

CODE ANALYSIS:

GOVERNING CODES 2015 INTERNATIONAL ENERGY CONSERVATION CODE

2015 INTERNATIONAL BUILDING CODE 2015 UNIFORM MECHANICAL CODE

2015 UNIFORM PLUMBING CODE 2011 NATIONAL ELECTRIC CODE 2015 INTERNATIONAL FIRE CODE

2010 ADA STANDARDS FOR ACCESSIBLE DESIGN TEXAS ACCESSIBILITY STANDARDS 2012

BUILDING CODE DATA - IBC CHAPTER 3

OCCUPANCY GROUP: UTILITY AND MISCELLANEOUS

BUILDINGS AND STRUCTURES OF AN ACCESSORY CHARACTER AND MISCELLANEOUS STRUCTURES NOT CLASSIFIED IN ANY SPECIFIC OCCUPANCY (THE NEW SUBSTATION IS A SHELTER FOR ELECTRICAL EQUIPMENT AND IS NOT INTENDED FOR HUMAN OCCUPANCY)

GENERAL BUILDING LIMITATIONS - IBC CHAPTER 5

ALLOWABLE HEIGHT AND BUILDING AREA (TABLE 503)

TYPE IIB

AREA (SF) 8,500 (BASE) + 4,4120 (FRONTAGE INCREASE) = 12,620 HEIGHT

FRONTAGE INCREASE If=[F/P-0.25]W/30 If=0.48

ACTUAL AREA (SF) 6,420 (SUBSTATION)

ACTUAL HEIGHT 1 STORY

CONSTRUCTION TYPE - IBC CHAPTER 6

FIRE RESISTIVE REQUIREMENTS FOR BUILDING ELEMENTS (TYPE IIB-TABLE 601) BEARING WALLS INTERIOR NO REQUIREMENTS

EXTERIOR NO REQUIREMENTS NONBEARING WALLS SEE BELOW **EXTERIOR** STRUCTURAL FRAME NO REQUIREMENTS PARTITIONS PERMANENT NO REQUIREMENTS SHAFT ENCLOSURES NO REQUIREMENTS FLOOR AND FLOOR/CLG

NO REQUIREMENTS ROOF AND ROOF/CLG NO REQUIREMENTS EXTERIOR DOOR/WIN NO REQUIREMENTS STAIRWAY CONST NO REQUIREMENTS

EXTERIOR WALL/OPENING PROTECTION (TABLE 602 AND 705.8)

EXTERIOR WALLS 1 HOUR GREATER THAN 5, LESS THAN 10 FEET NO RATING 10 FEET OR GREATER

OPENINGS NOT PERMITTED LESS THAN 5 FEET UNLIMITED UNPROTECTED OPENINGS GREATER

<u>INTERIOR FINISHES</u> - IBC CHAPTER 8

FLAME SPREAD RATINGS OF MATERIALS AND FINISHES (TABLE 803.9)

CLASS A: FLAME SPREAD 0-25, SMOKE DEVELOPED 0-450 CLASS B: FLAME SPREAD 26-75, SMOKE DEVELOPED 0-450 CLASS C: FLAME SPREAD 76-200, SMOKE DEVELOPED 0-450

VERTICAL EXITS AND PASSAGEWAYS NO RESTRICTIONS EXIT ACCESS CORRIDORS NO RESTRICTIONS ROOMS AND ENCLOSED SPACES NO RESTRICTIONS

NOMINAL OCCUPANCY LOAD AND MEANS OF EGRESS	<u>.</u>

						DOO	R SCHE	DULE	
Door No.	Туре	Width	Height	Thickness	Material	Finish	Frame	Remarks	Hardware
02	С	8' - 0"	8' - 8"	0' - 0 1/2"	Steel		Painted Steel	Insulated Rolling Steel door with perimeter weatherseals	
03	С	8' - 0"	8' - 8"	0' - 0 1/2"	Steel		Painted Steel	Insulated Rolling Steel door with perimeter weatherseals	
04	С	8' - 0"	8' - 8"	0' - 0 1/2"	Steel		Painted Steel	Insulated Rolling Steel door with perimeter weatherseals	
05	С	8' - 0"	8' - 8"	0' - 0 1/2"	Steel		Painted Steel	Insulated Rolling Steel door with perimeter weatherseals	
06	E	6' - 0"	8' - 8"	0' - 0 1/2"	Steel		Painted Steel	Insulated Rolling Steel door with perimeter weatherseals	
07	A	3' - 0"	8' - 4"	0' - 2"	Steel		Painted Steel	Steel door with Panic Device	HW1 with recessed flush bolts
80	D	6' - 4"	8' - 6"	0' - 2"	Steel		Painted Steel	Steel door with panic hardware on one active leaf	HW1
09	E	6' - 0"	8' - 8"	0' - 0 1/2"	Steel		Painted Steel	Insulated Rolling Steel door with perimeter weatherseals	
10	A	3' - 0"	8' - 4"	0' - 2"	Steel		Painted Steel	Steel door with Panic Device	HW1
11	Н	8' - 0"	8' - 4"	0' - 2"	Steel		Painted Steel	Steel door with removable steel transom	HW1 with recessed flush bolts
12	A	3' - 0"	8' - 4"	0' - 2"	Steel		Painted Steel	Steel door with Panic Device	HW1
13	В	12' - 0"	10' - 0"	0' - 0 1/2"	Steel		Painted Steel	Insulated Rolling Steel door with perimeter weatherseals	
14	F	3' - 0"	7' - 0"	0' - 2"	Steel		Painted Steel	Steel door with 4" header to course with CMU	HW2
15	F	3' - 0"	7' - 0"	0' - 2"	Steel		Painted Steel	Steel door with 4" header to course with CMU	HW2
16	G	6' - 0"	8' - 8"	0' - 2"	Steel		Painted Steel	Steel door	HW2
17	Н	8' - 0"	8' - 4"	0' - 2"	Steel		Painted Steel	Steel door with removable steel transom	HW1 with recessed flush bolts

GENERAL NOTES

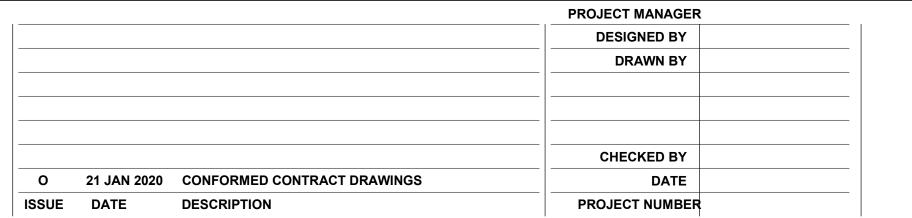
1. ALL CONCEALED AND EXPOSED BATT INSULATION INSTALLED ON THIS PROJECT SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE DEVELOPED INDEX OF NOT MORE THAN 450, IN ACCORDANCE WITH ASTM E84.

2. MATERIAL PERFORMANCE STANDARDS AND INSTALLATION PROCEDURES FOR METAL PANEL ROOFING SYSTEM TO COMPLY WITH 2015-I.B.C. SECTIONS 1504.3.2 & 1507.4

ACCESSIBILITY NOTES

1. PER TEXAS ACCESSIBILITY STANDARDS 203.5: "SPACES FREQUENTED ONLY BY SERVICE PERSONNEL

FOR MAINTENANCE, REPAIR, OR OCCASIONAL MONITORING OF EQUIPMENT SHALL NOT BE REQUIRED TO
COMPLY WITH THESE REQUIREMENTS OR TO BE ON AN ACCESSIBLE ROUTE. MACHINERY SPACES INCLUD
BUT ARE NOT LIMITED TO, ELEVATOR PITS OR ELEVATOR PENTHOUSES; MECHANICAL, ELECTRICAL OR
COMMUNICATIONS EQUIPMENT ROOMS; PIPING OR EQUIPMENT CATWALKS; WATER OR SEWAGE
TREATMENT PUMP ROOMS AND STATIONS; ELECTRIC SUBSTATIONS AND TRANSFORMER VAULTS; AND
HIGHWAY AND TUNNEL UTILITY FACILITIES." THIS BUILDING IS AN ELECTRIC SUBSTATION, AND IS
ACCORDINGLY EXPLICITLY EXEMPTED FROM COMPLIANCE WITH THE TEXAS ACCESSIBILITY STANDARDS.







