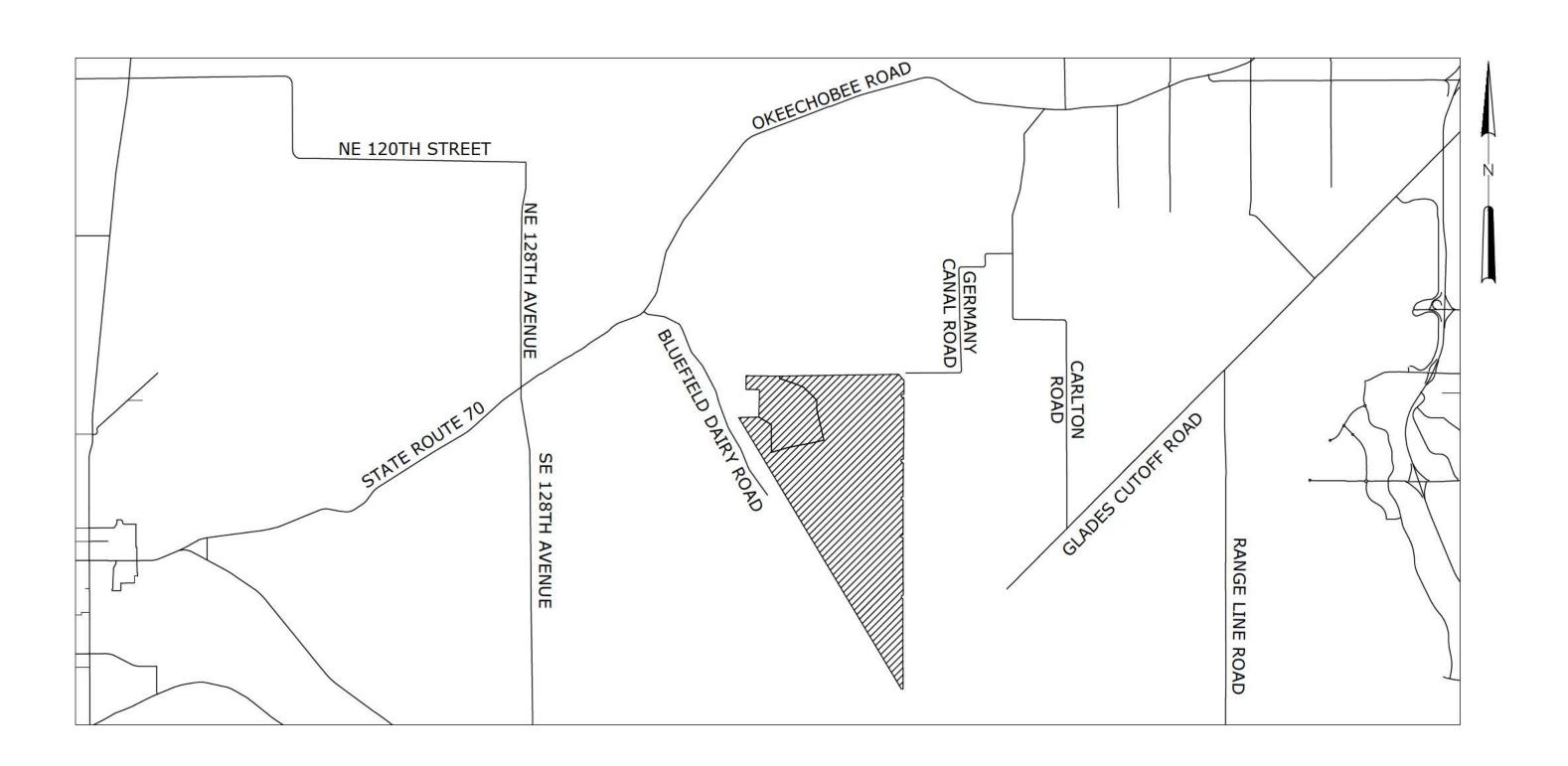


# BLUEFIELD WATER FARM DESIGN AND PERMITTING



EVANS PROPERTIES, INC.



FEBRUARY 2017 50% DESIGN

PREPARED BY:



HAZEN AND SAWYER
2101 CORPORATE BOULEVARD, SUITE 301
BOCA RATON, FLORIDA 33431
LICENSE NO.: 2771

### INDEX OF DRAWINGS

DWG NO

DESCRIPTION

### **GENERAL**

COVER SHEET

G02 DRAWING INDEX AND GENERAL NOTES

### **CIVIL**

**CIVIL** 

OVERALL PLAN G02 GENERAL SECTIONS G03 GENERAL SECTIONS G04 CULVERT DETAILS

G05 SPILLWAY DETAILS

C01 SITE PLAN BEGINNING STATION 0+00 END STATION 52+00 C02 SITE PLAN BEGINNING STATION 52+00 END STATION 130+00 C03 SITE PLAN BEGINNING STATION 130+00 END STATION 208+11 SITE PLAN BEGINNING STATION 208+11 END STATION 286+18 C05 SITE PLAN BEGINNING STATION 286+18 END STATION 364+10 C06 SITE PLAN BEGINNING STATION 364+10 END STATION 446+00 C07 SITE PLAN BEGINNING STATION 446+00 END STATION 524+00 SITE PLAN BEGINNING STATION 524+00 END STATION 602+00 C08 C09 SITE PLAN BEGINNING STATION 602+00 END STATION 680+00 C10 SITE PLAN BEGINNING STATION 680+00 END STATION 735+00 C11 SITE PLAN BEGINNING STATION 735+00 END STATION 813+00

SITE PLAN BEGINNING STATION 813+00 END STATION 859+00 SITE PLAN GRADING FPL EASEMENT

CIVIL: PUMP STATIONS

BLUEFIELD PUMP STATIONS KEY MAP

BLUEFIELD PUMP STATIONS GENERAL NOTES PSC03 BLUEFIELD PUMP STATION NO. 2 PLAN

PSC04 BLUEFIELD PUMP STATION NO. 3 PLAN BLUEFIELD PUMP STATION NO. 4 PLAN PSC06 BLUEFIELD BLOCK B-1 PUMP STATION PLAN

### **MECHANICAL**

BLUEFIELD PUMP STATION No. 2

BLUEFIELD PUMP STATION No. 3

M01 PLAN AND SECTION

PLAN AND SECTION

PHOTO ILLUSTRATIONS

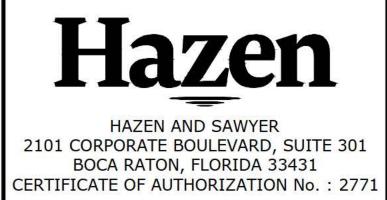
BLUEFIELD PUMP STATION No. 4

PLAN AND SECTION

BLUEFIELD BLOCK B-1

				PROJECT ENGINEER:	R.B.T.
				DESIGNED BY:	HAZEN
				DRAWN BY:	HAZEN
				CHECKED BY:	HAZEN
				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING	1/2" 1"
REV	ISSUED FOR	DATE	BY	IS NOT TO FULL SCALE	

PRELIMINARY DRAWING DO NOT USE FOR CONSTRUCTION



**EVANS PROPERTIES** 

BLUEFIELD GROVE WATER FARM DESIGN PARCEL MODIFICATIONS

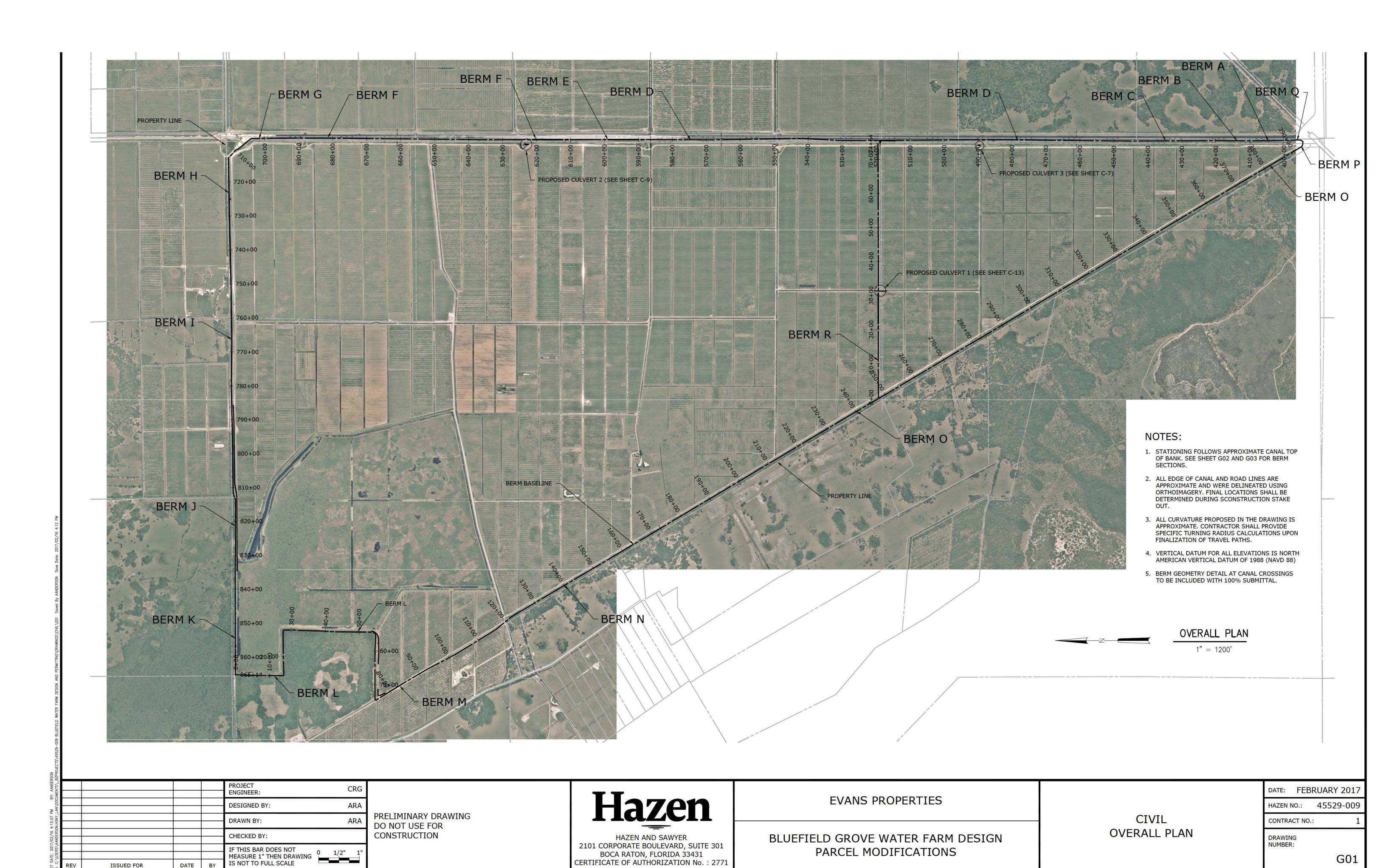
**GENERAL** DRAWING INDEX AND GENERAL **NOTES** 

