



## ADDENDUM NO. 1

Issue Date: September 25, 2019

Project Name: Oslo Water Treatment Plant Blower Replacement

Bid Number: 2020009

Bid Opening Date: October 23, 2019

This addendum is being released to provide the plans for the referenced project.

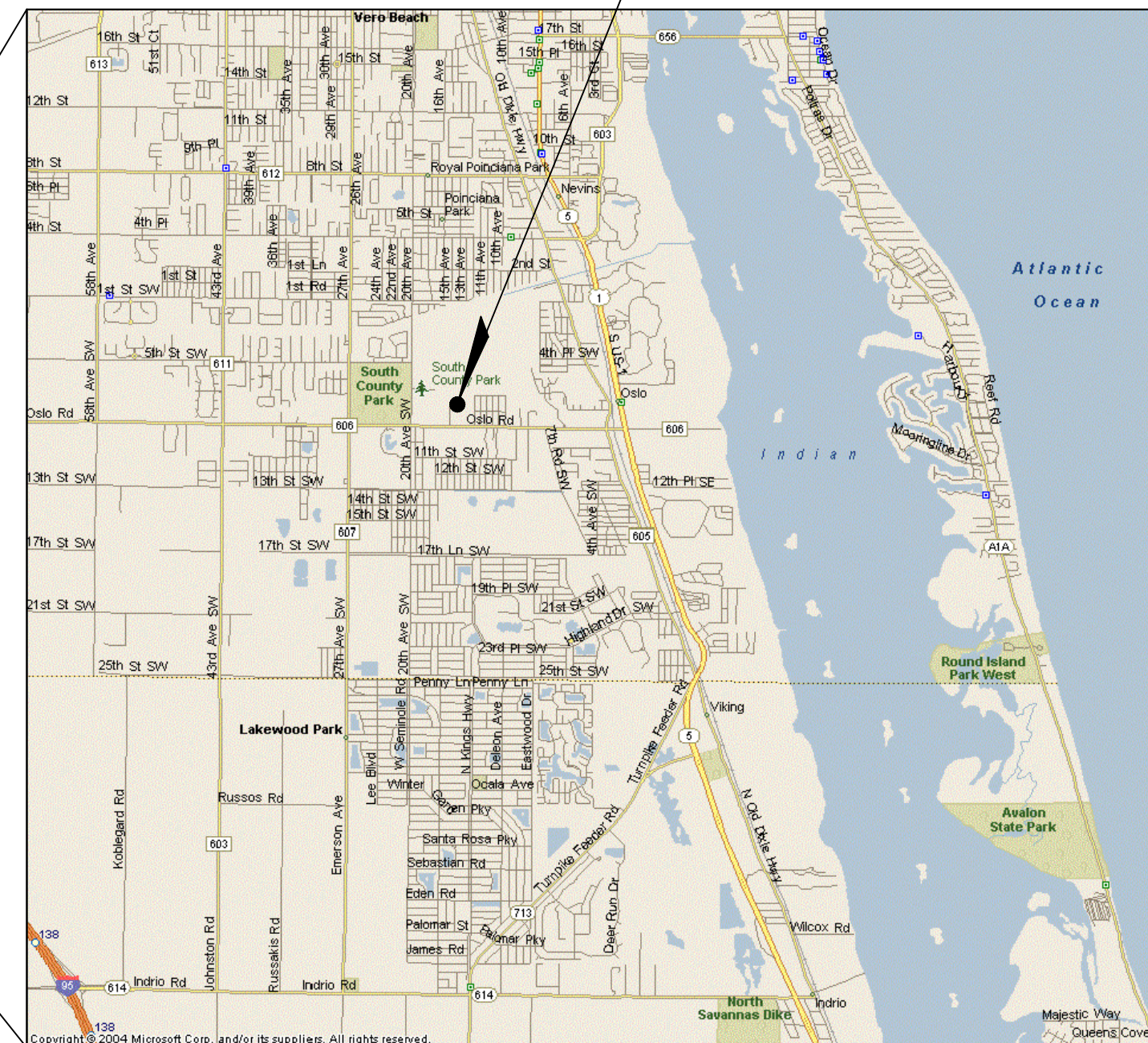
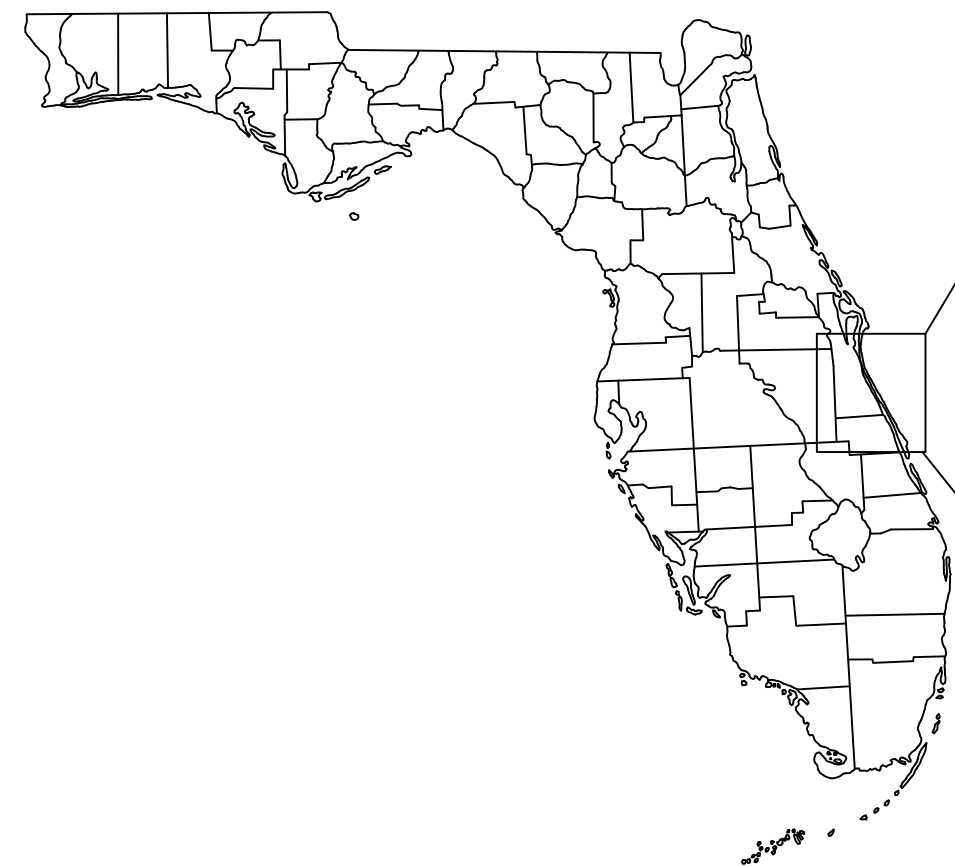
The information and documents contained in this addendum are hereby incorporated in the invitation to bid. **This addendum must be acknowledged where indicated on the bid form, or the bid will be declared non-responsive.**

**Attachments:**

**Plans for Oslo Treatment Plant Blower Replacement.**

# CONSTRUCTION PLANS FOR SOUTH OSLO WATER TREATMENT PLANT BLOWER REPLACEMENTS

PREPARED FOR  
**INDIAN RIVER COUNTY UTILITIES**  
**JULY 2019**



PROJECT SITE  
OSLO ROWTP  
1550 SW 9TH STREET  
VERO BEACH, FL 32962

LOCATION MAP  
N.T.S.

