A PROJECT FOR:

NEW MEXICO STATE UNIVERSITY

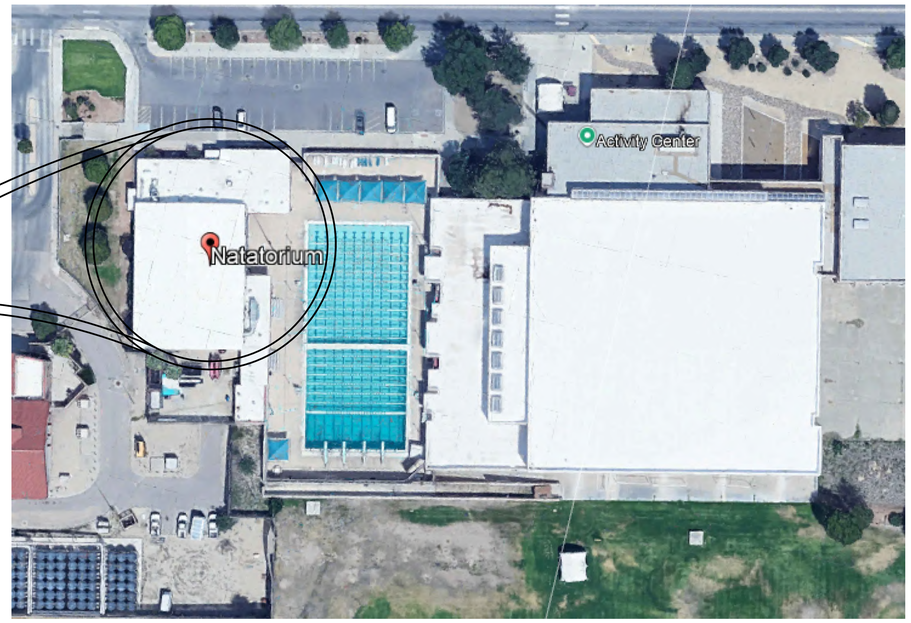
5449 AQUATIC CENTER RENOVATIONS

PHASE 1 CODE UPGRADES

1520 STEWART STREET

LAS CRUCES, NEW MEXICO

PROJECT LOCATION
NMSU 5449
5449 AQUATIC CENTER RENOVATION
1520 STEWART STREET
LAS CRUCES, NEW MEXICO 88003



LOCATION MAP
SCALE: NONE

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E-101	ELECTRICAL LIGHTING PLAN
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REVIEW SET

DATE: 10-07-25

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95 % CONSTRUCTION DOCUMENTS

PROJECT NO.	RBM
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CHECKED BY:	RBM
APPROVED BY:	RBM

MARK	DATE	DESCRIPTION
ISSUE:		OCTOBER 2025

PROJECT NAME
5449 AQUATIC CENTER RENOVATION
PHASE 1 CODE UPGRADES
1520 Stewart Street
Las Cruces, New Mexico

SHEET TITLE: COVER SHEET

SHEET NO: CV-001

H:\2025 Projects\25058\Drawings\03_CAD Files\25058 COVER SHEET 10/7/2025 3:34 PM cmanager

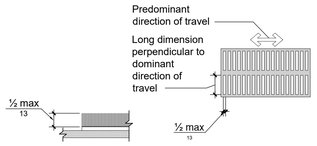

Fig. 302.2
Carpet Pile Height

Fig. 302.3
Openings in Floor Surfaces

Building Blocks - Floor Surfaces

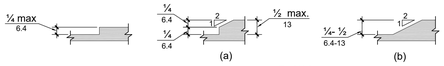

Fig. 303.2
Vertical Change in Level

Fig. 303.3
Beveled Change in Level

Building Blocks - Changes in Level

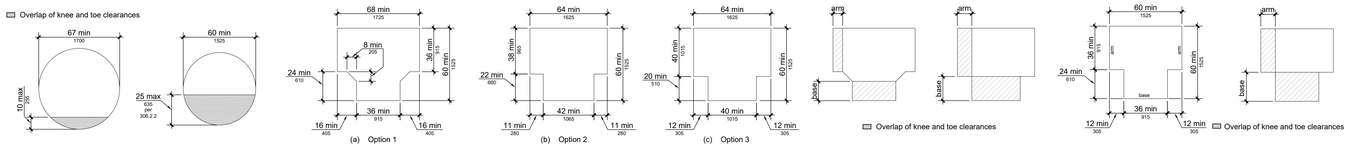

Fig. 304.3.1.1
Size of Turning Space

Fig. 304.3.1.2
Size of Turning Space - Existing Buildings

Fig. 304.3.2.1
Size of T-Shaped Turning Space

Fig. 304.3.2.1.1
T-Shaped Turning Space New Buildings - Overlap

Fig. 304.3.2.2
T-Shaped Turning Space Existing Buildings

Fig. 304.3.2.2.1
T-Shaped Turning Space Existing Buildings - Overlap

Building Blocks - Clear Floor Space & Toe Clearance

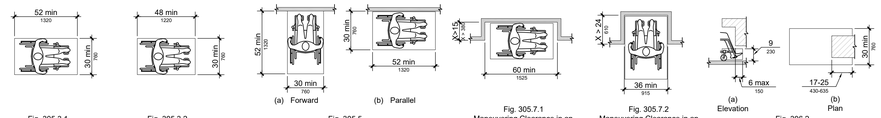

Fig. 305.3.1
Size of Clear Floor Space

Fig. 305.3.2
Size of Clear Floor Space - Existing Buildings

Fig. 305.5
Position of Clear Floor Space

Fig. 305.7.1
Maneuvering Clearance in an Alcove Parallel Approach

Fig. 305.7.2
Maneuvering Clearance in an Alcove Forward Approach

Fig. 306.2
Toe Clearance

Cont.

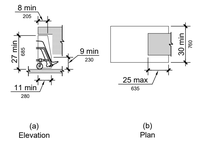

Fig. 306.3
Knee Clearance

Building Blocks - Knee Clearance

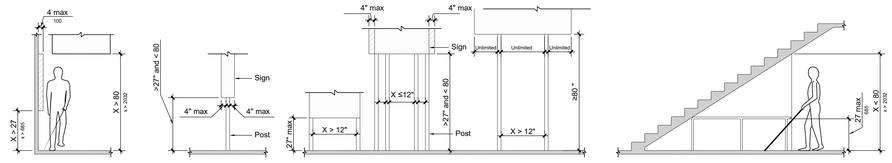

Fig. 307.2
Limits of Protruding Objects

Fig. 307.3
Post-mounted Objects

Fig. 307.4
Reduced Vertical Clearance

Building Blocks - Protruding Objects

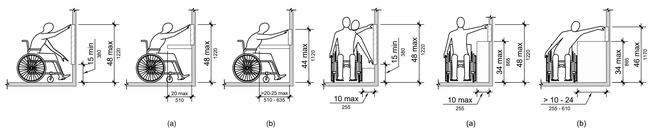

Fig. 308.2.1
Unobstructed Forward Reach

Fig. 308.2.2
Obstructed High Forward Reach

Fig. 308.3.1
Unobstructed Side Reach

Fig. 308.3.2
Obstructed High Side Reach

Building Blocks - Reach Ranges

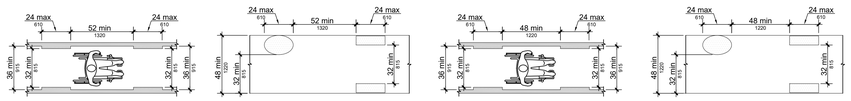

Fig. 403.5.1
Clear Width of an Accessible Route

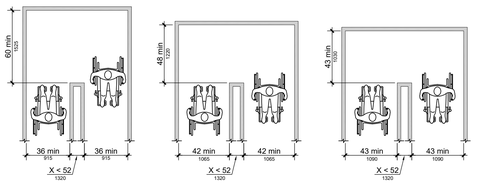

Fig. 403.5.2.1
Clear Width at 180° Turn

Accessible Routes

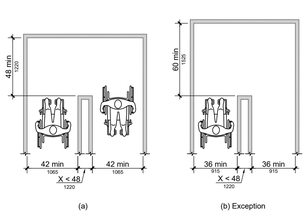

Fig. 403.5.2.2
Clear Width at 180°
Turn - Existing Buildings

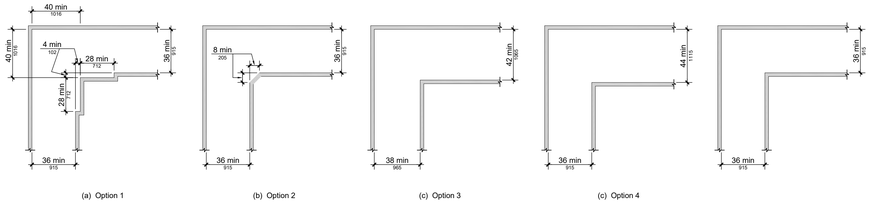

Fig. 403.5.3.1
Clear Width at 90° Turn

Fig. 403.5.3.2
Clear Width at 90° Turn
Existing Building

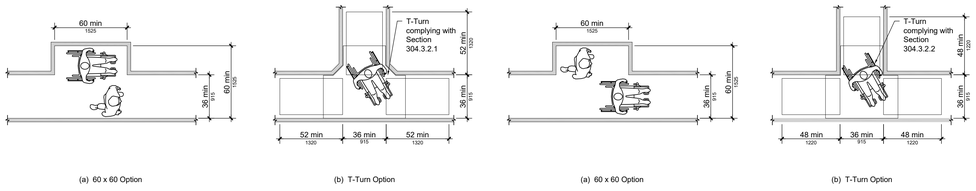

Fig. 403.5.4.1
Passing Space - New Buildings

Fig. 403.5.4.2
Passing Space - Existing Buildings

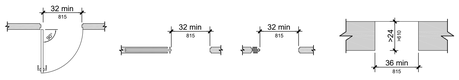

Fig. 404.2.2
Clear Width Of Doorways

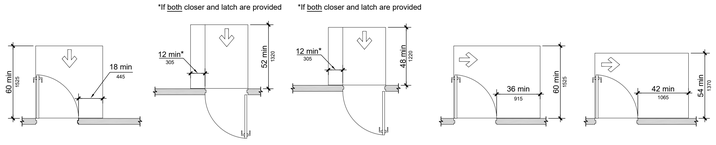

Fig. 404.2.3.2
Maneuvering Clearance at Manual Swinging Doors

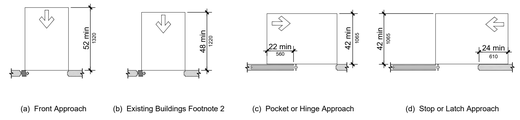

Fig. 404.2.3.3
Maneuvering Clearances at Sliding and Folding Doors

Accessible Route - Door Clearances

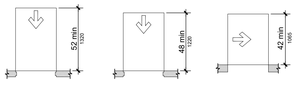

Fig. 404.2.3.4
Maneuvering Clearance for Doorways Without Door or Gates

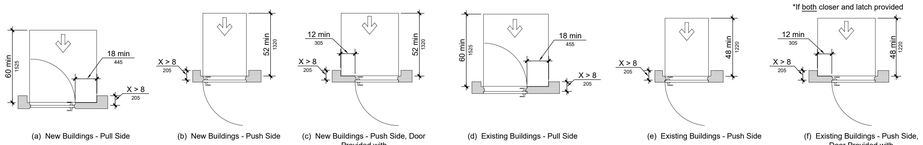

Fig. 404.2.3.5
Maneuvering Clearance at Recessed Doors

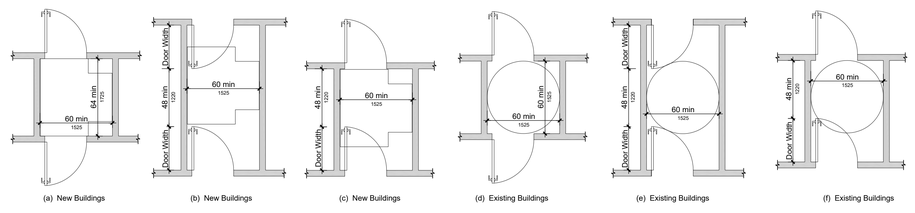

Fig. 404.2.5
Two Doors in a Series

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PROJECT NO.	RBM
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DRAWN BY:	RBM
CHECKED BY:	RBM
APPROVED BY:	RBM

MARK	DATE	DESCRIPTION
ISSUE:	OCTOBER 2025	

PROJECT NAME

5449 AQUATIC CENTER RENOVATION
PHASE 1 CODE UPGRADES
1520 Stewart Street
Las Cruces, New Mexico

SHEET TITLE:

ADA SYMBOLS

SHEET NO:

G-110

S:\Current Projects\NMSU-DACC - Working\NMSU\2025-02 Aquatic Center Remodel\NMSU\2025-02 Drawings\Final\Architectural\NMSU2025-02 G110 ADA Code 10/7/2025 11:51 AM lpadilla

REFLECTED CEILING PLAN LEGEND

GYPSUM BOARD / TEXTURED AND PAINT
24" x 48" LAY-IN ACOUSTICAL
12" x 12" OR 24" x 24" LAY-IN ACOUSTICAL
STUCCO
CONCRETE / CEMENT PLASTER
METAL SOFFIT PANELS

ELEVATION SYMBOL — 00-00 A.F.F.
FIRE SPRINKLER HEAD
FIRE STROBE
EXIT SIGN
EXIT SIGN WITH TWO EMERGENCY HEADS
EMERGENCY LIGHTS
INTERNET HUB
FIRE SMOKE DETECTOR
PROJECTOR
PROJECTOR SCREEN
FIRE ALARM
SPEAKER
SECURITY CAMERA
PASSIVE INFRARED DETECTOR
SECURITY ALARM SIREN
24 x 24 CEILING ACCESS PANEL
JUNCTION BOX W/ METAL CONDUIT
ELECTRICAL OUTLETS
CEILING MOUNTED PRIVACY SCREEN

SUPPLY AIR GRILLE
RETURN AIR GRILLE
RETURN AIR GRILLE
RETURN AIR GRILLE
18" DIA ROUND SUPPLY GRILLE
6 x 12 VENT
12 x 12 RETURN AIR GRILLE
EXHAUST FAN
LIGHT FIXTURE
FLUORESCENT LIGHT FIXTURE
EMERGENCY FLUORESCENT LIGHT FIXTURE
SUSPENDED TRACK LIGHTING
WALL MOUNTED LIGHT FIXTURE
EMERGENCY EXIT LIGHT FIXTURE
CEILING MOUNTED LIGHT FIXTURE
RECESSED CAN LIGHT FIXTURE
EMERGENCY RECESSED CAN LIGHT FIXTURE
18" ROUND SUSPENDED LIGHT FIXTURE

DETAIL LEGEND

COMPACTED SOIL
UNDISTURBED SOIL
GRADE LEVEL
PLASTER OR STUCCO ON METAL LATH
STEEL
CONCRETE IN SECTION
BRICK
EXISTING CONCRETE MASONRY UNIT (CMU)
NEW CONCRETE MASONRY UNIT (CMU)
BATT INSULATION
ACOUSTICAL TILE
RIGID BOARD INSULATION
GYPSUM BOARD
GYPSUM BOARD SHEATHING (EXTERIOR)
PLYWOOD SHEATHING
ORIENTED STRAND BOARD SHEATHING (O.S.B.)
PARTICLE BOARD
RECOVERY BOARD SHEATHING
CORK
EXTERIOR INSULATION FINISH SYSTEM (EIFS)
EXISTING BUILDING
FINISH WOOD
PERIMETER INSULATION

FLOOR PLAN HATCH

CONCRETE BLOCK (CMU)
CONCRETE BLOCK WITH MASONRY CORE FOAM INSULATION TO ALL OPEN CELLS
EXISTING CONCRETE BLOCK (CMU)
BRICK VENEER
CONCRETE
EXISTING METAL OR WOOD STUDS
4" METAL STUDS
6" METAL STUDS
GLAZED CONCRETE BLOCK (CMU)
RIGID INSULATION
SOUND PARTITION
ONE HOUR WALL

FLOOR PLAN LEGEND

EXISTING DOOR
NEW DOOR
EXISTING OR NEW SLIDING DOORS
WINDOW
DOOR SIGN
FIRE EXTINGUISHER & CABINET
FIRE EXTINGUISHER & CABINET
WALL FIRE EXTINGUISHER WITH BRACKET
TACK BOARD — T.B. - 4'-0" H x 6'-0" L
MARKER BOARD — M.B. - 4'-0" H x 6'-0" L
SMART BOARD — S.B.
PROJECTOR SCREEN — P.S.
PROJECTOR
FLAT TV. MOUNTING BRACKET
COAT RACK
TACK STRIP — T.S. - 3'-0" L
MARKER TRAY — TYP. TYPICAL; SIM. SIMILAR; KEY NOTE NUMBER
BUILT IN IRONING BOARD
LOCKABLE WIRE CAGE
ROOF HATCH
SERVICE SINK

ANNOTATION SYMBOLS

BUILDING SECTION INDICATOR
OPPOSITE HAND; SIMILAR; 00/A-00 SHEET ON WHICH SHOWN; BUILDING SECTION NUMBER

WALL SECTION INDICATOR
OPPOSITE HAND; SIMILAR; 00/A-00 SHEET ON WHICH SHOWN; WALL SECTION NUMBER

ELEVATION VIEW INDICATOR
OPPOSITE HAND; SIMILAR; 00/A-00 SHEET ON WHICH SHOWN; ELEVATION NUMBER

MULTI-ELEVATIONS VIEW INDICATOR
SHEET ON WHICH SHOWN; OPPOSITE HAND (TYP.); ELEVATION LETTER (TYP.); SIMILAR (TYP.); ELEVATION NUMBER

MATCH LINE INDICATOR
MATCH LINE; SEE XX/XX-XXX; SHEET ON WHICH CONTINUES

GRID INDICATOR
GRID NUMBER OR LETTER; GRID LINE

ROOM IDENTIFIER
ROOM TITLE; NUM — ROOM NAME; FINISH DESIGNATION; ROOM NUMBER

DETAIL IDENTIFIER
SIM./O.H./TYP. — SIMILAR, TYPICAL, OR OPPOSITE HAND; 00-00 — SHEET ON WHICH SHOWN; DETAIL NUMBER; EXTERIOR/INTERIOR ELEVATIONS

DETAIL IDENTIFIER
SIM.; 19; A-7.1; O.H. — OPPOSITE HAND; DETAIL NUMBER; SIMILAR; SHEET ON WHICH SHOWN; BUILDING/WALL SECTIONS; OR; PLAN VIEW

SPOT DIMENSION
E. 00-00 ± A.F.F. — HEIGHT INDICATION (ABOVE FINISH FLOOR LEVEL ELEVATION)

ENLARGED IDENTIFIER
SIM./O.H.; 00'; 00-00 — SIMILAR; OPPOSITE HAND; ENLARGED NUMBER; SHEET ON WHICH SHOWN

KEY NOTE IDENTIFIER
TYP.; 1; SIM. — TYPICAL; SIMILAR; KEY NOTE NUMBER

REVISION IDENTIFIER
00 — FREE HAND CLOUD; REVISION SERIES NUMBER

WALL TYPE IDENTIFIER
19 — WALL TYPE

DEMOLITION IDENTIFIER
TYP.; SIM.; 00 — TYPICAL; SIMILAR; KEY NOTE NUMBER

DOOR IDENTIFIER
100.1 — DOOR NUMBER; DOOR MARK; ROOM NUMBER

WINDOW IDENTIFIER
00 — WINDOW TYPE

TITLE IDENTIFIER
0; 0 — DETAIL NUMBER; SHEET ON WHICH SHOWN; FLOOR PLAN — DRAWING TITLE; SCALE: 1/4" = 1'-0" — SCALE

DETAIL IDENTIFIER
1 — DETAIL NUMBER; DETAIL AT PIER — DETAIL TITLE; SCALE: 3" = 1'-0" — SCALE

LINE1; LINE2; LINE3; LINE4; LINE5; TRUE NORTH; BUILDING NORTH; TRUE NORTH; PLAN NORTH

ABBREVIATIONS

A	
AB	ANCHOR BOLT
ADDM	ADDENDUM
AFF	ABOVE FINISH FLOOR
ALUM	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
APPROX	APPROXIMATE
ARCH	ARCHITECT
AUTO	AUTOMATIC
AVG	AVERAGE
B	
BAL	BALANCE
BL	BUILDING LINE
BLDG	BUILDING
BOX	BOTTOM OF STEEL
BRDG	BRIDGING
BRG	BEARING
BTWN	BETWEEN
C	
CU FT	CUBIC FEET
CJ	CONTROL JOINT
CL	CENTER LINE
CLG	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUE
CTR	CENTER
D	
DBL	DOUBLE
DEMO	DEMOLISH
DET	DETAIL
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DS	DOWNSPOUT
DWG	DRAWING
E	
EA	EACH
EIFS	EXTERIOR INSULATION FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRIC(AL)
ELEV	ELEVATOR
EQ	EQUAL
EQUIP	EQUIPMENT
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EXIST	EXISTING
EXP	EXPANSION
EXP BT	EXPANSION BOLT
EXT	EXTERIOR
F	
FD	FLOOR DRAIN
FIN FLR	FINISH FLOOR
G	
GA	GAGE
GALV	GALVANIZED
GYP BD	GYPSUM BOARD
GYP	GYPSUM
H	
HDW	HARDWARE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HVAC	HEATING VENTILATION & AIR CONDITIONING
I	
INS	INSULATION
INT	INTERIOR
J	
JAN	JANITOR
L	
LT	LIGHT
LT WT	LIGHT WEIGHT
M	
MATL	MATERIAL
MAX	MAXIMUM
MCJ	MASONRY CONTROL JOINT
MECH	MECHANIC(AL)
MFG	MANUFACTURING
MFR	MANUFACTURER
MIN	MIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MOD	MODIFY
MT	METAL THRESHOLD
MTL	METAL
N	
N	NORTH
NA	NOT APPLICABLE
NIC	NOT IN CONTACT
NTS	NOT TO SCALE
O	
OC	ON CENTER
OFD	OVER FLOW DRAIN
OH DR	OVERHEAD DOOR
OPNG	OPENNING
OPH	OPPOSITE HAND
P	
PL	PROPERTY LINE
PROJ	PROJECT
PBD	PARTICLE BOARD
PLYWD	PLYWOOD
R	
R	RADIUS
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
REF	REFERENCE
REQD	REQUIRED
REV	REVISION
S	
SCHED	SCHEDULE
SHT	SHEET
SIM	SIMILAR
SPEC	SPECIFICATION
STRUCT	STRUCTURAL
SUSP	SUSPENDED
T	
TEMP	TEMPORARY
TLT	TOILET
U	
UNO	UNLESS NOTED OTHERWISE
V	
VAR	VARIES
VERT	VERTICAL
W	
WWF	WELDED WIRE FABRIC
W/	WITH
W/O	WITHOUT
W/W	WALL TO WALL

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APPROVED BY:	RBM

MARK	DATE	DESCRIPTION

ISSUE: OCTOBER 2025

PROJECT NAME
5449 AQUATIC CENTER RENOVATION
PHASE 1 CODE UPGRADES
1520 Stewart Street
Las Cruces, New Mexico

SHEET TITLE:
LEGENDS, HATCHES, SYMBOLS & ABBREVIATIONS

SHEET NO:
G-111

S:\Current Projects\NMSU-DACC - Working\NMSU2025-02 Aquatic Center Remodel\NMSU2025-02 Drawings\Final\Architectural\NMSU2025-02 G111, G112 Symbol Legend 10/7/2025 11:51 AM kpatilla

SITE PLAN

- SYMBOL OF ACCESSIBILITY
- SYMBOL HEARING IMPAIRED
- PAINTED PAVING SIGN — NO PARKING
- SPEED BUMP OR SPEED HUMP
- PRECAST CONCRETE PARKING BUMPER
- STOP SIGN ON PIPE
- LIGHT POLE DOUBLE OR SINGLE
- FLAG POLE
- BOLLARD
- STORM INLET DRAIN
- TRENCH DRAIN
- BICYCLE PARKING SPACE RACK
- MAIL BOXES

SITE PLAN

- CROSSWALK STRIPING
- CONCRETE SIDEWALK W/ TURN DOWN CURB
- CONCRETE SIDEWALK W/ CURB
- CONCRETE SIDEWALK W/ CURB & GUTTER
- ACCESSIBLE CURB RAMP
- OTHER RAMP TYPES
- CONCRETE CURB — 5.25" — 6.25"
- NEW CONCRETE SIDEWALK BUTTS EXISTING CONCRETE SIDEWALK — DEMO — FLOW — MATCH EXISTING
- CHAINLINK ROLLING GATE
- CHAINLINK SWING GATE
- VEHICULAR PIPE GATE
- VEHICLE PIPE SWING GATE
- PEDESTRIAN DOOR ENTRANCE
- STAIR & RAMP

SITE PLAN HATCH

- ASPHALT PAVING
- 4" CONCRETE
- 6" CONCRETE
- EXPOSED AGGREGATE
- GRASS
- BARK
- POURED-IN-PLACE RUBBER PLAYGROUND SURFACING
- CONCRETE
- CONCRETE BLOCK WALL FENCE
- CONCRETE BLOCK WALL FENCE (CEMENT WASH TOP)
- ROCK WALL FENCE
- CONCRETE WALL FENCE WITH IRON FENCE

SITE PLAN LINETYPES

- SVR — NEW SANITARY SEWER
- ESVR — EXISTING SANITARY SEWER
- XX SVR XXXX SVR XX — DEMO SANITARY SEWER
- C — NEW COMMUNICATION
- EC — EXISTING COMMUNICATION
- XX EC XXXX EC XX — DEMO EXISTING COMMUNICATION
- G — NEW GAS
- EG — EXISTING GAS
- XX EG XXXX EG XX — DEMO EXISTING GAS
- W — NEW WATER LINE
- EW — EXISTING WATER LINE
- XX EW XXXX EW XX — DEMO EXISTING WATER LINE
- OE — NEW OVERHEAD ELECTRICAL
- EOE — EXISTING OVERHEAD ELECTRICAL
- XX OE XXXX OE XX — DEMO EXISTING OVERHEAD ELECTRICAL
- UE — NEW UNDERGROUND ELECTRICAL LINE
- EUE — EXISTING UNDERGROUND ELECTRICAL LINE
- XX UE XXXX UE XX — DEMO EXISTING UNDERGROUND ELECTRICAL LINE
- SD — NEW STORM DRAIN PIPE
- ESD — EXISTING STORM DRAIN PIPE
- XX SD XXXX SD XX — DEMO EXISTING STORM DRAIN PIPE
- F — NEW FIRE HYDRANT
- EF — EXISTING FIRE HYDRANT
- XX F XXXX F XX — DEMO EXISTING FIRE HYDRANT
- IR — NEW IRRIGATION WATER
- EIR — EXISTING IRRIGATION WATER
- XX IR XXXX IR XX — DEMO EXISTING IRRIGATION WATER
- X — NEW CHAIN LINK FENCE
- X — EXISTING CHAIN LINK FENCE
- XX X XXXX X XX — DEMO CHAIN LINK FENCE
- O — NEW DECORATIVE FENCE
- O — NEW DECORATIVE FENCE
- BELOW GRADE PVC SLEEVE
- PVC PIPE DRAIN
- CONTOUR LINE
- DRAIN FLOW LINE
- PROPERTY LINES
- BUILDING SET BACK LINES
- EASEMENT
- EXISTING BUILDING
- DEMO EXISTING BUILDING

PROPOSED BUILDING

- PROPOSED BUILDING
- DOOR STOP

ROOF PLAN HATCH

- PVC OR TPO ROOFING SYSTEM
- NOT WORK AREA
- CORRUGATED ROOFING
- METAL ROOFING
- CLAY TILE ROOFING

ROOF PLAN LEGEND

- ROOF DRAIN (RD)
- OVERFLOW DRAIN (OF)
- 1" RECESS AREA AROUND ROOF DRAINS
- SCUPPER
- DOWNSPOUT BOX
- SPILLOUT SCUPPER
- SPLASH BLOCK
- SPLASH PAN
- GALVANIZED GUTTER WITH BRACKETS
- SLOPE DIRECTION — SLOPE DOWN — SLOPE DOWN
- CRICKET DIRECTION OF FLOW
- MECHANICAL EQUIPMENT
- VENT THROUGH ROOF (VTR)
- NEW WALKING PADS
- EXISTING WALKING PADS
- EXTRA LAYER OF TPO OR PVC 20" x 30" MINIMUM
- EXTERIOR DUCT WRAP WITH INSULATION

ROOF PLAN LEGEND

- ROOF HATCH
- ATTIC ACCESS PANEL
- ATTIC LADDER UNIT
- ACCESS LADDER WITH PARAPET RETURN & CROSS OVER PLATFORM
- ACCESS LADDER WITH PARAPET RETURN & CROSS OVER PLATFORM CAGE & SECURITY DOOR
- SHIPS LADDER WITH PARAPET RETURN WITH CROSS OVER PLATFORM
- SKYLIGHT
- PANEL SKYLIGHT
- DOME SKYLIGHT

ROOF PLAN LINETYPES

- E — NEW ELECTRICAL
- EE — EXISTING ELECTRICAL
- XX EE XXXX EE XX — DEMO EXISTING ELECTRICAL
- W — NEW WATER LINE
- EXISTING PITCH PAN / EXISTING WATER LINE
- EV — DEMO EXISTING WATER LINE
- G — NEW GAS ROLLER PIPE SUPPORT
- EG — EXISTING GAS WOOD SLEEPER
- XX EG XXXX EG XX — DEMO EXISTING GAS
- CD — NEW CONDENSATE DRAIN
- ECD — EXISTING CONDENSATE DRAIN
- XX ECD XXXX ECD XX — DEMO EXISTING CONDENSATE DRAIN
- RD — NEW ROOF DRAIN
- ERD — EXISTING ROOF DRAIN
- XX ERD XXXX ERD XX — DEMO EXISTING ROOF DRAIN
- OD — NEW OVERFLOW DRAIN
- EOD — EXISTING OVERFLOW DRAIN
- XX EOD XXXX EOD XX — DEMO EXISTING OVERFLOW DRAIN
- ECV — NEW EVAPORATIVE COOLER WATER LINE
- EECV — EXISTING EVAPORATIVE COOLER WATER LINE
- XX EECV XXXX EECV XX — DEMO EXISTING EVAPORATIVE COOLER WATER LINE
- SHUT OFF SWITCH BOX
- CONDUIT PENATRATION WITH PITCH PAN
- ELECTRICAL PANEL

ROOF MECH. LEGEND

- HEATED VENT STACK
- VENT STACK (ROUND TOP)
- EXHAUST FAN UNIT
- ATTIC EXAUST FAN
- .
- AIR IN TAKE
- CONDENSING UNIT 32 X 32
- AIR CONDITIONER UNIT
- ROOF PENETRATION CAP
- EXHAUST FAN
- EXHAUST HOOD
- EXHAUST HOOD
- EXHAUST HOOD
- RETURN HOOD

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PROJECT NO.	RBM
DESIGN BY:	RBM
DRAWN BY:	RBM
CHECKED BY:	RBM
APPROVED BY:	RBM

MARK	DATE	DESCRIPTION
ISSUE:		OCTOBER 2025

PROJECT NAME

5449 AQUATIC CENTER RENOVATION
PHASE 1 CODE UPGRADES
1520 Stewart Street
Las Cruces, New Mexico

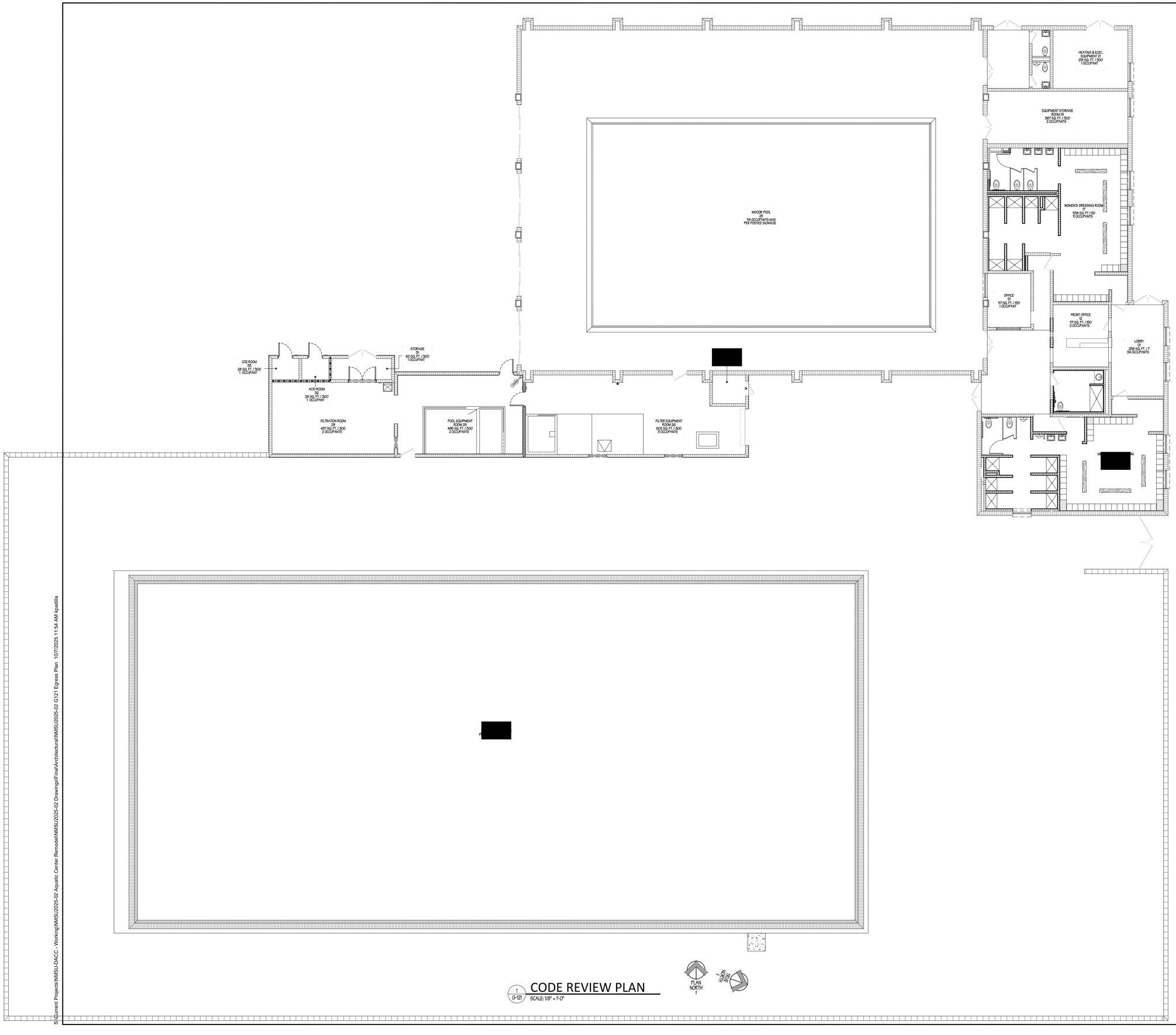
SHEET TITLE:

SYMBOLS, HATCHES, LEGENDS & LINETYPES

SHEET NO:

G-112

S:\Current Projects\NMSU-DACC - Working\NMSU\2025-02 Aquatic Center Remodel\NMSU\2025-02 Drawings\Final\Architectural\NMSU2025-02 G111, G112 Symbol Legend 10/7/2025 11:52 AM kpadilla



1 G-121 CODE REVIEW PLAN

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

CODE REVIEW LEGEND

EXIT PATH OF TRAVEL

EXIT ACCESS TRAVEL DISTANCE FROM THIS POINT

EXIT DISCHARGE — 000 — OCCUPANT LOAD SERVED; 45" — EXIT WIDTH PROVIDED

OCCUPANT LOAD — 000

FIRE EXTINGUISHER IN CABINET

FIRE EXTINGUISHER ON BRACKET

1 HR FIRE BARRIER - REFER TO 5/A-201 & 21/A-401 FOR ADDITIONAL REQUIREMENTS

EXISTING 8" CONCRETE MASONRY WALL. WALL MUST EXTEND TO THE BOTTOM OF THE METAL DECK. AND ALL PENETRATIONS AND JOINTS TO BE SEALED WITH FIRE STOPPING SYSTEMS MEETING 1-HOUR RATING REQUIREMENTS.

