ABBREVIATIONS:

%	Percent
&	And
A/C	Air Conditioning
AB	Anchor Bolt
ACFL	Access Floor
ACP	Acoustic Ceiling Panel
ACPNL	Access Panel
ACT	Acoustic Ceiling Tile
AD	Area Drain
ADD	Addendum
ADJ	Adjustable
ADMIN	Administration, Administrator
AE	Architect-Engineer
AFF	Above Finished Floor
AGG	Aggregate
AHU	Air Handling Unit
ALT	Alternate
ALUM	Aluminum
ANCH	Anchor(age)
ANOD	Anodized
APPD	Approved
APPROX	Approximate
ARCH	Architect(ural)
ASPH	Asphalt
ASSN	Association
AT	Asphalt Tile
AUTO	Automatic
AV	Audiovisual
AVG	Average
AWP	Acoustic Wall Panel
B	Bathroom
B/U	Built-Up
BATT	Battery
BBD	Bulletin Board
BCAB	Base Cabinet
BD	Board
BIT	Bituminous
BL	Building Line
BLDG	Building
BLKG	Blocking
BM	Beam
BMH	Broom & Mop Holder
BMK	Benchmark
BOT	Bottom
BR	Bedroom
BRG	Bearing
BRGPL	Bearing Plate
BRK	Brick
BRKT	Bracket
BRZ	Bronze
BS	Both Sides
BSMT	Basement
BTWN	Between
BUR	Built-Up Roof
BVLD	Beveled
BW	Both Ways
C	Courses
C to C	Center to Center
CAB	Cabinet
CALK	Caulking
CB	Catch Basin
CBD	Chalk Board
CEM	Cement
CER	Ceramic
CF/CI	Contractor Furnish/Install
CFM	Cubic Feet Per Minute
CG	Corner Guard
CH	Coat Hook
CHAM	Chamber
CHAN	Channel
CI	Cast Iron
CIP	Cast in Place
CIR	Circle, Circular, Circumference
CJ	Control Joint
CL	Center Line
CLG	Ceiling Line
CLL	Contract Limit Line
CLO	Closet
CLR	Clear, Clearance
CMU	Concrete Masonry Unit
CNTR	Counter
CO	Clean Out
CO_2	Carbon Dioxide
COL	Column
COMP	Company
COMPO	Composite, Composition
COMPR	Compress(ed), (or), (ion), (ible)
COMPT	Compartment
CONC	Concrete
COND	Condition
COND VT	Conductive Vinyl Tile
CONN	Connection
CONST	Construction
CONT	Continue, Continuous
CONTR	Contractor
CONV	Convenience
COR	Corner
CORR	Corridor
CPR	Copper
CPT	Carpet
CR	Cold Rolled
CRS	Cold Rolled Sheet
CSG	Casing
CSK	Counter Sink
CSMT	Casement
CST	Cast Stone
CT	Ceramic Tile
CTR	Center
CU	Cubic Feet
CUB	Cubicle
CUFT	Cubic Foot
CUIN	Cubic Inch
CUYD	Cubic Yard
CW	Cold Water
CWK	Casework
DBANCH	Deformed Bar Anchor
DBL	Double
DEG	Degre
DEMO	Demoish, Demolition
DEPT	Department
DET	Detail
DF	Drinking Fountain
DH	Double Hung
DIA	Diameter
DIAG	Diagonal
DIFF	Diffuser
DIM	Dimension
DISP	Dispenser
DIST	Distribute
DIV	Division
DL	Dead Load
DMPR	Damper
DN	Down
DO	Ditto
DP	Damp Proofing
DPL	Disposal
DR	Door
DRN	Drain
DS	Down Spout
DW	Dishwasher
DWG	Drawing
DWR	Drawer
E	East
E to E	End to End
EA	Each
EDF	Electronic Drinking Fountain
EF	Exhaust Fan
EIFS	Exterior Insulated Finish System
EJ	Expansion Joint
EL	Elevator
ELAST	Elastic
ELEC	Electric
ELEV	Elevation
ELL	Elbow
EMERG	Emergency
ENCL	Enclose, Enclosure
ENGR	Engineer
ENT	Entrance
EQ	Equal
EQUIP	Equipment
EST	Estimate
EW	Each Way
EWC	Electric Water Cooler
EXC	Excavate
EXIST	Existing
EXP	Exposed
EXPAN	Expansion
EXT	Exterior, Extension
F	Fahrenheit
F to F	Face to Face
FA	Fire Alarm
FAI	Fresh Air Intake
FB	Face Brick
FBD	Fiberboard
FD	Floor Drain
FDC	Fire Department Connection
FDTN	Foundation
FE	Fire Extinguisher
FEC	Fire Extinguisher Cabinet
FED	Federal
FF	Finish Floor
FG	Fixed Glass
FGL	Fiberglass
FH	Fire Hose
FHC	Fire Hose Cabinet
FHR	Fire Hose Rack
FHYD	Fire Hydrant
FIN	Finish
FIXT	Fixture
FLEX	Flexible
FLG	Flashing
FLR	Floor
FLRG	Flooring
FLUOR	Fluorescent
FF	Finish Floor
FG	Fixed Glass
FGL	Fiberglass
FH	Fire Hose
FHC	Fire Hose Cabinet
FHR	Fire Hose Rack
FHYD	Fire Hydrant
FIN	Finish
FIXT	Fixture
FLEX	Flexible
FLG	Flashing
FLR	Floor
FLRG	Flooring
FLUOR	Fluorescent
FOC	Face of Concrete
FOF	Face of Finish
FOM	Face of Masonry
FOS	Face of Stud
FOSTL	Face of Steel
FP	Fireproof
FPG	Fireproofing
FPL	Floor Plate
FPM	Feet per Minute
FPS	Feet per Second
FRM	Frame
FRMD	Framed
FRPL	Fireplace
FRT	Fire Retardant Treated
FS	Full Size
FT	Foot, Feet
FTG	Footing
FURN	Furnish
FURR	Furring
FW	Full Width
FWC	Fabric Wall Covering
G	Gas
GA	Gauge
GAL	Gallon
GALV	Galvanized
GC	General Contractor
GB	Grab Bar
GEN	General
GFRC	Glass Fiber Reinforced Concrete
GFRG	Glass Fiber Reinforced Gypsum
GI	Galvanized Iron
GL	Glass, Glazed
GLBLK	Glass Block
GLOPG	Glass Opening
GOVT	Government
GPM	Gallons per Minute
GR	Grade
GRDG	Grading
GST	Glazed Structural Tile
GWB	Gypsum Wall Board
H/C	Handicap(ed)
H20	Water
HB	Hose Bibb
HC	Hollow Core
HDB	Hard Board
HDNR	Hardner
HDR	Header
HDRI	Hand Rail
HDWR	Hardware
HEX	Hexagonal
HJT	Head Joint
HLAV	Handicapped Lavatory
HM	Hollow Metal
HORZ	Horizontal
HP	Horse Power
HPT	High Point
HR	Hour
HT	Height
HTG	Heating
HTR	Heater
HVAC	Heating, Ventilating & Air Condition
HVY	Heavy
HW	Hot Water
HWC	Handicapped Water Closet
HWD	Hardwood
HWH	Hot Water Heater
HWY	Highway
ID	Inside Diameter
IMPR	Impregnate
IN	Inch, Inches
INC	Incorperate(d)
INCL	Include(d), Including
IND	Industrial
INFO	Information
INSUL	Insulate, Insulation
INT	Interior, Internal
INV	Invert
IPS	Inside Pipe Size
ISOL	Isolation
JAN	Janitor
JCT	Junction
JST	Joist
JT	Joint
K/O	Knock Out
KD	Knock Down
KIT	Kitchen
KPL	Kick Plate
L	Length
LAB	Laboratory
LAM	Laminated
LAT	Lateral, Latitude
LAV	Lavatory
LB	Pound
LBL	Label
LBR	Lumber
LCC	Lead Coated Copper
LDG	Landing
LF	Linear Foot
LG	Long
LGC	Liquid Glaze Coating
LH	Left Hand
LHR	Left Hand Reverse
LINFT	Linear Feet
LIQ	Liquid
LKR	Locker
LL	Live Load
LP	Liquid Propane
LPT	Low Point
LT	Light
LTL	Lintel
LTWT	Lightweight
LVR	Louver
LWC	Light Weight Concrete
M	Thousand
MACH	Machine
MARB	Marble
MAS	Masonry
MATL	Material
MAX	Maximum
MC	Medicine Cabinet
MCW	Metal Casework
MECH	Mechanical
MED	Medium
MEMB	Membrane
MEMO	Momorandum
MEZZ	Mezzanine
MED	Manufactured
MFG	Manufacturing
MFR	Manufacturer
MG	Motor Generator
MH	Man Hole
MIN	Minimum
MIR	Mirror
MIR/SH	Mirror w/ Shelf
MISC	Miscellaneous
MITR	Mitered
MK	Mark
ML	Metal Lath
MLDG	Modling
MO	Masonry Opening
MOD	Model, Module
MODBIT	Modified Bitumen
MON	Monument, Monitor
MPTN	Moveable Partitions
MS	Mop Sink
MTD	Mounted
MTG	Mounting
MTL	Metal
MULL	Mullion
MULT	Multiple
MWK	Millwork
N	North
NAT	Natural
NC	Non-Corosive
NCX	Non-Combustible Exterior
NIC	Not in Contract
NIP	Nipple
NO	Number
NOM	Nominal
NOR	Normal
NRC	Noise Reduction Coefficient
NS	Non-Slip
NTS	Not to Scale
O to O	Out to Out
OA	Overall
OC	On Center
OD	Outside Diameter
OF/CI	Owner Furn'd/ Contractor Install'd
OF/OI	Owner Furn'd/ Owner Install'd
OFF	Office
OH	Overhead
OPH	Opposite Hand
OPNG	Opening
OPP	Opposite
ORIG	Original
ORN	Ornament
OWNREP	Owner's Representative
OZ	Ounce
PA	Public Address
PAR	Parallel
PARA	Paragraph
PASS	Passage
PBD	Particle Board
PC	Piece
PCF	Pounds per Cubic Foot
PCP	Pre-cast Concrete Panel
PCST	Pre-cast
PCW	Plastic Laminated Casework
PED	Pedestal
PERF	Preforate
PERIM	Perimeter
PERM	Permanent
PERP	Perpendicular
PHOTO	Photograph
PKWY	Parkway
PL	Plate
PLAM	Plastic Laminate
PLAS	Plaster
PLAST	Plastic
PLAT	Platform
POC	Point of Curve
POL	Polish
POLY	Polyethylene
PORT	Portable
POS	Position
PPGL	Polished Plate Glass
PR	Pair
PREFAB	Pre-Fabricated
PREFIN	Pre-Finished
PREP	Preparation
PRKG	Parking
PROD	Product
PROJ	Projection
PROJMGR	Project Manager
PROP	Property
PRV	Pressure Reducing Value
PSF	Pound per Square Foot
PSI	Pound per Square Inch
PT	Point
PTD	Paper Towel Dispenser
PTN	Partition
PTR	Paper Towel Receptacle
PTWD	Pressure Treated Wood
PVC	Polyvinyl Chloride
PVG	Paving
PVMT	Pavement
PWR	Power
QLTY	Quality
QRY	Quarry
QT	Quarry Tile
QTB	Quarry Tile Base
QTF	Quarry Tile Floor
QTR	Quarter
QTY	Quantity
R	Radius, Riser
RAG	Return Air Grill
RAI	Return Air Intake
RB	Rubber Base
RCP	Reinforced Concrete Pipe, Reflected Ceiling Plan
RD	Roof Drain
RE	Refer, Reference
RECIR	Re-circulate
RECP	Receptacle
RECT	Rectangle
RED	Reducer
REFG	Refrigerator
REG	Register, Regulator
REINF	Reinforce
REPR	Repair
REPRO	Reproduce
REQD	Required
REQS	Requirements
RESIL	Resilient
RESIS	Resistant
RET	Return
RETG	Retaining
REV	Revise, Revision
RFG	Roofing
RFH	Roof Hatch
RFL	Reflect(ed), (ive), (or)
RFS	Room Finish Schedule
RH	Right Hand
RHR	Right Hand Reverse
RM	Room
RND	Round
RO	Rough Opening
ROW	Right of Way
RR	Railroad
RTG	Rating
RV	Roof Vent
RVS	Reverse
RWL	Rainwater Leader
S	South
S&S	Stained & Sealed
SAFB	Sound Attenuation Fire Blanket
SAG	Supply Air Grille
SC	Solid Core
SCHD	Schedule
SCHL	School
SCRN	Screen
SD	Storm Drain
SDISP	Soap Dispenser
SEC	Second
SECT	Section
SEP	Separate
SERV	Service
SF, SFT	Square Foot
SFTY	Safety
SH	Shelf, Shelves, Shelving
SHT	Sheet
SHTHG	Sheathing
SHWR	Shower
SIM	Similar
SKLT	Skylight
SLNT	Sealant
SM	Smooth
SND	Sanitary Napkin Dispenser
SNK	Sink
SNR	Sanitary Napkin Receptacle
SP	Stand Pipe
SPEC(S)	Specification(s)
SPECD	Specified
SPKR	Speaker
SQ	Square
SR	Shower Rod
SS	Standing Seam
SSK	Services Sink
SSMH	Sanitary Sewer Man Hole
SSTL	Stainless Steel
ST	Street
STA	Station
STAG	Staggered
STD	Standard
STER	Sterilizer
STG	Seating
STIFF	Stiffener
STL	Steel
STOR	Storage
STR	Structure(al)
STRI	Stirrup
SUB	Substitute
SUP	Supply, Support
SUPP	Supplement
SUPT	Superintendent
SUR	Surface
SUS	Suspend(ed)
SVIN	Sheet Vinyl
SW	Switch
SWBD	Switch Board
SWK	Sidewalk
SYM	Symmetrical
SYS	System
T	Tread
T&B	Top and Bottom
T&G	Tongue and Groove
TANG	Tangent
TB	Towel Bar
TC	Terra Cotta
TD	Towel Dispenser
TDR	Towel Dispenser w/ Receptacle
TECH	Technical
TECHS	Technicians
TEL	Telephone
TEMP	Temporary, Temperature
TEMPER	Tempered
THD	Thread
THERMO	Thermostat
THK	Thick(ness)
THR	Threshold
THRU	Through
TKBD	Tack Board
TKPNL	Tack Panel
TOB	Top of Beam
TOC	Top of Curb
TOCD	Top of Concrete Deck
TOIL	Toilet
TOL	Tolerance
TOM	Top of Masonry
TOPL	Top of Plate
TOS	Top of Slab
TOST	Top of Steel
TOW	Top of Wall
TP	Yield Point
TPD	Toilet Paper Dispenser
TPH	Toilet Paper Hanger
TPTN	Toilet Partition
TR	Transformer
TREAT	Treatment
TRMPL	Template
TRR	Terrazzo
TRTD	Treated
TV	Television
TXT	Texture(d)
TYP	Typical
U/C	Under Cut
UC	Under Counter
UGRND	Underground
UH	Unit Heater
UL	Underwriters Laboratories, Inc.
ULT	Ultimate
UNFIN	Unfinished
UNI	Unistrut
UNO	Unless Noted Otherwise
UR	Urinal
UTIL	Utility
V	Valve
VA	Vacuum
VAR	Variable
VB	Vapor Barrier
VBX	Valve Box
VCT	Vinyl Composition Tile
VENT	Ventilator
VERT	Vertical
VEST	Vestibule
VIF	Verify in Field
VIN	Vinyl
VIT	Vitreous
VJ	V-Jointed
VNB	Vinyl Base
VNR	Veneer
VOL	Volume
VP	Veneer Plaster
VTR	Vent Thru Roof
VWC	Vinyl Wall Covering
W	West, Width
W/	With
W/O	Without
WB	Wood Base
WC	Water Closet
WCAB	Wall Cabinet
WCH	Wheelchair
WD	Wood
WG	Wire Glass
WH	Water Heater
WHSE	Warehouse
WIN	Window
WL	Water Line
WM	Wire Mesh
WP	Waterproofing
WPT	Working Point
WR	Waste Receptacle
WRST	Water Resistant
WS	Weather Stripping
WSCT	Wainscot
WT	Weight
WWF	Welded Wire Fabric
YD	Yard
YS	Yield Strength

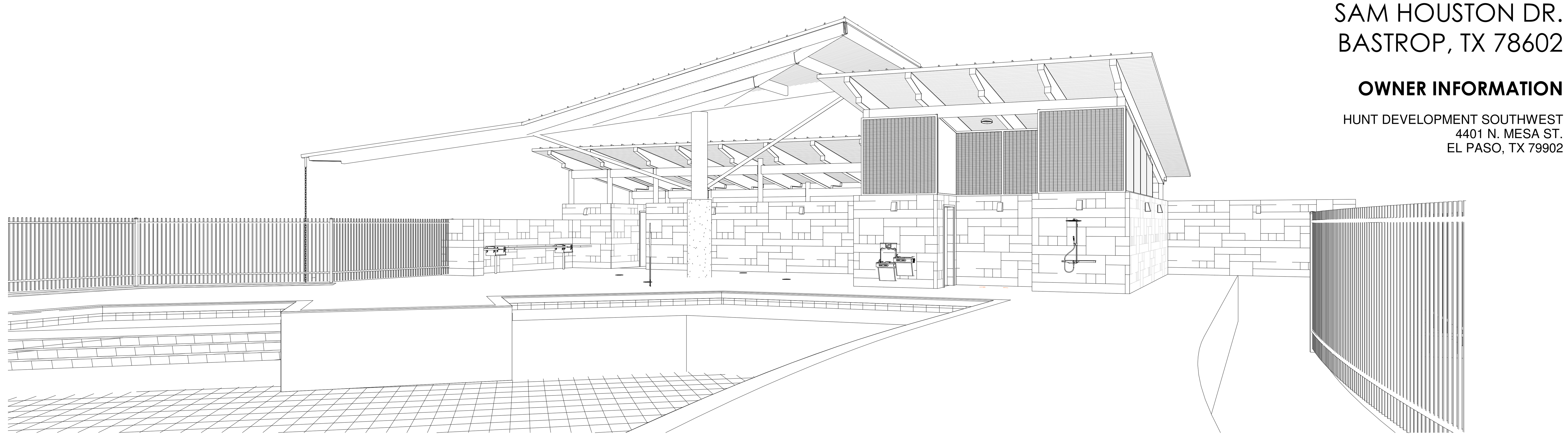
THE COLONY

TREEHOUSE AMENITY CENTER PHASE 1

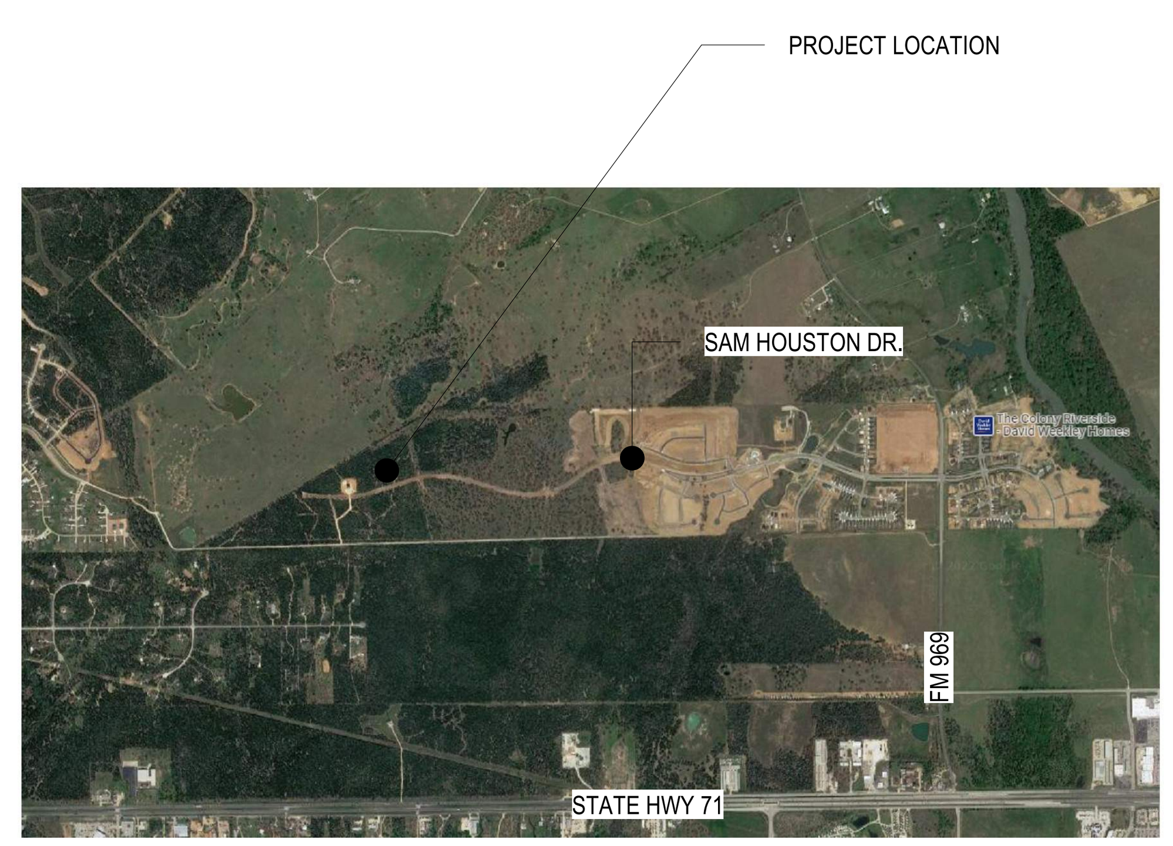
SAM HOUSTON DR.
BASTROP, TX 78602

OWNER INFORMATION

HUNT DEVELOPMENT SOUTHWEST
4401 N. MESA ST.
EL PASO, TX 79902



VICINITY MAP:



DRAWINGS INDEX:

GENERAL
- G-001 COVER
- G-002 TAS

ARCHITECTURE SITE
- AS101 PHASE 1 - SITE PLAN

ARCHITECTURE
- A-101 PHASE 1 - POOL PAVILION FLOOR PLAN
- A-111 PHASE 1 - POOL PAVILION ROOF PLAN
- A-112 PHASE 1 - SHADE STRUCTURE ROOF PLAN
- A-121 PHASE 1 - POOL PAVILION RCP
- A-122 PHASE 1 - SHADE STRUCTURE RCP
- A-201 PHASE 1 - POOL PAVILION EXT. ELEVATIONS
- A-202 PHASE 1 - POOL PAVILION EXT. ELEVATIONS
- A-301 PHASE 1 - BUILDING SECTIONS
- A-302 PHASE 1 - BUILDING SECTIONS
- A-311 PHASE 1 - WALL SECTIONS
- A-411 PHASE 1 - INTERIOR ELEVEATIONS
- A-501 PHASE 1 - SECTION DETAILS
- A-502 PHASE 1 - DOOR & ROOF DETAILS
- A-601 PHASE 1 - DOOR & WALL TYPES & SCHEDULES

STRUCTURAL
- S1.00 PHASE 1 - GENERAL NOTES
- S1.01 PHASE 1 - GENERAL NOTES
- S1.02 PHASE 1 - GENERAL NOTES
- S1.03 PHASE 1 - 3D ISOMETRIC VIEWS
- S2.00 PHASE 1 - FOUNDATION PLAN
- S2.01 PHASE 1 - RETAINING WALL PLAN
- S3.00 PHASE 1 - ROOF FRAMING PLAN - BUILDILNG
- S3.01 PHASE 1 - ROOF FRAMING PLAN - SHADE STRUCTURE
- S4.00 PHASE 1 - FOUNDATION DETAILS
- S4.01 PHASE 1 - RETAINING WALL DETAILS
- S5.00 PHASE 1 - TYPICAL CMU DETAILS
- S6.00 PHASE 1 - PAVILION FRAMING SECTIONS
- S6.01 PHASE 1 - TYPICAL FRAMING DETAILS
- S6.02 PHASE 1 - TYPICAL FRAMING DETAILS

ELECTRICAL
- E0.01 ELECTRICAL COVER SHEET
- E0.02 ELECTRICAL SPECIFICAITONS
- E0.03 ELECTRICAL SPECIFICAITONS
- E1.00 ELECTRICAL SITE PLAN
- E1.01 ENLARGED ELECTRICAL SITE PLAN
- E2.01 POWER PLAN
- E3.01 LIGHTING PLAN
- E6.01 ELECTRICAL DETAILS
- E7.00 PANEL SCHEDULES & RISER

PLUMBING
- P0.01 PLUMBING COVER SHEET
- P0.02 PLUMBING SCHEDULES
- P0.03 PLUMBING SPECIFICAITONS
- P0.04 PLUMBING SPECIFICAITONS
- P2.00 PLUMBING UNDERFLOOR PLAN
- P2.01 PLUMBING FLOOR PLAN
- P2.02 PLUMBING SITE PLAN
- P5.01 PLUMBING RISERS
- P6.01 PLUMBING DETAILS

SYBMOLS:

SYMBOL:	DESCRIPTION:
1	STRUCTURAL GRID LINES
01 / 02 / 03 / 04, A-101	INTERIOR / EXTERIOR ELEVATION CALLOUT. THIS SYMBOL INDICATES INT/EXT ELEVATION DRAWINGS 01, 02, 03, 04 ON SHEET A-101.
01, A-101, SIM	SECTION CALLOUT. THIS SYMBOL INDICATES A SECTION CUT SIMILAR TO DRAWING 01 ON SHEET A-101.
Room name	ROOM TAG. ROOM NAME ROOM NUMBER NET SQUARE FOOT FLOOR AREA
Name Elevation	LEVEL
A	WALL CALLOUT. THIS SYMBOL INDICATES A WALL WHICH IS FURTHER DESCRIBED ON THE WALL SECTION SHEET.
W1	WINDOW CALLOUT. THIS SYMBOL INDICATES A WINDOW WHICH IS FURTHER DESCRIBED WITHIN THE WINDOW SCHEDULE SHEET.
101	DOOR CALLOUT. THIS SYMBOL INDICATES A DOOR WHICH IS FURTHER DESCRIBED WITHIN THE DOOR SCHEDULE SHEET.
01, A-101	DETAIL CALLOUT. THIS SYMBOL INDICATES DETAIL DRAWING 01 ON SHEET A-101.

MATERIALS LEGEND:

- CONCRETE
- CONCRETE MASONRY UNIT (CMU)
- STONE (PLAN)
- STONE (ELEVATION)
- STUCCO (PLAN / ELEVATION)
- CEMENTITIOUS SIDING (ELEVATION)
- BATT INSULATION
- STEEL/OTHER METALS
- RIGID INSULATION
- EARTH
- COMPACT FILL
- PLYWOOD / SHEATHING
- CERAMIC TILE
- FINISH WOOD

CODE INFORMATION:

		IBC CHAPTER
OCCUPANCY GROUP	A-3	303.4
OCCUPANCY LOAD		1004
OUTDOOR SEATING	636 SF / 15 NET	= 42 OCCUPANTS
STORAGE	340 SF / 300 GROSS	= 1 OCCUPANTS
		TOTAL = 43 OCCUPANTS
CONSTRUCTION TYPE	VB	TABLE 601
FIRE PROTECTION		
A-3	NONE REQUIRED	903.2.1.3
BUILDING HEIGHT ALLOWED	40-FT	TABLE 504.3
PROPOSED	22-FT	TABLE 504.3
STORIES ALLOWED	1	TABLE 504.4
PROPOSED	1	TABLE 504.4
ALLOWABLE FLOOR AREA	6,000 SF / FL	TABLE 506.2
PROPOSED	1,549 SF	TABLE 506.2
EXIT ACCESS TRAVEL DISTANCE	200 FT	TABLE 1017.2
COMMON PATH OF EGRESS	75 FT	TABLE 1006.2.1
DEAD END CORRIDOR	N/A	1020.4, EXCEP. 2
CORRIDOR FIRE RATING	N/A	TABLE 1020.1
STRUCTURAL FRAME FIRE RATING	0 HR	TABLE 601; TABLE 602
SHAFT ENCLOSURE FIRE RATING	N/A	TABLE 707.3.10; 1027.6
FIRE BARRIER WALL FIRE RATING	N/A	TABLE 707.3.10; 1027.6
FIRE SEPARATION BETWEEN USES	1 HR	TABLE 508.4

PROJECT INFORMATION:

PROJECT DESCRIPTION
PHASE 1 - NEW CONSTRUCTION OF A WOOD, STEEL, AND MASONRY FRAMED 1-STORY AMENITY BUILDING TO BE USED BY RESIDENTS OF SURROUNDING DEVELOPMENT. SPACES INCLUDE UNCONDITIONED AREAS FOR POOL EQUIPMENT, STORAGE, OPEN-AIR RESTROOMS, AND A COVERED OUTDOOR SEATING PAVILION

APPLICABLE CODES
INTERNATIONAL BUILDING CODE (2018 EDITION) ADOPTED AMENDMENTS
INTERNATIONAL PLUMBING CODE (2018 EDITION) ADOPTED AMENDMENTS
INTERNATIONAL MECHANICAL CODE (2018 EDITION) ADOPTED AMENDMENTS
INTERNATIONAL FUEL GAS CODE (2018 EDITION)ADOPTED AMENDMENTS
INTERNATIONAL ENERGY CONSERVATION CODE (2018 EDITION) ADOPTED AMENDMENTS
INTERNATIONAL PROPERTY MAINTENANCE CODE (2018 EDITION) ADOPTED AMENDMENTS
INTERNATIONAL FIRE CODE (2018 EDITION) ADOPTED AMENDMENTS
NFPA-101 LIFE SAFETY CODE (2018 EDITION)
NATIONAL ELECTRICAL CODE (2017 EDITION) ADOPTED AMENDMENTS
INTERNATIONAL SWIMMING POOL & SPA CODE (2018 EDITION)

TDLR REGISTRATION NUMBER:
XXXXXXXXXXXXXXX

LEGAL DESCRIPTION:

hatch + ulland owen architects

REGISTERED ARCHITECT RANDALL STEPHEN OWEN 17363 STATE OF TEXAS

23 OCT 2024

hatch + ulland owen
architects
1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

THE COLONY - TREEHOUSE AMENITY CENTER

CIVIL ENGINEER
CBD ENGINEERING & SURVEYING
5501 West William Cannon Drive
Austin, Texas 78749, US

LANDSCAPE ARCHITECT
SEC PLANNING , LLC
4201 W. Parmer Lane Bldg A, Suite 220
Austin, Texas 78727

PLUMBING, MECHANICAL, ELECTRICAL ENGINEER
Infinity MEP+s Consultants
5316 W US Hwy 290 Service Rd Suite 480
Austin, TX 78735

STRUCTURAL ENGINEER
TDI Engineering, LLC
5906 Old Fredericksburg Rd. Suite 300
Austin, TX 78749

THE COLONY - TREEHOUSE AMENITY CENTER
TREEHOUSE AMENITY CENTER PHASE 1

BASTROP, TEXAS

hatch + ulland owen architects

h+uo # #22-021

100% CONSTRUCTION DOCUMENTATION - BID SET

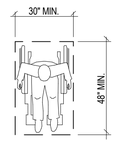
ISSUE REVISIONS

#	DATE	NOTES

SHEET TITLE
COVER

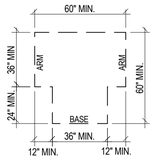
2012 TEXAS ACCESSIBILITY STANDARDS: COMMERCIAL ONLY (ADULTS)

CLEAR FLOOR SPACES, REACH RANGES, AND KNEE/TOE CLEARANCES

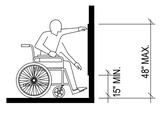


CLEAR FLOOR SPACE REQUIREMENTS (TAS 305.3)

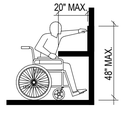
WHEELCHAIR TURNING SPACE (TAS 304.3.1)



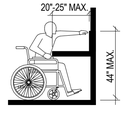
T-SHAPED TURNING SPACES (TAS 304.3.2)



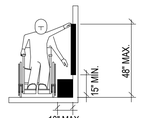
UNOBSTRUCTED FORWARD REACH (TAS 308.2.1)



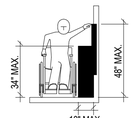
OBSTRUCTED HIGH FORWARD REACH (CASE 1) (TAS 308.2.2)



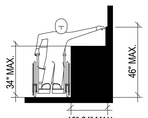
OBSTRUCTED HIGH FORWARD REACH (CASE 2) (TAS 308.2.2)



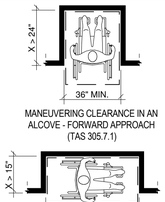
UNOBSTRUCTED SIDE REACH (TAS 308.3.1)



OBSTRUCTED HIGH SIDE REACH (CASE 1) (TAS 308.3.2)

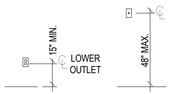


OBSTRUCTED HIGH SIDE REACH (CASE 2) (TAS 308.3.2)



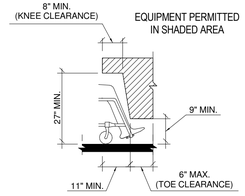
MANEUVERING CLEARANCE IN AN ALCOVE - FORWARD APPROACH (TAS 305.7.1)

MANEUVERING CLEARANCE IN AN ALCOVE - SIDE APPROACH (TAS 305.7.2)



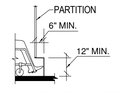
MOUNTING HEIGHT ELEC./COMM. OUTLET (TAS 308)

MOUNTING HEIGHT WALL SWITCH (TAS 308)

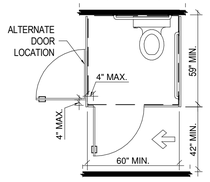


KNEE AND TOE CLEARANCE ELEVATION (TAS 306)

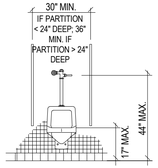
RESTROOM & SHOWER CONDITIONS



TOE CLEARANCE AT STALL PARTITION (TAS 604.8.1.4)

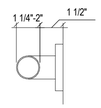


SIZE OF WHEELCHAIR ACCESSIBLE COMPARTMENT (TAS 604.8.1.2)

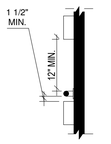


URINAL HEIGHT (TAS 605.2)

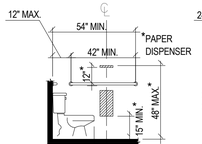
URINAL DEPTH (TAS 605.2)



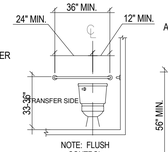
GRAB BAR DETAIL (TAS 609)



SPACING OF GRAB BARS (TAS 609.3)

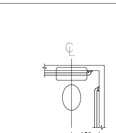


DISPENSER OUTLET AND SIDE WALL GRAB BAR LOCATIONS (TAS 604.5.1 & TAS 604.7)

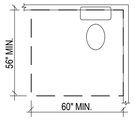


NOTE: FLUSH CONTROL ON TRANSFER SIDE

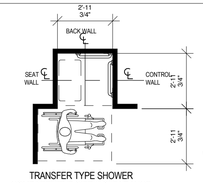
REAR WALL GRAB BAR AT WATER CLOSETS (TAS 604.5.2)



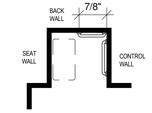
WHEELCHAIR ACCESSIBLE WATER CLOSETS (TAS 604.2)



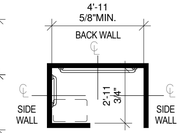
SIZE OF CLEARANCE AT WATER CLOSETS (TAS 604.3.1)



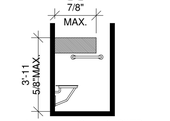
TRANSFER TYPE SHOWER COMPARTMENT SIZE & CLEARANCE (TAS 608.2.1)



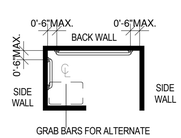
GRAB BARS FOR TRANSFER TYPE SHOWERS (TAS 608.3.1)



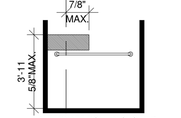
ALTERNATE ROLL-IN SHOWER COMPARTMENT SIZE & CLEARANCE (TAS 608.2.3)



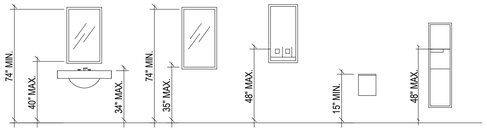
ALTERNATE ROLL-IN SHOWER COMPARTMENT CONTROL LOCATION (TAS 608.5.3)(A) WITH SEAT (ELEVATION)



GRAB BARS FOR ALTERNATE ROLL-IN TYPE SHOWER (TAS 608.3.3)(TAS 608.5.3)(B)(D) WITH SEAT (PLAN)



ALTERNATE ROLL-IN SHOWER COMPARTMENT CONTROL LOCATION (TAS 608.5.3)(B)(D) WITH SEAT (PLAN)



MIRROR LOCATED ABOVE LAVATORY (TAS 603.3)

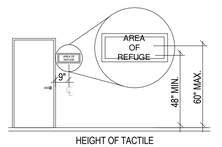
MIRROR NOT LOCATED ABOVE LAVATORY (TAS 603.3)

SANITARY NAPKIN DISPENSER (TAS 308)

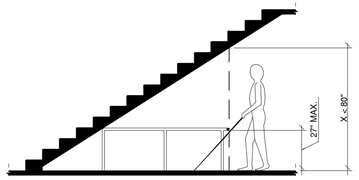
SANITARY NAPKIN DISPOSAL (TAS 308)

PAPER TOWEL DISPENSER & WASTE RECEPTACLE

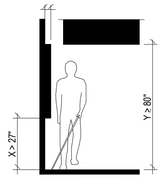
LIMITS OF PROTRUDING OBJECTS, DRINKING FOUNTAINS, AND HORIZONTAL SURFACE CONDITIONS



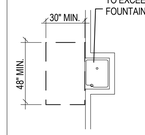
HEIGHT OF TACTILE CHARACTERS ABOVE FINISH FLOOR OR GROUND (TAS 703.4.1)



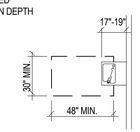
VERTICAL CLEARANCE (TAS 307.4)



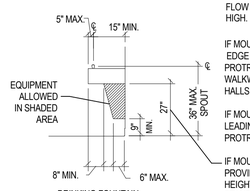
LIMITS OF PROTUDING OBJECTS (TAS 307.2)



RECESSED DRINKING FOUNTAIN PLAN (TAS 602)



DRINKING FOUNTAIN SURFACE PLAN (TAS 602)



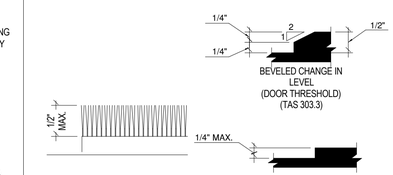
DRINKING FOUNTAIN SIDE ELEVATION (TAS 306 & TAS 602)

NOTE: SPOUT SHALL PROVIDE A FLOW OF WATER AT LEAST 4" HIGH.

IF MOUNTED MORE THAN 27" AFF, THE LEADING EDGE OF THE DRINKING FOUNTAIN CAN ONLY PROTRUDE A MAXIMUM OF 4" INTO WALKWAYS, CORRIDORS, PASSAGEWAYS, HALLS OR AISLES.

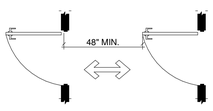
IF MOUNTED AT 27" AFF OR BELOW THE LEADING EDGE OF DRINKING FOUNTAIN CAN PROTRUDE ANY AMOUNT.

IF MOUNTING A "HI-LO" FOUNTAIN THEN PROVIDE ONE FOUNTAIN AT A MAXIMUM HEIGHT OF 36" TO THE SPOUT AND ONE AT A STANDARD MOUNTING HEIGHT OF 40" - 42".



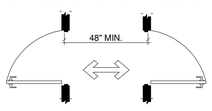
ELONGATED OPENINGS IN FLOOR OR GROUND SURFACES (TAS 302.3)

MANEUVERING CLEARANCES AT MANUAL SWINGING DOORS AND GATES

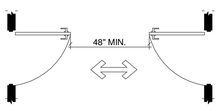


CLEARANCE FOR DOORS IN SERIES (TAS 404.2.6)

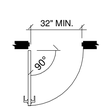
NOTE: ALL DOORS IN ALCOVES MUST COMPLY WITH THE CLEARANCES NOTED FOR FRONT APPROACHES.



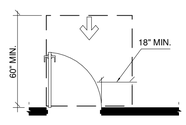
CLEARANCE FOR DOORS IN SERIES (TAS 404.2.6)



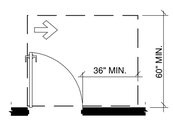
CLEARANCE FOR DOORS IN SERIES (TAS 404.2.6)



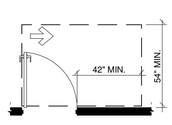
CLEAR WIDTH AT HINGED DOOR (TAS 404.2.3)



PULL SIDE, FRONT APPROACH (TAS 404.2.4.1)

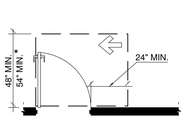


PULL SIDE HINGE APPROACH (CASE 1) (TAS 404.2.4.1)



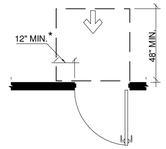
PULL SIDE HINGE APPROACH (CASE 2) (TAS 404.2.4.1)

*WITH LATCH AND CLOSER

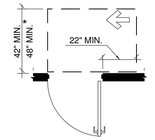


PULL SIDE LATCH APPROACH (TAS 404.2.4.1)

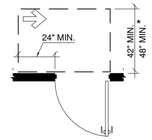
*WITH LATCH AND CLOSER



PUSH SIDE FRONT APPROACH (TAS 404.2.4.1)

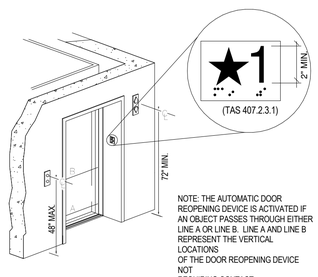


PUSH SIDE HINGE APPROACH (TAS 404.2.4.1)



PUSH SIDE LATCH APPROACH (TAS 404.2.4.1)

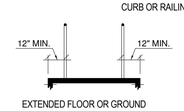
ELEVATORS, STAIRS, RAMPS, AND HANDRAILS



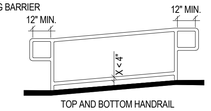
NOTE: THE AUTOMATIC DOOR REOPENING DEVICE IS ACTIVATED IF AN OBJECT PASSES THROUGH EITHER LINE A OR LINE B. LINE A AND LINE B REPRESENT THE VERTICAL LOCATIONS OF THE DOOR REOPENING DEVICE NOT REQUIRING CONTACT.

HOISTWAY AND ELEVATOR ENTRANCES (TAS 407)

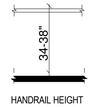
NOTE: EITHER PROVIDE EXTENDED CURB OR RAILING BARRIER



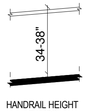
EXTENDED FLOOR OR GROUND SURFACE EDGE PROTECTION AT RAMPS (TAS 405.9.1)



TOP AND BOTTOM HANDRAIL EXTENSION AT RAMPS (TAS 505.10.1)



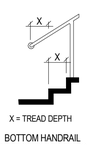
HANDRAIL HEIGHT WALKING SURFACES (TAS 505.5)



HANDRAIL HEIGHT RAMPS (TAS 505.5)

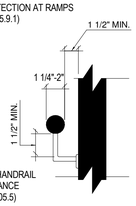
HANDRAIL HEIGHT STAIRS (TAS 505.5)

TOP HANDRAIL EXTENSION AT STAIRS (TAS 505.10.2)

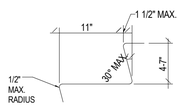


X = TREAD DEPTH

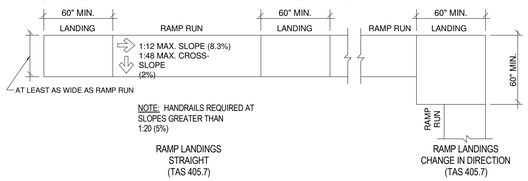
BOTTOM HANDRAIL EXTENSION AT STAIRS (TAS 505.10.3)



CIRCULAR HANDRAIL CLEARANCE (TAS 505.5)



MINIMUM USABLE TREAD WIDTH AND MAXIMUM NOSING DIMENSIONS (TAS 504.5)



NOTE: HANDRAILS REQUIRED AT SLOPES GREATER THAN 1:20 (5%)

RAMP LANDINGS STRAIGHT (TAS 405.7)

RAMP LANDINGS CHANGE IN DIRECTION (TAS 405.7)

GENERAL NOTES:

1. THE DRAWINGS ON THIS SHEET ARE NOT TO A SCALE.

2. THE MINIMUM REQUIRED ACCESSIBILITY COMPLIANCE INCLUDES (BUT IS NOT LIMITED TO) THE INFORMATION SHOWN ON THIS SHEET.

3. NOT EVERYTHING DISPLAYED ON THIS SHEET WILL PERTAIN TO THIS PROJECT. VERIFY WITH THE ARCHITECTURAL DRAWINGS.

4. THE DIMENSIONS INDICATED ARE THE MINIMUM CLEAR DIMENSIONS. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THESE CLEAR DIMENSIONS THROUGHOUT THE PROJECT, WHERE APPLICABLE.

5. NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES BETWEEN THE INFORMATION ON THIS SHEET AND THE ARCHITECTURAL DRAWINGS.

6. THIS SHEET AND DETAILS ARE INCLUDED HERE FOR CONVENIENCE. THEY ARE NOT ALL INCLUSIVE, NOR DO THEY RELIEVE THE CONTRACTOR OF FULL RESPONSIBILITY OF CONSTRUCTING THE PROJECT TO MEET TEXAS ACCESSIBILITY STANDARDS.

hatch + ulland owen architects
23 OCT 2024
hatch + ulland owen architects
1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

CIVIL ENGINEER
CBD ENGINEERING & SURVEYING
5501 West William Cannon Drive
Austin, Texas 78749, US

LANDSCAPE ARCHITECT
SEC PLANNING , LLC
4201 W. Parmer Lane Bldg A, Suite 220
Austin, Texas 78727

PLUMBING, MECHANICAL, ELECTRICAL ENGINEER
Infinity MEP+s Consultants
5316 W US Hwy 290 Service Rd Suite 480
Austin, TX 78735

STRUCTURAL ENGINEER
TDI Engineering, LLC
5906 Old Fredericksburg Rd. Suite 300
Austin, TX 78749

THE COLONY - TREEHOUSE AMENITY CENTER

THE COLONY - TREEHOUSE AMENITY CENTER

TREEHOUSE AMENITY CENTER PHASE 1

BASTROP, TEXAS

hatch + ulland owen architects

h+uo # #22-021

100% CONSTRUCTION DOCUMENTATION - BID SET

ISSUE REVISIONS

#	DATE	NOTES

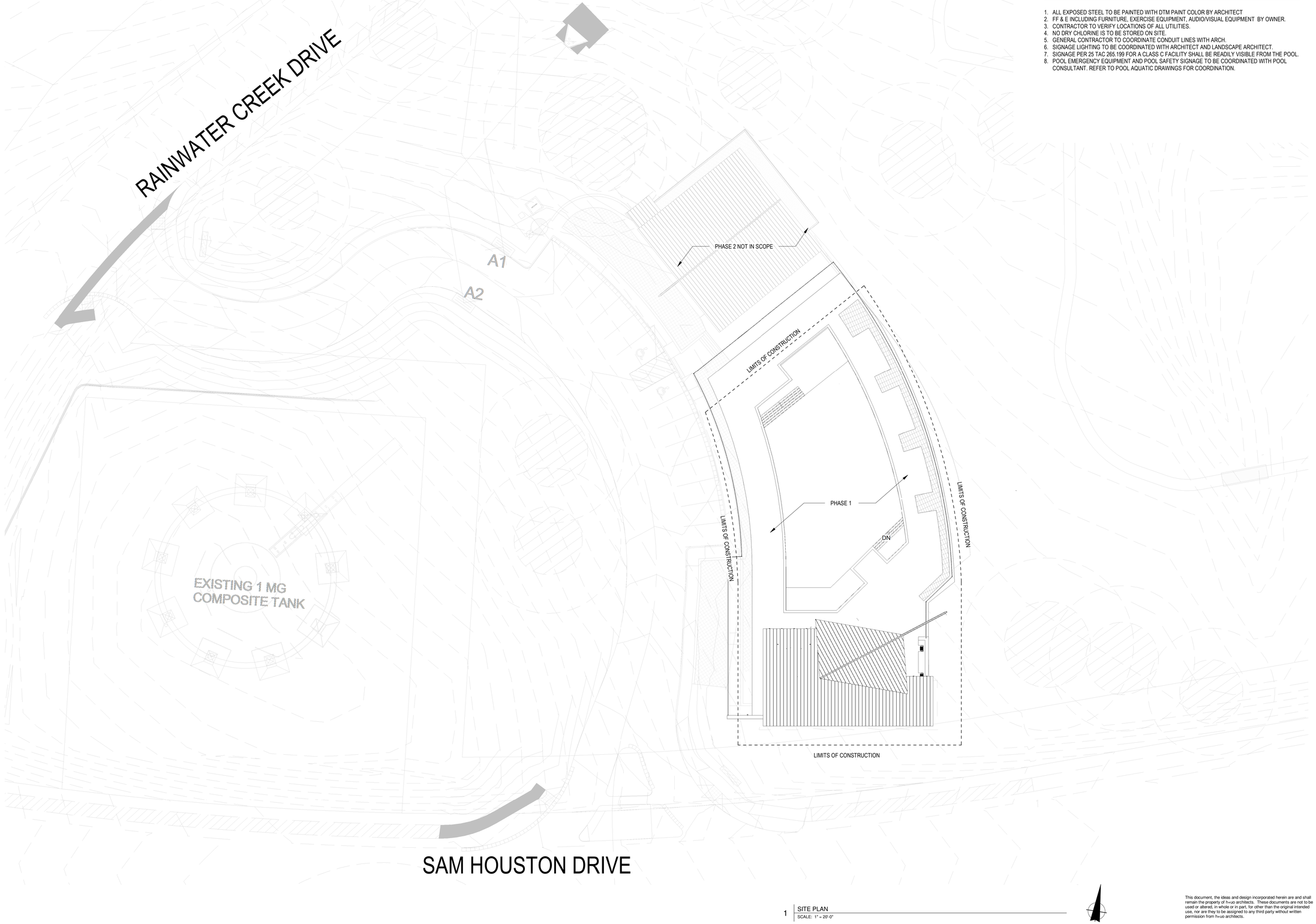
SHEET TITLE

TAS

SHEET NUMBER

G-002

10/23/2024 3:11:04 PM



1 SITE PLAN
SCALE: 1" = 20'-0"

GENERAL NOTES

1. ALL EXPOSED STEEL TO BE PAINTED WITH DTM PAINT COLOR BY ARCHITECT
2. FF & E INCLUDING FURNITURE, EXERCISE EQUIPMENT, AUDIO/VISUAL EQUIPMENT BY OWNER.
3. CONTRACTOR TO VERIFY LOCATIONS OF ALL UTILITIES.
4. NO DRY CHLORINE IS TO BE STORED ON SITE.
5. GENERAL CONTRACTOR TO COORDINATE CONDUIT LINES WITH ARCH.
6. SIGNAGE LIGHTING TO BE COORDINATED WITH ARCHITECT AND LANDSCAPE ARCHITECT.
7. SIGNAGE PER 25 TAC 265.199 FOR A CLASS C FACILITY SHALL BE READILY VISIBLE FROM THE POOL.
8. POOL EMERGENCY EQUIPMENT AND POOL SAFETY SIGNAGE TO BE COORDINATED WITH POOL CONSULTANT. REFER TO POOL AQUATIC DRAWINGS FOR COORDINATION.

hatch + ulland owen architects

REGISTERED ARCHITECT
MARSHALL STEPHEN OWEN
STATE OF TEXAS

23 OCT 2024

hatch + ulland owen
architects
1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

CIVIL ENGINEER
CBD ENGINEERING & SURVEYING
5501 West William Cannon Drive
Austin, Texas 78749, US

LANDSCAPE ARCHITECT
SEC PLANNING , LLC
4201 W. Parmer Lane Bldg A, Suite 220
Austin, Texas 78727

PLUMBING, MECHANICAL, ELECTRICAL ENGINEER
Infinity MEP+s Consultants
5316 W US Hwy 290 Service Rd Suite 480
Austin, TX 78735

STRUCTURAL ENGINEER
TDI Engineering, LLC
5906 Old Fredericksburg Rd. Suite 300
Austin, TX 78749

THE COLONY - TREEHOUSE AMENITY CENTER

THE COLONY - TREEHOUSE AMENITY CENTER

TREEHOUSE AMENITY CENTER PHASE 1

BASTROP, TEXAS

hatch + ulland owen architects

h+uo # #22-021

100% CONSTRUCTION DOCUMENTATION - BID SET

ISSUE REVISIONS

#	DATE	NOTES

SHEET TITLE

PHASE 1 - SITE PLAN

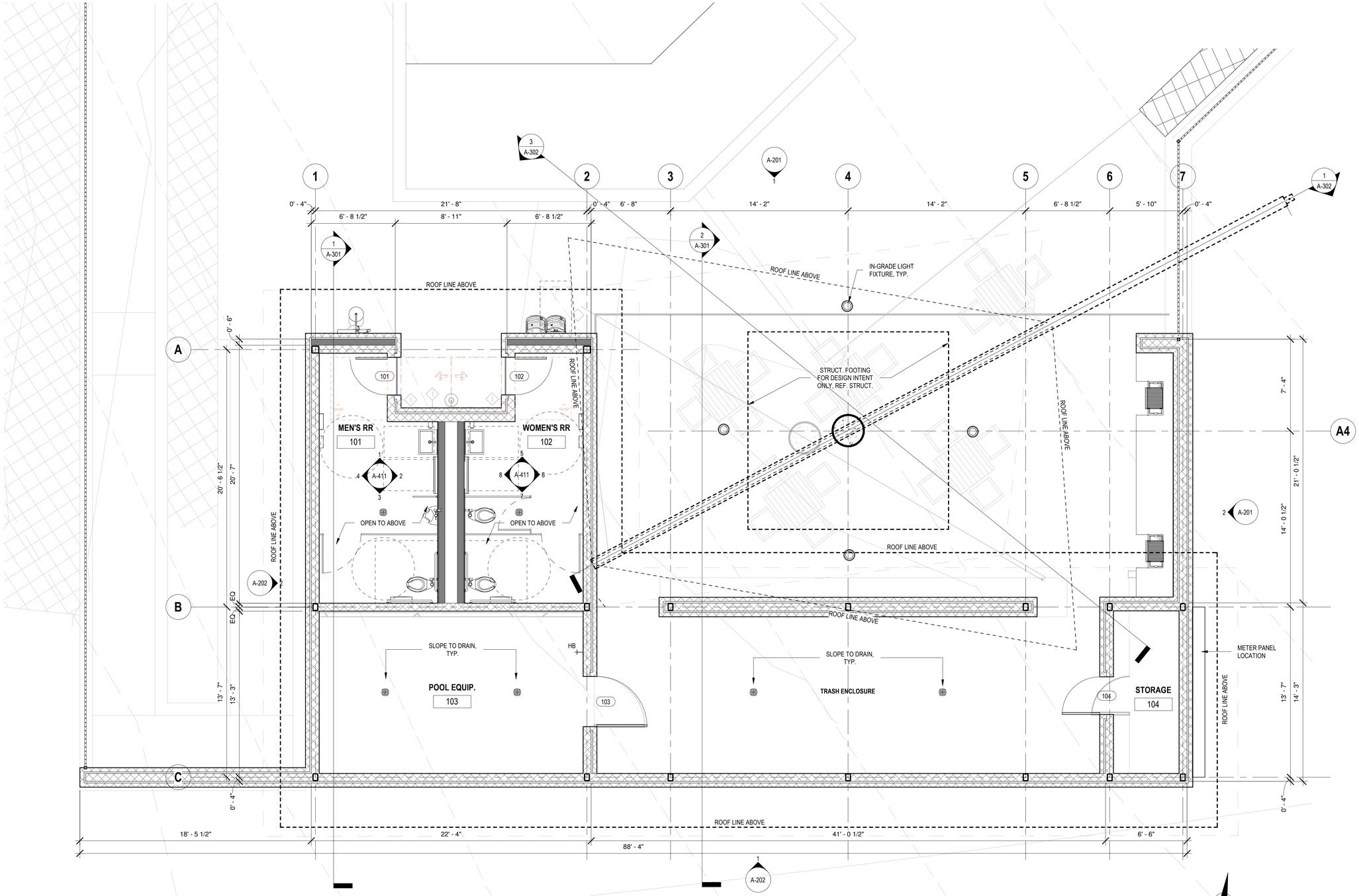
SHEET NUMBER

AS101

10/23/2024 3:11:02 PM

GENERAL NOTES

1. ALL EXPOSED STEEL TO BE PAINTED WITH DTM PAINT COLOR BY ARCHITECT
2. FF & E INCLUDING FURNITURE, EXERCISE EQUIPMENT, AUDIO/VISUAL EQUIPMENT BY OWNER.
3. CONTRACTOR TO VERIFY LOCATIONS OF ALL UTILITIES.
4. NO DRY CHLORINE IS TO BE STORED ON SITE.
5. GENERAL CONTRACTOR TO COORDINATE CONDUIT LINES WITH ARCH.
6. SIGNAGE LIGHTING TO BE COORDINATED WITH ARCHITECT AND LANDSCAPE ARCHITECT.
7. SIGNAGE PER 25 TAC 265.199 FOR A CLASS C FACILITY SHALL BE READILY VISIBLE FROM THE POOL.
8. POOL EMERGENCY EQUIPMENT AND POOL SAFETY SIGNAGE TO BE COORDINATED WITH POOL CONSULTANT. REFER TO POOL AQUATIC DRAWINGS FOR COORDINATION.



1 POOL PAVILION
SCALE: 1/4" = 1'-0"

hatch + ulland owen architects

REGISTERED ARCHITECT
MICHAEL STEPHEN OWEN
STATE OF TEXAS

23 OCT 2024

hatch + ulland owen
architects
1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

CIVIL ENGINEER
CBD ENGINEERING & SURVEYING
5501 West William Cannon Drive
Austin, Texas 78749, US

LANDSCAPE ARCHITECT
SEC PLANNING , LLC
4201 W. Parmer Lane Bldg A, Suite 220
Austin, Texas 78727

PLUMBING, MECHANICAL, ELECTRICAL ENGINEER
Infinity MEP+s Consultants
5316 W US Hwy 290 Service Rd Suite 480
Austin, TX 78735

STRUCTURAL ENGINEER
TDI Engineering, LLC
5906 Old Fredericksburg Rd. Suite 300
Austin, TX 78749

THE COLONY - TREEHOUSE AMENITY CENTER

THE COLONY - TREEHOUSE AMENITY CENTER

TREEHOUSE AMENITY CENTER PHASE 1

BASTROP, TEXAS

hatch + ulland owen architects

h+uo # #22-021

100% CONSTRUCTION DOCUMENTATION - BID SET

ISSUE REVISIONS

#	DATE	NOTES

SHEET TITLE

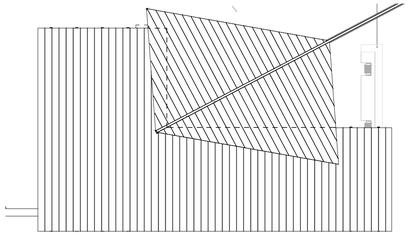
PHASE 1 - POOL PAVILION FLOOR PLAN

SHEET NUMBER

A-101

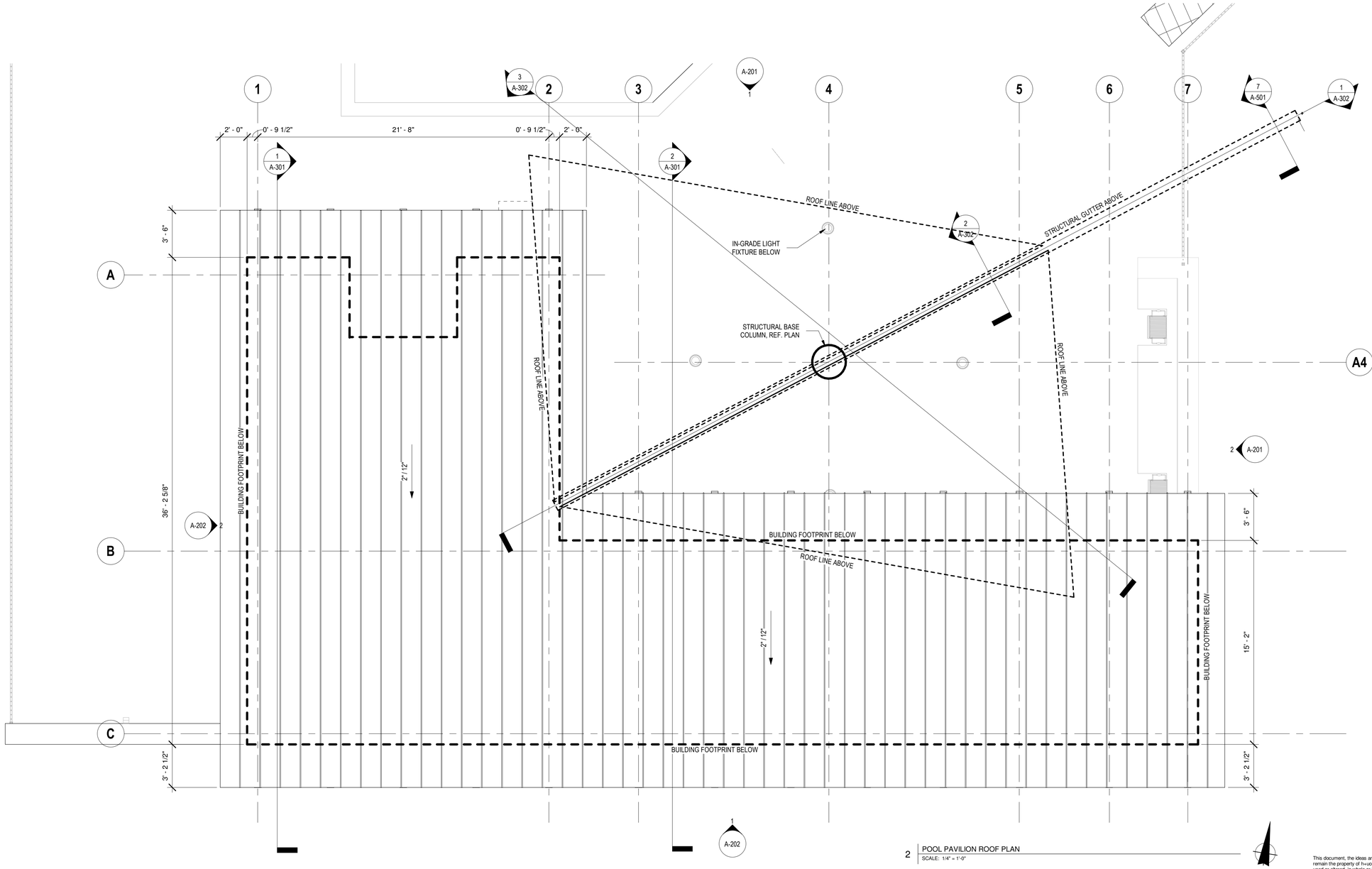
10/23/2024 3:10:20 PM

ROOF PLAN KEY



GENERAL NOTES

1. ALL EXPOSED STEEL TO BE PAINTED WITH DTM PAINT COLOR BY ARCHITECT
2. FF & E INCLUDING FURNITURE, EXERCISE EQUIPMENT, AUDIO/VISUAL EQUIPMENT BY OWNER.
3. CONTRACTOR TO VERIFY LOCATIONS OF ALL UTILITIES.
4. NO DRY CHLORINE IS TO BE STORED ON SITE.
5. GENERAL CONTRACTOR TO COORDINATE CONDUIT LINES WITH ARCH.
6. SIGNAGE LIGHTING TO BE COORDINATED WITH ARCHITECT AND LANDSCAPE ARCHITECT.
7. SIGNAGE PER 25 TAC 265.199 FOR A CLASS C FACILITY SHALL BE READILY VISIBLE FROM THE POOL.
8. POOL EMERGENCY EQUIPMENT AND POOL SAFETY SIGNAGE TO BE COORDINATED WITH POOL CONSULTANT. REFER TO POOL AQUATIC DRAWINGS FOR COORDINATION.



2 POOL PAVILION ROOF PLAN
SCALE: 1/4" = 1'-0"

hatch + ulland owen architects

REGISTERED ARCHITECT · NATHALIE STEPHEN OWEN · 27965 · STATE OF TEXAS

23 OCT 2024

hatch + ulland owen
architects
1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

CIVIL ENGINEER
CBD ENGINEERING & SURVEYING
5501 West William Cannon Drive
Austin, Texas 78749, US

LANDSCAPE ARCHITECT
SEC PLANNING , LLC
4201 W. Parmer Lane Bldg A, Suite 220
Austin, Texas 78727

PLUMBING, MECHANICAL, ELECTRICAL ENGINEER
Infinity MEP+s Consultants
5316 W US Hwy 290 Service Rd Suite 480
Austin, TX 78735

STRUCTURAL ENGINEER
TDI Engineering, LLC
5906 Old Fredericksburg Rd. Suite 300
Austin, TX 78749

THE COLONY - TREEHOUSE AMENITY CENTER

THE COLONY - TREEHOUSE AMENITY CENTER

TREEHOUSE AMENITY CENTER PHASE 1

BASTROP, TEXAS

hatch + ulland owen architects

h+uo # #22-021

100% CONSTRUCTION DOCUMENTATION - BID SET

ISSUE REVISIONS

#	DATE	NOTES

SHEET TITLE

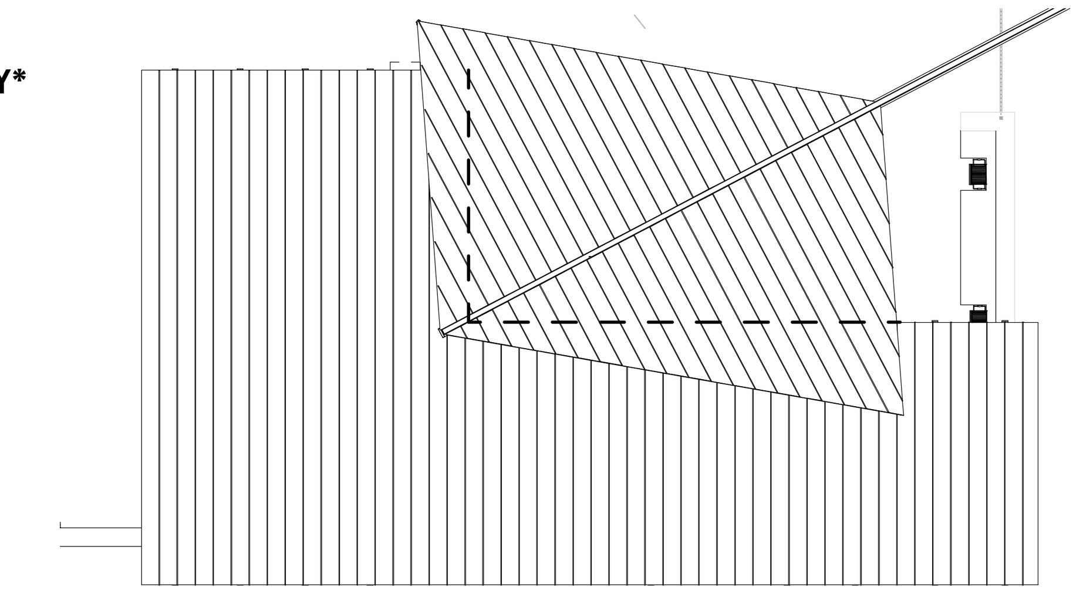
PHASE 1 - POOL PAVILION ROOF PLAN

SHEET NUMBER

A-111

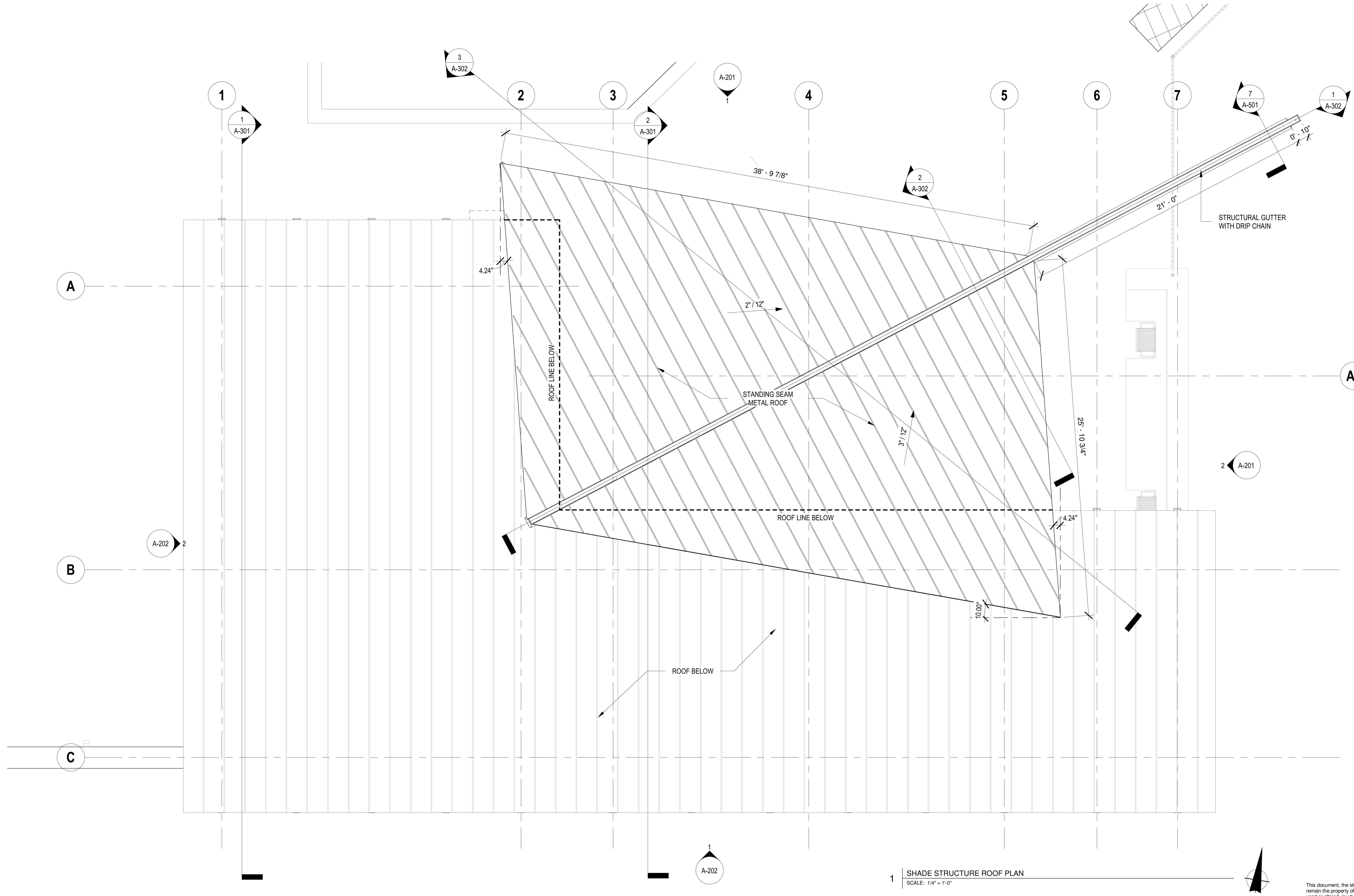
10/23/2024 3:10:21 PM

ROOF PLAN KEY



GENERAL NOTES

1. ALL EXPOSED STEEL TO BE PAINTED WITH DTM PAINT COLOR BY ARCHITECT
2. FF & E INCLUDING FURNITURE, EXERCISE EQUIPMENT, AUDIO/VISUAL EQUIPMENT BY OWNER.
3. CONTRACTOR TO VERIFY LOCATIONS OF ALL UTILITIES.
4. NO DRY CHLORINE IS TO BE STORED ON SITE.
5. GENERAL CONTRACTOR TO COORDINATE CONDUIT LINES WITH ARCH.
6. SIGNAGE LIGHTING TO BE COORDINATED WITH ARCHITECT AND LANDSCAPE ARCHITECT.
7. SIGNAGE PER 25 TAC 265.199 FOR A CLASS C FACILITY SHALL BE READILY VISIBLE FROM THE POOL.
8. POOL EMERGENCY EQUIPMENT AND POOL SAFETY SIGNAGE TO BE COORDINATED WITH POOL CONSULTANT. REFER TO POOL AQUATIC DRAWINGS FOR COORDINATION.



1 SHADE STRUCTURE ROOF PLAN
SCALE: 1/4" = 1'-0"

10/23/2024 3:10:23 PM

h+uo
hatch + ulland owen architects

REGISTERED ARCHITECT
RANDALL STEPHEN OWEN
17763
STATE OF TEXAS
23 OCT 2024

hatch + ulland owen
architects
1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

THE COLONY - TREEHOUSE AMENITY CENTER

CIVIL ENGINEER
CBD ENGINEERING & SURVEYING
5501 West William Cannon Drive
Austin, Texas 78749, US

LANDSCAPE ARCHITECT
SEC PLANNING , LLC
4201 W. Parmer Lane Bldg A, Suite 220
Austin, Texas 78727

PLUMBING, MECHANICAL, ELECTRICAL ENGINEER
Infinity MEP+s Consultants
5316 W US Hwy 290 Service Rd Suite 480
Austin, TX 78735

STRUCTURAL ENGINEER
TDI Engineering, LLC
5906 Old Fredericksburg Rd. Suite 300
Austin, TX 78749

THE COLONY - TREEHOUSE AMENITY CENTER
TREEHOUSE AMENITY CENTER PHASE 1

BASTROP, TEXAS

hatch + ulland owen architects

h+uo # #22-021

100% CONSTRUCTION DOCUMENTATION - BID SET

ISSUE REVISIONS

#	DATE	NOTES

SHEET TITLE
PHASE 1 - SHADE STRUCTURE ROOF PLAN

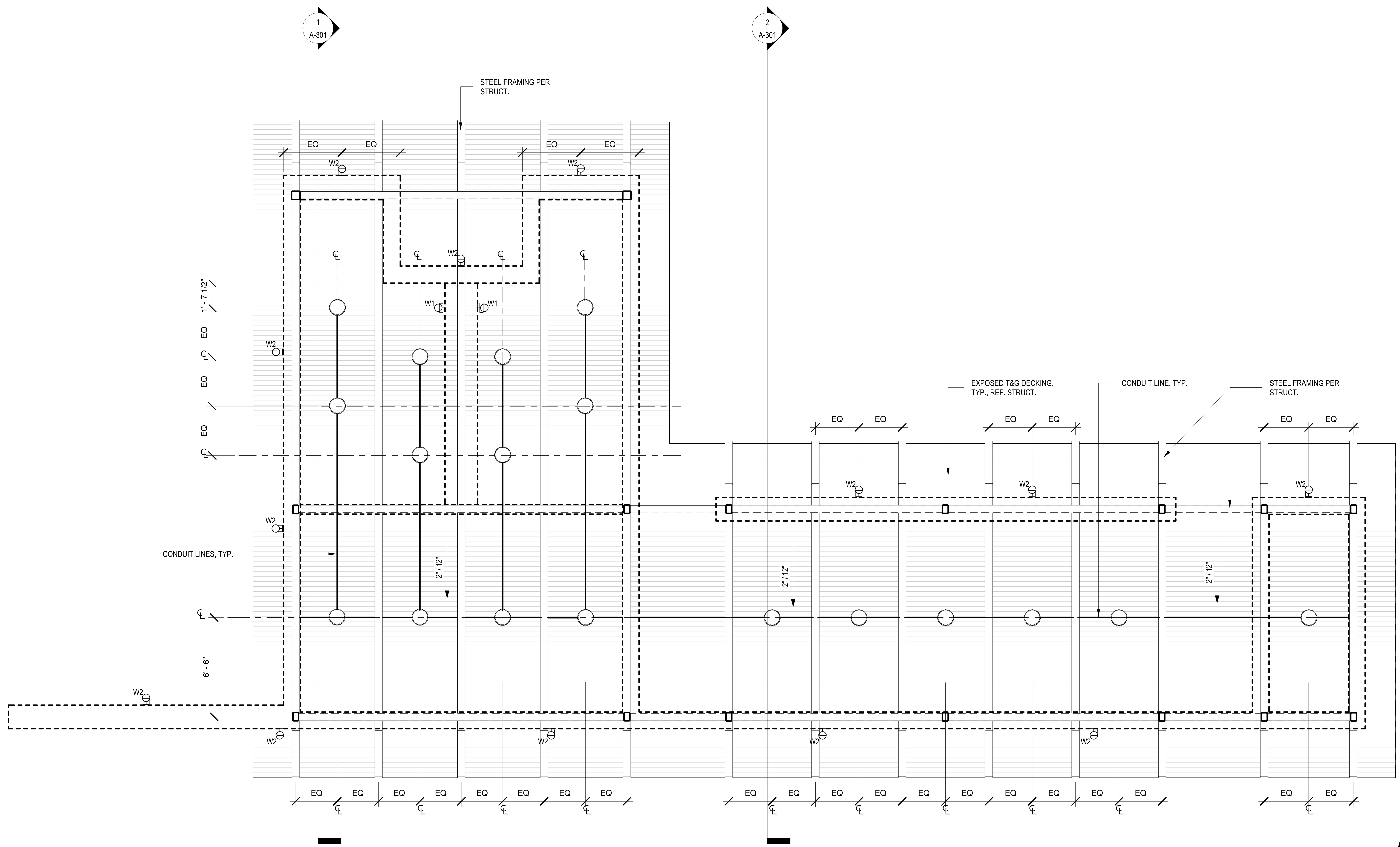
SHEET NUMBER
A-112

GENERAL NOTES

1. ALL EXPOSED STEEL TO BE PAINTED WITH DTM PAINT COLOR BY ARCHITECT
2. FF & E INCLUDING FURNITURE, EXERCISE EQUIPMENT, AUDIO/VISUAL EQUIPMENT BY OWNER.
3. CONTRACTOR TO VERIFY LOCATIONS OF ALL UTILITIES.
4. NO DRY CHLORINE IS TO BE STORED ON SITE.
5. GENERAL CONTRACTOR TO COORDINATE CONDUIT LINES WITH ARCH.
6. SIGNAGE LIGHTING TO BE COORDINATED WITH ARCHITECT AND LANDSCAPE ARCHITECT.
7. SIGNAGE PER 25 TAC 265.199 FOR A CLASS C FACILITY SHALL BE READILY VISIBLE FROM THE POOL.
8. POOL EMERGENCY EQUIPMENT AND POOL SAFETY SIGNAGE TO BE COORDINATED WITH POOL CONSULTANT. REFER TO POOL AQUATIC DRAWINGS FOR COORDINATION.

BUILDING RCP LEGEND

- SURFACE MOUNT LIGHT
- W1 WALL MOUNTED LIGHT 1
- W2 WALL MOUNTED LIGHT 2



1 POOL PAVILION
SCALE: 1/4" = 1'-0"

h+uo
hatch + ulland owen architects

REGISTERED ARCHITECT RANDALL STEPHEN OWEN 17763 STATE OF TEXAS
23 OCT 2024

hatch + ulland owen architects
1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

THE COLONY - TREEHOUSE AMENITY CENTER

CIVIL ENGINEER
CBD ENGINEERING & SURVEYING
5501 West William Cannon Drive
Austin, Texas 78749, US

LANDSCAPE ARCHITECT
SEC PLANNING , LLC
4201 W. Parmer Lane Bldg A, Suite 220
Austin, Texas 78727

PLUMBING, MECHANICAL, ELECTRICAL ENGINEER
Infinity MEP+s Consultants
5316 W US Hwy 290 Service Rd Suite 480
Austin, TX 78735

STRUCTURAL ENGINEER
TDI Engineering, LLC
5906 Old Fredericksburg Rd. Suite 300
Austin, TX 78749

THE COLONY - TREEHOUSE AMENITY CENTER
TREEHOUSE AMENITY CENTER PHASE 1

BASTROP, TEXAS

hatch + ulland owen architects

h+uo # #22-021

100% CONSTRUCTION DOCUMENTATION - BID SET

ISSUE REVISIONS

#	DATE	NOTES

SHEET TITLE
PHASE 1 - POOL PAVILION RCP

SHEET NUMBER
A-121

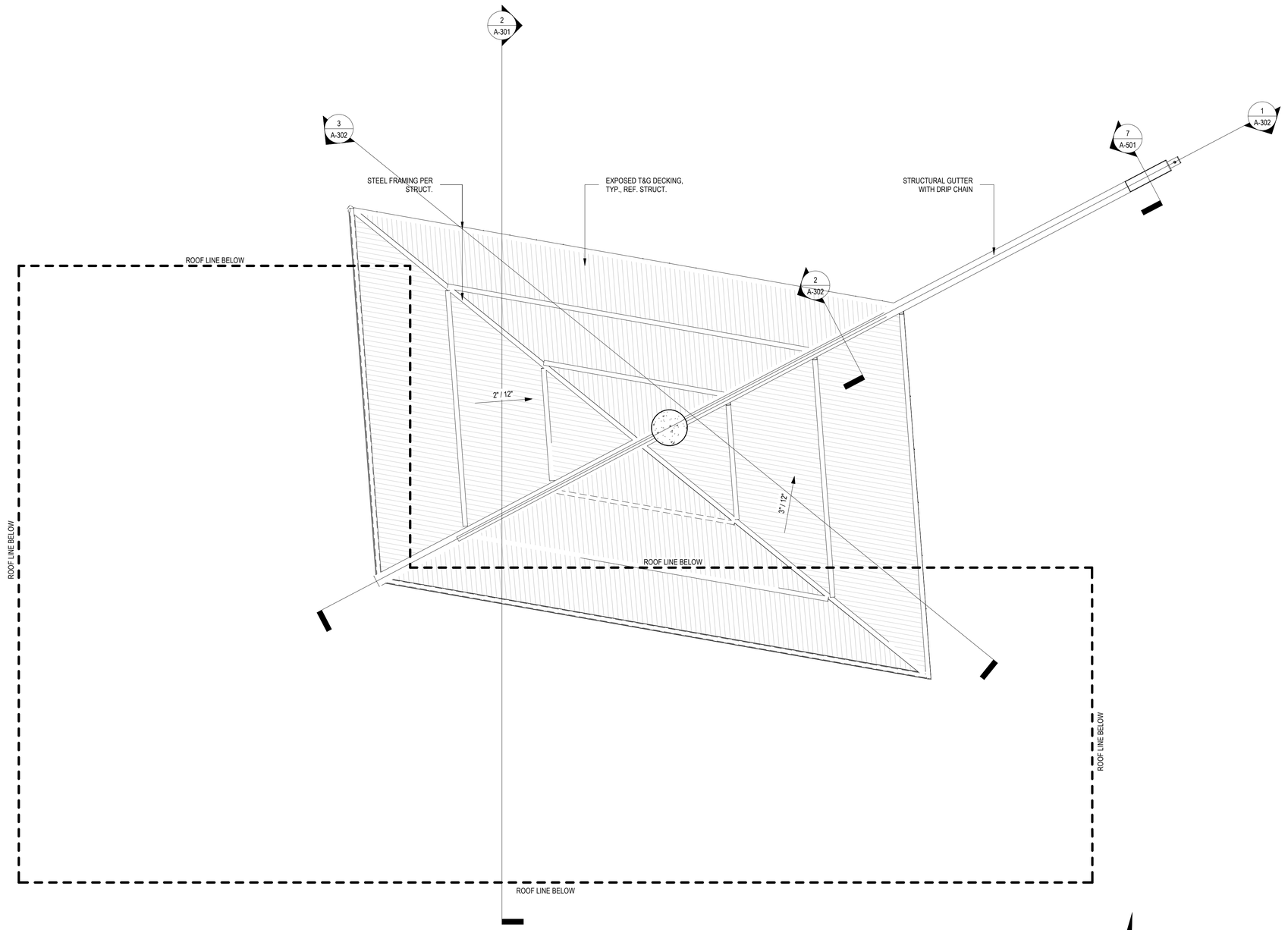
10/23/2024 3:10:23 PM

GENERAL NOTES

1. ALL EXPOSED STEEL TO BE PAINTED WITH DTM PAINT COLOR BY ARCHITECT
2. FF & E INCLUDING FURNITURE, EXERCISE EQUIPMENT, AUDIO/VISUAL EQUIPMENT BY OWNER.
3. CONTRACTOR TO VERIFY LOCATIONS OF ALL UTILITIES.
4. NO DRY CHLORINE IS TO BE STORED ON SITE.
5. GENERAL CONTRACTOR TO COORDINATE CONDUIT LINES WITH ARCH.
6. SIGNAGE LIGHTING TO BE COORDINATED WITH ARCHITECT AND LANDSCAPE ARCHITECT.
7. SIGNAGE PER 25 TAC 265.199 FOR A CLASS C FACILITY SHALL BE READILY VISIBLE FROM THE POOL.
8. POOL EMERGENCY EQUIPMENT AND POOL SAFETY SIGNAGE TO BE COORDINATED WITH POOL CONSULTANT. REFER TO POOL AQUATIC DRAWINGS FOR COORDINATION.