## INDEX OF SHEETS

SHEET #	SHEET TITLE
G-1	COVER SHEET
C-1	OVERALL SITE PLAN
M-1	DEMOLITION PLAN AND SECTION
M-2	PROPOSED BLOWER PLAN AND SECTION
M-3	EAST ELEVATION
M-4	BLOWER DETAILS
M-5	PHOTO DETAILS

Plotted By: Collin, David Sheet: SOUTH OSLO WATER TREATMENT PLANT BLOWER REPLACEMENTS Layout: G-1 COVER SHEET July 21, 2019 01:48:00pm K:\web\_civil\044572053 - south oslo blower replacement\CAD\plotsheets\G-1 COVER SHEET.dwg  
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KHA PROJECT  
044572053  
DATE  
JULY 2019  
SCALE AS SHOWN  
DESIGNED BY JRL  
DRAWN BY DAC  
CHECKED BY NPOB

**SOUTH OSLO WATER TREATMENT  
PLANT BLOWER REPLACEMENTS**  
PREPARED FOR  
**INDIAN RIVER COUNTY UTILITIES**  
INDIAN RIVER COUNTY FLORIDA

LICENSED PROFESSIONAL  
NICK P. O. BLACK  
FLORIDA LICENSE NUMBER  
84908  
DATE: \_\_\_\_\_

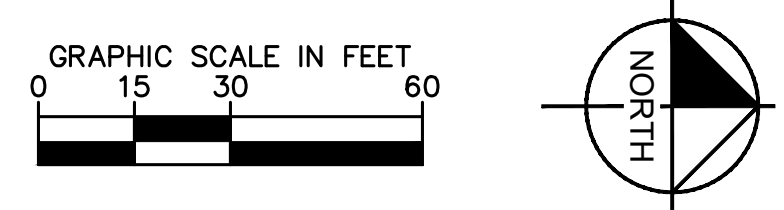
**COVER SHEET**

SHEET NUMBER  
**G-1**

Plotted By: Collin, David Sheet: S-01 SOUTH OSLO WATER TREATMENT PLANT BLOWER REPLACEMENTS Layout: C-1 OVERALL SITE PLAN July 21, 2019 01:48:11pm K:\web\_civil\044572053 - south\_oslo\_blower\_replacement\CAD\plansheets\C-1 OVERALL SITE PLAN.dwg  
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- NOTES:**
1. CONTRACTOR SHALL COORDINATE EQUIPMENT STORAGE AND LAYDOWN AREA WITH IRCU STAFF.
  2. CONTRACTOR SHALL FOLLOW CONSTRUCTION SEQUENCE DESCRIBED IN THE SPECIFICATIONS. NO MORE THAN ONE (1) BLOWER MAY BE OUT OF SERVICE FOR REPLACEMENT AT ANY GIVEN TIME.
  3. CONTRACTOR SHALL COORDINATE ALL WORK WITH IRCU STAFF.
  4. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO PURCHASING EQUIPMENT AND CONSTRUCTION.



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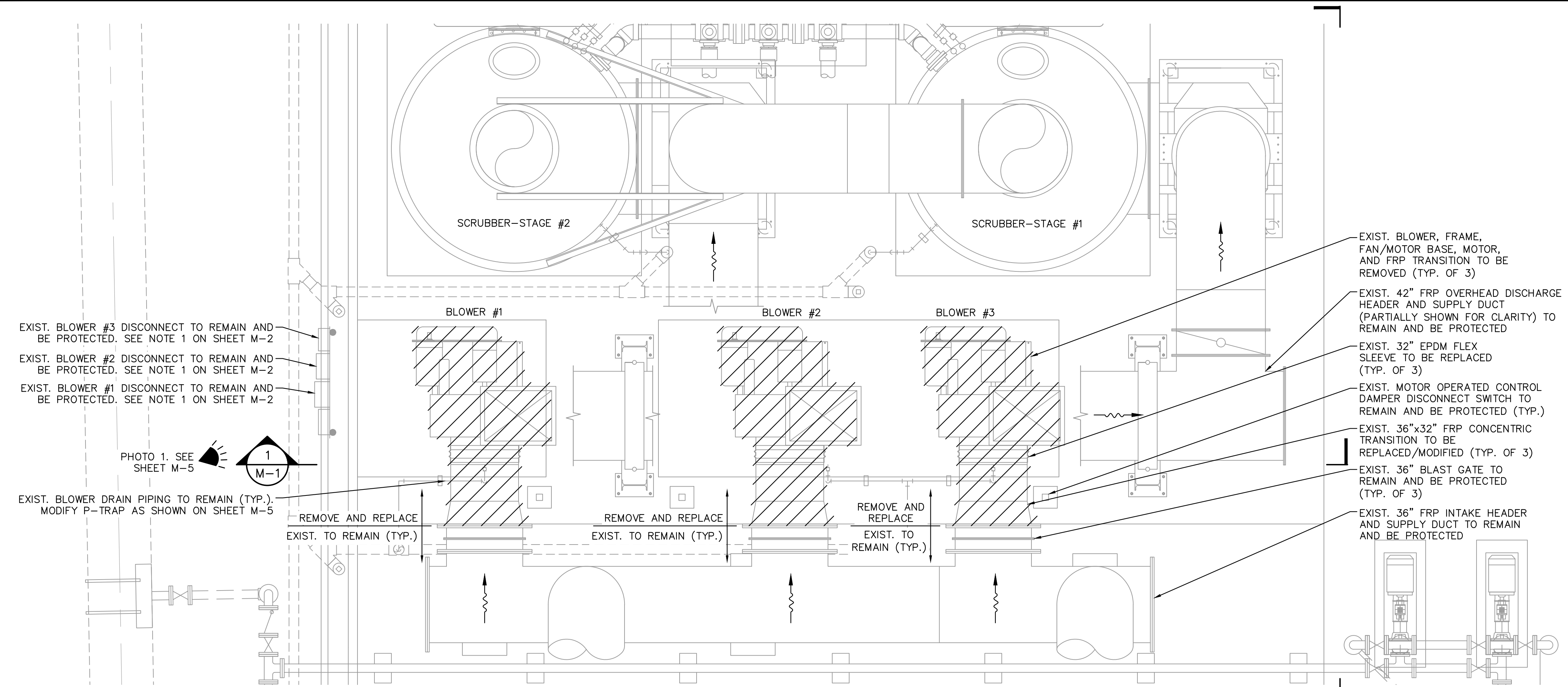
**SOUTH OSLO WATER TREATMENT PLANT BLOWER REPLACEMENTS**  
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NICK P. O. BLACK
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**OVERALL SITE PLAN**

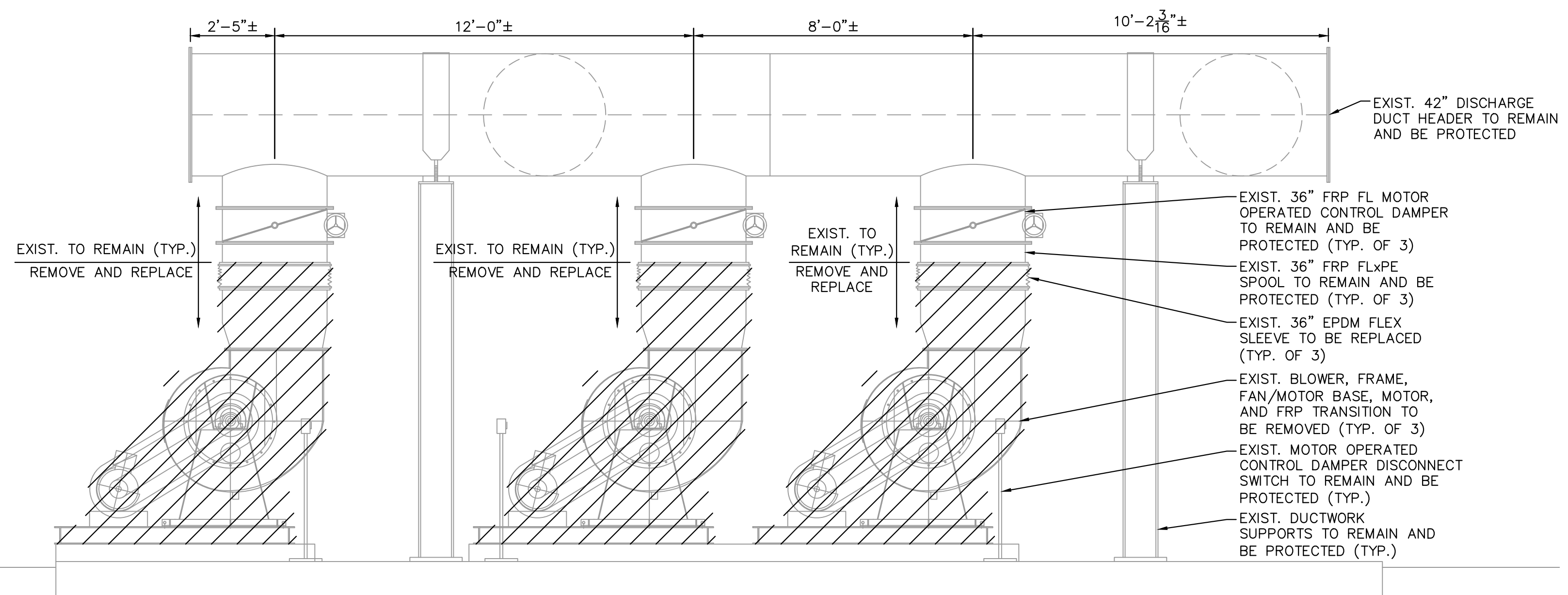
SHEET NUMBER  
**C-1**

Plotted By: Callie, David  
 Sheet: S-1 SOUTH OSLO WATER TREATMENT PLANT BLOWER REPLACEMENTS - LAYOUT: M-1 DEMOLITION PLAN AND SECTION - JULY 21, 2019 01:48:19pm  
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**BLOWER DEMOLITION PLAN**

