade 50

- Pipe A53 - Grade B 35 ksi Round HSS - A500 Grade C 46 ksi Rectangular HSS - A500 Grade C 50 ksi
- Built-Up shapes A572 Grade 50 Plate - A572 Grade 50 All Others - A36 or A572 Grade 50
- The fabrication and erection of structural steel shall comply with "The Code Standard Practice for Steel Buildings and Bridges" as published by AISC.
- 3. Unless detailed otherwise, connections shall comply with the typical connection details indicated on drawings. Where beam end reactions are shown and connection details are not indicated on the structural drawings, provide a design for the connection and submit to the structural engineer of record for approval. Where typical connection details and beam end reactions are omitted, beam connections shall be selected to support one half the total uniform load capacity indicated in "Allowable Uniform Load Tables" in part 2 of the AISC manual of steel construction, 13th edition.
- Bolted Connections A. Unless detailed otherwise, all field connections shall be made using 3/4" diameter ASTM F3125 gr A325N or F1852 high strength bolts. Washers shall be installed under nuts on pre-tensioned connections. Pretensioned connections shall utilize Alternate Design Bolts (twist off type F1852) or Direct Tension Indicators w/ gr A325. Note that these are not considered Slip Critical conections and any Slip Critical
- Connections will be noted as (SC) on drawings if required. B. Use slip critical connections for the following: Joints subject to fatigue load with reversal of the loading direction.
- Joints utilizing oversize holes (not including base plates). 3. Joints utilizing slotted holes with load parallel to slots.
- 4. Joints subject to seismic provisions of AISC 341 (SDC = C with R>3 or SDC = D, E, or F) without bolt shear capactiv reduction
- C. Where specifically identified on the drawings as slip critical all high strength bolts shall be tightened to comply with "slip critical" joints. All faying surfaces shall comply with a class A slip coefficient. Faying surface steel shall be clean and free from paint or other coatings unless qualified as appropriate for slip critical joints, and all galvanized surfaces shall be hand roughened. Power wire brushing is not acceptable, hand brushing is acceptable per RCSC Section 3.2.2 (3). Bolt specifications are as follows: 1. Installation of Alternate Design Bolts (Twist off Type)
- 2 Direct tension Indicators D. A490 and A325 high strength bolts shall not be reused that have been previously tightened. E. Unless specifically noted as slip critical connections, all bolted connections shall be visually inspected to
- Welded Connections-A. Welding of structural steel shall comply with the latest edition of AWS D1.1 and all welds including field welds shall be made by AWS certified welders using E70XX electrodes and must meet CHARPY V-
- B. All fillet welds to be visually inspected. All full penetration welds shall be inspected by ultrasonic testing or by other approved methods. C. Contractor shall remove back-up bars and run-off tabs projecting into or obstructing installation of building

D. Fabricator shall cope beams or otherwise provide weld access holes to allow proper installation and use of

- back-up bars at welded connections. Steel erector is responsible for providing all necessary temporary bracing during erection. All structural steel members exposed to weather after construction shall be galvanized.
- 8. Shop drawings shall be provided for review before any fabrication begins. 9. Grout column base plates prior to pouring concrete on first elevated deck and/or prior to adding additional steel

STRUCTURAL ABBREVIATIONS

comply with pre-tensioned conditions.

NOTCH requirements as applicable.

above column splices.

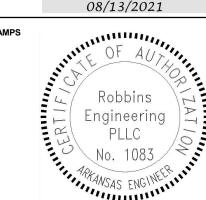
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ADD	ADDENDUM	LW	LONG WAY
ADDL	ADDITIONAL	LP	LOW POINT
ALT	ALTERNATE	MFR	MANUFACTURER
AB	ANCHOR BOLT	MK	MARK
&	AND	MSRY	MASONRY
ANG	ANGLE	MBA	MECHANICAL BAR ANCHOR
ARCH	ARCHITECT	MBM	METAL BUILDING MANUFACTURER
@	AT	MBS	MECHANICAL BAR SPLICE
BP	BASE PLATE	MO	MASONRY OPENINGS
BM	BEAM	MTL	MATERIAL
BRG	BEARING	MIN	MINIMUM
BOT	BOTTOM	MISC	MISCELLANEOUS
B/	BOTTOM / BACK OF	NF	NEAR FACE
BLDG	BUILDING	NS	NEAR SIDE
CIP	CAST IN PLACE	NML WT	
CLG	CEILING	NIC	NOT IN CONTRACT
C OR CL	CENTER OR CENTERLINE	NTS	NOT TO SCALE
C/C	CENTER TO CENTER	OC	ON CENTER
CLR	CLEAR	OPNG	OPENING
COL	COLUMN	OPP	OPPOSITE
CP	COMPLETE PENETRATION	OPP H	OPPOSITE HAND
CONC	CONCRETE	OF	OUTSIDE FACE
CMU	CONCRETE MASONRY UNIT	PL	PLATE
CONN	CONNECTION	PP	PARTIAL PENETRATION
CONST	CONSTRUCTION	RAD	RADIUS
CJ	CONTROL JOINT	RECT	RECTANGULAR
CONT	CONTINOUS	REF	REFERENCE
CONTR	CONTRACTOR	RE	REFER TO
DBA	DEFORMED BAR ANCHOR	REINF	REINFORCING
DBE	DECK BEARING ELEVATION	REQ'D	REQUIRED
DL	DEAD LOAD	REV	REVISION
DET	DETAIL	SCHED	SCHEDULE
DIAG	DIAGONAL	SECT	SECTION
DIA OR Ø'	DIAMETER	SW	SHORT WAY
DIM	DIMENSION	SIM	SIMILAR
DWLS	DOWELS	SL	SLAB
DN	DOWN	SOG	SLAB ON GRADE
DWG	DRAWINGS	SPA	SPACE, SPACING OR SPACES
DP	DRILLED PIER	SPECS	SPECIFICATIONS
		-	
EA	EACH	SQ	SQUARE
EE	EACH END	STD	STANDARD
EF	EACH FACE	STL	STEEL
ES	EACH SIDE	SDI	STEEL DECK INSTITUTE
EW	EACH WAY	SJI	STEEL JOIST INSTITUTE
EL	ELEVATION	STRUCT	STRUCTURE OR STRUCTURAL
EQ	EQUAL	SYMM	SYMMETRICAL
EJ	EXPANSION JOINT	SYP	SOUTHERN YELLOW PINE
EXT	EXTERIOR	THK	THICKNESS
FF			
	FAR FACE	<u>T</u> .	TOP
FIN	FINISH	T/	TOP OF
FS	FAR SIDE	T/C	TOP OF CONCRETE
FLR	FLOOR	T/F	TOP OF FOOTING
FTG	FOOTING	T/J	TOP OF JOIST
FDN	FOUNDATION	T/L	TOP OF LEDGE
GALV	GALVANIZED	T/P	TOP OF PILASTER
GA	GAUGE or GAGE	T/SL	TOP OF SLAB
HT	HEIGHT	T/SOG	TOP OF SLAB ON GRADE
HP	HIGH POINT	T/S	TOP OF STRUCTURAL STEEL
HORIZ	HORIZONTAL	TYP	TYPICAL
IF	INSIDE FACE	UNO	UNLESS NOTED OTHERWISE
INT	INTERIOR	VERT	VERTICAL
JBE	JOIST BEAING ELEVATION	WB	WIND BRACE
JT	JOINT	WWF	WELDED WIRE FABRIC
JST	JOIST	WF	WIDE FLANGE
K OR k	KIP = 1,000lbs	W/	WITH
LB	POUND	W/O	WITHOUT
LT WT	LIGHT WEIGHT	WP	WORK POINT
LL	LIVE LOAD	WS	WATER STOP
LONG	LONGITUDINAL	WT	WEIGHT
LIH	LONG LEG HORIZONTAL		

LONG LEG HORIZONTAL

LONG LEG VERTICAL

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DOCUMENTS

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SPECIAL INSPECTIONS - BASIC REQUIREMENTS

- VERIFICATION AND INSPECTION OF PAD AND STRIP FOOTINGS CONSTRUCTION: . After excavation and before pouring footings the geotechnical engineer or representative shall verify
- thru periodic testting that material below footings are adequate for bearing. B. Verify excavations are extended to proper depth thru periodic testing.
- C. If required, provide density testing, use of approved fill materials, and correct lift thickness during placement and controlled fill through continuous inspection.
- D. If required by geotechnical recommendations, prior to placing footings or fill, observe subgrade and
- E. Provide verification and inspection of formwork, steel reinforcement, and concrete for applicable items as outlined in subparagraph "Verification and Inspection of Concrete Construction."
- VERIFICATION AND INSPECTION OF DRILLED PIER AND GRADE BEAM CONSTRUCTION: A. Testing agency shall observe drilling operations and maintain complete and accurate records for each pier thru continuous inspection.
- B. Testing agency shall verify and report placement locations, plumbness, pier size, bell diameter (if applicable), lengths, embedment depth (if applicable) and adequate end bearing strata.
- C. Probing of bottom of piers founded in rock may be required by geotechnical engineer. Where probing is required contractor shall submit for approval the type of equipment planned for use and methodology
- VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION:
- A. Contractor shall obtain and a testing agency shall review and record material verification of highstrength bolts, nuts and washers, steel, non-shrink grout, and welders certifications.
- B. Inspection agency shall periodically review by visual inspection and report all bearing type connections for compliance with "snug tight" condition. For connections specified as "slip critical" inspection agency shall periodically review bolts per manufacturers recommendations for twist off type bolts or direct tension indicators.
- C. Contractor shall provide structural steel shop drawings for review and maintain copies on site for
- inspectors use. Refer to specifications for specific shop drawing requirements. D. Inspection of welded structural steel shall be as follows:
- 1. Complete and partial penetration groove welds shall have continuous inspection and welds shall be tested using the ultrasonic testing method or other previously approved method at a frequency
- noted as follows:
- A. 10 welds or less = 100% Tested
- B. 10 to 20 welds = 50% Tested, but not less than 10 C. 20 to 30 welds = 25% Tested, but not less than 10
- D. 30 or more = 10% Tested, but not less than 10 2. Fillet welds greater than 5/16" or require multiple passes shall have continuous visual inspection. 3. Single pass fillet welds 5/16" and smaller shall have periodic visual inspection.
- 4. Roof and floor deck welds shall have periodic inspection verifying size, spacing, and quality. 5. Floor shear studs shall have periodic inspection and testing as per AWS D1.1. . Steel deck - Contractor shall provide shop drawings and manufacturers certificates for review and maintain copies on site for inspector's use. Refer to specifications for specific shop drawing requirements. Inspector shall periodically inspect deck type, placement, and attachment. Where
- mechanical fasteners are used contractor shall submit and maintain on-site manufacturers data for fasteners. Joists and joist girders - Contractor shall provide shop drawings for review and maintain on site shop drawings and manufacturers tags or certificates for inspectors use. Periodic inspection of joists shall include review of structural high strength bolts (if applicable), welding, location, and spacing of joists.
- Contractor is responsible for compliance with applicable OSHA requirements. VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION:
- A. As a minimum, contractor shall provide and maintain copies on site of the following submittals: . Concrete mix designs and supporting data including admixture manufacturers data.
- 2. Manufacturers data with application and installation instructions for all specified products and material certificates.
- 3. Reinforcement shop drawings complying with ACI Detailing Manual (SP66). Include all information
- necessary for shop fabrication and for location and placing in the field.
- When required in contract documents, provide a pour placement plan. 5. When required in contract documents, maintain material samples and mock-up panels.
- 6. Shop drawings pertaining to formwork will not be reviewed by the design professional. Contractor has total control and responsibility for formwork as part of means and methods of construction. B. The inspection program shall provide for the following inspections:
- 1. Periodically inspect formwork for general compliance with material quality and alignments, notify contractor of any deficiencies found. The contractor is responsible for the proper design and support of formwork as part of the means and methods responsibility.
- 2. Periodically inspect reinforcing including pre-stressing tendons for grade, size, number, length, lap length, lap location, cover and support.
- Continuously verify use of required design mix. 4. Periodically inspect concrete placement and consolidation for compliance with ACI 301
- 5. Periodic inspection for maintenance of specified curing temperature and techniques. 6. Continuous inspection of post-tensioned construction for proper application of pre-stressed forces.
- Periodic inspection of the erection of precast members including grouting under-bearing members. bolted and field welded connections.
- 8. Inspect formed surfaces for cracking, honeycombing, voids, spalling, pealing, and exposed reinforcing.
- C. This section outlines the basic tests to be conducted by the testing agency; however when conflicts exist between this section and the specifications, the specifications shall govern. The testing agency and the contractor shall review the specifications carefully for additional testing requirements. Testing includes but is not limited to the following:
- 1. Compressive strength tests (ASTM C39) prepare four (4) concrete test cylinders for every days placement or every (50) cubic yards. Test one cylinder at 7 days and two at 28 days. Retain one cylinder for possible testing at a later date. 2. Slump test (ASTM C143) - perform one slump test from first two trucks and one for each set of
- cylinders taken. If any slump test is out of specified range, additional slump test shall be taken on each subsequent load until concrete is within specified range. 3. Air entrainment tests (ASTM C231) - make one air content check per set of test cylinders.
- 4. Contractor shall provide an enclosure for initial storage and curing of concrete test cylinders meeting ASTM C31. Fit enclosure with maximum/minimum thermometer, provided heating and cooling, and maintain enclosure at 70°F plus or minus 10°.
- 5. Hot and cold weather concrete placement at architects descretion temperature measurements may be taken when weather conditions may warrant hot or cold weather placement requirements. VERIFICATION AND INSPECTION OF MASONRY CONSTRUCTION:
- A. As a minimum, contractor shall provide and maintain copies on site the following submittals: 1. Manufacturers data for each unit, accessory, and product with application and installation
- instructions and material certificates. 2. Reinforcement shop drawings complying with ACI Detailing Manual include all information
- necessary for shop fabrication and for placing in the field.
- When required in contract documents, maintain material samples and mock-up panels. 4. Contractor has total control and responsibility for temporary shoring and bracing as part of means
- and methods of construction. B. The inspection program shall shall provide for the following inspections:
 - . Periodic inspection of size and location of masonry units.
- 2. Periodic inspection of reinforcement size, grade, and location.
- 3. Periodically verify grout spaces are clean and mortar joints are properly constructed.
- 4. Continuous inspection of grout placement and any welding of reinforcing

SPECIAL INSPECTIONS - NOTES

Provide special inspections for the following items per section 1704 of the IBC and section 014000 of the project specifications. The approved independent testing agency's individual special inspector shall demonstrate competence for inspection of particular type of construction or operation requiring special inspection and shall meet the minimum special inspector qualifications in section 1704 of the IBC. The special inspector shall bring non-conforming items to the immediate attention of the contractor in writing and note all such items in the reports. Any unresolved item about to be covered by the work shall be brought to the contractor's and the owner's construction manager's attention immediately. The special inspector shall furnish reports, tests and inspections directly to the architect of record, the owner's construction manager, and the contractor. The special inspector shall submit a final signed report stating that the work requiring special inspection was, to the best of the inspectors knowledge, in conformance with the approved plans and specifications. The contractor is responsible for notifying the special inspection agency regarding individual inspection for items listed on the schedule and as noted on the building department approved plans. Adequate notice and access to approved plans shall be provided so that the special inspector has time to become familiar with the project.

CONST. TYPE	INSPECTION TASK Verify materials below footings are adequate to achieve the design	CONTINUOUS	PERIODI
	Verify materials below footings are adequate to achieve the design		LINOD
Ī	1. bearing capacity.	_	X
	Verify excavations are extended to proper depth and have reached proper material.	_	X
SOILS	Perform classification and testing of controlled fill materials.	_	X
Ī	4. Verify use of proper materials, densities and lift thickness during placemant and compaction of controlled fill.	X	
	Prior to placement of controlled fill, observe subgrade and verify that site has been prepared properly.	_	X
	Inspection of reinforcing steel and placement.	_	X
Ī	2. Inspection of reinforcing steel welding in accordance with table 1704.3, item 5B.		X
	3. Inspect bolts and embeds to be installed in concrete prior to and during placement of concrete.	X	
Ī	Verifying use of required design mix.		X
CONCRETE	Sampling fresh concrete and performing slump, air content and determining the temperature of fresh concrete at the time of making specimens for strength tests.	×	
	6. Inspection of concrete and shotcrete placement for proper application techniques	X	
f	7 Inspection for maintenance of specified curing temperature and		X
İ	techniques Inspect formwork for shape, location and dimensions of the concrete member being formed.	_	X
İ	Inspection of anchors installed in hardened concrete.		X
	Material verification of high-strength bolts, nuts and washers. 1. A. Identification of markings to conform to ASTM standards specified in the approved construction documents.	_	X
	B. Manufacturer's certificate of compliance is required.	_	X
	Inspection of high strength bolting. A. Bearing type connections, snug tight & slip critical.	_	X
	Material verification of structural steel. A. Identification markings to conform to ASTM standards specified in the approved construction documents.		X
	B. Manufacturer's certificate of compliance required.	_	X
	Material verification of weld filler material. A. Identification markings to conform to ASTM standards specified in the approved construction documents.		×
STRUCTURAL	B. Manufacturer's certificate of compliance required.	_	X
STEEL	Inspection of welding. A. Structural steel:		
	Complete & partial penetration groove welds.	X	
	Multi-pass fillet welds.	X	
	3. Single-pass fillet welds > 5/16".	X	
	4. Single-pass fillet welds < 5/16".	_	X
	5. Single-pass fillet welds < 5/16".	_	X
	B. Reinforcing steel:		
	Verification of weldability of reinforcing steel other than ASTM A706		X
	Shear Reinforcement.	X	
	Other Reinforcing steel.	_	X
	Inspection of steel frame joint details in compliance with approved construction documents: A. Details such as braces and stiffeners. B. Member Locations. C. Application of joint details at each connection.		X

Special inspection, continuous: The full time observation of work requires special inspection by an approved special inspector who is present in the area where the work is being performed.

Special inspection, periodic: The part time or intermittent observation of work requires special inspection by an approved special inspector who is present in the area where the work has been or is being performed and the completion of the work.

	IBC SPECIAL INSPECTIONS	INSPECTION F	REQUENCY
CONST. TYPE	INSPECTION TASK	CONTINUOUS	PERIODIC
	As masonry construction begins, the following shall be verified to ensure compliance: A. Proportions of site prepared mortar.	_	X
	A. Construction of mortar joints.	_	X
	C. Location of reinforcement and connectors.	_	X
	During construction the inspection program shall verify: A. Size and location of structural elements:	_	X
	B. Type, size and location of anchors including other details of anchorage of masonry to structural members, frames or other construction.	_	X
	C. Specified size, grade and type of reinforcement.	_	X
MASONRY	D. Welding of reinforcing bars.	X	_
	E. Protection of masonry during cold (Temperature below 40° F) or hot wather (Temperature above 90°).	_	X
	Prior to grouting, the following shall be verified to ensure compliance: A. Grout space is clean.	_	X
	B. Placement of reinforcement and connectors.	_	X
	C. Proportions of site-prepared grout.	_	X
	D. Construction of mortar joints.	_	×
	Grout placement shall be verified to ensure compliance with code and construction document provisions	X	
	Preparation of any grout specimens, mortar specimens and/or prisms shall be observed.	X	
	Compliance with required inspection provisions of the construct documents and the approved submittals shall be verified.	ion	X
	Observe drilling operations and maintain complete accurate records for each pier.	X	_
PIER FOUNDATIONS	Verify placement locations and plumbness, confirm pier diameters, lengths, embedment into bedrock and adequate end bearing strata capacity.	×	_
	For concrete piers, perform additional inspections in accordance with section 1704.5.		
METAL DECK	Deck attachment per general and plan notes on construction documents.	_	X
BASE PLATE GROUT	Install per standard details.	_	X
COMPONENT ANCHORAGE	Installation of shallow expansion, chemical and cast in place anchors in masonry and concrete.		X

special inspection by an approved special inspector who is present in the area where the work is being performed.

Special inspection, periodic: The part time or intermittent observation of work requires special inspection by an approved special inspector who is present in the area where the work has been or is being performed and the completion of the work.

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Engineering

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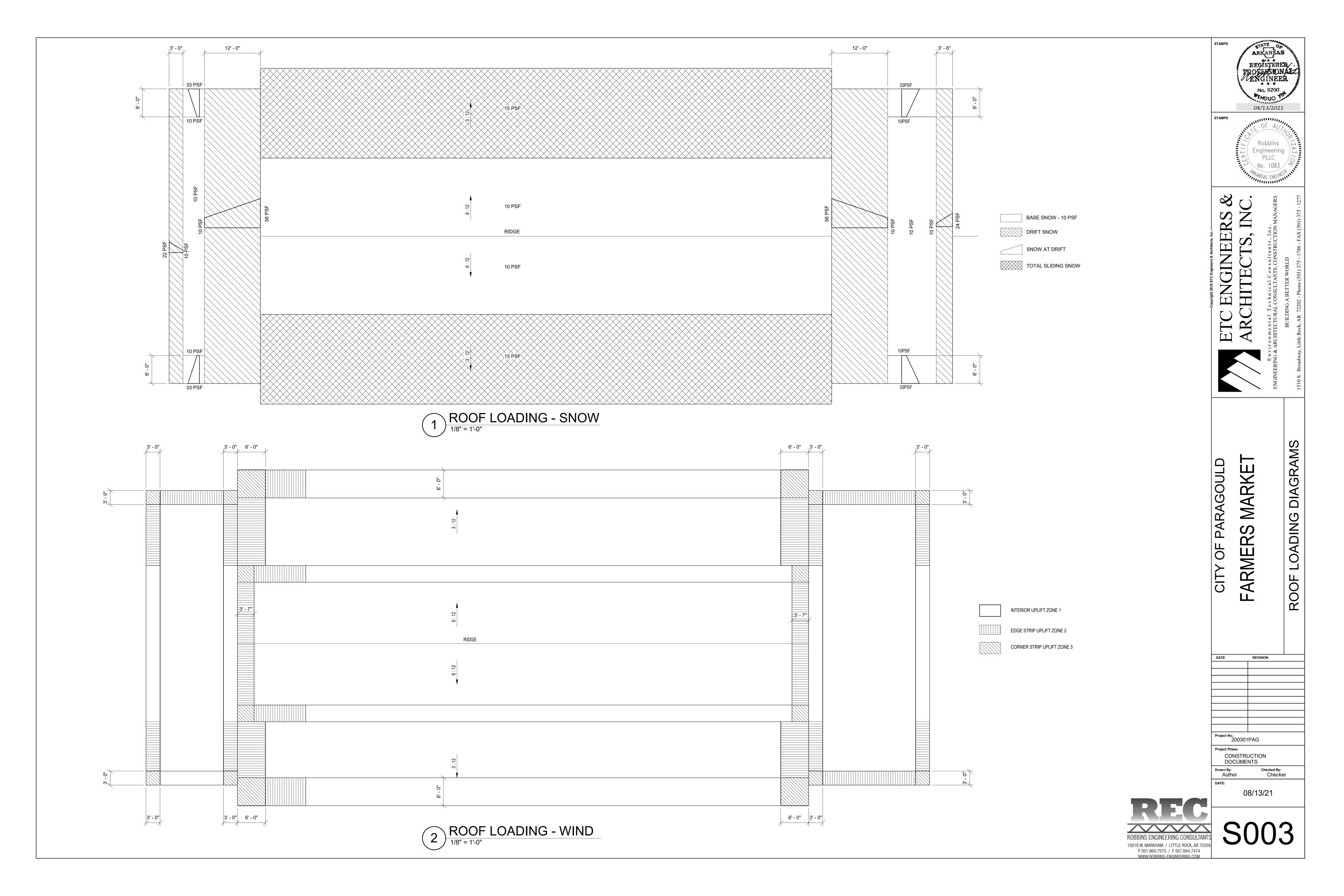
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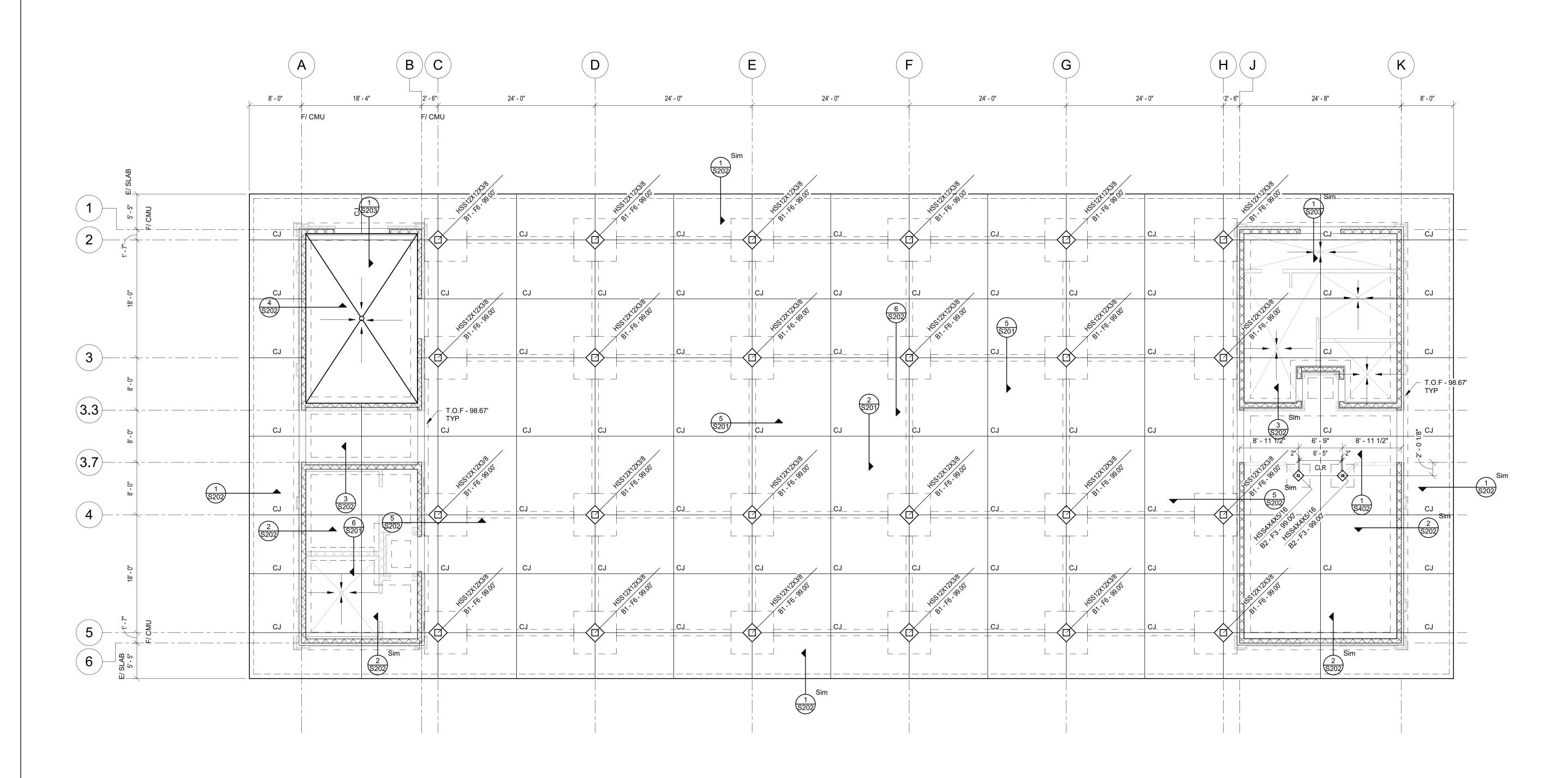
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REVISION Project No.: 200301PAG CONSTRUCTION DOCUMENTS

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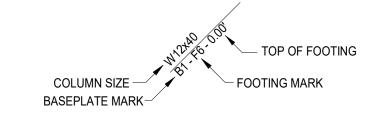
NOTES:

- FIN. FLOOR EL. = 100.00' (0'-0")
 S.O.G. 4" NORMAL WT. CONCRETE ON 10 MIL VAPOR BARRIER ON 6" GRANULAR FILL. REINF W/ 6x6-W2.9xW2.9 WWF PLACED ON CHAIRS. CUT 75% OF REINF. AT CONTROL JOINTS.

 3. CJ - INDICATES CONTROL JOINTS. SEE 1/S2.1.

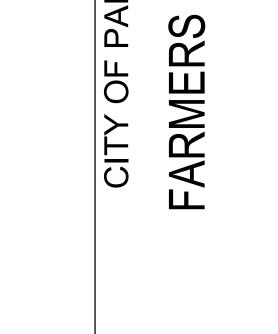
 4. SEE SHEET S2.1 FOR FOR SCHEDULE AND ANCHOR BOLT DETAILS.
- 5. VERIFY ALL DIMENSIONS w/ ARCH DRAWINGS. 6. COAT EXTERIOR EXPOSED STEEL BELOW GRADE WITH BITUMASTIC PAINT
- TO PROTECT FROM MOISTURE.
- 7. INDICATES FLOOR SLOPE TO DRAIN DIRECTION SEE ARCH. FOR
- ACTUAL FLOOR SLOPE TYP. 8. THE EXISTING CONC. SLAB IS ASSUMED TO STAY.REFER TO CIVIL/ GEOTECH
- FOR SLAB PENETRATION REQUIREMENT DUE TO DRAINAGE NEED.