BUILDING RCP LEGEND

○	SURFACE MOUNT LIGHT
W1	WALL MOUNTED LIGHT 1
W2	WALL MOUNTED LIGHT 2



1 SHADE STRUCTURE
SCALE: 1/4" = 1'-0"

hatch + ulland owen architects

REGISTERED ARCHITECT · MARSHALL STEPHEN OWEN · 23765 · STATE OF TEXAS

23 OCT 2024

hatch + ulland owen
architects
1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

CIVIL ENGINEER
CBD ENGINEERING & SURVEYING
5501 West William Cannon Drive
Austin, Texas 78749, US

LANDSCAPE ARCHITECT
SEC PLANNING , LLC
4201 W. Parmer Lane Bldg A, Suite 220
Austin, Texas 78727

PLUMBING, MECHANICAL, ELECTRICAL ENGINEER
Infinity MEP+s Consultants
5316 W US Hwy 290 Service Rd Suite 480
Austin, TX 78735

STRUCTURAL ENGINEER
TDI Engineering, LLC
5906 Old Fredericksburg Rd. Suite 300
Austin, TX 78749

THE COLONY - TREEHOUSE AMENITY CENTER

THE COLONY - TREEHOUSE AMENITY CENTER
TREEHOUSE AMENITY CENTER PHASE 1

BASTROP, TEXAS

hatch + ulland owen architects

h+uo # #22-021

100% CONSTRUCTION DOCUMENTATION - BID SET

ISSUE REVISIONS

#	DATE	NOTES

SHEET TITLE

PHASE 1 - SHADE STRUCTURE RCP

SHEET NUMBER

A-122

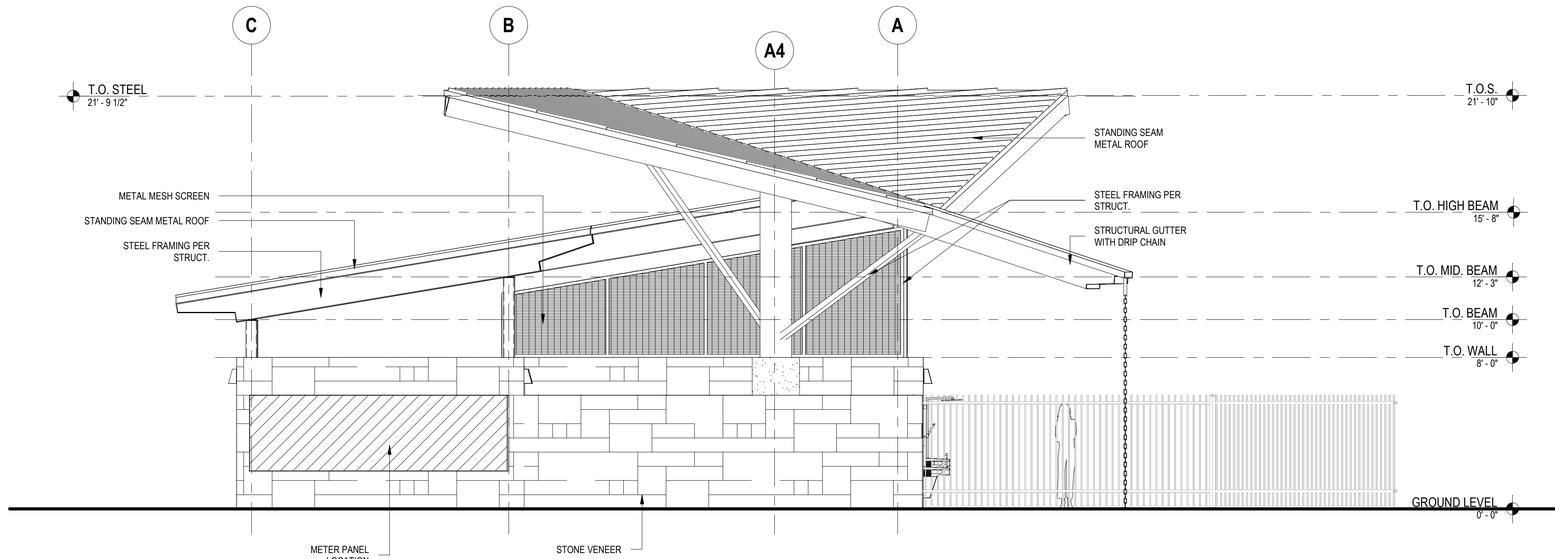
10/23/2024 3:10:24 PM

FINISH SCHEDULE

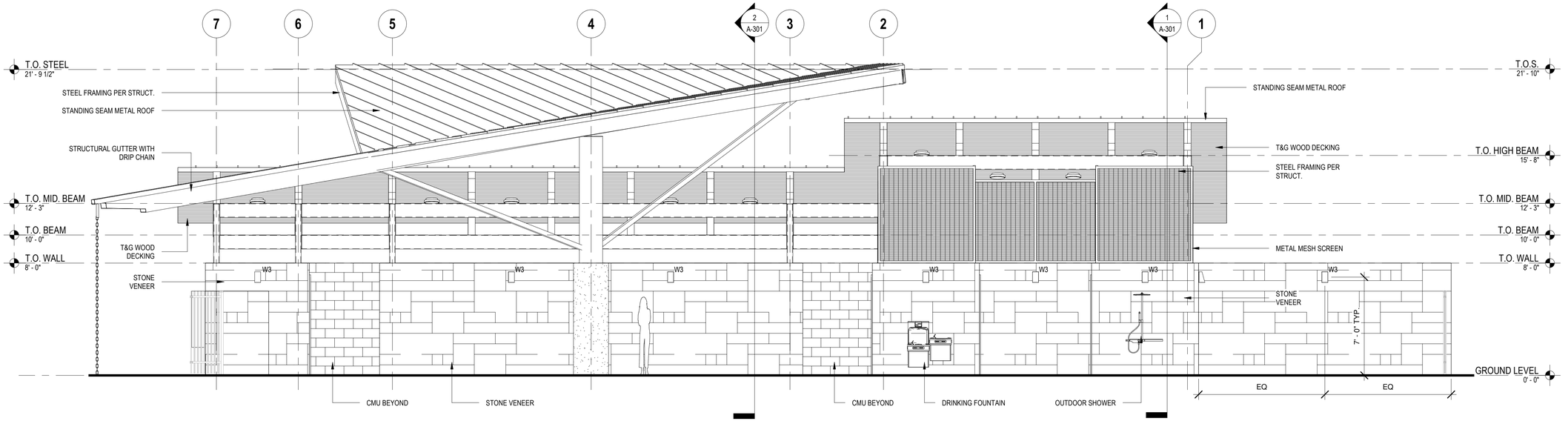
ITEM	MATERIAL	DETAILS
Exterior		
Roof	Metal	Galvalume, Standing seam metal roof
Walls	Limestone	Consult w/ Arch and Landscape
Steel Structure, Supports and Brackets		Color TBD w/ Arch
Wood	T&G 2x Wood Deck	Cedar, Clear sealed

GENERAL NOTES

1. ALL EXPOSED STEEL TO BE PAINTED WITH DTM PAINT COLOR BY ARCHITECT
2. FF & E INCLUDING FURNITURE, EXERCISE EQUIPMENT, AUDIO/VISUAL EQUIPMENT BY OWNER.
3. CONTRACTOR TO VERIFY LOCATIONS OF ALL UTILITIES.
4. NO DRY CHLORINE IS TO BE STORED ON SITE.
5. GENERAL CONTRACTOR TO COORDINATE CONDUIT LINES WITH ARCH.
6. SIGNAGE LIGHTING TO BE COORDINATED WITH ARCHITECT AND LANDSCAPE ARCHITECT.
7. SIGNAGE PER 25 TAC 265.199 FOR A CLASS C FACILITY SHALL BE READILY VISIBLE FROM THE POOL.
8. POOL EMERGENCY EQUIPMENT AND POOL SAFETY SIGNAGE TO BE COORDINATED WITH POOL CONSULTANT. REFER TO POOL AQUATIC DRAWINGS FOR COORDINATION.



2 EAST ELEVATION
SCALE: 1/4" = 1'-0"



1 NORTH ELEVATION
SCALE: 1/4" = 1'-0"

hatch + ulland owen architects

REGISTERED ARCHITECT · RANDALL STEPHEN OWEN · 27965 · STATE OF TEXAS

23 OCT 2024

hatch + ulland owen
architects
1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

CIVIL ENGINEER
CBD ENGINEERING & SURVEYING
5501 West William Cannon Drive
Austin, Texas 78749, US

LANDSCAPE ARCHITECT
SEC PLANNING , LLC
4201 W. Parmer Lane Bldg A, Suite 220
Austin, Texas 78727

PLUMBING, MECHANICAL, ELECTRICAL ENGINEER
Infinity MEP+s Consultants
5316 W US Hwy 290 Service Rd Suite 480
Austin, TX 78735

STRUCTURAL ENGINEER
TDI Engineering, LLC
5906 Old Fredericksburg Rd. Suite 300
Austin, TX 78749

THE COLONY - TREEHOUSE AMENITY CENTER

TREEHOUSE AMENITY CENTER PHASE 1

BASTROP, TEXAS

hatch + ulland owen architects

h+uo # #22-021

100% CONSTRUCTION DOCUMENTATION - BID SET

ISSUE REVISIONS

#	DATE	NOTES

SHEET TITLE

PHASE 1 - POOL PAVILION EXT. ELEVATIONS

SHEET NUMBER

A-201

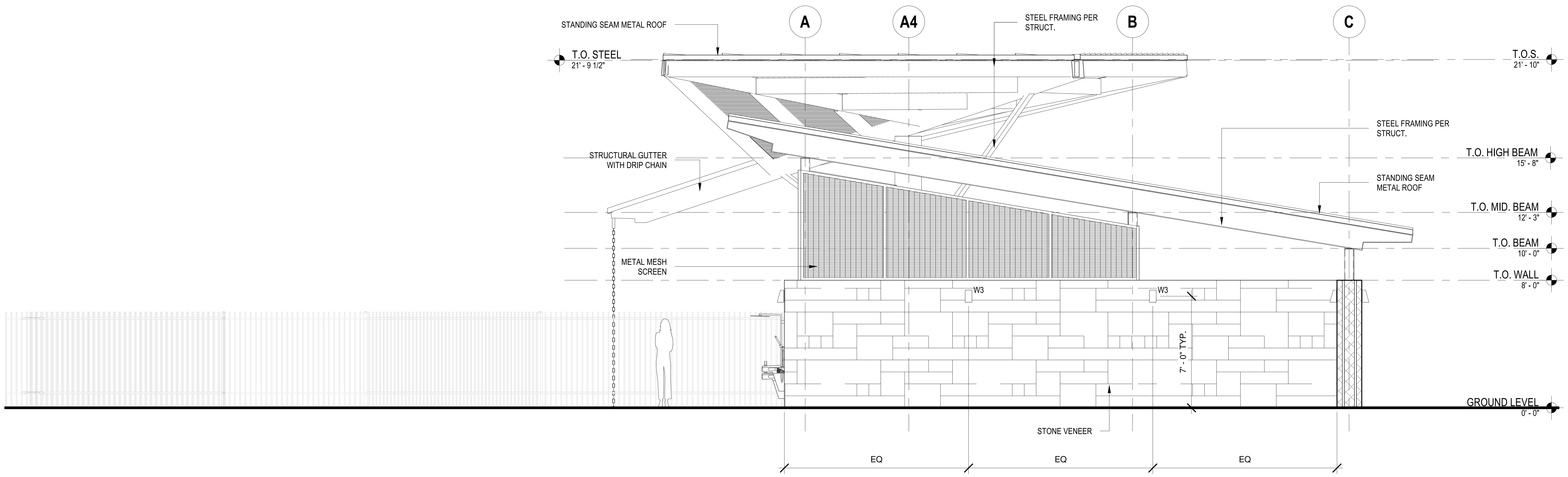
10/23/2024 3:10:28 PM

FINISH SCHEDULE

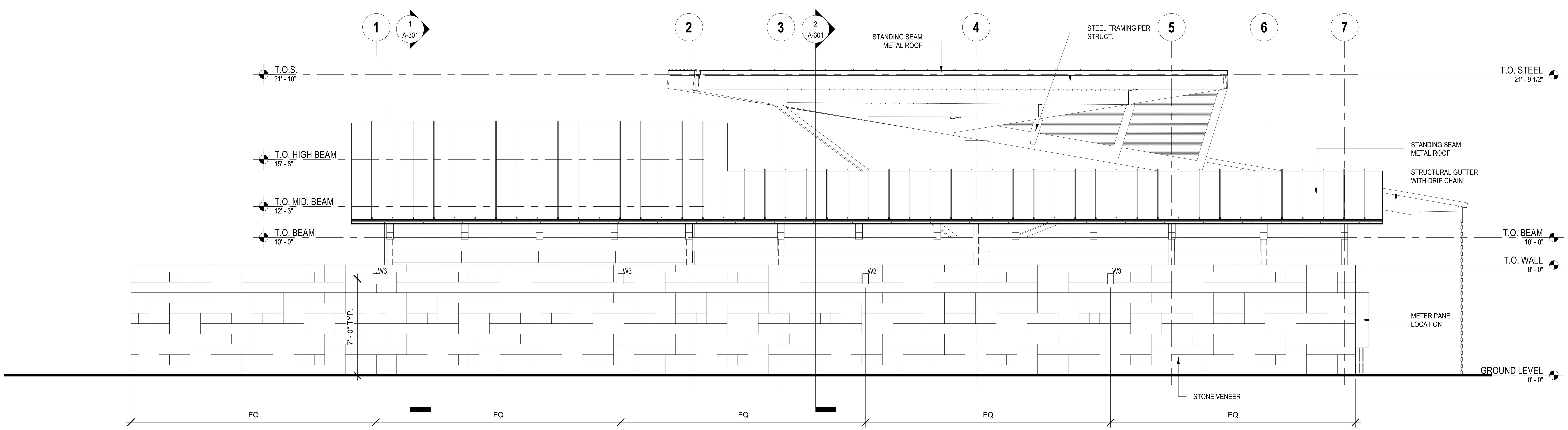
ITEM	MATERIAL	DETAILS
Exterior		
Roof	Metal	Galvalume, Standing seam metal roof
Walls	Limestone	Consult w/ Arch and Landscape
Steel Structure, Supports and Brackets		Color TBD w/ Arch
Wood	T&G 2x Wood Deck	Cedar, Clear sealed

GENERAL NOTES

1. ALL EXPOSED STEEL TO BE PAINTED WITH DTM PAINT COLOR BY ARCHITECT
2. FF & E INCLUDING FURNITURE, EXERCISE EQUIPMENT, AUDIO/VISUAL EQUIPMENT BY OWNER.
3. CONTRACTOR TO VERIFY LOCATIONS OF ALL UTILITIES.
4. NO DRY CHLORINE IS TO BE STORED ON SITE.
5. GENERAL CONTRACTOR TO COORDINATE CONDUIT LINES WITH ARCH.
6. SIGNAGE LIGHTING TO BE COORDINATED WITH ARCHITECT AND LANDSCAPE ARCHITECT.
7. SIGNAGE PER 25 TAC 265.199 FOR A CLASS C FACILITY SHALL BE READILY VISIBLE FROM THE POOL.
8. POOL EMERGENCY EQUIPMENT AND POOL SAFETY SIGNAGE TO BE COORDINATED WITH POOL CONSULTANT. REFER TO POOL AQUATIC DRAWINGS FOR COORDINATION.



2 WEST ELEVATION
SCALE: 1/4" = 1'-0"



1 SOUTH ELEVATION
SCALE: 1/4" = 1'-0"

h+uo
hatch + ulland owen architects

THE COLONY - TREEHOUSE AMENITY CENTER

REGISTERED ARCHITECT RANDALL STEPHEN OWEN 17363 STATE OF TEXAS
23 OCT 2024

hatch + ulland owen architects
1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

CIVIL ENGINEER
CBD ENGINEERING & SURVEYING
5501 West William Cannon Drive
Austin, Texas 78749, US

LANDSCAPE ARCHITECT
SEC PLANNING , LLC
4201 W. Parmer Lane Bldg A, Suite 220
Austin, Texas 78727

PLUMBING, MECHANICAL, ELECTRICAL ENGINEER
Infinity MEP+s Consultants
5316 W US Hwy 290 Service Rd Suite 480
Austin, TX 78735

STRUCTURAL ENGINEER
TDI Engineering, LLC
5906 Old Fredericksburg Rd. Suite 300
Austin, TX 78749

THE COLONY - TREEHOUSE AMENITY CENTER

TREEHOUSE AMENITY CENTER PHASE 1

BASTROP, TEXAS

hatch + ulland owen architects

h+uo # #22-021

100% CONSTRUCTION DOCUMENTATION - BID SET

ISSUE REVISIONS

#	DATE	NOTES

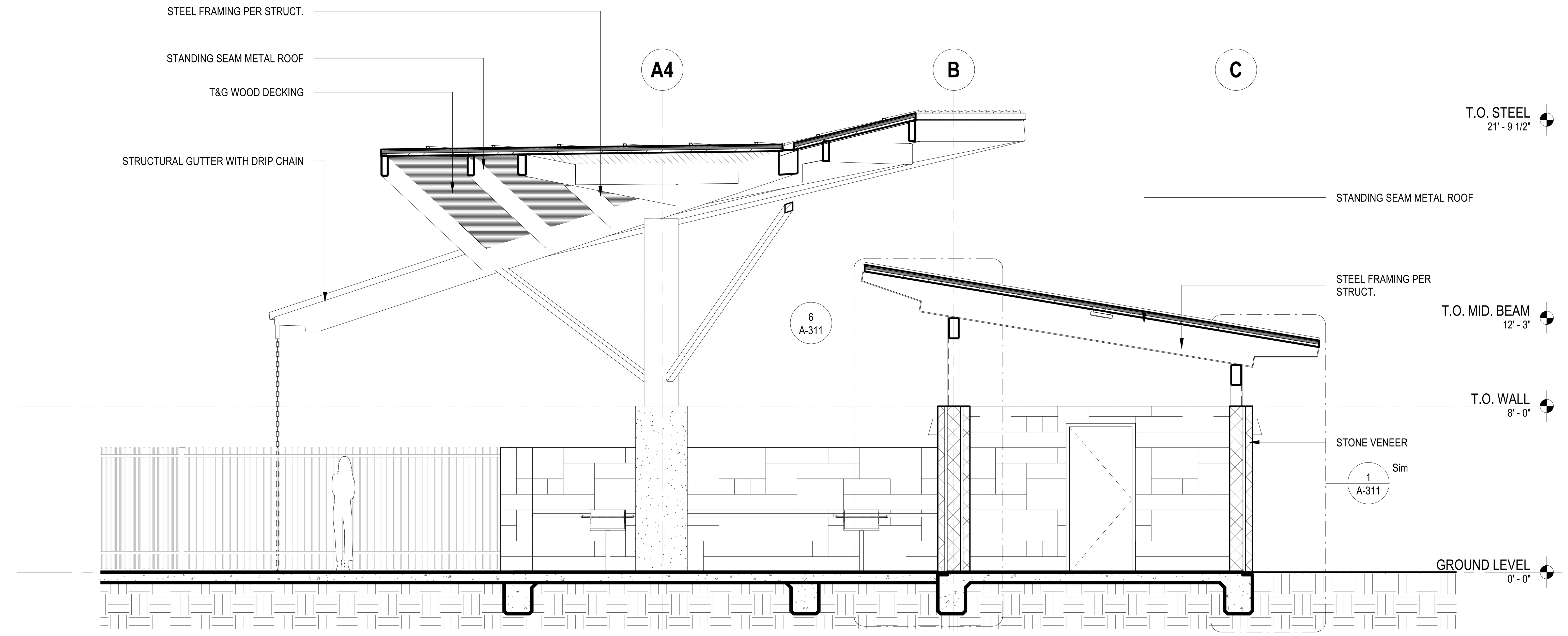
SHEET TITLE

PHASE 1 - POOL PAVILION EXT. ELEVATIONS

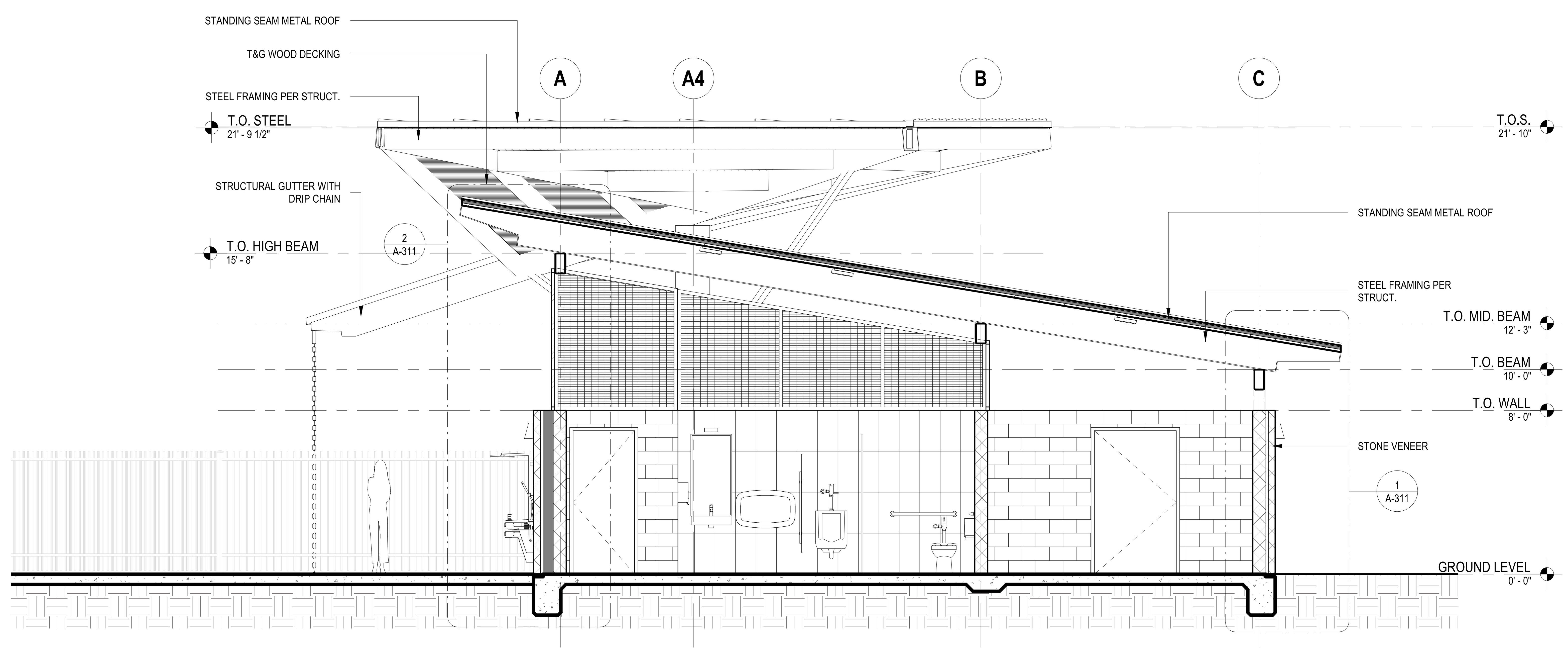
SHEET NUMBER

A-202

10/23/2024 3:10:32 PM



2 PHASE 1 - SHADE STRUCTURE & POOL PAVILION BUILDING SECTION
SCALE: 1/4" = 1'-0"



1 PHASE 1 - POOL PAVILION BUILDING SECTION
SCALE: 1/4" = 1'-0"

10/23/2024 3:10:33 PM

h+uo
hatch + ulland owen architects

REGISTERED ARCHITECT RANDALL STEPHEN OWEN 17763 STATE OF TEXAS
23 OCT 2024

hatch + ulland owen architects
1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

THE COLONY - TREEHOUSE AMENITY CENTER

CIVIL ENGINEER
CBD ENGINEERING & SURVEYING
5501 West William Cannon Drive
Austin, Texas 78749, US

LANDSCAPE ARCHITECT
SEC PLANNING , LLC
4201 W. Parmer Lane Bldg A, Suite 220
Austin, Texas 78727

PLUMBING, MECHANICAL, ELECTRICAL ENGINEER
Infinity MEP+s Consultants
5316 W US Hwy 290 Service Rd Suite 480
Austin, TX 78735

STRUCTURAL ENGINEER
TDI Engineering, LLC
5906 Old Fredericksburg Rd. Suite 300
Austin, TX 78749

THE COLONY - TREEHOUSE AMENITY CENTER
TREEHOUSE AMENITY CENTER PHASE 1

BASTROP, TEXAS

hatch + ulland owen architects

h+uo # #22-021

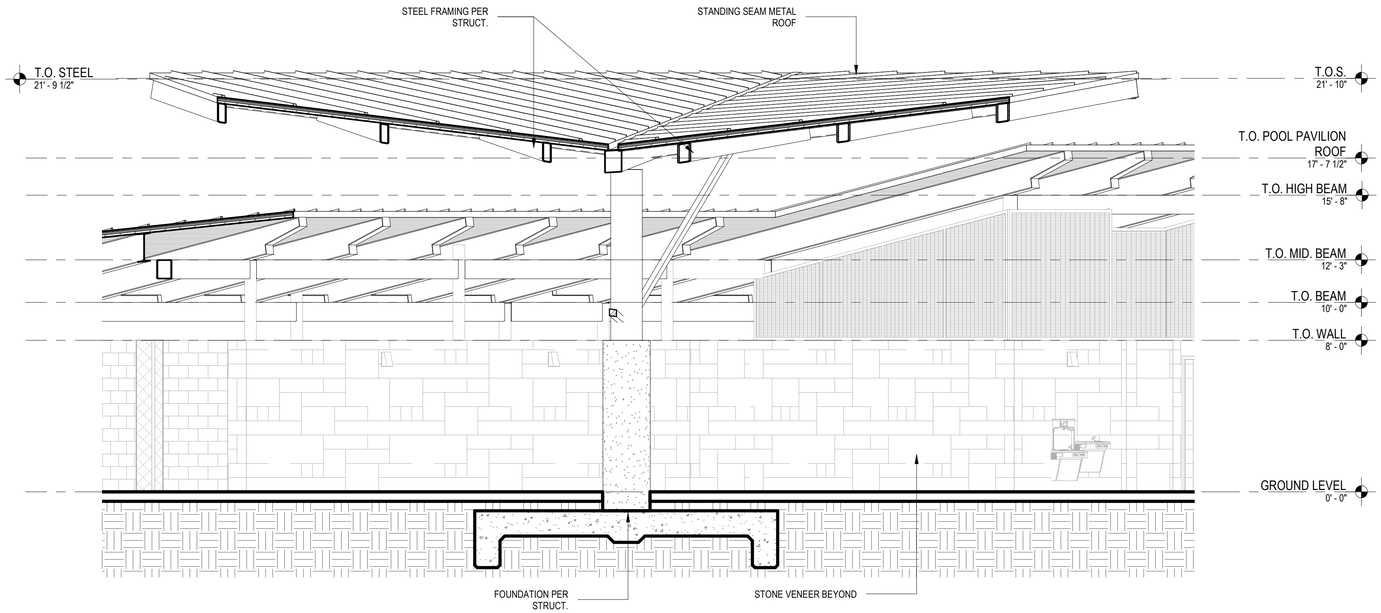
100% CONSTRUCTION DOCUMENTATION - BID SET

ISSUE REVISIONS

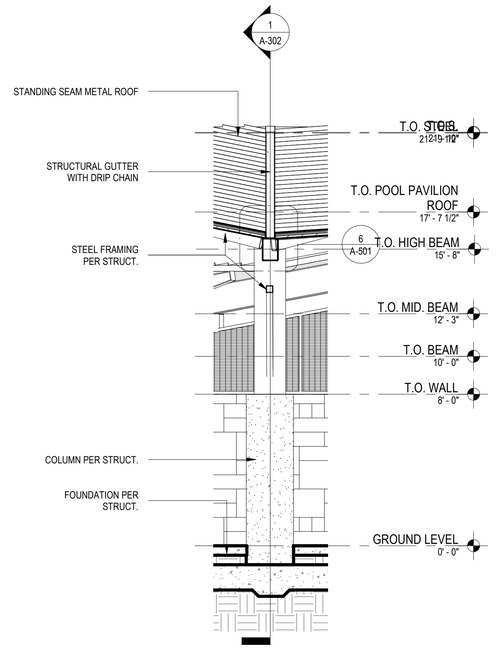
#	DATE	NOTES

SHEET TITLE
PHASE 1 - BUILDING SECTIONS

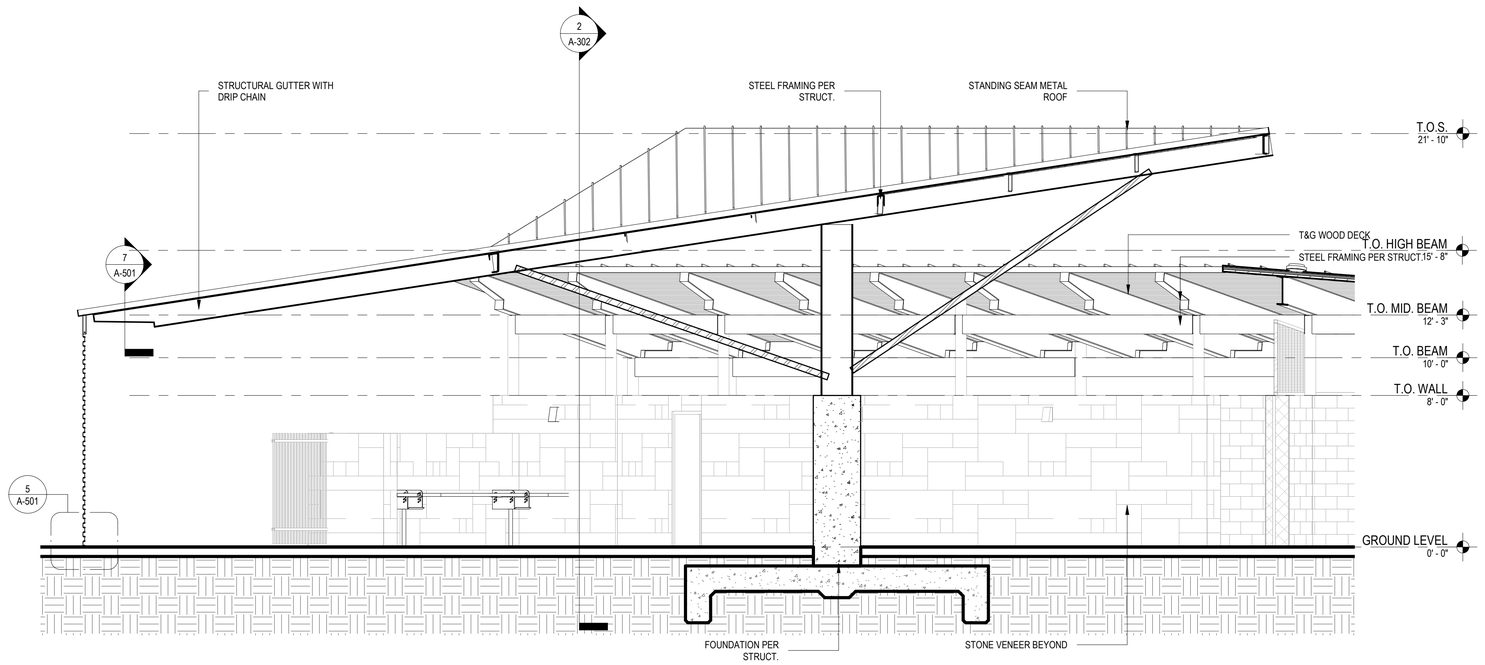
SHEET NUMBER
A-301



3 Section 26
SCALE: 1/4" = 1'-0"



2 PHASE 1 - SHADE STRUCTURE BUILDING SECTION
SCALE: 1/4" = 1'-0"



1 PHASE 1 - SHADE STRUCTURE BUILDING SECTION
SCALE: 1/4" = 1'-0"

hatch + ulland owen architects

REGISTERED ARCHITECT
MARSHALL STEPHEN OWEN
STATE OF TEXAS

23 OCT 2024

hatch + ulland owen
architects
1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

CIVIL ENGINEER
CBD ENGINEERING & SURVEYING
5501 West William Cannon Drive
Austin, Texas 78749, US

LANDSCAPE ARCHITECT
SEC PLANNING , LLC
4201 W. Parmer Lane Bldg A, Suite 220
Austin, Texas 78727

PLUMBING, MECHANICAL, ELECTRICAL ENGINEER
Infinity MEP+s Consultants
5316 W US Hwy 290 Service Rd Suite 480
Austin, TX 78735

STRUCTURAL ENGINEER
TDI Engineering, LLC
5906 Old Fredericksburg Rd. Suite 300
Austin, TX 78749

THE COLONY - TREEHOUSE AMENITY CENTER

THE COLONY - TREEHOUSE AMENITY CENTER

TREEHOUSE AMENITY CENTER PHASE 1

BASTROP, TEXAS

hatch + ulland owen architects

h+uo # #22-021

100% CONSTRUCTION DOCUMENTATION - BID SET

ISSUE REVISIONS

#	DATE	NOTES

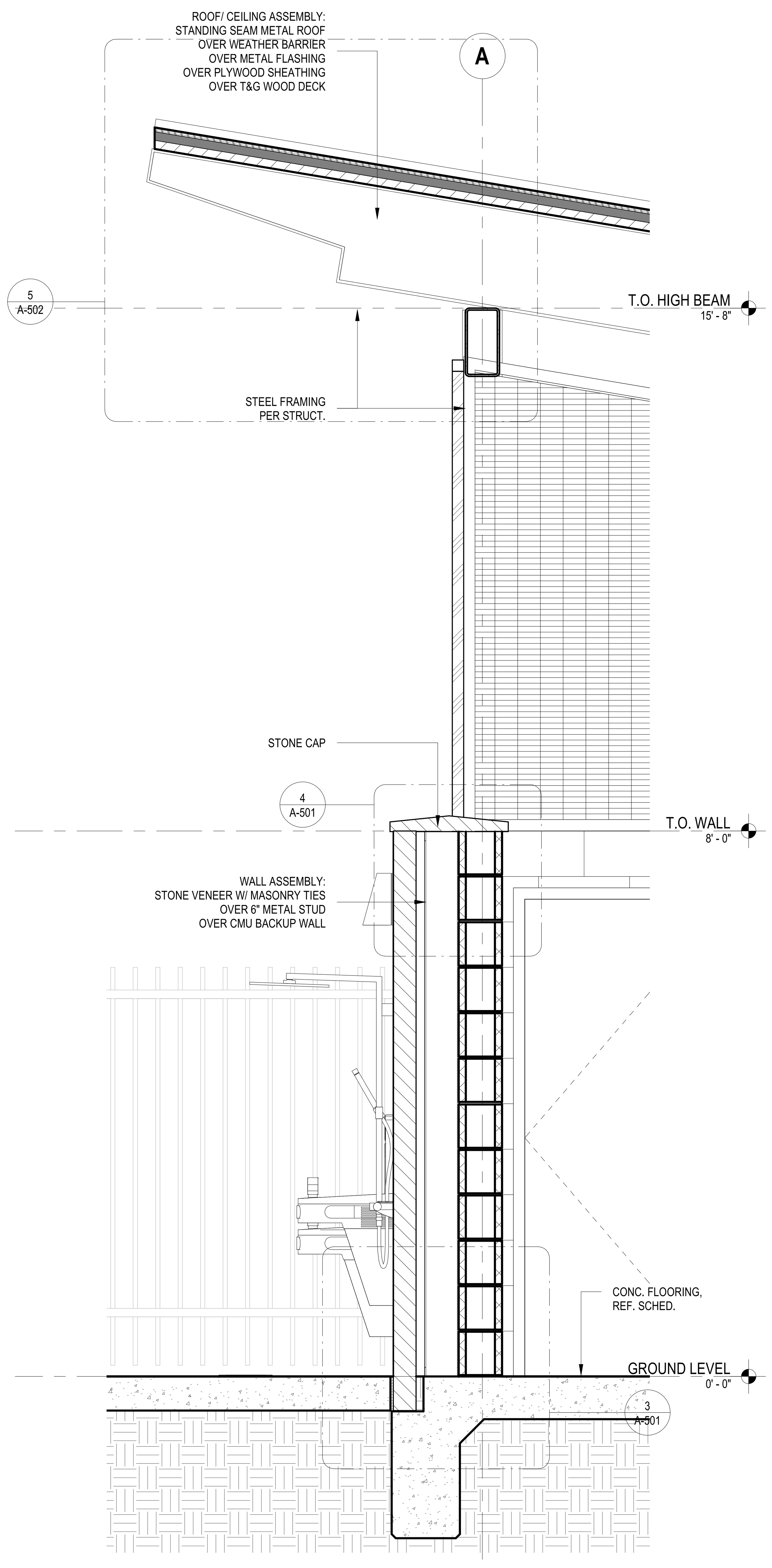
SHEET TITLE

PHASE 1 - BUILDING SECTIONS

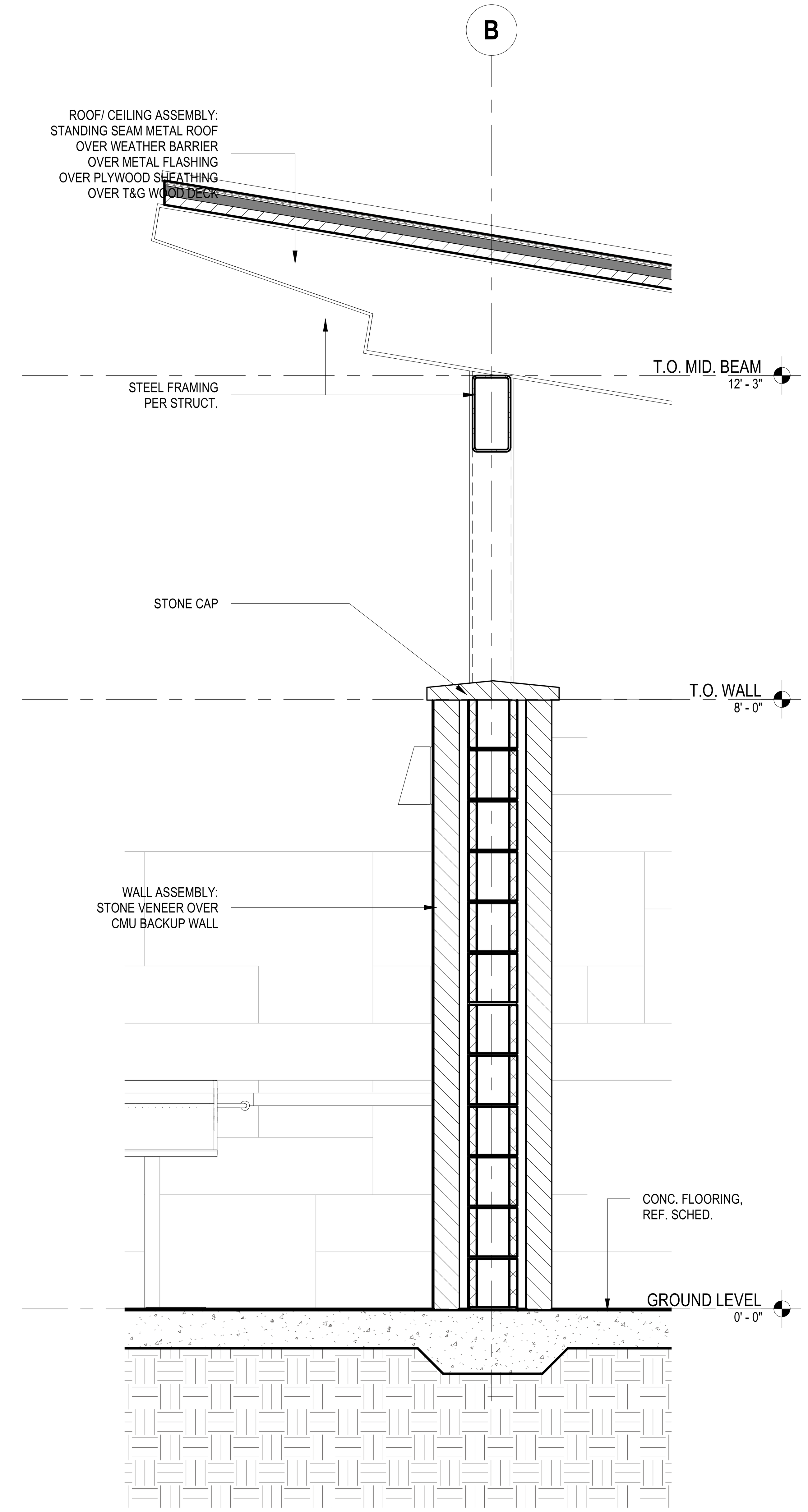
SHEET NUMBER

A-302

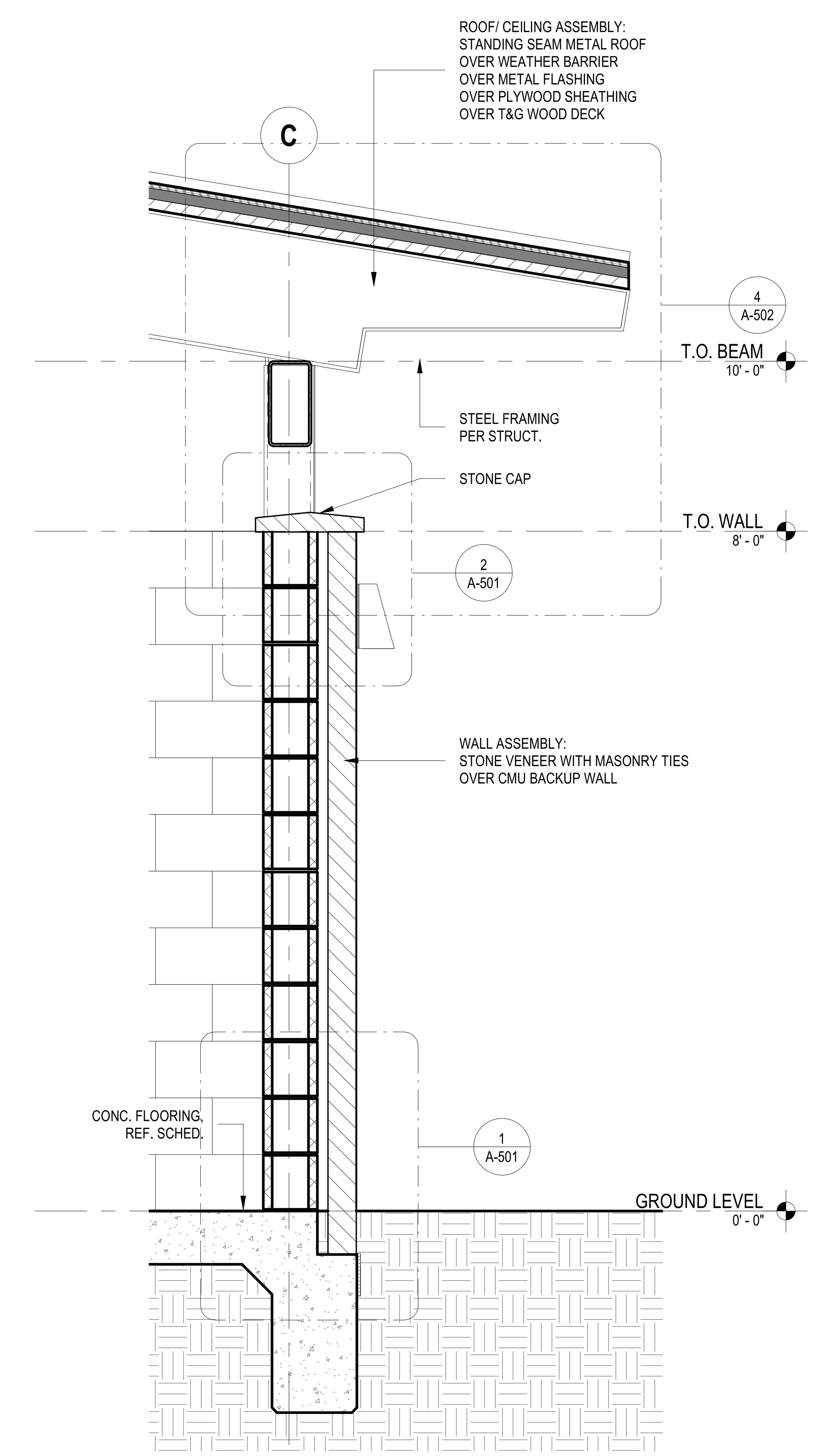
10/23/2024 3:10:34 PM



2 WALL SECTION @ STONE VENEER
SCALE: 3/4" = 1'-0"



6 WALL SECTION @ STONE VENEER
SCALE: 3/4" = 1'-0"



1 WALL SECTION @ STONE VENEER
SCALE: 3/4" = 1'-0"

10/23/2024 3:10:35 PM

h+uo
hatch + ulland owen architects

23 OCT 2024

hatch + ulland owen architects
1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

THE COLONY - TREEHOUSE AMENITY CENTER

CIVIL ENGINEER
CBD ENGINEERING & SURVEYING
5501 West William Cannon Drive
Austin, Texas 78749, US

LANDSCAPE ARCHITECT
SEC PLANNING , LLC
4201 W. Parmer Lane Bldg A, Suite 220
Austin, Texas 78727

PLUMBING, MECHANICAL, ELECTRICAL ENGINEER
Infinity MEP+s Consultants
5316 W US Hwy 290 Service Rd Suite 480
Austin, TX 78735

STRUCTURAL ENGINEER
TDI Engineering, LLC
5906 Old Fredericksburg Rd. Suite 300
Austin, TX 78749

THE COLONY - TREEHOUSE AMENITY CENTER
TREEHOUSE AMENITY CENTER PHASE 1

BASTROP, TEXAS

hatch + ulland owen architects

h+uo # #22-021

100% CONSTRUCTION DOCUMENTATION - BID SET

ISSUE REVISIONS

#	DATE	NOTES

SHEET TITLE
PHASE 1 - WALL SECTIONS

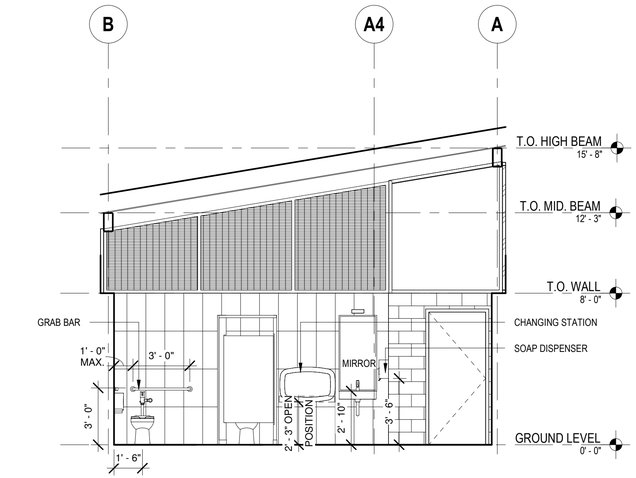
SHEET NUMBER
A-311

FINISH SCHEDULE

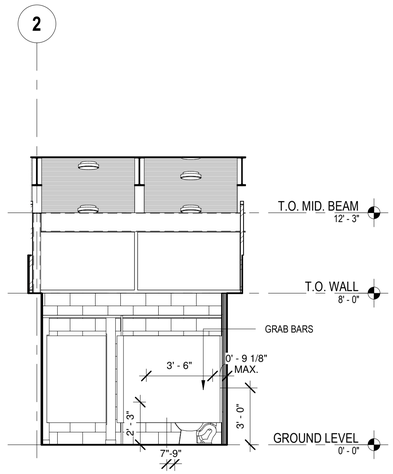
ITEM	MATERIAL	DETAILS
	Interior	
	Women's and Men's Restroom	
Flooring	Concrete	Sealed, slip resistant
Walls	CMU	Burnished, Integral Color (Color TBD w/ Arch)
	Tile	4x12, Porcelain (Color TBD w/ Arch)
Toilet Partitions	Hiny Hiders	Color TBD w/ Arch
Doors	Hardware	Dark Bronze finish; confirm with architect
Equipment	Mirrors	24" x 48" Bobrick Dark Bronze Channel frame with tempered glass mirror
	Toilet Paper Dispenser	Bradley 5425
	Soap Dispenser	Bobrick - B-26617 Series
	Grab Bars	Dark Bronze finish; 36" & 42"
	Changing Station	Bobrick - KB200; Gray w/ stainless cover
	Waste Receptacle	Bobrick - B-3644

GENERAL NOTES

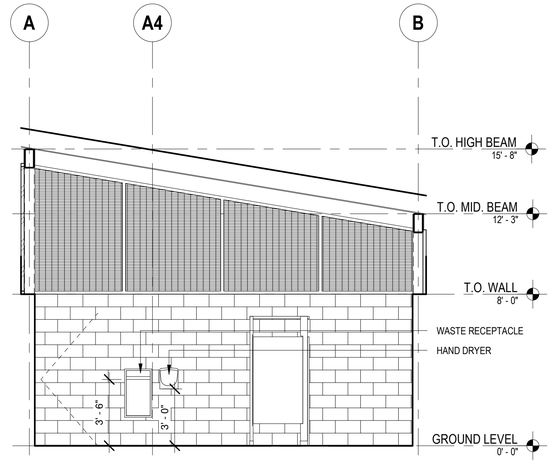
1. ALL EXPOSED STEEL TO BE PAINTED WITH DTM PAINT COLOR BY ARCHITECT
2. FF & E INCLUDING FURNITURE, EXERCISE EQUIPMENT, AUDIO/VISUAL EQUIPMENT BY OWNER.
3. CONTRACTOR TO VERIFY LOCATIONS OF ALL UTILITIES.
4. NO DRY CHLORINE IS TO BE STORED ON SITE.
5. GENERAL CONTRACTOR TO COORDINATE CONDUIT LINES WITH ARCH.
6. SIGNAGE LIGHTING TO BE COORDINATED WITH ARCHITECT AND LANDSCAPE ARCHITECT.
7. SIGNAGE PER 25 TAC 265.199 FOR A CLASS C FACILITY SHALL BE READILY VISIBLE FROM THE POOL.
8. POOL EMERGENCY EQUIPMENT AND POOL SAFETY SIGNAGE TO BE COORDINATED WITH POOL CONSULTANT. REFER TO POOL AQUATIC DRAWINGS FOR COORDINATION.



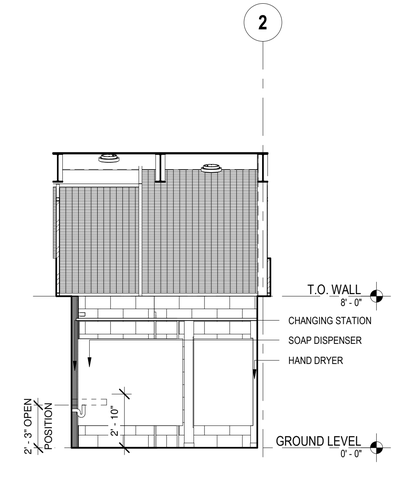
8 WOMEN'S RESTROOM - WEST VIEW
SCALE: 1/4" = 1'-0"



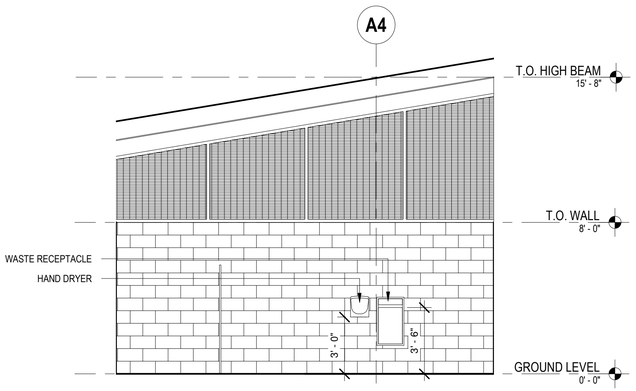
7 WOMEN'S RESTROOM - SOUTH VIEW
SCALE: 1/4" = 1'-0"



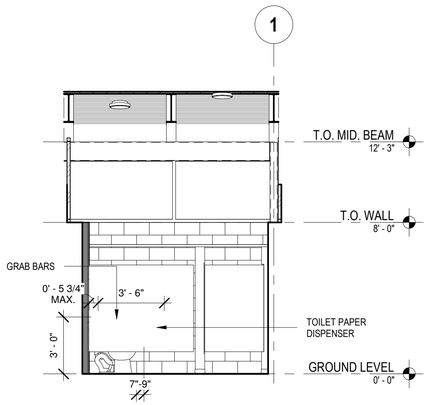
6 WOMEN'S RESTROOM - EAST VIEW
SCALE: 1/4" = 1'-0"



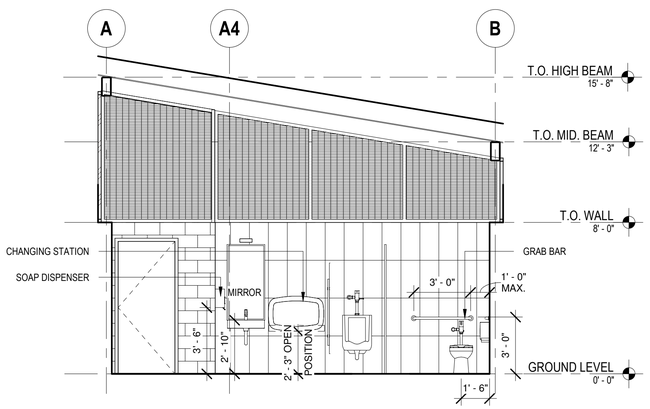
5 WOMEN'S RESTROOM - NORTH VIEW
SCALE: 1/4" = 1'-0"



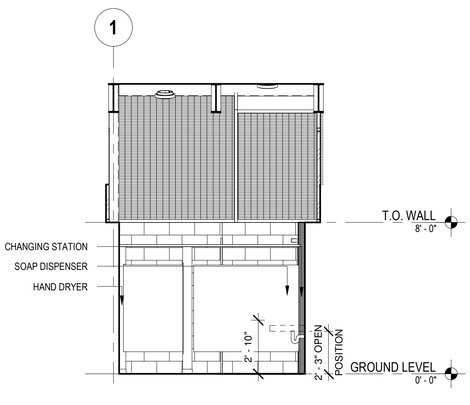
4 MEN'S RESTROOM - WEST VIEW
SCALE: 1/4" = 1'-0"



3 MEN'S RESTROOM - SOUTH VIEW
SCALE: 1/4" = 1'-0"



2 MEN'S RESTROOM - EAST VIEW
SCALE: 1/4" = 1'-0"



1 MEN'S RESTROOM - NORTH VIEW
SCALE: 1/4" = 1'-0"

hatch + ulland owen architects

23 OCT 2024

hatch + ulland owen
architects
1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

CIVIL ENGINEER
CBD ENGINEERING & SURVEYING
5501 West William Cannon Drive
Austin, Texas 78749, US

LANDSCAPE ARCHITECT
SEC PLANNING , LLC
4201 W. Parmer Lane Bldg A, Suite 220
Austin, Texas 78727

PLUMBING, MECHANICAL, ELECTRICAL ENGINEER
Infinity MEP+s Consultants
5316 W US Hwy 290 Service Rd Suite 480
Austin, TX 78735

STRUCTURAL ENGINEER
TDI Engineering, LLC
5906 Old Fredericksburg Rd. Suite 300
Austin, TX 78749

THE COLONY - TREEHOUSE AMENITY CENTER

THE COLONY - TREEHOUSE AMENITY CENTER

TREEHOUSE AMENITY CENTER PHASE 1

BASTROP, TEXAS

hatch + ulland owen architects

h+uo # #22-021

100% CONSTRUCTION DOCUMENTATION - BID SET

ISSUE REVISIONS

#	DATE	NOTES

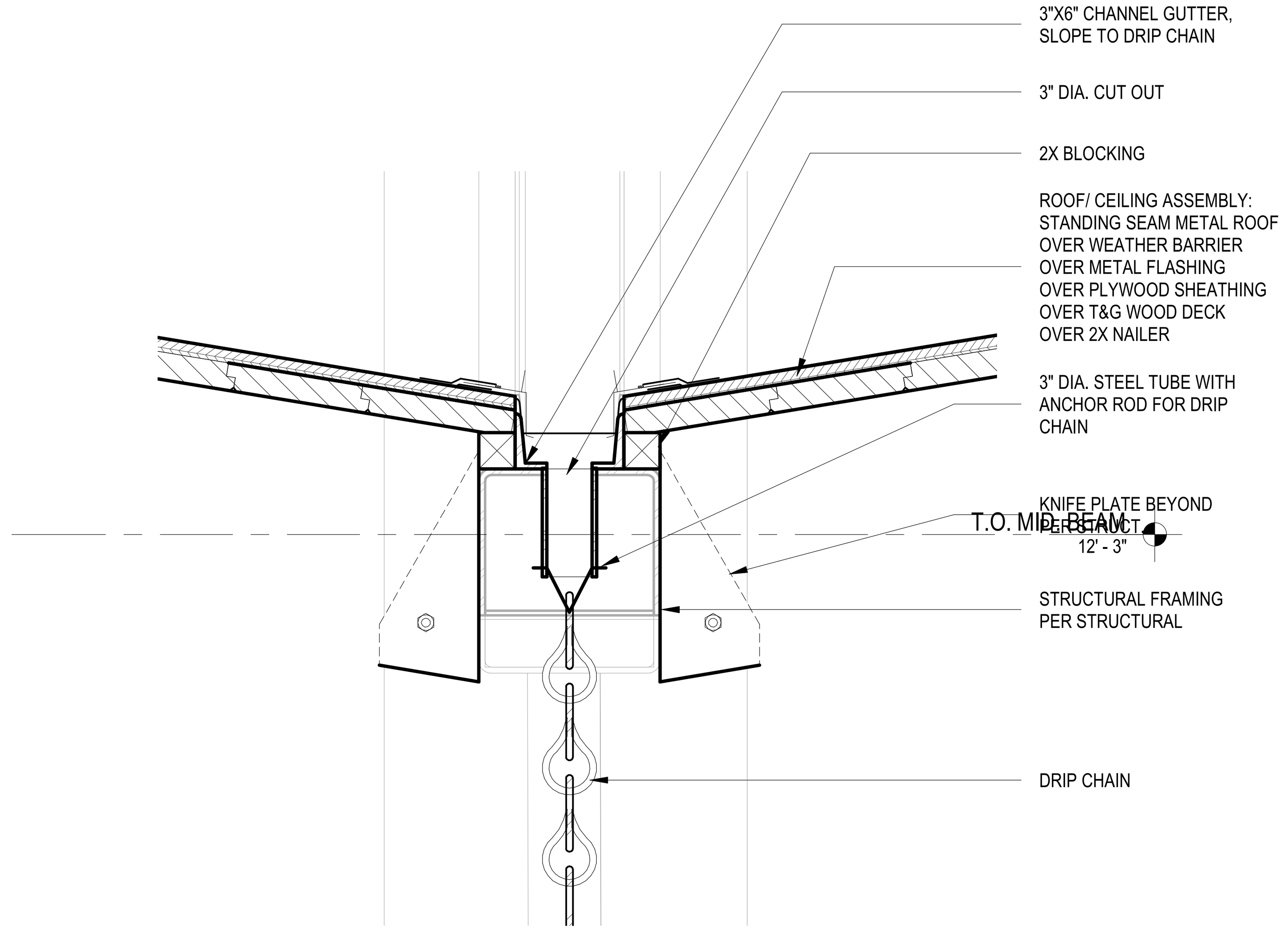
SHEET TITLE

PHASE 1 - INTERIOR ELEVEATIONS

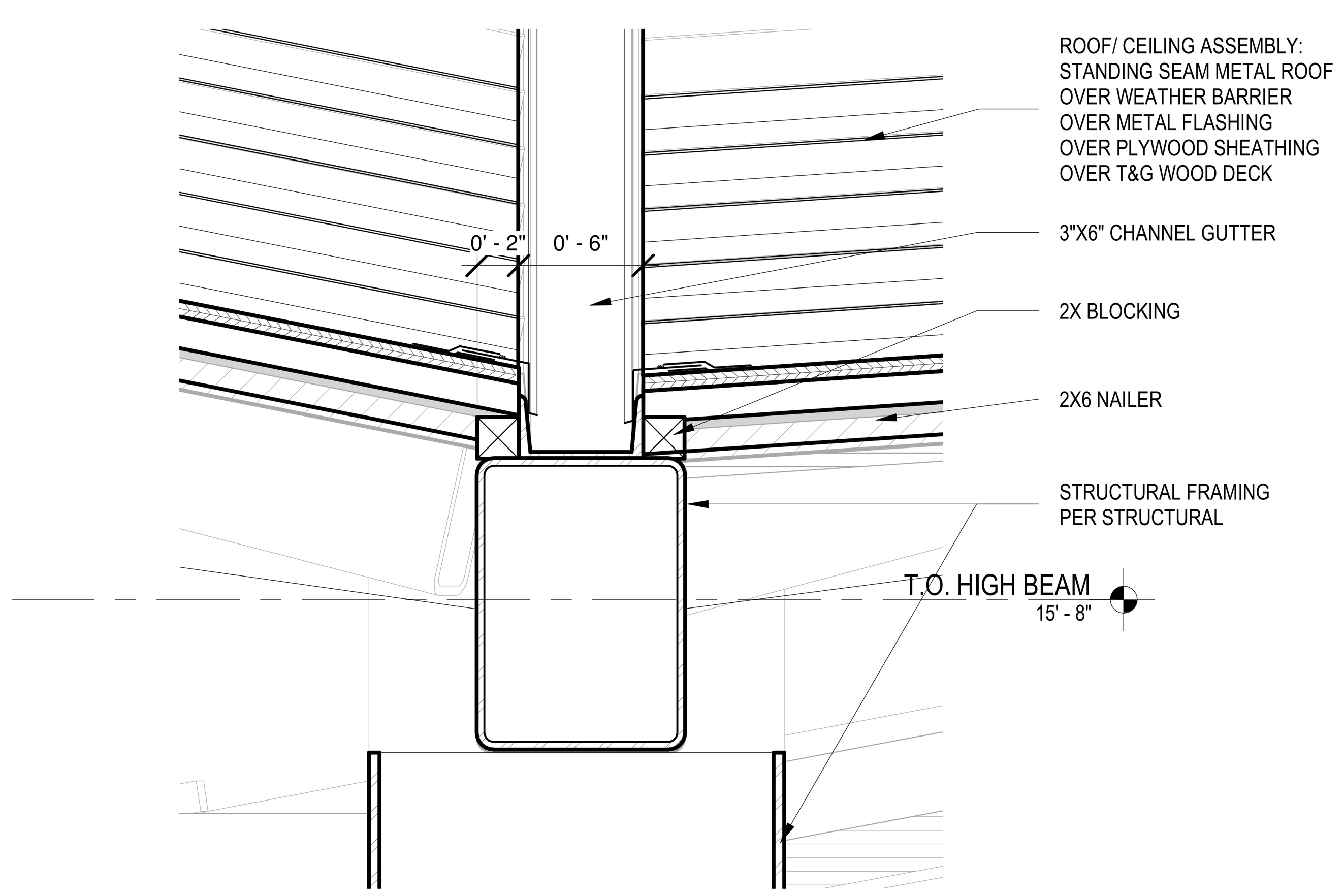
SHEET NUMBER

A-411

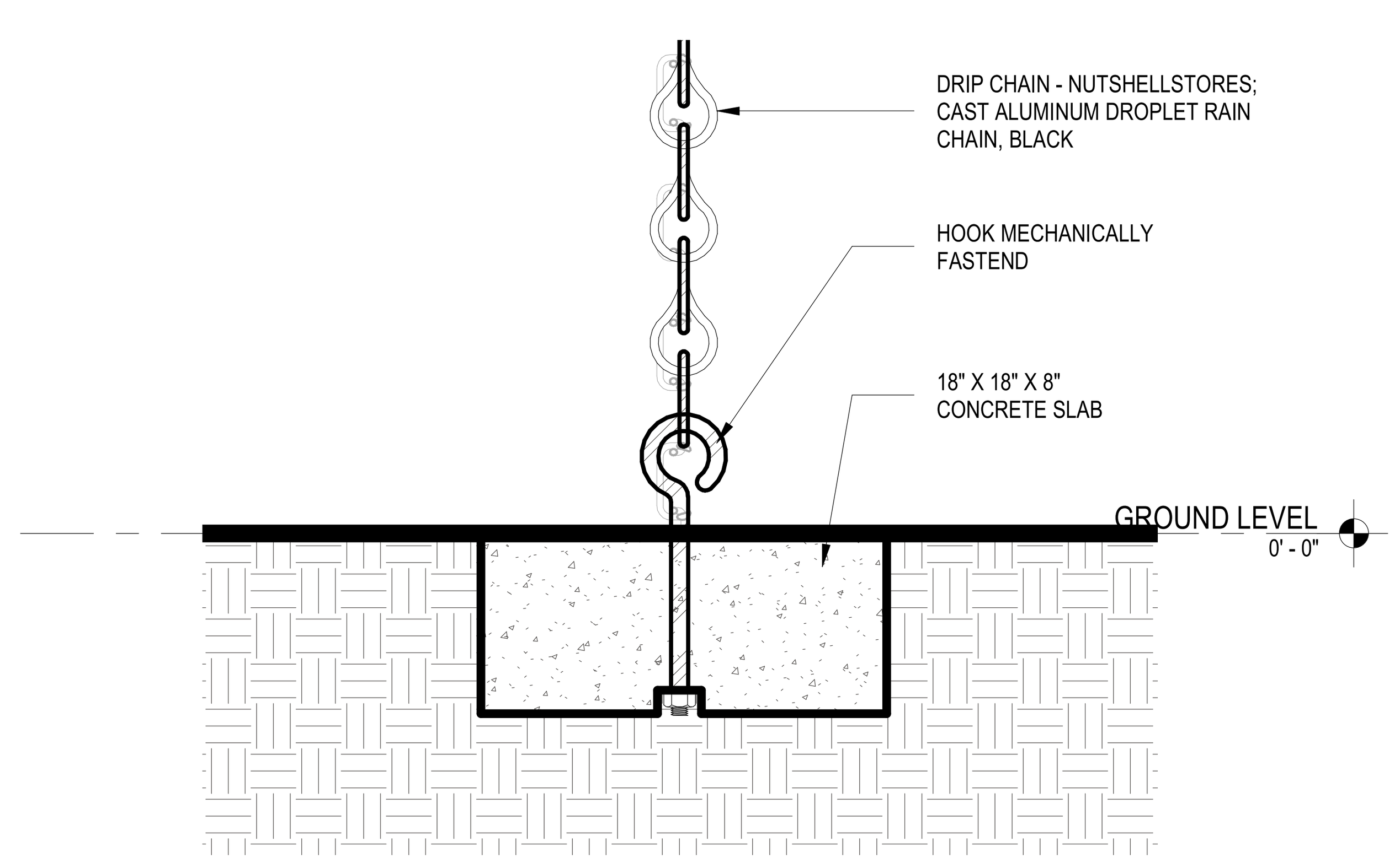
10/23/2024 3:10:37 PM



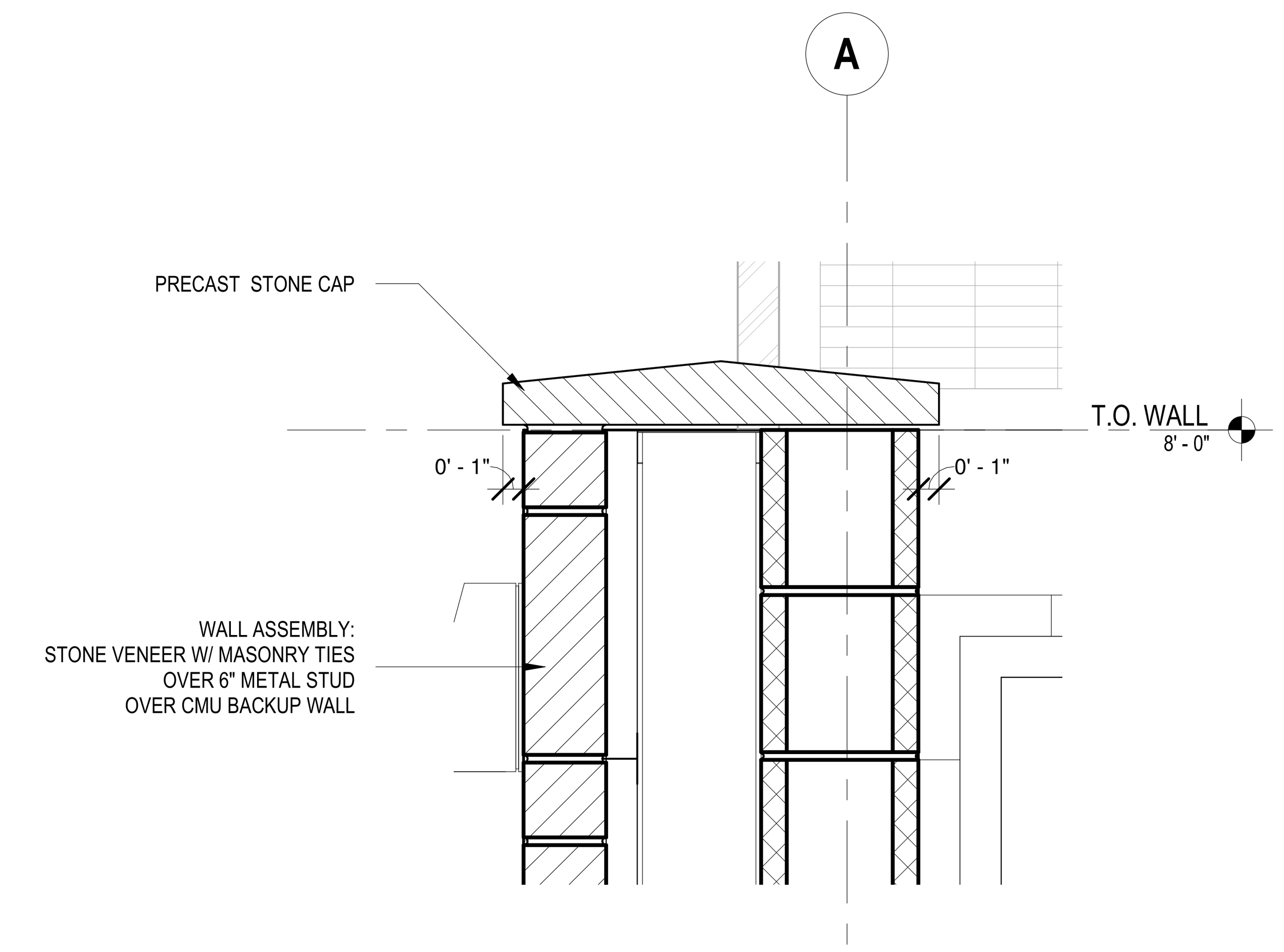
7 SECTION DETAIL - STRUCTURAL GUTTER END
SCALE: 1 1/2" = 1'-0"



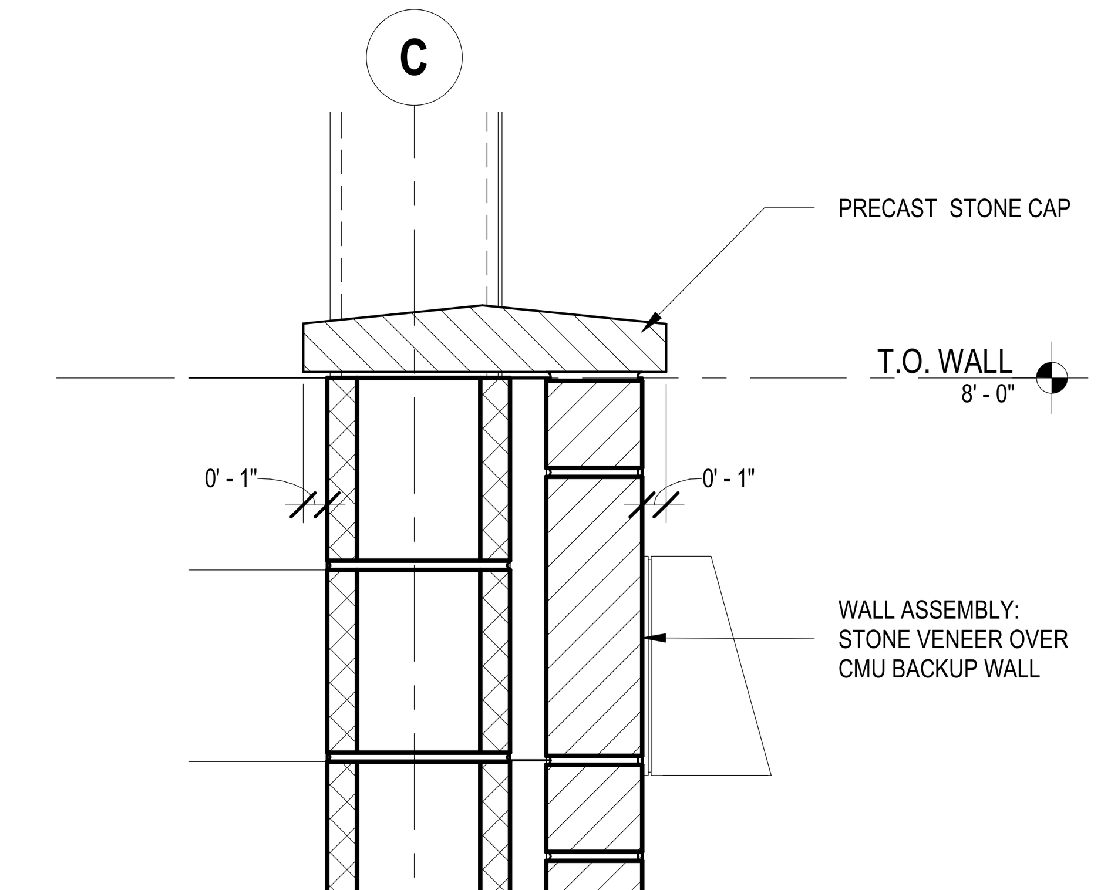
6 SECTION DETAIL - STRUCTURAL GUTTER
SCALE: 1 1/2" = 1'-0"



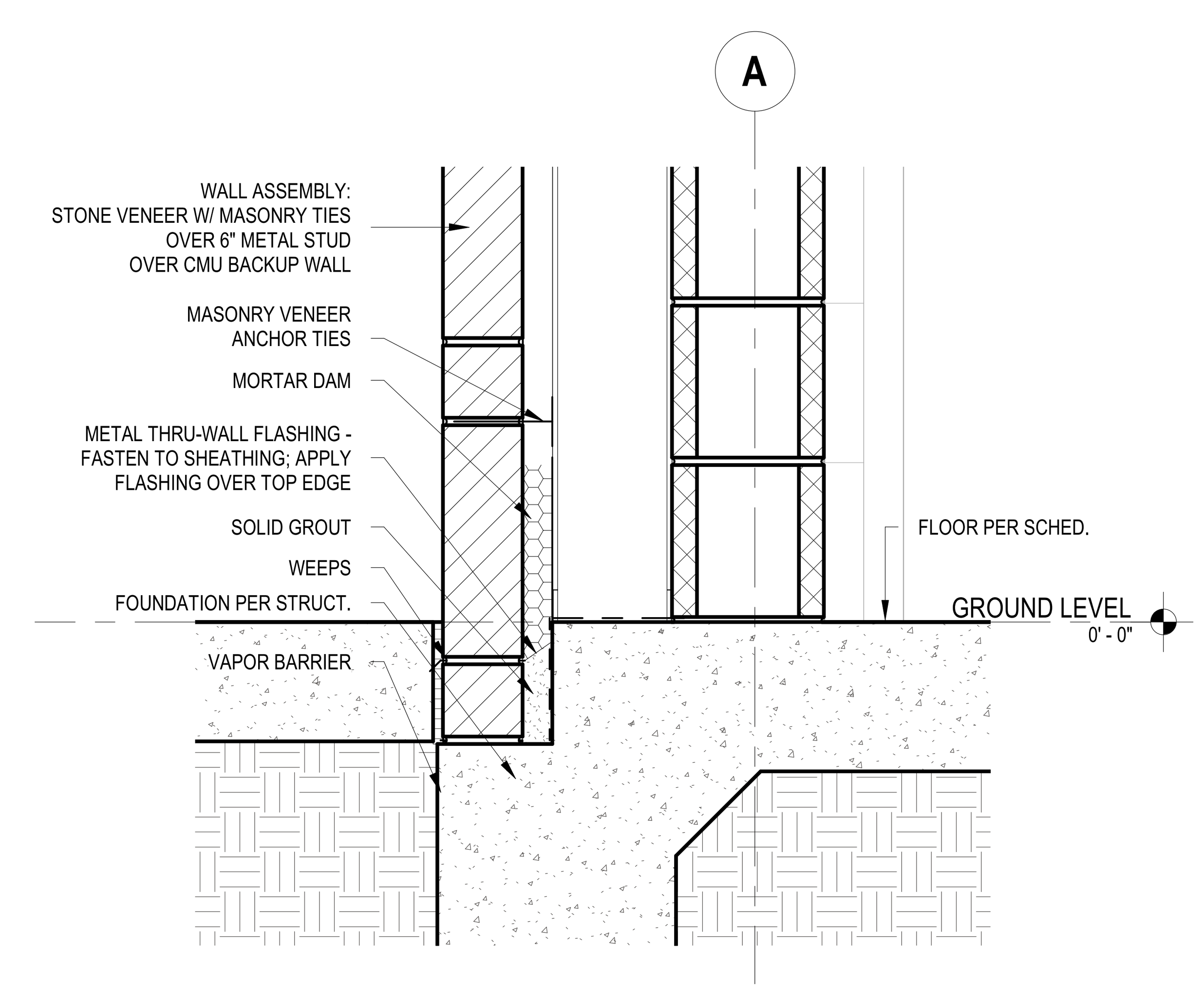
5 DRIP CHAIN ANCHOR DETAIL
SCALE: 1 1/2" = 1'-0"



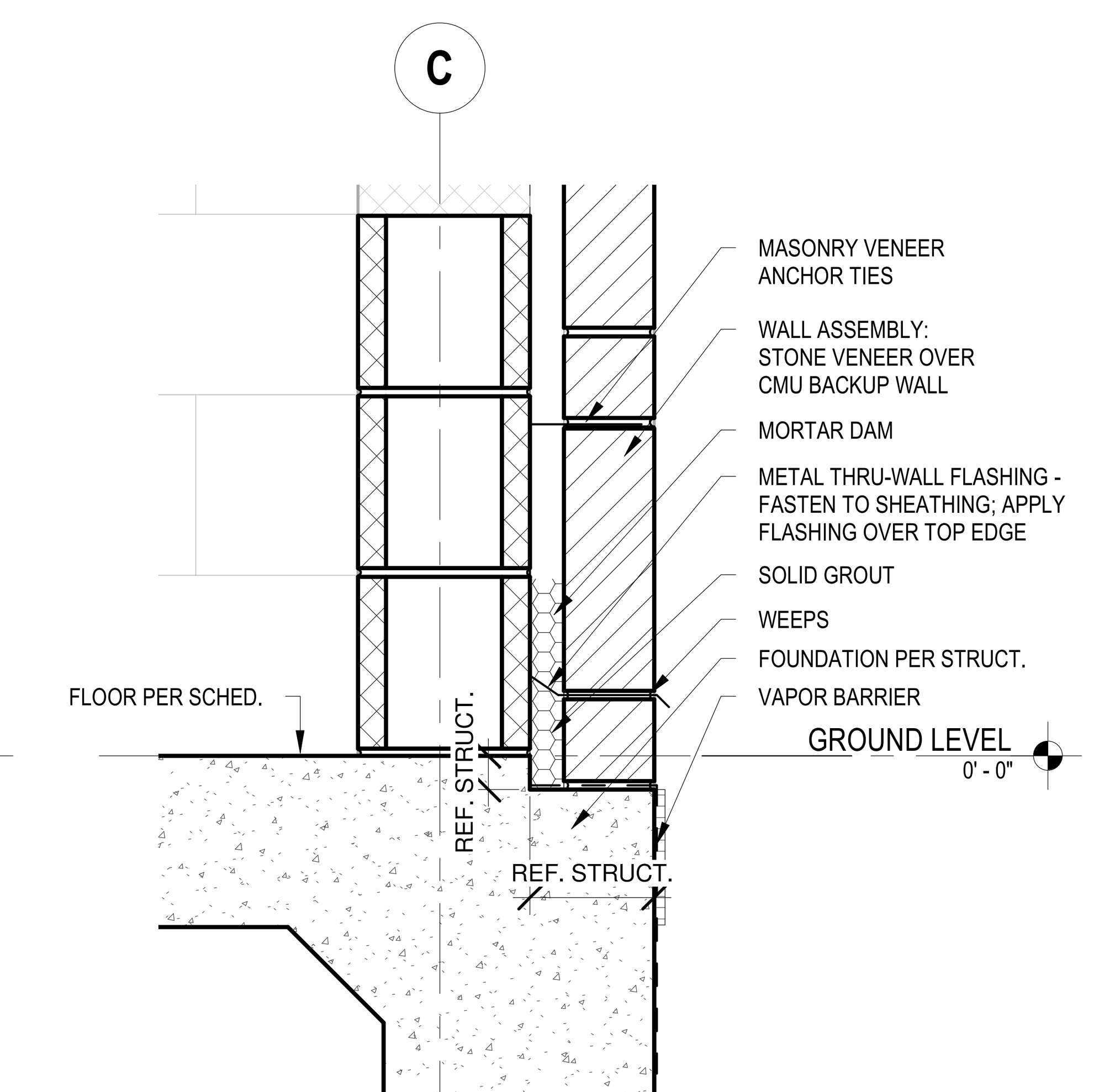
4 PHASE 1 - POOL PAVILION BUILDING SECTION - Callout 3 - Callout 3
SCALE: 1 1/2" = 1'-0"



2 STONE CAP DETAIL
SCALE: 1 1/2" = 1'-0"



3 PHASE 1 - POOL PAVILION BUILDING SECTION - Callout 3 - Callout 2
SCALE: 1 1/2" = 1'-0"



1 FOUNDATION DETAIL @ STONE VENEER
SCALE: 1 1/2" = 1'-0"

10/23/2024 3:10:38 PM

h+uo
hatch + ulland owen architects

23 OCT 2024

hatch + ulland owen architects
1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

THE COLONY - TREEHOUSE AMENITY CENTER

CIVIL ENGINEER
CBD ENGINEERING & SURVEYING
5501 West William Cannon Drive
Austin, Texas 78749, US

LANDSCAPE ARCHITECT
SEC PLANNING , LLC
4201 W. Parmer Lane Bldg A, Suite 220
Austin, Texas 78727

PLUMBING, MECHANICAL, ELECTRICAL ENGINEER
Infinity MEP+s Consultants
5316 W US Hwy 290 Service Rd Suite 480
Austin, TX 78735

STRUCTURAL ENGINEER
TDI Engineering, LLC
5906 Old Fredericksburg Rd. Suite 300
Austin, TX 78749

THE COLONY - TREEHOUSE AMENITY CENTER
TREEHOUSE AMENITY CENTER PHASE 1

BASTROP, TEXAS

hatch + ulland owen architects

h+uo # #22-021

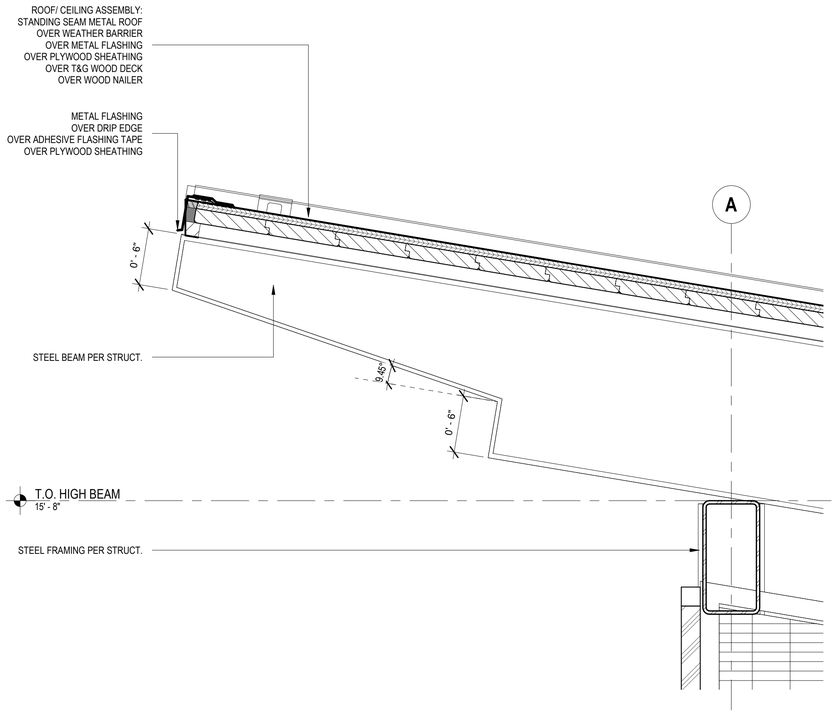
100% CONSTRUCTION DOCUMENTATION - BID SET

ISSUE REVISIONS

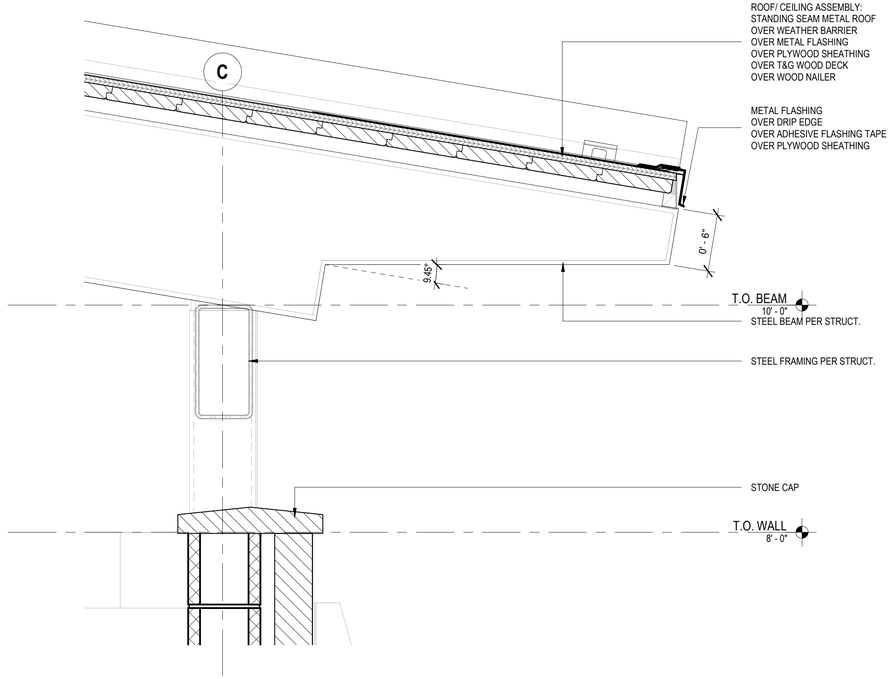
#	DATE	NOTES

SHEET TITLE
PHASE 1 - SECTION DETAILS

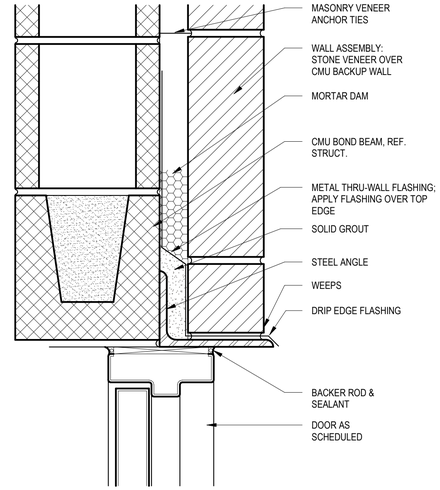
SHEET NUMBER
A-501



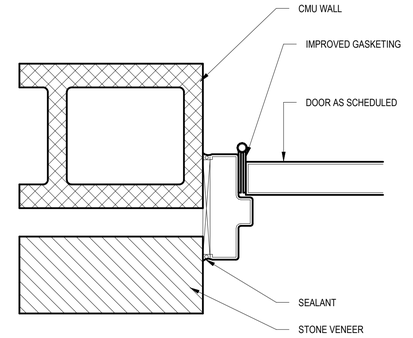
5 POOL PAVILION ROOF DETAIL
SCALE: 1 1/2" = 1'-0"



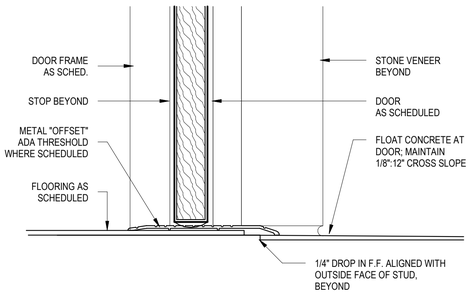
4 POOL PAVILION ROOF DETAIL
SCALE: 1 1/2" = 1'-0"



3 HOLLOW MTL DOOR - HEAD @ CMU
SCALE: 3" = 1'-0"



2 HOLLOW MTL DOOR - JAMB @ CMU
SCALE: 3" = 1'-0"



1 HOLLOW MTL DOOR - SILL @ STONE
SCALE: 3" = 1'-0"

hatch + ulland owen
architects

23 OCT 2024

hatch + ulland owen
architects
1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

CIVIL ENGINEER
CBD ENGINEERING & SURVEYING
5501 West William Cannon Drive
Austin, Texas 78749, US

LANDSCAPE ARCHITECT
SEC PLANNING , LLC
4201 W. Parmer Lane Bldg A, Suite 220
Austin, Texas 78727

PLUMBING, MECHANICAL, ELECTRICAL ENGINEER
Infinity MEP+s Consultants
5316 W US Hwy 290 Service Rd Suite 480
Austin, TX 78735

STRUCTURAL ENGINEER
TDI Engineering, LLC
5906 Old Fredericksburg Rd. Suite 300
Austin, TX 78749

THE COLONY - TREEHOUSE AMENITY CENTER

THE COLONY - TREEHOUSE AMENITY CENTER

TREEHOUSE AMENITY CENTER PHASE 1

BASTROP, TEXAS

hatch + ulland owen architects

h+uo # #22-021

100% CONSTRUCTION DOCUMENTATION - BID SET

ISSUE REVISIONS

#	DATE	NOTES

SHEET TITLE

PHASE 1 - DOOR & ROOF DETAILS

SHEET NUMBER

A-502

10/23/2024 3:10:38 PM

PHASE 1 - DOOR SCHEDULE

Mark	Type Mark	Room Name	Height	Width	Thickness	Door Material	Door Finish	Frame Material	Frame Finish	Door Hardware Type	Comments
		GATE ENTRY	5' - 10 1/2"	4' - 0"	0' - 0 3/4"						REF LANDSCAPE FOR GATE DETAILS
101	A	MEN'S RR	7' - 0"	3' - 0"	0' - 1 3/4"	HM	PTD	HM	PTD	A	FULLY WELDED, BUTT TYPE FRAME, 2" JAMB, 4" HEAD: W/ CLOSER, W/ LOUVER, PUSH/ PULL W/ KICK PLATE & CLASSROOM DEADBOLT LOCK
102	A	WOMEN'S RR	7' - 0"	3' - 0"	0' - 1 3/4"	HM	PTD	HM	PTD	A	FULLY WELDED, BUTT TYPE FRAME, 2" JAMB, 4" HEAD: W/ CLOSER, W/ LOUVER, PUSH/ PULL W/ KICK PLATE & CLASSROOM DEADBOLT LOCK
103	B	POOL EQUIP.	7' - 0"	4' - 0"	0' - 1 3/4"	HM	PTD	HM	PTD	B	FULLY WELDED, BUTT TYPE FRAME, 2" JAMB, 4" HEAD: W/ CLOSER, W/ LOUVER, W/ CLOSER & LOCKSET
104	C	STORAGE	7' - 0"	3' - 0"	0' - 1 3/4"	HM	PTD	HM	PTD	C	STOREROOM LOCKSET

DOOR HARDWARE SCHEDULE

Hardware Type A (Men's & Women's)

Provide each SGL door(s) with the following:

QTY		DESCRIPTION
3	EA	HINGE
1	EA	CLASSROOM DEADBOLT
1	EA	SFIC CORE
1	EA	DOOR PULL, 1" ROUND
1	EA	OH STOP
1	EA	SURFACE CLOSER
3	SET	GASKETING
1	EA	DOOR SWEEP
1	EA	THRESHOLD

Hardware Type B (Pool Equip.)