0 4' 8'



**BLOWER DEMOLITION SECTION**

0 4' 8'

- NOTES:**
1. ALL MATERIAL MUST BE ONSITE PRIOR TO ANY WORK COMMENCING OR REMOVAL OF EQUIPMENT.
  2. REMOVE THREE (3) EXISTING BLOWERS ONE AT A TIME AND REPLACE WITH NEW BLOWERS, INCLUDING TRANSITION FRP INLET AND OUTLET DUCT AND FLEXIBLE COUPLINGS.
  3. NO MORE THAN ONE (1) BLOWER TO BE OUT OF SERVICE AT ONE TIME.
  4. COORDINATE ALL EQUIPMENT AND SERVICE REMOVAL WITH OPERATIONS STAFF. WATER TREATMENT PLANT TO REMAIN IN SERVICE AT ALL TIMES.
  5. DISPOSE OF EXISTING BLOWERS. FURNISH EXISTING MOTORS TO OWNER.
  6. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO PURCHASING EQUIPMENT AND CONSTRUCTION.
  7. EXISTING MOTOR OPERATED CONTROL DAMPER ACTUATOR SWITCH, SUPPORTS, AND CONDUIT (NOT SHOWN) SHALL REMAIN AND BE PROTECTED.

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**SOUTH OSLO WATER TREATMENT PLANT BLOWER REPLACEMENTS**

PREPARED FOR  
**INDIAN RIVER COUNTY UTILITIES**

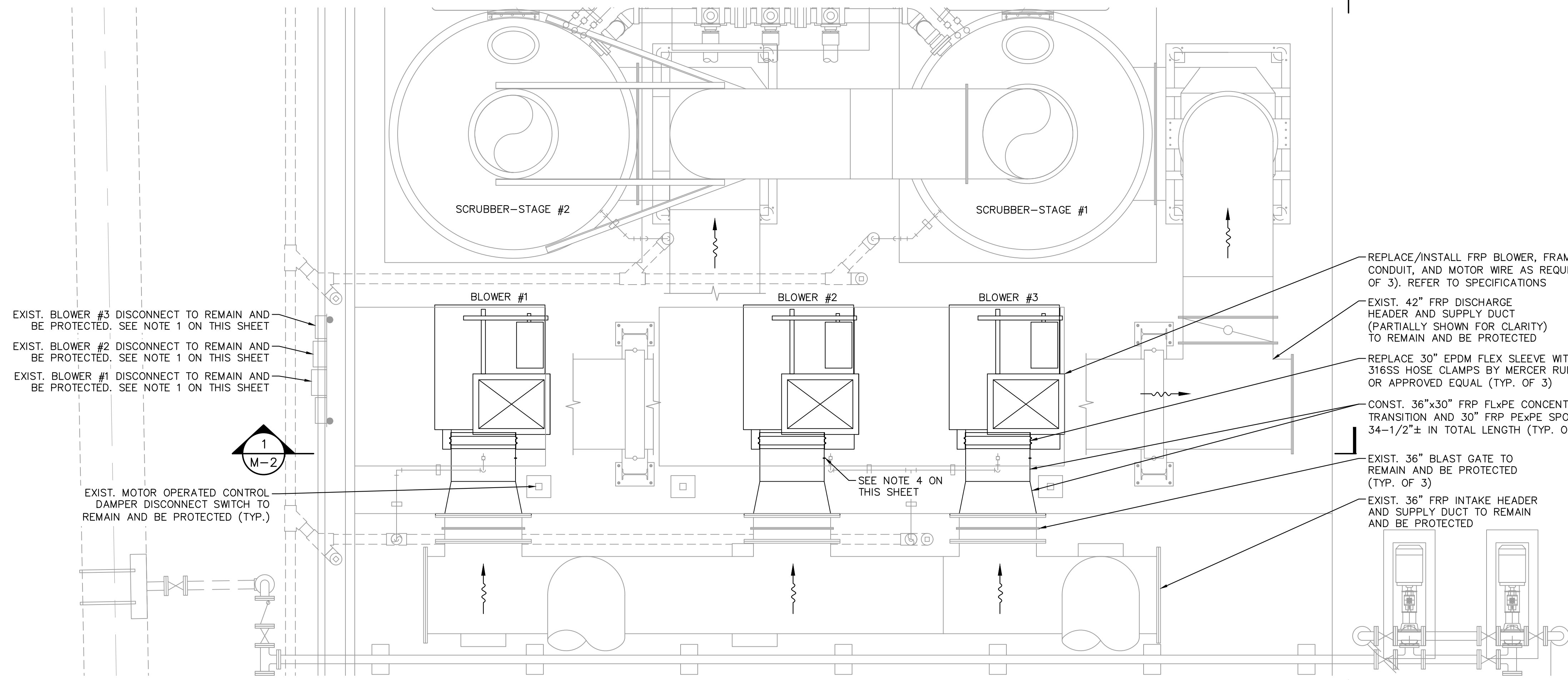
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FLORIDA LICENSE NUMBER 84908
DATE: _____

**DEMOLITION PLAN AND SECTION**

SHEET NUMBER
<b>M-1</b>

Sheet: SOUTH OSLO WATER TREATMENT PLANT BLOWER REPLACEMENTS - Layout: M-2 PROPOSED BLOWER PLAN AND SECTION - July 21, 2019 - 01:48:26pm - K:\web\_civil\044572053 - south\_oslo\_blower\_replacement\CAD\plansheets\M-2 PROPOSED BLOWER PLAN AND SECTION.dwg  
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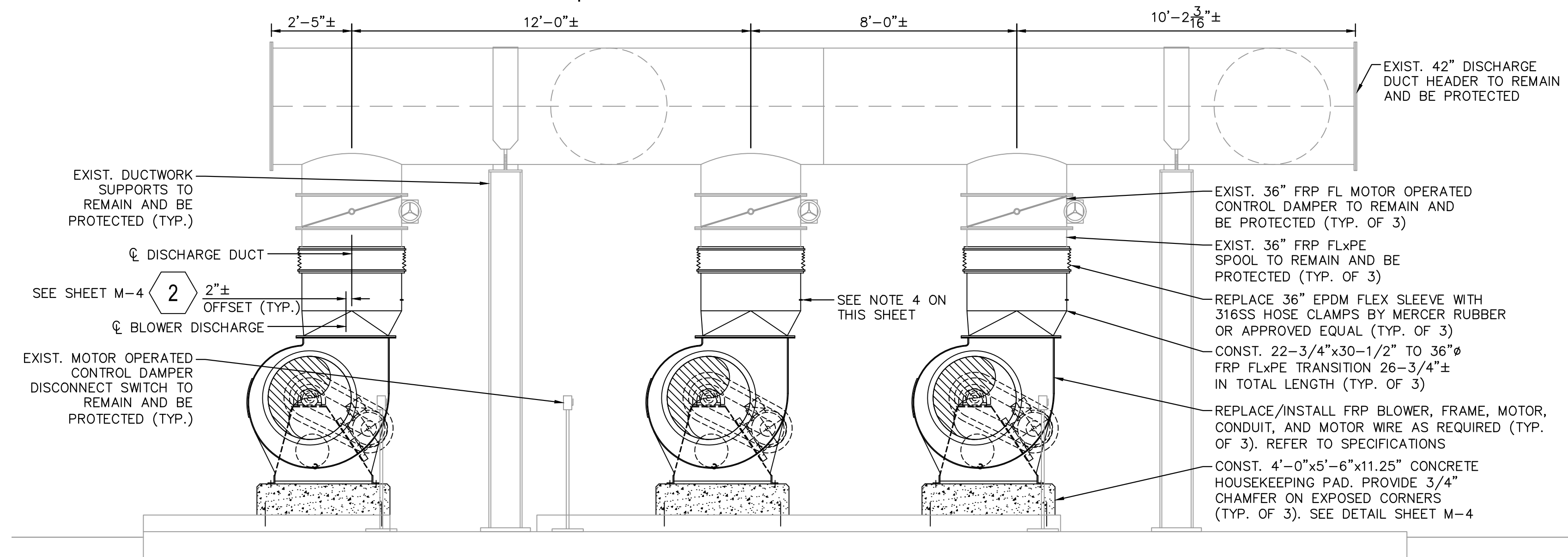
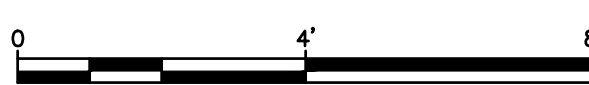
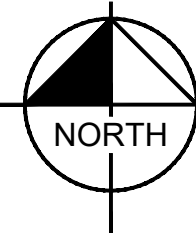


