

ADDENDUM No. 1
to
Specifications and Contract Documents
for
**North General Aviation Site Development and Pipe Ditches in FBO #2 Area
Wilmington International Airport**

Addendum Date: January 11, 2019

This Addendum No. 1 is issued by
Talbert & Bright, Inc., 4810 Shelley Drive, Wilmington, NC 28405

THIS ADDENDUM DOES NOT CHANGE THE BID DATE

BIDDERS MUST SIGN THIS ADDENDUM AND INCLUDE IT WITH THE BID

Contractors and other interested parties are directed to make the following changes:

1. A Non-Mandatory Pre-Bid Meeting for the project was held on Friday, January 4, 2019. A Pre-Bid Meeting Summary and Attendance List are attached to the end of this Addendum for informational purposes.
2. To the Plans, replace Plan Sheets E1, E2, and E3 with Plan Sheets E1, E2, and E3, revision date of 01/11/19.
3. The following questions were asked during the Pre-Meeting. Responses are shown:
 - a. Question: May the bid date be extended?
Answer: No, the original bid opening schedule will remain Tuesday, January 22, 2019 at 10:00 am.
 - b. Question: May bituminous millings be disposed on airport property?
Answer: Yes, bituminous millings may be disposed on airport property at a site just inside the perimeter fence near the end of Gardner Road. Only millings will be accepted, no broken or chunks of asphalt.
 - c. Question: May removed concrete pavement be disposed on airport property?
Answer: No
 - d. Question: May excess soil material be disposed on airport property?
Answer: No
 - e. Question: Does the airport have an office space available accommodate the field office requirements?
Answer: No, not at this time.

- f. Question: Are there other possible locations for the field office?
 Answer: The field office may be located on other locations within the project limits that does not impact Airport/tenant/aircraft owner access. Airport shall review and must approve any location other than shown on the plans. Currently, there are no other possible locations outside the project limits.

- g. Question: May an excel spreadsheet of the bid form be emailed?
 Answer: Yes, see the attached excel spreadsheet "Bid Form (ILM N GA Site Dev) 18 1228".

ATTACHMENTS

Pre-Bid Meeting Summary with Attendance List
 excel spreadsheet "Bid Form (ILM N GA Site Dev) 18 1228"
 Plan Sheet E1, Rev. No. 1, 01/11/19
 Plan Sheet E2, Rev. No. 1, 01/11/19
 Plan Sheet E3, Rev. No. 1, 01/11/19

END OF ADDENDUM NO. 1

Please acknowledge receipt of Addendum No. 1 by signing and attaching to your bid.

By: _____ Date _____
 Contractor

_____ Signature _____
 Title of Signing Officer

**Wilmington International Airport
North General Aviation Site Development and Pipe Ditches in FBO #2 Area
TBI No. 3301-1602/1703**

Pre-Bid Meeting Summary

January 11, 2019

A pre-bid meeting for the subject project was held on Friday, January 4, 2019 at 10:00 am in the Terminal Conference Room at the Wilmington International Airport. The Pre-bid Meeting was a non-mandatory meeting to discuss general requirements for the subject project. The following items were discussed.

1. Introductions/Sign In Sheet

A list of meeting participants is attached.

2. Description of Work/Phasing

- The project will relocate two Airport-owned roads (Flightline Road and Anna Pennington Lane) that provide Airport/tenant/aircraft owner access to the North GA apron and the Airport's maintenance building, construct new parking areas for general aviation users and Airport use, construct new storm water infrastructure both in the North GA Site area and along Trask Drive and Gardner Drive to the north, construct a concrete aircraft wash pad including provision of water supply and oil/sand separator with connection to sanitary sewer, relocate/modify associated utilities, replace area lighting, relocate and install airport perimeter security fence/gate, demo bituminous and concrete pavements, demo concrete slabs, and abandon utilities, and perform earthwork.
- The project includes two schedules of work: Schedule I – North General Aviation Site Development and Schedule II – Pipe Ditches in FBO #2 Area. Each of the two work schedules is being funded by a different State Grant Fund administered through the NCDOT Division of Aviation. The grants have been issued and the project will be awarded upon the New Hanover County Airport Authority's approval of the bid.
- Two Schedules of Work – Two Phases for Schedule I (120 calendar days)
Schedule I must be constructed in two phases in order to maintain vehicular/equipment access from NCDOT roadways to the North GA Apron, to tenant operations both inside and outside the secure airfield perimeter (including FedEx), and to the Airport's Maintenance Building.
 - Schedule I – Phase I: Relocate Anna Pennington Lane & Construct Wash Pad.
Primary components of the work include removal of existing bituminous and concrete pavement, earthwork, construct new roadway with 3" of NCDOT S9.50C over 8" of NCDOT ABC, mill and fill 1.5 inches at existing Maintenance Building parking lot, fire hydrant relocation, construct new 62.5' x 62.5' Wash Pad for general aviation aircraft with 8" of NCDOT Portland Cement Concrete over 6" of NCDOT ABC, Wash Pad water supply and oil/sand separator with connection to sanitary sewer, removal and installation of storm drainage pipes and structures,

relocate existing 20' electrical vehicle slide Gate A12, and replace lighting on south side of Maintenance Building.

Existing utilities (power/telecommunications) are located in the project area and are to remain in service during the construction. Duke Energy is preparing to relocate the power pole and overhead lines at the intersection of Anna Pennington Lane and Gardner. Spectrum is preparing to relocate their underground cables and remove boxes out of the path of the relocated roadway/parking. AT&T is preparing to remove their inactive line from the power pole located near the Maintenance Building Gate A13. Once AT&T has removed their line, Duke Energy or the Contractor will remove and dispose of the pole.

