GRAILVILLE PRESERVE AND PARK - PHASE 1

CLERMONT COUNTY PARK DISTRICT
940 O'BANNONVILLE RD,
LOVELAND, OH, 45140

JOSH TORBECK, DIRECTOR OF PARKS, RECREATION & PUBLIC FACILITIES

JOHN STOWELL, CHAIRMAN, CLERMONT COUNTY PARK DISTRICT BOARD OF PARK COMMISSIONERS

ANDREW MCAFEE, VICE PRESIDENT, CLERMONT COUNTY PARK DISTRICT BOARD OF PARK COMMISSIONERS

HARRY SNYDER, PRESIDENT, CLERMONT COUNTY PARK DISTRICT BOARD OF PARK COMMISSIONERS

CLERMONT COUNTY PARK OFFICES:
CLINGMAN PARK, ADMIN OFFICES; 2156 US HIGHWAY 50, BATAVIA, OH 45103

CLERMONT PARK DISTRICT

DRAWING SHEET LIST

SHEET NO.	SHEET TITLE
GENERAL	
G-001	COVER SHEET
SURVEY	
V-101	EXITING CONDITIONS
CIVIL	
C-101	DEMOLITION PLAN
C-102	SITE PLAN
C-103	PAVEMENT PLAN
C-104	GRADING PLAN
C-105	UTILITY PLAN
C-501	PAVEMENT DETAILS
C-502	MISC DETAILS
C-503	POND DETAILS
LANDSCAPE	
L-101	OVERALL LANDSCAPE PLAN
L-102	ENLARGED LANDSCAPE PLAN
L-103	ENLARGED LANDSCAPE PLAN
L-104	ENLARGED LANDSCAPE PLAN
L-105	ENLARGED LANDSCAPE PLAN
L-106	ENLARGED LANDSCAPE PLAN
L-501	SCHEDULES LEGENDS & DETAILS
L-502	LANDSCAPE NOTES
STRUCTURAL	
S-001	GENERAL NOTES I
S-002	GENERAL NOTES II
S-003	SPECIAL INSPECTIONS I
S-004	SPECIAL INSPECTIONS II
S-005	PAVILION WIND LOAD DIAGRAM
S-101	PAVILION FOUNDATION PLAN
S-102	PAVILION ROOF FRAMING PLAN
S-201	POD FOUNDATION PLAN
S-202	BOARDWALK PARTIAL SITE PLAN
S-301	BOARDWALK SECTIONS & DETAILS
S-302	FOUNDATION SECTIONS I
S-303	FRAMING SECTIONS
S-401	TYPICAL DETAILS I
S-402	TYPICAL DETAILS II

DRAWING SHEET LIST

SHEET NO.	SHEET TITLE
ARCHITECTURAL	
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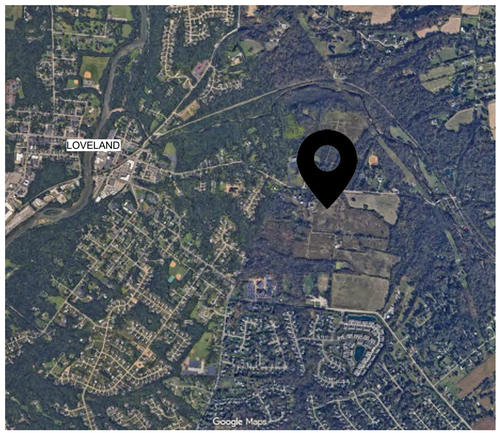
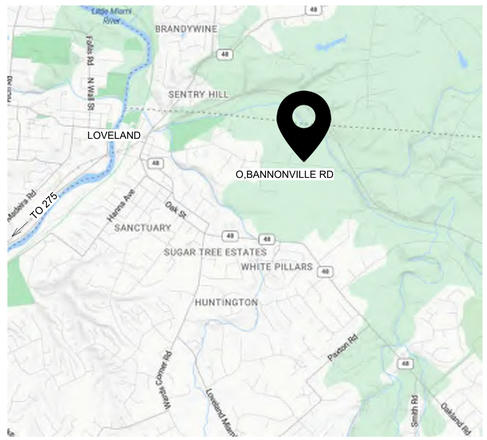
A-003	LIFE SAFETY PLAN
A-101	NEW WORK PLAN - PAVILION
A-102	REFLECTED CEILING PLAN - PAVILION
A-121	ROOF PLAN - PAVILION
A-201	EXTERIOR ELEVATIONS - PAVILION
A-202	EXTERIOR ELEVATIONS - PAVILION
A-301	BUILDING SECTIONS - PAVILION
A-311	WALL SECTIONS
A-401	ENLARGED RESTROOM PLAN & DETAILS
A-451	NEW WORK - POD A
A-452	NEW WORK - POD B
A-453	NEW WORK - POD C
A-501	ARCHITECTURAL DETAILS
A-502	ARCHITECTURAL DETAILS
A-504	ARCHITECTURAL DETAILS - SCREEN WALL
A-550	RAILING DETAILS
A-601	DOOR SCHEDULE
A-611	WINDOW SCHEDULE & DETAILS
MECH	
M-001	MECHANICAL GENERAL NOTES
M-101	PAVILION MECHANICAL PLANS
M-501	MECHANICAL DETAILS
M-801	MECHANICAL SPECIFICATIONS
PLUMBING	
P-001	PLUMBING GENERAL NOTES
P-101	SANITARY NEW WORK PLAN
P-102	DOMESTIC WATER NEW WORK
P-501	PLUMBING DETAILS
P-601	PLUMBING SCHEDULE
P-801	PLUMBING SPECIFICATIONS
ELECTRICAL	
E-001	ELETRICAL ABBREVIATIONS
E-002	ELETRICAL LEGEND
E-101	PAVILION ELETRICAL POWER PLAN
E-102	PAVILION ELETRICAL LIGHTING PLAN
E-103	PAVILION AND POD B SYSTEMS PLAN
E-501	ELECTRICAL SCHEDULES AND DETAILS

LOCATION MAP
(NOT TO SCALE)



VICINITY MAP
(NOT TO SCALE)



PAVILION RENDER
(NOT TO SCALE)

STATE OF OHIO
CHAD R. KOHLER
1215550
REGISTERED ARCHITECT
CHAD R. KOHLER
EXP 12/31/2027
REG. 1215550

B&N BURGESS & NIPLE
BURGESS & NIPLE
525 VINE STREET SUITE 1300
CINCINNATI, OHIO 45202
PHONE: (513) 579-0042

CLERMONT COUNTY PARK DISTRICT
GRAILVILLE PRESERVE AND PARK - PHASE 1
MIAMI TOWNSHIP, CLERMONT COUNTY, OHIO

REVISIONS		
NO.	DESCRIPTION	DATE

JOB NO:	PR63329
DATE:	03/30/2026
DESIGNED BY:	AM
DRAWN BY:	AM
CHECKED BY:	CR
APPROVED BY:	Approver
SCALE:	AS INDICATED

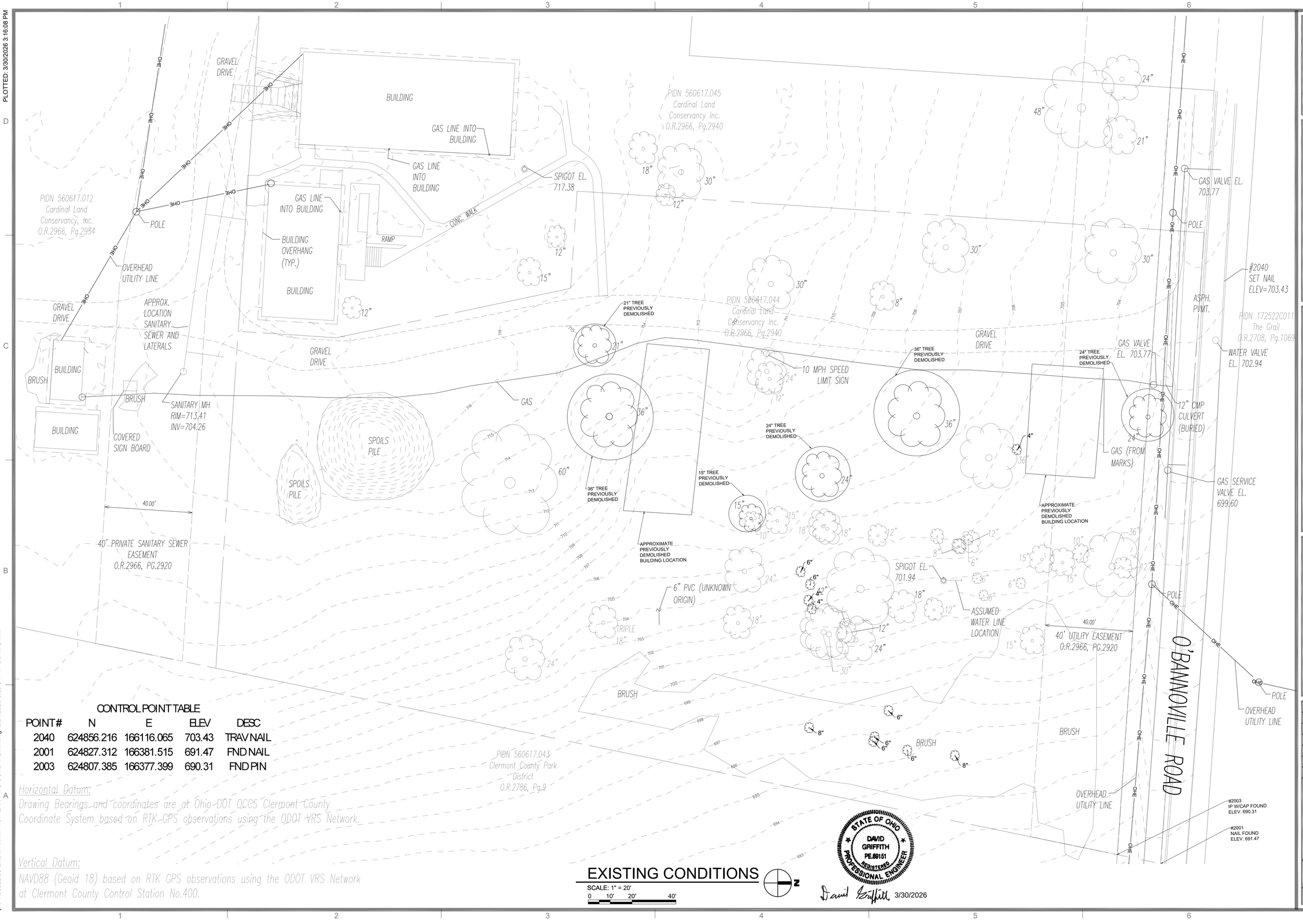
COVER SHEET

SHEET IDENTIFICATION
G-001

SHEET: 1 OF 68

PLOTTED: 3/30/2026 3:16:08 PM

p:\PR63329\06 CAD\Sheets\V-101 EXISTING CONDITIONS.dwg 3/27/2026 3:26:51 PM David Griffith



CONTROL POINT TABLE

POINT#	N	E	ELEV	DESC
2040	624856.216	166116.065	703.43	TRAV NAIL
2001	624827.312	166381.515	691.47	FND NAIL
2003	624807.385	166377.399	690.31	FND PIN

Horizontal Datum:
Drawing Bearings and coordinates are at Ohio DOT OCCS Clermont County Coordinate System based on RTK GPS observations using the ODOT VRS Network.

Vertical Datum:
NAVD88 (Geoid 18) based on RTK GPS observations using the ODOT VRS Network at Clermont County Control Station No.400.

EXISTING CONDITIONS

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

STATE OF OHIO
DAVID GRIFFITH
PE.89151
REGISTERED
PROFESSIONAL ENGINEER

David Griffith 3/30/2026

100% FOR CONSTRUCTION

B&N BURGESS & NIPLE
525 VINE STREET
SUITE 1300
CINCINNATI, OHIO 45202

Clermont County Park District
Grailville Preserve & Park - Phase 1
Miami Township
Clermont County, Ohio

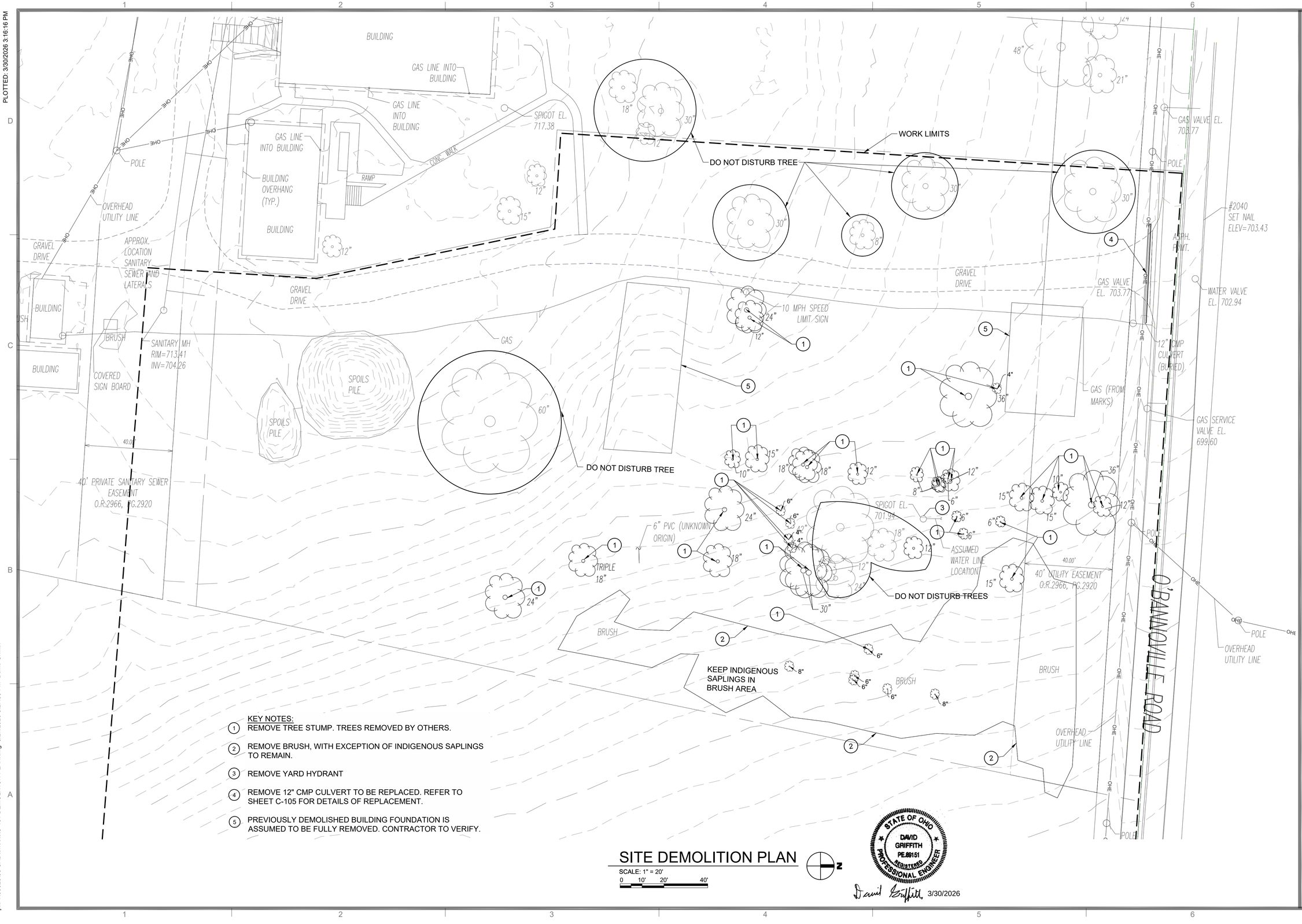
REVISIONS NO.	DESCRIPTION	DATE

JOB NO:	PR63329
DATE:	3/30/2026
DESIGNED BY:	EV
DRAWN BY:	EV
CHECKED BY:	DG
APPROVED BY:	DG
SCALE:	NOTED

EXISTING CONDITIONS

SHEET IDENTIFICATION
V-101

SHEET: 2 OF 68



KEY NOTES:

1. REMOVE TREE STUMP. TREES REMOVED BY OTHERS.
2. REMOVE BRUSH, WITH EXCEPTION OF INDIGENOUS SAPLINGS TO REMAIN.
3. REMOVE YARD HYDRANT
4. REMOVE 12" CMP CULVERT TO BE REPLACED. REFER TO SHEET C-105 FOR DETAILS OF REPLACEMENT.
5. PREVIOUSLY DEMOLISHED BUILDING FOUNDATION IS ASSUMED TO BE FULLY REMOVED. CONTRACTOR TO VERIFY.

SITE DEMOLITION PLAN

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

N

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David Griffith 3/30/2026

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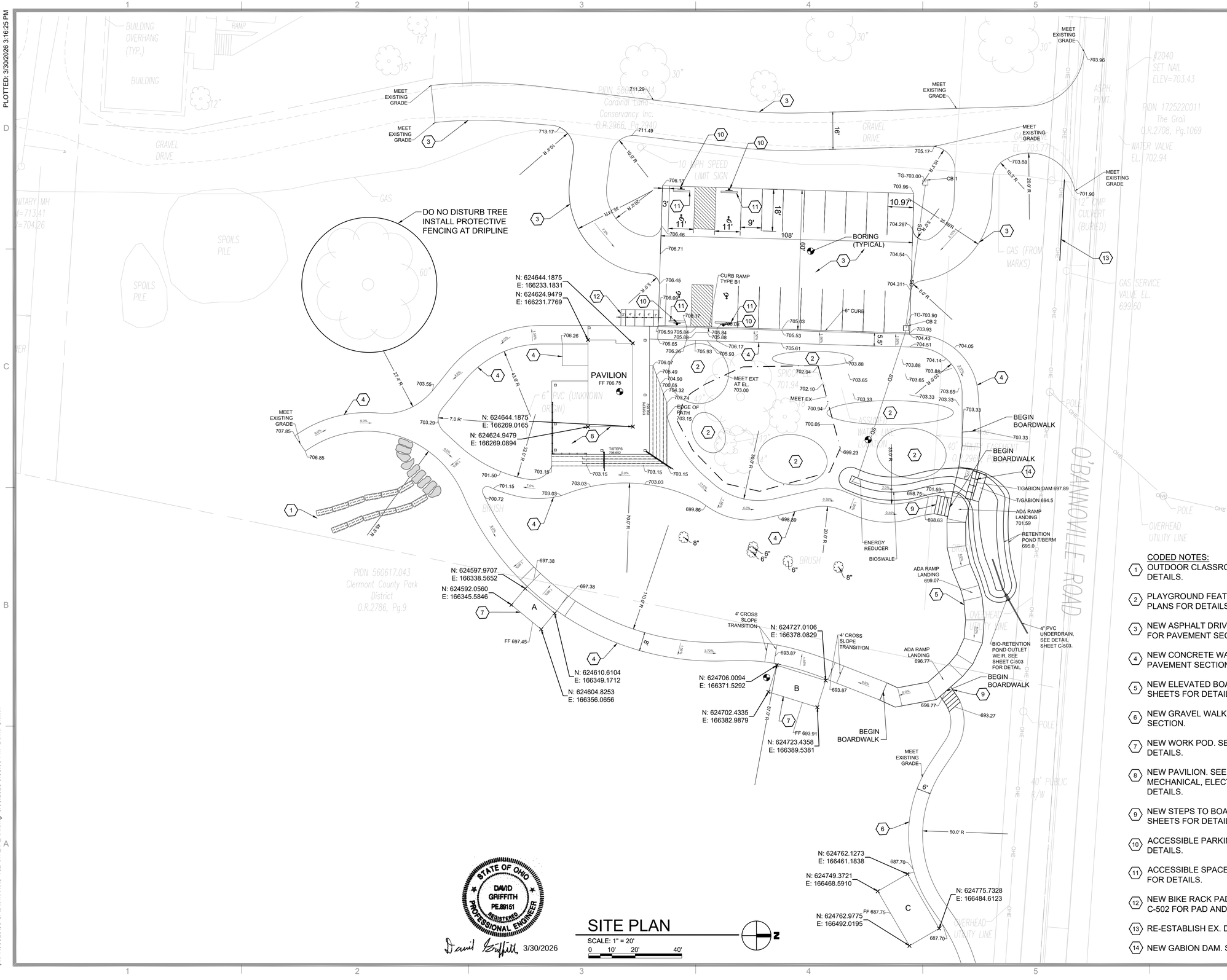
APPROVED BY:	DG
SCALE:	NOTED

SITE DEMOLITION PLAN

SHEET IDENTIFICATION
C-101

SHEET: 3 OF 68



SITE PLAN

SCALE: 1" = 20'

0 10' 20' 40'

STATE OF OHIO
DAVID GRIFFITH
PE.89151
REGISTERED
PROFESSIONAL ENGINEER

David Griffith 3/30/2026

CODED NOTES:

1. OUTDOOR CLASSROOM. SEE LANDSCAPE PLANS FOR DETAILS.
2. PLAYGROUND FEATURES LOCATION. SEE LANDSCAPE PLANS FOR DETAILS.
3. NEW ASPHALT DRIVE AND PARKING. SEE SHEET C-501 FOR PAVEMENT SECTION AND DETAILS.
4. NEW CONCRETE WALK. SEE SHEET C-501 FOR PAVEMENT SECTION.
5. NEW ELEVATED BOARDWALK. SEE STRUCTURAL SHEETS FOR DETAILS.
6. NEW GRAVEL WALK. SEE SHEET C-501 FOR PAVEMENT SECTION.
7. NEW WORK POD. SEE ARCHITECTURAL PLANS FOR DETAILS.
8. NEW PAVILION. SEE ARCHITECTURAL, STRUCTURAL MECHANICAL, ELECTRICAL AND PLUMBING PLANS FOR DETAILS.
9. NEW STEPS TO BOARDWALK. SEE STRUCTURAL SHEETS FOR DETAILS
10. ACCESSIBLE PARKING SIGNAGE. SEE SHEET C-502 FOR DETAILS.
11. ACCESSIBLE SPACE PARKING BLOCK. SEE SHEET C-502 FOR DETAILS.
12. NEW BIKE RACK PAD AND BIKE RACKS. SEE SHEET C-502 FOR PAD AND BIKE RACK DETAILS.
13. RE-ESTABLISH EX. DITCH TO DRAIN NEW CULVERT.
14. NEW GABION DAM. SEE SHEET C-503 FOR DETAILS.

100% FOR CONSTRUCTION

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SUITE 1300
CINCINNATI, OHIO 45202
B&N BURGESS & NIPLE

Clermont County Park District
Grailville Preserve & Park - Phase 1
Miami Township
Clermont County, Ohio

REVISIONS NO.	DESCRIPTION	DATE

JOB NO:	PR63329
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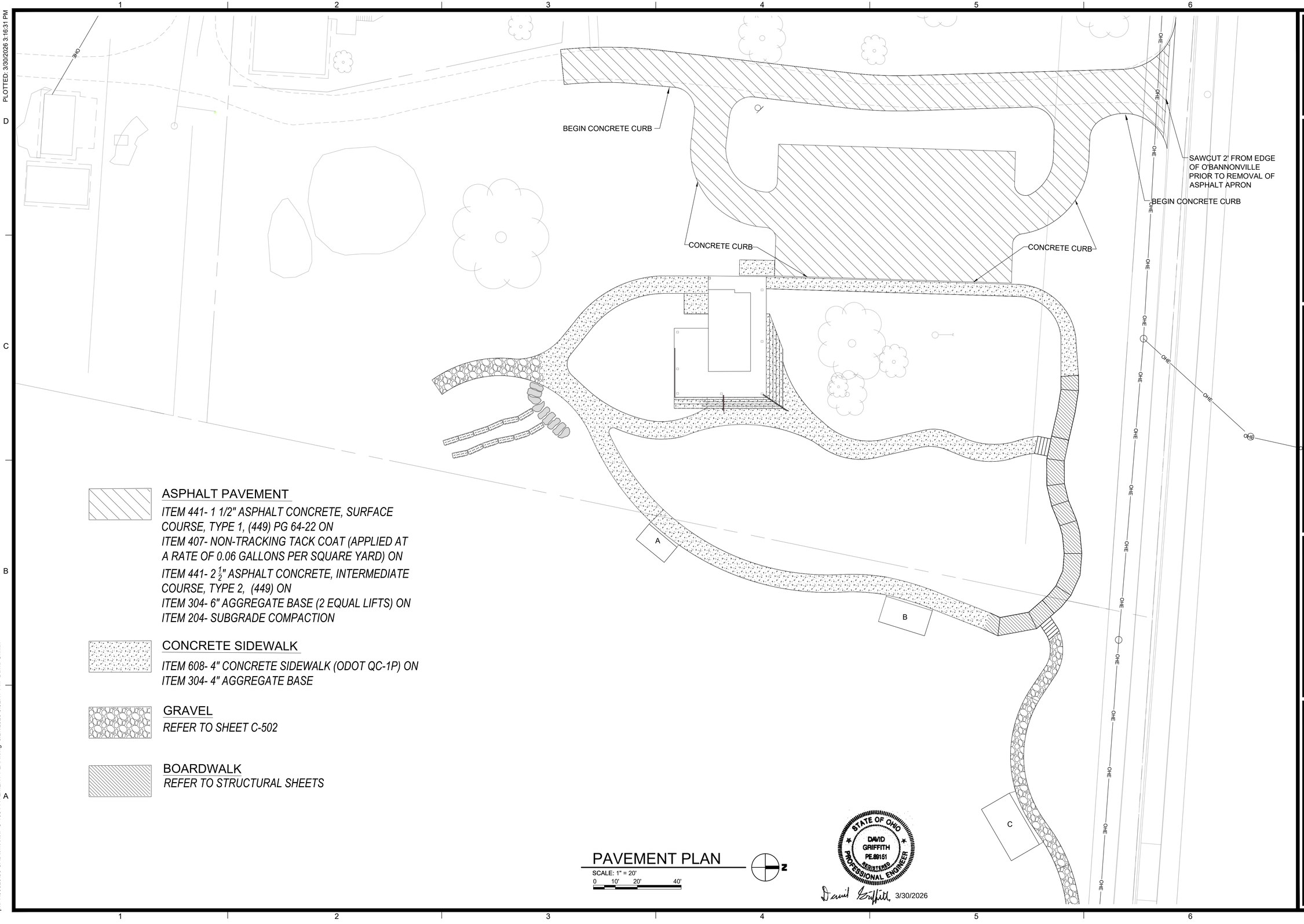
DESIGNED BY:	EV
DRAWN BY:	EV
CHECKED BY:	DG
APPROVED BY:	DG
SCALE:	NOTED

SITE PLAN

SHEET IDENTIFICATION
C-102

SHEET: 4 OF 68



ASPHALT PAVEMENT

ITEM 441- 1 1/2" ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, (449) PG 64-22 ON
ITEM 407- NON-TRACKING TACK COAT (APPLIED AT A RATE OF 0.06 GALLONS PER SQUARE YARD) ON
ITEM 441- 2 1/2" ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2, (449) ON
ITEM 304- 6" AGGREGATE BASE (2 EQUAL LIFTS) ON
ITEM 204- SUBGRADE COMPACTION

CONCRETE SIDEWALK

ITEM 608- 4" CONCRETE SIDEWALK (ODOT QC-1P) ON
ITEM 304- 4" AGGREGATE BASE

GRAVEL

REFER TO SHEET C-502

BOARDWALK

REFER TO STRUCTURAL SHEETS

PAVEMENT PLAN

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

N

STATE OF OHIO
DAVID GRIFFITH
PE.89151
REGISTERED
PROFESSIONAL ENGINEER

David Griffith 3/30/2026

100% FOR CONSTRUCTION

525 VINE STREET
SUITE 1300
CINCINNATI, OHIO 45202
B&N BURGESS & NIPLE

Clermont County Park District
Grailville Preserve & Park - Phase 1
Miami Township
Clermont County, Ohio

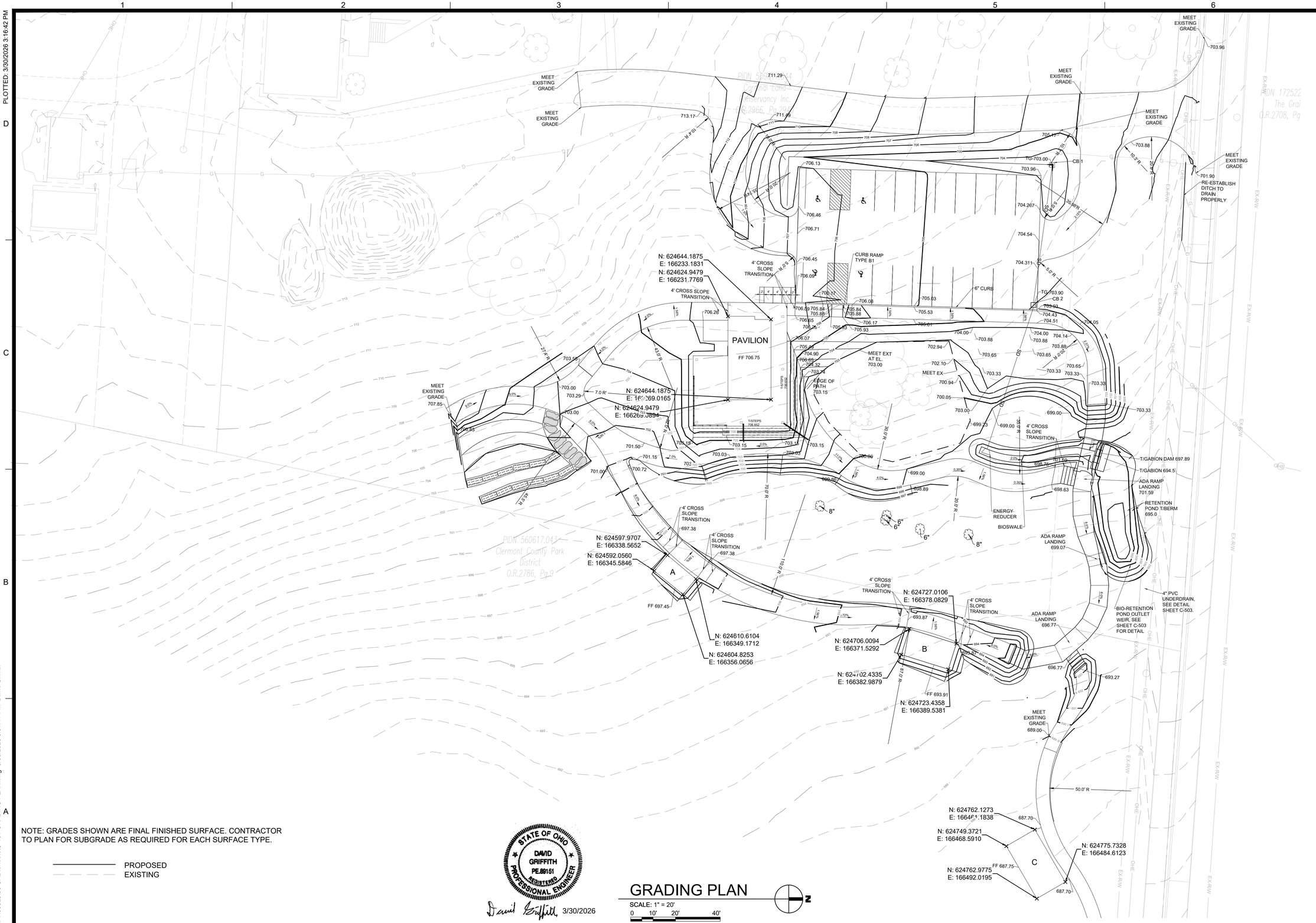
REVISIONS NO.	DESCRIPTION	DATE

JOB NO:	PR63329
DATE:	3/30/2026
DESIGNED BY:	EV
DRAWN BY:	EV
CHECKED BY:	DG
APPROVED BY:	DG
SCALE:	NOTED

PAVEMENT PLAN

SHEET IDENTIFICATION
C-103

SHEET: 5 OF 68



NOTE: GRADES SHOWN ARE FINAL FINISHED SURFACE. CONTRACTOR TO PLAN FOR SUBGRADE AS REQUIRED FOR EACH SURFACE TYPE.

PROPOSED
EXISTING

STATE OF OHIO
DAVID GRIFFITH
PE.89151
REGISTERED
PROFESSIONAL ENGINEER

David Griffith 3/30/2026

GRADING PLAN

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

N

100% FOR CONSTRUCTION

525 VINE STREET
SUITE 1300
CINCINNATI, OHIO 45202
B&N BURGESS & NIPLE

Clermont County Park District
Grailville Preserve & Park - Phase 1
Miami Township
Clermont County, Ohio

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JOB NO:	PR63329
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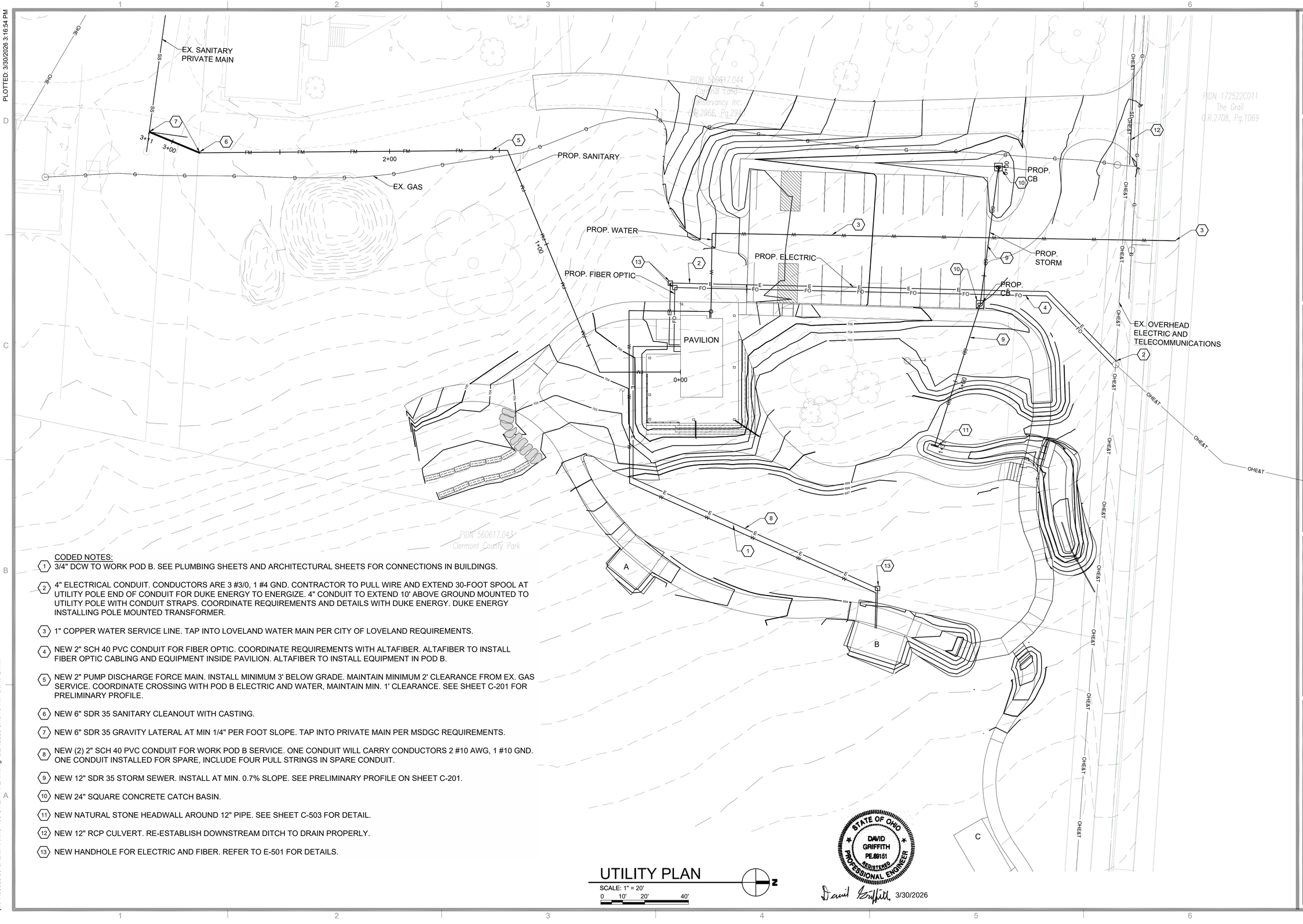
DRAWN BY:	EV
CHECKED BY:	DG
APPROVED BY:	DG
SCALE:	NOTED

GRADING PLAN

SHEET IDENTIFICATION
C-104

SHEET: 6 OF 68



CODED NOTES:

1. 3/4" DCW TO WORK POD B. SEE PLUMBING SHEETS AND ARCHITECTURAL SHEETS FOR CONNECTIONS IN BUILDINGS.
2. 4" ELECTRICAL CONDUIT. CONDUCTORS ARE 3 #3/0, 1 #4 GND. CONTRACTOR TO PULL WIRE AND EXTEND 30-FOOT SPOOL AT UTILITY POLE END OF CONDUIT FOR DUKE ENERGY TO ENERGIZE. 4" CONDUIT TO EXTEND 10' ABOVE GROUND MOUNTED TO UTILITY POLE WITH CONDUIT STRAPS. COORDINATE REQUIREMENTS AND DETAILS WITH DUKE ENERGY. DUKE ENERGY INSTALLING POLE MOUNTED TRANSFORMER.
3. 1" COPPER WATER SERVICE LINE. TAP INTO LOVELAND WATER MAIN PER CITY OF LOVELAND REQUIREMENTS.
4. NEW 2" SCH 40 PVC CONDUIT FOR FIBER OPTIC. COORDINATE REQUIREMENTS WITH ALTAFIBER. ALTAFIBER TO INSTALL FIBER OPTIC CABLING AND EQUIPMENT INSIDE PAVILION. ALTAFIBER TO INSTALL EQUIPMENT IN POD B.
5. NEW 2" PUMP DISCHARGE FORCE MAIN. INSTALL MINIMUM 3' BELOW GRADE. MAINTAIN MINIMUM 2' CLEARANCE FROM EX. GAS SERVICE. COORDINATE CROSSING WITH POD B ELECTRIC AND WATER, MAINTAIN MIN. 1' CLEARANCE. SEE SHEET C-201 FOR PRELIMINARY PROFILE.
6. NEW 6" SDR 35 SANITARY CLEANOUT WITH CASTING.
7. NEW 6" SDR 35 GRAVITY LATERAL AT MIN 1/4" PER FOOT SLOPE. TAP INTO PRIVATE MAIN PER MSDGC REQUIREMENTS.
8. NEW (2) 2" SCH 40 PVC CONDUIT FOR WORK POD B SERVICE. ONE CONDUIT WILL CARRY CONDUCTORS 2 #10 AWG, 1 #10 GND. ONE CONDUIT INSTALLED FOR SPARE, INCLUDE FOUR PULL STRINGS IN SPARE CONDUIT.
9. NEW 12" SDR 35 STORM SEWER. INSTALL AT MIN. 0.7% SLOPE. SEE PRELIMINARY PROFILE ON SHEET C-201.
10. NEW 24" SQUARE CONCRETE CATCH BASIN.
11. NEW NATURAL STONE HEADWALL AROUND 12" PIPE. SEE SHEET C-503 FOR DETAIL.
12. NEW 12" RCP CULVERT. RE-ESTABLISH DOWNSTREAM DITCH TO DRAIN PROPERLY.
13. NEW HANDHOLE FOR ELECTRIC AND FIBER. REFER TO E-501 FOR DETAILS.

UTILITY PLAN

SCALE: 1" = 20'

0 10' 20' 40'

N

STATE OF OHIO
DAVID
GRIFFITH
PE.89151
REGISTERED
PROFESSIONAL ENGINEER

David Griffith 3/30/2026

100% FOR CONSTRUCTION

525 VINE STREET
SUITE 1300
CINCINNATI, OHIO 45202
B&N BURGESS & NIPLE

Clermont County Park District
Grailville Preserve & Park - Phase 1
Miami Township
Clermont County, Ohio

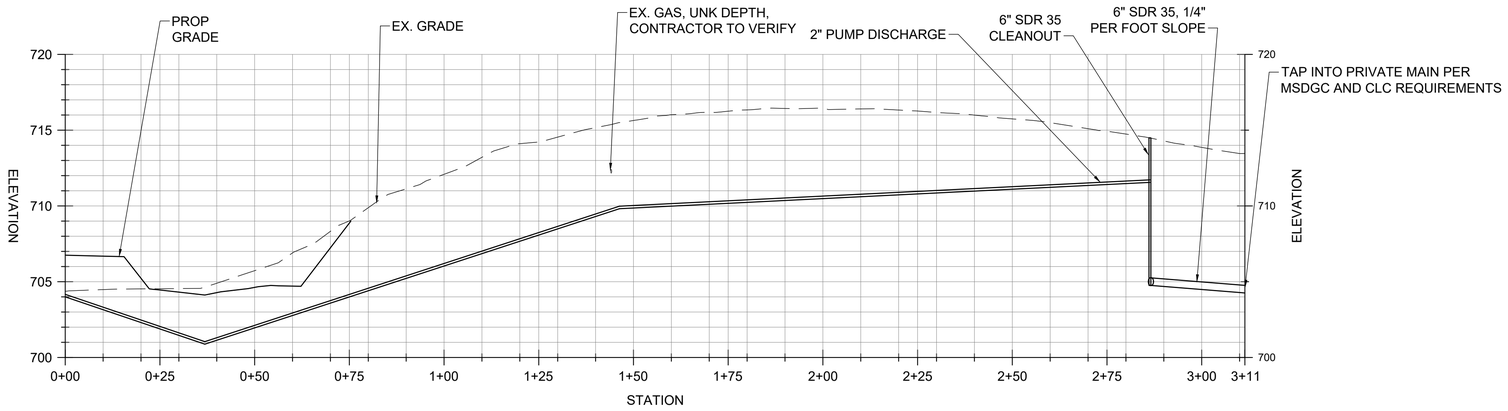
REVISIONS NO.	DESCRIPTION	DATE

JOB NO:	PR63329
DATE:	3/30/2026
DESIGNED BY:	EV
DRAWN BY:	EV
CHECKED BY:	DG
APPROVED BY:	DG
SCALE:	NOTED

UTILITY PLAN

SHEET IDENTIFICATION
C-105

SHEET: 7 OF 68

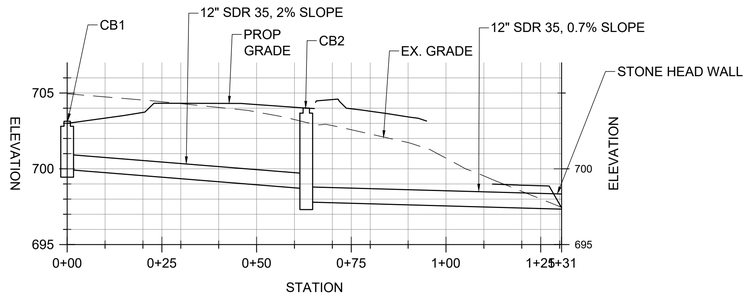


SANITARY PROFILE

SCALE: SEE BELOW

HORIZ. 0 10' 20' 40'

VERT. 0 5' 10'



STORM PROFILE

SCALE: SEE BELOW

HORIZ. 0 10' 20' 40'

VERT. 0 5' 10'

STATE OF OHIO
DAVID GRIFFITH
PE.89151
REGISTERED
PROFESSIONAL ENGINEER

David Griffith 3/30/2026

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525 VINE STREET
SUITE 1300
CINCINNATI, OHIO 45202
B&N BURGESS & NIPLE

Clermont County Park District
Grailville Preserve & Park - Phase 1
Miami Township
Clermont County, Ohio

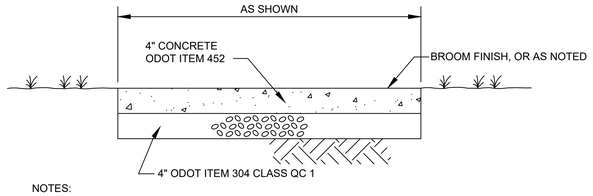
REVISIONS NO.	DESCRIPTION	DATE

JOB NO:	PR63329
DATE:	3/30/2026
DESIGNED BY:	DG
DRAWN BY:	DG
CHECKED BY:	SS
APPROVED BY:	SS
SCALE:	NOTED

UTILITY PROFILES

SHEET IDENTIFICATION
C-201

SHEET: 8 OF 68

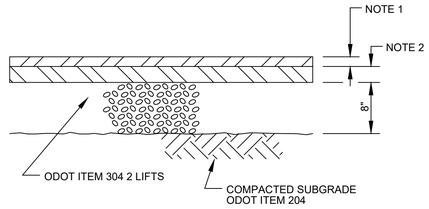


NOTES:

1. SCORE CONCRETE AT LONGITUDINAL SPACING TO MATCH THE WALK WIDTH. PROVIDE 3/8" PRE-MOLDED EXPANSION JOINT WITH JOINT SEALER EVERY 20'-0" AND WHERE ABUTTING STEPS, EXISTING WALKS, BUILDINGS, AND STRUCTURAL MEMBERS.

CONCRETE WALK DETAIL

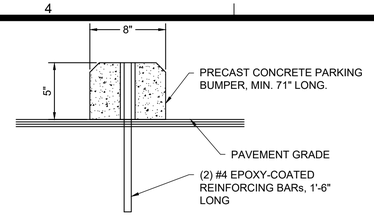
SCALE: 3/4" = 1'-0"



TYPICAL STANDARD DUTY ASPHALT PAVEMENT

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

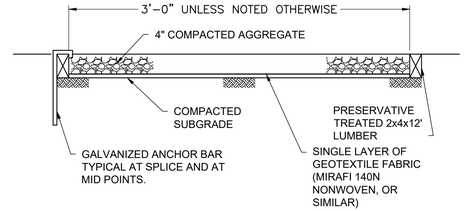
NOTES:
1 441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (449), PG-64-22
2 441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449)



SPECIFICATION REFERENCES:
- PARKING BUMPERS PER SECTION 32 10 01.
- REINFORCING BARS PER SECTION 03 30 00.

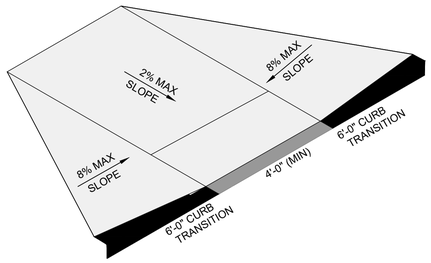
PARKING BLOCK, PRECAST CONCRETE

SCALE: NONE



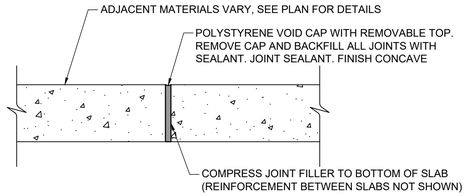
TYPICAL STANDARD DUTY GRAVEL WALK

SCALE: NONE



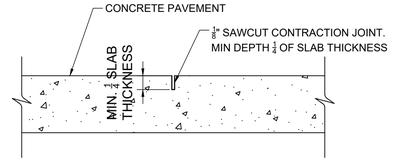
TYPICAL CONCRETE CURB RAMP DETAIL

SCALE: NONE



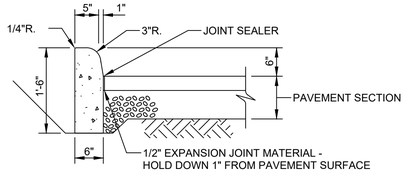
TYPICAL EXPANSION JOINT DETAIL

SCALE: NONE



TYPICAL CONTRACTION JOINT DETAIL

SCALE: NONE



NOTE: CONSTRUCTION JOINTS SHALL BE SAW CUT AND SEALED EVERY 8'-0"

TYPICAL CONCRETE CURB DETAIL

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

STATE OF OHIO
DAVID
GRIFFITH
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REGISTERED
PROFESSIONAL ENGINEER

David Griffith 3/30/2026

100% FOR CONSTRUCTION

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B&N BURGESS & NIPLE

Clermont County Park District
Grailville Preserve & Park - Phase 1
Miami Township
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REVISIONS NO.	DESCRIPTION	DATE

JOB NO:	PR63329
DATE:	3/30/2026
DESIGNED BY:	DG
DRAWN BY:	DG
CHECKED BY:	EV
APPROVED BY:	SS
SCALE:	NOTED

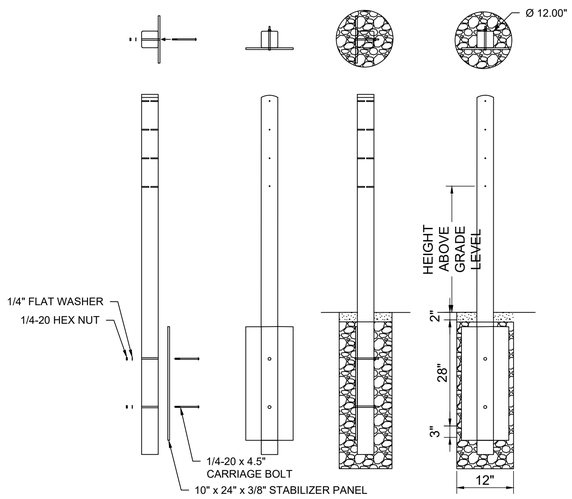
PAVEMENT DETAILS

SHEET IDENTIFICATION
C-501

SHEET: 9 OF 68

ADA SIGNAGE NOTES:

1. SINGLE POST REGULATORY SIGNS SHALL BE INSTALLED PER THE CURRENT VERSION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD). CONSULT GREAT PARKS PROJECT MANAGER FOR GUIDANCE.
2. SINGLE POST REGULATORY SIGNS INCLUDE REGULATORY OR WARNING SIGNS AS DESCRIBED IN THE OMUTCD THAT ARE INTENDED TO DIRECT PEOPLE TRAVELING IN A MOTORIZED VEHICLE ON ROADWAYS WITHIN CLERMONT COUNTY PARK DISTRICT'S PROPERTY. THESE INCLUDE SPEED LIMIT, STOP, YIELD AND PEDESTRIAN CROSSING SIGNS. INSTALLATION OF OTHER TYPES OF SIGNS WILL BE DESCRIBED IN THE FUTURE.
3. SIGN POSTS SHALL BE 4X4 COMPOSITE.
4. ALL SIGN PLAQUES SHALL BE CONSTRUCTED OF .080 GAUGE ALUMINUM. ALL SIGN PLAQUES SHALL BE RETROREFLECTIVE MEETING OMUTCD SECTION 2A.07 RETROREFLECTIVITY AND ILLUMINATION.
5. SIGNS AND POSTS SHALL BE INSTALLED PER THE SINGLE POST-SINGLE SIDED ASSEMBLIES.
6. HARDWARE FOR INSTALLATION OF POSTS AND SIGN PLAQUES SHALL BE STAINLESS STEEL, UNLESS APPROVED OTHERWISE.
7. THE MINIMUM HEIGHT, MEASURED VERTICALLY FROM THE BOTTOM OF THE SIGN PLAQUE TO THE ELEVATION OF THE NEAR EDGE OF THE PAVEMENT OR GROUND SURFACE SHALL BE 5 FEET. WHERE PARKING OR PEDESTRIAN MOVEMENTS ARE LIKELY TO OCCUR, THE MINIMUM HEIGHT SHALL BE 7 FEET. REFER TO THE EXAMPLE BELOW AND TO OMUTCD SECTION 2A.18 MOUNTING HEIGHT. CCPD PROJECT MANAGER WILL DEFINE THE HEIGHT TO INSTALL SIGN PLAQUES PRIOR TO INSTALLATION.
8. THE DISTANCE FROM THE EDGE OF PAVEMENT TO THE NEAR EDGE OF THE SIGN PLAQUE SHALL BE A MINIMUM OF 2 FEET, 3 FEET WHERE POSSIBLE. CONSULT D&LA FOR GUIDANCE ON SIGN PLACEMENT.

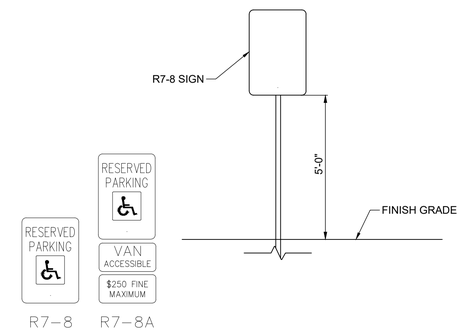


SINGLE POST SIGN DETAIL

SCALE: NONE

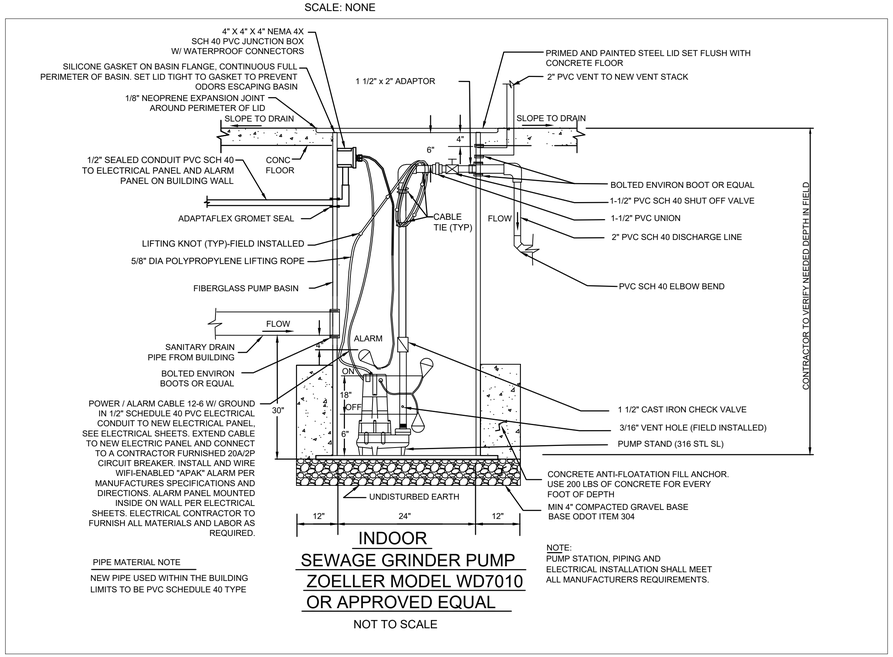
NOTES:

1. INSTALL PER SINGLE SIGN DETAIL UNLESS OTHERWISE NOTED.
2. SIGN INSTALLATION HEIGHT SHALL BE 5' TO BOTTOM OF SIGN.



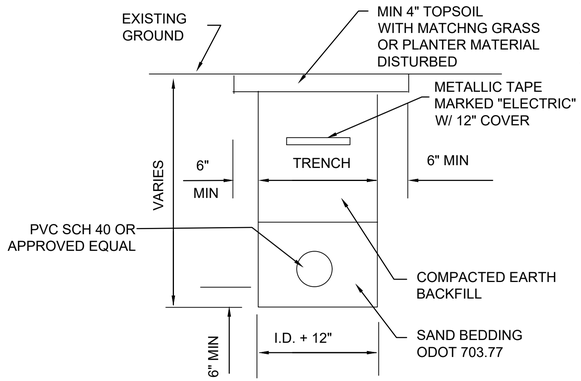
ACCESSIBLE PARKING SIGN DETAILS

SCALE: NONE



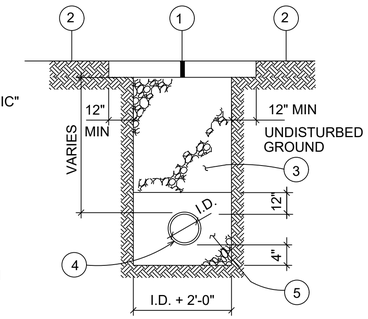
INDOOR SEWAGE GRINDER PUMP ZOELLER MODEL WD7010 OR APPROVED EQUAL

NOT TO SCALE



ELECTRIC CONDUIT TRENCH DETAIL

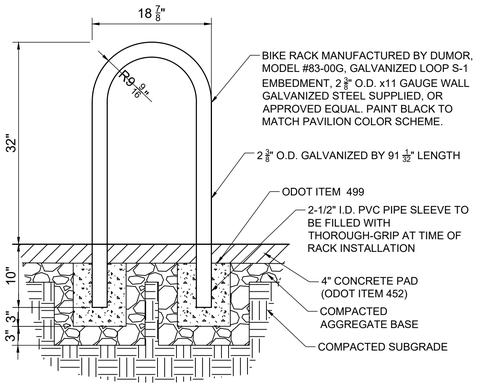
NOT TO SCALE



GROUND AREA SEWER TRENCH DETAIL

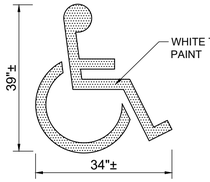
NOT TO SCALE

1. 4" TOPSOIL AND SEEDING & MULCHING PER ODOT ITEMS 653 AND 659
2. EXISTING GRASS AREA
3. COMPACTED EARTH BACKFILL PER ODOT ITEM 204
4. 4" OR 6" PVC SDR 35 SEWER PIPE
5. SAND BEDDING ODOT 703.06



BIKE RACK

SCALE: NONE

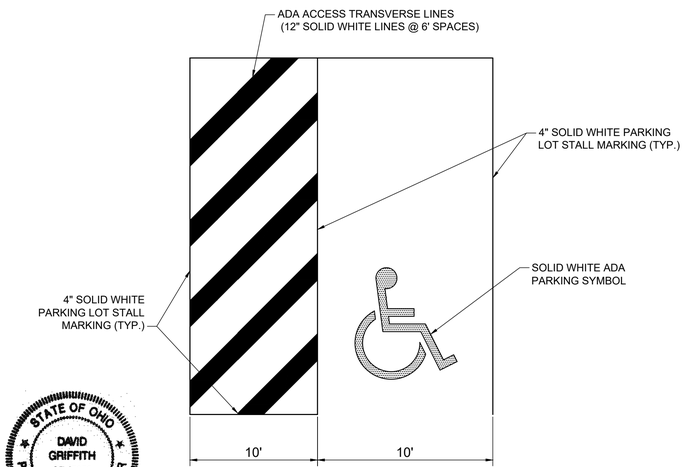


NOTE:

1. REMOVAL OF EXISTING PARKING STRIPING SHALL MEET THE REQUIREMENTS OF ODOT ITEM 641.10.
2. ALL NEW PARKING STALL STRIPES FOR ADA PARKING SHALL MEET THE REQUIREMENTS OF ODOT ITEM 641.08 PAVEMENT MARKINGS.
3. ALL STROKES TO BE 2" WIDE
4. PROVIDE TWO (2) COATS OF TRAFFIC PAINT
5. LOCATE SYMBOL AT CENTER OF STALL WHERE SHOWN ON LAYOUT PLAN DRAWING.

ADA STALL MARKINGS

SCALE: NONE



(VAN ACCESSIBLE PARKING SPACE) TYPICAL ADA STRIPING DETAIL

SCALE: NONE

STATE OF OHIO
DAVID GRIFFITH
PE.89151
REGISTERED
PROFESSIONAL ENGINEER

David Griffith 3/30/2026

100% FOR CONSTRUCTION

525 VINE STREET
SUITE 1300
CINCINNATI, OHIO 45202
B&N BURGESS & NIPLE

Clermont County Park District
Grailville Preserve & Park - Phase 1
Miami Township
Clermont County, Ohio

REVISIONS NO.	DESCRIPTION	DATE

JOB NO:	PR63329
DATE:	3/30/2026
DESIGNED BY:	DG
DRAWN BY:	DG
CHECKED BY:	EV
APPROVED BY:	DG
SCALE:	NOTED

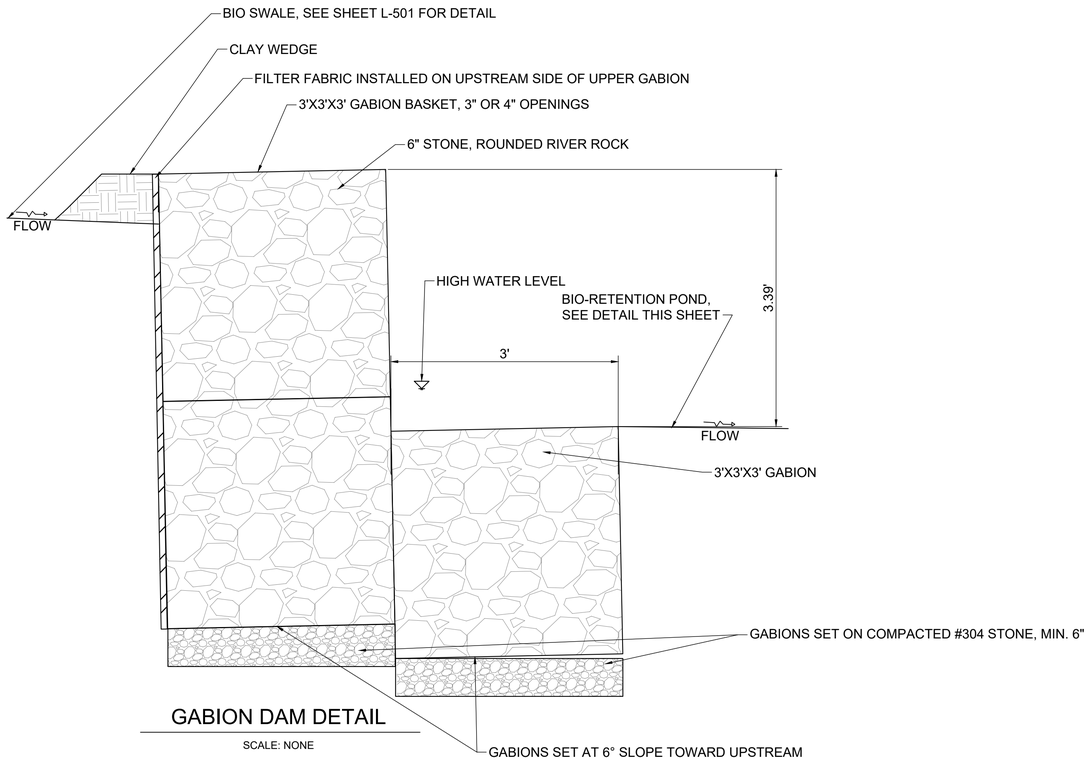
MISCELLANEOUS DETAILS

SHEET IDENTIFICATION
C-502

SHEET: 10 OF 68

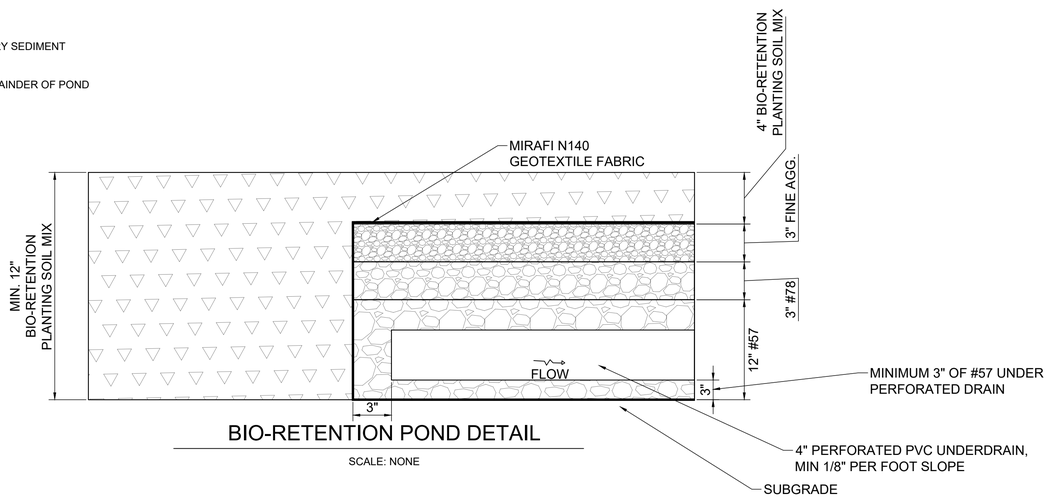
PLOTTED: 3/30/2026 3:17:45 PM

BIO RETENTION POND NOTES:
1. CONSTRUCT THE BIO RETENTION POND AFTER ALL CONTRIBUTING DRAINAGE AREAS ARE STABILIZED TO THE SATISFACTION OF CCPD OR ENGINEER. DO NOT USE THE BIO RETENTION POND AS TEMPORARY SEDIMENT CONTROL FACILITY DURING CONSTRUCTION.
2. PLACE SOILS IN MAXIMUM 12 INCH LIFTS AND COMPACT TO LEVELS SHOWN, PLACE SOILS IN SMALLER LIFTS AS NEEDED TO ACHIEVE COMPACTION REQUIREMENTS.
3. PLACE UNDER DRAIN SYSTEM PER PLANS. PLACE GRANULAR BACKFILL MATERIAL TO 4" OF RETENTION POND BOTTOM ELEVATION. THE REMAINING 4" IS TO BE COMPACTED CLAY MATERIAL TO MATCH REMAINDER OF POND CONSTRUCTION. REFER TO DETAIL THIS SHEET.
4. PLACE PLANTINGS PER LANDSCAPE PLANS AND DETAILS.



GABION DAM DETAIL

SCALE: NONE

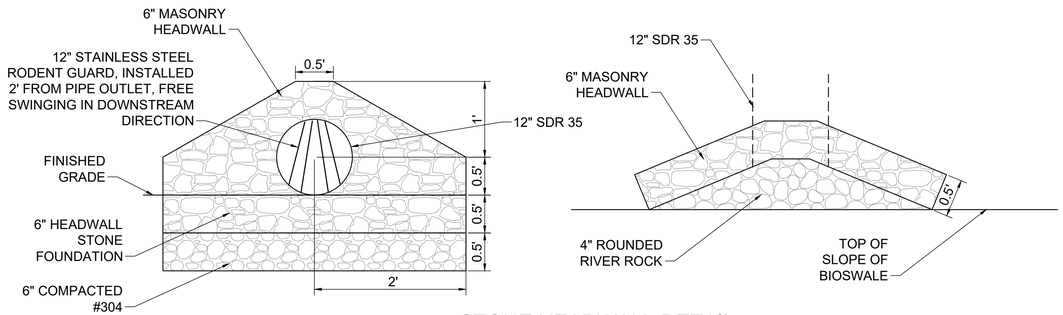


BIO-RETENTION POND DETAIL

SCALE: NONE

BIO-RETENTION POND OUTLET WEIR DETAIL

SCALE: NONE



STONE HEADWALL DETAIL

SCALE: NONE

STONE HEADWALL NOTES:
1. CONTRACTOR TO PROVIDE SHOP DRAWING FOR REVIEW AND APPROVAL PRIOR TO BEGINNING CONSTRUCTION.
2. CONTRACTOR TO PROVIDE OPTIONS FOR STONE SOURCED LOCALLY. CCPD OR ENGINEER/ARCHITECT TO SELECT NATURAL STONE FOR USE FROM OPTIONS.
3. CONTRACTOR TO CONSTRUCT WALL BATTERED AS TYPICAL IN NATURAL STONE HEADWALLS.