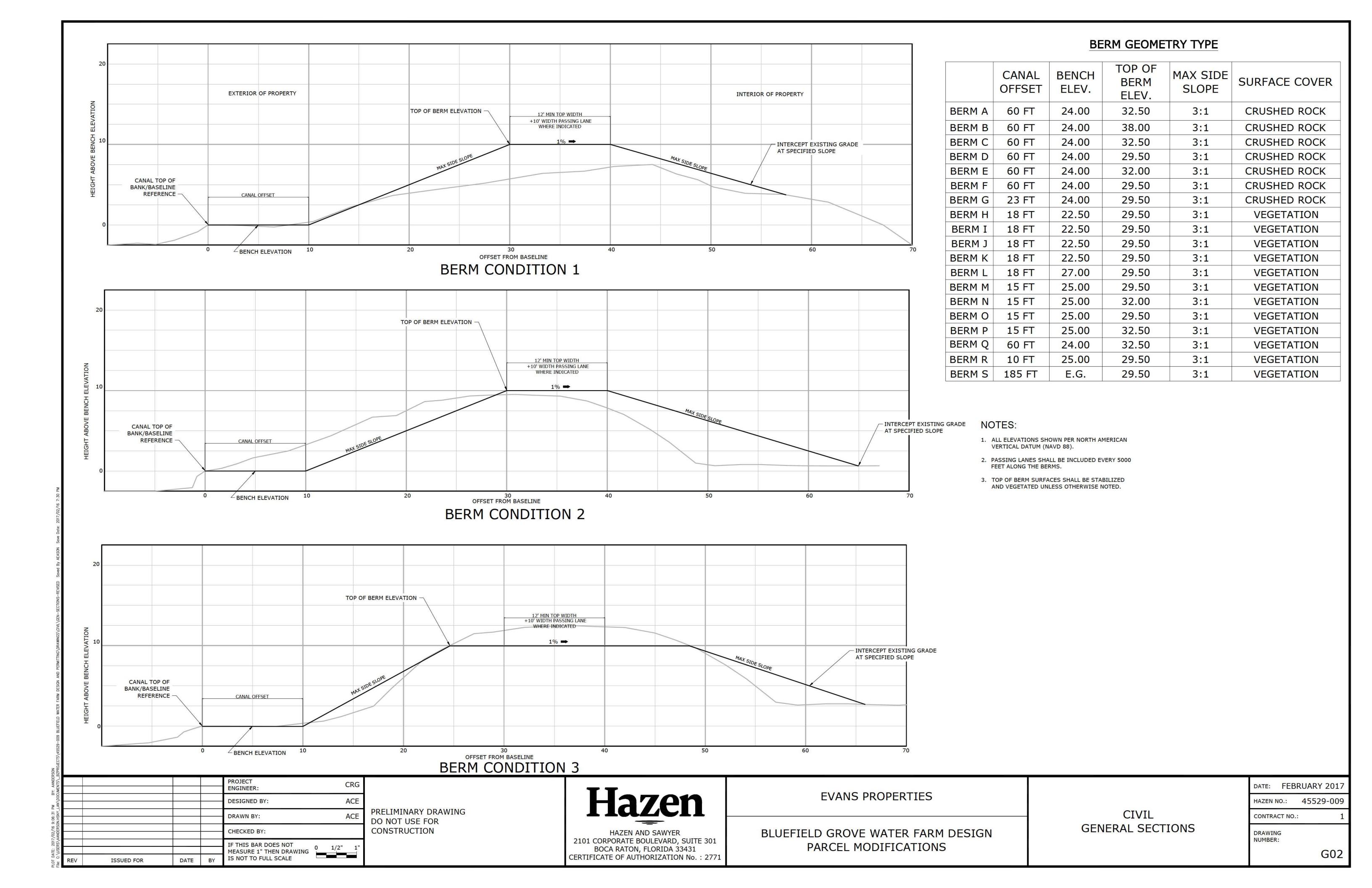
DATE: FEBRUARY 2017 HAZEN NO.: 45529-009

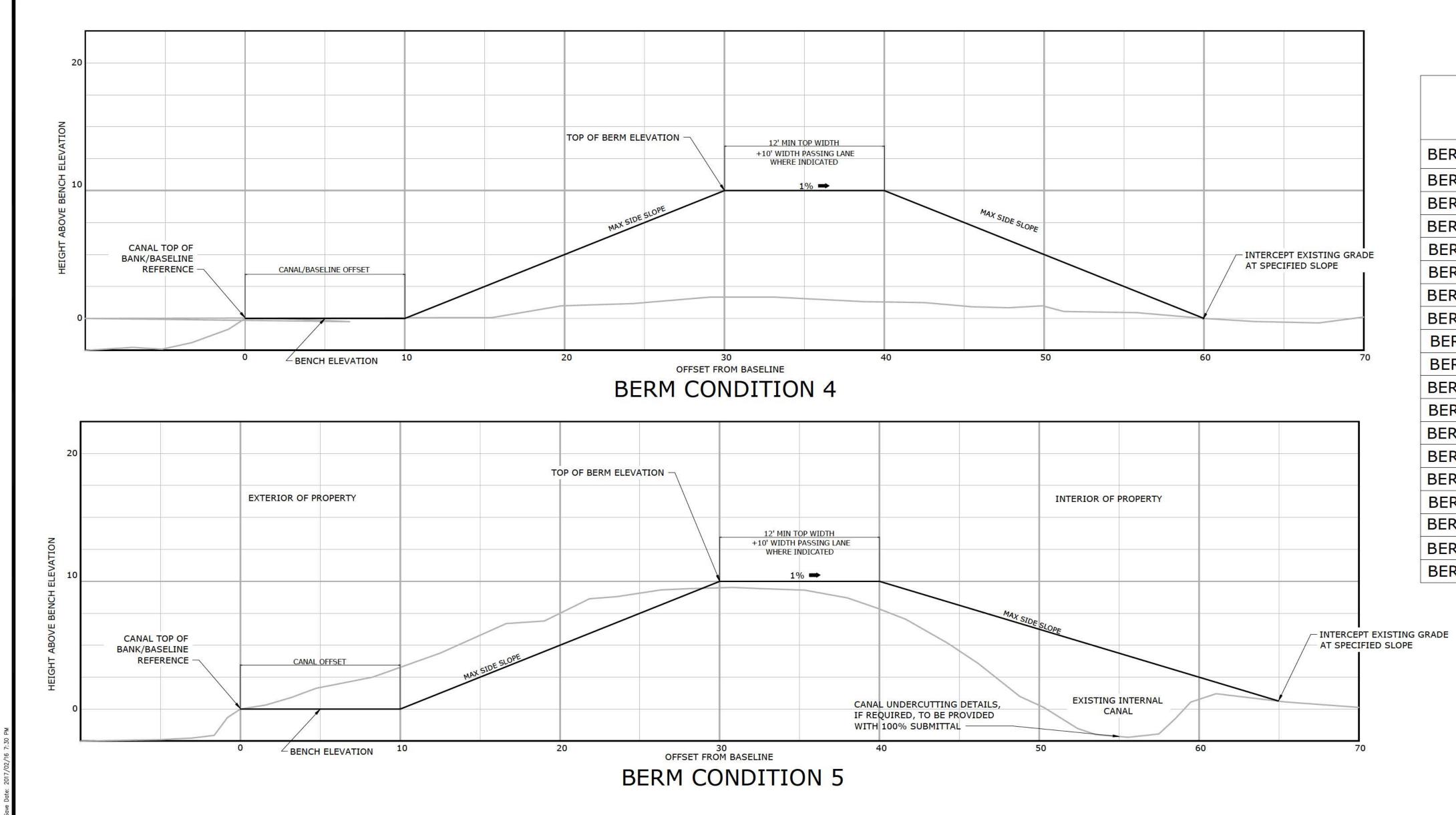
DRAWING NUMBER:

CONTRACT NO .:

G02







### BERM GEOMETRY TYPE

	CANAL OFFSET	BENCH ELEV.	TOP OF BERM ELEV.	MAX SIDE SLOPE	SURFACE COVER
BERM A	60 FT	24.00	32.50	3:1	CRUSHED ROCK
BERM B	60 FT	24.00	38.00	3:1	CRUSHED ROCK
BERM C	60 FT	24.00	32.50	3:1	CRUSHED ROCK
BERM D	60 FT	24.00	29.50	3:1	CRUSHED ROCK
BERM E	60 FT	24.00	32.00	3:1	CRUSHED ROCK
BERM F	60 FT	24.00	29.50	3:1	CRUSHED ROCK
BERM G	23 FT	24.00	29.50	3:1	CRUSHED ROCK
BERM H	18 FT	22.50	29.50	3:1	VEGETATION
BERM I	18 FT	22.50	29.50	3:1	VEGETATION
BERM J	18 FT	22.50	29.50	3:1	VEGETATION
BERM K	18 FT	22.50	29.50	3:1	VEGETATION
BERM L	18 FT	27.00	29.50	3:1	VEGETATION
BERM M	15 FT	25.00	29.50	3:1	VEGETATION
BERM N	15 FT	25.00	32.00	3:1	VEGETATION
BERM O	15 FT	25.00	29.50	3:1	VEGETATION
BERM P	15 FT	25.00	32.50	3:1	VEGETATION
BERM Q	60 FT	24.00	32.50	3:1	VEGETATION
BERM R	10 FT	25.00	29.50	3:1	VEGETATION
BERM S	185 FT	E.G.	29.50	3:1	VEGETATION

### NOTES:

- 1. ALL ELEVATIONS SHOWN PER NORTH AMERICAN VERTICAL DATUM (NAVD 88).
- 2. PASSING LANES SHALL BE INCLUDED EVERY 5000 FEET ALONG THE BERMS.
- 3. TOP OF BERM SURFACES SHALL BE STABILIZED AND VEGETATED UNLESS OTHERWISE NOTED.

				PROJECT ENGINEER:	CRG
				DESIGNED BY:	ACE
				DRAWN BY:	ACE
				CHECKED BY:	###
				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING	1/2" 1"
REV	ISSUED FOR	DATE	BY	IS NOT TO FULL SCALE	

PRELIMINARY DRAWING DO NOT USE FOR CONSTRUCTION

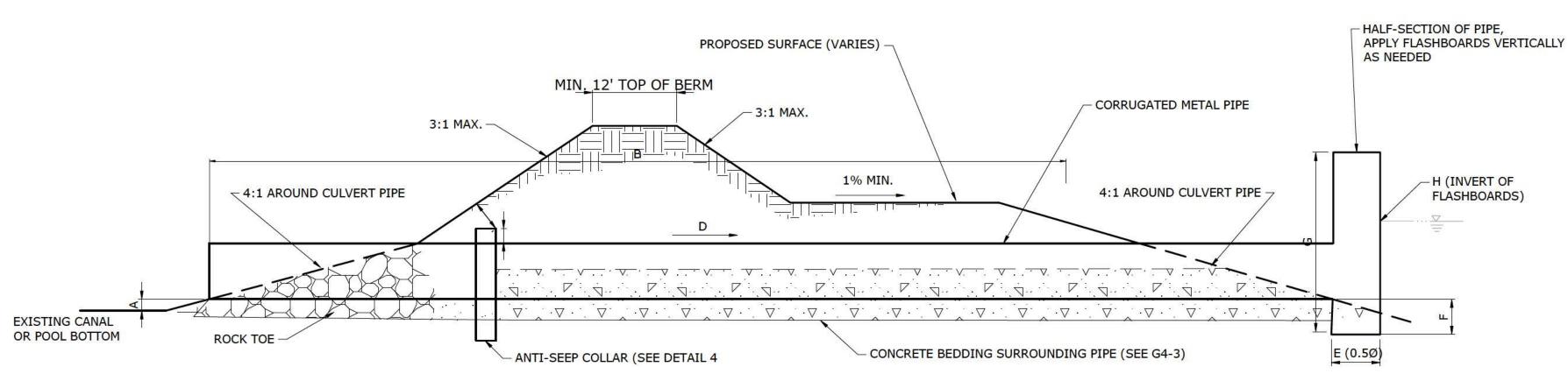
Hazen HAZEN AND SAWYER 2101 CORPORATE BOULEVARD, SUITE 301 BOCA RATON, FLORIDA 33431 CERTIFICATE OF AUTHORIZATION No. : 2771

