VYSTAR BALLPARK
BULLPEN RELOCATION

JACKSONVILLE JUMBO SHRIMP

301 A PHILLIP RANDOLPH BLVD
JACKSONVILLE, FL 32202

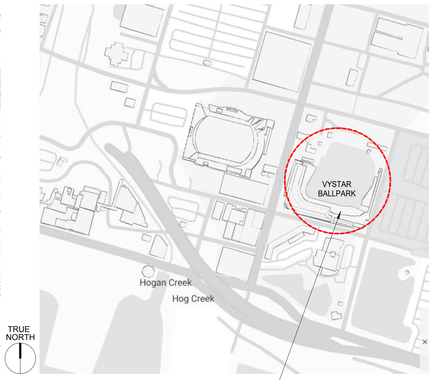
CONTRACTEE: JACKSONVILLE BASEBALL LLC



SITE MAP



VICINITY MAP



CONTACT INFORMATION

FACILITY MANAGER
ASM GLOBAL
CONTACT: MICHAEL NEAL
ADDRESS: 1 EVERBANK STADIUM DR.
JACKSONVILLE, FL 32202
PHONE: (904) 633-5322 EXT. 6111

ARCHITECT
OSPORTS
CONTACT: THOM CHUPARKOFF
ADDRESS: 400 N TAMPA ST #2230
TAMPA, FL 33602
PHONE: (813) 868-4100

ENGINEER - STRUCTURAL
OSBORN ENGINEERING
CONTACT: JOHN POLLNER
ADDRESS: 1111 SUPERIOR AVENUE, SUITE 2100
CLEVELAND, OHIO 44114-2530
PHONE: (216) 861-2020

ENGINEER - CIVIL
OSBORN ENGINEERING
CONTACT: DAN KELBACH
ADDRESS: 1111 SUPERIOR AVENUE, SUITE 2100
CLEVELAND, OHIO 44114-2530
PHONE: (216) 861-2020

ENGINEER - ELECTRICAL
OSBORN ENGINEERING
CONTACT: SEAN JOHNSON
ADDRESS: 1111 SUPERIOR AVENUE, SUITE 2100
CLEVELAND, OHIO 44114-2530
PHONE: (216) 861-2020

ENGINEER - MECHANICAL & PLUMBING
OSBORN ENGINEERING
CONTACT: TORY MCNEIL
ADDRESS: 450 CARILLON PARKWAY, SUITE 200
ST. PETERSBURG, FL 33716
PHONE: (727) 209-0436

ENGINEER - TECHNOLOGY
OSBORN ENGINEERING
CONTACT: SEBASTIAN FORBIS
ADDRESS: 15 W. CHURCH STREET, SUITE 201
ORLANDO, FL 32801-3350
PHONE: (407) 630-6253

DRAWING INDEX

DRAWING NO.	TITLE
00 - GENERAL	
G-000A	TITLE SHEET
G-010	GENERAL NOTES
10 - CIVIL	
CD-101	DEMO PLAN
C-101	SITE PLAN
C-102	UTILITY PLAN
C-103	GRADING PLAN
C-801	SITE DETAILS
C-802	SITE DETAILS
C-803	SITE DETAILS
20 - ARCHITECTURE	
A-010	ARCHITECTURAL SITE PLAN
A-110	OVERALL FLOOR PLANS
A-301	ENLARGED DRAWINGS - RESTROOMS / STORAGE
A-302	ENLARGED DRAWINGS - BULLPEN
A-303	ENLARGED DRAWINGS - RAMP
A-500	EXTERIOR ELEVATIONS
A-520	BUILDING SECTIONS
A-540	WALL SECTIONS
A-610	EXTERIOR DETAILS
A-701	SCHEDULES
30 - STRUCTURAL	
S-001	GENERAL NOTES
S-002	GENERAL NOTES
S-003	ABBREVIATIONS AND SYMBOLS
S-101	BULLPEN PLANS
S-310	TYPICAL FOUNDATION DETAILS
S-320	TYPICAL CONCRETE DETAILS
S-330	TYPICAL MASONRY DETAILS
S-510	SECTIONS
40 - MECHANICAL	
M-001	MECHANICAL SYMBOL LEGEND AND NOTES
M-101	BULLPEN MECHANICAL PLANS
50 - PLUMBING	
P-001	PLUMBING SYMBOL LEGEND AND NOTES
P-002	PLUMBING SPECIFICATIONS
P-003	PLUMBING SPECIFICATIONS
P-101	OVERALL COMBINED PLUMBING PLAN
P-401	ENLARGED PLUMBING PLANS
P-501	PLUMBING DETAILS
P-701	PLUMBING SCHEDULES
P-901	PLUMBING ISOMETRICS
70 - ELECTRICAL	
E-001	ELECTRICAL SYMBOL LEGEND
E-002	ELECTRICAL GENERAL NOTES
E-003	ELECTRICAL SPECIFICATIONS
E-004	ELECTRICAL SPECIFICATIONS
E-101	LEVEL 1 LIGHTING PLAN & CONTROL DETAILS
E-201	OVERALL LEVEL 1 POWER & FIRE ALARM PLANS
E-511	POWER DETAILS AND DIAGRAMS
E-601	ELECTRICAL RISERS AND SCHEDULES
80 - TECHNOLOGY	
T-001	TECHNOLOGY SYMBOL LEGEND AND NOTES
T-002	TECHNOLOGY SPECS
T-101	OVERALL LEVEL 1 PATHWAYS AND SPACES PLAN
T-201	OVERALL LEVEL 1 TECHNOLOGY PLAN
T-202	OVERALL LEVEL 1 DUGOUT TECHNOLOGY PLAN
T-501	TECHNOLOGY DETAILS
T-601	TECHNOLOGY RISER DIAGRAMS

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100 www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD.
JACKSONVILLE FL, 32202

BID/ PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

ISSUED BY: OSPORTS
ISSUE DATE: 10/22/25
PROJ NO. P20251573.000

REVISIONS

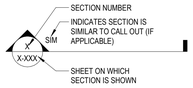
TAG	ISSUED	DATE

SHEET NAME:
TITLE SHEET

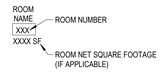
DRAWING NO.
G-000A

DRAWING SYMBOL LEGEND

SECTION IDENTIFICATION



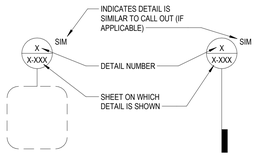
ROOM NAME & NUMBER



DOOR NUMBER



DETAIL IDENTIFICATION



KEYNOTE INDICATOR



PARTITION TYPE INDICATOR



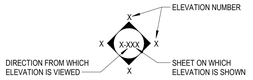
EXTERIOR ELEVATION IDENTIFICATION



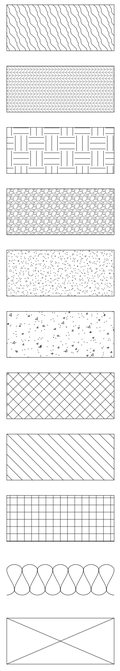
LEVEL INDICATOR



INTERIOR ELEVATION IDENTIFICATION



DRAWING MATERIAL LEGEND



BUILDING CODE SUMMARY

PROJECT SCOPE:
NEW FIELD LEVEL BULLPENS WITH ASSOCIATED CONVENIENCE RESTROOMS AND STORAGE BUILDING.

APPLICABLE CODE AND STANDARDS
- 2023 FLORIDA BUILDING CODE (FBC), EXISTING BUILDING, 8TH EDITION OF FLORIDA BUILDING CODE
- 2023 FLORIDA BUILDING CODE (FBC), BUILDING, 8TH EDITION OF FLORIDA BUILDING CODE
- 2023 FLORIDA FIRE PREVENTION CODE (FFPC), 8TH EDITION OF FLORIDA FIRE PREVENTION CODE, WHICH ADOPTS AND AMENDS 2021 EDITION NFPA 1, FIRE CODE, AND 2021 EDITION NFPA 101, LIFE SAFETY CODE
- 2023 FLORIDA BUILDING CODE, MECHANICAL, 8TH EDITION OF FLORIDA BUILDING CODE
- 2023 FLORIDA BUILDING CODE, PLUMBING, 8TH EDITION OF FLORIDA BUILDING CODE
- 2023 FLORIDA BUILDING CODE, FUEL GAS, 8TH EDITION OF FLORIDA BUILDING CODE
- 2020 NATIONAL ELECTRIC CODE
- 2010 AMERICANS DISABILITIES ACT (ADA) STANDARDS FOR ACCESSIBLE DESIGN
- 2023 FLORIDA BUILDING CODE, ACCESSIBILITY, 8TH EDITION FLORIDA BUILDING CODE
- REFERENCE STANDARDS FROM THE 2023 FLORIDA BUILDING & FIRE PREVENTION CODE
  - A. NFPA 13, INSTALLATION OF AUTOMATIC SPRINKLER SYSTEMS, 2019 EDITION
  - B. NFPA 72, NATIONAL FIRE ALARM CODE, 2019 EDITION
  - C. NFPA 102, GRANDSTANDS, FOLDING AND TELESCOPING SEATING, TENTS, AND MEMBRANE STRAUCTURES, 2016 EDITION

USE & OCCUPANCY CLASSIFICATION
MIXED USE - UNLIMITED (UNCHANGED)
USE GROUP: A-5
CONSTRUCTION TYPE: IIB
ALLOWABLE HEIGHT: 55'
-ACTUAL BUILDING HEIGHT = 9'-0"
FIRE PROTECTION: NON-SPRINKLED
ALLOWABLE AREA: UNLIMITED
ALLOWABLE NUMBER OF STORIES: UNLIMITED

BUILDING AREA:
TOTAL BUILDING AREA ADDITION (RESTROOM & STORAGE): 194'-0" SF
TOTAL BULLPEN AREA: 4,050 SF

LIFE SAFETY SYSTEMS

AUTOMATIC SPRINKLER SYSTEM PROVIDED:	No
PORTABLE FIRE EXTINGUISHERS PROVIDED:	Yes
FIRE ALARM SYSTEM PROVIDED:	Yes

INTERIORS

TABLE 803.11 INTERIOR WALL & CEILING FINISH REQUIREMENTS BY OCCUPANCY

• REQUIRED MATERIAL CLASSIFICATIONS FOR USE GROUP A-5, NONSPRINKLERED:	
-INTERIOR EXIT STAIRWAYS & RAMPS & EXIT PASSAGEWAYS:	A
-CORRIDORS & ENCLOSURES FOR EXIT ACCESS STAIRWAYS & RAMPS:	A
-ROOMS & ENCLOSED SPACES:	C
-FLAME SPREAD INDEX:	76-200
-SMOKE-DEVELOPED INDEX:	0-450

MEANS OF EGRESS

OCCUPANT LOAD:
EXISTING BUILDING OCCUPANT LOAD: UNCHANGED
MAX OCCUPANTS PER BULLPEN: 49
- PLAYER SEATING PROVIDED: 10
- TYPICAL COACHING STAFF IN BULLPEN: 5

DOORS
THE MINIMUM CLEAR WIDTH AND HEIGHT OF A DOOR SHALL NOT BE LESS THAN 32 INCHES AND 80 INCHES RESPECTIVELY.
DOORS SHALLS SWING IN THE DIRECTION OF EGRESS TRAVEL, WHERE SERVING AN OCCUPANT LOAD OF 50 OR MORE PERSONS.

ABBREVIATIONS

A's				K's			
ABOVE FINISH FLOOR	AFF	AND	&	KITCHEN	KIT	KNOCKOUT	KO
ACCESS PANEL	AP	ANGLE	∠	KNOCK DOWN	KD		
ACRE	AC	APPROXIMATE	APPROX	L's			
ACOUSTICAL	ACOUST	ARCHITECTURAL	ARCH	LAMINATED	LAM	LIVE LOAD	LL
ADJACENT	ADJ	AREA DRAIN	AD	LAVATORY	LAV	LONG LEG HORIZONTAL	LLH
AIR HANDLING UNIT (RE: MECH)	AHU	AT	@	LENGTH	L	LONG LEG VERTICAL	LLV
ALTERNATE	ALT	AUDIO/VISUAL	AV	LIGHT (LIGHTING)	LT (LTG)	LONG WAY	LW
ALUMINUM	ALUM	AUTOMATED EXTERNAL DEFIBULLATOR	AED	LIGHT WEIGHT CONCRETE	LWC	LOUVER	LVR
ANCHOR BOLT	AB			M's			
B's				MANHOLE	MH	METAL	MTL
BACK TO BACK	B TO B	BOTTOM	BOT	MANUFACTURER	MFR	METER	M
BEAM	BM	BOTTOM OF	BO	MASONRY	MAS	MICROWAVE	MICRO
BEARING	BRG	BOTTOM OF STEEL	BOS	MASONRY OPENING	MO	MINIMUM	MIN
BITUMINOUS	BIT	BRICK	BRK	MATERIAL	MATL	MISCELLANEOUS	MISC
BLOCKING	BLKG	BUILDING	BLDG	MAXIMUM	MAX	MODIFIED	MOD
BOARD	BD	BUILT-UP ROOF	BUR	MECHANICAL	MECH	MOUNTED	MTD
C's				N's			
CABINET HEATER	CH	COLD WATER	CW	NATIONAL PIPE STANDARDS	NPS	NOT IN CONTRACT	NIC
CARD READER	CR	COLD-FORMED FRAMING	CFF	NOMINAL	NOM	NOT TO SCALE	NTS
CAST- IN-PLACE	C.P	COLUMN	COL	NORTH	N	NUMBER	NO/#
CAST IRON	CI	COMPACTED/COMPACTOR	COMP	NOT APPLICABLE	N/A	NUMBER OR POUND	#
CEILING	CLG	CONCRETE	CONC	O's			
CEMENTITIOUS WOOD FIBER	CWF	CONCRETE MASONRY UN T	CMU	OFFICE	OFF	OUT TO OUT	O TO O
CENTER	CTR	CONNECTION	CONN	ON CENTER	OC	OUTSIDE DIAMETER	OD
CENTER LINE	℄ or CL	CONSTRUCTION	CONSTR	OPEN TO BELOW	OTB	OVER-FLOW DRAIN	OFD
CENTER TO CENTER	C TO C	CONTINUOUS/CONTINUE	CONT	OPENING	OPNG	OVER-FLOW ROOF DRAIN	ORD
CENTIMETER	CM	CONTRACTOR	CONTR	OPPOSITE	OPP	OVERHEAD	OVH
CHANNEL	[	CONTROL JOINT	CJ	OPPOSITE HAND	OH	OVERHEAD COILING DOOR	OCD
CLEANOUT	CO	COPIER	COPY	OUNCE	oz	OVERHEAD COILING GRILLE	OCG
CLEAR	CLR	CORNER GUARD	CG	P's			
CLOSET	CLO	CORRIDOR	COOR	PAINT	PT	POLISHED	POL
D's				PAIR	PR	POUND	LB/#
DEAD LOAD	DL	DISHWASHER	DW	PANEL	PNL	POUNDS PER SQUARE FOOT	PSF
DEGREE	°	DIVISION	DIV	PANEL JOINT	PJ	POUNDS PER SQUARE INCH	PSI
DEMOLITION	DEMO	DOOR	DR	PLASTER	PLAS	POWDER ACTUATED FASTENER	PAF
DEPARTMENT	DEPT	DOUBLE	DBL	PLATE	PL or PL	PRECAST CONCRETE	PC
DEPTH/DEEP	D	DOWN	DN	PLUMBING	PLUMB	PREFABRICATED	PREFAB
DETAIL	DTL	DOWN SPOUT	DS	PLYWOOD	PLYWD	PROPERTY LINE	PL
DIAMETER	DIA/Ø	DRAWING	DWG	POINT OF CONNECTION	POC	PUBLIC ADDRESS	PA
DIMENSION	DIM	DRINKING FOUNTAIN	DF	Q's			
DISH WASHER DRAWING(S)	DW DWG(S)			Quantity	QTY		
E's				R's			
EACH	EA	ENGINEER	ENGR	RADIUS	RAD/R	REVISION(S)	REV
EACH FACE	EF	EQUAL	EQ	REFERENCE	REF	RISER	R
EACH WAY	EW	EQUIPMENT	EQUIP	REFLECTED CEILING PLAN	RCP	RISER OR RADIUS	R
EAST	E	EXHAUST	EXH	REFRIGERATOR	REFRIG	ROOF DRAIN	RD
EDGE OF SLAB	EOS	EXISTING	EXIST	REINFORCING	REINF	ROOM	RM
ELECTRIC WATER COOLER	EWC	EXISTING	EXIST	REQUIRED	REQD	ROUGH OPENING	RO
ELECTRICAL	ELEC	EXPANSION	EXP	RETURN AIR	RA		
ELECTRICAL PANEL BOARD	EP	EXPANSION JOINT	EJ	S's			
ELEVATION	EL	EXTENSION	EXTN	SANITARY	SAN	SQUARE FOOT/FEET	SF
ELEVATOR	ELEV	EXTERIOR	EXT	SCHEDULE	SCHD	SQUARE INCH(ES)	SI
ELEVATOR STATUS PANEL	ESP	EXTERIOR INSULATION FINISH SYSTEM	EIFS	SECTION	SECT	SQUARE YARD(S)	SY(SQYD)
ENERGY MANAGEMENT SYSTEM PC	EMS			SHEET	SHT	STAINLESS STEEL	SS or STN STL
F's				SHOWER	SH	STANDARD	STD
FACE OF CONCRETE	FOC	FIRE RETARDANT TREATED	FRT	SIMILAR	SIM	STEEL	STL
FACE OF FINISH	FOF	FIRE VALVE CONNECTION	FVC	SOLID CORE	SC	STORAGE	STOR
FACE OF STUD	FOS	FLOOR	FLR	SOUTH	S	STORM DRAIN	SD
FIBER REINFORCED PLASTIC	FRP	FLOOR CLEANOUT	FCO	SPACE	SP	STRUCTURE/STRUCTURAL	STRUCT
FIELD VERIFY	FV	FLOOR DRAIN	FD	SPEAKER	SPKR	SUPPLY AIR	SA
FINISH	FIN	FLOOR SINK	FS	SPECIFICATION(S)	SPEC(S)	SYMMETRY(ICAL)	SYMM
FINISH	FIN	FOOT OR FEET	FT	SPRINKLER HEAD	SPHD	SYSTEM	SYS
FINISH FLOOR	FF/FIN FL	FOOT/FEET	FT	SQUARE	SQ		
FIRE ALARM PANEL	FAP	FOOTING	FTG	T's			
FIRE DEPARTMENT CONNECTION	FDC	FOUNDATION	FDN	TELEPONE	TEL	TOP OF DECK	TOD
FIRE EXTINGUISHER	FE	FRAME	FR (FRM)	TELEVISION	TV	TOP OF FOOTING	TOF
FIRE EXTINGUISHER BRACKET	FEB	FUNNEL FLOOR DRAIN	FFD	TEMPERED	TEMP or T	TOP OF MASONRY	TOM
FIRE EXTINGUISHER CABINET	FEC	FURNISHINGS, FIXTURES, EQUIPMENT	FFE	THICK/THICKNESS	THK	TOP OF PARAPET	TOP
FIRE HOSE CABINET	FHC	FURRING	FURR	TOILET	TLT	TOP OF SLAB OR TOP OF STEEL	TOS
G's				TONGUE AND GROOVE	T&G	TOP OF WALL	TOW
GALVANIZED	GALV	GLASS	GL	TOP AND BOTTOM	T&B	TREAD	T
GARBAGE DISPOSAL	GD	GROUND FACE CONCRETE MASONRY UNIT	GFCMU	TOP OF	TO	TWO-WAY COMMUNICATION	TWC
GAUGE	GA	GYPSUM BOARD	GYP BD	TOP OF CONCRETE	TOC	TYPICAL	TYP
GENERAL CONTRACTOR	GC			TOP OF CURB	TC		
H's				U's			
HARDWARE	HDWR	HOLLOW CORE	HC	UNIT VENTILATOR	UV	UNLESS NOTED OTHERWISE	UNO
HARDWOOD	HDWD	HOLLOW METAL	HM	V's			
HEAD	HD	HOLLOW METAL HORIZONTAL HEIGHT	HM HORIZ HT	VAPOR PERMEABLE AIR BARRIER	VPAB	VERTICAL	VERT
HEATING	HTG	HORIZONTAL	HORIZ	VAPOR RETARDER	VR	VESTIBULE	VEST
HEATING, VENTILATION & AIR CONDITIONING	HVAC	HOSE BIBB	HB	VENT STACK	VS	VOLUME	VOL
HEIGHT	HT	HOT WATER	HW	VERIFY IN FIELD	VIF		
HIGH	H	HOUR	HR	W's			
HIGH POINT	HP			WALL CLEANOUT	WCO	WEST/WIDE/WIDTH	W
I's				WATERPROOF	WP	WINDOW	WNDW
ICE MAKER	ICE	INSIDE DIAMETER / DIMENSION	ID	WEATHER RESISTANT BARRIER	WRB	WITH	W/
INCH	IN	INSULATION	INSUL	WEIGHT	WT	WITHIN	W/I
INCLUDE(D), (ING)	INCL	INTERIOR	INT	WELDED WIRE FABRIC	WWF	WITHOUT	W/O
INFORMATION	INFO	INVERT	INV	West or Wide or Width	W	WOOD	WD
J's							
JANITOR	JAN	JOIST	JST				
JOINT	JT						

FLORIDA PRODUCT APPROVALS

PRODUCT	PRODUCT TYPE	MANUFACTURER	PRODUCT NAME & MODEL	FL PRODUCT APPROVAL	MIAMI-DADE NOA	NOTES
EXTERIOR DOORS						
	SWING DOOR (HOLLOW METAL) SGL	CURRIES	747 SERIES	8770.4		INSULATED
ROOFING						
	TPO ROOFING MEMBRANE	JOHNS MANVILLE	TPO SINGLE-PLY ROOF SYSTEM	11475		
WALL PANELS						
WINDOWS						
STRUCTURAL						

GENERAL CONDITION NOTES

1. SEE SPECIFICATIONS FOR QUALITY OF CONSTRUCTION REQUIRED, QUALITY OF WORK, MANUFACTURING AND INDUSTRY STANDARDS, PHYSICAL PROPERTIES OF MATERIALS, CONFORMANCE TO CODES AND REGULATIONS GUARANTEE AND WARRANTY REQUIREMENTS.
2. SEE ARCHITECTURAL, HVAC, PLUMBING, ELEVATOR, FIRE PROTECTION & ELECTRICAL DRAWINGS FOR OTHER PERTINENT INFORMATION RELATED TO STRUCTURAL WORK AND COORDINATE AS REQUIRED. CONTRACTOR SHALL COORDINATE STRUCTURAL DRAWINGS WITH ALL OTHER DRAWINGS WITHIN THE CONTRACT DOCUMENTS.
3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND CONDITIONS RELATED TO EXISTING CONSTRUCTION, EXISTING SERVICES, AND THE SITE BEFORE BEGINNING WORK.
4. IF MATERIALS, QUANTITIES, STRENGTHS OR SIZES INDICATED BY THE DRAWINGS OR SPECIFICATIONS ARE NOT IN AGREEMENT WITH THESE NOTES, THE BETTER QUALITY AND/OR GREATER QUANTITY, STRENGTH OR SIZE INDICATED, SPECIFIED OR NOTED SHALL BE PROVIDED.
5. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE FOLLOWING ITEMS THAT WILL NOT BE REVIEWED BY THE OWNER, ARCHITECT OR ENGINEER.
   a. DEVIATIONS FROM CONTRACT DOCUMENTS
   b. DIMENSIONS, ELEVATIONS AND CONDITIONS TO BE CONFIRMED AND CORRELATED AT THE SITE
   c. FABRICATION PROCESS INFORMATION
   d. MEANS, METHODS, TECHNIQUES, PROCEDURES OF CONSTRUCTION AND CONSTRUCTION SAFETY
   e. COORDINATION OF THE WORK OF ALL TRADES
   f. QUALITY ASSURANCE SUBMITTALS

GENERAL PROJECT NOTES

1. GENERAL PROJECT NOTES ARE APPLICABLE TO ALL PROJECT AREAS.
2. THE CONTRACTOR SHALL GIVE NOTICES AND COMPLY WITH LAWS, ORDINANCES, RULES, REGULATIONS AND ORDERS OF ANY PUBLIC AUTHORITY BEARING ON THE WORK. IF THE CONTRACTOR OBSERVES THE CONTRACT DOCUMENTS ARE AT VARIANCE WITH SUCH IN ANY RESPECT; PROMPTLY NOTIFY THE OWNER IN WRITING, SUCH THAT ALL NECESSARY CHANGES CAN BE MADE. IF CONTRACTOR KNOWINGLY PERFORMS ANY WORK CONTRARY TO SUCH WITHOUT NOTICE TO THE OWNER, THEY SHALL ASSUME FULL RESPONSIBILITY THEREFORE AND SHALL BEAR COST ATTRIBUTED THERETO.
3. ALL EQUIPMENT AND MATERIALS SHALL BE INSTALLED IN A NEAT AND ORDERLY MANNER. MATERIALS SHALL BE NEW; SECONDHAND OR DAMAGED MATERIALS SHALL NOT BE USED. CONTRACTOR IS RESPONSIBLE FOR THE SAFETY AND CONDITION OF THE EQUIPMENT, MATERIALS AND SYSTEMS UNTIL FINAL ACCEPTANCE OF THE SYSTEM.
4. THE CONTRACTOR IS TO TAKE APPROPRIATE STEPS TO PROTECT ALL EXISTING FLOORING AND WALLS FROM DIRT AND DAMAGE. THE CONTRACTOR IS TO MAINTAIN A CLEAN WORK AREA THROUGHOUT ALL ADJACENT SPACES DURING CONSTRUCTION, AND BE RESPONSIBLE FOR CLEANING ALL AREAS AT THE END OF EACH WORK DAY.
5. THE CONTRACTOR IS TO TAKE APPROPRIATE CARE IN REMOVAL OF ITEMS; INCLUDING BUT NOT LIMITED TO LOCKERS, FIXTURES, AND APPLIANCES. MAINTAIN PROPER CONDITION AND RETURN TO OWNER FOR STORAGE. CONTRACTOR TO COORDINATE WITH OWNER FOR THE RETURN OF ALL SALVAGEABLE ITEMS. THE OWNER RESERVES THE RIGHT OF FIRST REFUSAL OF ALL BUILDING MATERIALS BEING REMOVED. IF DECLINED, THE CONTRACTOR SHALL DISPOSE OF MATERIAL IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS.
6. WHEN REFERRING TO SCOPE OF WORK, THE WORDS "PROVIDE", "INSTALL", AND "REPLACE" INDIVIDUALLY SHALL BE ASSUMED TO MEAN THAT THE CONTRACTOR IS TO REMOVE ANY EXISTING ITEMS, PROVIDE NEW ITEMS, AND INSTALL NEW ITEMS - UNLESS EXPRESSLY INDICATED OTHERWISE.
7. FILL AND PATCH ALL OPENINGS RESULTING FROM DEMOLITION AND CONSTRUCTION TO WALLS, FLOORS, AND CEILINGS. PATCH TO MATCH EXISTING FINISHES CONTRACTOR TO MAINTAIN ALL FIRE RATINGS REQUIRED BY GOVERNING BUILDING CODE REGARDLESS OF EXISTING CONDITIONS. TYPICAL ENTIRE PROJECT AREA.
8. ALL EXISTING STRUCTURE TO REMAIN. CONTRACTOR SHALL TAKE APPROPRIATE CARE NOT TO DAMAGE EXISTING STRUCTURE.
9. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CLEARANCES AND ALL EXISTING FIELD CONDITIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS. SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT THE ARCHITECT BEFORE PROCEEDING WITH WORK.
10. ALL DIMENSIONS ARE TO FINISH FACE OF WALL, UNLESS SPECIFICALLY NOTED OTHERWISE.
11. DO NOT SCALE DRAWINGS. IF DIMENSIONS ARE IN QUESTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATION FROM HE ARCHITECT BEFORE CONTINUING WITH WORK.
12. WHEN MODIFYING ANY PART OF AN EXISTING WALL OR ANY ITEM ATTACHED TO A WALL, THE ENTIRE SURFACE IS TO BE PAINTED FROM CORNER TO CORNER, U.N.O.
13. PROVIDE AND INSTALL NEW DOORS AND HARDWARE AS INDICATED ON DRAWINGS.
14. REFER TO PLANS, INTERIOR ELEVATIONS AND WALL TYPE DETAILS FOR NEW WALLS, FLOORS AND CEILING FINISHES AND CONSTRUCTION.
15. UPON COMPLETION, CONTRACTOR IS RESPONSIBLE TO THOROUGHLY CLEAN ENTIRE PROJECT AREA, IN ORDER TO PREPARE IT FOR IMMEDIATE USE.
16. IN AREAS WHERE NEW FLOORING AND BASE IS BEING PROVIDED AND INSTALLED (BOTH NEW AND PATCHED AREAS); THE CONTRACTOR IS TO PREPARE SUBSTRATE TO RECEIVE NEW MATERIALS AS RECOMMENDED BY THE MANUFACTURER.

DRAWING NAMING CONVENTION

DISCIPLINE DESIGNATORS

PREFIX	DISCIPLINE
G	GENERAL
GR	GRID & LAYOUT
LS	LIFE SAFETY
H	HAZARDOUS MATERIALS
V	SURVEY / MAPPING
B	GEOTECHNICAL
C	CIVIL
PF	PLAYING FIELDS
SB	SEATING BOWL
L	LANDSCAPE
S	STRUCTURAL
A	ARCHITECTURAL
I	INTERIORS
Q	EQUIPMENT
FP	FIRE PROTECTION
P	PLUMBING
D	PROCESS
M	MECHANICAL
E	ELECTRICAL
W	DISTRIBUTED ENEGERY
T	TECHNOLOGY
R	RESOURCE
X	OTHER DISCIPLINES
Z	CONTRACTOR / SHOP DRAWINGS
O	OPERATIONS
FN	FURNITURE
SW	SIGNAGE & WAY FINDING
FS	FOOD SERVICE

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

CITY OF JACKSONVILLE FLORIDA
LEGENDS GLOBAL
OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100 www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD, JACKSONVILLE FL, 32202

BID/ PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

ISSUED BY: OSPORTS

ISSUE DATE: **10/22/25**

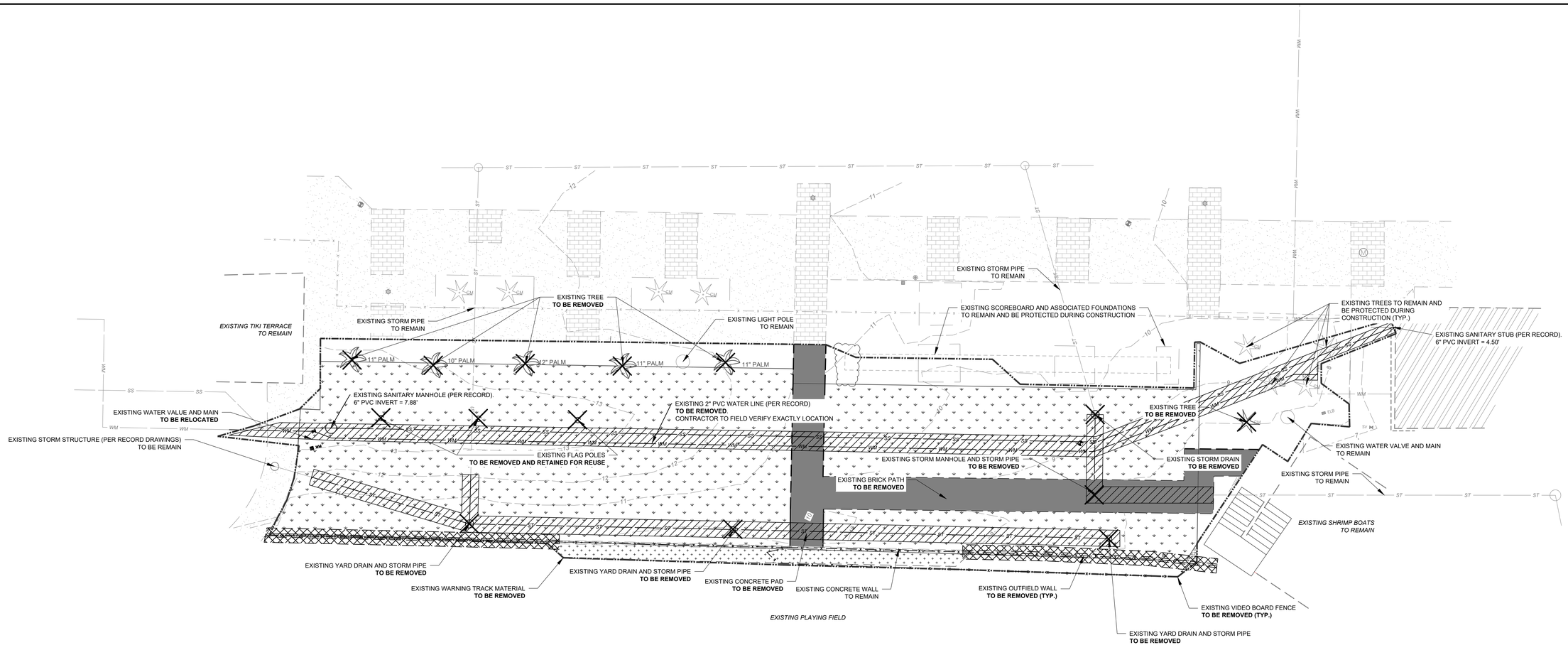
PROJ NO. **P20251573.000**

REVISIONS

TAG	ISSUED	DATE

SHEET NAME:
GENERAL NOTES

DRAWING NO.
G-010



LEGEND

- EXISTING ITEM TO BE REMOVED
- EXISTING GRASS TO BE REMOVED
- EXISTING WARNING TRACK TO BE REMOVED
- EXISTING UTILITIES TO BE REMOVED
- EXISTING PAVEMENT TO BE REMOVED
- LIMITS OF DISTURBANCE

DEMOLITION NOTES

1. UNDERGROUND UTILITIES EXIST IN THE CONSTRUCTION AREA. CONTRACTOR TO CONTACT SUNSHINE AT 811 PRIOR TO ANY CONSTRUCTION ACTIVITIES AND PERFORM A PRIVATE UTILITY LOCATE AT THEIR OWN EXPENSE TO PHYSICALLY MARK OUT ALL UTILITY LINES.
2. LOCATION OF EXISTING UTILITIES AS SHOWN ARE INTERPRETATIONS OF RECORD DRAWINGS AND SURVEY INFORMATION PROVIDED BY BOATWRIGHT LAND SURVEYORS, DATE 10-1-2025. CONTRACTOR TO NOTIFY ENGINEER OF ANY DISCREPANCIES ARE FOUND IN THE FIELD.
3. PRIOR TO CONSTRUCTION ACTIVITIES, CONTRACTOR SHALL COORDINATE WITH OWNER TO DOCUMENT EXISTING CONDITIONS AS A BASIS OF ANY RESTORATION EFFORTS.
4. CONTRACTOR SHALL COORDINATE WITH EXISTING FIELD RENOVATION PROJECT AND PROTECT THE PLAYING FIELD THROUGHOUT CONSTRUCTION ACTIVITIES. ANY DISTURBANCES TO MAIN PLAYING FIELD SHALL BE REPLACED AT THE SOLE EXPENSE OF THE CONTRACTOR.

SURVEY NOTES

1. SURVEY PROVIDED BY BOATWRIGHT LAND SURVEYORS, INC. DATED 10/1/2025.
2. ALL BENCHMARKS SHOWN WERE PROVIDED VIA A SURVEY BY DEGROVE SURVEYORS INC. DATED 2/15/2024 AND REFERENCE THE NAVD 1988 DATUM.
   - 2.1. BENCHMARK 1 - MAG NAIL IN NORTH CONCRETE WALK NE OF TIKI TERRACE
     NORTHING: 2,179,019.45
     EASTING: 453,388.03
     ELEVATION: 12.51
   - 2.2. BENCHMARK 2 - SET ¾ IRON PIPE WITHIN GRASS AREA SOUTH OF SCOREBOARD NEAR STORM MANHOLES
     NORTHING: 2,178,944.98
     EASTING: 453,505.73
     ELEVATION: 8.98
   - 2.3. BENCHMARK 3 - MAG NAIL & DISC. L.B. 3672 IN CONCRETE WALK NORTH OF SCOREBOARD
     NORTHING: 2,178,982.02
     EASTING: 453,542.03
     ELEVATION: 10.01
3. SANITARY AND WATER LINE LOCATIONS ARE DERIVED FROM RECORD DRAWINGS PROVIDED BY RS&H, INC. DATED 2/15/2016. CONTRACTOR TO FIELD VERIFY UTILITY LOCATIONS AND CONTACT ENGINEER AND OWNER IF ANY DISCREPANCIES ARE FOUND IN THE FIELD.

NORTH

GRAPHIC SCALE
8 0 4 8
(IN FEET)
1 inch = 8 ft.

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

CITY OF JACKSONVILLE FLORIDA

LEGENDS GLOBAL

OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100 www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOLPH BLVD, JACKSONVILLE FL, 32202

BID/PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications compilt with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

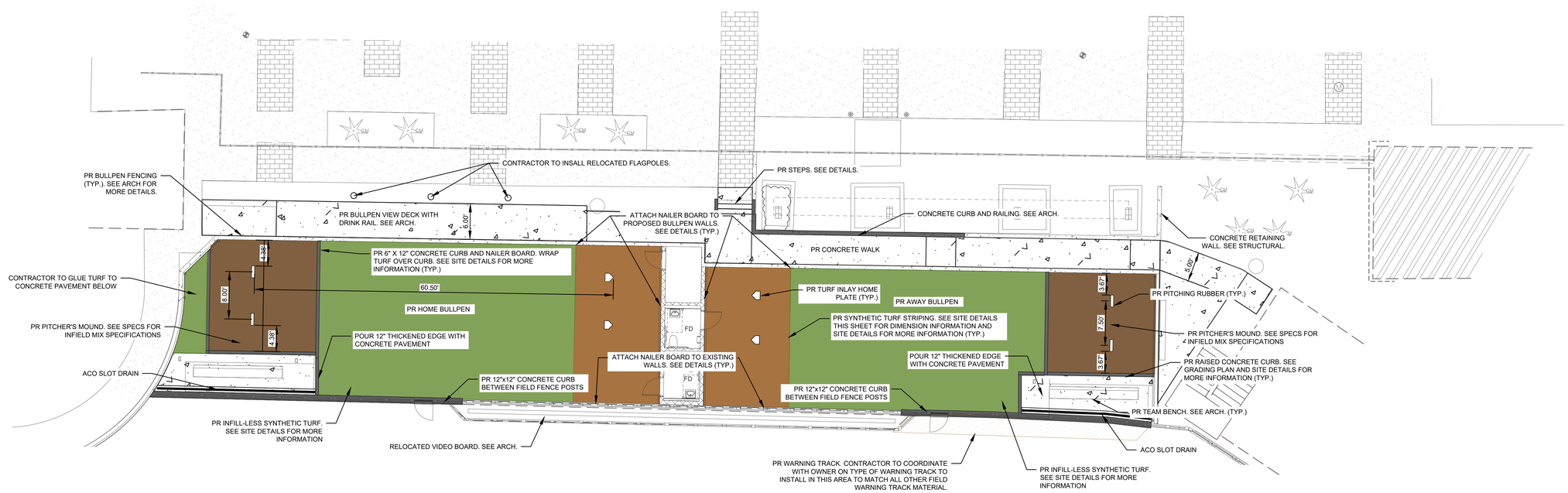
ISSUED BY: OSPORTS
ISSUE DATE: 10/22/25
PROJ NO. J20251573.000

REVISIONS

TAG	ISSUED	DATE

SHEET NAME: DEMO PLAN

DRAWING NO. CD-101



LEGEND

- PROPOSED TOPDRESSED CLAY MOUND
- PROPOSED SYNTHETIC TURF
- PROPOSED SYNTHETIC TURF BATTERS BOX
- PROPOSED CONCRETE SIDEWALK

SITE PLAN NOTES

1. UNDERGROUND UTILITIES EXIST IN THE CONSTRUCTION AREA. CONTRACTOR TO CONTACT SUNSHINE AT 811 PRIOR TO ANY CONSTRUCTION ACTIVITIES AND PERFORM A PRIVATE UTILITY LOCATE AT THEIR OWN EXPENSE TO PHYSICALLY MARK OUT ALL UTILITY LINES.
2. LOCATION OF EXISTING UTILITIES AS SHOWN ARE INTERPRETATIONS OF RECORD DRAWINGS AND SURVEY INFORMATION PROVIDED BY BOATWRIGHT LAND SURVEYORS, DATE 10-1-2025. CONTRACTOR TO NOTIFY ENGINEER OF ANY DISCREPANCIES ARE FOUND IN THE FIELD.
3. CONTRACTOR SHALL COORDINATE CONSTRUCTION OF BULLPEN MOUNDS WITH HEAD GROUNDSKEEPER.
4. SEE THE C-80X SERIES DRAWINGS FOR SITE DETAILS

NORTH

GRAPHIC SCALE

8 0 4 8

(IN FEET)

1 inch = 8 ft.

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

CITY OF JACKSONVILLE FLORIDA

LEGENDS GLOBAL

OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100 www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD, JACKSONVILLE FL, 32202

BID/PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications compilt with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

ISSUED BY: OSPORTS

ISSUE DATE: **10/22/25**

PROJ NO. **J20251573.000**

REVISIONS

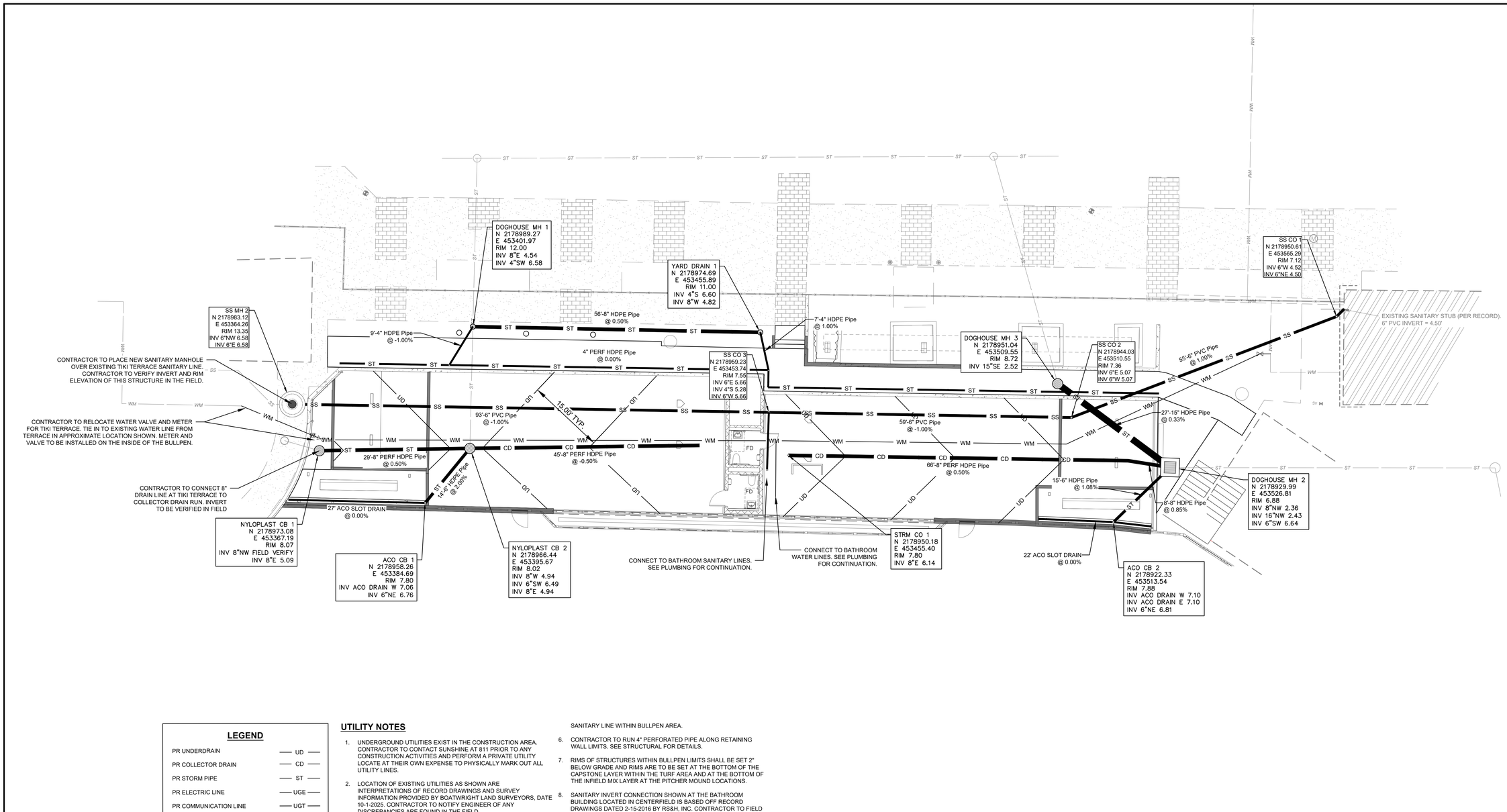
TAG	ISSUED	DATE

SHEET NAME:

SITE PLAN

DRAWING NO.

C-101



LEGEND

PR UNDERDRAIN	UD
PR COLLECTOR DRAIN	CD
PR STORM PIPE	ST
PR ELECTRIC LINE	UGE
PR COMMUNICATION LINE	UGT
PR CLEANOUT	CO
PR NYLOPLAST CATCH BASIN	

UTILITY NOTES

1. UNDERGROUND UTILITIES EXIST IN THE CONSTRUCTION AREA. CONTRACTOR TO CONTACT SUNSHINE AT 811 PRIOR TO ANY CONSTRUCTION ACTIVITIES AND PERFORM A PRIVATE UTILITY LOCATE AT THEIR OWN EXPENSE TO PHYSICALLY MARK OUT ALL UTILITY LINES.
2. LOCATION OF EXISTING UTILITIES AS SHOWN ARE INTERPRETATIONS OF RECORD DRAWINGS AND SURVEY INFORMATION PROVIDED BY BOATWRIGHT LAND SURVEYORS, DATE 10-1-2025. CONTRACTOR TO NOTIFY ENGINEER OF ANY DISCREPANCIES ARE FOUND IN THE FIELD.
3. SEE THE C-80X SERIES DRAWINGS FOR SITE DETAILS
4. ALL PROPOSED UNDERDRAINS SHALL HAVE A MINIMUM SLOPE OF 0.5% SLOPE.
5. SEE THE PLUMBING PLANS FOR BATHROOM CONNECTION TO SANITARY LINE WITHIN BULLPEN AREA.
6. CONTRACTOR TO RUN 4" PERFORATED PIPE ALONG RETAINING WALL LIMITS. SEE STRUCTURAL FOR DETAILS.
7. RIMS OF STRUCTURES WITHIN BULLPEN LIMITS SHALL BE SET 2" BELOW GRADE AND RIMS ARE TO BE SET AT THE BOTTOM OF THE CAPSTONE LAYER WITHIN THE TURF AREA AND AT THE BOTTOM OF THE INFIELD MIX LAYER AT THE PITCHER MOUND LOCATIONS.
8. SANITARY INVERT CONNECTION SHOWN AT THE BATHROOM BUILDING LOCATED IN CENTERFIELD IS BASED OFF RECORD DRAWINGS DATED 2-15-2016 BY RS&H, INC. CONTRACTOR TO FIELD VERIFY INVERT ELEVATION AND CONTACT ENGINEER IF ANY DISCREPANCIES ARE NOTED IN THE FIELD.
9. WATER LINE CONNECTION SHOWN AT THE BATHROOM BUILDING LOCATED IN CENTERFIELD IS BASED OFF RECORD DRAWINGS DATED 2-15-2016 BY RS&H, INC. CONTRACTOR TO FIELD VERIFY SIZE AND LOCATION AND CONTACT ENGINEER IF ANY DISCREPANCIES ARE NOTED IN THE FIELD.

NORTH

GRAPHIC SCALE
8 0 4 8
(IN FEET)
1 inch = 8 ft.

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

CITY OF JACKSONVILLE FLORIDA

LEGENDS GLOBAL

OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100 www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD, JACKSONVILLE FL, 32202

BID/PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications complt with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

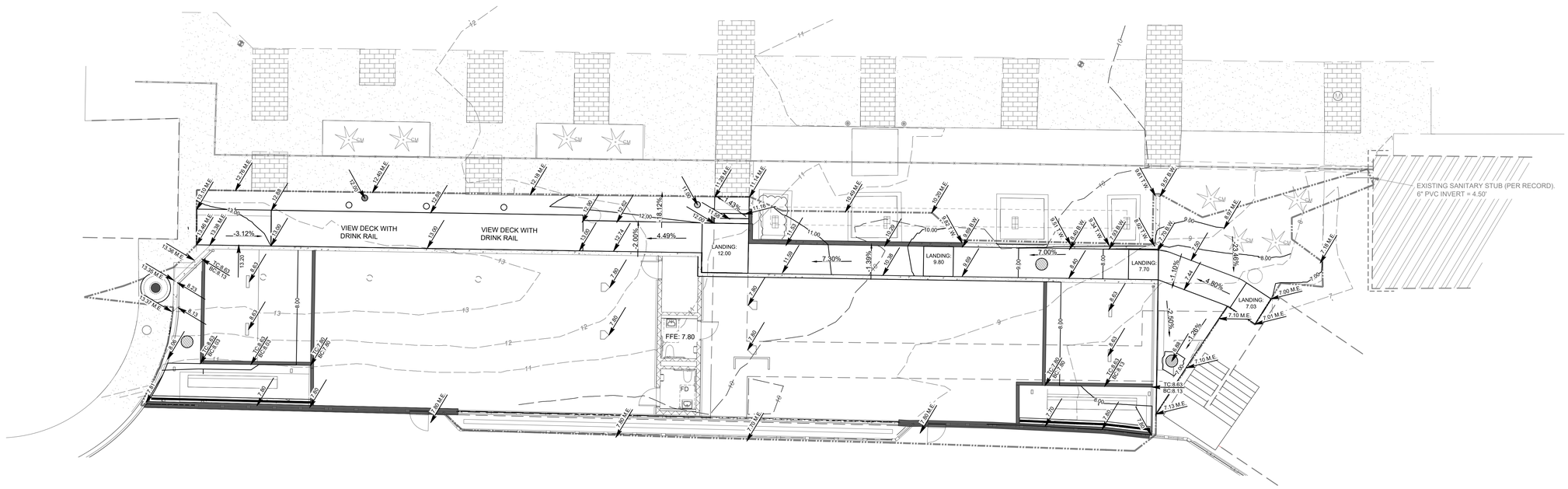
ISSUED BY: OSPORTS
ISSUE DATE: 10/22/25
PROJ NO. J20251573.000

REVISIONS

TAG	ISSUED	DATE

SHEET NAME:
UTILITY PLAN

DRAWING NO.
C-102



LEGEND

PR SPOT ELEVATION	145.00
MATCH EX ELEVATION	M.E.
PR SLOPE	0.50%
PR SITE CONTOUR	140
EX CONTOUR	140
PR SLOPE DIRECTION	

GRADING NOTES

1. STRUCTURE RIM ELEVATIONS WITHIN BULLPEN AREA ARE SET 2" BELOW TURF SURFACE AT THE TOP OF THE CAPSTONE LAYER.
2. SEE THE DEMO PLAN FOR THE HORIZONTAL AND VERTICAL CONTROL INFORMATION.

NORTH

GRAPHIC SCALE
8 0 4 8
(IN FEET)
1 inch = 8 ft.

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

CITY OF JACKSONVILLE FLORIDA

LEGENDS GLOBAL

OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100 www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD, JACKSONVILLE FL, 32202

BID/PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications compilt with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

ISSUED BY: OSPORTS

ISSUE DATE: **10/22/25**

PROJ NO. **J20251573.000**

REVISIONS

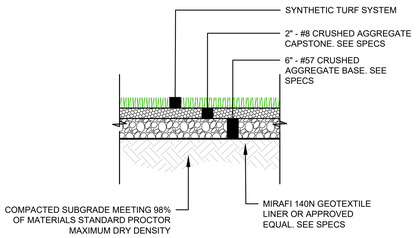
TAG	ISSUED	DATE

SHEET NAME:

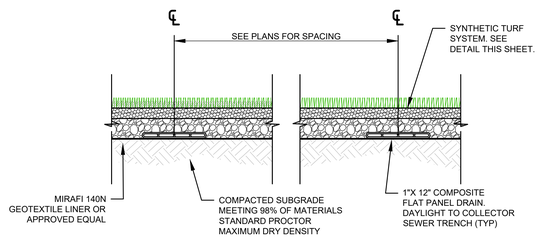
GRADING PLAN

DRAWING NO.

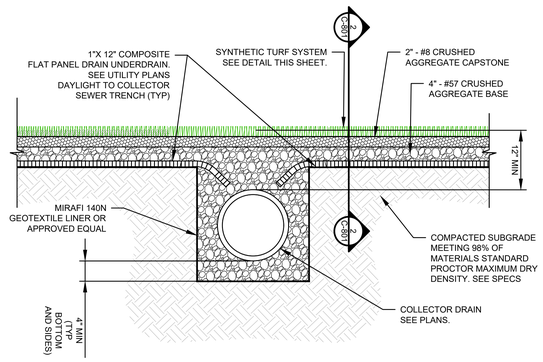
C-103



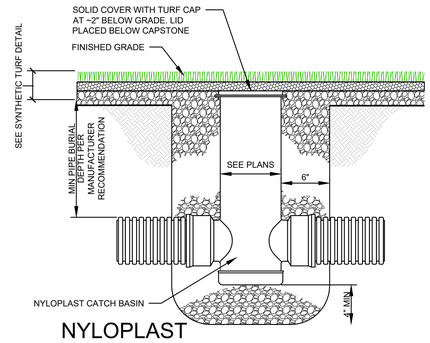
1 SYNTHETIC TURF SYSTEM DETAIL
NOT TO SCALE



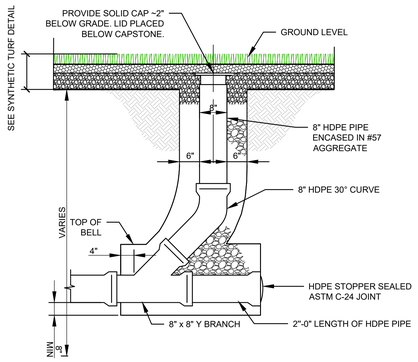
2 SYNTHETIC TURF
FLAT PANEL DRAIN SECTION
NOT TO SCALE



3 SYNTHETIC TURF
OUTLET TO COLLECTOR SEWER DETAIL
NOT TO SCALE



4 NYLOPLAST
CATCH BASIN DETAIL (BELOW GRADE)
NOT TO SCALE

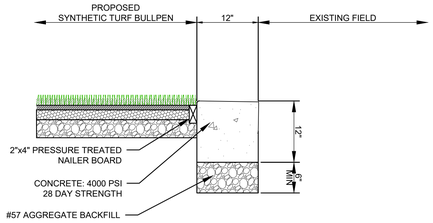


TYPICAL CLEANOUT
DETAIL IN SYNTHETIC
TURF FIELD (BELOW GRADE)
NOT TO SCALE

NOTES:

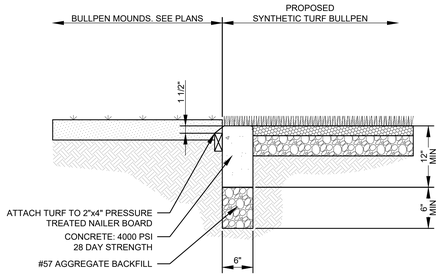
1. ALL BENDS AND FITTINGS AND ALL VERTICAL PIPE SHALL BE SOLID WALL HDPE.
2. 8" CLEAN OUT SHALL BE USED FOR 8" SEWER AND LARGER.
3. SMALLER SIZE SEWERS AND LAMP SHALL HAVE SAME SIZE PIPE.

5



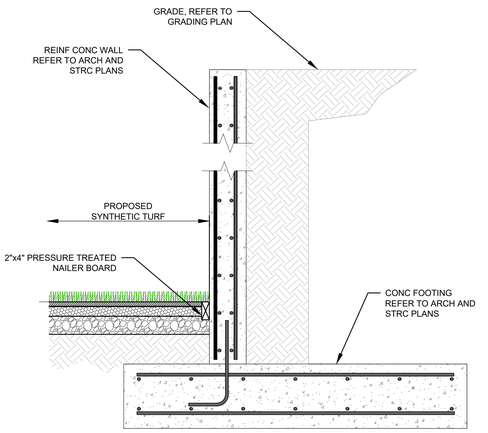
CURB TRANSITION AT FENCE
POSTS
NOT TO SCALE

6



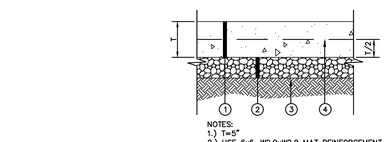
CONCRETE CURB DETAIL
TURF/MOUND TRANSITION
(TURF WRAPPED OVER CURB)
NOT TO SCALE

9



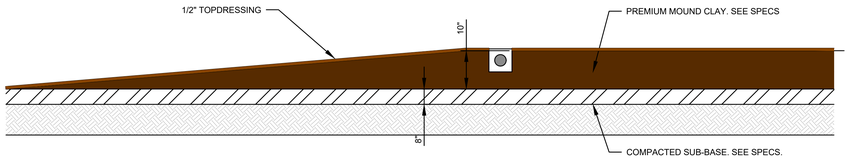
NAILER BOARD TO NEW AND EXISTING WALL DETAIL
NOT TO SCALE

7



CONCRETE WALK
SECTION DETAIL
NOT TO SCALE

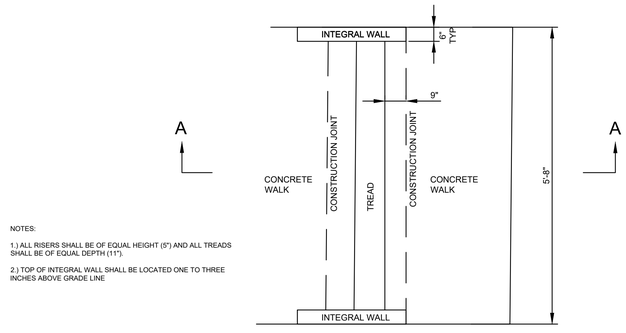
8 CONCRETE WALK DETAIL
NOT TO SCALE



9 BULLPEN MOUND SECTION
NOT TO SCALE

NOTES:

1. COORDINATE WITH HEAD GROUNDSKEEPER FOR INSTALLATION REQUIREMENTS

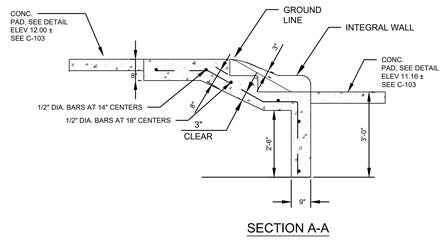


NOTES:

1.) ALL RISERS SHALL BE OF EQUAL HEIGHT (5") AND ALL TREADS SHALL BE OF EQUAL DEPTH (11").

2.) TOP OF INTEGRAL WALL SHALL BE LOCATED ONE TO THREE INCHES ABOVE GRADE LINE

PLAN



SECTION A-A

10 CONCRETE STEP DETAILS
NOT TO SCALE

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

CITY OF JACKSONVILLE FLORIDA
LEGENDS GLOBAL
OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100 www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD, JACKSONVILLE FL, 32202

BID/PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications compIt with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

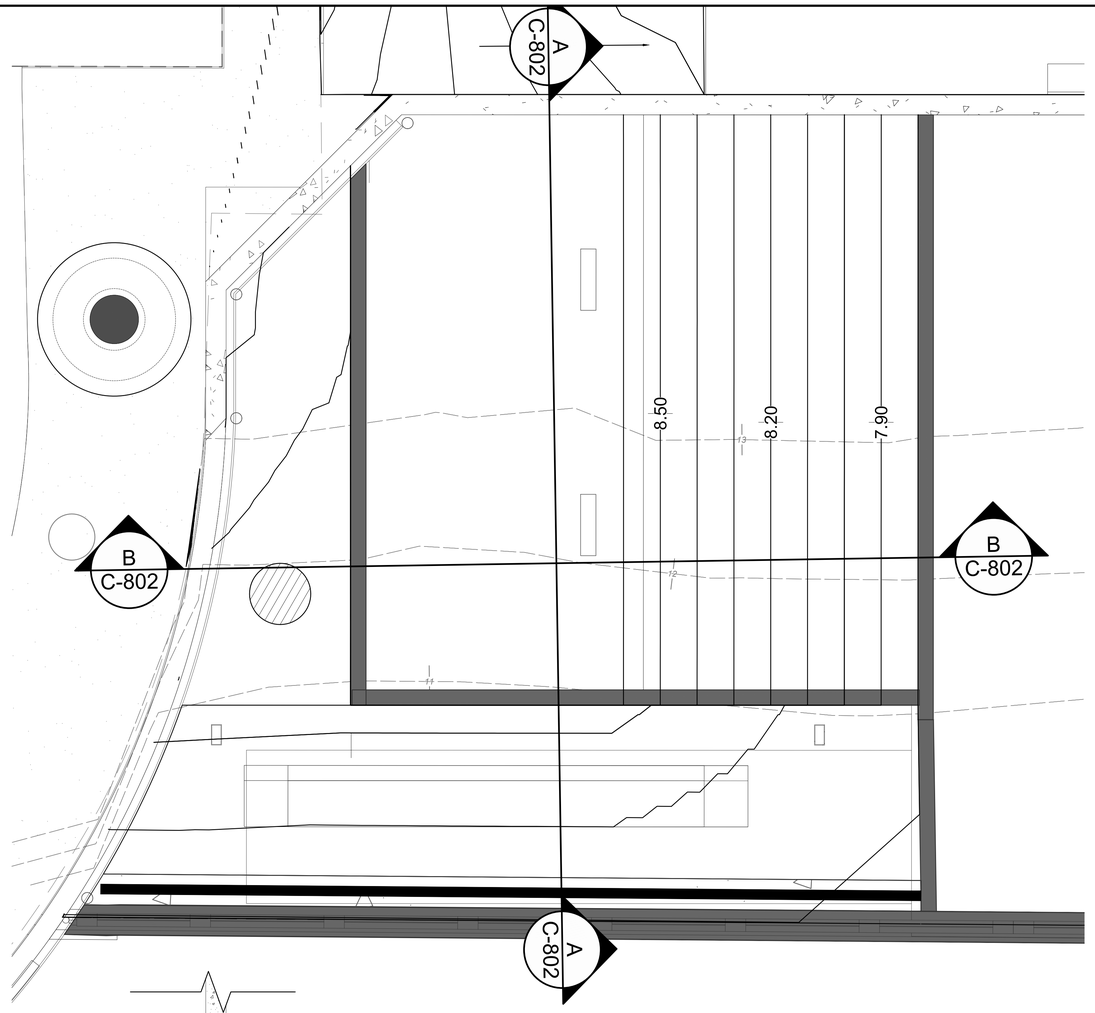
ISSUED BY: OSPORTS
ISSUE DATE: 10/22/25
PROJ NO. J20251573.000

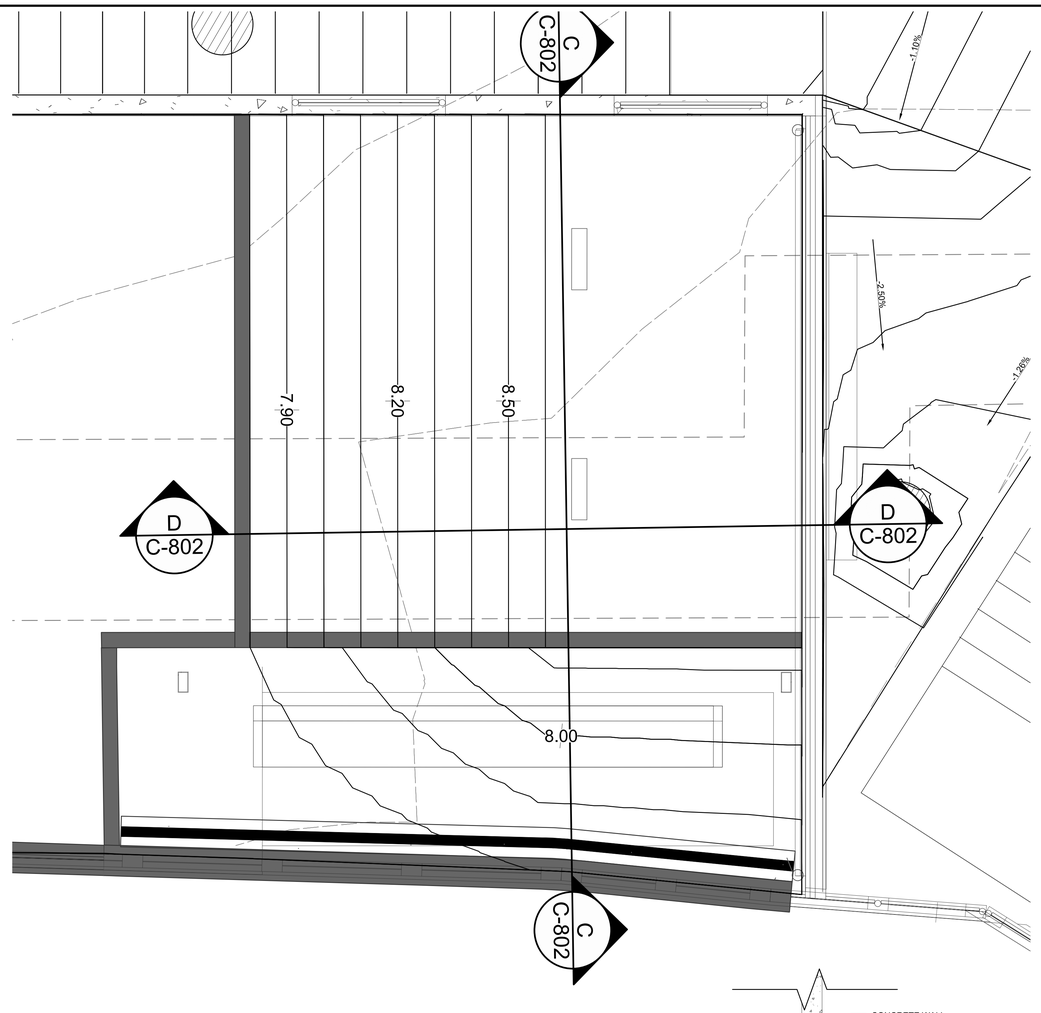
REVISIONS

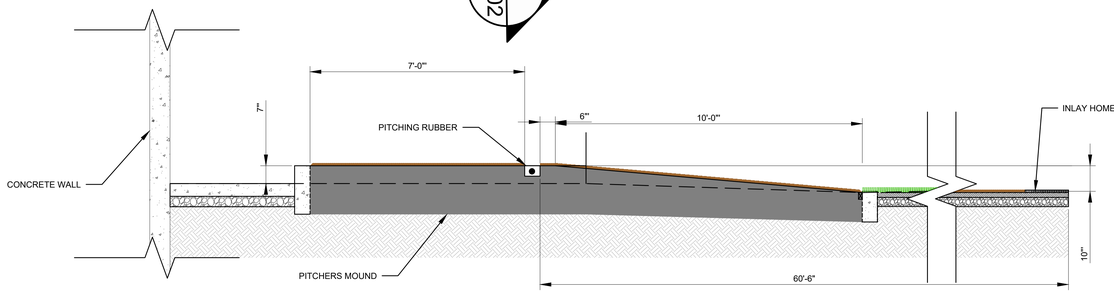
TAG	ISSUED	DATE

SHEET NAME:
SITE DETAILS

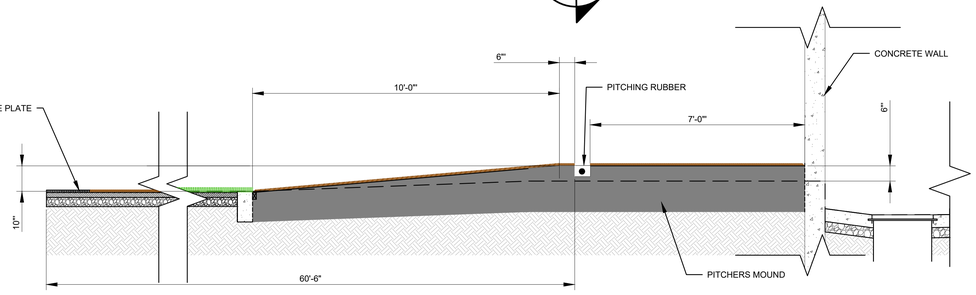
DRAWING NO.
C-801



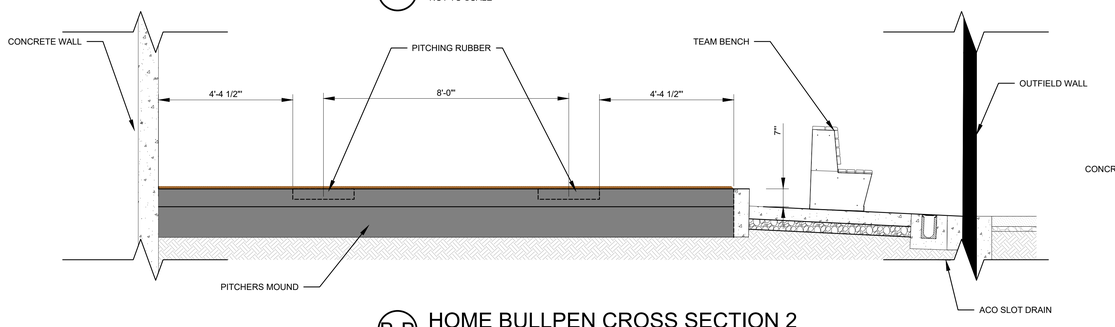




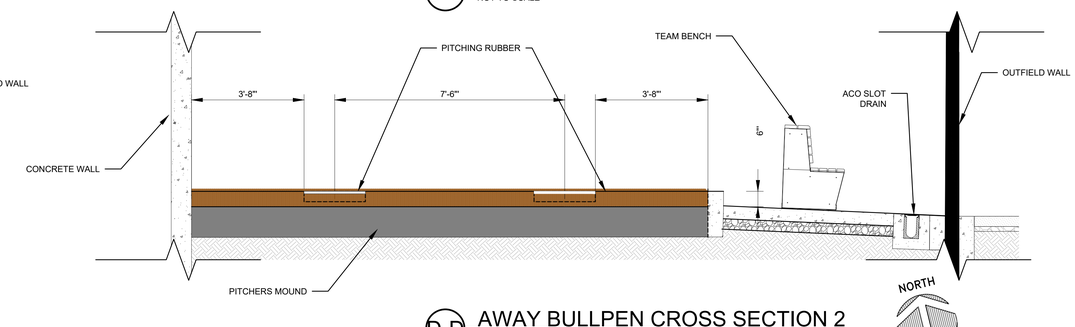
A-A HOME BULLPEN CROSS SECTION 1
NOT TO SCALE



C-C AWAY BULLPEN CROSS SECTION 1
NOT TO SCALE



B-B HOME BULLPEN CROSS SECTION 2
NOT TO SCALE



D-D AWAY BULLPEN CROSS SECTION 2
NOT TO SCALE

NORTH

GRAPHIC SCALE
2 0 1 2
(IN FEET)
1 inch = 2 ft.

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

CITY OF JACKSONVILLE FLORIDA

LEGENDS GLOBAL

OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100 www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD, JACKSONVILLE FL, 32202

BID/PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications compli with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

ISSUED BY: OSPORTS

ISSUE DATE: 10/22/25

PROJ NO. J20251573.000

REVISIONS

TAG	ISSUED	DATE

SHEET NAME:
SITE DETAILS

DRAWING NO.
C-802

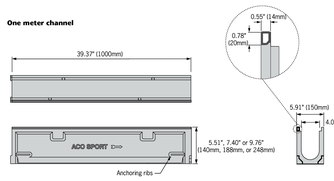
ACO SPORT

System 4000 - Safety Edge

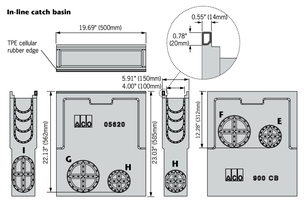
Open channel trench drain system with cellular rubber safety edge

ACO Specification Information

One meter channel



In-line catch basin

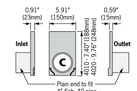


Total capacity = 5.9 gallons

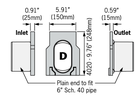
Closing cap



4" Inlet/outlet caps



6" Oval Inlet/outlet caps



Outlet flow rates

Outlet	Product	Outlet size (Sch. 40)	Invert Depth	GPM	CFS
C	Outlet cap - 4010SE	4" round	6.50	119	0.27
C	Outlet cap - 4020SE	4" round	8.86	143	0.32
D	Outlet cap - 4020SE	6" oval	8.86	220	0.50
E	Inline catch basin*	4" round	12.40	175	0.40
F	Inline catch basin*	6" round	12.40	379	0.87
G	Inline catch basin*	6" round	22.24	530	1.22
H	Inline catch basin*	4" round	22.24	242	0.54
I	Inline catch basin*	6" oval	22.24	372	0.86

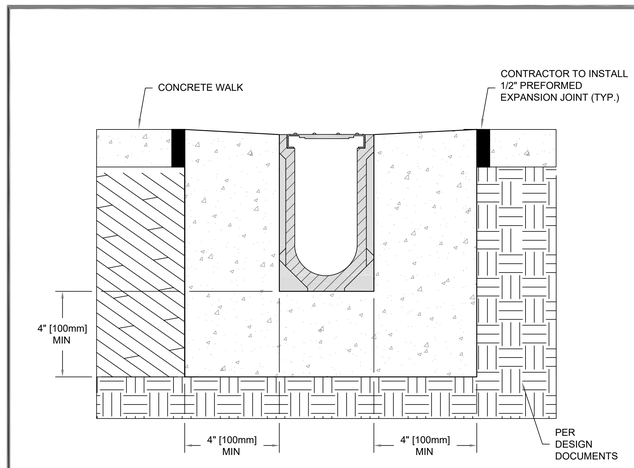
* Inline catch basin flow rate without trash bucket - using trash bucket reduces flow

April 2018

www.ACOSport.us

NOTES:
1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ENGINEER/OWNER APPROVAL.

1 ACO SPORT DRAIN SPEC SHEET
NOT TO SCALE



NOTES:
1. IT IS NECESSARY TO ENSURE MINIMUM DIMENSIONS SHOWN ARE SUITABLE FOR EXISTING GROUND CONDITIONS. *ENGINEERING ADVICE MAY BE REQUIRED.*
2. MINIMUM CONCRETE STRENGTH OF 4,000 PSI IS RECOMMENDED. CONCRETE SHOULD BE VIBRATED TO ELIMINATE AIR POCKETS.
3. EXPANSION AND CONTRACTION CONTROL JOINTS AND REINFORCEMENT ARE RECOMMENDED TO PROTECT CHANNEL *AND CONCRETE SURROUND. ENGINEERING ADVICE MAY BE REQUIRED.* .
4. REFER TO ACO'S LATEST INSTALLATION INSTRUCTIONS FOR FURTHER DETAILS.

SPECIFICATION CLAUSE

SPORT 4000

GENERAL
THE SURFACE DRAINAGE SYSTEM SHALL BE POLYMER CONCRETE SYSTEM 4000 CHANNEL SYSTEM AS MANUFACTURED BY ACO POLYMER PRODUCTS, INC.

MATERIALS
CHANNELS SHALL BE MANUFACTURED FROM POLYESTER RESIN POLYMER CONCRETE. MINIMUM PROPERTIES OF POLYMER CONCRETE WILL BE AS FOLLOWS:

WATER ABSORPTION:	14,000 PSI
TENSILE STRENGTH:	4,000 PSI
FLEXURAL STRENGTH:	1,500 PSI
COMPRESSIVE STRENGTH:	0.07%
FROST PROOF	YES
DILUTE ACID AND ALKALI RESISTANT	YES
B117 SALT SPRAY TEST COMPLIANT	YES

THE SYSTEM SHALL BE 4" (100mm) NOMINAL INTERNAL WIDTH AND A 6.1" (155mm) OVERALL WIDTH. ALL CHANNELS SHALL BE INTERLOCKING WITH A MALE/FEMALE JOINT.

4002 CHANNEL : INVERT DEPTH - 4.65"
4010 CHANNEL : INVERT DEPTH - 6.54"
4020 CHANNEL : INVERT DEPTH - 8.90"
4030 CHANNEL : INVERT DEPTH - 11.26"

STANDARD ACO DRAIN GRATES AND LOCKING DEVICES ARE USED, SEE SEPARATE SPECIFICATION SHEETS FOR INFORMATION.

THE COMPLETE DRAINAGE SYSTEM SHALL BE BY ACO POLYMER PRODUCTS, INC. ANY DEVIATION OR PARTIAL SYSTEM DESIGN AND/OR IMPROPER INSTALLATION WILL VOID ANY AND ALL WARRANTIES PROVIDED BY ACO POLYMER PRODUCTS, INC.

THE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.
REFER TO ARCHITECT'S PLANS FOR TRENCH AND CATCH BASIN LOCATION.

S4000-FCTNS	SYSTEM 4000: Full Concrete, Infill Turf & Non-Porous Synthetic Surface	**ACO Polymer Products, Inc.**
DATE:12/04/13	INSTALLATION DRAWING - ACO SPORT	825 W. Beechcraft St, Casa Grande, AZ 85122, Tel: 520-421-9988, Fax: 520-421-9899 · P.O. Box 245, Chardon, OH 44024, Tel: 440-285-7000, Fax: 440-285-8517 · 4211 Pleasant Rd., Fort Mill, SC 29708, Tel: 800-543-4764, Fax: 803-802-1063

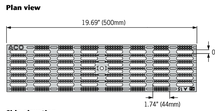
NOTES:
1. PROPOSED CONCRETE ENCASEMENT SHALL BE 4,000 PSI MIN. COMPRESSIVE STRENGTH AT 28 DAYS.

2 ACO SPORT DRAIN SPEC SHEET
NOT TO SCALE

ACO SPORT

ADA plastic grate details

Plan view

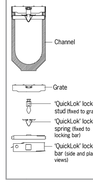


Side elevation



Description	Part No.	Length inches (mm)	Width inches (mm)	Weight lbs.
QuickLok grates				
ADA black plastic grate	**97393**	19.69 (500)	4.84 (123)	1.8
ADA gray plastic grate	**97385**	19.69 (500)	4.84 (123)	1.8
QuickLok locking bar	**02899**	-	-	0.2
QuickLok grate removal hook	**01318**	-	-	0.6

'QuickLok' locking mechanism



ACO 'QuickLok' is a patented boltless locking system, grates are removed and replaced with the minimum time and effort for ease of maintenance. The unique design provides a positive 'snap down' fit into the locking bar. A stud is fixed to the grate which 'locks' into the spring clip in the locking bar.

The 'QuickLok' stud is made from stainless steel and high density nylon, the locking bar and clip are stainless steel, for use in both general purpose and corrosive environments.

ACO, Inc.
West Sales Office
825 W Beechcraft Street
Casa Grande, AZ 85122
Tel: (520) 421-9988
Toll Free: (888) 490-9552
Fax: (520) 421-9899

Northeast Sales Office
9470 Pinecone Drive
Mentor, OH 44060
Tel: (440) 639-7230
Toll free: (800) 543-4764
Fax: (440) 639-7235

Southeast Sales Office
4211 Pleasant Road
Fort Mill, SC 29708
Toll free: (800) 543-4764
Fax: (803) 802-1063

Follow us on

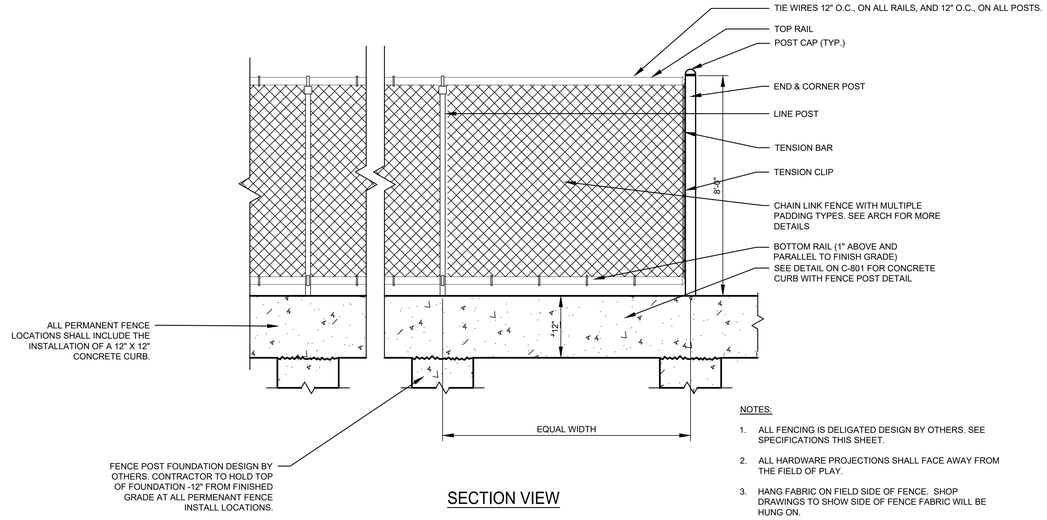
Electronic Contact:
info@ACOSport.us
www.ACOSport.us

© April 2018, ACO, Inc. This information is believed to be accurate but it is not guaranteed to be so. We cannot assume liability for results that buyer obtains with our product since conditions of use are beyond the control of the company. It is the customer's responsibility to evaluate suitability and safety of product for his own use. ACO, Inc. reserves the right to change the product and specifications without notice.

SPEC INFO

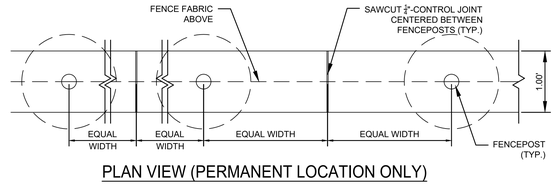
NOTES:
1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ENGINEER/OWNER APPROVAL. .

3 ACO PLASTIC GRATE SPEC SHEET
NOT TO SCALE



SECTION VIEW

NOTES:
1. ALL FENCING IS DELIGATED DESIGN BY OTHERS. SEE SPECIFICATIONS THIS SHEET.
2. ALL HARDWARE PROJECTIONS SHALL FACE AWAY FROM THE FIELD OF PLAY.
3. HANG FABRIC ON FIELD SIDE OF FENCE. SHOP DRAWINGS TO SHOW SIDE OF FENCE FABRIC WILL BE HUNG ON.
4. REFER TO GEOTECH REPORT FOR FOUNDATION REQUIREMENTS.



PLAN VIEW (PERMANENT LOCATION ONLY)

4 TYPICAL FIELD FENCE DETAIL
NOT TO SCALE

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

CITY OF JACKSONVILLE FLORIDA

LEGENDS GLOBAL

OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100 www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD, JACKSONVILLE FL, 32202

BID/PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications compilt with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

ISSUED BY: OSPORTS

ISSUE DATE: **10/22/25**

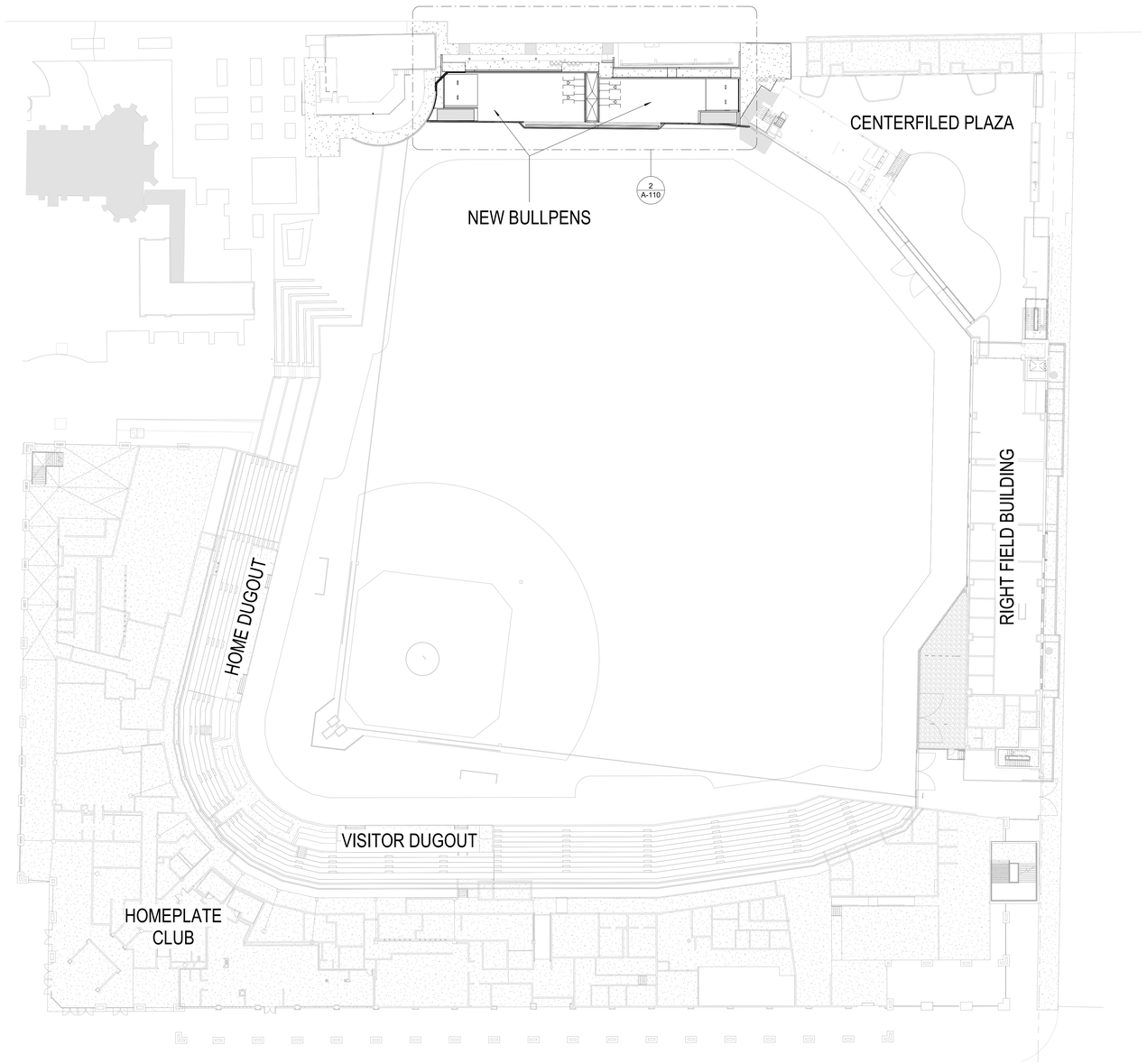
PROJ NO. **J20251573.000**

REVISIONS

TAG	ISSUED	DATE

SHEET NAME:
SITE DETAILS

DRAWING NO.
C-803



1 OVER ALL SITE PLAN
1" = 30'-0"

OVERALL SITE PLAN NOTES

1. COORDINATE THE INTERFACING OF ALL TRADES WITH RESPECT TO DELIVERY AND INSTALLATION OF ALL FURNITURE, FURNISHINGS AND EQUIPMENT.
2. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS BEFORE INSTALLATION. CONSULT ARCHITECT WHEN ACTUAL FIELD CONDITIONS VARY FROM THOSE SHOWN ON CONSTRUCTION DOCUMENTS.
3. COORDINATE LOCATIONS OF ALL REQUIRED UTILITIES WITH THE TRADE PROVIDING THE SAME. REFER TO MECHANICAL, ELECTRICAL AND TECHNOLOGY DRAWINGS FOR ADDITIONAL INFORMATION.
4. REFER TO CIVIL DRAWINGS FOR PAVING LAYOUT AND UTILITES.
5. REFER TO ELECTRICAL DRAWINGS FOR GENERATOR, TRANSFORMER AND SITE LIGHTING LOCATIONS.