CODE REVIEW

PROJECT DESCRIPTION:

THE SCOPE OF WORK FOR THE PROJECT CONSISTS OF A LEVEL 1 ALTERATION TO ADDRESS IMMEDIATE HEALTH AND SAFETY ISSUES AFFECTING THE OPERATION OF THE EXISTING SWIMMING POOLS.

APPLICABLE CODES

2021 NEW MEXICO COMMERCIAL BUILDING CODE
2021 INTERNATIONAL BUILDING CODE
2021 NEW MEXICO EXISTING BUILDING CODE
2021 INTERNATIONAL EXISTING BUILDING CODE
2021 NEW MEXICO ENERGY CONSERVATION CODE
2021 INTERNATIONAL ENERGY CONSERVATION CODE
2021 NEW MEXICO PLUMBING CODE
2021 UNIFORM PLUMBING CODE
2021 NEW MEXICO MECHANICAL CODE
2021 UNIFORM MECHANICAL CODE
2020 NEW MEXICO ELECTRICAL CODE
2020 NATIONAL ELECTRICAL CODE
2012 NEW MEXICO ELECTRICAL SAFETY CODE
2012 NATIONAL ELECTRICAL SAFETY CODE
2021 INTERNATIONAL FIRE CODE
2017 ICC/ANSI A117.1 ACCESSIBLE AND USABLE BUILDINGS
2012 NM SWIMMING POOL, SPA, AND HOT TUB CODE
2012 UNIFORM SWIMMING POOL, SPA, AND HOT TUBE CODE
2014 THE MODEL AQUATIC HEALTH CODE

CHAPTER 3 2021 IBC, OCCUPANCY CLASSIFICATION AND USE

A-4 ASSEMBLY - SWIMMING POOL

307.1(1) AND 307.1(2) - MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA OF HAZARDOUS MATERIAL:

HAZARDOUS MATERIALS:	TYPE:	MAX ALLOWED:	ACTUAL:
CO2 TANKS - ROOM 33	INERT GAS	NOT LIMITED	12,000 CU. FT.
HYDROCHLORIC ACID - RM 32	CORROSIVES	500 GALLONS	100 GALLONS

PER TABLE 414.2.2 CONTROL AREAS FOR A 1 STORY BUILDING ARE ALLOWED TO CONTAIN 100% OF MAXIMUM ALLOWABLE QUANTITIES AND SHALL BE SEPARATED FROM OTHER PORTIONS OF THE BUILDING WITH A 1 HOUR FIRE BARRIER

CHAPTER 5 2021 IBC, WORK GENERAL BUILDING HEIGHTS AND AREAS

BUILDING AREA - IBC TABLE 506.2
ACTUAL: 14,278 GSF
ALLOWABLE AREA: 16,625 GSF WITH FRONTAGE INCREASE

BUILDING HEIGHT - IBC TABLE 504.3
ACTUAL: 26'-0" +/-
ALLOWABLE: 75'-0"

BUILDING STORIES - IBC TABLE 504.4
ACTUCAL: 1 STORY
ALLOWABLE: 3 STORIES

CHAPTER 6 2021 IBC, TYPES OF CONSTRUCTION

EXISTING CONSTRUCTION TYPE: TYPE III-B

CHAPTER 3 2021 IEBC, COMPLIANCE METHOD

WORK AREA METHOD

CHAPTER 6 2021 IEBC, CLASSIFICATION OF WORK

ALTERATION - LEVEL 1.
NOTE: A NEW DOUBLE DOOR BEING ADDED TO STORAGE ROOM 31 IS NOT CONSIDERED TO INCREASE THE ALTERATION TO A LEVEL 2. THE NEW DOOR IS ONLY REQUIRED TO FACILITATE THE REMOVAL AND REPLACEMENT OF THE POOL FILTRATION EQUIPMENT AND DOES NOT RECONFIGURE EXISTING EXIT ACCESS ROUTES OR EXIT DISCHARGE.

CHAPTER 7 2021 IEBC, ALTERATIONS - LEVEL 1

702.1: INTERIOR FINISHES.
NEWLY INSTALLED INTERIOR WALL AND CEILING FINISHES SHALL COMPLY WITH CHAPTER 8 OF THE INTERNATIONAL BUILDING CODE.

702.2: INTERIOR FLOOR FINISH.
NEW INTERIOR FLOOR FINISH, INCLUDING NEW CARPETING USED AS AN INTERIOR FLOOR FINISH MATERIAL, SHALL COMPLY WITH SECTION 804 OF THE INTERNATIONAL BUILDING CODE.

702.3: MATERIALS AND METHODS.
NEW WORK SHALL COMPLY WITH THE MATERIALS AND METHODS REQUIREMENTS IN THE INTERNATIONAL BUILDING CODE, INTERNATIONAL ENERGY CONSERVATION CODE, INTERNATIONAL MECHANICAL CODE AND INTERNATIONAL PLUMBING CODE, AS APPLICABLE, THAT SPECIFY MATERIAL STANDARDS, DETAIL OF INSTALLATION AND CONNECTION, JOINTS, PENETRATIONS AND CONTINUITY OF ANY ELEMENT, COMPONENT OR SYSTEM IN THE BUILDING.

703.1: GENERAL.
ALTERATIONS SHALL BE DONE IN A MANNER THAT MAINTAINS THE LEVEL OF FIRE PROTECTION PROVIDED. NOTE - IMPROVEMENTS ARE BEING MADE TO EXISTING CMU WALLS TO COMPLY WITH 1-HOUR FIRE BARRIER REQUIREMENTS FOR SEPARATION OF HAZARDOUS MATERIAL CONTROL AREAS AND INCIDENTAL USE AREAS.

704.1: MEANS OF EGRESS - GENERAL:
EXISTING OCCUPANT LOAD AND EXITING IS UNCHANGED

705 - REROOFING:
705.2 ROOF REPLACEMENT - ROOF REPLACEMENT SHALL INCLUDE THE REMOVAL OF ALL EXISTING LAYERS OF ROOF COVERINGS DOWN TO THE ROOF DECK.

708 - ENERGY CONSERVATION:
708.1 MINIMUM REQUIREMENTS.
LEVEL 1 ALTERATIONS TO EXISTING BUILDINGS OR STRUCTURES DO NOT REQUIRE THE ENTIRE BUILDING OR STRUCTURE TO COMPLY WITH THE ENERGY REQUIREMENTS OF THE INTERNATIONAL ENERGY CONSERVATION CODE . THE ALTERATIONS SHALL CONFORM TO THE ENERGY REQUIREMENTS OF THE INTERNATIONAL ENERGY CONSERVATION CODE AS THEY RELATE TO NEW CONSTRUCTION ONLY.

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PROJECT NO.	RBM
DESIGN BY:	RBM
DRAWN BY:	RBM
CHECKED BY:	RBM
APPROVED BY:	RBM

MARK	DATE	DESCRIPTION

ISSUE: OCTOBER 2025

PROJECT NAME

5449 AQUATIC CENTER RENOVATION
PHASE 1 CODE UPGRADES
1520 Stewart Street
Las Cruces, New Mexico

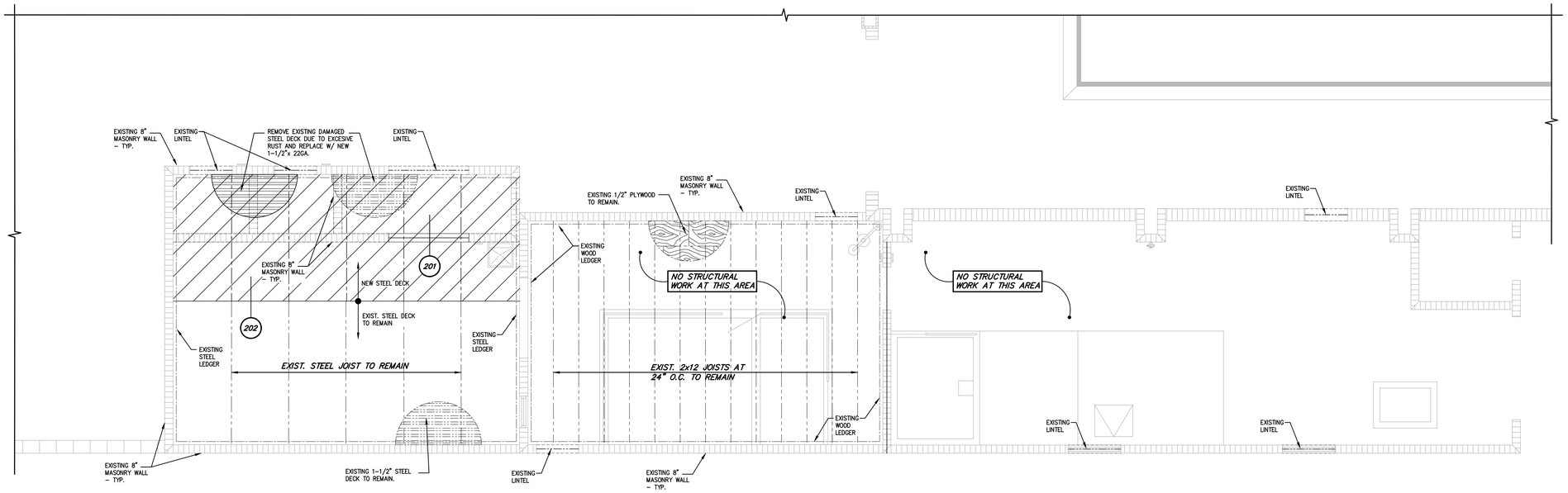
SHEET TITLE:

CODE REVIEW PLAN

SHEET NO:

G-121

S:\Current Projects\NMSU-DACC - Working\NMSU2025-02 Aquatic Center Remodel\NMSU2025-02 Drawings\Final\Architectural\NMSU2025-02 G121 Egress Plan 10/7/2025 11:54 AM kpadilla



EXISTING/NEW ROOF FRAMING PLAN (FILTRATION POOL EQUIPMENT ROOM

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

GENERAL STRUCTURAL NOTES

APPLY UNLESS NOTED OTHERWSE

INSTRUCTIONS TO BIDDERS CONTINGENCIES

1. UNDER NO CIRCUMSTANCES SHALL THESE DRAWINGS BE FINAL BID' UNTIL THE PROJECT IS FULLY PERMITTED.
2. ALL PRELIMINARY PRICING EFFORTS SHALL BE CONSIDERED TO BE ESTIMATES ONLY AND SHALL INCLUDE THE NECESSARY CONTINGENCIES, ALLOWANCES, ALTERNATES, ETC. AS APPROPRIATE TO ACCOUNT FOR MODIFICATIONS AND ADDITIONS THAT WILL OCCUR TO THE DRAWINGS DURING THE FINALIZATION OF THE DESIGN AND PERMITTING.
3. THE OWNER OR CONTRACTOR SHALL UTILIZE THE FOLLOWING MINIMUM CONTINGENCIES FOR EACH OF THE STRUCTURAL ELEMENT COSTS TO BE USED AT THE SOLE DISCRETION OF THE STRUCTURAL ENGINEER:

1ST CITY SUBMITTAL SET 3% (MIN) ALL OF THE FINAL BID CONTINGENCIES NOT USED BY THE STRUCTURAL ENGINEER SHALL BE REFUNDED TO THE OWNER PRIOR TO CLOSEOUT OF THE PROJECT.

4. ANY MODIFICATIONS, DELETIONS, OR ELIMINATIONS TO THE STRUCTURAL BIDDING AND CONTINGENCY REQUIREMENTS, WITHOUT THE CONSENT OF THE STRUCTURAL ENGINEER, SHALL AUTOMATICALLY INDEMNIFY THE STRUCTURAL ENGINEER OF ANY COSTS THAT MAY ARISE DURING THE DESIGN AND CONSTRUCTION OF THE PROJECT.
5. WHERE DISCREPANCIES OCCUR WITHIN THE DRAWINGS THE CONTRACTOR WILL EITHER RESOLVE THE DISCREPACIES WITH THE ARCHITECT BEFORE BIDDING OR INCLUDE THE GREATER COST ITEM IN THE BID AND RESOLVE THE DISCREPANCY PRIOR TO CONSTRUCTION.

BUILDING CODE:

2021 EDITION OF THE INTERNATIONAL BUILDING CODE AND STANDARDS REFERENCED THEREIN, WITH CITY OF LAS CRUCES, NM AMENDMENTS.

EXISTING LOADS:

ROOFS:

ROOF LIVE LOAD = 20 PSF
ROOF DEAD LOAD = 18 PSF.

LATERAL:

WIND:

ULTIMATE DESIGN WIND SPEED (3-SECOND GUST), V(ult) = 105 MPH.
EXPOSURE C
RISK CATEGORY, II

SEISMIC:

SEISMIC IMPORTANCE FACTOR, I = II
RISK CATEGORY, II
MAPPED SHORT PERIOD SPECTRAL ACCELERATION, Ss = 0.280.
MAPPED ONE SECOND SPECTRAL ACCELERATION, S1 = 0.093.
SOIL SITE CLASS, D
DESIGN SHORT PERIOD SPECTRAL ACCELERATION, Sds = 0.294.
DESIGN ONE SECOND SPECTRAL ACCELERATION, Sd1 = 0.149.
SEISMIC DESIGN CATEGORY, C

STRUCTURAL STEEL:

GENERAL:

ALL MISCELLANEOUS STEEL UNLESS NOTED OTHERWISE SHALL BE ASTM A36 (Fy = 36 KSI).

STEEL DECKING:

GENERAL:

ALL STEEL DECK SHALL BE MANUFACTURED AND ERECTED IN ACCORDANCE WITH REFERENCED EDITION OF SDI AND ICC.ESR-1733P. (06 BRC) (MCNO.ER-0217 (09/12 BRC) OR APPROVED ICC EQUIVALENT. STEEL DECK SHALL BEAR ON SUPPORTS A MINIMUM OF 2 INCHES. ENDS OF SHEETS MUST BE LAPPED A MINIMUM OF 2 INCHES OVER SUPPORTS.

WELDERS CERTIFIED IN LIGHT GAGE STEEL DECK WORK SHALL PERFORM ALL WELDING. DECK WELDING MAY BE ACHIEVED WITH E60 SERIES NON LOW HYDROGEN RODS (MINIMUM).

SCREWS WHERE INDICATED SHALL BE ITW BUILDEX TEKS SELF DRILLING FASTENERS PER ICC ESR-1976 OR APPROVED ICC EQUIVALENT.

ROOF DECK:

DECK SHALL BE 1.5" DEEP, 36" WIDE, 22 GAGE GALVANIZED STEEL, WITH MINIMUM YIELD STRESS OF 50 KSI, WITH MINIMUM S = 0.230 IN3 AND I = 0.219 IN4 PER FOOT OF WIDTH. DECK SHALL BE ERECTED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AS 2 SPAN MINIMUM AND SHALL BE ATTACHED FOR A MINIMUM DIAPHRAGM SHEAR CAPACITY OF 568 PLF USING THE FOLLOWING MINIMUM ATTACHMENTS:

SCREW DECK TO SUPPORTING MEMBERS WITH 7 – #12 SDI RECOGNIZED SCREWS (36/7 SCREW PATTERN AT SUPPORTS) PER SHEET AT ENDS, END LAPS AND AT INTERMEDIATE SUPPORTS, AND AT 12" O.C. AT PERIMETER BEAMS AND OPENING EDGES RUNNING PARALLEL TO THE DECK. SIDE SEAM ATTACHMENT SHALL BE BUTTON PUNCHES AT 24" O.C.

SHOP DRAWINGS:

SHOP DRAWINGS SHALL BE SUBMITTED FOR ALL STRUCTURAL ITEMS IN ADDITION TO ITEMS REQUIRED BY ARCHITECTURAL SPECIFICATIONS. CONTRACTOR SHALL PROVIDE A MINIMUM OF 2 HARD COPY SUBMITTAL SETS OF EACH ITEM TO JTA FOR REVIEW, UNLESS NOTED OTHERWISE IN ARCHITECTURAL SPECIFICATIONS. ELECTRONIC SUBMITTALS ARE ALSO ACCEPTABLE.

THE CONTRACTOR SHALL REVIEW ALL SHOP DRAWINGS PRIOR TO SUBMITTAL. ITEMS NOT IN ACCORDANCE WITH CONTRACT DOCUMENTS SHALL BE FLAGGED UPON CONTRACTOR'S REVIEW.

VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS AND FIELD CONDITIONS.

MANUFACTURER OR FABRICATOR SHALL CLOUD ANY CHANGES, SUBSTITUTIONS, OR DEVIATIONS FROM CONTRACT DOCUMENTS. ANY OF THE AFOREMENTIONED WHICH ARE NOT CLOUDED OR FLAGGED BY SUBMITTING PARTIES, SHALL NOT BE CONSIDERED APPROVED AFTER ENGINEER'S REVIEW, UNLESS NOTED ACCORDINGLY.

THE ENGINEER HAS THE RIGHT TO APPROVE OR DISAPPROVE ANY CHANGES TO CONTRACT DOCUMENTS AT ANYTIME BEFORE OR AFTER SHOP DRAWING REVIEW.

THE SHOP DRAWINGS DO NOT REPLACE THE CONTRACT DOCUMENTS. ITEMS OMITTED OR SHOWN INCORRECTLY AND ARE NOT FLAGGED BY THE STRUCTURAL ENGINEER OR ARCHITECT SHALL NOT BE CONSIDERED CHANGES TO CONTRACT DOCUMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE ITEMS ARE CONSTRUCTED TO CONTRACT DOCUMENTS.

THE ADEQUACY OF ENGINEERING DESIGNS AND LAYOUT PERFORMED BY OTHERS RESTS WITH THE DESIGNING OR SUBMITTING AUTHORITY.

REVIEWING IS INTENDED ONLY AS AN AID TO THE CONTRACTOR IN OBTAINING CORRECT SHOP DRAWINGS. RESPONSIBILITY FOR CORRECTNESS SHALL REST WITH THE CONTRACTOR.

GENERAL NOTES:

THE STRUCTURAL CONSTRUCTION DOCUMENTS REPRESENT THE FINISHED STRUCTURE. EXCEPT WHERE NOTED, THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. THE STRUCTURAL ENGINEER OF RECORD SHALL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S MEANS, METHODS, TECHNIQUES, SEQUENCES FOR PROCEDURE OF CONSTRUCTION, OR THE SAFETY PRECAUTIONS AND THE PROGRAMS INCIDENT THERETO (NOR SHALL OBSERVATION VISITS TO THE SITE INCLUDE INSPECTION OF THESE ITEMS).

WHERE REFERENCE IS MADE TO VARIOUS TEST STANDARDS FOR MATERIALS, SUCH STANDARDS SHALL BE THE REFERENCED EDITION AND/OR ADDENDA. ANY ENGINEERING DESIGN, PROVIDED BY OTHERS AND SUBMITTED FOR REVIEW, SHALL BEAR THE SEAL OF A REGISTERED ENGINEER RECOGNIZED BY THE BUILDING CODE JURISDICTION OF THIS PROJECT.

NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL STRUCTURAL NOTES AND SPECIFICATIONS, THE GREATER REQUIREMENTS SHALL GOVERN.
CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION. RESOLVE ANY DISCREPANCY WITH THE ARCHITECT. ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FOR ARCHITECTURAL, CIVIL, MECHANICAL, PLUMBING AND ELECTRICAL ITEMS WITH THE APPROPRIATE TRADE DRAWINGS AND SUBCONTRACTORS PRIOR TO CONSTRUCTION.

TYPICAL DETAILS MAY NOT NECESSARILY BE CUT ON PLANS, BUT APPLY UNLESS NOTED OTHERWISE.

CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FRAMED CONSTRUCTION. LOAD SHALL NOT EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT.

OPTIONS ARE FOR CONTRACTOR'S CONVENIENCE. IF AN OPTION IS CHOSEN, CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY CHANGES, APPROVALS AND THE COORDINATION OF THE WORK WITH ALL RELATED TRADES AND SUPPLIERS.

SPECIAL INSPECTION – STRUCTURAL ONLY:FOR SPECIAL STRUCTURAL INSPECTIONS:

SPECIAL INSPECTIONS SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF A STATE REGISTERED STRUCTURAL ENGINEER WHO IS FAMILIAR WITH THE STRUCTURAL DESIGN OF THIS PROJECT. THE SUPERVISING STRUCTURAL ENGINEER SHALL SEAL THE SPECIAL INSPECTION CERTIFICATE.

SPECIAL INSPECTION IS TO BE PROVIDED FOR THE ITEMS LISTED BELOW IN ADDITION TO THE INSPECTIONS CONDUCTED BY THE BUILDING JURISDICTION. "SPECIAL STRUCTURAL INSPECTION" SHALL NOT RELIEVE THE OWNER OR THEIR AGENT FROM REQUESTING THE BUILDING JURISDICTION INSPECTIONS REQUIRED BY SECTION 109 OF THE INTERNATIONAL BUILDING CODE. SPECIAL INSPECTION IS REQUIRED PER CHAPTER 17 FOR THE FOLLOWING:

MASONRY CONSTRUCTION:

1. STRUCTURAL MASONRY:

A. INSPECTION OF IN-PLACE REINFORCING FOR CONFORMANCE PRIOR TO THE DELIVERY OF GROUT TO THE JOBSITE.
C. CONTINUOUS INSPECTION DURING PLACEMENT OF GROUT.
D. CLEANOUTS PRIOR TO CLOSING.

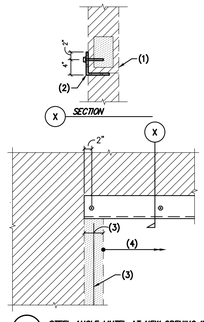
SPECIAL CASES:

1. EXPANSION, EPOXY, ADHESIVE, AND SCREW ANCHORS: DURING THE PLACEMENT OF ALL ANCHORS SHOWN ON STRUCTURAL DRAWINGS. ADDITIONAL INSPECTIONS REQUIRED FOR REPAIR DETAILS SHALL BE PERFORMED AT THE CONTRACTOR'S EXPENSE.

A. INSPECTION OF HOLE DIAMETER, HOLE DEPTH AND DRILL BIT CONFORMANCE.
B. INSPECTION OF HOLE CLEANING WITH WIRE BRUSH AND COMPRESSED AIR.
C. INSPECTION OF ANCHOR INSTALLATION USING SPECIFIED PRODUCT AND MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES.
D. INSPECTION OF EXPANSION ANCHORS SHALL INCLUDE THE VERIFICATION OF THE TIGHTENING TORQUE THAT IS SPECIFIED BY THE ANCHOR MANUFACTURER.

DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR:

A. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED TO BE CERTAIN IT CONFORMS TO THE APPROVED DESIGN DRAWINGS AND SPECIFICATION.
B. THE SPECIAL INSPECTOR IS NOT AUTHORIZED TO APPROVE DEVIATIONS FROM THE DESIGN DRAWINGS OR SPECIFICATIONS, AND ALL DEVIATIONS MUST BE APPROVED BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO PROCEEDING WITH THE WORK. ALL REQUESTS FOR DEVIATIONS SHALL BE INITIATED BY THE CONTRACTOR VIA WRITTEN REQUEST FOR INFORMATION (RFI).
C. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, AND TO THE ENGINEER OR ARCHITECT OF RECORD. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, TO THE DESIGN AUTHORITY AND THE BUILDING OFFICIAL.
D. CONTRACTOR SHALL PROVIDE THE SPECIAL INSPECTOR ACCESS TO ALL ITEMS REQUIRING SPECIAL INSPECTION. ACCESS SHALL BE PROVIDED BY IN-PLACE LADDERS, SCAFFOLDS, LIFTS AND/OR OTHER EQUIPMENT OPERATED BY THE CONTRACTOR'S PERSONNEL AS REQUIRED FOR SAFE OBSERVATION. INSPECTOR IS NOT RESPONSIBLE OR AUTHORIZED TO OPERATE CONTRACTOR'S EQUIPMENT.
E. UPON COMPLETION OF THE ASSIGNED WORK THE ENGINEER OR ARCHITECT SHALL COMPLETE AND SIGN THE APPROPRIATE FORMS CERTIFYING THAT TO THE BEST OF THEIR KNOWLEDGE THE WORK IS IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS, AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE CODE.



NOTES:

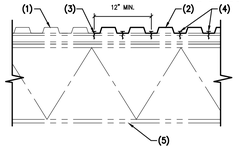
1. EXISTING 8" MASONRY WALL.
2. STEEL ANGLE 6"x6"x5/16" W/ 3/4"ø x6" LONG SIMPSON TITEN HD AT ENDS AND AT 24" O.C.
3. 8" BEARING EACH END W/ (3)– #5 IN GROUTED CELL
4. OPENING NOT TO EXCEED 6'-4" MAX.

INSTALLATION PROCEDURE:

- INSTALL STEEL ANGLE LINTEL INTO EXISTING MORTAR JOINT OR SAW CUT 3/8" HORIZONTAL CUT TO ALLOW PLACEMENT OF HORIZONTAL LEG.
- INSTALL CONCRETE SCREW ANCHORS.
- REMOVE MASONRY FOR OPENING.

201 *STEEL ANGLE LINTEL AT NEW OPENING IN EXISTING MASONRY WALL*

NO SCALE

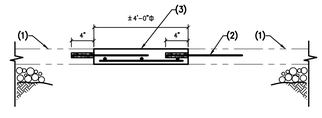


NOTES:

1. EXISTING STEEL DECK TO REMAIN.
2. REMOVE EXISTING STEEL DECK AND REPLACE W/NEW STEEL DECK AND OVERLAP AS SHOWN.
3. OVERLAP NEW/EXISTING DECK A MINIMUM OF 12" – TYP.
4. PROVIDE #12 SCREWS @ 6" O.C. AT NEW DECK AND SIDE LAPS CONNECTED W/PUNCHLOK II @ 12" O.C.
5. EXISTING STEEL JOIST.

202 *NEW/EXISTING DECK AT EXISTING STEEL JOIST*

NO SCALE

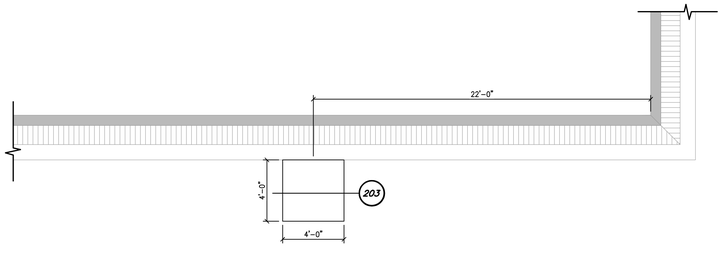


NOTES:

1. EXISTING CONCRETE SLAB.
2. DRILL & EPOXY ø3x16" LONG BAR AT 16" O.C. W/ SIMPSON SET-3G EPOXY.
3. NEW CONCRETE SLAB ON GRADE (f'c= 3000 PSI) W/ ø3 @ 8" O.C. E.W. DEPTH TO MATCH EXISTING SLAB.