**EVANS PROPERTIES** 

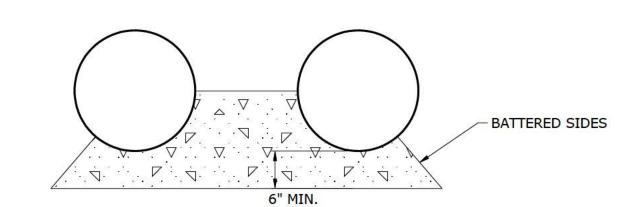
BLUEFIELD GROVE WATER FARM DESIGN PARCEL MODIFICATIONS

CIVIL **GENERAL SECTIONS**  DATE: FEBRUARY 2017 HAZEN NO.: 45529-009 CONTRACT NO.:

DRAWING NUMBER: G03

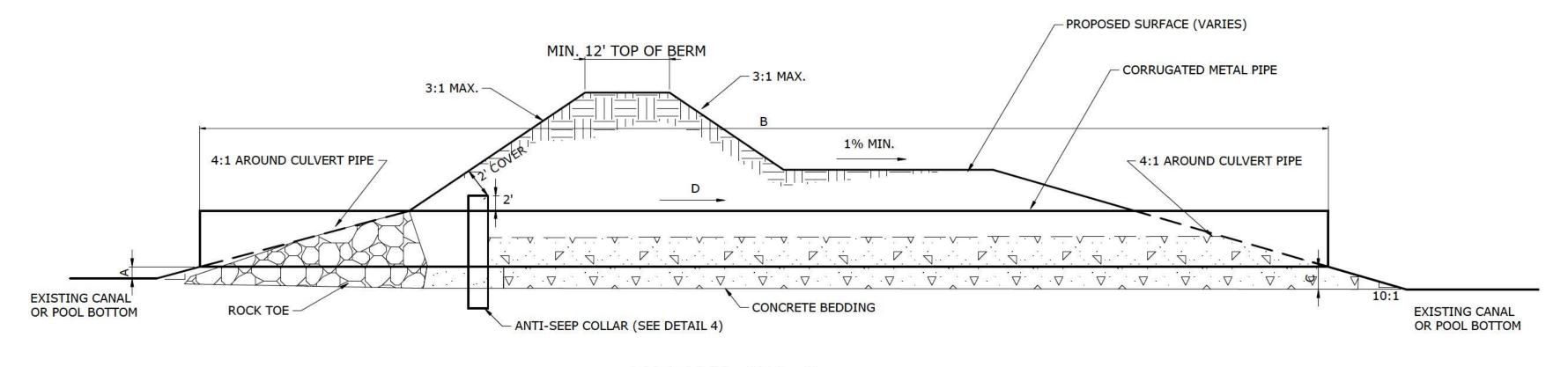


DETAIL G4-1
CULVERT WITH FLASHBOARD RISER STRUCTURE



DETAIL G4-3 CONCRETE BEDDING

- 1. SEE PLAN FOR LOCATIONS
- 2. RIP RAP EXPOSED AREA OF PIPES
- SLOPE ALL GRADE BELOW INVERTS AT 10:1 TO MEET EXISTING CANAL/POOL BOTTOM ELEVATIONS.
- 4. CONTRACTOR SHALL DAYLIGHT PROPOSED CULVERTS AT TOE OF SLOPE OF PROPOSED BERMS SO AS TO MEET THE BERM CONSTRUCTION CRITERIA ON SHEET G-1 FOR THE GIVEN LOCATION
- EROSION PROTECTION, SEEPAGE CONTROL, AND TRASH RACK SPECIFICATIONS TO BE PROVIDED AT 100% DESIGN.



DETAIL G4-2 NO RISER STRUCTURES

DETAIL G4-4
SEEPAGE CONTROL DETAILS PENDING

ä	PROPOSED CULVERT DETAILS - BLUEFIELD										
I.D.	NO. BARRELS	PIPE MATERIAL	DIAMETER	DIMENSION							
-11				Α	В	С	D	E	F	G	Н
1	1	C.M.P.	4'-0"	1.5'	340'	1.5'	0.005 FT/FT	TBD	TBD	TBD	TBD
2	2	C.M.P.	6'-0"	1.5'	100'	1.5'	0.005 FT/FT	TBD	TBD	TBD	TBD
3	2	C.M.P.	6'-0"	1.5'	60'	1.5'	0.005 FT/FT	TBD	TBD	TBD	TBD

N-176						
OMEN IS / L				PROJECT ENGINEER:	CRG	
NA (DOO			9	DESIGNED BY:	ARA	
			,	DRAWN BY:	ARA	PI D
ANDERSO				CHECKED BY:		C
(operator)				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING	1/2" 1"	
REV	ISSUED FOR	DATE	BY	IS NOT TO FULL SCALE		

PRELIMINARY DRAWING DO NOT USE FOR CONSTRUCTION HAZEN AND SAWYER
2101 CORPORATE BOULEVARD, SUITE 301
BOCA RATON, FLORIDA 33431

CERTIFICATE OF AUTHORIZATION No.: 2771

EVANS PROPERTIES

BLUEFIELD GROVE WATER FARM DESIGN PARCEL MODIFICATIONS

CIVIL CULVERT DETAILS DATE: FEBRUARY 2017

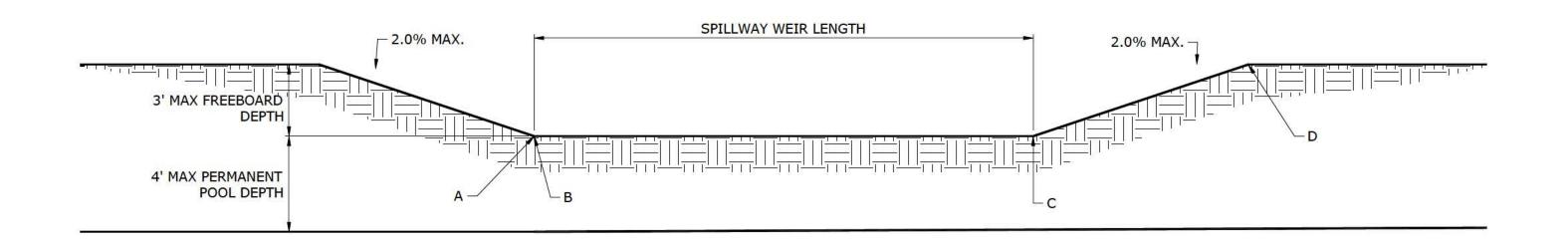
HAZEN NO.: 45529-009

CONTRACT NO.: 1

DRAWING NUMBER:

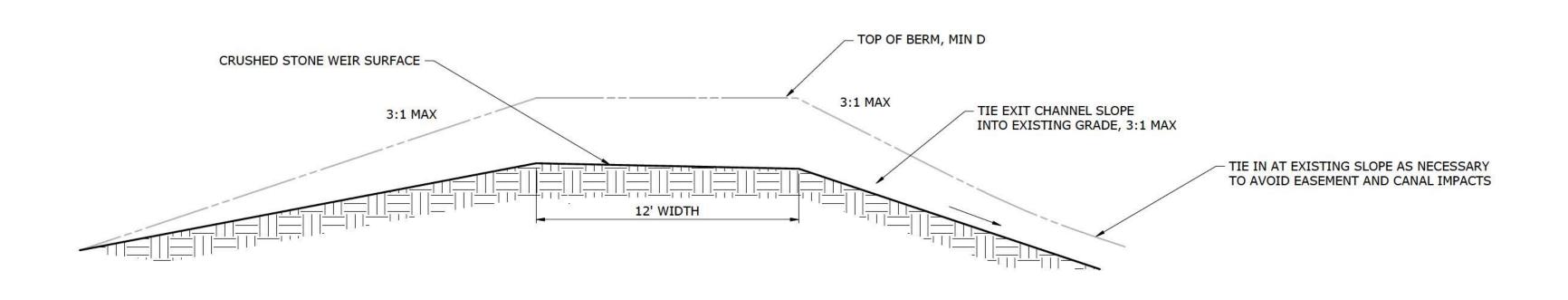
G4

- 1. IF EMERGENCY SPILLWAY CHANNEL IS LOCATED IN CUT CONDITIONS, THE FLOW PATH CAN BE VEGETATED. IF EMERGENCY SPILLWAY IS LOCATED IN FILL CONDITIONS, THE FLOW CHANNEL AND TOE OF FLOW SIDE SLOPES IN THE CHANNEL SHALL BE ARMORED WITH RIPRAP.
- 2. SPILLWAY REINFORCEMENT AND GRADING DETAILS WILL BE PROVIDED WITH THE 100% DESIGN SUBMITTAL.



PROPOSEI	SPILLWAY	DETAILS -	BLUEFIEL	D PROPER	RTY	
SPILLWAY LOCATION	WEIR LENGTH	DIMENSION	STATIONING		DIMENSION	
		Α	В	С	D	
EAST SIDE OF PROPERTY	1000 FT	26.50 FT	555+00	565+00	29.50 FT	

## **EMERGENCY SPILLWAY** LONGITUDINAL PROFILE NTS



# **EMERGENCY SPILLWAY** SECTION VIEW NTS

BZ							
DOCUMENTS/					PROJECT ENGINEER:	CRG	
LAN \DOC	7				DESIGNED BY:	ARA	
N.HSNY_	5				DRAWN BY:	ARA	N
ANDERSON			5		CHECKED BY:		
USERS\A	2				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING	1/2" 1"	İ
lle: C:		ISSUED FOR	DATE	BY	IS NOT TO FULL SCALE		

PRELIMINARY DRAWING DO NOT USE FOR CONSTRUCTION

Hazen HAZEN AND SAWYER
2101 CORPORATE BOULEVARD, SUITE 301
BOCA RATON, FLORIDA 33431
CERTIFICATE OF AUTHORIZATION No.: 2771

