New Construction for:

Jackson Twp Trustees - Amphitheater

7660 Community Parkway Massillon, OH, 44646



OWNER

Jackson Township Board of Trustees 5735 Wales Avenue N.W. Massillon, OH, 44646 P: 330.832.7416

SōL Harris/Day Architecture 6677 Frank Avenue NW Canton, OH 44720 P: 330.493.3722

STRUCTURAL

Fenton Engineering, Inc. 1549 Boettler Rd., Suite F Uniontown, OH 44685 Phone: 330.933.4642 Contact: John Fenton

MECHANICAL

10483 Cleveland Ave. NW Uniontown, OH 44685 P: 330.494.1574 Contact: Dave Ball

ELECTRICAL

Stadelman Associates Inc.

STAGE FRAME PROFILES STAGE FRAME PROFILES STAGE FRAME PROFILES STAGE FRAME PROFILES STRUCTURAL DETAILS

STAGE FRAMING DETAILS RESTROOM FOUNDATION & FRAMING PLANS, NOTES, DETAILS

BACK OF HOUSE ROOF PLAN STAGE ROOF PLAN **RESTROOM PLANS & ELEVATIONS EXTERIOR ELEVATIONS**

PROJECT COVER SHEET

STAGE FRAMING PLAN

ADA COMPLIANCE DETAILS

STANDARD HEIGHT REQUIREMENTS

RESTROOM WALL SECTION DOOR & WINDOW ELEVATIONS

> FINISH PLAN INTERIOR ELEVATIONS INTERIOR ELEVATIONS RESTROOM INTERIOR ELEVATIONS

BACK OF HOUSE REFLECTED CEILING PLAN STAGE REFLECTED CEILING PLAN CEILING PANEL TYPES AND LAYOUT

BATHROOM FLOOR PLAN AND NOTES AMPHITHEATER FLOOR PLAN AND SANITARY ISOMETRIC PIPING SCHEMATIC, SANITARY ISOMETRIC, AND SCHEDULE FLOOR PLAN - HVAC AND NOTES

FLOOR PLAN, SCHEDULES, AND NOTES ELECTRICAL SYMBOLS, LEGENDS AND DETAILS SITE LIGHTING PLAN

AMPHITHEATER LIGHTING PLAN SITE POWER PLAN AMPHITHEATER POWER PLAN AMPHITHEATER AUDIO CONNECTIONS

RESTROOM ELECTRICAL PLANS SITE PREPARATION PLAN

RESTROOM CIVIL

SWPP NOTES AND DETAILS

SWPP NOTES AND DETAILS SWPP NOTES AND DETAILS SWPP POND PLAN

Contact: Michael Vaccaro

ARCHITECT

Contact: Justin Gantz

ENGINEER

ENGINEER

Thorson Baker + Associates

3030 W Streetsboro Rd

Contact: Robert Howell

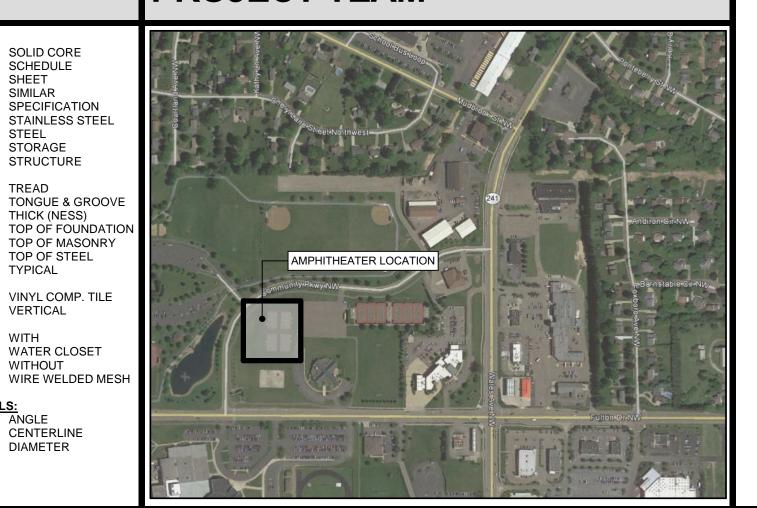
ENGINEER

LSG Mechanical Engineers

ENGINEER

931 Portage Trail Cuyahoga Falls, OH 44221 P: 330.926.2600 Contact: Steve Parsons

PROJECT TEAM



		•
MARK	DATE	DESCRIPTION
PRC	DJECT NO	D: 15.148
DAT	E:	3/27/2019

PROJECT COVER SHEET

ZONING REGULATION INFORMATION

BUILDING KEY PLAN / RENDERING

8,730 SF

NEW - SEE CIVIL

EXISTING

NO

NO

7487 FULTON DR NW

MASSILLON, OH 44646

JACKSON TOWNSHIP

JACKSON TWP TRUSTEES - AMPHITHEATER

ADDRESS

JURISDICTION

BUILDING AREA

BUILDING HEIGHT

BUILDING STORIES

FIRE SUPRESSION

FLOOD PLAIN

CURB CUTS

UTILITIES

LAND USE

ANCHOR BOLT

ALTERNATE

ALUMINUM

BUILDING

CONCRETI

CERAMIC TILE

DIAMETER

DIMENSION

DOWNSPOUT

BENCH MARK

CENTER TO CENTER

CONC. MASONRY UNIT

CONTROL JOINT

ABOVE FINISH FLOOR

DRAWING

ELECTRICAL

ELEVATION

EXPANSION

FOOTING

HEATING

HOT WATER

INTERIOR

GALVANIZED

GENERAL CONTRACTOR

EQUIP EQUIPMENT

MATERIAL

MAXIMUM

NUMBER

NOMINAL

PLAM PLASTIC LAMINATE

RADIUS

R.O. ROUGH OPENING

SANITARY

REINF REINFORCED (MENT

PROP PROPERTY

REQ'D REQUIRED

N.T.S. NOT TO SCALE

MECHANICAI

MANUFACTURER

MISCELLANEOUS

SPEC

S.S.

STR

T.O.S.

SPECIFICATION

STORAGE

STRUCTURE

THICK (NESS)

TOP OF STEEL

VERTICAL

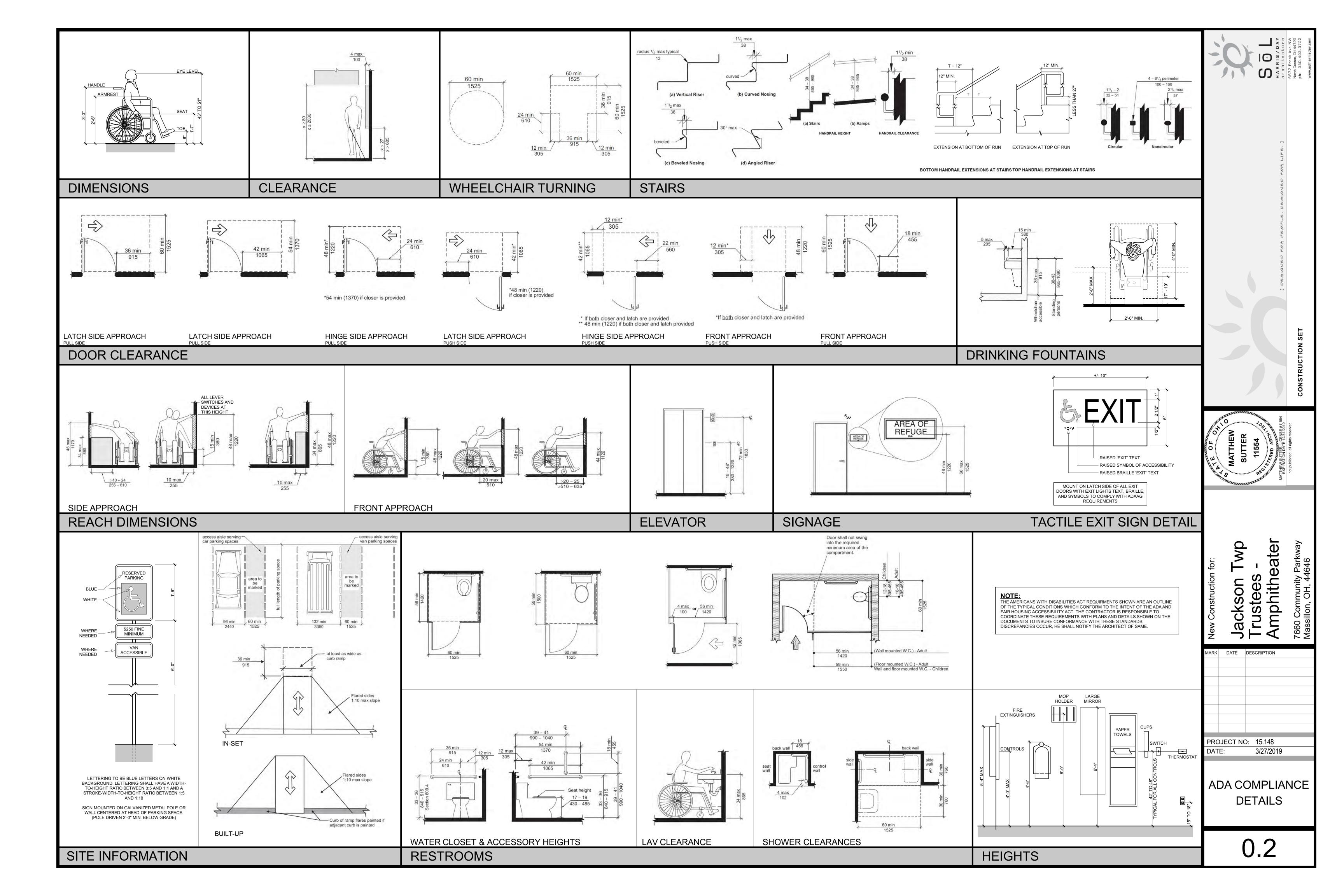
WITHOUT

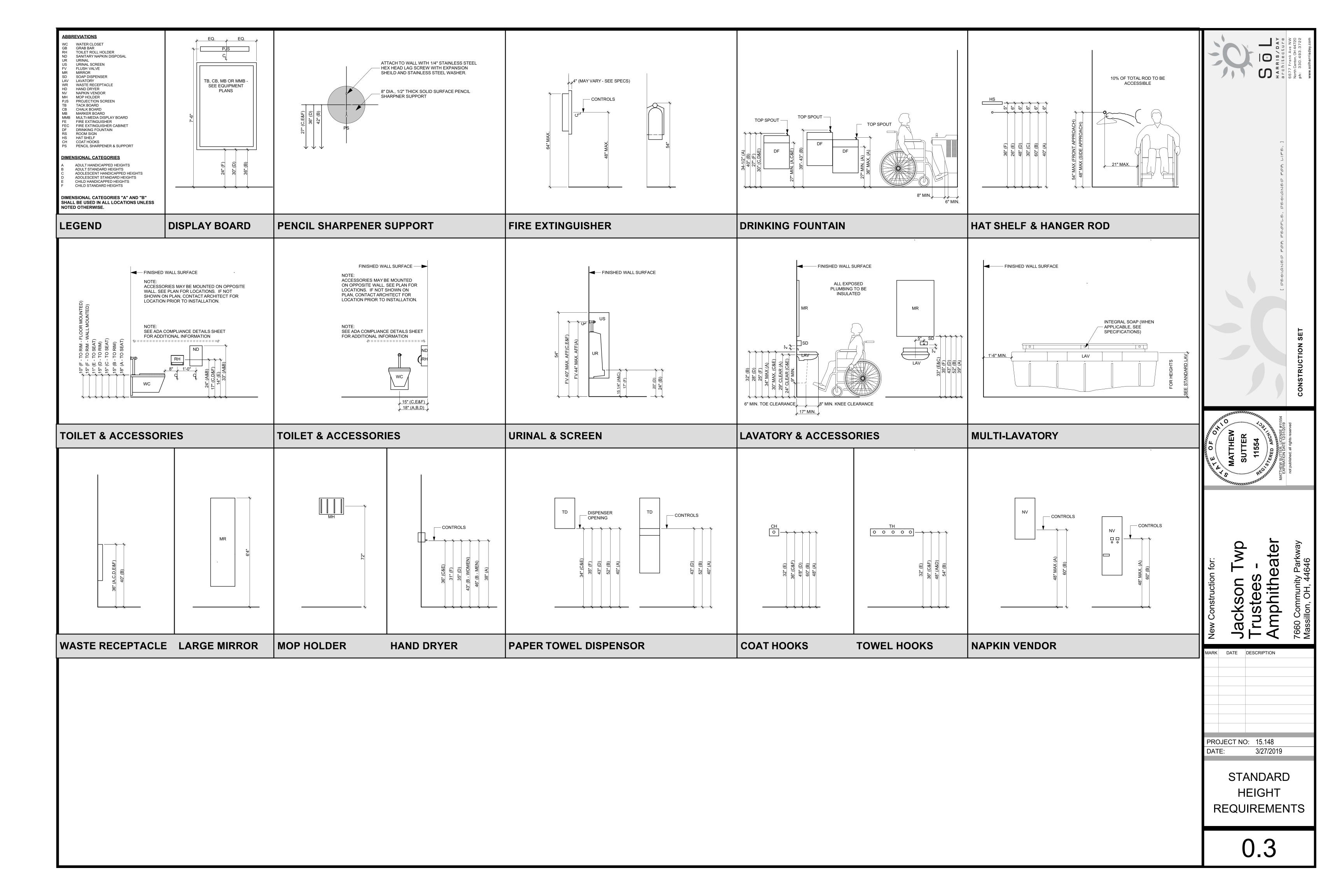
CENTERLINE

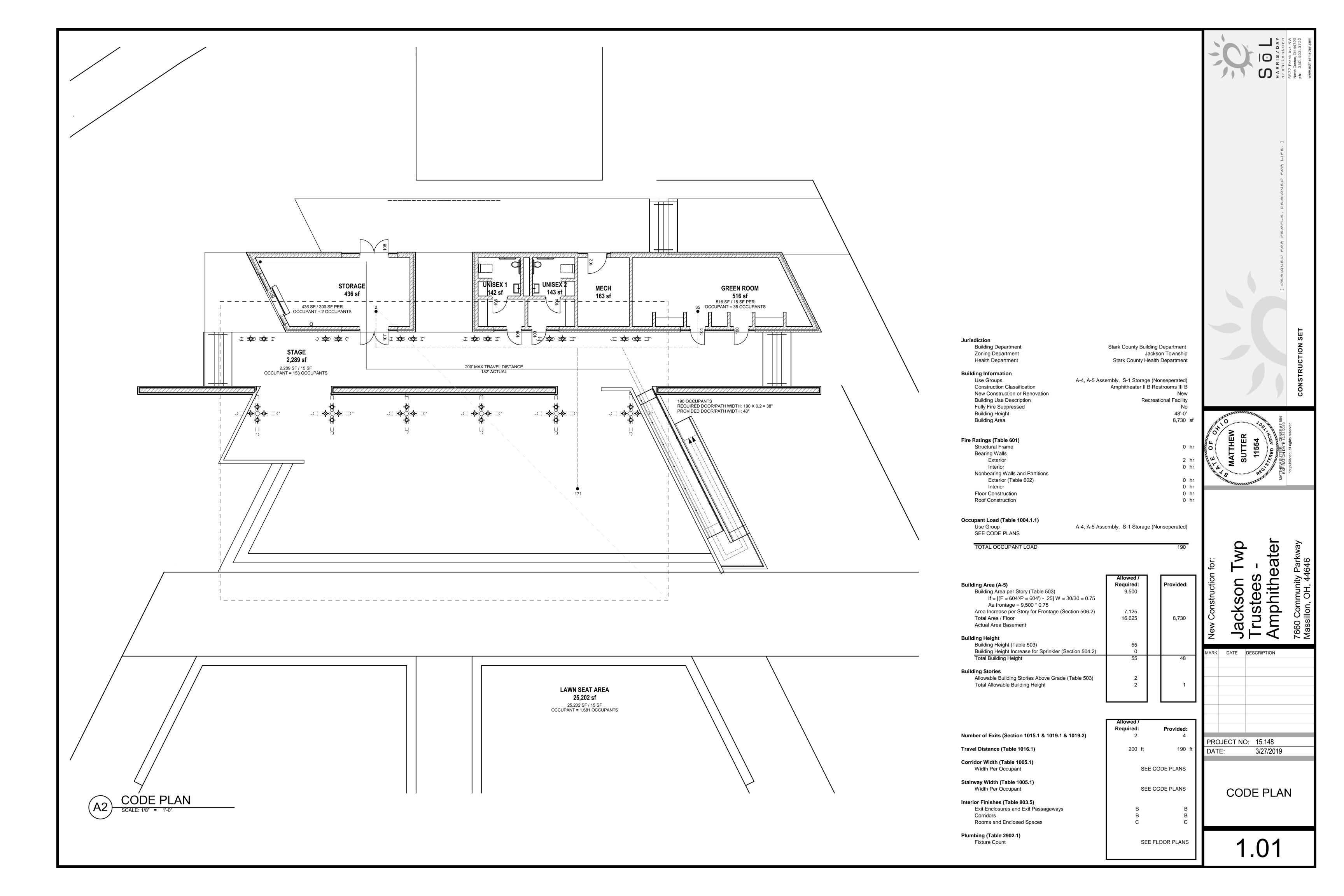
DIAMETER

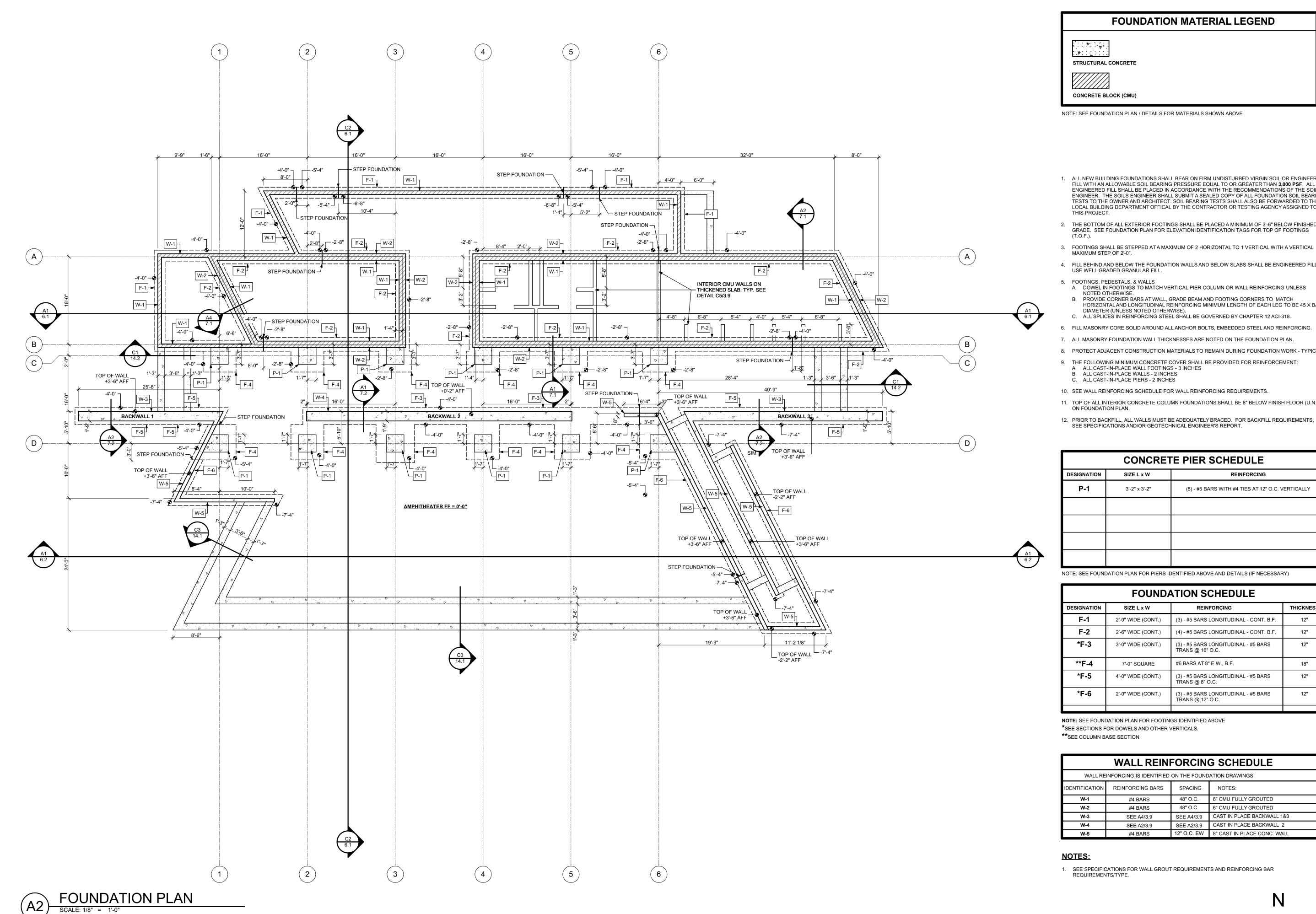
WATER CLOSET

MTR'L









FOUNDATION MATERIAL LEGEND

STRUCTURAL CONCRETE

NOTE: SEE FOUNDATION PLAN / DETAILS FOR MATERIALS SHOWN ABOVE

- 1. ALL NEW BUILDING FOUNDATIONS SHALL BEAR ON FIRM UNDISTURBED VIRGIN SOIL OR ENGINEERED FILL WITH AN ALLOWABLE SOIL BEARING PRESSURE EQUAL TO OR GREATER THAN 3,000 PSF. ALL ENGINEERED FILL SHALL BE PLACED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE SOILS ENGINEER. THE SOILS ENGINEER SHALL SUBMIT A SEALED COPY OF ALL FOUNDATION SOIL BEARING TESTS TO THE OWNER AND ARCHITECT. SOIL BEARING TESTS SHALL ALSO BE FORWARDED TO THE LOCAL BUILDING DEPARTMENT OFFICAL BY THE CONTRACTOR OR TESTING AGENCY ASSIGNED TO
- 2. THE BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE PLACED A MINIMUM OF 3'-6" BELOW FINISHED GRADE. SEE FOUNDATION PLAN FOR ELEVATION IDENTIFICATION TAGS FOR TOP OF FOOTINGS
- MAXIMUM STEP OF 2'-0".
- 4. FILL BEHIND AND BELOW THE FOUNDATION WALLS AND BELOW SLABS SHALL BE ENGINEERED FILL. USE WELL GRADED GRANULAR FILL..
- 5. FOOTINGS, PEDESTALS, & WALLS
 A. DOWEL IN FOOTINGS TO MATCH VERTICAL PIER COLUMN OR WALL REINFORCING UNLESS
- B. PROVIDE CORNER BARS AT WALL, GRADE BEAM AND FOOTING CORNERS TO MATCH HORIZONTAL AND LONGITUDINAL REINFORCING MINIMUM LENGTH OF EACH LEG TO BE 45 X BAR DIAMETER (UNLESS NOTED OTHERWISE).
- C. ALL SPLICES IN REINFORCING STEEL SHALL BE GOVERNED BY CHAPTER 12 ACI-318.
- 6. FILL MASONRY CORE SOLID AROUND ALL ANCHOR BOLTS, EMBEDDED STEEL AND REINFORCING.
- 8. PROTECT ADJACENT CONSTRUCTION MATERIALS TO REMAIN DURING FOUNDATION WORK TYPICAL.
- 9. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT: A. ALL CAST-IN-PLACE WALL FOOTINGS 3 INCHES B. ALL CAST-IN-PLACE WALLS - 2 INCHES
- 10. SEE WALL REINFORCING SCHEDULE FOR WALL REINFORCING REQUIREMENTS.
- 11. TOP OF ALL INTERIOR CONCRETE COLUMN FOUNDATIONS SHALL BE 8" BELOW FINISH FLOOR (U.N.O.)
- 12. PRIOR TO BACKFILL, ALL WALLS MUST BE ADEQUATELY BRACED. FOR BACKFILL REQUIREMENTS, SEE SPECIFICATIONS AND/OR GEOTECHNICAL ENGINEER'S REPORT.

CONCRETE PIER SCHEDULE					
DESIGNATION	SIZE L x W	REINFORCING			
P-1	3'-2" x 3'-2"	(8) - #5 BARS WITH #4 TIES AT 12" O.C. VERTICALLY			

NOTE: SEE FOUNDATION PLAN FOR PIERS IDENTIFIED ABOVE AND DETAILS (IF NECESSARY)

FOUNDATION SCHEDULE						
DESIGNATION SIZE L x W REINFORCING THICKNES						
F-1	2'-0" WIDE (CONT.)	(3) - #5 BARS LONGITUDINAL - CONT. B.F.	12"			
F-2	2'-6" WIDE (CONT.)	(4) - #5 BARS LONGITUDINAL - CONT. B.F.	12"			
*F-3	3'-0" WIDE (CONT.)	(3) - #5 BARS LONGITUDINAL - #5 BARS TRANS @ 16" O.C.	12"			
**F-4	7'-0" SQUARE	#6 BARS AT 8" E.W., B.F.	18"			
*F-5 4'-0" WIDE (CONT.)		(3) - #5 BARS LONGITUDINAL - #5 BARS TRANS @ 8" O.C.	12"			
*F-6	2'-0" WIDE (CONT.)	(3) - #5 BARS LONGITUDINAL - #5 BARS TRANS @ 12" O.C.	12"			

NOTE: SEE FOUNDATION PLAN FOR FOOTINGS IDENTIFIED ABOVE

*SEE SECTIONS FOR DOWELS AND OTHER VERTICALS.

**SEE COLUMN BASE SECTION

	WALL REINFORCING SCHEDULE						
WALL RE	INFORCING IS IDENTIFIED	ON THE FOUND	ATION DRAWINGS				
IDENTIFICATION	REINFORCING BARS	SPACING	NOTES:				
W-1	#4 BARS	48" O.C.	8" CMU FULLY GROUTED				
W-2	#4 BARS	48" O.C.	6" CMU FULLY GROUTED				
W-3	SEE A4/3.9	SEE A4/3.9	CAST IN PLACE BACKWALL 1&3				
W-4	SEE A2/3.9	SEE A2/3.9	CAST IN PLACE BACKWALL 2				
W-5	#4 BARS	12" O.C. EW	8" CAST IN PLACE CONC. WALL				

SEE SPECIFICATIONS FOR WALL GROUT REQUIREMENTS AND REINFORCING BAR REQUIREMENTS/TYPE.

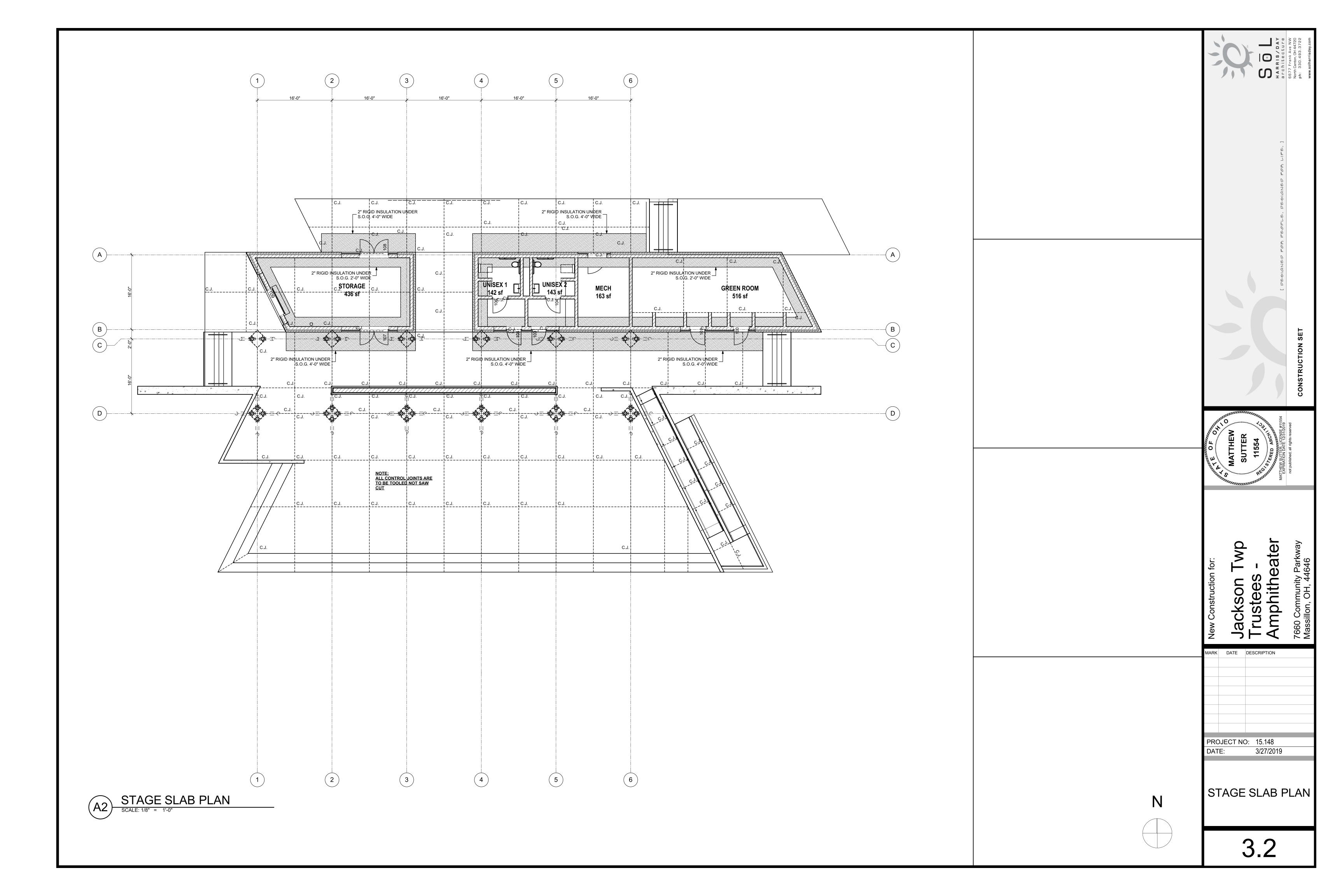
N

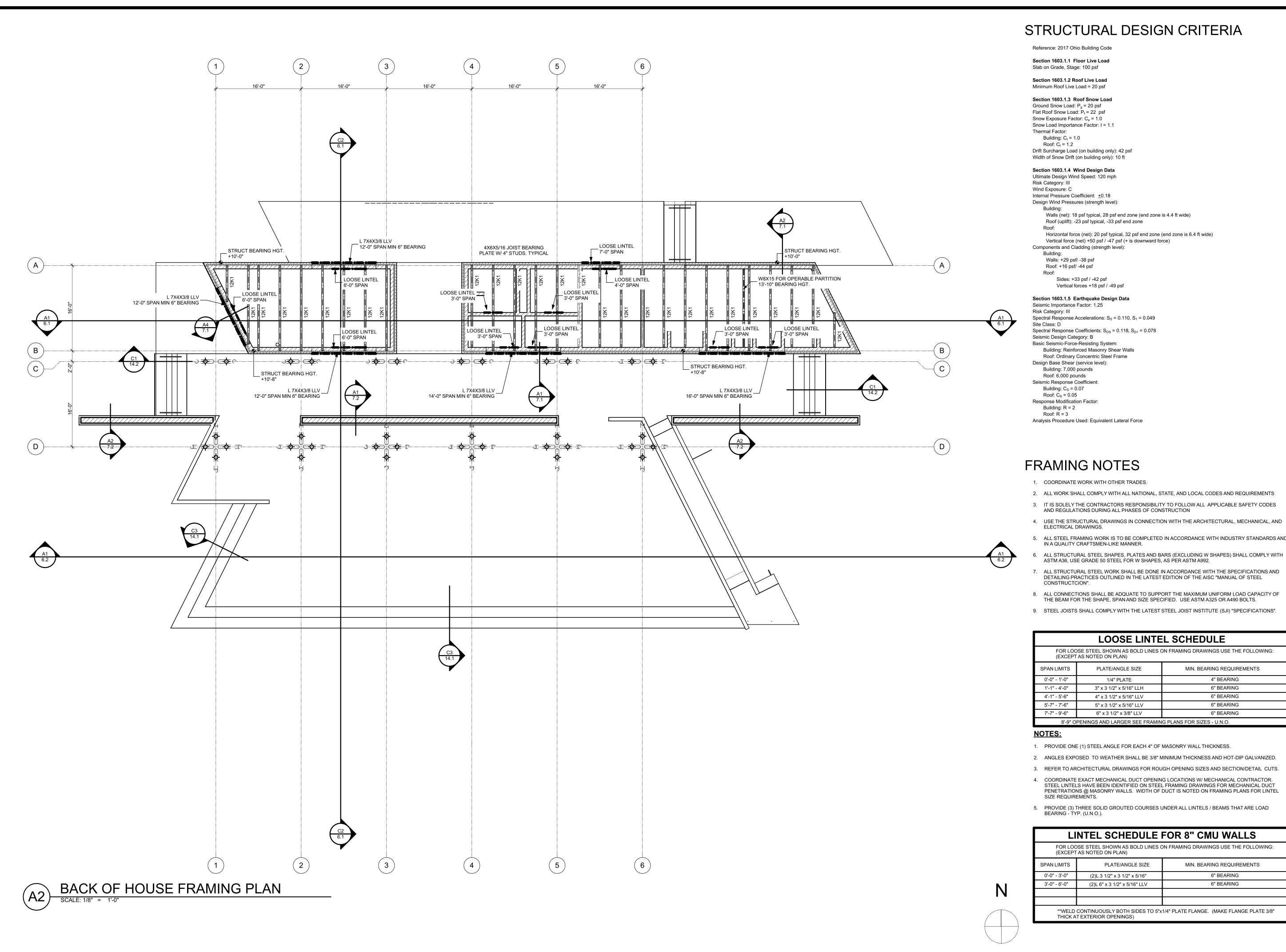
FOUNDATION PLAN



MARK DATE DESCRIPTION

PROJECT NO: 15.148 3/27/2019





STRUCTURAL DESIGN CRITERIA

Reference: 2017 Ohio Building Code

Section 1603.1.3 Roof Snow Load Ground Snow Load: P_g = 20 psf

Snow Load Importance Factor: I = 1.1

Width of Snow Drift (on building only): 10 ft

Section 1603.1.4 Wind Design Data Ultimate Design Wind Speed: 120 mph

Walls (net): 18 psf typical, 28 psf end zone (end zone is 4.4 ft wide)