LOCKSET

CLOSER

SWEEP

BUTTS

LOCKSET

CLOSER

STOP

STOP

WEATHERSTRIP

ABBREVIATIONS

ALUMINUM

CLOSET

CEILING

COLUMN(S)

CONCRETE

EXISTING

EXTERIOR FLOOR DRAIN

GRAB BAR

LAVATORY **HOSE BIBB**

INTERIOR

MIRROR

METAL

NEW

MOP SINK

ON CENTER

PLYWOOD PAINTED

STEEL

STAINED

SIMILAR

URINAL

WOOD

REFURBISHED **RUBBER BASE**

SOLID CORE WOOD

TEMPERED GLASS

TOWEL DISPENSER

TOP OF STRUCTURE

TRANSOM WINDOW

VERIFY IN FIELD

WOOD SEALER

VINYL COMPOSITION TILE

WHERE APPLICABLE) WOOD

GYPSUM BOARD

HOLLOW METAL

MANUFACTURER

NOT IN CONTRACT

OVERHEAD OBJECT/LINE

GAUGE

DOWNSPOUT

ANNODIZED

COLOR ANODIZED FINISH

CLEAR ANODIZED FINISH

CONCRETÉ MASONRY UNIT

GENERAL CONTRACTOR

INSULATED (REFER TO GLAZING SPECIFICATIONS)

OPEN TO UNDERSIDE OF DECK (NO CEILING)

CONCRETE WITH PENETRATING SEALER

THERMOSET POLYESTER FINISH AAMA 60.8

TONGUE AND GROVE WOOD PLANKS

WATER RESISTANT GYPSUM BOARD and

NO APPLIED FINISH / NOT APPLICABLE

AL, ALUM

ANOD

CL

CLG

CMU[`]

GB

GC

INS

MIR

MS

MTL

O/USD

PLWD

SCW

STL

TD

T.O.S.

T & G

TRAN

UR

VYL

VCT

WD

WS

WP/GYP

ОН

GYP BD

COL(S)

NUMBER

1 1/2 PAIR (3)

ULLRICH WTP LOW SERVICE **PUMP STATION** ELECTRICAL FEED RENEWAL

HAGER

NGP 1

TRIMCO

HAGER

LCN

ALL HARDWARE PARTS AND PIECES SHALL BE STAINLESS STEEL UNLESS OTHERWISE NOTED

SARGENT

TRIMCO

LCN

VON DUPRIN

MANUFACTURER

NOTE: CONTRACTOR TO FURNISH AND INSTALL ELECTRIC LOCKS, ALL ACCESSORIES REQUIRED FOR LOCK

INSTALLATION, AND TEMPORARY (CONSTRUCTION) CORES COMPATIBLE WITH BEST COREMAX SYSTEM

US32D

FINISH

630 (STAINLESS)

AL. POWDER CÓAT

US32D (STAINLESS)

US32D (STAINLESS)

AL. POWDER COAT

DOOR

ELEVATIONS

COLUMN

INTERIOR

BUILDING

SECTION

ELEVATIONS

1191

4014

02VA

160VA

1209W

MODEL

8200-72

1209W ---

4014

SYMBOLS

101

1191

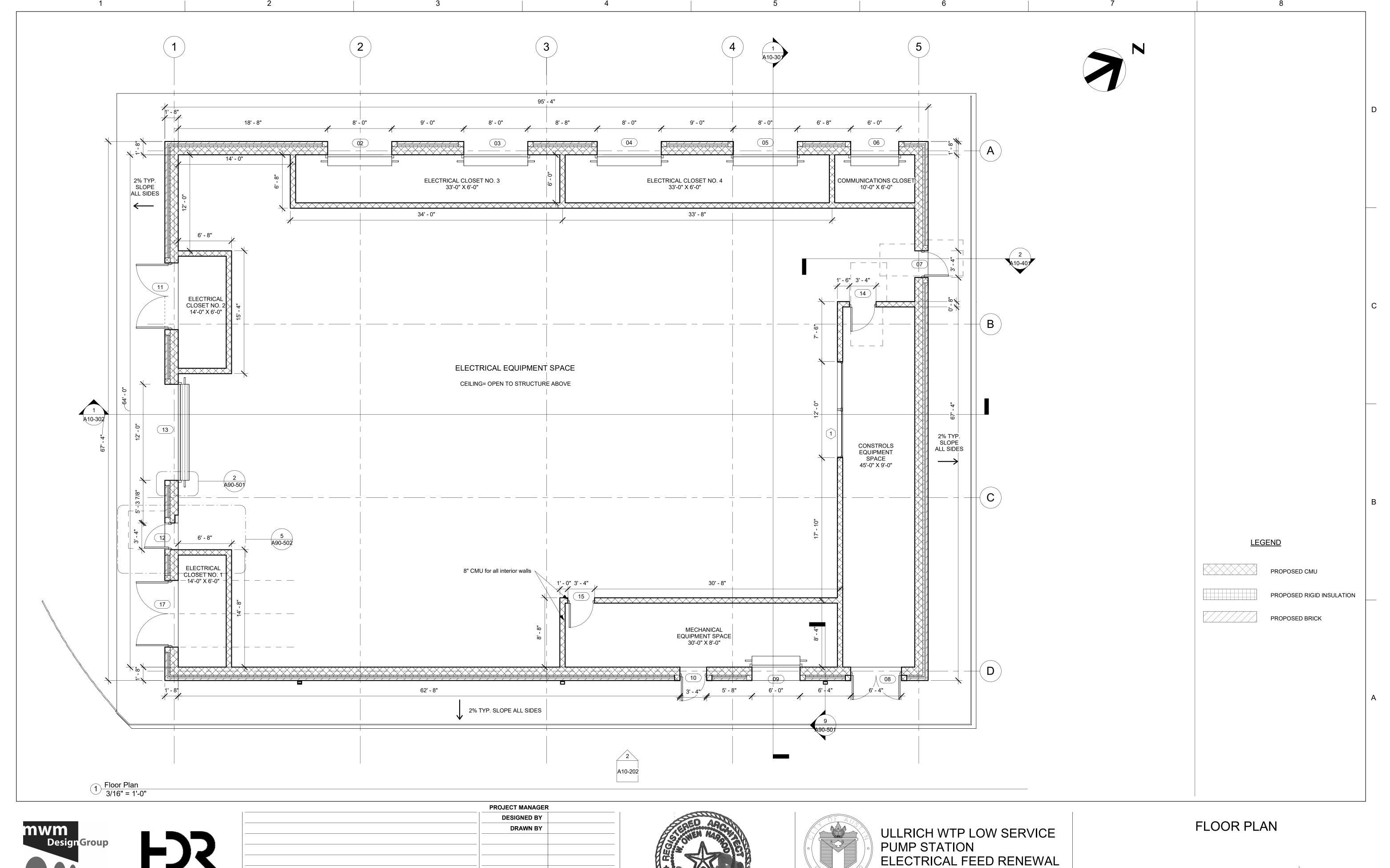
GENERAL NOTES, ABBREVIATIONS & SCHEDULES