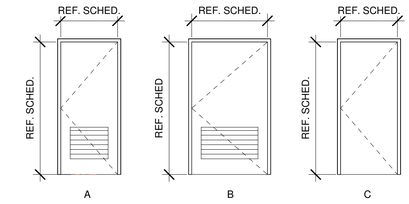
Provide each SGL door(s) with the following:

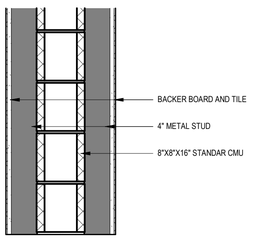
QTY		DESCRIPTION
3	EA	HINGE
1	EA	STOREROOM LOCK
1	EA	INSIDE LEVER TRIM
1	EA	MORTISE CYLINDER
1	EA	SFIC CORE
1	EA	SURFACE CLOSER
1	EA	KICK PLATE
1	EA	RAIN DRIP
1	SET	GASKETING
1	EA	DOOR SWEEP
1	EA	THRESHOLD

Hardware Type C (Closet/ Storage)

Provide each SGL door(s) with the following:

QTY		DESCRIPTION
3	EA	HINGE
1	EA	STOREROOM LOCK
1	EA	SFIC CORE
1	EA	SURFACE CLOSER
1	EA	KICK PLATE
1	EA	GASKETING

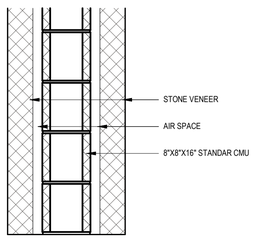




WALL TYPE 3

CMU BLOCK - EXT CMU

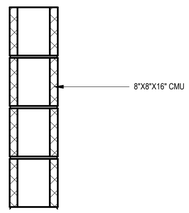
TYP	THK	STUD	STC	UL#	FR	R	NOTES
2	18 5/8"						



WALL TYPE 3

CMU BLOCK - EXT CMU

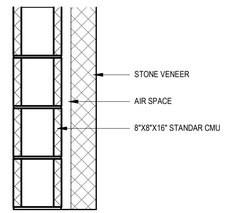
TYP	THK	STUD	STC	UL#	FR	R	NOTES
2	18 5/8"						



WALL TYPE 2

CMU BLOCK - EXT CMU

TYP	THK	STUD	STC	UL#	FR	R	NOTES
2	8"						



WALL TYPE 1

CMU BLOCK - EXT STONE VENEER

TYP	THK	STUD	STC	UL#	FR	R	NOTES
1	13 1/8"						

hatch + ulland owen architects

1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

23 OCT 2024

CIVIL ENGINEER
CBD ENGINEERING & SURVEYING
5501 West William Cannon Drive
Austin, Texas 78749, US

LANDSCAPE ARCHITECT
SEC PLANNING , LLC
4201 W. Parmer Lane Bldg A, Suite 220
Austin, Texas 78727

PLUMBING, MECHANICAL, ELECTRICAL ENGINEER
Infinity MEP+s Consultants
5316 W US Hwy 290 Service Rd Suite 480
Austin, TX 78735

STRUCTURAL ENGINEER
TDI Engineering, LLC
5906 Old Fredericksburg Rd. Suite 300
Austin, TX 78749

THE COLONY - TREEHOUSE AMENITY CENTER

TREEHOUSE AMENITY CENTER PHASE 1

BASTROP, TEXAS

hatch + ulland owen architects

h+uo # #22-021

100% CONSTRUCTION DOCUMENTATION - BID SET

ISSUE REVISIONS

#	DATE	NOTES

SHEET TITLE

PHASE 1 - DOOR & WALL TYPES & SCHEDULES

SHEET NUMBER

A-601

10/23/2024 3:10:38 PM

GENERAL NOTES

GENERAL CONDITIONS AND COORDINATION

1. NOTES SHOWN ON GENERAL NOTES SHEET SHALL GOVERN THE MINIMUM STANDARDS FOR MATERIALS, WORKMANSHIP, AND GENERAL CONSTRUCTION PRACTICES UNLESS NOTED OTHERWISE IN SPECIFICATIONS OR ON DRAWINGS.
2. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO OBTAIN AND DISTRIBUTE ALL CURRENT CONTRACT DOCUMENTS AND ADDENDA TO SUPPLIERS AND SUB-CONTRACTORS FOR THE USE OF SHOP DRAWING PRODUCTION AND FABRICATION PRIOR TO CONSTRUCTION.
3. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO COMPARE THE ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND OTHER DRAWINGS, AND REPORT ANY DISCREPANCIES AMONG OR WITHIN THE DRAWING SETS PRIOR TO FABRICATION OR CONSTRUCTION.
4. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO VERIFY ALL DIMENSIONS, FLOOR ELEVATIONS, DROPS, SLOPES, DRAINS, EMBEDDED ITEMS, ETC., PRIOR TO CONSTRUCTION.
5. THE DETAILS AND SECTIONS SHOWN ON STRUCTURAL DRAWINGS APPLY GENERALLY TO ALL AREAS OF SIMILAR OR LIKE CONDITIONS THROUGHOUT THE DRAWINGS.
6. STRUCTURAL DRAWINGS INDICATE TYPICAL AND INDIVIDUAL SPECIFIC CONDITIONS ONLY. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR/SUB-CONTRACTOR TO PREPARE SHOP DRAWINGS DETAILING CONDITIONS IN ACCORDANCE WITH SPECIFIED STANDARDS AND SPECIFIC REQUIREMENTS OF THIS PROJECT AS INDICATED ON DRAWINGS.
7. THE USE OF THESE STRUCTURAL DRAWINGS BY ANY CONTRACTOR, SUB-CONTRACTOR, MATERIAL SUPPLIER, FABRICATOR, OR ERECTOR WITHOUT THE PREPARATION OF SHOP DRAWINGS REPRESENTS HIS ACCEPTANCE OF THESE DRAWINGS AS COMPLETE AND CORRECT. AS A RESULT, ANY EXPENSE ACQUIRED AS A RESULT OF ERRORS OCCURRING ON DRAWINGS IS THE RESPONSIBILITY OF THE INDIVIDUAL PARTY.
8. SHOP DRAWINGS MAY BE SUBMITTED TO ENGINEER FOR REVIEW FOR CORRECTNESS OF STRUCTURAL INTENT. CONTRACTOR, SUB-CONTRACTOR, MATERIAL SUPPLIER, FABRICATOR, OR ERECTOR SHOULD ANTICIPATE A MINIMUM 10 BUSINESS DAY REVIEW PERIOD BY ENGINEER.
9. THE DESIGN AND PROVISION FOR ALL TEMPORARY SUPPORTS OR FRAMING IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. TEMPORARY SUPPORTS SHALL NOT OVERSTRESS OR CAUSE DAMAGE TO THE PERMANENT STRUCTURAL ELEMENTS.
10. THE DESIGN AND PROVISION FOR SUPPORTS OF ALL NON-STRUCTURAL FRAMING, INCLUDING MECHANICAL EQUIPMENT, PLUMBING, ETC IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. SUPPORTS SHALL BE DESIGNED FOR ALL APPLICABLE LOADS IN ACCORDANCE WITH THE GOVERNING BUILDING CODE INCLUDING SEISMIC LOADING. SUPPORTS SHALL NOT OVERSTRESS OR CAUSE DAMAGETO STRUCTURAL ELEMENTS. REFERENCE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR ALL NON-STRUCTURAL FRAMING REQUIRED.
11. THE STRUCTURAL DRAWINGS AND ITEMS SHOWN HEREIN REPRESENT THE FINISHED STRUCTURE AND DO NOT NECESSARILY REPRESENT THE MEANS OR METHODS OF CONSTRUCTION. THE GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SUPERVISING THE WORK, AND THE MEANS, METHODS, PROCEDURES, TECHNIQUES, AND SEQUENCES OF CONSTRUCTION.
12. THE STRUCTURE SHOWN HEREIN IS STRUCTURALLY SOUND WHEN ALL HORIZONTAL AND LATERAL PERMANENT BRACING INDICATED ON DRAWINGS IS INSTALLED IN THEIR ENTIRETY. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY SUPPORT OF ALL ELEMENTS TO RESIST GRAVITY, EARTH, WIND, SEISMIC, AND CONSTRUCTION LOADS DURING CONSTRUCTION.
13. ALL ELEVATIONS SHOWN ARE FOR STRUCTURAL REFERENCE PURPOSES ONLY. REFER TO CIVIL FOR DATUM ELEVATIONS.

DESIGN CODES/STANDARDS

1. GOVERNING BUILDING CODE: 2018 INTERNATIONAL BUILDING CODE
2. DESIGN LOADS: MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES, ASCE 7-16
3. CONCRETE: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, AMERICAN CONCRETE INSTITUTE, ACI 318-14
4. POST TENSION FOUNDATION: POST TENSIONING INSTITUTE, STANDARD REQUIREMENTS FOR DESIGN AND ANALYSIS OF SHALLOW POST-TENSIONED CONCRETE FOUNDATIONS ON EXPANSIVE SOILS, PTI DC10.5-12
5. CONCRETE MASONRY: BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES, THE MASONRY SOCIETY , TMS 402-16
6. STRUCTURAL STEEL: SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS AND STEEL CONSTRUCTION MANUAL, AMERICAN INSTITUTE OF STEEL CONSTRUCTION, AISC 360-16
7. LIGHT-GAUGE STEEL: NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS, AMERICAN IRON AND STEEL INSTITUTE, S100-16
8. WOOD: NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION, AMERICAN FOREST & PAPER ASSOCIATION, NDS-18 W/ 2018 NDS SUPPLEMENT

LOADS AND DESIGN CRITERIA

1. DEAD LOADS
   - A. ROOF — 5 PSF
2. LIVE LOADS
   - A. ROOF — 20 PSF
3. SNOW LOADS
   - A. IMPORTANCE FACTOR — 1.00
   - B. GROUND SNOW LOAD — 5 PSF
4. WIND LOADS
   - A. RISK CATEGORY — II
   - B. BASIC WIND SPEED — 110 MPH
   - C. EXPOSURE CATEGORY — C
   - D. C&C PRESSURES — REF S1.02 FOR TYP CONFIGURATIONS

EDGE DISTANCE 'a'	6.0 FT

ROOF EFFECTIVE AREA	10 SF (0.6W)	100 SF (0.6W + 0.6D)
ROOF ZONE 1	26.3 PSF	10.7 PSF NET
ROOF ZONE 2e	26.3 PSF	10.7 PSF NET
ROOF ZONE 2n	42.0 PSF	15.5 PSF NET
ROOF ZONE 2r	42.0 PSF	15.5 PSF NET
ROOF ZONE 3e	42.0 PSF	15.5 PSF NET
ROOF ZONE 3r	51.1 PSF	22.0 PSF NET
ROOF ZONE 1&1'OH	31.4 PSF	26.6 PSF NET
ROOF ZONE 2eOH	31.4 PSF	26.6 PSF NET
ROOF ZONE 2nOH	54.9 PSF	34.4 PSF NET
ROOF ZONE 2rOH	54.9 PSF	34.4 PSF NET
ROOF ZONE 3eOH	56.5 PSF	27.9 PSF NET
ROOF ZONE 3rOH	66.4 PSF	38.5 PSF NET

WALL EFFECTIVE AREA	10 SF (0.6 W)	28 SF (0.6W)
WALL ZONE 4	20.1 PSF	18.9 PSF
WALL ZONE 5	24.8 PSF	22.3 PSF

PARAPET EFFECTIVE AREA	10 SF (0.6W)	33 SF (0.6W)
PARAPET ZONE 4	45.1 PSF	37.7 PSF
PARAPET ZONE 5	45.1 PSF	37.7 PSF

5. SEISMIC LOADS
   - A. STRUCTURAL SYSTEM — STEEL ORDINARY MOMENT FRAME
   - B. ANALYSIS PROCEDURE — STATIC LATERAL FORCE
   - C. IMPORTANCE FACTOR — 1.00
   - D. SITE CLASS — D
   - E. SEISMIC DESIGN CATEGORY — A
   - F. MAPPED SRA — Ss 0.057 g; S1 0.033 g
   - G. DESIGN SRA — Sds 0.061 g; Sd1 0.053 g
6. FOUNDATION DESIGN CRITERIA
   - A. ALLOWABLE BEARING — 1,500 PSF @ MIN 12" BELOW FIN GRADE

   WRI DESIGN PARAMETERS
   - A. EQUIVALENT PLASTICITY INDEX — 38
   - B. Cw — 18
7. THE TOPOGRAPHIC AND ELEVATION DATA SHOWN HEREON WAS OBTAINED FROM CIVIL ENGINEER AND IS NOT CERTIFIED AS CORRECT BY THIS ENGINEER. USERS OF THIS DATA DO SO AT THEIR OWN RISK.

SOIL AND SUBSURFACE CONDITIONS

1. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO THOROUGHLY READ, UNDERSTAND THE DESIGN CRITERIA AND FOLLOW THE RELATED BUILDING PAD PREPARATION REQUIREMENTS SET FORTH IN THE GEOTECHNICAL REPORT PREPARED FOR THIS PROJECT.
2. FOUNDATION DESIGN IS BASED ON GEOTECHNICAL REPORT # 23106100.012, PREPARED BY MLA GEOTECHNICAL , DATED 8/23/2023.
3. BUILDING PAD PREPARATION SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS IN GEOTECHNICAL REPORT. REMOVE AND REPLACE 24" OF TOP SOIL W/ WELL COMPACTED SELECT FILL IN ACCORDANCE W/ GEOTECHNICAL REPORT.
4. ANY FILL WORK WITHIN 10 FT OF BUILDING EXTENTS SHALL BE PROPERLY PLACED AND COMPACTED TO 95% OF MAXIMUM DRY DENSITY AS DEFINED IN ASTM D698 STANDARD PROCTOR TEST.
5. POSITIVE DRAINAGE SHALL BE PROVIDED AND MAINTAINED AWAY FROM THE BUILDING DURING CONSTRUCTION AND PERMANENTLY. STORED EXCAVATION MATERIAL AND/OR CONSTRUCTION MATERIALS SHALL NOT DISRUPT POSITIVE DRAINAGE AWAY FROM BUILDING.
6. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ANY REQUIRED BACK FILLING OF WALLS, PIERS, FOOTINGS, ETC., SUCH THAT SYMMETRICAL LOADING OCCURS. IN THE EVENT THAT CONDITIONS PREVENT SUCH SYMMETRICAL LOADING, TEMPORARY SHORING SHALL BE PROVIDED AND MAINTAINED UNTIL PERMANENT HORIZONTAL AND VERTICAL BRACING ELEMENTS ARE PLACED AND PROPERLY SET.
7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN STABILITY OF EXCAVATIONS UNTIL PROPERLY BACK FILLED. EXCAVATIONS SHALL REMAIN FREE OF LOOSE DEBRIS/MATERIAL, AND WATER. EXCAVATIONS SHALL BE DE-WATERED AND ALL WET MATERIAL REMOVED/REPLACED PRIOR TO CONCRETE PLACEMENT.
8. HEAVY EQUIPMENT NECESSARY FOR SPREADING AND COMPACTING BACK FILL MATERIAL SHALL NOT BE OPERATED CLOSER THAN A DISTANCE EQUAL TO THE HEIGHT OF BACK FILL MATERIAL ABOVE THE WALL, PIER, FOOTING, ETC. HAND TAMPING SHALL BE USED TO COMPACT THE REMAINING AREA.
9. EXCAVATED MATERIAL MAY BE USED AS BACKFILL IF FOUND TO BE ACCEPTABLE TO THE GEOTECHNICAL ENGINEER. OTHERWISE, PROVIDE SELECT FILL IN ACCORDANCE WITH GEOTECHNICAL REPORT AS BACKFILL MATERIAL.
10. BUILDING PAD PREPARATION SHALL BE SUCH THAT THE THICKNESS OF FOUNDATION SLAB-ON-GRADE SHALL NOT BE REDUCED BY MORE THAN 5 PERCENT OF DEPTH SHOWN ON DRAWINGS.

SLAB-ON-GRADE FOUNDATION

1. LOCATION OF TREES IN CLOSE PROXIMITY CAN EFFECT LONG-TERM PERFORMANCE OF THE FOUNDATION. TREES TO BE REMOVED SHALL BE REMOVED PRIOR TO CONSTRUCTION OF THEFOUNDATION. CONTRACTOR SHALL CONSULT WITH APPROPRIATE JURISDICTIONAL OFFICIALS PRIOR TO REMOVAL OF PROTECTED TREES.
2. FINAL GRADE SHALL BE MAINTAINED TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE FOUNDATION. FOUNDATION EXPOSURE AND SLOPE AWAY FROM FOUNDATION SHALL CONFORM WITH APPLICABLE CODE PROVISIONS. CONTRACTOR SHALL REFERENCE GRADING PLAN FOR FINISHED GRADE ELEVATIONS.
3. CONTRACTOR SHALL PROVIDE A 10 MIL POLY VAPOR BARRIER BENEATH ALL SLAB AREAS. BARRIER SHALL EXTEND A MINIMUM OF 12" DOWN BEAMS AND SHALL BE CUT OUT OF BOTTOM OF BEAM EXCAVATIONS TO FACILITATE FOUNDATION INSPECTIONS. CONTRACTOR SHALL PROVIDE A DOUBLE LAYER OF VAPOR BARRIER UNDER ALL CONSTRUCTION JOINTS. EXTENDING MIN 18" EACH SIDE OF THE JOINT. VAPOR BARRIER SHALL BE INSTALLED, LAPPED, AND TAPED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS OR MIN 6".
4. MATERIAL FOR CONCRETE EXPANSION JOINTS SHALL BE 1/2" THICK ASPHALT IMPREGNATED MATERIAL x DEPTH OF JOINT, TO SEPARATE CONCRETE PLACEMENTS. PROVIDE ELASTOMERIC JOINT SEALANT TO TOP OF JOINT WHEN CONCRETE HAS CURED.
5. WHERE SLAB BLOCK-OUTS ENCROACH INTO GRADE BEAMS, BEAM WIDTH SHALL BE INCREASED, TO MAINTAIN SPECIFIED MIN WIDTH EXCLUSIVE OF THE BLOCK-OUT, FOR THE FULL DEPTH OF THE BEAM. THE INCREASED BEAM WIDTH SHALL BE MAINTAINED AT MIN 30" EACH SIDE OF BLOCK-OUT. CONVENTIONAL REINFORCEMENT SHALL BE CONTINUOUS AROUND BLOCK-OUT.

CAST IN PLACE CONCRETE

1. CONCRETE WORK SHALL CONFORM TO THE FOLLOWING:
   - A. ACI 318 - REINFORCED CONCRETE
   - B. ACI 318.1 - PLAIN CONCRETE
   - C. ACI 306R - COLD WEATHER CONCRETING
   - D. ACI 305R - HOT WEATHER CONCRETING
   - E. ACI 117 - STANDARD SPECIFICATION FOR TOLERANCES
2. CONCRETE USED FOR STRUCTURAL APPLICATIONS AS SHOWN ON DRAWINGS SHALL BE STANDARD WEIGHT, WITH 28-DAY COMPRESSIVE STRENGTH AS NOTED BELOW. COMPRESSIVE STRENGTH TESTING SHALL BE IN ACCORDANCE WITH ASTM C39 "STANDARD TEST METHOD FOR COMPRESSIVE STRENGTH OF CYLINDRICAL CONCRETE SPECIMENS."
3. CONCRETE SHALL HAVE A MAXIMUM SLUMP AS NOTED BELOW AND SLUMP SHALL BE DETERMINED IN ACCORDANCE WITH ASTM C143 "SLUMP OF PORTLAND CEMENT CONCRETE."
4. AGGREGATES USED FOR NORMAL WEIGHT CONCRETE SHALL HAVE A NOMINAL MAXIMUM COARSE AGGREGATE SIZE AS NOTED BELOW AND SHALL CONFORM TO ASTM C33 "SPECIFICATIONS FOR CONCRETE AGGREGATE."
5. CONCRETE SHALL BE PROPORTIONED TO MEET THE REQUIREMENTS OF ACI 318 CHAPTER 19. CONCRETE SHALL BE DESIGNED FOR EXPOSURE CLASS F1, S0, W0 AND C0 UNO.
6. CONCRETE MIX DESIGNS SHALL BE IN ACCORDANCE WITH THE REQS BELOW:

LOCATION	AIR ENTRAIN	MIN F'c	SLUMP	MAX AGG SIZE	EXPOSURE CLASS	MAX W/CM
COLUMNS	1 1/2%	5000 PSI	4" +/- 1"	1 1/2"	C1, F1	NA
FOOTINGS	1 1/2%	5000 PSI	4" +/- 1"	1 1/2"	C1, F1	NA
GRADE BEAMS	1 1/2%	3000 PSI	4" +/- 1"	1 1/2"	C1, F1	NA
4" MIN SLAB ON GRADE	1 1/2%	3000 PSI	4" +/- 1"	1 1/4"	C1, F1	NA

7. FLY ASH CONTENT SHALL BE MAX 25% OF CEMENT REPLACEMENT.
8. AIR ENTRAINMENT SHALL BE PROVIDED AS SHOWN IN THE CONCRETE MIX DESIGN REQUIREMENTS WITH A TOLERANCE OF ±1 1/2%. AIR ENTRAINMENT SHALL CONFORM TO ASTM C260 "AIR ENTRAINING ADMIXTURES FOR CONCRETE."
9. CONCRETE TESTING SHALL BE PROVIDED BY AN APPROVED AGENCY, AND IN ACCORDANCE WITH ASTM C31 "MAKING AND CURING CONCRETE TEST SPECIMENS IN THE FIELD."
10. CURING COMPOUNDS AND SURFACE HARDENERS SHALL BE APPROVED BY ENGINEER PRIOR TO USE. APPLICATION OF CURING COMPOUNDS AND SURFACE HARDENERS SHALL BE IN COMPLIANCE WITH MANUFACTURERS RECOMMENDATIONS.
11. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH SHALL BE PROTECTED BY WATERPROOFING AS DETAILED BY ARCHITECTURAL DRAWINGS.
12. 12. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO COORDINATE FOUNDATION BLOCKOUTS AND EMBEDDED ITEMS NECESSARY FOR ARCHITECTURAL, MEP, CIVIL, ETC.
13. THE CONTRACTOR SHALL PROVIDE A SUBMITTAL OF EMBEDDED CONDUITS, PIPES, AND SLEEVES WHICH ARE BEYOND THE SCOPE DETAILED IN THE STRUCTURAL DRAWINGS.
14. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PLACE AND FINISH CONCRETE SLABS WITH A MINIMUM FLATNESS OF Ff = 35 AND A MINIMUM LEVELNESS OF FL = 25. ANY DEVIATION FROM THIS TOLERANCE THAT REQUIRES CUTTING OR ADDITIONAL FINISHING IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
15. HORIZONTAL CONSTRUCTION JOINTS ARE NOT PERMITTED UNLESS SPECIFICALLY SHOWN AND DETAILED ON STRUCTURAL PLANS. VERTICAL CONSTRUCTION JOINT LOCATIONS, OTHER THAN THOSE SHOWN ON PLAN, SHALL BE SUBMITTED TO ARCHITECT/ENGINEER FOR REVIEW. ADDITIONAL DETAILING AND REINFORCING MAY BE REQUIRED AND SPECIFIED BY THE ENGINEER FOR UNSCHEDULED CONSTRUCTION JOINTS, AND IS THE RESPONSIBILITY OF THE CONTRACTOR.
16. WHERE WIDTH AND DEPTH OF GRADE BEAM VARIES AT INTERSECTIONS, EXTEND THE LARGER OF THE BEAMS 3'-0" MIN BEYOND INTERSECTION AND SLOPE REINFORCEMENT OF LARGER BEAM ALONG LAP LENGTH OF SMALLER BEAM.

CONCRETE REINFORCING

1. REINFORCING STEEL SHALL BE GRADE 60, DOMESTIC, DEFORMED NEW BILLET STEEL BARS IN ACCORDANCE WITH ASTM A615.
2. REINFORCING STEEL DETAILING SHALL BE IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE DETAILING MANUAL. ALL HOOKS AND BENDS IN REINFORCING STEEL SHALL CONFORM TO ACI DETAILING STANDARDS, UNLESS NOTED OTHERWISE.
3. REINFORCING STEEL SUPPORT DEVICES SHALL BE IN ACCORDANCE WITH THE CRSI MANUAL OF STANDARD PRACTICE.
4. UNSCHEDULED BEAMS, SLABS, COLUMNS, AND WALLS, SHALL HAVE REINFORCING STEEL DETAILED IN ACCORDANCE WITH THE FOLLOWING:
   - A. MINIMUM LAP SPLICE FOR ALL REINFORCING BARS SHALL BE 48 TIMES THE BAR DIAMETER, UNLESS NOTED OTHERWISE.
   - B. LAP TOP REINFORCING BARS AT MID SPAN
   - C. LAP BOTTOM REINFORCING BARS AT SUPPORTS.
   - D. LAP VERTICAL BARS IN WALLS AND COLUMNS AT FLOOR LINES ONLY, UNLESS NOTED OTHERWISE.
   - E. PROVIDE CORNER BARS, OF SAME SIZE, FOR ALL HORIZONTAL BARS AT THE INSIDE AND OUTSIDE FACES OF INTERSECTING BEAMS OR WALLS.
5. PROVIDE MINIMUM (2) #4 X 8'-0" BARS AT 45° AT ALL REENTRANT CORNERS IN SLAB ON GRADE AND ELEVATED SLABS.
6. REINFORCING STEEL INTERRUPTED BY OPENINGS OR EMBEDDED ITEMS IN SLABS OR WALLS, SHALL BE COMPENSATED FOR BY REPLACING AN EQUAL AMOUNT OF REINFORCING BARS AT THE SIDES OF THE OPENING, PARALLEL TO UNINTERRUPTED STEEL. COMPENSATION STEEL SHALL EXTEND BEYOND THE EDGE OF OPENING OR EMBED A MINIMUM OF 48 TIMES THE BAR DIAMETER.
7. WELDING OF REINFORCING BARS IS NOT PERMITTED, AND HEAT SHALL NOT BE PERMITTED IN THE FABRICATION OR INSTALLATION OF REINFORCEMENT.
8. WELDED STEEL WIRE FABRIC USED FOR CONCRETE REINFORCING SHALL BE INSTALLED IN FLAT SHEETS, AND SHALL CONFORM TO ASTM A185.
9. MINIMUM CONCRETE COVERAGE FOR REINFORCING STEEL SHALL CONFORM TO THE FOLLOWING:
   - A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH — 3".
   - B. CONCRETE EXPOSED TO EARTH OR WEATHER
     - #6 BAR OR LARGER — 2",
     - #5 BAR AND SMALLER — 1 1/2".
   - C. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND
     - SLABS, WALLS,JOISTS — 3/4"
     - BEAMS AND COLUMNS — 1 1/2".

SHEET INDEX

STRUCTURAL DRAWINGS

PROJECT # 302-220

TDi* ENGINEERING

TDI Engineering, LLC
5906 Old Fredericksburg Road, Suite 300
Austin, TX 78749
512-301-3389 | www.tdi-llc.net

CIVIL & STRUCTURAL ENGINEERING
AUSTIN / HOUSTON

*THINK DESIGN innovate, integrate, implement...

hatch + ulland owen architects
1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

CIVIL ENGINEER

STRUCTURAL ENGINEER
TDI ENGINEERING
5906 OLD FREDERICKSBURG RD
AUSTIN, TX 78749
512.301.3389

MEP ENGINEER
INFINITY MEP•S CONSULTANTS
5316 W US HWY 290 RD STE. 130
AUSTIN, TX 78735
512.839.7070

LANDSCAPE ARCHITECT
TBG PARTNERS
3232 E CESAR CHAVEZ ST
BLDG 1, STE 100
512.327.1011

THE COLONY
TREEHOUSE AMENITY CENTER
BASTROP, TEXAS
hatch + ulland architects
CONSTRUCTION DOCUMENTATION
#22-021

This document is released for the purpose of design team coordination under the authority of the person listed below. It is not to be used for any other purposes, including but not limited to construction, bidding, or permitting.
Jonathan Ramlow
PE 145507
2024/10/23
FIRM REG. # F-8601
Issue Date

ISSUE REVISIONS

#	DATE	NOTES
	10/11/2024	90% CD
	10/23/2024	BID SET

PHASE 1 - GENERAL NOTES

S1.00

10/23/2024 2:42:03 PM

GENERAL NOTES

CONCRETE AND CMU ANCHORS

1. ANCHOR BOLTS AND THREADED ROD SHALL BE ASTM F1554 GRADE 36 FURNISHED WITH STD WASHER AND HEAVY HEX NUT, UNO.
2. ANCHOR BOLTS SPECIFIED AS ASTM F1554 GRADE 55 SHALL CONFORM TO SUPPLEMENT 1.
3. EXPANSION ANCHORS SHALL BE:
   A. SIMPSON STRONG-BOLT 2
   B. DEWALT POWER-STUD + SD4/SD6
   C. APPROVED EQUIVALENT
4. ADHESIVE ANCHOR SYSTEM IN CONCRETE SHALL BE:
   A. SIMPSON AT-XP
   B. DEWALT AC200+
   C. APPROVED EQUIVALENT
5. ADHESIVE ANCHOR SYSTEM IN CMU SHALL BE:
   A. SIMPSON AT-XP
   B. DEWALT AC100+
   C. APPROVED EQUIVALENT
6. POWDER ACTUATED FASTENERS SHALL BE AS SPECIFIED IN THE CONSTRUCTION DOCUMENTS.
7. POST-INSTALLED ANCHORS SHALL BE INSTALLED PER MFR SPECIFICATIONS.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL REINFORCING AND EMBEDDED ITEMS THROUGH NON-DESTRUCTIVE METHODS PRIOR TO POST-INSTALLED ANCHOR INSTALLATION. NO REINFORCEMENT OR EMBEDDED ITEMS SHALL BE CUT. POST-INSTALLED ANCHOR LOCATIONS SHALL BE RELOCATED WITH ENGINEERS APPROVAL WHERE CONFLICTS OCCUR.
9. POST INSTALLED ANCHORS IN CMU SHALL BE IN GROUTED CELLS.
10. POST-INSTALLED ANCHORS EXPOSED TO WEATHER OR PRESSURE TREATED LUMBER SHALL BE GALVANIZED OR STAINLESS STEEL.
11. FILL ABANDONED HOLES WITH EPOXY, FLEXIBLE JOINT SEALER OR GROUT.
12. INSTALLATION OF POST-INSTALLED ANCHORS SHALL BE INSPECTED BY THE TESTING AGENCY IN ACCORDANCE WITH THE GOVERNING BUILDING CODE.
13. ADHESIVE ANCHORS INSTALLED IN A HORIZONTAL TO VERTICAL OVERHEAD ORIENTATION TO SUPPORT SUSTAINED TENSION LOADS SHALL BE INSTALLED BY A CERTIFIED ADHESIVE ANCHOR INSTALLER (AAI) AS CERTIFIED THROUGH ACI/CRSI. PROOF OF CURRENT CERTIFICATION SHALL BE SUBMITTED TO THE EOR FOR APPROVAL PRIOR TO COMMENCEMENT OF INSTALLATION.
14. ADHESIVE ANCHORS NOT TO BE INSTALLED IN CONCRETE AGED LESS THAN 21 DAYS.
15. DRILLED HOLES FOR ANCHORS SHALL BE OF SIZE & DEPTH AS RECOMMENDED BY THE ANCHOR MANUFACTURER.
16. MINIMUM EDGE DISTANCE FOR POWDER ACTUATED FASTENERS SHALL BE 3 1/2" INTO CONCRETE AND 5" INTO MASONRY.
17. MINIMUM SPACING FOR POWDER ACTUATED FASTENERS SHALL BE 5" OC INTO CONCRETE & MASONRY.

CONCRETE MASONRY

1. CONCRETE MASONRY UNITS SHALL BE HOLLOW LOAD BEARING TYPE N-1 UNITS WITH A MINIMUM COMPRESSIVE STRENGTH OF 1900 PSI UNITS SHALL CONFORM TO ASTM C90.
2. COMPRESSIVE PRISM STRENGTH OF MASONRY (f'm) SHALL BE 1500 PSI, MINIMUM, AT 28 DAY TESTING.
3. MORTAR SHALL CONFORM TO ASTM C270, TYPE M OR S, WITH A MINIMUM COMPRESSIVE STRENGTH OF 1800 PSI WHEN TESTED IN ACCORDANCE WITH ASTM C780.
4. COARSE MASONRY GROUT SHALL CONFORM TO ASTM C476, WITH A MAXIMUM AGGREGATE SIZE OF 1/2", AND A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI. NORMAL WEIGHT CONCRETE WITH A MAXIMUM AGGREGATE SIZE OF 1/2", AND A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI MAY BE USED IN LIEU OF GROUT.
5. GROUT LIFTS SHALL BE MAX 4'-8" WITH 2" DEEP KEYWAY AT THE TOP OF EACH LIFT. LAP VERTICAL REINFORCING AND PROVIDE BAR POSITIONERS ABOVE THE TOP OF EACH LIFT.
6. GROUT SHALL BE MECHANICALLY CONSOLIDATED WITH MAX 3/4" ∅ HEAD VIBRATOR TO AVOID SEGREGATION.
7. HORIZONTAL JOINT REINFORCEMENT SHALL CONSIST OF LADDER TYPE, HOT DIPPED GALVANIZED, COLD-DRAWN STEEL CONFORMING TO ANSI/ASTM A82. REINFORCEMENT SHALL HAVE NO. 9 GAUGE, OR 3/16" SIDE RODS, WITH NO. 9 GAUGE CROSS RODS. JOINT REINFORCEMENT SHALL BE SPACED AT 16" OC, LAPPED MINIMUM 14" AT SPLICES, AND CONTINUOUS AROUND CORNERS. DISCONTINUE JOINT REINFORCEMENT AT VERTICAL CONTROL AND EXPANSION JOINTS. SPACE HORIZONTAL JOINT REINFORCEMENT AT 8" OC BELOW GRADE AND AT PARAPETS.
8. PROVIDE REINFORCED AND GROUTED CELLS AT 32" OC, UNLESS NOTED OTHERWISE ON STRUCTURAL DRAWINGS. ADDITIONALLY, PROVIDE REINFORCED AND GROUTED CELLS AT ENDS OF WALLS, AND CORNERS. REINFORCEMENT SHALL BE A #5 BAR, MINIMUM.
9. PROVIDE REINFORCED AND GROUTED CELLS AT EACH SIDE OF OPENINGS. REINFORCEMENT SHALL BE #5 MINIMUM, AND GROUTED CELL SHALL BE FULL HEIGHT OF WALL.
10. BOND BEAMS SHALL BE LOCATED AT ROOF BEARING ELEVATION, TOP OF WALLS, AT EACH FLOOR LEVEL, AND OTHER LOCATIONS AS SHOWN ON DRAWINGS. BONDS BEAMS SHALL BE CONTINUOUSLY REINFORCED AND GROUTED. REINFORCEMENT SHALL CONSIST OF MIN (1) #5 BOTTOM BAR FOR 8" BLOCK, AND (2) #5 BOTTOM BARS FOR 12" BLOCK, UNO ON PLANS.
11. CONTRACTOR SHALL COORDINATE LOCATIONS FOR CONTRACTION AND EXPANSION JOINTS WITH ARCHITECTURE. JOINTS SHALL OCCUR WITHIN TWO FEET OF ONE SIDE OF EACH CORNER AND AT THE LESSER OF 30 FT OC, OR THREE TIMES THE WALL HEIGHT.
12. REFER TO ARCH FOR GLAZED FINISH ON CMU WHERE REQUIRED.

WOOD

1. DIMENSIONAL LUMBER FOR RAFTERS, JOISTS AND BEAMS SHALL BE SYP #2 OR DFL #2, 19% KILN-DRY, WITH THE FOLLOWING DESIGN VALUES:

SIZE	Fb	Fv
2x4	1100 PSI	175 PSI
2x6	1000 PSI	175 PSI
2x8	925 PSI	175 PSI
2x10	800 PSI	175 PSI
2x12	750 PSI	175 PSI

2. ALL MEMBERS ARE CONTINUOUS UNLESS SPECIFICALLY DETAILED OTHERWISE. SPLICES ARE NOT PERMITTED UNLESS SHOWN ON THE STRUCTURAL DRAWINGS OR OTHERWISE APPROVED.
3. REF STUD SCHEDULE FOR STUD GRADES.
4. ALL PLATES SHALL BE SYP #2 OR DFL #2. BLOCKING AND MISCELLANEOUS FRAMING MAY BE SPF, DF OR SYP STUD GRADE, #3, OR BETTER.
5. ALL MEMBERS SHALL BEAR THE STAMP OF AN APPROVED TESTING AGENCY.
6. ALL MEMBERS IN CONTACT WITH CONCRETE OR EXPOSED TO WEATHER SHALL BE OF NATURALLY DURABLE OR PRESERVATIVE-TREATED WOOD. FASTENERS FOR ATTACHING NATURALLY DURABLE OR PRESERVATIVE TREATED WOOD SHALL BE HOT-DIPPED GALVANIZED STEEL OR STAINLESS STEEL.
7. DEFLECTION OF MEMBERS DUE TO LIVE LOAD SHALL BE LIMITED TO L/360. DEFLECTION OF MEMBERS DUE TO LIVE LOAD + DEAD LOAD + CREEP SHALL BE LIMITED TO L/240.
8. CONTRACTOR SHALL ENSURE THAT ALL LOADS TRANSFERRED TO BEAMS AND HEADERS ARE TRANSFERRED TO FOUNDATION.
9. FRAMING MEMBERS AND LAYOUTS SHOWN ON PLANS ARE INTENDED TO REPRESENT CONSTRUCTION CONDITIONS, AND ARE NOT INTENDED TO REPRESENT MATERIAL OR COMPONENT QUANTITIES REQUIRED.
10. ALL METAL FRAMING CONNECTORS SHALL BE SIMPSON STRONG-TIE. INSTALL ALL HARDWARE PER MFG SPECS. WHERE OPTIONAL NAIL HOLES ARE PROVIDED ON METAL CONNECTORS, FILL ALL NAIL HOLES WITH FASTENERS PER MFG.
11. ALL FLUSH BEAM AND JOIST CONNECTIONS SHALL BE MADE WITH HANGER SIZES OF ADEQUATE LOAD CARRYING CAPACITY CONFORMING TO LOADS SPECIFIED BY THE GOVERNING CODE, AND SHALL BE THE MINIMUM AVAILABLE FOR THE SPECIFIED BEAM OR JOIST, UNLESS NOTED OTHERWISE.
12. PROVIDE STANDARD WASHERS FOR MACHINE BOLTS OR LAG SCREWS WITH HEADS OR NUTS BEARING ON WOOD.
13. PROVIDE MINIMUM FASTENING OF ALL MEMBERS PER IBC TABLE 2304.9.1 UNO.
14. PORTIONS OF THE STRUCTURE WHICH ARE NOT DETAILED ON THE STRUCTURAL DRAWINGS SHALL FOLLOW THE APPLICABLE CONVENTIONAL FRAMING PROVISIONS OF THE GOVERNING BUILDING CODE.
15. WHERE STRAPS ARE INSTALLED OVER WSP, MIN 2 1/2" NAILS SHALL BE USED.

STRUCTURAL STEEL

1. DETAILING, FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH THE STEEL CONSTRUCTION MANUAL.
2. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS:
   A. W-SHAPES - ASTM A992
   B. PLATES, ANGLES, & CHANNELS - ASTM A572, GR 50 OR ASTM A36
   C. STEEL PIPE - ASTM A53, TYPE E OR S, GR B
   D. STEEL TUBE - ASTM A500, GR B, FY = 46 KSI
3. SPLICING OF STEEL MEMBERS IS PROHIBITED UNLESS LOCATION AND TYPE OF SPLICE IS SUBMITTED TO ENGINEER IN SHOP DRAWINGS, AND APPROVED. ANY MEMBERS FOUND TO BE SPLICED AND NOT PREVIOUSLY APPROVED WILL BE REJECTED.
4. COLUMN BASE PLATES SHALL BE GROUTED WITH A HIGH-STRENGTH, NON-SHRINK, NON-METALLIC GROUT.
5. CONTRACTOR SHALL VERIFY CORRECTNESS OF FIELD CONDITIONS, INCLUDING FOUNDATION, ANCHOR PLACEMENT, AND OTHER WORK AFFECTING THE STEEL PRIOR TO ERECTION.
6. ALL STRUCTURAL STEEL SHALL BE PRIME PAINTED WITH 1.0 TO 1.5 MIL. DRY FILM THICKNESS GRAY OXIDE-ZINC CHROMATE PRIMER, EXCEPT WHERE FIRE PROTECTION MATERIALS ARE REQUIRED.
7. ALL EXPOSED STEEL SHALL BE EITHER HOT-DIPPED GALVANIZED OR PAINTED, REFER TO ARCHITECTURE.
8. LINTELS SUPPORTING MASONRY VENEER SHALL BE AS FOLLOWS:
   A. MASONRY VENEER SHALL BE SUPPORTED INDEPENDENTLY OF FRAMING.
   B. MAX BRICK WEIGHT = 30 PSF OR CONTACT ENGINEER.
   C. LINTELS SHALL BE GALVANIZED AND ASTM A36 OR ASTM A572 GR 50
   D. LINTELS SHALL EXTEND MIN 8" BEYOND OPENINGS EA END.
   E. LINTELS SHALL MEET REQUIREMENTS BELOW OR CONTACT ENGINEER.

OPENING UP TO BUT NOT EXCEEDING	MAX BRICK ABV	SIZE
3'-0"	6'-0"	L3x3x3/16
6'-0"	6'-0"	L4x4x1/4
9'-0"	6'-0"	L5x3x3/8 (LLV)
12'-0"	5'-0"	L6x4x3/8 (LLV)

STRUCTURAL STEEL CONNECTIONS

1. WELDING SHALL CONFORM TO AWS D1.1 AND SHALL BE PERFORMED WITH E70XX ELECTRODES.
2. PROVIDE ASTM A325-N BOLTS W/ HARDENED WASHERS.
3. STRUCTURAL STEEL CONNECTIONS NOT SPECIFICALLY DETAILED ON THE DRAWINGS SHALL BE DESIGNED BY FABRICATOR, UNDER THE DIRECT SUPERVISION OF A STATE LICENSED REGISTERED PROFESSIONAL ENGINEER, AND SEALED CALCULATIONS FOR ALL CONNECTIONS SHALL BE SUBMITTED FOR REVIEW.
4. DESIGN AND DETAILING OF BEAM CONNECTIONS NOT SPECIFICALLY DETAILED ON STRUCTURAL DRAWINGS SHALL CONFORM TO THE FOLLOWING:
   A. CONNECTIONS SHALL BE AISC TYPE 2, SIMPLE FRAMING CONNECTIONS (PR-PARTIALLY RESTRAINED.) NO SHEAR TAB CONNECTIONS WILL BE PERMITTED.
   B. IN GENERAL, SHOP CONNECTIONS SHALL BE WELDED, AND FIELD CONNECTIONS SHALL BE BOLTED.
   C. CONNECTIONS SHALL BE DESIGNED FOR THE SCHEDULED SHEAR FORCES, THE SHEAR FORCE DENOTED AS "V=", AND THE HORIZONTAL FORCE DENOTED AS "H=" ON THE STRUCTURAL DRAWINGS.
   D. CONNECTIONS SHALL BE DESIGNED FOR 55 PERCENT OF THE TOTAL LOAD CAPACITY IN THE AISC 325 BEAM TABLES, UNLESS NOTED OTHERWISE.
   E. PROVIDE MINIMUM NUMBER OF ROWS OF BOLTS EQUAL TO 1/6 OF THE BEAM DEPTH, ROUNDING FRACTIONS TO THE NEXT HIGHEST NUMBER.
   F. BOLTS SHALL BE INSTALLED SNUG TIGHT, UNLESS NOTED OTHERWISE.
   G. SHORT SLOTTED HOLES ARE PERMITTED PROVIDED WASHERS ARE INSTALLED IN ACCORDANCE WITH AISC REQUIREMENTS.
5. WHERE CONNECTIONS ARE NOT SPECIFICALLY ADDRESSED BY THE ABOVE NOTES OR ON STRUCTURAL DRAWINGS, FILLET WELDS SHALL BE PROVIDED AT ALL CONTACT SURFACES SUFFICIENT TO DEVELOP THE TENSILE STRENGTH OF THE SMALLER MEMBER.
6. MINIMUM SIZE OF FILLET WELDS SHALL BE 3/16", OR MINIMUM SIZE REQUIRED BY AISC, WHICHEVER IS GREATER.
7. HEADED SHEAR STUDS SHALL CONFORM TO ASTM A108 ULTIMATE TENSILE STRENGTH 65 KSI. ALL ANCHORS SHALL BE 3/4"∅ NELSON STUD OR EQUAL AND BE FULLY WELDED TO THE BASE. METAL USING AN AUTOMATIC ARC WELDING STUD GUN.
8. POWDER ACTUATED FASTENERS SHALL BE AS SPECIFIED IN THE CONSTRUCTION DOCUMENTS.
9. MINIMUM EDGE DISTANCE FOR POWER ACTUATED FASTENERS, SHALL BE 1/2" INTO STEEL.
10. MINIMUM SPACING FOR POWER ACTUATED FASTENERS, INTO STEEL, SHALL BE 1".

LIGHT GAUGE FRAMING

1. LIGHT GAUGE STUDS SHALL BE CLARK, DIETRICH OR APPROVED ALTERNATE.
2. SUBMIT THE FOLLOWING ITEMS TO THE ENGINEER PRIOR TO ERECTION OF FRAMING MEMBERS: PRODUCT DATA, PROOF OF MANUFACTURER QUALIFICATIONS, MILL CERTIFICATES SIGNED BY FRAMING MEMBER/ACCESSORY MANUFACTURER CERTIFYING COMPLIANCE WITH MATERIAL REQUIREMENTS.
3. THE MINIMUM YIELD STRENGTH OF ALL MEMBERS LESS THAN 54 MIL SHALL BE 33 KSI AND 54 MIL AND THICKER SHALL BE 50 KSI.
4. FABRICATION AND ERECTION OF ALL FRAMING SHALL BE IN ACCORDANCE WITH AISI - STANDARD FOR COLD-FORMED STEEL FRAMING AND MFG REQUIREMENTS.
5. ALL MEMBERS SHALL BE FASTENED W/ MIN (2) #10 FASTENER TO EACH SUPPORTING ELEMENT.
6. HORIZONTAL BRIDGING SHALL BE PROVIDED @ 4'-0" MAX, UNO.
7. CUT MEMBERS BY SHEARING OR SAWING. ALL VERTICAL MEMBERS SHALL BE CUT PRIOR TO SITE DELIVERY.
8. INSTALL MEMBERS IN SINGLE PIECE LENGTHS EXCEPT THAT TRACKS MAY BE SPLICED, BUTT-WELDED, OR EACH LENGTH ANCHORED TO A COMMON BUILDING FRAME ELEMENT.
9. TOLERANCES:
   A. VARIATION FROM PLUMB, LEVEL AND TRUE TO LINE: 1/8 INCH IN 10 FT (1:960).
   B. MEMBER SPACING: NOT MORE THAN +/- 1/8 INCH FROM SPACING INDICATED.
10. TRUSSES TO BE DESIGNED IN ACCORDANCE WITH AISI "DESIGN GUIDE FOR COLD-FORMED STEEL TRUSSES, PUBLICATION RG-9518." TRUSSES SHALL BE DESIGNED BY A STATE LICENSED REGISTERED PROFESSIONAL ENGINEER.
11. FASTENERS SHALL BE SIZE 12-14 WHERE NOTED #12 AND 10-16 WHERE NOTED #10. FASTENERS SHALL BE:
   A. HILTI SELF-DRILLING SCREWS IN ACCORDANCE WITH ESR 2196.
   B. ELCO DRILIT SELF-DRILLING SCREWS IN ACCORDANCE WITH ESR 3294.
   C. APPROVED EQUIVALENT.
12. ALL FASTENERS SHALL BE CORROSION RESISTANT COATED W/ PAN OR HEX WASHER HEAD.
13. DESIGN, DETAILING, AND INSTALLATION OF LIGHT GAUGE FRAMING NOT SPECIFICALLY SHOWN IN THESE PLANS IS THE RESPONSIBILITY OF THE CONTRACTOR.

SPECIAL INSPECTIONS

1. THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE (RDPIRC) FOR THIS PROJECT IS THE ARCHITECT. SUBMIT ALL INSPECTION REPORTS DIRECTLY TO THE RDPIRC FOR REVIEW. SUBMIT A COPY OF THE STRUCTURAL RELATED SPECIAL INSPECTION REPORTS TO THE EOR REVIEW.
2. THE RDPIRC AND SPECIAL INSPECTORS MAY NOT BE IN THE EMPLOY OF THE GENERAL CONTRACTOR, SUBCONTRACTORS OR MATERIAL SUPPLIERS. IN THE CASE OF AN OWNER/CONTRACTOR, THE BUILDING OFFICIAL SHALL SPECIFY WHO EMPLOYS THE RDPIRC AND SPECIAL INSPECTORS.
3. ALL SPECIAL INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH SECTIONS 1704 AND 1705 OF THE IBC INCLUDING ADOPTED AMENDMENTS. SPECIAL INSPECTIONS ARE IN ADDITION TO INSPECTIONS REQUIRED BY SECTION 110 OF THE IBC.
4. FABRICATORS SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE RDPIRC STATING THAT ALL WORK WAS PERFORMED UNDER THE INSPECTION SERVICES OF A SPECIAL INSPECTOR OR UNDER THE INSPECTION SERVICES OF A NATIONALLY RECOGNIZED TRADE ORGANIZATION THAT REQUIRES QUALITY CONTROL INSPECTIONS.
5. SPECIAL INSPECTIONS SHALL COMPLY WITH THE FOLLOWING:

MATERIAL	CODE REFERENCE
SOILS	IBC TABLE 1705.6
CONCRETE	IBC SECTION 1705.3
STRUCTURAL STEEL	AISC 360
STRUCTURAL MASONRY	TMS 402 & TMS 602

REQUIRED INSPECTIONS

1. SPECIAL INSPECTIONS PER NOTES AND REQUIREMENTS OF AUTHORITY HAVING JURISDICTION.
2. CONTRACTOR SHALL UTILIZE THIRD PARTY INSPECTION SERVICE TO PROVIDE THE FOLLOWING;
   A. SOIL COMPACTION
   B. PRE-CONCRETE PLACEMENT INSPECTION
   C. CMU REINFORCEMENT AND GROUTING
   D. STEEL INSTALLATION (SIZE AND LOCATION), WELDING AND BOLTING
3. REFER TO GENERAL NOTES FOR REQUIRED TESTING.

SUBMITTALS

1. TWENTY WORKING DAYS PRIOR TO SUBMITTING SHOP DRAWINGS, THE CONTRACTOR SHALL SUBMIT FOR EOR' S REVIEW A SCHEDULE WHICH DETAILS THE ESTIMATED QUANTITY OF SHOP DRAWINGS AND THE DATE THE SHOP DRAWINGS WILL BE RECEIVED BY THE EOR. THE EOR SHALL HAVE THE OPPORTUNITY TO REVIEW THE PROPOSED SCHEDULE AND SUBMITS COMMENTS TO THE CONTRACTOR. THE FINAL SHOP DRAWING SCHEDULE SHALL BE DEVELOPED AND SUBMITTED TO THE EOR. IN ACCORDANCE WITH THE SHOP DRAWING SCHEDULE, THE EOR WILL RETURN THE SHOP DRAWING ITEMS WITHIN 20 WORKING DAYS AFTER HAVING RECEIVED THE REPRODUCIBLE OR ELECTRONIC SHOP DRAWING.
2. THE CONTRACTOR IS TO REVIEW EACH SUBMITTAL PRIOR TO FORWARDING TO ARCHITECT AND EOR. THE CONTRACTOR IS TO STAMP EACH SUBMITTAL VERIFYING THAT THE FOLLOWING IS ADDRESSED:
   A. THE SHOP DRAWING IS REQUESTED.
   B. THE SHOP DRAWING IS BASED ON THE LATEST DESIGN.
   C. THE ARCHITECT' S AND EOR' S COMMENTS FROM ANY PREVIOUS SUBMITTALS ARE ADDRESSED.
   D. THE WORK IS COORDINATED AMONG ALL CONSTRUCTION TRADES.
   E. REVISIONS FROM PREVIOUS SUBMITTALS ARE CLEARLY MARKED BY CIRCLING OR CLOUDS.
   F. SUBMITTAL IS COMPLETE.
   G. SUBMITTAL DOES NOT INCLUDE SUBSTITUTION REQUEST
   H. SUBMITTAL SHALL INCLUDE A STAMP INDICATING PROJECT NAME AND LOCATION, SUBMITTAL NUMBER, SPECIFICATION SECTION NUMBER.
   I. THE EOR SHALL RETURN, WITHOUT COMMENT, SUBMITTALS WHICH THE CONTRACTOR HAS NOT STAMPED OR WHICH DO NOT MEET THE ABOVE REQUIREMENTS. THE EOR' S REVIEW OF SUBMITTALS SHALL BE FOR GENERAL CONFORMANCE WITH THE DESIGN INTENT. NO WORK SHALL BE STARTED WITHOUT SUCH REVIEW.
3. FOR COMPONENTS THAT REQUIRE ENGINEERING BY THE CONTRACTOR, PROVIDE A NOTE ON EACH SHOP DRAWING, WRITTEN AND SIGNED BY THE SUPPLIER' S ENGINEER, INDICATING THAT THE SHOP DRAWING IS IN CONFORMANCE WITH THE CALCULATIONS OF THE CONTRACTOR' S ENGINEER.
4. THE FOLLOWING ITEMS REQUIRE SUBMITTALS FOR STRUCTURAL REVIEW:
   A. CONCRETE REINFORCING LAYOUT
   B. CONCRETE MIX DESIGNS
   C. STRUCTURAL STEEL
   D. STRUCTURAL STEEL CONNECTIONS

PERFORMANCE ITEMS

1. THE CONTRACTOR SHALL EMPLOY OR RETAIN A LICENSED STRUCTURAL ENGINEER IN THE STATE IN WHICH THIS PROJECT IS LOCATED TO DESIGN AND DETAIL PERFORMANCE ITEMS AS PART OF THE BASE BUILDING STRUCTURE BUT NOT LIMITED TO:
   A. NONE

PROJECT # 302-220

TDi* ENGINEERING
TDI Engineering, LLC
5906 Old Fredericksburg Road, Suite 300
Austin, TX 78749
512-301-3389 | www.tdi-llc.net
CIVIL & STRUCTURAL ENGINEERING
AUSTIN / HOUSTON

*THINK DESIGN innovate, integrate, implement...

hatch + ulland owen architects
1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

CIVIL ENGINEER

STRUCTURAL ENGINEER
TDI ENGINEERING
5906 OLD FREDERICKSBURG RD
AUSTIN, TX 78749
512.301.3389

MEP ENGINEER
INFINITY MEP•S CONSULTANTS
5316 W US HWY 290 RD STE. 130
AUSTIN, TX 78735
512.839.7070

LANDSCAPE ARCHITECT
TBG PARTNERS
3232 E CESAR CHAVEZ ST
BLDG 1, STE 100
512.327.1011

THE COLONY
TREEHOUSE AMENITY CENTER
BASTROP, TEXAS
hatch + ulland architects
CONSTRUCTION DOCUMENTATION
#22-021

This document is released for the purpose of design team coordination under the authority of the person listed below. It is not to be used for any other purposes, including but not limited to construction, bidding, or permitting.
Jonathan Ramlow
PE 145507
2024/10/23
FIRM REG. # F-8601
Issue Date

ISSUE REVISIONS

#	DATE	NOTES
	10/11/2024	90% CD
	10/23/2024	BID SET

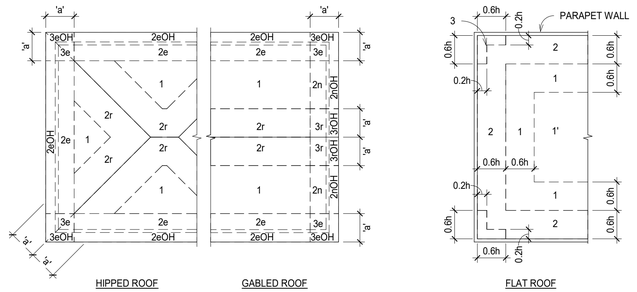
PHASE 1 - GENERAL NOTES

S1.01

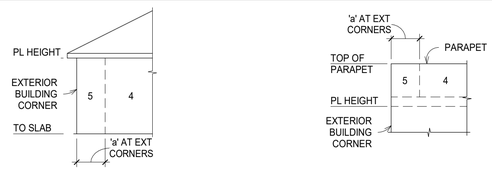
10/23/2024 2:42:03 PM

GENERAL NOTES

ROOF SHEATHING PLANS / ROOF PRESSURE ZONES



WALL SHEATHING PLANS / WALL PRESSURE ZONES



1. DIAGRAM FOR USE WITH SCHEDULE 1
2. REF LOADS AND DESIGN CRITERIA FOR ROOF PRESSURES AND 'a' DISTANCE.
3. ROOF PLANS ARE SCHEMATIC ONLY, REF ROOF FRAMING PLANS FOR ACTUAL ROOF LAYOUT.

SCHEDULE 1 - T & G DECK NAILING SCHEDULE

LOCATION	NAILING
AT ROOF EDGE	(3) 8d COMMON
INTERMEDIATE & END SUPPORTS	(2) 8d COMMON

NOTED:
1. TONGUE & GROOVE PLANKS SHALL BE MIN 3 SPAN, TYPICAL
2. TONGUE & GROOVE PLANKS SHALL BE SPY #2 (Fb = 1000 PSI)

SCHEDULE 2 - ROOF AND FLOOR SHEATHING

LOCATION	MIN THICK	PANEL GRADE	SPAN RATING	BOND CLASS	BLOCKING	FASTENERS			ALT FASTENERS		
						SIZE	EDGE	FIELD	SIZE	EDGE	FIELD
ROOF CORNER (ZONE 3 OH)	15/32"	APA RATED SHEATHING	32/16	EXP 1	NONE	8d	6"	12"	10d	6"	12"
ROOF CORNER (ZONE 3)	15/32"	APA RATED SHEATHING	32/16	EXP 1	NONE	8d	6"	10"	10d	6"	12"
ROOF EDGE (ZONE 2 OH)	15/32"	APA RATED SHEATHING	32/16	EXP 1	NONE	8d	6"	9"	10d	6"	12"
ROOF EDGE (ZONE 2)	15/32"	APA RATED SHEATHING	32/16	EXP 1	NONE	8d	6"	7"	10d	6"	10"
TYP ROOF (ZONE 1)	23/32"	APA RATED STURD+FLOOR	24" OC	EXP 1	NONE	10d	6"	12"	WSNTL SCREW	6"	12"

1. COORDINATE WSP THICKNESS WITH UL LISTINGS. REF ARCH.
2. INSTALL PANELS WITH LONG DIMENSION PERPENDICULAR TO FRAMING.
3. FASTENERS SPECIFIED ARE COMMON NAILS, UNO
4. NO FASTENERS SHALL BE CLOSER THAN 3/8" FROM PANEL EDGE.
5. DRIVE FASTENERS FLUSH. DO NOT PENETRATE THE SURFACE OF THE SHEATHING.
6. WSP SHALL HAVE A EFFECTIVE G OF 0.50 MIN.
7. FLOOR SHEATHING SHALL BE TONGUE & GROOVE.
8. SHEATH CONTINUOUSLY BELOW ALL ROOF OVERBUILDS.

PLAN LEGEND

MARK	ITEM
X SECTION SHEET	SECTION CUT
TOC = X'-X"	ELEVATION MARKER
X"	FOUNDATION STEP
	CMU WALL

NAIL INFORMATION & REQS

HEAD DIA	MIN PEN	NAIL SIZE (LENGTH x Ø)
11/32"	1 5/8"	16d COMMON (3 1/2" x 0.162")
9/32"	1 3/8"	16d BOX (3 1/2" X 0.135")
5/16"	1 1/2"	10d COMMON (3" x 0.148")
5/16"	1 3/8"	10d (3" x 0.128")
9/32"	1 3/8"	8d COMMON (2 1/2" x 0.131")
19/64"	1 1/4"	8d BOX (2 1/2" x 0.113")
1/4"	1"	6d COOLER (1 7/8" x 0.092")
19/64"	1"	6d WALLBOARD (1 7/8" x 0.092")
15/64"	7/8"	5d COOLER (1 5/8" x 0.086")
9/32"	7/8"	5d WALLBOARD (1 5/8" x 0.086")

1. 5d WALLBOARD NAILS MAY BE SUBSTITUTED FOR 5d COOLER NAILS.
2. 6d WALLBOARD NAILS MAY BE SUBSTITUTED FOR 6d COOLER NAILS.
3. ADDITIONAL NAIL SIZES MAY BE REQUIRED W/ METAL CONNECTORS.

ABBREVATION LIST

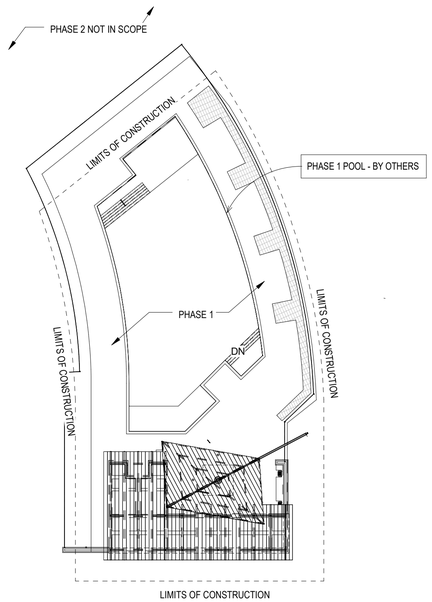
ABBREVATION	DEFINITION
AB	ANCHOR BOLT
ACI	AMERICAN CONCRETE INSTITUTE
ADDL	ADDITIONAL
ADJ	ADJACENT
AISI	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
APPROX	AMERICAN IRON AND STEEL INSTITUTE
ARCH	ARCHITECTURAL, ARCHITECT
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWS	AMERICAN WELDING SOCIETY
BBO	BEAM BY OTHERS
BM	BEAM
BOD	BOTTOM OF DECK
BRG	BEARING
BTM	BOTTOM
BTWN	BETWEEN
C&C	COMPONENT AND CLADDING
CANT	CANTILEVER
CIP	CAST IN PLACE
CJ	CONTROL JOINT
CJ	CONSTRUCTION JOINT
CL	CENTER LINE
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONV	CONVENTIONAL
CRSI	CONCRETE REINFORCING STEEL INSTITUTE
DBL	DOUBLE
DEMO	DEMOLITION, DEMOLISH
DET	DETAIL
DIA	DIAMETER
DIAG	DIAGONAL
EA	EACH
EE	EACH END
EF	EACH FACE
EJ	EXPANSION JOINT
ELEV	ELEVATION, ELEVATOR
EOR	ENGINEER OF RECORD
EQ	EQUAL
ES	EACH SIDE
EXIST	EXISTING
EXT	EXTERIOR
FF	FINISHED FLOOR
FIN	FINISHED
FND,FDN	FOUNDATION
FV	FIELD VERIFY
GA	GAUGE
GALV	GALVANIZED
GYP	GYPSUM BOARD
HD	HOLDOWN
HORZ,HORIZ	HORIZONTAL
HSA	HEADED STUD ANCHOR
HSS	HOLLOW STRUCTURAL SECTION
HT	HEIGHT
IBC	INTERNATIONAL BUILDING CODE
ICF	INSULATED CONCRETE FORM
INT	INTERIOR
JB	JOIST BEARING
KSI	KIPS PER SQUARE INCH
LBS	POUNDS

ABBREVATION LIST

ABBREVATION	DEFINITION
LG	LIGHT GAUGE
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LVL	LEVEL, LAMINATED VENEER LUMBER
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MECH	MECHANICAL
MEP	MECHANICAL, ELECTRICAL & PLUMBING
MFR, MFG	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MTL	METAL
MWFRS	MAIN WIND FORCE RESISTING SYSTEM
NA	NOT APPLICABLE
NP	NOT PERMITTED
NTS	NOT TO SCALE
OC	ON CENTER
OCEW	ON CENTER EACH WAY
OH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
OSB	ORIENTED STRAND BOARD
PAF	POWDER ACTUATED FASTENER
PCI	PRECAST CONCRETE INSTITUTE
PERP	PERPENDICULAR
PJ	PANEL JOINT
PL	PLATE
PLF	POUNDS PER LINEAR FOOT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POST-TENSION
PTI	POST-TENSION INSTITUTE
REF	REFERENCE
REINF	REINFORCING, REINFORCEMENT
REQD	REQUIRED
REQS	REQUIREMENTS
SCHED	SCHEDULE
SCL	STRUCTURAL COMPOSITE LUMBER
SIM	SIMILAR
SJI	STEEL JOIST INSTITUTE
SPA	SPACE
SPECS	SPECIFICATIONS
STD	STANDARD
STL	STEEL
STRUCT	STRUCTURAL
SW	SHEARWALL
T/B	TOP AND BOTTOM
TBO	TRUSS BY OTHERS
TDI	TDI ENGINEERING, LLC
TO	TOP OF
TOB	TOP OF BEAM
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOP	TOP OF PARAPET, TOP OF PANEL, TOP OF PIER
TOS	TOP OF STEEL
TOW	TOP OF WALL
TPL	TRIPLE
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
VIF	VERIFY IN FIELD
W/	WITH
WP	WORK POINT
WSP	WOOD STRUCTURAL PANEL (PLYWOOD OR OSB)
WT	WEIGHT

STEEL COLUMN SCHEDULE

TYPE MARK	TYPE	BASE PLATE	ANCHOR BOLTS		NOTES
			QUANITY DIA X EMBEDED	MATERIAL GRADE	
C1	HSS7X5X1/2	PL1X10X1'-1"	(4) 3/4"Ø WELDED HEADED STUD W/ 18" EMBED	F1554 GR 36	
C2	HSS20X0.500	REF 13/S4.00	REF 13/S4.00	REF 13/S4.00	
C3	HSS7X7X1/2	PL3/4X13X1'-1"	(4) 3/4"Ø WELDED HEADED STUD W/ 18" EMBED	F1554 GR 36	



SITE PLAN

1" = 30'-0"

PROJECT # 302-220

TDi* ENGINEERING

TDI Engineering, LLC
5906 Old Fredericksburg Road, Suite 300
Austin, TX 78749
512-301-3389 | www.tdi-llc.net

CIVIL & STRUCTURAL ENGINEERING

AUSTIN / HOUSTON

*THINK DESIGN innovate, integrate, implement...

hatch + ulland owen architects

1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643

www.huoarchitects.com

CIVIL ENGINEER

STRUCTURAL ENGINEER
TDI ENGINEERING
5906 OLD FREDERICKSBURG RD
AUSTIN, TX 78749
512.301.3389

MEP ENGINEER
INFINITY MEP•S CONSULTANTS
5316 W US HWY 290 RD STE. 130
AUSTIN, TX 78735
512.839.7070

LANDSCAPE ARCHITECT
TBG PARTNERS
3232 E CESAR CHAVEZ ST
BLDG 1, STE 100
512.327.1011

THE COLONY
TREEHOUSE AMENITY CENTER
BASTROP, TEXAS
hatch + ulland architects
CONSTRUCTION DOCUMENTATION
#22-021

This document is released for the purpose of design team coordination under the authority of the person listed below. It is not to be used for any other purposes, including but not limited to construction, bidding, or permitting.
Jonathan Ramlow
PE 145507
2024/10/23
FIRM REG. # F-8601
Issue Date

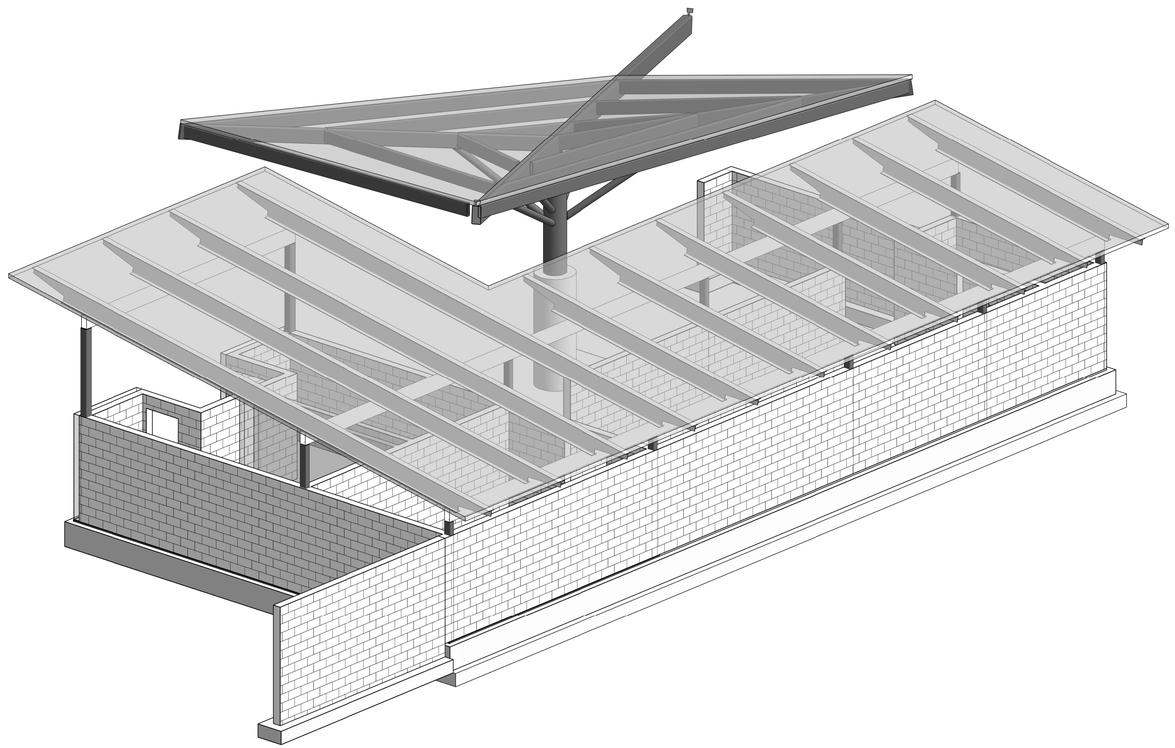
ISSUE REVISIONS

#	DATE	NOTES
	10/11/2024	90% CD
	10/23/2024	BID SET

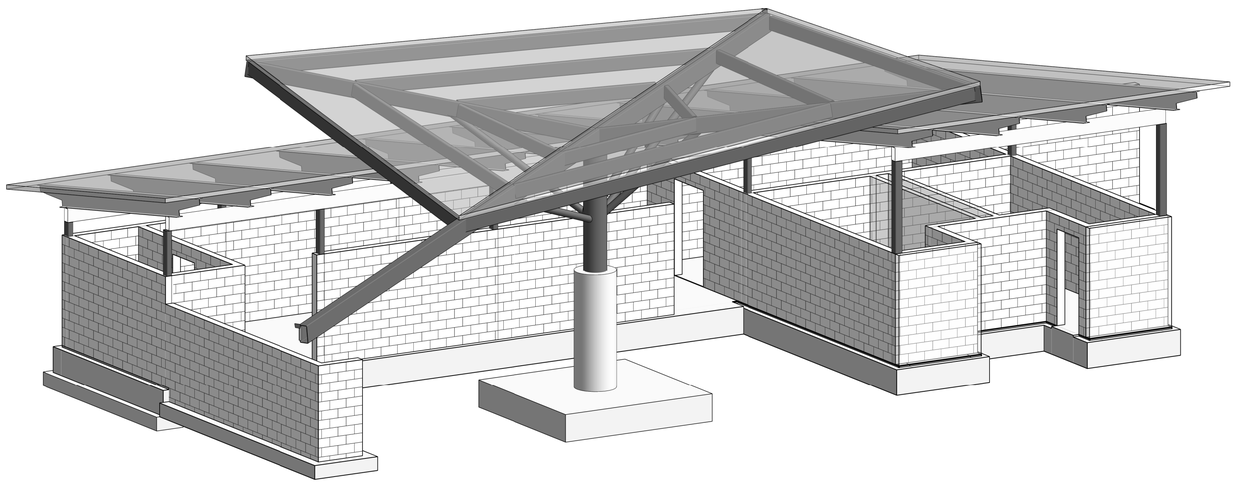
PHASE 1 - GENERAL NOTES

S1.02

10/23/2024 2:42:04 PM



3D Isometric View



3D Isometric View

hatch + ulland owen
architects

1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643

www.huoarchitects.com

CIVIL ENGINEER

STRUCTURAL ENGINEER
TDI ENGINEERING
5906 OLD FREDERICKSBURG RD
AUSTIN, TX 78749
512.301.3389

MEP ENGINEER
INFINITY MEP•S CONSULTANTS
5316 W US HWY 290 RD STE. 130
AUSTIN, TX 78735
512.839.7070

LANDSCAPE ARCHITECT
TBG PARTNERS
3232 E CESAR CHAVEZ ST
BLDG 1, STE 100
512.327.1011

THE COLONY
TREEHOUSE AMENITY CENTER
BASTROP, TEXAS
hatch + ulland architects
CONSTRUCTION DOCUMENTATION
#22-021

This document is released for the purpose of design team coordination under the authority of the person listed below. It is not to be used for any other purposes, including but not limited to construction, bidding, or permitting.
Jonathan Ramlow
PE 145507
2024/10/23
FIRM REG. # F-8601
Issue Date

ISSUE REVISIONS

#	DATE	NOTES
	10/11/2024	90% CD
	10/23/2024	BID SET

PROJECT # 302-220

TDi ENGINEERING
TDI Engineering, LLC
5906 Old Fredericksburg Road, Suite 300
Austin, TX 78749
512-301-3389 | www.tdi-llc.net
CIVIL & STRUCTURAL ENGINEERING
AUSTIN / HOUSTON

*THINK DESIGN innovate, integrate, implement...

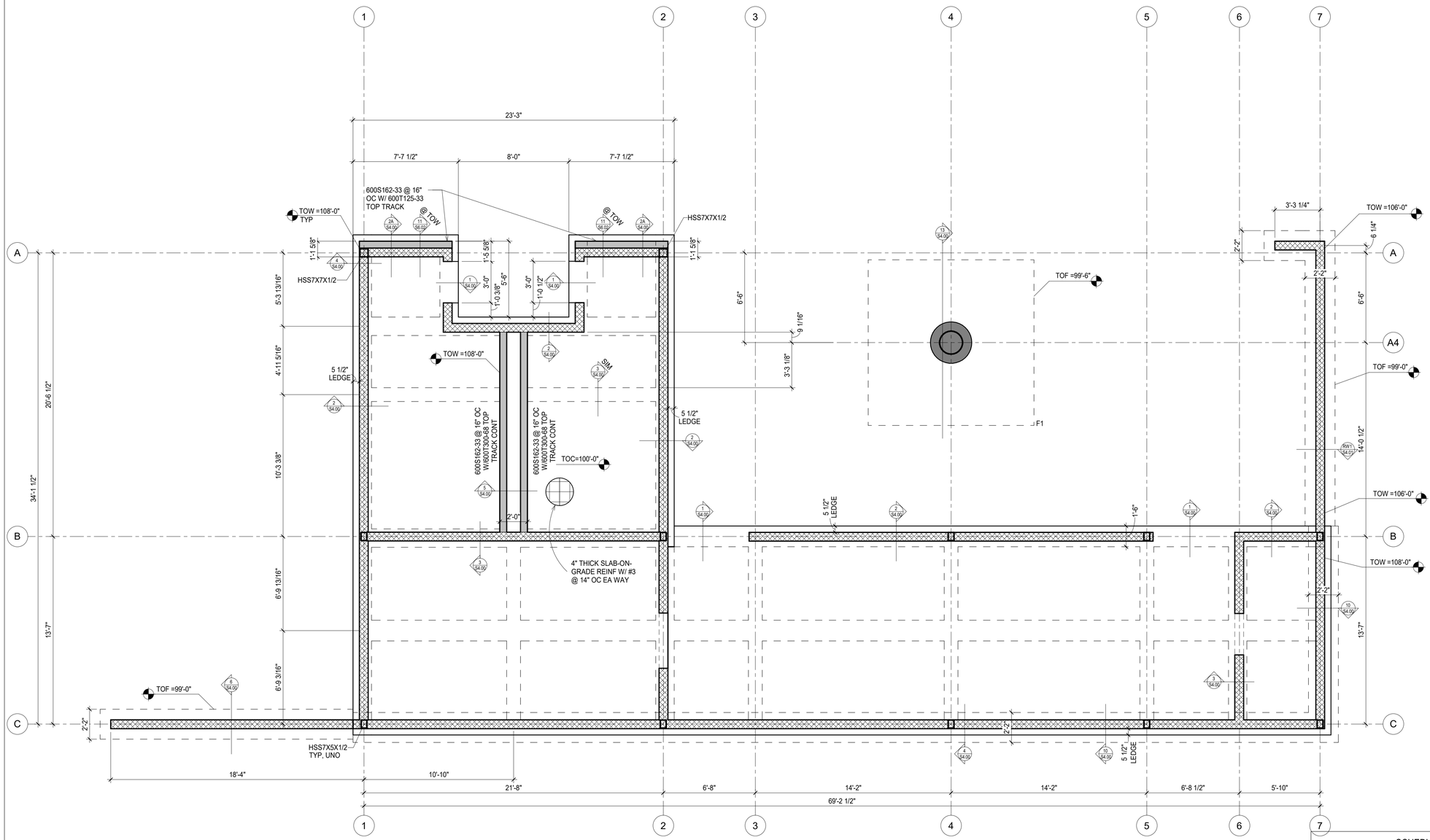
PHASE 1 - 3D ISOMETRIC VIEWS

S1.03

10/23/2024 2:42:05 PM

FOUNDATION PLAN NOTE

1. NOTES, SECTIONS, DIMENSIONS, DROPS, SLOPES, ANCHOR BOLTS, ETC SHOWN IN ONE UNIT OR QUADRANT ARE TYPICAL AT ALL LOCATIONS.
2. VERIFY ALL DIMENSIONS, DROPS, SLOPES, ETC WITH ARCH PRIOR TO CONSTRUCTION.
3. ALL ELEVATIONS ARE RELATIVE TO TOP OF CONC AT 1ST FLOOR = 100'-0".
4. SLAB THICKNESS SHALL BE 4" MIN WITH #3 @ 14" OC EW, SLAB DEPTH SHALL BE MAINTAINED THROUGH ALL DROPS, SLOPES, ETC.
5. GRADE BEAM WIDTH SHALL BE 18" MIN AND DEPTH SHALL BE 30" MIN.
6. EXT FOOTINGS & GRADE BEAMS SHALL BEAR 12" MIN BELOW FINISHED GRADE.
7. INCREASE DEPTH OF EXT FOOTINGS AND GRADE BEAMS AS REQUIRED TO MAINTAIN MIN EMBEDMENT INTO FIN GRADE.
8. REF DETAIL "X" REFERS TO THE DETAIL ON THE FOUNDATION DETAIL SHEETS.
9. REF DETAIL "C" FOR ADDL REINF AT FOOTING AND WALL CORNERS.
10. REF DETAIL "G" FOR ADDL REINF AT PLUMBING PENETRATIONS.
11. REF DETAIL "B" FOR WALL ANCHOR BOLTS.
12. REF DETAIL "H" FOR HOLDOWN ANCHOR BOLTS.