Horizontal force (net): 20 psf typical, 32 psf end zone (end zone is 6.4 ft wide) Vertical force (net) +50 psf / -47 psf (+ is downward force)

Sides: +33 psf / -42 psf

Spectral Response Accelerations: $S_S = 0.110$, $S_1 = 0.049$

Spectral Response Coefficients: $S_{DS} = 0.118$, $S_{D1} = 0.078$ Basic Seismic-Force-Resisting System:

Building: Reinforced Masonry Shear Walls Roof: Ordinary Concentric Steel Frame Design Base Shear (service level):

FRAMING NOTES

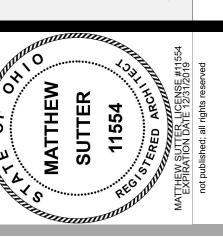
- 1. COORDINATE WORK WITH OTHER TRADES.
- 2. ALL WORK SHALL COMPLY WITH ALL NATIONAL, STATE, AND LOCAL CODES AND REQUIREMENTS
- 3. IT IS SOLELY THE CONTRACTORS RESPONSIBILITY TO FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION
- 4. USE THE STRUCTURAL DRAWINGS IN CONNECTION WITH THE ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS.
- 5. ALL STEEL FRAMING WORK IS TO BE COMPLETED IN ACCORDANCE WITH INDUSTRY STANDARDS AND IN A QUALITY CRAFTSMEN-LIKE MANNER.
- ASTM A36, USE GRADE 50 STEEL FOR W SHAPES, AS PER ASTM A992.
- ALL STRUCTURAL STEEL WORK SHALL BE DONE IN ACCORDANCE WITH THE SPECIFICATIONS AND DETAILING PRACTICES OUTLINED IN THE LATEST EDITION OF THE AISC "MANUAL OF STEEL
- 8. ALL CONNECTIONS SHALL BE ADQUATE TO SUPPORT THE MAXIMUM UNIFORM LOAD CAPACITY OF THE BEAM FOR THE SHAPE, SPAN AND SIZE SPECIFIED. USE ASTM A325 OR A490 BOLTS.
- 9. STEEL JOISTS SHALL COMPLY WITH THE LATEST STEEL JOIST INSTITUTE (SJI) "SPECIFICATIONS".

LOOSE LINTEL SCHEDULE						
FOR LOOSE STEEL SHOWN AS BOLD LINES ON FRAMING DRAWINGS USE THE FOLLOWING: (EXCEPT AS NOTED ON PLAN)						
SPAN LIMITS	PLATE/ANGLE SIZE	MIN. BEARING REQUIREMENTS				
0'-0" - 1'-0"	1/4" PLATE	4" BEARING				
1'-1" - 4'-0"	3" x 3 1/2" x 5/16" LLH	6" BEARING				
4'-1" - 5'-6"	4" x 3 1/2" x 5/16" LLV	6" BEARING				
5'-7" - 7'-6"	5" x 3 1/2" x 5/16" LLV	6" BEARING				
7'-7" - 9'-6"	7'-7" - 9'-6" 6" x 3 1/2" x 3/8" LLV 6" BEARING					
8'-9" O	PENINGS AND LARGER SEE FRAMIN	G PLANS FOR SIZES - U.N.O.				

- 1. PROVIDE ONE (1) STEEL ANGLE FOR EACH 4" OF MASONRY WALL THICKNESS.
- 2. ANGLES EXPOSED TO WEATHER SHALL BE 3/8" MINIMUM THICKNESS AND HOT-DIP GALVANIZED.
- 3. REFER TO ARCHITECTURAL DRAWINGS FOR ROUGH OPENING SIZES AND SECTION/DETAIL CUTS.
- 4. COORDINATE EXACT MECHANICAL DUCT OPENING LOCATIONS W/ MECHANICAL CONTRACTOR. STEEL LINTELS HAVE BEEN IDENTIFIED ON STEEL FRAMING DRAWINGS FOR MECHANICAL DUCT PENETRATIONS @ MASONRY WALLS. WIDTH OF DUCT IS NOTED ON FRAMING PLANS FOR LINTEL
- 5. PROVIDE (3) THREE SOLID GROUTED COURSES UNDER ALL LINTELS / BEAMS THAT ARE LOAD

FOR LOOSE STEEL SHOWN AS BOLD LINES ON FRAMING DRAWINGS USE THE FOLLOWING: (EXCEPT AS NOTED ON PLAN)						
SPAN LIMITS	PLATE/ANGLE SIZE	MIN. BEARING REQUIREMENTS				
0'-0" - 3'-0"	(2)L 3 1/2" x 3 1/2" x 5/16"	6" BEARING				
3'-0" - 6'-0" (2)L 6" x 3 1/2" x 5/16" LLV 6" BEARING						



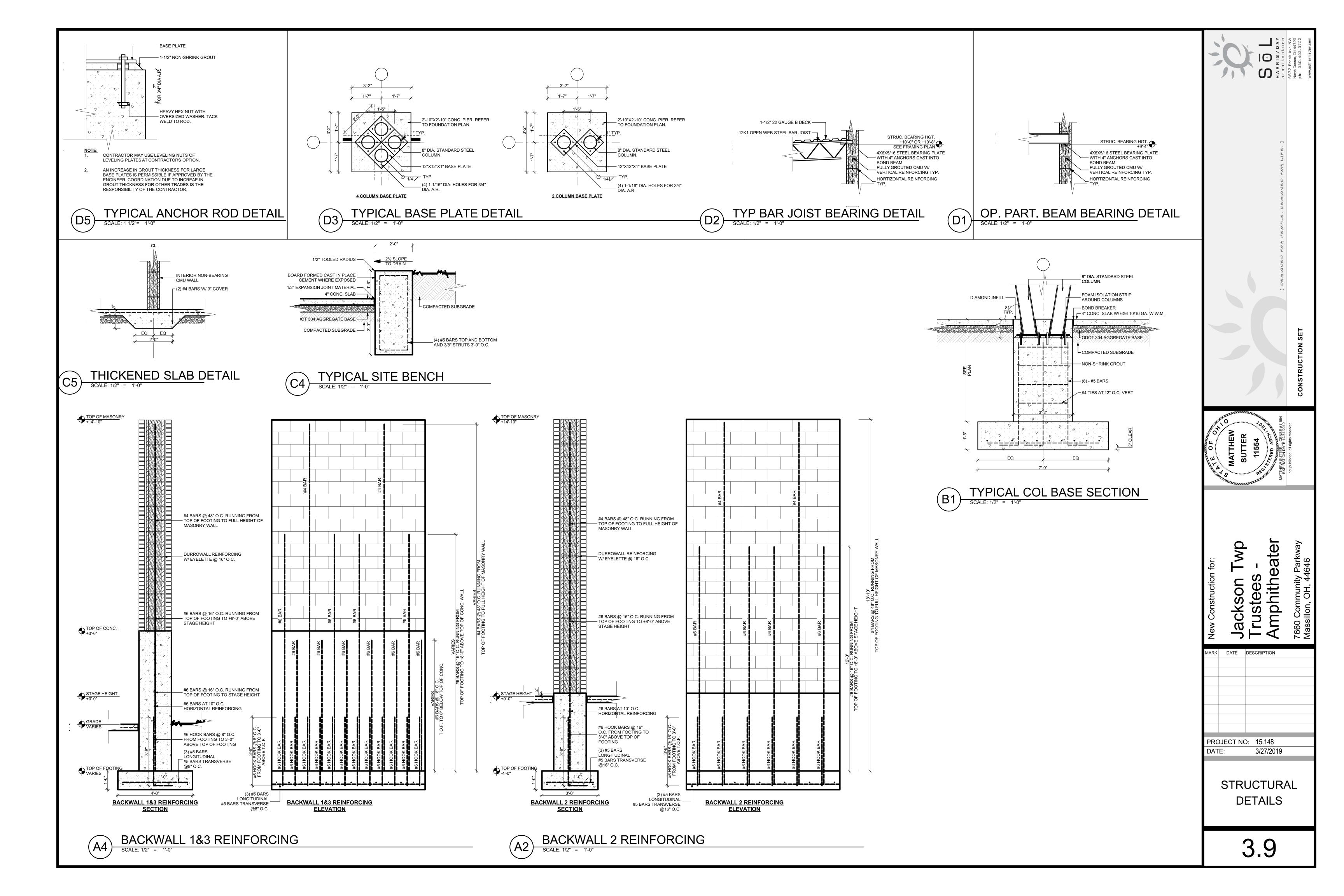


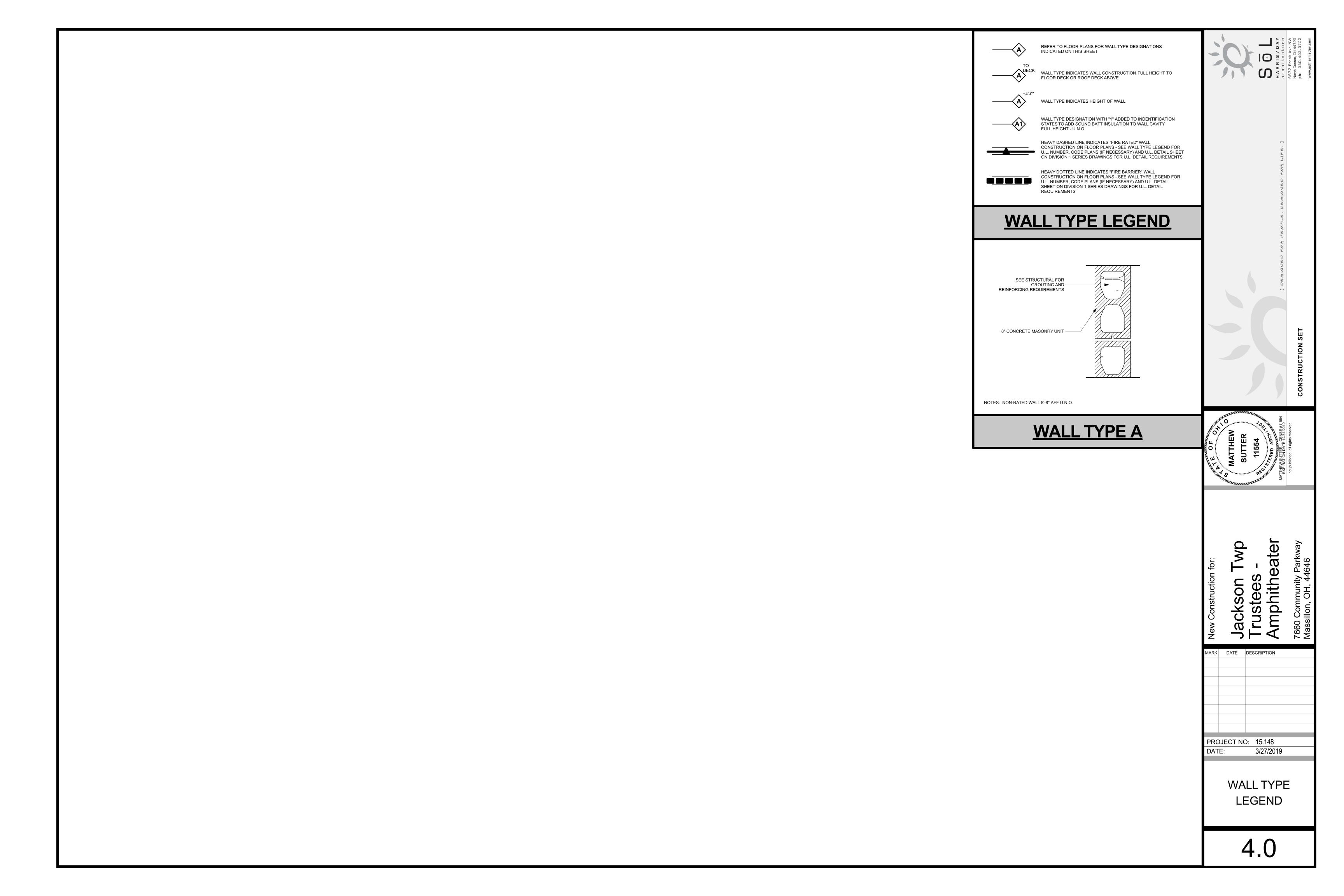
PROJECT NO: 15.148

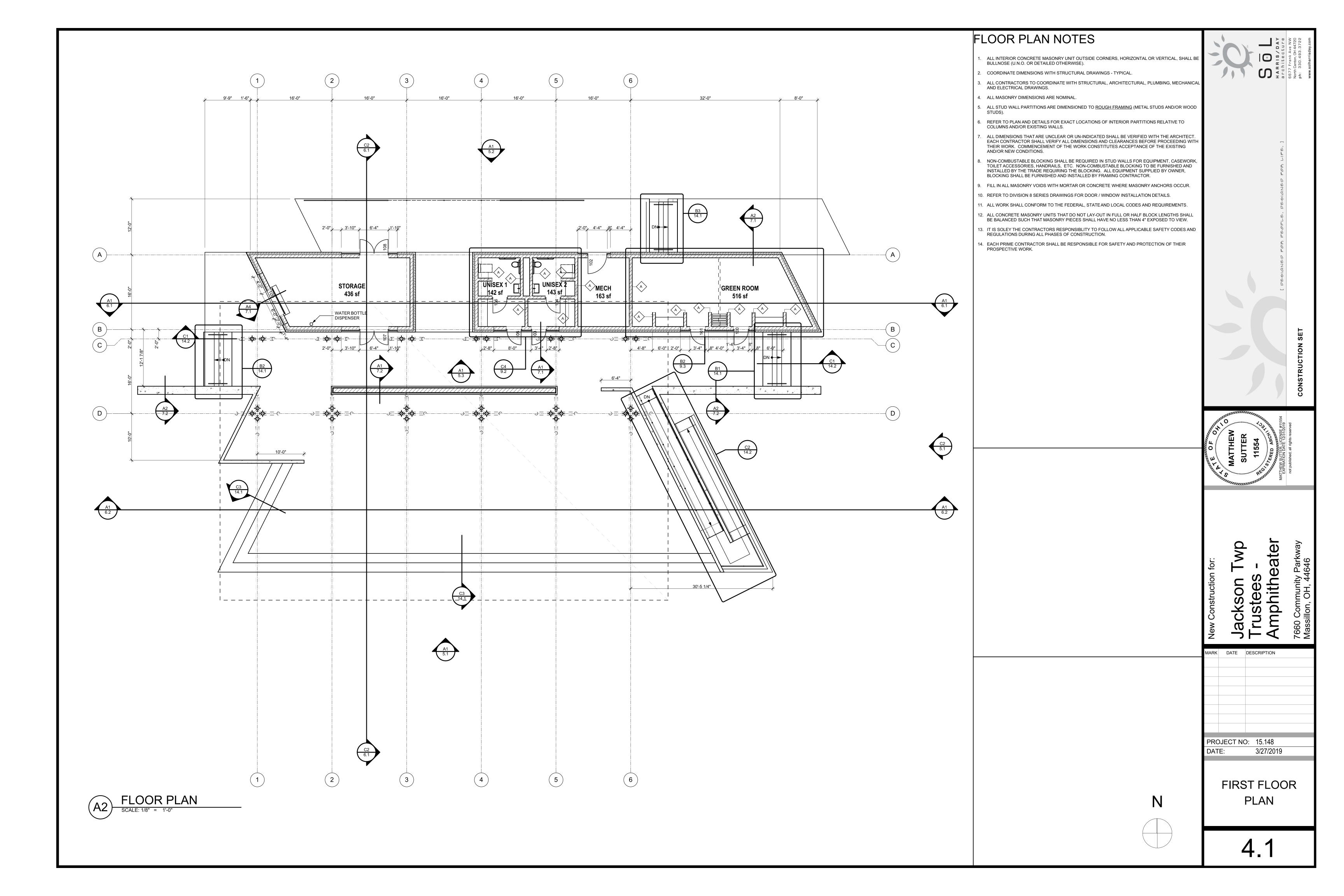
MARK DATE DESCRIPTION

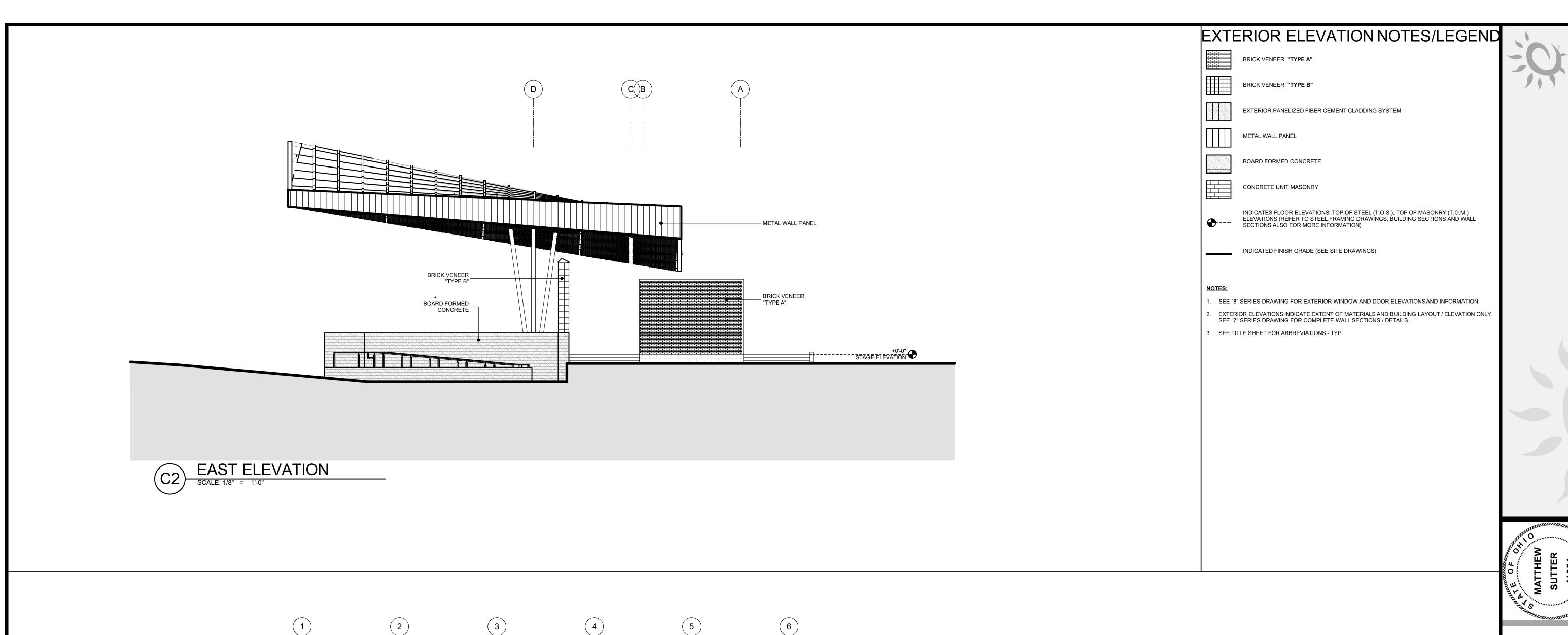
BACK OF HOUSE FRAMING PLAN

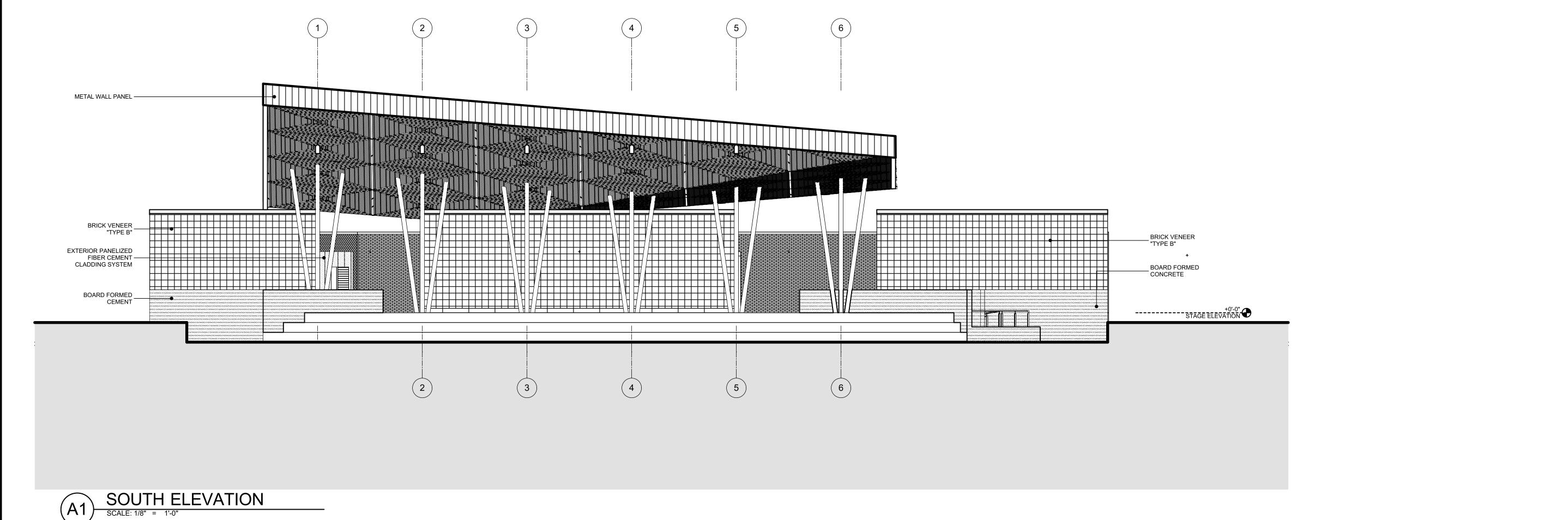
3/27/2019







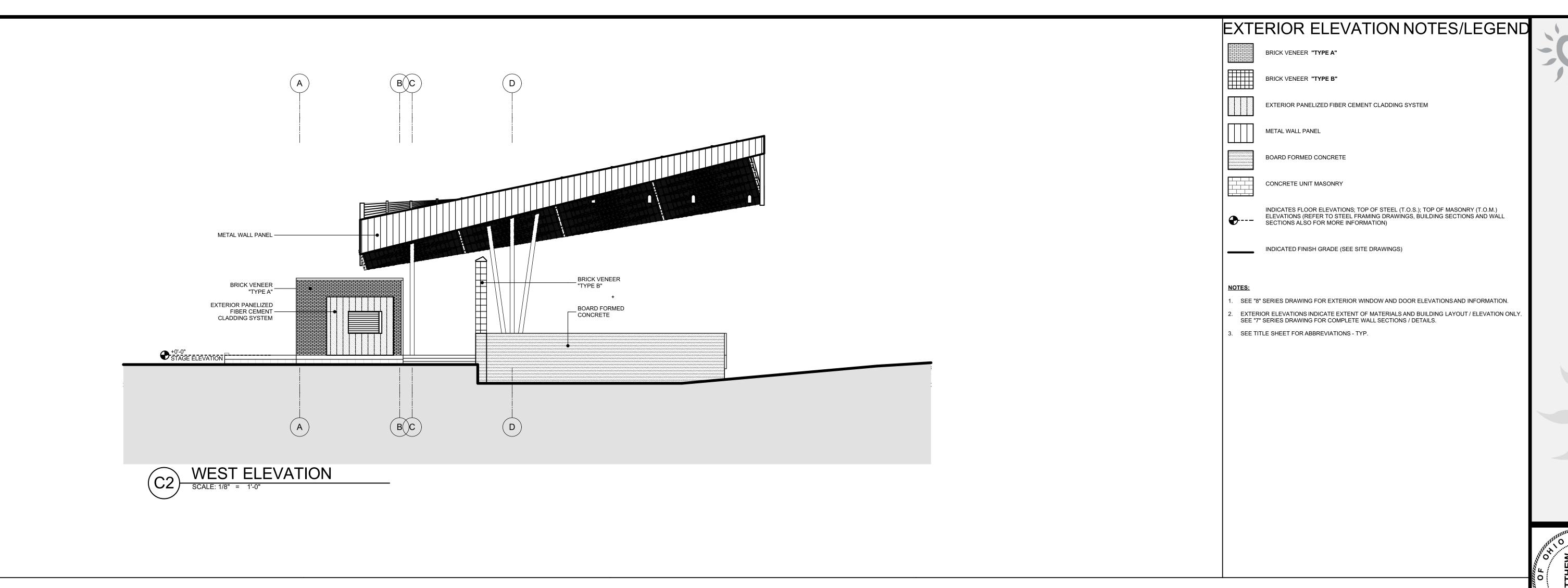


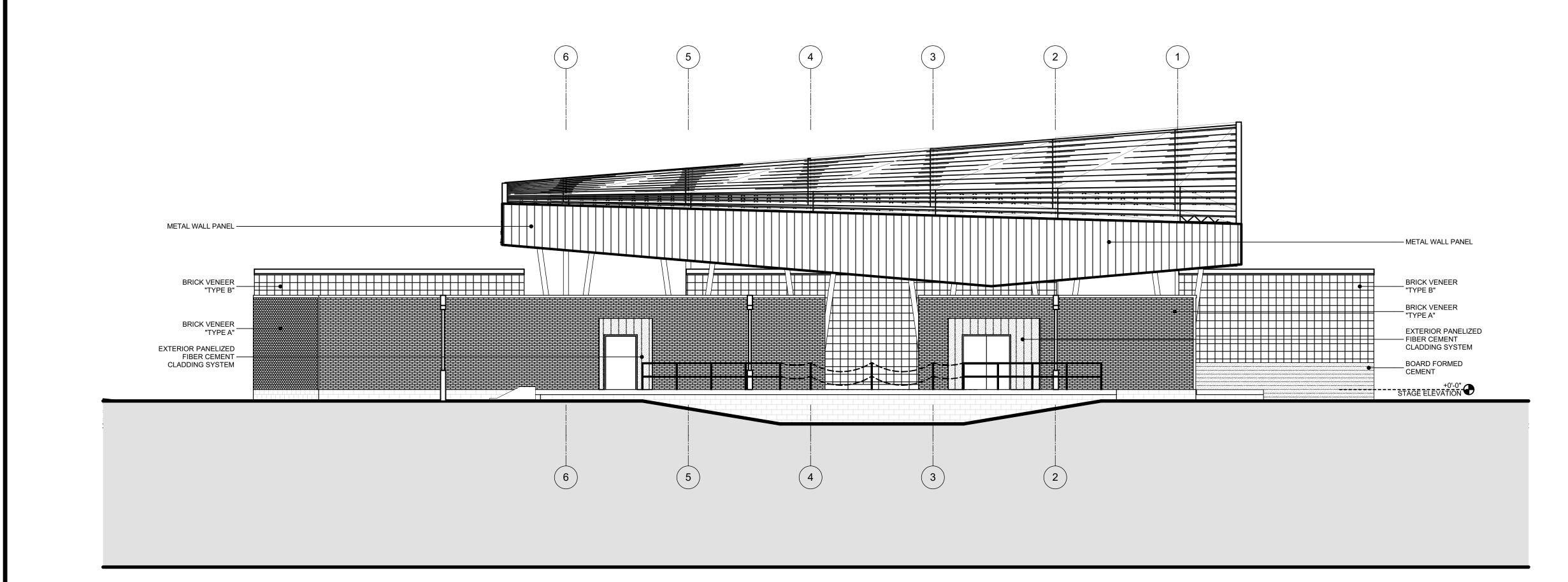


5.