EVANS PROPERTIES	
------------------	--

BLUEFIELD GROVE WATER FARM DESIGN PARCEL MODIFICATIONS

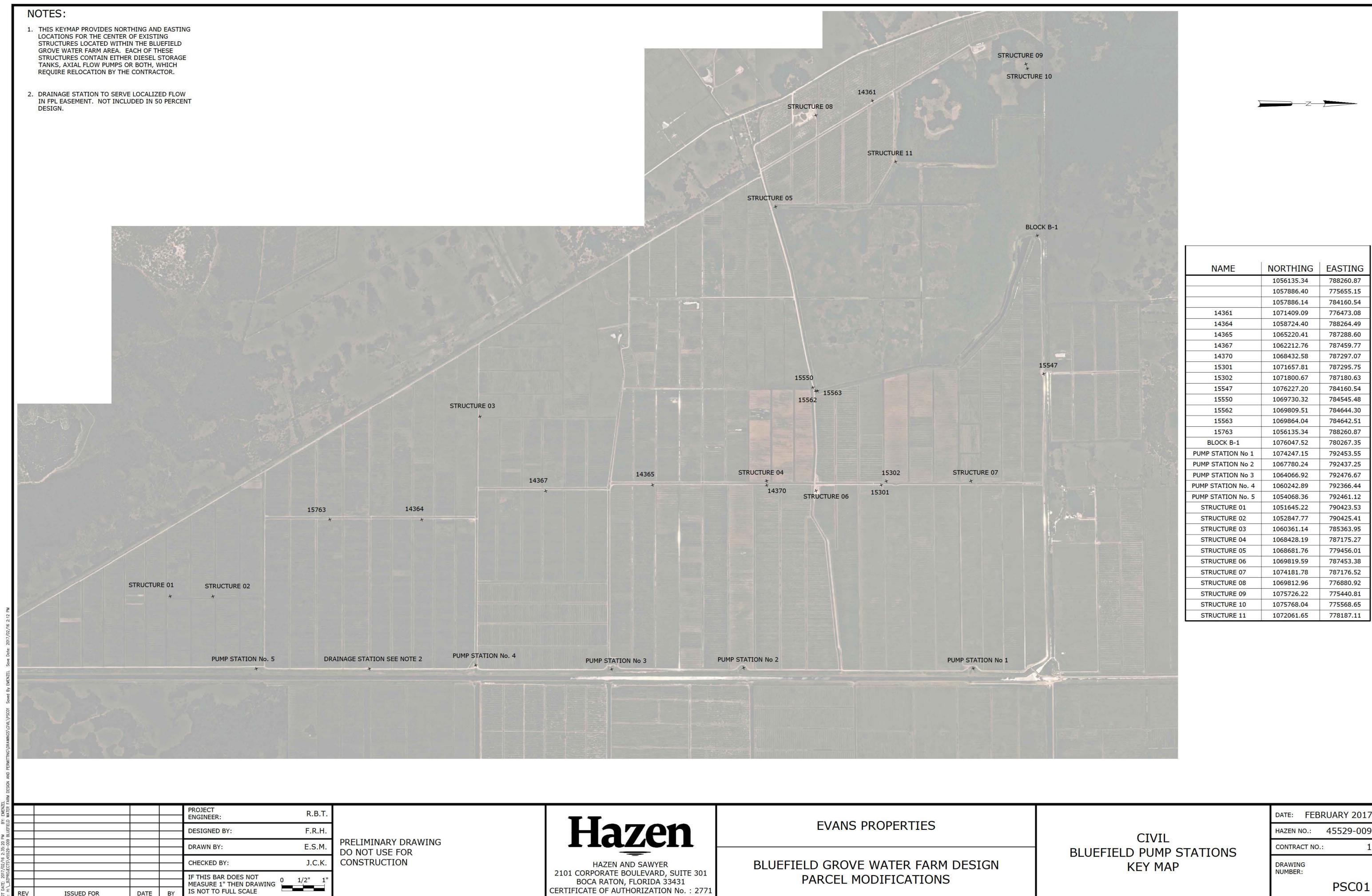
**CIVIL** SPILLWAY DETAILS

DATE:	FEBI	RUARY	2017
HAZEN I	NO.:	45529	9-009
CONTRA	CT NO		- 4

CONTRACT NO.:

DRAWING NUMBER:

G5



### **GENERAL NOTES**

EQUIPMENT REMOVAL:CONTRACTOR SHALL REMOVE EXISTING DIESEL FUEL STORAGE TANKS AND PUMPS FROM LOCATIONS SHOWN ON KEYMAP PSC01.

CONTRACTOR SHALL PROVIDE ALL PARTS, LABOR, EQUIPMENT AND COORDINATION FOR DISCONNECTING OF AXIAL FLOW PUMPS FROM EXISTING TOP, INTERMEDIATE AND LOWER SUPPORTS INCLUDING COSTS FOR REMOVALS IN SUBMERGED CONDITIONS. CONTRACTOR SHALL PROVIDE FOR ANY DECOUPLING OF PUMPS FROM THEIR BELT DRIVES AND REMOVAL OF PUMPS IN A LIFTING MANNER PRESCRIBED BY THE PUMP MANUFACTURER.

CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL DIESEL FUEL IN A MANNER APPROVED BY THE ENVIRONMENTAL PROTECTION AGENCY PRIOR TO RELOCATING THE DRIVE OR THE STORAGE TANK. IN THE EVENT THAT CONTRACTOR IDENTIFIES ANY EXISTING CONDITION OF DIESEL FUEL SPILL, CONTRACTOR SHALL IMMEDIATELY NOTIFY EVANS PROPERTIES. CONTRACTOR WILL TAKE NO ACTION TO REMEDY OR MODIFY THE EXISTING CONDITION WITHOUT DIRECTION FROM AN EVANS PROPERTIES REPRESENTATIVE. IN THE EVENT THAT THE CONTRACTOR CREATES ANY DIESEL FUEL SPILL, CONTRACTOR SHALL TAKE IMMEDIATE ACTION TO ELIMINATE THE POTENTIAL FOR ADDITIONAL SPILLS AND THEN NOTIFY AN EVANS PROPERTIES REPRESENTATIVE.

CONTRACTOR SHALL UNBOLT DIESEL PUMP DRIVES FROM THE SLAB WHERE NECESSARY AND DECOUPLE THE DRIVES FROM EXISTING FUEL SUPPLY PIPING AND BELT DRIVES. CONTRACTOR SHALL REMOVE EXISTING DRIVES USING A LIFTING MANNER AS PRESCRIBED BY THE DRIVE MANUFACTURERS.

CONTRACTOR SHALL DELIVER FUEL STORAGE TANKS, DIESEL PUMP DRIVES, BELTS AND AXIAL FLOW PUMPS NOT TO BE REUSED IN THIS PROJECT TO A STORAGE LOCATION AS DIRECTED BY EVANS PROPERTIES. PRIOR TO BEGINNING ANY TRANSPORTATION OF EQUIPMENT, CONTRACTOR SHALL PROVIDE FULL VIDEO DOCUMENTATION OF EXISTING EQUIPMENT CONDITIONS. THE CONTRACTOR IS RESPONSIBLE TO DELIVER EQUIPMENT IN THE SAME CONDITION AS DOCUMENTED.

EQUIPMENT REFURBISHMENT: THESE CONTRACT DOCUMENTS IDENTIFY 4 PUMP STATIONS TO BE CONSTRUCTED OR MODIFIED USING EXISTING PUMPS AND DRIVES FOR THEIR EQUIPMENT. THE FOUR STATIONS ARE IDENTIFIED AS FOLLOWS:

- BLUEFIELD PUMP STATION NO. 2 2 PUMPS AND DRIVES
- BLUEFIELD PUMP STATION NO. 3 1 PUMP AND DRIVE
- BLUEFIELD PUMP STATION NO. 4 2 PUMPS AND DRIVES
- BLOCK B-1 PUMP STATION 1 PUMP AND DRIVE

PUMP REFURBISHMENT: IT IS THE INTENT OF EVANS PROPERTIES THAT EACH PUMP BE FULLY REFURBISHED. TO THAT END, CONTRACTOR SHALL PROVIDE FOR LOADING AND TRANSPORT OF EACH PUMP TO THE MWI DESIGNATED REPAIR LOCATION:

VERO BEACH COUCH PUMP REPAIR

7775 SW 9TH STREET

VERO BEACH, FL 32968

PHONE: (772) 770-0004

### EACH PUMP IS TO RECEIVE THE FOLLOWING REFURBISHMENT:

- PUMP CASING SHALL BE CLEANED OF ALL OIL, GREASE, DIRT, RUST AND TIGHT AND LOOSE MILL SCALE BY BLASTING IN ACCORDANCE WITH THE FOLLOWING: SSPC-SP- WHITE METAL BALST CLEANING AND COMPLY WITH THE VISUAL STANDARD NACE 1.
- ALL SPIDER BEARINGS SHALL BE REPLACED IN EACH PUMP.
- IMPELLERS SHALL BE INSPECTED FOR DAMAGE, PITTING OR CORROSION. IMPELLERS SHALL BE RESTORED TO MANUFACTURER RECOMMENDED OPERATING CONDITIONS WHERE POSSIBLE. WHERE MANUFACTURER RECOMMENDED CONDITIONS CANNOT BE ACHIEVED, IMPELLERS SHALL BE REPLACED IN KIND.
- PUMP SHAFTS SHALL BE INSPECTED FOR DAMAGE, PITTING OR CORROSION. WHERE POSSIBLE, SHAFTS SHALL BE RESTORED TO MANUFACTURER RECOMMENDED OPERATING CONDITIONS. WHERE MANUFACTURER RECOMMENDED CONDITIONS CANNOT BE ACHIEVED, SHAFTS SHALL BE REPLACED.
- EXTENSION OF PUMP HOODS SHALL BE MADE WHERE REQUIRED TO PROVIDE THE LENGTHS AS DIRECTED FOR IN THE MECHANICAL DRAWINGS. ADDITIONAL COUPLINGS ADDED TO THE SHAFTS SHALL NOT DEGRADE THE PERFORMANCE OF THE PUMPS AT RATED CAPACITY. ALL WELDS TO PUMP HOODS SHALL BE FULL SEAL WELDS AND PROPERLY CLEANED OF ALL WELDING SPLATTER PRIOR TO PREPARING THE PUMP CASING FOR COATING.
- BELTS SHALL BE REPLACED FOR EACH PUMP. BELTS SHALL BE SIZED TO MINIMUM LENGTHS SHOWN ON THE MECHANICAL DRAWINGS AND COORDINATED TO A STANDARD LENGTH PRODUCED BY THE MANUFACTURER.
- BELT GUARDS SHALL BE REPLACED AS DETAILED IN THE STRUCTURAL DRAWINGS.

EACH DRIVE IS TO BE REFURBISHED PER MANUFACTURER RECOMMENDATIONS. REFURBISHMENT SHALL INCLUDE REPLACEMENT OF EXISTING DRIVE ENDS WHERE SPECIFICALLY CALLED FOR IN THE MECHANICAL DRAWINGS. EXISTING MUFFLERS SHALL BE REMOVED AND REPLACED IN KIND.

CONTRACTOR SHALL CONSTRUCT NEW 500-GALLON DOUBLE WALL CONTAINMENT TANKS AT LOCATIONS AS CALLED FOR IN THE MECHANICAL DRAWINGS. TANKS SHALL BE STEEL DOUBLE WALL CONTAINMENT TANKS AS MANUFACTURED BY STAFCO OR EQUAL.