FLOOR PLAN LEGEND

- EXISTING CONSTRUCTION TO REMAIN
- EXISTING CONSTRUCTION TO BE DEMOLISHED
- NEW CONSTRUCTION
- XX — DOOR (REFER TO DOOR TYPES AND SCHEDULE)
- XXXX — PARTITION TYPE, REFER TO PARTITION TYPES. ALIGN NEW PARTITION FLUSH AND SMOOTH WITH ADJACENT EXISTING PARTITION WHERE IT OCCURS, U.N.O. REFER TO INTERIOR ELEVATIONS AND FINISH SCHEDULE FOR WALL FINISH.
- CJ — CONTROL JOINT
- A — ALIGN FLUSH
- WINDOW TAG (REFER TO WINDOW SCHEDULE)
- FD — FLOOR DRAIN
- FE — FIRE EXTINGUISHER
- EXHAUST FAN
- CABINET UNIT HEATER

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

CITY OF JACKSONVILLE FLORIDA

LEGENDS GLOBAL

OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100 www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD. JACKSONVILLE FL, 32202

BID/ PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

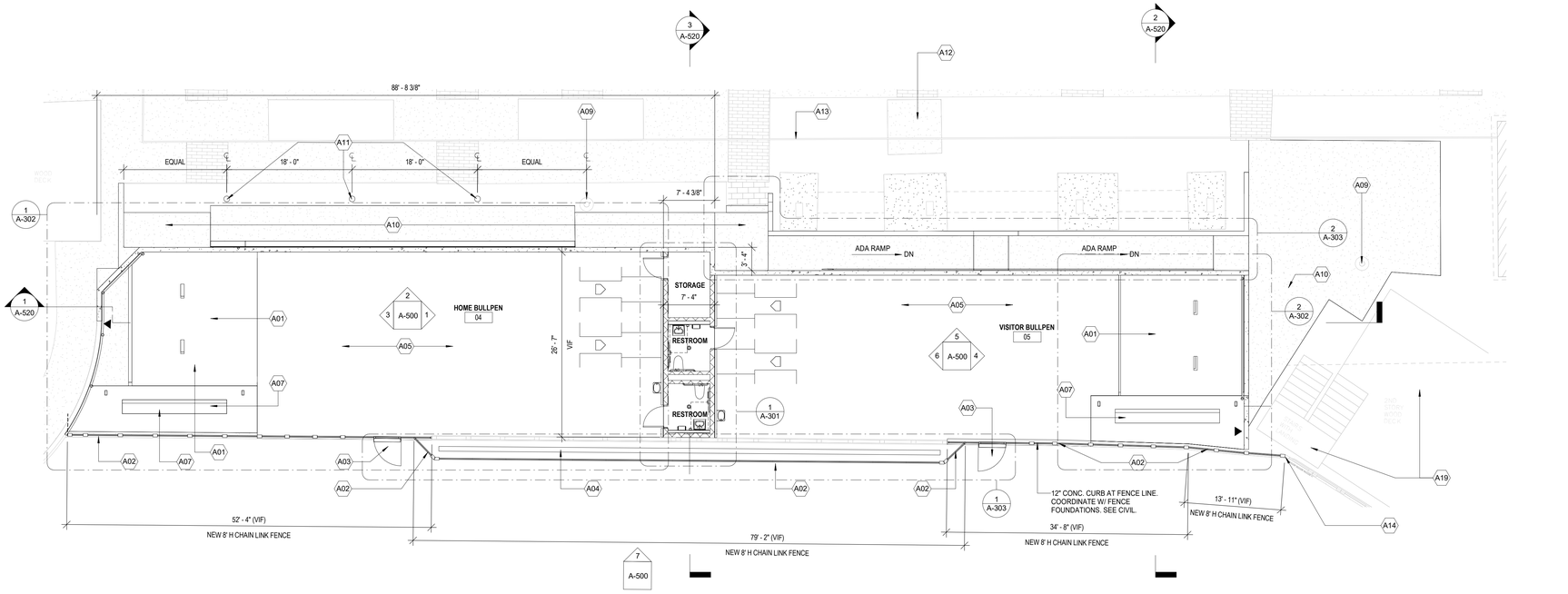
ISSUED BY:	OSPORTS
ISSUE DATE:	**10/22/25**
PROJ NO.	**P20251573.000**

REVISIONS

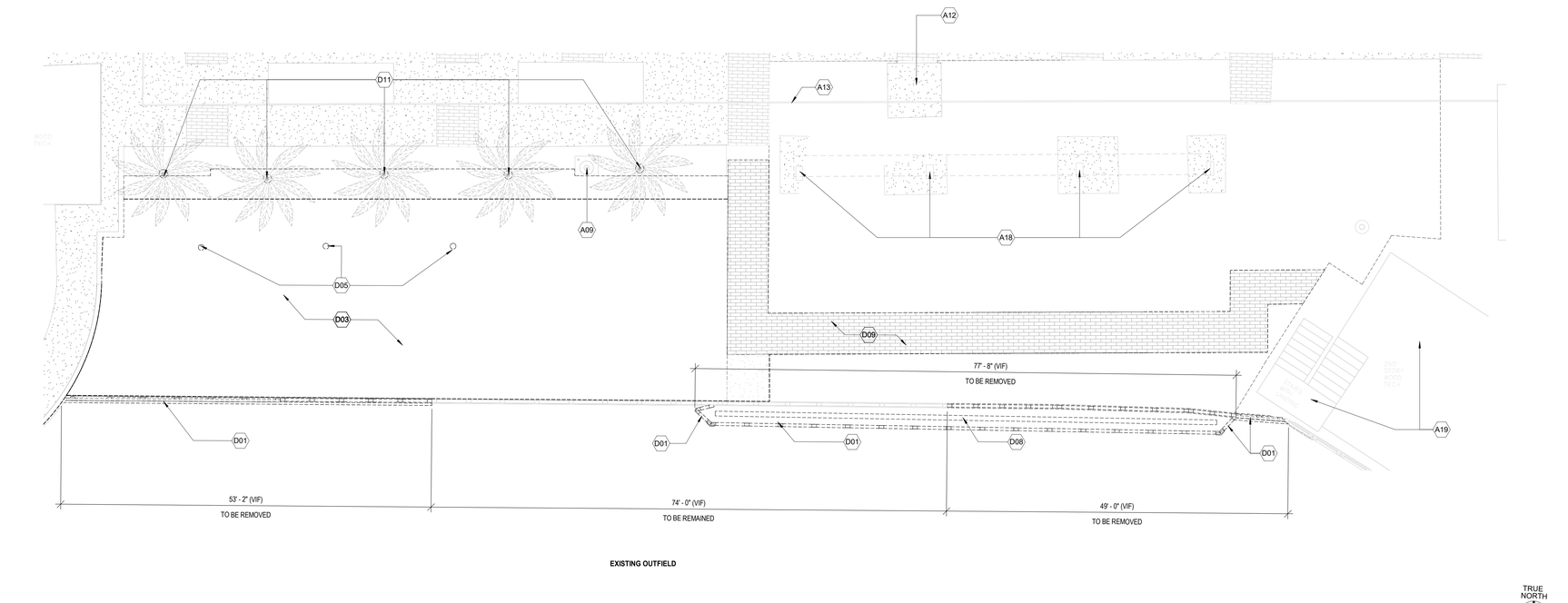
TAG	ISSUED	DATE

SHEET NAME:
ARCHITECTURAL SITE PLAN

DRAWING NO.
A-010



2 FIELD LEVEL - RENOVATION PLAN
1/8" = 1'-0"



1 FIELD LEVEL - DEMOLITION PLAN
1/8" = 1'-0"

FLOOR PLAN KEYNOTES

A01	PITCHING MOUND - SEE CIVIL
A02	NEW 8' CHAIN LINK FENCE. NEW FENCE SHALL BE IN SAME LOCATION AS EXISTING FENCE. COORDINATE CHAIN LINK FENCE INSTALLATION WITH CONC. CURB SHOWN ON CIVIL DRAWINGS.
A03	4'-0" CHAIN LINK FENCE FIELD ACCESS GATE. MATCH EXISTING FENCE GATE HARDWARE
A04	RELOCATED FIELD LEVEL RIBBON VIDEO BOARD. MATCH EXISTING ATTACH TO EXISTING WALL
A05	TWO LANE ARTIFICAL TURF BULLPEN AREA - SEE CIVIL
A07	SPORTSFIELD SPECIALTIES TWO TIER POLBOARD BENCH, MODEL: PTBT11S OR APPROVED EQUAL. COORDINATE EXACT INSTALL LOCATIONS W/ OWNER
A09	EXISTING LIGHT POLE TO REMAIN
A10	NEW CONC. WALKS. - SEE CIVIL
A11	RELOCATED FLAG POLES. CENTER IN LANDSCAPE AREA. MATCH EXISTING SPACING AND FOUNDATION DESIGN
A12	EXISTING TRANSFORMER PAD TO REMAIN
A13	EXISTING PERIMETER FENCING TO REMAIN
A14	CONNECT NEW FENCING TO EXISTING FENCING
A18	EXISTING SCOREBOARD AND FOUNDATIONS TO REMAIN
A19	EXISTING STAIRS AND WOOD DECK TO REMAIN

DEMOLITION KEYNOTES

D01	DEMO EXISTING FENCE & CONC RETAINING WALL. COORDINATE EXTENTS WITH NEW CONSTRUCTION
D03	EXISTING BERM TO BE REMOVED IN PREPARATION FOR NEW BULLPEN ALIGNED WITH FIELD LEVEL - SEE CIVIL
D05	REMOVE AND REINSTALL EXISTING FLAG POLES TO NEW LOCATION. - SEE RENOVATION PLAN
D08	EXISTING FIELD LEVEL RIBBON BOARD TO BE RELOCATED. REFER TO NEW CONSTRUCTION FOR THE NEW LOCATION
D09	SEE CIVIL FOR EXISTING WALK DEMO LIMITS
D11	EXISTING TREES TO BE REMOVED.

OVERALL PLAN NOTES

1. CONTRACTOR TO COORDINATE THE INTERFACING OF ALL TRADES WITH RESPECT TO DELIVERY AND INSTALLATION OF ALL FURNITURE, FURNISHINGS AND EQUIPMENT.
2. CONTRACTOR TO COORDINATE LOCATIONS OF ALL REQUIRED UTILITIES WITH THE TRADE PROVIDING THE SAME. REFER TO MECHANICAL, ELECTRICAL AND TECHNOLOGY DRAWINGS FOR ADDITIONAL INFORMATION.
3. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS BEFORE INSTALLATION. CONSULT ARCHITECT WHEN ACTUAL FIELD CONDITIONS VARY FROM THOSE SHOWN ON CONSTRUCTION DOCUMENTS.
4. REFER TO SHEET A-701 FOR WALL PARTITION TYPES
5. REFER TO SHEET A-701 FOR DOOR AND WINDOW SCHEDULES.
6. REFER TO FINISH SCHEDULE FOR FINISH INFORMATION. PROVIDE TOILET ROOM SIGNAGE AT ALL TOILET ROOM DOORS.
7. REFER TO EQUIPMENT AND FURNISHING LAYOUTS TO VERIFY ALL EQUIPMENT AND FURNISHINGS LOCATIONS, SIZES AND CLEARANCES WITH OWNER.
8. FIELD ELEVATION 107'-9 19/32" / 107' -9 5/8" = 7.80' AS SHOWN ON CIVIL DRAWINGS.

DEMOLITION FLOOR PLAN NOTES

1. ALL DEMOLITION WORK REQUIRED IS NOT NECESSARILY LIMITED TO WHAT IS SHOWN ON THE DEMOLITION PLAN. THE INTENT IS TO REMOVE ALL MECHANICAL, ELECTRICAL, AND ARCHITECTURAL ITEMS AS REQUIRED TO FACILITATE NEW CONSTRUCTION.
2. CONTRACTOR SHALL PROVIDE TEMPORARY DUSTPROOF PARTITIONS WITH DOORS AT LOCATIONS INDICATED AND/OR AS REQUIRED TO ADEQUATELY SEPARATE OCCUPIED AREAS FROM CONSTRUCTION HAZARDS, NOISE AND/OR DUST. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION. COORDINATE ALL LOCATIONS WITH ARCHITECT'S/OWNER'S REPRESENTATIVE.
3. CONTRACTOR SHALL CONTINUOUSLY MAINTAIN ALL MEANS OF EGRESS AND ALL FIRE PROTECTION FEATURES FOR PORTIONS OF THE BUILDING THAT REMAIN OCCUPIED DURING CONSTRUCTION.
4. COORDINATE SCOPE AND EXTENT OF DEMOLITION WITH NEW WORK PLANS AND DETAILS.
5. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE DEMOLITION PROCEDURE AND SEQUENCE TO ENSURE THE SAFETY OF THE EXISTING BUILDING AND ITS COMPONENT PARTS DURING DEMOLITION AND FUTURE ERECTION. THIS IS INCLUDED, BUT IS NOT LIMITED TO, THE ADDITION OF ANY AND ALL TEMPORARY BRACING, GUYS OR TIE-DOWNS WHICH MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER COMPLETION OF THE PROJECT.
6. THE CONTRACTOR SHALL SUPPORT, BRACE AND SECURE EXISTING STRUCTURE AS REQUIRED. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE SAFETY OF THE EXISTING BUILDING DURING DEMOLITION AND CONSTRUCTION. FIELD VERIFY ALL EXISTING DIMENSIONS, ELEVATIONS AND CONDITIONS WHICH AFFECT THE DEMOLITION AND NEW CONSTRUCTION.
7. THE EXTEND OF THE WORK SHOWN SHALL INCLUDE REMOVAL AND DISPOSAL, OFF SITE, OF THE ELEMENTS INDICATED WITHIN THESE DEMOTION DRAWINGS, UNLESS NOTED OTHERWISE.
8. THE EXISTING STRUCTURE SHALL BE DISASSEMBLED IN A MANNER WHICH DOES NOT DAMAGE OR DEFORM ANY EXISTING STRUCTURE TO REMAIN. EXISTING SLABS SHALL BE SAWCUT IN A MANNER WHICH DOES NOT CAUSE THE SLAB SUPPORTING MEMBER TO BE CUT OR DAMAGED.
9. CONFORM TO ALL APPLICABLE TO CODES FOR DEMOLITION OF STRUCTURES, SAFETY OF EXISTING AND ADJACENT STRUCTURES, DUST CONTROL, AND DISPOSAL.
10. USE OF EXPLOSIVES SHALL NOT BE PERMITTED.
11. EXISTING SLABS SHALL BE CORE DRILLED AT RE-ENTRANT CORNERS OF NEW FLOOR OPENINGS TO PREVENT OVER CUTTING.
12. THE DEMOLISHED STRUCTURE SHALL BE REDUCED TO A WEIGHT AND TRANSPORTED ACROSS THE EXISTING STRUCTURE IN A MANNER WHICH DOES NOT OVERSTRESS THE EXISTING BUILDING STRUCTURE.
13. FRAMING SHALL BE REMOVED ONLY AFTER THE LOAD SUPPORTED BY THAT FRAMING IS REMOVED. THE FRAMING REMOVAL PROCESS SHALL NOT DEFORM OR INDUCE STRESS TO EXISTING FRAMING TO REMAIN.
14. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CLEARANCES AND ALL EXISTING FIELD CONDITIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS. SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT THE ARCHITECT BEFORE PROCEEDING WITH WORK.
15. FILL AND PATCH ALL OPENINGS RESULTING FROM DEMOLITION. PATCH TO MATCH EXISTING FINISHES. CONTRACTOR TO MAINTAIN REQUIRED FIRE RATED ASSEMBLIES.
16. ALL EXISTING STRUCTURE TO REMAIN. REMOVE ALL FINISHES, ETC AS INDICATED.
17. ALL ABANDONED OR OTHERWISE OBSOLETE CONDUITS, DUCTWORK, HANGERS, AND ACCESSORIES ARE TO BE REMOVED FROM WORK AREA.
18. AREAS SHOWN FOR REMOVAL ARE INDICATED SCHEMATICALLY AND ARE APPROXIMATELY ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEANS AND METHODS OF REMOVAL. WHEN REMOVING PORTIONS OF MATERIALS, CONTRACTOR TO TAKE APPROPRIATE CARE NOT TO DAMAGE ANY EXISTING STRUCTURAL CONDITIONS, OR OTHER INTEGRAL BUILDING COMPONENTS. PATCH ALL AREAS TO MATCH EXISTING CONDITIONS AND FINISHES.
19. REFER TO MECHANICAL ROOF PLAN FOR LOCATIONS OF NEW ROOF OPENINGS.
20. REFER TO OTHER DISCIPLINE DRAWINGS FOR FURTHER DEMOLITION INFORMATION.

FLOOR PLAN LEGEND

- EXISTING CONSTRUCTION TO REMAIN
- EXISTING CONSTRUCTION TO BE DEMOLISHED
- NEW CONSTRUCTION
- XX — DOOR (REFER TO DOOR TYPES AND SCHEDULE)
- XXXX — PARTITION TYPE, REFER TO PARTITION TYPES. ALIGN NEW PARTITION FLUSH AND SMOOTH WITH ADJACENT EXISTING PARTITION WHERE IT OCCURS, U.N.O. REFER TO INTERIOR ELEVATIONS AND FINISH SCHEDULE FOR WALL FINISH.
- CJ — CONTROL JOINT
- A — ALIGN FLUSH
- WINDOW TAG (REFER TO WINDOW SCHEDULE)
- FD — FLOOR DRAIN
- FE — FIRE EXTINGUISHER
- EXHAUST FAN
- CABINET UNIT HEATER

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

CITY OF JACKSONVILLE FLORIDA

LEGENDS GLOBAL

OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100
www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD. JACKSONVILLE FL, 32202

BID/ PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

ISSUED BY: OSPORTS

ISSUE DATE: **10/22/25**

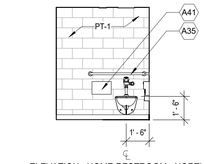
PROJ NO. **P20251573.000**

REVISIONS

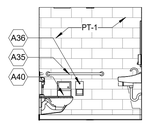
TAG	ISSUED	DATE

SHEET NAME:
OVERALL FLOOR PLANS

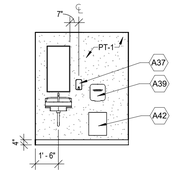
DRAWING NO.
A-110



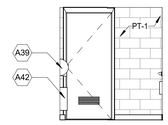
12 ELEVATION - HOME RESTROOM - NORTH
1/4" = 1'-0"



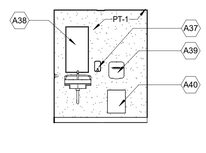
11 ELEVATION - HOME RESTROOM - EAST
1/4" = 1'-0"



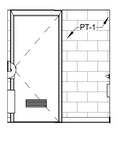
10 ELEVATION - HOME RESTROOM - SOUTH
1/4" = 1'-0"



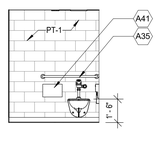
9 ELEVATION - HOME RESTROOM - WEST
1/4" = 1'-0"



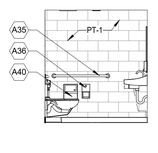
8 ELEVATION - VISITOR RESTROOM - NORTH
1/4" = 1'-0"



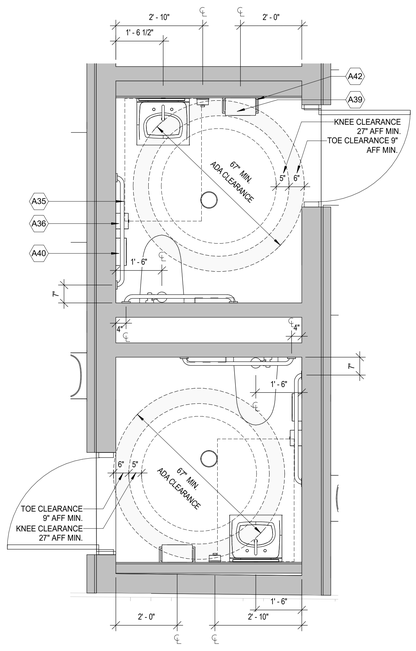
7 ELEVATION - VISITOR RESTROOM - EAST
1/4" = 1'-0"



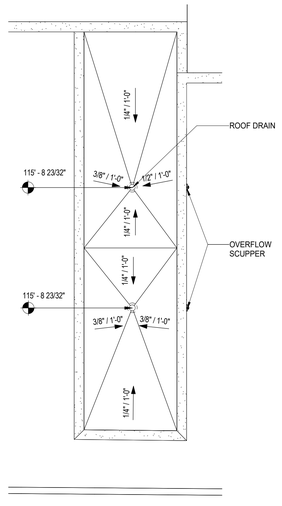
6 ELEVATION - VISITOR RESTROOM - SOUTH
1/4" = 1'-0"



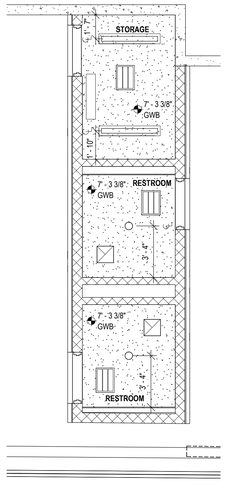
5 ELEVATION - VISITOR RESTROOM - WEST
1/4" = 1'-0"



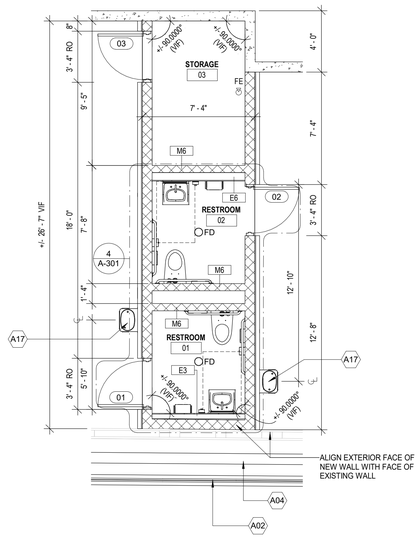
4 ENLARGED TOILET AND ACCESSORY LAYOUT
1/2" = 1'-0"



3 ROOF PLAN - RESTROOM / STORAGE
1/4" = 1'-0"



2 RCP - RESTROOM / STORAGE
1/4" = 1'-0"



1 ENLARGED PLAN - RESTROOM / STORAGE
1/4" = 1'-0"

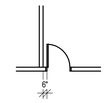
OVERALL PLAN NOTES

1. CONTRACTOR TO COORDINATE THE INTERFACING OF ALL TRADES WITH RESPECT TO DELIVERY AND INSTALLATION OF ALL FURNITURE, FURNISHINGS AND EQUIPMENT.
2. CONTRACTOR TO COORDINATE LOCATIONS OF ALL REQUIRED UTILITIES WITH THE TRADE PROVIDING THE SAME. REFER TO MECHANICAL, ELECTRICAL AND TECHNOLOGY DRAWINGS FOR ADDITIONAL INFORMATION.
3. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS BEFORE INSTALLATION. CONSULT ARCHITECT WHEN ACTUAL FIELD CONDITIONS VARY FROM THOSE SHOWN ON CONSTRUCTION DOCUMENTS.
4. REFER TO SHEET A-701 FOR WALL PARTITION TYPES
5. REFER TO SHEET A-701 FOR DOOR AND WINDOW SCHEDULES.
6. REFER TO FINISH SCHEDULE FOR FINISH INFORMATION. PROVIDE TOILET ROOM SIGNAGE AT ALL TOILET ROOM DOORS.
7. REFER TO EQUIPMENT AND FURNISHING LAYOUTS TO VERIFY ALL EQUIPMENT AND FURNISHINGS LOCATIONS, SIZES AND CLEARANCES WITH OWNER.
8. FIELD ELEVATION 107'-9 19/32" / 107'-9 5/8" = 7.80' AS SHOWN ON CIVIL DRAWINGS.

DOOR & PARTITION DIMENSIONING

DOOR LOCATIONS ARE TO BE LOCATED BY ONE OF THE FOLLOWING

A. ONE JAMB FACE LOCATED BY A PARTITION AT RIGH ANGLE. TYPICAL UNLESS INDICATED ON PLAN.



B. OR AS DIMENSIONED ON PLAN.

INTERIOR PARTITIONS ARE DIMENSIONED TO FACE OF STUD UNLESS NOTED OTHERWISE.

EXTERIOR WALLS ARE DIMENSIONED TO EXTERIOR FACE OF MASONRY, SHEATHING, OR CONCRETE WHERE APPLICABLE UNLESS NOTED OTHERWISE.

DIMENSIONS ARE INDICATED IN THE DOCUMENTS. THE DRAWING SHALL NOT BE SCALED FOR DIMENSIONS.

SHEET KEYNOTES

A02	NEW 8' CHAIN LINK FENCE. NEW FENCE SHALL BE IN SAME LOCATION AS EXISTING FENCE. COORDINATE CHAIN LINK FENCE INSTALLATION WITH CONC. CURB SHOWN ON CIVIL DRAWINGS.
A04	RELOCATED FIELD LEVEL RIBBON VIDEO BOARD. MATCH EXISTING ATTACH TO EXISTING WALL
A17	WALL MOUNTED DRINKING FOUNTAIN - SEE PLUMB
A35	GRAB BAR
A36	TOILET PAPER DISPENSER
A37	SOAP DISPENSER
A38	VANITY MIRROR
A39	HAND DRYER
A40	SANITARY NAPKIN DISPOSAL
A41	TOILET SEAT COVER DISPENSER
A42	WASTE RECEPTACLE

FLOOR PLAN LEGEND

- EXISTING CONSTRUCTION TO REMAIN
- EXISTING CONSTRUCTION TO BE DEMOLISHED
- NEW CONSTRUCTION
- XX — DOOR (REFER TO DOOR TYPES AND SCHEDULE)
- XXXX — PARTITION TYPE. REFER TO PARTITION TYPES. ALIGN NEW PARTITION FLUSH AND SMOOTH WITH ADJACENT EXISTING PARTITION WHERE IT OCCURS. U.N.O. REFER TO INTERIOR ELEVATIONS AND FINISH SCHEDULE FOR WALL FINISH.
- CJ — CONTROL JOINT
- A — ALIGN FLUSH
- WINDOW TAG (REFER TO WINDOW SCHEDULE)
- FD — FLOOR DRAIN
- FE — FIRE EXTINGUISHER
- EXHAUST FAN
- CABINET UNIT HEATER

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

CITY OF JACKSONVILLE FLORIDA
LEGENDS GLOBAL
OSBORN ENGINEERING
OSPORTS.
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100
www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD. JACKSONVILLE FL, 32202

BID/ PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

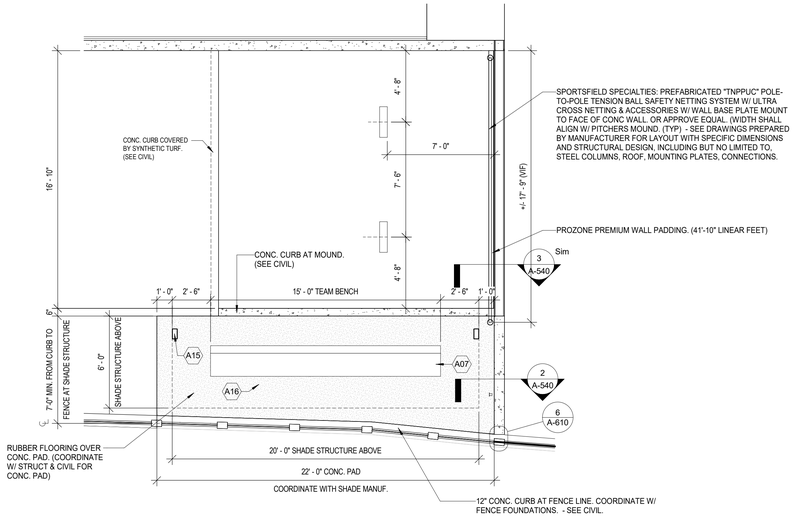
ISSUED BY: OSPORTS.
ISSUE DATE: 10/22/25
PROJ NO. P20251573.000

REVISIONS

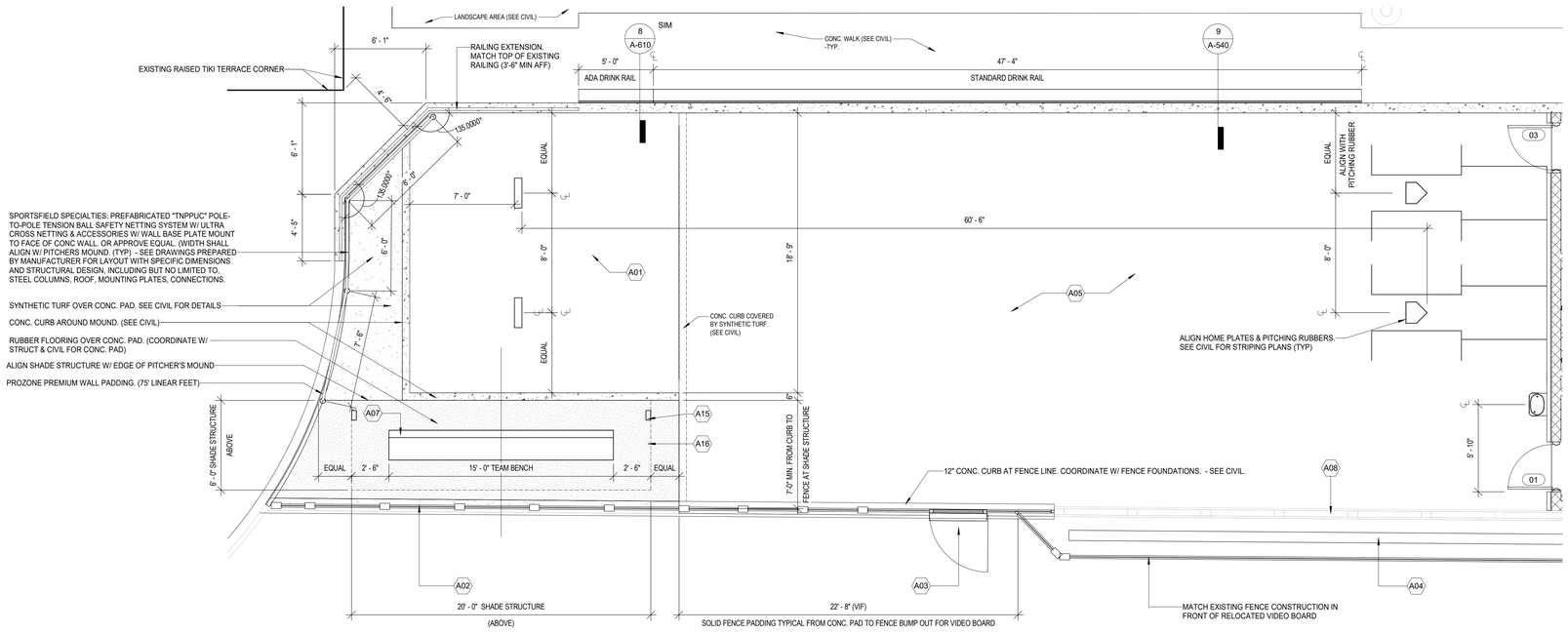
TAG	ISSUED	DATE

SHEET NAME:
ENLARGED DRAWINGS - RESTROOMS / STORAGE

DRAWING NO.
A-301



2 FIELD LEVEL - RENOVATION PLAN - VISITOR BULLPEN
1/4" = 1'-0"



1 ENLARGED PLAN - HOME BULLPEN
1/4" = 1'-0"

ENLARGED FLOOR PLAN NOTES

SHEET KEYNOTES

A01	PITCHING MOUND - SEE CIVIL
A02	NEW 8' CHAIN LINK FENCE. NEW FENCE SHALL BE IN SAME LOCATION AS EXISTING FENCE. COORDINATE CHAIN LINK FENCE INSTALLATION WITH CONC. CURB SHOWN ON CIVIL DRAWINGS.
A03	4'-0" CHAIN LINK FENCE FIELD ACCESS GATE. MATCH EXISTING FENCE GATE HARDWARE
A04	RELOCATED FIELD LEVEL RIBBON VIDEO BOARD. MATCH EXISTING ATTACH TO EXISTING WALL
A05	TWO-LANE ARTIFICAL TURF BULLPEN AREA - SEE CIVIL
A07	SPORTSFIELD SPECIALTIES TWO TIER POLBOARD BENCH. MODEL: PTBTT1S OR APPROVED EQUAL. COORDINATE EXACT INSTALL LOCATIONS W/ OWNER
A08	PORTION OF EXISTING RETAINING WALL AND FENCE TO REMAIN
A15	PREFABRICATED 6'x20' CANTILEVERED SHADE STRUCTURE. DELIGATED DESIGN STRUCTURE AND FOUNDATION. MODEL: CWC6X20 BY POLIGON OR APPROVED EQUAL. COORDINATE FINAL FOUNDATION DESIGN W/ STRUCTURAL. - SEE DRAWINGS PREPARED BY MANUFACTURER FOR LAYOUT WITH SPECIFIC DIMENSIONS AND STRUCTURAL DESIGN, INCLUDING BUT NOT LIMITED TO, STEEL COLUMNS, ROOF. BASE PLATES, CONNECTIONS, AND CONCRETE FOOTINGS. PROVIDE STRUCTURAL DRAWINGS SIGNED AND SEALED BY REGISTERED ENGINEER IN THE STATE OF FLORIDA.
A16	RUBBER ATHLETIC FLOORING AT TEAM BENCH AREAS OVER ALL EXPOSED CONCRETE. MATCH EXISTING DUGOUT FLOORING (EARTHFLEX BY PLAE: 8MM)

FLOOR PLAN LEGEND

- EXISTING CONSTRUCTION TO REMAIN
- EXISTING CONSTRUCTION TO BE DEMOLISHED
- NEW CONSTRUCTION
- XX — DOOR (REFER TO DOOR TYPES AND SCHEDULE)
- XXX — PARTITION TYPE. REFER TO PARTITION TYPES. ALIGN NEW PARTITION FLUSH AND SMOOTH WITH ADJACENT EXISTING PARTITION WHERE IT OCCURS. U.N.O. REFER TO INTERIOR ELEVATIONS AND FINISH SCHEDULE FOR WALL FINISH.
- CJ — CONTROL JOINT
- A — ALIGN FLUSH
- WINDOW TAG (REFER TO WINDOW SCHEDULE)
- FD — FLOOR DRAIN
- FE — FIRE EXTINGUISHER
- EXHAUST FAN
- CABINET UNIT HEATER

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

OSBORN ENGINEERING
OSPORTS.
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100
www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD. JACKSONVILLE FL, 32202

BID/ PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

ISSUED BY: OSPORTS.

ISSUE DATE: **10/22/25**

PROJ NO. **P20251573.000**

REVISIONS

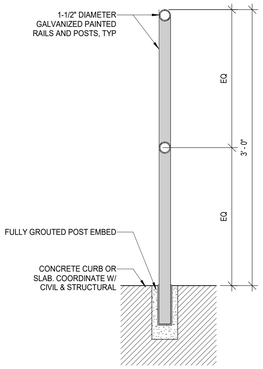
TAG	ISSUED	DATE

SHEET NAME:

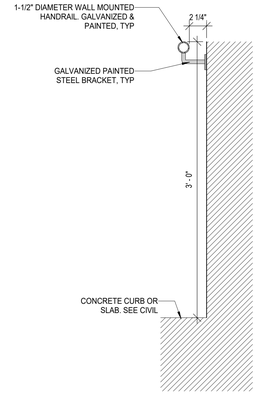
ENLARGED DRAWINGS - BULLPEN

DRAWING NO.

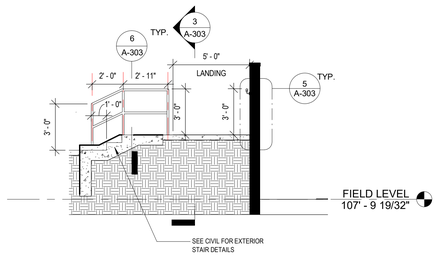
A-302



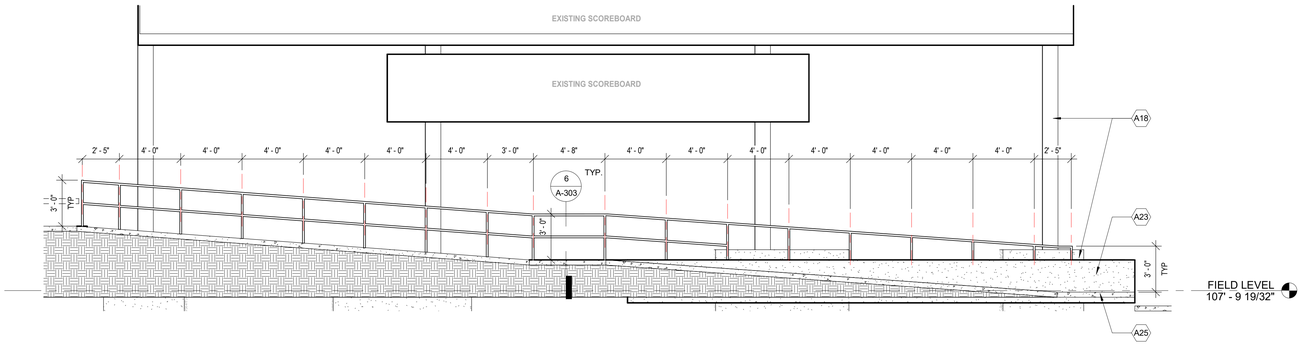
6 TYPICAL RAILING SECTION
1 1/2" = 1'-0"



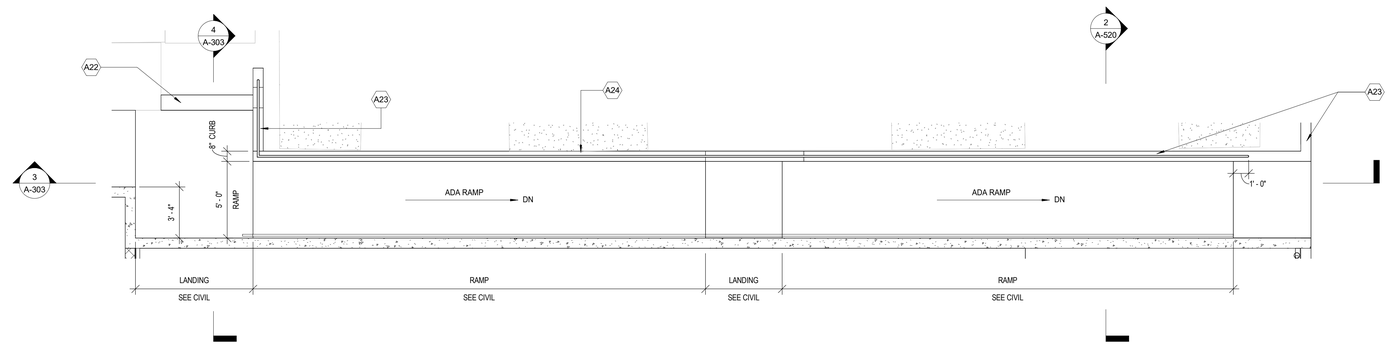
5 TYPICAL WALL MOUNTED HANDRAIL SECTION
1 1/2" = 1'-0"



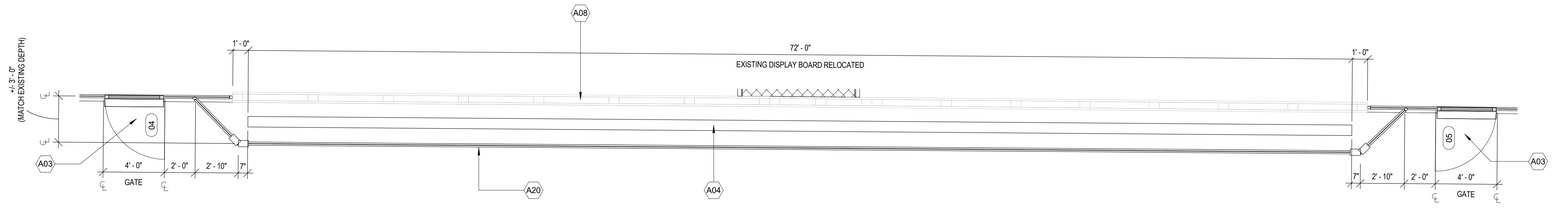
4 SITE STAIR SECTION
1/4" = 1'-0"



3 SECTION - BULLPEN RAMP
1/4" = 1'-0"



2 ENLARGED PLAN - BULLPEN RAMP
1/4" = 1'-0"



1 FIELD LEVEL - RENOVATION PLAN - CENTER DISPLAY BOARD
1/4" = 1'-0"

SHEET KEYNOTES

A03	4'-0" CHAIN LINK FENCE FIELD ACCESS GATE. MATCH EXISTING FENCE GATE HARDWARE
A04	RELOCATED FIELD LEVEL RIBBON VIDEO BOARD. MATCH EXISTING ATTACH TO EXISTING WALL
A08	PORTION OF EXISTING RETAINING WALL AND FENCE TO REMAIN
A18	EXISTING SCOREBOARD AND FOUNDATIONS TO REMAIN
A20	CHAINLINK TOP RAIL PADDING
A22	CONC. STEPS - SEE CIVIL
A23	CONC. RETAINING WALL - SEE STRUCTURAL
A24	CONC. CURB TO ALIGN WITH RAMP. - SEE STRUCTURAL
A25	SEE CIVIL FOR GRADES

FLOOR PLAN LEGEND

- EXISTING CONSTRUCTION TO REMAIN
- EXISTING CONSTRUCTION TO BE DEMOLISHED
- NEW CONSTRUCTION
- (XX) DOOR (REFER TO DOOR TYPES AND SCHEDULE)
- XXXX PARTITION TYPE. REFER TO PARTITION TYPES. ALIGN NEW PARTITION FLUSH AND SMOOTH WITH ADJACENT EXISTING PARTITION WHERE IT OCCURS. U.N.O. REFER TO INTERIOR ELEVATIONS AND FINISH SCHEDULE FOR WALL FINISH.
- CJ CONTROL JOINT
- (A) ALIGN FLUSH
- WINDOW TAG (REFER TO WINDOW SCHEDULE)
- FD FLOOR DRAIN
- FE FIRE EXTINGUISHER
- EXHAUST FAN
- CABINET UNIT HEATER

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

OSBORN ENGINEERING
OSPORTS.
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100
www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD. JACKSONVILLE FL, 32202

BID/ PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

ISSUED BY:	OSPORTS.
ISSUE DATE:	**10/22/25**
PROJ NO.	**P20251573.000**

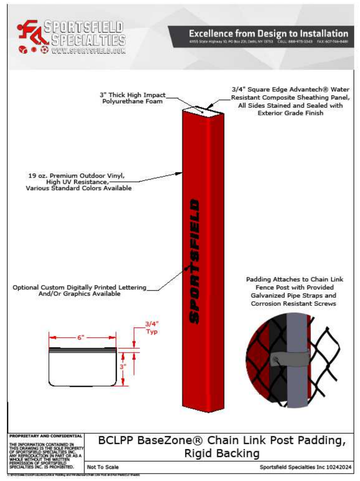
REVISIONS

TAG	ISSUED	DATE

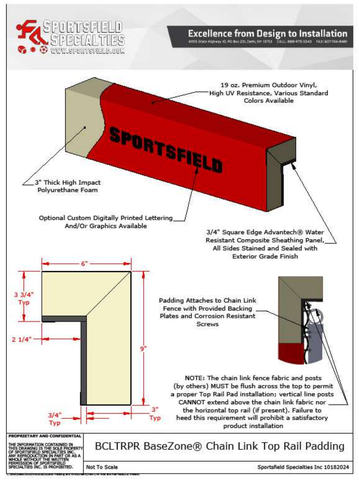
SHEET NAME:
ENLARGED DRAWINGS - RAMP

DRAWING NO.
A-303

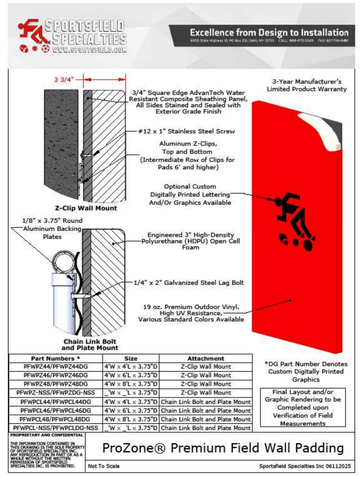
CHAINLINK POST PADDING



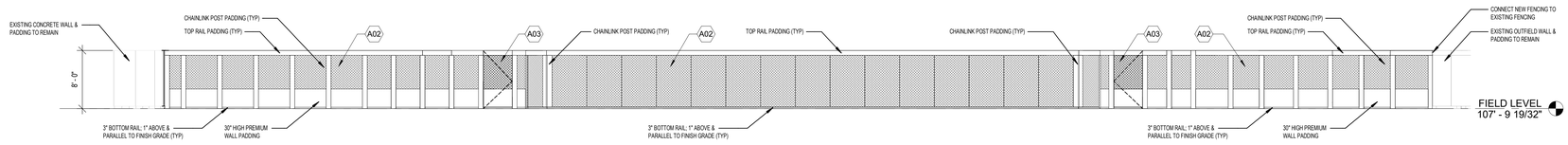
CHAINLINK TOP RAIL PADDING



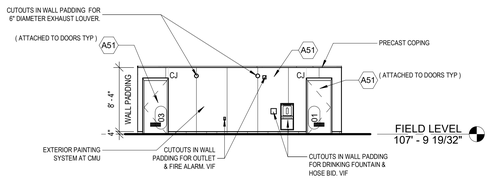
PREMIUM FIELD WALL PADDING



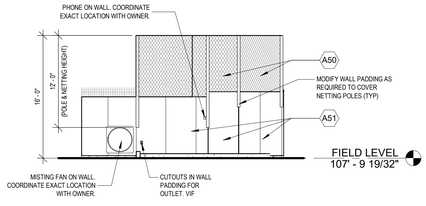
Part Numbers *	Size	Attachment
PFWP244/PFWP244DG	4'W x 4'L x .3.75"D	Z-Clip Wall Mount
PFWP246/PFWP246DG	4'W x 6'L x .3.75"D	Z-Clip Wall Mount
PFWP248/PFWP248DG	4'W x 8'L x .3.75"D	Z-Clip Wall Mount
PFWPZ-NSS/PFWPZDG-NSS	_'W x _'L x .3.75"D	Z-Clip Wall Mount
PFWPCL44/PFWPCL44DG	4'W x 4'L x .3.75"D	Chain Link Bolt and Plate Mount
PFWPCL46/PFWPCL46DG	4'W x 6'L x .3.75"D	Chain Link Bolt and Plate Mount
PFWPCL48/PFWPCL48DG	4'W x 8'L x .3.75"D	Chain Link Bolt and Plate Mount
PFWPCL-NSS/PFWPCLDG-NSS	_'W x _'L x .3.75"D	Chain Link Bolt and Plate Mount



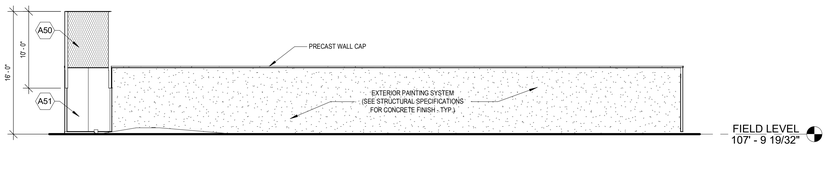
7 ELEVATION - OOUTFIELD FENCE
1/8" = 1'-0"



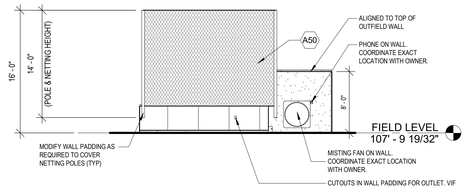
1 ELEVATION - HOME BULLPEN - EAST
1/8" = 1'-0"



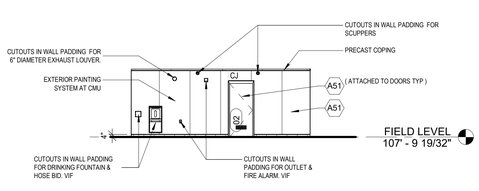
3 ELEVATION - HOME BULLPEN - WEST
1/8" = 1'-0"



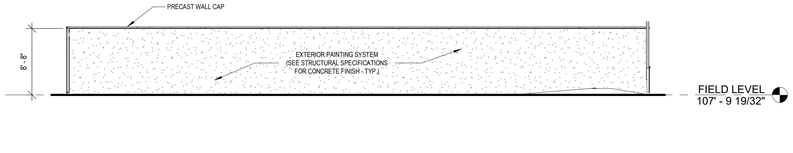
2 ELEVATION - HOME BULLPEN - NORTH
1/8" = 1'-0"



4 ELEVATION - VISITOR BULLPEN - EAST
1/8" = 1'-0"



6 ELEVATION - VISITOR BULLPEN - WEST
1/8" = 1'-0"



5 ELEVATION - VISITOR BULLPEN - NORTH
1/8" = 1'-0"

EXTERIOR ELEVATION NOTES

1. FIXTURES AND EQUIPMENT ATTACHED TO METAL PANEL SURFACE SHALL BE SUPPORTED BY AND EXTEND TO THE STRUCTURAL SUBSTRATE. METAL PANELS SHALL NOT BE USED TO SUPPORTS SURFACE MOUNTED ITEMS, UNLESS ACCEPTED AND APPROVED BY THE MANUFACTURER.
2. METALS PANEL COPING JOINTS SHALL ALIGN WITH METAL PANEL WALL JOINTS, UNO.
3. ALL METAL PANEL CORNERS SHALL BE BENT METAL PANEL SYSTEM. MITERED CORNERS ARE NOT ACCEPTABLE.
4. METAL PANEL SIZES SHALL BE AS SHOWN ON DRAWINGS. ANY CHANGE IN SIZE OR LOCATION OF JOINTS SHALL BE APPROVED BY THE ARCHITECT PRIOR TO INSTALLATION.
5. METAL PANEL SYSTEM SHALL BE BASED ON A RAIN SCREEN OPEN JOINT SYSTEM WITH AN AVERAGE 1/2" JOINT WIDTH.
6. CURTAIN WALL SYSTEMS TO BE DESIGNED BY CURTAIN WALL MANUFACTURER.
7. CURTAIN WALL MANUFACTURER TO INCLUDE ENGINEERING OF ALL CONNECTIONS TO THE BUILDING STRUCTURAL SYSTEMS. PROVIDE STRUCTURAL LOADS TO STEEL MANUFACTURER AND STRUCTURAL ENGINEER FOR REVIEW AND APPROVAL.

SHEET KEYNOTES

A02	NEW 8' CHAIN LINK FENCE. NEW FENCE SHALL BE IN SAME LOCATION AS EXISTING FENCE. COORDINATE CHAIN LINK FENCE INSTALLATION WITH CONC. CURB SHOWN ON CIVIL DRAWINGS.
A03	4'-0" CHAIN LINK FENCE FIELD ACCESS GATE. MATCH EXISTING FENCE GATE HARDWARE
A50	SPORTSFIELD SPECIALTIES "TNPPLIC" POLE-TO-POLE TENSION BALL SAFETY NETTING SYSTEM W/ ULTRA CROSS NETTING & ACCESSORIES W/ WALL BASE PLATE MOUNT TO FACE OF CONC WALL. OR APPROVE EQUAL. (WIDTH SHALL ALIGN W/ PITCHERS MOUND. (TYP).
A51	SPORTSFIELD SPECIALTIES: PROZONE PREMIUM FIELD WALL PADDING. OR APPROVED EQUAL

EXTERIOR ELEVATION SYMBOLS

CJ	CONTROL JOINT
EJ	EXPANSION JOINT
PJ	PANEL JOINT

EXTERIOR GLASS TYPES

NOTE: ALL GLASS TYPES TO BE SAFETY GLASS, UNO

GT-1	1" CLEAR INSULATING GLAZING UNIT
GT-2	1" SPANDREL INSULATING GLAZING UNIT
GT-3	1" INSULATING CLEAR LOW-E UNIT
GT-4	1/4" CLEAR TEMPERED
GT-5	LEVEL 1 BULLET RESISTANT GLASS

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

CITY OF JACKSONVILLE FLORIDA
LEGENDS GLOBAL
OSBORN ENGINEERING
OSPORTS.
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100 www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD. JACKSONVILLE FL, 32202

BID/ PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

ISSUED BY: OSPORTS.

ISSUE DATE: **10/22/25**

PROJ NO. **P20251573.000**

REVISIONS

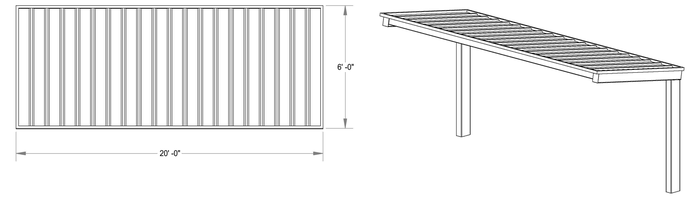
TAG	ISSUED	DATE

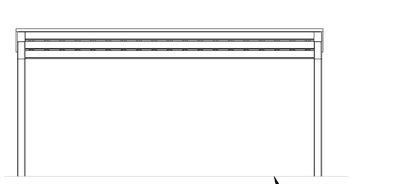
SHEET NAME:
EXTERIOR ELEVATIONS

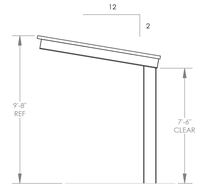
DRAWING NO.
A-500

GENERAL ROOF NOTES:

1. METAL ROOFING:
   - 24 GAUGE
   - GALVALUME COATED
   - KYNAR 500 PAINTED
2. TRIM COLOR MATCHES ROOF
3. SEE POLIGON.COM FOR COLOR OPTIONS



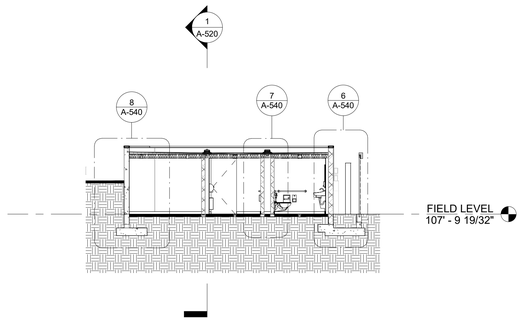




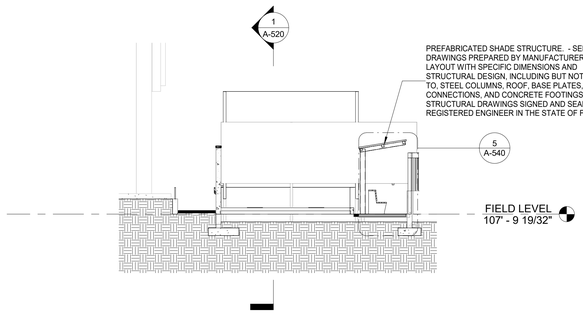
STOP!!
NOT FOR CONSTRUCTION
USE FOR PRELIMINARY PLANNING AND ESTIMATING ONLY

DRAWING: ARCHITECTURAL ELEVATIONS
SCALE: 1:48
REV-LEVEL: A
poligon® (616)399-1963 www.poligon.com by PORTERCORP
SHEET: 1

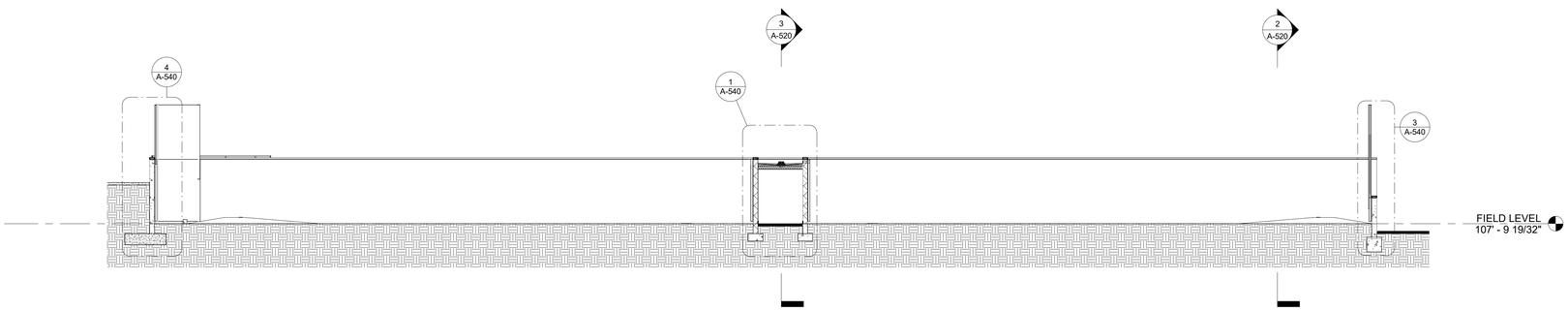
COPYRIGHT 2016
PATENTED OR PATENT PENDING
PORTERCORP 4240 N. 136th AVE. HOLLAND, MI 49424



3 BULLPEN SECTION A-B
1/8" = 1'-0"



2 BULLPEN SECTION A-C
1/8" = 1'-0"



1 BULLPEN SECTION B-A
1/8" = 1'-0"

BUILDING SECTION NOTES

SHEET KEYNOTES

OSBORN ENGINEERING
OSPORTS.
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100 www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD.
JACKSONVILLE FL, 32202

BID/ PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

ISSUED BY: OSPORTS.
ISSUE DATE: **10/22/25**
PROJ NO. **P20251573.000**

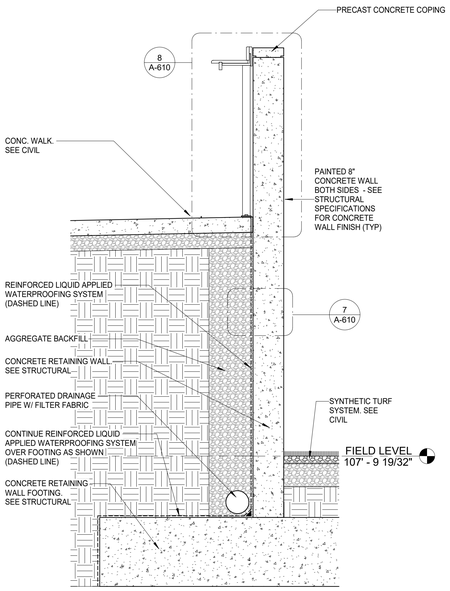
REVISIONS

TAG	ISSUED	DATE

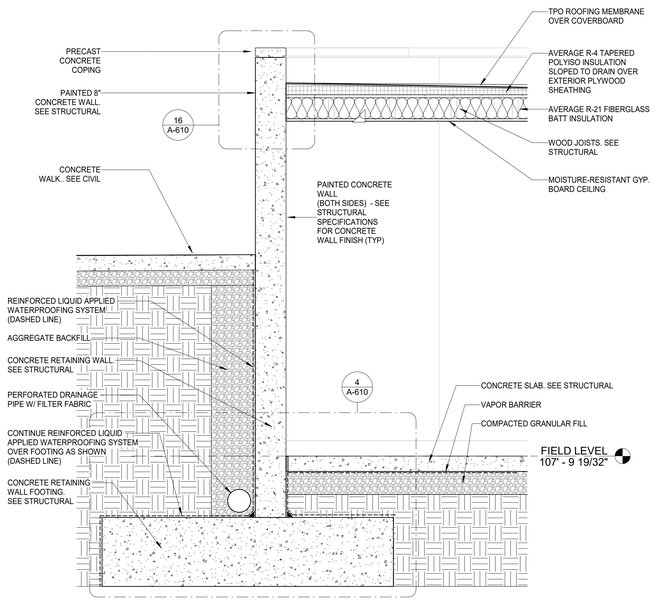
SHEET NAME:
BUILDING SECTIONS

DRAWING NO.
A-520

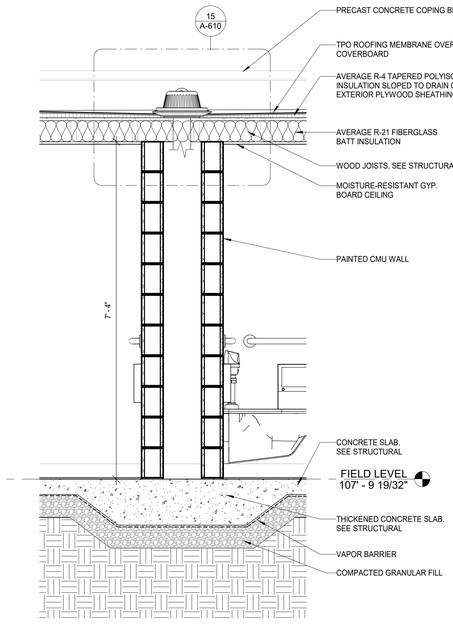
Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.



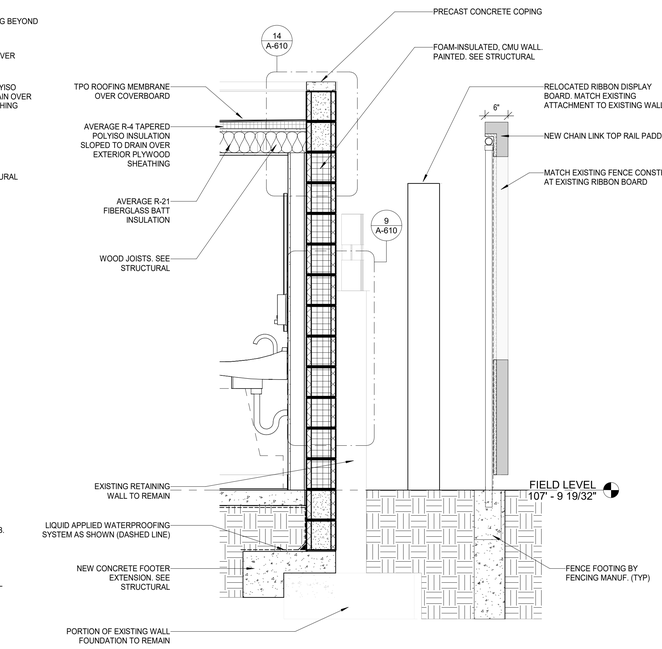
9 WALL SECTION
3/4" = 1'-0"



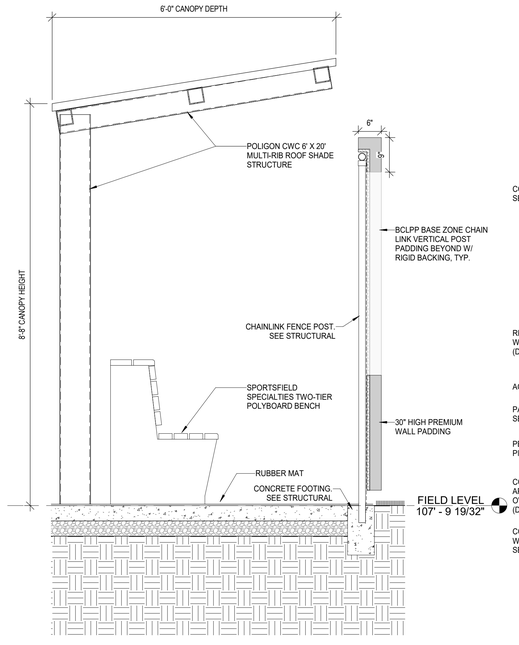
8 WALL SECTION
3/4" = 1'-0"



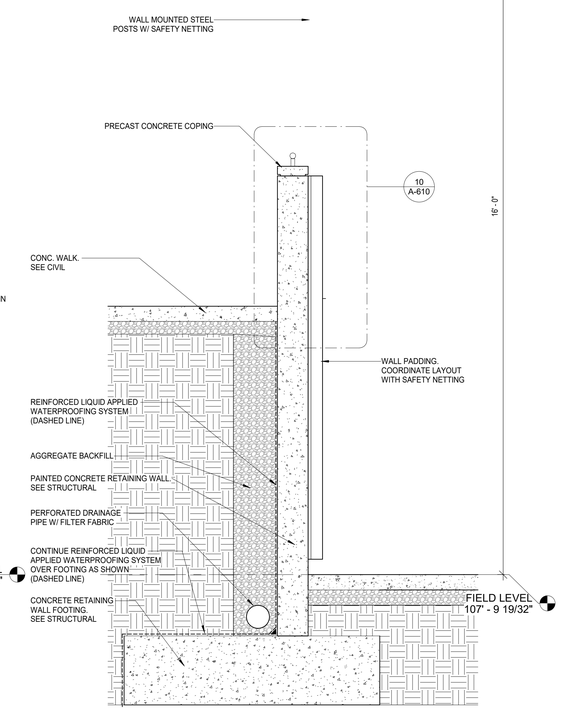
7 WALL SECTION
3/4" = 1'-0"



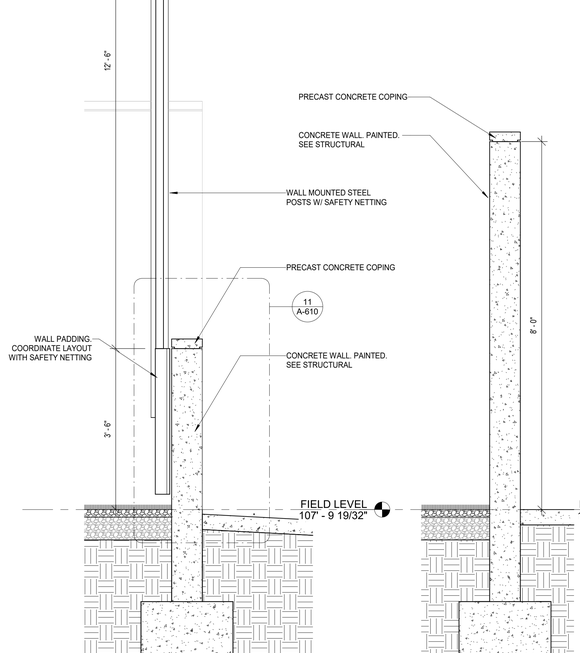
6 WALL SECTION
3/4" = 1'-0"



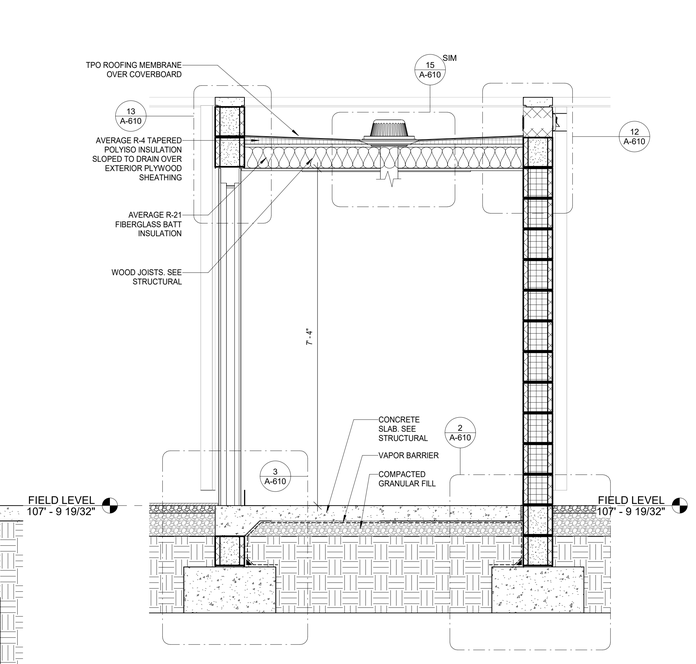
5 WALL SECTION
3/4" = 1'-0"



4 WALL SECTION
3/4" = 1'-0"



3 WALL SECTION
3/4" = 1'-0"



2 WALL SECTION
3/4" = 1'-0"

1 WALL SECTION
3/4" = 1'-0"

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

CITY OF JACKSONVILLE FLORIDA

LEGENDS GLOBAL

OSBORN ENGINEERING
OSPORTS.
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100 www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD. JACKSONVILLE FL, 32202

BID/ PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

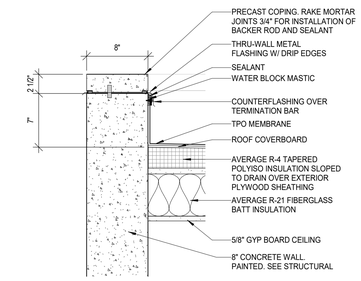
ISSUED BY:	OSPORTS.
ISSUE DATE:	10/22/25
PROJ NO.	P20251573.000

REVISIONS

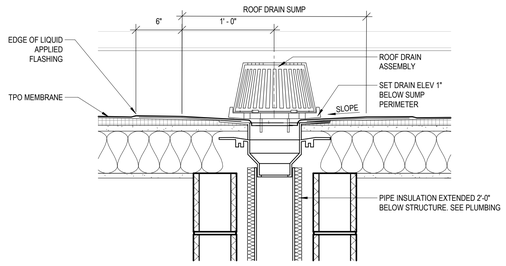
TAG	ISSUED	DATE

SHEET NAME:
WALL SECTIONS

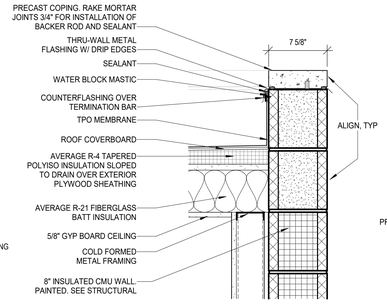
DRAWING NO.
A-540



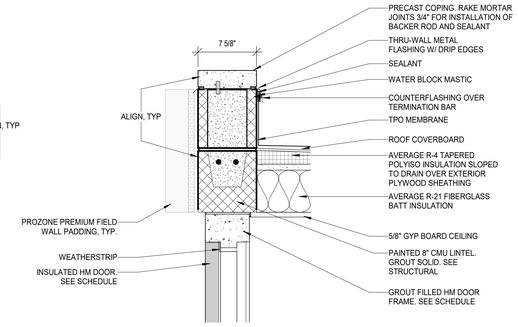
16 PARAPET AT CONCRETE WALL
1 1/2" = 1'-0"



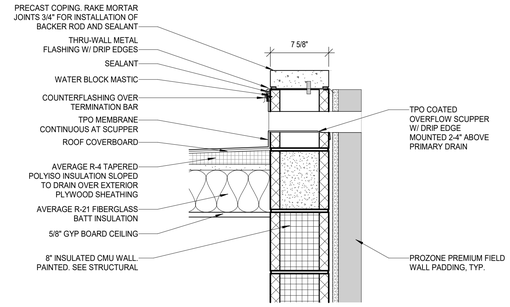
15 TPO AT ROOF DRAIN
1 1/2" = 1'-0"



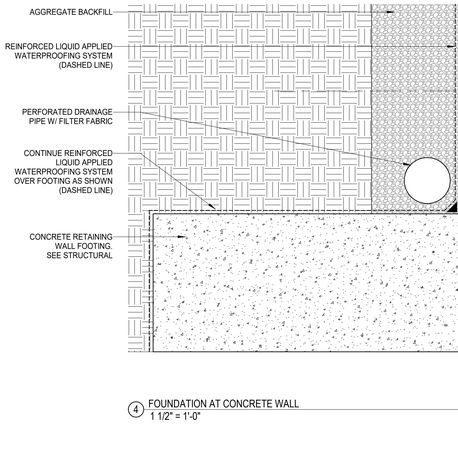
14 PARAPET AT MASONRY WALL
1 1/2" = 1'-0"



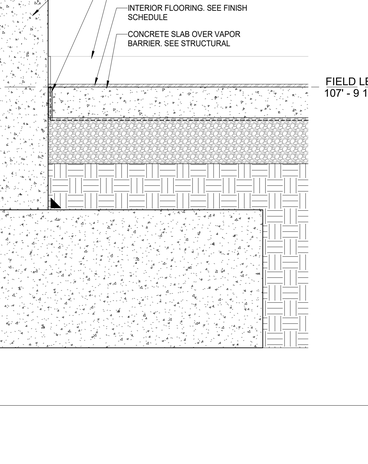
13 HM DOOR HEADER AT CMU WALL
1 1/2" = 1'-0"



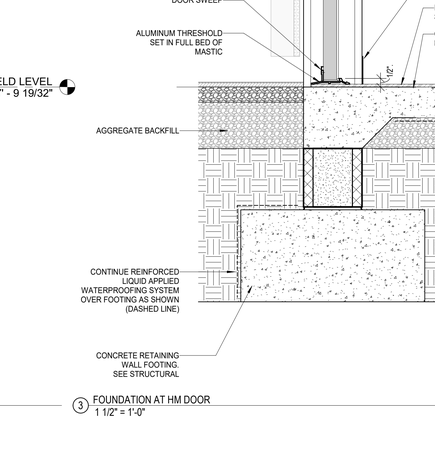
12 OVERFLOW SCUPPER DETAIL
1 1/2" = 1'-0"



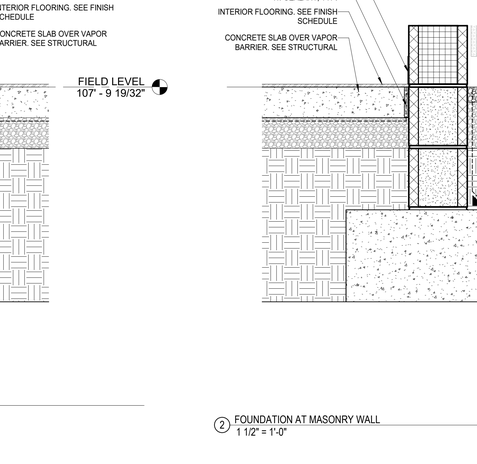
11 SAFETY NETTING AT LOW CONCRETE WALL
1 1/2" = 1'-0"



10 SAFETY NETTING AT HIGH CONCRETE WALL
1 1/2" = 1'-0"

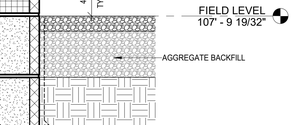


9 MASONRY WALL AT EXISTING WALL
1 1/2" = 1'-0"

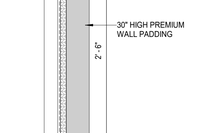


8 DRINK RAIL AT RETAINING WALL
1 1/2" = 1'-0"

NOTE: TO BE APPLIED TO ALL BELOW GRADE PORTIONS OF NEW CONC. RETAINING WALLS AT BULLPENS



7 WATERPROOFING DETAIL
1 1/2" = 1'-0"



5 DRINK RAIL BASE PLATE DETAIL
1 1/2" = 1'-0"

6 FENCE POST PLAN DETAIL AT CONCRETE WALL
1 1/2" = 1'-0"

1 NEW FENCE AT OUTFIELD
1 1/2" = 1'-0"

4 FOUNDATION AT CONCRETE WALL
1 1/2" = 1'-0"

3 FOUNDATION AT HM DOOR
1 1/2" = 1'-0"

2 FOUNDATION AT MASONRY WALL
1 1/2" = 1'-0"

CITY OF JACKSONVILLE FLORIDA

LEGENDS GLOBAL

OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100 www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD. JACKSONVILLE FL, 32202

BID/ PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

ISSUED BY: OSPORTS
ISSUE DATE: 10/22/25
PROJ NO. P20251573.000

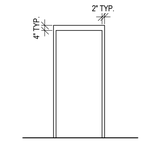
REVISIONS

TAG	ISSUED	DATE

SHEET NAME:
EXTERIOR DETAILS

DRAWING NO.
A-610

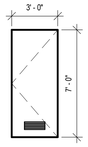
Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.



1

2" HM FRAME
W/ 4" HEAD

5 FRAME TYPES
1/4" = 1'-0"



F

FLUSH

4 DOOR TYPES
1/4" = 1'-0"

DOOR SCHEDULE

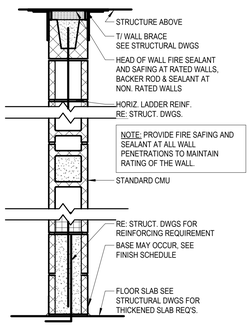
DOOR NO.	DOOR					FRAME		DETAILS			FIRE RATING	HARDWARE CODE	COMMENTS
	DOOR TYPE	WIDTH	HEIGHT	THICKNESS	DOOR MAT'L	FRAME TYPE	FRAME MAT'L	HEAD	JAMB	SILL			
01		3' - 0"	7' - 0"	0' - 1 3/4"	HM	1	HM				-	(none)	LOUVER AT BOTTOM OF DOOR + WALL PADDING ATTACHED
02		3' - 0"	7' - 0"	0' - 1 3/4"	HM	1	HM				-	(none)	LOUVER AT BOTTOM OF DOOR + WALL PADDING ATTACHED
03		3' - 0"	7' - 0"	0' - 1 3/4"	HM	1	HM				-	(none)	LOUVER AT BOTTOM OF DOOR + WALL PADDING ATTACHED

ROOM FINISH SCHEDULE

ROOM NO.	ROOM NAME	FLOOR	BASE	WALLS				CEILING		COMMENTS
				NORTH	EAST	SOUTH	WEST	MATL	HEIGHT	
FIELD LEVEL										
01	RESTROOM	RUB-1	WB-1	PT-2	PT-1	PT-1	PT-1	GYP-1	7' - 3 3/8"	
02	RESTROOM	RUB-1	WB-1	PT-1	PT-1	PT-1	PT-2	GYP-1	7' - 3 3/8"	
03	STORAGE	CONC-1	WB-1	PT-1	PT-1	PT-1	PT-1	GYP-1	7' - 3 3/8"	
04	HOME BULLPEN			PT-1	PT-1	PT-1	PT-1			
05	VISITOR BULLPEN			PT-1	PT-1	PT-1	PT-1			

ROOM FINISH LEGEND

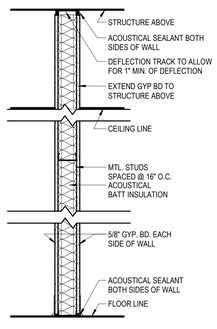
SYMBOL	TYPE
BASE	
WB-1	4" RUBBER WALL BASE
CEILING	
GYP-1	PAINTED GYPSUM BOARD CEILING
FLOORING	
CONC-1	SEALED CONCRETE
RUB-1	RESILIENT ATHLETIC FLOORING
WALLS	
PT-1	CMU PAINT
PT-2	DRY WALL PAINT
OTHER	
G-2	WALL PADDING



SERIES M

2M... **2-HR FIRE-RATED - CMU PARTITION**
UL DESIGN No. U906

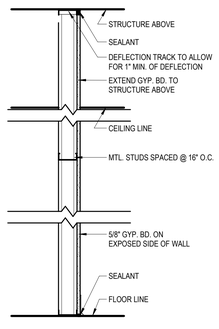
3 PARTITION SERIES M
1" = 1'-0"



SERIES A

1A... **1-HR FIRE-RATED GYP. BD. PARTITION**
UL DESIGN No. U419

2 PARTITION SERIES A
1" = 1'-0"



SERIES E

1 PARTITION SERIES E
1" = 1'-0"

INTERIOR PARTITION LEGEND

PARTITION TYPES ARE INDICATED ON THE FLOOR PLANS WITH THE FOLLOWING SYMBOL:

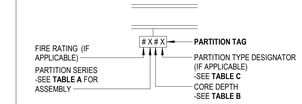


TABLE A - PARTITION SERIES CONSTRUCTION ASSEMBLY

SERIES	FINISH	CORE	FINISH
A	1-LAYER	METAL C-STUD	1-LAYER
B	2-LAYER	METAL C-STUD	2-LAYER
C	1-LAYER	(2) METAL C-STUDS	1-LAYER
D	2-LAYER	METAL C-STUD	1-LAYER
E	1-LAYER	METAL C-STUD	NONE
F	2-LAYER	METAL C-STUD	NONE
G	1-LAYER	MTL HAT CHANNEL	NONE
H			
J	1-LAYER	METAL C-H STUD	LINER PANEL
K	2-LAYER	METAL C-H STUD	LINER PANEL
L	REFER TO WALL TYPE	STC RATED ASSEMBLY	REFER TO WALL TYPE
M	NONE	CMU	NONE
N	7/8" FURRING W/ GYP BD	CMU	NONE
P	7/8" FURRING W/ GYP BD	CMU	7/8" FURRING W/ GYP BD

TABLE B - CORE DEPTH SCHEDULE

MATERIAL	TAG NUMBER DESIGNATION	CORE DEPTH
METAL STUDS	0	7/8" FURRING CHANNEL
	1	1-5/8"
	2	2-1/2"
	3	3-5/8"
	4	4"
	6	6"
	8	8"
	10	10"
	12	12"
	14	14"
CONCRETE MASONRY UNITS	4	3-5/8"
	6	5-5/8"
	8	7-5/8"
	12	11-5/8"

TABLE C - PARTITION TYPE DESIGNATOR

TAG LETTER DESIGNATION	DESCRIPTION (HEAD CONDITION)
M	CMU/FURRING EXTENDS TO UNDERSIDE OF STRUCT. ABOVE,

GENERAL INTERIOR PARTITION NOTES

1. REFER TO THE GENERAL INFORMATION FOR ABBREVIATIONS, SYMBOLS, AND MATERIAL LEGEND.
2. PARTITION TYPES ARE NOT SEQUENTIAL.
3. ALL INTERIOR PARTITIONS EXTEND TO B.O. DECK, UNLESS NOTED OTHERWISE.
4. PARTITIONS AND FURRING ARE DIMENSIONED TO THE FACE OF PARTITION ASSEMBLY (NOT TO THE FACE OF APPLIED FINISH OR FACE OF STUD), UNLESS NOTED OTHERWISE.
5. REFER TO ROOM FINISH SCHEDULE FOR WALL FINISHES AND WALL BASE. ALL PARTITIONS SHALL BE COORDINATED WITH SCHEDULED FINISHES FOR PARTITION LAYOUT AND REQUIRED CLEARANCES.
6. PARTITION TYPE INDICATIONS ARE INDEPENDENT OF APPLIED FINISHES. REFER TO ROOM FINISH SCHEDULE AND/OR THE DESIGNATIONS ON THE PLANS FOR ADDITIONAL INFORMATION REGARDING APPLIED FINISHES.
7. ALL PARTITION SHEATHING TO BE 5/8" GYPSUM BOARD UNLESS NOTED OTHERWISE. SUBSTITUTE 5/8" THICK TYPE X MOISTURE RESISTANT GYPSUM BOARD AT LOCATIONS TO RECEIVE WITHIN 2 FEET HORIZONTALLY AND 4-FEET VERTICALLY OF WET WALL CONDITIONS NOT TO INCLUDE WALL TILE AND AT ALL OTHER LOCATIONS AS INDICATED BY THE ROOM FINISH SCHEDULE.
8. ALL PARTITIONS WITH CERAMIC WALL TILE FINISH TO RECEIVE 5/8" CEMENTITIOUS BACKER UNITS (AND ADD OVER GYPSUM BOARD FACE LAYER AT FIRE RATED PARTITIONS) AT ALL LOCATIONS TO RECEIVE A TILE FINISH. REFER TO FINISH SCHEDULE FOR LOCATION OF CERAMIC WALL TILE.
9. PROVIDE METAL PLATE BACKING IN PARTITIONS FOR ARTWORK HANGING, TV MOUNTING BRACKETS, TOILET PARTITION AND TOILET/BATH ACCESSORIES. PROVIDE FIRE-TREATED WOOD BLOCKING WHERE INDICATED. REFER TO FLOOR PLANS AND INTERIOR ELEVATIONS FOR LOCATIONS OF WALL HUNG ELEMENTS.
10. REFER TO THE FLOOR PLANS FOR PARTITION FIRE RESISTANCE RATINGS AND LOCATIONS.
11. DETAILS ARE DIAGRAMMATIC - PRECISE REQUIREMENTS OF TESTS ASSEMBLIES SHALL GOVERN.
12. FIRE-RATED PARTITIONS SHALL BE CONSTRUCTED ACCORDING TO THE FIRE TEST INDICATED. NO SUBSTITUTIONS OF MATERIALS OR DEVIATIONS FROM CONSTRUCTION ARE ALLOWED. ADDITIONAL LAYERS MAY BE REQUIRED FOR ACOUSTICAL OR OTHER REASONS AND MUST BE EXECUTED AS SHOWN.
13. WHERE ROOMS WITH DIFFERENT PARTITION REQUIREMENTS ARE ADJACENT, THE PARTITION WITH THE GREATER FIRE-RATING AND/OR STC SHALL BE USED BETWEEN THEM.
14. AT INTERSECTIONS OF DIS-SIMILAR PARTITON TYPES, THE HIGHEST FIRE RATED PARTITION IS TO RUN THROUGH THE INTERSECTION TO MAINTAIN ENCLOSURE. MAINTAIN RATING OF FIRE RATED PARTITION AT INTERSECTION WITH COLUMN ENCLOSURES BY EXTENDING FIRE RATED CLOSURE AS REQUIRED.
15. STC RATINGS ARE MINIMUM ACOUSTICAL PERFORMANCE REQUIREMENT. SPECIFIC ACOUSTICAL TESTS ARE GIVEN FOR REFERENCE ONLY. SOUND ATTENUATION BLANKET THICKNESS SHALL BE AS FOLLOWS:
    A. 1 5/8" STUD PARTITIONS — 1 1/2" THICKNESS
    B. 2 1/2" STUD PARTITIONS (INCLUDING SHAFTWALLS) — 1 1/2" THICKNESS
    C. 3 5/8", 4", OR 6" STUD PARTITIONS — 3" THICKNESS
    D. 4" OR 6" SHAFTWALL (UNO, AS REQUIRED FOR FIRE RATING) — 3" THICKNESS
16. WHERE PARTITION TYPE DESIGNATION ON FLOOR PLANS IS INTERRUPTED BY DOOR OPENING, GLAZED PARTIONS, ETC., CONSTRUCTION ABOVE INTERRUPTION (AND WHERE APPLICABLE BELOW) IS TO BE THE SAME AS THAT DESIGNATED FOR THE PARTITION IN WHICH THE INTERRUPTION OCCURED.
17. THE MINIMUM REQUIREMENTS FOR CONSTRUCTION OF EACH PARTITION TYPE AS EXPRESSED BY THE INDICATED FIRE RATING REFERENCE ARE INCORPORATED BY REFERENCE AND ARE APPLICABLE TO THE WORK OF THIS PROJECT. HOWEVER, ADDITIONAL AND/OR MORE RESTRICTIVE REQUIREMENTS MAY BE INDICATED BY THE SPECIFICATIONS AND DRAWINGS. SUCH REQUIREMENTS ALSO APPLY AND SHALL GOVERN. SUCH REQUIREMENTS INCLUDE BUT ARE NOT LIMITED TO:
    A. USE 5/8" THICK TYPE X GYPSUM BOARD THROUGHOUT.
    B. USE 16" OC MAX STUD SPACING, UNLESS NOTED OTHERWISE. THE SPACING STATED BY THE REFERENCED APPROVAL OR TEST REPORT IS THE MAX SPACING.
    C. USE STUDS OF GAUGE AND DEPTH INDICATED ON THE DRAWINGS OR IN THE SPECIFICATIONS. THE GAUGE AND/OR DEPTH STATED BY THE REFERENCE APPROVAL OR TEST REPORT IS THE MINIMUM GAUGE AND/OR DEPTH.
18. FOR INTERIOR FRAMING LIMITING HEIGHTS REFER TO SSMA TABLES FOR INTERIOR NON-STRUCTURAL NON-COMPOSITE PARTITIONS. ALL NON-LOAD BEARING METAL WALL FRAMING SHALL BE BASED ON TOTAL STUD HEIGHT. REFER TO PROJECT SPECIFICATIONS FOR METAL STUD SIZES AND GAUGES.
19. ALL NON-LOAD BEARING METAL WALL FRAMING SHALL BE 25 GAUGE MINIMUM UNLESS NOTED OTHERWISE.
20. AT METAL FRAMED WALLS WITH ONE LAYER OF 5/8" GYPSUM WALL BOARD ON EACH SIDE, PROVIDE 20 GAUGE METAL WALL FRAMING IN LIEU OF 25 GAUGE METAL FRAMING THAT EXCEEDS THE HEIGHT LIMITS AS LISTED BELOW:
    A. 2-1/2" METAL STUDS: 10'-9"
    B. 3-5/8" METAL STUDS: 14'-0"
    C. 4" METAL STUDS: 15'-0"
    D. 6" METAL STUDS: 20'-0"
21. PROVIDE 20 GAUGE METAL WALL FRAMING AT THE FOLLOWING LOCATIONS:
    A. DOUBLE STUD JAMB ASSEMBLIES AT OPENINGS.
    B. FIRST STUD IN THE PARTITION BEYOND THE DOUBLE STUD JAMB ASSEMBLY. LOCATE STUD 6" FROM DOUBLE STUD ASSEMBLY.
    C. STUDS TO WHICH CEMENTITIOUS BACKER UNITS ARE INSTALLED FOR WET AREAS
    D. STUDS TO WHICH REINFORCING GYPSUM WALL PANELS ARE ATTACHED.
    E. STUDS TO WHICH WALL MOUNTED EQUIPMENT, INCLUDING OWNER FURNISHED EQUIPMENT, IS FASTENED TO.
    F. STUD INFILL AND SILL TRACK BELOW WINDOW OPENINGS.
    G. STUDS INSTALLED FOR OPENING HEADS BETWEEN DOUBLE STUD JAMB ASSEMBLIES.
22. AT METAL FRAMED WALLS WITH ONE LAYER OF 5/8" GYPSUM WALL BOARD ON EACH SIDE, PROVIDE 16 GAUGE METAL WALL FRAMING IN LIEU OF 20 GAUGE METAL FRAMING THAT EXCEEDS THE HEIGHT LIMITS AS LISTED BELOW:
    A. 2-1/2" METAL STUDS: 12'-0"
    B. 3-5/8" METAL STUDS: 15'-7"
    C. 4" METAL STUDS: 16'-10"
    D. 6" METAL STUDS: 22'-10"
23. CONTRACTOR TO CONFIRM STUD SIZING AND SUBMIT SELECTION CRITERIA FOR REVIEW AS REQUIRED BY PROJECT SPECIFICATIONS.