203 *NEW CONCRETE SLAB TO EXISTING CONCRETE SLAB AT POOL BUILDING*

NO SCALE



POOL BUILDING

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

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JOSEPH SCOTT TONNESON
NEW MEXICO
24634
PROFESSIONAL ENGINEER
SIGNED: 10/06/25

PROJECT NO.	XX
DESIGN BY:	XX
DRAWN BY:	XX
CHECKED BY:	XX
APPROVED BY:	XX

MARK	DATE	DESCRIPTION
1	XXX	XXXXX

ISSUE MONTH, DATE, YEAR

PROJECT NAME

5449 AQUATIC CENTER RENOVATION
PHASE 1 CODE UPGRADES
1520 Stewart Street
Las Cruces, New Mexico

JARAMILLO - TONNESON & ASSOCIATES
CONSULTING STRUCTURAL ENGINEERS
JTA ENGINEERING, LLC
4411 E. KNOX RD.
PHOENIX, AZ 85044
HTTPS://JTAENGINEERING.COM
480.442.2179 SERGIO JARAMILLO

PROJECT NUMBER: 2025077 | PROJECT MANAGER: SJ/OP

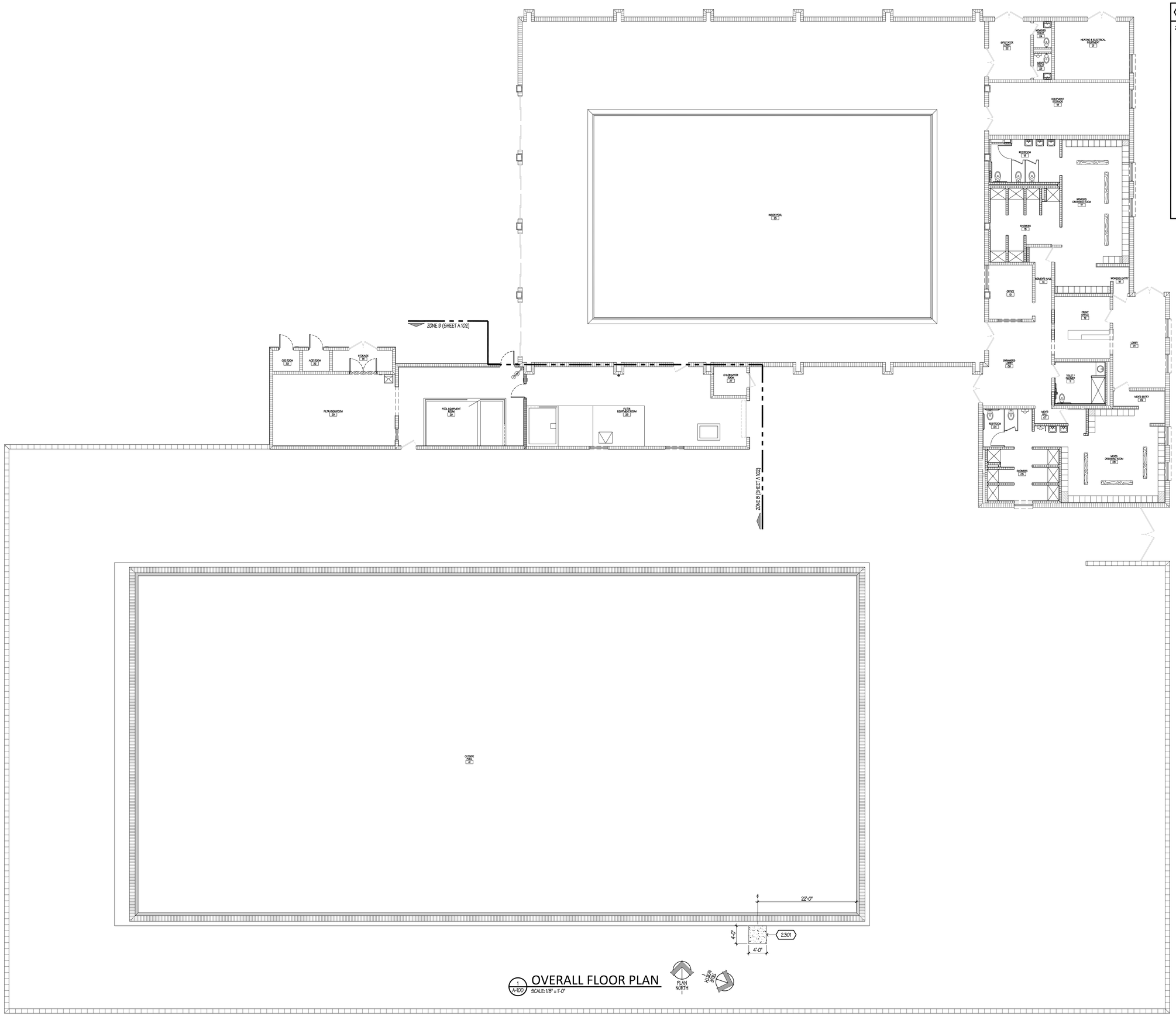
DRAWINGS THAT ARE NOT SIGNED, SEALED & DATED BY THE ENGINEER OF RECORD ARE CONSIDERED PRELIMINARY AND ARE NOT FOR CONSTRUCTION. ANY REQUESTED CHANGES AFTER BID DOCUMENTS ARE ISSUED WILL BE CONSIDERED A CHANGE ORDER AND WILL BE BILLED HOURLY TO THE REQUESTING PARTY.

SHEET TITLE:

SHEET NO:

EXISTING PLAN

S1.1



1 A-100 OVERALL FLOOR PLAN
SCALE: 1/8" = 1'-0"

KEYED NOTES

2.3/01 DEMO AREA (SAW CUT) OF EXISTING CONCRETE SLAB DECK AND PREPARE AREA TO RECEIVE NEW SLAB (DOWEL INTO EXISTING CONCRETE SLAB). MATCH EXISTING TEXTURE FINISH. SEE STRUCTURAL AND POOL DRAWINGS.

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APPROVED BY:	RBM

MARK	DATE	DESCRIPTION

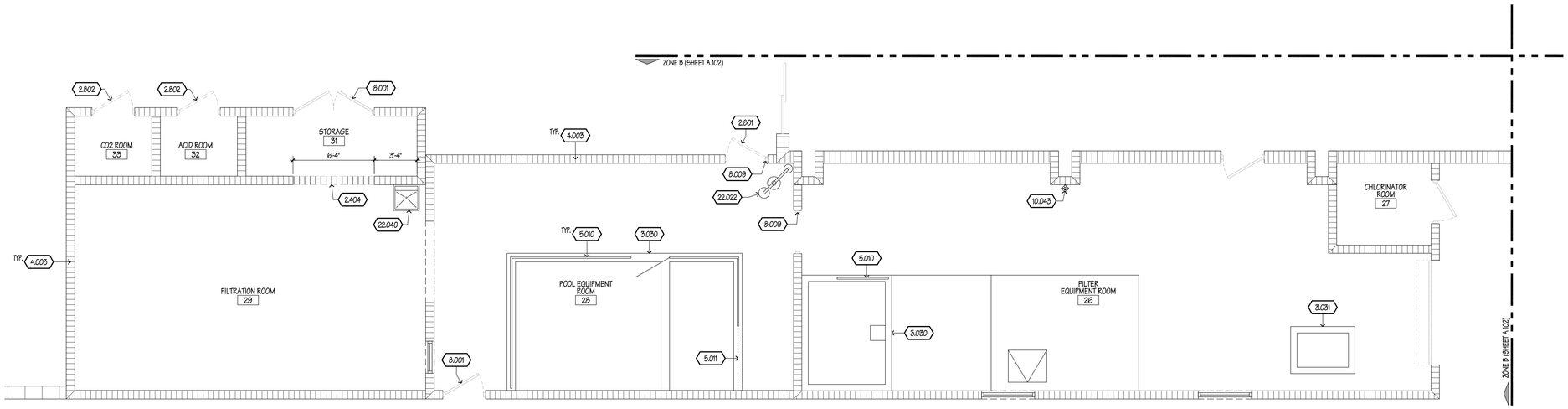
ISSUE: OCTOBER 2025

PROJECT NAME
5449 AQUATIC CENTER RENOVATION
PHASE 1 CODE UPGRADES
1520 Stewart Street
Las Cruces, New Mexico

SHEET TITLE:
OVERALL FLOOR PLAN

SHEET NO:
A-100

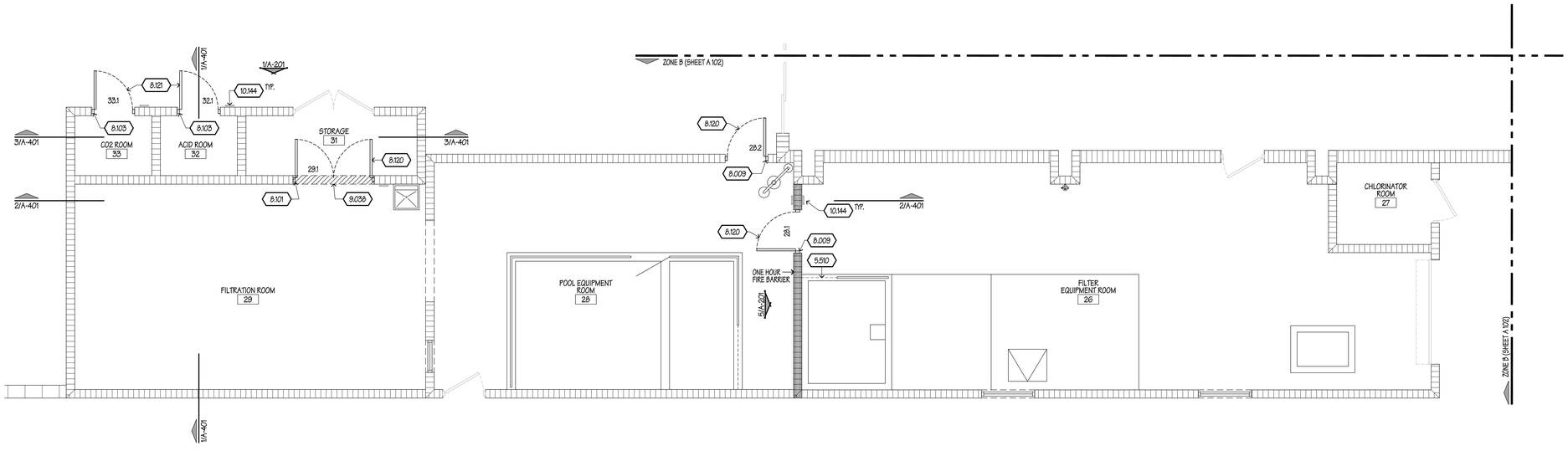
S:\Current Projects\NMSU-DACC - Working\NMSU2025-02 Aquatic Center Remodel\NMSU2025-02 Drawings\Final\Architectural\NMSU2025-02 A100 Overall Floor Plan 10/7/2025 11:45 AM kpadilla



1 A-102 DEMO FLOOR PLAN
SCALE: 1/4" = 1'-0"
ZONE B

PLAN NORTH

TRUE NORTH



2 A-102 FLOOR PLAN
SCALE: 1/4" = 1'-0"
ZONE B

PLAN NORTH

TRUE NORTH

KEYED NOTES

2.404	DEMO AREA (SAW CUT) OF EXISTING CONCRETE MASONRY UNIT (C.M.U.) WALL FOR NEW FRAME AND DOOR. SEE STRUCTURAL DRAWINGS.
2.801	DEMO EXISTING DOOR(S) IN ITS ENTIRETY.
2.802	DEMO EXISTING DOOR(S) AND FRAME(S) IN ITS ENTIRETY.
3.030	EXISTING CONCRETE PIT TO REMAIN. PROTECT DURING CONSTRUCTION.
3.031	EXISTING SAND TRAP CONCRETE PIT TO REMAIN. PROTECT DURING CONSTRUCTION.
4.003	EXISTING CONCRETE MASONRY UNIT (C.M.U.) TO REMAIN. PROTECT DURING CONSTRUCTION.
5.010	EXISTING SAFETY STEEL RAILING TO REMAIN. PROTECT DURING CONSTRUCTION.
5.011	EXISTING SAFETY STEEL CHAIN RAIL. REMAIN. PROTECT DURING CONSTRUCTION.
8.001	EXISTING DOOR(S) AND FRAME(S) TO REMAIN. PROTECT DURING CONSTRUCTION. PRIME AND PAINT.
8.009	EXISTING DOOR FRAME TO REMAIN. PROTECT DURING CONSTRUCTION. PRIME AND PAINT.
10.043	EXISTING FIRE EXTINGUISHER TO REMAIN. PROTECT DURING CONSTRUCTION.
22.022	EXISTING EYE WASH WITH SHOWER TO REMAIN. PROTECT DURING CONSTRUCTION.
22.040	EXISTING UTILITY SINK TO REMAIN. PROTECT DURING CONSTRUCTION.

KEYED NOTES

5.510	NEW SAFETY STEEL CHAIN RAIL WITH CHAIN MOUNTING BRACKETS. ONE SIDE TO BE SECURED TO EXISTING TUBE STEEL RAILING AND THE OTHER SIDE TO BE SECURED TO CMU. CHAIN TO BE REMOVABLE FOR ACCESS. PAINT YELLOW.
8.009	EXISTING DOOR FRAME TO REMAIN. PROTECT DURING CONSTRUCTION.
8.101	NEW HOLLOW METAL FRAME. PRIME AND PAINT.
8.120	NEW HOLLOW METAL DOOR. SEE DOOR SCHEDULE.
8.103	NEW FIBERGLASS DOOR FRAME. SEE DOOR SCHEDULE AND SPECIFICATIONS.
8.121	NEW FIBERGLASS DOOR. SEE DOOR SCHEDULE & SPECIFICATIONS.
9.039	EXISTING FLOORING TO REMAIN. PATCH AND REPAIR CONCRETE SLAB. PROTECT DURING CONSTRUCTION.
10.144	NEW WALL SIGNAGE 8" x 8". NINE INCHES FROM DOOR FRAME TO CENTER OF SIGN. SEE DOOR SCHEDULE FOR HEIGHT.

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CHECKED BY:	RBM
APPROVED BY:	RBM

MARK	DATE	DESCRIPTION
ISSUE:	OCTOBER 2025	

PROJECT NAME

5449 AQUATIC CENTER RENOVATION
PHASE 1 CODE UPGRADES
1520 Stewart Street
Las Cruces, New Mexico

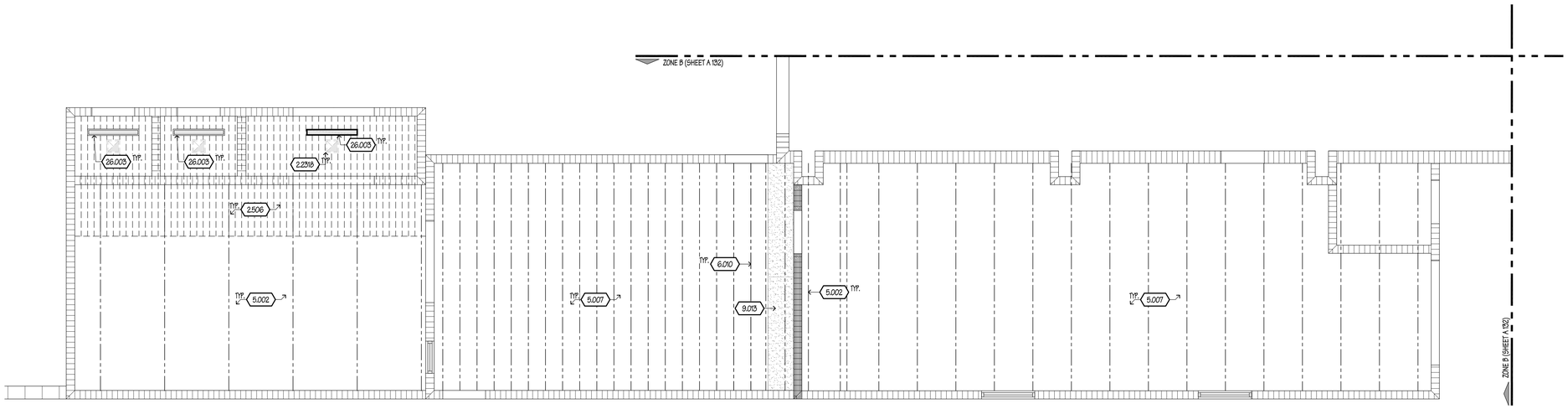
SHEET TITLE:

DEMO FLOOR PLAN
& FLOOR PLAN
ZONE B

SHEET NO:

A-102

S:\Current Projects\NMSU-DACC - Working\NMSU2025-02 Aquatic Center Remodel\NMSU2025-02 Drawings\Final\Architectural\NMSU2025-02 A101 Floor Plan 10/7/2025 11:47 AM kpadilla



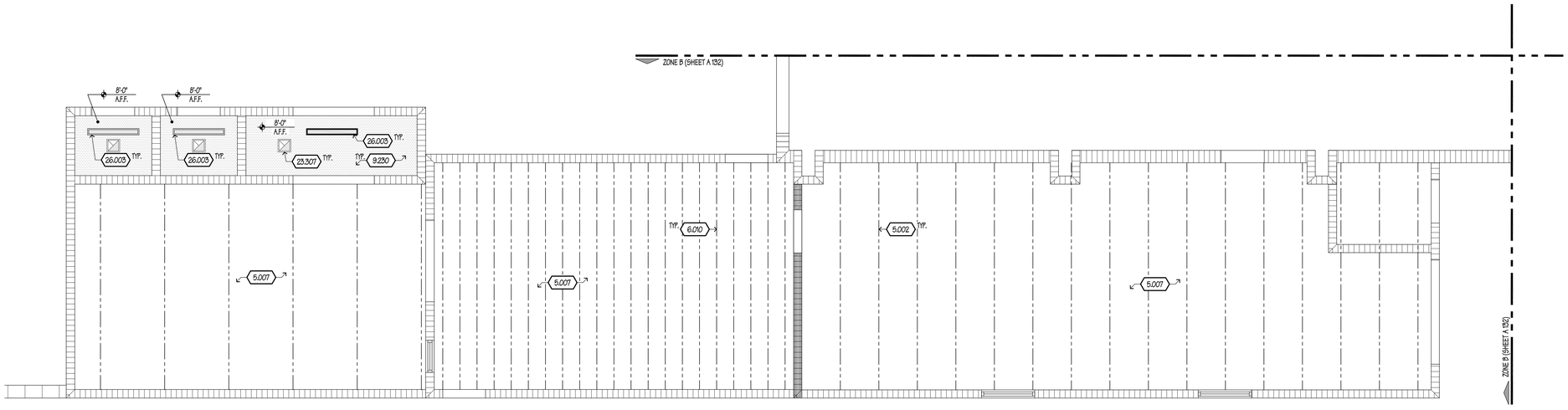
1 A-132 DEMO REF. CEILING PLAN
SCALE: 1/4" = 1'-0"

PLAN NORTH

TRUE NORTH

KEYED NOTES

2.2318	DEMO EXISTING HVAC RETURN/SUPPLY GRILLES IN ITS ENTIRETY. SEE MECHANICAL DRAWINGS.
2.506	DEMO AREA OF EXISTING METAL DECK IN ITS ENTIRETY. SEE STRUCTURAL DRAWINGS.
5.002	EXISTING STEEL JOIST(S) TO REMAIN. PROTECT DURING CONSTRUCTION. SEE STRUCTURAL DRAWINGS.
5.007	EXISTING EXPOSED STRUCTURE.
6.010	EXISTING WOOD 2 x 12 RAFTERS TO REMAIN. PROTECT DURING CONSTRUCTION.
9.013	EXISTING PLASTER CEILING TO REMAIN. PROTECT DURING CONSTRUCTION.
26.003	EXISTING ELECTRICAL LIGHT FIXTURES TO REMAIN. TEMPORARILY SUPPORT AND PROTECT DURING CONSTRUCTION. TO BE RE-INSTALL. SEE ELECTRICAL DRAWINGS.



2 A-132 REFLECTED CEILING PLAN
SCALE: 1/4" = 1'-0"

PLAN NORTH

TRUE NORTH

KEYED NOTES

5.002	EXISTING STEEL JOIST(S) TO REMAIN. PROTECT DURING CONSTRUCTION. SEE STRUCTURAL DRAWINGS.
5.007	EXISTING EXPOSED STRUCTURE.
6.010	EXISTING WOOD 2 x 12 RAFTERS TO REMAIN. PROTECT DURING CONSTRUCTION.
9.230	NEW 5/8" CEMENT BOARD. SEAL ALL JOINTS AND PENETRATIONS. NO GAPS OR VOIDS IN CEILING SYSTEM. SEE SPECIFICATIONS.
23.307	NEW HVAC RETURN/SUPPLY GRILLES. SEE MECHANICAL DRAWINGS.
26.003	EXISTING ELECTRICAL LIGHT FIXTURES TO REMAIN. TEMPORARILY SUPPORT AND PROTECT DURING CONSTRUCTION. TO BE RE-INSTALL. SEE ELECTRICAL DRAWINGS.

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APPROVED BY:	RBM

MARK	DATE	DESCRIPTION
ISSUE:	OCTOBER 2025	

PROJECT NAME

5449 AQUATIC CENTER RENOVATION
PHASE 1 CODE UPGRADES
1520 Stewart Street
Las Cruces, New Mexico

SHEET TITLE:

DEMO R.C.P. & REFLECTED CEILING PLAN
ZONE B

SHEET NO:

A-132

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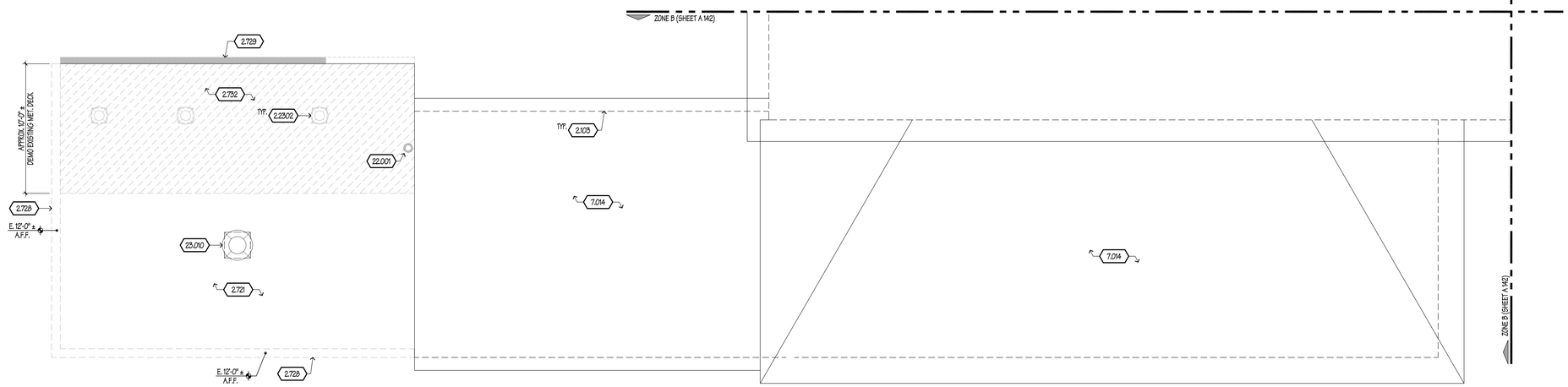
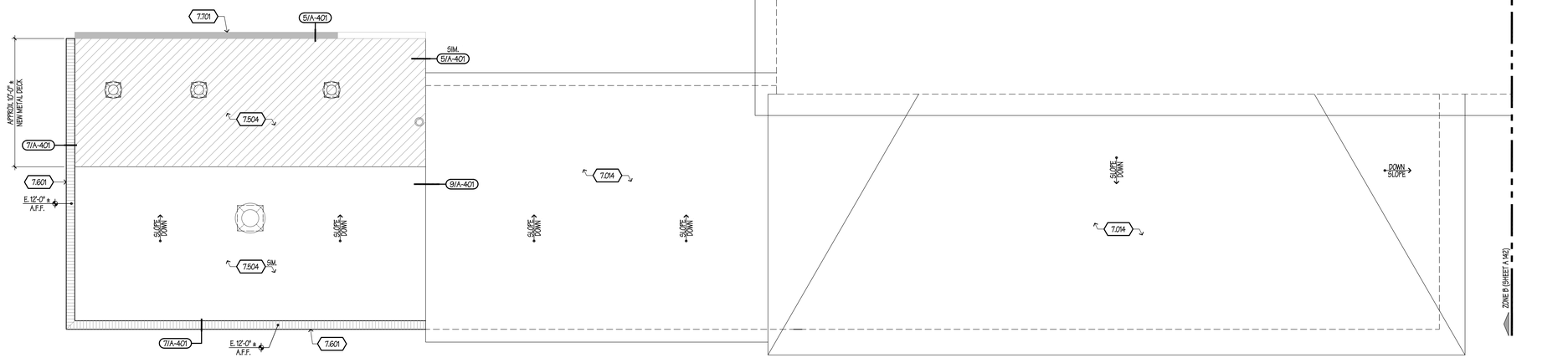


1 A-142 DEMO ROOF PLAN
SCALE: 1/4" = 1'-0"

KEYED NOTES

2.10.3	EXISTING OUTLINE OF THE BUILDING PERIMETER.
2.721	DEMO EXISTING THERMOPLASTIC POLYOLEFIN SINGLE-PLY ROOFING MEMBRANE SYSTEM (T.P.O.) ROOFING SYSTEM IN ITS ENTIRETY DOWN TO THE EXISTING DECK.
2.728	DEMO EXISTING SHEET METAL COPING CAP IN ITS ENTIRETY.
2.729	DEMO EXISTING SHEET METAL GUTTER IN ITS ENTIRETY.
2.732	DEMO EXISTING ROOFING MEMBRANE SYSTEM IN ITS ENTIRETY INCLUDING EXISTING METAL DECK.
2.23.02	DEMO EXISTING EXHAUST FAN UNIT IN ITS ENTIRETY. SEE MECHANICAL DRAWINGS.
7.014	EXISTING ROOFING SYSTEM TO REMAIN. PROTECT DURING CONSTRUCTION.
22.001	EXISTING PLUMBING ROOF VENT TO REMAIN. PROTECT DURING CONSTRUCTION. SEE PLUMBING DRAWINGS.
23.010	EXISTING EXHAUST FAN UNIT REMAIN. PROTECT DURING CONSTRUCTION. SEE MECHANICAL DRAWINGS.



2 A-142 ROOF PLAN
SCALE: 1/4" = 1'-0"

KEYED NOTES

7.014	EXISTING ROOFING SYSTEM TO REMAIN. PROTECT DURING CONSTRUCTION.
7.504	NEW THERMOPLASTIC POLYOLEFIN SINGLE-PLY ROOFING MEMBRANE SYSTEM (T.P.O.) ROOFING SYSTEM. FULLY ADHERED OVER 1/2" DENS DECK AND 4 1/2" OF RIGID INSULATION SECURED TO NEW 1 1/2" METAL DECK. SEE STRUCTURAL DRAWINGS.
7.601	NEW PARAPET COPING CAP. PREFABRICATED SHEET METAL.
7.701	NEW GUTTER WITH STRAPS. FABRICATED SHEET METAL.

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MARK	DATE	DESCRIPTION
ISSUE:	OCTOBER 2025	

PROJECT NAME

5449 AQUATIC CENTER RENOVATION
PHASE 1 CODE UPGRADES
1520 Stewart Street
Las Cruces, New Mexico

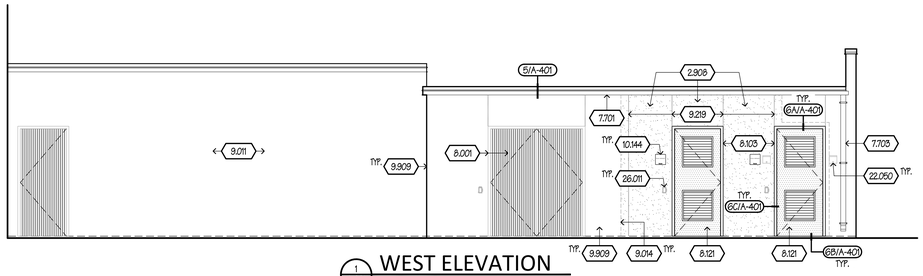
SHEET TITLE:

DEMO ROOF PLAN
& ROOF PLAN
ZONE B

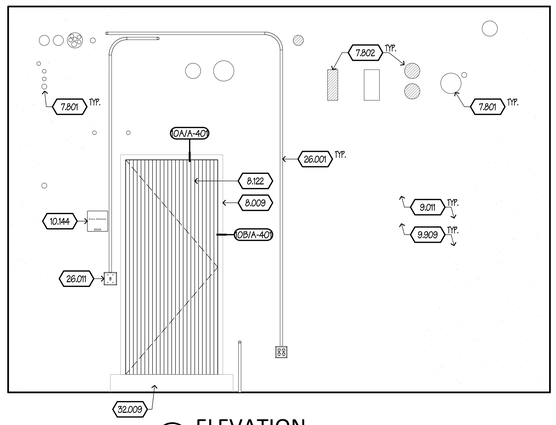
SHEET NO:

A-142

S:\Current Projects\NMSU-DACC - Working\NMSU2025-02 Aquatic Center Remodel\NMSU2025-02 Drawings\Final\Architectural\NMSU2025-02 A141 Roof Plan 10/7/2025 11:48 AM lpadilla



1 A-201 WEST ELEVATION
SCALE: 1/4" = 1'-0"



5 A-201 ELEVATION
SCALE: 1/2" = 1'-0"

EXT ELEV NOTES

2.908	DEMO AN AREA OF THE EXISTING STUCCO SYSTEM IN ITS ENTIRETY DOWN TO THE EXISTING CONCRETE BLOCK. PREPARE FOR NEW STUCCO THREE-COAT SYSTEM. MATCH EXISTING TEXTURE. PRIME AND PAINT.
7.701	NEW GUTTER WITH STRAPS. FABRICATED SHEET METAL.
7.703	NEW DOWNSPOUT WITH STRAPS. FABRICATED SHEET METAL
7.801	EXISTING PIPE/CONDUIT PENETRATION. FILL GAP BETWEEN PIPE/CONDUIT AND WALL WITH FIRE SEALANT ON BOTH SIDES.
7.802	FILL OPENING WITH GROUT TO FULL DEPTH OF WALL. NO GAPS OR VOIDS.
8.001	EXISTING DOOR(S) AND FRAME(S) TO REMAIN. PROTECT DURING CONSTRUCTION. PRIME AND PAINT.
8.009	EXISTING DOOR FRAME TO REMAIN. PROTECT DURING CONSTRUCTION. PRIME AND PAINT.
8.103	NEW FIBERGLASS DOOR FRAME. SEE DOOR SCHEDULE AND SPECIFICATIONS.
8.121	NEW FIBERGLASS DOOR. SEE DOOR SCHEDULE AND SPECIFICATIONS.
8.122	NEW HOLLOW METAL DOOR. SEE DOOR SCHEDULE.
9.011	EXISTING STUCCO ON BLOCK TO REMAIN. PROTECT DURING CONSTRUCTION.
9.014	REPAIR EXISTING STUCCO. MATCH EXISTING TEXTURE.
9.219	NEW STUCCO CONTROL JOINT.
9.909	PRIME AND PAINT EXISTING STUCCO.
10.144	WALL SIGNAGE 8"x8". NINE INCHES FROM FRAME TO CENTER OF SIGN. PROVIDE MATCHING COLOR BLANK SIGN ON THE BACKSIDE OF WALL SIGN AT GLASS LOCATIONS. SEE DOOR SCHEDULE FOR HEIGHT.
22.050	EXISTING CO2 CONNECTION VALVE BOX TO REMAIN. PROTECT DURING CONSTRUCTION.
26.001	EXISTING ELECTRICAL CONDUIT LINE(S) TO REMAIN. PROTECT DURING CONSTRUCTION. SEE ELECTRICAL DRAWINGS.
26.011	EXISTING ELECTRICAL LIGHT SWITCH BOX TO REMAIN. PROTECT DURING CONSTRUCTION.
32.009	EXISTING CONCRETE STEP TO REMAIN. PROTECT DURING CONSTRUCTION.

ROOM FINISH CODES

FLOOR		BASE		WALL(S)		WAINSCOT			CEILING	
								HGT.		
F1	VINYL COMPOSITION TILE (V.C.T.)	B1	4" RUBBER BASE	W1	5/8" GYPSUM BOARD	W51	FIBERGLASS PANEL (FRP)	4'-0"	C1	LAY-IN ACOUSTICAL 24" x 24"
F2	V.C.T. SLIP RESISTANT	B2	SHEET VINYL	W2	5/8" M.R. GYPSUM BOARD	W52	COLOR WALL PANEL (C.W.P.)	7'-2"	C2	LAY-IN ACOUSTICAL 24" x 48"
F3	SEALED CONCRETE	B3	CERAMIC TILE	W3	5/8" H.D. GYPSUM BOARD	W53	CERAMIC TILE	FULL HT.	C3	M.R. LAY-IN ACOUSTICAL 24" x 24"
F4	SHEET VINYL	B4	COVE BASE	W4	C.M.U.	W54	PORCELAIN TILE		C4	M.R. LAY-IN ACOUSTICAL 24" x 48"
F5	CERAMIC TILE	B5	4" EPOXY	W5	PLASTER	W55	.		C5	5/8" GYPSUM BOARD
F6	MOSAIC TILE	B6	VENT COVE BASE	W6	PORCELAIN TILE	W56	.		C6	5/8" M.R. GYPSUM BOARD
F7	CARPET	B7		W7	CERAMIC TILE	W57	.		C7	CEMENT PLASTER
F8	CARPET TILE	B8		W8	SPECTRA GLAZE C.M.U.	W58	.		C8	EXPOSED STRUCTURE
F9	EPOXY	B9		W9	EXPOSED CONCRETE (SEALED)	W59			C9	SEALED CONCRETE
F10	WOOD FLOORING	B10		W10	5/8" CEMENT BOARD	W510			C10	5/8" CEMENT BOARD
F11		B11		W11		W511			C11	
F12		B12		W12		W512			C12	
F13		B13		W13	EPOXY PAINT	W513			C13	EPOXY PAINT
F14	EXISTING	B14	EXISTING	W14	EXISTING	W514	EXISTING		C14	EXISTING
F15	NONE (NO WORK)	B15	NONE (NO WORK)	W15	NONE (NO WORK)	W515	NONE (NO WORK)		C15	NONE (NO WORK)
.	.									
.	.									
.	.									