				PROJECT ENGINEER:	R.B.T.
				DESIGNED BY:	F.R.H.
				DRAWN BY:	E.S.M.
				CHECKED BY:	J.C.K.
				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING	1/2" 1"
REV	ISSUED FOR	DATE	BY	IS NOT TO FULL SCALE	

DO NOT USE FOR CONSTRUCTION

Hazen HAZEN AND SAWYER 2101 CORPORATE BOULEVARD, SUITE 301

BOCA RATON, FLORIDA 33431

CERTIFICATE OF AUTHORIZATION No.: 2771

BLUEFIELD GROVE WATER FARM DESIGN PARCEL MODIFICATIONS

**CIVIL** BLUEFIELD PUMP STATIONS **GENERAL NOTES** 

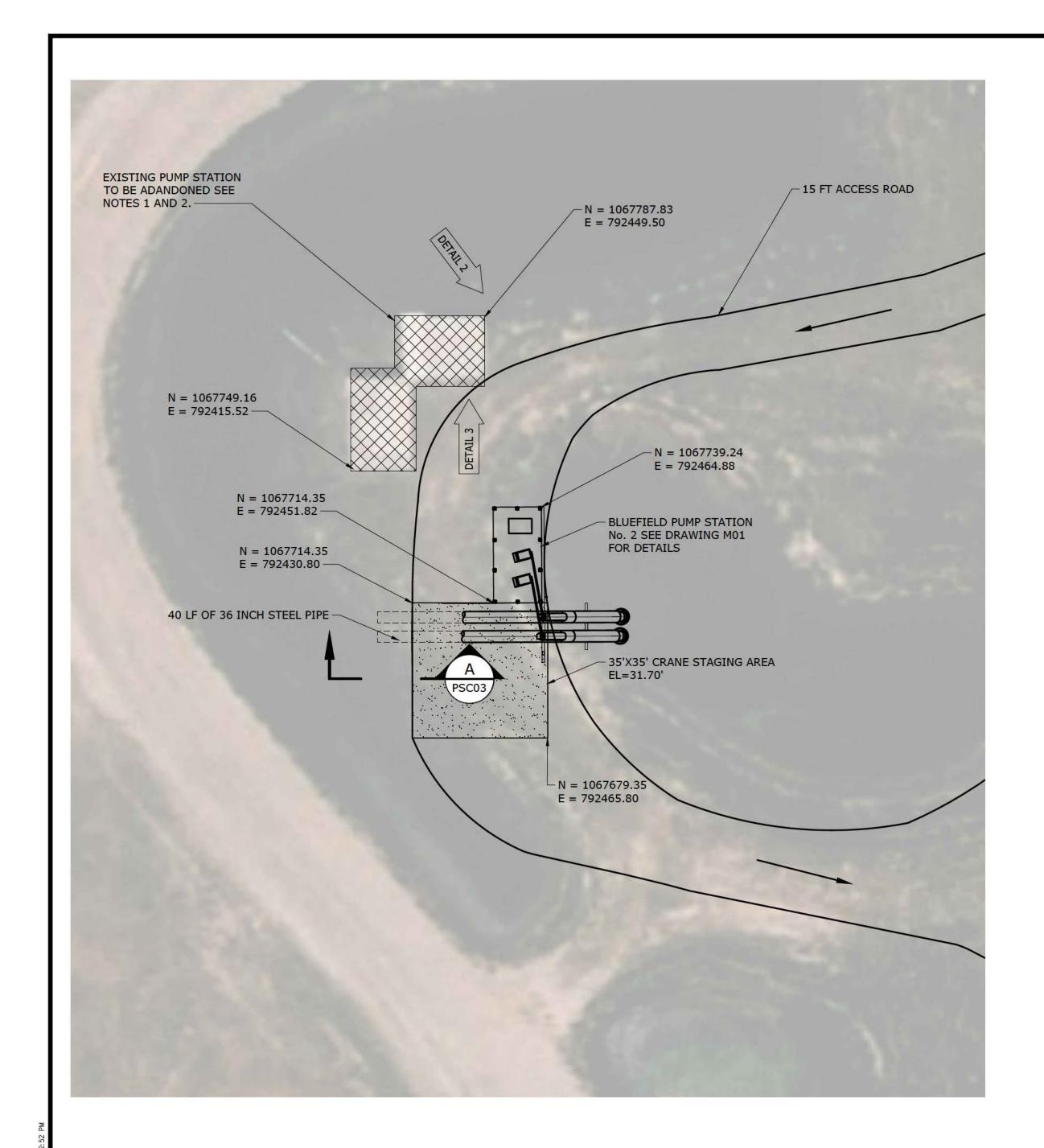
DATE: FEBRUARY 2017 HAZEN NO.: 45529-009

DRAWING NUMBER:

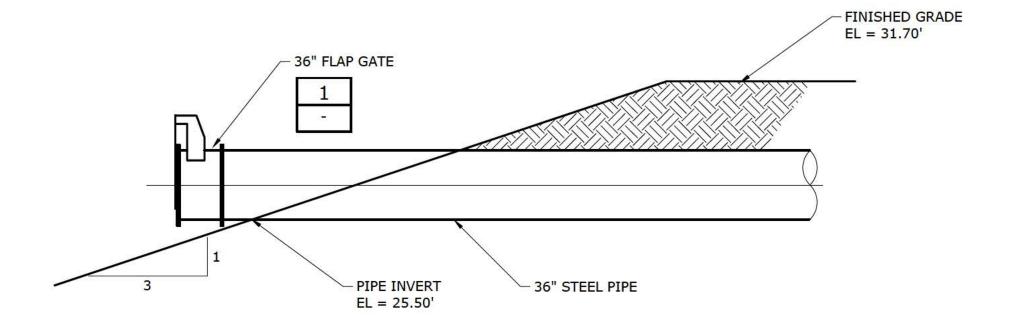
CONTRACT NO .:

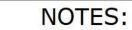
PSC02

**EVANS PROPERTIES** PRELIMINARY DRAWING

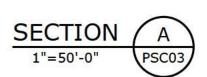


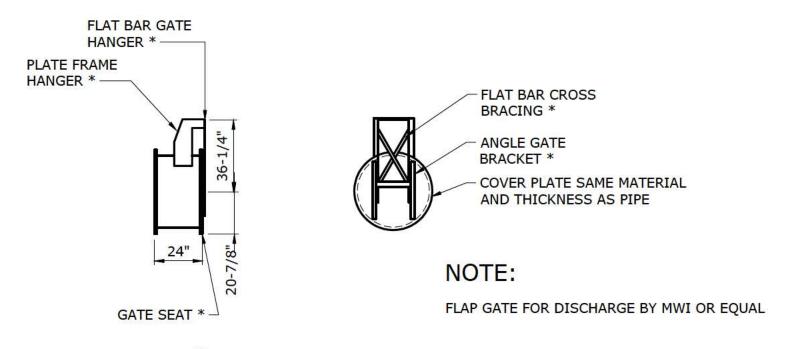
BLUEFIELD PUMP STATION No. 2 PLAN





- CONTRACTOR TO RELOCATE EXISTING 2,000 GALLON DIESEL STORAGE TANK TO STORAGE LOCATION AS DIRECTED BY OWNER.
- EXISTING PUMPS AND DRIVES TO BE RELOCATED TO NEW PUMP STATION STRUCTURE. SEE DETAIL 2 AND 3. SEE DRAWING PSC02 FOR ADDITIONAL REQUIREMENTS.





\* IN ACCORDANCE WITH ASTM A-36

FLAP GATE FOR DISCHARGE

DETAIL 1

NTS -





20 10 0 20 1"=20'-0"

50 25 0 50'

1"=50'-0"

1							
IELD WATER					PROJECT ENGINEER:	R.B.T.	
BLUEF					DESIGNED BY:	F.R.H.	
529-009					DRAWN BY:	E.S.M.	P
ECTS\45					CHECKED BY:	J.C.K.	C
H: \_BZPRO.	REV/	ISSUED FOR	DATE	RV	IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	1/2" 1"	

PRELIMINARY DRAWING
DO NOT USE FOR
CONSTRUCTION

HAZEN AND SAWYER
2101 CORPORATE BOULEVARD, SUITE 301
BOCA RATON, FLORIDA 33431
CERTIFICATE OF AUTHORIZATION No.: 2771

**EVANS PROPERTIES** 

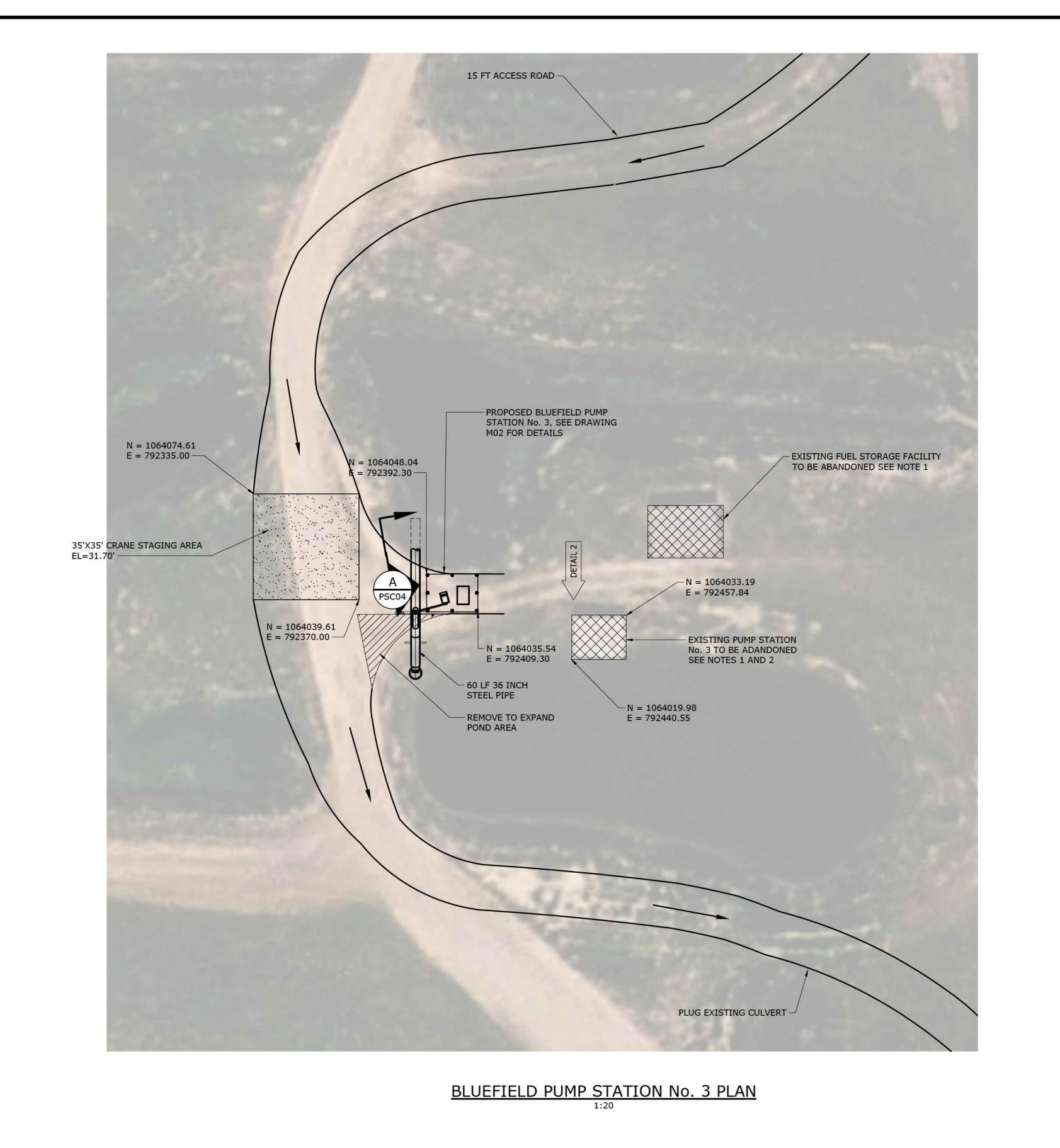
BLUEFIELD GROVE WATER FARM DESIGN PARCEL MODIFICATIONS

CIVIL
BLUEFIELD PUMP STATION No. 2
PLAN

DATE:	FEB	RUARY	2017
HAZEN I	VO.:	45529	9-009

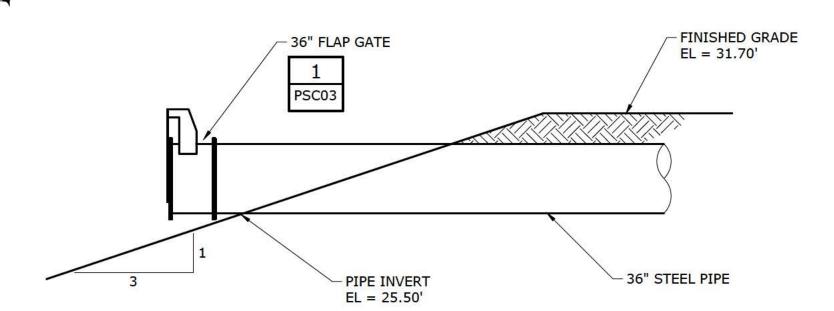
CONTRACT NO.:

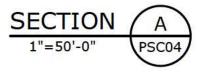
DRAWING NUMBER:





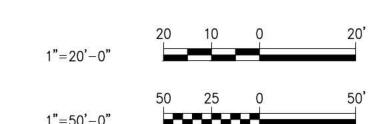
- 1. CONTRACTOR TO RELOCATE 2,000 GALLON DIESEL STORAGE TANK TO STORAGE LOCATION AS DIRECTED BY OWNER.
- 2. EXISTING PUMP TO BE RELOCATED TO NEW PUMP STATION STRUCTURE. SEE DETAIL 2. SEE DRAWING PSCO2 FOR ADDITIONAL REQUIREMENTS.