SCHEDULE - FOOTING SCHEDULE

MARK	WIDTH	LENGTH	THICKNESS	REINFORCEMENT
F1	12'-0"	12'-0"	2'-0"	#5@12"OC EA WAY T/B

PROJECT # 302-220

FOUNDATION PLAN

1/4" = 1'-0"

10/23/2024 2:42:05 PM

hatch + ulland owen architects

1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643

www.huoarchitects.com

CIVIL ENGINEER

STRUCTURAL ENGINEER
TDI ENGINEERING
5906 OLD FREDERICKSBURG RD
AUSTIN, TX 78749
512.301.3389

MEP ENGINEER
INFINITY MEP•S CONSULTANTS
5316 W US HWY 290 RD STE. 130
AUSTIN, TX 78735
512.839.7070

LANDSCAPE ARCHITECT
TBG PARTNERS
3232 E CESAR CHAVEZ ST
BLDG 1, STE 100
512.327.1011

THE COLONY
TREEHOUSE AMENITY CENTER
BASTROP, TEXAS
hatch + ulland architects
CONSTRUCTION DOCUMENTATION
#22-021

This document is released for the purpose of design team coordination under the authority of the person listed below. It is not to be used for any other purposes, including but not limited to construction, bidding, or permitting.
Jonathan Ramlow
PE 145507
2024/10/23
FIRM REG. # F-8601
Issue Date

ISSUE REVISIONS

#	DATE	NOTES
	10/11/2024	90% CD
	10/23/2024	BID SET

PHASE 1 - FOUNDATION PLAN

S2.00

TDi ENGINEERING

TDI Engineering, LLC
5906 Old Fredericksburg Road, Suite 300
Austin, TX 78749
512-301-3389 | www.tdi-llc.net

CIVIL & STRUCTURAL ENGINEERING
AUSTIN / HOUSTON

*THINK DESIGN innovate, integrate, implement...

RETAINING WALL PLAN

1" = 20'-0"

10/23/2024 2:42:05 PM

hatch + ulland owen
architects

1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643

www.huoarchitects.com

CIVIL ENGINEER

STRUCTURAL ENGINEER
TDI ENGINEERING
5906 OLD FREDERICKSBURG RD
AUSTIN, TX 78749
512.301.3389

MEP ENGINEER
INFINITY MEP•S CONSULTANTS
5316 W US HWY 290 RD STE. 130
AUSTIN. TX 78735
512.839.7070

LANDSCAPE ARCHITECT
TBG PARTNERS
3232 E CESAR CHAVEZ ST
BLDG 1, STE 100
512.327.1011

THE COLONY
TREEHOUSE AMENITY CENTER
BASTROP, TEXAS
hatch + ulland architects
CONSTRUCTION DOCUMENTATION
#22.021

This document is released for the purpose of design team coordination under the authority of the person listed below. It is not to be used for any other purposes, including but not limited to construction, bidding, or permitting.
Jonathan Ramlow
PE 145507
2024/10/23
FIRM REG. # F-8601
Issue Date

ISSUE REVISIONS

#	DATE	NOTES
	10/11/2024	90% CD
	10/23/2024	BID SET

PROJECT # 302-220

TDi* ENGINEERING

TDI Engineering, LLC
5906 Old Fredericksburg Road, Suite 300
Austin, TX 78749
512-301-3389 | www.tdi-llc.net

CIVIL & STRUCTURAL ENGINEERING
AUSTIN / HOUSTON

*THINK DESIGN innovate, integrate, implement...

PHASE 1 - RETAINING WALL PLAN

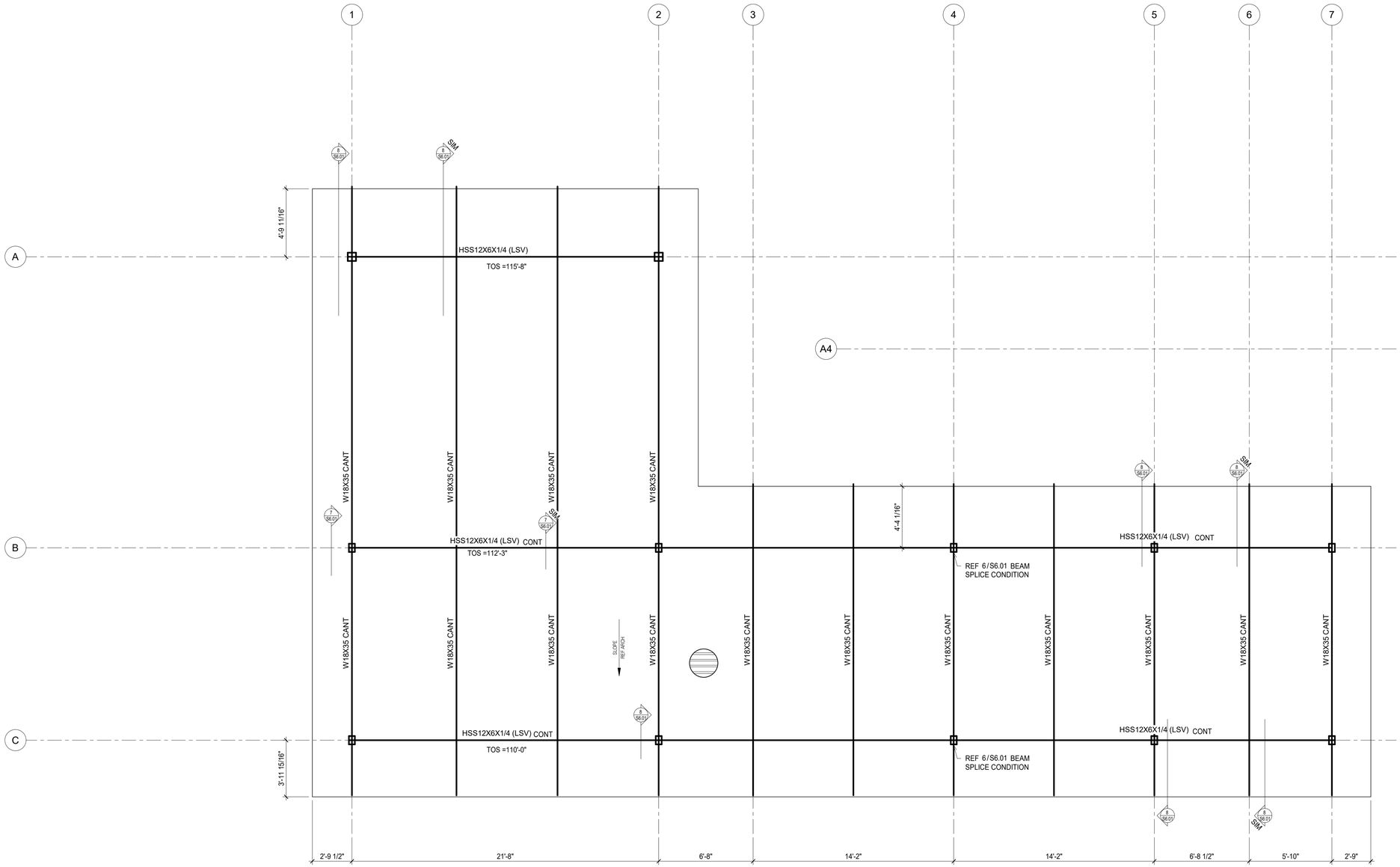
S2.01

ROOF FRAMING PLAN NOTES

1. VERIFY ALL DIMENSIONS, DROPS, SLOPES, ETC WITH ARCH PRIOR TO CONSTRUCTION
2. ALL ELEVATIONS ARE RELATIVE TO TOP OF CONC AT 1ST FLOOR = 100'-0"
3. BOD INDICATES BOTTOM OF DECK
4. TOS INDICATES TOP OF STEEL
5. ALL DRAINAGE IS THE RESPONSIBLITY OF THE ARCH. VERIFY ALL JOIST ELEVATIONS W/ ARCH.

PLAN LEGEND

DENOTES 2x6 T&G DECK, REF SCHEDULE



ROOF FRAMING PLAN - BUILDING

1/4" = 1'-0"

PROJECT # 302-220

TDi* ENGINEERING

TDI Engineering, LLC
5906 Old Fredericksburg Road, Suite 300
Austin, TX 78749
512-301-3389 | www.tdi-llc.net

CIVIL & STRUCTURAL ENGINEERING

AUSTIN / HOUSTON

*THINK DESIGN innovate, integrate, implement...

hatch + ulland owen architects

1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643

www.huoarchitects.com

CIVIL ENGINEER

STRUCTURAL ENGINEER
TDI ENGINEERING
5906 OLD FREDERICKSBURG RD
AUSTIN, TX 78749
512.301.3389

MEP ENGINEER
INFINITY MEP•S CONSULTANTS
5316 W US HWY 290 RD STE. 130
AUSTIN. TX 78735
512.839.7070

LANDSCAPE ARCHITECT
TBG PARTNERS
3232 E CESAR CHAVEZ ST
BLDG 1, STE 100
512.327.1011

THE COLONY
TREEHOUSE AMENITY CENTER
BASTROP, TEXAS
hatch + ulland architects
#22-021
CONSTRUCTION DOCUMENTATION

This document is released for the purpose of design team coordination under the authority of the person listed below. It is not to be used for any other purposes, including but not limited to construction, bidding, or permitting.
Jonathan Ramlow
PE 145507
2024/10/23
FIRM REG. # F-8601
Issue Date

ISSUE REVISIONS

#	DATE	NOTES
	10/11/2024	90% CD
	10/23/2024	BID SET

PHASE 1 - ROOF FRAMING PLAN - BUILDING

S3.00

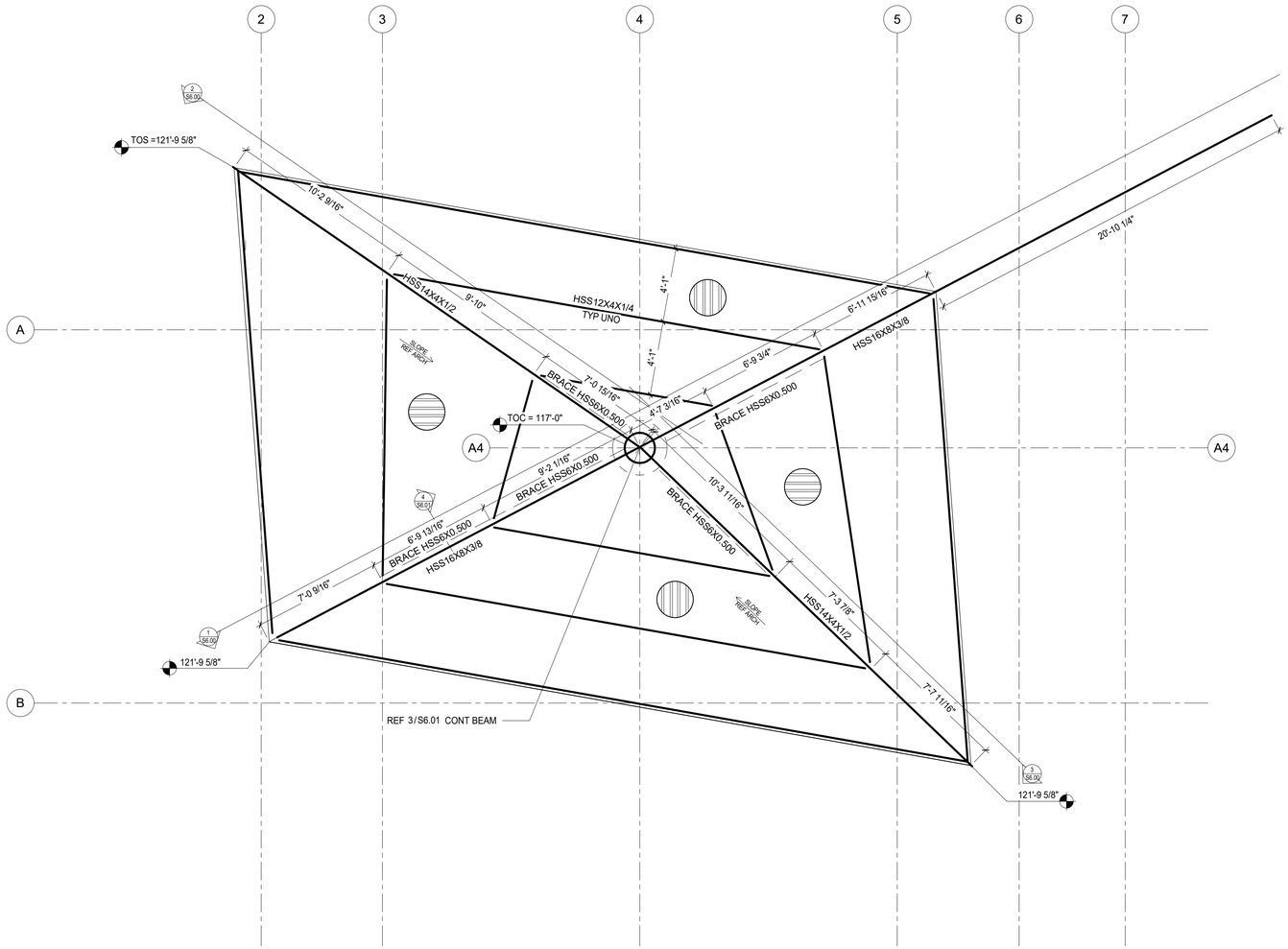
10/23/2024 2:42:05 PM

ROOF FRAMING PLAN NOTES

1. VERIFY ALL DIMENSIONS, DROPS, SLOPES, ETC WITH ARCH PRIOR TO CONSTRUCTION
2. ALL ELEVATIONS ARE RELATIVE TO TOP OF CONC AT 1ST FLOOR = 100'-0"
3. BOD INDICATES BOTTOM OF DECK
4. TOS INDICATES TOP OF STEEL
5. ALL DRAINAGE IS THE RESPONSIBLITY OF THE ARCH. VERIFY ALL JOIST ELEVATIONS W/ ARCH.

PLAN LEGEND

DENOTES 2x6 T&G DECK, REF SCHEDULE



ROOF FRAMING PLAN - SHADE STRUCTURE

1/4" = 1'-0"

PROJECT # 302-220

TDi* ENGINEERING

TDI Engineering, LLC
5906 Old Fredericksburg Road, Suite 300
Austin, TX 78749
512-301-3389 | www.tdi-llc.net

CIVIL & STRUCTURAL ENGINEERING

AUSTIN / HOUSTON

*THINK DESIGN innovate, integrate, implement...

hatch + ulland owen
a r c h i t e c t s

1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643

www.huoarchitects.com

CIVIL ENGINEER

STRUCTURAL ENGINEER
TDI ENGINEERING
5906 OLD FREDERICKSBURG RD
AUSTIN, TX 78749
512.301.3389

MEP ENGINEER
INFINITY MEP•S CONSULTANTS
5316 W US HWY 290 RD STE. 130
AUSTIN, TX 78735
512.839.7070

LANDSCAPE ARCHITECT
TBG PARTNERS
3232 E CESAR CHAVEZ ST
BLDG 1, STE 100
512.327.1011

THE COLONY
TREEHOUSE AMENITY CENTER
BASTROP, TEXAS
hatch + ulland architects
CONSTRUCTION DOCUMENTATION
#22-021

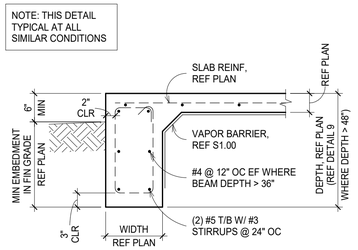
This document is released for the purpose of design team coordination under the authority of the person listed below. It is not to be used for any other purposes, including but not limited to construction, bidding, or permitting.
Jonathan Ramlow
PE 145507
2024/10/23
FIRM REG. # F-8601
Issue Date

ISSUE REVISIONS

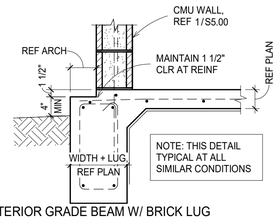
#	DATE	NOTES
	10/11/2024	90% CD
	10/23/2024	BID SET

PHASE 1 - ROOF FRAMING PLAN - SHADE STRUCTURE
S3.01

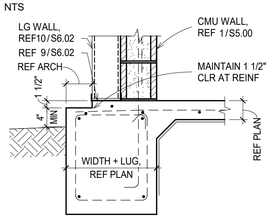
10/23/2024 2:42:05 PM



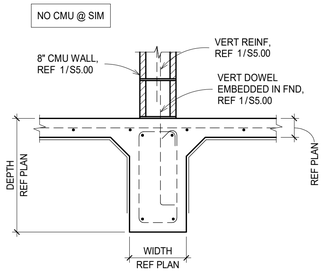
1 EXTERIOR GRADE BEAM
NTS



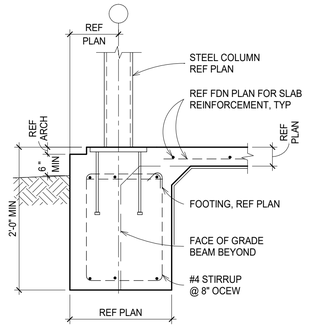
2 EXTERIOR GRADE BEAM W/ BRICK LUG
NTS



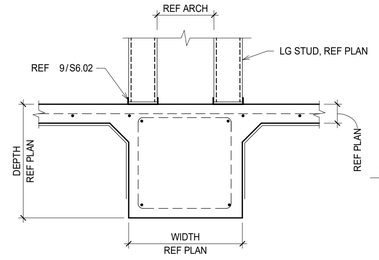
2A EXTERIOR GRADE BEAM W/ BRICK LUG
NTS



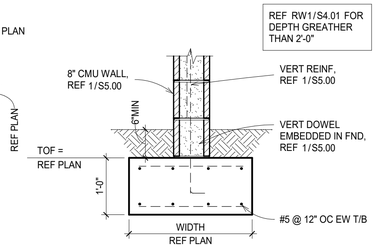
3 INT GRADE BEAM W/ CMU WALL
NTS



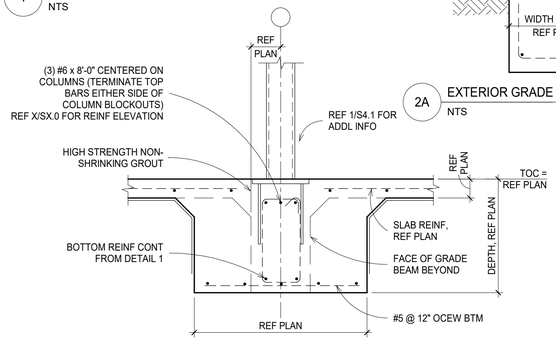
4 COLUMN @ EXT GRADE BEAM W/ LUG
NTS



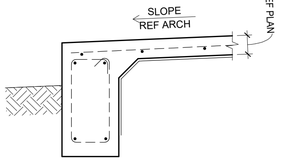
5 INT GRADE BEAM W/ LG WALL
NTS



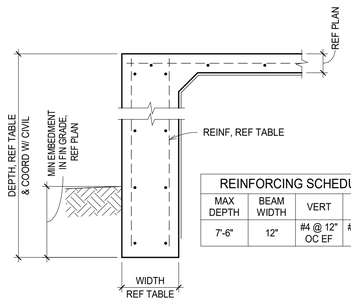
6 Detail 10
NTS



7 WIDENED GRADE BEAM AT INTERIOR STEEL COLUMN
NTS

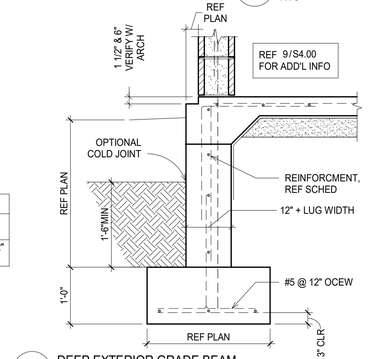


8 EXTERIOR GRADE BEAM W/ SLOPING SLAB
NTS

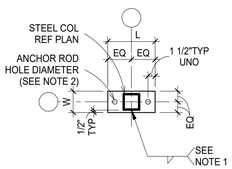


REINFORCING SCHEDULE			
MAX DEPTH	BEAM WIDTH	VERT	HORIZ
7'-6"	12"	#4 @ 12" OC EF	#4 @ 12" OC EF

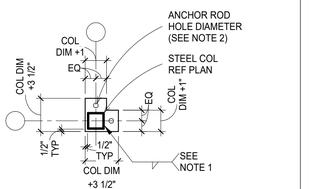
9 DEEP EXTERIOR GRADE BEAM
NTS



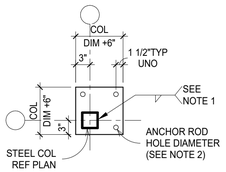
10 DEEP EXTERIOR GRADE BEAM
NTS



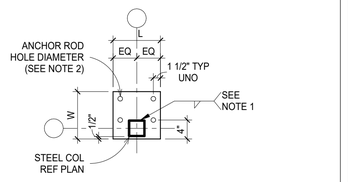
NARROW COLUMN BASE PLATE



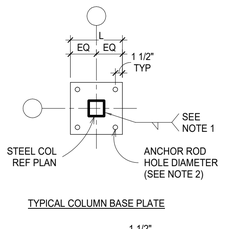
COLUMN BASE PLATE AT CORNER



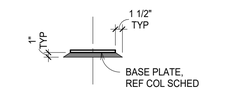
OFFSET COLUMN BASE PLATE AT CORNER



OFFSET COLUMN BASE PLATE

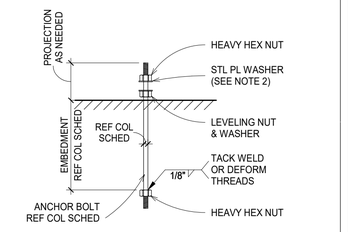


TYPICAL COLUMN BASE PLATE



NON-SHRINK GROUT SHALL BE PLACED IMMEDIATELY AFTER COLUMN IS PLUMBED AND BEFORE DEAD LOADS ARE APPLIED.

GROUT PLACEMENT

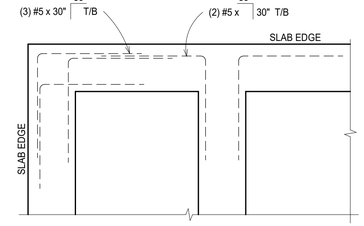


ANCHOR BOLT DIAGRAM

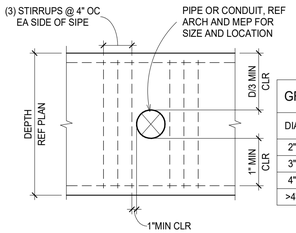
NOTES:

1. SIZE WELDS PER AISC MIN. FILLET REQUIREMENTS (4 SIDES, TYP)
2. ANCHOR ROD HOLES IN BASE PLATES AND MIN. WASHER DIAMETER SHALL BE SIZED IN ACCORDANCE WITH TABLE 14-2 OF THE AISC MANUAL OF STEEL CONSTRUCTION, 14TH ED.
3. BASE PLATE SIZES ARE TYPICAL UNLESS OTHERWISE NOTED IN THE DRAWINGS

S COLUMN PLATE AND ANCHOR BOLT DIAGRAMS
NTS



PLAN VIEW

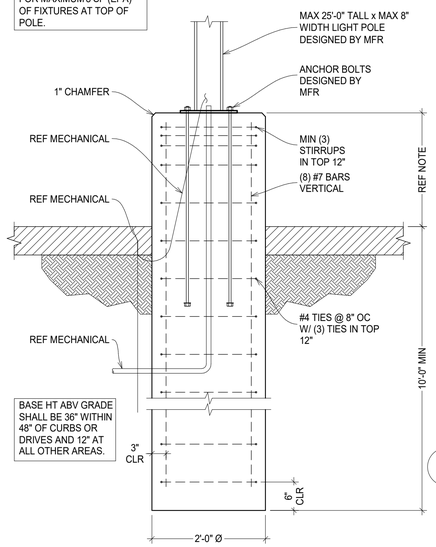


GRADE BEAM STIRRUPS	
DIA	ADDITIONAL WIDTH IN LIEU OF STIRRUPS
2"	1"
3"	2"
4"	3"
>4"	STIRRUPS REQUIRED

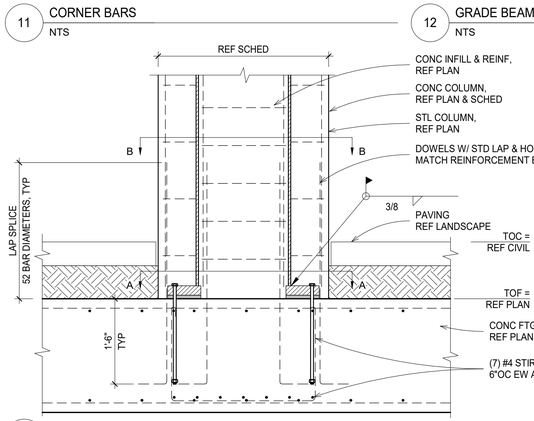
NOTES:

1. 1. FOR PIPES < 1"Ø, NO STIRRUPS REQUIRED.
2. IN LIEU OF STIRRUPS, WIDEN AND/OR DEEPEN BEAM TO REPLACE CONCRETE SECTION AREA LOST DUE PIPE. EXTEND WIDENED/DEEPENED AREA 12" EACH SIDE OF PIPE.
3. OUTSIDE Ø OF CONDUITS, PIPES AND SLEEVES SHALL NOT BE > THAN 1/3 THE THICKNESS OF THE WALL OR BEAM.
4. CONDUITS, PIPES AND SLEEVES SHALL NOT BE SPACED < THAN 3X Ø.
5. CONDUITS, PIPES AND SLEEVES SHALL BE FABRICATED FROM UNCOATED OR GALVANIZED IRON OR STEEL NOT THINNER THAN STD SCHED 40 STEEL PIPE.
6. PLUMBING SHALL INTERSECT BEAMS AT NO LESS THAN 45° ANGLE.
7. PLUMBING PENETRATING BEAMS SHALL BE LOCATED TO MAINTAIN 6" MIN CONCRETE COVER ABOVE AND BELOW.
8. FULL BEAM DEPTH SHALL BE MAINTAINED WHERE PLUMBING PASSES BELOW BEAMS.
9. PLUMBING SHALL BE LOCATED SUCH THAT ONLY ONE PIPE PENETRATES THE BEAM AT ANY SINGLE LOCATION.
10. CHAIRS OR OTHER MEANS SHALL BE USED TO MAINTAIN CLEARANCE BTWN PIPES AND REINF.

POLE BASE IS DESIGNED FOR MAXIMUM 8 SF (EPA) OF FIXTURES AT TOP OF POLE.

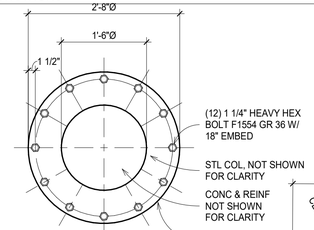


14 LIGHT POLE BASE
NTS

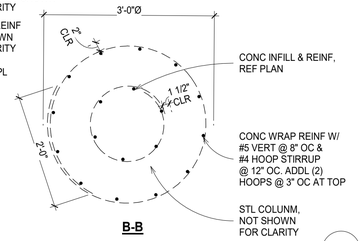


13 FOOTING AT PAVILLIOIN COLUMN
NTS

12 GRADE BEAM PENETRATIONS
NTS



A-A



B-B

PROJECT # 302-220

TDi* ENGINEERING
TDI Engineering, LLC
5906 Old Fredericksburg Road, Suite 300
Austin, TX 78749
512-301-3389 | www.tdi-llc.net
CIVIL & STRUCTURAL ENGINEERING
AUSTIN / HOUSTON

*THINK DESIGN innovate, integrate, implement...

hatch + ulland owen architects
1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

CIVIL ENGINEER

STRUCTURAL ENGINEER
TDI ENGINEERING
5906 OLD FREDERICKSBURG RD
AUSTIN, TX 78749
512.301.3389

MEP ENGINEER
INFINITY MEP•S CONSULTANTS
5316 W US HWY 290 RD STE. 130
AUSTIN, TX 78735
512.839.7070

LANDSCAPE ARCHITECT
TBG PARTNERS
3232 E CESAR CHAVEZ ST
BLDG 1, STE 100
512.327.1011

THE COLONY
TREEHOUSE AMENITY CENTER
BASTROP, TEXAS
hatch + ulland architects
CONSTRUCTION DOCUMENTATION
#22-021

ISSUE REVISIONS

#	DATE	NOTES
	10/11/2024	90% CD
	10/23/2024	BID SET

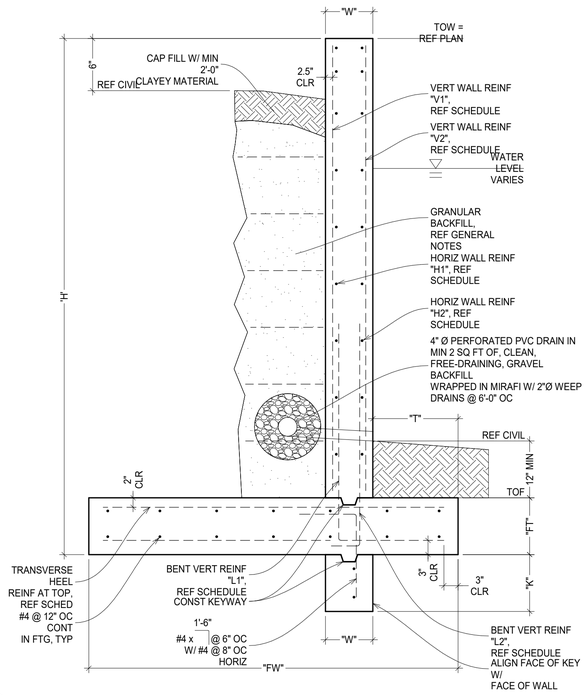
PHASE 1 - FOUNDATION DETAILS

S4.00

10/23/2024 2:42:06 PM

RETAINING WALL SCHEDULE														
WALL HEIGHT "H"	WALL WIDTH "W"	FOOTING THICKNESS "FT"	FOOTING WIDTH "FW"	TOE WIDTH "T"	KEY DEPTH "K"	BENT VERT REINF "L1"	BENT VERT REINF "L2"	VERT LEG DIM "X1"	VERT LEG DIM "X2"	VERT WALL REINF "V1"	VERT WALL REINF "V2"	HORIZ WALL REINF "H1"	HORIZ WALL REINF "H2"	TRANSVERSE HEEL REINF
0' - 6'	8"	1'-0"	4'-6"	3'-0"	1'-0"	#5 @ 14"	-	2'-6"	-	#5 @ 14"	-	#4 @ 12"	-	#5 @ 14"
6' - 9'	10"	1'-0"	7'-0"	2'-0"	2'-0"	#5 @ 12"	-	2'-6"	-	#5 @ 12"	-	#4 @ 10"	-	#5 @ 12"
9' - 11'	10"	1'-3"	9'-0"	2'-6"	2'-0"	#5 @ 12"	#5 @ 12"	3'-0"	3'-0"	#5 @ 12"	#5 @ 12"	#4 @ 9"	#4 @ 9"	#5 @ 10"

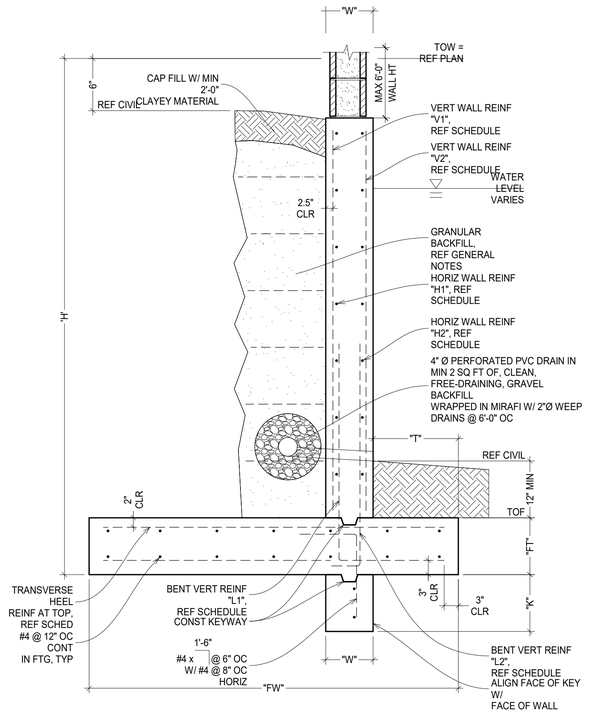
NOTES:
1. VERT WALL REINF SHALL EXTEND TO THE TOP OF FOOTING UNO.
2. KEY BELOW FOOTING MAY BE POURED MONOLITHIC WITH FOOTING.
3. PROVIDE #4 x 4'-0" L-DOWELS AT CORNERS AT EACH LAYER OF HORIZ REINF.



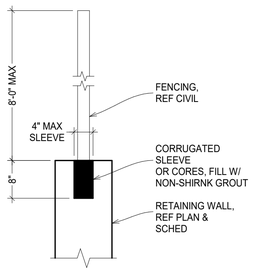
RW RETAINING WALL
NTS

RETAINING WALL SCHEDULE														
WALL HEIGHT "H"	WALL WIDTH "W"	FOOTING THICKNESS "FT"	FOOTING WIDTH "FW"	TOE WIDTH "T"	KEY DEPTH "K"	BENT VERT REINF "L1"	BENT VERT REINF "L2"	VERT LEG DIM "X1"	VERT LEG DIM "X2"	VERT WALL REINF "V1"	VERT WALL REINF "V2"	HORIZ WALL REINF "H1"	HORIZ WALL REINF "H2"	TRANSVERSE HEEL REINF
0' - 6'	8"	1'-0"	4'-6"	3'-0"	1'-0"	#5 @ 14"	-	2'-6"	-	#5 @ 14"	-	#4 @ 12"	-	#5 @ 14"
6' - 9'	10"	1'-0"	7'-0"	2'-0"	2'-0"	#5 @ 12"	-	2'-6"	-	#5 @ 12"	-	#4 @ 10"	-	#5 @ 12"
9' - 11'	10"	1'-3"	9'-0"	2'-6"	2'-0"	#5 @ 12"	#5 @ 12"	3'-0"	3'-0"	#5 @ 12"	#5 @ 12"	#4 @ 9"	#4 @ 9"	#5 @ 10"

NOTES:
1. VERT WALL REINF SHALL EXTEND TO THE TOP OF FOOTING UNO.
2. KEY BELOW FOOTING MAY BE POURED MONOLITHIC WITH FOOTING.
3. PROVIDE #4 x 4'-0" L-DOWELS AT CORNERS AT EACH LAYER OF HORIZ REINF.

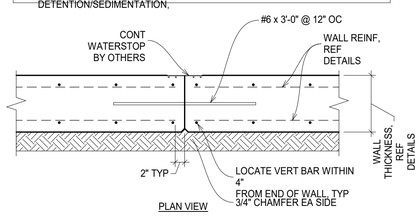


RW1 RETAINING WALL
NTS

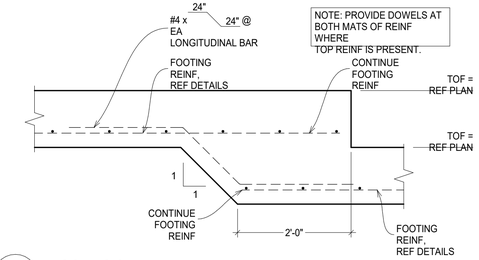


F TOP OF RETAINING WALL
NTS

NOTES:
1. CONSTRUCTION JOINTS SHALL BE LOCATED AS REQUIRED AND MAX 80 FT OC.
2. JOINTS SHALL EXTEND FULL HEIGHT OF WALL.
3. JOINTS ARE NOT REQUIRED IN FOOTINGS.
4. NO JOINTS ARE ALLOWED IN WALLS BETWEEN BOX WALLS, OR OUTLET WALLS. DETENTION/SEDIMENTATION.



J WALL CONSTRUCTION JOINT
NTS



S FOOTING STEP
NTS

PROJECT # 302-220

TDi* ENGINEERING

TDI Engineering, LLC
5906 Old Fredericksburg Road, Suite 300
Austin, TX 78749
512-301-3389 | www.tdi-llc.net

CIVIL & STRUCTURAL ENGINEERING
AUSTIN / HOUSTON

*THINK DESIGN innovate, integrate, implement...

hatch + ulland owen architects

1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643

www.huoarchitects.com

CIVIL ENGINEER

STRUCTURAL ENGINEER
TDI ENGINEERING
5906 OLD FREDERICKSBURG RD
AUSTIN, TX 78749
512.301.3389

MEP ENGINEER
INFINITY MEP•S CONSULTANTS
5316 W US HWY 290 RD STE. 130
AUSTIN, TX 78735
512.839.7070

LANDSCAPE ARCHITECT
TBG PARTNERS
3232 E CESAR CHAVEZ ST
BLDG 1, STE 100
512.327.1011

THE COLONY
TREEHOUSE AMENITY CENTER
BASTROP, TEXAS
hatch + ulland architects
CONSTRUCTION DOCUMENTATION
#22-021

This document is released for the purpose of design team coordination under the authority of the person listed below. It is not to be used for any other purposes, including but not limited to construction, bidding, or permitting.
Jonathan Ramlow
PE 145507
2024/10/23
FIRM REG. # F-8601
Issue Date

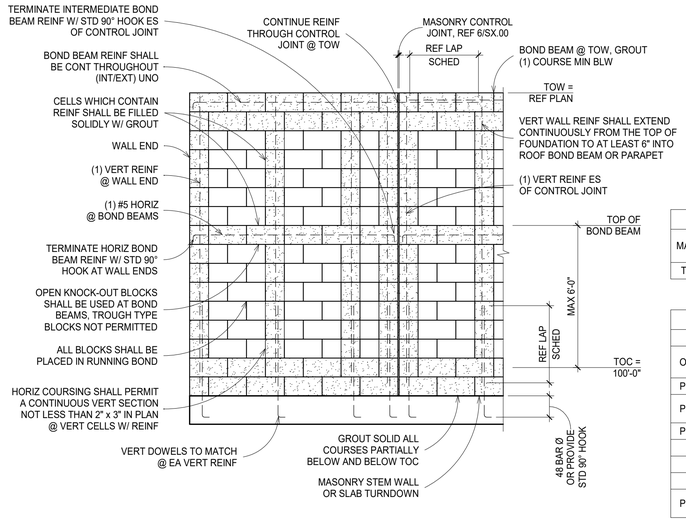
ISSUE REVISIONS

#	DATE	NOTES
	10/11/2024	90% CD
	10/23/2024	BID SET

PHASE 1 - RETAINING WALL DETAILS

S4.01

10/23/2024 2:42:06 PM

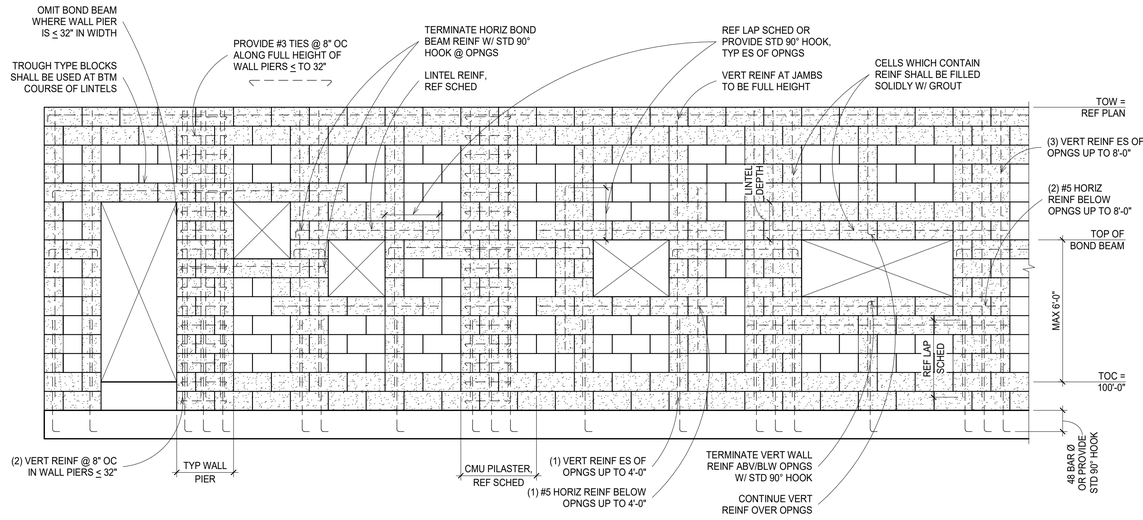


1 TYPICAL INTERIOR/EXTERIOR CMU WALL REINFORCING
3/4" = 1'-0"

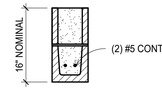
CMU WALL SCHEDULE			
MARK	NOMINAL THICKNESS	REINFORCING	
		VERTICAL	HORIZONTAL
TYP	8"	#5 @ 48" OC	-

LAP SCHEDULE	
BAR SIZE	LAP
#3	30"
#4	42"
#5	48"
#6	54"

MASONRY SPECIAL INSPECTIONS		
MARK	DESCRIPTION	REMARKS
ONE TIME	SIZE AND LOCATION OF ALL STRUCTURAL ELEMENTS	PRIOR TO START OF CONSTRUCTION
PERIODIC	PLACEMENT OF MASONRY UNITS AND MORTAR JOINTS	PRIOR TO EA LIFT
PERIODIC	PLACEMENT, SIZE, GRADE AND TYPE OF REINF, CONNECTORS, ANCHORAGES	PRIOR TO EA LIFT
PERIODIC	GROUT SPACING AND CLEANLINESS OF CELLS	PRIOR TO EA LIFT
CONT	PLACEMENT OF GROUT	-
CONT	PREPARATION OF GROUT AND MORTAR SPECIMENS OR PRISM TEST	-
CONT	COMPLIANCE W/ CONSTR DOCS AND APPROVED SUBMITTALS	-
PERIODIC	PROTECTION OF MASONRY WHERE < 40F AND > 90F	ONCE PER OCCURRENCE

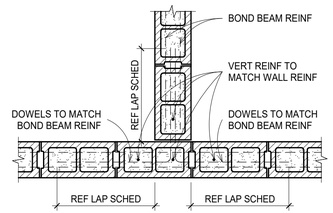


2 TYPICAL INTERIOR/EXTERIOR CMU WALL REINFORCING AT OPENINGS
3/4" = 1'-0"

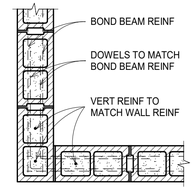
MASONRY LINTEL SCHEDULE	
CLEAR OPENING	SIZE & REINFORCING
UP TO 4'-0"	

1. PROVIDE AT LEAST 8" OF BEARING AT EACH END OF OPENING.
2. FOR OPENINGS GREATER THAN 8'-0", CONTACT THE STRUCTURAL ENGINEER.

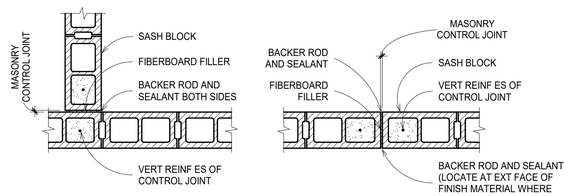
3 MASONRY LINTELS
3/4" = 1'-0"



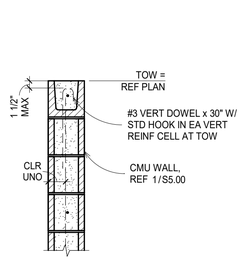
4 BOND BEAM
3/4" = 1'-0"



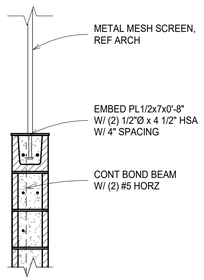
NOTES:
1. REF ARCH FOR LOCATIONS, GENERAL CONTRACTOR TO COORDINATE.
2. DO NOT LOCATE CONTROL JOINTS W/IN 2'-0" OF OPENINGS.
3. SPACE AT 30FT OR 3X WALL HEIGHT MAX.
4. REF DETAIL 1/SX.00 FOR TERMINATION OF BOND BEAM REINF @ CONTROL JOINT.



5 MASONRY CONTROL JOINT
3/4" = 1'-0"



7 TOP OF CMU WALL
NTS



8 TOP OF CMU WALL AND MESH SCREEN
NTS

PROJECT # 302-220

TDi* ENGINEERING

TDI Engineering, LLC
5906 Old Fredericksburg Road, Suite 300
Austin, TX 78749
512-301-3389 | www.tdi-llc.net

CIVIL & STRUCTURAL ENGINEERING

AUSTIN / HOUSTON

*THINK DESIGN innovate, integrate, implement...

hatch + ulland owen architects

1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643

www.huoarchitects.com

CIVIL ENGINEER

STRUCTURAL ENGINEER
TDI ENGINEERING
5906 OLD FREDERICKSBURG RD
AUSTIN, TX 78749
512.301.3389

MEP ENGINEER
INFINITY MEP•S CONSULTANTS
5316 W US HWY 290 RD STE. 130
AUSTIN, TX 78735
512.839.7070

LANDSCAPE ARCHITECT
TBG PARTNERS
3232 E CESAR CHAVEZ ST
BLDG 1, STE 100
512.327.1011

THE COLONY
TREEHOUSE AMENITY CENTER
BASTROP, TEXAS
hatch + ulland architects
CONSTRUCTION DOCUMENTATION
#22-021

This document is released for the purpose of design team coordination under the authority of the person listed below. It is not to be used for any other purposes, including but not limited to construction, bidding, or permitting.
Jonathan Ramlow
PE 145507
2024/10/23
FIRM REG. # F-8601
Issue Date

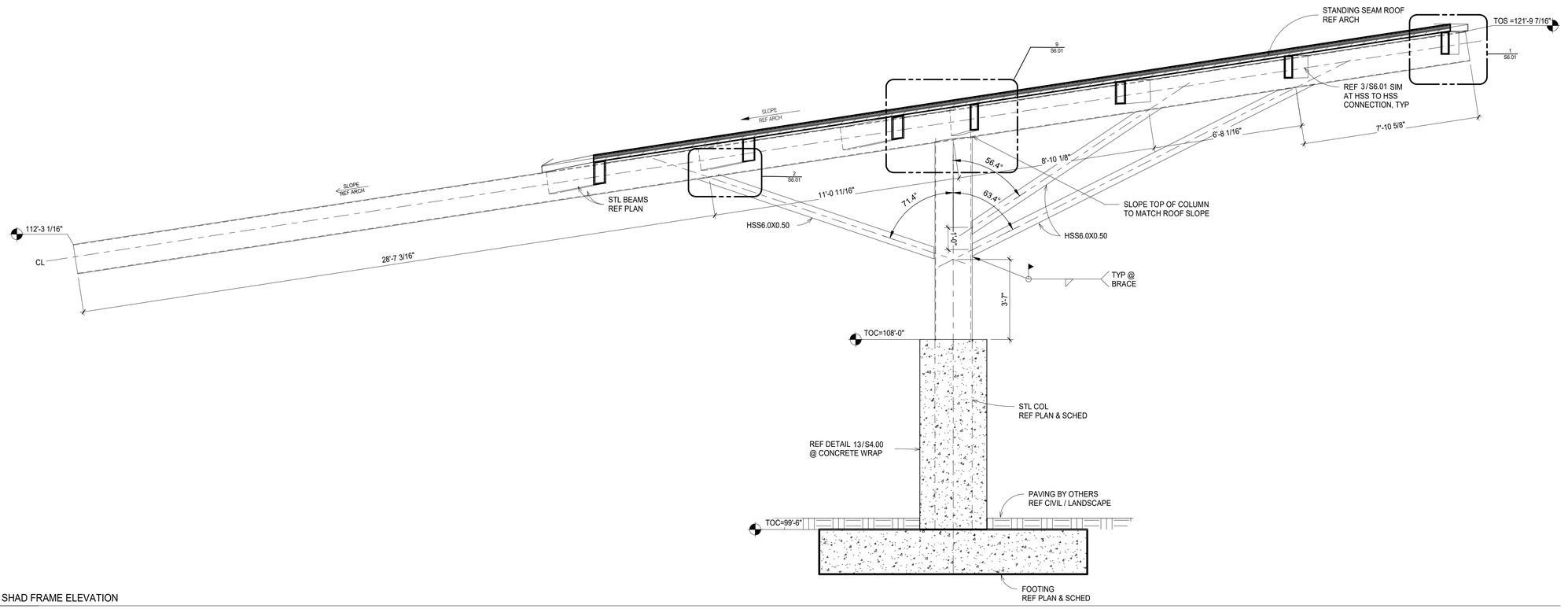
ISSUE REVISIONS

#	DATE	NOTES
	10/11/2024	90% CD
	10/23/2024	BID SET

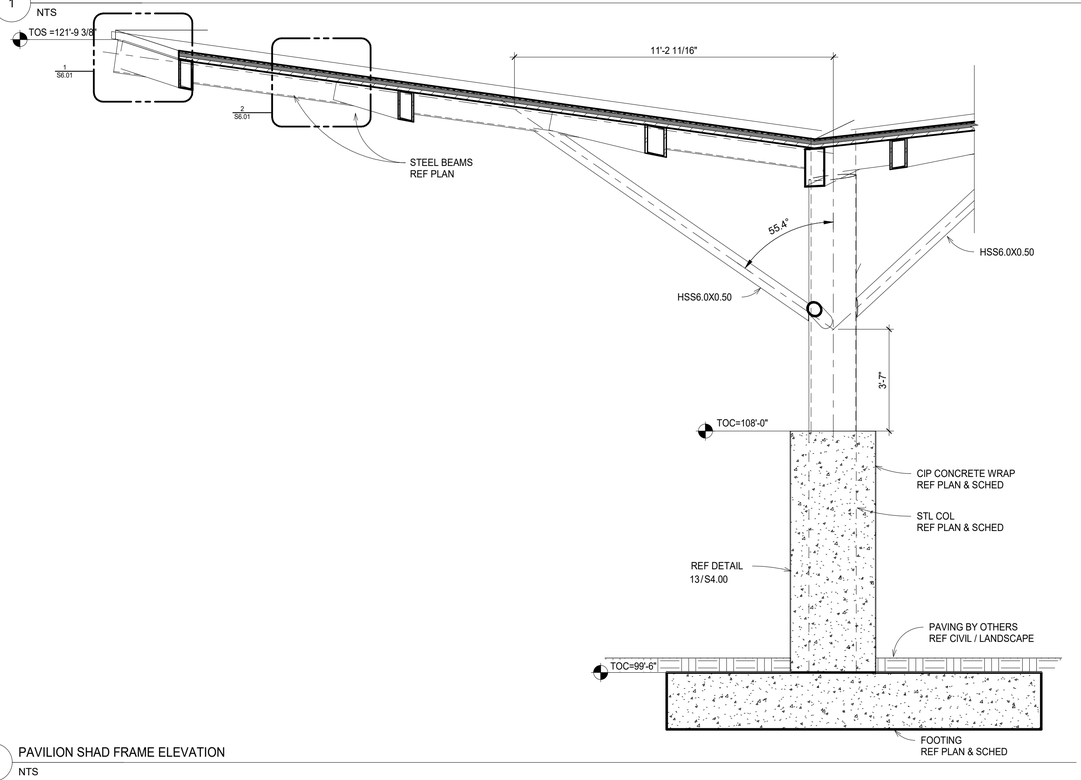
PHASE 1 - TYPICAL CMU DETAILS

S5.00

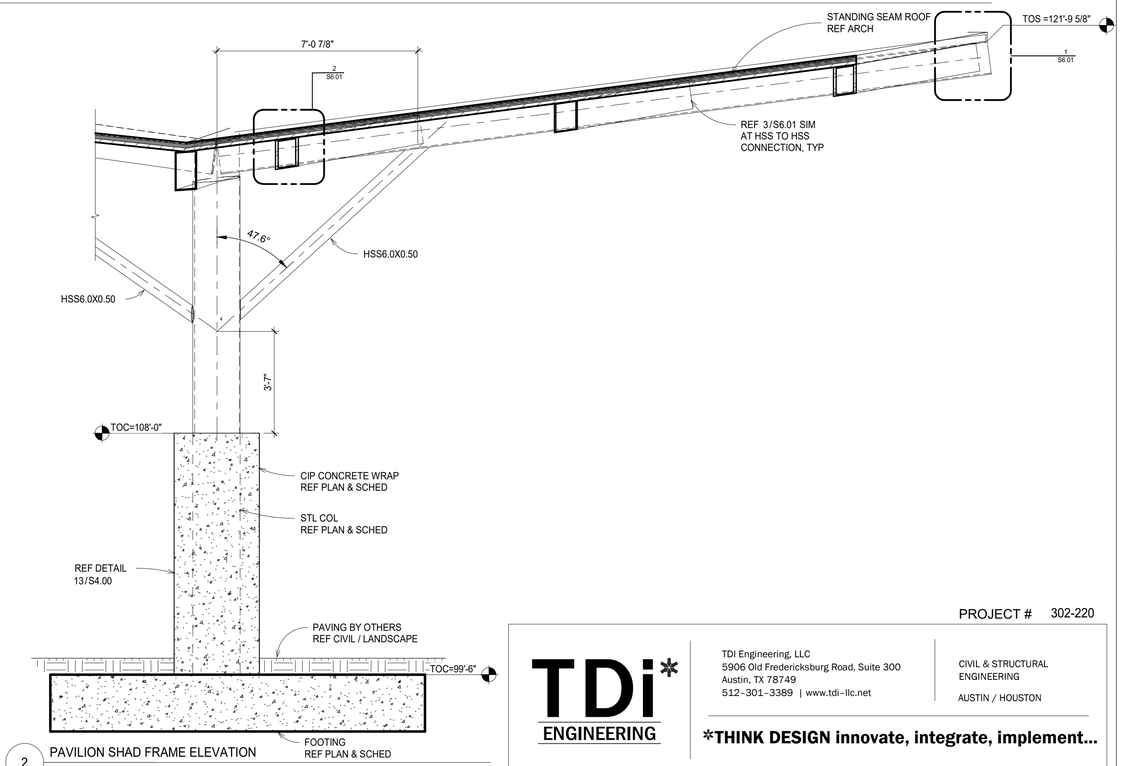
10/23/2024 2:42:06 PM



1 PAVILION SHAD FRAME ELEVATION
NTS



3 PAVILION SHAD FRAME ELEVATION
NTS



2 PAVILION SHAD FRAME ELEVATION
NTS

10/23/2024 2:42:06 PM

hatch + ulland owen
architects

1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643

www.huoarchitects.com

CIVIL ENGINEER

STRUCTURAL ENGINEER
TDI ENGINEERING
5906 OLD FREDERICKSBURG RD
AUSTIN, TX 78749
512.301.3389

MEP ENGINEER
INFINITY MEP•S CONSULTANTS
5316 W US HWY 290 RD STE. 130
AUSTIN. TX 78735
512.839.7070

LANDSCAPE ARCHITECT
TBG PARTNERS
3232 E CESAR CHAVEZ ST
BLDG 1, STE 100
512.327.1011

THE COLONY
TREEHOUSE AMENITY CENTER
BASTROP, TEXAS
hatch + ulland architects
CONSTRUCTION DOCUMENTATION
#22-021

This document is released for the purpose of design team coordination under the authority of the person listed below. It is not to be used for any other purposes, including but not limited to construction, bidding, or permitting.
Jonathan Ramlow
PE 145507
2024/10/23
FIRM REG. # F-8601
Issue Date

ISSUE REVISIONS

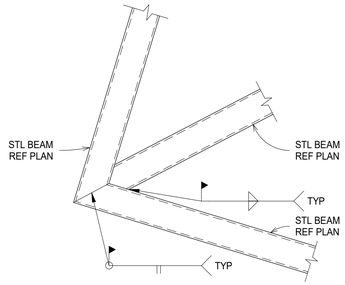
#	DATE	NOTES
	10/11/2024	90% CD
	10/23/2024	BID SET

PROJECT # 302-220

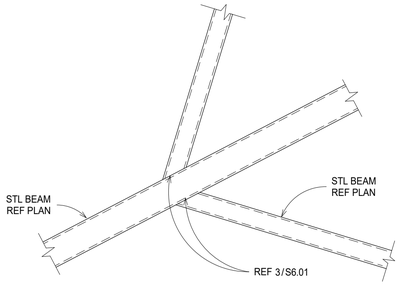
TDi* ENGINEERING
TDI Engineering, LLC
5906 Old Fredericksburg Road, Suite 300
Austin, TX 78749
512-301-3389 | www.tdi-llc.net
CIVIL & STRUCTURAL ENGINEERING
AUSTIN / HOUSTON

*THINK DESIGN innovate, integrate, implement...

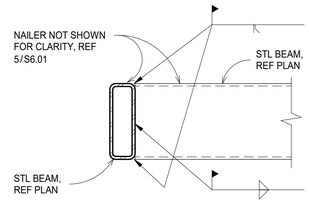
PHASE 1 - PAVILLION FRAMING SECTIONS
S6.00



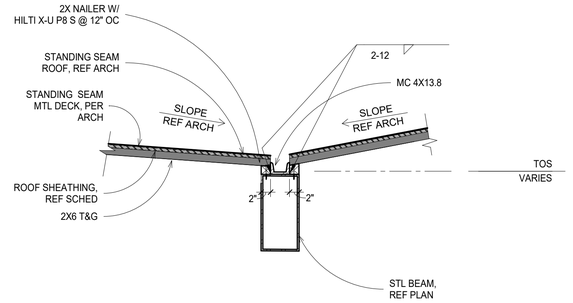
1 HSS TO HSS BEAM CONNECTION AT CORNER EDGE
NTS



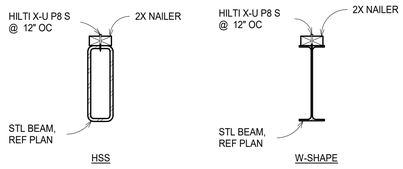
2 HSS TO HSS BEAM CONNECTION
NTS

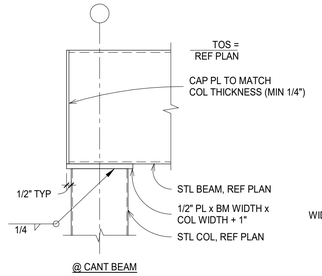


3 HSS BEAM TO HSS BEAM CONNECTION
NTS

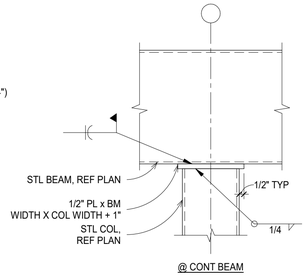


4 GUTTER @ LEAF
NTS

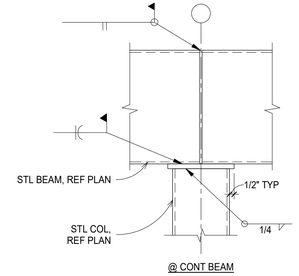




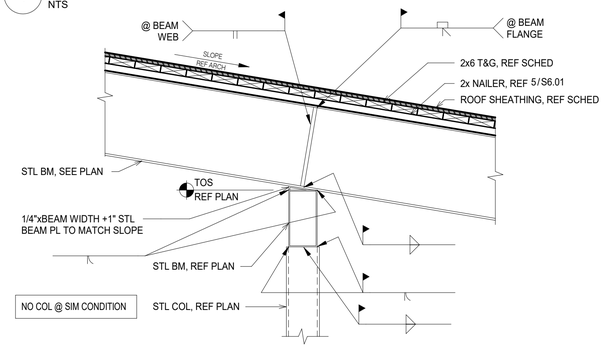
@ CANT BEAM



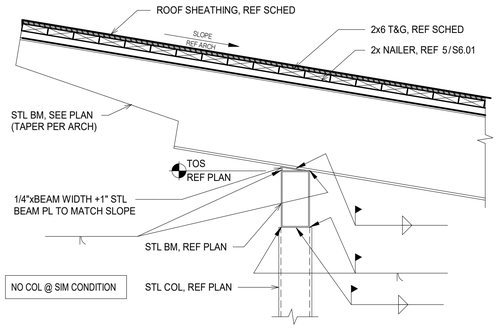
@ CONT BEAM



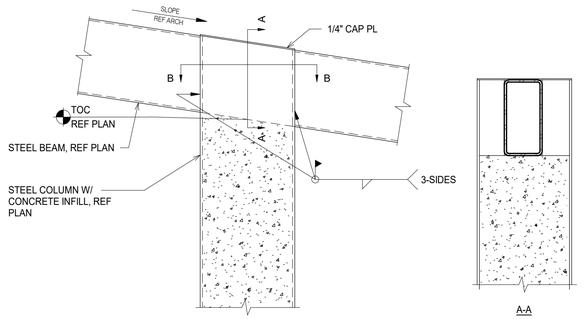
@ CONT BEAM



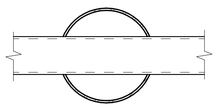
5 NAILER TO STL BEAM
NTS



6 HSS BEAM TO HSS STEEL COLUMN
NTS



A-A



B-B

7 W-SHAPE TO HSS CONNECTION
NTS

8 W-SHAPE TO HSS CONNECTION
NTS

9 HSS COLUMN TO HSS STEEL COLUMN
NTS

PROJECT # 302-220

TDi ENGINEERING
TDI Engineering, LLC
5906 Old Fredericksburg Road, Suite 300
Austin, TX 78749
512-301-3389 | www.tdi-llc.net
CIVIL & STRUCTURAL ENGINEERING
AUSTIN / HOUSTON

*THINK DESIGN innovate, integrate, implement...

hatch + ulland owen architects
1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

CIVIL ENGINEER

STRUCTURAL ENGINEER
TDI ENGINEERING
5906 OLD FREDERICKSBURG RD
AUSTIN, TX 78749
512.301.3389

MEP ENGINEER
INFINITY MEP•S CONSULTANTS
5316 W US HWY 290 RD STE. 130
AUSTIN, TX 78735
512.839.7070

LANDSCAPE ARCHITECT
TBG PARTNERS
3232 E CESAR CHAVEZ ST
BLDG 1, STE 100
512.327.1011

THE COLONY
TREEHOUSE AMENITY CENTER
BASTROP, TEXAS
hatch + ulland architects
CONSTRUCTION DOCUMENTATION
#22-021

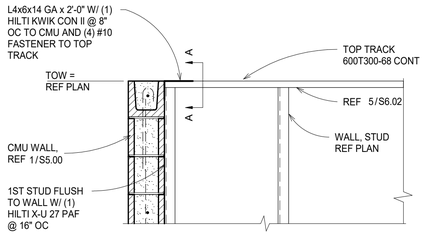
This document is released for the purpose of design team coordination under the authority of the person listed below. It is not to be used for any other purposes, including but not limited to construction, bidding, or permitting.
Jonathan Ramlow
PE 145507
2024/10/23
FIRM REG. # F-8601
Issue Date

ISSUE REVISIONS

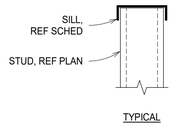
#	DATE	NOTES
	10/11/2024	90% CD
	10/23/2024	BID SET

PHASE 1 - TYPICAL FRAMING DETAILS
S6.01

10/23/2024 2:42:06 PM



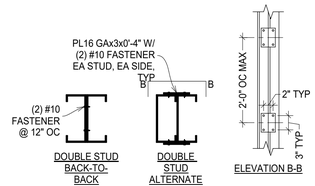
1 TOP OF CMU WALL
NTS



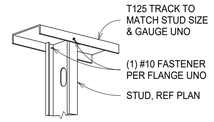
TYPICAL

2 SILL
NTS

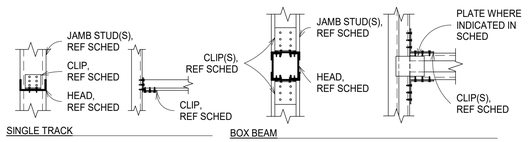
3 JAMB TO CONCRETE
NTS



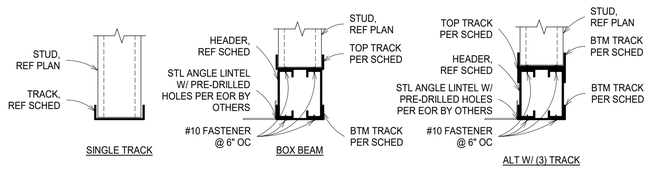
4 MULTIPLE STUD CONNECTION
NTS



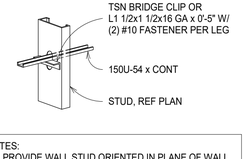
5 STUD TO TRACK
NTS



6 HEAD/SILL CONNECTION
NTS

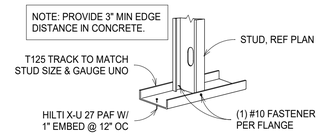


7 HEAD
NTS

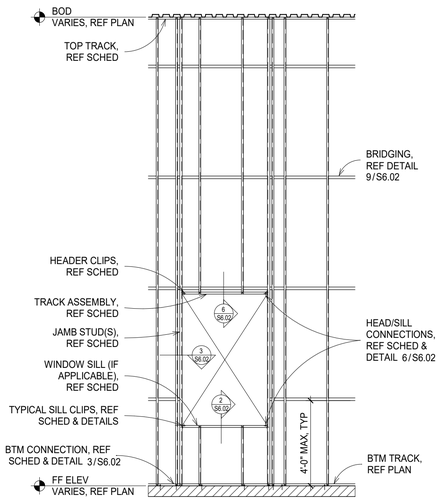


NOTES:
1. PROVIDE WALL STUD ORIENTED IN PLANE OF WALL @ INTERSECTIONS AND MAX 12'-0" OC.
2. PROVIDE L2x2x14 GA x 0'-4" W/ (6) #10 FASTENER EA LEG BETWEEN BRIDGING AND ROTATED STUDS.

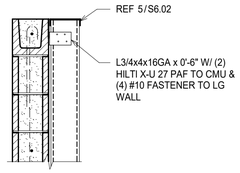
8 WALL BRIDGING
NTS



9 STUD TO TRACK TO CONCRETE
NTS



10 TYP WALL FRAMING ELEVATION
NTS



11 TOP OF CMU WALL
NTS

hatch + ulland owen
architects
1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

CIVIL ENGINEER

STRUCTURAL ENGINEER
TDI ENGINEERING
5906 OLD FREDERICKSBURG RD
AUSTIN, TX 78749
512.301.3389

MEP ENGINEER
INFINITY MEP•S CONSULTANTS
5316 W US HWY 290 RD STE. 130
AUSTIN, TX 78735
512.839.7070

LANDSCAPE ARCHITECT
TBG PARTNERS
3232 E CESAR CHAVEZ ST
BLDG 1, STE 100
512.327.1011

THE COLONY
TREEHOUSE AMENITY CENTER
BASTROP, TEXAS
hatch + ulland architects
CONSTRUCTION DOCUMENTATION
#22-021

This document is released for the purpose of design team coordination under the authority of the person listed below. It is not to be used for any other purposes, including but not limited to construction, bidding, or permitting.
Jonathan Ramlow
PE 145507
2024/10/23
FIRM REG. # F-8601
Issue Date

ISSUE REVISIONS

#	DATE	NOTES
	10/11/2024	90% CD
	10/23/2024	BID SET

PROJECT # 302-220

TDi* ENGINEERING
TDI Engineering, LLC
5906 Old Fredericksburg Road, Suite 300
Austin, TX 78749
512-301-3389 | www.tdi-llc.net
CIVIL & STRUCTURAL ENGINEERING
AUSTIN / HOUSTON
*THINK DESIGN innovate, integrate, implement...

PHASE 1 - TYPICAL FRAMING DETAILS
S6.02

10/23/2024 2:42:06 PM

FEEDER SCHEDULE (COPPER)

FEEDER TAG	FEEDER SIZE
15.3, 20.3	3#12, #12G, 3/4"C
15.4, 20.4	4#12, #12G, 3/4"C
30.3	3#10, #10G, 3/4"C
30.4	4#10, #10G, 3/4"C
40.3	3#8, #10G, 3/4"C
40.4	4#8, #10G, 3/4"C
50.3	3#6, #10G, 3/4"C
50.4	4#6, #10G, 1"C
60.3	3#4, #10G, 1"C
60.4	4#4, #10G, 1-1/4"C
70.3	3#4, #8G, 1"C
70.4	4#4, #8G, 1-1/2"C
80.3	3#3, #8G, 1-1/4"C
80.4	4#3, #8G, 1-1/4"C
90.3	3#2, #8G, 1-1/4"C
90.4	4#2, #8G, 1-1/4"C
100.3	3#1, #8G, 1-1/4"C
100.4	4#1, #8G, 1-1/2"C
110.3	3#1, #8G, 1-1/4"C
110.4	4#1, #8G, 1-1/2"C
125.3, 150.3	3#1/0, #6G, 1-1/2"C
125.4 150.4	4#1/0, #6G, 2"C
175.3	3#2/0, #6G, 2"C
175.4	4#2/0, #6G, 2"C
200.3	3#3/0, #6G, 2"C
200.4	4#3/0, #6G, 2"C
225.3	3#4/0, #4G, 2"C
225.4	4#4/0, #4G, 2-1/2"C
250.3	3#250, #4G, 2-1/2"C
250.4	4#250, #4G, 2-1/2"C
300.3	3#350, #4G, 2-1/2"C
300.4	4#350, #4G, 3"C
350.3	3#500, #3G, 3"C
350.4	4#500, #3G, 3-1/2"C
400.3	2 SETS OF 3#3/0, #3G, 2"C
400.4	2 SETS OF 4#3/0, #3G, 2-1/2"C
500.3	2 SETS OF 3#250, #2G, 2-1/2"C
500.4	2 SETS OF 4#250, #2G, 2-1/2"C
600.3	2 SETS OF 3#350, #1G, 2-1/2"C
600.4	2 SETS OF 4#350, #1G, 2-1/2"C
700.3	2 SETS OF 3#1/0, #2G, 3"C
700.4	2 SETS OF 4#500, #1/0G, 3-1/2"C
800.3	2 SETS OF 3#600, #1/0G, 3-1/2"C
800.4	2 SETS OF 4#600, #1/0G, 4"C
1000.3	3 SETS OF 3#500, #2/0G, 3"C
1000.4	3 SETS OF 4#500, #2/0G, 3"C
1200.3	4 SETS OF 3#350, #3/0G, 3"C
1200.4	4 SETS OF 4#350, #3/0G, 3-1/2"C
1600.3	5 SETS OF 3#500, #4/0G, 3"C
1600.4	5 SETS OF 4#500, #4/0G, 3"C
2000.3	6 SETS OF 3#500, #4/0G, 3"C
2000.4	6 SETS OF 4#500, #4/0G, 3"C
2500.3	7 SETS OF 3#500, #4/0G, 3-1/2"C
2500.4	7 SETS OF 4#500, #4/0G, 3-1/2"C
3000.3	8 SETS OF 3#500, #4/0G, 3"C
3000.4	8 SETS OF 4#500, #4/0G, 3-1/2"C
3200.3	8 SETS OF 3#600, #4/0G, 4"C
3200.4	8 SETS OF 4#600, #4/0G, 4"C
4000.3	10 SETS OF 3#600, #4/0G, 4"C
4000.4	10 SETS OF 4#600, #4/0G, 4"C

NOTES:

1. BASED ON 30C AMBIENT AND 75C CONDUCTORS. RESIZE FEEDER PER NEC FOR OTHER AMBIENT TEMPERATURES.
2. ALL FEEDERS SHALL BE THHN/THWN-2 COPPER, UNLESS NOTED OTHERWISE.
3. BRANCH CIRCUITS DO NOT ACCOUNT FOR VOLTAGE DROP.
4. BASED ON 3 CURRENT CARRYING CONDUCTORS IN RACEWAY.

BRANCH CIRCUIT WIRING SCHEDULE

BREAKER		
AMPERAGE	POLE	WIRE SIZE
20A	1P	2#12, #12G, 3/4"C
20A	2P	3#12, #12G, 3/4"C
20A	3P	4#12, #12G, 3/4"C
30A	1P	2#10, #10G, 3/4"C
30A	2P	3#10, #10G, 3/4"C
30A	3P	4#10, #10G, 3/4"C
40A	1P	2#8, #10G, 3/4"C
40A	2P	3#8, #10G, 3/4"C
40A	3P	4#8, #10G, 1"C
50A	2P	3#6, #10G, 1"C
50A	3P	4#6, #10G, 1-1/2"C
60A	2P	3#6, #10G, 1"C
60A	3P	4#6, #10G, 1-1/2"C
70A	2P	3#4, #8G, 1-1/2"C
70A	3P	4#4, #8G, 1-1/2"C
80A	2P	3#4, #8G, 1-1/2"C
80A	3P	4#4, #8G, 1-1/2"C
100A	2P	3#3, #8G, 1-1/2"C
100A	3P	4#3, #8G, 1-1/12"C

NOTES:

1. BASED ON 30C AMBIENT AND 75C CONDUCTORS. RESIZE FEEDER PER NEC FOR OTHER AMBIENT TEMPERATURES.
2. ALL FEEDERS SHALL BE THHN/THWN-2 COPPER, UNLESS NOTED OTHERWISE.
3. BRANCH CIRCUITS DO NOT ACCOUNT FOR VOLTAGE DROP.
4. BASED ON 3 CURRENT CARRYING CONDUCTORS IN RACEWAY.

ELECTRICAL LEGEND

F	MANUAL FIRE PULL STATION
SD	AREA SMOKE DETECTOR, CEILING MOUNTED
SD	AREA SMOKE DETECTOR, WALL MOUNTED
SD	SMOKE DETECTOR, MOUNTED IN DUCT
HD	HEAT DETECTOR, CEILING MOUNTED
W	SPRINKLER WATER FLOW SWITCH
T	SPRINKLER TAMPER SWITCH
A	AUDIBLE FIRE ALARM STROBE, CEILING MOUNTED
A	AUDIBLE FIRE ALARM STROBE, WALL MOUNTED
AV	AUDIO/VISUAL FIRE ALARM STROBE, CEILING MOUNTED
AV	AUDIO/VISUAL FIRE ALARM STROBE WALL MOUNTED
V	VISUAL FIRE ALARM STROBE, CEILING MOUNTED
V	VISUAL FIRE ALARM STROBE, WALL MOUNTED
FJ	FIREMAN'S JACK
FB	FIRE ALARM BELL
F/S	FIRE/SMOKE DAMPER
S	SMOKE DAMPER
FACP	FIRE ALARM CONTROL PANEL
FAAP	FIRE ALARM REMOTE ANNUNCIATOR PANEL
	SIMPLEX RECEPTACLE, WALL MOUNTED
	DUPLEX RECEPTACLE, WALL MOUNTED
	DUPLEX RECEPTACLE, CEILING MOUNTED
	DUPLEX RECEPTACLE, TOP HALF SWITCHED
	QUADRUPLEX RECEPTACLE, WALL MOUNTED
	SPECIAL PURPOSE RECEPTACLE, WALL MOUNTED, COORDINATE NEMA PLUG TYPE WITH OWNER
GFI	DUPLEX RECEPTACLE, GROUND FAULT INTERRUPTER
IG	DUPLEX RECEPTACLE, ISOLATED GROUND
WP	DUPLEX RECEPTACLE, WEATHERPROOF
	COMBINATION POWER/TELECOM FLOOR BOX OR FIRE RATED POKE THRU DEVICE, REFER TO PLANS FOR SPECIFICATION
	TELECOM OUTLET. PROVIDE BACK BOX/COVER PLATE. INSTALL 3/4"C W/BUSHING AND PULLSTRING, STUBBED TO ACCESSIBLE CEILING.
TV	TELEVISION OUTLET. PROVIDE BACK BOX/COVER PLATE. INSTALL 3/4"C W/BUSHING AND PULLSTRING, STUBBED TO ACCESSIBLE CEILING.
$	SINGLE POLE SWITCH
$2	DOUBLE POLE SWITCH
$3	THREE WAY SWITCH
$4	FOUR WAY SWITCH
$K	KEY LOCKED SWITCH
$MC	MOMENTARY CONTACT SWITCH
$T	TIMER SWITCH
$D	WALL DIMMER
$LV	LOW VOLTAGE SWITCH
$O	OCCUPANCY SENSOR SWITCH
$V	VACANCY SENSOR SWITCH
PC	PHOTOCELL
VS DS	VACANCY OR OCCUPANCY SENSOR SWITCH WATTSTOPPER DW-100 SERIES
VS OS	CEILING MOUNTED VACANCY OR OCCUPANCY SENSOR WATTSTOPPER DT-300 SERIES

ELECTRICAL LEGEND

	SURFACE MOUNTED PANEL
	PANEL RECESSED IN WALL
T F	STEP DOWN TRANSFORMER
	GROUND BUS BAR
	HEAVY DUTY DISCONNECT SWITCH
	HEAVY DUTY FUSED DISCONNECT SWITCH
	COMBINATION MOTOR STARTER/DISCONNECT SWITCH
VFD	VFD WITH DISCONNECT, COORDINATE WITH MECHANICAL CONTRACTOR
EPO	EMERGENCY POWER OFF SWITCH
$MS	MOTORIZED SHADE CONTROL
$T	THERMAL OVERLOAD SWITCH
10	MOTOR CONNECTION, HP AS NOTED
M 1/2	SINGLE PHASE MOTOR CONNECTION, HP AS NOTED
J	JUNCTION BOX, CEILING MOUNTED
J	JUNCTION BOX, WALL MOUNTED
P B	PULL BOX
	GROUND ROD
	GROUND WELL
	CIRCUIT BREAKER
	SWITCH AND FUSE
	ENCLOSED CIRCUIT BREAKER
	NORMALLY OPEN CONTACT
	NORMALLY CLOSED CONTACT
	NUMBERED NOTE
	EXIT SIGN; WALL MOUNTED
	EXIT SIGN; CEILING MOUNTED
	FIXED CLOSED CIRCUIT CAMERA
MS	MOTION SENSOR
ML	MAGNETIC LOCK
KP	KEYPAD
DR	DOOR RELEASE
PB	PUSH BUTTON
CR	CARD READER
EL	ELECTRIC LOCK
ES	ELECTRIC STRIKE
	CONDUIT CONCEALED IN CEILING OR WALL
	CONDUIT BELOW FLOOR OR IN SLAB
E	CONDUIT STUBBED OUT AND CAPPED W/PULLSTRING
	CONDUIT HOMERUN BACK TO PANEL

ELECTRICAL ABBREVIATIONS

(E)/EXIST	EXISTING
(N)	NEW
(R)/RELOC	EXISTING TO BE RELOCATED
A	AMPERES
A/V	AUDIO/VISUAL
AF	AMPERE FUSE RATING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPERES INTERRUPTING CAPACITY
AL	ALUMINUM
AT	AMPERE TRIP RATING
ATS	AUTOMATIC TRANSFER SWITCH
BKR	BREAKER
BLDG	BUILDING
C	CONDUIT
CCTV	CLOSED CIRCUIT TELEVISION
CKT	CIRCUIT
CM	CEILING MOUNTED
CU	COPPER
DIA	DIAMETER
DPDT	DOUBLE POLE DOUBLE THROW
ELEC	ELECTRICAL
EMT	ELECTRICAL METALLIC TUBING
EP	EXPLOSION PROOF
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FWE	FURNISHED WITH EQUIPMENT
GC	GENERAL CONTRACTOR
GFI/GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
HP	HORSEPOWER
IG	ISOLATED GROUND
KVA	KILO-VOLT AMPERE
KW	KILO-WATT
LTG	LIGHTING
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MDP	MAIN DISTRIBUTION PANEL
MLO	MAIN LUGS ONLY
MTD	MOUNTED
MTS	MANUAL TRANSFER SWITCH
NC	NORMALLY CLOSED
NEUT	NEUTRAL
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
PB	PULL BOX
PNL	PANEL
PVC	POLYVINYL CHLORIDE CONDUIT
SH	SHIELDED
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TC	TIME CLOCK
TS	TIME SWITCH
TVSS	TRANSIENT VOLTAGE SURGE SUPRESSOR
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTABLE POWER SUPPLY
V	VOLT
WP	WEATHERPROOF

ELECTRICAL SHEET LIST

SHEET NUMBER	SHEET NAME
E0.01	ELECTRICAL COVER SHEET
E0.02	ELECTRICAL SPECIFICATIONS
E0.03	ELECTRICAL SPECIFICATIONS
E1.00	ELECTRICAL SITE PLAN
E1.01	ENLARGED ELECTRICAL SITE PLAN
E2.01	POWER PLAN
E3.01	LIGHTING PLAN
E6.01	ELECTRICAL DETAILS
E7.00	PANEL SCHEDULES & RISER

CODE SUMMARY

A. **APPLICABLE CODES INCLUDE BUT ARE NOT LIMITED TO:**
1. NATIONAL ELECTRICAL CODE (2017 NEC) WITH LOCAL AMENDMENTS
2. INTERNATIONAL BLDG CODE 2018.
3. LIFE SAFETY CODE (NFPA 101).
4. TEXAS ACCESSIBILITY STANDARDS, AMERICANS WITH DISABILITIES ACT.
5. ENERGY CONSERVATION CODE: IECC 2018.
6. REFER TO BUILDING OWNER FOR ANY STANDARDS ABOVE CODE REQUIREMENT.

