Alabama State Port Authority

Addendum to R&P or Specification Booklet

Project Name McDuffie Warehouse

Project No. 10861 **Task No.** 02 **Addendum No.** 2

To: Prospective Bidders **Date:** 9/9/2022

The following items are clarifications to questions received. These items are hereby included in the bid documents by this addendum.

Item	Description
1.	The required U-Factor and SHGC value for windows has been revised on DWG. 4043-A6. DWG. 4043-A6 Rev B is attached and is hereby incorporated into the bid documents by this addendum.
2.	Contractor shall include a termite treatment with Bid.
3.	Contractor shall be required to apply a fluid applied thermal barrier coating, No-Burn or equal, to all spray foam located above suspended ceiling.
4.	Question: Does the deflection of L/360 and collateral load of 8psf apply to the entire building or the office portion only? Answer: Primary framing shall be deflection of L/240. 8psf collateral is for the entire building. Also see revised Division V Specification page 97 included in this Addendum.
5.	Question: How long is the concrete gate track required to be? Will it be the 107'-0" dimension? Answer: The gate no longer has a track. See revised civil drawings included with Addendum #2 for revised gate and fence layout.
6.	Question: We are unable to locate footing marks "Q" and "R" within the plans. They total 3 ea. footings on the schedule. Can you provide clarification? Answer: Please see revised drawing 4043-F1
7.	Question: The quantities of footings shown on the foundation schedule do not match what is shown on the plans. For instance, there are 8 ea. type B footings shown but on the schedule it has a 10ea. Can you provide clarification? Answer: Please see revised drawing 4043-F1
8.	Question: Can you provide specifications for the ceramic tile base? Answer: Daltile 6" Ceramic Floor Tile (White) or approved equal
9.	Revised Division V Specifications Pg 14: Section 11.0 Pg 57: Section 12.1, Section12.3, Section 12.4

	Pg 97: Section 3.3, Section 3.6 Pg 98: Section 3.9 Pg 100: Section 11.0
10.	Question: Who is the AHJ? What is the governing fire code? Answer: ASPA or CMG (as their agent) will act as AHJ. 2018 IFC and current edition of NFPA 72
11.	The following drawings: 4043-E1, 4043-E4, 4043-E7, 4043-E9, 4043-E10, 4043-E15, 4043-F1, & 4043-C2A have been revised. These drawings are attached and are hereby incorporated into the bid documents by this addendum.

Please indicate your receipt of this addendum by adding the addendum number in the appropriate place in your Requisition & Proposal or Specification Book.

9.0 FINISHING

The surface of all excavations, fills, and subgrades shall be finished to a reasonably smooth and compact surface substantially in accordance with the lines, grades, and cross sections or elevations shown. The degree of finish for all graded areas shall be within 0.1 ft. of the grades and elevations indicated except that the degree of finish for subgrades shall be as specified above.

10.0 SUBBASE AND FILL PROTECTION

During construction, fills and excavations shall be kept shaped and drained. Ditches and drains along subgrade shall be maintained in such a manner as to drain effectively at all times. The finished subgrade shall not be disturbed by traffic or other operation and shall be protected and maintained by the Contractor in a satisfactory condition until base course is placed. The storage or stockpiling of materials on the finished subgrade will not be permitted. No base course shall be laid until the subgrade has been checked and approved, and in no case shall base be placed on a muddy, spongy, or frozen subgrade.

11.0 DETERMINATION OF DENSITY

11.1 One density test per lift per 2500 square feet of fill material placed, shall be performed by ***EOR***. The contractor shall coordinate the testing with the engineer and designated testing lab. Any areas not tested in accordance with specifications will be removed, reworked and tested in accordance with the specifications at "no additional cost to the owner".

11.2 The surface of the final subgrade elevation after excavation shall be tested the same as structural fill.

11.3 Results of compaction testing shall be forwarded to the Engineer on a regular basis such that prior to the placement of a lift, the results of the previous lift are known.

12.0 DISPOSAL OF UNSUITABLE OR EXCESS MATERIAL

The Contractor shall dispose of all unsuitable or excess materials resulting from the excavation that are not permitted or required in the fills or required in other

may direct the Contractor to grind the floor to bring the surface within the stated requirements. Patching of low spots shall not be permitted. Grinding shall be done as soon as possible, preferably within three days, but not until the concrete is sufficiently strong to prevent dislodging coarse aggregate particles.

11.2.5 Immediately after finishing, all grade and ground slabs shall receive a liquid curing and sealing compound conforming to ASTM C309, Type 1, clear or translucent. Surface preparation and application shall conform to manufacturer's specifications, but in no case shall application be greater than 350 sq. ft. per gallon. All slabs shall receive a second coat of curing and sealing compound just prior to acceptance of the concrete work.

12.0 INSPECTION AND TESTING

12.1 The materials and workmanship to be furnished under this specification shall be subject to inspection in the mill, shop, and field by the ***EOR.***

12.2 Inspection and acceptance, or failure to inspect, shall in no way relieve the Contractor or the mill and shops from their responsibility to furnish materials and workmanship in accordance with contract requirements. When materials and/or workmanship do not conform to the specification requirements the Owner reserves the right to reject such material and/or workmanship at any time before final acceptance of the concrete work.

12.3 The Contractor shall make the necessary arrangements with the ***EOR***-approved testing laboratory to facilitate concrete sampling and test.

12.4 An independent testing laboratory shall perform compressive strength tests, air entrainment tests and slump tests for each 50 cubic yards of concrete poured but not less than once for each day of concrete pouring. All tests shall be made at the expense of the ***EOR***.

12.5 Compressive strength tests shall be conducted in accordance with ACI318, "Concrete Quality". Tests shall be made on four field specimens, one for testing at seven days and two for testing at 28 days. If the 28-day breaks are good, the fourth cylinder may be discarded. If the 28-day breaks are deficient, the fourth cylinder shall be broken as instructed.

AISI - Specification for the Design of Cold-Formed Steel Structural Members 1996 Edition with 1999 Addendum.

ASTM A307 - Specification for Carbon Steel Bolts and Studs, 60 KSI Minimum Tensile Strength, 2000.

ASTM A325 - Specification for Structural Bolts, Steel, Heat Treated, 120/105 KSI Minimum Tensile Strength, 2000.

ASTM A792 - Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process, 1999.

AWS D1.1 - Structural Welding Code - Steel , 2000.

MBMA Metal Building Systems Manual, 2002.

SSPC - SP-2 - Specification for Hand Tool Cleaning, 1995

CMAA – Cranes Manufacturers Association of America – Specification No. 70 Revised 2000.

3.0 DESIGN REQUIREMENTS

3.1 The building shall be designed by the manufacturer as a complete system. All components of the system shall be supplied or specified by the same manufacturer.

3.2 Design load application shall be in accordance with the International Building Code as adopted in the local building regulations.

3.3 The dead load shall be the weight of the metal building system as determined by the system manufacturer.

3.4 The collateral load shall be ***8 psf*** or as shown on the drawings. The collateral load shall not be applied to the roof panels.

3.5 The building system shall be capable of supporting a minimum uniform live load of 20 psf, reducible to the extent allowed by the International Building Code.

3.6 The design wind speed for the metal building system shall be ***159mph***.

3.7 Deflections shall be limited as follows:

Primary Framing: L/240 for live load.

H/240 wind load.

Secondary Framing: L/240 for roof dead load + roof live load.

3.8 The building shall be designed for all load combinations of specific loads as dictated by the International Building Code and ASCE requirements.

3.9 Gutters and downspouts shall be designed to handle rainstorms exceeded only once in 10 years, with adequate provision for thermal expansion and contraction. Gutters and downspouts shall be designed, fabricated and erected to withstand a ***159mph*** wind.

4.0 SUBMITTALS

Approval by the Engineer is required for the design drawings and they shall bear the professional seal and signature of a licensed professional engineer registered in the State of Alabama. The building design shall conform to the requirements shown on the bid drawings and in this specification. The manufacturer shall be required to submit anchor bolt placement plan and column reactions in advance of the erection drawings.

5.0 QUALITY ASSURANCE

5.1 Structural steel members shall be designed and fabricated in accordance with AISC-Specification for Structural Steel Buildings.

5.2 Framing members shall be cleaned of loose rust, loose mill scale and other foreign matter and coated with the building manufacturer's standard primer.

6.0 QUALIFICATIONS

6.1 The company manufacturing the metal building system shall have a minimum of 10 years experience in the design and manufacture of steel building systems.

6.2 The erector shall have at least 10 years specialized experience in the erection of metal building systems. The erector shall have experienced employees and have the proper equipment to undertake a project of this size.

9.4 Side lap fasteners shall be #12 x ¾" SS pierce-point screws with a weather sealing washer, colored to match wall panels.

10.0 TRIM

Flashings, rake trim, eave trim, corner trim, window trim, door trim, caps and similar metal accessories shall be of the same material and finish as adjacent material, with the color to be selected BY THE OWNER from manufacturer's standard colors.

11.0 METAL DOORS AND FRAMES

Doors and frames shall be designed by the manufacturer to meet the wind load criteria as specified, maximum wind speed ***159 MPH***.

12.0 ERECTION

12.1 GENERAL

Verify that the site conditions are in accordance with the provided site drawings. Verify that foundation is of the correct dimensions and properly squared. Verify that the placed anchor bolts are properly sized and in the correct positions. Report any unsatisfactory conditions to the Engineer and do not proceed until the unsatisfactory conditions have been corrected.

12.2 FRAMING

12.2.1 Erect framing in accordance with MBMA Metal Building Systems Manual, Common Industry Practices.

12.2.2 Erect the building frames true and level with vertical members plumb and bracing properly installed. Maintain the structural stability of frame during erection.

12.2.3 Any holes requiring enlargement to admit bolts must be reamed. Burned holes for bolted connections are not permitted without written approval by the building manufacturer.

12.2.4 The erector shall furnish temporary guys and bracing where needed for squaring, plumbing, and securing the structural framing against loads acting on the exposed framing during the erection operation. Bracing furnished by the manufacturer for the metal building system cannot be assumed to be adequate during erection and are not to be used to pull

GENERAL NOTES

1. NO PROVISION OF ANY REFERENCED STANDARD SPECIFICATION, MANUAL OR CODE (WHETHER OR NOT SPECIFICALLY INCORPORATED BY REFERENCE IN THE CONTRACT DOCUMENTS) SHALL BE EFFECTIVE TO CHANGE THE DUTIES AND RESPONSIBILITIES OF OWNER, CONTRACTOR, ENGINEER, SUPPLIER, OR ANY OF THEIR CONSULTANTS, AGENTS, OR EMPLOYEES FROM THOSE SET FORTH IN THE CONTRACT DOCUMENTS. NOR SHALL IT BE EFFECTIVE TO ASSIGN TO THE STRUCTURAL ENGINEER OF RECORD OR ANY OF THE STRUCTURAL ENGINEER OF RECORD'S CONSULTANTS, AGENTS, OR EMPLOYEES ANY DUTY OR AUTHORITY TO SUPERVISE OR DIRECT THE FURNISHING OR PERFORMANCE OF THE WORK OR ANY DUTY OR AUTHORITY TO UNDERTAKE RESPONSIBILITIES CONTRARY TO THE PROVISIONS OF THE CONTRACT DOCUMENTS.

2. CONTRACT DOCUMENTS INCLUDE, BUT ARE NOT LIMITED TO, THE STRUCTURAL DOCUMENTS (DRAWINGS AND SPECIFICATIONS), BUT DO NOT INCLUDE SHOP DRAWINGS, VENDOR DRAWINGS, OR MATERIAL PREPARED AND SUBMITTED BY THE CONTRACTOR.

3. REFERENCE TO STANDARD SPECIFICATIONS OF ANY TECHNICAL SOCIETY, ORGANIZATION, OR ASSOCIATION OR TO CODES OF LOCAL OR STATE AUTHORITIES, SHALL MEAN THE LATEST STANDARD, CODE, SPECIFICATION OR TENTATIVE SPECIFICATION ADOPTED AT THE DATE OF TAKING BIDS, UNLESS SPECIFICALLY STATED OTHERWISE.

4. CONTRACT DOCUMENTS SHALL GOVERN IN THE EVENT OF A CONFLICT WITH THE CODE OF PRACTICE OR SPECIFICATIONS OF ACI, PCI, AISC, SJI OR OTHER STANDARDS. WHERE A CONFLICT OCCURS WITHIN THE CONTRACT DOCUMENTS, THE STRICTEST REQUIREMENT SHALL GOVERN.

5. MATERIAL, WORKMANSHIP, AND DESIGN SHALL CONFORM TO THE REFERENCED BUILDING CODE.

6. CONTRACTOR SHALL COORDINATE THE STRUCTURAL DOCUMENTS WITH THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND CIVIL DOCUMENTS. ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCY OR OMISSION. FOR DIMENSIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS SEE THE ARCHITECTURAL DRAWINGS.

7. CONTRACTOR SHALL OBTAIN AND COORDINATE EDGE OF SLAB DIMENSIONS, OPENING LOCATIONS AND DIMENSIONS, DEPRESSED SLAB LOCATIONS AND EXTENTS, SLAB SLOPES, CURB LOCATIONS, AND CMU WALL LOCATIONS. STRUCTURAL ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCY OR OMISSION.

8. CONTRACTOR SHALL VERIFY EXISTING DIMENSIONS, ELEVATIONS, AND SITE CONDITIONS BEFORE STARTING WORK. ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCY.

9. CONTRACTOR HAS SOLE RESPONSIBILITY FOR MEANS, METHODS, SAFETY, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION.

10. THE STRUCTURE IS STABLE ONLY IN ITS COMPLETED FORM. TEMPORARY SUPPORTS REQUIRED FOR STABILITY DURING ALL INTERMEDIATE STAGES OF CONSTRUCTION SHALL BE DESIGNED, FURNISHED, AND INSTALLED BY THE CONTRACTOR. CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTIBILITY ANALYSIS, AND ERECTION PROCEDURES, INCLUDING DESIGN AND ERECTION OF FALSEWORK, TEMPORARY BRACING, ETC.

11. CONTRACTOR HAS SOLE RESPONSIBILITY TO COMPLY WITH ALL OSHA REGULATIONS.

12. REPRODUCTION OF STRUCTURAL DRAWINGS FOR SHOP DRAWINGS IS NOT PERMITTED. ELECTRONIC DRAWING FILES WILL NOT BE PROVIDED TO THE CONTRACTOR.

13. SUBMIT SHOP DRAWINGS WHICH ADEQUATELY DEPICT THE STRUCTURAL ELEMENTS AND CONNECTIONS SHOWN IN THE CONTRACT DOCUMENTS. REVIEW OF SHOP DRAWINGS SHALL BE FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS REGARDING ARRANGEMENT AND SIZES OF MEMBERS AND THE CONTRACTOR'S INTERPRETATION OF THE DESIGN LOADS AND CONTRACT DOCUMENT DETAILS. REVIEW OF SUBMITTALS OR SHOP DRAWINGS BY THE STRUCTURAL ENGINEER DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW AND CHECK ALL SUBMITTALS AND SHOP DRAWINGS BEFORE SUBMITTING TO THE STRUCTURAL ENGINEER. REVIEW OF SUBMITTALS OR SHOP DRAWINGS BY THE STRUCTURAL ENGINEER DOES NOT RELIEVE THE CONTRACTOR OF FULL RESPONSIBILITY FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS. CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS, AND DIMENSIONS SPECIFIED IN THE CONTRACT DOCUMENTS.

14. WHERE A SECTION OR DETAIL IS SHOWN OR DETAILED FOR ONE CONDITION, IT SHALL APPLY TO ALL SIMILAR AND LIKE CONDITIONS. DETAILS LABELED "TYPICAL" ON THE DRAWINGS APPLY TO ALL SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR. THE CONTRACTOR SHALL CONSIDER ALL OF THE CONTRACT DOCUMENTS IN DETERMINING SIMILAR AND LIKE CONDITIONS.

15. SIGNATURE AND REGISTRATION SEAL OF THE STRUCTURAL ENGINEER THAT MAY BE AFFIXED TO THESE DRAWINGS RELATES ONLY TO THE STRUCTURAL DESIGN OF THE PROJECT.

CODE/DESIGN CRITERIA

1. STRUCTURE IS DESIGNED IN ACCORDANCE WITH THE 2018 (B) BUILDING CODE, WITH LATEST AMENDMENTS.

2. GRAVITY LOADS
   2.1 UNIFORM FLOOR LIVE LOADS (REDUCED AS ALLOWED BY THE BUILDING CODE):

FLOOR	100 PSF
STAIRS	100 PSF

WIND LOADS: SEE TABLE ON THIS SHEET

3. ESTIMATED DEFLECTIONS (IN INCHES) ARE AS FOLLOWS:

	LIVE LOAD	DEAD + LIVE LOAD
ROOF MEMBERS:	L/360 OR 1 IN.	L/240
FLOOR MEMBERS:	L/360	L/240

WHERE, L = SPAN LENGTH (IN INCHES) BETWEEN CENTERLINES OF SUPPORTS. FOR CANTILEVERS, L IS TWICE THE LENGTH OF THE CANTILEVER.)

4. SPECIAL INSPECTIONS:

   4.1 THE FOLLOWING TYPES OF WORK REQUIRE SPECIAL INSPECTION: FOUNDATION ANCHORS & REINFORCING STEEL, STRUCTURAL STEEL, AND LIGHT GAUGE STEEL FRAMING.

REINFORCEMENT

1. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, PREFABRICATED, UNLESS NOTED OTHERWISE. NO FIELD BURNING ALLOWED.

2. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 AND HAVE MINIMUM SIDE AND END LAPS OF 12". CHAIRS TO BE PLACED 2'-0" O.C.. INDIVIDUAL CHAIRS SHOULD BE ABLE TO SUPPORT 200 LB. LOAD WITHOUT CRUSHING. WIRE MUST RETURN TO PROPER PLACEMENT AFTER BEING STEPPED ON.

3. SUBMIT SHOP DRAWINGS WHICH ADEQUATELY DEPICT THE REINFORCING BAR SIZES AND PLACEMENT. WRITTEN DESCRIPTION OF REINFORCEMENT WITHOUT ADEQUATE SECTIONS, ELEVATIONS, AND DETAILS IS NOT ACCEPTABLE.

4. PROVIDE DOWELS FROM FOUNDATIONS THE SAME SIZE AND NUMBER AS THE VERTICAL WALL OR COLUMN REINFORCING, UNLESS NOTED OTHERWISE.

5. PLACE REINFORCEMENT AS FOLLOWS, UNLESS NOTED OTHERWISE:

   5.1 CAST-IN-PLACE (NON POST-TENSIONED) CONCRETE REINFORCEMENT COVER

   PERMANENTLY EXPOSED TO EARTH:
   CAST AGAINST THE EARTH_____ 3" CLEAR

   EXPOSED TO EARTH OR WEATHER:
   FOR BARS LARGER THAN A NO. 5 BAR_____ 2" CLEAR
   NO. 5 BARS OR SMALLER_____ 1-1/2" CLEAR

   5.2 MASONRY REINFORCING STEEL SHALL BE PLACED IN THE CENTER OF CMU CELLS, UNLESS NOTED OTHERWISE.

6. REINFORCEMENT SHALL BE SPLICED ONLY AT LOCATIONS SHOWN OR NOTED IN THE STRUCTURAL DOCUMENTS, EXCEPT REINFORCEMENT MARKED "CONTINUOUS" CAN BE SPLICED AT LOCATIONS DETERMINED BY CONTRACTOR. SPLICES AT OTHER LOCATIONS SHALL BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER. REINFORCING STEEL SPLICES SHALL BE AS FOLLOWS, UNLESS NOTED OTHERWISE:

   CONCRETE REINFORCEMENT: CLASS B TENSION LAP
   MASONRY REINFORCEMENT: 48 BAR DIAMETERS

7. ADHESIVE FOR REINFORCING DOWELS IN EXISTING CONCRETE SHALL BE EITHER THE HIT HY150 INJECTION ADHESIVE SUPPLIED BY HILTI FASTENING SYSTEMS, THE EPCON SYSTEM CERAMIC 6 EPOXY ADHESIVE SUPPLIED BY ITW RAMSET/RED HEAD, POWER-FAST EPOXY INJECTION GEL SUPPLIED BY POWERS FASTENING, OR APPROVED EQUAL. MINIMUM EMBEDMENT LENGTH SHALL BE 24 BAR DIAMETERS, UNLESS NOTED OTHERWISE.

8. REINFORCING STEEL SHALL BE FREE FROM GREASE, MUD, EXCESSIVE RUST OR OTHER COATINGS THAT WILL DESTROY OR REDUCE BOND STRENGTH. REINFORCING STEEL IN ALL FOOTINGS, WALLS, BOND BEAMS AND PILASTERS SHALL BE MADE WITH BENT BARS WITH A MINIMUM SPLICE LENGTH OF 48 BAR DIAMETERS. PROVIDE GALV. ANCHOR BOLTS SET IN CONCRETE FOR ANCHORING STEEL OR WOOD TO CONCRETE.

CAST-IN-PLACE CONCRETE

1. CONCRETE WORK SHALL CONFORM TO ACI 318 AND CRSI STANDARDS.

2. CONCRETE SHALL HAVE THE FOLLOWING MINIMUM SPECIFIED 28-DAY COMPRESSIVE STRENGTH:

   ALL CONCRETE SHALL MEET ALL OF THE FOLLOWING REQUIREMENTS SPECIFIED.