$\equiv$							
LD WATER					PROJECT ENGINEER:	R.B.T.	
BLUEFIE					DESIGNED BY:	F.R.H.	
529-009					DRAWN BY:	E.S.M.	P
ECTS\45					CHECKED BY:	J.C.K.	C
BZPROJE	-				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING	1/2" 1"	
ie: H:	REV	ISSUED FOR	DATE	BY	IS NOT TO FULL SCALE		

PRELIMINARY DRAWING DO NOT USE FOR CONSTRUCTION

Hazen HAZEN AND SAWYER 2101 CORPORATE BOULEVARD, SUITE 301 BOCA RATON, FLORIDA 33431 CERTIFICATE OF AUTHORIZATION No. : 2771

**EVANS PROPERTIES** 

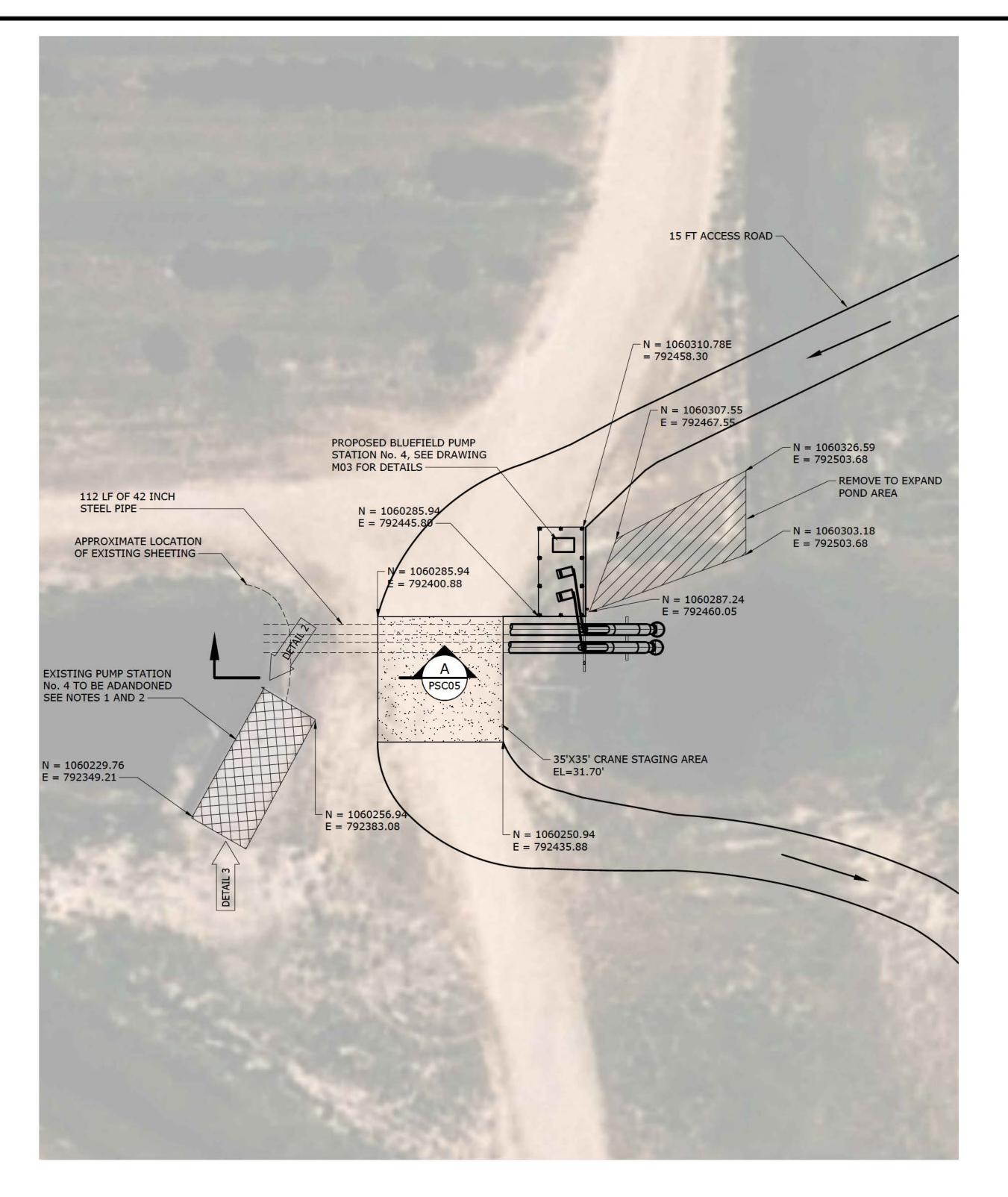
BLUEFIELD GROVE WATER FARM DESIGN PARCEL MODIFICATIONS

**CIVIL** BLUEFIELD PUMP STATION No. 3 **PLAN** 

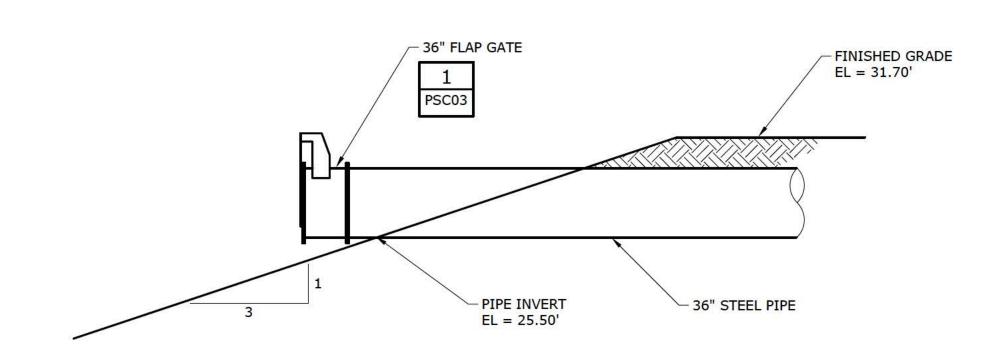
DATE:	FEBRUARY 201	
HAZEN I	io.: 45529-00	)

CONTRACT NO.:

DRAWING NUMBER:



BLUEFIELD PUMP STATION No. 4 PLAN
1:20

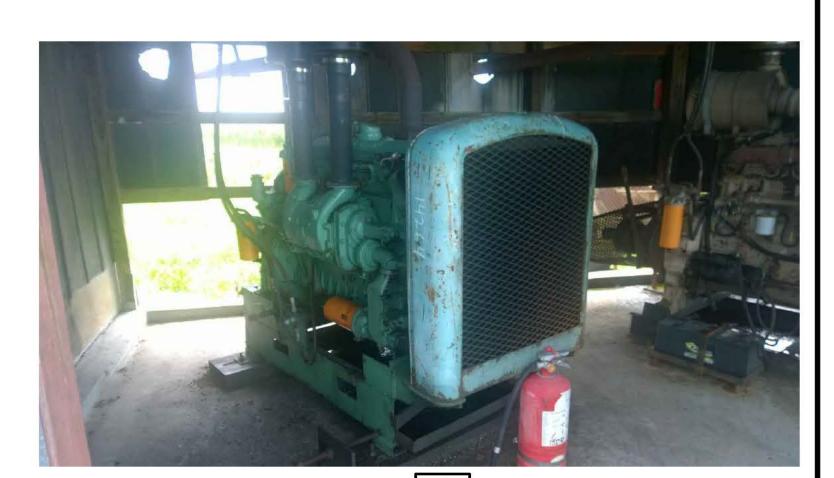


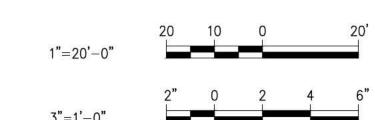


 EXISTING PUMPS AND DRIVES TO BE RELOCATED TO NEW PUMP STATION STRUCTURE. SEE DETAIL 2 AND 3. SEE DRAWING PSC02 FOR ADDITIONAL REQUIREMENTS.









D WATER					PROJECT ENGINEER:	R.B.T.	
BLUEFIELD					DESIGNED BY:	F.R.H.	
529-009					DRAWN BY:	E.S.M.	P
BZPROJECTS\45529					CHECKED BY:	J.C.K.	C
_BZPROJ					IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING	1/2" 1"	]
e: H:	REV	ISSUED FOR	DATE	BY	IS NOT TO FULL SCALE		

PRELIMINARY DRAWING DO NOT USE FOR CONSTRUCTION HAZEN AND SAWYER
2101 CORPORATE BOULEVARD, SUITE 301
BOCA RATON, FLORIDA 33431
CERTIFICATE OF AUTHORIZATION No.: 2771