ROOM SCHEDULE NOTES

1. GENERAL CONTRACTOR TO SUBMIT THREE SAMPLES OF EACH FINISH FOR FINAL APPROVAL.
2. PROVIDE TRANSISTION STRIPS AT ALL FLOOR FINISH TRANSISTIONS, UNLESS NOTED OTHERWISE.
3. ALL LUXURY VINYL TILE AND CARPET TO BE LAID IN AN ASHLAR PATTERN, UNLESS NOTED OTHERWISE.
4. REFER TO INTERIOR ELEVATIONS FOR ADDITIONAL INFORMATION.

FINISH SCHEDULE, LEGEND & PLAN SYMBOLS

CITY OF JACKSONVILLE FLORIDA
LEGENDS GLOBAL
OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100 www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD.
JACKSONVILLE FL, 32202

BID/ PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

ISSUED BY: OSPORTS

ISSUE DATE: **10/22/25**

PROJ NO. **P20251573.000**

REVISIONS

TAG	ISSUED	DATE

SHEET NAME:
SCHEDULES

DRAWING NO.
A-701

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

BUILDING DESIGN CRITERIA

GOVERNING CODE: 2023 FLORIDA BUILDING CODE IN CONJUNCTION WITH ASCE 7-22

RISK CATEGORY:	III

FLOOR LIVE LOADS:

STORAGE	125 PSF
LIVE LOAD REDUCTION	PER ASCE-7
ROOF LIVE LOAD	20 PSF

WIND LOAD:

ULTIMATE DESIGN WIND SPEED (Vult):	135 MPH
NOMINAL DESIGN WIND SPEED (Vasd):	90 MPH
WIND EXPOSURE:	C
INTERNAL PRESSURE COEFFICIENT:	±0.18
COMPONENTS AND CLADDING:	SEE TABLE S-002

GENERAL CONDITIONS:

1. SEE SPECIFICATIONS FOR QUALITY OF CONSTRUCTION REQUIRED, QUALITY OF WORK, MANUFACTURING AND INDUSTRY STANDARDS, PHYSICAL PROPERTIES OF MATERIALS, CONFORMANCE TO CODES AND REGULATIONS GUARANTEE AND WARRANTY REQUIREMENTS.
2. SEE ARCHITECTURAL, HVAC, PLUMBING, ELEVATOR, FIRE PROTECTION & ELECTRICAL DRAWINGS FOR OTHER PERTINENT INFORMATION RELATED TO STRUCTURAL WORK AND COORDINATE AS REQUIRED. CONTRACTOR SHALL COORDINATE STRUCTURAL DRAWINGS WITH ALL OTHER DRAWINGS WITHIN THE CONTRACT DOCUMENTS.
3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND CONDITIONS RELATED TO EXISTING CONSTRUCTION, EXISTING SERVICES, AND THE SITE BEFORE BEGINNING WORK.
4. CONSTRUCTION LOADS SHALL NOT EXCEED DESIGN LIVE LOADS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DESIGN REQUIRED TO SUPPORT CONSTRUCTION EQUIPMENT USED IN CONSTRUCTING THIS PROJECT. ALL EQUIPMENT SUPPORT DESIGN SHALL BE PERFORMED BY AN ENGINEER LICENSED IN THE STATE OF THE PROJECT. SHORING AND RESHORING ARE THE RESPONSIBILITY OF THE CONTRACTOR.
5. IF MATERIALS, QUANTITIES, STRENGHTHS OR SIZES INDICATED BY THE DRAWINGS OR SPECIFICATIONS ARE NOT IN AGREEMENT WITH THESE NOTES, THE BETTER QUALITY AND/OR QUANTITY, STRENGTH OR SIZE INDICATED, SPECIFIED OR NOTED SHALL BE PROVIDED.
6. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE FOLLOWING ITEMS THAT WILL NOT BE REVIEWED BY THE OWNER, ARCHITECT OR ENGINEER:
   A. DEVIATIONS FROM CONTRACT DOCUMENTS.
   B. DIMENSIONS, ELEVATIONS AND CONDITIONS TO BE CONFIRMED AND CORRELATED AT THE SITE.
   C. FABRICATION PROCESS INFORMATION.
   D. MEANS, METHODS, TECHNIQUES, PROCEDURES OF CONSTRUCTION AND CONSTRUCTION SAFETY.
   E. COORDINATION OF THE WORK OF ALL TRADES.
7. ANY CHANGES TO THE STRUCTURAL SYSTEMS SHALL BE REDESIGNED BY A PROFESSIONAL ENGINEER AT NO COST TO THE OWNER OR THE A/E AND SUBMITTED TO THE A/E FOR REVIEW. SUBMITTAL SHALL BE ACKNOWLEDGED IN WRITING BEFORE BEGINNING CONSTRUCTION. IF CHANGES ARE MADE WITHOUT WRITTEN APPROVAL, SUCH CHANGES SHALL BE THE LEGAL AND FINANCIAL RESPONSIBILITY OF THE PARTY MAKING THE CHANGE TO REPLACE OR REPAIR THE CONDITION AS DIRECTED BY THE A/E.

EXISTING CONDITIONS:

1. THE EXISTING CONDITIONS INDICATED ON THE DRAWINGS ARE BASED ON EXISTING DRAWINGS BY HOK, DATED JUNE 7, 2022 & OSBORN ENGINEERING, DATED JULY 15, 2024. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING CONDITIONS AND DIMENSIONS. CONTRACTOR IS TO REPORT ANY DISCREPANCIES TO THE A/E PRIOR TO PROCEEDING.
2. CONTRACTOR IS RESPONSIBLE TO UNCOVER AND VISUALLY FIELD VERIFY THE EXISTING CONSTRUCTION PRIOR TO THE START OF ANY WORK AFFECTING THE EXISTING STRUCTURE. CONTRACTOR IS TO REPORT ANY CHANGES OR DISCREPANCIES FROM THOSE SHOWN TO THE A/E.

DEMOLITION:

1. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE DEMOLITION PROCEDURE AND SEQUENCE TO ENSURE THE SAFETY OF THE EXISTING BUILDING AND ITS COMPONENT PARTS DURING DEMOLITION AND FUTURE ERECTION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF ANY OR ALL TEMPORARY BRACING, GUYS OR TIE-DOWNS WHICH MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER COMPLETION OF THE PROJECT.
2. THE CONTRACTOR SHALL SUPPORT, BRACE AND SECURE EXISTING STRUCTURE AS REQUIRED. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE SAFETY OF THE EXISTING BUILDING DURING DEMOLITION AND CONSTRUCTION. FIELD VERIFY ALL EXISTING DIMENSIONS, ELEVATIONS AND CONDITIONS WHICH AFFECT THE DEMOLITION AND NEW CONSTRUCTION.
3. THE EXTENT OF THE WORK SHOWN SHALL INCLUDE REMOVAL AND DISPOSAL, OFF SITE, OF THE ELEMENTS INDICATED WITHIN THESE DEMOLITION DRAWINGS UNO.
4. THE EXISTING STRUCTURE SHALL BE DISASSEMBLED IN A MANNER WHICH DOES NOT DAMAGE OR DEFORM ANY EXISTING STRUCTURE TO REMAIN. EXISTING SLABS SHALL BE SAWCUT IN A MANNER WHICH DOES NOT CAUSE THE SLAB SUPPORTING MEMBER TO BE CUT OR DAMAGED.
5. CONFORM TO ALL APPLICABLE CODES FOR DEMOLITION OF STRUCTURES, SAFETY OF EXISTING AND ADJACENT STRUCTURES, DUST CONTROL, AND DISPOSAL.
6. USE OF EXPLOSIVES SHALL NOT BE PERMITTED.
7. EXISTING SLABS SHALL BE CORE DRILLED AT RE-ENTRANT CORNERS OF NEW FLOOR OPENINGS TO PREVENT OVER CUTTING.
8. THE DEMOLISHED STRUCTURE SHALL BE REDUCED TO A WEIGHT AND TRANSPORTED ACROSS THE EXISTING STRUCTURE IN A MANNER WHICH DOES NOT OVERSTRESS THE EXISTING BUILDING STRUCTURE.
9. FRAMING SHALL BE REMOVED ONLY AFTER THE LOAD SUPPORTED BY THAT FRAMING IS REMOVED. THE FRAMING REMOVAL PROCESS SHALL NOT DEFORM OR INDUCE STRESS TO EXISTING FRAMING TO REMAIN.

GEOTECHNICAL REPORT:

1. REFERENCE THE EXISTING GEOTECHNICAL REPORT COMPLETED FOR A DIFFERENT PORTION OF THIS SITE BY LEGACY ENGINEERING DATED DECEMBER 13, 2023 FOR FURTHER INFORMATION RELATING TO THE EXISTING SUBSURFACE SOIL CONDITIONS.
2. DESIGN SOIL BEARING PRESSURE PER EXISTING REPORT= 2500 PSF.
3. DESIGN PRESSURES FOR WALLS BELOW GRADE:
   A. SOIL WEIGHT = 120 PCF
   B. ACTIVE PRESSURE = 40PSF
4. ENGINEERED FILL SHALL BE PLACED IN LIFTS NOT EXCEEDING 8". FILL FOR SLAB ON GRADE CONSTRUCTION SHALL BE COMPACTED TO A MINIMUM OF 95% MAXIMUM DENSITY BY ASTM D698. FILL FOR FOOTINGS BEARING ON ENGINEERED FILL SHALL BE COMPACTED TO A MINIMUM OF 98% MAXIMUM BY ASTM D698.

EXCAVATION:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AVOIDANCE AND CLEANUP OF STREET SPILLAGE OF EXCAVATED OR BACKFILL MATERIALS ENTERING OR LEAVING THE SITE. CLEANUP OF MAJOR SPILLS SHALL BE COMPLETED IMMEDIATELY. OTHER SPILLS SHALL BE CLEANED, AT A MINIMUM, DAILY. ALL CLEANUP SHALL BE COMPLETED TO THE FULL SATISFACTION OF THE OWNER AND CONSTRUCTION MANAGER.
2. THE CONTRACTOR SHALL PROPERLY MOISTEN SURFACES AS REQUIRED TO PREVENT SOILS FROM BECOMING AIRBORNE AND CREATING A NUISANCE TO NEIGHBORING FACILITIES, THE PUBLIC, AND ANY CONCURRENT WORK ACTIVITIES. THE FINAL DETERMINATION OF THE SUCCESS OF DUST CONTROL MEASURES SHALL BE THE OWNER AND CONSTRUCTION MANAGER.
3. ANY SITE DE-WATERING NECESSARY TO MAINTAIN A SAFE AND EFFICIENT EXCAVATION EFFORT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. ALL WORK SHALL BE EXECUTED AND INSPECTED IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL CODES, RULES, ORDINANCES AND REGULATIONS PERTAINING TO SITE EXCAVATION, FILL AND SHORING ACTIVITIES.
5. ALL SITE GRADING SHALL BE SLOPED AS NOTED ON THE DRAWINGS, AS NOTED IN THE GEOTECHNICAL REPORT, OR AT A SHALLOWER SLOPE IF REQUIRED TO PROTECT WORKERS AND WORK IN PROGRESS FROM SOIL SLIPPAGE. ALL EXCAVATION ACTIVITIES SHALL BE COMPLETED IN ACCORDANCE WITH OCCUPATIONAL SAFETY AND HEALTH (OSHA) REQUIREMENTS AND ALL OTHER APPLICABLE CODES AND ORDINANCES.
6. ANY SHARP OR LARGE OBJECTS PROTRUDING ABOVE THE FINAL ROUGH GRADE SHALL BE REMOVED. RESULTING HOLES SHALL BE FILLED WITH SELECT FILL MEETING THE REQUIREMENTS AS SET IN THE PROJECT SPECIFICATIONS.
7. ALL EXCESS EXCAVATED MATERIALS THAT ARE NOT REUSABLE SHALL BE REMOVED FROM THE SITE PROPERLY AND LEGALLY DISPOSED AT ON OFF SITE LOCATION. REFERENCE SPECIFICATIONS FOR REQUIREMENTS RELATED TO THE IDENTIFICATION OF HAZARDOUS MATERIAL IN EXCAVATIONS AND REUSE OF EXCAVATED MATERIAL FOR BACKFILL.
8. MUD-MATTING MAY BE REQUIRED TO PROVIDE STABLE SURFACE FOR FORMING AND PLACEMENT OF REINFORCING STEEL AND SUBSEQUENTLY PLACEMENT OF CONCRETE, SEE PROJECT SPECIFICATIONS.

FOUNDATIONS:

1. THE GENERAL CONTRACTOR AND THE FOUNDATION CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE SURVEY AND THE GEOTECHNICAL REPORT BEFORE STARTING CONSTRUCTION.
2. NOTIFY THE A/E AND OWNER'S REPRESENTATIVE OF ANY UNUSUAL SOIL CONDITION THAT ARE IN VARIANCE WITH TEST BORINGS, SUCH AS SPRING OR SEEPAGE WATER ENCOUNTERED, PEAT OR ORGANIC BEARING MATERIAL IS EVIDENT AND THERE IS A QUESTION OF THE BEARING CAPACITY.
3. SET FOUNDATION AT ELEVATION SHOWN, OR ON FIRM UNDISTURBED MATERIAL OF DESIGN BEARING CAPACITY, WHICHEVER IS LOWER. THE GEOTECHNICAL ENGINEER SHALL VERIFY THAT EACH FOOTING PLACED IS BEARING ON DESIGN MATERIAL
   A. ALL SOIL SURROUNDING AND UNDER ALL FOOTINGS, FLOOR SLABS, ETC. SHALL BE PROTECTED FROM ADVERSE ENVIRONMENTAL CONDITIONS DURING CONSTRUCTION.
   B. WHERE FOOTINGS ARE IN CLOSE PROXIMITY OF SEWERS, DRAINS, CONDUITS UNDER FLOOR PIPES, ETC., BOTTOM OF ALL FOOTINGS SHALL BE AT OR BELOW INVERT ELEVATIONS OF ELEMENTS NOTED HEREIN.
4. STEP FOOTINGS AT A RATIO OF ONE (1) VERTICAL TO TWO (2) HORIZONTAL, WITH A MAXIMUM VERTICAL STEP OF 2'-0" UNLESS NOTED OTHERWISE.
5. SITE PREPARATION, STRIPPING, PROOF ROLLING, FILLING AND BACKFILLING SHALL BE DONE IN COMPLIANCE WITH PROJECT SPECIFICATIONS AND IN CONJUNCTION WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT. ALL FILL MATERIAL SHALL MEET THE REQUIREMENTS OF THE PROJECT SPECIFICATIONS.
6. INUNDATION AND LONG TERM EXPOSURE OF BEARING SURFACES, WHICH WILL RESULT IN DETERIORATION OF BEARING FORMATIONS SHALL BE PREVENTED. EXCAVATION TO FINAL BEARING ELEVATION SHALL NOT BE MADE UNTIL JUST PRIOR TO PLACING FOUNDATIONS.
7. BACKFILLING AGAINST FOUNDATION/BASEMENT WALLS SHALL NOT BE PERMITTED UNTIL THE SUPPORTING FLOORS ARE IN PLACE AND ARE ABLE TO RESIST THE IMPOSED LATERAL FORCES. EXCEPT FOR CANTILEVER RETAINING WALLS OR UNLESS NOTED OTHERWISE ON DRAWINGS, THE WALLS ARE SUPPORTED BY THE FLOOR ABOVE AND BELOW. PROPER TEMPORARY BRACING MAY BE USED IN LIEU OF THE FLOOR SUPPORT BASED UPON THE DESIGN BY A PROFESSIONAL ENGINEER. THE DESIGN OF TEMPORARY BRACING IS THE RESPONSIBILITY OF THE CONTRACTOR.
8. BACKFILL AND FILL MATERIALS SHALL BE FREE OF DEBRIS, WASTE, FROZEN MATERIAL, ORGANIC AND OTHER DELETERIOUS MATTER:
   A. POROUS FILL (SUB-BASE FOR SLAB ON GRADE) SHALL BE CRUSHED LIMESTONE COMPACTED, (MINIMUM 6" THICK UNDER FLOOR SLABS). GRADATION SHALL CONFORM WITH ASTM C33 SIZE #57.
   B. DRAINAGE FILL SHALL BE WASHED, UNIFORMLY GRADED MIXTURE OF CRUSHED STONE OR UNCRUSHED GRAVEL AT EXTERIOR WALLS AND RETAINING WALL HAVING THE FOLLOWING GRADATION:

SIEVE SIZE	TOTAL % PASSING
1"	100
3/4"	90-100
3/8"	20-55
NO. 4	0-10
NO. 8	0-5

   C. WELL GRADED GRANULAR MATERIAL (#8) SHALL CONFORM WITH ASTM C33.
9. ALL EXCAVATIONS ARE SUBJECT TO THE APPROVAL OF THE OWNER AND TESTING AGENCY WHO SHALL BE CONSULTED WHEN POOR SOIL, WATER, OBSTRUCTIONS, PIPING, ADJACENT SEWERS, EXISTING FOOTINGS, EXCAVATIONS, ETC. ARE ENCOUNTERED.
10. EXCAVATION AND COMPACTION:
    A. CARE SHALL BE TAKEN TO NOT TO DISTURB THE BOTTOM OF THE EXCAVATION. EXCAVATION TO FINAL GRADE SHALL NOT BE MADE UNTIL JUST PRIOR TO PLACING CONCRETE.
    B. KEEP FOUNDATION EXCAVATIONS FREE OF WATER AT ALL TIMES. REPLACE WEAKENED SOIL WITH LEAN CONCRETE (1500 PSI).
    C. BACKFILL AND FILL SHALL BE PLACED IN LIFTS OF 8" MAXIMUM LOOSE DEPTH. EACH LIFT SHALL BE COMPACTED WITH A POWER VIBRATING COMPACTOR OR SIMILAR EQUIPMENT TO ASSURE MAXIMUM COMPACTION OF THE MATERIAL.
11. DEWATERING OF THE SITE MAY BE REQUIRED. METHODS FOR DEWATERING ARE THE CONTRACTORS RESPONSIBILITY. KEEP THE AREA OF WORK DRAINED AND FREE FROM ACCUMULATION OF SURFACE WATER AT ALL TIMES. PROVIDE, OPERATE AND MAINTAIN PUMPS, PUMPING EQUIPMENT, ETC. AS REQUIRED.
12. A TESTING AGENCY, PROVIDED BY THE OWNER, SHALL INSPECT THE CONDITION AND ASSURE THE ADEQUACY OF ALL SUBGRADES, BEARING CAPACITY, FILL AND BACKFILLS BEFORE PLACEMENT OF FOUNDATIONS. TEST RESULTS SHALL BE SENT TO THE ENGINEER AND TO THE OWNER.
    A. AT FOOTING SUBGRADES, AT LEAST ONE TEST OF EACH SOIL STRATUM WILL BE PERFORMED TO VERIFY DESIGN BEARING CAPACITIES.
    B. TESTING AGENCY WILL TEST COMPACTION OF SOILS IN PLACE ACCORDING TO ASTM D1556, D2167, D2922, AND ASTM D2937, AS APPLICABLE. TEST PER FOLLOWING:
       a. PAVED AND BUILDING SLAB AREAS: AT SUBGRADE AND AT EACH COMPACTED FILL LAYER, AT LEAST ONE TEST FOR EVERY 2000 SQ. FT., BUT IN NO CASE LESS THAN 3 TESTS
       b. FOOTINGS: AT EACH COMPACTED BACKFILL LAYER AT EACH FOOTING OR ONE TEST FOR EACH 100 FT OF WALL FOOTING.
    C. CONTRACTOR SHALL RECOMPACT AND RETEST UNTIL SPECIFIED COMPACTION IS OBTAINED.

CAST IN PLACE CONCRETE:

1. CODES AND STANDARDS:
   ALL CAST-IN-PLACE CONCRETE WORK, DETAILING, FABRICATION AND PLACING OF REBAR AND CONCRETE SHALL BE GOVERNED BY CONTRACT DOCUMENTS AND LATEST EDITIONS OF:
   A. ACI 318 - BUILDING CODE REQUIREMENT FOR STRUCTURAL CONC.
   B. ACI 315 - DETAILS AND DETAILING OF CONCRETE REINFORCEMENT.
   C. ACI 301 - SPECIFICATION OF STRUCTURAL CONCRETE.
   D. ACI 117 - SPECIFICATION FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS.
   E. ACI 305 - SPECIFICATION OF HOT WEATHER CONCRETING.
   F. ACI 306 - SPECIFICATION OF COLD WEATHER CONCRETING.
   G. FIELD REFERENCE MANUAL MUST BE PRESENT ON SITE.
   H. CONCRETE REINFORCING STEEL INSTITUTE (CRSI).
2. CONCRETE SHALL HAVE THE FOLLOWING MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS:

MIX USAGE	fc (PSI)	W/C	AIR CONTENT	SLUMP
A. LEAN CONCRETE	1,500	-	-	
B. ALL INTERIOR CONCRETE	4,000	0.45	-	4"±1"
C. ALL EXPOSED/EXTERIOR CONC.	4,000	0.45	5%-7%	4"±1"
D. FOUNDATIONS	4,000	0.45	-	4"±1"

3. MATERIALS:
   A. PORTLAND CEMENT: ASTM C150, C595, TYPE IL.
   B. AGGREGATES: ASTM C33.
   C. AIR-ENTRAINING: ASTM C260.
   D. REINFORCING BARS: ASTM 615 Fy = 60 KSI.
   E. WELDABLE REINFORCING BARS: ASTM 706, Fy = 60 KSI.
   F. WELD WIRE FABRIC: ASTM A1064, Fy = 65 KSI (PLAIN).
   G. ADMIXTURES:
      a. LOW OR MID RANGE REDUCER: ASTM C494, TYPE A OR D.
      b. HIGH RANGE WATER REDUCER: ASTM C494, TYPE F OR G.
      c. ACCELERATOR: ASTM A494 TYPE C OR E.
   H. FLY ASH:
      a. ASTM C618 TYPE C OR F
      b. MAX 25%.
   I. CURING COMPOUND: ASTM 309
   J. VAPOR BARRIER: ASTM E 1745 CLASS C
   K. GROUND GRANULATED BLAST FURNACE SLAG:
      a. ASTM C989
      b. MAX 30%-50% REPLACEMENT
      c. FREE OF UNBURNT CARBON, METALLIC OR REACTIVE SULPHIDE.
4. SUBMITTALS:
   A. SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL WHICH INCLUDE ERECTION PLANS, POUR SEQUENCE (IF APPLICABLE), CONSTRUCTION JOINTS AND/OR EXPANSION JOINTS, ELEVATIONS AND REBAR BENDING SCHEDULES.
   B. SUBMIT A MIX DESIGN FOR EACH MIX USAGE REQUIRED ON THE PROJECT.
   C. SUBMIT PRODUCT LITERATURE FOR ADMIXTURES AND CURING COMPOUNDS.
   D. SUBMIT REPORTS FOR ALL REQUIRED TESTING AND INSPECTIONS.
   E. NO CONCRETE SHALL BE PLACED UNTIL ALL SUBMITTALS HAVE BEEN APPROVED BY STRUCTURAL ENGINEER.
5. CONTINGENCY:
   A. FURNISH, FABRICATE AND PLACE 5% OF REINFORCING BAR TONNAGE TO BE USED AS DIRECTED BY THE ARCHITECT/ENGINEER.
   B. PROVIDE LEAN CONCRETE UNDER FOUNDATIONS FOR EARTH FILL DUE TO ACCIDENTAL OVER EXCAVATION OR POOR SOIL CONDITIONS.
   C. CONTRACTOR SHALL REIMBURSE OWNER FOR ALL UNUSED ALLOWANCES LISTED ABOVE.
6. OPENINGS:
   A. OPENINGS SHOWN ARE FOR BIDDING PURPOSES ONLY. RECONCILE THEIR EXACT SIZES AND LOCATIONS WITH ARCHITECTURAL AND MEP REQUIREMENTS BEFORE PROCEEDING WITH SHOP DRAWINGS.
   B. IF ANY OPENING NOT SHOWN ON THE PLANS IS REQUIRED, SECURE APPROVAL OF THE ARCHITECT OR ENGINEER BEFORE PROCEEDING.
   C. PROVIDE 1/2 NUMBER OF BARS INTERRUPTED PLUS ONE TYPICAL EACH FACE OF OPENING. PROVIDE (2) #5 BARS AROUND ALL SLAB AND WALL OPENINGS, EXTENDING 2'-0" BEYOND OPENING IN EVERY DIRECTION UNO.
   D. OPENINGS NOT EXCEEDING 16" x 16" MAY BE SLEEVED AS REQUIRED BY WORKING THE REINFORCING AROUND THEM.
7. FOOTINGS AND WALLS:
   A. DOWELS IN FOOTING TO MATCH VERTICAL COLUMN, PIER OR WALL REINFORCING.
   B. WALLS AND FOOTING CORNER BARS TO MATCH HORIZONTAL REINFORCING.
8. SLAB-ON-GROUND:
   A. PLACE REINFORCING AT MID-DEPTH FOR THICKNESS 5" OR LESS AND AT 1/3 DEPTH FROM TOP FOR THICKNESS GREATER THAN 5".
   B. PROVIDE #4 x 3'-0" AT MID-DEPTH OF SLAB PERPENDICULAR TO ANY DISCONTINUOUS CONTROL JOINTS OR AT RE-ENTRANT SLAB CORNERS.
   C. PROVIDE SAWCUT CONTROL JOINTS IN ALL SLABS ON GRADE. THE MAXIMUM SPACING OF JOINTS SHALL BE 36 TIMES THE SLAB THICKNESS IN BOTH DIRECTIONS, UNLESS OTHERWISE NOTE.
9. SPLICES:
   A. REINFORCING BARS LAP SPLICE LENGTHS SHALL CONFORM WITH THE MINIMUM LAP SPLICE TABLE.
   B. MECHANICAL BAR SPLICES DEVICES THAT PROVIDE A FULL TENSION SPLICE WITH A CAPACITY OF 125 PERCENT OF THE BAR YIELD STRENGTH MAY BE USED.
   C. STAGGER SPLICES IN WALLS SO THAT NO MORE THAN 1/3 OF THE REINFORCING IS SPLICED IN ANY GIVEN CROSS SECTION.
   D. PROVIDE CLASS B TENSION LAP SPLICES FOR HORIZONTAL AND VERTICAL WALL REINFORCING.
10. JOINTS:
    A. CONSTRUCTION JOINTS PERMITTED ONLY WHERE SHOWN OR AS APPROVED BY STRUCTURAL ENGINEER.
    B. ALL CONSTRUCTION JOINTS BELOW GRADE SHALL HAVE WATER STOPS UNO.
    C. NO HORIZONTAL CONSTRUCTION JOINT WILL BE PERMITTED IN WALLS UNLESS SPECIFICALLY SHOWN IN THE DRAWINGS OR APPROVED BY THE STRUCTURAL ENGINEER.
    D. IN WALL CONSTRUCTION, PROVIDE KEYED CONSTRUCTION JOINT AT A MAXIMUM OF 30'-0" ON CENTER AND LOCATED 8'-0" FROM COLUMN, WALL OPENING OR CORNER.
    E. IN WALL CONSTRUCTION, PROVIDE KEYED CONSTRUCTION JOINT AT MID- SPAN.
11. FINISHES:
    A. ACI 117, SURFACES OF INTERIOR SLABS ON GRADE ARE TO BE FINISHED TO THE FOLLOWING TOLERANCES: FLOOR FLATNESS F(f)=30 AND LEVELNESS F(l)=20 UNLESS NOTED OTHERWISE IN SPECIFICATIONS.
    B. TYPICAL INTERIOR FLOOR AREAS TO RECEIVE CARPET, RESILIENT FLOOR COVERING, OR TO REMAIN EXPOSED - TROWELED FINISH.
    C. INTERIOR FLOOR AREAS TO RECEIVE QUARRY TILE OR CERAMIC TILE - FLOATED FINISH.
    D. EXTERIOR SLABS - BROOM FINISH.
    E. EXPOSED WALLS - SMOOTH-RUBBED.
    F. SEE ARCHITECTURAL DRAWINGS FOR LOCATION AND EXTENT OF SPECIAL FINISHES OR TREATMENTS OF CONCRETE.
12. CURING:
    A. TO COMMENCE IMMEDIATELY AFTER CONCRETE PLACEMENT AND CONTINUE FOR AT LEAST 7 DAYS. DO NOT ALLOW CURING TO BE DELAYED OVERNIGHT.
    B. INTERIOR SLABS TO RECEIVE QUARRY TILE OR CERAMIC TILE ARE TO BE MOIST-CURED WITHOUT THE USE OF A CURING COMPOUND.
    C. ALL OTHER SLABS MAY BE EITHER MOIST-CURED OR RECEIVE AN APPLICATION OF CURING COMPOUND.
13. MISCELLANEOUS:
    A. PROVIDE CORROSION RESISTANT ACCESSORIES SUCH AS GRAY PLASTIC CHAIRS IN ALL EXPOSED CONCRETE CONSTRUCTION. PRECAST CONCRETE CUBES OR SAND PLATE CHAIRS SHALL BE USED FOR THE SUPPORT OF THE REINFORCING ON GRADE. CONCRETE BLOCK OR CLAY MASONRY BRICK ARE NOT PERMITTED.
    B. 3/4" CHAMFER FOR EXPOSED EDGES OF CONCRETE UNO.
    C. COORDINATE WITH ALL TRADES INVOLVED FOR THE REQUIRED SIZE AND LOCATION OF ALL ANCHORS, SLEEVES, PADS, DEPRESSIONS, OPENINGS AND EMBEDS.
    D. BOND BREAKER MATERIAL SHALL BE 30 POUND FELT PAPER.
    E. CONCRETE SHALL BE DISCHARGED AT THE SITE WITHIN 1/2 HOUR AFTER WATER HAS BEEN ADDED TO THE CEMENT AND AGGREGATES, ADDITION OF WATER TO THE MIX AT THE PROJECT SITE WILL NOT BE PERMITTED. ALL WATER MUST BE ADDED AT THE BATCH PLANT. SLUMP MAY BE ADJUSTED ONLY THROUGH THE USE OF ADDITIONAL WATER REDUCING ADMIXTURE OR HIGH RANGE WATER REDUCING ADMIXTURE.

MASONRY:

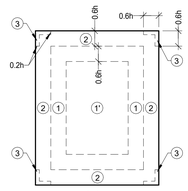
1. CODES AND STANDARDS:
   ALL MASONRY CONSTRUCTION SHALL BE GOVERNED BY CONTRACT DOCUMENTS AND LATEST EDITIONS OF:
   A. BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES TMS 402 AND SPECIFICATION FOR MASONRY STRUCTURES TMS 602.
   B. BRICK INSTITUTE OF AMERICA (BIA).
   C. NATIONAL CONCRETE MASONRY ASSOCIATION (NCMA).
2. MATERIALS:
   A. WALL ASSEMBLY:
      a. COMPRESSIVE STRENGTH,f'm = 2,000 PSI
   B. CONCRETE BLOCK:
      a. ASTM C90.
      b. MINIMUM COMPRESSIVE STRENGTH f'cmu= 2,000 PSI.
      c. WEIGHT: > 125 PCF (NORMAL) AND 105-125 PCF (MEDIUM).
   C. MORTAR:
      a. ASTM C270, TYPE S.
   D. GROUT:
      a. ASTM C476, COARSE TYPE E.
      b. MINIMUM COMPRESSIVE STRENGTH = 3,000 PSI.
      c. 3/8" MAXIMUM SIZE COARSE AGGREGATE.
   E. HORIZONTAL REINFORCING:
      a. STANDARD LADDER TYPE - 9 GA.
      b. MILL GALVANIZED FINISH.
      c. PLACE 8" OC BELOW GRADE AND 16" OC ABOVE GRADE.
   F. VERTICAL REINFORCING:
      a. ASTM A615.
      b. MINIMUM YIELD STRENGTH = 60 KSI.
3. SUBMITTALS:
   A. SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL WHICH INCLUDE ERECTION PLANS, ELEVATIONS AND REBAR BENDING SCHEDULES.
   B. SUBMIT PRODUCT LITERATURE FOR ALL MASONRY TIES USED ON THE PROJECT.
4. MASONRY LINTELS:
   A. THE CONTRACTOR SHALL SUPPLY BOND BEAM LINTELS OVER ALL MASONRY OPENINGS AND RECESSES UNO. BOND BEAM LINTELS SHALL BE AS SHOWN IN THE SCHEDULE IN THE DETAIL SHEETS.
   B. BOTTOM COVER SHALL BE 2" AND FILL WITH 3000 PSI GROUT.
   C. ALL LINTELS SHALL HAVE A MINIMUM BEARING OF 8" OR 1" PER FOOT OF CLEAR SPAN, WHICHEVER IS LARGER.
   D. EACH BEARING END SHALL HAVE A MINIMUM 24" x 3 COURSES OF SOLID MASONRY.
   E. ALL REINFORCING TO EXTEND 2'-0" INTO EACH BEARING END.
   F. ALL CANTILEVERED LINTELS SHALL HAVE A MINIMUM BACKSPAN OF 1.5 TIMES OPENING DIMENSION WITH A STANDARD HOOK ON THE TOP REINFORCING.
5. BOND BEAMS:
   A. PROVIDE AT THE FOLLOWING LOCATIONS:
      a. FLOOR ELEVATIONS.
      b. TOP OF PARAPETS.
      c. 4'-0" OC FOR EXTERIOR SHAFT WALLS.
   B. REINFORCING TO BE MINIMUM (2) #5 TYP UNO.
6. JOINTS:
   A. PROVIDE CONTROL JOINTS AT THE FOLLOWING LOCATIONS:
      a. MAXIMUM SPACING OF 24'-0" OC OR 2 TIMES WALL HEIGHT.
      b. 4 FEET FROM CORNER.
      c. CHANGE IN WALL ELEVATION.
      d. CHANGE IN WALL THICKNESS.
7. CONSTRUCTION:
   A. ALL UNITS SHALL BE LAID WITH FULL MORTAR COVERAGE ON HEAD, BED (FACE SHELLS) WEBS, AND COLLAR JOINTS, UNO.
   B. GROUT SOLID A MINIMUM OF ONE COURSE BELOW ANY CHANGE IN WALL THICKNESS.
   C. ALL MASONRY BELOW GRADE SHALL BE GROUTED SOLID.
   D. THE FIRST COURSE OF ALL WALLS SHALL BE GROUTED SOLID.
   E. ALL GROUTING OF MASONRY WALLS IS TO BE BY THE LOW-LIFT GROUTING METHOD (MAXIMUM LIFT HEIGHT 5'-0"). CONSOLIDATE EACH LIFT BY MECHANICAL VIBRATION TO ENSURE COMPLETE FILLING OF CELLS.
   F. ALL VERTICALLY REINFORCED WALLS SHALL HAVE DOWELS INTO FOUNDATION THAT MATCH THE WALL BAR SIZE AND SPACING.
   G. JOINT REINFORCING SHALL BE BENT AROUND CORNERS, BUT SHALL NOT BE CONTINUOUS THROUGH EXPANSION OR CONTROL JOINTS.
   H. ALL EXTERIOR WALLS, SHAFT WALLS AND BEARING WALLS TO BE REINFORCED WITH MINIMUM IS #5 AT 48" OC UNO.
   I. TEMPORARILY BRACE ALL MASONRY WALLS TO PROVIDE STABILITY DURING CONSTRUCTION UNTIL THE DESIGNED STRUCTURE IS COMPLETED AND CAN STABILIZE THE WALLS.
   J. AT CHANGE IN BOND BEAM ELEVATION, PROVIDE LAP BETWEEN BOND BEAMS THROUGH 2 BARS OF VERTICAL REINFORCING OR 4 FEET, WHICHEVER IS GREATER.
   K. ALL CORNERS ARE TO BE TIED BY MASONRY BOND.
8. MISCELLANEOUS:
   A. DO NOT USE CALCIUM CHLORIDE OR ANY ADMIXTURES THAT CONTAINS CALCIUM CHLORIDE IN THE MORTAR OR GROUT.
   B. PREMIXED MASONRY CEMENT IS PROHIBITED.

STRUCTURAL WOOD:

1. CODES AND STANDARDS:
   ALL WOOD DETAILING, FABRICATION AND ERECTION SHALL BE GOVERNED BY CONTRACT DOCUMENTS AND LATEST EDITIONS:
   A. NDS - NATIONAL DESIGN SPECIFICATION.
   B. AWFPA - AMERICAN WOOD FOREST AND PAPER ASSOCIATION.
   C. APA DESIGN/CONSTRUCTION GUIDE - RESIDENTIAL AND COMMERCIAL.
   D. MANUAL FOR ENGINEERED WOOD CONSTRUCTION.
   E. US PRODUCT STANDARD PS-1 FOR CONSTRUCTION AND INDUSTRIAL PLYWOOD.
2. MATERIALS:
   A. BEAMS - SYP #1:
      a. F_b 1,100 PSI.
      b. F_v (PER) 565 PSI.
      c. E 1,400,000 PSI.
   B. FASTENERS:
      a. NAILS - COMMON NAILS OR EQUAL.
      b. SCREWS - SIMPSON SELF DRILLING SCREWS OR EQUAL.
      c. BOLTS - ASTM A307 OR EQUAL.
   C. ROOF SHEATHING:
      a. 19/32" (5/8" NOMINAL) APA RATED, 40/20 EXPOSURE 1.
      b. ATTACH W/ 10d NAILS AT 4" OC AT PANEL EDGES AND 12" OC AT INTERMEDIATE SUPPORTS. UNBLOCKED DIAPHRAGM.
   D. PRESSURE TREATED WOOD:
      a. ALL LUMBER IN IS TO BE PRESSURE-TREATED TO RESIST DECAY. PRESERVATIVES USED FOR PRESSURE TREATMENT ARE TO BE ALKALINE COPPER QUAT, ACQ-C OR ACQ-D. OTHER PRESERVATIVES PROPOSED FOR USE ARE TO BE SUBMITTED FOR REVIEW PRIOR TO ERECTION OR INS

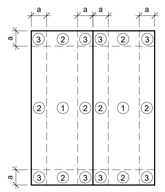
SPECIAL INSPECTION

	TYPE	REQUIRED	CONTINUOUS	PERIODIC
1705.2 - STEEL				
1	MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS AND WASHERS.	Yes	-	X
2	INSPECTION OF HIGH-STRENGTH BOLTING - BEARING CONNECTIONS.	Yes	-	-
3	INSPECTION OF HIGH-STRENGTH BOLTING - SLIP CRITICAL CONNECTIONS.	Yes	X	-
4	MATERIAL VERIFICATION OF STRUCTURAL STEEL COLD-FORMED STEEL DECK	Yes	-	X
5	MATERIAL VERIFICATION OF WELD FILLER MATERIALS.	Yes	-	X
6	COMPLETE AND PARTIAL JOINT PENETRATION GROOVE WELDS.	Yes	X	-
7	MULTI-PASS FILLET WELDS.	Yes	X	-
8	SINGLE-PASS FILLET WELDS > 5/16".	Yes	X	-
9	SINGLE-PASS FILLET WELDS < 5/16".	Yes	-	X
10	FLOOR AND ROOF DECK WELDS.	No	-	X
11	VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A706.	Yes	-	X
12	INSPECTION OF STEEL FRAME JOINT DETAIL FOR COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS.	Yes	-	X
13	COLDFORM STEEL TRUSSES SPANNING GREATER THAN 60 FEET	No	X	-
14	PLUG AND SLOT WELDS	No	X	-
15	WELDING OF REINFORCING STEEL RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES	No	X	-
16	WELDING OF SHEAR REINFORCMENT	Yes	X	-
1705.3 - CONCRETE				
1	INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT.	Yes	-	X
2	VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706.	Yes	-	X
3	INSPECTION OF CAST-IN-PLACE ANCHOR BOLTS.	Yes	X	-
4	INSPECTION OF POST INSTALLED ANCHORS	Yes	-	X
5	VERIFY USE OF REQUIRED DESIGN MIX.	Yes	-	X
6	SAMPLING SPECIMEN FOR TESTING	Yes	X	-
7	VERIFY CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	Yes	X	-
8	VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	Yes	-	X
9	INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	Yes	-	X
10	PRESTRESSED CONCRETE - APPLICATION OF PRESTRESSING FORCES AND GROUTING BONDED TENDONS	No	X	-
11	PRECAST CONCRETE - ERECTION OF MEMBERS.	No	-	X
12	POST TENSIONED CONCRETE - VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORESS AND FORMS FROM BEAMS AND STRUCTURAL SLAB.	No	-	X
1705.4 - MASONRY LEVEL 1				
1	TYPE, SIZE AND LOCATION OF MASONRY ANCHORAGE TO STRUCTURAL MEMBERS	Yes	-	X
2	TYPE, SIZE AND GRADE OF REINFORCEMENT AND ANCHOR BOLTS	Yes	-	X
3	WELDING OF REINFORCING BARS	Yes	X	-
4	COLD WEATHER CONSTRUCTION	Yes	-	X
5	PRIOR TO GROUTING - CLEANING, REINFORCMENT PLACEMENT, GROUT PROPOTION AND MORTAR JOINTS	Yes	-	X
6	GROUT PLACEMENT	Yes	X	-
7	VERIFICATION OF f'm.	Yes	-	X
8	VERIFICATION OF SLUMP FLOW	Yes	X	-
9	PROPORTION OF SITE-PREPARED MORTAR	Yes	-	X
10	CONSTRUCTION OF MORTAR JOINTS	Yes	-	X
11	LOCATION OF REINFORCEMENT	Yes	-	X
12	SIZE AND LOCATION OF STRUCTURAL ELEMENTS	Yes	-	X
13	PREPARATION OF GROUT AND MORTAR SPECIMEN FOR TESTING	Yes	-	X
1705.6 - SOIL				
1	VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	Yes	-	X
2	VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	Yes	-	X
3	PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	Yes	-	X
4	VERIFY USE OF PROPER MATERIALS, DENSITIES, AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	Yes	X	-
5	PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	Yes	-	X

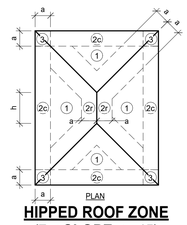


PLAN

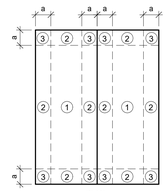
GABLE ROOF ZONE (SLOPE <=7)


PLAN

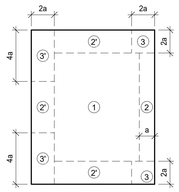
GABLE ROOF ZONE (7 < SLOPE <= 45)


PLAN

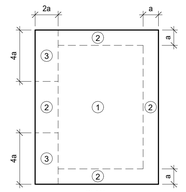
HIPPED ROOF ZONE (7 < SLOPE <= 45)


PLAN

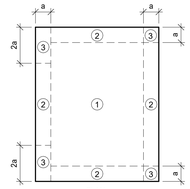
MULTISPAN GABLE ROOF ZONES


PLAN

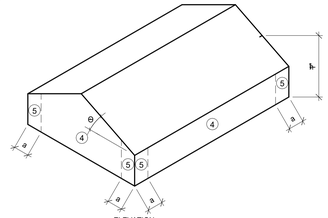
MONOSLOPE ROOF ZONE (3 < SLOPE <= 10)


PLAN

MONOSLOPE ROOF ZONE (10 < SLOPE <= 30)


PLAN

SAWTOOTH ROOF ZONE


ELEVATION

WALL ZONES

WINDLOAD CC ASCE 7-16

ULT. WIND LOAD - COMPONENTS AND CLADDING

LOCATION	ZONE	TRIBUTARY AREA			
		10 SF	20 SF	50 SF	100 SF
ROOF	1	-81.1	-75.8	-68.7	-63.4
	1'	-46.6	-46.6	-46.6	-46.6
	2	-107.0	-100.1	-91.0	-84.2
	3	-145.9	-132.1	-113.9	-100.1
	1, 2, & 3	20.7	19.4	17.7	16.4
LOCATION	**ZONE**	**TRIBUTARY AREA**			
		10 SF	**100 SF**	**200 SF**	**500 SF**
WALL	4	-50.5	-43.6	-41.6	-38.8
	5	-62.1	-48.4	-44.3	-38.8
	4&5	46.6	39.7	37.7	35.0

CONCRETE REBAR DEVELOPMENT LENGTH - Fc = 4000 psi

BEAM SIZE	3/4" COVER		1 1/2" COVER		2" COVER		3" COVER	
	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER
#3	12'	12"	12"	12"	12"	12"	12"	12"
#4	19"	15"	15"	12"	15"	12"	15"	12"
#5	28"	21"	19"	15"	19"	15"	19"	15"
#6	37"	29"	23"	18"	23"	18"	23"	18"
#7	60"	46"	37"	29"	33"	25"	33"	25"
#8	74"	57"	47"	36"	37"	29"	37"	29"
#9	90"	69"	58"	44"	46"	36"	42"	33"
#10	108"	83"	70"	54"	57"	44"	47"	37"
#11	127"	98"	84"	65"	68"	53"	53"	41"
#14	167"	128"	113"	87"	94"	72"	69"	54"
#18	251"	193"	180"	138"	151"	116"	115"	88"

CONCRETE REBAR LAP SPLICE (CLASS B) - fc = 4000 PSI

BAR SIZE	COVER = 3/4"		COVER = 1 1/2"		COVER = 2"		COVER = 3"	
	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER
#3	16"	16"	16"	16"	16"	16"	16"	16"
#4	25"	19"	20"	16"	20"	16"	20"	16"
#5	36"	28"	25"	19"	25"	19"	25"	19"
#6	49"	37"	29"	23"	29"	23"	29"	23"
#7	78"	60"	48"	37"	43"	33"	43"	33"
#8	97"	74"	61"	47"	49"	37"	49"	37"
#9	117"	90"	75"	58"	60"	46"	55"	42"
#10	141"	108"	91"	70"	74"	57"	62"	47"
#11	165"	127"	109"	84"	89"	68"	68"	53"
#14	216"	167"	147"	113"	122"	94"	90"	69"
#18	327"	251"	234"	180"	196"	151"	149"	115"

CONCRETE REBAR HOOKED (Ldh) AND HEADED (Ldt) DEVELOPMENT LENGTHS

REBAR SIZE	Fc = 3000 PSI		Fc = 4000 PSI		Fc = 5000 PSI	
	Ldh	Ldt	Ldh	Ldt	Ldh	Ldt
#3	6"	6"	6"	6"	6"	6"
#4	6"	6"	6"	6"	6"	6"
#5	8"	6"	8"	6"	8"	6"
#6	11"	8"	10"	8"	10"	7"
#7	14"	10"	13"	9"	12"	9"
#8	16"	12"	15"	11"	15"	11"
#9	20"	14"	18"	14"	18"	13"
#10	23"	17"	22"	16"	21"	16"
#11	27"	20"	26"	19"	25"	18"
#14	57"	42"	53"	39"	51"	38"
#18	87"	64"	82"	60"	79"	58"

CONCRETE REBAR COMPRESSION DEVELOPMENT (Ldc) AND LAP SPLICE (Lsc) LENGTHS

REBAR SIZE	Fc = 3000 PSI		Fc = 4000 PSI		Fc = 5000 PSI	
	Ldc	Lsc	Ldc	Lsc	Ldc	Lsc
#3	9"	12"	8"	12"	8"	12"
#4	11"	15"	10"	15"	9"	15"
#5	14"	19"	12"	19"	12"	19"
#6	17"	23"	15"	23"	14"	23"
#7	20"	27"	17"	27"	16"	27"
#8	22"	30"	19"	30"	18"	30"
#9	25"	34"	22"	34"	21"	34"
#10	28"	39"	25"	39"	23"	39"
#11	31"	43"	27"	43"	26"	43"
#14	60"	51"	52"	51"	49"	51"
#18	80"	68"	69"	68"	66"	68"

WWF LAP LENGTH TABLE

WIRE JOINT REINFORCEMENT	REQUIRED LAP
W1.1 (11GA).	6"
W1.7 (9 GA.)	6"
W2.1 (8 GA.)	6"
W2.8 (3/16 WIRE)	9"
W4.9 (1/4 WIRE)	12"

MASONRY REBAR LAP AND SPLICE LENGTH TABLE

BAR SIZE	f'm = 2000 PSI , Fy=60 KSI REINF, NON-COATED REBAR AND 1 1/2" COVER					
	CENTERED IN CELL			EA. FACE OF CELL		
	8" CMU	10" CMU	12" CMU	8" CMU	10" CMU	12" CMU
#3	12"	12"	12"	16"	16"	16"
#4	12"	12"	12"	29"	29"	29"
#5	19"	15"	12"	-	45"	45"
#6	37"	29"	23"	-	-	54"
#7	51"	40"	32"	-	-	-
#8	72"	61"	49"	-	-	-

CONCRETE REBAR COVER

EXPOSURE CONDITION	COVER
CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"
EXPOSED TO EARTH OR WEATHER	2"
COLUMNS AND PIERS (MAIN BARS)	2"
WALL EXTERIOR FACE	2"
WALL INTERIOR FACE	1 1/2"
SLABS	3/4"

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

CITY OF JACKSONVILLE FLORIDA
LEGENDS GLOBAL
OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100
www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD, JACKSONVILLE FL, 32202

BID/ PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.B.4.4 and Chapter 633, Florida statutes

ISSUED BY: OSPORTS

ISSUE DATE: **10/22/25**

PROJ NO. **P20251573.000**

REVISIONS

TAG	ISSUED	DATE

SHEET NAME:

GENERAL NOTES

DRAWING NO.

S-002

ABBREVIATIONS

SYMBOLS

&	AND
@	AT
±	PLUS OR MINUS
∅	DIAMETER
fc'	CONCRETE COMPRESSIVE STRENGTH
fm'	MASONRY COMPRESSIVE STRENGTH

A

AR	ANCHOR ROD
ACI	AMERICAN CONCRETE INSTITUTE
A/E	ARCHITECT/ENGINEER
ADD	ADDENDUM
ADDL	ADDITIONAL
ADJ	ADJACENT
AESS	ARCHITECTURALLY EXPOSED STRUCTURAL STEEL
AFF	ABOVE FINISH FLOOR
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AL	ALUMINUM
ALT	ALTERNATE
AOR	ARCHITECT OF RECORD
APPROX	APPROXIMATE
ARCH	ARCHITECT
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS
ASD	ALLOWABLE STRENGTH DESIGN
ASTM	AMERICAN SOCIETY OF TESTING MATERIALS
AVE	AVERAGE
AWS	AMERICAN WELDING SOCIETY

B

B/	BOTTOM OF
BAL	BALANCE
BB	BOXED BEAM
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BEAM
BN	BOUNDARY NAIL
BOT	BOTTOM
BP	BOXED POST
BRDG	BRIDGING
BRG	BEARING
BSMT	BASEMENT
BTW	BETWEEN
BULL	BULLETIN

C

C	CHANNEL
CA	CAISSON
CB	CONCRETE BEAM
C/C	CENTER TO CENTER
CALCS	CALCULATIONS
CANT	CANTILEVER
CDF	CONCRETE DENSITY FILL
CFMF	COLD FORM METAL FRAMING
CL	CENTERLINE
CLG	CEILING
CF	CUBIC FEET, CUBIC FOOT
CFS	COLD FORM STUDS
CIP	CAST IN PLACE
CJ	CONTROL JOINT
CJP	COMPLETE JOINT PENETRATION
CLR	CLEAR
CM	CENTIMETER
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
COMP	COMPOSITE
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
COORD	COORDINATE
CTR	CENTER
CY	CUBIC YARD

D

d	PENNY WEIGHT
DBL	DOUBLE
DEFL	DEFLECTION
DEG	DEGREE
DEMO	DEMOLITION
DEPR	DEPRESSION
DET	DETAIL
DF	DOUGLAS FIR
DFL	DOUGLAS FIR LARCH
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DIST	DISTANCE
DL	DEAD LOAD
DN	DOWN
do	DITTO
DP	DRILLED PIER
DR	DRAIN
DT	DRAIN TILE
DWG	DRAWING
DWL	DOWEL

E

EA	EACH
ECC	ECCENTRIC
EF	EACH FACE
EFP	EQUIVALENT FLUID PRESSURE
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
EMBED	EMBEDMENT
EN	EDGE NAIL
ENCL	ENCLOSURE
ENG	ENGINEER
EOD	EDGE OF DECK
EOR	ENGINEER OF RECORD
EOS	EDGE OF SLAB
EQ	EQUAL
EQUIP	EQUIPMENT
ES	EACH SIDE
EW	EACH WAY
EW EF	EACH WAY EACH FACE
EX	EXISTING
EXP	EXPANSION
EXP JT	EXPANSION JOINT
EXT	EXTERIOR

F

FAB	FABRICATE
FD	FLOOR DRAIN
FDN	FOUNDATION
FIN	FINISH
FLR	FLOOR
FRM	FRAMING
FS	FAR SIDE
FT	FOOT / FEET
FTG	FOOTING

G

GA	GAUGE
GALV	GALVANIZED
GB	GRADE BEAM
GC	GENERAL CONTRACTOR
GLB	GLUE LAMINATED BEAM
GLC	GLUE LAMINATED COLUMN
GLULAM	GLUE LAMINATED
GR	GRADE
GRTG	GRATING
GT	GIRDER TRUSS
GYP	GYPSUM

H

HDR	HEADER
HEF	HORIZONTAL EACH FACE
HGR	HANGER
HORIZ	HORIZONTAL
HK	HOOK
HP	HIGH POINT
HSS	HOLLOW STRUCTURAL SHAPES
HT	HEIGHT
HVAC	HEATING, VENTILATION, AIR CONDITIONING

I

ID	INSIDE DIAMETER
IF	INSIDE FACE
IN	INCH
INCL	INCLUDE
INFO	INFORMATION
INT	INTERIOR
INV	INVERT

J

JG	JOIST GIRDER
JST	JOIST
JT	JOINT

K

K	KIP
KF	KIP FEET
KLF	KIPS PER LINEAR FOOT
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH

L

L	ANGLE
LBS	POUNDS
LG	LONG
LL	LIVE LOAD
LLBB	LONG LEGS BACK TO BACK
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LOC	LOCATION(S)
LP	LOW POINT
LSL	LAMINATED STRAND LUMBER
LT GA	LIGHT GAUGE
LTWT	LIGHT WEIGHT
LVL	LAMINATED VENEER LUMBER

M

M	METER
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MC	MISCELLANEOUS CHANNEL
MECH	MECHANICAL
MEP	MECHANICAL, ELECTRICAL, PLUMBING
MEZZ	MEZZANINE
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MM	MILLIMETER
MP	MASONRY PIER
MTL	METAL

N

NA	NOT APPLICABLE
NB	NON-BEARING
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NS	NEAR SIDE
NTS	NOT TO SCALE

O

O/O	OUT TO OUT
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OH	OPPOSITE HAND
OPG	OPENING
OPP	OPPOSITE
OSB	ORIENTED STRAND BOARD
OWSJ	OPEN WEB STEEL JOIST

P

PB	POST-TENSIONED BEAM
P/C	PRECAST CONCRETE
PAF	POWER ACTUATED FASTENER
PCF	POUNDS PER CUBIC FOOT
PCI	PRESTRESSED CONCRETE INSTITUTE
PDF	POWER DRIVEN FASTENER
PERP	PERPENDICULAR
PJP	PARTIAL JOINT PENETRATION
PL	PLATE
PLF	POUNDS PER LINEAR FOOT
PLMB	PLUMBING
PNT	POINT
PREFAB	PREFABRICATED
PROJ	PROJECTION
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSL	PARALLEL STRAND LUMBER
P/T	POST TENSIONED
PT	PRESSURE TREATED LUMBER
PUR	PURLIN
PVC	POLYVINYL CHLORIDE

Q

QTY	QUANTITY

R

R	RADIUS
RC	REINFORCED CONCRETE
RD	ROOF DRAIN
REF	REFERENCE
REINF	REINFORCING (REINFORCEMENT)
REQD	REQUIRED
REV	REVISION
RF	ROOF
RFI	REQUEST FOR INFORMATION
RM	ROOM
RO	ROUGH OPENING
RW	RETAINING WALL

S

SBC	SOIL BEARING CAPACITY
SC	SLIP CRITICAL (BOLTS)
SCHED	SCHEDULE
SDI	STEEL DECK INSTITUTE
SECT	SECTION
SEOR	STRUCTURAL ENGINEER OF RECORD
SF	SQUARE FEET
SHT	SHEET
SHTG	SHEATHING
SIM	SIMILAR
SJI	STEEL JOIST INSTITUTE
SL	SNOW LOAD
SLBB	SHORT LEGS BACK TO BACK
SOG	SLAB ON GROUND
SP	SOUTHERN PINE
SPA	SPACE (S) / SPACING
SPECS	SPECIFICATIONS
SPF	SPRUCE PINE FIR
SQ	SQUARE
SQ FT	SQUARE FEET
SQ IN	SQUARE INCH
SS	STAINLESS STEEL
STD	STANDARD
STIFF	STIFFENER
STL	STEEL
STFR	STOREFRONT
STR	STRUCTURAL
SUP	SUPPORT
SY	SQUARE YARD
SYM	SYMMETRICAL
SYP	SOUTHERN YELLOW PINE

T

T	THICKNESS
T&B	TOP AND BOTTOM
T/	TOP OF
T/BM	TOP OF BEAM
TD	TRENCH DRAIN
T/SLAB	TOP OF SLAB
T/STL	TOP OF STEEL
THRU	THROUGH
TJ	TIE JOIST
TYP	TYPICAL

U

UNO	UNLESS NOTED OTHERWISE

V

VEF	VERTICAL EACH FACE
VERT	VERTICAL
VIF	VERIFY IN FIELD
VOL	VOLUME

W

W	WIDE FLANGE
W/	WITH
W/O	WITH OUT
WD	WOOD
WL	WIND LOAD
WP	WORK POINT
WT	WEIGHT
WWF	WELDED WIRE FABRIC

X

X-BRACE	CROSS BRACING

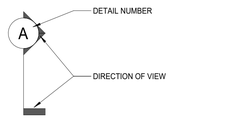
Y

YD	YARD

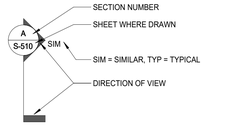
SEE STRUCTURAL SYMBOLS, LEGENDS, AND SCHEDULES FOR ADDITIONAL ABBREVIATIONS. ALL ABBREVIATIONS, SYMBOLS, AND LEGENDS SHOWN ARE NOT NECESSARILY USED.

GENERAL REFERENCE SYMBOLS

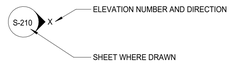
DETAIL VIEW



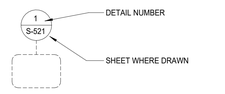
SECTION



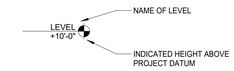
FRAMING ELEVATION



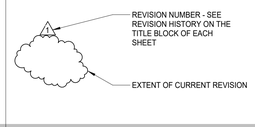
ELARGED PLAN OR DETAIL



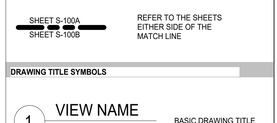
LEVEL LINE



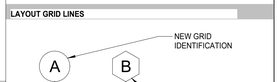
REVISION NUMBER AND EXTENT



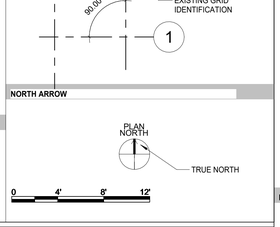
MATCH LINE REFERENCES



DRAWING TITLE SYMBOLS

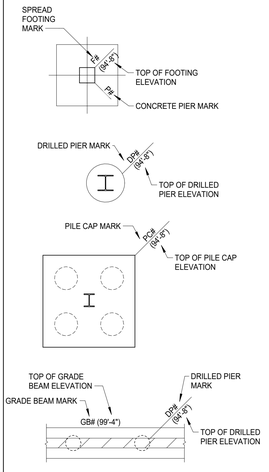


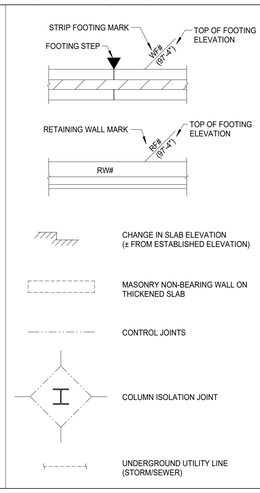
LAYOUT GRID LINES



NORTH ARROW

STRUCTURAL FOUNDATION PLAN SYMBOLS



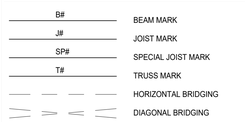


STRUCTURAL FRAMING PLAN SYMBOLS

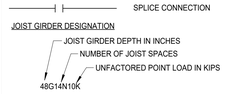
COLUMN AND POST SYMBOLS



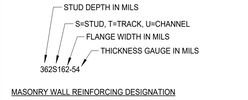
TRUSS AND SWAY FRAME NOMENCLATURE



JOIST GIRDER DESIGNATION



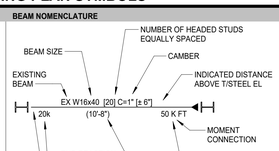
COLDFORM MEMBER DESIGNATION

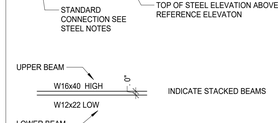


MASONRY WALL REINFORCING DESIGNATION

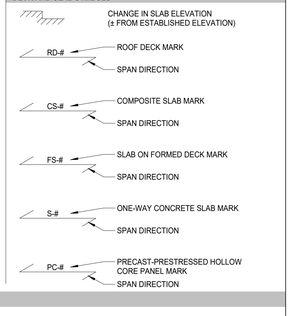


BEAM NOMENCLATURE

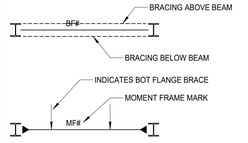


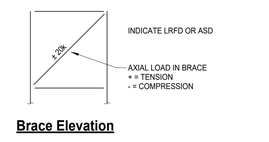


DECK AND SLAB SYMBOLS



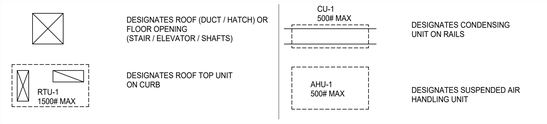
LATERAL FORCE RESISTING ELEMENT DESIGNATIONS



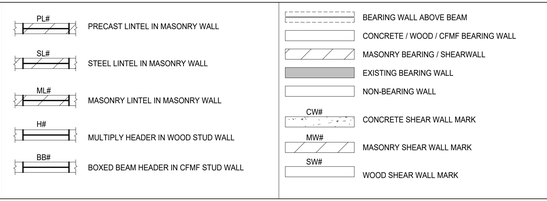


Brace Elevation

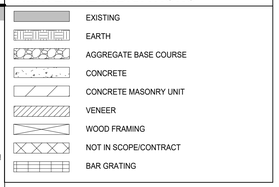
STRUCTURAL ROOF FRAMING PLAN SYMBOLS



STRUCTURAL WALL PLAN SYMBOLS



MATERIAL INDICATIONS



CITY OF JACKSONVILLE FLORIDA

LEGENDS GLOBAL

OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100 www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOLPH BLVD, JACKSONVILLE FL, 32202

BID/ PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

ISSUED BY: OSPORTS

ISSUE DATE: **10/22/25**

PROJ NO. **P20251573.000**

REVISIONS

TAG	ISSUED	DATE

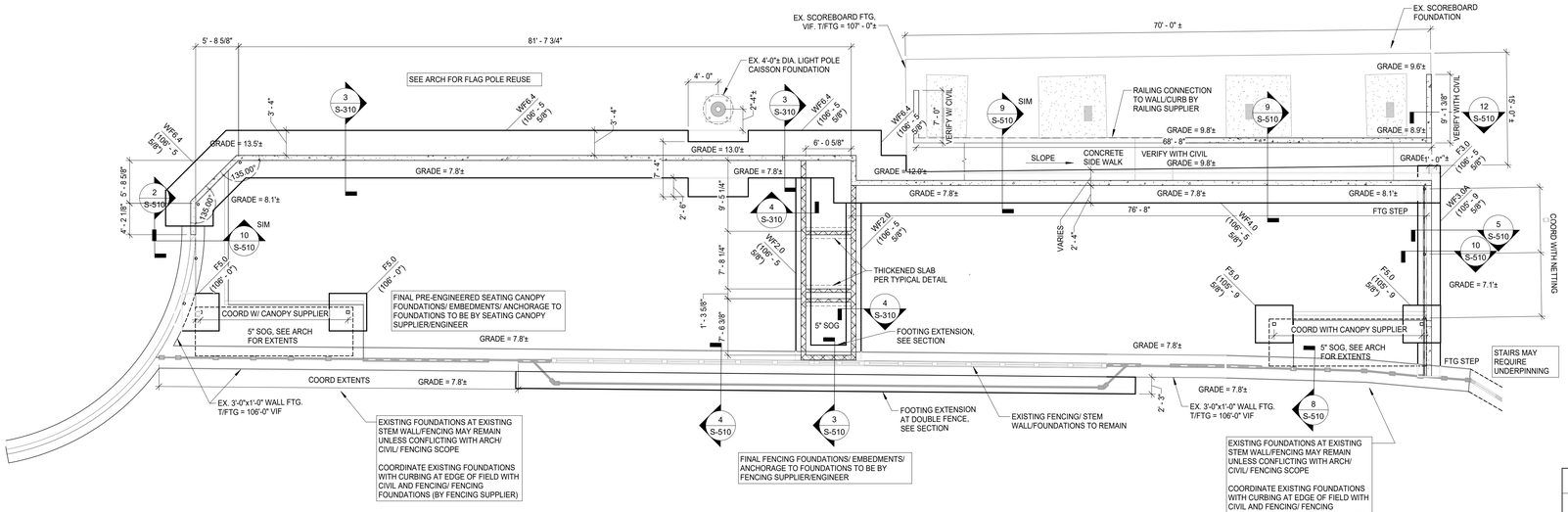
SHEET NAME:

ABBREVIATIONS AND SYMBOLS

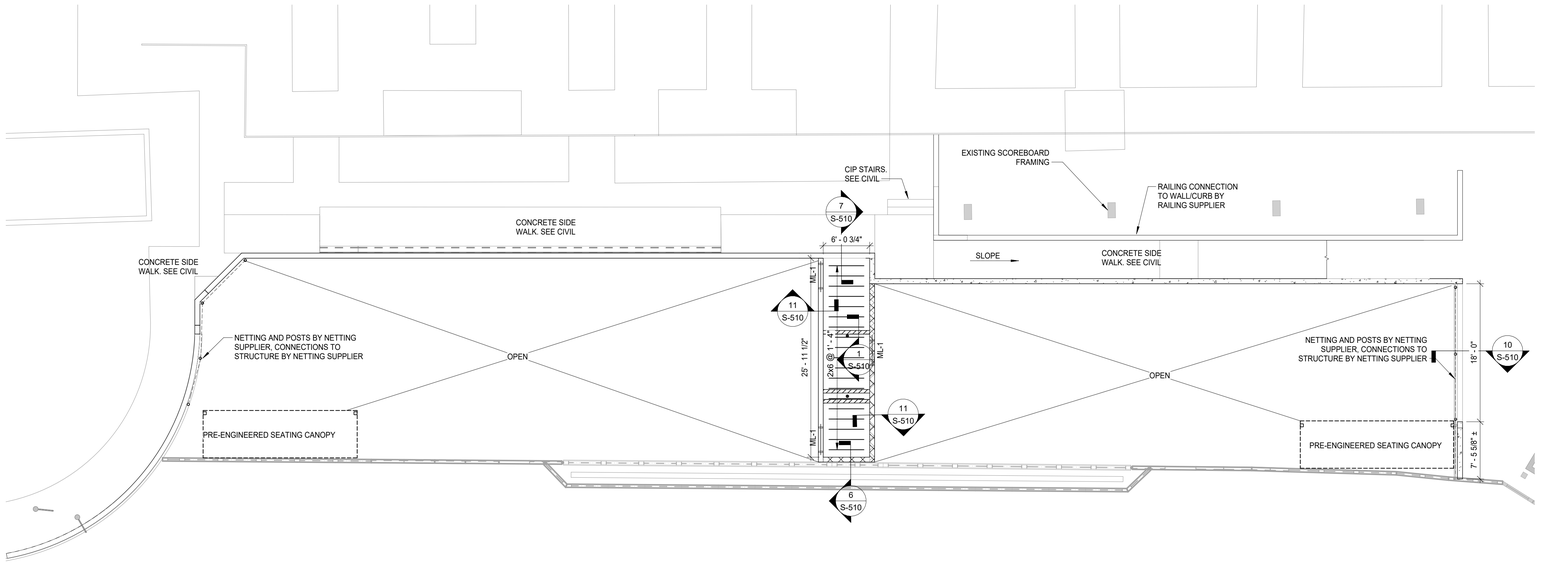
DRAWING NO.

S-003

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.



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



2 PLAZA CONCOURSE - FRAMING PLAN
SCALE: 1/8" = 1'-0"

FOUNDATION PLAN NOTES:

1. REFERENCES:
   A. GENERAL NOTES: S-001 - S-003
2. VERIFY ALL ELEVATIONS AND DIMENSIONS SHOWN WITH ARCHITECTURAL DRAWINGS AND EQUIPMENT SUPPLIERS SHOP DRAWINGS PRIOR TO ANY FABRICATION AND INSTALLATION OF STRUCTURAL STEEL.
3. COORDINATE ALL FOUNDATION THICKNESSES WITH ARCHITECTURAL WALL CONSTRUCTION.
4. ELEVATIONS:
   A. TOP OF SLAB = 107' 9 5/8", VERIFY W/ ARCH
5. SLAB CONSTRUCTION:
   A. 5" CONCRETE SLAB ON GRADE WITH 6x6-W2.9xW2.9 WWF AT MID-DEPTH OF SLAB SET ON 10 MIL VAPOR BARRIER OVER WELL COMPACTED STRUCTURAL FILL AND/OR SUBGRADE.
   B. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR ANY DEPRESSIONS, FLOOR DRAINS, TRENCHES ETC.
   C. TO BE SUPPORTED ON COMPACTED EXISTING FILL OR NEW ENGINEERED FILL TO THE RECOMMENDATION, SATISFACTION AND APPROVAL OF THE GEOTECHNICAL ENGINEER.
   D. PROVIDE (2)#4 x 3'-0" AT ALL RE-ENTRANT CORNERS AND DISCONTINUOUS CONTROL JOINTS TYP UNO.
   E. PROVIDE THICKENED SLAB BELOW ALL NON-LOAD BEARING MASONRY WALLS.
6. STRIP AND SPREAD FOOTING:
   A. ELEVATIONS SHOWN ON FOOTING INDICATE TOP OF FOOTING.
   B. ADEQUATELY STEP FOOTING TO AVOID UNDERMINING.
7. CMU WALL CONSTRUCTION:
   A. 8" CMU W/ #5 @ 32" O.C. GROUT WALLS SOLID BELOW GRADE UNO.
   B. 6" CMU W/ #5 @ 32" O.C. UNO.
8. MASONRY LINTEL:
   A. ML1: 8" DEPTH W/ (2) #4.
   B. SEE TYPICAL DETAIL FOR ADDL INFO.
9. CONSTRUCTION:
   A. NO FOUNDATION CONCRETE SHALL BE POURED PRIOR TO INSPECTION AND APPROVAL OF SOIL BEARING CAPACITY BY GEOTECHNICAL ENGINEER.
   B. KEEP ALL FOUNDATIONS FREE OF WATER AT ALL TIMES.
   C. WEAKENED SOIL TO BE REPLACED WITH LEAN CONCRETE.
   D. BACKFILL GRADATION AND COMPACTIONS SHALL BE INSPECTED AND APPROVED BY GEOTECHNICAL ENGINEER.
10. UNDERGROUND UTILITIES:
    A. COORDINATION SIZE, QUANTITY, LOCATION AND INVERT ELEVATION WITH MECHANICAL, ELECTRICAL, PLUMBING AND CIVIL DRAWINGS PRIOR TO FOUNDATION WORK.
    B. SEE TYPICAL FOUNDATIONS FOR ADDITIONAL INFORMATION.

WALL STRIP FOOTING SCHEDULE

MARK	SIZE WIDTH	SIZE DEPTH	REINFORCING LONGITUDINAL	REINFORCING TRANSVERSE	REMARKS
WF2.0	2' - 0"	1' - 0"	(2) #5	#5 @ 18" OC	
WF3.0	3' - 0"	1' - 0"	(3) #5 T&B	#5 @ 18" OC T&B	
WF3.0A	3' - 0"	2' - 0"	(3) #5 T&B	#5 @ 18" OC T&B	
WF4.0	4' - 0"	1' - 6"	#5 @ 12" OC T&B	#5 @ 12" OC T&B	SEE SECTION 3/S-310 FOR ADDL INFO
WF6.4	6' - 4"	1' - 6"	#5 @ 12" OC T&B	#5 @ 12" OC T&B	SEE SECTION 3/S-310 FOR ADDL INFO

SPREAD FOOTING SCHEDULE

MARK	SIZE LENGTH	SIZE WIDTH	DEPTH	REINFORCING	REMARKS
F3.0	3' - 0"	3' - 0"	2' - 0"	(4)#5 T&B EW	
F5.0	5' - 0"	5' - 0"	2' - 0"	(6)#6 T&B EW	

ROOF FRAMING NOTES

1. REFERENCES:
   A. GENERAL NOTES: S-001 - S-003
2. VERIFY ALL ELEVATIONS AND DIMENSIONS SHOWN WITH ARCHITECTURAL DRAWINGS AND EQUIPMENT SUPPLIERS SHOP DRAWINGS PRIOR TO FABRICATION AND INSTALLATION OF STRUCTURAL STEEL.
3. ELEVATIONS:
   A. JOIST BEARING = 115' - 7 1/8"
4. ROOF CONSTRUCTION:
   A. 19/32" (5/8" NOMINAL) APA RATED PLYWOOD SHEATHING OVER WOOD JOISTS, FRT.
   B. SHEATHING NAILING PATTERN: 10d COMMON NAILS AT 4" O.C. ALONG SUPPORTED EDGES, AND 12" O.C. AT ALL INTERMEDIATE FRAMING MEMBERS (3/8" MIN. EDGE DISTANCE.) SEE GENERAL NOTES FOR ADDL INFO.
   C. LUMBER TO BE FRT/ AND PRESSURE TREATED.
5. CONSTRUCTION:
   A. DO NOT SUSPEND ANY MECHANICAL DUCTS, ELECTRICAL OR PLUMBING CONDUITS DIRECTLY FROM THE ROOF DECK.
   B. ALL EDGES OF ROOF DECK AT OPENINGS MUST BE SUPPORTED.
6. COORDINATION:
   A. NOTIFY EOR OF ANY DISCREPANCIES BETWEEN ARCHITECTURAL AND STRUCTURAL DRAWINGS PRIOR TO FABRICATION AND/OR INSTALLATION.
   B. SEE MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR SIZE, QUANTITY AND LOCATION OF ROOF AND WALL OPENINGS.
   C. SEE ARCHITECTURAL, MECHANICAL AND PLUMBING DRAWINGS FOR ALL SIZE, QUANTITY AND LOCATIONS OF ROOF PENETRATIONS.
   D. NOTIFY EOR OF ANY CHANGES IN SIZE AND WEIGHT OF MECHANICAL UNITS PRIOR TO FABRICATION AND INSTALLATION OF SUPPORT FRAMING.

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

CITY OF JACKSONVILLE FLORIDA
LEGENDS GLOBAL
OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100 www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION
301 A PHILIP RANDOPLH BLVD, JACKSONVILLE FL, 32202

BID/ PERMIT SET
10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.B.4.4 and Chapter 633, Florida statutes

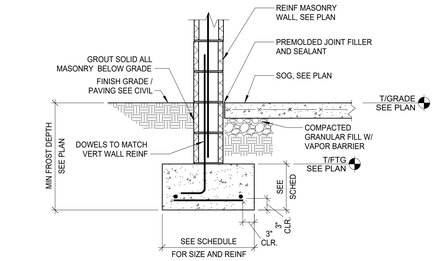
ISSUED BY:	OSPORTS
ISSUE DATE:	10/22/25
PROJ NO.	P20251573.000

REVISIONS

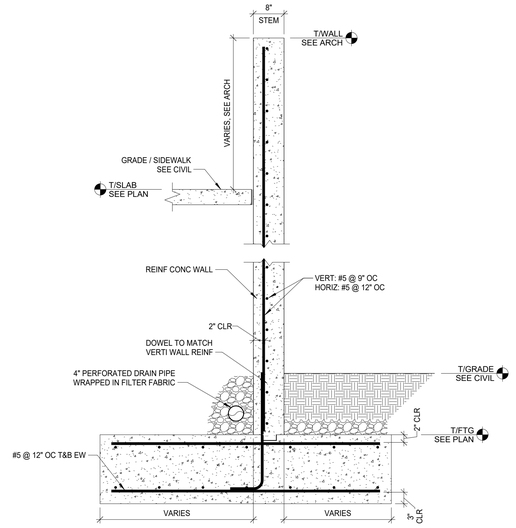
TAG	ISSUED	DATE

SHEET NAME: BULLPEN PLANS

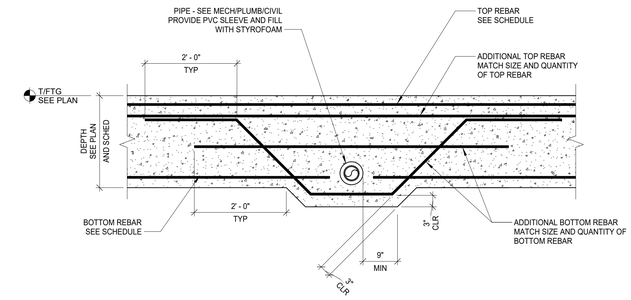
DRAWING NO. S-101



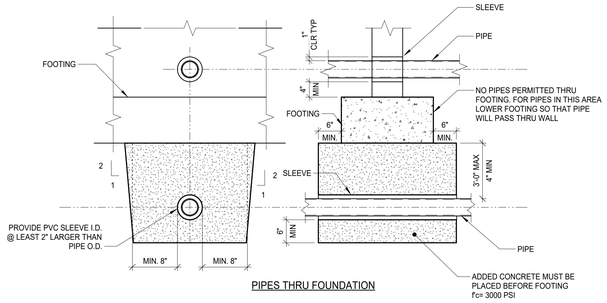
4 TYPICAL EXTERIOR WALL STRIP FOOTING
SCALE: 3/4" = 1'-0"



3 TYPICAL RETAINING WALL WITH FOOTING
SCALE: 3/4" = 1'-0"

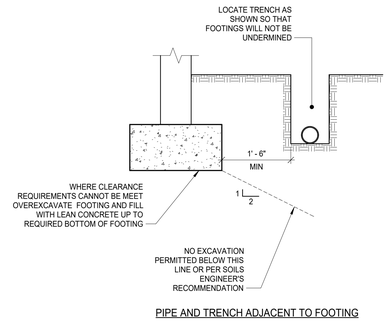


8 TYPICAL PIPE PENETRATION THROUGH FOOTING
SCALE: 3/4" = 1'-0"



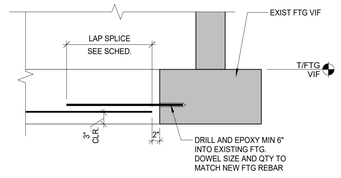
PIPES THRU FOUNDATION

5 TYPICAL PIPE ABOVE OR BELOW FOOTING
SCALE: 3/4" = 1'-0"

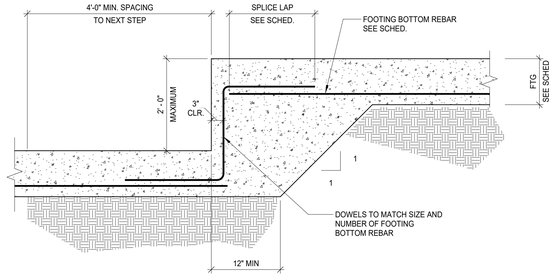


PIPE AND TRENCH ADJACENT TO FOOTING

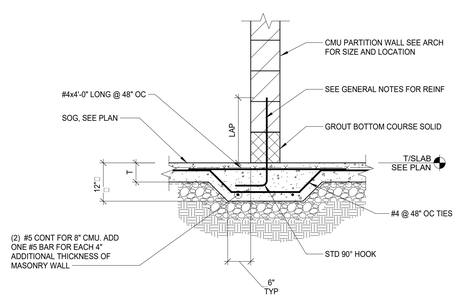
2 TYPICAL PIPE ADJACENT TO FOOTING
SCALE: 3/4" = 1'-0"



7 NEW FOUNDATION DOWELS INTO EXISTING FOOTING
SCALE: 3/4" = 1'-0"



6 TYPICAL FOOTING STEP DETAIL
SCALE: 3/4" = 1'-0"



1 THICKENED SLAB AT CMU WALL
SCALE: 3/4" = 1'-0"

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

CITY OF JACKSONVILLE FLORIDA

LEGENDS GLOBAL

OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100 www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD, JACKSONVILLE FL, 32202

BID/ PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

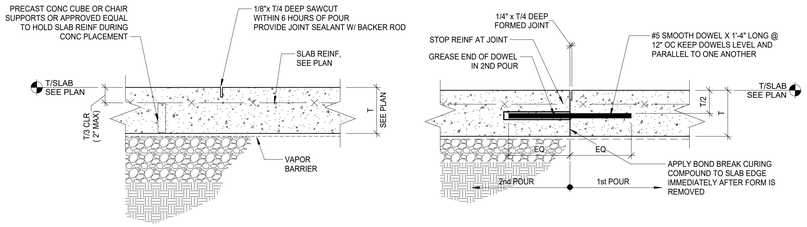
ISSUED BY: OSPORTS
ISSUE DATE: 10/22/25
PROJ NO. P20251573.000

REVISIONS

TAG	ISSUED	DATE

SHEET NAME:
TYPICAL FOUNDATION DETAILS

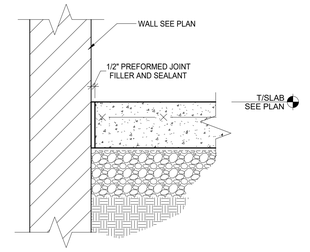
DRAWING NO.
S-310



CONTROL JOINT **CONSTRUCTION JOINT**

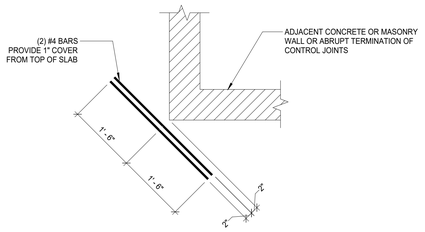
5 SLAB ON GRADE CONTROL AND CONSTRUCTION JOINT

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



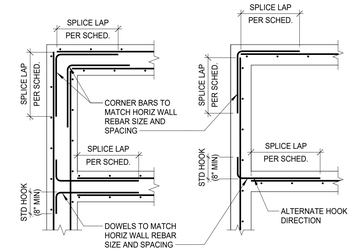
4 TYPICAL SLAB ON GRADE ISOLATION JOINT AT WALL

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



6 TYPICAL SLAB RE-ENTRANT BARS

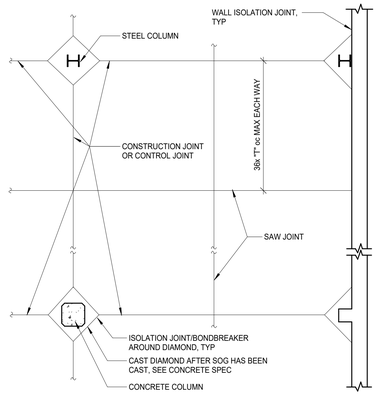
SCALE: 3/4" = 1'-0"



TYPICAL FOR CONCRETE WALL AND FOOTING CONSTRUCTION

3 TYPICAL CORNER / INTERSECTION REBAR LAYOUT

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

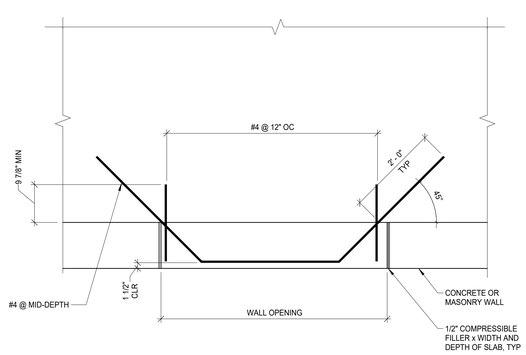


NOTE:

1. USE THIS DETAIL IN CONJUNCTION WITH SAWCUT JOINTS LOCATED ON PLAN.
2. IN HALLWAYS CONTROL JOINTS SHALL BE LOCATED A MAXIMUM OF 1 1/2 X (WIDTH) OF HALLWAY OR 12'-0".