EXTERIOR

ELEVATIONS





NORTH ELEVATION

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

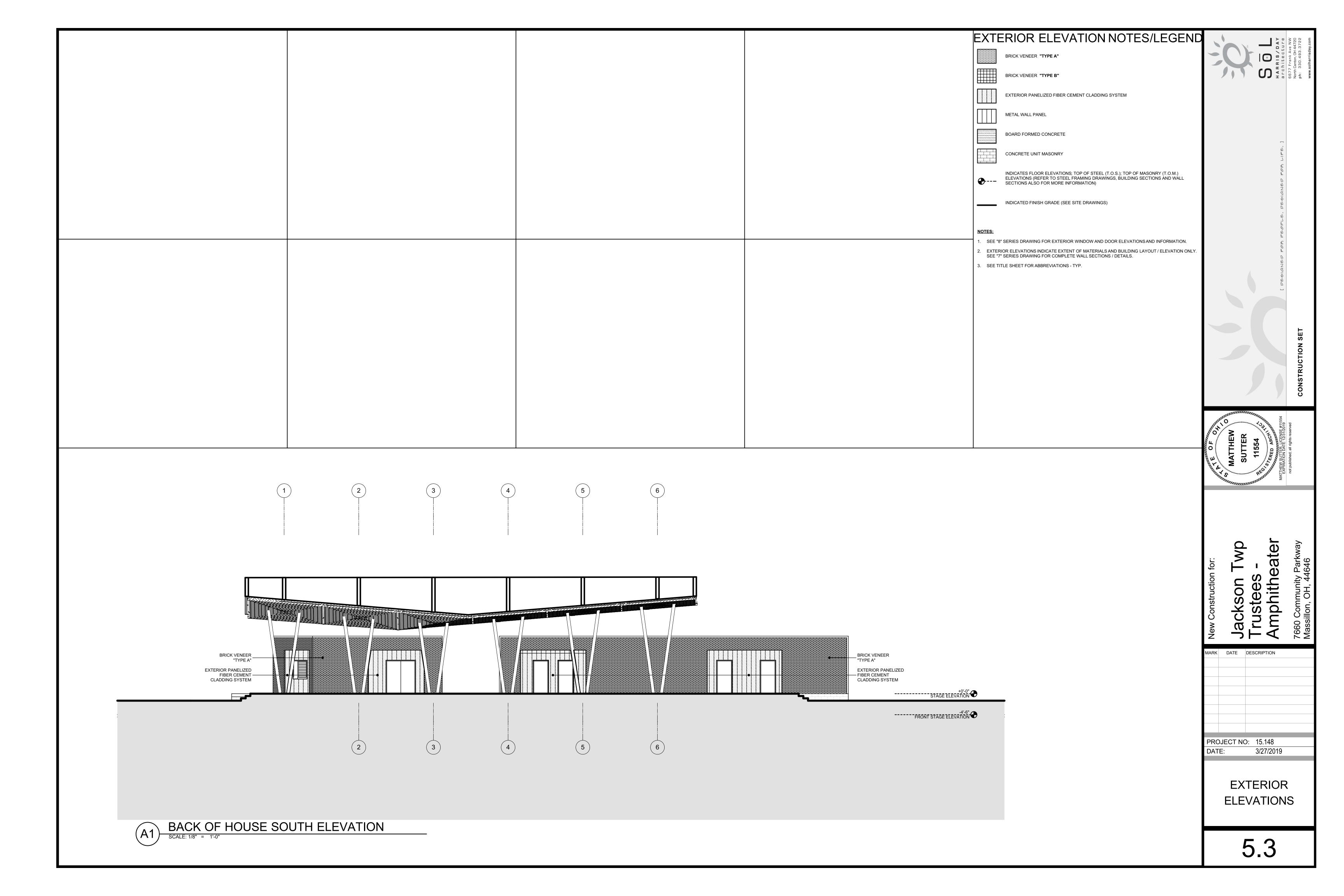
New Construction for:

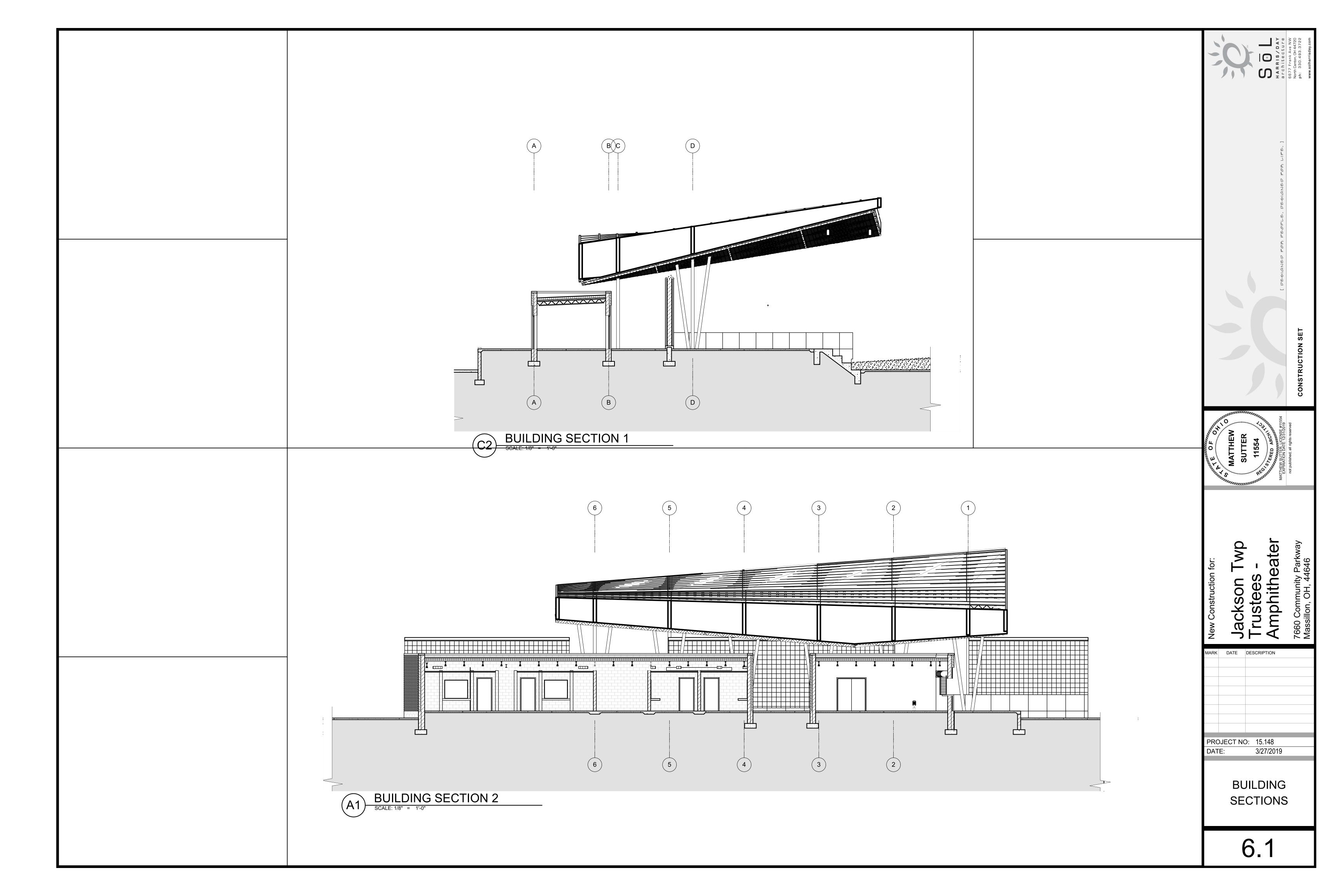
| Dackson Twp | Sutter |

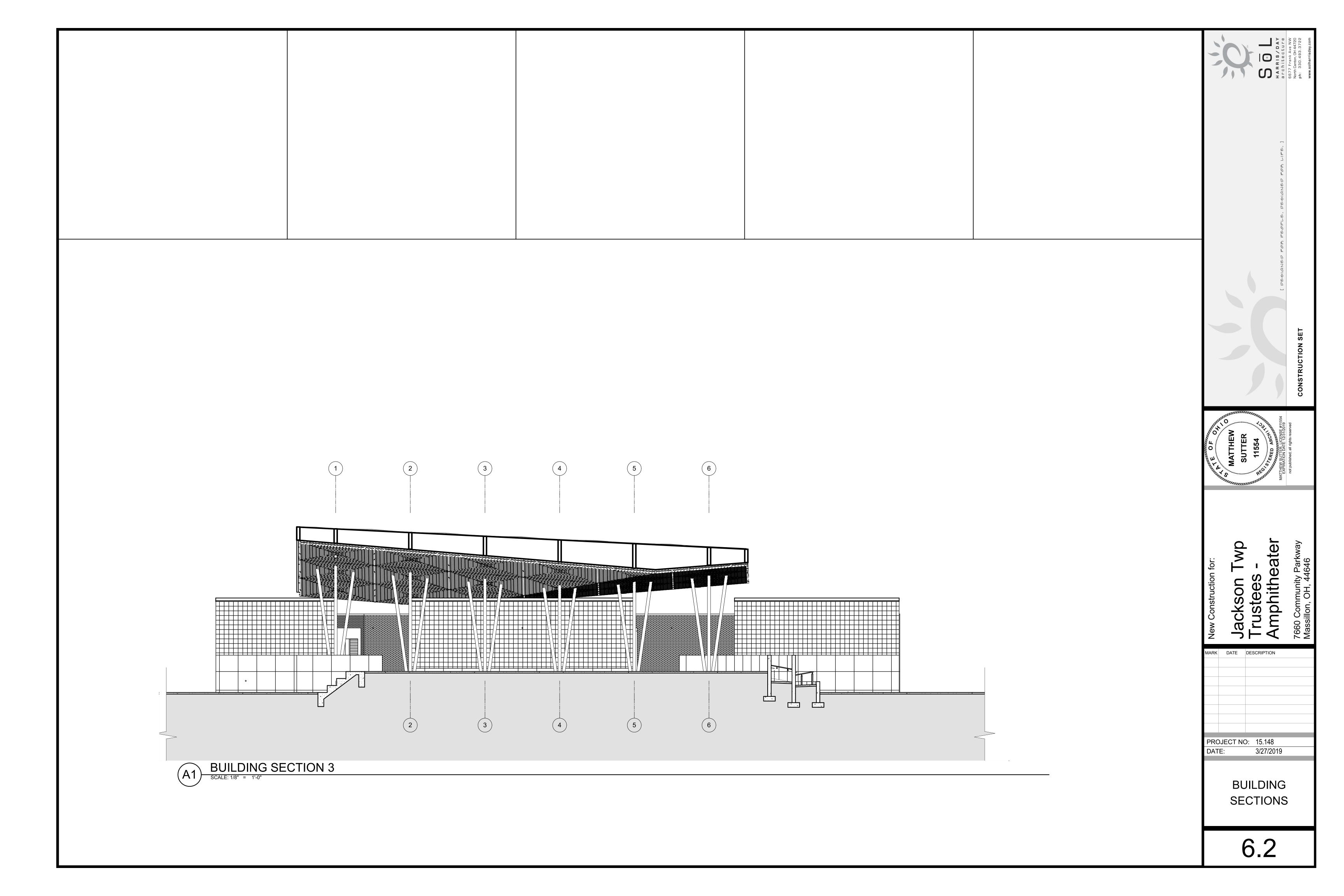
5.2

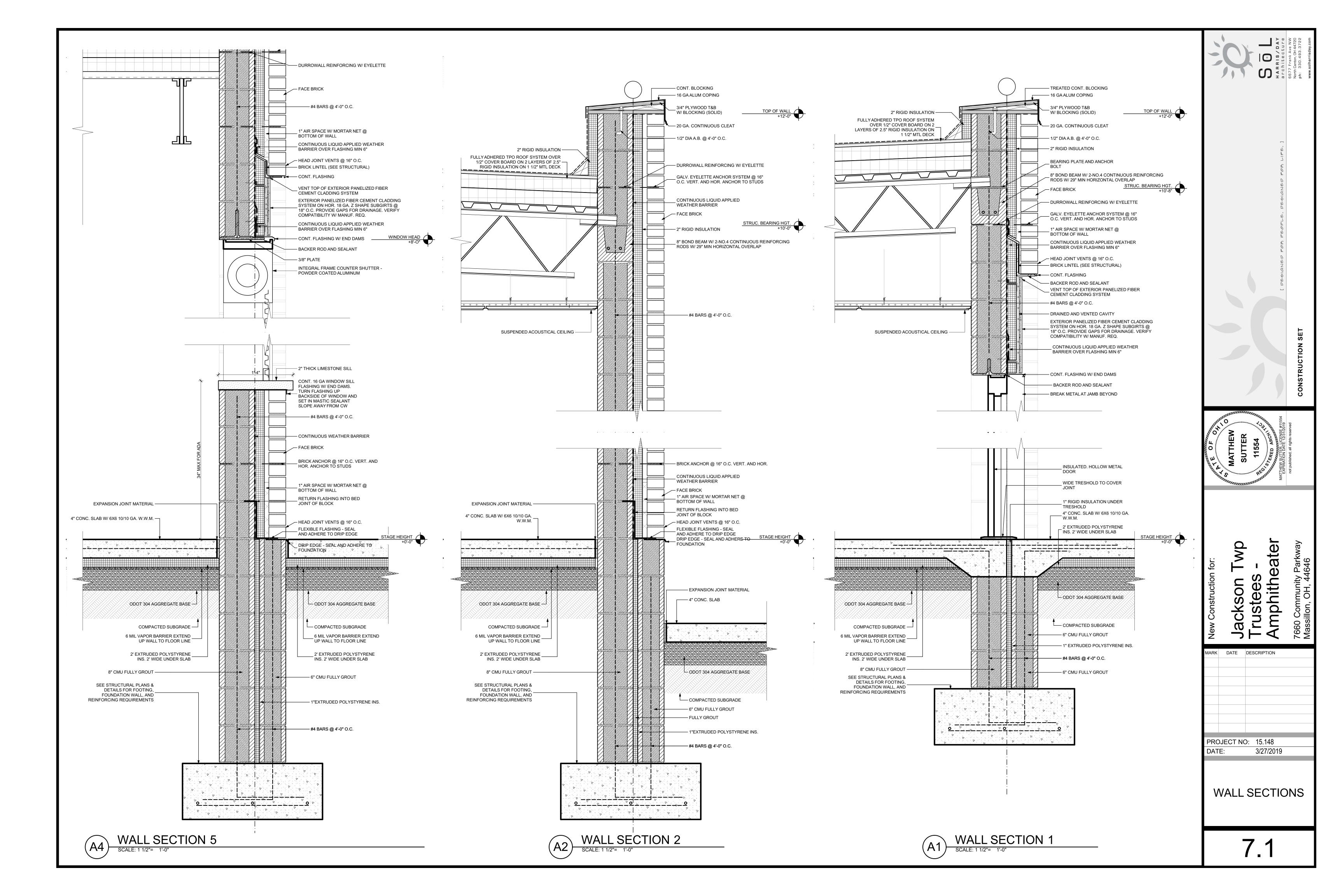
EXTERIOR

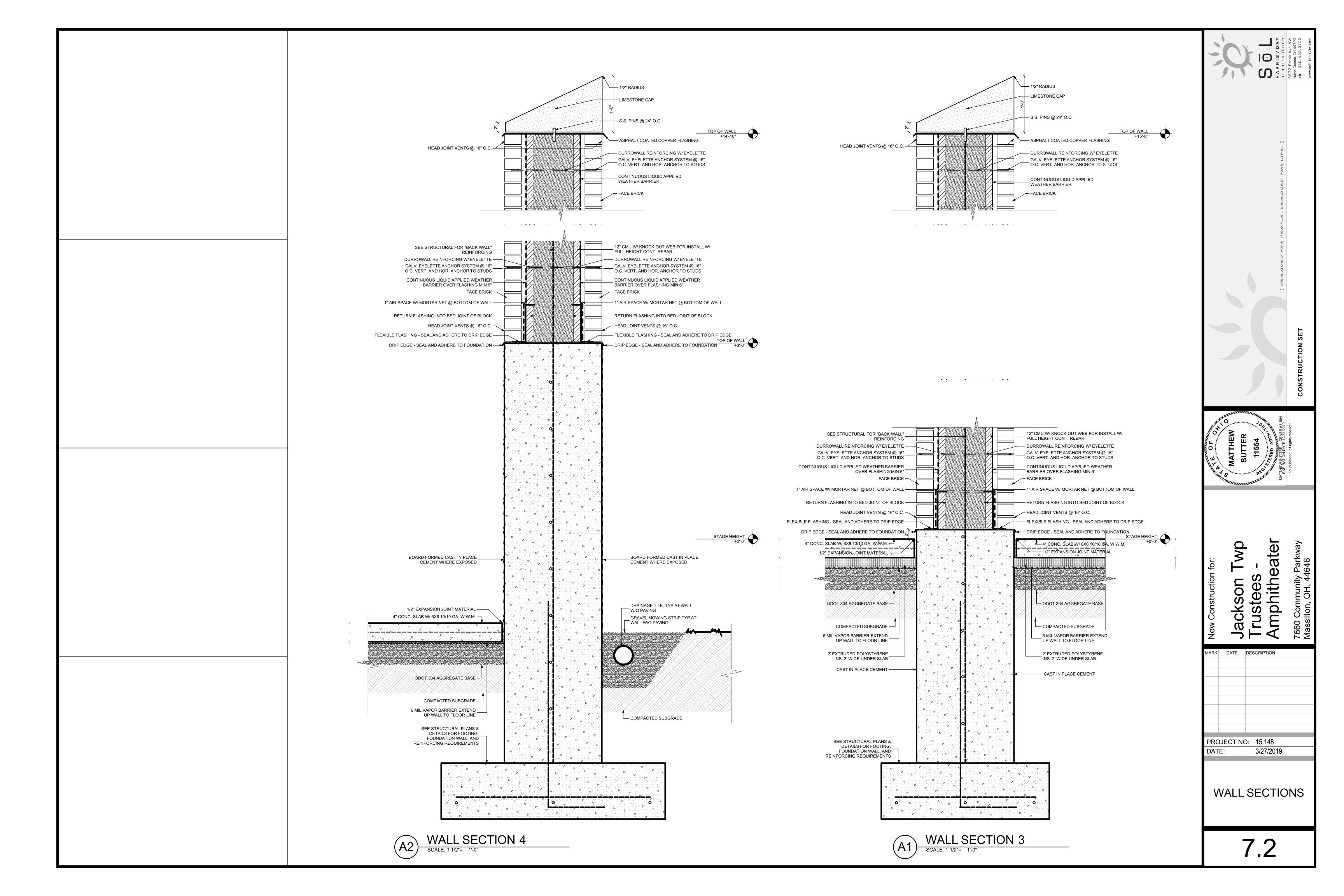
ELEVATIONS







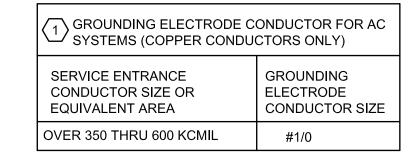


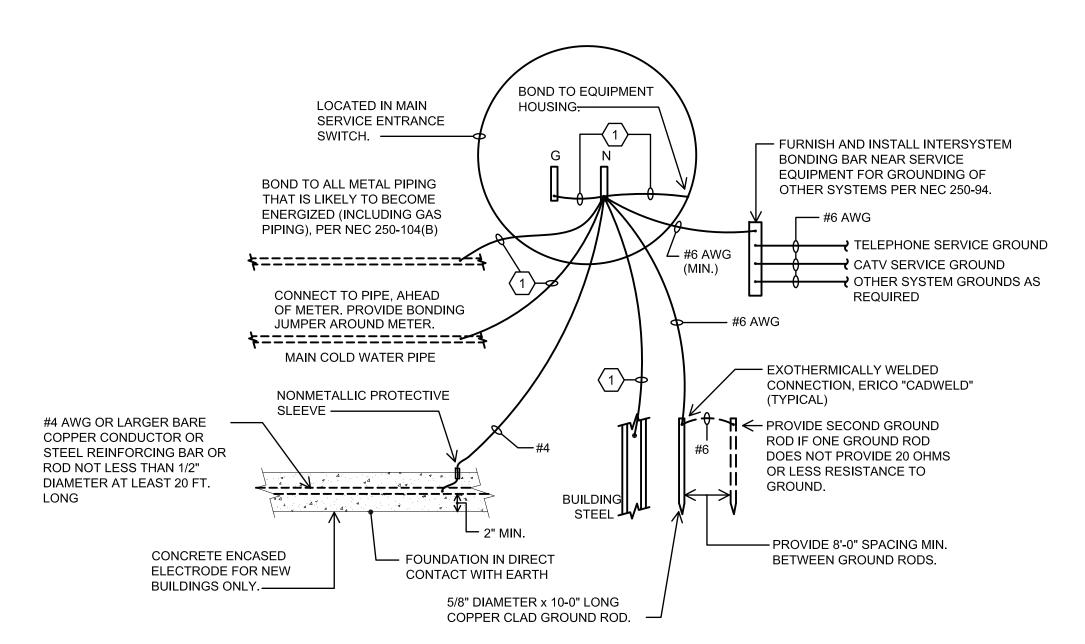


LIGHTING FIXTURE SCHEDULE									
TYPE AND SYMBOL	NO. OF LAMPS AND TYPE	LAMP WATTS	FIXTURE WATTS	VOLTS	MANUFACTURER CATALOG NO.	DIFFUSING LENS	MOUNTING	DESCRIPTION	ALTERNATE MANUFACTURERS
А	LED 3000K 3160 LUMENS	30W	30W	120/277	LITHONIA 2BLT2-33L-ADP-EZ1-LP830- N100-NES7	CURVED RIBBED	RECESSED IN GRID CEILING	LOW PROFILE LED 2'X2' LUMINAIRE WITH VOLUMETRIC DISTRIBUTION, INTEGRAL OCCUPANCY SENSOR, 0-10V DIMMING DRIVER, MVOLT.	METALUX CRUZE COLUMBIA LCAT
AE	LED 3000K 3160 LUMENS 1400 LU. EMERG	30W	30W	120/277	LITHONIA 2BLT2-33L-ADP-EZ1-LP830- N100-NES7-EL14L	CURVED RIBBED	RECESSED IN GRID CEILING	LOW PROFILE LED 2'X2' LUMINAIRE WITH VOLUMETRIC DISTRIBUTION, INTEGRAL OCCUPANCY SENSOR, 0-10V DIMMING DRIVER, 1400 LUMEN EMERGENCY BATTERY PACK, MVOLT.	METALUX CRUZE COLUMBIA LCAT
В	LED 3000K 1327 LUMENS 70 CRI	12W	12W	120/277	LUMARK XTOR1B-Y	SEALED OPTICAL TEMPERED GLASS	WALL MOUNTED AT 8'-0" AFF	LED WALL MOUNTED LOW PROFILE WALLPACK WITH IMPACT RESISTANT GLASS LENS, DIE CAST HOUSING IN CARBON BRONZE FINISH, LED ELECTRONIC DRIVER, MVOLT.	LITHONIA OLWX1 LED HUBBELL LNC
C	LED 3000K 4274 LUMENS 80CRI	72W	72W	120/277	LITHONIA ZLN2N-L48-5000LM-MDD- MVOLT-30K-80CRI-WH-HC36	MEDIUM DIFFUSE LENS	CHAIN SUSPENDED TO 8'-0" AFF	LED 48" LENSED STRIP LIGHT, CHAIN SUSPENDED WITH MEDIUM DIFFUSER, WHITE FINISH, 0-10V DIMMING DRIVER, MVOLT.	METALUX 4SNLED COLUMBIA LCL4
¤D	LED 3000K 5614 LUMENS 80CRI	57W	57W	120	LUMINIS SY805-L1W55r0-120-GRT- K3-A360	CLEAR TEMPERED GLASS	PENDANT MOUNTED FROM CANOPY.	8" DIAMETER PENDANT DOWNLIGHT WITH CORROSION RESISTANT 356 ALUMINUM ALLOY HOUSING IN TITANIUM GRAY FINISH, TEMPERED GLASS LENS, 360 DEG ADJUSTABLE ROTATION, 120V.	AS APPROVED BY ENGINEER
F	LED 3000K 3592 LUMENS	61W	61W	120	LUMENPULSE LOGP HO-10FT-120-48-30K- WW-STEM2-SI-DIM	CLEAR TEMPERED GLASS	STEM MOUNTED TO HEIGHT OF BACK WALL, 3'-0" OUR FROM WALL	LED 48" STEM MOUNTED ASYMMETRIC WALL WASHER WITH EXTRUDED ALUMINUM HOUSING IN SILVER SANDFEX FINISH, 0-10V DIMMING DRIVER, 120 VOLT, 2 FOOT STEM MOUNTING.	INSIGHT MVWII ORGATECH 8000 LED
□ _G	LED 3000K 12768 LUMENS	158W	158W	120/277	AMETRIX ASYX-WM-S-3-OD-U-F-L30- UNV-B-C-STD	OPTICAL LENS	MOUNTED ON SUPPORT COLUMN 5'-0" BELOW CANOPY. SLOPE FIXTURE TO MATCH SLOPE OF CANOPY	LED EXTERIOR WALL MOUNTED LOW PROFILE ASYMMETRIC UPLIGHT WITH FORWARD THROW, OPTIC LENS, DIE CAST HOUSING IN BLACK FINISH, LED ELECTRONIC DRIVER 0-10V DIMMING DRIVER, MVOLT.	KIM LIGHTING WDM ORGATECH LEAF 360
\Box_{H}	LED 4000K 370 LUMENS 75 CRI	9W	9W	120/277	LITHONIA OLSR-DDB	POLY- CARBONATE LENS	WALL MOUNTED IN CONCRETE WALL	LED WALL MOUNTED LOW PROFILE 6.5" DIAMETER ROUND STEP-LIGHT WITH POLYCARBONATE LENS, DIE CAST HOUSING IN DARK BRONZE FINISH, LED ELECTRONIC DRIVER, MVOLT.	PRESCOLITE SLLED
К	LED 3500K 4039 LUMENS	38.8W	38.8W	120/277	LITHONIA EPANL 24 40L 35K 2X4SMKSH	SATIN WHITE LENS	CEILING SURFACE	LOW PROFILE LED 2'X4' FLAT PANEL WITH SURFACE MOUNT KIT. UL DAMP LOCATION	METALUX FPANEL COLUMBIA CFP
	LED 3500K 1264 LUMENS	15.3	15.3	120/277	HALO SMD6S12935WH	PRECISION ACRYLIC LIGHT GUIDE	SURFACE MOUNTED ON CEILING OVER RECESSED JUNCTION BOX	LED 6 INCH SQUARE SHALLOW SURFACE DOWNLIGHT. UL WET LOCATION LISTED. HIGH CRI	LITHONIA COLUMBIA
ê SA	LED 3000K 10,000 LUMENS TYPE 3 DISTRIBUTION	110W	110W	120/277	HOLOPHANE WASHINGTON LED #AWDE2-P50-30K-AS-M-BK- 3-N-S-BK-L03-XPOINT HOLOPHANE SITE LINK POLE #NY-A-14-L5J-XX-ABG-BK-R18B	PRISMATIC GLASS REFRACTOR	POST TOP MOUNT ON TENON 14' SIGHTLINK ALUMINUM POLE	LED POST-TOP ACRYLIC FIXTURE, 3000K, TYPE 3 DISTRIBUTION, BLACK HOUSING, BLACK STANDARD FINIAL, SWING-OPEN DOOR. EC TO FIELD INSTALL XPOINT WIRELESS SENSOR TO HOUSING/POLE, #XPA-SBORO-SS-BK. HOLOPHANE SITELINK POLE, 14' ALUMINUM, NORTH YORKSHIRE BASE, 5" MEDIUM DUTY POLE, FUSES AT HANDHOLE, WEATHERPROOF GFCI RECETPACLE AT 18" AFG, TENON TO MATCH HEAD. HOLOPHANE #NY-A-14-L5J-XX-ABG-BK-R18B	STERNBERG HOMETOWN SERIES G74LED VISIONAIRE N2FL SUN VALLEY GLR nLIGHT AIR IS AN ACCEPTABLE ALTERNATE MANUFACTURER FOR THE WIRELESS CONTROL SYSTEM.
© SD	LED 3000K 10,000 LUMENS	110W	110W	120/277	HOLOPHANE WASHINGTON LED #AWDE2-P50-30K-AS-M-BK-	PRISMATIC GLASS	POST TOP MOUNT ON 2-3/8" TENON	SAME AS TYPE 'SA' EXCEPT WITH TYPE 5R DISTRIBUTION.	STERNBERG HOMETOWN SERIES G74LED
SD	TYPE 5R DISTRIBUTION				5-N-S-BK-L03-XPOINT HOLOPHANE SITE LINK POLE #NY-A-14-L5J-XX-ABG-BK-R18B	REFRACTOR	14' SIGHTLINK ALUMINUM POLE		VISIONAIRE N2FL SUN VALLEY GLRC
BP ₩	LED (INCLUDED)	0.78	1.56	120	SURELITES APEL	N/A	WALL MOUNTED AT 7'-6" AFF	LED EMERGENCY LIGHTING BATTERY BACK UP. PROVIDES EMERGENCY ILLUMINATION FOR MINIMUM OF 90 MINUTES.	
WALL MTD X X X X CEILING MTD X X X	LED (INCLUDED)	1	1	120/277	SURELITES APC-7-SD WITH NO HEADS	N/A	UNIVERSAL MOUNT STEM, BRACKET OR SURFACE AS SHOWN	LED EXIT SIGN WITH 6" HIGH RED LETTERS, HEADS REMOVED, WHITE STENCIL FACE, THERMOPLASTIC HOUSING, UNIVERSAL MOUNTING KIT. FACES AND ARROWS AS INDICATED ON LIGHTING PLAN.	LITHONIA LHQM LED COMPASS CERSD
Χ̈́W	LED (INCLUDED)	1	1	120/277	SURELITES LPXW-7-1-R-WH-SD	N/A	UNIVERSAL MOUNT WALL MOUNTED AS SHOWN	WEATHERPROOF OUTDOOR LED EXIT SIGN WITH 6" HIGH RED LETTERS, WHITE STENCIL FACE, THERMOPLASTIC HOUSING, UNIVERSAL MOUNTING KIT. FACES AND ARROWS AS INDICATED ON LIGHTING PLAN.	LITHONIA WLTE COMPASS OUTDOOR

ELECTRICAL SYMBOL LEGEND						
SYMBOL	DESCRIPTION					
1	HOMERUN TO PANEL INDICATING CIRCUIT NUMBERS - ALL WIRING SHALL BE #12 WITH GROUND WIRE UON (INCREASE TO #10 FOR CIRCUITS BETWEEN 100 AND 200 LF) CONSULT ENGINEER FOR RUNS OVER 200 LIN FEET IF WIRE SIZE IS NOT INDICATED - ALL HOMERUNS SHALL BE TO A 20 AMPERE, 1 POLE CIRCUIT BREAKER UON. WIRE FILL AS REQUIRED FOR APPLICATION INDICATED.					
	CONDUIT STUB					
	CONDUIT RUN UNDER SLAB					
\$	STANDARD SWITCHES - 20 AMPERE, 120/277 VOLT, SINGLE POLE - MTD AT 48" AFF UON					
•	0-10V DIMMER SWITCH - MTD AT 48" AFF UON . LUTRON DIVA DVSCCL-153P UNLESS OTHERWISE NOTED. EC MUST CONFIRM COMPATIBILITY OF DIMMER SWITCHES WITH DIMMING DRIVERS IN FIXTURES.					
Φ	DUPLEX RECEPTACLE - 20 AMPERE, 125 VOLT - MOUNTED AT 15" AFF UON.					
GFI P	DUPLEX RECEPTACLE - 20 AMPERE, 125 VOLT - GROUND FAULT CIRCUIT INTERRUPTER TYPE - MOUNTED AT 15" AFF UON "WP" = WEATHERPROOF WHILE-IN-USE COVER					
0	JUNCTION BOX - MOUNTING HEIGHT AND SIZE AS REQUIRED BY CODE OR AS NOTED ON DRAWINGS					
₽	SAFETY SWITCH - HEAVY DUTY, UNFUSED, NEMA 3R					
	PANELBOARD (120/208V - 3 ph - 4W)					
	EXHAUST FAN - 120 VOLT, FRACTIONAL HORSEPOWER - FURNISHED AND INSTALLED BY MC, WIRED BY EC					
∇	TELECOM OUTLET WITH CAT6 CABLE TO TELEPHONE TERMINAL BOARD. SEE DETAIL THIS SHEET.					