STATE OF OHIO
DAVID GRIFFITH
PE.89151
REGISTERED
PROFESSIONAL ENGINEER

David Griffith 3/30/2026

100% FOR CONSTRUCTION

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Clermont County Park District
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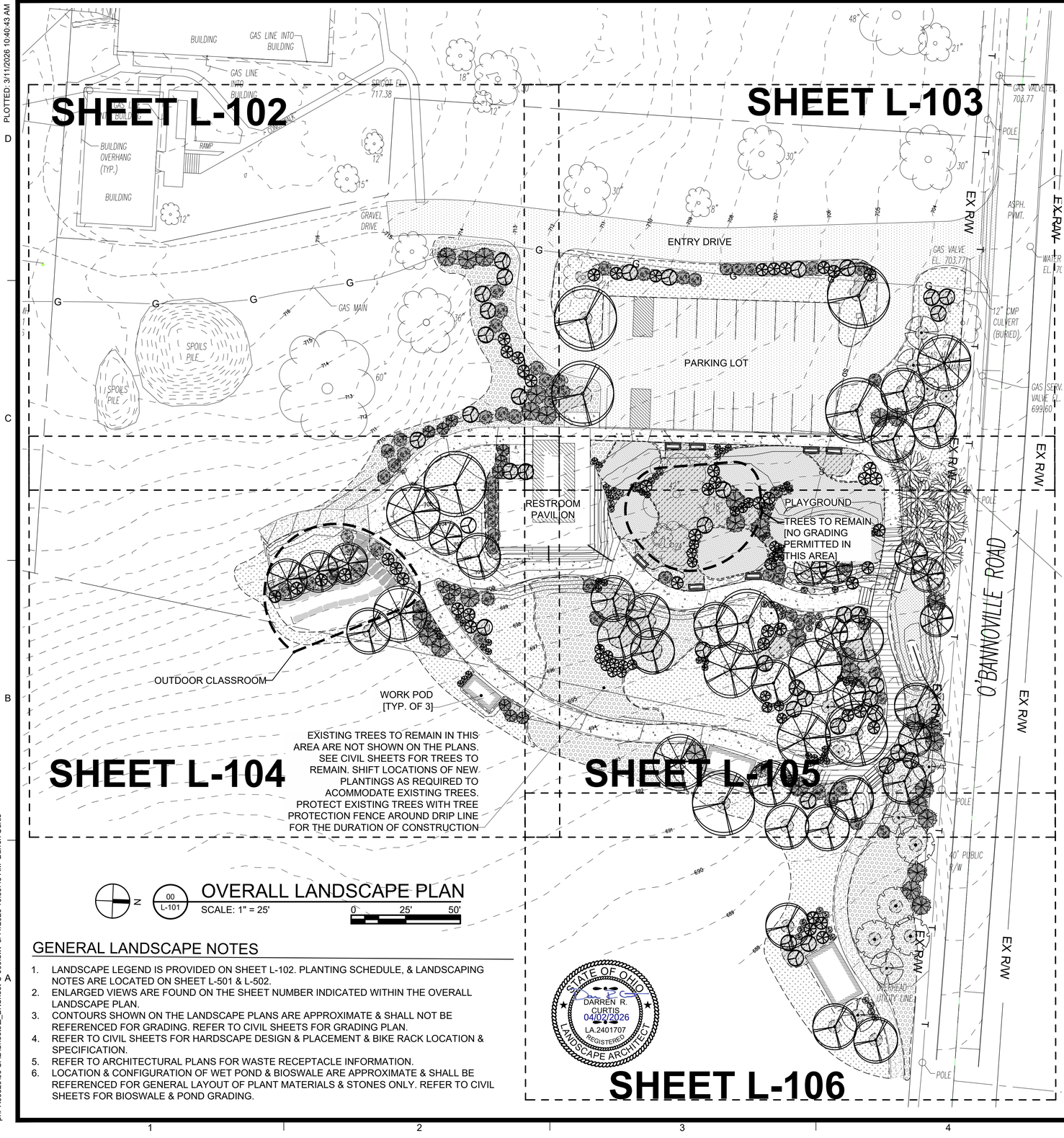
APPROVED BY:	SS
SCALE:	NOTED

POND DETAILS

SHEET IDENTIFICATION
C-503

SHEET: 11 OF 68

P:\PR63329\06 CAD\Sheets\C-503 POND DETAILS.dwg 3/30/2026 3:13:53 PM David Griffith



N

00 L-101

OVERALL LANDSCAPE PLAN

SCALE: 1" = 25' 0 25' 50'

GENERAL LANDSCAPE NOTES

1. LANDSCAPE LEGEND IS PROVIDED ON SHEET L-102. PLANTING SCHEDULE, & LANDSCAPING NOTES ARE LOCATED ON SHEET L-501 & L-502.
2. ENLARGED VIEWS ARE FOUND ON THE SHEET NUMBER INDICATED WITHIN THE OVERALL LANDSCAPE PLAN.
3. CONTOURS SHOWN ON THE LANDSCAPE PLANS ARE APPROXIMATE & SHALL NOT BE REFERENCED FOR GRADING. REFER TO CIVIL SHEETS FOR GRADING PLAN.
4. REFER TO CIVIL SHEETS FOR HARDSCAPE DESIGN & PLACEMENT & BIKE RACK LOCATION & SPECIFICATION.
5. REFER TO ARCHITECTURAL PLANS FOR WASTE RECEPTACLE INFORMATION.
6. LOCATION & CONFIGURATION OF WET POND & BIOSWALE ARE APPROXIMATE & SHALL BE REFERENCED FOR GENERAL LAYOUT OF PLANT MATERIALS & STONES ONLY. REFER TO CIVIL SHEETS FOR BIOSWALE & POND GRADING.

STATE OF OHIO
DARREN R. CURTIS
04/02/2026
LA.2401707
REGISTERED LANDSCAPE ARCHITECT

KEY NOTES [SEE ENLARGED PLANS]

1. NEW WOODEN OBSTACLE COURSE, KOMPAN PARKOUR 4 BASIS OF DESIGN. ROUND TIMBER POSTS & BEAMS OBSTACLE COURSE, PRESSURE-TREATED. PROVIDE ROPE, NET, & HANGING ELEMENTS USING UV-RESISTANT SYNTHETIC ROPE, SECURELY FASTENED TO TIMBER MEMBERS W/ CONCEALED OR RECESSED HARDWARE. ANCHOR ALL PRIMARY VERTICAL POSTS BELOW FROST DEPTH; PROVIDE BRACING AS REQUIRED FOR LATERAL STABILITY. FIELD-ADJUST SPACING & CONFIGURATION AS NEEDED TO MAINTAIN OVERALL INTENT WHILE MEETING SAFETY CLEARANCES & CONSTRUCTABILITY.
2. NEW LOG PYRAMID, KOMPAN LOG PYRAMID (CRAWLING PYRAMID) BOD. ROUND TIMBER EDGING LOGS, 7 FT LONG, PRESSURE-TREATED OR NATURALLY DURABLE WOOD. INSTALL LOGS PARTIALLY BURIED OR PINNED TO SUBGRADE TO PREVENT MOVEMENT; PROVIDE CONCEALED STAKES OR REBAR ANCHORS AS REQUIRED.
3. 10' LONG EMBANKMENT SLIDE CONSTRUCTED OF STAINLESS STEEL OR GALVANIZED STEEL SLIDE SURFACE W/ INTEGRATED SIDE RAILS. SLIDE TO BE SET INTO COMPACTED EARTH EMBANKMENT SHAPED TO SUPPORT FULL UNDERSIDE OF SLIDE. ANCHOR SLIDE AT TOP & BOTTOM PER TYPICAL PLAYGROUND CONSTRUCTION STANDARDS; COORDINATE W/ GRADING FOR SMOOTH TRANSITIONS. FINISHED GRADES AT SLIDE ENTRY & EXIT TO BE FLUSH, STABLE, & FREE OF TRIP HAZARDS.
4. HOLLOW LOG TUNNEL. NATURAL PLAYGROUNDS HOLLOW LOG BOD. REFER TO MANUFACTURER'S INSTALLATION & BRACING INSTRUCTIONS. NATURAL BARK EXTERIOR, SMOOTH-FINISHED INTERIOR; REMOVE SPLINTERS & SHARP EDGES PRIOR TO INSTALLATION.
5. BALANCE POSTS W/ ROPE & TIMBER STILTS. KONPAN NRO821 & NRO806 BOD.
6. EMBANKMENT CLIMBING NET, CALEDONIA PLAY BASIS OF DESIGN. PROVIDE INCLINED CLIMBING NET INSTALLED ON EARTH EMBANKMENT, CONSISTING OF UV-RESISTANT SYNTHETIC ROPE ARRANGED IN A GRID PATTERN W/ REINFORCED JUNCTION NODES. NET TO SPAN BETWEEN TIMBER OR STEEL ANCHORING MEMBERS AT TOP & BOTTOM OF SLOPE; PROVIDE CONTINUOUS TOP BEAM OR POSTS W/ CONCEALED HARDWARE CONNECTIONS. BOTTOM EDGE TO BE ANCHORED TO GROUND BEAM, DEADMAN, OR CONCRETE FOOTING CONCEALED BELOW FINISHED GRADE. COORDINATE NET SIZE, SLOPE ANGLE, & ANCHORAGE LOCATIONS W/ FINAL GRADING TO ENSURE FULL TENSION, SAFE CLEARANCES, & SMOOTH TRANSITIONS AT TOP & BOTTOM OF CLIMB. NO BOULDERS OR STONES PRESENT UNDERNEATH THE ROPES.
7. EMBANKMENT CLIMBING ROPE, KOMPAN HILL CLIMB ROPE BASIS OF DESIGN. PROVIDE SINGLE INCLINED CLIMBING ROPE ON EMBANKMENT W/ INTEGRATED HAND/FOOT HOLDS AT REGULAR INTERVALS. ROPE TO BE HEAVY-DUTY, UV-RESISTANT SYNTHETIC FIBER W/ MOLDED OR TIMBER CLIMBING ELEMENTS SECURELY FIXED TO ROPE. TOP OF ROPE TO BE ATTACHED TO ROUND TIMBER POST OR BEAM W/ CONCEALED STEEL HARDWARE; BOTTOM OF ROPE TO BE ANCHORED BELOW GRADE USING EARTH ANCHOR, CONCRETE FOOTING, OR EQUIVALENT CONCEALED ANCHORAGE. COORDINATE ROPE LENGTH, SLOPE, & ATTACHMENT POINTS W/ GRADING TO MAINTAIN CONSISTENT TENSION, SAFE FALL ZONES, & CONSTRUCTABLE INSTALLATION.
8. 12" THICK ENGINEERED WOOD FIBER (EWF) MULCH CERTIFIED FOR PLAYGROUND USE. MULCH TO BE PROVIDED BY CERTIFIED PLAYGROUND MULCH VENDOR. CONSULT OWNER FOR VENDOR RECOMMENDATIONS. PROVIDE GEOTEXTILE UNDER MULCH; SEE SPECIFICATIONS ON SHEET L502. DO NOT PROVIDE MULCH WITHIN DRIP LINE OF EXISTING TREES. TOP OF MULCH REFLECTS FINISHED GRADE AS SHOWN ON THE CIVIL SHEETS. WHERE TRANSITIONING TO ADJACENT SURFACES, SLOPE SUBGRADE UP AT A 1:1 STARTING AT THE LIMITS OF THE EWF AS SHOWN ON THE PLANS. SEE LEGEND.
   8.1. TOTAL QUANTITY OF EWF MULCH COVERAGE REQUIRED = 3,800 SF.
9. 3" THICK DOUBLE SHREDDED HARDWOOD (DSH) MULCH, APPLIED ABOVE FINISHED GRADE ON THE PLAYGROUND AND BENEATH ALL TREES AND SHRUBS AS SHOWN ON THE CIVIL SHEETS. DO NOT PROVIDE GEOTEXTILE FABRIC BENEATH DOUBLE SHREDDED HARDWOOD MULCH. KEY NOTES ARE NOT PROVIDED FOR ALL MULCH LOCATIONS; SEE LEGEND FOR ALL MULCH LOCATIONS. SEE LANDSCAPE DETAIL SHEET FOR MULCHING BENEATH TREES AND SHRUBS. PROVIDE MULCH BENEATH ADJACENT TREES AND SHRUBS TO CREATE A CONTINUOUS MULCH BED AS SHOWN ON THE LANDSCAPE PLANS. AVOID HYDROSEEDING IN MULCH BEDS IN ORDER TO REDUCE COMPETITION FOR NUTRIENTS DURING PLANT ESTABLISHMENT. AVOID PLACING MULCH DIRECTLY AGAINST TRUNKS AND BASES OF SHRUBS.
   9.1. TOTAL QUANTITY OF DSH MULCH COVERAGE REQUIRED = 12,000 SF.
10. FIELD STONE BOULDERS AT BIOSWALE. DO NOT OBSTRUCT BIOSWALE CENTER LINE (2-3' WIDTH). SEE SPECIFICATIONS ON SHEET L-502. SEE CIVIL SHEETS FOR GRADING OF BIOSWALE.
   10.1. PROVIDE 15-20 BOULDERS SIZED 200-500 POUNDS IN APPROXIMATE LOCATIONS & GROUPING SHOWN.
11. FIELD STONE BOULDERS FOR FREE PLAY. SEE SPECIFICATIONS ON SHEET L-502. SEE LEGEND.
   11.1. PROVIDE 35-40 BOULDERS SIZED 300-1000 POUNDS IN APPROXIMATE LOCATIONS & GROUPINGS SHOWN. PROVIDE AT LEAST 10 BOULDER WEIGHING AT LEAST 750 POUNDS.
12. GRAY RIVER ROCK COBBLES, SIZED 4"-8", 12" DEPTH. COBBLES SHALL BE PLACED WITHIN 1' OF BOTH SIDES OF THE CENTERLINE OF SWALE W/ VARIANCE SIMILAR TO AS SHOWN ON THE PLANS. PROVIDE MIRAFI N14O GEOTEXTILE BENEATH COBBLES, OVERLAPPING EDGES 12". TOP OF COBBLES SHALL REFLECT PROPOSED GRADE AS SHOWN ON THE CIVIL DRAWINGS.
   12.1. TOTAL QUANTITY OF COBBLE COVERAGE REQUIRED = 150 SF
13. FIELD STONE GARDEN PATH STONES, 4" THICK, 9-12 SF, TOP 1" ABOVE FINISHED GRADE. SURFACE SHALL BE SMOOTH & FREE OF ABRUPT VARIATIONS GREATER THAN ½".
   13.1. PROVIDE 7-10 UNITS IN BIOSWALE & PLAYGROUND AREA TOTAL AS SHOWN.
14. OVERSIZED FIELD STONE STEPS/LANDINGS, 8-12" THICK, AT LEAST 2" EMBEDDED IN FINISHED GRADE AS REQUIRED TO PROVIDE CONSISTENT STEPS 4-6" IN HEIGHT & VARYING NO MORE THAN 1" ACROSS ALL STEPS. SURFACE SHALL BE SMOOTH & FREE OF ABRUPT VARIATIONS GREATER THAN ½".
   14.1. PROVIDE 8-10 UNITS AT OUTDOOR CLASSROOM AS SHOWN.
15. FIELD STONE UNITS SIZED APPROXIMATELY 3'X3'X AT LEAST 5' IN LENGTH ALIGNED PARALLEL TO SLOPE & BACKFILLED TO WITHIN 4" OF TOP OF STONES. FACE OF STONES SHALL ABUT ONE ANOTHER W/ GAPS NOT EXCEEDING 2" AT STONE FACE. EMBED STONES 4-6" INTO FINISHED GRADE. SEE DETAIL ON SHEET L-501.
   15.1. PROVIDE UNITS AS REQUIRED TO CONSTRUCT TWO RETAINING WALLS THAT ARE APPROXIMATELY 40 LF EACH (80 LF TOTAL).
16. PROVIDE OUTDOOR BENCH W/ BACK. SEE BASIS OF DESIGN ON SHEET L-501. FINAL LOCATION TO BE APPROVED BY THE OWNER. PROVIDE GRAY RIVER ROCK, UNITS SIZED 2-4" AT A 3-4" DEPTH OVER MIRAFI N140 GEOTEXTILE BENEATH BENCHES. TOP OF STONE SHALL BE FLUSH W/ WALKS & ADJACENT GRADE. PROVIDE BROWN METAL EDGING AROUND RIVER ROCK, EMBEDDED INTO GRADE W/ TOP 1" ABOVE FINISHED GRADE.
   16.1. PROVIDE SEVEN BENCHES
17. PROVIDE BOARDWALK. REFER TO CIVIL, ARCHITECTURAL, & STRUCTURAL DRAWINGS FOR BOARDWALK DESIGN.
18. 2" WETLAND PLUG MIX. SEE LANDSCAPE DETAIL SHEETS FOR SPECIES, SPACING, ETC. LOCATIONS SHOWN ARE APPROXIMATE AND SHALL BE FINALIZED TO REFLECT FINISHED GRADING. ALL LOCATIONS ARE NOT NOTED WITH KEY NOTES ON THE PLAN. SEE LEGEND AND PLANS FOR ALL LOCATIONS. SEE SHEET L-502 FOR WETLAND PLANTING/COIR MATTING SPECIFICATIONS.
   18.1. INCLUDE 800 SF OF WETLAND PLUGS IN BASE BID.
19. POLLINATOR SEED MIX. SEE LANDSCAPE DETAIL SHEETS FOR SPECIES, SPACING, ETC. ALL LOCATIONS ARE NOT NOTED WITH KEY NOTES ON THE PLAN. SEE LEGEND AND PLANS FOR ALL LOCATIONS.
   19.1. TOTAL AREA OF POLLINATOR MIX REQUIRED = 9000 SF.
20. BIODIVERSE POLYCULTURE SEED MIX. SEE LANDSCAPE DETAIL SHEETS FOR SPECIES, SPACING, ETC. ALL LOCATIONS ARE NOT NOTED WITH KEY NOTES ON THE PLAN. SEE LEGEND AND PLANS FOR ALL LOCATIONS.
   20.1. TOTAL AREA OF BIODIVERSE POLYCULTURE MIX REQUIRED = 20,000 SF.
21. TURF GRASS SEED MIX AT OUTDOOR CLASSROOM. SEE SPECIFICATIONS.
   21.1. TOTAL AREA OF TURF GRASS REQUIRED = 800 SF.

100% FOR CONSTRUCTION

525 VINE STREET
SUITE 1300
CINCINNATI, OHIO 45202
B&N BURGESS & NIPLE

Clermont County Park District
Grailville Preserve & Park - Phase 1
Miami Township
Clermont County, Ohio

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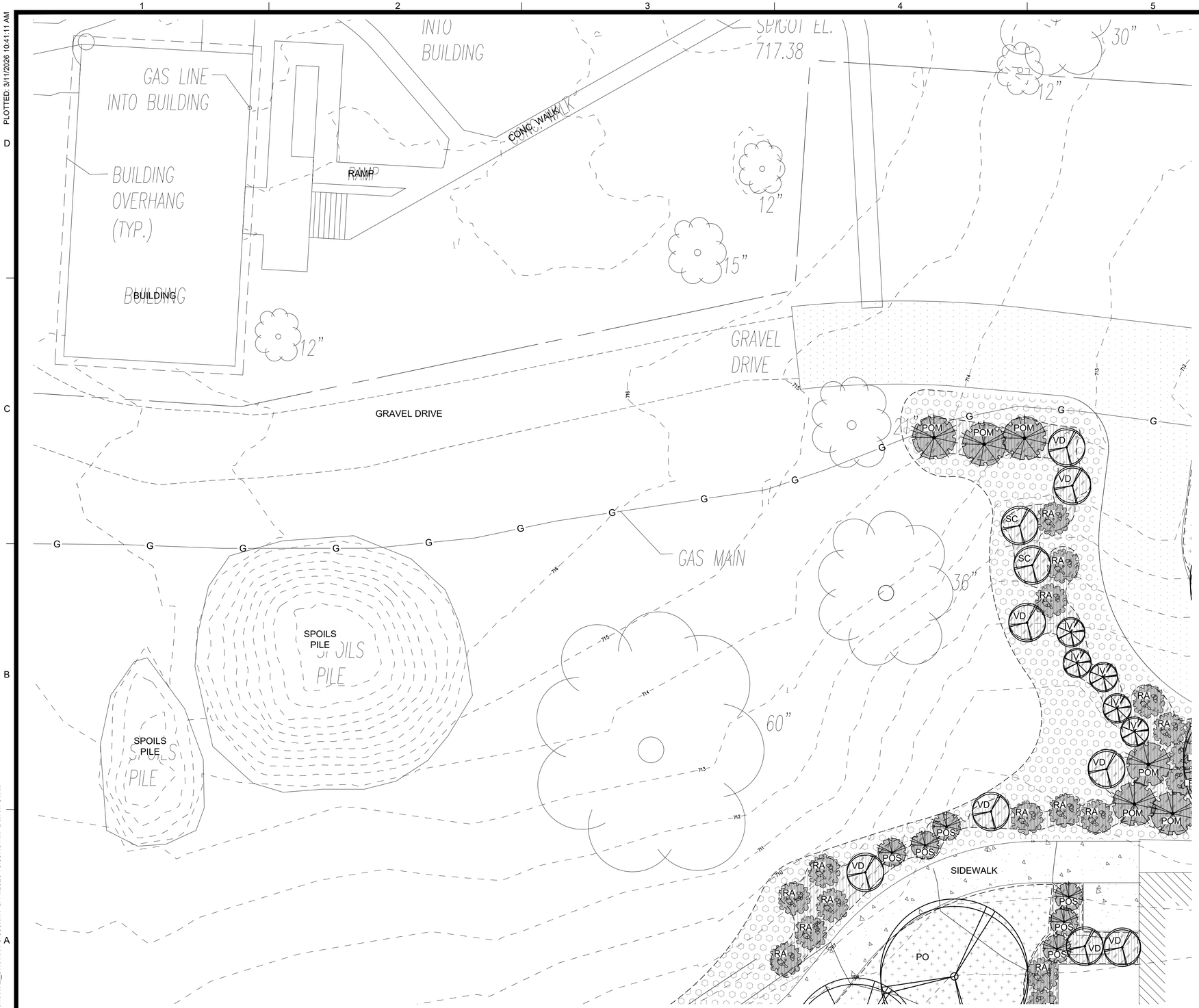
DATE:	04/02/2026
DESIGNED BY:	DRC
DRAWN BY:	CLE
CHECKED BY:	DRC
APPROVED BY:	DRC
SCALE:	NOTED

OVERALL LANDSCAPE PLAN

SHEET IDENTIFICATION
L-101

SHEET: 12 OF 68



LANDSCAPE LEGEND:

- DECIDUOUS TREES
- EVERGREEN TREES
- ORNAMENTAL TREES
- SHRUBS
- ENGINEERED WOOD FIBER MULCH (EWF)
- DOUBLE SHREDDED HARDWOOD MULCH
- EASTERN SEED MIX (MOD. ERN-MX-115)
- WETLAND MIX (2" PLUGS)
- POLLINATOR MIX
- SWALE COBBLE STONES
- BENCH WITH STONE MULCH
- STONE LANDINGS / RETAINING WALL
- GARDEN PATH FIELD STONES
- FIELD STONE BOULDERS
- CONTOURS (SEE CIVIL SHEETS

N

00 L-102

ENLARGED LANDSCAPE PLAN

SCALE: 1" = 10'

0 10' 20'

100% FOR CONSTRUCTION

525 VINE STREET
SUITE 1300
CINCINNATI, OHIO 45202
B&N BURGESS & NIPLE

Clermont County Park District
Grailville Preserve & Park - Phase 1
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ENLARGED LANDSCAPE PLAN

SHEET IDENTIFICATION
L-102

SHEET: 13 OF 68

STATE OF OHIO
DARREN R. CURTIS
04/02/2026
LA.2401707
REGISTERED LANDSCAPE ARCHITECT

LANDSCAPE LEGEND:

- DECIDUOUS TREES
- EVERGREEN TREES
- ORNAMENTAL TREES
- SHRUBS
- ENGINEERED WOOD FIBER MULCH (EWF)
- DOUBLE SHREDDED HARDWOOD MULCH
- EASTERN SEED MIX (MOD. ERN-MX-115)
- WETLAND MIX (2" PLUGS)
- POLLINATOR MIX
- SWALE COBBLE STONES
- BENCH WITH STONE MULCH
- STONE LANDINGS / RETAINING WALL
- GARDEN PATH FIELD STONES
- FIELD STONE BOULDERS
- CONTOURS (SEE CIVIL SHEETS

PARKING LOT

EX R/W

GAS VALVE EL. 703.77

N

00 L-103

ENLARGED LANDSCAPE PLAN

SCALE: 1" = 10'

0 10' 20'

100% FOR CONSTRUCTION

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CINCINNATI, OHIO 45202

B&N BURGESS & NIPLE

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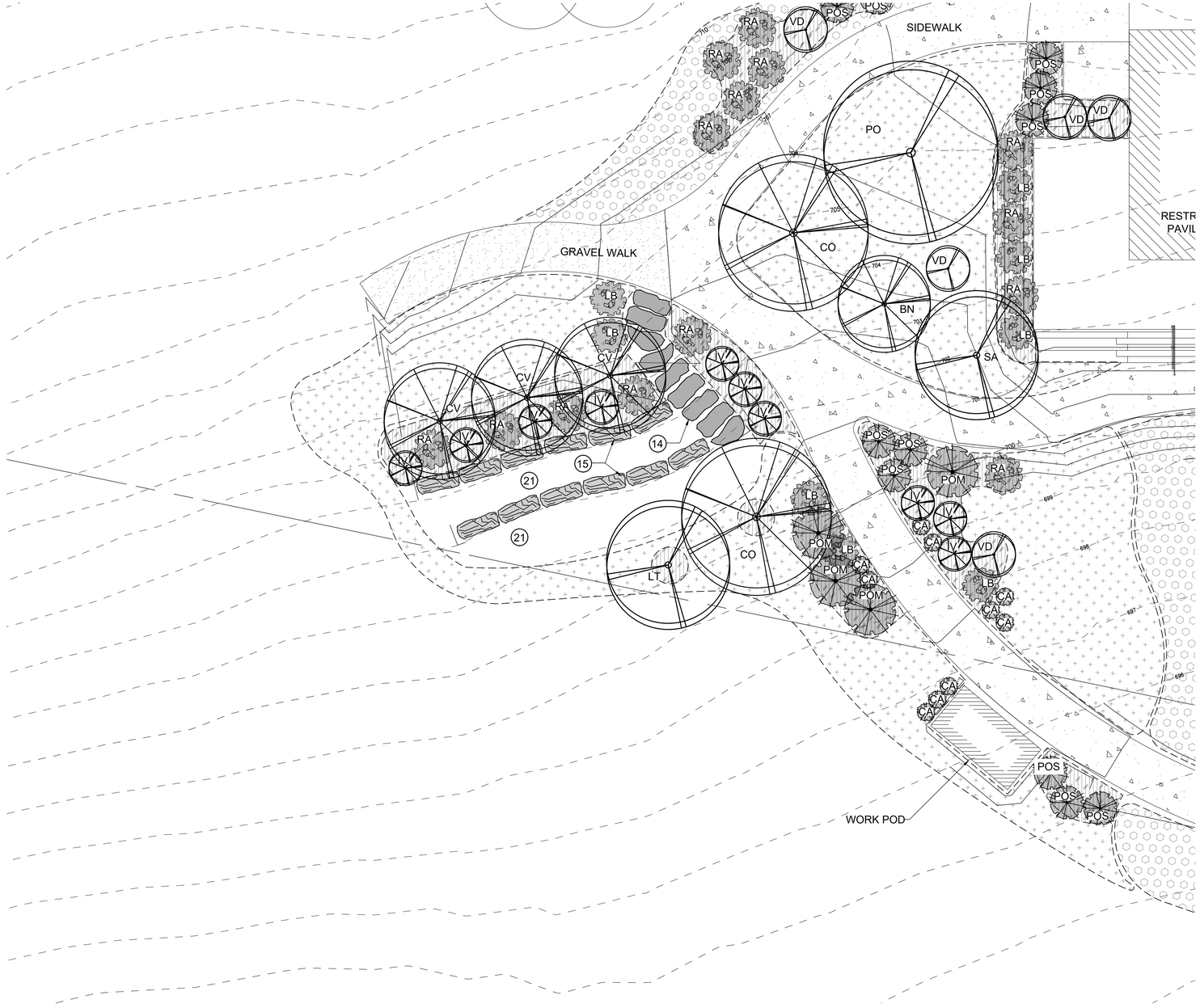
ENLARGED LANDSCAPE PLAN

SHEET IDENTIFICATION
L-103

SHEET: 14 OF 68

STATE OF OHIO
DARREN R. CURTIS
04/02/2026
LA.2401707
REGISTERED
LANDSCAPE ARCHITECT



LANDSCAPE LEGEND:

- DECIDUOUS TREES
- EVERGREEN TREES
- ORNAMENTAL TREES
- SHRUBS
- ENGINEERED WOOD FIBER MULCH (EWF)
- DOUBLE SHREDDED HARDWOOD MULCH
- EASTERN SEED MIX (MOD. ERN-MX-115)
- WETLAND MIX (2" PLUGS)
- POLLINATOR MIX
- SWALE COBBLE STONES
- BENCH WITH STONE MULCH
- STONE LANDINGS / RETAINING WALL
- GARDEN PATH FIELD STONES
- FIELD STONE BOULDERS
- CONTOURS (SEE CIVIL SHEETS

N

00 / L-104

ENLARGED LANDSCAPE PLAN

SCALE: 1" = 10'

0 10' 20'

100% FOR CONSTRUCTION

525 VINE STREET
SUITE 1300
CINCINNATI, OHIO 45202
B&N BURGESS & NIPLE

Clermont County Park District
Grailville Preserve & Park - Phase 1
Miami Township
Clermont County, Ohio

REVISIONS NO.	DESCRIPTION	DATE

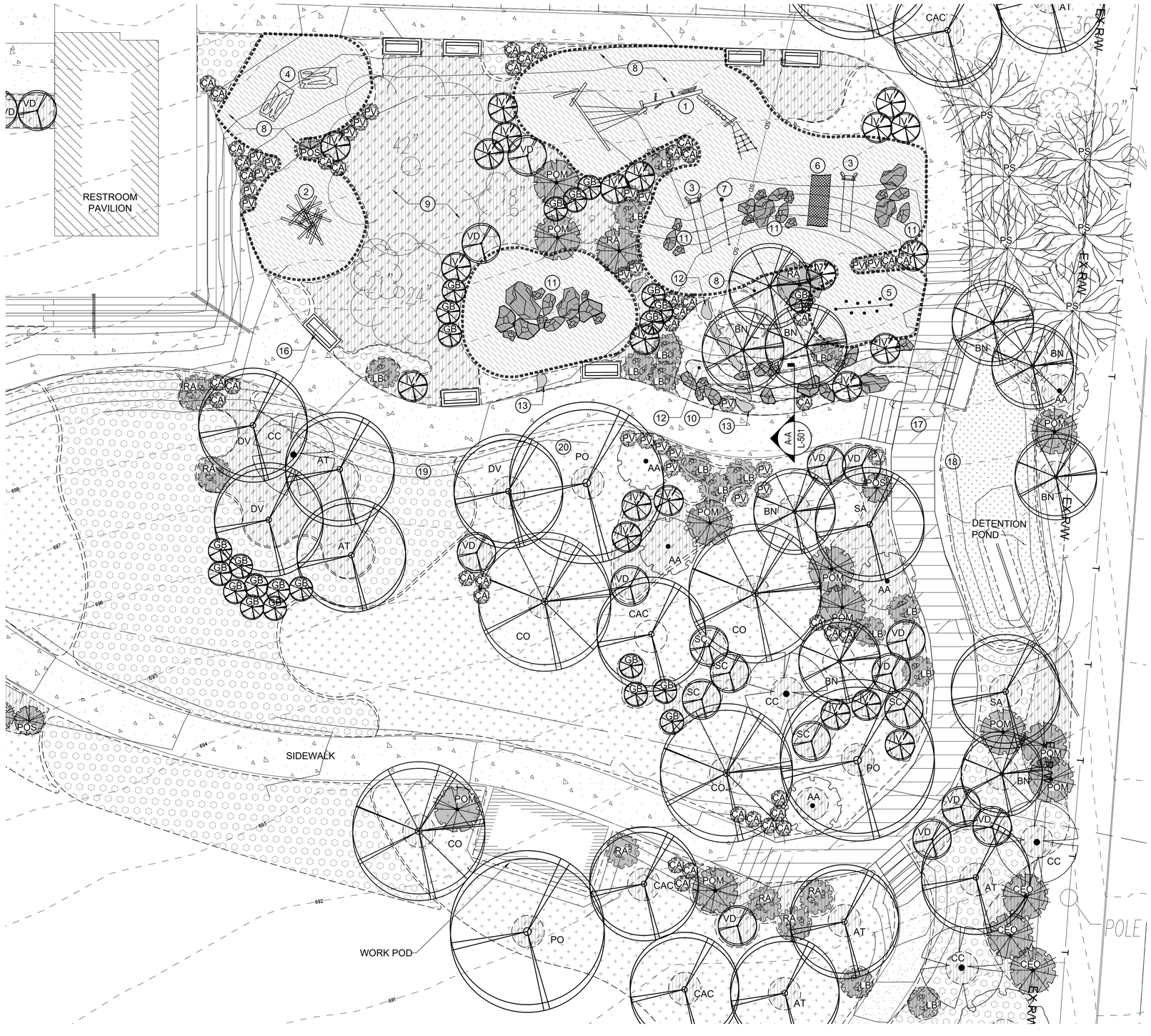
JOB NO:	PR63329
DATE:	04/02/2026
DESIGNED BY:	DRC
DRAWN BY:	CLE
CHECKED BY:	DRC
APPROVED BY:	DRC
SCALE:	NOTED

ENLARGED LANDSCAPE PLAN

SHEET IDENTIFICATION
L-104

SHEET: 15 OF 68

STATE OF OHIO
DARREN R. CURTIS
04/02/2026
LA.2401707
REGISTERED LANDSCAPE ARCHITECT



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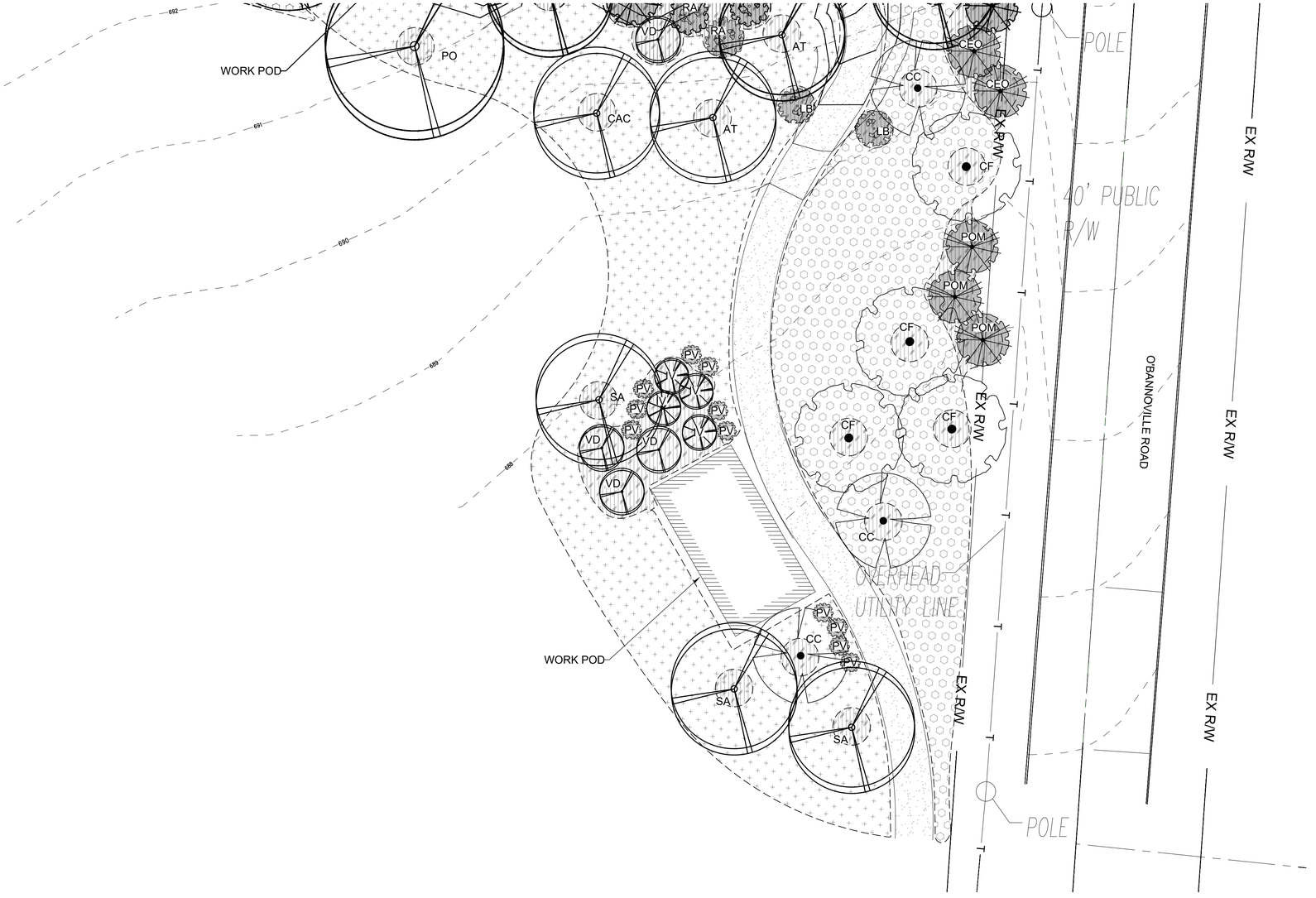

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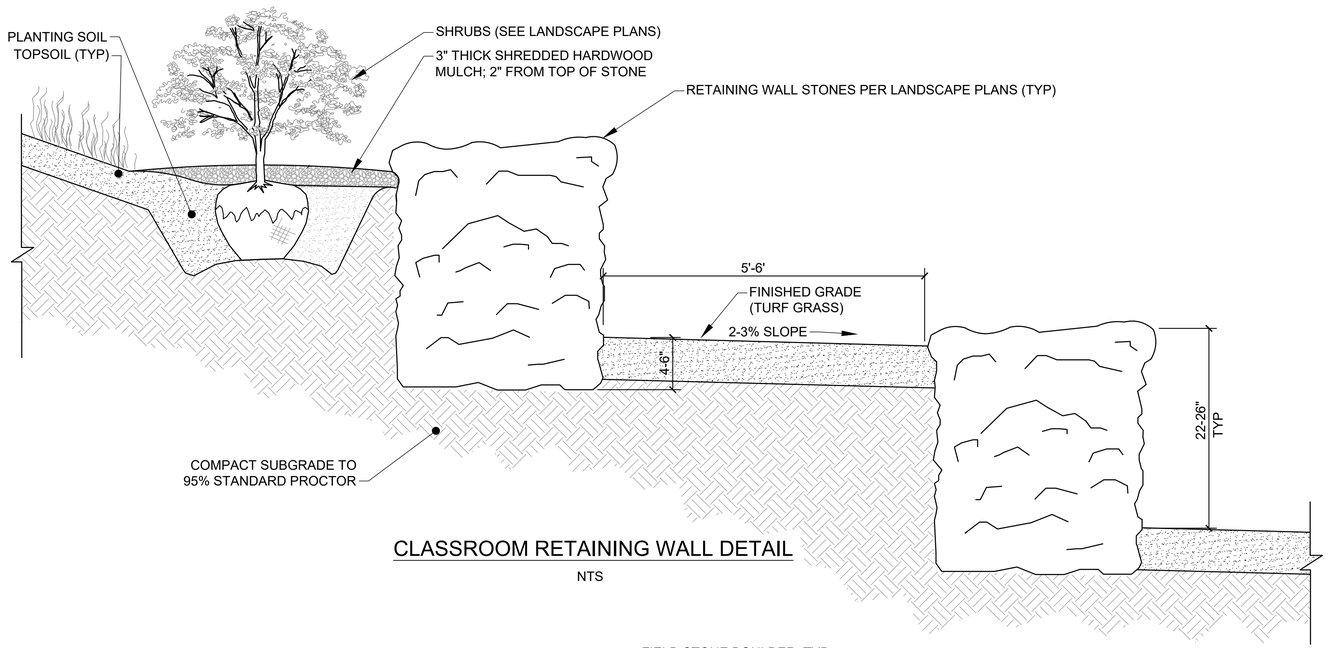
LANDSCAPE ARCHITECT

PLANT SCHEDULE

ABR	QTY	SCIENTIFIC NAME	COMMON NAME	NOTES	PLANTING SIZE
DECIDUOUS TREES					
AT	7	ASIMINA TRILOBA	PAW PAW	B&B	1" CAL.
BN	9	BETULA NIGRA	RIVER BIRCH	B&B	1" CAL.
CAC	4	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	B&B	1" CAL.
CO	7	CARYA OVATA	SHAGBARK HICKORY	B&B	1" CAL.
DV	3	DIOSPYROS VIRGINIANUM	PERSIMMON	B&B	1" CAL.
LT	1	LIRIODENDRON TULIPIFERA	TULIP POPLAR	B&B	1.5" CAL.
PO	8	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	B&B	2" CAL.
SA	6	SASSAFRAS ALBIDUM	SASSAFRAS	B&B	1" CAL.
ORNAMENTAL TREES					
AA	8	AMELANCHIER ARBOREA	DOWNY SERVICEBERRY	B&B	1" CAL.
CC	8	CERCIS CANADENSIS	EASTERN REDBUD	B&B	1" CAL.
CV	3	CHIOANTHUS VIRGINICUS	WHITE FRINGETREE	B&B	1" CAL.
CF	4	CORNUS FLORIDA	CHEROKEE DOGWOOD	B&B	1" CAL.
EVERGREEN TREES					
PS	6	PINUS STROBUS	EASTERN WHITE PINE	B&B, 15' OC	6' HT.
SHRUBS					
CA	50	CEANOTHUS AMERICANUS	NEW JERSEY TEA	B&B/CONTAINER	18"-24" HT.
CEO	5	CEPHALANTHUS OCCIDENTALIS	BUTTONBUSH	B&B/CONTAINER	24"-36" HT.
GB	23	GAYLUSSACIA BACCATA	BLACK HUCKLEBERRY	B&B/CONTAINER	18"-24" HT.
IV	50	ITEA VIRGINICA	VIRGINIA SWEETSPIRE	B&B/CONTAINER	18"-24" HT.
LB	26	LINDERA BENZOIN	SPICE BUSH	B&B/CONTAINER	24"-36" HT.
POS	14	PHYSOCARPUS OPULIFOLIUS 'SMPOTW	TINY WINE NINEBARK	B&B/CONTAINER	24"-36" HT.
POM	24	PHYSOCARPUS OPULIFOLIUS 'MINDIA'	COPPERTINA NINEBARK	B&B/CONTAINER	24"-36" HT.
PV	35	PYCNANTHEMUM VIRGINIANUM	MOUNTAIN MINT	B&B/CONTAINER	18"-24" HT.
RA	37	RHUS AROMATICA	FRAGRANT SUMAC	B&B/CONTAINER	24"-36" HT.
SC	9	SAMBUCUS CANADENSIS	AMERICAN ELDERBERRY	B&B/CONTAINER	24"-36" HT.
VD	30	VIBURNUM DENTATUM	SOUTHERN ARROWWOOD VIBURNUM	B&B/CONTAINER	24"-36" HT.

NOTE: ALL PLANTS ARE TO BE FURNISHED WITH A ONE YEAR WARRANTY.



CLASSROOM RETAINING WALL DETAIL

NTS

SEED & PLUG LEGEND:

WETLAND MIX: 2" PLUGS, 16" OC
PROVIDE THE FOLLOWING:

MIX COMPOSITION	COMMON NAME
25.0% CAREX TRICTA	TUSSOCK SEDGE
25.0% CAREX VULPINOIDEA	FOX SEDGE
25.0% EUTROCHIUM PURPUREUM	JOE PYE WEED
25.0% CHELONE GLABRA	WHITE TURTLEHEAD

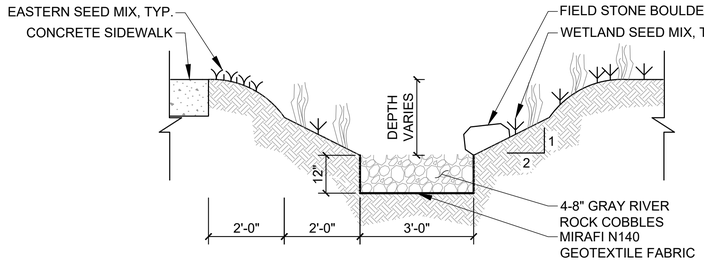
POLLINATOR MIX
6-10 LB PER ACRE WITH 30 LB PER ACRE OF A COVER CROP (GRAIN OATS, JAN 1-AUG 1; GRAIN RYE, AUG 1-JAN 1)

MIX COMPOSITION	COMMON NAME
20% ECHINACEA PURPUREA	(PURPLE CONEFLOWER)
20% RHUDBECKIA HIRTA	(BLACK EYED SUSAN)
20% MONARDA FISTULOSA	(BEE BALM)
20.0% HELIOPSIS HELIANTHOIDES,	(OXEYE SUNFLOWER)
20% LUPINUS PERENNIS	(LUPINE)

EARNST SEED MIX (MODIFIED ERN-MX-115)
BIODIVERSE POLYCULTURE MIX
10 PURE LIVE SEED LB PER ACRE 30 LBS/ACRE OF A COVER CROP. FOR A COVER CROP USE EITHER GRAIN OATS (1 JAN TO 31 JUL) OR GRAIN RYE (1 AUG TO 31 DEC).

MIX COMPOSITION	COMMON NAME
33.0% ANDROPOGON GERARDII, 'NIAGARA'	(BIG BLUESTEM)
15.0% PANICUM VIRGATUM, 'RC CHIPPEWA'	(SWITCHGRASS)
15.0% PANICUM VIRGATUM, 'HABITAT'-NJ ECOTYPE	(SWITCHGRASS)
15.0% PANICUM VIRGATUM, 'SHAWNEE'	(SWITCHGRASS)
6.3% CHAMAECRISTA FASCICULATA, PA ECOTYPE	(PARTRIDGE PEA)
4.3% HELIOPSIS HELIANTHOIDES, PA ECOTYPE	(OXEYE SUNFLOWER)
4.3% DESMODIUM PANICULATUM, PA ECOTYPE	(PANICLEDLEAF TICKTREFOIL)
4.1% SENNA HEBECARPA, VA & WV ECOTYPE	(WILD SENNA)
2.8% ASCLEPIAS SYRIACA	(COMMON MILKWEED)

ALL SEED MIXES SHALL BE HYDROSEEDED UNLESS OTHERWISE APPROVED BY THE OWNER IN WRITING.



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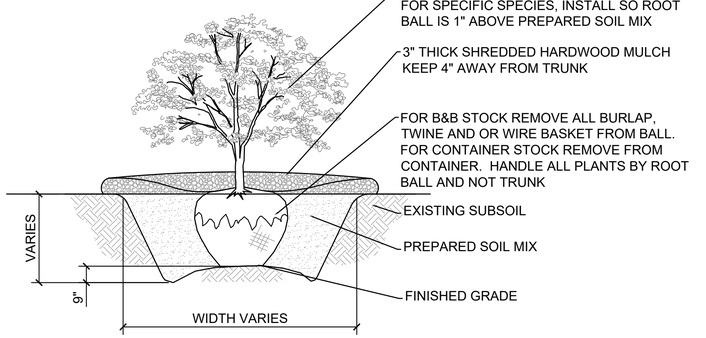
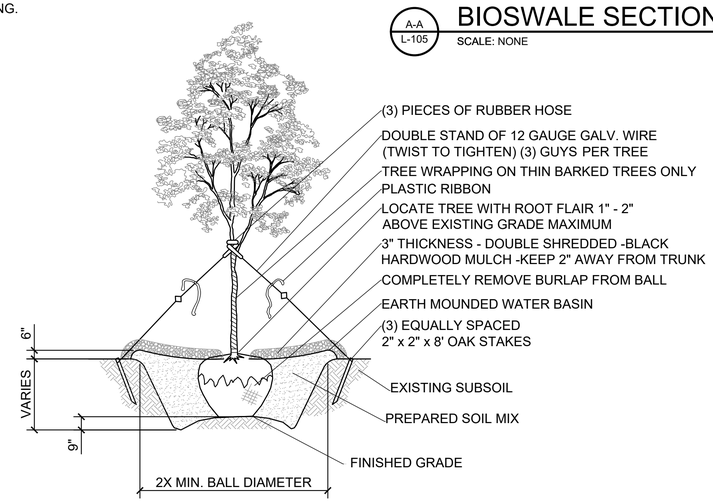
BIOSWALE SECTION

SCALE: NONE



SHRUB PLANTING DETAIL

NTS



DECIDUOUS TREE PLANTING DETAIL

NTS

NOTE:
FOR MULTISTEMMED TREES, PROVIDE GUY WIRES ON EACH MAJOR STEM

OUTDOOR STEEL BENCH WITH BACK

NOTES
- RAILING COLOR SHALL BE BLACK
- SEATING SURFACES SHALL BE THERMALLY MODIFIED OAK
- PROVIDE 6' LONG BENCH
- BENCH SHALL BE SECURED TO THE GROUND
- CONFIRM LOCATION WITH OWNER PRIOR TO MOUNTING
- BASIS OF DESIGN IS WILLARD OUTDOOR BENCH

LINK: https://premiumparkproducts.com/product/willard-bench/

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LANDSCAPE SCHEDULES & DETAILS

SHEET IDENTIFICATION
L-501

SHEET: 18 OF 68

LANDSCAPING NOTES

1. ALL REQUIRED PLANTINGS SHALL CONFORM WITH THE MOST RECENT EDITION OF AMERICAN STANDARD FOR NURSERY STOCK, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
2. ALL AREAS WITHIN A 5' RADIUS OF EACH TREE AND SHRUB SHALL BE EXCAVATED AND BACK-FILLED WITH QUALITY TOPSOIL. THE TOPSOIL SHALL BE HIGH IN ORGANIC MATTER AND SHALL ALLOW WATER TO PERCOLATE READILY. TOPSOIL SHALL NOT CONTAIN CLAY. THE EXCAVATION OF THESE PLANTING AREAS SHALL BE A MINIMUM OF 24". SEE SPECIFICATIONS FOR OBTAINING SOIL AMENDMENT RECOMMENDATIONS FROM A TESTING LABORATORY IN ORDER TO AMEND-ON SITE STRIPPED TOPSOIL PRIOR TO PLACEMENT.
3. PROVIDE AND SUPPORT ALL PLANTINGS PER THE DETAILS ON THIS SHEET DO NOT MOUND THE ROOT BALLS OF SHRUBS AND TREES.
4. THE CONTRACTOR SHALL MAINTAIN A ONE (1) CALENDAR YEAR 80% CARE AND REPLACEMENT WARRANTY FOR ALL LANDSCAPING, INCLUDING TREES, SHRUBS, PLUGS, SEED, AND HYRDROSEED. THE PERIOD OF CARE AND REPLACEMENT SHALL BEGIN AFTER INSPECTION AND APPROVAL OF THE COMPLETE INSTALLATION OF ALL PLANTS AND CONTINUE FOR ONE CALENDAR YEAR.
5. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL ON-SITE UTILITIES (CALL OHIO 811 BEFORE ANY EXCAVATION.) THE CONTRACTOR SHALL PERFORM PRIVATE UTILITY MARKINGS AS REQUIRED AND IS RESPONSIBLE FOR REPAIRS AND ALL EXPENSES RELATED TO THE DAMAGING OR DISRUPTION OF ALL UTILITIES.
6. PLANTS WILL BE PREPARED FOR SHIPMENT IN A MANNER THAT WILL NOT CAUSE CHANGE TO THE BARK, BUDS, BRANCHES, STEMS, OR OVERALL SHAPE OF THE STOCK. CONTAINER GROWN PLANTS WILL BE TRANSPORTED IN THE CONTAINERS IN WHICH THEY HAVE BEEN GROWN.
7. ALL PLANT MATERIAL, UNLESS OTHERWISE SPECIFIED, SHALL BE UNIFORMLY BRANCHED AND HAVE A VIGOROUS ROOT SYSTEM. PLANT MATERIAL SHALL BE HEALTHY, VIGOROUS, AND FREE FROM DEFECTS, DECAY, DISEASES, INSECT PEST EGGS, AND ALL FORMS OF INFESTATION. ALL PLANT MATERIALS SHALL BE FRESH, FREE FROM TRANSPLANT SHOCK OR VISIBLE WILT. PLANTS DEEMED UNHEALTHY WILL BE REJECTED.
8. ALL CONTAINER STOCK SHALL HAVE BEEN PROPAGATED IN A CONTAINER LONG ENOUGH FOR THE ROOT SYSTEM TO HAVE DEVELOPED SUFFICIENTLY TO HOLD ITS SOIL. CONTAINER STOCK WITH POORLY DEVELOPED ROOT SYSTEMS WILL NOT BE ACCEPTED.
9. PLANTS NOT INSTALLED ON THE DAY OF ARRIVAL ON SITE SHALL BE STORED AND PROTECTED BY THE CONTRACTOR. OUTSIDE STORAGE AREAS WILL BE SHADED AND PROTECTED FROM THE WIND AND SUN. PLANTS STORED ON SITE SHALL BE PROTECTED FROM ANY DRYING AT ALL TIMES BY COVERING THE BALLS OR ROOTS WITH MOST SAWDUST, WET BURLAP, WOOD CHIPS, SHREDDED BARK, PEAT MOSS, OR OTHER SIMILAR MULCHING MATERIALS.
10. MINOR FIELD ADJUSTMENTS MAY BE NECESSARY DUE TO SITE CONDITIONS (EX: ROOTBALL AND UTILITY CONFLICT) ADJUSTMENTS GREATER THAN 5' MUST BE APPROVED BY THE OWNER.
11. NO PLANTING SHALL OCCUR WHEN THE SOIL IS FROZEN.
12. THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND DISPOSAL OF TRASH AND DEBRIS ON A DAILY BASIS.
13. ALL LANDSCAPING SHALL BE INSTALLED IN ACCORDANCE WITH THE APPROVED PLAN AND SHALL BE MAINTAINED IN ACCORDANCE WITH ANSI A300 (AMERICAN NATIONAL STANDARDS INSTITUTE REGARDING ARBORICULTURE).
14. EXISTING TREES AND SHRUBS INDICATED TO REMAIN SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES BY INSTALLING TREE PROTECTIVE FENCING PER PROJECT PLANS AND SPECIFICATIONS.
15. ADJUST FINAL PLACEMENT OF TREES AS REQUIRED TO MAINTAIN A 10' SEPARATION FROM WATER LINES & GAS LINES. FINAL PLACEMENT SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT. PROVIDE ROOT BARRIER ADJACENT DECIDUOUS TREES THAT ARE LOCATED WITHIN 15' OF UTILITIES OR PAVEMENT.
16. WHERE TREES ARE LOCATED WITHIN 10' OF SEWER, STORM DRAIN LINES, GAS LINES, OR PAVEMENT, PROVIDE 36" WIDE VERTICAL ROOT BARRIER BETWEEN THE UTILITY/PAVEMENT AND THE TREE FOR THE WIDTH OF THE CANOPY AS SHOWN ON THE PLANS; SELECT COMMERCIAL GRADE BARRIER W/ TRIFLURALIN. INSTALL PER MANUFACTURES RECOMMENDATION.
17. ALL SEED MIXES SHALL BE HYDROSEEDED UNLESS OTHERWISE APPROVED BY THE OWNER IN WRITING.

BOULDER SPECIFICATIONS

1. 1. NATURAL BOULDER PLAY FEATURES.
2. PROVIDE SITE-SPECIFIC NATURAL FIELDSTONE BOULDERS ARRANGED FOR INFORMAL CLIMBING AND SCRAMBLING ONLY.
3. DESIGN AND INSTALLATION SHALL COMPLY WITH THE INTENT OF ASTM F1487-25, INCLUDING
   a. GENERAL REQUIREMENTS
   b. FALL HAZARD MITIGATION
   c. ENTRAPMENT AVOIDANCE
   d. HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)
4. MAXIMUM ACCESSIBLE FALL HEIGHT SHALL NOT EXCEED 48 INCHES ABOVE FINISHED PROTECTIVE SURFACING (PREFERRED ≤36 INCHES). VERTICAL FACES SHALL BE INTERRUPTED WITH TERRACES OR GEOMETRY THAT DISCOURAGES JUMPING.
5. PROVIDE A MINIMUM 6-FOOT USE ZONE AROUND ALL EXPOSED CLIMBING SURFACES WITH IMPACT-ATTENUATING SURFACING IN ACCORDANCE WITH THE 2025 CPSC PUBLIC PLAYGROUND SAFETY HANDBOOK. LOOSE-FILL SURFACING SHALL BE INSTALLED AND MAINTAINED AT SUFFICIENT DEPTH TO MEET FALL HEIGHT REQUIREMENTS. (NOT APPLICABLE TO BOULDERS IN BIOSWALE)
6. ALL VOIDS, CRACKS, OR CREVICES CAPABLE OF HEAD, NECK, TORSO, OR LIMB ENTRAPMENT SHALL BE ELIMINATED OR FILLED WITH COMPACTED SAND. AVOID DOWNWARD-TAPERING OPENINGS AND TIGHT FISSURES CAPABLE OF FINGER OR LIMB ENTRAPMENT.
7. BOULDERS SHALL BE SOUND, NON-FRIABLE NATURAL STONE FREE OF SHARP EDGES, UNSTABLE FRACTURE PLANES, OR POLISHED/SLIP-PRONE SURFACES.
8. EDGES SHALL BE NATURALLY ROUNDED OR DRESSED AS NECESSARY TO REDUCE INJURY RISK.
9. EACH BOULDER SHALL BE EMBEDDED A MINIMUM OF ONE-THIRD (1/3) ITS EXPOSED HEIGHT AND PLACED ON PROPERLY COMPACTED SUBGRADE OR GRANULAR BASE.
10. FINISHED INSTALLATION SHALL BE STABLE, NON-ROCKING, AND RESISTANT TO SETTLEMENT, ROTATION, OR DISPLACEMENT UNDER ANTICIPATED LOADS AND FREEZE-THAW CONDITIONS.
11. BOULDER PLAY ELEMENTS SHALL NOT BE LOCATED WITHIN SWING, SLIDE, OR MOVING EQUIPMENT USE ZONES, AND SHALL MAINTAIN CLEAR SIGHTLINES FOR ADULT SUPERVISION.
12. FINAL STONE SELECTION, GEOMETRY, PLACEMENT, MEANS AND METHODS OF INSTALLATION, FIELD ADJUSTMENTS, AND DETERMINATION OF COMPLIANCE WITH ASTM F1487-25 AND CPSC GUIDANCE ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND OWNER.
13. CONSULTANT PROVIDES DESIGN INTENT ONLY AND DOES NOT CONTROL OR VERIFY FINAL CONSTRUCTION, MATERIAL CONFIGURATION, SAFETY COMPLIANCE, OR LONG-TERM PERFORMANCE.
14. SEE KEY NOTES FOR NUMBER OF BOULDERS TO BE PROVIDED.

GEOTEXTILE SPECIFICATIONS

1. PROVIDE A GEOTEXTILE SEPARATION FABRIC BENEATH THE PLAYGROUND SURFACING MULCH. DO NOT PROVIDE GEOTEXTILE FABRIC IN OTHER LOCATIONS UNLESS SPECIFICALLY NOTED.
2. PROVIDE MIRAFI 140N NONWOVEN, PERMEABLE GEOTEXTILE FABRIC OR APPROVED EQUAL. INSTALL PER MFR RECOMMENDATIONS.
3. WOVEN GEOTEXTILES, PLASTIC SHEETING, OR IMPERMEABLE MEMBRANES ARE NOT PERMITTED.
4. PREPARE SUBGRADE SMOOTH AND FREE OF ABRUPT GRADE CHANGES, DEBRIS, ROOTS, AND SHARP OBJECTS PRIOR TO FABRIC PLACEMENT. INSTALL GEOTEXTILE LOOSELY OVER SUBGRADE WITHOUT TENSION.
5. OVERLAP ADJACENT FABRIC SHEETS A MINIMUM OF 12 INCHES.
6. EXTEND FABRIC CONTINUOUSLY BENEATH ENTIRE PLAYGROUND SURFACING AREA, TO EDGES OF CONTAINMENT BORDERS.
7. SECURE FABRIC EDGES AS NEEDED TO PREVENT DISPLACEMENT DURING PLACEMENT OF PLAYGROUND MULCH.
6. DO NOT PERMIT VEHICULAR OR TRACKED EQUIPMENT ON EXPOSED FABRIC.
7. REPAIR DAMAGED FABRIC PRIOR TO PLACEMENT OF SURFACING.

WETLAND PLANTING / COIR MATTING SPECIFICATIONS

1. 1.1 SUMMARY
   THIS SECTION INCLUDES FURNISHING AND INSTALLING BIODEGRADABLE COIR MATERIAL OVER NEWLY INSTALLED WETLAND PLUGS TO PROTECT PLANTING AREAS FROM EROSION, SCOUR, FLOTATION, AND DISPLACEMENT DURING ESTABLISHMENT.
2. SUBMITTALS
   2.1. PRODUCT DATA FOR COIR BLANKET OR COIR MAT, INCLUDING WEIGHT AND MATERIAL COMPOSITION.
   2.2. MANUFACTURER'S INSTALLATION INSTRUCTIONS.
3. PRODUCTS
   3.1. PROVIDE 100 PERCENT NATURAL COCONUT FIBER (COIR) EROSION CONTROL MATERIAL MEETING THE FOLLOWING:
      3.1.1. BIODEGRADABLE; NO SYNTHETIC NETTING
      3.1.2. MINIMUM FIBER WEIGHT: 400 G/M²
      3.1.3. THICKNESS SUITABLE TO ALLOW PLUG EMERGENCE WITHOUT CUTTING OR TEARING
      3.1.4. EXPECTED FUNCTIONAL LIFE: 18–36 MONTHS
   3.2. 2.2 FASTENERS
      BIODEGRADABLE STAKES OR HARDWOOD STAKES
      LENGTH AS REQUIRED TO SECURE COIR FLUSH TO SOIL SURFACE
      METAL STAPLES ARE NOT PERMITTED WITHIN WETLAND PLANTING AREAS
4. EXECUTION
   4.1. INSTALLATION SEQUENCE
      4.1.1. INSTALL AMENDED SOIL AND FINISH GRADING.
      4.1.2. INSTALL WETLAND PLUGS PER PLANTING PLAN.
      4.1.3. WATER PLUGS IMMEDIATELY AFTER INSTALLATION.
      4.1.4. INSTALL COIR MATERIAL SAME DAY AS PLANTING.
   4.2. COIR INSTALLATION
      4.2.1. LAY COIR DIRECTLY OVER SOIL SURFACE AFTER PLUG INSTALLATION.
      4.2.2. CAREFULLY SLIT OR CROSSCUT COIR AT EACH PLUG LOCATION TO ALLOW FOLIAGE TO EMERGE WITHOUT COMPRESSION.
      4.2.3. ENSURE CROWNS REMAIN EXPOSED; DO NOT BURY PLANT MATERIAL.
      4.2.4. MAINTAIN FULL CONTACT BETWEEN COIR AND SOIL SURFACE WITH NO BRIDGING OR TENTING.
      4.2.5. OVERLAP ADJACENT COIR EDGES A MINIMUM OF 6 INCHES.
      4.2.6. SECURE COIR AT PERIMETER AND THROUGHOUT FIELD AT SPACING SUFFICIENT TO PREVENT MOVEMENT DURING STORM EVENTS.
5. ESTABLISHMENT AND ACCEPTANCE
   5.1. MAINTENANCE
      5.1.1. REPLACE DISPLACED OR DAMAGED COIR DURING ESTABLISHMENT PERIOD.
      5.1.2. REPAIR TORN OR UNDERMINED AREAS PROMPTLY.
      5.1.3. REMOVE DEBRIS ACCUMULATION THAT RESTRICTS PLANT GROWTH.
      5.1.4. COIR SHALL REMAIN INTACT AND PROPERLY SECURED UNTIL VEGETATION IS ESTABLISHED.
      5.1.5. FULL BIODEGRADATION IS EXPECTED; REMOVAL IS NOT REQUIRED UNLESS DIRECTED BY OWNER.