ELECTRICAL GENERAL NOTES

1. ELECTRICAL DEVICES SHOWN ARE NOT EXACT. ALL DEVICE LOCATIONS SHALL BE VERIFIED WITH ARCHITECTURAL MILLWORK, CASEWORK, AND GENERAL ELEVATION VIEWS.
2. ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT, OUTLET BOXES, JUNCTION BOXES FOR ALL TECHNOLOGY, LOW VOLTAGE, ACCESS CONTROL SECURITY, SURVEILLANCE, AND OTHER DIVISION 27/28 SCOPE. REFER TO DIVISION 27/28 DRAWINGS AND SPECIFICATIONS FOR ALL WORK REQUIRED. OMISSION OF THIS SCOPE FROM DIV 26 SCOPE OF WORK IS PROHIBITED.
3. HVAC AND PLUMBING EQUIPMENT LOCATIONS ARE NOT EXACT, AND THE EXACT POINT OF CONNECTION TO EQUIPMENT MAY VARY. COORDINATE EXACT ROUGH-IN REQUIREMENTS IN FIELD AND WITH FINAL SUBMITTALS FOR ALL DIV. 21/22/23 EQUIPMENT.
4. PROVIDE LABELING OF ALL DEVICES, CONDUIT, PANELS, AND JUNCTION BOXES IN ACCORDANCE WITH ELECTRICAL SPECIFICATIONS.
5. MINIMIZE ROOF PENETRATIONS. WHERE ABLE, ROUTE ALL CONDUIT FOR ROOF MOUNTED EQUIPMENT THROUGH ROOF CURB. CONTRACTOR WILL BE RESPONSIBLE FOR COORDINATING NECESSARY WATER PROOFING AROUND ROOF PENETRATIONS WITH ROOFING INSTALLER.
6. ALL RECEPTACLES LOCATED IN RESTROOMS, JANITOR CLOSETS, MECHANICAL ROOMS, ELEVATOR PITS OR SHAFTS, ELEVATOR EQUIPMENT ROOMS, SERVING ELECTRIC DRINKING FOUNTAINS OR VENDING MACHINES, LOCATED WITHIN 6' OF A SINK, LOCATED ABOVE A WET COUNTERTOP OR IN A KITCHEN OR COFFEE BAR SHALL BE GFCI. FEED-THRU GFCI/GFI IS PROHIBITED, ALL GFCI/GFI DEVICES SHALL BE PROVIDED WITH INDIVIDUAL TEST/RESET FEATURES.
7. MULTI-WIRE HOME RUNS SHALL NOT BE ALLOWED. PROVIDE DEDICATED NEUTRALS FOR ALL CIRCUITS. SHARING CONDUIT IS PERMISSIBLE WHERE TOTAL CONDUCTOR AMPACITY DERATING HAS BEEN PERFORMED BY ELECTRICAL CONTRACTOR. THE NEUTRAL IS CONSIDERED CURRENT-CARRYING.
8. ALL RECEPTACLES SHALL BE TAMPER RESISTANT TYPE. CONTRACTOR MAY PROVIDE NON-TAMPER-RESISTANT RECEPTACLES WHERE NOT REQUIRED PER CURRENT NEC ARTICLE 406
9. LABEL ALL CIRCUITS AT ALL JUNCTION BOXES AND OUTLETS (AS DEFINED BY NEC) WITH TYPE-WRITTEN LABEL IDENTIFYING CIRCUIT ON THE BACK OF DEVICE COVER PLATES OR ON COVER OF JUNCTION BOX. IF A BOX HAS MULTIPLE CIRCUITS WITHIN, LABEL ALL CIRCUITS.
10. CONTRACTOR TO PROVIDE ALLOWANCE FOR ANY LOW VOLTAGE CABLING ABOVE INACCESSIBLE OR SPECIALTY CEILING TO BE INSTALLED IN CONDUIT.
11. ALL ELECTRICAL EQUIPMENT IS REQUIRED TO BE LISTED/LABELED BY A RECOGNIZED QUALIFIED ELECTRICAL TESTING LABORATORY AND SHALL BE IN ACORDANCE WITH APPLICABLE PRODUCT STANDARDS RECOGNIZED AS ACHIEVING EQUIVALENT AND EFFECTIVE SAFETY FOR EQUIPMENT INSTALLED TO COMPLY WITH THIS CODE. REFRENCE 2017 NEC 110.3 (C)
12. ELECTRICAL CONTRACTOR TO VERIFY IN THE FIELD CONDUCTOR SIZES ARE CODE COMPLIANT, CONTACT ENGINEER WITH ANY DISCREPANCIES.
13. GFCI PROTECTION SHALL BE INSTALLED IN READILY ACCESSIBLE LOCATION PER 2017 NEC 210.8.

hatch + ulland owen architects

1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

CIVIL ENGINEER
CBD ENGINEERING & SURVEYING
5501 West William Cannon Drive
Austin, Texas 78749, US

LANDSCAPE ARCHITECT
SEC PLANNING , LLC
4201 W. Parmer Lane Bldg A, Suite 220
Austin, Texas 78727

PLUMBING, MECHANICAL, ELECTRICAL ENGINEER
Infinity MEP+s Consultants
5316 W US Hwy 290 Service Rd Suite 480
Austin, TX 78735

STRUCTURAL ENGINEER
TDI Engineering, LLC
5906 Old Fredericksburg Rd. Suite 300
Austin, TX 78749

12/23/2019

hatch + ulland owen architects
1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

STATE OF TEXAS
ANDREW D. HUNTER
109975
LICENSED
PROFESSIONAL ENGINEER
10/22/2024

THE COLONY - TREEHOUSE AMENITY CENTER

BASTROP, TEXAS

hatch + ulland owen architects

h+uo # A22049

CONSTRUCTION DOCUMENTATION

ISSUE REVISIONS

#	DATE	NOTES
	2024-10-22	100% CD

SHEET TITLE

ELECTRICAL COVER SHEET

SHEET NUMBER

E0.01

10/22/2024 4:27:54 PM

ELECTRICAL SPECIFICATIONS

SECTION 26 00 00 – COMMON WORK RESULTS FOR ELECTRICAL

1. PERMITS AND CODES: OBTAIN AND PAY FOR ALL NECESSARY PERMITS AND REQUIRED INSPECTIONS. COMPLY WITH ALL NATIONAL, STATE AND MUNICIPAL LAWS, CODES AND ORDINANCES RELATING TO BUILDING AND PUBLIC SAFETY.
2. TEMPORARY POWER: PROVIDE ANY REQUIRED TEMPORARY POWER AND UTILITIES FOR ALL TRADES AND ALL CONSTRUCTION TRAILERS. PROVIDE TEMPORARY CONSTRUCTION LIGHTING AND POWER. ELECTRICAL CONTRACTOR SHALL INCLUDE TEMPORARY ELECTRIC: ALL TEMPORARY ELECTRIC SHALL BE IN ACCORDANCE WITH OSHA CONSTRUCTION STANDARDS 29FCR, PART 1926 AND ARTICLE 590 OF THE 2023 NATIONAL ELECTRICAL CODE. TEMPORARY LIGHTING AND POWER SHALL BE PROVIDED IN ACCORDANCE WITH OSHA STANDARDS. THE OSHA MINIMUM ILLUMINATION IS 5 FOOTCANDLES IN GENERAL CONSTRUCTION AREAS, AND 10 FC IN MECHANICAL / ELECTRICAL ROOMS AND WORKROOMS. INCLUDED ARE CONNECTIONS TO ALL CONSTRUCTION TRAILERS. THE COST OF THIS WORK IS TO BE INCLUDED IN THE BASE ELECTRICAL BID FOR THE PROJECT.
3. TRENCHING REQUIREMENTS: IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ASSURE COMPLIANCE WITH APPLICABLE STATE AND FEDERAL LAWS, AND NO PROVISION OF THESE DRAWINGS OR SPECIFICATIONS SHALL BE DEEMED TO EXCUSE COMPLIANCE WITH APPLICABLE STATE AND FEDERAL REQUIREMENTS FOR TRENCH SAFETY
4. VISITING THE JOB SITE: VISIT THE SITE OF THE PROPOSED CONSTRUCTION IN ORDER TO FULLY UNDERSTAND THE FACILITIES, DIFFICULTIES AND RESTRICTIONS ATTENDING THE EXECUTION OF THE WORK. NO ADDITIONAL COMPENSATION WILL BE ALLOWED THIS CONTRACTOR FOR WORK OR ITEMS OMITTED FROM HIS ORIGINAL PROPOSAL DUE TO HIS FAILURE TO INFORM HIMSELF REGARDING SUCH MATTERS AFFECTING THE PERFORMANCE OF THE WORK IN THIS CONTRACT OR NECESSARY FOR THE INSTALLATION AND COMPLETION OF THE WORK INCLUDED HEREIN.
5. DRAWINGS: DRAWINGS ARE DIAGRAMMATIC; CONFIRM DIMENSIONS & LOCATIONS IN THE FIELD. IF CONFLICTING DIMENSIONS ARE SHOWN, USE LARGER DIMENSIONS AND VERIFY WITH ARCHITECT. SEE ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATIONS OF FIXTURES AND WALL MOUNTED DEVICES.
6. MATERIAL: ALL MATERIALS SHALL BE NEW, MADE IN USA AND U.L. LISTED. MATERIAL INSTALLATION SHALL COMPLY WITH NEC REQUIREMENTS AND PERFORM BY CRAFTSMEN SKILLED IN THIS PARTICULAR WORK.
7. EQUIPMENT PROTECTION: PROTECT EQUIPMENT AND WORK FROM DAMAGE DURING HANDLING AND INSTALLATION UNTIL COMPLETION OF CONSTRUCTION.
8. COORDINATION WITH OTHERS: COOPERATION WITH TRADES OF ADJACENT, RELATED OR AFFECTED MATERIALS OR OPERATIONS, AND WITH TRADES PERFORMING CONTINUATIONS OF THIS WORK UNDER SUBSEQUENT CONTRACTS, IS CONSIDERED A PART OF THIS WORK IN ORDER TO EFFECT TIMELY AND ACCURATE PLACING OF WORK AND TO BRING TOGETHER, IN PROPER AND CORRECT SEQUENCE, THE WORK OF SUCH TRADES. PROVIDE OTHER TRADES, AS REQUIRED, ALL NECESSARY TEMPLATES, PATTERNS, SETTING PLANS AND SHOP DETAILS FOR THE PROPER INSTALLATION OF THE WORK AND FOR THE PURPOSE OF COORDINATING ADJACENT WORK. ELECTRICAL POWER CONNECTIONS FOR MECHANICAL AND PLUMBING EQUIPMENT ARE IN THIS DIVISION UNLESS NOTED OTHERWISE. VERIFY ELECTRICAL CHARACTERISTICS OF ALL EQUIPMENT WITH DIVISION 15 AND OTHER SPECIAL DIVISIONS (ELEVATORS ETC) BEFORE ROUGHING IN THE ELECTRICAL CONNECTIONS AND ENERGIZING THE EQUIPMENT. REMOVE ANY IMPROPERLY INSTALLED ELECTRICAL EQPT AND CONDUIT THAT ARE LIMITING PROPER ACCESS FOR MECH/PLUMBING/SPECIAL EQPT SERVICE AND MAINTENANCE.
9. ACCESS DOORS: PROVIDE *MILCOR* OR EQUAL AS REQUIRED FOR ACCESS FOR ALL DEVICES REQUIRING ADJUSTMENT. SIMILARLY FOR ALL JUNCTION BOXES, PULL BOXES, ETC. THAT ARE REQUIRED TO BE ACCESSIBLE PER CODE AND/OR THE LOCAL AUTHORITY HAVING JURISDICTION. APPEARANCE OF ACCESS PANELS/DOORS SHALL BE ACCEPTABLE TO ARCHITECT. DOORS SHALL MATCH WALL OR CEILING RATING. ARCHITECT MUST APPROVE LOCATION AND APPEARANCE OF ALL ACCESS DOORS.
10. CLEAN UP: PROVIDE FOR ISOLATION OF WORK AREAS AND DAILY REMOVAL OF DEBRIS. CLEAN ALL EQUIPMENT AND FIXTURE LENSES. REPLACE ALL BURNED OUT LAMPS. TOUCH UP WITH PAINT WHERE REQUIRED.
11. SHOP DRAWINGS: SUBMIT COMPLETE INFORMATION ON ALL EQUIPMENT, LIGHT FIXTURES, GENERATOR, FIRE ALARM SYSTEM, CONDUIT/FITTINGS, WIRE, AND DEVICES. OVERCURRENT (OC) & DISCONNECT DEVICES SHOWN ON PLANS ARE BASED ON A SPECIFIC HVAC EQUIPMENT MANUFACTURER. HVAC CONTRACTOR MAY SUBMIT OTHER MANUFACTURERS, DIFFERENT MODELS OR RATINGS. IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO COORDINATE OC/DISCONNECT DEVICES WITH THE HVAC CONTRACTOR PRIOR TO SUBMITTING SUCH DEVICES FOR ENGINEER'S REVIEW. SUBMIT DETAILED LAYOUT OF ELECTRICAL ROOMS. INCOMPLETE SUBMITTALS WILL BE RETURNED TO THE CONTRACTOR UNREVIEWED. NO TIME EXTENSIONS OR COST INCREASES WILL BE ALLOWED FOR DELAYS CAUSED BY RETURN OF INCOMPLETE SUBMITTALS.
12. RECORD DRAWINGS: WITHIN 90 DAYS AFTER THE DATE OF SYSTEM ACCEPTANCE, PROVIDE RECORD DRAWINGS IN CAD/REVIT FORMAT (USING THE SAME SOFTWARE AND VERSION THE PROJECT WAS DESIGNED IN), PLUS FULL SIZE HARD COPY. ELECTRONIC DRAWINGS MAY BE AVAILABLE FROM ENGINEER FOR A FEE. RECORD DRAWINGS SHALL INCLUDE EXACT DIMENSIONS AND LOCATION FOR ALL UNDER-SLAB CONDUIT, SWITCHGEAR, PANELBOARDS, TRANSFORMERS, EQUIPMENT, AND REVISED HOMERUN CIRCUIT LOCATIONS.
13. FINAL INSPECTION & TESTING: ALL ELECTRICAL SYSTEMS MUST BE CHECKED FOR PROPER POLARITY AND SEQUENCE, ALL MOTORS MUST BE CHECKED FOR PROPER ROTATION AND ALL EQUIPMENT CHECKED FOR PROPER VOLTAGE AND PHASING REQUIREMENTS. PRIOR TO THE APPLICATION OF ANY POWER, THE CONTRACTOR MUST CERTIFY THAT ALL CONNECTED EQUIPMENT MATCH THE CHARACTERISTICS OF THE SUPPLY CIRCUIT VOLTAGE, PHASING AND FEEDER REQUIREMENTS. AFTER ALL SYSTEMS HAVE BEEN COMPLETED AND PUT INTO OPERATION, SUBJECT EACH SYSTEM TO AN OPERATING TEST UNDER DESIGN CONDITIONS TO ENSURE PROPER SEQUENCE AND OPERATION THROUGHOUT THE RANGE OF OPERATION. MAKE ADJUSTMENTS AS REQUIRED TO ENSURE PROPER FUNCTIONING OF ALL SYSTEMS. SPECIAL TESTS ON INDIVIDUAL SYSTEMS ARE SPECIFIED UNDER INDIVIDUAL SECTIONS

SECTION 26 05 19 – LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

1. WIRE: (TRIANGLE, AMERICAN INSULATED CABLE CO., OR CABLEC)
2. ALL WIRING SHALL BE IN CONDUIT (EXCEPT PLENUM RATED LOW VOLTAGE CABLES). ALL WIRES MUST BE 75°C RATED OR BETTER, 60°C RATED WIRE SHALL NOT BE USED. 90°C RATED WIRE MAY BE USED BUT ONLY AT 75°C AMPACITY. EMERGENCY AND NORMAL CIRCUITS MUST BE INSTALLED IN SEPARATE CONDUIT AND DEVICE BOXES PER N.E.C. ARTICLE 700.9.(B).
   - A. MINIMUM SIZE #12 EXCEPT CONTROLS MAY BE #14. USE #10 CONDUCTORS FOR 20 AMPERE, 120 VOLT BRANCH CIRCUITS LONGER THAN 100 FEET. USE #10 CONDUCTORS FOR 20 AMPERE, 277 VOLT BRANCH CIRCUITS LONGER THAN 200 FEET.
   - B. TYPE THHN/THWN STRANDED COPPER THERMOPLASTIC IN DRY LOCATIONS.
   - C. TYPE THWN IN WET LOCATIONS (OUTDOOR, UNDERGROUND, ON ROOF).
   - D. ALL WIRE SHALL BE 98% CONDUCTIVITY COPPER, 600 VOLT. ALUMINUM WIRES MAY BE USED ONLY FOR FEEDERS 100 AMPS AND LARGER.
   - E. WIRE #10 AND SMALLER MAY BE SOLID OR STRANDED, #8 OR LARGER SHALL BE STRANDED.
   - F. COMMUNICATION WIRES (FIRE ALARM, TELEPHONE, HVAC THERMOSTAT, DATA ETC.): PLENUM RATED LOW-SMOKE CABLE MAY BE USED IN LIEU OF WIRE/CONDUIT TYPE INSTALLATION. ALL PLENUM RATED CABLE SHALL BE PROPERLY SUPPORTED BY BRIDAL RINGS, CABLE TIES, CLIPS ETC MADE BY ERICO (CADDY COMMUNICATION FASTENERS) OR EQUAL. DO NOT USE SCRAP WIRE TO WRAP AND SUPPORT COMMUNICATION WIRES. HOMEMADE SUPPORT DEVICES ARE NOT ACCEPTABLE. DO NOT LAY COMMUNICATION CABLE DIRECTLY ON TOP OF CEILING TILES, INSTALL CABLES A MINIMUM OF 12" ABOVE CEILING TILES AND 12" FROM HVAC DUCTWORK. PROVIDE A MINIMUM 6" SEPARATION BETWEEN POWER CONDUIT AND COMMUNICATION WIRINGS.
   - G. ALL CABLING IN EXPOSED CEILING AREAS SHALL BE INSTALLED CLEAN AND TIGHT TO STRUCTURE
3. PROVIDE COMMON TRIP MULTI-POLE BREAKERS FOR ALL MULTI-WIRE CIRCUITS PER NEC 2023 ART. 210.4(B).

SECTION 26 05 19 – LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

3. VOLTAGE DROP SHALL NOT EXCEED 3% FOR ALL BRANCH CIRCUITS AND 2% FOR ALL FEEDERS.
4. FIELD INSULATION TESTING: INSULATION RESISTANCE OF ALL CONDUCTORS SHALL BE TESTED. EACH CONDUCTOR SHALL HAVE ITS INSULATION RESISTANCE TESTED AFTER THE INSTALLATION IS COMPLETED AND ALL SPLICES, TAPS AND CONNECTIONS ARE MADE EXCEPT CONNECTION TO OR INTO ITS SOURCE AND POINT (OR POINTS) OF TERMINATION. INSULATION RESISTANCE OF CONDUCTORS WHICH ARE TO OPERATE AT 600 VOLTS OR LESS SHALL BE TESTED BY USING A BIDDLE MEGGER OF NOT LESS THAN 1000 VOLTS DC. INSULATION RESISTANCE OF CONDUCTORS RATED AT 600 VOLTS SHALL BE FREE OF SHORTS AND GROUNDS AND HAVE A MINIMUM RESISTANCE PHASE-TO-PHASE AND PHASE-TO-GROUND OF AT LEAST 10 MEGOHMS. CONDUCTORS THAT DO NOT EXCEED INSULATION RESISTANCE VALUES LISTED ABOVE SHALL BE REMOVED AT CONTRACTOR'S EXPENSE AND REPLACED AND TEST REPEATED. THE CONTRACTOR SHALL FURNISH ALL INSTRUMENTS AND PERSONNEL REQUIRED FOR TESTS, SHALL TABULATE READINGS OBSERVED, AND SHALL FORWARD COPIES OF THE TEST READINGS TO THE OWNER. THESE TEST REPORTS SHALL IDENTIFY EACH CONDUCTOR TESTED, DATE AND TIME OF TEST AND WEATHER CONDITIONS. EACH TEST SHALL BE SIGNED BY THE PARTY MAKING THE TEST.

SECTION 26 05 26 – GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

1. GROUNDING: ALL CONDUIT WORK AND ELECTRICAL EQUIPMENT SHALL BE EFFECTIVELY AND PERMANENTLY GROUNDED IN ACCORDANCE WITH NEC REQUIREMENTS. PROVIDE GREEN EQUIPMENT GROUNDING CONDUCTOR WITH ALL POWER AND RECEPTACLE AND LIGHTING CIRCUITS. GREEN EQUIPMENT GROUNDING CONDUCTOR SHALL BE ROUTED FROM PANEL GROUND BUS TO FINAL DEVICES.
2. GROUNDING ELECTRODES: PROVIDE 3/4" X 10-FT LONG, COPPER-CLAD, STEEL GROUNDING ROD. FOR BELOW-GRADE CONNECTIONS PROVIDE EXOTHERMIC WELDED TYPE; FOR ABOVE GRADE CONNECTIONS PROVIDE MECHANICAL BOLTED-TYPE CONNECTIONS UTILIZING HIGH CONDUCTIVE COPPER ALLOY OR BRONZE LUGS OR CLAMPS. SERVICE GROUND RESISTANCE: MUST BE LESS THAN 25 OHMS. PROVIDE ADDITIONAL GROUND RODS AS REQUIRED TO OBTAIN 25 OHMS OR LESS.
3. GROUNDING CONDUCTORS: ROUTE ALONG SHORTEST AND STRAIGHTEST PATHS POSSIBLE UNLESS OTHERWISE INDICATED OR REQUIRED BY CODE. AVOID OBSTRUCTING ACCESS OR PLACING CONDUCTORS WHERE THEY MAY BE SUBJECTED TO STRAIN, IMPACT, OR DAMAGE.
4. GROUNDING AND BONDING FOR PIPING:
   - A. METAL WATER SERVICE PIPE: INSTALL INSULATED COPPER GROUNDING CONDUCTORS, IN CONDUIT, FROM BUILDING'S MAIN SERVICE EQUIPMENT, OR GROUNDING BUS, TO MAIN METAL WATER SERVICE ENTRANCES TO BUILDING. CONNECT GROUNDING CONDUCTORS TO MAIN METAL WATER SERVICE PIPES; USE A BOLTED CLAMP CONNECTOR OR BOLT A LUG-TYPE CONNECTOR TO A PIPE FLANGE BY USING ONE OF THE LUG BOLTS OF THE FLANGE. WHERE A DIELECTRIC MAIN WATER FITTING IS INSTALLED, CONNECT GROUNDING CONDUCTOR ON STREET SIDE OF FITTING. BOND METAL GROUNDING CONDUCTOR CONDUIT OR SLEEVE TO CONDUCTOR AT EACH END.
   - B. WATER METER PIPING: USE BRAIDED-TYPE BONDING JUMPERS TO ELECTRICALLY BYPASS WATER METERS. CONNECT TO PIPE WITH A BOLTED CONNECTOR.
   - C. BOND EACH ABOVEGROUND PORTION OF GAS PIPING SYSTEM DOWNSTREAM FROM EQUIPMENT SHUTOFF VALVE.

SECTION 26 05 29 – HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

1. SUPPORT, ANCHORAGE, AND ATTACHMENT COMPONENTS:
   - A. GALVANIZED-STEEL SLOTTED SUPPORT SYSTEMS WITH METALLIC COATINGS.
   - B. ALUMINUM SLOTTED SUPPORT SYSTEMS WITH NONMETALLIC COATINGS.
   - C. NONMETALLIC SLOTTED SUPPORT SYSTEMS.
   - D. RACEWAYS AND CABLE SUPPORTS.
   - E. STEEL CONDUITS AND CABLE HANGERS, CLAMPS, AND ASSOCIATED ACCESSORIES.
   - F. SUPPORT FOR NONARMORED CONDUCTORS AND CABLES IN VERTICAL CONDUIT RISERS.
   - G. STRUCTURAL STEEL FOR FABRICATED SUPPORTS AND RESTRAINTS.
2. MOUNTING, ANCHORING, AND ATTACHMENT COMPONENTS:
   - A. POWDER-ACTUATED FASTENERS.
   - B. MECHANICAL-EXPANSION ANCHORS.
   - C. CONCRETE INSERTS.
   - D. CLAMPS FOR ATTACHMENT TO STEEL STRUCTURAL ELEMENTS.
   - E. STEEL SPRINGHEAD TOGGLE BOLTS.
   - F. THREADED HANGER RODS.
   - G. FABRICATED METAL EQUIPMENT SUPPORT ASSEMBLIES: WELDED OR BOLTED STEEL SHAPES.
3. CONCRETE BASES: 3000-PSI, 28-DAY COMPRESSIVE-STRENGTH CONCRETE.
4. MAXIMUM SUPPORT SPACING AND MINIMUM HANGER ROD SIZE FOR RACEWAY: SPACE SUPPORTS FOR EMTS, IMCS, AND RMCS AS REQUIRED BY NFPA 70. MINIMUM ROD SIZE SHALL BE 1/4 INCH IN DIAMETER. MULTIPLE RACEWAYS OR CABLES: INSTALL TRAPEZE-TYPE SUPPORTS FABRICATED WITH STEEL SLOTTED OR OTHER SUPPORT SYSTEM, SIZED SO CAPACITY CAN BE INCREASED BY AT LEAST 25 PERCENT IN FUTURE WITHOUT EXCEEDING SPECIFIED DESIGN LOAD LIMITS. ALL SUPPORTS SHALL BE INDEPENDENT OF FIRE, PLUMBING, MECHANICAL, AND TELECOM.

SECTION 26 05 33 – RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS

1. CONDUIT: SHALL BE RIGID GALVANIZED STEEL (RGS) OR ELECTRICAL METALLIC TUBING (EMT) AS MANUFACTURED BY ALLIED, TRIANGLE, WHEATLAND OR QUALITY TUBE.
2. INDOORS ABOVE GRADE: EMT OR RGS. AMERICAN CONDUIT PULLEASE ALUMINUM EMT IS ACCEPTABLE. PER UL 514B, BOTH STEEL AND DIECAST FITTINGS ARE APPROVED FOR USE WITH ALUMINUM EMT. DO NOT USE FLAT STEEL FISHTAPES WITH ALUMINUM EMT. FOR SMALLER SIZES USE ONLY ROUND FIBERGLASS FISHTAPES. FOR LARGER SIZES USE POLYPROPYLENE STYLE ROPE.
3. INDOORS OR OUTDOORS ABOVE GRADE, STUB-UPS, ON ROOF, MECHANICAL ROOMS, OR WHERE SUBJECT TO PHYSICAL DAMAGE: RGS, IMC.
4. BELOW GRADE: SCHEDULE 40 OR 80 PVC OR RGS. PROVIDE TRANSITION FITTINGS FROM PVC SCH 40 OR 80 TO RGS FOR ALL ABOVE GRADE CONDUIT. ALL UNDERGROUND METALLIC CONDUIT SHALL HAVE 40-MIL THICK EXTERNAL PVC COATING FOR CORROSION PROTECTION. UNDERGROUND CONDUIT MINIMUM SIZE 3/4". MINIMUM 24" BURIAL DEPTH FROM FINISHED GRADE TO TOP OF CONDUIT, PROVIDE DEEPER BURIAL DEPTH IF REQUIRED BY LOCAL CODES. PROVIDE CONCRETE ENCASEMENT FOR ALL INCOMING SERVICE CONDUIT UNLESS SPECIFICALLY NOTED OTHERWISE. PROVIDE RED DETECTABLE WARNING TAPE OVER ENTIRE RUN OF SERVICE AND MAJOR CONDUIT RUNS.
5. UNDER SLAB: RGS, SCHEDULE 80 PVC.
6. INSTALL GROUND WIRES WHERE SHOWN ON THE DRAWINGS. COMPRESSION OR SET-SCREW TYPE FITTINGS MAY BE USED FOR EMT. MINIMUM CONDUIT SIZE 1/2 INCH, HOWEVER HOMERUN TO PANEL SHALL BE MINIMUM 3/4 INCH.
7. TYPE "MC" METAL CLAD CABLE IS ACCEPTABLE ONLY IF APPROVED BY THE OWNER IN WRITING AND THE LOCAL AUTHORITY. MC CABLE, IF APPROVED, HOWEVER, MAY BE USED ONLY FOR DROPS FROM CEILING PLENUM JUNCTION BOXES TO RECEPTACLES AND LIGHT SWITCHES IN WALLS. MC CABLE MAY ALSO BE USED AS FIXTURE WHIPS FROM CEILING PLENUM JUNCTION BOXES TO LIGHT FIXTURES, WHIPS MUST BE 6-FT OR LESS. HOMERUN CIRCUITS TO PANELS SHALL BE IN CONDUIT, MC HOMERUN TO PANELS ARE NOT ACCEPTABLE. TYPE "AC" ARMORED CABLE (COMMONLY REFERRED TO AS "BX") IS NOT ACCEPTABLE AND SHALL NOT BE USED. KAF-TECH ATKORE MC GLIDE-LITE ALUMINUM MC CABLE IS ACCEPTABLE. IF USED, AN ALUMINUM CABLE ARMOR SHALL HAVE A CONTINUOUS LOW-PROFILE CONVOLUTION MINIMIZING LOW SPOTS TO PREVENT INSTALLATION DAMAGE IN ACCORDANCE WITH MC GLIDE-LITE. THE LOW-PROFILE ARMOR SHALL BE APPLIED OVER THE CABLED WIRE ASSEMBLY WITH AN INTERLOCK IN COMPLIANCE WITH SECTION 5 OF UL 1569. INSTALLATION SHALL BE PER MANUFACTURER RECOMMENDATIONS.

SECTION 26 05 33 – RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS

8. ELECTRICAL NONMETALLIC TUBING (ENT, NEC ARTICLE 362) SHALL NOT BE USED UNLESS SPECIFICALLY APPROVED BY THE ENGINEER. FLEXIBLE CONDUIT SHALL BE UTILIZED AS FINAL CONNECTIONS (3'-5' ONLY) AT THE FOLLOWING EQUIPMENT: MOTORS, LIGHTING FIXTURES, HEATER, POWER SUPPLIES, AND ANY OTHER VIBRATION PRODUCING EQUIPMENT. UTILIZE 1/2" FLEXIBLE METALLIC CONDUIT MINIMUM AND INCLUDE A GREEN GROUND WIRE. USE SEALTITE IN WET LOCATIONS SUCH AS OUTDOOR CONDENSING UNITS, WALK-IN COOLER/FREEZER, KITCHEN, ROOFTOP HVAC EQPT, ETC. CONDUIT SHALL BE SUPPORTED FROM STRUCTURE EVERY 5 FEET AND WITHIN 3 FEET OF ALL BOXES. USE LOCKNUTS INSIDE AND OUT AT BOXES. MAINTAIN MINIMUM 12" SEPARATION FROM ALL HIGH TEMPERATURE PIPES. ALL CONDUIT RUNS SHALL BE INSTALLED EITHER PARALLEL OR PERPENDICULAR TO BUILDING LINES. ROUTE CONDUIT AS DIRECTLY AS POSSIBLE WITH LARGEST RADIUS BENDS POSSIBLE. MAKE BENDS WITH STANDARD ELBOWS OR = BENDS PER NEC. PROVIDE EXPANSIONS FITTINGS IF CONDUIT CROSSES STRUCTURAL EXPANSION JOINT. ALL CONDUITS ON ROOF SHALL BE SUPPORTED BY AN ENGINEERED, PREFABRICATED PORTABLE PIPE SYSTEM SPECIFICALLY DESIGNED TO BE INSTALLED ABOVE FINISHED ROOF WITHOUT ROOF PENETRATIONS, FLASHINGS OR DAMAGE TO ROOF MEMBRANE.
9. SUPPORT AT INTERVAL NOT TO EXCEED 10' ON CENTER, AND WITHIN 5' OF ANY DEFLECTION OF CONDUIT. CLEAN CONDUIT INTERIOR AFTER INSTALLATION; COAT SCRATCHES WITH ZINC PAINT. PROVIDE PULL WIRE IN ALL CONDUIT (POWER, FIRE ALARM, TELEPHONE AND OTHER COMMUNICATION CONDUIT). PULL WIRE ALSO REQUIRED IN ALL SPARE CONDUIT.
10. OUTLET BOXES: SHALL BE GALVANIZED STEEL SUITABLE FOR LOCATION. CEILING OUTLET BOXES SHALL BE 4" OCTAGON. WALL OUTLET BOXES SHALL BE PROPER DESIGN TO ACCOMMODATE THE DEVICES REQUIRED - 4 INCH SQUARE WITH RAISED COVER. PROVIDE RACO, STEEL CITY OR APPLETON. ALL J-BOXES / SPLICE BOXES MUST BE ACCESSIBLE.
11. JUNCTION /PULL BOXES: FOR EACH CONDUIT RUN: PROVIDE ONE JUNCTION/PULL BOX FOR EACH EQUIVALENT THREE QUARTER BENDS (270°). UNDERGROUND FEEDERS: MINIMUM ONE PULL BOX FOR EACH 350 FEET OF CONDUIT RUN.
12. CONTRACTOR SHALL NOT INSTALL MORE THAN THREE CIRCUITS IN SAME CONDUIT UNLESS OTHERWISE NOTED. WHEN INSTALLING MORE THAN THREE CURRENT CARRYING CONDUCTORS IN SAME CONDUIT, CONTRACTOR SHALL DERATE THE AMPACITY OF ALL CURRENT CARRYING CONDUCTORS PER NEC 2023 ART. 310.15(B)(2)(A).

SECTION 26 05 53 – IDENTIFICATION FOR ELECTRICAL SYSTEMS

1. IDENTIFICATION: LABEL ALL JUNCTION AND PULL BOXES WITH PANELS AND CIRCUIT NUMBERS. MARK ALL BRANCH CONDUIT WITH CIRCUIT NUMBERS AT EACH SURFACE MOUNTED PANEL LOCATION. FOR RECESSED PANELS, MARK BRANCH CONDUIT IN CEILING PLENUM JUST ABOVE PANELS.
2. COLOR CODE: CONDUCTORS SHALL BE COLOR CODED AS FOLLOWS:
   - A. 480Y/277V 3PH, 4W
     - a. PHASE A: BROWN
     - b. PHASE B: PURPLE
     - c. PHASE C: YELLOW
     - d. NEUTRAL: GRAY OR WHITE
     - e. GROUND: GREEN
     - f. ISOLATED GROUND: GREEN/YELLOW STRIPE
   - B. 208Y/120V 3PH, 4W
     - a. PHASE A: BLACK
     - b. PHASE B: RED
     - c. PHASE C: BLUE
     - d. NEUTRAL: WHITE
     - e. GROUND: GREEN
     - f. ISOLATED GROUND: GREEN/YELLOW STRIPE
   - C. 240/120V 3PH, 4W
     - a. PHASE A: BLACK
     - b. PHASE B: ORANGE (HIGH LEG)
     - c. PHASE C: BLUE
     - d. NEUTRAL: WHITE
     - e. GROUND: GREEN
     - f. ISOLATED GROUND: GREEN/YELLOW STRIPE
   - D. 240/120V 1PH, 3W
     - a. PHASE A: BLACK
     - b. PHASE B: RED
     - c. NEUTRAL: WHITE
     - d. GROUND: GREEN
     - e. ISOLATED GROUND: GREEN/YELLOW STRIPE
3. ALL PANELS SHALL BE IDENTIFIED USING NAMEPLATES WITH 4 ROWS OF TEXT (LETTER HEIGHT SHALL BE 1/4" MINIMUM), EXAMPLE:
   PANEL "XX" 225 AMPS MCB, SECTION #1 OF 2-SECTION PNL
   208Y/120V, 3 PHASE, 4 WIRE
   FEEDER SIZE 4 # 4/0 THWN, 1 # 4 G, 2 1/2" C.
   FED FROM DIST PANEL "XXX", 1ST FLOOR
   - A. PANEL NAMEPLATES SHALL BE ENGRAVED THREE-LAYER LAMINATED PLASTIC, WHITE LETTERS ON BLACK BACKGROUND FOR NORMAL POWER, RED LETTER/BLACK BACKGROUND FOR EMERGENCY POWER. SECURE NAMEPLATES TO EQUIPMENT USING SCREWS OR RIVETS.
   - B. ALL DISCONNECTS, STARTERS, COMBINATION STARTER/DISCONNECT, TRANSFORMERS, WIREWAYS, COMMUNICATION CABINETS, JUNCTION AND PULL BOXES ETC. SHALL BE SIMILARLY IDENTIFIED.

SECTION 26 05 73 – ELECTRICAL STUDIES

1. PROVIDE SHORT CIRCUIT CALCULATION, PROTECTIVE DEVICE COORDINATION AND ARC FLASH HAZARD STUDIES. WHERE EMERGENCY SYSTEM(S) ARE PROVIDED, STUDIES SHALL INCLUDE OVERCURRENT DEVICES SELECTIVE COORDINATION WITH ALL SUPPLY SIDE OVERCURRENT PROTECTIVE DEVICES. EMERGENCY SYSTEMS(S) OVERCURRENT PROTECTIVE DEVICES SHALL BE SELECTIVELY COORDINATED WITH ALL SUPPLY SIDE OVERCURRENT PROTECTIVE DEVICES, IN COMPLIANCE WITH REQUIREMENT AS OUTLINED IN NEC 620, 700, 701, 708 & 517. STUDIES SHALL ENCOMPASS ELECTRICAL DISTRIBUTION SYSTEM FROM NORMAL POWER SOURCE OR SOURCES TO AND INCLUDING BRANCH BREAKERS IN EACH PANELBOARD. PREPARE STUDY TO VERIFY REQUIRED EQUIPMENT RATINGS PRIOR TO ORDERING DISTRIBUTION EQUIPMENT. ALL OVERCURRENT PROTECTIVE DEVICES SHALL BE SELECTED BASED ON THE RESULTS OF THE STUDIES. EQUIPMENT SHORT CIRCUIT CURRENT RATINGS (AIC) SHOWN ON DRAWINGS ARE FOR REFERENCE ONLY. PROVIDE EQUIPMENT WITH THE CORRECT AIC RATING BASED ON THE RESULTS OF THE STUDIES. SUBMIT REPORT WITH EQUIPMENT SUBMITTALS FOR ENGINEER'S REVIEW. PERFORM STUDY WITH AID OF COMPUTER SOFTWARE PROGRAMS. REPORT SHALL INCLUDE: (A) CALCULATION METHODS AND ASSUMPTIONS, (B) ONE LINE DIAGRAM, (C) STATE CONCLUSIONS AND RECOMMENDATIONS. STUDIES AND REPORT SHALL BE PREPARED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF PROJECT.
2. CONTRACTOR SHALL PROVIDE WARNING LABELS ON ELECTRICAL EQUIPMENT INDICATING INCIDENT ENERGY LEVEL, LEVEL OF HAZARD AND THE REQUIRED PERSONAL PROTECTION EQUIPMENT. EQUIPMENT REQUIRED TO BE LABELLED SHALL INCLUDE, BUT NOT LIMITED TO, SWITCHBOARDS, DISTRIBUTION PANELS, MOTOR CONTROL CENTERS, PANELS, CONTACTORS, DISCONNECT SWITCHES AND MOTOR STARTERS.
3. CONTRACTOR SHALL PROVIDE ARC REDUCTION TRIP UNIT CIRCUIT BREAKERS WHERE ARC FLASH STUDIES REVEAL DANGEROUS OR CATEGORY 3 LEVELS WITH REMOTE KEYED SWITCH AND PROVIDE BLUE BEACON LIGHT VISIBLE FROM ALL AREAS OF THE EQUIPMENT ROOM TO INDICATE "MAINTENANCE MODE" IS ACTIVE.

SECTION 26 05 44 – SLEEVES AND SLEEVE SEALS FOR ELECTRICAL RACEWAYS AND CABLING

1. ALL PENETRATIONS THROUGH FIRE RATED FLOORS AND WALLS SHALL BE SEALED WITH 3M FIRE RESISTANT FOAM SEALANT, TO PREVENT THE SPREAD OF SMOKE, FIRE, TOXIC GAS OR WATER THROUGH THE PENETRATION EITHER BEFORE, DURING OR AFTER A FIRE. THE FIRE RATING OF THE PENETRATION SEAL SHALL BE AT LEAST THAT OF THE FLOOR OR WALL INTO WHICH IT IS INSTALLED, SO THAT THE ORIGINAL FIRE RATING OF THE FLOOR OR WALL IS MAINTAINED AS REQUIRED BY ARTICLE 300.21 OF THE NATIONAL ELECTRICAL CODE.

SECTION 26 05 73 – ELECTRICAL STUDIES

1. CONTRACTOR SHALL PROVIDE WARNING LABELS ON ELECTRICAL EQUIPMENT INDICATING INCIDENT ENERGY LEVEL, LEVEL OF HAZARD AND THE REQUIRED PERSONAL PROTECTION EQUIPMENT. EQUIPMENT REQUIRED TO BE LABELED SHALL INCLUDE, BUT NOT LIMITED TO, SWITCHBOARDS, DISTRIBUTION PANELS, MOTOR CONTROL CENTERS, PANELS, CONTACTORS, DISCONNECT SWITCHES AND MOTOR STARTERS.

SECTION 26 09 23 – LIGHTING CONTROL DEVICES

1. PROVIDE AS PER DRAWINGS AND DETAILS. ALL FACEPLATES SHALL BE DECORA STYLE. BACK OF HOUSE AREAS SHALL BE TOGGLE SWITCHES. FACE PLATES SHALL BE WHITE UNLESS NOTED OTHERWISE.
2. DIMMER SWITCHES: PROVIDE DEDICATED NEUTRAL FOR DIMMER CONTROLLED LIGHTING CIRCUIT. DO NOT SHARE NEUTRAL WITH 2 OR MORE BRANCH CIRCUITS. DO NOT BREAK FINS (HEAT SINKS) ON DIMMER SWITCH. DERATED DIMMER SWITCHES MAY BE USED ONLY WHERE SPECIFICALLY APPROVED BY ENGINEER.
3. OCCUPANCY SENSOR SWITCHES SHALL HAVE NEUTRAL WIRE. GROUND WIRE SHALL NOT BE USED AS CURRENT CARRYING CONDUCTOR.
4. OCCUPANCY SENSORS:
   - A. ALL SENSOR LOCATIONS ARE APPROXIMATE. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS PRIOR TO INSTALLATION.
   - B. ULTRASONIC CEILING MOUNT SENSORS SHOULD BE LOCATED A MINIMUM OF SIX (6) FEET FROM HVAC SUPPLY/RETURN VENTS.
   - C. WALL MOUNTED OCCUPANCY SENSORS SHALL BE PROVIDED WITH INTEGRAL "TOUCH PLATE" MANUAL OFF CONTROL AND SHALL BE CONNECTED WITH THE NEUTRAL CONDUCTOR PER NEC ARTICLE 404.2.
   - D. CONTRACTOR IS RESPONSIBLE FOR PROPER SENSITIVITY AND TIME DELAY SETTINGS, RECOMMENDED PLACEMENT AND FIELD VERIFICATION OF CIRCUITS WITH RESPECT TO POWER PLACEMENT.
   - E. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF REQUIRED NUMBER OF SWITCH PACKS.
   - F. ONE SWITCH PACK IS REQUIRED FOR EACH CIRCUIT TO BE CONTROLLED.
   - G. ONE SWITCH PACK IS REQUIRED FOR EVERY FIVE SENSORS IN THE ZONE.
   - H. SENSORS MOUNTED OVER THE DOOR MUST BE PLACED ONE FOOT INSIDE THE THRESHOLD.
   - I. CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THE SENSOR BILL OF MATERIALS COMPLIES WITH THE SENSOR DESIGN AND SPECIFICATIONS.
   - J. CONTRACTOR IS RESPONSIBLE FOR INSTALLING EQUIPMENT IN COMPLIANCE WITH LOCAL CODE.
   - K. WALL MOUNTED OCCUPANCY SENSORS SHALL BE GANGED UNDER A COMMON COVERPLATE WHERE LOCATED ADJACENT TO DIMMERS OR SWITCHES (I.E. IN A CONFERENCE ROOM).
   - L. FOR ALL AREAS INDICATED WITH OCCUPANCY SENSORS, FURNISH AND INSTALL SWITCHES, DIMMERS, MOTION SENSORS, AND SWITCH PACKS AS NECESSARY TO PERFORM THE FOLLOWING FUNCTIONS:
   - M. ACTIVATION OF ANY MOTION SENSING DEVICE WITHIN THE INDICATED ZONE OF CONTROL SHALL ENERGIZE ALL LIGHT FIXTURES, REGARDLESS OF VOLTAGE, WITHIN THAT ZONE.
   - N. WALL MOUNTED SWITCHES AND DIMMERS SHALL WORK IN CONJUNCTION WITH MOTION SENSOR(S) TO PROVIDE MANUAL OPERATION OF SWITCHED FIXTURES WITHIN THE ZONE (UPON MOTION SENSOR ACTIVATION).

SECTION 26 09 43.23 – RELAY BASED LIGHTING CONTROLS

1. THE ELECTRICAL CONTRACTOR SHALL COORDINATE ALL REQUIREMENTS OF THE LIGHTING RELAY PANELS WITH THE BUILDING CONTROLS CONTRACTOR AND BUILDING ENGINEERING STAFF TO ASSURE PROPER OPERATION (ON, OFF, TIME OF DAY PROGRAMMING) OF THE LIGHTING RELAY SYSTEM AND ITS COMPONENTS PRIOR TO FINAL DELIVERY OF THE FLOOR. THE ELECTRICAL CONTRACTOR SHALL IMMEDIATELY REPORT ANY OBSERVED DEFICIENCIES TO THE BUILDING ENGINEERING STAFF. REPAIR OF EXISTING NON-FUNCTIONAL DEVICES OR INSTALLATION OF MISSING DEVICES SHALL BE PERFORMED ON A CHANGE ORDER BASIS OR UNDER SEPARATE CONTRACT. IN AS MUCH AS IS POSSIBLE, THE CONTRACTOR SHALL DELIVER TO THE OWNER A COMPLETE AND FUNCTIONING SYSTEM FOR EACH RENOVATED FLOOR.
2. LIGHTING CONTROL RELAY PANELS: STANDALONE LIGHTING CONTROL PANEL USING MECHANICALLY LATCHED RELAYS TO CONTROL LIGHTING AND APPLIANCES.
   - A. SINGLE ENCLOSURE WITH INCOMING LIGHTING BRANCH CIRCUITS, CONTROL CIRCUITS, SWITCHING RELAYS, AND ON-BOARD TIMING AND CONTROL UNIT.
     - a. CONTROL UNIT: POWER SUPPLY AND ELECTRONIC CONTROL FOR OPERATING AND MONITORING INDIVIDUAL RELAYS.
     - b. TIMING UNIT: 365-DAY CALENDAR; ASTRONOMICAL CLOCK; SEVEN INDEPENDENT SCHEDULES, EACH HAVING 24 TIME PERIODS.
     - c. SEQUENCING CONTROL WITH OVERRIDE.
   - B. OVERRIDE CONTROL "BLINK WARNING" APPROXIMATELY FIVE MINUTES BEFORE OFF SEQUENCE.
   - C. NONVOLATILE MEMORY RETAINS SETUP CONFIGURATIONS.
     - a. RELAYS: ELECTRICALLY OPERATED, MECHANICALLY HELD SINGLE-POLE SWITCH, RATED AT 20 A AT 277-V AC.
     - b. OPERATOR INTERFACE: INTEGRAL KEYPAD AND DIGITAL DISPLAY.

hatch + ulland owen architects

12/23/2019

hatch + ulland owen
architects
1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

THE COLONY - TREEHOUSE AMENITY CENTER

CIVIL ENGINEER
CBD ENGINEERING & SURVEYING
5501 West William Cannon Drive
Austin, Texas 78749, US

LANDSCAPE ARCHITECT
SEC PLANNING , LLC
4201 W. Parmer Lane Bldg A, Suite 220
Austin, Texas 78727

PLUMBING, MECHANICAL, ELECTRICAL ENGINEER
Infinity MEP+s Consultants
5316 W US Hwy 290 Service Rd Suite 480
Austin, TX 78735

STRUCTURAL ENGINEER
TDI Engineering, LLC
5906 Old Fredericksburg Rd. Suite 300
Austin, TX 78749

THE COLONY - TREEHOUSE AMENITY CENTER

BASTROP, TEXAS

hatch + ulland owen architects

h+uo # A22049

CONSTRUCTION DOCUMENTATION

ISSUE REVISIONS

#	DATE	NOTES
	2024-10-22	100% CD

SHEET TITLE

ELECTRICAL SPECIFICATIONS

SHEET NUMBER

ELECTRICAL SPECIFICATIONS

SECTION 26 22 13 – LOW-VOLTAGE DISTRIBUTION TRANSFORMERS

1. PROVIDE DRY TYPE QUIET TRANSFORMERS (PER ANSI - C89 AND UL 506), SELF-COOLED NEMA CLASS AA, COPPER WIRE WINDINGS. ALUMINUM-WINDING TRANSFORMER IS ACCEPTABLE, PROVIDED THAT SUBSTITUTE ALUMINUM TRANSFORMER IS IN COMPLIANCE WITH NEC CLEARANCE REQUIREMENTS. TRANSFORMERS MUST MEET OR EXCEED DOE 2016 ENERGY EFFICIENCY STANDARDS.
2. FURNISH FULL-LOAD TAPS IN THE PRIMARY WINDINGS AS FOLLOWS:
   - A. 3-15KVA, 1∅ TWO 5% TAPS BELOW RATED VOLTAGE
   - B. 9-15KVA, 3∅ TWO 5% TAPS BELOW RATED VOLTAGE
   - C. 25-100KVA, 1∅ SIX 2 1/2% TAPS, 4 BELOW AND 2 ABOVE RATED VOLTAGE
   - D. 30-300KVA, 3∅ SIX 2 1/2% TAPS, 4 BELOW AND 2 ABOVE RATED VOLTAGE
   - E. 167-250KVA, 1∅ FOUR 2 1/2% TAPS, 2 BELOW AND 2 ABOVE RATED VOLTAGE
   - F. 500KVA, 3∅ FOUR 2 1/2% TAPS, 2 BELOW AND 2 ABOVE RATED VOLTAGE
   - G. SELECT THE APPROPRIATE TAP SETTING ON TRANSFORMER SO THAT THE ACTUAL SECONDARY VOLTAGE IS 1/2 (PLUS OR MINUS) OF A TAP SPAN AT FULL LOAD.
3. AVERAGE SOUND LEVELS MUST NOT EXCEED THE FOLLOWING VALUES:
   - A. 0-9KVA 40DB
   - B. 10-50KVA 45DB
   - C. 51-150KVA 50DB
   - D. 151-300KVA 55DB
   - E. 301-500KVA 60DB
4. PROVIDE A 220°C INSULATION SYSTEM FOR A MAXIMUM 115°C TEMPERATURE RISE OVER A 40°C AMBIENT. SPECIAL TRANSFORMERS: 150°C RISE FOR SHIELDED ISOLATION TYPE; 115°C RISE FOR K-RATED TRANSFORMERS.
5. MAKE TRANSFORMER CABLE CONNECTIONS WITH COMPRESSION-TYPE LUGS SUITABLE FOR TERMINATIONS OF 75°C RATED CONDUCTORS. CONSTRUCT CONCRETE PAD FOR FLOOR-MOUNTED TRANSFORMERS. MAINTAIN A MINIMUM OF 6 INCHES FREE AIR SPACE BETWEEN ENCLOSURE AND WALL. MOUNT TRANSFORMERS ON VIBRATION ISOLATING PADS SUITABLE FOR ISOLATING THE TRANSFORMER NOISE FROM THE BUILDING STRUCTURE.
6. PROVIDE DOUBLE OR ADDITIONAL LUGS AS REQUIRED WHERE TWO OR MORE SECONDARY FEEDERS ARE CONNECTED TO TRANSFORMERS. PROVIDE VIBRATION ISOLATORS FOR ALL TRANSFORMERS.
7. ACCEPTABLE MANUFACTURERS ARE GE, SQUARE D, EATON, AND SIEMENS.

SECTION 26 24 13 – SWITCHBOARDS

1. ALL EQUIPMENT SHALL HAVE COPPER BUSES OR WINDINGS.
2. PROVIDE SWITCHBOARD WHICH PERMITS ACCESS TO BUSES AND DEVICES FOR INSTALLATION AND FUTURE MAINTENANCE FROM THE FRONT, BACK AND SIDES.
3. BUSES: SHALL BE 98% IACS CONDUCTIVITY, TIN- OR SILVER-PLATED COPPER WITH ROUNDED EDGES. DETERMINE CURRENT RATING FOR SECTION BUS AND BRANCH BUS ON THE BASIS OF SERVICE TO ALL DEVICES INCLUDING SPARES AND SPACES FOR FUTURE ADDITION. SIZE SECTION BUS A MINIMUM OF 60 PERCENT OF THE MAIN BUS RATING. IN EACH SWITCHBOARD SECTION INCLUDE AN UNINSULATED NEUTRAL BUS ON INSULATED BUS SUPPORTS SECURED TO THE SECTION FRAME AND BOLT TO NEUTRAL BUS BARS IN ADJACENT SECTIONS, THUS PROVIDING A CONTINUOUS NEUTRAL BUS. IN EACH SWITCHBOARD SECTION INCLUDE AN UNINSULATED COPPER GROUND BUS BAR FOR THE EQUIPMENT. SECURE THE BAR TO THE UNIT FRAME AND BOLT TO THE GROUND BUS BARS IN ADJACENT SECTIONS, THUS PROVIDING A CONTINUOUS EQUIPMENT GROUND BUS. INCLUDE TERMINATIONS AT THE BUS BAR FOR FEEDER AND BRANCH CIRCUIT GROUNDING CONDUCTORS. THE TERMINATIONS MUST BE EXOTHERMICALLY WELDED ON OR BE OF AN APPROVED PRESSURE CONNECTOR TYPE. MAKE AREA OF GROUND BUS NOT LESS THAN 1/4 X 2 SQUARE INCHES. EXTEND ALL BUSES THE ENTIRE LENGTH OF THE SWITCHBOARD. BUSES MUST HAVE THE REQUIRED CAPACITY FOR THEIR TOTAL LENGTH. MAKE PROVISIONS FOR EXTENSIONS FROM EITHER END OF BUSES.
4. MAIN CIRCUIT PROTECTIVE DEVICES: SEE DRAWINGS FOR SIZE. MAIN DEVICE SHALL BE 100% RATED. METERING: EQUIP THE SWITCHBOARD WITH AMMETERS, VOLTMETERS AND DEMAND METERS.
5. GROUND-FAULT PROTECTION: PROVIDE GROUND FAULT PROTECTION ON CIRCUIT PROTECTIVE DEVICES WHERE INDICATED ON THE DRAWINGS. THE UNIT SHALL INCLUDE COORDINATED CURRENT SENSORS, SOLID STATE RELAY AND MONITOR PANEL OF THE SAME MANUFACTURER. CURRENT SENSORS - PROVIDE GROUND-FAULT PROTECTION AS AN INTEGRAL PART OF THE CIRCUIT PROTECTIVE DEVICE. A RESIDUAL SCHEME SHALL BE USED WHICH INCORPORATES AN ADDITIONAL CURRENT TRANSFORMER WHICH WILL MONITOR THE NEUTRAL.
6. SPACE HEATERS: IN EQUIPMENT LOCATED OUTDOORS PROVIDE IN EACH VERTICAL SECTION WITH TWO 500-WATT 120-VOLT SPACE HEATERS LOCATED NEAR BOTTOM. CONNECT TWO HEATERS IN PARALLEL AND USE AS ONE 250-WATT, 120-VOLT HEATER. PROVIDE SUITABLE THERMOSTAT CONTROL.
7. SUBMITTALS: SUBMIT DIMENSIONED DRAWINGS OF THE SWITCHBOARD, INCLUDING TOP AND BOTTOM VIEWS SHOWING ENTRY AND EXIT SPACE FOR CONDUITS AND BUSWAYS, FRONT AND SIDE ELEVATIONS SHOWING ARRANGEMENT OF ALL DEVICES AND ALSO INCLUDE DIMENSIONAL DATA ON ALL BUSES INCLUDING MATERIAL TYPE AND CAPACITY OF THE BUSES. SUBMIT ONE LINE DIAGRAMS FOR EQUIPMENT BEING PROVIDED. ALSO SUBMIT INFORMATION ON ALL PROTECTIVE DEVICES INCLUDING TYPE RATINGS AND SETTINGS OF ALL TRIPS PROVIDED TO INCLUDE GROUND FAULT RELAY SETTINGS. PROVIDE COORDINATION STUDY OF ALL PROTECTIVE DEVICES. PROVIDE COORDINATION CURVES ON LOG-LOG PAPER FOR THE MAIN PROTECTIVE DEVICE AND FOR THE LARGEST BRANCH CIRCUIT DEVICES. THESE CURVES SHALL ALSO SHOW THE GROUND FAULT PROTECTIVE RELAY.

SECTION 26 24 16 – PANELBOARDS

1. ALL PANELBOARDS SHALL HAVE COPPER BUSES. LOAD CENTER TYPE PANELBOARDS ARE NOT ACCEPTABLE AND SHALL NOT BE USED. PROVIDE BREAKERS WHICH ARE QUICK-MAKE AND QUICK-BREAK ON BOTH MANUAL AND AUTOMATIC OPERATION. USE A TRIP-FREE BREAKER WHICH IS TRIP INDICATING. INCORPORATE INVERSE TIME CHARACTERISTIC BY BIMETALLIC OVERLOAD ELEMENTS AND INSTANTANEOUS CHARACTERISTIC BY MAGNETIC TRIP. FOR 2-POLE AND 3-POLE BREAKERS, USE THE COMMON-TRIP TYPE SO THAT AN OVERLOAD OR FAULT ON ONE POLE WILL TRIP ALL POLES SIMULTANEOUSLY. HANDLE TIES ARE NOT ACCEPTABLE. ALL BREAKERS SHALL BE BOLT-ON THERMAL MAGNETIC TYPE. STAB-ON BREAKERS ARE NOT ACCEPTABLE. DO NOT USE TANDEM CIRCUIT BREAKERS. ALL CIRCUIT BREAKERS RATED 100 AMP OR LESS SHALL BE SUITABLE FOR TERMINATING 75°C WIRE (BREAKERS RATED FOR ONLY 60°C WIRE ARE NOT ACCEPTABLE.
2. PANELBOARD DIRECTORIES: PROVIDE A STEEL DIRECTORY FRAME MOUNTED INSIDE THE DOOR WITH A HEAT-RESISTANT TRANSPARENT FACE AND A DIRECTORY CARD FOR IDENTIFYING THE LOADS SERVED. IDENTIFY EACH CIRCUIT WITH LOAD AND LOCATIONS (ROOM NAMES AND ROOM NUMBERS) AND INDICATE WITH TYPED DIRECTORIES.
3. INSTALL THE PANELBOARDS SUCH THAT THE CENTER OF THE SWITCH OR CIRCUIT BREAKER IN THE HIGHEST POSITION WILL NOT BE MORE THAN 6 1/2 FEET ABOVE THE FLOOR OR WORKING PLATFORM.
4. ACCEPTABLE MANUFACTURERS ARE GE, SQUARE D, EATON, AND SIEMENS.

SECTION 26 27 26 – WIRING DEVICES

1. WIRING DEVICES: PROVIDE ALL WIRING DEVICES SHOWN ON DRAWINGS COMPLETELY AND PROPERLY WIRED INCLUDING A SECURE GROUND CONNECTION. ALL DEVICES SHALL BE INSTALLED IN OUTLET BOXES OF REQUIRED SIZE AND VOLUME. GENERAL PURPOSE RECEPTACLES SHALL BE HUBBELL 5262 SERIES. ISOLATED GROUND RECEPTACLES SHALL BE HUBBELL IG-5362-ORANGE WITH ISOLATED GROUND CONNECTION. GROUND FAULT INTERRUPT RECEPTACLES (MARKED GFCI) SHALL BE HUBBELL GF-5262. REFER TO ARCHITECTURAL DRAWINGS FOR COLOR AND MOUNTING HEIGHTS.
2. **COVER PLATES:** HIGH ABUSE NYLON OR STAINLESS STEEL PER ARCHITECT. WHERE MORE THAN ONE SWITCH OCCURS AT THE SAME LOCATION, THEY SHALL BE GANGED UNDER ONE COVERPLATE. INSTALLED IN BOXES IN UNIFORM POSITION. SET TO OPEN AND CLOSE CIRCUITS BY MOVING IN THE SAME DIRECTION THROUGHOUT JOB. PROVIDE CIRCUIT NUMBER LABEL ON ALL DEVICE PLATES.
3. ALL ELECTRICAL BOXES ON OPPOSITE SIDES OF CORRIDOR WALL AND FIREWALLS MUST BE SEPARATED BY A HORIZONTAL DISTANCE OF NOT LESS THAN 24 INCHES.
4. REFER TO ARCHITECTURAL DRAWINGS FOR RECEPTACLE AND DATA J-BOX MOUNTING HEIGHTS.
5. COORDINATE NEMA RECEPTACLE TYPES FOR ALL COPIERS WITH COPIER MANUFACTURER(S) PRIOR TO INSTALLATION. CONTRACTOR SHALL REPORT ANY CIRCUIT DISCREPANCY TO THE ENGINEER FOR REVIEW.
6. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION ON ALL FLOOR DEVICES. LOCATIONS SHALL BE IN ACCORDANCE WITH ALL UNDERWRITER LABORATORIES AND LOCAL AUTHORITY REQUIREMENTS. IN NO CASE SHALL U.L. LISTED FIRE RATED POKE-THRU DEVICES BE INSTALLED LESS THAN 24" ON CENTER AND/OR MORE THAN ONE (1) PENETRATION PER 65 SQUARE FEET OF FLOOR AREA OF BEAM SPACE. THE CONTRACTOR SHALL CALL TO THE ATTENTION OF, AND REQUEST DIRECTION FROM THE ARCHITECT AND THE ENGINEER IN ANY CASE IN WHICH THE INSTALLATION MAY VARY FROM THESE REQUIREMENTS PRIOR TO ROUGH-IN. X-RAY SLAB PRIOR TO SAW CUTTING OR CORING.
7. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE FURNITURE MANUFACTURER THE INSTALLATION OF ALL ELECTRICAL DEVICES MOUNTED IN DEMOUNTABLE PARTITIONS. REFER TO ARCHITECT FOR LOCATION OF ALL DEMOUNTABLE PARTITIONS. THE LICENSED ELECTRICIAN SHALL MAKE THE FINAL CONNECTION BETWEEN CIRCUIT AND PLUG-IN FURNITURE SYSTEM.

SECTION 26 28 16 – ENCLOSED SWITCHES AND CIRCUIT BREAKERS

1. PROVIDE ALL SAFETY DISCONNECT SWITCHES INDICATED ON THE DRAWINGS AND AT ALL MECHANICAL EQUIPMENT. PROVIDE HEAVY DUTY TYPE SAFETY SWITCHES SIMILAR TO GE TYPE TH. ALL SWITCHES SHALL BE FUSIBLE, EXCEPT THOSE INDIVIDUALLY ENCLOSED SAFETY SWITCHES INDICATED AS NON-FUSIBLE. PROVIDE NEMA 1 ENCLOSURE FOR NORMAL INDOOR INSTALLATIONS AND NEMA 3R ENCLOSURE FOR INSTALLATIONS OUTDOORS AND IN WET AREAS. COMPLY WITH CODE REQUIREMENTS FOR OTHER ENVIRONMENTS. PROVIDE EXTERNALLY OPERATED HANDLES WITH PROVISIONS FOR PADLOCKING IN THE OFF OR ON POSITION. SWITCH RATINGS SHALL BE SIZED LARGE ENOUGH FOR THE APPLIED LOAD. SWITCHES SERVING MOTORS SHALL BE HORSEPOWER RATED FOR THE INSTALLED MOTOR. VOLTAGE RATINGS SHALL BE SUFFICIENT FOR THE INSTALLED CIRCUIT VOLTAGE. TOGETHER WITH THE SPECIFIED FUSES (IF SWITCH IS FUSIBLE) THE SWITCH SHALL SAFELY AND WITHOUT FAILURE WITHSTAND SHORT CIRCUITS ON A SYSTEM CAPABLE OF DELIVERING UP TO 200,000 AMPS RMS SYMMETRICAL AT THE APPLIED VOLTAGE. INSTALL SWITCHES SECURELY TO WALLS. WHERE WALL IS NOT AVAILABLE, PROVIDE UNISTRUT SUPPORT STRUCTURE. ACCEPTABLE MANUFACTURERS ARE GE, SQUARE D, EATON, AND SIEMENS.

26 36 00 TRANSFER SWITCHES

1. QUALITY ASSURANCE
   - A. QUALITY STANDARDS: NEMA ICS 1, NFPA 110, AND UL 1008.
2. PRODUCTS
   - A. PERFORMANCE REQUIREMENTS:
     1. INDICATED CURRENT RATINGS: FOR CONTINUOUS LOADING AND TOTAL SYSTEM TRANSFER.
     2. FAULT CURRENT CLOSING AND SHORT-CIRCUIT RATINGS: COORDINATED WITH OVERCURRENT PROTECTIVE DEVICE(S).
        - a. SHORT-TIME WITHSTAND CAPABILITY FOR THREE CYCLES.
     3. TRANSFER SWITCH AND SPD RATING: SERVICE RATED.
     4. GROUND-FAULT PROTECTION: NORMAL BUS.
     5. NEUTRAL SWITCHING FOR FOUR-POLE SWITCHES: NEUTRAL POLE SWITCHED SIMULTANEOUSLY WITH PHASE POLES.
     6. NEUTRAL TERMINAL: SOLID. FULLY RATED.
     7. REMOTE PROGRAMMING FOR DEVICES.
     8. GENERAL-PURPOSE TYPE 1 FOR INDOORS AND TYPE 3R FOR EXTERIOR ENCLOSURES.
   - B. CONTACTOR-TYPE AUTOMATIC TRANSFER SWITCHES:
     1. SWITCH CHARACTERISTICS: CONTINUOUS-DUTY REPETITIVE TRANSFER OF FULL-RATED CURRENT BETWEEN ACTIVE POWER SOURCES. DOUBLE THROW; MECHANICALLY HELD IN BOTH DIRECTIONS.
        - a. MATERIAL: HARD-DRAWN COPPER, 98 PERCENT CONDUCTIVITY.
        - b. LUGS: COMPRESSION TYPE.
        - c. GROUND BAR.
     2. AUTOMATIC SWITCHING ARRANGEMENT: DELAYED TRANSITION.
     3. NONAUTOMATIC SWITCHING ARRANGEMENT: UNDER-LOAD MANUAL ELECTRIC SWITCH OPERATION.
     4. DIGITAL COMMUNICATION INTERFACE.
     5. AUTOMATIC TRANSFER-SWITCH CONTROLLER.
     6. LARGE-MOTOR-LOAD POWER TRANSFER: IN-PHASE MONITOR.
   - C. TRANSFER SWITCH ACCESSORIES:
     1. REMOTE ANNUNCIATOR SYSTEM TO ANNUNCIATE THE FOLLOWING CONDITIONS:
        - a. SOURCES AVAILABLE.
        - b. SWITCH POSITION.
        - c. TEST MODE.
        - d. FAILURE OF COMMUNICATION LINK.
     2. REMOTE ANNUNCIATOR AND CONTROL SYSTEM TO ANNUNCIATE THE FOLLOWING CONDITIONS:
        - a. SOURCES AVAILABLE.
        - b. SWITCH POSITION.
        - c. TEST MODE.
        - d. FAILURE OF DIGITAL COMMUNICATION LINK.
        - e. KEY-SWITCH OR USER-CODE ACCESS TO CONTROL FUNCTIONS OF PANEL.
   - **D.** SOURCE QUALITY CONTROL: FACTORY TEST AND INSPECT COMPONENTS, ASSEMBLED SWITCHES, AND ASSOCIATED EQUIPMENT.

26 41 13 LIGHTNING PROTECTION FOR STRUCTURES

1. QUALITY ASSURANCE
   - A. INSTALLER: UL-LISTED INSTALLER, CATEGORY OWAY OR LPI MASTER INSTALLER.
2. PERFORMANCE REQUIREMENTS
   - A. LIGHTNING PROTECTION STANDARD: NFPA 780 FOR CLASS II BUILDINGS.
   - B. COMPONENTS: UL 96.
3. COMPONENTS
   - A. ROOF-MOUNTING AIR TERMINALS: COPPER.
   - B. GROUND RODS: SOLID COPPER.
   - C. MAIN CONDUCTORS: CLASS I.
4. INSTALLATION
   - A. CONDUCTORS TO BE CONCEALED:
     1. SYSTEM CONDUCTORS.
     2. DOWN CONDUCTORS.
     3. INTERIOR CONDUCTORS.
     4. CONDUCTORS WITHIN NORMAL VIEW OF EXTERIOR LOCATIONS AT GRADE.
   - B. GROUND LOOP.
   - C. GROUND RING.
   - D. LIGHTNING PROTECTION COMPONENTS BONDED WITH INTERMEDIATE-LEVEL INTERCONNECTION LOOP CONDUCTORS AT 60-FOOT INTERVALS.
5. FIELD QUALITY CONTROL
   - **A.** INSPECTION: UL MASTER LABEL CERTIFICATE.

SECTION 26 51 00 – LIGHTING

1. PROVIDE QUANTITY OF FIXTURES AS INDICATED ON DRAWINGS. REFER TO LIGHT FIXTURE FOR SPECIFICATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS, LENGTHS, AND EXACT LOCATIONS.
2. ALL LIGHTING FIXTURES WHICH ARE SUPPORTED BY THE CEILING GRID SHALL BE SECURED TO THE GRID AS REQUIRED BY THE LOCAL CODE AUTHORITIES.
3. LINEAR LIGHTING FIXTURES SHALL BE SERIES INDICATED IN THE LIGHTING FIXTURE SCHEDULE WITH EXACT LENGTHS PER ARCHITECTURAL DRAWINGS. REFER TO THE ARCHITECT AND MILLWORK CONTRACTOR FOR EXACT LENGTH AND MOUNTING DETAILS. PROVIDE BONDING JUMPERS BETWEEN ADJACENT UNDER COUNTER LIGHTING FIXTURE CASINGS.

SECTION 27 5 00 – COMMUNICATION SYSTEMS

1. PROVIDE A J-BOX WITH PLASTER RING FOR DEVICE SUPPORT, AND 1" SPARE CONDUIT ROUTED TO THE ACCESSIBLE CEILING AT EACH POSITION INDICATED TO HAVE A DATA AND/OR TELEPHONE OUTLET, CARD READER, MAGNETIC LOCK, DOOR RELEASE, AUDIO/VISUAL DEVICE BOX, OR TV CABLE JUNCTION BOX.
2. SYMBOLS AND DEVICES NOT SPECIFICALLY NOTED REPRESENT ARCHITECTURAL, A/V, OR SECURITY DEVICE COMPONENTS. REFER TO THE RESPECTIVE DRAWINGS FOR LOCATIONS, ADDITIONAL INFORMATION AND SPECIFICATIONS.

hatch + ulland owen architects

12/23/2019

hatch + ulland owen
architects
1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

CIVIL ENGINEER
CBD ENGINEERING & SURVEYING
5501 West William Cannon Drive
Austin, Texas 78749, US

LANDSCAPE ARCHITECT
SEC PLANNING , LLC
4201 W. Parmer Lane Bldg A, Suite 220
Austin, Texas 78727

PLUMBING, MECHANICAL, ELECTRICAL ENGINEER
Infinity MEP+s Consultants
5316 W US Hwy 290 Service Rd Suite 480
Austin, TX 78735

STRUCTURAL ENGINEER
TDI Engineering, LLC
5906 Old Fredericksburg Rd. Suite 300
Austin, TX 78749

STATE OF TEXAS
ANDREW D. HUNTER
109975
LICENSED
PROFESSIONAL ENGINEER
10/22/2024

THE COLONY - TREEHOUSE AMENITY CENTER

BASTROP, TEXAS

hatch + ulland owen architects

h+uo # A22049

CONSTRUCTION DOCUMENTATION

ISSUE REVISIONS

#	DATE	NOTES
	2024-10-22	100% CD

SHEET TITLE

ELECTRICAL SPECIFICATIONS

SHEET NUMBER

E0.03

10/22/2024 4:27:55 PM

SITE LIGHT FIXTURE SCHEDULE

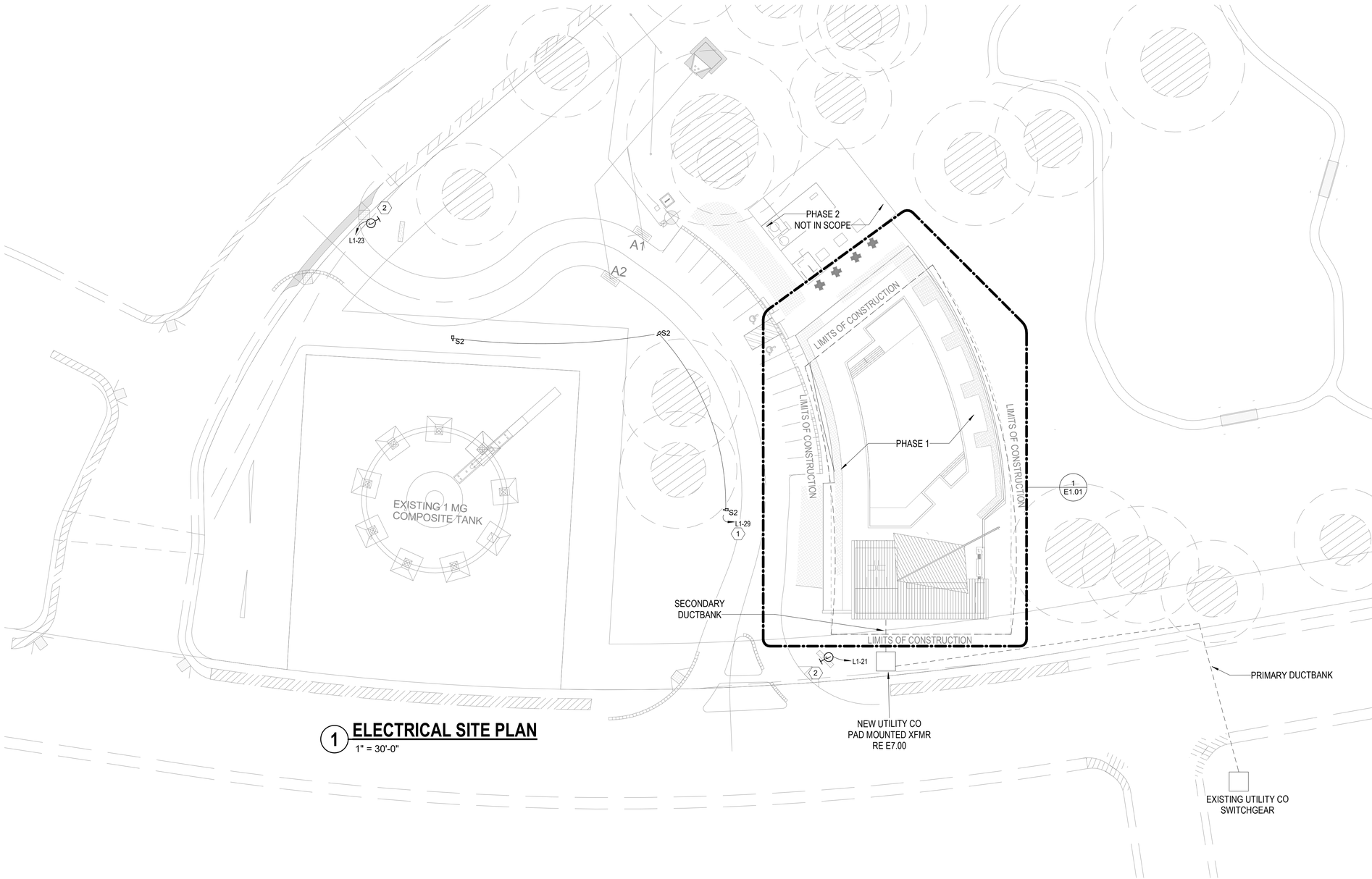
DESIGNATION	FIXTURE DESCRIPTION	MOUNTING	MANUFACTURER	MODEL NUMBER	LAMP TYPE	DIMMING TYPE	VOLTAGE
S	RECESSED WALL LIGHT	RECESSED	BEGA	B33019-K3-FINISH	LED	-	UNV
S1	FULL CUTOFF SITE FIXTURE	POLE	LITHONIA	DSX2 LED P8 30K 70CRI T4M VOLTAGE SPA FAO FINISH	LED	-	UNV
S2	FULL CUTOFF SITE FIXTURE	POLE	LITHONIA	DSX2 LED P4 30K 70CRI T4M VOLTAGE SPA FAO FINISH	LED	-	UNV

KEYNOTES

1	HOMERUN EXTERIOR LIGHT FIXTURES VIA NEW PHOTOCELL ON ROOF AND RELAY PANEL 'L1'. PHOTOCELL ON/ TIME CLOCK OFF. COORDINATE EXACT SCHEDULE WITH BUILDING OWNER.
2	OWNER PROVIDED MONUMENT SIGN. COORDINATE IN FIELD.

LIGHTING GENERAL NOTES

A	REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF FIXTURES.
B	FIXTURES WITH BATTERY PACK SHALL HAVE NORMAL BALLAST CONNECTED TO LIGHT SWITCH, AND BATTERY BALLAST CONNECTED TO UN-SWITCHED POWER. BATTERY BALLAST IS SWITCHED AT PANEL ONLY. REFER TO MANUFACTURER WIRING DIAGRAM FOR INSTALLATION WITH FIXTURE NORMAL BALLAST.
C	GANG ALL LIGHT SWITCHES TOGETHER WHERE POSSIBLE.
D	CONTRACTOR TO PROVIDE TESTING AND COMMISSIONING OF THE LIGHTING CONTROL SYSTEMS IN SCOPE IN ACCORDANCE WITH JURISDICTION ADOPTED IECC SECTION C408. CONTRACTOR SHALL INCLUDE IN BID THE SERVICES OF A REGISTERED DESIGN PROFESSIONAL TO PRODUCE A COMMISSIONING PLAN TO CONFIRM TESTING AND CALIBRATION HAVE BEEN PERFORMED IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS. COPIES OF ALL DOCUMENTATION SHALL BE GIVEN TO THE OWNER OR OWNER'S AUTHORIZED AGENT WITHIN 90 DAYS OF RECEIPT OF CERTIFICATE OR OCCUPANCY AND MADE AVAILABLE TO CODE OFFICIAL UPON REQUEST IN ACCORDANCE WITH SECTIONS C408.3.1.1 AND C408.3.1.2.



1 ELECTRICAL SITE PLAN
1" = 30'-0"

hatch + ulland owen architects

1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

CIVIL ENGINEER
CBD ENGINEERING & SURVEYING
5501 West William Cannon Drive
Austin, Texas 78749, US

LANDSCAPE ARCHITECT
SEC PLANNING , LLC
4201 W. Parmer Lane Bldg A, Suite 220
Austin, Texas 78727

PLUMBING, MECHANICAL, ELECTRICAL ENGINEER
Infinity MEP+s Consultants
5316 W US Hwy 290 Service Rd Suite 480
Austin, TX 78735

STRUCTURAL ENGINEER
TDI Engineering, LLC
5906 Old Fredericksburg Rd. Suite 300
Austin, TX 78749

12/23/2019

THE COLONY - TREEHOUSE AMENITY CENTER

STATE OF TEXAS
ANDREW D. HUNTER
109975
LICENSED
PROFESSIONAL ENGINEER
10/22/2024

THE COLONY - TREEHOUSE AMENITY CENTER

BASTROP, TEXAS

hatch + ulland owen architects

h+uo # A22049

CONSTRUCTION DOCUMENTATION

ISSUE REVISIONS

#	DATE	NOTES
	2024-10-22	100% CD

SHEET TITLE

ELECTRICAL SITE PLAN

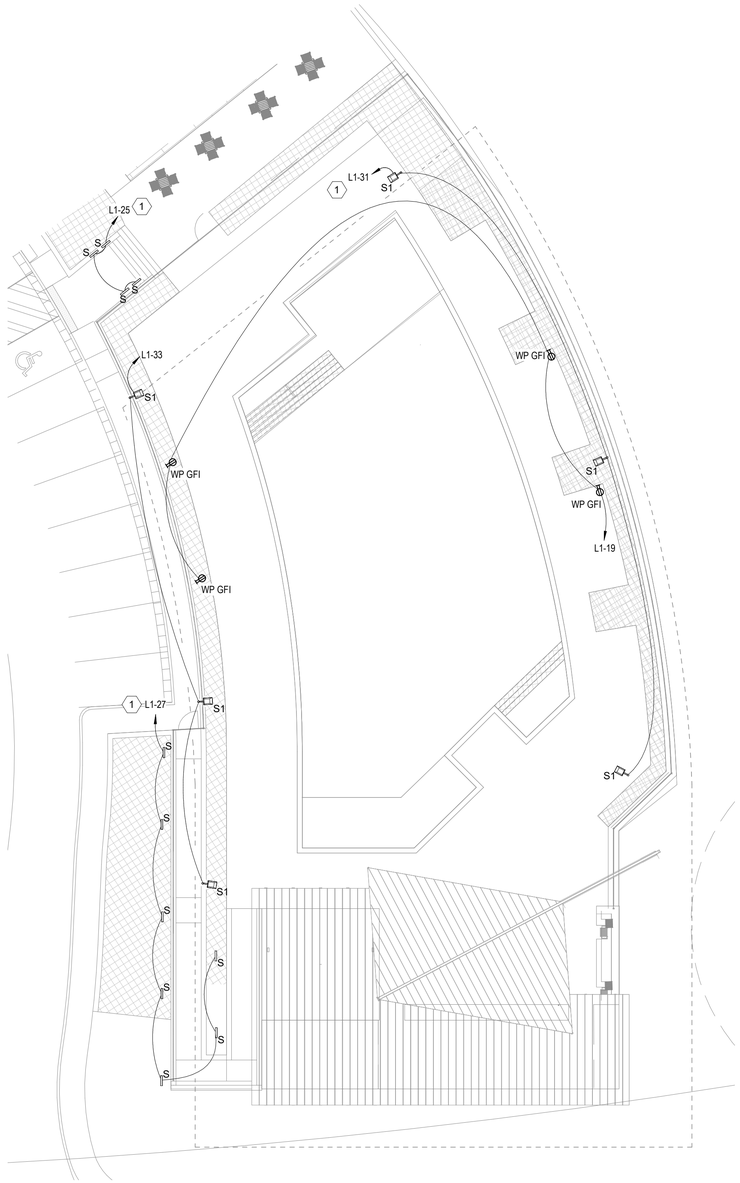
SHEET NUMBER

E1.00

10/22/2024 4:27:56 PM

LIGHT FIXTURE SCHEDULE ENLARGED SITE PLAN

DESIGNATION	FIXTURE DESCRIPTION	MOUNTING	MANUFACTURER	MODEL NUMBER	LAMP TYPE	DIMMING TYPE	VOLTAGE
S	RECESSED WALL LIGHT	RECESSED	BEGA	B33019-K3-FINISH	LED	-	UNV
S1	FULL CUTOFF SITE FIXTURE	POLE	LITHONIA	DSX2 LED P8 30K 70CRI T4M VOLTAGE SPA FAO FINISH	LED	-	UNV
S2	FULL CUTOFF SITE FIXTURE	POLE	LITHONIA	DSX2 LED P4 30K 70CRI T4M VOLTAGE SPA FAO FINISH	LED	-	UNV



1 ENLARGED ELECTRICAL SITE PLAN

1 : 180

KEYNOTES

1	HOMERUN EXTERIOR LIGHT FIXTURES VIA NEW PHOTOCELL ON ROOF AND RELAY PANEL 'L1'. PHOTOCELL ON/ TIME CLOCK OFF. COORDINATE EXACT SCHEDULE WITH BUILDING OWNER.

LIGHTING GENERAL NOTES

A	REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF FIXTURES.
B	FIXTURES WITH BATTERY PACK SHALL HAVE NORMAL BALLAST CONNECTED TO LIGHT SWITCH, AND BATTERY BALLAST CONNECTED TO UN-SWITCHED POWER. BATTERY BALLAST IS SWITCHED AT PANEL ONLY. REFER TO MANUFACTURER WIRING DIAGRAM FOR INSTALLATION WITH FIXTURE NORMAL BALLAST.
C	GANG ALL LIGHT SWITCHES TOGETHER WHERE POSSIBLE.
D	CONTRACTOR TO PROVIDE TESTING AND COMMISSIONING OF THE LIGHTING CONTROL SYSTEMS IN SCOPE IN ACCORDANCE WITH JURISDICTION ADOPTED IECC SECTION C408. CONTRACTOR SHALL INCLUDE IN BID THE SERVICES OF A REGISTERED DESIGN PROFESSIONAL TO PRODUCE A COMMISSIONING PLAN TO CONFIRM TESTING AND CALIBRATION HAVE BEEN PERFORMED IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS. COPIES OF ALL DOCUMENTATION SHALL BE GIVEN TO THE OWNER OR OWNER'S AUTHORIZED AGENT WITHIN 90 DAYS OF RECEIPT OF CERTIFICATE OR OCCUPANCY AND MADE AVAILABLE TO CODE OFFICIAL UPON REQUEST IN ACCORDANCE WITH SECTIONS C408.3.1.1 AND C408.3.1.2.