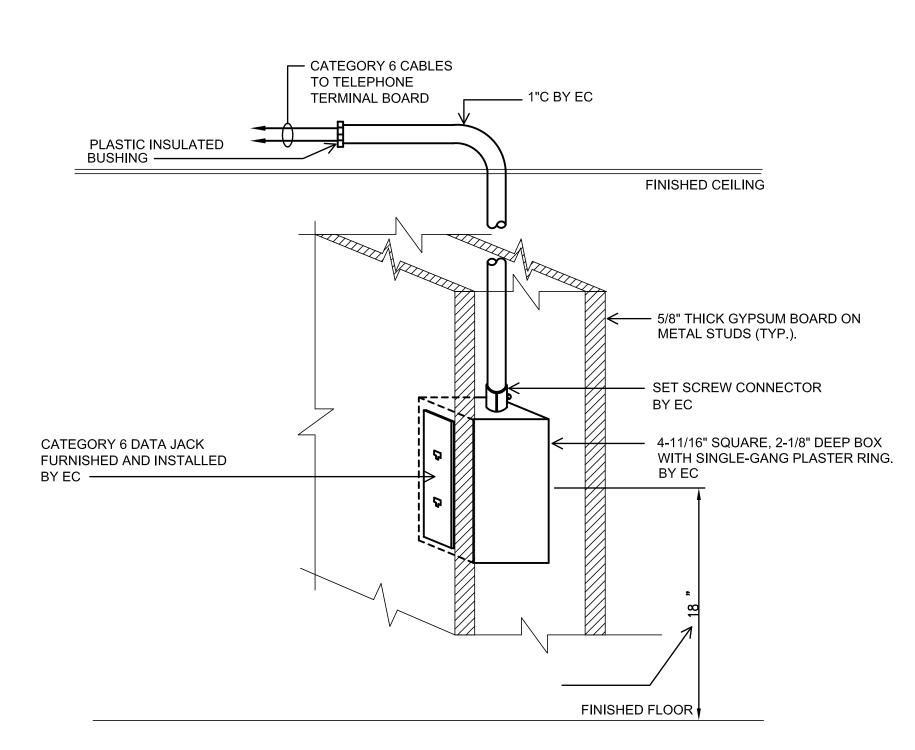
ELECTRICA	L ABBREVIATIONS LEGEND
SYMBOL	DESCRIPTION
AFF	ABOVE FINISHED FLOOR
AC, C	ABOVE COUNTER
вс	BELOW COUNTER
CLG	CEILING
EC	ELECTRICAL CONTRACTOR
EWC	ELECTRICAL WATER COOLER
GFI	GROUND FAULT INTERRUPTER
NEC	NATIONAL ELECTRIC CODE
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
WP	WEATHERPROOF
EM	EMERGENCY
ETR	EXISTING TO REMAIN
REX	REMOVE EXISTING





AMPHITHEATER SERVICE GROUNDING DETAIL

SCALE: NONE



NOTES:

 ALL DATA CABLING AND JACKS ARE TO BE FURNISHED, INSTALLED, AND TERMINATED BY THE EC.
 DETAIL IS TYPICAL FOR ALL DATA OUTLETS. REFER TO ELECTRICAL SYMBOL LEGEND FOR CONDUIT SIZE AND MOUNTING HEIGHT.

TYPICAL TELECOMMUNICATIONS

FLUSH MOUNTED OUTLET DETAIL

SCALE: NONE



PH: 330-926-2600 FAX: 330-926-4531

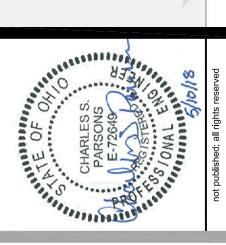
T LIFE,]

BAR
HAR

BACH

ROCH

Construction Se



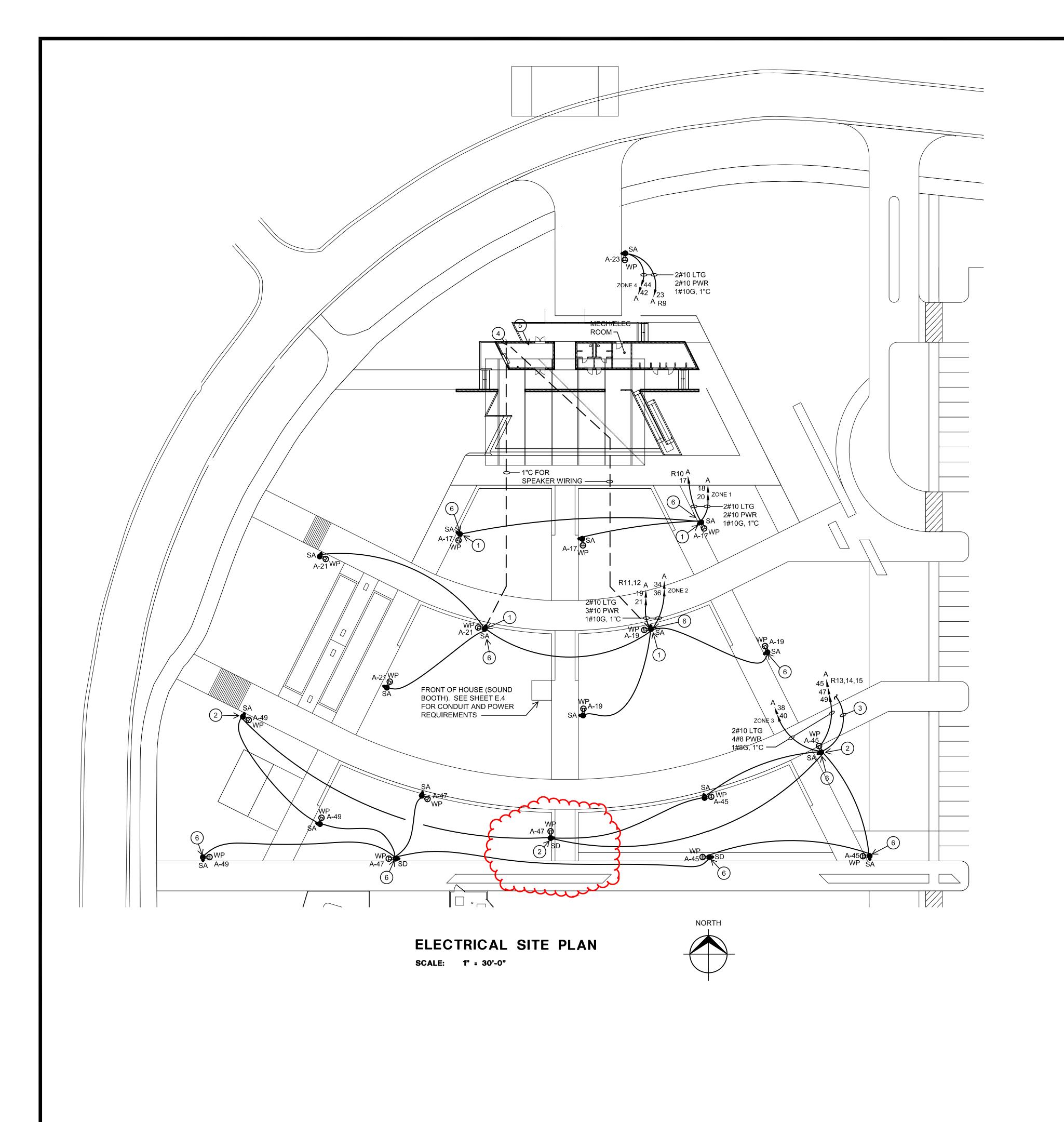
Jackson Twp Trustees -Amphitheater

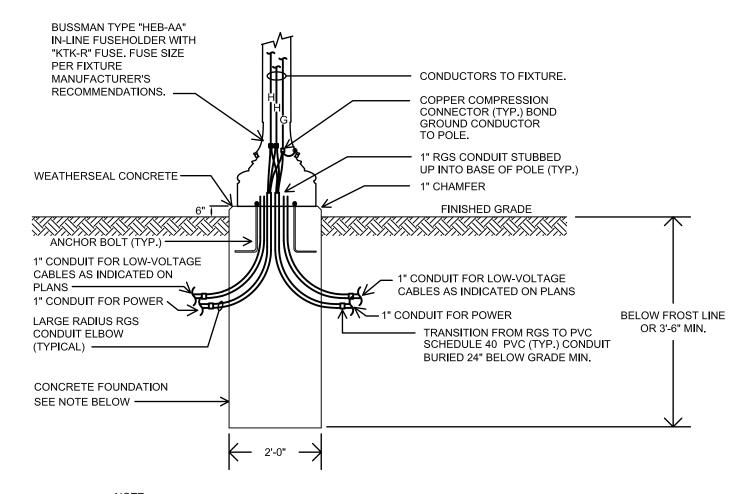
PROJECT NO: 15.148
DATE: 3/27/2019

ELECTRICAL
SYMBOLS,

LEGENDS AND DETAILS

E.1





NOTE:
CONCRETE FOUNDATION: 2'-0" DIAMETER WITH DEPTH BELOW
FRONT LINE OR 3'-6" MINIMUM BELOW GRADE, WHICHEVER IS
GREATER. USE ANCHOR BOLTS SPECIFIED BY POLE
MANUFACTURER. FACTORY SUPPLIED TEMPLATES MUST BE USED
WHEN SETTING ANCHOR BOLTS. CONCRETE 3000 PSI MIN.
COMPRESSIVE STRENGTH.

SITE LIGHTING FIXTURE POLE BASE DETAIL 'PB2'

SCALE: NONE

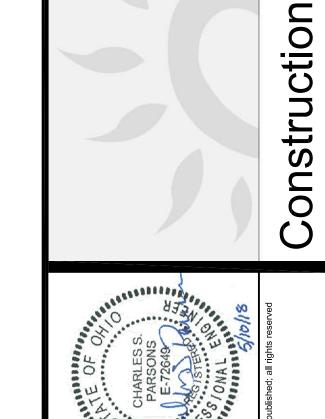
SITE LIGHTING - LIGHTING CONTROL SYSTEM
THE SITE LIGHTING POLES SHALL BE CONTROLLED IN ZONES AS INDICATED ON THE PLANS. EACH ZONE SHALL BE CAPABLE OF WIRELESS COMMUNICATION FOR 0-10V DIMMING. THE DIMMING CONTROLS SHALL BE PHYSICALLY LOCATED BACKSTAGE AS SHOWN ON SHEET E3. IN ADDITION, THE ZONES SHALL BE CAPABLE OF CONTROLLED AND DIMMED VIA A WEB INTERFACE. THE CONTROL SYSTEM SOFTWARE AND INTERFACE SHALL BE INTEGRATED WITH THE STAGE LIGHTING FOR A COMPLETE SYSTEM. THE RECEPTACLES ON EACH POLE SHALL BE CONTROLLED ON SEPARATE ZONES FOR PROGRAMMED ON/OFF.

GENERAL POWER PLAN NOTES:

- 1. COORDINATE LOCATIONS OF RECEPTACLES AND OTHER WALL MOUNTED DEVICES WITH THE ARCHITECTURAL WALL ELEVATIONS AND FINISHES.
- 2. COORDINATE LOCATIONS OF MECHANICAL EQUIPMENT WITH MC. ALL DISCONNECTS AND ELECTRICAL EQUIPMENT SHALL BE MOUNTED IN AN ACCESSIBLE LOCATION WITH PROPER WORKING SPACE CLEARANCES PER
- 3. ALL FEEDER RUNS SHOWN ARE DIAGRAMMATIC. EC SHALL FIELD DETERMINE ACTUAL FEEDER RUNS AND PROVIDE PULL AND SPLICE BOXES PER NEC REQUIREMENTS AS REQUIRED TO COMPLETE THE RUN.
- 4. REFER TO MECHANICAL EQUIPMENT SCHEDULES FOR BRANCH CIRCUIT REQUIREMENTS FOR ALL MECHANICAL EQUIPMENT.

POWER PLAN NOTES:

- 1 POLE SHALL HAVE DELAY SPEAKER MOUNTED ON SIDE OF POLE AT APPROXIMATELY 10'-0" ABOVE GRADE. SPEAKER AND MOUNT PROVIDED, INSTALLED, AND WIRED BY AUDIO CONTRACTOR. EC SHALL FURNISH AND INSTALL 1" CONDUIT WITH PULL ROPE FROM POLE BASE TO AUDIO RACK IN STORAGE ROOM.
- 2 POLE SHALL HAVE A SECURITY CAMERA INSTALLED ON THE SIDE OF THE POLE. CAMERA AND MOUNT WILL BE FURNISHED, INSTALLED, AND TERMINATED BY SECURITY CONSULTANT. EC SHALL FURNISH AND INSTALL 1" CONDUIT WITH MULTIMODE FIBER OPTIC CABLE. SEE ELECTRICAL SPECIFICATIONS FOR FIBER OPTIC CABLE REQUIREMENTS.
- 3 SECURITY CAMERA FIBER OPTIC HOMERUN IN 1" CONDUIT. SEE SPECIFICATIONS FOR MULTI-MODE FIBER OPTIC REQUIREMENTS. EC SHALL STUB 1" CONDUIT AT TELECOMMUNICATIONS BACKBOARD IN MECHANICAL/ELECTRICAL ROOM.
- 4) 1" CONDUIT FOR DELAY SPEAKER WIRING TO STUB UP AT AUDIO BACKBOARD IN STORAGE ROOM. EC SHALL COORDINATE EXACT LOCATION WITH AUDIO CONTRACTOR PRIOR TO ROUGH-IN.
- 5 APPROXIMATE LOCATION OF SECURITY BACKBOARD. EC SHALL COORDINATE EXACT LOCATION WITH SECURITY CONTRACTOR PRIOR TO ROUGH-IN.
- 6 SITE LIGHTING POLE AND FIXTURE SHOWN ALONG WITH RECEPTACLE AND ANY OTHER ITEM INDICATED SHALL BE PROVIDED AS BASE BID. OTHER POLES NOT INDICATED BY PLAN NOTE #6 SHALL BE PROVIDED AS AN ADD ALTERNATE #6 BID. CONDUIT AND WIRING SHOWN FROM BASE BID POLE TO ALTERNATE POLE SHALL BE IN THE ALTERNATE #6 BID.



Jackson Twp Trustees -Amphitheater

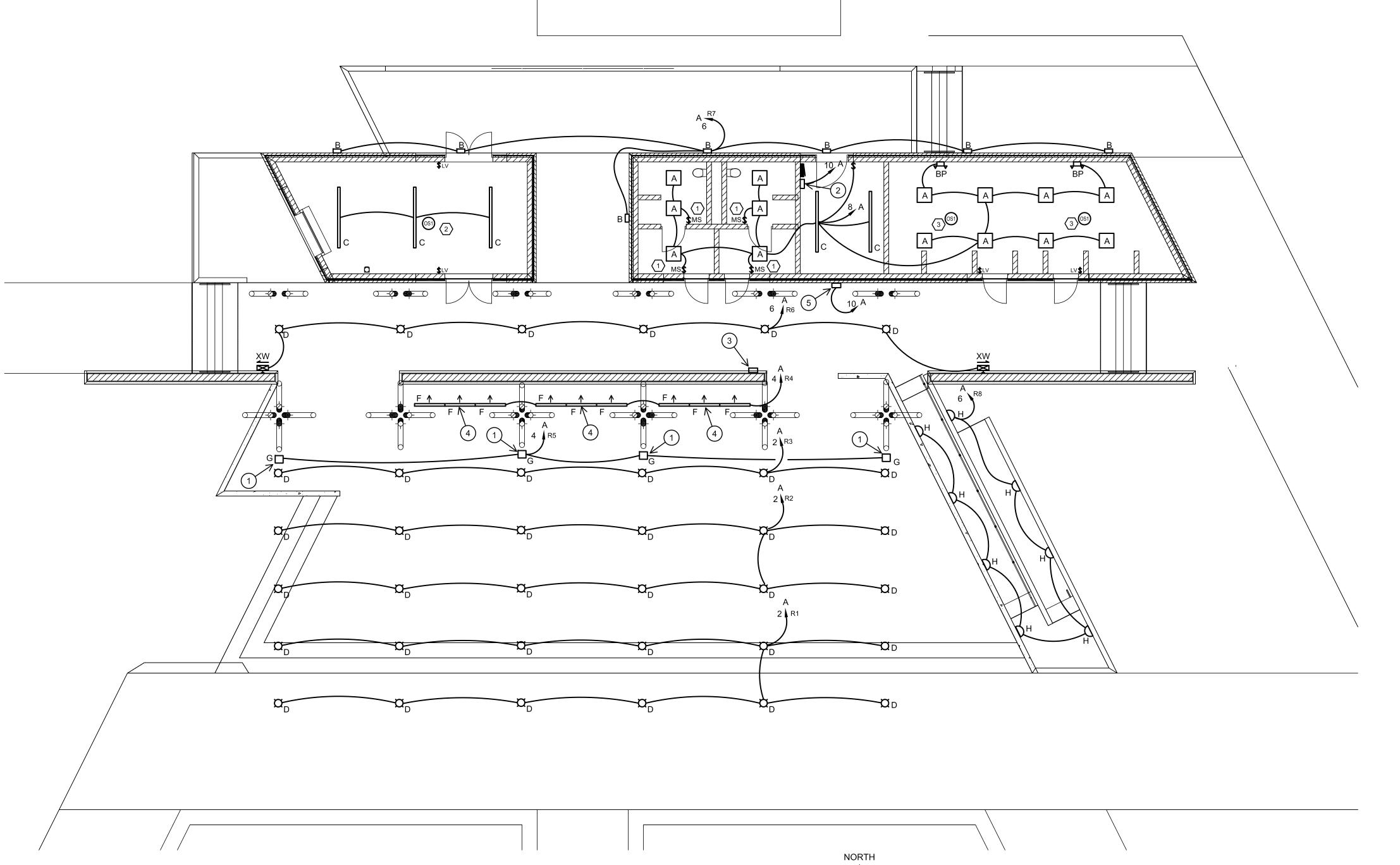
ARK	DATE	DESCRIPTION
PRC	DJECT NO	D: 15.148
TAC	E:	3/27/2019

ELECTRICAL SITE PLAN



PH: 330-926-2600 FAX: 330-926-4531

E.2



LIGHTING GENERAL NOTES:

- 1. WIRE ALL EXIT SIGNS AND BATTERY PACKS TO LOCAL LIGHTING CIRCUITS AHEAD OF ALL LOCAL SWITCHING AND LIGHTING CONTROLS.
- 2. COORDINATE LOCATIONS OF ALL LIGHTING FIXTURES AND CEILING MOUNTED DEVICES WITH THE ARCHITECTURAL REFLECTED CEILING PLANS.
- 3. ALL CONDUIT SHALL BE CONCEALED IN WALLS, ABOVE CEILINGS, OR IN CONCRETE. UNLESS OTHERWISE NOTED, SURFACE MOUNTED CONDUIT IS NOT PERMITTED EXCEPT WITH WRITTEN APPROVAL FROM ENGINEER OR ARCHITECT.
- 4. ALL LIGHTING, WITH THE EXCEPTION OF THE ELECTRICAL ROOM, SHALL BE CONTROLLED WITH AN AUTOMATIC LIGHTING CONTROL SYSTEM. SEE PLANS, SCHEDULES, AND NOTES FOR DETAILS.

PLAN NOTES:

- 1 CANOPY UPLIGHT TO BE MOUNTED ON CANOPY SUPPORT 5'-0" BELOW CANOPY. FIXTURE SHALL BE ALIGNED TO FOLLOW THE SLOPE OF THE CANOPY AS MUCH AS POSSIBLE. BRANCH CIRCUIT WIRING SHALL BE RUN ON THE BACK SIDE OF THE SUPPORT BEAM AND HIDDEN FROM VIEW AS MUCH AS POSSIBLE.
- 2 LIGHTING CONTROL PANEL. nLIGHT #ARP INTENC16NLT-16CFR-MVOLT-SC-SM OR APPROVED EQUAL BY WATTSTOPPER OR LEVITON. 16 SINGLE-POLE RELAYS, (8) OF WHICH HAVE 0-10V DIMMING OUTPUT. CONTAINS TIMECLOCK FOR TIME-OF-DAY SCHEDULING WITH NETWORK CONNECTION FOR REMOTE CONFIGURATION. INCLUDE #LSA APS OL OUTDOOR PHOTOCELL. SYSTEM SHALL INCLUDE A CONNECTION TO THE XPOINT WIRELESS (OR APPROVED EQUAL) LIGHTING CONTROL SYSTEM FOR SITE POLES AND SITE POLE RECEPTACLES. SYSTEM SHALL BE CONFIGURED FOR PRESET SCENES FOR STAGE AND SITE LIGHTING
- (3) GRAPHIC WALLPOD LOCATION FOR MANUAL CONTROL OF LIGHTING ZONES. SCREEN #1 SHALL INCLUDE PRESET SCENES (ALL ON, ALL OFF, MOVIE NIGHT, ETC). SUBSEQUENT PAGES SHALL INCLUDE INDIVIDUAL ZONE CONTROLS TO DIM EACH ZONE IN THE SYSTEM INDEPENDENTLY. EC SHALL CONFIRM EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN.
- (4) LINEAR WALLWASH FIXTURES TO BE STEM MOUNTED AT A HEIGHT OF 12" ABOVE WALL. EC MUST COORDINATE ALL SUPPORT LOCATIONS AND POWER DROP LOCATIONS WITH ARCHITECTURAL CEILING PLANS.
- 5 X-POINT WIRELESS BRIDGE IN A WEATHERPROOF BOX WITH A HEATER #XPA-BRG-WPE HTR FOR INTERFACE TO A HEATER #XPA-BRG-WPE HTR FOR INTERFACE TO WIRELESS X-POINT MODULES ON SITE LIGHTING POLES. WIRELESS SYSTEM WILL ALLOW FOR REMOTE ON/OFF/DIMMING CAPABILITIES FOR ALL SITE LIGHTING POLES FROM STAGE AND NETWORK CONNECTION. PROVIDE CONNECTION TO STAGE LIGHTING CONTROL SYSTEM FOR INTEGRATION INTO SENSORVIEW CONTROL SOFTWARE.

AMPHITHEATER SCALE: 1/8" = 1'-0"	LIGHTING PLAN	NORTH
GRAPHIC SCALE: 1/8" = 1' - 0		
2' 0 2' 4' 6' 8' 12'	16' 24' 32'	40'

			LI	GHTIN	G CONTROL SYSTEM - RELAY S	CHEDULE
RELAY ZONE	ZONE DESCRIPTION	ZONE WATTS	CONTROL TYPE	CIRCUIT	WIRING	NOTES
R1	STAGE LIGHTS FRONT	342	0-10V DIM		2#12, 1#12G, WITH 0-10V DIMMING WIRING	
R2	STAGE LIGHTS CENTER	342	0-10V DIM	A-2	2#12, 1#12G, WITH 0-10V DIMMING WIRING	
R3	STAGE LIGHTS REAR	627	0-10V DIM		2#12, 1#12G, WITH 0-10V DIMMING WIRING	
R4	STAGE WALL WASH	549	0-10V DIM	A-4	2#12, 1#12G, WITH 0-10V DIMMING WIRING	
R5	CANOPY UPLIGHTS	632	0-10V DIM	A-4	2#12, 1#12G, WITH 0-10V DIMMING WIRING	
R6	BACKSTAGE CORRIDOR	399	0-10V DIM		2#12, 1#12G, WITH 0-10V DIMMING WIRING	
R7	BACKSTAGE LOADING	72	ON/OFF	A-6	2#12, 1#12G, WITH 0-10V DIMMING WIRING	
R8	STAGE RAMP	72	ON/OFF		2#12, 1#12G, WITH 0-10V DIMMING WIRING	
R9	POLE RECEPTACLES	180	ON/OFF	A-23	2#10, 1#10G, 1"C	PROGRAMMED FOR TIME OF DAY CONTROL
R10	POLE RECEPTACLES	540	ON/OFF	A-17	2#10, 1#10G, 1"C	PROGRAMMED FOR TIME OF DAY CONTROL
R11	POLE RECEPTACLES	540	ON/OFF	A-19	3#10, 1#10G, 1"C	TIE RELAYS TOGETHER TO CONTROL MULTIWIRE BRANCH CIRCUIT FOR
R12	POLE RECEPTACLES	540	ONJOFF	A-21	3#10, 1#100, 1 C	POLE RECEPTACLES. PROGRAMMED FOR TIME OF DAY CONTROL.
R13	POLE RECEPTACLES	720		A-45		TIE DELAYC TOCETHED TO CONTROL MALILTIMANDE DRANGH CIRCUIT FOR
R14	POLE RECEPTACLES	540	ON/OFF	A-47	4#10, 1#10G, 1"C	TIE RELAYS TOGETHER TO CONTROL MULTIWIRE BRANCH CIRCUIT FOR POLE RECEPTACLES. PROGRAMMED FOR TIME OF DAY CONTROL.
R15	POLE RECEPTACLES	540		A-49		TOLE RECEITACLES. TROGRAMMED FOR TIME OF DAT CONTROL.
R16	SPARE					

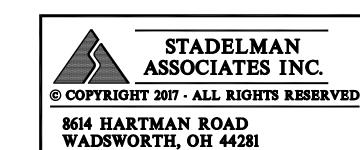
SITE LIGHTING POLES WILL HAVE WIRELESS ON/OFF/DIM CAPABILITIES WITH PRESET SCENES THROUGH SOFTWARE. A WIRELESS GATEWAY WILL COMMUNICATE TO A WIRELESS SENSOR ON EACH POLE. PRESET SCENES WILL BE ABLE TO BE CONTROLLED VIA GRAPHIC WALLPOD PHYSICALLY INSTALLED BACKSTAGE OR VIA SENSORVIEW SOFTWARE CONTROLLED REMOTELY THROUGH A NETWORK TABLET.

ACCEPTABLE SYSTEM ALTERNATES FROM WATTSTOPPER AND/OR LEVITON SHALL BE CONSIDERED WITH ENGINEERING APPROVAL. ALL ALTERNATE MANUFACTURER SUBMITTALS SHALL INCLUDE CATALOG CUT SHEETS FOR ALL COMPONENTS ALONG WITH WIRING DIAGRAMS.