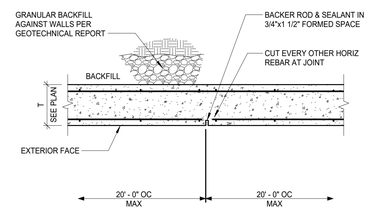
7 TYPICAL SLAB ON GRADE CONTROL JOINT PATTERN

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



2 TYPICAL SLAB ON GRADE REINF AT DOOR OPENING

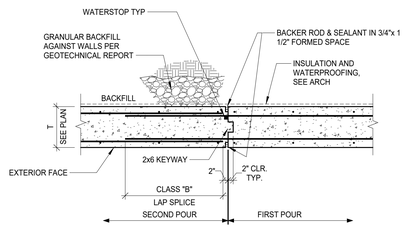
SCALE: 3/4" = 1'-0"



AT CONTROL JOINT

8 TYPICAL CONCRETE WALL CONTROL JOINT

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



AT CONSTRUCTION JOINT

1 TYPICAL CONCRETE WALL CONSTRUCTION JOINT

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

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

CITY OF JACKSONVILLE FLORIDA

LEGENDS GLOBAL

OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100 www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD, JACKSONVILLE FL, 32202

BID/ PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

ISSUED BY: OSPORTS

ISSUE DATE: **10/22/25**

PROJ NO. **P20251573.000**

REVISIONS

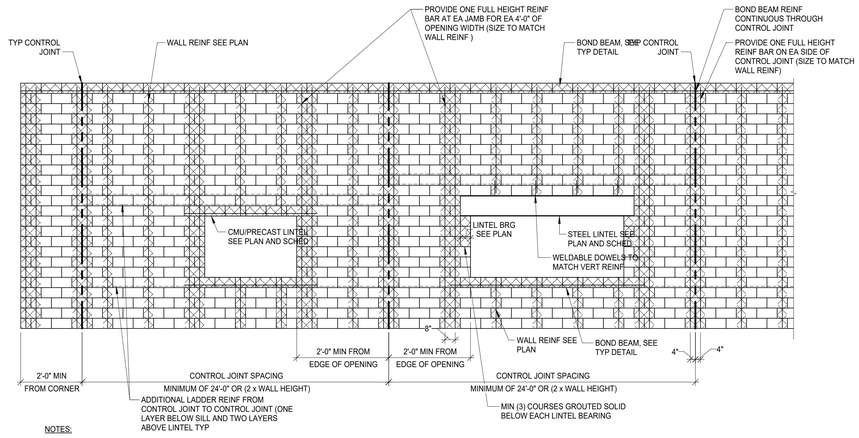
TAG	ISSUED	DATE

SHEET NAME:

TYPICAL CONCRETE DETAILS

DRAWING NO.

S-320

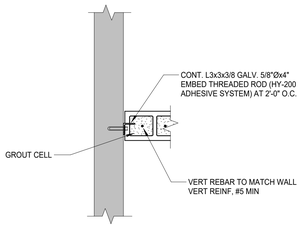


NOTES:

1. USE REINFORCING SHOWN IN THIS DETAIL FOR ALL MASONRY WALLS SHOWN ON STRUCTURAL DRAWINGS, UNO
2. IF VERTICAL REINFORCING NOT SPECIFIED ON PLANS, USE #5 @ 32" OC. ADDITIONAL REBAR AT CONTROL JOINTS AND OPENINGS SHALL BE PER THIS DETAIL, TYP
3. TYPICAL HORIZONTAL JOINT REINFORCING - SEE STRUCTURAL NOTES.
4. PROVIDE CONTINUOUS 8" BOND BEAM REINF AT BEARING ELEVATIONS AND AT TOP OF WALL ELEVATIONS UNO. VERTICAL REINFORCING CONTINUOUS THOUGH BOND BEAM.
5. AT ELEVATOR AND STAIR SHAFTS PROVIDE CONTINUOUS 8" DEEP BOND REINF @ 4'-0" OC MAX.
6. DO NOT PROVIDE CONTROL JOINT ABOVE OR BELOW JAMBS OF BOND BM SUPPORTED OPENINGS

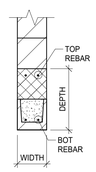
5 TYPICAL REBAR LAYOUT

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



6 TYPICAL CMU WALL CONNECTOR TO CONCRETE WALL

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



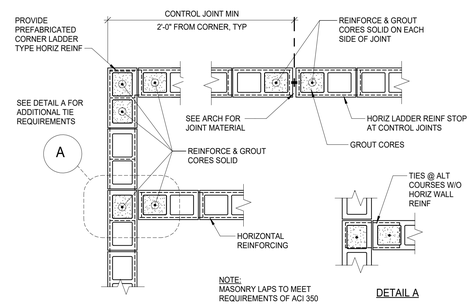
LINTEL SCHEDULE			
DEPTH	REBAR	MAX. SPAN	BRG
8"	(2)#4	6'-0"	8"

MASONRY LINTEL NOTES

1. APPLICABLE FOR 8", 10" AND 12" MASONRY WALLS.
2. FILL LINTEL SOLID WITH MIN 3000 PSI GROUT.
3. SCHEDULE ASSUMES A MAX. OF 8' WALL ABOVE IT.
4. BOTTOM OF LINTEL SHALL BE SMOOTH MASONRY WITH NO CORES EXPOSED.

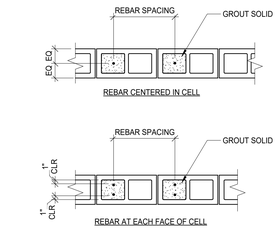
7 TYPICAL MASONRY LINTEL DETAILS AND SCHEDULE

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



8 TYPICAL CORNER / INTERSECTION VERTICAL REBARS

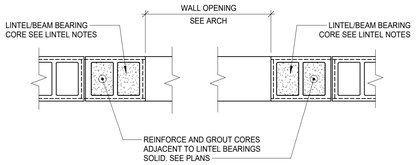
SCALE: 3/4" = 1'-0"



NOTE:
1. USE SPACERS TO HOLD REBAR IN POSITION WHILE GROUTING, TYP

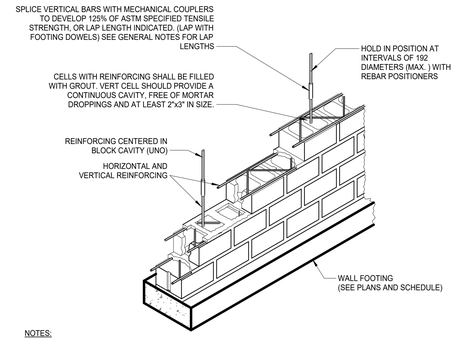
4 TYPICAL REBAR IN CELL

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



3 TYPICAL REBAR IN JAMBS

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

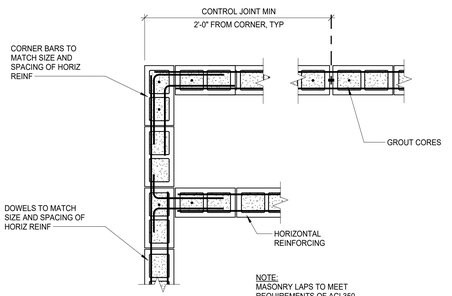


NOTES:

1. REBAR SHALL BE PLACED IN SAME VERTICALLY ALIGNED CELL FOR FULL HEIGHT OF WALL. SHIFTING OF REBAR TO ADJACENT CELL IN CONSECUTIVE LIFT NOT ACCEPTABLE .
2. LOW LIFT-GROUTING TECHNIQUE, GROUT IS PLACED IN 4'-0" LIFTS MAX.

2 TYPICAL REBAR LAYOUT

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



1 TYPICAL CORNER / INTERSECTION HORIZONTAL REBARS

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

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100 www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD, JACKSONVILLE FL, 32202

BID/ PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

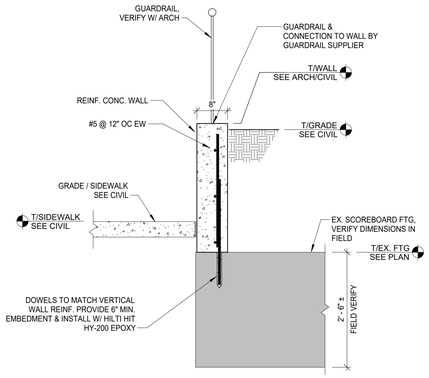
ISSUED BY:	OSPORTS
ISSUE DATE:	10/22/25
PROJ NO.	P20251573.000

REVISIONS

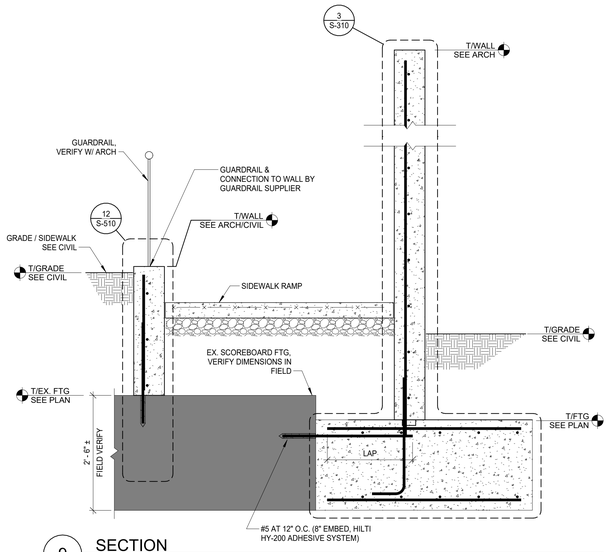
TAG	ISSUED	DATE

SHEET NAME:
TYPICAL MASONRY DETAILS

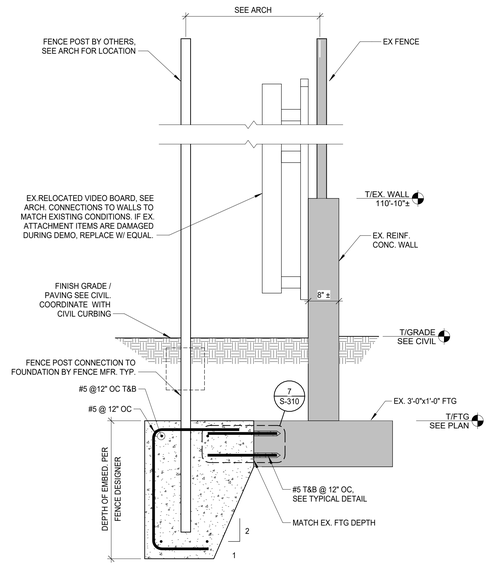
DRAWING NO.
S-330



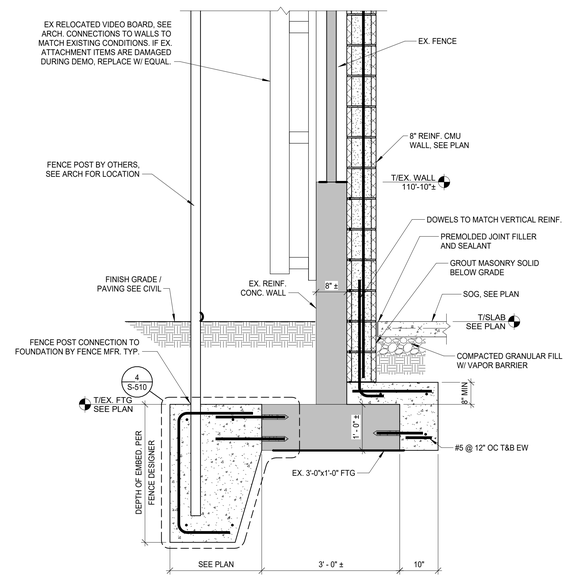
12 SECTION
SCALE: 3/4" = 1'-0"



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

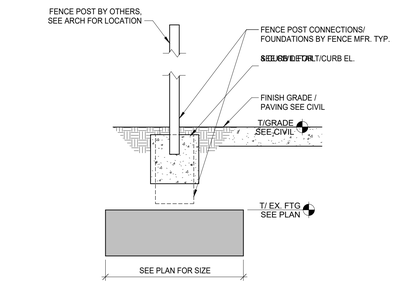


4 SECTION
SCALE: 3/4" = 1'-0"

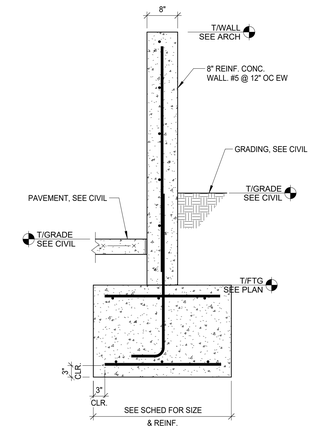


3 SECTION
SCALE: 3/4" = 1'-0"

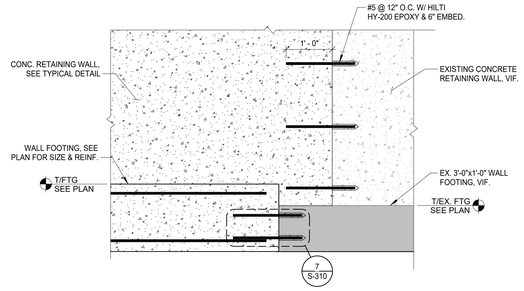
10 SECTION
SCALE: 3/4" = 1'-0"



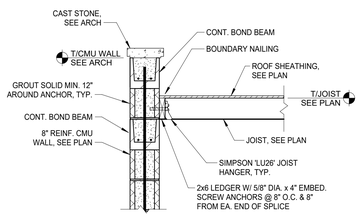
8 SECTION
SCALE: 3/4" = 1'-0"



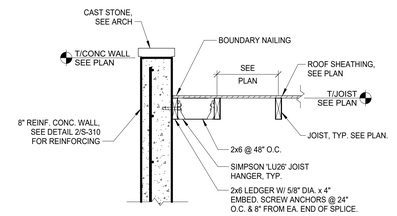
5 SECTION
SCALE: 3/4" = 1'-0"



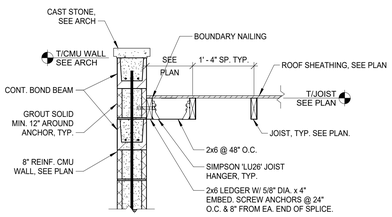
2 SECTION
SCALE: 3/4" = 1'-0"



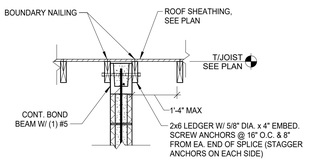
11 SECTION
SCALE: 3/4" = 1'-0"



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



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



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

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

CITY OF JACKSONVILLE FLORIDA

LEGENDS GLOBAL

OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100 www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD, JACKSONVILLE FL, 32202

BID/ PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

ISSUED BY: OSPORTS

ISSUE DATE: 10/22/25

PROJ NO. P20251573.000

REVISIONS

TAG	ISSUED	DATE

SHEET NAME:
SECTIONS

DRAWING NO.
S-510

DIVISION 23 - HEATING, VENTILATING, AND AIR-CONDITIONING (HVAC)

SECTION 23 00 00 - SHEET SPECIFICATION - MECHANICAL

DIVISION 23 - MECHANICAL SPECIFICATIONS

1.01 GENERAL MECHANICAL REQUIREMENTS:

A. REQUIREMENTS SPECIFIED IN DIVISION 1 , INSTRUCTIONS TO BIDDERS, SUPPLEMENTAL GENERAL CONDITIONS, SPECIAL CONDITIONS, ADDENDA, ALTERNATES, CONTRACT AND PROPOSAL (AS APPLICABLE), ALONG WITH THESE SPECIFICATIONS AND ALL ITS SECTIONS, COMPRISE THE CONTRACT DOCUMENTS FOR THE MECHANICAL CONTRACT. DRAWINGS AND ALL THEIR REVISIONS UP TO THE BID SUBMITTAL DATE BECOME A BINDING PART OF THE CONTRACT, ALONG WITH THESE SPECIFICATIONS AS THOUGH THEY WERE ONE, AND ANYTHING IMPLIED BY THE SPECIFICATIONS SHALL BE INTERPRETED AS ALSO IMPLIED BY THE DRAWINGS AND VICE VERSA.

B. THE CONTRACTOR SHALL EXAMINE THE PROJECT SITE AND SURROUNDING AREAS AND MAKE ALL NECESSARY INVESTIGATIONS REQUIRED TO INFORM THEMSELVES AS TO ALL DIFFICULTIES THAT MAY BE ENCOUNTERED IN THE EXECUTION OF THE CONTRACT DOCUMENTS.

C. THE CONTRACTOR SHALL EXAMINE ALL DRAWINGS, SPECIFICATIONS, AND ALL OTHER DATA OR INSTRUCTIONS PERTAINING TO THE WORK REGARDLESS OF WHAT DRAWING IT MAY APPEAR OR IN WHICH SPECIFICATION IT IS DESCRIBED. THE CONTRACTOR WILL NOT BE ALLOWED EXTRA COMPENSATION RESULTING FROM THE CONTRACTOR'S FAILURE TO FULLY EXAMINE ALL THE DRAWINGS, SPECIFICATIONS, DATA, AND INSTRUCTIONS.

D. WITH THE EXCEPTION OF SYSTEMS AND EQUIPMENT FURNISHED BY OWNER IF SPECIFIED, IT IS INTENDED THAT WORK COVERED BY THESE SPECIFICATIONS AND DRAWINGS INCLUDE EVERYTHING REQUISITE TO MAKE THE VARIOUS SYSTEMS COMPLETE AND OPERATIVE, IRRESPECTIVE OF WHETHER OR NOT EVERY ITEM IS SPECIFICALLY PROVIDED FOR. ANY OMISSION OF DIRECT REFERENCE TO ANY ESSENTIAL ITEM SHALL NOT EXCUSE THE CONTRACTOR FROM COMPLYING WITH THE ABOVE INTENT.

E. THE MECHANICAL DRAWINGS AND SPECIFICATIONS ARE MEANT TO SUPPLEMENT EACH OTHER. IN CASE OF AN INCONSISTENCY, THE MOST STRINGENT REQUIREMENT SHALL GOVERN. FIGURED DIMENSIONS SUPERSEDE SCALED ONES. THE CONTRACTOR SHALL NOT TAKE ADVANTAGE OF ANY INCONSISTENCY IN SPECIFICATIONS AND DRAWINGS AND SHALL PROMPTLY CALL THE OWNER'S ATTENTION TO ANY INCONSISTENCY IN THE SPECIFICATIONS AND DRAWINGS.

F. LAYOUT OF EQUIPMENT, DUCTWORK, ACCESSORIES, SPECIALTIES AND SUSPENDED, CONCEALED OR EXPOSED PIPING SYSTEMS ARE DIAGRAMMATIC UNLESS DIMENSIONED. IN PREPARING SHOP DRAWINGS, THE CONTRACTOR SHALL CHECK PROJECT CONDITIONS BEFORE INSTALLING THE WORK. IF THERE ARE ANY INTERFERENCES OR CONFLICTS, THEY SHALL BE CALLED TO THE ATTENTION OF THE OWNER IMMEDIATELY FOR CLARIFICATION.

G. THE MECHANICAL CONTRACTOR SHALL KEEP ON THE JOB ONE COMPLETE SET OF THE CONTRACT WORKING DRAWINGS ON WHICH HE SHALL RECORD ANY DEVIATIONS OR CHANGES FROM SUCH CONTRACT DRAWINGS MADE DURING CONSTRUCTION. THE RECORD DRAWINGS SHALL SHOW CHANGES TO SIZE, TYPE, CAPACITY, ETC. OF ANY MATERIAL. UPON COMPLETION AND FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL PROVIDE THE OWNER WITH TWO (2) SETS OF "AS BUILT" DRAWINGS.

H. CONTRACTOR SHALL COORDINATE THE WORK OF THE DIFFERENT TRADES SO THAT INTERFERENCE BETWEEN DUCTWORK, PIPING, EQUIPMENT, STRUCTURAL, AND ELECTRICAL WORK WILL BE AVOIDED. ALL NECESSARY OFFSETS IN PIPING AND DUCTWORK, AND ALL FITTINGS, AND OTHER COMPONENTS, REQUIRED TO INSTALL THE WORK PROPERLY SHALL BE FURNISHED COMPLETE IN PLACE AT NO ADDITIONAL COST.

I. PRIOR TO SUBMITTING SHOP DRAWINGS, THE CONTRACTOR SHALL CHECK FOR DIMENSIONAL CORRECTNESS, INTERFERENCES AND CONFORMANCE TO SPECIFICATIONS AND PLANS. THE CONTRACTOR IS TO SUBMIT ELECTRONIC SHOP DRAWINGS IN PDF FORMAT, CATALOG SHEETS FOR EQUIPMENT, FIXTURES, DUCTWORK LAYOUT AND WIRING DIAGRAMS TO THE ARCHITECT FOR REVIEW. EACH CONTRACTOR IS RESPONSIBLE TO DISTRIBUTE APPROVED SHOP DRAWINGS TO ALL OTHER TRADES AFFECTED BY HIS WORK AND EQUIPMENT.

J. THE CONTRACTOR MAY OFFER SUBSTITUTIONS WITH HIS BID EXCEPT FOR CERTAIN ITEMS WHICH MAY BE INDICATED AS HAVING NO SUBSTITUTE. ONLY ONE REQUEST FOR SUBSTITUTION WILL BE CONSIDERED FOR EACH PRODUCT. WHEN THE SUBSTITUTION IS NOT ACCEPTED, THE SPECIFIED PRODUCT SHALL BE PROVIDED.

K. THE CONTRACTOR SHALL ARRANGE AND PAY FOR ALL PERMITS, FEES AND INSPECTIONS REQUIRED IN CONNECTION WITH THIS INSTALLATION. THE CONTRACTOR MUST PRESENT THE OWNER WITH PROPERLY SIGNED CERTIFICATES OF FINAL INSPECTION BEFORE WORK WILL BE ACCEPTED.

L. THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES AS REQUIRED BY LAW AND DETERMINE THE EXACT LOCATIONS OF EXISTING UTILITIES, PRIOR TO BEGINNING WORK. ALL ACTIVE SERVICES ENCOUNTERED SHALL BE PROTECTED AND SUPPORTED. ALL INACTIVE SERVICES SHALL BE REMOVED OR DEACTIVATED AS SHOWN OR DIRECTED BY OWNER. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER AND UTILITY COMPANIES FOR UTILITY TIE-INS FOR THIS WORK AND SHALL PAY ALL FEES AND CHARGES RELATED TO THIS WORK.

M. THE CONTRACTOR SHALL GIVE NOTICES AND COMPLY WITH LAWS, ORDINANCES, RULES, REGULATIONS AND ORDERS OF ANY PUBLIC AUTHORITY BEARING ON THE WORK. IF THE CONTRACTOR OBSERVES THE CONTRACT DOCUMENTS ARE AT VARIANCE WITH SUCH IN ANY RESPECT, PROMPTLY NOTIFY THE OWNER, IN WRITING SUCH THAT ALL NECESSARY CHANGES CAN BE MADE. IF CONTRACTOR KNOWINGLY PERFORMS ANY WORK CONTRARY TO SUCH WITHOUT NOTICE TO THE OWNER, HE SHALL ASSUME FULL RESPONSIBILITY THEREFORE AND SHALL BEAR COST ATTRIBUTED THERETO.

N. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN A NEAT AND WORKMANLIKE MANNER. MATERIALS SHALL BE NEW. SECONDS OR DAMAGED MATERIALS SHALL NOT BE USED. THE CONTRACTOR IS RESPONSIBLE FOR THE SAFETY AND GOOD CONDITION OF THE EQUIPMENT, MATERIALS AND SYSTEMS INSTALLED UNTIL FINAL ACCEPTANCE BY THE OWNER. ALL MATERIALS SHALL BE STORED IN SUCH A MANNER AS TO PREVENT ANY DAMAGE PRIOR TO INSTALLATION.

O. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR DAMAGE CAUSED BY HIS WORK OR THROUGH NEGLECT OF HIS WORKMEN. REPAIRING OF DAMAGED WORK SHALL BE DONE BY THE CONTRACTOR AS DIRECTED BY THE OWNER. COST OF REPAIRS SHALL BE PAID BY THE CONTRACTOR.

P. THE CONTRACTOR SHALL TEST ALL HIS EQUIPMENT AND WORK IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE. ALL EQUIPMENT, FIXTURES, APPARATUS, ETC. SHALL COMPLY FULLY WITH THE REQUIREMENTS OF THE SPECIFICATIONS AND DRAWINGS.

Q. THE CONTRACTOR SHALL WARRANT ALL MATERIALS AND ALL WORK INSTALLED BY HIM OR HIS SUBCONTRACTORS FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE.

R. PRIOR TO FINAL ACCEPTANCE, THE CONTRACTOR SHALL CLEAN ALL EQUIPMENT AND SYSTEMS TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.

1.02 HVAC GENERAL SPECIFICATIONS:

A. THE CONTRACTOR SHALL FURNISH ALL MATERIALS MEETING AIEE, ASME, ASTM, AND NEMA SPECIFICATIONS. THE CONSTRUCTION AND INSTALLATION OF WORK SHALL CONFORM TO THE LATEST EDITION OF THE SMACNA HVAC DUCT CONSTRUCTION STANDARDS.

B. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY MATERIALS, EQUIPMENT, TRANSPORTATION, HOISTING ETC. NECESSARY TO INSTALL A COMPLETE AND OPERABLE HEATING, VENTILATING AND AIR CONDITIONING SYSTEM.

C. THE CONTRACTOR SHALL PAY FOR AND HAVE THE MECHANICAL SYSTEM BALANCED BY AN INDEPENDENT AIR BALANCING COMPANY. THE REPORT IS TO INCLUDE EXHAUST CFM WITH ONE (1) DIGITAL AND ONE (1) PAPER COPIES TO BE SUBMITTED TO THE OWNER PRIOR TO FINAL ACCEPTANCE.

D. THE CONTRACTOR SHALL ARRANGE FOR AND PROVIDE TRAINING ON ALL AIR HANDLING SYSTEMS, HEATING SYSTEMS, COOLING SYSTEMS, PUMPING SYSTEMS, and CONTROL SYSTEMS AS RECOMMENDED BY THE MANUFACTURER AND TO THE SATISFACTION OF THE OWNER.

E. MECHANICAL SLEEVE SEALS: MODULAR SEALING ELEMENT UNIT, DESIGNED FOR FIELD ASSEMBLY, TO FILL ANNULAR SPACE BETWEEN PIPE AND SLEEVE.

F. ESCUTCHEONS: MANUFACTURED WALL AND CEILING ESCUTCHEONS AND FLOOR PLATES, WITH AN ID TO CLOSELY FIT AROUND PIPE, TUBE, AND INSULATION OF INSULATED PIPING AND AN OD THAT COMPLETELY COVERS OPENING.

G. GROUT: ASTM C 1107, GRADE B, NONSHRINK AND NONMETALLIC, DRY HYDRAULIC-CEMENT GROUT.

1.03 HVAC DUCT AND ACCESSORIES:

A. DUCTWORK AND PLENUMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SMACNA HVAC DUCT STANDARDS AS FOLLOWS:
1. CONSTRUCT NON-VAV SUPPLYDUCTS TO MEET SMACNA POSITIVE PRESSURE OF 2 INCHES W.G. CONSTRUCT RETURN, OUTDOOR AND EXHAUST DUCTWORK UPSTREAM OF FANS TO MEET SMACNA NEGATIVE PRESSURE OF 2 INCHES W.G. CONSTRUCT EXHAUST DUCTWORK DOWNSTREAM OF FANS TO MEET SMACNA POSITIVE PRESSURE OF 2 INCHES W.G.
2. ALL ABOVEGROUND DUCTWORK SHALL BE FABRICATED OF NEW GALVANIZED SHEET STEEL, OR ALUMINUM WHERE CALLED FOR ON DRAWINGS, AND SHALL BE CONSTRUCTED AND BRACED IN ACCORDANCE WITH THE STANDARDS SET FORTH IN LATEST EDITION OF THE SMACNA CONSTRUCTION STANDARDS.
3. DUCT DIMENSIONS SHOWN ARE FREE INSIDE DIMENSIONS AND SHALL BE FOLLOWED UNLESS JOB CONDITIONS REQUIRE ALTERATIONS. DUCT SIZE REVISIONS SHALL BE BASED ON THE EQUAL FRICTION METHOD.
4. ALL ELBOWS IN THE SYSTEM SHALL BE MADE WITH CENTERLINE RADIUS OF ONE AND ONE-HALF (1-1/2) TIMES THE TURNING WIDTH OF THE DUCT. WHERE SPACE PROHIBITS THE SPECIFIED MINIMUM RADIUS, SQUARE ELBOWS WITH DOUBLE RADIUS TURNING VANES SCREWED IN PLACE MAY BE USED. CHANGES IN DUCT SIZES SHALL HAVE MAXIMUM FLOW ANGLES OF 15° DIVERGING AND 60° CONTRACTING.
5. THE MECHANICAL DRAWINGS INDICATE THE GENERAL ROUTING OF DUCTWORK. WHEN JOB CONDITIONS WARRANT ALTERATIONS, THE EXACT ROUTE SHALL BE COORDINATED WILL ALL OTHER TRADES.
6. HANGERS TO BE PLACED 8 FEET ON CENTERS MAXIMUM WITH 1" X GAUGE MINIMUM STRAPS FOR DUCTS. ALL DUCTWORK SHALL BE SEALED.
7. FIBERGLASS DUCTBOARD WILL NOT BE PERMITTED.

B. DUCTWORK INSULATION AND JACKETS SHALL BE AS FOLLOWS:
1. ALL MATERIALS SHALL HAVE FLAME SPREAD/SMOKE DEVELOPMENT RATING OF 25/50 IN ACCORDANCE WITH ASTM E84, NFPA 225, AND U.L. 723.
2. TYPE A: FLEXIBLE GLASS FIBER ALL SERVICE DUCT WRAP WITH A "K" VALUE OF 0.25 AT 75°F, FOIL SCRIM VAPOR BARRIER FACING AND A DENSITY OF 1.5 PCF.
3. EXHAUST DUCTS CONCEALED ABOVE CEILINGS SHALL BE INSULATED WITH 1-1/2" THICK TYPE A INSULATION PROVIDING 100% COVERAGE OF ADHESIVE WITH EDGES TIGHTLY BUTTED. ALL JOINTS SHALL BE SEALED BY TAPING WITH 3" WIDE VAPOR BARRIER TAPE. PATCHES OF TAPE SHALL BE APPLIED WHERE PINS PROTRUDE THROUGH THE FACING.
4. ACCEPTABLE MANUFACTURERS: OWENS-CORNING, JOHNS MANVILLE, CERTAINTEED, KNAUF

1.04 Hangers and supports

A. PROVIDE MSS SP-58 AND MSS SP-69, TYPE 1 WITH ADJUSTABLE TYPE STEEL SUPPORT RODS, EXCEPT AS SPECIFIED OR INDICATED OTHERWISE.

B. ATTACH TO STEEL JOISTS WITH TYPE 19 OR 23 CLAMPS AND RETAINING STRAPS.

C. ATTACH TO STEEL W OR S BEAMS WITH TYPE 21, 28, 29, OR 30 CLAMPS.

D. ATTACH TO HORIZONTAL WEB STEEL CHANNEL AND WOOD WITH DRILLED HOLE ON CENTERLINE AND DOUBLE NUT AND WASHER.

E. ATTACH TO CONCRETE WITH TYPE 18 INSERT OR DRILLED EXPANSION ANCHOR.

F. PROVIDE HANGERS AND SUPPORTS BY ANVIL INTERNATIONAL, COOPER B-LINE OR GRINNELL:
1. SPLIT RING HANGERS – CARBON STEEL WITH ADJUSTABLE SWIVEL.
2. CLEVIS HANGERS - CARBON STEEL WITH ADJUSTABLE SWIVEL.
3. MULTIPLE OR TRAPEZE HANGERS – STEEL CHANNELS WITH WELDED SPACERS AND HANGER RODS. PROVIDE CAST IRON ROLL FOR PIPE SIZES 6 INCH AND LARGER.

1.05 HVAC EQUIPMENT SPECIFICATIONS

A. CABINET ELECTRIC UNIT HEATER SHALL BE QMARK MODEL RECESS MOUNTED WITH GALVANIZED STEEL ENCLOSURE, STEEL SHEATH HEATING ELEMENTS WITH STEEL FINS, PERMANENTLY LUBRICATED FAN MOTOR, AUTOMATIC RESET THERMAL OVERLOAD PROTECTION, INTEGRAL THERMOSTAT, DISCONNECT SWITCH, HEATING CAPACITY AND VOLTAGE AS SCHEDULED.

B. EXHAUST FANS: CAPACITY HP, VOLTAGE, AND ACCESSORIES AS SCHEDULED.

1.06 TESTING, ADJUSTING, AND BALANCING

A. TESTING, ADJUSTING, BALANCING: AFTER INSTALLATION CHECK ALL NEW AND EXISTING EQUIPMENT AND PERFORM START UP IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. BALANCE ALL SYSTEMS, CALIBRATE CONTROLS, CHECK FOR PROPER OPERATIONAL AND SEQUENCE UNDER ALL CONDITIONS AND MAKE ALL NECESSARY ADJUSTMENTS. SUBMIT AIR AND WATER BALANCE REPORTS FROM INDEPENDENT AABC OR NEBB CERTIFIED CONTRACTOR FOR ALL AIR SYSTEMS PER AABC OR NEBB STANDARDS.

B. BALANCE, START UP, AND INSTRUCTIONS: AFTER EQUIPMENT IS PLACED IN OPERATION, SYSTEMS SHALL BE BALANCED TO WITHIN 10% OF DESIGN WITH REPORT SUBMITTED TO OWNER. BALANCE AIR SYSTEMS PRIOR TO BALANCING HYDRONIC SYSTEMS. CONTRACTOR SHALL ADJUST AND/OR REPLACE AS NECESSARY THE FAN AND MOTOR PULLEYS AND SHEAVES TO ACHIEVE DESIGN WITHIN 10%. TEST, ADJUST, AND BALANCE COOLING SYSTEMS DURING SUMMER SEASON AND HEATING SYSTEMS DURING WINTER SEASON. START UP AND PLACE ALL SYSTEMS IN OPERATION. INSTRUCT OWNER ON PROPER OPERATION AND PREVENTATIVE MAINTENANCE OF SYSTEM(S).

1.07 HVAC CONTROLS

A. EQUIPMENT CONTROLLED BY THERMOSTAT
1. PROVIDE THERMOSTAT CONTROL EQUIPMENT WITH SUFFICIENT COMMUNICATION, PROGRAMMING, INPUT AND OUTPUT CONNECTIONS, AND MODULATING OR STAGING CAPABILITY TO MEET THE SEQUENCE OF OPERATIONS. PROVIDE THERMOSTATS WITH THE FEATURES AS INDICATED:
   a. ADJUST TEMPERATURE SETPOINT.
   b. INSULATED BACKING FOR EXTERIOR WALL MOUNTING.
2. LINE-VOLTAGE, ON-OFF THERMOSTATS: BIMETAL-ACTUATED, OPEN CONTACT OR BELLOWS-ACTUATED, ENCLOSED, SNAP-SWITCH OR EQUIVALENT SOLID-STATE TYPE, WITH HEAT ANTICIPATOR; LISTED FOR ELECTRICAL RATING; WITH CONCEALED SET-POINT ADJUSTMENT, 55 TO 85 DEG F SET-POINT RANGE, AND 2 DEG F MAXIMUM DIFFERENTIAL.

END OF SPECIFICATIONS

CERTAIN ITEMS IN THE LEGEND BELOW MAY NOT APPLY TO THIS PROJECT.
DARK DUCTWORK INDICATES NEW DUCTWORK AND LIGHT INDICATES EXISTING.

HVAC DUCTWORK LEGEND

	SUPPLY AIR DUCT OR OUTSIDE AIR DUCT
	RETURN DUCT
	EXHAUST AIR DUCT
	4-WAY CEILING DIFFUSER
	RETURN GRILLE
	EXHAUST GRILLE
	DUCT TRANSITION
	BALANCED DAMPER
FD	FIRE DAMPER
SD	SMOKE DAMPER
FSD	FIRE/SMOKE DAMPER
M	MOTORIZED DAMPER
DP	DIFFERENTIAL PRESSURE SWITCH/SENSOR
S	SMOKE DETECTOR
SP	STATIC PRESSURE SENSOR
SW	AUTOMATIC TIMER SWITCH
CO2	SENSOR (TYPE TO VARY. REFER TO PLANS)
TS	TEMPERATURE SENSOR
T	THERMOSTAT
	AIRFLOW
	DUCT BREAK
	NEW
	DUCT WITH LINING
E\AHU-2 (EQUIPMENT IDENTIFIER / EQUIPMENT MARK / PHASE IDENITIFER (OPTIONAL))	EQUIPMENT TAG

CERTAIN ITEMS IN THE LEGEND BELOW MAY NOT APPLY TO THIS PROJECT.

HVAC ABBREVIATIONS

AC	ALTERNATING CURRENT
ACB	ACTIVE CHILLED BEAM
ACC	AIR COOLED CHILLER
ACCU	AIR COOLED CONDENSING UNIT
ACD	AUTOMATIC CONTROLLED DAMPERD DAMPER
ACU	AIR CONDITIONING UNIT
AD	ACCESS DOOR
ADJ	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHRI	AIR-CONDITIONING, HEATING, AND REFRIGERATION INSTITUE
AHU	AIR HANDLING UNIT
AMCA	AIR MOVEMENT AND CONTROL ASSOCIATION
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
AP	ACCESS PANEL
APD	AIR PRESSURE DROP
ASJ	ALL SERVICE JACKET
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
BAS	BUILDING AUTOMATION SYSTEM
BD	BACK-DRAFT DAMPER
BFF	BELOW FINISHED FLOOR
BFG	BELOW FINISHED GRADE
BHP	BRAKE HORSE POWER
BOD	BOTTOM OF DUCT
BTU	BRITISH THERMAL UNIT
BTUH	BTU PER HOUR
C	CELSIUS
CA	COMBUSTION AIR
CD	CEILING DIFFUSER
CF	CUBIC FEET
CFM	CUBIC FEET PER MINUTE
CH	CHILLER (WATER-COOLED)
CHW	CHILLED WATER
CHWP	CHILLED WATER PUMP
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CM	CENTIMETERS
CO	CARBON MONOXIDE
COD	CABLE OPERATED DAMPER
COND	CONDENSATE
CONN	CONNECTION
CT	COOLING TOWER
CUH	CABINET UNIT HEATER
CWP	CONDENSER WATER PUMP
CWR	CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY
D	DRAIN
D&R	DISCONNECT & REMOVE
DB	DRY BULD
DC	DIRECT CURRENT
DDC	DIRECT DIGITAL CONTROL
DE	DRYER EXHAUST
DEG. °	DEGREE
DIA, ø	DIAMETER
DIM	DIMENSION
DN	DOWN
DP	DIFFERENTIAL PRESSURE
DWG(S)	DRAWING(S)
DWH	DOMESTIC WATER HEATER
E	EXISTING
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRICAL CONTRARACTOR
EF	EXHAUST FAN
EG	EXHAUST GRILLE
EPDM	ETHYLENE PROPYLENE DIENE MONOMER
ER	EXHAUST REGISTER
ERU	ENERGY RECOVER UNIT HEATER
EUH	ELECTRIC UNIT HEATER
EWT	ENTERING WATER TEMPERATURE
EXH	EXHAUST
F	FAHRENHEIT
F&T	FLOAT & THERMOSTATIC
FCU	FAN COIL UNIT
FD	FIRE DAMPER
FDA	U.S. FOOD AND DRUG ADMINISTRATION
FF	FINSHED FLOOR
FG	FINISHED GRADE
FLA	FULL LOAD AMPS
FLEX	FLEXIBLE
FLUE	COMBUSTION FLUE
FPB	FAN POWERED BOX
FPM	FEET PER MINUTE
FSD	COMBINATION SMOKE AND FIRE DAMPER
FT, '	FEET
FTR	FIN TUBE RADIATION
FVAV	FAN POWERED VAV
G	GAS
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GE	GREASE EXHAUST
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HB	HOSE BIB (CONNECTION)
HP	HORSE POWER
HPC	HIGH PRESSURE CONDENSATE
HPS	HIGH PRESSURE STEAM
HUM	HUMIDIFIER
HVAC	HEATING VENTILATION AND AIR CONDITIONING
HWR	HOT WATER RETURN

CERTAIN ITEMS IN THE LEGEND BELOW MAY NOT APPLY TO THIS PROJECT.

HVAC ABBREVIATIONS

HWS	HOT WATER SUPPLY
HX	HEAT EXCHANGER
HZ	HERTZ
I/O	INPUT/OUTPUT
IAQ	INDOOR AIR QUALITY
ID	INSIDE DIAMETER
IFB	INTEGRAL FACE AND BYPASS
IN, "	INCHES
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
LD	LINEAR DIFFUSER
LPC	LOW PRESSURE CONDENSATE
LPS	LOW PRESSURE STEAM
LVR	LOUVER
LWT	LEAVING WATER TEMPERATURE
MAU	MAKE-UP AIR UNIT
MAX	MAXIMUM
MBH	1000 BTUH
MC	MECHANICAL CONTRACTOR
MERV	MINIMUM EFFICIENCY REPORTING VALUE
MIN	MINIMUM
MM	MILLIMETERS
MPH	MILES PER HOUR
N	NEW WORK
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRIC CODE
NEMA	NATIONAL ELECTRIC MANUFACTURERS ASSOCIATION
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NO	NORMALLY OPENED
NPS	NOMINAL PIPE SIZE
NPT	NATIONAL PIPE THREAD
OA	OUTSIDE AIR
OD	OUTSIDE DIAMETER
ODP	OPEN DRIP PROOF
OS&Y	OUTSIDE SCREW AND YOKE
OSHA	OCCUPATIONAL SAFTEY AND HEALTH ADMINISTRATION
PC	PUMPED CONDENSATE
PCB	PASSIVE CHILLED BEAM
PCF	POUNDS PER CUBIC FOOT
PD	PRESSURE DROP
PDF	PORTABLE DOCUMENT FORMAT
PH	PHASE
PRV	PRESSURE REDUCTION VALVE
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
PVC	POLYVINLY CHLORIDE
R	RELOCATED
R&R	REMOVE AND RELOCATE
RA	RETURN AIR
REQD	REQUIRED
RF	RETURN FAN
RG	RETURN GRILLE
RH	RELATIVE HUMIDITY
RHC	REHEAT COIL
RHG	REFRIGERANT HOT GAS
RL	REFRIGERANT LIQUID
RM	ROOM
RPM	REVOLUTIONS PER MINUTE
RR	RETURN REGISTER
RS	REFRIGERANT SUCTION
RTD	RESISTANCE TEMPERATURE DETECTOR
RTU	ROOF TOP UNIT
SA	SUPPLY AIR
SAHU	SPLIT AIR HANDLING UNIT
SD	SMOKE DAMPER
SEN	SENSIBLE
SF	SUPPLY FAN
SMACNA	SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION
SP	STATIC PRESSURE
SQ	SQUARE
SQ FT	SQUARE FEET
SR	SUPPLY REGISTER
STD	STANDARD
STM	STEAM
SX	SMOKE EXHAUST
T	THERMOSTAT
TA	TRANSFER AIR
TCP/IP	TRANSMISSION CONTROL PROTOCOL/INTERNET PROTOCOL
TEAO	TOTALLY ENCLOSED AIR OVER
TEFC	TOTALLY ENCLOSED FAN COOLED
TEMP	TEMPERATURE
TG	TRANSFER GRILLE
TOD	TOP OF DUCT
TON	12,000 BTU (COOLING CAPACITY)
TYP	TYPICAL
UC	UNDER COUNTER
UH	UNIT HEATER
UL	UNDERWRITERS LABRATORIES
V	VOLTS/VOLTAGE
VA	VOLT AMPS
VAV	VARIABLE AIR VOLUME
VFD	VARIABLE FREQUENCY DRIVE
VTR	VENT THRU ROOF
VVT	VARIABLE VOLUME AND TEMPERATURE
WB	WET BULB
WC	WATER COLUMN
WFS	WATER FLOW SWITCH
WG	WATER GAUGE
WPD	WATER PRESSURE DROP

MECHANICAL DRAWING INDEX

M-001	MECHANICAL SYMBOL LEGEND AND NOTES
M-101	BULLPEN MECHANICAL PLANS

GENERAL MECHANICAL NOTES:

1. TAGGED DUCT SIZE SHALL BE INTERNAL FREE AREA. OUTSIDE DIMENSIONS OF THE DUCT SHALL BE INCREASED AS REQUIRED TO ACCOMODATE ANY INTERNALLY LINED DUCTWORK.
2. FOR EXACT LOCATION OF DIFFUSERS AND GRILLES, SEE ARCHITECTURAL REFLECTED CEILING PLANS.
3. PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE HVAC SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED, AND AS REQUIRED BY STATE AND LOCAL CODES.
4. INSTALL ALL NEW WORK IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS, CONTRACT DOCUMENTS, AND APPLICABLE CODES AND REGULATIONS.
5. THE LOCATIONS OF ALL ITEMS SHOWN ON THE DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS THAT ARE NOT DEFINITELY FIXED BY DIMENSIONS ARE BEST APPROXIMATES ONLY. THE EXACT LOCATIONS NECESSARY TO SECURE THE BEST CONDITIONS AND RESULTS MUST BE DETERMINED BY THE PROJECT SITE CONDITIONS AND SHALL HAVE THE APPROVAL OF THE ENGINEER BEFORE BEING INSTALLED. DO NOT SCALE DRAWINGS.
6. COORDINATE CONSTRUCTION OF ALL HVAC WORK WITH ARCHITECTURAL, STRUCTURAL, PLUMBING, CIVIL, ELECTRICAL, TECHNOLOGY, ETC., SHOWN ON OTHER CONTRACT DOCUMENT DRAWINGS.
7. ALL HVAC WORK SHALL BE COORDINATED WITH ALL TRADES INVOLVED. OFFSETS IN PIPING AROUND OBSTRUCTIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO OWNER.
8. MAINTAIN A MINIMUM OF 6'-8" CLEARANCE TO UNDERSIDE OF PIPES AND SUSPENDED EQUIPMENT THROUGHOUT ACCESS ROUTES IN MECHANICAL ROOMS.
9. WHERE TWO OR MORE ITEMS OF THE SAME TYPE OF EQUIPMENT ARE REQUIRED, THE PRODUCT OF ONE MANUFACTURER SHALL BE USED.
10. ALL MISCELLANEOUS STEEL REQUIRED TO ENSURE PROPER INSTALLATION SHALL BE FURNISHED AND INSTALLED BY THE HVAC CONTRACTOR.
11. ALL EQUIPMENT, PIPING, ETC. SHALL BE SUPPORTED AS REQUIRED TO PROVIDE A VIBRATION FREE INSTALLATION.
12. ALL PIPING AND EQUIPMENT SUPPORTED FROM STRUCTURAL STEEL SHALL BE COORDINATED WITH GENERAL CONTRACTOR. ALL ATTACHMENTS TO STEEL BAR JOISTS, TRUSSES, OR JOIST GIRDERS SHALL BE AT PANEL POINTS. HVAC EQUIPMENT AND PIPING SHALL NOT BE SUPPORTED FROM METAL DECK.
13. CONTRACTOR TO INFORM THE STRUCTURAL ENGINEER IN WRITING OF ANY SUSPENDED LOAD IN EXCESS OF 400 POUNDS.
14. IF THERE IS ANY DEVIATION BETWEEN THE SPECIFICATIONS AND DRAWINGS THE CONTRACTOR SHALL ADHERE TO THE MORE STRINGENT CONDITION.
15. EXHAUST ONLY ROOMS SUCH AS SMALL SINGLE RESTROOMS, JANITORS CLOSETS, ELECTRICAL CLOSETS, AND STORAGE ROOMS SHALL HAVE DOOR LOUVERS FOR MAKEUP AIR. COORDINATE WITH ARCHITECTURAL DRAWINGS AND SCHEDULED LOUVERS ON M-101.

APPLICABLE MECHANICAL CODES - COMMERCIAL

1. THIS LIST IS NOT INCLUSIVE OF ALL CODES AND STANDARDS THAT MAY OR MAY NOT APPLY TO THIS PROJECT.
2. PERFORM WORK SPECIFIED IN SPECIFICATIONS IN ACCORDANCE WITH STANDARDS LISTED BELOW INCLUDING AMENDMENTS OR REVISIONS. WHEN THESE SPECIFICATIONS ARE MORE STRINGENT, THEY TAKE PRECEDENCE. IN CASE OF CONFLICT, OBTAIN A DECISION FROM THE DESIGNER.

NFPA-13 (2019)
INSTALLATION OF SPRINKLER SYSTEMS

NFPA-70 (2020)
NATIONAL ELECTRICAL CODE

NFPA-72 (2019)
NATIONAL FIRE ALARM CODE

NFPA-90A (2021)
INSTALLATION OF AIR CONDITIONING AND VENTILATION SYSTEMS

NFPA-90B (2021)
INSTALLATION OF WARM AIR HEATING AND AIR CONDITIONING SYSTEMS

THE FLORIDA SPECIFIC EDITION OF NFPA 101. THE LIFE SAFETY CODE (2021 EDITION) [69A-3.012(1) FAC] [69A-53.004 FAC]

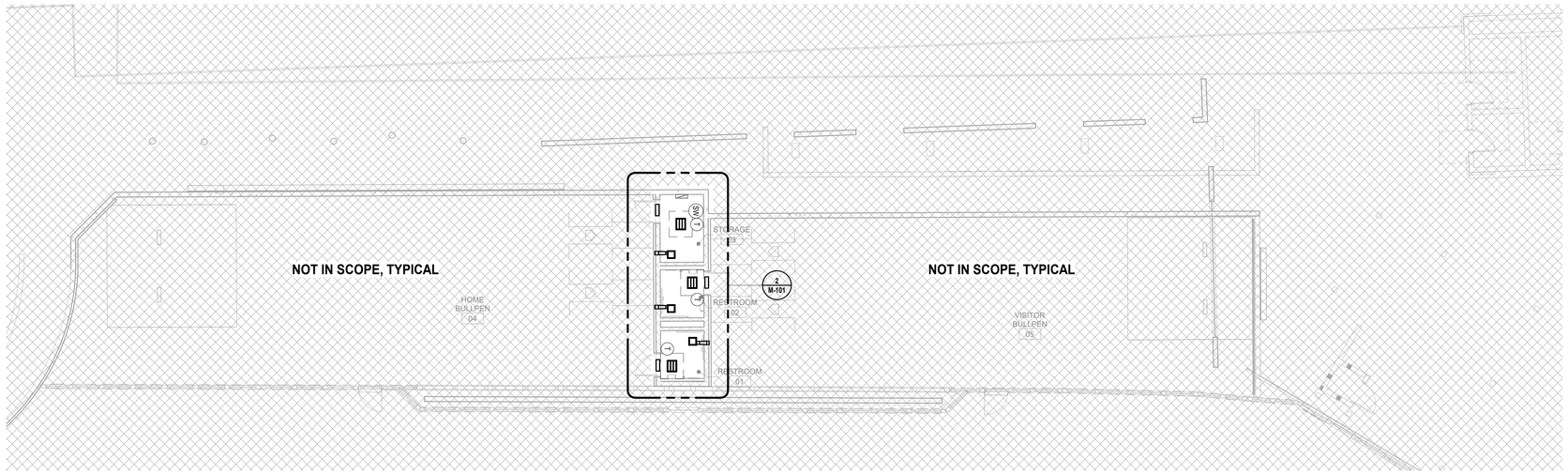
NFPA-110 (2019) EMERGENCY AND STANDBY POWER SYSTEMS

NFPA-780 (2020) LIGHTNING PROTECTION CODE

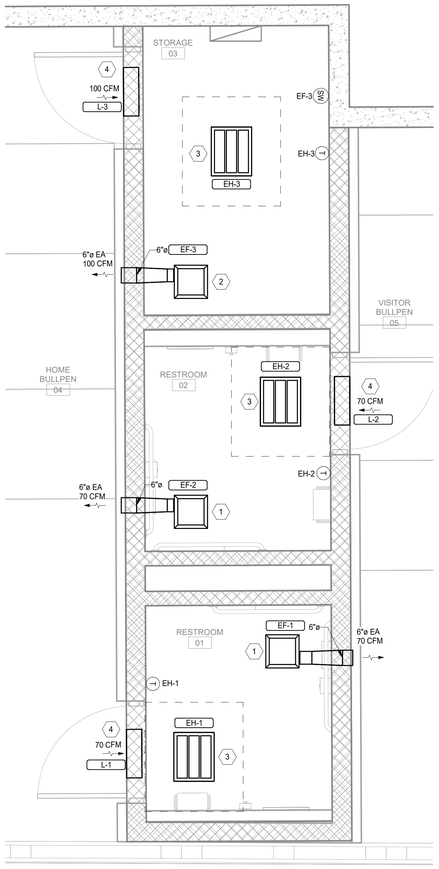
FLORIDA BUILDING CODE, BUILDING 8TH EDITION (2023)

FLORIDA BUILDING CODE, MECHANICAL 8TH EDITION (2023)

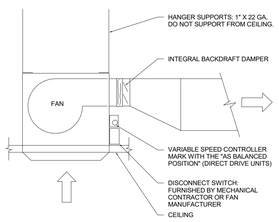
FLOR



1 BULLPEN - MECHANICAL HVAC PLAN
SCALE: 1/8" = 1'-0"



2 ENLARGED BULLPEN - MECHANICAL PLAN
SCALE: 1/2" = 1'-0"



3 CEILING EXHAUST FAN DETAIL
SCALE: 12" = 1'-0"

FAN SCHEDULE

MARK	LOCATION	SERVICE	TYPE	AIRFLOW (CFM)	ESP (IN WC)	FAN SPPED (RPM)	SOUND RATING SONES	MOTOR DATA				SELECTION BASED ON		NOTES
								DRIVE	POWER (WATTS)	V	PH	MANUFACTURER	MODEL	
EF-1	RESTROOM 2	TOILET EXHAUST	LOW PROFILE CEILING	70	0.375	1260	0	ECM	15	120	1	PANASONIC	WHISPER SLIM LOW-PROFILE	1,3,4
EF-2	RESTROOM 1	TOILET EXHAUST	LOW PROFILE CEILING	70	0.375	1260	0	ECM	15	120	1	PANASONIC	WHISPER SLIM LOW-PROFILE	1,3,4
EF-3	STORAGE	GENERAL EXHAUST	LOW PROFILE CEILING	100	0.25	1197	0	ECM	18.5	120	1	PANASONIC	WHISPER SLIM LOW-PROFILE	2,3,4

NOTES:
1. PROVIDE INTERLOCK WITH ASSOCIATED LIGHTSWITCH
2. PROVIDE WITH WALL MOUNTED 7-DAY PROGRAMMABLE TIMER SWITCH TO OPERATE DURING OCCUPIED HOURS
3. INTEGRAL GRAVITY BACKDRAFT DAMPER.
4. TERMINATE AT WALL LOUVER. BASIS OF DESIGN SHALL BE XVENT MODEL 6SEB-BRS. COLOR SELECTED BY ARCHITECT.

CABINET UNIT HEATER SCHEDULE

MARK	LOCATION SERVED	MOUNTING LOCATION	CAPACITY (kW)	FAN DATA	ELECTRICAL			SELECTION BASED ON		NOTES
				SUPPLY AIRFLOW (CFM)	V	PH	FLA	MANUFACTURER	MODEL	
EH-1	RESTROOM 2	CEILING RECESSED	1.5	150	120	1	12.5	BERKO	EFF1500	1,2,3
EH-2	RESTROOM 1	CEILING RECESSED	1.5	150	120	1	12.5	BERKO	EFF1500	1,2,3
EH-3	STORAGE	CEILING RECESSED	2	150	208	1	9.8	BERKO	EFF4008	1,2,3

NOTES:
1. PROVIDE WITH FACTORY DISCONNECT.
2. PROVIDE REMOTE WALL MOUNTED THERMOSTAT. PROVIDE LOW VOLTAGE TRANSFORMER AS REQUIRED
3. RECESSED CEILING MOUNTED. PROVIDE BACK BOX FOR INSTALLATION

INTAKE/TRANSFER GRILLE SCHEDULE

MARK	SERVICE	DESIGN AIRFLOW (CFM)	FREE AREA (SQFT)	MAX VELOCITY (FPM)	MAX PD (IN WC)	SIZE		SELECTION BASED ON		NOTES
						W (IN)	H (IN)	MANUFACTURER	MODEL	
L-1	INTAKE - TRANSFER	70	0.5	150	0.015	16	6	PRICE	ATG	ALL
L-2	INTAKE - TRANSFER	70	0.5	150	0.015	16	6	PRICE	ATG	ALL
L-3	INTAKE - TRANSFER	100	0.5	200	0.046	16	6	PRICE	ATG	ALL

NOTES:
1. PROVIDE ALUMINUM CONSTRUCTION WITH INSECT SCREEN
2. FINISH SHALL MATCH DOOR. COORDINATE WITH ARCHITECT
3. COORDINATE FINAL LOUVER SIZE WITH ARCHITECTURAL DRAWINGS. SCHEDULED SIZE IS THE MINIMUM.

GENERAL SHEET NOTES:

A. THESE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL EXTENT OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION AND PROPER INSTALLATION OF ALL MECHANICAL SYSTEMS. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY OFFSETS AND FITTINGS WHICH MAY BE REQUIRED DUE TO SPACE CONSTRAINTS OR OTHER CONDITIONS.

B. THE CONTRACTOR SHALL PROVIDE ALL MISCELLANEOUS SUPPORTING STEEL, ETC. FOR THE PROPER INSTALLATION OF ALL MECHANICAL SYSTEMS.

C. THE CONTRACTOR SHALL COORDINATE SIZES AND LOCATIONS OF FLOOR, WALL, AND ROOF PENETRATIONS AS WELL AS LOUVER SIZES, ETC. WITH GENERAL TRADES.

D. THE CONTRACTOR SHALL VERIFY ALL CLEARANCES PRIOR TO THE FABRICATION OF ANY WORK.

E. THE CONTRACTOR SHALL COORDINATE THE LOCATION OF CEILING GRILLES, REGISTERS, AND DIFFUSERS WITH THE ARCHITECTURAL REFLECTED CEILING PLANS.

F. DUCTWORK AND PIPING SHALL NOT BE LOCATED OVER THE TOP OF ANY ELECTRICAL PANELS OR EQUIPMENT.

G. THE CONTRACTOR SHALL COORDINATE AND PROVIDE ACCESS DOORS IN HARD CEILINGS FOR ALL EQUIPMENT WHICH REQUIRES ACCESS, SUCH AS: FIRE AND SMOKE DAMPERS, SMOKE DETECTORS, BALANCING DAMPERS, VAV BOXES, ETC. COORDINATE THE RATING OF THE ACCESS PANEL TO MAINTAIN THE OVERALL RATING OF THE ASSEMBLY.

H. ALL MECHANICAL EQUIPMENT, PIPING, VALVES, DAMPERS, SMOKE DETECTORS ETC. WHICH REQUIRE ROUTINE MAINTENANCE OR INSPECTION SHALL BE ACCESSIBLE FOR SERVICE.

I. CONTRACTOR TO COORDINATE AND VERIFY THERMOSTAT LOCATIONS WITH THE GENERAL CONTRACTOR PRIOR TO INSTALLATION.

J. SEAL ALL MECHANICAL PENETRATIONS THROUGH FIRE AND/OR SMOKE BARRIERS.

(#) SHEET KEYNOTES:

1. PROVIDE CEILING MOUNTED EXHAUST FAN INTERLOCKED WITH LIGHT SWITCH. TRANSITION TO 6"ø ROUND EXHAUST DUCTWORK AND ROUTE TO EXTERIOR XVENT AS INDICATED. COORDINATE MOUNTING LOCATION WITH ROOF JOISTS. REFER TO SCHEDULE AND DETAILS FOR MORE INFORMATION.
2. PROVIDE CEILING MOUNTED EXHAUST FAN INTERLOCKED TO WALL MOUNTED TIMER SWITCH SET TO RUN DURING OCCUPIED HOURS. CONFIRM SCHEDULE WITH OWNER. TRANSITION TO 6"ø ROUND EXHAUST DUCTWORK AND ROUTE TO EXTERIOR XVENT AS INDICATED. COORDINATE MOUNTING LOCATION WITH ROOF JOISTS. REFER TO SCHEDULE FOR MORE INFORMATION.
3. PROVIDE RECESSED CEILING MOUNTED ELECTRIC HEATER TIED TO WALL MOUNTED THERMOSTAT SET TO 68°F ADJ.. COORDINATE MOUNTING LOCATION WITH ROOF JOISTS. REFER TO SCHEDULE FOR MORE INFORMATION.
4. PROVIDE DOOR TRANSFER LOUVER WITH INSECT SCREEN FOR MAKEUP AIR PATH FOR EXHAUST FANS. LOUVER SHALL BE SIZED AT 16x6 MINIMUM. REFER TO SCHEDULE AND ARCHITECTURAL PLANS FOR MORE INFORMATION

CITY OF JACKSONVILLE FLORIDA
LEGENDS GLOBAL
OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100
www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD. JACKSONVILLE FL, 32202

BID/ PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

ISSUED BY: OSPORTS
ISSUE DATE: **10/22/25**
PROJ NO. **P20251573.000**

REVISIONS

TAG	ISSUED	DATE

SHEET NAME:
BULLPEN MECHANICAL PLANS

DRAWING NO.
M-101

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

CERTAIN ABBREVIATIONS LISTED BELOW APPLY TO THIS PROJECT.

PLUMBING ABBREVIATIONS

(E)	EXISTING
AAV	AIR ADMITTANCE VALVE
AD	AREA DRAIN
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AG	AIR GAP
AHU	AIR HANDLING UNIT
AT	ACID NEUTRALIZATION TANK
AV	ACID VENT
AW	ACID WASTE
B	BOILER
BF	BOTTLE FILLER
BFF	BELOW FINISHED FLOOR
BFG	BELOW FINISHED GRADE
BFP	BACKFLOW PREVENTER
BOP	BOTTOM OF PIPE
BPP	BOOSTER PUMP PACKAGE
BT	BATHTUB
CA	COMPRESSED AIR
CB	CATCH BASIN
CD	CONDENSATE
CO2	CARBON DIOXIDE
CW	COLD WATER (DOMESTIC)
DCDA	DOUBLE CHECK DETECTOR ASSEMBLY
DD	DECK DRAIN
DF	DRINKING FOUNTAIN
DFU	DRAINAGE FIXTURE UNIT
DN	DOWN
DS	DOWNSPOUT
DWG(S)	DRAWING(S)
EEW	EMERGENCY EYEWASH
ERD	EMERGENCY ROOF DRAIN
ES	EMERGENCY STORM
ESH	EMERGENCY SHOWER
ESO	EMERGENCY STORM OUTLET
ESP	ELEVATOR SUMP PUMP
ET	EXPANSION TANK
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
F/W	FIRE & WATER SERVICE
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FF	FINISHED FLOOR
FFD	FUNNEL FLOOR DRAIN
FG	FINISHED GRADED
FS	FLOOR SINK
FV	FLUSH VALVE
FW	FILTERED COLD WATER
G	NATURAL GAS
GAL	GALLON
GC	GENERAL CONTRACTOR
GCO	GRADE CLEANOUT
GD	GARBAGE DISPOSAL
GI	GREASE INTERCEPTOR
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GPP	GREASE PUMP OUT PORT
GPR	GAS PRESSURE REGULATOR
GT	GREASE TRAP
GW	GREASE WASTE
GWH	GAS WATER HEATER
HB	HOSE BIBB
HCO	HORIZONTAL CLEANOUT
HP	HORSE POWER
HST	HOT WATER STORAGE TANK
HW	HOT WATER (DOMESTIC)
HWR	HOT WATER RECIRCULATION

CERTAIN ABBREVIATIONS LISTED BELOW APPLY TO THIS PROJECT.

PLUMBING ABBREVIATIONS

I.E.	INVERT ELEVATION
IMB	ICE MAKER BOX
IN-WC	INCHES WATER COLUMN
IW	INDIRECT WASTE
IWH	INSTANTANEOUS WATER HEATER (TANKLESS)
KEC	KITCHEN EQUIPMENT CONTRACTOR
KS	KITCHEN SINK
L	LAVATORY
LF	LAVATORY FAUCET
MAU	MAKEUP AIR UNIT
MF	MOP SINK FAUCET
MS	MOP SINK
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NGVD	NATION GEODETIC VERTICAL DATUM
NO	NORMALLY CLOSED
NPW	NON-POTABLE WATER
ON	OVERFLOW NOZZLE
ORD	OVERFLOW ROOF DRAIN
OW	OILY WASTE SEPARATOR
OWS	OIL WATER SEPARATOR
PC	PLUMBING CONTRACTOR
PD	PUMP DISCHARGE
PFD	PERFORATED FOUNDATION DRAIN
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
RD	ROOF DRAIN
RO	REVERSE OSMOSIS WATER
RP	HOT WATER RECIRCULATION PUMP
RPBFP	REDUCED PRESSURE BACKFLOW PREVENTER
RPDA	REDUCED PRESSURE DETECTOR ASSEMBLY
RTU	ROOFTOP UNIT
SAN	SANITARY
SCO	STACK CLEANOUT
SCW	SOFT COLD WATER
SD	SHOWER DRAIN
SH	SHOWER FAUCET
SI	SEDIMENT/SOLIDS INTERCEPTOR
SK	SINK
SP	SUMP PUMP
SS	SERVICE SINK
ST	STORM
SV	STACK VENT
TD	TRENCH DRAIN
TEP	TEMPERATURE AND PRESSURE RELIEF
TMV	THERMOSTATIC MIXING VALVE
TP	TRAP PRIMER
TW	TEMPERED WATER
TYP	TYPICAL
UG	UNDERGROUND
UH	UNIT HEATER
UR	URINAL
UT	UTILITY TUB
V	VENT
VA	VALVE
VB	VACUUM BREAKER
VS	VENT STACK
VTR	VENT THROUGH ROOF
W	WASTE
WC	WATER CLOSET
WCO	WALL CLEAN OUT
WH	WALL HYDRANT
WS	WASTE STACK
WSFU	WATER SUPPLY FIXTURE UNITS
WUB	WALL UTILITY BOX

APPLICABLE CODES

1. THIS LIST IS NOT INCLUSIVE OF ALL CODES AND STANDARDS THAT MAY OR MAY NOT APPLY TO THIS PROJECT.
2. PERFORM WORK SPECIFIED IN SPECIFICATIONS IN ACCORDANCE WITH STANDARDS LISTED BELOW INCLUDING AMENDMENTS OR REVISIONS WHEN THESE SPECIFICATIONS ARE MORE STRINGENT, THEY TAKEPRECEDENCE. IN CASE OF CONFLICT, OBTAIN A DECISION FROM THE DESIGNER.

FLORIDA BUILDING CODE, BUILDING CURRENT EDITION (2023)

FLORIDA BUILDING CODE, MECHANICAL CURRENT EDITION (2023)

FLORIDA BUILDING CODE, PLUMBING CURRENT EDITION (2023)

FLORIDA BUILDING CODE, TEST PROTOCOLS FOR HIGH WIND HURRICANE ZONES CURRENT EDITION (2023)

FLORIDA BUILDING CODE, FUEL GAS CURRENT EDITION (2023)

FLORIDA FIRE PREVENTION CODE CURRENT EDITION (2023)

FLORIDA ACCESSIBILITY CODE (2023)

FLORIDA BUILDING CODE, ENERGY EFFICIENCY (2023)

STATE OF FLORIDA ADMINISTRATIVE CODE NO. 69A-3.012 AND 69A-60.

WHERE THERE ARE DIFFERENCES BETWEEN SECTIONS OF THE "BUILDING" AND "MECHANICAL" OR "PLUMBING" CODES, IT WILL BE ASSUMED THAT THE BUILDING CODE TAKES PRECEDENCE.

CERTAIN ITEMS IN THE LEGEND BELOW MAY NOT APPLY TO THIS PROJECT. DARK PIPING INDICATES NEW PIPING AND LIGHT INDICATES EXISTING.

PLUMBING SYMBOL LEGEND

SYMBOL	DESCRIPTION
	BLIND FLANGE
	CAP
	CLEANOUT
	CONNECTION - BOTTOM
	CONNECTION - TOP
	ELBOW - TURNED DOWN
	ELBOW - TURNED UP/RISER
	PIPE BREAK
	P-TRAP
	REDUCER
	UNION
	BACKFLOW PREVETNER - DOUBLE CHECK
	BACKFLOW PREVETNER - REDUCED PRESSURE
	BALL VALVE
	BALANCING VALVE
	BUTTERFLY VALVE
	CHECK VALVE
M	ELEC. CONTROL VALVE
	FLEXIBLE CONNECTOR
	GATE VALVE
	GENERIC VALVE
M	METER - WATER
G	METER - GAS
T/P	MIXING VALVE
	PLUG VALVE
	PRESSURE GAGE
	PRESSURE REDUCING VALVE
	PRESSURE RELIEF VALVE
	SHUT OFF VALVE IN VERTICAL
	THERMOMETER
	WATER HAMMER ARRESTER
	WYE STRAINER
	DECK DRAIN
	FLOOR DRAIN
	FLOOR SINK
	HUB DRAIN
	PUMP
	HOSE BIBB / ROOF HYDRANT
	WALL HYDRANT
	DIRECTION OF SLOPE (DOWN)
	DIRECTION OF FLOW
	PIPE SLEEVE
	CONNECT TO EXISTING
	LIMIT OF DEMOLITION
FD-1 — DESIGN SIZE (OPTIONAL) / IDENTITY TYPE	PLUMBING FIXTURE AND EQUIPMENT TAG
HW-88 — IDENTITY TYPE	KITCHEN EQUIPMENT BY OTHERS
XXX — SYSTEM ABBREVIATION / XX — RISER IDENTIFIER	RISER TAG

CERTAIN ITEMS IN THE LEGEND BELOW MAY NOT APPLY TO THIS PROJECT. DARK PIPING INDICATES NEW PIPING AND LIGHT INDICATES EXISTING.

PLUMBING SYSTEM LEGEND

SYSTEM	DESCRIPTION
	EXISTING PIPE
	PIPE TO BE DEMOLISHED
#" SAN	SANITARY
#" SAN	UNDERGROUND SANITARY
#" V	SANITARY VENT
#" OW	UNDERGROUND OIL WASTE DRAINAGE
#" ST	STORM
#" ST	UNDERGROUND STORM
#" ES	EMERGENCY STORM
#" CW	DOMESTIC COLD WATER
#" HW	DOMESTIC HOT WATER
#" HW 140 °F	DOMESTIC HOT WATER (140 °F)
#" HWR	DOMESTIC HOT WATER RECIRC.
#" HWR 140 °F	DOMESTIC HOT WATER RECIRC. (140 °F)
#" TW	TEMPERED WATER (X °F)
#" G	NATURAL GAS
#" X	REFER TO ABBREVIATIONS
	PIPE WITH HEAT TRACE

GENERAL PLUMBING NOTES:

1. PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE PLUMBING SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED, AND AS REQUIRED BY STATE AND LOCAL CODES.
2. ANY EXISTING CONDITIONS SHOWN ON DRAWINGS REFLECT INFORMATION FURNISHED BY THE OWNER AND ARE ACCURATE TO THE BEST KNOWLEDGE OF THE ENGINEER. FIELD CONDITIONS MAY VARY FROM THOSE SHOWN ON DRAWINGS. THE CONTRACTOR IS TO MAKE ARCHITECT/OWNER'S REPRESENTATIVE AWARE OF ANY DISCREPANCIES BETWEEN DRAWINGS AND ACTUAL FIELD CONDITIONS PRIOR TO COMMENCING WORK.
3. PRIOR TO COMMENCING WORK, PLUMBING CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION OF SERVICES, INVERT ELEVATIONS OF UNDERFLOOR SANITARY LINES, AND SIZES OF PIPING TO BE RE-USED.
4. CONTRACT DOCUMENT DRAWINGS FOR PLUMBING WORK ARE DIAGRAMMATIC AND ARE INTENDED TO CONVEY SCOPE AND GENERAL ARRANGEMENT ONLY.
5. INSTALL ALL PLUMBING FIXTURES, EQUIPMENT, AND APPURTENANCES IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS, CONTRACT DOCUMENTS, AND APPLICABLE CODES AND REGULATIONS.
6. THE LOCATIONS OF ALL ITEMS SHOWN ON THE DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS THAT ARE NOT DEFINITELY FIXED BY DIMENSIONS ARE APPROXIMATE ONLY. THE EXACT LOCATIONS NECESSARY TO SECURE THE BEST CONDITIONS AND RESULTS MUST BE DETERMINED BY THE PROJECT SITE CONDITIONS AND SHALL HAVE THE APPROVAL OF THE ENGINEER BEFORE BEING INSTALLED. DO NOT SCALE DRAWINGS.
7. COORDINATE CONSTRUCTION OF ALL PLUMBING WORK WITH ARCHITECTURAL, STRUCTURAL, CIVIL, ELECTRICAL, ETC., SHOWN ON OTHER CONTRACT DOCUMENT DRAWINGS.
8. COORDINATE EXACT LOCATIONS OF ALL GAS, COLD WATER, AND MAKE-UP WATER CONNECTIONS TO HVAC EQUIPMENT AND EXACT LOCATIONS OF FLOOR AND HUB DRAINS FOR HVAC EQUIPMENT WITH THE HVAC CONTRACTOR PRIOR TO INSTALLATION.
9. ALL PLUMBING WORK SHALL BE COORDINATED WITH ALL TRADES INVOLVED. OFFSETS IN PIPING AROUND OBSTRUCTIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO OWNER.
10. VERIFY EXACT LOCATIONS OF ALL FLOOR AND ROOF DRAINS WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR PROPER PLACEMENT WITH RESPECT TO SLOPES. COORDINATE THE INSTALLATION WITH THE APPROPRIATE CONTRACTOR.
11. UNLESS OTHERWISE INDICATED, PLUMBING WORK STOPS AT A POINT 5'-0" OUTSIDE THE BUILDING. COORDINATE EXACT LOCATION INCLUDING INVERT ELEVATION WITH SITE UTILITY CONTRACTOR.
12. MAINTAIN A MINIMUM OF 6'-8" CLEARANCE TO UNDERSIDE OF PIPES AND SUSPENDED EQUIPMENT THROUGHOUT ACCESS ROUTES IN MECHANICAL ROOMS.
13. ALL TESTS SHALL BE COMPLETED BEFORE ANY PLUMBING EQUIPMENT OR PIPING INSULATION IS APPLIED.
14. WHERE TWO OR MORE ITEMS OF THE SAME TYPE OF EQUIPMENT ARE REQUIRED, THE PRODUCT OF ONE MANUFACTURER SHALL BE USED.
15. ALL MISCELLANEOUS STEEL REQUIRED TO ENSURE PROPER INSTALLATION SHALL BE FURNISHED AND INSTALLED BY THE PLUMBING CONTRACTOR.
16. PROVIDE ACCESS PANELS FOR INSTALLATION IN WALLS AND CEILINGS, WHERE REQUIRED, TO SERVICE VALVES AND OTHER CONCEALED PLUMBING EQUIPMENT. ACCESS PANELS SHALL BE TURNED OVER TO GENERAL CONTRACTOR FOR INSTALLATION.
17. ALL EQUIPMENT, PIPING, ETC. SHALL BE SUPPORTED AS REQUIRED TO PROVIDE A VIBRATION FREE INSTALLATION.
18. VENT PIPING SHALL BE SO GRADED AND CONNECTED AS TO DRAIN BACK TO THE DRAINAGE PIPING BY GRAVITY, AN IN ACCORDANCE WITH THE LOCAL PLUMBING CODE.
19. PROVIDE FLEXIBLE CONNECTIONS IN ALL PIPING SYSTEMS CONNECTED TO PUMPS AND OTHER EQUIPMENT WHICH REQUIRE VIBRATION ISOLATION. FLEXIBLE CONNECTIONS SHALL BE PROVIDED AS CLOSE TO THE EQUIPMENT AS POSSIBLE OR AS INDICATED ON THE DRAWINGS.
19. ALL PIPING AND EQUIPMENT SUPPORTED FROM STRUCTURAL STEEL SHALL BE COORDINATED WITH GENERAL CONTRACTOR. ALL ATTACHMENTS TO STEEL BAR JOISTS, TRUSSES, OR JOIST GIRDERS SHALL BE AT PANEL POINTS. SEE STRUCTURAL NOTES DRAWINGS AND PLUMBING SPECIFICATIONS FOR REQUIRED PRODUCTS AND INSTALLATION OF HANGERS AND SUPPORTS. PLUMBING EQUIPMENT AND PIPING SHALL NOT BE SUPPORTED FROM METAL DECK.
20. CONTRACTOR TO INFORM THE STRUCTURAL ENGINEER IN WRITING OF ANY SINGLE SUSPENDED LOAD IN EXCESS OF 400 LBS.
21. RUN ALL SANITARY AND STORM PIPING WITH 1% MINIMUM GRADE UNLESS OTHERWISE NOTED. HORIZONTAL VENT PIPING SHALL BE GRADED TO DRIP BACK TO SOIL OR WASTE PIPE BY GRAVITY. 2" PIPING SHALL BE RUN AT 2% MINIMUM SLOPE.
22. ELEVATIONS AS SHOWN ON THE DRAWINGS ARE TO THE CENTERLINE OF ALL PRESSURE PIPING AND TO THE INVERT OF ALL GRAVITY PIPING.
23. ADJUST SEWER INVERTS TO KEEP TOPS OF PIPE IN LINE WHERE PIPE SIZE CHANGES.
24. MAINTAIN A MINIMUM OF 3' 0" OF GROUND COVER OVER ALL UNDERGROUND WATER MAINS AND A MINIMUM OF 3'-0" OF GROUND COVER OVER ALL UNDERGROUND SEWERS AND DRAINS OUTSIDE OF BUILDING.
25. PROVIDE SHUTOFF VALVES IN ALL DOMESTIC HOT AND COLD WATER PIPING SYSTEM BRANCHES.
26. INSTALL PIPING SO THAT ALL VALVES, STRAINERS, UNIONS, TRAPS, FLANGES, AND OTHER APPURTENANCES REQUIRING ACCESS ARE ACCESSIBLE.
27. WHERE DOMESTIC COLD AND HOT WATER PIPING DROPS INTO A CHASE, THE SIZE SHOWN FOR THE PIPE DROPS SHALL BE USED TO THE LAST FIXTURE.
28. INSTALL ALL PIPING WITHOUT FORCING OR SPRINGING AND CLEAR OF DOORS AND WINDOWS.
29. ALL ABOVE GROUND PIPING SHALL GRADE TO LOW POINTS. PROVIDE HOSE END DRAIN VALVES AT THE BOTTOM OF ALL RISERS AND LOW POINTS.
30. ALL VALVES (EXCEPT CONTROL VALVES) AND STRAINERS SHALL BE FULL SIZE (FULL PORT) OF PIPE BEFORE REDUCING SIZE TO MAKE CONNECTIONS TO EQUIPMENT AND CONTROLS AND SHALL BE ADJUSTED FOR SMOOTH AND EASY OPERATION.
31. PROVIDE ALL PLUMBING FIXTURES AND EQUIPMENT WITH ACCESSIBLE STOPS.
32. PROVIDE CLEANOUTS IN SANITARY AND STORM DRAINAGE SYSTEMS AT ENDS OF RUNS, AT CHANGES IN DIRECTION, NEAR THE BASE OF STACKS, EVERY 100 FEET IN HORIZONTAL RUNS AND ELSEWHERE AS INDICATED. ALL CLEANOUTS SHALL BE FULL SIZE OF PIPE FOR PIPE SIZES 4 INCHES AND SMALLER AND SHALL BE 4 INCHES FOR PIPE SIZES LARGER THAN 4 INCHES.
33. ALL BALANCING VALVES SHALL BE PROVIDED WITH POSITION INDICATORS AND MAXIMUM ADJUSTABLE STOPS (MEMORY STOPS).
34. TRAP SEALS SUBJECT TO EVAPORATION SHALL BE PROTECTED IN ACCORDANCE WITH THE LOCAL PLUMBING CODE. THE PLUMBING CONTRACTOR SHALL PROVIDE TRAP SEAL PRIMERS/PROTECTION TO ALL FLOOR DRAIN/FLOOR SINK P-TRAPS THAT ARE SUBJECT TO EVAPORATION. REFER TO THE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
35. WATER AND DRAIN PIPING SHALL NOT BE RUN THROUGH OR ABOVE ELECTRICAL SWITCH GEAR OR ROOMS, ELEVATOR SHAFTS, ELEVATOR MACHINE ROOMS, OR TELEPHONE ROOMS.
36. THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COMPONENTS, ADAPTERS, AND FITTINGS TO MAKE FINAL CONNECTIONS TO ALL PLUMBING FIXTURES AS WELL AS FIXTURES PROVIDED BY OTHER CONTRACTORS.
37. THE DRAWINGS AND SPECIFICATIONS ARE COMPLIMENTARY; WHATEVER IS CALLED FOR IN ONE SHALL BE REQUIRED AS IF CALLED FOR IN BOTH. WHERE CONFLICTS BETWEEN THE SPECIFICATIONS AND DRAWINGS MAY OCCUR, THE MOST COSTLY OF THE TWO OPTIONS SHALL TAKE PRECEDENCE.

PLUMBING DRAWING INDEX

P-001	PLUMBING SYMBOL LEGEND AND NOTES
P-002	PLUMBING SPECIFICATIONS
P-003	PLUMBING SPECIFICATIONS
P-101	OVERALL COMBINED PLUMBING PLAN
P-401	ENLARGED PLUMBING PLANS
P-501	PLUMBING DETAILS
P-701	PLUMBING SCHEDULES
P-901	PLUMBING ISOMETRICS

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

CITY OF JACKSONVILLE FLORIDA

LEGENDS GLOBAL

OSBORN ENGINEERING

OSPORTS

400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100 www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD. JACKSONVILLE FL, 32202

BID/ PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

ISSUED BY: OSPORTS

ISSUE DATE: **10/22/25**

PROJ NO. **P20251573.000**

REVISIONS

TAG	ISSUED	DATE

SHEET NAME:

PLUMBING SYMBOL LEGEND AND NOTES

DRAWING NO.

P-001

DIVISION 22 - PLUMBING

SECTION 22 00 00 - SHEET SPECIFICATION - PLUMBING

PART 1 GENERAL

1.01 GENERAL

A. THE WORK COVERED BY THIS SECTION OF THE SPECIFICATIONS CONSISTS OF FURNISHING ALL LABOR, EQUIPMENT, MATERIALS AND SERVICE NECESSARY FOR, AND REASONABLY INCIDENTAL TO, THE PROPER COMPLETION OF ALL PLUMBING WORK SHOWN ON THE DRAWINGS AND HEREIN SPECIFIED.

B. ALL PIPES, FITTINGS, ACCESSORIES UTILIZED TO CONVEY POTABLE WATER SHALL COMPLY WITH NSF 61 AND NSF 372.

C. THE CONTRACTOR SHALL VISIT THE SITE AND THOROUGHLY INSPECT CONDITIONS AFFECTING THE WORK BEFORE SUBMITTING BID. ASSUME RESPONSIBILITY FOR MEETING ALL EXISTING CONDITIONS INCLUDING ACCESS AND WORKSPACE LIMITATIONS.

D. THE CONTRACTOR SHALL PROVIDE THE FOLLOWING SYSTEMS AND EQUIPMENT, AND ALL OTHER ITEMS OF PLUMBING.
1. FULLY INSTALL, TEST AND PROVE ALL PLUMBING SYSTEMS IN ACCORDANCE WITH THE LATEST EDITION OF THE FLORIDA BUILDING CODE - ALL VOLUMES, NFPA 101 LIFE SAFETY CODE, LATEST EDITION FIRE PROTECTION CODE, AND ANY AND ALL OTHER REGULATIONS AND ORDINANCES HAVING JURISDICTION OVER THE SCOPE OF THE WORK.
2. A COMPLETE SYSTEM OF SOIL, WASTE AND VENT PIPING TO ALL FIXTURES AND LOCATIONS SHOWN ON DRAWINGS OR CALLED FOR, AND CONNECTION TO EXISTING SOIL, WASTE AND VENT PIPING WHERE SHOWN ON DRAWINGS.
3. A COMPLETE SYSTEM OF STORM DRAIN PIPING WHERE SHOWN ON DRAWINGS OR CALLED FOR, AND CONNECTION TO EXISTING STORM PIPING WHERE SHOWN ON DRAWINGS.
4. THE INSTALLATION OF A COMPLETE SYSTEM OF DOMESTIC HOT WATER, HOT WATER RETURN, AND COLD WATER PIPING TO ALL LOCATIONS SHOWN ON DRAWINGS OR CALLED FOR, AND CONNECTION TO EXISTING WATER PIPING WHERE SHOWN ON DRAWINGS.
5. THE INSTALLATION OF ALL FIXTURES, FITTINGS, PIPING, AND ACCESSORIES AS SHOWN ON THE PLUMBING DRAWINGS AND HEREINAFTER SPECIFIED, FURNISHED BY THE PLUMBING CONTRACTOR.
6. SECURE ALL PERMITS AND INSPECTIONS AND PAY ALL FEES INCIDENTAL TO THE PLUMBING PORTION OF THE WORK.
7. PROVIDE ALL REQUIRED CHASES, SLEEVES AND OPENINGS REQUIRED. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR HIS OWN CUTTING AND PATCHING.
8. FLUSHING AND STERILIZATION OF PIPING.
9. THE INSULATION OF ALL NEW ABOVE GROUND HORIZONTAL ROOF DRAIN PIPING INCLUDING FIRST AND LAST FITTING CONNECTED TO A VERTICAL RUN, DOMESTIC HOT WATER PIPING, HOT WATER RETURN PIPING,COLD WATER PIPING , AND ABOVE-GROUND SANITARY PIPING WHEN RECEIVING CHILLED WATER/COOLING COIL CONDENSATE WASTE.
10. ALL OTHER ITEMS OF PLUMBING SPECIFIED HEREIN OR SHOWN ON THE PLANS.

1.02 DEFINITIONS

A. "PROVIDE" - TO FURNISH AND INSTALL MATERIAL UNDER THIS CONTRACT.

B. "FURNISH" - TO SUPPLY THE MATERIAL TO THE GENERAL CONTRACTOR TO BE INSTALLED BY OTHERS. PRIOR TO BID, CLEARLY AND SEPARATELY LIST ALL ITEMS TO BE INSTALLED BY OTHERS.

C. "INSTALL" - TO SUPPLY THE LABOR TO INSTALL MATERIAL FURNISHED BY THE GENERAL CONTRACTOR OR OTHERS. PRIOR TO BID, CLEARLY AND SEPARATELY LIST ALL ITEMS TO BE FURNISHED BY OTHERS.