NOTE:
A. NOT ALL ROOM FINISH CODES APPLY TO THIS PROJECT.
B. FINISHES INDICATED VIA FINISH SCHEDULE SHALL BE INSTALLED THRU-OUT ENTIRE ROOM, TYPICAL, UNLESS NOTED OTHERWISE (U.N.O.).

ROOM FINISH SCHEDULE

NO.	ROOM NAME	FLOOR	BASE	WALL(S)				WAINSCOT				CEILING		REMARKS
				NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST		HGT.	
01	LOBBY													*NO WORK.
02	MEN'S ENTRY													*NO WORK.
03	MEN'S DRESSING ROOM													*NO WORK.
04	RESTROOM													*NO WORK.
05	SHOWERS													*NO WORK.
06	TOWELING AREA													*NO WORK.
07	MEN'S HALL													*NO WORK.
08	SWIMMERS LOBBY													*NO WORK.
09														*NO WORK.
11	TOILET / SHOWER													*NO WORK.
12	FRONT OFFICE													*NO WORK.
13	OFFICE													*NO WORK.
14	WOMEN'S HALL													*NO WORK.
15	SHOWERS													*NO WORK.
16	WOMEN'S ENTRY													*NO WORK.
17	WOMEN'S DRESSING ROOM													*NO WORK.
18	RESTROOM													*NO WORK.
19	EQUIPMENT STORAGE													*NO WORK.
21	HEATING & ELECTRICAL EQUIPMENT													*NO WORK.
22	SPECTATOR LOBBY													*NO WORK.
23	MEN'S TOILET													*NO WORK.
24	WOMEN'S TOILET													*NO WORK.
25	INSIDE POOL													*NO WORK.
26	FILTER EQUIPMENT ROOM													*NO WORK.
27	CHLORINATOR ROOM													*NO WORK.
28	POOL EQUIPMENT ROOM													*NO WORK.
29	FILTRATION ROOM													*NO WORK.
31	STORAGE	F 3	B 15	W 4, W13	W 4, W13	W 4, W13	W 4, W13	W15	W15	W15	W15	C10, C13	8'-8"	
32	ACID ROOM	F 3	B 15	W 4, W13	W 4, W13	W 4, W13	W 4, W13	W15	W15	W15	W15	C10, C13	8'-8"	
33	CO2 ROOM	F 3	B 15	W 4, W13	W 4, W13	W 4, W13	W 4, W13	W15	W15	W15	W15	C10, C13	8'-8"	

DOOR AND FRAME SCHEDULE

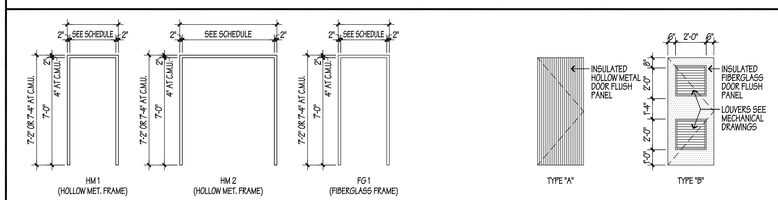
DOOR NO.	DOOR SIZE (#) W x H x Thickness	DOOR TYPE	FRAME TYPE	HDW. SET	FIRE LABEL	CARD READER	DETAILS Head	Jamb	Jamb	Threshld	SIGN Room Name & Number	REMARKS
22.1	3'-0" x 7'-2" x 1 3/4"	A	EXISTING		45 MIN.		10A/A-401	10B/A-401	10B/A-401	-	ROOM NAME & THREE NUMBERS	*EXISTING FRAME-FIELD VERIFY OPENING
22.2	3'-0" x 7'-2" x 1 3/4"	A	EXISTING		45 MIN.		10A/A-401	10B/A-401	10B/A-401	-	ROOM NAME & THREE NUMBERS	*EXISTING FRAME-FIELD VERIFY OPENING
23.1	(2) 3'-0" x 7'-0" x 1 3/4"	A	HM 2				8A/A-401	8B/A-401	8B/A-401	-	ROOM NAME & THREE NUMBERS	
32.1	3'-0" x 7'-0" x 1 3/4"	B	* FG 1				6A/A-401	6C/A-401	6C/A-401	6B/A-401	ROOM NAME & THREE NUMBERS	*CUSTOM FRAME (FIBERGLASS)-FIELD VERIFY OPENING
33.1	3'-0" x 7'-0" x 1 3/4"	B	* FG 1				6A/A-401	6C/A-401	6C/A-401	6B/A-401	ROOM NAME & THREE NUMBERS	*CUSTOM FRAME (FIBERGLASS)-FIELD VERIFY OPENING

DOOR SCHEDULE ABBREVIATION LEGEND

MIN.	MINUTES	P	PAINT
HDW.	HARDWARE		
EXIST.	EXISTING	PRF	PRE-FINSIHED
H.M.	HOLLOW METAL	S.C. WD.	SOLID CORE WOOD

GENERAL NOTE:
1. ALL INTERIOR DOORS TO HAVE DOOR SIGNS AS SPECIFIED. REFER TO MOUNTING HEIGHT REQUIREMENTS.
2. FIELD VERIFY DOOR OPENING DIMENSIONS AND HARDWARE LOCATIONS.
3. ALL EXISTING FRAMES MAY BE CUSTOM FRAMES. FIELD VERIFY ALL DOOR & WINDOW OPENINGS.

DOOR FRAMES AND DOOR TYPES



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APPROVED BY:	RBM

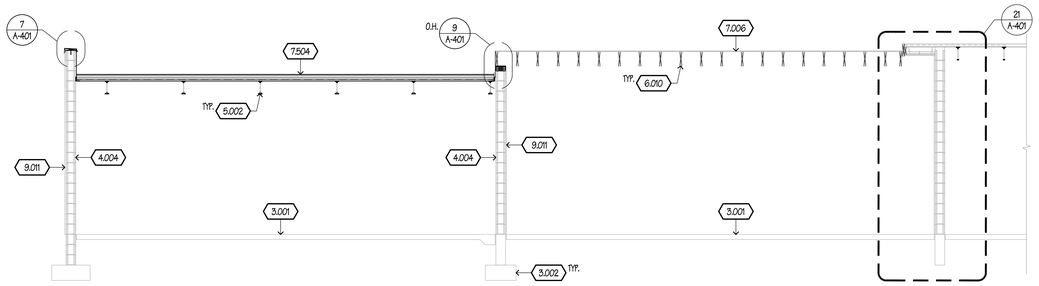
MARK	DATE	DESCRIPTION
ISSUE:	OCTOBER 2025	

PROJECT NAME
5449 AQUATIC CENTER RENOVATION
PHASE 1 CODE UPGRADES
1520 Stewart Street
Las Cruces, New Mexico

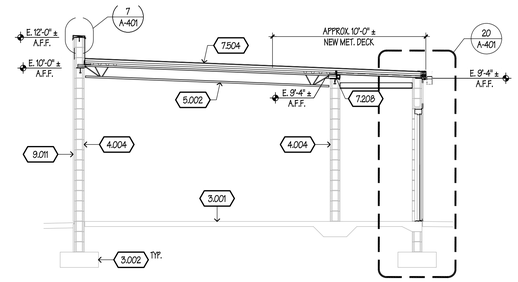
SHEET TITLE:
ROOM FINISH & DOOR / FRAME SCHEDULES, DOOR TYPES

SHEET NO:
A-201

S:\Current Projects\NMSU-DACC - Working\NMSU2025-02 Aquatic Center Remodel\NMSU2025-02 Drawings\Final\Architectural\NMSU2025-02 A201 Rm Finish Schs 10/7/2025 11:49 AM lpadilla



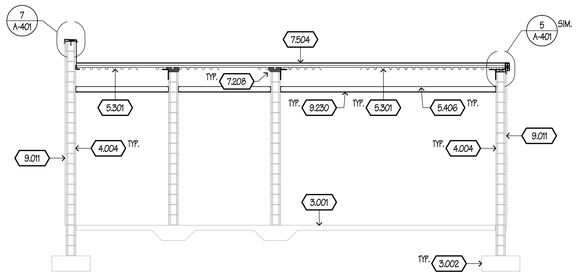
2 A-401 BUILDING SECTION
SCALE: 1/4" = 1'-0"



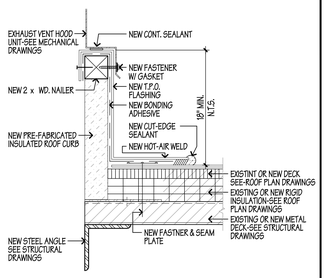
1 A-401 BUILDING SECTION
SCALE: 1/4" = 1'-0"

KEYED NOTES

3.001	EXISTING CONCRETE SLAB TO REMAIN. PROTECT DURING CONSTRUCTION.
3.002	EXISTING CONCRETE FOOTING TO REMAIN. PROTECT DURING CONSTRUCTION. SEE STRUCTURAL DRAWINGS.
4.004	EXISTING CONCRETE MASONRY UNIT (C.M.U). PRIME AND PAINT.
5.002	EXISTING STEEL JOIST(S) TO REMAIN. PROTECT DURING CONSTRUCTION. SEE STRUCTURAL DRAWINGS.
5.301	NEW STRUCTURAL METAL DECKING.
5.406	NEW 4" METAL STUD @ 16" O.C.
6.010	EXISTING WOOD 2 x 12 RAFTERS TO REMAIN. PROTECT DURING CONSTRUCTION.
7.006	EXISTING ROOFING SYSTEM TO REMAIN. PROTECT DURING CONSTRUCTION.
7.208	NEW FIRE FOAM SEALER (FOAMED-IN-PLACE SEALER).
7.504	NEW THERMOPLASTIC POLYOLEFIN SINGLE-PLY ROOFING MEMBRANE SYSTEM (T.P.O.) ROOFING SYSTEM. FULLY ADHERED OVER 1/2" DENS DECK AND 4 1/2" OF RIGID INSULATION SECURED TO NEW 1 1/2" METAL DECK. SEE STRUCTURAL DRAWINGS.
7.801	EXISTING PIP/CONDUIT PENETRATION. FILL GAP BETWEEN PIPE/CONDUIT AND WALL WITH FIRE SEALANT ON BOTH SIDES.
7.802	FILL OPENING WITH GROUT TO FULL DEPTH OF WALL. NO GAPS OR VOIDS.
7.803	NEW FIRE SEALANT. SEE SPECIFICATIONS.
8.121	NEW FIBERGLASS DOOR. SEE DOOR SCHEDULE AND SPECIFICATIONS.
9.011	EXISTING STUCCO TO REMAIN. PROTECT DURING CONSTRUCTION.
9.230	NEW 5/8" CEMENT BOARD. SEAL ALL JOINTS AND PENETRATIONS. NO GAPS OR VOIDS IN CEILING SYSTEM. SEE SPECIFICATIONS.



3 A-401 BUILDING SECTION
SCALE: 1/4" = 1'-0"



11 EXHAUST VENT HOOD UNIT 09/17/2021
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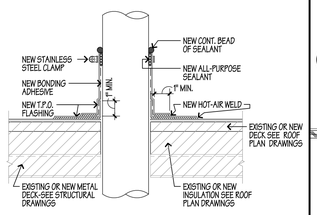

09/17/2021

12 VENT STACK A
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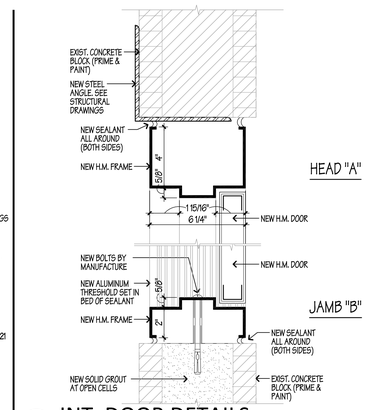

8 INT. DOOR DETAILS
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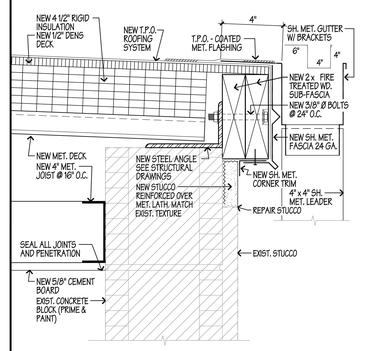
INTERIOR



5 GUTTER DETAIL
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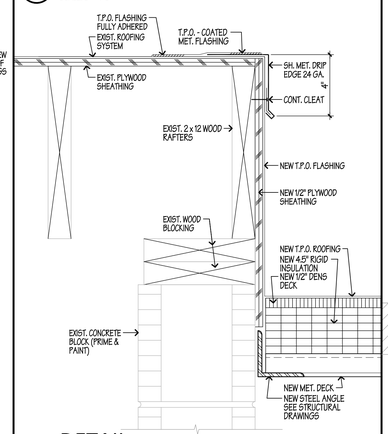
EXTERIOR



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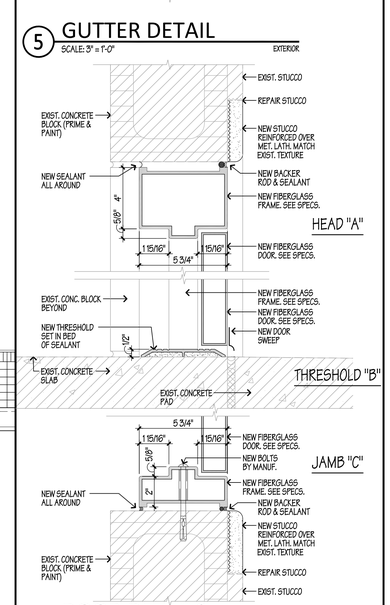

6 DOOR DETAILS
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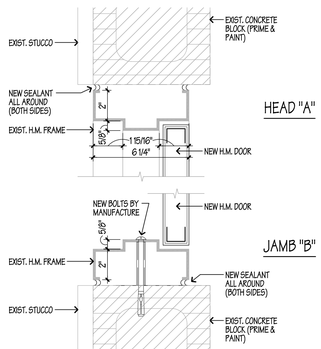
EXTERIOR



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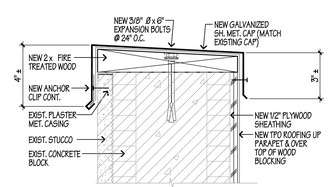

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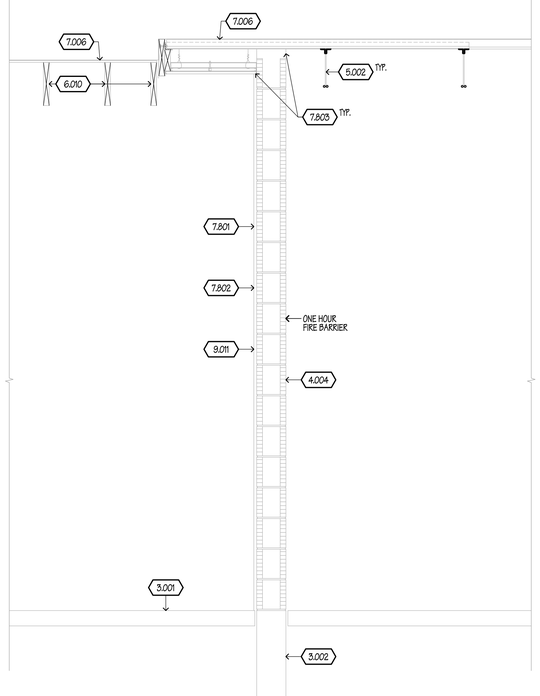

21 A-401 WALL SECTION
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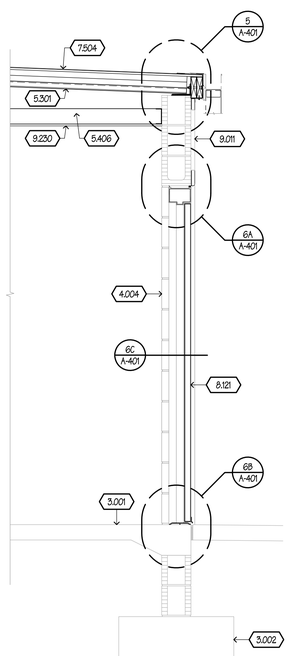

20 A-401 WALL SECTION
SCALE: 3/4" = 1'-0"

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ISSUE:	OCTOBER 2025	

PROJECT NAME
5449 AQUATIC CENTER RENOVATION
PHASE 1 CODE UPGRADES
1520 Stewart Street
Las Cruces, New Mexico

SHEET TITLE:
BUILDING & WALL SECTIONS, DETAILS

SHEET NO:
A-401

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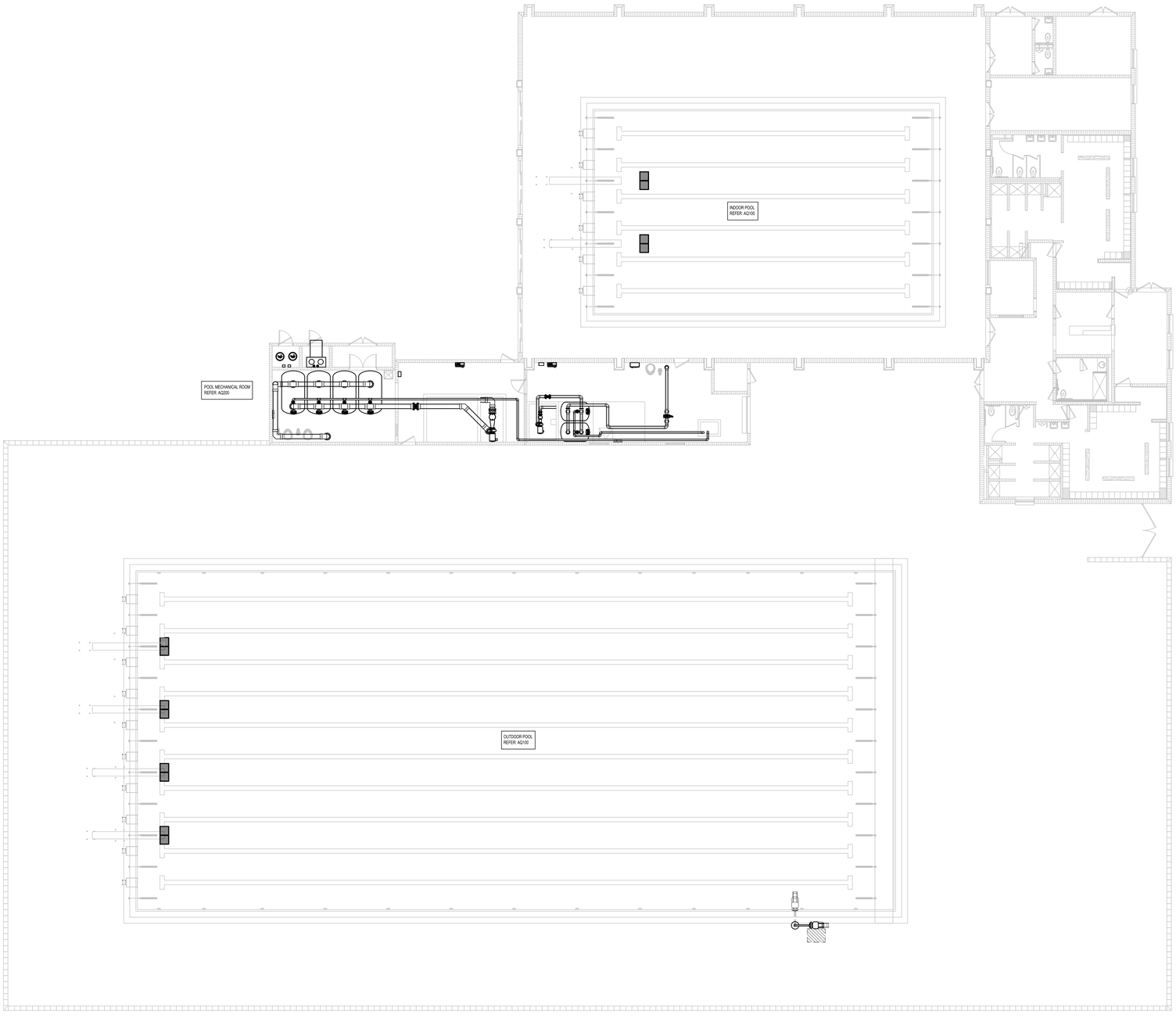

DESIGN DATA*

	UNITS	OUTDOOR POOL	INDOOR POOL
LENGTH	FT.	168' - 3 1/2"	75' - 1"
WIDTH	FT.	75' - 1"	45' - 1"
WATER SURFACE AREA	SQ. FT.	12,636	3,379
PERIMETER	FT.	487	240
VOLUME	GALLONS	718,822	213,678
RECIRCULATION SYSTEM			
POOL TURNOVER RATE	HOURS	5.33	4.75
RECIRCULATION RATE	GPM	2,250	750
SEWER CAPACITY	GPM	REFER TO PLUMBING	REFER TO PUMBING

*DATA FROM EXISTING RECORD DRAWINGS

GENERAL POOL DEMOLITION AND RENOVATION NOTES

1. COORDINATE ALL DEMOLITION PLANS AND WORK WITH ARCHITECT AND CONSTRUCTION DOCUMENTS PRIOR TO THE START OF DEMOLITION.
2. REVIEW RECORD DOCUMENTS OF EXISTING CONSTRUCTION PROVIDED BY THE OWNER. NEITHER THE OWNER NOR ENGINEER MAKES ANY GUARANTEE THAT THE EXISTING CONDITIONS REFLECT THOSE INDICATED IN THE RECORD DOCUMENTS. CONTRACTOR TO PROVIDE NOTIFICATION OF ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THE CONTRACT DOCUMENTS BEFORE PROCEEDING WITH DEMOLITION.
3. CONTRACTOR TO SURVEY EXISTING CONDITIONS AND CORRELATE WITH REQUIREMENTS INDICATED IN THE CONTRACT DOCUMENTS TO DETERMINE THE EXTENT OF DEMOLITION REQUIRED. CONTRACTOR TO RECORD EXISTING CONDITIONS WITH DETAILED PRECONSTRUCTION PHOTOGRAPHS.
4. UNLESS OTHERWISE INDICATED, DEMOLITION WASTE BECOMES PROPERTY OF THE CONTRACTOR.
5. EXCEPT FOR ITEMS OR MATERIALS INDICATED TO BE RECYCLED, REUSED, SALVAGED, REINSTALLED, OR OTHERWISE INDICATED TO REMAIN OWNER'S PROPERTY, REMOVE DEMOLISHED MATERIALS FROM PROJECT SITE AND LEGALLY DISPOSE OF THEM. OWNER HAS THE FIRST RIGHT OF REFUSAL ON ALL DEMOLITION MATERIALS.
6. IF HAZARDOUS MATERIALS ARE ENCOUNTERED, DO NOT DISTURB. IMMEDIATELY NOTIFY THE OWNER AND ENGINEER.
7. INDICATE RECEIPT AND ACCEPTANCE OF ANY HAZARDOUS WASTES BY A LANDFILL FACILITY LICENSED TO ACCEPT SUCH HAZARDOUS WASTES.
8. MAINTAIN EXISTING UTILITIES TO REMAIN IN SERVICE AND PROTECT THEM AGAINST DAMAGE DURING DEMOLITION OPERATIONS. REFER TO OTHER TRADES FOR COORDINATION.
9. ELECTRICIAN MUST VERIFY EXISTING BOND GRID. ALL NEW EMBEDS AND MECHANICAL EQUIPMENT MUST BE BONDED PER NEC ARTICLE 680.
10. PRIOR TO DRAINING THE POOLS FOR CONSTRUCTION, THE CONTRACTOR MUST COMPLETE A WATER TIGHTNESS TEST FOR THE POOL STRUCTURES AND REPORT TEST RESULTS FOR THE ENGINEER TO REVIEW. REFER TO THE SWIMMING POOL SPECIFICATION FOR TESTING REQUIREMENTS.
11. ALL EXISTING BELOW GRADE POOL PIPING SYSTEMS MUST BE HYDROSTATICALLY (WATER) PRESSURE TESTED FOR LEAKS BEFORE THE START OF CONSTRUCTION TO VERIFY WATER TIGHTNESS. PNEUMATIC (AIR) TESTING IS NOT PERMITTED. REPORT TEST RESULTS TO THE ENGINEER TO REVIEW. REFER TO THE SWIMMING POOL SPECIFICATION FOR TESTING REQUIREMENTS.
12. PROTECT ALL EXISTING POOL FINISHES, GUTTERS, AND ANY OTHER POOL RELATED APPURTENANCES DURING CONSTRUCTION.
13. RELOCATE OR REPOSITION BULKHEAD AS REQUIRED TO COMPLETE CONTRACTED WORK. CONTRACTOR TO FOLLOW ALL MANUFACTURERS REQUIREMENTS FOR CARE AND SUPPORT OF BULKHEAD WHEN THE POOL IS DRAINED UNTIL IT IS FULLY REFILLED.
14. CONTRACTOR TO PROVIDE AND EXECUTE APPROVED DUST CONTROL PLAN.
15. CLEAN ADJACENT STRUCTURES AND IMPROVEMENTS OF DUST, DIRT, AND DEBRIS FOLLOWING DEMOLITION OPERATIONS. CONTRACTOR TO RETURN ADJACENT AREAS TO CONDITION EXISTING BEFORE THE START OF DEMOLITION OPERATIONS.
16. ALL POOL REINFORCING STEEL, METAL FITTINGS, EQUIPMENT WITHIN 5'-0" OF POOL EDGE, AND ANY METAL PARTS OF POOL MECHANICAL EQUIPMENT IN CONTACT WITH THE POOL RECIRCULATION SYSTEM MUST BE BONDED PER NEC 680. REFER: 3/AQ202

DRAWING INDEX

SHEET	DESCRIPTION
AQ000	POOL REFERENCE PLAN
AQ001	POOL DEMOLITION PLANS
AQ002	POOL MECHANICAL ROOM DEMOLITION PLAN
AQ100	POOL RENOVATION PLANS & DETAIL
AQ200	POOL MECHANICAL ROOM RENOVATION PLAN
AQ201	POOL MECHANICAL DETAILS
AQ202	POOL MECHANICAL DETAILS
AQ300	POOL SYSTEMS SCHEMATICS

1 / AQ000 POOL REFERENCE PLAN
3/32" = 1'-0"

N

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APPROVED BY:	CJR

MARK	DATE	DESCRIPTION
1	10.06.25	100% CD

ISSUE: OCTOBER 6, 2025

PROJECT NAME
5449 AQUATIC CENTER RENOVATION
PHASE 1 CODE UPGRADES
1520 Stewart Street
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SHEET TITLE:
POOL REFERENCE PLAN

SHEET NO: 1 OF 8

AQ000

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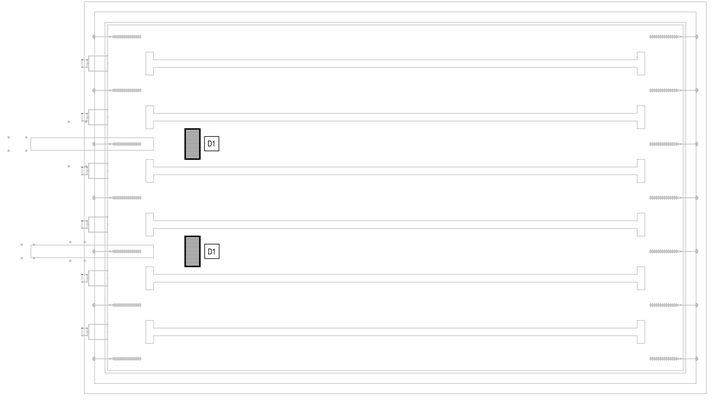
1 AQ001 OUTDOOR POOL DEMOLITION PLAN

1/8" = 1'-0"



2 AQ001 INDOOR POOL DEMOLITION PLAN

1/8" = 1'-0"

OUTDOOR POOL DEMOLITION KEYNOTES

COORDINATE ALL DEMOLITION PLANS WITH ARCHITECT AND CONSTRUCTION DOCUMENTS PRIOR TO DEMOLITION

D1	REMOVE AND PROPERLY DISPOSE OF EXISTING MAIN DRAIN GRATES.
D2	SAW CUT A 4' - 0" X 4' - 0" AREA OF THE POOL DECK AT THE LOCATION SHOWN BEHIND THE EXPANSION JOINT BETWEEN THE POOL AND DECK STRUCTURES. REMOVE ANY SOIL OR BACKFILL TO PROVIDE A 10" DEPTH FROM THE DECK SURFACE. ENSURE THAT ANY DECK ANCHORED EQUIPMENT IS PROTECTED AND DOES NOT CONFLICT WITH CUT SECTION OF THE POOL DECK.

INDOOR POOL DEMOLITION KEYNOTES

COORDINATE ALL DEMOLITION PLANS WITH ARCHITECT AND CONSTRUCTION DOCUMENTS PRIOR TO DEMOLITION

D1	REMOVE AND PROPERLY DISPOSE OF EXISTING MAIN DRAIN GRATES.