   CLASS "A" CONCRETE SHALL BE USED FOR ALL WORK INCLUDED IN THIS CONTRACT, AND CLASS "AC" SHALL BE USED FOR PUMPING.

3. REFER TO ARCHITECTURAL DRAWINGS FOR MOLDS, GROOVES, ORNAMENTS, CLIPS OR GROUNDS REQUIRED TO BE ENCASED IN CONCRETE AND FOR LOCATION OF FLOOR FINISHES AND SLAB DEPRESSIONS.

4. CONSTRUCTION JOINT LOCATIONS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER. NO HORIZONTAL CONSTRUCTION JOINTS ARE PERMITTED EXCEPT THOSE SHOWN ON THE STRUCTURAL DRAWINGS.

5. DEFECTIVE AREAS IN CONCRETE INCLUDING, BUT NOT LIMITED TO, HONEY-COMBING, SPALLS, AND CRACKS WITH WIDTHS EXCEEDING 0.01 INCH SHALL BE REPAIRED. EXTENT OF DEFECTIVE AREA TO BE DETERMINED BY THE STRUCTURAL ENGINEER.

PROVIDE (1) SET OF CYLINDERS, (4) FROM EACH 50 CUBIC YARDS.

CLASS	MAX. WATER PER BAG OF CEMENT	MIN. CEMENT PER CUBIC YARD	MIN. COMPRESSIVE STRENGTH IN 28 DAYS	SLUMP RANGE
A	5.5	6.5	4,000 PSI	2"-4"
AC	6.0	8.0	4,000 PSI	5"-7"

FOUNDATION

1. FOUNDATION DESIGN IS BASED ON AN ALLOWABLE BEARING PRESSURE OF 1,200 PSF AND TIMBER PILE SUPPORTED COLUMN FOOTINGS. STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR SUBSURFACE CONDITIONS ENCOUNTERED IN THE FIELD DIFFERENT FROM THOSE ASSUMED FOR DESIGN.

2. GEOTECHINCAL/INSPECTION AGENCY SHALL CERTIFY THE BEARING MEDIUM.

3. DENSIFY BUILDING AREAS AND A MINIMUM OF 5'-0" OUTSIDE THE BUILDING PERIMETER USING A VIBRATORY ROLLER.

4. SOIL COMPACTION - 100% STANDARD PROCTOR DENSITY. ALL FILL SHALL BE COMPACTED IN 8" LOOSE LIFTS. COMPACTION TESTING SHALL BE PERFORMED ON EACH LIFT. ALL REPORTS SHALL BE SUBMITTED TO THE ENGINEER.

5. BACKFILL SHALL BE A SAND CLAY GRANULAR MATERIAL WITH LESS THAN 30% PASSING THE #200 SIEVE AND A LIQUID LIMIT OF LESS THAN 25.

6. ALL CONCRETE MUST CURE FOR A MINIMUM OF 7 DAYS BEFORE ANY LOAD IS PLACED ON CONCRETE. INSTALL CURING COMPOUND ON ALL EXPOSED CONCRETE SURFACES. CONCRETE SHALL BE CURED WITH MEMBRANE 30% SOLIDS COMPOUND, SPRAY APPLIED.

7. PROVIDE (1) SET OF CYLINDERS, (4) FROM EACH 50 CUBIC YARDS.

8. FOR SITE PREPARATION SEE SOUTHERN EARTH SCIENCES, GEOTECHNICAL REPORT PROJECT #: M21-454.

PRE-ENGINEERED METAL BUILDING NOTES:

1. SEE ALSO SPECIFICATIONS PROVIDED BY ARCHITECT. WHERE SPECIFICATIONS CONFLICT OR ARE DUPLICATED THE MORE RESTRICTIVE OF THE ARCHITECTURAL OR ENGINEERING SPECS WILL GOVERN.

2. BUILDING DIMENSIONS SHALL BE AS SHOWN ON THE DRAWINGS AND SHALL BE DESIGNED AS FOLLOWS AND IN ACCORDANCE WITH THE 2018 BUILDING CODE:

   A. DEAD LOAD OF STRUCTURE

   B. WIND LOAD - 159 MPH (3 SECOND GUST) (RISK CATEGORY II) (EXPOSURE D)

   C. ROOF LIVE LOAD - 20 PSF

   D. COLLATERAL LOAD = 8 PSF

   E. MAJOR STRUCTURAL COMPONENTS, INCLUDING RIGID FRAMES, BEAMS AND COLUMN WHICH SUPPORT A TRIBUTARY ROOF AREA GREATER THAN 600 SQUARE FEET SHALL BE DESIGNED ON THE BASIS OF A REDUCED LIVE LOAD IN ACCORDANCE WITH THE APPLICABLE CODE.

   F. BUILDING SHALL BE CERTIFIED BY BUILDING MANUFACTURER FOR 159 MPH WIND LOAD.

3. DEFLECTIONS SHALL BE LIMITED AS FOLLOWS:

PRIMARY FRAMING	(C) L/240 FOR LIVE LOAD
WIND BEAM	H/240 FOR WIND LOAD
SECONDARY FRAMING	(B) L/240 FOR ROOF DEAD LOAD +ROOF LIVE LOAD.

4. THE ROOF SHALL BE 24 GAUGE STANDING SEAM GALVALUME.

5. ALL ROOF PANEL FASTENERS SHALL BE "EXTENDED LIFE" WITH EITHER A ZINC/ALUMINUM/MANGANESE ALLOY CASTING OR A 302 STAINLESS STEEL CAP OVER THE CARBON STEEL HEAD AND STANDARD SEALING WASHER.

6. BUILDING TRIM SHALL BE IN ACCORDANCE WITH BUILDING MANUFACTURERS STANDARD. COLOR OF TRIM SHALL BE CHOSEN BY OWNER.

7. ALL STRUCTURAL STEEL SHALL RECEIVE A SHOP COAT OF BUILDING MANUFACTURER'S STANDARD SHOP PAINTING SYSTEM.

8. THE BUILDING SHALL BE INSULATED WITH BUILDING MANUFACTURER'S STANDARD VINYL BACKED INSULATION AS FOLLOWS:

   ROOF: R19 VINYL BACKED ROLL INSULATION
   WALLS: R10 VINYL BACKED ROLL INSULATION

8. ALL ANCHOR BOLT SIZES AND LOCATIONS SHALL BE AS PER BUILDING MANUFACTURER'S CERTIFIED DRAWINGS.

9. WIND BRACING IN ROOF AND WALLS SHALL BE PROVIDED USING ROD TYPE X-BRACING OR WIND FRAMES.

10. GUTTERS AND DOWNSPOUTS SHALL BE DESIGNED FOR THE ABOVE WIND LOAD AND FASTENED AS REQUIRED. GUTTERS AND DOWNSPOUTS SHALL BE DESIGNED FOR A MINIMUM 25 YEAR RAINFALL EVENT.

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CONFIDENTIAL, VALUABLE, AND PROPRIETARY INFORMATION

REV.	DESCRIPTION	DATE	BY	CHK'D
C	REVISED PER ADDENDUM 2	09/07/22	JWM	GDEC
B	REVISED PER ADDENDUM 1	09/02/22	RCC	GDEC
A	ISSUED FOR BID	08/10/22	JWM	GDEC

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PROJECT
McDUFFIE WAREHOUSE
McDUFFIE TERMINAL
ASPA

TITLE
GENERAL NOTES

SCALE	DRAWN BY	DATE	SHEET	REV.
N/A	JWM	12/22/21	— OF —	C
JOB NO. 4043	CHECKED BY WBS	DATE 12/22/21	DRAWING NUMBER 4043-G1	

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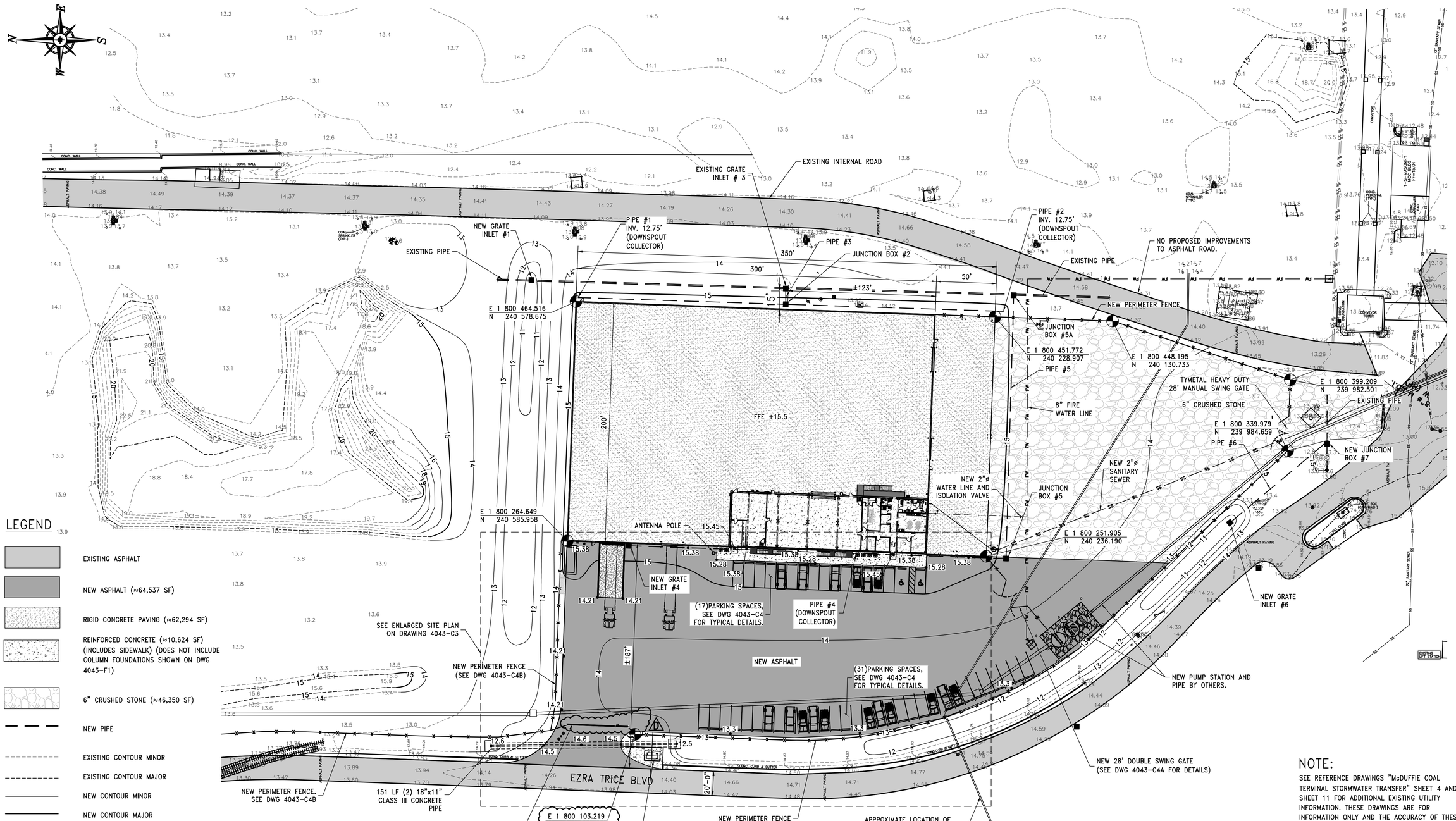

NEW SITE PLAN

1"=40'

LEGEND

- EXISTING ASPHALT
- NEW ASPHALT (≈64,537 SF)
- RIGID CONCRETE PAVING (≈62,294 SF)
- REINFORCED CONCRETE (≈10,624 SF) (INCLUDES SIDEWALK) (DOES NOT INCLUDE COLUMN FOUNDATIONS SHOWN ON DWG 4043-F1)
- 6" CRUSHED STONE (≈46,350 SF)
- NEW PIPE
- EXISTING CONTOUR MINOR
- EXISTING CONTOUR MAJOR
- NEW CONTOUR MINOR
- NEW CONTOUR MAJOR
- DATUM POINT (STATE PLANE COORDINATES)

QUANTITIES SHOWN FOR INFORMATION/COMPARISON ONLY. CONTRACTOR IS RESPONSIBLE FOR TAKE-OFF AS SHOWN.

* SEE 4043-C4 FOR PIPE AND DRAINAGE STRUCTURE DETAILS.

NOTE:

SEE REFERENCE DRAWINGS "McDUFFIE COAL TERMINAL STORMWATER TRANSFER" SHEET 4 AND SHEET 11 FOR ADDITIONAL EXISTING UTILITY INFORMATION. THESE DRAWINGS ARE FOR INFORMATION ONLY AND THE ACCURACY OF THESE DRAWINGS ARE NOT GUARANTEED. THE CONTRACTOR IS SOLELY RESPONSIBLE TO VERIFY THE LOCATION OF ALL UTILITIES BEFORE BEGINNING WORK.

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REV.	DESCRIPTION	DATE	BY	CHK'D
D	REVISED PER ADDENDUM 2	09/07/22	RCC	GDEC
C	REVISED PER ADDENDUM 1	09/02/22	RCC	GDEC
B	UPDATED MCFADDEN STORM WATER PIPE LOCATION	08/18/22	JWM	WBS
A	ISSUE FOR BID	08/10/22	JWM	GDEC

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Georgia (706) 302-2831 Tennessee (901) 290-5444

PROJECT
McDUFFIE WAREHOUSE
McDUFFIE TERMINAL ASPA

TITLE
NEW SITE PLAN

SCALE	DRAWN BY	DATE	SHEET	REV.
NOTED	JWM	12/01/21	— OF —	D
JOB NO. 4043	CHECKED BY WBS	DATE 12/01/21	DRAWING NUMBER 4043-C2	

Z:\4000-4099\4043 ASPA McDuffie Warehouse\Design\4043-C2.dwg, 9/8/2022 2:56:29 PM, DWG To PDF.pc3

EXISTING INTERNAL ROAD

NEW SECURITY FENCE

28' TWIC LOCKED SWING GATE. SEE DWG 4043-C4A FOR DETAILS

6" CRUSHED STONE

FFE +15.5

NEW 28' DOUBLE SWING GATE (SEE DWG 4043-C4A FOR DETAILS)

REMOVE EXISTING SWING EXIT GATE

NEW ASHPALT

NEW 40'-0" x 6'-0" TALL GATE (SEE DWG 4043-C4A FOR DETAILS)

NEW PERIMETER FENCE

CONTRACTOR SHALL INSTALL NEW FENCE DIRECTLY ADJACENT TO EXISTING FENCE. NO MORE THAN A 4" GAP BETWEEN EXISTING AND NEW FENCE.

EZRA TRICE BLVD

NEW SECURITY FENCE

SEE DWG 4043-C4B FOR FENCE DETAILS

SECURITY FENCE (APPROX. 1,800 L.F.)

SECURITY PERIMETER PLAN

1"=40'

OLD McDUFFIE GUARD HOUSE

LEGEND

- EXISTING ASPHALT
- NEW ASPHALT
- RIGID CONCRETE PAVING
- REINFORCED CONCRETE (INCLUDES SIDEWALK)
- 6" CRUSHED STONE
- EXISTING CONTOUR MINOR
- EXISTING CONTOUR MAJOR
- NEW CONTOUR MINOR
- NEW CONTOUR MAJOR

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REV.	DESCRIPTION	DATE	BY	CHK'D
C	REVISED PER ADDENDUM 2	09/07/22	RCC	GDEC
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PROJECT
McDUFFIE WAREHOUSE
McDUFFIE TERMINAL ASPA

TITLE
SECURITY PERIMETER PLAN

SCALE	DRAWN BY	DATE	SHEET	REV.
NOTED	JWM	12/01/21	__ OF __	C
JOB NO. 4043	CHECKED BY WBS	DATE 12/01/21	DRAWING NUMBER 4043-C2A	

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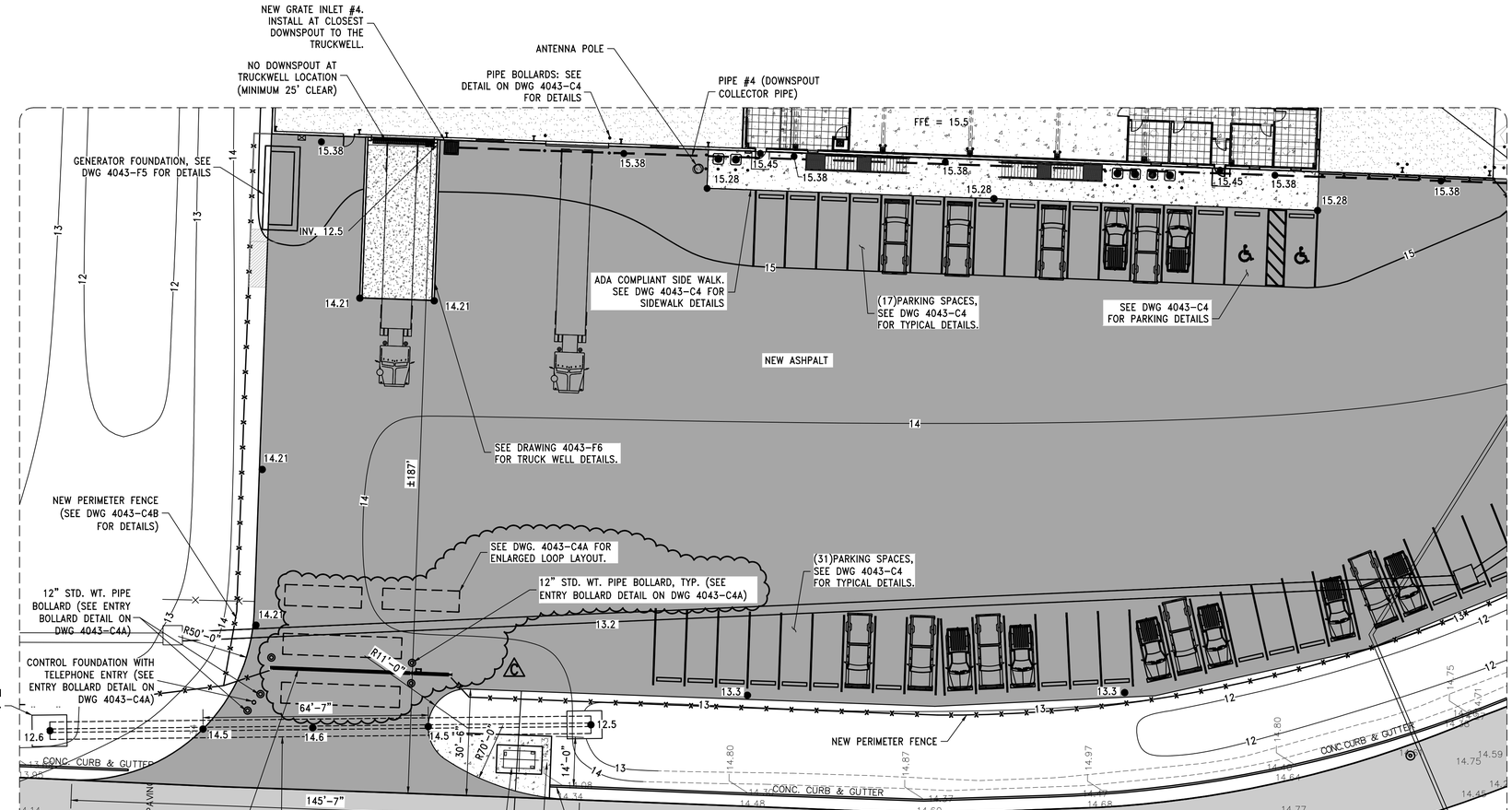

ENLARGED AREA PLAN

1"=20'

LEGEND

- EXISTING ASPHALT
- NEW ASPHALT (≈64,537 SF)
- RIGID CONCRETE PAVING (≈62,294 SF)
- REINFORCED CONCRETE (≈10,624 SF) (INCLUDES SIDEWALK) (DOES NOT INCLUDE COLUMN FOUNDATIONS SHOWN ON DWG 4043-F1)
- 6" CRUSHED STONE (≈46,350 SF)
- NEW PIPE
- EXISTING CONTOUR MINOR
- EXISTING CONTOUR MAJOR
- NEW CONTOUR MINOR
- NEW CONTOUR MAJOR
- DATUM POINT (STATE PLANE COORDINATES)

QUANTITIES SHOWN FOR INFORMATION/COMPARISON ONLY. CONTRACTOR IS RESPONSIBLE FOR TAKE-OFF AS SHOWN.

* SEE 4043-C4 FOR PIPE AND DRAINAGE STRUCTURE DETAILS.

NOTE:

SEE REFERENCE DRAWINGS "McDUFFIE COAL TERMINAL STORMWATER TRANSFER" SHEET 4 AND SHEET 11 FOR ADDITIONAL EXISTING UTILITY INFORMATION. THESE DRAWINGS ARE FOR INFORMATION ONLY AND THE ACCURACY OF THESE DRAWINGS ARE NOT GUARANTEED. THE CONTRACTOR IS SOLELY RESPONSIBLE TO VERIFY THE LOCATION OF ALL UTILITIES BEFORE BEGINNING WORK.