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CHECKED BY:	DRC
APPROVED BY:	DRC
SCALE:	NOTED

LANDSCAPE NOTES

SHEET IDENTIFICATION
L-502

SHEET: 19 OF 68

ABBREVIATIONS

@ At
A.B. Anchor Bolt
AESS Architecturally Exposed Structural Steel
AP Aggregate Pier
ARCH. Architect or Architectural
BLDG. Building
BLKG. Blocking
B.O.F. Bottom of Footing
B.O.S. Bottom of Steel
BOTT. Bottom
BRG. Bearing
CANT. Cantilever
C.F.M.F. Cold Formed Metal Framing
C.J. Control Joint
CJP Complete Joint Penetration
CLR. Clear
CLSM Controlled Low Strength Material
CMU Concrete Masonry Unit
COL. Column
CONC. Concrete
CONN. Connection
CONST. Construction
CONT. Continuous
CONTR. Contractor
COORD. Coordinate
C.W. Curtain Wall
DET. Detail
DIA. or ø Diameter
DIAG. Diagonal or Diagram
DWG. Drawing
DWL. Dowel
E.F. Each Face
E.J. Expansion Joint
EL. Elevation
ELEV. Elevator
EMBED. Embedment
E.O.S. Edge of Slab
E.O.P. Edge of (bent) Plate
E.W. Each Way
EX. Existing
EXT. Exterior
F.F.S. Frost-Free Slab
F.S. Far Side
FTG. Footing
F.V. Field Verify
GA. Gauge or Gage
GALV. Galvanized
H.P. High Point
HORIZ. Horizontal
I.F. Inside Face
INT. Interior
JT. Joint
LLH Long Leg Horizontal
LLV Long Leg Vertical
LOC. Location
L.P. Low Point
LT. WT. Lightweight
MASY. Masonry
MAX. Maximum
MECH. Mechanical
MIN. Minimum
N.F. Near Face
N.I.C. Not In Contract
N.T.S. Not To Scale
O.C. On Center
O.F. Outside Face
OPNG. Opening
OPP. Opposite
P.C. Precast
PJP Partial Joint Penetration
R. Radius
REF. Reference
REINF. Reinforcing or Reinforcement
REQD. Required
SECT. Section
SIM. Similar
S.O.G. Slab On Ground
S.S. Stainless Steel
STIFF. Stiffener or Stiffened
T&B Top And Bottom
T.B.D. To Be Determined
T.O.C. Top of Concrete
T.O.F. Top of Footing
T.O.S. Top of Steel
T.O.W. Top of Wall
TYP. Typical
U.O.N. Unless Otherwise Noted
VERT. Vertical
W/ With
WWR Welded Wire Reinforcement
W.P. Work Point

CODES AND STANDARDS

1. NEW CONSTRUCTION HAS BEEN DESIGNED TO, AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING BUILDING CODES AND STANDARDS:
   A. 2024 OHIO BUILDING CODE (OBC 2024)
   B. ASCE 7-16, MINIMUM DESIGN LOADS AND ASSOCIATED CRITERIA FOR BUILDINGS AND OTHER STRUCTURES
2. UNLESS EXPLICITLY MODIFIED IN THE CONTRACT DRAWINGS AND SPECIFICATIONS, THE CONTRACTOR SHALL COMPLY WITH PROVISIONS OF:
   A. ACI 301-20, SPECIFICATIONS FOR STRUCTURAL CONCRETE
   B. ACI 318-19, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
   C. AISC 360-16, SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS
   D. AWS D1.1-15, STRUCTURAL WELDING CODE - STEEL
   E. SDI NC-17, STANDARD FOR NONCOMPOSITE STEEL FLOOR DECK
   F. SDI RD-17, STANDARD FOR STEEL ROOF DECK
   G. AWC NDS-2018, NATIONAL DESIGN SPECIFICATION (NDS) FOR WOOD CONSTRUCTION WITH 2018 SUPPLEMENT
   H. AWC SDPWS-21, SPECIAL DESIGN PROVISIONS FOR WIND AND SEISMIC
   I. ANSI 117-20, STANDARD SPECIFICATIONS FOR STRUCTURAL GLUED LAMINATED TIMBER OF SOFTWOOD SPECIES
   J. AITC 119-96, STANDARD SPECIFICATIONS FOR STRUCTURAL GLUED LAMINATED TIMBER OF HARDWOOD SPECIES
   K. TMS 402-2016, BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES

DESIGN LOADS

BOARDWALK LIVE LOAD ---------- 100 PSF

ROOF LOADS
ROOF LIVE LOAD ---------- 20 PSF

ROOF SNOW LOAD DATA

GROUND SNOW LOAD (OBC 1608.2) ---------- P_G = 20 PSF
FLAT-ROOF SNOW LOAD (ASCE 7, 7.3) ---------- P_F = 20 PSF
MINIMUM SNOW LOAD (ASCE 7, 7.3.4) ---------- P_M = 20 PSF
SNOW EXPOSURE FACTOR (ASCE 7, TABLE 7.3-1) ---------- C_E = 1.0
SNOW IMPORTANCE FACTOR (ASCE 7, TABLE 1.5-2) ---------- I_S = 1.0
THERMAL FACTOR (ASCE 7, TABLE 7.3-2) ---------- C_T = 1.2
SLOPE FACTOR (ASCE 7, FIGURE 7.4-1) ---------- C_S = 1.0

WIND DESIGN DATA

ULTIMATE DESIGN WIND SPEED (OBC FIGURE 1609.3) ---------- V_{ULT} = 106 MPH
NOMINAL DESIGN WIND SPEED (OBC 1609.3.1) ---------- V_{ASD} = 90 MPH
RISK CATEGORY (OBC, TABLE 1604.5) ---------- II
EXPOSURE CATEGORY (OBC 1609.4) ---------- C
INTERNAL PRESSURE COEFFICIENT (ASCE 7, TABLE 26.13-1) ---------- GCPI = ± 0.18
MWFRS
ROOF ZONE 3 ---------- -23.7 PSF
ROOF ZONE 4 ---------- -21.1 PSF
ROOF ZONE 5 ---------- -17.3 PSF
WALLS ---------- +25.2 PSF

(+) INDICATES PRESSURE ACTING TOWARD THE SURFACE
(-) INDICATES PRESSURE ACTING AWAY FROM THE SURFACE
EDGE AND CORNER ZONES ARE DEFINED AS AREAS WITHIN 4'-0" OF EDGE OR CORNERS

COMPONENTS AND CLADDING: SEE ROOF LOAD DIAGRAM

(2) COMPONENTS AND CLADDING ENGINEER MAY CALCULATE WIND LOADS BASED ON ACTUAL EFFECTIVE WIND AREA PER ASCE 7

EARTHQUAKE DESIGN DATA

RISK CATEGORY (OBC, TABLE 1604.5) ---------- II
SEISMIC IMPORTANCE FACTOR (ASCE 7, TABLE 1.5-2) ---------- I_E = 1.0
MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETERS
SHORT PERIOD ---------- S_S = 0.14 G
1-SECOND PERIOD ---------- S_1 = 0.074 G
SITE CLASS (PER GEOTECHNICAL REPORT) ---------- C
DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETERS
SHORT PERIOD ---------- S_{DS} = 0.122 G
1-SECOND PERIOD ---------- S_{D1} = 0.074 G
SEISMIC DESIGN CATEGORY ---------- B
BASIC SEISMIC-FORCE-RESISTING SYSTEM (ASCE 7, TABLE 12.2-1)
BUILDING FRAME SYSTEMS
ORDINARY REINFORCED MASONRY SHEAR WALLS
DESIGN BASE SHEAR (ASCE 7, 12.8-1) ---------- V = 7.4 KIPS
SEISMIC RESPONSE COEFFICIENT (ASCE 7, 12.8-2) ---------- C_S = 0.061
RESPONSE MODIFICATION FACTOR (ASCE 7, TABLE 12.2-1) ---------- R = 2
ANALYSIS PROCEDURE ---------- EQUIVALENT LATERAL FORCE PROCEDURE

DESIGN STRESSES

CONCRETE MINIMUM COMPRESSIVE STRENGTH IN 28 DAYS:
FOUNDATIONS ---------- f'_C = 4,500 PSI
WALLS & PIERS ---------- f'_C = 4,500 PSI
INTERIOR SLABS-ON-GRADE & FROST FREE SLABS ---------- f'_C = 4,000 PSI
LOW STRENGTH MORTAR (LSM) ---------- f'_C = 1,000 PSI
REINFORCING BARS (ASTM A615, GRADE 60) ---------- F_Y = 60,000 PSI
WELDED WIRE REINFORCEMENT (ASTM A1064) ---------- F_Y = 70,000 PSI
STRUCTURAL STEEL W, WT AND S SHAPES (ASTM A992 OR ASTM A572/50) ---------- F_Y = 50,000 PSI
STRUCTURAL STEEL OTHER SHAPES (ASTM A36) ---------- F_Y = 36,000 PSI
ANCHOR RODS (ASTM F1554, GRADE 55 WELDABLE) ---------- F_Y = 55,000 PSI
METAL DECKS (ASTM A653)
ROOF DECK ---------- F_Y = 33,000 PSI
NON-COMPOSITE FORM DECK ---------- F_Y = 60,000 PSI
HOLLOW STRUCTURAL SECTIONS (ASTM A500, GRADE C)
RECTANGULAR ---------- F_Y = 50,000 PSI
NET ALLOWABLE SOIL BEARING PRESSURE ---------- 2,000 psf

GENERAL

1. ALL NEW CONSTRUCTION SHALL COMPLY WITH THE CONTRACT DOCUMENTS AND THE BUILDING CODE.
2. TYPICAL DETAILS AND GENERAL NOTES APPLY TO ALL PARTS OF THE WORK EXCEPT WHERE SPECIFICALLY DETAILED OR UNLESS OTHERWISE NOTED.
3. THE STRUCTURAL DRAWINGS ILLUSTRATE STRUCTURAL MEMBERS. REFER TO ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR NON-STRUCTURAL ITEMS WHICH REQUIRE SPECIAL PROVISIONS DURING THE CONSTRUCTION OF THE STRUCTURAL MEMBERS.
4. DRAWINGS ARE NOT TO BE SCALED.
5. REFER TO ARCHITECTURAL PLANS FOR FLOOR DEPRESSIONS, OPENINGS, SLOPES, DRAINS, CURBS, PADS, EMBEDDED ITEMS, NON-BEARING PARTITIONS, ETC. REFER TO MECHANICAL AND ELECTRICAL PLANS FOR SLEEVES, OPENINGS, AND HANGERS FOR PIPES, DUCTS, AND EQUIPMENT.
6. NO PIPES OR DUCTS SHALL BE EMBEDDED INTO STRUCTURAL MEMBERS UNLESS SO SHOWN ON THE PLANS OR APPROVED BY THE ENGINEER.
7. THE CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS WHICH IMPACT THE WORK. FIELD VERIFY SIZES, ELEVATIONS, HOLE LOCATIONS, ETC., PRIOR TO FABRICATION.
8. THE CONTRACTOR SHALL CAREFULLY REVIEW THE DRAWINGS TO IDENTIFY THE SCOPE OF WORK REQUIRED, VISIT THE SITE TO RELATE THE SCOPE OF WORK TO EXISTING CONDITIONS AND DETERMINE THE EXTENT TO WHICH THOSE CONDITIONS AND PHYSICAL SURROUNDINGS WILL IMPACT THE WORK.
9. LOCATE EXISTING UNDERGROUND UTILITIES IN AREAS OF CONSTRUCTION. COORDINATE WITH UTILITY COMPANIES FOR ANY SHUT-OFF REQUIREMENTS OF STILL ACTIVE LINES.
10. THE CONTRACTOR SHALL RESOLVE ANY CONFLICTS ON THE DRAWINGS OR IN THE SPECIFICATIONS WITH THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE WORK.
11. ANY DEVIATION, MODIFICATION, OR SUBSTITUTION FROM THE APPROVED SET OF STRUCTURAL DRAWINGS SHALL BE SUBMITTED TO THE OWNER, ARCHITECT, AND ENGINEER FOR REVIEW/APPROVAL PRIOR TO ITS USE OR INCLUSION ON THE SHOP DRAWINGS.
12. THE CONTRACTOR SHALL PROVIDE MEANS, METHOD, TECHNIQUES, SEQUENCE, AND PROCEDURE OF CONSTRUCTION AS REQUIRED.
13. THE CONTRACTOR SHALL PROTECT ALL WORK, MATERIALS, AND EQUIPMENT FROM DAMAGE AND SHALL PROVIDE PROPER STORAGE FACILITIES FOR MATERIALS AND EQUIPMENT DURING CONSTRUCTION.
14. SITE VISITS PERFORMED BY THE ARCHITECT/ENGINEER DO NOT CONSTITUTE INSPECTIONS OF MEANS AND METHODS OF CONSTRUCTION PERFORMED BY THE CONTRACTOR.
15. STRUCTURAL OBSERVATIONS PERFORMED BY THE ARCHITECT/ENGINEER DURING CONSTRUCTION ARE NOT THE CONTINUOUS AND SPECIAL INSPECTION SERVICES AND DO NOT WAIVE THE RESPONSIBILITY FOR THE INSPECTIONS REQUIRED OF THE BUILDING DEPARTMENT INSPECTOR OR THE TESTING AGENCY. OBSERVATIONS ALSO DO NOT GUARANTEE THE CONTRACTOR'S PERFORMANCE AND SHALL NOT BE CONSIDERED AS SUPERVISION OF CONSTRUCTION.
16. THE CONTRACTOR SHALL REVIEW SHOP DRAWINGS FOR COMPLETENESS AND COMPLIANCE WITH CONTRACT DOCUMENTS. THE CONTRACTOR SHALL STAMP SHOP DRAWINGS PRIOR TO SUBMISSION TO THE ARCHITECT AND ENGINEER.
17. REVIEW OF THE SHOP DRAWINGS BY THE ARCHITECT/ENGINEER SHALL NOT BE CONSTRUED AS AN AUTHORIZATION TO DEVIATE FROM THE CONTRACT DOCUMENTS.
18. SHOP DRAWINGS WILL NOT BE PROCESSED IF THEY ARE INCOMPLETE, LACK COORDINATION WITH RELEVANT PORTION OF CONTRACT DOCUMENTS, LACK CALCULATIONS IF REQUIRED, OR IF DEVIATIONS, MODIFICATIONS, AND SUBSTITUTIONS ARE INDICATED WITHOUT PRIOR WRITTEN APPROVAL FROM THE ARCHITECT/ENGINEER.

FOUNDATIONS AND SLABS ON GROUND

1. GROUND SUPPORTED BUILDING COMPONENTS INCLUDING FOUNDATIONS, SLABS-ON-GRADE, FOUNDATION WALLS, AND RETAINING WALLS ARE DESIGNED IN ACCORDANCE WITH RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT PREPARED BY **UES**, DATED **JANUARY 7, 2026**. THE GEOTECHNICAL REPORT IS PROVIDED FOR REFERENCE AS THE SOURCE OF INFORMATION USED TO DESIGN GROUND SUPPORTED BUILDING COMPONENTS. THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE OR LIABLE FOR THE ACCURACY OF INFORMATION PRESENTED IN THE GEOTECHNICAL REPORT.
2. ELEVATIONS GIVEN ARE TO TOP OF FOOTINGS.
3. SLAB ELEVATIONS GIVEN ARE TO TOP OF STRUCTURAL SLAB. SEE ARCHITECT'S DRAWINGS FOR LAYOUT OF RAMPS AND STEPS.
4. ALL FOOTINGS MUST BE SUPPORTED ON UNDISTURBED SOIL CAPABLE OF ACHIEVING THE DESIGN SOIL BEARING PRESSURE WITHOUT APPRECIABLE SETTLEMENT. WHERE ADDITIONAL EXCAVATION IS REQUIRED TO ATTAIN THE DESIGN BEARING PRESSURE, BACKFILL THE OVEREXCAVATED AREA WITH LSM UP TO THE DESIGN BEARING ELEVATION. SEE SECTIONS FOR ADDITIONAL INFORMATION ON LSM BELOW FOUNDATIONS.
5. UNLESS OTHERWISE NOTED, COMPACT ALL ENGINEERED FILLS TO 98% OF THE MAXIMUM DRY DENSITY PER ASTM D1557 MODIFIED PROCTOR METHOD.
6. IN GRANULAR SOILS (SANDS AND GRAVEL) THE SOIL SHALL BE MECHANICALLY TAMPED TO A HARD SURFACE IMMEDIATELY PRIOR TO PLACING FOOTING.
7. BEFORE BACKFILL, ALL WALLS MUST BE ADEQUATELY BRACED. FOR BACKFILL REQUIREMENTS, SEE SPECIFICATIONS AND/OR GEOTECHNICAL REPORT.
8. PROVIDE A MINIMUM OF (4) #5 VERTICAL BARS AND #3@12" ON CENTER HORIZONTAL TIES FOR CONCRETE PIERS UNDER COLUMNS OR BEAMS.
9. WHEN EXCAVATIONS APPROACH THE GROUND WATER LEVEL, THE WATER LEVEL SHALL BE LOWERED BY AN ACCEPTABLE DEWATERING SYSTEM SO THAT THE WATER LEVEL IS MAINTAINED CONTINUOUSLY A MINIMUM OF 2'-0" BELOW THE EXCAVATION.
10. THE BOTTOM OF FOUNDATIONS SHALL BE PROTECTED AGAINST FREEZING UNTIL BACKFILL OR OTHER PERMANENT PROTECTIVE COVER IS IN PLACE.

CONCRETE CONSTRUCTION

1. ALL CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE ACI 318 AND ACI DETAILING MANUAL, EXCEPT THAT CONSTRUCTION AND REMOVAL OF FORMS AND RESHORING SHALL BE INSPECTED BY THE CONTRACTOR'S ENGINEER.
2. REINFORCING STEEL SHALL HAVE THE FOLLOWING MINIMUM COVERAGE IN ACCORDANCE WITH THE FOLLOWING TABLE. PLACE BARS AS NEAR TO THE CONCRETE SURFACE AS THESE MINIMA PERMIT WHEREVER POSSIBLE, UNLESS NOTED OTHERWISE:

Concrete Exposure	Member	Reinforcement	Specified cover, in.
Cast against and permanently in contact with ground	All	All	3
Exposed to weather or in contact with ground	All	No. 6 through No. 18 bars	2
		No. 5 bar and smaller	1 1/2
Not exposed to weather or in contact with ground	Slabs, joists and walls	No. 14 and No. 18 bars	1 1/2
		No. 11 bar and smaller	3/4
	Beams, columns, pedestals, and tension ties	Primary reinforcement, stirrups, ties, spirals, and hoops	1 1/2

3. WELDED WIRE REINFORCEMENT FOR SLABS ON GROUND SHALL HAVE A MINIMUM TOP COVERAGE OF 1" AND A MAXIMUM TOP COVERAGE OF 1 1/2", UNLESS OTHERWISE NOTED. REINFORCEMENT SHALL BE POSITIVELY SUPPORTED AND MAINTAINED IN THIS POSITION DURING PLACEMENT OF CONCRETE.
4. FURNISH BAR SUPPORTS WHERE NECESSARY DURING CONSTRUCTION.
5. PROVIDE PIPE SLEEVES AND INSERTS IN CONCRETE WORK WHERE REQUIRED. SEE ARCHITECTURAL AND MECHANICAL DRAWINGS.
6. OBTAIN APPROVAL OF ENGINEER BEFORE LOCATING SLEEVES, HOLES, OR INSERTS IN SLABS WITHIN 2'-0" OF FACE OF COLUMNS OR ANYWHERE IN BEAMS, JOISTS, OR COLUMNS.
7. UNLESS NOTED OTHERWISE, PROVIDE THE FOLLOWING MINIMUM REINFORCING:
   A. SLABS ON GROUND, SLABS ON DECK, AND TOPPINGS (2" MINIMUM): 6X6-W2.9XW2.9 WELDED WIRE REINFORCEMENT IN FLAT SHEETS.
   B. WALLS: #4@12" ON CENTER EACH WAY (FOR EACH 6" OF WALL THICKNESS).
8. CONSTRUCTION JOINTS SHALL BE POSITIONED SO AS NOT TO CHANGE THE STRUCTURAL DESIGN REQUIREMENTS. THE LOCATION AND SIZE OF ALL CONSTRUCTION JOINTS SHALL BE APPROVED BY THE ENGINEER. SUBMIT PROPOSED POUR LAYOUT FOR ENGINEER'S REVIEW AND APPROVAL TWO WEEKS PRIOR TO PLACING CONCRETE.
9. WELDING OF REINFORCING BARS (INCLUDING TACK WELDING) IS NOT PERMITTED WITHOUT PERMISSION OF ENGINEER IN WRITING. WHERE AND WHEN PERMITTED, WELDED REBARS SHALL COMPLY WITH ASTM A706 (FY=60 KSI) AND WELDING SHALL CONFORM TO AWS D1.4. WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS.
10. PROVIDE HORIZONTAL KEYWAYS IN CONSTRUCTION JOINTS IN BEAMS, JOISTS, SUPPORTED SLABS, WALLS, AND WALL FOOTINGS; MINIMUM 1 1/2" DEPTH WITH HEIGHT EQUAL TO ONE-THIRD OF MEMBER DEPTH, UNLESS OTHERWISE SHOWN OR NOTED.
11. ALL EXPOSED CORNERS OF CONCRETE BEAMS, COLUMNS, WALLS, AND STEEL MEMBERS ENCASED IN CONCRETE ARE TO BE CHAMFERED 45°. MINIMUM CHAMFER TO BE 1/2".
12. UNLESS NOTED OTHERWISE IN PROJECT SPECIFICATIONS OR DRAWINGS, ALL EXPOSED CONCRETE SUBJECTED TO FREEZING AND THAWING SHALL HAVE A MINIMUM CEMENT CONTENT OF 610 POUNDS PER YARD, A MAXIMUM WATER/CEMENT RATIO OF 0.40, AND 6%±1.5% OF ENTRAINED AIR.
13. AT WALL AND FOOTING CORNERS, INNERMOST REINFORCING SHALL HAVE 1'-0" LONG HOOK AT FAR FACE. FOR OUTER REINFORCING, PROVIDE CORNER BARS WITH LAP LENGTH OF 36 BAR DIAMETERS (2'-0" MINIMUM).
14. KEY AND DOWEL ALL AREAWAYS AND OTHER PROJECTING ELEMENTS TO SUPPORTING WALLS WITH #4@12" ON CENTER EXTENDING 1'-0" INTO SUPPORTING WALL UNLESS NOTED.
15. PROVIDE FOUNDATION DOWELS FOR ALL WALLS, PIERS, AND COLUMNS SAME SIZE AND SPACING AS VERTICAL STEEL.
16. ALL BARS INTERRUPTED BY STRUCTURAL STEEL SHALL EXTEND TO WITHIN 1" OF STRUCTURAL STEEL FLANGE OR WEB AND HAVE A 90° HOOK UNLESS OTHERWISE SHOWN.
17. DRAWINGS SHOW TYPICAL REINFORCING CONDITIONS. CONTRACTOR SHALL PREPARE DETAILED PLACEMENT DRAWINGS OF ALL CONDITIONS SHOWING QUANTITY, SPACING, SIZES, CLEARANCES, LAPS, INTERSECTIONS, AND COVERAGE REQUIRED BY THE STRUCTURAL DETAILS, APPLICABLE CODE, AND TRADE STANDARDS. CONTRACTOR SHALL NOTIFY REINFORCING INSPECTOR OF ANY ADJUSTMENTS FROM TYPICAL CONDITIONS WHICH ARE PROPOSED IN PLACEMENT DRAWINGS TO FACILITATE FIELD PLACEMENT OF REINFORCING STEEL AND CONCRETE.
18. BAR BENDS SHALL BE MADE COLD. BARS SHALL NOT BE BENT AFTER ANY PORTION OF THE BAR IS ENCASED IN CONCRETE.
19. SPLICES (GRADE 60 DEFORMED BARS):
   A. LAP ALL TENSION SPLICES IN ACCORDANCE WITH THE FOLLOWING TABLES. PROVIDE CLASS B TENSION LAP SPLICES UNLESS OTHERWISE NOTED.
   B. TOP BARS ARE DEFINED AS HORIZONTAL BARS WITH MORE THAN 12" OF FRESH CONCRETE BELOW.

Bar Size	Class B Tension Lap Splice					
	f'_c = 3,000 psi		f'_c = 4,000 psi		f'_c = 5,000 psi	
	Top	Other	Top	Other	Top	Other
#3	28"	22"	24"	19"	22"	17"
#4	37"	29"	33"	25"	29"	23"
#5	47"	36"	41"	31"	36"	28"
#6	56"	43"	49"	37"	43"	34"
#7	81"	63"	71"	54"	63"	49"
#8	93"	72"	81"	62"	72"	56"
#9	105"	81"	91"	70"	81"	63"
#10	118"	91"	102"	79"	92"	70"
#11	131"	101"	113"	87"	102"	78"

Bar Size	Class A Development Length, l_d					
	f'_c = 3,000 psi		f'_c = 4,000 psi		f'_c = 5,000 psi	
	Top	Other	Top	Other	Top	Other
#3	22"	17"	19"	15"	17"	13"
#4	29"	22"	25"	19"	23"	17"
#5	36"	28"	31"	24"	28"	22"
#6	43"	33"	37"	29"	34"	26"
#7	63"	48"	54"	42"	49"	38"
#8	72"	55"	62"	48"	56"	43"
#9	81"	62"	70"	54"	63"	48"
#10	91"	70"	79"	61"	70"	54"
#11	101"	78"	87"	67"	78"	60"

TIMBER PILES:

1. PROVIDE TIMBER PILES OF SUFFICIENT LENGTH TO REMOVE BROOMED OR SPLIT PORTIONS CAUSED BY INSTALLATION METHODS. SYMMETRICALLY TRIM PILES TO A RIGHT TRUNCATED CONE AT THE TIP. CAREFULLY SHAPE THE TIP OF THE PILE SO THAT THE STEEL BOOT FITS SNUGLY AND SYMMETRICALLY.
2. TIMBER PILES SHALL NOT BE SPLICED.
3. TIMBER PILES SHALL HAVE A MINIMUM TIP DIAMETER OF 8-INCHES.
4. TIMBER PILES SHALL MEET THE REQUIREMENTS OF ODOT ITEM 711.26 AND ODOT SUPPLEMENT 1072.
5. PROVIDE ASSOCIATED PILE & FITTING MODEL T-8316 TIMBER PILE BOOT AT THE TIP OF EACH TIMBER PILE. INSTALL BOOT IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.
6. HANDLE AND STORE TIMBER PILES TO PREVENT WARPING.
7. ALL PILES SHALL BE TREATED FOR ROT AND DECAY BY CREOSOTING THE PILES IN ACCORDANCE WITH ODOT ITEM 712.06. IMMEDIATELY AFTER MAKING THE FINAL CUT-OFF AT THE TOP OF TIMBER PILE AND THE CUT NOTCHES IN THE TIMBER PILE FOR THE FOR THE GIRDERS THE EXPOSED CUT AREAS SHALL BE TREATED WITH COPPER NAPHTHENATE IN ACCORDANCE WITH AMERICAN WOOD PROTECTION ASSOCIATION (AWPA) STANDARD M4. ALL HOLES DRILLED THROUGH THE TIMBER PILES FOR BOLTS SHALL BE COATED WITH COAL-TAR ROOFING CEMENT FREE OF ASBESTOS.
8. SUBSURFACE CONDITIONS REVEALED BY THE TEST BORINGS INDICATE BEDROCK IS APPROXIMATELY 10 FEET BELOW THE CURRENT GROUND SURFACE.
9. THE TIMBER PILES SHALL BE INSTALLED TO BEAR ON THE UNDERLYING BEDROCK.
10. INSTALLATION METHODS USED BY THE CONTRACTOR SHALL NOT DAMAGE THE TIMBER PILING.
11. PRIOR TO INSTALLATION OF THE TIMBER PILING THE CONTRACTOR SHALL DETERMINE THE DEPTH TO BEDROCK AT THE CENTERLINE OF THE PROPOSED BOARDWALK AT NO GREATER THAN 20-FOOT INTERVALS BY INSTALLING SMALL DIAMETER (LESS THAN 3 INCHES) PROBE HOLES EXTENDING TO BEDROCK. THE PROBES CAN DRILLED, VIBRATED OR DRIVEN BUT THE METHODS EMPLOYED MUST ADEQUATELY DEFINE THE TOP OF BEDROCK TO THE SATISFACTION OF THE ENGINEER. ANY OPEN HOLES RESULTING FROM THE PROBING METHODS SHALL BE FILLED WITH CEMENT GROUT PER ODOT 510.02. THE CONTRACTOR SHALL DETERMINE THE BEDROCK SURFACE TO ASSIST HIM/HER IN OBTAINING THE CORRECT LENGTH OF THE TIMBER PILES AND TO DETERMINE THE TERMINAL DEPTH OF THE TIMBER PILE INSTALLATIONS TO PREVENT DAMAGE TO THE TIMBER PILES BY OVERDRIVING.
12. AFTER THE BEDROCK SURFACE HAS BEEN DETERMINED THE TIMBER PILES CAN BE INSTALLED.
13. NO PRE-AUGERING OF HOLES TO ASSIST THE INSTALLATION OF TIMBER PILES MAY BE PERFORMED UNLESS ACCEPTABLE TO THE ENGINEER.
14. THE TIMBER PILES SHALL BE INSTALLED WITH VIBRATORY INSTALLATION EQUIPMENT SUCH AS A MOVAX VIBRATORY PILE DRIVER. OTHER PILE INSTALLATION EQUIPMENT MAY BE USED IF ACCEPTABLE TO THE ENGINEER AND THE CONTRACTOR DEMONSTRATES IN THE FIELD THE REQUIREMENTS FOR TIMBER PILE INSTALLATION ARE MET. IMPACT HAMMERS MAY NOT BE USED AS THEY WOULD LIKELY DAMAGE THE PILES UPON ENCOUNTERING BEDROCK.
15. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER 21 DAYS PRIOR TO INSTALLING THE TIMBER PILES THE MEANS AND METHODS HE/SHE INTENDS TO EMPLOY TO SAFELY INSTALL THE PILES WITHOUT DAMAGE AND ENSURE THE PILES ARE FIRMLY SEATED ON BEDROCK.
16. ANY VOIDS IN THE GROUND THAT RESULT ALONG THE PILES AT COMPLETION OF THE INSTALLATION SHALL BE COMPLETELY FILLED WITH ODOT 510.02 CEMENT GROUT UP TO THE GROUND SURFACE. THE USE OF GROUT PIPES INSTALLED ALONG THE EDGE OF THE TIMBER PILES WITH PRESSURE GROUTING MAY BE REQUIRED TO ACCOMPLISH THE FILLING OF THE VOIDS.
17. THE TOP OF THE TIMBER PILE SHALL BE INSTALLED TO WITHIN 2 INCHES OF PLAN LOCATION.

STATE OF OHIO
ALEC BRENT PATTON
E-65536
REGISTERED
PROFESSIONAL ENGINEER

B&N
BURGESS & NIPLE
8160 NORTON PARKWAY
UNIT 200
MENTOR, OH 44060

CLERMONT COUNTY PARK DISTRICT
GRAILVILLE PRESERVE & PARK
MIAMI TOWNSHIP CLERMONT COUNTY, OHIO

NO.	DESCRIPTION	DATE
REVISIONS		

JOB NO:	PR63329
DATE:	04/02/2026
DESIGNED BY:	ABP
DRAWN BY:	TRK
CHECKED BY:	ABP
APPROVED BY:	ABP
SCALE:	12" = 1'-0"

GENERAL NOTES I

SHEET IDENTIFICATION
S-001

SHEET 20 OF 68

GLUE-LAMINATED TIMBER (GLULAM) CONSTRUCTION

1. CONSTRUCTION SHALL CONFORM TO THE NATIONAL DESIGN SPECIFICATION (NDS) FOR WOOD CONSTRUCTION.
2. FRAMING PLANS ARE SCHEMATIC; SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS.
3. GLULAM MEMBERS SHALL BE SOUTHERN PINE SP #24F-1.8E V8 STRESS GRADE WITH ARCHITECTURAL APPEARANCE GRADE AND 15% MAX MOISTURE CONTENT.
4. DESIGN VALUES:
   A. GLULAM STRESS CLASS SHALL MEET OR EXCEED THE STRESS CLASS INDICATED IN THE CONTRACT DOCUMENTS.
   MINIMUM DESIGN VALUES: (2018 NDS Supplement Guide Table 5A)

BENDING----------	Fb = 2400 PSI (Positive)
	Fb = 2400 PSI (Negative)
TENSION----------	Ft = 1150 PSI
SHEAR----------	Fv = 260 PSI
COMPRESSION PERP.----------	Fc (PERP)= 740 PSI
COMPRESSION----------	Fc = 1650 PSI
MODULUS OF ELASTICITY------	Emax = 1,800,000 PSI
	Emin = 950,000 PSI
SPECIFIC GRAVITY----------	G= 0.55

5. PROVIDE WET-USE ADHESIVE COMPLYING WITH ANSI A190.1.
6. CUTTING OF BEAMS FOR PIPES SHALL NOT BE PERMITTED WITHOUT THE APPROVAL OF THE ENGINEER.
7. SUBMIT SHOP DRAWINGS FOR REVIEW SHOWING ALL APPLICABLE DETAILS AND MATERIAL SPECIFICATIONS TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION. SHOP DRAWINGS SHALL BE ACCOMPANIED BY A CERTIFICATE OF CONFORMANCE TO MANUFACTURING STANDARDS.
8. ALL METAL FASTENERS, CONNECTORS OR OTHER HARDWARE EXPOSED TO WEATHER OR IN DIRECT CONTACT WITH PRESERVATION TREATED LUMBER SHALL BE STAINLESS STEEL, OR HAVE GALVANIZED COATING (PER ASTM A123 OR A153).
9. STORE GLULAM MEMBERS OFF THE GROUND WITH SPACER BLOCKS BETWEEN MEMBERS. KEEP WRAPPING ON THE MEMBERS UNTIL PERMANENT PROTECTION FROM THE WEATHER IS IN PLACE. CUT HOLES ON UNDERSIDE OF WRAPPING TO PREVENT ACCUMULATION OF CONDENSATION.
10. PROVIDE PRESERVATIVE TREATED GLULAM IN ACCORDANCE WITH AWPA U1, CATEGORY 3A.
11. ALL STEEL CONNECTING GLULAM ELEMENTS TO SUPPORTING MEMBERS SHALL BE DETAILED, SUPPLIED, AND TEST FITTED IN THE SHOP BY THE GLULAM SUPPLIER.
12. FINISH OF EXPOSED MEMBERS: SEE ARCHITECTURAL FOR DETAILS.
13. RE-TIGHTEN ALL ACCESSIBLE BOLTS AT END OF PROJECT.
14. THE MANUFACTURER OR GENERAL CONTRACTOR SHALL FURNISH METAL CONNECTORS, TIMBER CONNECTORS, AND RECOMMENDED FASTENERS FOR JOINING STRUCTURAL GLUED LAMINATED TIMBER MEMBERS TO EACH OTHER AND TO THEIR SUPPORTS, EXCLUSIVE OF ANCHORAGE EMBEDDED IN MASONRY OR CONCRETE, SETTING PLATES AND ITEMS FIELD-WELDED TO STRUCTURAL STEEL. STEEL CONNECTIONS SHALL BE FINISHED WITH ONE COAT OF RUST-INHIBITING PAINT OR PER THE ARCHITECTURAL DRAWINGS.
15. MANUFACTURE:
   A. STRUCTURAL GLUED LAMINATED TIMBER OF SOFTWOOD SPECIES SHALL CONFORM WITH ANSI A190.1, AMERICAN NATIONAL STANDARD FOR STRUCTURAL GLUED LAMINATED TIMBER, OR OTHER CODE-APPROVED DESIGN, MANUFACTURING AND/OR QUALITY ASSURANCE PROCEDURES.
   B. STRUCTURAL GLUED LAMINATED TIMBER MEMBERS SHALL BE MANUFACTURED FOR THE FOLLOWING STRUCTURAL USES AS APPLICABLE: SIMPLE SPAN BENDING MEMBER.
   C. GLULAM SHALL BE PREMIUM GRADE IN ACCORDANCE WITH ANSI A190.1.
   D. STRUCTURAL GLUED LAMINATED TIMBER SHALL BE MANUFACTURED WITH A BUILT-IN CAMBER.
   E. GLULAM SHALL BE SIZED AND MANUFACTURED FOR TWO-HOUR FIRE RESISTANCE. THE USE OF PRESSURE IMPREGNATED FIRE RETARDANT TREATMENT IS NOT RECOMMENDED.
   F. UNLESS OTHERWISE SPECIFIED, SEALER SHALL BE APPLIED TO THE ENDS OF ALL MEMBERS. SURFACES OF MEMBERS SHALL BE (NOT SEALED) (SEALED WITH PENETRATING SEALER) (SEALED WITH PRIMER/SEALER COATING).
   G. MEMBERS SHALL BE MARKED WITH THE APA TRADEMARK INDICATING CONFORMANCE WITH THE MANUFACTURING, QUALITY ASSURANCE, AND MARKING PROVISIONS OF ANSI A190.1.
   H. A CERTIFICATE OF CONFORMANCE MAY BE PROVIDED BY THE MANUFACTURER TO INDICATE CONFORMANCE WITH ANSI A190.1 IF REQUESTED.
   I. GLULAM SHALL BE INSTALLED PER THE MANUFACTURER'S REQUIREMENTS AND MARKINGS.
   J. CONTRACTOR'S EXPENSE. STS SHALL BE INSTALLED PER THE MANUFACTURER'S REQUIREMENTS.

STEEL CONSTRUCTION

1. STEEL DETAILING, FABRICATION, AND ERECTION SHALL CONFORM TO THE AISC SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS AND CODE OF STANDARD PRACTICE, AND THE AWS STRUCTURAL WELDING CODE.
2. STRESSES OCCURRING DURING FABRICATION, SHIPMENT, AND ERECTION SHALL BE TEMPORARY AND NOT EXCESSIVE. STRESSES AT ALL TIMES SHALL BE LESS THAN DESIGN AND ALLOWABLE STRESSES. THE FULL DESIGN AND LOAD-CARRYING CAPACITY OF THE STEEL WORK SHALL NOT BE IMPAIRED DUE TO FABRICATION, SHIPMENT, OR ERECTION PROCEDURES. THROUGHOUT THE COMPLETE PROCESS, THE STABILITY OF ALL INDIVIDUAL MEMBERS AND ASSEMBLES SHALL BE MAINTAINED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF ALL ERECTION PROCEDURES AND SEQUENCES WITH RELATION TO TEMPERATURE DIFFERENTIALS AND WELD SHRINKAGE.
4. ALL ADDITIONAL STEEL REQUIRED FOR ERECTION PURPOSES SHALL BE PROVIDED AT NO ADDITIONAL COST AND SHALL BE REMOVED UNLESS APPROVED BY THE OWNER IN WRITING.
5. CONNECTIONS - WELDED OR HIGH STRENGTH BOLTED:
   A. BOLTS SHALL BE ASTM F3125 AND SHALL BE INSTALLED IN ACCORDANCE WITH "SPECIFICATIONS FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS".
   B. PROVIDE SLIP CRITICAL BOLTS FOR ALL MOMENT CONNECTIONS, WIND CONNECTIONS, HANGERS, AND OTHER CONNECTIONS AS NOTED ON DRAWINGS.
   C. PROVIDE BEARING TYPE CONNECTIONS WITH THREAD INCLUDED IN THE SHEAR PLANE FOR ALL CONNECTIONS OTHER THAN SLIP CRITICAL CONNECTIONS.
   D. PROVIDE HARDENED WASHERS UNDER NUTS AT ALL HIGH-STRENGTH BOLTS, EXCEPT WHERE PLATE WASHERS ARE USED PER AISC SPECIFICATIONS.
   E. UNLESS SNUG TIGHT CONNECTIONS ARE NOTED ON THE DRAWINGS AS BEING PERMITTED, ALL BOLTS SHOULD BE TIGHTENED TO FULL PRETENSIONING LOAD.
   F. USE STANDARD HOLES WITH THE FOLLOWING EXCEPTIONS: OVERSIZE HOLES ARE PERMITTED WHEN BOLTS ARE LOADED IN TENSION; SHORT SLOTTED HOLES ARE PERMITTED FOR SHEAR LOADING PERPENDICULAR TO THE SLOT.
   G. PROVIDE BEVELED WASHERS ON ALL CONNECTIONS TO SLOPING FLANGES OF I SECTIONS AND CHANNELS WHERE SLOPE EXCEEDS 1:20.
   H. WHERE MINIMUM AISC FILLET WELD THICKNESS REQUIREMENT EXCEEDS WELDS SHOWN ON DETAILS, OR WELD SIZE IS NOT SPECIFIED, PROVIDE MINIMUM AISC WELD.
   I. THE LENGTH OF CONNECTION SHALL NOT BE LESS THAN ONE-HALF OF THE T DISTANCE OF THE BEAM WEB.
   J. WHERE REACTION IS NOTED, DEVELOP SAME. WHERE NOT NOTED, FOR NON-COMPOSITE BEAMS, CONNECTIONS SHALL DEVELOP ONE-HALF OF THE TOTAL UNIFORM LOAD CAPACITY OF THE BEAM; FOR COMPOSITE BEAMS, SEE TABLE LISTED IN TYPICAL DETAILS.
6. WELDING ELECTRODES SHALL BE E70XX EXCEPT WHERE OTHER ELECTRODES ARE REQUIRED FOR COMPATIBILITY WITH MATERIAL BEING WELDED.
7. ALL SLIP CONNECTIONS SHALL BE PROVIDED WITH A MEANS OF PREVENTING THE NUTS FROM UNTHREADING.
8. SHOP DRAWINGS ARE REQUIRED AND SHALL NOTE TYPE OF ELECTRODES, SIZE OF ALL WELDS, AND TYPE AND SIZE OF ALL BOLTS. SHOP DRAWINGS SHALL BE PREPARED UNDER THE SUPERVISION OF A PROFESSIONAL ENGINEER LICENSED IN THE JURISDICTION WHERE THE PROJECT IS LOCATED.
9. PRIMER, UNLESS OTHERWISE NOTED:
   A. CLEAN SURFACES TO REMOVE LOOSE RUST AND MILL SCALE AND SPATTER, SLAG, OR FLUX DEPOSITS. PREPARE SURFACES ACCORDING TO THE FOLLOWING SPECIFICATIONS AND STANDARDS: SSPC-SP 2, "HAND TOOL CLEANING" FOR ALL STEEL.
   B. DO NOT PAINT BEAMS THAT ARE ENCASED IN CONCRETE OR THAT ARE TO RECEIVE SPRAYED-ON FIREPROOFING.
   C. OMIT PAINT AT SLIP CRITICAL CONNECTIONS AND AREAS TO BE WELDED.
   D. INTERIOR STEEL: PROVIDE CHEMICALLY ACTIVE, MODIFIED ALKYD PRIMER AT 2.5 MILS DRY THICKNESS.
   E. EXTERIOR STEEL: PROVIDE FAST-CURING, TWO-COMPONENT, MOISTURE-CURED, ZINC-RICH URETHANE PRIMER FOR EXTERIOR STEEL AT 3.0 MILS DRY THICKNESS.
   F. GALVANIZED STEEL: PROVIDE WHERE NOTED.
10. BEAMS (16" OR GREATER IN DEPTH) AND COLUMNS THAT ARE ENCASED IN MASONRY SHALL HAVE ADJUSTABLE MASONRY ANCHORS SPACED AT 2'-0" ON CENTER.
11. SEE ALL CONTRACT DRAWINGS FOR MISCELLANEOUS STEEL REQUIREMENTS.
12. ALL SHOP AND FIELD WELDING SHALL BE PERFORMED BY A RECENTLY CERTIFIED WELDER.
13. ALL WELDING AND HIGH STRENGTH BOLTING MUST BE INSPECTED BY A QUALIFIED TESTING LABORATORY. LABORATORY SHALL BE APPROVED BY THE ARCHITECT AND/OR ENGINEER.
14. AT COLUMN BASE PLATES, PROVIDE A MINIMUM OF 1" GROUT WITH (4) 3/4" DIAMETER ANCHOR BOLTS WITH 1'-0" EMBEDMENT.
15. PROVIDE 1/4" CLOSURE PLATES AT ALL OPEN ENDS OF HSS MEMBERS.
16. MISCELLANEOUS HANGING LOADS SUCH AS STAIR STRINGERS, PIPES, MECHANICAL UNITS, ETC., SUPPORTED BY STEEL MEMBERS SHALL BE APPLIED IN SUCH A MANNER THAT NO TORSIONAL FORCES ARE INDUCED IN THE STEEL MEMBERS, I.E., LOADS SHALL PASS THROUGH THE CENTERLINE OF WIDE FLANGE SECTIONS AND THROUGH THE SHEAR CENTER OF CHANNELS.

WOOD FRAMING NOTES

1. GENERAL WOOD NOTES:
   A. ALL MEMBER SIZES INCLUDING A DOUBLE PRIME, OR DOUBLE QUOTES (″), MARK INDICATE NET SECTION SIZES, FOR EXAMPLE 11 ¼″x4 ½″ OR 7 ¼″x7 ¼″. CROSS-SECTIONS WITHOUT A DOUBLE QUOTE MARK ARE STANDARD NOMINAL SIZES, FOR EXAMPLE 2X4 OR 8X8.
   B. ALL STRUCTURAL WOOD ELEMENTS SHALL BE DRY WITH A MOISTURE CONTENT LESS THAN 15% WHEN FABRICATED AND INSTALLED; OR PER THE MANUFACTURER'S REQUIREMENTS OR PER INDUSTRY STANDARDS.
   C. DO NOT CUT OR NOTCH ANY WOOD MEMBER UNLESS SPECIFICALLY DETAILED OR INDICATED IN THE CONSTRUCTION DRAWINGS. SEE TYPICAL DETAILS FOR TYPICAL PERMITTED HOLES AND NOTCHES. FIELD NOTCHING DIFFERING FROM THE CONSTRUCTION DOCUMENTS IS NOT PERMITTED UNLESS APPROVED IN WRITING BY THE ENGINEER.
   D. PRIOR TO INSTALLATION ALL STRUCTURAL WOOD COMPONENTS SHALL BE PROTECTED AND STORED PER MANUFACTURER'S REQUIREMENTS.
2. WOOD RELATED SUBMITTALS:
   A. SUBMIT SHOP DRAWINGS AND/OR PRODUCT INFORMATION TO THE ENGINEER TO BE REVIEWED FOR GENERAL CONFORMANCE TO THE CONTRACT DOCUMENTS. SHOP DRAWINGS AND PRODUCT INFORMATION MUST SHOW DIMENSIONS OF EACH MEMBER, CONNECTION DETAILS, TIMBER SPECIES, OPENINGS, STRESS GRADE, AND ANY OTHER NECESSARY INFORMATION FOR REVIEW WITH THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL VERIFY DIMENSIONS.
   B. ALL SUBMITTALS SHALL INDICATE THE FOLLOWING IF RELEVANT TO THE SUBMITTED ITEMS: PROJECT NAME, SUBMITTAL NUMBER, CONTRACTING FIRM, SUPPLIER, MANUFACTURER, THE SUBMITTED ITEM(S), THE REFERENCED DRAWING AND/OR DETAILS, ANY QUESTIONS OR COMMENTS, AND THE CONTACT PERSON TENDERING THE SUBMITTAL.
3. SELF-TAPPING SCREWS:
   A. STRUCTURAL SELF-TAPPING SCREWS (STS) SHALL BE SIMPSON SCREWS AND MATCH THE TYPE INDICATED ON THE CONSTRUCTION DOCUMENTS. ANY ALTERNATIVE SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AT THE CONTRACTOR'S EXPENSE. STS SHALL BE INSTALLED PER THE MANUFACTURER'S REQUIREMENTS.
4. BOARDWALK FASTENERS:
   A. NAILS, BRADS, AND STAPLES:
   B. ALL CONNECTORS AND FASTENERS (NAILS, BOLTS, SCREWS, ETC) MANUFACTURED FROM TYPE 304 STAINLESS STEEL, AS INDICATED.
   BID ALTERNATIVE: FOR TYPE 316 STAINLESS STEEL.
   C. AS A MINIMUM, FASTEN ALL WOOD FRAMING TO COMPLY WITH THE "FASTENING SCHEDULE" OF THE REFERENCED BUILDING CODE AND THE ICC-ES EVALUATION REPORT FOR FASTENERS.
   D. STAGGER FASTENERS TO PREVENT SPLITTING, INCLUDING PARALLEL TO GRAIN SPLITTING.
   E. FASTEN MULTI-PLY MEMBERS TOGETHER USING (3) ROWS OF 16d NAILS AT 12 INCHES OC, UNLESS NOTED OTHERWISE.
5. BOLTS:
   A. ALL BOLTS SHALL BE A307 GRADE 5 AND MATCH THE DIAMETER SHOWN ON THE CONSTRUCTION DOCUMENTS.
   B. BOLT HOLES SHALL BE OVERSIZED A MAXIMUM OF (1/32") (1/16") AND SHALL NOT BE FORCIBLY DRIVEN. ALL CONNECTED ELEMENTS SHALL BE ACCURATELY ALIGNED. A STANDARD WASHER SHALL BE PROVIDED UNDER THE HEAD AND THE NUT UNLESS NOTED OTHERWISE. BOLTS SHALL BE TIGHTENED FINGER TIGHT PLUS ONE HALF TURN.
6. SAWN LUMBER:
   A. ALL SAWN LUMBER SHALL BE DRESSED TO STANDARD DRESSED SIZES (S4S). TIMBERS MAY BE DRESSED TO MINIMUM DRESSED SIZES FOR GREEN TIMBERS. SEE THE NATIONAL DESIGN SPECIFICATION SUPPLEMENT 2018 FOR TYPICAL DRESSED SIZES.
7. WOOD DECKING:
   A. WOOD DECKING SHALL BE SOUTHERN PINE VISUALLY GRADED DENSE SELECT.
   FOLLOWING MATERIAL PROPERTIES:

BENDING	F_b = 1650 PSI
COMPRESSION PERP.	F_c (PERP)= 660 PSI
MODULUS OF ELASTICITY	E = 1,800,000 PSI
	E_{MIN} = 660,000 PSI
SPECIFIC GRAVITY	SG = 0.55

   B. PLACE DECKING IN SIMPLE AND TWO SPAN LAYUP WITH TONGUES UP ON SLOPED ROOFS. PLACE DECKING WITH PATTERN FACES DOWN WHEN EXPOSED ON THE UNDERSIDE.
   C. AT EACH SUPPORT 2" DECKING SHALL BE TOENAILED THROUGH THE TONGUE AND FACE NAILED WITH ONE NAIL, USING 16d COMMON NAILS.
8. PRESERVATIVE-TREATED (P.T.):
   A. PRESERVATIVE TREATMENT PROCESS AWPA U1
      a. REFERENCE THE SPECIFICATIONS FOR PT CATEGORY AND OTHER REQUIREMENTS.
      b. CHEMICALS USED MUST BE ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION AND NOT CONTAIN ARSENIC, CHROMIUM, NOR AMMONIA-CAL COPPER ZINC ARSENATE (ACZA).
   B. KILN-DRY AFTER TREATMENT TO A MAXIMUM MOISTURE CONTENT PER SPECIFICATIONS.
   C. MARK LUMBER WITH TREATMENT QUALITY MARK OF AN INSPECTION AGENCY APPROVED BY THE ALSC BOARD.
   D. UNLESS NOTED OTHERWISE, INSTALL PT LUMBER AT ALL LOCATIONS.
9. FLOOR CONSTRUCTION:
   A. INSTALL SOLID BLOCKING BETWEEN JOISTS AT ALL BEARING LOCATIONS.
   B. INSTALL SOLID BLOCKING BETWEEN JOISTS AT ENDS OF JOIST, UNLESS FASTENER TO BEAM OR BAND
   C. INSTALL FULL DEPTH 2x BLOCKING AT 96 INCH OCD MAX SPACING BETWEEN BOARDWALK FLOOR JOISTS

MASONRY CONSTRUCTION

1. MASONRY WALLS SHOWN ON STRUCTURAL DRAWINGS HAVE BEEN DESIGNED IN ACCORDANCE WITH TMS 402, BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES.
2. MASONRY WALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH TMS 602, SPECIFICATIONS FOR MASONRY STRUCTURES, AND THE PROJECT SPECIFICATIONS.
3. DETERMINE COMPRESSIVE STRENGTH OF MASONRY (f'_m) BY THE UNIT STRENGTH METHOD (ARTICLE 1.4.B.2 OF TMS 602).
   A. MORTAR SHALL MEET THE PROPERTY SPECIFICATIONS' REQUIREMENTS OF ASTM C270, AND SHALL BE FIELD TESTED ACCORDING TO ASTM C780.
   B. THE STRENGTH OF GROUT SHALL BE DETERMINED BY TESTS IN ACCORDANCE WITH ASTM C1019.
4. INTERSECTING WALLS SHALL BE ANCHORED BY ONE OF THE FOLLOWING METHODS (DOES NOT APPLY AT CONTROL JOINTS OR WHERE NON-LOAD-BEARING PARTITIONS ABUT BEARING WALLS):
   A. FIFTY PERCENT OF THE UNITS AT THE INTERSECTION SHALL BE LAID IN AN OVERLAPPING MASONRY BONDING PATTERN, WITH ALTERNATE UNITS HAVING A BEARING OF NOT LESS THAN 3" ON THE UNIT BELOW.
   B. WALLS SHALL BE TIED BY GALVANIZED STEEL STRAPS 1 1/2" X 1/4" X 24" WITH 2" BEND AT 90° EACH END. GROUT STRAPS SOLID INTO CORES OF BLOCK AT 24" MAXIMUM VERTICAL SPACING.
5. CORNERS OF BEARING WALLS SHALL BE BUILT IN RUNNING BOND.
6. PROVIDE CORNER BARS IN BOND BEAMS AT WALL INTERSECTIONS AND CORNERS TO MATCH BOND BEAM REINFORCING.
7. PROVIDE A MINIMUM OF 24" DEPTH OF SOLID MASONRY UNDER THE BEARING ENDS OF ALL BEAMS, BEAM LINTELS; ; AND 8" OF SOLID MASONRY UNDER THE BEARING ENDS OF LOOSE LINTELS.
8. UNLESS OTHERWISE NOTED, PROVIDE GALVANIZED LADDER TYPE JOINT REINFORCEMENT AT 16" ON CENTER VERTICALLY PER ASTM A951.
9. WELDING OF REINFORCING BARS (INCLUDING TACK WELDING) IS NOT PERMITTED WITHOUT PERMISSION OF ENGINEER IN WRITING.
10. PROVIDE SHOP DRAWINGS WHICH INDICATE SIZE, SPACING, BENDING DETAILS, AND TYPE OF ALL REINFORCING BARS PLACED IN MASONRY WALLS.
11. PROVIDE DOWELS FROM SUPPORTING MEMBER (FOOTING, BEAM, OR SLAB) FOR ALL REINFORCED WALLS SAME SIZE, LOCATION, AND SPACING AS WALL REINFORCING.
12. WALL REINFORCING SHALL BE HELD IN POSITION DURING GROUTING.
13. FOR BARS AT FACE OF WALL, MAINTAIN 1/2" CLEARANCE FROM INSIDE FACE OF CMU TO REINFORCING.
14. PROVIDE BOND BEAM WITH (1) #5 CONTINUOUS REINFORCING BAR AT SILL OF ALL OPENINGS, UNLESS OTHERWISE NOTED.
15. SPLICES:
   A. LAP ALL SPLICES IN ACCORDANCE WITH THE FOLLOWING TABLE.
   B. SPLICE LENGTHS GREATER THAN 64" REQUIRE HIGH LIFT GROUTING. THE CONTRACTOR, AT HIS OPTION, MAY USE OPEN-ENDED MASONRY UNITS OR MECHANICAL SPLICES FOR EASE OF CONSTRUCTION.
   C. MECHANICAL SPLICES SHALL DEVELOP 125% OF THE TENSILE CAPACITY OF THE BAR.

Bar Size	Reinforcing Centered in Wall Nominal Wall Width, f'_m = 2,000 psi					Reinforcing at Face 2" cover
	6"	8"	10"	12"	16"	
#3	15"	15"	15"	15"	15"	15"
#4	20"	20"	20"	20"	20"	22"
#5	28"	25"	25"	25"	25"	35"
#6	53"	38"	30"	30"	30"	64"
#7		52"	40"	35"	35"	87"
#8		79"	61"	50"	40"	131"
#9			78"	64"	46"	166"

POST-INSTALLED ANCHORS

1. ANCHORAGE TO HARDENED CONCRETE OR MASONRY SHALL INCLUDE TORQUE CONTROLLED EXPANSION ANCHORS AND ADHESIVE ANCHORS OF SIZE, NUMBER AND SPACING AS SHOWN ON THE DRAWINGS.
2. ALL ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII).
3. EXISTING REINFORCING BARS IN THE CONCRETE OR MASONRY MAY CONFLICT WITH SPECIFIC ANCHOR LOCATIONS. REINFORCING BARS SHALL NOT BE CUT UNLESS SPECIFICALLY NOTED ON THE DRAWINGS OR APPROVED BY THE ENGINEER OF RECORD. THE CONTRACTOR SHALL REVIEW THE STRUCTURAL DRAWINGS AND SHALL LOCATE THE POSITION OF REINFORCING BARS IN THE VICINITY OF THE ANCHORS, BY GROUND PENETRATING RADAR (GPR), X-RAY, OR OTHER MEANS.
4. ANCHORS SHALL BE INSTALLED IN HOLES DRILLED WITH A ROTARY IMPACT HAMMER DRILL. CORE DRILLING OF HOLES IS NOT PERMITTED. HOLES AND ANCHOR SHALL BE THOROUGHLY CLEANED PER THE MPII PRIOR TO INSTALLATION OF THE ANCHOR.
5. REMOVE AND REPLACE MISPLACED OR MALFUNCTIONING ANCHORS. PATCH FAILED ANCHOR LOCATIONS WITH HIGH-STRENGTH NON-SHRINK, NON-METALLIC GROUT.
6. INSTALLED ADHESIVE ANCHORS SHALL BE SECURELY HELD IN-PLACE TO PREVENT DISPLACEMENT WHILE THE ADHESIVE CURES.
7. ALL ANCHORS SUPPORTING STRUCTURAL ELEMENTS SHALL BE ENCLOSED WITH A FIRE-RESISTANCE-RATED ENVELOPE OR PROTECTED BY APPROVED FIRE-RESISTANCE RATED MATERIALS.
8. QUALITY CONTROL:
   A. ALL ANCHORS SHALL BE PERIODICALLY INSPECTED TO MEET THE REQUIREMENTS OF MPII AND THE ICC-ES ESR REPORT FOR THE PRODUCT.
   B. ALL ANCHOR INSTALLERS SHALL BE TRAINED BY THE MANUFACTURER OR MANUFACTURER'S REPRESENTATIVE FOR EACH INDIVIDUAL PRODUCT BEING INSTALLED.

POST-INSTALLED ANCHORS CONT.

9. SUBMITTALS:
   A. TECHNICAL PRODUCT LITERATURE, HIGHLIGHTING EACH ANCHOR AND SIZE TO BE USED ON THE PROJECT.
   B. MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII) FOR EACH ANCHOR TYPE.
   C. ENGINEERING DESIGN DATA: FOR EACH SUBSTITUTION REQUEST, PROVIDE CALCULATIONS SUBSTANTIATING SPECIFIED DESIGN REQUIREMENTS, SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE JURISDICTION WHERE PROJECT IS LOCATED.
10. WHERE A SPECIFIC TYPE OF ANCHORAGE IS INDICATED ON THE DRAWINGS, SUBSTITUTION FOR A DIFFERENT TYPE OF ANCHORAGE SHALL MEET THE REQUIREMENTS OF ACI 355.2 CATEGORY 1 OR ACI 355.4 CATEGORY 1 FOR ANCHORAGE INTO CONCRETE OR SHALL HAVE AN ICC-ES ESR REPORT FOR ANCHORAGE INTO MASONRY. SUBSTITUTION SHALL NOT BE PERMITTED WITHOUT PRIOR WRITTEN APPROVAL OF THE ENGINEER OF RECORD.
11. ANCHORS TO HARDENED CONCRETE SHALL BE SUPPLIED AS AN ENTIRE SYSTEM AND SHALL BE AS FOLLOWS:
   A. TORQUE CONTROLLED ANCHORS (EXPANSION ANCHORS) IN CRACKED AND UN-CRACKED CONCRETE AS INDICATED ON THE DRAWINGS SHALL BE HILTI KWIK BOLT TZ2 EXPANSION ANCHOR (ICC-ES EVALUATION REPORT: ESR# 4266).
   B. ADHESIVE ANCHORS IN CRACKED AND UN-CRACKED CONCRETE INDICATED ON THE DRAWINGS SHALL BE HILTI HIT-HY 200 V3 SAFE SET ADHESIVE ANCHORING SYSTEM (ICC-ES EVALUATION REPORT: ESR# 4868). THE FOLLOWING ANCHOR RODS SHALL BE USED WITH THE SYSTEM:
      1. REINFORCING BAR MEETING THE REQUIREMENTS OF ASTM A615/A706 GRADE 60.
      2. ALL-THREADED ROD SHALL BE HILTI HIT-Z RODS.
12. REQUIREMENTS AND DESIGN PARAMETERS OF POST-INSTALLED ANCHORS INTO HARDENED CONCRETE:
   A. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2,500 PSI AND A MINIMUM AGE OF 21-DAYS AT THE TIME OF INSTALLATION FOR ADHESIVE ANCHORS AND 7-DAYS FOR EXPANSION ANCHORS.
   B. CONCRETE TEMPERATURE AT THE TIME OF INSTALLATION OF ADHESIVE ANCHORS SHALL BE A MINIMUM OF 50°F.
   C. CONCRETE MAY BE WATER SATURATED OR DRY; WATER FILLED HOLES SHALL NOT BE ALLOWED.
   D. EMBEDMENT DEPTH AND ANCHOR PROJECTION SHALL BE AS DETAILED ON THE DRAWINGS. UNLESS OTHERWISE NOTED, MINIMUM EMBEDMENT DEPTHS, SPACING, AND EDGE DISTANCE SHALL BE BY THE TABLE BELOW.
13. ANCHORS INTO MASONRY SHALL BE SUPPLIED AS AN ENTIRE SYSTEM AND SHALL BE AS FOLLOWS:
   A. TORQUE CONTROLLED EXPANSION ANCHORS (EXPANSION ANCHORS) IN SOLID OR GROUT FILLED MASONRY AS INDICATED ON THE DRAWINGS SHALL BE HILTI KWIK BOLT TZ2 EXPANSION ANCHOR (ICC-ES EVALUATION REPORT: ESR# 4561).
   B. ADHESIVE ANCHORS IN HOLLOW, SOLID OR GROUT FILLED MASONRY AS INDICATED ON THE DRAWINGS SHALL BE HILTI HIT-HY 270 HYBRID FOR MASONRY CONSTRUCTION (ICC-ES EVALUATION REPORT: ESR# 4143). SCREEN TUBES SHALL BE USED FOR ALL CONNECTIONS TO HOLLOW MASONRY. THE FOLLOWING ANCHOR RODS SHALL BE USED WITH THE SYSTEM:
      1. ALL-THREADED ROD SHALL BE HILTI HAS-E ROD.
      2. STAINLESS STEEL ANCHOR RODS SHALL BE AISI TYPE 304 OR 316.
14. REQUIREMENTS AND DESIGN PARAMETERS OF POST-INSTALLED ANCHORS INTO MASONRY:
   A. MASONRY GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI AND A MINIMUM AGE OF 21-DAYS AT THE TIME OF INSTALLATION FOR ADHESIVE ANCHORS AND 7-DAYS FOR EXPANSION ANCHORS.
   B. MASONRY TEMPERATURE AT THE TIME OF INSTALLATION OF ADHESIVE ANCHORS SHALL BE BETWEEN 41°F, AND 104°F.
   C. MASONRY MAY BE WATER SATURATED OR DRY; WATER FILLED HOLES SHALL NOT BE ALLOWED.
   D. EMBEDMENT DEPTH AND ANCHOR PROJECTION SHALL BE AS DETAILED ON THE DRAWINGS. UNLESS OTHERWISE NOTED, MINIMUM EMBEDMENT DEPTHS, SPACING, AND EDGE DISTANCE SHALL BE BY THE TABLE BELOW.

Post-installed Concrete Anchors						
	Torque-controlled Anchors			Adhesive Anchors		
Diameter	Minimum Embed.	Min. Edge Distance	Minimum Spacing	Minimum Embed.	Min. Edge Distance	Minimum Spacing
3/8" #3	2 1/2"	5"	6"	4 1/2"	4 1/2"	4 1/2"
1/2" #4	3 1/4"	6"	6"	6"	6"	6"
5/8" #5	4"	7"	7"	7 1/2"	7 1/2"	7 1/2"
3/4" #6	4 3/4"	12"	8"	8 1/2"	8 1/2"	8 1/2"
#7	-	-	-	10 1/2"	10 1/2"	10 1/2"
#8	-	-	-	12"	12"	12"
#9	-	-	-	13 1/2"	13 1/2"	13 1/2"

Post-installed Masonry Anchors						
	Torque-controlled Anchors			Adhesive Anchors		
Diameter	Minimum Embed.	Min. Edge Distance	Minimum Spacing	Minimum Embed.	Min. Edge Distance	Minimum Spacing
3/8"	2 1/2"	12"	10"	3 1/2"	12"	13 1/2"
1/2"	3 1/4"	12"	13"	4 1/2"	12"	18"
5/8"	4"	20"	16"	5 3/4"	20"	22 1/2"
3/4"	4 3/4"	20"	19"	6 3/4"	20"	27"

STATE OF OHIO
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E-65536
REGISTERED PROFESSIONAL ENGINEER

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UNIT 200
MENTOR, OH 44060
BURGESS & NIPLE

CLERMONT COUNTY PARK DISTRICT
GRAILVILLE PRESERVE & PARK
MIAMI TOWNSHIP CLERMONT COUNTY, OHIO

REVISIONS		
NO.	DESCRIPTION	DATE

JOB NO:	PR63329
DATE:	04/02/2026
DESIGNED BY:	ABP
DRAWN BY:	TRK
CHECKED BY:	ABP
APPROVED BY:	ABP
SCALE:	12" = 1'-0"

GENERAL NOTES II

SHEET IDENTIFICATION
S-002

SHEET 21 OF 68

STRUCTURAL TESTING AND SPECIAL INSPECTIONS

Structural testing and special inspections are required. The owner shall engage a qualified independent testing agency to conduct structural testing and special inspections. Special inspectors shall be employed or retained by the approved testing agency and have the recommended experience and certifications as summarized in Appendix C of the current International Code Counsel (ICC) Special Inspection Manual. The testing agency may employ or retain multiple special inspectors with differing areas of expertise as required for the project.

At or before project completion, the qualified testing agency shall submit a written summary statement indicating that applicable structural testing and special inspections have been completed. The written summary statement shall clearly identify non-compliant test and inspection results. The written summary statement shall be sealed by the testing agencies supervising professional engineer and be submitted to the owner, building official, and design professionals. The required testing and inspections are indicated in the following table.