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PROJECT NO.	25185
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DRAWN BY:	WGW
CHECKED BY:	CCH
APPROVED BY:	CJR

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PROJECT NAME

5449 AQUATIC CENTER RENOVATION
PHASE 1 CODE UPGRADES
1520 Stewart Street
Las Cruces, New Mexico

SHEET TITLE:
POOL DEMOLITION PLANS

SHEET NO: 2 OF 8

AQ001

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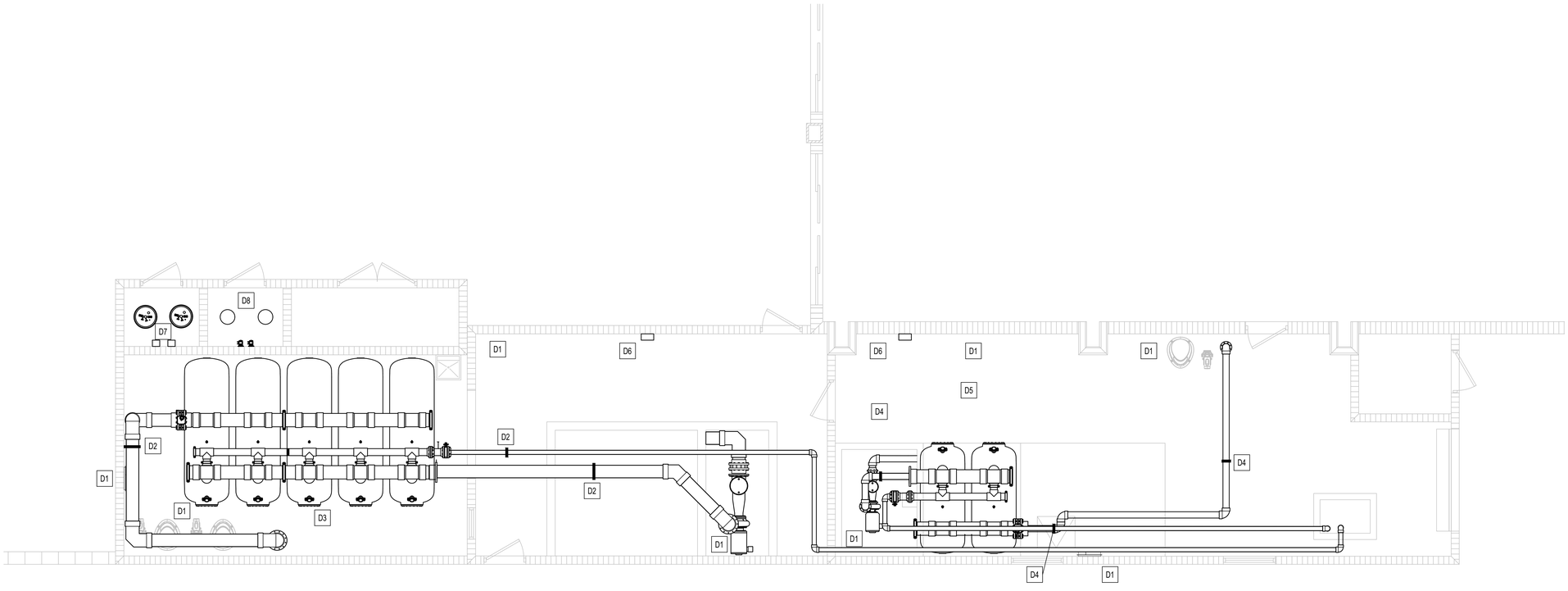

1 AQ002 POOL MECHANICAL ROOM DEMOLITION PLAN

1/4" = 1'-0"

POOL DEMOLITION KEYNOTES

COORDINATE ALL DEMOLITION PLANS WITH ARCHITECT AND CONSTRUCTION DOCUMENTS PRIOR TO DEMOLITION

D1	EXISTING SANITIZERS, HEAT EXCHANGERS, PUMPS, CHEMICAL CONTROLLERS, AND ELECTRICAL PANELS FOR BOTH POOLS MUST BE PROTECTED TO REMAIN.
D2	CUT OUTDOOR POOL FILTER INFLUENT, EFFLUENT, AND BACKWASH PIPES AT LOCATIONS SHOWN. INFLUENT PIPING MUST BE CUT FAR ENOUGH FROM THE FILTER TO INCORPORATE FUTURE ELECTRONIC FLOCCULANT SPOOL PIECE. PROPERLY DISPOSE OF INFLUENT PIPING AFTER CUT AND EFFLUENT AND BACKWASH PIPING BEFORE CUT.
D3	REMOVE AND PROPERLY DISPOSE OF OUTDOOR POOL FILTER TANKS AND CONTROLS. TANKS TO BE REMOVED THROUGH OPENING CREATED ON BUILDING WALL TO PLAN NORTH. REFER TO ARCHITECT FOR BUILDING OPENING.
D4	CUT INDOOR POOL FILTER INFLUENT,EFFLUENT, AND BACKWASH PIPES AT LOCATIONS SHOWN. INFLUENT PIPING MUST BE CUT FAR ENOUGH FROM THE FILTER TO INCORPORATE FUTURE ELECTRONIC FLOCCULANT SPOOL PIECE. EFFLUENT PIPING MUST BE CUT FAR ENOUGH FROM FILTER TO INCORPORATE FUTURE UV BYPASS. PROPERLY DISPOSE OF INFLUENT PIPING AFTER CUT AND EFFLUENT AND BACKWASH PIPING BEFORE CUT.
D5	REMOVE AND PROPERLY DISPOSE OF INDOOR POOL FILTER TANKS AND CONTROLS.
D6	DISCONNECT, REMOVE, AND PROPERLY DISPOSE OF EXISTING MOTOR STARTERS AND DISCONNECTS FOR PP1 AND PP2. REFER TO ELECTRICAL.
D7	DISCONNECT, REMOVE, AND PROPERLY DISPOSE OF EXISTING CO_2 FEEDERS. EXISTING CO_2 TANKS MUST BE REMOVED AND REPAIRED AS NEEDED TO ENSURE PROPER FUNCTIONALLY OF PH BUFFER SYSTEMS.
D8	PROTECT EXISTING MURIATIC ACID TANKS AND FEED PUMPS TO REMAIN. ACID SYSTEMS MUST BE FULLY FUNCTIONAL AFTER PH BUFFER ROOM REPAIRS.

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PROJECT NO.	25185
DESIGN BY:	DXB
DRAWN BY:	WGW
CHECKED BY:	CCH
APPROVED BY:	CJR

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PROJECT NAME

5449 AQUATIC CENTER RENOVATION
PHASE 1 CODE UPGRADES
1520 Stewart Street
Las Cruces, New Mexico

SHEET TITLE:
POOL MECHANICAL ROOM DEMOLITION PLAN

SHEET NO: 3 OF 8

AQ002

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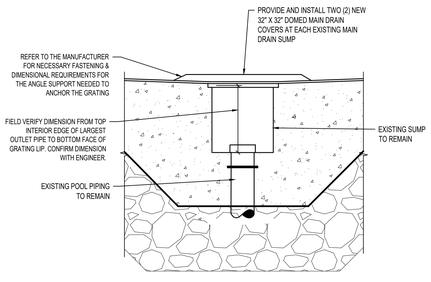
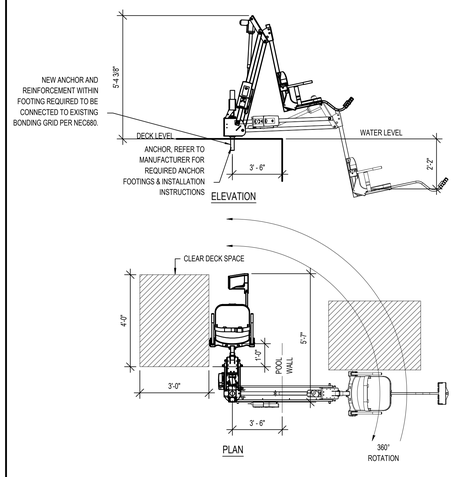
1 AQ100 OUTDOOR POOL RENOVATION PLAN

1/8" = 1'-0"



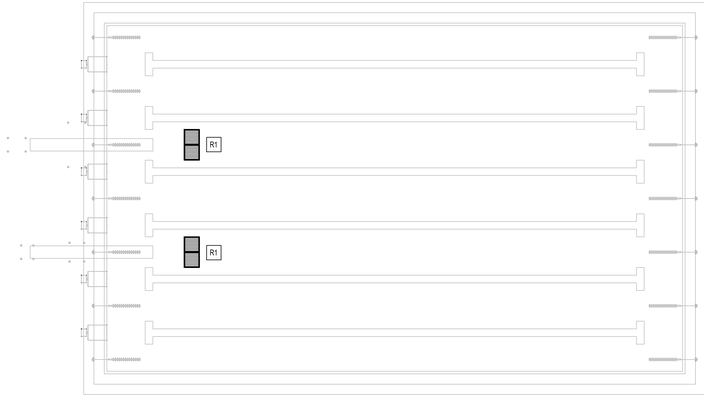
4 AQ100 MAIN DRAIN GRATE REPLACEMENT

3/4" = 1'-0"



3 AQ100 POOL LIFT

3/8" = 1'-0"



2 AQ100 INDOOR POOL RENOVATION PLAN

1/8" = 1'-0"

OUTDOOR POOL RENOVATION KEYNOTES

COORDINATE ALL RENOVATION PLANS WITH ARCHITECT AND CONSTRUCTION DOCUMENTS PRIOR TO RENOVATION

R1	INSTALL NEW DOMED 32"X32" MAIN DRAIN GRATES ON THE EXISTING DRAIN SUMPS. CONTRACTOR TO VERIFY THAT THE SUCTION PIPES EXIT THE MAIN DRAIN FROM THE BOTTOM FACE. CONTRACTOR TO FIELD-MEASURE THE DEPTH OF THE SUMPS. SEND MEASUREMENTS TO ENGINEER FOR REVIEW OF VGB COMPLIANCE. REFER: 4/AQ100
R2	INSTALL NEW BATTERY-POWERED POOL LIFT AND ANCHOR. INSTALL REINFORCING STEEL ON THE REMOVED POOL DECK SPACE IN ACCORDANCE TO MANUFACTURER'S INSTRUCTIONS. REFER TO STRUCTURAL FOR CONCRETE DESIGN. REFER: 3/AQ100

INDOOR POOL RENOVATION KEYNOTES

COORDINATE ALL RENOVATION PLANS WITH ARCHITECT AND CONSTRUCTION DOCUMENTS PRIOR TO RENOVATION

R1	INSTALL NEW DOMED 32"X32" MAIN DRAIN GRATES ON THE EXISTING DRAIN SUMPS. CONTRACTOR TO VERIFY THAT THE SUCTION PIPES EXIT THE MAIN DRAIN FROM THE BOTTOM FACE. CONTRACTOR TO FIELD-MEASURE THE DEPTH OF THE SUMPS. SEND MEASUREMENTS TO ENGINEER FOR REVIEW OF VGB COMPLIANCE. REFER: 4/AQ100

MAIN DRAIN SCHEDULE

ID	POOL	SIZE	QTY	DESIGN FLOW (GPM)	MFG ALLOWABLE FLOW @ COVER (GPM)	MODEL	MANUFACTURER
M1	OUTDOOR	32"X32"	8	2,250	675	AV32X32	EUREKA
M2	INDOOR	32"X32"	4	750	675	AV32X32	EUREKA

NOTE:
1. MAIN DRAIN SUMP AND GRATE MUST BE MANUFACTURED BY EUREKA OR APPROVED EQUAL.
2. MAXIMUM FACE VELOCITY MUST NOT EXCEED 1.5 FEET PER SECOND.
3. OPEN AREA IS BASED ON MANUFACTURER'S DATA.
4. THE INSTALLED LIFE OF THE MAIN DRAIN COVER MUST BE A MINIMUM OF 10 YEARS.
5. FASTEN MAIN DRAIN COVER TO SUMP WITH S/S TAMPER PROOF FASTENERS AT A SPACING NO GREATER THAN 24" O.C. REFER TO SUMP AND GRATE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

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PROJECT NO.	25185
DESIGN BY:	DXB
DRAWN BY:	WGW
CHECKED BY:	CCH
APPROVED BY:	CJR

MARK	DATE	DESCRIPTION
1	10.06.25	100% CD

ISSUE OCTOBER 6, 2025

PROJECT NAME
5449 AQUATIC CENTER RENOVATION
PHASE 1 CODE UPGRADES
1520 Stewart Street
Las Cruces, New Mexico

SHEET TITLE:
POOL RENOVATION PLANS & DETAIL

SHEET NO: 4 OF 8

AQ100

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K:\JOBS\New Mexico State University-Las Cruces, NM-Renovation_25185\AQ100 10/7/2025 2:05 PM GarrettWalle

POOL MECHANICAL ROOM RENOVATION KEYNOTES

COORDINATE ALL RENOVATION PLANS WITH ARCHITECT AND CONSTRUCTION DOCUMENTS PRIOR TO RENOVATION

R1	INSTALL NEW OUTDOOR HIGH RATE SAND FILTERS IN THE SAME LOCATION OF PREVIOUS TANKS. REFER TO FILTER SCHEDULE. IF SUBSTITUTIONS ARE PROPOSED, VERIFY THAT NEW FILTER DIMENSIONS WILL ENSURE PROPER CIRCULATION AROUND THE POOL MECHANICAL ROOM PRIOR TO ORDERING.
R2	CONNECT NEW F1 PIPING TO EXISTING FILTER INFLUENT,EFFLUENT AND BACKWASH PIPING WITH NEW SCH 80 PIPING.
R3	INSTALL NEW ELECTRONIC OUTDOOR POOL FLOCCULANT EMITTER WITH STAINLESS STEEL SPOOL PIECE BETWEEN PP1 AND F1. REFER: 4/AQ201
R4	INSTALL NEW OUTDOOR POOL ELECTRONIC FLOCCULANT PANEL NEAR EMITTER. REFER TO ELECTRICAL FOR POWER CONNECTIONS.
R5	INSTALL VFD'S FOR PP1 AND PP2 IN THE SAME LOCATION FROM WHERE THE MOTOR STARTERS WERE REMOVED. REFER TO SYSTEMS SCHEMATICS. REFER TO PUMP SCHEDULE. REFER TO ELECTRICAL FOR CONNECTIONS.
R6	INSTALL NEW INDOOR POOL HIGH RATE SAND FILTERS IN THE SAME LOCATION OF PREVIOUS TANKS. REFER TO FILTER SCHEDULE. IF SUBSTITUTIONS ARE PROPOSED, VERIFY THAT NEW FILTER DIMENSIONS WILL ENSURE PROPER CIRCULATION AROUND THE POOL MECHANICAL ROOM PRIOR TO ORDERING.
R7	CONNECT NEW F2 PIPING TO EXISTING FILTER INFLUENT, EFFLUENT, AND BACKWASH PIPING WITH NEW SCH 80 PIPING.
R8	INSTALL NEW INDOOR POOL ELECTRONIC FLOCCULANT EMITTER WITH STAINLESS STEEL SPOOL PIECE BETWEEN PP2 AND F2. REFER: 4/AQ201
R9	INSTALL NEW INDOOR POOL ELECTRONIC FLOCCULANT PANEL NEW EMITTER. REFER TO ELECTRICAL FOR POWER CONNECTIONS.
R10	INSTALL NEW INDOOR POOL UV SYSTEM. BYPASS FOR UV CHAMBER MUST BE LOCATED DOWNSTREAM OF F2 AND UPSTREAM OF THE HEAT EXCHANGER CONNECTIONS. REFER TO UV SCHEDULE.
R11	INSTALL REPAIRED CO_2 TANKS AND NEW CO_2 FEEDERS IN THE CO_2 ROOM AFTER REPAIRS. REFER TO CHEMICAL FEED SCHEDULE. REFER: 2/AQ201.
R12	INSTALL NEW HAZARD SIGNAGE ON THE CHEMICAL AND POOL MECHANICAL ROOM DOORS. REFER: 6/AQ201
R13	INSTALL NEW EXPANSION MODULE TO THE EXISTING CHEMICAL CONTROLLERS (OUTDOOR AND INDOOR). CONNECT THE FLOW METER SENSOR, VFD, AND UV UNIT (IF APPLICABLE) TO EACH RESPECTIVE CONTROLLER. BOTH CONTROLLERS MUST THEN BE CONNECTED TO THE BUILDING AUTOMATION SYSTEM. REFER TO SYSTEMS SCHEMATICS. REFER: 4/AQ202
R14	INSTALL NEW SPILL PLATFORM UNDER THE CHEMICAL TANKS IN THE NEW PH BUFFER ROOM (MURIATIC ACID). PROVIDE NEW RAMP WITH NEW PLATFORM.

UV TREATMENT SYSTEMS SCHEDULE

ID	POOL	MODEL NUMBER	CALCULATED 60 MJ/CM2 (GPM)	LAMPS	POWER (KW)	VOLTAGE (V) WITH BREAKER SIZE (60 HZ)
U1	INDOOR	WF-215-6-N	810	2 @ 1.5KW	3.0	208 V (1Φ)-30A 230 V (1Φ)-30A 240 V (1Φ)-30A

NOTE:
1. THE BASIS OF DESIGN MANUFACTURER IS EVOQUA TECHNOLOGIES LTD. ALTERNATE MANUFACTURER: PROMINENT, AQUIONICS OR APPROVED EQUAL.
2. INTERLOCK UV SYSTEM WITH CHEMICAL CONTROLLER OR RECIRCULATION PUMP.
3. REFER: 5/AQ201

ELECTRONIC FLOCCULATION SYSTEM SCHEDULE

ID	POOL	MANUFACTURER	MODEL	PIPE SIZE (NOMINAL)	INPUT VOLTAGE	POWER RATING (W)	POWER CABLE LENGTH (FT)	SIGNAL CABLE LENGTH (FT)
E1	OUTDOOR	CLEAR-FLOW	CF-600C	6"	100-240 VAC	5.4	15	33
E2	INDOOR	CLEAR-FLOW	CF-1200C	12"	100-240 VAC	5.4	15	33

NOTE:
REFER: 4/AQ201

PUMP SCHEDULE

ID	DESCRIPTION	MANUFACTURER	MODEL	SIZE	GPM	TDH	HP
PP1	EXISTING OUTDOOR POOL RECIRCULATION PUMP TO REMAIN	AURORA	EXISTING	EXISTING	2,250	65	50
PP2	EXISTING INDOOR RECIRCULATION PUMP TO REMAIN	AURORA	EXISTING	EXISTING	750	65	20

NOTE:
1. POOL PUMPS AND STRAINERS MUST BE INSTALLED ON HOUSEKEEPING PADS.
2. PROVIDE INFLUENT AND EFFLUENT GAUGES FOR EACH PUMP. PRESSURE GAUGES HAVE A RANGE OF 0-60 PSI. COMPOUND GAUGES HAVE A RANGE OF 0-30 HG / 0-60 PSI.
3. PROVIDE VARIABLE FREQUENCY DRIVE AND BYPASS

GENERAL POOL MECHANICAL ROOM NOTES

1. REFER TO MECHANICAL FOR HVAC SYSTEMS RENOVATIONS.
2. REFER TO ARCHITECTURAL DRAWINGS FOR SAFETY CHAIN AT PUMP PIT.

PIPING AND VALVING

1. MINIMUM 7'-0" CLEARANCE BENEATH ALL OVERHEAD PIPING.
2. PROVIDE AND SUPPORT OVERHEAD AND VERTICAL PIPING PER SPECIFICATION REQUIREMENTS.
3. LABEL AND IDENTIFY ALL PIPING IN COMPLIANCE WITH THE SPECIFICATIONS.
4. ALL FLOW METERS MUST BE SIZED TO MATCH THE PIPE ON WHICH IT IS INSTALLED. PROVIDE PRESSURE GAUGES ON INFLUENT AND EFFLUENT SIDE OF EACH FILTRATION SYSTEM AND A FULL LINE SIZE FLOW METER ON FILTER RETURN.
5. HYDROSTATICALLY TEST ALL PIPING AT 50 PSI FOR TWO HOURS AND MAINTAIN A PRESSURE OF 20 PSI IN ALL PIPING THROUGHOUT CONSTRUCTION. SECURE ALL FIXTURES PER SPECIFICATION REQUIREMENTS BEFORE HYDROSTATIC TEST.
6. REFER TO DETAILS 7.8, & 9 ON DRAWING AQ201 FOR INSTALLATION OF PIPE SUPPORTS.
7. ALL VALVE HARDWARE MUST BE 316L STAINLESS STEEL AND MEET ANSI HARDWARE INSTALLATION GUIDELINES. REFER: 2/AQ202
8. ALL BALANCING VALVES AND BUTTERFLY VALVES MUST BE PROVIDED WITH POSITION INDICATORS AND MAXIMUM ADJUSTABLE STOPS (MEMORY STOPS).
9. ALL VALVES MUST BE INSTALLED SO THAT THE VALVE REMAINS IN SERVICE WHEN THE EQUIPMENT OR PIPING ON THE EQUIPMENT SIDE OF THE VALVE IS REMOVED.
10. PROVIDE CHAIN WHEEL OPERATORS FOR ALL VALVES IN EQUIPMENT ROOMS MOUNTED GREATER THAN 7'-0" ABOVE FINISHED FLOOR; CHAIN MUST EXTEND TO 7'-0" ABOVE FINISHED FLOOR LEVEL.
11. ALL PIPING ROUTED THROUGH THE CHEMICAL ROOM WALLS INTO THE MAIN MECHANICAL ROOM MUST BE PROPERLY SEALED AND FIREPROOFED PER THE FIRE RATING OF THE ROOM. REFER TO ARCHITECT.

CHEMICAL TREATMENT

1. INTERLOCK POOL RECIRCULATION PUMP(S) WITH ITS CORRESPONDING WATER CHEMISTRY CONTROLLER, CHEMICAL FEED PUMP(S) AND HEATER(S).
2. PROVIDE SIGNAGE ON CHEMICAL ROOM DOORS IN COMPLIANCE WITH THE STATE FIRE CODE. REFER: 6/AQ201
3. SAMPLE FEED PIPING TO/FROM THE RECIRCULATION SYSTEM TO THE WATER CHEMISTRY CONTROLLER MUST BE PIPED PER THE SYSTEMS SCHEMATIC. BYPASS PIPING MUST BE SADDLED OR TEED. NO TAPPING OR DRILLING INTO THE PIPING WILL BE ALLOWED.
4. INSTALL SANITIZER INJECTION POINT DOWNSTREAM OF PH BUFFER INJECTION POINT ON FILTERED WATER RETURN PIPE. CHEMICAL INJECTION POINTS MUST BE LOCATED DOWNSTREAM OF ALL OTHER EQUIPMENT/SYSTEMS IN THE POOL MECHANICAL ROOM AT A MAXIMUM HEIGHT OF 7'-0" ABOVE FINISHED FLOOR. REFER: 1/AQ201

ELECTRICAL

1. GFCI'S PROVIDED AT OUTLETS. REFER TO ELECTRICAL.
2. POOL EQUIPMENT ROOM AND CHEMICAL STORAGE AREAS MUST BE PROVIDED WITH ARTIFICIAL LIGHTING SUFFICIENT TO ILLUMINATE ALL EQUIPMENT AND SUPPLIES. REFER TO ELECTRICAL.
3. CONDUIT MUST BE ROUTED OVERHEAD OR BELOW GRADE.

FILTER SCHEDULE

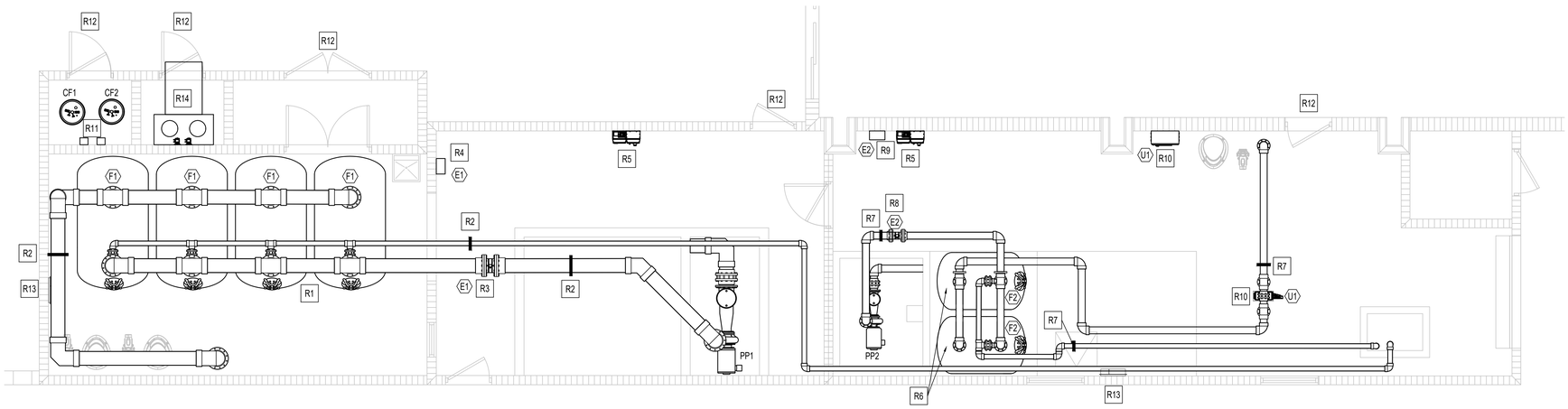
ID	POOL	MANUFACTURER	FILTER MODEL	QTY.	FILTRATION TYPE	MAXIMUM FILTRATION RATE (GPM/SQ. FT)	DESIGN FILTRATION RATE (GPM/SQ.FT.)	REQUIRED FILTRATION AREA (SQ. FT.)	DESIGN FILTRATION AREA (SQ. FT.)	FILTER BACKWASH RATE (GPM/SQ. FT.)	BACKWASH FLOW RATE PER FILTER (GPM)
F1	OUTDOOR	NEPTUNE BENSON	60845HFFG-D	4	HRS	12.5	12.30	180	183	15.0	687
F2	INDOOR	NEPTUNE BENSON	48845HFFG-D	2	HRS	12.5	11.80	60	63	15.0	476

NOTE:
1. BACKWASH METHOD MUST BE MANUAL.
2. ALL FILTER SUPPORTS MUST BE SEISMICALLY RATED FOR THE SEISMIC ZONE IN WHICH IT IS INSTALLED IN ACCORDANCE WITH LOCAL AND/OR STATE REQUIREMENTS.
3. FILTER MANUFACTURER MUST CERTIFY FILTER MEDIA.
4. THE BACKWASH PIPING MUST TERMINATE NO CLOSER THAN 6" ABOVE THE FLOOD RIM OF THE BACKWASH CATCH BASIN OR TWICE THE PIPE DIAMETER, WHICHEVER IS GREATER.
5. FILTER TANK ASSEMBLIES MUST BEAR THE NATIONAL SANITATION FOUNDATION SEAL OF APPROVAL FOR A MAXIMUM FLOW RATE 20 GPM PER SQUARE FOOT OF FILTER MEDIA.
6. THE BACKWASH THROTTLING VALVE(S) HANDLE MUST BE REMOVED AND TURNED OVER TO THE OWNER ONCE THE BACKWASH FLOW RATE(S) HAVE BEEN TESTED, ADJUSTED AND BALANCED.
7. PROVIDE 1" DIAMETER, SCHEDULE 80 PIPE FROM THE AUTOMATIC AIR VENT ON EACH OF THE FILTER VESSEL TO THE NEAREST FLOOR DRAIN OR BACKWASH CATCH BASIN. THE VENT PIPE MUST BE SLOPED TO THE DRAIN.
8. VALVES MUST BE PROVIDED TO BACKWASH EACH FILTER VESSEL INDEPENDENTLY.
9. VESSEL MUST BE BACKWASHED AT NO LESS THAN 15.0 GPM/SF.

CHEMICAL FEED SCHEDULE

ID	DESCRIPTION	MANUFACTURER	MODEL	FLOW
CF1	CO_2 FEED REFER: 2/AQ201	BECSYS	BECSYS CO2	20-200 SCFH
CF2	CO_2 FEED REFER: 2/AQ201	BECSYS	BECSYS CO2	20-200 SCFH

NOTE:
1. THE MANUFACTURER INDICATED IS BASIS OF DESIGN. ALTERNATE MANUFACTURER: EKO3 OR APPROVED EQUAL.
2. PROVIDE WITH 120 VOLT, SINGLE PHASE, ADJUSTABLE FEED.
3. INTERLOCK WITH POOL RECIRCULATION PUMP.



1 AQ200 POOL MECHANICAL ROOM RENOVATION PLAN
1/4" = 1'-0"

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PROJECT NO.	25185
DESIGN BY:	DXB
DRAWN BY:	WGW
CHECKED BY:	CCH
APPROVED BY:	CJR

MARK	DATE	DESCRIPTION
1	10.06.25	100% CD

ISSUE DATE: OCTOBER 6, 2025

PROJECT NAME
5449 AQUATIC CENTER RENOVATION
PHASE 1 CODE UPGRADES
1520 Stewart Street
Las Cruces, New Mexico

SHEET TITLE:
POOL MECHANICAL ROOM RENOVATION PLAN

SHEET NO: 5 OF 8

AQ200

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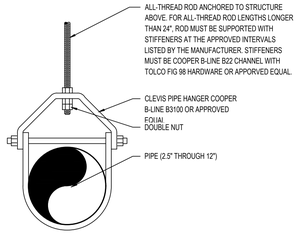
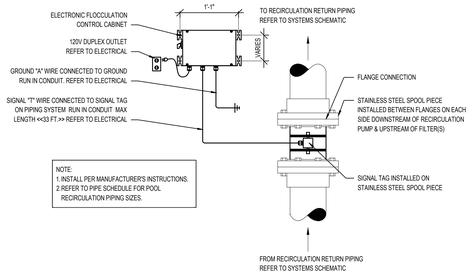
NOTE:
1. BASIS OF DESIGN: COOPER B-LINE. ALTERNATE MANUFACTURER: GRINELL OR APPROVED EQUAL.
2. REFER TO SWIMMING POOL SPECIFICATIONS FOR FINISH AND PIPE SUPPORT REQUIREMENTS.
3. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR MAX LOADING AND ATTACHMENT REQUIREMENTS.



7 / AQ201 — CLEVIS PIPE HANGER
1 1/2" = 1'-0"

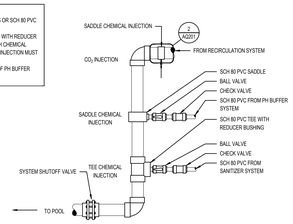


NOTE:
1. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
2. REFER TO PIPE SCHEDULE FOR POOL RECIRCULATION PIPING SIZES.

4 / AQ201 — ELECTRONIC FLOCCULATION SYSTEM
1" = 1' - 0"

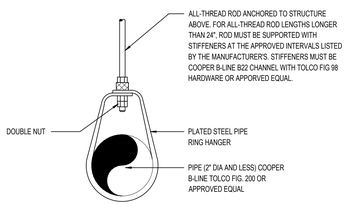
NOTE:
1. CHEMICAL INJECTIONS MUST BE SCH 80 PVC SADDLES OR SCH 80 PVC TEE FITTINGS WITH REDUCER BUSHING.
2. POOL CONTRACTOR CAN ELECT TO USE TEE FITTINGS WITH REDUCER BUSHINGS OR SCH 80 PVC SADDLES FOR BOTH THE PH CHEMICAL INJECTION AND THE SANITIZER INJECTION. CHEMICAL INJECTION MUST NOT BE TAPPED INTO RECIRCULATION PIPING.
3. INSTALL SANITIZER INJECTION POINT DOWNSTREAM OF PH BUFFER INJECTION POINT. REFER TO SYSTEMS SCHEMATIC.

DO NOT DRILL AND TAP POOL PIPING



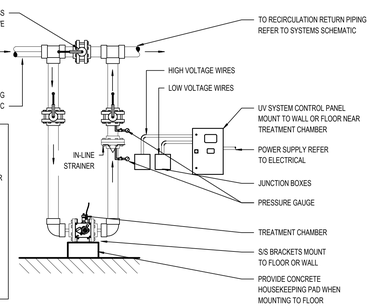
CHEMICAL INJECTION INSTALLATION OPTIONS

1 / AQ201 — CHEMICAL INJECTION
3/8" = 1'-0"



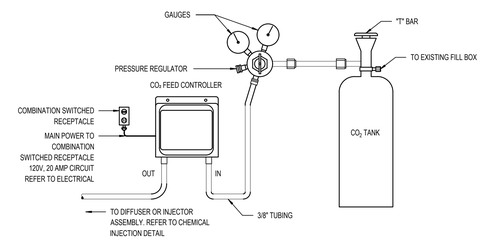
NOTE:
1. BASIS OF DESIGN: COOPER B-LINE.
2. ALTERNATE MANUFACTURER: GRINELL OR APPROVED EQUAL.
3. REFER TO SWIMMING POOL SPECIFICATION FOR FINISH AND PIPE SUPPORT REQUIREMENTS.
4. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR MAX LOADING AND ATTACHMENT REQUIREMENTS.

8 / AQ201 — SWIVEL RING PIPE HANGER
1 1/2" = 1'-0"

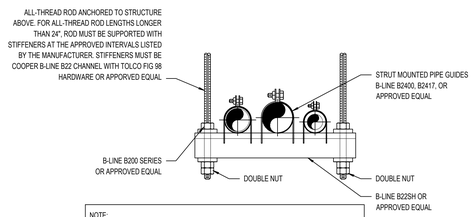


NOTE:
1. ALL PIPING IN UV BYPASS LOOP MUST BE SCH 80 PIPING.
2. INFLUENT AND EFFLUENT FLOW VARIABLE ON CHAMBER ORIENTATION.
3. REFER TO POOL PIPING AND MECHANICAL ROOM DRAWINGS FOR POOL RECIRCULATION PIPE SIZES.
4. INSTALL CHAMBER AND CABINET IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
5. UV LAMPS MUST BE INSTALLED HORIZONTALLY. VERTICALLY INSTALLED LAMPS WILL NOT BE ALLOWED.
6. REFER TO MANUFACTURER FOR POWER CONNECTIONS FROM CHAMBER TO CONTROL CABINET.
7. PROVIDE CLEARANCE PER MANUFACTURER'S RECOMMENDATIONS TO REMOVE UV LAMPS.
8. REFER TO DETAIL 1/AQ202 FOR UV BYPASS CONNECTION.

5 / AQ201 — UV TREATMENT SYSTEM
1/2" = 1'-0"

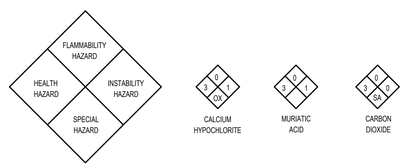


2 / AQ201 — EXISTING CO2 STORAGE REGULATION
1/2" = 1'-0"



NOTE:
1. BASIS OF DESIGN: COOPER B-LINE. ALTERNATE MANUFACTURER: UNISTRUT OR PRE-APPROVED EQUAL.
2. REFER TO SWIMMING POOL SPECIFICATIONS FOR FINISH AND PIPE SUPPORT REQUIREMENTS.
3. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR MAX LOADING AND ATTACHMENT REQUIREMENTS.