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PROJECT: McDUFFIE WAREHOUSE
McDUFFIE TERMINAL ASPA

TITLE: ENLARGED AREA PLAN

SCALE	DRAWN BY	DATE	SHEET	REV.
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JOB NO. 4043	CHECKED BY WBS	DATE 12/01/21	DRAWING NUMBER 4043-C3	

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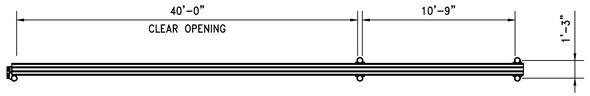
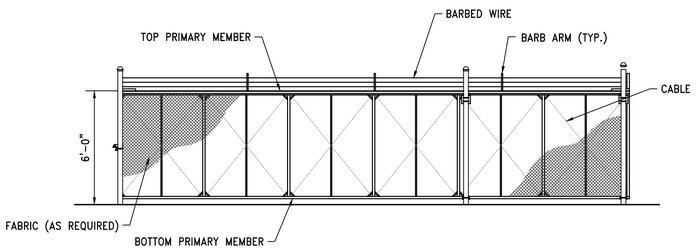
NOTE:
THESE DETAILS ARE REFERENCED FROM TYMETAL CORP. CONTACT TYMETAL CORP. FOR DRAWINGS.



40' GATE PLAN VIEW

NTS

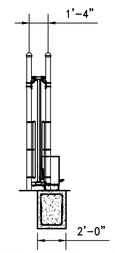
*TYMETAL CORP 40' STRUCTURAL CANTILEVER SLIDE GATE OR APPROVED EQUAL



40' GATE ELEVATION VIEW

NTS

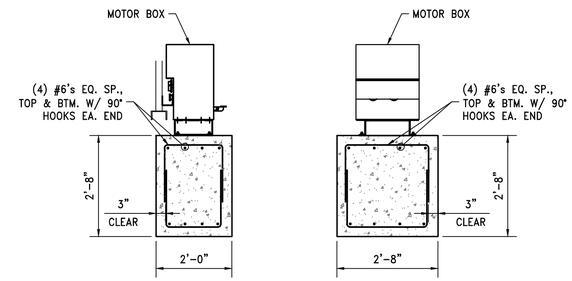
*TYMETAL CORP 40' STRUCTURAL CANTILEVER SLIDE GATE OR APPROVED EQUAL



40' GATE SIDE VIEW

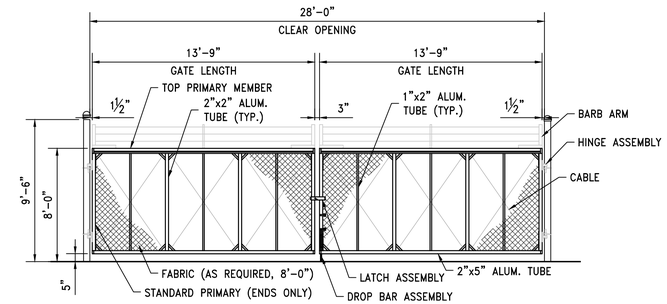
NTS

*TYMETAL CORP 40' STRUCTURAL CANTILEVER SLIDE GATE OR APPROVED EQUAL



MOTOR BOX FOUNDATION

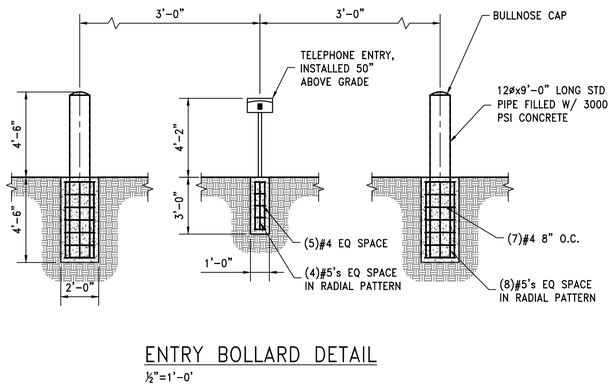
½"=1'-0"



28' GATE ELEVATION VIEW

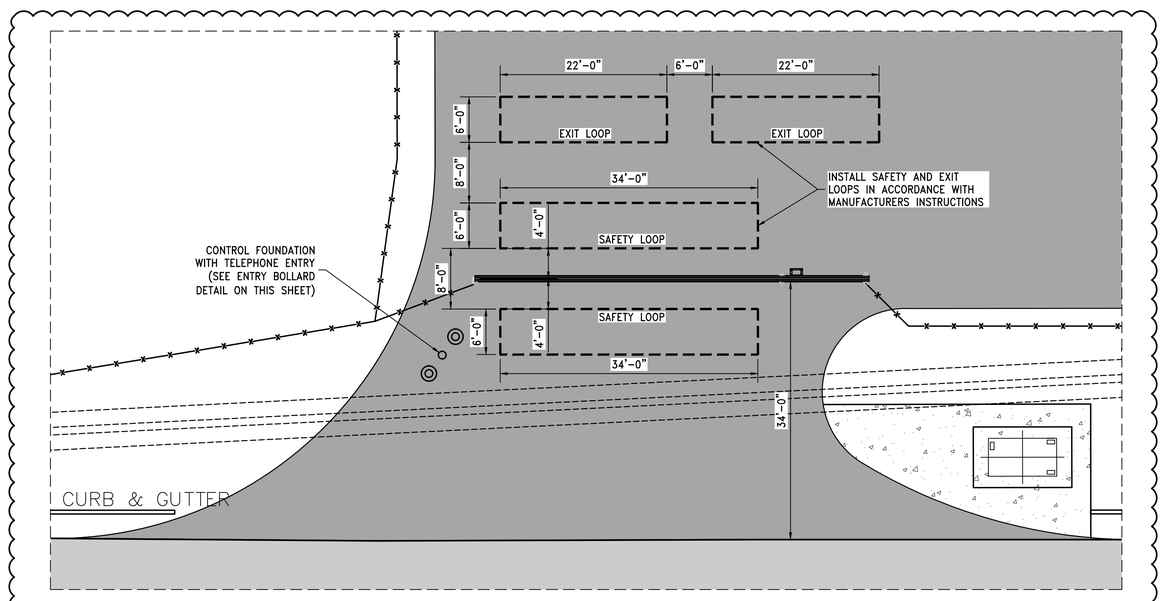
NTS

*TYMETAL CORP 28'-8' GATE OR APPROVED EQUAL



ENTRY BOLLARD DETAIL

½"=1'-0'



ENLARGED LOOP LAYOUT

1"=10'-0"

C

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PROJECT
McDUFFIE WAREHOUSE
McDUFFIE TERMINAL
ASPA

TITLE
GATE DETAILS

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JOB NO. 4043	CHECKED BY WBS	DATE 12/01/21	DRAWING NUMBER 4043-C4A	

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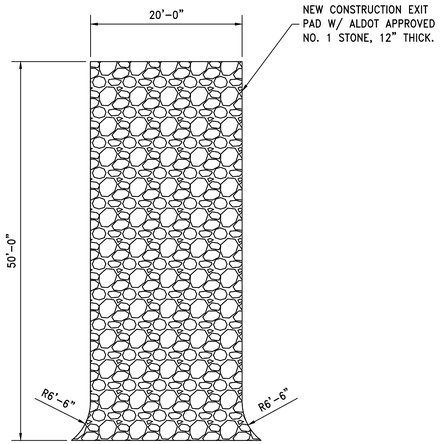
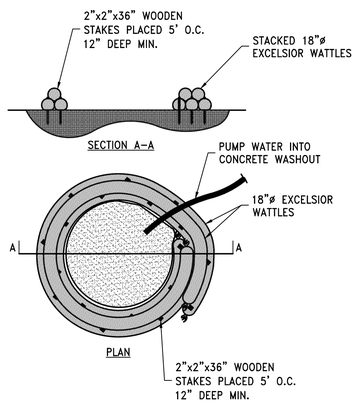


CONSTRUCTION EXIT PAD DETAIL

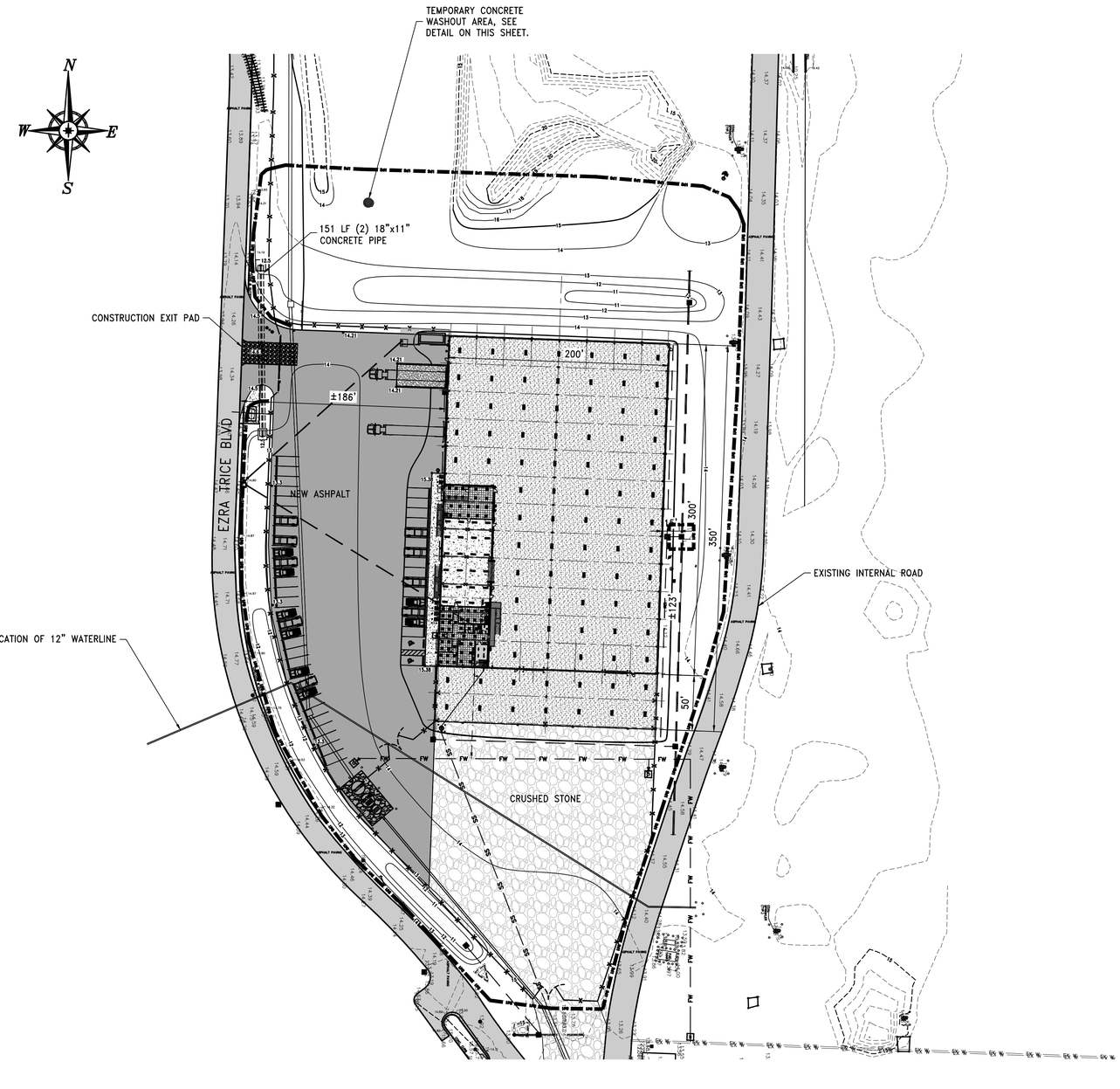
1" = 10'-0"



EXCELSIOR WATTLE CONCRETE WASHOUT

N.T.S.

NOTES:
1. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.
2. FILTER SOXX MAY BE DIRECT SEEDED AT THE TIME OF INSTALLATION

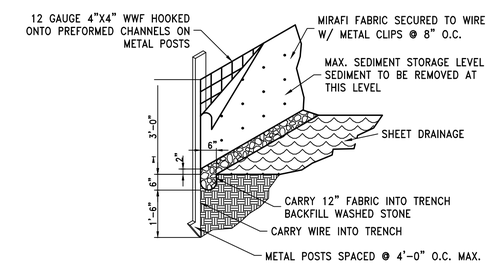


NEW SITE PLAN

1"=60'

EROSION AND SEDIMENT CONTROL NOTES

1. CONTRACTOR WILL PROTECT INLETS AND DRAINS FROM SEDIMENT DEPOSITS WITH STRAW BALES, SECURELY TIED AND ANCHORED TO THE GROUND OR OTHER METHODS AS SHOWN ON THE DRAWINGS. THE EXISTING SITE IS COMPLETELY DEVELOPED, GRADED AND OPERATIONAL.
2. THE EXISTING PERMANENT STORM WATER SYSTEM IS IN PLACE, AND WILL BE UTILIZED DURING CONSTRUCTION AND OPERATION OF THE NEW FACILITY.
3. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE IN OPERATION PRIOR TO GRADING.
4. SEDIMENT DEPOSITION CAUSED BY SHEET FLOW ACROSS PROPERTY LINES SHALL BE PREVENTED BY PLACING AND ANCHORING OF TEMPORARY STRAW BALES/EROSION NETTING. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED AS QUICKLY AS POSSIBLE.
5. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED DAILY AND REPAIRED IMMEDIATELY, IF DAMAGED.
6. TRENCHES, IF REQUIRED, SHALL BE BACKFILLED WITHIN 7 DAYS OF COMPLETION, TESTING AND ACCEPTANCE OF THE APPROPRIATE LINES.
7. THE CONTRACTOR SHALL USE BEST MANAGEMENT PRACTICES TO CONTROL RUN OFF VELOCITIES AND REDUCE EROSION.
8. THE OWNER OF PROPERTY WILL BE REQUIRED TO MAINTAIN THE DRAINAGE APPURTENANCES IN WORKING ORDER FOR LIFE OF THE FACILITY.
9. ALL PRACTICES AND MATERIALS SHALL CONFORM TO THE ALABAMA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, LATEST EDITION, AND ALABAMA HANDBOOK FOR EROSION AND SEDIMENT CONTROL AND STORMWATER MANAGEMENT ON CONSTRUCTION SITES AND URBAN AREAS, LATEST EDITION.



SILT FENCE DETAIL

N.T.S.

Sd1

LEGEND

- NEW ASPHALT
- EXISTING ASPHALT
- NEW CRUSHED STONE
- SILT FENCE

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PROJECT
McDUFFIE WAREHOUSE
McDUFFIE TERMINAL
ASPA

TITLE
EROSION CONTROL PLAN

SCALE	DRAWN BY	DATE	SHEET	REV.
NOTED	JWM	12/08/21	___ OF ___	C
JOB NO. 4043	CHECKED BY WBS	DATE 12/08/21	DRAWING NUMBER 4043-C5	

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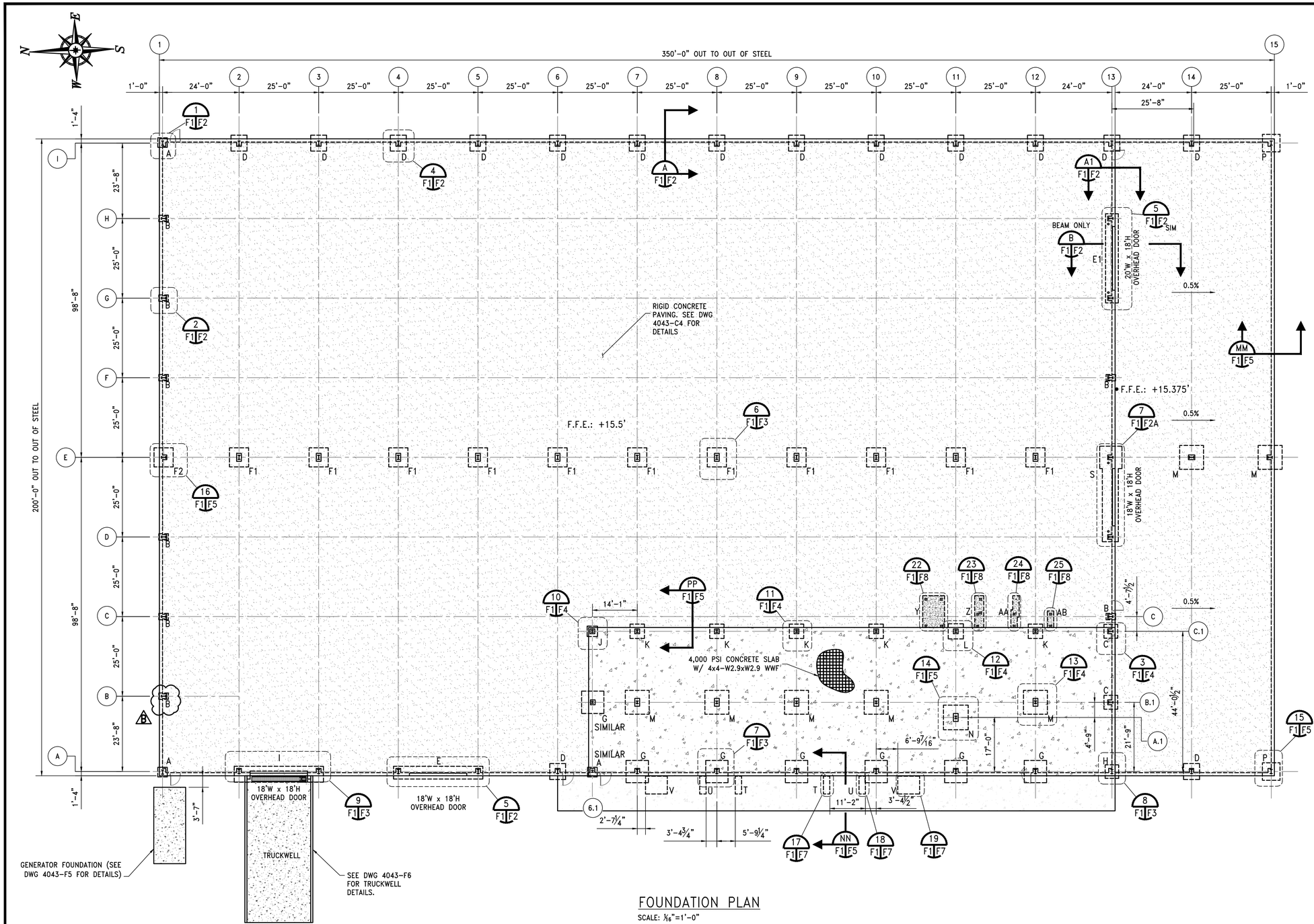

FOUNDATION PLAN

SCALE: 1/16"=1'-0"

NOTE:

FINAL FOUNDATION DESIGN IS CONTINGENT ON PEMB DESIGN. PRIOR TO CONSTRUCTION, STRUCTURAL ENGINEER OF RECORD SHALL REVIEW PEMB DESIGN AND COLUMN REACTIONS TO VERIFY FINAL FOUNDATION DESIGN.