EXIST. BLOWER #3 DISCONNECT TO REMAIN AND BE PROTECTED. SEE NOTE 1 ON THIS SHEET  
 EXIST. BLOWER #2 DISCONNECT TO REMAIN AND BE PROTECTED. SEE NOTE 1 ON THIS SHEET  
 EXIST. BLOWER #1 DISCONNECT TO REMAIN AND BE PROTECTED. SEE NOTE 1 ON THIS SHEET

EXIST. MOTOR OPERATED CONTROL DAMPER DISCONNECT SWITCH TO REMAIN AND BE PROTECTED (TYP.)

REPLACE/INSTALL FRP BLOWER, FRAME, MOTOR, CONDUIT, AND MOTOR WIRE AS REQUIRED (TYP. OF 3). REFER TO SPECIFICATIONS  
 EXIST. 42" FRP DISCHARGE HEADER AND SUPPLY DUCT (PARTIALLY SHOWN FOR CLARITY) TO REMAIN AND BE PROTECTED  
 REPLACE 30" EPDM FLEX SLEEVE WITH 316SS HOSE CLAMPS BY MERCER RUBBER OR APPROVED EQUAL (TYP. OF 3)  
 CONST. 36"x30" FRP FLxPE CONCENTRIC TRANSITION AND 30" FRP PExPE SPOOL 34-1/2"± IN TOTAL LENGTH (TYP. OF 3)  
 EXIST. 36" BLAST GATE TO REMAIN AND BE PROTECTED (TYP. OF 3)  
 EXIST. 36" FRP INTAKE HEADER AND SUPPLY DUCT TO REMAIN AND BE PROTECTED

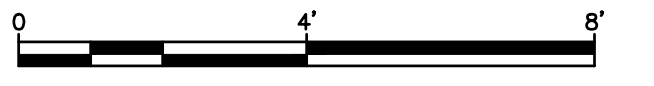
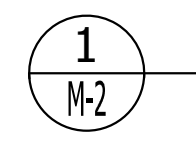
**PROPOSED BLOWER PLAN**



EXIST. DUCTWORK SUPPORTS TO REMAIN AND BE PROTECTED (TYP.)  
 SEE SHEET M-4 2"± OFFSET (TYP.)  
 EXIST. MOTOR OPERATED CONTROL DAMPER DISCONNECT SWITCH TO REMAIN AND BE PROTECTED (TYP.)

EXIST. 42" DISCHARGE DUCT HEADER TO REMAIN AND BE PROTECTED  
 EXIST. 36" FRP FL MOTOR OPERATED CONTROL DAMPER TO REMAIN AND BE PROTECTED (TYP. OF 3)  
 EXIST. 36" FRP FLxPE SPOOL TO REMAIN AND BE PROTECTED (TYP. OF 3)  
 REPLACE 36" EPDM FLEX SLEEVE WITH 316SS HOSE CLAMPS BY MERCER RUBBER OR APPROVED EQUAL (TYP. OF 3)  
 CONST. 22-3/4"x30-1/2" TO 36"Ø FRP FLxPE TRANSITION 26-3/4"± IN TOTAL LENGTH (TYP. OF 3)  
 REPLACE/INSTALL FRP BLOWER, FRAME, MOTOR, CONDUIT, AND MOTOR WIRE AS REQUIRED (TYP. OF 3). REFER TO SPECIFICATIONS  
 CONST. 4'-0"x5'-6"x11.25" CONCRETE HOUSEKEEPING PAD. PROVIDE 3/4" CHAMFER ON EXPOSED CORNERS (TYP. OF 3). SEE DETAIL SHEET M-4

**PROPOSED BLOWER SECTION**



- NOTES:**
- CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO PURCHASING EQUIPMENT AND CONSTRUCTION.
  - REPLACE EXISTING WIRES AND CONDUITS AS REQUIRED TO EACH BLOWER MOTOR FROM DISCONNECT INCLUDING FLEXIBLE CONDUIT NEAR MOTOR (TYP. OF 3). EXISTING (4) #4 IN 1 1/2" CONDUIT FOR MOTOR AND (5) #13 IN 3/4" CONDUIT FOR HEATERS. CONFIRM CONDUCTOR AND CONDUIT SIZE BEFORE REPLACING.
  - ALL HARDWARE TO BE 316 STAINLESS STEEL UNLESS OTHERWISE NOTED.
  - CONTRACTOR SHALL DRILL AND TAP 1/2"Ø FNPT HOLE IN PROPOSED INTAKE AND DISCHARGE DUCTWORK FOR PERFORMANCE TESTING (TYP. OF 6 LOCATIONS). CONTRACTOR SHALL FURNISH AND INSTALL 1/2" NPT SCH. 80 PVC MALE PLUGS IN PROPOSED TAPS. COORDINATE TAP LOCATION WITH ENGINEER UPON COMPLETION OF BLOWER INSTALLATION.

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KHA PROJECT 044572053  
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LICENSED PROFESSIONAL  
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**PROPOSED BLOWER PLAN AND SECTION**