 9. THE CURRENT DESIGN IS BASED ON MINIMUM 3'-0" SELECT FILL OVER THE EXISTING CONCRETE SLAB.



TAG LEGEND w/ PIERS





MARKET

FOUNDATION PL

DATE	REVISION
Project No.: 2003	01PAG
Project Phase:	
CONST DOCUM	RUCTION IENTS
Drawn By: Author	Checked By: Checker
DATE:	

08/13/21

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TABLE 1 - SCHEDULE					
BOLT DIA	"L"	PROJ			
3/4"	1'-6"	5"			
7/8" / 1"	1'-9"	5"			
1 1/4"	1'-10"	6"			
1 1/2"	2'-0"	6 1/2"			
2"	2'-2"	8 1/2"			

OTE	ES:							
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_	NICIN	IEED			RHI	ואום	20	۸ı

- WHERE NOTED ON DRAWINGS. 2. AT CONTRACTOR'S OPTION LEVELING NUT UNDER BASE PLATE MAY BE OMITTED WHERE STEEL SHIM PACKS ARE USED.
- 3. USE ASTM F1554 GRADE 55 THREADED ROD W/ NUT AT BOTTOM. 4. WHERE OVERSIZED OR SLOTTED HOLES ARE USED PROVIDE PLATE WASHERS AS INDICATED IN TABLE 2. W/ CIRCULAR OR SQUARE WASHERS MEETING MIN SIZE REQUIREMENTS. FIELD WELD SQUARE

WASHERS IN PLACE W/ 3/16" FILLET WELD. IF

OVERSIZED OR SLOTTED HOLES ARE NOT

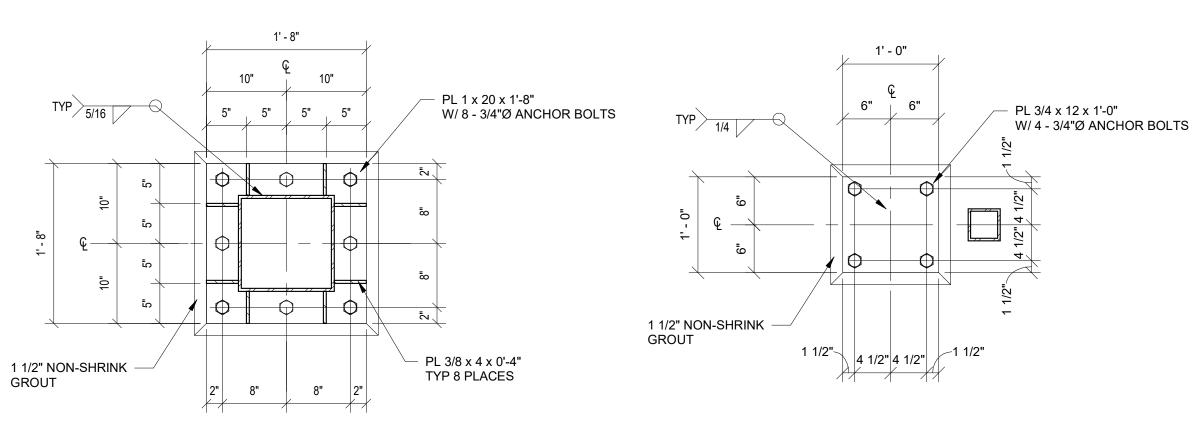
USED OMIT PLATE WASHERS.

TABLE 2 - HOLE SIZE IN BASE PL & WASHER REQUIREMENTS					
BOLT DIA	MAX HOLE DIAMETER BASE PL.	WASHER	MIN WASHER THICKNESS		
3/4"	1 5/16"	2"	1/4"		
7/8"	1 9/16"	2 1/2"	5/16"		
1"	1 13/16"	3"	3/8"		
1 1/4"	2 1/16"	3"	1/2"		
1 1/2"	2 5/16"	3 1/2"	1/2"		
2"	3 1/4"	5"	3/4"		

TYP. ANCHOR BOLT DETAIL 3/4" = 1'-0"

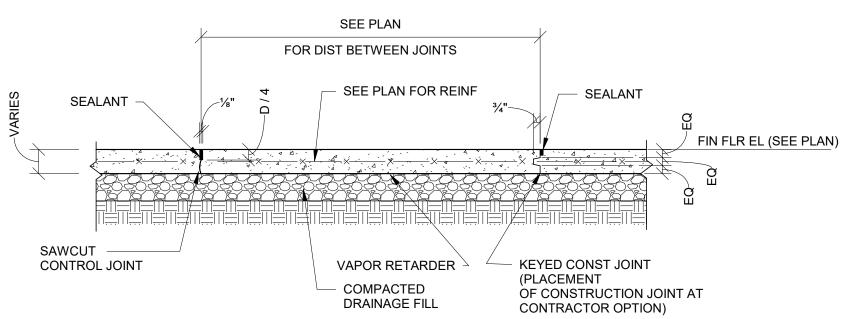
P/	AD FOOTING SC	HEDULE
MARK	FOOTING SIZE	REINFORCEMENT
F6	6'-6"x6'-6"x1'-4"	#6 @ 12" OC EW TOP & BOT
F3	3'-6"x3'-6"x1'-4"	#6 @ 12" OC EW TOP & BOT

TYPICAL PAD FOOTING SCHEDULE



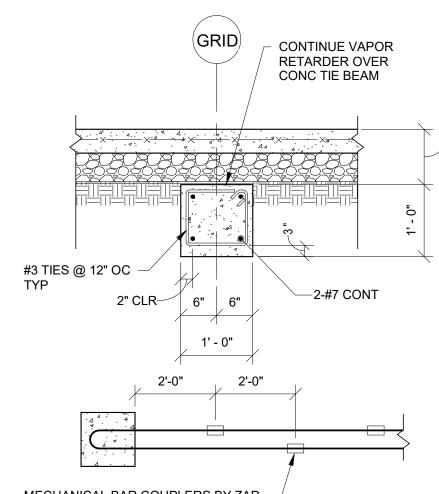
7	BASE PL - B1
	1" = 1'-0"

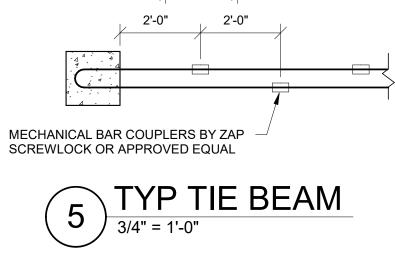


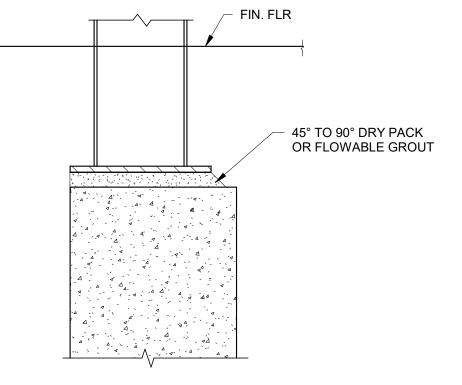


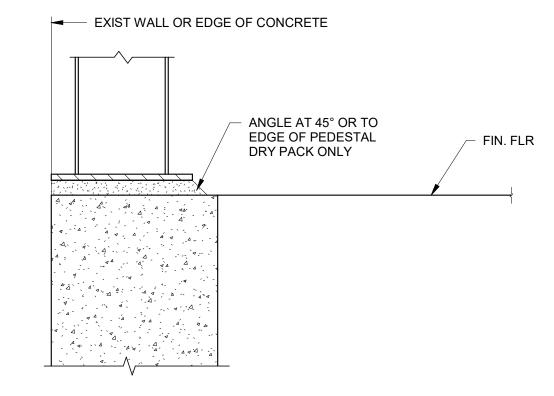
- 1. SAWCUT CONC SLAB AS SOON AS PROCEDURE CAN BE COMPLETED WITHOUT SPALLING OR DAMAGING EDGE, SAWCUTTING MUST BE COMPLETED WITHIN 8 HOURS OF CONCRETE
- 75% OF REINFORCEMENT MUST STOP 3" EACH SIDE OF JOINT.
- CONTRACTOR MAY PROVIDE EITHER SAWCUT CONTROL JOINT OR KEYED CONSTRUCTION JOINT WHERE "CJ" SHOWN ON DRAWINGS.
- 4. COORDINATE EXACT LOCATION OF CONTROL JOINTS WHERE ARCH DRAWINGS INDICATE CERAMIC TILE, STONE FLOORING OR TERAZZO. COORDINATE WITH ARCH.

TYP SOG CONTROL JOINT DETAIL 3/4" = 1'-0"





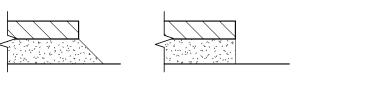


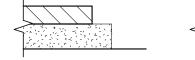


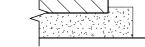
GROUT NOT EXPOSED

GROUT EXPOSED AT FIN. FLR

- 1. PROVIDE NON-SHRINK, NON-METALLIC GROUT COMPLYING WITH ASTM C1107. DRY PACK GROUT UNDER COLUMN BASE PLATES. FLOWABLE GROUT WILL BE ALLOWED FOR EQUIPMENT BASES AND WHERE GROUT IS NOT EXPOSED. FOLLOW MANUFACTURERS DIRECTIONS ON MIXING GROUT.
- 2. MINIMUM COMPRESSIVE STRENGTH OF GROUT SHALL BE 6,000 PS
- . WHERE GROUT IS EXPOSED TO VIEW USE DRY PACK METHOD ONLY, PROVIDE SLOPED EDGE UNLESS OBSTRUCTION OR EDGE OF PEDESTAL PREVENTS SLOPED EDGE. COOL BASE PLATE W/ LIGHT WATER SPRAY AND PLACE GROUT BY DRY PACK METHOD, COVER GROUT WITH WET BURLAP FOR 72 HRS AFTER PLACEMENT.
- 4. SEE MANUFACTURERS RECOMMENDATIONS FOR DRY PACKING. IN GENERAL DRY PACKING REQUIRES A THICK CONSISTENCY. THERE SHOULD ONLY BE ENOUGH WATER MIXED INTO THE GROUT SO THAT WHEN GROUT IS SQUEEZED BY GLOVED HAND THE GLOVE IS SLIGHTLY DAMPENED.
- 5. GROUT SHOULD NOT EXTEND ABOVE BOTTOM OF BASE PLATE NOR HAVE AN UNCHAMFERED SHOULDER. **EQUIPMENT BASES & BASE PLATES NOT EXPOSED:**
- 6. FOR FLOWABLE GROUT FORMS MUST BE USED. COAT FORMS WITH PASTE WAX, FORM OIL OR OTHER APPROVED RELEASE AGENT. FORMS MUST BE LARGER THAN BASE PLATE ON ALL SIDES.
- 7. MAINTAIN HEAD ON GROUT WHILE POURING. WHEN GROUT HAS STIFFENED TO THE POINT IT WILL HOLD SHAPE REMOVE FORMS AND CUT SHOULDERS BACK AT 45° FROM BOTTOM OF BASE PLATE TO FOUNDATION. SEE NOTE 3 ABOVE FOR CURING.

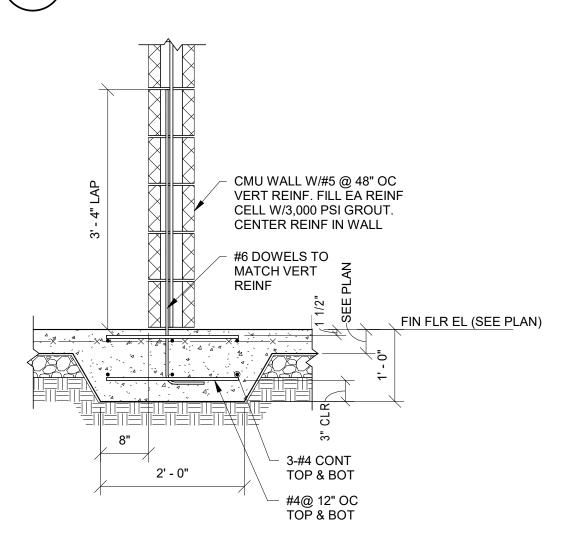




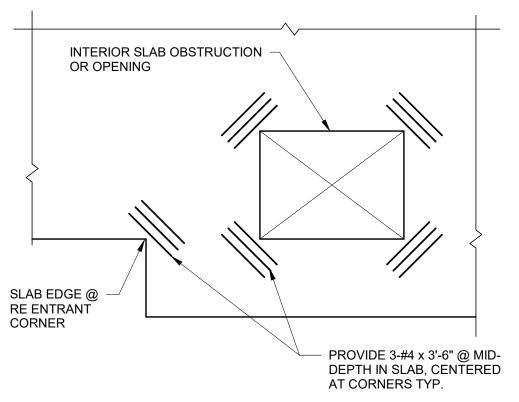


<u>UNACCEPTABLE</u>

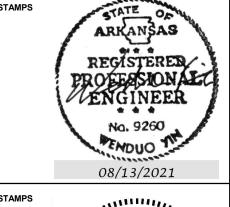
BASE PLATE GROUTING DETAIL

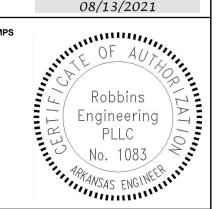


TYPICAL THICKENED SLAB @ LOW CMU WALL



9 REINF @ RE-ENTRANT CORNERS





ENGINEERS, IN

MARKE-**FARMERS**

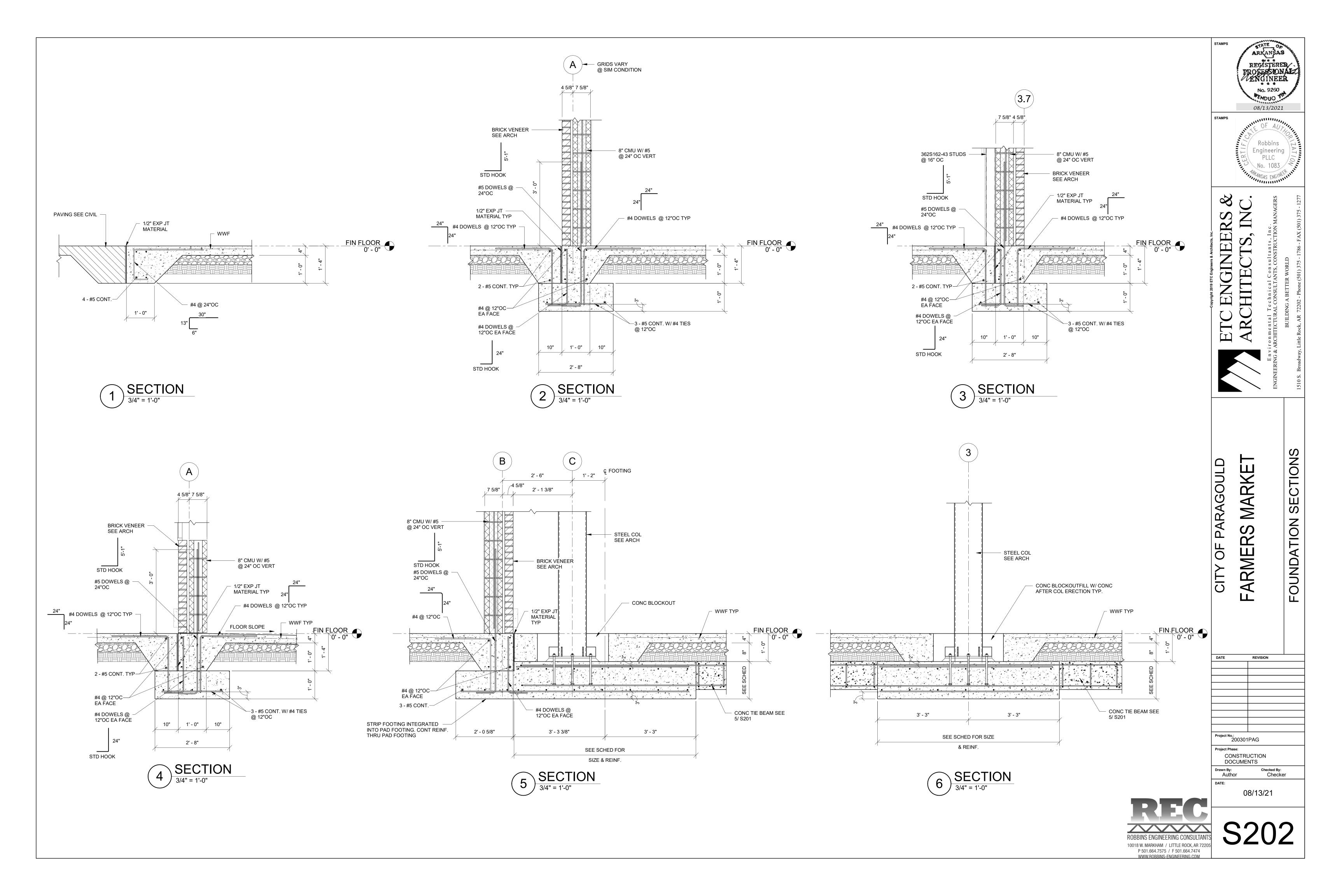
FOUNDATION DE

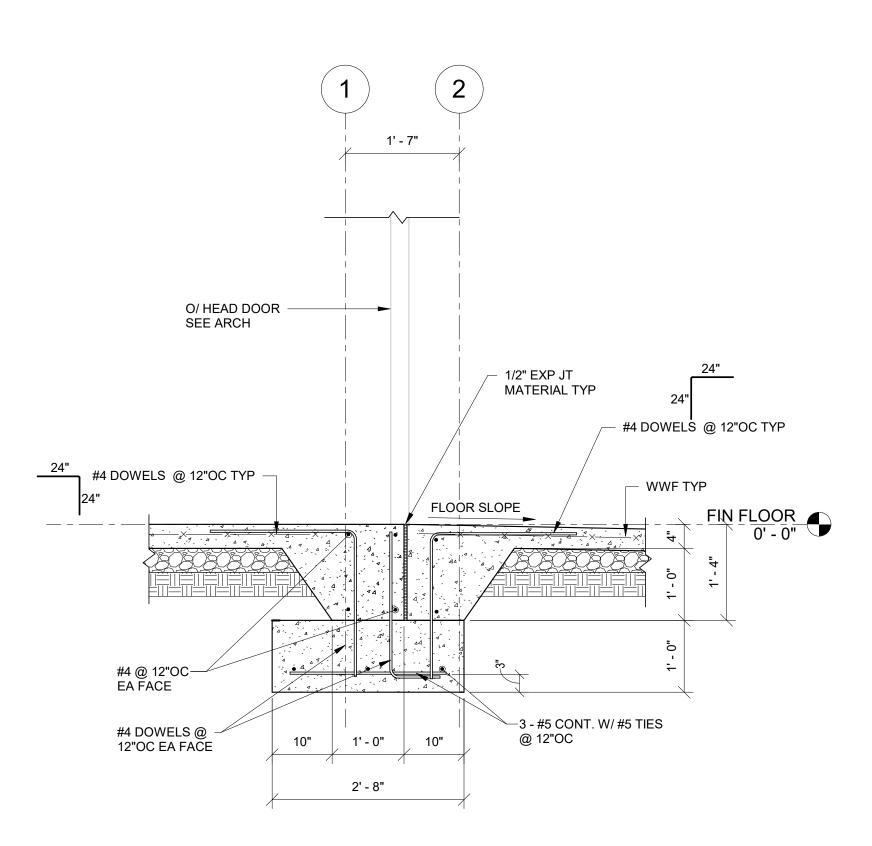
REVISION DATE Project No.: 200301PAG CONSTRUCTION

DOCUMENTS Author Checker

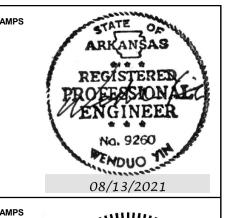
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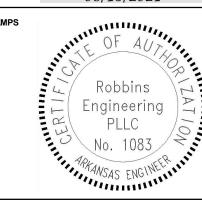
10018 W. MARKHAM / LITTLE ROCK, AR 722 P 501.664.7575 / F 501.664.7474











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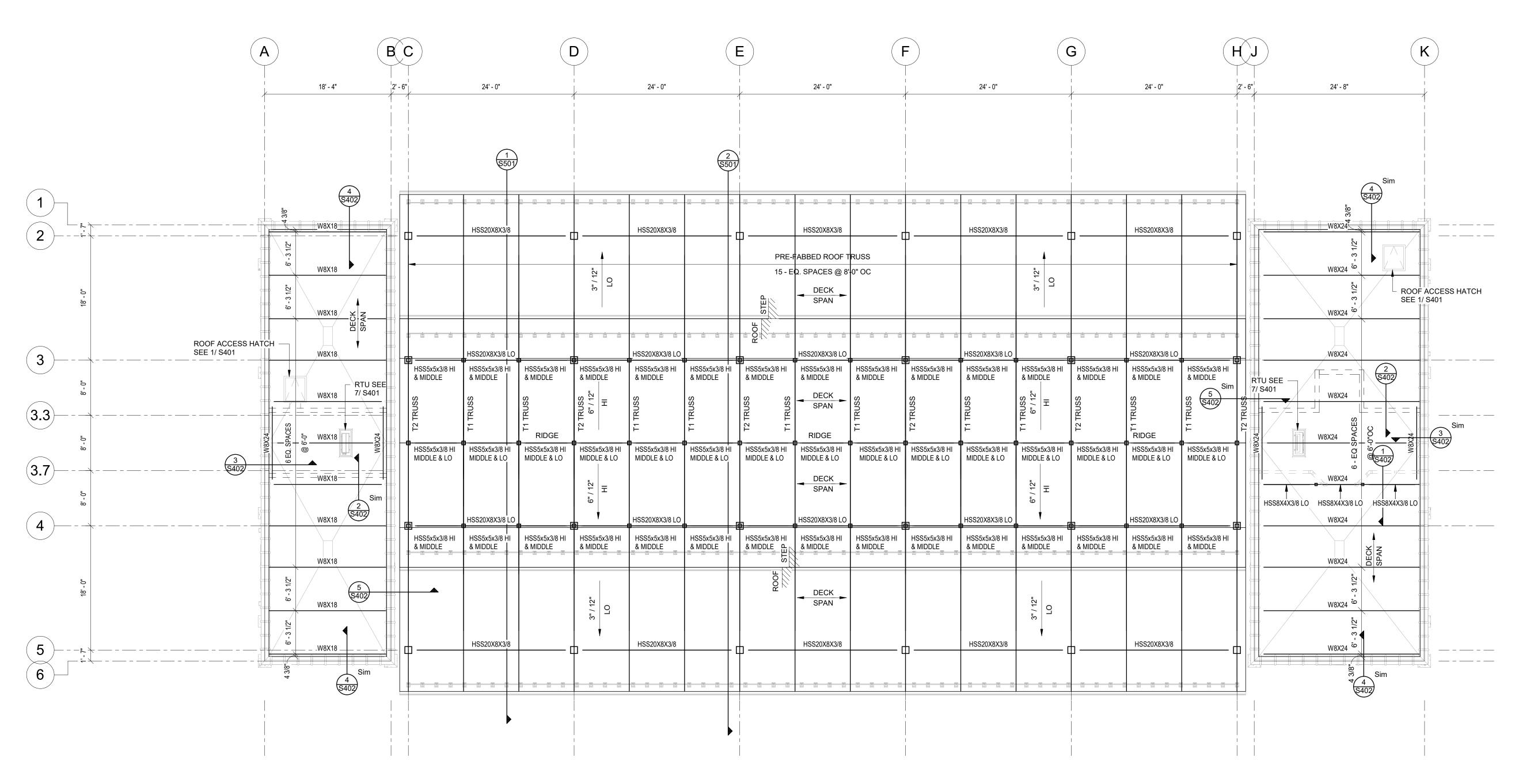
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CONSTRUCTION
DOCUMENTS

Drawn By: Checked By:
Author Checker

08/13/21

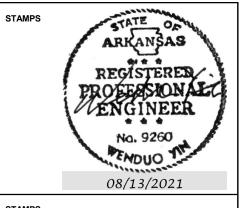
ROBBINS ENGINEERING CONSULTANTS
10018 W. MARKHAM / LITTLE ROCK, AR 72205
P 501.664.7575 / F 501.664.7474
WWW.ROBBINS-ENGINEERING.COM

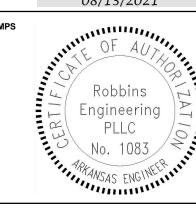




NOTES:

- 1. ROOF DECK BEARING EL. VARIES SEE SECTIONS.
- 2. ROOF DECK: 1.5B X 18 GA WIDE RIB GALV. DECK @ GABLED ROOF, 1.5B x 20 GA @ FLAT ROOF. ATTACH WITH 36/5 PATTERN @ END LAPS & INTERMEDIATE SUPPORTS W/ 5/8" WELDS OR EQUIVALENT. ATTACH SIDELAPS @ 18"OC W/ #10 SCREWS. ATTACH PERIMETER EDGES @ 6"OC WITH 5/8" WELD OR EQUIVALENT.
- 3. REFER TO SECTION CUTS FOR TOP OF STEEL ELEVATIONS. 4. NET UPLIFT ON JOISTS DUE TO WIND = 10 PSF.
- 5. REFER TO MECH DWG.'S FOR ROOF OPENING LOCATIONS AND DIMENSIONS. SEE DETAIL X/XXX FOR
- FRAMING AROUND OPENINGS.
- 6. CONTRACTOR SHALL COORDINATE RTU SUPPORT LOCATIONS WITH THE WIDTH AND LENGTH OF THE UNIT ACTUALLY ORDERED. EXACT SUPPORT BEAM LOCATIONS MUST BE VERIFIED PRIOR TO