FOUNDATION SCHEDULE

TYPE	DIMENSIONS	REBAR	QTY.
A	3'-0"x3'-0"x1'-0"	(4) #6'S E.W., EQ. SP.	3
B	3'-0"x2'-0"x1'-0"	(4) #6'S E.W., EQ. SP.	8
C	4'-4"x4'-4"x1'-0"	(5) #6'S E.W., EQ. SP.	2
D	5'-0"x5'-0"x1'-0"	(7) #6'S E.W., EQ. SP.	15
E	4'-0"x28'-0"x1'-0"	SEE DETAIL	1
E1	4'-0"x28'-0"x1'-0"	SEE DETAIL	1
F1	6'-0"x6'-0"x1'-0"	(9) #6'S E.W., EQ. SP.	11
F2	6'-0"x6'-0"x1'-0"	(9) #6'S E.W., EQ. SP.	1
G	7'-0"x7'-0"x1'-0"	(11) #6'S E.W., EQ. SP.	7
H	4'-3"x4'-3"x1'-0"	(5) #6'S E.W., EQ. SP.	1
I	5'-0"x28'-0"x1'-0"	SEE DETAIL	1
J	3'-3"x3'-3"x1'-0"	(4) #6'S E.W., EQ. SP.	1
K	4'-6"x4'-6"x1'-0"	(6) #6'S E.W., EQ. SP.	5
L	4'-9"x4'-9"x1'-0"	(6) #6'S E.W., EQ. SP.	1
M	7'-6"x7'-6"x1'-0"	(11) #6'S E.W., EQ. SP.	7
N	7'-9"x7'-9"x1'-0"	(12) #6'S E.W., EQ. SP.	1
P	5'-6"x5'-6"x1'-0"	(9) #6'S E.W., EQ. SP.	2
S	4'-0"x28'-0"x1'-0"	SEE DETAIL	1
T	5'-8½"x2'-0"x1'-0"	#5'S @ 12" O.C. E.W.	2
U	5'-8½"x2'-0"x1'-0"	#5'S @ 12" O.C. E.W.	2
V	6'-10"x5'-8½"x1'-0"	#5'S @ 12" O.C. E.W.	2
Y	10'-0"x6'-10"x1'-0"	#5'S @ 12" O.C. E.W.	1
Z	10'-0"x2'-7"x1'-0"	#5'S @ 12" O.C. E.W.	1
AA	10'-0"x2'-7"x1'-0"	#5'S @ 12" O.C. E.W.	1
AB	10'-0"x2'-0"x1'-0"	#5'S @ 12" O.C. E.W.	1

*SEE PLAN FOR LOCATIONS AND ORIENTATION

*FOUNDATIONS "Q" AND "R" NO LONGER USED

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PROJECT
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McDUFFIE TERMINAL
ASPA

TITLE
FOUNDATION PLAN

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DOOR SCHEDULE – FIRST FLOOR

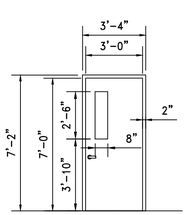
DOOR #	RATING	DOOR SIZE	DOOR MATERIAL	FRAME MATERIAL	HARDWARE	REMARKS
100	60 PSF	3'–0" x 7'–0"	METAL DOOR WITH POLY CORE	METAL	ENTRY LOCKSET W/ DEADBOLT, DOOR CLOSER, 1½ PAIR S.S. BUTT HINGES, VINYL DOOR SEAL, NEOPRENE SWEEP, SADDLE THRESHOLD	CT GLASS–SEE DOOR TYPE "A"
101	NONE	3'–0" x 7'–0"	SCWD	METAL	PRIVACY LOCK SET, DOOR CLOSER, 1½ PAIR S.S. BUTT HINGES	
102	NONE	3'–0" x 7'–0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	
103	NONE	3'–0" x 7'–0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	
104					DELETED	
105					DELETED	
106	NONE	3'–0" x 7'–0"	SCWD	METAL	PRIVACY LOCK SET, DOOR CLOSER, 1½ PAIR S.S. BUTT HINGES	
107	NONE	3'–0" x 5'–0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	SEE DOOR TYPE "C"
108	2 HR	3'–0" x 7'–0"	METAL DOOR WITH POLY CORE	METAL	ENTRY LOCKSET W/ DEADBOLT, DOOR CLOSER, 1½ PAIR S.S. BUTT HINGES, VINYL DOOR SEAL, NEOPRENE SWEEP, SADDLE THRESHOLD	FR GLASS–SEE DOOR TYPE "E"
109	NONE	3'–0" x 7'–0"	SCWD	METAL	PRIVACY LOCK SET, DOOR CLOSER, 1½ PAIR S.S. BUTT HINGES	
110	NONE	3'–0" x 7'–0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	
111	NONE	3'–0" x 7'–0"	SCWD	METAL	ENTRY LOCK SET, 1½ PAIR S.S. BUTT HINGES	
112	NONE	3'–0" x 7'–0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	
113	NONE	3'–0" x 7'–0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	
114	NONE	3'–0" x 7'–0"	METAL DOOR WITH POLY CORE	METAL	ENTRY LOCKSET W/ DEADBOLT, DOOR CLOSER, 1½ PAIR S.S. BUTT HINGES	CT GLASS–SEE DOOR TYPE "A"
115	NONE	3'–0" x 7'–0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	
116	NONE	6–0" x 7'–0"	SCWD	METAL	1½ PAIR S.S. BUTT HINGES	DOUBLE DOOR, SEE DOOR TYPE "B"
117	NONE	3'–0" x 7'–0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	
118	NONE	3'–0" x 7'–0"	SCWD	METAL	LOUVERED DOOR, 1½ PAIR S.S. BUTT HINGES	LOUVERED DOOR SEE DOOR TYPE "D"
119	2 HR	3'–0" x 7'–0"	METAL DOOR WITH POLY CORE	METAL	ENTRY LOCKSET W/ DEADBOLT, DOOR CLOSER, 1½ PAIR S.S. BUTT HINGES, VINYL DOOR SEAL, NEOPRENE SWEEP, SADDLE THRESHOLD	FR GLASS–SEE DOOR TYPE "E"
120	2 HR	3'–0" x 7'–0"	METAL DOOR WITH POLY CORE	METAL	ENTRY LOCKSET W/ DEADBOLT, DOOR CLOSER, 1½ PAIR S.S. BUTT HINGES, VINYL DOOR SEAL, NEOPRENE SWEEP, SADDLE THRESHOLD	FR GLASS–SEE DOOR TYPE "E"
121	NONE	3'–0" x 7'–0"	METAL DOOR WITH POLY CORE	METAL	ENTRY LOCKSET W/ DEADBOLT, DOOR CLOSER, 1½ PAIR S.S. BUTT HINGES	CT GLASS–SEE DOOR TYPE "A"
122	2 HR	3'–0" x 7'–0"	METAL DOOR WITH POLY CORE	METAL	ENTRY LOCKSET W/ DEADBOLT, DOOR CLOSER, 1½ PAIR S.S. BUTT HINGES, VINYL DOOR SEAL, NEOPRENE SWEEP, SADDLE THRESHOLD	FR GLASS–SEE DOOR TYPE "E"
124	NONE	3'–0" x 7'–0"	METAL DOOR WITH POLY CORE	METAL	DOOR CLOSER, 1½ PAIR S.S. BUTT HINGES	CT GLASS–SEE DOOR TYPE "A"
125	60 PSF	3'–0" x 7'–0"	METAL DOOR WITH POLY CORE	METAL	ENTRY LOCKSET W/ DEADBOLT, DOOR CLOSER, 1½ PAIR S.S. BUTT HINGES, VINYL DOOR SEAL, NEOPRENE SWEEP, SADDLE THRESHOLD	CT GLASS–SEE DOOR TYPE "A"
126	NONE	3'–0" x 7'–0"	SCWD	METAL	LOUVERED DOOR, 1½ PAIR S.S. BUTT HINGES	LOUVERED DOOR SEE DOOR TYPE "D"
127	60 PSF	3'–0" x 7'–0"	METAL DOOR WITH POLY CORE	METAL	ENTRY LOCKSET W/ DEADBOLT, DOOR CLOSER, 1½ PAIR S.S. BUTT HINGES, VINYL DOOR SEAL, NEOPRENE SWEEP, SADDLE THRESHOLD	
128	60 PSF	3'–0" x 7'–0"	METAL DOOR WITH POLY CORE	METAL	ENTRY LOCKSET W/ DEADBOLT, DOOR CLOSER, 1½ PAIR S.S. BUTT HINGES, VINYL DOOR SEAL, NEOPRENE SWEEP, SADDLE THRESHOLD	
129	60 PSF	3'–0" x 7'–0"	METAL DOOR WITH POLY CORE	METAL	ENTRY LOCKSET W/ DEADBOLT, DOOR CLOSER, 1½ PAIR S.S. BUTT HINGES, VINYL DOOR SEAL, NEOPRENE SWEEP, SADDLE THRESHOLD	
130	60 PSF	3'–0" x 7'–0"	METAL DOOR WITH POLY CORE	METAL	ENTRY LOCKSET W/ DEADBOLT, DOOR CLOSER, 1½ PAIR S.S. BUTT HINGES, VINYL DOOR SEAL, NEOPRENE SWEEP, SADDLE THRESHOLD	

DOOR SCHEDULE SECOND FLOOR

DOOR #	RATING	DOOR SIZE	DOOR MATERIAL	FRAME MATERIAL	HARDWARE	REMARKS
200	NONE	3'–0" x 7'–0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	
201	NONE	3'–0" x 7'–0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	
202	NONE	3'–0" x 7'–0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	
203	NONE	3'–0" x 7'–0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	
204	NONE	3'–0" x 7'–0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	
205	NONE	3'–0" x 7'–0"	SCWD	METAL	PRIVACY LOCK SET, DOOR CLOSER, 1½ PAIR S.S. BUTT HINGES	
206	60 PSF	3'–0" x 7'–0"	METAL DOOR WITH POLY CORE	METAL	ENTRY LOCKSET W/ DEADBOLT, DOOR CLOSER, 1½ PAIR S.S. BUTT HINGES, VINYL DOOR SEAL, NEOPRENE SWEEP, SADDLE THRESHOLD	CT GLASS–SEE DOOR TYPE "A"
207	NONE	3'–0" x 7'–0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	
208	NONE	3'–0" x 7'–0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	
209	NONE	3'–0" x 7'–0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	
210	NONE	3'–0" x 7'–0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	
211	NONE	3'–0" x 7'–0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	
212	NONE	3'–0" x 7'–0"	METAL DOOR WITH POLY CORE	METAL	ENTRY LOCKSET W/ DEADBOLT, DOOR CLOSER, 1½ PAIR S.S. BUTT HINGES, VINYL DOOR SEAL, NEOPRENE SWEEP, SADDLE THRESHOLD	CT GLASS–SEE DOOR TYPE "A"
213	NONE	3'–0" x 7'–0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	
214	NONE	3'–0" x 7'–0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	
215	NONE	3'–0" x 7'–0"	SCWD	METAL	LOUVERED DOOR, 1½ PAIR S.S. BUTT HINGES	LOUVERED DOOR SEE DOOR TYPE "D"
216	NONE	3'–0" x 7'–0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	
217	NONE	3'–0" x 7'–0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	
218	NONE	3'–0" x 7'–0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	
219	NONE	3'–0" x 7'–0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	
220	NONE	3'–0" x 7'–0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	
221	2 HR	3'–0" x 7'–0"	METAL DOOR WITH POLY CORE	METAL	ENTRY LOCKSET W/ DEADBOLT, DOOR CLOSER, 1½ PAIR S.S. BUTT HINGES, VINYL DOOR SEAL, NEOPRENE SWEEP, SADDLE THRESHOLD	FR GLASS–SEE DOOR TYPE "E"
222	2 HR	3'–0" x 7'–0"	METAL DOOR WITH POLY CORE	METAL	ENTRY LOCKSET W/ DEADBOLT, DOOR CLOSER, 1½ PAIR S.S. BUTT HINGES, VINYL DOOR SEAL, NEOPRENE SWEEP, SADDLE THRESHOLD	FR GLASS–SEE DOOR TYPE "E"
223	NONE	3'–0" x 7'–0"	SCWD	METAL	PRIVACY LOCK SET, DOOR CLOSER, 1½ PAIR S.S. BUTT HINGES	
224	NONE	3'–0" x 7'–0"	SCWD	METAL	PRIVACY LOCK SET, DOOR CLOSER, 1½ PAIR S.S. BUTT HINGES	
225	NONE	3'–0" x 7'–0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	
226	NONE	3'–0" x 7'–0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	
227	NONE	3'–0" x 5'–0"	SCWD	METAL	PRIVACY LOCK SET, 1½ PAIR S.S. BUTT HINGES	SEE DOOR TYPE "C"

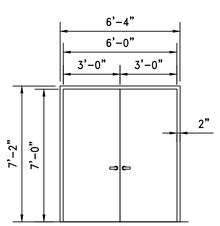
DOOR SCHEDULE NOTES:

GENERAL: PROVIDE WALL BUMPERS FOR ALL DOORS.
1. DOOR FIRE RATING – RATING SHALL BE 30 MIN, UNLESS NOTED OTHERWISE.
2. SCWD = SOLID CORE WOOD DOOR
   2A. WOOD DOORS TO HAVE HOLLOW METAL FRAME
   2B. WOOD DOORS TO BE ROTARY NATURAL BIRCH, FACTORY PRE–FINISHED, STANDARD COLOR STAINED.
3. NL = NIGHTLATCH
4. SS = STAINLESS STEEL
5. ALL DOORS NOT TYPE A OR B TO BE FLUSH, UNLESS NOTED OTHERWISE.
6. IR = IMPACT RESISTANT
   CT = CLEAR TEMPERED
   FR = FIRE RESISTANT



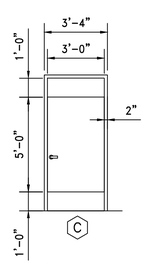
A

HOLLOW METAL DOOR WITH POLY STYRENE CORE AND IR TOP WINDOW (6"W x 30"H)



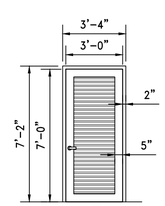
B

DOUBLE 3'–0"x7'–0" SOLID CORE WOOD DOORS.



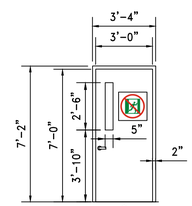
C

3'–0"x5'–0" DRESSING ROOM DOOR IN 3'–0"x7'–0" DOOR OPENING.



D

3'–0"x7'–0" LOUVERED DOOR



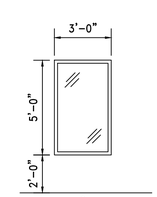
E

FIRE RATED STEEL DOOR WITH GLASS WINDOW AND FIRE RATED DOOR SIGNAGE (ONLY ON INTERIOR SIDE, SEE DETAILS THIS SHEET)

WINDOW SCHEDULE NOTES:

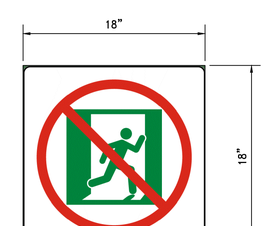
1. CLEAR TEMPERED
2. IMPACT RESISTANT: 159 WIND REQUIREMENT MIN.
3. VINYL FRAME FIXED
4. U–FACTOR: 0.35
5. SHGC: 0.27

B



AA

STOREFRONT KAWNEER IR 501 CLEAR INSULATED – LOW–E #2 – HURRICANE RESISTANT GLAZING



FIRE RATED DOOR SIGNAGE

1. NFPA 170 "NOT AN EMERGENCY EXIT SYMBOL"
2. 18"X18"
3. REFLECTIVE SIGN

NOTE:

–ALL EXTERIOR GLASS TO BE CLEAR TEMPERED, IMPACT RESISTANT, MEETING WIND REQUIREMENT OF 159 MPH.

–ALL EXTERIOR DOORS SHALL BE AIR TIGHT AND WEATHER TIGHT. (DOORS SHALL PERMIT LESS THAN 0.01 CU.FT./MIN. OF OUTSIDE AIR)

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REV.	DESCRIPTION	DATE	BY	CHK'D
B	REVISED PER ADDENDUM 2	09/09/22	MAD	DBK
A	ISSUE FOR BID	08/10/22	JWM	DBK

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PROJECT
McDUFFIE WAREHOUSE
McDUFFIE TERMINAL
ASPA

TITLE
DOOR AND WINDOW SCHEDULE

SCALE	DRAWN BY	DATE	SHEET	REV.
NOTED	JWM	03/14/22	— OF —	B
JOB NO. 4043	CHECKED BY DBK	DATE 03/14/22	DRAWING NUMBER 4043–A6	

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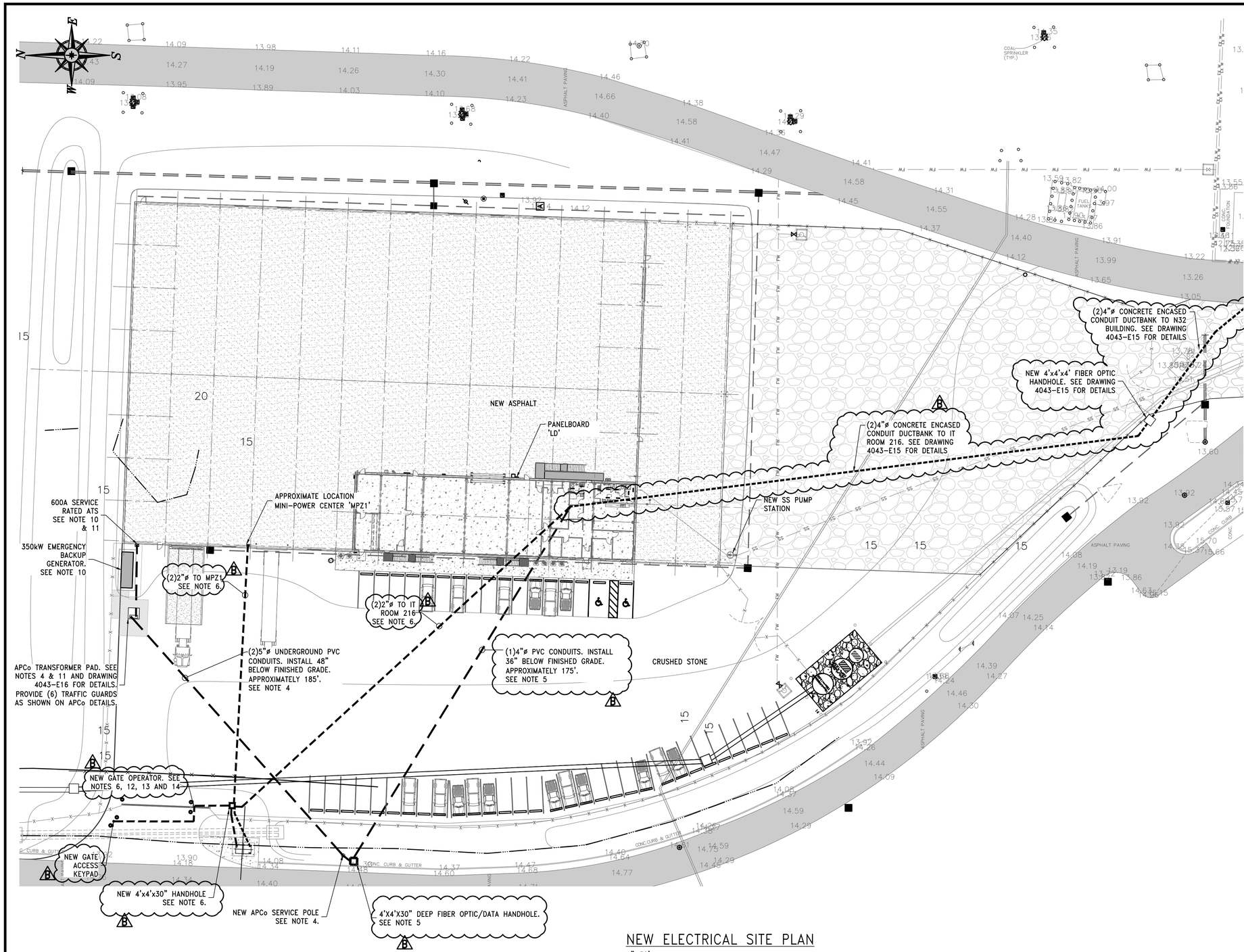

NEW ELECTRICAL SITE PLAN

1"=30'

ELECTRICAL NOTES:

1. ALL ELECTRICAL WORK SHALL BE INSTALLED AS REQUIRED BY THE NATIONAL ELECTRIC CODE (N.E.C.) AND ANY STATE, CITY AND/OR LOCAL CODE REQUIREMENTS. THE MORE STRINGENT CODE REQUIREMENT SHALL BE UTILIZED AND VERIFIED WITH THE LOCAL INSPECTION APPROVAL AGENCY. (DEFINITION "CODE" – STATE, CITY AND/OR LOCAL CODE REQUIREMENTS)

2. CONTRACTOR SHALL INSTALL ALL GROUNDING AS REQUIRED BY THE NATIONAL ELECTRIC CODE (N.E.C.) AND ANY STATE, CITY AND/OR LOCAL CODE REQUIREMENTS. THE MORE STRINGENT CODE REQUIREMENT SHALL BE UTILIZED AND VERIFIED WITH THE LOCAL INSPECTION APPROVAL AGENCY.

3. CONTRACTOR SHALL (PRIOR TO BID)
   (a) VISIT THE JOB/CONSTRUCTION SITE AND FIELD VERIFY ALL EXISTING CONDITIONS
   (b) TAKE ALL CONSIDERATIONS INTO ACCOUNT AT THE TIME OF BID. NO CONSIDERATIONS WILL BE GRANTED TO THE CONTRACTOR AFTER THE BID HAS BEEN ACCEPTED.

B

4. CONTRACTOR SHALL VERIFY WITH ASPA APCo REPRESENTATIVE FINAL LOCATION OF SERVICE POLE PRIOR TO CONDUIT INSTALLATION. CONTRACTOR SHALL FURNISH AND INSTALL (2)5"ø POWER UNDERGROUND CONDUITS FROM THE NEW APCO SERVICE POLE TO THE NEW APCo TRANSFORMER PAD. CONDUITS SHALL STUB-UP AT SERVICE POLE A MINIMUM OF 24" ABOVE FINISHED GRADE AND A MINIMUM OF 2" ABOVE FINISHED GRADE AT TRANSFORMER PAD. CONTRACTOR SHALL INSTALL TRACE WIRE WITH EACH NEW UNDERGROUND CONDUIT, SEE NOTE 17. SEE NOTE 5 FOR FIBER OPTIC CABLE REQUIREMENTS.

5. CONTRACTOR SHALL FURNISH AND INSTALL NEW FIBER OPTIC HANDHOLD, 4'x4'x30", H20 RATING WITH REMOVAL COVER LABELED COMMUNICATION, IN THE LOCATION SHOWN OR AS DIRECTED BY ASPA PERSONNEL. CONTRACTOR SHALL ROUTE (1)4"ø UNDERGROUND CONDUIT FROM THE APCO SERVICE POLE TO THE NEW FIBER OPTIC HANDHOLD AND (1)4"ø FROM THE NEW FIBER OPTIC HANDHOLD TO WAREHOUSE OFFICE IT ROOM 216. CONTRACTOR SHALL INSTALL AND SECURE TRACE WIRE TO TOP OF EACH NEW CONDUIT PRIOR TO BEING BACKFILLED. INSTALL PULL ROPE IN 4"ø IT CONDUIT, SEE NOTE 17. SEE DRAWING 4043-E15 FOR FIBER OPTIC SITE PLAN.