	LIGHTING CONTROL SCHEDULE - OCCUPANCY SENSORS					
TAG ID	CONTROL DEVICE	CONTROL DESCRIPTION	COMPONENTS			
1	\$ MS	ROOM CONTROLLED WITH WALL SWITCH OCCUPANCY SENSOR. PASSIVE INFRARED SENSOR REQUIRES LINE OF SIGHT TO TURN 'ON' AND NO MOTION FOR 20 MINUTES TO TURN 'OFF'. MANUAL ON, AUTO OFF.	PASSIVE INFRARED WALL SWITCH SENSOR			
2	__\ (\)\$1 (\)\$2 (\)\$2	ROOM CONTROLLED WITH (1) CEILING-MOUNTED OCCUPANCY SENSOR WITH POWER PACK AND (2) LOW VOLTAGE 3-WAY SWITCHES. PASSIVE INFRARED SENSORS REQUIRE LINE OF SIGHT TO TURN 'ON' AND NO MOTION FOR 20 MINUTES TO TURN 'OFF'. MANUAL ON, AUTO OFF.	PASSIVE INFRARED OCCUPANCY SENSOR, CEILING MOUNTED. (2) LOW-VOLTAGE SWITCHES POWER PACK WITH RELAY			
3	(S) (S) LV \$ \$ LV	ROOM CONTROLLED WITH (2) CEILING-MOUNTED OCCUPANCY SENSORS WITH POWER PACK AND (2) LOW VOLTAGE 3-WAY SWITCHES. PASSIVE INFRARED SENSORS REQUIRE LINE OF SIGHT TO TURN 'ON' AND NO MOTION FOR 20 MINUTES TO TURN 'OFF'. MOTION FROM EITHER SENSOR WILL KEEP ALL LIGHTS ON. MANUAL ON, AUTO OFF.	(2) PASSIVE INFRARED OCCUPANCY SENSOR, CEILING MOUNTED. (2) LOW-VOLTAGE SWITCHES POWER PACK WITH RELAY			
4	↓ ∨ (0\$2)	ROOM CONTROLLED WITH (1) CEILING-MOUNTED OCCUPANCY SENSOR WITH POWER PACK AND (1) LOW VOLTAGE SWITCH. DUAL TECHNOLOGY SENSOR REQUIRE LINE OF SIGHT TO TURN 'ON' AND NO MOTION FOR 20 MINUTES TO TURN 'OFF'. MANUAL ON, AUTO OFF.	DUAL TECHNOLOGY OCCUPANCY SENSOR, CEILING MOUNTED. (1) LOW-VOLTAGE SWITCH POWER PACK WITH RELAY			

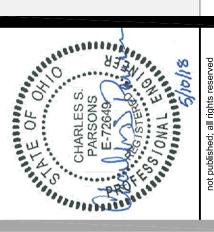
ACCEPTABLE MANUFACTURERS FOR OCCUPANCY SENSORS AND LIGHTING CONTROLS:

SENSORSWITCH WATTSTOPPER nLIGHT LUTRON LEVITON



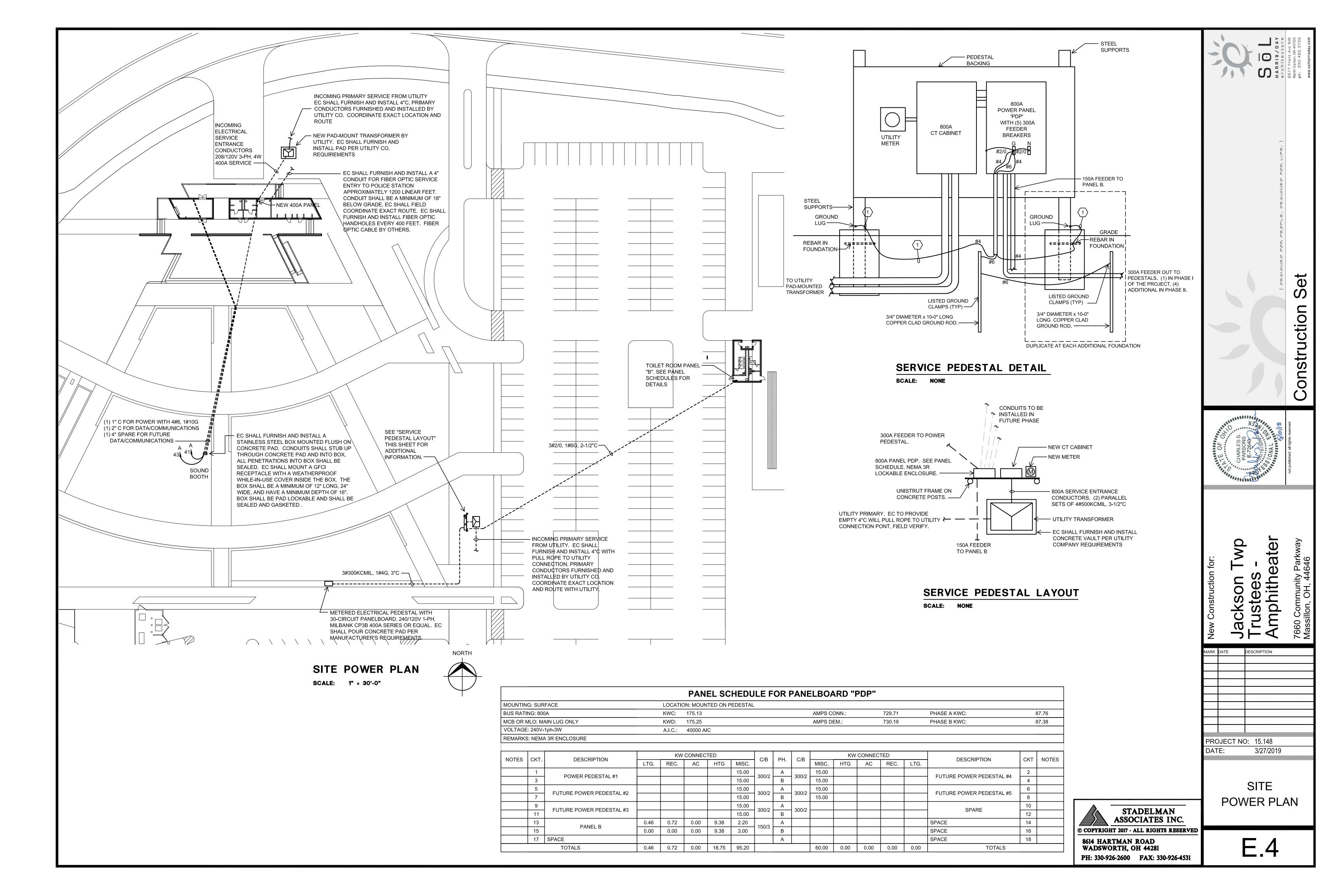
PH: 330-926-2600 FAX: 330-926-4531

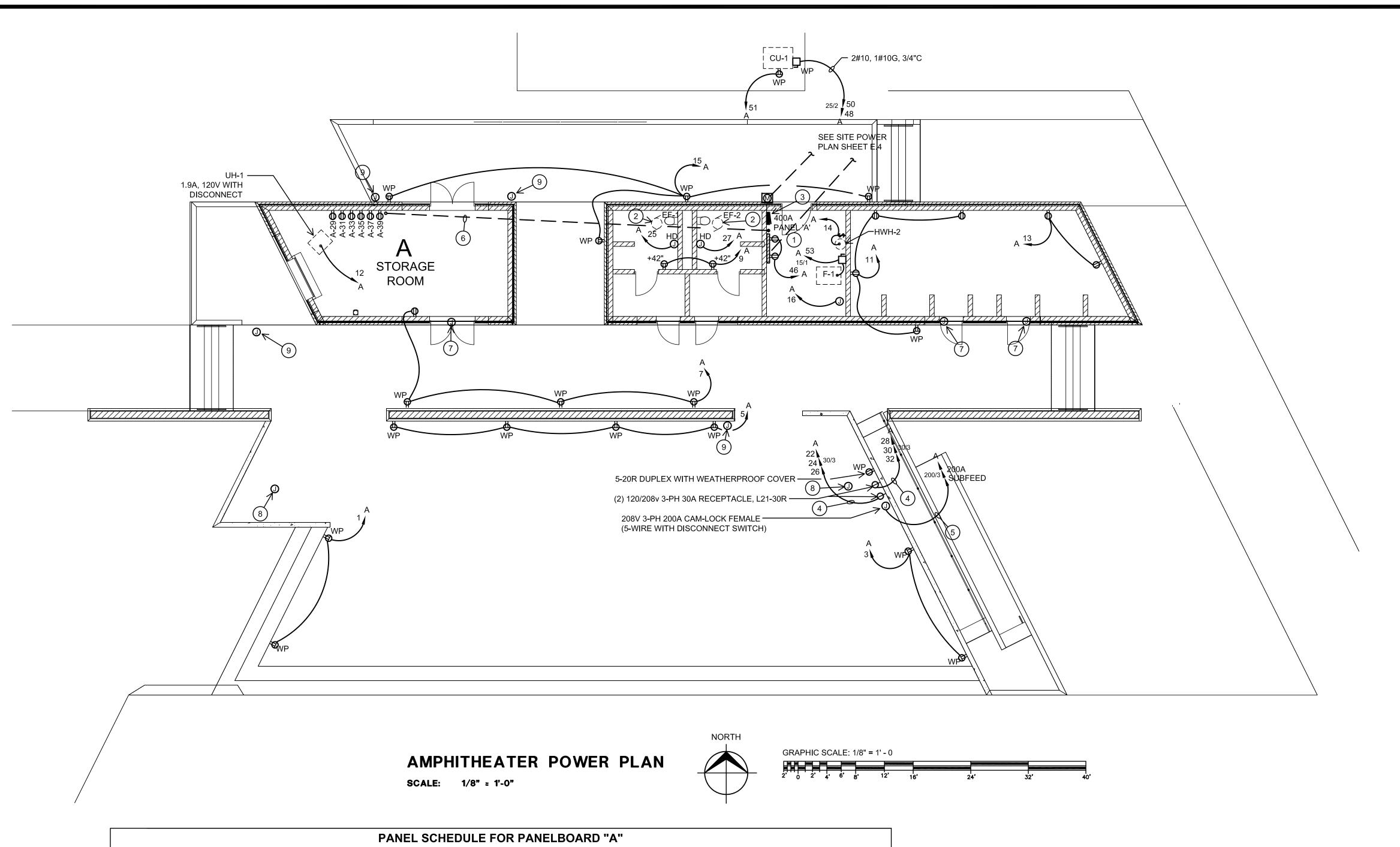
onstruction



MARK	DATE	DES	CRIPTION	
PRO	DJECT N	O:_	15.148	
DAT	Ē:		3/27/2019	

AMPHITHEATER LIGHTING PLAN





PLAN NOTES:

- (1) TELEPHONE TERMINAL BOARD. EC SHALL FURNISH AND INSTALL A 4'X4' PAINTED PLYWOOD BACKBOARD WITH TWO DUPLEX RECEPTACLES MOUNTED AT 48" AFF.
- 2) EXHAUST FAN WIRED AND CONTROLLED WITH LIGHTS. SEE
- 3 SEE "AMPHITHEATER SERVICE GROUNDING DETAIL" ON SHEET E.1 FOR GROUNDING INFORMATION.
- (4) 3#10, 1#10 G, 1/2"G
- 5 4#3/0, 1#6 G, 2"G
- 6 EC SHALL FURNISH AND INSTALL 1" CONDUIT UNDER THE SLAB FROM ELECTRICAL ROOM TO THE AMPLIFIER RACKS IN THE STORAGE ROOM. FIELD COORDINATE EXACT ROUTE WITH OTHER TRADES.
- 7 JUNCTION BOX FOR WIRING TO ELECTRIC STRIKE. ACCESS CONTROL SYSTEM IS FURNISHED, INSTALLED, AND WIRED BY OTHERS. EC SHALL PROVIDE CONDUIT PATHWAYS ONLY FOR WIRING TO ELECTRIC STRIKE IN DOOR FRAME. COORDINATE WITH DOOR HARDWARE SUPPLIER AND SECURITY VENDOR.
- 8 EC SHALL FURNISH AND INSTALL 1" CONDUIT FROM TELEPHONE BACKBOARD IN MECHANICAL ROOM AND STUB ADJACENT TO SUPPORT COLUMN FOR FUTURE SECURITY CAMERA WIRING. EC SHALL FURNISH AND INSTALL PATHWAY WITH PULLSTRING ONLY. ALL WIRING AND SECURITY EQUIPMENT IS FURNISHED AND INSTALLED BY OTHERS. COORDINATE EXACT LOCATION WITH SECURITY VENDOR AND OWNER PRIOR TO ROUGH-IN.
- (9) EC SHALL FURNISH AND INSTALL 1" CONDUIT FROM SECURITY JUNCTION BOX TO AN ACCESSIBLE CEILING SPACE. EC SHALL FURNISH AND INSTALL OUTLET WITH PATHWAY WITH PULLSTRING ONLY. COORDINATE EXACT LOCATION AND HEIGHT OF OUTLET WITH SECURITY VENDOR AND OWNER PRIOR TO ROUGH-IN. ALL WIRING AND SECURITY EQUIPMENT IS FURNISHED AND INSTALLED BY

CHARLES S. PARSONS E-72649 E-72649 CHARLES S. PARSONS E-72649 CHARLES S. PA	not published; all rights reserved
--	------------------------------------

onstruction

_	J	► ► ≥
RK	DATE	DESCRIPTION

PROJECT NO: 15.148 3/27/2019

STADELMAN

ASSOCIATES INC.

PH: 330-926-2600 FAX: 330-926-4531

AMPHITHEATER POWER PLAN

BUILDING WALL METER AND BASE BY EC ACCORDING TO UTILITY COMPANY. -— 4#500KCMIL, 3-1/2"C NEW UTILITY COMPANY PAD MOUNTED TRANSFORMER 400/3 — PANEL 'A' WITH 120/208V-3PH SEC. TO REMAIN. 200A SUBFEED MCB BREAKER EC SHALL FURNISH AND INSTALL TRANSFORMER 3-1/2" RGS CONDUIT VAULT PER ABOVE GRADE — FIRSTENERGY REQUIREMENTS -- AMPHITHEATER SERVICE GROUND, EC SHALL FURNISH AND INSTALL (2) 24" BELOW GRADE SEE DETAIL ON SHEET E.1 4" CONDUITS WILL PULL ROPE FOR PRIMARY POWER, COORDINATE

> AMPHITHEATER POWER RISER DIAGRAM SCALE: NONE

© COPYRIGHT 2017 - ALL RIGHTS RESERVED 8614 HARTMAN ROAD WADSWORTH, OH 44281

- 4#500KCMIL, 3-1/2" PVC

SCH. 40 CONDUIT

MOUNTING: SURFACE LOCATION: ELECTRICAL ROOM BUS RATING: 400A KWC: 38.82 107.76 PHASE A KWC: AMPS CONN.: MCB OR MLO: 400A MAIN CIRCUIT BREAKER KWD: 39.95 AMPS DEM.: 110.90 PHASE B KWC: VOLTAGE: 208Y/120V-3ph-4W A.I.C.: 22,000 PHASE C KWC: NOTES: PROVIDE PANEL WITH 200A SUBFEED CIRCUIT BREAKER, SERVICE ENTRANCE RATED KW CONNECTED KW CONNECTED NOTES CKT. DESCRIPTION DESCRIPTION MISC. AC REC. HTG HTG REC. STAGE LEFT RECEPTACLES 1.03 STAGE LIGHTS PENDANT 0.36 20/1 A 20/1 20/1 B 20/1 3 STAGE RIGHT RECEPTACLES 0.36 1.18 STAGE WALLWASH/UPLIGHT 5 STAGE BACK WALL RECEPT 0.72 20/1 C 20/1 0.60 BACKSTAGE/RAMP LIGHTING 7 BACKSTAGE RECEPTACLES 0.72 20/1 A 20/1 BACK OF HOUSE LIGHTING 20/1 B 20/1 0.10 9 RESTROOM RECEPTACLES 0.36 LIGHTING CONTROL PANEL 0.72 11 GREEN ROOM RECEPTACLES 20/1 C 20/1 0.23 UH-1

0.54

0.72

0.54

0.54

0.54

0.72

0.18

0.18

0.18

0.18

0.18

0.18

0.18

0.18

0.72

0.54

0.54

0.18

0.00 | 10.26 | 0.00 |

1.15

13 GREEN ROOM RECEPTACLES

17 POLE RECEPTACLES

23 POLE RECEPTACLES

29 AV RACK RECEPTACLE

31 AV RACK RECEPTACLE

33 AV RACK RECEPTACLE

35 AV RACK RECEPTACLE

37 AV RACK RECEPTACLE

39 AV RACK RECEPTACLE

47 POLE RECEPTACLES

53 FURNACE F-1

41 SOUND BOOTH RECEPTACLE

43 SOUND BOOTH RECEPTACLE

51 MAINTENANCE RECEPTACLE

TOTALS

25 HAND DRYER

27 HAND DRYER

POLE RECEPTACLES

15 LOADING DOCK RECEPTACLES

20/1 A 20/1 1.65

20/1 B 20/1 0.10

2.00

2.00

2.00

2.00

2.00

30/3 2.00

Α

В

20/1 C

20/1 C

20/1 C

20/1 A

20/1 B

20/1 C

20/1 A

20/1 B

20/1 A

В 20/1

Α

20/1 B 20/1

20/1 C 20/1

1.50 20/1 A

1.50 20/1 B

28 30A RECEPTACLE EXACT LOCATION WITH UTILITY. EC TO PROVIDE ALL TRENCHING AND SEATING AREA LIGHTING BACKFILL AS REQUIRED. PRIMARY CABLE FURNISHED AND INSTALLED 38 SEATING AREA LIGHTING BY UTILITY COMPANY. SEATING AREA LIGHTING TELEHPONE TERMINAL BOARD

15.07

11.31

12.44

CKT | NOTES

2 R1,R2,R3

4 R4,R5

20

22

52

54

TOTALS

MOTORIZED DAMPER

30A RECEPTACLE

0.15

0.33

0.33

0.50

0.50

0.10

0.10

SPARE

SPARE

0.36

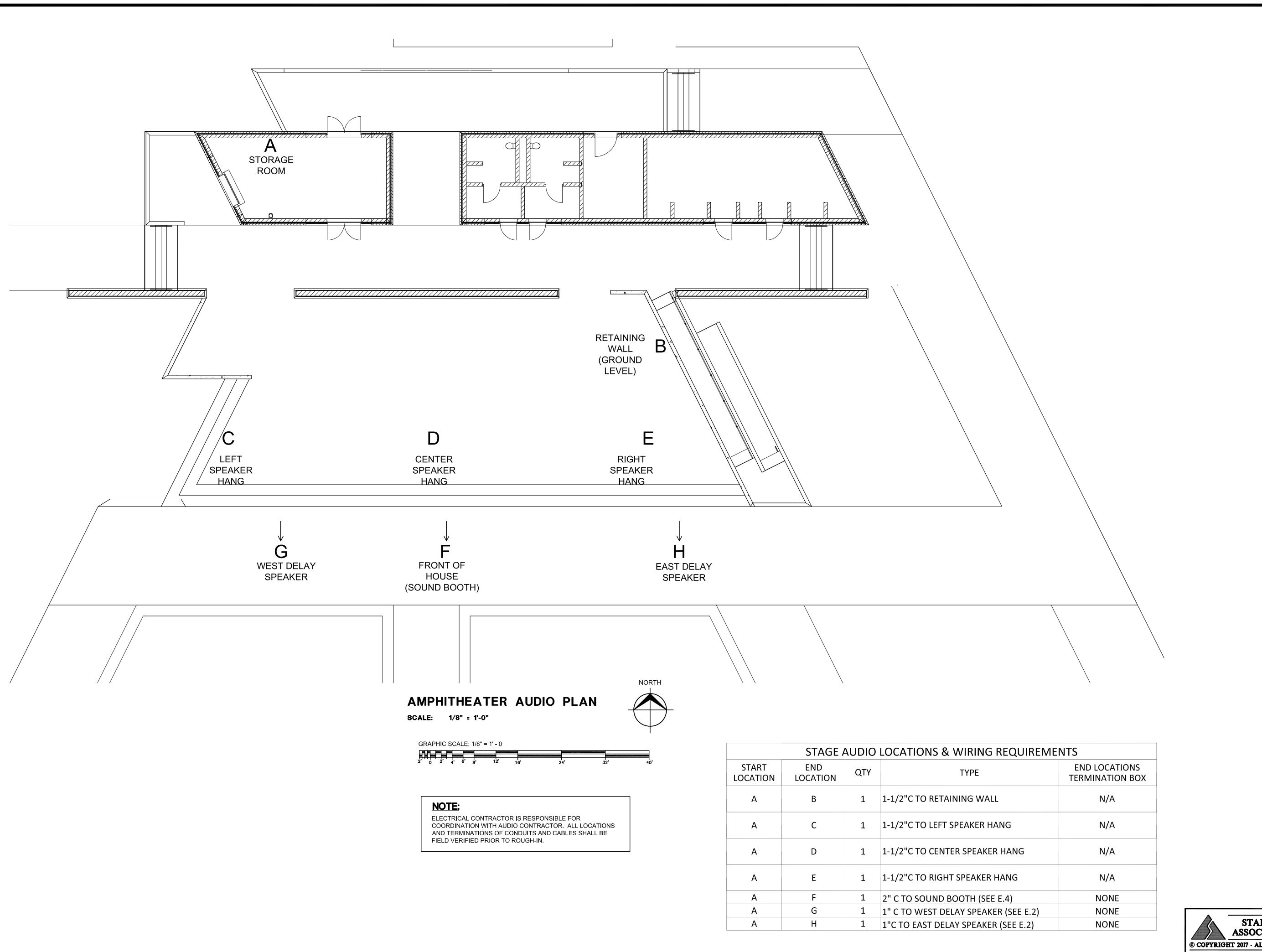
2.10

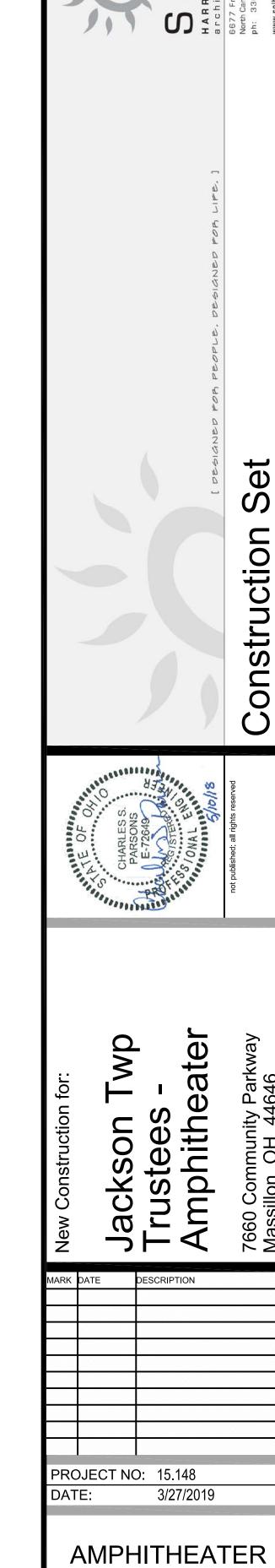
2.10

13.85 0.23 4.20 0.36 5.77

SEATING AREA LIGHTING

6 R6,R7,R8





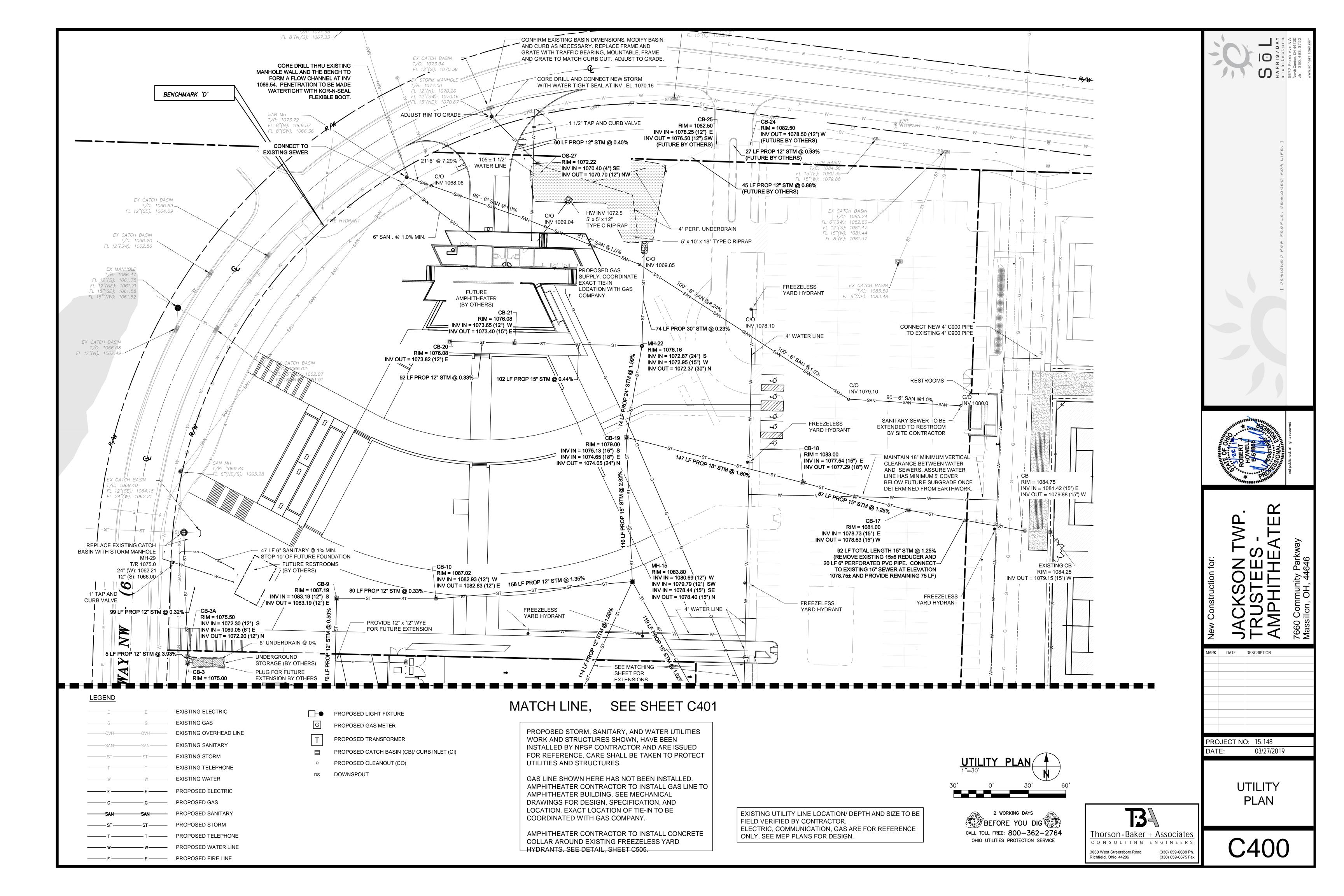
Construction

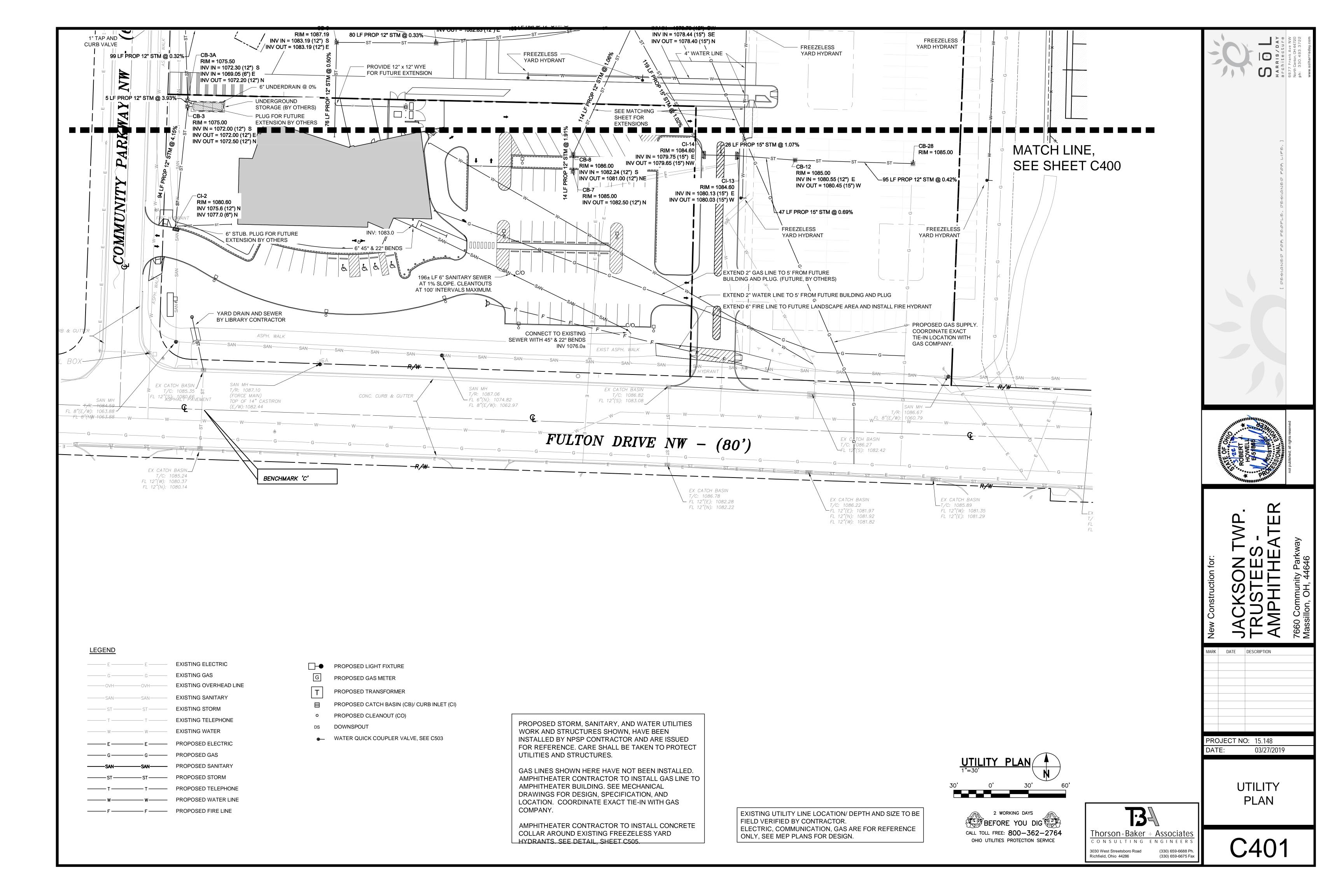
STADELMAN ASSOCIATES INC. © COPYRIGHT 2017 - ALL RIGHTS RESERVED 8614 HARTMAN ROAD WADSWORTH, OH 44281 PH: 330-926-2600 FAX: 330-926-4531

E.6

AUDIO

CONNECTIONS





GENERAL NOTES

- THE TERM GENERAL CONTRACTOR (G.C.) OR CONTRACTOR AS USED IN THESE DOCUMENTS REFERS TO THE CONTRACTOR/ CONSTRUCTION MANAGER IN RESPONSIBLE CHARGE OF THE PROJECT IN TERMS OF COORDINATION, SCHEDULING, SUBCONTRACTOR COORDINATION, ETC. THIS TERM REFERS TO, BUT IS NOT LIMITED TO, GENERAL CONTRACTOR, CONSTRUCTION MANAGER, DESIGN BUILD CONTRACTOR, PRIME CONTRACTOR, ETC. THE TERM IS REFERENCING THE ENTITY THAT COORDINATES THE WORK OF OTHER TRADES.
- THE EXISTING CONDITIONS SHOWN ON THESE DRAWINGS HAVE BEEN TAKEN FROM A SURVEY PREPARED BY PARTNERS ENVIRONMENTAL, DATED 3/8/17, AND DESIGN DRAWINGS BY THORSON BAKER & ASSOCIATES, INC. THORSON BAKER & ASSOCIATES, INC. DOES NOT WARRANT THAT THE INFORMATION SHOWN HEREON IS EITHER ACCURATE OR COMPLETE. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE EXISTING CONDITIONS AT THE PROJECT SITE.
- PAVEMENT DESIGN PROVIDED IN GEOTECHNICAL REPORT PREPARED BY GPD GROUP, DATED FEBRUARY 21, 2018. SEE GEOTECHNICAL REPORT FOR COMPLETE RECOMMENDATIONS.
- 4. THE LOCAL JURISDICTION REQUIREMENTS, TOGETHER WITH THE JANUARY 1, 2016 EDITION OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION (ODOT) CONSTRUCTION AND MATERIAL SPECIFICATIONS (CMS) SHALL GOVERN ALL CONSTRUCTION ITEMS THAT ARE PART OF THIS PLAN, UNLESS NOTED OTHERWISE. IF THERE ARE DISCREPANCIES, THE LOCAL JURISDICTION REQUIREMENTS SHALL GOVERN.
- THE GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE AND LOCAL SAFETY REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS ALSO THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND SUBCONTRACTORS TO INITIATE, MAINTAIN AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS, AND PROGRAMS IN CONNECTION WITH THE WORK.
- THE LOCAL AUTHORITY AND THORSON BAKER & ASSOCIATES, INC. WILL NOT BE RESPONSIBLE FOR MEANS, METHODS, PROCEDURES, TECHNIQUES, OR SEQUENCE OF CONSTRUCTION. THE LOCAL AUTHORITY AND THORSON BAKER & ASSOCIATES, INC. WILL NOT BE RESPONSIBLE FOR SAFETY ON THE JOB SITE, OR FAILURE BY THE GENERAL CONTRACTOR TO PERFORM WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- ANY MODIFICATION TO THE SPECIFICATIONS OR CHANGES TO THE WORK AS SHOWN ON THESE DRAWINGS MUST HAVE PRIOR WRITTEN APPROVAL FROM THE RECORD ENGINEER AND LOCAL AUTHORITY.
- THE GENERAL CONTRACTOR SHALL NOTIFY THE LOCAL AUTHORITIES AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING THE
- . THE GENERAL CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO CONSTRUCTION.
- 10. ANY SURVEY MONUMENTS OR PERMANENT MARKERS DISTURBED DURING CONSTRUCTION SHALL BE RESET BY A LICENSED LAND SURVEYOR AT THE GENERAL CONTRACTOR'S EXPENSE.
- 11. ALL SIGNS, LANDSCAPING, STRUCTURES, OR OTHER APPURTENANCES DISTURBED OR DAMAGED DURING CONSTRUCTION SHALL BE REPLACED OR REPAIRED TO THE SATISFACTION OF THE LOCAL AUTHORITY OR THE OWNER AT THE GENERAL CONTRACTOR'S **EXPENSE**
- 12. PERMITS TO CONSTRUCT IN THE PUBLIC RIGHT-OF-WAY OF EXISTING STREETS MUST BE OBTAINED BEFORE COMMENCING WORK.