Description of Structural Special Inspection & Testing Requirements

Verification and Inspection	Frequency	Referenced Standard	BC Reference	Additional Notes
Soils: Foundation Bearing & Engineered Fill Placement				
Verify materials below shallow foundations are adequate to achieve the design bearing capacity.	Periodic	Geotechnical Report	N/A	
Verify excavations are extended to proper depth and have reached proper material.	Periodic	Geotechnical Report	N/A	
Perform classification and testing of compacted fill materials.	Periodic	Geotechnical Report	N/A	
Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill.	Continuous	Geotechnical Report	N/A	
Prior to placement of compacted fill, observe subgrade and verify that site has been prepared properly.	Periodic	Geotechnical Report	N/A	
Verify all requirements of geotechnical report are met.	Periodic	Geotechnical Report	N/A	
Controlled Low-Strength Material (CLSM) Placement				
Verify excavations are extended to proper depth and have reached proper material.	Periodic	Geotechnical Report	N/A	
Verify materials below CLSM are adequate to achieve the design bearing capacity.	Periodic	Geotechnical Report	N/A	
Sample fresh CLSM: One composite sample shall include four 6" diameter cylinders for strength, one flowability test, one air content test, and one unit weight test.	Obtain composite samples not less than once a day, nor less than once for each 150 cy. of CLSM.	ASTM D 5971	1803.5.9	
Obtain test cylinders of CLSM.	One set of four 6" diameter cylinders for each composite sample.	ASTM D 4832	1803.5.9	
Perform slump / flowability tests of CLSM.	One test at point of discharge for each composite sample.	ASTM D 6103	1803.5.9	
Perform air content tests of CLSM.	One test at point of discharge for each composite sample.	ASTM D6023	1803.5.9	
Determine the unit weight of fresh CLSM.	One test at point of discharge for each composite sample.	ASTM D6023	1803.5.9	
Laboratory test CLSM cylinders for compressive strength.	Two specimen tested at 7 days, two specimens tested at 28 days.	ASTM D 4832	1803.5.9	
Field test CLSM for suitability of load application.	Periodic	ASTM D 6024	1803.5.9	
Deep Foundations - Driven Deep Foundations				
Observe driving operations and maintain complete and accurate records for each element.	Continuous	N/A	1705.7	
Observe and record the following: a. Project Name and number. b. Name of Contractor c. Pile location in pile group and designation of pile group. d. Sequence of driving in pile group. e. Pile material, size, and dimensions. f. Ground elevation. g. Elevation of tips after driving. h. Final tip and cutoff elevations of piles after driving pile group. i. Records of redriving. j. Elevation of splices. k. Type, make, model and rated energy of hammer. l. Weight and stroke of hammer. m. Type of pile-driving cap used. n. Cushion material and thickness. o. Actual stroke and blow rate of hammer. p. Pile-driving start and finish times, and total driving times. q. Time, pile-tip elevation, and reason for interruptions. r. Number of blows for every 12" of penetration. s. Number of blows per 1" for the last 6" of driving. t. Pile deviations from location and plumb. u. Preboring, jetting, or special procedures used. v. Unusual occurrences during pile driving.	Continuous - For each pile	N/A	1705.7	
Inspect driving operations and mantain complete and accurate records for each element	Continuous	N/A	1705.7	
Verify placement locations and plumbness, confirm type and size of hammer, record number of blows per foot of penetration, determine required penetrations to achieve design capacity, record tip and butt elevations and document any damage to foundation element.	Continuous	N/A	1705.7	
For specialty elements, perform additional inspections as determined by the registered design professional in responsible charge.	Continuous	ASTM D25	1810.3.2	
Pile test procedures	Periodic - 1 of each pile size for each area of uniform subsoil conditions	ASTM D1143 Procedure A or ASTM D4945	1810.3.3	
Verify all requirements of geotechnical report are met.	Periodic	Geotechnical Report	N/A	

Cast-In-Place Concrete				
Inspect reinforcing steel including prestressing tendons: a. Verify reinforcing bar grade. b. Verify reinforcing bars are free of dirt, excessive rust, and damage. c. Verify reinforcing bars are adequately tied, chained, and supported to prevent displacement during concrete placement. d. Verify proper clear distances between bars and to surfaces of concrete. e. Verify reinforcing bar size and placement. f. Verify bar laps for proper length and stagger. g. Verify mechanical splices placement and attachment. h. Verify epoxy or galvanized coating and coating damage is repaired.	Periodic - Prior to each pour.	ACI 318: Ch 20, 25.2, 25.3, 26.1-26.6.3	1908.4	
Inspection of reinforcing steel welding: a. Verify weldabilty of reinforcing steel. b. Verify proper electrodes and storage of electrodes. c. Verify proper joint preparation. d. Inspect single- pass fillet welds, maximum 5/16". e. Inspect all other welds. f. Review welder certifications for both fabricator's shop staff and field erectors.	Periodic Periodic Continuous Periodic Continuous Each welder	AWS D1.4 ACI 318: 26.6.4		
Inspect embedments, bolts, headed bolts, and headed studs to be installed in concrete prior to and during concrete placement.	Periodic	ACI 318: 17.8.2	N/A	
Verify use of required mix design: a. Verify mixer truck trip ticket conforms to approved mix design. b. Verify that total water added to mix on site does not exceed that allowed by the concrete mix design. c. Verify that concrete quality is indicative of adequate mixing time, consistency, and relevant time limits.	Periodic - Prior to each pour.	ACI 318: 26.4.3 ACI 301	1904.1 1904.2 1908.2 1908.3	
Inspect formwork for cleanliness, shape, location and dimensions of the concrete member being formed.	Periodic - Prior to each pour.	ACI 318: 26.11.1.2(b)	N/A	
Inspect concrete and shotcrete placement for proper application techniques, including proper consolidation, reinforcement remains at proper location, and conveyance and depositing avoid segregation and contamination.	Continuous	ACI 318: 26.5	1908.6 1908.7 1908.8	
Sample fresh concrete:	Obtain one composite sample of each class of concrete placed each day shall be taken not less than once a day, nor less than once for each 150 cy. of concrete nor less than once for each 5,000 sqft. of surface area for slabs or walls. If the total volume of concrete is such that frequency of testing required would provide less than five composite samples for a given class of concrete, tests shall be made from at least five randomly selected batches (per ASTM D3665) or from each batch if fewer than five batches are used.	ACI 318: 26.4 ASTM C 172	1908.10	A composite sample shall consist of the following: five 4" diameter cylinders, or four 6" diameter cylinders.
Obtain test cylinders of concrete.	One set of five 4" diameter cylinders or four 6" diameter cylinders for each composite sample.	ACI 318: 26.12 ASTM C 31	N/A	Cast additional cylinders at contractor's request and expense for field cured specimens to determine shoring removal, early strength for post-tensioning, etc.
Obtain grout cubes for deferred placed concrete toppings	One set of three 2" molded-cube for each composite sample.	ASTM C 109	N/A	
Perform slump tests.	One test at point of discharge for each composite sample.	ASTM C 143	N/A	
Perform air content tests.	One test at point of discharge for each composite sample.	ASTM C 231, pressure method for normalweight concrete; ASTM C 173, volumetric method for lightweight concrete	N/A	
Determine the temperature of fresh concrete.	One test for each composite sample, and test hourly and when air temperature is below 40°F or when above 80°F.	ASTM C 1064	N/A	
Determine the unit weight of fresh lightweight concrete.	One test at point of discharge for each composite sample of lightweight concrete.	ASTM C567	N/A	
Review and inspect cold weather concrete procedures and placement.	Periodic - Prior to each pour.	ACI 306.1 ACI 318 26.5.4		
Review and inspect hot weather concrete procedures and placement.	Periodic - Prior to each pour.	ACI 305.1 ACI 318 26.5.5		
Inspect for maintenance of specified curing temperature and techniques.	Periodic - After each pour.	ACI 318: 26.5.3-26.5.5	1908.9	
Laboratory test concrete cylinders for compressive strength.	One specimen tested at 7 days, two specimens tested at 28 days, and one specimen retained in reserve for later testing if required.	ACI 318: 26.12 ASTM C 39	N/A	Three specimens shall be tested at 28 days if using 4" diameter cylinders. Test additional cylinders at contractor's request and expense.
Laboratory test concrete cubes for compressive strength for deferred placement toppings.	Test one set of three specimens at 28 days.	ASTM C 109	N/A	
Inspect anchors post- installed into hardened concrete a. Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads. b. All other Mechanical anchors and adhesive anchors not defined in a.	Continuous Periodic	ACI 318: 17.8.2.4 ACI 318: 17.8.2	N/A	
Measure & report floor slab levelness (F_L) and flatness (F_F) for shored, non-cambered, and non-inclined surfaces.	Measure all floors within 24 hours of finishing.	ACI 117 4.8.5 ASTM E1155	N/A	
Measure & report floor slab flatness for cambered, unshored, and inclined surfaces.	Measure the gap under a freestanding (unleveled) 10 ft. straightedge.	ACI 117: 4.8.6	N/A	
Deferred placement floor toppings shall be tested for delamination by dragging a steel chain over the surface.	All floor areas after 28 days.	N/A	N/A	

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REVISIONS

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SCALE:	12" = 1'-0"

SPECIAL INSPECTIONS I

SHEET IDENTIFICATION
S-003

SHEET 22 OF 68

Structural Steel				
Inspection Tasks Prior to Welding:		AISC 360 Table N5.4-1	2204.1	
Welder qualification records and continuity records	Observe	AISC 360 Section N5.4		
Verify procedure specifications (WPS) available	Perform	AISC 360 Section N5.4		
Manufacturer certifications for welding consumables available	Perform	AISC 360 Section N5.4		
Material identification (type/grade)	Observe	AISC 360 Section N5.4		
Welder identification system	Observe	AISC 360 Section N5.4		
Fit up of groove welds and CJP welds of HSS joints (including joint geometry) a. Joint preparation b. Dimensions (alignment, root opening, root face, bevel) c. Cleanliness (condition of steel surface) d. Tacking (tack weld quality and location) e. Backing type and fit (if applicable)	Observe	AISC 360 Section N5.4		
Configuration and finish of access holes	Observe	AISC 360 Section N5.4		
Fit up of fillet welds a. Dimensions (alignment,gaps at root) b. Cleanliness (condition of steel surface) c. Tacking (tack weld quality and location)	Observe			
Inspection Tasks During Welding:		AISC 360 Table N5.4-2	2204.1	
Control and handling of welding consumables a. Packing b. Exposure control	Observe	AISC 360 Section N5.4		
No welding over cracked tack welds	Observe	AISC 360 Section N5.4		
Environmental conditions a. Wind speed within limits b. Precipitation and temperature	Observe	AISC 360 Section N5.4		
WPS followed a. Settings on welding equipment b. Travel speed c. Selected welding material d. Shielding gas type/flow rate e. Preheat applied f. Interpass temperature maintained g. Proper position (F,V,H,OH)	Observe	AISC 360 Section N5.4		
Welding techniques a. Interpass and final cleaning b. Each pass within profile limitations c. Each pass meets quality requirements	Observe	AISC 360 Section N5.4		
Inspection Tasks After Welding:		AISC 360 Table N5.4-3	2204.1	
Welds cleaned	Observe	AISC 360 Section N5.4		
Size,length and location of welds	Perform	AISC 360 Section N5.4		
Welds meet visual acceptance criteria a. Crack prohibition b. Weld/base-metal fusion c. Crater cross section d. Weld profiles e. Weld size f. Undercut g. Porosity	Perform	AISC 360 Section N5.4		
Arc strikes	Perform	AISC 360 Section N5.4		
k-Area (When welding of doubler plate, continuity plates or stiffeners in k-area, visually inspect the wed k-area for crack with in 3 in.)	Perform	AISC 360 Section N5.4		
Weld access holes in rolled heavy shapes and built-up heavy shapes (visually inspect the weld acces hole for cracks)	Perform	AISC 360 Section N5.4		
Backing removed and weld tabs removed (if required)	Perform	AISC 360 Section N5.4		
Repair activities	Perform	AISC 360 Section N5.4		
Document acceptance or rejection of welded joint or member	Perform	AISC 360 Section N5.4		
No prohibited welds have been added without the approval of the EOR	Observe	AISC 360 Section N5.4		
Inspection of Welding in Field and in Non AISC Certified Shops: a. Complete joint penetration groove welds subject to transversely applied tension loading in butt, T and corner joints with materials 5/16 inches or thicker. b. Welder qualifications.	Test 100% of welds by ultrasonic testing for risk category III or IV. Test 10% of welds by ultrasonic testing for risk category II.	AISC 360 Section N5.5		All welds subject to non-destructive testing shall also meet visual acceptance criteria per AWS Table 6.1.
Inspection Tasks Prior to Bolting:		AISC 360 Table N5.6-1	2204.2	
Manufacturer's certifications available for fastener materials	Perform	AISC 360 Section N5.6		
Fasteners marked in accordance with ASTM requirements	Observe	AISC 360 Section N5.6		
Correct fasteners selected for the joint detail (grade, type, bolt length if threads are to be excluded from shear plane)	Observe	AISC 360 Section N5.6		
Correct bolting procedure selected for joint detail	Observe	AISC 360 Section N5.6		
Connecting elements, including the appropriate faying surface condition and hole preparation, if specified, meet applicable requirements	Observe	AISC 360 Section N5.6		
Pre-Installation verification testing by installation personnel observed and documented for fastener assemblies and methods used	Observe	AISC 360 Section N5.6		
Protected storage provided for bolts,nuts washers and other fastener components	Observe	AISC 360 Section N5.6		
Inspection Tasks During Bolting:		AISC 360 Table N5.6-2	2204.2	
Fastener assemblies, of suitable condition, placed in all holes and washers (if required) are positioned as required	Observe	AISC 360 Section N5.6		
Joint brought to the snug- tight condition prior to the pretensioning operation	Observe	AISC 360 Section N5.6		
Fastener component not turned by the wrench prevented from rotating	Observe	AISC 360 Section N5.6		
Fasteners are pretensioned in accordance with the RCSC specification, progressing systematically from the most rigid point toward the free edges	Observe	AISC 360 Section N5.6 AISC 348		

Structural Steel Cont.				
Inspection Tasks After Bolting:		AISC 360 Table N5.6-3	2204.2	
Document acceptance or rejection of bolted connections	Perform	AISC 360 Section N5.6		
Inspection of Steel Frame: a. Verify installation of all members. b. Verify proper application of details to each joint and connection. c. Verify bracing and stiffening of framing members. d. Verify members and detail critical to frame stability.	Perform	AISC 360 Section N5.8		
Verify Material Grade of Structural Steel: a. Verify identification markings conform to AISC 360 for materials specified in the approved construction documents. b. Manufacturer's certificate of compliance required.	Observe	AISC 360 Section N5.8		
Inspection of anchor rods and other embedments supporting structural steel: a. Verify the diameter, grade, type and length of anchor rod or embedded item b. Verify the extent or depth of embedment into concrete prior to placement of concrete.	Observe	AISC 360 Section N5.8		
Inspection of Welding and Bolting in AISC Certified Shop: a. Review Fabricator's Certificate of Compliance for certified fabricators shop.	Once for Each Fabricator	AISC 360 Section N6	1704.2	
Visually inspect exposed cut surfaces of galvanized structural steel main members and exposed corners of rectangular HSS for cracks subsequent to galvanizing.	Perform	AISC 360 Section N5.7		
Placement and installation of steel headed stud anchors	Perform	AISC 360 Section N5.4		

Masonry					
Masonry Level of Inspection: Level 3 shall be used for Risk Category IV. See general notes for Risk Category.	**Level 2**	**Level 3**			
Verify compliance with approved submittals.	Periodic	Periodic	TMS 602: Art. 1.5	N/A	
Verification of f'_m and f'_{AAC} prior to construction.	Periodic	Periodic	TMS 602: Art. 1.4B	N/A	
Verify slump flow and VSI for self-consolidating grout delivered to the site.	Continuous	Continuous	TMS 602: Art. 1.5, 1.6.3	N/A	
Verification of f'_m and f'_{AAC} for every 5,000 sq. ft. of masonry.	N/A	Periodic	TMS 602: Art. 1.4B	N/A	
Verify proportions of materials as delivered for premixed or preblended mortar, and grout.	N/A	Periodic	TMS 602: Art. 1.4B	N/A	
As masonry construction begins, the following shall be verified to ensure compliance:					
Verify proportions of site-prepared mortar.	Periodic	Periodic	TMS 602: Art. 2.1, 2.6A, 2.6C	N/A	
Verify grade, type, and size of reinforcement, connectors, and anchor bolts.	Periodic	Periodic	TMS 602: Art. 3.4, 3.6A	N/A	
Verify properties of thin-bed mortar for AAC masonry	Continuous	Continuous	TMS 602: Art. 2.1 C.1	N/A	
Verify sample panel construction	Periodic	Continuous	TMS 602: Art. 1.6 D	N/A	
Prior to grouting, the following shall be verified to ensure compliance:					
Verify grout space is clean.	Periodic	Continuous	TMS 602: Art. 3.2 D, 3.2 F	N/A	
Verify placement of reinforcement, connectors, and anchor bolts.	Periodic	Continuous	TMS 602: Art. 3.2 E, 3.4	N/A	
Verify proportions of site-prepared grout.	Periodic	Periodic	TMS 602: Art. 2.6 B	N/A	
During construction the inspection program shall verify:					
Materials and procedures with the approved submittals	Periodic	Periodic	TMS 602: Art. 1.5	N/A	
Placement of masonry units and mortar joint construction	Periodic	Periodic	TMS 602: Art. 3.3 B	N/A	
Size and locations of structural members	Periodic	Periodic	TMS 602: Art. 3.3 F	N/A	
Type, size, and location of reinforcement and anchors, including other details of anchorage of masonry to structural members, frames, or other construction	Periodic	Continuous	TMS 402: Sec. 1.2.1 (e), 6.2.1, 6.3.1	N/A	
Verify welding of reinforcing bars.	Continuous	Continuous	TMS 402: Sec. 6.1.6.1.2	N/A	
Verify preparation, construction and protection of masonry during cold weather (temperature below 40°F)	Periodic	Periodic	TMS 602: Art. 1.8C	N/A	
Verify preparation, construction and protection of masonry during hot weather (temperature above 90°F)	Periodic	Periodic	TMS 602: Art. 1.8D	N/A	
Verify placement of grout and grouting procedures	Continuous	Continuous	TMS 602: Art. 3.5	N/A	
Verify placement of AAC masonry units and construction of thin-bed mortar joints	Continuous	Continuous	TMS 602: Art. 3.3 B.9, 3.3 F.1.b	N/A	
Observe preparation of grout specimens, mortar specimens and/or prisms.	Periodic	Continuous	TMS 602: Art. 1.4 B.2.a.3, 1.4 b.2.b.3, 1.4 B.2.c.3, 1.4 B.3, 1.4 B.4	N/A	

Wood				
Wood Construction				
Review manufacturer's Certificate of Compliance for certified fabricators.	Once per manufacturer.	N/A	1704.2	Shop inspection is required if the manufacturer is not certified.
Verify temporary installation restraint/bracing and permanent individual truss member restraint/bracing.	Continuous for truss spans greater than 60'-0"	N/A	1705.5.2	
Verify drag struts, braces, and shear wall strapping, hold-downs, end posts, sheathing thickness, attachment size, quantity, and pattern.	Continuous	N/A	1705.5.1	

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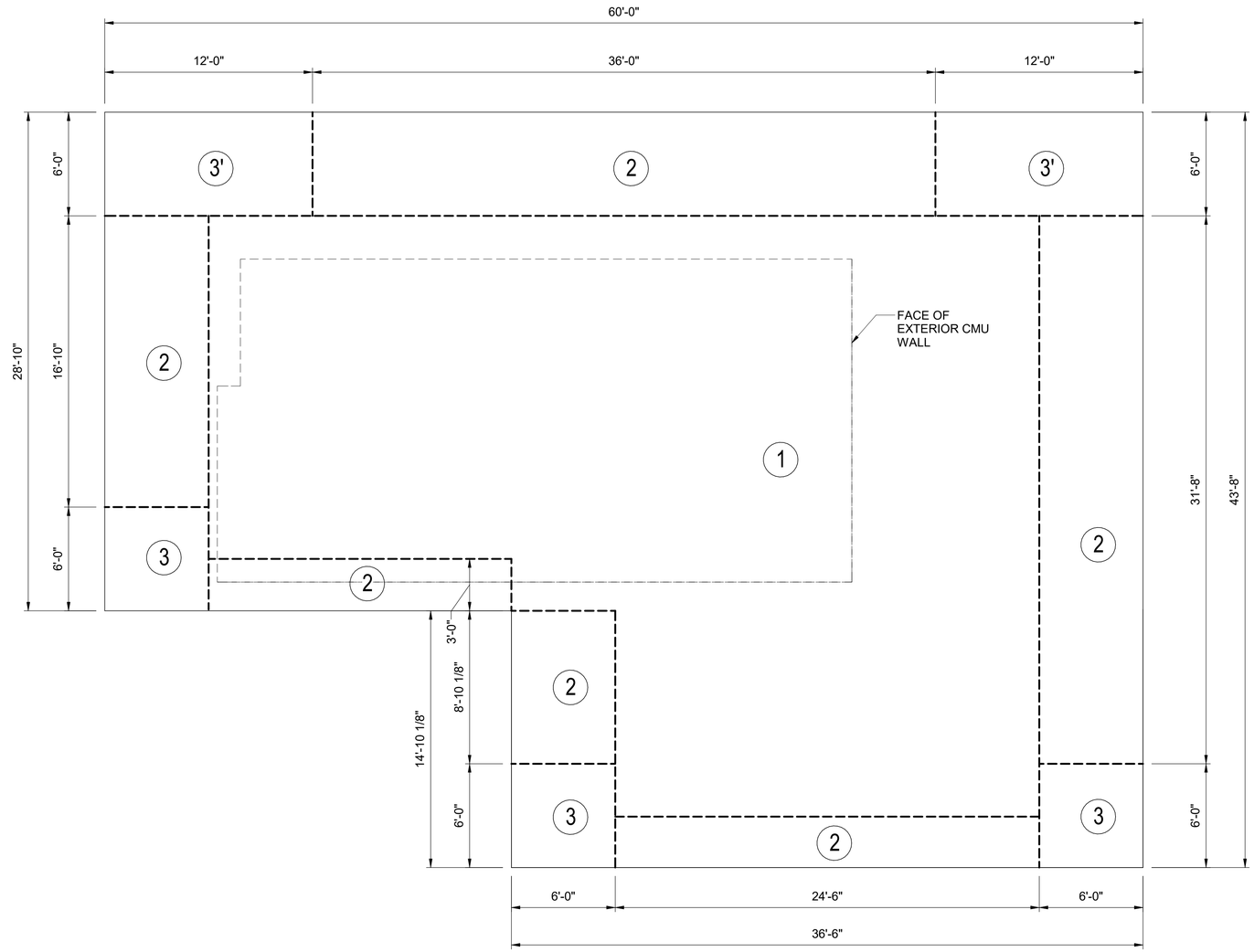
SPECIAL INSPECTIONS II

SHEET IDENTIFICATION
S-004

SHEET 23 OF 68



COMPONENTS & CLADDING WIND LOAD DIAGRAM FOR PAVILION ROOF

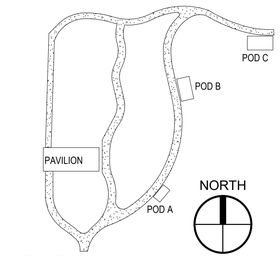
SCALE: 1/4" = 1'-0"

WIND UPLIFT NOTES:

1. VALUES REPRESENT COMPONENTS AND CLADDING WIND UPLIFT (1.0 W) FOR EXPOSURE C. PRESSURES DO NOT REPRESENT NET UPLIFT (i.e., DEAD LOAD IS NOT INCLUDED) MULTIPLY VALUES BY 0.6 WHEN USING ALLOWABLE STRESS DESIGN (ASD).
2. USE THESE WIND LOADS WHEN PERFORMING DELEGATED DESIGN FOR ROOF FRAMING, CLT PANEL DECKING, CONNECTIONS AND ANCHORAGE TO SUPPORTING COLUMNS AND BEARING WALLS.

WIND LOAD TABLE

ZONE	UPLIFT, PSF
①	-29.9
②	-39.7
③	-68.7
③'	-50.5



KEY PLAN

STATE OF OHIO
ALEC BRENT PATTON
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REGISTERED PROFESSIONAL ENGINEER

8160 NORTON PARKWAY
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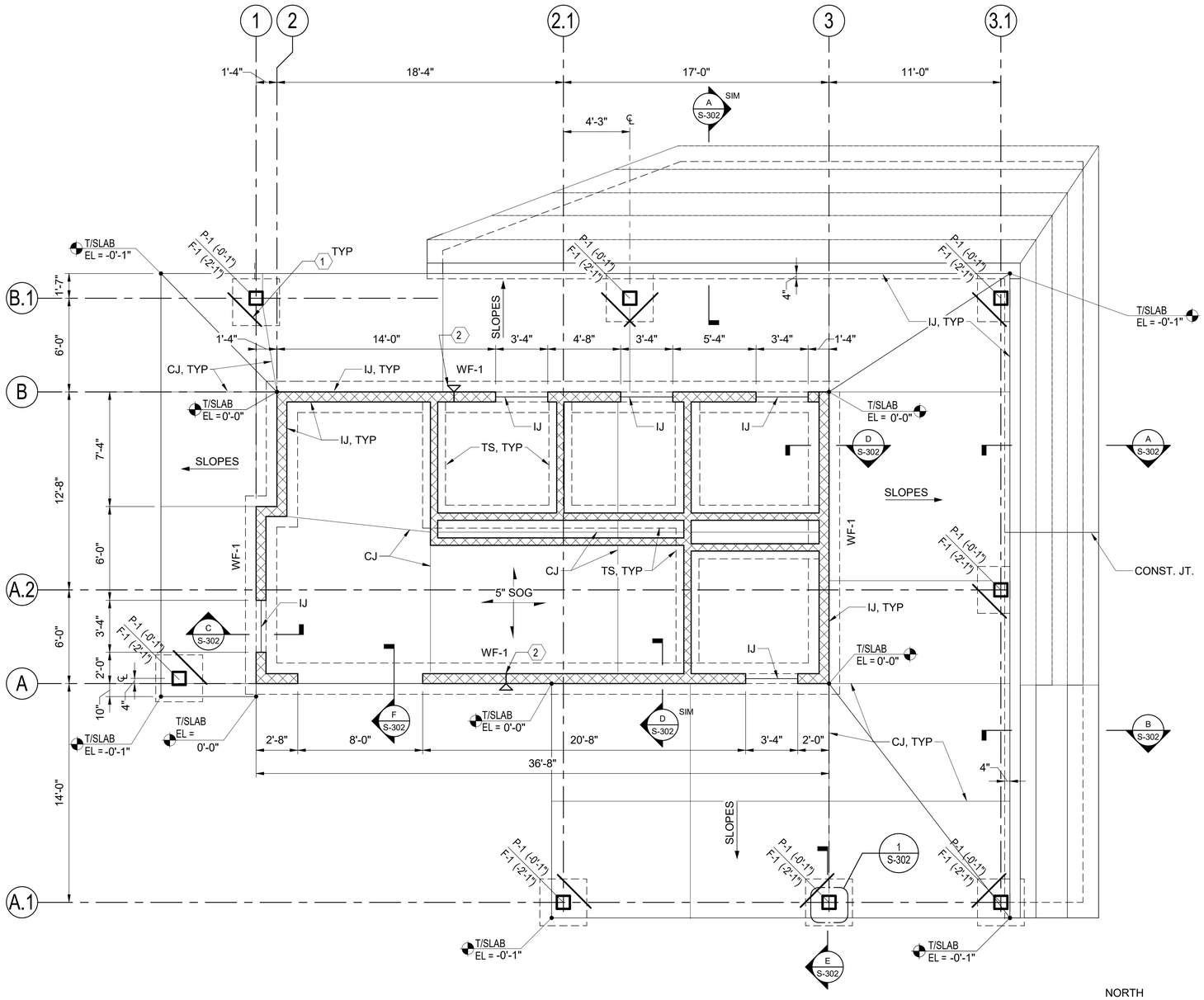
SCALE:	As indicated

PAVILION WIND LOAD DIAGRAM

SHEET IDENTIFICATION
S-005

SHEET 24 OF 68



PAVILION FOUNDATION PLAN

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

NORTH

0' 2' 4' 8'

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

PAVILION FOUNDATION NOTES:

1. PAVILION FINISHED FLOOR ELEVATION = 706.75' = REFERENCE ELEVATION (0'-0").
2. FOUNDATION THICKNESS NOTED ARE MINIMUM. BOTTOM OF FOUNDATIONS SHALL BE LOCATED AT A MINIMUM OF 3'-0" BELOW FINISHED FLOOR AT EXTERIOR FOOTINGS, U.N.O.
3. BUILDING DIMENSIONS ARE TO FACE OF MASONRY.
4. ALL EXTERIOR STEEL MEMBERS, INCLUDING BOLTS AND CONNECTION MATERIALS, SHALL BE HOT DIPPED GALVANIZED PER ASTM A123. ALL FIELD WELDS SHALL BE COLD GALVANIZED WITH BRUSH APPLIED ZINC RICH PAINT.
5. TS = THICKENED SLAB BELOW NON-BEARING CMU PARTITION WALLS. SEE TYPICAL DETAIL FOR ADDITIONAL INFORMATION.
   CJ = CONTROL JOINT
   IJ = ISOLATION JOINT
6. SEE ARCHITECTURAL SHEETS FOR ALL DIMENSIONS NOT SHOWN
7. PROVIDE DOWELS FOR CMU WALLS OUT OF FOUNDATION TO MATCH VERTICAL MASONRY WALL REINFORCEMENT.
8. FLOOR AND EXTERIOR PATIO CONSTRUCTION SHALL BE 5" THICK CONCRETE SLAB-ON-GRADE. REINFORCED WITH 6x6-W2.9xW2.9 WWR PROVIDED IN FLAT SHEETS, PLACED AT MID-DEPTH OF SLAB. UNDER SLAB, PLACE 6 INCHES OF DRAINAGE BASE. ON TOP OF BASE WITHIN BUILDING, PLACE 15 MIL VAPOR RETARDER; EDGES SHALL OVERLAP 6" AND BE SEALED.
9. FOOTING AND PIER TYPES ARE INDICATED THUS: Px / Fx
   SEE SHEET S-302 FOR FOOTING AND PIER SCHEDULES.
10. SEE SHEETS S-001 & S-002 FOR STRUCTURAL NOTES
11. SEE SHEETS S-401 THRU S-402 FOR TYPICAL DETAILS
12. PIERS SHALL BE CENTERED ON FOOTINGS UNLESS NOTED OTHERWISE

PAVILION FOUNDATION LEGEND:

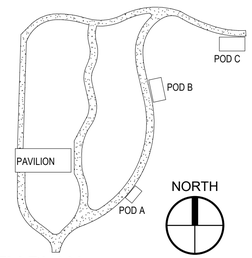
WF-1 — 2'-0"Wx1'-0"D WITH (2)#5 CONT.

5" SOG — 5" SLAB-ON-GRADE REINFORCED WITH 6x6-W2.9xW2.9 WWR. SEE DETAILS FOR ADDITIONAL INFORMATION.

8" OR 6" CMU WITH #5 VERTICAL REINFORCEMENT AT 48" OC, CENTERED IN WALL (TYP). PROVIDE MATCHING DOWELS FROM FOUNDATION. SEE TYPICAL DETAILS SHEETS FOR ADDITIONAL INFORMATION.

CODED NOTES:

1. #4 x 3'-0" CENTERED ABOUT PIER CORNER. PLACE AT MID-DEPTH OF SLAB
2. CMU CONTROL JOINT



KEY PLAN

STATE OF OHIO
ALEC BRENT PATON
E-65536
REGISTERED PROFESSIONAL ENGINEER

525 VINE STREET
SUITE 1300
CINCINNATI, OHIO 45202
B&N
BURGESS & NIPLE

CLERMONT COUNTY PARK DISTRICT
GRAILVILLE PRESERVE & PARK
MIAMI TOWNSHIP CLERMONT COUNTY, OHIO

REVISIONS		
NO.	DESCRIPTION	DATE

JOB NO:	PR63329
DATE:	04/02/2026
DESIGNED BY:	ABP
DRAWN BY:	TRK
CHECKED BY:	ABP
APPROVED BY:	ABP
SCALE:	As indicated

PAVILION FOUNDATION PLAN

SHEET IDENTIFICATION
S-101

SHEET 25 OF 68

4/1/2026 1:25:22 PM
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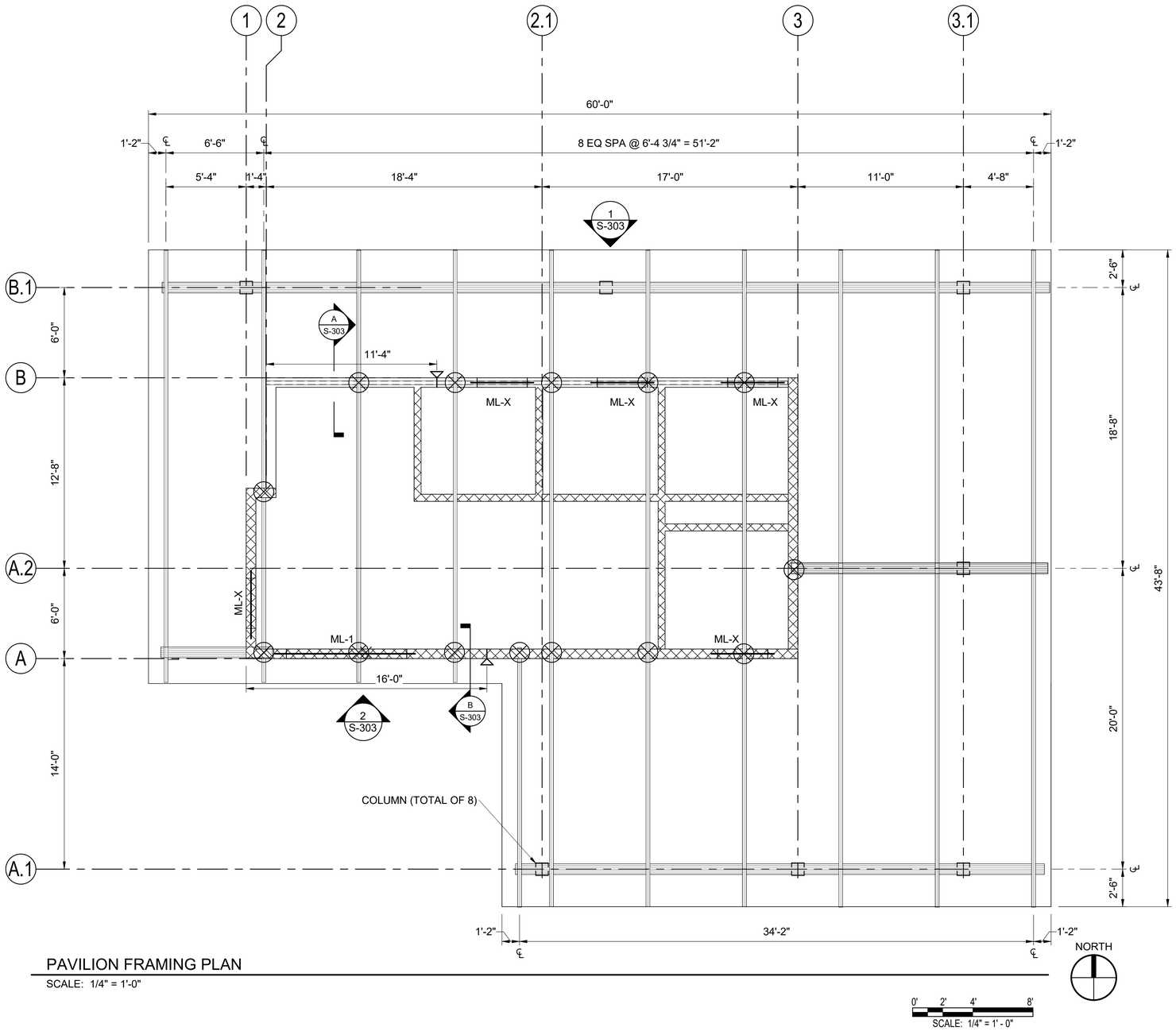


PAVILION FRAMING PLAN

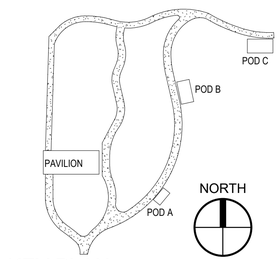
SCALE: 1/4" = 1'-0"

PAVILION ROOF FRAMING NOTES:

1. SEE ARCHITECTURAL SHEETS FOR ALL DIMENSIONS NOT SHOWN.
2. SEE SHEETS S-001 & S-002 FOR STRUCTURAL NOTES
3. SEE SHEETS S-401 THRU S-402 FOR SYPICAL DETAILS
4. ROOF CONSTRUCTION SHALL BE TONGUE AND GROOVE TIMBER DECK SUPPORTED BY GLULAM TIMBER RAFTERS AND BEAMS. TIMBER DECK AND GLULAM MEMBERS, CONNECTIONS, FASTENERS, AND ANCHORS SHALL BE DESIGNED AND DETAILED VIA DELEGATED DESIGN. DELEGATED DESIGNER SHALL USE SAME BEARING LOCATIONS AS SHOWN ON THIS SHEET. CONNECTORS AND FASTENERS SHALL BE CAPABLE OF TRANSFERING ALL VERTICAL AND LATERAL FORCES TO SUPPORTING FRAMES, MASONRY WALLS AND FOUNDATION ELEMENTS.
5. LINTEL M-1 SHALL BE 16 INCHES DEEP AND REINFORCED WITH 2-#5 BARS. ALL OTHER MASONRY LINTELS SHALL BE 8 INCHES DEEP AND REINFORCED WITH 2-#5 BARS. LINTELS SHALL HAVE A MINIMUM OF 8 INCHES OF BEARING ON EACH SIDE OF OPENING.

PAVILION ROOF FRAMING LEGEND:

ML-X	MASONRY LINTEL BEAM. SEE NOTES & TYPICAL DETAILS FOR ADDITIONAL INFORMATION.
⊗	BEARING LOCATION FOR GLULAM FRAMING ON STEEL OR MASONRY SUPPORT. BEARING LOCATIONS ON MASONRY WALLS SHALL USE SIMPSON GLB BEAM SEATS OR EQUIVALENT. SEE SHEET S-303 FOR ADDITIONAL INFORMATION.
	CMU CONTROL JOINT



KEY PLAN

STATE OF OHIO
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330 RUSH ALLEY
SUITE 700
COLUMBUS, OH 43215
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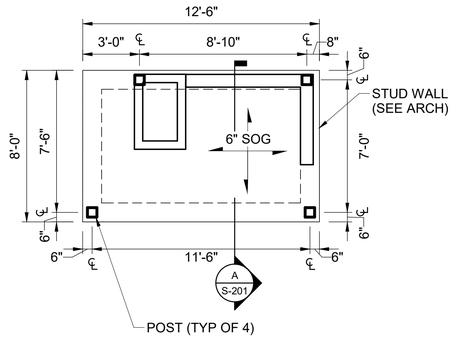
PAVILION ROOF FRAMING PLAN

SHEET IDENTIFICATION
S-102

SHEET 26 OF 68



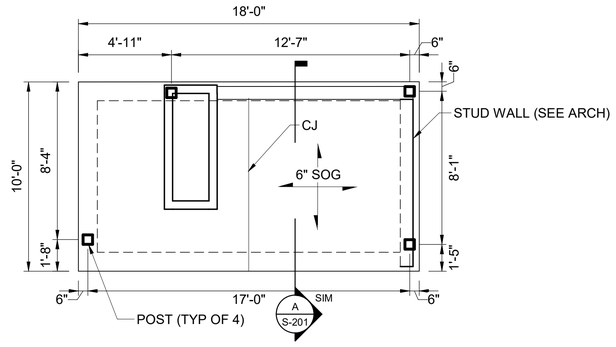
POD A FOUNDATION PLAN

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

NORTH

0' 2' 4' 8'

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



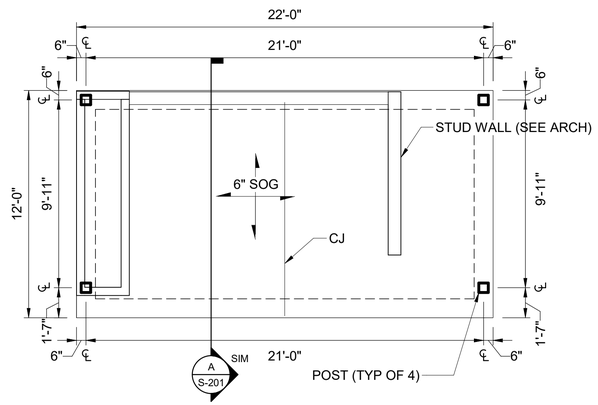
POD B FOUNDATION PLAN

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

NORTH

0' 2' 4' 8'

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



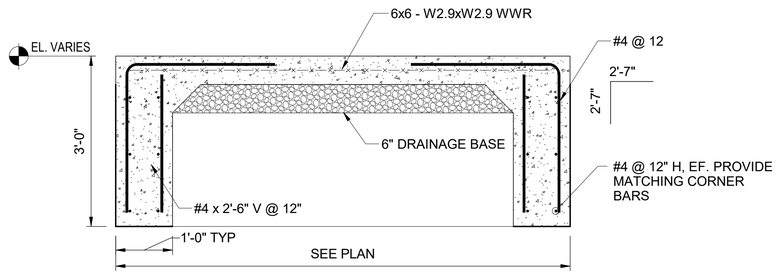
POD C FOUNDATION PLAN

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

NORTH

0' 2' 4' 8'

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



A S-201 SECTION

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

POD FOUNDATION NOTES:

1. FINISHED FLOOR ELEVATIONS VARY, SEE ARCH. & CIVIL SHEETS FOR POD FINISHED FLOOR ELEVATIONS.
2. FOUNDATION THICKNESS NOTED ARE MINIMUM. BOTTOM OF FOUNDATIONS SHALL BE LOCATED AT A MINIMUM OF 3'-0" BELOW FINISHED GRADE AT EXTERIOR FOOTINGS.
3. ALL EXTERIOR DIMENSIONS SHOWN ARE TO EDGE OF CONCRETE UNLESS NOTED OTHERWISE.
4. ALL EXTERIOR STEEL MEMBERS, INCLUDING BOLTS AND CONNECTION MATERIALS, SHALL BE HOT DIPPED GALVANIZED PER ASTM A123. ALL FIELD WELDS SHALL BE COLD GALVANIZED WITH BRUSH APPLIED ZINC RICH PAINT.
5. THICKENED SLAB BELOW CMU WALLS OR LOAD-BEARING STUD WALLS. SEE TYPICAL DETAIL FOR ADDITIONAL INFORMATION.

POD FOUNDATION LEGEND:

FS	FOOTING STEP. SEE DETAILS FOR ADDITIONAL INFORMATION.
6" SOG	6" SLAB-ON-GRADE WITH 6x6-W2.9xW2.9 WWR. SEE DETAILS FOR ADDITIONAL INFORMATION.

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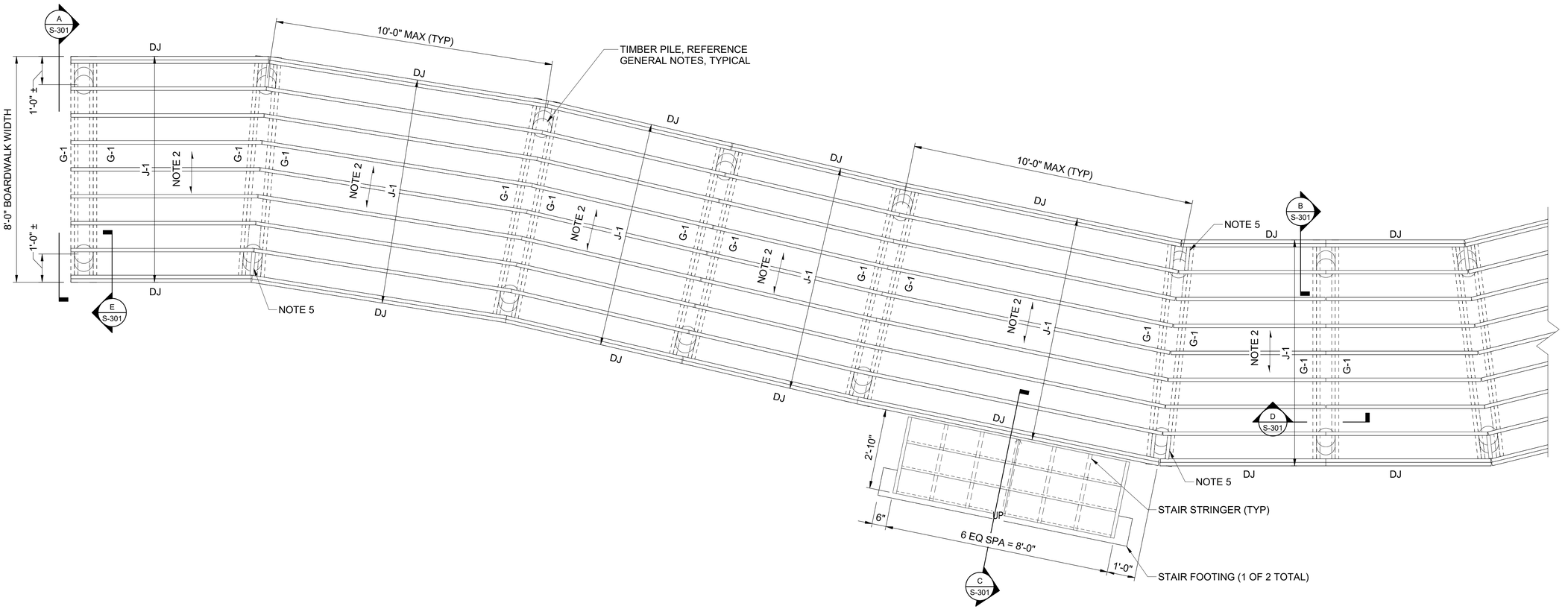
POD FOUNDATION PLANS

SHEET IDENTIFICATION
S-201

SHEET 27 OF 68



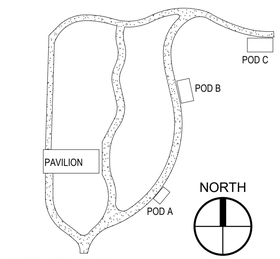
BOARDWALK PARTIAL SITE PLAN

SCALE: 1/2" = 1'-0"

NORTH

0' 2' 4' 8'

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



KEY PLAN

BOARDWALK FRAMING NOTES:

1. REFERENCE CIVIL AND ARCHITECTURAL DRAWINGS FOR FULL LAYOUT, DIMENSIONS, ELEVATIONS, AND OTHER DETAILS NOT INDICATED. FRAMING FOR REMAINDER OF BOARDWALK IS SIMILAR.
2. COMPOSITE 2x6 FLOOR DECKING. FASTEN TO EACH JOIST USING PRE-DRILLED HOLES PER MANUFACTURERS INSTRUCTIONS (USING STAINLESS STEEL FASTENERS). LAY OUT DECK BOARDS WITH GAPS PER THE MANUFACTURERS RECOMMENDATIONS (1/8" MIN). JOISTS SPACED AT 12" OC MAX
3. SCREWS ARE STAINLESS STEEL (SS) WITH BEVELED HEADS (FLUSH WITH DECK SURFACE) INTO PRE-DRILLED HOLES TO PREVENT SPLITTING. FASTEN DECKING USING TWO (2) SCREWS AT EACH JOIST AND BLOCKING UNLESS OTHERWISE INDICTED BY THE DECKING MANUFACTURER. REFERENCE GENERAL NOTES FOR ALTERNATE OF SS.
4. **BID ALTERNATE:** FLOOR DECKING, PT 2x6 LAID FLAT, FASTEN TO EACH JOIST USING (2) #8 SS SCREWS W/ 1" EMBED INTO PRE-DRILLED HOLES TO PREVENT SPLITTING. LAYOUT DECK BOARDS WITH 1/8" MIN AND 1/4" MAX GAPS BETWEEN BOARDS.
5. INSTALL BLOCKING (MATCH JOIST SIZE/DEPTH) BETWEEN JOISTS AT BOARDWALK SKEWS TO SUPPORT FLOOR DECKING, PARTIALLY SHOWN FOR CLARITY.
6. BLOCKING AT RAILING POST LOCATIONS NOT SHOWN. COORDINATE LOCATION OF BLOCKING WITH APPROVED RAILING SUBMITTAL.

BOARDWALK FRAMING LEGEND:

G-1	PT (2) 2x12 GIRDER
J-1	PT 2x12 JOISTS AT 12" OC MAX
DJ	DOUBLE JOIST

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BOARDWALK PARTIAL SITE PLAN

SHEET IDENTIFICATION
S-202

SHEET 28 OF 68

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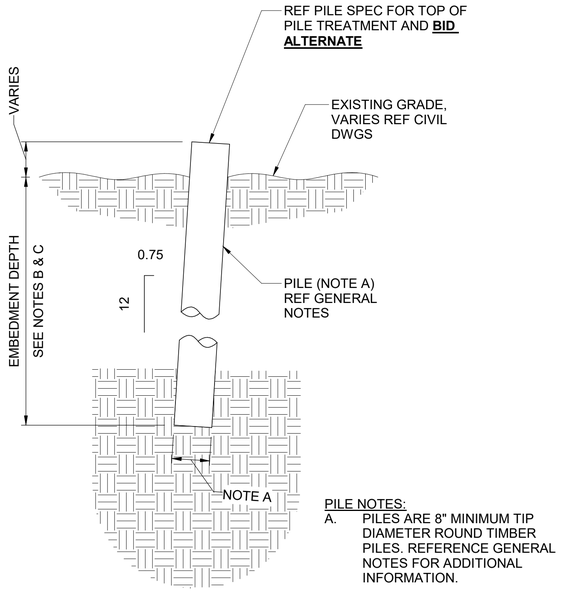
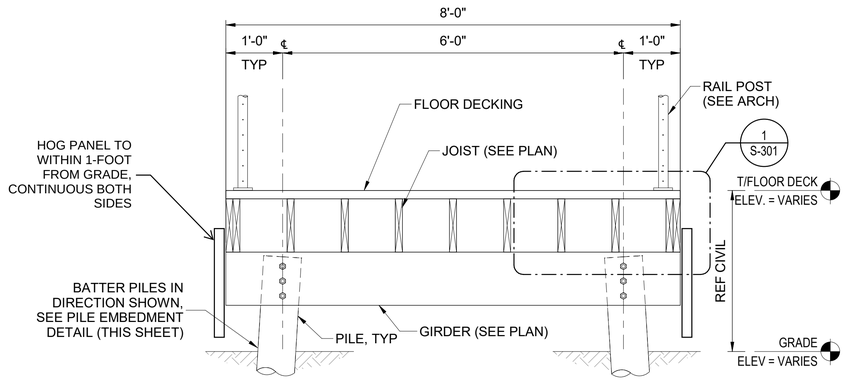


PILE NOTES:

A. PILES ARE 8" MINIMUM TIP DIAMETER ROUND TIMBER PILES. REFERENCE GENERAL NOTES FOR ADDITIONAL INFORMATION.

PILE EMBEDMENT DETAIL

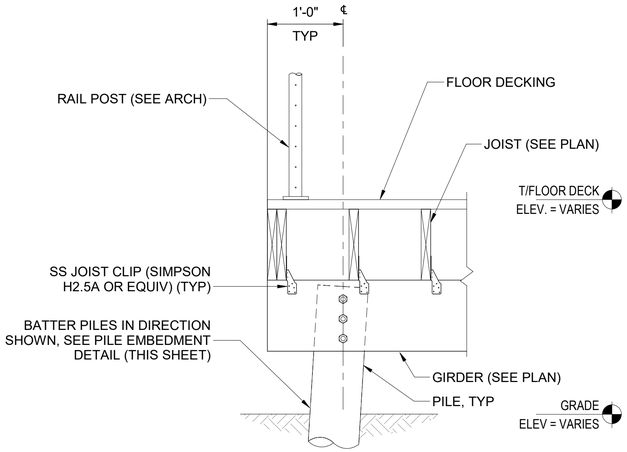


A S-202 **SECTION**

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

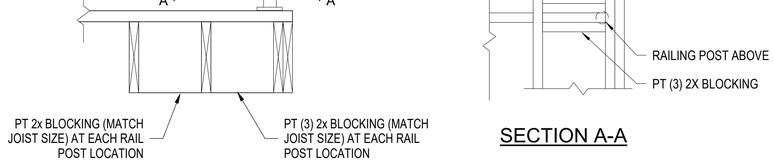
NOTE:

1. SEE ARCHITECTURAL FOR GUARDRAIL AND HAND RAIL DETAILS



B S-202 **SECTION**

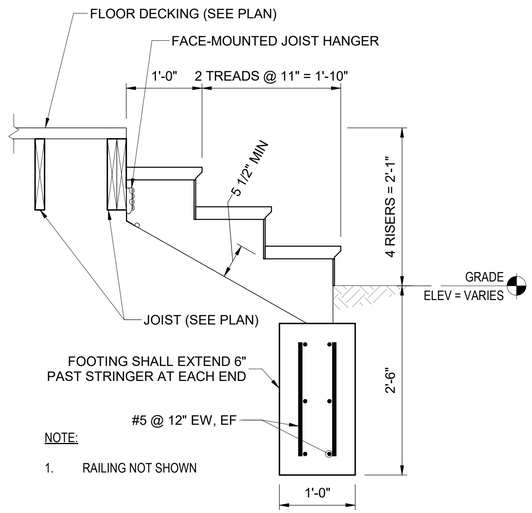
SCALE: 1" = 1'-0"



SECTION A-A

1 **BLOCKING DETAIL AT RAILING POST**

SCALE: 1" = 1'-0"

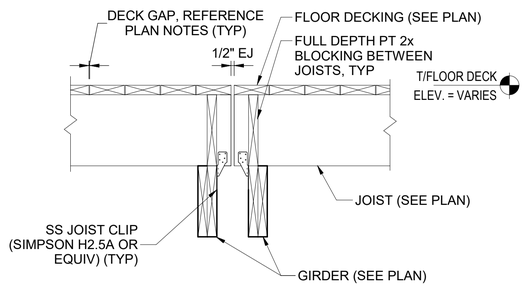


NOTE:

1. RAILING NOT SHOWN

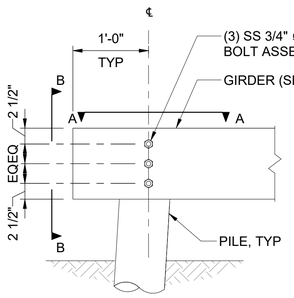
C S-202 **SECTION**

SCALE: 1" = 1'-0"

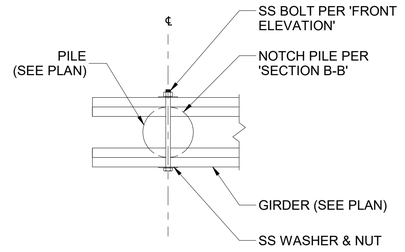


D S-202 **SECTION**

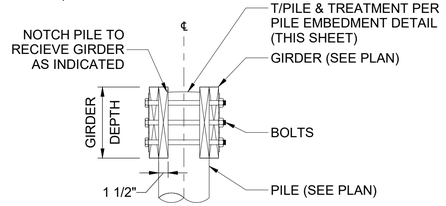
SCALE: 1" = 1'-0"



FRONT ELEVATION



SECTION A-A



SECTION B-B

E S-202 **GIRDER TO PILE CONNECTION**

SCALE: 1" = 1'-0"

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BOARDWALK SECTIONS & DETAILS

SHEET IDENTIFICATION
S-301

SHEET 29 OF 68

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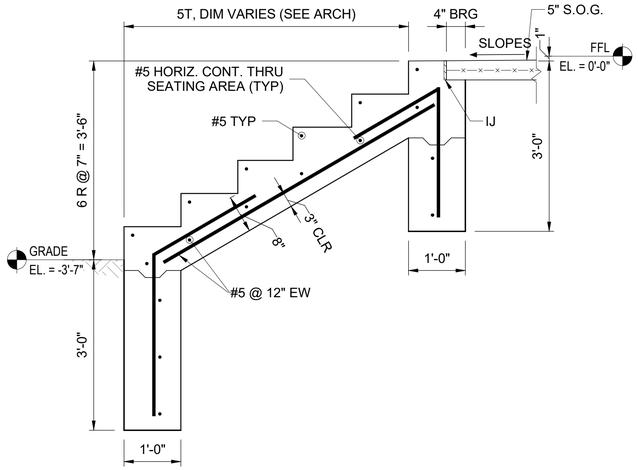
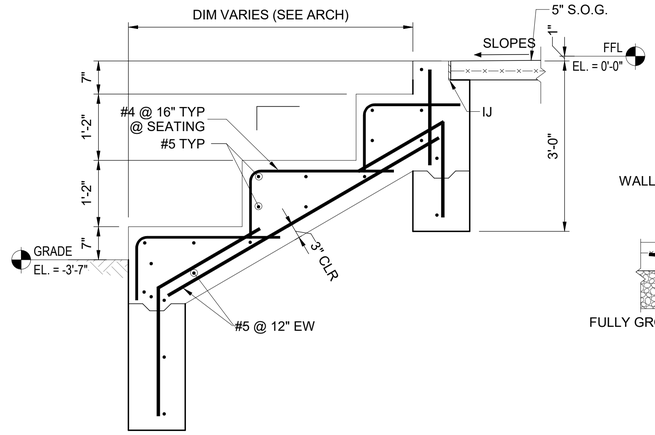


A S-101 SECTION
SCALE: 3/4" = 1'-0"



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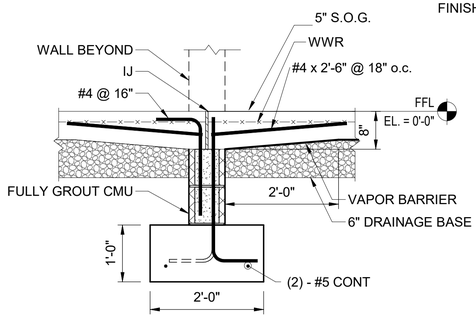
NOT TO SCALE



C S-101 SECTION
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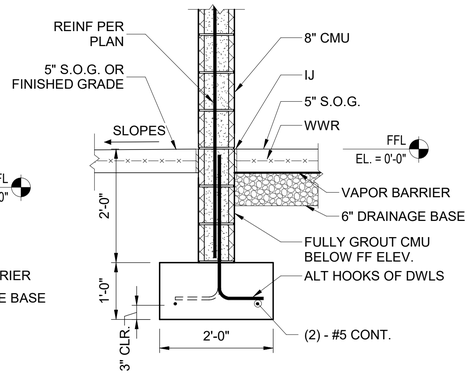
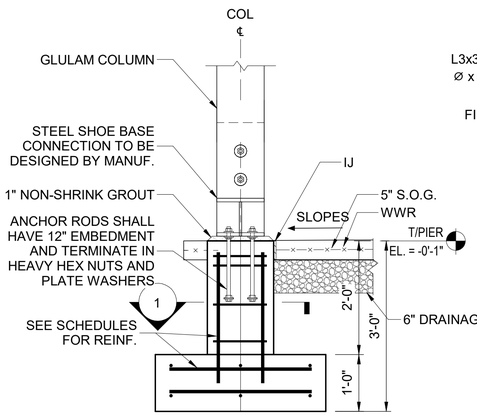


NOTE:
EXTERIOR WALL FINISHES NOT SHOWN

D S-101 SECTION
SCALE: 3/4" = 1'-0"



E S-101 SECTION
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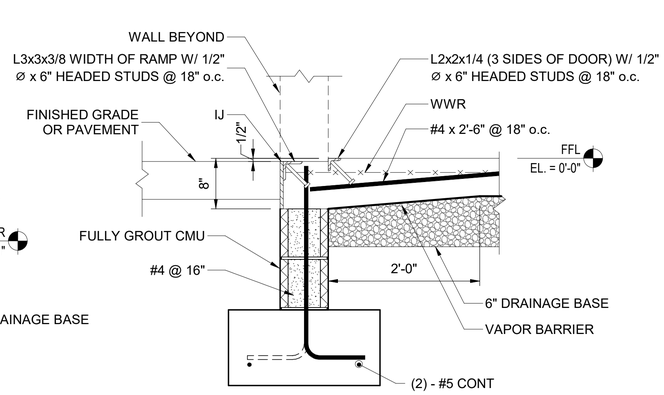

F S-101 SECTION
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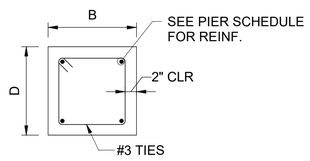

1 SECTION THRU PIER
SCALE: 1" = 1'-0"

PIER SCHEDULE		
PIER MARK	P1	
SIZE (DxB)	1'-2" x 1'-2"	
REINFORCING	4 - #6	
TIES	#3 @ 12"	
TOP PIER EL.	-0'-1"	

FOOTING SCHEDULE		
FOOTING MARK	F1	
SIZE (DxBxt)	3'-0" SQ x 1'-0"	
REINFORCING	#5 @ 12" EW T&B	
T/FOOTING EL.	-2'-1"	
REMARKS	FOUNDATION WALLS OF STAIRS SHALL BE INTEGRAL WITH SPREAD FOOTINGS WHERE THEY ABUT IN PLAN.	

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FOUNDATION SECTIONS I

SHEET IDENTIFICATION
S-302

SHEET 30 OF 68

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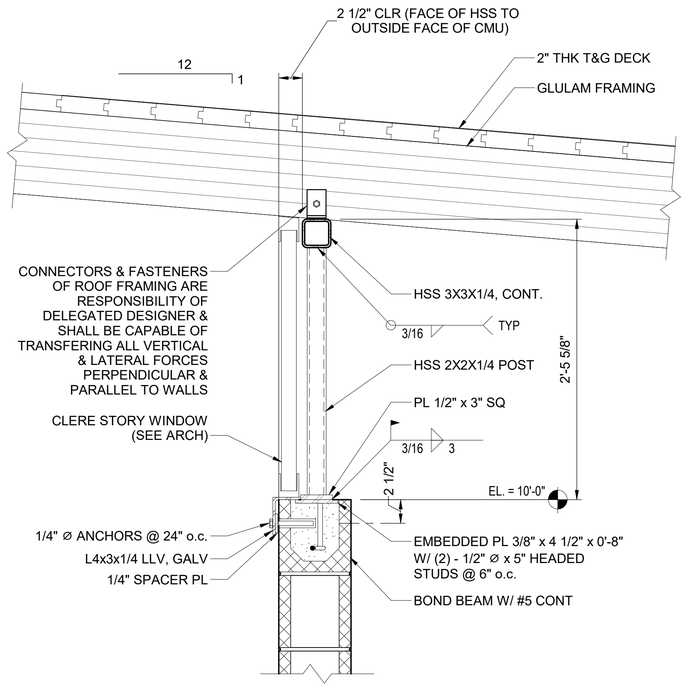
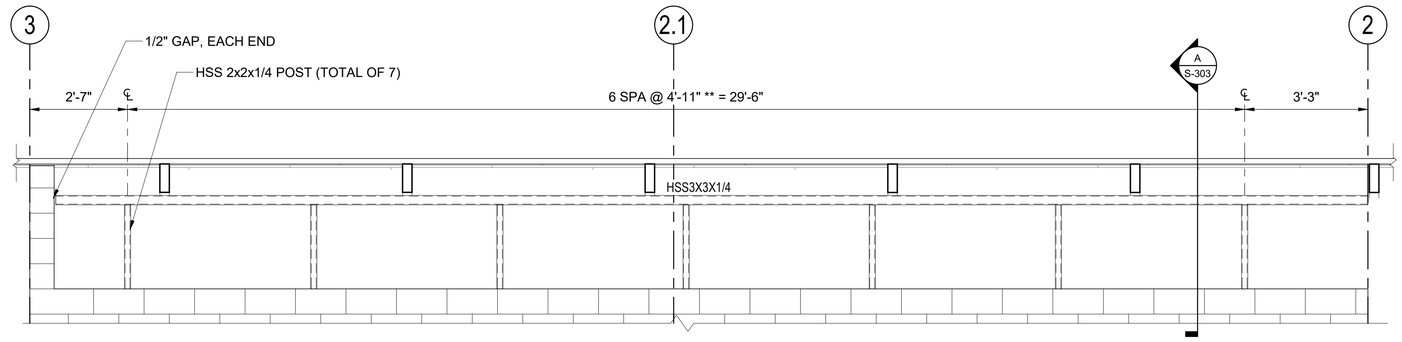
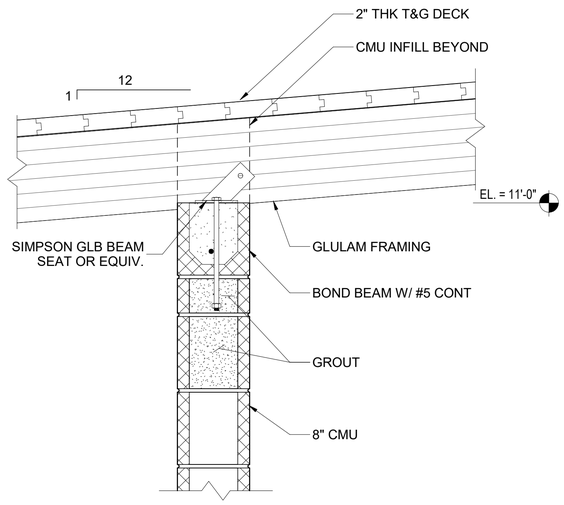


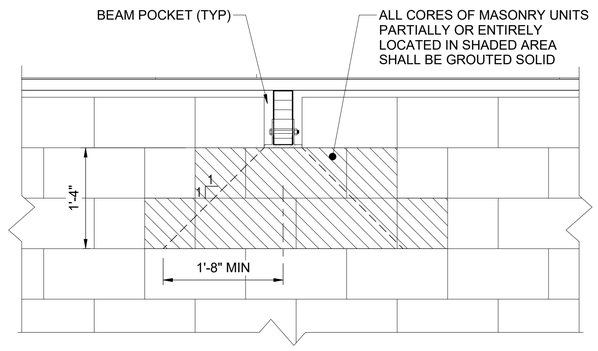


** COORDINATE FINAL DIMENSIONS WITH APPROVED FIBERGLASS PANEL WINDOW SUBMITTAL BEFORE FABRICATION

A S-102 **SECTION**
SCALE: 1 1/2" = 1'-0"

1 S-102 **ELEVATION**
SCALE: 1/2" = 1'-0"





B S-102 **SECTION**
SCALE: 1 1/2" = 1'-0"

2 S-102 **TYPICAL BEAM EBARING DETAIL AT MASONRY WALL**
SCALE: 1" = 1'-0"

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FRAMING SECTIONS I

SHEET IDENTIFICATION
S-303

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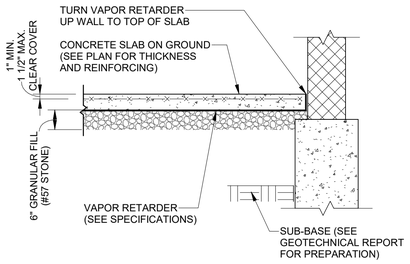
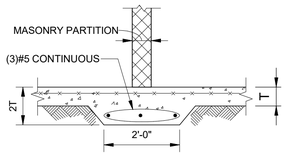
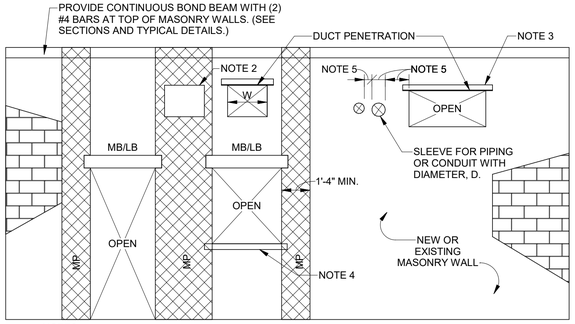
NOTE:
SEE TYPICAL SLAB ON GROUND JOINT DETAILS, SLAB REINFORCING DETAILS, AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS



SLAB ON GROUND DETAIL



THICKENED SLAB DETAIL UNDER MASONRY PARTITIONS

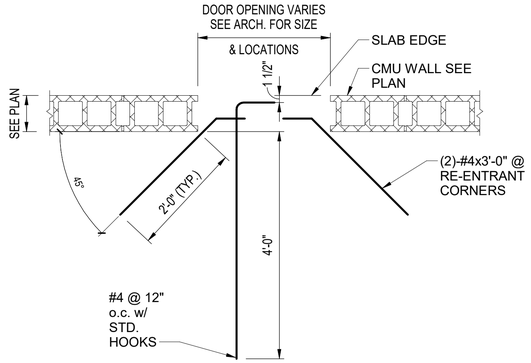


NOTES:

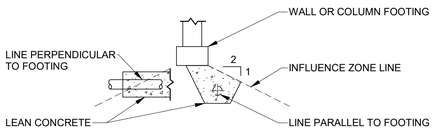
1. WHEN CUTTING PENETRATIONS THROUGH EXISTING OR NEW MASONRY WALLS, LOCATE ALL WALL AND BEAM REINFORCING (HORIZ./VERT. REINFORCEMENT, LINTELS, BOND BEAMS, ETC.) PRIOR TO CUTTING. DO NOT CUT WALL OR BEAM REINFORCING.
2. DO NOT LOCATE WALL PENETRATIONS WITHIN MASONRY PIERS. WHERE POSSIBLE, STACK WALL PENETRATION VERTICALLY. FOR EXAMPLE, LOCATE DUCT PENETRATIONS DIRECTLY ABOVE DOOR OR WINDOW OPENINGS.
3. PROVIDE LOOSE LINTELS ABOVE ALL WALL PENETRATIONS PER SCHEDULE IN GENERAL NOTES.
4. PROVIDE CONTINUOUS 8" BOND BEAMS WITH(2) #4 BELOW OPENINGS WITH WIDTHS, W, GREATER THAN OR EQUAL TO 8'-0". EXTEND BOND BEAM TO ADJACENT MASONRY PIER (2'-8" MIN. BEYOND EDGE OF OPENING).
5. DO NOT LOCATE SLEEVE PENETRATIONS WITHIN 2'-8" OF DUCT PENETRATIONS. MAINTAIN A MINIMUM SLEEVE SPACING OF 3"D (8" MINIMUM).

MP DENOTES MASONRY PIER/PILASTER. COORDINATE LOCATIONS WITH PLANS, SECTIONS, AND TYPICAL DETAILS.
MB/LB DENOTES MASONRY/LINTEL BEAM. SEE PLANS AND TYPICAL DETAILS FOR ADDITIONAL INFORMATION.

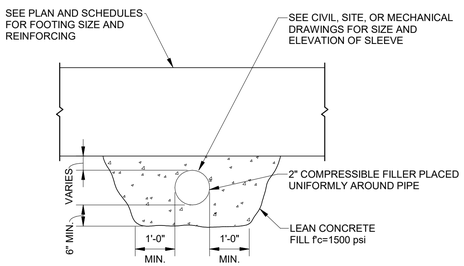
TYPICAL MASONRY WALL PENETRATION DETAIL



TYPICAL SLAB REINFORCING DETAIL @ DOORWAY

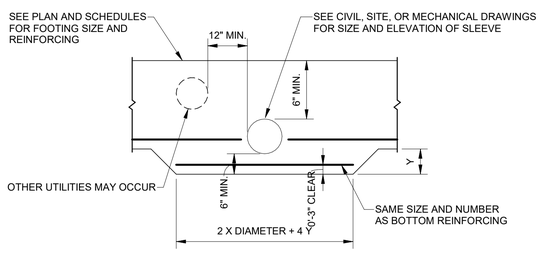


INFLUENCE ZONE



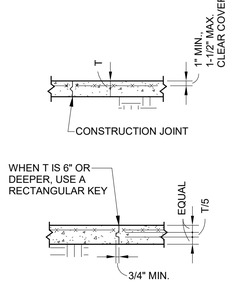
NOTE: PROVIDE CONCRETE PROTECTION AROUND UTILITY LINE WHEN LINE IS WITHIN FOOTING INFLUENCE ZONE. SEE DETAIL ABOVE FOR INFLUENCE ZONE DEFINITION

FOOTING DETAIL WITH UTILITY LINES BELOW

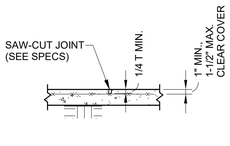


NOTE:
IF DIRECT PENETRATION OF PIPE IS REQUIRED IN LIEU OF SLEEVE, PROVIDE 2" COMPRESSIBLE FILLER, PLACED UNIFORMLY AROUND PIPE.

FOOTING REINFORCING DETAIL FOR PENETRATIONS OR SLEEVES



CONSTRUCTION JOINT

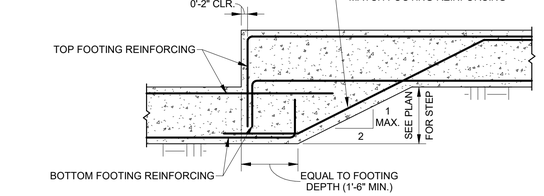


CONTROL JOINT

NOTES:

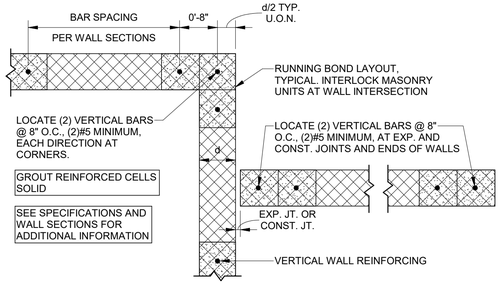
1. U.N.O., CONTROL JOINTS SHALL BE INSTALLED IN SLABS ON GROUND AT A MAXIMUM SPACING IN FEET OF 3 TIMES THE SLAB THICKNESS IN INCHES IN EACH DIRECTION (15'-0" MAXIMUM) BY EITHER OF THE METHODS SHOWN. MAXIMUM LENGTH OF ANY SLAB ON GROUND POUR TO BE 50'-0" BETWEEN CONSTRUCTION JOINTS. THIS SPACING OF JOINTS SHALL APPLY UNLESS SPECIFICALLY SHOWN OTHERWISE ON DRAWINGS.
2. REINFORCING TO BE DISCONTINUOUS THROUGH CONSTRUCTION JOINTS.

SLAB ON GROUND JOINTS

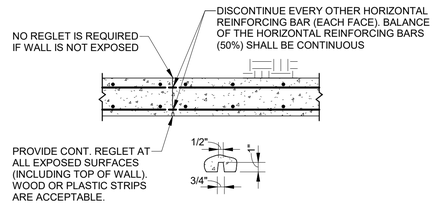


TYPICAL STEPPED FOOTING DETAIL

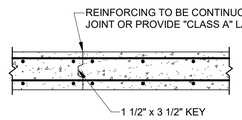
(2 LAYERS OF REINFORCING)



REINFORCING DETAILS FOR CORNERS AND ENDS OF MASONRY WALLS



CONTRACTION JOINT DETAIL

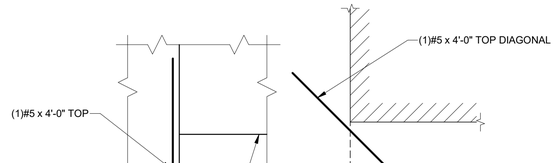


CONSTRUCTION JOINT DETAIL

NOTES:

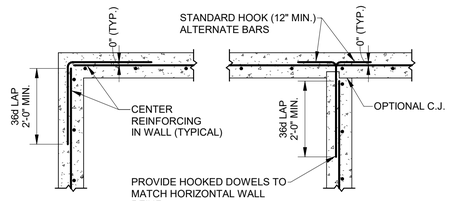
1. WALLS MAY BE PLACED IN ONE CONTINUOUS OPERATION TO A MAXIMUM LENGTH OF 60'-0". CONTRACTION JOINTS MUST BE INSTALLED AT THE LEAST SPACING OF:
   A. FIELD OF WALL: 1.5 x WALL HEIGHT (IN FT), AS SHOWNN ON DRAWINGS, OR 30'-0"
   B. FROM CORNERS: 0.75 x WALL HEIGHT (IN FT), OR 15'-0"
2. CONSTRUCTION JOINTS SHALL BE INSTALLED IN ADVANCE OF THE DAY'S PLACEMENT AND SHALL BE LOCATED AT REGULAR CONTRACTION JOINT SPACING (SEE NOTE 1). ALLOW 48 HOURS BETWEEN ADJACENT POURS.
3. CONTRACTION JOINTS IN EXPOSED AREAS SHALL BE INCORPORATED INTO THE CONCRETE FINISH WORK.
4. CONSTRUCTION AND CONTRACTION JOINT LAYOUT SHALL BE SHOWN ON THE REINFORCING SHOP DRAWINGS.
5. THIS DETAIL DOES NOT APPLY TO CANTILEVERED WALL CONSTRUCTION OR SHEAR WALL CONSTRUCTION.