SHEET NUMBER  
**M-2**

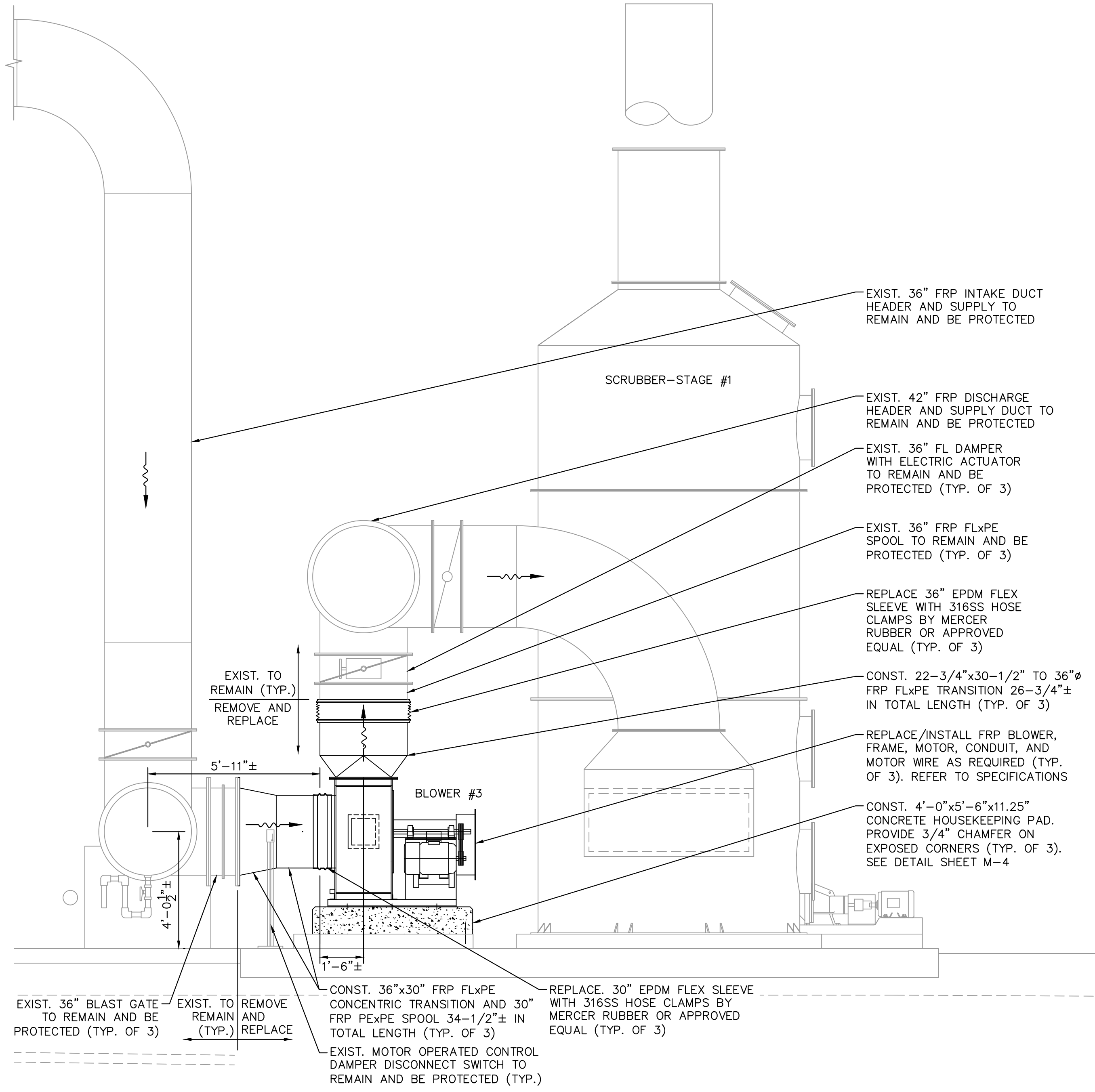
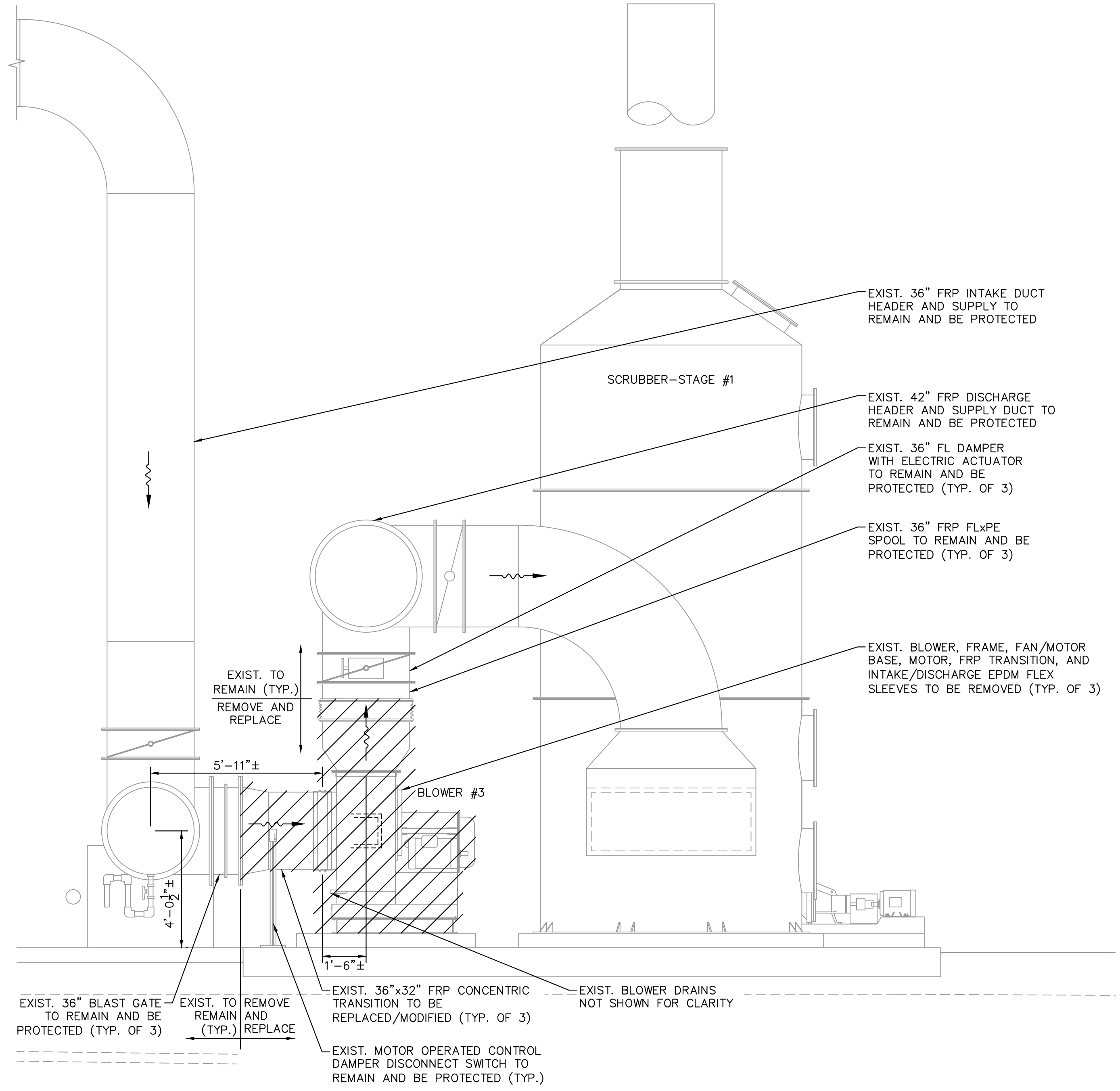
Plotted By: Callie, David Sheet: SOUTH OSLO WATER TREATMENT PLANT BLOWER REPLACEMENTS - Layout: M-3 EAST ELEVATION - July 21, 2019 01:48:36pm K:\web\_civil\044572053 - south\_oslo\_blower\_replacement\CAD\plansheets\M-3 EAST ELEVATION.dwg  
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**NOTES:**

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2. REMOVE THREE (3) EXISTING BLOWERS ONE AT A TIME AND REPLACE WITH NEW BLOWERS, INCLUDING TRANSITION FRP INLET AND OUTLET DUCT AND FLEXIBLE COUPLINGS.
3. NO MORE THAN ONE (1) BLOWER TO BE OUT OF SERVICE AT ONE TIME.
4. COORDINATE ALL EQUIPMENT AND SERVICE REMOVAL WITH OPERATIONS STAFF. WATER TREATMENT PLANT TO REMAIN IN SERVICE AT ALL TIMES.
5. DISPOSE OF EXISTING BLOWERS. FURNISH EXISTING MOTORS TO OWNER.
6. EXISTING MOTOR OPERATED CONTROL DAMPER ACTUATOR SWITCH, SUPPORTS, AND CONDUIT (NOT SHOWN) SHALL REMAIN AND BE PROTECTED.

**NOTES (CONT.):**

7. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO PURCHASING EQUIPMENT AND CONSTRUCTION.
8. REPLACE EXISTING WIRES AND CONDUITS AS REQUIRED TO EACH BLOWER MOTOR FROM DISCONNECT INCLUDING FLEXIBLE CONDUIT NEAR MOTOR (TYP. OF 3). EXISTING (4) #4 IN 1 1/2" CONDUIT FOR MOTOR AND (5) #13 IN 3/4" CONDUIT FOR HEATERS. CONFIRM CONDUCTOR AND CONDUIT SIZE BEFORE REPLACING.
9. ALL HARDWARE TO BE 316 STAINLESS STEEL UNLESS OTHERWISE NOTED.
10. CONTRACTOR SHALL DRILL AND TAP 1/4" FNPT HOLE IN PROPOSED INTAKE AND DISCHARGE DUCTWORK FOR PERFORMANCE TESTING (TYP. OF 6 LOCATIONS). CONTRACTOR SHALL FURNISH AND INSTALL 1/2" NPT SCH. 80 PVC MALE PLUGS IN PROPOSED TAPS. COORDINATE TAP LOCATION WITH ENGINEER UPON COMPLETION OF BLOWER INSTALLATION.