12/23/2019

hatch + ulland owen architects

1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

CIVIL ENGINEER
CBD ENGINEERING & SURVEYING
5501 West William Cannon Drive
Austin, Texas 78749, US

LANDSCAPE ARCHITECT
SEC PLANNING , LLC
4201 W. Parmer Lane Bldg A, Suite 220
Austin, Texas 78727

PLUMBING, MECHANICAL, ELECTRICAL ENGINEER
Infinity MEP+s Consultants
5316 W US Hwy 290 Service Rd Suite 480
Austin, TX 78735

STRUCTURAL ENGINEER
TDI Engineering, LLC
5906 Old Fredericksburg Rd. Suite 300
Austin, TX 78749

STATE OF TEXAS
ANDREW D. HUNTER
109975
LICENSED
PROFESSIONAL ENGINEER
10/22/2024

THE COLONY - TREEHOUSE AMENITY CENTER

BASTROP, TEXAS

hatch + ulland owen architects

h+uo # A22049

CONSTRUCTION DOCUMENTATION

ISSUE REVISIONS

#	DATE	NOTES
	2024-10-22	100% CD

SHEET TITLE

ENLARGED ELECTRICAL SITE PLAN

SHEET NUMBER

E1.01

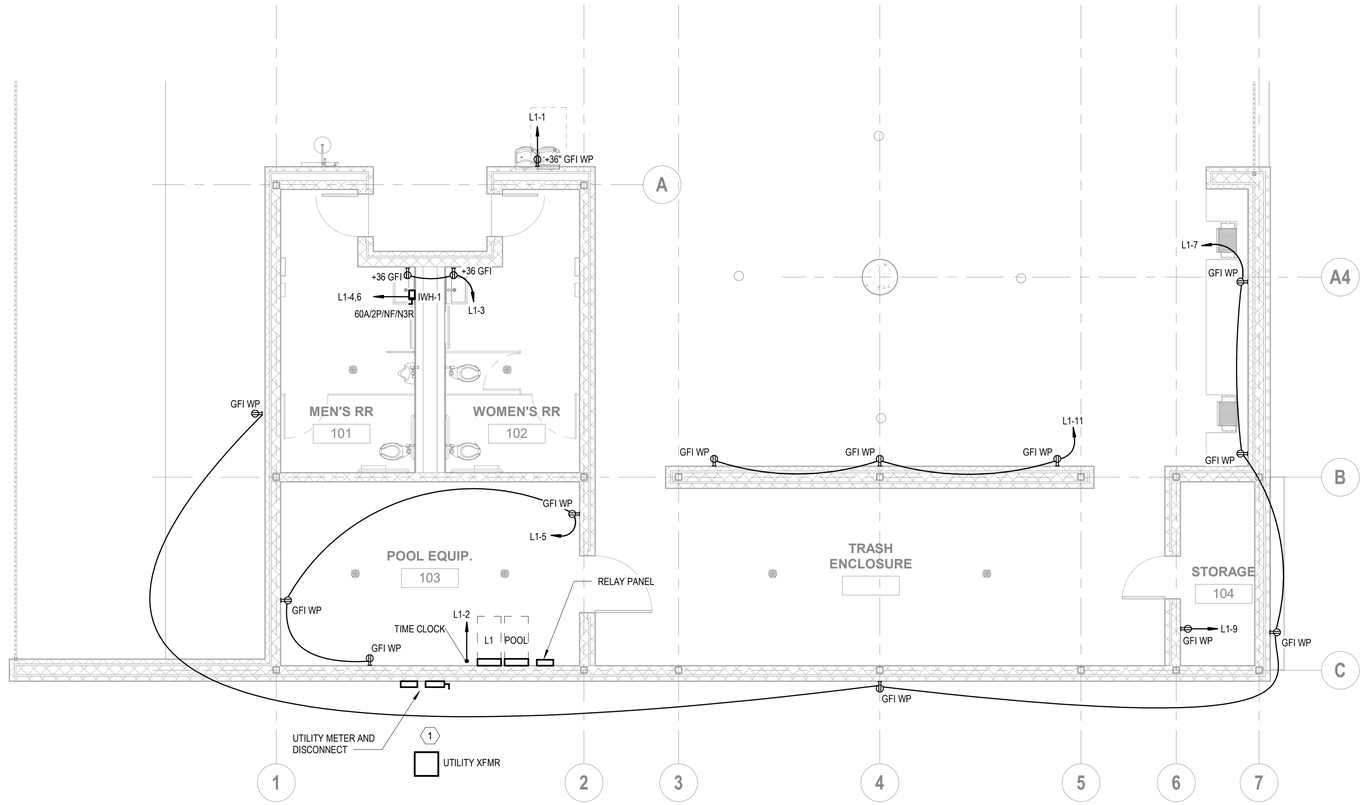
10/22/2024 4:27:56 PM

GENERAL NOTES

A	REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF ALL DEVICES. REFER TO IT REPRESENTATIVE FOR EXACT LOCATION OF IT DEVICES. REFER TO AV DRAWINGS FOR A DETAILED LAYOUT OF CONDUIT AND CABLE FOR AV DEVICES.
B	ALL 125-VOLT THROUGH 250-VOLT RECEPTACLES SUPPLIED BY SINGLE-PHASE BRANCH CIRCUITS RATED 150 VOLTS OR LESS TO GROUND, 50 AMPERES OR LESS, AND ALL RECEPTACLES SUPPLIED BY THREE-PHASE BRANCH CIRCUITS RATED 150 VOLTS OR LESS TO GROUND, 100 AMPERES OR LESS, INSTALLED IN THE LOCATIONS SPECIFIED IN 210.8(B) (1) THROUGH (B) (12) SHALL HAVE GROUND FAULT CIRCUIT-INTERRUPTER PROTECTION FOR PERSONNEL. 210.8(B)(2) KITCHENS OR AREAS WITH A SINK AND PROVISIONS FOR EITHER FOOD PREPARATION OR COOKING.

KEYNOTES

1	REFER TO E7.00 REFER TO ONE LINE DIAGRAM



1 POWER PLAN

3/16" = 1'-0"

hatch + ulland owen architects

1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

CIVIL ENGINEER
CBD ENGINEERING & SURVEYING
5501 West William Cannon Drive
Austin, Texas 78749, US

LANDSCAPE ARCHITECT
SEC PLANNING , LLC
4201 W. Parmer Lane Bldg A, Suite 220
Austin, Texas 78727

PLUMBING, MECHANICAL, ELECTRICAL ENGINEER
Infinity MEP+s Consultants
5316 W US Hwy 290 Service Rd Suite 480
Austin, TX 78735

STRUCTURAL ENGINEER
TDI Engineering, LLC
5906 Old Fredericksburg Rd. Suite 300
Austin, TX 78749

12/23/2019

THE COLONY - TREEHOUSE AMENITY CENTER

STATE OF TEXAS
ANDREW D. HUNTER
109975
LICENSED
PROFESSIONAL ENGINEER
10/22/2024

THE COLONY - TREEHOUSE AMENITY CENTER

BASTROP, TEXAS

hatch + ulland owen architects

h+uo # A22049

CONSTRUCTION DOCUMENTATION

ISSUE REVISIONS

#	DATE	NOTES
	2024-10-22	100% CD

SHEET TITLE

POWER PLAN

SHEET NUMBER

E2.01

10/22/2024 4:27:57 PM

POOL PAVILLION LIGHT FIXTURE SCHEDULE

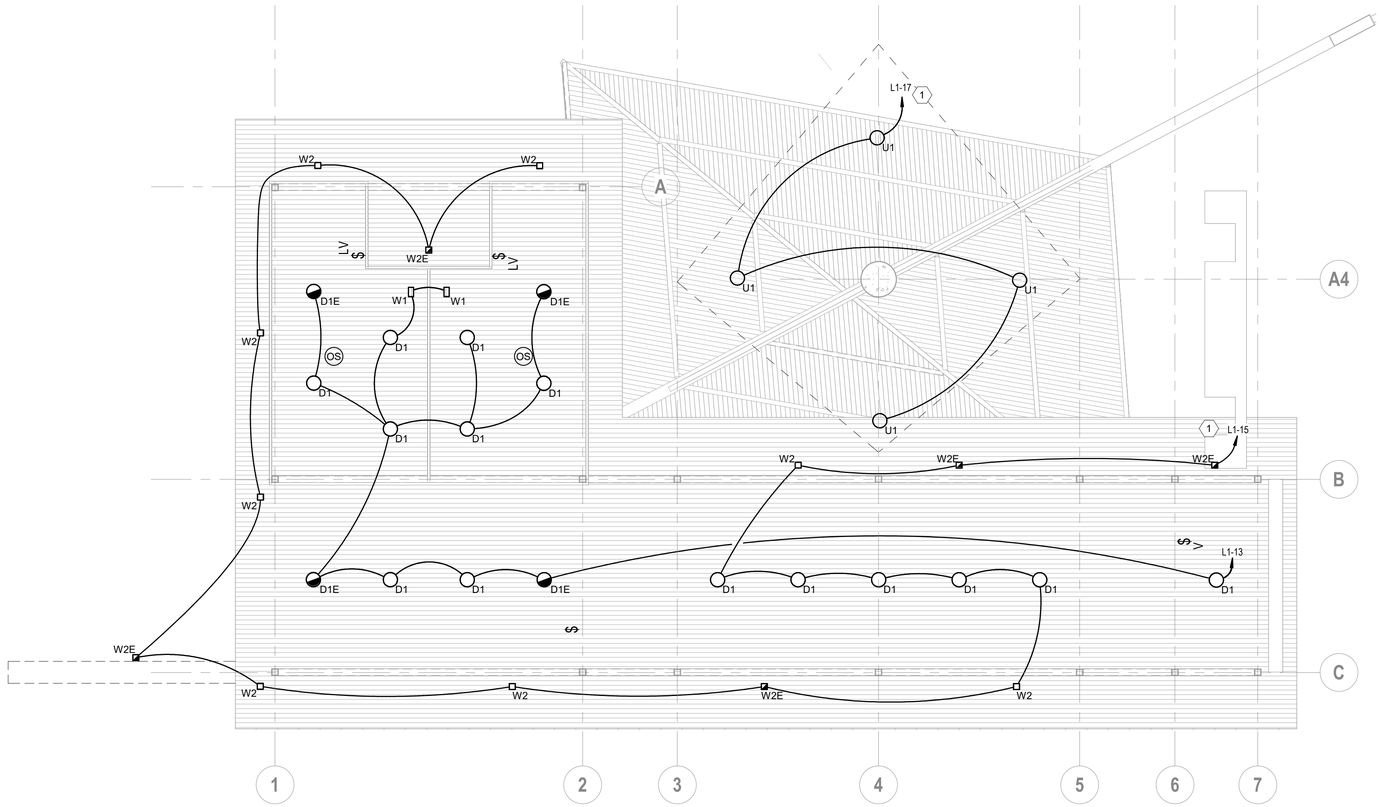
DESIGNATION	FIXTURE DESCRIPTION	MOUNTING	MANUFACTURER	MODEL NUMBER	LAMP TYPE	DIMMING TYPE	VOLTAGE
D1	CEILING AND WALL LUMINAIRE - OPAL GLASS	RECESSED	BEGA	B24043-3500K	LED	-	UNV
D1E	CEILING AND WALL LUMINAIRE - OPAL GLASS W/ MICRO INVERTER	RECESSED	BEGA	B24043-3500K	LED	-	UNV
U1	IN-GRADE LUMINAIRE - SYMMETRIC	RECESSED	BEGA	B77007	LED	-	UNV
W1	WALL ILUMINAIRES	WALL	BEGA	6411	LED	-	UNV
W2	WALL ILUMINAIRES SYMMETRIC	WALL	BEGA	B33816	LED	-	UNV
W2E	WALL ILUMINAIRES SYMMETRIC W/ MICRO INVERTER	WALL	BEGA	B33816-3500K	LED	-	UNV

KEYNOTES

1	HOMERUN EXTERIOR LIGHT FIXTURES VIA NEW PHOTOCELL ON ROOF AND RELAY PANEL 'L1'. PHOTOCELL ON/ TIME CLOCK OFF. COORDINATE EXACT SCHEDULE WITH BUILDING OWNER.

LIGHTING GENERAL NOTES

A	REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF FIXTURES.
B	FIXTURES WITH BATTERY PACK SHALL HAVE NORMAL BALLAST CONNECTED TO LIGHT SWITCH, AND BATTERY BALLAST CONNECTED TO UN-SWITCHED POWER. BATTERY BALLAST IS SWITCHED AT PANEL ONLY. REFER TO MANUFACTURER WIRING DIAGRAM FOR INSTALLATION WITH FIXTURE NORMAL BALLAST.
C	GANG ALL LIGHT SWITCHES TOGETHER WHERE POSSIBLE.
D	CONTRACTOR TO PROVIDE TESTING AND COMMISSIONING OF THE LIGHTING CONTROL SYSTEMS IN SCOPE IN ACCORDANCE WITH JURISDICTION ADOPTED IECC SECTION C408. CONTRACTOR SHALL INCLUDE IN BID THE SERVICES OF A REGISTERED DESIGN PROFESSIONAL TO PRODUCE A COMMISSIONING PLAN TO CONFIRM TESTING AND CALIBRATION HAVE BEEN PERFORMED IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS. COPIES OF ALL DOCUMENTATION SHALL BE GIVEN TO THE OWNER OR OWNER'S AUTHORIZED AGENT WITHIN 90 DAYS OF RECEIPT OF CERTIFICATE OR OCCUPANCY AND MADE AVAILABLE TO CODE OFFICIAL UPON REQUEST IN ACCORDANCE WITH SECTIONS C408.3.1.1 AND C408.3.1.2.



1 LIGHTING FLOOR PLAN

3/16" = 1'-0"

hatch + ulland owen architects

1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

CIVIL ENGINEER
CBD ENGINEERING & SURVEYING
5501 West William Cannon Drive
Austin, Texas 78749, US

LANDSCAPE ARCHITECT
SEC PLANNING , LLC
4201 W. Parmer Lane Bldg A, Suite 220
Austin, Texas 78727

PLUMBING, MECHANICAL, ELECTRICAL ENGINEER
Infinity MEP+s Consultants
5316 W US Hwy 290 Service Rd Suite 480
Austin, TX 78735

STRUCTURAL ENGINEER
TDI Engineering, LLC
5906 Old Fredericksburg Rd. Suite 300
Austin, TX 78749

STATE OF TEXAS
ANDREW D. HUNTER
109975
LICENSED
PROFESSIONAL ENGINEER
10/22/2024

THE COLONY - TREEHOUSE AMENITY CENTER

12/23/2019

hatch + ulland owen architects

1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

THE COLONY - TREEHOUSE AMENITY CENTER

BASTROP, TEXAS

hatch + ulland owen architects

h+uo # A22049

CONSTRUCTION DOCUMENTATION

ISSUE REVISIONS

#	DATE	NOTES
	2024-10-22	100% CD

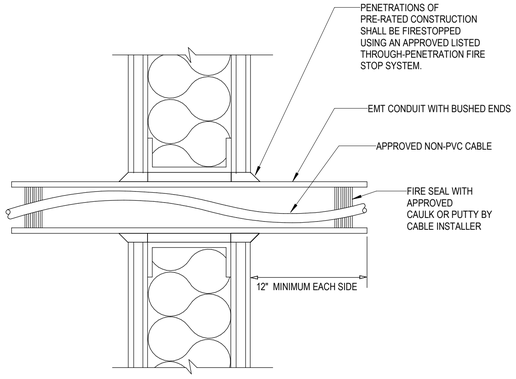
SHEET TITLE

LIGHTING PLAN

SHEET NUMBER

E3.01

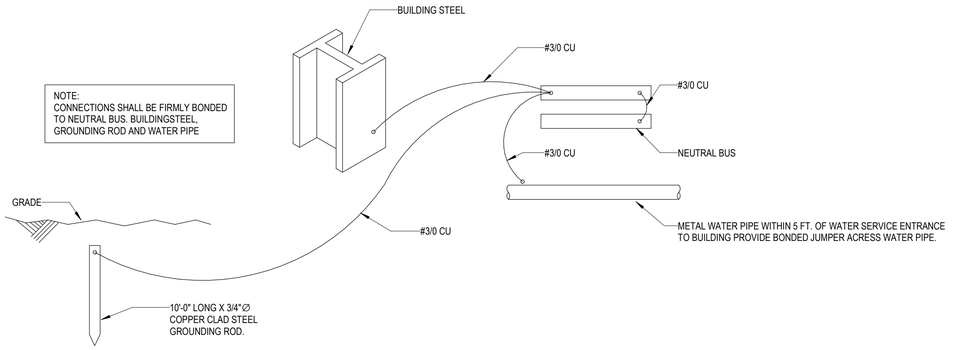
10/22/2024 4:27:57 PM



NOTE:
TYPICAL FOR ALL LOW VOLTAGE WIRING

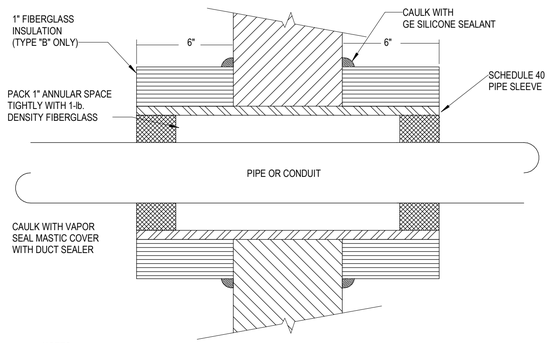
3 CONDUIT PENETRATION OF RATED PARTITION / WITH CABLE

NOT TO SCALE



5 GROUNDING SYSTEM DETAIL

NOT TO SCALE

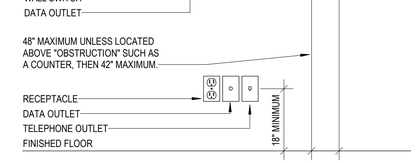


NOTES:

1. TYPICAL TREATMENT FOR CONDUIT AND H.V.A.C. PIPING FOR NON-FIRE-RATED WALLS.
2. SIZE SLEEVE TO ACCEPT CONDUIT.
3. FOR FIRE WALLS PROVIDE U.L. APPROVED SEAL ASSEMBLY FOR OPENING SIZE AND WALL TYPE.

4 CONDUIT SEALANT THRU WALLS

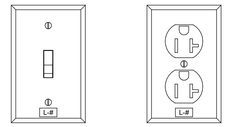
NOT TO SCALE



NOTE:
ALL DEVICES SHOWN MAY NOT BE USED. DETAIL INDICATES
TYPICAL MOUNTING HEIGHTS ONLY.

2 MOUNTING HEIGHT DETAIL

NOT TO SCALE



LIGHT SWITCH RECEPTACLE

L-# CIRCUIT LABEL
L = PANEL DESIGNATION
# = CIRCUIT DESIGNATION

1 DEVICE PLATES - CIRCUIT LABEL

NOT TO SCALE

hatch + ulland owen
architects

1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

CIVIL ENGINEER
CBD ENGINEERING & SURVEYING
5501 West William Cannon Drive
Austin, Texas 78749, US

LANDSCAPE ARCHITECT
SEC PLANNING , LLC
4201 W. Parmer Lane Bldg A, Suite 220
Austin, Texas 78727

PLUMBING, MECHANICAL, ELECTRICAL ENGINEER
Infinity MEP+s Consultants
5316 W US Hwy 290 Service Rd Suite 480
Austin, TX 78735

STRUCTURAL ENGINEER
TDI Engineering, LLC
5906 Old Fredericksburg Rd. Suite 300
Austin, TX 78749

THE COLONY - TREEHOUSE AMENITY CENTER

BASTROP, TEXAS

hatch + ulland owen architects

h+uo # A22049

CONSTRUCTION DOCUMENTATION

12/23/2019

ISSUE REVISIONS

#	DATE	NOTES
	2024-10-22	100% CD

SHEET TITLE

ELECTRICAL DETAILS

SHEET NUMBER

E6.01

10/22/2024 4:27:57 PM

NEW

L1

PANELBOARD

FULL SIZE NEUTRAL, W/ COPPER GROUND BUS
1 NEMA ENCLOSURE
FEED THRU LUGS
SURFACE MOUNTING

400 AMP MLO
240 VOLT P-P
120 VOLT P-N
1 PHASE
3 WIRE
10000 A/C SYMMETRICAL
400 AMP BUS RATING

C PH (AMP)	B PH (AMP)	A PH (AMP)	LOAD (VA)	TYPE	DESCRIPTION	CKT BKR AMP	/P	NO		NO	CKT BKR AMP	/P	DESCRIPTION	TYPE	LOAD (VA)	A PH (AMP)	B PH (AMP)	C PH (AMP)
		1.5	180	RP	WATER FOUNTAIN	20	/1	1	A	2	20	/1	TIME CLOCK	RP	180	1.5		
3.0			360	RP	RR RECPT	20	/1	3	C	4	70	/2	IWH-1	MN	11800			49.2
		4.5	540	RP	POOL EQUIP RECPT	20	/1	5	A	6				MN		49.2		
7.5			900	RP	POOL PAV OUTDOOR RECPT	20	/1	7	C	8	20	/1	SPARE					
		1.5	180	RP	POOL PAV STORAGE RECPT	20	/1	9	A	10	20	/1	SPARE					
4.5			540	RP	POOL PAV OUTDOOR RECPT	20	/1	11	C	12	20	/1	SPARE					
		3.1	375	LT	POOL PAV RR LIGHTING	20	/1	13	A	14	20	/1	SPARE					
3.8			450	LT	POOL PAV OUTDOOR LIGHTING	20	/1	15	C	16	20	/1	SPARE					
		0.8	100	LT	POOL PAVI OUTDOOR LIGHTING	20	/1	17	A	18	20	/1	SPARE					
6.0			720	RP	POOL RECEPTACLES	20	/1	19	C	20	20	/1	SPARE					
		4.2	500	MN	MONUMENT SIGN	20	/1	21	A	22	20	/1	SPARE					
4.2			500	MN	MONUMENT SIGN	20	/1	23	C	24	20	/1	SPARE					
		0.8	100	LT	EXTERIOR STEP LIGHTING	20	/1	25	A	26	20	/1	SPARE					
1.5			175	LT	EXTERIOR RAMP LIGHITNG	20	/1	27	C	28	20	/1	SPARE					
		2.4	282	OL	EXTERIOR SITE LIGHTING	20	/1	29	A	30	20	/1	SPARE					
3.2			387	OL	POOL SITE LIGHTING	20	/1	31	C	32	20	/1	SPARE					
		3.2	387	OL	POOL SITE LIGHTING	20	/1	33	A	34	20	/1	SPARE					
					SPARE	20	/1	35	C	36	100	/2	Sub-feed POOL	SF	6250			52.1
					SPARE	20	/1	37	A	38				SF				
					SPARE	20	/1	39	C	40	225	/2	Sub-feed PHASE2	SF				
					SPARE	20	/1	41	A	42				SF				

CONNECTED LOADS

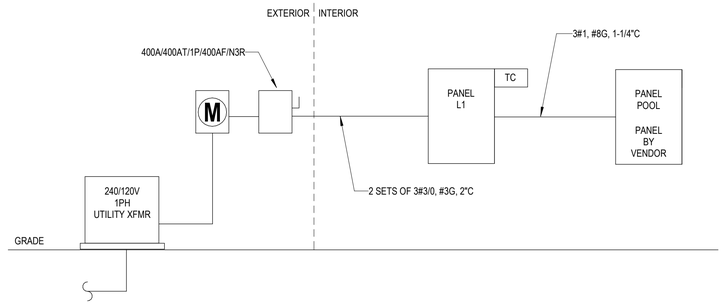
C PH (AMP)	B PH (AMP)	A PH (AMP)	LOAD (VA)	TYPE	DESCRIPTION
				H	ELECTRIC HEAT
				C	A/C REFRIGERATION
		41.7	5000	MM	MISC. MOTORS
3.2		5.6	1056	OL	OUTDOOR LIGHTING
5.2		4.8	1200	LT	INDOOR LIGHTING
21.0		9.0	3600	RP	RECEPTACLES
				EX	EXISTING DEMAND
				MC	MISC. CONTINUOUS
53.3		53.3	12800	MN	MISC. NON-CONTINUOUS
				KT	KITCHEN EQUIPMENT
82.8		114.4	23656		*** TOTAL ***
		41.7	5000		LARGEST MOTOR

NEC DEMAND LOADS

DEMAND FACTOR	TYPE	DESCRIPTION	LOAD (VA)	N (AMP)	A PH (AMP)	B PH (AMP)	C PH (AMP)
0.00	H	ELECTRIC HEAT					
1.00	C	A/C REFRIGERATION					
1.00	MM	MISC. MOTORS	5000		41.7		
1.25	OL	OUTDOOR LIGHTING	1320		7.0		4.0
1.25	LT	INDOOR LIGHTING	1500		6.0		6.5
NEC 220.44	RP	RECEPTACLES	3600		9.0		21.0
1.25	EX	EXISTING DEMAND					
1.25	MC	MISC. CONTINUOUS					
1.00	MN	MISC. NON-CONTINUOUS	12800		53.3		53.3
0.65	KT	KITCHEN EQUIPMENT					
		FEED-THRU		INCLUDED IN TYPES			
0.25		LARGEST MOTOR	1250		10.4		
		*** TOTAL ***	25470	112	127.4		84.9

GENERAL NOTES

A	ALL NEW WIRES SHALL HAVE THHN/THWN INSULATION.



1 ELECTRICAL ONE-LINE DIAGRAM

NOT TO SCALE

h+uo
hatch + ulland owen architects

12/23/2019

hatch + ulland owen architects
1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

CIVIL ENGINEER
CBD ENGINEERING & SURVEYING
5501 West William Cannon Drive
Austin, Texas 78749, US

LANDSCAPE ARCHITECT
SEC PLANNING , LLC
4201 W. Parmer Lane Bldg A, Suite 220
Austin, Texas 78727

PLUMBING, MECHANICAL, ELECTRICAL ENGINEER
Infinity MEP+s Consultants
5316 W US Hwy 290 Service Rd Suite 480
Austin, TX 78735

STRUCTURAL ENGINEER
TDI Engineering, LLC
5906 Old Fredericksburg Rd. Suite 300
Austin, TX 78749

THE COLONY - TREEHOUSE AMENITY CENTER

STATE OF TEXAS
ANDREW D. HUNTER
109975
LICENSED
PROFESSIONAL ENGINEER
10/22/2024

THE COLONY - TREEHOUSE AMENITY CENTER

BASTROP, TEXAS

hatch + ulland owen architects

h+uo # A22049

CONSTRUCTION DOCUMENTATION

ISSUE REVISIONS

#	DATE	NOTES
	2024-10-22	100% CD

SHEET TITLE

PANEL SCHEDULES & RISER

SHEET NUMBER

E7.00

10/22/2024 4:27:57 PM

PLUMBING ABBREVIATIONS

(E)	EXISTING
(N)	NEW
AFF	ABOVE FINISHED FLOOR
AP	ACCESS PANEL
BFF	BELOW FINISHED FLOOR
C	CONDENSATE DRAIN
CO	CLEANOUT
CW	DOMESTIC COLD WATER
DF	DRINKING FOUNTAIN
DN	DOWN
DR	DRAIN
ELEV	ELEVATION
ET	EXPANSION TANK
EW	EYE WASH
EWH	ELECTRIC WATER HEATER
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FP	FIRE PUMP
FS	FLOOR SINK
HB	HOSE BIBB
HW	HOT WATER
HWR	HOT WATER RETURN
IE	INVERT ELEVATION
IW	INDIRECT WASTE
JP	JOCKEY PUMP
L	LAVATORY
MSB	MOP SINK BASIN
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
OFD	OVERFLOW DRAIN
OS&Y	OUTSIDE SCREW & YOKE GATE VALVE
POC	POINT OF CONNECTION
PRV	PRESSURE REDUCING VALVE
RD	ROOF DRAIN
S	SINK
SAN	SANITARY WASTE
SH	SHOWER
SOI	SAND-OIL INTERCEPTOR
SP	SUMP PUMP
ST	STORM PIPING
TD	TRENCH DRAIN
TMV	TEMPERATURE MIXING VALVE
TP	TRAP PRIMER
UR	URINAL
V	VENT
VTR	VENT THROUGH ROOF
WC	WATER CLOSET
WCO	WALL CLEANOUT
WH	WALL HYDRANT
WHA	WATER HAMMER ARRESTOR

PLUMBING LEGEND

A	COMPRESSED AIR PIPING
C	CONDENSATE DRAIN PIPING
	DOMESTIC COLD WATER PIPING
	DOMESTIC HOT WATER PIPING
	DOMESTIC HOT WATER RETURN PIPING
G	NATURAL GAS PIPING
OST	OVERFLOW STORM PIPING
SAN	SANITARY (ABOVE FLOOR)
	SANITARY (BELOW FLOOR)
SP	SPRINKLER PIPING
	STORM DRAIN PIPING
	VENT PIPING
	PIPING TO BE DEMOLISHED
	CLEANOUT/PLUG
	PIPE DOWN
	PIPE UP
	PIPE CAP
	CHANGE IN PIPE ELEVATION
	INSULATED AND HEAT TRACED PIPING
	ACCESS PANEL FOR TRAP PRIMER
DCVA	DOUBLE CHECK VALVE ASSEMBLY
RPBP	REDUCED PRESSURE BACKFLOW PREVENTER ASSEMBLY
	BOTTOM PIPE CONNECTION
	CLEANOUT (TWO-WAY) (PROVIDE CONCRETE PAD OUTSIDE 18" X 24" X 4")
	FLOOR CLEANOUT/GRADE CLEANOUT
	P-TRAP
	TOP PIPE CONNECTION
	VALVE IN VERTICAL
	WALL HYDRANT

	ANGLE RELIEF VALVE
	AUTOMATIC AIR VENT
	AUTOMATIC CONTROL VALVE
	AUTOMATIC CONTROL VALVE (3-WAY)
	BUTTERFLY VALVE MANUAL
	BALL VALVE
	CALIBRATED BALANCING VALVE
	CHECK VALVE
	CHECK VALVE WITH A.B.D.
	FLEXIBLE CONNECTION
	GAS COCK VALVE
	GLOBE VALVE
	OS&Y (OUTSIDE SCREW & YOKE) VALVE
	PRESSURE REDUCING VALVE
	PRESSURE GAUGE AND COCK
	RELIEF SAFETY VALVE
	SOLENOID VALVE
	THERMOMETER
	TEMPERATURE MIXING VALVE
	WATER HAMMER ARRESTOR
	VACUUM BREAKER
	VALVE WITH TAMPER SWITCH
	Y-STRAINER WITH BLOW OFF VALVE
	HOSE BIBB
M	METER
	PUMP
	FLOW METER
	VENTURI METER
	POINT OF CONNECTION (NEW TO EXISTING)
EWH - 1-1	EQUIPMENT DESIGNATION

AUTOMATIC SPRINKLER NOTES

1	COMPLY WITH ALL NFPA CHAPTERS. EXACT NUMBERS OF HEADS REQUIRED SHALL BE AS DETERMINED BY THE CONTRACTOR. HOWEVER, SPECIFIC GUIDELINES AS REQUIRED BY OWNER, AND AS SPECIFIED PER SECTION IN THE SPECIFICATIONS SHALL BE MET.
2	CONTRACTOR SHALL REWORK EXISTING SPRINKLER HEADS AND PIPING IN REMODLED AREA. SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH NFPA 13 AND LOCAL CODES AND REQUIREMENTS. CONTRACTOR SHALL MATCH EXISTING PIPING MATERIALS AND SPRINKLER HEADS.
3	EXISTING FIRE PROTECTION SYSTEMS SHALL REMAIN OPERATIONAL THROUGHOUT DURATION OF THE PROJECT.
4	DESIGN OF THE SPRINKLER SYSTEM SHALL BE UNDER THE DIRECT SUPERVISION OF A FIRE PROTECTION ENGINEER LICENSED IN THE STATE OF TEXAS. ALL DESIGN SUBMITTAL DOCUMENTS SHALL BEAR THE ENGINEER'S SIGNED AND DATED REGISTRATION NUMBER.
5	THE SYSTEM SHALL BE INSTALLED BY A FIRM HAVING A MINIMUM OF 5 YEARS EXPERIENCE REGULARLY ENGAGED IN THE DESIGN AND INSTALLATION OF AUTOMATIC FIRE PROTECTION SYSTEMS IN ACCORDANCE WITH REQUIREMENTS OF NFPA AND THE STATE OF TEXAS FIRE MARSHALL'S OFFICE. EVIDENCE TO SUPPORT THE ABOVE REQUIREMENTS SHALL BE SUBMITTED WITH SHOP DRAWINGS TO THE AHJ.
6	ALL REVISIONS TO THE STANDPIPE SYSTEM SHALL COMPLY WITH LOCAL AHJ, LATEST EDITION OF NFPA 14 AND OWNER'S INSURING GUIDELINES.
7	FURNISH, INSTALL, AND COMPLETE A 100% HYDRAULICALLY CALCULATED, AUTOMATIC WET PIPE SPRINKLER SYSTEM SERVING THE ENTIRE SPACE. THE SYSTEM SHALL BE INSTALLED TO MEET OWNERS INSURING GUIDELINES, LATEST ADOPTED EDITION OF NFPA 13, AND STATE AND LOCAL CODE REQUIREMENTS.
8	FIRE PROTECTION CONTRACTOR SHALL MODIFY ALL EXISTING FIRE PROTECTION AND SPRINKLER PIPES AS REQUIRED TO MEET THE MAINTENANCE AND REMOVAL CLEARANCES OF ALL EXISTING MECHANICAL, ELECTRICAL AND PLUMBING EQUIPMENT.

PLUMBING GENERAL NOTES

1	ALL SYSTEMS WILL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND STATE CODES AND NATIONAL STANDARDS.
2	NO PVC PIPING SHALL BE INSTALLED IN A RETURN AIR PLENUM.
3	CONTRACTOR SHALL PROVIDE A FULLY FUNCTIONAL, CODE COMPLIANT SYSTEM.
4	CONTRACTOR SHALL TEST ALL SYSTEMS FOR FUNCTIONALITY BOTH BEFORE WORK IS STARTED AND ALSO AFTER CONTRACTED WORK IS FINISHED. REPORT ANY ISSUES TO THE ENGINEER AND TO THE BUILDING MANAGER.
5	CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS TO FAMILIARIZE THEMSELVES WITH THE PROJECT BEFORE BIDDING. ALL ISSUES SHALL BE TAKEN INTO ACCOUNT WITH THEIR BID. CONTRACTOR AGREES TO ACCEPT ALL EXISTING CONDITIONS AS PART OF THEIR BID.
6	INFORMATION ON THE DRAWINGS IS DIAGRAMMATIC IN NATURE. NOT ALL OFFSETS ARE SHOWN FOR CLARITY PURPOSES. CONTRACTOR TO PROVIDE ALL OFFSETS AND FITTINGS TO MAKE A FULLY FUNCTIONAL SYSTEM.
7	EXISTING SYSTEMS MAY NOT MATCH WHAT IS SHOWN ON THE DRAWINGS. CONTRACTOR TO ADJUST CONSTRUCTION AS REQUIRED TO COMPLETE WORK.
8	CONTRACTOR SHALL PROTECT ALL EXISTING BUILDING STRUCTURES, FLOORING, PIPING, FIXTURES, ETC. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE THEY CAUSE TO THE SITE, PLUMBING FIXTURES OR PIPING, ETC.
9	ALL REMOVED FIXTURES OR EQUIPMENT SHALL BE RETURNED TO OWNER'S STOCK OR DISPOSED OF PER OWNER'S DISCRETION.
10	COORDINATE ALL WORK WITH BUILDING OWNER'S OPERATING SCHEDULE.
11	ALL SYSTEMS SHALL REMAIN OPERATIONAL DURING CONSTRUCTION AS REQUIRED BY BUILDING OWNER.
12	WHERE EXISTING WALLS ARE DEMOLISHED, REMOVE ALL PIPING ENCLOSED IN WALLS AND CAP BACK AT RISER OR AS APPROPRIATE FOR OTHER CONNECTIONS.
13	EXISTING FLOOR DRAINS OR FLOOR SINKS THAT ARE NOT REQUIRED SHALL BE REMOVED AND PIPING CAPPED BACK AT RISER OR AS REQUIRED TO MAKE NEW CONNECTION.
14	UNUSED FLOOR DRAINS OR FLOOR SINKS ON THE GROUND FLOOR SHALL BE PERMANENTLY PLUGGED AND MODIFIED TO ALLOW INSTALLATION OF NEW FLOORING MATERIAL
15	PROVIDE ANY AND ALL DEMOLITION WORK REQUIRED TO INSTALL NEW EQUIPMENT. RETURN SURROUNDING AREA TO ORIGINAL CONDITION AFTER INSTALLATION IS COMPLETE. MAINTAIN PLUMBING SYSTEMS IN ADJACENT SPACES.
16	CONTRACTOR TO COORDINATE ALL PLUMBING FIXTURE COMPATIBILITY WHEN MATCHING FIXTURES, FLUSH VALVES, FAUCETS, DRAINS, ETC.
17	CONTRACTOR TO VERIFY ARCHITECTURAL REQUIREMENTS AND COORDINATION WITH SPECIFIED PLUMBING FIXTURES. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ARCHITECT'S AND ENGINEER'S ATTENTION.
18	CONTRACTOR SHALL PROVIDE ALL MATERIAL, EQUIPMENT, ACCESSORIES, AND LABOR REQUIRED FOR INSTALLATION OF A COMPLETE AND OPERABLE SYSTEMS.
19	CONTRACTOR SHALL COORDINATE ALL PIPE ROUTING AND EQUIPMENT LOCATIONS WITH OTHER TRADES AND EXISTING CONDITIONS. CONTRACTOR SHALL MODIFY EXISTING DESIGN CONDITIONS AS REQUIRED TO PROVIDE A FUNCTIONAL, CODE COMPLIANT INSTALLATION.
20	CONTRACTOR TO COORDINATE ALL WORK WITH ARCHITECT'S AND ENGINEER'S PHASING PLANS. MAKE ALL NECESSARY ALLOCATIONS TO ACCOMMODATE PHASING AND PHASED CONSTRUCTION.
21	INSTALL ALL EQUIPMENT PER MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS. MAINTAIN ALL REQUIRED CLEARANCES FOR MAINTENANCE AND ACCESS.
22	ALL PLUMBING FIXTURES SHALL MEET TAS/ADA REQUIREMENTS. FIXTURES SHALL BE INSTALLED TO MEET TAS/ADA HEIGHT AND CLEARANCE REQUIREMENTS. COORDINATE WITH ARCHITECTURAL DRAWING DIMENSIONS.
23	ROUTE ALL PIPING AS HIGH AS POSSIBLE AND TIGHT TO STRUCTURE. INSTALL PERPENDICULAR TO WALLS AND COLUMNS.
24	ALL EQUIPMENT SHALL BE INSTALLED ON 4" CONCRETE HOUSEKEEPING PADS.
25	PROVIDE DIELECTRIC FITTINGS OR UNIONS BETWEEN PIPING OF DISSIMILAR METALS.
26	PROVIDE ACCESS PANELS AS REQUIRED TO SERVICE ALL VALVES AND EQUIPMENT. COORDINATE LOCATION OF ACCESS PANELS WITH ARCHITECTURAL CEILING AND WALL ELEVATION DRAWINGS.
27	DO NOT ROUTE PIPING THROUGH ELECTRICAL ROOMS/CLOSETS OR IT/DATA ROOMS. IF THE CONSTRUCTION SITUATION MAKES THIS UNAVOIDABLE, PROVIDE SECONDARY LEAK PROTECTION SLOPED DRAIN PAN UNDER PIPE. ROUTE DRAIN PAN LINE TO NEAREST FLOOR DRAIN OR SINK TAIL PIECE.
28	PROVIDE SHUT-OFF VALVES ON ALL PLUMBING BRANCH PIPING, EQUIPMENT, TOILET ROOM GROUPS, AND INDIVIDUAL FLOORS.
29	SLOPE PIPING AS REQUIRED TO MEET CODE REQUIREMENTS, AVOID LOW POINTS, AND ESTABLISH HIGH POINTS FOR AIR REMOVAL.
30	COORDINATE ALL ROOF PENETRATIONS WITH STRUCTURE. COORDINATE ALL VENT TERMINATIONS WITH BUILDING AIR INTAKES TO MAINTAIN CODE REQUIRED MINIMUM DISTANCES.
31	PROVIDE BACKFLOW PREVENTERS AS REQUIRED BY CODE AND APPLICABLE STANDARDS.
32	PROVIDE TRAP GUARD ON ALL FLOOR DRAINS, AIR DRAINS AND FLOOR SINKS OR OTHER APPROVED TRAP SEALING DEVICE.
33	ALL WORK SHALL BE COMPLETED TO THE APPROVAL OF THE BUILDING ENGINEER.
34	CONTRACTOR TO ACCOMMODATE ALL CLEARANCE AND DIMENSIONAL DIFFERENCES OF EQUIPMENT ACTUALLY PURCHASED FOR INSTALLATION.
35	CONTRACTOR SHALL X-RAY SLAB AS REQUIRED TO VERIFY EXACT LOCATION OF EXISTING PIPING IN SLAB.
36	FIRE PROTECTION CONTRACTOR SHALL MODIFY ALL EXISTING FIRE PROTECTION AND SPRINKLER PIPES AS REQUIRED TO MEET THE MAINTENANCE AND REMOVAL CLEARANCES OF ALL EXISTING MECHANICAL, ELECTRICAL AND PLUMBING EQUIPMENT.

PLUMBING SHEET LIST

SHEET NUMBER	SHEET NAME
P0.01	PLUMBING COVER SHEET
P0.02	PLUMBING SCHEDULES
P0.03	PLUMBING SPECIFICATIONS
P2.00	PLUMBING UNDERFLOOR PLAN
P2.01	PLUMBING FLOOR PLAN
P2.02	PLUMBING SITE PLAN
P5.01	PLUMBING RISERS
P6.01	PLUMBING DETAILS

SHOCK ARRESTOR SCHEDULE

	MANUFACTURER & MODEL	FIXTURE UNITS	SIZE	MODEL NUMBER
A	PRECISION PLUMBING	1-11	1/2" NPT	SC-500
B	PRECISION PLUMBING	12-32	3/4" NPT	SC-750
C	PRECISION PLUMBING	33-60	1" NPT	SC-1000
D	PRECISION PLUMBING	61-113	1 1/4" NPT	SC-1250
E	PRECISION PLUMBING	114-154	1 1/2" NPT	SC-1500
F	PRECISION PLUMBING	155-330	2" NPT	SC-2000

NOTE:
PROVIDE SHOCK ARRESTORS AT ENDS OF DCW AND DHW PIPING RUNS; AT ALL QUICK-CLOSING FIXTURES SUCH AS SHOWERS, FLUSHVALVES, SOLENOID VALVES, SINGLE-HANDED FAUCETS, AND SENSOR OPERATED FAUCETS; AND, FOR ALL GROUPS OF FIXTURES. SHOCK ARRESTORS SHALL BE PLACED AS CLOSE AS POSSIBLE TO THE LAST FIXTURE ON EACH PIPING RUN.

SPRINKLER FLOW DENSITIES

HAZARD	AREA (SF)	GPM/SF
LIGHT HAZARD	1500	0.10
ORDINARY HAZARD I	1500	0.15
ORDINARY HAZARD II	1500	0.20

PIPING MATERIAL SCHEDULE

SYSTEM	BELOW GRADE	ABOVE GRADE
CHEMICAL WASTE PIPING	PVDF	PVDF
DOMESTIC COLD/ HOT WATER PIPING	TYPE "K" COPPER	TYPE "L" COPPER
NATURAL GAS PIPING	POLYTHYLENE	SCHEUDLE 40 BLACK STEEL
SANITARY/ VENT PIPING	SCHEDULE 40 PVC	NO - HUB CAST IRON
STORM PIPING	SCHEDULE 40 PVC	NO - HUB CAST IRON

CODE SUMMARY

A. **APPLICABLE CODES INCLUDE BUT ARE NOT LIMITED TO:**
1. CITY OF BASTROP MECHANICAL CODE: 2018 IMC
2. CITY OF BASTROP BUILDING CODE: 2018 IBC
3. CITY OF BASTROP COMMERCIAL ENERGY CONSERVATION CODE: 2018 IECC
4. CITY OF BASTROP PLUMBING CODE: 2018 IPC

hatch + ulland owen architects
1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

CIVIL ENGINEER
CBD ENGINEERING & SURVEYING
5501 West William Cannon Drive
Austin, Texas 78749, US

LANDSCAPE ARCHITECT
SEC PLANNING , LLC
4201 W. Parmer Lane Bldg A, Suite 220
Austin, Texas 78727

PLUMBING, MECHANICAL, ELECTRICAL ENGINEER
Infinity MEP+s Consultants
5316 W US Hwy 290 Service Rd Suite 480
Austin, TX 78735

STRUCTURAL ENGINEER
TDI Engineering, LLC
5906 Old Fredericksburg Rd. Suite 300
Austin, TX 78749

12/23/2019

STEPHEN A. BUTLER
112019
LICENSED
PROFESSIONAL ENGINEER
STATE OF TEXAS

10/22/2024

THE COLONY - TREEHOUSE AMENITY CENTER

BASTROP, TEXAS

hatch + ulland owen architects

h+uo # A22049

CONSTRUCTION DOCUMENTATION

ISSUE REVISIONS

#	DATE	NOTES
	2024-10-22	100% CD

SHEET TITLE

PLUMBING COVER SHEET

SHEET NUMBER

P0.01

10/22/2024 5:12:18 PM

INSTANTANEOUS WATER HEATER SCHEDULE

EQUIPMENT		UNIT TYPE		LOCATION	TEMPERATURE SETTING (°F)	ELECTRICAL				NOTES
TYPE	NUMBER	MANUFACTURER	MODEL			KW	VOLT	PH	HZ	
IWH	1	CHRONOMITE	CMI-40/277	RESTROOM UNDERCOUNTER	105	11.8	208	1	60	

PLUMBING FIXTURE CONNECTION SCHEDULE

FIXTURE	CW	HW	MIN.TRAP SIZE & TRAP ARM	V	NOTES
WATER CLOSET (FLUSH VALVE)	1-1/2	-	4"	2"	1,2
LAV	3/4"	3/4"	1-1/2"	2"	2
URINAL (FLUSH VALVE)	3/4"	-	2"	2"	1,2
SHOWER	3/4"	-	2"	2"	2

NOTES:

1. 2" MINIMUM WASTE AND 2" VENT PIPE BELOW GRADE.
2. TRAP SIZE TO BE CONSISTENT WITH FIXTURE OUTLET.

PLUMBING FIXTURE SCHEDULE

SYMBOL	MANUFACTURER & MODEL NUMBER	DESCRIPTION	NOTES
BFP-1	WATTS LF909	REDUCED PRESSURE BACKFLOW PREVENTER-BRONZE ASSEMBLY, FULL PORT, QUARTER TURN BRONZE BALL VALVES, WITH TEE HANDLES, TWO INDEPENDENT CHECK VALVES, CAPTURE STRINGS, REPLACEMENT CHECK SEATS AND DIFF. PRESSURE RELIEF, WITH BRONZE STRAINER. 3/4"-2".	
BFP-2	WATTS LF909	REDUCED PRESSURE BACKFLOW PREVENTER-BRONZE ASSEMBLY, FULL PORT, QUARTER TURN BRONZE BALL VALVES, WITH TEE HANDLES, TWO INDEPENDENT CHECK VALVES, CAPTURE STRINGS, REPLACEMENT CHECK SEATS AND DIFF. PRESSURE RELIEF, WITH BRONZE STRAINER. 3/4"-2".	
EDF-1	ELKAY EZSTL8SC	WALL MOUNT BI-LEVEL ADA COOLER NON-FILTERED, REFRIGERATED STAINLESS. 8.0 GPH, 115V/60Hz, FINISH STAINLESS STEEL.	
FD-1	JAY R. SMITH MODEL 2010	6" DIAMETER NICKEL BRONZE STRAINER, ROUND FLOOR DRAIN-CAST IRON BODY WITH FLANGE, ADJUSTABLE NICKEL BRONZE STRAINER. TRAP GUARD AND NO-HUB OUTLET.	
FS-1	JAY R. SMITH 3101-13	SQUARE NICKEL BRONZE TOP, 8 1/2" (215) TOP - MEDIUM RECEPTORS, SANI-RECEPTOR ACID RESISTANT COATED, 3/4" - GRATE, TRAP GUARD WITH SEDIMENT BUCKET.	
GCO-1	JAY R. SMITH MODEL 4220	DOUBLE DUCO CAST IRON GRADE CLEANOUT WITH ROUND ADJUSTANBLE SCORIATED CAST IRON TOP.	
HB-1	JAY R. SMITH #5673	ANTI-SIPHONE, VACUUM BREAKER PROTECTED WALL FAUCETS. EXPOSED HOSE CONNECTION.	
LV-1	KOHLER K-2032-N	VITREOUS CHINA WALL MOUNTED LAVATORY, 3 DECK HOLE, AND RECTANGULAR BASIN. FAUCETS: CHICAGO FAUCET # 802-VE2805-317ABCP: MANUAL FAUCET, 0.5 GPM AERATOR AND 4" VANDAL PROOF WRIST BLADE HANDLES. SUPPLY WITH STOP: MCGUIRE # BV216SCC LOOSE KEY SUPPLY AND STOP KIT. TRAP: MCGUIRE # 8090 CAST P-TRAP WITH CLEANOUT. INSULATION: TRUEBRO # LAV GUARD ON TRAP, DRAIN, AND BOTH HOT AND COLD SUPPLY. REFER TO ARCHITECTURAL FOR MOUNTING HEIGHT & LOCATION.	PROVIDE TMV-1
SH-1	OUTDOOR SHOWER CAP-111HBS-8	STAINLESS STEEL, SINGLE SUPPLY COLD ONLY SHOWER, 8" SHOWER HEAD, CROSS HANDLE VALVE	
TMV-1	ACORN ST70-38	TEMPERING VALVE SIMILAR LEAD-FREE CERTIFIED DZR BRASS BODY, ASSE 1070 AT 0.25 GPM AND MAXIMUM SET POINT 115 DEGREE FAHRENHEIT, FACTOR SET AT 105 DEGREE FAHRENHEIT.	
UR-1	KOHLER K-4991-ETSS-0	VITREOUS CHINA, WALL HUNG URINAL, ELONGATED RIM INTEGRAL TRAP, 3/4 INCH TOP SPUD. FLUSH VALVE: KOHLER K-80UM00D20-CP 0.125 HIGH EFFICIENCY FLUSH VALVE.	
WCO-1	JAY R. SMITH MODEL 4710-05	WALL CLEANOUT-CAST IRON BODY WITH SPIGOT INLET/OUTLET AND THREADED BRASS RAISED HEAD, DRILLED AND TAPPED FOR #20 SCREW. PROVIDE WITH 8490R, ROUND, STAINLESS STEEL ACCESS COVER HAVING 1/4-20X3-1/2 CENTER SCREW.	
WC-1	KOHLER K-84325-0	VITREOUS CHINA, WALL MOUNTED WATER CLOSET WITH OPEN FRONT LESS COVER SEAT. FLUSH VALVE: KOHLER # K-80TM00N10-CP, 1.28 HIGH EFFICINCY FLUSH VALVE. SEAT: BEMIS # 1655CT ELOGANT EXTRA HEAVY DUTY.	
WH-1	JAY R. SMITH #5509QT	QUARTER TURN NON-FREEZE WALL HYDRANT WITH INTEGRAL VACUUM BREAKER AND STAINLESS STEEL BOX.	

hatch + ulland owen architects

12/23/2019

hatch + ulland owen
architects
1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

CIVIL ENGINEER
CBD ENGINEERING & SURVEYING
5501 West William Cannon Drive
Austin, Texas 78749, US

LANDSCAPE ARCHITECT
SEC PLANNING , LLC
4201 W. Parmer Lane Bldg A, Suite 220
Austin, Texas 78727

PLUMBING, MECHANICAL, ELECTRICAL ENGINEER
Infinity MEP+s Consultants
5316 W US Hwy 290 Service Rd Suite 480
Austin, TX 78735

STRUCTURAL ENGINEER
TDI Engineering, LLC
5906 Old Fredericksburg Rd. Suite 300
Austin, TX 78749

THE COLONY - TREEHOUSE AMENITY CENTER

STATE OF TEXAS
STEPHEN T. BUTLER
112019
LICENSED
PROFESSIONAL ENGINEER

10/22/2024

THE COLONY - TREEHOUSE AMENITY CENTER

BASTROP, TEXAS

hatch + ulland owen architects

h+uo # A22049

CONSTRUCTION DOCUMENTATION

ISSUE REVISIONS

#	DATE	NOTES
	2024-10-22	100% CD

SHEET TITLE

PLUMBING SCHEDULES

SHEET NUMBER

P0.02

10/22/2024 5:12:18 PM

PLUMBING SPECIFICATIONS

SECTION 22 05 00 - COMMON WORK RESULTS FOR PLUMBING

1. THE PLUMBING SYSTEMS WILL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH THE INCLUDING ANY STATE OR LOCAL AMENDMENTS.
2. ALL PERMITS (FEES BY CONTRACTOR), AND INSPECTIONS WILL BE OBTAINED AS REQUIRED BY ALL LEGAL AUTHORITIES OF WORK INCLUDED IN THESE DOCUMENTS. MATERIAL WHICH ARE SPECIFIED BY REFERENCE TO FEDERAL, STATE, OR OWNER INSURANCE PROVIDERS. SPECIFICATION (I.E., ASTM,ASM, ANSI, TAS, FM GLOBAL, FGI OR AWWA SPECIFICATIONS). FEDERAL STANDARDS, OR OTHER STANDARD SPECIFICATIONS MUST COMPLY WITH THE LATEST EDITIONS UNLESS OTHERWISE NOTED WITHIN THE CONTRACT DOCUMENTS OR OTHER SPECIFICATION SECTIONS.
3. ALL MATERIALS AND EQUIPMENT WILL BE NEW AND WILL BE INSTALLED IN ACCORDANCE WITH INDUSTRY STANDARDS.
4. SUBMITTALS WILL BE PREPARED FOR ALL MATERIALS AND EQUIPMENT INDICATING PERFORMANCE DATA, CATALOG INFORMATION, INSTALLATION DETAILS, ETC. IN ADDITION, SOME AREAS WILL BE DETAILED ON SHOP DRAWINGS AND USED FOR COORDINATION. ALL SUBMITTALS AND SHOP DRAWINGS WILL BE REVIEWED AND APPROVED BY THE DESIGN ENGINEER.
5. AT THE COMPLETION OF THE WORK, BOUND SETS OF OPERATIONS AND MAINTENANCE MANUALS WILL BE PROVIDED. THESE MANUALS WILL INCLUDE EQUIPMENT PERFORMANCE DATA, INSTALLATION DETAILS, MAINTENANCE AND SERVICE INSTRUCTIONS, PARTS LISTS, WIRING AND CONTROLS DIAGRAMS.
6. A SET OF PLUMBING DRAWINGS WILL BE MAINTAINED AT THE JOB SITE A SEPARATE SET OF CLEAN CONTRACT DRAWINGS FOR THE SOLE PURPOSE OF RECORDING THE "AS-BUILT" CHANGES AND DIAGRAMS OF THOSE PORTIONS OF WORK IN WHICH ACTUAL CONSTRUCION IS SIGNIFICANTLY DIFFERENT FROM THE CONTRACT DOCUMENTS. AT THE END OF THE PROJECT, OBTAIN WITHOUT COST TO THE4 OWNER. A SET OF THE ORIGINAL PLUMBING DRAWINGS/CAD FILES INDICATING ALL CHANGES FROM THE CONTRACT DOCUMENTS FOR THE OWNERS RECORDS. DELIVERY OF THE AS-BUILT PRINTS AND CAD FILES IS A CONDITION OF FINAL ACCEPTANCE OF THE WORK COMPLETED.
7. COORDINATION WILL TAKE PLACE WITH OTHER TRADES DURING CONSTRUCTION. ANY INTERFERENCES FOUND DUE TO OTHER TRADES WILL BE BROUGHT TO THE ATTENTION OF THE GENERAL CONTRACTOR OR CONSTRUCTION MANAGER.
8. UPON COMPLETION OF THE WORK, AND AT TIMES DURING THE INSTALLATION, RUBBISH AND DEBRIS RESULTING FROM THE SCOPE OF THIS WORK WILL BE REMOVED TO A LOCATION ON SITE PROVIDED BY THE GENERAL CONTRACTOR AND THE AREA WILL BE LEFT IN A NEAT, ALL FLOOR DRAINS AND PLUMBING FIXTURE/EQUIPMENT SHALL BE CLEANED TO LIKE NEW CONDITIONS.
9. ALL EQUIPMENT AND MATERIALS FURNISHED AND INSTALLED UNDER THIS SCOPE OF WORK WILL BE GUARANTEED TO BE FREE FROM DEFECTS OF MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR AFTER THE DATE OF EQUIPMENT START-UP.
10. ANY OPENINGS REQUIRED THROUGH STRUCTURAL WALLS, FLOORS AND ROOFS WILL BE IDENTIFIED ON BLOCK OUT DRAWINGS AND PROVIDED TO THE GENERAL CONTRACTOR. ALL FORMING, CUTTING AND FRAMING TO THESE OPENINGS WILL BE BY THE GENERAL CONTRACTOR.
11. ARCHITECTURAL ACCESS DOORS REQUIRED IN CEILINGS AND WALLS WILL BE PROVIDED AND INSTALLED BY THE GENERAL CONTRACTOR. ACCESS DOORS: PROVIDE "STEALTH ACCESS PANEL" BY WIND-LOCK OR EQUAL AS REQUIRED FOR ACCESS TO ALL VALVES, FILTERS, CONTROLS, DAMPERS OR OTHER DEVICES REQUIRING ATTENTION. ACCESS PANEL SHALL HAVE NO VISIBLE HINGE AND LATCH. DOORS SHALL MATCH WALL OR CEILING RATING. ARCHITECT MUST APPROVE LOCATION AND APPEARANCE OF ALL ACCESS DOORS.
12. PIPE SLEEVES WILL BE PROVIDED WHERE PIPING PASSES THROUGH WALLS AND FLOORS. SLEEVES WILL BE 18 GAUGE GALVANIZED STEEL FOR WALLS AND STEEL PIPE FOR FLOORS. FIRE STOP WILL BE PROVIDED WHERE THE FLOOR OR WALLS ARE FIRE RATED. SLEEVES WILL BE EXTENDED 2 INCHES ABOVE THE FLOOR IN "WET" AREAS.

13. EXECUTION:

A. INSTALLATION OF PIPING, VALVES AND EQUIPMENT
- a. PITCH: HORIZONTAL SANITARY AND DRAIN PIPING WILL BE RUN AT AN UNIFORM GRADE OF 1/4" PER FOOT FOR 2-1/2" AND LESS PIPE SIZES. 1/8" PER FOOT FOR 3" THROUGH 6" SIZE. 1/16" PER FOOT FOR 8" AND ABOVE PIPE SIZES. CONTRACTOR SHALL INSTALL PLUMBING SYSTEM SLOPE PER CODE AND AUTHORITIES HAVING JURISDICTION.
- b. WATER PIPING WITHIN WALLS AND ROUGH-INS FOR FIXTURES AND EQUIPMENT: COPPER PLATED STEEL SUPPORT SYSTEM SOLDERED TO PIPING AND SECURED TO BUILDING CONSTRUCTION SO THAT PIPES CANNOT BE DISPLACED. (HOLDRITE OR EQUIVALENT). HOT WATER PIPING INSULATION WITH STANDARD JACKETS, WITH OR WITHOUT VAPOR BARRIER, FACTORY APPLIED OR FIELD APPLIED. FITTINGS, JOINTS, AND VALVES WILL BE INSULATED WITH LIKE MATERIAL AND THICKNESS AS ADJOINING PIPE. PROVIDE REMOVABLE INSULATION AND COVER FOR ALL VALVES AND UNIONS.
- c. WASTE AND VENT PIPING WITHIN WALLS AND ROUGH-INS FOR FIXTURES AND EQUIPMENT: COPPER PLATED STEEL SUPPORT SYSTEM FOR COPPER DWV PIPING OR GALVANIZED STEEL SUPPORT SYSTEM FOR CAST IRON OR GALVANIZED PIPING. SUPPORTS TO PIPING AND BUILDING CONSTRUCTION WILL BE SECURED SO THAT PIPES CANNOT BE DISPLACED. FELT STRIP ISOLATION WILL BE PROVIDED BETWEEN DISSIMILAR METALS. (HOLDRITE OR EQUIVALENT)
- d. UNDERGROUND PIPING: NO-HUB SOIL PIPE NOT PERMITTED.
- e. UNION AND FLANGES: ON PIPING TO INLET AND OUTLET OF ALL APPARATUS AND EQUIPMENT TO FACILITATE REMOVAL OF EQUIPMENT, AND DOWNSTREAM OF ALL SHUTOFF VALVES.
- f. WATER HAMMER ARRESTERS: WATER HAMMER ARRESTERS WILL BE INSTALLED AT ALL QUICK CLOSING VALVES SUCH AS FLUSH VALVES, FOOT CONTROL VALVES, FLOAT VALVES, SOLENOID VALVES, ETC. WATER HAMMER ARRESTERS WILL BE SIZED AND LOCATED AS RECOMMENDED BY PDI MANUAL WH 201.

B. CLEANOUTS WILL BE PROVIDED AND INSTALLED PER UPC SECTION 707.0 AND 719.0.

C. LABELS AND IDENTIFICATION: VALVE TAGS, PIPING SYSTEMS AND EQUIPMENT IDENTIFICATIONS AS SPECIFIED IN PLUMBING IDENTIFICATION.

D. PIPING SYSTEM LEAK TESTS:
- a. POTABLE WATER PIPING WILL BE HYDROSTATICALLY PRESSURE TESTED FOR A DURATION OF FOUR HOURS AT A TEST PRESSURE OF 120 PSIG.
- b. SANITARY DRAINAGE PIPING: ALL ABOVE GROUND PIPING WILL BE TESTED HYDROSTATICALLY BY CLOSING ALL OPENINGS IN THE PIPING SYSTEM, EXCEPT THE HIGHEST OPENING ABOVE THE ROOF, AND BY FILLING THE SYSTEM TO THE POINT OF OVERFLOWING. THE PRESSURE EXERTED ON THE SYSTEM WILL BE NO LESS THAN 10 FEET OF HEAD.

SECTION 22 05 13 - COMMON MOTOR REQUIREMENTS FOR PLUMBING EQUIPMENT

1. TEST MOTORS IN ACCORDANCE WITH NEMA MG 1, INCLUDING WINDING RESISTANCE, NO-LOAD SPEED AND CURRENT, LOCKED ROTOR CURRENT, INSULATION HIGH-POTENTIAL TEST, AND MECHANICAL ALIGNMENT TESTS. INSTALL SECURELY ON FIRM FOUNDATION. MOUNT BALL BEARING MOTORS WITH SHAFT IN ANY POSITION. INSTALL ENGRAVED PLASTIC NAMEPLATES. GROUND AND BOND MOTORS.
2. SINGLE-PHASE MOTORS: PERMANENT SPLIT-CAPACITOR TYPE, WHERE AVAILABLE; OTHERWISE, USE SPLIT-PHASE START/CAPACITOR RUN OR CAPACITOR START/CAPACITOR RUN MOTOR. TERMINAL LUGS TO MATCH BRANCH CIRCUIT CONDUCTOR QUANTITIES, SIZES AND MATERIALS.
3. THREE-PHASE MOTORS: NEMA MG 1, DESIGN B, PREMIUM -EFFICIENCY SQUIRREL-CAGE INDUCTION MOTOR, WITH WINDINGS TO ACCOMPLISH STARTING METHODS AND NUMBER OF SPEEDS INDICATED. SERVICE FACTOR: 1.15 UNLESS OTHERWISE INDICATED ON DRAWINGS. ENCLOSURE: MEET CONDITIONS OF INSTALLATION UNLESS SPECIFIC ENCLOSURE IS SPECIFIED OR INDICATED. DESIGN FOR CONTINUOUS OPERATION IN 40 DEGREES C ENVIRONMENT, WITH TEMPERATURE RISE IN ACCORDANCE WITH NEMA MG 1 LIMITS FOR INSULATION CLASS, SERVICE FACTOR, AND MOTOR ENCLOSURE TYPE. INSULATION SYSTEM: NEMA CLASS F . MOTOR FRAMES: NEMA STANDARD T-FRAMES OF STEEL, ALUMINUM, OR CAST IRON WITH END BRACKETS OF CAST IRON OR ALUMINUM WITH STEEL INSERTS. THERMISTOR SYSTEM (MOTOR FRAME SIZES 254T AND LARGER): THREE PTC THERMISTORS EMBEDDED IN MOTOR WINDINGS AND EPOXY ENCAPSULATED SOLID STATE CONTROL RELAY WITH WIRING TO TERMINAL BOX. BEARINGS: GREASE LUBRICATED ANTI-FRICTION BALL BEARINGS WITH HOUSINGS EQUIPPED WITH PLUGGED PROVISION FOR RELUBRICATION, RATED FOR MINIMUM ABMA 9, L-10 LIFE OF 200,000 HOURS. CALCULATE BEARING LOAD WITH NEMA MINIMUM V-BELT PULLEY WITH BELT CENTER LINE AT END OF NEMA STANDARD SHAFT EXTENSION. STAMP BEARING SIZES ON NAMEPLATE. SOUND POWER LEVELS: CONFORM TO NEMA MG 1. TERMINAL LUGS TO MATCH BRANCH CIRCUIT CONDUCTOR QUANTITIES, SIZES AND MATERIALS.

SECTION 22 05 23.12 – BALL VALVES FOR PLUMBING PIPING

1. BRASS:
   - A. PRODUCTS: TWO-PIECE BRASS BALL VALVES WITH FULL PORT AND STAINLESS-STEEL TRIM.
   - B. MANUFACTURERS: NIBCO, KITZ CORPORATION, MILWAUKEE VALVE COMPANY.
   - C. DESCRIPTION: STANDARD: MSS SP-110, SWP RATING: 150 PSIG, CWP RATING: 600 PSIG, BODY DESIGN: TWO PIECE, BODY MATERIAL: FORGED BRASS, ENDS: THREADED, SEATS: PTFE, STEM: STAINLESS STEEL, BALL: STAINLESS STEEL, VENTED, PORT: FULL.
2. BRONZE:
   - A. PRODUCTS: TWO-PIECE LEAD FREE BRONZE BALL VALVES WITH FULL PORT AND STAINLESS-STEEL TRIM.
   - B. MANUFACTURERS: NIBCO, KITZ CORPORATION, WATTS.
   - C. DESCRIPTION: STANDARD: MSS SP-110, SWP RATING: 150 PSIG, CWP RATING: 600 PSIG, BODY DESIGN: TWO PIECE, BODY MATERIAL: FORGED BRONZE, ENDS: THREADED, SEATS: PTFE, STEM: STAINLESS STEEL, BALL: STAINLESS STEEL, VENTED, PORT: FULL.
3. SELECT VALVES WITH THE FOLLOWING END CONNECTIONS:
   - A. FOR COPPER TUBING, NPS 2 AND SMALLER: THREADED ENDS EXCEPT WHERE SOLDER-JOINT VALVE-END OPTION IS INDICATED IN VALVE SCHEDULES BELOW.
   - B. FOR STEEL PIPING, NPS 2 AND SMALLER: THREADED ENDS.

SECTION 22 05 29 - HANGERS AND SUPPORTS FOR PLUMBING PIPING AND EQUIPMENT

1. SINGLE PIPE HANGERS WILL BE MALLEABLE IRON OR CARBON STEEL, ADJUSTABLE SWIVEL, SPLIT RING FOR PIPE SIZES UP TO 1 INCHES AND CARBON STEEL, ADJUSTABLE CLEVIS HANGERS FOR PIPE SIZES 2 INCHES AND OVER.
2. PROVIDE COPPER HANGERS OR WONDER TAPE AT ALL HANGERS FOR DISSIMILAR METALS.
3. MULTIPLE OR TRAPEZE HANGERS WILL BE UNISTRUT STEEL CHANNELS WITH UNISTRUT CLAMPS AND ALL-THREAD HANGER RODS AND DOUBLE NUTS. WHERE REQUIRED, UNISTRUT CHANNELS MAY BE REPLACED WITH STRUCTURAL STEEL CHANNELS OR I-BEAMS TO MEET STRUCTURAL LOADING.
4. WALL SUPPORTS WILL BE UNISTRUT BOLTED TO THE WALL WITH UNISTRUT PIPE CLAMPS FOR PIPE SIZES UP TO 3 INCHES AND WELDED STEEL BRACKETS AND STEEL CLAMPS FOR PIPE SIZES GREATER THAN 4 INCHES.
5. VERTICAL PIPE WILL BE SUPPORTED WITH STEEL RISER CLAMPS FOR STEEL PIPE AND COPPER RISER CLAMPS FOR COPPER PIPE.
6. GALVANIZED STEEL PIPE INSULATION SHIELDS WILL BE PROVIDED FOR PIPE SIZES UP TO 2 INCH. PRE-FABRICATED PIPE INSERTS AND SHIELDS WILL BE USED FOR PIPES SIZES OVER 2 INCHES.
7. HORIZONTAL PIPE WILL BE SUPPORTED WITH THE MAXIMUM SPACING:
8. ALL PIPING WILL BE BRACED IN ACCORDANCE WITH NFPA 13, ASME B31.1, ASCO 705, AND ASCE 7-10 STANDARDS FOR THE APPROPRIATE SEISMIC HAZARD LEVEL.
9. INSERTS WILL BE USED TO SUPPORT PIPING FROM CONCRETE STRUCTURES. WHERE INSERTS ARE NOT USED DRILL-IN EXPANSION BOLTS WILL BE USED. LOW VELOCITY SHOT PIN FASTENERS WILL ALSO BE USED WHERE PERMITTED. APPROPRIATE DRILL-IN ANCHORS WILL BE USED ON POST TENSION SLABS.

PIPE SIZE (INCH)	COPPER PIPE (FT.)	STEEL PIPE (FT.)
1/2"	6'	6'
3/4" TO 1"	6'	8'
1-1/4" TO 1-1/2"	6'	10'
2"	10'	10'
2-1/2" TO 4"	10'	10'
6" TO 8"	10'	10'

SECTION 22 05 53 - IDENTIFICATION FOR PLUMBING PIPING AND EQUIPMENT

1. EQUIPMENT: PERMANENT LABEL (STENCIL, METAL TAG OR ENGRAVED PLASTIC) WITH UNIT TAG OR NAME AND AREA OR SPACE SERVED.
2. PIPING:
   - A. PIPING LABEL MANUFACTURERS: BRIMAR INDUSTRIES, INC., CRAFTMARK PIPE MARKERS., SETON IDENTIFICATION PRODUCTS.
   - B. GENERAL REQUIREMENTS FOR MANUFACTURED PIPE LABELS: PREPRINTED, COLOR-CODED, WITH LETTERING INDICATING SERVICE, AND SHOWING FLOW DIRECTION ACCORDING TO ASME A13.1. PROVIDE PIPE MARKERS EVERY 20 FEET. IDENTIFY SERVICE AND FLOW DIRECTION. INSTALL IN CLEAR VIEW AND ALIGN WITH AXIS OF PIPING.
   - C. PRETENSIONED PIPE LABELS: PRECOILED, SEMIRIGID PLASTIC FORMED TO PARTIALLY COVER CIRCUMFERENCE OF PIPE AND TO ATTACH TO PIPE WITHOUT FASTENERS OR ADHESIVE.
   - D. SELF-ADHESIVE PIPE LABELS: PRINTED PLASTIC WITH CONTACT-TYPE, PERMANENT-ADHESIVE BACKING.
   - E. PIPE LABEL CONTENTS: INCLUDE IDENTIFICATION OF PIPING SERVICE USING SAME DESIGNATIONS OR ABBREVIATIONS AS USED ON DRAWINGS; ALSO INCLUDE PIPE SIZE AND AN ARROW INDICATING FLOW DIRECTION,
   - F. FLOW-DIRECTION ARROWS: INTEGRAL WITH PIPING SYSTEM SERVICE LETTERING TO ACCOMMODATE BOTH DIRECTIONS OR AS SEPARATE UNIT ON EACH PIPE LABEL TO INDICATE FLOW DIRECTION, LETTERING SIZE: SIZE LETTERS ACCORDING TO ASME A13.1 FOR PIPING.
   - G. UNDERGROUND PIPES: PROVIDE WARNING TAPE ABOVE PIPE FOR ENTIRE LENGTH. FOR NON-METALLIC PIPES PROVIDE TRACED WIRE ABOVE AND PARALLEL TO ENTIRE LENGTH AND STUBBED OUT ABOVE GRADE AT ONE END.
   - H. WARNING-TAGS: HOSE BIBS RECEIVING NON-POTABLE WATER SHALL BE MARKED WITH WARNING SIGNAGE BEARING THE WORDS "CAUTION: NONPOTABLE WATER, DO NOT DRINK" AND A PICTORIAL REPRESENTATION OF THE "BARRED CIRCLE" OVER A HOSE BIBB ABOVE A PARTIALLY FILLED WATER GLASS.
   - I. PIPE LABEL COLOR SCHEDULE:
     - a. LOW-PRESSURE COMPRESSED AIR PIPING:
       - BACKGROUND: SAFETY BLUE
       - LETTER COLORS: WHITE
     - b. HIGH-PRESSURE COMPRESSED AIR PIPING:
       - BACKGROUND: SAFETY BLUE
       - LETTER COLORS: WHITE
     - c. DOMESTIC WATER PIPING:
       - BACKGROUND: SAFETY GREEN
       - LETTER COLORS: WHITE
     - d. NON-POTABLE WATER PIPING:
       - BACKGROUND: SAFETY YELLOW
       - LETTER COLORS: BLACK
     - e. SANITARY WASTE AND STORM DRAINAGE PIPING:
       - BACKGROUND: SAFETY BLACK
       - LETTER COLORS: WHITE
     - f. GRAY WATER, RECLAIMED, ON-SITE TREATED, AND RAINWATER PIPING:
       - BACKGROUND: PURPLE (PANTONE COLOR NO. 512,522C, OR EQUIVALENT)
       - LETTER COLORS: YELLOW (PANTONE NO. 108 OR EQUIVALENT)

SECTION 22 07 19 - PLUMBING PIPING INSULATION

1. SUMMARY
   - A. PERFORM ALL WORK REQUIRED TO PROVIDE AND INSTALL PIPING INSULATION, JACKETS AND ACCESSORIES INDICATED BY THE CONTRACT DOCUMENTS WITH SUPPLEMENTARY ITEMS NECESSARY FOR PROPER INSTALLATION.
   - B. SECTION INCLUDES:
     - a. PIPE INSULATION
     - b. JACKETS AND ACCESSORIES.
2. QUALITY ASSURANCE
   - A. ALL PIPING REQUIREING INSULATION SHALL BE INSULATED HEREIN AND AS REQUIRED FOR A COMPLETE SYSTEM. IN EACH CASE, THE INSULATION SHALL BE EQUIVALENT TO THAT SPECIFIED AND MATERIAL APPLIED AND FINISHED AS DESCRIBED IN THESE SPECIFICATIONS.
   - B. ALL INSULATION, JACKET, ADHESIVES, MASTICS, SEALERS, ECT., UTILIZED IN THE FABRICATION OF THOSE SYSTTEM SHALL MEET NFPA FOR FIRE RESISTANT RATINGS (MAXIMUM OF 25 FLAME SPREAD AND 50 SMOKE DEVELOPED RATING) AND SHALL BE APPROVED BY THE INSULATION MANUFACTURER FOR GUARANTEED PERFORMANCE WHEN INCORPORATED INTO THEIR INSULATION SYSTEM, UNLESS A SPECIFIC PRODUCT IS SPECIFIED FOR A SPECIFIC APPLICATION AND IS STATED AS AN EXPCEPTION TO THIS REQUIREMENT. CERTIFICATES TO THIS EFFECT SHALL BE SUBMITTED ALONG WITH CONTRACTOR'S SUBMITTAL DATA FOR THIS SECTION OF THE SPECIFICATIONS. NO MATERIAL SHALL BE USED THAT, WHEN TESTED BY THE ASTM E84-89 TEST METHOD, IS FOUND TO MELT, DRIP OR DELAMINATE TO SUCH A DEGREE THAT THE CONTINUITY OF THE FLAME FRONT IS DESTROYED, THEREBY RESULTING IN AN ARTIFICIALLY LOW FLAME SPREAD RATING.
   - C. APPLICATION COMPANY QUALIFICATIONS: COMPANY PERFORMING THE WORK OF THIS SECTION SHALL HAVE A MINIMUM OF THREE (3) YEARS OF EXPERIENCE SPECIALIZING IN THE TRADE.
   - D. ALL INSULATION SHALL BE APPLIED BY MECHANICS SKILLED IN THIS PARTICULAR WORK AND REGULARLY ENGAGED IN SUCH OCCUPATION.
   - E. UNSIGHTLY, INADEQUATE, OR SLOPPY WORK WILL NOT BE ACCEPTABLE AND ALL SUCH WORK SHALL BE REMOVED AND REPLACE AS MANY TIMES AS NECESSARY TO ACHIEVE AN ACCEPTABLE INSTALLATION.
3. PIPE INSULATION WILL BE PROVIDED ON COLD WATER FIRST (20 FEET) TWENTY FEET, HOT WATER AND STORM PIPING.
   - A. INSULATION TYPE A: FIBERGLASS - DOMESTIC WATER PIPING
     - a. ACCEPTABLE PRODUCTS: OWENS CORNING SSL II OR EQUAL GLASS FIBER PIPING INSULATION.
     - b. THERMAL CONDUCTIVITY: K-VALUE OF 0.23 BTU-IN/HR.-DREGREE F OR LESS AT 75 DREGREE F AND 0.32 BTU-IN/HR.-DEGREE F OR LESS AT 250 DEGREE F.
     - c. RATED MAXIMUM SERVICE TEMPERATURE: 1000 DEGREE F.
     - d. DENSITY: 3.5-5.5 LBS/FT.
     - e. RATED AS MAXIMUM 25 FLAME SPREAD AND MAXIMUM 50 SMOLE DEVELOPED WHEN TESTED IN ACCORDANCE WITH ASTME84, UL 723, CAN/ULC-S102-M88 OR NFPA 255.
     - f. CERTIFIED TO MEET THE REQUIREMENTS OF ASTM C795 FOR USE OVER STAINLESS STEEL.
     - g. RATED AS NON-COMBUSTIBLE WHEN TESTED IN ACCORDANCE WITH ASTM E136.
     - h. INSULATION TREATED WITH WATER RESISTANT RESIN ON THE SURFACE AND WITHIN EACH LAYER OF THE INSULATION.
     - i. SHALL MEET OR EXCEED REQUIREMENTS OF ASTM C552, CLASS 1.
     - j. PAPER FREE ALL-SERVICE JACKET WITH DOUBLE ADHESIVE LAP SEAL AND A TWO-PART BUTT STRIP SEAL.
     - k. RATED MEAN TEMPERATURE: 100 DEG F.
   - B. TYPE B: CLOSE CELL ELASTOMERIC - STORM PIPING
     - a. ACCEPTABLE PRODUCTS: ARMAFLEX AP AS MANUFACTURED BY ARMACELL OR EQUAL.
     - b. THERMAL CONDUCTIVITY: K-VALUE OF 0.28 BTU-IN/HR. DEGREE F OR LESS AT 75 F.
     - c. RATED MAXIMUM SERVICE TEMPERATURE OF 300 DEGREE F.
     - d. RATED AS 25 FLAME SPREAD AND 50 SMOKE DEVELOPED WHEN TESTED IN ACCORDANCE WITH SATM E84, UL 723, CAN/ULC-S102-M88 OR NFPA 255.
     - e. CERTIFIED TO MEET THE REQUIREMENTS OF ASTM C795 FOR USE OVER STAINLESS STEEL.
     - f. RATED AS NONCOMBUSTIBLE WHEN TESTED IN ACCORDANCE WITH ASTM E136.
     - g. ELASTOMERIC PRODUCTS SHALL BE SUPPLIED IN A PRE-SLIT TUBULAR FORM WITH A PRESSURE SENSITIVE ASHESIVE SYSTEM FOR CLOSURE AND VAPOR SEALING OF THE LONGITUDINAL JOINT.
     - h. SHALL MEET OR EXCEED REQUIREMENTS OF ASTM C534, TYPE I, TUBULAR GRADE.
4. FITTINGS
   - A. PROVIDE PRE-MOLDED FITTING AND ELBOWS MOLDED IN TWO MATCHING HALF SECTIONS OF SAME INSULATION THICKNESS AS ADJOINING PIPING. AS AN ALTERNATIVE, PROVIDE MITERED SECTIONS OF INSULATION EQUIVALENT IN THICKNESS AND COMPOSTION TO THAT INSTALLED ON STRAIGHT PIPE RUNS. NO INSERT OR BLANKET INSULATION ALLOWED.
5. ALUMINUM JACKETING
   - A. PIPING: FURNISH FOR FINISHING INTERIOR INSULATED PIPE, A PREFABRICATED JACKET OF ASTM B209 ALUMINUM, 0.016-INCH THICK, WITH FACTORY-APPLIED 2-MIL MOISTURE BARRIER.
   - B. VALVES, FITTINGS AND FLANGES. PROVIDE COMPLETE COVERAGE OF ALL VALVES, FITTINGS AND FLANGES, PROVIDE ALUMINUM COVERS, 0.016 INCH THICK, ASTM B209 ALUMINUM.
   - C. STRAP AND SEALS: FURNISHE 1 INCH x 0.010 INCH, ASTM B209 ALUMINUM STRAPPING AND SEALS FOR APPLYING ALUMINUM JACKET AND COVERS TO PROVIDE COMPLETELY WEATHER TIGHT COVERING OF ALL INSULATION INCLUDING CAPS, FLANGE AND END OF LINES.
6. CEMENTS AND COATINGS:
   - A. TYPE A INSULATION (FIBERGLASS): DOMESTIC WATER PIPING
     - a. LAP ADHESIVE. FURNISH CHILDERS CP-82 OR FOSTER 85-20 TO SEAL LONGITUDINAL LAPS OF THE VAPOR BARRIER JACKET AND TO ADHERE BUTT JOINT COVERS.
     - b. FINISH: FURNISH CHLDERS CP-10/11 OR FOSTER 46-50 WEATHER BARRIER MASTIC WITH REINFORCING MESH.
     - c. CEMENT: FURNISH RYDER ON CAOT OR EQUAL ON INSULATED FITTINGS, FLANGES AND VALVES.
     - d. PRIMER AND FINISH: FURNISH CHILDERS CP-50A MV1 DILUTED 50% WITH WATER OR EQUAL TO PRIME CEMENT PRIOR TO APPLYING COATING.
     - e. LAGGING ASHESIVE: USED IN CONJUCTION WITH CANVAS OR GLASS LAGGING CLOTH TO PROTECT EQUIPMENT/PIPING INDOORS. FOSTER 30-36 SEALFAS, CHILDERS CP-50AMV1 CHIL SEAL OR APPROVED EQUAL.
   - B. TYPE B INSULATION (ELASTOMERIC): STORM PIPING
     - a. ADHESIVE: FURNISH ARMAFLEX 520 BLV LOW VOC ADHESIVE, FOSTER 85-75, OR CHILDERS CP-82 TO SEAL LONGITUDINAL LABS AND TO ADHERE BUTT JOINT COVERS.
     - b. FINISH: FURNISH ARMAFLEX WB OR FOSTER 30-63 WATER BASED LATEX ENAMEL FINISHED

INSULATION THICKNESS (IN.) FOR NOMINAL PIPE SIZES

SYSTEM	TEMPERATURE RANGE (F)	1" AND LESS	1-1/4" TO 2"	2-1/2" TO 4"	6"	8" AND UP
DOMESTIC WATER	ALL	1"	1-1/2"	1-1/2"	1-1/2"	1-1/2"