CONCRETE WALL JOINT DETAILS



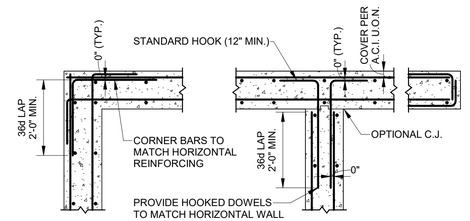
AT DISCONTINUOUS JOINTS AT INSIDE CORNERS

SLAB REINFORCING DETAILS



NOTE:
WHERE BAR SIZES DIFFER, LAP FOR LARGER SIZE

(**1 LAYER OF WALL REINFORCING**)



NOTE:
WHERE BAR SIZES DIFFER, LAP FOR LARGER SIZE

(**2 LAYERS OF WALL REINFORCING**)

CONCRETE WALL REINFORCING DETAIL

STATE OF OHIO
ALEC BRENT PATTON
E-65536
REGISTERED PROFESSIONAL ENGINEER

B&N BURGESS & NIPLE
8160 NORTON PARKWAY
UNIT 200
MENTOR, OH 44060

CLERMONT COUNTY PARK DISTRICT
GRAILVILLE PRESERVE & PARK
MIAMI TOWNSHIP CLERMONT COUNTY, OHIO

REVISIONS		
NO.	DESCRIPTION	DATE

JOB NO:	PR63329
DATE:	04/02/2026
DESIGNED BY:	ABP
DRAWN BY:	TRK
CHECKED BY:	ABP
APPROVED BY:	ABP
SCALE:	As indicated

TYPICAL DETAILS I

SHEET IDENTIFICATION
S-401

SHEET 32 OF 68

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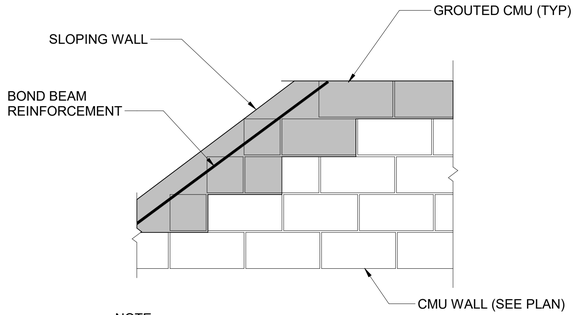
MASONRY LINTEL BEAM SCHEDULE			
MARK	BEAM SIZE (WxD)	HORIZONTAL REINFORCEMENT BOTTOM	REMARKS
-	8"x8"	(2)#5	TYP, U.N.O.
ML-1	8"x16"	(2)#5	-

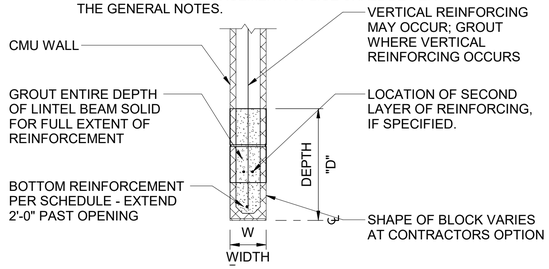
MASONRY LINTEL BEAM SCHEDULE NOTES:

1. ALL LINTEL BEAMS SHALL BE GROUTED SOLID THE ENTIRE SPECIFIED WIDTH AND DEPTH.
2. HORIZONTAL REINFORCEMENT SHALL EXTEND A MINIMUM OF 2'-0" PAST THE OPENING, OR BE HOOKED INTO ADJACENT WALL IF 2'-0" OF MASONRY DOES NOT OCCUR.
3. LINTEL BEAMS THAT ARE ADJACENT WITH LESS THAN 4'-0" MASONRY BETWEEN OPENINGS SHALL HAVE CONTINUOUS REINFORCEMENT. SPLICE SHALL BE PER THE GENERAL NOTES.

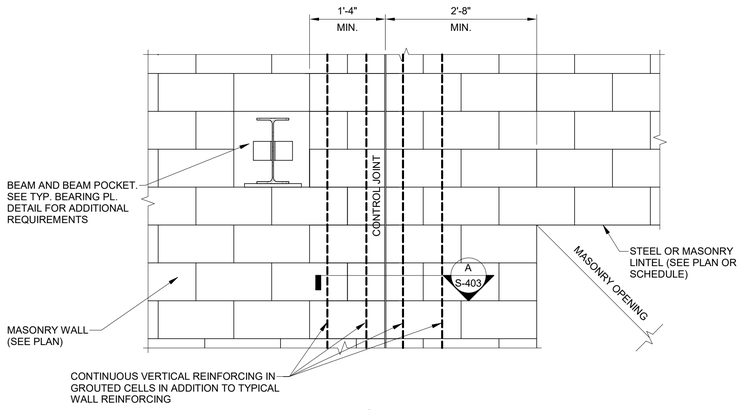


NOTE:
VERTICAL REINFORCEMENT NOT SHOWN FOR CLARITY

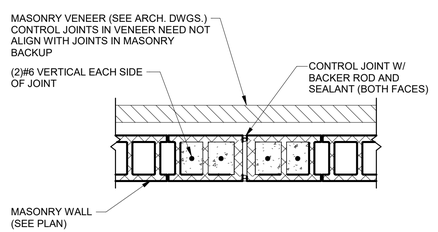
SLOPED BOND BEAM



MASONRY LINTEL BEAM



ELEVATION



PLAN DETAIL A

NOTES:

1. CONDUIT, PIPING, SLEEVES, ETC. SHALL NOT BE INSTALLED (EMBEDDED) IN THE SAME CELL WITH VERTICAL REINFORCING. NOR SHALL CONDUIT, PIPING, SLEEVES, ETC. BE INSTALLED (EMBEDDED) HORIZONTALLY THROUGH A MASONRY CELL WITH GROUTED VERTICAL REINFORCING.
2. STEEL OR MASONRY LINTELS SHALL NOT SPAN CONTROL JOINTS.
3. HORIZONTAL REINFORCING, LESS BOND BEAM REINFORCEMENT, SHALL BE DISCONTINUOUS AT CONTROL JOINTS.
4. BEARING PLATES SHALL NOT SPAN CONTROL JOINTS.
5. MAXIMUM JOINT SPACING 25'-0".

TYPICAL MASONRY WALL CONTROL JOINT DETAIL

STATE OF OHIO
ALEC BRENT PATTON
E-65536
REGISTERED PROFESSIONAL ENGINEER

B&N BURGESS & NIPLE
8160 NORTON PARKWAY
UNIT 200
MENTOR, OH 44060

CLERMONT COUNTY PARK DISTRICT
GRAILVILLE PRESERVE & PARK
MIAMI TOWNSHIP CLERMONT COUNTY, OHIO

REVISIONS		
NO.	DESCRIPTION	DATE

JOB NO:	PR63329
DATE:	04/02/2026
DESIGNED BY:	ABP
DRAWN BY:	TRK
CHECKED BY:	ABP
APPROVED BY:	ABP
SCALE:	3/4" = 1'-0"

TYPICAL DETAILS III

SHEET IDENTIFICATION
S-402

SHEET 33 OF 68

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DRAWING ABBREVIATIONS (ARCHITECTURAL)

A	----------
A/C	AIR CONDITION
A/E	ARCHITECT/ENGINEER
ACS	AUTOMATIC CONTROL SYSTEM
ACT	ACOUSTICAL CEILING TILE
ADA	AMERICANS WITH DISABILITIES ACT
ADMIN	ADMINISTRATION
AFC	ABOVE FINISHED COUNTER
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
ALT	ALTERNATE
ALUM	ALUMINUM
APC	ACOUSTICAL PANEL CEILING
APPROX	APPROXIMATE
ARCH	ARCHITECT(URAL)
ASC	ABOVE SUSPENDED CEILING
ASSY	ASSEMBLY
ATC	ACOUSTICAL TILE CEILING
AV	AUDIO VISUAL
AVG	AVERAGE
AW	ARCHITECTURAL WOODWORK
AWT	ACOUSTICAL WALL TREATMENT
B	----------
BALC	BALCONY
BB	BASEBOARD
BD	BOARD
BDRY	BOUNDARY
BFF	BELOW FINISH FLOOR
BHMA	BUILDER'S HARDWARE MANUFACTURER'S ASSOCIATION
BLDG	BUILDING
BLKG	BLOCKING
BN	BULLNOSE
BO	BOTTOM OF
BOS	BOTTOM OF STEEL
BRG	BEARING
BRKT	BRACKET
BS	BOTH SIDES
BSMT	BASEMENT
BTWN	BETWEEN
BUR	BUILT-UP ROOFING
C	----------
CAB	CABINET
CATW	CATWALK
CAV	CAVITY
CBB	CEMENTITIOUS (BACKER) BOARD
CD	CONSTRUCTION DOCUMENTS
CDR	CARD READER
CER	CERAMIC
CF/CI	CONTRACTOR FURNISHED/ CONTRACTOR INSTALLED
CFE	CONTRACTOR FURNISHED EQUIPMENT
CFLG	COUNTERFLASHING
CFM	CUBIC FEET PER MINUTE
CFMF	COLD-FORMED METAL FRAMING
CFS	CUBIC FEET PER SECOND
CG	CORNER GUARD
CI	CAST IRON
CIP	CAST-IN-PLACE
CJ	CONTROL JOINT
CL	CENTER LINE
CLG	CEILING
CLO	CLOSET
CLR	CLEAR
CLRM	CLASSROOM
CMU	CONCRETE MASONRY UNIT
CO	CLEANOUT
COL	COLUMN
COMM	COMMUNICATION
CONC	CONCRETE
CONF	CONFERENCE
CONT	CONTINUOUS
CONTR	CONTRACT(OR)
COORD	COORDINATE
CORR	CORRIDOR
CPT	CARPET
CR	CONTROL ROOM
CS	CAST STONE
CSWK	CASEWORK
CT	CERAMIC TILE
CTB	CERAMIC TILE BASE
CTF	CERAMIC TILE FLOOR
CTR	CENTER
CU FT	CUBIC FEET
D	----------
D	DEPTH
DBL	DOUBLE
DEMO	DEMOLITION
DEPT	DEPARTMENT
DET	DETAIL
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DIST	DISTANCE
DOC	DOCUMENT
DN	DOWN
DS	DOWNSPOUT
DWG	DRAWING
E	----------
EA	EACH
EF	EACH FACE
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM
EJ	EXPANSION JOINT
ES	EACH SIDE
EL	ELEVATION
ELEC	ELECTRIC(AL)
ELEV	ELEVATOR
EMBED	EMBEDMENT
ENCL	ENCLOS(URE)
ENTR	ENTRANCE
EPS	EXPANDED POLYSTYRENE BOARD (INSULATION)
EQ	EQUAL
EQVL	EQUIVALENT
EQUIP	EQUIPMENT
ES	EACH SIDE
ETR	EXISTING TO REMAIN
EWC	ELECTRIC WATER COOLER
EXIST	EXISTING
EXP	EXPOSED
EXP JT	EXPANSION JOINT
EXT	EXTERIOR
EXT GR	EXTERIOR GRADE
F	----------
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FAS BD	FASCIA BOARD
FC BRK	FACE BRICK
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FDTN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FED	FEDERAL
FF	FINISH FACE
FF INSUL	FOIL BACKED INSULATION
FGL	FIBERGLASS
FH	FIRE HOSE
FHC	FIRE HOSE CABINET
FHP	FULL HEIGHT PARTITION
FIN	FINISH(ED)
FIN GR	FINISH GRADE
FIXT	FIXTURE
FLDG	FOLDING
FLEX	FLEXIBLE
FLG	FLOORING
FLMT	FLUSH MOUNT
FLR	FLOOR
FM	FACTORY MUTUAL
FND	FOUNDATION
FOC	FACE OF CONCRETE
FOF	FACE OF FINISH
FOM	FACE OF MASONRY
FOS	FACE OF STUDS
FP	FIRE PROTECTION
FR	FIRE RESISTANT
FRG	FIBER REINFORCED GYPSUM
FRMG	FRAMING
FRP	FIBERGLASS REINFORCED PLASTIC
FRTW	FIRE RETARDANT TREATED WOOD
FSTNR	FASTENER
FT	FEET
FTG	FOOTING
FUR	FURRED(ING)
FWC	FABRIC WALLCOVERING
G	----------
G	NATURAL GAS
GALV	GALVANIZED
GB	GRAB BAR
GC	GENERAL TRADE CONTRACTOR
GFCI	GOVERNMENT FURNISHED CONTRACTOR INSTALLED
GFGI	GOVERNMENT FURNISHED GOVERNMENT INSTALLED
GFRG	GLASS-FIBER-REINFORCED GYPSUM
GL	GLAZING
GR FL	GROUND FLOOR
GWB	GYPSUM WALLBOARD
GYM	GYNAMIUM
GYP	GYPSUM
GYP BD	GYPSUM BOARD
GYP PLAS	GYPSUM PLASTER
H	----------
HB	HOSE BIBB
HDPE	HIGH DENSITY POLYETHYLENE
HDW	HARDWARE
HDWD	HARDWOOD
HEPA	HIGH EFFICIENCY PARTICULATE AIR (FILTER)
HM	HOLLOW METAL
HMD	HOLLOW METAL DOOR
HOR	HORIZONTAL
HT	HEIGHT
HVAC	HEATING/VENTILATION/AIR CONDITIONING
HYDR	HYDRAULIC
I	----------
IBC	INTERNATIONAL BUILDING CODE
INSUL	INSULATION
IN	INCH
INT	INTERIOR
J	----------
JAN	JANITOR
JT	JOINT
K	----------
KPD	KEYPAD
KIT	KITCHEN
KPL	KICKPLATE
L	----------
L	LENGTH
LAB	LABORATORY
LAD	LADDER
LAM	LAMINATE(D)
LAV	LAVATORY
LBS	POUND
LDG	LANDING
LF	LINEAR FEET (FOOT)
LG	LENGTH, LONG
LIB	LIBRARY
LIN	LINEAR
LKR	LOCKER
LOC	LOCATION
LT	LIGHT
LVDR	LOUVER DOOR
LVR	LOUVER
M	----------
MACH RM	MACHINE ROOM
MATL	MATERIAL
MAX	MAXIMUM
MD	METAL DECK
MECH	MECHANICAL
MECH RM	MECHANICAL ROOM
MEMB	MEMBRANE
MF	MILL FINISH
MFR	MANUFACTURER
MID	MIDDLE
MIN	MINIMUM, MINUTE
MIRR	MIRROR
MISC	MISCELLANEOUS
MKBD	MARKERBOARD
MLDG	MOLDING (MOULDING)
MO	MASONRY OPENING
MOD	MODIFY
MB	MOISTURE BARRIER
MTG	MOUNTING
MTL	METAL
MWP	MEMBRANE WATERPROOFING
N	----------
N	NORTH
NA	NOT APPLICABLE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NP	NO PAINT
NRC	NOISE REDUCTION COEFFICIENT
NRCA	NATIONAL FLOORING CONTRACTORS ASSOCIATION
NTS	NOT TO SCALE
O	----------
OA	OVERALL
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFD	OVERFLOW DRAIN
OFF	OFFICE
OGL	OBSCURE GLASS
OH	OVERHEAD
OPH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
OPQ	OPAQUE
OPR	OPERABLE
ORD	OVERFLOW ROOF DRAIN
ORIG	ORIGINAL
OWSJ	OPEN WEB STEEL JOIST
OZ	OUNCE
P	----------
PA	PUBLIC ADDRESS
PAR	PARAPET
PAT	PATTERN
PB	PULL BOX
PBD	PARTICLEBOARD
PCF	POUNDS PER CUBIC FOOT
PCT	PERCENT(AGE)
PEMB	PRE-ENGINEERED METAL BUILDING
PERF	PERFORATED
PERIM	PERIMETER
PH	PHASE
PIL	PILASTER
PL	PLATE OR PROPERTY LINE
PLF	POUNDS PER LINEAR FOOT
PLGL	PLATE GLASS
PLAM	PLASTIC LAMINATE
PLAS	PLASTER
PLBG	PLUMBING
PLYWD	PLYWOOD
PNL	PANEL
PNT	PAINT
PP PL	PUSH/PULL PLATE
PR	PAIR
PRCST	PRECAST
PRKG	PARKING
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED
PTD	PAPER TOWEL DISPENSER
PTDR	PAPER TOWEL DISPENSER AND RECEPTACLE
PTN	PARTITION
PVMT	PAVEMENT
PWR	POWER
Q	----------
QT	QUARRY TILE
QTY	QUANTITY
R	----------
R	RADIUS OR RISER
RB	RESILIENT BASE
RBR	RUBBER
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
REC	RECESSED
REC RM	RECREATION ROOM
REF	REFERENCE
REINF	REINFORCE(D)(ING)
REM	REMOVE(ABLE)
REPL	REPLACE
REQ	REQUIRE
REQD	REQUIRED
RESIL	RESILIENT
REST	RESTROOM
REV	REVISION(S), REVISED
RF	RESILIENT FLOORING
RFG	ROOFING
RH	ROOF HATCH
RHR	RIGHT HAND REVERSE
RL	ROOF LEADER
RLG	RAILING
RM	ROOM
RO	ROUGH OPENING
RSD	ROLLING STEEL DOOR
RV	ROOF VENT
RVL	REVEAL
S	----------
SAFB	SOUND ATTENUATION FIBERGLASS BATTS
SB	SPLASH BLOCK
SC	SOLID CORE
SCHED	SCHEDULE
SD	SMOKE DETECTOR
SF	SQUARE FOOT (FEET)
SG	SAFETY GLASS
SHT	SHEET
SHT MTL	SHEET METAL (FLASHING)
SHTHG	SHEATHING
SHV	SHELVING
SIM	SIMILAR
SKLT	SKYLIGHT
SLNT	SEALANT
SMACNA	SHEET METAL AND AIR CONDITIONING CONTRACTOR'S NATIONAL ASSOCIATION
SP	SOUND PROOF
SPEC	SPECIFICATION(S)
SQ	SQUARE
SQ IN	SQUARE INCH
SQ YD	SQUARE YARD
SST	STAINLESS STEEL
ST	STAIRS
STD	STANDARD
STL	STEEL
STL JST	STEEL JOIST
STOR	STORAGE
STR	STRINGERS
STRUCT	STRUCTURAL
STRB/HRN	STROBE/HORN
SUB FL	SUBFLOOR
SUSP	SUSPENDED
SV	SHEET VINYL
SW	SIDEWALK
SYMM	SYMMETRY(ICAL)
SYS	SYSTEM
T	----------
T	TOP OR TREAD
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
T/S	TUB/SHOWER
TC	TERRA COTTA
TD	TRENCH DRAIN
TEL	TELEPHONE
TEMP	TEMPORARY
TER	TERRAZZO
TFF	TOP OF FINISH FLOOR
THK	THICK(NESS)
THR	THRESHOLD
TKBD	TACKBOARD
TMPD GL	TEMPERED GLASS
TN	TRUE NORTH
TO	TOP OF
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOM	TOP OF MASONRY
TOP	TOP OF PARAPET
TOPO	TOPOGRAPHY
TOS	TOP OF SLAB
TPD	TOILET PAPER DISPENSER
TPTN	TOILET PARTITION
TRANS	TRANSOM
TRTD	TREATED
TV	TELEVISION
TYP	TYPICAL
U	----------
UNO	UNLESS NOTED OTHERWISE
V	----------
VCT	VINYL COMPOSITION TILE
VTR	VENT THRU ROOF
VWC	VINYL WALL COVERING
W	----------
W	WIDTH
W/	WITH
W/O	WITHOUT
WC	WATER CLOSET
WG	WIRED GLASS
WH	WATER HEATER
WWTP	WASTEWATER TREATMENT PLAN

NOTE:
ALL SYMBOLS OR ABBREVIATIONS ABOVE MIGHT NOT BE USED ON THIS PROJECT

DRAWING ANNOTATION SYMBOLS

SHEET NUMBER

NUMBERING SYSTEM:

DISCIPLINE:
C - CIVIL
L - LANDSCAPE
S - STRUCTURAL
A - ARCHITECTURE
P - PLUMBING
M - MECHANICAL
E - ELECTRICAL
T- COMMUNICATION

SERIES NUMBER

SHEET NUMBER WITHIN SERIES

A-210

BUILDING SECTION TAG

SECTION DESIGNATION

SHEET NUMBER

DETAIL SECTION TAG

SECTION DESIGNATION

SHEET NUMBER

WALL SECTION TAG

SECTION DESIGNATION

SHEET NUMBER

EXTERIOR ELEVATION TAG

SECTION DESIGNATION

SHEET NUMBER

COLUMN SYMBOL & GRID LINES

NORTH ARROW

NORTH

PLAN NORTH

TRUE NORTH

INTERIOR ELEVATION TAG

ELEVATION DESIGNATION

SHEET NUMBER

ENLARGED PLAN & DETAIL TAG

PLAN OR DETAIL DESIGNATION

SIMILAR DETAIL

SHEET NUMBER

VERTICAL ELEVATION

Level Name
Elevation

MATCH LINE

SHEET NUMBER
DETAIL NUMBER

BREAK LINE

GRAPHIC SCALE

SCALE: 1" = 1' - 0"

DATUM POINT

CENTERLINE

LEADERS

NOTE & KEYNOTE LEADER

DRAWING TITLE

TITLE

View Name

1/8" = 1'-0"

SCALE

DETAIL NUMBER

SHEET NUMBER

SPOT ELEVATION

Level Name
Elevation

FURNITURE TAG

FURNITURE TAG

SIGN TAG

EQUIPMENT TAG

EQUIPMENT TAG

PLUMBING FIXTURE/ACCESSORIES

FINISH TAG

WINDOW TYPE TAG

ROOM NAME AND NUMBER TAG

Room Name
101

CEILING INFO.

X' - X"EILING HEIGHT

KEYNOTE

TAG NUMBER

DRAWING REVISIONS

REVISION NUMBER

REVISION DELTA

PARTITION TAG

ALIGNMENT

NEW CONSTRUCTION TO ALIGN OR FLUSH WITH EXISTING CONSTRUCTION

ALIGN

WALL TYPE LEGEND

NOT IN CONTRACT (NIC)

EXISTING CONSTRUCTION TO REMAIN

NEW CONSTRUCTION

EXISTING CONSTRUCTION TO BE REMOVED

OVERHEAD SOFFIT/UPPER CABINET

GLAZING

DOORS

EXISTING DOOR TO REMAIN

NEW / RELOCATED / MODIFIED DOOR

EXISTING DOOR TO BE REMOVED

PLUMBING FIXTURES

TOILET - WALL HUNG

URINAL

SINK - WALL MOUNTED

MOP - UTILITY SINK

TOILET PARTITION

FIRE EXTINGUISHER

FEC SURFACE MOUNTED CABINET

FE FIRE EXTINGUISHER ON BRACKET

GENERAL PROJECT NOTES

A. ALL WORK IS TO BE IN CONFORMANCE WITH THE REGULATORY INFORMATION INDICATED IN THE DRAWINGS, AND OTHER AUTHORITIES HAVING JURISDICTION, INCLUDING BUT NOT LIMITED TO OSHA, AND THE EPA.
B. THE DRAWINGS DESCRIBE INTENT. CONTRACTOR IS RESPONSIBLE FOR PROVIDING COMPLETE, OPERATIONAL SYSTEMS AND INSTALLATIONS. NO CLAIMS FOR ADDITIONAL WORK WILL BE AWARDED FOR WORK WHICH IS DESCRIBED IN THESE DRAWINGS OR WHICH IS REASONABLY INFERRED IN THEM.
C. THE DRAWINGS COMMUNICATE INFORMATION CONCERNING SIZES, LOCATIONS, RELATIONSHIPS, CONFIGURATIONS, AND OTHER SIMILAR ITEMS WHICH REQUIRE CAREFUL COORDINATION OF VARIOUS SUBCONTRACTORS, TRADES AND RELATED CONSULTANTS BY THE CONTRACTOR TO OBTAIN THE INTENDED RESULTS. THE DRAWINGS DO NOT CONTAIN EXPLICIT INFORMATION ON EVERY DETAIL OF THE CONSTRUCTION.
D. DO NOT SCALE THE DRAWINGS. DIMENSIONS SHALL GOVERN. DRAWINGS AT A LARGE SCALE SHALL TAKE PRECEDENCE OVER DRAWINGS OF A SMALLER SCALE. DETAILS SHALL GOVERN OVER PLANS, SECTIONS OVER ELEVATIONS.
E. DIMENSIONS SHALL NOT BE MODIFIED WITHOUT ARCHITECT/ENGINEER'S APPROVAL UNLESS NOTED AS "±". VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO COMMENCEMENT OF CONSTRUCTION AND NOTIFY THE OWNER AND ARCHITECT/ENGINEER IN WRITING OF ANY INCONSISTENCIES.
F. ALL DIMENSIONS, NOTES AND DETAILS SHOWN ON A PORTION OF A DRAWING SHALL APPLY TYPICALLY TO ALL OPPOSITE HAND OR SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
G. DETAILS SHOWN ARE TYPICAL UNLESS INDICATED OTHERWISE. SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS.
H. VERIFY ROUGH OPENING REQUIREMENTS WITH MANUFACTURER'S UNIT DIMENSIONS TO PREVENT REVISION OF REQUIRED ROUGH OPENING. SPECIFIC ADJUSTMENTS SHALL BE REPORTED IN WRITING TO THE OWNER AND THE ARCHITECT/ENGINEER.
I. CHECK, COORDINATE AND VERIFY ALL DIMENSIONS AND CONSTRUCTION DETAILS BEFORE STARTING ANY CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE OWNER AND THE ARCHITECT/ENGINEER.
J. THE CONTRACTOR SHALL RECEIVE WRITTEN APPROVAL FROM THE OWNER BEFORE ANY CHANGE OR DEVIATION CAN BE MADE FROM THE PLANS OR SPECIFICATIONS.
K. ALL DIMENSIONS SHOWN AND INDICATED ARE TO CENTERLINE OF COLUMN, EDGE OF SLAB, FACE OF STUD FRAMING, CMU OR OTHER SUBSTRATE, UNLESS OTHERWISE NOTED.
L. GENERAL CONTRACTOR SHALL MAINTAIN WATER TIGHTNESS OF THE BUILDINGS TO PREVENT ANY WATER DAMAGE TO BUILDING DURING ALL PHASES OF CONSTRUCTION.
M. FINISH FLOOR ELEVATIONS ARE TOP OF CONCRETE UNO.
N. "BOD" INDICATES BASIS OF DESIGN PRODUCT OR MANUFACTURER. SUBSTITUTIONS REQUIRE ARCHITECT APROVAL.

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BURGESS & NIPLE

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NO.	DESCRIPTION	DATE

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DRAWN BY:	Author
CHECKED BY:	Checker
APPROVED BY:	Approver
SCALE:	As indicated

LEGENDS AND NOTES

SHEET IDENTIFICATION
A-001

SHEET 34 OF 68

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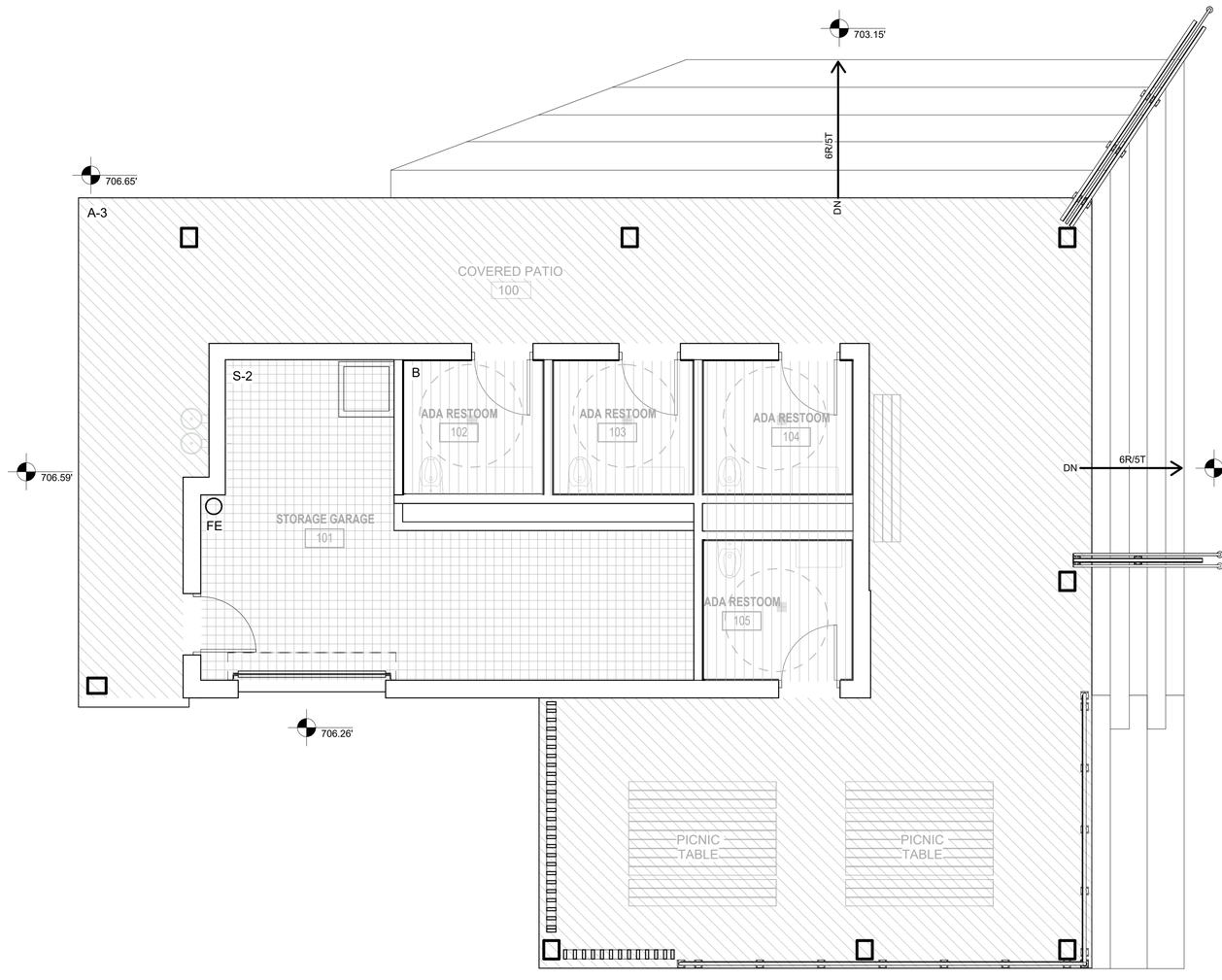

1 LIFE SAFETY PLAN - PAVILION

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

NORTH

LIFE SAFETY LEGEND

- XX / XX — EXIT COUNT / EXIT CAPACITY
- XXX — TRAVEL DISTANCE (IN FEET)
- XX — COMMON PATH OF TRAVEL DISTANCE (IN FEET)
- 1 HR FIRE RATED PARTITION
- 2 HR FIRE RATED PARTITION
- 3 HR FIRE RATED PARTITION
- FEC — FIRE EXTINGUISHER AND CABINET (RATED CABINETS IN RATED WALLS)
- FE — FIRE EXTINGUISHER ON BRACKET

USE GROUP TABLE

A-3 ASSEMBLY	1232 SF
B BUSINESS	246 SF
S-1 STORAGE LOW HAZARD	305SF

APPLICABLE CODES:

OHIO BUILDING CODE (OBC)	2024
OHIO MECHANICAL CODE	2024
OHIO PLUMBING CODE	2024
OHIO FIRE CODE	2019
IECC INTERNATIONAL ENERGY CONSERVATION CODE	2021
ANSI A17.1	2017
NFPA 70 NATIONAL ELECTRIC CODE	

BUILDING	RESTROOM PAVILION	
CHAPTER 3 USE AND OCCUPANCY		
USE GROUP	B / S-2 / A-3 (NON-SEPERATED MOST RESTRICTIVRE GOVERNS)	
CHAPTER 5 BUILDING HEIGHTS AND AREAS		
503 HEIGHT AND AREA LIMITATIONS	ALLOWABLE	ACTUAL
TABLE 504.3 BUILDING HEIGHT (FT)	40	14
TABLE 504.4 NUMBER OF STORIES	2	1
TABLE 506.2 BUILDING AREA (GSF)	6000 S.F.	1837 S.F.
CHAPTER 6 CONSTRUCTION TYPE	2B	
BUILDING ELEMENT RATINGS (HRS)	REQUIRED	ACTUAL
STRUCTURAL FRAME	0	0
BEARING WALLS (EXT)	0	0
FLOORS	0	0
ROOFS	0	0
CHAPTER 9 FIRE PROTECTION & LIFE SAFETY		
903.2 SPRINKLERS	NOT REQUIRED (FIRE AREA < 12,000 S.F.)	
FIRE ALARM	NOT REQUIRED	
PORTABLE FIRE EXTINGUISHERS	YES	
CHAPTER 10 EGRESS	ALL SPACES EXIT DIRECTLY TO EXTERIOR	
CHAPTER 13 ENERGY EFFICANCY	IECC 2021 / CLIMATE ZONE 4A	
BUILDING ELEMENT ASSEMBLY	REQUIRED	ACTUAL
ROOF	R-30 C.I / U 0.032	R-33.90 /U-0.029 INT. AIR FILM =R-0.68 2" LAMINATED DECKING = R-2.5 2 x 2.5" POLYISO RIDGID INSUL= R-28.8 1/2" PLYWOOD DECKING = R-0.62 EXT AIR FILM R=0.17
WALLS -MASS	R-9.5 C.I / U-0.104	R-12.19 /U-0.087 EXT. AIR FILM =R-0.17 CMU 8" = R-1.45 RIDGID INSUL 2" = R-10 SYNTHETIC CLADDING BOARD = R-0.57
FENESTRATION FIXED	SHGC 0.36 /U-0.36	SHGC 0.39 /U-0.28
FENESTRATION AREA	40% MAX	08%

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LIFE SAFETY PLAN

SHEET IDENTIFICATION
A-003

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INTERIOR FINISH MATERIALS LEGEND

Order	SYMBOL	MATERIAL	MANUFACTURER	PRODUCT NAME	NUMBER	COLOR	REMARKS
INTERIOR							
INTERIOR	PT-1	OIL BASED PAINT - EXPOSED STEEL, HM DOORS, AND FRAMES	SHERWIN WILLIAMS	ALL SURFACE ENAMEL OIL BASE	SW7069	IRON ORE	
INTERIOR	PT-2	EPOXY PAINT - WALLS	SHERWIN WILLIAMS	PRO INDUSTRIAL HIGH PERFORMANCE EPOXY	SW9541	WHITE SNOW	
INTERIOR	PT-3	SLIP RESISTANT EPOXY COATING - FLOORS				TBD	
INTERIOR	SC-1	SEALED CONCRETE				CLEAR	
INTERIOR	T1	PORCELAIN WALL TILE	ATLAS CONCORDE USA	LEGACY LIMESTONE		PEARL	12"x24" RECTIFIED STRIPES TILE VERTICAL MONOLITHIC INSTALLATION. REFER TO INTERIOR ELEVATIONS

ROOM FINISH SCHEDULE

ROOM NUMBER	ROOM NAME	FLOOR FINISH	WALL FINISH *	NOTES & REMARKS (SEE NOTES)
101	STORAGE GARAGE	SC-1		
102	ADA RESTOOM	PT-3	T1, PT-2	T-1 WAINSOT- SEE INT. ELEV.
103	ADA RESTOOM	PT-3	T1, PT-2	T-1 WAINSOT- SEE INT. ELEV.
104	ADA RESTOOM	PT-3	T1, PT-2	T-1 WAINSOT- SEE INT. ELEV.
105	ADA RESTOOM	PT-3	T1, PT-2	T-1 WAINSOT- SEE INT. ELEV.

*WALL FINISH INCLUDED ALL WALLS (N,S,E,W)

FURNITURE LEGEND

TAG	QUANTITY	DESCRIPTION	SIZE	MANUFACTURER
WB-1-72	2	Willard Bench	72x19x32	Tounesol
WB-1-96	8	Willard Bench	96x19x32	Tounesol
WT-1	3	Willard Gathering Table	96x41x30	Tounesol
WT-2	1	Willard Gathering Table	60x41x30	Tounesol
Grand total: 14			*ALL ITEMS ARE BASIS OF DESIGN	

GENERAL SHEET NOTES

A. REFER TO REFLECTED CEILING PLANS FOR ADDITIONAL INFORMATION.
B. REFER TO A-600 SERIES DRAWING FOR DOOR & WINDOW SCHEDULES.
C. COORDINATE AND REFER TO ALL DRAWINGS INCLUDING STRUCTURAL, PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL WORK ITEMS NOT INDICATED IN ARCHITECTURAL DRAWINGS.
D. LOCATE ALL DOORS 8" FROM ADJACENT PERPENDICULAR PATITION U.N.O.

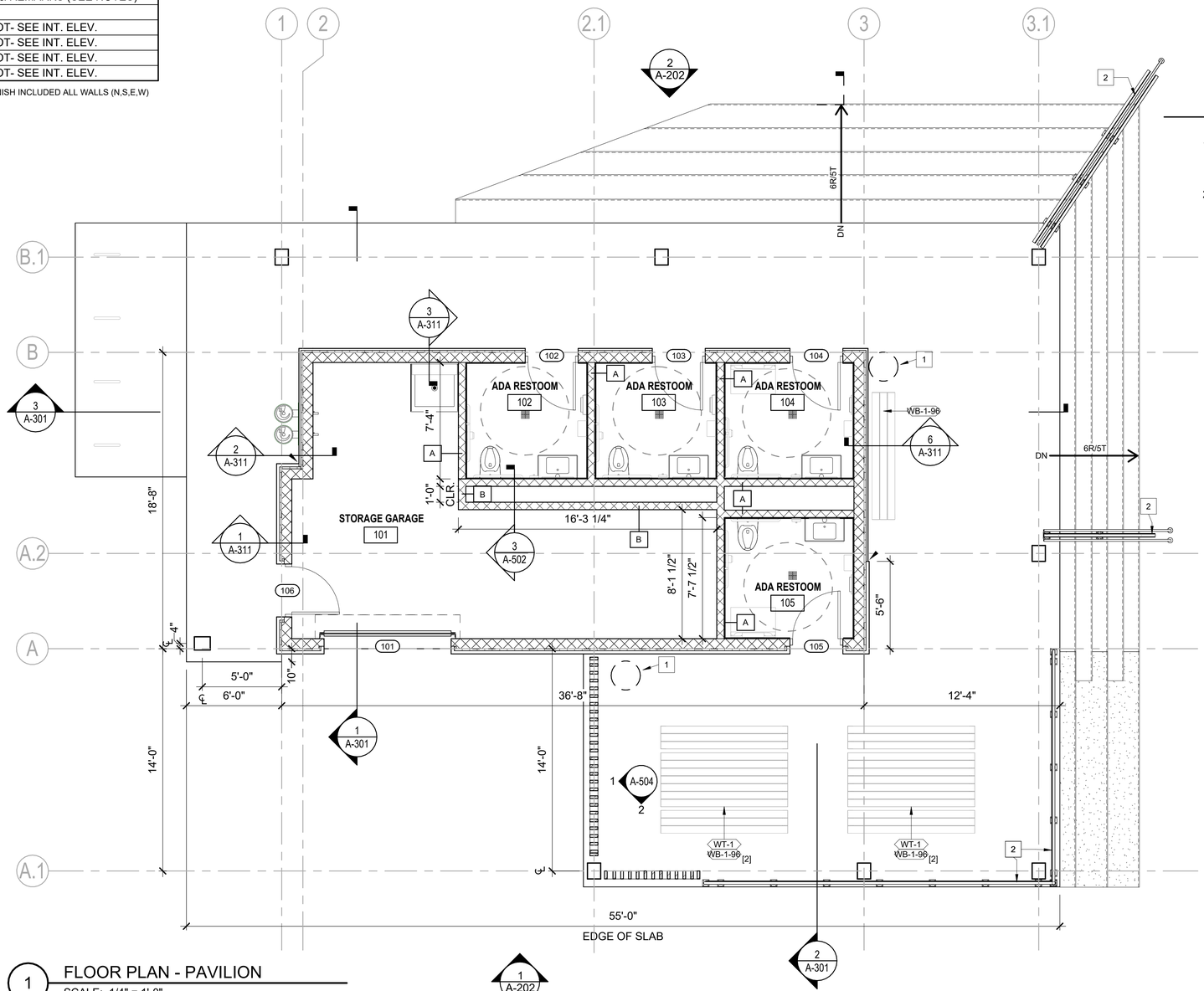
PARTITION TYPE LEGEND

A - 8" REINF. STANDARD FACE CMU. TO DECK

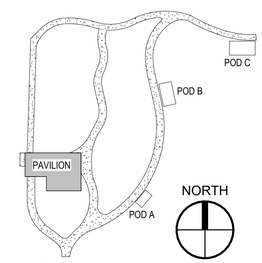
B - REINF. STANDARD FACE CMU KNEE WALL TO 4'8" NOM. A.F.F

KEYNOTES

1. SLAB-MOUNTED TRASH RECEPTACLE. TRASH RECEPTACLE FURNISHED AND INSTALLEDBY OWNER. COORDINATE FINAL LOCATION WITH OWNER.
2. TREX SIGNATURE RAILING - MESH RAILING BOD. CHARCOAL BLACK SEE A-550



1 FLOOR PLAN - PAVILION
SCALE: 1/4" = 1'-0"



KEY PLAN

STATE OF OHIO
CHAD R. KOHLER
1215550
REGISTERED ARCHITECT
CHAD R. KOHLER
EXP 12/31/2027
REG. 1215550

525 VINE STREET
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CLERMONT COUNTY PARK DISTRICT
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NEW WORK PLAN - PAVILION

SHEET IDENTIFICATION
A-101

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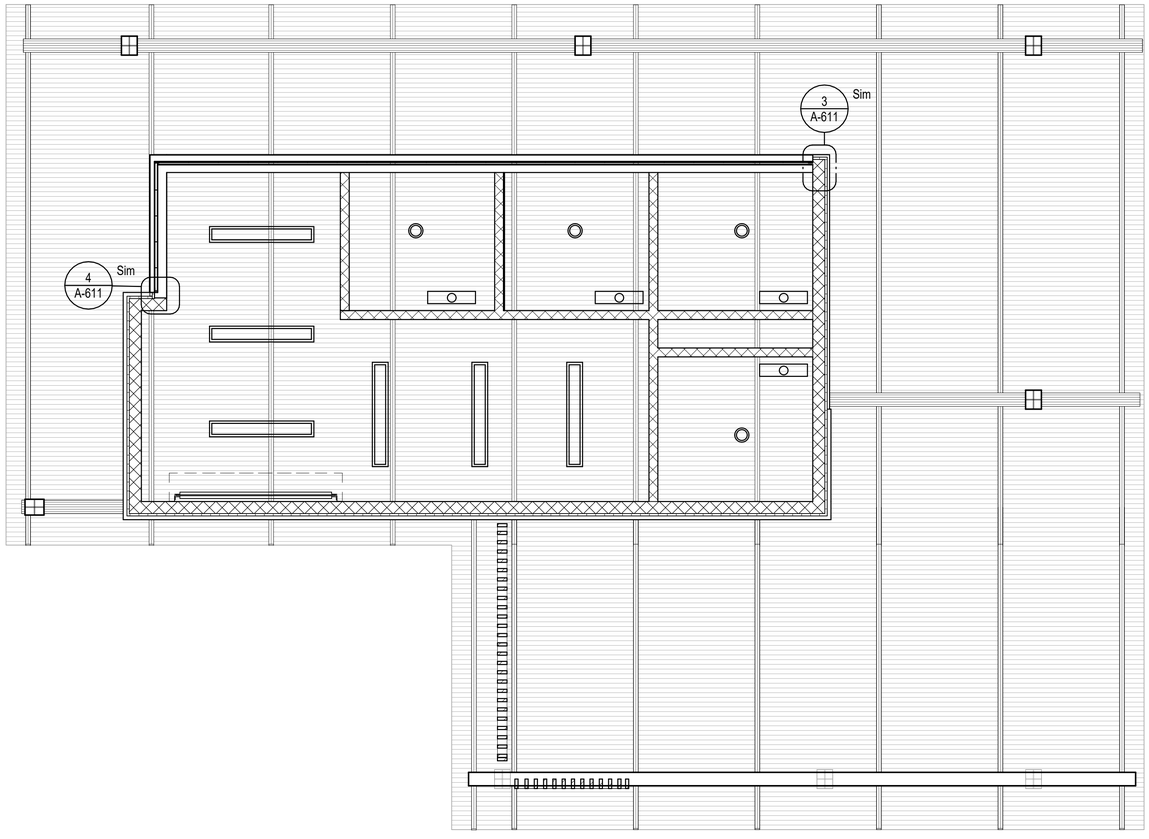
GENERAL RCP NOTES:

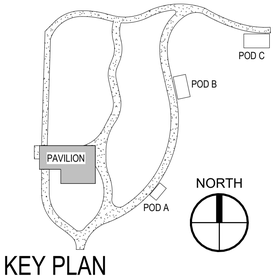
A. CEILING HEIGHTS NOTED ARE FROM FINISH FLOOR TO FACE OF STRUCTURE OR CEILING PLANE, UNO.
B. COORDINATE FINAL LOCATIONS OF LIGHT FIXTURES WITH MEP DRAWINGS.
C. ALL CEILINGS ARE EXPOSED STRUCTURE ABOVE UNLESS NOTED OTHERWISE.
D. REFER TO INTERIOR ELEVATIONS FOR ADDITIONAL HEIGHTS, SOFFITS, OR SPECIAL CONDITIONS.
E. CONFIRM FINAL OVERHANG DIMENSION OF GLULAM DECKING WITH MFR.

CEILING LEGEND

- 2" CEDAR TONGUE AND GROOVE ROOF DECKING
- 8' - 11" DIMENSION ABOVE FLOOR FINISH
- 24" VANITY LIGHT FIXTURE (REFER TO ELEC DWGS)
- 1x4 RECESSED LINEAR LIGHT FIXTURE (REFER TO ELEC DWGS)
- 6" PENDANT MOUNT DOWNLIGHT FIXTURE



1 REFLECTED CEILING PLAN - PAVILION
SCALE: 1/4" = 1'-0"



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REFLECTED CEILING PLAN - PAVILION

SHEET IDENTIFICATION
A-102

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GENERAL SHEET NOTES

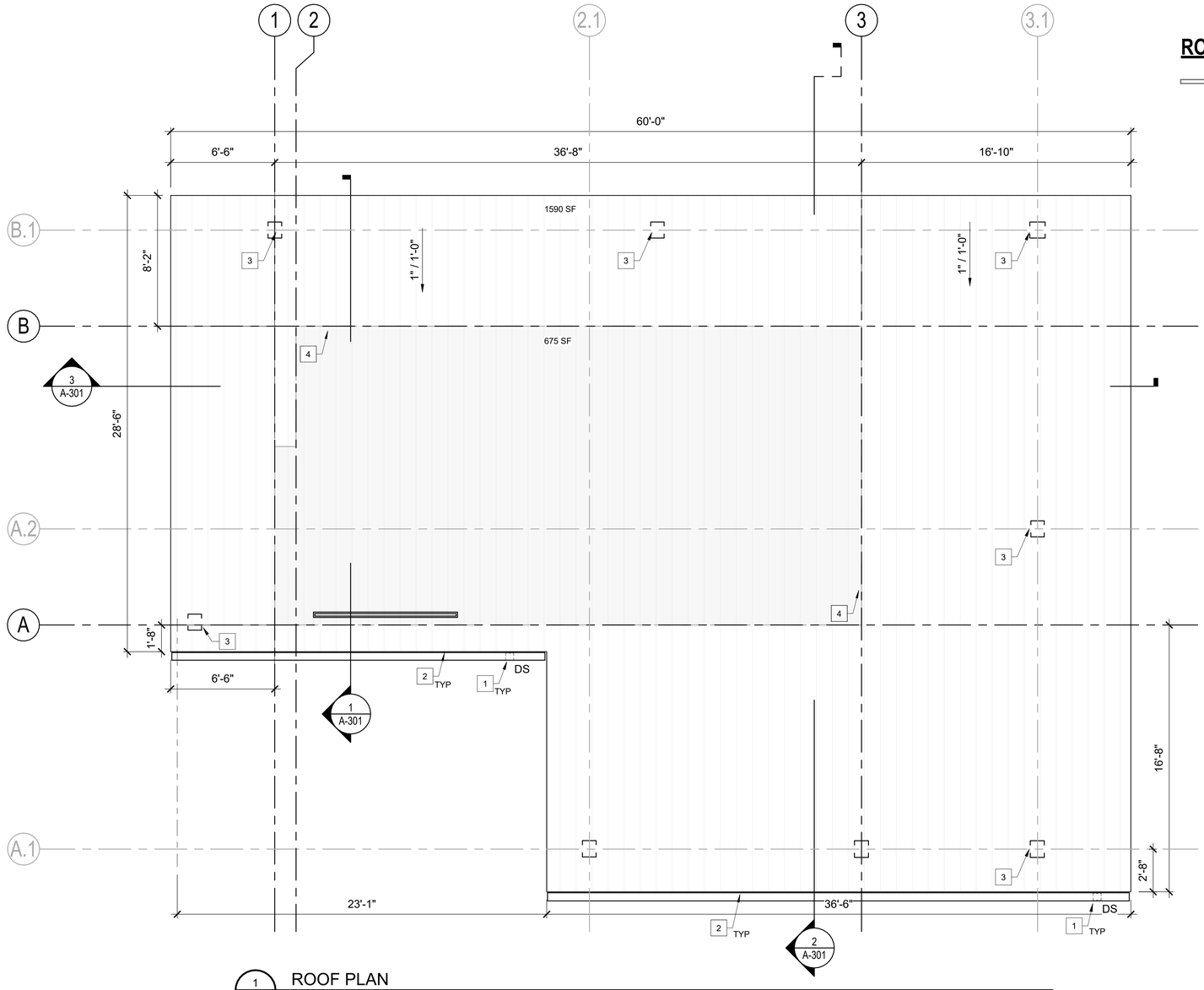
A. ALL ROOF PENETRATIONS/TERMINATIONS, WHETHER SHOWN OR NOT, SHALL BE FLASHED & SEALED AS REQUIRED BY THE ROOF MANUFACTURER.
B. SEE MECHANICAL, PLUMBING, & ELECTRICAL DRAWINGS FOR LOCATIONS OF ALL ROOF-MOUNTED EQUIPMENT & ACCESSORIES.

KEYNOTES

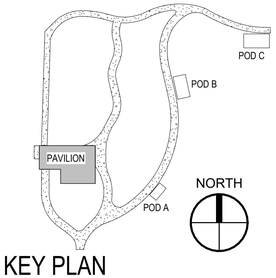
1. RAIN CHAIN AT GUTTER OUTLET - PROVIDE LARGE-LINK RAIN CHAIN(BLACK) INSTALLED PER MNFR REQS.
2. PREFINISHED ALUMINUM GUTTER.
3. GLU-LAM COLUMN BELOW, TYP.
4. INSULATED ROOF ASSEMBLY (CONDITIONED SPACE BELOW). SEE ROOF/ENVELOPE DETAILS.

ROOF LEGEND

ROOF MOUNTED SNOW GUARD



1 A-201 ROOF PLAN
SCALE: 1/4" = 1'-0"



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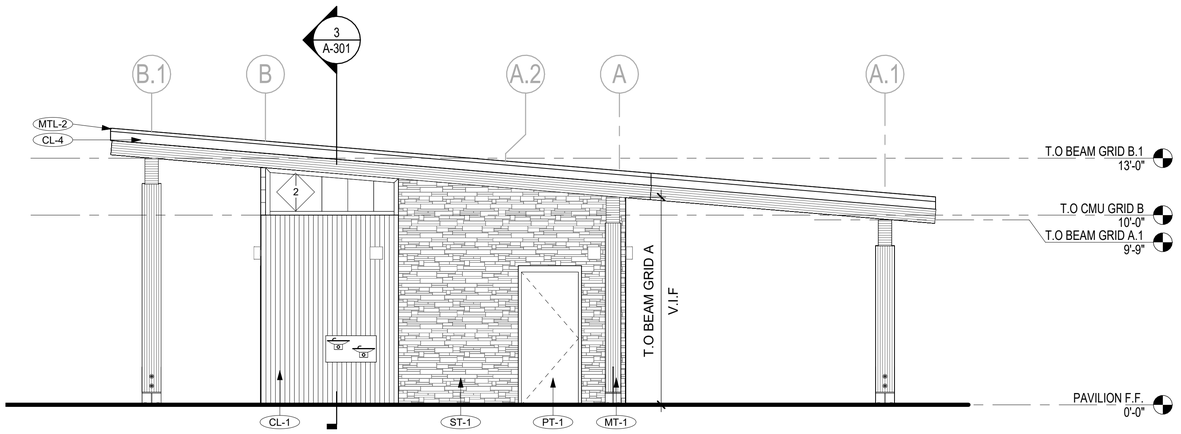
ROOF PLAN - PAVILION

SHEET IDENTIFICATION
A-121

SHEET 38 OF 68

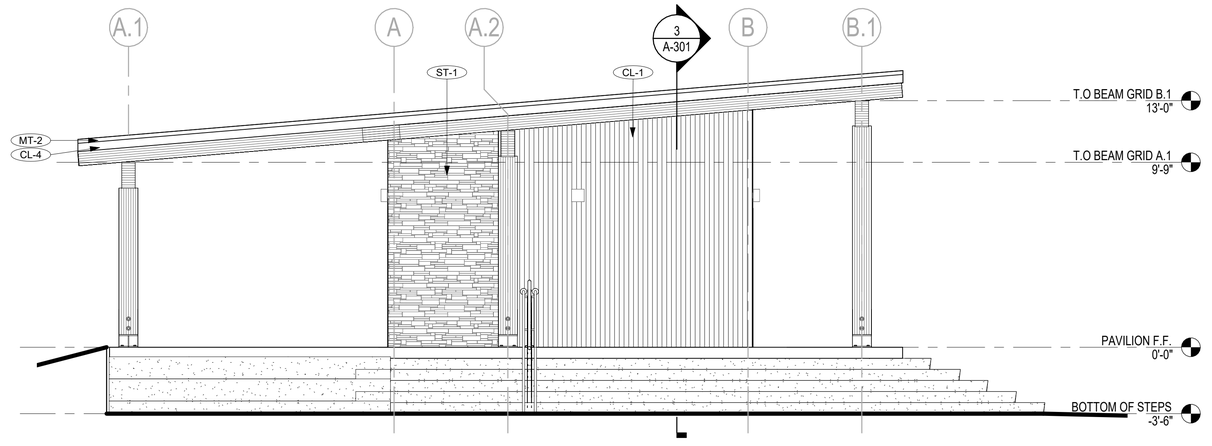
EXTERIOR FINISH MATERIAL LEGEND

SYMBOL	MATERIAL	MANUFACTURER	PRODUCT NAME	COLOR	REMARKS
EXTERIOR					
CL-1	COMPOSITE CLADDING	MILLBOARD	ENVELLO BOARD & BATTEN+	GOLDEN OAK	
CL-2	COMPOSITE CLADDING	MILLBOARD	ENVELLO BOARD & BATTEN+	BURNT CEDAR	ONLY USE ON POD A,B, & C
CL-3	CEDAR DIMENSIONAL LUMBER	TBD			MATCH GOLDEN OAK
CL-4	PREFINISHED CEDAR FASCIA				MATCH GOLDEN OAK
MT-1	PRE-FINISHED T&G 2" ROOF DECKING	GLU-LAM VENDOR	-		MATCH GOLDEN OAK
MTL-2	PREFINISHED ALUM ROOF PANEL & EDGE TRIM	IMETCO	V SEAM ROOF PANEL	-	COLOR BOD: IMETCO EPIC BRONZE
ST-1	ADHERED THIN CLAD COMPOSITE STONE VENEER	ARRISCRAFT	THIN STONE	ASH STACK	



2 WEST ELEVATION - PAVILION

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



1 EAST ELEVATION - PAVILION

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EXTERIOR ELEVATIONS - PAVILION

SHEET IDENTIFICATION
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SHEET 39 OF 68

3/30/2026 3:37:36 PM
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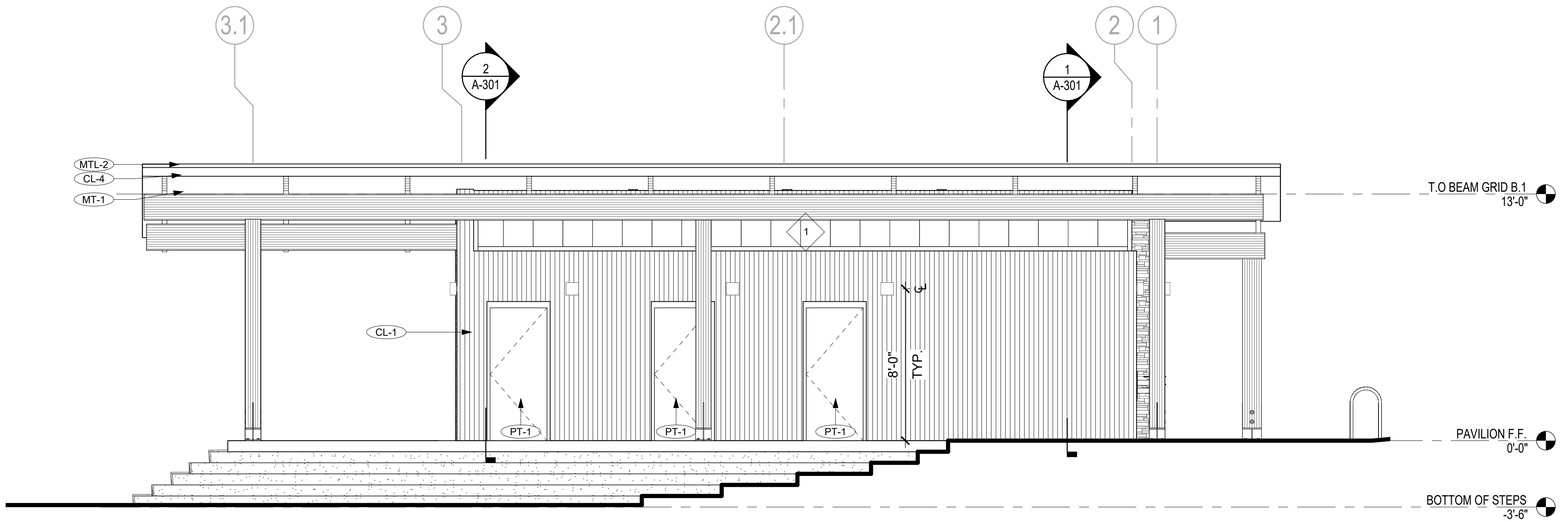
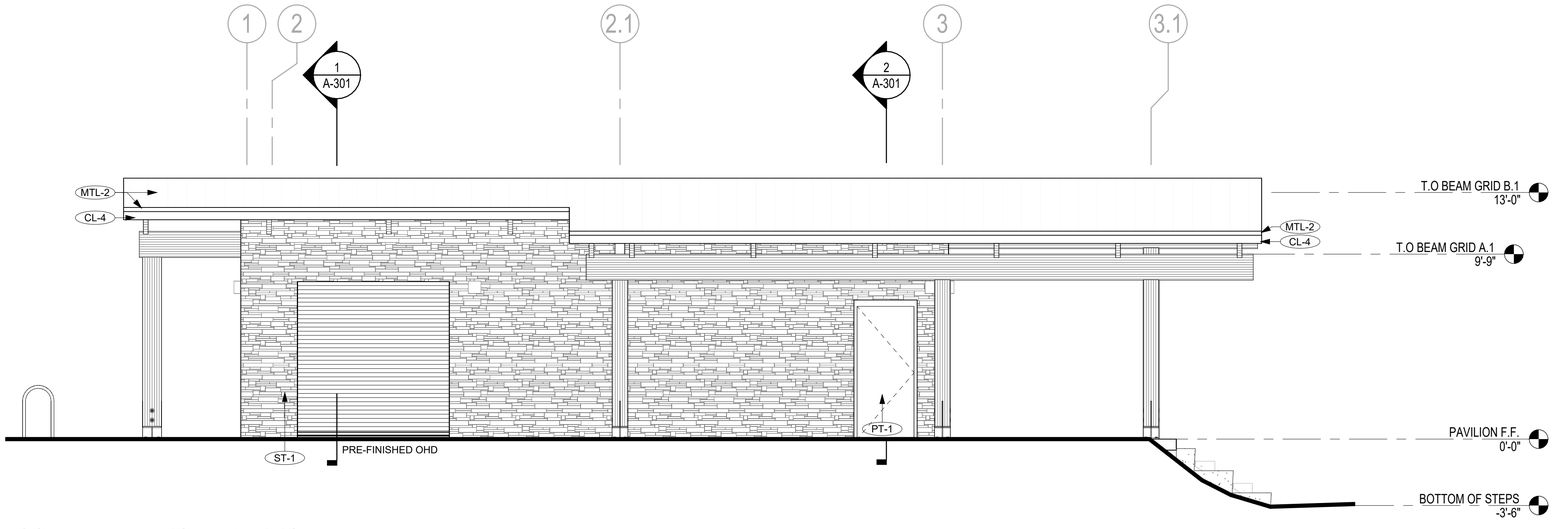


2 NORTH ELEVATION - PAVILION

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



1 SOUTH ELEVATION - PAVILION

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

STATE OF OHIO
CHAD R. KOHLER
1215550
REGISTERED ARCHITECT

CHAD R. KOHLER
EXP 12/31/2027
REG. 1215550

525 VINE STREET
SUITE 1300
CINCINNATI, OHIO 45202

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CLERMONT COUNTY PARK DISTRICT
GRAILVILLE PRESERVE AND PARK - PHASE 1
MIAMI TOWNSHIP, CLERMONT COUNTY, OHIO

REVISIONS		
NO.	DESCRIPTION	DATE

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DRAWN BY:	Author
CHECKED BY:	Checker
APPROVED BY:	Approver
SCALE:	1/4" = 1'-0"

EXTERIOR ELEVATIONS - PAVILION

SHEET IDENTIFICATION
A-202

SHEET 40 OF 68

3/30/2026 3:37:37 PM
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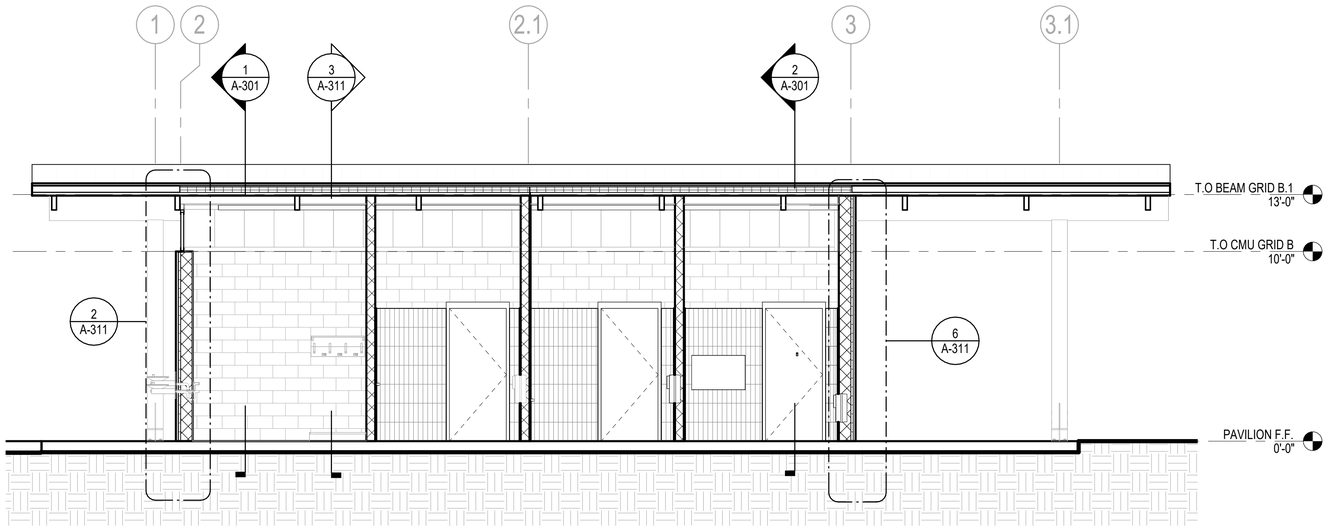
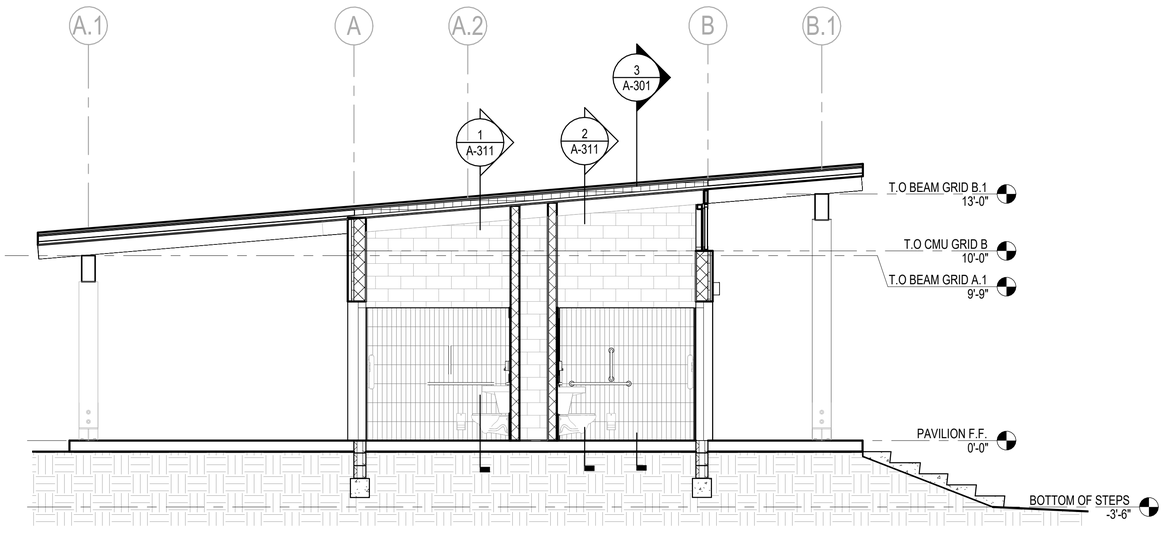


3 A-101 BUILDING SECTION 1 - PAVILION
SCALE: 1/4" = 1'-0"



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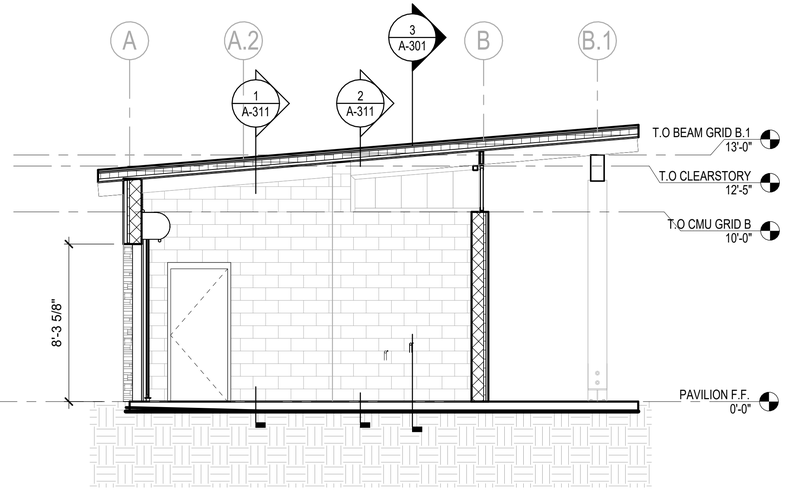
SCALE: 1/4" = 1'-0"



1 A-101 BUILDING SECTION 3 - PAVILLION
SCALE: 1/4" = 1'-0"

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CHECKED BY:	CR
APPROVED BY:	Approver
SCALE:	1/4" = 1'-0"