ARME

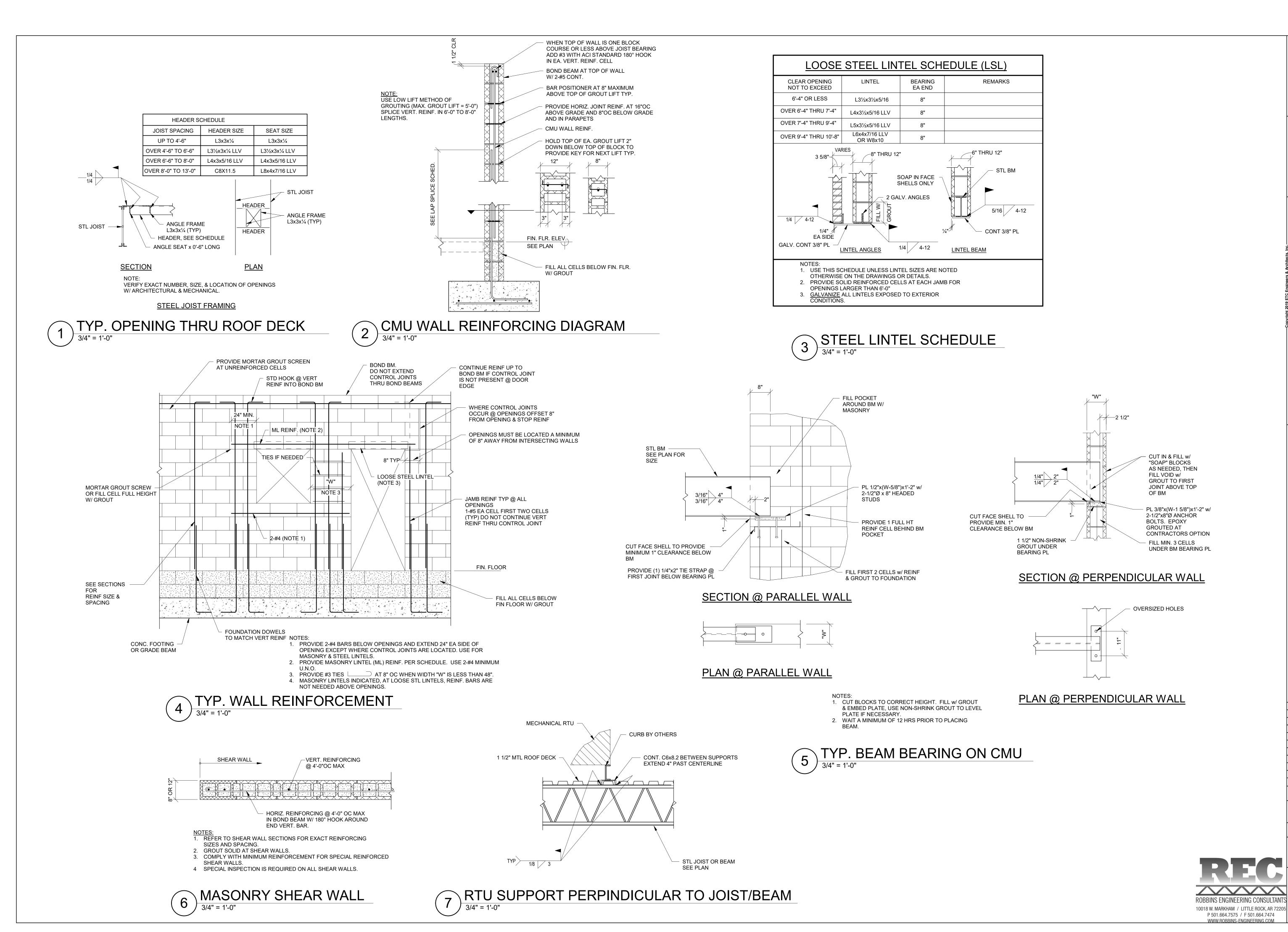
DATE REVISION Project No.: 200301PAG

CONSTRUCTION DOCUMENTS

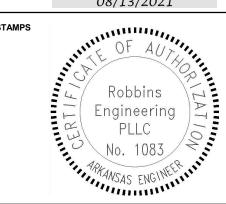
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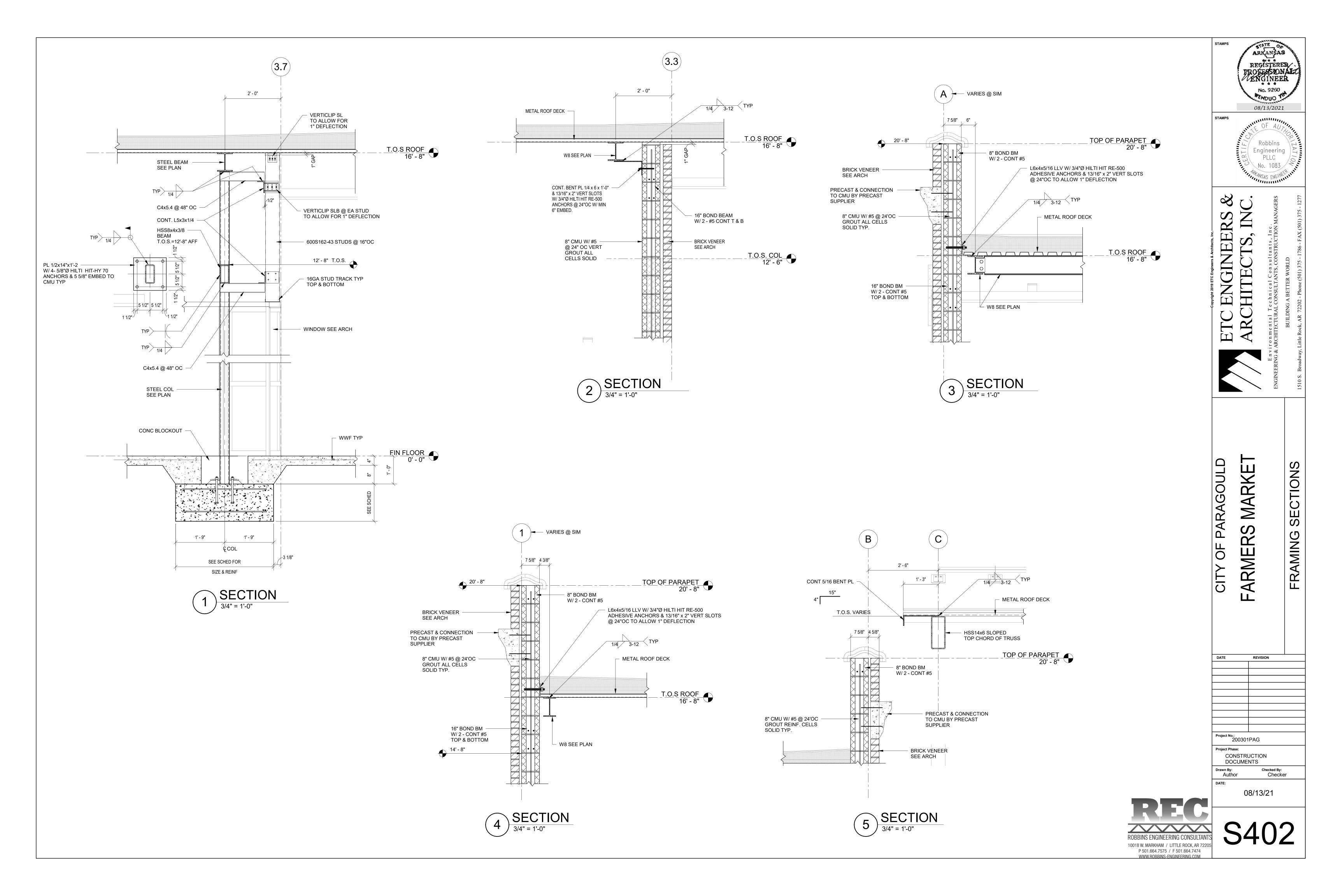
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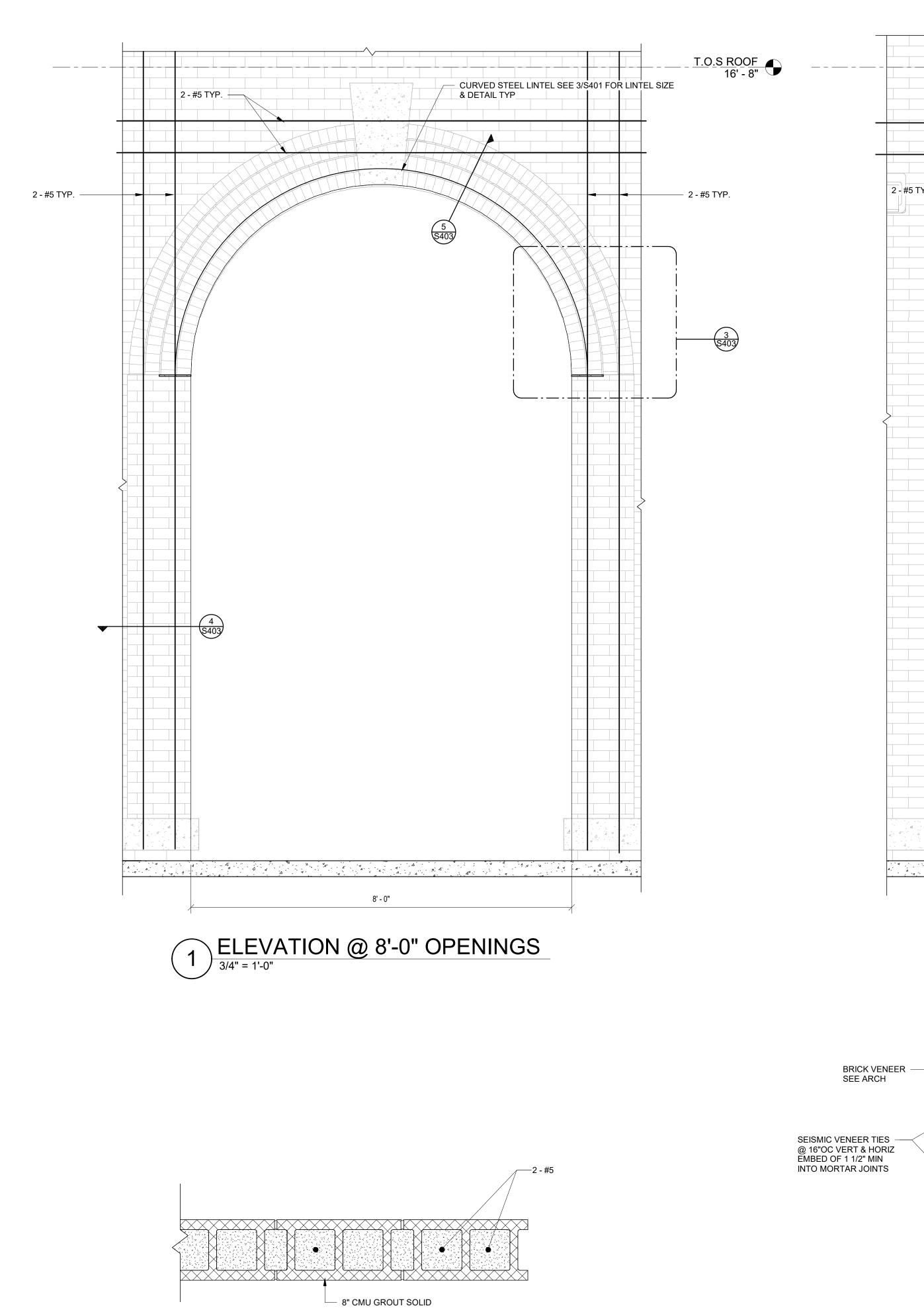
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DATE REVISION

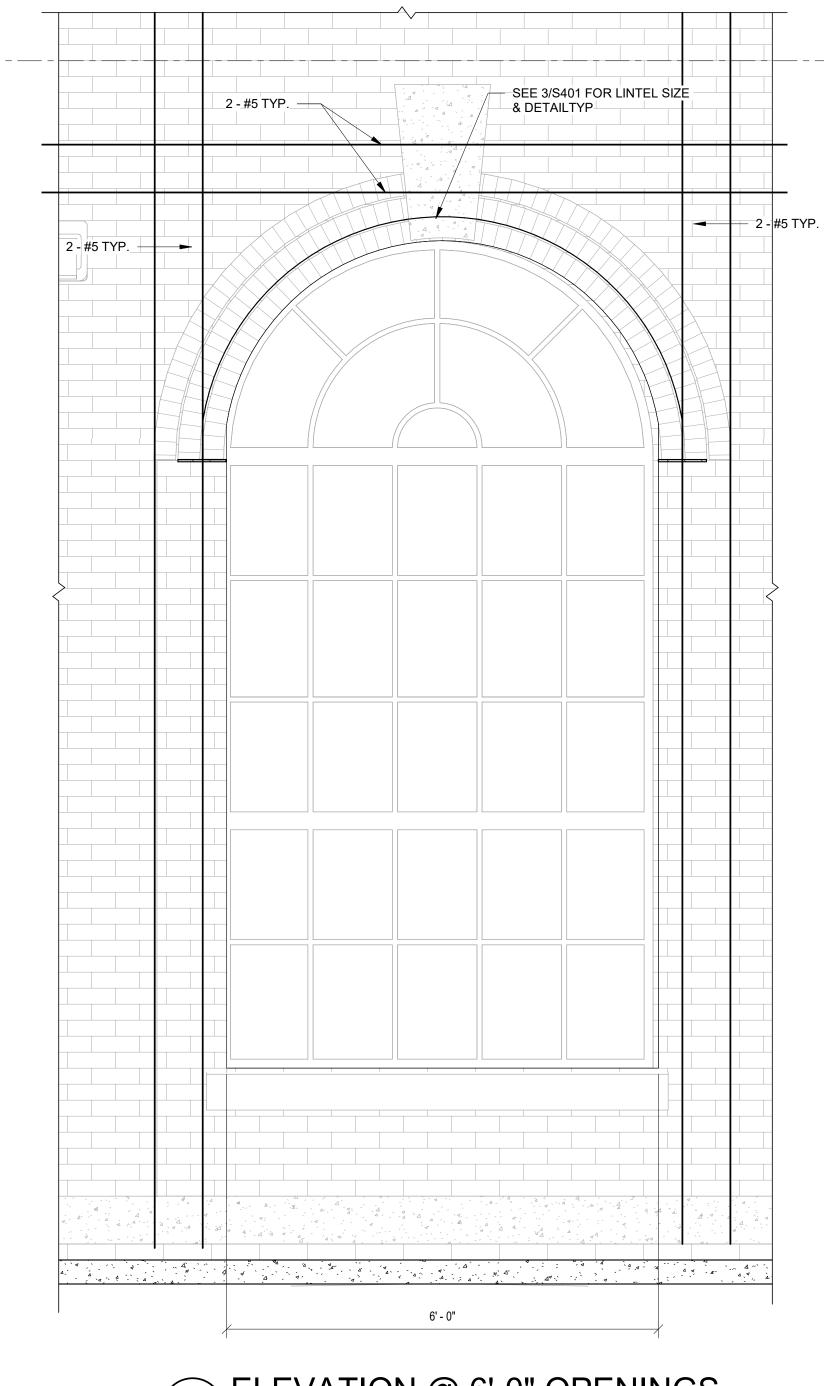
Project No.: 200301PAG CONSTRUCTION

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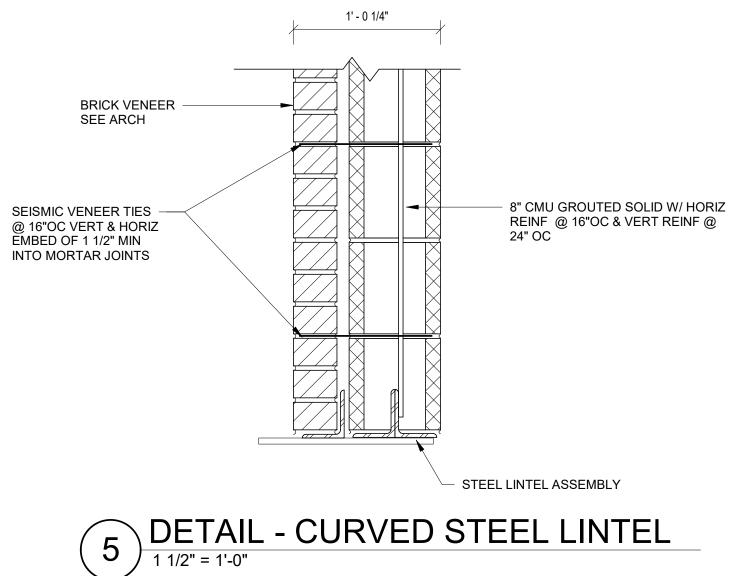


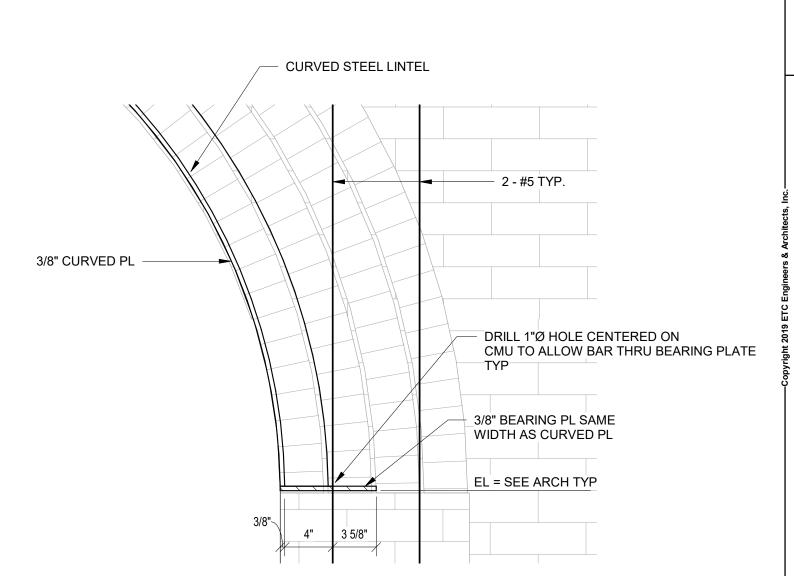


DETAIL - ADDITIONAL REINF @ ARCHED OPENING

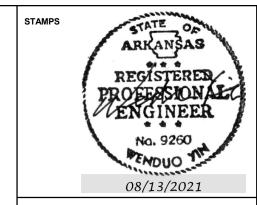


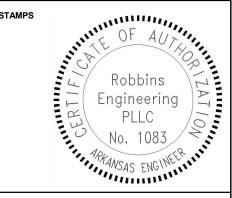
2 ELEVATION @ 6'-0" OPENINGS





3 DETAIL - LINTEL PLATE
1 1/2" = 1'-0"





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Technical Consultants, Inc.

AL CONSULTANTS, CONSTRUCTION MANAGERS

nvironmental Technical Consultants, Inc. G& ARCHITECTURAL CONSULTANTS, CONSTRUCTION BUILDING A BETTER WORLD

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Environmenta
Engineeria

FARMERS MARKET

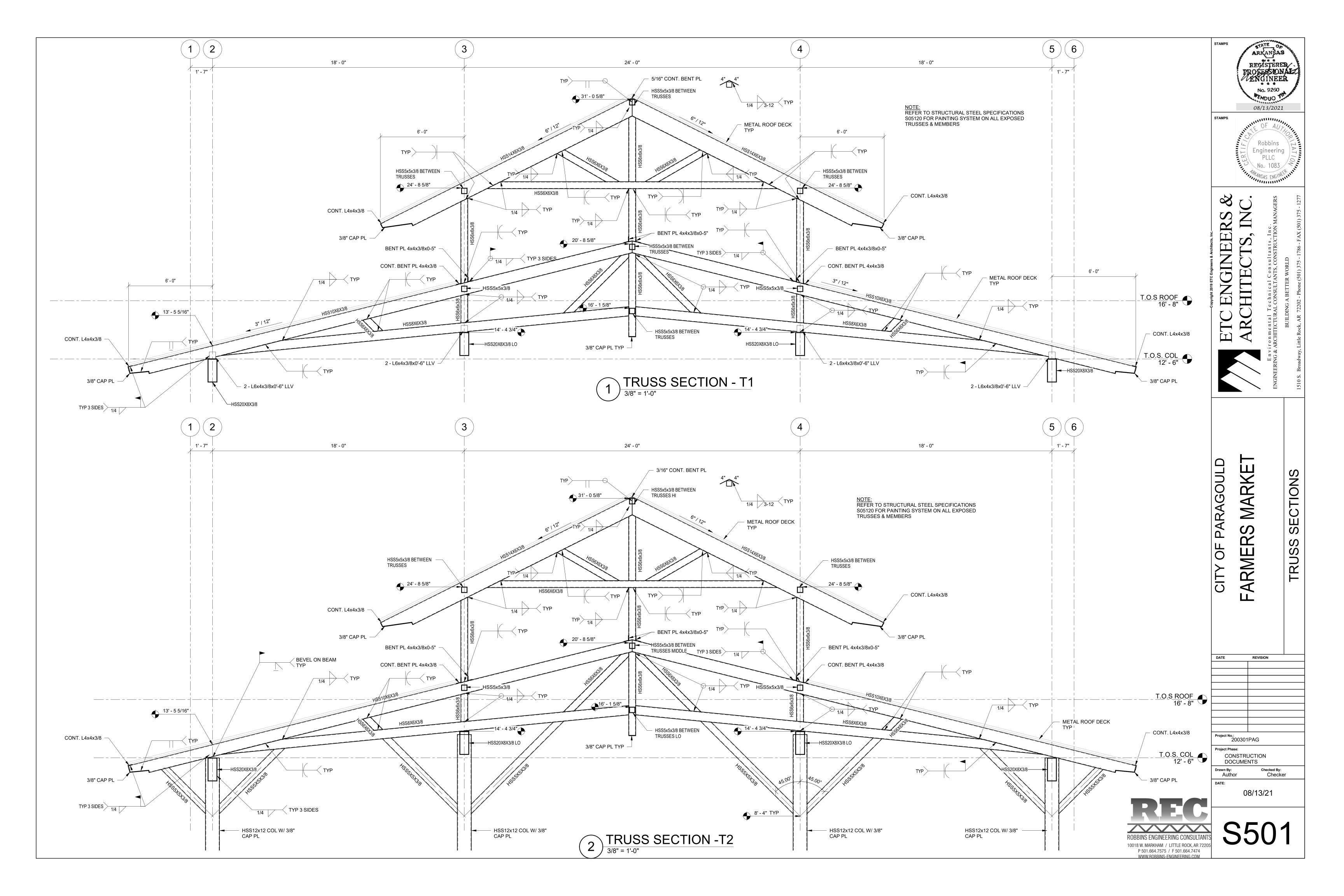
CMU OPENING ELEVATIONS

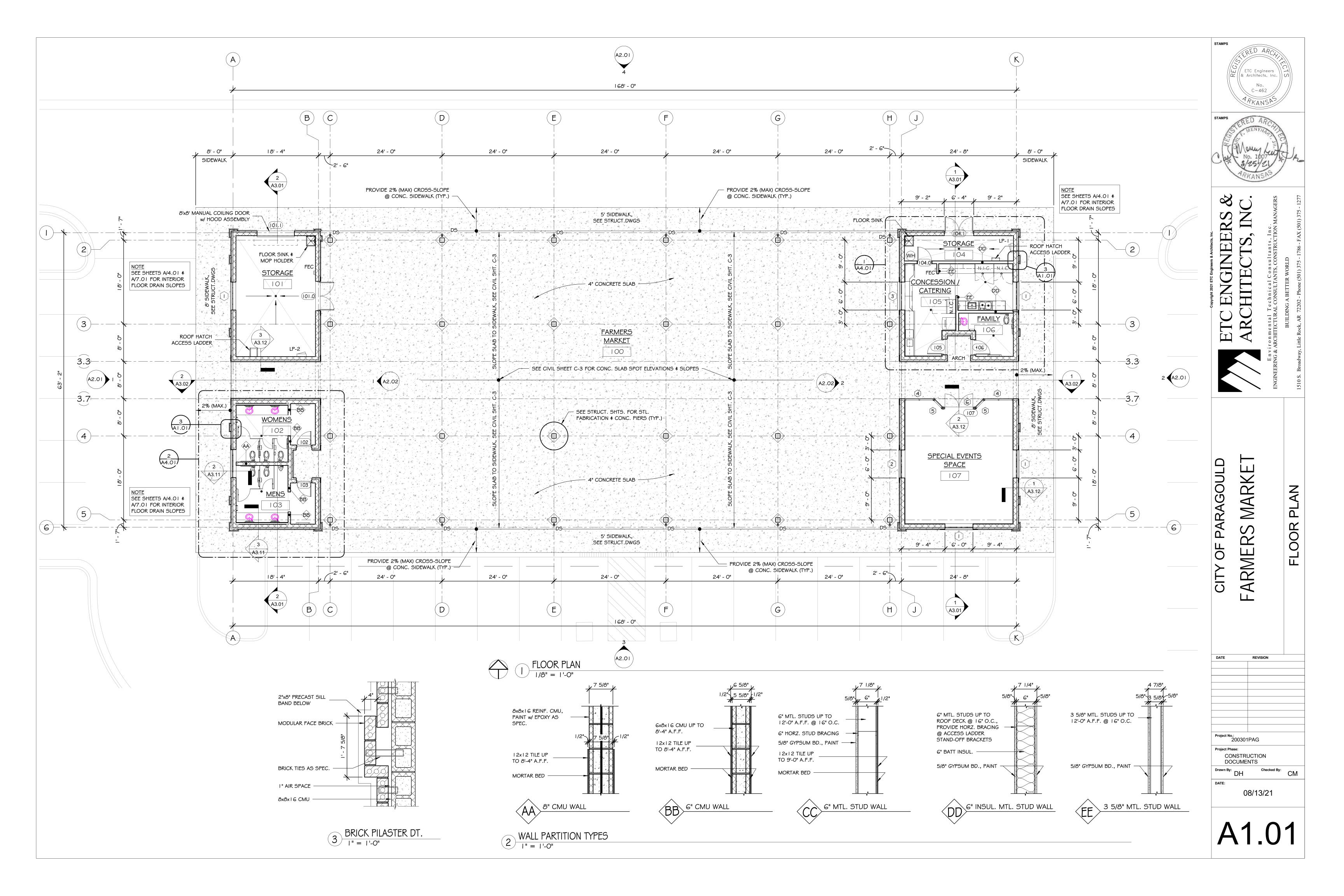
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200301PAG
Project Phase:
CONSTRUCTION
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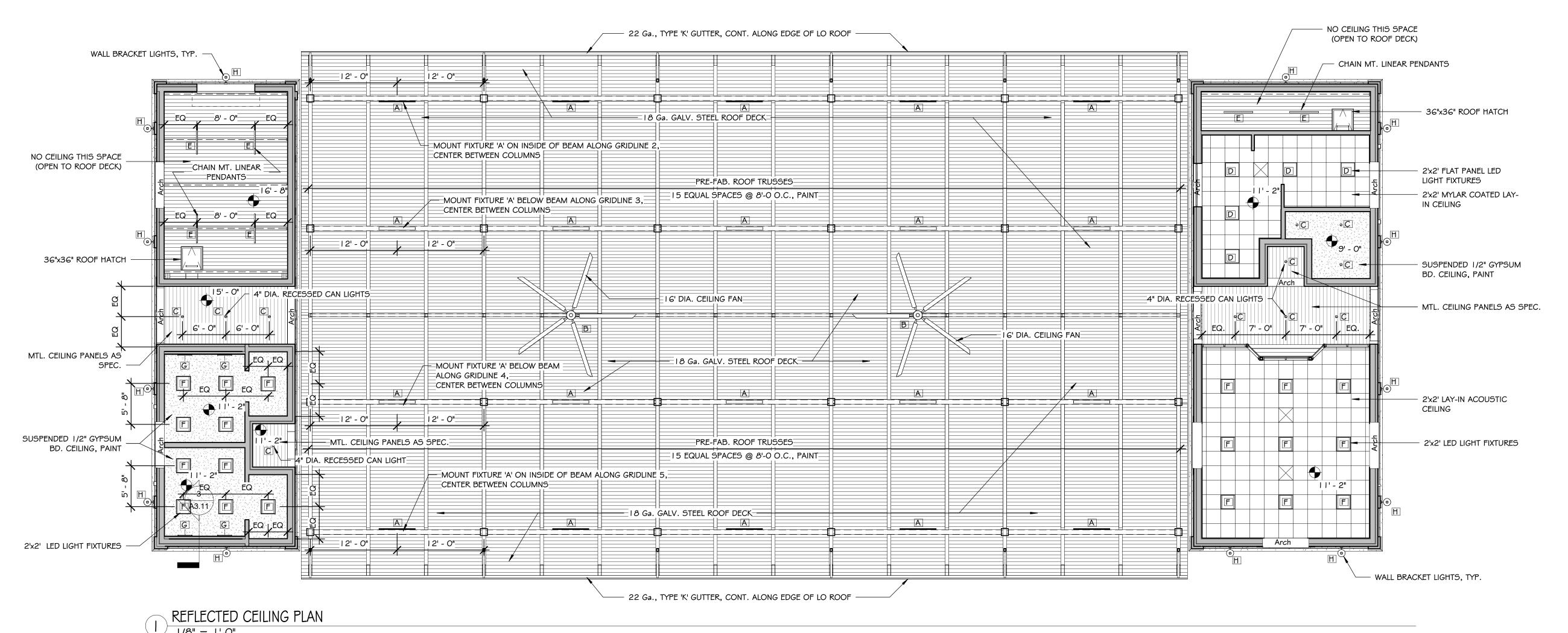
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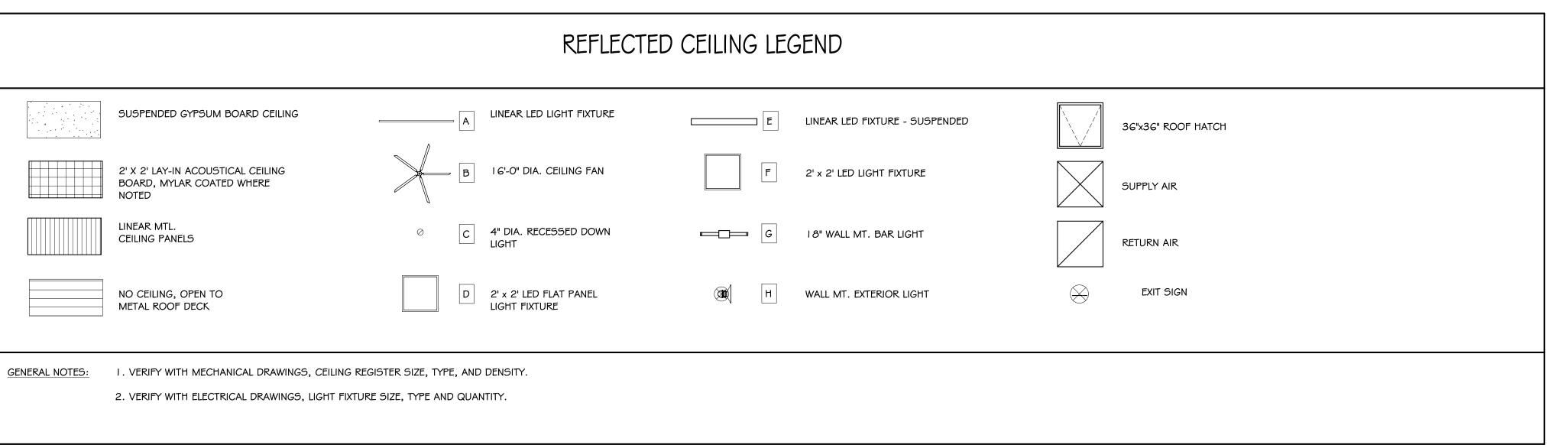
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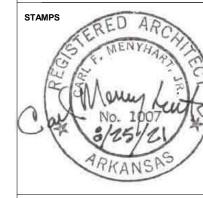












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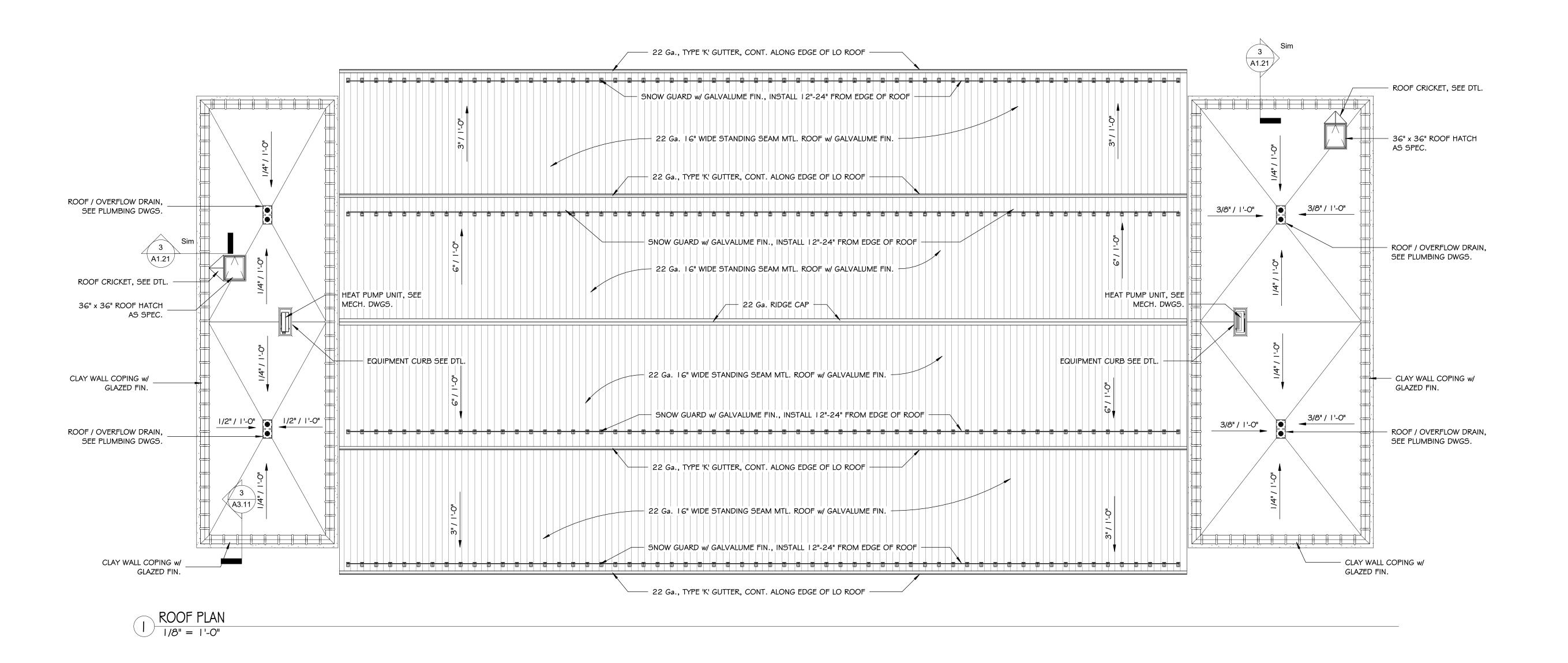
CITY OF PARAGOUL