6. CONTRACTOR SHALL FURNISH AND INSTALL (4)2"ø ELECTRICAL PVC CONDUITS TO A NEW 4'x4'x30" DEEP, H20 RATING, HANDHOLE WITH REMOVABLE COVER, SEE PLAN FOR LOCATION.
   A) (2)2"ø CONDUIT SHALL BE ROUTED TO MPZ1, 36" BELOW GRADE MINIMUM.
   B) (2)2"ø CONDUIT SHALL BE ROUTED IT ROOM 216, 36" BELOW GRADE MINIMUM.
   C) (1)4'x4'x30" DEEP HANDHOLE WITH REMOVAL COVER.
   CONTRACTOR SHALL VERIFY FINAL LOCATION OF GATE OPERATOR ENCLOSURE AND NEW 4'x4'x30" HANDHOLE WITH OWNER PRIOR TO INSTALLATION. ALL NEW UNDERGROUND CONDUIT INSTALLATION SHALL HAVE TRACE WIRE INSTALLED AND SECURED TO TOP OF EACH CONDUIT PRIOR TO BEING BACKFILLED. ALL EMPTY CONDUIT SHALL HAVE PULL ROPE INSTALLED, SEE NOTE 17.

7. SEE DRAWING 4043-C1 FOR DEMOLITION AND REMOVAL OF EXISTING ELECTRICAL SERVICES.

8. DELETED

9. DELETED

B

10. CONTRACTOR SHALL FURNISH AND INSTALL CATERPILLAR MODEL C13GC, 350kW, 480/277V, 3 PHASE, 4 WIRE STANDBY GENERATOR. GENERATOR SHALL HAVE A FUEL TANK BASE (72 HOURS OPERATION AT 100% LOAD) APPROX 1,795 USABLE GALLONS. (1)600A EATON OPEN TRANSITION AUTOMATIC SERVICE RATED TRANSFER SWITCH. CONTACT SEAN O'NEILL AT THOMPSON POWER SYSTEMS FOR DETAILS (251-621-6021), REFERENCE – QUOTATION No. SPO-220629-3.

11. CONTRACTOR SHALL FURNISH AND INSTALL (2)4"ø UNDERGROUND CONDUITS FROM APCo TRANSFORMER PAD TO THE LOCATION OF THE NEW 600A SERVICE RATED AUTOMATIC TRANSFORMER SWITCH (ATS) AND (1)2"ø FROM THE APCo TRANSFORMER PAD TO THE APCo METER LOCATION. CONTRACTOR SHALL VERIFY FINAL APCo METER AND ATS LOCATION WITH APCo AND ASPA PERSONNEL.

B

12. CONTRACTOR SHALL FURNISH AND INSTALL (1) 12 STRAND SINGLE-MODE FIBER OPTIC CABLE FROM IT ROOM 216, TROUGH NEW 4'x4'x30" HANDHOLE TO THE GUARD SHACK AND STUB-UP IN THE LOCATION OF THE 6"x12" CUTOUT BELOW THE TELEPHONE JUNCTION IN THE GUARD SHACK. PROVIDE 20 FEET SLACK AT EACH END WITH LC CONNECTORS.

13. CONTRACTOR SHALL ROUTE (1) 1"ø CONDUIT FROM THE GATE OPERATOR ENCLOSURE TO EACH GATE KEYPAD LOCATION AND INSTALL CONTROL CONDUCTORS AS REQUIRED BY MANUFACTURER.

14. CONTRACTOR SHALL ROUTE MANUFACTURER REQUIRED CONDUCTORS FROM THE GATE OPERATOR ENCLOSURE TO IT ROOM 216 VIA 2"ø CONDUIT AND THROUGH NEW 4'x4'x30" HANDHOLE. CONTRACTOR SHALL LEAVE A MINIMUM OF 20 FOOT SLACK CABLE AT EACH END FOR TERMINATION.

15. CONTRACTOR SHALL SEE DRAWING 4043-E15 FOR ADDITIONAL REQUIREMENTS.

16. ALL FIBER OPTIC DROPS SHALL HAVE A MINIMUM OF 20 FOOT SLACK WITH LC CONNECTORS INSTALLED AT EACH END.

17. ALL NEW UNDERGROUND CONDUITS SHALL HAVE TRACE WIRE INSTALLED AND SECURED TO TOP OF CONDUIT PRIOR TO BEING BACFILLED. THIS WILL BE TYPICAL FOR NEW CONDUIT INSTALLATION

NOTE:

SEE REFERENCE DRAWINGS "McDUFFIE COAL TERMINAL STORMWATER TRANSFER" SHEET 4 AND SHEET 11 FOR ADDITIONAL EXISTING UTILITY INFORMATION. THESE DRAWINGS ARE FOR INFORMATION ONLY AND THE ACCURACY OF THESE DRAWINGS ARE NOT GUARANTEED. THE CONTRACTOR IS SOLELY RESPONSIBLE TO VERIFY THE LOCATION OF ALL UTILITIES BEFORE BEGINNING WORK.

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REV.	DESCRIPTION	DATE	BY	CHK'D
B	REVISED PER ADDENDUM 2	09/02/22	RCC	JJM
A	ISSUE FOR BID	08/10/22	JWM	JJM

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PROJECT
McDUFFIE WAREHOUSE
McDUFFIE TERMINAL
ASPA

TITLE
NEW ELECTRICAL SITE PLAN

SCALE	DRAWN BY	DATE	SHEET	REV.
NOTED	RCC	10/01/21	1 OF –	B
JOB NO. 4043	CHECKED BY JJM	DATE 10/01/21	DRAWING NUMBER 4043-E1	

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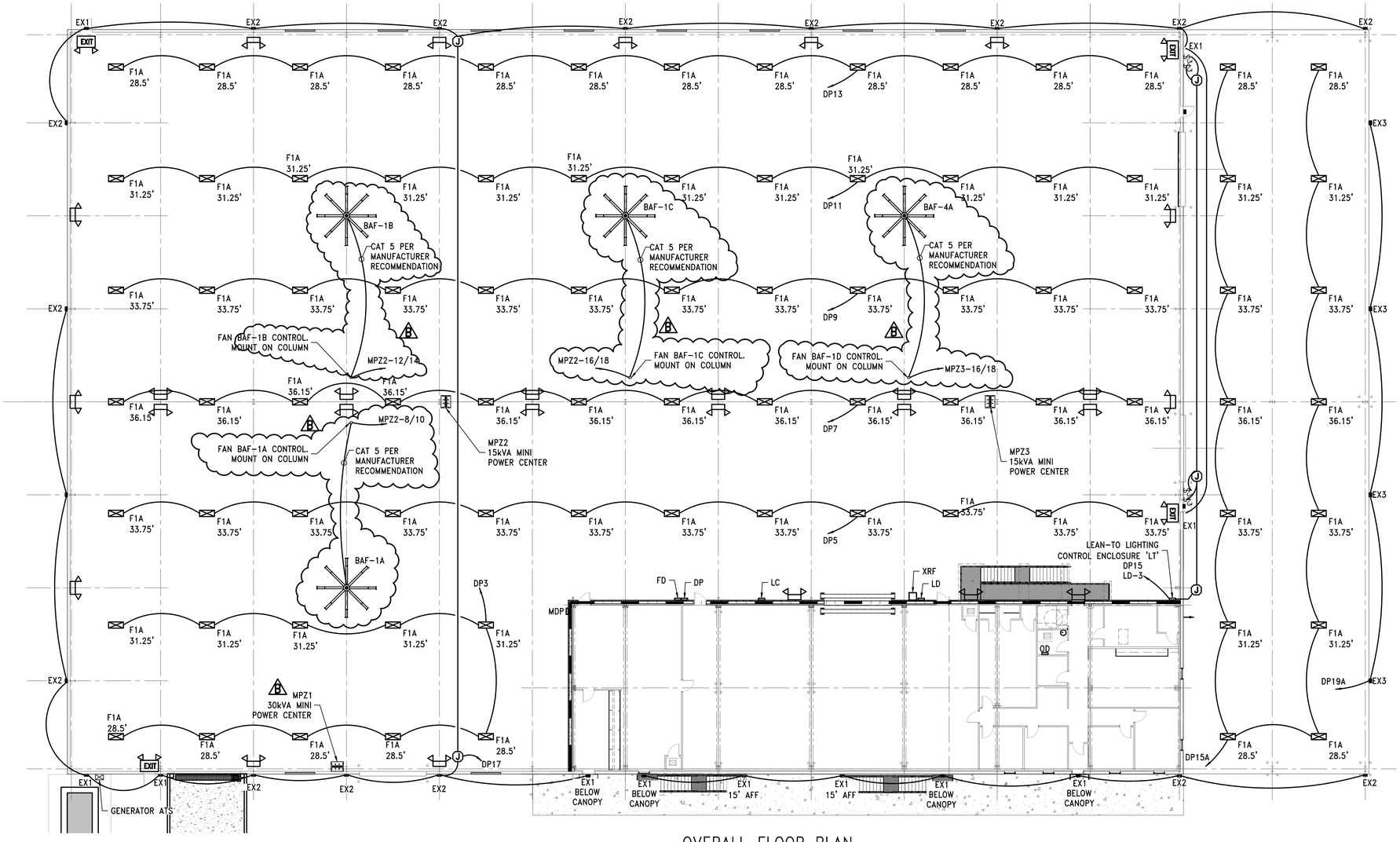


OVERALL FLOOR PLAN

SCALE: 1/16"=1'-0"

ELECTRICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION
F1A	METALUX #HBLED-LD5-48SE-W-UNV-L840-ED4-MP-U-HBAYC-CHAIN/SET/U-MPC6(277V), STANDARD EFFICANCY 20"x48" LED HIGH BAY FIXTURE, 6FT MODULAR POWER CORD & PLUG, 299W (51,058 LUMENS) OR ENGINEER APPROVED EQUAL.
F1B	METALUX #HBLED-LD5-24SE-W-UNV-L840-ED2-MP-U-HBAYC-CHAIN/SET/U-MPC6(277V), STANDARD EFFICANCY 20"x48" LED HIGH BAY FIXTURE, 6FT MODULAR POWER CORD & PLUG, 154W (24,953 LUMENS) OR ENGINEER APPROVED EQUAL.
EX1	LUMARK #XTOR8BRL-PC2-CBP, WALL MOUNT BATTERY BACKUP EGRESS/AREA LIGHT, LED 81W (8635 LUMENS) OR ENGINEER APPROVED EQUAL. 20 A.F.F. UNLESS NOTED
EX2	LUMARK #XTOR12BRL-PC2, WALL MOUNT AREA LIGHT, LED 102W (13,458 LUMENS) OR ENGINEER APPROVED EQUAL. 20 A.F.F.
EX3	STREETWORKS #UFLD-L-CA4-390-740-U-66-T-BZ, LED LARGE WIDE BEAM FLOODLIGHT (277V), TRUNNION MOUNT, 390W (56,841 LUMENS) OR ENGINEER APPROVED EQUAL.
EX4	LUMARK #XTOR12BRL, WALL MOUNT AREA LIGHT, LED 102W (13,458 LUMENS) OR ENGINEER APPROVED EQUAL. 20 A.F.F.
EXIT	EXIT LED FIXTURE EXITRONIX #VLED-U-WH-EL90-G2. BATTERY BACKUP EXIT LIGHT WITH EMERGENCY LED LAMPS, ABOVE DOOR OR ENGINEER APPROVED EQUAL.
	EXITRONIX #SCL-8-REN3M-2-B-G2-NI, 8W, 2 RENEGADE MAX 3.6W LED LAMP, SELF-TEST/SELF-DIAGONSTICS WITH NUMBER INDICATOR, MOUNT AT 10' A.F.F. OR ENGINEER APPROVED EQUAL
J	JUNCTION BOX WITH COVER

ELECTRICAL NOTES:

1. ALL ELECTRICAL WORK SHALL BE INSTALLED AS REQUIRED BY THE NATIONAL ELECTRIC CODE (N.E.C.) AND ANY STATE, CITY AND/OR LOCAL CODE REQUIREMENTS. THE MORE STRINGENT CODE REQUIREMENT SHALL BE UTILIZED AND VERIFIED WITH THE LOCAL INSPECTION APPROVAL AGENCY. (DEFINITION "CODE" – STATE, CITY AND/OR LOCAL CODE REQUIREMENTS)

2. CONTRACTOR SHALL INSTALL ALL GROUNDING AS REQUIRED BY THE NATIONAL ELECTRIC CODE (N.E.C.) AND ANY STATE, CITY AND/OR LOCAL CODE REQUIREMENTS. THE MORE STRINGENT CODE REQUIREMENT SHALL BE UTILIZED AND VERIFIED WITH THE LOCAL INSPECTION APPROVAL AGENCY.

3. CONTRACTOR SHALL (PRIOR TO BID)
   (a) VISIT THE JOB/CONSTRUCTION SITE AND FIELD VERIFY ALL EXISTING CONDITIONS
   (b) TAKE ALL CONSIDERATIONS INTO ACCOUNT AT THE TIME OF BID. NO CONSIDERATIONS WILL BE GRANTED TO THE CONTRACTOR AFTER THE BID HAS BEEN ACCEPTED.

4. **ALL LIGHT FIXTURES SHOWN/LISTED IN LIGHTING FIXTURE SCHEDULE SHALL BE 10-DAY PRE-APPROVED BY THE ENGINEER PRIOR TO BID.**

5. ALL ELECTRICAL SWITCHES SHALL BE INSTALLED AS PER N.E.C. ARTICLE 404 AND AS REQUIRED BY CODE. LIGHT SWITCHES AND COVERS SHALL BE WHITE UNLESS NOTED OTHERWISE BY THE ARCHITECT.

6. ALL RECEPTACLES AND COVERS SHALL BE INSTALLED AS PER N.E.C. ARTICLE 406 AND AS REQUIRED BY CODE. LIGHT SWITCHES AND COVERS SHALL BE WHITE UNLESS NOTED OTHERWISE BY THE ARCHITECT.

7. ALL ELECTRICAL METALLIC TUBING (EMT), RIGID NON-MATALLIC CONDUIT, FLEXIBLE METALLIC CONDUIT, FLEXIBLE NON-METALLIC CONDUIT, 'SEALTIGHT' TYPE CONDUITS AND ALL OTHER CONDUITS THAT DO NOT CONTAIN A REQUIRED CODE SIZED GROUND WIRE SHALL HAVE A REQUIRED CODE SIZED BOND WIRE INSTALLED WITH THE CIRCUIT CONDUCTORS.

8. RECEPTACLES INSTALLED WITHIN 6'-0" OF SINKS OR WATER SHALL BE CONNECTED TO A GROUND FAULT CIRCUIT INTERRUPTER TYPE CIRCUIT BREAKER OR TO A GROUND FAULT CIRCUIT INTERRUPTER TYPE RECEPTACLE.

9. CONTRACTOR SHALL FURNISH AND INSTALL WEATHER PROOF G.F.C.I. RECEPTACLE AT AN ACCESSIBLE LOCATION NEAR ALL HVAC EQUIPMENT IN ACCORDANCE WITH N.E.C. ARTICLE 210.63 AND AS REQUIRED BY CODE. CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF THESE RECEPTACLES IN THE FIELD REGARDLESS OF THE PLAN LAYOUT.

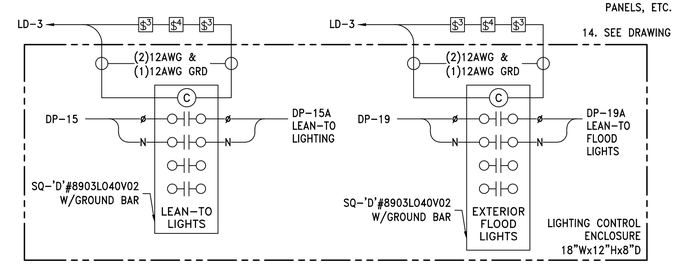
10. CONTRACTOR SHALL, PRIOR TO BID AND ROUGH-IN, FIELD VERIFY ALL HVAC ELECTRICAL REQUIREMENTS AGAINST THE PLAN REQUIREMENTS. FAILURE TO VERIFY AND NOTIFY ENGINEER/ARCHITECT PRIOR TO ROUGH-IN SHALL INDICATE THAT THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR THE DESIGN AND INSTALLATION REQUIREMENTS.

11. CONTRACTOR SHALL FURNISH AND INSTALL ALL AC UNITS SHALL HAVE INTEGRAL CONTROLLERS WITH OVERLOAD PROTECTION AND DISCONNECT FUNCTIONS PER N.E.C. CONTRACTOR SHALL INSTALL GFI DUPLEX SERVICE RECEPTACLES NEAR CONDENSER UNIT. PROVIDE MOTOR STARTERS WITH OVERLOAD PROTECTION AND DISCONNECT FUNCTIONS FOR AIR HANDLERS, IF NOT PROVIDED BY MECHANICAL CONTRACTOR.

12. CONTRACTOR SHALL FURNISH AND INSTALL NON-FUSED DISCONNECT SWITCHES AT EACH WATER HEATER. DISCONNECT SWITCH SHALL BE RATED AS REQUIRED BY THE EQUIPMENT SERVED.

13. CONTRACTOR SHALL FURNISH AND INSTALL FIRE DETECTION SYSTEM TO CONNECT TO THE EXISTING FIRE DETECTION SYSTEM AS REQUIRED BY THE NATIONAL FIRE PROTECTION ASSOCIATION. FIRE DETECTION SYSTEM EXPANSION SHALL HAVE ALARM BELLS/HORNS IN HALLWAYS AND AS REQUIRED BY LOCAL FIRE MARSHALL OR A.H.J.. THE CONTRACTOR SHALL SUPPLY ALL NECESSARY DRAWINGS TO OBTAIN PERMITS FOR FIRE SYSTEM INSTALLATION. AN ELECTRONIC AUTOCAD FILE OF THE FLOOR PLAN WILL BE PROVIDED TO THE CONTRACTOR FOR LOCATING ALL FIRE DETECTION SYSTEM ALARM BELLS, PULL STATIONS, CONTROL PANELS, ETC.

14. SEE DRAWING 4043-E8 FOR WAREHOUSE AREA LIGHTING CONTROL.



LEAN-TO LIGHTING CONTROL ENCLOSURE 'LT'

N.T.S.

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PROJECT: McDUFFIE WAREHOUSE
McDUFFIE TERMINAL ASPA

TITLE: STORAGE LIGHTING FLOOR PLAN

SCALE	DRAWN BY	DATE	SHEET	REV.
NOTED	RCC	10/01/21	4 OF —	B
JOB NO. 4043	CHECKED BY JJM	DATE 10/01/21	DRAWING NUMBER 4043-E4	

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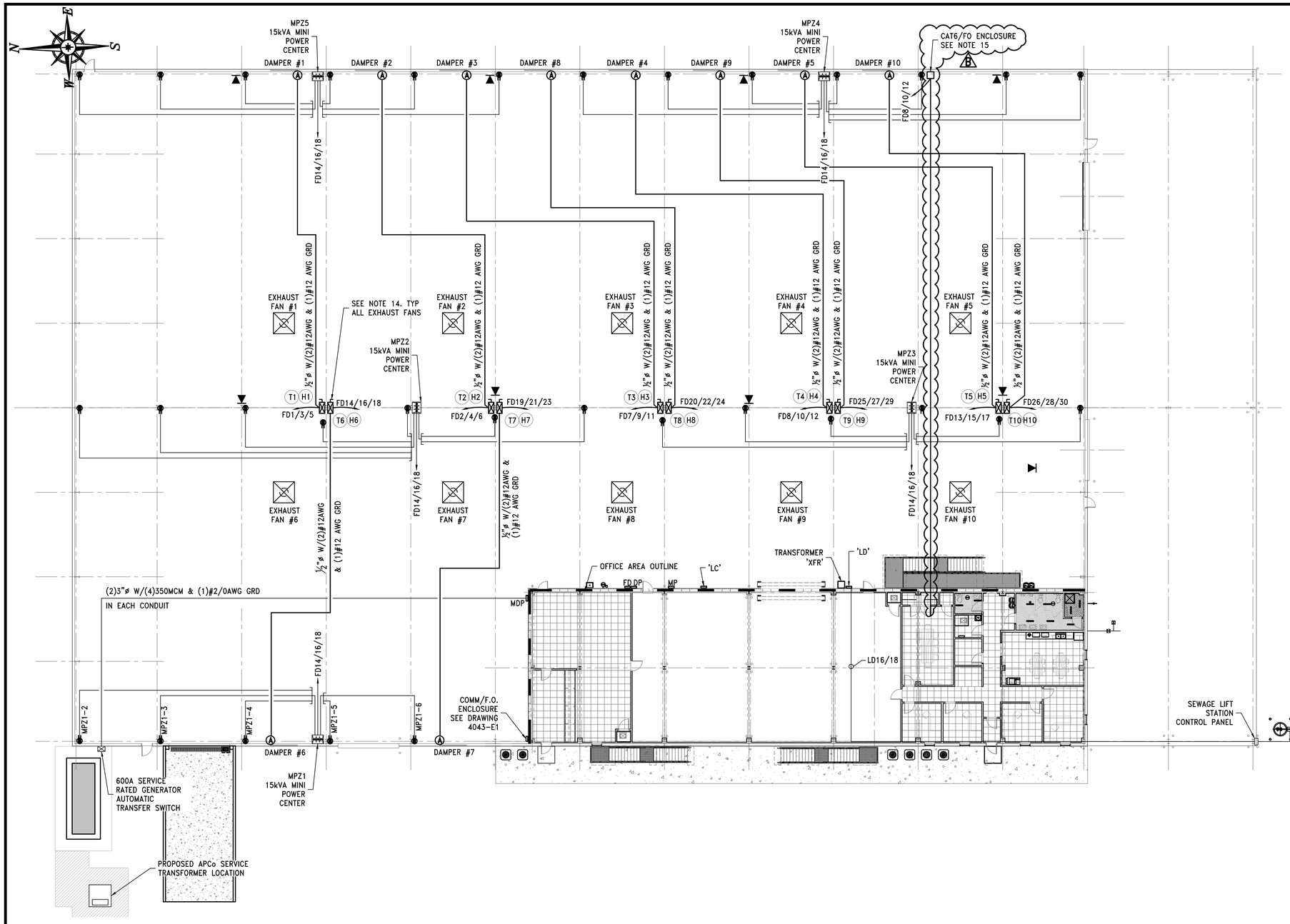

OVERALL FLOOR PLAN

SCALE: 1/16"=1'-0"

ELECTRICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION
	MINI-POWER CENTER, SEE DWG 4043-E7
A	DAMPER ACTUATOR
	NON-FUSED DISCONNECT SWITCH, NEMA-3R, SIZED AS REQUIRED
	NEMA-1 DISTRIBUTION PANEL, SEE SCHEDULE
	COMBINATION MOTOR STARTER, NON-FUSED DISCONNECT SWITCH, HAND/OFF/ON SELECTOR SWITCH, AUXILARY CONTACTS, NEMA-3R ENCLOSURE, SIZED AS REQUIRED
WT	GROUND FAULT DUPLEX RECEPTACLE. FLUSH WALL MTD. 42" A.F.F. UNLESS NOTED OTHERWISE. WT IS FOR WEATHER TIGHT ENCLOSURE WHERE APPLICABLE
	DATA JACK DUPLEX J-BOX WITH CONDUIT TO OVERHEAD CEILING WITH (2)CAT6 DATA CABLES ROUTED TO IT ROOM 216. TERMINATIONS BY OTHERS.