- Schedule I – Phase I Bid Alternate No. 2 (10 additional calendar days):
Primary components of the work include removal and replacement of existing electrical vehicle slide Gate A13 and controls at the Maintenance Building . The new gate is designed with the same specifications as Gate A12 (Gate A12 is to be relocated in the base bid). Connecting fence is to be replaced with 8' high fence as detailed on Plan Sheet F1.
- Schedule I – Phase II: Relocate Flightline Road
Primary components of the work include removal of existing bituminous and concrete pavement, removal of concrete slabs/foundations, earthwork, construct new roadway with 3" of NCDOT S9.50C over 8" of NCDOT ABC, removal and installation of storm drainage pipes and structures, replace approximately 90' of 8" water line, replace approximately 410' of 8" sanitary sewer and install three new sanitary sewer manholes, and relocate existing 20' double leaf swing Gate A11.
- Schedule I – Phase II Bid Alternate No. 1 (10 additional calendar days):
Primary components of the work include replacing approximately 440' of 8" water line and relocation of existing fire hydrant.
- Work Area A – near active taxilane (to be performed in 28 calendar days within overall contract time). Work Area A is not bound by any phasing of the project. Primary components of the work include installation of two storm drainage structures and drainage pipe connecting an existing drainage structure. The drainage structures are intended to provide a fuel and vapor separation between aircraft fueling and land side drainage structures.

Work is within the Taxilane Safety Area (TSA) and the Taxilane Object Free Area (TOFA). Aircraft cannot access the taxilane during construction activity. To avoid interruption of operations, contractor shall coordinate with airport and live oak bank hangar complex personal at least one week prior to requested date of work in this area.

- Schedule II: 48" RCP along Gardener Drive (30 calendar days)
It is anticipated work in Schedule II will be performed concurrently with Schedule I.

Primary components of the work include installation of approximately 800' of 48" RCP, installation of three drainage structures, and earthwork. Earthwork for Schedule II is to be paid at a lump sum price.

Existing utilities (power/telecommunications) are located in the project area and are to remain in service during the construction. Duke Energy is preparing to remove the power pole in path of excavation for the 48" RCP. Overhead lines will be relocated. Spectrum is preparing to relocate their underground cables and remove boxes out of the path of the excavation for the 48" RCP.

- Work area / AOA
 - Contractor must maintain a secure AOA perimeter at all times, by using movable barrier fencing provided by the Contractor to fence out the construction from the AOA.
 - Work inside the AOA perimeter includes installing/removing the temporary barriers for the Wash Pad and the two roadway tie-ins to the existing apron. Work in the AOA has special badging and training requirements for supervisory personnel, escort drivers and others – see Sheet A2 for additional information.
- Project Safety Plans/Project Special Provisions PSP-7
- Project Access and Staging Areas
- Safety Classes and Badge Requirements – PSP-6 & Appendix G. Badged Individuals are limited to escort 5 individuals at time.
- Liquidated Damages (\$1,500/Day)
- Survey Requirements - PSP-8, PSP-28, and Section 50 of Specifications. Survey work shall be performed under supervision of a NC licensed surveyor or professional engineer.
- Bid Items (NCDOT ABC & NCDOT S9.50C)
- QA Testing / QC Testing.
 - The Engineer will have a Resident Project Representative to observe the work, coordinate QA Testing, check quantities, and be the Engineer's and Airport's representative on the project on a daily basis.
 - The Engineer will be responsible for Quality Assurance testing.
 - The Contractor will be responsible for Quality Control testing.

Questions and responses during the meeting:

- Boring Reports are included in Appendix 'I' of the Specifications. Reports state existing bituminous pavement range from 1.5" – 3.5" and concrete pavement/slabs range from 4" – 7.75". Reports state pavements are on sandy material, aggregate base course was not documented.
- NCDOT specified items are to conform to the 2018 edition.
- All RCP is to be Class III with O-ring style joints. There is no joint testing specification requirement. All pipe joints shall be wrapped in geotextile fabric that extends 2 feet on either side of the joint and shall be held in place until backfill is above the top of the pipe.
- A Field Office is required with a minimum 300 square feet of usable space. All costs to be included in the lump sum Contract unit price for "Mobilization". Field Office requirements are located in Supplemental General Conditions under Section 60-05.

- All temporary barriers are to be provided by Contractor. All costs to be included in the lump sum Contract unit price for “Mobilization”
- There is no separate “Mobilization” unit price for items applicable to the 2019 CFPUA requirements.
- Water distribution and sanitary sewer construction is to be installed per the 2019 Cape Fear Public Utilities Authority (CFPUA) Technical Standards; documents are available on the CFPUA website.
- According to CFPUA records, the existing 8” sanitary sewer line along Flightline Road is vitrified clay pipe (VCP) and the existing 8” sanitary sewer line along Trask is lined truss pipe.
- There are no known FAA cables within the project area.
- Existing utilities for NWS/NOAA are located on the east side Gardner Drive, from the intersection of Anna Pennington leading to north (along the east roadside ditch of Gardner Drive). The power and telecommunications for the National Weather Service must remain active throughout the construction. With advanced notice, water may be temporary turned off for a water line cut-in or other necessary work.

3. Bidding Procedures

- Bid Submission Requirements:
 - Bid Opening – Tuesday, January 22, 2019 @ 10:00 am, in the Conference Room of Wilmington International Airport
 - Overnight Delivery may not arrive until after 10:00 am and late bids will not be opened. It is the contractor’s responsibility to make sure their bid has been delivered no later than 10:00 am.
 - Bid package should be sealed and the outside of the envelope shall contain bidders’ name, license number, project name.
 - Submit Appendix B and WBE/MBE GFE documentation if do not meet goals.
 - Complete base bid, alternates, and Owner-Optional Bid Item Additional Insured Coverage.
 - Bid Form filled out completely, including unit prices written in words and numbers and extended totals provided for all items of work and signed. Bidder must provide unit prices for all items of work, including all Alternate Items.
 - Bid bond – 5% of the bidder’s maximum bid price
 - Sign all forms where required in Appendix B.
 - Attach Evidence of Competency and Financial Responsibility (NCDOT Prequalification can be submitted in lieu of the Evidence of Financial Responsibility)
 - Signed Addenda
- Bidders shall be registered as a prequalified bidder with the NCDOT prior to the opening of bids and hold current license from the NC General Contractors License Board.
- Questions to TBI no later than 5:00 pm on Wednesday, January 9, 2019. All questions should be emailed to attention of Ray Marconi (rmarconi@tbilm.com) or by fax at (910) 762-6281. Responses to questions will be issued by Addendum as necessary.