BUILDING SECTIONS - PAVILION

SHEET IDENTIFICATION
A-301

SHEET 41 OF 68

3/30/2026 3:37:38 PM
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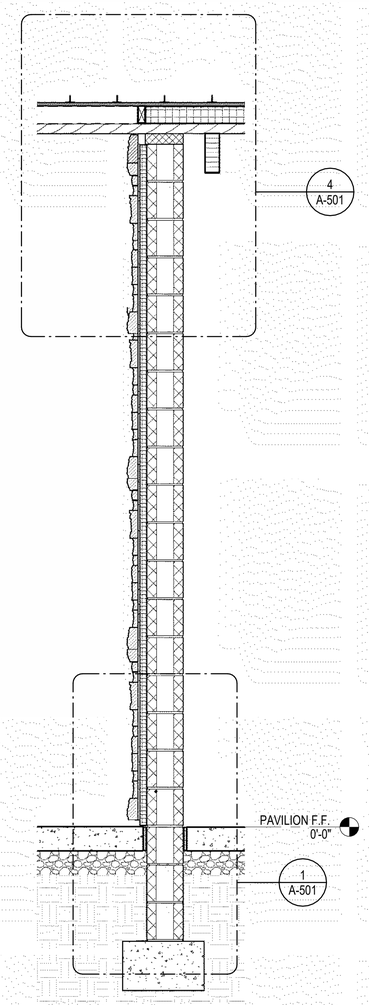

1 A-101 WALL SECTION - PAVILLION
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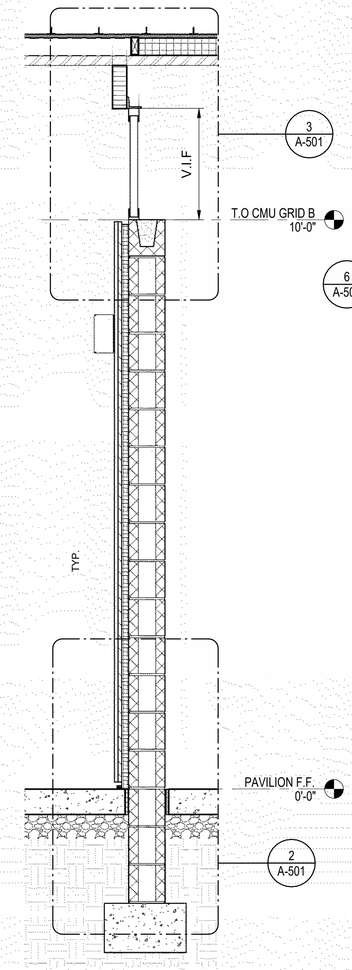

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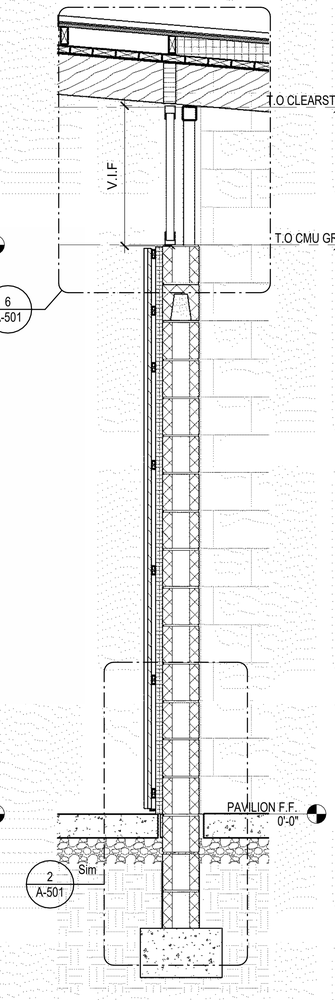
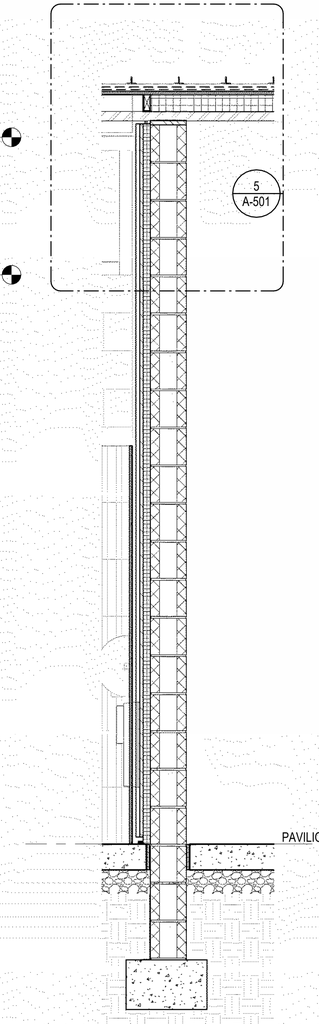
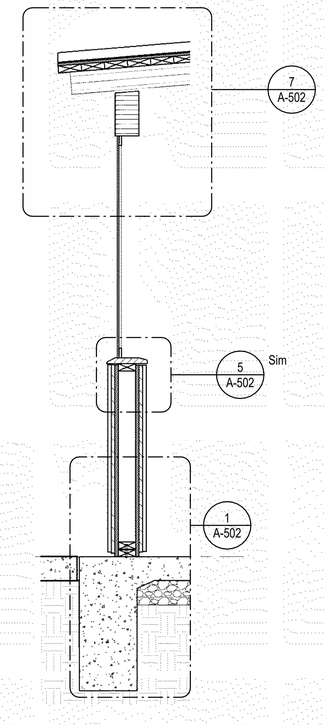


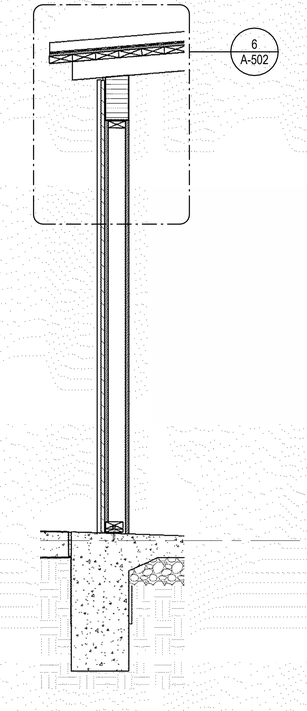
3 A-101 WALL SECTION - PAVILLION
SCALE: 3/4" = 1'-0"



6 A-101 WALL SECTION - PAVILLION
SCALE: 3/4" = 1'-0"



4 A-451 WALL SECTION - POD
SCALE: 3/4" = 1'-0"



5 A-451 WALL SECTION - POD
SCALE: 3/4" = 1'-0"

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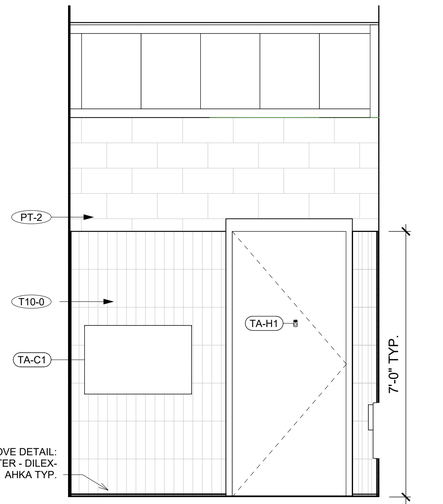
WALL SECTIONS

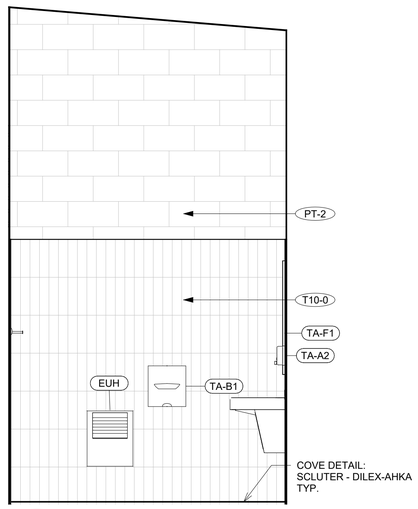
SHEET IDENTIFICATION
A-311

SHEET 42 OF 68

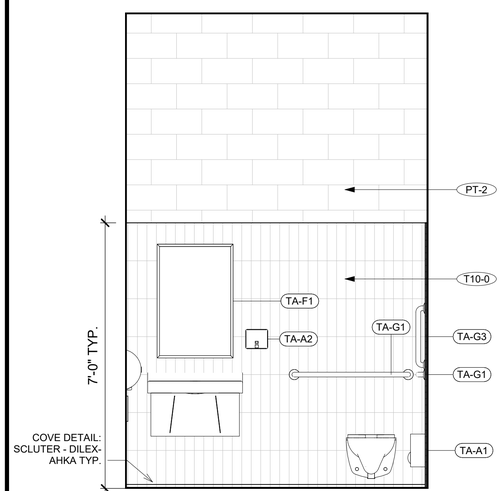
TOILET ACCESSORY SCHEDULE - BASIS OF DESIGN			
MARK	DESCRIPTION	MANUFACTURER	MODEL
TA-A1	MULTI-ROLL TOILET TISSUE DISPENSER - SURFACE MOUNTED	BOBRICK WASHROOM EQU INC.	B-270
TA-A2	SOAP DISPENSER - SURFACE MOUNTED	TBD	TBD
TA-B1	XLERATOR Hand Dryer	Excel Dryer	Wall Guard
TA-C1	CHILD CHANGING STATTION	KOALA KARE	KB3000
TA-F1	CHANNEL FRAME MIRROR WITH WELDED CORNER	BRADLEY	781 SERIES, 24"x36"
TA-G1	GRAB BAR - 36"	Bradley Corporation	
TA-G2	GRAB BAR - 48"	Bradley Corporation	
TA-G3	GRAB BAR - 18"	Bradley Corporation	
TA-H1	COAT HOOK	BOBRICK	B-9542 BLACK
TA-T1	MOP RACK W/ SHELF	BOBRICK WASHROOM EQUIPMENT, INC.	B-239



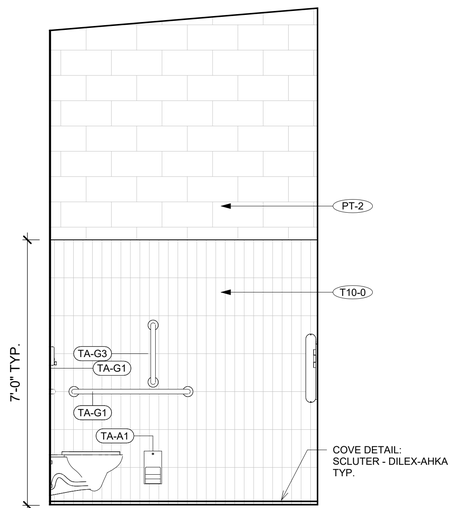
5 A-401 INT. ELEVATION - ADA TYP.
SCALE: 1/2" = 1'-0"



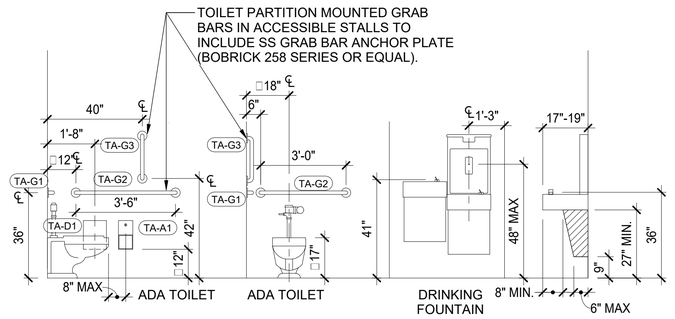
4 A-401 INT. ELEVATION - ADA TYP.
SCALE: 1/2" = 1'-0"

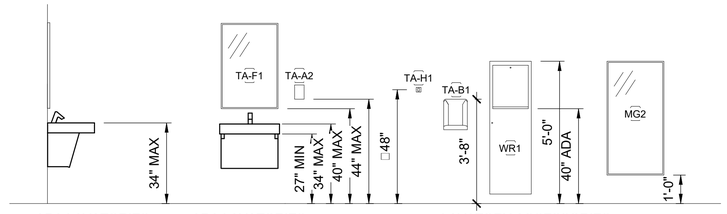


3 A-401 INT. ELEVATION - ADA TYP.
SCALE: 1/2" = 1'-0"



2 A-401 INT. ELEVATION - ADA TYP.
SCALE: 1/2" = 1'-0"





(FOLLOW THESE UNLESS NOTED OTHERWISE. NOT ALL ACCESSORIES SHOWN MAY BE USED.)

TOILET ACCESORY LEGEND

SCALE: 3/8" = 1'-0"

1 ENLARGED RESTROOM PLAN - PAVILLION
SCALE: 1/2" = 1'-0"

GENERAL SHEET NOTES

A. DIMENSIONS SHOWN ARE EITHER TO FACE OF WALL FINISH OR CENTERLINE OF PLUMBING FIXTURE.
B. PROVIDE UNDER-LAVATORY GUARDS ON WATER PIPING AND TRAPS AT ALL SINKS IN RESTROOMS.
C. COORDINATE AND REFER TO ALL DRAWINGS INCLUDING STRUCTURAL, PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL WORK ITEMS NOT INDICATED IN ARCHITECTURAL DRAWINGS.

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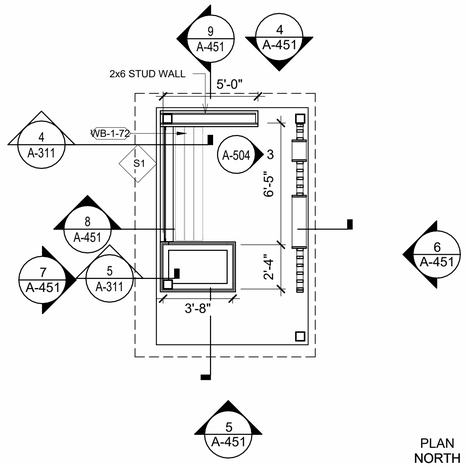
SCALE:	As indicated

ENLARGED RESTROOM PLAN & DETAILS

SHEET IDENTIFICATION
A-401

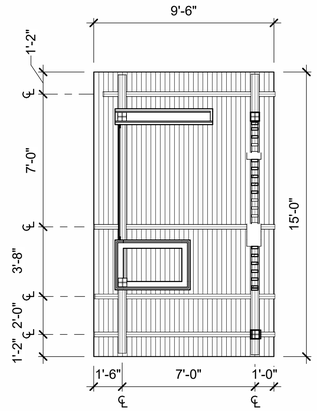
SHEET 43 OF 68



1 FLOOR PLAN - POD A

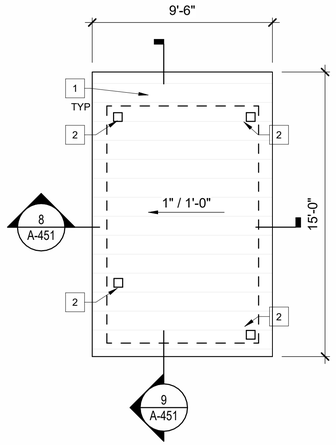
SCALE: 1/4" = 1'-0"

PLAN NORTH



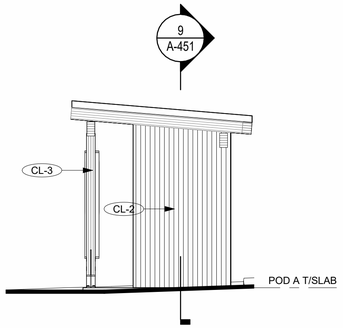
2 REFLECTED CEILING PLAN - POD A

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



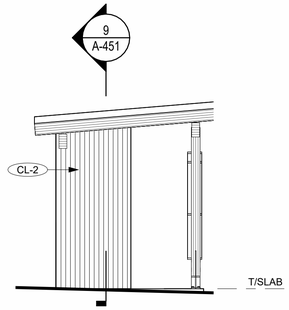
3 ROOF PLAN - POD A

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



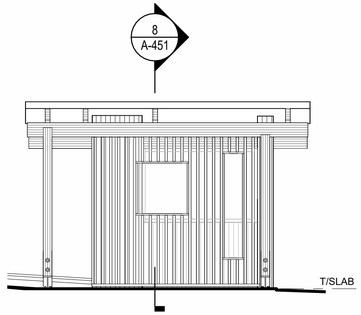
4 NORTH ELEVATION - POD A

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



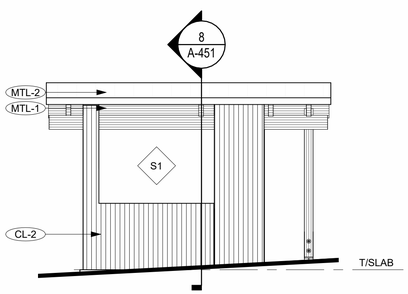
5 SOUTH ELEVATION - POD A

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



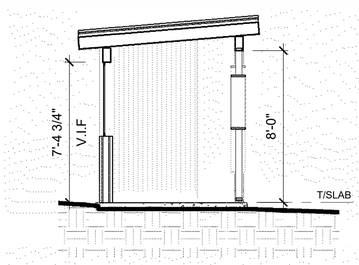
6 EAST ELEVATION - POD A

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



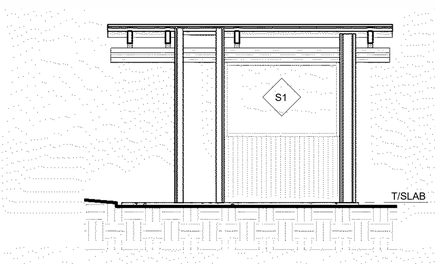
7 WEST ELEVATION - POD A

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



8 SECTION 1 - POD A

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



9 SECTION 2 - POD A

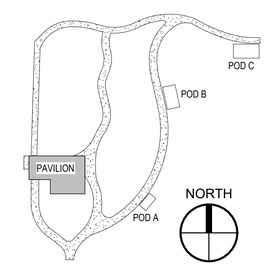
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. POD COMPONENTS INCLUDING ROOF DECKING, GLU-LAM BEAMS, JOISTS, COLUMNS, AND CONNECTIONS ARE DELEGRATED DESIGN FURNISHED BY GLU-LAM VENDOR.

KEYNOTES

1. STANDING SEAM METAL ROOF.
2. GLU-LAM COLUMN BELOW, TYP.



KEY PLAN

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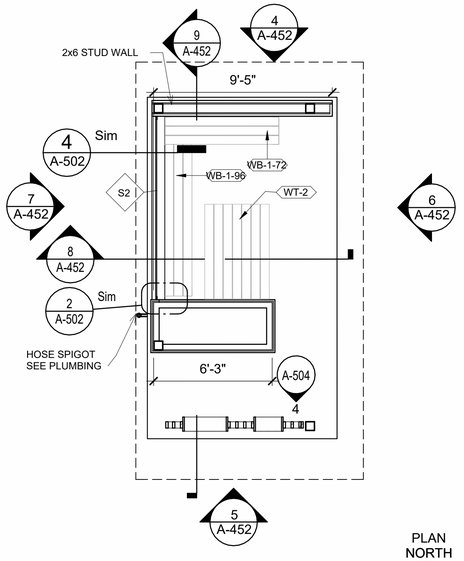
NEW WORK - POD A

SHEET IDENTIFICATION
A-451

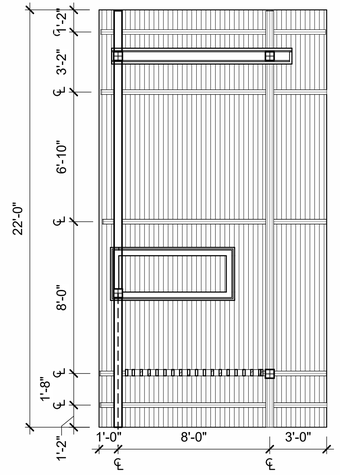
SHEET 44 OF 68



1 FLOOR PLAN - POD B

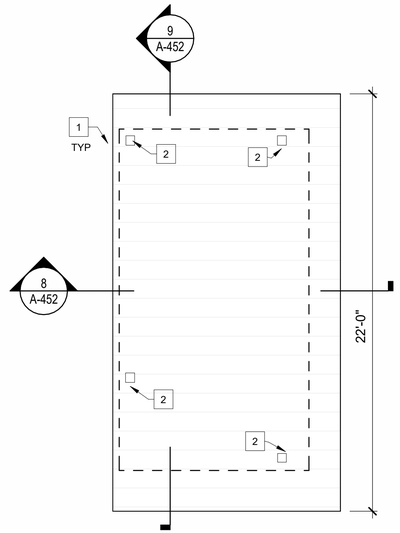
SCALE: 1/4" = 1'-0"

PLAN NORTH



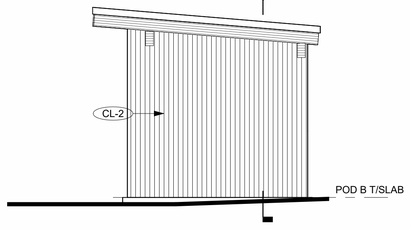
2 REFLECTED CEILING PLAN - POD B

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



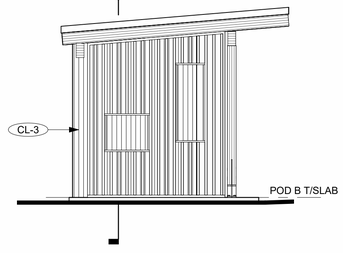
3 ROOF PLAN - POD B

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



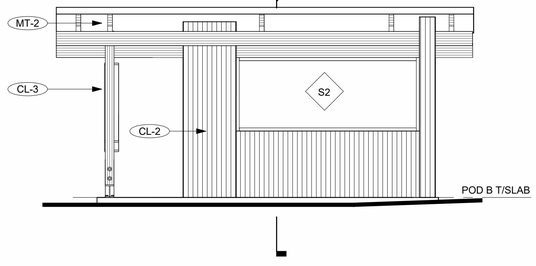
4 NORTH ELEVATION - POD B

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



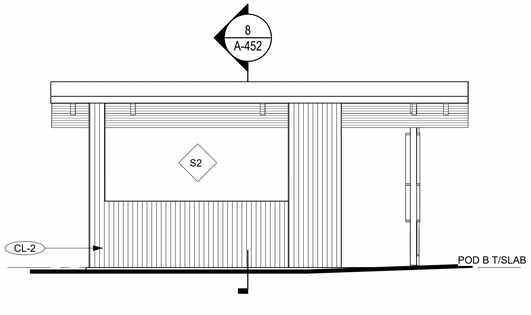
5 SOUTH ELEVATION - POD B

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



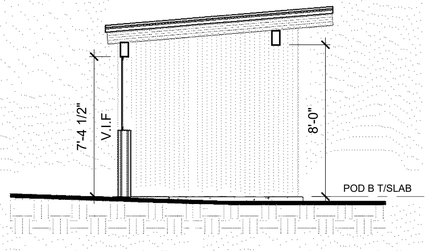
6 EAST ELEVATION - POD B

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



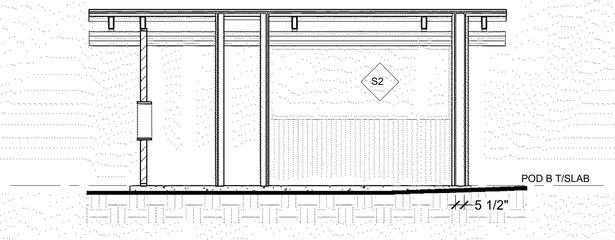
7 WEST ELEVATION - POD B

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



8 SECTION AA - POD B

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



9 SECTION BB - POD B

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

GENERAL SHEET NOTES

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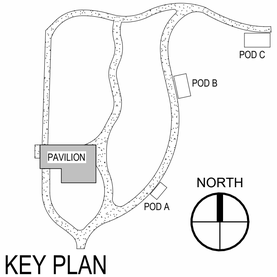
KEYNOTES

1. STANDING SEAM METAL ROOF.
2. GLU-LAM COLUMN BELOW, TYP.



KEY PLAN

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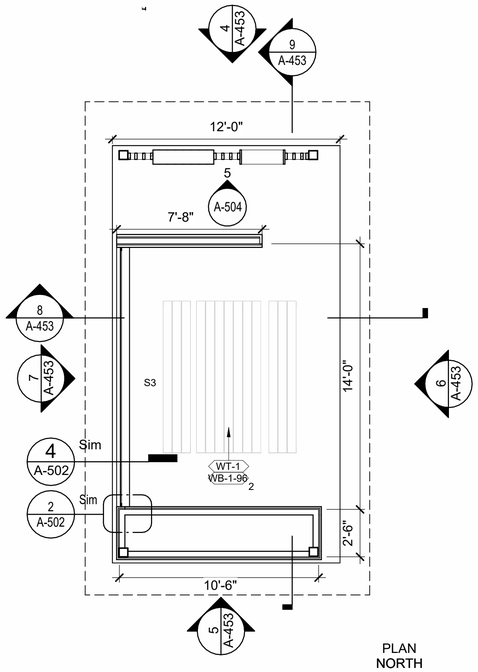
CHECKED BY:	CR
APPROVED BY:	Approver
SCALE:	As indicated

NEW WORK - POD B

SHEET IDENTIFICATION
A-452

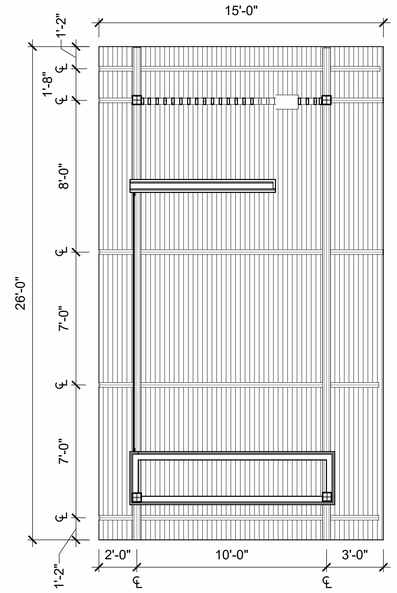
SHEET 45 OF 68



1 FLOOR PLAN - POD C

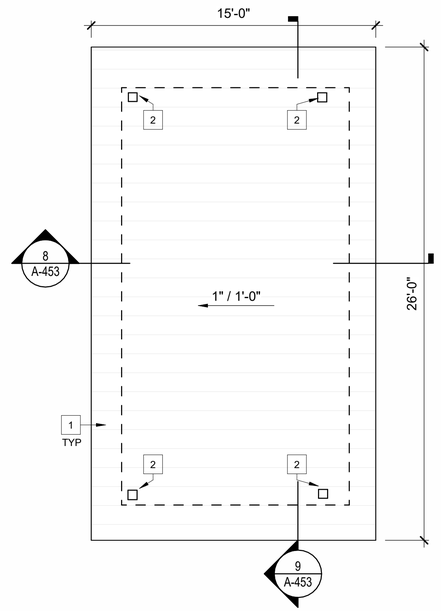
SCALE: 1/4" = 1'-0"

PLAN NORTH



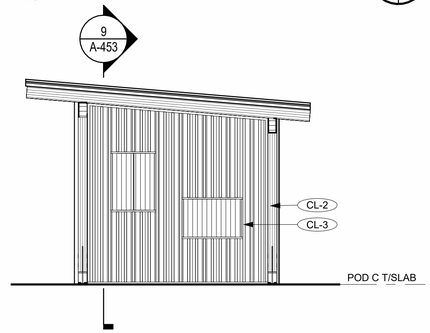
2 REFLECTED CEILING PLAN - POD C

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



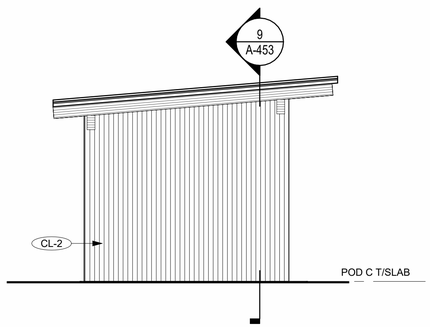
3 ROOF PLAN - POD A

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



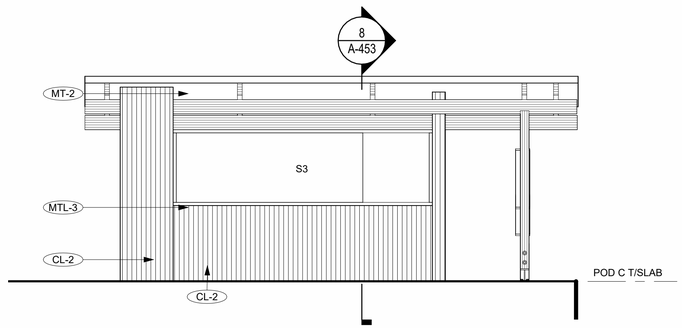
4 NORTH ELEVATION - POD C

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



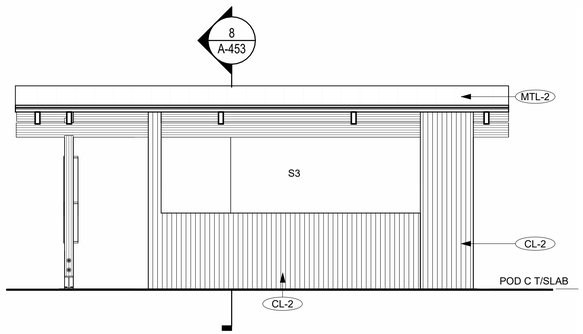
5 SOUTH ELEVATION - POD C

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



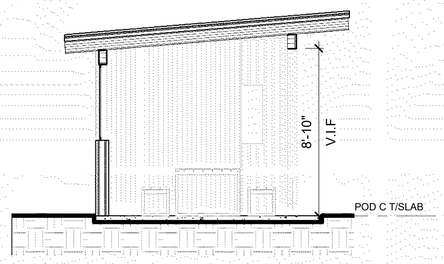
6 EAST ELEVATION - POD C

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



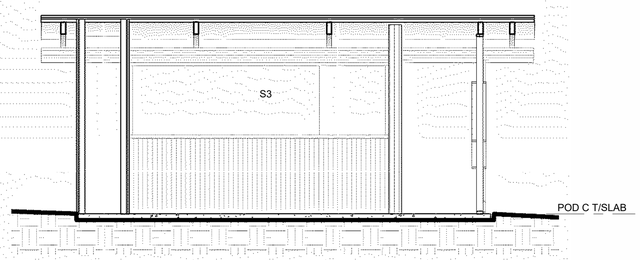
7 WEST ELEVATION - POD C

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



8 SECTION AA- POD C

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



9 SECTION BB - POD C

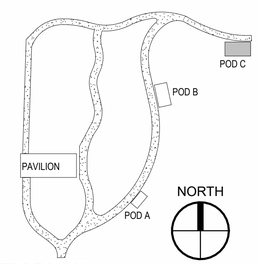
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

A. POD COMPONENTS INCLUDING ROOF DECKING, GLU-LAM BEAMS, JOISTS, COLUMNS, AND CONNECTIONS ARE DELEGRATED DESIGN FURNISHED BY GLU-LAM VENDOR.

KEYNOTES

1. STANDING SEAM METAL ROOF.
2. GLU-LAM COLUMN BELOW, TYP.



KEY PLAN

STATE OF OHIO
CHAD R. KOHLER
1215550
REGISTERED ARCHITECT
CHAD R. KOHLER
EXP 12/31/2027
REG. 1215550

525 VINE STREET
SUITE 1300
CINCINNATI, OHIO 45202
B&N
BURGESS & NIPLE

CLERMONT COUNTY PARK DISTRICT
GRAILVILLE PRESERVE AND PARK - PHASE 1
MIAMI TOWNSHIP, CLERMONT COUNTY, OHIO

REVISIONS		
NO.	DESCRIPTION	DATE

JOB NO:	PR63329
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DESIGNED BY:	AM
DRAWN BY:	AM
CHECKED BY:	CR
APPROVED BY:	Approver
SCALE:	As indicated

NEW WORK - POD C

SHEET IDENTIFICATION
A-453

SHEET 46 OF 68

3/30/2026 3:37:58 PM
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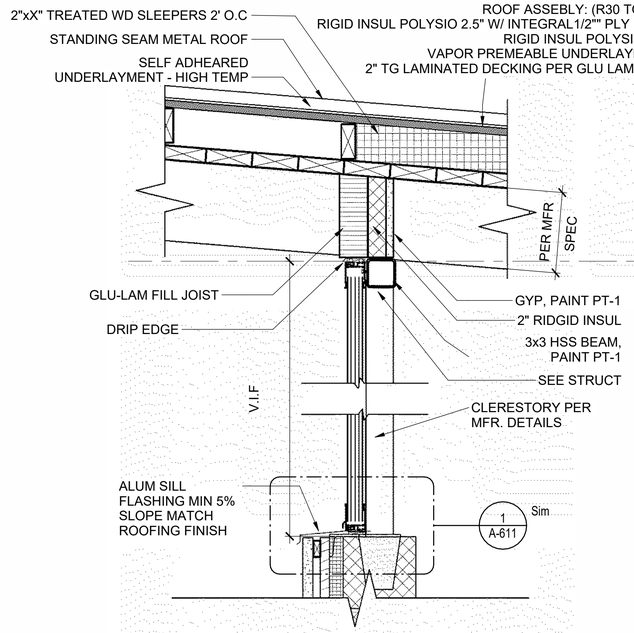
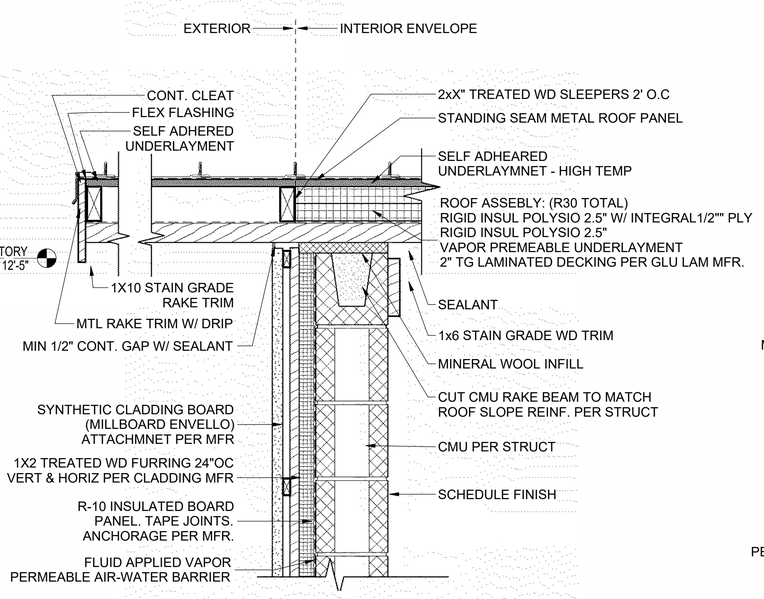


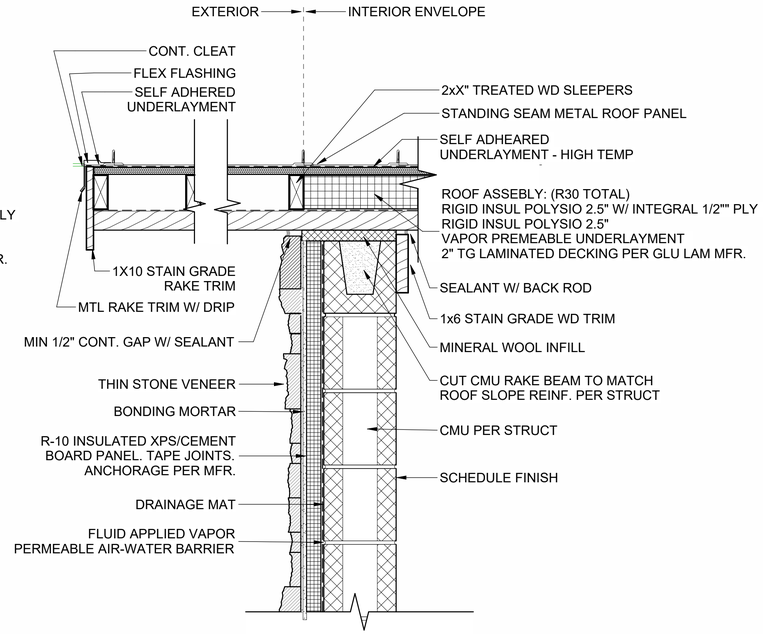
6 A-311 DETAIL - CLADDING AT CLERESTORY

SCALE: 1 1/2" = 1'-0"



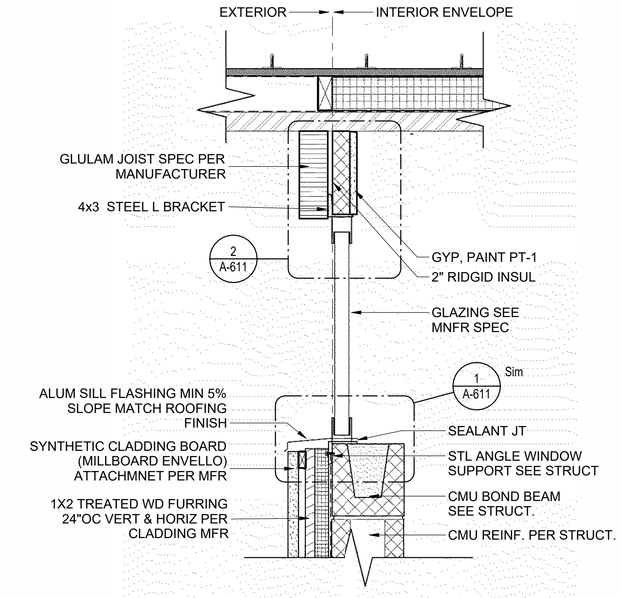
5 A-311 DETAIL - CLADDING AT ROOF DECK

SCALE: 1 1/2" = 1'-0"



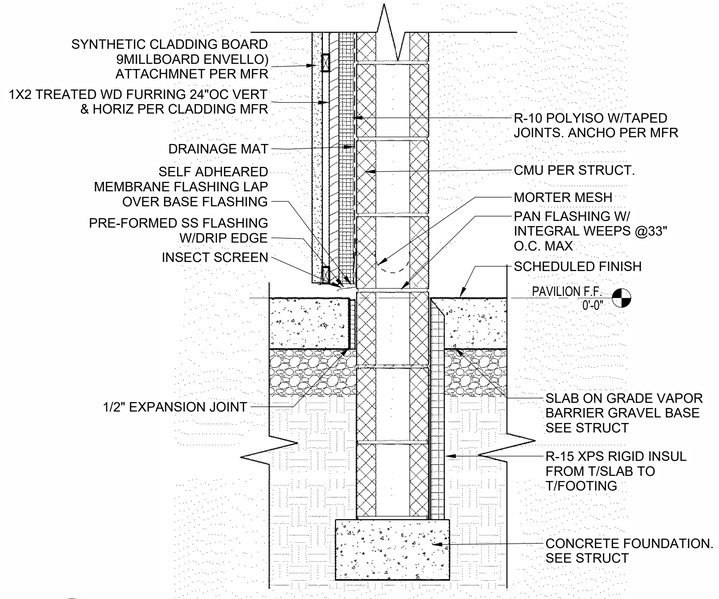
4 A-311 DETAIL - STONE VENEER AT ROOF

SCALE: 1 1/2" = 1'-0"



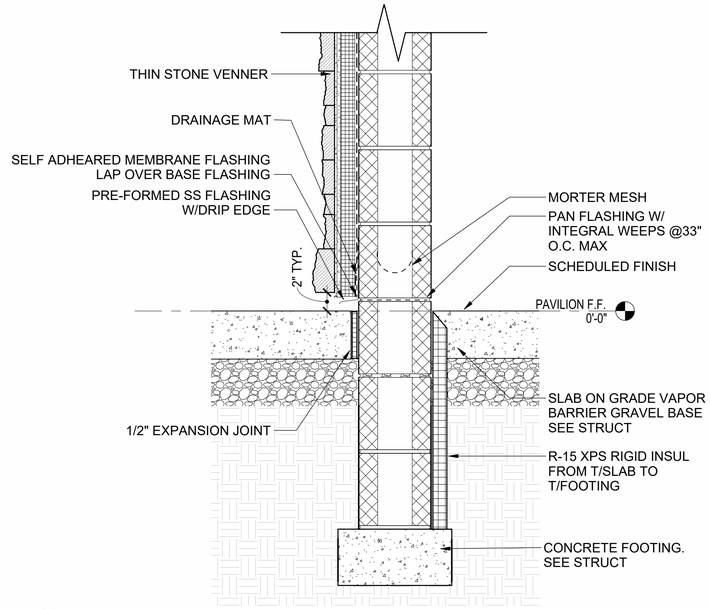
3 A-311 CLEARSTORY AT GRID B

SCALE: 1 1/2" = 1'-0"



2 A-311 DETAIL - MILLBOARD AT SLAB

SCALE: 1 1/2" = 1'-0"



1 A-311 DETAIL - STONE VENNER AT SLAB

SCALE: 1 1/2" = 1'-0"

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CLERMONT COUNTY PARK DISTRICT
GRAILVILLE PRESERVE AND PARK - PHASE 1
MIAMI TOWNSHIP, CLERMONT COUNTY, OHIO

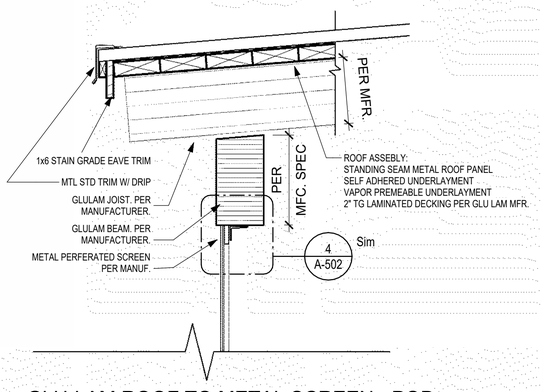
REVISIONS NO.	DESCRIPTION	DATE

JOB NO:	PR63329
DATE:	03/30/2026
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker
APPROVED BY:	Approver
SCALE:	1 1/2" = 1'-0"

ARCHITECTURAL DETAILS

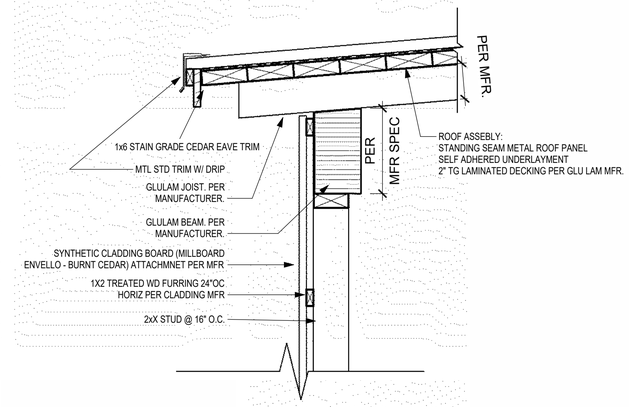
SHEET IDENTIFICATION
A-501

SHEET 47 OF 68



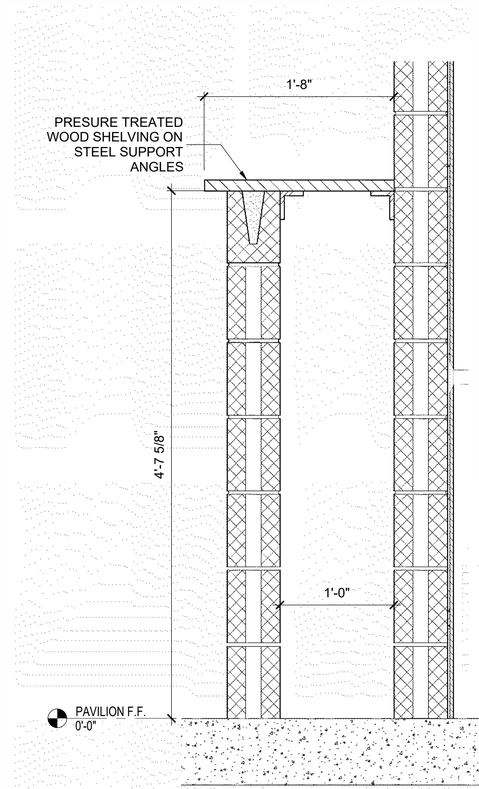
7 GLU-LAM ROOF TO METAL SCREEN - POD

SCALE: 1 1/2" = 1'-0"



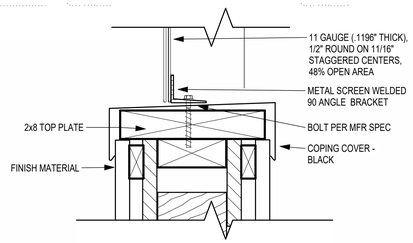
6 GLU-LAM ROOF TO WALL - POD

SCALE: 1 1/2" = 1'-0"



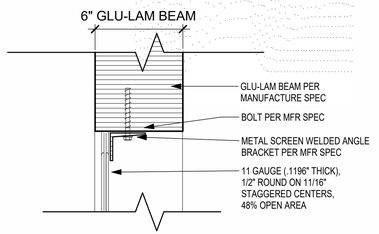
3 PLUMBING CASE WALLS

SCALE: 1 1/2" = 1'-0"



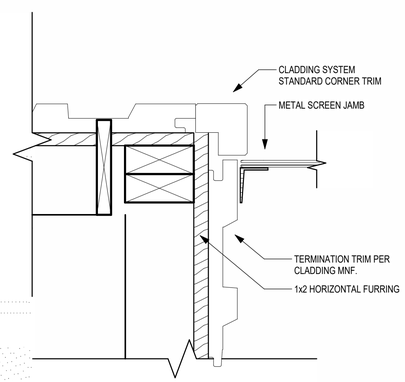
5 S1 - METAL SCREEN - POD

SCALE: 3" = 1'-0"



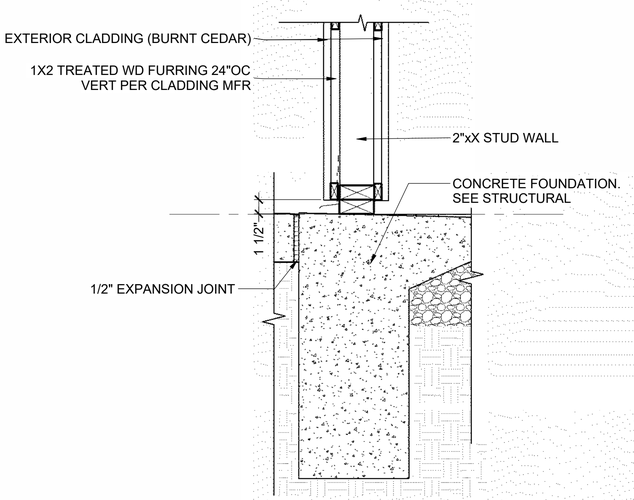
4 H3- METAL SCREEN - POD

SCALE: 3" = 1'-0"



2 J2 - SCREEN JAMB - POD

SCALE: 3" = 1'-0"



1 DUAL FACE CLADDING WALL - POD

SCALE: 1 1/2" = 1'-0"

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CLERMONT COUNTY PARK DISTRICT
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APPROVED BY:	Approver
SCALE:	As indicated

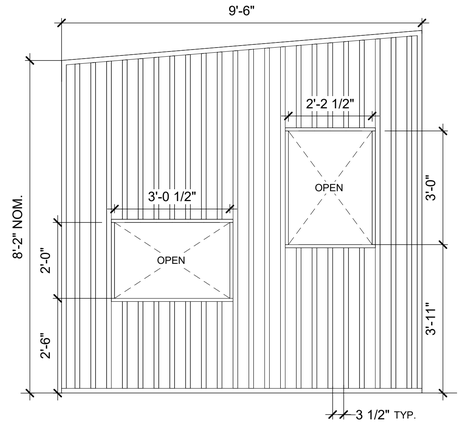
ARCHITECTURAL DETAILS

SHEET IDENTIFICATION
A-502

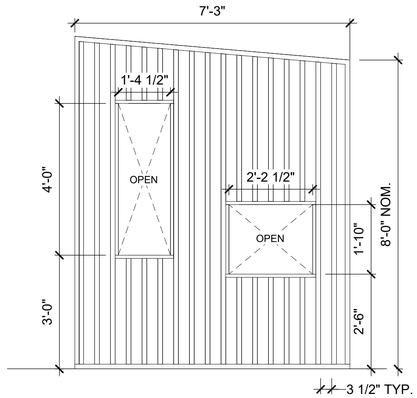
SHEET 48 OF 68

GENERAL SHEET NOTES

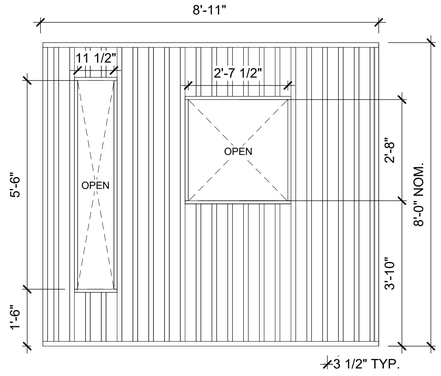
A. CEDAR MEMBERS SHALL BE SIZED AS FOLLOWS UNLESS NOTED OTHERWISE: -2x6 CEDAR (PAVILLION) 2x4 CEDAR (PODS)
B. ALL CEDAR TO RECEIVE FINISH PER SPEC 061000.
C. VIEW BOXES SHALL BE FABRICATED FROM 1X6 (NOMINAL) CEDAR. FRAMES ARE TO BE CONSTRUCTED, GLUED WITH EXTERIOR-GRADE WATERPROOF WOOD GLUE (ANSI/HPVA TYPE I), 2-1/2" STAINLESS STEEL TRIM HEAD SCREWS.



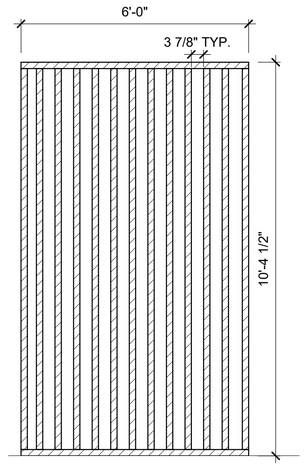
5 A-504 SCREEN - POD C
1/2" = 1'-0"



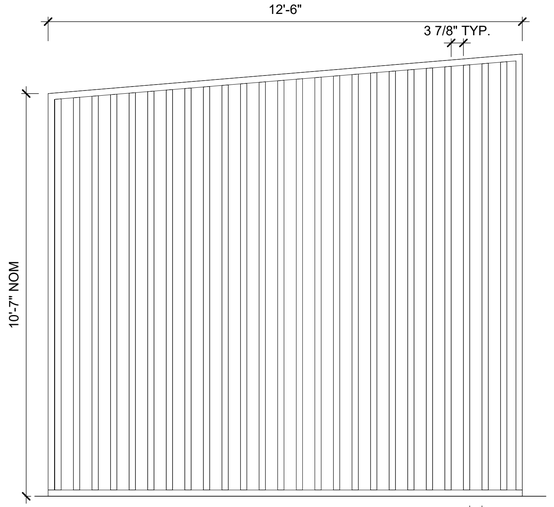
4 A-504 SCREEN - POD B
1/2" = 1'-0"



3 A-504 SCREEN - POD A
1/2" = 1'-0"



2 A-504 SCREEN - PAVILION - BB
1/2" = 1'-0"



1 A-504 SCREEN - PAVILION - AA
1/2" = 1'-0"

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SCALE:	As indicated

ARCHITECTURAL DETAILS - SCREEN WALL

SHEET IDENTIFICATION
A-504

SHEET 49 OF 68

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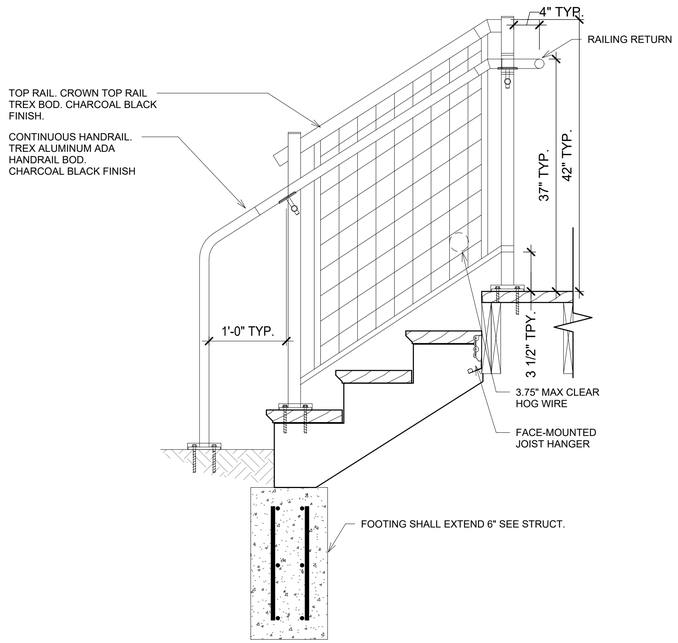
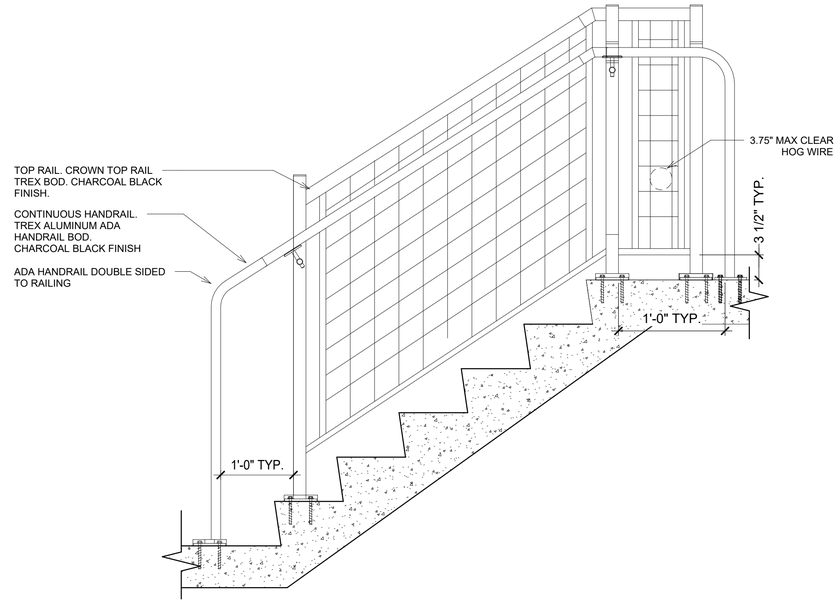


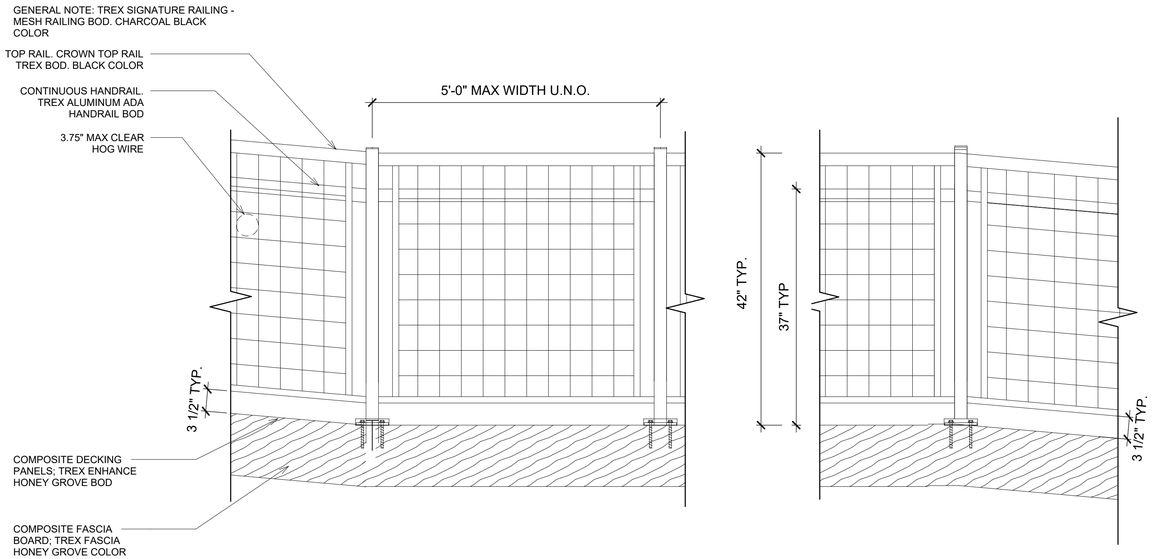
4 BOARDWALK STAIR RAILING

SCALE: 1" = 1'-0"



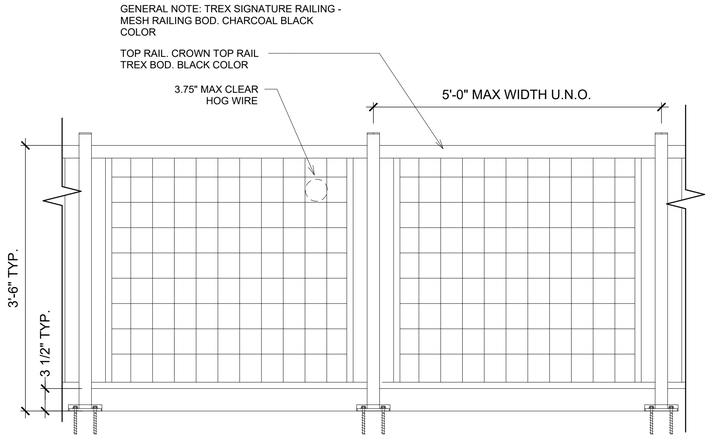
3 PAVILION STAIR RAILING

SCALE: 1" = 1'-0"



2 BOARDWALK RAILING

SCALE: 1" = 1'-0"



1 PAVILION RAILING DETAIL

SCALE: 1" = 1'-0"

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RAILING DETAILS

SHEET IDENTIFICATION
A-550

SHEET 50 OF 68

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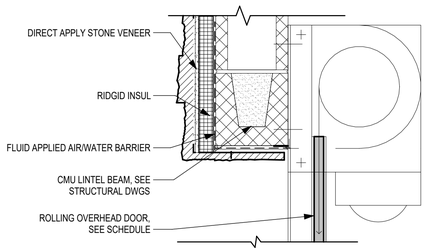
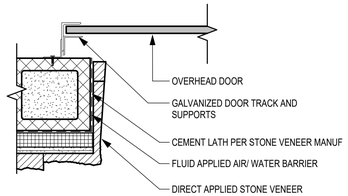
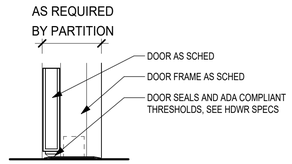


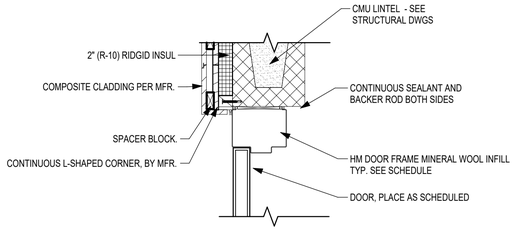
4 GARAGE DOOR HEADER AT STONE VENNER
SCALE: 1 1/2" = 1'-0"



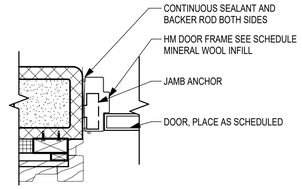
7 MASONRY WALL AT STONE VENEER
SCALE: 1 1/2" = 1'-0"



3 DOOR THRESHOLD DETAIL
SCALE: 1 1/2" = 1'-0"



5 MASONRY WALL AT CLADDING
SCALE: 1 1/2" = 1'-0"



8 MASONRY WALL AT CLADDING
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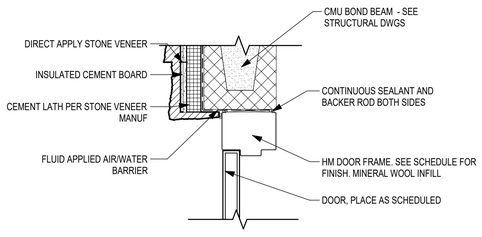
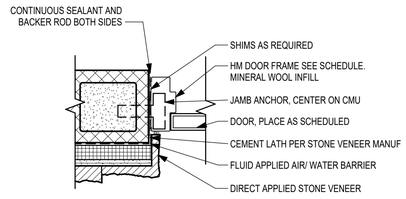
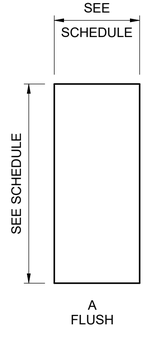
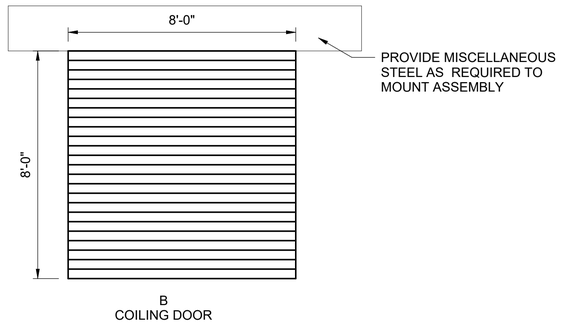


6 MASONRY WALL AT STONE VENEER
SCALE: 1 1/2" = 1'-0"

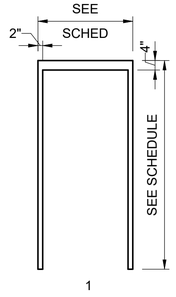


J3 -
9 MASONRY WALL AT STONE VENEER
SCALE: 1 1/2" = 1'-0"





DOOR TYPES
SCALE: 3/8" = 1'-0"



DOOR FRAME TYPE
SCALE: 3/8" = 1'-0"

GENERAL SHEET NOTES

A. ALL EXTERIOR HOLLOW METAL DOORS TO BE GALVANIZED, INSULATED AND WEATHER STRIPPED.
B. SEE SPECIFICATION SECTION 087100 FOR DOOR HARDWARE SETS.
C. REFER TO SHEET A-201 FOR FINISH INFORMATION.
D. ALL DOOR HARDWARE SHALL COMPLY WITH CURRENTLY ADOPTED VERSION OF ANSI A117.1

DOOR SCHEDULE REMARKS

1. MANUAL CONTROLS. PROVIDE MISCELLANEOUS STEEL AS REQUIRED TO MOUNT ASSEMBLY.
2. ELECTRICAL LOCK SYSTEM FOR ALL RESTROOM DOORS SEE SPECIFICATIONS 087100

DOOR AND FRAME SCHEDULE

MARK	ROOM NAME	DOOR					FRAME					HARDWARE	FIRE RATING	REMARKS
		TYPE	MATERIAL	DIMENSIONS			MATERIAL	TYPE	DETAILS					
				WIDTH	HEIGHT	THICK			HEAD	JAMB	SILL			
101	STORAGE GARAGE	B	ALUM	8'-0"	08'-0"				H1	J1	___	10		1 SEE STRUCT. FOR SILL CONDITION
105	ADA RESTOOM	A	HM	3'-0"	7'-0"	0'-1 3/4"	HM	1	H2	J2	S1'	5	-	5
103	ADA RESTOOM	A	HM	3'-0"	7'-0"	0'-1 3/4"	HM	1	H2	J2	S1'	5	-	5
102	ADA RESTOOM	A	HM	3'-0"	7'-0"	0'-1 3/4"	HM	1	H2	J2	S1'	5	-	5
104	ADA RESTOOM	A	HM	3'-0"	7'-0"	0'-1 3/4"	HM	1	H2	J2	S1'	5	-	5
106	STORAGE GARAGE	A	HM	3'-0"	7'-0"	0'-1 3/4"	HM	1	H2	J2	S1'	5	-	4

STATE OF OHIO
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CLERMONT COUNTY PARK DISTRICT
GRAILVILLE PRESERVE AND PARK - PHASE 1
MIAMI TOWNSHIP, CLERMONT COUNTY, OHIO

REVISIONS		
NO.	DESCRIPTION	DATE

JOB NO:	PR63329
DATE:	03/30/2026
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker
APPROVED BY:	Approver
SCALE:	As indicated

DOOR SCHEDULE

SHEET IDENTIFICATION
A-601

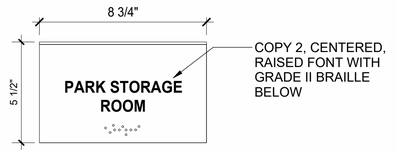
SHEET 51 OF 68

METAL SCREEN SCHEDULE						
Mark	Manufacturer	Sheet Gauge	Perforation Type	Color	Open Area%	Pattern
S-1	McNICHOLS	11	Round Hole Perforated Metal	BLACK POWDER-COAT	48%	1/2" Round on 11/16" Staggered Centers
S-2	McNICHOLS	11	Round Hole Perforated Metal	BLACK POWDER-COAT	48%	1/2" Round on 11/16" Staggered Centers
S-3	McNICHOLS	11	Round Hole Perforated Metal	BLACK POWDER-COAT	48%	1/2" Round on 11/16" Staggered Centers

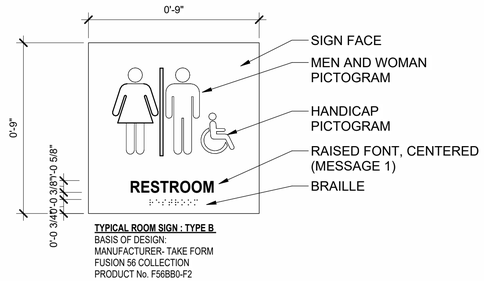
TYP. METAL SCREEN PANEL

WINDOW SCHEDULE						
Mark	Glazing	Length	Manufacturer	Model	Color	Comments
1	GL-1	35'-2"	EXTECH	LIGHTWALL 3440	OPAQE	PANELS ARE 19 11/16" WIDE
2	GL-1	7'-6"	EXTECH	LIGHTWALL 3440	OPAQE	PANELS ARE 19 11/16" WIDE

SIGN SCHEDULE					
ROOM NUMBER	ROOM NAME	SIGN TYPE	MESSAGE 1	MESSAGE 2	COMMENTS
101	STORAGE GARAGE	A	AUTHORIZED	PERSONNEL ONLY	
102	ADA RESTOOM	B	FAMILY	RESTROOM	MES, WOMANS,AND HADICAP PICTOGRAM
103	ADA RESTOOM	B	FAMILY	RESTROOM	MES, WOMANS,AND HADICAP PICTOGRAM
104	ADA RESTOOM	B	FAMILY	RESTROOM	MES, WOMANS,AND HADICAP PICTOGRAM
105	ADA RESTOOM	B	FAMILY	RESTROOM	MES, WOMANS,AND HADICAP PICTOGRAM

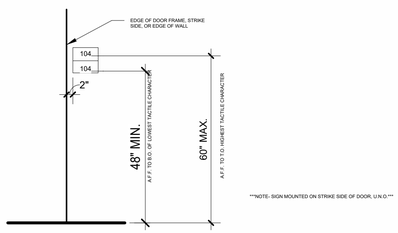


TYPICAL ROOM SIGN : TYPE A
BASIS OF DESIGN:
MANUFACTURER- TAKE FORM
FUSION 56 COLLECTION
PRODUCT No. F56BB0-F2

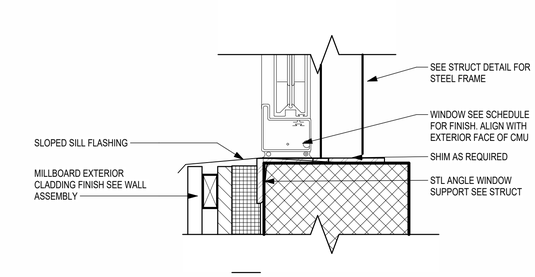


TYPICAL ROOM SIGN : TYPE B
BASIS OF DESIGN:
MANUFACTURER- TAKE FORM
FUSION 56 COLLECTION
PRODUCT No. F56BB0-F2

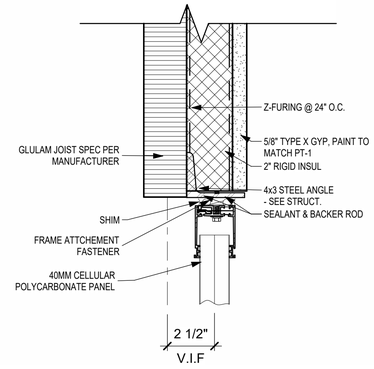
SIGNAGE TYPES
SCALE: 3" = 1'-0"



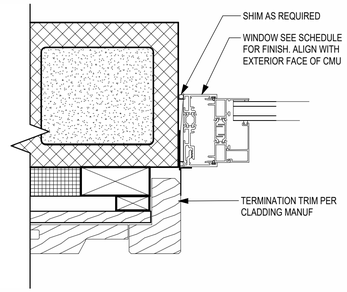
SIGNAGE MOUNTING
SCALE: 1/2" = 1'-0"



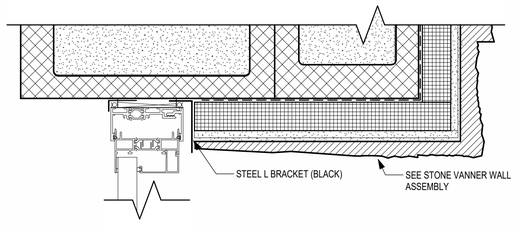
1 WINDOW SILL
SCALE: 3" = 1'-0"



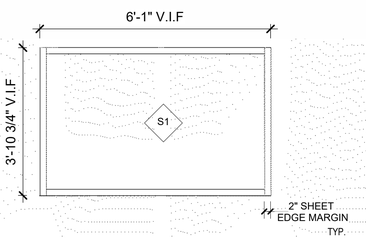
2 HEADER AT OFFSET GLULAM JOIST
SCALE: 3" = 1'-0"



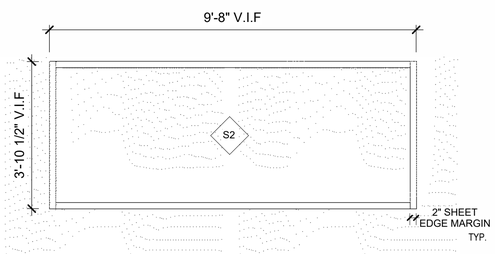
3 CLEARSTORY WINDOW JAMB
SCALE: 3" = 1'-0"



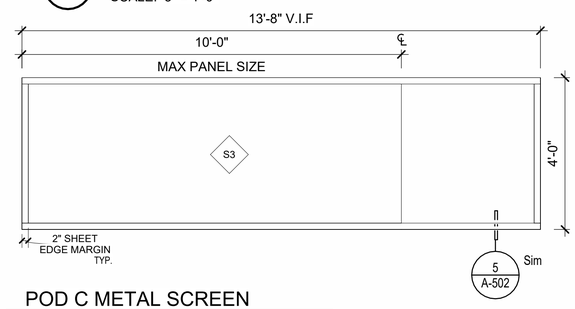
4 CLEARSTORY WINDOW JAMB AT STONE VENNER
SCALE: 3" = 1'-0"



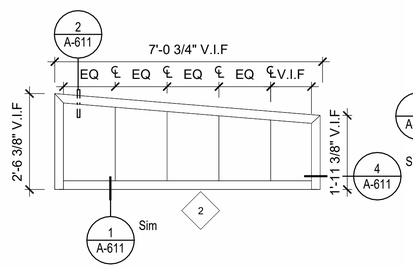
POD A - METAL SCREEN
SCALE: 1/2" = 1'-0"

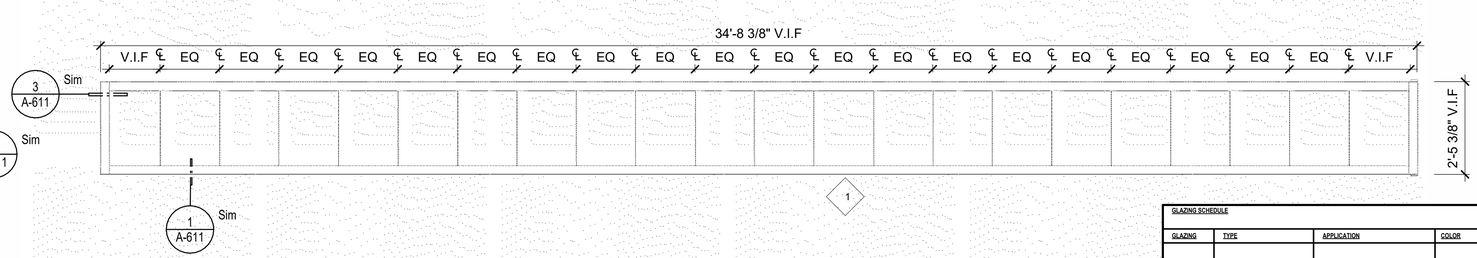


POD B - METAL SCREEN
SCALE: 1/2" = 1'-0"



POD C METAL SCREEN
SCALE: 1/2" = 1'-0"





GLAZING - ELEVATIONS
SCALE: 1/2" = 1'-0"

GLAZING SCHEDULE				
GLAZING	TYPE	APPLICATION	COLOR	NOTES
GL-1	UV RESISTANT POLYCARBONATE	EXTERIOR WINDOWS	OPAQUE	PANELS ARE 19 11/16" WIDE

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CLERMONT COUNTY PARK DISTRICT
GRAILVILLE PRESERVE AND PARK - PHASE 1
MIAMI TOWNSHIP, CLERMONT COUNTY, OHIO

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DRAWN BY:	Author
CHECKED BY:	Checker
APPROVED BY:	Approver
SCALE:	As indicated

WINDOW SCHEDULE & DETAILS

SHEET IDENTIFICATION
A-611

SHEET 52 OF 68

ELECTRIC UNIT HEATER SCHEDULE

TAG	LOCATION	KW	VOLTS	PHASE	B.T.U.H	BASIS OF DESIGN		REMARKS
						MANUFACTURER	MODEL	
EUH-1	STORAGE GARAGE	3	240V	1	10236	MARLEY	HUHAA324	SEE NOTES
EUH-2	STORAGE GARAGE	3	240V	1	10236	MARLEY	HUHAA324	SEE NOTES
EUH-3	ADA RESTROOM	2	240V	1	6826	MARLEY	SED2024	SEE NOTES
EUH-4	ADA RESTROOM	2	240V	1	6826	MARLEY	SED2024	SEE NOTES
EUH-5	ADA RESTROOM	2	240V	1	6826	MARLEY	SED2024	SEE NOTES
EUH-6	ADA RESTROOM	2	240V	1	6826	MARLEY	SED2024	SEE NOTES

NOTES:
1. PROVIDE WITH INTEGRAL TAMPER RESISTANT THERMOSTAT, INTEGRAL ELECTRICAL DISCONNECT AND BLOWER.
2. PROVIDE BATHROOM HEATERS WITH MANUFACTURER STAINLESS STEEL SURFACE MOUNTING FRAMES AND TAMPER RESISTANT STAINLESS FRONT COVER.