ELECTRICAL NOTES:

1. ALL ELECTRICAL WORK SHALL BE INSTALLED AS REQUIRED BY THE NATIONAL ELECTRIC CODE (N.E.C.) AND ANY STATE, CITY AND/OR LOCAL CODE REQUIREMENTS. THE MORE STRINGENT CODE REQUIREMENT SHALL BE UTILIZED AND VERIFIED WITH THE LOCAL INSPECTION APPROVAL AGENCY. (DEFINITION "CODE" – STATE, CITY AND/OR LOCAL CODE REQUIREMENTS)

2. CONTRACTOR SHALL INSTALL ALL GROUNDING AS REQUIRED BY THE NATIONAL ELECTRIC CODE (N.E.C.) AND ANY STATE, CITY AND/OR LOCAL CODE REQUIREMENTS. THE MORE STRINGENT CODE REQUIREMENT SHALL BE UTILIZED AND VERIFIED WITH THE LOCAL INSPECTION APPROVAL AGENCY.

3. CONTRACTOR SHALL (PRIOR TO BID)
   (a) VISIT THE JOB/CONSTRUCTION SITE AND FIELD VERIFY ALL EXISTING CONDITIONS
   (b) TAKE ALL CONSIDERATIONS INTO ACCOUNT AT THE TIME OF BID. NO CONSIDERATIONS WILL BE GRANTED TO THE CONTRACTOR AFTER THE BID HAS BEEN ACCEPTED.

4. **ALL LIGHT FIXTURES SHOWN/LISTED IN LIGHTING FIXTURE SCHEDULE SHALL BE 10-DAY PRE-APPROVED BY THE ENGINEER PRIOR TO BID.**

5. ALL ELECTRICAL SWITCHES SHALL BE INSTALLED AS PER N.E.C. ARTICLE 404 AND AS REQUIRED BY CODE. LIGHT SWITCHES AND COVERS SHALL BE WHITE UNLESS NOTED OTHERWISE BY THE ARCHITECT.

6. ALL RECEPTACLES AND COVERS SHALL BE INSTALLED AS PER N.E.C. ARTICLE 406 AND AS REQUIRED BY CODE. LIGHT SWITCHES AND COVERS SHALL BE WHITE UNLESS NOTED OTHERWISE BY THE ARCHITECT.

7. ALL ELECTRICAL METALLIC TUBING (EMT), RIGID NON-METALLIC CONDUIT, FLEXIBLE METALLIC CONDUIT, FLEXIBLE NON-METALLIC CONDUIT, 'SEALTIGHT' TYPE CONDUITS AND ALL OTHER CONDUITS THAT DO NOT CONTAIN A REQUIRED CODE SIZED GROUND WIRE SHALL HAVE A REQUIRED CODE SIZED BOND WIRE INSTALLED WITH THE CIRCUIT CONDUCTORS.

8. RECEPTACLES INSTALLED WITHIN 6'-0" OF SINKS OR WATER SHALL BE CONNECTED TO A GROUND FAULT CIRCUIT INTERRUPTER TYPE CIRCUIT BREAKER OR TO A GROUND FAULT CIRCUIT INTERRUPTER TYPE RECEPTACLE.

9. CONTRACTOR SHALL FURNISH AND INSTALL WEATHER PROOF G.F.C.I. RECEPTACLE AT AN ACCESSIBLE LOCATION NEAR ALL HVAC EQUIPMENT IN ACCORDANCE WITH N.E.C. ARTICLE 210.63 AND AS REQUIRED BY CODE. CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF THESE RECEPTACLES IN THE FIELD REGARDLESS OF THE PLAN LAYOUT.

10. CONTRACTOR SHALL, PRIOR TO BID AND ROUGH-IN, FIELD VERIFY ALL HVAC ELECTRICAL REQUIREMENTS AGAINST THE PLAN REQUIREMENTS. FAILURE TO VERIFY AND NOTIFY ENGINEER/ARCHITECT PRIOR TO ROUGH-IN SHALL INDICATE THAT THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR THE DESIGN AND INSTALLATION REQUIREMENTS.

11. CONTRACTOR SHALL FURNISH AND INSTALL ALL AC UNITS SHALL HAVE INTEGRAL CONTROLLERS WITH OVERLOAD PROTECTION AND DISCONNECT FUNCTIONS PER N.E.C. CONTRACTOR SHALL INSTALL GFI DUPLEX SERVICE RECEPTACLES NEAR CONDENSER UNIT. PROVIDE MOTOR STARTERS WITH OVERLOAD PROTECTION AND DISCONNECT FUNCTIONS FOR AIR HANDLERS, IF NOT PROVIDED BY MECHANICAL CONTRACTOR.

12. CONTRACTOR SHALL FURNISH AND INSTALL NON-FUSED DISCONNECT SWITCHES AT EACH WATER HEATER. DISCONNECT SWITCH SHALL BE RATED AS REQUIRED BY THE EQUIPMENT SERVED.

13. CONTRACTOR SHALL FURNISH AND INSTALL FIRE DETECTION SYSTEM AS REQUIRED BY THE NATIONAL FIRE PROTECTION ASSOCIATION. SYSTEM SHALL BE A NEW FULLY FUNCTIONING ADDRESSABLE FIRE ALARM SYSTEM WITH VOICE EVACUATION NOTIFICATION AS WELL AS VISUAL AND HORN NOTIFICATION. FIRE DETECTION SYSTEM SHALL HAVE ALARM BELLS/HORNS IN HALLWAYS AND AS REQUIRED BY LOCAL FIRE MARSHALL OR A.H.J.. THE CONTRACTOR SHALL SUPPLY ALL NECESSARY DRAWINGS TO OBTAIN PERMITS FOR FIRE SYSTEM INSTALLATION. AN ELECTRONIC AUTOCAD FILE OF THE FLOOR PLAN WILL BE PROVIDED TO THE CONTRACTOR FOR LOCATING ALL FIRE DETECTION SYSTEM ALARM BELLS, PULL STATIONS, CONTROL PANELS, ETC. BIDDERS ARE TO PROVIDE TAMPER SWITCHES AT THE BACKFLOW VALVES NEAR THE STREET AS WELL AS RELAYS FOR THE SPRINKLER SYSTEM FLOW SWITCH (FLOW SWITCH BY SPRINKLER SUBCONTRACTOR), THE KITCHEN HOOD SUPPRESSION SYSTEM, AND ALL HVAC DUCT DETECTORS IN ADDITION TO OTHER REQUIREMENTS OF THE REFERENCED CODES. ALL FIRE ALARM CONTRACTORS MUST SUBMIT THROUGH A BIDDING ELECTRICAL CONTRACTOR WHO SHALL INCLUDE ALL BOXES, CONDUIT, WIRE, ETC. TO COMPLETE THE FIRE ALARM PACKAGE. THE ALARM CONTRACTOR IS REQUIRED TO SUBMIT TO THE ARCHITECT AND THE LOCAL CITY FIRE INSPECTOR SHOP DRAWINGS OF THE CODE COMPLIANT SYSTEM STAMPED BY A QUALIFIED FIRE ALARM ENGINEER/DESIGNER ACCEPTABLE TO THE LOCAL FIRE INSPECTOR.

14. CONTRACTOR SHALL FURNISH AND INSTALL (1)½"ø C W/(2)#12AWG & (1)#12AWG GRD FROM THE FAN COMBINATION MOTOR-STARTER AUXILIARY CONTACTS TO THE DAMPER ACTUATOR CONNECTION. FAN MOTOR STARTER SHALL BE FURNISHED WITH 480V-120V, 500 VA CONTROL TRANSFORMER, HAND/OFF/AUTO SELECTOR SWITCH AND N.O. AUXILIARY CONTACTS. THERMOSTAT AND HUMIDISTAT SHALL BE CONNECTED TO AUTO-START EXHAUST FAN. THE EXHAUST FAN SHALL START WHEN EITHER/OR THERMOSTAT/HUMIDISTAT ARE ACTIVATED. SEE MECHANICAL DRAWING 4043-M1 FOR EXHAUST FAN AND DAMPER REQUIREMENTS.

15. CONTRACTOR SHALL FURNISH AND INSTALL 24"x24"x10" DEEP NEMA-12 ENCLOSURE WITH (1) MERAKI #MS250-24P-HW, MS250-24 L3 STCK CLD-MNGD 24x GIGE 370W PoE SWITCH WITH MERAKI #MA-PWR-640WAC, 640WAC PSU POWER SUPPLY IN THE LOCATION SHOWN. PROVIDE MERAKI MS250-24P ENTERPRISE LICENSE AND SUPPORT 10YEAR. ALL DATA/CAMERA CAT6 DEVICES ON THE EAST WALL SHALL BE ROUTED TO THE NEW SWITCH ENCLOSURE. ROUTE (1) 6-STRAIND FIBER OPTIC CABLE IN 1"ø CONDUIT TO CAT6/FO ENCLOSURE FROM IT ROOM 216. (B)

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PROJECT
McDUFFIE WAREHOUSE
McDUFFIE TERMINAL
ASPA

TITLE
STORAGE AREA POWER FLOOR PLAN

SCALE	DRAWN BY	DATE	SHEET	REV.
NOTED	RCC	10/01/21	7 OF –	B
JOB NO. 4043	CHECKED BY JJM	DATE 10/01/21	DRAWING NUMBER 4043-E7	

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PANELBOARD SCHEDULE (277/480V 3ø, 4W)

MARK: MAIN PANEL "MDP"

CKT #	LOAD DESCRIPTION	BREAKER P	BREAKER TRIP	FEEDER/CONDUIT FEED	FEEDER/CONDUIT GRD	FEEDER/CONDUIT SIZE	PHASE (kVA) A	PHASE (kVA) B	PHASE (kVA) C	PHASE (kVA) A	PHASE (kVA) B	PHASE (kVA) C	FEEDER/CONDUIT FEED	FEEDER/CONDUIT GRD	FEEDER/CONDUIT SIZE	BREAKER P	BREAKER TRIP	LOAD DESCRIPTION	CKT #
1	EXHAUST FAN PANELBOARD 'FD'	3	100	2	6	1½"	5.85			36.309			350 MCM	3	3	3	300	WAREHOUSE PANELBOARD 'DP'	2
3								5.85			35.347								4
5									5.85			35.008							6
7	225kVA 480V-120/208V OFFICE TRANSFORMER	3	400	(2) 4/0	(2)3	(2)2½"	75.00			20.50			3/0	6	2	3	200	MOTOR TEST BENCH PANELBOARD 'MP'	8
9								75.00			20.50								10
11									75.00			20.50							12
13	SPACE	–	–	–	–	–	–			–			–	–	–	–	–	SPACE	14
15	SPACE	–	–	–	–	–		–			–		–	–	–	–	–	SPACE	16
17	SPACE	–	–	–	–	–			–			–	–	–	–	–	–	SPACE	18
19	SPACE	–	–	–	–	–	–			–			–	–	–	–	–	SPACE	20
21	SPACE	–	–	–	–	–		–			–		–	–	–	–	–	SPACE	22
23	SPACE	–	–	–	–	–			–			–	–	–	–	–	–	SPACE	24
							80.85	80.85	80.85	56.809	55.847	55.508							

TOTAL (kVA) øA 137.659 øB 136.697 øC 136.358 HIGH PHASE (AMPS) 497.0

TOTAL CONNECTED LOAD (kVA) 410.714 TOTAL LOAD (AMPS) 494.1

PANELBOARD SCHEDULE (277/480V 3ø, 4W)

MARK: DISTRIBUTION PANEL "DP"

CKT #	LOAD DESCRIPTION	BREAKER P	BREAKER TRIP	FEEDER/CONDUIT FEED	FEEDER/CONDUIT GRD	FEEDER/CONDUIT SIZE	PHASE (VA) A	PHASE (VA) B	PHASE (VA) C	PHASE (VA) A	PHASE (VA) B	PHASE (VA) C	FEEDER/CONDUIT FEED	FEEDER/CONDUIT GRD	FEEDER/CONDUIT SIZE	BREAKER P	BREAKER TRIP	LOAD DESCRIPTION	CKT #
1	SPARE	1	20	–	–	–	–			–			–	–	–	–	–	SPACE	2
3	NORTH 2 ROW LTG	1	20	10	12	¾"		2,990			–		–	–	–	–	–	SPACE	4
5	NORTH 3 ROW LTG	1	20	10	12	¾"			3,588			–	–	–	–	–	–	SPACE	6
7	NORTH 4 ROW LTG	1	20	10	12	¾"	3,588			–			–	–	–	–	–	SPACE	8
9	NORTH 5 ROW LTG	1	20	10	12	¾"		3,588			–		–	–	–	–	–	SPACE	10
11	NORTH 6 ROW LTG	1	20	10	12	¾"			3,588			–	–	–	–	–	–	SPACE	12
13	NORTH 7 ROW LTG	1	20	10	12	¾"	3,588			5,000			6	8	1	3	40	MPZ1 15kVA MINI-POWER CENTER 480V-120/208V	14
15	LEAN-TO LTG	1	20	10	12	¾"		4,186			5,000								16
17	EXTERIOR LTG	1	20	10	12	¾"			2,832			5,000							18
19	EXTERIOR FLOODLIGHTS	1	20	10	12	¾"	1,560			5,000			6	8	1	3	40	MPZ2 15kVA MINI-POWER CENTER 480V-120/208V	20
21	SPACE	–	–	–	–	–		–			5,000								22
23	SPACE	–	–	–	–	–			–			5,000							24
25	SPACE	–	–	–	–	–	–			5,000			6	8	1	3	40	MPZ3 15kVA MINI-POWER CENTER 480V-120/208V	26
27	SPACE	–	–	–	–	–		–			5,000								28
29	SPACE	–	–	–	–	–			–			5,000							30
31	SPACE	–	–	–	–	–	–			5,000			6	8	1	3	40	MPZ4 15kVA MINI-POWER CENTER 480V-120/208V	32
33	SPACE	–	–	–	–	–		–			5,000								34
35	SPACE	–	–	–	–	–			–			5,000							36
37	SPACE	–	–	–	–	–	–			5,000			6	8	1	3	40	MPZ5 15kVA MINI-POWER CENTER 480V-120/208V	38
39	SPACE	–	–	–	–	–		–			5,000								40
41	SPACE	–	–	–	–	–			–			5,000							42
							11,309	10,347	10,008	25,000	25,000	25,000							

TOTAL (kVA) øA 36.309 øB 35.347 øC 35.008 HIGH PHASE (AMPS) 131.1

TOTAL CONNECTED LOAD (kVA) 106.664 TOTAL LOAD (AMPS) 128.3

PANELBOARD SCHEDULE (277/480V 3ø, 4W)

MARK: DISTRIBUTION PANEL "MP"

CKT #	LOAD DESCRIPTION	BREAKER P	BREAKER TRIP	FEEDER/CONDUIT FEED	FEEDER/CONDUIT GRD	FEEDER/CONDUIT SIZE	PHASE (VA) A	PHASE (VA) B	PHASE (VA) C	PHASE (VA) A	PHASE (VA) B	PHASE (VA) C	FEEDER/CONDUIT FEED	FEEDER/CONDUIT GRD	FEEDER/CONDUIT SIZE	BREAKER P	BREAKER TRIP	LOAD DESCRIPTION	CKT #
1	SPACE	–	–	–	–	–	–			–			–	–	–	–	–	SPACE	2
3	SPACE	–	–	–	–	–		–			–		–	–	–	–	–	SPACE	4
5	SPACE	–	–	–	–	–			–			–	–	–	–	–	–	SPACE	6
7	SPACE	–	–	–	–	–	–			–			–	–	–	–	–	SPACE	8
9	SPACE	–	–	–	–	–		–			–		–	–	–	–	–	SPACE	10
11	SPACE	–	–	–	–	–			–			–	–	–	–	–	–	SPACE	12
13	SPACE	–	–	–	–	–	–			–			–	–	–	–	–	SPACE	14
15	SPACE	–	–	–	–	–		–			–		–	–	–	–	–	SPACE	16
17	SPACE	–	–	–	–	–			–			–	–	–	–	–	–	SPACE	18
19	SPACE	–	–	–	–	–	–			–			–	–	–	–	–	SPACE	20
21	SPACE	–	–	–	–	–		–			–		–	–	–	–	–	SPACE	22
23	SPACE	–	–	–	–	–			–			–	–	–	–	–	–	SPACE	24
25	SPACE	–	–	–	–	–	–			–			–	–	–	–	–	SPACE	26
27	SPACE	–	–	–	–	–		–			–		–	–	–	–	–	SPACE	28
29	SPACE	–	–	–	–	–			–			–	–	–	–	–	–	SPACE	30
31	SPACE	–	–	–	–	–	–			–			–	–	–	–	–	SPACE	32
33	SPACE	–	–	–	–	–		–			–		–	–	–	–	–	SPACE	34
35	SPACE	–	–	–	–	–			–			–	–	–	–	–	–	SPACE	36
37	SPACE	–	–	–	–	–	–			–			–	–	–	–	–	SPACE	38
39	SPACE	–	–	–	–	–		–			–		–	–	–	–	–	SPACE	40
41	SPACE	–	–	–	–	–			–			–	–	–	–	–	–	SPACE	42
							–	–	–	–	–	–							

TOTAL (kVA) øA – øB – øC – HIGH PHASE (AMPS) –

TOTAL CONNECTED LOAD (kVA) – TOTAL LOAD (AMPS) –

NOTES:
CONTRACTOR SHALL VERIFY WITH THE OWNER THE REQUIRED CIRCUIT BREAKERS TO BE FURNISHED WITH PANELBOARD PRIOR TO PURCHASE AND INSTALLATION.