4. MBE/WBE Requirements

- Project Contract Goal - See Appendix C of the Specifications.
 - Schedule I - Combined goals of 4.0%
 - Schedule II - Combined goal of 2.0%
 - Alternates No. 1 and No. 2. – goal of 0.0%
- MBE/WBE Contractor Qualifications. MBE/WBE subcontractors must be prequalified by the NCDOT for the work they will be performing, prior to commencing construction. Bidders should verify MBE/WBE certification for all subcontractors proposed to be used are certified at the time of bid opening. If the subcontract loses certification day before or day of bid, they will not be counted toward goal.
 - Subcontractors count 100% towards the goal.
 - Manufactures count 100% towards the goal.
 - Material suppliers only count 60% toward goal.
- DBE Forms to be Submitted with Bid:
 - Pages B-14 through and B-19 of Proposal Form in Appendix B – if left blank we cannot read your bid aloud. The Letter of Intent must be submitted not later than 2:00 pm on the 5th calendar day following opening of bids.
 - Bidders should verify DBE certification for all subcontractors proposed to be used are certified at the time of bid opening. If the subcontract loses certification day before or day of bid, they will not be counted toward goal.
 - MBE/WBE Good Faith Effort documentation per Appendix C. If Bidder does not meet the goal, MBE/WBE Good Faith Effort documentation per Appendix C shall be submitted not later than 2:00 pm on the 5th calendar day following opening of bids.
 - Bidders are encouraged to include additional DBE participation.

5. Contract Award Schedule

- The project will be awarded upon the New Hanover County Airport Authority's approval of the bid. State grant funding is currently available.
- All bids will remain valid for acceptance by the Owner for 120 calendar days after the day of the bid opening.
- It is the intent of the Airport to award the Contract to one contractor.

6. Questions to be addressed through Addendum

- a. May the bid date be extended?
- b. May bituminous millings be disposed on airport property?
- c. May removed concrete pavement be disposed on airport property?
- d. May excess soil material be disposed on airport property?
- e. Does the airport have an office space available accommodate the field office requirements?
- f. Are there other possible locations for the field office?
- g. May an excel spreadsheet of the bid form be emailed?

7. **Site Visit** Following the pre-bid meeting, a site/field visit was made to allow attendees to see the work areas for each proposed schedule of work.

Pre-Bid Meeting Attendance
Wilmington International Airport
North General Aviation Site Development and Pipe Ditches in FBO #2 Area
TBI No. 3301-1602/1703
January 4, 2019 @ 10:00 am

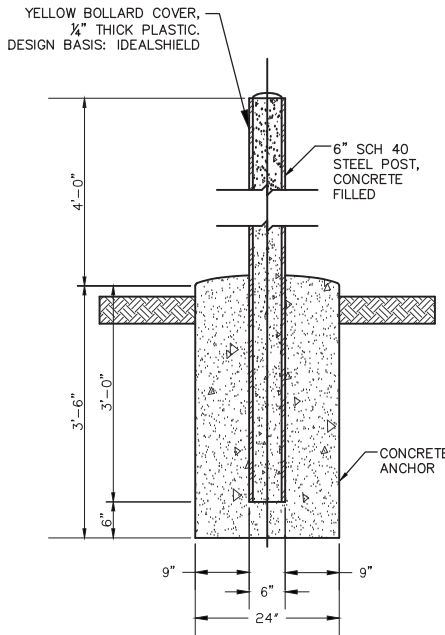
Name	Company Name	Phone	E-mail
1. Ray Marconi	Talbert & Bright, Inc.	910-763-5350	rmarconi@tbiilm.com
2. Eric Stumph	Talbert & Bright, Inc.	910-763-5350	estumph@tbiilm.com
3. Jennifer Kiglics	S. T. Wooten Corporation	910-762-0325	jennifer.kiglics@stwcorp.com
4. John Riggle	Trader Construction Company	252-633-2424	jriggle@traderconstruction.com
5. Charles Williams	Civil Works Contracting	757-343-8844	cwilliams@civilworkscontracting.com
6. Troy Taylor	East Coast Contracting	910-343-6445	ttaylor@eccwilm.com
7. Brad Cockman	Wells Brothers Construction	910-592-5705	brad@wellsbrotherscc.com
8. Granseur Dick	ILM	910-341-4333	gdick@flyilm.com
9. Todd Meyer (conference call)	NCDOT Division of Aviation	919-814-0586	tmeyer@ncdot.gov
10. Rip Parks	Barnhill Contracting Company	910-675-2554	rparks@barnhillcontracting.com
11.			
12.			
13.			
14.			
15.			