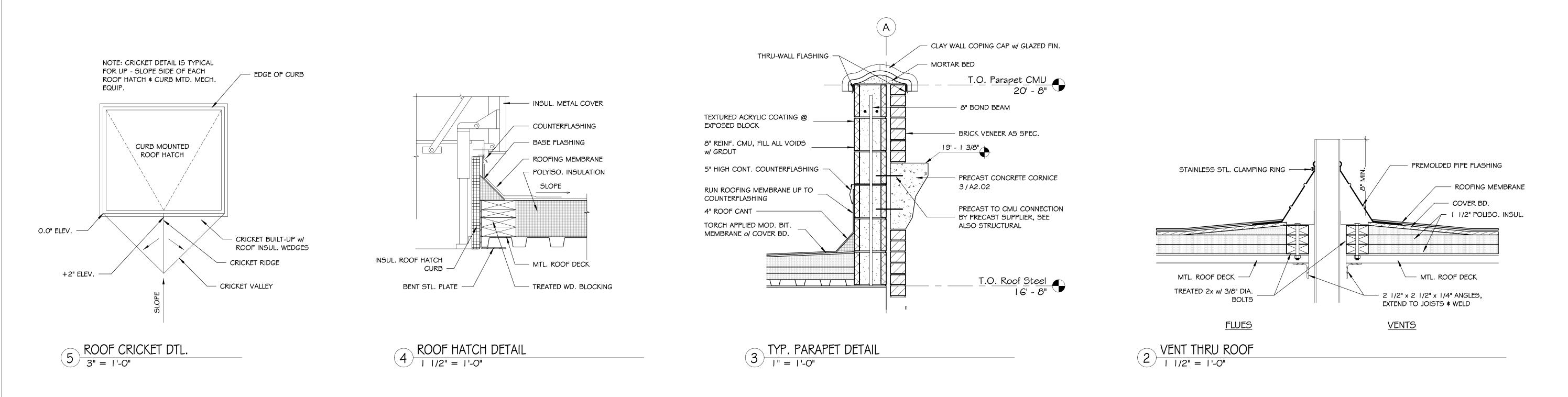
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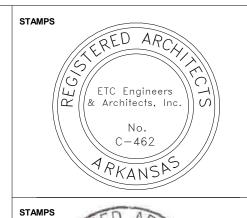
FARMERS MARKE

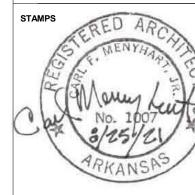
REFLECTED CEILING

DATE	REV	ISION	
Project No.: 200301	IPAG		
Project Phase:			
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Drawn By: DH		Checked By:	СМ
DATE:			
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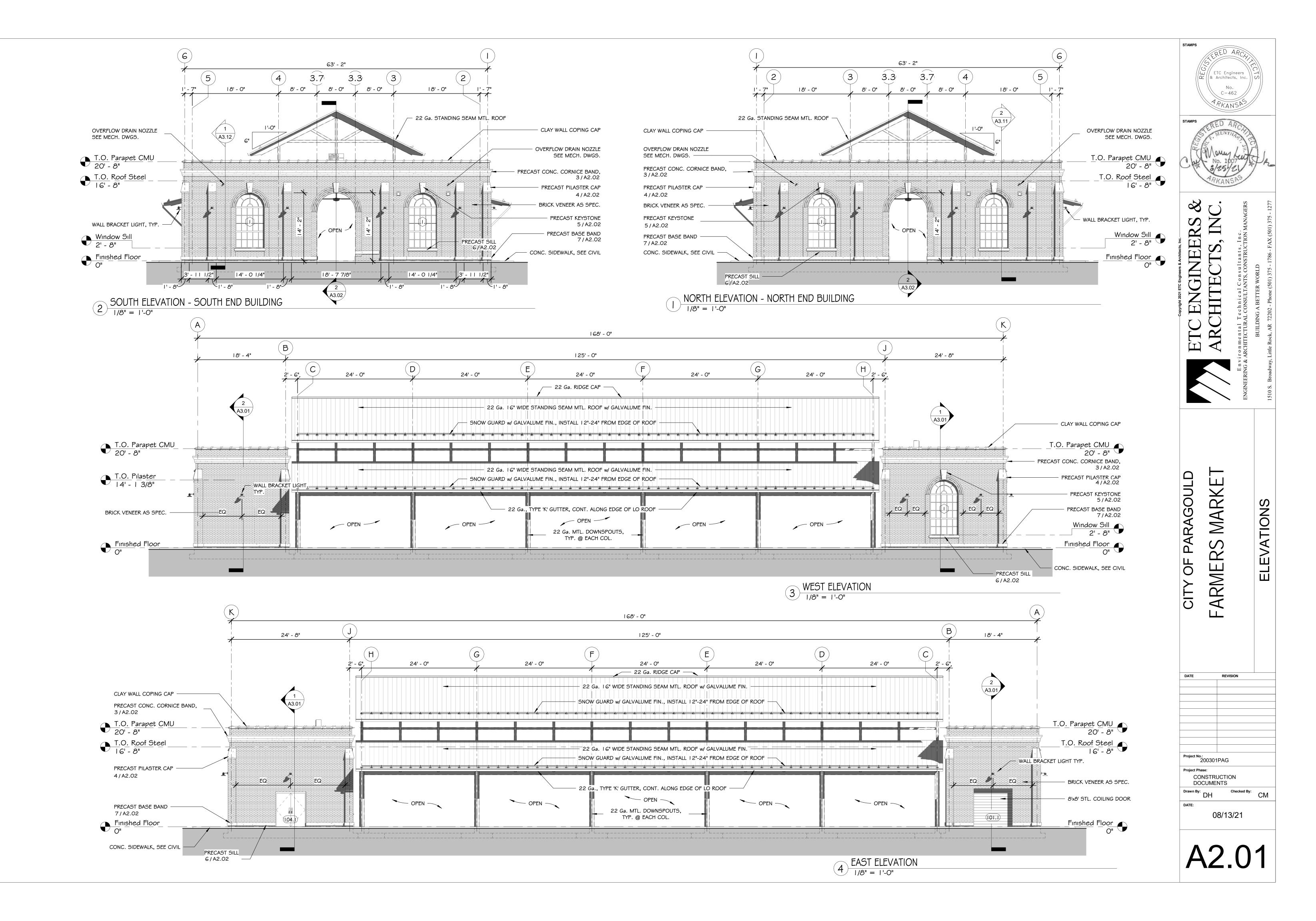
ENGINEERS, IN

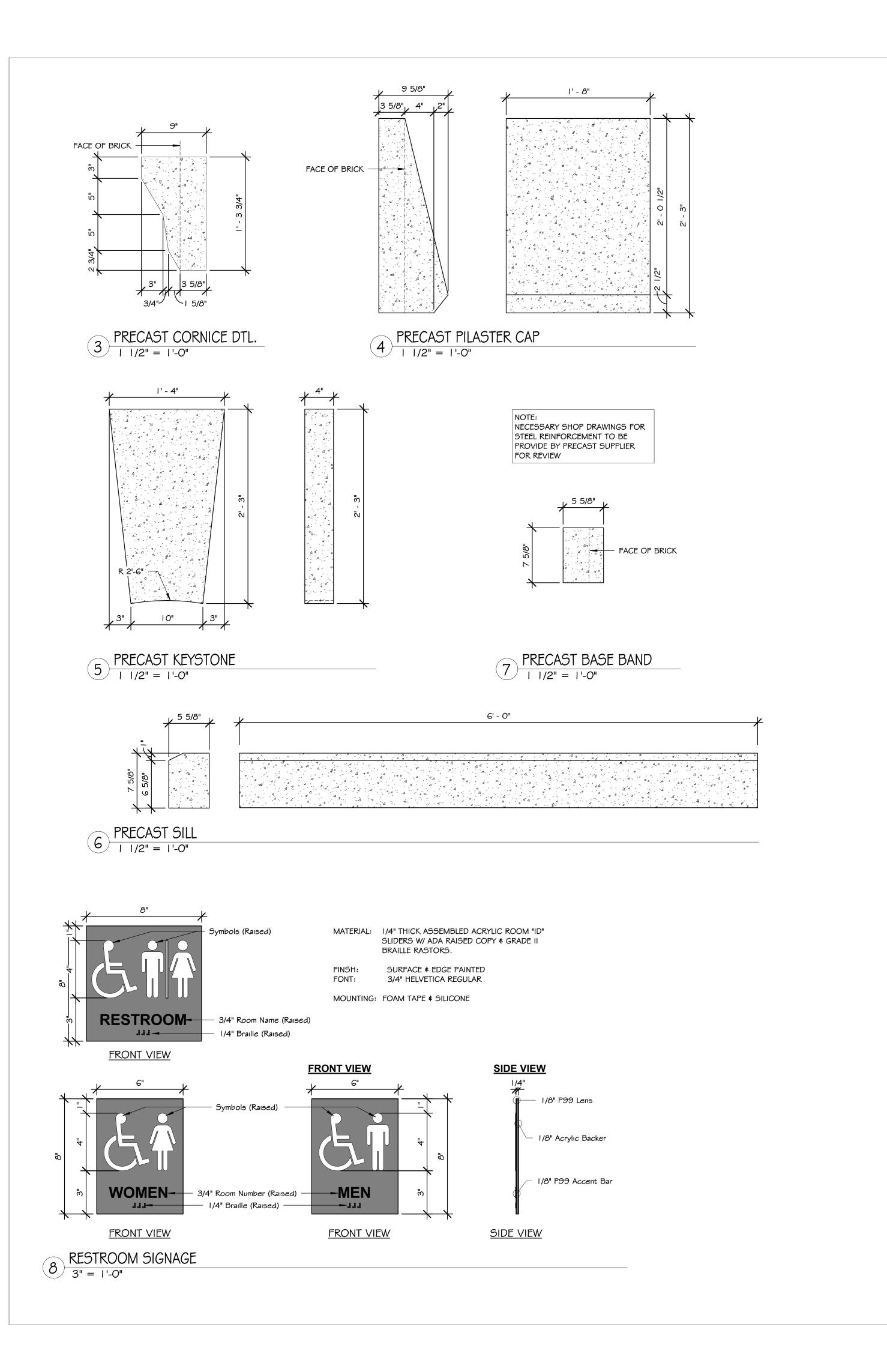
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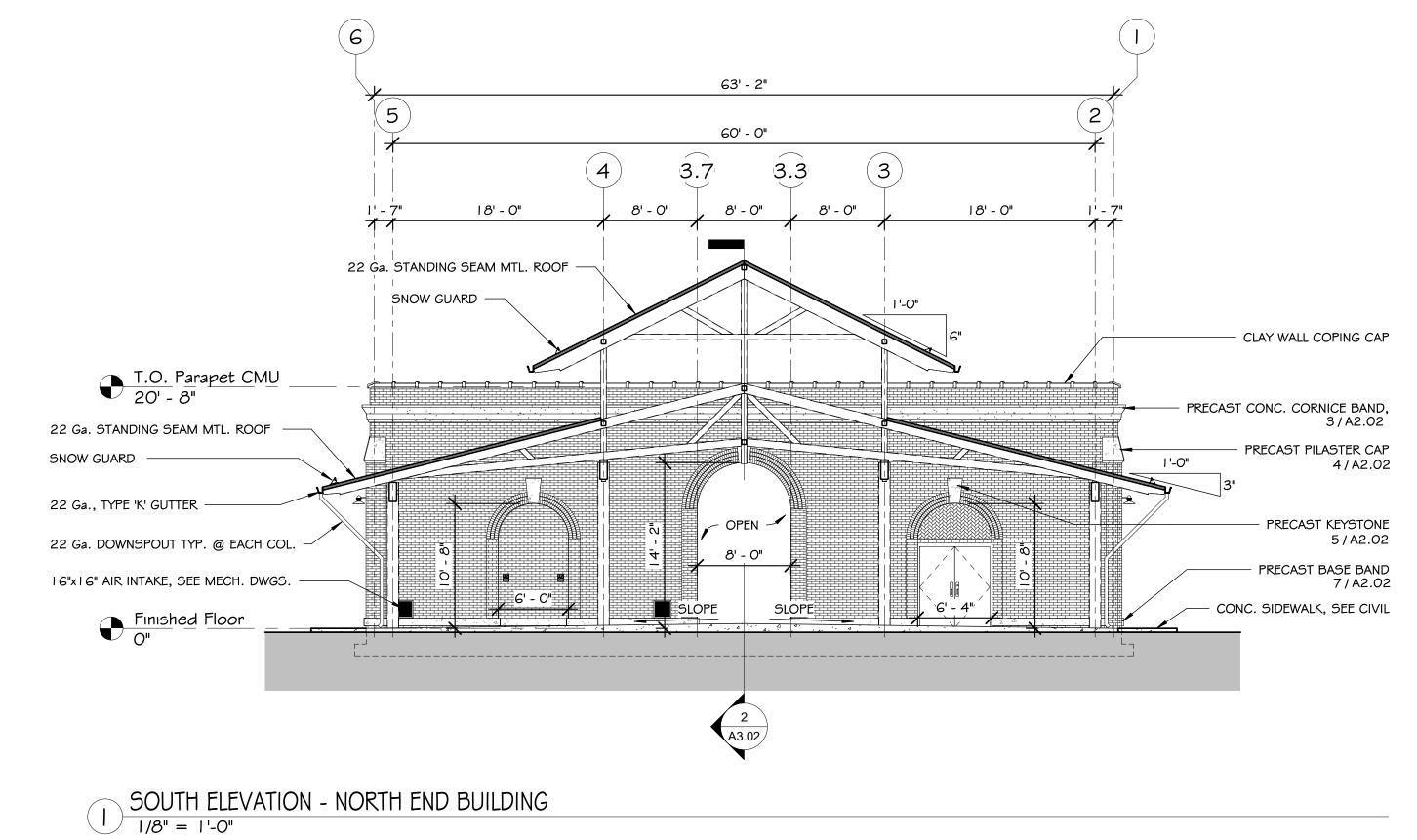
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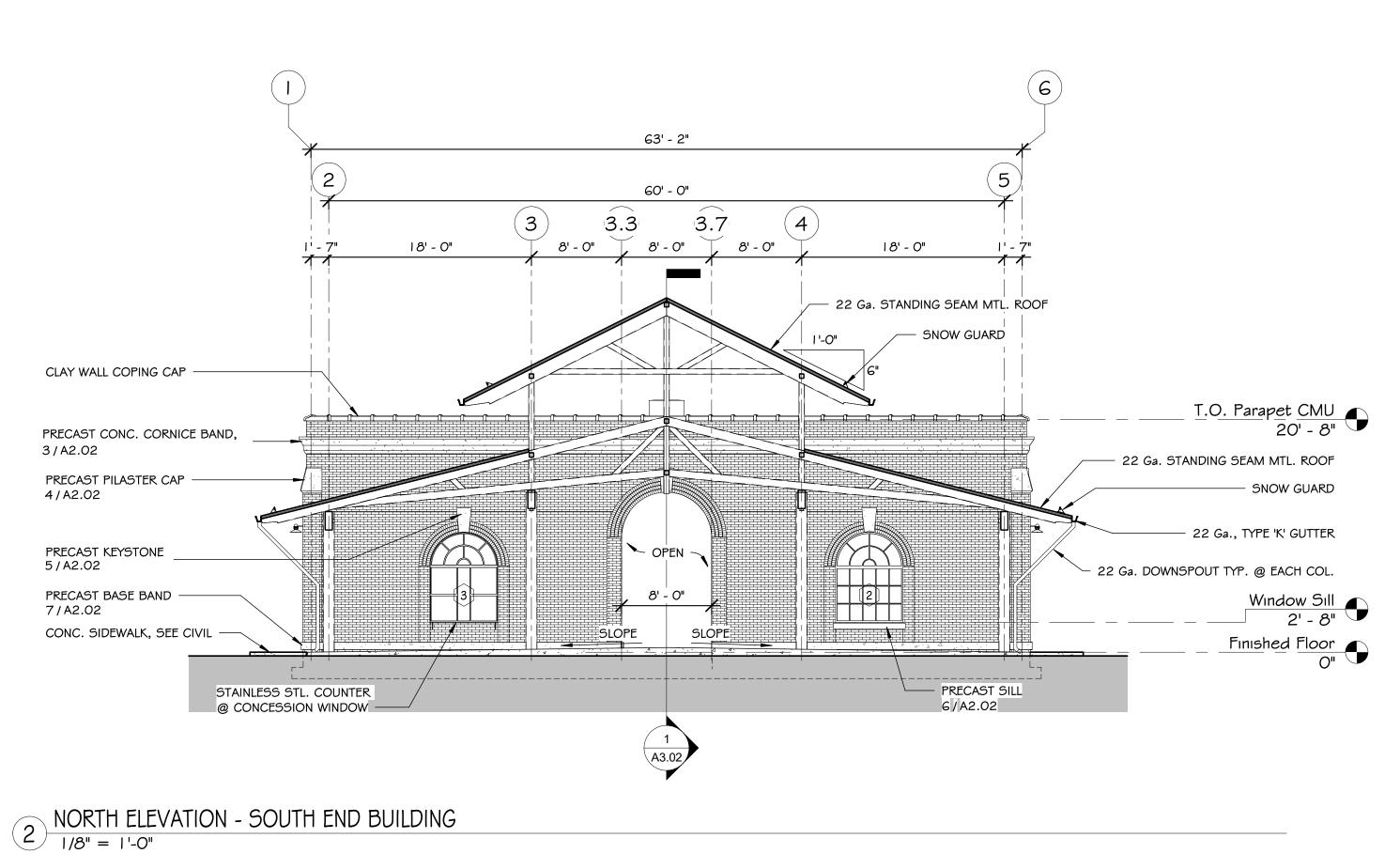
ROOF

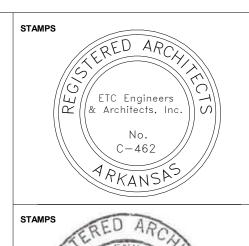
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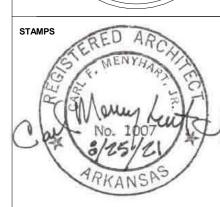










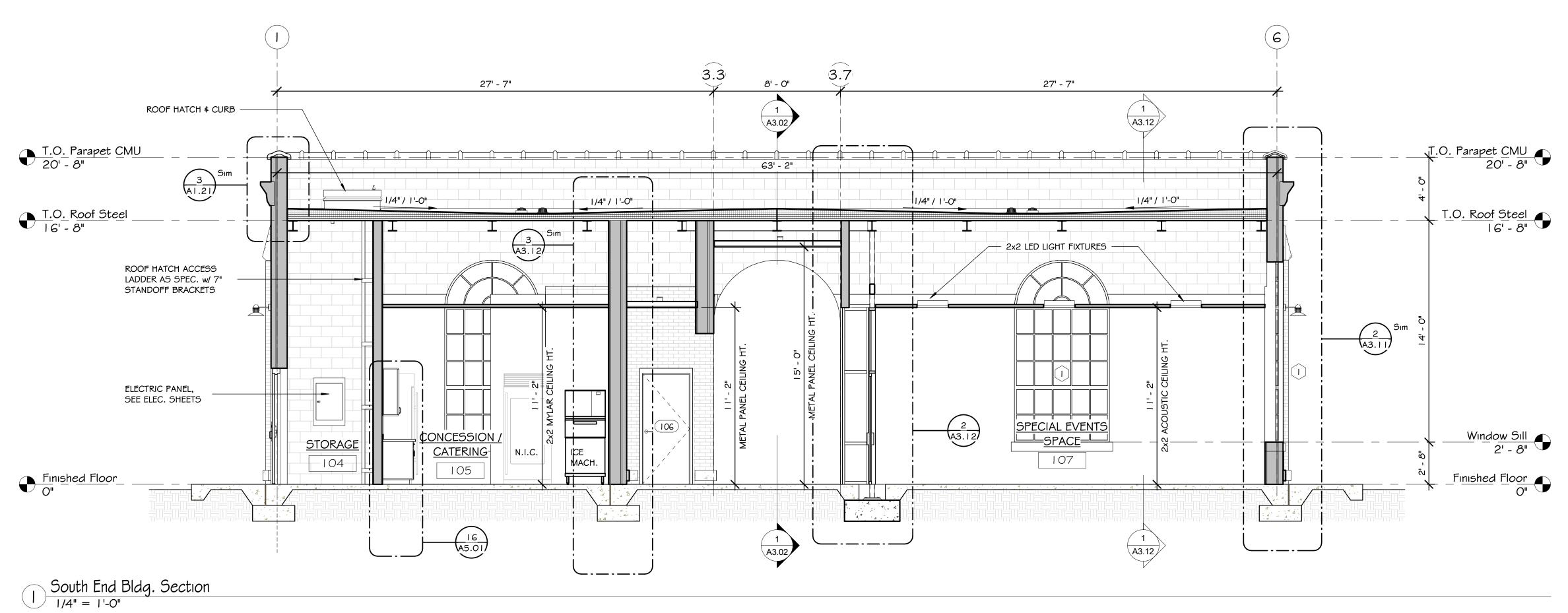


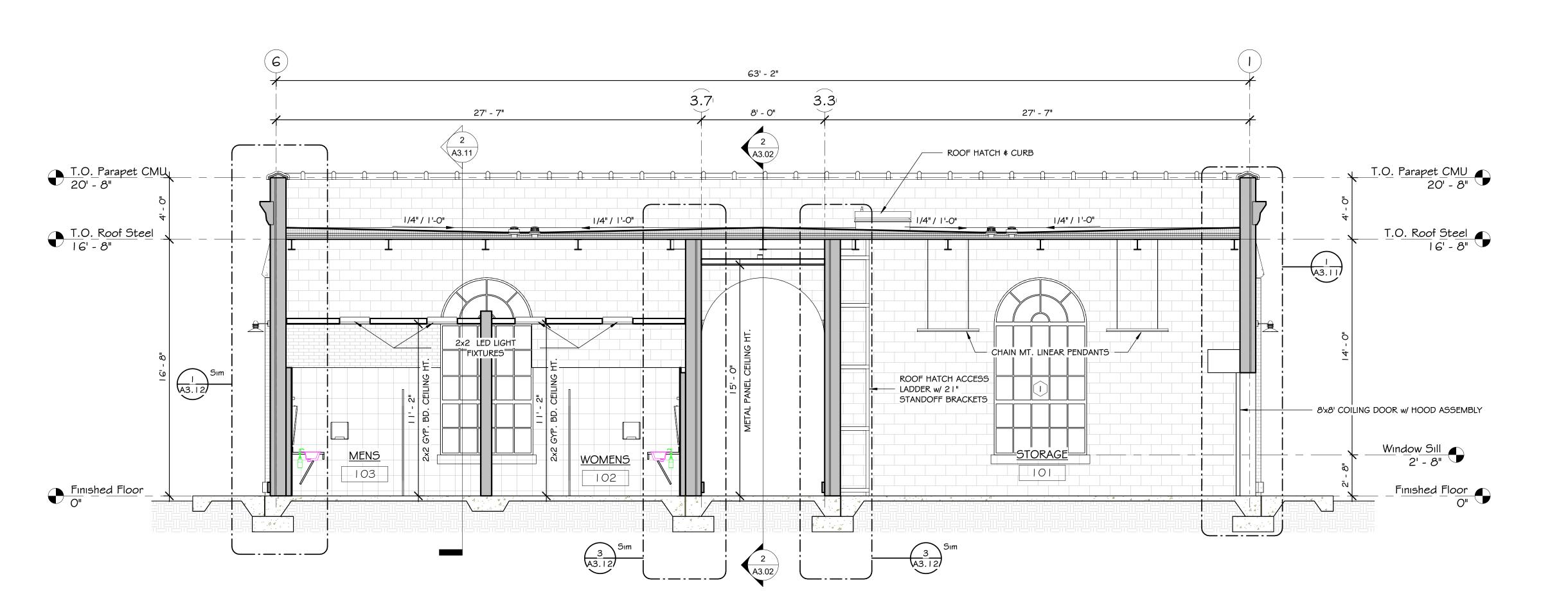
ENGINEERS A

MARKET -ARMERS

ELEVATIONS

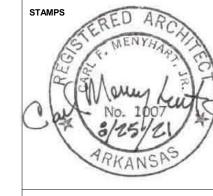
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North End Bldg. Section

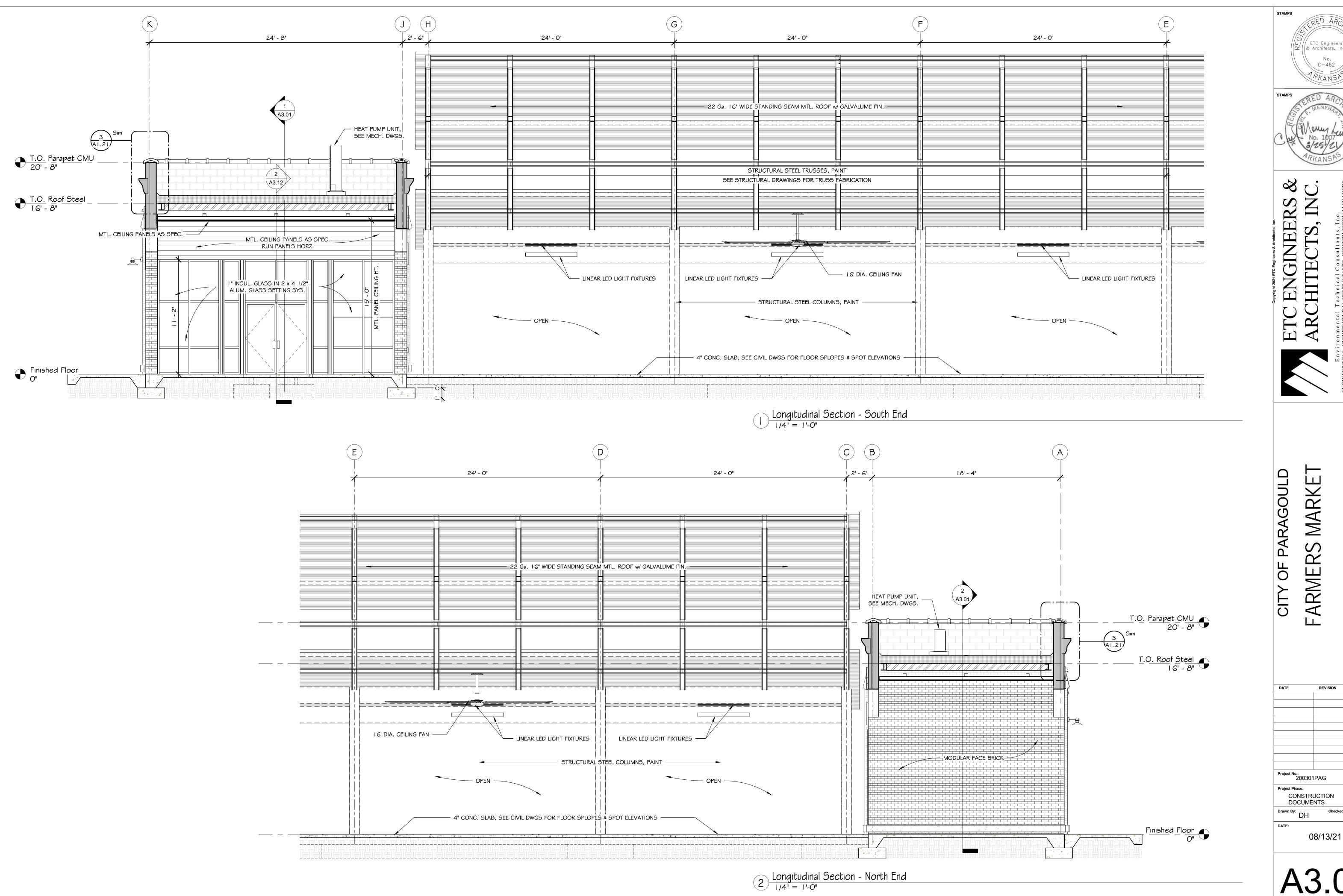
1/4" = 1'-0"