DEMOLITION NOTES

- THE GENERAL CONTRACTOR SHALL NOTIFY O.U.P.S. AT 1-800-362-2764 AND O.G.P.U.P.S. AT 1-800-925-0988 A MINIMUM OF TWO DAYS BEFORE THE START OF CONSTRUCTION.
- REMOVAL OF STRUCTURES AND OBSTRUCTIONS: BUILDINGS. FOUNDATIONS, STRUCTURES, ASPHALT AND CONCRETE PAVEMENT. AND UTILITIES ABOVE AND BELOW GROUND SHALL BE REMOVED AND DISPOSED OF OFF SITE AS OUTLINED WITHIN THE CURRENT OHIO DEPARTMENT OF TRANSPORTATION "CONSTRUCTION AND MATERIAL SPECIFICATIONS" MANUAL UNDER ITEM 202.
- TREES AND OTHER SITE FEATURES NOTED TO REMAIN SHALL BE PROTECTED THROUGHOUT CONSTRUCTION WITH CONSTRUCTION FENCING. PLACE 4' HT. ORANGE CONSTRUCTION FENCING AT AND AROUND ALL NOTED SITE FEATURES AND/OR THE DRIP LINE OF ALL TREES NOTED TO BE SAVED. DO NOT STORE VEHICLES, EQUIPMENT, OR 3 MATERIALS WITHIN THE PROTECTED AREA. OBTAIN FIELD APPROVAL FROM THE OWNER AND/OR AUTHORIZED OWNER REPRESENTATIVE PRIOR TO ANY TREE REMOVAL. IF NECESSARY, CONTRACTOR WILL RELOCATE TO PROTECT SITE FEATURES. OTHER MEASURES MAY BE REQUIRED IF ANY DAMAGE TO SUCH ITEMS OR TREES OCCURS. REMOVE FENCING AFTER CONSTRUCTION.
- ALL EXISTING UTILITY CASTINGS INCLUDING MANHOLES, CATCH BASINS, VALVES, VALVE BOXES, ETC. SHALL REMAIN AND BE ADJUSTED TO PROPOSED GRADES, UNLESS NOTED OTHERWISE. THE GENERAL CONTRACTOR SHALL COORDINATE WORK WITH THE RESPECTIVE UTILITY COMPANIES.
- . ALL EXISTING UTILITY LINES & SERVICES WITHIN THE LIMITS OF CONSTRUCTION SHALL REMAIN AND BE PROTECTED, UNLESS NOTED OTHERWISE. CONTRACTOR SHALL COORDINATE REMOVAL OR RELOCATION WITH THE RESPECTIVE UTILITY COMPANY FOR PROPER CAPPING/SEALING/DISCONNECTING, ETC.
- . THE CONTRACTOR SHALL COORDINATE WORK WITH LOCAL SAFETY DEPARTMENTS TO MAINTAIN TRAFFIC CONTROL.
- ALL EXISTING UTILITY POLES, LIGHT POLES, ELECTRIC HANDHOLDS, UNDERGROUND WIRING, AND SITE LIGHTING SHALL BE PROTECTED UNLESS NOTED OTHERWISE. THE CONTRACTOR SHALL COORDINATE WORK WITH THE LOCAL POWER SUPPLY COMPANY.
- CONTRACTOR SHALL KEEP ALL EXISTING UTILITIES OPERATING DURING DEMOLITION AND CONSTRUCTION AND UNTIL THE NEW SYSTEMS ARE OPERATING PROPERLY. PROVIDE TEMPORARY CONNECTIONS AS REQUIRED.
- 9. SAW CUT ALL EDGES FULL DEPTH OF PAVEMENT
- 10. ALL SIGNS DESIGNATED TO BE REMOVED SHALL BE REINSTALLED AS DIRECTED, OR TURNED OVER TO OWNER.
- 11. COORDINATE DEMOLITION OF ALL EXISTING ITEMS WITH OTHER DRAWINGS. REMOVE/ABANDON EXISTING UTILITIES, SERVICES, SITE FEATURES AS REQUIRED.

TRAFFIC CONTROL NOTES

- ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (PART 7 CONSTRUCTION AND MAINTENANCE OPERATIONS). COPIES ARE AVAILABLE FROM THE ODOT, BUREAU OF TRAFFIC, 25 SOUTH FRONT STREET, COLUMBUS, OHIO 43215.
- 2. STEADY-BURNING, TYPE "C," LIGHTS SHALL BE REQUIRED ON ALL BARRICADES, DRUMS AND SIMILAR TRAFFIC DEVICES IN USE AT NIGHT. CONES ARE NOT PERMITTED TO BE USED FOR NIGHT WORK.
- 3. ACCESS TO ALL ADJOINING PROPERTIES SHALL BE MAINTAINED AT ALL TIMES.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING MAIL SERVICE IN THE CONSTRUCTION
- 5. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ADEQUATELY BARRICADE THE STREET IN THE VICINITY OF THE WORK AREAS UNTIL SUCH TIME AS THE STREET IS OPEN TO TRAFFIC.

ROADWAY AND PAVEMENT NOTES

- 1. WHEN OPEN-CUTTING OF EXISTING PAVEMENT IS PERMITTED, CONTROLLED DENSITY BACKFILL MAY BE USED IN PLACE OF COMPACTED GRANULAR BACKFILL. ASPHALT SURFACES SHALL BE HEAT WELDED.
- 2. WHERE IT IS NECESSARY TO DISTURB EXISTING PAVEMENTS, THE PAVEMENT SHALL BE SAW CUT IN NEAT, STRAIGHT LINES. THE DEPTH OF THE SAWCUT SHALL BE FULL DEPTH OF PAVEMENT.
- 3. ALL EARTHWORK CONSTRUCTION METHODS AND MATERIALS FOR EXCAVATION, EMBANKMENT, SUBGRADE COMPACTION, AND PROOF ROLLING SHALL FOLLOW AND MEET THE CURRENT OHIO DEPARTMENT OF TRANSPORTATION "CONSTRUCTION AND MATERIAL SPECIFICATIONS" MANUAL UNDER ITEMS 203 AND 204.
- 4. ALL PAVING OPERATIONS AND MATERIALS SHALL CONFORM TO AND MEET THE REQUIREMENTS AS OUTLINED WITHIN THE CURRENT OHIO DEPARTMENT OF TRANSPORTATION "CONSTRUCTION AND MATERIAL SPECIFICATIONS" MANUAL.
- 5. WALK REPLACEMENT: APPROXIMATE LOCATIONS FOR THE REQUIRED REMOVAL/REPLACEMENT OF EXISTING WALK ARE AS SHOWN ON THE PLAN. WALK REMOVAL/REPLACEMENT LIMITS SHALL TYPICALLY EXTEND TO THE NEAREST EXISTING WALK JOINT. THE EXACT LOCATIONS AND LIMITS OF EXISTING WALK REMOVAL/REPLACEMENT SHALL BE ESTABLISHED AT THE JOB SITE. THE EXISTING WALK SHALL BE REMOVED IN A MANNER THAT WILL NOT DISTURB, DAMAGE OR UNDERMINE ADJACENT WALK, CURB, DRIVES OR DRIVE APRONS INTENDED TO REMAIN. ANY ADJACENT FACILITIES DAMAGED AS A RESULT OF THE CONTRACTOR'S NEGLIGENCE, AS DETERMINED BY THE ENGINEER, AND WHICH ARE NOT OTHERWISE DESIGNATED FOR REPLACEMENT, SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. REPLACEMENT WALKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS CONTAINED HEREON. CURB RAMPS AS SHOWN IN THESE PLANS ARE SUBJECT TO ADJUSTMENT TO MINIMIZE CONFLICTS WITH EXISTING CATCH BASINS, MANHOLES, UTILITY POLES, HYDRANTS OR OTHER SUCH APPURTENANCES.
- CONCRETE WALKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DESIGN STANDARDS, DETAILS AND CONSTRUCTION SPECIFICATIONS OF THE JURISDICTIONAL AGENCY.
- 7. ALL ROAD SURFACES, BERMS, LAWN AREAS OR RIGHT-OF-WAYS DISTURBED BY CONSTRUCTION OF ANY PART OF THIS IMPROVEMENT ARE TO BE RESTORED COMPLETELY TO THE PRE-CONSTRUCTION CONDITION OR BETTER WHEN ORDERED BY THE LANDSCAPE ARCHITECT AND ALL ITEMS SHALL BE INCLUDED IN THE UNIT PRICES BID.

LAYOUT/GEOMETRY NOTES

- 1. SEE ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS FOR LAYOUT
- 2. CONTRACTOR IS OBLIGATED TO VERIFY ALL DIMENSIONS ON THE GROUND AND REPORT ANY LAYOUT DISCREPANCIES IMMEDIATELY TO THE OWNER'S REPRESENTATIVE.
- 3. PRECISE LAYOUT SHALL BE DETERMINED ON THE GROUND AND APPROVED BY THE OWNER'S REPRESENTATIVE.
- 4. BENCHMARK AND CONTROL POINTS ARE SHOWN ON THE DRAWING. LAYOUT FROM THESE REFERENCE POINTS IS THE RESPONSIBILITY OF THE CONTRACTOR.
- 5. ± INDICATES APPROXIMATE DIMENSIONS
- 6. DO NOT SCALE FROM THIS DRAWING. ALL WRITTEN DIMENSIONS SHALL GOVERN. ALL ANGLES ARE 90° UNLESS OTHERWISE NOTED. DIMENSIONS ARE TO FACE OF CURB AND/OR TO FACE OF BUILDING.
- 7. SIGNAGE FOR EACH ACCESSIBLE PARKING SPACE TO BE PER JURISDICTIONAL AGENCY REQUIREMENTS. 16
- 8. SEE GRADING PLAN FOR SOIL BORING LOCATIONS.
- 9. ALL PROPERTY PINS DISTURBED DURING THE COURSE OF CONSTRUCTION SHALL BE RESET AT THE CORRECT LOCATION BY A LICENSED SURVEYOR AT THE EXPENSE OF THE CONTRACTOR

GRADING NOTES

- ALL SLOPES, SURFACES, SIGNAGE AND PAVEMENT MARKINGS ALONG ACCESSIBLE ROUTES AND WITHIN PARKING AND LOADING/ UNLOADING ZONES SHALL BE CONSTRUCTED TO MEET THE REQUIREMENTS AS OUTLINED IN THE AMERICANS WITH DISABILITY ACT, STANDARDS FOR ACCESSIBLE DESIGN LATEST
- 2. GRADES/SLOPES SHALL BE STRAIGHT LINE BETWEEN POINT ELEVATIONS AND CONTOURS SHOWN.
- SPOT ELEVATIONS SHOWN ARE BOTTOM OF CURB UNLESS NOTED OTHERWISE. ALL POINTS SHOWN ARE INTENDED TO BE LOCATED AT PC's, PT's, MIDPOINTS OF CURB RADII, INTERSECTIONS, AND CORNER LOCATIONS. TOP OF CURB ELEVATIONS ARE HIGHER THAN SHOWN.
- 4. ALL EMBANKMENT UNDER PAVEMENTS AND STRUCTURES SHALL BE COMPACTED WITH SELECT SITE MATERIAL PER ODOT SPECIFICATIONS 203 & 204.
- 5. ALL AREAS AFFECTED BY SITE WORK, EXCLUDING PAVED, LANDSCAPED AND STRUCTURE AREAS, SHALL BE SEEDED AND MULCHED PER ODOT SPECIFICATION 659.
- 6. CONTRACTOR SHALL STRIP ANY TOPSOIL AND STOCKPILE PRIOR TO SITE GRADING OPERATION. CONTRACTOR SHALL REPLACE STOCKPILED TOPSOIL TO A THICKNESS OF 12 INCHES PER ODOT SPECIFICATION 653 IN ALL LAWN & LANDSCAPED AREAS. HAUL EXCESS SOIL OFF-SITE OR BRING IN TOPSOIL UNLESS NOTED OTHERWISE. TOPSOIL SHALL BE DEFINED IN LAWNS AND GRASSES SPECIFICATIONS. IF LAWNS AND GRASSES SPECIFICATIONS IS NOT PROVIDED, TOPSOIL SHALL BE DEFINED PER ODOT 653 AND CONTAIN NO OBJECTS GREATER THAN 2MM IN DIAMETER.
- 7. SLOPES INDICATED AS PERCENTAGES ARE APPROXIMATE
- 8. ANY SLOPES GREATER THAN 2:1 SHALL BE STABILIZED PER ODOT 670 & 671.
- 9. SEE UTILITY PLAN FOR ADDITIONAL STORM STRUCTURE DATA.
- 10. THE CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO EQUAL OR BETTER CONDITION THAN EXISTED BEFORE CONSTRUCTION.
- 11. NO NON-RUBBER TIRE VEHICLE SHALL BE MOVED ON STREETS. EXCEPTIONS MAY BE GRANTED WHERE SHORT DISTANCES AND SPECIAL CIRCUMSTANCES ARE INVOLVED. GRANTING OF EXCEPTIONS MUST BE IN WRITING AND ANY RESULTING DAMAGE MUST BE REPAIRED TO THE SATISFACTION OF THE JURISDICTIONAL AUTHORITY.
- 12. SEE SHEET C600-C602 FOR EROSION CONTROL NOTES & DETAILS.
- 13. SLOPES SHALL NOT EXCEED 2% IN ANY DIRECTION WITHIN HANDICAP PARKING AREA AND LOADING/ UNLOADING ZONES.
- 14. EXISTING SOILS ON SITE MAY BE USED AS SUBGRADE MATERIAL IF APPROVED BY THE PROJECT GEOTECHNICAL ENGINEER.
- 15. SLOPE OF SUBGRADE SHALL FOLLOW SAME SLOPE AS PAVEMENT ABOVE AS NOTED ON GRADING PLAN.

GENERAL UTILITY NOTES

- EXISTING UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES SHOWN ON THESE PLANS ARE FROM BEST 1. AVAILABLE RECORDS, SURVEYS, DRAWINGS, AND FIELD INVESTIGATION, AND ARE NOT NECESSARILY COMPLETE OR EXACT; THEREFORE, THEIR LOCATION MUST BE CONSIDERED APPROXIMATE ONLY. ALSO, THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS NOT PRESENTLY KNOWN. THE CONTRACTOR IS RESPONSIBLE FOR THE INVESTIGATION, LOCATION, SUPPORT, PROTECTION, AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES WHETHER SHOWN ON THESE PLANS OR NOT. THE CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED DURING CONSTRUCTION AT NO COST TO THE PROJECT. THE CONTRACTOR SHALL EXPOSE ALL UTILITIES OR STRUCTURES PRIOR TO CONSTRUCTION TO VERIFY THE VERTICAL AND HORIZONTAL LOCATIONS. MAKE SUCH ADJUSTMENTS IN ELEVATIONS AS ARE REQUIRED TO PROVIDE SUFFICIENT CLEARANCE BETWEEN THE EXISTING AND PROPOSED UTILITIES. CALL THE OHIO UTILITIES PROTECTION SERVICE (800) 362-2764 AND THE OIL AND GAS PRODUCERS UNDERGROUND PROTECTION SERVICE (800) 925-0988 AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING WORK.
- THORSON BAKER + ASSOCIATES EXPRESSLY DISCLAIMS ANY RESPONSIBILITY FOR THE ACCURACY AND COMPLETENESS OF INFORMATION GIVEN REGARDING THE LOCATION OF EXISTING UNDERGROUND UTILITIES. 5.
- THORSON BAKER + ASSOCIATES OFFERS THE EXISTING UNDERGROUND UTILITY INFORMATION AS SHOWN ON PROFILE SHEETS AS A GUIDE ONLY, AND DOES NOT GUARANTEE OR ASSUME ANY LIABILITY IMPLIED OR OTHERWISE FOR THE ACCURACY OF INFORMATION GIVEN HEREON. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO ASCERTAIN FOR HIMSELF/HERSELF THE CONDITIONS THAT MAY BE ENCOUNTERED DURING CONSTRUCTION OF THE PROJECT.
- 4. A QUALITY LEVEL "B" EXISTING UNDERGROUND UTILITY LOCATION AS DEFINED BY AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) WAS COMPLETED BY OTHERS TO ASSIST WITH THE DESIGN OF THE PROPOSED UNDERGROUND UTILITIES FOR THIS PROJECT. QUALITY LEVEL"B" DOES NOT EXPOSE OR DETERMINE ACTUAL LOCATIONS OR ELEVATIONS OF EXISTING UTILITIES. THIS ALLOWS THE POSSIBILITY THAT CONFLICTS COULD 2. ARISE BETWEEN EXISTING AND PROPOSED UNDERGROUND UTILITIES AS "UNFORESEEN CONDITIONS" DURING THE CONSTRUCTION PHASE OF THE PROJECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EXCAVATE AND EXPOSE EXISTING UNDERGROUND UTILITIES PRIOR TO BEGINNING WORK TO DETERMINE ACTUAL LOCATIONS AND ELEVATIONS AND TO DETERMINE IF REQUIRED CLEARANCE CONFLICTS EXIST BETWEEN EXISTING AND PROPOSED UTILITIES. THIS WORK SHOULD BE PERFORMED IN A TIMELY MANNER SO AS TO PROVIDE ADEQUATE TIME FOR MODIFICATIONS TO THE CONSTRUCTION DOCUMENTS AND/OR RE-DESIGN IF REQUIRED.
- WHEN UNKNOWN OR INCORRECTLY LOCATED UNDERGROUND UTILITIES ARE ENCOUNTERED IN THE RIGHT-OF-WAY DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER, ENGINEER AND THE MUNICIPAL ENGINEER.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH ALL UTILITY COMPANIES TO AVOID INFRASTRUCTURE CONFLICTS.
- ALL TRENCHES SHALL BE BACKFILLED OR SECURELY PLATED DURING NONWORKING HOURS.
- CONTRACTOR SHALL VERIFY AND COORDINATE SIZE AND LOCATION OF GAS LINE WITH MECHANICAL ENGINEER AND UTILITY COMPANY.
- ALL DISTURBED AND/OR DAMAGED STORM SEWER PIPES, FIELD TILE AND APPURTENANCES, PAVEMENTS, BERMS AND DITCHES SHALL BE REPAIRED AND/OR REPLACED TO PRE-CONSTRUCTION CONDITION OR
- 10. COORDINATE LAYOUT OF ALL SITE UTILITIES WITH SITE GEOMETRIC PLANS.
- 11. REMOVE EXISTING ASPHALT/CONCRETE TO ALLOW FOR INSTALLATION OF UTILITIES SAW CUT ALL EDGES.
- 12. EXCEPT AS MAY BE MODIFIED SPECIFICALLY BY THESE PLANS, OR LOCAL AUTHORITY REQUIREMENTS, ALL UTILITY WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIALS SPECIFICATIONS, RECENT EDITION.
- 13. UTILITY INSTALLATION PERMITS AND PERMIT FEES ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- 14. EXCESS EXCAVATION FROM UTILITY INSTALLATION SHALL BE WASTED ON THE PROJECT SITE AS DIRECTED BY THE ENGINEER OF RECORD, OR EXCESS EXCAVATION NOT WASTED ON THE PROJECT SITE SHALL BE HAULED AWAY BY THE CONTRACTOR. MATERIAL DISPOSED OF OFF-SITE MUST BE DISPOSED OF IN AN ENVIRONMENTALLY SAFE FASHION AND IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, INSTALLATION AND FINAL CLEARANCE OF ANY REQUIRED NEEDLING, UNDERPINNING, SHORING OR BRACING OF EXISTING STRUCTURES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING A TRENCH SAFETY PLAN WHICH MEETS ALL LOCAL, STATE AND FEDERAL REGULATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE PROPER HORIZONTAL AND VERTICAL DISTANCES BETWEEN ALL UTILITIES AS REQUIRED BY THE UTILITY OWNERS AND JURISDICTIONAL AGENCIES.
- 18. THE FOLLOWING PROPOSED UTILITIES SHOWN ON THIS PLAN ARE FOR ROUTING AND COORDINATION PURPOSES ONLY, DESIGN, SIZING, CAPACITY, CAPACITY OF EXISTING SYSTEMS ETC., IS THE RESPONSIBILITY OF OTHERS. SIZES AND CONNECTION LOCATIONS SHOWN ON THIS SHEET WERE PROVIDED BY THE UTILITY VENDOR, MECHANICAL, PLUMBING, ELECTRICAL, TECHNOLOGY OR SPECIALTY ENGINEER:
 - FIBER OPTICS
 - TELEPHONE

- NATURAL GAS

- CABLE - ELECTRICAL

SANITARY SEWER NOTES (LOCAL AUTHORITY SHALL GOVERN - SEE C501 FOR STARK COUNTY STANDARD NOTES AND DETAILS)

- ALL SANITARY SEWERS, MANHOLES AND APPURTENANCES SHALL BE CONSTRUCTED PER THE MATERIAL AND CONSTRUCTION SPECIFICATIONS OF THE LOCAL JURISDICTIONAL AGENCY, OR THE REQUIREMENTS OF ODOT CMS ITEM 611, THE MORE STRINGENT SHALL APPLY.
- ALL MANHOLES, CASTINGS AND PIPE INVERTS SHALL BE SET TO ELEVATIONS INDICATED IN THESE PLANS. THE FINAL ADJUSTMENT OF THE CASTING ELEVATIONS SHALL BE THE RESPONSIBILITY OF THE PAVING CONTRACTOR IN PAVED AREAS.
- ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.
- SEWERS SHALL BE INSTALLED DEEP ENOUGH TO RECEIVE WASTEWATER FROM BASEMENT FIXTURES AND TO PREVENT FREEZING.
- 5. IF FILL IS TO BE CONSTRUCTED BELOW THE SANITARY SEWERS, MANHOLES OR APPURTENANCES, COMPACTION TESTS WHICH MEET THE REQUIREMENTS OF THE JURISDICTIONAL AGENCY SHALL BE PERFORMED. THE COMPACTION WORK AND COMPACTION TESTING SHALL BE OBSERVED BY THE JURISDICTIONAL AGENCY. COMPACTION REPORTS SHALL BE SUBMITTED TO THE JURISDICTIONAL AGENCY FOR REVIEW AND APPROVAL BEFORE CONSTRUCTION OF ANY SANITARY SEWER WITHIN SAID FILL AREA CAN BEGIN.
- ALL CONSTRUCTION STANDARDS, TESTING AND INSPECTION SHALL MEET THE REQUIREMENTS OF THE LOCAL JURISDICTIONAL AGENCY, OHIO EPA AND THE "RECOMMENDED STANDARDS FOR WASTERWATER FACILITIES" (10 STATE STANDARDS).
- 7. IT IS THE CONTRACTORS RESPONSIBILITY TO COMPLETE ALL VIDEO, TELEVISION OR PHOTOGRAPHIC INSPECTION AS REQUIRED BY THE JURISDICTIONAL AGENCY.
- IT IS THE CONTRACTORS RESPONSIBILITY TO COMPLETE ALL LEAKAGE TESTING AS REQUIRED BY THE JURISDICTIONAL AGENCY WHICH MAY INCLUDE BUT IS NOT LIMITED TO LOW PRESSURE AIR TESTING. HYDDROSTATIC TESTING OR VACUUM TESTING.
- THE CONTRACTOR IS RESPONSIBLE FOR COMPLETING ALL DEFLECTION TESTING AS REQUIRED BY THE JURISDICTIONAL AGENCY INCLUDING BUT NOT LIMITED TO THE MANDREL TEST.

STORM SEWER NOTES (LOCAL AUTHORITY SHALL GOVERN)

- ALL STORM SEWERS, MANHOLES, CATCH BASINS AND APPURTENANCES SHALL BE CONSTRUCTED PER THE MATERIAL AND CONSTRUCTION SPECIFICATIONS OF THE LOCAL JURISDICTIONAL AGENCY. OR THE REQUIREMENTS OF ODOT CMS ITEM 611, THE MORE STRINGENT SHALL APPLY.
- THE MINIMUM REQUIREMENTS FOR STORM DRAIN PIPE, OTHER THAN UNDERDRAINS, SHALL BE HDPE PER ODOT ITEM 707.33, AS SPECIFIED. REINFORCED CONCRETE PIPE (RCP) PER ODOT ITEM 706.02, AS SPECIFIED, SHALL BE AS NOTED.
- ALL MANHOLES, CASTINGS AND PIPE INVERTS SHALL BE SET TO ELEVATIONS INDICATED IN THESE PLANS. THE FINAL

ADJUSTMENT OF THE CASTING ELEVATIONS SHALL BE THE RESPONSIBILITY OF THE PAVING CONTRACTOR IN PAVED AREAS.

- CURB INLETS, MANHOLES, AND CATCH BASINS SHALL BE CHANNELED AS DIRECTED BY THE JURISDICTIONAL AGENCY.
- 4. ALL CATCH BASINS WITHIN PAVEMENT AREAS SHALL HAVE UNDERDRAINS AS DETAILED.
- ARCHITECTURAL DRAWINGS SHOWING DOWNSPOUT LOCATIONS SHALL GOVERN WHEN IN CONFLICT WITH LOCATIONS SHOWN ON UTILITY PLAN. DOWNSPOUT TEE ELEVATIONS SHALL BE FIELD ADJUSTED IF NECESSARY TO PROVIDE 0.5% MINIMUM SLOPE ON ALL ROOF DRAINS. ALL DOWNSPOUT CONNECTION LINES SHALL BE RUN AT A MINIMUM OF 1% SLOPE INTO THE TEE. ELEVATIONS GIVEN FOR TEES ARE FOR THE BRANCH CONNECTIONS, NOT FOR THE ROOF DRAINS. SEE ARCHITECTS DRAWING FOR DOWNSPOUT BOOT DETAIL.

WATER NOTES (LOCAL AUTHORITY SHALL GOVERN)

- ALL WATER SERVICE AND WATER MAIN MATERIALS AND CONSTRUCTION SPECIFICATIONS SHALL BE IN ACCORDANCE WITH THE CURRENT RULES AND REGULATIONS OF THE GOVERNING WATER AUTHORITY.
- ALL PIPE, FITTINGS, VALVES, HYDRANTS, BACKFLOW PREVENTION, METERS AND OTHER APPURTENANCES SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS OF THE WATER AUTHORITY AND LOCAL FIRE AUTHORITY.
- ALL HYDRANTS, VALVE BOXES, METER PITS AND VAULTS SHALL BE SET TO FINISH GRADE ELEVATIONS AS INDICATED IN THESE PLANS. IN PAVED AREAS, FINAL ELEVATION ADJUSTMENTS ARE THE RESPONSIBILITY OF THE PAVING CONTRACTOR.
- ALL PRESSURE TESTING AND CHLORINATION/DISINFECTION SHALL BE COMPLETED BY THE CONTRACTOR IN ACCORDANCE WITH THE GOVERNING WATER AUTHORITY REQUIREMENTS AND SHALL MEET OHIO EPA AND AWWA STANDARDS.
- ALL BEDDING AND BACKFILLING OF WATERLINE PIPE AND APPURTENANCES SHALL MEET THE REQUIREMENTS OF THE GOVERNING WATER AUTHORITY.
- 6. AT THE END OF EACH WORK DAY, THE CONTRACTOR SHALL PLUG ALL OPEN END PIPES WITH A WATER TIGHT PLUG PER
- 7. THE CONTRACTOR SHALL NOTIFY THE LOCAL WATER AUTHORITY AT LEAST TWO WORKING DAYS BEFORE TAPPING THE EXISTING MAIN.
- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING WATER MAINS AND APPURTENANCES THEREOF WHEN CONSTRUCTING OR CONNECTING THE NEW WATER MAIN OR SERVICE. THIS SHALL INCLUDE LEADED JOINTS IN EXISTING FITTING WHICH MAY REQUIRE REPLACEMENT FITTINGS AT THE DISCRESION OF THE GOVERNING WATER AUTHORITY IF IT IS DETERMINED THEY WERE DISTURBED.
- CONTRACTOR TO PROVIDE MINIMUM 18" VERTICAL CLEARANCE AND 10' HORIZONTAL CLEARANCE BETWEEN OUTSIDE OF STORM SEWER PIPE AND OUTSIDE OF WATERLINE PIPE AT ALL LOCATIONS. MINIMUM CLEARANCE BETWEEN SANITARY SEWER AND WATER LINES SHALL BE 10' HORIZONTAL OR 18" VERTICAL OUT-TO-OUT OF PIPE. WATERLINE SHALL BE DEFLECTED OR FITTINGS SHALL BE INSTALLED TO MAINTAIN STANDARD CLEARANCE.
- THE FIRE PROTECTION CONTRACTOR/ DESIGNER MUST VERIFY ACTUAL WATER FLOWS AND PRESSURES AT THE SITE PRIOR TO DESIGNING THE FIRE PROTECTION SYSTEM.
- ALL REMOTE OR STANDARD FIRE DEPARTMENT CONNECTIONS, FIRE HYDRANTS AND FITTINGS SHALL MEET THE MATERIAL AND CONSTRUCTION SPECIFICATIONS OF THE GOVERNING WATER AUTHORITY AND THE LOCAL FIRE AUTHORITY.
- TRACER TAPE OR TRACER TAPE WITH WIRE SHALL BE INSTALLED ABOVE THE NEW WATERLINE IN ACCORDANCE WITH THE GOVERNING WATER AUTHORITY.
- 13. THE REQUIRED COVER OVER WATER MAINS, FIRE SERVICE LINES AND DOMESTIC SERVICE LINES SHALL BE AS REQUIRED

BY THE GOVERNING WATER AUTHORITY. AQUA AMERICA WATER PIPE SPECIFICATION

DUCTILE IRON PIPE. Type required: push-on joints, cement lined, thickness class 52 for 4 inch through 16 inch, manufacturing standards AWWA C150 and C151. Polyethylene encasement shall be installed on all ductile pipe and fittings.

MATERIAL SPECIFICATIONS

DUCTILE IRON FITTINGS. (tees, crosses, bends, reducers, sleeves, couplings and plugs.) Type required: mechanical joint, tees, crosses, bends and reducers are to be cement lined; working pressure rating 250 psi, manufacturing standards ANSI A21.53, ANSI A21.4 and ANSI A21.10. Compact style is acceptable. Retainer glands shall be installed on all mechanical joints.

FIRE HYDRANTS. Type required: post type, breakable flange design for traffic collisions, 5 1/4" diameter main valve, one 5" Storz connection and two 2 ½" hose nozzles, 6" MJ inlet, main valve to open left, direction of opening to be indicated with arrow cast on hydrant, to be designed for 5 foot trench, National Standard threads on nozzles, O-ring packing preferred, type 304 stainless steel bolts and nuts, operating nut and nut on caps: 1 ½" pentagon, color yellow paint on body trimmed with red paint on bonnet and caps, AWWA standard C502, Mueller Centurion A423-539382, US Pipe M-94 or Clow Medallion.