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A00-001

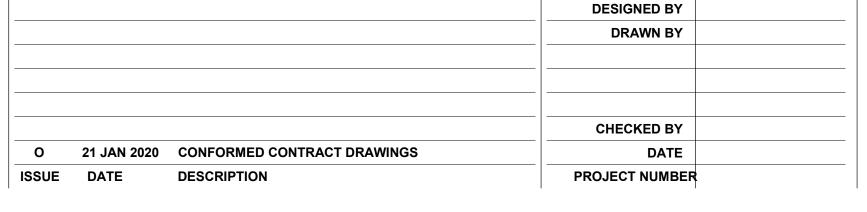
Design Group TBAE FIRM REGISTRATION NO.: 1452 TBPE FIRM REGISTRATION NO.: F-1416 TBPLS FIRM REGISTRATION NO.: 10065600

Texas P.E. Firm Registration No. F-754





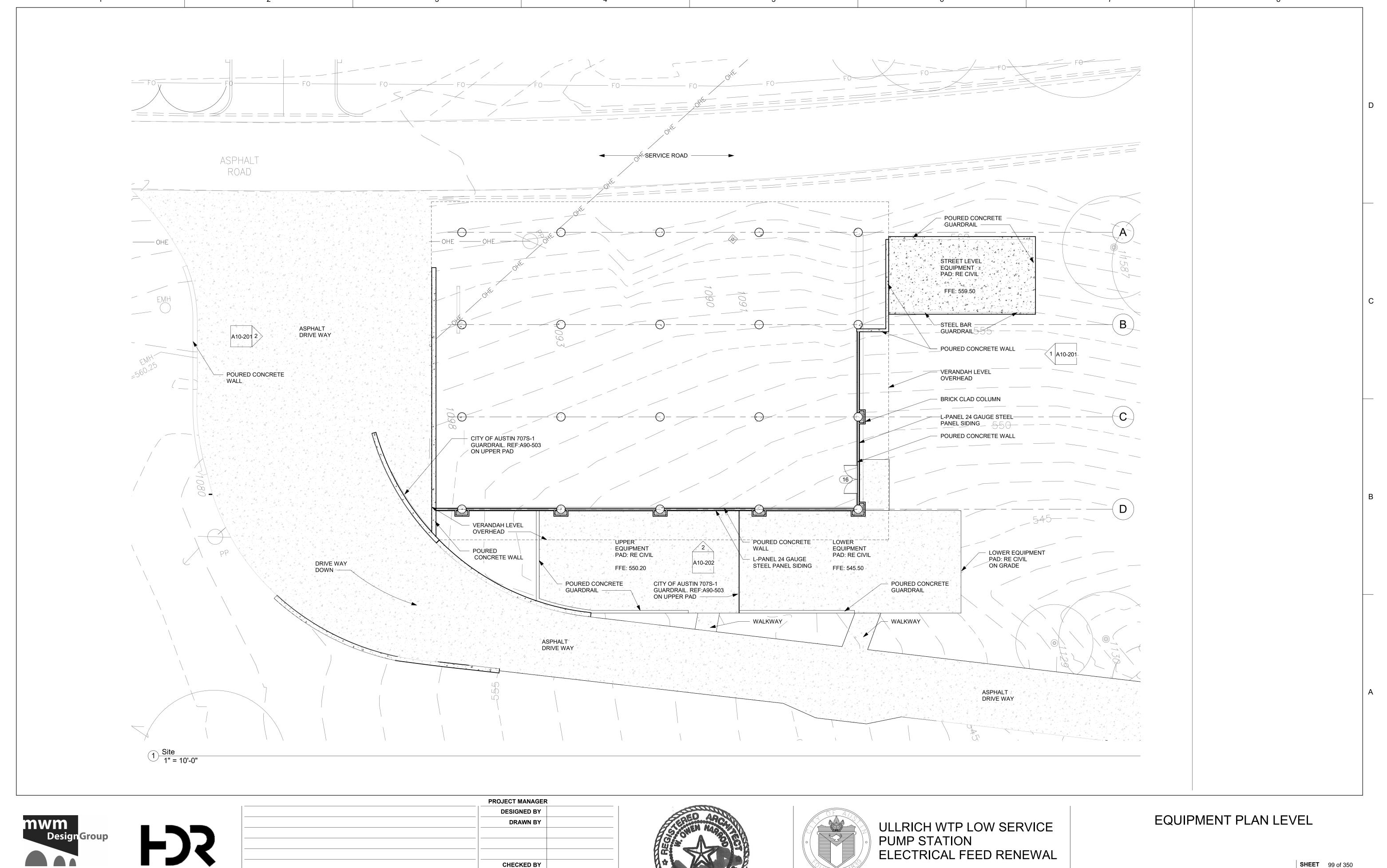






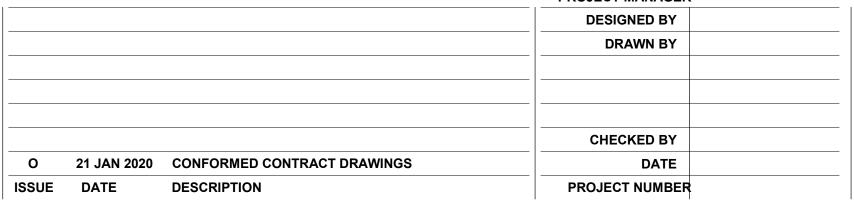


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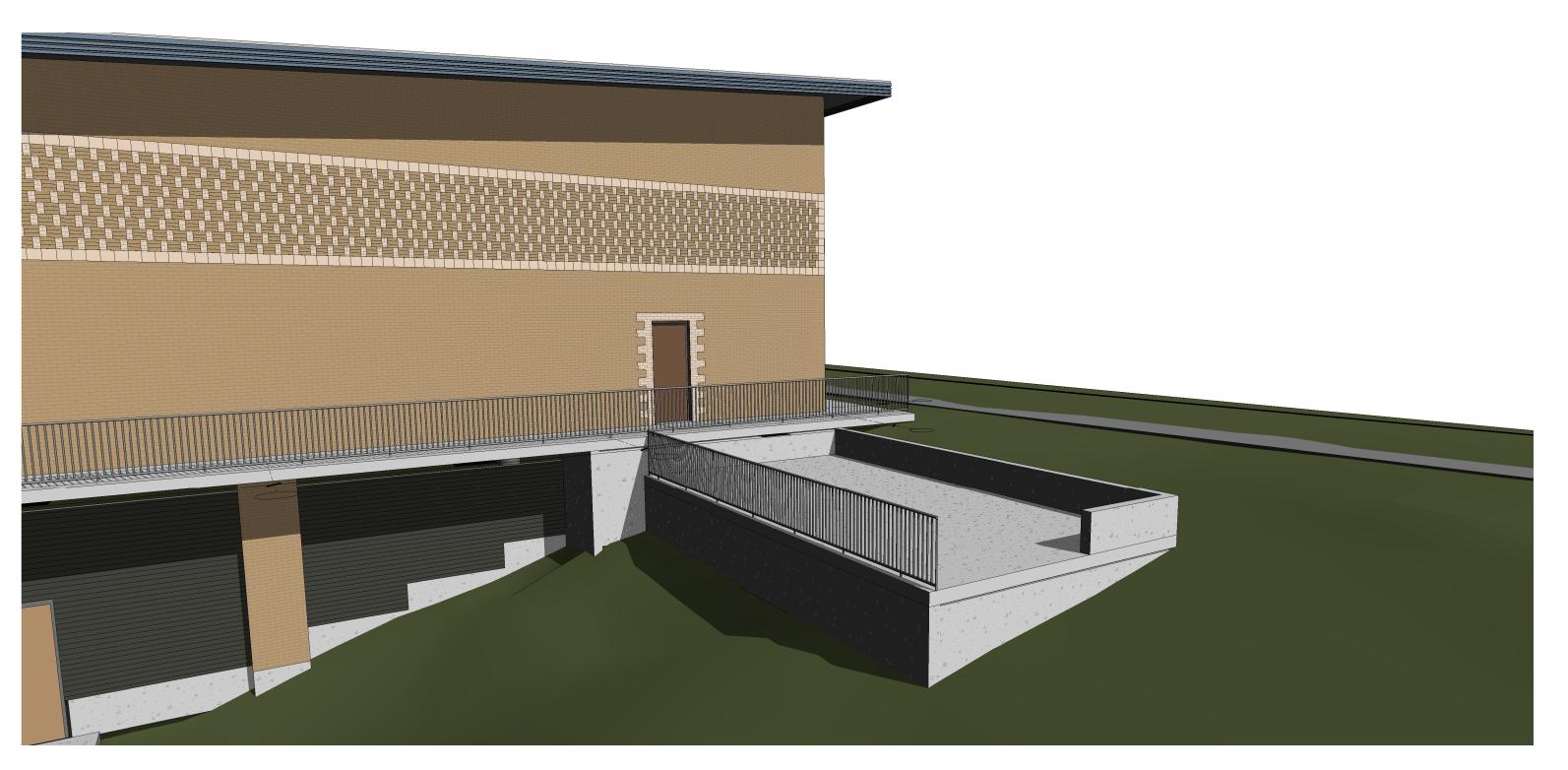