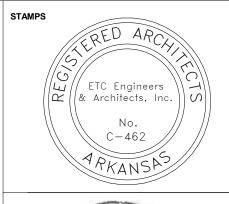


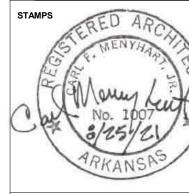
CITY OF PARAGOULD FARMERS MARKET

BUILDING SECTIONS

REVISION Project No.: 200301PAG Project Phase: CONSTRUCTION DOCUMENTS 08/13/21

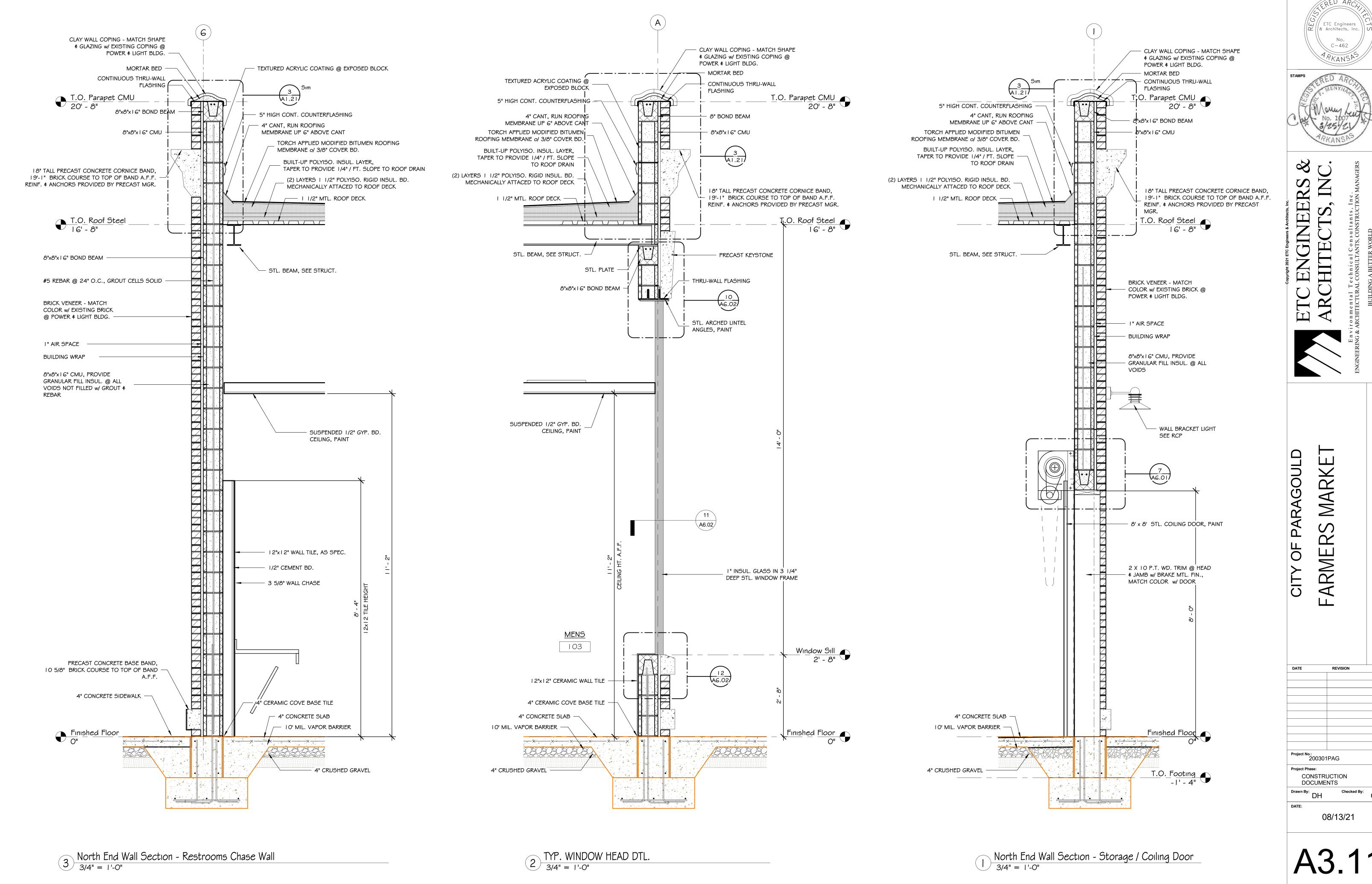






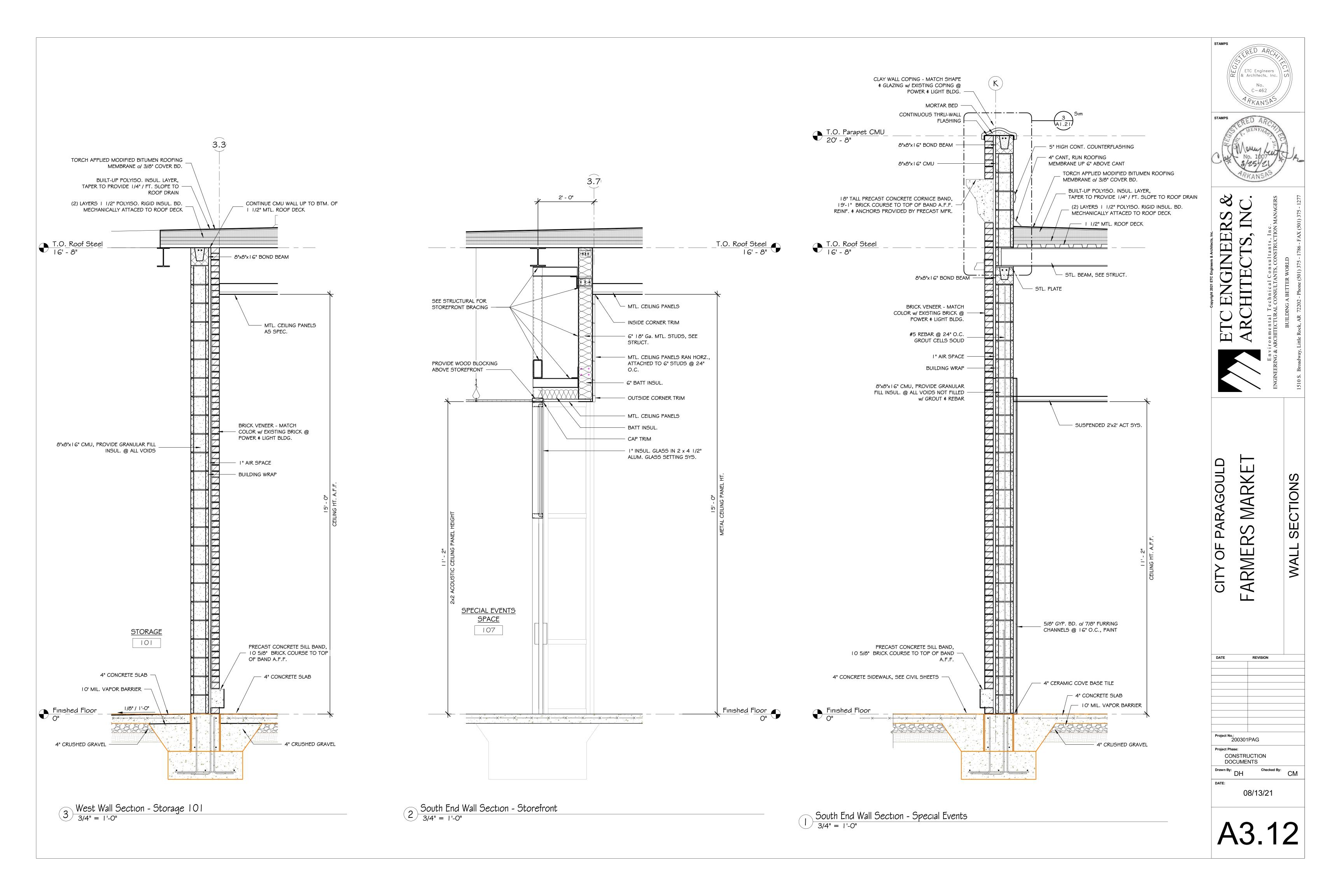
BUILDING SECTIONS

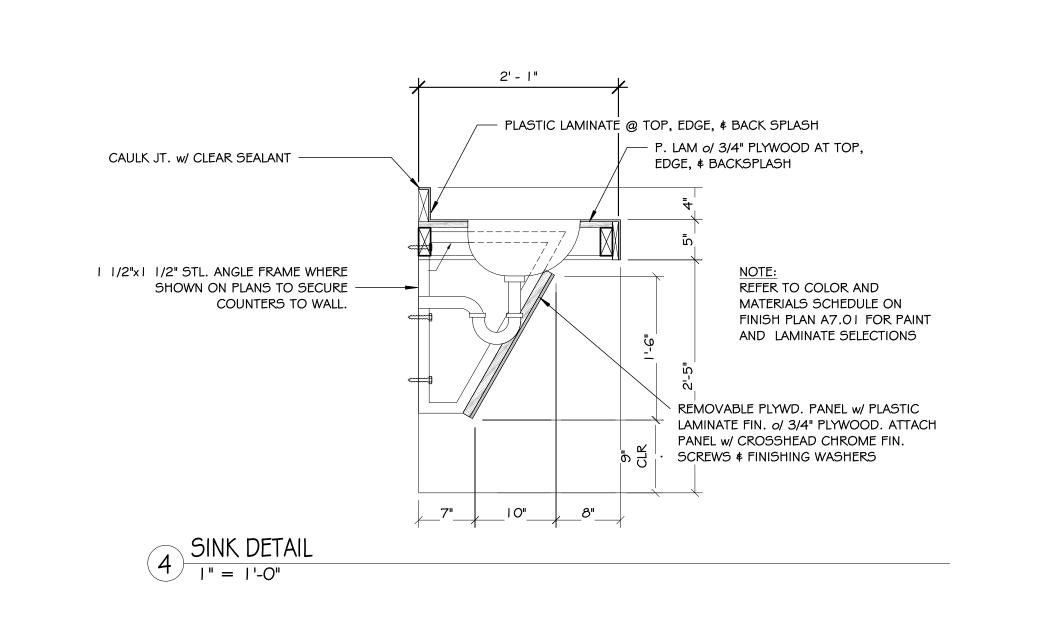
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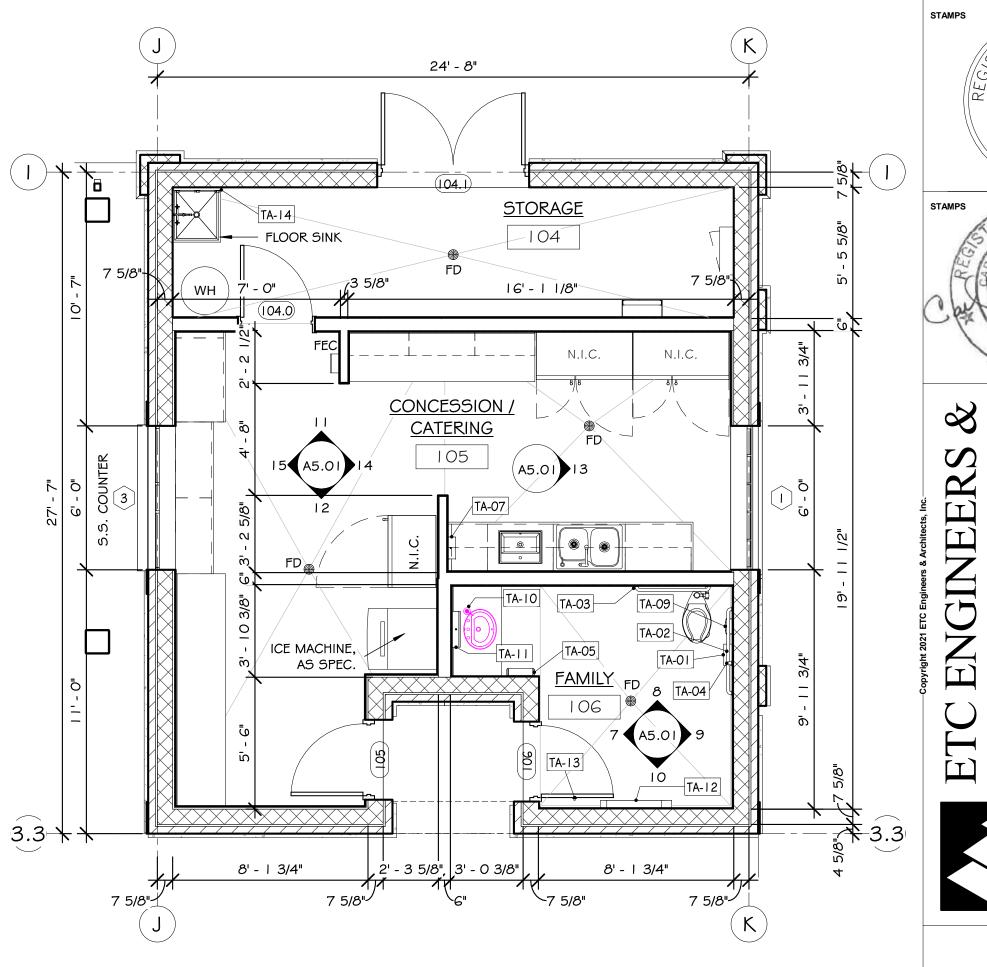




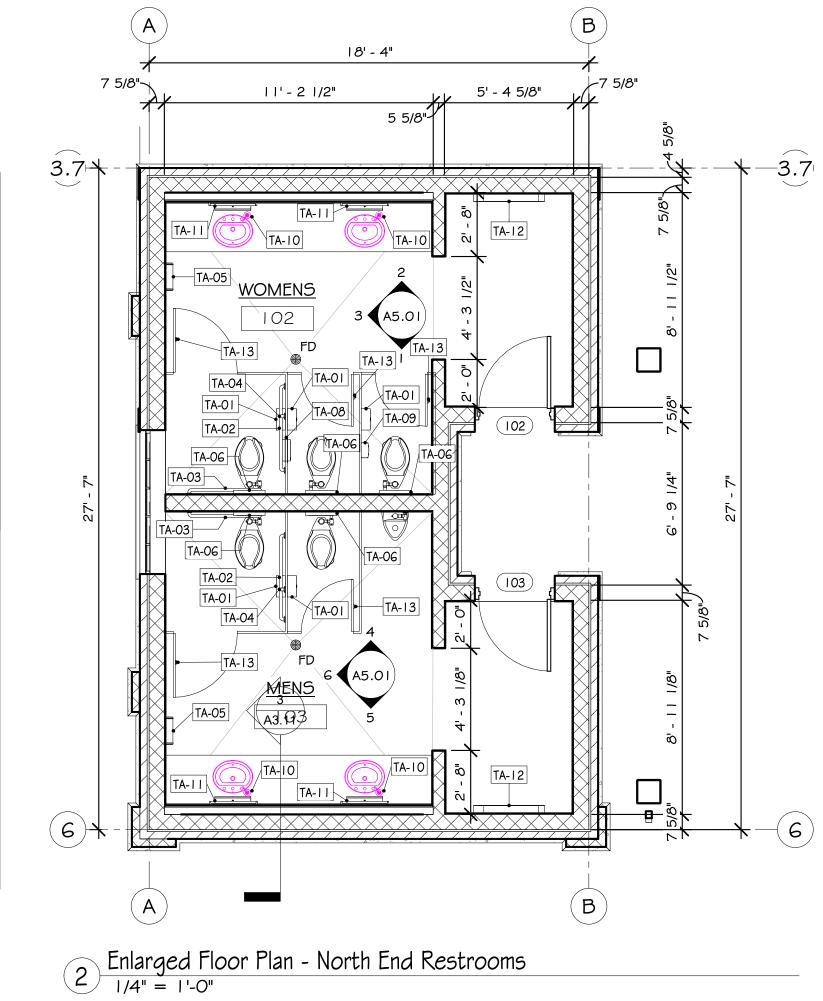
SECTIONS

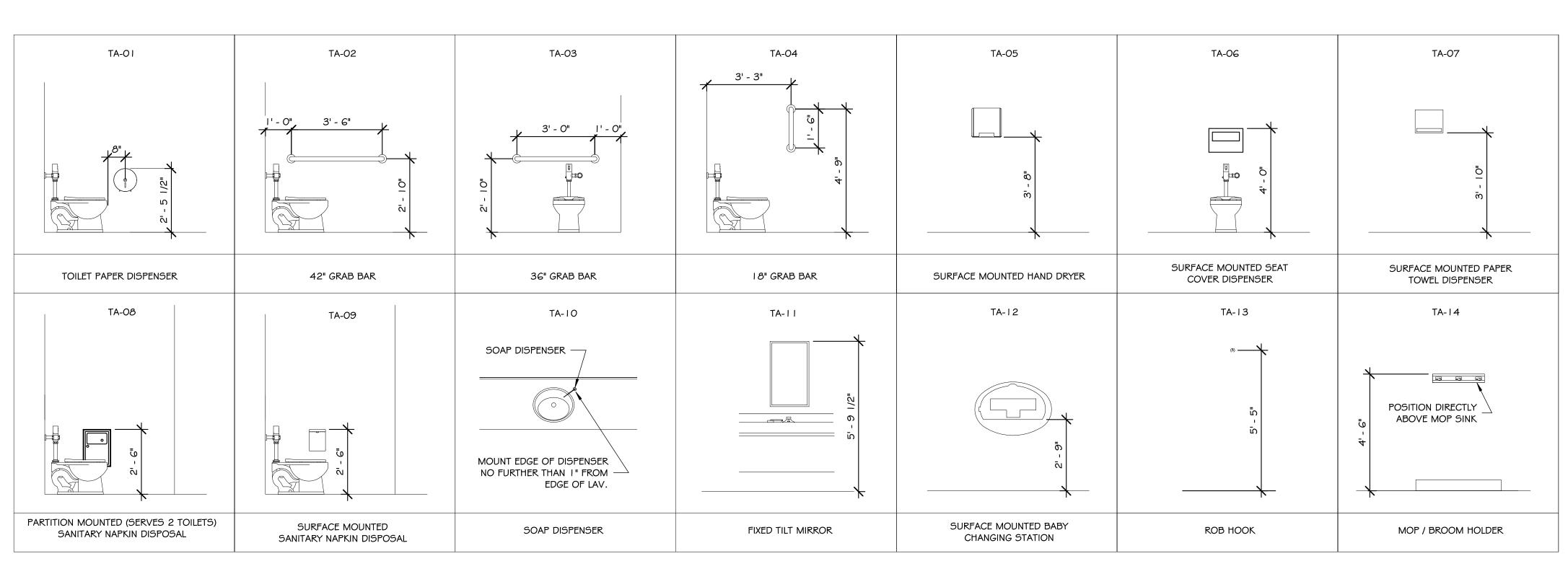






Enlarged Floor Plan - South End





TOILET ACCESSORY SCHEDULE

3/8" = 1'-0"

A4.0

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Project No.: 200301PAG

CONSTRUCTION

DOCUMENTS

Project Phase:

ENLARGED PLANS / ACCESSORIES

MARKET

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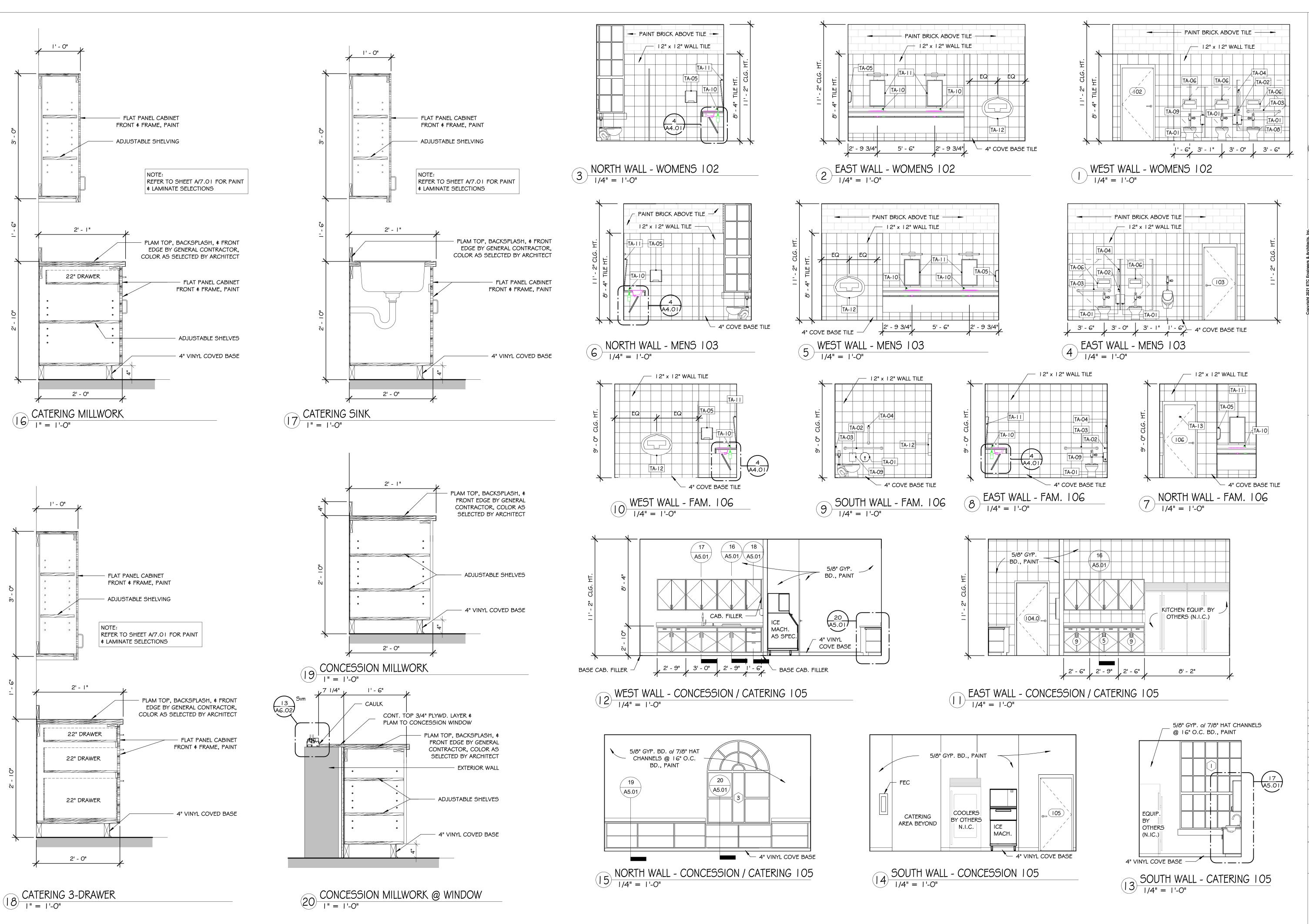
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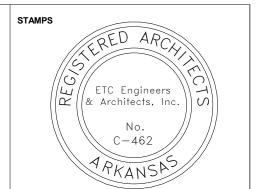
ETC Engineers

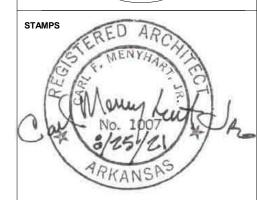
& Architects, Inc.

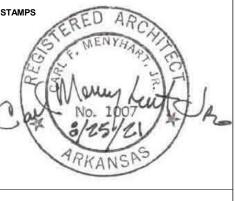
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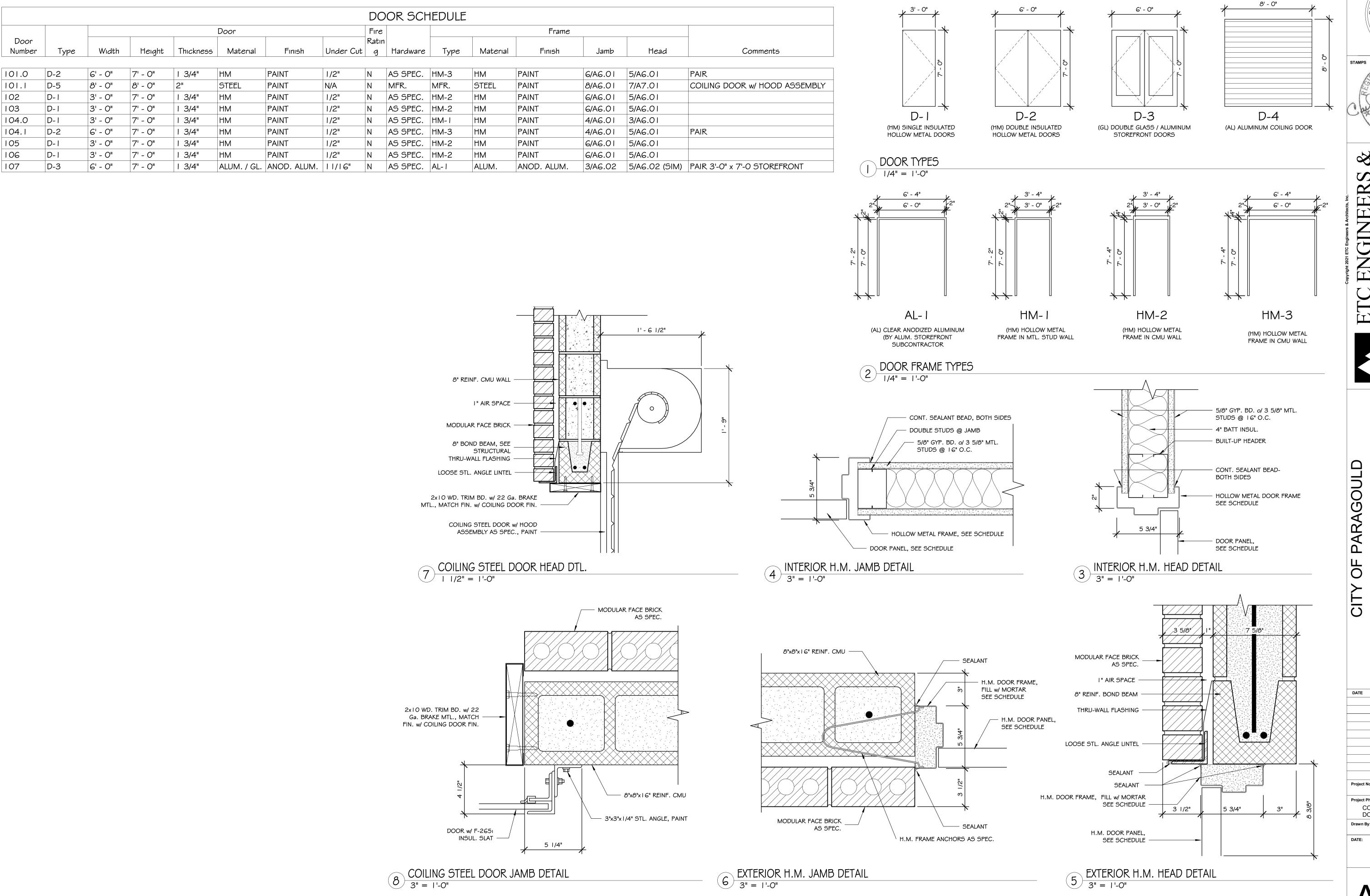
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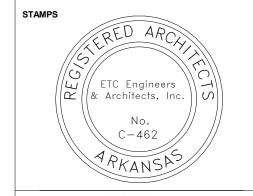
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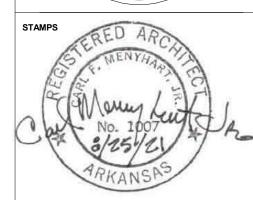
ELEVATION \simeq INTERIOR ARMEI

REVISION Project No.: 200301PAG CONSTRUCTION DOCUMENTS 08/13/21

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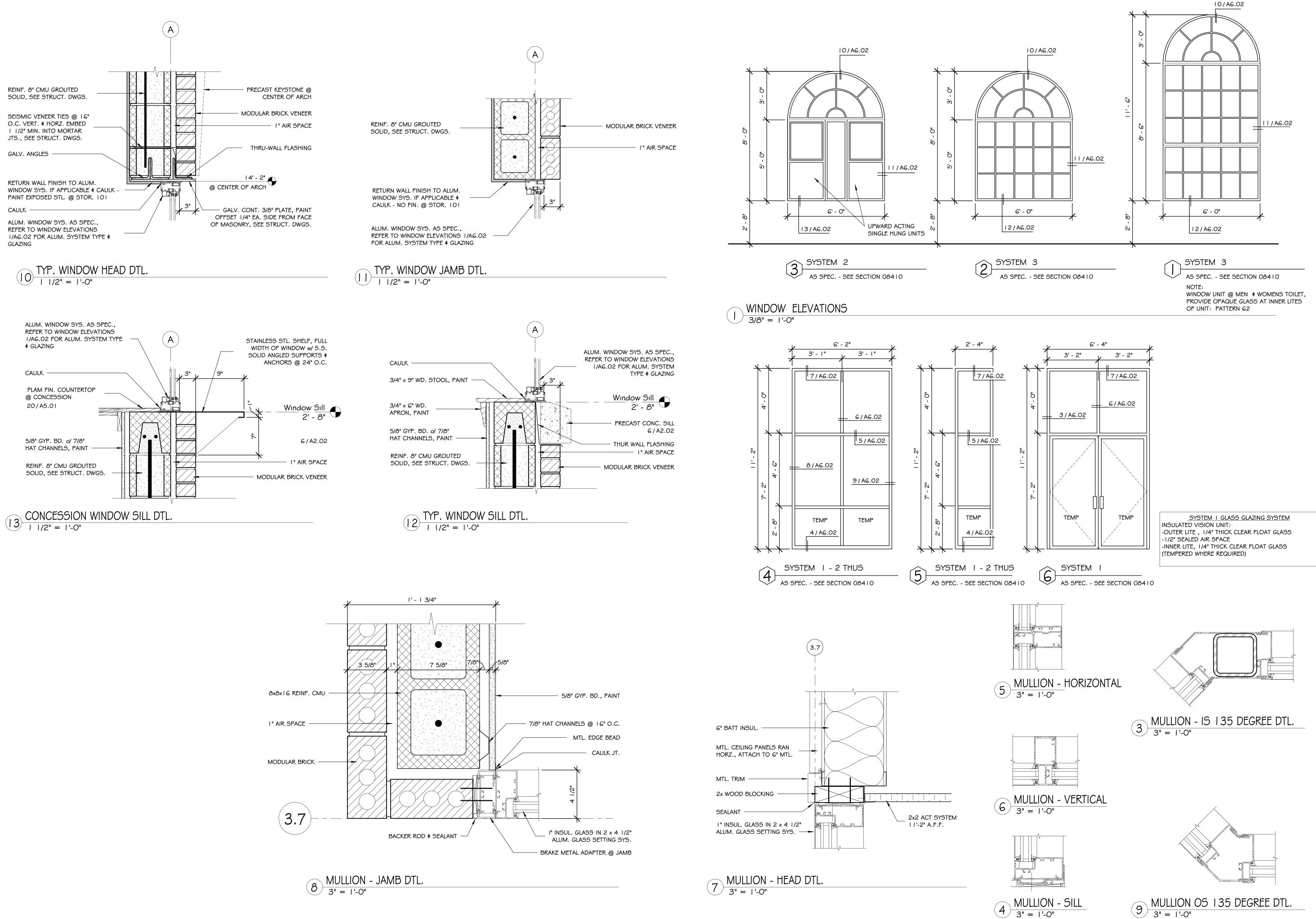
ENGINEERS A

MARKE FARME

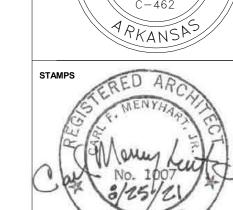
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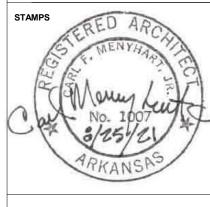
DOOR SCHEDULE

REVISION Project No.: 200301PAG Project Phase: CONSTRUCTION DOCUMENTS



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ENGINEERS MITTECTS, IN

MARKE

WINDOW SCHEDULE

FARME

REVISION Project No.: 200301PAG Project Phase: CONSTRUCTION DOCUMENTS

STC: SMOOTH TROWEL FINISH CONCRETE BFC: LIGHT BROOM FINISH CONCRETE

: 4" RUBBER COVED BASE; JOHNSONITE, COLOR, #195-ASH WG : 4" CERAMIC COVED BASE TILE; AMERICAN OLEAN, ST. GERMAIN, 12"x12", COLOR, "CREAME" SE 61

: NO BASE SCHEDULED FOR THIS AREA.