TAPPING VALVES. Type required: Resilient seat, iron body, stainless steel bonnet bolts and nuts, mechanical joint accessories, non-rising stem, for underground service, O-ring packing preferred, OPEN RIGHT (clockwise) 2 inch square operating nut, manufacturing standards and pressure ratings AWWA specification C500.

4" THROUGH 12" GATE VALVES. Type required: resilient seat, iron body, stainless steel bonnet bolts and nuts, mechanical joint accessories, non-rising stem, for underground service, Oring packing preferred, OPEN RIGHT (clockwise), 2 inch square operating nut, manufacturing standards and pressure ratings AWWA C509, Mueller A-2360 or equal.

VALVE BOXES. Type required: two piece, cast iron, screw type for adjustable height, height range to be approximately 36 to 60 inches. They are to include a well fitting cast iron lid, the word "WATER" to be cast on lid.

2" WATER MAIN. 2" water main shall be soft drawn type "K" copper tubing or high density polyethylene plastic (HDPE), copper tube size, as called out on the plan. If HDPE is used, it shall be 200 psi, SDR 9 with marking tape and a 12 gage copper tracer wire laid in the trench. Brass compression fittings shall be used. Stainless steel stiffeners are necessary at each joint.

POLYETHYLENE ENCASEMENT. Type required: Eight mil thick polyethylene tube

manufactured in accordance with ANSI/AWWA C105/A21.5. Polyethylene adhesive tape. 1 ½" wide, is to seal joints.

BLOW OFF ASSEMBLIES. Type required: Kupferle Foundry TF500 or approved equal. Install in valve box. Install 2" curb stop with curb box ahead of each blow off.

Revised March, 2017

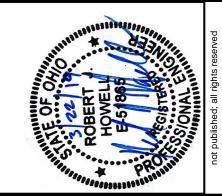
SITE NOTES



Thorson • Baker + Associates CONSULTING ENGINEERS (330) 659-6688 Ph 3030 West Streetsboro Road

(330) 659-6675 Fax

Richfield, Ohio 44286



IARK DATE DESCRIPTION PROJECT NO: 15.148

> SITE NOTES

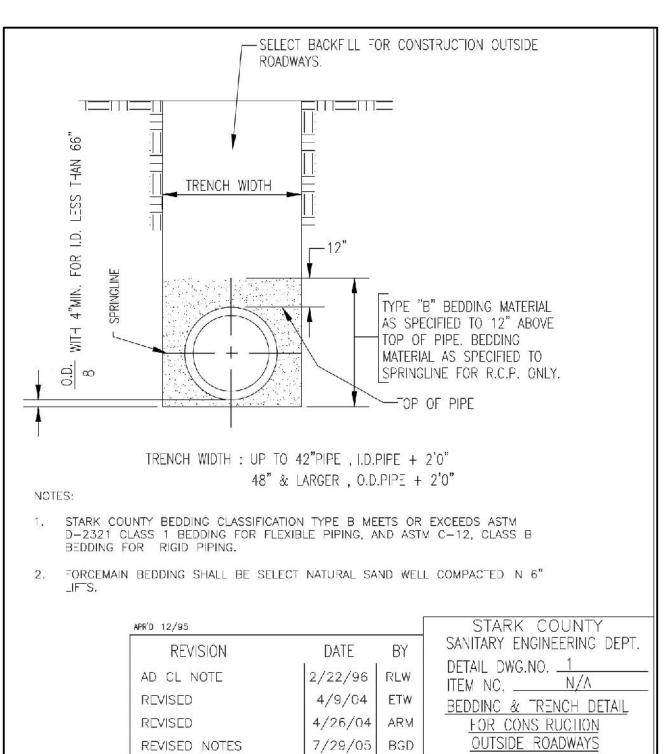
03/27/2019

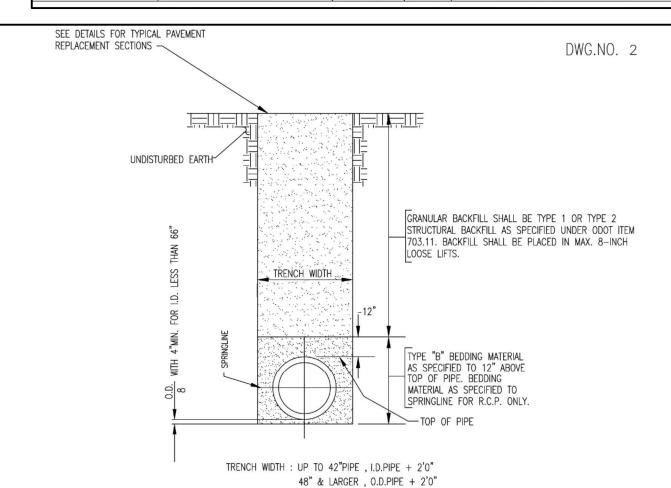
STANDARD SANITARY SEWER NOTES

- Sanitary sewers and appurtenances shall be constructed in accordance with Stark County Sanitary Engineering Department specifications and details in effect at the time of construction.
- 2. Roof drains, foundation drains and other clean water connections to the sanitary sewer are prohibited. Adopted December 27, 1968.
- 3. Prior to start of construction, the contractor shall have a pre-construction meeting with the Construction Engineer of the Stark County Sanitary Engineering Department (330-451-2310). A minimum of 72 hour notice is required to schedule this meeting.
- 4. The contractor shall notify all property owners along the route of the sanitary sewer at least 3 days prior to start of construction.
- 5. The contractor shall alert the Utilities Protection Service at least 48 hours prior to start of construction.
- 6. Approval by the Stark County Sanitary Engineering Department constitutes neither expressed nor implied warranties as to fitness, accuracy, or sufficiency of plans, designs or specifications.
- 7. The contractor shall be responsible for properly maintaining existing sanitary flow during the construction and testing of the proposed improvements. The contractor's methods for maintaining flow must be approved by the Stark County Sanitary Engineering Department at the pre-construction meeting.
- 8. All rough grading to within 6 inches of finished grade shall be completed within the rights-of-way and easements prior to sanitary sewer construction.
- 9. Bulkheads shall be erected in existing manholes where taps for new local sewers are made and shall remain in place until the new sewers are complete, tested and approved. In cases where a bulkhead would interrupt the flow from existing service connections, the bulkhead shall be placed in the first new manhole upstream of the existing manhole.
- Minimum clearance between sanitary sewers and waterlines shall be 18 inches vertically and 10 feet horizontally.
- 11. Minimum nominal pipe diameter for sanitary service sewers and building sewers (laterals) shall be 6 inches. Pipes shall be laid at no less than 1.0 % grade.
- 12. No changes to sanitary service sewer and building sewer (lateral) locations shall be made without the approval of the Stark County Sanitary Engineer.
- 13. For new subdivision construction, sanitary building sewers (laterals) shall extend 15 feet into each lot when the local sewer is in a street right-of-way or shall terminate at the easement line when the local sewer is in an easement. For other sewer construction, service and building sewers shall terminate at the right-of -way line or the easement line, whichever is applicable.
- 14. Service sewer stacks shall be epoxy lined ductile iron pipe in accordance with Item 11 of the Stark County Sanitary Engineering Department specifications, regardless of local sewer material. A cast iron tee shall be installed in the local sewer.
- 15. Minimum cover over sanitary sewers shall be 4 feet.
- 16. Acceptable sanitary sewer pipe materials are :

<u>Pipe</u>	<u>Joints</u>	I <u>nstallation</u>
PVC Smooth Exterior: ASTM D-3034	ASTM D-3212	ASTM D-2321
VCP Extra Strength: ASTM C-700	ASTM C-425	ASTM C-12
DCIP (Class 52): AWWA C-151	AWWA C-110/C-111	AWWA C-151

- 17. All sanitary sewers, 8 inches in diameter and larger, shall pass an internal television inspection. The contractor shall provide complete internal inspection videotape to the Stark County Sanitary Engineering Department. The videotaping procedure shall be in accordance with Stark County Sanitary Engineering Department specifications.
- 18. A deflection test shall be required for all flexible pipe of 8 inches in diameter and larger. The test shall be conducted at least 30 days after completion of backfill and shall be in accordance with Stark County Sanitary Engineering Department specifications. The allowable deflection rate shall not exceed five percent (5%). Testing shall be in accordance with Appendix C of the Stark County Sanitary Engineering Department specifications.
- 19. All sanitary sewers must pass a low pressure air test, which shall be conducted in accordance with Stark County Sanitary Engineering Department specifications. The maximum allowable test leakage shall be 100 gal/inch of diameter/mile/day. This test shall conform to ASTM F-1417.
- 20. Manhole construction shall meet the requirements of ASTM C-478 and C-443. All manholes shall be air/vacuum tested in accordance with and meet all the requirements of ASTM C-1244.
- 21. Connections to existing manholes shall be core drilled, with benches and channels formed and repaired as necessary.
- 22. Any manhole drop attachments shall be "outside" type.
- 23. Manhole top of casting elevations may require adjustment during site grading. Manhole covers may not be buried. Upon completion of construction and restoration, all manholes, proposed and existing, shall be in conformance in all respects with Stark County Sanitary Engineering Department specifications and details.
- 24. All sanitary sewer trenches beneath proposed or existing pavement shall be compacted in lifts, in a manner, and with material as specified by the Stark County Sanitary Engineering Department and all applicable O.D.O.T. specifications.

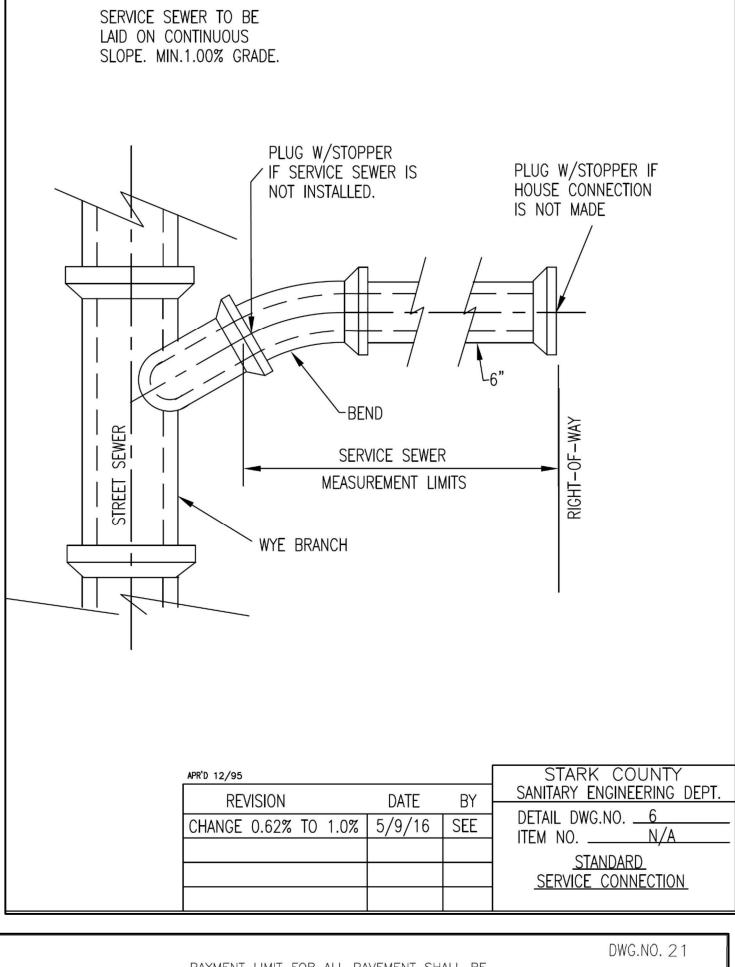


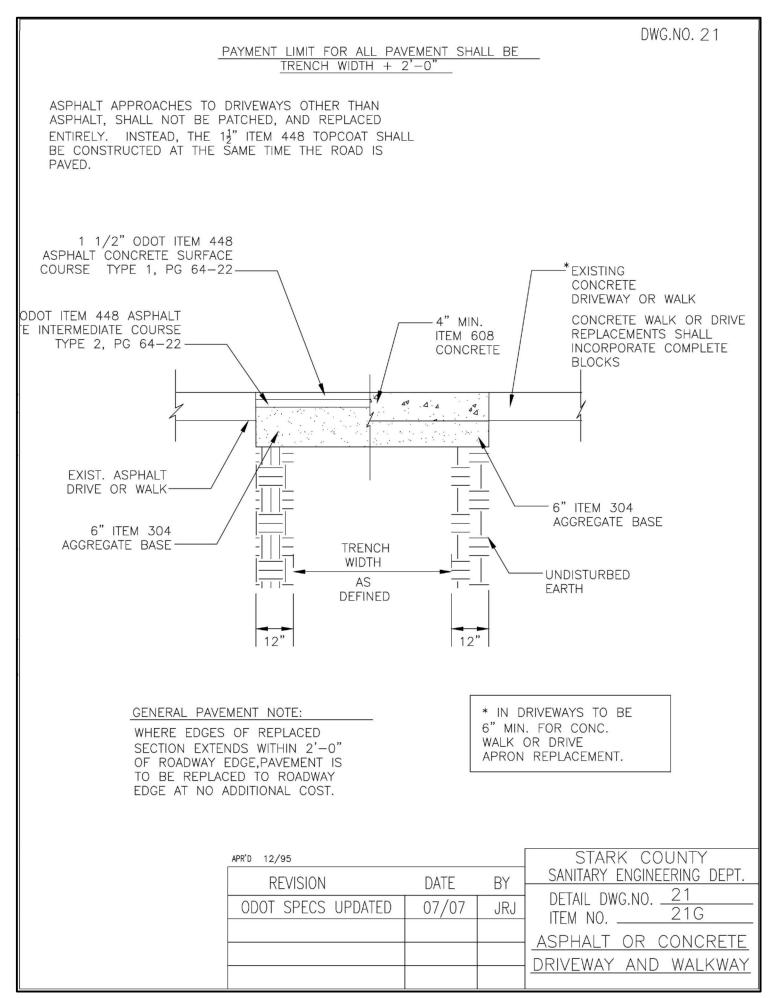


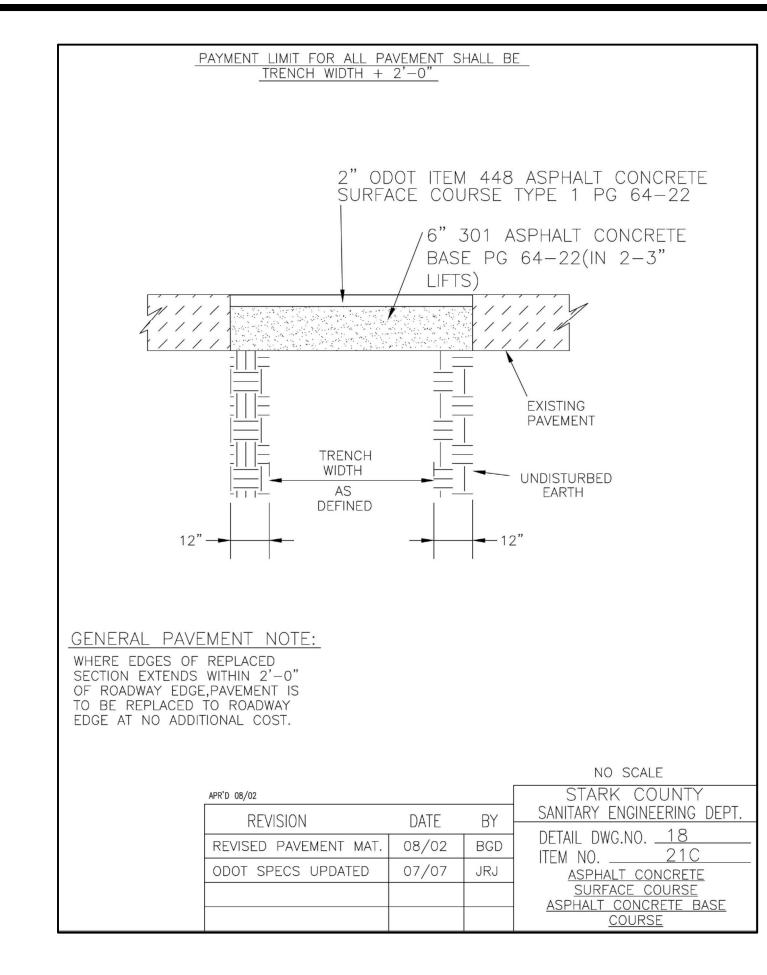
- THIS TRENCH BACKFILL DETAIL APPLIES TO AREAS UNDER PAVEMENT AND AREAS WHERE THE TRENCH IS WITHIN FIVE (5) FEET OF THE EDGE OF PAVEMENT.
- STARK COUNTY BEDDING CLASSIFICATION TYPE B MEETS OR EXCEEDS ASTM D-2321 CLASS 1 BEDDING FOR FLEXIBLE PIPING, AND ASTM C-12, CLASS B BEDDING FOR RIGID PIPING.
- 3. FORCEMAIN BEDDING SHALL BE SELECT NATURAL SAND WELL COMPACTED IN 6" LIFTS.
- 4. BACKFILL SHALL BE COMPACTED TO THE REQUIREMENTS OF ITEM 1 IN THE SPECIFICATIONS.
- 5. COMPACTION OF THE BACKFILL SHALL BE ACHIEVED THROUGH THE USE OF AN APPROVED VIBRATORY TAMPER OR ROLLER.
- 6. COMPACTION TESTING OF THE BACKFILL SHALL BE PROVIDED, DIRECTED AND COORDINATED BY THE OWNER. INTERVALS OF TESTING SHALL BE AT THE TOTAL DISCRETION OF THE OWNER AND MAY BE CHANGED AT ANY TIME.
- IF A TEST DOES NOT PASS, THE CONTRACTOR SHALL REMOVE THE DEFECTIVE BACKFILL, REDO THE WORK AND THE AREA WILL BE RETESTED. THE CONTRACTOR SHALL BE AWARE OF THE LEVEL OF COMPACTION REQUIRED.
- IF THE WORK IS SUSPECT TO BE DEFECTIVE BY THE OWNER, THE WORK SHALL BE RETESTED.

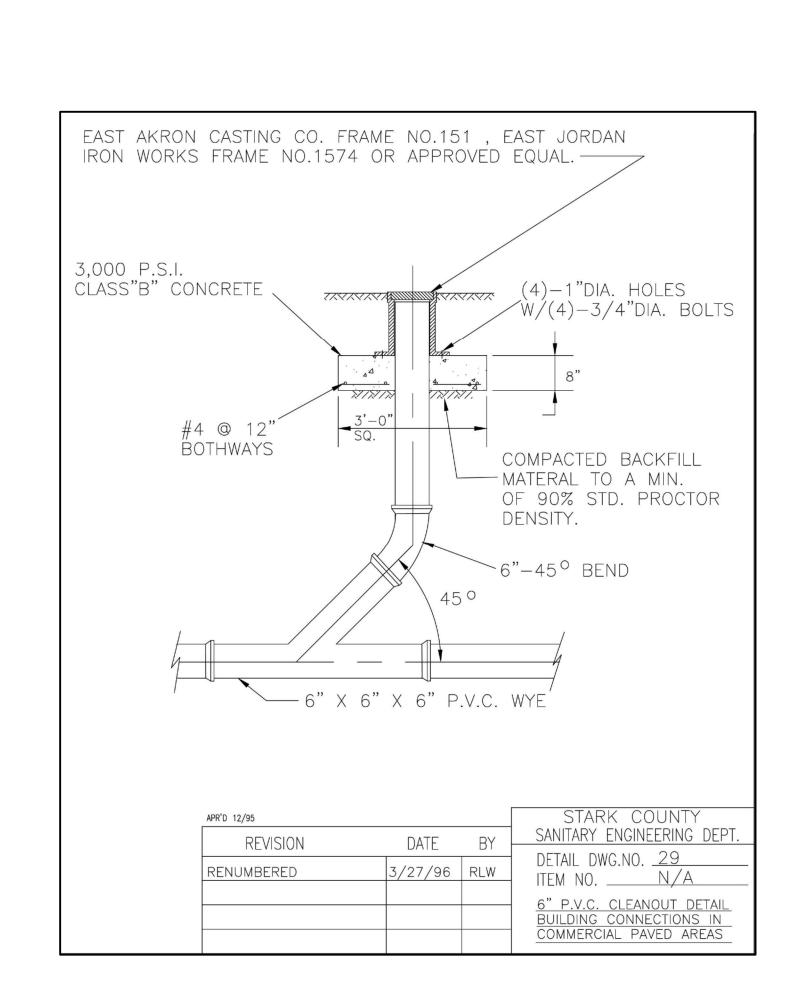
THE WATER CONTENT OF THE BACKFILL MATERIAL SHALL ALSO BE TESTED AND RECORDED FOR EACH TEST COMPLETED. THE CONTRACTOR WILL BE ALLOWED TO ADD WATER TO THE BACKFILL MATERIAL IN ORDER TO OBTAIN THE OPTIMUM WATER CONTENT. HOWEVER, THE CONTRACTOR WILL NOT BE ALLOWED TO UTILIZE THE ADDITION OF WATER AS A MEANS OF COMPACTION. FURTHERMORE, SHOULD THE BACKFILL MATERIAL BE FOUND TO HAVE WATER CONTENT RATIOS WHICH IN THE OPINION OF THE ENGINEER OR THE OWNER PREVENTS THE APPROPRIATE COMPACTION OF THE TRENCH, THE CONTRACTOR SHALL REMOVE ALL DEFECTIVE MATERIAL AND UNDERTAKE THE NECESSARY CORRECTIVE WORK.

 REMOVE ALL DEFECTIVE MATERIAL AND UNDERTAKE THE NECESSARY CORRECTIVE WORK.						
NO SCALE						
APR'D 08/02			STARK_COUNTY			
REVISION	DATE	BY	SANITARY ENGINEERING DEPT.			
ODOT ITEM 703.11	9/02	BGD	DETAIL DWG.NO. 2 ITEM NO. 6			
ADDED TYPE 2 BACK.	1/03	BGD	BEDDING & TRENCH			
REVISED NOTES	7/05	BGD	DETAIL FOR CONSTRUCTION			
			<u>UNDER PAVEMENT</u>			







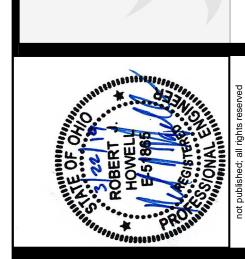


SITE NOTES



Thorson • Baker + Associates
CONSULTING ENGINEERS

3030 West Streetsboro Road
Richfield, Ohio 44286 (330) 659-6688 Ph.
(330) 659-6675 Fax

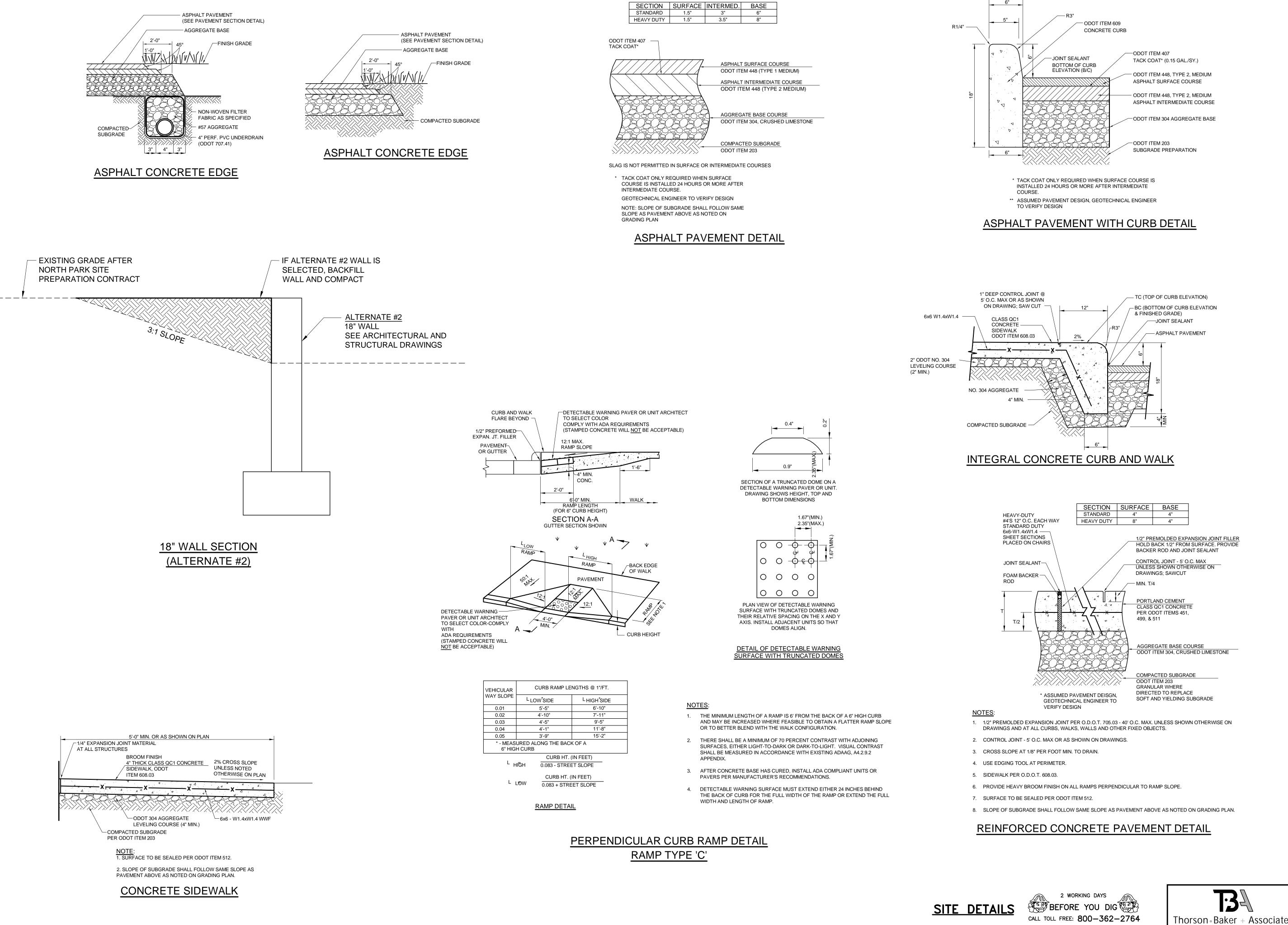


JACKSON TWP. TRUSTEES -AMPHITHEATER

ב ב	<u> </u>	\vdash	76 Ma
RK	DATE	DESCRIPTION	
RC	JECT NO	D: 15.148	
ΑT	E:	03/27/2019	