**1 EAST DEMOLITION SECTION**



**2 EAST PROPOSED SECTION**



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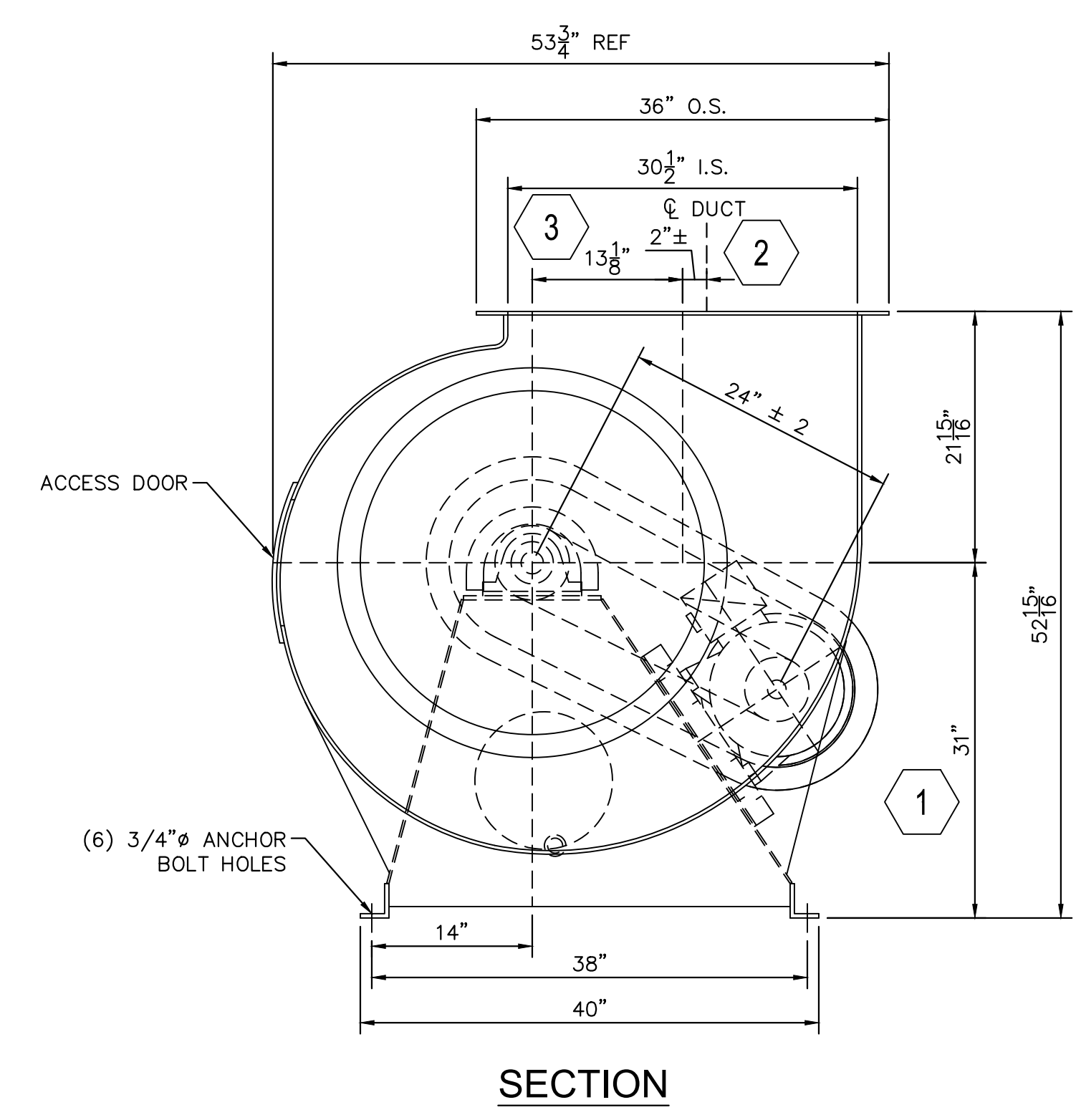
**SOUTH OSLO WATER TREATMENT PLANT BLOWER REPLACEMENTS**  
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 INDIAN RIVER COUNTY FLORIDA

LICENSED PROFESSIONAL  
 NICK P. O. BLACK  
 FLORIDA LICENSE NUMBER  
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**EAST ELEVATION**