GWB-1: 5/8" GYPSUM WALL BD. CMU-I: EXPOSED CMU

GL-I : I" INSULATED EXTERIOR GLAZING

: PAINT; SHERWIN WILLIAMS, #SW 0050, "CLASSIC LIGHT BUFF"

LATEX SEMI-GLOSS ENAMEL. P-2 : PAINT; SHERWIN WILLIAMS, #SW 0054, "TWILIGHT GRAY", LATEX SEMI-GLOSS ENAMEL.

P-3 : PAINT; SHERWIN WILLIAMS, #SW 2840, "HAMMERED SILVER",

SEMI-GLOSS ALKYD ENAMEL. NOTE: IF P-1, P-2, OR P-3 ARE CALLED OUT TO BE APPLIED TO

METAL SURFACES, IT SHALL BE ALKYD SEMI-GLOSS ENAMEL. CT-1 : AMERICAN OLEAN, ST. GERMAIN, 12"x12", COLOR, "CREAME" SE 61.

CEILING:

MP-I : I" DEEP x 8" WIDE 'B' METAL CEILING PANELS w/ GALVALUME FINISH SGB-1: SUSPENDED 1/2" GYPSUM BD. CEILING AS SPECIFIED

: 2X2 LAY-IN ACOUSTIC CEILING TILE, AS SPECIFIED. LA-2 : 2X2 LAY-IN MYLAR COATED ACOUSTIC CEILING TILE, AS SPECIFIED. : NO CEILING SCHEDULED FOR THIS AREA.

OTHER MATERIAL FINISHES:

TAC-I CONCRETE FOUNDATION WALL:

BASF THOROCOAT, TEXTURED ACRYLIC COATING, #436-M "TUDOR BEIGE".

INTERIOR HOLLOW METAL DOOR FRAMES:

ALL TO BE PAINTED WITH, SHERWIN-WILLIAMS, #SW 0054 "TWILIGHT GRAY", ALKYD SEMI-GLOSS ENAMEL. (P-2)

HOLLOW METAL DOORS @ EXTERIOR:

PAINT WITH SHERWIN WILLIAMS #SW2840 "HAMMERED SILVER" SEMI-GLOSS ALKYD ENAMEL. (P-3)

PLASTIC LAMINATE CLAD TOILET PARTITIONS:

TO BE SELECTED BY ARCHITECT FROM STANDARD COLORS OF FORMICA, NEVAMAR OR WILSON ART.

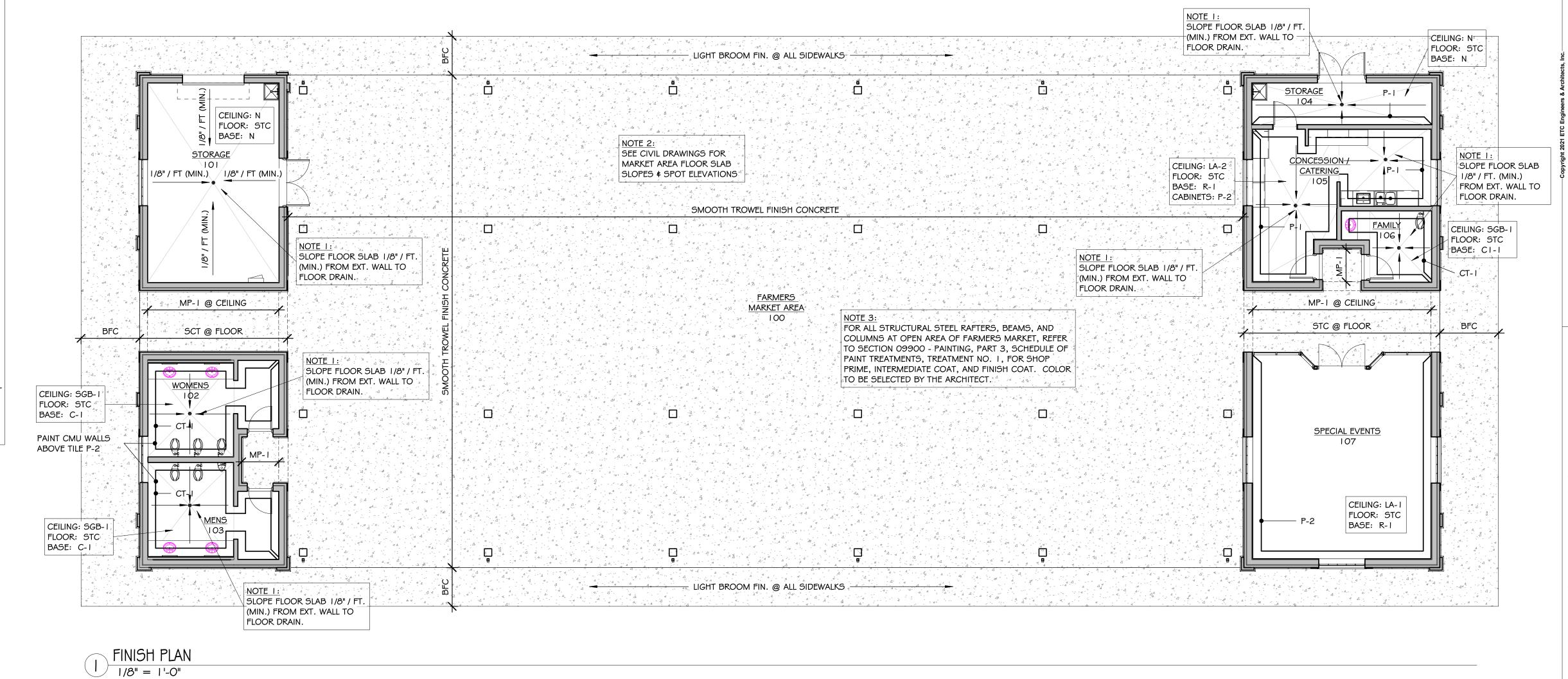
WOOD CABINETS AT CONCESSION / CATEREING:

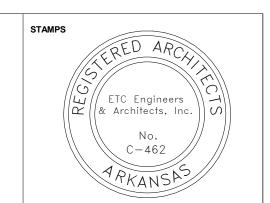
PAINT SHERWIN WILLIAMS #SW 0054, "TWILIGHT GRAY", SEMI-GLOSS ALKYD ENAMEL

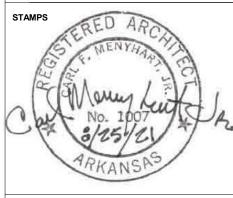
FIRE EXTINGUISHER CABINETS:

WHERE F.E. CABINETS ARE INSTALLED, THEY SHALL BE PAINTED TO MATCH THE SURROUNDING WALL COLOR w/ SEMI-GLOSS ALKYD ENAMEL.

						ROOM F	INISH S	6CHEDL	JLE						
				BASE	NO	RTH	E.A	\ST	SOL	ITH	WI	EST	С	EILING	
No.	NAME	AREA	FLOOR FINISH	FINISH	MAT'L	FINISH	MAT'L	FINISH	MAT'L	FINISH	MAT'L	FINISH	MAT'L	FINISH	COMMENTS
100	FARMERS MARKET	Not Enclosed	STC	N	BRICK	N/A	N/A	N/A	BRICK	N/A	N/A	N/A	N / MP-I	GALVALUME	MTL. PANELS @ BREEZEWAYS
101	STORAGE	442 SF	STC	N	CMU-I	N	CMU-I	N	CMU-I	N	CMU-I	N	N	N	OPEN TO ROOF DECK
102	WOMENS	185 SF	STC	C-1	CT-I, CMU-I	P-2	CT-I, CMU-I	P-2	CT-1, CMU-1	P-2	CT-I, CMU-I	P-2	SGB-I	P-1	PAINT CMU ABOVE TILE P-2
103	MENS	185 SF	STC	C-1	CT-I, CMU-I	P-2	CT-I, CMU-I	P-2	CT-1, CMU-1	P-2	CT-I, CMU-I	P-2	SGB-I	P-I	PAINT CMU ABOVE TILE P-2
104	STORAGE	127 SF	STC	R-I	CMU-I	N	CMU-I	N	CMU-I	N	GWP-1	P- I	N	N	OPEN TO ROOF DECK
105	CONCESSION / CATERING	319 SF	STC	R-I	GWB-1	P-I	GWB-I	P-I	GWB-I	P-I	GWB-1	P-I	LA-2		
106	FAMILY	89 SF	STC	C-1	CT-I		CT-I		CT-I		CT-I		SGB-I	P-I	
107	SPECIAL EVENTS SPACE	595 SF	STC	R-I	GWB-I	P-2	GWB-I	P-2	GWB-I	P-2	GWB-1	P-2	LA-I		







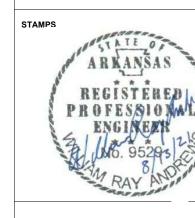
H

VEE

FINISH SCHEDULE

MARKE **FARMER**§

REVISION Project No.: 200301PAG CONSTRUCTION DOCUMENTS 08/13/21



AND

WATER

REVISION Project No.: 200301PAG CONSTRUCTION DOCUMENTS

08/13/2021

LEGEND

—— SANITARY SEWER ---- SANITARY VENT —·—·—·—·— COLD WATER —— -- HOT WATER —--—-- TEMPERED WATER ----- NATURAL GAS ———— COMPRESSED AIR

GENERAL NOTES

1. ALL WORK MUST COMPLY WITH THE REQUIREMENTS OF LOCAL CODES, CODE AMENDMENTS, AND ORDINANCES. WHERE INSPECTIONS ARE REQUIRED BY AUTHORITIES HAVING JURISDICTION, WORK MUST NOT FCO BE CONCEALED UNTIL INSPECTIONS AND TESTING ARE COMPLETED AND ACCEPTED.

PRIOR TO BID, CONTRACTOR MUST BECOME THOROUGHLY FAMILIAR WITH THE REQUIREMENTS OF THE GENERAL NOTES AS WELL AS ALL OTHER NOTES SHOWN ON THE CONTRACT DOCUMENTS. VISIT THE SITE TO ESTABLISH THE EXISTING CONDITIONS PRIOR TO BID AND PRIOR TO ANY DUCT, PIPE OR EQUIPMENT FABRICATION. SYSTEMS MUST BE ERECTED USING CONTRACTOR'S FIELD MEASUREMENTS FOR COORDINATION WITH EQUIPMENT, STRUCTURE, AND ELECTRICAL CONDITIONS IN THE SPACE.

- 3. ALL CONTRACT DOCUMENTS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENTS OR GEOMETRICAL RELATIONSHIPS OF EQUIPMENT AND SERVICES. THEY ARE NOT INTENDED TO SPECIFY OR SHOW EVERY OFFSET, SEQUENCE, DEVICE, OPTION, FITTING, OR COMPONENT. DO NOT SCALE DRAWINGS.
- 4. INFORMATION AND COMPONENTS SHOWN ON DIAGRAMS OR DETAILS, BUT NOT SHOWN ON PLANS, AND VICE VERSA, MUST BE PROVIDED AS IF EXPRESSLY REQUIRED BY BOTH.
- 5. EXCEPT WHERE INDICATED OTHERWISE, THE NOTATION OR DESCRIPTION OF ANY ITEM IN THE CONTRACT DOCUMENTS CARRIES WITH IT THE INSTRUCTION TO FURNISH AND INSTALL THE ITEM, WHETHER OR NOT THIS INSTRUCTION IS EXPLICITLY STATED.

6. THE CONTRACT DOCUMENTS MAY REFLECT A SYSTEM DESIGNED AROUND SPECIFIC REFERENCE PRODUCTS, THE SELECTION OF WHICH HAS IMPACTED THE DESIGNS OF OTHER TRADES. IF ALTERNATE MANUFACTURERS, MODEL NUMBERS, ETC. ARE SUBMITTED OR BID, IT IS THE RESPONSIBILITY OF THIS CONTRACTOR TO COORDINATE ALL DIFFERENCES AND IMPACTS WITH ALL TRADES PRIOR TO BID, INCLUDING COSTS ASSOCIATED WITH REQUIRED CHANGES TO OTHER TRADES. NO EXTRAS WILL BE ALLOWED FOR CHANGES REQUIRED TO OTHER TRADES IF ALTERNATE EQUIPMENT IS BID OR INSTALLED AT THE CONTRACTOR'S OPTION. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ALL MODIFICATIONS TO OTHER DISCIPLINES WHEN MODIFICATIONS RESULT FROM SUBSTITUTION OF EQUIPMENT OR MATERIALS FROM THOSE SPECIFIED OR SCHEDULED.

FCO

COORDINATE PLACEMENT OF ALL MECHANICAL RELATED EQUIPMENT AND DEVICES WITH OTHER TRADES. DO NOT LOCATE, POSITION OR INSTALL ANY MECHANICAL EQUIPMENT OR DEVICES IN ANY SYSTEM IN SUCH A WAY THAT IT WILL BE INACCESSIBLE OR UN-MAINTAINABLE AFTER CONSTRUCTION IS COMPLETED. COORDINATE WITH GC FOR ANY REQUIRED ACCESS PANELS.

8. NO OTHER TRADES ARE ALLOWED TO BE SUPPORTED FROM MATERIALS. FOUIPMENT OR DEVICES. INSTALLED BY THE MECHANICAL TRADES. LIKEWISE, ALL WORK INSTALLED BY THE MECHANICAL TRADES MUST BE SUPPORTED FROM THE STRUCTURE ABOVE, FROM WALLS, OR FROM THE FLOOR UNLESS OTHERWISE INDICATED.

9. HOUSEKEEPING PADS: PROVIDE CONCRETE HOUSEKEEPING PADS FOR ALL GROUND AND/OR FLOOR MOUNTED EQUIPMENT (WATER HEATERS, CONDENSING UNITS, ETC.). UNLESS OTHERWISE INDICATED, PADS MUST BE A MINIMUM OF 3 1/2 INCHES THICK WITH CHAMFERED EDGES.

10. SEAL ALL ROOF AND WALL PENETRATIONS. FLASH AND COUNTER-FLASH ALL ROOF PENETRATIONS. MINIMUM ACCEPTABLE HEIGHT OF FLASHING IS EIGHT (8) INCHES ABOVE ROOF. COORDINATE WITH GC.

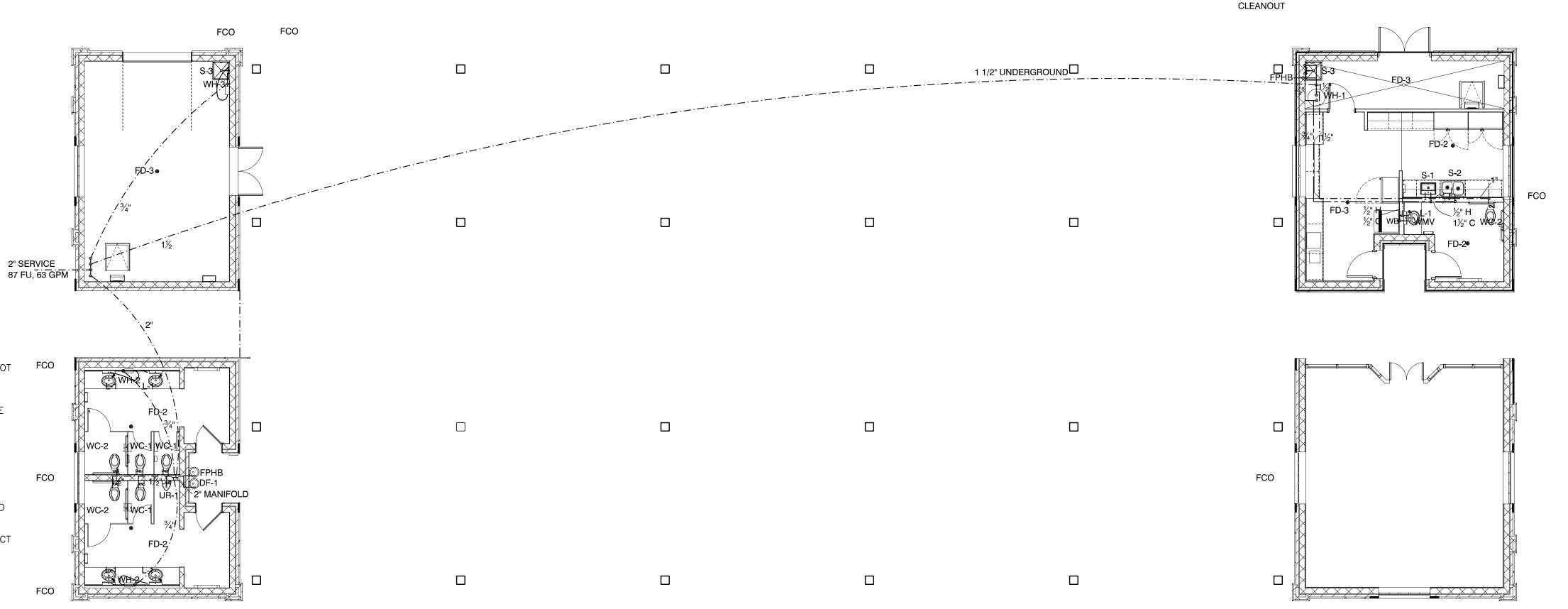
11. MECHANICAL SYSTEMS, MATERIALS AND/OR DEVICES ARE NOT TO BE USED AS A MEANS OF ELECTRICAL GROUNDING.

12. ALL MECHANICAL RELATED PIPES THAT PASS THRU CONCRETE, MASONRY, METAL OR WOOD CONSTRUCTION (WALLS, FLOORS, ETC.) ARE TO BE PROVIDED WITH METAL SLEEVES OR THIMBLES. SLEEVES AND THIMBLES SHALL BE AT LEAST 3/8 INCH LARGER THAN THE OUTSIDE DIAMETER OF THE PIPING PLUS INSULATION. CAULK BETWEEN SLEEVE AND PIPE WITH FLEXIBLE CAULKING MATERIAL (RATED FOR SURFACE TEMPERATURE OF PIPE OR INSULATION) TO ALLOW MOVEMENT OF PIPE. IN CASE OF A FIREWALL, PROPER FIRESTOPPING FOR THE WALL RATING IS TO BE PROVIDED.

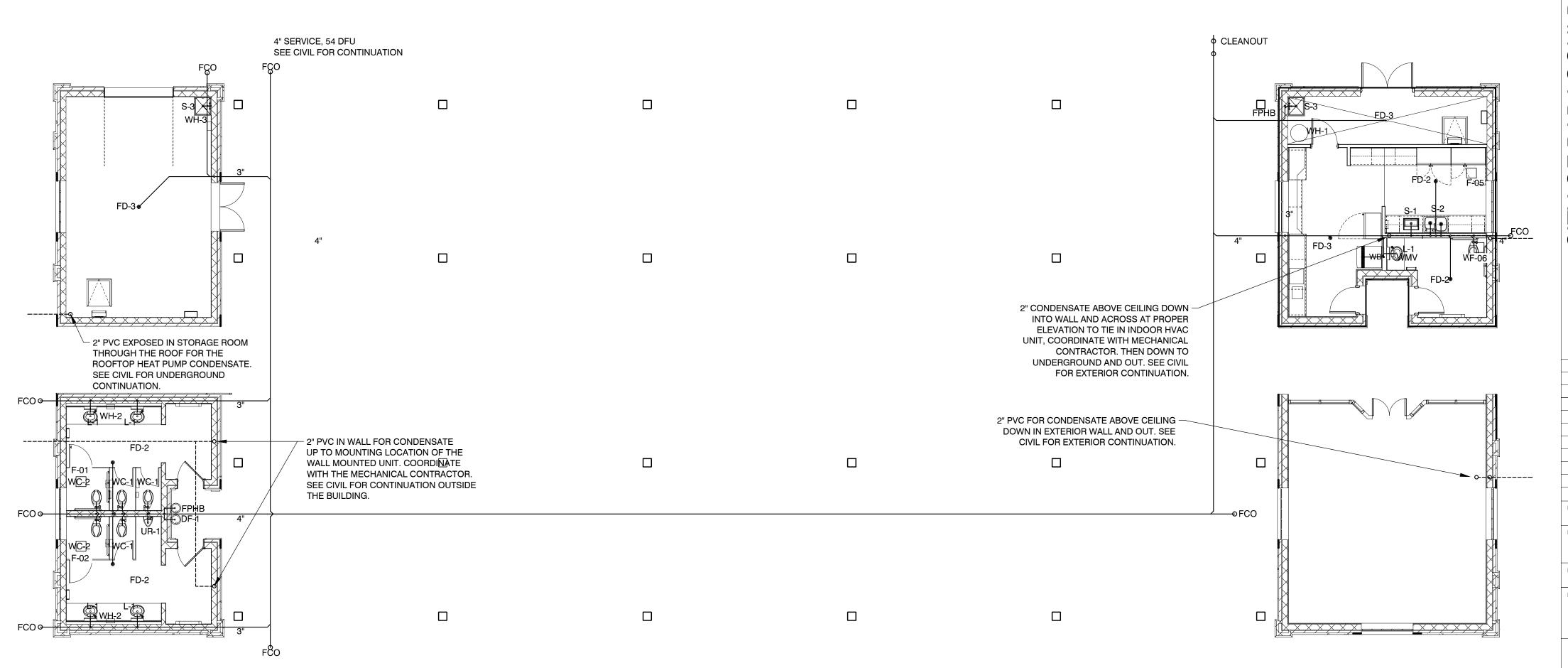
PLUMBING NOTES:

1. CONTRACTOR MUST VERIFY UTILITIES LOCATIONS AND INVERTS WITH OWNER'S REPRESENTATIVE, ARCHITECT, UTILITY COMPANY, GENERAL CONTRACTOR AND CIVIL ENGINEER PRIOR TO PLACEMENT OF SERVICES. ALL LOCATIONS SHOWN ARE APPROXIMATE AND FINAL PLACEMENT / CONNECTIONS ARE TO BE RESOLVED IN THE FIELD AS PART OF THIS CONTRACT. ALL PLUMBING SYSTEMS MUST BE INSTALLED AS PER SPECIFICATIONS, UTILITY REQUIREMENTS, AND GOVERNING CODES.

- PROVIDE SHUT-OFF VALVES AT ALL BRANCH WATER LINES, AND AT ALL BRANCHES IN WATER LINES TO INDIVIDUAL FIXTURES OR GROUPS OF FIXTURES. PROVIDE VALVE ABOVE CEILING IN BRANCH SERVING EACH WALL HYDRANT (IF APPLICABLE). INSTALL VALVES IN ACCESSIBLE LOCATIONS EITHER ABOVE LAY-IN CEILINGS OR BEHIND ACCESS PANELS.
- 3. PROVIDE WATER HAMMER ARRESTORS AT EACH MAIN FIXTURE GROUP. PROVIDE FOR ACCESS TO ARRESTOR.
- PROVIDE STOP VALVES AT EVERY FIXTURE ON BOTH HOT AND COLD WATER SUPPLY LINES. VALVES, ESCUTCHEONS, FITTINGS, ETC. MUST BE CHROMIUM PLATED. WHERE EXPOSED, CHROME PLATED PIPE IS TO BE USED.
- 5. ALL WATER LINES ROUTED IN EXTERIOR WALLS MUST BE INSTALLED ON HEATED SIDE OF WALL INSULATION. COORDINATE WITH GC AND WALL INSULATOR TO VERIFY PIPING IS NOT ISOLATED FROM HEAT BY
- 6. SEE M1.01, ROOF PLAN FOR ROOF DRAINS SYSTEM. ROOF DRAIN PIPING IS THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR.



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



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

DOUBLE CLEANOUT 4" SERVICE $1\frac{1}{2}$ " 77 FIXTURE UNITS

1. FINISHES ON ALL FAUCETS, FLUSH VALVES, ETC. TO BE POLISHED CHROME UNLESS INDICATED OTHERWISE.

WASTE AND VENT RISER DIAGRAM

ETC Engineers

& Architects, Inc. C-462



AR

ENGINE

RISER, SCHEDULE

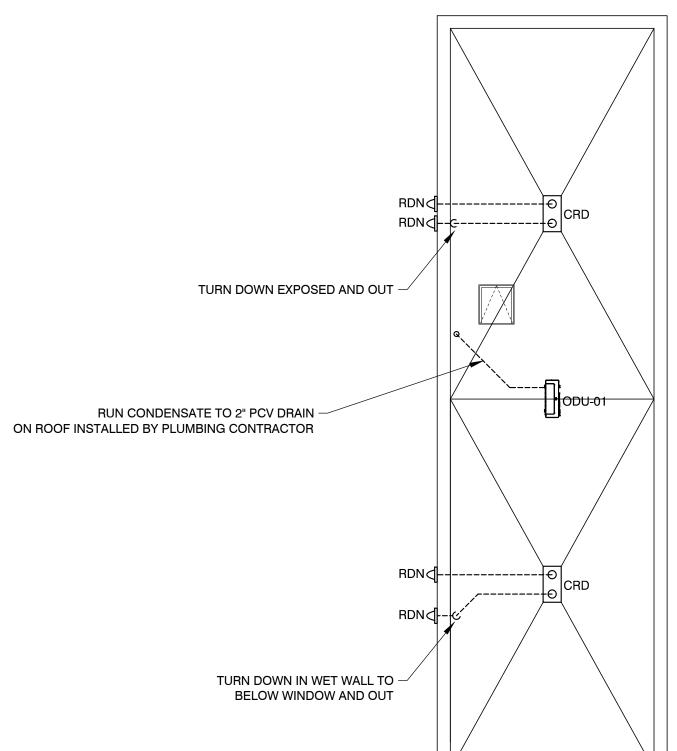
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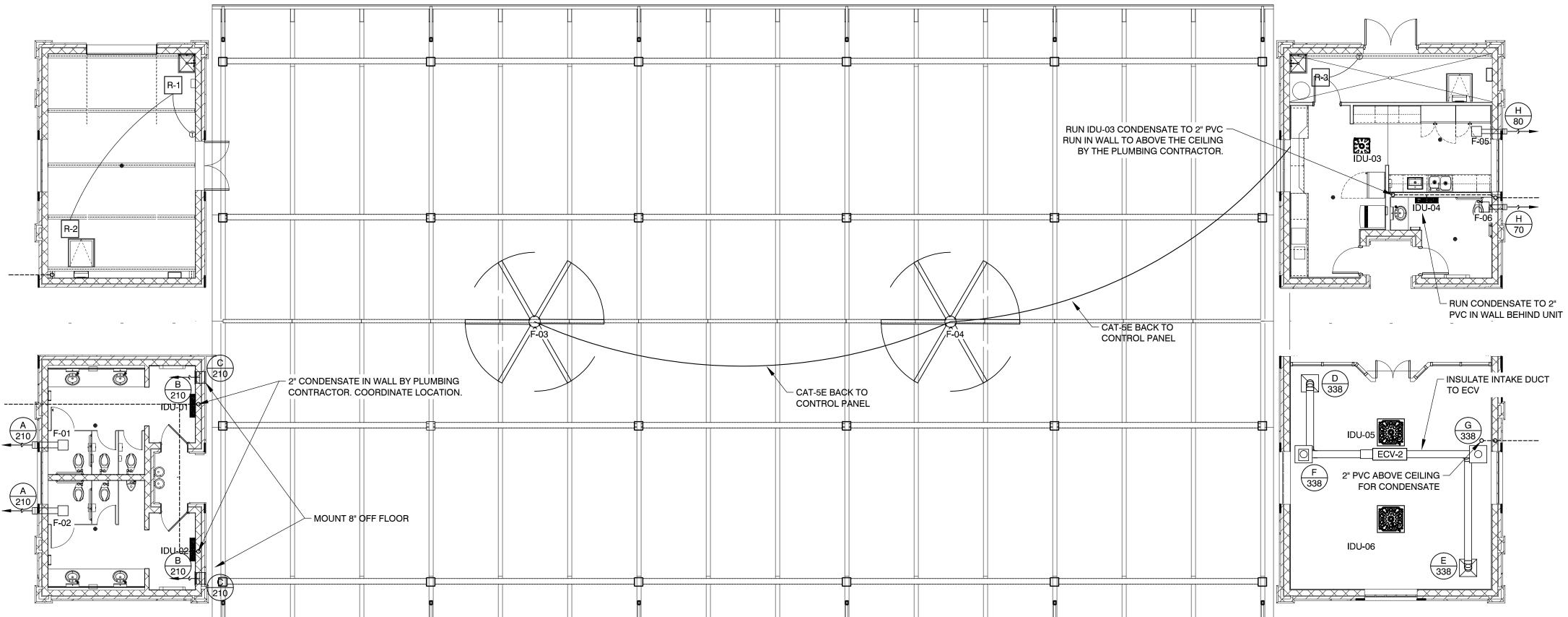
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REVISION Project No.: 200301PAG CONSTRUCTION DOCUMENTS

08/13/2021



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



GENERAL NOTES:

ALL DUCT DIMENSIONS REPRESENT FREE AREAS. ADJUST FOR INSULATION.

LOW PRESSURE DUCT FITTINGS: 2.1 ALL 90° ROUND ELBOWS TO HAVE R/D = 1.5 AT CENTERLINE

2.2 ALL 90° RECTANGULAR ELBOWS TO HAVE TURNING VANES UNLESS OTHERWISE NOTED. CLOSELY COORDINATE LOCATIONS OF INSTALLED EQUIPMENT TO ACHIEVE THE GREATEST ACCESSIBILITY FOR MAINTENANCE PURPOSES.