ELECTRICAL NOTES

- ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND REQUIREMENTS OF THE LOCAL AUTHORITY HAVING JURISDICTION.
- PERMITS FOR ELECTRICAL WORK SHALL BE OBTAINED BY AND PAID BY THE ELECTRICAL CONTRACTOR. THE ELECTRICAL CONTRACTOR SHALL PAY FOR ANY ADDITIONAL FEES FOR INSPECTIONS, TESTS, AND OTHER SERVICES AS REQUIRED FOR THE COMPLETION OF THE WORK.
- THE ELECTRICAL CONTRACTOR AND ANY OF HIS SUBCONTRACTORS SHALL VISIT THE PROJECT SITE TO WITNESS EXISTING CONDITIONS AND BECOME FAMILIAR WITH THE SCOPE OF THE WORK REQUIRED PRIOR TO SUBMITTING BIDS. WORK REQUIRED BY EXISTING JOB CONDITIONS NOT INDICATED ON DRAWINGS SHALL BE INCLUDED IN THE BID.
- THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO RESULT IN THE PRODUCTION OF A COMPLETE AND FUNCTIONAL ELECTRICAL SYSTEM. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL MATERIAL, LABOR, EQUIPMENT, AND OTHER SERVICES AS NECESSARY TO COMPLETE THE WORK.
- DISCREPANCIES IN THE DRAWINGS AND SPECIFICATIONS THAT WILL AFFECT THE WORK SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO SUBMITTING BIDS. UNLESS NOTED OTHERWISE, ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND INCLUDE A 3RD PARTY LABEL (I.E.: UL, CSA, ETL, ETC.) LISTING APPROVAL FOR ITS INSTALLED APPLICATION.
- PROVIDE NATIONAL ELECTRICAL CODE REQUIRED CLEARANCES FOR ALL ELECTRICAL EQUIPMENT.
- UNLESS OTHERWISE NOTED, SCHEDULE 40 PVC RACEWAY MAY BE USED FOR UNDERGROUND CIRCUITRY. ELBOWS TURNED UP AND EXPOSED RACEWAY FROM SLAB OR GRADE SHALL BE RIGID METAL.
- PANEL BUS MATERIAL: COPPER.
- PANEL BREAKER CONFIGURATIONS SHALL BE INSTALLED AS INDICATED ON THE PANEL SCHEDULES OR AS NOTED. BREAKER POSITION REVISIONS WILL NOT BE ACCEPTED UNLESS APPROVED IN WRITING BY THE ENGINEER.
- LOAD CIRCUITS SHALL BE INSTALLED AS INDICATED ON THE DRAWINGS. CIRCUITRY REVISIONS WILL NOT BE ACCEPTED UNLESS APPROVED IN WRITING BY THE ENGINEER.

ABBREVIATIONS

AFG	ABOVE FINISHED GRADE
AIC	AMPS INTERRUPTING CAPABILITY
BKR	BREAKER
C	CONDUIT
C/B	CIRCUIT BREAKER
CKT	CIRCUIT
CU	COPPER
DIA	DIAMETER
DWG	DRAWING
EQUIP.	EQUIPMENT
EXSTG	EXISTING
G	EQUIPMENT GROUND
GEC	GROUNDING ELECTRODE CONDUCTOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
HPF	HIGH POWER FACTOR
IMC	INTERMEDIATE METAL CONDUIT
K	KILO (THOUSAND)
LED	LIGHT EMITTING DIODE
LTS	LIGHTING
LTS	LIGHTS
MCB	MAIN CIRCUIT BREAKER
MFR	MANUFACTURER
N/A	NOT APPLICABLE
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOC.
NTS	NOT TO SCALE
P	PHASE OR POLE
PH	PHASE
PNL	PANEL
PVC	POLYVINYL CHLORIDE
REC	RECEPTACLE
RECPT	RECEPTACLE
REQ.	REQUIRED
RGC	RIGID GALVANIZED CONDUIT
RGS	RIGID GALVANIZED STEEL
S.S.	STAINLESS STEEL
SYS	SYSTEM
S/N	SOLID NEUTRAL
TYP	TYPICAL
UL	UNDERWRITERS LABORATORY
UNO	UNLESS NOTED OTHERWISE
UON	UNLESS OTHERWISE NOTED
V	VOLTS
VA	VOLT-AMPS
W	WATTS
W	WIRE
W/	WITH
WP	WEATHERPROOF



PIPE BOLLARD DETAIL
SCALE: N/A



ELECTRICAL OVERALL PLAN
SCALE: 1" = 60'

KEYED NOTES:
1 REMOVE EXISTING BUILDING MOUNTED WALL PACK. INSTALL NEW WALL PACK. REUSE EXISTING CIRCUITRY AND LIGHTING CONTROL.

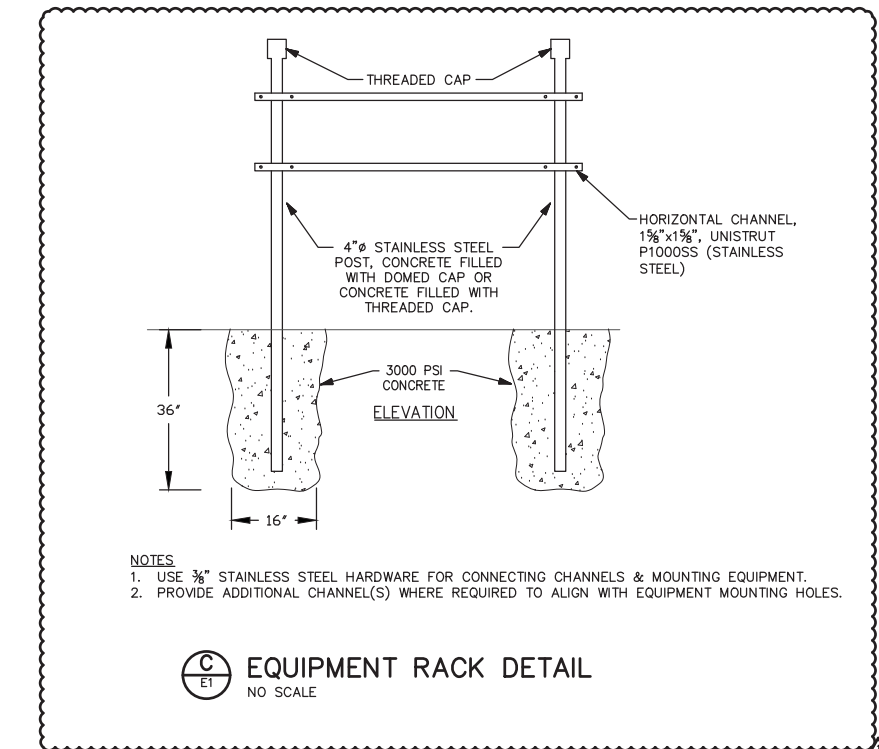
MISC. ELECTRICAL SYMBOL LEGEND

	EQUIPMENT CONNECTION
	SAFETY SWITCH DISCONNECT, HEAVY-DUTY, NON-FUSED, NEMA 1 INSIDE, NEMA 3R OUTSIDE (UNO), AMPERAGE AS INDICATED OR BASED ON SUPPLY CIRCUIT BREAKER RATING.
	PANELBOARD, SEE PANEL SCHEDULE
	JUNCTION BOX, AS A MINIMUM, SIZE BASED ON REQUIREMENTS OF NEC