EXHAUST FAN SCHEDULE

TAG	TYPE	CFM	ESP (IN. WG.)	DRIVE	HP	VOLTS	PHASE	MODEL	REMARKS
EF-1	ROOF	300	0.25	DIRECT	0.167	240V	1	G-070-VG	SEE NOTES
EF-2	ROOF	300	0.25	DIRECT	0.167	240V	1	G-070-VG	SEE NOTES

NOTES:
1. SELECTIONS BASED ON GREENHECK.
2. PROVIDE BACKDRAFT DAMPER.
3. PROVIDE ROOF FAN WITH MANUFACTURER'S ROOF CURB FOR STANDING SEAM METAL ROOF.

LOUVER SCHEDULE

TAG	SERVICE	NECK SIZE (IN.)	FREE AREA	CFM	SERVES	REMARKS
LV-1	INTAKE	16x16	0.5	300	STORAGE GARAGE	SEE NOTES

NOTES:
1. SELECTIONS BASED ON GREENHECK.

GRILLE, REGISTER & DIFFUSER SCHEDULE

TAG	TYPE	SERVICE	CFM RANGE	NECK SIZE	FACE SIZE	MAX P.D. (IN. WG)	MANUFACTURER	MODEL	REMARKS
R	SIDEWALL GRILLE	EXHAUST	75	6/6	8/8	0.10	TITUS	3FL	SEE NOTES

NOTES:
1. SELECTIONS BASED ON TITUS.
2. PROVIDE ALUMINUM REGISTERS WITH A BAKED STANDARD WHITE ENAMEL FINISH (INCLUDING HEAD OF SCREWS).

GENERAL ABBREVIATIONS

ABBREVIATION	DESCRIPTION
ADA	AMERICANS WITH DISABILITIES ACT
CFM	CUBIC FEET PER MINUTE
DIA	DIAMETER
GA	GAUGE OR GAGE
TYP	TYPICAL

MECHANICAL ABBREVIATIONS

ABBREVIATION	DESCRIPTION
BTU	BRITISH THERMAL UNITS
DB	DRY BULB
EA	EXHAUST AIR
ESP	EXTERNAL STATIC PRESSURE
HP	HORSEPOWER
IN. W.G	INCHES WATER GAUGE
KW	KILOWATT
MBH	MILLION BRITISH THERMAL UNITS
MCA	MINIMUM CIRCUIT AMPACITY
MOCP	MAX OVERCURRENT PROTECTION
PD	PRESSURE DROP
RA	RETURN AIR
SA	SUPPLY AIR
WB	WET BULB TEMPERATURE

GENERAL SYMBOLS

[1] NEW WORK NOTE DESIGNATION

AIR SYMBOLS

BDD BACKDRAFT DAMPER

MOTORIZED DAMPER

VOLUME DAMPER

(X) 200 GRILLE, REGISTER, OR DIFFUSER MARK (CFM AS INDICATED)

SIDEWALL GRILLE

ELBOW WITH TURNING VANES

EQUIPMENT DESIGNATION

EF-1	EXHAUST FAN
L-1	LOUVER
P-1	PUMP
UH-1	UNIT HEATER
EWH-1	ELECTRIC WATER HEATER

GENERAL NOTES

GENERAL ITEMS

GENERAL NOTES ON THIS DRAWING ARE APPLICABLE TO EACH HVAC DRAWING OF THIS SET. SEE EACH DRAWING FOR SPECIFIC NOTES APPLICABLE TO THAT DRAWING.

COORDINATE THAT OUTSIDE AIR INTAKE OPENINGS FOR VENTILATION AIR ARE LOCATED AT LEAST 10 FEET MEASURED IN ANY DIRECTION FROM ANY FLUES, VENTS, CHIMNEYS, GAS METERS, GAS REGULATORS, PLUMBING VENTS UNLESS TOP OF SUCH INTAKE OPENING IS 2 FEET BELOW ANY OF THE LISTED ITEMS.

OVERHEAD DUCTWORK AND PIPING IN SPACES WITH CEILINGS SHALL BE CONCEALED UNLESS OTHERWISE NOTED.

PROVIDE PIPE SLEEVES LARGE ENOUGH TO ALLOW FOR REQUIRED LATERAL MOVEMENT OF PIPING.

EXERCISE DUE CAUTION IN INSTALLING RUNOUTS AND BRANCH PIPING FROM MAINS FOR EXPANSION MOVEMENT.

COORDINATE LOCATION OF GRILLES, REGISTERS, DIFFUSERS, THERMOSTATS AND OTHER WALL OR CEILING MOUNTED HVAC ACCESSORIES WITH REFLECTED CEILING PLAN, LIGHTING FIXTURE LAYOUT AND ACCESSORIES INSTALLED BY OTHER TRADES SO AS TO PRESENT A NEAT AND ATTRACTIVE INSTALLATION THROUGHOUT THE ENTIRE BUILDING. IT IS THE INTENT FOR GRILLES, REGISTERS AND DIFFUSERS TO BE INSTALLED IN THE CENTER OF CEILING PANELS.

COORDINATE LOCATION AND INSTALLATION OF EQUIPMENT WITH OTHER TRADES.

DO NOT SCALE DRAWINGS. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF DOORS, WINDOWS, ETC.

THERMOSTATS SHALL BE LOCATED IN THE ROOMS INDICATED. INSTALL AT 48" ABOVE FINISH FLOOR.

PIPING, DUCTWORK, VENTS, ETC., EXTENDING THROUGH EXTERIOR WALLS AND ROOF SHALL BE FLASHED AND COUNTER FLASHED IN A WEATHERPROOF MANNER.

VALVES AND SPECIALTIES SHALL BE LINE SIZE EXCEPT FOR CONTROL VALVES OR UNLESS NOTED OTHERWISE.

PIPING AND DUCTWORK INSULATION SHALL BE RUN CONTINUOUSLY THROUGH NON-RATED FLOORS, WALLS, ROOF AND PARTITIONS, UNLESS OTHERWISE INDICATED.

RUNOUTS SHALL PITCH DOWN IN DIRECTION OF FLOW A MINIMUM OF 1" IN 3'.

INSTALL ANCHORS AND EXPANSION LOOPS WHERE REQUIRED TO ALLOW FOR EXPANSION.

FOR LOCATION OF MOTOR STARTERS, SEE ELECTRICAL DRAWINGS.

SHEET METAL

LOUVER SIZES ARE INDICATED IN SQUARE FEET OF NET FREE AREA. FOR DIMENSIONS OF LOUVERS, SEE ARCHITECTURAL DRAWINGS.

HIGH SIDEWALL REGISTERS OR GRILLES SHALL BE LOCATED 6" FROM CEILING TO TOP OF REGISTER OR GRILLE.

PROVIDE A MINIMUM OF THREE TIMES THE FAN DIAMETER OF STRAIGHT DUCTWORK OFF THE SUPPLY AIR FAN DISCHARGE BEFORE ANY TAKEOFFS OR ELBOWS.

LOW PRESSURE DUCTWORK SHALL BE CONSTRUCTED TO THE SMACNA STATIC PRESSURE CLASSIFICATION OF 2" W.G. AND SEAL CLASS "A".

GARAGE EXHAUST FAN (EF-1) SEQUENCE OF OPERATIONS

ON A RISE IN SPACE TEMPERATURE ABOVE THE COOLING SETPOINT OF 75 DEGF (ADJ.), THE INTAKE LOUVER MOTORIZED DAMPER SHALL OPEN AND THEN THE EXHAUST FAN SHALL RUN. ON A FALL IN SPACE TEMPERATURE BELOW ROOM COOLING SETPOINT, THE EXHAUST FAN SHALL STOP AND THE INTAKE LOUVER MOTORIZED DAMPER SHALL CLOSE.

330 RUSH ALLEY
SUITE 700
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B&N
BURGESS & NIPLE

CLERMONT COUNTY PARK DISTRICT
GRAILVILLE PRESERVE AND PARK - PHASE 1
MIAMI TOWNSHIP, CLERMONT COUNTY, OHIO

REVISIONS		
NO.	DESCRIPTION	DATE

JOB NO:	PR63329
DATE:	04/02/2026
DESIGNED BY:	NE
DRAWN BY:	DPJ
CHECKED BY:	PB
APPROVED BY:	NE
SCALE:	AS NOTED

MECHANICAL GENERAL NOTES, LEGEND, ABBREVIATIONS AND SCHEDULES

SHEET IDENTIFICATION
M-001

SHEET 53 OF 68

X NEW WORK CODED NOTES

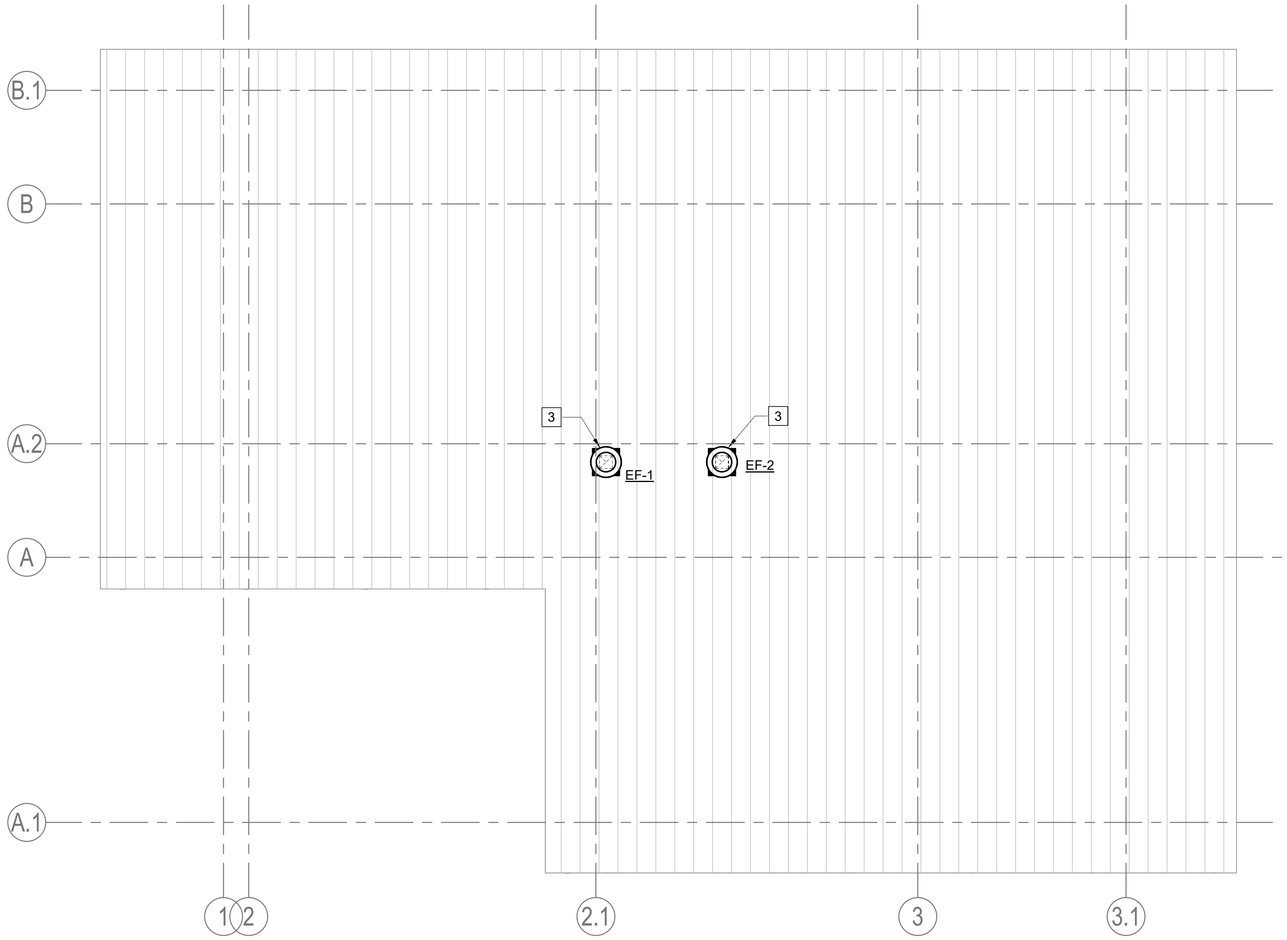
1 PROVIDE UNINSULATED EXHAUST DUCTWORK, HANGERS, AND SUPPORTS COMPLETE.

2 PROVIDE ELECTRIC UNIT HEATER, HANGERS AND SUPPORTS COMPLETE.

3 PROVIDE EXHAUST FAN AND ALL APPARATUSES COMPLETE.

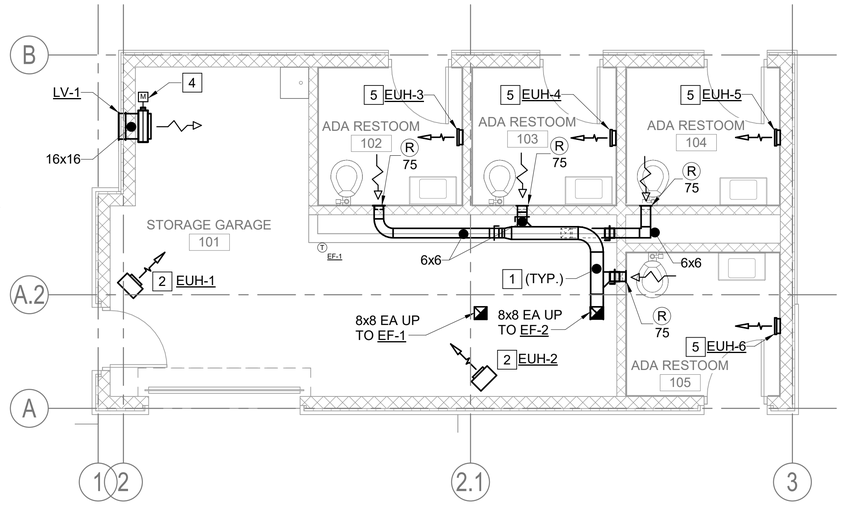
4 PROVIDE 24V AC, LOW-VOLT, NORMALLY CLOSED, MOTORIZED DAMPER ACTUATOR. INTERLOCK WITH EF-1.

5 PROVIDE SURFACE MOUNTED UNIT HEATER AND WALL BRACKET.



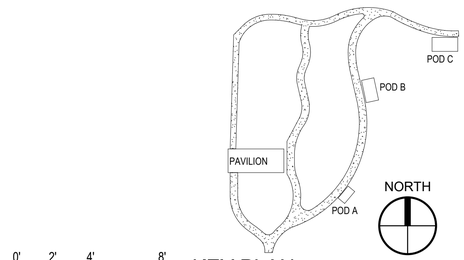
PAVILION MECHANICAL ROOF PLAN

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



PAVILION MECHANICAL FLOOR PLAN

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



0' 2' 4' 8'

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

KEY PLAN

330 RUSH ALLEY
SUITE 700
COLUMBUS, OH 43215
B&N
BURGESS & NIPLE

CLERMONT COUNTY PARK DISTRICT
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SCALE:	AS NOTED

PAVILION MECHANICAL PLANS

SHEET IDENTIFICATION
M-101

SHEET 54 OF 68

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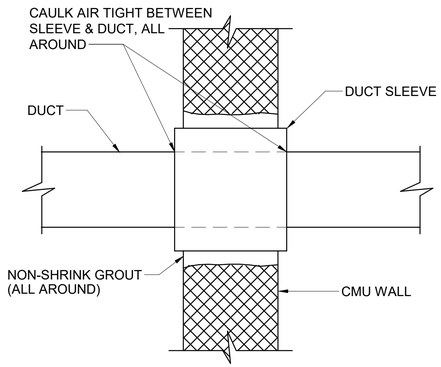
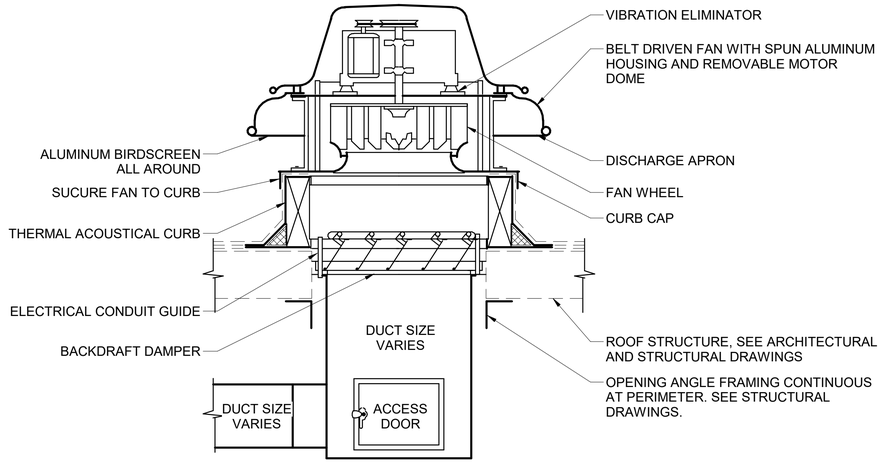


UNINSULATED

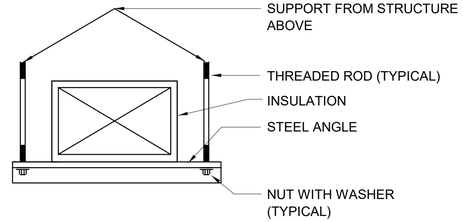
1 DUCT PENETRATION DETAIL
NOT TO SCALE

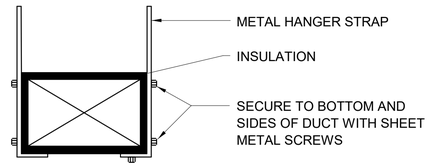


NOTE:

FOR ROOF CURB FLASHING AND COUNTER FLASHING, SEE ARCHITECTURAL DRAWINGS.

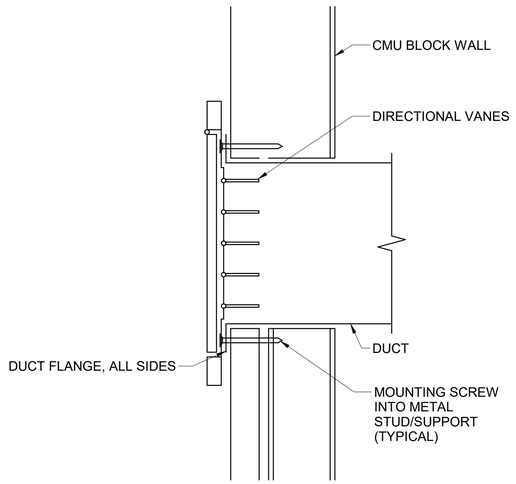
7 TYPICAL DOWNBLAST ROOF EXHAUST FAN DETAIL
NOT TO SCALE





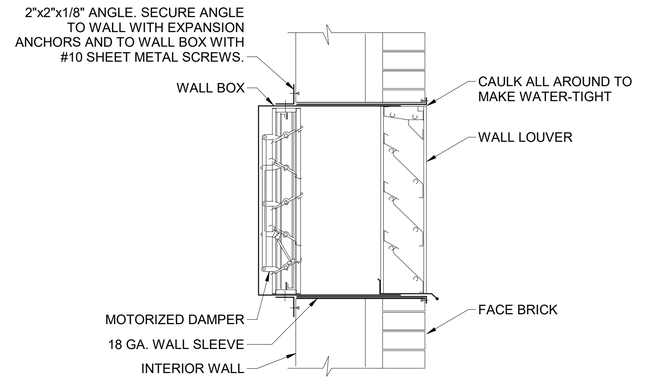
NOTE: FOR ANGLE SIZE AND HANGER STRAP GAUGE, SEE SMACNA LOW PRESSURE DUCT CONSTRUCTION STANDARDS.

4 TYPICAL DUCT SUPPORT DETAILS
NOT TO SCALE

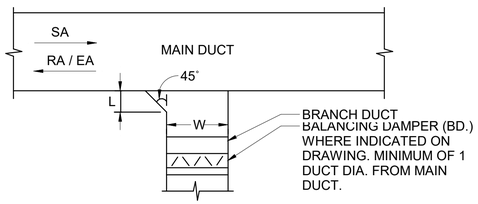


NOTE: SIDEWALL MOUNTING SHOWN ABOVE, CEILING MOUNTING SIMILAR.

5 TYPICAL SIDEWALL GRILLE/REGISTER CONNECTION DETAIL
NOT TO SCALE

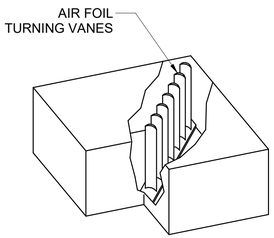


3 LOUVER WITH MOTORIZED DAMPER
NOT TO SCALE



USE ONLY AT LAST TAKEOFF BEFORE OUTLETS AND THEN ONLY WHERE ROUND RUNOUTS ARE INDICATED ON DRAWINGS.

BRANCH CONNECTION



ELBOW DETAIL

2 HVAC DUCT DETAILS
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B&N BURGESS & NIPLE
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CLERMONT COUNTY PARK DISTRICT
GRAILVILLE PRESERVE AND PARK - PHASE 1
MIAMI TOWNSHIP, CLERMONT COUNTY, OHIO

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SCALE:	AS NOTED

MECHANICAL DETAILS

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M-501

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PART 1 - GENERAL

1.1 THE SCOPE OF THE WORK INCLUDES FURNISHING AND INSTALLING A FIRST CLASS WORKING MECHANICAL SYSTEM, TESTED AND READY FOR OPERATION, COMPLETE WITH LABOR, MATERIALS, APPARATUS, TRANSPORTATION AND TOOLS REQUIRED FOR THE INSTALLATION IN CONFORMANCE WITH DRAWINGS AND THESE SPECIFICATIONS.

1.2 ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH APPLICABLE CODES AND ORDINANCES.

1.3 THE CONTRACTOR SHALL GIVE ALL NOTICES, OBTAIN ALL PERMITS, ARRANGE ALL INSPECTIONS, AND PAY ALL FEES.

1.4 THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID TO DETERMINE THE EXTENT OF THE WORK. LACK OF KNOWLEDGE OF EXISTING CONDITIONS WILL NOT BE CONSIDERED A BASIS FOR CHANGE ORDERS. PRIOR TO ORDERING EQUIPMENT, VERIFY THAT EQUIPMENT TO BE PROVIDED UNDER THIS CONTRACT IS ACCEPTABLE, CAN FIT INTO BLDG. AND ROOM. EXPENSE INCURRED BY THE CONTRACTOR, WHICH IN THE ENGINEER'S OPINION COULD HAVE BEEN AVOIDED BY THIS STEP, SHALL NOT BE A BASIS FOR CHANGE ORDERS.

1.5 THE CONTRACTOR SHALL DELIVER AND INSTALL THE MECHANICAL MATERIALS AND EQUIPMENT COVERED BY THE PLANS AND SPECIFICATIONS TO THE OWNER COMPLETE AND IN FIRST CLASS CONDITION IN EVERY RESPECT. HE SHALL GUARANTEE THAT THE MATERIALS, EQUIPMENT AND WORKMANSHIP PROVIDED BY HIM SHALL BE ENTIRELY FREE FROM DEFECTS, AND THAT HE WILL REPAIR AND REPLACE AT HIS OWN EXPENSE AS MAY BE DIRECTED BY THE OWNER, ANY MATERIAL, EQUIPMENT OR WORKMANSHIP IN WHICH DEFECTS MAY DEVELOP. PROVIDE A WRITTEN WARRANTY FOR A PERIOD OF 12 MONTHS AGAINST DEFECTIVE WORKMANSHIP AND MATERIAL AFTER FINAL ACCEPTANCE AT NO ADDITIONAL COST TO THE OWNER.

1.6 FURNISH CERTIFIED RECORD OF WELDING QUALIFICATION TEST FOR EACH WELDER AND WELDING OPERATOR PRIOR TO BEGINNING WELDING OPERATIONS.

1.7 SUBMIT COMPLETE COPIES OF MATERIAL AND EQUIPMENT SHOP DRAWINGS, TO THE ENGINEER, BEARING THE CONTRACTOR'S STAMP OF APPROVAL, PROPOSED FOR INSTALLATION, SHOP DRAWINGS SHALL SPECIFICALLY NOTE CAPACITIES AND IDENTIFY CONSTRUCTION AND MODELS FOR REVIEW: INCOMPLETE SUBMITTALS SHALL NOT BE REVIEWED.

1.8 SCOPE OF WORK INCLUDES PROVISION OF NEW EXHAUST FANS, DUCTWORK, CONTROLS, BALANCING AIR, AND RELATED WORK.

1.9 ALL MATERIALS AND DEBRIS SHALL BE CLEANED UP AND SWEPT CLEAN AT THE COMPLETION OF EACH NIGHT'S WORK EFFORT. CONTRACTOR SHALL PROVIDE A PROPOSED SCHEDULE OF WORK WITH HIS BID.

PART 2 – PRODUCTS

2.1 PROVIDE FACTORY-ASSEMBLED, WALL-MOUNTED PROPELLER FAN COMPLETE WITH WALL HOUSING AND INTEGRAL BACKDRAFT PROTECTION AND BIRD SCREEN AS REQUIRED FOR INSTALLATION. FAN HOUSING AND MOUNTING PANEL SHALL BE CONSTRUCTED OF HEAVY-GAUGE GALVANIZED STEEL. FAN SHALL BE DIRECT-DRIVE AXIAL PROPELLER TYPE WITH ALUMINUM PROPELLER, STATICALLY AND DYNAMICALLY BALANCED. MOTOR SHALL BE PERMANENTLY LUBRICATED AND MOUNTED INTEGRAL WITH THE FAN FOR DIRECT DRIVE OPERATION; PROVIDE ELECTRICAL CHARACTERISTICS AS SCHEDULED. FANS SHALL HAVE AMCA CERTIFIED PERFORMANCE RATINGS AND BE UL LISTED.

2.2 PROVIDE FACTORY-ASSEMBLED, ROOF-MOUNTED EXHAUST FAN COMPLETE WITH WEATHER COVER, INTEGRAL BACKDRAFT DAMPER, AND ROOF CURB SUITABLE FOR THE ROOF CONSTRUCTION. FAN SHALL BE A CENTRIFUGAL, DIRECT-DRIVE TYPE WITH GALVANIZED STEEL HOUSING. WHEEL SHALL BE ALUMINUM AND STATICALLY AND DYNAMICALLY BALANCED. MOTOR SHALL BE MOUNTED WITHIN THE WEATHERPROOF HOUSING AND BE PERMANENTLY LUBRICATED; PROVIDE ELECTRICAL CHARACTERISTICS AS SCHEDULED. FANS SHALL HAVE AMCA CERTIFIED PERFORMANCE RATINGS AND BE UL LISTED.

2.3 LOUVERS SHALL BEAR AMCA SEAL AND RATED IN ACCORDANCE WITH AMCA 500 AND 511. LOUVER SHALL HAVE A MINIMUM 35% FREE AREA. CONSTRUCTION SHALL BE ALUMINUM ALLOY WITH ANODIZED FINISH FRAMES AND BLADES WITH 0.5 INCH MESH ALUMINUM BIRD SCREEN MOUNTED IN EXTRUDED FRAME. FRAME SHALL MATCH AND FIT EXISTING FENESTRATION OPENING.

2.4 MOTORIZED CONTROL DAMPERS SHALL BE GALVANIZED STEEL CONSTRUCTION, LOW LEAKAGE, OPPOSED OR PARALLEL BLADE WITH ELECTRIC ACTUATOR.

PART 3 – EXECUTION

3.1 COORDINATE WORK CLOSELY WITH OTHER TRADES AND HOSPITAL MAINTENANCE STAFF.

3.2 INSTALL INSULATION AFTER TESTING IS COMPLETE.

3.3 THE EXACT LOCATION OF PIPES WILL BE DETERMINED BY THE CONTRACTOR AFTER THE WORKING PLANS ARE MADE TO AVOID INTERFERENCE WITH EXISTING DUCTS, LIGHTING FIXTURES AND PIPING.

3.4 THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR, AND BE REQUIRED TO MAKE GOOD AT HIS OWN EXPENSE, ANY AND ALL DAMAGES TO ANY WORK OR MATERIALS IN PLACE ON THE PREMISES, OR INCLUDED IN THIS CONTRACT, DURING THE EXECUTION OF HIS CONTRACT. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEAN-UP OF OCCUPIED SPACE AT THE COMPLETION OF EACH WORK PERIOD, COMPLETING CLEAN-UP IN TIME TO NOT CAUSE INTERFERENCE WITH KITCHEN OPERATION.

3.5 PROVIDE ALL MATERIALS, TOOLS, LABOR, AND OTHER RELATED ITEMS TO COMPLETE ALL WORK, INCLUDING CONNECTIONS TO ALL EQUIPMENT IN ACCORDANCE WITH THE MECHANICAL CODES.

3.6 BEFORE FINAL ACCEPTANCE OF THE WORK, TEST EACH SYSTEM AS IN SERVICE TO DEMONSTRATE COMPLIANCE WITH TESTING AS SPECIFIED IN THE MECHANICAL CODE.

3.7 WIRING AND ELECTRICAL EQUIPMENT FROM SOURCE UP TO AND INCLUDING JUNCTION BOX OR CIRCUIT BREAKER SHALL BE BY ELECTRICAL CONTRACTOR. POWER WIRING FROM JUNCTION BOX, DISCONNECT SWITCH OR CIRCUIT BREAKER INCLUDING CONTROL WIRING AND FINAL CONNECTIONS SHALL BE BY MECHANICAL CONTRACTOR. MECHANICAL CONTRACTOR SHALL PROVIDE INDIVIDUAL COMPONENT FUSIBLE PROTECTION FOR EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S NAMEPLATE.

3.8 EQUIPMENT WHICH IS REQUIRED BY CODE OR IS SPECIFIED TO HAVE UL OR SIMILAR LISTING, SHALL BE INSTALLED AS REQUIRED TO MEET THAT LISTING.

3.9 BALANCE AIR SIDE AND PIPING SYSTEMS RELATED TO SCOPE OF WORK. BALANCE REPORTS SHALL BE FURNISHED TO THE ENGINEER FOR REVIEW AND APPROVAL. REPORT FORMAT AND PROCEDURE SHALL BE IN ACCORDANCE WITH AABC OR NEBB REQUIREMENTS.

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CHECKED BY:	CB
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SCALE:	AS NOTED

MECHANICAL SPECIFICATIONS

SHEET IDENTIFICATION
M-801

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GENERAL SYMBOLS

1 NEW WORK NOTE DESIGNATION

PIPING SYMBOLS - SINGLE LINE

- DOMESTIC COLD WATER PIPING
- DOMESTIC HOT WATER SUPPLY PIPING
- VENT PIPING
- SANITARY PIPING
- ISOLATION VALVE
- BALANCING VALVE
- PRESSURE RELIEF VALVE
- CHECK VALVE
- REDUCER, CONCENTRIC
- STRAINER
- THERMOMETER
- UNION
- PUMP
- BACKFLOW PREVENTER
- WATER HAMMER ARRESTER WITH PDI INDICATOR (SEE PLANS AND DETAIL)
- PIPE TURN UP
- PIPE TURN DOWN
- PIPE BREAK
- PIPE CAP
- CLEAN OUT
- DIRECTION OF FLOW IN PIPE

PIPING SYMBOLS - RISERS

- TRAP
- VENT THRU ROOF
- REDUCER, CONCENTRIC

FIXTURES SYMBOLS

- DRINKING FOUNTAIN
- WALL LAVATORY
- WATER CLOSET FLUSH VALVE
- WALL HYDRANT FREEZE PROOF
- FLOOR CLEAN OUT
- FLOOR DRAIN
- ELECTRIC WATER HEATER

GENERAL NOTES

"PLUMBING GENERAL NOTES" APPLY TO ALL PLUMBING DRAWINGS ISSUED FOR THIS PROJECT. THE WORD "PROVIDE" MEANS "FURNISH AND INSTALL". LEGEND PIPING SYMBOLS APPLY TO PLUMBING SHEETS. NOT ALL ITEMS IN THE LEGEND AND ABBREVIATIONS ARE USED ON THIS PROJECT.

VERIFY ALL DIMENSIONS AT THE JOB SITE. LOCATE AND ESTABLISH ALL INVERT ELEVATIONS IN THE FIELD. FIELD COORDINATE SLEEVE LOCATIONS IN STRUCTURE.

CONTRACTOR MUST VERIFY LOCATIONS OF ALL EXISTING UTILITIES REQUIRING TIE-INS AND SHALL REPORT ANY CONFLICTS TO THE ARCHITECT FOR CLARIFICATION. CONTRACTOR MUST AVOID SEVERENCE OR DAMAGE TO BURIED SERVICE LINES. SHOULD DAMAGE OCCUR, REPAIRS SHALL BE MADE WITHOUT ADDITIONAL COST TO THE OWNER.

COORDINATE WITH WORK OF OTHER TRADES AND CONSTRUCTION MANAGER TO AVOID INTERFERENCES BEFORE BEGINNING WORK. COORDINATE THE EXACT LOCATIONS OF FLOOR DRAINS WITH EQUIPMENT AND FLOOR PLANS PRIOR TO BEGINNING WORK.

PIPING DRAWINGS ARE SCHEMATIC IN NATURE AND DO NOT INDICATE ALL OFFSETS AND ASSOCIATED FITTINGS REQUIRED TO INSTALL THE SYSTEMS IN THE AVAILABLE SPACES. THE CONTRACTOR SHALL ALLOW FOR ALL EXTRA ADDITIONAL FITTINGS FOR PIPING OVER AND ABOVE THE OFFSETS SHOWN ON THE PLANS. THE CONTRACTOR SHALL PROVIDE ALL SUCH FITTINGS AT NO ADDITIONAL CHANGE IN CONTRACT PRICE.

EQUIPMENT AND FIXTURES LISTED ON SCHEDULES IS BASIS OF DESIGN. SUBSTITUTING EQUAL EQUIPMENT AND FIXTURES FROM OTHER MANUFACTURERS IS ACCEPTABLE; HOWEVER, THE CONTRACTOR IS RESPONSIBLE FOR MEETING THE SPACE AND INTERFACE REQUIREMENTS FOR THE SUBSTITUTED EQUIPMENT AND FIXTURES. FOR EQUIPMENT INSTALLATION & TESTING, THE MANUFACTURER'S INSTRUCTIONS HAVE PRECEDENCE OVER THE SPECIFICATIONS AND PLANS.

PROVIDE CONNECTIONS TO PLUMBING EQUIPMENT AND FIXTURES PROVIDED BY OTHERS.

BELOW GROUND SUPPLY PIPING SHALL BE TYPE K COPPER TUBING. ABOVE GROUND SUPPLY PIPING SHALL BE TYPE L COPPER TUBING. BELOW GROUND SANITARY PIPING SHALL BE HUB AND SPIGOT CAST IRON. ABOVEGROUND SANITARY SHALL BE HUBLESS CAST IRON.

REFER TO PIPING SYSTEM ISOMETRICS, SCHEMATICS, AND OTHER DETAILS FOR ARRANGEMENT OF PIPING AND FOR SIZES NOT SHOWN ON PLANS. REFER TO FIXTURE CONNECTION SCHEDULE FOR PIPE SIZES TO FIXTURE. PIPING SIZES CONTINUE IN DIRECTION OF FLOW UNTIL CHANGE INDICATED OR SCHEDULED. IN ANY CASE WHERE A PIPE SIZE SHOWN ON A PLAN SHEET DIFFERS FROM THAT SHOWN IN A SCHEMATIC, SECTION, OR DETAIL, USE THE LARGER OF THE TWO SIZES SHOWN.

VALVE LOCATIONS SHOWN ON DRAWINGS ARE SCHEMATIC ONLY. ALL VALVES SHALL BE INSTALLED IN ACCESSIBLE LOCATIONS; OTHERWISE, PROVIDE ACCESS DOORS. PROVIDE BALL VALVE FOR ISOLATION OF COLD AND HOT WATER TAKEOFFS FROM MAINS. PROVIDE ISOLATION VALVES AT EACH FLOOR TAKEOFF WITH ACCESS DOORS.

SANITARY PIPING IS TO BE SLOPED IN ACCORDANCE WITH OPC. INSTALL CLEANOUTS PER CODE. FOR GRADE CLEANOUTS WHERE NO CONCRETE PAVING EXISTS, PROVIDE 12x12x4 INCH CONCRETE PAD.

PROVIDE SLEEVES AND COLLARS FOR PIPE FLOOR, WALL, AND CEILING PENETRATIONS. SEAL ALL PIPE PENETRATIONS OF RATED FLOORS, WALLS, AND CEILINGS USING LISTED FIRESTOPPING SYSTEM.

USE FITTINGS FOR ALL PIPE CHANGES IN DIRECTION AND SIZE AND BRANCH CONNECTIONS. EXTRUDED TEE CONNECTIONS AND BUSHINGS SHALL NOT BE USED.

FOR ALL WATER SUPPLY PIPES, INSTALL MANUAL AIR VENTS AT HIGH POINTS AND DRAIN VALVES AT THE LOW POINTS OF THE PIPE. FOR EQUIPMENT WITH DRAINS, PROVIDE DRAIN PIPE FROM THE EQUIPMENT TO A FLOOR DRAIN OR MOP SINK.

PROVIDE TRAP SEAL PROTECTION DEVICE AT FLOOR DRAINS. TRAP SEAL SHALL BE ASSE 1072 COMPLIENT AND INSTALLED PER MANUFACTURER'S INSTRUCTIONS.

PROVIDE WATER HAMMER ARRESTORS IN ACCORDANCE WITH PDI (PLUMBING AND DRAINAGE INSTITUTE) AND MANUFACTURERS RECOMMENDATIONS.

PROVIDE SUPPORT FOR ALL PIPING AND EQUIPMENT, INCLUDING DRAINAGE PIPE THRUST RESTAINTS. FIELD VERIFY ALL EQUIPMENT DIMENSIONS PRIOR TO FABRICATION OF EQUIPMENT SUPPORTS. REFER TO THE STRUCTURAL PLANS FOR THE SEISMIC DESIGN CATEGORY. IF THE SEISMIC DESIGN CATEGORY IS D OR E, PROVIDE SEISMIC SUPPORT OF ALL EQUIPMENT AND PIPING.

ALL FLOOR MOUNTED EQUIPMENT SHALL HAVE HOUSEKEEPING PADS EXTENDING 3 INCHES OUTSIDE THE EQUIPMENT ENVELOPE. GARAGE ROOM EQUIPMENT PADS SHALL BE 4 INCHES HIGH.

GENERAL NOTES CONT.

FURNISH ACCESS PANELS TO GENERAL CONTRACTOR FOR INSTALLATION IN WALLS OR CEILING. ACCESS PANELS ARE FOR ALL EQUIPMENT AND SPECIALTIES SUCH AS VALVES, WATER HAMMER ARRESTORS, OR OTHER DEVICES WHICH MAY REQUIRE ACCESS FOR MAINTENANCE OR OPERATION. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION OF THE ACCESS PANELS.

FURNISH STARTERS AND DISCONNECTS FOR ALL EQUIPMENT. FURNISH VARIABLE FREQUENCY DRIVES WHEN SCHEDULED. STARTERS, DISCONNECTS, AND VARIABLE FREQUENCY DRIVES TO BE INSTALLED AND WIRED BY ELECTRICAL CONTRACTOR, EXCEPT WHERE PERFORMED BY THE FACTORY.

ELECTRICAL CONTRACTOR TO PROVIDE HEAT TRACING OF PIPES. PLUMBING CONTRACTOR TO COORDINATE HEAT TRACE LOCATION AND REQUIREMENTS WITH ELECTRICAL CONTRACTOR.

GENERAL ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
AP	ACCESS PANEL
AUTO	AUTOMATIC
BFP	BACKFLOW PREVENTOR
BV	BALL VALVE
CI	CAST IRON
CLG	CEILING
CO	CLEANOUT
CONT	CONTINUATION
CV	CHECK VALVE
CW	COLD WATER
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIM	DIMENSION
DR	DRAIN
DWG	DRAWING
EL	ELEVATION
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FFE	FINISHED FLOOR ELEVATION
FLR	FLOOR
FS	FLOW SWITCH / FLOOR SINK
FV	FLUSH VALVE
GCO	GRADE CLEANOUT
GPM	GALLONS PER MINUTE
GV	GATE VALVE
HB	HOSE BIBB
HP	HORSEPOWER
HW	HOT WATER
IPC	INTERNATIONAL PLUMBING CODE
LV	LAVATORY
MIN	MINIMUM
MS	MOP SINK
NTS	NOT TO SCALE
OPC	OHIO PLUMBING CODE
PD	PUMP DISCHARGE
PG	PRESSURE GAUGE
POC	POINT OF CONNECTION
PRV	PRESSURE REDUCING VALVE
S	SINK
SAN	SOIL OR SANITARY
TMV	THERMOSTATIC MIXING VALVE
TYP	TYPICAL
V	VENT
VTR	VENT THRU ROOF
WC	WATER CLOSET
WCO	WALL CLEANOUT
WH	WATER HEATER
WHA	WATER HAMMER ARRESTOR
WHF	WALL HYDRANT NON-FREEZE
WS	WASH SINK

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PLUMBING GENERAL NOTES, LEGEND, AND ABBREVIATIONS

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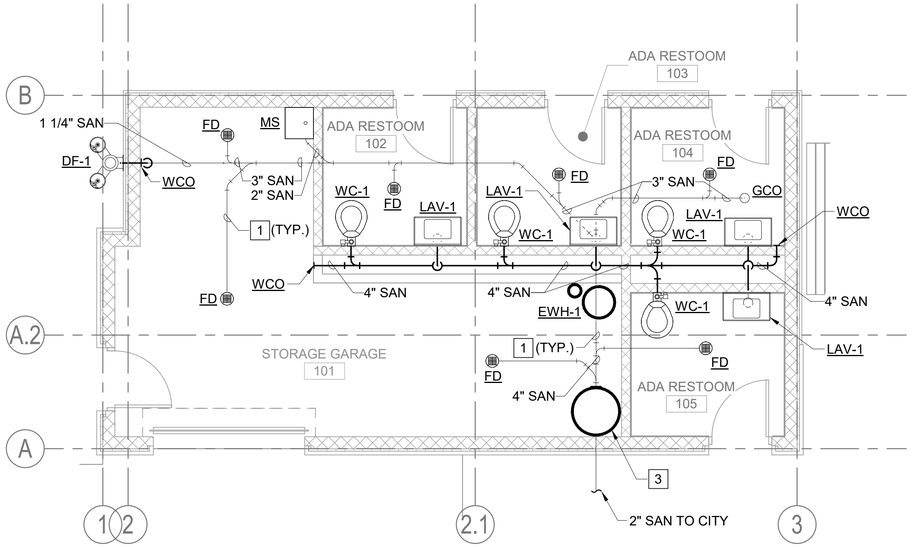
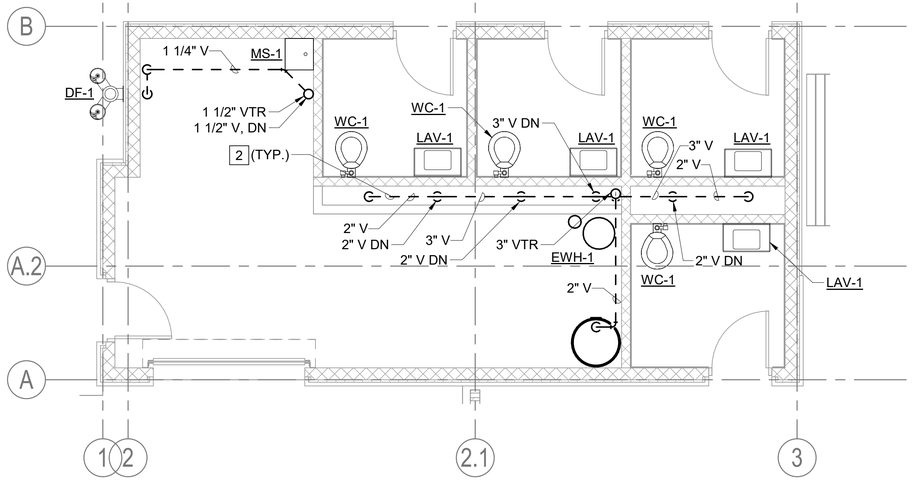


PAVILION SANITARY FLOOR PLAN

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



PAVILION SANITARY VENT FLOOR PLAN

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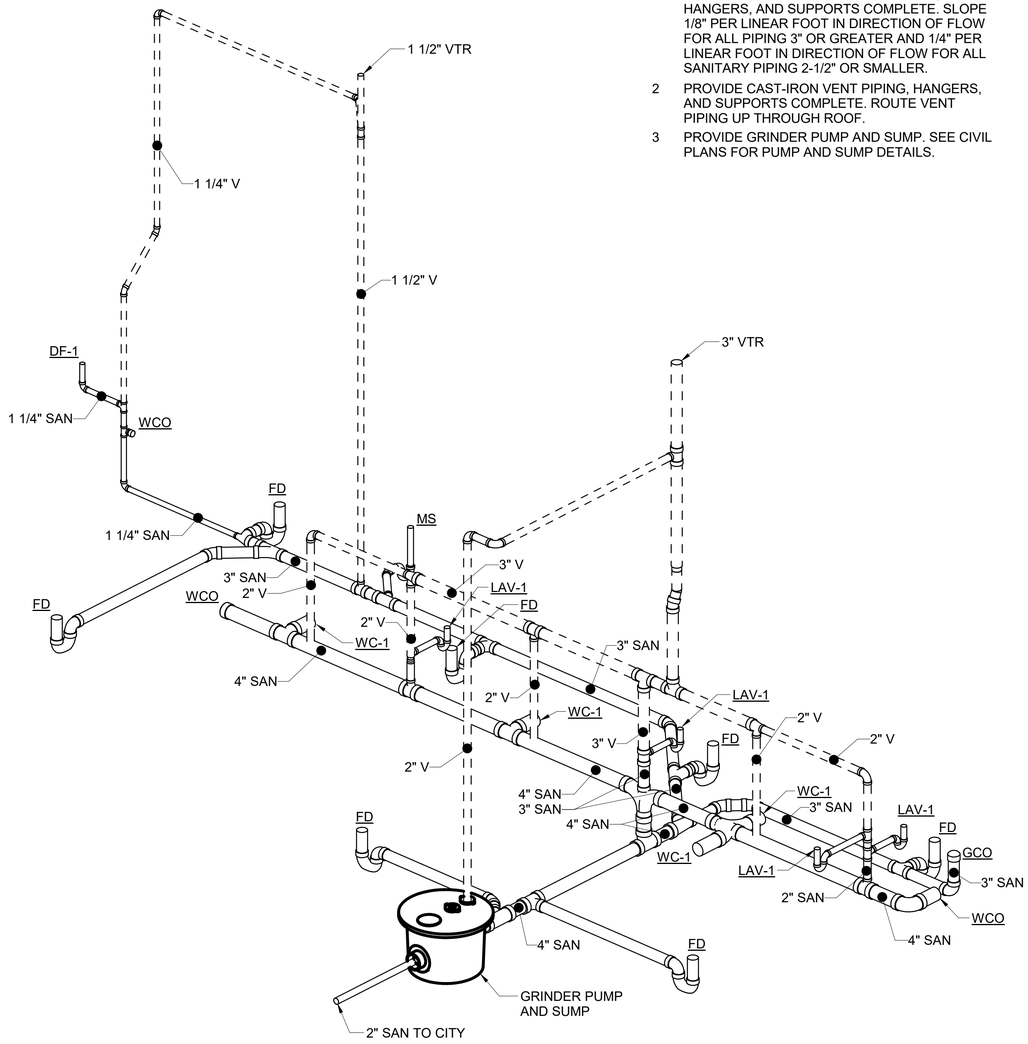

SANITARY ISOMETRIC

NOT TO SCALE

X NEW WORK CODED NOTES

1. PROVIDE CAST-IRON SANITARY PIPING, HANGERS, AND SUPPORTS COMPLETE. SLOPE 1/8" PER LINEAR FOOT IN DIRECTION OF FLOW FOR ALL PIPING 3" OR GREATER AND 1/4" PER LINEAR FOOT IN DIRECTION OF FLOW FOR ALL SANITARY PIPING 2-1/2" OR SMALLER.
2. PROVIDE CAST-IRON VENT PIPING, HANGERS, AND SUPPORTS COMPLETE. ROUTE VENT PIPING UP THROUGH ROOF.
3. PROVIDE GRINDER PUMP AND SUMP. SEE CIVIL PLANS FOR PUMP AND SUMP DETAILS.

0' 2' 4' 8'
SCALE: 1/4" = 1' - 0"

KEY PLAN

330 RUSH ALLEY
SUITE 700
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SANITARY NEW WORK PLAN

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P-101

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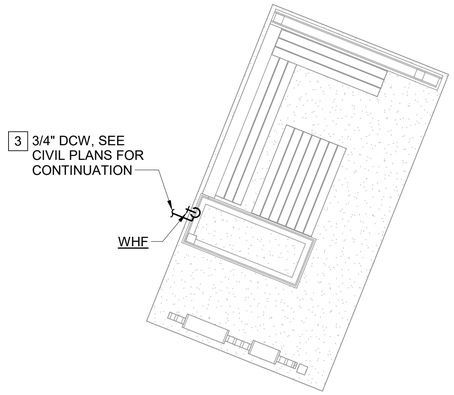
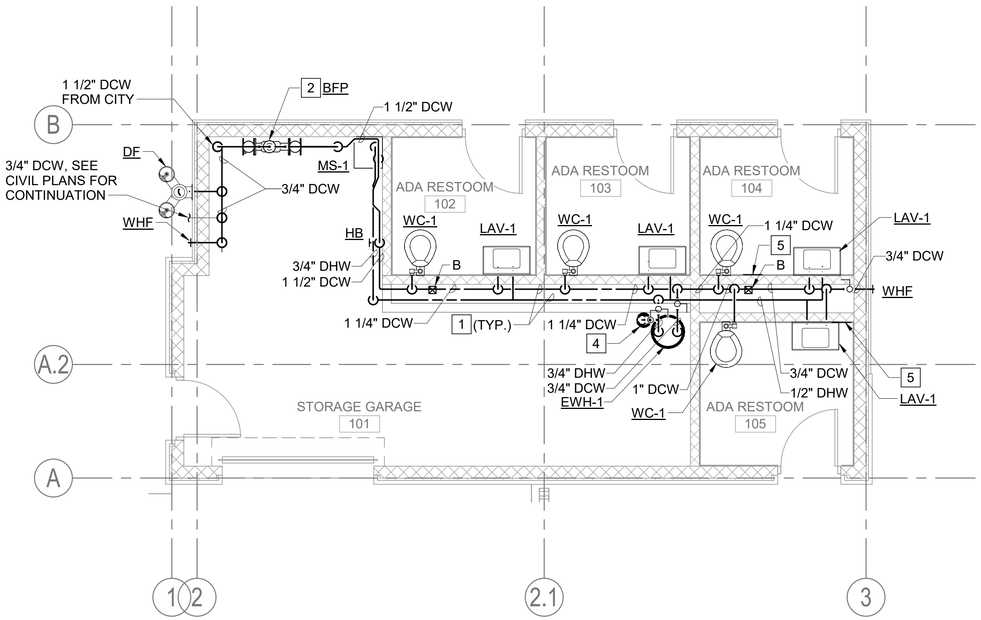


POD B MECHANICAL FLOOR PLAN

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



PAVILION DOMESTIC WATER PLAN

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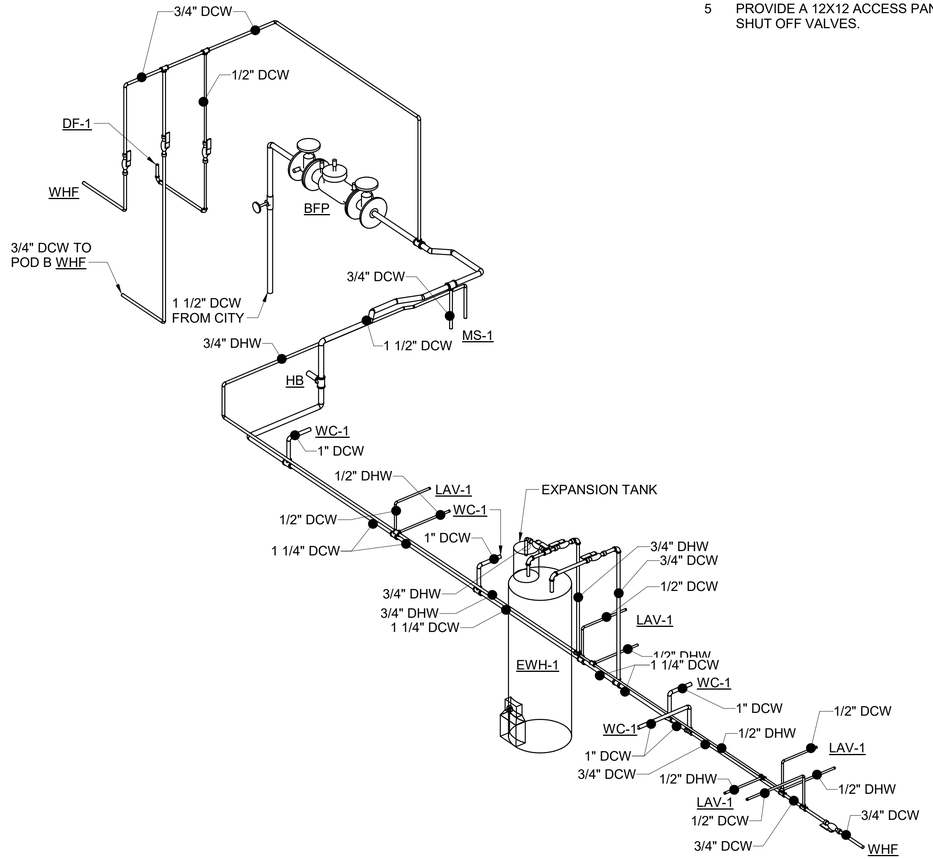
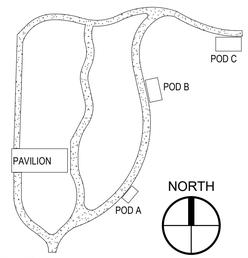


DOMESTIC WATER ISOMETRIC

NOT TO SCALE

X NEW WORK CODED NOTES

1. PROVIDE COPPER TYPE L DOMESTIC WATER PIPING, INSULATION, HANGERS, AND SUPPORTS COMPLETE.
2. PROVIDE DOMESTIC COLD WATER BACKFLOW PREVENTER.
3. PROVIDE 8 W/FT HEAT TRACE FOR DOMESTIC COLD WATER PIPING.
4. PROVIDE A 2-GALLON EXPANSION PRESSURE TANK AT A 100 PSI WORKING PRESSURE.
5. PROVIDE A 12X12 ACCESS PANEL TO ACCESS SHUT OFF VALVES.



0' 2' 4' 8'
SCALE: 1/4" = 1' - 0"

KEY PLAN

330 RUSH ALLEY
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DOMESTIC WATER NEW WORK PLAN

SHEET IDENTIFICATION
P-102

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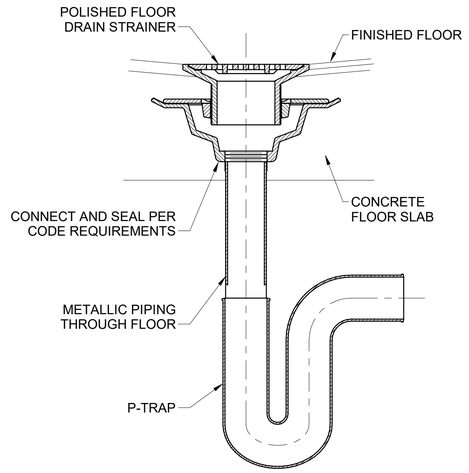
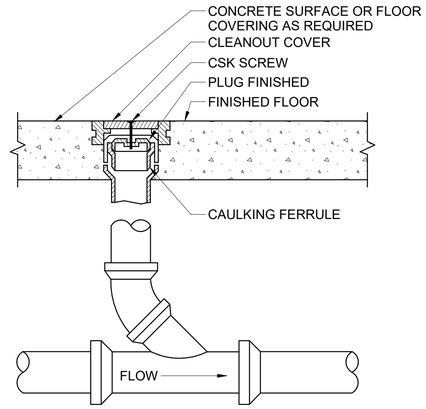
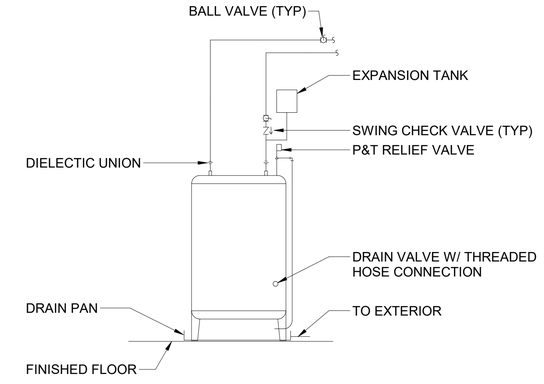


1 FLOOR DRAIN DETAIL
NOT TO SCALE



2 PLUMBING FLOOR CLEANOUT
NOT TO SCALE



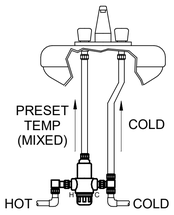
6 WATER HEATER DETAIL 3
NOT TO SCALE

4 PLUMBING VENT THROUGH ROOF DETAIL
NOT TO SCALE

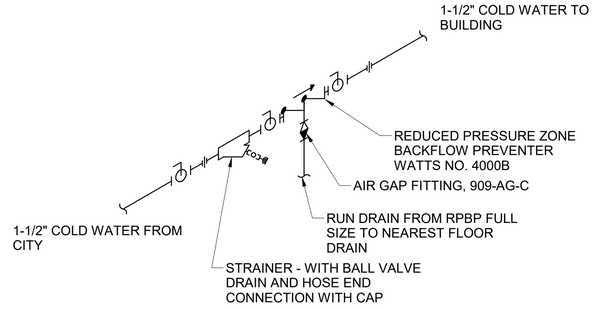
NOTES:
1. PREFERRED INSTALL WATER HAMMER ARRESTORS AT THE END OF BRANCH LINE BETWEEN THE LAST TWO FIXTURES SERVED.
2. ONE WATER HAMMER ARRESTOR PER 20' LINE, AND ANOTHER FOR BRANCHES OVER 20' IN LENGTH.
3. THE SUMOF FIXTURE UNIT RATING OF UNITS OVER 20' IN LENGTH SHALL BE EQUAL TO OR GREATER THAN THE DEMAND OF THE BRANCHES.

WATER HAMMER ARRESTOR SCHEDULE			
PDI SYMBOL	A	B	C
FIXTURE UNIT RATING	1-11	12-32	33-60

5 WATER HAMMER ARRESTER DETAIL
NOT TO SCALE



7 POINT-OF-USE MIXING VALVE DETAIL
NOT TO SCALE



3 BACKFLOW PREVENTER DETAIL
NOT TO SCALE

B&N BURGESS & NIPLE
330 RUSH ALLEY
SUITE 700
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CLERMONT COUNTY PARK DISTRICT
GRAILVILLE PRESERVE AND PARK - PHASE 1
MIAMI TOWNSHIP, CLERMONT COUNTY, OHIO

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PLUMBING DETAILS

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ELECTRIC WATER HEATER SCHEDULE

TAG	TYPE	FUEL	TANK CAPACITY (GAL.)	INPUT (kW)	TEMP RISE (DEG F)	RECOVERY (GPH)	ELECTRICAL DATA			BASIS OF DESIGN		REMARKS
							VOLTS	PHASE	FLA	MANUFACTURER	MODEL	
EWH-1	TANK	ELECTRIC	28	4.5	90	20	240V	1	21.6	AO SMITH	DEL-30	SEE NOTES

PLUMBING FIXTURE AND CONNECTION SCHEDULE

TAG	TYPE	DESCRIPTION	COLD	HOT	WASTE	VENT	REMARKS
LAV	LAVATORY	SLOAN ELC-81000 OR EQUAL SINGLE STATION LAVATORY. WHITE SPARKLE, SINGLE CENTERED FAUCET HOLE, VANDAL RESISTANT.	-	-	-	-	PROVIDE CARRIER. ADA COMPLIANT.
	FAUCET	SLOAN EAF-200-P-ISM TOUCHLESS FAUCET WITH TEMPERATURE MIXER, CHROME PLATED DIE-CAST METAL, 0.5 GPM FLOW.	1/2"	1/2"	-	-	
	FITTINGS	MCGUIRE NO. 8902 CAST BRASS P-TRAP. MCGUIRE NO. 158WC WHEELCHAIR LAVATORY SUPPLIES WITH LOOSE KEY STRAIGHT STOP AND WALL FLANGE. HANDY SHIELD SAFETY COVERS PRO-2000 SERIES FOR TRAP AND SUPPLIES. OR EQUAL.	-	-	1 1/2"	2"	
WC	HANDICAP WATER CLOSET	AMERICAN STANDARD "AFWALL" MODEL NO.3351.101 OR EQUAL WALL-HUNG WATER CLOSET, VITREOUS CHINA, LOW CONSUMPTION (1.6 GAL. PER FLUSH), ELONGATED BOWL, DIRECT FED SIPHON JET ACTION, AND 1 1/2" INLET SPUD.	-	-	4"	2"	PROVIDE CARRIER. MOUNT TOP 17" TO 19" AFF. ADA COMPLIANT.
	FLUSH VALVE	SLOAN ROYAL NO. 111 ESS HARD-WIRED TOUCHLESS FLUSHMETER, LOW CONSUMPTION 1.6 GAL. PER FLUSH CYCLE MAXIMUM, EXPOSED MOUNTING, DIAPHRAGM TYPE, CHROME PLATED, NON-HOLD-OPEN HANDLE, 1" IPS SCREWDRIVER ANGLE STOP, VACUUM BREAKER FLUSH CONNECTION, WALL AND SPUD FLANGES.	1"	-	-	-	
	SEAT	OLSONITE NO. 95 OR EQUAL OPEN FRONT SEAT LESS COVER, WHITE CARRIER FITTING	-	-	-	-	
BFP	BACKFLOW PREVENTER	DOMESTIC COLD WATER ASSE 1013 LISTED REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER. WATTS 4000B. 175 PSI MAX WORKING PRESSURE.	1 1/2"	-	-	-	
WHA	WATER HAMMER ARRESTOR	J.R. SMITH MODEL 5000 SERIES HYDROTROL CERTIFIED TO STANDARD P.D.I. WH-201	-	-	-	-	REFER TO PLAN FOR SIZING
WCO	WALL CLEANOUT	ZURN Z-1445 OR EQUAL WALL CLEANOUT TEE WITH DURACOATED CAS IRON BODY WITH GAS AND WATER TIGHT ABS TAPERED THREAD PLUG. STAINLESS STEEL COVER WITH SCREW.	-	-	-	-	REFER TO PLAN FOR SIZING
GCO	GROUND CLEANOUT	ZURN MODEL Z-1449, CAST IRON BODY, WITH GAS AND WATERTIGHT BRASS COUNTERSUNK PLUG.	-	-	-	-	REFER TO PLAN FOR SIZING
FD	FLOOR DRAIN	ZURN NO. 415 OR EQUAL CAST IRON BODY FLOOR DRAIN, 4" OUTLET, 6" DIA. ADJUSTABLE NICKEL BRONZE TOP WITH FLASHING COLLAR, SEDIMENT BASKET, AND ZURN Z-1000 OR EQUAL P-TRAP WITH ELASTOMERIC TRAP SEAL.	-	-	3"	2"	
HB	HOSE BIBB	WOODFORD MFG. MODEL 101 MILD CLIMATE ANTI-SIPHON WALL FAUCET; ASSE 1019 (TYPE C) LISTED; INTEGRAL ANTI-SIPHON PROTECTION WITH PATENTED CHECK AND ATMOSPHERIC VENT; 3/4" MALE HOSE THREAD NOZZLE; BRASS/BRONZE BODY WITH SOLID BRASS VALVE STEM AND WHEEL HANDLE; INLET CONNECTION AS SCHEDULED; MAX WORKING PRESSURE 125 PSI.	3/4"	-	-	-	
WHF	WALL HYDRANT	WOODFORD MODEL 65 OR EQUAL, AUTOMATIC DRAINING, NON-FREEZE WALL HYDRANT WITH KEY OPERATION, VACUUM BREAKER BACKFLOW PREVENTER, 3/4" HOSE CONNECTION, POLISHED BRASS FINISH. PROVIDE KEY WITH EACH HYDRANT.	3/4"	-	-	-	
MS	MOP SINK	FIAT MODEL TSB-100 OR EQUAL 24"X24" WITH 12" HIGH WALLS. FAUCET BASIS OF DESIGN: AMERICAN STANDARD 8344.112 OR EQUAL WITH INTEGRAL STOPS, WALL BRACE, PAIL HOOK, AND 3/4" HOSE THREAD ON SPOUT.	3/4"	3/4"	2"	-	

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PART 1 - GENERAL

1.1 THE SCOPE OF THE WORK INCLUDES FURNISHING AND INSTALLING A FIRST CLASS WORKING PLUMBING SYSTEM, TESTED AND READY FOR OPERATION, COMPLETE WITH LABOR, MATERIALS, APPARATUS, TRANSPORTATION AND TOOLS REQUIRED FOR THE INSTALLATION IN CONFORMANCE WITH DRAWINGS AND THESE SPECIFICATIONS.