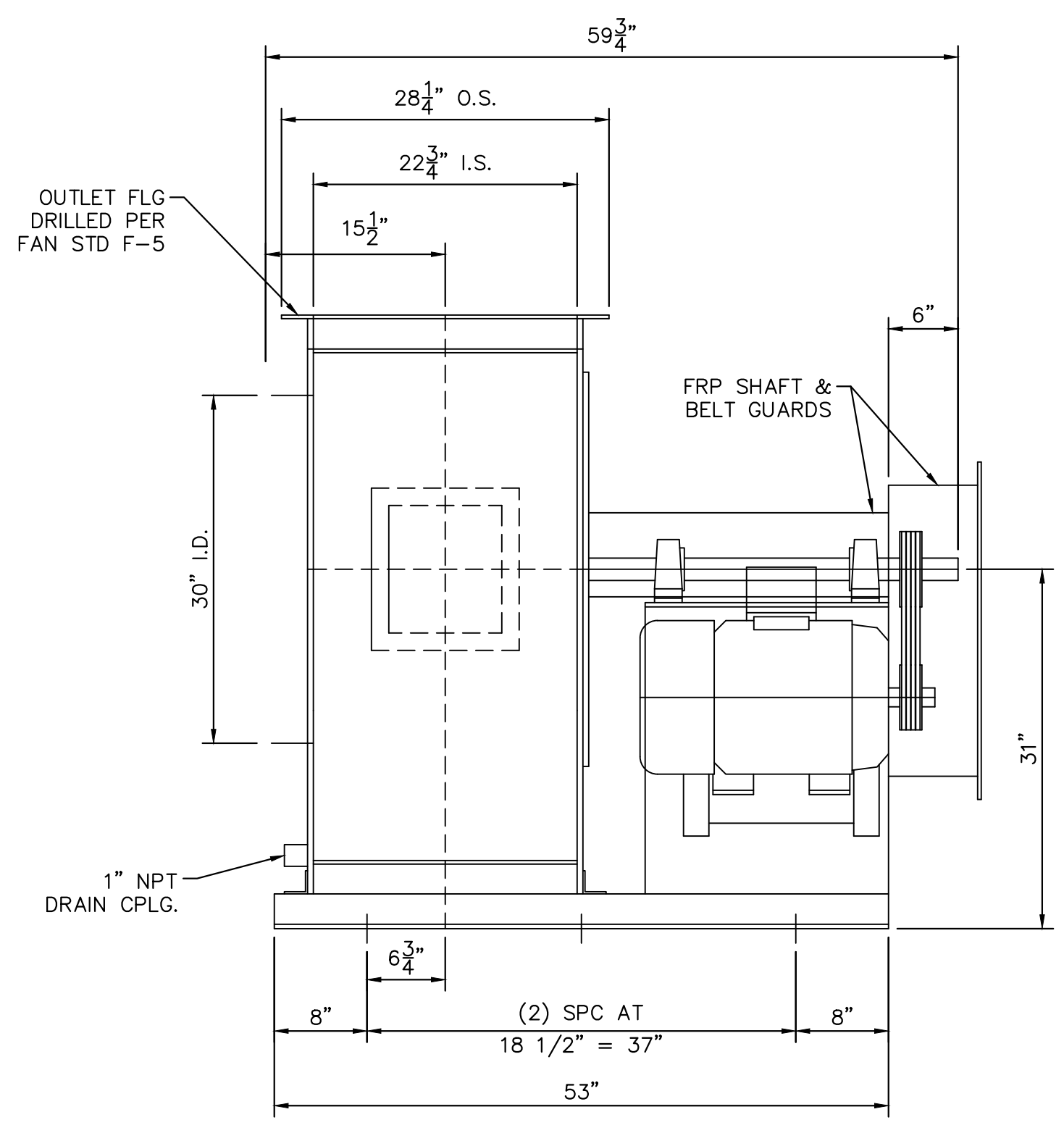
SHEET NUMBER  
**M-3**

Plotted By: Callie, David  
 Sheet: S-04 SOUTH OSLO WATER TREATMENT PLANT BLOWER REPLACEMENTS - Layout: M-4 BLOWER DETAILS - July 21, 2019 - 01:48:44pm - K:\web\_civil\044572053 - south\_oslo\_blower\_replacement\CAD\plansheets\M-4\_BLOWER\_DETAILS.dwg  
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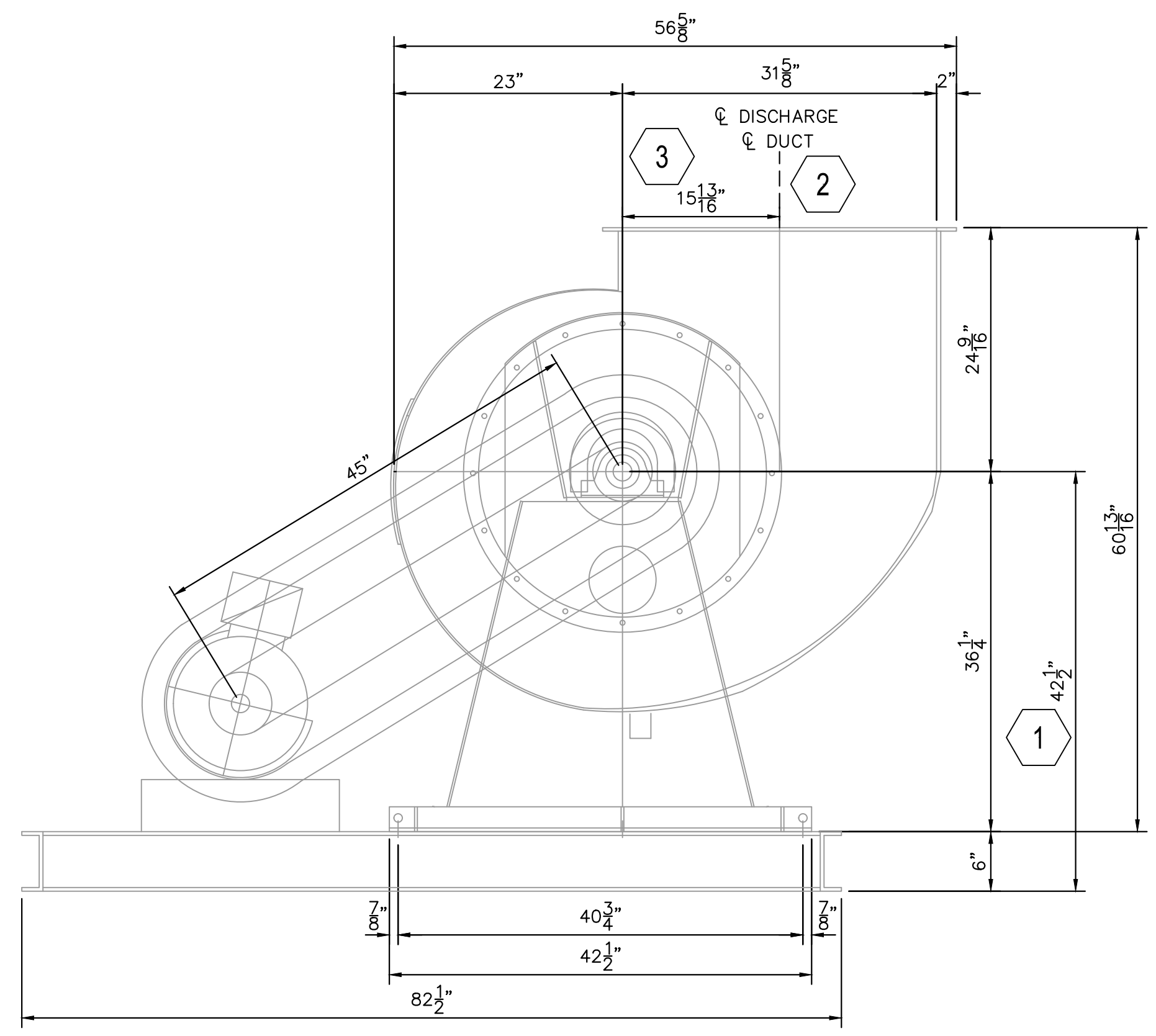