9 / AQ201 — TRAPEZE HANGER
3" = 1'-0"

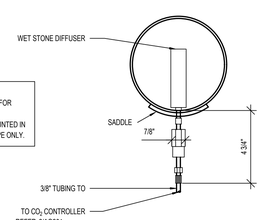


RATING EXPLANATION GUIDE

RATING	HEALTH HAZARD	FLAMMABILITY HAZARD	INSTABILITY HAZARD
4	CAN BE LETHAL	BELOW 73 DEGREES F	MAY EXPLODE AT NORMAL TEMPERATURES & PRESSURES
3	CAN CAUSE SERIOUS OR PERMANENT INJURY	ABOVE 73 DEGREES, BELOW 100 DEGREES F	MAY EXPLODE AT HIGH TEMPERATURE OR SHOCK
2	CAN CAUSE TEMPORARY INCAPACITATION OR RESIDUAL INJURY	ABOVE 100 DEGREES, BELOW 200 DEGREES F	VIOLENT CHEMICAL CHANGE AT HIGH TEMPERATURES OR PRESSURES
1	CAN CAUSE SIGNIFICANT IRRITATION	ABOVE 200 DEGREES F	NORMALLY STABLE. HIGH TEMPERATURES MAKE UNSTABLE
0	NO HAZARD	WILL NOT BURN	STABLE

CONFIRM SIGNAGE WITH LOCAL FIRE MARSHAL, CHEMICAL SUPPLY COMPANY, AND/OR BUILDING CODES PRIOR TO INSTALLATION.

6 / AQ201 — HAZARD SIGNAGE
NTS



NOTE:
1. REFER TO PIPING PLAN FOR ACTUAL PIPE SIZES.
2. INJECTOR MUST BE MOUNTED IN BOTTOM OR SIDE OF PIPE ONLY.

3 / AQ201 — CO2 DIFFUSER
3" = 1'-0"

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PROJECT NO.	25185
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MARK	DATE	DESCRIPTION
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PROJECT NAME
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SHEET TITLE:
POOL MECHANICAL DETAILS

SHEET NO: 6 OF 8

AQ201

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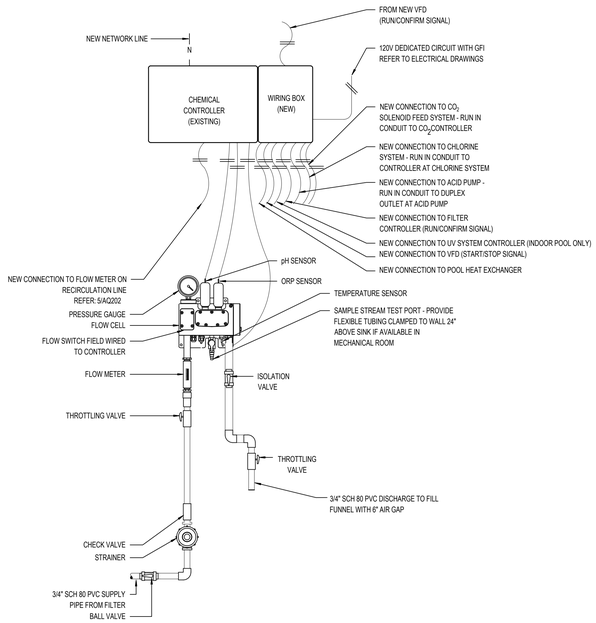
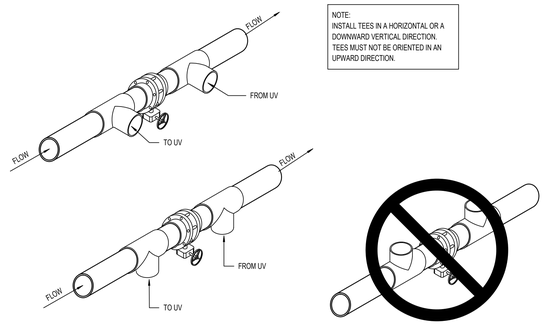


NOTE:
1. INTERLOCK WITH RECIRCULATION PUMP OCCURS INSIDE THE WIRING BOX ON BECS CONTROLLERS. CONTRACTOR TO PROVIDE FIELD WIRE INTERLOCK EXTERNAL TO THE CONTROLLER IF A BECS CONTROLLER IS NOT USED.
2. DRAWING IS FOR REFERENCE ONLY. REFER TO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
3. PIPE RUN FROM RECIRCULATION PIPE TO SAMPLE CELL TO BE 50 FEET OR LESS.
4. SAMPLE FEED PIPING TO/FROM THE RECIRCULATION SYSTEM TO THE WATER CHEMISTRY CONTROLLER MUST BE SADDLED OR TEED. NO TAPPING OR DRILLING INTO THE PIPING WILL BE ALLOWED.
5. PROVIDE ETHERNET CONNECTION FOR REMOTE ACCESS TO ALL WATER CHEMISTRY CONTROLLERS AND COORDINATE INTERFACE TO BUILDING MANAGEMENT SYSTEM. REFER TO ELECTRICAL AND/OR CONTROLS CONSULTANT.

4 AQ202 EXISTING CHEMICAL CONTROLLER
1 1/2" = 1'-0"

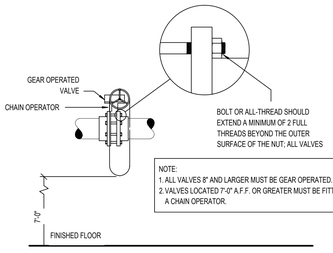


NOTE:
INSTALL TEES IN A HORIZONTAL OR A DOWNWARD VERTICAL DIRECTION. TEES MUST NOT BE ORIENTED IN AN UPWARD DIRECTION.

CORRECT INSTALLATIONS

INCORRECT INSTALLATION

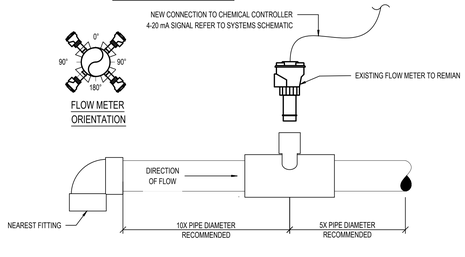
1 AQ202 PIPING BYPASS
1/2" = 1'-0"



NOTE:
1. ALL VALVES 8" AND LARGER MUST BE GEAR OPERATED.
2. VALVES LOCATED 7'-0" A.F.F. OR GREATER MUST BE FITTED WITH A CHAIN OPERATOR.

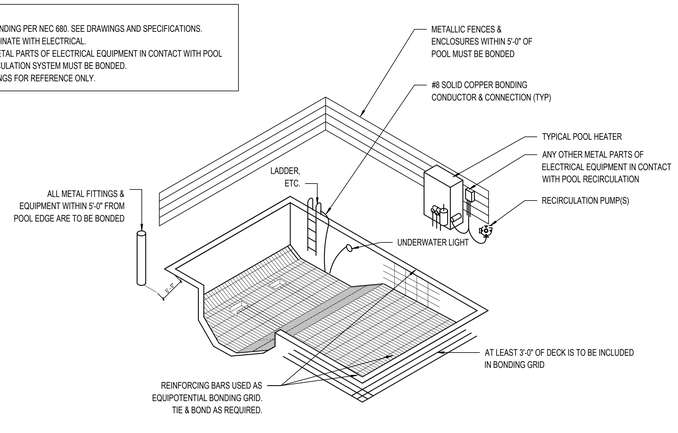
2 AQ202 VALVE
1/2" = 1'-0"

NOTE:
REFER TO MANUFACTURER'S SPECIFIC DIMENSIONAL REQUIREMENTS FOR INSTALLATION.



5 AQ202 EXISTING FLOW METER SENSOR
3/4" = 1'-0"

NOTE:
1. ALL BONDING PER NEC 680. SEE DRAWINGS AND SPECIFICATIONS. COORDINATE WITH ELECTRICAL.
2. ANY METAL PARTS OF ELECTRICAL EQUIPMENT IN CONTACT WITH POOL RECIRCULATION SYSTEM MUST BE BONDED.
3. DRAWINGS FOR REFERENCE ONLY.



3 AQ202 TYPICAL BONDING DETAIL
NTS

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PROJECT NO.	25185
DESIGN BY:	DXB
DRAWN BY:	WGW
CHECKED BY:	CCH
APPROVED BY:	CJR

MARK	DATE	DESCRIPTION
1	10.06.25	100% CD

ISSUE DATE: OCTOBER 6, 2025

PROJECT NAME
5449 AQUATIC CENTER RENOVATION
PHASE 1 CODE UPGRADES
1520 Stewart Street
Las Cruces, New Mexico

SHEET TITLE:
POOL MECHANICAL DETAILS

SHEET NO: 7 OF 8

AQ202

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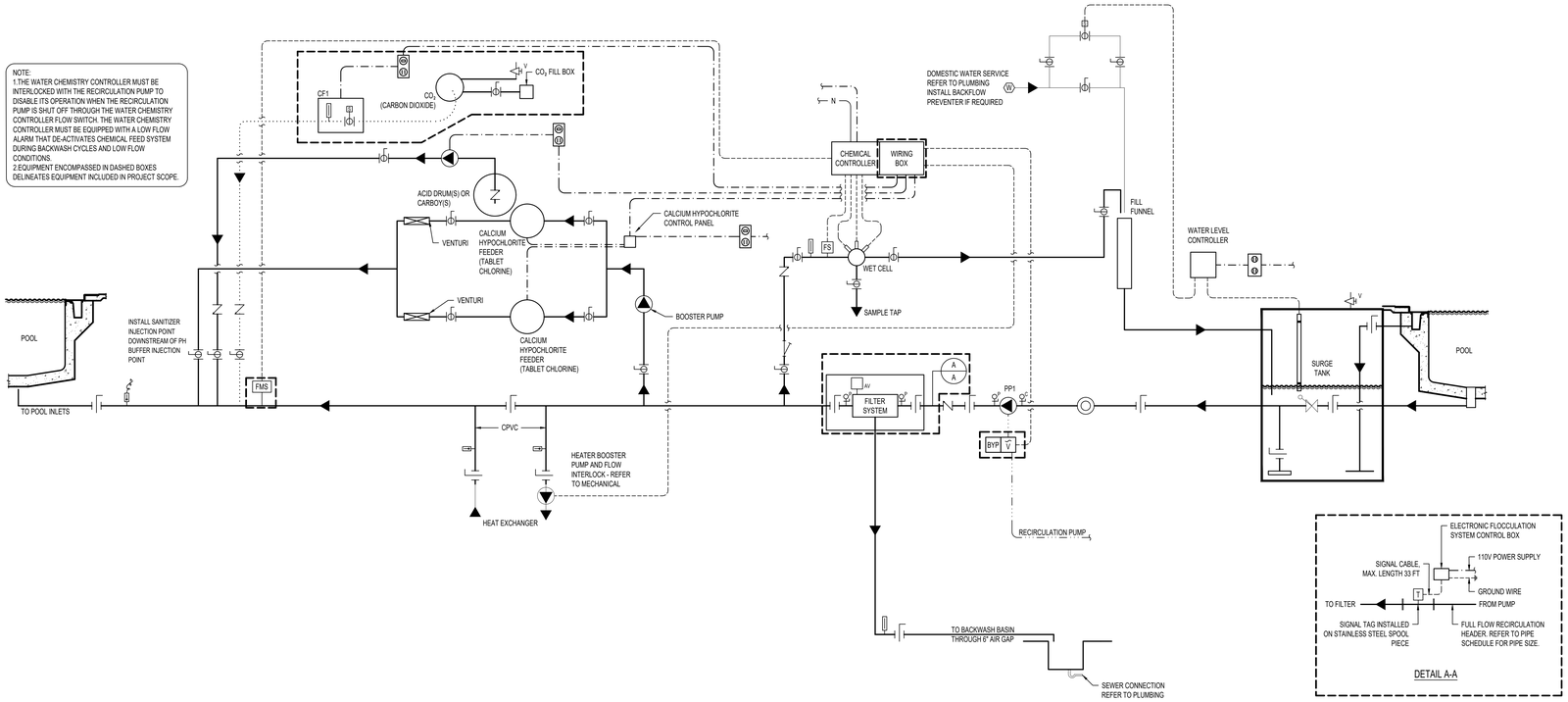
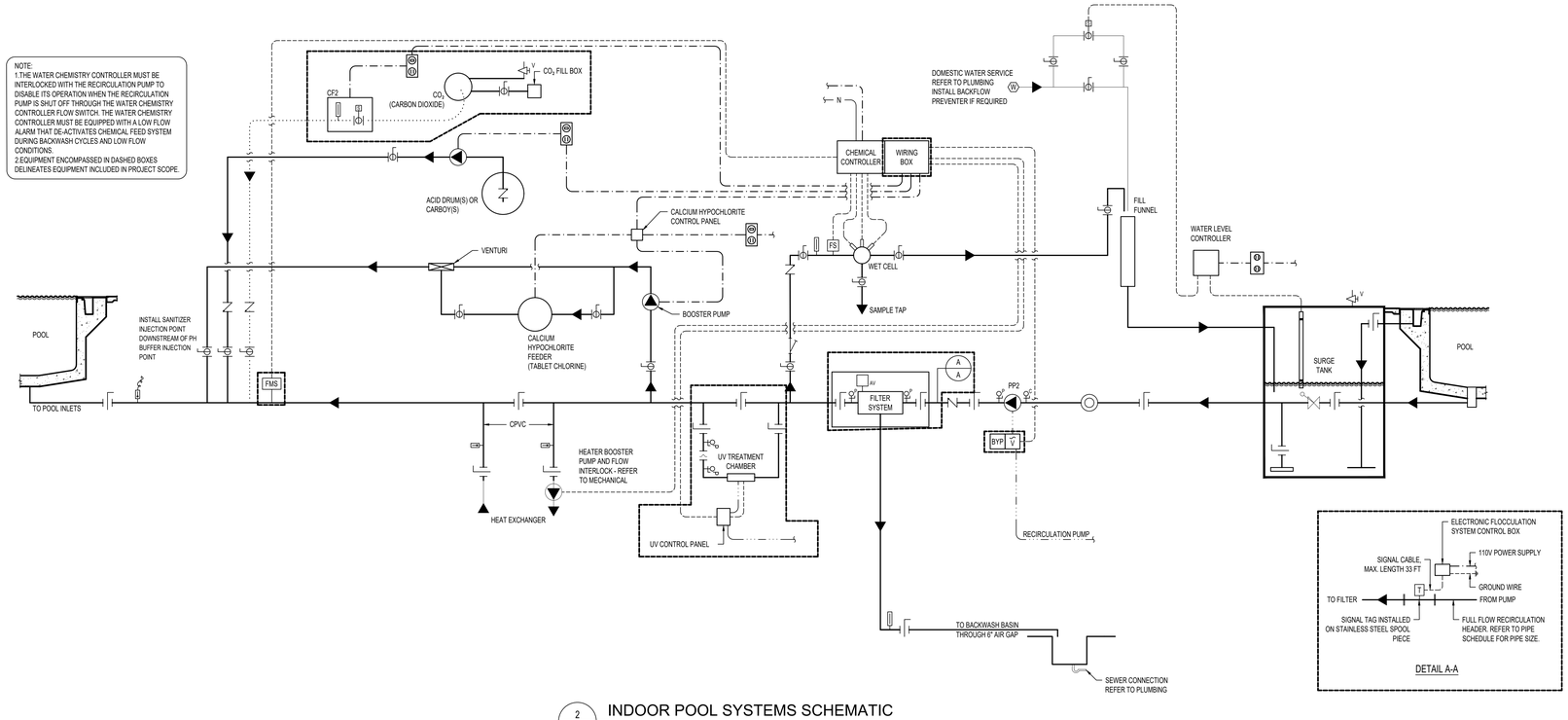


1 AQ300 OUTDOOR POOL SYSTEMS SCHEMATIC

NTS



2 AQ300 INDOOR POOL SYSTEMS SCHEMATIC

NTS

SCHEMATIC LEGEND

LEGEND	ITEM
	FLOW DIRECTION
	BUTTERFLY VALVE
	BALL VALVE
	MODULATING FLOAT VALVE
	SOLENOID VALVE
	CHECK VALVE
	THREE WAY VALVE
	PUMP
	HAIR AND LINT STRAINER
	"Y" STRAINER
	IN-LINE UV STRAINER
FMS	FLOW METER SENSOR
FS	FLOW SWITCH
	IMPACT FLOW METER
	VENTURI FLOW METER
W	WATER METER
AV	AUTOMATIC AIR VENT
V	AIR VENT
I	AIR INLET
P	PRESSURE GAUGE AND PETCOCK
C	COMPOUND GAUGE AND PETCOCK
	DIGITAL TEMP SENSOR
	THERMOMETER
A	PNEUMATIC ACTUATOR
	FLOW CONTROL VALVE
	COMBINATION SWITCH/RECEPTACLE
	DUPLEX OUTLET
APSC	AUTOMATIC PUMP SHUT-OFF DEVICE
V	VARIABLE FREQUENCY DRIVE
R	REMOTE START/STOP
E	EMERGENCY STOP
BYP	VARIABLE FREQUENCY DRIVE BYPASS
CMS	CONTACT MOTOR SELECTOR
T	ELECTRONIC FLOCCULATION SIGNAL TAG
	15 MINUTE TIMER SWITCH
	LOW VOLTAGE CONTROL
	WATER LINE
	1 PHASE POWER
	3 PHASE POWER
	CO_2 LINE
N	NETWORK LINE BY ELECTRICAL
G	GAS LINE

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ISSUE DATE: OCTOBER 6, 2025

PROJECT NAME

5449 AQUATIC CENTER RENOVATION
PHASE 1 CODE UPGRADES
1520 Stewart Street
Las Cruces, New Mexico

SHEET TITLE: POOL SYSTEMS SCHEMATICS

SHEET NO: 8 OF 8

AQ300

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HVAC SYMBOL LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
O.P.C.I.	OWNER PROVIDED, CONTRACTOR INSTALLED		RETURN OR EXHAUST DUCT UP.
	HVAC EQUIPMENT		SUPPLY DUCT DOWN.
	ROOF MOUNTED EXHAUST FAN.		RETURN OR EXHAUST DUCT DOWN.
	CEILING MOUNT EXHAUST FAN.		SIDEWALL SUPPLY AIR OUTLET
VD	VOLUME DAMPER.		SIDEWALL RETURN OR EXHAUST AIR OUTLET
FDR	FIRE DAMPER.		CEILING DIFFUSER WITH FLEXIBLE DUCT
T	THERMOSTAT.		CEILING RETURN OR EXHAUST GRILLE.
S	PILOT SWITCH.		LONG RADIUS ELBOW WITH OUT VANES.
CO2	CO2 SENSOR.		NEW TO EXISTING CONNECTION
	FLEXIBLE DUCTWORK.	1	KEYED NOTES
	RIGID DUCTWORK.	ACU-1	EQUIPMENT DESIGNATION
	DUCT TRANSITION.		
	SUPPLY AIR DUCT UP.		

DOCUMENT GENERAL NOTES:

A. DRAWINGS ARE DIAGRAMMATIC. THEY ARE TO BE USED AS A GENERAL GUIDE AND ARE NOT INTENDED TO BE SPECIFIC INSTALLATION INSTRUCTIONS. CONTRACTOR SHALL CONSTRUCT ACCORDING TO CODE AND/OR MANUFACTURERS INSTALLATION INSTRUCTIONS.

B. DRAWINGS ARE BASED UPON ORIGINAL BUILDING PLANS AND/OR FIELD OBSERVATIONS. CONTRACTOR MUST FIELD VERIFY EXACT LOCATIONS AND ROUTING OF: SEWER, GAS, AND WATER LINES.

C. CONTRACTOR SHALL EXPECT TO MAKE SOME ROUTING ADJUSTMENTS DURING THE COURSE OF CONSTRUCTION. COORDINATE CHANGES WITH ARCHITECT AND KEEP RECORD OF CHANGES FOR FUTURE USE.

GENERAL NOTES:

- IT SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY TO COORDINATE ITEMS ON THESE PLANS WITH ANY/ALL SUB-CONTRACTORS. ITEMS LISTED ON PLANS SHALL BE PROVIDED & INSTALLED BY GENERAL CONTRACTOR AND/OR SUBCONTRACTOR. ITEMS LISTED AS "BY OTHERS" DOES NOT MEAN BY OWNER.
- CONTRACTOR FAILURE TO NOT FOLLOW ALL LISTED NOTES AND/OR MEET THE REQUIREMENTS OF CODE REQUIREMENTS AND/OR MANUFACTURERS INSTALLATION GUIDELINES CAN AND MAY RESULT IN ADDITIONAL FEES/SURCHARGES TO THE CONTRACTOR(S) BY/TO OWNER-ARCHITECT-ENGINEER. IF CONTRACTOR(S) HAVE ANY QUESTIONS AND/OR VALUE ENGINEERING ITEMS THAT WOULD LIKE TO BE INCORPORATED INTO PLANS, SUCH ITEMS SHALL BE FORWARDED TO ARCHITECT FOR REVIEW AND ARE REQUIRED TO BE ISSUED PRIOR TO ANY BIDDING OR PRICE-QUOTE DEADLINES. ANY DISCREPANCIES AFTER AWARD/DURING CONSTRUCTION WILL RESULT THAT THE CONTRACTOR FOLLOW THE MORE STRINGENT INSTALLATION METHOD AND/OR MATERIAL TYPES AND SIZES, ETC., ETC.

EXHAUST FAN SCHEDULE

MARK	MANUFACTURER MODEL NO.	LOCATION	CFM	ESP	SONES	UNIT WEIGHT LBS.	MOTOR WATTS	MOTOR VOLTS	MOTOR PHASE	CONTROL	REMARKS
EF-1	GREENHECK GB-160	– –	1800	0.5"	9.7		1/3 HP	115	1	BAS LOCAL SWITCH	
EF-2	GREENHECK GB-120	– –	900	0.5"	7.3		1/4 HP	115	1	BAS LOCAL SWITCH	
EF-3	GREENHECK GB-12	– –	900	0.5"	7.3		1/4 HP	115	1	BAS LOCAL SWITCH	
EF-4	GREENHECK FANAM ICF150	– –	125	0.35"	3.0		27W	120	1		
EF-5	GREENHECK FANAM ICF150	– –	125	0.35"	3.0		27W	120	1		
EF-6	GREENHECK FANAM ICF150	– –	125	0.35"	3.0		27W	120	1		

DDC, CONTRACTOR SHALL PROVIDE RELAY & CONTACTS FOR DDC CONTRACTOR TO CONNECT TO BAS SYSTEM.

HVAC GENERAL NOTES

A. COMPLY WITH ALL LOCAL, COUNTY, STATE AND FEDERAL CODES, ORDINANCE, RULES AND REGULATIONS.

B. ALL MECHANICAL WORK MUST BE COORDINATED WITH ARCHITECT, STRUCTURAL, AND ELECTRICAL PRIOR TO INSTALLATION.

C. ALL BRANCH DUCTS SHALL BE FITTED WITH BALANCING DAMPERS.

D. ALL DUCT TRANSITIONS TO BE FITTED WITH RADIUS FITTINGS. WHERE RADIUS FITTINGS WILL NOT FIT, TURNING VANES SHALL BE PROVIDED.

E. TEST AND BALANCE ALL SYSTEMS SHOWN ON PLANS PER NEBB STANDARDS.

F. DUCTWORK TO BE GALVANIZED STEEL SHEETS IN ACCORDANCE WITH "ASHRAE GUIDE AND SMACNA STANDARDS."

G. SEAL ALL DUCT JOINTS WITH HIGH PRESSURE DUCT SEALER OR HARD CAST.

H. INSULATE ALL SUPPLY & RETURN (ACU) DUCTWORK WITH 2.3" TYPE 75 FOIL FACED DUCT WRAP. INSTALLED R-6.

I. ALL EXTERIOR DUCTWORK (SUPPLY/RETURN) TO BE INSULATED AND PROTECTED. EITHER INSTALL DUCT LINER OR INSTALL ALUMINUM JACKET TO DUCTWORK. INSTALLED R-8.

J. RETURN DROP TO HAVE 1.5" INTERNAL MAT FACED DUCT LINER FOR INSULATING & ACOUSTICS IN ALL UNITS. LINER SHALL BE TREATED WITH AN EPA REGISTERED ANTI-MICROBIAL AGENT. INSTALL METAL NOSING ON EDGE OF DUCT LINER FACING TOWARDS AIRSTREAM.

K. DUCT SIZES SHOWN ARE "CLEAR INSIDE" DIMENSIONS.

L. EXACT PLACEMENT OF DIFFUSERS AND REGISTERS TO BE COORDINATED WITH ARCHITECTURAL AND ELECTRICAL DRAWINGS PRIOR TO INSTALLATION. CONTRACTOR SHALL VERIFY CEILING TYPES FOR AIR DISTRIBUTION PRIOR TO ORDERING.

M. CONTRACTOR TO VERIFY LOCATION OF ALL AIR EQUIPMENT SO THAT NO INTERFERENCES ARE ENCOUNTERED WITH OTHER EQUIPMENT OR WITH THE STRUCTURAL ELEMENTS.

N. MECHANICAL CONTRACTOR TO VERIFY THAT ALL DUCTWORK WILL FIT WHERE INDICATED WITHOUT INTERFERENCES.

O. ALL SUPPLY AND RETURN DUCTS MUST DROP BETWEEN ROOF JOISTS (VERIFY BEFORE SETTING UNITS).

P. ALL HVAC EQUIPMENT TO BE MOUNTED LEVEL ON EQUIPMENT CURBS UNLESS OTHERWISE NOTED. GROUND MOUNTED EQUIPMENT SHALL BE PROVIDED WITH AN EQUIPMENT PAD.

Q. FOLLOW CODE GUIDELINES WHEN LOCATING POSITIONS OF EXHAUST OUTLETS, GAS FIRED EQUIPMENT FLUES, AND OUTSIDE AIR INTAKES. MINIMUM OF 10' AWAY OR 3' ABOVE ALL FRESH AIR INTAKES ON UNITS AND ALL VERTICAL PORTIONS OF BUILDING. REFER TO DRAWINGS FOR LOCATIONS.

R. CONTRACTOR TO SHIM-LEVEL A/C UNITS.

S. MECHANICAL CONTRACTOR TO INSTALL NEW (MERV-11) FILTERS IN ALL APPLICABLE HVAC UNITS AT BENEFICIAL OCCUPANCY PLUS ONE SET OF SPARE FILTERS.

T. ALL METAL FLUES AND/OR CHIMNEYS FROM FOSSIL FUEL FIRED EQUIPMENT MOUNTED INSIDE THE BUILDING SHALL BE OF CONSTRUCTION. CONSISTENT WITH THE CLASSIFICATION OF THAT APPLIANCE. COORDINATE WITH CODE AND MANUFACTURERS RECOMMENDATIONS.

U. ALL EQUIPMENT SHALL BE SELECTED AND EQUIPPED FOR OPERATION AT SITE ALTITUDE. DEMONSTRATE ALTITUDE CORRECTIONS IN EQUIPMENT SUBMITTALS. (4,000 F.T.)

V. INSULATE ALL CONDENSATE DRAIN PIPING BELOW ROOF. REFER TO SPECIFICATION FOR MORE INFORMATION.

W. ALL HVAC UNITS SHALL BE INSTALLED WITH VIBRATION ISOLATORS AND DUCT FLEX CONNECTORS. REFER TO SPECIFICATIONS FOR MORE INFORMATION.

X. PROVIDE BACK DRAFT DAMPERS AND BIRD SCREENS IN ALL EXHAUST SYSTEMS.

Y. FABRICATION OF DUCTWORK SHALL BE BASED ON FIELD MEASUREMENTS. ADJUSTMENTS TO DUCT SIZES AND LAYOUT SHALL BE COORDINATED WITH THE ENGINEER.

Z. ALL DEVIATIONS FROM SPECIFIED EQUIPMENT AND MATERIALS MUST BE APPROVED BY ARCHITECT/ENGINEER. SEE SUBSTITUTION LIMITATIONS AND PROCEDURES IN SPECIFICATION SECTION 01 6000-PROJECT REQUIREMENTS.

AA. ILLUSTRATIONS SHOWN GENERALLY PROVIDED TO CONVEY CONCEPT AND ARE NOT INTENDED FOR AND DO NOT INCLUDE ALL DETAILS FOR ANY SPECIFIC INSTALLATION. ALL INSTALLATIONS MUST COMPLY WITH ALL APPLICABLE CODES.

AB. THERMOSTATS SHALL BE CALIBRATED DURING TEST AND BALANCE AND SHALL BE DOCUMENTED IN THE TEST AND BALANCE REPORT.

AC. ALL EQUIPMENT AND SUBSYSTEM SHALL BE PROVIDED WITH ISOLATION VALVES. PROVIDE UNIONS AS REQUIRED FOR REMOVAL OF MAJOR VALVES, CONTROL VALVES, AND EQUIPMENT WITHOUT CUTTING PIPE.

AD. VERIFY ACCESS REQUIREMENTS OF ALL EQUIPMENT PRIOR TO FABRICATING DUCTWORK OR PIPING. ANY ITEM INTERFERING WITH UNIT ACCESSED SHALL BE MOVED AT THE CONTRACTORS EXPENSES.

AE. PROVIDE ACCESS PANELS OR DOORS IN AN ACCESSIBLE CEILING AND/OR CHASES FOR ALL VALVES, TRAPS, DAMPERS, CLEANOUTS, COILS, FANS, CONTROLS, ETC. ACCESS DOOR RATING SHALL MATCH CLASSIFICATION OF WALL AND CEILING FIRE RATING. REFER TO PLANS FOR LOCATIONS.

AF. "CALL BEFORE YOU DIG" REQUIREMENTS ON THE PLUMBING DRAWINGS SHALL APPLY TO HVAC RELATED PIPING SYSTEM.

AG. GUARDS SHALL BE PROVIDED WHERE EQUIPMENT THAT REQUIRE SERVICE ARE LOCATED WITHIN 10' OF A ROOF EDGE OR OPEN SIDE OF A WALKING SURFACE AND SUCH EDGE OR OPEN SIDE IS LOCATED MORE THAN 30" ABOVE THE FLOOR, ROOF OR GRADE BELOW. THE GUARD SHALL EXTEND NOT LESS THAN 30" BEYOND EACH END OF SUCH APPLIANCE, EQUIPMENT, FAN OR COMPONENT AND THE TOP OF THE GUARD SHALL BE LOCATED NOT LESS THAN 42" ABOVE THE ELEVATED SURFACE ADJACENT TO THE GUARD. THE GUARD SHALL BE CONSTRUCTED SO AS TO PREVENT THE PASSAGE OF A 21"ø SPHERE.

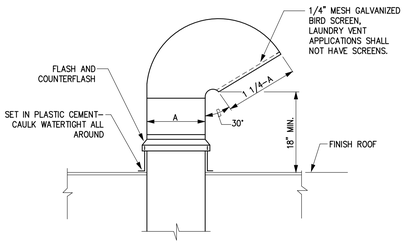
AH. PACKAGED AIR CONDITIONING EQUIPMENT (ACU'S) INSTALLED ON THE ROOF SHALL BE PROVIDED WITH FACTORY CURB. INSTALLATION OF CURB TO FOLLOW MANUFACTURERS GUIDELINES AND SHALL ALSO INCLUDE: 10" (MIN) OF KRAFT-FACED THERMAL BATT INSULATION PLACED INSIDE CURB BETWEEN THE UNIT & ROOF, AND PROVIDE BETWEEN FACTORY CURB & ROOF WITH 23/32" TREATED OSB SHEATHING FOR SOUND ATTENUATION.