1.2 ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH APPLICABLE CODES AND ORDINANCES.

1.3 THE CONTRACTOR SHALL GIVE ALL NOTICES, OBTAIN ALL PERMITS, ARRANGE ALL INSPECTIONS, AND PAY ALL FEES.

1.4 THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID TO DETERMINE THE EXTENT OF THE WORK. LACK OF KNOWLEDGE OF EXISTING CONDITIONS WILL NOT BE CONSIDERED A BASIS FOR CHANGE ORDERS. PRIOR TO ORDERING EQUIPMENT, VERIFY THAT EQUIPMENT TO BE PROVIDED UNDER THIS CONTRACT IS ACCEPTABLE, CAN FIT INTO BLDG. AND ROOM. EXPENSE INCURRED BY THE CONTRACTOR, WHICH IN THE ENGINEER'S OPINION COULD HAVE BEEN AVOIDED BY THIS STEP, SHALL NOT BE A BASIS FOR CHANGE ORDERS.

1.5 THE CONTRACTOR SHALL DELIVER AND INSTALL THE PLUMBING MATERIALS AND EQUIPMENT COVERED BY THE PLANS AND SPECIFICATIONS TO THE OWNER COMPLETE AND IN FIRST CLASS CONDITION IN EVERY RESPECT. CONTRACTOR SHALL GUARANTEE THAT THE MATERIALS, EQUIPMENT AND WORKMANSHIP PROVIDED SHALL BE ENTIRELY FREE FROM DEFECTS, AND THAT HE WILL REPAIR AND REPLACE AT HIS OWN EXPENSE AS MAY BE DIRECTED BY THE OWNER, ANY MATERIAL, EQUIPMENT OR WORKMANSHIP IN WHICH DEFECTS MAY DEVELOP. PROVIDE A WRITTEN WARRANTY FOR A PERIOD OF 12 MONTHS AGAINST DEFECTIVE WORKMANSHIP AND MATERIAL AFTER FINAL ACCEPTANCE AT NO ADDITIONAL COST TO THE OWNER.

1.6 FURNISH CERTIFIED RECORD OF WELDING QUALIFICATION TEST FOR EACH WELDER AND WELDING OPERATOR PRIOR TO BEGINNING WELDING OPERATIONS.

1.7 SUBMIT ELECTRONIC PDF COPIES OF MATERIAL AND EQUIPMENT SHOP DRAWINGS, TO THE ENGINEER, BEARING THE CONTRACTOR'S STAMP OF APPROVAL, PROPOSED FOR INSTALLATION, SHOP DRAWINGS SHALL SPECIFICALLY NOTE CAPACITIES AND IDENTIFY CONSTRUCTION AND MODELS FOR REVIEW: INCOMPLETE SUBMITTALS SHALL NOT BE REVIEWED.

PART 2 - PRODUCTS

2.1 DOMESTIC COLD AND HOT WATER PIPING
- A. DOMESTIC COLD AND HOT PIPING SHALL BE COPPER TYPE L HARD DRAWN (ASTM B88) WITH WROUGHT COPPER FITTINGS. ALL PIPING VALVES, STRAINERS, AND ACCESSORIES SHALL BE SUITED FOR DOMESTIC POTABLE WATER SYSTEMS, DOMESTIC WATER PIPING SHALL HAVE A WORKING PRESSURE RATING NOT LESS THAN 100 PSI AT 73.4 °F. HOT WATER DISTRIBUTION PIPE AND TUBING SHALL HAVE A PRESSURE RATING NOT LESS THAN 100 PSI AT 180°F.
- B. ALL VALVES, STRAINERS, FITTINGS AND ACCESSORIES SHALL BE LEAD-FREE AND MEET NSF 14/ANSI 61 REQUIREMENTS, FITTINGS SHALL BE SUITABLE FOR HEAT EXPANSION CONNECTIONS.
- C. HANGER SPACING MUST MEET REQUIREMENTS OF OPC.
- D. ALL DOMESTIC HOT AND COLD WATER PIPING SHALL BE SANITIZED AND TESTED IN ACCORDANCE WITH OPC REQUIREMENTS PRIOR TO SUBSTANTIAL COMPLETION.

2.3 HANGERS AND SUPPORTS
- A. GENERAL: INSTALL HANGERS, SUPPORTS, CLAMPS AND ATTACHMENTS TO SUPPORT PIPING PROPERLY FROM BUILDING STRUCTURE: COMPLY WITH OPC AND MSS SP-69. ARRANGE FOR GROUPING OF PARALLEL HORIZONTAL RUNS TO BE SUPPORT TOGETHER ON TRAPEZE TYPE HANGERS WHERE POSSIBLE. INSTALL SUPPORTS WITH MAXIMUM SPACING AS NOTED IN IPC, IFGC, AND COMPLYING WITH MSS SP-69 WHICHEVER HAS THE SHORTEST MAXIMUM SPACING DISTANCE.
- B. WHERE VARIOUS SIZES ARE TO BE SUPPORTED TOGETHER BY TRAPEZE HANGERS, SPACE HANGERS FOR SMALLEST PIPE SIZE OR INSTALL INTERMEDIATE SUPPORTS FOR SMALLER ELEMENTS. DO NOT USE WIRE OR PERFORATED METAL TO SUPPORT PIPING FROM OTHER PIPING.
- C. INSTALL HANGERS AND SUPPORTS COMPLETE WITH NECESSARY INSERTS, BOLTS, RODS, NUTS, WASHER, AND OTHER ACCESSORIES.
- D. PROVISION FOR MOVEMENT; INSTALL HANGERS AND SUPPORTS TO ALLOW CONTROLLED MOVEMENT OF PIPING TO PERMIT FREEDOM OF MOVEMENT AND TO FACILITATE. ACTION OF EXPANSION.
- E. LOAD DISTRIBUTION: INSTALL HANGERS AND SUPPORTS SO THAT PIPING LIVE AND DEAD LOADING AND STRESSES FROM MOVEMENT WILL NOT BE TRANSMITTED TO CONNECTED EQUIPMENT.

2.4 INSULATION
- A. DOMESTIC COLD WATER PIPING INSULATION SHALL BE PRE-FORMED CLOSED-CELL ELASTOMERIC THERMAL INSULATION (ASTM C 534) WITH A LAP SEAL.
- B. DOMESTIC HOT WATER PIPING INSULATION SHALL BE PRE-FORMED MINERAL FIBER INSULATION (ASTM C 547) WITH FACTORY ALL SERVICE JACKET (ASJ).
- B. FOR EXPOSED PIPING UP BELOW SIX FEET ABOVE FINISHED FLOOR, PROVIDE FACTORY-FABRICATED PVC INSULATION COVERS AND ELASTOMERIC INSULATION INSERTS OF THE SAME THICKNESS AS PIPING INSULATION FOR FITTINGS, VALVES, AND UNIONS.

2.5 PIPE SLEEVES
- A. PROVIDE SLEEVES FOR PIPING PENETRATIONS OF WALLS, CEILINGS, AND FLOORS. PROVIDE SLEEVE SEALS FOR PIPING PENETRATIONS OF CONCRETE WALLS AND SLABS.

2.6 VALVES
- A. BALL VALVES: BRONZE-BODY, TWO-PIECE, FULL-PORT, PTFE SEATS.
- B. CHECK VALVES: BRONZE BODY, SWING TYPE, NON-SLAM, THREADED ENDS
- C. BALANCING VALVES: BRONZE BODY, FULL-PORT, CALIBRATED NAMEPLATE WITH MEMORY STOP, PETES PLUG CONNECTIONS.

PART 2 - PRODUCTS (CONTINUED)

2.7 DOMESTIC ELECTRIC HOT WATER HEATER
- A. A.O. SMITH ASME CONSTRUCTED STORAGE TANK WITH PRESSURE AND TEMPERATURE RELIEF VALVE AND LINING SUITABLE FOR POTABLE WATER.
- B. FOAM INSULATION WITH INTEGRATED HEAT TRAPS.
- C. DUAL 4500-WATT STAINLESS STEEL HEATING ELEMENTS, ELECTRONIC THERMOSTAT CONTROL, WATER PRESSURE GAUGE.
- D. 150 PSIG DESIGN WORKING PRESSURE WITH UL 174 CERTIFICATION AT 300 PSI TEST PRESSURE.
- E. BASIS OF DESIGN: A.O. SMITH LIGHT COMMERCIAL-GRADE ELECTRIC WATER HEATER MODEL DEL-30 OR APPROVED EQUAL.

2.8 BACKFLOW PREVENTER 2 INCHES AND SMALLER:
- A. A REDUCED PRESSURE ZONE ASSEMBLY SHALL BE INSTALLED AT EACH POTENTIAL HEALTH HAZARD LOCATION TO PREVENT BACKFLOW DUE TO BACKSIPHONAGE AND/ OR BACKPRESSURE.
- B. THE ASSEMBLY SHALL CONSIST OF AN INTERNAL PRESSURE DIFFERENTIAL RELIEF VALVE LOCATED IN A ZONE BETWEEN TWO POSITIVE SEATING CHECK MODULES WITH CAPTURED SPRINGS AND SILICONE SEAT DISCS. SEATS AND SEAT DISCS SHALL BE REPLACEABLE IN BOTH CHECK MODULES AND THE RELIEF VALVE. THERE SHALL BE NO THREADS OR SCREWS IN THE WATERWAY EXPOSED TO LINE FLUIDS.
- C. SERVICE OF ALL INTERNAL COMPONENTS SHALL BE THROUGH A SINGLE ACCESS COVER SECURED WITH STAINLESS STEEL BOLTS. BODY AND SHUTOFFS SHALL BE CONSTRUCTED USING LEAD FREE CAST COPPER SILICON ALLOY MATERIALS.
- D. THE ASSEMBLY SHALL ALSO INCLUDE TWO RESILIENT SEATED ISOLATION VALVES, FOUR RESILIENT SEATED TEST COCKS AND AN AIR GAP DRAIN FITTING. THE VALVE BODY SHALL UTILIZE A COATING SYSTEM WITH BUILT IN ELECTROCHEMICAL CORROSION INHIBITOR. THE ASSEMBLY SHALL MEET THE REQUIREMENTS OF: USC; ASSE STD. 1013; AWWA STD. C511.

PART 3 - EXECUTION

3.1 GENERAL REQUIREMENTS
- A. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEAN-UP OF WORK SITE AT THE COMPLETION OF WORK.
- C. BEFORE FINAL ACCEPTANCE OF THE WORK, TEST EACH SYSTEM AS IN SERVICE TO DEMONSTRATE FUNCTIONALITY.

3.2 PIPING SYSTEMS - COMMON REQUIREMENTS
- A. DRAWING PLANS, SCHEMATICS, AND DIAGRAMS INDICATE GENERAL LOCATION AND ARRANGEMENT OF PIPING SYSTEMS. INDICATED LOCATIONS AND ARRANGEMENTS WERE USED TO SIZE PIPE AND CALCULATE FRICTION LOSS, EXPANSION, PUMP SIZING, AND OTHER DESIGN CONSIDERATIONS. INSTALL PIPING AS INDICATED UNLESS DEVIATIONS TO LAYOUT ARE APPROVED ON COORDINATION DRAWINGS.
- B. INSTALL PIPING IN EQUIPMENT ROOMS AND SERVICE AREAS AT RIGHT ANGLES OR PARALLEL TO BUILDING WALLS. DIAGONAL RUNS ARE PROHIBITED UNLESS SPECIFICALLY INDICATED OTHERWISE.
- C. INSTALL PIPING TO PERMIT VALVE SERVICING.
- 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. SELECT SYSTEM COMPONENTS WITH PRESSURE RATING EQUAL TO OR GREATER THAN OHIO CODE REQUIREMENTS. PERMANENT SLEEVES ARE NOT REQUIRED FOR HOLES FORMED BY REMOVABLE POLYETHYENE SLEEVES.

3.2 PIPING JOINT CONSTRUCTION
- A. JOIN PIPE AND FITTINGS ACCORDING TO THE FOLLOWING REQUIREMENTS.
- B. REAM ENDS OF PIPES AND TUBES AND REMOVE BURRS.
- C. REMOVE SCALE, SLAG, DIRT, AND DEBRIS FROM INSIDE AND OUTSIDE OF PIPE AND FITTINGS BEFORE ASSEMBLY.
- D. IF PRESS FITTING JOINTS ARE USED: FITTINGS SHALL BE SOURCED FROM A SINGLE MANUFACTURER. INSTALL FITTINGS IN STRICT CONFORMANCE WITH MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS USING AN APPROVED PRESS TOOL
  1. SEALING ELEMENTS: EPDM
  2. OPERATING TEMPERATURE: 0°F TO 250°F
  3. RATED PRESSURE: 200 PSI
  4. RATED FOR POTABLE WATER USE.
- E. SOLDERED JOINTS: APPLY ASTM B 813, WATER-FLUSHABLE FLUX, UNLESS OTHERWISE INDICATED, TO TUBE END. CONSTRUCT JOINTS ACCORDING TO ASTM B 828 OR CDA'S "COPPER TUBE HANDBOOK," USING LEAD-FREE SOLDER ALLOY COMPLYING WITH ASTM B 32.
- F. THREADED JOINTS. THREAD PIPE WITH TAPERED PIPE THREADS ACCORDING TO ASME B1.20.1. CUT THREADS FULL AND CLEAN USING SHARP DIES. REAM THREADED PIPE ENDS TO REMOVE BURRS AND RESTORE FULL ID. JOIN PIPE FITTINGS AND VALVES AS FOLLOWS:
  1. APPLY APPROPRIATE TAPE OR THREAD COMPOUND TO EXTERNAL PIPE THREADS UNLESS DRY SEAL THREADING IS SPECIFIED.
  2. DAMAGED THREADS. DO NOT USE PIPE OR PIPE FITTINGS WITH THREADS THAT ARE CORRODED OR DAMAGED. DO NOT USE PIPE SECTIONS THAT HAVE CRACKED OR OPEN WELDS.
- G. FLANGED JOINTS. SELECT APPROPRIATE GASKET MATERIAL, SIZE, TYPE, AND THICKNESS FOR SERVICE APPLICATION. INSTALL GASKET CONCENTRICALLY POSITIONED. USE SUITABLE LUBRICANTS ON BOLT THREADS.
- H. EXTRUDED-TEE OUTLETS FOR COPPER TUBING ARE NOT ALLOWED.

3.3 PIPING CONNECTIONS
- A. MAKE CONNECTIONS ACCORDING TO THE FOLLOWING, UNLESS OTHERWISE INDICATED:
  1. INSTALL UNIONS, IN PIPING NPS 2 (DN 50) AND SMALLER, ADJACENT TO EACH VALVE AND AT FINAL CONNECTION TO EACH PIECE OF EQUIPMENT.
  2. INSTALL FLANGES, IN PIPING NPS 2-1/2 (DN 65) AND LARGER, ADJACENT TO FLANGED VALVES AND AT FINAL CONNECTION TO EACH PIECE OF EQUIPMENT.
  4. INSTALL DIELECTRIC COUPLING AND NIPPLE FITTINGS TO CONNECT PIPING MATERIALS OF DISSIMILAR METALS.

3.4 INSULATION INSTALLATION
- A. CLEAN THE EXTERIOR OF SYSTEMS PRIOR TO THE APPLICATION OF FIELD-APPLIED INSULATION. INSTALL FIELD- APPLIED INSULATION IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- B. THE COMPLETED INSTALLATION SHALL HAVE A FIRE HAZARD RATING IN ACCORDANCE WITH ASTM E 84; THE FLAME-SPREAD RATING SHALL NOT EXCEED 25 AND THE SMOKE-DEVELOPED RATING SHALL NOT EXCEED 50.
- C. PROVIDE A COMPLETE MOISTURE AND VAPOR SEAL WHEREVER INSULATION TERMINATES AGAINST HANGERS, ANCHORS, AND OTHER PROJECTIONS THROUGH INSULATION ON COLD SURFACES. FILL JOINTS, BREAKS, PUNCTURES, AND VOIDS WITH VAPOR BARRIER COMPOUND AND COVER WITH VAPOR-SEALED MATERIAL.
- D. INSTALL INSULATION AFTER TESTING IS COMPLETE

3.4 EQUIPMENT INSTALLATION - COMMON REQUIREMENTS
- A. INSTALL EQUIPMENT LEVEL AND PLUMB, PARALLEL AND PERPENDICULAR TO OTHER BUILDING SYSTEMS AND COMPONENTS IN EXPOSED INTERIOR SPACES, UNLESS OTHERWISE INDICATED.
- B. INSTALL MECHANICAL EQUIPMENT TO FACILITATE SERVICE, MAINTENANCE, AND REPAIR OR REPLACEMENT OF COMPONENTS. CONNECT EQUIPMENT FOR EASE OF DISCONNECTING, WITH MINIMUM INTERFERENCE TO OTHER INSTALLATIONS.

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PLUMBING SPECIFICATIONS

SHEET IDENTIFICATION
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GENERAL ABBREVIATIONS

ABBREVIATION	DESCRIPTION
#	NUMBER
@	AT
+/-	PLUS OR MINUS
A/C	AIR CONDITIONING
A/E	ARCHITECT/ENGINEER
AB	ANCHOR BOLT
ABND	PREVIOUSLY ABANDED
AD	AREA DRAIN
ADJ	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
ALT	ALTERNATE
APP	AS PER PLAN
APPROX	APPROXIMATE
ARCH	ARCHITECT(URAL)
ASPH	ASPHALT
ASSY	ASSEMBLY
ATG	ADJUT TO GRADE
AUTO	AUTOMATIC
AVE	AVENUE
AVG	AVERAGE
B&S	BALL AND SOCKET
BD	BOARD
BFF	BELOW FINISH FLOOR
BH	BULKHEAD
BL	BASE LINE
BLDG	BUILDING
BM	BENCH MARK
BO	BOTTOM OF
BOB	BOTTOM OF BEAM
BOS	BOTTOM OF STEEL
BOT	BOTTOM
BRG	BEARING
BRKT	BRACKET
BSMT	BASEMENT
BVL	BEVELED
C/C	CENTERLINE TO CENTERLINE
CB	CATCH BASIN
CD	CONSTRUCTION DOCUMENTS
CF	CUBIC FEET
CFM	CUBIC FEET PER MINUTE
CFS	CUBIC FEET PER SECOND
CI	CAST IRON
CIMH	CURB INLET MANHOLE
CIP	CAST IRON PIPE
CIR	CIRCLE
CIRC	CIRCUMFERENCE
CJ	CONTROL JOINT
CL	CENTERLINE
CLR	CLEAR
cm	CENTIMETER(S)
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CO	CLEANOUT
COMB	COMBINATION
COMM	COMMUNICATION
CONC	CONCRETE
CONT	CONTINUOUS
CONTR	CONTRACT(OR)
CONTR JT	CONTRACTION JOINT
COORD	COORDINATE OR COORDINATION
CP	CONCRETE PIPE
CPP	CORRUGATED PLASTIC PIPE
CTR	CENTER
CU YD	CUBIC YARD
CUFT	CUBIC FEET
D	DEPTH OR DEEP
DEFL	DEFLECTION
DEMO	DEMOLITION OR DEMOLISH
DEPT	DEPARTMENT
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DIP	DUCTILE IRON PIPE
DIV	DIVISION
DND	DO NOT DISTURB
DOC	DOCUMENT
DS	DOWNSPOUT
DWG	DRAWING
EA	EACH
EF	EACH FACE
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELEVATION

GENERAL ABBREVIATIONS

ABBREVIATION	DESCRIPTION
ELEC	ELECTRIC(AL)
ELIPT	ELLIPTICAL
EMBED	EMBEDMENT
EMER	EMERGENCY
ENGR	ENGINEER
EOD	EDGE OF DECK
EOP	EDGE OF (BENT) PLATE
EP	EDGE OF PAVEMENT
EQ	EQUAL
EQUIP	EQUIPMENT
ESMT	EASEMENT
ETR	EXISTING TO REMAIN
EX	EXISTING
EXC	EXCAVATION
EXIST	EXISTING
EXP JT	EXPANSION JOINT
EXT	EXTERIOR
FED	FEDERAL
FF	FINISHED FLOOR
FH	FIRE HOSE
FH	FIRE HYDRANT
FHS	FIRE HOSE STATION
FIN GR	FINISH GRADE
FLG	FLANGE
FLUOR	FLUORESCENT
FM	FACTORY MUTUAL
FND	FOUNDATION
FO	FIBER OPTIC
FP	FIRE PROTECTION
FP	FIREPROOF
FS	FRAME SIZE
FT	FOOT OR FEET
FTG	FOOTING
FV	FIELD VERIFY
G	NATURAL GAS
GA	GAUGE OR GAGE
GAL	GALLON
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GI	GALVANIZED IRON
GM	GAS METER
GPM	GALLONS PER MINUTE
GRD	GROUND OR GRADE
GYP	GYPSUM
HB	HOSE BIBB
HORIZ	HORIZONTAL
HP	HORSEPOWER
HR	HOUR
HT	HEIGHT
HVAC	HEATING/VENTILATION/AIR CONDITIONING
IN	INCH
INT	INTERIOR
INV	INVERT
IP	IRON PIN, IRON PIPE
L	LENGTH or LONG
LAT	LEAVING AIR TEMPERATURE
LBS	POUND
LF	LINEAR FEET (FOOT)
LG	LENGTH, LONG
LP	LOW POINT
LS	LUMP SUM
LT	LEFT
LTG	LIGHTING
MATL	MATERIAL
MAX	MAXIMUM
MB	MOISTURE BARRIER
M.C.	MECHANICAL CONTRACTOR
MED	MEDIUM
MFR	MANUFACTURER
MGAL	1000 GALLONS
MH	MANHOLE
MID	MIDDLE
MIN	MINIMUM, MINUTE
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
MO	MASONRY OPENING OR MOTOR OPERATED
MOD	MODULAR
MTG	MOUNTING
N	NORTH
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
OD	OUTSIDE DIAMETER

GENERAL ABBREVIATIONS

ABBREVIATION	DESCRIPTION
OD	OUTSIDE DIAMETER
OFD	OVERFLOW DRAIN
OH	OVERHEAD
OPNG	OPENING
OZ	OUNCE
PC	PLUMBING CONTRACTOR
PCC	POINT OF COMPOUND CURVATURE
PCF	POUNDS PER CUBIC FOOT
PCI	POUNDS PER CUBIC INCH
PED	PEDESTAL, PEDESTRIAN
PERF	PERFORATED
PI	POINT OF INTERSECTION (HORIZONTAL)
PL	PLATE OR PROPERTY LINE
PLF	POUNDS PER LINEAR FOOT
POB	POINT OF BEGINNING
POE	POINT OF ENDING
POJ	PUSH ON JOINT
PR	PAIR
PRC	POINT OF REVERSE CURVE INTERSECTION
PRKG	PARKING
PROP	PROPOSED
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED
PT	POINT
PT	POINT OF TANGENCY
PTI	POINT OF TANGENT INTERSECTIN
PVC	VERTICAL POINT OF CURVATURE
PVCC	POINT OF VERTICAL COMPOUND CURVE
PVI	VERTICAL POINT OF INTERSECTION
PVMT	PAVEMENT
PVRC	POINT OF VERTICAL REVERSE CURVE
PVT	VERTICAL POINT OF TANGENCY
PWR	POWER
QTY	QUANTITY
R	RADIUS OR RISER
R/W	RIGHT-OF-WAY
RCP	REINFORCED CONCRETE PIPE
REF	REFERENCE
REQ	REQUIRE
REQD	REQUIRED
REV	REVISION(S), REVISED
RL	ROOF LEADER
RPM	REVOLUTIONS PER MINUTE
RR	RAIL ROAD, RETURN REGISTER
RT	RIGHT
SAN	SANITARY SEWER
SC	SPIRAL TO CURVE, SOLID CORE
SCHED	SCHEDULE
SD	STORM DRAIN, SMOKE DETECTOR
SECT	SECTION VIEW
SF	SQUARE FOOT (FEET)
SHLD	SHOULDER
SHT	SHEET
SIM	SIMILAR
SPEC(S)	SPECIFICATION(S)
SPI	
SQ	SQUARE
SS	SPIRAL TO SPIRAL POINT
SST	STAINLESS STEEL
ST	STREET
STA	STATION
STD	STANDARD
STL	STEEL
STM	STORM
STS	STORM SEWER
SW	SIDEWALK
SYMM	SYMMETRY(ICAL)
SYS	SYSTEM
T	TOP OR TREAD
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
TBA	TO BE ABANDONED
TBD	TO BE DETERMINED
TBM	TEMPORARY BENCH MARK
TBR	TO BE REMOVED
TC	TOP OF CASTING
TEL	TELEPHONE
TEMP	TEMPORARY
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING

GENERAL ABBREVIATIONS

ABBREVIATION	DESCRIPTION
TOL	TOLERANCE
TOPO	TOPOGRAPHY
TOS	TOP OF SLAB, TOP OF STEEL
TOW	TOP OF WALL
TP	TURNING POINT OR TANGENT POINT
TS	TANGENT TO SPIRAL
TV	TELEVISION
TYP	TYPICAL
UD	UNDERDRAIN
UE	UNDERGROUND ELECTRIC
UNO	UNLESS NOTED OTHERWISE
UT	UNDERGROUND TELEPHONE
UTIL	UTILITY
VAC	VOLTAGE ALTERNATING CURRENT
VAR	VARIES
VC	VERTICAL CURVE
VERT	VERTICAL
VIF	VERIFY IN FIELD
W	WIDTH
W	WIDTH OR WIDE
W	WATER
W/	WITH
W/O	WITHOUT
WD	WOOD
WM	WATER METER
WP	WORKING POINT
WS	WATER SERVICE, WASH SINK
WV	WATER VALVE
YD	YARD

ELECTRICAL ABBREVIATIONS

ABBREVIATION	DESCRIPTION
AC	ALTERNATING CURRENT
ACS	AUTOMATIC CONTROL SYSTEM
AIC	AMPS INTERRUPTING CAPACITY
A/AMP	AMPERE
AP	ACCESS PANEL
ATS	AUTOMATIC TRANSFER SWITCH
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CP	CONTROL PANEL
CR	CONTROL RELAY
EP	ELECTRICAL PANEL BOARD
FLA	FULL LOAD AMPS
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
KVA	KILOVOLT AMPERE
KW	KILOWATT
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
Ø	PHASE / DIAMETER
OL	OVERLOAD
PB	PULL BOX
PH	PHASE
PNL	PANEL OR PANELBOARD
REC	RECEPTACLE
V	VOLT
VA	VOLT AMPS
VFD	VARIABLE FREQUENCY DRIVE
W	WATT OR WIRE
XMFR	TRANSFORMER

NOTE:
IN THIS PLAN SET, ALL TERMS AND ABBREVIATIONS ARE SPELLED OUT WHERE SPACE PERMITS. AS A RESULT, NOT ALL ABBREVIATIONS MAY BE USED FOR THIS PROJECT.

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04/03/2026
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CLERMONT PARKS DISTRICT
GRAILVILLE PARK AND PRESERVE

REVISIONS		
NO.	DESCRIPTION	DATE

JOB NO:	PR63329
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DESIGNED BY:	SAZ
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CHECKED BY:	CMN
APPROVED BY:	DG
SCALE:	

ELECTRICAL ABBREVIATIONS

SHEET IDENTIFICATION
E-001

SHEET 63 OF 68

WIRING DEVICES	
$Xy	WALL SWITCH WITH COVER PLATE: X INDICATES TYPE, y INDICATES SWITCH AND LUMINAIRE GROUPS
$	SINGLE POLE SWITCH
$OS	WALL MOUNTED PIR 180° COVERAGE WATTSTOPPER WI-200
$M	MANUAL MOTOR SWITCH
	DUPLEX RECEPTACLE
GF	DUPLEX RECEPTACLE - GROUND-FAULT
WP	DUPLEX RECEPTACLE - GROUND-FAULT TYPE MTD. 24" A.F.G. WITH IN-USE WEATHERPROOF COVER-PLATE
	DATA OUTLET, 2 PORT 18" A.F.F.
WAP	WIRELESS ACCESS POINT J-BOX - CEILING MOUNTED
J	JUNCTION BOX
E	EQUIPMENT CONNECTION

MISCELLANEOUS POWER	
	PLYWOOD BACKBOARD - REFER TO PLANS FOR SIZE
	FLUSH MOUNTED PANELBOARD
	SURFACE MOUNTED PANELBOARD
	FLUSH MOUNTED EQUIPMENT
	SURFACE MOUNTED EQUIPMENT
	NON-FUSED DISCONNECT SWITCH
M	MOTOR
	MAGNETIC MOTOR STARTER - SIZE AS INDICATED ON SCHEDULE
	MAGNETIC MOTOR STARTER AND FUSIBLE DISCONNECT SWITCH
	PUSHBUTTON STATION

LIGHTING	
N/L y X Z	LIGHT FIXTURE: X INDICATES FIXTURE TYPE, y INDICATES SWITCH DESIGNATION, Z INDICATES CIRCUIT NUMBER, N/L INDICATES USED AS NIGHT LIGHT
X	RECESSED DOWNLIGHT
X	1'X4' SURFACE MOUNTED LIGHT FIXTURE
X	WALL MOUNTED LIGHT FIXTURE
X	INDUSTRIAL TYPE LIGHT FIXTURE
X	EMERGENCY BATTERY UNIT WITH HEADS AS INDICATED
X	EXTERIOR WALL MOUNTED
PC	PHOTO CELL
OS	CEILING MOUNTED ULTRASONIC, 360° COVERAGE; WATTSTOPPER UT-355

SECURITY AND PA DEVICES	
CR	CARD READER

NOTES:

1. THIS IS A STANDARD LEGEND SHEET. SOME SYMBOLS OR ABBREVIATIONS MAY APPEAR ON THIS SHEET AND NOT ON THE PLANS.

CONDUIT/WIRING	
	EXPOSED CONDUIT
	UNDERGROUND CONDUIT
X-1	HOMERUN - TO PANEL X, CIRCUIT NO. 1
X-1	ONE SINGLE POLE CIRCUIT
X-(1,3)	ONE TWO POLE CIRCUIT
X-(1,3,5)	ONE THREE POLE CIRCUIT
'X' = PANEL TAG AS INDICATED ON PANEL SCHEDULES, PLANS AND SINGLE LINE DIAGRAM	

MISCELLANEOUS	
	3/4" X 10' GROUND ROD
	GROUND TEST WELL
	COPPER AIR TERMINALS

DIAGRAM SYMBOLS	
	FUSED DISCONNECT SWITCH SIZE AS INDICATED ON PLANS
	NON-FUSED DISCONNECT SWITCH SIZE AS INDICATED ON PLANS
	CIRCUIT BREAKER SIZE AS INDICATED ON PLAN
M	METER: X INDICATES TYPE V = VOLTMETER A = AMMETER
M CT	C.T. CABINET AND WATT-HOUR DEMAND METER
	EARTH GROUND
X	MOTOR LOAD 'X' INDICATES HP, AMPS., OR KW
X	GENERAL LOAD 'X' INDICATES HP, AMPS., OR KW
	TRANSFORMER
	PANELBOARD

GENERAL NOTES:

1. THE LIST OF EQUIPMENT, TABULATIONS OF DATA, AND SCHEDULES APPEARING ON THE DRAWINGS ARE INCLUDED ONLY FOR THE ASSISTANCE AND GUIDANCE OF THE CONTRACTOR IN ARRIVING AT A MORE COMPLETE UNDERSTANDING OF THE INTENDED INSTALLATION. THEY ARE NOT INTENDED, NOR SHALL BE CONSTRUED, AS RELIEVING THE RESPONSIBILITY OF THE CONTRACTOR IN MAKING HIS OWN TAKEOFF AND PROVIDING ALL REQUIRED WORK AND COORDINATION AS REQUIRED BY THE CONSTRUCTION DOCUMENTS, SPECIFICATIONS AND ALL APPLICABLE CODES AND STANDARDS.
2. THE ELECTRICAL DRAWINGS ARE GENERALLY DIAGRAMMATIC. COORDINATE WORK WITH ALL TRADES PRIOR TO STARTING CONSTRUCTION SO THAT INTERFERENCE IS AVOIDED.
3. CIRCUIT ROUTING AS SHOWN ON THE PLANS IS DIAGRAMMATIC. BRANCH CIRCUIT CONDUIT ROUTING SHALL BE COORDINATED IN THE FIELD BY THE CONTRACTOR TO MEET SPECIFICATIONS, CODE REQUIREMENTS, AND TO PROVIDE A NEAT, WORKMAN LIKE, FULLY OPERATIONAL SYSTEM.
4. STARTERS, DISCONNECTS, AND VARIABLE FREQUENCY DRIVES TO BE INSTALLED AND WIRED BY ELECTRICAL CONTRACTOR U.N.O. THE MECHANICAL CONTRACTOR SHALL SUPPLY STARTERS, DISCONNECTS, AND VARIABLE FREQUENCY DRIVES FOR ALL MECHANICAL U.N.O.
5. UNLESS NOTED OTHERWISE, ELECTRICAL PANELS, TRANSFORMERS, ETC. SHALL NOT BE UNDER PIPING, DUCTWORK AND OTHER MECHANICAL EQUIPMENT. SEE MECHANICAL AND PLUMBING DRAWING FOR COORDINATION OF LOCATION.
6. CONSOLIDATION OF INDIVIDUAL CONDUIT HOME RUNS SHOWN ON THE DRAWINGS SHALL BE PERMITTED WITH THE FOLLOWING CONDITIONS: THE ELECTRICAL CONTRACTOR SHALL SIZE CONDUITS AND DE-RATE WIRE AS REQUIRED BY THE NEC, OBTAIN REVIEW/APPROVAL FROM THE DESIGNER OF RECORD AND FULLY DOCUMENT ALL CHANGES TO THE CIRCUITS AS SHOWN ON THE PLANS FOR RECORD.
7. CONDUIT RUNS TO DEVICES WHICH ARE NOT MARKED SHALL BE CONSIDERED THE SAME AS THE HOME RUN OR THE LAST CONDUIT IN RUN WHICH IS MARKED.
8. WIRE, CONDUIT SIZES AND QUANTITIES FOR FEEDERS AND BRANCH CIRCUITS WHICH ARE SHOWN ON ONE-LINE DIAGRAMS APPLY TO PLAN SHEETS.
9. PROVIDE A BUSHING OR ADAPTOR ON ALL RNC CONDUIT WHERE IT ENTERS A BOX, FITTING, OR ENCLOSURE TO PROTECT WIRE FROM ABRASION UNLESS THE BOX, FITTING, OR ENCLOSURE DESIGN PROVIDES EQUIVALENT PROTECTION.
10. UNLESS INDICATED, WIRING SHALL BE CONSIDERED 3#12, 1#12G, IN 3/4" CONDUIT. CONDUIT SIZES AS SHOWN ARE BASED ON THHN/THWN INSULATED WIRE. THE CONTRACTOR SHALL VERIFY CONDUIT SIZE WILL MEET NEC CONDUIT FILL REQUIREMENTS IF USING WIRING WITH A DIFFERENT INSULATION TYPE OR THICKNESS.
11. THE CONTRACTOR SHALL CONSIDER VOLTAGE DROP WHEN DETERMINING THE EXACT ROUTING OF BRANCH CIRCUIT AND FEEDER WIRING ADJUST WIRE AND CONDUIT SIZE AS NECESSARY TO COMPLY WITH THE NEC AND OBTAIN REVIEW/APPROVAL FROM THE DESIGNER OF RECORD.
12. ALL PENETRATIONS THROUGH FIRE RATED WALL, FLOOR AND SMOKE PARTITIONS SHALL BE SEALED WITH AN APPROVED FIRE PROOFING SEALANT OR UL LISTED PENETRATION DEVICE.
13. PROVIDE SEPARATE NEUTRAL FOR ALL CIRCUITS.
14. LIGHT FIXTURES SHALL BE PROVIDED COMPLETE WITH ALL ACCESSORIES AND MISCELLANEOUS HARDWARE REQUIRED FOR PROPER INSTALLATION.
15. PROVIDE FINAL CONNECTIONS TO ALL EQUIPMENT SHOWN ON THE DRAWINGS. DRAWINGS INDICATE THE APPROXIMATE LOCATION OF THE EQUIPMENT. COORDINATE INSTALLATION REQUIREMENTS AND EXACT LOCATION WITH THE TRADE PROVIDING THE EQUIPMENT. LOW VOLTAGE HVAC/DDC CONTROL OR INTERLOCK WIRING AND CONNECTIONS TO BE FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR.
16. TRAVELERS FOR MULTIPLE LOCATION OR LEVEL SWITCHING (THREE AND FOUR WAY, OR DUAL LEVEL) ARE NOT MARKED ON THE PLANS. CONTRACTOR SHALL PROVIDE QUANTITY OF CONDUCTORS REQUIRED FOR THE INDICATED SWITCHING ARRANGEMENT. A NEUTRAL SHALL BE PROVIDED TO EACH SWITCH LOCATION.
17. ELECTRICAL CONTRACTOR TO PROVIDE FINAL PANELBOARD SCHEDULES AFTER COMPLETION OF PROJECT.
18. IF A CONFLICT EXISTS ACROSS CONSTRUCTION DOCUMENTS THE CONFLICT SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION.

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BURGESS & NIPLE

CLERMONT PARKS DISTRICT
GRAILVILLE PARK AND PRESERVE

REVISIONS		
NO.	DESCRIPTION	DATE

JOB NO:	PR63329
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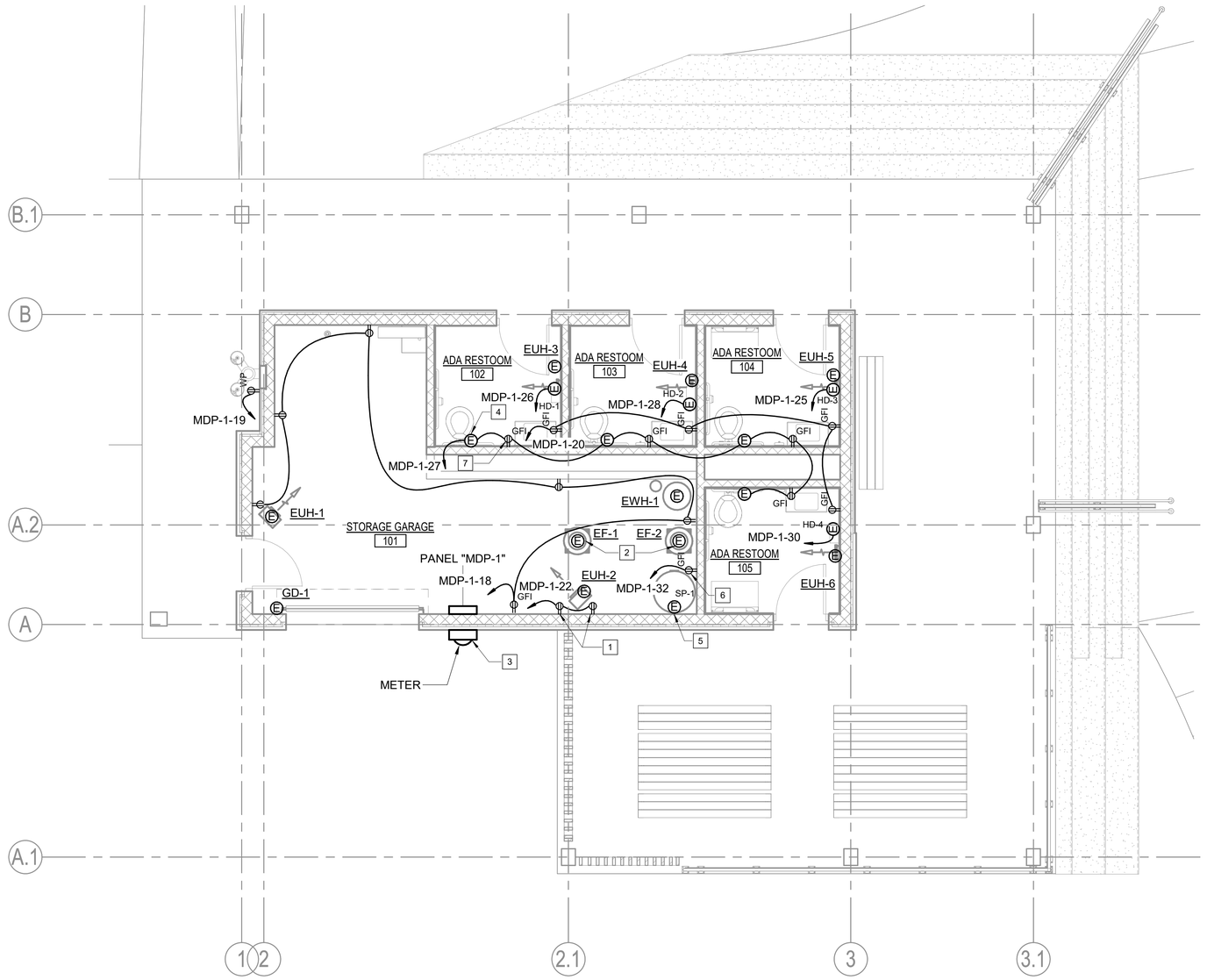
DRAWN BY:	SAZ
CHECKED BY:	CMN
APPROVED BY:	DG
SCALE:	12" = 1'-0"

ELECTRICAL LEGEND

SHEET IDENTIFICATION
E-002

SHEET 64 OF 68



1 PAVILLION ELECTRICAL POWER PLAN

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

0' 2' 4' 8'

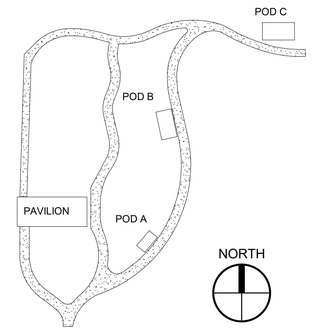
SCALE: 1/4" = 1' - 0"

GENERAL SHEET NOTES

A. SEE SHEET E-501 FOR MECHANICAL EQUIPMENT SCHEDULE CONNECTION FOR CIRCUITING INFORMATION.

NEW WORK NOTES

1. MOUNT RECEPTACLE AT 48" AFF FOR USE WITH INTERNET SERVICE EQUIPMENT.
2. EXHAUST FAN LOCATED ON ROOF. COORDINATE INSTALLATION WITH MECHANICAL CONTRACTOR.
3. ELECTRICAL CONTRACTOR MUST COORDINATE INCOMING SERVICE WITH UTILITY COMPANY (DUKE ENERGY). SEE CIVIL SHEET C-105 FOR UTILITY SERVICE LOCATION.
4. PROVIDE JUNCTION BOX FOR FLUSH VALVE ASSEMBLY. PROVIDE ONE JUNCTION BOX FOR 24VDC TRANSFORMER TO POWER FLUSH VALES. COORDINATE INSTALLTION WITH MECHANICAL CONTRACTOR.
5. PROVIDE EQUIPMENT CONNECTION BOX FOR SUBMERSIBLE GRINDER PUMP SP-1. POWER CORD IS FURNISHED WITH THE PUMP. PROVIDE NEW CIRCUIT TO PANEL MDP-1 AND CONNECT TO FURNISHED CABLE.
6. PROVIDE RECEPTACLE FOR GRINDER PUMP ALARM PANEL POWER. ALARM PANEL IS FURNISHED WITH 120V CORD AND PLUG CONNECTION
7. MOUNT RECEPTACLE UNDERNEATH SINK FOR 120V TOUCHLESS FAUCET, TYPICAL OF EACH RESTROOM.



KEY PLAN

STATE OF OHIO
COLLEEN M. NELSON
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04/03/2026
REGISTERED
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SCALE:	As indicated

PAVILLION ELECTRICAL POWER PLAN

SHEET IDENTIFICATION
E-101

SHEET 65 OF 68

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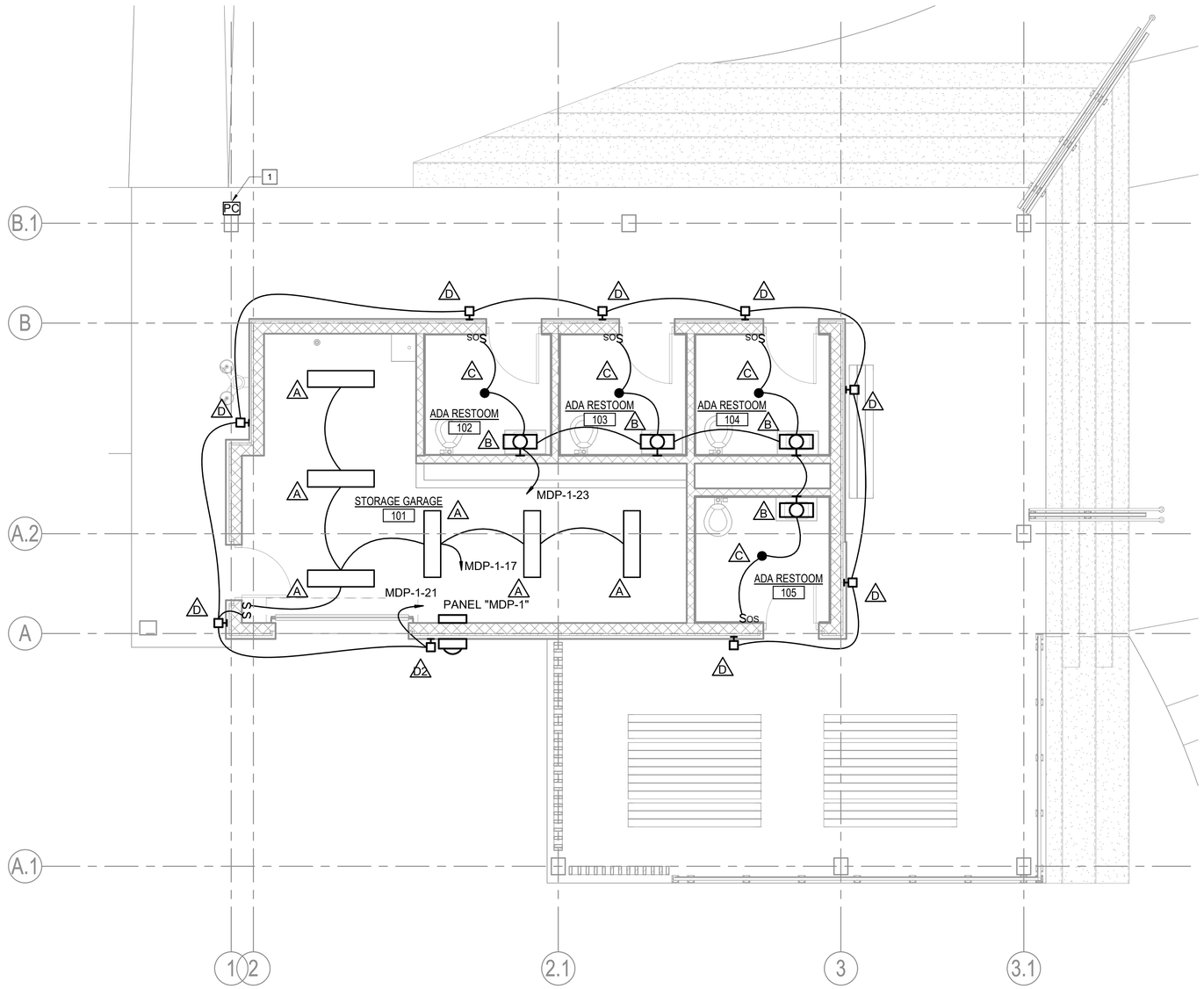


1 PAVILION F.F. LIGHTING

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

0' 2' 4' 8'

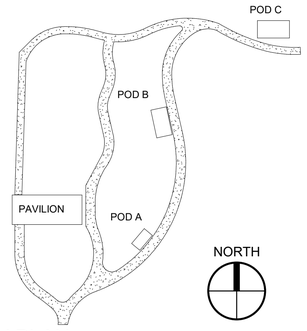
SCALE: 1/4" = 1' - 0"

GENERAL SHEET NOTES

A. SEE SHEET E-501 FOR LIGHTING FIXTURE SCHEDULE.

NEW WORK NOTES

1 PROVIDE PHOTOCELL AND MOUNT FACING NORTH ON FRONT EDGE OF PAVILLION ROOF. PHOTOCELL SHALL CONTROL ALL EXTERIOR LIGHT FIXTURES ON AT DUSK AND OFF AT DAWN.



KEY PLAN

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SCALE:	As indicated

PAVILLION ELECTRICAL LIGHTING PLAN

SHEET IDENTIFICATION
E-102

SHEET 66 OF 68

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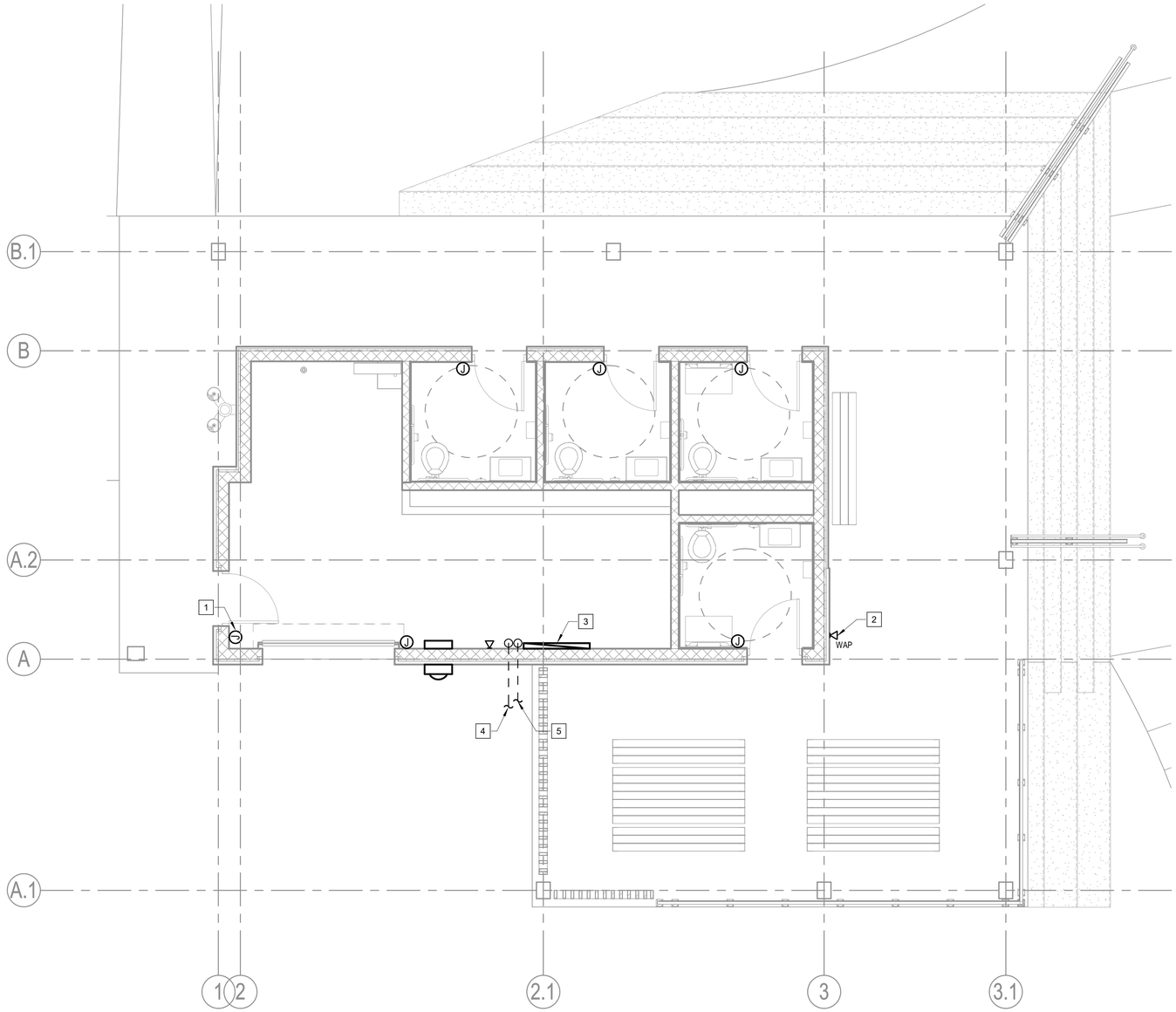
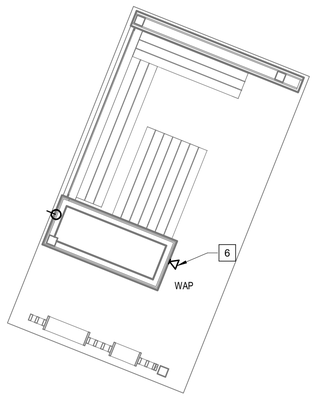




2 POD B SYSTEMS PLAN
SCALE: 1/4" = 1'-0"

1 PAVILLION SYSTEMS PLAN
SCALE: 1/4" = 1'-0"

0' 2' 4' 8'
SCALE: 1/4" = 1' - 0"

GENERAL SHEET NOTES

A. CONTRACTOR SHALL COORDINATE WITH LOCAL INTERNET SERVICE PROVIDER (ISP) TO ESTABLISH NEW SERVICE.

NEW WORK NOTES

1 PROVIDE JUNCTION BOX, 1" CONDUIT, AND (2) PULLSTRINGS ROUTED TO TELECOM BACKBOARD FOR SECURITY EQUIPMENT VENDOR TO INSTALL ELECTRONIC LOCKS (TYP).

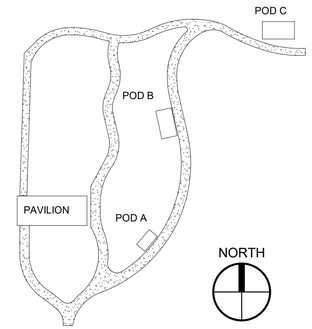
2 INSTALL WEATHERPROOF WIRELESS ACCESS POINT (WAP) FURNISHED BY OWNER/ISP. PROVIDE 1" CONDUIT AND PULLSTRING BACK TO COMMUNICATIONS RACK IN STORAGE GARAGE.

3 PROVIDE 4'X4' TELECOMM BACKBOARD FOR ISP AND TELECOMM EQUIPMENT

4 PROVIDE (2) 2" UNDERGROUND CONDUIT WITH 4 PULLSTRINGS FOR ISP. SEE CIVIL SITE PLAN C-105 FOR ADDITIONAL INFORMATION.

5 PROVIDE (2) 2" UNDERGROUND CONDUITS WITH 4 PULLSTRINGS TO POD B, SEE CIVIL SITE PLAN SHEET C-105 FOR ADDITIONAL INFORMATION.

6 PROVIDE RACEWAY AND JUNCTION BOX TO MOUNT WEATHERPROOF WIRELESS ACCESS POINT (WAP). WAP SHALL BE FURNISHED BY OWNER/ISP AND INSTALLED BY E.C. MOUNT WAP AT 8'-0" AFF.



KEY PLAN

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PAVILLION AND POD B SYSTEMS PLAN

SHEET IDENTIFICATION
E-103

SHEET 67 OF 68

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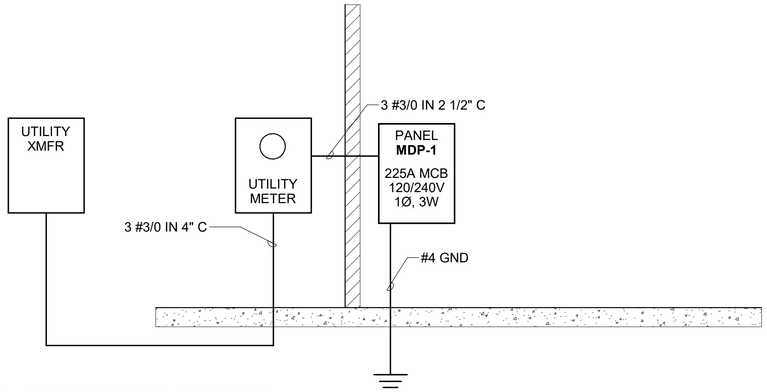
PANELBOARD MDP-1 SCHEDULE

225 A MCB, 120/240 Single, 1Ø, 3W, Surface,

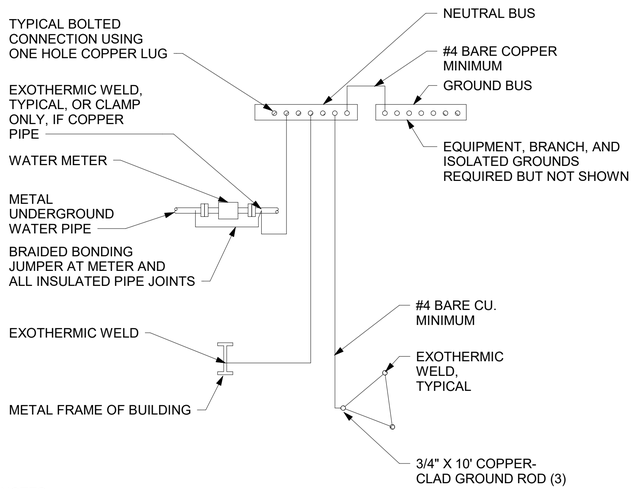
LOAD DESCRIPTION	BKR TRIP	BKR POLE	CKT NO	A		B		CKT NO	BKR POLE	BKR TRIP	LOAD DESCRIPTION
EUH-1	20 A	2	1	13 A	13 A			2			
			3			13 A	13 A	4	2	20 A	EUH-2
EWH-1	30 A	2	5	19 A	8 A			6			
			7			19 A	8 A	8	2	20 A	EUH-3
EUH-4	20 A	2	9	8 A	8 A			10			
			11			8 A	8 A	12	2	20 A	EUH-5
EUH-6	20 A	2	13	8 A	3 A			14			
			15			8 A	3 A	16	2	20 A	EF-1 & EF-2
GARAGE LIGHTING	20 A	1	17	3 A	9 A			18	1	20 A	GARAGE RECEPTACLES
EWC-1	20 A	1	19			2 A	6 A	20	1	20 A	RESTROOM RECEPTACLES
EXTERIOR LIGHTING	20 A	1	21	4 A	3 A			22	1	20 A	GARAGE TELECOMM POWER
RESTROOM LIGHTING	20 A	1	23			2 A	0 A	24	1	20 A	GARAGE DOOR POWER
HAND DRYER RESTOOM 104	20 A	1	25	12 A	12 A			26	1	20 A	HAND DRYER RESTOOM 102
RR FLUSH VALVES AND SINK	20 A	1	27			12 A	12 A	28	1	20 A	HAND DRYER RESTOOM 103
SP-1 PUMP	20 A	2	29	14 A	12 A			30	1	20 A	HAND DRYER RESTOOM 105
			31			14 A	2 A	32	1	15 A	SP-1 ALARM PANEL
SPARE	20 A	1	33	0 A	0 A			34	1	20 A	SPARE
SPARE	20 A	1	35			0 A	0 A	36	1	20 A	SPARE
SPARE	20 A	1	37	0 A	0 A			38	1	20 A	SPARE
SPARE	20 A	1	39			0 A	0 A	40	1	20 A	SPARE
SPARE	20 A	1	41	0 A	0 A			42	1	20 A	SPARE
	TOTAL LOADS:			17870 VA		15428 VA					
	TOTAL AMPS:			149 A		129 A					

TOTAL DEMAND: 37.1 KVA



1 POWER RISER DIAGRAM

NOT TO SCALE



NOTES:

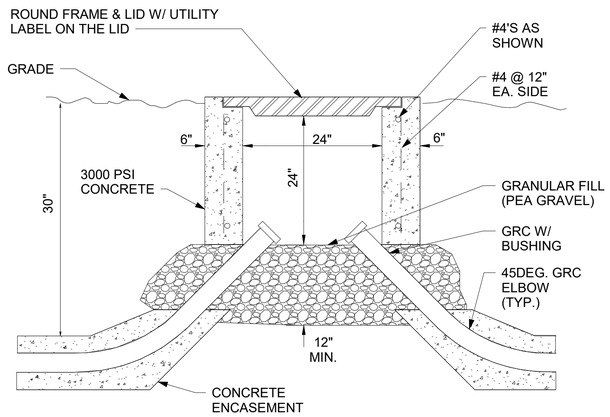
1. ALL WIRE SIZES SHOWN ARE MINIMUM SIZE TO BE INSTALLED. ALL GROUNDING ELECTRODE CONDUCTOR SIZES SHALL CONFORM TO NEC ARTICAL 250.
2. FURNISH AND INSTALL BRAIDED BONDING JUMPERS AT ALL JOINTS AT METAL ROOF, AND TO SELECT STEEL AS SHOWN ON PLANS.

2 GROUNDING ELECTRODE SYSTEM SCHEMATIC

SCALE: NO SCALE

MECHANICAL EQUIPMENT CONNECTION SCHEDULE

MARK	DESCRIPTION	VOLTAGE	PHASE	HP	FLA	kW	CONDUIT/WIRE	PANEL	CIRCUIT	NOTES
EF-1	EXHAUST FAN	240V	1	1/6	1 A	-	3 #12, 1 #12 GND, IN 3/4" C	MDP-1	14,16	
EF-2	EXHAUST FAN	240V	1	1/6	1 A	-	3 #12, 1 #12 GND, IN 3/4" C	MDP-1	14,16	
EUH-1	ELECTRIC UNIT HEATER	240V	1	-	13 A	3	3 #10, 1 #10 GND, IN 3/4"C	MDP-1	1,3	FURNISHED WITH INTEGRAL DISCONNECT, COORDINATE WITH M.C.
EUH-2	ELECTRIC UNIT HEATER	240V	1	-	13 A	3	3 #10, 1 #10 GND, IN 3/4"C	MDP-1	2,4	FURNISHED WITH INTEGRAL DISCONNECT, COORDINATE WITH M.C.
EUH-3	ELECTRIC UNIT HEATER	240V	1	-	8 A	2	3 #12, 1 #12 GND, IN 3/4" C	MDP-1	6,8	FURNISHED WITH INTEGRAL DISCONNECT, COORDINATE WITH M.C.
EUH-4	ELECTRIC UNIT HEATER	240V	1	-	8 A	2	3 #12, 1 #12 GND, IN 3/4" C	MDP-1	9,11	FURNISHED WITH INTEGRAL DISCONNECT, COORDINATE WITH M.C.
EUH-5	ELECTRIC UNIT HEATER	240V	1	-	8 A	2	3 #12, 1 #12 GND, IN 3/4" C	MDP-1	10,12	FURNISHED WITH INTEGRAL DISCONNECT, COORDINATE WITH M.C.
EUH-6	ELECTRIC UNIT HEATER	240V	1	-	8 A	2	3 #12, 1 #12 GND, IN 3/4" C	MDP-1	13,15	FURNISHED WITH INTEGRAL DISCONNECT, COORDINATE WITH M.C.
EWH-1	ELECTRIC WATER HEATER	240V	1	-	19 A	4.5	3 #10, 1 #10 GND, IN 3/4"C	MDP-1	5,7	
GD-1	ROLL UP GARAGE DOOR 101	120V	1	1	0 A	-	1"C	MDP-1	24	PROVIDE EMPTY 1" CONDUIT WITH PULL STRING AND WALL MOUNTED JUNCTION BOX FOR FUTURE.
HD-1	HAND DRYER #1	120V	1	-	12 A		2 #12, 1 #12 GND, IN 3/4" C	MDP-1	26	
HD-2	HAND DRYER #2	120V	1	-	12 A		2 #12, 1 #12 GND, IN 3/4" C	MDP-1	28	
HD-3	HAND DRYER #3	120V	1	-	12 A		2 #12, 1 #12 GND, IN 3/4" C	MDP-1	25	
HD-4	HAND DRYER #4	120V	1	-	12 A		2 #12, 1 #12 GND, IN 3/4" C	MDP-1	30	
SP-1	SUBMERSIBLE GRINDER PUMP	240V	1	-	14 A	3.4	3 #10, 1 #10 GND, IN 3/4"C	MDP-1	29,31	



3 HANDHOLE - 24x24

SCALE: NO SCALE

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER	CATALOG NUMBER	LAMPS	VOLTAGE	INPUT WATTS	REMARKS
A	1X4 PENDANT LIGHT FIXTURE	LITHONIA	LL4-3000LM-80CRI-30K-EPD-MIN10-MVOLT-F3/120A-MB-DEM	LED	120 V	20W	PENDANT MOUNT BOTTOM OF LIGHT FIXTURE 8'-0" AFF.
B	24" VANITY LIGHT FIXTURE	LITHONIA	FMVCCLS-24IN-MVOLT-30K-90CRI-MB	LED	120 V	18W	WALL MOUNT LIGHT FIXTURE 6" ABOVE BATHROOM MIRROR
C	6" PENDANT MOUNT DOWNLIGHT FIXTURE	LUMINIS	CL622-L4L20-30K-120-DL1L20-FLDA-STM-12IN-BKT	LED	120 V	38W	PENDANT MOUNT BOTTOM OF LIGHT FIXTURE 8'-0" AFF.
D	EXTERIOR 6" SQUARE SCONCE	LUMINIS	SQ602-L1L25-VWDU-FLDD-30K-120-SWK-LSLU-SLD-BKT	LED	120 V	51W	WALL MOUNT LIGHT FIXTURE 7'-0" AFF.
D2	EXTERIOR 6" SQUARE SCONCE, DOWNLIGHT ONLY	LUMINIS	SQ600-L1L25-FLD-30K-120-SWK-LSL-BKT-UH	LED	120 V	26W	WALL MOUNT LIGHT FIXTURE 7'-0" AFF.

STATE OF OHIO
COLLEEN M. NELSON
E-80924
04/03/2026
REGISTERED
PROFESSIONAL ENGINEER

330 RUSH ALLEY
SUITE 700
COLUMBUS, OH 43215
B&N
BURGESS & NIPLE

CLERMONT PARKS DISTRICT
GRAILVILLE PARK AND PRESERVE

REVISIONS NO.	DESCRIPTION	DATE

JOB NO:	PR63329
DATE:	04/02/2026
DESIGNED BY:	SAZ
DRAWN BY:	SAZ
CHECKED BY:	CMN
APPROVED BY:	DG
SCALE:	NO SCALE

ELECTRICAL SCHEDULES AND DETAILS

SHEET IDENTIFICATION
E-501

SHEET 68 OF 68