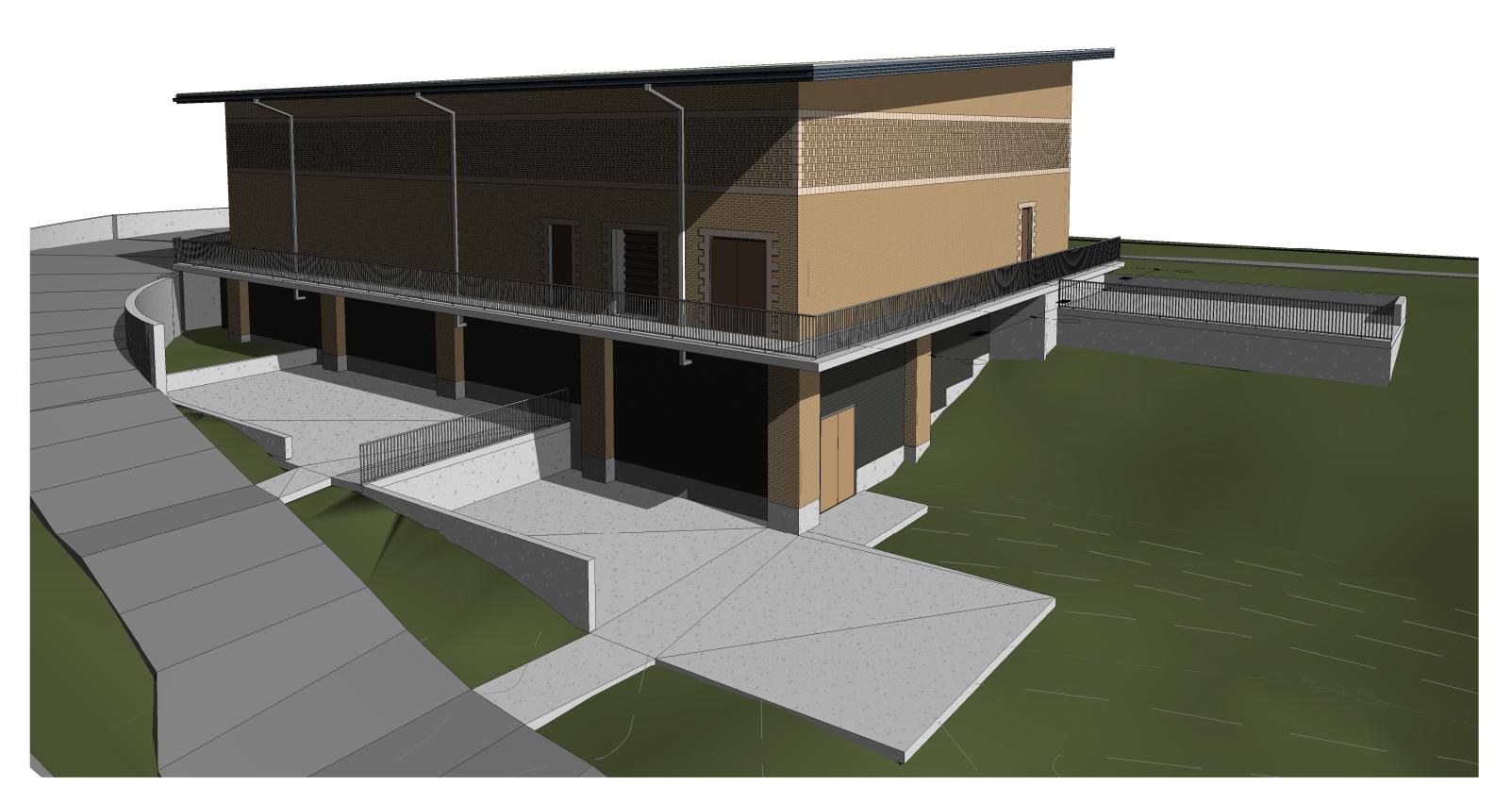


A10-102

1 2 5



1 Perspective View North Platform



2 Perspective View South Platform





			PROJECT MANAGER	
			DESIGNED BY	
			DRAWN BY	
			CHECKED BY	
0	21 JAN 2020	CONFORMED CONTRACT DRAWINGS	DATE	
ISSUE	DATE	DESCRIPTION	PROJECT NUMBER	