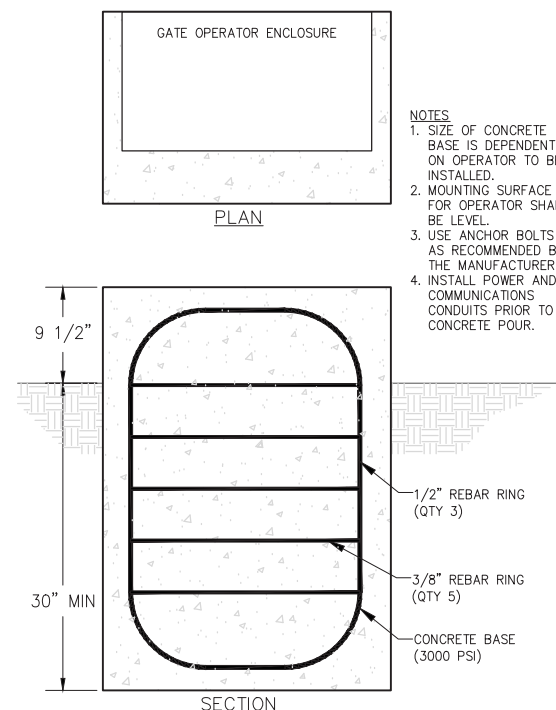
LETTER INDICATES ELEVATION OR DETAIL; NUMBER INDICATES PLAN OR SECTION
SHEET NUMBER WHERE PLAN, SECTION, ELEVATION OR DETAIL IS DRAWN

LUMINAIRE SCHEDULE

SYMBOL	DESCRIPTION	LAMP	BALLAST	VOLTS	MOUNTING	MANUFACTURER / MODEL	NOTES
	WALL PACK	(1) 30W LED	LED DRIVER	120V 1P 2W	WALL	DECO LIGHTING #D444-LED SERIES GARDCO #101L SERIES LUMARK #ST SERIES	3800 NOMINAL LUMENS. 4000K COLOR TEMPERATURE. TYPE IV DISTRIBUTION. FINISH SELECTION BY OWNER.



EQUIPMENT RACK DETAIL
NO SCALE



GATE OPERATOR BASE DETAIL
NO SCALE

NGAL

ROOM EQUIPMENT RACK VOLTS 240/120V 2P 3W AIC 10,000
MOUNTING SURFACE BUS AMPS 100 MAIN BKR 100
FED FROM UTILITY NEUTRAL 100% LUGS STANDARD
NOTE EXISTING EATON PRL1A PANEL

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA		CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA	
			A	B				A	B
1	20/2	EXISTING RAMP LIGHTING	0.55		2	20/1	SPACE	0	
3				0.55	4	20/1	SPACE		
5	20/2	EXISTING RAMP LIGHTING	1.1		6	15/1	EXISTING OBSTRUCTION PHOTOCCELL/LIGHTS	0.1	0
7				1.1	8	20/1	EXISTING RECPT AT EQUIP. RACK		0.18
9	20/2	EXISTING RAMP LIGHTING	0.55		10	20/1	EXISTING	0	
11				0.55	12	20/1	EXISTING	0	0
13	20/2	EXISTING RAMP LIGHTING	0.55		14	20/1	EXISTING	0	
15				0.55	16	20/1	EXISTING	0	0
17	20/1	SPACE	0		18	20/1	EXISTING	0	
19	20/1	SPACE	0		20	20/1	EXISTING ACCESS CONTROL CABINET	0	0.6
21	20/1	SPACE	0		22	20/1	(*) ACCESS CONTROL CABINET	0.6	
23	20/1	SPACE	0		24	20/1	(*) GATE OPERATOR		1.92
25	20/1	SPACE	0		26	20/1	SPACE	0	
27	20/1	RELOCATED GATE OPERATOR	0	1.92	28	20/1	SPACE	0	0
29	20/1	SPACE	0		30	20/1	SPACE	0	
31	20/1	SPACE	0		32	20/1	SPACE	0	0
33	20/1	SPACE	0		34	20/1	SPACE	0	0
35	20/1	SPACE	0		36	20/1	SPACE	0	0
37	20/1	SPACE	0		38	20/1	SPACE	0	0
39	20/1	SPACE	0		40	20/1	SPACE	0	0
			TOTAL CONNECTED KVA BY PHASE				3.45		7.37
			CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LIGHTING	5.6	7	(125%)		CONTINUOUS	1.2	1.5	(125%)	
LARGEST MOTOR	1.92	2.4	(125%)		HEATING	0	0	(N/A)	
OTHER MOTORS	1.92	1.92	(100%)		COOLING	0	0	(N/A)	
RECEPTACLES	0.18	0.18	(50%>10)		NONCONTINUOUS	0	0	(100%)	
KITCHEN EQUIP	0	0	(N/A)		DIVERSE	0	0	(N/A)	
			TOTAL KVA				10.8		13
			BALANCED AMPS				54.2		54.2

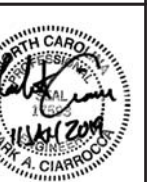
(*) INDICATES NEW C/B; (**) INDICATES NEW LOAD ON SPARE C/B

TALBERT & BRIGHT
ENGINEERING & PLANNING CONSULTANTS
WILMINGTON, NC 28405
PHONE: 910-762-5550
4810 SHELLEY DRIVE
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REV. NO.	DESCRIPTION	DATE
1		07/11/19