AI. DUCTS SHALL BE SUPPORTED WITH APPROVED HANGERS AT INTERVALS NOT EXCEEDING 10 FEET IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE. FLEXIBLE AND OTHER FACTORY MADE DUCTS SHALL BE SUPPORTED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

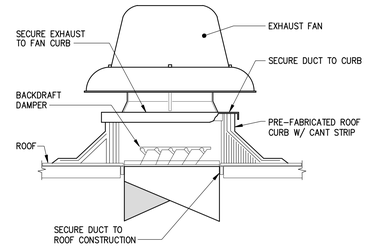
AJ. ALL WORK SHALL BE IN ACCORDANCE WITH:
INTERNATIONAL BUILDING CODE (IBC 2021)
NM PLUMBING CODE WITH UNIFORM PLUMBING CODE (UPC 2021)
NM MECHANICAL CODE WITH UNIFORM MECHANICAL CODE (UMC 2021)
INTERNATIONAL ENERGY CONSERVATION CODE (IECC 2021)
INTERNATIONAL FUEL GAS CODE
AMERICAN NATIONAL STANDARDS INSTITUTE
NFPA 101 LIFE SAFETY CODE

NMSU FACILITY MANAGEMENT SYSTEM UPGRADE NOTES:

ALL EXISTING BUILDING CONTROLS AND BAS COMPONENTS SHALL BE REMOVED COMPLETELY.
A NEW DDC CONTROL SYSTEM SHALL BE PROVIDED AND INSTALLED UNDER THIS CONTRACT.
REFER TO SHEET M300 FOR CONTROL POINTS LIST AND EXISTING GRAPHIC PRESENTATION.
THE NEW CONTROL SYSTEM SHALL BE COMPATIBLE TO THE UNIVERSITY NIAGARA INTERFACE/SYSTEM.



1 / M-001 GOOSENECK SCHEMATIC
SCALE: NONE



2 / M-001 ROOF EXHAUST FAN SCHEMATIC
SCALE: NONE

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95 % CONSTRUCTION DOCUMENTS

PROJECT NO.	RBM
DESIGN BY:	RBM
DRAWN BY:	RBM
CHECKED BY:	RBM
APPROVED BY:	RBM

MARK	DATE	DESCRIPTION
ISSUE:	OCTOBER 2025	

PROJECT NAME
5449 AQUATIC CENTER RENOVATION
PHASE 1 CODE UPGRADES
1520 Stewart Street
Las Cruces, New Mexico

SHEET TITLE:
HVAC GENERAL NOTES, SCHEMATICS, SCHEDULES AND LEGEND

SHEET NO:
M-001

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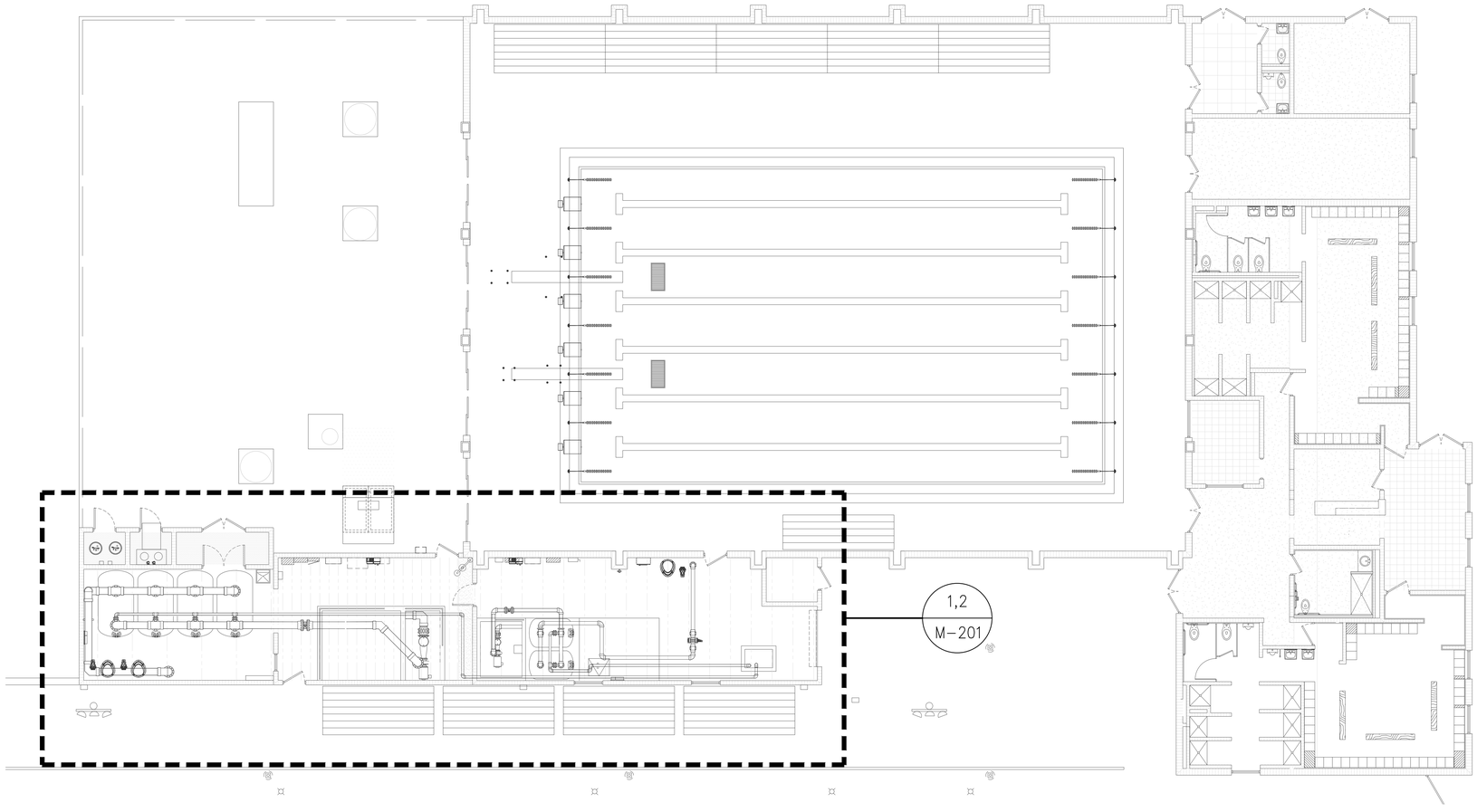

1 M-101 OVERALL HVAC PLAN
SCALE: 1/8"=1'-0"

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1520 Stewart Street
Las Cruces, New Mexico

SHEET TITLE:
OVERALL HVAC PLAN

SHEET NO:
M-101

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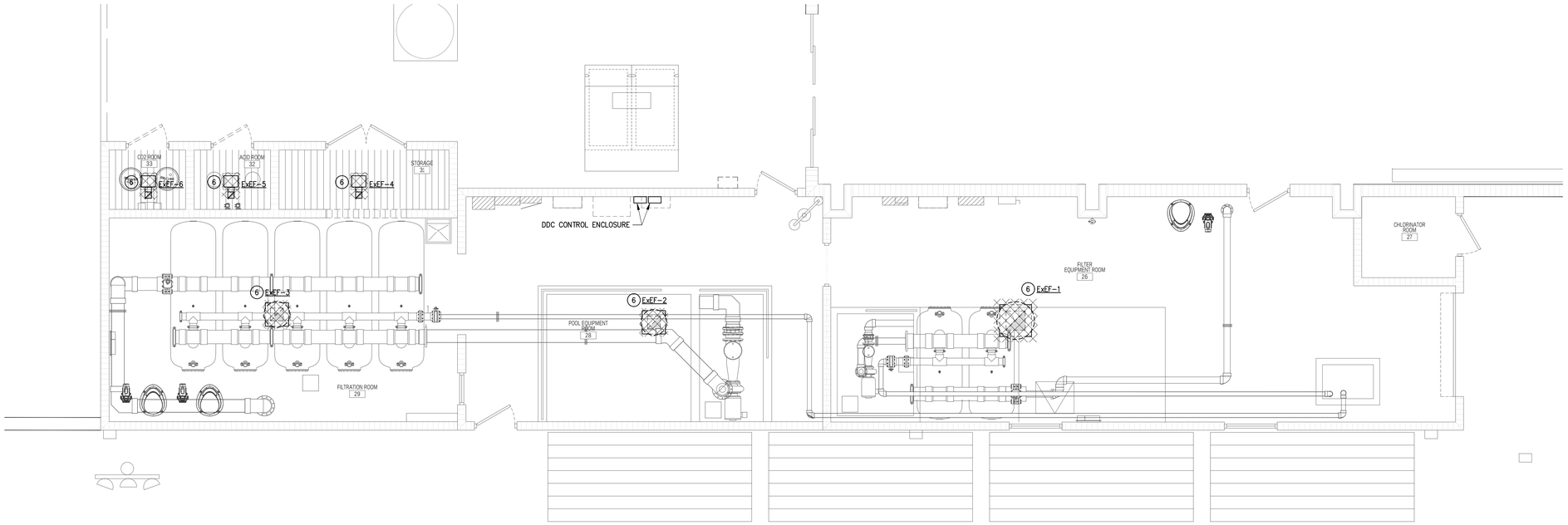
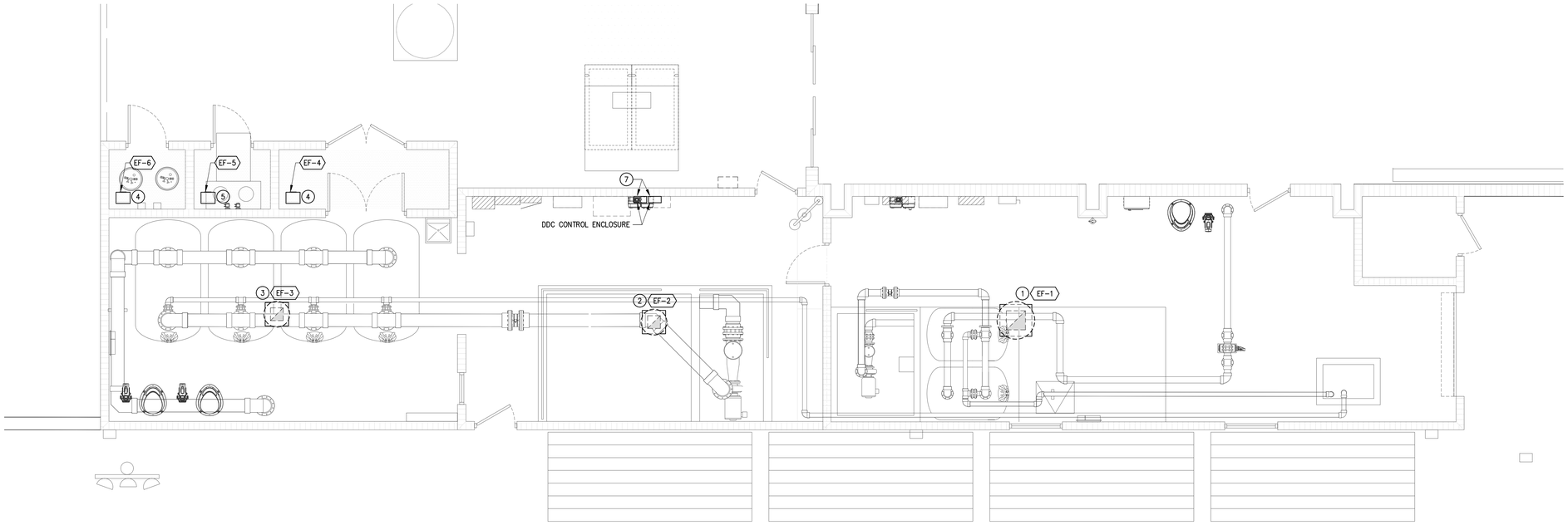


1 / M-201 ENLARGED EXISTING-DEMOLITION HVAC PLAN

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



2 / M-201 ENLARGED NEW WORK HVAC PLAN

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

KEYED NOTES:

1. EXTEND 26/12 EXHAUST DUCT UP TO EF-1 BETWEEN WOOD JOISTS. DUCTWORK TO BE ALUMINUM. EXTEND DUCT TO BE 12" BELOW WOOD JOISTS. COVER OPENING AT BOTTOM WITH ALUMINUM BIRDSCREEN.
2. EXTEND 16/12 EXHAUST DUCT TO EF-2 BETWEEN WOOD JOISTS. DUCTWORK TO BE ALUMINUM. EXTEND DUCT TO BE 12" BELOW WOOD JOISTS. COVER OPENING AT BOTTOM WITH ALUMINUM BIRDSCREEN.
3. EXTEND 16/12 EXHAUST DUCT TO EF-3 BETWEEN WOOD JOISTS. DUCTWORK TO BE ALUMINUM. EXTEND DUCT TO BE 12" BELOW WOOD JOISTS. COVER OPENING AT BOTTOM WITH ALUMINUM BIRDSCREEN.
4. INSTALL 8" DIA. EXHAUST WITH IN-LINE FAN MOUNTED 6" BELOW CLG. EXTEND CPVC 6" DUCT DOWN TO 6" DUCT DOWN TO 6" A.F.F. COVER WITH BIRDSCREEN. EXTEND 8" CPVC UP THRU ROOF. TERMINATE WITH GOOSENECK.
5. INSTALL 8" DIA. EXHAUST WITH IN-LINE FAN 6" BELOW CLG. EXTEND 8" RISER TO 6" WITH DAMPER AND BIRDSCREEN. INSTALL IN RISER 12" BELOW FAN. EXTEND 8" CPVC UP THRU ROOF AND TERMINATE WITH GOOSENECK.
6. REMOVE ExEF COMPLETELY INCLUDING ROOF CURB, DUCTWORK, WIRING AND SWITCHES.
7. REPLACE ALL EXISTING EQUIPMENT IN DDC CONTROL CABINET. REPLACE CONTROL ENCLOSURE WITH NEW AS NEEDED. REFER TO CONTROL POINT LIST AND CURRENT POINT GRAPHICS FROM NMSU NIAGARA INTERFACE ON SHEET M300.

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95 % CONSTRUCTION DOCUMENTS

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DESIGN BY:	RBM
DRAWN BY:	RBM
CHECKED BY:	RBM
APPROVED BY:	RBM

MARK	DATE	DESCRIPTION
ISSUE:		OCTOBER 2025

PROJECT NAME

5449 AQUATIC CENTER RENOVATION
PHASE 1 CODE UPGRADES
1520 Stewart Street
Las Cruces, New Mexico

SHEET TITLE:

ENLARGED HVAC PLANS

SHEET NO:

M-201

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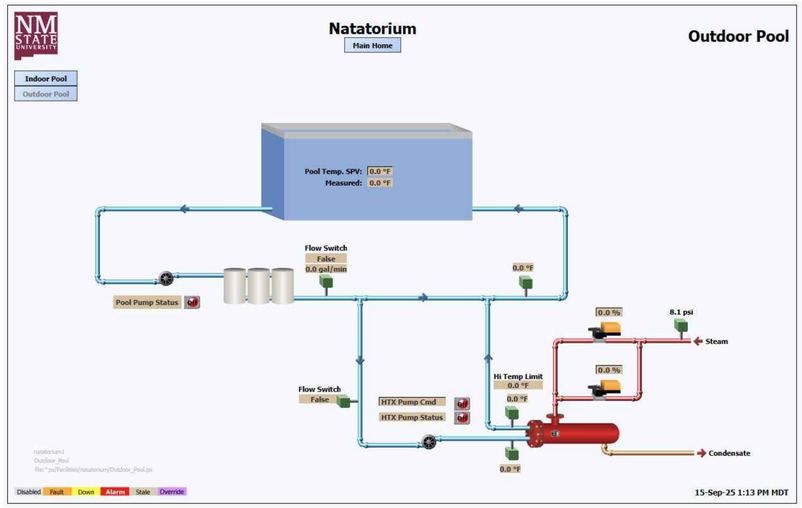
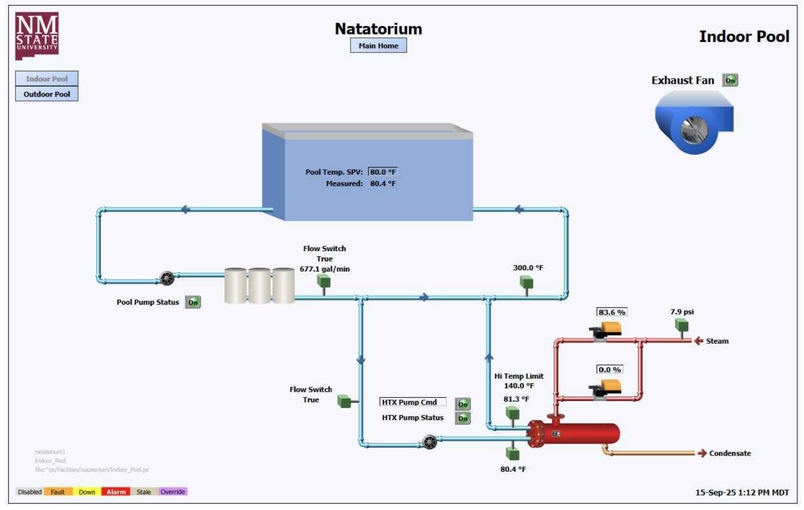
Point Description	Analog In (AI)	Analog Out (AO)	Digital In (DI)	Digital Out (DO)	Communication (COM)	Notes:
Indoor Pool Recirculating Pump VFD Run Command				X		
Indoor Pool Recirculating Pump VFD Speed Command		X				
Indoor Pool Recirculating Pump VFD Run Status			X			
Indoor Pool Recirculating Pump VFD Fault			X			
Indoor Pool Recirculating Pump VFD Communication					X	Provide BACNet communication interface and integrate into BAS.
Indoor Pool Recirculating Pump Suction Pressure	X					
Indoor Pool Recirculating Pump Discharge Pressure	X					
Indoor Pool Recirculating Water Flow Rate	X					
Indoor Pool Recirculating Water Temperature	X					
Indoor Pool Recirculating Water pH	X					
Indoor Pool Recirculating Water Chlorine Residual	X					
Indoor Pool Filter Inlet Water Pressure	X					
Indoor Pool Filter Outlet Water Pressure	X					
Indoor Pool Fill PRV Inlet Water Pressure	X					4-20mA pressure transducer with display
Indoor Pool Fill PRV Outlet Water Pressure	X					4-20mA pressure transducer with display
Indoor Pool Fill Reservoir Water Level	X					Rosemount 1208A Level tansmitter 1208ANBLEBZS (Save Bluetooth Passkey and provide it to FS Energy Management)
Indoor Pool Level Makeup Water Valve				X		Spring Return Closed on Power Failure
Indoor Pool UV System Status			X			
Indoor Pool CO2 Feeder System Status			X			
Indoor Pool Acid Feed Pump Status			X			
Indoor Pool Flocculation System Status			X			
Indoor Pool Equipment Room Flood Monitor			X			
Indoor Pool Equipment Room Flood Monitor Sensor Failed			X			
Indoor Pool Alarm Strobe				X		Equipment failure, chemistry deviation, temperature deviation.
Indoor Pool Alarm Reset			X			Local Reset Button
Indoor Pool Heat Exchanger Pump Run Command				X		
Indoor Pool Heat Exchanger Pump Run Status			X			
Indoor Pool Heat Exchanger Pump Amperage	X					
Indoor Pool Heat Exchanger Pump Phase Monitor			X			
Indoor Pool Heat Exchanger Pump Suction Pressure	X					
Indoor Pool Heat Exchanger Pump Discharge Pressure	X					
Indoor Pool Heat Exchanger Water Flow Rate	X					
Indoor Pool Heat Exchanger Entering Water Temperature	X					
Indoor Pool Heat Exchanger Leaving Water Temperature	X					
Indoor Pool Heat Exchanger Inlet Water Pressure	X					
Indoor Pool Heat Exchanger Outlet Water Pressure	X					
Indoor Pool Heat Exchanger Steam Valve-1 Command		X				Spring Return Closed on Power Failure
Indoor Pool Heat Exchanger Steam Valve-2 Command		X				Spring Return Closed on Power Failure
Indoor Pool HTX Steam Trap Leaving Temperature	X					
Indoor Pool Heating Supply Fan Start Command				X		
Indoor Pool Heating Supply Fan Motor Amperage	X					Monitors motor drive belt failure.
Indoor Pool Heating Supply Fan Discharge Air Temperature	X					
Indoor Pool Heating Supply Fan Outside Air Temperature	X					
Indoor Pool Space Temperature	X					
Indoor Pool Exhaust Fan Command				X		
Indoor Pool Exhaust Fan Amperage	X					Monitors motor drive belt failure.
Outdoor Pool Recirculating Pump VFD Run Command				X		
Outdoor Pool Recirculating Pump VFD Speed Command		X				
Outdoor Pool Recirculating Pump VFD Run Status			X			
Outdoor Pool Recirculating Pump VFD Fault			X			
Outdoor Pool Recirculating Pump VFD Communication					X	Provide BACNet communication interface and integrate into BAS.
Outdoor Pool Recirculating Pump Suction Pressure	X					
Outdoor Pool Recirculating Pump Discharge Pressure	X					
Outdoor Pool Recirculating Water Flow Rate	X					
Outdoor Pool Recirculating Water Temperature	X					
Outdoor Pool Recirculating Water pH	X					
Outdoor Pool Recirculating Water Chlorine Residual	X					
Outdoor Pool Filter Inlet Water Pressure	X					
Outdoor Pool Filter Outlet Water Pressure	X					
Outdoor Pool Fill PRV Inlet Water Pressure	X					4-20mA pressure transducer with display
Outdoor Pool Fill PRV Outlet Water Pressure	X					4-20mA pressure transducer with display
Outdoor Pool Fill Reservoir Water Level	X					Rosemount 1208A Level tansmitter 1208ANBLEBZS (Save Bluetooth Passkey and provide it to FS Energy Management)
Outdoor Pool Level Makeup Water Valve				X		Spring Return Closed on Power Failure
Outdoor Pool UV System Status (Future)			X			
Outdoor Pool CO2 Feeder System Status			X			
Outdoor Pool Acid Feed Pump Status			X			
Outdoor Pool Flocculation System Status			X			
Outdoor Pool Equipment Room Flood Monitor			X			
Outdoor Pool Equipment Room Flood Monitor Sensor Failed			X			
Outdoor Pool Alarm Strobe				X		Equipment failure, chemistry deviation, temperature deviation.
Outdoor Pool Alarm Reset			X			Local Reset Button
Outdoor Pool Heat Exchanger Pump Run Command				X		
Outdoor Pool Heat Exchanger Pump Run Status			X			
Outdoor Pool Heat Exchanger Pump Amperage	X					
Outdoor Pool Heat Exchanger Pump Phase Monitor			X			
Outdoor Pool Heat Exchanger Pump Suction Pressure	X					
Outdoor Pool Heat Exchanger Pump Discharge Pressure	X					
Outdoor Pool Heat Exchanger Water Flow Rate	X					
Outdoor Pool Heat Exchanger Entering Water Temperature	X					
Outdoor Pool Heat Exchanger Leaving Water Temperature	X					
Outdoor Pool Heat Exchanger Inlet Water Pressure	X					
Outdoor Pool Heat Exchanger Outlet Water Pressure	X					
Outdoor Pool Heat Exchanger Steam Valve-1 Command		X				Spring Return Closed on Power Failure
Outdoor Pool Heat Exchanger Steam Valve-2 Command		X				Spring Return Closed on Power Failure
Outdoor Pool HTX Steam Trap Leaving Temperature	X					
Pool Equipment Mechanical Room Space Temperature	X					
Locker Room Temperature	X					
Locker Room Heating Fan Command				X		
Locker Room Heating Fan Status			X			
Locker Room Heating Fan Hot Water Pump Command				X		
Locker Room Heating Fan Hot Water Pump Status			X			
Locker Room Heating Fan Electric Hot Water Heater Command				X		
Locker Room Heating Fan Electric Hot Water Heater Status			X			
Locker Room Heating Fan Hot Water Supply Temperature	X					
Locker Room Heating Fan Hot Water Return Temperature	X					
Steam Station High Side Pressure	X					
Steam Station Low Side Pressure	X					
Steam Station High Side Trap Leaving Temperature	X					
Steam Station Low Side Trap Leaving Temperature	X					
Steam Condensate Return Conductivity	X					
Domestic Hot Water Recirc Pump Command				X		
Domestic Hot Water Recirc Pump Status			X			
Domestic Hot Water Temperature	X					
Domestic Hot Water Steam Valve		X				
Spare Inputs/Outputs	X	X	X	X		Provide (4) Digital In, (4) Digital Out, (4)Analog In, (4) Analog Out Spare I/Os with BACnet Objects for future use

Blue are inputs controlled by or displayed on the pool chemical controllers
yellow ones will be only displayed on the panel of the equipment itself
green ones are purely analog
red ones will not be included in the scope.





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95 % CONSTRUCTION DOCUMENTS

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PHASE 1 CODE UPGRADES
1520 Stewart Street
Las Cruces, New Mexico

SHEET TITLE:
DDC Point Matrix Aquatic Center

SHEET NO:
M-300

H:\2025 Projects\25056\Drawings\03_CAD Files\Shts-Mech\25056 M001 M101 M201 M300 10/7/2025 3:29 PM cmanager

ELECTRICAL SYMBOL LEGEND

LIGHT FIXTURE

- JUNCTION BOX INSTALLED ABOVE AN ACCESSIBLE CEILING WITH FLEXIBLE CONDUIT CONNECTION TO LAY–IN FIXTURES. MAXIMUM 6'–0" LENGTH OF CONDUIT WITH REQUIRED CONDUCTORS ALONG WITH GREEN WIRE GROUND.
- FLUORESCENT FIXTURE 1x4, 2x2, OR 2x4 AS SCALED ON PLANS. SURFACE OR RECESSED. TYPE AS INDICATED IN FIXTURE SCHEDULE.
- FLUORESCENT FIXTURE AS SPECIFIED WITH BATTERY BACK–UP. TYPE AS INDICATED IN FIXTURE SCHEDULE.
- SELF–CONTAINED TWO–HEAD EMERGENCY PACK FIXTURE. TYPE AS INDICATED IN FIXTURE SCHEDULE.
- CEILING RECESSED FOR SURFACE FIXTURE, FLUORESCENT, HID., ETC. TYPE AS INDICATED IN FIXTURE SCHEDULE.
- EXIT LIGHT, CEILING MOUNTED. DIRECTION ARROWS AS REQUIRED. IF THE CEILING HEIGHT EXCEEDS 10'–0" EXIT LIGHT SHALL BE WALL MOUNTED.
- EXIT COMBO LIGHT, WALL MOUNTED. BOTTOM OF LIGHT 8" ABOVE DOOR FRAME, OR BOTTOM OF LIGHT 84" ABOVE FLOOR WHEN MOUNTED ON BARE WALL OR AS NOTED.

CONDUIT, RACEWAYS, AND WIRING

- CONDUIT EXPOSED. RIGID, IMC, EMT OR PVC SCH 80. SEE SPECS.
- CONDUIT CONCEALED IN WALLS OR CEILING CONSTRUCTION RIGID, IMC OR EMT. SEE SPECS.
- HOME RUN TO PANELBOARD–NUMBER OF ARROWS INDICATES NUMBER OF BREAKER HANDLES.
- WHITE–NEUTRAL, PHASE (HOT), GREEN–GRD. WIRE: SWITCH LEG; DASHES ACROSS CONDUIT OR CABLE INDICATE THREE (3) OR MORE WIRES #12 AWG SOLID COPPER UNLESS NOTED OTHERWISE.
- GROUND

EQUIPMENT

- MOTOR OUTLET AND CONNECTION. EQUIPMENT TYPE AS NOTED.
- SAFETY SWITCH, PROVIDED AND INSTALLED UNDER DIV. 16. TO HAVE FOLES AND RATING REQUIRED. NEMA 3R IF INSTALLED OUTDOORS.
- EXISTING PANELBOARD SURFACE MOUNTED.
- SPECIAL CABINET OR EQUIPMENT AS NOTED, SURFACE MOUNTED.
- THERMOSTAT OR TEMPERATURE SENSOR OUTLET FLUSH IN WALL. 1 GANG HANDY BOX WITH 1/2" STUBBED TO ABOVE ACCESSIBLE CEILING. UP 44" OR AS NOTED. CONTROL WIRING BY CONTROLS CONTRACTOR.
- CEILING MOUNT DUAL TECHNOLOGY OCCUPANCY SENSOR. WATT STOPPER OR EQUAL.
- CORNER MOUNT DUAL TECHNOLOGY OCCUPANCY SENSOR. WATT STOPPER OR EQUAL.
- $_{1M}$ 1–BUTTON LOW VOLTAGE, DIMMING, WALL VACANCY SWITCH. WATT STOPPER OR EQUAL.
- $_{2M}$ 2–BUTTON LOW VOLTAGE, DIMMING, WALL VACANCY SWITCH. WATT STOPPER OR EQUAL.
- SINGLE RELAY , 0–10V DIMMING, ROOM CONTROLLER. WATT STOPPER OR EQUAL.
- DUAL RELAY, 0–10V DIMMING, ROOM CONTROLLER. WATT STOPPER OR EQUAL.

WIRING DEVICES

HEIGHTS NOTED ARE TO CENTER LINE FROM FLOOR.

AS THE CONTRACTED AND LICENSED INSTALLER ON THE PROJECT NOTED ON THE TITLE BLOCK THIS CONTRACTOR WARRANTS AND GUARANTEES THAT ALL CONTROL AND OPERATING MECHANISMS HE/SHE INSTALLS WILL COMPLY WITH THE ACCESSIBILITY STANDARD AS ADOPTED AND MODIFIED BY THE STATE, WHETHER THE STANDARD IS ADAAG, LATEST EDITION OR ICC/ANSI A117.1, LATEST EDITION. REACH RANGES SHALL BE COMPLIED WITH. THESE INCLUDE FORWARD REACH AND SIDE REACH, BOTH UNOBSTRUCTED AND OBSTRUCTED. THIS GUARANTEE SHALL EXTEND FOR THE TIME PERIOD AS NECESSARY FOR THE STATE ACCESSIBILITY INSPECTOR TO MAKE THE FINAL ON SITE ACCESSIBILITY INSPECTION. IN ANY CASE THE TIME PERIOD SHALL NOT EXCEED 36 MONTHS BEYOND THE DATE OF SUBSTANTIAL COMPLETION. ANY DEFICIENCIES FOUND BY THE ACCESSIBILITY STATE INSPECTOR ON THE ACCESSIBILITY FINAL INSPECTION SHALL BE CORRECTED WITHIN 30 DAYS BY THIS CONTRACTOR WITHOUT ADDITIONAL COST TO THE OWNER. THE HEIGHTS CALLED FOR BY THE LEGEND AND AS SHOWN ON THE PLANS ARE SO SELECTED TO BE IN COMPLIANCE, HOWEVER CONSTRUCTION ADJUSTMENTS OCCUR IN THE FIELD OFTEN WITH OUT THE KNOWLEDGE OF THE ENGINEER, WHEN THIS HAPPENS THE CONTRACTOR IS AUTHORIZED AND EXPECTED TO ADJUST THE DEVICE HEIGHT IN THE FIELD AS NECESSARY.

- $ SINGLE POLE WALL SWITCH, 2 INDICATES 2 POLE SW–3 INDICATES 3 WAY SW–4 INDICATES 4 WAY SW–P INDICATES SW WITH PILOT LIGHT,– D INDICATES INC DIMMER SW, DF INDICATES FLUORESCENT DIMMER SW, +44" OR AS NOTED.
- $MD MOTION DETECTOR WALL SWITCH. FLUSH MOUNTED UP 44" UNLESS OTHERWISE NOTED.
- DUPLEX RECEPTACLE–20A, 125V, 2P, 3W (NEMA 5–20R) IN WALL +18" OR AS NOTED.
- DUPLEX RECEPTACLE
- DOUBLE DUPLEX (QUAD) RECEPTACLE –20A, 125V, 2P, 3W (NEMA 5–20R) 18" OR AS NOTED.
- DUPLEX RECEPTACLE
- DUPLEX RECEPTACLE–20A, 125V, 2P, 3W (NEMA 5–20R) UP WALL 4" ABOVE COUNTER OR BACK SPLASH SINGLE DUPLEX OUTLETS SHALL BE MOUNTED HORIZONTALLY. DOUBLE DUPLEX (QUAD) OUTLETS SHALL BE MOUNTED VERTICALLY. IN ANY CASE TO COMPLY WITH ADA ACCESSIBILITY THE OUTLET BOX CENTERLINE MAY NOT EXCEED 42".
- GFCI GROUND FAULT CIRCUIT INTERRUPTER DUPLEX RECEPTACLE–20A, 125V, 2P, 3W–IN WALL +18" OR AS NOTED.
- EXISTING OUTLET TO REMAIN U.N.O.
- NEW OUTLET, SURFACE MOUNT IN NEW WIREMOLD BOX WITH WHITE WIREMOLD STUB TO ABOVE CEILING.
- JUNCTION OR OUTLET BOX IN WALL. HEIGHT AS NOTED. ALL BOXES SHALL BE ACCESSIBLE.
- JUNCTION OR OUTLET BOX IN CEILING. ALL BOXES SHALL BE ACCESSIBLE.