D. AHRI - AIR-CONDITIONING, HEATING AND REFRIGERATION INSTITUTE

E. ANSI - AMERICAN NATIONAL STANDARDS INSTITUTE INTERNATIONAL

F. ASHRAE - AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR- CONDITIONING ENGINEERS

G. ASSE - AMERICAN SOCIETY OF SANITARY ENGINEERING

H. ASME - AMERICAN SOCIETY OF MECHANICAL ENGINEERS INTERNATIONAL

I. ASTM - AMERICAN SOCIETY FOR TESTING AND MATERIALS INTERNATIONAL

J. AWWA - AMERICAN WATER WORKS ASSOCIATION EPA - U.S. ENVIRONMENTAL PROTECTION AGENCY

K. ICC IPC - INTERNATIONAL CODE COUNCIL INTERNATIONAL PLUMBING CODE

L. MSS - MANUFACTURERS STANDARDIZATION SOCIETY OF THE VALVE AND FITTINGS INDUSTRY

M. MSS SP-58 (2009) - PIPE HANGERS AND SUPPORTS - MATERIALS, DESIGN AND MANUFACTURE, SELECTION, APPLICATION, AND INSTALLATION

N. MSS SP-69 (2003 - NOTICE 2012) PIPE HANGERS AND SUPPORTS - SELECTION AND APPLICATION (ANSI APPROVED AMERICAN NATIONAL STANDARD)

O. NFPA - NATIONAL FIRE PROTECTION ASSOCIATION

P. NSF-61 - NSF/ANSI STANDARD 61: DRINKING WATER SYSTEM COMPONENTS - HEALTH EFFECTS

Q. PDI - PLUMBING AND DRAINAGE INSTITUTE UL - UNDERWRITERS LABORATORIES

1.03 COORDINATION

A. CONTRACTOR SHALL COORDINATE THE WORK OF THE DIFFERENT TRADES SO THAT INTERFERENCE BETWEEN PIPING, EQUIPMENT, STRUCTURAL, AND ELECTRICAL WORK WILL BE AVOIDED. ALL NECESSARY OFFSETS IN PIPING AND DUCTWORK, AND ALL FITTINGS, AND OTHER COMPONENTS, REQUIRED TO INSTALL THE WORK PROPERLY SHALL BE FURNISHED COMPLETE IN PLACE AT NO ADDITIONAL COST.

B. IT IS REQUIRED THAT CONTRACTORS VISIT THE SITE OF THE WORK AND BECOME FAMILIAR WITH THE CONDITIONS AFFECTING THE INSTALLATION PRIOR TO BIDDING. SUBMISSION OF A BID SHALL PRESUPPOSE KNOWLEDGE OF SUCH CONDITIONS AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED WHERE EXTRA LABOR OR MATERIALS ARE REQUIRED BECAUSE OF THE LACK OF KNOWLEDGE OF THESE CONDITIONS.

C. THE CONTRACTOR SHALL PRODUCE FULL COORDINATION DRAWINGS BETWEEN ALL TRADES IDENTIFYING ANY AREAS OF INTERFERENCE OR CLASHES PRIOR TO THE START OF CONSTRUCTION. MODIFICATIONS SHALL BE MADE TO THE ASSOCIATED SYSTEMS TO RESOLVE THE ISSUE IN COORDINATION WITH AND APPROVAL OF THE ARCHITECT AND ENGINEER.

D. UNLESS OTHERWISE STIPULATED UNDER A PARTICULAR HEADING, THE FOLLOWING RULES RELATIVE TO RESPONSIBILITIES OF THE CONTRACTORS AND SUBCONTRACTORS WILL APPLY:
1. COORDINATE MAKE-UP WATER PIPING CONNECTIONS WITH MECHANICAL.
2. CEILING ACCESS PANELS WILL BE INSTALLED BY THE GENERAL CONTRACTOR AT LOCATIONS DETERMINED BY THE PLUMBING CONTRACTOR.
3. THE PLUMBING CONTRACTOR OR SUBCONTRACTOR SHALL INSTALL ALL ROUGHING IN PERTAINING TO HIS TRADE FOR EACH ITEM OF EQUIPMENT FURNISHED UNDER ANOTHER SECTION OF THE SPECIFICATIONS OR BY THE OWNER.
4. THE PLUMBING CONTRACTOR SHALL MAKE FINAL CONNECTIONS OF EQUIPMENT TO ROUGH INS.

1.04 DESIGN DRAWINGS

A. THE CONTRACT DRAWINGS ARE DIAGRAMMATIC AND ARE NOT INTENDED TO SHOW EXACT LOCATION OF EQUIPMENT, PIPING AND DUCTWORK UNLESS DIMENSIONS ARE GIVEN. SYSTEMS AND DISTRIBUTION ARE TO BE INSTALLED ALONG THE GENERAL PLANS SHOWN ON THE DRAWINGS, BUT IN COORDINATION WITH ACTUAL FIELD CONDITIONS.

B. EXTRA COSTS WHICH MIGHT RESULT FROM DEVIATIONS FROM THE DRAWINGS, SO AS TO AVOID INTERFERENCES, SHALL BE CONSIDERED A "JOB CONDITION", AND NO ADDITIONAL COMPENSATION WILL BE CONSIDERED APPLICABLE. IN THE EVENT THAT SUCH INTERFERENCES OCCUR IN THE COURSE OF THE WORK, DUE TO AN ERROR, OMISSION, OR OVERSIGHT BY THE CONTRACTOR, NO ADDITIONAL COMPENSATION SHALL BE ALLOWED. INTERFERENCES WHICH MAY OCCUR DURING THE COURSE OF CONSTRUCTION SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT, AND HIS/HER DECISION, CONFIRMED IN WRITING, SHALL BE FINAL.

1.05 MANUFACTURER SPECIFICATIONS

A. EQUIPMENT SCHEDULED ON THE DRAWINGS WAS USED TO ARRIVE AT SPACE, MAINTENANCE, AND UTILITY SERVICE. IF OTHER EQUIPMENT IS SUBMITTED AND APPROVED, TAKE RESPONSIBILITY FOR MAINTAINING THESE SPACE, MAINTENANCE, AND UTILITY SERVICE REQUIREMENTS AND COST FOR ANY RESULTING CHANGES INCLUDING COST TO CHANGE ELECTRICAL SERVICE REQUIRED BY SUBSTITUTED EQUIPMENT.

B. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND FIRST CLASS IN EVERY RESPECT. AS FAR AS IS PRACTICAL, SIMILAR PRODUCTS SHALL BE BY ONE MANUFACTURER.

C. ALL PRODUCTS DESIGNED FOR DISPENSING POTABLE WATER MUST MEET BOTH THE NSF 61 AND NSF 372 TEST STANDARDS VIA THIRD-PARTY TESTING AND CERTIFICATION.

1.06 SUBMITTALS

A. SUBMIT PRODUCT DATA FOR THE ARCHITECTS/ENGINEERS APPROVAL PRIOR TO PURCHASING AND INSTALLING THE FOLLOWING:
1. ALL EQUIPMENT AND FIXTURES.
2. PIPING.
3. PIPING ACCESSORIES
4. PIPING INSULATION.

B. TEST REPORTS – PROVIDE PRESSURE TESTS, FLUSHING AND DISINFECTION, TEST OF BACKFLOW PREVENTION ASSEMBLIES.

C. OPERATION AND MAINTENANCE DATA - INSTALLATION, OPERATION AND MAINTENANCE MANUALS OF ALL SPECIFIED EQUIPMENT, FIXTURES, PIPING, PIPING ACCESSORIES AND PIPING INSULATION. PROVIDE 2 BOOKS AND AN ELECTRONIC PDF COPY.

PART 2 PRODUCTS

2.01 PIPE AND FITTINGS

A. DOMESTIC WATER
1. ABOVE GROUND, 6 INCH AND SMALLER – ASTM B88, TYPE "L" HARD DRAWN SEAMLESS COPPER WITH WROUGHT COPPER SOLDER JOINT TYPE FITTINGS, ASTM B16.22. WHERE SILVER BRAZING ALLOY IS USED TO JOIN PIPE AND FITTINGS, FITTINGS TO BE SUITABLE FOR BRAZING.
2. AS CONTRACTOR'S OPTION WITH OWNER PRE-APPROVAL ONLY: THE FOLLOWING PRESS-CONNECT FITTING SYSTEM MAY BE USED FOR ABOVE GROUND DOMESTIC HOT AND COLD WATER SYSTEMS (SIZES 1/2" TO 4") IN LIEU OF THE PIPE FITTINGS / JOINTS SPECIFIED ABOVE: COPPER PRESS FITTINGS SHALL CONFORM TO THE MATERIAL AND SIZING REQUIREMENTS OF ASME B16.18 OR ASME B16.22. O-RINGS FOR COPPER PRESS FITTINGS SHALL BE EPDM. MANUFACTURER: VIEGA PRO-PRESS OR ENGINEER APPROVED EQUAL.
3. UNDERGROUND, 2 INCH AND SMALLER – ASTM B88, TYPE "K" SOFT COPPER TUBE WITH NO JOINTS BELOW THE FLOOR SLAB. COPPER PIPING INSTALLED BELOW GRADE SHALL BE PROTECTED BY A BITUMINOUS COATING. FITTINGS AND JOINTS SHALL BE WROUGHT COPPER SOLDER JOINT TYPE FITTINGS, ASTM B16.22. WHERE SILVER BRAZING ALLOY IS USED TO JOIN PIPE AND FITTINGS, FITTINGS TO BE SUITABLE FOR BRAZING.
4. WATER SERVICE, UNDERGROUND EXTERIOR, 3 INCHES AND LARGER - AS REQUIRED BY THE SERVING UTILITY BUT NOT LESS THAN ANSI A21.51/AWWA C151 CEMENT MORTAR LINED (ANSI A21.4/AWWA C104) DUCTILE IRON PIPE. FURNISH WITH RUBBER GASKETED PUSH ON JOINTS (ANSI A21.1/AWWA C111).

B. SANITARY SOIL AND WASTE PIPING BELOW GROUND TO 5'-0" OUTSIDE BUILDING WALLS
1. SERVICE WEIGHT CAST IRON, BELL AND SPIGOT, PIPE AND FITTINGS BY CHARLOTTE, TYLER, OR AB + I, ASTM A74, WITH CISPI "HSN" COMPRESSION TYPE GASKETS, ASTM C564, TYLER "TY-SEAL" OR EQUAL NEOPRENE PIPE GASKETS. ALL CAST IRON PIPE AND FITTINGS SHALL BE MADE IN THE UNITED STATES, MARKED WITH THE COLLECTIVE TRADEMARK OF CAST IRON SOIL PIPE INSTITUTE (CISPI) AND BE LISTED BY NSF INTERNATIONAL.

C. SANITARY SOIL, WASTE, AND VENT PIPING ABOVE GROUND INTERIOR
1. SERVICE WEIGHT NO HUB CAST IRON PIPE AND FITTINGS, ASTM A888, CISPI-301, AS MANUFACTURED BY CHARLOTTE, TYLER, OR AB + I, JOINED WITH CISPI-310 HEAVY-DUTY CAST IRON NO-HUB NEOPRENE SLEEVE-STAINLESS STEEL TYPE 304 SHIELD AND CLAMP, 24-GAUGE WITH HI-TORQUE CLAMPS TIGHTENED TO 80 INCH-POUNDS. CLAMPS SHALL BE CLAMP-ALL HI-TORQUE 80 ANACO HUSKY HD2000. ALL CAST IRON PIPE AND FITTINGS SHALL BE MADE IN THE UNITED STATES, MARKED WITH THE COLLECTIVE TRADEMARK OF CAST IRON SOIL PIPE INSTITUTE (CISPI) AND BE LISTED BY NSF INTERNATIONAL.

D. STORM DRAIN PIPING BELOW GROUND TO 5'-0" OUTSIDE BUILDING WALLS
1. SERVICE WEIGHT CAST IRON, BELL AND SPIGOT, PIPE AND FITTINGS BY CHARLOTTE, TYLER, OR AB + I, ASTM A74, WITH CISPI "HSN" COMPRESSION TYPE GASKETS, ASTM C564, TYLER "TY-SEAL" OR EQUAL NEOPRENE PIPE GASKETS. ALL CAST IRON PIPE AND FITTINGS SHALL BE MADE IN THE UNITED STATES, MARKED WITH THE COLLECTIVE TRADEMARK OF CAST IRON SOIL PIPE INSTITUTE (CISPI) AND BE LISTED BY NSF INTERNATIONAL.
2. AS CONTRACTOR'S OPTION WITH OWNER PRE-APPROVAL ONLY: TYPE 1, SOLID WALL, DWV POLYVINYL CHLORIDE (PVC) PIPE AND FITTINGS (ASTM D2665), SCHEDULE 40.

E. STORM DRAIN PIPING ABOVE GROUND INTERIOR (ABOVE GROUND INSIDE BUILDING AND INTERIOR STORM LEADER STACKS AND RAINWATER CONDUCTORS)
1. SERVICE WEIGHT NO HUB CAST IRON PIPE AND FITTINGS, ASTM A888, CISPI-301, AS MANUFACTURED BY CHARLOTTE, TYLER, OR AB + I, JOINED WITH CISPI-310 HEAVY-DUTY CAST IRON NO-HUB NEOPRENE SLEEVE-STAINLESS STEEL TYPE 304 SHIELD AND CLAMP, 24-GAUGE WITH HI-TORQUE CLAMPS TIGHTENED TO 80 INCH-POUNDS. CLAMPS SHALL BE CLAMP-ALL HI-TORQUE 80 ANACO HUSKY HD2000.
2. AS CONTRACTOR'S OPTION WITH OWNER PRE-APPROVAL ONLY: TYPE 1, SOLID WALL, DWV POLYVINYL CHLORIDE (PVC) PIPE AND FITTINGS (ASTM D2665), SCHEDULE 40. PVC PIPE AND FITTINGS SHALL NOT BE INSTALLED WITHIN RETURN AIR PLENUMS.

F. PVC PIPE AND FITTINGS SHALL NOT BE INSTALLED WITHIN RETURN AIR PLENUMS.

G. CELLULAR CORE (FOAM CORE) PIPE AND FITTINGS ARE NOT ACCEPTABLE.

H. TRAP PRIMER FEED PIPING - TYPE "K" SOFT COPPER WITHOUT JOINTS (ASTM B88) FOR ELEVATED FLOORS WITH DRAINS AND CROSS-LINKED POLYETHYLENE (PEX) PLASTIC TUBING (ASTM F 877) FOR SLAB ON GRADE WITH DRAINS.

2.02 PIPE JOINTS

A. JOINTS FOR COPPER PIPE - SOLDER JOINT TYPE ASTM B16.22. WHERE SILVER BRAZING ALLOY IS USED TO JOIN PIPE AND FITTINGS, FITTINGS TO BE SUITABLE FOR BRAZING. SWEAT SOLDER JOINTS IN COPPER DOMESTIC WATER PIPING SYSTEMS THAT HAVE AN INTERNAL PRESSURE OF 125 PSIG OR LESS WITH A 95-5 LEAD-FREE SOLDER. JOINTS SHALL BE MADE SO THAT THE SOLDER RING IS VISIBLE COMPLETELY AROUND THE JOINT. NO ACID-CORE FLUX SHALL BE USED.

B. JOINTS FOR WATER SERVICE PIPING, UNDERGROUND, EXTERIOR - PUSH ON JOINTS WITH RUBBER GASKET MEETING ANSI A21.11/AWWA C111.

C. JOINTS FOR USE WITH STEEL GAS PIPING – THREADED FOR PIPING 2" AND SMALLER, WELDED FOR PIPING 2-1/2" AND LARGER. GAS PIPING LOCATED BELOW GROUND, OR FOR GAS DISTRIBUTION PRESSURES GREATER THAN 5 PSI SHALL BE WELDED.

D. CAST IRON, HUBLESS - HEAVY-DUTY CAST IRON NO-HUB NEOPRENE SLEEVE-STAINLESS STEEL TYPE 304 SHIELD AND CLAMP, 24-GAUGE WITH HI-TORQUE CLAMPS TIGHTENED TO 80 INCH-POUNDS. CLAMPS SHALL BE CLAMP-ALL HI-TORQUE 80 ANACO HUSKY HD2000.

E. CAST IRON, HUB AND SPIGOT - CISPI HSN COMPRESSION TYPE WITH ASTM C564 NEOPRENE GASKETS, OR LEAD AND OAKUM.

F. PVC DRAINAGE, WASTE AND VENT – SOLVENT WELD, LOW V.O.C. PRIMER AND CEMENT (ASTM D2564)

G. CPVC, DOMESTIC WATER AND CONDENSATE – SOLVENT WELD, LOW V.O.C. PRIMER AND CEMENT (ASTM F493/ASTM D2846).

2.03 VALVES

A. ALL VALVES MAY NOT BE SHOWN IN EVERY INSTANCE ON THE DRAWINGS, BUT WHETHER OR NOT SHOWN, ALL VALVES NECESSARY FOR THE PROPER INSTALLATION OF THE SYSTEM SHALL BE INSTALLED BY THE PLUMBING CONTRACTOR.

B. ALL VALVES FOR USE WITH THE DOMESTIC WATER SYSTEMS SHALL BE CERTIFIED AS LEAD-FREE AND MUST MEET BOTH THE NSF 61 AND NSF 372 TEST STANDARDS VIA THIRD PARTY TESTING AND CERTIFICATION.

C. PLASTIC VALVES ARE NOT ACCEPTABLE.

D. INSTALL ALL VALVES WITH THE STEMS OR SPINDLE ABOVE THE HORIZONTAL WHERE POSSIBLE AND DO NOT INSTALL VALVES OVER ELECTRICAL PANELS OR EQUIPMENT.

E. PROVIDE EXTENDED VALVE STEMS ON INSULATED PIPE.

F. LOCATE SHUTOFF VALVES AT ALL AUTOMATIC VALVES, CHECK VALVES, AT ALL EQUIPMENT SO THEY CAN BE ISOLATED FOR REPAIRS, AT ALL BRANCH LINES CONNECTING TO MAINS, AND ELSWHERE AS SHOWN ON THE DRAWINGS. LOCATE CHECK VALVES ON THE DISCHARGE SIDE OF ALL PUMPS AND ELSEWHERE AS SHOWN ON THE DRAWINGS.

G. PROVIDE ALL VALVES OF THE SAME MANUFACTURER WHERE POSSIBLE. MANUFACTURERS: APOLLO, MILWAUKEE, NIBCO, HAMMOND, OR WATTS. ALL VALVES TO BE OF DOMESTIC MANUFACTURE:
1. VALVES IN WATER PIPING 2 INCHES AND SMALLER: TWO-PIECE BALL VALVES WITH BRONZE BODY, TEFLON SEATS, FULL PORT, BLOW-OUT PROOF STEM, ADJUSTABLE PACKING GLAND, CHROME PLATED SOLID BRONZE OR STAINLESS-STEEL BALL, SOLDERED OR THREADED ENDS, MINIMUM 150 PSI SWP / 600 PSI WOG RATING AND COMPLY WITH MSS SP-110.
2. VALVES IN WATER PIPING SYSTEMS WITH PRESSURE-SEAL-JOINT FITTINGS (PROPRESS), PRESS-END VALVES BY VIEGA OR ENGINEER APPROVED EQUAL WITH THE SAME CHARACTERISTICS AS THE STANDARD VALVES LISTED ABOVE SHALL BE UTILIZED.
3. OPERATORS: ON-OFF THROTTLING LEVER HANDLES ON SIZES 2-1/2 INCHES TO 6 INCHES, TOTALLY ENCLOSED WORM GEAR OR ACME SCREW OPERATORS WITH HAND WHEEL ON SIZES 8 INCHES TO 20 INCHES. EQUIP VALVES USED FOR BALANCING WITH MEMORY STOP. INSTALL CHAINWHEELS ON OPERATORS FOR GATE VALVES NPS 4 AND LARGER AND MORE THAN 96 INCHES ABOVE FLOOR. EXTEND CHAINS TO 60 INCHES ABOVE FINISHED FLOOR.
4. HORIZONTAL CHECK VALVES 2 INCHES AND SMALLER: SWING TYPE DESIGN, CLASS 125, 200 WOG, WITH BRONZE BODY AND CAP WITH THREADED OR SOLDERED ENDS. CONFORM TO ASTM B62.
5. VERTICAL CHECK VALVES 2 INCHES AND SMALLER: 250 WOG, CENTER GUIDED, SILENT, NON-SLAM TYPE. BRONZE BODY, SPRING, AND DISC HOLDER, THREADED ENDS. METRAFLEX 700.
6. VALVES FOR USE IN GROOVED PIPING SYSTEMS: REFER TO GROOVED PIPING SYSTEM SPECIFICATION.

H. STRAINERS:
1. 2 INCHES AND SMALLER: 'Y' TYPE PIPELINE STRAINER, BRASS OR BRONZE BODY, THREADED ENDS, 304 STAINLESS STEEL SCREEN WITH 20 MESH OPENINGS, 400 PSIG AT 210 DEGREE F. COMPLETE WITH SOLID RETAINER CAP AND GASKET. WATTS SERIES LF777 OR EQUIVALENT BY CLA-VAL, CONBRACO, FEBCO, OR WILKINS.

I. UNIONS:
1. UNIONS IN STEEL PIPING 2 INCHES AND SMALLER: MALLEABLE IRON, GROUND JOINT BRASS TO IRON SEAT SUITABLE FOR 175 PSI WORKING PRESSURES.
2. UNIONS IN COPPER PIPING 2 INCHES AND SMALLER, CAST BRASS SOLDER FITTINGS WITH MACHINED AND LAPPED SEATS SUITABLE FOR 175 PSI WORKING PRESSURES.
3. WHERE GROOVED JOINT PIPING SYSTEMS ARE UTILIZED, UNIONS ARE NOT REQUIRED. COUPLINGS SHALL SERVE AS UNIONS.

J. DIELECTRIC CONNECTIONS: PROVIDE AT CONNECTIONS BETWEEN COPPER AND FERROUS METAL PIPING MATERIALS IN DOMESTIC COLD WATER SYSTEMS ASTM F441, SCHEDULE 80, CPVC THREADED PIPE NIPPLES, 4 INCHES MINIMUM LENGTH. PROVIDE FOR DIELECTRIC CONNECTIONS IN PIPE SIZES 2 INCHES AND SMALLER. PROVIDE AT CONNECTIONS BETWEEN COPPER AND FERROUS PIPING IN DOMESTIC HOT WATER SYSTEMS VICTAULIC CLEARFLOW DIELECTRIC WATERWAY STYLE 47. FITTING CONSISTS OF ZINC PLATED CASING WITH A CHEMICALLY INERT NSF/FDA LISTED DIELECTRIC THERMOPLASTIC LINING.

K. WATER HAMMER ARRESTORS: BELLOWS TYPE, WITH STAINLESS STEEL CASING AND BELLOWS, TESTED AND CERTIFIED IN ACCORDANCE WITH PDI STANDARD WH-201. PROVIDE A PRESSURE REDUCING VALVE ON THE INLET TO THE DEVICE WHERE SYSTEM PRESSURES ARE ABOVE 80PSI. MANUFACTURER: JAY R. SMITH. OTHER ACCEPTABLE MANUFACTURERS ARE: JOSAM, WADE, AND ZURN.

L. EXPANSION COMPENSATORS - EXC-1: FOR COPPER PIPE 2 INCHES AND SMALLER. CONSTRUCTED OF A MULTI-PLY STAINLESS STEEL BELLOWS WITH CARBON STEEL SHROUD WITH AN INTERNAL, POSITIVE, ANTI-TORQUE DEVICE. SOLDER JOINTS. MAXIMUM WORKING PRESSURE: 150 PSIG. MAXIMUM OPERATING TEMPERATURE: 500 DEGREES F. MAXIMUM STROKE: 1-3/4 INCH. METRAFLEX MODEL HPFF OR EQUIVALENT BY KEFLEX OR FLEXONICS.

M. FLEXIBLE CONNECTORS: FLEXIBLE CONNECTORS SHALL BE PROVIDED AT THE SUCTION AND DISCHARGE OF EACH PUMP THAT IS 1 HP OR LARGER. CONNECTORS SHALL BE CONSTRUCTED OF NEOPRENE, RUBBER, OR BRAIDED BRONZE, WITH CLASS 150 STANDARD FLANGES. FLEXIBLE CONNECTORS SHALL BE LINE SIZE AND SUITABLE FOR THE PRESSURE AND TEMPERATURE OF THE INTENDED SERVICE.

N. PIPE GUIDES - GUIDES CONSISTING OF STEEL SEGMENTED SPIDER SIZED TO TIE OUTSIDE DIAMETER OF TIHE PIPE OR INSULATION AND FREE TO MOVE AXIALLY AT THE SEGMENTED STEEL CYLINDER. PROVIDE A MINIMUM OF 2 GUIDES ON EACH SIDE OF EXPANSION COMPENSATORS OR EXPANSION JOINTS AND ELSE ELSEWHERE AS INDICATED. PROVIDE GUIDES OF LENGTH RECOMMENDED BY MANUFACTURER TO ALLOW REQUIRED TRAVEL. METRAFLEX OR EQUIVALENT BY KEFLEX, FEE AND MASON OR FLEXONICS.

O. PIPE ANCHORS - INSTALL IN CONJUNCTION WITH GUIDES.

2.04 PIPE HANGERS AND SUPPORTS

A. PROVIDE MSS SP-58 AND MSS SP-69, TYPE 1 WITH ADJUSTABLE TYPE STEEL SUPPORT RODS, EXCEPT AS SPECIFIED OR INDICATED OTHERWISE.

B. ATTACH TO STEEL JOISTS WITH TYPE 19 OR 23 CLAMPS AND RETAINING STRAPS. ATTACH TO STEEL W OR S BEAMS WITH TYPE 21, 28, 29, OR 30 CLAMPS.

C. ATTACH TO STEEL ANGLES AND VERTICAL WEB STEEL CHANNELS WITH TYPE 20 CLAMP WITH BEAM CLAMP CHANNEL ADAPTER.

D. ATTACH TO HORIZONTAL WEB STEEL CHANNEL AND WOOD WITH DRILLED HOLE ON CENTERLINE AND DOUBLE NUT AND WASHER.

E. ATTACH TO CONCRETE WITH TYPE 18 INSERT OR DRILLED EXPANSION ANCHOR.

F. PROVIDE TYPE 40 INSULATION PROTECTION SHIELD FOR INSULATED PIPING.

G. PROVIDE HANGERS AND SUPPORTS BY ANVIL INTERNATIONAL, COOPER B-LINE OR GRINNELL:
1. SPLIT RING HANGERS – CARBON STEEL WITH ADJUSTABLE SWIVEL.
2. CLEVIS HANGERS - CARBON STEEL WITH ADJUSTABLE SWIVEL.
3. MULTIPLE OR TRAPEZE HANGERS – STEEL CHANNELS WITH WELDED SPACERS AND HANGER RODS. PROVIDE CAST IRON ROLL FOR PIPE SIZES 6 INCH AND LARGER.
4. VERTICAL PIPE SUPPORTS - STEEL RISER CLAMP.

H. USE OF "C" CLAMPS AND BEAM CLAMPS OF "C" PATTERN AND ANY MODIFICATIONS THEROF ARE PROHITED FOR ALL PIPE SIZES 6" AND GREATER.
1. "C" CLAMPS USED FOR PIPE SIZES 3" AND 4" MUST BE INSTALLED WITH BEAM CLAMP RETAINING STRAPS WITH A MINIMUM OF 1" OF STRAP TO BE BENT OVER THE BEAM SIDE OF THE FLANGE OPPOSITE THE SIDE THE BEAM CLAMP IS MOUNTED ON.
2. PROVIDE "C" CLAMPS IWTH HARDENED STEEL CUP-POINT SET SCREWS AND LOCK-NUTS FOR ANCHORING IN PLACE.

I. PROVIDE RUBBER COATED, PLASTIC, OR EPOXY COATED HANGERS AND SUPPORTS FOR COPPER PIPING. COPPER COATED, PLATED OR COLORED HANGERS AND SUPPORTS ARE *NOT* ACCEPTABLE.

J. MAKESHIFT, FIELD DEVISED METHODS OF PLUMBING PIPE POSITIONING AND SUPPORTS, SUCH AS WITH THE USE OF SCRAP FRAMING MATERIALS, ARE NOT ALLOWED.

2.05 GAUGES

A. PRESSURE AND VACUUM INDICATING DIAL TYPE - ELASTIC ELEMENT: ASME B40.100.

2.06 THERMOMETERS

A. DIRECT-MOUNTED, METAL CASE, VAPOR ACTUATED THERMOMETERS: ASME B40.200. MERCURY SHALL NOT BE USED IN THERMOMETERS.

2.07 PIPE INSULATION MATERIAL

A. ACCEPTABLE MANUFACTURERS: OWENS-CORNING, KNAUF, CERTAINTEED, PITTSBURGH-CORNING.

B. INSULATION SCHEDULE:
1. DOMESTIC HOT WATER AND HOT WATER RECIRCULATING PIPING SHALL BE INSULATED WITH 1 INCH THICK INSULATION FOR PIPE SIZES 1-1/4 INCHES AND SMALLER, 1-1/2 INCH THICK FOR PIPE SIZES 1-1/2 INCHES AND LARGER.
2. COLD WATER PIPING SHALL BE INSULATED WITH 1 INCH THICK INSULATION.
3. ROOF DRAIN BODIES AND ALL ABOVE GROUND HORIZONTAL AND VERTICAL PRIMARY AND OVERFLOW ROOF DRAIN PIPING SHALL BE INSULATED WITH 1 INCH THICK INSULATION.

C. INSULATION FOR PIPING INSTALLED IN "DRY" LOCATIONS SHALL BE GLASS FIBER NON-COMBUSTIBLE PREFORMED INSULATION, ASTM C547 WITH A "K" VALUE OF 0.23" AT 75°F AND FACTORY APPLIED VAPOR BARRIER JACKET. VAPOR BARRIER JACKETS SHALL BE KRAFT REINFORCED WHITE VAPOR BARRIER WITH SELF-SEALING ADHESIVE JOINTS.

D. INSULATION FOR PIPING RECEIVING CHILLED WATER/COOLING COIL CONDENSATE WASTE, PIPING INSTALLED WITHIN MECHANICAL AND BOILER ROOMS, AND PIPING INSTALLED IN "WET" LOCATIONS SHALL BE PRE-FORMED FLAME RETARDANT ELASTOMERIC POLYETHYLENE SIMILAR TO AP ARMAFLEX, ARMAFLEX SS, IMCOA IMOLOCK OR NOMACO NOMALOCK.

E. INSTALL INSULATION ON PIPE SYSTEMS SUBSEQUENT TO TESTING AND ACCEPTANCE OF TESTS.

F. COVER VALVES, FITTINGS AND SIMILAR ITEMS IN EACH PIPING SYSTEM WITH EQUIVALENT THICKNESS AND COMPOSITION OF INSULATION AS APPLIED TO ADJOINING PIPE RUN. PROVIDE FACTORY MOLDED, ONE AND TWO PIECE PRE-MOLDED HIGH IMPACT PVC FITTING COVERS WITH FIBERGLASS INSERTS AND ACCESSORIES FOR ELBOWS, TEES, END CAPS, COUPLINGS, TACK FASTENERS & TAPES.

G. EXPOSED SANITARY DRAINS, DOMESTIC WATER, DOMESTIC HOT WATER, AND STOPS AT LAVATORIES SHALL BE INSULATED AND FINISHED WITH TRUEBRO MODEL NO. 102 "LAV-GUARD" OR BROCAR "TRAP-WRAP" WHITE INSULATION KIT.

H. NO STAPLES SHALL BE PERMITTED FOR INSTALLATION OF INSULATION.

I. PROVIDE INSULATION SHIELDS AT HANGERS.

J. ALL PIPING SHALL BE SUPPORTED IN SUCH A MANNER THAT NEITHER THE INSULATION NOR THE VAPOR/WEATHER BARRIER IS COMPROMISED BY THE HANGER OR THE EFFECTS OF THE HANGER. HANGER SPACING SHALL BE SUCH THAT THE JOINTS MAY BE MADE OUTSIDE THE HANGER AREA. THE VAPOR BARRIER SHALL BE CONTINUOUS. PROVIDE SUPPORT SADDLES.

K. ALL INSULATION MATERIALS SHALL COMPLY WITH ASTM E-84 WITH A FLAME SPREAD INDEX OF 0-25 AND A SMOKE DEVELOPED INDEX OF 0-50.

2.08 ACCESS DOORS

A. PROVIDE ACCESS DOORS AT CIRCULATION PUMPS, VALVES, TRAPS PRIMERS, AIR VENTS, SHOCK ABSORBERS, AND THE LIKE ITEMS REQUIRING ADJUSTMENT OR MAINTENANCE ACCESSIBILITY IF THEY CANNOT BE LOCATED OVER LAY-IN TYPE CEILINGS OR CANNOT BE ACCESSIBLE FROM ATTICS OR MECHANICAL ROOMS. OBTAIN APPROVAL FROM THE ARCHITECT FOR LOCATION OF ACCESS DOORS. PROVIDE VISIBLE MARKERS FOR ACCESS DOORS IN CONCEALED LOCATIONS.

B. ACCESS DOORS SHALL BE AS SIMILAR TO THOSE MANUFACTURED BY MILCOR DIVISION OF INLAND-RYERSON OF TYPE AS FOLLOWS:
1. DRYWALL: STYLE "DW"
2. MASONRY OR TILE: STYLE "M-STAINLESS"
3. ACOUSTICAL TILE: STYLE "AT"
4. PLASTER: STYLE "K"
5. FIRE RATED WALL/CEILINGS: STYLE "FIRE RATED"

CITY OF JACKSONVILLE FLORIDA

LEGENDS GLOBAL

OS

C. EACH DOOR SHALL BE EQUIPPED WITH TWO FLUSH, SCREWDRIVER OPERATED, CAM LATCHES AND, OTHER THAN STYLE "M", SHALL BE FINISHED TO MATCH ADJACENT SURFACE. PROVIDE ACCESS DOORS IN AREAS SUBJECT TO VANDALISM WITH VANDAL-PROOF LOCKS. DOOR SIZES SHALL BE APPLICABLE TO ACCESS REQUIRED FOR NORMAL SERVICE.

2.09 FLOOR, CEILING, AND WALL PLATES

A. FIT ALL PIPES PASSING EXPOSED THROUGH WALLS, FLOORS, OR CEILINGS IN FINISHED ROOMS WITH STEEL OR BRASS ESCUTCHEONS. WHERE SURFACE IS TO RECEIVE A PAINT FINISH MAKE ESCUTCHEONS PRIME PAINTED; OTHERWISE MAKE ESCUTCHEONS NICKEL OR CHROME PLATED. WHERE PIPING IS INSULATED, FIT ESCUTCHEONS OUTSIDE INSULATION.

2.10 EQUIPMENT PADS

A. EXCEPT WHERE OTHERWISE NOTED, PROVIDE PADS FOR ALL FLOOR MOUNTED EQUIPMENT INSTALLED UNDER THIS DIVISION. MAKE ALL EQUIPMENT PADS A MINIMUM OF 4 INCHES THICK. CONSTRUCT EQUIPMENT PADS OF 5000 POUND CONCRETE COMPLETE WITH ALL NECESSARY ANCHOR BOLTS, SLEEVES ANCHOR PLATES, WASHERS AND NUTS. SMOOTH ALL EXPOSED PORTIONS OF PADS AND BEVEL CORNERS.

2.11 SLEEVES

A. WHERE PIPES PASS THROUGH MASONRY OR CONCRETE WALLS, SET MACHINE CUT STEEL PIPE SLEEVES 1 INCH LARGER THAN OUTSIDE DIAMETER OF PIPE, WITH ENDS OF SLEEVES FLUSH WITH WALL FACES. SLEEVES IN PARTITIONS OTHER THAN MASONRY OR CONCRETE WHERE FIRESTOPPING IS REQUIRED: 28 GAGE GALVANIZED STEEL SHEET. WHERE PIPES PASS THROUGH FLOORS, SET SCHEDULE 40 GALVANIZED STEEL PIPE SLEEVES 1 INCH LARGER THAN THE OUTSIDE DIAMETER OF THE PIPE. TOP OF SLEEVE TO BE 4 INCHES ABOVE FINISHED FLOOR IN MACHINE ROOMS AND WET FLOOR LOCATIONS. WHERE PIPES ARE INSULATED, PROVIDE SLEEVES LARGE ENOUGH TO ALLOW INSULATION TO PASS THROUGH SLEEVE. CENTER PIPES IN SLEEVES. PROVIDE FIRE STOPPING BETWEEN PIPE AND SLEEVE OR OPENING AS REQUIRED TO MAINTAIN THE INTEGRITY OF THE FIRE RATING OF ALL WALLS AND FLOORS. FIRE STOPPING PRODUCTS SHALL BE MANUFACTURED BY SPECIFIED TECHNOLOGIES, INC. (STI) AND INSTALLED BY A UL QUALIFIED FIRESTOP CONTRACTOR THAT HAS ALSO COMPLETED THE "CLEVELAND CLINIC FIRESTOP TRAINING CLASS". WHERE PIPES PASS THROUGH EXTERIOR WALLS BELOW GRADE, SET SCHEDULE 40 STEEL PIPE OR MANUFACTURED CASTINGS OR SLEEVES 1-1/2 INCH LARGER THAN THE OUTSIDE DIAMETER OF THE PIPE. MAKE THE PIPE TO WALL PENETRATION CLOSURE WITH "LINK-SEAL" AS MANUFACTURED BY THE THUNDERLINE CORP. OR METRASEAL.

B. ESCUTCHEON PLATES
1. PROVIDE ONE PIECE OR SPLIT HINGE METAL PLATES FOR PIPING ENTERING FLOORS, WALLS, AND CEILINGS IN EXPOSED SPACES. PROVIDE CHROMIUM-PLATED ON COPPER ALLOY PLATES OR POLISHED STAINLESS-STEEL FINISH IN FINISHED SPACES. PROVIDE PAINT FINISH ON PLATES IN UNFINISHED SPACES.

C. PLUMBING IDENTIFICATION
1. PIPE LABEL COLOR-CODING AND IDENTIFICATIONS SHALL BE IN ACCORDANCE WITH THE LOCAL AUTHORITY HAVING JURISDICTION AND ANSI/ASME A13.1.
2. NAMEPLATES- PROVIDE 0.125 INCH THICK MELAMINE LAMINATED PLASTIC NAMEPLATES, BLACK MATTE FINISH WITH WHITE CENTER CORE, FOR EQUIPMENT, GAGES, THERMOMETERS, AND VALVES; VALVES IN SUPPLIES TO FAUCETS WILL NOT REQUIRE NAMEPLATES. KEY NAMEPLATES TO A CHART AND SCHEDULE FOR EACH SYSTEM. FRAME CHARTS AND SCHEDULES UNDER GLASS AND PLACE WHERE DIRECTED NEAR EACH SYSTEM. FURNISH TWO COPIES OF EACH CHART AND SCHEDULE.
3. SELF-ADHESIVE PIPE LABELS: PRINTED PLASTIC WITH CONTACT- TYPE, PERMANENT-ADHESIVE BACKING. PIPE LABEL CONTENTS: INCLUDE IDENTIFICATION OF PIPING SERVICE USING SAME DESIGNATIONS OR ABBREVIATIONS AS USED ON DRAWINGS, PIPE SIZE, AND AN ARROW INDICATING FLOW DIRECTION.
4. PROVIDE WARNING LABELS STATING "CAUTION: NON-POTABLE WATER. DO NOT DRINK" ON ALL NON-POTABLE WATER PIPING AFTER IT HAS BEEN INSULATED.
5. APPROVED MANUFACTURERS ARE: CRAFTMARK IDENTIFICATION SYSTEMS, SAFETY SIGN CO., SETON IDENTIFICATION PRODUCTS.

PART 3 EXECUTION

3.01 PIPING GENERAL

A. EXCAVATION, BACKFILLING, AND DE-WATERING THAT ARE INCIDENTAL TO THE PLUMBING WORK SHALL BE PERFORMED BY THE PLUMBING CONTRACTOR. THE UNDERGROUND INSTALLATION MUST BE INSPECTED AND APPROVED BY THE BUILDING DEPARTMENT INSPECTOR AND ARCHITECT PRIOR TO BACKFILLING AND TAMPING. CARE SHOULD BE EXERCISED IN PREPARING THE BOTTOM OF THE TRENCH TO ACCEPT THE PIPING AND IT SHOULD BE UNIFORMLY TAMPED AND BE FREE FROM HIGH SPOTS.

B. ALL PIPING SHALL BE RUN STRAIGHT, PLUMB AND GRADED IN THE DIRECTION INDICATED ON THE PLANS. ALL CUT PIPE SHALL BE SQUARELY CUT WITH A NON-CHIP FORMING PROCESS WHERE POSSIBLE. THE CUT SHALL BE PROPERLY REAMED TO REMOVE ALL CONSTRUCTION AND BURRS BEFORE MAKING THE JOINT. ALL EXPOSED THREADS SHALL BE PAINTED OR OTHERWISE COATED TO STOP CORROSION.

C. PITCH ALL 2-1/2" AND SMALLER DRAINAGE PIPING AT 1/4" PER FOOT MINIMUM AND 3" AND LARGER DRAINAGE PIPING AT 1/8" PER FOOT MINIMUM UNLESS OTHERWISE NOTED.

D. ALL PIPING PENETRATING RATED FLOORS AND WALLS SHALL BE SEALED TO MAINTAIN FIRE RATING AND INTEGRITY OF SEPARATION. WHERE PIPES PASS THROUGH FIRE WALLS, FIRE-PARTITIONS, FIRE-RATED PIPE CHASE WALLS OR FLOORS ABOVE GRADE, A FIRE SEAL SHALL BE PROVIDED. REFER TO ARCHITECTURAL DRAWINGS FOR ALL FIRE STOPPING INFORMATION AND DETAILS RELATING TO PLUMBING PENETRATIONS INTO OR THROUGH FIRE RATED ASSEMBLIES.

3.02 EXCAVATION, BACKFILLING AND PUMPING

A. EXCAVATE, BACKFILL AND COMPACT ALL TRENCHES REQUIRED FOR UNDERGROUND PLUMBING WORK. MAINTAIN TRENCHES FREE OF WATER UNTIL INSTALLATION IS COMPLETE AND PROVIDE ALL NECESSARY SHORING.

B. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UNDERGROUND UTILITIES AND AVOID DAMAGE TO SAME. WHERE EXISTING UTILITIES ARE DAMAGED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REPAIRS OR REPLACEMENT.

C. EXCAVATE TRENCHES SUITABLE IN WIDTH TO PROVIDE MINIMUM OF 6" CLEAR SPACE BETWEEN THE BARREL OF THE PIPE AND THE TRENCH WALL ON BOTH SIDES OF THE PIPE. ACCURATELY GRADE THE TRENCH BOTTOM TO PROVIDE UNIFORM BEARING AND SUPPORT FOR EACH SECTION OF THE PIPE ON UNDISTURBED SOIL AT EVERY POINT ALONG IT'S ENTIRE LENGTH. TAKE CARE NOT TO EXCAVATE BELOW THE DEPTH NECESSARY AND EXCAVATE BELL HOLES TO ENSURE PROPER BEDDING. BACKFILL OVER DEPTHS WITH LOOSE, GRANULAR, MOIST MATERIAL AND THOROUGHLY COMPACT TO THE DEPTH REQUIRED. COMPACT TO 95 PERCENT OF THE MAXIMUM DENSITY BASED ON MODIFIED PROCTOR DENSITY CRITERIA.

D. PLACE AND COMPACT BACKFILL MATERIAL IN 6" LAYERS UNTIL THE PIPE HAS A MINIMUM COVER OF 12". PLACE AND COMPACT THE REMAINING MATERIAL IN 12" LAYERS. GRADE THE SURFACE TO A REASONABLE UNIFORMITY AND LEAVE THE MOUNDING IN NEAT CONDITION AS APPROVED BY THE ARCHITECT.

E. BACKFILL ALL TRENCHES PASSING UNDER FOUNDATIONS WITH CONCRETE TO THE UNDERSIDE OF THE FOUNDATION AND AT A 2:1 SLOPE AWAY FROM EACH SIDE OF THE FOUNDATION. BACKFILL ALL TRENCHES THAT ARE PARALLEL AND DEEPER THAN FOUNDATIONS WITH CONCRETE TO A POINT THAT WILL PLACE THE TOP OF THE CONCRETE ON A 2:1 SLOPE AWAY FROM THE FOUNDATION BOTTOM. DO NOT BACKFILL TRENCHES UNTIL ALL REQUIRED TESTS AND INSPECTIONS ARE COMPLETED.

F. WHERE TRENCH WALLS ARE BELOW THE WATER TABLE, THE CONTRACTOR SHALL TAKE ALL MEASURES TO ENSURE TRENCH WALLS REMAIN STABLE, INCLUDING ALL DE-WATERING.

3.03 GENERAL

A. THE PIPING SHALL BE EXTENDED TO FIXTURES, OUTLETS, AND EQUIPMENT. THE HOT-WATER AND COLD-WATER PIPING SYSTEM SHALL BE ARRANGED AND INSTALLED TO PERMIT DRAINING. THE SUPPLY LINE TO EACH ITEM OF EQUIPMENT OR FIXTURE, EXCEPT FAUCETS, FLUSH VALVES, OR OTHER CONTROL VALVES WHICH ARE SUPPLIED WITH INTEGRAL STOPS, SHALL BE EQUIPPED WITH A SHUTOFF VALVE TO ENABLE ISOLATION OF THE ITEM FOR REPAIR AND MAINTENANCE WITHOUT INTERFERING WITH OPERATION OF OTHER EQUIPMENT OR FIXTURES. SUPPLY PIPING TO FIXTURES, FAUCETS, HYDRANTS, SHOWER HEADS, AND FLUSHING DEVICES SHALL BE ANCHORED TO PREVENT MOVEMENT.

B. THE WORK SHALL BE CAREFULLY LAID OUT IN ADVANCE, AND UNNECESSARY CUTTING OF CONSTRUCTION SHALL BE AVOIDED. DAMAGE TO BUILDING, PIPING, WIRING, OR EQUIPMENT AS A RESULT OF CUTTING SHALL BE REPAIRED BY MECHANICS SKILLED IN THE TRADE INVOLVED.

C. PIPE OPENINGS SHALL BE CLOSED WITH CAPS OR PLUGS DURING INSTALLATION. FIXTURES AND EQUIPMENT SHALL BE TIGHTLY COVERED AND PROTECTED AGAINST DIRT, WATER, CHEMICALS, AND MECHANICAL INJURY. UPON COMPLETION OF THE WORK, THE FIXTURES, MATERIALS, AND EQUIPMENT SHALL BE THOROUGHLY CLEANED, ADJUSTED, AND OPERATED. SAFETY GUARDS SHALL BE PROVIDED FOR EXPOSED ROTATING EQUIPMENT.

D. PIPING SHALL BE INSTALLED AS INDICATED. PIPE SHALL BE ACCURATELY CUT AND WORKED INTO PLACE WITHOUT SPRINGING OR FORCING. STRUCTURAL PORTIONS OF THE BUILDING SHALL NOT BE WEAKENED. ABOVEGROUND PIPING SHALL RUN PARALLEL WITH THE LINES OF THE BUILDING, UNLESS OTHERWISE INDICATED. BRANCH PIPES FROM SERVICE LINES MAY BE TAKEN FROM TOP, BOTTOM, OR SIDE OF MAIN, USING CROSSOVER FITTINGS REQUIRED BY STRUCTURAL OR INSTALLATION CONDITIONS.

E. SUPPLY PIPES, VALVES, AND FITTINGS SHALL BE KEPT A SUFFICIENT DISTANCE FROM OTHER WORK AND OTHER SERVICES TO PERMIT NOT LESS THAN 1/2 INCH BETWEEN FINISHED COVERING ON THE DIFFERENT SERVICES. BARE AND INSULATED WATER LINES SHALL NOT BEAR DIRECTLY AGAINST BUILDING STRUCTURAL ELEMENTS SO AS TO TRANSMIT SOUND TO THE STRUCTURE OR TO PREVENT FLEXIBLE MOVEMENT OF THE LINES. WATER PIPE SHALL NOT BE BURIED IN OR UNDER FLOORS UNLESS SPECIFICALLY INDICATED OR APPROVED. CHANGES IN PIPE SIZES SHALL BE MADE WITH REDUCING FITTINGS. USE OF BUSHINGS WILL NOT BE PERMITTED EXCEPT FOR USE IN SITUATIONS IN WHICH STANDARD FACTORY FABRICATED COMPONENTS ARE FURNISHED TO ACCOMMODATE SPECIFIC ACCEPTED INSTALLATION PRACTICE. CHANGE IN DIRECTION SHALL BE MADE WITH FITTINGS.

F. PIPE DRAINS INDICATED SHALL CONSIST OF 3/4 INCH HOSE BIBB WITH RENEWABLE SEAT AND BALL VALVE AHEAD OF HOSE BIBB. AT OTHER LOW POINTS, 3/4 INCH BRASS PLUGS OR CAPS SHALL BE PROVIDED. DISCONNECTION OF THE SUPPLY PIPING AT THE FIXTURE IS AN ACCEPTABLE DRAIN.

G. ALLOWANCE SHALL BE MADE THROUGHOUT FOR EXPANSION AND CONTRACTION OF WATER PIPE. BRANCH CONNECTIONS FROM RISERS SHALL BE MADE WITH AMPLE SWING OR OFFSET TO AVOID UNDUE STRAIN ON FITTINGS OR SHORT PIPE LENGTHS. HORIZONTAL RUNS OF PIPE OVER 50 FEET IN LENGTH SHALL BE ANCHORED TO THE WALL OR THE SUPPORTING CONSTRUCTION ABOUT MIDWAY ON THE RUN. SUFFICIENT FLEXIBILITY SHALL BE PROVIDED ON BRANCH RUNOUTS FROM MAINS AND RISERS TO PROVIDE FOR EXPANSION AND CONTRACTION OF PIPING. FLEXIBILITY SHALL BE PROVIDED BY INSTALLING ONE OR MORE TURNS IN THE LINE.

H. COMMERCIAL-TYPE WATER HAMMER ARRESTERS SHALL BE PROVIDED ON HOT- AND COLD-WATER SUPPLIES AND PRECISE LOCATION AND SIZING TO BE IN ACCORDANCE WITH PDI WH 201. WATER HAMMER ARRESTERS, WHERE CONCEALED, SHALL BE ACCESSIBLE BY MEANS OF ACCESS DOORS OR REMOVABLE PANELS. COMMERCIAL-TYPE WATER HAMMER ARRESTERS SHALL CONFORM TO ASSE 1010. VERTICAL CAPPED PIPE COLUMNS WILL NOT BE PERMITTED.

I. INSTALL AIR ADMITTANCE VALVES IN ACCORDANCE WITH CODE AND MANUFACTURER'S INSTRUCTIONS. INSTALL AIR ADMITTANCE VALVES AFTER DRAINAGE AND WASTE SYSTEM HAS BEEN ROUGHED IN. LOCATE VALVES MINIMUM 4 INCHES ABOVE HORIZONTAL BRANCH DRAIN OR FIXTURE DRAIN BEING VENTED. INSTALL VALVES IN ACCESSIBLE LOCATIONS. CONNECT VALVES TO PIPING IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. INSTALL VALVES IN UPRIGHT POSITION, WITHIN 15 DEGREES OF TRUE VERTICAL. EXTEND MINIMUM OF ONE VENT TO OPEN ATMOSPHERE FOR EACH BUILDING DRAINAGE SYSTEM. DO NOT INSTALL VALVES IN SUPPLY AND RETURN AIR PLENUMS.

J. PROVIDE AIR-GAP FITTINGS ON DRAINING-TYPE BACKFLOW PREVENTERS AND ON INDIRECT-WASTE PIPING DISCHARGE INTO SANITARY DRAINAGE SYSTEM.

K. HANGERS USED TO SUPPORT PIPING 2 INCHES AND LARGER SHALL BE FABRICATED TO PERMIT ADEQUATE ADJUSTMENT AFTER ERECTION WHILE STILL SUPPORTING THE LOAD. PIPE GUIDES AND ANCHORS SHALL BE INSTALLED TO KEEP PIPES IN ACCURATE ALIGNMENT, TO DIRECT THE EXPANSION MOVEMENT, AND TO PREVENT BUCKLING, SWAYING, AND UNDUE STRAIN. PIPING SUBJECTED TO VERTICAL MOVEMENT WHEN OPERATING TEMPERATURES EXCEED AMBIENT TEMPERATURES SHALL BE SUPPORTED BY VARIABLE SPRING HANGERS AND SUPPORTS OR BY CONSTANT SUPPORT HANGERS. IN THE SUPPORT OF MULTIPLE PIPE RUNS ON A COMMON BASE MEMBER, A CLIP OR CLAMP SHALL BE USED WHERE EACH PIPE CROSSES THE BASE SUPPORT MEMBER. SPACING OF THE BASE SUPPORT MEMBERS SHALL NOT EXCEED THE HANGER AND SUPPORT SPACING REQUIRED FOR AN INDIVIDUAL PIPE IN THE MULTIPLE PIPE RUN. THREADED SECTIONS OF RODS SHALL NOT BE FORMED OR BENT.

3.04 PIPE HANGERS, INSERTS, AND SUPPORTS

A. INSTALLATION OF PIPE HANGERS, INSERTS AND SUPPORTS SHALL CONFORM TO MSS SP-58 AND MSS SP-69, EXCEPT AS MODIFIED HEREIN.
1. TYPES 5, 12, AND 26 SHALL NOT BE USED.
2. TYPE 3 SHALL NOT BE USED ON INSULATED PIPE.

B. TYPE 18 INSERTS SHALL BE SECURED TO CONCRETE FORMS BEFORE CONCRETE IS PLACED. CONTINUOUS INSERTS WHICH ALLOW MORE ADJUSTMENT MAY BE USED IF THEY OTHERWISE MEET THE REQUIREMENTS FOR TYPE 18 INSERTS.

C. TYPE 19 AND 23 C-CLAMPS SHALL BE TORQUED PER MSS SP-69 AND SHALL HAVE BOTH LOCKNUTS AND RETAINING DEVICES FURNISHED BY THE MANUFACTURER.

D. FIELD-FABRICATED C-CLAMP BODIES OR RETAINING DEVICES ARE NOT ACCEPTABLE.

E. TYPE 20 ATTACHMENTS USED ON ANGLES AND CHANNELS SHALL BE FURNISHED WITH AN ADDED MALLEABLE-IRON HEEL PLATE OR ADAPTER.

F. TYPE 24 MAY BE USED ONLY ON TRAPEZE HANGER SYSTEMS OR ON FABRICATED FRAMES.

G. TYPE 39 SADDLES SHALL BE USED ON INSULATED PIPE 4 INCHES AND LARGER WHEN THE TEMPERATURE OF THE MEDIUM IS 60 DEGREES F OR HIGHER. TYPE 39 SADDLES SHALL BE WELDED TO THE PIPE.

H. TYPE 40 SHIELDS SHALL:
1. BE USED ON INSULATED PIPE LESS THAN 4 INCHES.
2. BE USED ON INSULATED PIPE 4 INCHES AND LARGER WHEN THE TEMPERATURE OF THE MEDIUM IS 60 DEGREES F OR LESS.
3. HAVE A HIGH DENSITY INSERT FOR ALL PIPE SIZES. HIGH DENSITY INSERTS SHALL HAVE A DENSITY OF 8 PCF OR GREATER.

I. HORIZONTAL AND VERTICAL PIPE SUPPORTS SHALL BE SPACED AS SPECIFIED IN MSS SP-69 AND IN ACCORDANCE WITH THE 2023 FLORIDA BUILDING CODE.

J. A SUPPORT SHALL BE INSTALLED NOT OVER 1 FOOT FROM THE PIPE FITTING JOINT AT EACH CHANGE IN DIRECTION OF THE PIPING. PIPE SUPPORTS SHALL BE SPACED NOT OVER 5 FEET APART AT VALVES. HORIZONTAL PIPE RUNS SHALL INCLUDE ALLOWANCES FOR EXPANSION AND CONTRACTION.

K. VERTICAL PIPE SHALL BE SUPPORTED AT EACH FLOOR, EXCEPT AT SLAB-ON-GRADE, AT INTERVALS OF NOT MORE THAN 15 FEET MAXIMUM FOR CAST IRON AND STEEL PIPING, 10 FEET MAXIMUM FOR COPPER AND CPVC/PVC PIPING, NOR MORE THAN 8 FEET FROM END OF RISERS, AND AT VENT TERMINATIONS. VERTICAL PIPE RISERS SHALL INCLUDE ALLOWANCES FOR EXPANSION AND CONTRACTION.

L. TYPE 35 GUIDES USING STEEL, REINFORCED POLYTETRAFLUOROETHYLENE (PTFE) OR GRAPHITE SLIDES SHALL BE PROVIDED TO ALLOW LONGITUDINAL PIPE MOVEMENT. SLIDE MATERIALS SHALL BE SUITABLE FOR THE SYSTEM OPERATING TEMPERATURES, ATMOSPHERIC CONDITIONS, AND BEARING LOADS ENCOUNTERED. LATERAL RESTRAINTS SHALL BE PROVIDED AS NEEDED. WHERE STEEL SLIDES DO NOT REQUIRE PROVISIONS FOR LATERAL RESTRAINT THE FOLLOWING MAY BE USED:
1. ON PIPE LESS THAN 4 INCHES A TYPE 40 SHIELD, ATTACHED TO THE PIPE OR INSULATION, MAY FREELY REST ON A STEEL PLATE.

M. PIPE HANGERS ON HORIZONTAL INSULATED PIPE SHALL BE THE SIZE OF THE OUTSIDE DIAMETER OF THE INSULATION. THE INSULATION SHALL BE CONTINUOUS THROUGH THE HANGER ON ALL PIPE SIZES AND APPLICATIONS.

N. WHERE THERE ARE HIGH SYSTEM TEMPERATURES AND WELDING TO PIPING IS NOT DESIRABLE, THE TYPE 35 GUIDE SHALL INCLUDE A PIPE CRADLE, WELDED TO THE GUIDE STRUCTURE AND STRAPPED SECURELY TO THE PIPE. THE PIPE SHALL BE SEPARATED FROM THE SLIDE MATERIAL BY AT LEAST 4 INCHES OR BY AN AMOUNT ADEQUATE FOR THE INSULATION, WHICHEVER IS GREATER.

O. HANGERS AND SUPPORTS FOR PLASTIC PIPE SHALL NOT COMPRESS, DISTORT, CUT OR ABRADE THE PIPING, AND SHALL ALLOW FREE MOVEMENT OF PIPE EXCEPT WHERE OTHERWISE REQUIRED IN THE CONTROL OF EXPANSION/CONTRACTION.

P. STRUCTURAL ATTACHMENTS - ATTACHMENT TO BUILDING STRUCTURE CONCRETE AND MASONRY SHALL BE BY CAST-IN CONCRETE INSERTS, BUILT-IN ANCHORS, OR MASONRY ANCHOR DEVICES. INSERTS AND ANCHORS SHALL BE APPLIED WITH A SAFETY FACTOR NOT LESS THAN 5. SUPPORTS SHALL NOT BE ATTACHED TO METAL DECKING. SUPPORTS SHALL NOT BE ATTACHED TO THE UNDERSIDE OF CONCRETE FILLED FLOOR OR CONCRETE ROOF DECKS UNLESS APPROVED BY THE STRUCTURAL ENGINEER. MASONRY ANCHORS FOR OVERHEAD APPLICATIONS SHALL BE CONSTRUCTED OF FERROUS MATERIALS ONLY.

3.05 PIPE CLEANOUTS

A. CLEANOUTS SHALL BE INSTALLED IN ACCORDANCE WITH THE 2023 FLORIDA BUILDING CODE.

B. PIPE CLEANOUTS SHALL BE THE SAME NOMINAL SIZE AS THE PIPE THEY SERVE UP TO 4 INCHES. FOR PIPE SIZES LARGER THAN 4 INCHES, THE MINIMUM SIZE OF THE CLEANOUT SHALL BE 4 INCHES.

C. ALL HORIZONTAL DRAINS SHALL BE PROVIDED WITH CLEANOUTS LOCATED NOT MORE THAN 100 FEET APART.

D. CLEANOUTS SHALL BE INSTALLED AT EACH CHANGE OF DIRECTION OF THE BUILDING DRAIN OR HORIZONTAL WASTE OR SOIL LINES GREATER THAN 45 DEGREES.

E. A CLEANOUT SHALL BE PROVIDED AT THE BASE OF EACH DRAIN, WASTE OR SOIL STACK.

F. A CLEANOUT INSTALLED IN CONNECTION WITH CAST-IRON SOIL PIPE SHALL CONSIST OF A LONG-SWEEP 1/4 BEND OR ONE OR TWO 1/8 BENDS EXTENDED TO THE PLACE SHOWN. AN EXTRA-HEAVY CAST-BRASS OR CAST-IRON FERRULE WITH COUNTERSUNK CAST-BRASS HEAD SCREW PLUG SHALL BE CAULKED INTO THE HUB OF THE FITTING AND SHALL BE FLUSH WITH THE FLOOR. CLEANOUTS IN CONNECTION WITH OTHER PIPE, WHERE INDICATED, SHALL BE T-PATTERN, 90-DEGREE BRANCH DRAINAGE FITTINGS WITH CAST-BRASS SCREW PLUGS, EXCEPT PLASTIC PLUGS SHALL BE INSTALLED IN PLASTIC PIPE.

G. CLEANOUT TEE BRANCHES WITH SCREW PLUG SHALL BE INSTALLED AT THE FOOT OF SOIL AND WASTE STACKS, AT THE FOOT OF INTERIOR DOWNSPOUTS, ON EACH CONNECTION TO BUILDING STORM DRAIN WHERE INTERIOR DOWNSPOUTS ARE INDICATED, AND ON EACH BUILDING DRAIN OUTSIDE THE BUILDING.

H. CLEANOUTS ON PIPE CONCEALED IN PARTITIONS SHALL BE PROVIDED WITH CHROMIUM PLATED BRONZE, NICKEL BRONZE FLUSH TYPE ACCESS COVER PLATES. ROUND ACCESS COVERS SHALL BE PROVIDED AND SECURED TO PLUGS WITH SECURING SCREW. CLEANOUTS IN FINISHED WALLS SHALL HAVE ACCESS COVERS AND FRAMES INSTALLED FLUSH WITH THE FINISHED WALL.

I. CLEANOUTS INSTALLED IN FINISHED FLOORS SUBJECT TO FOOT TRAFFIC SHALL BE PROVIDED WITH A NICKEL BRONZE COVER SECURED TO THE PLUG OR COVER FRAME AND SET FLUSH WITH THE FINISHED FLOOR. HEADS OF FASTENING SCREWS SHALL NOT PROJECT ABOVE THE COVER SURFACE.

J. CLEANOUTS ON 6 INCH AND SMALLER PIPES SHALL BE PROVIDED WITH A CLEARANCE OF NO LESS THAN 18 INCHES FROM, AND PERPENDICULAR TO, FACE OF THE OPENING TO ANY OBSTRUCTION. CLEANOUTS FOR 8 INCH AND LARGER PIPING SHALL BE PROVIDED WITH A CLEARANCE OF NOT LESS THAN 36 INCHES FROM, AND PERPENDICULAR TO, FACE OF THE OPENING TO ANY OBSTRUCTION.

K. ACCESS SHALL BE PROVIDED TO ALL CLEANOUTS.

3.06 TESTS, FLUSHING AND DISINFECTION

A. PRESSURE TESTS SHALL BE PERFORMED ON THE PLUMBING SYSTEM IN ACCORDANCE WITH THE LOCAL AUTHORITY HAVING JURISDICATION AND THE 2023 FLORIDA BUILDING CODE.

B. ROUGH IN DRAINAGE AND VENT SYSTEMS TEST SHALL INCLUDE CLOSING ALL OPENINGS IN SYSTEM AND FILLING TO THE POINT OF OVERFLOW, BUT NOT LESS THAN 10-FOOT HEAD OF WATER FOR A PERIOD OF 15 MINUTES. DURING TEST WATER LEVEL MUST NOT DROP. FINISHED PLUMBING SANITARY AND VENT TEST SHALL BE PERFORMED AFTER ALL FIXTURES ARE SET, TRAPS ARE FILLED WITH WATER AND VENT OPENINGS SEALED. INTRODUCE 1-INCH WG AIR PRESSURE INTO SYSTEM AND MAINTAIN DURING VISUAL INSPECTION OF SYSTEM FOR AND GAS OR WATER LEAKS. AIR PRESSURE MUST REMAIN CONSTANT WITHOUT INTRODUCTION OF ANY ADDITIONAL AIR DURING TEST INSPECTION.

C. DEFECTIVE WORK - IF INSPECTION OR TEST SHOWS DEFECTS, SUCH DEFECTIVE WORK OR MATERIAL SHALL BE REPLACED OR REPAIRED AS NECESSARY AND INSPECTION AND TESTS SHALL BE REPEATED. REPAIRS TO PIPING SHALL BE MADE WITH NEW MATERIALS. CAULKING OF SCREWED JOINTS OR HOLES WILL NOT BE ACCEPTABLE.

D. ALL PLUMBING AND NATURAL GAS TESTING IS REQUIRED TO BE WITNESSED BY THE PLUMBING INSPECTOR FOR THE AUTHORITY HAVING JURISDICTION.

3.07 SYSTEM FLUSHING

A. BEFORE OPERATIONAL TESTS OR DISINFECTION, POTABLE WATER PIPING SYSTEM SHALL BE FLUSHED WITH POTABLE WATER. SUFFICIENT WATER SHALL BE USED TO PRODUCE A WATER VELOCITY THAT IS CAPABLE OF ENTRAINING AND REMOVING DEBRIS IN ALL PORTIONS OF THE PIPING SYSTEM. THIS REQUIRES SIMULTANEOUS OPERATION OF ALL FIXTURES ON A COMMON BRANCH OR MAIN IN ORDER TO PRODUCE A FLUSHING VELOCITY OF APPROXIMATELY 4 FPS THROUGH ALL PORTIONS OF THE PIPING SYSTEM. CONTRACTOR SHALL PROVIDE ADEQUATE PERSONNEL TO MONITOR THE FLUSHING OPERATION AND TO ENSURE THAT DRAIN LINES ARE UNOBSTRUCTED IN ORDER TO PREVENT FLOODING OF THE FACILITY. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY FLOOD DAMAGE RESULTING FROM FLUSHING OF THE SYSTEM. FLUSHING SHALL BE CONTINUED UNTIL ENTRAINED DIRT AND OTHER FOREIGN MATERIALS HAVE BEEN REMOVED AND UNTIL DISCHARGE WATER SHOWS NO DISCOLORATION. ALL FAUCETS AND DRINKING WATER FOUNTAINS, TO INCLUDE ANY DEVICE CONSIDERED AS AN END POINT DEVICE BY NSF/ANSI 61, SECTION 9, SHALL BE FLUSHED A MINIMUM OF 0.25 GALLONS PER 24 HOUR PERIOD, TEN TIMES OVER A 14 DAY PERIOD.

B. AFTER FLUSHING - SYSTEM SHALL BE DRAINED AT LOW POINTS. STRAINER SCREENS SHALL BE REMOVED, CLEANED, AND REPLACED. AFTER FLUSHING AND CLEANING, SYSTEMS SHALL BE PREPARED FOR TESTING BY IMMEDIATELY FILLING WATER PIPING WITH CLEAN, FRESH POTABLE WATER. ANY STOPPAGE, DISCOLORATION, OR OTHER DAMAGE TO THE FINISH, FURNISHINGS, OR PARTS OF THE BUILDING DUE TO THE CONTRACTORS FAILURE TO PROPERLY CLEAN THE PIPING SYSTEM SHALL BE REPAIRED BY THE CONTRACTOR. WHEN THE SYSTEM FLUSHING IS COMPLETE, THE HOT-WATER SYSTEM SHALL BE ADJUSTED FOR UNIFORM CIRCULATION.

C. FLUSHING DEVICES AND AUTOMATIC CONTROL SYSTEMS SHALL BE ADJUSTED FOR PROPER OPERATION ACCORDING TO MANUFACTURER'S INSTRUCTIONS. COMPLY WITH ASHRAE 90.1 - IP FOR MINIMUM EFFICIENCY REQUIREMENTS. UNLESS MORE STRINGENT LOCAL REQUIREMENTS EXIST, LEAD LEVELS SHALL NOT EXCEED LIMITS ESTABLISHED BY 40 CFR 141.80 (C)(1). THE WATER SUPPLY TO THE BUILDING SHALL BE TESTED SEPARATELY TO ENSURE THAT ANY LEAD CONTAMINATION FOUND DURING POTABLE WATER SYSTEM TESTING IS DUE TO WORK BEING PERFORMED INSIDE THE BUILDING.

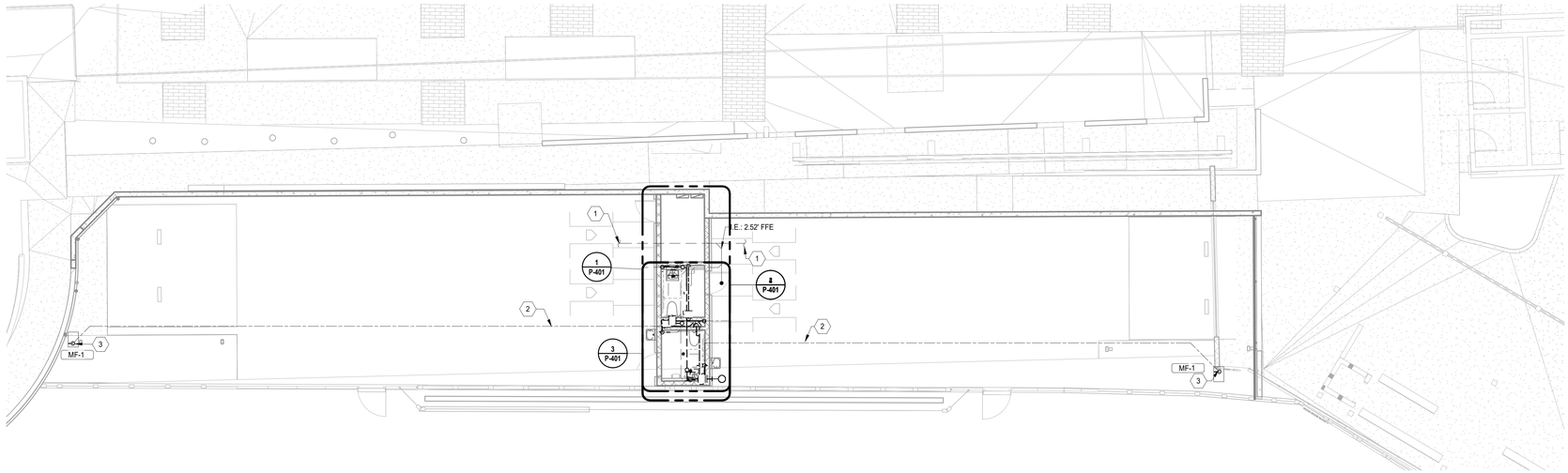
3.08 OPERATIONAL TEST

A. UPON COMPLETION OF FLUSHING AND PRIOR TO DISINFECTION PROCEDURES, THE CONTRACTOR SHALL SUBJECT THE PLUMBING SYSTEM TO OPERATING TESTS TO DEMONSTRATE SATISFACTORY INSTALLATION, CONNECTIONS, ADJUSTMENTS, AND FUNCTIONAL AND OPERATIONAL EFFICIENCY. SUCH OPERATING TESTS SHALL COVER A PERIOD OF NOT LESS THAN 8 HOURS FOR EACH SYSTEM AND SHALL INCLUDE THE FOLLOWING INFORMATION IN A REPORT WITH CONCLUSION AS TO THE ADEQUACY OF THE SYSTEM:
1. TIME, DATE, AND DURATION OF TEST.
2. WATER PRESSURES AT THE MOST REMOTE AND THE HIGHEST FIXTURES.
3. OPERATION OF EACH FIXTURE AND FIXTURE TRIM.
4. OPERATION OF EACH VALVE, HYDRANT, AND FAUCET.
5. PUMP SUCTION AND DISCHARGE PRESSURES.
6. TEMPERATURE OF EACH DOMESTIC HOT-WATER SUPPLY.
7. OPERATION OF EACH FLOOR AND ROOF DRAIN BY FLOODING WITH WATER.
8. OPERATION OF EACH VACUUM BREAKER AND BACKFLOW PREVENTER.
9. COMPLETE OPERATION OF EACH WATER PRESSURE BOOSTER SYSTEM, INCLUDING PUMP START PRESSURE AND STOP PRESSURE.

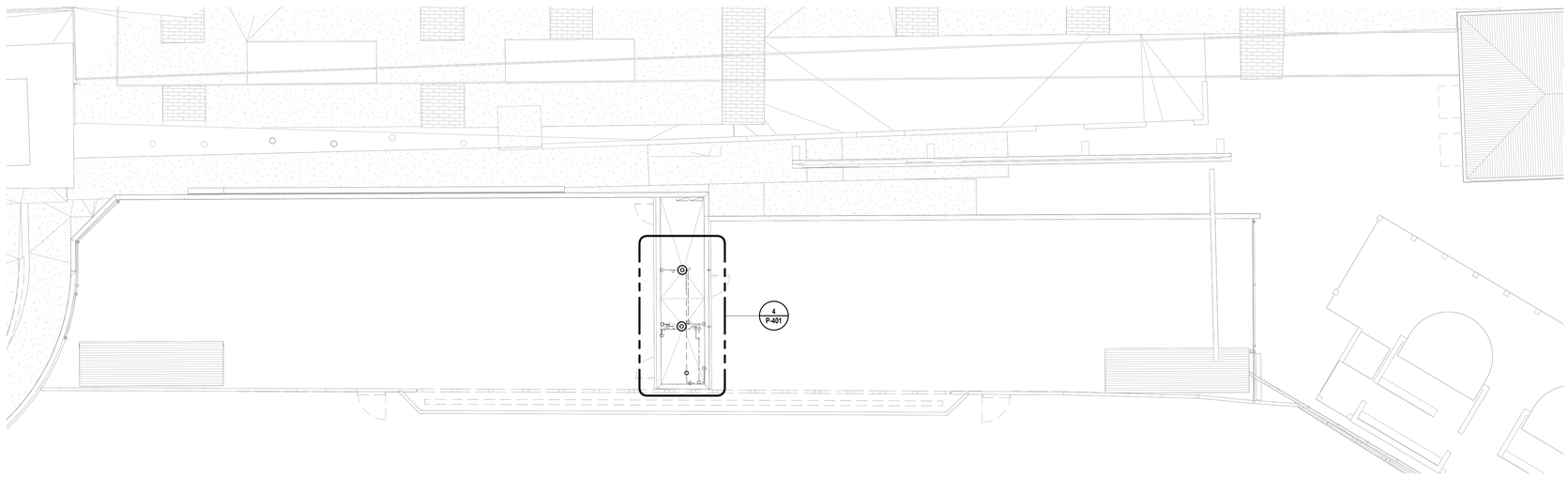
3.09 DISINFECTION

A. AFTER ALL SYSTEM COMPONENTS ARE PROVIDED AND OPERATIONAL TESTS ARE COMPLETE, THE ENTIRE DOMESTIC HOT- AND COLD- WATER DISTRIBUTION SYSTEM SHALL BE DISINFECTED. BEFORE INTRODUCING DISINFECTING CHLORINATION MATERIAL, ENTIRE SYSTEM SHALL BE FLUSHED WITH POTABLE WATER UNTIL ANY ENTRAINED DIRT AND OTHER FOREIGN MATERIALS HAVE BEEN REMOVED.

B. WATER CHLORINATION PROCEDURE SHALL BE IN ACCORDANCE WITH LOCAL AUTHORITY HAVING JURISDICATION, _____, AWWA C651 AND AWWA C652 AS MODIFIED AND SUPPLEMENTED BY THIS SPECIFICATION. THE CHLORINATING MATERIAL SHALL BE HYPOCHLORITES OR LIQUID CHLORINE. THE CHLORINATING MATERIAL SHALL BE FED INTO THE WATER PIPING SYSTEM AT A CONSTANT RATE AT A CONCENTRATION OF AT LEAST 50 PARTS PER MILLION (PPM). ISOLATE AND ALLOW SYSTEM TO STAND FOR A MINIMUM OF 24 HOURS OR FILL SYSTEM WITH A CHLORINE/WATER SOLUTION AT A CONCENTRATION OF AT LEAST 200 PPM AND ALLOW TO STAND FOR A MINIMUM



2 FIELD LEVEL - OVERALL PLUMBING PLAN
SCALE: 1/8" = 1'-0"



1 ROOF - OVERALL PLUMBING PLAN
SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

1. THESE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL EXTENT OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION AND PROPER INSTALLATION OF ALL PLUMBING SYSTEMS. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY OFFSETS AND FITTINGS WHICH MAY BE REQUIRED DUE TO SPACE CONSTRAINTS OR OTHER CONDITIONS.
2. THE CONTRACTOR SHALL PROVIDE ALL MISCELLANEOUS SUPPORTING STEEL, ETC. FOR THE PROPER INSTALLATION OF ALL PLUMBING SYSTEMS.
3. THE CONTRACTOR SHALL COORDINATE FLOOR, WALL, AND ROOF PENETRATIONS, ETC. WITH GENERAL TRADES.
4. THE CONTRACTOR SHALL VERIFY ALL CLEARANCES PRIOR TO FABRICATION OF ANY WORK.
5. PIPING SHALL NOT BE LOCATED ABOVE ANY ELECTRICAL PANELS OR EQUIPMENT.
6. WASTE, VENT, STORM PIPING SHOWN ON THIS PLAN ARE LOCATED ABOVE THE ASSOCIATED FLOOR SLAB.

(#) SHEET KEYNOTES:

1 4" SANITARY MAIN. REFER TO CIVIL DRAWINGS FOR CONTINUATION.
2 1/2" COLD WATER SUPPLY CONNECTIONS TO BE RUN BELOW FIELD TO MISTING FANS. REFER TO CIVIL DRAWINGS TO AVOID CONFLICTS. REFER TO GENERAL NOTES ON P-001 AND SPECIFICATIONS FOR MORE INFORMATION.
3 1/2" COLD WATER CONNECTIONS UP FOR MISTING FANS. COORDINATE FINAL LOCATION WITH ARCHITECTURAL SCOPE OF WORK. INSTALL EQUIPMENT AND MAKE CONNECTIONS IN ACCORDANCE WITH MANUFACTURER INSTRUCTIONS.

PLAN NORTH TRUE NORTH

0 2" 4" 8" 16"

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

LEGENDS GLOBAL

OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100 www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD. JACKSONVILLE FL, 32202

BID/ PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

ISSUED BY:	OSPORTS
ISSUE DATE:	**10/22/25**
PROJ NO.	**P20251573.000**

REVISIONS

TAG	ISSUED	DATE

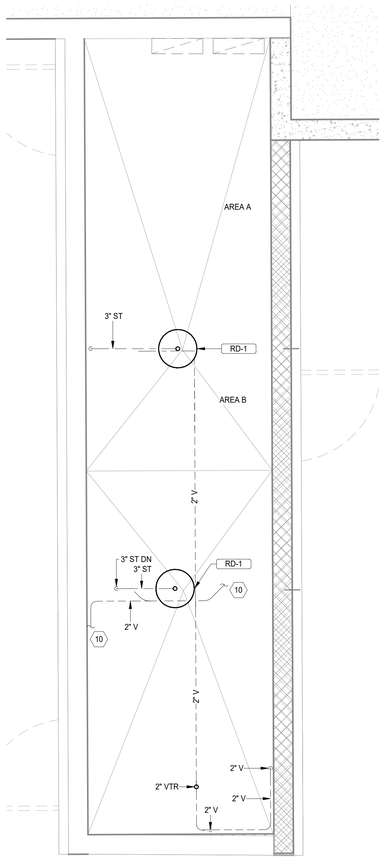
SHEET NAME:
OVERALL COMBINED PLUMBING PLAN

DRAWING NO.
P-101

STORM WATER PIPE SIZING SCHEDULE

DRAIN AREA	ROOF AREA (SQFT)	EQUIVALENT FLOW (GPM)	VERTICAL PIPE SIZE (INCH)	HORIZONTAL PIPE SIZE (INCH)	PIPE SLOPING (INCH/FT)
A	98	5	2	3	1/8"
B	85	4	2	3	1/8"
TOTAL	183	9	2	3	1/8"

NOTES:
1. PIPE SIZING ABOVE WAS DONE FOLLOWING THE FBC-P TABLE 1106.2.
2. GPM CALCULATION FORMULA PER FPC 2023 SECTION 1106.2.1, GPM = R(RAINFALL INTESITY INCHES) * A(AREA SQFT) * 0.0104
3. RAIN FALL RATE = 4.5 in/Hr



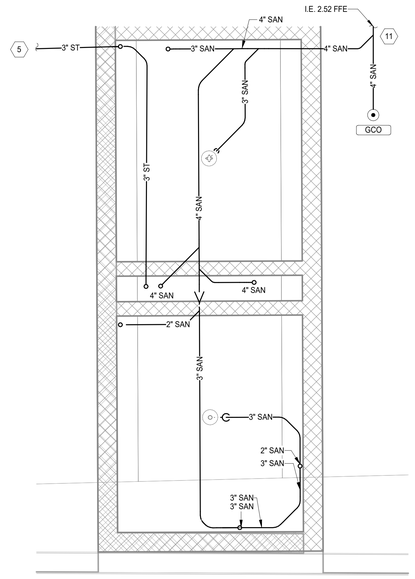
4 ENLARGED ROOF STORM AND VENT PLAN
SCALE: 1/2" = 1'-0"

GENERAL SHEET NOTES

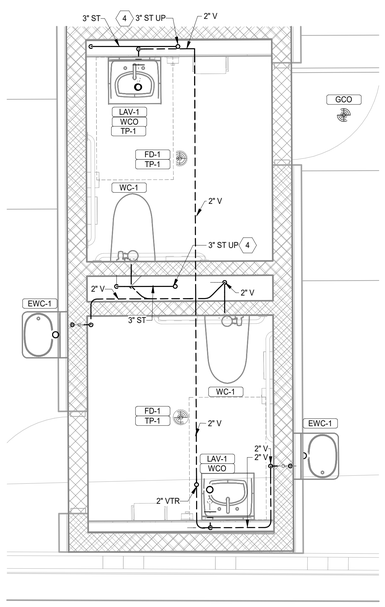
1. THESE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL EXTENT OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION AND PROPER INSTALLATION OF ALL PLUMBING SYSTEMS. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY OFFSETS AND FITTINGS WHICH MAY BE REQUIRED DUE TO SPACE CONSTRAINTS OR OTHER CONDITIONS.
2. THE CONTRACTOR SHALL PROVIDE ALL MISCELLANEOUS SUPPORTING STEEL, ETC. FOR THE PROPER INSTALLATION OF ALL PLUMBING SYSTEMS.
3. THE CONTRACTOR SHALL COORDINATE FLOOR, WALL, AND ROOF PENETRATIONS, ETC. WITH GENERAL TRADES.
4. THE CONTRACTOR SHALL VERIFY ALL CLEARANCES PRIOR TO FABRICATION OF ANY WORK.
5. PIPING SHALL NOT BE LOCATED ABOVE ANY ELECTRICAL PANELS OR EQUIPMENT.
6. WASTE, VENT, STORM PIPING SHOWN ON THIS PLAN ARE LOCATED ABOVE THE ASSOCIATED FLOOR SLAB.

SHEET KEYNOTES:

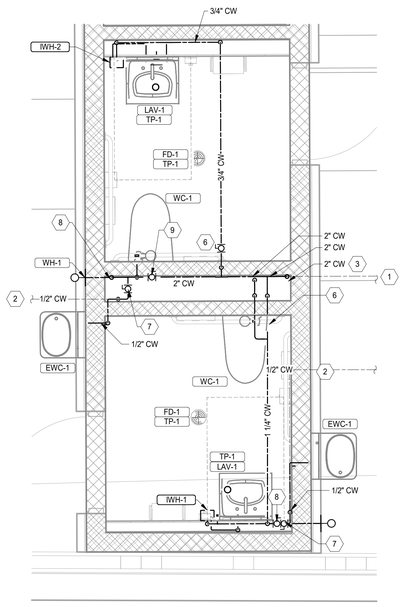
1 2" COLD WATER MAIN, SEE CIVIL DRAWINGS FOR CONTINUATION.
2 1/2" CW PIPING RUN BELOW GRADE TO MISTING FANS ON FAR ENDS OF BULLPENS. SEE OVERALL PLANS ON P-202 FOR CONTINUATION AND COORDINATE ELEVATION WITH EXISTING CIVIL SERVICES. MINIMUM INVERT MUST EXCEED DEPTH TO AVOID 12" SLAB BELOW RESTROOM EXTERNAL WALLS AND CHASE.
3 2" CW PIPING MAIN UP INTO BUILDING. INSTALL SHUTOFF VALVE WITH ACCESS PANEL IN CHASE WALL.
4 PIPING CONTINUED UP TO STORM DRAIN ON ROOF. SEE ROOF PLAN ON P-101 FOR ADDITIONAL INFORMATION.
5 3" STORM DRAIN PIPING TO SERVE BUILDING. SEE CIVIL DRAWINGS FOR CONTINUATION. PIPING INVERTS TO BE FIELD VERIFIED BY CONTRACTOR PRIOR TO THE COMMENCEMENT OF WORK.
6 INSTALL ACCESS PANEL IN CEILING FOR MAINTENANCE ACCESS.
7 SHUTOFF VALVE FOR EXTERNAL FIXTURES MISTING FAN AND BOTTLE FILLER. INSTALL ACCESS PANEL IN CHASE WALL FOR MAINTENANCE ACCESS.
8 SHUTOFF VALVE FOR WALL HYDRANT. INSTALL ACCESS PANEL IN CHASE WALL FOR MAINTENANCE ACCESS.
9 INSTALL ACCESS PANEL IN CHASE WALL FOR MAINTENANCE ACCESS.
10 VENT PIPING CONTINUED ON SHEET P-401 VIEW 2.
11 4" SANITARY MAIN. REFER TO CIVIL DRAWINGS FOR CONTINUATION.