WILMINGTON INTERNATIONAL AIRPORT
WILMINGTON, NORTH CAROLINA
NORTH GENERAL AVIATION SITE DEVELOPMENT
AND PIPE DITCHES IN FBO #2 AREA
NCDOT 36244.36.19.1 / 46320.3.1
ELECTRICAL LEGENDS, SCHEDULE,
DETAILS, AND PLAN

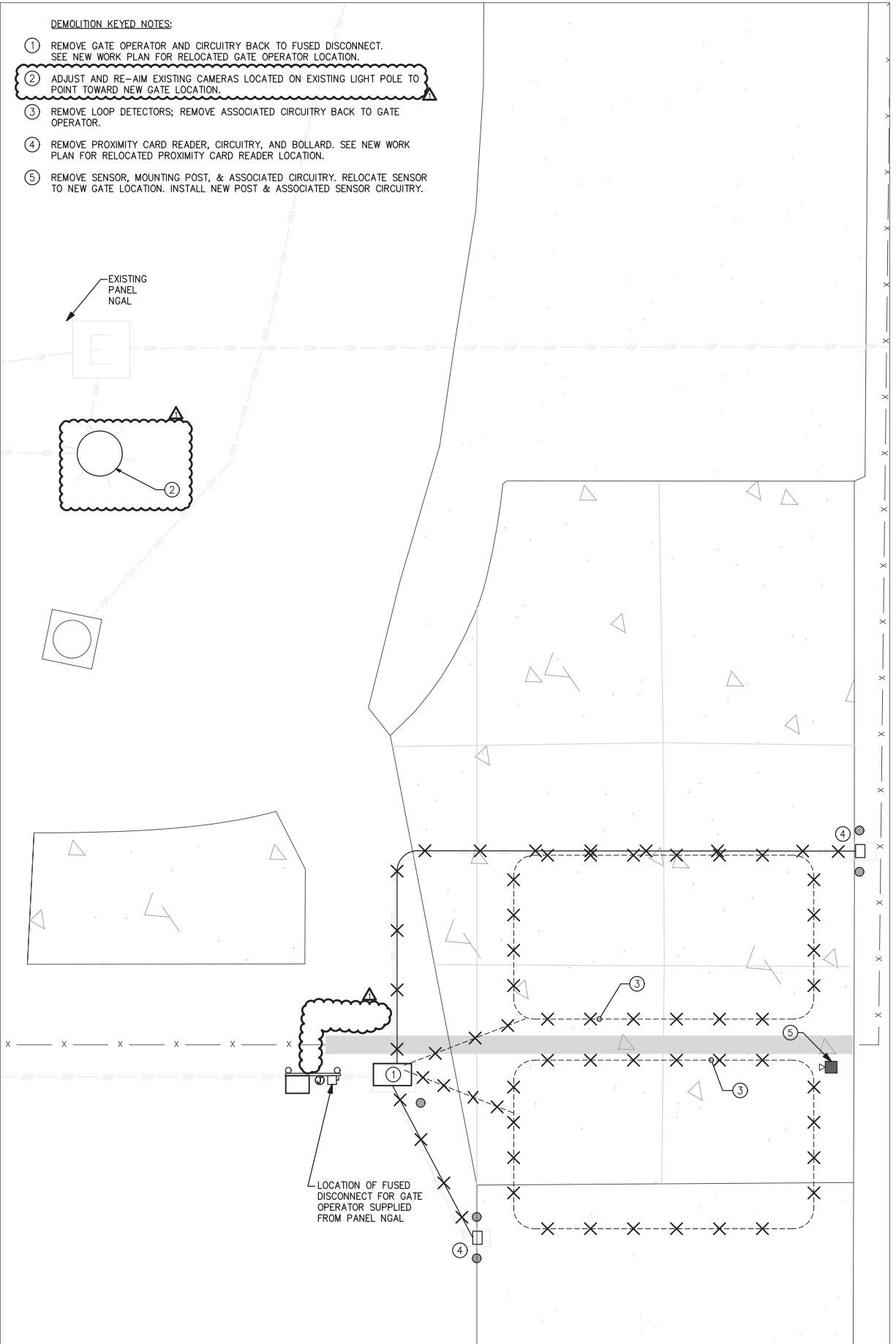


Date: DECEMBER 2018
Scale: AS NOTED
Drawn: MIKE STAUBLIN
Checked: MARK CIARROCCA
Project No. 3301-1602
3301-1703
Sheet No.