REFER TO ARCHITECTURAL FOR CEILING GRILLE LOCATIONS AND TYPE OF CEILING. CLOSELY COORDINATE ROUTING AND LOCATIONS OF ALL HVAC PIPE, PLUMBING PIPE AND ELECTRICAL CONDUIT WITH THAT OF DUCTWORK ROUTING AND LOCATIONS.

PROVIDE DUCT ACCESS DOORS AT EACH FIRE DAMPER. 6.1 SIZE OF DOORS SHALL BE ADEQUATE FOR INSPECTION AND MAINTENANCE OF DUCT MOUNTED EQUIPMENT. SLEEVE AND SEAL ALL PIPE AND DUCT PENETRATIONS THROUGH FIRE RATED AND NON-FIRE RATED SLABS AND

PARTITIONS. PATCH ALL WALLS, FLOORS AND CEILINGS TO MATCH NEW FOR ALL OPENINGS CREATED BY WORK OF EQUIPMENT AND SERVICE PENETRATIONS.

HVAC PLAN

NOTE: THE ROOF DRAIN SYSTEM IS THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR.

PLUMBING NOTES:

EXIT SAME ELEVATION.

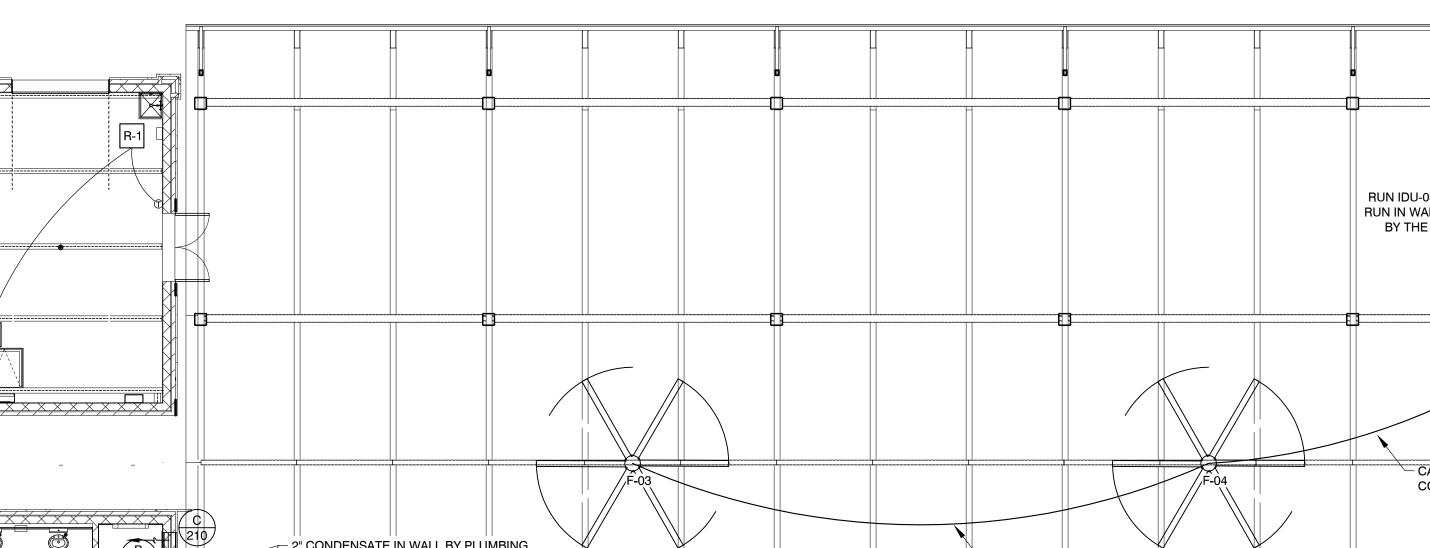
1. ALL ROOF DRAIN PIPING TO BE 3". 2. ALL ROOF DRAIN NOZZELS TO EXIT SAME 3. ALL ROOF DRAIN OVERFLOW NOZZLES TO

RUN CONDENSATE TO 2" PVC ABOVE ROOF — INSTALLED BY THE PLUMBING CONTRACTOR

\ TURN DOWN EXPOSED AND OUT -

ODU-02

TURN DOWN IN WALL AND OUT -



ALL DUCTWORK THAT HAS TO BE OFFSET DUE TO AN OBSTRUCTION SHALL BE SLOPED W 2 X 45° ELBOWS UNLESS

REFER TO THE ARCHITECTURAL PLANS FOR ALL WALL AND ROOF PENETRATIONS AND EQUIPMENT MOUNTING

DETAILS.

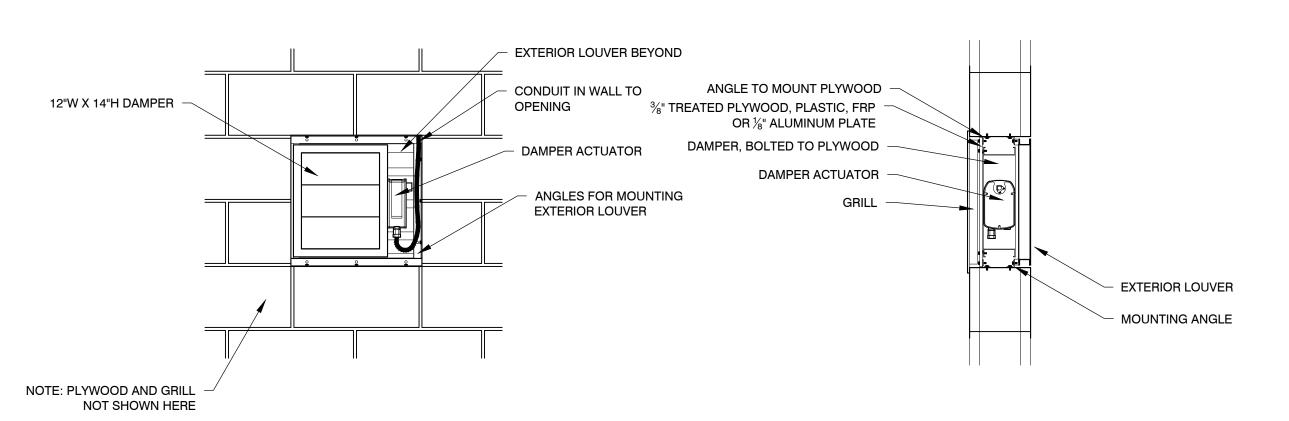
SCALE: 1/8" = 1'-0"

oject Phase:
CONSTRUCTION DOCUMENTS

Drawn By: WRA Checked By: W

08/13/2021

M1.02



VENTILATION INTAKE DETAIL SCALE: 1" = 1'-0"

				HEATING DATA	ELECTRICA	AL DATA	
MARK	MANUFACTURER	DESCRIPTION	DESCRIPTION	вти	VOLT / Ø	WATTS	NOTES
R-1	MARLEY	ELECTRIC RADIANT CEILING PANEL	CP371F	1,280	120/1	375	PROVIDE WITH SURFACE MOUNT KIT
R-2	MARLEY	ELECTRIC RADIANT CEILING PANEL	CP371F	1,280	120/1	375	PROVIDE WITH SURFACE MOUNT KIT
R-3	MARLEY	ELECTRIC RADIANT CEILING PANEL	CP371F	1,280	120/1	375	PROVIDE WITH SURFACE MOUNT KIT

1 19.5 2 X 0.5 25.4 40

ENE	RGY RI	ECOVERY	VENTIL	ATOR /	MAKE	EUP	AIR
			AIR FLOW		ELECTRI	CAL D	ATA
MARK	MFR.	MODEL	EXHAUST	OSA	VOLT/Ø	FLA	BRK
ECV-1	GREENHECK	MiniCore-5	350	350	230/1	3.8	15

NOTES:

1. PROVIDE PROPER SEISMIC RESTRAINTS FOR ALL EQUIPMENT, PIPING AND SUPPORTS
2. PROVIDE ROOM CO2 SENSOR FOR ECV-1

SPL	IT SYS	STEM HEAT PU	MP											
		MODEL NUMBERS	COOLI	NG DATA	4	HEATING	DATA	ELECTRICA	AL DA	ATA				
1ARK	MFR.	OUTDOOR UNIT	NOM. TONS	RATED MBH	MIN. SEER	OUTPUT BTUH	AUX	CONDENS VOLT/Ø		ESSOR RLA	FAN FLA	UNIT P	OWER BRK	
HP-01	LG	LMU180HV	1.5	18.0		22,000	N/A	208-230/1	1	12.0	0.4	15.8	20	

208-230/1

OTES:

ARUN060GSS4

HP-02

1. PROVIDE PROPER SEIZMIC RESTRAINTS FOR ALL EQUIPMENT, PIPING AND SUPPORTS

5.0

60.0

64,000

AIR	DEVICES					
MARK	MFGR. MODEL	SIZE W X H	NECK	TYPE	MOUNTING	COMMENTS
Α	FAMCO WVEB8	10" X 10"	8" Ø	EXHAUST	EXTERIOR WALL	COLOR BY ARCHITECT
В	TITUS 301RL HD	16" X 16"		INTAKE	WALL	PROVIDE WITH 12"W X 14"H TED40 CONTROL DAMPER AND BELIMO LF120 US ACTUATOR, NORMALLY CLOSED. COLOR BY ARCHITECT. SEE DETAIL THIS SHEET.
С	RUSKIN ELF211	16" X 16"		INTAKE	EXTERIOR WALL	COLOR BY ARCHITECT
D	TITUS PAR-AA	24" X 24"	10" Ø	EXHAUST	LAY-IN CEILING	
E	TITUS PSS-AA	24" X 24"	10" Ø	SUPPLY	LAY-IN CEILING	
F	FAMCO BKXP8	24" X 24"	10" Ø	EXHAUST	ROOF CURB	BLACK
G	AVP INC PV-16-C12-CMF	20" X 20"	10"	INTAKE	ROOF CURB	ADAPT 10" DUCT TO INTAKE BASE OPENING AS NECESSARY. INSULATE DUCT FROM INTAKE TO ECV.
А	FAMCO WVEB8	8" X 8"	6" Ø	EXHAUST	EXTERIOR WALL	COLOR BY ARCHITECT

		ACCOCIATED		AIR F	AIR FLOW		COOLING DATA		DATA	ELECTRICAL DATA		
MARK	MFR.	ASSOCIATED OUTDOOR UNIT	MODEL NUMBER	CFM	OSA	NOM.	TOTAL	OUTPUT	AUX	INDOOR U		1
						TONS	MBH	BTUH		VOLT/Ø	FLA	BRK
IDU-01	LG	HP-01	LSN090HSV5	268	0	0.75	9.0	10,900	00	208-230/1	0.40	15
IDU-02	LG	HP-01	LSN090HSV5	268	0	0.75	9.0	10,900	00	208-230/1	0.40	15
IDU-03	LG	HP-02	ARNU123TRD4	307	80	1.00	12.3	13,600	00	208-230/1	0.20	15
IDU-04	LG	HP-02	ARNU053SJA4	240	0	0.50	5.5	6,100	00	208-230/1	0.25	15
IDU-05	LG	HP-02	ARNU283TMA4	812	0	2.5	28.0	31,500	00	208-230/1	1.3	15
IDU-06	LG	HP-02	ARNU283TMA4	812	0	2.5	28.0	31,500	00	208-230/1	1.3	15

NOTES:

1. PROVIDE FULL-PORT ISOLATION BALL VALVES WITH SCHRADER PORTS (BETWEEN VALVE AND INDOOR UNIT) ON ALL INDOOR UNITS.
2. PROVIDE PROPER SEISMIC RESTRAINTS FOR ALL EQUIPMENT, PIPING AND SUPPORTS

	DEFEDENCE	FAN DATA				ELEC	. DATA	OPTIO	ONS			CONTRO	L INTERL	OCKS			
MARK	REFERENCE PRODUCT	LOCATION	CFM	S.P.	DRIVE	RPM	MAX SONES	H.P.	VOLT PHASE	DAMPER TYPE	ROOF CURB	DISC. SWITCH	OTHER AS NOTED	T'STAT	EMCS	OTHER AS NOTED	NOTES
F-1	BROAN L200	CEILING	210	0.125"	DIRECT	740	1.7		120/1	GRAVITY			NA				PROVIDE MODEL 80L INTERNAL ELECTRONIC SPEED CONTROL. SET TO 210 CFM WIRE INTO LIGHTING CIRCUIT.
F-2	BROAN L200	CEILING	210	0.125"	DIRECT	740	1.7		120/1	GRAVITY			NA				PROVIDE MODEL 80L INTERNAL ELECTRONIC SPEED CONTROL. SET TO 210 CFM WIRE INTO LIGHTING CIRCUIT.
F-3	GREENHECK DS-6 16'	CEILING			DIRECT				240/1				NA			1	PROVIDE COLOR CARDS FOR ARCHITECTS' SELECTION
F-4	GREENHECK DS-6 16'	CEILING			DIRECT				240/1				NA			1	PROVIDE COLOR CARDS FOR ARCHITECTS' SELECTION
F-5	BROAN L100	CEILING	109	0.125"	DIRECT	640	0.9		120/1	GRAVITY			NA				PROVIDE MODEL 80L INTERNAL ELECTRONIC SPEED CONTROL. SET TO 80 CFM. WIRE INTO LIGHTING CIRCUIT.
F-6	BROAN L100	CEILING	109	0.125"	DIRECT	640	0.9		120/1	GRAVITY			NA				PROVIDE MODEL 80L INTERNAL ELECTRONIC SPEED CONTROL. SET TO 70 CFM. WIRE INTO LIGHTING CIRCUIT.

NOTES

1. COORDINATE PLACEMENT OF ALL DEVICES WITH ARCHITECTURAL AND STRUCTURAL ELEMENTS.

2. PROVIDE PROPER SEIZMIC RESTRAINTS FOR ALL EQUIPMENT, PIPING AND SUPPORTS

- 1. The drawings are generally diagrammatic and it is the intent and meaning of the contract documents that the contractor shall provide an electrical installation that is complete with all items and appurtenances necessary, reasonably incidental, or customarily included, even though each and every item is not specifically called out or shown. The contractor shall provide all equipment, materials, labor, supervision and service necessary to provide a complete functioning electrical system.
- 2. The Electrical Contractor is to be familiar with the mechanical plans. All 120V or 240V sensors, switches, contacts and interlocks are the responsibility of the Electrical Contractor whether shown on the electrical plans or not. The Electrical Contractor will additionally be responsible for conduits and boxes for low voltage controls to be concealed in walls such as thermostats. The conduits shall terminate in the ceiling space. The Mechanical Contractor is responsible for all low voltage control wiring.
- 3. It shall be the responsibility of each contractor to examine the contract documents carefully before submitting his bid, with particular attention to errors, omissions, conflicts with provisions of laws and codes having jurisdiction. Conflicts between drawings or drawings and specifications, and ambiguous definitions of the extent of coverage between contracts. Any such discrepancy shall be brought immediately to the attention of the architect for correction. Should any of these errors, omissions, conflicts, or ambiguities exist, the contractor shall have them explained and adjusted in writing before signing a contract or proceeding with the work, otherwise he shall at his own expense supply the proper materials and labor to make good any damage or defects in his work or the results obtained there from caused by such discrepancy.
- Wherever conflicts occur between different parts of the contract documents, the greater quantity, the better quality, or larger size shall prevail unless the architect informs the contractor otherwise in writing.
- 5. The scale of each drawing is relatively accurate. No additional cost to the owner will be considered for failure to obtain exact dimensions where not clear or in error on the drawings. Any device or fixture roughed in improperly and not positioned on implied center-lines or as required by good practice must be repositioned at no cost to the owner.
- 6. All work and materials shall be guaranteed free from defects for a minimum period of one year unless noted otherwise. The warranty period shall begin at the date of substantial completion of the facility.
- 7. The contractor is responsible for filing and paying all fees and obtaining necessary permits and certificates of inspection. The contractor shall deliver all certificates of inspection to the architect including copies with maintenance
- 8. Only experienced craftsmen knowledgeable in their respective trade shall perform the work described in the construction documents.
- 9. All work shall be done in accordance with the latest edition of NFPA standard 70 (National Electrical Code). Contractor shall also conform to all applicable local codes and amendments.
- 10. All electrical equipment, including but not limited to switchgear, conduit, wire, boxes and fittings shall be new and shall meet NEMA and ANSI standards and shall bear the UL label.

CONDUIT & RACEWAY:

- 1. All work shall be coordinated so that interferences are avoided. Provide all necessary offsets in conduits, raceways, etc. required to properly install the work. Exposed work must be kept as close as possible to walls, ceilings, columns, etc. so as to take up minimum amount of space. All offsets, fittings, etc. required shall be provided without additional expense to the owner. Work shall be coordinated with other trades.
- 2. Conduit runs are diagrammatic in nature. Circuiting indicated on the drawing is not to imply conduit runs. Contractor is responsible for sizing and locating conduits and pull boxes per NEC and for coordination with other disciplines.
- 3. Minimum conduit size is $\frac{3}{4}$ ". **MC cable is not allowed**. An exception to these rules is lighting whips. 4. Contractor shall install (1) ¾" conduit for each set of (3) spares and/or spaces or fraction thereof from each flush
- mounted panelboard. The spare conduits shall stub-up into the nearest accessible ceiling cavity.
- 5. Contractor shall provide and install adequate supports necessary for the raceway system. This includes but is not limited to blocking for surface and flush mounted panels. Contractor shall refer to manufacturer's recommendations for sizes and quantities of all supporting means.
- 6. Penetrations of walls, floors, and roofs for the passage of electrical raceways shall be approved by the structural engineer of record prior to the commencement of work. All such penetrations shall be properly sealed off after installation of raceway so as to maintain the structural, water proof, and fire proof integrity of the wall, floor, or roof
- 7. Indenter type fittings shall not be used.

BRANCH CIRCUITS AND FEEDERS:

- 1. Unless noted otherwise, all circuits 100' or less shall be minimum #12 awg wire size. Circuits over 100' but less than 200' shall be minimum #10 awg wire size. Circuits over 200' shall be minimum #8 awg wire size.
- 2. All conductors shall be soft drawn annealed copper, 98% conductivity continuous from outlet to outlet. Conductor
- sizes #12 awg and #10 awg shall be solid. Conductor sizes #8 awg and larger may be stranded. 3. A separate insulated equipment grounding conductor shall be pulled with the circuit conductors for grounding
- whether or not indicated on the drawings. Metal raceway, or a cable armor or sheath shall not be used as an equipment grounding conductor.
- 4. Contractor shall ground all equipment and electrical system per N.E.C.

- 1. Refer to architectural drawings and specifications for location of all ceiling elements (lights, sprinklers, diffusers, etc.). All ceiling mounted items shall be installed in accordance with the architectural dimensioned drawings. If location for an item is not shown on the architectural drawings, verify the exact location of the item with the architect prior to installation. These requirements apply to all ceiling types in all areas. Do not scale or dimension locations from these
- 2. Contractor shall provide and install all supports for light fixtures. Supports shall be independent of the ceiling grid
- Light switches located in a room shall control all the light fixtures in that room unless noted otherwise. All ceiling mounted occupancy sensors shown as sole source of control shall be provided with manual over-ride switch on wall. Coordinate location with architect. Contractor shall gang together all switches under a single cover plate in all areas that require more than one switch to control electrical devices.
- 4. In instances where a track lighting system, dimming system, and/or lighting control system is specified, the contractor shall coordinate all necessary components of such system(s) with the manufacturer prior to bid and include all necessary accessories to install a complete and functioning system.
- 5. All light fixtures shall be installed with appropriate lamps as indicated. Fixtures shall also be installed with ballasts where necessary. Provide all parts, trim and accessories necessary for a complete installation. Refer to Architectural Reflected Ceiling Plan for ceiling construction.

OUTLETS AND POWER DEVICES:

- 1. Refer to architectural drawings and specifications for location and mounting height of all wall and floor mounted elements (Outlets, Light switches, Controllers, Etc.). All wall/floor mounted items shall be installed in accordance with the architectural dimensioned drawings. If location for an item is not shown on the architectural drawings, verify the exact location of the item with the architect prior to installation. These requirements apply to all wall/floor types in all
- areas. Do not scale or dimension locations from these drawings. 2. Contractor shall coordinate the location and installation detail of outlets in millwork with architectural drawings (Wall
- elevations, Millwork details, Etc.) and with millwork manufacturer prior to electrical rough-in. Wall and floor mounted power receptacles shown near data outlets shall be located within six (6) inches of the data
- outlet. Locate at same mounting height unless noted otherwise. Contractor shall verify the exact power connection type and NEMA configuration of receptacles for equipment
- furnished by the owner, other trades, or under a separate section of this contract prior to electrical rough-in.
- Electrical receptacles in mechanical rooms, electrical rooms, telephone rooms, storage rooms, janitors closets and service corridors shall be mounted at 48" AFF unless noted otherwise on these drawings or architectural drawings.
- 6. All receptacles within six feet of any plumbing fixture and/or sink shall be equipped with GFCI for personnel 7. All 120V, 15A AND 20A receptacles located in non dwelling unit kitchens and bathrooms shall be equipped with GFCI
- for personnel protection.
- 8. All receptacles located outside the building envelope shall be housed in enclosures that are rated weather-proof-while-in-use' and shall be equipped with GFCI for personnel protection.
- 9. All GFCI receptacles shall be connected so that all devices on the same circuit as the GFCI receptacle do not de-energize upon tripping. All GFCI receptacles shall include a lock-out function to protect against the use of miswired devices or devices that have been damaged due to disabling surges.

FIRE ALARM SPEAKER/STROBE FIRE ALARM SPEAKER ONLY FIRE ALARM PULL STATION HEAT DETECTOR SMOKE DETECTOR DUCT SMOKE DETECTOR TAMPER SWITCH FLOW SWITCH DOOR HOLDER

FIRE ALARM ANNUNCIATOR PANEL

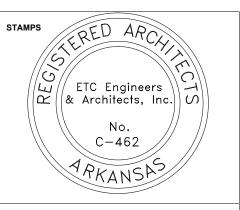
DESCRIPTION

FIRE ALARM CONTROL PANEL

SWITCH, 1-POLE, 120VAC, WALL MOUNTED SWITCH, 3-WAY, 120VAC, WALL MOUNTED, 4-WAY SIMILAR SWITCH, 2-POLE, 240VAC, WALL MOUNTED SWITCH, MOTOR RATED, 240VAC, WALL MOUNTED SWITCH, DIMMER FOR USE WITH LED LIGHTS SWITCH, MOTION SENSITIVE PHOTOCELL SWITCH TIME CLOCK SWITCH SIMPLEX RECEPTACLE, 125VAC, 20A., WALL MOUNTED DUPLEX RECEPTACLE, 125VAC, 20A., WALL MOUNTED DOUBLE DUPLEX (QUAD) RECEPTACLE, 120VAC, RECESSED FLOOR MOUNTED DUPLEX RECEPTACLE 125VAC, 20A. RECESSED FLOOR MOUNTED QUAD RECEPTACLE 125VAC, 20A. GROUND FAULT INTERUPTING RECEPTACLE DESIGNATION WEATHER PROOF RECEPTACLE DESIGNATION TAMPER PROOF RECEPTACLE DESIGNATION ABOVE COUNTER RECEPTACLE DESIGNATION RECESSED RECEPTACLE DESIGNATION MOUNTING HEIGHT ABOVE FINISHED FLOOR RECEPTACLE JUNCTION BOX, IN OR ON WALL JUNCTION BOX, IN OR ABOVE CEILING JUNCTION BOX, IN FLOOR TELEPHONE OUTLET, WALL MOUNTED, CONDUIT TO ACCESSIBLE TELEPHONE OUTLET, FLOOR MOUNTED, CONDUIT TO ACCESSIBLE COMPUTER NETWORK OUTLET, WALL MOUNTED, CONDUIT TO ACCESSIBLE CLG. CAVITY COMPUTER NETWORK OUTLET, FLOOR MOUNTED, CONDUIT TO TELEPHONE/COMPUTER NETWORK OUTLET, WALL MOUNTED, CONDUIT TO ACCESSIBLE CLG. CAVITY TELEPHONE/COMPUTER NETWORK OUTLET. WALL MOUNTED, CONDUIT TO ACCESSIBLE CLG. CAVITY CO-AXIAL CABLE TV OUTLET DISCONNECT SWITCH, NON-FUSED, HEAVY DUTY DISCONNECT SWITCH, FUSED, HEAVY DUTY CIRCUIT BREAKER PANEL, WALL MOUNTED ELECTRIC MOTOR CONNECTION

SMOKE DETECTOR w/EMERGENCY BATTERY BACKUP

DESCRIPTION



ARKANŠAS REGISTERED PROFESSIONAL ENGINEER

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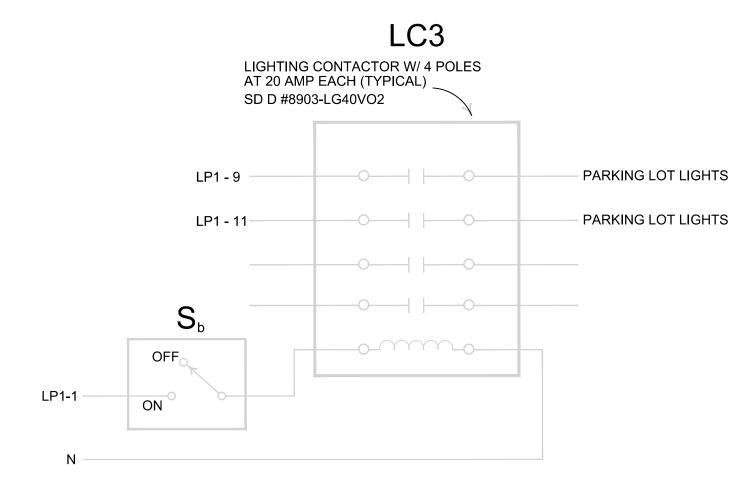
REVISION

RKE

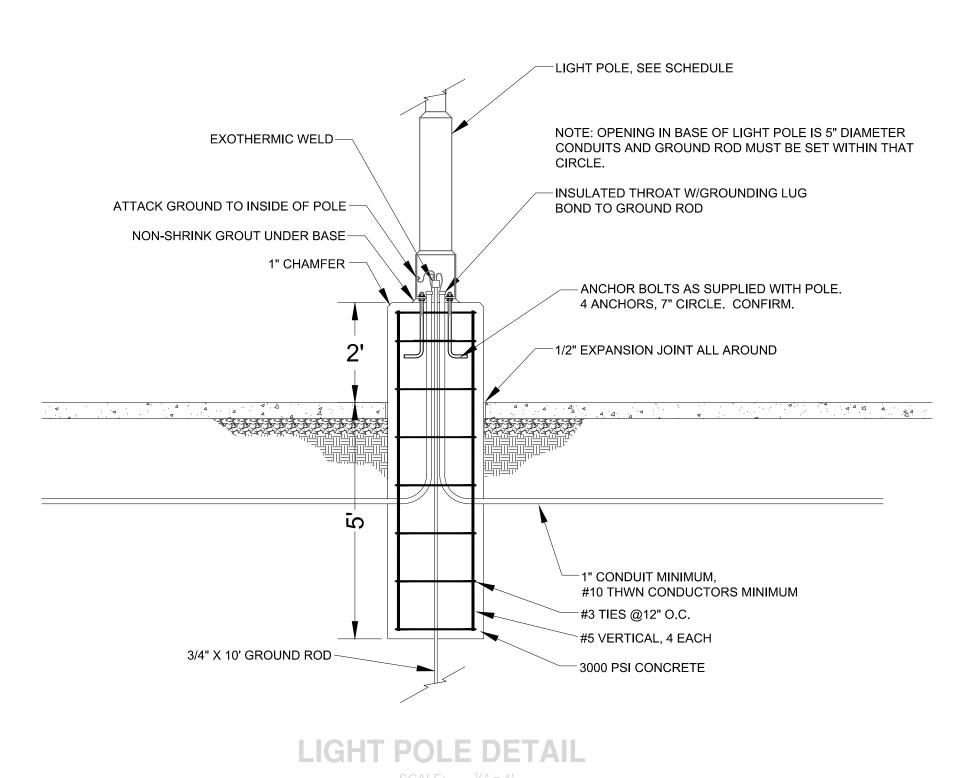
RME

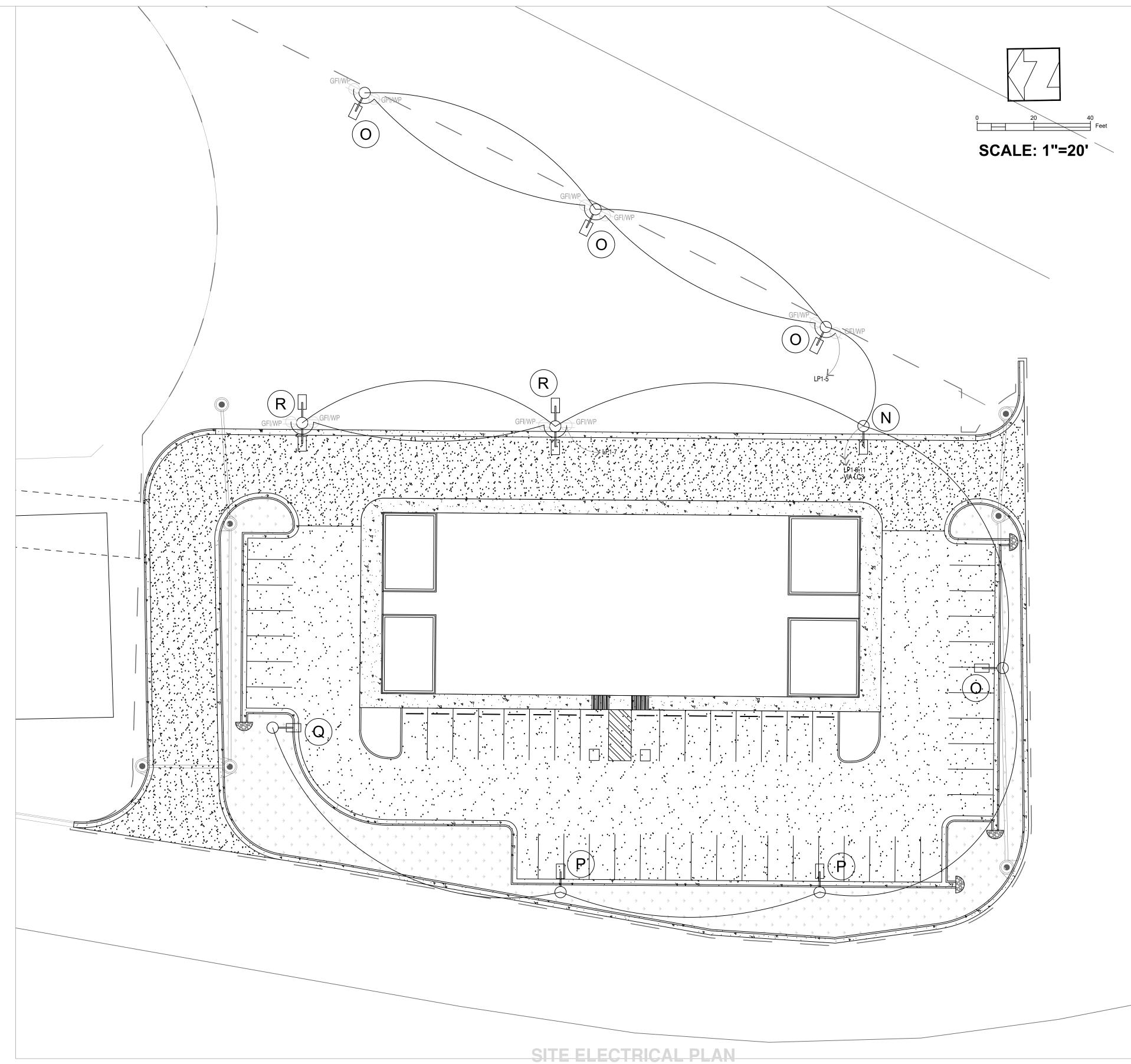
Project No.: 200301PAG

CONSTRUCTION DOCUMENTS

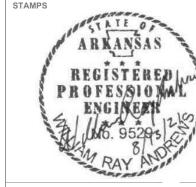






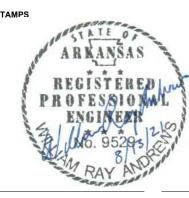






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Project No.: 200301PAG CONSTRUCTION DOCUMENTS