3 ENLARGED SANITARY/VENT PLAN UNDERGROUND
SCALE: 1/2" = 1'-0"



2 ENLARGED SANITARY/VENT PLAN
SCALE: 1/2" = 1'-0"



1 ENLARGED DOMESTIC WATER PLAN
SCALE: 1/2" = 1'-0"

PLAN NORTH / TRUE NORTH

0 2" 4" 8" 16"

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

CITY OF JACKSONVILLE FLORIDA

LEGENDS GLOBAL

OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100 www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD. JACKSONVILLE FL, 32202

BID/ PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

ISSUED BY:	OSPORTS
ISSUE DATE:	10/22/25
PROJ NO.	P20251573.000

REVISIONS

TAG	ISSUED	DATE

SHEET NAME:
ENLARGED PLUMBING PLANS

DRAWING NO.
P-401

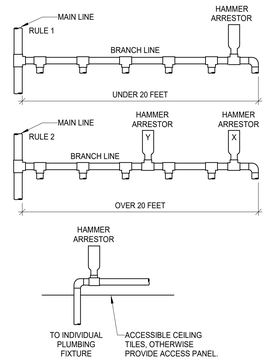
WATER HAMMER ARRESTOR SCHEDULE			
MARK	FIXTURE UNIT RANGE	PDI SIZE	INLET CONNECTION SIZE
WHA	1-11	A	1/2"
WHA	12-32	B	3/4"
WHA	33-60	C	1"
WHA	61-113	D	1"
WHA	114-154	E	1"
WHA	155-330	F	1"

NOTES:

1. PDI REFERS TO THE PLUMBING AND DRAINAGE INSTITUTE.
2. WATER HAMMER ARRESTORS SHALL BE CERTIFIED AS LEAD- FREE MEETING NSF 61/372.
3. ACCEPTABLE MANUFACTURERS ARE ZURN, JAY R. SMITH, MIFAB.
4. INSTALL WATER HAMMER ARRESTORS ON HOT AND COLD WATER SUPPLIES TO DISHWASHERS, CLOTHES WASHING MACHINES, SHOWERS, SINKS, LAVATORIES UTILIZING SENSOR OPERATED FAUCETS, FLUSH VALVE WATER CLOSETS, URINALS AND ELSEWHERE THAT QUICK-CLOSING VALVES (QUARTER- TURN OR LESS) ARE UTILIZED.
5. WATER HAMMER ARRESTORS SHALL BE SIZED AND INSTALLED IN ACCORDANCE WITH PDI WH-201 AND THE MANUFACTURERS REQUIREMENTS AND RECOMMENDATIONS. SERVICE ACCESS SHALL BE PROVIDED TO ALL WATER HAMMER ARRESTORS.

RULE 1: BRANCH LINES OF 20 FEET OR LESS. THE HAMMER ARRESTOR SHOULD BE PLACED AT THE END OF THE BRANCH LINE BETWEEN THE LAST TWO FIXTURES.

RULE 2: BRANCH LINES OVER 20 FEET. AN ADDITIONAL HAMMER ARRESTOR (Y) SHOULD BE PLACED AS SHOWN (BELOW). THE ADDITIONAL UNIT PLACED AT THE MIDPOINT OF THE RUN LONGER THAN 20 FEET. THE SUM OF THE FIXTURE UNIT RATINGS OF (X) AND (Y) COMBINED, SHOULD BE EQUAL TO OR GREATER THAN THE DEMAND OF ALL BRANCHES. INSTALL IN A ACCESSIBLE AREA

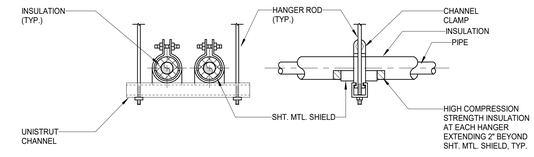


3 WATER HAMMER ARRESTOR

SCALE: NONE

NOTES:
1. INSULATION SHOWN IN THIS DETAIL IS AS REQUIRED PER PLUMBING SPECIFICATIONS
2. PROVIDE EPOXY, RUBBER, OR PLASTIC COATED HANGERS/SUPPORTS FOR COPPER PIPING.

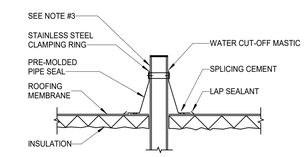
PIPE HANGER DETAIL



TRAPEZE HANGER DETAIL

2 PIPE HANGER

SCALE: 1" = 1'-0"

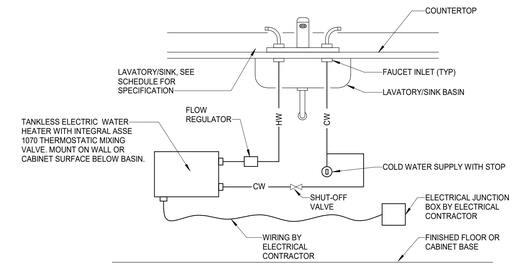


DETAIL NOTES

1. COORDINATE WITH ARCHITECTURAL ROOF PENETRATION DETAILS.
2. PRE-MOLDED PIPE SEAL CANNOT BE CUT VERTICALLY TO BE INSTALLED.
3. PRE-MOLDED PIPE SEAL MUST HAVE INTACT RIB AT THE TOP EDGE, REGARDLESS OF PIPE DIAMETER.
4. WHEN PRE-MOLDED PIPE SEAL CANNOT BE INSTALLED, USE FIELD FABRICATED PIPE SEAL.
5. FOR BALLAST SYSTEMS, REPLACE BALLAST AFTER WORK IS COMPLETED.
6. FLANGE MUST BE SET BY ROOFER, COORDINATE WITH ROOFING CONTRACTOR.
7. VENTS SHALL BE A MINIMUM OF 10'-0" FROM OUTSIDE AIR INTAKES.

4 PIPE THROUGH ROOF

SCALE: NONE



NOTES:
1. TANKLESS WATER HEATER, THERMOSTATIC MIXING VALVE, AND INSTALLATION INDICATED ON THIS DETAIL IS FOR REFERENCE ONLY. INSTALLATION OF WATER HEATER AND THERMOSTATIC MIXING VALVE SHALL BE IN ACCORDANCEWITH MANUFACTURERS REQUIREMENTS AND RECOMMENDATIONS.
2. INSTALL TANKLESS WATER HEATER AND THERMOSTATIC MIXING VALVE AS CLOSE AS POSSIBLE TO THE UNDERSIDE OF THE LAVATORY/SINK, MAINTAIN A.D.A. CLEARANCES WHERE APPLICABLE.
3. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.

1 UNDERCOUNTER INSTANTANEOUS ELECTRIC WATER HEATER

SCALE: 12" = 1'-0"

LEGENDS GLOBAL

OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100
www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD.
JACKSONVILLE FL, 32202

BID/ PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

ISSUED BY: OSPORTS

ISSUE DATE: **10/22/25**

PROJ NO. **P20251573.000**

REVISIONS

TAG	ISSUED	DATE

SHEET NAME:

PLUMBING DETAILS

DRAWING NO.

P-501

PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE	ADA	MFR.	MODEL	DESCRIPTION	DISTRIBUTION PIPE SIZE (IN)			
						CW	HW	VENT	FIXTURE BRANCH...
EWC-1	ELECTRIC WATER COOLER AND BOTTLE FILLING STATION	YES	ELKAY	LVRC8WSK	VANDAL-RESISTANT BOTTLE FILLING STATION & COOLER FILTERED REFRIGERATED STAINLESS. CHILLING CAPACITY OF 8.0 GPH (GALLONS PER HOUR) OF 50° F DRINKING WATER, BASED ON 80° F INLET WATER AND 90° F AMBIENT, PER ASHRAE 18 TESTING. FEATURES SHALL INCLUDE FILTER, GREEN TICKER, LAMINAR FLOW, REAL DRAIN, VANDAL RESISTANT. FURNISHED WITH VANDAL RESISTANT BUBBLER. ELECTRONIC BOTTLE FILLER BUTTON WITH MECHANICAL FRONT BUBBLER BUTTON ACTIVATION. PRODUCT SHALL BE WALL MOUNT (ON WALL), FOR INDOOR + OUTDOOR APPLICATIONS. UNIT SHALL BE CERTIFIED TO UL 399 AND CAN/CSA C22.2 NO. 120. PROVIDE WITH HEAVY DUTY FLOOR-MOUNTED WALL CARRIER EQUAL TO ZURN Z1225 FOR WATER COOLER. PROVIDE WITH MCGUIRE MODEL LFBV2166SS LEAD-FREE CHROME PLATED BRASS STOP AND SUPPLY WITH LOOSE KEY HANDLE AND BRAIDED STAINLESS STEEL RISER. PROVIDE WITH MCGUIRE MODEL 8912C ADJUSTABLE TRAP ARM. POWER REQUIREMENTS 115V/60HZ.	1/2"	-	2"	2"
LAV-1	LAVATORY	YES	BRADLEY	TERREON IMPERIAL TL-18	VITREOUS CHINA WALL-MOUNTED LAVATORY, 4" CENTERSET FAUCET HOLE, POINT OF USE THERMOSTATIC MIXING VALVE, ALPINE WHITE FINISH, SINGLE CHROME PLATED P TRAP. COORDINATE TRAP WITH TRAP PRIMER ASSEMBLY. ADA HEIGHT FAUCET: BRADLEY AERADA 900 SERIES FAUCET, INFRARED ACTIVATION, 0.5 GPM LAMINAR, 4" CENTERSET MOUNTING, 120V POWER REQUIRED ACCESSORIES: PROVIDE WITH GRID DRAIN EQUAL TO MCGUIRE MODEL 155A. PROVIDE WITH HEAVY DUTY FLOOR-MOUNTED WALL CARRIER EQUAL TO WATTS WCA-411 FOR LAVATORY. PROVIDE WITH MCGUIRE LFBV2165SS-09 1/2" COMP. X 3/8" COMP. COLD/HOT WATER STOPS WITH FLEXIBLE STAINLESS STEEL SUPPLY LINES. PROVIDE WITH MCGUIRE CHROME PLATED 17GA CAST BRASS P-TRAP; MODEL 8872C FOR 1-1/4" CONNECTIONS AND 8912 FOR 1-1/2" CONNECTIONS. COORDINATE TRAP WITH TRAP PRIMER ASSEMBLY.	1/2"	1/2"	2"	2"
WC-1	WATER CLOSET	YES	KOHLER	KINGSTON K-PR84325-T3D	WALL MOUNTED FLUSH VALVE WATER CLOSET, VITROUS CHINA, ADA HEIGHT; FV: KOHLER MACH TRIPOINT FLUSHOMETER K-10TD00K10, POLISHED CHROME AUTOMATIC SENSOR FLUSH VALVE 1.0 GPF, BATTERY POWERED ACCESSORIES: PROVIDE WITH THIN WALL CLOSET CARRIER EQUAL TO WATTS ISCA-14 SERIES FOR WATER CLOSET. PROVIDE WITH HEAVY DUTY COMMERICAL GRADE ELONGATED SEAT WITH OPEN FRONT, LESS COVER, AND STAINLESS STEEL HARDWARE. APPROVED MANUFACTURERS ARE CENTOCO, BEMIS, CHURCH, OLSONITE. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND HEIGHT OF ADA WATER CLOSET.	1-1/4"	-	2"	4"
MF-1	MISTING FAN ASSEMBLY	NO	BIG FOGG	F10-01-006	FAN TECH F10-01-006 24" FAN AND MISTING ASSEMBLY (8X NOZZLES - 0.08" DIAMETER HOLES MINIMUM, 0.16 GPM MINIMUM). WALL MOUNTED, 3/8" FEMALE TUBE FITTING, 120V POWER REQUIRED - 1.9A @110V. AEROMIST DIRECT DRIVE PUMP MODEL 60030K-DF-LP, 0.33 GPM, 120V, 8.4A, 3/4 HP MOTOR, 1750 RPM. 3/8" FEMALE ADAPTOR INLET, 3/8" PIPING FROM PUMP TO FAN ASSEMBLY	1/2"	-	-	-

GENERAL NOTES:
A. REFERENCE ARCHITECTURAL DRAWINGS FOR REQUIRED ADA WATER CLOSET, AND LAVTORY LOCATIONS AND MOUNTING HEIGHTS.
B. REFERENCE PLUMBING SPECIFICATIONS FOR EQUAL LISTED MANUFACTURES FOR ALL SCHEDULED FIXTURES.
C. UNLESS INDICATED OTHERWISE, THE ARCHITECT SHALL SELECT THE FIXTURE COLOR/FINISH FROM THE MANUFACTURER'S FULL RANGE OF STANDARD OPTIONS.
D. UNLESS INDICATED OTHERWISE, ALL EXPOSED METALLIC COMPONENTS TO BE FURNISHED WITH POLISHED CHROME FINISH, INCLUDING FAUCETS, TRAPS, STOPS, PIPING, ETC.
E. UNLESS INDICATED OTHERWISE, ALL EXPOSED PIPING SHALL BE FURNISHED WITH POLISHED CHROME FINISH BRASS ESCUTCHEONS AT ALL WALL/CABINET PENETRATIONS AND FIXTURE CONNECTIONS.
F. PIPE SIZES SHOWN ARE MINIMUM. REFER TO FLOOR PLANS FOR ADDITIONAL PIPE SIZES.

PLUMBING SPECIALTIES SCHEDULE

MARK	FIXTURE	MFR.	MODEL	DESCRIPTION	DISTRIBUTION PIPE SIZE (IN)			
					CW	HW	VENT	FIXTURE BRANCH...
GCO	GRADE CLEANOUT	ZURN	Z1400	ADJUSTABLE EXTERIOR CLEANOUT WITH COATED CAST IRON BODY WITH GAS AND WATERTIGHT TAPERED THREAD PLUG AND ROUND SCORIATED EXTRA-HEAVY-DUTY SECURED TOP. INSTALL IN 12" X 12" X 4" THICK CONCRETE PAD.	-	-	-	-
FD-1	FLOOR DRAIN	ZURN	Z415B	COATED CAST IRON WITH BOTTOM OUTLET, POLISHED 6" DIA. NICKEL BRONZE STRAINER, FLASHING CLAMP, & 1/2" TRAP PRIMER. MATCH PIPE SIZE ON PLANS.	-	-	-	-
RD-1	ROOF DRAIN	ZURN	ZC100F-EA	DURA-COATED CAST IRON BODY WITH COMBINATION MEMBRANE FLASHING/GRAVEL GUARD, ADJUSTABLE EXTENSION, AND CAST IRON DOME. MATCH PIPE SIZE ON DRAWINGS. PROVIDE WITH APPROPRIATE CLAMPS AND PLATES AS REQUIRED.	-	-	-	3"
TP-1	WASTEWATER SUPPLIED TRAP PRIMER	PPP	LTP-1500	1 1/2" P-TRAP AND TAIL PIECE WITH 1/2" BRAIDED STAINLESS STEEL PRIMING MAKE-UP WATER LINE AND CHROME PLATE ESCUTCHEONS. MINIMUM DISCHARGE @ 0.5 GPM IS 2.5 OZ.	-	-	-	-
WCO	WALL CLEANOUT	ZURN	Z1470	BRONZE THREAD CLEANOUT PLUG, AND ROUND, SMOOTH STAINLESS STEEL ZURN CO2530 WALL ACCESS COVER WITH SECURING SCREW.	-	-	-	3"
WH-1	WALL HYDRANT	ZURN	Z1320-CXL-WC	3/4" SELF-DRAINING, NON-FREEZE, ANTI-SIPHON WALL HYDRANT WITH ASSE 1019 VACUUM BREAKER, LOCKING WALL BOX, LOOSE TEE KEY, AND 3/4" HOSE THREAD OUTLET, LEAD FREE. PROVIDE WITH WALL CLAMP.	3/4"	-	-	-

GENERAL NOTES:
A. REFERENCE PLUMBING SPECIFICATIONS FOR EQUAL LISTED MANUFACTURES FOR ALL SCHEDULED FIXTURES.
B. UNLESS INDICATED OTHERWISE, THE ARCHITECT SHALL SELECT THE FIXTURE COLOR/FINISH FROM THE MANUFACTURER'S FULL RANGE OF STANDARD OPTIONS.
C. UNLESS INDICATED OTHERWISE, ALL EXPOSED METALLIC COMPONENTS TO BE FURNISHED WITH POLISHED CHROME FINISH, INCLUDING FAUCETS, TRAPS, STOPS, PIPING, ETC.
D. UNLESS INDICATED OTHERWISE, ALL EXPOSED PIPING SHALL BE FURNISHED WITH POLISHED CHROME FINISH BRASS ESCUTCHEONS AT ALL WALL/CABINET PENETRATIONS AND FIXTURE CONNECTIONS.
E. PIPE SIZES SHOWN ARE MINIMUM. REFER TO FLOOR PLANS FOR ADDITIONAL PIPE SIZES.

WATER HEATER SYSTEM SCHEDULE - ELECTRIC TANKLESS

MARK	SERVICE	TYPE	OUTLET TEMP (°F)	DESIGN FLOW RATE (GPM)	ACTIVATION FLOW RATE (GPM)	DESIGN TEMP RISE (°F)	HEATING SOURCE	INPUT KW	ELECTRICAL		SELECTION BASED ON		NOTES
									V	PH	MANUFACTURER	MODEL	
IWH-1	DOMESTIC HOT WATER	TANKLESS	105	0.5	0.3	48	ELECTRIC	3.5	120	1	EEMAX	ACCUMIX II	1,2
IWH-2	DOMESTIC HOT WATER	TANKLESS	105	0.5	0.3	48	ELECTRIC	3.5	120	1	EEMAX	ACCUMIX II	1,2

NOTES:
1. PROVIDE WITH INTEGRAL ASSE 1070 THERMOSTATIC MIXING VALVE.
2. PROVIDE CONCEALED TANKLESS WATER HEATER WITH INTEGRAL DISCONNECT SWITCH.

CITY OF JACKSONVILLE FLORIDA
LEGENDS GLOBAL
OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100
www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD.
JACKSONVILLE FL, 32202

BID/ PERMIT SET
10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

ISSUED BY: OSPORTS
ISSUE DATE: 10/22/25
PROJ NO. P20251573.000

REVISIONS

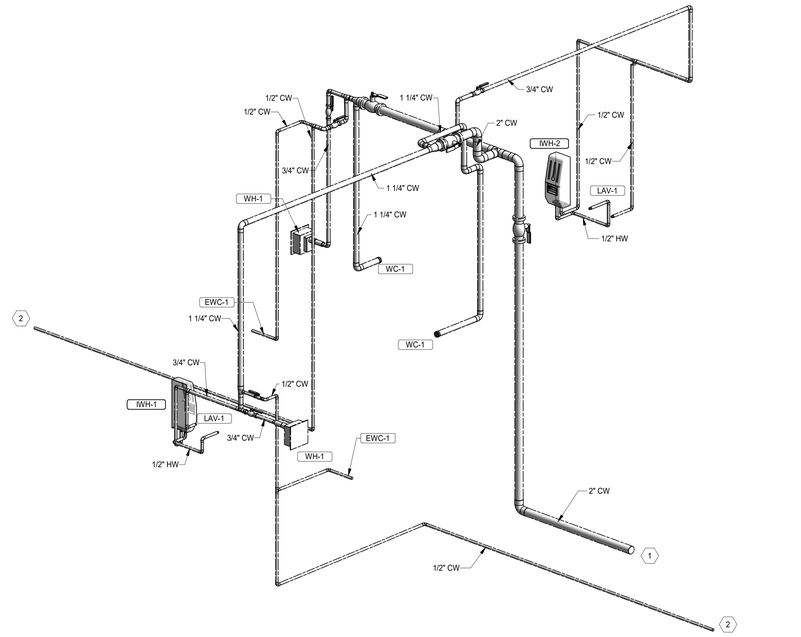
TAG	ISSUED	DATE

SHEET NAME:
PLUMBING SCHEDULES

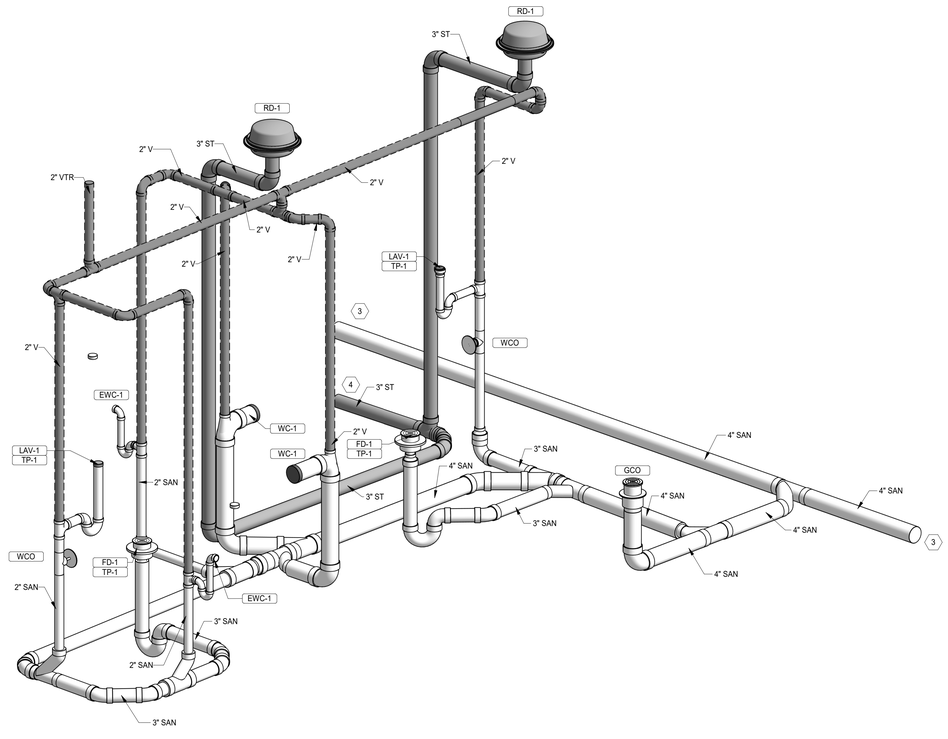
DRAWING NO.
P-701

SHEET KEYNOTES:

1. 2" COLD WATER MAIN. SEE CIVIL DRAWINGS FOR CONTINUATION.
2. 1/2" CW PIPING RUN BELOW GRADE TO MISTING FANS ON FAR ENDS OF BULLPENS. SEE OVERALL PLANS ON P-202 FOR CONTINUATION AND COORDINATE ELEVATION WITH EXISTING CIVIL SERVICES. MINIMUM INVERT MUST EXCEED DEPTH TO AVOID 12" SLAB BELOW RESTROOM EXTERNAL WALLS AND CHASE.
3. 4" SANITARY MAIN. REFER TO CIVIL DRAWINGS FOR CONTINUATION.
4. 3" STORM DRAIN PIPING TO SERVE BUILDING. SEE CIVIL DRAWINGS FOR CONTINUATION. PIPING INVERTS TO BE FIELD VERIFIED BY CONTRACTOR PRIOR TO THE COMMENCEMENT OF WORK.



1 DOMESTIC WATER RISER
SCALE:



2 SANITARY VENT RISER
SCALE:

CITY OF JACKSONVILLE FLORIDA

LEGENDS GLOBAL

OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100
www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD. JACKSONVILLE FL, 32202

BID/ PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

ISSUED BY:	OSPORTS
ISSUE DATE:	**10/22/25**
PROJ NO.	**P20251573.000**

REVISIONS

TAG	ISSUED	DATE

SHEET NAME:
PLUMBING ISOMETRICS

DRAWING NO.
P-901

POWER & EQUIPMENT SYMBOL LEGEND

SYMBOL	DESCRIPTION
HALF TONE LINES	DENOTES BACKGROUND OR EXISTING TO REMAIN (E).
THIN SOLID LINES	DENOTES DEVICES, EQUIPMENT, ETC. EXISTING TO REMAIN (E).
HEAVY SOLID LINES	DENOTES NEW (N) OR RELOCATED (R) DEVICES, EQUIPMENT, ETC.
DASHED LINES	DENOTES DEVICES, EQUIPMENT, ETC. TO BE DISCONNECTED AND REMOVED (D&R).
HEAVY PHANTOM LINES	DENOTES NEW (N) OR RELOCATED (R) CONDUIT, EQUIPMENT, ETC.UNDERGROUND OR BELOW GRADE.
	BRANCH CKT TURNING UP. BRANCH CKT TURNING DOWN. BRANCH CKT TURNING UP AND DOWN.
UE UT	UNDERGROUND, UNDER FLOOR/SLAB DUCTBANK, DIRECT BURIED CABLE, CONDUIT/CONDUCTOR: UT = TELECOM; UE = ELECTRICAL
H G N #AWG	HOME RUN. HASH MARKS INDICATE CONDUCTOR QUANTITY. HASH MARKS DEFINED AS SHOWN. "#" INDICATES SIZE OF CONDUCTORS OTHER THAN 12-AWG. ALL UNMARKED HOMERUNS SHALL CONTAIN (2) #12 AWG & (1) #12 AWG GND IN 3/4" CONDUIT, UNLESS OTHERWISE NOTED.
ZZZ / #.#.#	BRANCH CIRCUITING. "ZZZ" INDICATES PANEL DESIGNATION. "#.#.#," INDICATES CIRCUIT NUMBER(S).
	480Y/277 VOLT, 3-PHASE, 4-WIRE ELECTRICAL DISTRIBUTION TYPE PANELBOARD.
	208Y/120 VOLT, 3-PHASE, 4-WIRE ELECTRICAL DISTRIBUTION TYPE PANELBOARD.
	480Y/277 VOLT, 3-PHASE, 4-WIRE, SURFACE MOUNTED ELECTRICAL PANELBOARD.
	208Y/120 VOLT, 3-PHASE, 4-WIRE, SURFACE MOUNTED ELECTRICAL PANELBOARD.
	DRY-TYPE DISTRIBUTION TRANSFORMER.
AS WP	NON-FUSED DISCONNECT SWITCH. "AS" INDICATES SWITCH SIZE. "WP" INDICATES WEATHERPROOF (NEMA 3R) ENCLOSURE.
AF AS WP	FUSED DISCONNECT SWITCH. "AF" INDICATES FUSE SIZE. "AS" INDICATES SWITCH SIZE. "WP" INDICATES WEATHERPROOF (NEMA 3R) ENCLOSURE.
AT AS WP	FUSED CIRCUIT BREAKER SWITCH. "AT" INDICATES CIRCUIT BREAKER TRIP RATING. "AF" INDICATES FRAME SIZE. "WP" INDICATES WEATHERPROOF (NEMA 3R) ENCLOSURE.
# WP	MAGNETIC MOTOR STARTER MOUNTED IN A NEMA ENCLOSURE. "#" INDICATES STARTER SIZE. "WP" INDICATES WEATHERPROOF (NEMA 3R) ENCLOSURE.
AF AS #,WP	COMBINATION STARTER & FUSED DISCONNECT SWITCH. "#" INDICATES STARTER SIZE. "AF" INDICATES FUSE SIZE. "AS" INDICATES SWITCH SIZE. "WP" INDICATES WEATHERPROOF (NEMA 3R) ENCLOSURE.
WP	COMBINATION VFD STARTER AND DISCONNECT SWITCH. "WP" INDICATES WEATHERPROOF (NEMA 3R) ENCLOSURE.
XXXX-##	EQUIPMENT PROVIDED BY OTHER DIVISIONS REQUIRING ELECTRICAL CONNECTION(S). COORDINATE EQUIPMENT LOCATION, CONNECTION POINT(S), AND OTHER REQUIREMENTS WITH RESPECTIVE DIVISION'S DRAWINGS, SPECIFICATIONS, AND SHOP DRAWINGS. REFER TO EQUIPMENT CONNECTION SCHEDULES FOR ADDITIONAL REQUIREMENTS. EXAMPLES OF EQUIPMENT REQUIRING ELECTRICAL CONNECTION(S) AS FOLLOWS: "XXXX-##" INDICATES MECHANICAL / PLUMBING / FIRE PROTECTION EQUIPMENT DESIGNATIONS, MATCHING LABELS USED IN THOSE DIVISIONS' CONSTRUCTION DOCUMENTS. "FS-##" INDICATES FOOD SERVICE EQUIPMENT, MATCHING ITEM NUMBER (##) AS SHOWN ON FOOD SERVICE CONSTRUCTION DOCUMENTS. "ELEV-##" INDICATES ELEVATOR, MATCHING DESIGNATION AS SHOWN ON ARCHITECTURAL CONSTRUCTION DOCUMENTS.

OUTLET SYMBOL LEGEND

SYMBOL	DESCRIPTION
+XX" ZZ/##	DUPLEX RECEPTACLE, 20 AMPERE, 125 VOLT, 2 POLE, 3 WIRE GROUNDING TYPE, NEMA 5-20R, MOUNTED 18"A.F.F. UNLESS OTHERWISE NOTED. "+XX" INDICATES MOUNTING HEIGHT OTHER THAN 18". "ZZ / ##" INDICATES BRANCH CIRCUITING.
+XX" ZZ/##	DOUBLE DUPLEX (QUAD) RECEPTACLE, 20 AMPERE, 125 VOLT, 2 POLE, 3 WIRE GROUNDING TYPE, NEMA 5-20R, MOUNTED 18"A.F.F. UNLESS OTHERWISE NOTED. REFER TO ABOVE FOR MOUNTING HEIGHT AND CIRCUITING INFORMATION.
+XX" ZZ/##	SINGLE RECEPTACLE, 20 AMPERE, 125 VOLT, 2 POLE, 3 WIRE GROUNDING TYPE, NEMA 5-20R, MOUNTED 18"A.F.F. UNLESS OTHERWISE NOTED. REFER TO ABOVE FOR MOUNTING HEIGHT AND CIRCUITING INFORMATION.
+XX" ZZ/## X	SPECIAL PURPOSE RECEPTACLE. REFER TO ABOVE FOR MOUNTING HEIGHT AND CIRCUITING INFORMATION. "X" INDICATES THE FOLLOWING: A XX VOLT, X POLE, X WIRE, XX AMP (NEMA X-XXR) COORDINATE EXACT NEMA CONFIGURATION WITH EQUIPMENT PRIOR TO ROUGH-IN.
ZZ/##	CEILING MOUNTED DUPLEX RECEPTACLE, 20 AMPERE, 125 VOLT, 2 POLE, 3 WIRE GROUNDING TYPE, NEMA 5-20R. REFER TO ABOVE FOR CIRCUITING INFORMATION.
ZZ/## X	FLOOR MOUNTED RECEPTACLE, 20 AMPERE, 125 VOLT, 2 POLE, 3 WIRE GROUNDING TYPE, NEMA 5-20R. REFER TO ABOVE FOR CIRCUITING INFORMATION. "X" INDICATES THE FOLLOWING: A1 SINGLE GANG WITH SINGLE DUPLEX. SEE DETAIL FOR ADDITIONAL INFORMATION. A2 2-GANG WITH DOUBLE DUPLEX. SEE DETAIL FOR ADDITIONAL INFORMATION.
ZZ/## X	FLOOR BOX OR POKE-THROUGH POWER AND TELECOM DEVICE. REFER TO ABOVE FOR CIRCUITING INFORMATION. "X" INDICATES THE FOLLOWING: B 2-GANG FLOOR BOX WITH ONE DUPLEX RECEPTACLE AND SINGLE GANG FOR TELECOM. SEE DETAIL FOR ADDITIONAL INFORMATION. C 3-GANG FLOOR BOX WITH ONE DUPLEX RECEPTACLE AND 2-GANGS FOR TELECOM. SEE DETAIL FOR ADDITIONAL INFORMATION. D 6-GANG FLOOR BOX WITH TWO DUPLEX RECEPTACLES AND 4-GANGS FOR TELECOM AND/OR AUDIO-VISUAL. SEE DETAIL FOR ADDITIONAL INFORMATION. E FIRE RATED POKE-THROUGH. SEE DETAIL FOR ADDITIONAL INFORMATION.
	DEVICE MOUNTED 8" ABOVE COUNTER. REFER TO ABOVE FOR TYPE AND CIRCUITING INFORMATION.
	DEVICE ON EMERGENCY POWER. REFER TO ABOVE FOR TYPE AND CIRCUITING INFORMATION.
	JOB SPECIFIC OPTION. REFER TO ABOVE FOR TYPE AND CIRCUITING INFORMATION.
	RECEPTACLES WITH ADDITIONAL SUBSCRIPT DESIGNATES TYPE OR SPECIFIC REQUIREMENTS AS FOLLOWS: G GROUND FAULT CIRCUIT INTERRUPTER TYPE. DFG DEAD FRONT GROUND FAULT CIRCUIT INTERRUPTER TYPE. AC DEVICE MOUNTED 8" ABOVE COUNTER. AV DEVICE MOUNTED ADJACENT TO TELECOMMUNICATION DEVICE. EWC ELECTRIC WATER COOLER (GFCI TYPE, COORDINATE WITH WATER COOLER). E CIRCUITED TO EMERGENCY POWER. IG ISOLATED GROUND. TR TAMPER RESISTANT TYPE. WP WEATHERPROOF "WHILE-IN-USE" (HUBBELL #WP26E) COVER.
J	JUNCTION BOX (SIZED AS REQUIRED PER N.E.C. ARTICLE 314).
M $	FRACTIONAL HORSEPOWER MOTOR STARTER - 120 VOLT, 20 AMP, 1 POLE, PILOT LIGHT, UNLESS OTHERWISE NOTED.
PB X	PUSH BUTTON STATION. "X" INDICATES THE FOLLOWING: DO AUTOMATIC DOOR OPERATOR EPO EMERGENCY POWER OFF

LIGHTING SYMBOL LEGEND

SYMBOL	DESCRIPTION
ZZZ / #.#.#	ROOM LIGHTING CIRCUIT TAG. ALL FIXTURES IN ROOM/SPACE TO BE CIRCUITED TO PANEL "ZZZ" / CIRCUIT NUMBER(S) "#.#.#" AS INDICATED, UNLESS OTHERWISE NOTED.
X y #	RECESSED LUMINAIRE. "X" INDICATES TYPE; "y" INDICATES SWITCHING; "#" BRANCH CIRCUITING. SEE LUMINAIRE SCHEDULE.
X y #	SURFACE MOUNTED LUMINAIRE. "X" INDICATES TYPE; "y" INDICATES SWITCHING; "#" BRANCH CIRCUITING. SEE LUMINAIRE SCHEDULE.
NL	LUMINAIRE WITH INTEGRAL EMERGENCY BATTERY PACK OR WIRED TO EMERGENCY CIRCUIT (LIFE SAFETY). "NL" DENOTES NIGHT LIGHT WITH 24/7 OPERATION. SEE LUMINAIRE SCHEDULE.
NL	LUMINAIRE WITH INTEGRAL EMERGENCY BATTERY PACK OR WIRED TO EMERGENCY CIRCUIT (CRITICAL BRANCH). "NL" DENOTES NIGHT LIGHT WITH 24/7 OPERATION. SEE LUMINAIRE SCHEDULE.
	RECESSED DOWN LIGHT OR WALL WASH. SEE LUMINAIRE SCHEDULE.
	SURFACE MOUNTED DOWNLIGHT OR WALL WASH. SEE LUMINAIRE SCHEDULE.
	LINEAR PENDANT MOUNTED LUMINAIRE. SEE LUMINAIRE SCHEDULE.
	ROUND PENDANT MOUNTED LUMINAIRE. SEE LUMINAIRE SCHEDULE.
	WALL MOUNTED LUMINAIRE. SEE LUMINAIRE SCHEDULE.
	TRACK LIGHTING LUMINAIRE SYSTEM. SEE LUMINAIRE SCHEDULE.
	ILLUMINATED EXIT SIGNAGE LUMINAIRE - CEILING MOUNTED. REFER TO PLANS FOR FACING AND CHEVRON CONFIGURATION. SEE LUMINAIRE SCHEDULE.
	ILLUMINATED EXIT SIGNAGE LUMINAIRE - WALL MOUNTED. REFER TO PLANS FOR FACING AND CHEVRON CONFIGURATION. SEE LUMINAIRE SCHEDULE.
	ILLUMINATED EXIT SIGN LUMINAIRE WITH INTEGRAL EMERGENCY HEAD(S). REFER TO PLANS FOR FACING AND CHEVRON CONFIGURATION. SEE LUMINAIRE SCHEDULE.
	EMERGENCY LIGHTING BATTERY UNIT WITH HEADS AS INDICATED. SEE LUMINAIRE SCHEDULE.
	REMOTE MOUNTED EMERGENCY LIGHTING HEAD (SINGLE OR DOUBLE AS INDICATED ON PLANS). SEE LUMINAIRE SCHEDULE.
$	LINE VOLTAGE TOGGLE SWITCH. 1-POLE, 120V/277V, UNLESS OTHERWISE INDICATED.
ϕ	LINE VOLTAGE DIMMER SWITCH, COMPATIBLE WITH LUMINAIRE DIMMING TYPE. 1-POLE, 120V/277V, UNLESS OTHERWISE INDICATED.
EXAMPLE: X $ X ϕ	LINE VOLTAGE CONTROL DEVICES WITH ADDITIONAL CAPITALIZED ANNOTATION INDICATES THE FOLLOWING TYPE OR ADDITIONAL REQUIREMENT(S): 3 = 3-WAY 4 = 4-WAY D = DUAL TECHNOLOGY OCCUPANCY/VACANCY SENSOR E = CONTROLS EMERGENCY LIGHTING CIRCUIT, RED IN COLOR K = KEY SWITCH L = LIGHTED HANDLE MS = MOMENTARY CONTACT P = PASSIVE INFRARED OCCUPANCY/VACANCY SENSOR PL = PILOT LIGHT T = TIMER SWITCH, 12-HOUR PROGRAMMABLE WITH FLASH WARNING U = ULTRASONIC OCCUPANCY/VACANCY SENSOR
S	LOW VOLTAGE DIGITAL SWITCH FOR LOAD CONTROLLER / RELAY CONTROL. REFER TO LIGHTING CONTROL DETAILS.
⊞	LOW VOLTAGE DIGITAL DIMMER SWITCH FOR LOAD CONTROLLER / RELAY CONTROL. REFER TO LIGHTING CONTROL DETAILS.
EXAMPLE: X# S X# ⊞	LOW VOLTAGE DIGITAL CONTROL DEVICES WITH ADDITIONAL CAPITALIZED ANNOTATION INDICATES THE FOLLOWING TYPE OR ADDITIONAL REQUIREMENT(S): X: D = DUAL TECHNOLOGY OCCUPANCY/VACANCY SENSOR E = CONTROLS EMERGENCY LIGHTING CIRCUIT, RED IN COLOR G = TOUCH SCREEN OR GRAPHIC DISPLAY K = KEY SWITCH P = PASSIVE INFRARED OCCUPANCY/VACANCY SENSOR R = MASTER 2-HOUR OVERRIDE SWITCH S = SCENE CONTROL PUSHBUTTON STATION T = TIMER SWITCH, 12-HOUR PROGRAMMABLE WITH FLASH WARNING U = ULTRASONIC OCCUPANCY/VACANCY SENSOR #: 2, 3, 4, ... = QUANTITY OF ZONES / GROUPS CONTROLLED
EXAMPLE: z# $ z# ϕ z# S z# ⊞	CONTROL DEVICES WITH ADDITIONAL LOWERCASE ANNOTATION INDICATES CONTROL ZONE(S) / GROUP(S): a, d, c, ... = LOCAL / STAND-ALONE ZONE IN ROOM / SPACE n# = NETWORKED ZONE / RELAY ON NORMAL SOURCE e# = NETWORKED ZONE / RELAY ON EMERGENCY SOURCE s# = NETWORKED ZONE / RELAY ON STANDBY SOURCE
X	CEILING MOUNTED OCCUPANCY/VACANCY SENSOR WITH 20 AMP RATED POWER PACK. "X" DENOTES THE FOLLOWING: DT DUAL TECHNOLOGY. PI PASSIVE INFRARED. US ULTRASONIC. PD COMBINATION PHOTOCELL/DUAL TECHNOLOGY SENSOR
PC	PHOTOCELL
GTD	EMERGENCY GENERATOR TRANSFER DEVICE. SEE DETAILS FOR ADDITIONAL INFORMATION.
LCP	SURFACE MOUNTED LIGHTING CONTROL RELAY PANEL. REFER TO DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
TC	ASTRONOMICAL DIGITALLY CONTROLLED 4 ZONE LIGHTING CONTROL TIME SWITCH - TORK: 'DLC400BP' WITH PHOTOCELL: 'EPC2' AND TIMED OVERRIDE SWITCH: 'SSA200R-24'. COORDINATE INITIAL PROGRAMMING WITH OWNER. PROVIDE INITIAL PROGRAMMING AS REQUIRED.
C	ELECTRICALLY HELD CONTACTOR. REFER TO WIRING DIAGRAMS FOR ADDITIONAL INFORMATION.

ONE-LINE DIAGRAM SYMBOL LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
HEAVY SOLID LINES	DENOTES NEW (N) OR RELOCATED (R) BUSSING, FEEDER, ETC.	MCP STARTER	COMBINATION STARTER AND MOTOR CIRCUIT PROTECTOR. STARTER AND MOTOR CIRCUIT PROTECTOR SIZES AS NOTED.
	AUTOMATIC TRANSFER SWITCH. NUMBER OF POLES AND AMPERAGE RATING AS NOTED OR SCHEDULED.	SWITCH FUSE STARTER	COMBINATION STARTER AND FUSED DISCONNECT SWITCH. STARTER, FUSE, AND SWITCH SIZES AS NOTED.
	DRY TYPE TRANSFORMER. kVA, PHASE, PRIMARY AND SECONDARY RATING AS NOTED OR SCHEDULED.	G	THREE PHASE GENERATOR. SIZE AS NOTED OR SCHEDULED.
NAME	PANELBOARD. DESIGNATION AS NOTED. SEE PANELBOARD SCHEDULES FOR ADDITIONAL INFORMATION.	M XX	THREE PHASE MOTOR. HORSEPOWER AS NOTED OR SCHEDULED. 'XX' INDICATES MOTOR DESIGNATION.
TRIP FRAME	MOLDED CASE CIRCUIT BREAKER. FRAME AND TRIP SIZES AS NOTED.	SPACE	SPACE IN CIRCUIT BREAKER OR FUSED SWITCH DISTRIBUTION PANELBOARD. FRAME SIZE AS NOTED.
TRIP FRAME ST	MOLDED CASE CIRCUIT BREAKER WITH SHUNT TRIP OPERATOR. FRAME AND TRIP SIZES AS NOTED.		DELTA TO WYE CONNECTED WIRING
SWITCH FUSE	LOW VOLTAGE FUSED DISCONNECT SWITCH. FUSE AND DISCONNECT SWITCH SIZES AS NOTED.		CONTROL POWER TRANSFORMER (CPT) OR POTENTIAL TRANSFORMER (PT).
SWITCH	LOW VOLTAGE DISCONNECT SWITCH. DISCONNECT SWITCH SIZE AS NOTED.		CURRENT TRANSFORMER. SIZE AS REQUIRED.
FUSE	LOW VOLTAGE FUSE. SIZE AS NOTED.	N G	NEUTRAL BUS TO GROUND BUS BONDING.
XX	SPECIALTY EQUIPMENT/DEVICES. "XX" STANDS FOR THE FOLLOWING: SPD SURGE PROTECTIVE DEVICE. GFP GROUND FAULT PROTECTION. C CONTACTOR. M METERING. EPO EMERGENCY POWER OFF PUSHBUTTON. VFD VARIABLE FREQUENCY DRIVE PROVIDED BY DIVISION 23. EC ELEVATOR CONTROLLER PROVIDED BY DIVISON 14.	FUSE	MEDIUM VOLTAGE FUSED DISCONNECT SWITCH. FUSE SIZE AS NOTED.
	HAND/OFF/AUTO SWITCH.	FUSE	MEDIUM VOLTAGE FUSE. SIZE AS NOTED.
###X	FEEDER DESIGNATION. REFER TO FEEDER SCHEDULE(S) FOR FEEDER SIZE.	SWITCH FUSE	LOW VOLTAGE BOLTED PRESSURE FUSED SWITCH. FUSE AND DISCONNECT SWITCH SIZES AS NOTED.

FIRE ALARM SYMBOL LEGEND

SYMBOL	DESCRIPTION
XX cd C	FIRE ALARM SPEAKER STROBE "XX" INDICATES CANDELA RATING "C" INDICATES CEILING MOUNTED
	FIRE ALARM STROBE WALL MOUNTED
	FIRE ALARM HORN STROBE "C" INDICATES CEILING MOUNTED
S	CEILING MOUNTED SMOKE DETECTOR

ELECTRICAL DRAWING INDEX

E-001	ELECTRICAL SYMBOL LEGEND
E-002	ELECTRICAL GENERAL NOTES
E-003	ELECTRICAL SPECIFICATIONS
E-004	ELECTRICAL SPECIFICATIONS
E-101	LEVEL 1 LIGHTING PLAN & CONTROL DETAILS
E-201	OVERALL LEVEL 1 POWER & FIRE ALARM PLANS
E-511	POWER DETAILS AND DIAGRAMS
E-601	ELECTRICAL RISERS AND SCHEDULES

ABBREVIATIONS

GENERAL

AC	ABOVE COUNTER
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AL	ALUMINUM
ATS	AUTOMATIC TRANSFER SWITCH
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CP	CONTROL PANEL
CR	CRITICAL BRANCH
CT	CURRENT TRANSFORMER
CU	COPPER
EG	EQUIPMENT GROUND
ELEV	ELEVATOR
EM	EMERGENCY
GAP	GENERATOR ANNUNCIATOR PANEL
GEC	GROUNDING ELECTRODE CONDUCTOR
GEN	GENERATOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFP	GROUND FAULT PROTECTION
GND	GROUND
IG	ISOLATED GROUND
IPP	ISOLATED PPOWER PANEL
LCP	LIGHTING CONTROL PANEL
LS	LIFE SAFETY
LTG	LIGHTING
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MDP	MAIN DISTRIBUTION PANEL
MEGB	MAIN ELECTRIC GROUND BUS
MLO	MAIN LUG ONLY
MTGB	MAIN TECHNOLOGY GROUND BUS
MTS	MANUAL TRANSFER SWITCH
(N.I.C.)	NOT IN CONTRACT
NL	NIGHT LIGHT
OS	OCCUPANCY SENSOR
PNL	PANEL
REC	RECEPTACLE
SB	OPTIONAL STAND-BY
SE	SERVICE ENTRANCE
SW	SWITCH
SWBD	SWITCHBOARD
UC	UNDER COUNTER
UG	UNDERGROUND
UPS	UNINTERRUPTIBLE POWER SUPPLY
VFD	VARIABLE FREQUENCY DRIVE
VP	VANDAL PROOF
VT	VOLTAGE TRANSFORMER
WIU	WHILE IN USE
WP	WEATHERPROOF

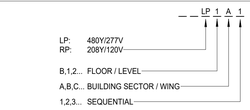
RACEWAY TYPES

AC	ARMORED CABLE
C	CONDUIT
EMT	ELECTRIC METALIC TUBING
MC	METAL CLAD
PVC	POLYVINYL CHLORIDE
RGS	RIGID GALVANIZED STEEL

MECHANICAL EQUIPMENT

AC	AIR CONDITIONING UNIT
ACC	AIR COOLED CHILLER
AHU	AIR HANDLING UNIT
B	BOILER
BAS	BUILDING AUTOMATION SYSTEM
CH	CHILLER
CU	CONDENSING UNIT
CUH	CABINET UNIT HEATER
DDC	DIGITAL DIRECT CONTROL
EF	EXHAUST FAN
EUH	ELECTRIC UNIT HEATER
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
F	FURNACE
FCU	FAN COIL UNIT
FPVAV	FAN-POWERED VARIABLE AIR VOLUME
HP	HEAT PUMP
MAU	MAKE-UP AIR UNIT
P	PUMP
RTU	ROOFTOP UNIT
SAHU	SPLIT SYSTEM AIR HANDLING UNIT
UH	UNIT HEATER
UST	UNDERGROUND STORAGE TANK
VAV	VARIABLE AIR VOLUME

PANEL KEY



CITY OF JACKSONVILLE FLORIDA

LEGENDS GLOBAL

OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100 www.osborn-eng.com FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION
301 A PHILIP RANDOLPH BLVD, JACKSONVILLE FL, 32202

BID/ PERMIT SET
10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

ISSUED BY: OSPORTS
ISSUE DATE: 10/22/25
PROJ NO. P20251573.000

REVISIONS

TAG	ISSUED	DATE

SHEET NAME: ELECTRICAL SYMBOL LEGEND

DRAWING NO. E-001

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

GENERAL GROUNDING NOTES:

1. GROUNDING INSTALLATION SHALL COMPLY WITH OSHA AND THE NATIONAL ELECTRICAL CODE, EXCEPT WHERE LOCAL CODE PREVAILS.
2. GROUNDING TO BE SUFFICIENT TO PROVIDE AN EFFECTIVE GROUND PATH BETWEEN THE EQUIPMENT AND THE GROUND, OF NOT MORE THAN 5 OHMS FOR THE FOLLOWING:

A. NEUTRAL OF 120/208V AND 277/480V LIGHTING SYSTEMS

3. COMPONENTS WHICH ARE INTRINSIC TO THE ELECTRICAL CONTROL AND/OR EQUIPMENT PANEL SHALL BE CONSIDERED GROUNDED WHEN THE ENCLOSURE IS GROUNDED.
4. MINIMUM OF #12 COPPER GROUND WIRE TO BE RUN THROUGH ALL LIGHTING/POWER AND SYSTEM DISTRIBUTION CONDUITS.
5. ALL SURFACES TO BE GROUNDED SHALL BE THOROUGHLY CLEANED TO BARE METAL BEFORE ATTACHING GROUND CONNECTIONS.
6. WHEN STUBBING-UP GROUND WIRES AT BUILDING COLUMNS, MOTOR, FRAMES, ETC. STUB-UP 3'-0" PIGTAIL MINIMUM ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED. PROVIDE MINIMUM OF 15'-0" PIGTAILS TO MISCELLANEOUS EQUIPMENT FROM BUILDING COLUMNS.
7. ALL GROUND CONNECTIONS SHALL BE EXOTHERMIC-WELD UNLESS OTHERWISE NOTED.
8. ALL EQUIPMENT GROUNDS SHALL BE TERMINATED WITH COMPRESSION FITTINGS AND STAINLESS STEEL BOLTS OR IN PANEL GROUND BAR.

ELECTRICAL DEFINITIONS:

WHERE THE FOLLOWING WORDS / PHRASES ARE INDICATED ON THE ELECTRICAL DOCUMENTS, THEY SHALL HAVE THE FOLLOWING MEANING:

- FURNISH - TO PURCHASE AND DELIVER TO THE PROJECT SITE COMPLETE WITH EVERY NECESSARY APPURTENANCE AND SUPPORT.
- INSTALL - TO UNLOAD AT THE DELIVERY POINT AT THE SITE AND PERFORM EVERY OPERATION NECESSARY FOR PROPER INSTALLATION PER CODES AND MANUFACTURERS REQUIREMENTS, TO ESTABLISH SECURE MOUNTING AND CORRECT OPERATION AT THE PROPER LOCATION IN THE PROJECT.
- PROVIDE - FURNISH AND INSTALL.
- BY OTHERS / BY OTHER DIVISION / BY DIVISION ## CONTRACTOR - EQUIPMENT, DEVICE, ETC. PROVIDED UNDER THE SCOPE OF THIS CONTRACT AND IS SHOWN ON DRAWINGS OTHER THAN ELECTRICAL
- NOT IN CONTRACT / N.I.C. - EQUIPMENT, DEVICE, ETC. NOT PROVIDED UNDER THE SCOPE OF THIS CONTRACT, INCLUDING BUT NOT LIMITED TO A PREVIOUS OR CONCURRENT PHASE OF WORK.

ELECTRICAL SYSTEM STUDIES:

1. PROVIDE SERVICE EQUIPMENT AND PANELBOARDS WITH THE MAXIMUM AVAILABLE SHORT-CIRCUIT CURRENT AND DATE OF CALCULATION. PROVIDE LABEL AND MEANS OF AFFIXING IT TO THE SUBSTRATE, THAT IS SUITABLE FOR THE ENVIRONMENT IN WHICH THE EQUIPMENT IS INSTALLED. REFER TO NEC 110.24 AND 408.6 FOR ADDITIONAL REQUIREMENTS.
2. ARC-FLASH HAZARD WARNING LABELS COMPLYING WITH THE REQUIREMENTS OF #2 AND #3 ABOVE SHALL BE PERMITTED IN LIEU OF THE SHORT-CIRCUIT CURRENT LABELS DESCRIBED WITHIN #1 ABOVE.
3. ENLIST AN ELECTRICAL ENGINEER, REGISTERED IN THE STATE IN WHICH THE PROJECT IS LOCATED, TO PERFORM, AND STAMP AND SIGN A POWER SYSTEM STUDY FOR THE PRODUCTION OF LABELS AS DESCRIBED ABOVE.

GENERAL ELECTRICAL NOTES:

1. ANY AND ALL "BUILDING STANDARDS" AND/OR "BUILDING" SPECIFICATIONS" SHALL BE CONSIDERED AN INTEGRAL PART OF THESE DOCUMENTS AND THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN A COPY OF THESE DOCUMENTS AND COMPLY WITH ALL REQUIREMENTS AND STANDARDS CONTAINED WITHIN.
2. REFER TO THE FOLLOWING: SYMBOL LEGEND(S) AND NOTES; DWG. E-001; ELECTRICAL SPECIFICATIONS: DWG's E-002 THRU E-004; ELECTRICAL DETAILS: DWG. SERIES E-500's; ELECTRICAL RISER(S) AND SCHEDULE(S) FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
3. ELECTRICAL DRAWINGS ARE GENERALLY DIAGRAMMATIC, ARE INTENDED TO CONVEY THE SCOPE OF WORK, AND INDICATE GENERAL ARRANGEMENT OF LIGHTING FIXTURES, DEVICES, CONTROLS, ELECTRICAL FIXTURES, MOTORS, PANELBOARDS, EQUIPMENT, ETC. THE LOCATIONS OF ALL ITEMS SHOWN ON ELECTRICAL DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS THAT ARE NOT EXPLICITLY FIXED BY DIMENSIONS ARE APPROXIMATE. THE EXACT LOCATIONS NECESSARY TO SECURE THE BEST CONDITIONS AND RESULTS MUST BE DETERMINED AT THE PROJECT. ALL LOCATIONS OF WORK EXPOSED TO VIEW ARE SUBJECT TO APPROVAL OF THE ARCHITECT PRIOR TO ROUGH-INS.
4. THE CONTRACTOR SHALL LAYOUT ALL EQUIPMENT ROOMS TO MAKE SURE THE EQUIPMENT, AS PURCHASED, FITS IN THE ROOM OR SPACE SHOWN. EXACT LOCATION OF ALL EQUIPMENT SHALL BE VERIFIED IN THE FIELD AND ROUTING OF CONDUITS SHALL SUITE FIELD CONDITIONS.
5. THE CONTRACTOR SHALL VISIT THE SITE OF THE WORK TO FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS AND HIS PROPOSAL SHALL INCLUDE ALL CONTINGENCIES NECESSARY FOR THE COMPLETION OF HIS WORK REGARDING SUCH EXISTING CONDITIONS. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS TO INSURE THAT ALL NEW WORK WILL FIT INTO THE EXISTING STRUCTURE AND CONDITIONS IN THE MANNER INTENDED AND AS SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/OWNERS REPRESENTATIVE PRIOR TO ANY ROUGH-INS, FABRICATIONS, OR PERFORMING ANY WORK IN THE AREA INVOLVING DIFFERENCES. NOTIFICATION SHALL BE IN THE FORM OF A DRAWING OR SKETCH INDICATING FIELD MEASUREMENTS AND NOTES RELATED TO THE AREA.
6. ANY DISCREPANCIES BETWEEN DRAWINGS AND SPECIFICATIONS SHALL BE PROMPTLY BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION DURING THE BIDDING PERIOD. NO ALLOWANCE SHALL SUBSEQUENTLY BE MADE TO THE CONTRACTOR BY REASON OF HIS FAILURE TO HAVE BROUGHT SAID DISCREPANCIES TO THE ATTENTION OF THE ENGINEER DURING THE BIDDING PERIOD OR OF ANY ERROR ON THE CONTRACTOR'S PART.
7. THERE SHALL BE NO SUBSTITUTIONS UNLESS THE CONTRACTOR HAS OBTAINED WRITTEN APPROVAL FROM THE OWNER AFTER HAVING SUBMITTED AN ALTERNATIVE PROPOSAL COMPLETE WITH A DESCRIPTION OF DEVIATION FROM THE SPECIFICATIONS AND A STATEMENT OF BENEFITS TO BE DERIVED SHOULD SUCH A PROPOSED SUBSTITUTE BE ACCEPTED.
8. ALL EQUIPMENT SHALL BE INSTALLED IN A NEAT, PROFESSIONAL AND WORKMANLIKE MANNER, RECTILINEAR TO FINISHES AND BUILDING STRUCTURE.
9. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST NATIONAL ELECTRICAL CODE, OSHA REQUIREMENTS, AND LOCAL REQUIREMENTS, ALL AS INTERPRETED BY THOSE HAVING JURISDICTION.
10. REFER TO ARCHITECTURAL ELEVATIONS TO DERIVE EXACT LOCATIONS OF ALL RECEPTACLES, OUTLETS/JACKS, SWITCHES, WALL AND PENDANT/CABLE MOUNTED LUMINAIRES, ETC. LUMINAIRES AND CEILING MOUNTED EQUIPMENT SHALL BE COORDINATED WITH THE ARCHITECTURAL REFLECTED CEILING PLANS.
11. BEFORE DOING ANY WORK WHICH MIGHT ENTAIL A FULL OR PARTIAL SHUTDOWN, THE CONTRACTOR SHALL INFORM THE OWNER SO THAT A SCHEDULED SHUTDOWN ARRANGEMENT CAN BE MADE, TAKING EVERY PRECAUTION THAT THE ELECTRICAL SYSTEM IS OPERATING SATISFACTORILY.
12. THE CONTRACTOR SHALL SECURE ALL PERMITS AND PAY ALL FEES THAT ARE REQUIRED BY THE APPLICABLE LOCAL AND STATE LAWS.
13. CONDUIT HOME RUNS SHOWN ON THE DRAWING WITH MORE THAN THREE (3) CURRENT CARRYING CONDUCTORS ARE SHOWN DIAGRAMMATICALLY. THIS CONTRACTOR SHALL NOT INSTALL MORE THAN THREE (3) CURRENT CARRYING CONDUCTORS IN A RACEWAY UNLESS NATIONAL ELECTRIC CODE (N.E.C), ARTICLE 310.15 DERATING FACTORS ARE APPLIED.
14. THE CONTRACTOR SHALL REFER TO THE ELECTRICAL SPECIFICATIONS FOR ACCEPTABLE CONDUIT TYPES/LOCATIONS. ALL CONDUIT SIZES ON THE DRAWINGS ARE BASED ON THE LATEST EDITION OF THE N.E.C. CONDUIT FILL TABLES FOR ELECTRICAL METALLIC TUBING (E.M.T). CONDUIT SIZES SHALL BE REVISED TO THE SIZE REQUIRED, RELATIVE TO THE ACTUAL CONDUIT TYPE TO BE INSTALLED.
15. ALL COMPONENTS SHOWN ON THE RISER/ONE-LINE DIAGRAMS, BUT NOT ON THE PLAN OR VICE VERSA, SHALL BE INCLUDED AS IF SHOWN ON BOTH.
16. IT IS NOT INTENDED THAT THE PLANS INDICATE ALL OBSTRUCTIONS, NECESSARY BENDS, OFFSETS, AND PULL BOXES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL HIS WORK TO CONFORM TO N.E.C. REQUIREMENTS, THE STRUCTURE, MAINTAIN HEADROOM AND KEEP OPENINGS AND PASSAGEWAYS CLEAR. REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS AS REQUIRED.
17. IT IS NOT INTENDED THAT THE PLANS INDICATE ALL CONDUIT ROUTES, PULL BOXES, JUNCTION BOXES, ETC. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING ACTUAL CONDUIT ROUTING, QUANTITY AND LOCATION OF PULL BOXES WITHIN ACCESSIBLE LOCATIONS.
18. PROVIDE SCREW-COVER PULL BOXES IN CONDUIT RUNS AS REQUIRED TO LIMIT THE NUMBER OF BENDS TO NO MORE THAN FOUR (4) 90° OR 360° TOTAL. SIZE PULL BOXES IN ACCORDANCE WITH NEC, ARTICLE 314.28. DOCUMENT ON RECORD DRAWINGS, SIZE AND LOCATION OF PULL BOXES USED IN FEEDER CONDUIT RUNS.
19. WHERE MULTIPLE DEVICES OF THE SAME TYPE/STYLE ARE SHOWN NEXT TO EACH OTHER, GANG INTO A SINGLE COVER PLATE.
20. ALL RACEWAYS RUNNING THROUGH BUILDING EXPANSION JOINTS SHALL BE EQUIPPED WITH APPROPRIATE EXPANSION FITTINGS.
21. IDENTIFY WITH LEGIBLE AND DURABLE MARKING, EACH DISCONNECTING MEANS INDICATING ITS PURPOSE.
22. ALL RECEPTACLES, SWITCHES AND DEVICES SHALL HAVE PANEL AND CIRCUIT NUMBER IDENTIFY WITH LEGIBLE AND DURABLE MARKING ON COVER PLATE. OWNER WILL INDICATE IF MARKINGS ARE ON THE FRONT OR BACK OF COVER.
23. ALL LABOR AND MATERIAL FURNISHED BY THE CONTRACTOR AS PART OF THIS CONTRACT SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE BY THE OWNER. ANY DEFECTS WHICH APPEAR WITHIN THE GUARANTEE PERIOD SHALL BE PROMPTLY REPAIRED OR REPLACED AT THE OWNER'S DISCRETION, WITHOUT ADDITIONAL COST TO THE OWNER.
24. ALL EQUIPMENT GROUNDS SHALL BE TERMINATED WITH COMPRESSION FITTINGS AND STAINLESS STEEL BOLTS OR IN PANEL GROUND BAR.
25. BEFORE DRILLING ANY HOLES IN WALLS OR FLOORS THE AREA MUST BE CHECKED FOR EXISTING EMBEDDED CONDUITS AND WIRE. IF ANY EXISTING CONDUITS OR WIRING ARE DAMAGED BY THIS CONTRACTOR IT IS THIS CONTRACTORS RESPONSIBILITY TO MAKE ALL REPAIRS TO CONDUITS, WIRE, FLOORS AND BUILDING FINISHES IN KIND AT NO COST TO OWNER.
26. PROVIDE UL LISTED FIRE STOP ASSEMBLY AT ALL NEW AND EXISTING PENETRATIONS IN FIRE RATED STRUCTURES.
27. ALL 120 VOLT, SINGLE PHASE 15 AND 20 AMPERE RECEPTACLE OUTLETS USED BY THE WORKMEN SHALL BE PROTECTED BY A "GROUND FAULT INTERRUPTER".

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

CITY OF JACKSONVILLE FLORIDA

LEGENDS GLOBAL

OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100 www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOLPH BLVD, JACKSONVILLE FL, 32202

BID/ PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

ISSUED BY: OSPORTS

ISSUE DATE: **10/22/25**

PROJ NO. **P20251573.000**

REVISIONS

TAG	ISSUED	DATE

SHEET NAME:

ELECTRICAL GENERAL NOTES

DRAWING NO.

E-002

DIVISION 26 SPECIFICATIONS:

A. GENERAL

1. REQUIREMENTS SPECIFIED IN DIVISION 1, INSTRUCTIONS TO BIDDERS, SUPPLEMENTAL GENERAL CONDITIONS, SPECIAL CONDITIONS, ADDENDA, ALTERNATES, CONTRACT AND PROPOSAL, ALONG WITH THESE SPECIFICATIONS AND ALL ITS SECTIONS, COMPRISE THE CONTRACT DOCUMENTS FOR THE ELECTRICAL CONTRACT. DRAWINGS AND ALL THEIR REVISIONS UP TO THE BID SUBMITTAL DATE BECOME A BINDING PART OF THE CONTRACT, ALONG WITH THESE SPECIFICATIONS AS THOUGH THEY WERE ONE, AND ANYTHING IMPLIED BY THE SPECIFICATIONS SHALL BE INTERPRETED AS ALSO IMPLIED BY THE DRAWINGS AND VICE VERSA. PROVIDE NECESSARY ITEMS FOR A COMPLETE INSTALLATION OF ALL ELECTRICALLY OPERATED EQUIPMENT LISTED IN THE SPECIFICATIONS OR SHOWN ON THE CONTRACT DRAWINGS.

2. THE ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING, TECHNOLOGY AND EQUIPMENT DRAWINGS AND SPECIFICATIONS ARE INCORPORATED INTO, AND BECOME A PART OF THIS SPECIFICATION. THIS CONTRACTOR SHALL EXAMINE ALL SUCH DRAWINGS AND SPECIFICATIONS AND BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS CONTAINED THEREIN. THE SUBMISSION OF HIS BID SHALL INDICATE SUCH KNOWLEDGE.

3. ELECTRICAL DRAWINGS ARE DIAGRAMMATIC, THEY ARE INTENDED TO SHOW THE APPROXIMATE LOCATIONS OF EQUIPMENT AND CONDUIT. DIMENSIONS GIVEN ON THE PLANS, IN FIGURES, SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS AND SHALL BE VERIFIED IN THE FIELD. THE ELECTRICAL CONTRACTOR SHALL LAYOUT ALL EQUIPMENT ROOMS TO MAKE SURE THE EQUIPMENT, AS PURCHASED, FITS IN THE ROOM OR SPACE SHOWN. EXACT LOCATION OF ALL EQUIPMENT SHALL BE VERIFIED IN THE FIELD AND ROUTING OF CONDUITS SHALL SUITE FIELD CONDITIONS.

4. UNTIL THE TIME OF INSTALLATION, THE ARCHITECT RESERVES THE RIGHT TO MAKE MINOR CHANGES IN THE LOCATION OF CONDUIT AND EQUIPMENT WITHOUT ADDITIONAL COST TO THE CONTRACT.

5. THE ELECTRICAL DRAWINGS AND SPECIFICATIONS ARE INTENDED TO SUPPLEMENT EACH OTHER. MATERIAL AND LABOR NECESSARY TO THE PROJECT SHALL BE FURNISHED AND INSTALLED EVEN THOUGH NOT SPECIFICALLY MENTIONED IN BOTH. LABOR AND/OR MATERIALS NEITHER SHOWN NOR SPECIFIED, BUT OBVIOUSLY NECESSARY FOR THE COMPLETION AND PROPER FUNCTIONING OF THE SYSTEM, SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.

6. ARRANGE ALL EQUIPMENT SUBSTANTIALLY AS SHOWN ON THE DRAWINGS. MAKE DEVIATIONS ONLY WHERE NECESSARY TO AVOID INTERFERENCE. CHECK ALL EQUIPMENT SIZES AGAINST AVAILABLE SPACE PRIOR TO SHIPMENT TO AVOID INTERFERENCE.

7. EXAMINE THE WORK OF OTHER TRADES INSOFAR AS THEIR WORK COMES IN CONTACT WITH OR IS COVERED BY THIS WORK IN NO CASE ATTACH TO, OR FINISH AGAINST ANY DEFECTIVE WORK OR INSTALL WORK IN A MANNER WHICH WILL PREVENT PROPER INSTALLATION OF THE WORK OF OTHER TRADES.

8. ELECTRICAL CONTRACTOR SHALL VERIFY WITH OTHER TRADES ALL ELECTRICAL CHARACTERISTICS OF EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS, CONTRACTOR SHALL VERIFY VOLTAGE, PHASE AND HORSEPOWER AND SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO START OF WORK. ELECTRICAL CONTRACTOR SHALL PROVIDE DISCONNECTING MEANS AND OVERLOAD PROTECTION FOR ALL EQUIPMENT, UNLESS FURNISHED INTEGRAL WITH EQUIPMENT PACKAGE.

9. IT IS THE INTENT OF THESE DRAWINGS THAT THIS BE A COMPLETE ELECTRICAL JOB, ANY ERRORS OR OMISSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO BIDDING THE JOB.

B. VISIT TO THE SITE

1. THIS CONTRACTOR SHALL VISIT THE SITE OF THE WORK AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING HIS WORK. THE SUBMISSION OF HIS PROPOSAL SHALL INDICATE SUCH KNOWLEDGE. NO ADDITIONAL PAYMENT SHALL BE MADE ON CLAIMS THAT ARISE FROM A LACK OF KNOWLEDGE OF THE EXISTING CONDITIONS.

C. CODES, PERMITS, AND FEES

1. INSTALLATION SHALL BE IN FULL ACCORDANCE WITH ALL CODES, RULES AND REGULATIONS OF MUNICIPAL, CITY, COUNTY, STATE, AND PUBLIC UTILITIES, AND ALL OTHER AUTHORITIES HAVING JURISDICTION OVER THE PREMISES.

2. COMPLY WITH ANY SPECIFICATION REQUIREMENTS THAT ARE IN EXCESS BUT NOT IN CONFLICT WITH CODE REQUIREMENTS.

3. SECURE AND PAY FOR ALL PERMITS AND CERTIFICATES OF INSPECTIONS INCIDENTAL TO THIS WORK, AS REQUIRED BY ALL FOREGOING AUTHORITIES. BE RESPONSIBLE FOR PAYMENTS TO ALL PUBLIC UTILITIES FOR WORK PERFORMED BY THEM IN CONNECTION WITH PROVISION OF SERVICE CONNECTIONS REQUIRED UNDER THIS DIVISION OF SPECIFICATIONS. TURN OVER CERTIFICATES OF APPROVAL TO THE CONSTRUCTION MANAGER AND/OR OWNER PROMPTLY WHEN RECEIVED, AND BEFORE PAYMENT IS MADE FOR THE WORK. DELIVER ALL CERTIFICATES TO ARCHITECT IN DUPLICATE.

4. PROVISIONS OF THE LATEST REVISIONS TO THE FOLLOWING CODES AND STANDARDS SHALL BE FOLLOWED WHERE APPLICABLE:
   a. FLORIDA ADOPTED STATE BUILDING CODES
   b. LOCAL BUILDING CODES
   c. NFPA 70 - NATIONAL ELECTRIC CODE (NEC)
   d. NFPA 72 - NATIONAL FIRE ALARM AND SIGNALING CODE
   e. NFPA 101 - LIFE SAFETY CODE
   f. NFPA 110 - STANDARD FOR EMERGENCY AND STAND-BY POWER SYSTEMS
   g. TIA/EIA - 568, 569, AND J-STD-607
   h. AMERICANS WITH DISABILITIES ACT (ADA)
   i. FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA)
   j. ASHRAE 90.1 - ENERGY STANDARD FOR BUILDINGS

D. SHOP DRAWING SUBMITTALS

1. THE ELECTRICAL CONTRACTOR SHALL SUBMIT ONE (1) ELECTRONIC SET OF SHOP DRAWINGS. THE SHOP DRAWINGS OF THE FOLLOWING EQUIPMENT USING THE INDICATED NUMBERING SYSTEM AND TITLES, SHALL BE SUBMITTED THROUGH THE ARCHITECT TO THE ENGINEER AND THEN RESUBMITTED FOR FINAL APPROVAL IF NECESSARY. SHOP DRAWINGS SHALL BE SUBMITTED FOR THE FOLLOWING ITEMS:
   a. PANELBOARDS
   b. LIGHTING FIXTURES
   c. LIGHTING CONTROL DEVICES
   d. FIRE ALARM DEVICES AND SYSTEM MODIFICATION DRAWINGS DESIGNED AND STAMPED BY A STATE CERTIFIED FIRE ALARM SYSTEM DESIGNER, INCLUDING ALL NECESSARY CALCULATIONS REQUIRED BY THE LOCAL AUTHORITY HAVING JURISDICTION
2. ALL SUBMITTED SHOP DRAWINGS (MANUFACTURERS' EQUIPMENT DESCRIPTIVE SHEETS OR VENDORS' PREPARED DRAWINGS) SHALL HAVE THE GENERAL CONTRACTOR'S OR SUBCONTRACTOR'S "STAMP OF APPROVAL" INDICATING THAT THE ITEM SUBMITTED IS AS CALLED FOR ON THE PLANS AND SPECIFICATIONS, IS APPROVED BY THE GENERAL CONTRACTOR OR SUBCONTRACTOR, THE DATE OF APPROVAL AND INITIALED BY THE PERSON APPROVING THE SUBMITTAL AND THE NAME OF THE COMPANY SUBMITTING SAID EQUIPMENT FOR APPROVAL.
3. EVERY EFFORT SHALL BE MADE, IN CHECKING THE SHOP DRAWINGS, TO DETECT AND CORRECT ALL ERRORS, OMISSIONS AND INACCURACIES. FAILURE TO DO THIS WILL NOT RELIEVE THE ELECTRICAL CONTRACTOR OF THE RESPONSIBILITY FOR THE PROPER AND COMPLETE INSTALLATION IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
4. SUBMITTALS ARE NOT REQUESTED FOR ALL PRODUCTS COVERED IN THE SPECIFICATIONS. UN-REQUESTED SUBMITTALS WILL NOT BE PROCESSED OR REVIEWED. FAX OR PHOTO COPIES ARE NOT ALLOWED. SUBMITTALS MUST BE ON ORIGINAL MANUFACTURER PRINTED STOCK.
5. NON-REQUIREMENT OF SUBMITTALS IS NOT TO BE CONSTRUED AS AN ALLOWANCE FOR SUBSTITUTIONS AND DOES NOT RELIEVE THE CONTRACTOR FROM FULL COMPLIANCE WITH THE PLANS AND SPECIFICATIONS. ANY DEVIATION FROM SPECIFIED ITEMS IS CONSIDERED A SUBSTITUTION. IF THE CONTRACTOR DESIRES TO USE OTHER THAN SPECIFIED ITEMS, THEN A FORMAL REQUEST FOR SUBSTITUTION MUST BE SUBMITTED PRIOR TO BID DATE, IN ACCORDANCE WITH THE METHODS AND TIMES INDICATED IN THESE SPECIFICATIONS.

E. COORDINATION DRAWINGS

1. BEFORE BEGINNING CONSTRUCTION OF THE PROJECT, THE CONTRACTOR SHALL PROVIDE TO THE MECHANICAL CONTRACTOR MARKED UP PRINTS INDICATING ALL ELECTRICAL WORK WHICH AFFECTS LOCATION OF HEATING, VENTILATING, AIR CONDITIONING, PLUMBING PIPING, FIRE PROTECTION, AND DUCTWORK. REFER TO DIVISION 1 AND DIVISION 15 FOR RELATED WORK.
2. COORDINATION DRAWINGS: REFLECTED CEILING PLANS DRAWN TO SCALE AND COORDINATING PENETRATIONS AND CEILING-MOUNTED ITEMS. SHOW THE FOLLOWING:
   a. CEILING SUSPENSION ASSEMBLY MEMBERS.
   b. METHOD OF ATTACHING HANGERS TO BUILDING STRUCTURE.
   c. CEILING-MOUNTED ITEMS INCLUDING LIGHTING FIXTURES, EXIT SIGNAGE, FIRE ALARM DEVICES, CCTV, SPEAKERS, ACCESS PANELS, ETC.

F. OPERATION AND MAINTENANCE MANUALS

1. ALL DESCRIPTIVE LITERATURE FOR O&M MANUALS SHALL BE SUBMITTED IN A THREE (3) HOLE BROCHURE WITH A COVER IDENTIFYING THE FOLLOWING:
   a. NAME OF THE JOB.
   b. LOCATION OF THE JOB, ADDRESS, CITY AND STATE.
   c. NAME AND ADDRESS OF THE COMPANY SUBMITTING THE BROCHURES.
   d. DATE OF THE SUBMITTAL.

G. AS-BUILT DRAWINGS

1. SUBMIT TO THE ARCHITECT ONE SET OF RED LINED ELECTRICAL DRAWINGS SHOWING THE AS-BUILT CONDITIONS.

H. STANDARDS AND SUBSTITUTIONS

1. THE BASIS OF DESIGN IS BASED UPON THE FIRST MANUFACTURER LISTED OR CALLED OUT IN PANEL SCHEDULES, FIXTURE SCHEDULES, ETC. WHERE OTHER MANUFACTURES ARE CHOSEN AND ALTER THE DESIGN OR SPACE REQUIREMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COST ASSOCIATED WITH CHANGES REQUIRED FROM THE BASIS OF DESIGN. THIS INCLUDES ALL ITEMS OF COST FOR THE REVISED DESIGN AND CONSTRUCTION INCLUDING COST OF ALL ALLIED TRADES INVOLVED.
2. WHEREVER THE WORDS "APPROVED BY", "APPROVED EQUAL", "AS DIRECTED" OR SIMILAR PHRASES ARE USED IN THE FOLLOWING SPECIFICATIONS, THEY SHALL BE UNDERSTOOD TO REFER TO THE OWNER AS THE APPROVING AGENCY. THE NAME OR MAKE OF ANY EQUIPMENT OR MATERIAL NAMED IN THIS SPECIFICATION WHETHER OR NOT THE WORDS "OR APPROVED EQUAL" ARE USED) SHALL BE KNOWN AS THE "STANDARD".
3. THESE SPECIFICATIONS ESTABLISH QUALITY STANDARD OF MATERIALS AND EQUIPMENT TO BE PROVIDED. SPECIFIC ITEMS ARE IDENTIFIED BY MANUFACTURER, TRADE NAME OR CATALOG DESIGNATION. THIS CONTRACTOR SHALL SUBMIT HIS BASE BID PRICE BASED UPON STANDARD SPECIFIED EQUIPMENT DESCRIBED HEREIN AND AS DETAILED ON DRAWINGS AND ASSOCIATED CONTRACT DOCUMENTS. THESE SPECIFICATIONS ARE NOT TO BE CONSIDERED PROPRIETARY. THE CONTRACTOR MAY SUBMIT INFORMATION ON MATERIALS AND MANUFACTURERS (OTHER THAN THOSE LISTED) FOR REVIEW BY THE ARCHITECT AND ENGINEER NO LATER THAN TEN (10) DAYS BEFORE BIDS ARE SUBMITTED. IN ADDITION, SAMPLES OF PROPOSED EQUIPMENT MAY BE REQUIRED TO BE SUBMITTED TO THE ENGINEER FOR REVIEW NO LATER THAN TEN (10) DAYS BEFORE BIDS ARE SUBMITTED. MANUFACTURERS OF PRODUCTS ACCEPTED BY THE ARCHITECT AND ENGINEER WILL BE LISTED IN AN ADDENDUM TO THE SPECIFICATIONS AS AN ACCEPTABLE SUBSTITUTION EQUIPMENT ACCEPTED AS DETAILED BELOW AND SHALL BE SHOWN AS A SEPARATE ADD OR DEDUCT PRICE TO BE FACTORED INTO THE BASE BID PRICE BY THE ARCHITECT AND OWNER IF ACCEPTED.
4. SHOULD THE CONTRACTOR PROPOSE TO FURNISH MATERIALS AND EQUIPMENT OTHER THAN THOSE SPECIFIED OR APPROVED BY ADDENDUM, SUBMIT A WRITTEN REQUEST FOR SUBSTITUTIONS TO THE ARCHITECT AT THE BID OPENING. THE REQUEST SHALL BE AN ALTERNATE TO THE ORIGINAL BID; BE ACCOMPANIED WITH COMPLETE DESCRIPTIVE (MANUFACTURER, BRAND NAME, CATALOG NUMBER, ETC.) AND TECHNICAL DATA FOR ALL ITEMS. FAILURE BY THIS CONTRACTOR TO SUBMIT THE REQUISITE DOCUMENTATION DETAILED ABOVE SHALL BE UNDERSTOOD BY THE ARCHITECT AND ENGINEER TO INDICATE THAT SUBSTITUTE EQUIPMENT WILL NOT BE PRESENTED BY THE CONTRACTOR FOR CONSIDERATION. SUCH SUBSTITUTIONS WILL NOT BE CONSIDERED AFTER THE BID OPENING DATE AND DELAY OF PROJECT WILL NOT BE PERMITTED FOR FURTHER INSPECTION AND EVALUATION AFTER THIS DATE.
5. WHERE SUCH SUBSTITUTIONS ALTER THE DESIGN OR SPACE REQUIREMENTS INDICATED ON THE DRAWINGS, INCLUDE ALL ITEMS OF COST FOR THE REVISED DESIGN AND CONSTRUCTION INCLUDING COST OF ALL ALLIED TRADES INVOLVED.
6. ACCEPTANCE OR REJECTION OF THE PROPOSED SUBSTITUTIONS SHALL BE SUBJECT TO APPROVAL OF THE ARCHITECT AND ENGINEER. IF REQUESTED, THE CONTRACTOR SHALL SUBMIT (AT HIS COST) INSPECTION SAMPLES OF BOTH THE SPECIFIED AND PROPOSED SUBSTITUTE ITEMS.
7. IN ALL CASES WHERE SUBSTITUTIONS ARE PERMITTED, THE CONTRACTOR SHALL BEAR ANY EXTRA COST OF EVALUATING THE QUALITY OF THE MATERIAL AND EQUIPMENT TO BE PROVIDED.

I. INTERFERENCES

1. BEFORE THE INSTALLATION OF ANY ITEM BEGINS, THE ELECTRICAL CONTRACTOR SHALL CAREFULLY ASCERTAIN THAT IT DOES NOT INTERFERE WITH CLEARANCES FOR THE ERECTION OF FINISH BEAMS, COLUMNS, PILASTERS, WALLS OR OTHER STRUCTURAL OR ARCHITECTURAL MEMBERS AS SHOWN ON THE ARCHITECTURAL DRAWINGS. IF ANY WORK IS INSTALLED AND THE ARCHITECTURAL DESIGN CANNOT BE FOLLOWED, THIS CONTRACTOR SHALL, AT HIS OWN EXPENSE, MAKE CHANGES IN HIS WORK AS DIRECTED BY THE ARCHITECT TO PERMIT THE COMPLETION OF THE ARCHITECTURAL WORK IN ACCORDANCE WITH DRAWINGS AND SPECIFICATIONS.
2. IT SHALL BE THE DUTY OF THIS CONTRACTOR TO REPORT ANY INTERFERENCES BETWEEN HIS WORK AND THAT OF ANY OF THE OTHER CONTRACTORS AS SOON AS THEY ARE DISCOVERED. THE ARCHITECT SHALL DETERMINE WHICH EQUIPMENT WILL BE RELOCATED, REGARDLESS OF WHICH WAS INSTALLED FIRST. HIS DECISION WILL BE FINAL.

J. QUALITY ASSURANCE

1. ALL PRODUCTS SHALL BE NEW AND OF THE TYPE AND QUALITY SPECIFIED. WHERE MATERIALS, EQUIPMENT, APPARATUS OR OTHER PRODUCTS ARE SPECIFIED BY MANUFACTURER, BRAND NAME, TYPE OF CATALOG NUMBER, SUCH DESIGNATION SHALL ESTABLISH THE STANDARDS OF THE DESIRED QUALITY AND STYLE. IT IS THE INTENT OF THESE SPECIFICATIONS TO ESTABLISH A STANDARD OF QUALITY OF MATERIALS AND EQUIPMENT INSTALLED.
2. ELECTRICAL MATERIAL AND EQUIPMENT SHALL BEAR THE UL OR CUL LABEL EXCEPT WHERE UL DOES NOT LABEL SUCH TYPES OF MATERIAL AND EQUIPMENT.

K. EXECUTION

1. THE ELECTRICAL WORK FOR CONSTRUCTION PURPOSED SHALL CONFORM TO ALL FEDERAL (OSHA), STATE, ALL SPECIFIC SAFETY REQUIREMENTS AND THE REQUIREMENTS OF THE CURRENT EDITION OF THE NEC.
2. CHECK THE ARCHITECTURAL, HVAC, PLUMBING, FIRE PROTECTION AND TECHNOLOGY SPECIFICATIONS FOR ELECTRICAL REQUIREMENTS AND INCLUDE THE SAME IN THE CONTRACT COST.
3. EQUIPMENT CONNECTIONS, STARTERS, DISCONNECT SWITCHES, CONTROL TRANSFORMERS AND PUSHBUTTON STATIONS FOR THE EQUIPMENT FURNISHED BY THE OWNER OR UNDER A SEPARATE CONTRACT SHALL BE INSTALLED AND CONNECTED UNDER THIS DIVISION, AS INDICATED ON THE CONTRACT DRAWINGS.
4. ALL CUTTING, PATCHING, EXCAVATING, BACKFILLING AND CONCRETE WORK RELATED TO THIS CONTRACT WILL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR. THIS CONTRACTOR SHALL ASSUME THE RESPONSIBILITY OF PROVIDING THE SLEEVES, CHASES AND OPENINGS NECESSARY FOR THE ELECTRICAL INSTALLATION AND FOR THEIR REPAIR IN AN ACCEPTABLE MANNER, AS DETERMINED BY THE ARCHITECT. ALL HOLES SHALL BE CORE-DRILLED. PROVIDE FIRE STOP IN ALL OPENINGS CREATED THROUGH FIRE-RATED WALLS, FLOORS OR CEILINGS.
5. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL REQUIRED ACCESS PANELS NECESSARY FOR HIS WORK; COORDINATE WITH ARCHITECT PRIOR TO INSTALLATION.

L. MATERIALS AND WORKMANSHIP

1. ALL WORK SHALL BE INSTALLED IN A PRACTICAL AND WORKMANLIKE MANNER, BY MECHANICS SKILLED IN THE SEVERAL TRADES NECESSARY.
2. ALL MATERIALS SHALL BE NEW AND FREE FROM DEFECTS AND SHALL BE THE BEST OF THEIR SEVERAL KINDS UNLESS SPECIFIED OR INDICATED ON THE DRAWINGS TO THE CONTRARY.
3. DURING EACH PHASE AND AT THE COMPLETION OF THE CONSTRUCTION, THIS CONTRACTOR SHALL REMOVE ALL DEBRIS AND EXCESS MATERIALS CAUSED BY HIS WORK. HE SHALL LEAVE THE AREA OF OPERATION BROOM CLEAN.
4. ALL ELECTRICAL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OR ETL LABEL.
5. THIS CONTRACTOR SHALL GUARANTEE HIS WORKMANSHIP AND MATERIAL (LAMPS EXCEPTED) FOR A PERIOD OF ONE YEAR FROM THE DATE OF BUILDING OPENING AND LEAVE HIS WORK IN PERFECT ORDER AT THE COMPLETION. SHOULD DEFECTS DEVELOP WITHIN THE GUARANTEE PERIOD, THE CONTRACTOR SHALL, UPON NOTICE OF THE SAME, REMEDY THE DEFECTS AND HAVE ALL DAMAGES TO OTHER WORK OR FURNISHINGS CAUSED BY THE REPAIRS CORRECTED AT HIS EXPENSE TO THE CONDITION BEFORE SUCH DAMAGE.

M. WORK INCLUDES

1. INCLUDE ALL LABOR, MATERIAL, EQUIPMENT, SERVICES, AND PERMITS NECESSARY FOR THE PROPER COMPLETION OF ALL ELECTRICAL WORK SHOWN. ITEMS OMITTED, BUT NECESSARY TO MAKE THE ELECTRICAL SYSTEM COMPLETE AND WORKABLE, SHALL BE UNDERSTOOD AS TO FORM PART OF THE WORK.
2. IT IS THE PURPOSE OF THE ELECTRICAL DRAWINGS TO INDICATE THE APPROXIMATE LOCATION OF ALL EQUIPMENT, OUTLETS, ETC. ASCERTAIN EXACT LOCATIONS AND ARRANGE WORK ACCORDINGLY. THE RIGHT IS RESERVED TO EFFECT REASONABLE CHANGES IN THE LOCATION OF OUTLETS UP TO THE TIME OF ROUGHING-IN, WITHOUT ADDITIONAL COST TO THE OWNER. CHANGES IN LOCATION OF OUTLETS OR EQUIPMENT NECESSITATED BY INTERFERENCE WITH THE WORK OF OTHER TRADES SHALL BE MADE ONLY WITH THE CONSENT OF THE ARCHITECT AND ENGINEER OR OWNER'S REPRESENTATIVE, AND AT NO ADDITIONAL COST.
3. AS USED IN THIS SPECIFICATION, "PROVIDE" MEANS "FURNISH AND INSTALL", "FURNISH" MEANS "TO PURCHASE AND DELIVER TO THE PROJECT SITE COMPLETE WITH EVERY NECESSARY APPURTENANCE AND SUPPORT", AND "INSTALL" MEANS "TO UNLOAD AT THE DELIVERY POINT AT THE SITE AND PERFORM EVERY OPERATION NECESSARY FOR PROPER INSTALLATION PER CODES AND MANUFACTURERS REQUIREMENTS, TO ESTABLISH SECURE MOUNTING AND CORRECT OPERATION AT THE PROPER LOCATION IN THE PROJECT."
4. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIAL, STORAGE, UNPACKING AND PLACEMENT TO INCLUDE BUT NOT BE LIMITED TO, THE FOLLOWING ITEMS:
   a. EMERGENCY LIGHTING AND POWER.
   b. COMPLETE POWER AND LIGHTING DISTRIBUTION SYSTEM INCLUDING ALL PANELS AND FEEDERS.
   c. COMPLETE BRANCH CIRCUIT WIRING SYSTEM.
   d. COMPLETE POWER WIRING FOR ALL AIR CONDITIONING EQUIPMENT, PLUMBING SYSTEM, HEATING EQUIPMENT, VENTILATING AND EXHAUST EQUIPMENT.
   e. COMPLETE LIGHTING FIXTURE INSTALLATION, INCLUDING ALL LED, INCANDESCENT, FLUORESCENT AND HID LAMPS.
   f. TEMPORARY ELECTRICAL POWER AND LIGHTING AS REQUIRED FOR CONSTRUCTION.
   g. TESTING OF ALL CABLES AND CIRCUIT WIRING AFTER INSTALLATION.
   h. EXIT LIGHT SYSTEM.
   i. WIRING DEVICES.
   j. GROUNDING OF THE ELECTRICAL SYSTEM.
   k. FIRE ALARM SYSTEM.
   l. ELECTRIC SERVICES.