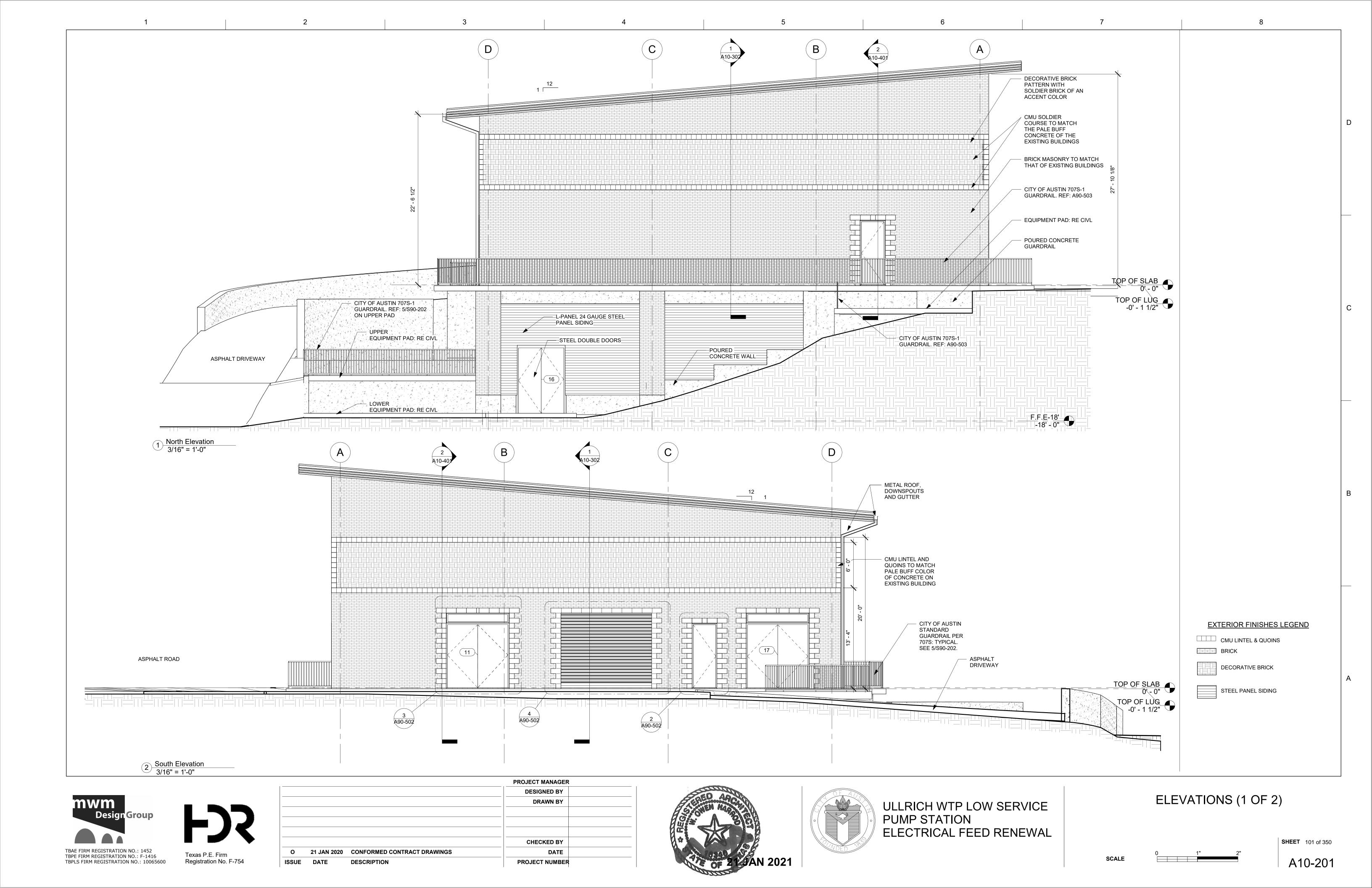


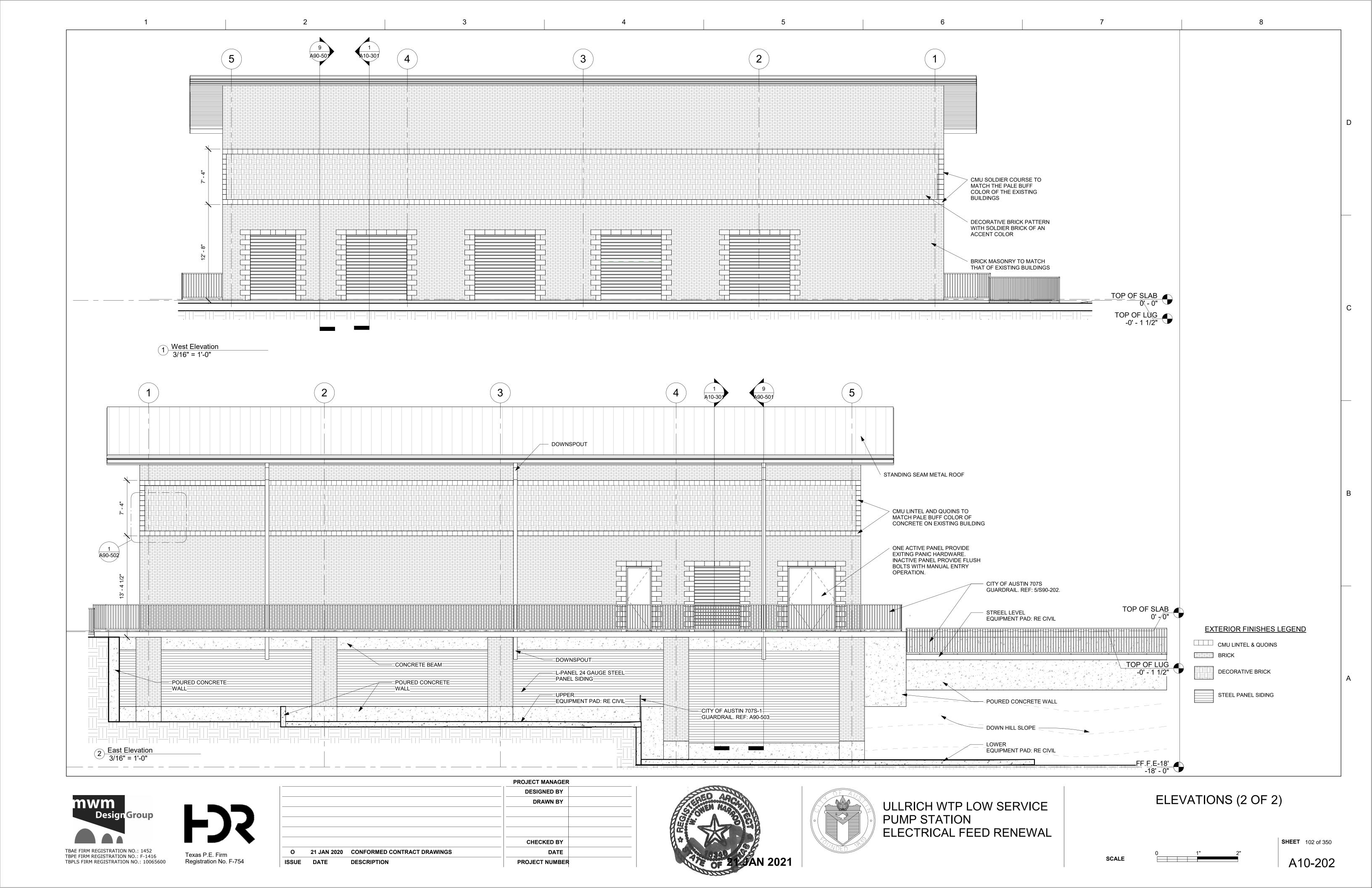


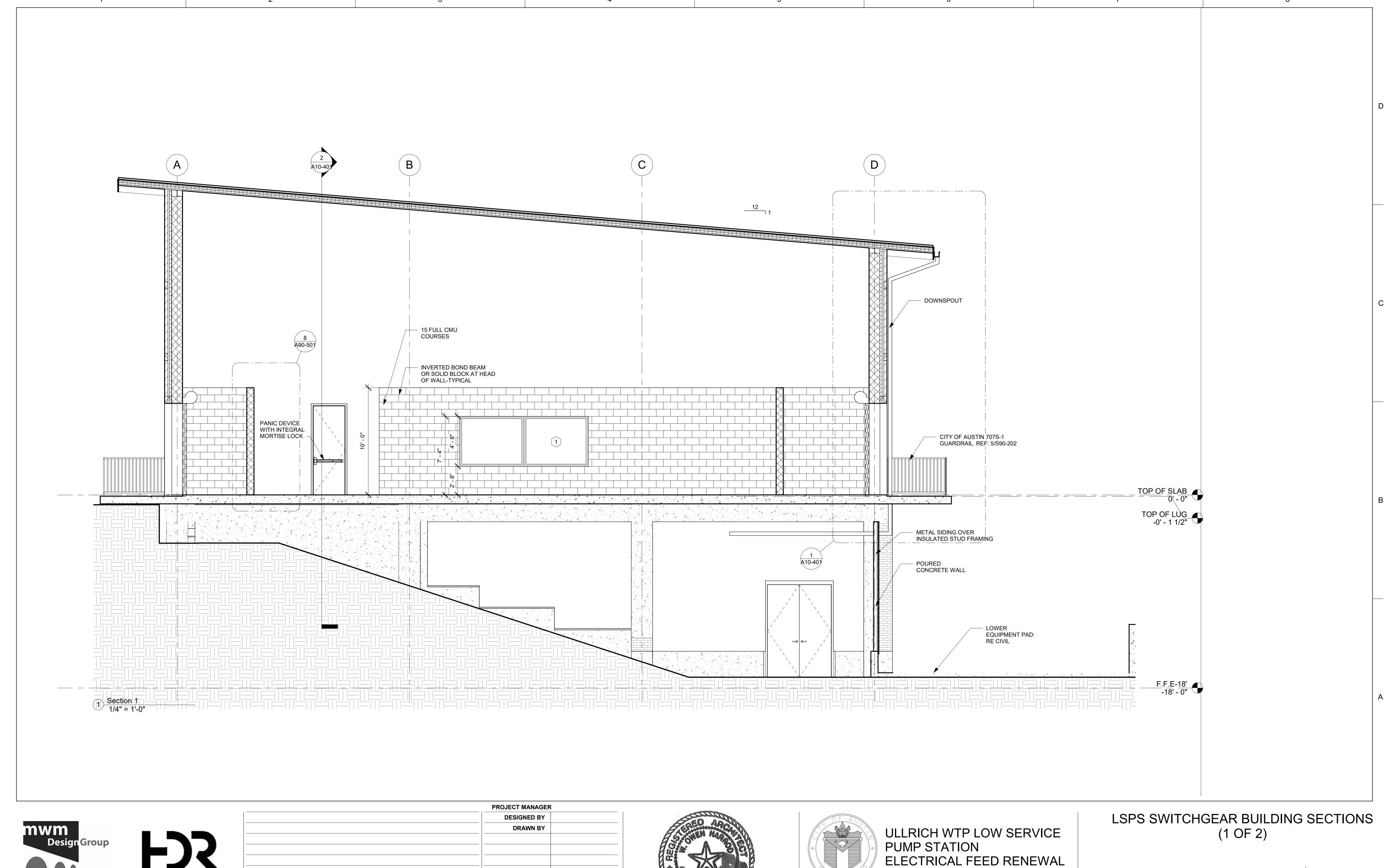
PERSPECTIVE VIEW

SCALE 0 1"

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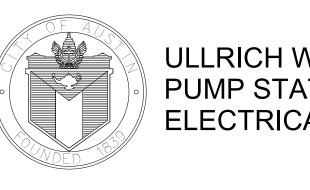




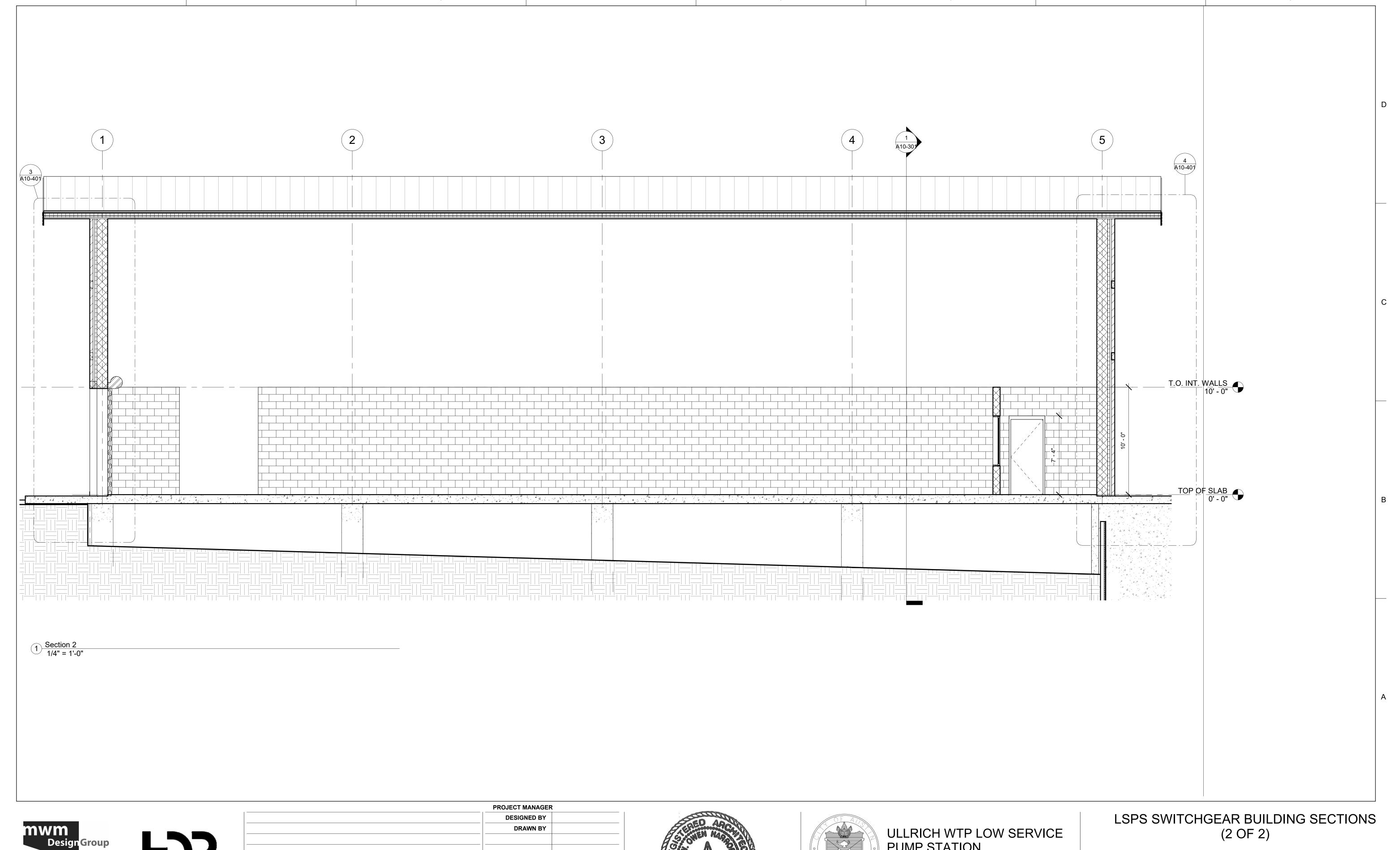


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			CHECKED BY	
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ISSUE	DATE	DESCRIPTION	PROJECT NUMBER	





SHEET 103 of 350 A10-301







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ISSUE	DATE	DESCRIPTION	PROJECT NUMBER