SECTION 22 11 16 - DOMESTIC WATER PIPING

1. COPPER TUBE AND FITTINGS:
   - A. PIPING
     - a. UNDERGROUND: ASTM B-88 TYPE K SEAMLESS COPPER TUBING, SOFT ANNEALED, COATED AND WRAPPED WITH EXTRUDED HIGH DENSITY POLYETHYLENE TAPE. ABOVE GROUND: ASTM B-88 TYPE L SEAMLESS COPPER TUBING, HARD TEMPER, COLD DRAWN. PEX-a, ASTM F 876/877, SDR 9, CTS, ENGEL METHOD.
     - b. ABOVE GROUND:
       - ASTM B-88 TYPE L SEAMLESS COPPER TUBING, HARD TEMPER, COLD DRAWN.
       - PEX-a, ENGEL-METHOD CROSSLINKED POLYETHYLENE. ASTM F 876 AND 877, SDR 9, CTS, ENGEL METHOD.
     - c. CONDENSATE DRAINS FROM COOLING COILS: SEAMLESS COPPER TUBING, TYPE M, COLD DRAWN, HARD TEMPER, ASTM B-88.
   - B. FITTINGS
     - a. COPPER TUBING: ANSI B16.22 WROUGHT COPPER SOLDER SWEAT TYPE.
     - b. CAST-COPPER, SOLDER-JOINT FITTINGS: PRESSURE FITTINGS.
     - c. WROUGHT-COPPER, SOLDER-JOINT FITTINGS: WROUGHT-COPPER PRESSURE FITTINGS.
     - d. BRASS: ANSI B16.15 85% RED BRASS, CAST IRON PATTERN. SCREWED TYPE MAY BE USED WHERE CLOSE FITTING IS REQUIRED.
     - e. ADAPTERS WILL BE USED WHERE COPPER TUBING CONNECTS TO IRON PIPE SIZE BRASS PIPING.
     - f. PEX-a: CERTIFIED TO NSF 14 AND ASTM F1960 COLD-EXPANSION WITH PEX REINFORCING RING AND SHALL COMPLY WITH ASTM F876 AND ASTM F877. REINFORCING COLD-EXPANSION RINGS SHALL BE MANUFACTURED FROM THE SAME SOURCE AS PEX-a PIPING MANUFACTURER AND MARKED F1960.
     - g. FLANGES: VICTAULIC MECHANICAL GROOVED COUPLINGS.
     - h. COPPER UNIONS:
       - CAST-COPPER-ALLOY, HEXAGONAL-STOCK BODY; BALL-AND-SOCKET, METAL-TO-METAL SEATING SURFACES; THREADED ENDS OR PROPRESS.
   - C. COPPER PRESSURE-SEAL-JOINT FITTINGS:
     - a. MANUFACTURERS: VIEGA LLC.
     - b. FITTINGS FOR NPS 2 AND SMALLER: WROUGHT-COPPER FITTING WITH EPDM-RUBBER, O-RING SEAL IN EACH END.
     - c. FITTINGS FOR NPS 2-1/2 TO NPS 4: CAST-BRONZE OR WROUGHT-COPPER FITTING WITH EPDM-RUBBER, O-RING SEAL IN EACH END.
   - D. APPURTENANCES FOR GROOVED-END COPPER TUBING:
     - a. MANUFACTURERS: VICTAULIC COMPANY.
     - b. BRONZE FITTINGS FOR GROOVED-END, COPPER TUBING: ASTM B 75 COPPER TUBE OR BRONZE CASTINGS.
   - E. MECHANICAL COUPLINGS FOR GROOVED-END COPPER TUBING:
     - **a.** COPPER-TUBE DIMENSIONS AND DESIGN SIMILAR TO AWWA C606.;FERROUS HOUSING SECTIONS; EPDM-RUBBER GASKETS SUITABLE FOR HOT AND COLD WATER; BOLTS AND NUTS; MINIMUM PRESSURE RATING: 300 PSIG.
2. PIPING JOINING MATERIALS:
   - A. PIPE-FLANGE GASKET MATERIALS:
     - a. RUBBER, FLAT FACE, 1/8 INCH THICK OR NONMETALLIC AND ASBESTOS FREE UNLESS OTHERWISE INDICATED;
     - b. FULL-FACE OR RING TYPE UNLESS OTHERWISE INDICATED.
   - B. METAL, PIPE-FLANGE BOLTS AND NUTS: CARBON STEEL UNLESS OTHERWISE INDICATED.
   - C. SOLDER FILLER METALS: LEAD-FREE ALLOYS.
   - D. FLUX: WATER FLUSHABLE.
   - E. BRAZING FILLER METALS: BCUP SERIES, COPPER-PHOSPHORUS ALLOYS FOR GENERAL-DUTY BRAZING UNLESS OTHERWISE INDICATED.
3. TRANSITION FITTINGS:
   - A. SAME SIZE AS PIPES TO BE JOINED; PRESSURE RATING AT LEAST EQUAL TO PIPES TO BE JOINED; END CONNECTIONS COMPATIBLE WITH PIPES TO BE JOINED.
   - B. FITTING-TYPE TRANSITION COUPLINGS: MANUFACTURED PIPING COUPLING OR SPECIFIED PIPING SYSTEM FITTING. FITTINGS FOR FPS 1-1/2" AND SMALLER.
   - C. SLEEVE-TYPE TRANSITION COUPLING: MANUFACTURERS: JAY R. SMITH MFG. CO. FITTINGS FOR NPS 2" AND LARGER.
4. DIELECTRIC FITTINGS:
   - A. ASSEMBLY OF COPPER ALLOY AND FERROUS MATERIALS WITH SEPARATING NONCONDUCTIVE INSULATING MATERIAL. INCLUDE END CONNECTIONS COMPATIBLE WITH PIPES TO BE JOINED.
   - B. DIELECTRIC UNIONS:
     - a. MANUFACTURERS: ZURN INDUSTRIES, LLC.
     - b. STANDARD: ASSE 1079.
     - c. PRESSURE RATING: 150 PSIG.
     - d. END CONNECTIONS: SOLDER-JOINT COPPER ALLOY AND THREADED FERROUS.
   - C. DIELECTRIC FLANGES:
     - a. MANUFACTURERS: WATTS, WILKINS, ZURN INDUSTRIES, LLC.
     - b. STANDARD: ASSE 1079.
     - c. FACTORY-FABRICATED, BOLTED, COMPANION-FLANGE ASSEMBLY.
     - d. PRESSURE RATING: 150 PSIG.
     - e. END CONNECTIONS: SOLDER-JOINT COPPER ALLOY AND THREADED FERROUS; THREADED SOLDER-JOINT COPPER ALLOY AND THREADED FERROUS.
     - f. DIELECTRIC FITTINGS FOR NPS 2-1/2 AND LARGER.
   - D. DIELECTRIC-FLANGE INSULATING KITS:
     - a. MANUFACTURERS: CALPICO, INC., CENTRAL PLASTICS COMPANY, PIPELINE SEAL AND INSULATOR, INC.
     - b. NONCONDUCTING MATERIALS FOR FIELD ASSEMBLY OF COMPANION FLANGES.
     - c. PRESSURE RATING: 150 PSIG.
     - d. GASKET: NEOPRENE OR PHENOLIC.
     - e. BOLT SLEEVES: PHENOLIC OR POLYETHYLENE.
     - f. WASHERS: PHENOLIC WITH STEEL BACKING WASHERS.
     - g. DIELECTRIC FITTINGS FOR NPS 2-1/2 AND LARGER.
   - E. DIELECTRIC NIPPLES:
     - a. MANUFACTURERS: VICTAULIC COMPANY.
     - b. ELECTROPLATED STEEL NIPPLE.
     - c. PRESSURE RATING AND TEMPERATURE: 300 PSIG AT 225 DEG F.
     - d. DIELECTRIC FITTINGS FOR NPS 2 AND SMALLER.

h+uo
hatch + ulland owen
architects

12/23/2019

hatch + ulland owen
architects
1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

THE COLONY - TREEHOUSE
AMENITY CENTER

CIVIL ENGINEER
CBD ENGINEERING & SURVEYING
5501 West William Cannon Drive
Austin, Texas 78749, US

LANDSCAPE ARCHITECT
SEC PLANNING , LLC
4201 W. Parmer Lane Bldg A, Suite 220
Austin, Texas 78727

PLUMBING, MECHANICAL, ELECTRICAL ENGINEER
Infinity MEP+s Consultants
5316 W US Hwy 290 Service Rd Suite 480
Austin, TX 78735

STRUCTURAL ENGINEER
TDI Engineering, LLC
5906 Old Fredericksburg Rd. Suite 300
Austin, TX 78749

STATE OF TEXAS
STEPHEN K. BUTLER
112019
LICENSED
PROFESSIONAL ENGINEER
10/22/2024

THE COLONY - TREEHOUSE AMENITY CENTER

BASTROP, TEXAS

hatch + ulland owen architects

h+uo # A22049

CONSTRUCTION DOCUMENTATION

ISSUE REVISIONS

#	DATE	NOTES
	2024-10-22	100% CD

SHEET TITLE

PLUMBING SPECIFICATIONS

10/22/2024 5:12:19 PM

PLUMBING SPECIFICATIONS

SECTION 22 11 19 - DOMESTIC WATER PIPING SPECIALTIES

1. VACUUM BREAKERS.
   - A. PIPE-APPLIED ATMOSPHERIC-TYPE VACUUM BREAKERS.
     - a. STANDARD: ASSE 1001
     - b. SIZE: NPS 1/4 TO NPS 3/4, AS REQUIRED TO MATCH CONNECTED PIPING.
     - c. BODY: BRONZE.
     - d. INTEL AND OUTLET CONNECTIONS: THREADED.
     - e. FINISH: ROUGH BRONZE.
   - B. HOSE-CONNECTION VACUUM BREAKERS
     - a. STANDARD: ASSE 1011.
     - b. BODY BRONZE, NONREMOVABLE, WITH MANUAL DRAIN.
     - c. OUTLET CONNECTION: GARDEN-HOSE THREADED COMPLYING WITH ASME B1.20.7
     - d. FINISH: CHROME OR ROUGH BRONZE.
2. BACKFLOW PREVENTERS.
   - A. REDUCING-PRESSURE PRINCIPLE BACKFLOW PREVENTERS
     - a. STANDARD: ASSE 1013.
     - b. OPERATION: CONTINUOUS-PRESSURE APPLICATIONS.
     - c. SIZE: NPS 1/2 TO NPS 2.
     - d. BODY: BRONZE FOR NPS 2 AND SMALLER.
     - e. END CONNECTION: THREADED FOR NPS 2 AND SMALLER.
     - f. ACCESSORIES:
       - VALVES NPS AND SMALLER: BALL TYPE WITH THREADED ENDS ON INLET AND OUTLET
       - AIR-GAP FITTING: ASME A112.1.2, MATCHING BACKFLOW-PREVENTER CONNECTION.
   - B. DOUBLE-CHECK BACKFLOW-PREVNTION ASSEMBLIES
     - a. STANDARD: ASSE 1015
     - b. OPERATION: CONTINUOUS-PRESSURE APPLICATIONS UNLESS OTHERWISE INDICATED.
     - c. PRESSURE LOSS: 5 PSIG MAXIMUM, THROUGH MIDDLE THIRD OF FLOW RANGE.
     - d. SIZE: NPS 3/4" TO NPS 4.
     - e. BODY: BRONZE FOR NPS 2 AND SMALLER. STEEL WITH INTERIOR LINING THAT COMPLIES WITH AWWA C550 OR THAT IS FDA APPROVED FOR NPS 2-1/2 AND LARGER.
     - f. END CONNECTION: THREADED FOR NPS 2 AND SMALLER, FLANGE FOR NPS 2-1/2 AND LARGER.CONFIGURATION: DESIGN FOR (HORIZONTAL, STRAIGHT-THROUGH) FLOW.
     - g. ACCESSORIES:
       - VALVES NPS 2 AND SMALLER: BALL TYPE WITH TYPE WITH THREADED ENDS ON INLET AND OUTLET.
       - VALVES NPS 2-1/2 AND LARGER: OUTSIDE-SCREW AND YOKE-GATE TYPE WITH FLANGE ENDS ON INLET AND OUTLET.
   - C. BEVERAGE-DISPENSING EQUIPMENT BACKFLOW PREVENTERS
     - a. STANDARD: ASSE 1022.
     - b. OPERTAION: CONTINUOUS-PRESSURE APPLICATIONS.
     - c. SIZE: NPS 1/4 OR NPS 3/8
     - d. BODY: STAINLESS STEEL.
     - e. END CONNECTIONS: THREADED.
   - C. DUAL-CHECK VALVE BACKFLOW PREVNTERS
     - a. STANDARD: ASSE 1024.
     - b. OPERATION: CONTINOUS PRESSURE APPLICATIONS.
     - c. SIZE: NPS 1/2 TO NPS 1-1/4.
     - d. BODY: BRONZE WITH UNION INLET.
   - D. CARBONATED BEVERAGE DISPENSER, DUAL CHECK VALVE BACKFLOW PREVENTORS
     - a. STANDARD: ASSE 1032.
     - b. OPERATION: CONTINUOUS_PRESSURE APPLICATIONS.
     - c. SIZE: NPS 1/4 OR NPS 3/8.
     - d. BODY STAINLESS STEEL.
     - e. END CONNECTIONS: THREADED.
   - F. DOUBLE CHECK DETECTOR-ASSEMBLY BACKFLOW PREVENTERS
     - a. STANDARD: ASSE 1048 AND IS FM GLOBAL APPROVED OR UL LISTED.
     - b. OPERATION: CONTINUOUS-PRESSURE APPLICATIONS.
     - c. PRESSURE LOSS: 5 PSIG MAXIMUM, THROUGH MIDDLE THIRD OF FLOW RANGE.
     - d. SIZE: NPS 2-1/2 TO NPS 4.
     - e. BODY: CAST IRON WITH INTERIOR LINING THAT COMPLIES WITH AWWA C550 OR THAT IS FDA APPROVED.
     - f. END CONNECTIONS: FLANGED.
     - g. CONFIGURATION: DESIGNED FOR (HORIZONTAL, STRAIGHT-THROUGH) (VERITICAL-INLET, HORIZONTAL-CENTER-SECTION, ASND VERITAL-OUTLET) (VERTICAL) FLOW.
     - h. ACCESSORIES:
       - VALVES: OUTSIDE-SCREW AND YOKE-GATE TYPE WITH FLANGED ENDS ON INLET AND OUTLE.
       - BYPASS: WITH DISPLACEMENT-TYPE WATER METER, SHUTOFF VALVES, AND REDUCED-PRESSURE BACKFLOW PREVENTER.
1. TEMPERATURE-ACTUATED, WATER MIXING VAVLES.
   - A. INDIVIDUAL FIXTURE WATER TEMPERING VALVE.
     - a. STAMDARD: ASSE 1016, THERMOSTATICALLY CONTROL, WATER WATER TEMPERING VALVE.
     - b. PRESSURE RATING: 125 PSIG MINIMUM UNLESS OTHERWISE INDICATED.
     - c. BODY: BRONZE BODY WITH CORROSION-RESISTANT INTERIOR COMPONEMENTS.
     - d. TEMPERATURE CONTROL: ADJUSTABLE.
     - e. INLET AND OUTELT: THREADED OR COMPRESSION FITING.
     - f. FINISHED: ROUGH OR CHROME-PLATED BRONZE.
     - g. TEMPERED-WATER SETTING: **(INSERT DEG F)**.
     - h. TEMPERED-WATER DESIGN FLOW RATE: **(INSERT GPM.)**
2. HOSE BIBB:
   - A. HOSE BIBB
     - a. STANDARD: ASTME A112.18.1 FOR SEDIMENT FAUCETS.
     - b. BODY MATERIAL: BRONZE.
     - c. SEAT: BRONZE, REPLACEABLE.
     - d. SUPPLY CONNECTIONS: NPS 1/2 OR NPS 3/4 THREADED OR SOLDER-JOINT INLET
     - e. OUTLET CONNECTION: GARDEN-HOSE THREAD COMPLYING WITH ASME B1.20.7.
     - f. PRESSURE RATING: 125 PSIG.
     - g. VACUUM BREAKER: INTEGRAL NONREMOVABLE, DRAINABLE, HOSE-CONNECTION VACUUM BREAKER COMPLYING WITH ASSE 1011.
     - h. FINISH FOR EQUIPMENT ROOMS: ROUGH BRONZE, CHROME OR NICKEL PLATED.
     - i. FINISH FOR SERVICE AREAS: ROUGH BRONZE, CHROME OR NICKEL PLATED.
     - j. OPERATION FOR EQUIPMENT ROOMS: WHEEL HANDLE OR OPERATING KEY.
     - k. OPERATION FOR SERVICE AREAS: WHEEL HANDLE OR OPERATING KEY.
     - l. INCLUDE OPERATING KEY WITH EACH OPERATING-KEY HOSE BIBB.
     - m. INCLUDE INTEGRAL WALL FLANGE WITH EACH CHROME OR NICKEL PLATED HOSE BIBB.
   - B. NON FREEZE WALL HYDRANTS
     - a. STANDARD: ASME A112.21.3M FOR CONCEALED-OUTLET, SELF-DRAINING WALL HYDRANTS.
     - b. PRESSURE RATING: 125 PSIG.
     - c. OPERATION: LOOSE KEY.
     - d. CASING AND OPERATING ROD: OF LENGTH REQUIRED TO MATCH WALL THINCKNESS. INCLUDE WALL CLAMP .
     - e. INLET: MPS3/4.
     - f. OUTLET: CONCEALED WITH INTERGRAL VACUUM BREAKER AND GARDEN-HOSE THREAD COMPLYING WITH ASME B1.20.7.
     - g. BOX: DEEP FLUSH MOUNTED WITH COVER.
     - h. OUTLET: EXPOSED WITH INTEGRAL VACUUM BREAKER AND GARDEN-HOSE THREAD COMPLYING WITH ASME B1.20.7.
     - i. NOZZLE AND WALL-PLATE FINISH: (POLISHED NICKEL BRONZE). (ROUGH BRONZE).
     - j. OPERATING KEYS(S): (ONE), (TWO) WITH EACH WALL HYDRANTS.
     - k. OPERATION FOR EQUIPMENT ROOMS: WHEEL HANDLE OR OPERATING KEY.
     - l. OPERATION FOR SERVICE AREAS: WHEEL HANDLE OR OPERATING KEY.
     - m. INCLUDE OPERATING KEY WITH EACH OPERATING-KEY HOSE BIBB.
     - n. INCLUDE INTEGRAL WALL FLANGE WITH EACH CHROME OR NICKEL PLATED HOSE BIBB.

SECTION 22 13 16 - SANITARY WASTE AND VENT PIPING

1. PERFORMANCE REQUIREMENTS
   - A. COMPONENTS AND INSTALLATION SHALL BE CAPABLE OF WITHSTANDING THE FOLLOWING MINIMUM WORKING PRESSURE UNLESS OTHERWISE INDICATED:
     - a. SOIL, WASTE AND VENT PIPING: 10-FOOT HEAD OF WATER.
     - b. WASTE, FORCE-MAIN PIPING: 50 PSI.
2. HUBLESS CAST-IRON SOIL PIPE AND FITTINGS
   - A. MANUFACTURERS SHALL BE ISO 9001 ACCREDITED.
   - B. PIPE AND FITTINGS ABOVE GROUND:
     - a. CISPI 310 OR ASTM C 1277, CAST IRON NO-HUB SOIL PIPE AND FITTINGS WITH STAINLESS STEEL NO-HUB COUPLINGS.
     - b. ALL CAST IRON SOIL PIPE AND FITTINGS SHALL BE MARKED WITH THE COLLECTIVE TRADEMARK OF THE CAST IRON SOIL PIPE INSTITUTE AND BE LISTED BY NSF INTERNATIONAL®
   - C. INDIRECT DRAIN:
     - a. TYPE M, ASTM B-88, SEAMLESS HARD TEMPER, COLD DRAWN COPPER TUBING WITH ANSI B16.29 WROUGHT COPPER SOLDER SWEAT DRAINAGE FITTINGS.
   - D. CAST IRON SOIL PIPE NO-HUB COUPLINGS:
     - a. CONFORMING TO ASTM C 1540. HEAVY DUTY, 24 GAUGE, TYPE 304 STAINLESS STEEL SHIELD AND CLAMP ASSEMBLY WITH ASTM C 564 NEOPRENE SEALING SLEEVE TORQUED TO A MINIMUM OF 100 INCH/LBS. COUPLING WILL BE FACTORY MUTUAL APPROVED PER STANDARD 1680, CLASS I. (HUSKY 4000 OR EQUIVALENT)
3. PVC PIPE AND FITTINGS
   - A. BELOW GROUND:
     - a. SOLID-WALL PVC PIPE ASTM D 2665 AND ASTM D1785, DRAIN, WASTE, AND VENT. ALL BURIED PVC PIPING SYSTEMS SHALL BE INSTALLED PER ASTM D2321.
   - B. PVC SOCKET FITTINGS:
     - a. ASTM D 2665, MADE TO ASTM D 3311, DRAIN, WASTE, AND VENT PATTERNS AND TO FIT SCHEDULE 40 PIPE.
   - C. ADHESIVE PRIMER: ASTM F 656
     - a. ADHESIVE PRIMER SHALL HAVE A VOC OF 550G/L OR LESS WHEN CALCULATED ACCORDING TO 40 CFR 59, SUBPART D (EPA METHOD 24).
     - b. ADHESHIVE PRIMER "STANDARD PRACTICE FOR THE TESTING OF VOLATILE ORGANIC EMISSIONS FROM VARIOUS SOURCES USING SMALL-SCALE ENVIROMENTAL CHAMBERS".
   - D. SOLVENT CEMENT: ASTM D 2564
     - a. ADHESIVE PRIMER SHALL HAVE A VOC OF 550G/L OR LESS WHEN CALCULATED ACCORDING TO 40 CFR 59, SUBPART D (EPA METHOD 24).
     - b. ADHESHIVE PRIMER "STANDARD PRACTICE FOR THE TESTING OF VOLATILE ORGANIC EMISSIONS FROM VARIOUS SOURCES USING SMALL-SCALE ENVIROMENTAL CHAMBERS".
4. CORROSIVE WASTE:
   - A. IF REQUIRED ON THE PROJECT, CORROSIVE WASTE PIPING SHALL BE:
     - a. CPVC PIPE AND FITTINGS CONFORMING TO ASTM F2618. ALL COMPONENTS SHALL BE MANUFACTURED AS A SYSTEM FROM ONE MANUFACTURER AND BE CERTIFIED BY NSF INTERNATIONAL AND BEAR THE MARK NSF-CW
5. PIPING INSTALLATIONS
   - A. INSTALL PIPING ABOVE ACCESSIBLE CEILINGS TO ALLOW SUFFICIENT SPACE FOR CEILING PANEL REMOVAL.
   - B. INSTALL PIPING TO PERMIT VALVE SERVICING.
   - C. INSTALL PIPING AT INDICATED SLOPES.
   - D. INSTALL PIPING FREE OF SAGS AND BENDS.
   - E. INSTALL FITTINGS FOR CHANGES IN DIRECTION AND BRANCH CONNECTIONS.
   - F. INSTALL PIPING TO ALLOW APPLICATION OF INSULATION.
   - G. MAKE CHANGES IN DIRECTION FOR SOIL AND WASTE DRAINAGE AND VENT PIPING USING APPROPRIATE BRANCHES, BENDS, AND LONG-SWEEP BENDS. SANITARY TEES AND SHORT-SWEEP 1/4 BENDS MAY BE USED ON VERTICAL STACKS IF CHANGE IN DIRECTION OF FLOW IS FROM HORIZONTAL TO VERTICAL. USE LONG-TURN, DOUBLE Y-BRANCH AND 1/8-BEND FITTINGS IF TWO FIXTURES ARE INSTALLED BACK TO BACK OR SIDE BY SIDE WITH COMMON DRAIN PIPE. STRAIGHT TEES, ELBOWS, AND CROSSES MAY BE USED ON VENT LINES. DO NOT CHANGE DIRECTION OF FLOW MORE THAN 90 DEGREES. USE PROPER SIZE OF STANDARD INCREASERS AND REDUCERS IF PIPES OF DIFFERENT SIZES ARE CONNECTED. REDUCING SIZE OF DRAINAGE PIPING IN DIRECTION OF FLOW IS PROHIBITED.
   - H. LAY BURIED BUILDING DRAINAGE PIPING BEGINNING AT LOW POINT OF EACH SYSTEM. INSTALL TRUE TO GRADES AND ALIGNMENT INDICATED, WITH UNBROKEN CONTINUITY OF INVERT. PLACE HUB ENDS OF PIPING UPSTREAM. INSTALL REQUIRED GASKETS ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS FOR USE OF LUBRICANTS, CEMENTS, AND OTHER INSTALLATION REQUIREMENTS. MAINTAIN SWAB IN PIPING AND PULL PAST EACH JOINT AS COMPLETED.
6. FIELD QUALITY CONTROL
   - A. TEST SANITARY DRAINAGE AND VENT PIPING ACCORDING TO PROCEDURES OF AUTHORITIES HAVING JURISDICTION OR, IN ABSENCE OF PUBLISHED PROCEDURES, AS FOLLOWS:
     - a. TEST FOR LEAKS AND DEFECTS IN NEW PIPING AND PARTS OF EXISTING PIPING THAT HAVE BEEN ALTERED, EXTENDED, OR REPAIRED. IF TESTING IS PERFORMED IN SEGMENTS, SUBMIT SEPARATE REPORT FOR EACH TEST, COMPLETE WITH DIAGRAM OF PORTION OF PIPING TESTED.
     - b. LEAVE UNCOVERED AND UNCONCEALED NEW, ALTERED, EXTENDED, OR REPLACED DRAINAGE AND VENT PIPING UNTIL IT HAS BEEN TESTED AND APPROVED. EXPOSE WORK THAT WAS COVERED OR CONCEALED BEFORE IT WAS TESTED.
     - c. ROUGHING-IN PLUMBING TEST PROCEDURE: TEST DRAINAGE AND VENT PIPING EXCEPT OUTSIDE LEADERS ON COMPLETION OF ROUGHING-IN. CLOSE OPENINGS IN PIPING SYSTEM AND FILL WITH WATER TO POINT OF OVERFLOW, BUT NOT LESS THAN 10-FOOT HEAD OF WATER (30 KPA). FROM 15 MINUTES BEFORE INSPECTION STARTS TO COMPLETION OF INSPECTION, WATER LEVEL MUST NOT DROP. INSPECT JOINTS FOR LEAKS.
     - d. FINISHED PLUMBING TEST PROCEDURE: AFTER PLUMBING FIXTURES HAVE BEEN SET AND TRAPS FILLED WITH WATER, TEST CONNECTIONS AND PROVE THEY ARE GASTIGHT AND WATERTIGHT. PLUG VENT-STACK OPENINGS ON ROOF AND BUILDING DRAINS WHERE THEY LEAVE BUILDING. INTRODUCE AIR INTO PIPING SYSTEM EQUAL TO PRESSURE OF 1-INCH WG (250 PA). USE U-TUBE OR MANOMETER INSERTED IN TRAP OF WATER CLOSET TO MEASURE THIS PRESSURE. AIR PRESSURE MUST REMAIN CONSTANT WITHOUT INTRODUCING ADDITIONAL AIR THROUGHOUT PERIOD OF INSPECTION. INSPECT PLUMBING FIXTURE CONNECTIONS FOR GAS AND WATER LEAKS.
     - e. REPAIR LEAKS AND DEFECTS WITH NEW MATERIALS AND RETEST PIPING, OR PORTION THEREOF, UNTIL SATISFACTORY RESULTS ARE OBTAINED.
     - f. PREPARE REPORTS FOR TESTS AND REQUIRED CORRECTIVE ACTION.

SECTION 22 13 19 - SANITARY WASTE PIPING SPECIALTIES

1. QUALITY ASSURANCE
   - A. DRAINAGE PIPING SPECIALTIES .
   - B. ALL MATERIALS SHALL BE NEW, UNDAMAGED, AND FREE OF RUST. PROTECT INSTALLED PRODUCTS AND ASSOCIATED MATERIALS DURING PROGRESSION OF THE CONSTRUCTION PERIOD TO AVOID CLOGGING WITH DIRT, AND DEBRIS AND TO PREVENT DAMAGE, RUST, ETC. REMOVE DIRT AND DEBRIS AS WORK PROGRESSES.
   - C. MANUFACTURER QUALIFICATIONS: COMPANY SHALL HAVE MINIMUM THREE YEARS DOCUMENTED EXPERIENCE SPECIALIZING IN MANUFACTURING THE PRODUCTS SPECIFIED IN THIS SECTION.
2. FLOOR DRAINS: (FD-1)
   - A. ALL FLOOR DRAINS SHALL BE FURNISHED AND INSTALLED WITH ALL OPTIONS AND ACCESSORIES REQUIRED FOR A WATERPROOF INSTALLATION WITHIN THE PARTICULAR CONSTRUCTION IN WHICH THEY ARE TO BE MOUNTED.
   - B. EACH FLOOR DRAIN SHALL BE PROVIDED WITH A DEEP-SEAL P-TRAP UNLESS NOTED OTHERWISE.
   - C. FLOOR DRAINS IN TOILET ROOMS, SHOWERS AND SIMILAR FINISHED AREAS (FD-1): CAST IRON BODY WITH FLANGE, ADJUSTABLE TOP AND SEDIMENT BUCKET, INTEGRAL REVERSIBLE CLAMPING COLLAR, SEEPAGE OPENINGS, 1/2" PLUGGED PRIMER TAP, AND 6" DIAMETER NICKEL BRONZE OR STAINLESS STEEL STRAINER WITH VANDAL PROOF SCREWS.
   - D. FLOOR DRAINS IN EQUIPMENT ROOMS FOR GENERAL AREA DRAINAGE (FD-2): WADE NO. 1210-27, CAST IRON BODY WITH PLUGGED 1/2" PRIMER TAP, INTEGRAL CLAMPING COLLAR, SEEPAGE OPENINGS, AND 11-1/2" DIAMETER DUCTILE IRON LOOSE SET TRACTOR GRATE AND SEDIMENT BUCKET.
   - E. ALL FLOOR DRAINS SHALL BE AS SIZED ON CONTRACT DRAWINGS.
3. HUB DRAINS: (HD)
   - A. HUB DRAINS SHALL BE CAST IRON SOIL PIPE MANUFACTURED HUBS OR HUB ADAPTERS. FIELD CUT NO-HUB OR PLAIN-END PIPE STUB-UPS ARE NOT ACCEPTABLE.
   - B. EACH HUB DRAIN SHALL BE PROVIDED WITH A DEEP-SEAL P-TRAP.
4. CLEANOUTS
   - A. CLEANOUTS SHALL BE THE SAME NOMINAL SIZE AS THE PIPE THEY SERVE UP TO FOUR INCHES.
   - B. CLEANOUTS SHALL HAVE CAST IRON BODY WITH TAPERED CAST BRASS OR BRONZE PLUG PROVIDING GAS AND WATERTIGHT SEAL.
   - C. INTERIOR FLOOR CLEANOUTS SHALL HAVE STAINLESS STEEL OR NICKEL BRONZE SCORIATED TOP. PROVIDE CARPET MARKER WHEN INSTALLED IN AREAS TO BE COVERED BY CARPET.
   - D. EXTERIOR CLEANOUTS AT GRADE SHALL HAVE SCORIATED CAST IRON TOP.
   - E. WALL CLEANOUTS SHALL BE PROVIDED WITH STAINLESS STEEL ACCESS COVERS OF ADEQUATE SIZE TO ALLOW RODDING OF DRAINAGE SYSTEM. WALL CLEANOUTS INCORPORATING COVER SCREWS THAT EXTEND COMPLETELY THROUGH THE ACCESS PLUG ARE NOT ACCEPTABLE.
5. TRAP PROTECTION INSERTS
   - A. TRAP SEAL PROTECTION INSERTS SHALL ONLY BE INSTALLED WHERE JOB CONDITIONS PREVENT THE INSTALLATION OF WATER SUPPLIED TRAP PRIMERS.
     - a. TRAP SEAL PROTECTION INSERT SHALL NOT BE INSTALLED IN DRAINS RECEIVING WASTE THAT MAY HAVE A TEMPERATURE GREATER THAN 140 DEGREES F.
     - b. TRAP SEAL PROTECTION INSERT SHALL NOT BE INSTALLED IN DRAINS RECEIVING WASTE DISCHARGE FLOW OF GREATER THAN 30 GALLONS PER MINUTE.
     - c. TRAP SEAL PROTECTION INSERT SHALL NOT BE INSTALLED IN DRAINS RECEIVING CORROSIVE OR CHEMICAL WASTE.
   - B. FLOOR DRAIN TRAP SEAL PROTECTION INSERT SHALL PROVIDE WATERTIGHT SEAL INSIDE THE FLOOR DRAIN AND PREVENT EMISSION OF SEWER GAS AND BACKUP OF SEWAGE.
   - C. INSERT MATERIAL SHALL BE RESISTANT TO COMMON CLEANING SOLUTIONS, LIME SCALE AND MICROBIOLOGICAL GROWTH AND INCORPORATE A ELASTOMERIC FLEXIBLE TUBE THAT CLOSES WHEN WATER IS NOT PASSING THROUGH AND OPENS TO PERMIT WATER FLOW FROM AN INTERMITTENT DRIP. INSERT SHALL PROVIDE NO RESTRICTION ON WATER FLOW UP TO 30 GALLONS PER MINUTE.
   - D. INSERT SHALL PROPERLY FUNCTIONS DESPITE LODGING OF COMMON DEBRIS SUCH AS MOP STRINGS, FOOD RESIDUE, ETC.
6. INSTALLATION
   - A. GENERAL
     - a. INSTALL PLUMBING SPECIALTIES IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTRUCTIONS.
   - B. DRAINS AND CLEANOUTS
     - a. EXTREME CARE SHALL BE USED TO SET THE TOP ELEVATION OF FLOOR DRAINS AND FLOOR SINKS TO MEET THE LOW POINT ELEVATION OF THE FINISHED FLOOR.
     - b. PIPE CONNECTIONS TO ROOF DRAINS, ABOVE GRADE FLOOR DRAINS AND FLOOR SINKS SHALL NOT DIRECTLY CONTACT OR BE ENCASED IN CONCRETE.
     - c. FINAL MOUNTING OF INTERIOR CLEANOUT TOP OR ACCESS COVER SHALL BE SET FLUSH WITH THE FINISHED FLOOR OR WALL SURFACE. LUBRICATE THREADED CLEANOUT PLUGS WITH MIXTURE OF GRAPHITE AND LINSEED OIL.
     - d. ENCASE EXTERIOR CLEANOUTS WITHIN 14" X 14" X 6" THICK REINFORCED CONCRETE PAD. SET TOP FLUSH WITH FINISHED GRADE SURFACE.
     - e. LOCATE CLEANOUTS WITH REQUIRED CLEARANCE FOR RODDING OF DRAINAGE SYSTEM.
7. PROTECTION
   - A. PROTECT DRAINS DURING REMAINDER OF CONSTRUCTION PERIOD TO AVOID CLOGGING WITH DIRT OR DEBRIS AND TO PREVENT DAMAGE FROM TRAFFIC OR CONSTRUCTION WORK.
   - B. PLACE PLUGS IN ENDS OF UNCOMPLETED PIPING AT END OF EACH DAY OR WHEN WORK STOPS.

SECTION 22 33 00 - ELECTRIC DOMESTIC WATER HEATER

1. POINT-OF-USE TYPE ELECTRIC DOMESTIC WATER HEATERS
   - A. FURNISH AND INSTALL POINT OF USE ELECTRIC DOMESTIC HOT WATER HEATERS WITH DIMENSIONS, CAPACITIES AND ELECTRICAL CHARACTERISTICS AS SCHEDULED ON THE CONTRACT DRAWINGS AND AS OUTLINED HEREIN. THIS SPECIFICATION DESCRIBES MINIMUM QUALITY AND PERFORMANCE REQUIREMENTS. VARIATIONS OF SYSTEM COMPONENTS BY THE INDIVIDUAL REFERENCED MANUFACTURERS ARE ACCEPTABLE FOR INSTALLATION IN THIS PROJECT PROVIDED THEY MEET OR EXCEED ALL OF THE REQUIREMENTS INDICATED HEREIN, ARE COMPATIBLE WITH THE ELECTRICAL SERVICE PROVIDED AND FIT PROPERLY IN THE ALLOCATED SPACE.
   - B. WATER HEATER SHALL BE TANK-LESS, THERMOSTATIC INSTANTANEOUS TYPE WITH MICROPROCESSING TEMPERATURE CONTROL CAPABLE OF MAINTAINING SET OUTLET TEMPERATURE WITH ±1°F ACCURACY WITH A MINIMUM WATER SUPPLY PRESSURE OF 25 PSIG.
   - C. UNIT SHALL BE RATED FOR A MAXIMUM OPERATING PRESSURE OF 150 PSIG.
   - D. UNIT SHALL HAVE ABS-UL 94VO RATED COVER, FIELD REPLACEABLE CARTRIDGE ELEMENT, FIELD REPLACEABLE FILTER IN THE INLET CONNECTOR.
   - E. INTEGRATED FACTORY CALIBRATED ASSE 1070-2004 COMPLIANT THERMOSTATIC MIXING VALVE, ANTI-SCALD FEATURE. MAXIMUM TEMPERATURE SHALL BE 105 DEGREES F.
   - F. HEATING ELEMENT SHALL BE IRON FREE, REPLACEABLE NICKEL CHROME MATERIAL.
   - G. HEATER SHALL BE FITTED WITH ½" PIPE COMPRESSION NUTS (5/8" OD) OR 3/8" SLEEVES. SOLDER TYPE CONNECTIONS SHALL NOT BE ACCEPTED.
   - H. HEATER SHALL HAVE NONADJUSTABLE THERMOSTAT, FACTORY SET AT 105 DEGREES F, UNLESS INDICATED OTHERWISE ON CONTRACT DRAWINGS.
   - I. ONLY A SINGLE POINT HARD WIRED ELECTRICAL CONNECTION IS ACCEPTABLE. PLUG-IN TYPE ELECTRICAL CONNECTIONS ARE NOT ALLOWED.
2. DOMESTIC WATER HEATER ACCESSORIES:
   - A. DOMESTIC WATER COMPRESSION TANKS:
     - a. DESCRIPTION: STEEL, PRESSURE-RATED TANK CONSTRUCTED WITH WELDED JOINTS AND FACTORY INSTALLED BUTYL-RUBBER DIAPHRAGM. INCLUDE AIR PRECHARGE TO MINIMUM SYSTEM-OPERATION PRESSURE TANK.
     - b. CONSTRUCTION:
       - TAPPING FACTORY FABRICATED STEEL, WELDED TO TANK BEFORE TESTING AND LABELING. INCLUDE ASME B1.20.1 PIPE THREAD.
       - INTERIOR FINISH: COMPLY WITH NSF 61 ANNEX G BARRIER MATERIALS FOR POTABLE WATER TANK LININGS, INCLUDING EXTENDING FINISH INTO AND THROUGH TANK FITTING AND OULETS.
       - AIR-CHARGING VALVE: FACTORY INSTALLED.
     - c. CAPACITY AND CHARACTERISTICS:
       - WORKING PRESSURE RATING: 150 PSIG.
       - CAPACITY ACCEPTABLE: **[2 GAL.] [4 GAL.] [7GAL.] [10 GAL]** MINIMUM.
       - AIR PRECHARGE PRESSURE: **<INSERT SYSTEM PRESSURE>.**
   - A. DRAIN PANS: CORROSION-RESISTANT METAL WITH RAISED EDGE. COMPLY WITH ANSI/CSA LC 3. INCLUDE DIMENSIONS NOT LESS THAN BASE OF DOMESTIC-WATER HEATER, AND INCLUDE DRAIN OUTLET NOT LESS THAN NPS 3/4 (DN 20) WITH ASME B1.20.1 PIPE THREADS OR WITH ASME B1.20.7 GARDEN-HOSE THREADS.
   - B. PIPING TYPE HEAT TRAPS: FIELD FABRICATED PIPING ARRANGEMENT ACCORDING TO ASHRAE/IESNA 90.1. HEAT TRAP FITTINGS: ASHRAE 90.2.
   - C. MANIFOLD KITS: DOMESTIC WATER HEATER MANUFACTURER'S FACTORY FABRICATED INLET AND OUTLET PIPING FOR INSTALLATION, FOR MULTIPLE DOMESTIC WATER HEATER INSTALLATION. INCLUDE **[BALL]** OR **[BUTTERFLY-TYPE]** SHUTOFF VALVES TO ISOLATE EACH DOMESTIC WATER HEATER AND **[CALIBRATED] [MEMORY STOP]** BALANCING VALVES TO PROVIDE BALNCED FLOW THROUGH EACH DOMESTIC WATER HEATER.
     - a. COMPLY WITH REQUIREMENTS FOR BALL, OR BUTTERFLY SHUTOFF VALVES SPECIFIED IN SECTION 220523.12 "BALL VALVES FOR PLUMBING PIPING," SECTION 220523.13 "BUTTERFLY VALVES FOR PLUMBING PIPING."
     - b. COMPLY WITH REQUIREMENTS FOR BALANCING VALVES SPECIFIED IN SECTION 221119 "DOMESTIC WATER PIPING SPECIALTIES."
   - D. COMBINATION TEMPERATURE AND PRESSURE RELIEF VALVE: INCLUDE RELIEVING CAPACITY AT LEAST AS GREAT AS HEAT INPUT AND INCLUDE PRESSURE SETTING LESS THAN DOMESTIC WATER HEATER WORKING PRESSURE RATING. SELECT RELIEF VALVES WITH SENSING ELEMENT THAT EXTENDS INTO STORAGE TANK.
     - a. ELECTRICAL, DOMESTIC WATER HEATER:ANSI Z21.22/CSA 4.4-M.
   - E. PRESSURE RELIEF VALVES: INCLUDE PRESSURE SETTING LESS THAN DOMESTIC WATER HEATER WORKING PRESSURE RATING.
     - a. ELECTRICAL DOMESTIC WATER HEATER: ANSI Z21.22/CSA 4.4-M.
   - F. VACUUM RELIEF VALVES: ANSI Z21.22/CSA 4.4-M.
   - G. DOMESTIC WATER HEATER STANDS: MANUFACTURER'S FACTORY FABRICATED STEEL STAND FOR FLOOR MOUNTING, CAPABLE OF SUPPORTING DOMESTIC WATER HEATER AND WATER. PROVIDE DIMENSION THAT WILL SUPPORT BOTTOM OF DOMESTIC WATER HEATER A MINIMUM OF 18 INCHES ABOVE THE FLOOR.
   - H. DOMESTIC WATER HEATER MOUNTING BRACKETS: MANUFACTURER'S FACTORY FABRICATED STEEL BRACKET FOR WALL MOUNTING, CAPABLE OF SUPPORTING DOMESTIC WATER HEATER AND WATER.

10/22/2024 5:12:21 PM

hatch + ulland owen architects

12/23/2019

hatch + ulland owen
architects
1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

CIVIL ENGINEER
CBD ENGINEERING & SURVEYING
5501 West William Cannon Drive
Austin, Texas 78749, US

LANDSCAPE ARCHITECT
SEC PLANNING , LLC
4201 W. Parmer Lane Bldg A, Suite 220
Austin, Texas 78727

PLUMBING, MECHANICAL, ELECTRICAL ENGINEER
Infinity MEP+s Consultants
5316 W US Hwy 290 Service Rd Suite 480
Austin, TX 78735

STRUCTURAL ENGINEER
TDI Engineering, LLC
5906 Old Fredericksburg Rd. Suite 300
Austin, TX 78749

THE COLONY - TREEHOUSE AMENITY CENTER

STATE OF TEXAS
STEPHEN T. BUTLER
112019
LICENSED
PROFESSIONAL ENGINEER

10/22/2024

THE COLONY - TREEHOUSE AMENITY CENTER

BASTROP, TEXAS

hatch + ulland owen architects

h+uo # A22049

CONSTRUCTION DOCUMENTATION

ISSUE REVISIONS

#	DATE	NOTES

SHEET TITLE

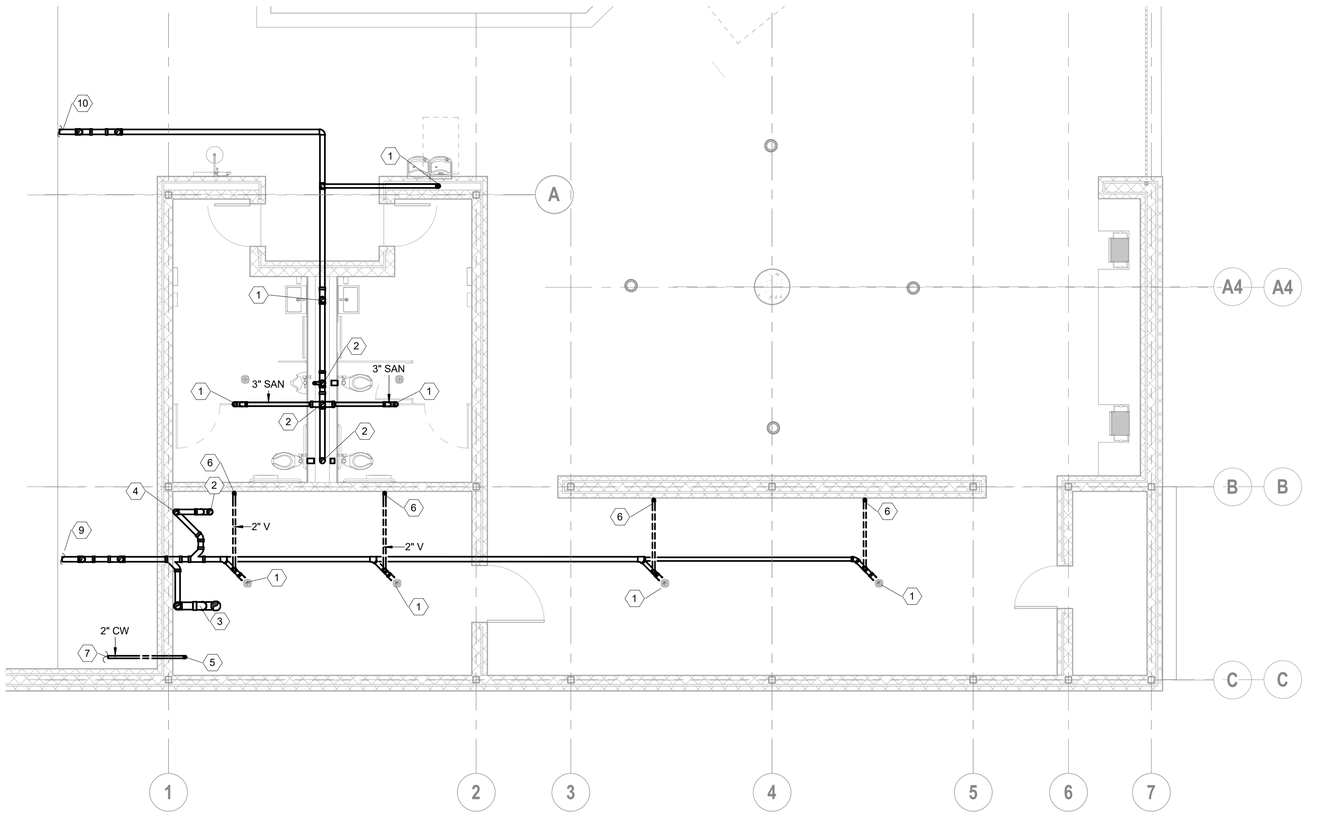
PLUMBING SPECIFICATIONS

SHEET NUMBER

P0.04

KEYNOTES

1	3" SAN. UP
2	4" SAN. UP
3	6" SAN UP
4	4" SAN. DOWN
5	2" CW UP
6	2" VENT UP
7	2" CW (48 GPM) REFER CIVIL FOR CONTINUATION.
9	4" SAN. I.E. = -3'-0". REFER TO CIVIL FOR CONTINUATION
10	4" SAN. I.E. = -4'-0". REFER TO CIVIL FOR CONTINUATION



1 PLUMBING UNDERFLOOR PLAN

3/16" = 1'-0"

hatch + ulland owen architects

1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

CIVIL ENGINEER
CBD ENGINEERING & SURVEYING
5501 West William Cannon Drive
Austin, Texas 78749, US

LANDSCAPE ARCHITECT
SEC PLANNING , LLC
4201 W. Parmer Lane Bldg A, Suite 220
Austin, Texas 78727

PLUMBING, MECHANICAL, ELECTRICAL ENGINEER
Infinity MEP+s Consultants
5316 W US Hwy 290 Service Rd Suite 480
Austin, TX 78735

STRUCTURAL ENGINEER
TDI Engineering, LLC
5906 Old Fredericksburg Rd. Suite 300
Austin, TX 78749

STATE OF TEXAS
STEPHEN J. BUTLER
112019
LICENSED
PROFESSIONAL ENGINEER

10/22/2024

THE COLONY - TREEHOUSE AMENITY CENTER

BASTROP, TEXAS

hatch + ulland owen architects

h+uo # A22049

CONSTRUCTION DOCUMENTATION

ISSUE REVISIONS

#	DATE	NOTES
	2024-10-22	100% CD

SHEET TITLE

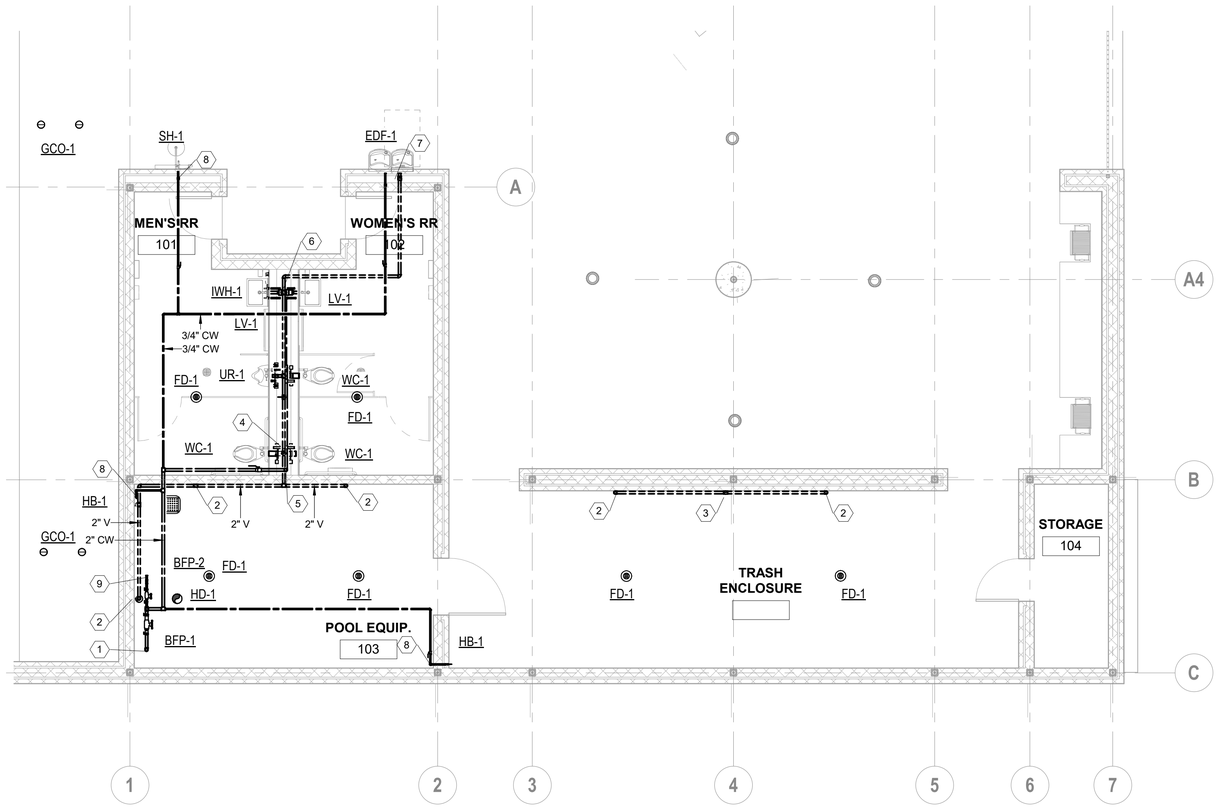
PLUMBING UNDERFLOOR PLAN

SHEET NUMBER

P2.00

KEYNOTES

1	2" CW DOWN
2	2" VENT DOWN
3	2" VENT UP TO 3" VTR
4	2" VENT DN TO 3" SAN. CONNECT TO FIXTURE(S)
5	2" CW DN IN CHASE. CONNECT FIXTURE(S)
6	3/4" CW DOWN, TAP FOR IWH-1. CONNECT BOTH HW AND CW TO FIXTURE(S)
7	3/4" CW AND 2" VENT DOWN. CONNECT TO FIXTURE
8	3/4" CW DN. CONNECT FIXTURE
9	1"CW TO POOL MAKE-UP.



1 PLUMBING PLAN

3/16" = 1'-0"

hatch + ulland owen architects

1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

CIVIL ENGINEER
CBD ENGINEERING & SURVEYING
5501 West William Cannon Drive
Austin, Texas 78749, US

LANDSCAPE ARCHITECT
SEC PLANNING , LLC
4201 W. Parmer Lane Bldg A, Suite 220
Austin, Texas 78727

PLUMBING, MECHANICAL, ELECTRICAL ENGINEER
Infinity MEP+s Consultants
5316 W US Hwy 290 Service Rd Suite 480
Austin, TX 78735

STRUCTURAL ENGINEER
TDI Engineering, LLC
5906 Old Fredericksburg Rd. Suite 300
Austin, TX 78749

STATE OF TEXAS
STEPHEN F. BUTLER
112019
LICENSED
PROFESSIONAL ENGINEER
10/22/2024

THE COLONY - TREEHOUSE AMENITY CENTER

BASTROP, TEXAS

hatch + ulland owen architects

h+uo # A22049

CONSTRUCTION DOCUMENTATION

ISSUE REVISIONS

#	DATE	NOTES
	2024-10-22	100% CD

SHEET TITLE

PLUMBING FLOOR PLAN

SHEET NUMBER

P2.01

10/22/2024 5:12:23 PM

GENERAL NOTES

KEYNOTES

1	3" SAN. UP
2	4" SAN. UP
3	6" SAN UP
4	4" SAN. DOWN
5	2" CW UP
6	2" VENT UP
7	2" CW (48 GPM) REFER CIVIL FOR CONTINUATION.
9	4" SAN. I.E. = -3'-0". REFER TO CIVIL FOR CONTINUATION
10	4" SAN. I.E. = -4'-0". REFER TO CIVIL FOR CONTINUATION

1 **PLUMBING SITE FLOOR PLAN**
1" = 30'-0"

hatch + ulland owen
architects

1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

CIVIL ENGINEER
CBD ENGINEERING & SURVEYING
5501 West William Cannon Drive
Austin, Texas 78749, US

LANDSCAPE ARCHITECT
SEC PLANNING , LLC
4201 W. Parmer Lane Bldg A, Suite 220
Austin, Texas 78727

PLUMBING, MECHANICAL, ELECTRICAL ENGINEER
Infinity MEP+s Consultants
5316 W US Hwy 290 Service Rd Suite 480
Austin, TX 78735

STRUCTURAL ENGINEER
TDI Engineering, LLC
5906 Old Fredericksburg Rd. Suite 300
Austin, TX 78749

12/23/2019

THE COLONY - TREEHOUSE AMENITY CENTER

STATE OF TEXAS
STEPHEN J. BUTLER
112019
LICENSED
PROFESSIONAL ENGINEER

10/22/2024

THE COLONY - TREEHOUSE AMENITY CENTER

BASTROP, TEXAS

hatch + ulland owen architects

h+uo # A22049

CONSTRUCTION DOCUMENTATION

ISSUE REVISIONS

#	DATE	NOTES
	2024-10-22	100% CD

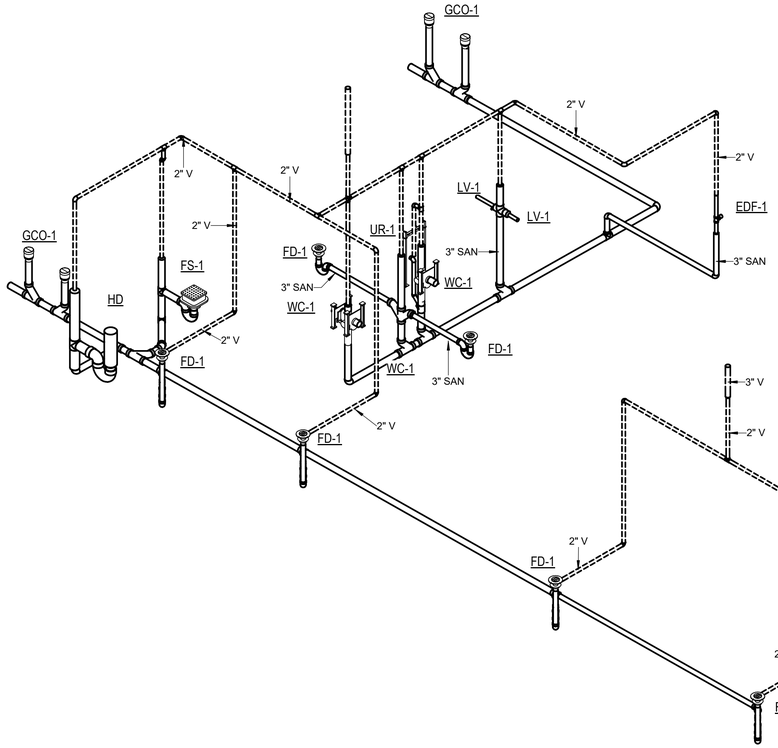
SHEET TITLE

PLUMBING SITE PLAN

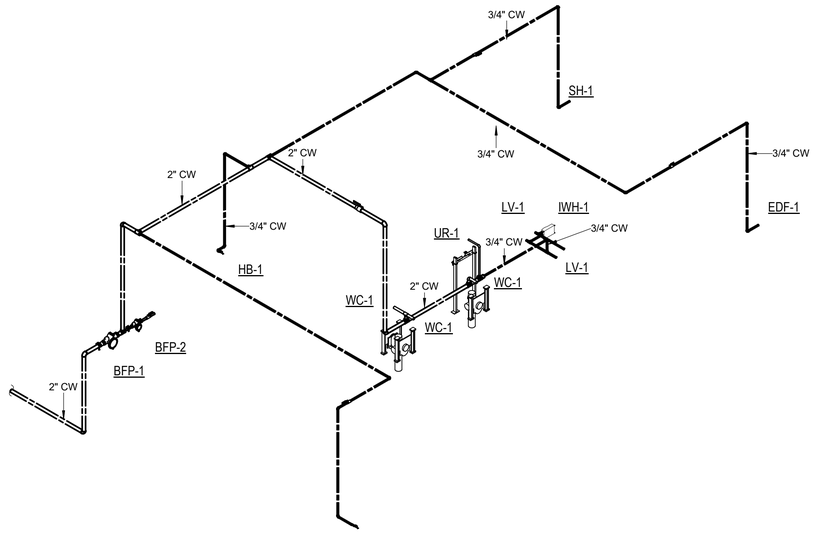
SHEET NUMBER

P2.02

10/22/2024 5:12:29 PM



2 PLUMBING RISER - SANITARY & VENT



1 PLUMBING RISER - DOMESTIC WATER

hatch + ulland owen architects

12/23/2019

hatch + ulland owen
architects
1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

CIVIL ENGINEER
CBD ENGINEERING & SURVEYING
5501 West William Cannon Drive
Austin, Texas 78749, US

LANDSCAPE ARCHITECT
SEC PLANNING , LLC
4201 W. Parmer Lane Bldg A, Suite 220
Austin, Texas 78727

PLUMBING, MECHANICAL, ELECTRICAL ENGINEER
Infinity MEP+s Consultants
5316 W US Hwy 290 Service Rd Suite 480
Austin, TX 78735

STRUCTURAL ENGINEER
TDI Engineering, LLC
5906 Old Fredericksburg Rd. Suite 300
Austin, TX 78749

THE COLONY - TREEHOUSE AMENITY CENTER

STATE OF TEXAS
STEPHEN M. BUTLER
112019
LICENSED
PROFESSIONAL ENGINEER

10/22/2024

THE COLONY - TREEHOUSE AMENITY CENTER

BASTROP, TEXAS

hatch + ulland owen architects

h+uo # A22049

CONSTRUCTION DOCUMENTATION

ISSUE REVISIONS

#	DATE	NOTES
	2024-10-22	100% CD

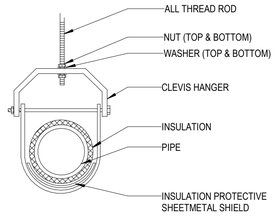
SHEET TITLE

PLUMBING RISERS

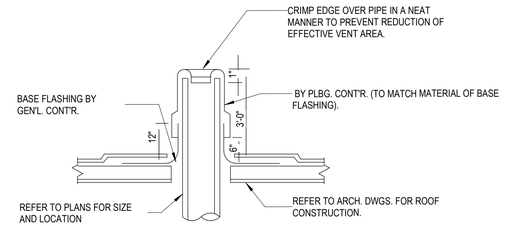
SHEET NUMBER

P5.01

10/22/2024 5:12:30 PM

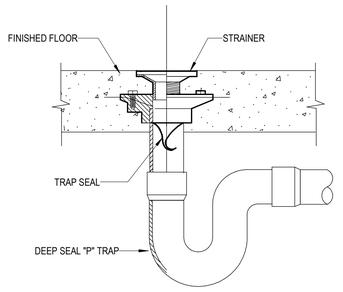


6 TYPICAL CLEVIS HANGER DETAIL
NOT TO SCALE

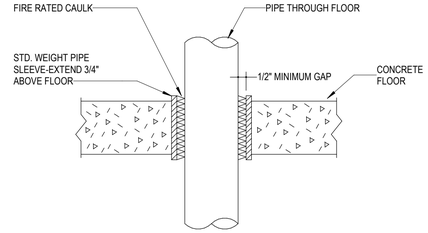


PLUMBING VENT THROUGH FLAT ROOF DETAIL

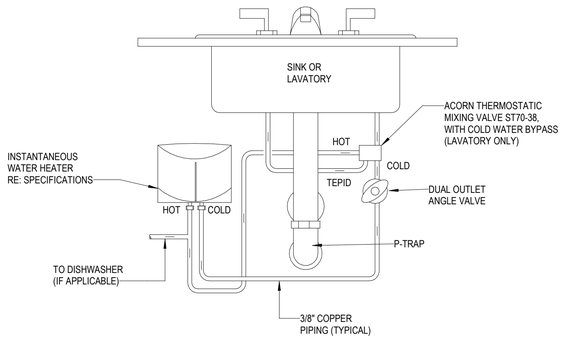
3 VENT THRU ROOF DETAIL
NOT TO SCALE



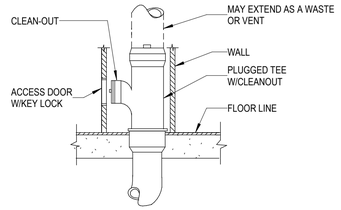
5 FLOOR DRAIN DETAIL
NOT TO SCALE



2 PIPE SLEEVE THROUGH FLOOR DETAIL
NOT TO SCALE

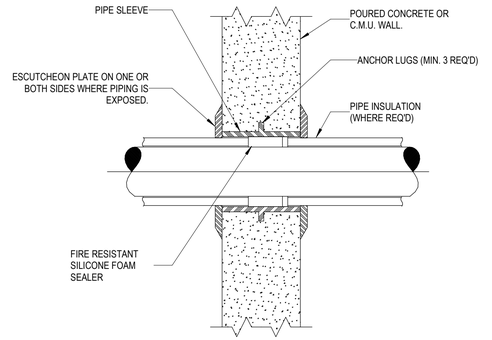


7 INSTANTANEOUS WATER HEATER
NOT TO SCALE



NOTES:
1. BALANCE OF PIPING SAME AS CLEANOUT TO GRADE.

4 WALL CLEANOUT DETAIL
NOT TO SCALE



NOTES:
1. FOR INTERIOR WALLS AND BELOW GRADE GROUND TO GROUND WALLS.

1 PIPE SLEEVE THROUGH WALL DETAIL
NOT TO SCALE

12/23/2019

hatch + ulland owen
architects
1010 East 11th Street
Austin, Texas 78702
T: 512.474.8548
F: 512.474.8643
www.huoarchitects.com

CIVIL ENGINEER
CBD ENGINEERING & SURVEYING
5501 West William Cannon Drive
Austin, Texas 78749, US

LANDSCAPE ARCHITECT
SEC PLANNING , LLC
4201 W. Parmer Lane Bldg A, Suite 220
Austin, Texas 78727

PLUMBING, MECHANICAL, ELECTRICAL ENGINEER
Infinity MEP+s Consultants
5316 W US Hwy 290 Service Rd Suite 480
Austin, TX 78735

STRUCTURAL ENGINEER
TDI Engineering, LLC
5906 Old Fredericksburg Rd. Suite 300
Austin, TX 78749

STATE OF TEXAS
STEPHEN J. BUTLER
112019
LICENSED
PROFESSIONAL ENGINEER
10/22/2024

THE COLONY - TREEHOUSE AMENITY CENTER

BASTROP, TEXAS

hatch + ulland owen architects

h+uo # A22049

CONSTRUCTION DOCUMENTATION

ISSUE REVISIONS

#	DATE	NOTES
	2024-10-22	100% CD

SHEET TITLE
PLUMBING DETAILS

SHEET NUMBER
P6.01

10/22/2024 5:12:30 PM

LANDSCAPE IMPROVEMENT PLAN FOR:

TREEHOUSE AMENITY CENTER

THE COLONY
BASTROP, TX
78602

SEC Planning, LLC

LANDSCAPE ARCHITECTURE
LAND PLANNING

3600 W. Parmer Lane Suite 210
Austin, TX 78727
T 512.246.7003

www.secplanning.com
info@secplanning.com

CREATED FOR:

HUNT COMMUNITIES GP, LLC

136 Territory Drive
Bastrop, TX 78602
T 512.246.7003

IN COOPERATION WITH:

HATCH+ULLAND OWEN ARCHITECTS

1010 EAST 11TH STREET
Austin, TX 78702
T 512.474.8548

CARLSON, BRIGANCE, & DOERING, INC.

5701 WEST WILLIAM CANNON
Austin, TX 78749
T 512.280.5160

INDEX OF SHEETS

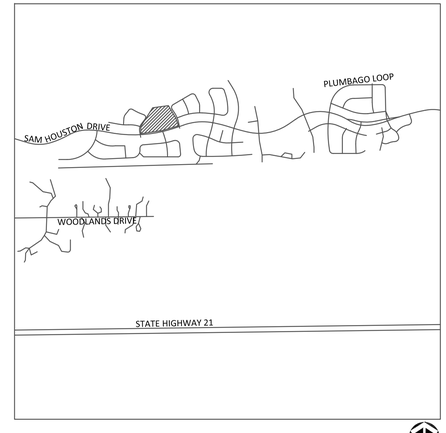
REVISED SHEETS

ISSUANCE

NO.	REVISION	DATE

BID SET ONLY
NOT FOR REGULATORY APPROVAL, PERMITTING, OR CONSTRUCTION

PRODUCED UNDER THE SUPERVISION OF
BEN DEBELLIS
TX. RLA #2690
10/23/2024



LOCATION MAP

NORTH

NOT TO SCALE

Statement of Jurisdiction

The Texas Board of Architectural Examiners has jurisdiction over complaints regarding the professional practices of persons registered as landscape architects in Texas. The Texas Board of Architectural Examiners may be contacted by post at 333 Guadalupe, Suite 2-350, Austin, Texas 78701, by phone at (512) 305-9000 or fax (512) 305-8900.

811 Know what's below. Call before you dig.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN FOR APPROXIMATION ONLY. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

L:\240056-HUCO\Cadfiles\LA\Treehouse AC\Cover Sheet.dwg

GENERAL CONSTRUCTION NOTES

1. These drawings and documents are submitted to the Owner of the project for review and approval prior to any release for bidding or construction. Contractors shall receive all bid information, instructions, bid forms, general terms and conditions, and all other required clarification from the Owner's Authorized Representative administering this project. Unless otherwise indicated, the Owner's Representative for this project shall be a specifically designated Landscape Architect from SEC Planning. The contractor will also be required to coordinate and correspond with the Landscape Architect from SEC Planning and key consultants for the Owner.

2. These drawings supplement other contractual information which includes Bid Instructions and Project Specifications. Anything mentioned in the Project Specifications and not in the drawings, or vice-versa, shall be of like effect as if shown on or mentioned in both. In case of a discrepancy between Drawings or Project Specifications, the matter shall be immediately submitted to the Owners Representative; without his decision said discrepancy shall not be adjusted by the Contractor, save only at his own risk and expense. The contractor shall not take advantage of any apparent error or omission on the Drawings or in the Specifications. In the event the Contractor discovers such error or omission, they shall immediately notify the Owner's Representative. The Owner's Representative will then make such clarification and interpretations as may be deemed necessary for the Contractor to fulfill the intent of the Contract.

3. The intent of these drawings, details and associated specifications is for the Contractor to provide the Owner with a complete, accurate, functionally and technically sound project as generally described in these documents. In most cases, unless explicitly noted otherwise, drawing symbols are used to represent complete-in-place systems to be provided as part of the base bid. All elements shown or implied by the drawings, if not specifically detailed or specified, shall be installed per building codes, manufacturer's recommendations, state highway department standards, city standards and specifications and standard industry practices.

4. All plan quantities provided are approximate only. The Contractor is responsible for their own plan take-off's and accuracy of their bid based on actual site conditions. The contractor shall not take advantage of any apparent error or omission on the Drawings or in the Specifications. In the event the Contractor discovers such error or omission, they shall immediately notify the Owner's Representative. The Owner's Representative will then make such clarification and interpretations as may be deemed necessary for the Contractor to fulfill the intent of the Contract.

5. All work within this project shall conform to current local codes, ordinances, as well as all other applicable governing regulations in effect.

6. All range points, ties, benchmarks or other survey control points which may be encountered during construction, must be preserved or modified/recorded by a registered surveyor at the Contractor's expense. Immediately upon discovery, the Contractor shall notify the Owner's Representative of any survey control points found and obtain direction prior to proceeding with construction.

7. The Contractor shall coordinate and obtain all permits which are necessary to perform the proposed work. Owner is to pay for all construction permits unless otherwise indicated in the Contract Documents. Contractor shall obtain, at his expense, all specialty permits needed for specific items included with the work, unless otherwise indicated in the Contract Documents. Should the Contractor commence work, prior to obtaining the required permits or jurisdictional approvals, the Contractor shall be responsible corrections, modifications, replacement or removal of the non-permitted work.

8. It is the Contractor's responsibility to be aware of and comply with all notifications and inspection requirements of the Jurisdiction.

9. Unless specifically noted otherwise in the Contract Documents, the Contractor shall obtain and coordinate all technical tests and reports by a certified independent laboratory or agency as outlined in the Specifications or these Drawings. The Owner may, at the Owner's sole discretion, provide separate testing and/or inspection service and the Contractor is required to fully coordinate with those consultants/contractors. Owner is to pay for all soils and materials testing.

10. An Existing Condition Survey may have been provided to the Owner by registered surveyors under separate contracts for the basis of design. It is not to be considered as part of these Contract Documents. If provided, these survey plans may have been reformatted and included in these documents. The Contractor is required to visit the site to verify information. Without exception, any deviations or omissions found between these plans and existing site conditions shall immediately be brought to the attention of the Owner's Representative, but will not be considered as basis for additional payment except as allowed in change order process per General Conditions and Supplementary Conditions under the "Owner-Contractor Agreements/Contracts. For official survey information, Contractor may wish to contact the Owner, or Owner's surveyor at the Contractors expense.

11. Existing utility information and utility information for proposed work by others that is shown in these documents is approximate and for general information only. It is not intended to depict exact locations of all utilities. The Contractor shall notify all utility companies to stake and field verify the locations including depths of all utilities (existing, proposed by others, or currently under construction), prior to commencing any related operations. Contractor shall maintain utility locations/structures during all remaining phases of work. The Contractor shall report to the Owner's Representative any utilities that may conflict with proposed work. This Contractor shall explore, understand, and coordinate (with subcontractors and others) all utilities impacts prior to submitting bid and shall be responsible for any modifications or damages to utility lines, structures or injuries therefrom. For existing utility information contact Texas 811. A minimum notice of 3 business days in advance of locational needs is required.

12. These drawings do not specify safety materials, staffing, equipment, methods or sequencing to protect persons and property. It shall be the Contractor's sole responsibility to direct and implement safety operations, staffing, procedures to protect the Owner and his representatives, new improvements, property, other contractors, the public and others.

13. The Contractor shall meet periodically with the Owner's Representative to determine marshalling areas, on-site storage, and contractor staff parking and to coordinate security issues, construction sequencing/phasing, scheduling, and maintaining public, emergency, handicapped or operations access before starting the related work. The Contractor shall meet any "Construction Criteria" or requirements shown on any Contract Documents, phasing plans or any imposed plan by the Owner as a part of the Base Bid.

14. Some work in this Contract may occur concurrent with work by others. Phasing, sequencing and coordination, with work by others, and on-going facility operations in and around the site area, is a part of the scope of work for this project. Notice to proceed with work in any general area shall be obtained from the Owner.

15. The Contractor will be required to complete all the work of this project according to these proposed drawings or subsequent clarification. A strict period of performance, including dates of substantial completion (for all and/or portions) and liquidation damages may be an integral element of the Contract.

16. Any site improvements requiring removal under this contract shall be properly and legally disposed off-site or, at the Owner's option, surrendered/stockpiled in an approved on-site location per the direction of the Owner or Owner's Representative.

17. The Contractor is required to maintain a complete and "up-to-date" set of all Contract Documents, including clarifications, change orders, etc., in good condition, at the construction site at all times. This set of documents will be made immediately available for review by the Owner's Representative and/or authorized Consultants upon request. Complete "As-Built" drawings and document submittals are also a requirement of this contract.

18. Maintenance, warranties and performance guarantees may be a requirement of this contract - see specifications.

19. Notes and details on specific drawings shall take precedence over general notes and typical details. The Contractor shall refer to all other Division Notes, Sheets Notes, Drawings and Project Contract Documents for additional information.

20. Contractor shall refer to other related drawings for all other related improvements that will impact this project and require coordination. Drawings may be made available to the Contractors at request.

21. **Contractor shall include a minimum of a 1 year warranty on all materials and craftsmanship after final acceptance, including all entry features, walls, planting, irrigation, etc. for all elements within the contracted scope.**

22. **Contractor shall be responsible for all maintenance of the site and scoped site elements for the duration of construction. The contractor shall provide an 90-day maintanence period after completion of all constructed elements within their scope.**

TREE PROTECTION NOTE

1. All existing trees shall be protected from construction activities within construction zone. During which time, the use of a silt or chain link fence is required around each singular or group of protected trees. Parking of construction vehicles, equipment, and stockpiles within tree root zones is strictly prohibited. Contractor shall be responsible for any damage incurred to existing trees, including replacement, fees, fines or reimbursement to owner for said damages and, or to the City or Jurisdiction with governing authority per the Tree Ordinance.

OAK WILT PREVENTION NOTE

1. If Oak Wilt is found on site within work zone, owner must be notified and the following procedures must be followed in accordance with USDA standards, (http://www.na.fs.fed.us) including disinfecting construction removal devices, tree removal and treatment to prevent development of spore mats. These treatments include debarking, chipping and drying the wood, covering dead wood with plastic, burying the edges for six months and air drying for a similar amount of time to kill fungus and associated insects off site at state designated facility.

SIDEWALK NOTES:

1. Layout of concrete walkways shall be staked in the field and review by the Owner or Owner's Representative prior to construction. At that time walk may be adjusted as needed, using the Hardscape Plan as a guide. All grades and layout shall be confirmed prior to construction. Notify Owner and Owner's Representative of any conflicts or deviations to the issued plans.

2. All pedestrian paths shall be in compliance with all current Texas Accessibility Standards (T.A.S.) and ADA standards.

3. All walkway grades shall have a running slope of no greater than 4.7% (1:21) and a cross-slope that is not greater than 1.5% (1:66).

4. Slopes at or between 5.0% (1:20) and 8.3% (1:12) must have hand rails on both sides with ADA compliant level landings, and cross-slopes shall not exceed 1.5% (1:66).

HARDSCAPE LAYOUT AND INSTALLATION

1. All work shown shall be field staked and subject to field verification, review and approval by the Owner or Owner's Representative prior to any constructions or demolition. Field staking of all proposed work and adjacent construction (even if future work by others) may be required by the Owner's Representative prior to approval of all improvements and adequate stakes shall be provided by Contractor's surveyor.

2. To expedite, the layout of the site layout coordinates and/or grids may have been established in the Drawings. These points shall be field staked by the Contractor's surveyor as a part of this contract. The establishment of these points shall be approved by the Owner's Representative prior to any construction in those areas and will assist the Contractor in the layout of all site improvements as shown on drawing or otherwise.

3. The construction tolerances for this project are minimal and the dimensions shown are to be strictly adhered to.

4. Computed dimensions shall take precedence over scaled dimensions. Large scale drawings shall take precedence over small scale drawings. Dimensions shown with (+/-) shall be the only layout information allowed to vary, and may only vary to the tolerances given.

5. The Contractor is responsible to provide complete-in-place systems, and a complete project. Any intermittent or periodic approvals received for portions of work, stakes, grades, or forms (by the Owner or Owner's Representative, Architects, Engineers, or others) shall not waive the Contractor's requirements to comply with the intent of any and all portions of this contract.

6. All locations for walks, roads, swales, walls, curbs, structures etc. shall be staked by the Contractor. All layout information is based on ground coordinates and the Contractor shall meet with the owner's surveyors and engineers to clarify all datum, benchmark and control point requirements. Specific layout information will be provided to the Contractor by the Owner's Representative in AutoCAD (.dwg) format when requested.

7. It is the intent and requirement of this contract to provide curvilinear walks, walls and curbs with smooth transitions and arcs (both horizontal and vertical). Straight segments and abrupt transitions will not be accepted unless shown as such on the plans. Wood curving forms may be required to obtain the proper effects.

8. Hardscape improvements that are to be constructed per the drawings, shall be coordinated on site with the Owner's Representative, and be field staked or painted for approval of layout by the Owner's Representative prior to installation. Notify the Owner's Representative a minimum of 24 hours in advance for review. Improvements installed without field approval by Owner's Representative may be rejected and will be replaced at Contractors expense. At the time of staking, the Contractor shall confirm the quantity of the improvements match the approved contract. In the event the Contractor discovers such a discrepancy, he shall immediately notify the Owner's or Owner's Representative for direction on how to proceed, prior to commencing work.

9. All lot fencing or lot screen walls shall be placed on the property line or property boundary. Contractor shall confirm final location by field staking, to be reviewed by the Owner or Owner's Representative prior to construction.

10. Rock gravel, rock mulch, synthetic mulch should be installed over weed barrier fabric. Weed barrier fabric should overlap edges a minimum of 6".

GRADING NOTES

1. The Contractor shall obtain and review the Summary Report and Recommendations prepared by the geotechnical engineers and fully understand the existing soil conditions encountered prior to submitting bid. The Contractor shall comply with all recommendations made by the geotechnical engineers, civil engineers, structural engineers and Owner's Representative, as designated in the soil report, on these drawings, specified, or as directed during field observations and inspections.

2. All earthwork operations will be subject to full inspection and regular testing by a qualified soils and materials engineer and this Contractor shall be responsible to coordinate scheduling, notification and procuring test results and documentation as required. The Contractor shall notify the Owner's Representative of any subsoil conditions encountered, which vary from those found during previous soil investigations and/or that may not have been known during design. Any failed tests which must be retested will be a Contractor's expense.

3. All earthwork operations shall be conducted in strict compliance with the project specifications including but not limited to:

   a. Full locating, investigating and protection of ALL existing utilities to remain.
   b. Removal of any organic materials or debris.
   c. Stripping and stockpiling of all topsoil in approved location(s).
   d. Removal of all unstable fill materials encountered.
   e. Scarification and re-compaction to the minimum depth as specified and/or directed within all areas to receive fill, pavements or structures.
   f. All classifications of "excavation" as required to meet proposed lines, grades, typical cross sections and improvement elevations.
   g. Placement, shaping, and structural compaction of all classifications of "fill" or "embankment" as required to meet proposed lines, grades, typical cross sections and improvement elevations.
   h. Providing dewatering, optimum moisture control, climate protection, dust control, erosion control and all other specified treatments.
   i. Replacement of topsoil after grading changes have been accomplished.

4. See, and comply with, all specifications for depth of moisture density treatments, controls and compaction requirements.

5. These grading plans are intended to show vertical control of the site and are based upon the benchmarks, existing elevations and topography as provided by the Owner's surveyor. However, the Contractor, upon submittal of bid, agrees to accept the site grades and make all adjustments required to accomplish the work as proposed. Additionally proposed design elevations for adjacent construction projects may have to be incorporated if necessary. (Construction drawings for work by others, if applicable, are available upon request). Staking of future adjacent improvements, by this contract phase or by others, may be required if directed by the Owner's Representative to ensure proper coordination and requested staking is to be provided as part of this Base Bid.

6. This Contractor shall verify all existing grades to remain and all adjacent new construction grades for compliance with those shown, prior to bid and construction. All deviations or conflicts with proposed work shall be reported immediately (with follow-up written) notice within 24 hours to the Owner's Representative for direction to proceed, but will not be considered as basis for additional payment except as allowed in change order process per General Conditions and Supplementary Conditions under the existing "Owner-Contractor Agreements/Contracts".

7. The plans may call for specific temporary benchmarks to be transferred to the site by a certified surveyor and accurately established on site as a part of this contract. Contractor shall verify all benchmarks and information used in design and compare to existing conditions.

8. It is this Contractor's responsibility to provide proper positive drainage throughout this contract area. Field conditions shall be verified in conjunction with the proposed elevations to ensure that adequate drainage is provided. Report deviations or conflicts to Owner's Representative. Unless otherwise indicated, minimum slope for paved surfaces shall be 1% and minimum slope for non-paved areas shall be 2%. Slope away from all structures shall be 3% minimum, for a distance of 5' minimum. Maximum ground slopes to be 4' horizontal to 1' vertical, unless otherwise approved in advance.

9. All design elevations shown are "finished grades" unless otherwise indicated. Contractors shall refer to drawings, details and specifications regarding depth of sub-grade materials required to construct project improvements.

10. All topsoil and/or drainage way muck excavation shall be saved and stockpiled in approved locations for future use.

LIGHTING

1. Landscape lighting system is to be installed by a licensed electrician with documented experience in installing lighting systems of similar scope within the last two years. The Contractor is to supply a complete lighting system including all associated equipment such as conduit, weather proof and/or water proof junction boxes, ballasts, connectors, harnesses, time clocks, photocells, etc.

2. The Contractor shall review proposed layout of lighting system and all related equipment locations with the Owner or Owner's Representative prior to commencing installation.

3. After installation the Contractor will be required to adjust light fixtures until the Owner's Representative is satisfied with the desired effect. This will require the Contractor and/or the Contractor's electrician to meet with the Owner and Owner's Representative after sunset. This adjustment is to be included in the base Bid amount.

4. The Contractor shall provide a two year warranty on all equipment including lamps, ballasts and installation.

5. Independent ballasts, if required, shall be "ganged" in an inconspicuous, accessible location in a horizontal, weatherproof box or tray near ground level. Mounting of ballast in trees will not be allowed without written authorization from the Owner's Representative.

6. All exposed boxes, trays, conduit, etc. shall be painted by the contractor to blend in with surrounding landscape elements.

7. All equipment shall be U.L. listed and installation shall comply with N.E.C. and all other applicable codes.

8. All lights are to be controlled by a photocell on and timer off system unless specified otherwise on the drawings.

9. All wire run underground must be in rigid conduit.

10. Plan layout of underground wiring to minimize disturbance to the roots of existing trees. If underground wiring must pass through the critical root zone of protected trees, trenching and related work must be preformed by hand. No mechanical trenching is permitted within the Critical Root Zone.

11. Tree lighting (if applicable):
    a) Install Karlock (or equal) flexible conduit from base of tree to a minimum eight foot height above ground. At the end of the conduit install a waterproof hub (for single cable) or W-P bell box for multiple cables. Paint conduit and box to match tree trunk. Use SJTO electrical cord from conduit to light fixture. Attach cord to tree using long galvanized cord staples or other approved method. Provide a 36" loop of extra cord at the light fixture to allow for light adjustment and tree growth.
    b) Attach light fixtures to trees utilizing galvanized mounting plates drilled for hub connection with a minimum of two mounting screws. Mounting screws are to be ¼-20 threads x 5" length (one end wood screw threads and the other end bolt threads). Install at least two inches of thread into tree and install with at least two inches between tree and mounting plate.
    c) All tree downlights are to be mounted in the top third of the tree canopy.
    d) All fixtures are to be located, adjusted as needed and shielded to prevent glare, light trespass on to adjacent properties or Rights-of-way.

NOTES: 2024.10.09

SEC Planning, LLC
Austin, Texas

LAND PLANNING
LANDSCAPE ARCHITECTURE
COMMUNITY BRANDING

3600 W. Parmer Lane
Suite 210
Austin, TX 78727
T 512.246.7003
www.secplanning.com
Email : info@secplanning.com

HUNT COMPANIES GP, LLC
136 TERRITORY DRIVE
BASTROP, TEXAS 78602

BID SET ONLY
NOT FOR REGULATORY APPROVAL, PERMITTING, OR CONSTRUCTION

PRODUCED UNDER THE SUPERVISION OF BENEDICT DEBELLIS TX PLA #2690

10/15/2024

TREEHOUSE AMENITY CENTER
THE COLONY
BASTROP, TEXAS

Drawing File Name
L:\240056-HUCO\Cadfiles\LA\Treehouse AC\LN-1.dwg

Issued:
1. **BID SET** — **10/23/2024**
2.
3.
4.
5.
6.

Revisions:
1.
2.
3.
4.

Issue Date: 10/15/2024

Drawn By: AWT
Reviewed By: BD

Project No. 240056

GENERAL NOTES

Sheet No. LN-1.0 ____ of ____

TREEHOUSE AMENITY CENTER
PRODUCT SCHEDULE

PRODUCT	QTY	Unit	DESCRIPTION / MODEL NAME & NO.	MANUFACTURER
Furnishings				
WASTE RECEPTACLE	3	ea.	Airi Stix 33 with side door, curve top, surface mount, Color: TBD	Anova Furnishings Melissa Thompson mthompson@anovafurnishings.com 713.201.8314
RECYCLE RECEPTACLE	3	ea.	Airi Stix 33 with side door, curve top, surface mount, Color: TBD	
BIKE RACK	1	ea.	Tandem powder coated bike rack, Surface Mount, Color: TBD	
PET WASTE STATION	1	ea.	Bow Wow Waste - Commercial Dog Waste Station-Single Dispense Bag System #BW004, Color: Green	Bow Wow Waste www.bowwowwaste.com
Suggested site furnishings (Owner Approval Required)				
POOL CHAISE	54	ea.	FOUNTAINHEAD CHAISE LOUNGE , POWDERCOAT COASTAL MIST,NATURAL TEAK LUMBER	Texacraft Ph: 800-327-1541
CAFÉ TABLE	6	ea.	40" SQUARE FOUNTAINHEAD TABLE, NATURAL TEAK TOP, POWDERCOAT COASTAL MIST	
PLANTER POT	13	ea.	BOLINAS COLLECTION, VARIOUS SIZES 36" DIAMETER MAX 30" HEIGHT MAX, SANDBOX TRAVERTINE FINISH	Tournesol Sitew orks tournesol.com Ph: 800-542-2282
Flatwork				
GRAY CONCRETE 'A'	Per Plan	sf	NATURAL GRAY CONCRETE WITH SUNDECK COATING COLOR: TBD	By Contractor
Pool				
ADA AccessLift	As Req'	ea.	Aqua Creek Products - Model: Scout #F-800SC-DER-D, Includes anchor and battery, Transport Cart if requested by Owner: #F-814SCTC. Spare 24-Volt Battery if required for each lift: #F-004AB	www.nationalaquaticcompliance.com
Resort Pool Waterline Tile	Per plan		National Pool Tile - Glazed- 2x2 Cobalt	National Pool Tile, 888-476-7665 www.nptpool.com
Resort Pool Step Edge Tile	Per plan		National Pool Tile - Glazed- 2x2 Cobalt	
Resort Pool Interior Finish	Per plan		National Pool Tile - Jewelscapes, Windsurfer	
Resort Pool Coping	Per plan		Cobra Stone- 2-1/4: Cream Lueders Limestone, Sawn on All Sides, Bullnose Edge	By Contractor
Pool Gates	3	ea.	Refer to detail 8/LD-1, Color: Black	By Contractor
Pool Fencing	445	lf.	Refer to detail 7/LD-1, Color: Black	By Contractor
Resort Pool Custom Shade Structure	1	ea.	USA Shade - 18'x9' Full Hip Cantilever, Base Color: TBD, Fabric Color: Colorshade Fabric- TBD	Mike Giehl VP of Sales, fun abounds 512-636-8260 - cell mike@fabplaygrounds.com www.fabplaygrounds.com

1. ALL PRODUCTS SHALL BE APPROVED BY OWNER PRIOR TO PURCHASE; INSTALL PER MANUFACTURER'S SPECIFICATIONS. SAMPLE SHALL BE PROVIDED FOR APPROVAL.
2. ALTERNATES OR SUBSTITUTIONS SHALL BE APPROVED BY OWNER PRIOR TO PURCHASE.
3. CONTRACTOR SHALL PROVIDE SAMPLES AND 4'X4' MOCK-UPS OF STONE VENEER, FINISH MATERIALS, AND PAINT COLORS ON SITE FOR APPROVAL

811 Know what's below. Call before you dig.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN FOR APPROXIMATION ONLY. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

UPDATE 2.8.2023

SEC Planning, LLC
Austin, Texas

LAND PLANNING
LANDSCAPE ARCHITECTURE
COMMUNITY BRANDING

3600 W. Parmer Lane
Suite 210
Austin, TX 78727
T 512.246.7003
www.secplanning.com
Email: info@secplanning.com

HUNT COMPANIES GP, LLC
136 TERRITORY DRIVE
BASTROP, TEXAS 78602

BID SET ONLY
NOT FOR REGULATORY APPROVAL, PERMITTING, OR CONSTRUCTION

PRODUCED UNDER THE SUPERVISION OF BENEDICT DEBELLIS
TX PLA #2690

10/15/2024

TREEHOUSE AMENITY CENTER
THE COLONY
BASTROP, TEXAS

Drawing File Name
L:\240056-HUCO\Cadfiles\LA\Treehouse AC\LN-1.dwg

Issued:
1. BID SET 10/23/2024
2.
3.
4.
5.
6.