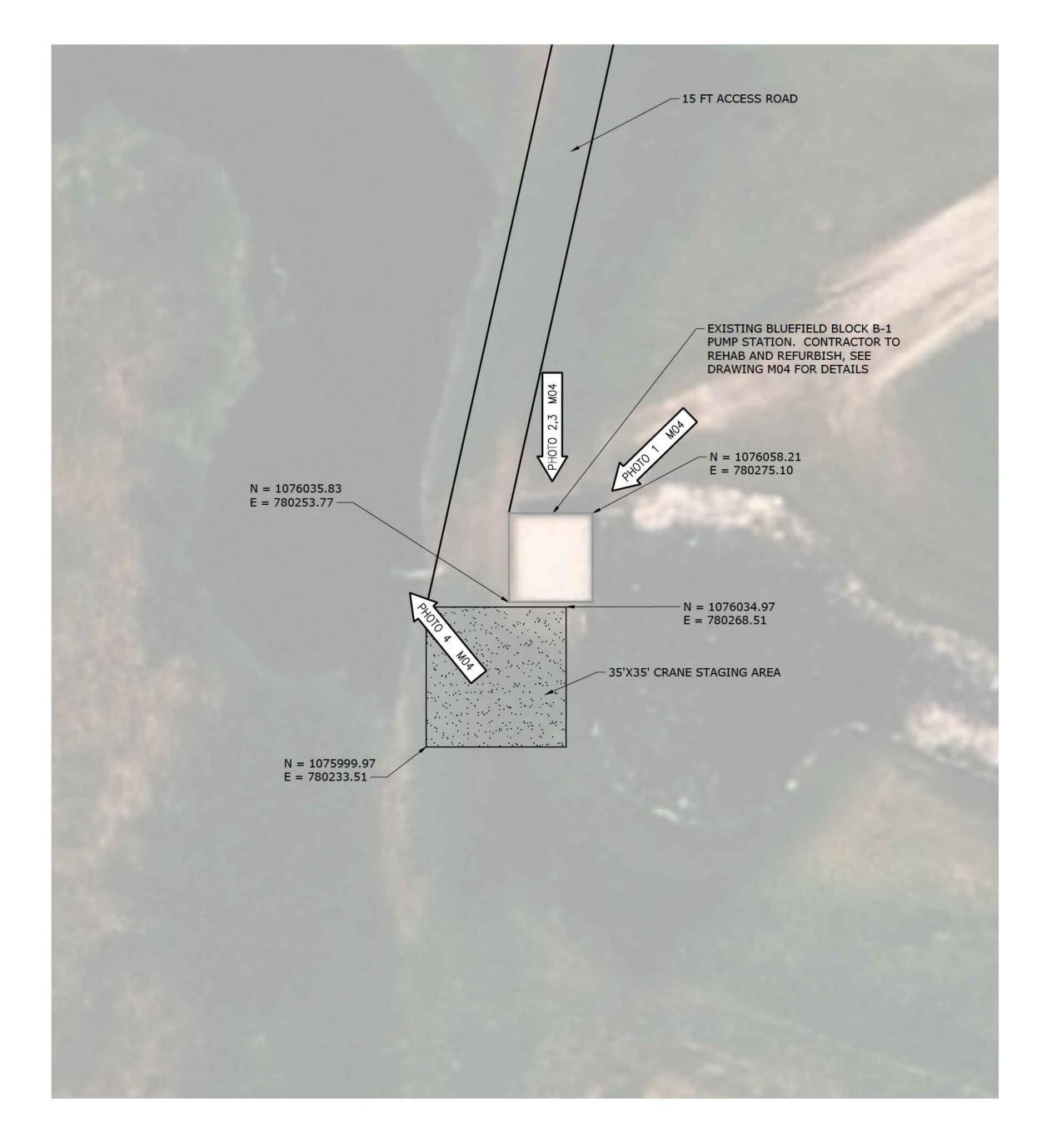
**EVANS PROPERTIES** 

BLUEFIELD GROVE WATER FARM DESIGN PARCEL MODIFICATIONS

CIVIL BLUEFIELD PUMP STATION No. 4 PLAN

DATE:	FEBR	RUARY	2017
HAZEN	NO.:	45529	9-009
CONTRA	ACT NO.:	I	1

DRAWING NUMBER:



BLUEFIELD BLOCK B-1 PUMP STATION PLAN
1:20

20 10 0 2

Σ							
WATER					PROJECT ENGINEER:	R.B.T.	
BLUEFIELD					DESIGNED BY:	F.R.H.	
45529-009					DRAWN BY:	E.S.M.	F
JECTS\45					CHECKED BY:	J.C.K.	(
_BZPROJECTS\					IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING	1/2" 1"	
/:H:	REV	ISSUED FOR	DATE	BY	IS NOT TO FULL SCALE		

PRELIMINARY DRAWING DO NOT USE FOR CONSTRUCTION HAZEN AND SAWYER
2101 CORPORATE BOULEVARD, SUITE 301
BOCA RATON, FLORIDA 33431
CERTIFICATE OF AUTHORIZATION No.: 2771

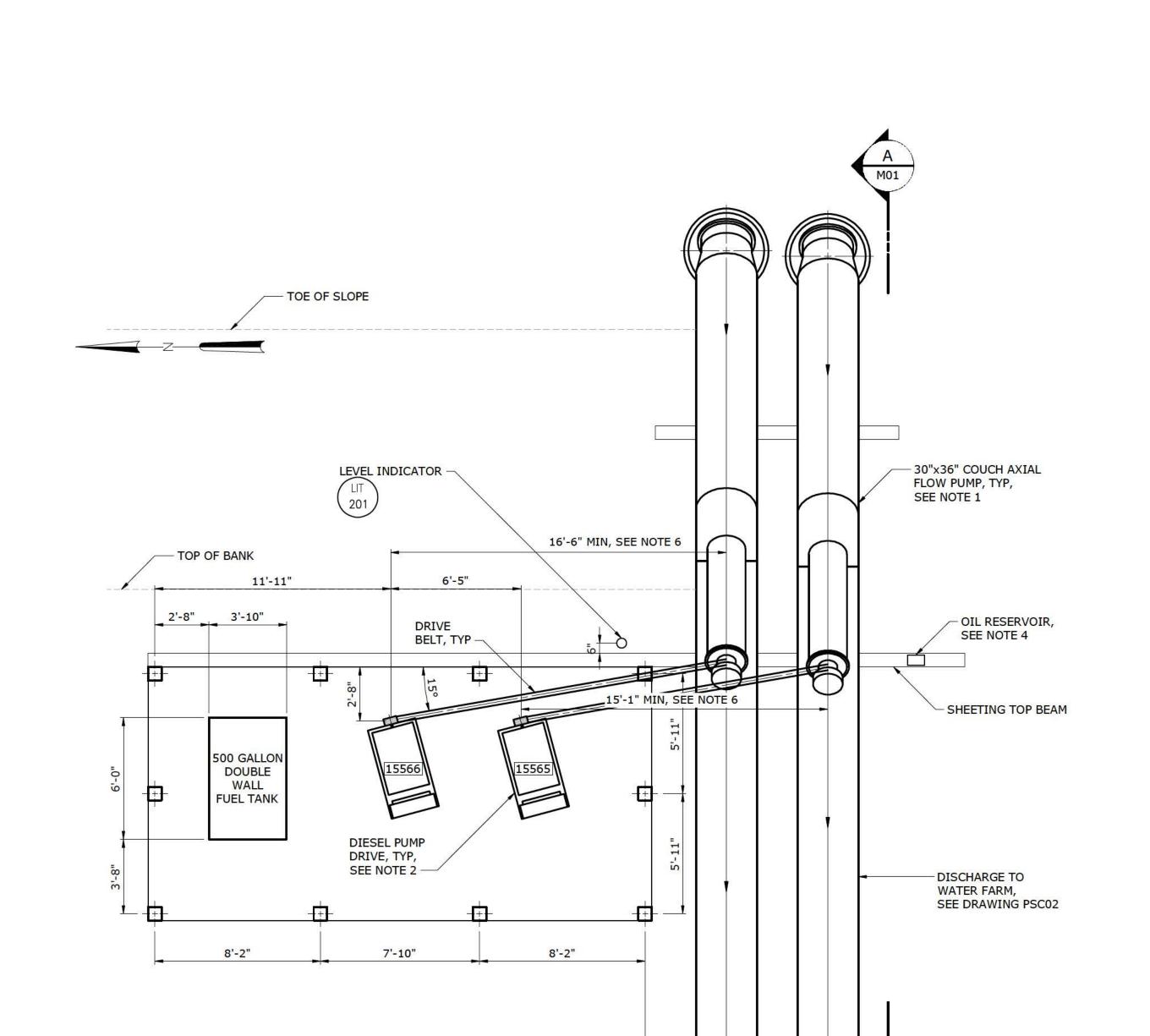
EVANS PROPERTIES

BLUEFIELD GROVE WATER FARM DESIGN PARCEL MODIFICATIONS

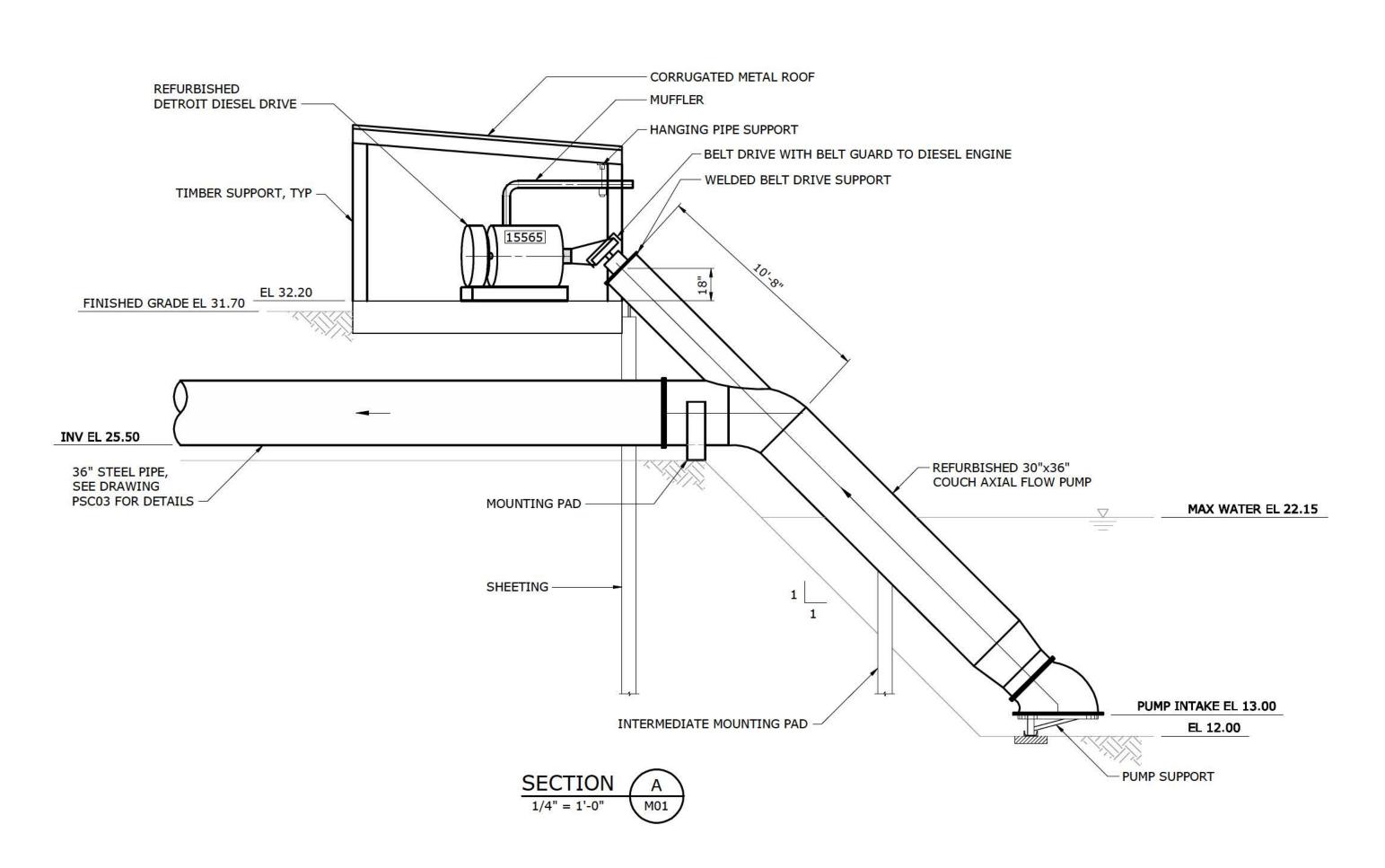
CIVIL BLUEFIELD BLOCK B-1 PUMP STATION PLAN

DATE:	FEBF	RUARY	201
HAZEN I	NO.:	45529	9-009
CONTRA	CT NO.:	ਰ ਰ	76 <b>-</b>

DRAWING NUMBER:



- REFURBISH EXISTING 36" AXIAL FLOW COUCH PUMPS, SERIAL Nos 3018 AND 3019. SEE DRAWING PSC02 FOR DETAILS.
- REFURBISH EXISTING DETROIT DIESEL DRIVES, SERIAL Nos 6A392720 AND 6A392727, SEE DRAWING PSC02 FOR DETAILS.
- SEE STRUCTURAL DRAWINGS FOR DETAILS ON SHEETING AND BUILDING. NOT INCLUDED IN 50% SET.
- 4. MOUNT OIL RESERVOIR TO SHEETING. SEE STRUCTURAL DETAILS. NOT INCLUDED IN 50% SET.
- CONTRACTOR TO ADJUST THIS DIMENSION TO COORDINATE WITH PUMP SPECIFIC BELT LENGTH.
- CONTRACTOR TO COORDINATE EXACT DIMENSION PER PUMP MANUFACTURER.