PANELBOARD SCHEDULE (277/480V 3ø, 4W)

MARK: FAN PANEL "FD"

CKT #	LOAD DESCRIPTION	BREAKER P	BREAKER TRIP	FEEDER/CONDUIT FEED	FEEDER/CONDUIT GRD	FEEDER/CONDUIT SIZE	PHASE (VA) A	PHASE (VA) B	PHASE (VA) C	PHASE (VA) A	PHASE (VA) B	PHASE (VA) C	FEEDER/CONDUIT FEED	FEEDER/CONDUIT GRD	FEEDER/CONDUIT SIZE	BREAKER P	BREAKER TRIP	LOAD DESCRIPTION	CKT #
1	EXHAUST FAN No.1	3	20	10	12	½"	585			585			10	12	½"	3	20	EXHAUST FAN No.2	2
3								585			585								4
5									585			585							6
7	EXHAUST FAN No.3	3	20	10	12	½"	585			585			10	12	½"	3	20	EXHAUST FAN No.4	8
9								585			585								10
11									585			585							12
13	EXHAUST FAN No.5	3	20	10	12	½"	585			585			10	12	½"	3	20	EXHAUST FAN No.6	14
15								585			585								16
17									585			585							18
19	EXHAUST FAN No.7	3	20	10	12	½"	585			585			10	12	½"	3	20	EXHAUST FAN No.8	20
21								585			585								22
23									585			585							24
25	EXHAUST FAN No.9	3	20	10	12	½"	585			585			10	12	½"	3	20	EXHAUST FAN No.10	26
27								585			585								28
29									585			585							30
31	SPACE	–	–	–	–	–	–			–			–	–	–	–	–	SPACE	32
33	SPACE	–	–	–	–	–		–			–		–	–	–	–	–	SPACE	34
35	SPACE	–	–	–	–	–			–			–	–	–	–	–	–	SPACE	36
37	SPACE	–	–	–	–	–	–			–			–	–	–	–	–	SPACE	38
39	SPACE	–	–	–	–	–		–			–		–	–	–	–	–	SPACE	40
41	SPACE	–	–	–	–	–			–			–	–	–	–	–	–	SPACE	42
							2,925	2,925	2,925	2,925	2,925	2,925							

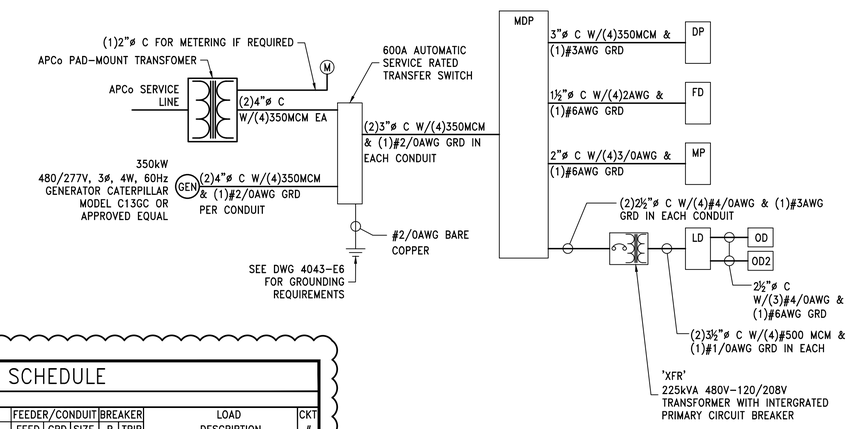
TOTAL (kVA) øA 5.85 øB 5.85 øC 5.85 HIGH PHASE (AMPS) 21.1

TOTAL CONNECTED LOAD (kVA) 17.55 TOTAL LOAD (AMPS) 21.1

PANELBOARD COORDINATION SCHEDULE

MARK	TYPE	MOUNTING	VOLTAGE	ø	WIRE	MAIN	SERVICE RATED	kAIC RATING	BUS RATING	NEUTRAL RATING	C/B TYPE	FEEDER CONDUCTORS	FEEDER GROUND	FEEDER CONDUIT
MDP	NEMA-12	SURFACE	480/277	3	4	MLO	NO	35	600	600	BOLT-ON	(4)#4/0	(1)#2/0	(3)3"
DP	NEMA-12	SURFACE	480/277	3	4	MLO	NO	35	400	400	BOLT-ON	(4)350MCM	(1)#3	(1)3"
MP	NEMA-12	SURFACE	480/277	3	4	MLO	NO	35	225	225	BOLT-ON	(4)3/0AWG	(1)#6	(1)2"
FD	NEMA-12	SURFACE	480/277	3	4	MLO	NO	14	100	100	BOLT-ON	(4)#2	(1)#6	(1)1½"
LD	NEMA-12	SURFACE	120/208	3	4	800MB	NO	35	800	800	BOLT-ON	(2)500 PER ø/N	(2)#1/0	(2)3½"
OD	NEMA-12	SURFACE	120/208	3	4	MLO	NO	18	225	225	BOLT-ON	(4)#4/0	(1)#6	(1)2½"
OD2	NEMA-12	SURFACE	120/208	3	4	MLO	NO	18	225	225	BOLT-ON	(4)#4/0	(1)#6	(1)2½"
ITDP	NEMA-1	FLUSH	120/208	1	3	100MB	NO	10	100	100	BOLT-ON	(3)#2	(1)#6	(1)1½"

NOTES: ALL BUSSING COPPER, INCLUDING NEUTRAL AND GROUND.
ALL LUGS 100 AMPS AND GREATER SHALL BE COPPER.
ALL LUGS ON CIRCUIT BREAKERS GREATER THAN 400 AMPS SHALL BE COPPER.



ELECTRICAL AC RISER DIAGRAM
SCALE:N.T.S.

MINI-POWER CENTER PANELBOARD SCHEDULE

MARK: MPZ1

CKT #	LOAD DESCRIPTION	BREAKER P	BREAKER TRIP	FEEDER/CONDUIT FEED	FEEDER/CONDUIT GRD	FEEDER/CONDUIT SIZE	PHASE (VA) A	PHASE (VA) B	PHASE (VA) C	PHASE (VA) A	PHASE (VA) B	PHASE (VA) C	FEEDER/CONDUIT FEED	FEEDER/CONDUIT GRD	FEEDER/CONDUIT SIZE	BREAKER P	BREAKER TRIP	LOAD DESCRIPTION	CKT #
1	OFICE EXTERIOR RECEPT GFI	1	20	10	12	½	720			–			–	–	-	1	20	SPARE	2
3	RECEPT GFI	1	20	10	12	½		180			–		–	–	-	1	20	SPARE	4
5	RECEPT GFI	1	20	10	12	½			180			–	–	–	-	1	20	SPARE	6
7	RECEPT GFI	1	20	10	12	½	180			–			–	–	–	1	20	SPARE	8
9	RECEPT GFI	1	20	–	–	–		180			–		–	–	–	1	20	SPARE	10
11	RECEPT GFI	1	20	–	–	–			180			–	–	–	–	1	20	SPARE	12
13	HP RECEPT	1	20	–	–	–	180			–			–	–	–	1	20	SPARE	14
15	SPARE	1	20	–	–	–		–			–		–	–	–	1	20	SPARE	16
17	SPARE	1	20	–	–	–			–			–	–	–	–	1	20	SPARE	18
19	SPARE	1	20	–	–	-	–			915			6	8	2	1	20	GATE ACCESS POWER	20
21	SPARE	1	20	–	–	–		–			4,640		1	6	2	2	60	GUARD SHACK	22
23	SPACE	1	20	–	–	–			–			4,640							24
							1,080	360	360	915	4,460	4,460							

TOTAL (kVA) øA 1.995 øB 5.00 øC 5.00 HIGH PHASE (AMPS) 41.2

TOTAL CONNECTED LOAD (kVA) 11.995 TOTAL LOAD (AMPS) 33.3

MARK	TYPE	MOUNTING	XFMR kVA	PRIMARY VOLTAGE	ø	WIRE	PRI MAIN	SECONDARY VOLTAGE	ø	WIRE	SEC MAIN	C/B TYPE	FEEDER CONDUCTORS	FEEDER GROUND	FEEDER CONDUIT	FEEDER FROM
MPZ1	NEMA-3R	SURFACE	30	480	3	3	90 MB	120/208	3	4	100 MB	BOLT-ON	(3)#8AWG	(1)#10AWG	¾	DP

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CONFIDENTIAL, VALUABLE, AND PROPRIETARY INFORMATION

REV.	DESCRIPTION	DATE	BY	CHK'D
B	REVISED PER ADDENDUM 2	09/02/22	RCC	JJM
A	ISSUE FOR BID	08/10/22	JWM	JJM

457 St. Michael St.
Mobile, AL 36602
Phone (251) 433-1611
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PROJECT
McDUFFIE WAREHOUSE
McDUFFIE TERMINAL
ASPA

TITLE
PANELBOARD SCHEDULE & AC RISER DIAGRAM

SCALE	DRAWN BY	DATE	SHEET	REV.
NOTED	RCC	10/01/21	9 OF –	B
JOB NO. 4043	CHECKED BY JJM	DATE 10/01/21	DRAWING NUMBER 4043-E9	

Z:\4000-4099\4043-ASPA McDuffie Warehouse\Design\4043-E9.dwg, 2022-09-09 09:43:26, DWG To PDF.pc3

PANELBOARD SCHEDULE (120/208V 3ø, 4W)

MARK: 208V DISTRIBUTION "LD"

CKT #	LOAD DESCRIPTION	BREAKER P	BREAKER TRIP	FEEDER/CONDUIT FEED	FEEDER/CONDUIT GRD	FEEDER/CONDUIT SIZE	PHASE (VA) A	PHASE (VA) B	PHASE (VA) C	PHASE (VA) A	PHASE (VA) B	PHASE (VA) C	FEEDER/CONDUIT FEED	FEEDER/CONDUIT GRD	FEEDER/CONDUIT SIZE	BREAKER P	BREAKER TRIP	LOAD DESCRIPTION	CKT #
1	WATERHEATER WH-2	1	35	8	10	¾	3,500			10,810									2
3	LEAN-TO LIGHTING CONTROL	1	15	10	12	½		500			11,836		1/0	6	2"	3	150	PANELBOARD OD	4
5	SPACE	–	–	–	–	–			–			11,796							6
7	SPACE	–	–	–	–	–	–			18,160									8
9	SPACE	–	–	–	–	–		–			16,480		1/0	6	2"	3	150	PANELBOARD OD2	10
11	SPACE	–	–	–	–	–			–			14,800							12
13	SPACE	–	–	–	–	–	–			–			–	–	-	1	20	SPARE	14
15	SPACE	–	–	–	–	–		–			780		10	12	¾"	2	20	SEWAGE LIFT STATION	16
17	SPACE	–	–	–	–	–			–			780							18
19	HP-1	2	40	8	10	¾"	2,705			1,800			10	12	¾"	2	30	AHU-1	20
21								2,705			1,800								22
23	HP-2	2	50	6	10	¾"			3,330			1,800	10	12	¾"	2	30	AHU-2	24
25							3,330			1,800									26
27	HP-3	2	30	8	10	¾"		1,875			1,800		10	12	¾"	2	30	AHU-3	28
29									1,875			1,800							30
31	HP-4	2	30	8	10	¾"	1,875			1,800			10	12	¾"	2	30	AHU-4	32
33								1,875			1,800								34
35	HP-5	2	50	6	10	¾"			3,330			1,800	10	12	¾"	2	30	AHU-5	36
37							3,330			1,800									38
39	HP-6	2	50	6	10	¾"		3,330			1,800		10	12	¾"	2	30	AHU-6	40
41									3,330			1,800							42
43	SPACE	–	–	–	–	–	–			–			–	–	-	1	20	SPARE	44
45	SPACE	–	–	–	–	–		–			–		–	–	-	1	20	SPARE	46
47	SPACE	–	–	–	–	–			–			–	–	–	-	1	20	SPARE	48
49	SPACE	–	–	–	–	–	–			–			–	–	-	1	20	SPARE	50
51	SPACE	–	–	–	–	–		–			–		–	–	-	–	–	SPACE	52
53	SPACE	–	–	–	–	–			–			–	–	–	-	–	–	SPACE	54

TOTAL (kVA) øA 56.046 øB 46.581 øC 46.441 — 14,740 10,285 11,865 36,170 36,296 34,576 — HIGH PHASE (AMPS) 467.1

TOTAL CONNECTED LOAD (kVA) 149.068 — DEMAND LOAD (kVA) 113.933 — TOTAL LOAD (AMPS) 413.8

DEMAND LOAD (AMPS) 316.3

B

PANELBOARD SCHEDULE (120/208V 3ø, 4W)

MARK: 1ST FLOOR PANEL "OD"

CKT #	LOAD DESCRIPTION	BREAKER P	BREAKER TRIP	FEEDER/CONDUIT FEED	FEEDER/CONDUIT GRD	FEEDER/CONDUIT SIZE	PHASE (VA) A	PHASE (VA) B	PHASE (VA) C	PHASE (VA) A	PHASE (VA) B	PHASE (VA) C	FEEDER/CONDUIT FEED	FEEDER/CONDUIT GRD	FEEDER/CONDUIT SIZE	BREAKER P	BREAKER TRIP	LOAD DESCRIPTION	CKT #
1	PROCESSING RM LTG	1	20	10	12	½	660			1,260			10	12	½"	1	20	CORRIDOR RECEPT	2
3	CLIMATE CONTROL LTG	1	20	10	12	½		1,176			1,000		10	12	½"	1	20	COFFEE POT RECEPT	4
5	CLIMATE CONTROL LTG	1	20	10	12	½			1,176			1,100	10	12	½"	1	20	MICROWAVE RECEPT	6
7	OFFICE LTG	1	20	10	12	½	1,100			1,100			10	12	½"	1	20	MICROWAVE RECEPT	8
9	OFFICE LTG	1	20	10	12	½		860			360		10	12	½"	1	20	COUNTER RECEPT	10
11	SPACE	–	–	–	–	–			–			180	10	12	½"	1	20	MENS RESTROOM RECEPT	12
13	SPACE	–	–	–	–	–	–			900			10	12	½"	1	20	REFRIG RECEPT	14
15	SPACE	–	–	–	–	–		–			540		10	12	½"	1	20	BREAKROOM RECEPT	16
17	SPACE	–	–	–	–	–			–			180	10	12	½"	1	20	WOMENS RESTROOM RECEPT	18
19	SPACE	–	–	–	–	–	–			720			10	12	½"	1	20	CONFERENCE RM RECEPT	20
21	SPACE	–	–	–	–	–		–			1,080		10	12	½"	1	20	CONFERENCE RM DATA RECEPT	22
23	SPACE	–	–	–	–	–			–			720	10	12	½"	1	20	OFFICE 1/2 RECEPT	24
25	SPARE	1	20	–	–	–	–			1,440			10	12	½"	1	20	OFFICE 1/2 DATA RECEPT	26
27	SPARE	1	20	–	–	–		–			1,440		10	12	½"	1	20	OFFICE 3/4 DATA RECEPT	28
29	RADIO RECEPT	1	30	8	10	¾			2,880			720	10	12	½"	1	20	OFFICE 3/4 RECEPT	30
31	HP RECEPT	1	20	10	12	½	360			1,080			10	12	½"	1	20	CLIMATE ROOM RECEPT	32
33	WATER HEATER WH-1	2	30	10	12	½		2,000			1,440		10	12	½"	1	20	CLIMATE RM COMPUTER RECEPT	34
35									2,000			900	10	12	½"	1	20	CLIMATE ROOM RECEPT	36
37	COPY MACHINE	1	20	10	12	½	750			1,440			10	12	½"	1	20	PROCESSING RECEPT	38
39	WATERCOOLER RECEPT	1	20	10	12	½		500			1,440		10	12	½"	1	20	PROCESSING COMPUTER RECEPT	40
41	WATERCOOLER RECEPT	1	20	10	12	½			500			1,080	10	12	½"	1	20	PROCESSING RECEPT	42

TOTAL (kVA) øA 10.81 øB 11.836 øC 11.796 — 2,870 4,536 6,556 7,940 7,300 4,880 — HIGH PHASE (AMPS) 98.6

TOTAL CONNECTED LOAD (kVA) 34.442 — DEMAND LOAD (kVA) 30.322 — TOTAL LOAD (AMPS) 95.6

DEMND LOAD (AMPS) 84.2

MINI-POWER CENTER PANELBOARD SCHEDULE

MARK: (SEE BELOW)

CKT #	LOAD DESCRIPTION	BREAKER P	BREAKER TRIP	FEEDER/CONDUIT FEED	FEEDER/CONDUIT GRD	FEEDER/CONDUIT SIZE	PHASE (VA) A	PHASE (VA) B	PHASE (VA) C	PHASE (VA) A	PHASE (VA) B	PHASE (VA) C	FEEDER/CONDUIT FEED	FEEDER/CONDUIT GRD	FEEDER/CONDUIT SIZE	BREAKER P	BREAKER TRIP	LOAD DESCRIPTION	CKT #
1	RECEPT GFI	1	20	10	12	½	180			180			10	12	½	1	20	RECEPT GFI	2
3	RECEPT GFI	1	20	10	12	½		180			180		10	12	½	1	20	RECEPT GFI	4
5	RECEPT GFI	1	20	10	12	½			180			180	10	12	½	1	20	RECEPT GFI	6
7	SPARE	1	20	–	–	-	–			–			–	–	–	1	20	SPARE	8
9	SPARE	1	20	–	–	–		–			–		–	–	–	1	20	SPARE	10
11	SPACE	1	20	–	–	–			–			–	–	–	–	1	–	SPACE	12
13	SPACE	1	20	–	–	–	–			–			–	–	–	1	–	SPACE	14
15	SPACE	1	20	–	–	–		–			–		–	–	–	1	–	SPACE	16
17	CAT6/FO ENCLOSURE (MPZ4)	1	20	12	12	½			800			–	–	–	–	1	–	SPACE	18

	PHASE (VA) A	PHASE (VA) B	PHASE (VA) C	PHASE (VA) A	PHASE (VA) B	PHASE (VA) C
MPZ4	180	180	980	180	180	180
MPZ5	180	180	180	180	180	180

MPZ4 – TOTAL (kVA) øA .36 øB .36 øC 1.16 — HIGH PHASE (AMPS) 9.7

TOTAL CONNECTED LOAD (kVA) 1.88 — TOTAL LOAD (AMPS) 5.2

MPZ5 – TOTAL (kVA) øA .36 øB .36 øC .36 — HIGH PHASE (AMPS) 3.0

TOTAL CONNECTED LOAD (kVA) 1.08 — TOTAL LOAD (AMPS) 3.0

MARK	TYPE	MOUNTING	XFMR kVA	PRIMARY VOLTAGE	ø	WIRE	PRI MAIN	SECONDARY VOLTAGE	ø	WIRE	SEC MAIN	C/B TYPE	FEEDER CONDUCTORS	FEEDER GROUND	FEEDER CONDUIT	FEEDER FROM
MPZ4	NEMA-3R	SURFACE	15	480	3	3	40 MB	120/208	3	4	50 MB	BOLT-ON	(3)#8AWG	(1)#10AWG	¾	DP
MPZ5	NEMA-3R	SURFACE	15	480	3	3	40 MB	120/208	3	4	50 MB	BOLT-ON	(3)#8AWG	(1)#10AWG	¾	DP

MINI-POWER CENTER PANELBOARD SCHEDULE

MARK: MPZ2

CKT #	LOAD DESCRIPTION	BREAKER P	BREAKER TRIP	FEEDER/CONDUIT FEED	FEEDER/CONDUIT GRD	FEEDER/CONDUIT SIZE	PHASE (VA) A	PHASE (VA) B	PHASE (VA) C	PHASE (VA) A	PHASE (VA) B	PHASE (VA) C	FEEDER/CONDUIT FEED	FEEDER/CONDUIT GRD	FEEDER/CONDUIT SIZE	BREAKER P	BREAKER TRIP	LOAD DESCRIPTION	CKT #
1	RECEPT GFI	1	20	10	12	½	180			180			10	12	½	1	20	RECEPT GFI	2
3	RECEPT GFI	1	20	10	12	½		180			180		10	12	½	1	20	RECEPT GFI	4
5	RECEPT GFI	1	20	10	12	½			180			180	10	12	½	1	20	RECEPT GFI	6
7	RECEPT GFI	1	20	10	12	½	180			905			10	12	½	1	25	FAN BAF-1A	8
9	SPARE	1	20	–	–	–		–			905								10
11	SPARE	1	20	–	–	–			–			905	10	12	½	1	25	FAN BAF-1B	12
13	SPARE	1	20	–	–	–	–			905									14
15	SPARE	1	20	–	–	–		–			905		10	12	½	1	25	FAN BAF-1C	16
17	SPARE	1	20	–	–	–			–			905							18
							360	180	180	1,990	1,990	1,990							

TOTAL (kVA) øA 2.35 øB 2.17 øC 2.17 — HIGH PHASE (AMPS) 19.6

TOTAL CONNECTED LOAD (kVA) 6.69 — TOTAL LOAD (AMPS) 18.6

B

MARK	TYPE	MOUNTING	XFMR kVA	PRIMARY VOLTAGE	ø	WIRE	PRI MAIN	SECONDARY VOLTAGE	ø	WIRE	SEC MAIN	C/B TYPE	FEEDER CONDUCTORS	FEEDER GROUND	FEEDER CONDUIT	FEEDER FROM
MPZ2	NEMA-3R	SURFACE	15	480	3	3	40 MB	120/208	3	4	50 MB	BOLT-ON	(3)#8AWG	(1)#10AWG	¾	DP

MINI-POWER CENTER PANELBOARD SCHEDULE

MARK: (SEE BELOW)

CKT #	LOAD DESCRIPTION	BREAKER P	BREAKER TRIP	FEEDER/CONDUIT FEED	FEEDER/CONDUIT GRD	FEEDER/CONDUIT SIZE	PHASE (VA) A	PHASE (VA) B	PHASE (VA) C	PHASE (VA) A	PHASE (VA) B	PHASE (VA) C	FEEDER/CONDUIT FEED	FEEDER/CONDUIT GRD	FEEDER/CONDUIT SIZE	BREAKER P	BREAKER TRIP	LOAD DESCRIPTION	CKT #
1	RECEPT GFI	1	20	10	12	½	180			180			10	12	½	1	20	RECEPT GFI	2
3	RECEPT GFI	1	20	10	12	½		180			180		10	12	½	1	20	RECEPT GFI	4
5	RECEPT GFI	1	20	10	12	½			180			180	10	12	½	1	20	RECEPT GFI	6
7	SPARE	1	20	–	–	-	–			–			–	–	–	1	20	SPARE	8
9	SPARE	1	20	–	–	–		–			–		–	–	–	1	20	SPARE	10
11	SPARE	1	20	–	–	–			–			–	–	–	–	–	–	SPACE	12
13	SPARE	1	20	–	–	–	–			–			–	–	–	–	–	SPACE	14
15	SPACE	1	–	–	–	–		–			905		10	12	¾	1	25	FAN BAF-1D (MPZ3 ONLY)	16
17	SPACE	1	–	–	–	–			–			905							18
						MPZ3	180	180	180	180	1,080	1,080							