Revisions:
1.
2.
3.
4.

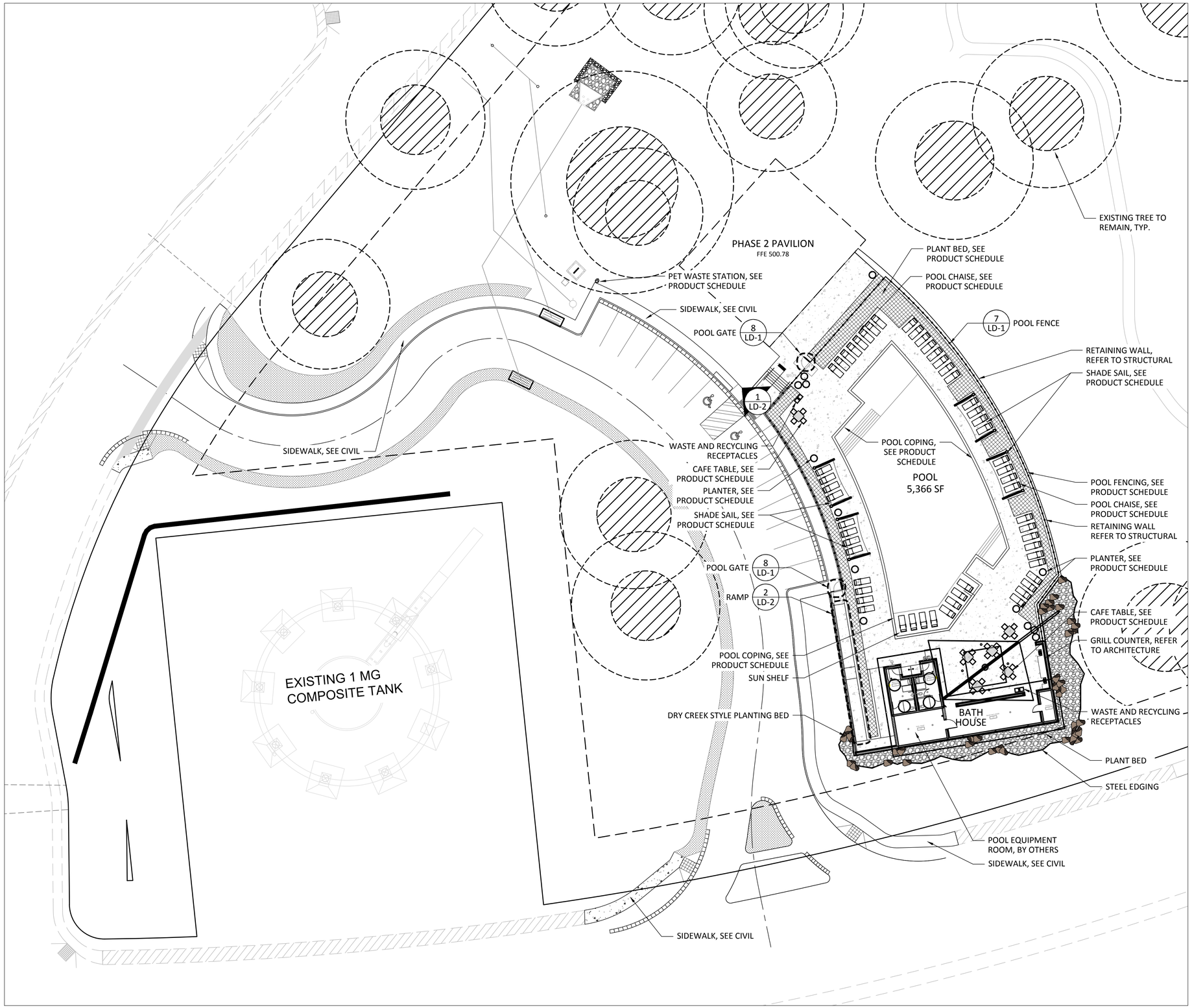
Issue Date: 10/15/2024

Drawn By: AWT
Reviewed By: BD

Project No.
240056

LANDSCAPE MATERIALS SCHEDULE

Sheet No.
LN-1.1 ____ of ____



KEY MAP

NORTH

FULL SIZE SCALE: 1" = 20'
0' 10' 20' 40'

811 Know what's below. Call before you dig.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN FOR APPROXIMATION ONLY. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

SEC Planning, LLC
Austin, Texas

LAND PLANNING
LANDSCAPE ARCHITECTURE
COMMUNITY BRANDING

3600 W. Parmer Lane
Suite 210
Austin, TX 78727
T 512.246.7003
www.secplanning.com
Email : info@secplanning.com

HUNT COMPANIES GP, LLC
136 TERRITORY DRIVE
BASTROP, TEXAS 78602

BID SET ONLY
NOT FOR REGULATORY APPROVAL, PERMITTING, OR CONSTRUCTION

PRODUCED UNDER THE SUPERVISION OF
BENEDICT DEBELLIS
TX PLA #2690

10/15/2024

TREEHOUSE AMENITY CENTER
THE COLONY
BASTROP, TEXAS

Drawing File Name
L:\240056-HUCO\Cadfiles\LA\Treehouse AC\L-1.dwg

Issued:
1. BID SET 10/23/2024
2.
3.
4.
5.
6.

Revisions:
1.
2.
3.
4.

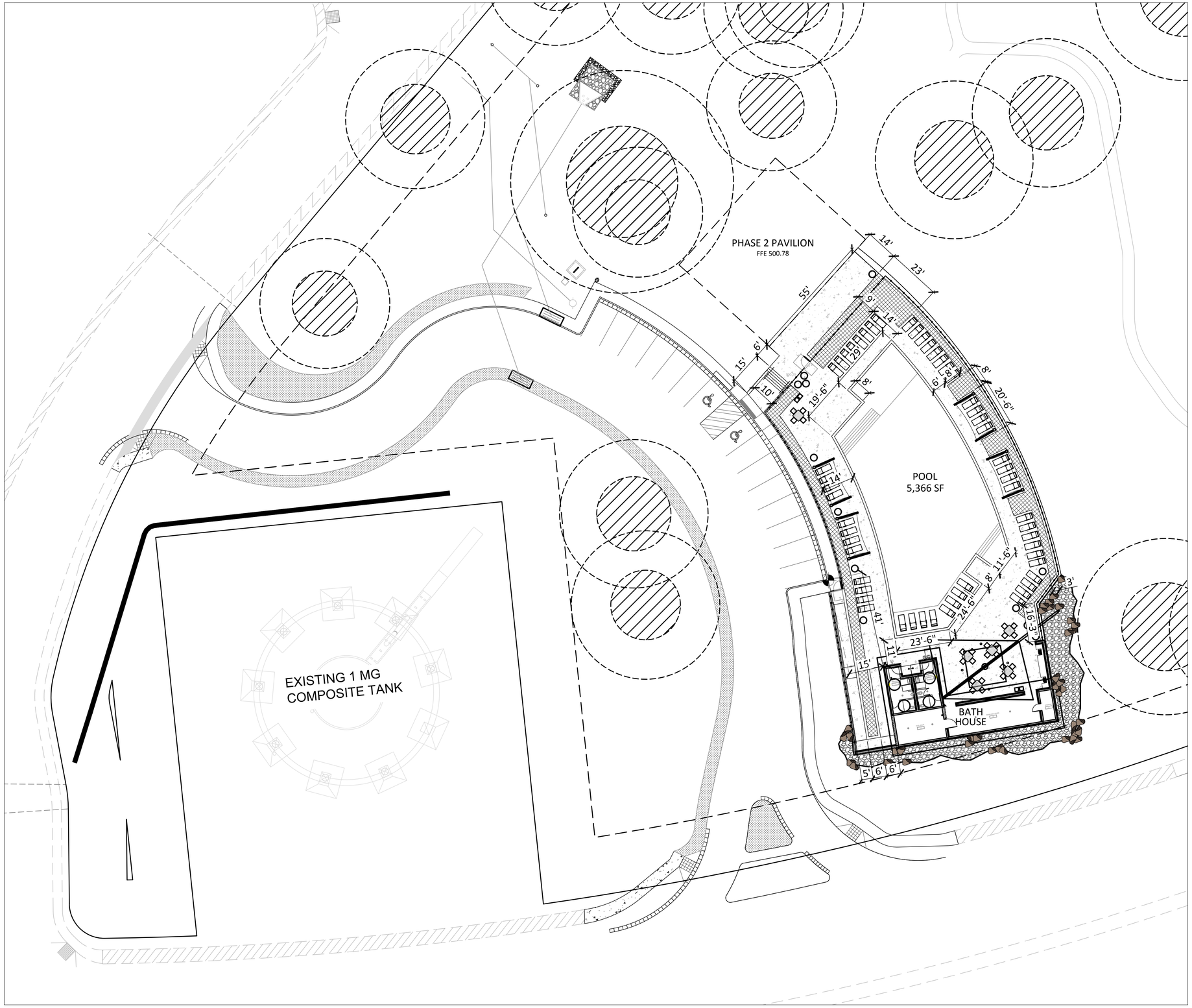
Issue Date: 10/15/2024

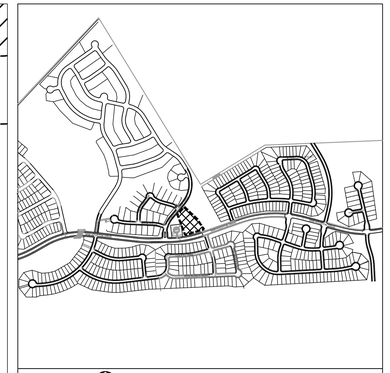
Drawn By: AWT
Reviewed By: BD

Project No.
240056

OVERALL LAYOUT PLAN

Sheet No.
L-1.0 ____ of ____





KEY MAP

FULL SIZE SCALE: 1" = 20'

NORTH 0' 10' 20' 40'

811 Know what's below. Call before you dig.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN FOR APPROXIMATION ONLY. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

SEC Planning, LLC
Austin, Texas

LAND PLANNING
LANDSCAPE ARCHITECTURE
COMMUNITY BRANDING

3600 W. Parmer Lane
Suite 210
Austin, TX 78727
T 512.246.7003
www.secplanning.com
Email : info@secplanning.com

HUNT COMPANIES GP, LLC
136 TERRITORY DRIVE
BASTROP, TEXAS 78602

BID SET ONLY
NOT FOR REGULATORY APPROVAL, PERMITTING, OR CONSTRUCTION

PRODUCED UNDER THE SUPERVISION OF
BENEDICT DEBELLIS
TX PLA #2690

10/15/2024

TREEHOUSE AMENITY CENTER

THE COLONY
BASTROP, TEXAS

Drawing File Name
L:\240056-HUCO\Cadfiles\LA\Treehouse AC\L-2.dwg

Issued:
1. BID SET 10/23/2024
2.
3.
4.
5.
6.

Revisions:
1.
2.
3.
4.

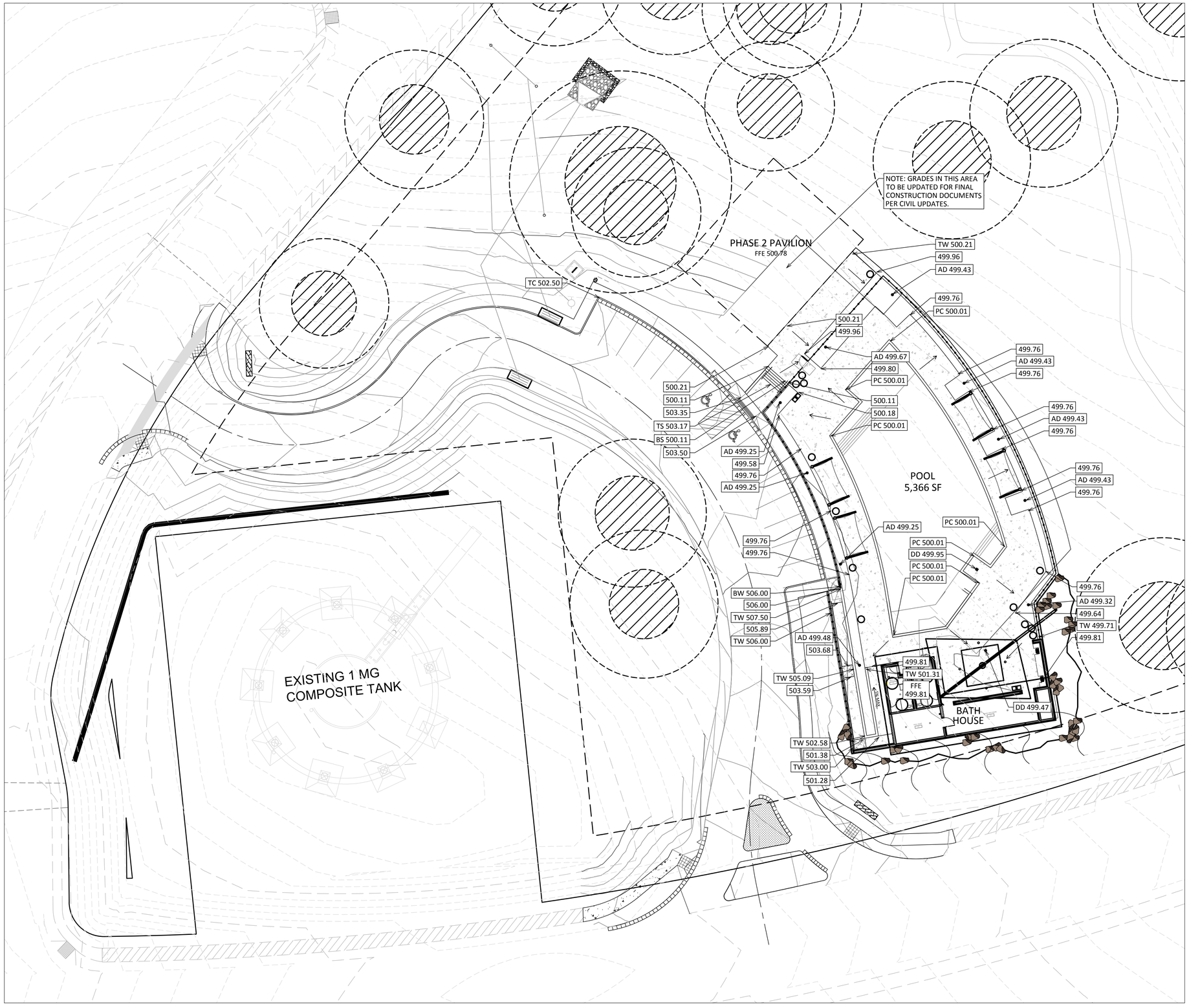
Issue Date: 10/15/2024

Drawn By: AWT
Reviewed By: BD

Project No.
240056

OVERALL DIMENSION CONTROL PLAN

Sheet No.
L-2.0 ____ of ____



KEY MAP

GRADING LEGEND

- ATRIUM DRAIN
- DECK DRAIN
- CATCH BASIN
- TRENCH DRAIN
- PERFORATED UNDERDRAIN
- XXX.XX — SPOT GRADE
- FFE: 572.00 — FINISH FLOOR ELEVATION
- EXISTING CONTOUR
- 572 — PROPOSED CONTOUR
- 8% MAX — PROPOSED SLOPE
- LEVEL LANDING/ADA CLEARANCE

NORTH

FULL SIZE SCALE: 1" = 20'
0' 10' 20' 40'

811 Know what's below. Call before you dig.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN FOR APPROXIMATION ONLY. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

SEC Planning, LLC
Austin, Texas

LAND PLANNING
LANDSCAPE ARCHITECTURE
COMMUNITY BRANDING

3600 W. Parmer Lane
Suite 210
Austin, TX 78727
T 512.246.7003
www.secplanning.com
Email : info@secplanning.com

HUNT COMPANIES GP, LLC
136 TERRITORY DRIVE
BASTROP, TEXAS 78602

BID SET ONLY
NOT FOR REGULATORY APPROVAL, PERMITTING, OR CONSTRUCTION

PRODUCED UNDER THE SUPERVISION OF BENEDICT DEBELLIS TX PLA #2690

10/15/2024

TREEHOUSE AMENITY CENTER

THE COLONY
BASTROP, TEXAS

Drawing File Name
L:\240056-HUCO\Cadfiles\LA\Treehouse AC\L-3.dwg

Issued:
1. BID SET 10/23/2024
2.
3.
4.
5.
6.

Revisions:
1.
2.
3.
4.

Issue Date: 10/15/2024

Drawn By: AWT
Reviewed By: BD

Project No. 240056

OVERALL GRADING PLAN

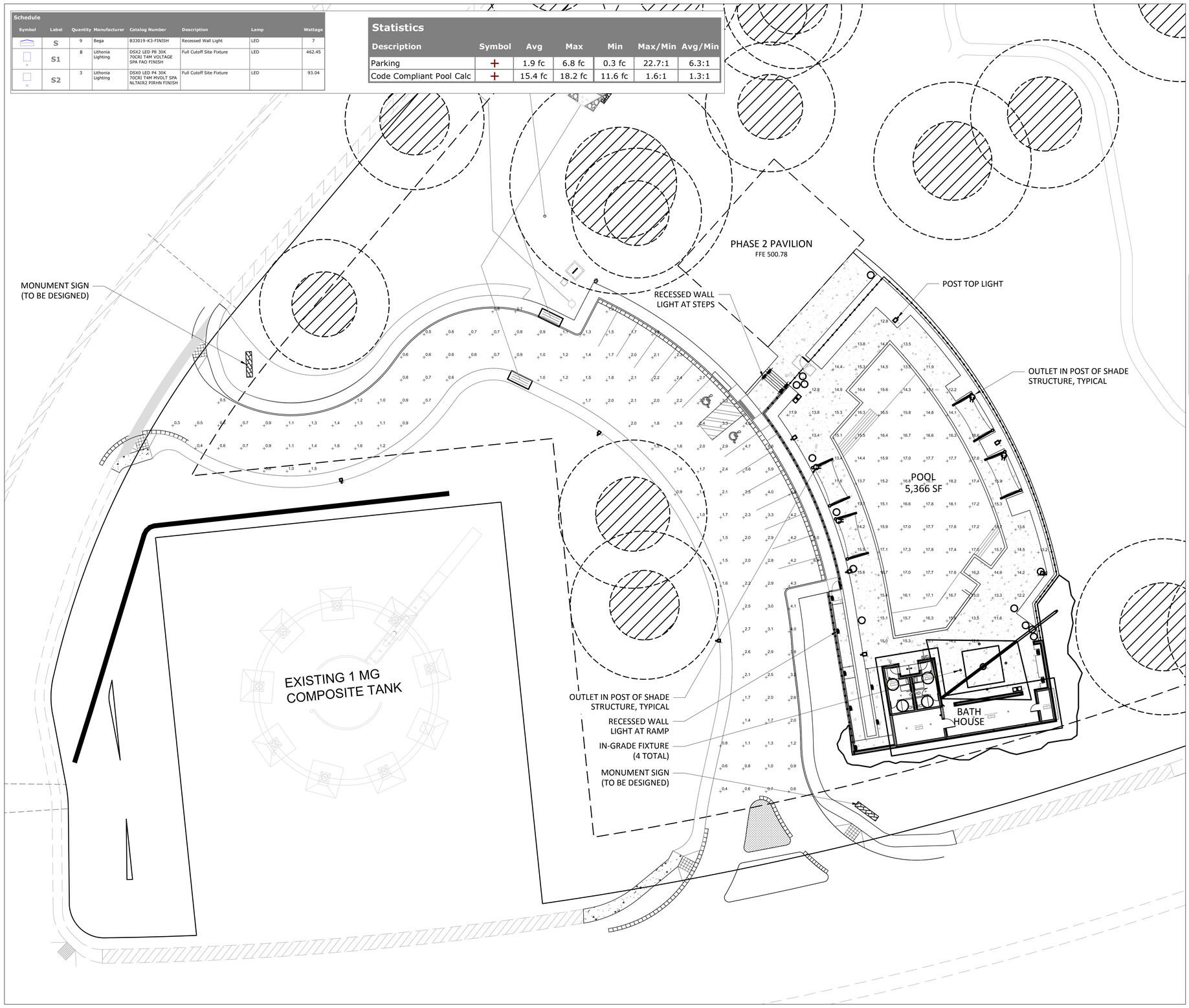
Sheet No. L-3.0 ____ of ____

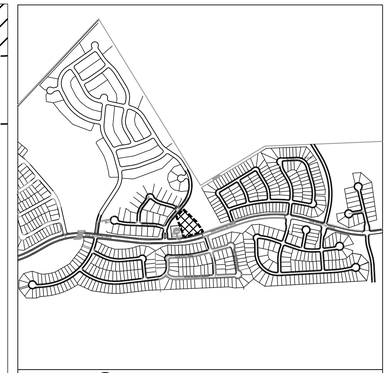
Schedule

Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Wattage
	S	9	Bega	B33019-K3-FINISH	Recessed Wall Light	LED	7
	S1	8	Lithonia Lighting	DSX2 LED P8 30K 70CRI T4M VOLTAGE SPA FAO FINISH	Full Cutoff Site Fixture	LED	462.45
	S2	3	Lithonia Lighting	DSX0 LED P4 30K 70CRI T4M MVOLT SPA NLTAIR2 PIRHN FINISH	Full Cutoff Site Fixture	LED	93.04

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Parking	+	1.9 fc	6.8 fc	0.3 fc	22.7:1	6.3:1
Code Compliant Pool Calc	+	15.4 fc	18.2 fc	11.6 fc	1.6:1	1.3:1





KEY MAP

LIGHTING LEGEND

- POST TOP LIGHT
- STEP LIGHT
- DUAL GFCI OUTLET WITH DUAL USB PORTS AND WATERPROOF COVER
- IN-GRADE FIXTURE

NORTH

FULL SIZE SCALE: 1" = 20'

0' 10' 20' 40'

811 Know what's below. Call before you dig.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN FOR APPROXIMATION ONLY. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

SEC Planning, LLC
Austin, Texas

LAND PLANNING
LANDSCAPE ARCHITECTURE
COMMUNITY BRANDING

3600 W. Parmer Lane
Suite 210
Austin, TX 78727
T 512.246.7003
www.secplanning.com
Email : info@secplanning.com

HUNT COMPANIES GP, LLC
136 TERRITORY DRIVE
BASTROP, TEXAS 78602

BID SET ONLY
NOT FOR REGULATORY APPROVAL, PERMITTING, OR CONSTRUCTION

PRODUCED UNDER THE SUPERVISION OF BENEDICT DEBELLIS TX PLA #2690

10/15/2024

TREEHOUSE AMENITY CENTER
THE COLONY
BASTROP, TEXAS

Drawing File Name
L:\240056-HUCO\Cadfiles\LA\Treehouse AC\L-4.dwg

Issued:
1. BID SET 10/23/2024
2.
3.
4.
5.
6.

Revisions:
1.
2.
3.
4.

Issue Date: 10/15/2024

Drawn By: AWT
Reviewed By: BD

Project No. 240056

OVERALL LIGHTING PLAN

Sheet No. L-4.0 ____ of ____

1 S FIXTURE
SCALE: N.T.S

Recessed wall luminaire · Shielded **BEGA**

Application
Recessed wall luminaire with shielded light distribution that is ideal for glare-free illumination of ground surfaces, building entrances, stairs and footpaths. Separate installation housing allows for seamless coordination into construction and easy maintenance.

Materials
Clear safety glass with white ceramic coating
Marine grade, copper free (≤0.3% copper content) A360.0 aluminum alloy
BEGA Tricoat ®, a 3-layer finishing technology for increased corrosion protection
Mechanically captive stainless steel fasteners
Stainless steel screw clamps
Composite installation housing
Pure anodized aluminum reflector

NRTL listed to North American Standards, suitable for wet locations
Protection class IP 65

Weight: 2.2 lbs.

Electrical

Operating voltage	120-277V AC
Minimum start temperature	-40° C
LED module wattage	3.8 W
System wattage	7.0 W
Controllability	0-10V dimmable
Color rendering index	Ra > 80
Luminaire lumens	64 lm
LED service life (L70)	60000 hrs

LED color temperature
☐ 4000K (K4)
☐ 3500K (K35)
☐ 3000K (K3)
☐ 2700K (K27)

BEGA can supply you with suitable LED replacement modules for up to 20 years after the purchase of LED luminaires - see website for details

Finish
All BEGA standard finishes are matte, textured powder coat with minimum 3 mil thickness. BEGA Unidure® finish, a fluoropolymer technology, provides superior fade protection in Black, Bronze, and Silver. BEGA standard White is a super durable polyester powder. Optionally available RAL and custom color finishes provided in either polyester powder or liquid paint.

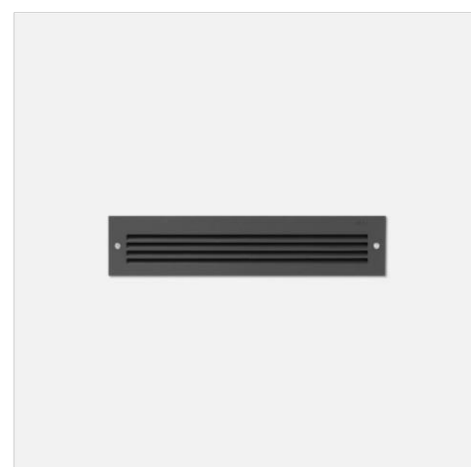
Available colors
☐ Black (BLK) ☐ Bronze (BRZ)
☐ Silver (SLV) ☐ White (WHT)
☐ RAL: ☐ CUS:

Type:
BEGA Product:
Project:
Modified:

S: B33019-K3-FINISH

Available options
☐ AMB Amber LED
☐ CUS Custom finish
☐ FSC Fusing
☐ MGU Marine grade undercoat
☐ RAL RAL finish

Included (available for pre-shipment)
☐ BB24065 Installation housing



Recessed wall luminaire · Shielded

	LED	A	B	C
B33019	3.8W	12½	2¾	5

BEGA 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-0533 info@bega-us.com
Due to the dynamic nature of lighting products and the associated technologies, luminaire data on this sheet is subject to change at the discretion of BEGA North America. For the most current technical data, please refer to bega-us.com
© copyright BEGA 2024 Updated 08/20/24

2 S1 FIXTURE
SCALE: N.T.S

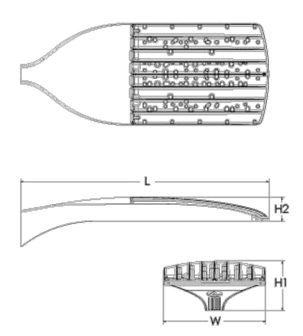
S1: DSX2 LED P8 30K 70CRI T4M VOLTAGE SPA FAO FINISH

D-Series Size 2
LED Area Luminaire

Catalog Number
Notes
Type
Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA:	1.06 ft² (0.10 m²)
Length:	40.59" (103.1 cm)
Width:	16.76" (42.6 cm)
Height H1:	8.11" (20.6 cm)
Height H2:	3.96" (10.1 cm)
Weight:	46 lbs (20.9 kg)

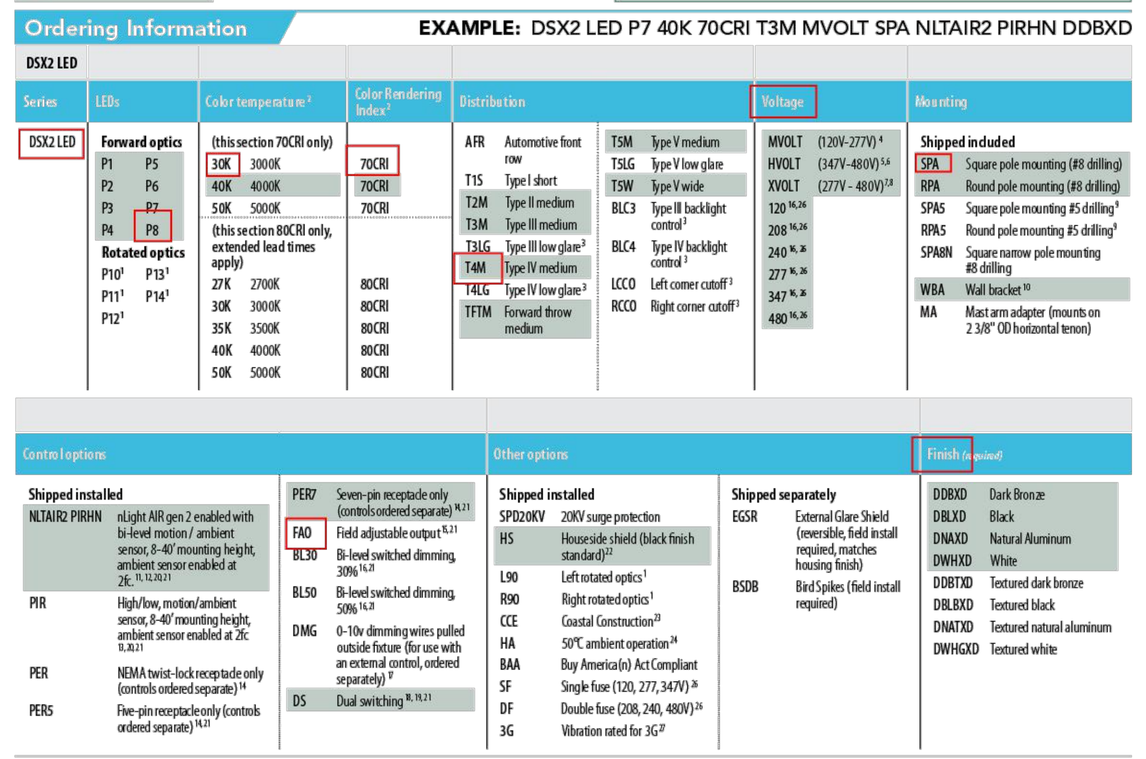


Introduction
The modern styling of the D-Series features a highly refined aesthetic that blends seamlessly with its environment. The D-Series offers the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.
The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. D-Series outstanding photometry aids in reducing the number of poles required in area lighting applications with typical energy savings of up to 80% vs. 1000W HID and expected service life of over 100,000 hours.

design select
Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect.
*See ordering tree for details

Design Select options indicated by this color background.

Ordering Information EXAMPLE: DSX2 LED P7 40K 70CRI T3M MVOLT SPA NLTAIR2 PIRHN DDBXD



LITHONIA LIGHTING
COMMERCIAL OUTDOOR
One Lithonia Way • Conyers, Georgia 30012 • Phone: 1-800-705-SERV (7378) • www.lithonia.com
© 2011-2024 Acuity Brands Lighting, Inc. All rights reserved.

3 S2 FIXTURE
SCALE: N.T.S

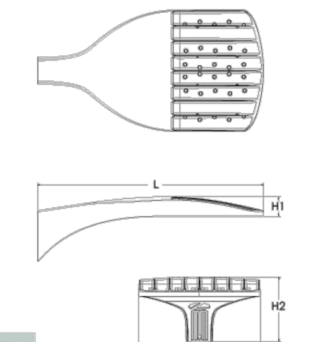
S2: DSX0 LED P4 30K 70CRI T4M MVOLT SPA NLTAIR2 PIRHN FINISH

D-Series Size 0
LED Area Luminaire

Number
Notes
Type

Specifications

EPA:	0.44 ft² (0.04 m²)
Length:	26.18" (66.5 cm)
Width:	14.06" (35.7 cm)
Height H1:	2.26" (5.7 cm)
Height H2:	7.46" (18.9 cm)
Weight:	23 lbs (10.4 kg)

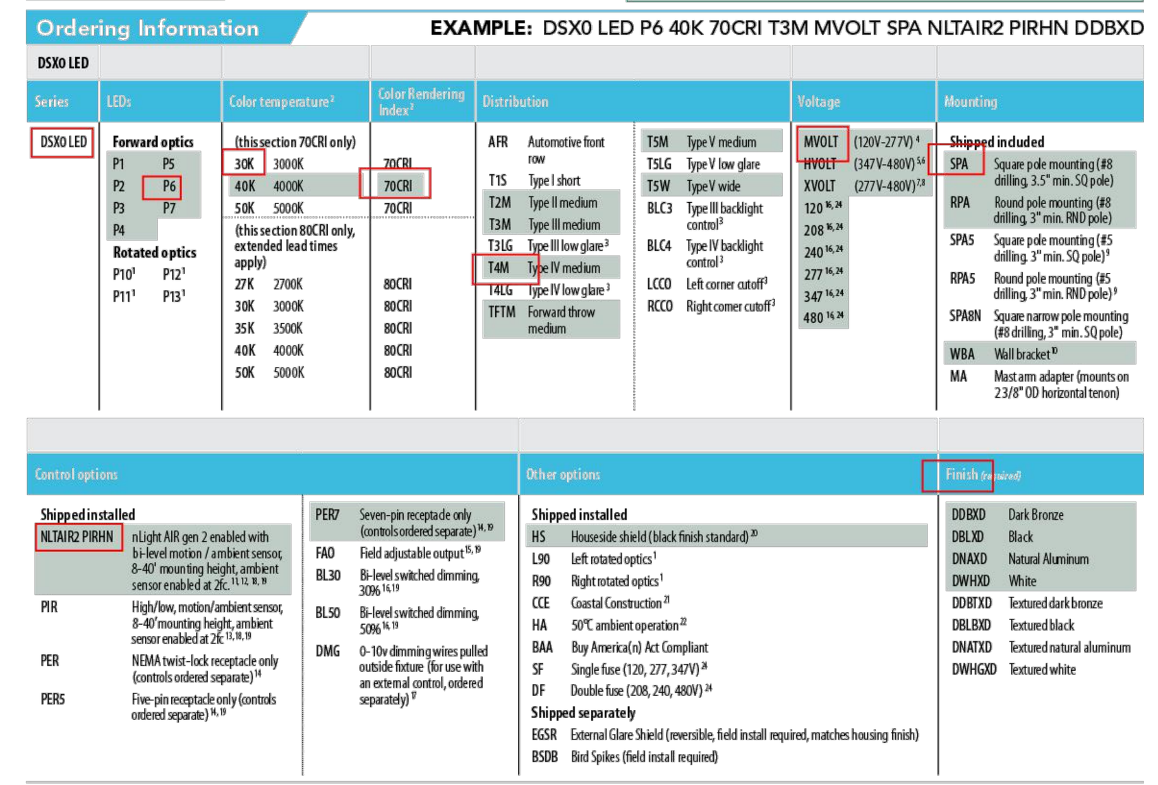


Introduction
The modern styling of the D-Series features a highly refined aesthetic that blends seamlessly with its environment. The D-Series offers the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.
The photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. D-Series outstanding photometry aids in reducing the number of poles required in area lighting applications, with typical energy savings of 70% and expected service life of over 100,000 hours.

design select
Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect.
*See ordering tree for details

Design Select options indicated by this color background.

Ordering Information EXAMPLE: DSX0 LED P6 40K 70CRI T3M MVOLT SPA NLTAIR2 PIRHN DDBXD



LITHONIA LIGHTING
COMMERCIAL OUTDOOR
One Lithonia Way • Conyers, Georgia 30012 • Phone: 1-800-705-SERV (7378) • www.lithonia.com
© 2011-2024 Acuity Brands Lighting, Inc. All rights reserved.

4 S1 / S2 LIGHT POLE
SCALE: N.T.S

LITHONIA LIGHTING®

FEATURES & SPECIFICATIONS

INTENDED USE — These specifications are for US standards only. Check with factory for Canadian specifications. Square Straight Steel is a general purpose light pole for up to 39-foot mounting heights. This pole provides a robust yet cost effective option for mounting area lights and floodlights.

CONSTRUCTION — Pole Shaft: The pole shaft is of uniform dimension and wall thickness and is made of a weldable-grade, hot-rolled, commercial-quality steel tubing with a minimum yield of 55 KSI (11-gauge, .1196"), or 50 KSI (7-gauge, .1793"). Shaft is one-piece with a full-length longitudinal high-frequency electric resistance weld. Uniformly square in cross-section with flat sides, small corner radii and excellent torsional qualities. Available shaft widths are 4", 5" and 6".

Pole Top: A flush non-metalic black top cap is provided for all poles that will receive drilling patterns for side-mount luminaire arm assemblies or when ordered with PT option.

Handhole: A reinforced handhole with grounding provision is provided at 18" from the base on side A. Positioning the handhole lower may not be possible and requires engineering review; consult Tech Support-Outdoor for further information. Every handhole includes a cover and cover attachment hardware. The handhole has a nominal dimension of 2.5" x 5".

Base Cover: A durable ABS plastic two-piece full base cover, finished to match the pole, is provided with each pole assembly. Additional base cover options are available upon request.

Anchor Base/ Bolts: Anchor base is fabricated from steel that meets ASTM A36 standards and can be altered to match existing foundations; consult factory for modifications. Anchor bolts are manufactured to ASTM F1554 Standards grade 55, (55 KSI minimum yield strength and tensile strength of 75-95 KSI). Top threaded portion (nominal 12") is hot-dipped galvanized per ASTM A-153.

HARDWARE – All structural fasteners are high-strength galvanized carbon steel. All non-structural fasteners are galvanized or zinc-plated carbon steel or stainless steel.

FINISH – Extra durable standard powder-coat finishes include Dark Bronze, White, Black, Medium Bronze and Natural Aluminum colors. Classic finishes include Sandstone, Charcoal Gray, Tennis Green, Bright Red and Steel Blue colors. Architectural Colors and Special Finishes are available by quote and include, but are not limited to Hot-dipped Galvanized, Paint over Hot-dipped Galvanized, RAL Colors, Custom Colors and Extended Warranty Finishes. Factory-applied primer paint finish is available for customer field-paint applications.

WARRANTY — 1-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

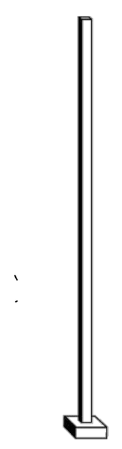
NOTE: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.

Catalog Number
Notes
Type

Anchor Base Poles

SSS

SQUARE STRAIGHT STEEL



S1 and S2: SSS 25 5C DM19AS FINISH

OUTDOOR POLE-SSS

5 IN-GRADE FIXTURE
SCALE: N.T.S

In-grade luminaire · Symmetric · 24V DC **BEGA**

Application
Flush in-grade small-scale symmetric floodlights. Designed to uplight trees, walls, columns, or signage from ground surfaces. Luminaires require a remote 24 V DC class 2 power supply suitable to operate at the intended LED wattage.

Materials
Clear safety glass
Corrosion-resistant 304 grade stainless steel
High temperature silicone gasket
Mechanically captive stainless steel fasteners
Pure anodized aluminum reflector

NRTL listed to North American Standards, suitable for wet locations
Protection class IP 68

Weight: 3.1 lbs.

Electrical

Operating voltage	24V DC (remote power supply req.)
Minimum start temperature	-40° C
LED module wattage	3.0 W
System wattage	5.8 W
Controllability	Non-Dimming
Color rendering index	Ra > 80
Luminaire lumens	352 lm
LED service life (L70)	60000 hrs

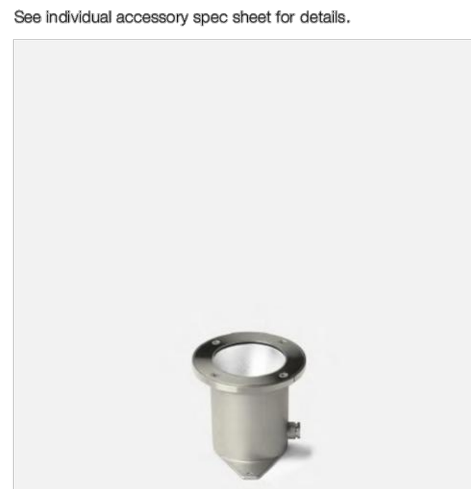
LED color temperature
☐ 4000K (K4)
☐ 3500K (K35)
☐ 3000K (K3)
☐ 2700K (K27)

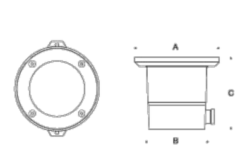
BEGA can supply you with suitable LED replacement modules for up to 20 years after the purchase of LED luminaires - see website for details

Finish
#4 brushed stainless steel. Custom colors are not available.

Type:
BEGA Product:
Project:
Modified:

Available accessories
☐ B19580 Remote driver box · Static white
☐ B19591 Remote driver box · Static white
See individual accessory spec sheet for details.





In-grade luminaire · Symmetric · 24V DC

	LED	☐	A	B	C
B77018	3.0W	23°	4⅝	3⅛	3⅞

BEGA 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-0533 info@bega-us.com
Due to the dynamic nature of lighting products and the associated technologies, luminaire data on this sheet is subject to change at the discretion of BEGA North America. For the most current technical data, please refer to bega-us.com
© copyright BEGA 2024 Updated 08/07/24

811 Know what's below. Call before you dig.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN FOR APPROXIMATION ONLY. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

SEC Planning, LLC
Austin, Texas
LAND PLANNING
LANDSCAPE ARCHITECTURE
COMMUNITY BRANDING
3600 W. Parmer Lane
Suite 210
Austin, TX 78727
T 512.246.7003
www.secplanning.com
Email : info@secplanning.com

HUNT COMPANIES GP, LLC
136 TERRITORY DRIVE
BASTROP, TEXAS 78602

BID SET ONLY
NOT FOR REGULATORY APPROVAL, PERMITTING, OR CONSTRUCTION

PRODUCED UNDER THE SUPERVISION OF BENEDICT DEBELLIS TX PLA #2690
10/15/2024

TREEHOUSE AMENITY CENTER
THE COLONY
BASTROP, TEXAS

Drawing File Name
L:\240056-HUCO\Cadfiles\LA\Treehouse AC\L-4.dwg

Issued:
1. BID SET 10/23/2024
2.
3.
4.
5.
6.

Revisions:
1.
2.
3.
4.

Issue Date: 10/15/2024

Drawn By: AWT
Reviewed By: BD

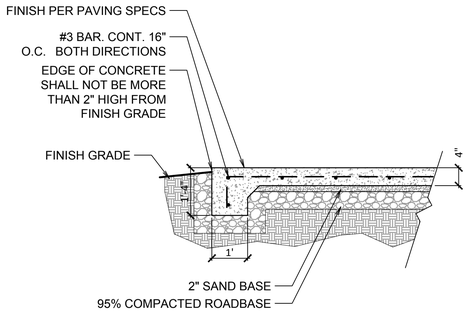
Project No. 240056

LIGHTING DETAILS

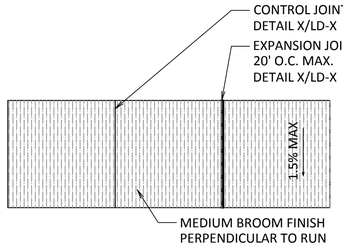
Sheet No. L-4.1 ____ of ____

LAYOUT AND GRADING NOTES

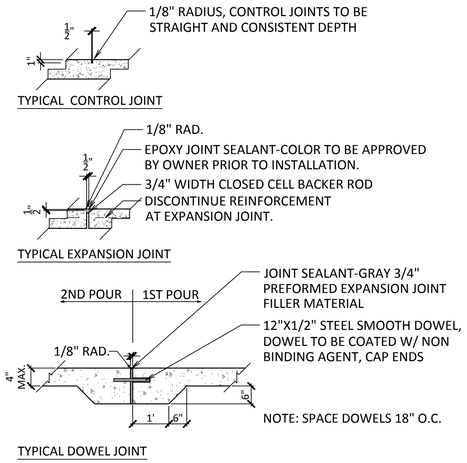
1. Layout of concrete walkways shall be determined in the field, using the Hardscape Plan as a guide.
2. All pedestrian paths shall be in compliance with all current Texas Accessibility Standards (T.A.S.) and ADA standards.
3. All walkway grades shall have a running slope of no greater than 4.7% (1:21) and a cross-slope that is not greater than 1.5% (1:66).
4. Slopes at or between 5.0% (1:20) and 8.3% (1:12) must have hand rails on both sides with ADA compliant level landings, and cross-slopes shall not exceed 1.5% (1:66).



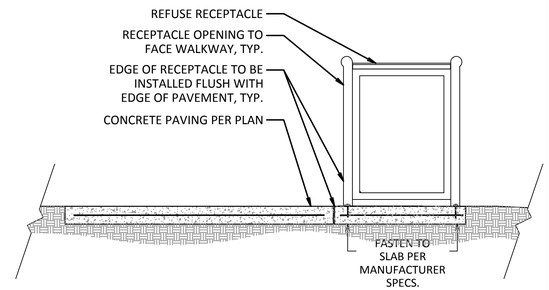
1 TYPICAL CONCRETE SLAB
SCALE: 1/2" = 1' -0"



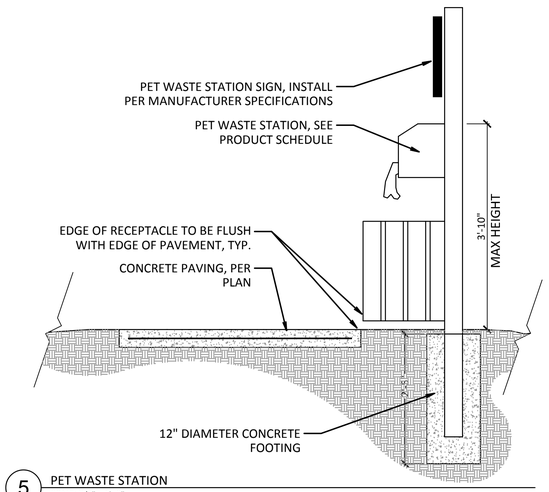
2 TYPICAL CONCRETE PLAN
SCALE: 1/2" = 1' -0"



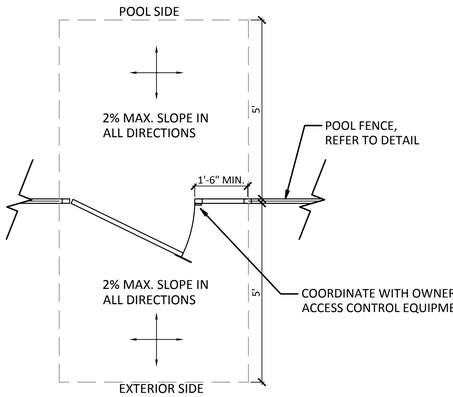
3 TYPICAL CONCRETE JOINTS
SCALE: 1/2" = 1' -0"



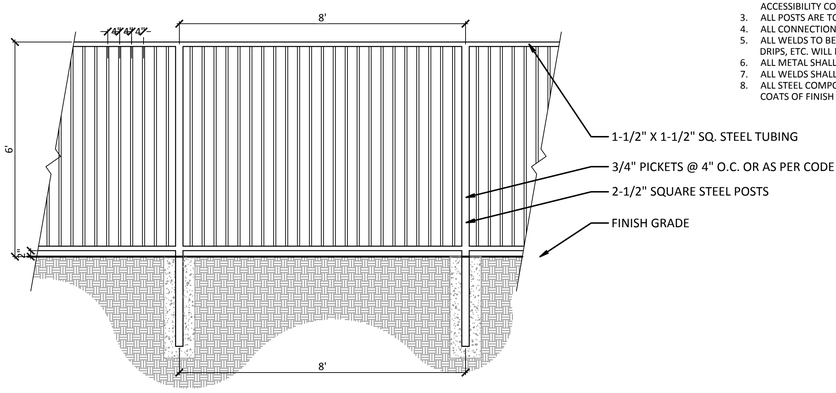
4 WASTE RECEPTABLE - MOUNTING
SCALE: 3/4" = 1' -0"



5 PET WASTE STATION
SCALE: 3/4" = 1' -0"

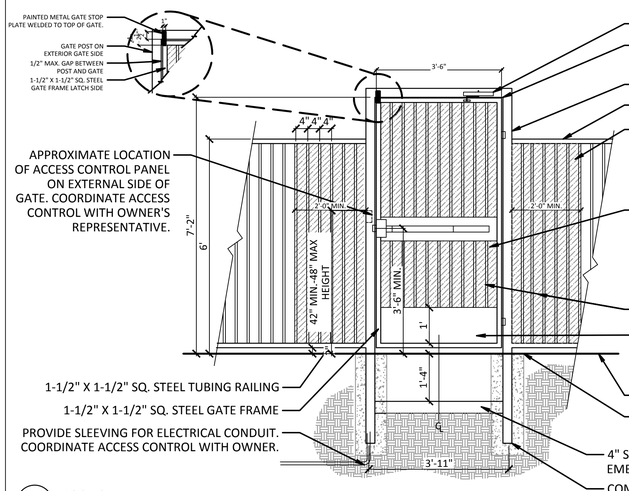


6 POOL GATE - LAYOUT
SCALE: 1/2" = 1' -0"



7 POOL FENCE
SCALE: 1/2" = 1' -0"

POOL FENCE NOTES:
1. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR ALL FENCES FOR APPROVAL BY OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.
1. FIELD MEASURE FENCE FOR EXACT LAYOUT.
2. FENCES SHALL MEET ALL REGULATORY HEALTH, SAFETY AND ACCESSIBILITY CODES INCLUDING ADA/TAS.
3. ALL POSTS ARE TO BE CAPPED WITH WELDED METAL CAPS.
4. ALL CONNECTIONS TO BE WELDED UNLESS OTHERWISE NOTED.
5. ALL WELDS TO BE GROUND SMOOTH. WELDS THAT HAVE SLAGS, DRIPS, ETC. WILL NOT BE ACCEPTED.
6. ALL METAL SHALL BE PRIMED PRIOR TO DELIVERY ON SITE.
7. ALL WELDS SHALL BE PRIMED AFTER FABRICATION.
8. ALL STEEL COMPONENTS TO HAVE ONE COAT OF PRIMER AND TWO COATS OF FINISH PAINT. COLOR TO BE DETERMINED.



8 POOL GATE
SCALE: 1/2" = 1' -0"

POOL FENCE AND GATE NOTES:
1. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR ALL GATES AND FENCES FOR APPROVAL BY OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.
2. FIELD MEASURE FENCE AND GATES FOR EXACT LAYOUT.
3. FENCES AND GATES SHALL MEET ALL REGULATORY HEALTH, SAFETY AND ACCESSIBILITY CODES INCLUDING ADA/TAS.
4. ALL POSTS ARE TO BE CAPPED WITH WELDED METAL CAPS.
5. ALL CONNECTIONS TO BE WELDED UNLESS OTHERWISE NOTED.
6. ALL WELDS TO BE GROUND SMOOTH. WELDS THAT HAVE SLAGS, DRIPS, ETC. WILL NOT BE ACCEPTED.
7. ALL METAL SHALL BE PRIMED PRIOR TO DELIVERY ON SITE, OR POWDER COATED.
8. ALL WELDS SHALL BE PRIMED AFTER FABRICATION.
9. LOCKS OR LATCHES THAT ARE NOT OVER RIDDEN BY PANIC HARDWARE WILL NOT BE ALLOWED. PANIC BAR: 36" MAXIMUM HEIGHT, NORMAL HARDWARE HEIGHT OR PER CODE.
10. GATE TO HAVE AN ADA/TAS ADJUSTABLE DOOR CLOSER/SELF LOCKING GATE CLOSER.
11. ACCESS PANEL TO BE LOCATED AT GATE OR ON POST ON EXTERIOR SIDE OF POOL GATE. ACCESS CONTROL PANEL: 48" MAXIMUM HEIGHT. CONTRACTOR SHALL COORDINATE ACCESS CONTROL WITH OWNER'S REPRESENTATIVE.
12. ALL STEEL COMPONENTS TO HAVE ONE COAT OF PRIMER AND TWO COATS OF FINISH PAINT, OR POWDER COATED. COLOR TO BE DETERMINED.
13. POSITION GATE HINGES SO AS NOT TO PROVIDE A CLIMBING POINT AS DEFINED BY THE TEXAS HEALTH CODE FOR POOLS.

SEC Planning, LLC
Austin, Texas

LAND PLANNING
LANDSCAPE ARCHITECTURE
COMMUNITY BRANDING

3600 W. Parmer Lane
Suite 210
Austin, TX 78727
T 512.246.7003
www.secplanning.com
Email : info@secplanning.com

HUNT COMPANIES GP, LLC
136 TERRITORY DRIVE
BASTROP, TEXAS 78602

BID SET ONLY
NOT FOR REGULATORY APPROVAL, PERMITTING, OR CONSTRUCTION

PRODUCED UNDER THE SUPERVISION OF BENEDICT DEBELLIS TX PLA #2690

10/15/2024

TREEHOUSE AMENITY CENTER
THE COLONY
BASTROP, TEXAS

Drawing File Name
L:\240056-HUCO\Cadfiles\LA\Treehouse AC\LD-1-TreeHouse.dwg

Issued:
1. BID SET 10/23/2024
2.
3.
4.
5.
6.

Revisions:
1.
2.
3.
4.

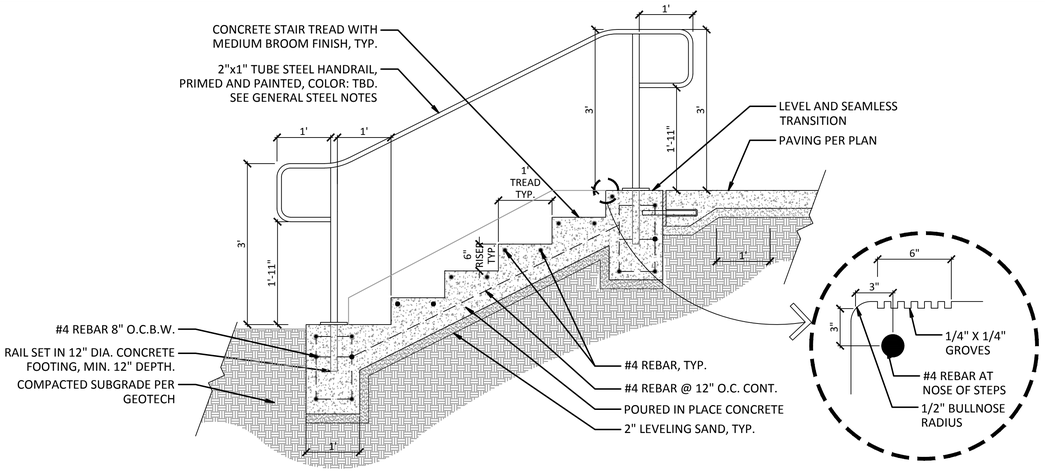
Issue Date: 10/15/2024

Drawn By: AWT
Reviewed By: BD

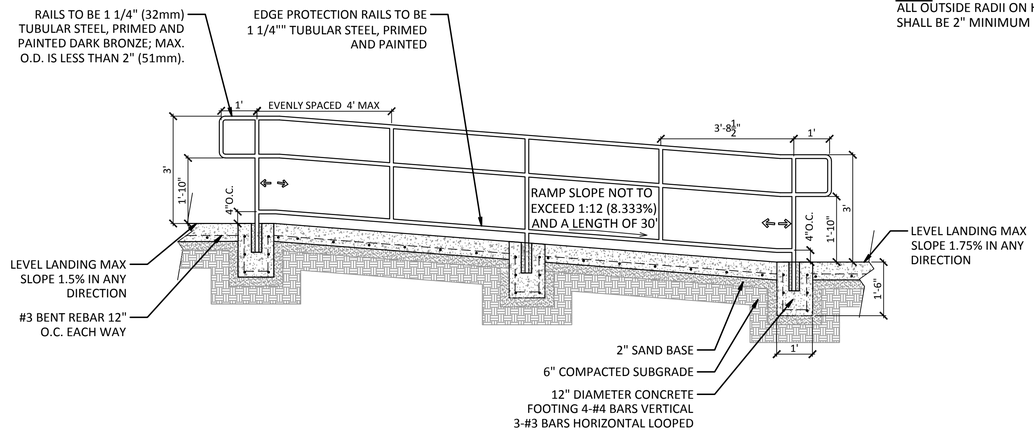
Project No. 240056

Details

Sheet No. LD-1 of



1 CONCRETE STEPS
SCALE: 3/4" = 1'-0"



NOTE:
ALL OUTSIDE RADII ON HANDRAIL SHALL BE 2" MINIMUM

2 RAMP WITH HANDRAIL
SCALE: 1/2" = 1'-0"

SEC Planning, LLC
Austin, Texas

LAND PLANNING
LANDSCAPE ARCHITECTURE
COMMUNITY BRANDING

3600 W. Parmer Lane
Suite 210
Austin, TX 78727
T 512.246.7003
www.secplanning.com
Email : info@secplanning.com

HUNT COMPANIES GP, LLC
136 TERRITORY DRIVE
BASTROP, TEXAS 78602

BID SET ONLY
NOT FOR REGULATORY APPROVAL, PERMITTING, OR CONSTRUCTION

PRODUCED UNDER THE SUPERVISION OF BENEDICT DEBELLIS
TX PLA #2690

10/15/2024

TREEHOUSE AMENITY CENTER
THE COLONY
BASTROP, TEXAS

Drawing File Name
L:\240056-HUCO\Cadfiles\LA\Treehouse AC\LD-1-TreeHouse.dwg

Issued:
1. BID SET 10/23/2024
2.
3.
4.
5.
6.

Revisions:
1.
2.
3.
4.

Issue Date: 10/15/2024

Drawn By: AWT
Reviewed By: BD

Project No.
240056

Details

Sheet No.
LD-2 _____ of _____

GENERAL PLANTING NOTES

1. Contractor shall be responsible for becoming aware of all related existing conditions, utilities, pipes and structures, etc. prior to bidding and construction. The Contractor shall be held responsible for contacting all utility companies for field location of all underground utility lines, including depths, prior to any excavation. The Contractor shall notify the Owner's representative of apparent conflicts with construction and utilities so that adjustments can be planned prior to installation. Contractor shall take sole responsibility for any and all cost or other liabilities incurred due to damage of said utilities/structures/etc.

2. The Contractor shall not willfully proceed with construction as designed when it is apparent that unknown obstructions and/or grade differences exist that may not have been known during design. Such conditions shall be immediately brought to the attention of the Owner's Representative for clarification. The Contractor shall assume full responsibility for all liabilities, including necessary revisions due to failure to give such notification.

3. Contractor shall be responsible for coordination with subcontractors and other contractors of related trades as required to accomplish the planting and related operations.

4. The acceptable tolerances for this project are minimal and specific layout is required as shown on the layout, planting and other plans. Final location and staking of all plant materials shall be accepted by the Owner's Representative in advance of plantings.

5. Coordinate installation of all plant material with installation of all adjacent irrigation, pavements, curb and related structures. Any damage to existing improvements is the responsibility of the Contractor.

6. Contractor shall notify Owner's Representative 48 hours prior to commencement of work to coordinate project inspection schedules.

7. The Contractor shall take all necessary scheduling and other precautions to avoid climatic damage to plants. A "planting" of specific calendar days is required to be submitted by the Contractor for approval and planting operations should occur per this approved schedule.

8. If conflicts arise between size of areas and plans, Contractor is required to contact Owner's Representative for resolution. Failure to make such conflicts known to the Owner's Representative will result in Contractor's liability to relocate the materials.

9. Plant names may be abbreviated on the drawings. See plant legend for symbols, abbreviations, botanical/common names, sizes, estimated quantities (if given) and other remarks.

10. It is the Contractor's responsibility to furnish all plant materials free of pests or plant diseases. Pre-selected or "tagged" material must be inspected by the Contractor and certified pest and disease free. It is the Contractor's obligation to maintain and warranty all plant materials per the specifications. All plants shall be subject to Owner's approval prior to installation.

11. Where provided, area takeoffs and plant quantity estimates in plant list are for information only. Contractor is responsible to do their own quantity take-offs for all plant materials and sizes shown on plans. In case of any discrepancies, plans take precedence over call-outs and/or the plant list(s).

12. Contractor shall provide "per-unit costs" for every size of plant material, and by type, as called out on Planting Plans in the Bid Proposal. Unit cost to include the plant material itself and installation, including all labor, amendments, fertilizers, warranty, etc., as detailed and specified for each size, "complete in place".

13. The Contractor is responsible to restore all areas of the site, or adjacent areas, where disturbed by operations of or related to the Contractor's work. Sod areas disturbed shall be restored with new sod. Native areas disturbed, if not already improved to meet other requirements of this contract, shall be restored consistent with type, rates and species of existing condition.

14. During plant establishment, native and wetland areas shall be protected from sedimentation and erosion. Prior to construction activities, native and wetland areas outside of the project limits shall be protected with silt fence.

15. When planting trees and shrubs in existing natural areas, minimize disturbance to adjacent existing vegetation.

16. No Ball & Burlap (B&B) material will be allowed or accepted unless specifically specified.

17. All plants shall be nursery grown, Grade 1 plants meeting American Nursery and Landscape Association (ANLA) standards set forth in the "American Standard for Nursery Stock" (ANSI Z60.1-2004). Plants are to be typical in shape and size for species. Plants shall not be root-bound or loose in their containers. Handle all plants with care in transporting, planting and maintenance until inspection and final acceptance.

18. **Warranty: Provide a one-year replacement warranty for all plant materials. Warranty shall cover plants which have died or partially died (thereby ruining their natural shape), but shall not include damage by vandalism, browsing, hail, abnormal freezes, drought or negligence by the Owner. The Warranty is intended to cover Contractor negligence, infestations, disease and damage or shock to plants. Plants replaced under Warranty will be warranted for one year following replacement.**

19. **The Contractor is responsible for all maintenance of the site for the duration of construction until acceptance.**

20. **The Contractor shall provide a 90-day maintenance period after completion of all scope elements.**

PLANTING LAYOUT AND INSTALLATION

1. The Contractor shall be responsible for accurately laying out the plant beds and lawn areas by scaling the Drawings. The Contractor shall provide paint lines/stakes/hose or other means to fully indicate the specific layout geometry of all bed lines for approval by Owner's Representative prior to installation. The Contractor's Base Bid shall anticipate minor adjustments as directed by the Landscape Architect in the field. Changes affecting quantities will be covered by unit prices.

2. Following the approval of layout, the Contractor shall closely coordinate the installation of the irrigation system to conform to the approved layout.

3. All planting beds are to be separated from adjacent Turf Sod, Turf Seed and Native Seed areas with edging per specifications and details. Additional locations may be indicated on the Drawings. Install edging following manufacture's installation instructions. Maintain an accurate layout with smooth curves and transitions, free of kinks and abrupt bends. Top of edging is to be 1" above soil level of adjacent turf. In Bid Proposal furnish a unit price per linear foot of edging installed.

4. Provide matching sizes and forms for all species of trees and plants installed on grid or spaced equally in rows as shown on drawings. Adjust spacing (to "equal-equal") as necessary, subject to acceptance by the Owner's Representative.

5. Unless otherwise indicated:

   a. All groupings of groundcovers, perennials, ornamental grasses and annuals shall be triangularly spaced (equal-equal).
   b. All planting areas including sod, seed and planting beds, shall receive soil amendments per the notes and specifications.
   c. Sodded lawn shall have been grown between 9 and 18 months and shall be vigorous, well-rooted and healthy turf. Minimum thatch thickness shall be 3/4".
   d. Specific plant bed areas may be called out to receive weed barrier fabric, see plans and details.
   e. All bulb planting shall occur after mid-October and before ground is frozen. See details for bulb planting layout.

6. All Plant Beds and pit planted plants shall receive a 3" depth layer of shredded hardwood mulch. Refer to plans, details and specifications for location and type of any alternate mulch used. In Bid Proposal furnish a unit price(s) per cubic yard of mulch(es) placed. This unit price(s) will be used in the adjustment of bed areas.

7. Planting pits for 1 and 5 gallon shrubs shall be at least 8" larger in diameter than the container size. Larger container sizes and B&B plants shall be planted in pits at least 3 times larger in diameter than the root ball size.

8. Plants shall be installed to present their best side facing the viewer.

9. Owner's representative shall have final approval of plant material layout.

TREEHOUSE AMENITY CENTER
MATERIAL SCHEDULE

TURF GRASS/ PLANT BEDS

NAME	TOTAL	UNITS	DESCRIPTION	
Plant Bed	3,400	sf		
	63	cy	Planting mix	6" depth (Pro-Gro Soil Mix by Whittlesey Landscape Supply or approved equal)
	31	cy	Mulch	3" Depth (Native Hardwood Mulch)
Cynodon dactylon `Tif 419` / Bermuda Grass	8,505	sf		*Cynodon dactylon "TIFWAY 419"*
	945	sy	Turf Sod	Bermuda T419
	105	cy	Top Soil	4" Depth (75% Chocolate Loam / 25% Compost)
Cynodon dactylon / Bermuda Seed Hydromulch	14,158	sf		*Cynodon dactylon*
	1,573	sy	Turf Seed	Common Bermuda
	87	cy	Top Soil	2" Depth (Chocolate Loam)

MISCELANEOUS

NAME	TOTAL	UNITS	DESCRIPTION	COMMENTS
Steel Edging	415	lf	3/16" thick; Brown	
River Rock	31	cy	4" Depth / 70% 1-2", 30% 2-4"; Colorado Salt & Pepper Gravel	From Whittlesey Landscape Supplies Call: 512-989-7625
Landscape Boulders	45	ea	Native Limestone, min. size: 24" x 26" x 18"	Natural Boulders. No machine markings, gouges

IRRIGATION				
SYMB	QTY	UNITS	DESCRIPTION	COMMENTS
CONTROLLER	1	ea.	Rainbird, Hunter, or Approved Equal	
PLANT BEDS	3,400	s.f.	Drip/Spray	
TREES	21	ea.	Drip/Bubbler	2 per shade tree, 1 per ornamental tree
SOD/TURF	8,505	s.f.	Drip/Spray/Bubbler	
SEED	14,158	s.f.	Temporary Irrigation	

CODE	QTY	BOTANICAL / COMMON NAME	CONTAINER	CALIPER	HT/SPD	WATER USE	NOTES
TREES							
QUVI	4	Quercus virginiana / Southern Live Oak	Container Grown	3"Cal	12-15 H X 8 Spd	L	Must be from a Single Root Stock
TAMU	6	Taxodium mucronatum / Montezuma Cypress	Container Grown	3"Cal	15-19 H X 8-12 Spd	H	Must be from a Single Root Stock
ULCR	6	Ulmus crassifolia / Cedar Elm	Container Grown	3"Cal	12-15 H X 8 Spd	M	Must be from a Single Root Stock
ORNAMENTAL TREES							
CHLI	13	Chilopsis linearis / Desert Willow	Container Grown	1" Cal @ 3 trunks, min.	8-9 H X 3-4 Spd	L, M	Must be from a Single Root Stock
LATU	1	Lagerstroemia indica Tuscarora / Crape Myrtle	Container Grown	1" Cal @ 3 trunks, min.	8-9 H X 3-4 Spd	M	Must be from a Single Root Stock
PALM TREES							
SATE	2	Sabal texana / Texas Palmetto	65 gal		18-20H X 7-8W	L	8 trunk ht
CODE	QTY	BOTANICAL / COMMON NAME	CONTAINER	CONTAINER SIZE	NOTES	WATER USE	
SHRUBS							
DIBI	20	Dietes bicolor / Fortnight Lily	Container Grown	5 gallon	Full to Ground	L	
ILBN	8	Ilex cornuta Burfordii Nana / Dwarf Burford Holly	Container Grown	5 gallon	Full to Ground	M	
LEGC	7	Leucophyllum frutescens Green Cloud TM / Green Cloud Texas Ranger	Container Grown	5 gallon	Full to Ground	L	
LIGR	11	Lippia graveolens / Mexican Oregano	Container Grown	5 gallon	Full to Ground	L	
MYDD	8	Myrica cerifera Dons Dwarf / Dons Dwarf Wax Myrtle	Container Grown	5 gallon	Full to Ground	L-M	
RHVI	10	Rhus virens / Evergreen Sumac	Container Grown	7 gallon	Full to Ground	L-M	
ROKO	36	Rosa x Double Knockout / Rose	Container Grown	5 gallon	Full to Ground	L-M	
RUEQ	5	Russelia equisetiformis / Firecracker Plant	Container Grown	5 gallon	Full to Ground	L-M	
SAGR	73	Salvia greggii / Autumn Sage	Container Grown	5 gallon	Full to Ground	L	
GRASSES							
MULI	46	Muhlenbergia lindheimeri / Lindheimers Muhly	Container Grown	5 gallon	Full, Unbroken Blades	M	
NOTE	15	Nolina texana / Texas Sacahuista	Container Grown	3 gallon	Full	L	
STTE	12	Stipa tenuissima / Mexican Feathergrass	Container Grown	1 gallon	Full	L	
PERENNIALS							
SALE	27	Salvia leucantha / Mexican Bush Sage	Container Grown	3 gallon	Full	L	
TALE	22	Tagetes lemmonii / Copper Canyon Daisy	Container Grown	5 gallon	Full	L	
SUCCULENTS							
AGAM	3	Agave americana / Century Plant	Container Grown	24" box	Full, Unbroken Blades	VL	
DATE	8	Dasylirion texanum / Texas Sotol	Container Grown	5 gallon	Full, Unbroken Blades	VL	
HEPA	4	Hesperaloe parviflora / Red Yucca	Container Grown	5 gallon	Full, Unbroken Blades	VL	
OPEN	6	Opuntia engelmanii / Cactus Apple	Container Grown	24" box	Full, Unbroken Blades	VL	
YUGL	13	Yucca gloriosa / Spanish Dagger	4 H X 12" Trunk Dia., cont. grwn.	24" clear trunk	Full, Unbroken Blades	VL	
YURO	10	Yucca rostrata / Beaked Yucca	Container Grown	5 gallon	Full, Unbroken Blades	VL	
GROUNDCOVER							
LAMOL	114	Lantana montevidensis Lavender / Trailing Lavender Lantana	Container Grown	1 gallon	Full Canopy, Shrub Form	L	
SCSU	67	Scutellaria suffrutescens / Pink Skullcap	Container Grown	1 gallon	Full Canopy, Shrub Form	L	

811 Know what's below. Call before you dig.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN FOR APPROXIMATION ONLY. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

SEC Planning, LLC
Austin, Texas

LAND PLANNING
LANDSCAPE ARCHITECTURE
COMMUNITY BRANDING

3600 W. Parmer Lane
Suite 210
Austin, TX 78727
T 512.246.7003
www.secplanning.com
Email : info@secplanning.com

HUNT COMPANIES GP, LLC
136 TERRITORY DRIVE
BASTROP, TEXAS 78602

BID SET ONLY
NOT FOR REGULATORY APPROVAL, PERMITTING, OR CONSTRUCTION

PRODUCED UNDER THE SUPERVISION OF BENEDICT DEBELLIS TX PLA #2690

10/15/2024

TREEHOUSE AMENITY CENTER
THE COLONY
BASTROP, TEXAS

Drawing File Name
L:\240056-HUCO\Cadfiles\LA\Treehouse AC\LPN-1.dwg

Issued:
1. BID SET 10/23/2024
2.
3.
4.
5.
6.

Revisions:
1.
2.
3.
4.

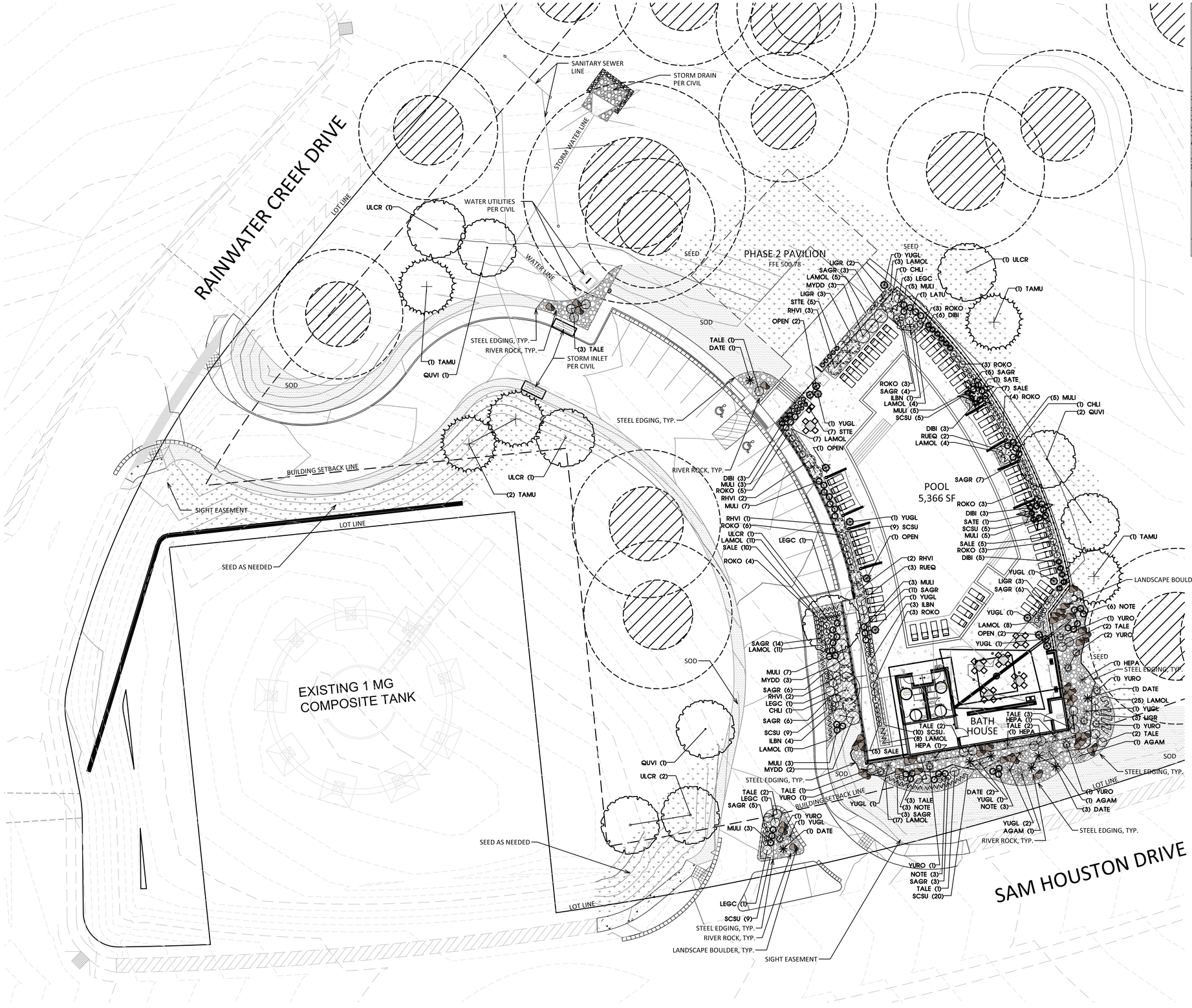
Issue Date: 10/15/2024

Drawn By: AWT
Reviewed By: BD

Project No. 240056

LANDSCAPE NOTES

Sheet No. LPN - 1.0 of



KEY MAP

LEGEND

	TURF SOD
	TURF SEED
	PLANT BED
	RIVER ROCK
	PROTECTED TREE

SEC Planning, LLC
Austin, Texas

LAND PLANNING
LANDSCAPE ARCHITECTURE
COMMUNITY BRANDING

3600 W. Parmer Lane
Suite 210
Austin, TX 78727
T 512.246.7003
www.secplanning.com
Email : info@secplanning.com

HUNT COMPANIES GP, LLC
136 TERRITORY DRIVE
BASTROP, TEXAS 78602

BID SET ONLY
NOT FOR REGULATORY APPROVAL, PERMITTING, OR CONSTRUCTION

PRODUCED UNDER THE SUPERVISION OF BENEDICT DEBELLIS TX PLA #2690

10/15/2024

TREEHOUSE AMENITY CENTER
THE COLONY
BASTROP, TEXAS

Drawing File Name
L:\240056-HUCO\Cadfiles\LIA\Treehouse AC\LPX-Base - Treehouse - AC.dwg

Issued:
1. BID SET 10/23/2024
2.
3.
4.
5.
6.

Revisions:
1.
2.
3.
4.

Issue Date: 10/15/2024

Drawn By: AWT
Reviewed By: BD

Project No. 240056

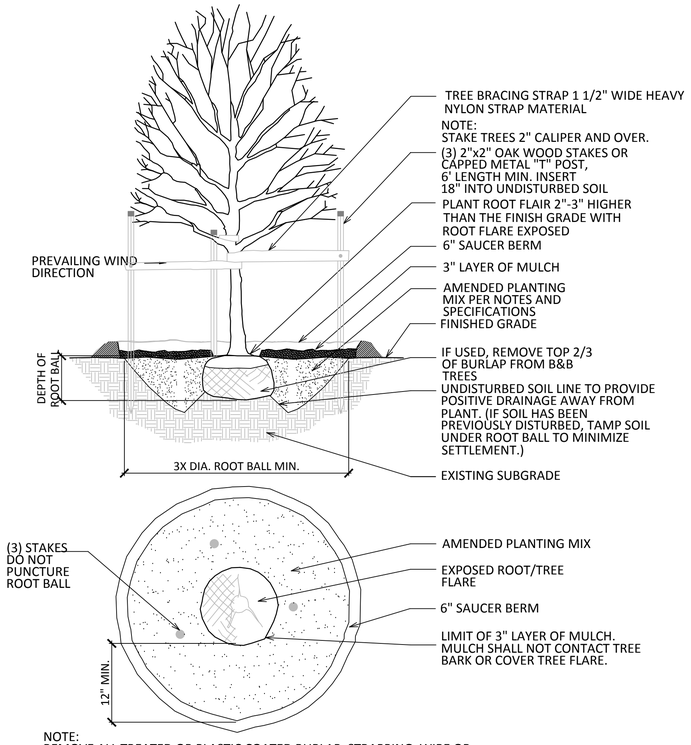
OVERALL PLANTING PLAN

Sheet No. LP-1.0 _____ of _____

FULL SIZE SCALE: 1" = 20'
NORTH 0' 10' 20' 40'

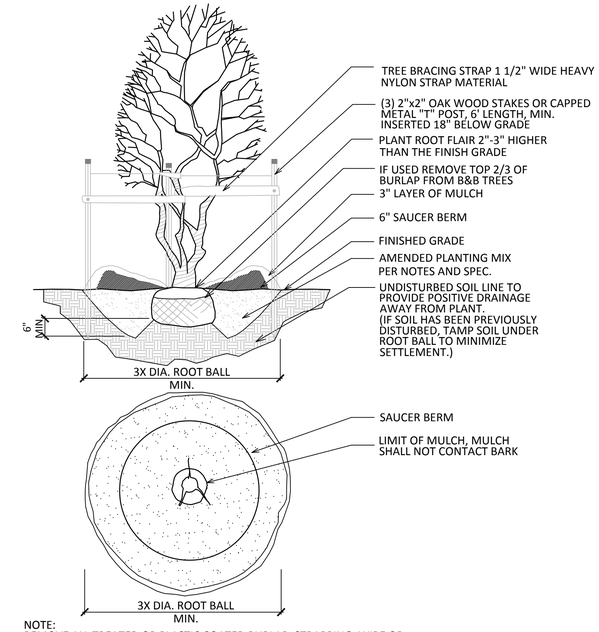
811 Know what's below. Call before you dig.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN FOR APPROXIMATION ONLY. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



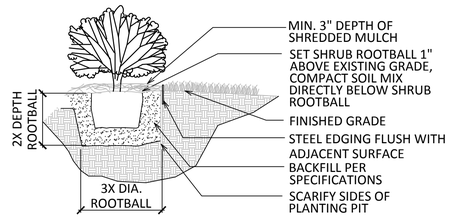
NOTE:
REMOVE ALL TREATED OR PLASTIC COATED BURLAP, STRAPPING, WIRE OR NYLON TWINE FROM ROOT BALL. AFTER SETTING IN HOLE, CUT AWAY TOP AND SIDES OF WIRE BASKET AND REMOVE IF ANY.
ANY BROKEN OR CRUMBLING ROOTBALL WILL BE REJECTED. REMOVING THE WIRE WILL NOT BE AN EXCUSE FOR DAMAGE ROOTBALLS.

① TREE PLANTING - SHADE
SCALE: 3/4" = 1'

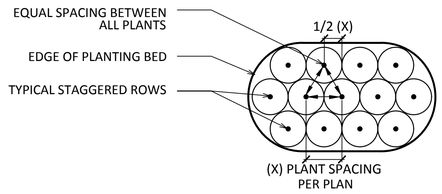


NOTE:
REMOVE ALL TREATED OR PLASTIC COATED BURLAP, STRAPPING, WIRE OR NYLON TWINE FROM ROOT BALL. AFTER SETTING IN HOLE, CUT AWAY TOP AND SIDES OF WIRE BASKET AND REMOVE IF ANY.
ANY BROKEN OR CRUMBLING ROOTBALL WILL BE REJECTED. REMOVING THE WIRE WILL NOT BE AN EXCUSE FOR DAMAGE ROOTBALLS.

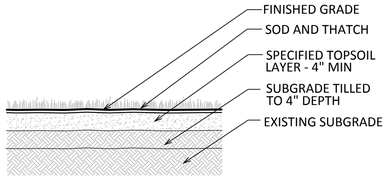
② TREE PLANTING - MULTI STEM
SCALE: 3/4" = 1'



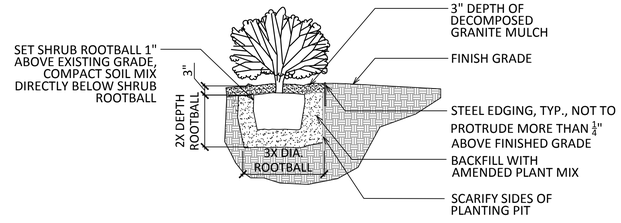
③ SHRUB PLANTING - STANDARD PLANT BED
SCALE: 1/2"=1'



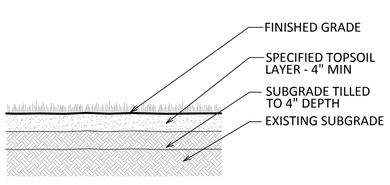
③ SHRUB BED LAYOUT
SCALE: 1"=1'



④ TURF SOD
SCALE: 1/2"=1'



⑤ SHRUB PLANTING WITH DECOMPOSED GRANITE
SCALE: 1/2"=1'



⑥ TURF SEED
SCALE: 1/2"=1'

811 Know what's below. Call before you dig.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN FOR APPROXIMATION ONLY. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

SEC Planning, LLC
Austin, Texas

LAND PLANNING
LANDSCAPE ARCHITECTURE
COMMUNITY BRANDING

3600 W. Parmer Lane
Suite 210
Austin, TX 78727
T 512.246.7003
www.secplanning.com
Email : info@secplanning.com

HUNT COMPANIES GP, LLC
136 TERRITORY DRIVE
BASTROP, TEXAS 78602

BID SET ONLY
NOT FOR REGULATORY APPROVAL, PERMITTING, OR CONSTRUCTION

PRODUCED UNDER THE SUPERVISION OF BENEDICT DEBELLIS TX PLA #2690

10/15/2024

TREEHOUSE AMENITY CENTER
THE COLONY
BASTROP, TEXAS

Drawing File Name
L:\240056-HUCO\Cadfiles\LA\Treehouse AC\LP-D1.dwg

Issued:
1. BID SET 10/23/2024
2.
3.
4.
5.
6.

Revisions:
1.
2.
3.
4.

Issue Date: 10/15/2024

Drawn By: AWT
Reviewed By: BD

Project No.
240056

PLANTING DETAILS

Sheet No.
LP-D1 ____ of ____