IN CMU WALL CONSTRUCTION ROUGH–IN BOXES FOR WIRING DEVICES MAY BE ADJUSTED ABOVE 18" OR BELOW 44" AS APPROVED IN THE FIELD TO HELP MINIMIZE CUTS IN CMU BLOCKS, AS LONG AS THE HEIGHTS ARE IN KEEPING WITH ADA HEIGHTS.

MISCELLANEOUS

- MECHANICAL EQUIPMENT DESIGNATION– SEE MECHANICAL EQUIPMENT SCHEDULE.
- KEYED NOTE
- WP WEATHERPROOF
- AFF ABOVE FINISH FLOOR
- E OR EX EXISTING
- UNO UNLESS NOTED OTHERWISE
- GFCI GROUND FAULT CIRCUIT INTERRUPTER
- W WIREMOLD

FIRE ALARM SYSTEMS

HEIGHTS NOTED ARE TO CENTER LINE FROM FLOOR.

AS THE CONTRACTED AND LICENSED INSTALLER ON THE PROJECT NOTED ON THE TITLE BLOCK THIS CONTRACTOR WARRANTS AND GUARANTEES THAT ALL MANUAL DEVICES, AUDIO AND VISUAL ALARMS HE/SHE INSTALLS COMPLY WITH THE ACCESSIBILITY STANDARD AS ADOPTED AND MODIFIED BY THE STATE, WHETHER THE STANDARD IS ADAAG, LATEST EDITION OR ICC/ANSI A117–1 LATEST EDITION. ACCESSIBLE FIRE ALARMS SHALL HAVE AUDIBLE AND VISUAL ALARM COMPLYING WITH APPROPRIATE SECTIONS. THIS GUARANTEE SHALL EXTEND FOR THE IME PERIOD AS NECESSARY FOR THE STATE ACCESSIBILITY INSPECTOR TO MAKE THE FINAL ON SITE ACCESSIBILITY INSPECTION. IN ANY CASE THE TIME PERIOD SHALL NOT EXCEED 36 MONTHS BEYOND THE DATE OF SUBSTANTIAL COMPLETION. ANY DEFICIENCIES FOUND BY THE ACCESSIBILITY STATE INSPECTOR ON THE ACCESSIBILITY FINAL INSPECTION SHALL BE CORRECTED WITHIN 30 DAYS BY THIS CONTRACTOR WITHOUT ADDITIONAL COST TO THE OWNER. THE HEIGHTS CALLED FOR BY THE LEGEND AND AS SHOWN ON THE PLANS ARE SO SELECTED TO BE IN COMPLIANCE, HOWEVER CONSTRUCTION ADJUSTMENT OCCUR IN THE FIELD, OFTEN WITHOUT THE KNOWLEDGE OF THE ENGINEER, WHEN THIS HAPPENS THE CONTRACTOR IS AUTHORIZED AND EXPECTED TO ADJUST THE DEVICE HEIGHT IN THE FIELD AS NECESSARY. WHEN THE DRAWINGS SHOW CEILING MOUNTED APPLIANCES THE SAME COMPLIANCE IS REQUIRED.

- CEILING MOUNT FA HORN/STROBE APPLIANCE. INSTALLATION OF THIS CEILING MOUNT DEVICE SHALL BE IN ACCORDANCE WITH NFPA 72.
- CEILING MOUNT FA STROBE APPLIANCE. INSTALLATION OF THIS CEILING MOUNT DEVICE SHALL BE IN ACCORDANCE WITH NFPA 72.
- MANUAL PULL STATION 44" ABOVE FLOOR.
- SMOKE DETECTOR ON CEILING.

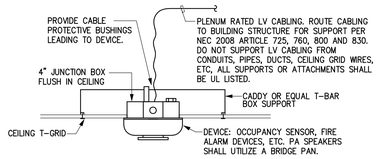
COMMUNICATION SYSTEMS

HEIGHTS NOTED ARE TO CENTER LINE FROM FLOOR.

AS THE CONTRACTED AND LICENSED INSTALLER ON THE PROJECT NOTED ON THE TITLE BLOCK THIS CONTRACTOR WARRANTS AND GUARANTEES THAT ALL CONTROL AND OPERATING MECHANISMS HE/SHE INSTALLS WILL COMPLY WITH THE ACCESSIBILITY STANDARD AS ADOPTED AND MODIFIED BY THE STATE, WHETHER THE STANDARD IS ADAAG, LATEST EDITION OR ICC/ANSI A 117.1, LATEST EDITION. REACH RANGES SHALL BE COMPLIED WITH. THESE INCLUDE FORWARD REACH AND SIDE REACH, BOTH UNOBSTRUCTED AND OBSTRUCTED. THIS GUARANTEE SHALL EXTEND FOR THE TIME PERIOD AS NECESSARY FOR THE STATE ACCESSIBILITY INSPECTOR TO MAKE THE FINAL ON SITE ACCESSIBILITY INSPECTION. IN ANY CASE THE TIME PERIOD SHALL NOT EXCEED 36 MONTHS BEYOND THE DATE OF SUBSTANTIAL COMPLETION. ANY DEFICIENCIES FOUND BY THE ACCESSIBILITY STATE INSPECTOR ON THE ACCESSIBILITY FINAL INSPECTION SHALL BE CORRECTED WITHIN 30 DAYS BY THIS CONTRACTOR WITHOUT ADDITIONAL COST TO THE OWNER. THE HEIGHTS CALLED FOR BY THE LEGEND AND AS SHOWN ON THE PLANS ARE SO SELECTED TO BE IN COMPLIANCE, HOWEVER CONSTRUCTION ADJUSTMENTS OCCUR IN THE FIELD OFTEN WITH OUT THE KNOWLEDGE OF THE ENGINEER, WHEN THIS HAPPENS THE CONTRACTOR IS AUTHORIZED AND EXPECTED TO ADJUST THE DEVICE HEIGHT IN THE FIELD AS NECESSARY.

- NEW DATA/PHONE OUTLET. PROVIDE WITH (2)–CAT 5e CABLES FOR DATA AND (1)–CAT5e CABLE FOR VOICE. SURFACE MOUNT IN WHITE WIREMOLD BOX WITH WHITE WIREMOLD STUBBED TO ABOVE CEILING.
- NEW DATA/PHONE OUTLET. PROVIDE WITH (2)–CAT 5e CABLES FOR DATA AND (1)–CAT5e CABLE FOR VOICE. FLUSH IN WALL OR AS NOTED. 4" SQ. BOX 2 1/8" DEEP, ONE GANG PLASTER RING, 1"C STUBBED TO ABOVE ACCESSIBLE CEILING. UP +18" OR AS INDICATED. AT THE TIME OF FINAL INSPECTION THE CONTRACTOR SHALL PROVIDE A BLANK COVER PLATE ON ALL BOXES THAT HAVE NOT BEEN USED TO INSTALL AN OUTLET. PROVIDE A BUSHING ON THE CONDUIT STUB.

IN CMU WALL CONSTRUCTION ROUGH–IN BOXES FOR WIRING DEVICES MAY BE ADJUSTED ABOVE 18" OR BELOW 44" AS APPROVED IN THE FIELD TO HELP MINIMIZE CUTS IN CMU BLOCKS, AS LONG AS THE HEIGHTS ARE IN KEEPING WITH ADA HEIGHTS.



1 E–001 DEVICE CEILING SUPPORT DETAIL
SCALE: NONE

GENERAL NOTES:

A. THESE PLANS ARE SCHEMATIC AND DO NOT SHOW EXACT LOCATION OF EQUIPMENT, CONDUIT ROUTING, OBSTRUCTIONS, ETC. PLANS ARE TO BE USED AS A GENERAL GUIDELINE AND ARE NOT INTENDED TO BE SPECIFIC INSTALLATION INSTRUCTIONS. CONTRACTOR SHALL CONSTRUCT ACCORDING TO CODE AND/OR MANUFACTURER'S INSTALLATION INSTRUCTIONS.

B. DRAWINGS ARE BASED UPON ARCHITECTURAL BUILDING PLANS AND/OR FIELD OBSERVATIONS. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS AND ROUTINGS.

C. CONTRACTOR SHALL EXPECT TO MAKE SOME ROUTING ADJUSTMENTS DURING THE COURSE OF CONSTRUCTION. COORDINATE CHANGES WITH ARCHITECT AND KEEP RECORD OF CHANGES FOR AS–BUILTS.

D. NO TYPE NM CABLE, ROMEX, AND/OR AC CABLE MAY BE USED IN THIS BUILDING. 3/4" OR LARGER EMT, AND IMC CONDUITS ARE APPROVED WIRING METHODS FOR THIS BUILDING. MC CABLE MAY ONLY BE USED FOR FIXTURE WHIPS AT LENGTHS NO GREATER THAN SIX FEET. PVC CONDUIT CAN BE UTILIZED ONLY WHERE NOTED.

E. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE A NEW TYPED DIRECTORY FOR ALL EXISTING ELECTRICAL PANELS MODIFIED DURING THE PROCESS OF CONSTRUCTION.

F. CONTRACTOR IS RESPONSIBLE FOR ALL PERMIT AND INSPECTION FEES REQUIRED BY THE GOVERNING BODIES.

G. CONTRACTOR IS EXPECTED TO REMOVE PORTIONS OF EXISTING HARD CEILING, LAY–IN CEILING, TILES, AND/OR GRID FOR INSTALLATION OF NEW ELECTRICAL CONDUIT AND WIRE FOR NEW WORK SHOWN AND SCHEDULED. CONTRACTOR SHALL BE RESPONSIBLE FOR STORING AND PROTECTING ITEMS MENTIONED ABOVE DURING CONSTRUCTION AND REPLACE IF NECESSARY. REPLACE CEILING TYPES DAMAGED DURING CONSTRUCTION TO MATCH EXISTING.

H. CONTRACTOR SHALL COORDINATE ALL LIGHT FIXTURE LOCATIONS WITH MECHANICAL EQUIPMENT AND DUCTWORK LAYOUT PRIOR TO INSTALLATION. PROVIDE PROPER CLEARANCES AROUND FIXTURES FOR MAINTENANCE PURPOSES.

K. CONTRACTOR SHALL PROVIDE PROPER FIRE SEALANT FOR ALL CONDUITS PENETRATIONS THRU FIRE RATED WALL AND SMOKE WALLS.

L. CONTRACTOR SHALL ROUTE AND RUN ALL POWER SEPARATE FROM ANY AND ALL SPECIAL SYSTEMS CONDUIT AND WIRING. ALL SPECIAL SYSTEMS UTILIZING CONDUIT SHALL BE PROVIDED WITH PULL STRING AND STUBBED/ROUTED TO AN ACCESSIBLE CEILING.

M. ALL NEW BRANCH CIRCUIT HOMERUNS ROUTED TO EXISTING ELECTRICAL PANEL(S) NOTED FOR POWER SHALL BE ROUTED IN CONDUIT NO SMALLER THAN 3/4"C.

N. ALL CONDUIT SHALL BE CONCEALED IN WALLS, EXCEPT WHERE NOTED OTHERWISE. IF SHOWN OR NOTED TO BE EXPOSED, CONDUIT RUNS SHALL BE NEATLY GROUPED TOGETHER AND BE SQUARE AND TRUE TO THE BUILDING LINES. ALL CONDUIT SHALL BE SUPPORTED TO THE STRUCTURE.

STATE OF NM NOTES:

A. THE MOUNTING HEIGHT OF WIRING OR CONTROL DEVICES (SWITCHES, OUTLETS, CONTROLS, DATA JACKS, PHONE JACKS, THERMOSTATS, FIRE ALARM, ELECTRIC DOOR PUSH BUTTONS, ETC.) MUST BE MOUNTED TO COMPLY WITH THE STATE OF NEW MEXICO STANDARDS FOR ACCESSIBILITY. SPECIFICALLY, OUTLETS MUST BE MOUNTED AT MINIMUM 18" A.F.F. TO THE BOTTOM OF THE BOX, AND SWITCHES AND OTHER CONTROLS AT 44" A.F.F. TO THE BOTTOM OF THE BOX UNLESS NOTED OTHERWISE. DEVICES ABOVE COUNTER TOPS AND OBSTRUCTIONS SHALL COMPLY WITH ANSI 117.1.

B. THE DESIGN OF THE PROJECT IS BASED ON COPPER WIRE, #12 AWG AS THE MINIMUM SIZE. THE BRANCH CIRCUIT WIRING SYSTEM SHALL LIMIT VOLTAGE DROP TO 5% AT THE FURTHEST OUTLET. THE CONTRACTOR SHALL UTILIZE LARGER WIRE SIZES AS NEEDED TO MAINTAIN THIS LIMIT. IT WILL NOT BE UNCOMMON FOR #10 AWG TO BE REQUIRED. AS A RULE OF THUMB, BRANCH CIRCUIT CONDUCTOR LENGTHS LONGER THAN 80' MAY REQUIRE #10 AWG WIRING. CONTRACTOR SHALL UPGRADE WIRING AS NEEDED WHETHER SHOWN ON THE PLANS OR NOT TO COMPLY WITH THE STATE OF NEW MEXICO STANDARDS FOR VOLTAGE DROP.

C. THE CONTRACTOR MAY INSTALL UP TO 6 CURRENT CARRYING CONDUCTORS IN A CONDUIT. LOADINGS ARE BASED ON DERATINGS FOR UP TO 6 CONDUCTORS AND AN AMBIENT TEMPERATURE OF 122 DEGREES F. THE CONTRACTOR MUST REVISE AMPACITIES FOR OTHER CONDITIONS. CONTACT THE ENGINEER IF NECESSARY.

D. OUTDOOR EMERGENCY LIGHTING IS REQUIRED ON THE PROJECT BECAUSE THE SIZE OF THE PROJECT REQUIRES TWO EXITS. OUTDOOR EMERGENCY LIGHTING IS SHOWN ON THE LIGHTING PLAN AND SCHEDULED. ADDITIONALLY, EXIT LIGHTING AND EMERGENCY EGRESS LIGHTING IS PROVIDED.

E. EXTERIOR LIGHTING FIXTURES ARE NOT REQUIRED ON THIS PROJECT. IF PROVIDED, ALL SHALL COMPLY WITH THE STATE OF NEW MEXICO NIGHT SKY PROTECTION ACT.

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PHASE 1 CODE UPGRADES
1520 Stewart Street
Las Cruces, New Mexico

SHEET TITLE:
ELECTRICAL GENERAL NOTES, AND LEGEND

SHEET NO:
E-001

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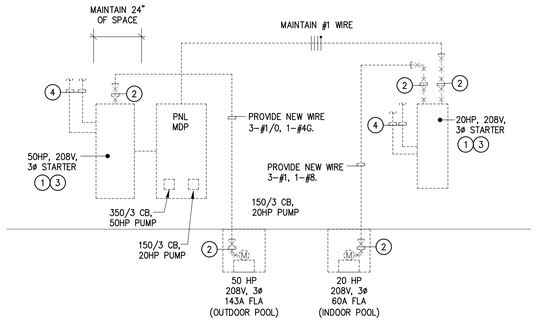

1 / E-002 ELECTRICAL RISER DIAGRAM

N.T.S.

KEYED NOTE

1. REMOVE THE EXISTING COMBO STARTER.
2. REMOVE A PORTION OF THE EXISTING LINE AND LOAD CONDUITS.
3. MOUNT AND CONNECT VFD.
4. DISCONNECT AND RECONNECT CONTROL CONDUITS.

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ISSUE:		OCTOBER 2025

PROJECT NAME

5449 AQUATIC CENTER RENOVATION
PHASE 1 CODE UPGRADES
1520 Stewart Street
Las Cruces, New Mexico

SHEET TITLE:

ELECTRICAL RISER DIAGRAM

SHEET NO:

E-002

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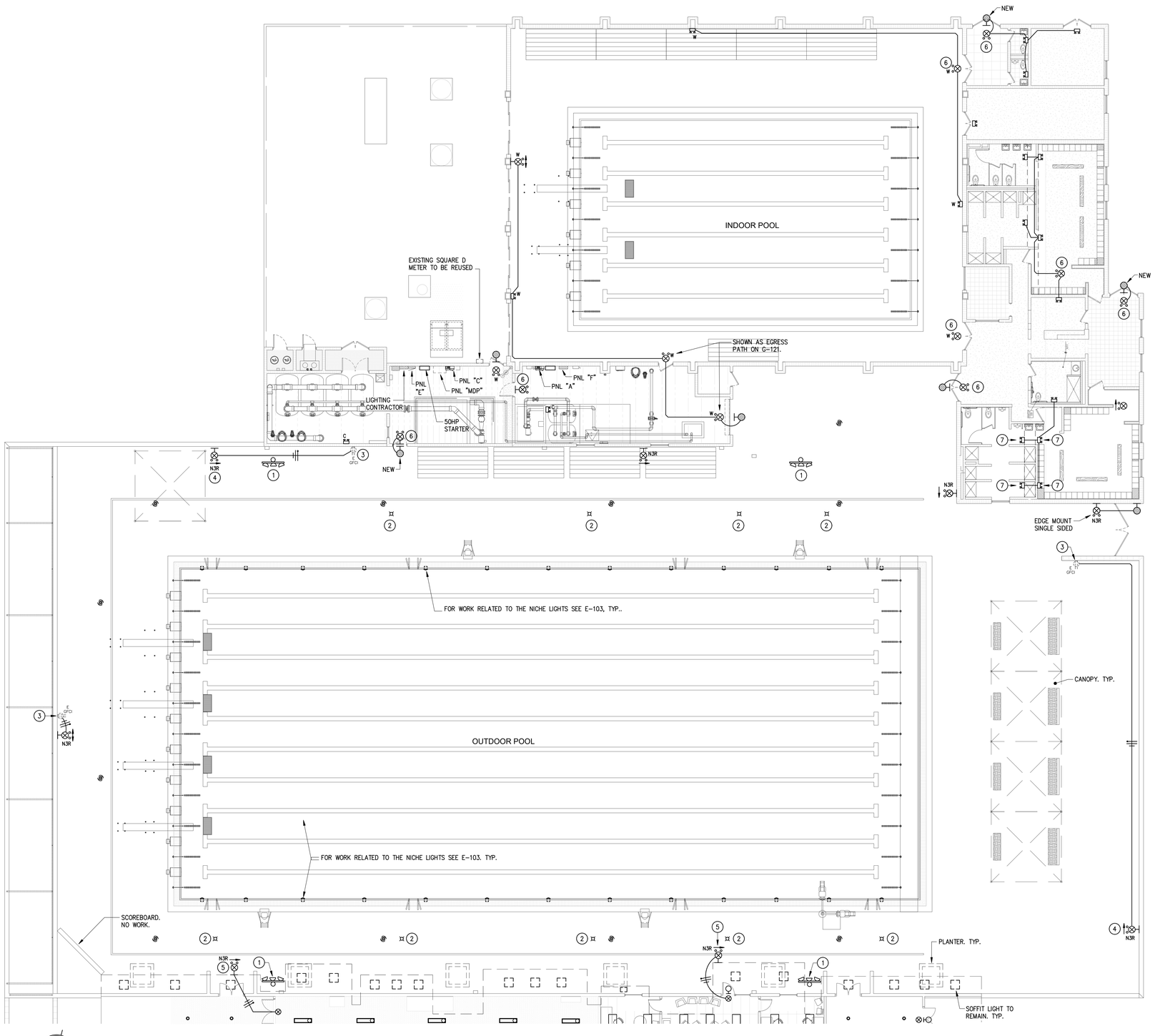

1 E-101 OVERALL LIGHTING PLAN

SCALE: 1"=10'-0"

GENERAL NOTES

A. SPACING OF EXIT SIGNS IN THE INDOOR POOL AND OUTDOOR POOL AREA MAY NOT EXCEED 100'.

KEYED NOTES

1. EXISTING MUSCO LIGHT POLE TO REMAIN.
2. EXISTING 10' AREA LIGHT POLE TO REMAIN.
3. EXISTING WP, GFCI OUTLET. ADD AN EXTENSION RING TO FEED POWER TO THE NEW EXIT SIGN.
4. MOUNT THE EXIT SIGN AT ±8' THE INTENT IS TO MOUNT THE EXIT SIGN LOWER THAN THE CANOPY SO THAT IT CAN BE SEEN.
5. MOUNT ON THE FRONT OF THE SOFFIT ±12'.
6. REPLACE EXISTING WITH NEW.
7. MOUNT EMERGENCY LIGHT ON SOFFIT ±10' A.F.F.

LIGHT FIXTURE LEGEND

- COMBO EXIT SIGN. POLY CARBONITE.
- W — COMBO EXIT SIGN. WET LOCATION LISTED. INSTALL INDOOR.
- N3R — COMBO EXIT SIGN. WET LOCATION LISTED. INSTALLED OUTDOOR. STAINLESS STEEL, RUGGED.
- OUTDOOR EMERGENCY ONLY LIGHT
- BATTERY PACK EMERGENCY LIGHT
- W — WET LOCATION LISTED BATTERY PACK EMERGENCY LIGHT.
- C — CORROSION RESISTANT BATTERY PACK EMERGENCY LIGHT.

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ELECTRICAL LIGHTING PLAN

SHEET NO:

E-101

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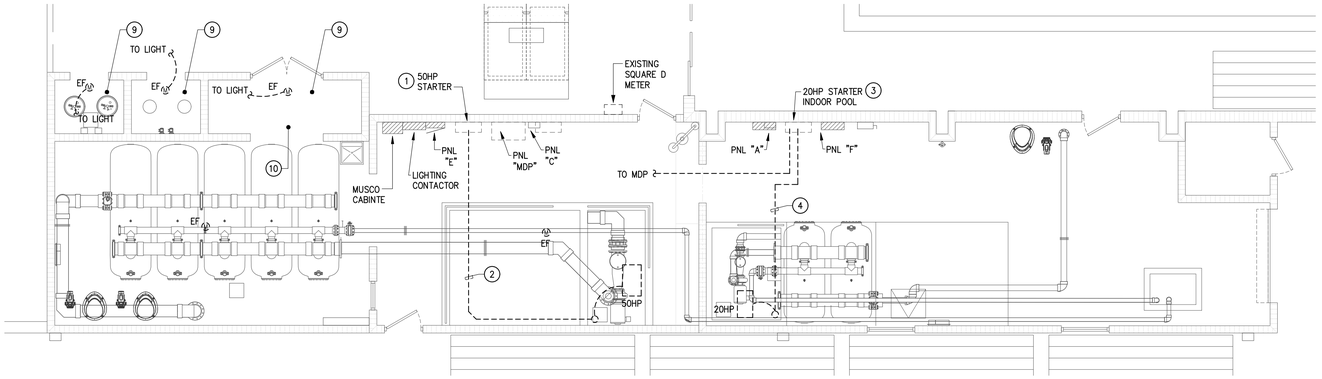
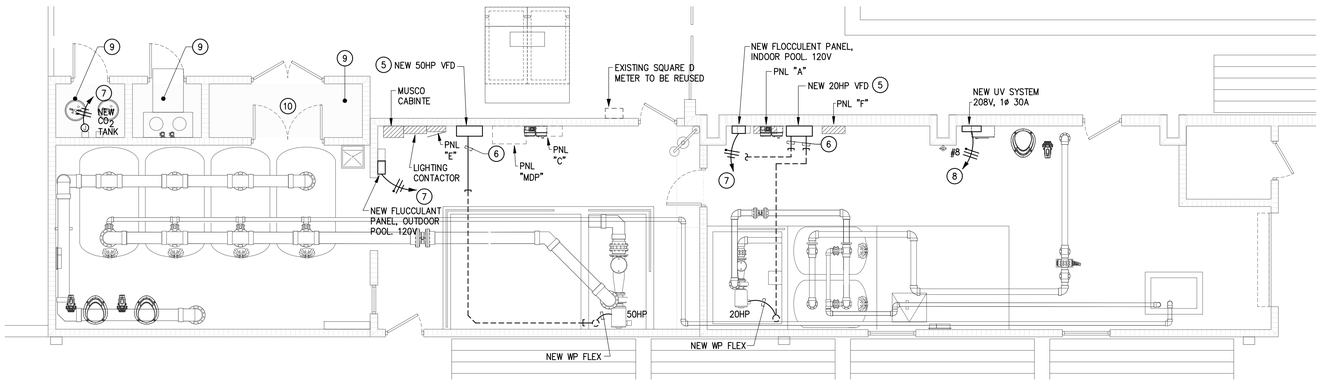


ELECTRICAL DEMOLITION PLAN

1 / E-102 SCALE: 3/16"=1'-0"



ELECTRICAL NEW WORK PLAN

1 / E-102 SCALE: 3/16"=1'-0"

KEYED NOTES

1. REMOVE EXISTING 50 HP STARTER.
2. REMOVE LOAD SIDE WIRE TO 50 HP MOTOR.
3. REMOVE EXISTING 20 HP STARTER.
4. REMOVE LOAD SIDE WIRE TO 20 HP MOTOR.
5. MAKE ELECTRICAL CONNECTIONS TO NEW VFD.
6. INSTALL NEW CONDUIT AND WIRE FROM NEW VFD TO NEW PUMP.
7. EXTEND NEW HOMERUN TO SPARE 20/1 BREAKER IN PANEL "F". UPDATE PANEL DIRECTORY.
8. EXTEND NEW HOMERUN TO NEW 30/2 BREAKER IN PANEL "F". REMOVE (2) 20/1 SPARE BREAKERS. UPDATE PANEL DIRECTORY.
9. REPAIR WORK TO THE CEILING AND ROOF DECK IN THIS ROOM WILL BE REQUIRED. CONTRACTOR SHALL REMOVE (1) EXISTING LED LIGHT AND ALL PVC CONDUIT ON THE DECK TO ALLOW THE WORK. REINSTALL PVC CONDUIT AS NEEDED AND REINSTALL EXISTING LED LIGHT.
10. NEW DOORS WILL BE INSTALLED A VISUAL OBSERVATION FOUND NO ELECTRICAL CONDUITS.

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SHEET TITLE:

ELECTRICAL FLOOR PLAN

SHEET NO:

E-102

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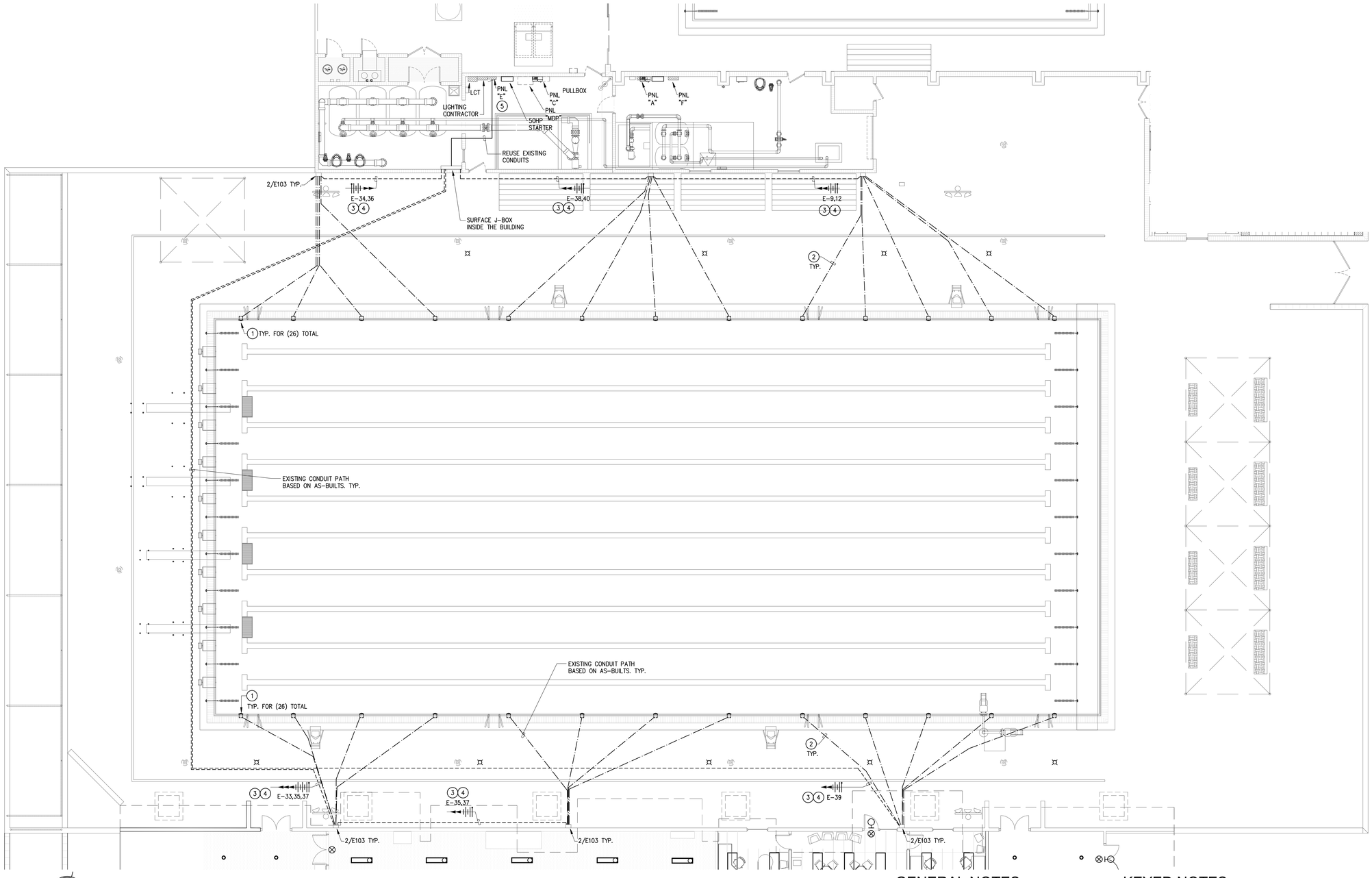
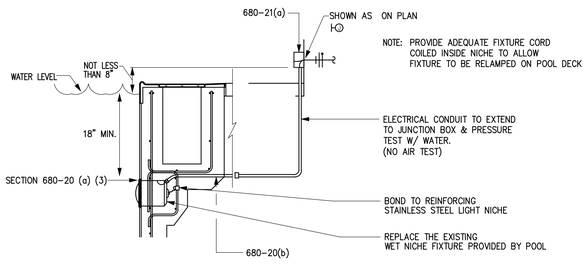


1 E-103 LIGHTING FOR POOL-OUTDOOR POOL

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



2 E-103 WET NICHE DETAIL

N.T.S.

GENERAL NOTES

A. MAINTAIN SAME SWITCH CONTROL FOR THE NICHE POOL LIGHTS.

KEYED NOTES

1. THE NICHE POOL LIGHTS ARE TO BE REPLACED BY FSG UNDER A SEPARATE CONTRACTOR THRU NMSU ELECTRICAL SHOP. WHEN THE POOL IS DRAINED FOR THE WORK BY THE POOL CONTRACTOR FDG WILL DO THEIR WORK. THE NICHE LIGHT WILL HAVE AN INTEGRAL CABLE THAT FSG WILL PULL TO THE ABOVE-GROUND J-BOX.
2. EACH NICHE LIGHT HAS A DEDICATED CONDUIT TO THE WALL MOUNT J-BOX. THE NEW NICHE LIGHT WILL HAVE AN INTEGRAL CABLE. FSG WILL PULL A NEW CABLE TO THE WALL BOX UNSPLICED.
3. THIS CONTRACTOR SHALL REPLACE THE HOME RUN WIRE FROM THE WALL BOX TO PANEL "E". USE 3-#10 THWN CU. WIRE.
4. ROUTE THRU LIGHTING CONTACTOR AT PANEL "E".
5. IN THE SQUARE D PANEL "E" REPLACE (10) 20A GFCI BREAKERS THAT FEED THE NICHE LIGHTS.

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SHEET TITLE:

LIGHTING FOR POOL-OUTDOOR PLAN

SHEET NO:

E-103

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