**SECTION**

**PROPOSED VERANTIS CLUB-3000 BLOWER**

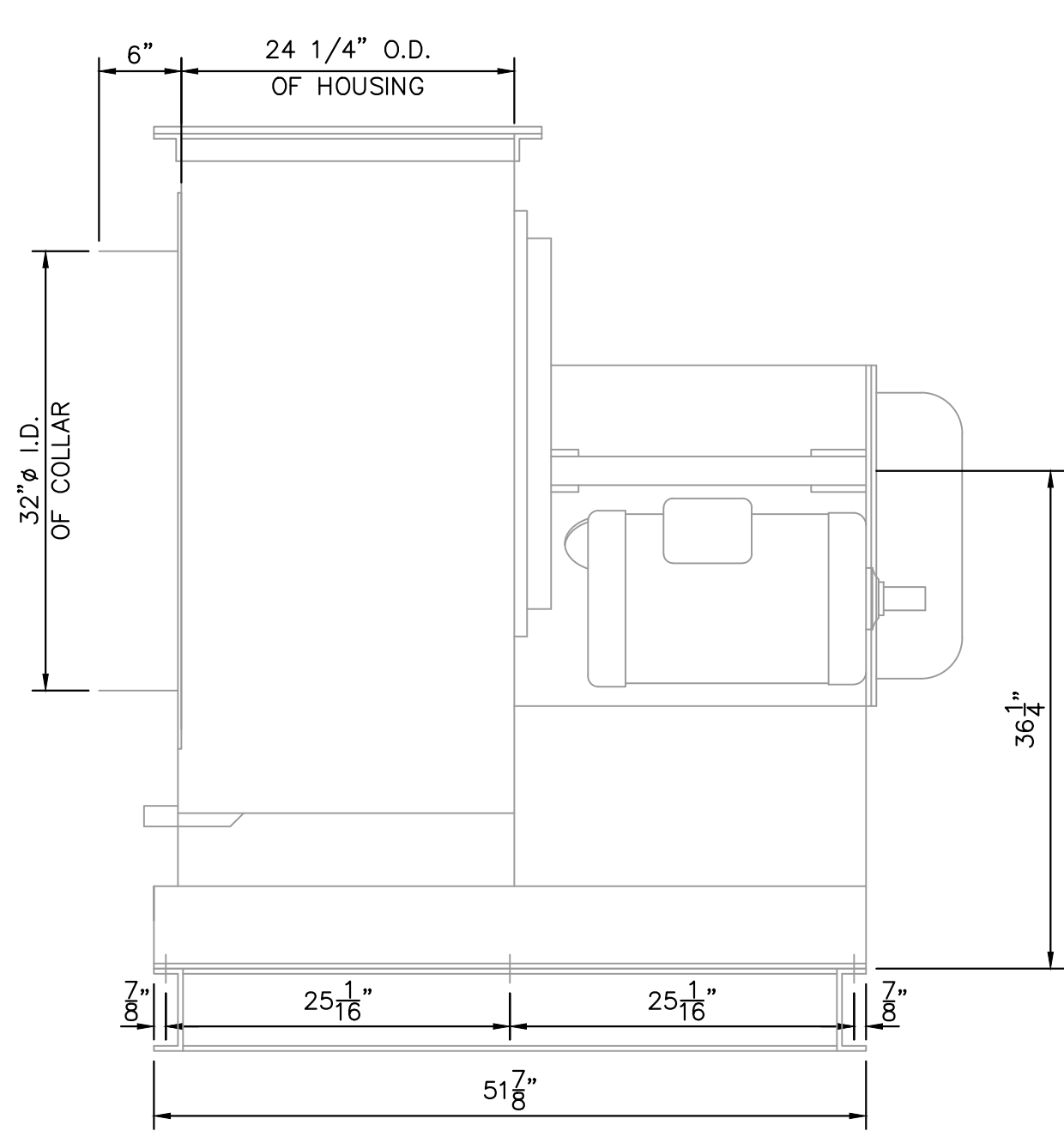


**SECTION**



**SECTION**

**EXISTING DUALL NH-60 BLOWER**

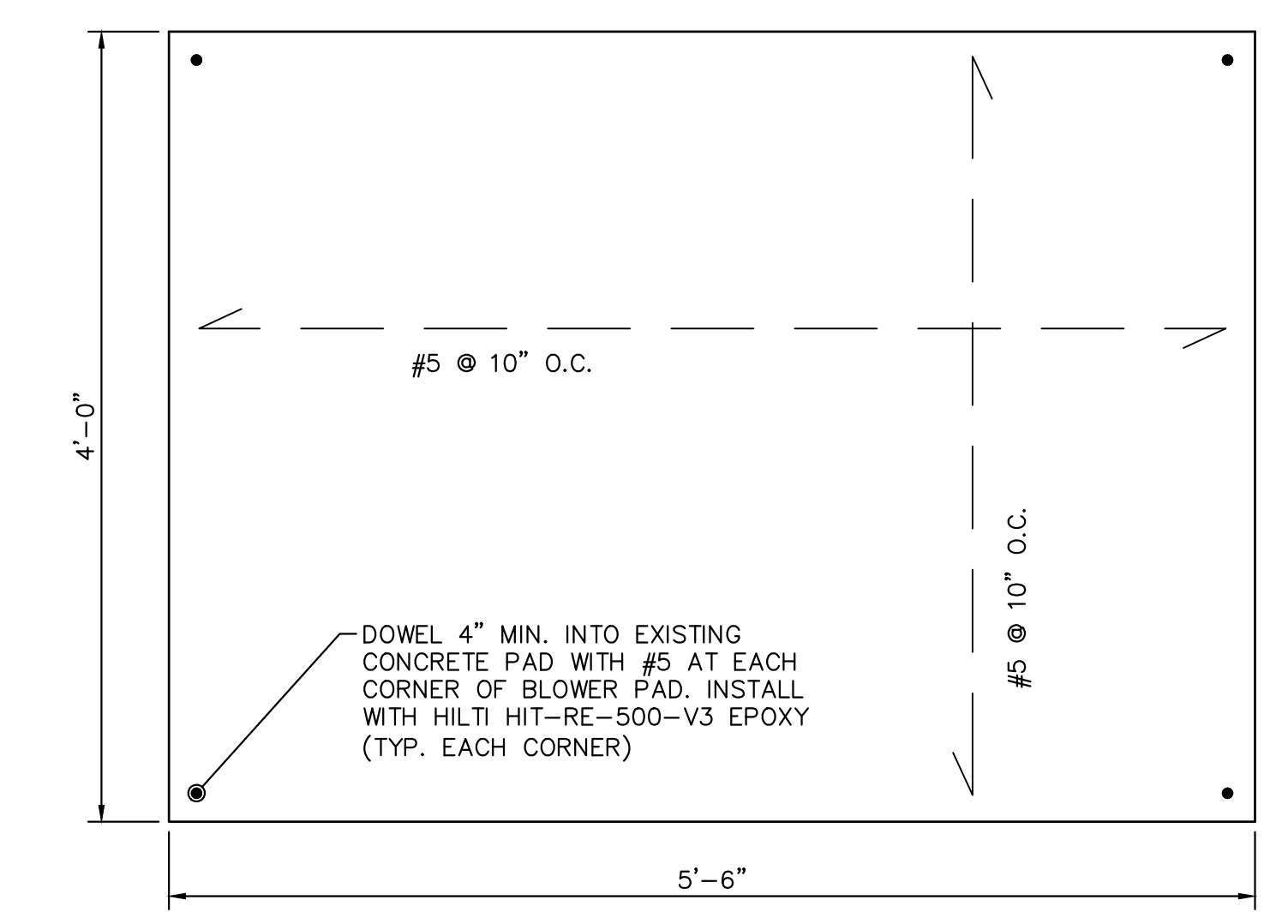


**SECTION**

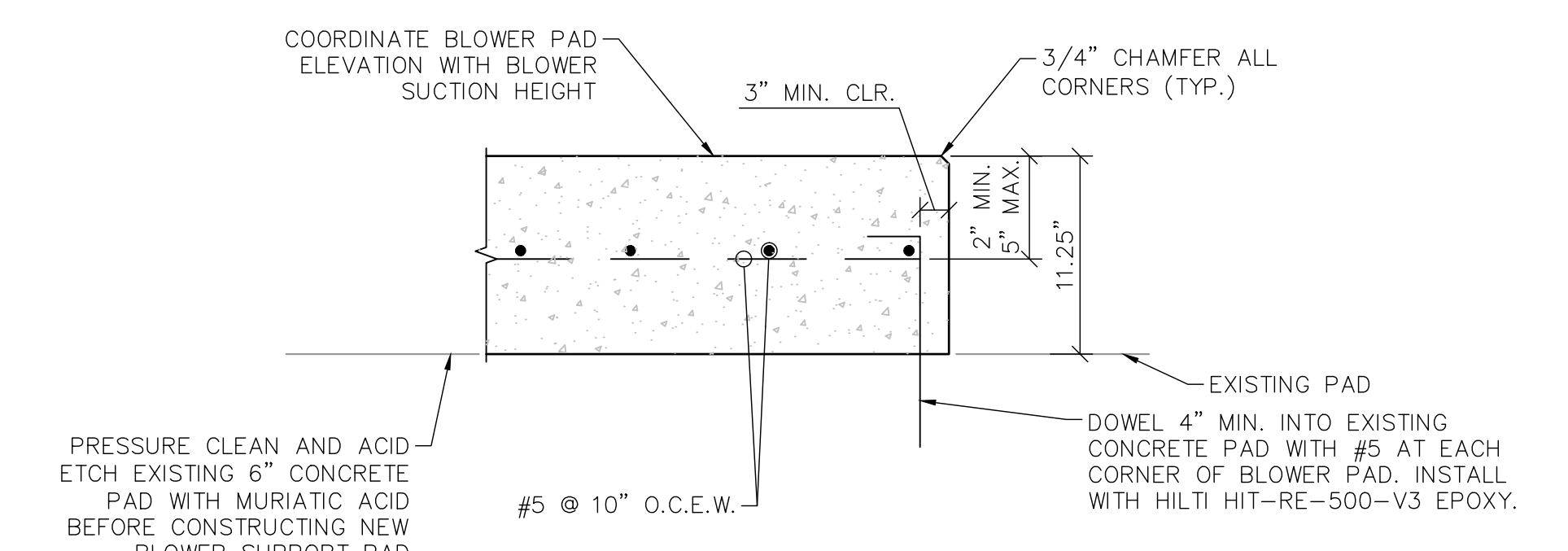
**TABLE OF BLOWER DIMENSION ADJUSTMENTS**

TAG	EXIST. DUALL NH-60	PROP. CLUB-3000	ADJUSTMENT
1	42 1/2"	31"	CONST. 4'-0"x5'-6"x11.25" CONCRETE SUPPORT PAD
2 SEE SHEET M-2	0"	2" ±	CONST. 22-3/4"x30-1/2" TO 36" Ø FRP FLXPE TRANSITION 26-3/4" IN TOTAL LENGTH.
3	15 1/8"	13 1/8"	CONST. 22-3/4"x30-1/2" TO 36" Ø FRP FLXPE TRANSITION 26-3/4" IN TOTAL LENGTH.

NOTE:  
CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS.



**BLOWER SUPPORT PAD PLAN**  
N.T.S.



**BLOWER SUPPORT SECTION**  
N.T.S.

- NOTE:
- ATTACH EACH BLOWER TO THE CONCRETE SUPPORT PAD WITH (6) 3/4" Ø 316 STAINLESS STEEL ANCHOR BOLTS EMBEDDED 6" MINIMUM WITH HILTI HIT-RE-500 EPOXY ADHESIVE. UTILIZE 3/4" Ø 316 STAINLESS STEEL LEVELING NUTS AND WASHERS AND GROUT PACK UNDER FRAME.

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**BLOWER DETAILS**

SHEET NUMBER  
**M-4**

Plotted By: Collin, David Sheet: SOUTH OSLO WATER TREATMENT PLANT BLOWER REPLACEMENTS Layout: M-5 PHOTO DETAILS July 21, 2019 01:48:51pm K:\web\_civil\044572053 - south oslo blower replacement\CAD\plan sheets\M-5 PHOTO DETAILS.dwg  
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NOTE:  
 1. CONTRACTOR TO REMOVE AND REPLACE FLEX CONDUIT AND CONDUCTORS FROM EACH MOTOR TO EACH DISCONNECT.



PHOTO 1  
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**PHOTO DETAILS**

SHEET NUMBER  
**M-5**