MPZ3 – TOTAL (kVA) øA .36 øB 1.26 øC 1.26 — HIGH PHASE (AMPS) 10.5

TOTAL CONNECTED LOAD (kVA) 2.88 — TOTAL LOAD (AMPS) 8.0

B

MARK	TYPE	MOUNTING	XFMR kVA	PRIMARY VOLTAGE	ø	WIRE	PRI MAIN	SECONDARY VOLTAGE	ø	WIRE	SEC MAIN	C/B TYPE	FEEDER CONDUCTORS	FEEDER GROUND	FEEDER CONDUIT	FEEDER FROM
MPZ3	NEMA-3R	SURFACE	15	480	3	3	40 MB	120/208	3	4	50 MB	BOLT-ON	(3)#8AWG	(1)#10AWG	¾	DP

PANELBOARD SCHEDULE (120/208V 3ø, 4W)

MARK: 2ND FLOOR PANEL "OD2"

CKT #	LOAD DESCRIPTION	BREAKER P	BREAKER TRIP	FEEDER/CONDUIT FEED	FEEDER/CONDUIT GRD	FEEDER/CONDUIT SIZE	PHASE (VA) A	PHASE (VA) B	PHASE (VA) C	PHASE (VA) A	PHASE (VA) B	PHASE (VA) C	FEEDER/CONDUIT FEED	FEEDER/CONDUIT GRD	FEEDER/CONDUIT SIZE	BREAKER P	BREAKER TRIP	LOAD DESCRIPTION	CKT #
1	RM 200 – 203 LTG	1	20	10	12	½	1,350			1,080			10	12	½"	1	20	RM 200 DATA RECEPT	2
3	RM 204 – 206 LTG	1	20	10	12	½		1,090			1,080		10	12	½"	1	20	RM 200 DATA RECEPT	4
5	RM 214 – 220 LTG	1	20	10	12	½			1,420			900	10	12	½"	1	20	RM 200 RECEPT	6
7	SPARE	1	20	–	–	–	–			900			10	12	½"	1	20	RM 200 RECEPT	8
9	RM 207 – 213 LTG	1	20	10	12	½		1,340			1,440		10	12	½"	1	20	RM 201 DATA RECEPT	10
11	SPARE	1	20	–	–	–			–			900	10	12	½"	1	20	RM 201 RECEPT	12
13	SPACE	–	–	–	–	–	–			1,440			10	12	½"	1	20	RM 202/203 DATA RECEPT	14
15	SPACE	–	–	–	–	–		–			720		10	12	½"	1	20	RM 202 RECEPT	16
17	SPACE	–	–	–	–	–			–			720	10	12	½"	1	20	RM 203 RECEPT	18
19	CORRIDOR RECEPT	1	20	10	12	½	1,620			1,440			10	12	½"	1	20	RM 204 DATA RECEPT	20
21	RM 212/213	1	20	10	12	½		360			1,080		10	12	½"	1	20	RM 204 DATA RECEPT	22
23	WATER HEATER WH-1	2	30	10	12	½			2,000			1,080	10	12	½"	1	20	RM 204 RECEPT	24
25							2,000			1,080			10	12	½"	1	20	RM 204 DATA RECEPT	26
27	RM 214/215 RECEPT	1	20	10	12	½		720			1,080		10	12	½"	1	20	RM 204 DATA RECEPT	28
29	RM 218 RECEPT	1	20	10	12	½			240			360	10	12	½"	1	20	RM 205 RECEPT	30
31	RM 217 RECEPT	1	20	10	12	½	540			750			10	12	½"	1	20	RM 205 COPIER RECEPT	32
33	RM 216 UPS POWER RUN NEUTRAL WITH CKT **	2	30	8	10	¾		2,500			720		10	12	½"	1	20	RM 206 RECEPT	34
35									2,500			1,800	10	12	½"	1	20	RM 207/208 DATA RECEPT	36
37	SPARE	1	20	–	–	-	–			540			10	12	½"	1	20	RM 207 RECEPT	38
39	SPARE	1	20	–	–	-		–			1,080		10	12	½"	1	20	RM 208 RECEPT	40
41	SPARE	1	20	–	–	-			–			720	10	12	½"	1	20	RM 209 RECEPT	42
43	RM 218/219 DATA RECEPT	1	20	10	12	½	1,440			1,440			10	12	½"	1	20	RM 209/210 DATA RECEPT	44
45	RM 219 RECEPT	1	20	10	12	½		720			720		10	12	½"	1	20	RM 211 RECEPT	46
47	SPARE	1	20	–	–	-			–			180	10	12	½"	1	20	RM 210 COUNTER RECEPT	48
49	RM 220 RECEPT	1	20	10	12	½	1,440			1,100			10	12	½"	1	20	RM 210 MICROWAVE RECEPT	50
51	RM 220 DATA RECEPT	1	20	10	12	½		1,080			750		10	12	½"	1	20	RM 210 REFRIG RECEPT	52
53	RM 220 DATA RECEPT	1	20	10	12	½			1,080			900	10	12	½"	1	20	RM 210 COFFEE RECEPT	54
							8,390	7,810	7,240	9,770	8,670	7,560							

TOTAL (kVA) øA 18.16 øB 16.48 øC 14.80 — HIGH PHASE (AMPS) 151.3

TOTAL CONNECTED LOAD (kVA) 49.44 — DEMAND LOAD (kVA) 38.195 — TOTAL LOAD (AMPS) 137.2

DEMAND LOAD (AMPS) 106.0

** – CONTRTACTOR SHALL VERIFY UPS REQUIREMENTS WITH ASPA IT PERSONNEL PRIOR TO BID AND INSTALLATION

PANELBOARD SCHEDULE (120/208V 1ø, 3W)

MARK: 'ITDP' **

CKT #	LOAD DESCRIPTION	BREAKER P	BREAKER TRIP	FEEDER/CONDUIT FEED	FEEDER/CONDUIT GRD	FEEDER/CONDUIT SIZE	PHASE (VA) A	PHASE (VA) B
1	RM 204 TV RECEPT	1	20	10	12	½	750	
2	RM 206/220 TV RECEPT	1	20	10	12	½		450
3	RM 220 DESK RECEPT	1	20	10	12	½	360	
4	IT RM 216 RECEPT	1	20	10	12	½		720
5	IT RM 216 RECEPT	1	20	10	12	½	720	
6	IT RM 216 RECEPT	1	20	10	12	½		720
7	RM 105/111 TV RECEPT	1	20	10	12	½	360	
8	IT RM 110 RECEPT	1	20	10	12	½		540
9	IT RM 110 RECEPT	1	20	10	12	½	720	
10	IT RM 110 RECEPT	1	20	10	12	½		360
11	SPARE	1	20	–	–	-	–	
12	SPARE	1	20	–	–	-		–
13	SPARE	1	20	–	–	-	–	
14	SPARE	1	20	–	–	-		–
15	SPARE	1	20	–	–	-	–	
16	SPARE	1	20	–	–	-		–
17	SPARE	1	20	–	–	-	–	
18	SPARE	1	20	–	–	-		–
19	SPACE	1	–	–	–	-	–	
20	SPACE	1	–	–	–	-		–
21	SPACE	1	–	–	–	-	–	
22	SPACE	1	–	–	–	-		–
23	SPACE	1	–	–	–	-	–	
24	SPACE	1	–	–	–	-		–
							2,910	2,790

TOTAL (kVA) øA 2.91 øB 2.79 HIGH PHASE (AMPS) 24.3

TOTAL CONNECTED LOAD (kVA) 5.70 TOTAL LOAD (AMPS) 27.4

** – PANELBOARD 'ITDP' WILL BE FEED FROM THE OWNER SUPPLIED UPS AND CONTRTACTOR SHALL VERIFY UPS REQUIREMENTS WITH ASPA IT PERSONNEL PRIOR TO BID AND INSTALLATION

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REV.	DESCRIPTION	DATE	BY	CHK'D
B	REVISED PER ADDENDUM 2	09/02/22	RCC	JJM
A	ISSUE FOR BID	08/10/22	JWM	JJM

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PROJECT: McDUFFIE WAREHOUSE
McDUFFIE TERMINAL
ASPA

TITLE: PANELBOARD SCHEDULES

SCALE	DRAWN BY	DATE	SHEET	REV.
NOTED	RCC	10/01/21	10 OF –	B
JOB NO. 4043	CHECKED BY JJM	DATE 10/01/21	DRAWING NUMBER 4043-E10	

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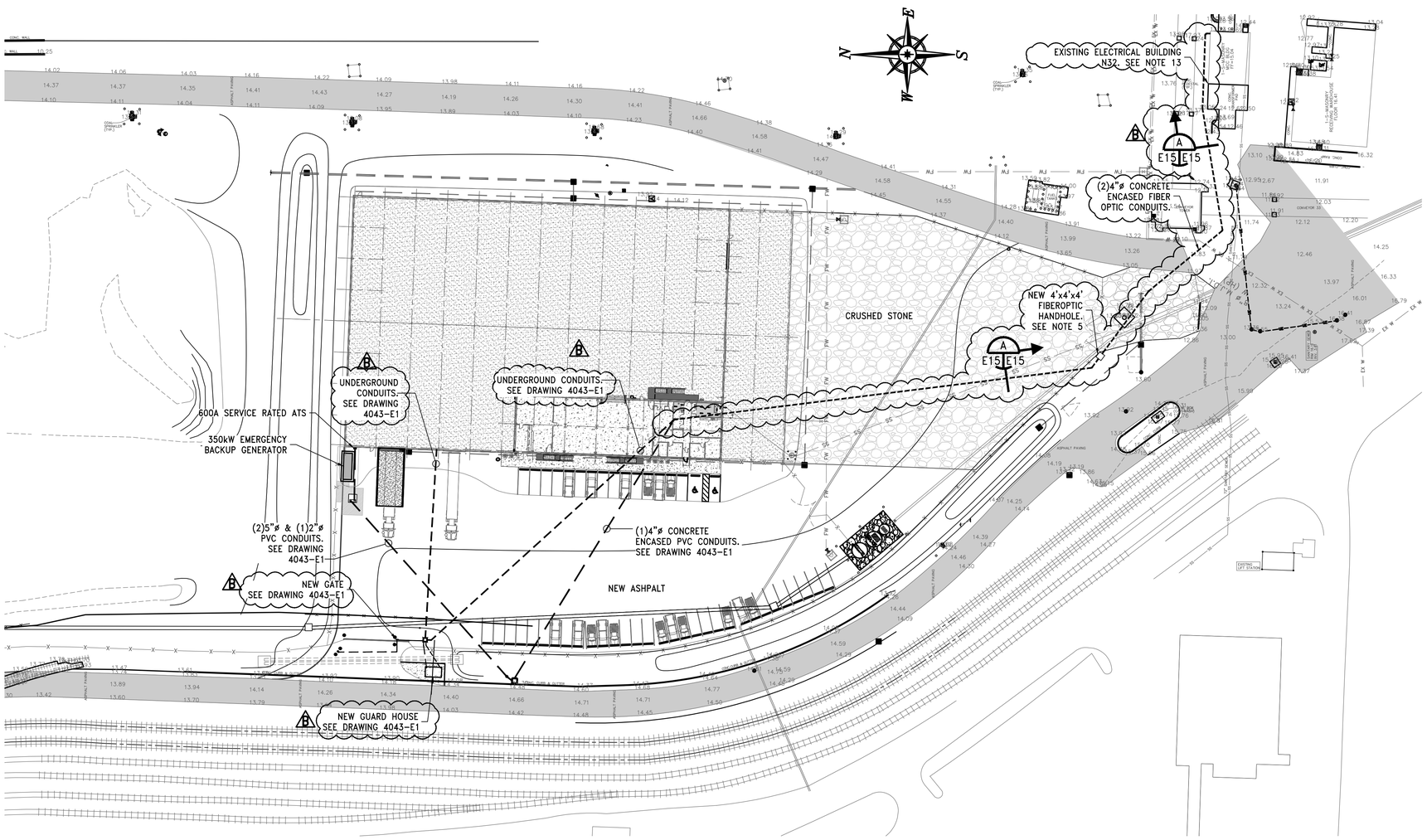
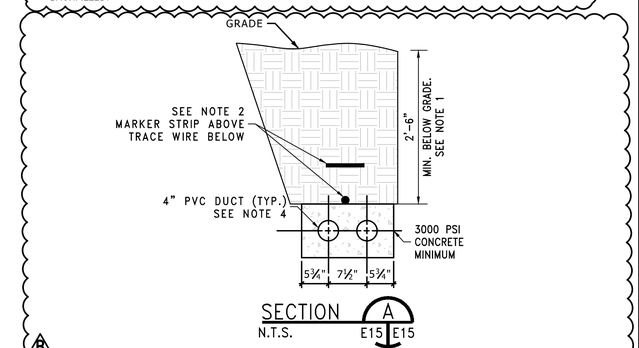


ELECTRICAL NOTES:

1. ALL ELECTRICAL WORK SHALL BE INSTALLED AS REQUIRED BY THE NATIONAL ELECTRIC CODE (N.E.C.) AND ANY STATE, CITY AND/OR LOCAL CODE REQUIREMENTS. THE MORE STRINGENT CODE REQUIREMENT SHALL BE UTILIZED AND VERIFIED WITH THE LOCAL INSPECTION APPROVAL AGENCY. (DEFINITION "CODE" – STATE, CITY AND/OR LOCAL CODE REQUIREMENTS)
2. CONTRACTOR SHALL INSTALL ALL GROUNDING AS REQUIRED BY THE NATIONAL ELECTRIC CODE (N.E.C.) AND ANY STATE, CITY AND/OR LOCAL CODE REQUIREMENTS. THE MORE STRINGENT CODE REQUIREMENT SHALL BE UTILIZED AND VERIFIED WITH THE LOCAL INSPECTION APPROVAL AGENCY.
3. CONTRACTOR SHALL (PRIOR TO BID)
   (a) VISIT THE JOB/CONSTRUCTION SITE AND FIELD VERIFY ALL EXISTING CONDITIONS
   (b) TAKE ALL CONSIDERATIONS INTO ACCOUNT AT THE TIME OF BID. NO CONSIDERATIONS WILL BE GRANTED TO THE CONTRACTOR AFTER THE BID HAS BEEN ACCEPTED.
5. CONTRACTOR SHALL FURNISH AND INSTALL NEW 4'x4'x4' HANDHOLE, H20 HIGHWAY RATED, WITH A REMOVABLE COVER LISTED 'COMMUNICATION' IN THE APPROXIMATE LOCATION AS SHOWN ON THE SITE PLAN, THIS SHEET.
6. CONTRACTOR SHALL FURNISH AND INSTALL CONCRETE ENCASED UNDERGROUND DUCTBANK AS SHOWN IN SECTION 'A', THIS SHEET, FROM THE NEW WAREHOUSE TO THE EXISTING ELECTRICAL BUILDING 'N32. UNDERGROUND DUCTBANK SHALL NOT EXTEND UNDER THE NEW BUILDING FOUNDATION AND CONTRACTOR SHALL ROUTE THE CONDUIT TO IT ROOM 216 AND STUB-UP IN FALSE FLOOR. CONTRACTOR SHALL ROUTE CONDUIT TO THE EXISTING ELECTRICAL BUILDING 'N32' AND PENETRATE THE WALL ON THE NORTHEAST CORNER AND ROUTE CONDUIT TO CENTER OF INTERIOR OF THE EAST WALL NEAR THE LOCATION OF THE IT DATA EQUIPMENT INSIDE. ALL PENETRATION SHALL BE MADE WEATHERPROOF.
7. CONTRACTOR SHALL FURNISH AND INSTALL (1)144 STRAIN SINGLE-MODE FIBER OPTIC CABLE FROM THE NEW WAREHOUSE IT ROOM 216 TO THE EXISTING ELECTRICAL BUILDING 'N32', LEAVE 20 FOOT SLACK AT EACH END WITH LC CONNECTORS INSTALLED AND LEAVE A 20 FOOT SERVICE LOOP IN THE NEW FIBER OPTIC HANDHOLE.

B

8. CONTRACTOR SHALL SEE DRAWING 4043-E1 FOR ADDITIONAL REQUIREMENTS.
9. ALL NEW UNDERGROUND CONDUITS SHALL HAVE A TRACE WIRE SERCURED TO THE TOP PRIOR TO BEING BACKFILLED.



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SECTION NOTES:

1. IF 2'-6" MINIMUM COVER CAN NOT BE MAINTAINED, 2" OF ADDITIONAL CONCRETE COVER MUST BE ADDED TO THE DUCT BANK WHEN COVER IS BETWEEN 2'-0" AND 2'-5" AND 4" OF CONCRETE WHEN BETWEEN 1'-6" AND 1'-11", CONSULT ENGINEER BEFORE INSTALLING WHERE LESS THAN 1'-5" OF COVER WOULD BE PRESENT.
2. DUCT BANKS SHALL BE MARKED WITH TRACE WIRE AND A 6" WIDE RED PLASTIC MARKER STRIP LABELED TO INDICATE "TELE-COMMUNICATION" AND PLACED IN THE BACKFILL APPROXIMATELY 12" ABOVE THE ENTIRE LENGTH OF THE DUCT BANK.
3. TELECOMMUNICATION DUCTS DO NOT INCLUDE GROUNDING CONDUCTORS.
4. USE DUCT SPACERS TO HOLD DUCTS IN POSITION. NOTED SPACINGS ARE MINIMUMS. USE PRODUCTS FROM CARLON, CANTEX, OR STERLING. (TIE TOGETHER USING NON-FERROUS WIRE) DUCTS ARE TYPICALLY 4".
5. PROVIDE RIGID GALVANIZED STEEL CONDUITS OF THE SAME SIZE AS THE DUCTS ENTER AND EXITS THE BUILDINGS. PROVIDE A PULL BOX SIZED PER THE N.E.C. FOR EVERY 180° OF BEND.

MINIMUM QUALIFICATIONS FOR LOW VOLTAGE CONTRACTOR:

- THE TELECOMMUNICATIONS CABLING CONTRACTOR/SUBCONTRACTOR MUST HAVE A RCDD ON STAFF AND BE RESPONSIBLE FOR THIS PROJECT. RCDD CREDENTIALS SHALL BE FURNISHED TO THE OWNER PRIOR TO COMMENCING WORK.
- THE TELECOMMUNICATIONS CABLING CONTRACTOR/SUBCONTRACTOR PROJECT MANAGER MUST HAVE A MINIMUM OF BICSI INSTALLER LEVEL II CERTIFICATION AND MUST BE FULL TIME EMPLOYEE OF CONTRACTOR/SUBCONTRACTOR.
- THE TELECOMMUNICATIONS CABLING CONTRACTOR/SUBCONTRACTOR MUST PROVIDE A REFERENCE LIST WITH CONTACT NAMES AND PHONE NUMBERS FOR THREE (3) PROJECTS OF SIMILAR SIZE AND SCOPE PRIOR TO COMMENCING WORK. THE PROJECT LIST SHALL DOCUMENT ATLEAST 5 YEARS OF EXPERIENCE IN SIMILAR INSTALLATIONS.
- THE TELECOMMUNICATIONS CABLING CONTRACTOR/SUBCONTRACTOR MUST BE A CERTIFIED INSTALLER WITH THE MANUFACTURER UTILIZED AND BE IN GOOD STANDING WITH THE MANUFACTURERS 20 YEAR WARRANTY PROGRAM.
- THE TELECOMMUNICATIONS CABLING CONTRACTOR/SUBCONTRACTOR SHALL PROVIDE A MANUFACTURES WARRANTY TO GUARANTEE END-TO-END HIGH PERFORMANCE CABLING SYSTEMS THAT MEET APPLICATION REQUIREMENTS. THE GUARANTEE SHALL INCLUDE HORIZONTAL AND BACKBONE CABLE AND CONNECTIVITY COMPONENTS AND HAVE ONE POINT OF CONTACT FOR ALL CABLING SYSTEM ISSUES. THE SYSTEM SHALL BE WARRANTED FOR A PERIOD OF AT LEAST 20 YEARS.

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NOTE:

SEE REFERENCE DRAWINGS "McDUFFIE COAL TERMINAL STORMWATER TRANSFER" SHEET 4 AND SHEET 11 FOR ADDITIONAL EXISTING UTILITY INFORMATION. THESE DRAWINGS ARE FOR INFORMATION ONLY AND THE ACCURACY OF THESE DRAWINGS ARE NOT GUARANTEED. THE CONTRACTOR IS SOLELY RESPONSIBLE TO VERIFY THE LOCATION OF ALL UTILITIES BEFORE BEGINNING WORK.

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PROJECT
McDUFFIE WAREHOUSE
McDUFFIE TERMINAL
ASPA

TITLE
NEW FIBER OPTIC SITE PLAN

SCALE	DRAWN BY	DATE	SHEET	REV.
NOTED	RCC	10/01/21	15 OF –	B
JOB NO. 4043	CHECKED BY JJM	DATE 10/01/21	DRAWING NUMBER 4043-E15	

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