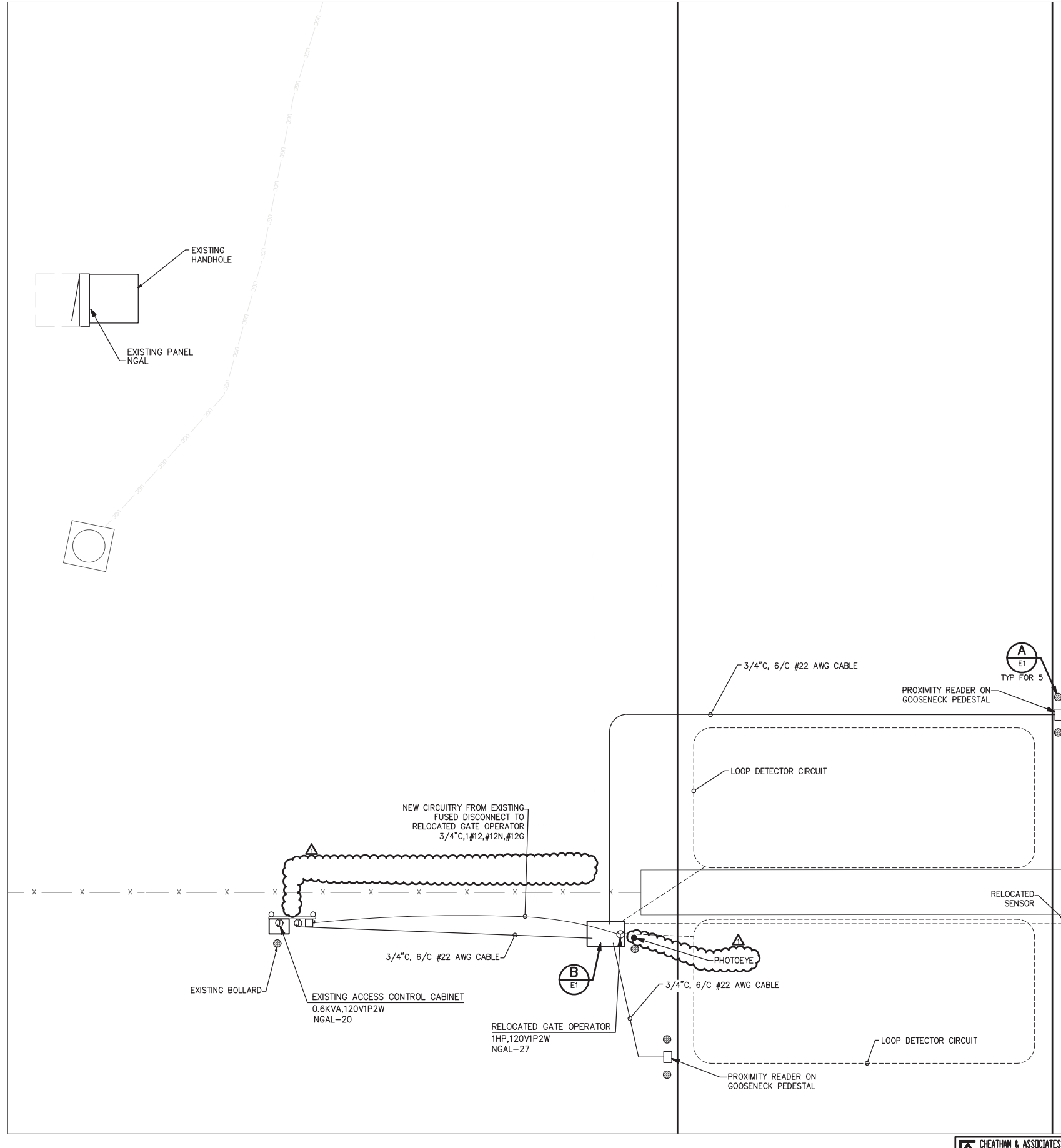
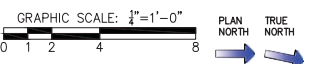
E1

CHEATHAM & ASSOCIATES, PA
CONSULTING ENGINEERS
3412 ENTERPRISE DRIVE
WILMINGTON, NORTH CAROLINA 28405
(910) 452-4200
FAX: (910) 452-4211
office@cheatham.com
NC License # C-1073
JOB # 16.85

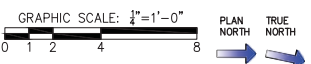
- DEMOLITION KEYED NOTES:**
- 1 REMOVE GATE OPERATOR AND CIRCUITRY BACK TO FUSED DISCONNECT. SEE NEW WORK PLAN FOR RELOCATED GATE OPERATOR LOCATION.
 - 2 ADJUST AND RE-AIM EXISTING CAMERAS LOCATED ON EXISTING LIGHT POLE TO POINT TOWARD NEW GATE LOCATION.
 - 3 REMOVE LOOP DETECTORS; REMOVE ASSOCIATED CIRCUITRY BACK TO GATE OPERATOR.
 - 4 REMOVE PROXIMITY CARD READER, CIRCUITRY, AND BOLLARD. SEE NEW WORK PLAN FOR RELOCATED PROXIMITY CARD READER LOCATION.
 - 5 REMOVE SENSOR, MOUNTING POST, & ASSOCIATED CIRCUITRY. RELOCATE SENSOR TO NEW GATE LOCATION. INSTALL NEW POST & ASSOCIATED SENSOR CIRCUITRY.



1 ELECTRICAL ENLARGED DEMOLITION PLAN
SCALE: 1/4" = 1'-0"



2 ELECTRICAL ENLARGED NEW WORK PLAN
SCALE: 1/4" = 1'-0"

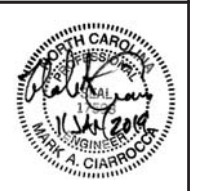


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REV. NO.	DESCRIPTION	DATE
1	APPENDUM REVISION	07/11/19

WILMINGTON INTERNATIONAL AIRPORT
WILMINGTON, NORTH CAROLINA
NORTH GENERAL AVIATION SITE DEVELOPMENT
AND PIPE DITCHES IN FBO #2 AREA
NCDQA 36244.36.19.1 / 46320.3.1
ELECTRICAL ENLARGED PLANS



Date	DECEMBER 2018
Scale	AS NOTED
Drawn	MIKE STAUBLIN
Checked	MARK CIARROCCA
Project No.	3301-1602 3301-1703