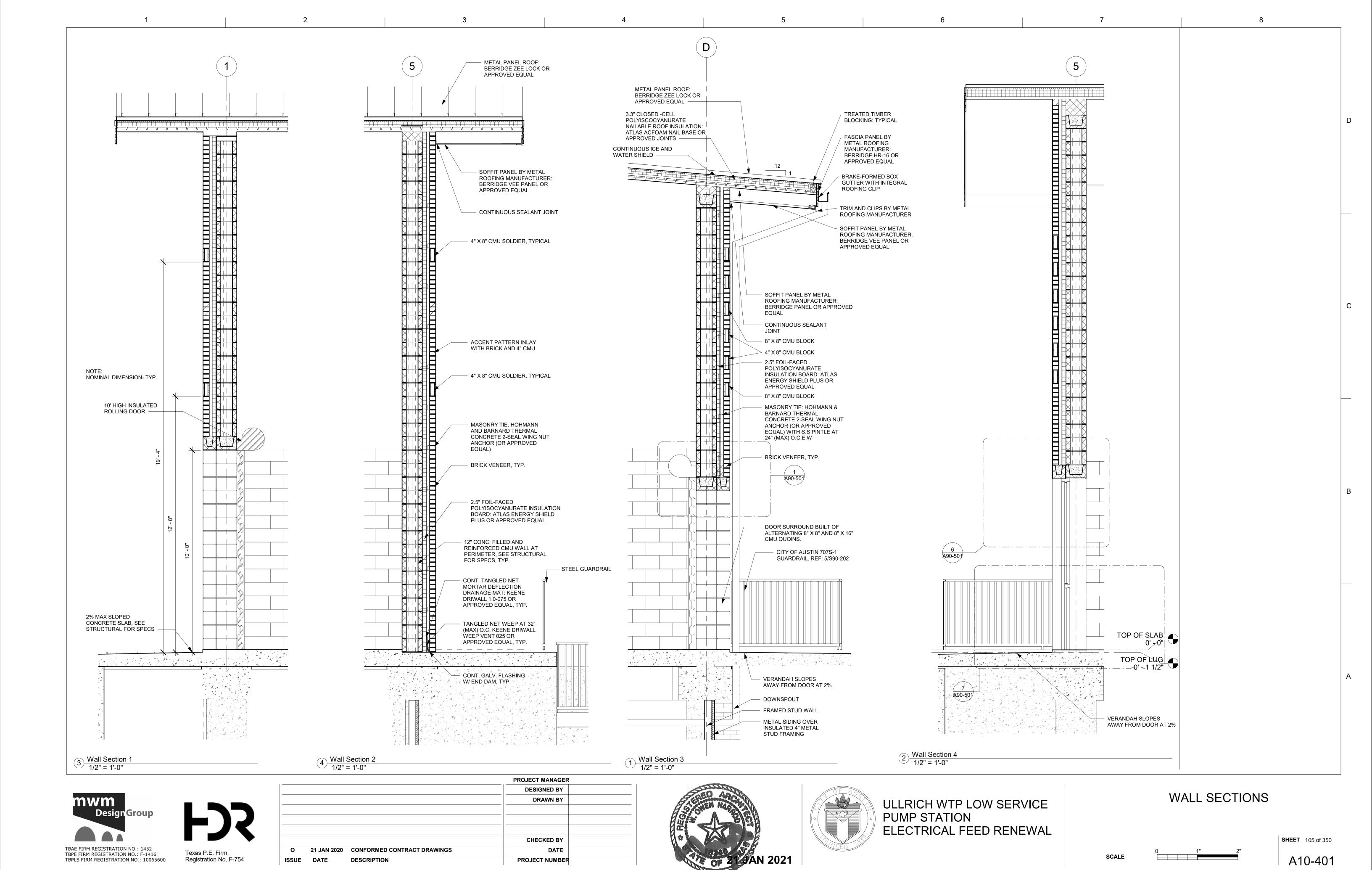


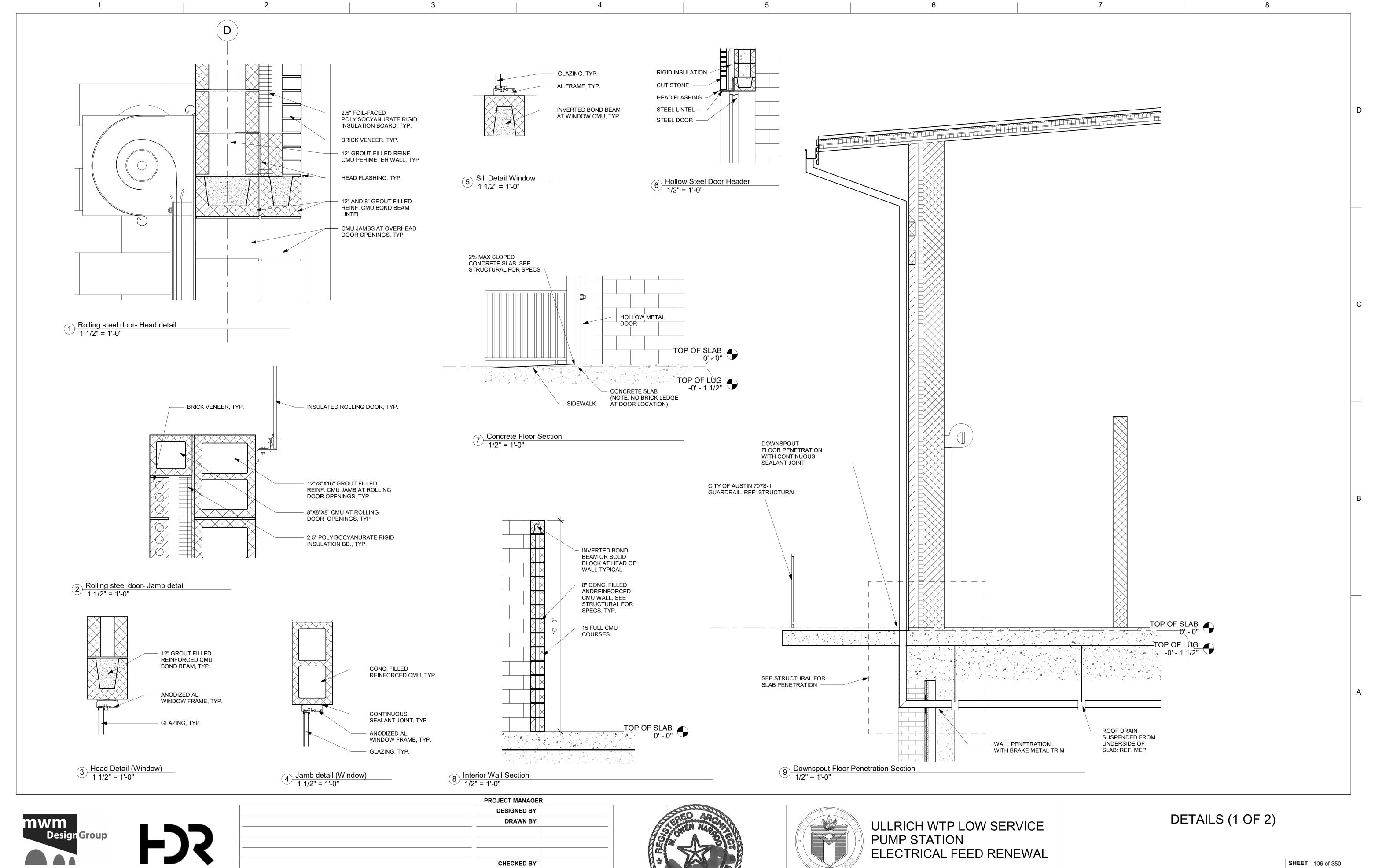


SCALE 0 1" 2"

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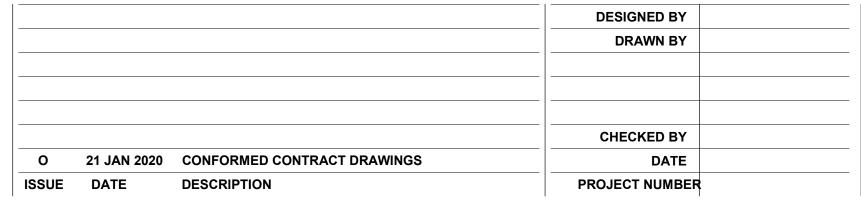
A10-302