SITE NOTES

C501







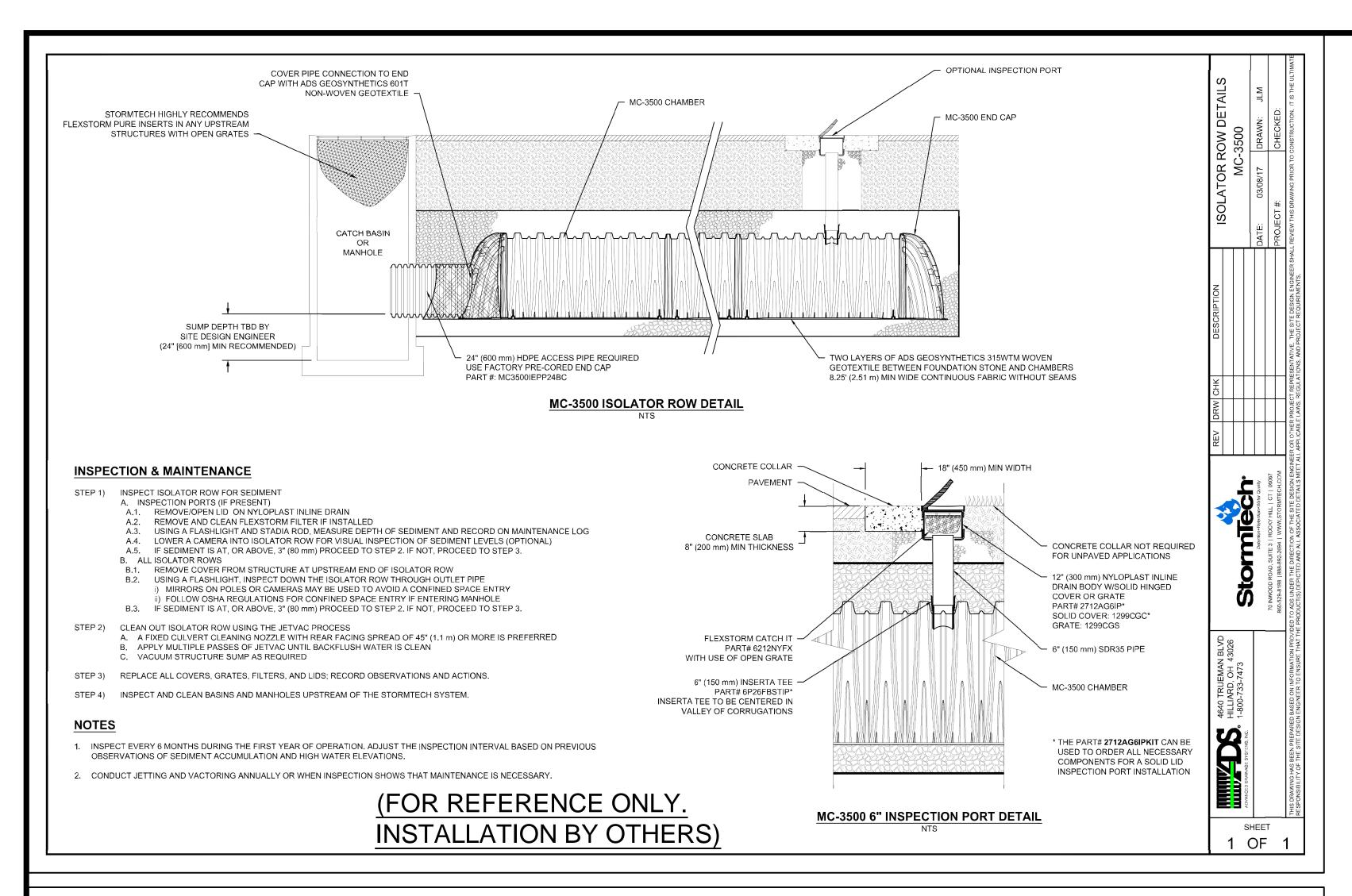
SITE

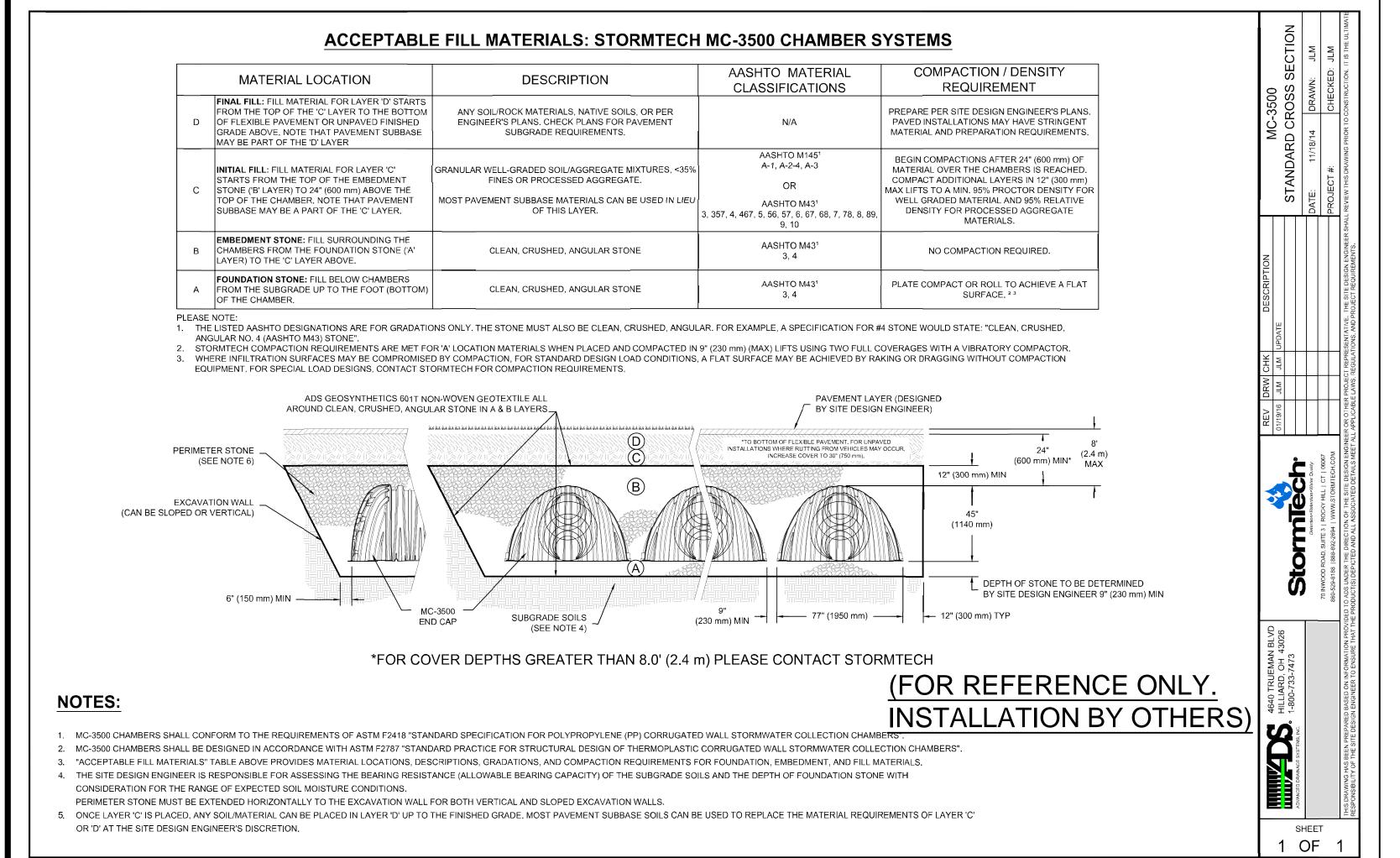
DETAILS

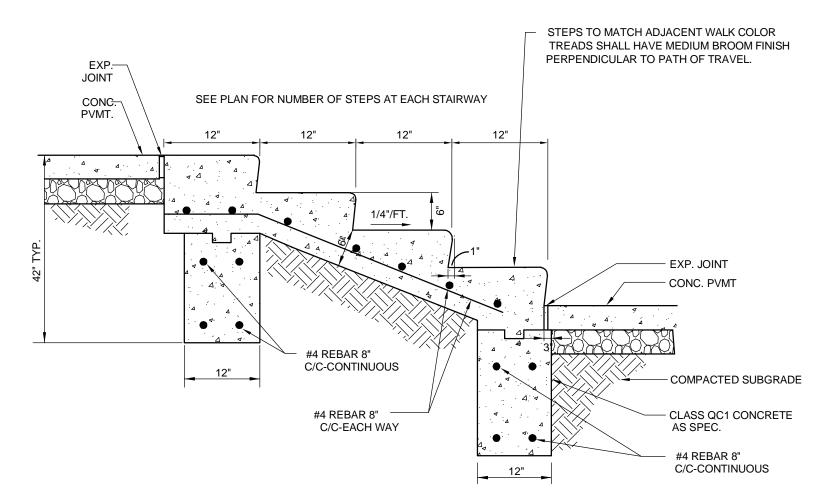
03/27/2019

MARK DATE DESCRIPTION

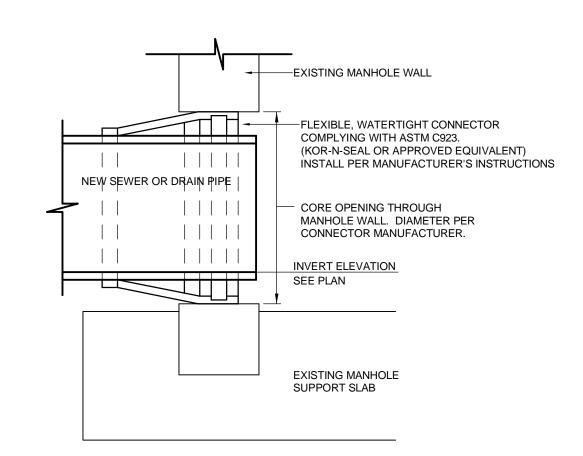
PROJECT NO: 15.148







CONCRETE STAIRWAY DETAIL

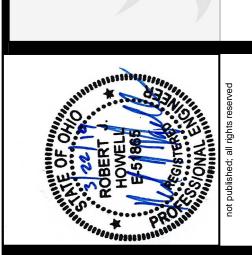


CONNECTION TO EXISTING MANHOLE





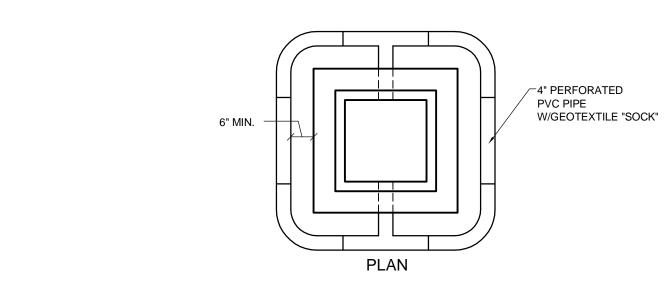


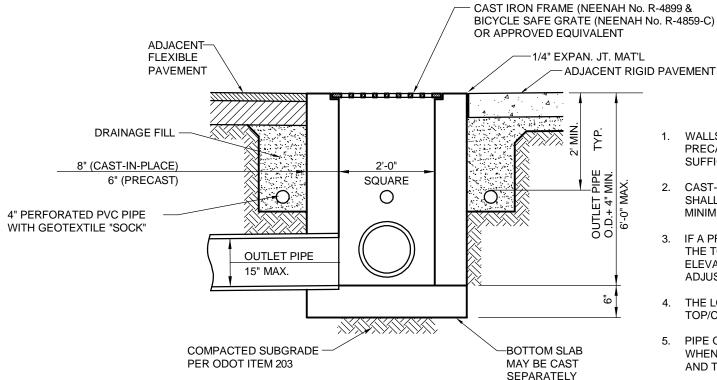


MARK DATE DESCRIPTION

PROJECT NO: 15.148 03/27/2019

SITE **DETAILS**





CAST IRON FRAME AND SOLID COVER FOR MANHOLE NEENAH No.R-1729 OR EJIW No.1700 TYPE 'B'

ECCENTRIC CONE TOP

O.D.+2"MIN.

24" MAX.

OPENING

CAST IRON FRAME & GRATE FOR INLET MANHOLE

8" 24"DIA. 8"

ALTERNATE

58" DIA. MIN.

6"MIN.

48" DIA. T

FLAT SLAB TOP

8" 24"DIA.

ECCENTRIC CONE TOP

NEENAH No.R-2650 OR EJIW No.1700 TYPE 'M'

GROUT BETWEEN FRAME AND GRADE

RINGS AND ON THE OUTSIDE

1. WALLS: BRICK OR CAST-IN-PLACE WALLS SHALL BE 8" THICK (MIN.) PRECAST WALLS SHALL BE 6" THICK (MIN.) AND BE REINFORCED SUFFICIENTLY TO PERMIT SHIPPING AND HANDLING WITHOUT DAMAGE.

CAST-IN-PLACE CONCRETE SHALL BE CLASS C. PRECAST CONCRETE SHALL MEET THE REQUIREMENTS OF ODOT ITEM 706.13 WITH A MINIMUM OF 4% ENTRAINED AIR.

3. IF A PRECAST BASE IS USED, IT SHALL BE SET DEEP ENOUGH SO THAT THE TOP CAN BE PLACED ON THE BASE TO PROVIDE THE RIM ELEVATION SHOWN ON THE PLANS. BRICK SHALL NOT BE USED TO ADJUST THE TOP ELEVATION.

4. THE LOCATION AND ELEVATION OF THE INLET ARE AT THE TOP/CENTER OF THE GRATE.

5. PIPE OPENINGS SHALL BE THE O.D. OF THE PIPE SUPPLIED PLUS 2" WHEN FABRICATED OR FIELD CUT. THE SPACE BETWEEN THE PIPE AND THE WALL SHALL BE FILLED WITH NON-SHRINK GROUT.

CATCH BASIN WITH PERFORATED DRAIN (SIM. TO ODOT 2-2B)

SECTIONS OF THE PRECAST MANHOLE SHALL BE CAST AND ASSEMBLED WITH EITHER ALL TONGUE OR ALL GROOVE ENDS UP. LIFT HOLES MAY BE PROVIDED IN EACH SECTION FOR HANDLING.

TOP AND TRANSITION OR REDUCER SECTIONS MAY BE EITHER ECCENTRIC CONE, CONCENTRIC CONE OR FLAT SLAB.

BASES FOR MANHOLES ARE SHOWN WITH MONOLITHIC FLOOR AND RISER WHICH MAY BE CAST IN ONE OR TWO OPERATIONS. A PERMISSIBLE ALTERNATE IS TO CAST AND SHIP THE FLOOR AND BARREL SEPARATELY. OPENINGS FOR INLET AND OUTLET PIPES SHALL BE PROVIDED, EITHER WHEN THE UNIT IS CAST OR LATER, TO MEET PROJECT REQUIREMENTS. BOTTOM CHANNELS MAY BE FORMED OF CONCRETE, PRECAST IN THE BASE OR BY FIELD CONSTRUCTION. FLOORS MAY ALSO BE POURED IN PLACE.

OPENINGS IN RISER SECTIONS FOR 18" AND SMALLER INLET PIPES SHALL BE PREFABRICATED. FLEXIBLE CONNECTIONS SHALL BE PROVIDED FOR SANITARY AND COMBINED SEWERS. PREMIUM SEALS SHALL MEET ASTM C 923.

AND FLEXIBLE GASKET JOINTS SHALL MEET ASTM C 443, FEDERAL SPECIFICATIONS SS-S-00210 (210 A) AND AASHTO M-198. MANHOLE JOINTS AND GRADE RINGS SHALL BE SEALED EXTERNALLY AND BETWEEN THE

GRADE RINGS WITH A LAYER OF MASTIC COMPOUND SUCH AS FABERLINE, KENT SEAL OR

JOINT SEALS BETWEEN PRECAST MANHOLE SECTIONS AND SEWERS SHALL BE RESILIENT

MATERIALS FOR BASES AND OTHER PRECAST SECTIONS, INCLUDING REINFORCEMENT

NOT SPECIFIED HEREON, SHALL COMPLY WITH THE SPECIFICATIONS.

PRECAST MANHOLES SHALL CONFORM TO THE REQUIREMENTS OF ASTM C 478. SEAL ALL LIFT HOLES WITH APPROVED CONCRETE PLUGS.

LANDING PLATFORMS AS SHOWN ON THE LANDING DETAILS SHALL BE INSTALLED IN MANHOLES THAT ARE OVER 28 FEET DEEP TO THE INVERT WITH A MAXIMUM VERTICAL SPACING OF 20 FEET.

MANHOLE FRAMES - CHIMNEY SEALS WILL BE REQUIRED ON ALL NEW SANITARY

A MINIMUM OF 3" VERTICAL WALL IS REQUIRED BELOW THE CASTING FOR INSTALLATION OF CHIMNEY SEALS.

STANDARD PRECAST CONCRETE MANHOLE

24" PIPE OR SMALLER

MULTIPLE OF

STEP SPACING

O.D.+2"MIN. OPENING

─3000 PSI CONCRETE

48"DIA.

BEDDING AS SPECIFIED

48" PRECAST BASE

(24" & SMALLER PIPES)

48" CAST-IN-PLACE BASE

(18" & SMALLER PIPES)

FRAME & GRATE SHALL BE CAST IRON, NEENAH No. R-3246-CL, EAST JORDAN No. 7035 W/TYPE M6

CAST-IN-PLACE CURB INLETS SHALL HAVE 8" THICK WALLS.

GRATE & TYPE T4 CURB CASTING OR APPROVED EQUIVALENT.

PRECAST CURB INLETS ARE PERMITTED, EXCEPT FOR THE PAVEMENT BLOCKOUT. UNITS SHALL MEET THE REQUIREMENTS OF ASTM C 478. WALLS OF PRECAST CURB INLETS SHALL HAVE A 6" MIN. THICKNESS. REINFORCING SHALL BE SUFFICIENT TO PERMIT SHIPMENT AND PLACEMENT WITHOUT

PIPE OPENINGS SHALL BE THE O.D. OF PIPE BEING CONNECTED PLUS 2" WHEN FABRICATED OR FIELD CUT. THE INTERSTITIAL SPACE SHALL BE FILLED WITH NON-SHRINK GROUT.

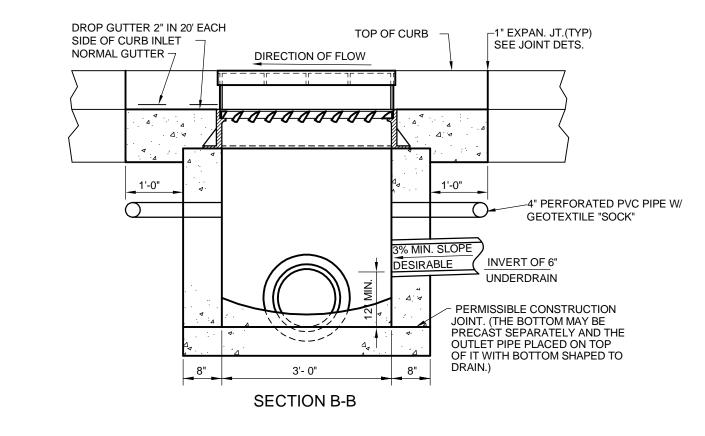
WHERE A SIDE OF THE CURB INLET BLOCKOUT IS ALIGNED WITH A PAVEMENT CONTRACTION JOINT (DESIRABLE), THE CONTRACTION JOINT SHALL BE CONTINUED, IN KIND, WITHIN THE LIMITS OF THE BLOCKOUT.

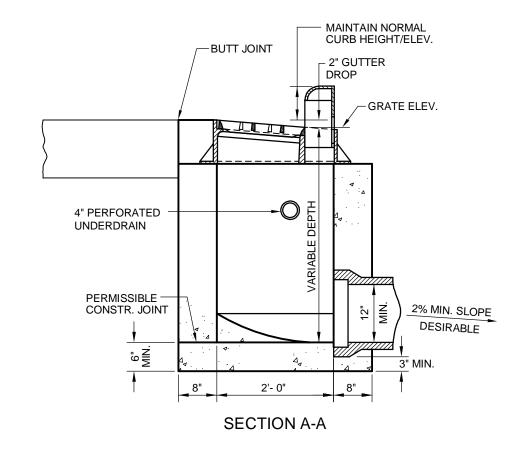
PAVEMENT BLOCKOUTS SHALL BE LOCATED NO CLOSER THAN 5' FROM THE NEAREST PAVEMENT JOINT. SEE BLOCKOUT DETAILS FOR ADDITIONAL INFORMATION.

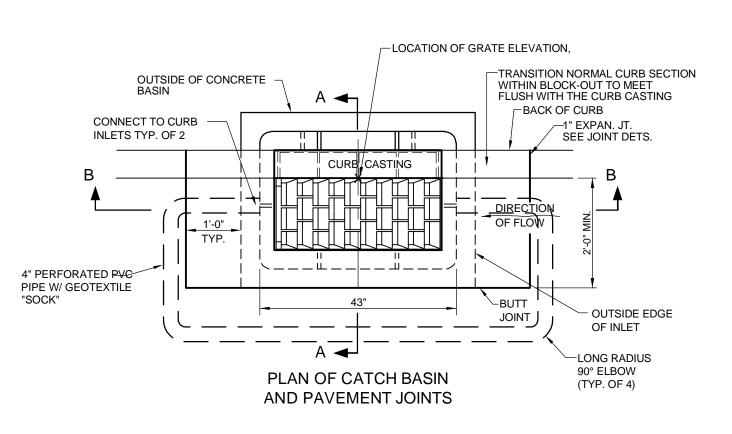
WHERE THE CURB INLET WORK REQUIRES THE CONSTRUCTION OR RECONSTRUCTION OF BLOCKOUTS IN EXISTING PAVEMENT, THE BLOCKOUTS SHALL CONFORM, AS CLOSELY AS POSSIBLE, TO THE DETAILS SHOWN HEREON EXCEPT THAT THE DOWELS SHALL BE PLACED OR REPLACED IN ACCORDANCE WITH THE SECTION - TYPE X JOINT, PER SHOWN ON THE JOINT DETAILS.

A CLASS C PORTLAND CEMENT CONCRETE APRON, THE SIZE OF THE GUTTER BLOCKOUT, SHALL BE PLACED IN FULL DEPTH FLEXIBLE PAVEMENTS. DOWELS ARE NOT REQUIRED FOR FLEXIBLE PAVEMENT

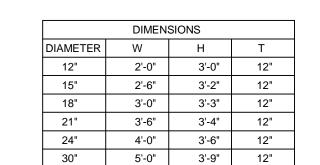
THE FOLLOWING SHALL BE CAST INTO THE TOP OF THE CURB CASTING: "DUMP NO WASTE" AND "DRAINS TO WATERWAY".



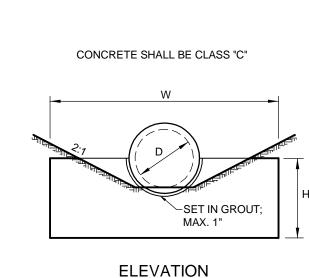


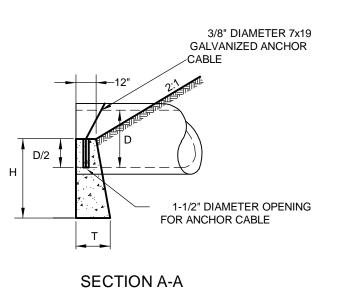


VERTICAL CURB INLET DETAIL

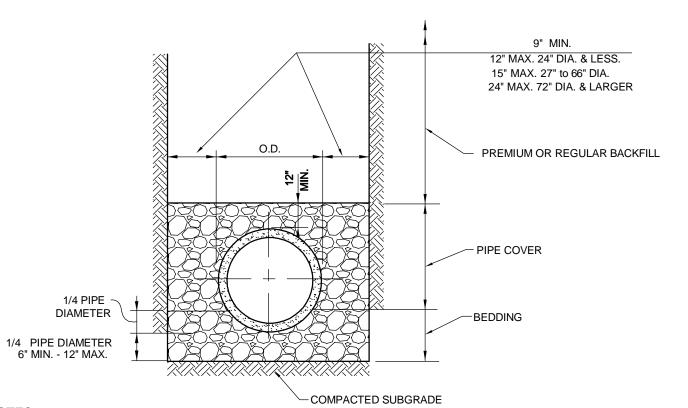


ANCHOR CABLE: ANCHOR CABLE FOR ANCHORING ENDS OF METAL OR PLASTIC PIPE SHALL MEET ASTM A603. WIRE ROPE CLIPS SHALL BE GALVANIZED ACCORDING TO ASTM A153. COST OF ANCHOR CABLE & WIRE SHALL BE INCLUDED IN THE UNIT PRICE FOR THE HEADWALL.





HALF HEIGHT CONCRETE HEADWALL



LATERAL CONNECTIONS TO HAVE A MINIMUM BEDDING DEPTH OF 3" COARSE AGGREGATE.

PIPE COVER SHALL CONSIST OF COARSE INTERLOCKING AGGREGATE NO. 57, 6, 67, 68, 7, 78, OR 8.

BEDDING SHALL CONSIST OF COARSE INTERLOCKING AGGREGATE NO. 57, 6, 67, 68, 7, 78, OR 8 FOR 60" OR SMALLER DIAMETER PIPE. FOR 66" OR LARGER DIAMETER PIPE NO. 4 AGGREGATE MAY ALSO BE USED. PREMIUM BACKFILL SHALL CONSIST OF COARSE INTERLOCKING AGGREGATE NO. 57, 6, 67, 68, 7, 78, 8, ODOT ITEM 304, OR

LIMESTONE SCREENINGS. TRENCH WIDTH AND CONCRETE CRADLE WIDTH SHALL BE O.D. OF PIPE PLUS 9" ON EACH SIDE OF PIPE.

FOR CONCRETE AND DUCTILE IRON PIPE, PIPE COVER IS TO THE SPRINGLINE OR GREATER. IN PAVED AREAS COARSE INTERLOCKING AGGREGATE TO THE TOP OF THE TRENCH ON ALL TYPES OF PIPE.

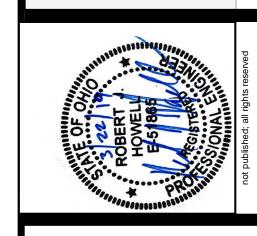
TYPICAL TRENCH DETAIL

(FLEXIBLE PIPE)

SITE DETAILS

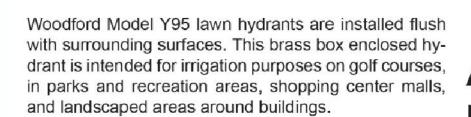






MARK DATE DESCRIPTION PROJECT NO: 15.148 03/27/2019

DETAILS



SPECIFICATIONS: **MODEL 50HF BACKFLOW PREVENTER -**

- Patent Pending ASSE 1052 Approved
- Listed by IAPMO Field Testable
- Two Independent Check Valves
- Drains automatically when hose is removed
- No spray back

FEATURES:

TAMPER PROOF - The hinged door lock uses the same tee key that operates hydrant to prevent unauthorized

ONE PIECE VARIABLE FLOW PLUNGER - Large cushion type seal for longer life - is not easily damaged and assures shut-off even when foreign particles are present. Automatic drain feature - plunger opens drain to prevent freezing when hose is removed.

VALVE SEAT - Permanent type brass valve body with hemispherical seating surface.

PACKING - EPDM rubber with adjustable packing nut.

BOX - Deep box, brass casting with 1/4" NPS drain hole. FINISH – Brass box, door and head casting.

FEMALE INLET - 3/4" N.P.T

DRAIN HOLE - 1/8" N.P.T.

CASING - 1" galvanized steel pipe Optional - 1" brass pipe

OPERATING ROD – 3/8" galvanized steel pipe Optional - 3/8" brass pipe

MAX PRESSURE - 125 p.s.i.

MAX TEMPERATURE - 120° F

SHIPPING WEIGHT -

©2018 WOODFORD Mfg.

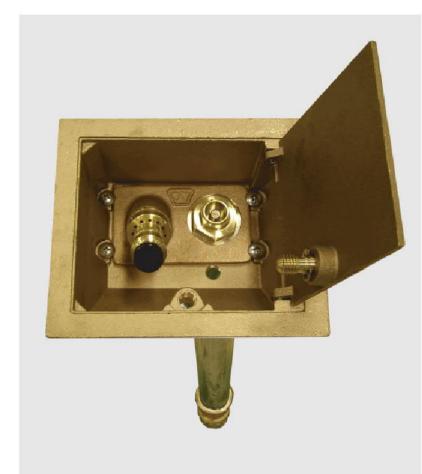
Bury Depth (ft)	1	2	3	4	5	6	7
Weight (lbs)	14	16	18	21	23	26	28

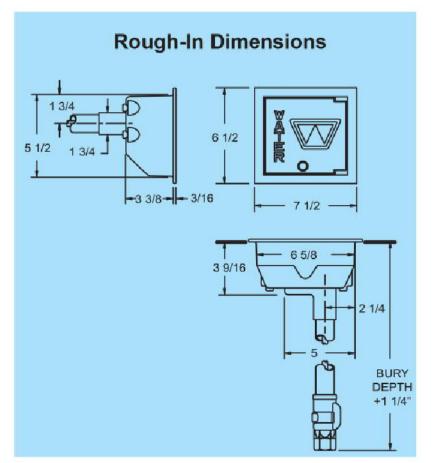
www.woodfordmfg.com or call 1-800-621-6032

Backflow Preventer replacement is recommended every 3-5 years.

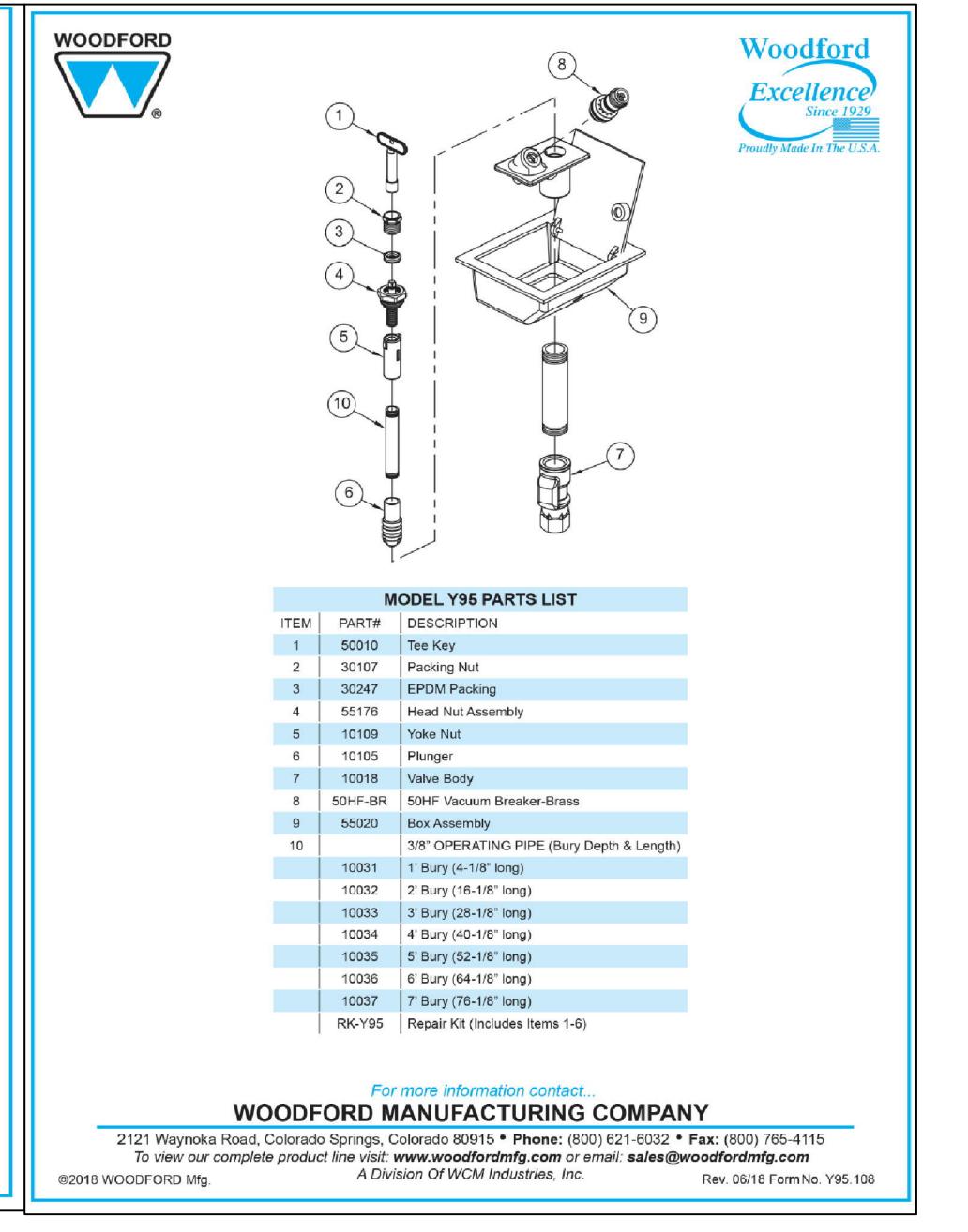
When ordering, specify model number, inlet and finish.



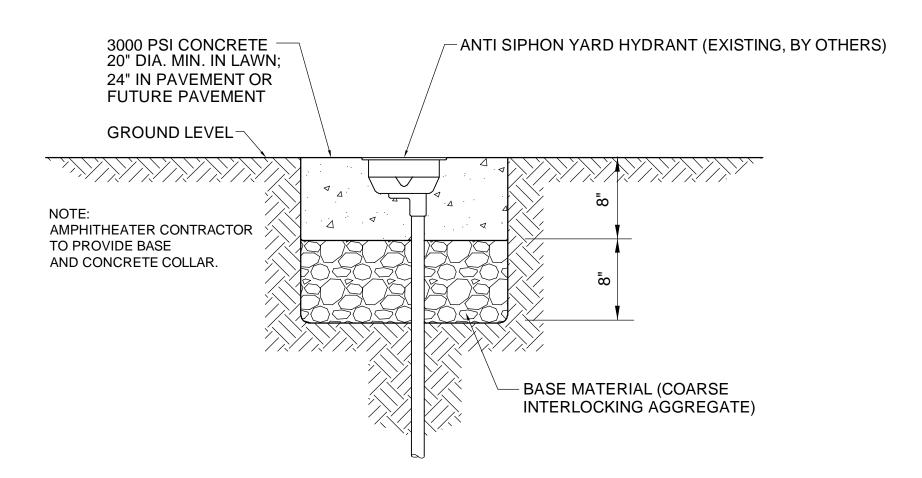




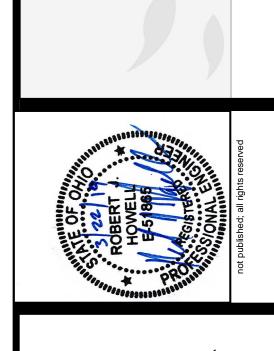
Rev. 06/18 Form No. Y95.108



FREEZELESS YARD HYDRANT



YARD HYDRANT CONCRETE COLLAR



PROJECT NO: 15.148 03/27/2019

SITE DETAILS

2 WORKING DAYS BEFORE YOU DIG CALL TOLL FREE: 800-362-2764 OHIO UTILITIES PROTECTION SERVICE

Thorson • Baker + Associates C O N S U L T I N G E N G I N E E R S 3030 West Streetsboro Road (330) 659-6688 Ph. Richfield, Ohio 44286 (330) 659-6675 Fax

SITE **DETAILS**

C505