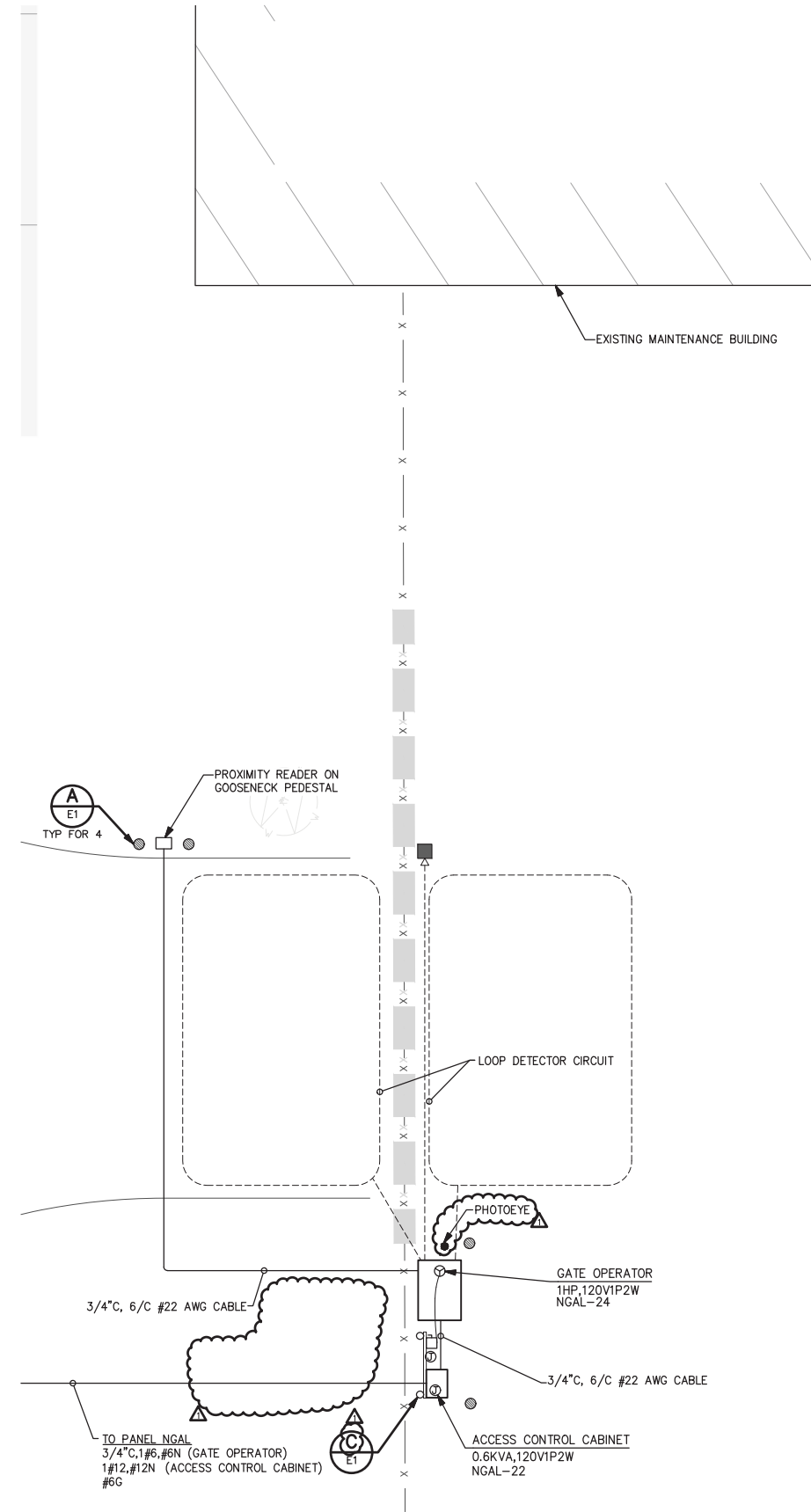
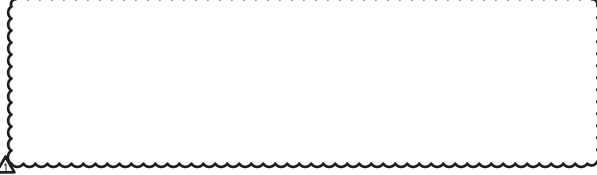
Sheet No. **E2**

CHEATHAM & ASSOCIATES, PA
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WILMINGTON, NORTH CAROLINA 28405
PHONE: 910-452-4211
OFFICE: cheatham@cheatham.com
NC License # C-1073
JOB # 16.95

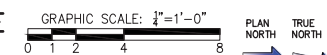
EQUIPMENT SPECIFICATION / NOTES

- GATE OPERATOR:**
- HYSECURITY SLIDEDRIVER 15 (#222 SS ST)
 - 1 HP, 240V, SINGLE PHASE
 - SMART TOUCH CONTROLLER
 - EXTERNAL SENSORS FOR OBSTRUCTIONS
 - FREE EGRESS VEHICLE LOOP DETECTOR
 - VEHICLE OBSTRUCTION LOOP DETECTORS
 - HOT DIP GALVANIZED CHASSIS
 - COORDINATE OPERATOR, READER, AND LOOP DETECTOR LOCATIONS WITH OWNER PRIOR TO STARTING WORK.

- ACCESS CONTROL:**
- JOHNSON CONTROLS, CONTACT: DAVID ROCKWELL, 910-794-4326
 - ACCESS CONTROL ENCLOSURES - NEMA 4X FIBERGLASS
 - JCI ACCESS CONTROL IP READER BOARD
 - JCI ACCESS CONTROL POWER SUPPLY
 - JCI NETWORK CONTROLLER
 - ETHERNET SWITCH
 - DITEK DTK-BU600 PLUS SURGE STRIP
 - 120V SURGE PROTECTION
 - READER SURGE PROTECTION
 - ETHERNET SURGE PROTECTION (QTY=3)
 - GOOSENECK PEDESTAL WITH LONG-RANGE READER
 - CABLE - 6/C #22 AWG, SUITABLE FOR UNDERGROUND USE (AQUASEAL TYPE)
 - CABLE - 2/C #18 AWG, SUITABLE FOR UNDERGROUND USE (AQUASEAL TYPE)
 - CABLE - 2/C #22 AWG, SUITABLE FOR UNDERGROUND USE (AQUASEAL TYPE)



1 ELECTRICAL ENLARGED PLAN - VEHICLE GATE
 SCALE: 1/4" = 1'-0"

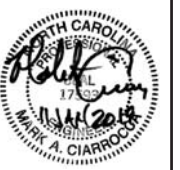


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REV. NO.	DESCRIPTION	DATE
1	ADDENDUM REVISION	01/11/19

WILMINGTON INTERNATIONAL AIRPORT
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E3