TBAE FIRM REGISTRATION NO.: 1452 TBPE FIRM REGISTRATION NO.: F-1416 TBPLS FIRM REGISTRATION NO.: 10065600

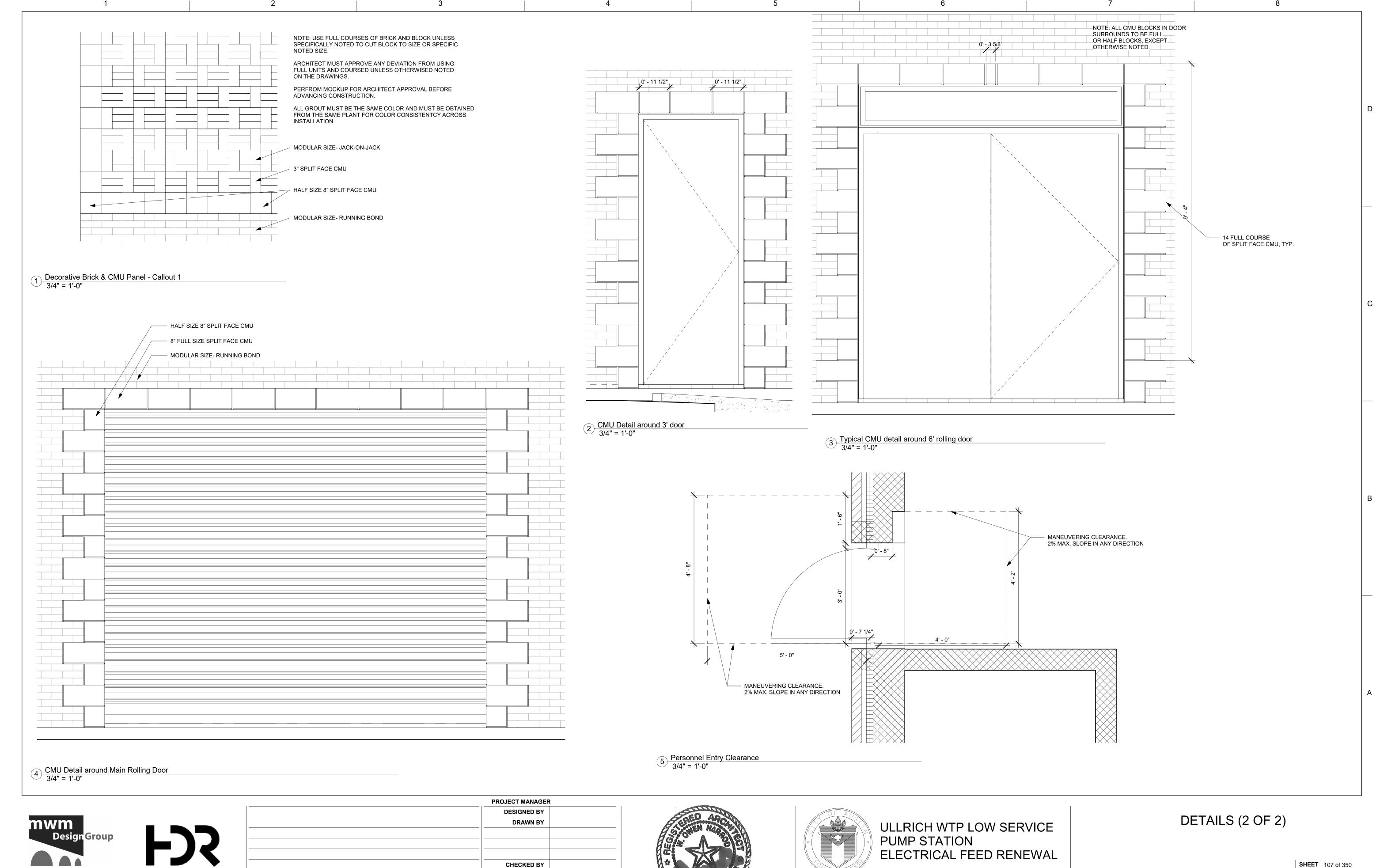








A90-501





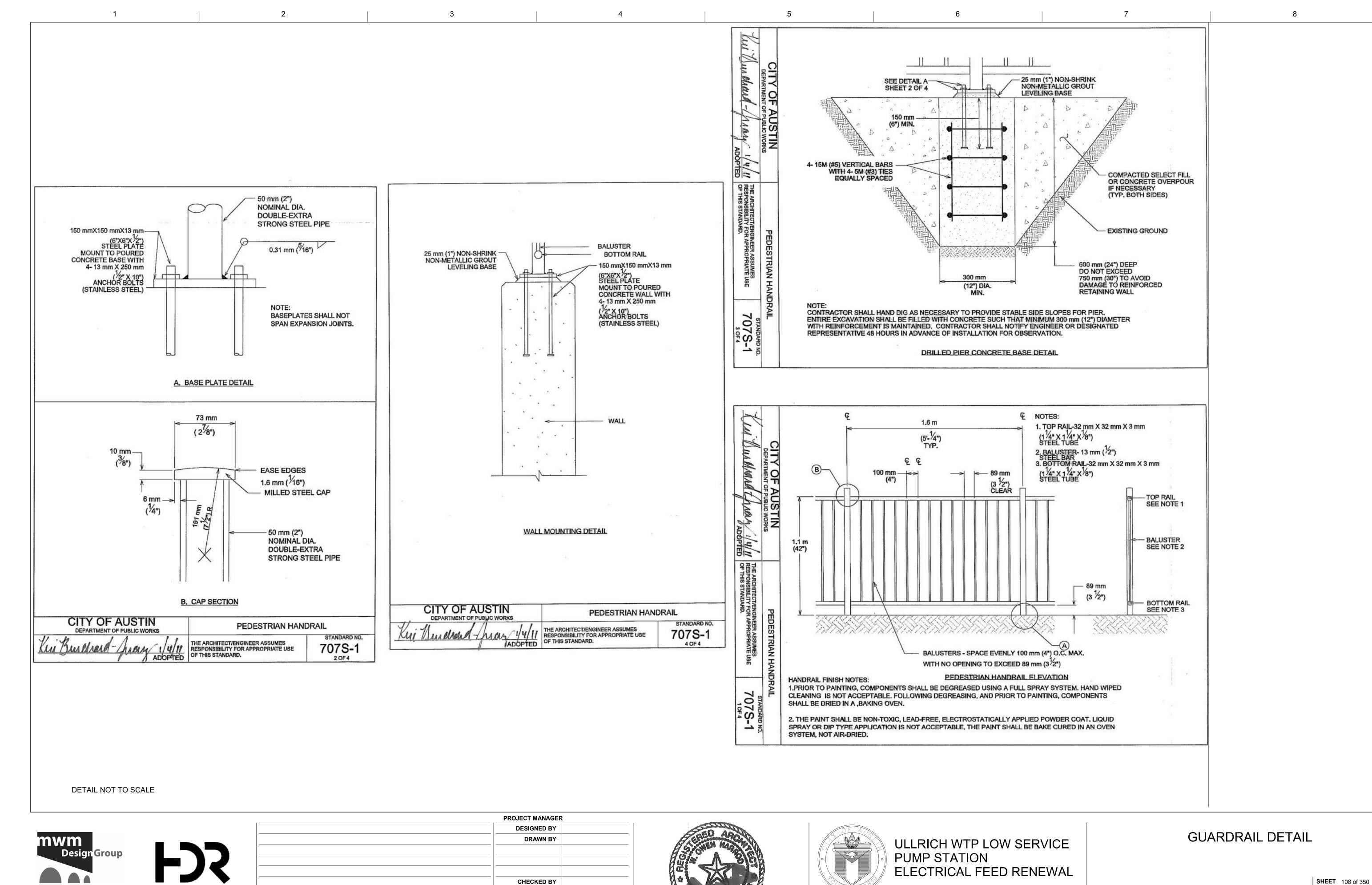


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			DESIGNED BY	
			DRAWN BY	
			CHECKED BY	
0	21 JAN 2020	CONFORMED CONTRACT DRAWINGS	DATE	
ISSUE	DATE	DESCRIPTION	PROJECT NUMBER	





A90-502



TBAE FIRM REGISTRATION NO.: 1452

TBPE FIRM REGISTRATION NO.: F-1416

TBPLS FIRM REGISTRATION NO.: 10065600

Texas P.E. Firm

Registration No. F-754

O 21 JAN 2020 CONFORMED CONTRACT DRAWINGS

DESCRIPTION

DATE

PROJECT NUMBER

A90-503