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LIGHTING PLAN

REVISION

FARME

Project No.: 200301PAG

CONSTRUCTION DOCUMENTS

08/13/2021

LIGHTING / ELECTRICAL FIXTURE SCHEDULE MANUFACTURER MARK **DESCRIPTION** LAMPS **POWER** MOUNTING COMMENTS MODEL FINTRONX LLC PROVIDE "WM" WALL MOUNT BRACKETS AND "MIN-3FP-6" 3 CONDUCTOR FEMALE 6' 8 FT LINEAR 160W LED TRUSS SURFACE PSN8F160WUNV40KCH CABLE TO PIGTAILS. В --- NOT USED ---4 IN DOWNLIGHT 32W LED CEILING - RECESSED HH4-LED-3000L-DIM10-MVOLT-MD-40K-80-HH4-4501-CL-WH 2' X 2' FLAT PANEL 42W LED CEILING - LAY-IN 22-FPL1-LED-4000-MVOLT-40K-85 4' LINEAR 30W LED PENDANT 4-OC4-LED-4000L-MVOLT-40K-85-WH ELITE CEILING - LAY-IN / 2' X 2' LED TROFFER 39W LED 22-LUX-LED RECESSED SUNLITE WALL - SURFACE LFX/BAR/20W/SCT/18IN/CH/ACRYL/RND BASELITE CORP RLM SHADE - SCONCE 25W LED EXTERIOR WALL DCS16.19.WM14.19.FR4.100INC.#41 BLACK BLUEVIEW ELEC-OPTIC TECH CO., LTD SURFACE - TOP OF T1 6 FT TAPE LIGHT 13.5W LED PROVIDE TRANSFORMERS AS NECESSARY K-HE-35-0480-HD-24V TRUSS MEMBER BLUEVIEW ELEC-OPTIC TECH CO., LTD SURFACE - TOP OF T2 21 FT TAPE LIGHT LED PROVIDE TRANSFORMERS AS NECESSARY 31.5W K-HE-35-0480-HD-24V TRUSS MEMBER BLUEVIEW ELEC-OPTIC TECH CO., LTD SURFACE - TOP OF Т3 21 FT TAPE LIGHT 31.5W LED PROVIDE TRANSFORMERS AS NECESSARY TRUSS MEMBER K-HE-35-0480-HD-24V BLUEVIEW ELEC-OPTIC TECH CO., LTD SURFACE - TOP OF 15W T4 10 FT TAPE LIGHT LED PROVIDE TRANSFORMERS AS NECESSARY K-HE-35-0480-HD-24V TRUSS MEMBER BLUEVIEW ELEC-OPTIC TECH CO., LTD SURFACE - TOP OF PROVIDE TRANSFORMERS AS NECESSARY T5 10 FT TAPE LIGHT 15W LED K-HE-35-0480-HD-24V TRUSS MEMBER U.S. ARCHITECTURAL LIGHTING OPTIONS VARY, SEE DRAWINGS FOR DOUBLE DUPLEX RECEPTACLES, DOUBLE POLE LIGHT 105W LED SNTS 204-11-*-*-* RZR-M-PLED-II-48LED-700mA-NW HEADS, ETC. STANDARD COLOR TO BE SELECTED BY ARCHITECT. U.S. ARCHITECTURAL LIGHTING OPTIONS VARY, SEE DRAWINGS FOR DOUBLE DUPLEX RECEPTACLES, DOUBLE SNTS 204-11-*-*-* POLE LIGHT 105W LED HEADS, ETC. STANDARD COLOR TO BE SELECTED BY ARCHITECT. RZR-PLED-III-M-48LED-700mA-NW-HS OPTIONS VARY, SEE DRAWINGS FOR DOUBLE DUPLEX RECEPTACLES, DOUBLE U.S. ARCHITECTURAL LIGHTING POLE LIGHT 105W LED SNTS 204-11-*-*-* HEADS, ETC. STANDARD COLOR TO BE SELECTED BY ARCHITECT. RZR-M-PLED-IV-FT-48LED-700mA-NW-HS OPTIONS VARY, SEE DRAWINGS FOR DOUBLE DUPLEX RECEPTACLES, DOUBLE U.S. ARCHITECTURAL LIGHTING SNTS 204-11-*-*-* Q POLE LIGHT LED 105W RZR-M-PLED-VSQ-M-48LED-700mA-NW HEADS, ETC. STANDARD COLOR TO BE SELECTED BY ARCHITECT. OPTIONS VARY, SEE DRAWINGS FOR DOUBLE DUPLEX RECEPTACLES, DOUBLE U.S. ARCHITECTURAL LIGHTING POLE LIGHT, TWO HEADS 105W LED SNTS 204-11-*-*-* RZR-M-PLED-II-48LED-700mA-NW HEADS, ETC. STANDARD COLOR TO BE SELECTED BY ARCHITECT.

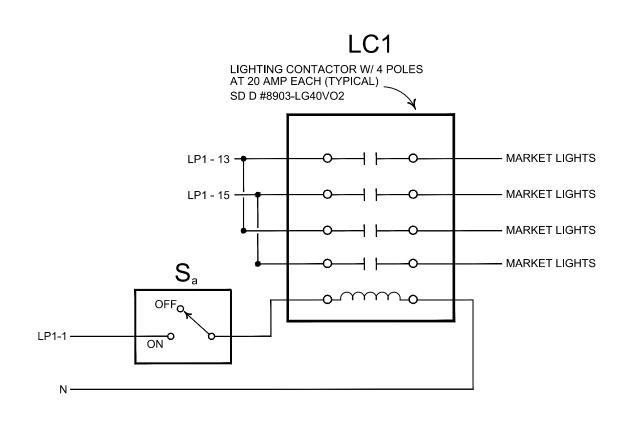
NOTE: STRIP LIGHTS ON INNER 4 TRUSSES ONLY, NOT THE TWO END TRUSSES. 4 ... 4 ... 4 ... 4

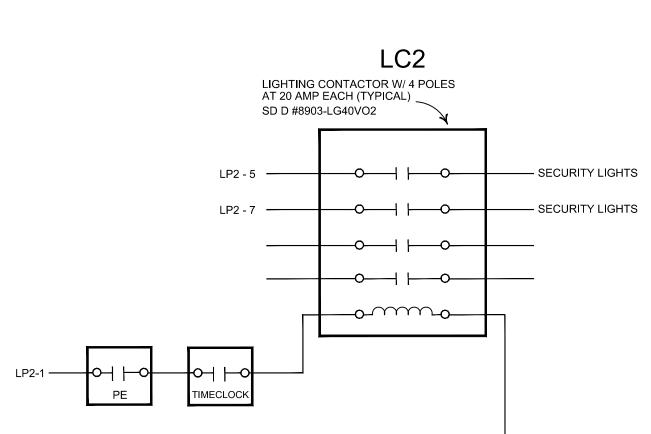
> MARKET SECTION SCALE: 1/8" = 1'-0"

LP - 3,5,7

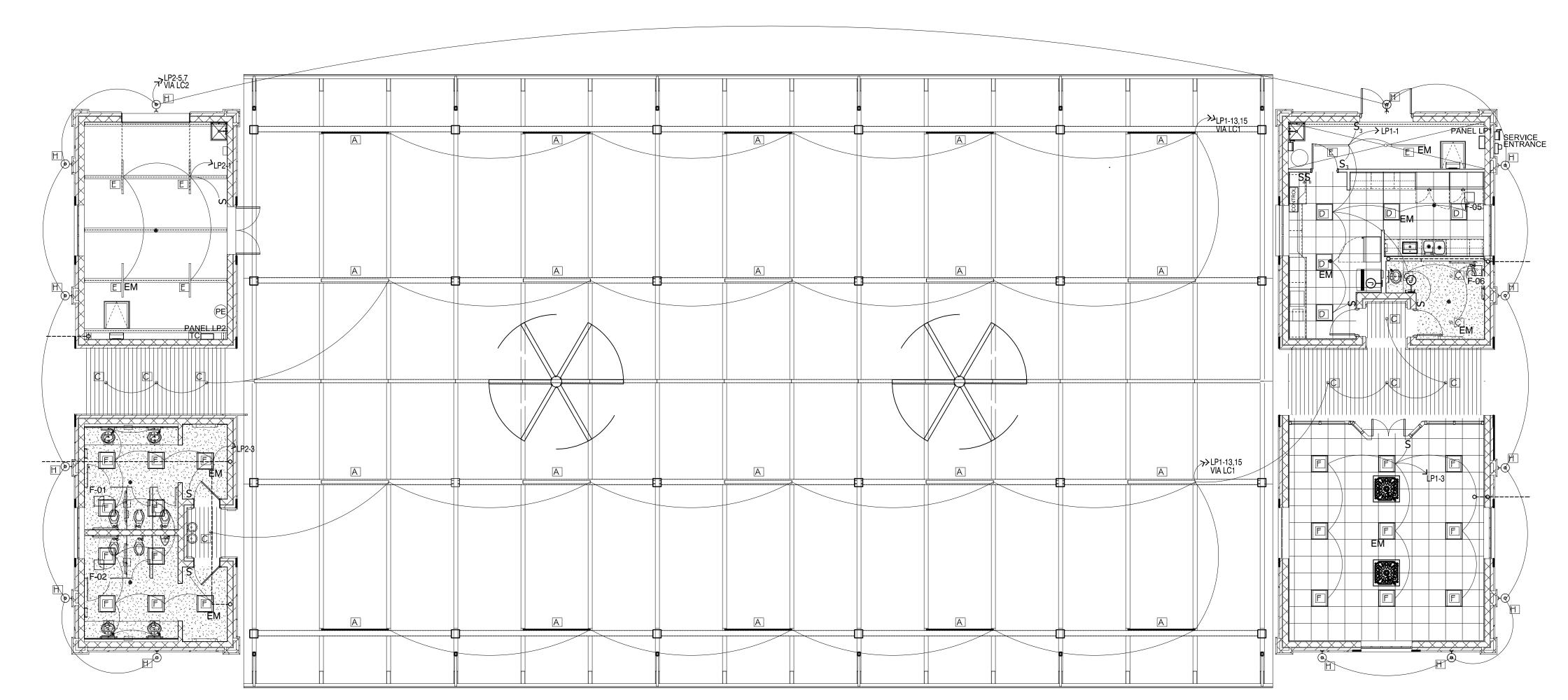
HOMERUN WITH PANEL AND CIRCUITS FOLLOWING

INDICATES EMERGENCY BATTERY PACK FOR ALL LIGHT TYPES





LIGHTING CONTACTOR DETAILS SCALE: N.T.S.



LIGHTING PLAN

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

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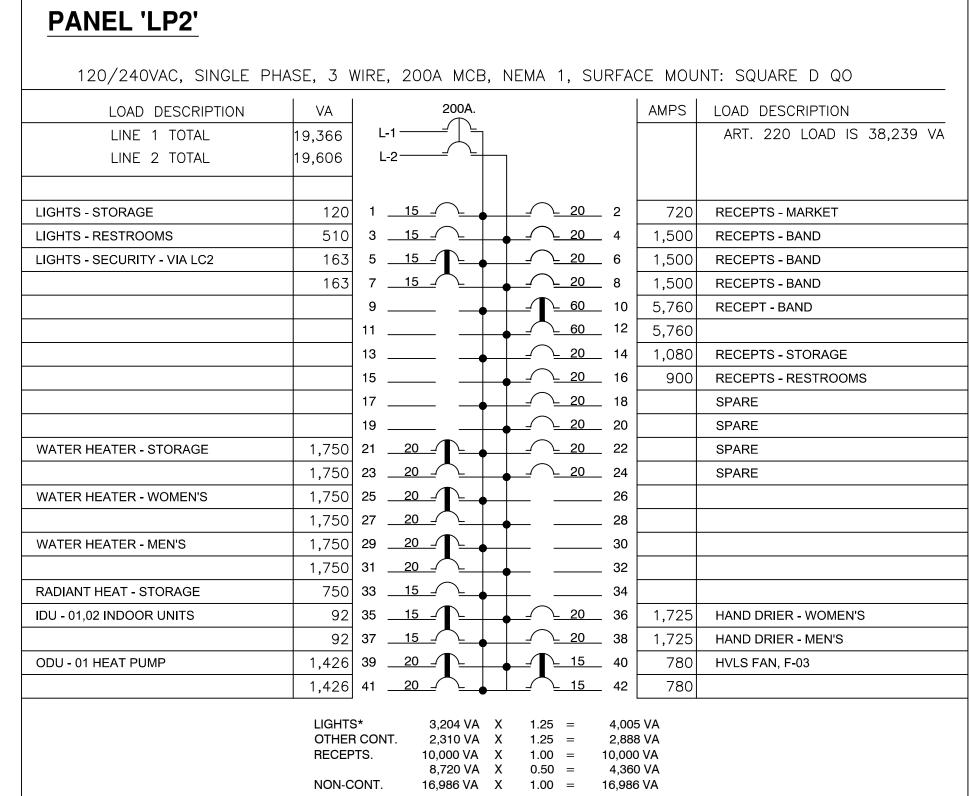
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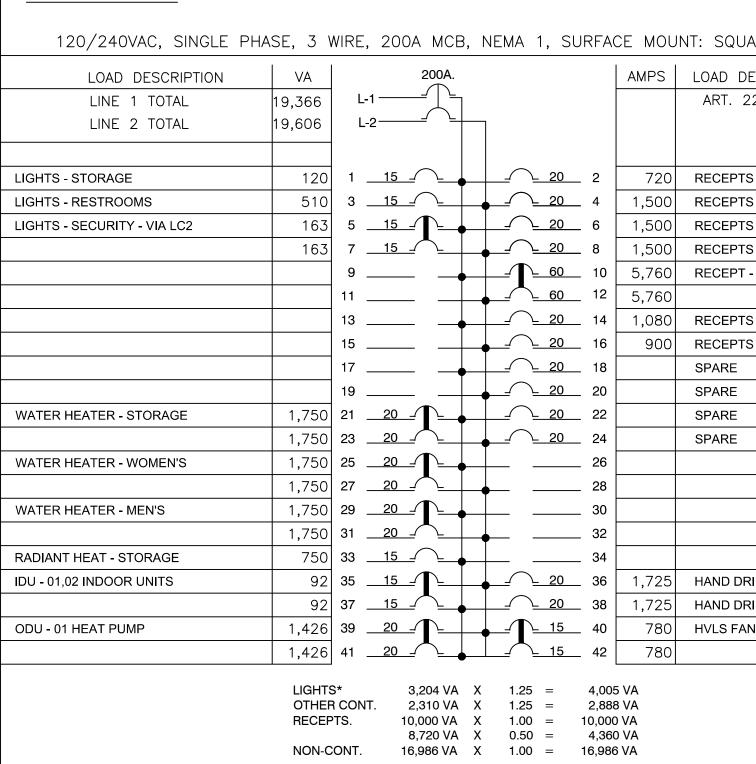
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Project No.: 200301PAG CONSTRUCTION DOCUMENTS

08/13/2021





TO THE ELECTRIC SERVICE, BOND ALL NON-CURRENT CARRYING PARTS OF THE SERVICE EQUIPMENT AS - MAIN DISCONNECT OR FIRST REQUIRED BY THE NEC SECTIONS 250.66 THROUGH OVERCURRENT DEVICE WATER BOND METALLIC HOT AND SUPPLY COLD WATER PIPING AT THE WATER HEATER(S) WITH A #2 WATER GROUND WIRE BOND WITH A #6 GROUND WIRE -CLAMP THE GREEN -TO THE NEAREST METALLIC GAS PIPE INSULATED BONDING (DO NOT BOND TO UNDERGROUND GROUND BAR -JUMPER TO THE PIPE, GAS PIPING) TYPICAL - NEUTRAL BAR BOND WITH A #2 GROUND -WIRE TO AN INTERIOR COLD WATER PIPE WITHIN 5'-0" OF THE SERVICE ENTRANCE, NEC SECTION 250.52 #6 GROUND WIRE TO THE — TELEPHONE EQUIPMENT PROVIDE AN INSULATED CONDUCTOR, SIZE PER NEC TABLE 250.66 BACKBOARD BOND WITH A #3/0 -- REFER TO THE NEC AND THE ELECTRICAL RISER GROUND WIRE TO THE DIAGRAM FOR GROUNDING ELECTRODE WIRE AND **BUILDING STEEL** CONDUIT SIZE - PVC SLEEVE (SIZE AS REQUIRED) CONCRETE -FOOTING - COORDINATE THE LOCATION WITH THE CONCRETE CONTRACTOR — 30' OF BARE COPPER GROUNDING ELECTRODE CONDUCTOR PER NEC 250.50 AND 250.52 2" MINIMUM — — 2" MINIMUM

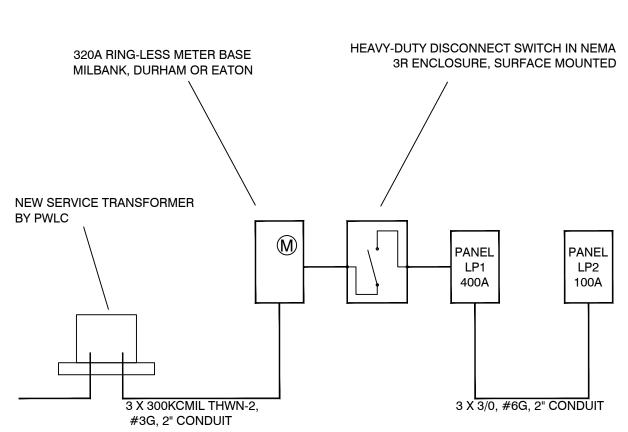
GROUNDING DETAIL

ONE-LINE DIAGRAM NOTES:

1. FEEDER SIZES ARE BASED ON USING COPPER CONDUCTORS WITH THHN/THWN INSULATION. ALUMINUM ALLOY, AA-8000 SERIES CONDUCTORS OF EQUIVALENT OR GREATER AMPACITY MAY BE USED (1) WITH DUAL-RATED (AL/CU) SCREW-TYPE CONNECTORS, (2) WITH THE USE OF PROPERLY SIZED STRIPPING TOOLS, (3) WITH WIRE BRUSHING THE EXPOSED CONDUCTORS, (4) WITH APPLICATION OF A LISTED ANTIOXIDANT COMPOUND, (5) WITH TORQUEING OF SET SCREWS TO MANUFACTURER'S SPECIFICATIONS, AND (6) WITH REMOVAL OF THE EXCESS ANTIOXIDANT COMPOUND.

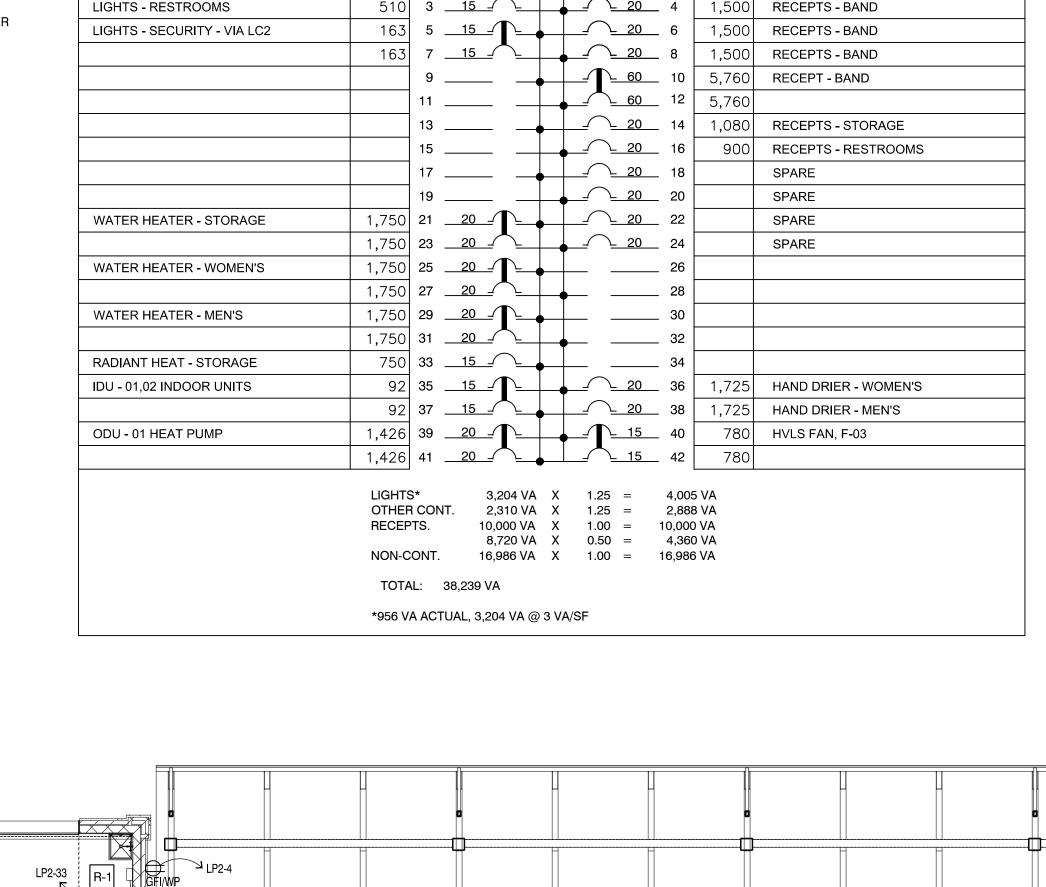
2. VERIFY THAT THE FAULT CURRENT WITHSTAND RATING OF THE MAIN CIRCUIT BREAKER GEAR IS GREATER THAN THE AVAILABLE FAULT CURRENT OF THE ENTERGY PAD MOUNTED TRANSFORMER.

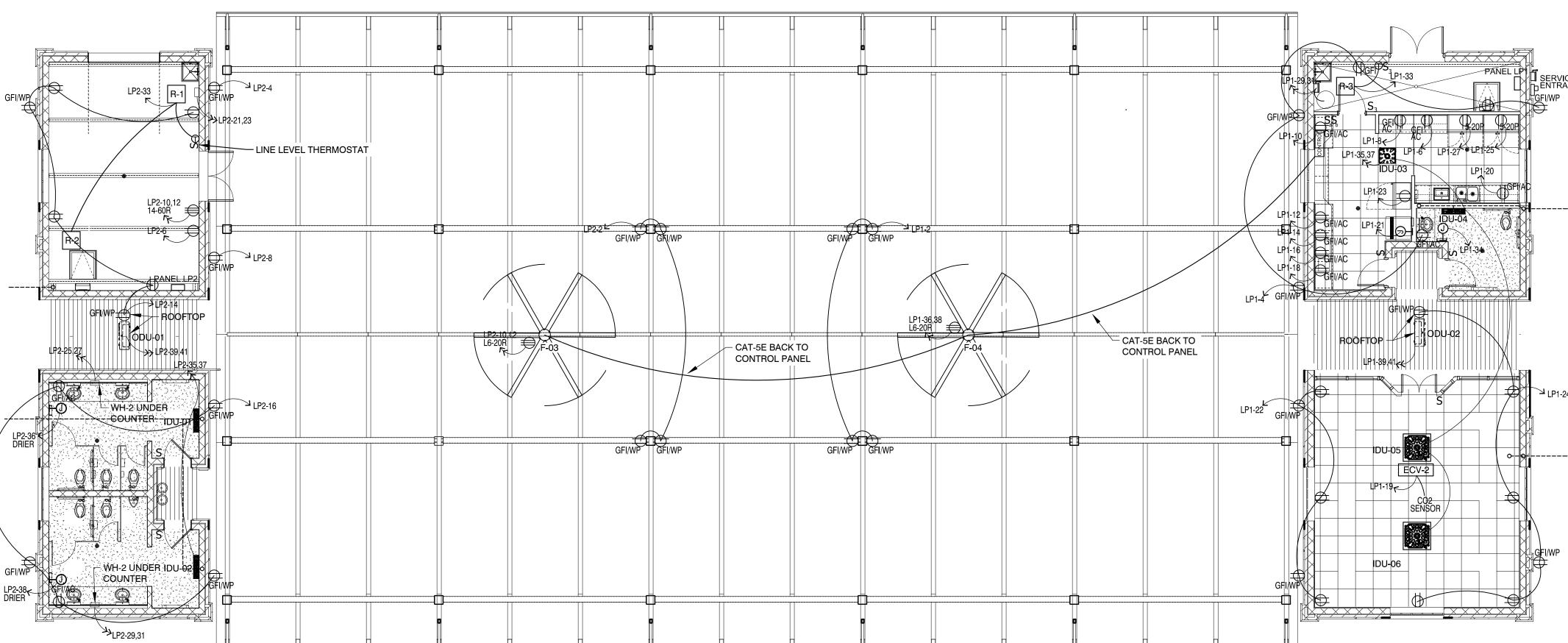
- 3. INCLUDE THE CONCRETE-ENCLOSED REINFORCING BARS SYSTEM OF THE BUILDING AS ONE OF THE GROUNDING ELECTRODES ACCORDING TO THE NATIONAL ELECTRICAL CODE (NEC) ARTICLE 250, PART III, AND NEC 250.52.
- 4. COORDINATE INSTALLATION OF ELECTRICAL SERVICE EQUIPMENT WITH PWLC.



PWLC WILL SET THE TRANSFORMER PROVIDING A POINT OF CONNECTION. EVERYTHING FROM THE POINT OF CONNECTION IS THE RESPONSIBILITY OF THE CONTRACTOR.

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





PANEL 'LP1'

LIGHTS - CONCESSION

WATER HEATER

RADIANT HEAT - STORAGE

IDU - 03 - 06 INDOOR UNITS

ODU - 02 HEAT PUMP

LOAD DESCRIPTION

LINE 1 TOTAL

LINE 2 TOTAL

120/240VAC, SINGLE PHASE, 3 WIRE, 400A MCB, NEMA 1, SURFACE MOUNT: SQUARE D NQ

L-2----

1,080 5 <u>20</u>

720 7 <u>20 </u>

630 9 <u>15 </u>

1,728 13 <u>20</u>

567 17 <u>15 - 1</u>

874 19 <u>15 -</u>⁄ _

2,000 25 ______

2,250 29 <u>25</u>

2,358 39 40

TOTAL: 75,285 VA

*7,006 VA ACTUAL, 7,305 VA @ 3 VA/SF

OTHER CONT.

2,000 27 <u>25 </u>

LOAD DESCRIPTION

900 RECEPTS - STO., MKT., FAM.

RECEPTS - COUNTER

720 RECEPTS - MARKET

1,500 RECEPTS - COUNTER

1,725 HAND DRIER - FAMILY

780 HVLS FAN, F-04

40 | 19,606 | PANEL "LP2"

19,366 PANEL "LP2"

900 RECEPTS - MKT., PARTY

1,080 RECEPTS - PARTY, ROOF

1,500

______175___

 $9,323 \text{ VA} \quad X \quad 1.25 = 11,654 \text{ VA}$

 $10,000 \text{ VA} \quad X \quad 1.00 = 10,000 \text{ VA}$

 $31,440 \text{ VA} \quad X \quad 1.00 = 31,440 \text{ VA}$

HVAC PLAN

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

 $26,120 \text{ VA} \quad X \quad 0.50 = 13,060 \text{ VA}$

ART. 220 LOAD IS 75,285 VA

VA

43,308

40,003 |

LIGHTS - PARTY **RECEPTS - PARKING RECEPTS - PARKING** SITE LIGHTING - VIA LC3 MARKET LIGHTING - VIA LC1 LIGHTS - MARKET UPLIGHTING PARTY ROOM VENTILATION ICE MAKER REFRIGERATED CASE WARMING CABINET WARMING CABINET