N. PRODUCT DELIVERY, STORAGE, AND HANDLING

1. DELIVER PRODUCTS TO THE PROJECT PROPERLY IDENTIFIED WITH NAMES, MODEL NUMBERS, TYPES, COMPLIANCE LABELS AND SIMILAR INFORMATION NEEDED FOR IDENTIFICATION. MATERIALS MUST BE ADEQUATELY PACKAGED OR PROTECTED TO PREVENT DETERIORATION DURING SHIPMENT, STORAGE AND HANDLING.
2. THE CONTRACTOR SHALL MAKE PROVISIONS FOR THE DELIVERY AND SAFE STORAGE OF HIS MATERIALS AND EQUIPMENT IN COORDINATION WITH THE WORK OF OTHERS. MATERIALS AND EQUIPMENT SHALL BE DELIVERED AT SUCH STAGES OF THE WORK AS WILL EXPEDITE THE WORK AS A WHOLE AND SHALL BE MARKED AND STORED IN SUCH A WAY AS TO BE EASILY CHECKED AND INSPECTED. THE ARRIVAL AND PLACING OF LARGE EQUIPMENT ITEMS SHALL BE SCHEDULED EARLY ENOUGH TO PERMIT ENTRY AND SETTING WHEN THERE IS NO RESTRICTION OR PROBLEM DUE TO SIZE AND WEIGHT.
3. MATERIALS SHALL BE STORED TO PROTECT THEM FROM INJURY PRIOR TO INSTALLATION. MATERIAL SHOULD NOT BE STORED DIRECTLY ON THE GROUND OR FLOOR AND SHALL BE KEPT AS CLEAN AND DRY AS POSSIBLE AND FREE FROM DAMAGE OR DETERIORATING ELEMENTS.
4. IN GENERAL, DO NOT DELIVER ITEMS OF ELECTRICAL EQUIPMENT TO THE PROJECT SUBSTANTIALLY BEFORE THE TIME OF INSTALLATION. LIMIT EACH SHIPMENT OF BULK AND MULTIPLE-USE MATERIALS TO THE QUANTITIES NEEDED FOR INSTALLATION WITHIN 3-WEEKS OF RECEIPT.

O. PROTECTION OF WORK AND PROPERTY

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SAFEGUARDING WORK, PROPERTY, AND FACILITIES AGAINST DAMAGE, BOTH HIS OWN AS WELL AS OTHERS, WITH WHICH HE MAY COME INTO CONTACT IN THE PERFORMANCE OF HIS WORK.
2. STORED MATERIALS SHALL BE PROTECTED AGAINST DAMAGE FROM WEATHER. PIPE AND DUCT OPENINGS SHALL BE CLOSED WITH CAPS OR PLUGS DURING INSTALLATION. ALL FINISHED EQUIPMENT SHALL BE COVERED AND PROTECTED AGAINST DAMAGE. ANY MATERIALS OR EQUIPMENT DAMAGED AT ANY STAGE IN THE CONSTRUCTION SHALL BE REPLACED OR REPAIRED AND AT THE FINAL COMPLETION, ALL WORK SHALL BE IN A CLEAN, UNBLEMISHED CONDITION.
3. FURNISH INFORMATION TO GENERAL CONTRACTOR AS TO SIZE AND LOCATION OF ALL BUILT-IN OPENINGS REQUIRED. DO NOT CUT, REMOVE OR PIERCE: GENERAL OR MECHANICAL INSULATION; FIRE RATED WALLS OR CEILINGS; OR STEEL WORK; WITHOUT PRIOR PERMISSION AND INSTRUCTION.

P. CUTTING AND PATCHING

1. GENERAL: ALL CUTTING AND PATCHING FOR THE INSTALLATION OF THIS BRANCH OF THE WORK SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR.
2. PERFORM CUTTING AND PATCHING IN ACCORDANCE WITH DIVISION 1 SECTION "PROCEDURES, SEPARATE PRIMES." IN ADDITION TO THE REQUIREMENTS SPECIFIED IN DIVISION 1, PERFORM CUTTING, FITTING AND PATCHING OF MECHANICAL EQUIPMENT AND MATERIALS REQUIRED TO:
   a. INSTALL NEW WORK.
   b. UNCOVER WORK TO PROVIDE FOR INSTALLATION OF ILL-TIMED WORK.
   c. REMOVE AND REPLACE DEFECTIVE WORK.
   d. REMOVE AND REPLACE WORK NOT CONFORMING TO REQUIREMENTS OF THE CONTRACT DOCUMENTS.
   e. INSTALL EQUIPMENT AND MATERIALS IN EXISTING STRUCTURE.
   f. UPON WRITTEN INSTRUCTIONS FROM THE ENGINEER, UNCOVER AND RESTORE WORK TO PROVIDE FOR ENGINEER OBSERVATION OF CONCEALED WORK.
   g. CUT, REMOVE AND LEGALLY DISPOSE OF SELECTED ELECTRICAL EQUIPMENT, COMPONENTS AND MATERIALS AS INDICATED, INCLUDING BUT NOT LIMITED TO REMOVAL OF CONDUITS AND CONDUCTORS, JUNCTION BOXES, LUMINAIRES AND TRIM, AND OTHER ELECTRICAL ITEMS MADE OBSOLETE BY THE NEW WORK.
3. PROTECTION OF INSTALLED WORK: DURING CUTTING AND PATCHING OPERATIONS, PROTECT ADJACENT INSTALLATIONS.
4. PROVIDE AND MAINTAIN TEMPORARY PARTITIONS OR DUST BARRIERS ADEQUATE TO PREVENT THE SPREAD OF DUST AND DIRT TO ADJACENT AREAS.
5. ALL OPENINGS REQUIRED FOR THIS BRANCH OF WORK SHALL BE ACCOMPLISHED IN TIME TO BE INCORPORATED IN, AND BE COMPATIBLE WITH THE CONSTRUCTION PROGRAM, OTHERWISE THIS CONTRACTOR SHALL BE RESPONSIBLE AND PAY FOR ALL CHANGES MADE NECESSARY FOR HIS FAILURE TO DO SO. PIPE HOLES IN FLOORS AND WALLS SHALL BE CORE DRILLED.
6. PATCH EXISTING FINISHED SURFACES AND BUILDING COMPONENTS USING NEW MATERIALS MATCHING EXISTING MATERIALS AND EXPERIENCED INSTALLERS. FOR INSTALLERS' QUALIFICATIONS, REFER TO THE MATERIALS AND METHODS REQUIRED FOR THE SURFACE AND BUILDING COMPONENTS BEING PATCHED.

Q. FIRE STOPPING

1. ANY CORE DRILLING OR CUTTING OF FIRE RATED FLOORS, SHAFTS AND WALLS SHALL BE FIRE STOPPED PRIOR TO FINISH PATCHING. ALL FIRE STOPPING MATERIALS SHALL BE U.L. "CLASSIFIED", INTUMESCING COMPOUND, DEVICE, OR SHEET RATED TO FUNCTION FOR THIS PURPOSE. ACCORDING TO INSTRUCTIONS PROVIDED, ALL PENETRATIONS IN 1-HOUR, 2-HOUR, AND 3-HOUR FIRE RATED WALLS, FLOORS OR PARTITION ASSEMBLIES SHALL BE SEALED WITH 3M BRAND FIRE BARRIER CAULK, CP-25, OR COMPOSITE SHEET CS-195, OR EQUIVALENT. ALL PENETRATIONS SHALL BE SEALED IN ACCORDANCE WITH UL FIRE RESISTANCE VOLUME II.
2. CAULK P-25 FILL MATERIAL TO COMPLETELY FILL THE ANNULAR SPACE BETWEEN THE INDIVIDUAL CONDUIT AND GYPSUM WALLBOARD WITH A MINIMUM ¼" DIAMETER BEAD OF CAULK APPLIED TO THE PERIMETER OF CONDUIT (UL SYSTEM WL1001).
3. MULTIPLE CONDUITS SHALL BE CONTAINED WITHIN A 28 GAUGE STEEL SLEEVE. CAULK CP-25 FILL MATERIAL TO A DEPTH OF 1" COMPLETELY AROUND THE STEEL SLEEVE. A NOMINAL ¼" DIAMETER BEAD SHALL BE APPLIED ON BOTH SIDES OF WALL ASSEMBLE. A MINIMUM 1" THICKNESS OF MINERAL WOOL BATT INSULATION SHALL BE PACKED FIRMLY INTO THE STEEL SLEEVE ON BOTH SIDES OF WALL ASSEMBLY AS A PERMANENT FORM. PACKING MATERIAL SHALL BE RECESSED 5/8" FROM SURFACE OF WALL ON BOTH SIDES OF WALL ASSEMBLY. FILL RECESSED CAVITY WITH 1" OF CP-25 CAULK (UL SYSTEMS WL1016).
4. A MINIMUM 1" THICKNESS OF MINERAL WOOL BATT INSULATION SHALL BE PACKED FIRMLY INTO THE MAXIMUM 2" ANNULAR SPACE AS A PERMANENT FORM. A MINIMUM OF 1" OF CP-25 CAULK SHALL FILL THE RECESSED CAVITY, (FOR WALLS, THIS SHALL BE APPLIED ON BOTH SIDES OF THE WALL) (UL SYSTEM CAJ1044).
5. COORDINATE WITH THE ARCHITECT FOR ALL EXACT MATERIAL AND RATINGS AND EXACT DETAILS FOR FIRE STOPPING MATERIALS AND INSTALLATIONS PER ALL NFPA AND UL REQUIREMENTS.

R. INTERRUPTION OF SERVICE

1. WHEN WORK PROGRESS MAKES TEMPORARY SHUTDOWN OF SERVICES UNAVOIDABLE, SHUTDOWN SHALL BE COORDINATED WITH AND APPROVED BY OWNER SO AS TO CAUSE MINIMUM DISRUPTION TO ESTABLISHED OPERATING ROUTINE. ARRANGE TO WORK AS NECESSARY TO RE-ESTABLISH SERVICE WITHIN SHORTEST POSSIBLE DOWNTIME. IN THOSE INSTANCES WHERE THE LENGTH OF TIME REQUIRED FOR THE SERVICE INTERRUPTION IS NOT ACCEPTABLE TO THE OWNER, UNLESS OTHERWISE INDICATED, FURNISH AND INSTALL TEMPORARY CONNECTIONS AS REQUIRED TO REDUCE THE LENGTH OF TIME OF SERVICE INTERRUPTION TO AN ACCEPTABLE LEVEL.
2. REPORT ANY INTERFERENCE BETWEEN WORK UNDER THIS DIVISION AND THAT OF ANY OTHER CONTRAC

DIVISION 26 SPECIFICATIONS (CONTINUED):

10. CLEAN BOXES OF ALL FOREIGN MATTER PRIOR TO THE INSTALLATION OR WIRING OR DEVICES.

11. MOUNTING HEIGHTS ON THE DRAWINGS ARE TO THE CENTERLINE OF THE BOX UNLESS OTHERWISE NOTED.

AD. NAMEPLATES AND ELECTRICAL SYSTEM IDENTIFICATION

1. EQUIPMENT IDENTIFICATION NAMEPLATES SHALL BE ENGRAVED, LAMINATED ACRYLIC OR MELAMINE WITH A MINIMUM LETTER HEIGHT OF 1/2". REFER TO DRAWINGS FOR NAMEPLATE DETAILS.

2. EQUIPMENT REQUIRING IDENTIFICATION NAMEPLATES SHALL BE AS FOLLOWS:
   a. BRANCH CIRCUIT PANELBOARDS
   b. SAFETY SWITCHES (FUSED AND NON-FUSED)

3. ALL WIRING SHALL BE IDENTIFIED BY PANELBOARD AND CIRCUIT NUMBER(S) IN ALL CABINETS, JUNCTION BOXES, WIRING TROUGHS, ENCLOSURES, SPLICE OR TERMINATION POINTS, ETC.

AE. PANELBOARDS

1. ACCEPTABLE MANUFACTURERS SHALL BE EATON, SQUARE D, GE, OR SIEMENS. ALL SWITCHBOARDS SHALL BE BY ONE MANUFACTURER.

2. SCOPE
   a. THE CONTRACTOR SHALL PROVIDE PANELBOARDS AS SPECIFIED HEREIN, AND AS SHOWN ON THE CONTRACT DRAWINGS.
   b. ALL FLOOR MOUNTED DISTRIBUTION PANELBOARDS SHALL BE INSTALLED ON A 4" HIGH CONCRETE PAD PROVIDED BY THIS CONTRACTOR.

3. RATINGS
   a. EQUIPMENT RATED 240V AC OR LESS SHALL HAVE SHORT-CIRCUIT RATINGS AS SHOWN ON THE DRAWINGS OR AS HEREIN SCHEDULED, BUT NOT LESS THAN 10,000 AMPERES RMS SYMMETRICAL.
   b. EQUIPMENT RATED 480V AC OR LESS SHALL HAVE SHORT-CIRCUIT RATINGS AS SHOWN ON THE DRAWINGS OR AS HEREIN SCHEDULED, BUT NOT LESS THAN 14,000 AMPERES RMS SYMMETRICAL.
   c. EQUIPMENT SHALL BE FULLY RATED AND CAPABLE OF WITHSTANDING THE FULL SHORT-CIRCUIT CURRENT AVAILABLE AT THAT POINT IN THE SYSTEM.
   d. EQUIPMENT SHALL BE LABELED WITH A UL SHORT-CIRCUIT RATING.

4. CONSTRUCTION
   a. INTERIORS SHALL BE COMPLETELY FACTORY ASSEMBLED DEVICES. THEY SHALL BE DESIGNED SUCH THAT SWITCHING AND PROTECTIVE DEVICES CAN BE REPLACED WITHOUT DISTURBING ADJACENT UNITS AND WITHOUT REMOVING THE MAIN BUS CONNECTORS.
   b. TRIMS FOR BRANCH CIRCUIT PANELBOARDS SHALL BE SUPPLIED WITH A HINGED DOOR OR ALL CIRCUIT BREAKER HANDLES. DOORS IN PANELBOARD TRIMS SHALL NOT UNCOVER ANY LIVE PARTS. DOORS SHALL HAVE A SEMI FLUSH CYLINDER LOCK AND CATCH ASSEMBLY. DOORS OVER 48 INCHES IN HEIGHT SHALL HAVE AUXILIARY FASTENERS.
   c. DISTRIBUTION PANELBOARD TRIMS SHALL COVER ALL LIVE PARTS. SWITCHING DEVICE HANDLES SHALL BE ACCESSIBLE.
   d. SURFACE TRIMS SHALL BE SAME HEIGHT AND WIDTH AS BOX. FLUSH TRIMS SHALL OVERLAP THE BOX BY 3/4 OF AN INCH ON ALL SIDES.
   e. A DIRECTORY CARD WITH A CLEAR PLASTIC COVER SHALL BE SUPPLIED AND MOUNTED ON THE INSIDE OF EACH DOOR.
   f. ALL LOCKS SHALL BE KEYED ALIKE.

5. BUS
   a. ALL BUS BARS SHALL BE HARD DRAWN COPPER WITH 98% CONDUCTIVITY AND SIZED IN ACCORDANCE WITH UL STANDARDS TO LIMIT TEMPERATURE RISE ON ANY CURRENT CARRYING PART TO A MAXIMUM OF 65 DEGREES C ABOVE AN AMBIENT OF 40 DEGREES C MAXIMUM.
   b. A SYSTEM GROUND BUS SHALL BE INCLUDED IN ALL PANELS.
   c. FULL-SIZE (100% RATED) INSULATED NEUTRAL BARS SHALL BE INCLUDED FOR PANELBOARDS SHOWN WITH NEUTRAL. BUS BAR TAPS FOR PANELS WITH SINGLE POLE BRANCHES SHALL BE ARRANGED FOR SEQUENCE PHASING OF THE BRANCH CIRCUIT DEVICES. NEUTRAL BUSING SHALL HAVE A SUITABLE LUG FOR EACH OUTGOING FEEDER AND/OR BRANCH CIRCUIT REQUIRING A NEUTRAL CONNECTION.

6. "LOAD CENTER" STYLE CONSTRUCTION SHALL NOT BE CONSIDERED ACCEPTABLE.

7. DISTRIBUTION PANELBOARDS
   a. DISTRIBUTION PANELBOARDS SHALL HAVE OVERCURRENT DEVICES AS INDICATED ON DRAWINGS.
   b. DISTRIBUTION PANELBOARDS WITH BOLT-ON DEVICES CONTAINED THEREIN SHALL HAVE INTERRUPTING RATINGS AS SPECIFIED HEREIN OR AS INDICATED ON THE DRAWINGS. PANELBOARDS SHALL BE FULLY RATED.
   c. MOLDED CASE CIRCUIT BREAKERS SHALL BE PROVIDED WITH INVERSE TIME AND INSTANTANEOUS TRIPPING CHARACTERISTICS. ADJUSTABLE LONG TIME, SHORT TIME, AND INSTANTANEOUS SETTINGS SHALL BE PROVIDED FOR CIRCUIT BREAKER FRAME SIZES 400 AMPERES AND LARGER.
   d. CIRCUIT BREAKERS SHALL BE OPERATED BY A TOGGLE-TYPE HANDLE AND SHALL HAVE A QUICK-MAKE, QUICK-BREAK OVER-CENTER SWITCHING MECHANISM THAT IS MECHANICALLY TRIP-FREE. AUTOMATIC TRIPPING OF THE BREAKER SHALL BE CLEARLY INDICATED BY THE HANDLE POSITION. CONTACTS SHALL BE NON-WELDING SILVER ALLOY AND ARC EXTINCTION SHALL BE ACCOMPLISHED BY MEANS OF DE-ION ARC CHUTES.
   e. CIRCUIT BREAKERS INTERRUPTING CAPACITY SHALL MATCH THAT OF THE PANELBOARD INSTALLED.
   f. FUSIBLE SWITCHES SHALL BE AS INDICATED UNDER FUSIBLE SWITCHES.

8. BRANCH CIRCUIT PANELBOARDS
   a. BOLT-ON TYPE, HEAVY-DUTY, QUICK-MAKE, QUICK-BREAK, SINGLE AND MULTI-POLE CIRCUIT BREAKERS OF THE TYPES SPECIFIED HEREIN, SHALL BE PROVIDED FOR EACH CIRCUIT WITH TOGGLE HANDLES THAT INDICATE WHEN UNIT HAS TRIPPED.
   b. CIRCUIT BREAKERS SHALL BE THERMAL-MAGNETIC TYPE WITH COMMON TYPE HANDLE FOR ALL MULTIPLE POLE CIRCUIT BREAKERS. CIRCUIT BREAKERS SHALL BE MINIMUM 100-AMPERE FRAME AND THROUGH 100-AMPERE TRIP SIZES SHALL TAKE UP THE SAME POLE SPACING. CIRCUIT BREAKERS SHALL BE UL LISTED AS TYPE 'SWD' FOR LIGHTING CIRCUITS, AND UL LISTED AS TYPE 'HACR' FOR HEATING, AIR-CONDITIONING AND REFRIGERATING EQUIPMENT.
   c. CIRCUIT BREAKER HANDLE LOCKS SHALL BE PROVIDED FOR ALL CIRCUITS THAT SUPPLY EXIT SIGNS, EMERGENCY LIGHTS, ENERGY MANAGEMENT, AND CONTROL SYSTEM (EMCS) PANELS AND FIRE ALARM CONTROL PANELS.

9. ENCLOSURE
   a. ENCLOSURES SHALL BE AT LEAST 20 INCHES WIDE MADE FROM GALVANIZED STEEL. PROVIDE MINIMUM GUTTER SPACE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. WHERE FEEDER CABLES SUPPLYING THE MAINS OF A PANEL ARE CARRIED THROUGH ITS BUS TO SUPPLY OTHER ELECTRICAL EQUIPMENT, THE BOX SHALL BE SIZED TO INCLUDE THE ADDITIONAL REQUIRED WIRING SPACE. AT LEAST FOUR INTERIOR MOUNTING STUDS WITH ADJUSTABLE NUTS SHALL BE PROVIDED.
   b. ENCLOSURES SHALL BE PROVIDED WITH BLANK ENDS.
   c. ENCLOSURES SHALL BE RATED FOR ENVIRONMENTAL CONDITIONS AT INSTALLED LOCATION.
      - INDOOR DRY AND CLEAN: NEMA 1
      - OUTDOOR: NEMA 3R
      - OTHER WET OR DAMP LOCATIONS: NEMA 4

10. SERVICE ENTRANCE LABEL - EQUIPMENT WITH MAIN SERVICE DISCONNECT SWITCH(ES) SHALL BE UL LABELED FOR USE AS SERVICE ENTRANCE EQUIPMENT.

11. FUTURE DEVICES - PANELBOARDS SHALL BE FULLY PROVISIONED WITH ALL NECESSARY MOUNTING BRACKETS, BUS CONNECTIONS AND APPURTENANCES REQUIRED FOR INSTALLATION OF FUTURE DEVICES AS INDICATED ON DRAWINGS.

12. ACCESSORY COMPONENTS AND FEATURES - PROVIDE ACCESSORY SET INCLUDING TOOLS AND MISCELLANEOUS ITEMS REQUIRED FOR OVERCURRENT PROTECTIVE DEVICE TEST, INSPECTION, MAINTENANCE AND OPERATION.

13. NAMEPLATES - PROVIDE AN ENGRAVED NAMEPLATE FOR EACH PANEL BOARD SECTION. SEE NAMEPLATE SPECIFICATION FOR ADDITIONAL INFORMATION.

14. WARNING LABEL - PROVIDE ARC-FLASH HAZARD WARNING LABEL FOR EACH PANELBOARD SECTION PER N.E.C. ARTICLE 110.16.

15. FINISH - SURFACES OF THE TRIM ASSEMBLY SHALL BE PROPERLY CLEANED, PRIMED, AND A FINISH COAT OF GRAY ANSI 61 PAINT APPLIED.

16. INSTALLATION
   a. INSTALL CABINETS TO ENSURE THAT CENTER OF THE TOP BREAKER DOES NOT EXCEED 6'-6" ABOVE THE FINISHED FLOOR.
   b. ENTRIES ON DIRECTORY CARDS SHALL BE TYPED, COMPLETE AND ACCURATELY REPRESENT THE "AS-BUILT" CIRCUIT CONDITIONS.
   c. ALL BOLTED CONNECTIONS SHALL BE TORQUED IN ACCORDANCE WITH MANUFACTURER'S STANDARDS.
   d. ELECTRICAL CONTRACTOR SHALL ARRANGE CIRCUITS AS NEAR AS POSSIBLE TO CIRCUIT NUMBERS ON THE DRAWINGS. AT COMPLETION OF JOB, ELECTRICAL CONTRACTOR SHALL TAKE CURRENT READING CHECKS OF RESPECTIVE PHASES. A MINIMUM OF CIRCUIT CONNECTIONS SHALL BE REARRANGED TO BALANCE, AS CLOSELY AS POSSIBLE, THE LOAD IN THE PANEL.
   e. PROVIDE (3) SPARE 1" CONDUITS INTO ACCESSIBLE CEILING SPACE WHERE PANELS ARE FLUSH-MOUNTED.

AF. ELECTRIC SERVICE

1. CONTACT AND FULLY COORDINATE NEW ELECTRIC SERVICE WITH THE LOCAL ELECTRIC UTILITY COMPANY. PROVIDE NECESSARY CONDUITS, CONDUCTORS, METERING, SOCKETS, CT CABINETS, EQUIPMENT, ETC. IN ACCORDANCE WITH UTILITY CO. STANDARDS.

2. SCHEDULE NEW SERVICE AND INCLUDE ELECTRIC UTILITY COMPANY CHARGES IN BID.

3. PROVIDE A GROUNDING ELECTRODE SYSTEM IN FULL COMPLIANCE WITH N.E.C. ARTICLE 250 TO INCLUDE BONDING ALL AVAILABLE GROUNDING ELECTRODE CONDUCTORS INCLUDING, BUT NOT LIMITED TO METAL UNDERGROUND WATER PIPE, METAL FRAME OF THE BUILDING OR STRUCTURE, CONCRETE-ENCASED ELECTRODES, GROUND RING, ROD AND PIPE ELECTRODES, PLATE ELECTRODES.

AG. WIRING DEVICES

1. ACCEPTABLE MANUFACTURERS SHALL BE HUBBELL, PASS & SEYMOUR, EATON (COOPER WIRING DEVICES), OR LEVITON.

2. CONVENIENCE RECEPTACLES:
   a. STRAIGHT BLADE CONVENIENCE RECEPTACLE DEVICES SHALL BE EXTRA HEAVY DUTY INDUSTRIAL SPECIFICATION GRADE AND SHALL AT A MINIMUM INCORPORATE THE FOLLOWING FEATURES AND BENEFITS.
   b. RECEPTACLES, 20 A, 125V, 2-POLE, 3-WIRE, GROUNDING TYPE WITH SELF GROUNDING FEATURE: COMPLY WITH NEMA WD 1, NEMA WD 6 CONFIGURATION 5-20R, AND UL 498.
   c. COLOR SHALL BE AS SELECTED BY ARCHITECT.

3. GFCI RECEPTACLES:
   a. STRAIGHT BLADE GFCI TYPE RECEPTACLE DEVICES SHALL BE. NON FEED THROUGH TYPE. COMPLY WITH NEMA WD 1, NEMA WD 6, UL 498, AND UL 943, CLASS A, GROUP I SOLID STATE SENSING AND SIGNALING WITH FIVE (5) MILLI-AMPERE FAULT TRIP LEVEL AND INCLUDE INDICATOR LIGHT THAT IS LIGHTED WHEN DEVICE IS TRIPPED.
   b. DUPLEX GFCI RECEPTACLES, 20 A, 125V, 2-POLE, 3-WIRE, GROUNDING TYPE WITH SELF GROUNDING FEATURE.
   c. COLOR SHALL BE AS SELECTED BY ARCHITECT.

4. RECEPTACLES REQUIRING AMPERAGES, VOLTAGES OR NEMA CONFIGURATIONS DIFFERENT FROM THE DUPLEX CONVENIENCE RECEPTACLES ABOVE SHALL BE AS INDICATED ON THE DRAWINGS, OR AS REQUIRED BY EQUIPMENT MANUFACTURER.

5. PROVIDE OTHER RECEPTACLES OF A QUALITY, MATERIAL AND WORKMANSHIP EQUAL TO THAT SPECIFIED FOR DUPLEX CONVENIENCE RECEPTACLES.

6. SWITCHES - AC TOGGLE SWITCHES:
   a. AC TOGGLE SWITCHES SHALL BE EXTRA HEAVY DUTY INDUSTRIAL (COMMERCIAL) SPECIFICATION GRADE QUIET TYPE, AND SHALL AT A MINIMUM SHALL COMPLY WITH NEMA WD1 AND U.L. 20.
   b. COLOR SHALL BE AS SELECTED BY ARCHITECT.

7. ALL RECEPTACLES AND SWITCHES ON EMERGENCY POWER CIRCUITS SHALL BE RED WITH MATCHING RED FACEPLATE.

8. ALL RECEPTACLES, SWITCHES AND OTHER WIRING DEVICES SHALL BE LABELED WITH CIRCUIT NUMBER AND PANEL NAME ON COVER USE ENGRAVED BLACK LETTERS ON PLASTIC COVERS OR CLEAR TAPE WITH BLACK LETTERS ON OTHER FACEPLATE TYPES.

9. WIRING DEVICE WALL PLATES: SINGLE AND COMBINATION TYPES TO MATCH CORRESPONDING WIRING DEVICES.
   a. FINISHED SPACES: SMOOTH HIGH-IMPACT THERMO PLASTIC MATERIAL.
   b. UNFINISHED SPACES: GALVANIZED STEEL, ZINC COATED SHEET METAL, ALUMINUM, OR CAST METAL AS APPROPRIATE FOR THE TYPE OF BOX.
   c. EXTERIOR SPACES: COPPER FREE ALUMINUM WITH GRAY, POWDER EPOXY FINISH, GASKET, WEATHERPROOF, "HUBBELL WP8M" WEATHERPROOF WHILE IN USE COVER.
   d. VOICE/DATA JACKS SHALL UTILIZE THE SAME TYPE OF PLATE USED FOR RECEPTACLES.
   e. DEVICES PLATES SHALL BE BY THE SAME MANUFACTURER AS THE WIRING DEVICE.
   f. COLOR SHALL BE AS SELECTED BY ARCHITECT.
   g. ALL OUTLET AND/OR JUNCTION BOXES SHALL BE COMPLETE WITH A COVER PLATE BY THIS CONTRACTOR.
   h. WHERE DEVICES ARE GANGED, THEY SHALL BE INSTALLED UNDER A COMMON WALL PLATE.

10. LOCATE SWITCHES AT 46" ABOVE FINISHED FLOOR ELEVATION TO CENTER OF SWITCH OR NEAREST BLOCK COURSE (WITHIN A.D.A. REQUIREMENTS), UNLESS OTHERWISE INDICATED. THE LONG DIMENSION OF THE SWITCHES SHALL BE VERTICAL. ALL SWITCHES SHALL BE "OFF" IN THE DOWN POSITION.

11. LOCATE RECEPTACLES AT 18" ABOVE FINISHED FLOOR ELEVATION TO CENTER OR NEAREST BLOCK COURSE (WITHIN A.D.A. REQUIREMENTS), UNLESS NOTED OTHERWISE. THE LONG DIMENSION OF RECEPTACLES SHALL BE VERTICAL AND GROUND POLE UP.

AH. LUMINAIRES

1. ALL LUMINAIRES, LAMPING (INCLUDING LED MODULES, FLUORESCENT, INCANDESCENT, ETC.), EQUIPMENT, AND COMPONENTS SHALL BE PROVIDED WHERE SHOWN ON DRAWINGS, AS LISTED IN LUMINAIRE SCHEDULE, AND AS SPECIFIED, WIRED AND ASSEMBLED. PROVIDE APPROVED ALIGNING EQUIPMENT, CANOPIES, HANGERS AND OTHER APPURTENANCES AS REQUIRED FOR A COMPLETE SYSTEM PER MANUFACTURER'S INSTRUCTIONS AND N.E.C. REQUIREMENTS.

2. REFER TO LUMINAIRE SCHEDULE FOR THE FOLLOWING REQUIREMENTS:
   a. LUMINAIRE DESCRIPTION AND DIMENSIONS.
   b. MANUFACTURER.
   c. CATALOG SERIES AND/OR MODEL/PART NUMBER.
   d. LIGHT SOURCE/LAMPING REQUIREMENTS.
   e. BALLAST/DRIVER REQUIREMENTS.
   f. VOLTAGE REQUIREMENTS.

3. ALL LUMINAIRES SHALL BEAR THE UL LABEL AND SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S INSTRUCTIONS.

4. LINEAR FLUORESCENT LAMPS FOR NEW LIGHT FIXTURES SHALL BE 32 WATT, T8, 3500K OF THE FOLLOWING MANUFACTURERS:
   a. GENERAL ELECTRIC "STARCOAT" SP35 SERIES
   b. OSRAM/SYLVANIA "OCTRON" 735 SERIES
   c. PHILLIPS TL735 SERIES

4. BALLASTS FOR LINEAR FLUORESCENT LAMPS SHALL BE ELECTRONIC, PARALLEL, INSTANT-START, NORMAL OUTPUT TYPE, LESS THAN 10% THD, CBM AND ETL CERTIFIED, AS MANUFACTURED BY MAGNETEK, MOTOROLA OR ADVANCE.

5. BALLASTS FOR ALL LINEAR FLUORESCENT LAMPS HAVING LOCAL OCCUPANCY CONTROL SHALL BE PROGRAM-START.

6. THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE LUMINAIRES WITH THE MOUNTING METHOD REQUIRED FOR THE CEILING SYSTEM SET FORTH ON THE ARCHITECTURAL DRAWINGS, SUCH AS THE REFLECTED CEILING PLANS, ROOM FINISH SCHEDULES, ETC.

7. COORDINATE INSTALLATION OF ALL LUMINAIRES WITH ALL TRADES AND THE INSTALLATION OF CEILING MATERIALS AND SUSPENSION SYSTEMS PRIOR TO ANY ROUGH-INS.

8. LUMINAIRES WITH LOUVERS, BASKETS, OR LENSES SHALL BE PROVIDED WITH POLYESTER COVERS TO PROTECT LUMINAIRES DURING CONSTRUCTION.

9. DO NOT INSTALL LUMINAIRES UNTIL WORK OF OTHER TRADES THAT MAY DAMAGE LUMINAIRES IS COMPLETED.

10. INVESTIGATE LUMINAIRE LOCATIONS AND SUPPORTS TO ENSURE THAT NO INTERFERENCE EXISTS WITH HANGERS, DUCTS, SPRINKLERS, PIPES AND ALL OTHER EQUIPMENT.

11. PROVIDE PROPER PLASTER FRAMES FOR LUMINAIRES RECESSED IN GYPSUM BOARD OR PLASTER CEILING.

12. DO NOT SUSPEND OR SUPPORT LUMINAIRES OR SAFETY CHAINS FROM HUNG CEILING, CONDUIT OR DUCT. SUPPORT LUMINAIRES FROM STRUCTURAL BUILDING MEMBERS ONLY.

13. FRAMING MEMBERS OF SUSPENDED CEILING SYSTEMS USED TO SUPPORT LUMINAIRES SHALL BE SECURELY FASTENED TO EACH OTHER AND SHALL BE SECURELY ATTACHED TO THE BUILDING STRUCTURE AT APPROPRIATE INTERVALS PER CEILING MANUFACTURER'S RECOMMENDATIONS. LUMINAIRES SHALL BE SECURELY FASTENED TO THE CEILING FRAMING MEMBER BY MECHANICAL MEANS SUCH AS BOLTS, SCREWS, OR RIVETS. LISTED CLIPS IDENTIFIED FOR USE WITH THE TYPE OF CEILING FRAMING MEMBER(S) AND LUMINAIRE(S) SHALL ALSO BE PERMITTED PER N.E.C. ARTICLE 410.36(B).

14. PROVIDE STRUT BELOW DUCTS WHERE LUMINAIRE LOCATIONS COINCIDE WITH DUCT RUNS. PROVIDE A COMPLETE THREADED ROD SYSTEM TO SUPPORT STRUT.

15. PATCH ALL EXISTING SPRAY-ON FIREPROOFING DAMAGED DURING INSTALLATION.

16. SUPPORT SURFACE-MOUNTED LUMINAIRES FROM AT LEAST TWO POINTS TO PREVENT ROTATION.

17. LOCATE CEILING AND WALL MOUNTED LUMINAIRES AS SHOWN ON ARCHITECTURAL REFLECTED CEILING PLANS AND ELEVATIONS.

18. THIS CONTRACTOR SHALL PROVIDE AND INSTALL ALL NECESSARY SUPPORT MEDIA FOR ALL LIGHTING FIXTURES INCLUDING STRUCTURAL STEEL, ANGLE, RODS, ETC. IN GENERAL, FLUORESCENT AND HIGH INTENSITY DISCHARGE FIXTURES SHALL BE SUPPORTED IN A MANNER ACCEPTABLE TO THE LOCAL INSPECTION AUTHORITIES. ALL FIXTURES SHALL BE SUPPORTED INDEPENDENTLY FROM STEMS OR JOISTS.
   a. PROVIDE ALL NECESSARY BACKING, BLOCKING AND SUPPORTS FOR WALL MOUNTED FIXTURES.
   b. FIXTURES SHALL NOT BE SUPPORTED FROM ROOF DECK.

19. RECESSED LUMINAIRES IN FIRE RATED CEILING OR SUPPLY AIR PLENUMS SHALL BE APPROVED FOR THE FIRE RATING OF THE CEILING. PROVIDE AIR- TIGHT GASKETS TO SEAL AROUND OPENINGS.

20. ALL ADJUSTABLE LUMINAIRES SHALL BE AIMED AND ADJUSTED DURING EVENING HOURS TO THE SATISFACTION OF THE ARCHITECT.

AI. FIRE ALARM SYSTEM

1. ACCEPTABLE MANUFACTURERS OF FIRE ALARM SYSTEMS SHALL BE SIMPLEX, EDWARDS, OR NOTIFIER.

2. ALL FIRE ALARM EQUIPMENT SHALL BE UL AND FM APPROVED. ALL EQUIPMENT SHALL CONFORM TO APPLICABLE NFPA, ANSI, ADA AND UL STANDARDS.

3. THE MANUFACTURER OF THE WORK OF THIS SECTION SHALL PROVIDE A QUALIFIED FIELD REPRESENTATIVE AT THE SITE, SUCH MANUFACTURERS FIELD REPRESENTATIVE SHALL INSTRUCT THE CONTRACTOR'S PERSONNEL IN THE PROPER HANDLING, INSTALLATION, START-UP, AND OPERATION OF THE EQUIPMENT.

4. PROVIDE ALL LABOR AND MATERIAL NECESSARY FOR THE FIRE ALARM SYSTEM AS SHOWN AND REQUIRED. THIS SYSTEM SHALL BE ANALOG, ADDRESSABLE MULTIPLEX TYPE.

5. THE OPERATION OF ANY MANUAL STATION, WATERFLOW SWITCH, AREA SMOKE DETECTOR, OR HEAT DETECTOR SHALL CAUSE THE FOLLOWING SEQUENCE OF EVENTS:
   a. INITIATE ALL AUDIO/VISUAL ALARM DEVICES IN A SYNCHRONIZED MANNER.
   b. STOP (OR START) ALL DESIGNATED FAN MOTORS.
   c. TRIP MUNICIPAL BOX TO SUMMON THE FIRE DEPARTMENT.
   d. ANNUNCIATE ALARM IN THE FACP AND REMOTE ANNUNICIATORS ON THE LCD DISPLAY.
   e. RELEASE DOOR HOLDERS

6. WHEN A DUCT DETECTOR GOES INTO ALARM, IT SHALL SHUT DOWN ITS ASSOCIATED SUPPLY AND RETURN AIR FAN AND CLOSE ONLY ITS ASSOCIATED FIRE AND SMOKE DAMPER(S), VIA SIGNAL FROM THE FACP.

7. THE OPERATION OF ANY SPRINKLER VALVE TAMPER SWITCH SHALL CAUSE A SUPERVISORY TROUBLE SIGNAL DIFFERENT FROM THE PANEL TROUBLE ALARM.

8. POWER FAILURE, OPEN CIRCUITS, OR OTHER ABNORMAL CONDITIONS IN THE CIRCUITS SHALL CAUSE THE SUPERVISORY TROUBLE SIGNALS TO RING AND SUPERVISORY TROUBLE LIGHTS TO GLOW UNTIL THE CIRCUITS HAVE BEEN RESTORED TO THEIR NORMAL OPERATING CONDITION. SWITCHES SHALL BE PROVIDED FOR SILENCING THE SUPERVISORY TROUBLE SIGNALS, BUT THE LIGHTS SHALL NOT BE EXTINGUISHED UNTIL THE ABNORMAL CONDITION IS RECTIFIED. RESTORING THE SYSTEM TO NORMAL SHALL EXTINGUISH THE LIGHTS AND CAUSE THE WARNING SIGNAL TO RING UNTIL THE SILENCING SWITCHES ARE RESTORED TO THEIR NORMAL POSITION.

8. BATTERIES AND BATTERY CHARGERS SHALL BE PROVIDED FOR THE FACP(S). BATTERIES SHALL BE MAINTENANCE FREE OR GEL CELL TYPE AND SHALL PROVIDE A MINIMUM OF 24 HOURS OF EMERGENCY OPERATION.

9. THE FIRE ALARM CONTROL PANEL (FACP) SHALL BE MICROPROCESSOR BASED FIELD PROGRAMMABLE AND SHALL AUTOMATICALLY SUPERVISE ALL CONNECTED INITIATING DEVICES, AND IN THE EVENT OF AN ALARM BY AN INITIATING DEVICE, IT SHALL ACTIVATE ALL AUDIBLE VISUAL ALARMS AND CAUSE ALL LOCAL CONTROL FUNCTIONS TO BE INITIATED.
   a. THE FACP SHALL NORMALLY OPERATE FROM 120 VOLT, 60 HERTZ, SINGLE PHASE POWER. PROVIDE C/B LOCK AT PANELBOARD.
   b. THE PANEL SHALL BE SUPERVISED AND BE WIRED FOR STYLE B OPERATION.
   c. THE PANEL SHALL HAVE PROPER NUMBER OF RELAY OUTPUTS FOR THE CONTROL FUNCTIONS REQUIRED.
   d. PANEL SHALL HAVE CAPACITY TO OPERATE ALL FAN CONTROLS, ALL ANNUNCIATION, ALL DETECTORS, ALL FIRE SIGNALS, ETC.
   e. SUPERVISORY ALARMS FOR SPRINKLER VALVE INITIATION SHALL BE SEPARATE FROM TROUBLE INDICATIONS FOR SYSTEM WIRING.
   f. THE FACP SHALL INCLUDE NECESSARY SWITCHES, RELAYS, INDICATOR LAMPS, WIRING TERMINALS, ETC., TO PROVIDE COMPLETE OPERATION, SUPERVISING, CONTROL, AND TESTING FACILITIES FOR ENTIRE SYSTEM.
   g. THE FACP SHALL BE AN ANALOG ADDRESSABLE PANEL.

10. THE FIRE ALARM MANUAL STATIONS SHALL BE INDIVIDUALLY ADDRESSABLE AND SINGLE-ACTION TYPE AND SHALL BE SEMI-FLUSH MOUNTED.

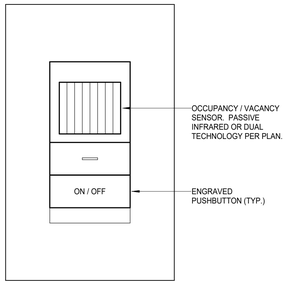
11. FIRE ALARM SIGNALS SHALL BE AUDIO/VISUAL DEVICES WITH INTEGRAL HORN, AND VISUAL STROBE SEMI_FLUSH MOUNTED IN A SINGLE BOX COMPLYING WITH ADA. FIRE ALARM SIGNALS SHALL BE AUDIO VISUAL UNITS FOR SYNCHRONIZED AND VARYING FREQUENCY OPERATION. WHERE VISUAL DEVICES ONLY ARE SHOWN, MOUNT IN A SINGLE GANG BOX COMPLYING WITH ADA. AUDIO AND VISUAL DEVICES SHALL BE WIRED TO SEPARATE CIRCUITS TO ALLOW FOR ALARM SILENCING.

12. SMOKE DETECTORS (PHOTOELECTRIC).
   a. PHOTOELECTRIC DETECTORS SHALL BE ADDRESSABLE ANALOG TYPE AND OPERATE ON THE LIGHT SCATTERED PRINCIPLE.
   b. DETECTORS SHALL BE DESIGNED FOR TWIST LOCK MOUNTING TO A SEPARATE BASE ASSEMBLY AND WITH A LOCKING MECHANISM HAVING SCREW TERMINALS FOR EXTERNAL WIRE CONNECTIONS.
   c. THE BASE ASSEMBLY SHALL MOUNT ON A STANDARD 3 1/2" ROUND, 4" SQUARE OR 4" OCTAGONAL OUTLET BOX.

AJ. SPORTS FIELD LIGHTING

SCOPE OF SERVICES:
1. THE SCOPE OF SERVICES SHALL APPLY TO ANY ALTERNATE ACCEPTED.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, TRANSPORTATION, AND PROJECT MANAGEMENT REQUIRED TO COMPLETE THE PROJECT.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL EQUIPMENT AS DESCRIBED.
4. ANY ADDITIONAL POWER REQUIRED FOR LIGHTING CONTROLS, HEATERS, ETC. SHALL BE THE RESPONSIBILITY OF THE CONTACTOR FROM LOCATIONS ACCEPTABLE TO THE OWNER.
5. ALL CONDUIT, RACEWAYS AND WIRE REQUIRED TO COMPLETE A PATH TO EACH DRIVER ENCLOSURE. SPORTS LIGHTING FIXTURES AND CONTROLS SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR.
6. THE CONTRACTOR SHALL BE RESPONSIBLE TO FURNISH, INSTALL, AND TERMINATE ALL REQUIRED WIRING NEEDED TO MAKE NEW SYSTEM(S) COMPLETE AND FULLY OPERATIONAL.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL ENGINEERING OF STRUCTURAL AND ELECTRICAL COMPONENTS REQUIRED FOR NEW SYSTEM(S). ALL STRUCTURAL AND ELECTRICAL ENGINEERING IS SUBJECT TO OWNER REVIEW AND APPROVAL. ANY MODIFICATIONS REQUIRED ARE THE RESPONSIBILITY OF THE CONTRACTOR.
8. ALL DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED FOR REVIEW BY OWNER AND ENGINEER AND THE AUTHORITY HAVING JURISDICTION.
9. CONTRACTOR IS RESPONSIBLE FOR SUPPLYING A COMPLETE AND FULLY OPERATIONAL SYSTEM AS INTENDED BY THE DOCUMENTS AND ANY SUBSEQUENT ADDENDUMS OR SUPPLEMENTAL INFORMATION. PRIOR TO ENTERING INTO A CONTRACT FOR THE PROJECT, CONTRACTOR IS RESPONSIBLE FOR NOTIFYING OWNER AND COMPANY OF ANY EQUIPMENT OMISSIONS IN THE BID PACKAGE DOCUMENTS THAT WOULD PREVENT THE COMPLETION OF A FULLY OPERATIONAL SYSTEM MEETING ALL REQUIREMENTS OF THIS SPECIFICATION.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR EXCEEDING BY 125% THE MOST CURRENT IESNA RP-6-20 RECOMMENDED PRACTICE LIGHTING SPORTS AND RECREATIONAL AREAS AT THE TIME OF THE SPORTS FIELD LIGHTING ACCEPTANCE.
11. IF CONTRACTOR FAILS TO NOTIFY OWNER OF ANY OMISSIONS, CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR PROVIDING THE REQUIRED EQUIPMENT AT NO ADDITIONAL COST TO OWNER.
12. CONTRACTOR SHALL FIELD VERIFY ALL WORK SITE CONDITIONS, INCLUDING DIMENSIONS PRIOR TO SUBMITTING SHOP DRAWINGS. CONTRACTOR SHALL GRANT OWNER AND ITS LESSEES A LICENSE TO USE ALL PROPRIETARY SOFTWARE PROVIDED WITH THIS BID PACKAGE FOR DURATIONS DESCRIBED HEREIN.
13. CONTRACTOR SHALL GRANT OWNER AND ITS LESSEES A LICENSE TO USE ALL PROPRIETARY SOFTWARE PROVIDED WITH THIS BID PACKAGE FOR DURATIONS DESCRIBED HEREIN.

SUBMITTALS
A. ALL MATERIAL SUBMITTED BECOMES THE PROPERTY OF THE OWNER, AND WILL BE RETURNED ONLY AT THEIR OPTION. BIDS SUBMITTED BECOME THE PROPERTY OF THE OWNER AND MAY BE REVIEWED AND EVALUATED BY ANY PERSON AT THE DISCRETION OF THE OWNER.
B. SHOP DRAWINGS:
   1. FOR SPORTS FIELD LIGHTING FIXTURES AND POLES:
      A. POINT BY POINT CALCULATIONS, ANGLE, RODS, ETC. IN GENERAL, FLUORESCENT AND HIGH INTENSITY DISCHARGE FIXTURES SHALL BE SUPPORTED IN A MANNER ACCEPTABLE TO THE LOCAL INSPECTION AUTHORITIES. ALL FIXTURES SHALL BE SUPPORTED INDEPENDENTLY FROM STEMS OR JOISTS.
      B. NUMBER OF FIXTURES PER POLE.
      C. LIGHTING CRITERIA SHOWING HORIZONTAL VERTICAL FOOTCANDLE VALUES AND MAXIMUM TO MINIMUM RATIOS FOR ALL LIGHTING ZONES AND CAMERA POSITIONS.
      D. LIGHT LOSS FACTOR (LLF)
      E. GLARE RATING
      F. CRI AND COLOR TEMPERATURE OF LAMPS.
      G. TYPE OF DRIVER MOUNTING (INTEGRAL OR REMOTE).
      H. LIFE EXPECTANCE OF LAMPS IN HOURS.
      I. WARRANTY ACCEPTANCE.
      J. INPUT POWER PER TOWER.
      K. SIZE OF REMOVABLE PARTS IF REQUIRED AND LOCATION.
      L. DESCRIPTION OF CONTROLS AND LOCATIONS.
   2. PRODUCT DATA: FOR EACH LUMINAIRE AND SUPPORT COMPONENT, ARRANGED IN ORDER OF LIGHTING UNIT DESIGNATION. INCLUDE DATA ON F



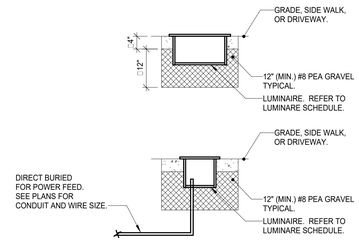
LOW VOLTAGE SWITCH: D OR P

3-BUTTON WITH INTEGRAL OCCUPANCY/VACANCY SENSOR PROGRAMMABLE SWITCH WITH SCREWLESS COVER PLATE, nLIGHT #nWSXA SERIES OR EQUAL.

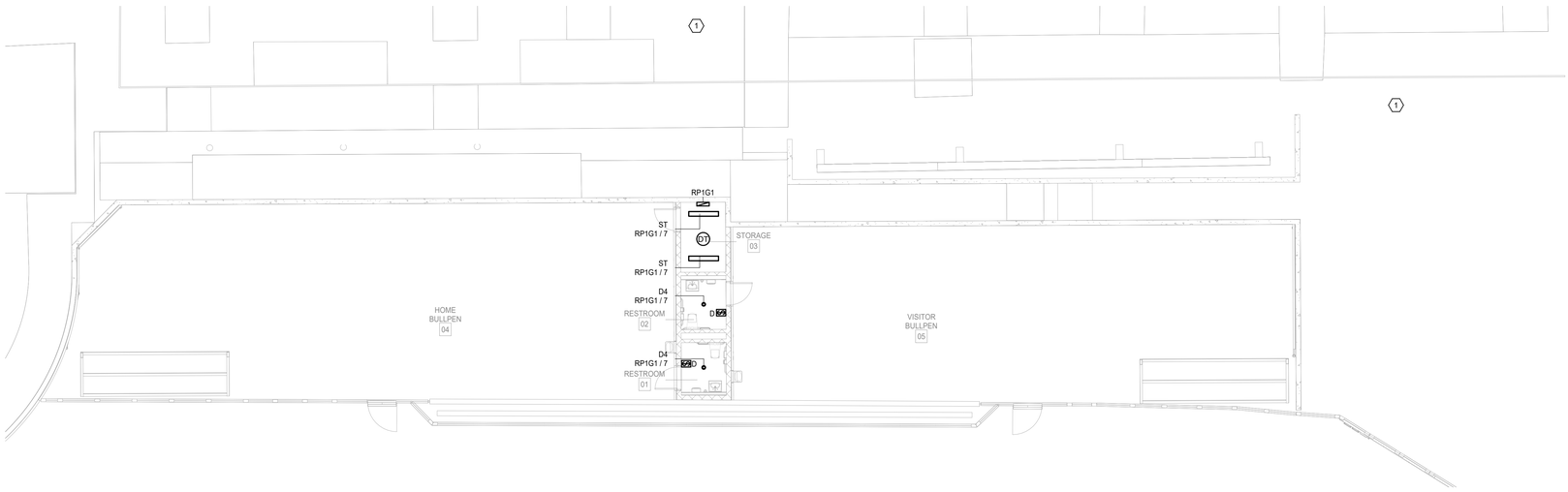
- ON = ALL LIGHTS IN ZONE/GROUP TO 100% OUTPUT
- OFF = ALL LIGHTS IN ZONE/GROUP TO 0% OUTPUT

PROVIDE ADDITIONAL ENGRAVING INDICATING ZONE NAME WHERE MULTIPLE DEVICES ARE GANGED TOGETHER. COORDINATE ZONE LABEL(S) WITH OWNER REPRESENTATIVE.

3 LOW VOLTAGE SENSOR SWITCH FACEPLATE DETAIL
SCALE: NONE



2 IN-GRADE LIGHT FIXTURE DETAIL
SCALE: NONE



1 FIELD LEVEL - LIGHTING PLAN
SCALE: 1/8" = 1'-0"

LIGHTING SHEET GENERAL NOTES:

1. ALL EXIT SIGNS, EMERGENCY LIGHTING BATTERY PACKS, EMERGENCY LUMINAIRES (ON GENERATOR OR EMERGENCY LIGHTING BATTERY PACKS INTEGRAL TO LUMINAIRE), AND NIGHT LIGHTS (DENOTED "NL") SHALL BE CONNECTED TO THE LOCAL LIGHTING CIRCUIT AHEAD OF ANY CONTROLS SUCH AS: SWITCHES, OCCUPANCY SENSORS AND/OR RELAY CONTROLS.
2. MINIMUM CONDUCTOR SIZE FOR 277 VOLT BRANCH CIRCUITING SHALL BE #12AWG. FOR 277 VOLT BRANCH CIRCUITS WITH HOMERUNS OVER 125 LINEAR FEET A MINIMUM CONDUCTOR SIZE OF #10AWG SHALL BE PROVIDED FROM FIRST JUNCTION BOX TO BRANCH CIRCUIT PANELBOARD. ASSOCIATED EQUIPMENT GROUNDING CONDUCTOR SHALL ALSO BE INCREASED PER N.E.C. ARTICLE 250.122(B) REQUIREMENTS.
3. MINIMUM CONDUCTOR SIZE FOR 120 VOLT BRANCH CIRCUITS SHALL BE #12AWG. FOR 120 VOLT BRANCH CIRCUITS WITH HOMERUNS OVER 75 LINEAR FEET, A MINIMUM WIRE SIZE OF #10AWG SHALL BE PROVIDED FROM FIRST JUNCTION BOX TO BRANCH CIRCUIT PANELBOARD. FOR 120 VOLT BRANCH CIRCUITS WITH HOMERUN OVER 150 LINEAR FEET, A MINIMUM WIRE SIZE OF #8AWG SHALL BE PROVIDED FROM FIRST JUNCTION BOX TO BRANCH CIRCUIT PANELBOARD. ASSOCIATED EQUIPMENT GROUNDING CONDUCTOR SHALL ALSO BE INCREASED PER N.E.C. ARTICLE 250.122(B) REQUIREMENTS.
4. AT A MINIMUM ALL BRANCH CIRCUITS SHALL CONTAIN 2#12AWG, #12 EG, 3/4" CONDUIT UNLESS OTHERWISE INDICATED.
5. ALL BRANCH CIRCUITS SHALL BE RUN WITH AN INDIVIDUAL NEUTRAL WIRE. BRANCH CIRCUITS SHALL NOT SHARE NEUTRAL WIRES. PER N.E.C. 404.2(C) THE NEUTRAL WIRE SHALL BE EXTENDED TO ALL SWITCHING LOCATIONS.
6. LIGHTING BRANCH CIRCUITS MAY SHARE EQUIPMENT GROUND CONDUCTORS.
7. REFER TO E-500's SERIES FOR LIGHTING CONTROL WIRING DIAGRAMS. CONTRACTOR TO VERIFY ALL SENSOR LOCATIONS PER MANUFACTURERS SPECIFICATIONS.
8. EXACT LOCATION OF ALL LUMINAIRES, AND EXACT MOUNTING HEIGHT OF ALL PENDANT MOUNTED LUMINAIRES SHALL BE COORDINATED WITH ARCHITECTURAL DRAWINGS PRIOR TO ANY ROUGH-INS.
9. ALL CONDUCTORS SHALL BE IDENTIFIED BY PANELBOARD AND CIRCUIT NUMBER(S) IN ALL CABINETS, JUNCTION BOXES, WIRING TROUGHS, ENCLOSURES, SPLICE OR TERMINATION POINTS, ETC.
10. A NEW TYPED PANELBOARD DIRECTORY CARD SHALL BE PROVIDED FOR ALL PANELS INSTALLED OR MODIFIED UNDER THIS CONTRACT. NEW DIRECTORY CARDS SHALL BE LOCATED ON THE INSIDE DOOR OF ASSOCIATED PANELS.
11. LUMINAIRES DESIGNATED AS EMERGENCY ("EM" TAG AND/OR HALF SHADED) SHALL BE CIRCUITED WITH (1) NORMAL CIRCUIT AND (1) EMERGENCY CIRCUIT VIA A UL-924 LISTED EMERGENCY LIGHTING RELAY DEVICE. PROVIDE SUPPLEMENTAL RELAY(S) AS NEEDED SO 0-10VDC DIMMED LIGHTING RAISES TO 100% OUTPUT WHEN UTILITY/NORMAL SOURCE IS LOST. REFER TO LIGHTING CONTROL DETAILS FOR ADDITIONAL INFORMATION.

LIGHTING CONTROL DETAIL WIRING LEGEND:

- LINE VOLTAGE - 120V OR 277V
- 0-10V CONTROL - CLASS 2
- LOW VOLTAGE - CAT. 5e (OR MANUFACTURER REQUIRED CABLING). REFER TO NOTES #8 AND #9.

LIGHTING CONTROL DETAIL NOTES:

1. LIGHTING CONTROL DETAILS ARE NOT INTENDED FOR CONSTRUCTION. AS PART OF THE SHOP DRAWING SUBMITTALS, CONTRACTOR SHALL PROVIDE A COMPLETE RISER DIAGRAM FOR THE LIGHTING CONTROL SYSTEM INDICATING ALL COMPONENTS NECESSARY FOR A COMPLETE SYSTEM.
2. PROVIDE AT A MINIMUM ONE (1), 4-HOUR TRAINING SESSION FOR LIGHTING CONTROL SYSTEM TRAINING AT THE OWNER'S SITE. PROVIDE ONE (1) ADDITIONAL TRAINING SESSION AT OWNER'S REQUEST.
3. THE CONTRACTOR SHALL HIRE A COMMISSIONING AGENT TO PERFORM FUNCTIONAL TESTING OF THE LIGHTING CONTROL DEVICES AND SYSTEM(S). THE AGENT PERFORMING THE TESTING SHALL BE A PARTY NOT DIRECTLY INVOLVED IN THE DESIGN OR CONSTRUCTION OF THE PROJECT. THE RESPONSIBILITIES OF THE COMMISSIONING AGENT INCLUDE CONFIRMING THAT PLACEMENT, SENSITIVITY, AND TIME-OUT SETTINGS OF OCCUPANCY SENSORS YIELD ACCEPTABLE PERFORMANCE, CONFIRMING THAT TIME SWITCH AND PROGRAMMABLE SCHEDULES HAVE BEEN PROGRAMMED TO TURN LIGHTS OFF, AND CONFIRMING THAT PHOTOSENSOR CONTROLS REDUCE LIGHT LEVELS BASED ON THE AMOUNT OF USABLE DAYLIGHT IN THE SPACE. THE AGENT SHALL PROVIDE DOCUMENTATION THAT THE LIGHTING CONTROLS MEET OF EXCEED ALL DOCUMENTED PERFORMANCE CRITERIA. REFER TO ASHRAE 90.1 SECTION 9.4.4.
4. PROVIDE TECHNICAL SUPPORT FOR UP TO TWELVE (12) MONTHS AFTER FINAL INSTALLATION OF LIGHTING CONTROL SYSTEM.
5. THE BASIS OF DESIGN PRODUCT/SYSTEM IS INDICATED ON DETAILS. ACCEPTABLE EQUAL MANUFACTURERS ARE ACUITY BRANDS (nLIGHT), COOPER LIGHTING CONTROLS, CRESTRON, LEGRAND (WATTSTOPPER), AND LUTRON.
6. PROVIDE ENGRAVED PUSHBUTTON WALL SWITCHES AS SHOWN AND APPROVED BY OWNER.
7. PROVIDE A MINIMUM SINGLE GANG BACKBOX WITH ONE (1) 3/4" EMT CONDUIT UP TO ACCESSIBLE CEILING SPACE FOR EACH LIGHTING CONTROL DEVICE FACEPLATE. PROVIDE CONDUIT WITH 90 DEGREE BEND AND NON-METALLIC BUSHING.
8. PROVIDE REMOTE POWER SUPPLY WITH ALL TOUCH SCREEN CONTROL DEVICES. POWER SUPPLY SHALL BE WIRED TO LOCAL LIGHTING CIRCUIT AHEAD OF ANY SWITCHING.
9. ALL CABLING FOR LIGHTING CONTROL SYSTEM(S) SHALL BE PLENUM RATED. CONDUIT FOR CONTROL CABLING IS NOT REQUIRED IN PLENUM SPACES OR ABOVE CEILING, UNLESS OTHERWISE REQUIRED BY APPLICIBLE CODES OR MANUFACTURER. PROPERLY SUPPORT ALL EXPOSED CABLING WITH J-HOOKS PER DIVISION 27 SPECIFICATION 270528.
10. PROVIDE BE PRE-TERMINATED CABLING. CONTRACTOR MAY PROVIDE CABLING AND TERMINATIONS ALONG WITH TESTING PER DIVISION 27 SPECIFICATION 271500.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PROGRAMMING OF THE LIGHTING CONTROL SYSTEM(S).
12. ALL OCCUPANCY/VACANCY SENSORS SHALL BE CAPABLE OF AUTOMATIC ON TO 50% / AUTOMATIC OFF ("OCCUPANCY" OPERATION) AND MANUAL ON / AUTOMATIC OFF ("VACANCY" OPERATION). SENSOR TIME OUT SETTING SHALL BE SET TO 15 MINUTE OFF WITHOUT SENSOR ACTIVATION. MICROPHONICS SHALL BE SET TO MINIMUM LEVEL.
13. SENSOR DEVICES SHOWN ON PLANS ARE SYMBOLIC. CONTRACTOR SHALL VERIFY FINAL QUANTITY AND LOCATION(S) OF SENSOR DEVICES WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS AND FIELD CONDITIONS. PROVIDE ADDITIONAL SENSOR DEVICES AS REQUIRED.
14. CONTROL DEVICES SHALL BE 0-10V AND CAPABLE OF DIMMING TO 10%, 1%, OR "DIM TO DARK" PER LUMINAIRE REQUIREMENTS - REFER TO LUMINAIRE SCHEDULE.
15. PROVIDE ALL INTERCONNECTION WIRING, CABLING, LOAD CONTROLLERS, POWER SUPPLIES, ETC. REQUIRED BY MANUFACTURER FOR A FULLY OPERATIONAL SYSTEM.
16. WHERE MECHANICAL EQUIPMENT IS REQUIRED TO BE INTERLOCKED WITH LIGHTING CONTROLS, PROVIDE A MOTOR RATED LOAD CONTROLLER OR INPUT/OUTPUT MODULE WITH RELAY CONNECTED TO LOCAL CONTROL BUS FOR CONTROL OF MECHANICAL EQUIPMENT. REFER TO DIVISION 23 SCHEDULES AND ELECTRICAL CONNECTION SCHEDULES ON SHEET SERIES E-700's.

LIGHTING CONTROL SEQUENCE NOTES:

1. GENERAL LIGHTING CONTROL SYSTEM:
   - A. PROVIDE BACNET OR MODBUS TO BAS SYSTEM, COORDINATE WITH DIVISION 23. THE BAS SHALL PROVIDE AN "OCCUPIED" OR "UNOCCUPIED SIGNAL TO THE LIGHTING CONTROL SYSTEM BASED ON BAS PROGRAMMED SCHEDULES.
   - B. MODIFICATION OF THE LIGHTING CONTROL SYSTEM PROGRAMMING DURING OPERATIONAL HOURS SHALL NOT CAUSE LIGHTING TO RESET OR OTHERWISE BE INTERRUPTED.
   - C. PROVIDE FLASH WARNING FOR ALL LIGHTING OVERRIDES BEFORE TURNING LIGHTING OFF. MINIMUM WARNING TIME OF ONE (1) MINUTE.
   - D. WHERE "OR PRESET LEVEL" IS INDICATED IN PLAN, COORDINATE OUTPUT LEVEL WITH OWNER REPRESENTATIVE.
2. STORAGE ROOMS, RESTROOMS, EVS CLOSETS:
   - A. AUTOMATIC ON VIA OCCUPANCY/VACANCY SENSOR(S).
   - B. AUTOMATIC OFF VIA OCCUPANCY/VACANCY SENSOR(S), (15)-MINUTE TIME-OUT.

(#) SHEET KEY NOTES:

1. ADDITIONAL SPORTS LIGHITNG TO BE INSTALLED AT EXISTING POLE LOCATIONS. FINAL LUMINAIRE AND MOUNTING SPECIFICATION TO BE PROVIDED BY MUSCO.

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

CITY OF JACKSONVILLE FLORIDA
LEGENDS GLOBAL
OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-6100 www.osborn-eng.com FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION
301 A PHILIP RANDOPLH BLVD, JACKSONVILLE FL, 32202

BID/ PERMIT SET
10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.B.4.4 and Chapter 633, Florida statutes

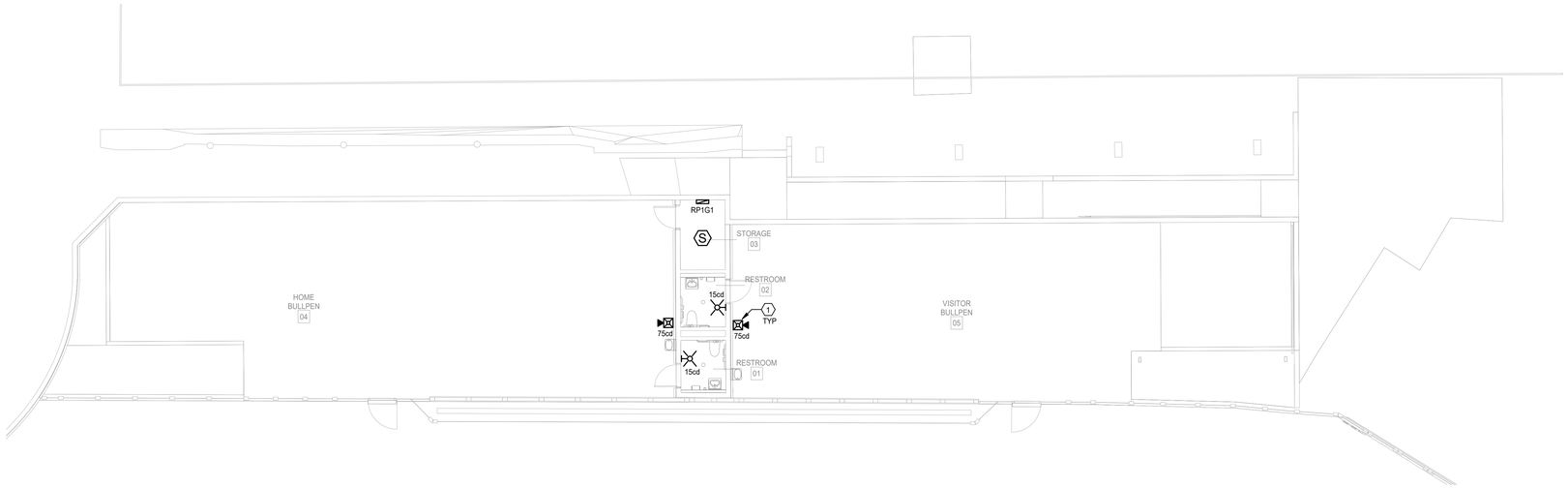
ISSUED BY:	OSPORTS
ISSUE DATE:	10/22/25
PROJ NO.	P20251573.000

REVISIONS

TAG	ISSUED	DATE

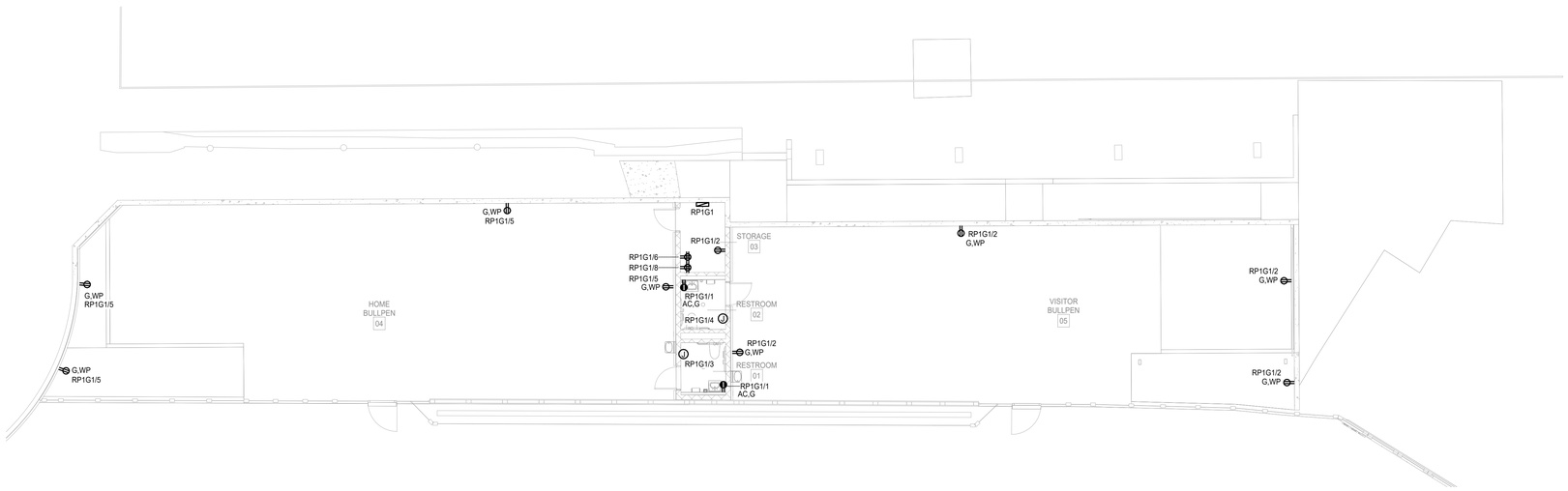
SHEET NAME:
LEVEL 1 LIGHTING PLAN & CONTROL DETAILS

DRAWING NO.
E-101



2 FIELD LEVEL - FIRE ALARM PLAN

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



1 FIELD LEVEL - POWER PLAN

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

POWER SHEET GENERAL NOTES:

1. EXACT LOCATION OF MECHANICAL, PLUMBING, THAT REQUIRE ELECTRICAL CONNECTIONS ARE SHOWN ON THEIR RESPECTIVE DISCIPLINE DRAWINGS. COORDINATE EXACT LOCATIONS WITH RESPECTIVE CONTRACTORS AND/OR VENDORS PRIOR TO ANY ROUGH-INS.
2. REVIEW AND COORDINATE WITH ALL TRADES' CONTRACT DOCUMENTS AND CONTRACTORS TO DETERMINE SPECIFIC MOUNTING LOCATIONS FOR EQUIPMENT WITH ELECTRICAL CONNECTIONS. COORDINATE EXACT MOUNTING LOCATIONS WITH THE SPECIFIC TRADE.
3. MINIMUM CONDUCTOR SIZE FOR 277 VOLT BRANCH CIRCUITING SHALL BE # 12AWG. FOR 277 VOLT BRANCH CIRCUITS WITH HOMERUNS OVER 125 LINEAR FEET A MINIMUM CONDUCTOR SIZE OF #10AWG SHALL BE PROVIDED FROM FIRST JUNCTION BOX TO BRANCH CIRCUIT PANELBOARD. ASSOCIATED EQUIPMENT GROUNDING CONDUCTOR SHALL ALSO BE INCREASED PER N.E.C. ARTICLE 250.122(B) REQUIREMENTS.
4. MINIMUM CONDUCTOR SIZE FOR 120 VOLT BRANCH CIRCUITS SHALL BE #12AWG. FOR 120 VOLT BRANCH CIRCUITS WITH HOMERUNS OVER 75 LINEAR FEET, A MINIMUM WIRE SIZE OF #10AWG SHALL BE PROVIDED FROM FIRST JUNCTION BOX TO BRANCH CIRCUIT PANELBOARD. FOR 120 VOLT BRANCH CIRCUITS WITH HOMERUN OVER 150 LINEAR FEET, A MINIMUM WIRE SIZE OF #8AWG SHALL BE PROVIDED FROM FIRST JUNCTION BOX TO BRANCH CIRCUIT PANELBOARD. ASSOCIATED EQUIPMENT GROUNDING CONDUCTOR SHALL ALSO BE INCREASED PER N.E.C. ARTICLE 250.122(B) REQUIREMENTS.
5. AT A MINIMUM ALL BRANCH CIRCUITS SHALL CONTAIN 2#12AWG, #12 EG, 3/4" CONDUIT UNLESS OTHERWISE INDICATED.
6. ALL BRANCH CIRCUITS SHALL BE RUN WITH AN INDIVIDUAL NEUTRAL WIRE. BRANCH CIRCUITS SHALL NOT SHARE NEUTRAL WIRES.
7. RECEPTACLE BRANCH CIRCUITS MAY SHARE EQUIPMENT GROUND CONDUCTORS. ALL SHARED EQUIPMENT GROUND CONDUCTORS SHALL BE #10 AWG MINIMUM.
8. ALL CONDUCTORS SHALL BE IDENTIFIED BY PANELBOARD AND CIRCUIT NUMBER(S) IN ALL CABINETS, JUNCTION BOXES, WIRING TROUGHS, ENCLOSURES, SPLICE OR TERMINATION POINTS, ETC.
9. A NEW TYPED PANELBOARD DIRECTORY CARD SHALL BE PROVIDED FOR ALL PANELS INSTALLED OR MODIFIED UNDER THIS CONTRACT. NEW DIRECTORY CARDS SHALL BE LOCATED ON THE INSIDE DOOR OF ASSOCIATED PANELS.
10. REFER TO ALL EQUIPMENT AND PANEL SCHEDULES FOR ADDITIONAL INFORMATION.

(#) SHEET KEY NOTES:

1. PROVIDE FA WIRING IN A 1" C., FROM THE NEAREST NOTIFICATION APPLICANCE CIRCUIT. FACP CAN BE FOUND IN LEVEL D, COMM ROOM. REFER TO RISER ON SHEET E-511.

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

CITY OF JACKSONVILLE FLORIDA

LEGENDS GLOBAL

OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100 www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD, JACKSONVILLE FL, 32202

BID/ PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

ISSUED BY:	OSPORTS
ISSUE DATE:	**10/22/25**
PROJ NO.	**P20251573.000**

REVISIONS

TAG	ISSUED	DATE

SHEET NAME:

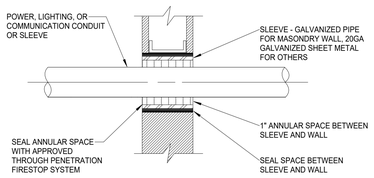
OVERALL LEVEL 1 POWER & FIRE ALARM PLANS

DRAWING NO.

E-201

ELECTRICAL EQUIPMENT NAMEPLATE DETAIL NOTES:

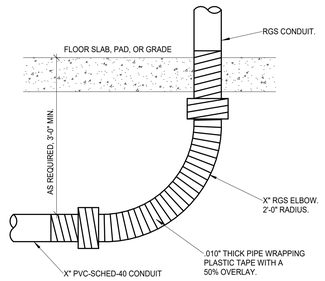
1. **DETAIL #1** SHALL BE UTILIZED FOR THE FOLLOWING EQUIPMENT:
   A. PANELBOARDS.
   B. DISTRIBUTION PANELBOARDS.
   C. SWITCHBOARDS.
2. **DETAIL #2** SHALL BE UTILIZED FOR THE FOLLOWING EQUIPMENT:
   A. DISTRIBUTION PANELBOARD MAIN AND FEEDER BREAKERS.
3. **DETAIL #3** SHALL BE UTILIZED FOR THE FOLLOWING EQUIPMENT:
   A. NON-FUSED DISCONNECT SWITCHES.
   B. FUSIBLE DISCONNECT SWITCHES.
   C. MOTOR STARTERS.
4. REFER TO OWNER'S STANDARDS FOR VARIATIONS TO REQUIRED NAMEPLATE INFORMATION AND FORMATTING.
5. TEXT INCLUDED IN ***BOLDED ITALICIZED*** TEXT INDICATES INFORMATION SPECIFIC TO EACH PIECE OF EQUIPMENT.
6. NAMEPLATES SHALL BE ENGRAVED ACRYLIC OR MELAMINE WITH BEVELED EDGES.
7. FURNISH NAMEPLATE WITH SELF-ADHESIVE BACK OR PROVIDE TWO (2) STAINLESS STEEL SCREWS TO SECURE NAMEPLATE:
   A. SCREWS SHALL MAINTAIN 1/2" DISTANCE FROM LETTERING.
   B. SCREWS SHALL NOT DEGRADE THE NEMA RATING OF THE EQUIPMENT ENCLOSURE.
8. WHERE EQUIPMENT LISTED ABOVE IS INDICATED ON DIVISION 22/23/27/28 DOCUMENTS AND/OR FURNISHED BY OWNER, THE CONTRACTOR SHALL PROVIDE THE EQUIPMENT NAMEPLATE. NAMEPLATE SHALL NOT COVER ANY FACTORY INSTALLED LABELING OR OTHER EQUIPMENT INFORMATION / IDENTIFICATION.
9. NAMEPLATE BACKGROUND AND LETTER COLORING SHALL BE AS FOLLOWS:
   A. *NORMAL SYSTEMS*: **BLACK** LETTERS ON A **WHITE** BACKGROUND.
   B. *ARTICLE 700 SYSTEMS (EMERGENCY, LIFE SAFETY, CRITICAL BRANCH, ETC.)*: **WHITE** LETTERS ON A **RED** BACKGROUND.
   C. *ARTICLE 701 SYSTEMS (LEGALLY REQUIRED STAND-BY)*: **WHITE** LETTERS ON A **RED** BACKGROUND.
   D. *ARTICLE 702 SYSTEMS (OPTIONAL STAND-BY)*: **BLACK** LETTERS ON **YELLOW** BACKGROUND.



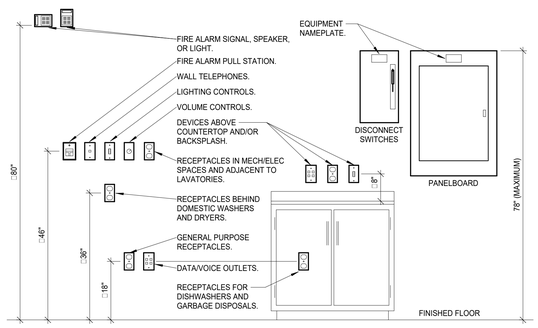
NOTES:

1. REFER TO DIVISION 7, FIRESTOPPING FOR ADDITIONAL REQUIREMENTS.

6 TYPICAL FIRESTOP SLEEVE DETAIL
SCALE: NONE



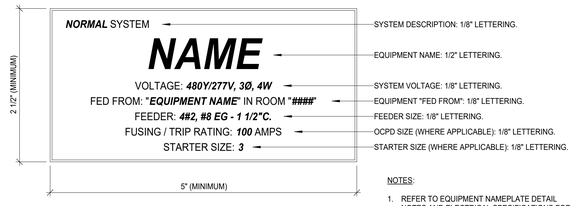
5 TYPICAL CONDUIT TRANSITION PVC TO RGS DETAIL
SCALE: NONE



NOTES:

1. ALL MOUNTING HEIGHTS SHALL BE MEASURED FROM FINISHED FLOOR TO THE CENTERLINE OF DEVICES EXCEPT FIRE ALARM A/V DEVICES.
2. NO WIRING DEVICES OR OUTLET BOXES SHALL BE MOUNTED BACK TO BACK.
3. ALL MOUNTING HEIGHTS SHALL BE INSTALLED AT MOUNTING HEIGHTS AS INDICATED ON THIS DETAIL UNLESS NOTED OTHERWISE.
4. FOR ALL ELEVATIONS (WHERE APPLICABLE), CASEWORK DETAILS, FIRE WALLS, SMOKE WALLS, LOCATION OF COUNTERTOP RECEPTACLES, LIGHTING FIXTURE SWITCHES, TELEPHONE OUTLETS, EQUIPMENT ROUGH-INS, HEADWALLS, ETC., SEE ARCHITECTURAL DRAWINGS. WHERE NO ARCHITECTURAL ELEVATIONS OR DETAILS OCCUR, CONTRACTOR SHALL USE MEANS AND METHODS AS WELL AS HIS/HER FIELD KNOWLEDGE TO SPOT DEVICES IN BEST LOCATIONS FOR THE PROJECT.
5. ALL MOUNTING HEIGHTS SHALL COMPLY WITH ADA REQUIREMENTS:
   A. GENERAL DEVICES: 15" MINIMUM, 48" MAXIMUM.
   B. ABOVE COUNTER DEVICES: 44" MAXIMUM.
   C. FIRE ALARM SIGNAL, SPEAKER, AND/OR LIGHT DEVICES: 80" MINIMUM, 96" MAXIMUM.

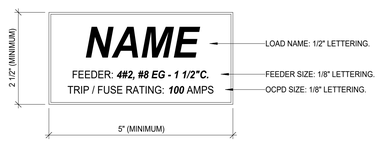
4 TYPICAL MOUNTING HEIGHTS DETAIL
SCALE: NONE



NOTES:

1. REFER TO EQUIPMENT NAMEPLATE DETAIL NOTES AND ELECTRICAL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

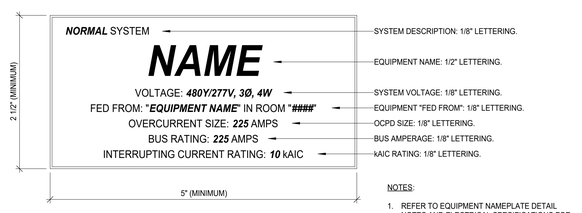
3 TYPICAL DISCONNECT NAMEPLATE DETAIL
SCALE: NONE



NOTES:

1. REFER TO EQUIPMENT NAMEPLATE DETAIL NOTES AND ELECTRICAL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

2 TYPICAL FEEDER OCPD NAMEPLATE DETAIL
SCALE: NONE



NOTES:

1. REFER TO EQUIPMENT NAMEPLATE DETAIL NOTES AND ELECTRICAL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

1 TYPICAL PANEL NAMEPLATE DETAIL
SCALE: NONE

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100 www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD, JACKSONVILLE FL, 32202

BID/ PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

ISSUED BY: OSPORTS

ISSUE DATE: **10/22/25**

PROJ NO. **P20251573.000**

REVISIONS

TAG	ISSUED	DATE

SHEET NAME:

POWER DETAILS AND DIAGRAMS

DRAWING NO.

E-511

PANEL ID: LTHEME

LOCATION: TRANSFORMER ROOM - MAIN BLDG
POWER SUPPLIED FROM: TLTHEME
MOUNTING: SURFACE
ENCLOSURE: PER SPECIFICATIONS
VOLTAGE: 208Y/120V
PHASE: 3
WIRES: 4
kAIC RATING: 100
BUS RATING: 225 A
MAIN OCPD RATING: 150 A

NOTES	CIRCUIT DESCRIPTION	TRIP	POLE	CKT	A		B		C		CKT	POLE	TRIP	CIRCUIT DESCRIPTION	NOTES
	EXISTING	20 A	1	1	1.2 kVA	1.2 kVA					2	1	20 A	EXISTING	
	EXISTING	20 A	1	3			1.2 kVA	1.2 kVA			4	1	20 A	EXISTING	
	EXISTING	20 A	1	5					1.2 kVA	1.2 kVA	6	1	20 A	EXISTING	
	EXISTING	20 A	1	7	1.2 kVA	1.2 kVA					8	1	20 A	EXISTING	
	EXISTING	20 A	1	9			1.2 kVA	1.2 kVA			10	1	20 A	EXISTING	
	EXISTING	20 A	1	11					1.2 kVA	1.2 kVA	12	1	20 A	EXISTING	
	EXISTING	20 A	1	13	1.2 kVA	1.2 kVA					14	1	20 A	EXISTING	
	EXISTING	20 A	1	15			1.2 kVA	1.2 kVA			16	1	20 A	EXISTING	
	EXISTING	20 A	1	17					1.2 kVA	1.2 kVA	18	1	20 A	EXISTING	
	EXISTING	20 A	1	19	1.2 kVA	1.2 kVA					20	1	20 A	EXISTING	
	(SPACE)	--	1	21			--	--			22	1	--	(SPACE)	
	(SPACE)	--	1	23					--	--	24	1	--	(SPACE)	
	(SPACE)	--	1	25	--	--					26	1	--	(SPACE)	
	(SPACE)	--	1	27			--	--			28	1	--	(SPACE)	
	(SPACE)	--	1	29					--	--	30	1	--	(SPACE)	
	(SPACE)	--	1	31	--	--					32	1	--	(SPACE)	
	(SPACE)	--	1	33			--	--			34	1	--	(SPACE)	
	(SPACE)	--	1	35					--	--	36	1	--	(SPACE)	
	(SPACE)	--	1	37	--	1.7 kVA					38				
	(SPACE)	--	1	39			--	2 kVA			40	3	100 A	RP1G1	
	(SPACE)	--	1	41					--	1.1 kVA	42				
				TOTAL AMPS:	95.7 A		78 A		69 A						
				TOTAL LOAD:	11.35 kVA		9.20 kVA		8.28 kVA						

LOAD CLASSIFICATION:	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
HVAC	2000 VA	100.00%	2000 VA	
LIGHTING	126 VA	100.00%	126 VA	kVA (CONNECTED): 28.8 kVA
RECEPTACLE	2700 VA	100.00%	2700 VA	kVA (ESTIMATED DEMAND): 28.8 kVA
Spare	24000 VA	100.00%	24000 VA	CURRENT (CONNECTED): 80.0 A
				CURRENT (ESTIMATED DEMAND): 80.0 A

NOTES:

ADDITIONAL REQUIREMENTS:

PANEL ID: RP1G1

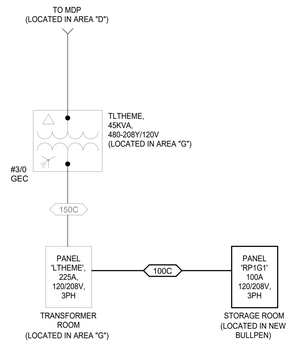
LOCATION: (N) STORAGE ROOM
POWER SUPPLIED FROM: LTHEME
MOUNTING: SURFACE
ENCLOSURE: PER SPECIFICATIONS
VOLTAGE: 208Y/120V
PHASE: 3
WIRES: 4
kAIC RATING: 22
BUS RATING: 100 A
MAIN OCPD RATING: 100 A

NOTES	CIRCUIT DESCRIPTION	TRIP	POLE	CKT	A		B		C		CKT	POLE	TRIP	CIRCUIT DESCRIPTION	NOTES
	AC, GFI RECs	20 A	1	1	0.4 kVA	0.9 kVA					2	1	20 A	VISITOR BULLPEN / STORAGE RECs	
	HAND-DRYER	20 A	1	3			1 kVA	1 kVA			4	1	20 A	HAND-DRYER	
	HOME BULLPEN (RECs)	20 A	1	5					0.7 kVA	0.4 kVA	6	1	20 A	TELECOM DEDICATED REC	
	INTERIOR LIGHTING	20 A	1	7	0.1 kVA	0.4 kVA					8	1	20 A	TELECOM DEDICATED REC	
	SPARE	20 A	1	9			0 kVA	0 kVA			10	1	20 A	SPARE	
	SPARE	20 A	1	11					0 kVA	0 kVA	12	1	20 A	SPARE	
	(SPACE)	--	1	13	--	--					14	1	--	(SPACE)	
	(SPACE)	--	1	15			--	--			16	1	--	(SPACE)	
	(SPACE)	--	1	17					--	--	18	1	--	(SPACE)	
	(SPACE)	--	1	19	--	--					20	1	--	(SPACE)	
	(SPACE)	--	1	21			--	--			22	1	--	(SPACE)	
	(SPACE)	--	1	23					--	--	24	1	--	(SPACE)	
	(SPACE)	--	1	25	--	--					26	1	--	(SPACE)	
	(SPACE)	--	1	27			--	--			28	1	--	(SPACE)	
	(SPACE)	--	1	29					--	--	30	1	--	(SPACE)	
				TOTAL AMPS:	15.4 A		18 A		9 A						
				TOTAL LOAD:	1.75 kVA		2.00 kVA		1.08 kVA						

LOAD CLASSIFICATION:	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
HVAC	2000 VA	100.00%	2000 VA	
LIGHTING	126 VA	100.00%	126 VA	kVA (CONNECTED): 4.8 kVA
RECEPTACLE	2700 VA	100.00%	2700 VA	kVA (ESTIMATED DEMAND): 4.8 kVA
				CURRENT (CONNECTED): 13.4 A
				CURRENT (ESTIMATED DEMAND): 13.4 A

NOTES:

ADDITIONAL REQUIREMENTS:



2 PARTIAL ELECTRICAL ONE LINE DIAGRAM
SCALE: NONE

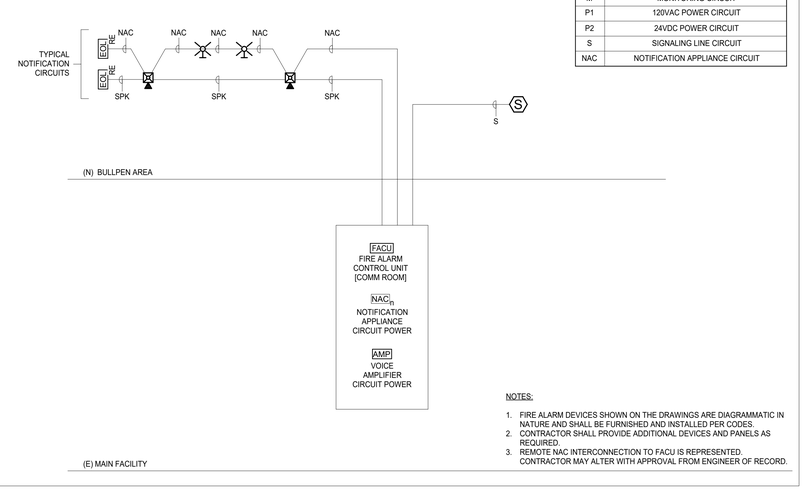
FEEDER SCHEDULE - AL

TAG	PARALLEL SETS	PHASE / NEUTRAL	GROUND	CONDUIT
100B	1	3#1/0	1#6	1 1/2"C.
100C	1	4#1/0	1#6	2"C.
150B	1	3#3/0	1#4	2"C.
150C	1	4#3/0	1#4	2 1/2"C.

FEEDER SCHEDULE - CU

TAG	PARALLEL SETS	PHASE / NEUTRAL	GROUND	CONDUIT
100B	1	3#1	1#8	1 1/2"C.
100C	1	4#1	1#8	1 1/2"C.
150B	1	3#1/0	1#6	1 1/2"C.
150C	1	4#1/0	1#6	2"C.

VOICE SYSTEM



F.A. WIRE LEGEND

TAG	DESCRIPTION
SPK	SPEAKER CIRCUIT
B	COMMUNICATION BUS
I	INITIATING DEVICE CIRCUIT
M	MONITORING CIRCUIT
P1	120VAC POWER CIRCUIT
P2	24VDC POWER CIRCUIT
S	SIGNALING LINE CIRCUIT
NAC	NOTIFICATION APPLIANCE CIRCUIT

NOTES:

1. FIRE ALARM DEVICES SHOWN ON THE DRAWINGS ARE DIAGRAMMATIC IN NATURE AND SHALL BE FURNISHED AND INSTALLED PER CODES.
2. CONTRACTOR SHALL PROVIDE ADDITIONAL DEVICES AND PANELS AS REQUIRED.
3. REMOTE NAC INTERCONNECTION TO FACU IS REPRESENTED. CONTRACTOR MAY ALTER WITH APPROVAL FROM ENGINEER OF RECORD.

1 FIRE ALARM RISER
SCALE: NONE

LUMINAIRE SCHEDULE

TYPE	DESCRIPTION	LOAD	DIMMING DRIVER	VOLTAGE	LUMENS	CRI	CCT	BASIS OF DESIGN	EQUIVALENT MANUFACTURER	NOTES
D4	4" DIAMETER, 8" DEEP DOWNLIGHT WITH SELF-FLANGED, SEMI-DIFFUSE (HAZE) CLEAR, MEDIUM BEAM DISTRIBUTION, AND WHITE PAINTED FLANGE.	15 W	0-10V,10%	UNV	1500	90	4000	HALO HC4	PRESCOLITE LC4SL LIGHTOLIER P4R NORA LIGHTING LITHONIA LDN4	MOUNTED IN LAY-IN OR DRYWALL CEILING. CONFIRM CEILING TYPE AND PROVIDE PROPER MOUNTING ACCESSORIES.
ST	19.2"W X 20.2"L X 4.5" H LUMINAIRE WITH ALUMINUM HOUSING, 4.2° ADJUSTABLE ARM. SIX (6) LIGHT SQUARES, FORWARD THROW UPLIGHT OPTICS, AND NATATORIUM FINISH AS SELECTED BY ARCHITECT.	48 W	0-10V	UNV	4100	85	4000	METALUX WNLED	COLUMBIA LAW DAYBRITE LBX HE WILLIAMS 17 LITHONIA LBL4	

ELECTRICAL ONE LINE SHEET GENERAL NOTES:

1. REFER TO "GROUNDING ELECTRODE SYSTEM" DETAIL FOR ADDITIONAL GROUNDING AND BONDING REQUIREMENTS.
2. REFER TO UTILITY COORDINATION CONTACT STICKER ON THIS SHEET FOR ADDITIONAL UTILITY SERVICE INSTALLATION REQUIREMENTS.
3. REFER TO PANELBOARD SCHEDULES ON THIS SHEET FOR RATING OF BRANCH CIRCUIT PANELBOARDS, INCLUDING VOLTAGE, BUS AMPACITY, SHORT CIRCUIT WITHSTAND, AND BREAKER CONFIGURATION.
4. PROVIDE A 4" TALL CONCRETE WORK PAD FOR ALL FLOOR MOUNTED ELECTRICAL EQUIPMENT SUCH ASDISTRIBUTION PANELBOARDS. WORK PAD SHALL NOT EXTEND GREATER THAN 6" FROM EDGE OF EQUIPMENT.

ELECTRICAL FEEDER SCHEDULE GENERAL NOTES:

1. FEEDER SCHEDULE APPLIES TO ONE LINE DIAGRAMS AND EQUIPMENT CONNECTION FEEDER SCHEDULES UNLESS OTHERWISE NOTED.
2. CONDUIT SIZES LISTED BELOW ARE BASED ON EMT RACEWAY. WHEN DIFFERENT RACEWAY IS USED, INSTALLER IS RESPONSIBLE TO UPSIZE CONDUIT FOR CONDUCTORS LISTED IN THIS FEEDER SCHEDULE TO COMPLY WITH NEC ANNEX C SIZING CHARTS.
3. IN EVENT WHERE ONE LINE DIAGRAM NOTES CALL FOR ISOLATED GROUND OR DOUBLE SIZED NEUTRAL FOR ELECTRICAL EQUIPMENT, INSTALLER IS TO COMPLY WITH THOSE NOTES FOR THE UPSTREAM FEEDER SPECIFIED, AND UPSIZE THE CONDUIT TO COMPLY WITH CODE.
4. AMPACITIES OF FEEDERS FOR 100 AMPS AND LESS ASSUME 60°C RATED TERMINATIONS FOR CONDUCTORS. FEEDERS GREATER THAN 100 AMPS ASSUME 75°C RATED TERMINATIONS. REFER TO NEC ARTICLES 110 AND 310 FOR FURTHER DETAILS.

LUMINAIRE SCHEDULE NOTES:

1. LUMINAIRE MANUFACTURER AND SERIES INDICATED IN THE "BASIS OF DESIGN" COLUMN IS THE BASIS OF DESIGN. LUMINAIRE MANUFACTURERS AND SERIES INDICATED IN "EQUIVALENT MANUFACTURERS" COLUMN ARE EQUAL PRODUCTS.
2. ANY LUMINAIRES THAT ARE SUBMITTED AND ARE NOT INDICATED ON THE LUMINAIRE SCHEDULE OR WITHIN THE CONTRACT DOCUMENTS WILL BE REJECTED.
   A. VOLUNTARY ALTERNATES AND/OR SUBSTITUTIONS SHALL FOLLOW THE FRONT END DOCUMENTS AND AND BE SUBMITTED WITH THE CONTRACTOR'S PROPOSAL AT TIME OF THE BID.
   B. ALTERNATE AND/OR SUBSTITUTED LUMINAIRES BEING PROPOSED FOR CONSIDERATION SHALL BE ACCOMPANIED BY A POINT-BY-POINT PHOTOMETRIC PLAN. POINT-BY-POINT CALCULATIONS SHALL FOLLOW IESNA RECOMMENDED PRACTICES AND INCLUDE LIGHT LOSS FACTOR (LLF) USED FOR ALL LUMINAIRE TYPES, SURFACE REFLECTANCES, AVERAGE FOOTCANDLE LEVEL, MINIMUM FOOTCANDLE LEVEL(S), AND MAXIMUM-TO-MINIMUM RATIO FOR ALL AREAS WHERE PROPOSED ALTERNATE/SUBSTITUTED LUMINAIRE IS TO BE INSTALLED (ONE CALCULATION EACH FOR TYPICAL ROOMS/SPACES/AREAS IS ACCEPTABLE).
3. ALL LUMINAIRES SHALL BE IN ACCORDANCE WITH THE LUMINAIRE SCHEDULE. THE LUMINAIRE SCHEDULE PROVIDES THE MANUFACTURER AND CATALOG NUMBER. THE LUMINAIRE PROVIDED SHALL CONFORM TO THE DESCRIPTION IN THE LUMINAIRE SCHEDULE. THE MANUFACTURER AND CATALOG NUMBER, AND ALL PROVISIONS OF THE CONTRACT DOCUMENTS.
4. THE CONTRACTOR SHALL VERIFY ALL CEILINGS TYPES, LUMINAIRE COLORS, LENGTHS, TRIMS, FINISHES, MOUNTING HARDWARE, CONFIGURATIONS AND HEIGHTS OF SUSPENDED LUMINAIRES, ETC. WITH ARCHITECT PRIOR TO ANY ROUGH-INS AND PLACING FINAL PURCHASE ORDERS.
5. VERIFY FINAL LUMINAIRE LOCATIONS WITH OTHER CEILING MOUNTED EQUIPMENT SUCH AS DIFFUSERS, FIRE ALARM DEVICES, SPEAKERS, ETC. WITH ARCHITECTURAL RCP (REFLECTED CEILING PLANS).
6. VERIFY EXACT HEIGHT AND LOCATIONS OF ALL WALL MOUNTED AND PENDANT/CABLE MOUNTED LUMINAIRES WITH ARCHITECTURAL ELEVATIONS PRIOR TO ANY ROUGH-IN.
7. LUMINAIRES SHALL NOT BE SUPPORTED FROM SUSPENDED CEILING SUPPORTS UNLESS ADDITIONAL CEILING FRAMING AND SUPPORTS ARE ADDED BY THE CEILING CONTRACTOR ACCORDING TO MANUFACTURER'S RECOMMENDATIONS, U.L. LISTINGS, AND ANY APPLICABLE STATE OR LOCAL CODES.
8. CONNECTIONS TO RECESSED LUMINAIRES SHALL BE MADE WITH MINIMUM 1/2" FLEXIBLE METAL CONDUIT (FMC) FROM FIXTURE TO OUTLET BOX. LENGTH OF FMC SHALL NOT EXCEED 6'.
9. AT THE CONCLUSION OF THE WORK, EACH LUMINAIRE MUST BE CLEANED PER MANUFACTURER'S INSTRUCTIONS, EQUIPPED WITH THE PROPER TYPE, NUMBER OF LAMPS, INCLUDING KELVIN TEMPERATURE AND WATTAGE, AND ALL IN GOOD OPERATING CONDITION.
10. LIGHT FIXTURE COLOR TEMPERATURE SHALL BE 4000K MINIMUM UNLESS OTHERWISE NOTED.
11. NOMINAL LUMEN VALUES MAY VARY BETWEEN DIFFERENT MANUFACTURERS OF SAME TYPE OF LUMINAIRE. NOMINAL LUMEN VALUES GIVEN IN SCHEDULE ARE THE VALUES USED FOR DESIGN.
12. FINAL COLOR SELECTION BY ARCHITECT/OWNER AT FIXTURE SUBMITTAL.
13. LENSED FIXTURES SHALL HAVE A MINIMUM OF 0.125" THICK ACRYLIC LENS UNLESS OTHERWISE NOTED.
14. FOR LUMINAIRES WITH EMERGENCY BATTERY PACK OPTION, PROVIDE ADDITIONAL WIRING AS REQUIRED PER MANUFACTURER'S RECOMMENDATIONS FOR VOLTAGE SENSING OF THE NORMAL SOURCE SERVING THE LUMINAIRE.

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

CITY OF JACKSONVILLE FLORIDA
LEGENDS GLOBAL
OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-6100 www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION
301 A PHILIP RANDOLPH BLVD, JACKSONVILLE FL, 32202

BID/ PERMIT SET
10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

ISSUED BY: OSPORTS
ISSUE DATE: **10/22/25**
PROJ NO. **P20251573.000**

REVISIONS

TAG	ISSUED	DATE

SHEET NAME:
ELECTRICAL RISERS AND SCHEDULES

DRAWING NO.
E-601

GENERAL NOTES

1. ALL CONDUIT PENETRATIONS THROUGH FIRE RATED WALLS, FLOORS, OR SHAFTS SHALL BE SEALED IN ACCORDANCE WITH SPECIFICATION SECTION 270524, DIVISION 7 SPECIFICATIONS, AS WELL AS ALL APPLICABLE CODES AND REGULATIONS.
2. CONTRACTOR(S) SHALL COORDINATE LOCATIONS OF ALL CEILING MOUNTED DEVICES WITH THE ARCHITECTURAL REFLECTED CEILING PLANS, ELEVATIONS, SECTIONS, DETAILS AND FINISHES. ANY MODIFICATION THAT WOULD AFFECT PERFORMANCE OF THE DEVICE OR RELATED SYSTEM WHICH CANNOT BE ADJUSTED TO AN ACCEPTABLE LEVEL SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER.
3. VOICE AND/OR DATA CONNECTIONS TO MECHANICAL, ELECTRICAL, ELEVATOR OR OTHER EQUIPMENT PROVIDED BY OTHERS SHALL BE VERIFIED WITH THE VARIOUS MANUFACTURERS PRIOR TO INSTALLATION. THE INSTALLATION AS INDICATED ON THE DRAWINGS SHALL BE ADAPTED TO ACCOMMODATE SUCH MANUFACTURER REQUIRED OR SUGGESTED INSTALLATION PRACTICES AND METHODS, BUT SHALL BE DONE TO ALLOW ALL REQUIRED TESTING AND CERTIFICATION, AS WELL AS BEING COMPLETED IN COMPLIANCE WITH ALL CODES AND REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
4. ALL RACKS, CABINETS, CABLE TRAY, CABLE RUNWAY OR OTHER NON-CURRENT CARRYING EQUIPMENT SHALL BE GROUNDED TO THE TELECOMMUNICATIONS GROUNDING BUSBAR SERVICING THIS AREA IN ACCORDANCE WITH SPECIFICATION SECTION 27 05 26.
5. UTILIZATION OF THE PHRASE "PROVIDED BY" WITHIN THE CONTEXT OF THESE DOCUMENTS SHALL EXPLICITLY REPRESENT "FURNISHED AND INSTALLED BY".
6. THE CONTRACTOR(S) SHALL ASSUME RESPONSIBILITY FOR REMOVING EXISTING CEILING TILES AND REPLACE WITH EXISTING TILES AS REQUIRED FOR EXECUTION OF THEIR SCOPE OF WORK. THIS INCLUDES SPACES IN THE NEW WORK AS INDICATED ON THE DRAWINGS AND AREAS NOT SHOWN WHERE THE CONTRACTOR IS REQUIRED TO AFFECT EXISTING CONDITIONS WHILE EXECUTING THEIR SCOPE OF WORK. DAMAGED TILES SHALL BE REPLACED BY THE CONTRACTOR(S) AT NO COST TO THE OWNER OR THE OWNER'S REPRESENTATIVES.
7. THE CONTRACTOR(S) SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING NECESSARY FOR INSTALLATION OF NEW WORK WITHIN THEIR RESPECTIVE SCOPE. CUTTING OF A STRUCTURAL MEMBER IS PROHIBITED WITHOUT SPECIFIC WRITTEN PERMISSION FROM THE ARCHITECT. ALL CUTTING AND PATCHING SHALL BE PERFORMED BY QUALIFIED TRADESMEN.
8. WHENEVER NOT OTHERWISE SPECIFIED, THE FINAL LOCATIONS FOR VISIBLE ITEMS IN PUBLIC AREAS SHALL BE VERTICALLY AND OR HORIZONTALLY ALIGNED WITH OTHER DEVICES IN THE FIELD OF VIEW OR AS DIRECTED BY THE ARCHITECT. WHENEVER POSSIBLE CONTRACTOR SHALL SIMILARLY COORDINATE WITH THE DEVICE LOCATIONS OF OTHER TRADES. ITEMS OF SPECIAL CONCERN INCLUDE ANY DEVICE WITH A FACEPLATE INCLUDING BUT NOT LIMITED TO RECEPTACLES, SWITCHES, AND TECHNOLOGY OUTLETS ETC.
9. ALL DEVICES IN INACCESSIBLE CEILINGS SHALL HAVE CONDUIT STUB IN NEAREST ACCESSIBLE CEILING IN THE DIRECTION OF THE APPROPRIATE CABLE ROUTE, UON.

SLEEVE REQUIREMENT NOTE

1. THE ELECTRICAL CONTRACTOR SHALL SUPPLY ALL NECCESSARY SLEEVES REQUIRED FOR ALL DEVICE LOCATIONS AND, AS REQUIRED, TO TRAVERSE THE BUILDING(S) WITH ANY/ALL HORIZONTAL AND BACKBONE CABLING. SLEEVES SHALL BE LOCATED SO AS TO PROVIDE A READY PATHWAY FROM EACH DEVICE AND/OR EQUIPMENT LOCATION TO THE PATHWAY DEFINED ON THESE DRAWINGS. FURTHERMORE ALL PATHWAYS SHALL BE CREATED BETWEEN THE CORRIDOR OR OTHER MAJOR PATHWAY AND THE DESTINATION TERMINATION POINT, E.G. PATCH PANEL IN RACK AT A RATE OF (1) 4" CONDUIT PER (50) CABLES, UON. PROVIDE PENETRATIONS DOWN MAJOR PATHWAYS THROUGH FIRE/SMOKE BARRIER AT A RATE OF (1)4" CONDUIT PER (50) CABLES, UON. ALL CONTRACTORS SHALL MAINTAIN ALL SMOKE BARRIER AND FIRE WALL RATINGS FOR ALL PENETRATIONS. THE ELECTRICAL CONTRACTOR SHALL COORDINATE THESE SLEEVES WITH THE TECHNOLOGY CONTRACTOR PRIOR TO INSTALLATION. MINIMUM SLEEVE SHALL BE 2".

PLENUM USAGE NOTE

1. IT IS INCUMBENT ON THE BIDDER TO REVIEW THE MECHANICAL PLANS TO DETERMINE THE EXACT LOCATION OF PLENUM CABLE REQUIREMENTS AND PROVIDE THAT CABLE AS NECCESSARY, INCLUDING ANY CHANGES THAT WOULD BE MADE BY POTENTIAL ADDENDA OR BULLETINS OR OTHER DOCUMENT CHANGES.

SCOPE CLARIFICATION NOTE

1. THE ELECTRICAL CONTRACTOR, UNDER THE DIVISION 26 SCOPE OF WORK, SHALL PROVIDE ALL CONDUIT, JUNCTION BOXES, HANDHOLES, MANHOLES, BACKBOXES, RACEWAYS, PLASTER RINGS AND RELATED HARDWARE REQUIRED FOR ALL ROUGH IN, AND CONDUIT PATHWAYS INDICATED ON THE DIVISION 27 DRAWINGS.
2. THE TECHNOLOGY CONTRACTOR, UNDER THE DIVISION 27/28 SCOPE OF WORK, SHALL PROVIDE BLANK FACEPLATES FOR ALL TECHNOLOGY ROUGH-INS INDICATED ON DIVISION 27 DRAWINGS AS BEING ROUGH-IN ONLY, FOR FUTURE USE, OR OTHERWISE LEFT UNUSED.
3. THE ELECTRICAL CONTRACTOR, UNDER THE DIVISION 26 SCOPE OF WORK, SHALL PROVIDE ALL PLYWOOD BACKBOARDS INDICATED ON THE DIVISION 27/28 DRAWINGS, INCLUDING, BUT NOT LIMITED TO, ALL PREPARATIONS, SUCH AS TWO COATS OF FIRE RETARDANT PAINT ON ALL SIDES, AND ALL OTHER REQUIREMENTS LISTED IN SPECIFICATION SECTION 270524.
4. THE ELECTRICAL CONTRACTOR, UNDER THE DIVISION 26 SCOPE OF WORK, SHALL PROVIDE ONLY THOSE UPS'S AND/OR OTHER POWER QUALITY DEVICES INDICATED ON THE DIVISION 26 DOCUMENTS. THE TECHNOLOGY CONTRACTOR, UNDER THE DIVISION 27 SCOPE OF WORK, SHALL PROVIDE ALL UPS'S AND/OR POWER QUALITY DEVICES INDICATED ON THE DIVISION 27 AND/OR 28 DOCUMENTS.
5. THE ELECTRICAL CONTRACTOR, UNDER THE DIVISION 26 SCOPE OF WORK, SHALL PROVIDE ALL CABLE TRAY AND CABLE RUNWAY INDICATED ON THE DIVISION 27/28 DOCUMENTS NOT INDICATED IN TECHNOLOGY ROOMS, OR TR's.
6. THE ELECTRICAL CONTRACTOR, UNDER THE DIVISION 26 SCOPE OF WORK, SHALL PROVIDE ALL CONDUIT SLEEVES. CONDUIT SLEEVES SHALL BE AS INDICATED ON THE DRAWINGS, AND/OR REQUIRED BY THE SPECIFICATIONS. THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE EXACT SLEEVING REQUIREMENTS WITH THE TECHNOLOGY CONTRACTOR PRIOR TO INSTALLATION. MINIMUM SLEEVE SHALL BE 2", UON.
7. THE ELECTRICAL CONTRACTOR, UNDER THE DIVISION 26 SCOPE OF WORK, SHALL PROVIDE ALL BUSBARS, CABLING AND RELATED HARDWARE INDICATED ON THE DIVISION 27/28 DOCUMENTS, REQUIRED TO PROVIDE THE ENTIRE TECHNOLOGY GROUNDING SYSTEM.
8. THE TECHNOLOGY CONTRACTOR SHALL PROVIDE ALL BONDING JUMPERS REQUIRED TO BOND ALL EQUIPMENT PROVIDED BY THE TECHNOLOGY CONTRACTOR TO THE TECHNOLOGY SUPPLIMENTAL GROUNDING SYSTEM.
9. THE ELECTRICAL CONTRACTOR, UNDER THE DIVISION 26 SCOPE OF WORK, SHALL PROVIDE ALL BONDING JUMPERS REQUIRED TO BOND THE CABLETRAY SYSTEM TO ASSURE THAT THE ENTIRE CABLETRAY SYSTEM IS ELECTRICALLY CONTINUOUS AND BONDED TO THE TECHNOLOGY GROUNDING SYSTEM.
10. THE TECHNOLOGY CONTRACTOR, UNDER THE DIVISION 27 SCOPE OF WORK, SHALL PROVIDE ALL OTHER CABLING, CONNECTORS, PATHWAY HARDWARE AND OTHER EQUIPMENT REQUIRED TO COMPLETE THE INSTALLATION OF THE SYSTEMS AND CABLE PLANT AS INDICATED ON THE DIVISION 27 DOCUMENTS.

TEMPORARY CABLING NOTE

1. TECHNOLOGY CONTRACTOR SHALL PROVIDE ALL TECHNOLOGY CABLING FOR TEMPORARY FACILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION TRAILERS. TECHNOLOGY CONTRACTOR SHALL ALSO REMOVE ALL TEMPORARY CABLING AT THE END OF THE PROJECT WHEN DIRECTED BY THE CONSTRUCTION MANAGER.

TAGS AND CALLOUT SYMBOLS

X / XXXXX	SECTION CALLOUT SECTION NUMBER SHEET NUMBER
X	REVISION CALLOUT
LPA	INDICATES PANELBOARD, DISTRIBUTION SWITCH-BOARD OR DISTRIBUTION PANELBOARD NAME
X / XXXXX	DETAIL CALLOUT DETAIL NUMBER SHEET NUMBER
XX	KEYNOTE CALLOUT

ABBREVIATIONS

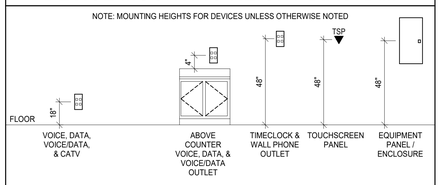
A	AMPERE	MATV	MASTER ANTENNA TELEVISION
AAC	ABOVE ACCESSIBLE CEILING	MAX	MAXIMUM
AC	ALTERNATING CURRENT	MC	MAIN CROSS-CONNECT
ADA	AMERICANS WITH DISABILITIES ACT	MECH	MECHANICAL
AFF	ABOVE FINISHED FLOOR	MFR	MANUFACTURER
AFG	ABOVE FINISHED GRADE	MH	MANHOLE
AGL	ABOVE GRADE LEVEL	MIN	MINIMUM
AHJ	AUTHORITY HAVING JURISDICTION	MM	MULTIMODE
AL	ALUMINUM	MTD	MOUNTED
ARCH	ARCHITECT	MTG	MOUNTING
ATM	AUTOMATIC TELLER MACHINE	MTR	MAIN TELECOMMUNICATIONS ROOM
AV	AUDIO/VISUAL		
AWG	AMERICAN WIRE GAUGE	N/A	NOT APPLICABLE
		NEC	NATIONAL ELECTRICAL CODE
BAS	BUILDING AUTOMATION SYSTEM	NEX	NEW DEVICE IN EXISTING BACKBOX
BFG	BELOW FINISHED GRADE	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
BICSI	BUILDING INDUSTRY CONSULTING SERVICE INTERNATIONAL	NIC	NOT IN CONTRACT
BKBD	BACKBOARD	NTS	NOT TO SCALE
BLDG	BUILDING		
BMS	BUILDING MANAGEMENT SYSTEM	OBC	OHIO BUILDING CODE
		OC	ON CENTER
C	CONDUIT	OD	OUTSIDE DIAMETER
CAM	CAMERA	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
CAT	CATEGORY		
CATV	COMMUNITY ANTENNA TELEVISION / CABLE TELEVISION	OFE	OWNER FURNISHED EQUIPMENT
		OFOI	OWNER FURNISHED OWNER INSTALLED
CCTV	CLOSED CIRCUIT TELEVISION		
CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED	OSP	OUTSIDE PLANT
CKT	CIRCUIT	PA	PUBLIC ADDRESS
CLG	CEILING	PB	PULL BOX
CONC	CONCRETE	PBX	PRIVATE BRANCH EXCHANGE
CO	CONDUIT ONLY	PIR	PASSIVE INFRARED
CP	CONSOLIDATION POINT	PLBG	PLUMBING
CONT	CONTINUATION	P/N	PART NUMBER
CU	COPPER	POC	POINT OF CONNECTION
		POE	POWER OVER ETHERNET
DAS	DISTRIBUTED ANTENNA SYSTEM	POS	POINT OF SALE
DB	DECIBEL	PP	PATCH PANEL
DIV	DIVISION	PR	PAIR
DIA	DIAMETER	PTZ	PAN/TILT/ZOOM
DP	DEMARCATION POINT	PVC	POLYVINYL CHLORIDE
DPDT	DOUBLE POLE DOUBLE THROW	PWR	POWER
DWG	DRAWING		
		QTY	QUANTITY
EA	EACH		
EAC	ELECTRONIC ACCESS CONTROL	RCDD	REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
EC	ELECTRICAL CONTRACTOR		
EF	ENTRANCE FACILITY	RD	RELOCATED DEVICE
EIA	ELECTRONICS INDUSTRIES ASSOCIATION	REC	RECESSED
		RECPT	RECEPTACLE
ELEC	ELECTRICAL	REF	REFRIGERATOR
EM	EMERGENCY	REX	REMOVE EXISTING DEVICE
EMT	ELECTRICAL METALLIC TUBING	RF	RADIO FREQUENCY
EP	EXPLOSION PROOF	RGS	RIGID GALVANIZED STEEL
EQUIP	EQUIPMENT	RR	REMOVE AND RELOCATE
ER	EQUIPMENT ROOM	RTE	REQUEST TO EXIT
ETR	EXISTING TO REMAIN	RU	RACK UNIT (1 3/4")
EXIST	EXISTING		
EXT	EXTERIOR	SM	SINGLE MODE
		SP	SPEAKER
FA	FIRE ALARM	SPD	SURGE PROTECTIVE DEVICE
FAAP	FIRE ALARM ANNUNCIATOR PANEL	SPEC	SPECIFICATION
FACP	FIRE ALARM CONTROL PANEL	STP	SHIELDED TWISTED PAIR
FATC	FIRE ALARM TERMINAL CABINET	SYM	SYMMETRICAL
FIXT	FIXTURE	SYS	SYSTEM
FO	FIBER OPTIC		
FT	FEET	TBD	TO BE DETERMINED
		TC	TECHNOLOGY CONTRACTOR
G	GROUND	TELECOM	TELECOMMUNICATIONS
GC	GENERAL CONTRACTOR	TGB	TELECOMMUNICATIONS GROUNDING BUSBAR
HC	HORIZONTAL CROSS-CONNECT	TMGB	TELECOMMUNICATIONS MAIN GROUNDING BUSBAR
HP	HORSEPOWER		
HZ	HERTZ (CYCLES/SECOND)	TR	TELECOMMUNICATIONS ROOM
		TV	TELEVISION
INTERCOM	INTERCOMMUNICATION	TYP	TYPICAL
IP	INTERNET PROTOCOL		
IR	INFRARED	UG	UNDERGROUND
ISP	INTERNET SERVICE PROVIDER	UGPS	UNDERGROUND PULL SECTION
		UNO	UNLESS NOTED OTHERWISE
JB	JUNCTION BOX	UON	UNLESS OTHERWISE NOTED
		UPS	UNINTERRUPTIBLE POWER SUPPLY
KCMIL	THOUSAND CIRCULAR MILS	UTP	UNSHIELDED TWISTED PAIR
KO	KNOCKOUT		
KVM	KEYBOARD/VIDEO/MOUSE	V	VOLTS
KW	KILOWATT	VLAN	VIRTUAL LOCAL AREA NETWORK
		VMS	VIDEO MANAGEMENT SOFTWARE
LAN	LOCAL AREA NETWORK	VOIP	VOICE OVER INTERNET PROTOCOL
LCP	LIGHTING CONTROL PANEL		
LTG	LIGHTING	W	WATTS
LV	LOW VOLTAGE	WAN	WIDE AREA NETWORK
LVC	LOW VOLTAGE CONTRACTOR	WAP	WIRELESS ACCESS POINT
		WG	WIRE GUARD
		WLAN	WIRELESS LOCAL AREA NETWORK
		WP	WEATHERPROOF
		XFMR	TRANSFORMER

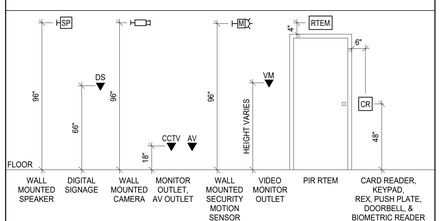
DEMOLITION

< R >	EXISTING TO BE REMOVED COMPLETE TO SOURCE	< RD >	EXISTING AT NEW LOCATION
< RR >	EXISTING TO BE RELOCATED	< RED >	REMOVE EXISTING DEVICE AND CABLING, EXISTING BACKBOX TO REMAIN
< X >	EXISTING TO REMAIN		CONDUIT AND CABLE TO BE DEMOLISHED
< NEX >	NEW DEVICE IN EXISTING BACKBOX		EQUIPMENT TO BE DEMOLISHED

DEVICE MOUNTING HEIGHT DIAGRAM

NOTE: MOUNTING HEIGHTS FOR DEVICES UNLESS OTHERWISE NOTED



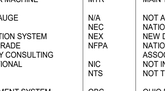


DEVICE NOTES:
1. "VM" VIDEO MONITOR: ROUGH-IN HEIGHT VARIES DEPENDING ON SIZE OF DISPLAY. COORDINATE DISPLAY SIZES AND MOUNTING HEIGHTS WITH ARCHITECTURAL ELEVATIONS PRIOR TO ROUGH-IN. EXAMPLE MOUNTING HEIGHTS FOR VARYING DISPLAY SIZES ARE AS FOLLOWS:
   A. 42" DISPLAY = 56" AFF ROUGH-IN
   B. 55" DISPLAY = 61" AFF ROUGH-IN
   C. 65" DISPLAY = 65" AFF ROUGH-IN
   D. 70" DISPLAY = 67" AFF ROUGH-IN

PATHWAYS AND SPACES SYSTEMS

XX	JUNCTION BOX, WALL-MOUNTED	XX	JUNCTION BOX, FLOOR-MOUNTED
XX	JUNCTION BOX, CEILING-MOUNTED		TELECOMMUNICATIONS BONDING BUSBAR
			3/4" AC GRADE FIRE RESISTANT PLYWOOD BACKBOARD - MOUNTED 1'-0" TO 9'-0" AFF

CABLE TRAY PATHWAYS



LADDER CABLE TRAY PATHWAYS



J-HOOK PATHWAYS

DEVICE NOTES:
1. REFER TO DETAILS FOR MOUNTING REQUIREMENTS.

XX = DEVICE DESCRIPTION
SFF = STRUCTURED FURNITURE FEED

EQUIPMENT RACKS AND CABINETS

FRONT	FLOOR-MOUNTED TWO-POST EQUIPMENT RACK	FRONT	FLOOR-MOUNTED EQUIPMENT/SERVER ENCLOSURE
FRONT	WALL-MOUNTED ENCLOSED EQUIPMENT CABINET	FRONT	FLOOR-MOUNTED FOUR-POST EQUIPMENT RACK
FRONT	WALL-MOUNTED OPEN-AIR EQUIPMENT RACK		

NOTES:
1. REFER TO ENLARGED FLOOR PLANS AND DETAILS FOR SPECIFIC EQUIPMENT RACK AND CABINET INFORMATION.

TELECOMMUNICATIONS SYSTEM

XX	DATA OUTLET, WALL MOUNTED	XX	DATA OUTLET, ABOVE COUNTER
XX	DATA OUTLET, WALL MOUNTED ROUGH-IN ONLY	XX	DATA OUTLET, ABOVE COUNTER ROUGH-IN ONLY

DEVICE NOTES:
1. PROVIDE A 4-11/16" SQUARE BY 2-1/8" DEEP BACK BOX WITH A SINGLE GANG REDUCTION RING AT EACH LOCATION, UNO.
2. PROVIDE A 1" CONDUIT ROUTED BETWEEN THE BACK BOX AND THE NEAREST CABLE PATHWAY, UNO.

XX	DATA OUTLET, FLOOR MOUNTED	XX	DATA OUTLET, FURNITURE MOUNTED
XX	DATA OUTLET, FLOOR MOUNTED ROUGH-IN ONLY	XX	DATA OUTLET, FURNITURE MOUNTED ROUGH-IN ONLY

DEVICE NOTES:
1. MOUNT OUTLET IN FLOOR BOX PROVIDED BY THE ELECTRICAL CONTRACTOR. REFER TO THE ELECTRICAL PLANS AND SPECIFICATIONS FOR FLOOR BOX DETAILS, UNO.
2. PROVIDE A 1" CONDUIT ROUTED BETWEEN THE BACK BOX AND THE NEAREST CABLE PATHWAY, UNO.

XX	DATA OUTLET, CEILING MOUNTED
XX	DATA OUTLET, CEILING MOUNTED ROUGH-IN ONLY

DEVICE NOTES:
1. PROVIDE A 4-11/16" SQUARE BY 2-1/8" DEEP BACK BOX WITH A SINGLE GANG REDUCTION RING AT EACH LOCATION, UNO.
2. PROVIDE A 1" CONDUIT ROUTED BETWEEN THE BACK BOX AND THE NEAREST CABLE PATHWAY, UNO.
3. FLUSH MOUNT OUTLET FACEPLATE TO CEILING, UNO.

XX = ATTRIBUTE
1 = (1) DATA
2 = (2) DATA
3 = (3) DATA
4 = (4) DATA
5 = (5) DATA
6 = (6) DATA
AL = ANALOG VOICE LINE
ATM = AUTOMATIC TELLER MACHINE
DS = DIGITAL SIGNAGE
H = HOUSE PHONE
TV = TELEVISION OUTLET
TC = TIME CLOCK
W = WALL PHONE

XX	WIRELESS ACCESS POINT (WAP), WALL MOUNTED	XX	WIRELESS ACCESS POINT (WAP), CEILING MOUNTED

WIRELESS DROP INSTALLATION NOTE:
1. FOR ALL WIRELESS DATA DROPS, THE CONTRACTOR SHALL PROVIDE CABLING TO THE LOCATION INDICATED AND TO THE EXTENT THAT IT DOES NOT EXCEED THE EIA/TIA DISTANCE LIMITATIONS, PROVIDE A 25' SERVICE LOOP. CABLING SHALL BE TERMINATED ONTO JACKS.
2. JACKS SHALL BE MOUNTED IN A PLENUM RATED SURFACE MOUNTED BACKBOX. CONTRACTOR SHALL LABEL CABLE AND DROP.
3. DROPS SHALL BE BAGGED FOR PROTECTION UNTIL READY TO SURVEY AND DEPLOY ACCESS POINTS. CONTRACTOR SHALL EXTEND SERVICE LOOP CABLING TO A LOCATION AS DIRECTED BY OWNER'S VENDOR.

XX = ATTRIBUTE
WP = WEATHERPROOF, OUTDOOR RATED ACCESS POINT
PE = NON-METALLIC PROTECTIVE ENCLOSURE

TECHNOLOGY DRAWING INDEX

T-001	TECHNOLOGY SYMBOL LEGEND AND NOTES
T-002	TECHNOLOGY SPECS
T-101	OVERALL LEVEL 1 PATHWAYS AND SPACES PLAN
T-201	OVERALL LEVEL 1 TECHNOLOGY PLAN
T-202	OVERALL LEVEL 1 DUGOUT TECHNOLOGY PLAN
T-501	TECHNOLOGY DETAILS
T-601	TECHNOLOGY RISER DIAGRAMS
Grand total: 7	

CITY OF JACKSONVILLE FLORIDA

LEGENDS GLOBAL

OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100 www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD, JACKSONVILLE FL, 32202

BID/ PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

ISSUED BY: OSPORTS

ISSUE DATE: 10/22/25

PROJ NO. P20251573.000

REVISIONS

TAG	ISSUED	DATE

SHEET NAME:
TECHNOLOGY SYMBOL LEGEND AND NOTES

DRAWING NO.
T-001

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

Division 27 - Communications

Section 27 05 33.13 - Conduit for Communications Systems

CONDUIT APPLICATIONS

Do not use conduit and associated fittings for applications other than as permitted by NFPA 70, TIA-569, BICSI ITSIMM, BICSI TDMM, manufacturers' instructions, and product listing.

Unless otherwise indicated and where not otherwise restricted, use conduit types indicated for specified applications. Where more than one listed application applies, comply with most restrictive requirements. Where conduit type for particular application is not specified, use galvanized steel rigid metal conduit.

Embedded Within Concrete:
Within Slab on Grade: Use rigid PVC conduit. Embed within structural slabs only where approved by Structural Engineer.
Within Slab Above Ground: Use rigid PVC conduit. Embed within structural slabs only where approved by Structural Engineer.

Concealed Within Hollow Stud Walls: Use electrical metal tubing (EMT).

Concealed Above Accessible Ceilings: Use electrical metal tubing (EMT).

Interior, Damp or Wet Locations: Use galvanized steel rigid metal conduit (RMC), stainless steel rigid metal conduit (RMC), galvanized steel intermediate metal conduit (IMC), stainless steel intermediate metal conduit (IMC), or galvanized steel electrical metallic tubing (EMT).

Exposed, Interior, Not Subject to Physical Damage: Use electrical metal tubing.

Exposed, Interior, Subject to Physical Damage: Use galvanized steel rigid metal conduit (RMC), stainless steel rigid metal conduit (RMC), galvanized steel intermediate metal conduit (IMC), or stainless steel intermediate metal conduit (IMC).

Exposed, Interior, Subject to Severe Physical Damage: Use galvanized steel rigid metal conduit (RMC) or stainless steel rigid metal conduit (RMC).

Exposed, Exterior, Not Subject to Severe Physical Damage: Use galvanized steel rigid metal conduit (RMC), stainless steel rigid metal conduit (RMC), galvanized steel intermediate metal conduit (IMC), stainless steel intermediate metal conduit (IMC), galvanized steel electrical metallic tubing (EMT), or stainless steel electrical metallic tubing (EMT).

Exposed, Exterior, Subject to Severe Physical Damage: Use galvanized steel rigid metal conduit (RMC) or stainless steel rigid metal conduit (RMC).

Concealed, Exterior, Not Embedded in Concrete or in Contact With Earth: Use galvanized steel rigid metal conduit (RMC), stainless steel rigid metal conduit (RMC), galvanized steel intermediate metal conduit (IMC), stainless steel intermediate metal conduit (IMC), or galvanized steel electrical metallic tubing (EMT).

Corrosive Locations Above Ground: Use stainless steel rigid metal conduit (RMC) or stainless steel intermediate metal conduit (IMC).

Hazardous/Classified Locations: Use galvanized steel rigid metal conduit (RMC), stainless steel rigid metal conduit (RMC), galvanized steel intermediate metal conduit (IMC), or stainless steel intermediate metal conduit (IMC).

Flexible Connections to Vibrating Equipment:
Dry Locations: Use flexible metal conduit.
Damp, Wet, or Corrosive Locations: Use liquidtight flexible metal conduit.

CONDUIT - GENERAL REQUIREMENTS

Comply with NFPA 70 and TIA-569.

GALVANIZED STEEL RIGID METAL CONDUIT (RMC)

Description: NFPA 70, Type RMC galvanized steel rigid metal conduit complying with ANSI C80.1 and listed and labeled as complying with UL 6.

Fittings:
Nonhazardous Locations: Use fittings complying with NEMA FB 1 and listed and labeled as complying with UL 514B or UL 6.
Material: Use steel or malleable iron.
Connectors and Couplings: Use threaded fittings only. Threadless fittings, including set screw and compression/gland types, are not permitted.
Conduit Bodies: Use only conduit bodies specifically designed for communications cabling. Standard conduit bodies designed for electrical raceways are not permitted.
Comply with TIA-568.0 minimum bend radius requirements for fiber optic cables.

STAINLESS STEEL RIGID METAL CONDUIT (RMC)

Description: NFPA 70, Type RMC stainless steel rigid metal conduit complying with ANSI C80.1 and listed and labeled as complying with UL 6A.

Fittings:
Nonhazardous Locations: Use fittings complying with NEMA FB 1 and listed and labeled as complying with UL 514B or UL 6A.
Material: Use stainless steel with corrosion resistance equivalent to conduit.
Connectors and Couplings: Use threaded fittings only. Threadless fittings, including set screw and compression/gland types, are not permitted.
Conduit Bodies: Standard conduit bodies designed for electrical raceways are not permitted.

GALVANIZED STEEL INTERMEDIATE METAL CONDUIT (IMC)

Description: NFPA 70, Type IMC galvanized steel intermediate metal conduit complying with ANSI C80.6 and listed and labeled as complying with UL 1242.

Fittings:
Nonhazardous Locations: Use fittings complying with NEMA FB 1 and listed and labeled as complying with UL 514B or UL 1242.
Material: Use steel or malleable iron.

Connectors and Couplings: Use threaded fittings only. Threadless fittings, including set screw and compression/gland types, are not permitted.
Conduit Bodies: Use only conduit bodies specifically designed for communications cabling. Standard conduit bodies designed for electrical raceways are not permitted.

STAINLESS STEEL INTERMEDIATE METAL CONDUIT (IMC)

Description: NFPA 70, Type IMC galvanized steel intermediate metal conduit complying with ANSI C80.6 and listed and labeled as complying with UL 1242.

Fittings:
Nonhazardous Locations: Use fittings complying with NEMA FB 1 and listed and labeled as complying with UL 514B or UL 1242.
Material: Use stainless steel with corrosion resistance equivalent to conduit.
Connectors and Couplings: Use threaded fittings only. Threadless fittings, including set screw and compression/gland types, are not permitted.
Conduit Bodies: Standard conduit bodies designed for electrical raceways are not permitted.

FLEXIBLE METAL CONDUIT (FMC)

Description: NFPA 70, Type FMC standard-wall steel flexible metal conduit listed and labeled as complying with UL 1, and listed for use in classified firestop systems.

Fittings:
Description: Fittings complying with NEMA FB 1 and listed and labeled as complying with UL 514B.
Material: Use steel or malleable iron.
Conduit Bodies: Standard conduit bodies designed for electrical raceways are not permitted.

LIQUIDTIGHT FLEXIBLE METAL CONDUIT (LFMC)

Description: NFPA 70, Type LFMC polyvinyl chloride (PVC) jacketed steel flexible metal conduit listed and labeled as complying with UL 360.

Fittings:
Description: Fittings complying with NEMA FB 1 and listed and labeled as complying with UL 514B.
Material: Use steel or malleable iron.
Conduit Bodies: Use only conduit bodies specifically designed for communications cabling. Standard conduit bodies designed for electrical raceways are not permitted.

GALVANIZED STEEL ELECTRICAL METALLIC TUBING (EMT)

Description: NFPA 70, Type EMT galvanized steel electrical metallic tubing complying with ANSI C80.3 and listed and labeled as complying with UL 797.

Fittings:

Description: Fittings complying with NEMA FB 1 and listed and labeled as complying with UL 514B.
Material: Use steel or malleable iron.
Connectors and Couplings: Use compression/gland or set-screw type.
Do not use indenter type connectors and couplings.
Conduit Bodies: Use only conduit bodies specifically designed for communications cabling. Standard conduit bodies designed for electrical raceways are not permitted.

STAINLESS STEEL ELECTRICAL METALLIC TUBING (EMT)

Description: NFPA 70, Type EMT stainless steel electrical metallic tubing complying with ANSI C80.3 and listed and labeled as complying with UL 797A.

Fittings:
Description: Fittings complying with NEMA FB 1 and listed and labeled as complying with UL 514B.
Material: Use stainless steel with corrosion resistance equivalent to conduit.
Connectors and Couplings: Use compression/gland or set-screw type.
Conduit Bodies: Standard conduit bodies designed for electrical raceways are not permitted.

ALUMINUM ELECTRICAL METALLIC TUBING (EMT)

Description: NFPA 70, Type EMT aluminum electrical metallic tubing listed and labeled as complying with UL 797A.

Fittings:
Description: Fittings complying with NEMA FB 1 and listed and labeled as complying with UL 514B; listed for use with aluminum EMT.
Material: Use aluminum.
Connectors and Couplings: Use compression/gland or set-screw type.
Do not use indenter type connectors and couplings.
Conduit Bodies: Use only conduit bodies specifically designed for communications cabling. Standard conduit bodies designed for electrical raceways are not permitted.

RIGID POLYVINYL CHLORIDE (PVC) CONDUIT

Description: NFPA 70, Type PVC rigid polyvinyl chloride conduit complying with NEMA TC 2 and listed and labeled as complying with UL 651; Schedule 40 unless otherwise indicated, Schedule 80 where subject to physical damage.

Fittings:
Description: Fittings complying with NEMA TC 3 and listed and labeled as complying with UL 651; material to match conduit.
Conduit Bodies: Use only conduit bodies specifically designed for communications cabling. Standard conduit bodies designed for electrical raceways are not permitted.

LIQUIDTIGHT FLEXIBLE NONMETALLIC CONDUIT (LFNC)

Description: NFPA 70, Type LFNC liquidtight flexible nonmetallic conduit listed and labeled as complying with UL 1660.

Fittings:
Description: Fittings complying with NEMA FB 1 and listed and labeled as complying with UL 514B; suitable for type of conduit to be connected.

HIGH-DENSITY POLYETHYLENE (HDPE) CONDUIT

Description: NFPA 70, Type HDPE high-density polyethylene solid-wall conduit complying with ASTM F2160 and NEMA TC 7; list and label as complying with UL 651A; Schedule 40 unless otherwise indicated.

Mechanical Fittings: Comply with ASTM F2176; list and label as complying with UL 651A.

POLYVINYL CHLORIDE (PVC) PLASTIC UTILITIES DUCT

Description: Rigid polyvinyl chloride plastic utilities duct complying with NEMA TC 6&8 and ASTM F512; Type EB-20 listed and labeled as complying with UL 651 suitable for burial with concrete encasement.

Fittings: Comply with NEMA TC 9.

INSIDE-PLANT FLEXIBLE NONMETALLIC COMMUNICATIONS RACEWAY/INNERDUCT

Description: Flexible, corrugated, nonmetallic communications raceway and associated fittings listed and labeled as complying with UL 2024; also suitable for installation as innerduct.

Raceway Applications:
Plenum Applications: Use listed plenum raceway.
Riser Applications: Use listed riser or plenum raceway.
General Purpose Applications: Use listed general purpose, riser, or plenum raceway.

Section 27 10 00 - Structured Cabling

SYSTEM DESIGN

Provide a complete permanent system of cabling and pathways for voice and data communications, including cables, conduits and wireways, pull wires, support structures, enclosures and cabinets, and outlets.
Comply with TIA-568 (SET) (cabling) and TIA-569 (pathways) (commercial standards).
Comply with Communications Service Provider requirements.
Provide fixed cables and pathways that comply with NFPA 70 and TIA-607 and are UL listed or third party independent testing laboratory certified.
Provide connection devices that are rated for operation under conditions of 32 to 140 degrees F (0 to 60 degrees C) at relative humidity of 0 to 95 percent, noncondensing.
In this project, the term plenum is defined as return air spaces above ceilings, inside ducts, under raised floors, and other air-handling spaces.

System Description:

Provide additional outlets and infrastructurewhere indicated on drawings.

Main Distribution Frame (MDF): Depracated Term, refer to Main Cross-connect

Horizontal Cross-connect (HC): A group of connectors, e.g. patch panels, or punch down blocks, that allow horizontal, backbone, and equipment cabling to be cross-connected with patch cords or jumpers. Floor Distributor (FD) is the international equivalent term for HC.

Intermediate Cross-connect (IC): The connection point between a backbone cable that extends from the MC and the backbone cable from the HC. Buidling Distributor (BD) is the international equivalent term for IC.

Intermediate Distribution Frames (IDF): Depracated Term, refer to Intermediate Cross-connect

Telecommunications Rooms (TR): A telecommunications space that differs from Equipment Rooms (ER) and Entrance Facilities (EF) in that this space is generally considered a floor-serving or tenant-serving space, as opposed to a campus-serving or building-serving space, that provides a connection point between backbone and horizontal cabling.

Telecommunications Enclosure (TE): A box or cabinet used to house telecommunications equipment and/or cabling terminations. Enclosures are often wall-mounted but are sometimes large enough to be floor-mounted. A TE can sometimes be used in lieu of a TR.

Telecommunications Outlet (TO): An assembly of components consisting of one or more connectors and a faceplate or housing.

Backbone Cabling: Cabling, pathways, and terminal hardware connecting intermediate distribution frames (IDF's) with main distribution frame (MDF), wired in star topology with main distribution frame at center hub of star.

Horizontal Cabling: The part of the cabling system that extends from, and includes the work area telecommunications outlet/connector to the HC in the Telecommuinications Room

PATHWAYS

COPPER CABLE AND TERMINATIONS

Copper Horizontal Cable:
Description: 100 ohm, balanced twisted pair cable complying with TIA-568.2 and listed and labeled as complying with UL 444.
Cable Type - TIA-568.2 Category 6 UTP (unshielded twisted pair); 23 AWG.
Data -
Cable Capacity: 4-pair.
Cable Applications:
Plenum Applications: Use listed NFPA 70 Type CMP plenum cable.
Riser Applications: Use listed NFPA 70 Type CMR riser cable or Type CMP plenum cable.
General Purpose Applications: Use listed NFPA 70 Type CM/CMG general purpose cable, Type CMR riser cable, or Type CMP plenum cable.

Copper Patch Cords:

Description: Factory-fabricated 4-pair cable assemblies with 8-position modular connectors terminated at each end. Connector shall have snagless design. Product shall be provided by the manufacturer of the copper jacks and connectors.
Patch Cords for Patch Panels:
Quantity: One for each patch panel ports terminated with a Work Area cable.
Length: 3 feet.
Patch Cords for Work Areas:
Quantity: One for each work area outlet port.
Length: _____ feet (_____ mm)7 feet

FIBER OPTIC CABLE AND INTERCONNECTING DEVICES

Provide cables with lead content less than 300 parts per million.

Fiber Optic Backbone Cable:
Description: Tight buffered, non-conductive fiber optic cable complying with TIA-568.3, TIA-598, ICEA S-83-596 and listed as complying with UL 444 and UL 1651.
Cable Type: Multimode, laser-optimized 50/125 um (OM3) complying with TIA-492AAAC.
Cable Capacity: Quantity of fibers as indicated on drawings.
Cable Applications:
Plenum Applications: Use listed NFPA 70 Type OFNP plenum cable.
Riser Applications: Use listed NFPA 70 Type OFNR riser cable or Type OFNP plenum cable.

Fiber Optic Interconnecting Devices:
Connector Type: Type LC.
Connector Performance: 500 mating cycles, when tested in accordance with TIA-455-21.
Maximum Attenuation/Insertion Loss: 0.3 dB.

Fiber Optic Patch Cords:
Description: Factory-fabricated 2-fiber cable assemblies with suitable connectors at each end.
Patch Cords for Patch Panels:
Quantity: One for each pair of patch panel ports.
Length: 3 feet.

COMMUNICATIONS EQUIPMENT ROOM FITTINGS

Copper Cross-Connection Equipment:
Connector Blocks for Category 3 Cabling: Type 66 insulation displacement connectors; capacity sufficient for cables to be terminated plus 25 percent spare.
Connector Blocks for Category 5e and Up Cabling: Type 110 insulation displacement connectors; capacity sufficient for cables to be terminated plus 25 percent spare.
Patch Panels for Copper Cabling: Sized to fit EIA/ECA-310 standard 19 inch (482.6 mm) wide equipment racks; 0.09 inch (2.2 mm) thick aluminum; cabling terminated on Type 110 insulation displacement connectors; printed circuit board interface.
Jacks: Non-keyed RJ-45, suitable for and complying with same standard as cable to be terminated; maximum 48 ports per standard width panel.

Capacity: Provide ports sufficient for cables to be terminated plus 25 percent spare.
Labels: Factory installed laminated plastic nameplates above each port, numbered consecutively; comply with TIA-606.
Provide incoming cable strain relief and routing guides on back of panel.

Fiber Optic Cross-Connection Equipment:
Patch Panels for Fiber Optic Cabling: Sized to fit EIA/ECA-310 standard 19 inch (482.6 mm) wide equipment racks; 0.09 inch (2.2 mm) thick aluminum.
Adapters: As specified above under FIBER OPTIC CABLE AND INTERCONNECTING DEVICES; maximum of 24 duplex adaptors per standard panel width.
Labels: Factory installed laminated plastic nameplates above each port, numbered consecutively; comply with TIA-606.
Provide incoming cable strain relief and routing guides on back of panel.
Provide rear cable management tray at least 8 inches (203 mm) deep with removable cover.
Provide dust covers for unused adapters.

Backboards: Interior grade plywood without voids, 3/4" thick; UL-labeled fire-retardant.

Racks and Cabinets:
Component Racks: EIA/ECA-310 standard 19 inch wide.
ScrewThread:
12-24, for all but AV racks and cabinets
10-32 for AV racks and cabinets.
Color: Black, powder coated factory finish.
Wall Mounted Racks: Steel construction, hinged to allow access to back of installed components.
Height: 20U minimum, unless noted otherwise on the Drawings.
Depth: 25", unless noted otherwise on the Drawings.
Load Rating: 150 lbs minimum, unless noted otherwise on the Drawings
Stablizing reinforcement pan at bottom of rack with multiple 3" feed through holes.
Floor Mounted Racks, 2 post: Aluminum Extrusion Construction with vertical and horizontal cable management channels, top and bottom cable troughs, and grounding lug.
Height: 45U, minimum, unless noted otherwise on the Drawings.
Stile (Vertical member) width: 3" minimum.
Listing: UL2416.
Load Rating: 1500 lbs.
Floor Mounted Racks, 4 post: Aluminum Extrusion Construction with vertical and horizontal cable management channels, top and bottom cable troughs, and grounding lug.
Height: 45U, minimum, unless noted otherwise on the Drawings.
Depth: 32" usable, unless notes otherwise on the Drawings.
Stile (Vertical member) width: 3" minimum.
Listing: UL2416.
Load Rating: 1500 lbs.
Cabinets: Steel construction with corrosion resistant finish.

Cable Management:

COMMUNICATIONS OUTLETS

Wall Plates:
Comply with system design standards and UL 514C.
Accepts modular jacks/inserts.
Wall Plate Material/Finish - Flush-Mounted Outlets: Match wiring device and wall plate finishes specified in Section 26 27 26.
Wall Plate Material/Finish - Flush-Mounted Outlets: Match wiring device and wall plate finishes specified on the drawings.
Wall Plate Material/Finish - Flush-Mounted Outlets: High impact thermoplastic, color to be selected.

GROUNDING AND BONDING COMPONENTS

Comply with TIA-607.

IDENTIFICATION PRODUCTS

Comply with TIA-606.

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

CITY OF JACKSONVILLE FLORIDA
LEGENDS GLOBAL
OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100 www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD. JACKSONVILLE FL, 32202

BID/ PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

ISSUED BY: OSPORTS

ISSUE DATE: **10/22/25**

PROJ NO. **P20251573.000**

REVISIONS

TAG	ISSUED	DATE

SHEET NAME:

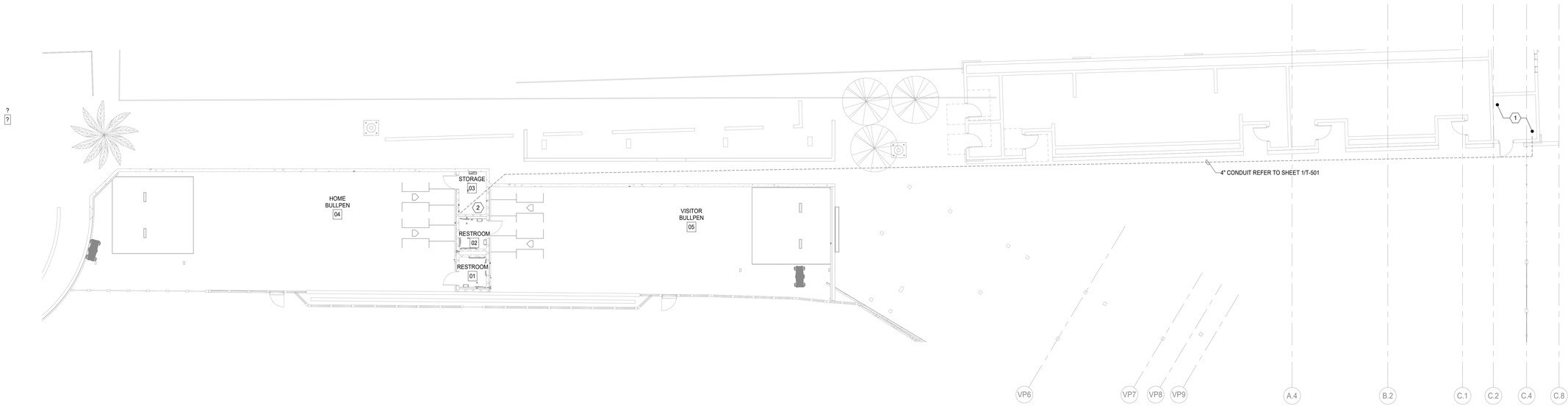
TECHNOLOGY SPECS

DRAWING NO.

T-002

GENERAL SHEET NOTES

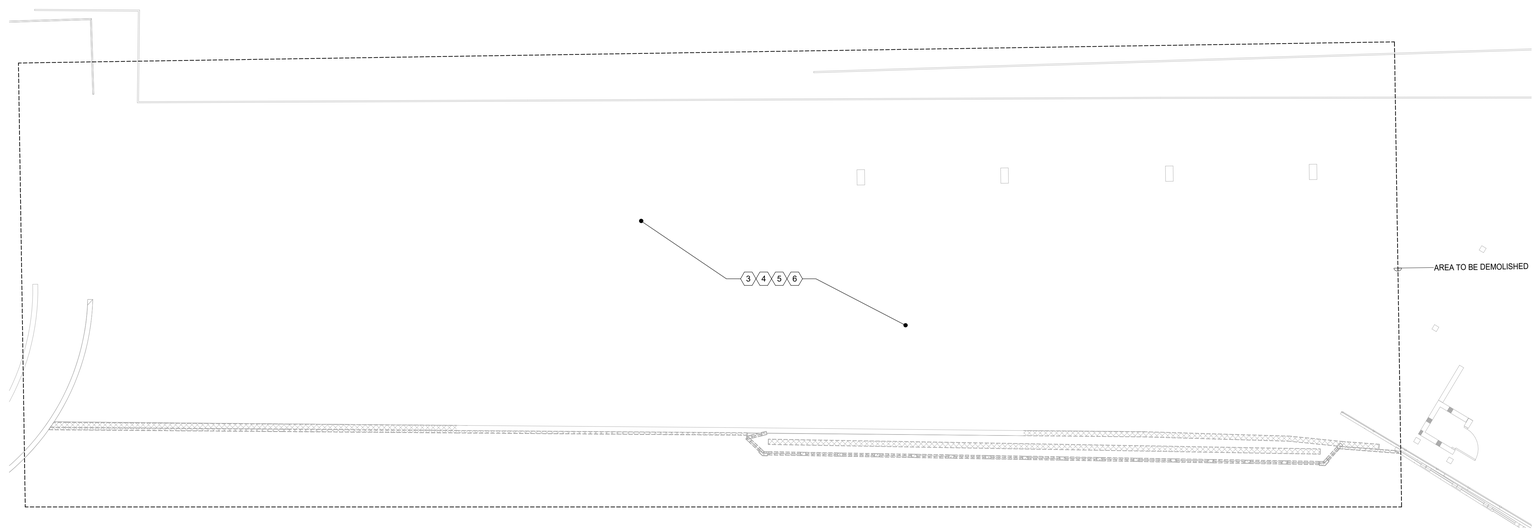
1. THE TELECOM DRAWINGS ARE DIAGRAMMATIC. THE TELECOM INSTALLATION SHALL BE COORDINATED WITH ALL OTHER TRADES TO REDUCE INTERFERENCE BETWEEN THE ELECTRICAL DEVICES AND ARCHITECTURAL, STRUCTURAL, PLUMBING, MECHANICAL WORK.
2. AT NO TIME SHALL A CONDUIT RUN EXCEED (3) 90 DEGREE BENDS WITHOUT AN INTERSECTION OF A PULL BOX.
3. CABLING LOCATED IN EXPOSED AREAS SHALL BE IN CONDUIT UNLESS OTHERWISE NOTED OR REQUIRED BY AHJ AND MLB STANDARDS. J-HOOKS, CABLE TRAYS AND OTHER CABLE SUPPORT PATHWAYS CAN BE USED IN ACCESSIBLE CEILINGS. CONDUIT PATHWAYS SHALL BE USED IN INACCESSIBLE CEILINGS AND SPACES.
4. ALL CABLING EXPOSED TO EXTERIOR OF BUILDING SHALL BE PROVIDED WITH SURGE SUPPRESSION RATED TO THE PERFORMANCE LEVEL OF THE CABLE INSTALLED.



2 FIELD LEVEL - PATHWAYS PLAN
SCALE: 1" = 10'-0"

(#) SHEET KEY NOTES:

1. LOCATION OF EXISTING FIBER OPTIC BACKBONE CABLING. FIBER WILL FEED FROM THIS ELEC/IT ROOM TO THE NEW STORAGE ROOM 03.
2. ALL DATA AND FIBER CABLING TO BE PULLED TO THIS LOCATION. COORDINATE EXACT ROUTING WITH GC AND OTHER TRADES. REFER TO SHEET T-201.
3. CABLING THAT IS TO BE REMOVED SHALL BE REMOVED BACK TO POINT POINT OF TERMINATION.
4. ALL CABLING THAT IS EXISTING TO REMAIN IN DEMOLITION AREA SHALL BE PROTECTED DURING THE ENTIRE DEMOLITION PROCESS.
5. PRIOR TO BEGINNING DEMOLITION, THE GC SHALL SURVEY THE DEMOLITION AREA FOR LOW VOLTAGE COMMUNICATION CABLING PASSING THROUGH THE DEMOLITION AREA AND SERVING OTHER AREAS.
6. ANY LOW VOLTAGE COMMUNICATION CABLING PASSING THROUGH THE DEMOLITION AREA AND SERVING OTHER AREAS OUTSIDE THE DEMOLITION AREA SHALL BE IDENTIFIED, LABELED AND PROTECTED DURING THE DURATION OF DEMOLITION AND NEW CONSTRUCTION.



1 FIELD LEVEL - PATHWAYS DEMO PLAN
SCALE: 1/8" = 1'-0"

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

CITY OF JACKSONVILLE FLORIDA

LEGENDS GLOBAL

OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100
www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD. JACKSONVILLE FL, 32202

BID/ PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

ISSUED BY:	OSPORTS
ISSUE DATE:	**10/22/25**
PROJ NO.	**P20251573.000**

REVISIONS

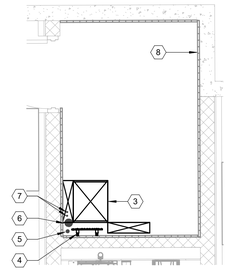
TAG	ISSUED	DATE

SHEET NAME:
OVERALL LEVEL 1 PATHWAYS AND SPACES PLAN

DRAWING NO.
T-101

GENERAL SHEET NOTES

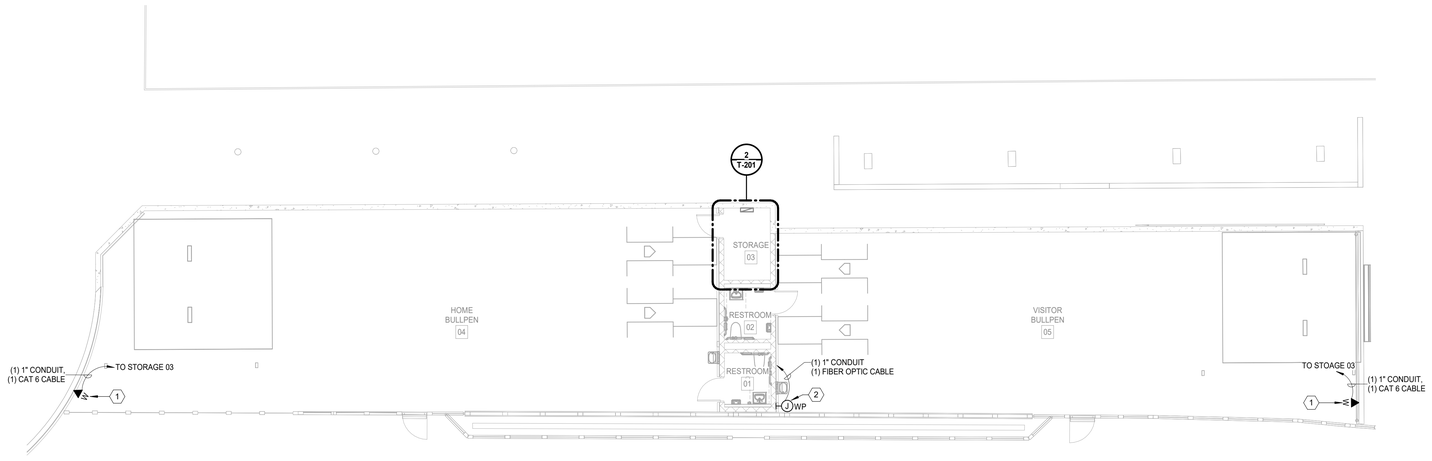
1. THE TELECOM DRAWINGS ARE DIAGRAMMATIC. THE TELECOM INSTALLATION SHALL BE COORDINATED WITH ALL OTHER TRADES TO REDUCE INTERFERENCE BETWEEN THE ELECTRICAL DEVICES AND ARCHITECTURAL, STRUCTURAL, PLUMBING, MECHANICAL WORK.
2. AT NO TIME SHALL A CONDUIT RUN EXCEED (3) 90 DEGREE BENDS WITHOUT AN INTERSECTION OF A PULL BOX.
3. CABLING LOCATED IN EXPOSED AREAS SHALL BE IN CONDUIT UNLESS OTHERWISE NOTED OR REQUIRED BY AHJ AND MLB STANDARDS. J-HOOKS, CABLE TRAYS AND OTHER CABLE SUPPORT PATHWAYS CAN BE USED IN ACCESSIBLE CEILINGS. CONDUIT PATHWAYS SHALL BE USED IN INACCESSIBLE CEILINGS AND SPACES.
4. ALL CABLING EXPOSED TO EXTERIOR OF BUILDING SHALL BE PROVIDED WITH SURGE SUPPRESSION RATED TO THE PERFORMANCE LEVEL OF THE CABLE INSTALLED.
5. ALL CABLING IN ON GRADE FLOOR BOXES SHALL BE INDOOR/OUTDOOR PLENUM RATED CABLING RATED FOR USE IN WET CONDITIONS.



2 ENLAREGED PLAN - STORAGE 03
SCALE: 3/8" = 1'-0"

(#) SHEET KEY NOTES:

1. WALL PHONE SHALL COMMUNICATE DIRECTLY WITH THE CORRESPONDING HOME AND VISITOR DUGOUTS. LOCATION OF WALL PHONE IN DUGOUT NEEDS TO BE CONFIRMED WITH OWNER PRIOR TO INSTALLATION. REFER TO SHEET T-202 FOR EXACT LOCATION OF DUGOUTS AND TELE/DATA ROOM.
2. DEDICATED JUNCTION BOX TO FEED VIDEO BOARD FIBER. EXACT MOUNTING LOCATION SHALL BE COORDINATED WITH OWNER AND ELECTRICAL PRIOR TO INSTALLATION.
3. WALL MOUNTED EQUIPMENT RACK. (TYP.)
4. TELECOMMUNICATIONS GROUNDING BUSBAR. (TGB TYP.)
5. (1) 2" CONDUIT STUBBED 4" ABOVE SLAB FROM JUNCTION BOX FOR VIDEO BOARD. REFER TO KEY NOTE 3 ON THIS SHEET.
6. (1) 4" CONDUIT STUBBED 4" ABOVE SLAB FOR INCOMING SERVICE REFER TO SHEET T-101.
7. (2) 1" CONDUIT STUBBED 4" ABOVE SLAB TO FEED WALL PHONES. FOR HOME AND VISITOR BULLPENS.
8. 3/4" PLYWOOD BACKBOARD. (TYP.)



1 FIELD LEVEL - TECHNOLOGY PLAN
SCALE: 1/8" = 1'-0"

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

CITY OF JACKSONVILLE FLORIDA

LEGENDS GLOBAL

OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100 www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD. JACKSONVILLE FL, 32202

BID/ PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

ISSUED BY:	OSPORTS
ISSUE DATE:	**10/22/25**
PROJ NO.	**P20251573.000**

REVISIONS

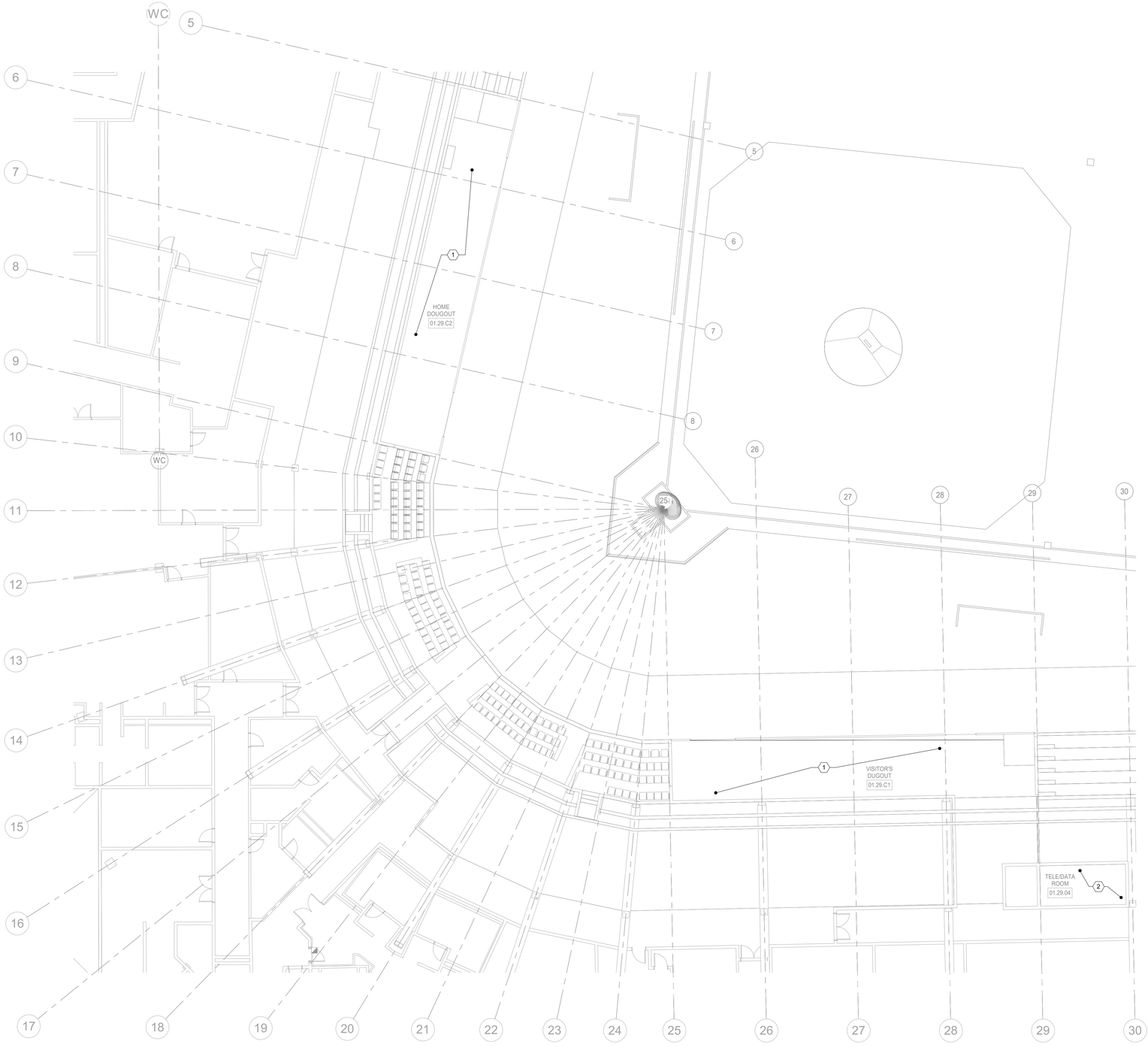
TAG	ISSUED	DATE

SHEET NAME:
OVERALL LEVEL 1 TECHNOLOGY PLAN

DRAWING NO.
T-201

GENERAL SHEET NOTES

1. WALL PHONES DEVICES USING CAT6 CABLE THAT ARE OVER 295-FEET FROM MDF/IDF SHOULD USE GAME CHANGER CABLE FROM PAIGE DATACOM SOLUTIONS (OR EQUIVALENT)TO ALLOW LENGTHS UP TO 656-FEET.



1 FIELD LEVEL - TECHNOLOGY PLAN DUGOUTS

SCALE: 3/32" = 1'-0"

(#) SHEET KEY NOTES:

1. EXACT LOCATION FOR DUGOUT PHONES NOT SHOWN ON THIS PLAN, SHALL BE COORDINATED WITH OWNERSHIP PRIOR TO ROUGH-IN. DUGOUT PHONES SHALL BE CABLED BACK TO TELE/DATA ROOM 01.29.04 FOR CONNECTION INTO THE PHONE SYSTEM AND SHALL BE PROGRAMMED AS A RING DOWN PHONE WITH DIRECT CONNECTION. TO THE BULLPEN PHONES REFER TO SHEET T-201 FOR LOCATION.
2. EXACT LOCATION OF TELE/DATA ROOM 01.29.04.

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

CITY OF JACKSONVILLE FLORIDA

LEGENDS GLOBAL

OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100 www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD. JACKSONVILLE FL, 32202

BID/ PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

ISSUED BY:	OSPORTS
ISSUE DATE:	10/22/25
PROJ NO.	P20251573.000

REVISIONS

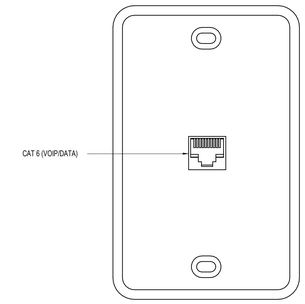
TAG	ISSUED	DATE

SHEET NAME:

OVERALL LEVEL 1 DUGOUT TECHNOLOGY PLAN

DRAWING NO.

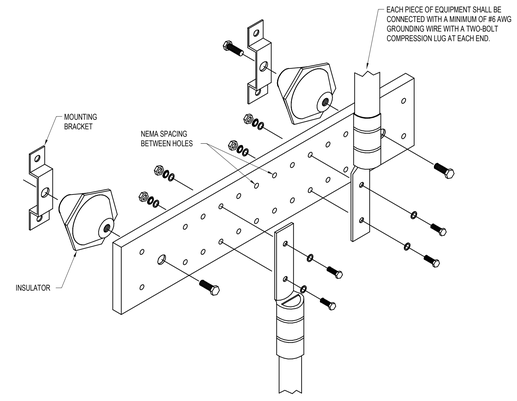
T-202



DETAIL LEGEND

DETAIL NOTES:
1. IP VOICE WALL PHONE TELECOMMUNICATION OUTLET WITH (1) CAT 6 CABLES TERMINATING AT DESIGNATED PATCH PANEL IN TELECOMMUNICATION RACK.
2. PROVIDE STAINLESS STEEL WALL MOUNT PHONE FACEPLATE.

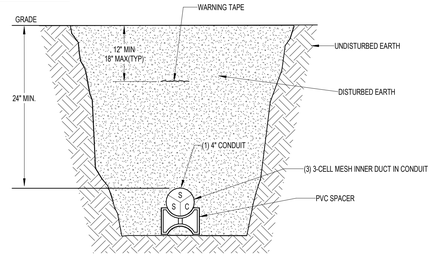
2 STANDARD WALL PHONE OUTLET
SCALE: N.T.S.



DETAIL NOTES:
1. THE TELECOMMUNICATIONS MAIN GROUNDING BUSBAR (TMGB) SHALL HAVE MINIMUM DIMENSIONS OF 6.3 mm (0.25 in) THICK BY 100 mm (4 in) WIDE, AND VARIABLE IN LENGTH DEPENDING ON NEED, WITH A MINIMUM LENGTH OF 10 INCHES.
2. THE TELECOMMUNICATIONS GROUNDING BUSBAR (TGB) SHALL HAVE MINIMUM DIMENSIONS OF 6.3 mm (0.25 in) THICK BY 50 mm (2 in) WIDE, AND VARIABLE IN LENGTH DEPENDING ON NEED, WITH A MINIMUM LENGTH OF 10 INCHES.
3. THE TELECOMMUNICATIONS GROUNDING BUSBAR(S) SHALL BE CONNECTED TO THE TELECOMMUNICATIONS MAIN GROUNDING BUSBAR WITH #3/0 GROUND WIRE.
4. THE TELECOMMUNICATIONS MAIN GROUNDING BUSBAR SHALL BE BONDED TO THE ELECTRICAL POWER GROUND WITH #3/0 GROUND WIRE.
5. THE GROUNDING BUSBAR(S) SHALL BE INSTALLED AT +18" A.F.F. WITH 8" CLEAR ON ALL OTHER SIDES.
6. REFER TO SYSTEMS PLANS FOR EXACT LOCATION OF GROUNDING BUSBAR(S).
7. MOUNTING BRACKETS AND INSULATOR SHALL BE MOUNTED TO PROVIDE A 3.750 INCH SPACE FROM MOUNTING BACKBOARD TO BUSBAR.

3 TELECOMMUNICATIONS GROUNDING BUSBAR DETAIL
SCALE: N.T.S.

KEY	
C	COMMUNICATION
S	SPARE



DETAIL NOTES:
1. DUCTS TO BE SCHEDULE 40 PVC EXCEPT AT PENETRATIONS TO BUILDING FOUNDATIONS OR PULLBOXES WHICH REQUIRE 10'-0" LENGTHS OF GALVANIZED RIGID STEEL CONDUIT TO ALLOW FOR SHEAR AND SETTLING STRESSES.

1 TELECOM DUCTBANK SECTION DETAIL - DIRECT BURY
SCALE: N.T.S.

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

LEGENDS GLOBAL

OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100 www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD, JACKSONVILLE FL, 32202

BID/ PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.B.4.4 and Chapter 633, Florida statutes

ISSUED BY:	OSPORTS
ISSUE DATE:	**10/22/25**
PROJ NO.	**P20251573.000**

REVISIONS

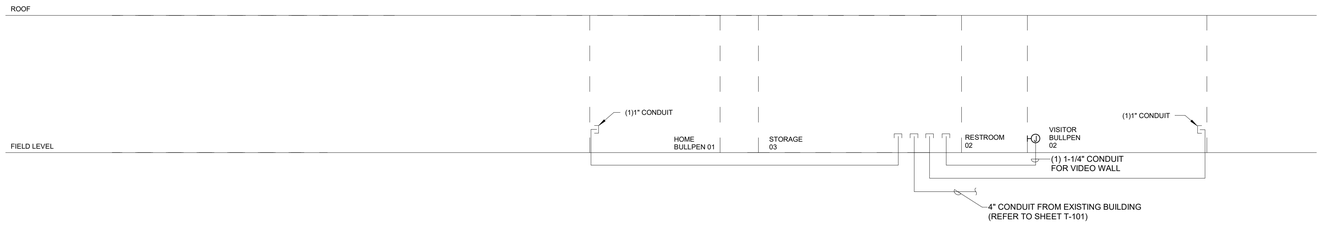
TAG	ISSUED	DATE

SHEET NAME:
TECHNOLOGY DETAILS

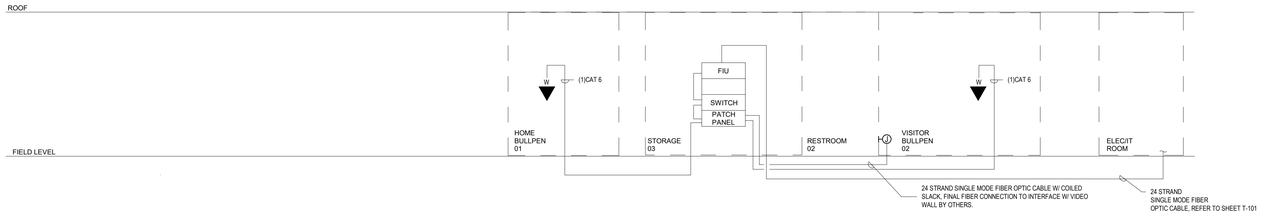
DRAWING NO.
T-501

GENERAL SHEET NOTES

1. EQUIPMENT SHOWN IS DIAGRAMMATIC ONLY. CONTRACTOR TO PROVIDE ALL EQUIPMENT REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM. REFER TO FLOOR PLAN FOR QUANTITIES AND LOCATIONS.



2 CONDUIT RISER
SCALE:N.T.S.



1 CABLE RISER
SCALE:N.T.S.

Unless otherwise stated in Contract, The Osborn Engineering Company retains copyright ownership. Instruments of Service may only be used for the purpose described in the Contract. The Osborn Engineering Company may grant specific usage rights under license, and/ or may transfer copyright ownership/ assignment in writing. Reproduction, re-use or re-distribution of Instruments of Service is prohibited.

CITY OF JACKSONVILLE FLORIDA

LEGENDS GLOBAL

OSBORN ENGINEERING
OSPORTS
400 N. Tampa Street - Suite 2230 | Tampa, FL 33602
(813) 868-4100
www.osborn-eng.com
FL COA 27367

VYSTAR BALLPARK BULLPEN RELOCATION

301 A PHILIP RANDOPLH BLVD. JACKSONVILLE FL, 32202

BID/ PERMIT SET

10.22.2025

To the best of the architect's or engineer's knowledge, the plans and specifications comply with the applicable minimum building codes and the applicable fire-safety standards as determined by the local authority in accordance with FBC-110.8.4.4 and Chapter 633, Florida statutes

ISSUED BY: OSPORTS

ISSUE DATE: **10/22/25**

PROJ NO. **P20251573.000**

REVISIONS

TAG	ISSUED	DATE

SHEET NAME:
TECHNOLOGY RISER DIAGRAMS

DRAWING NO.
T-601