	1	0	1	2	3	7
1/4"=1'-0"	Ь	ها		101		

		PROJECT ENGINEER:	R.B.T.	
		DESIGNED BY:	F.R.H.	
		DRAWN BY:	K.E.W.	
		CHECKED BY:	J.C.K.	١
	1.00	IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	1/2" 1"	1

PRELIMINARY DRAWING
DO NOT USE FOR
CONSTRUCTION

TOP PLAN 1/4" = 1'-0" 4'-0" MIN 5'-0" SEE NOTE 5 MIN

HAZEN AND SAWYER
2101 CORPORATE BOULEVARD, SUITE 301

BOCA RATON, FLORIDA 33431 CERTIFICATE OF AUTHORIZATION No. : 2771 **EVANS PROPERTIES** 

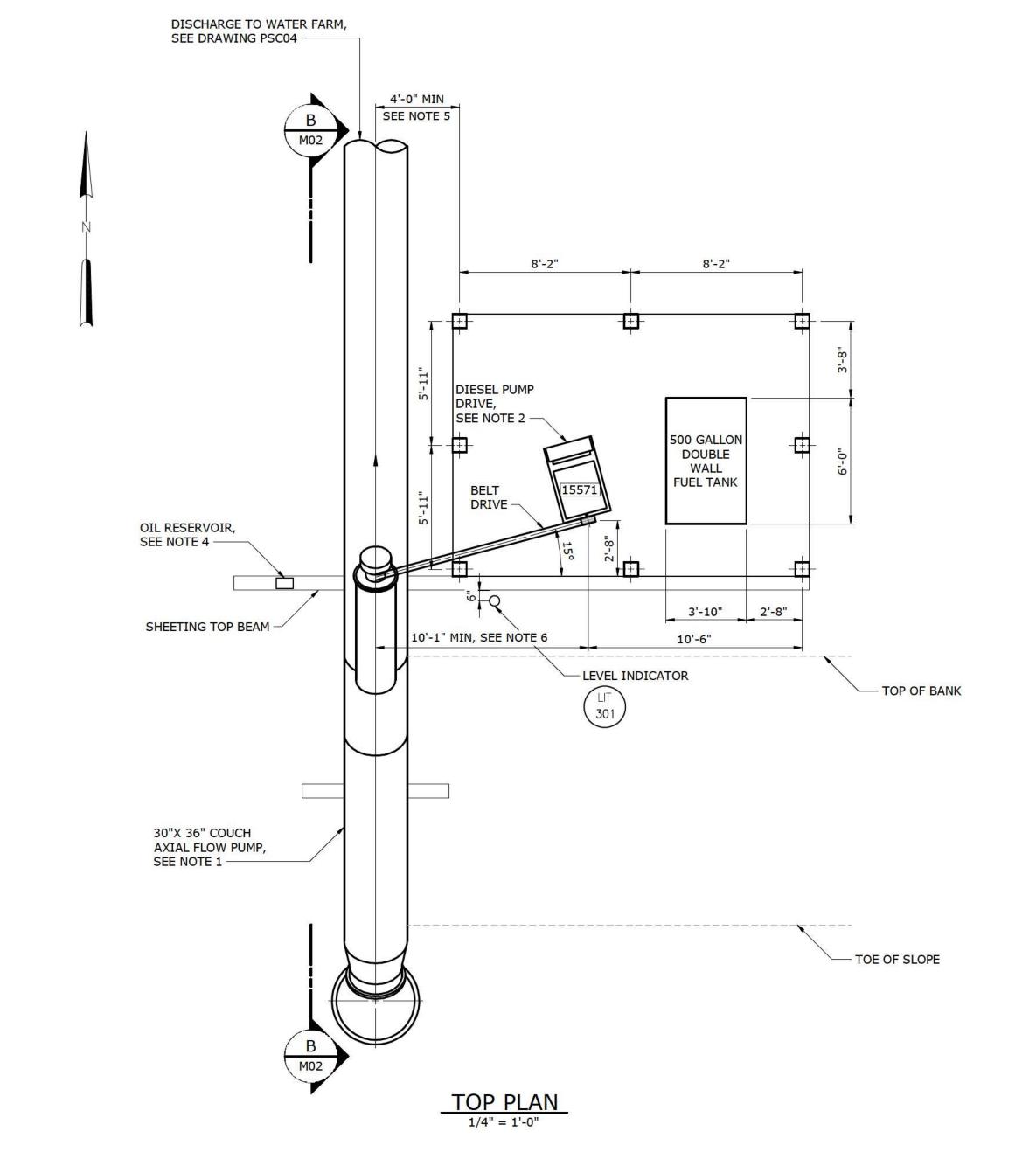
BLUEFIELD GROVE WATER FARM DESIGN PARCEL MODIFICATIONS

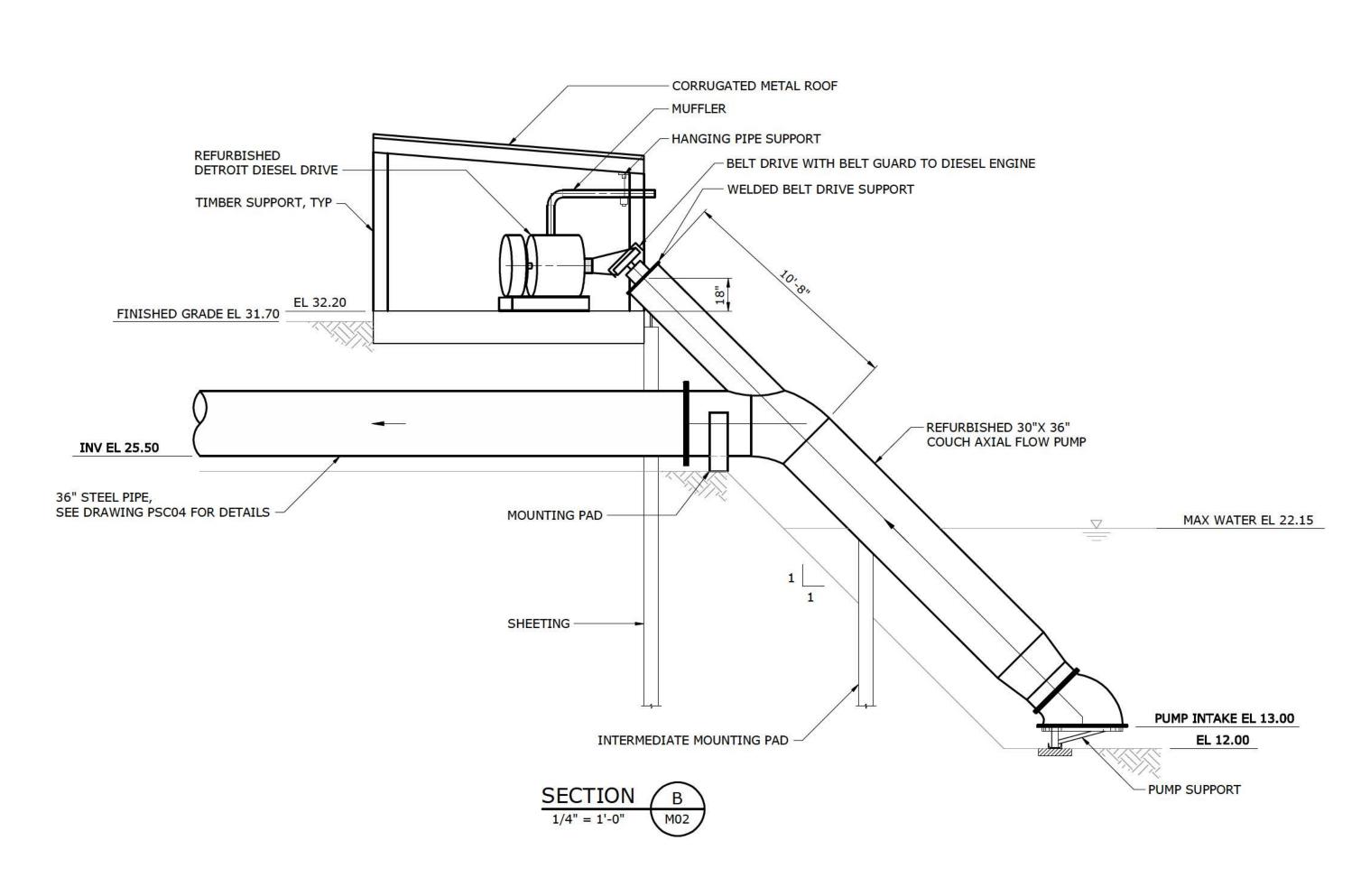
BLUEFIELD PUMP STATION NO. 2
MECHANICAL
PLAN AND SECTION

	DATE:	FEBI	RUARY	2017
)	HAZEN I	NO.:	45529	9-009
_	CONTRA	ACT NO.	:	1

DRAWING NUMBER:

- REFURBISH EXISTING 36" AXIAL FLOW COUCH PUMP, SERIAL No 2865. SEE DRAWING PSC02 FOR DETAILS.
- REFURBISH EXISTING DETROIT DIESEL DRIVE, SERIAL No 8569010, SEE DRAWING PSC02 FOR DETAILS.
- 3. SEE STRUCTURAL DRAWINGS FOR DETAILS ON SHEETING AND BUILDING. NOT INCLUDED IN 50% SET
- 4. MOUNT OIL RESERVOIR TO SHEETING. SEE STRUCTURAL DETAILS. NOT INCLUDED IN 50% SET
- CONTRACTOR TO ADJUST THIS DIMENSION TO COORDINATE WITH PUMP SPECIFIC BELT LENGTH.
- CONTRACTOR TO COORDINATE EXACT DIMENSION PER PUMP MANUFACTURER.





1 0 1 2 3 7

				PROJECT ENGINEER:	R.B.T.
				DESIGNED BY:	F.R.H.
				DRAWN BY:	K.E.W.
781				CHECKED BY:	J.C.K.
				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING	1/2" 1"
REV	ISSUED FOR	DATE	BY	IS NOT TO FULL SCALE	

PRELIMINARY DRAWING
DO NOT USE FOR
CONSTRUCTION

HAZEN AND SAWYER
2101 CORPORATE BOULEVARD, SUITE 301
BOCA RATON, FLORIDA 33431
CERTIFICATE OF AUTHORIZATION No.: 2771

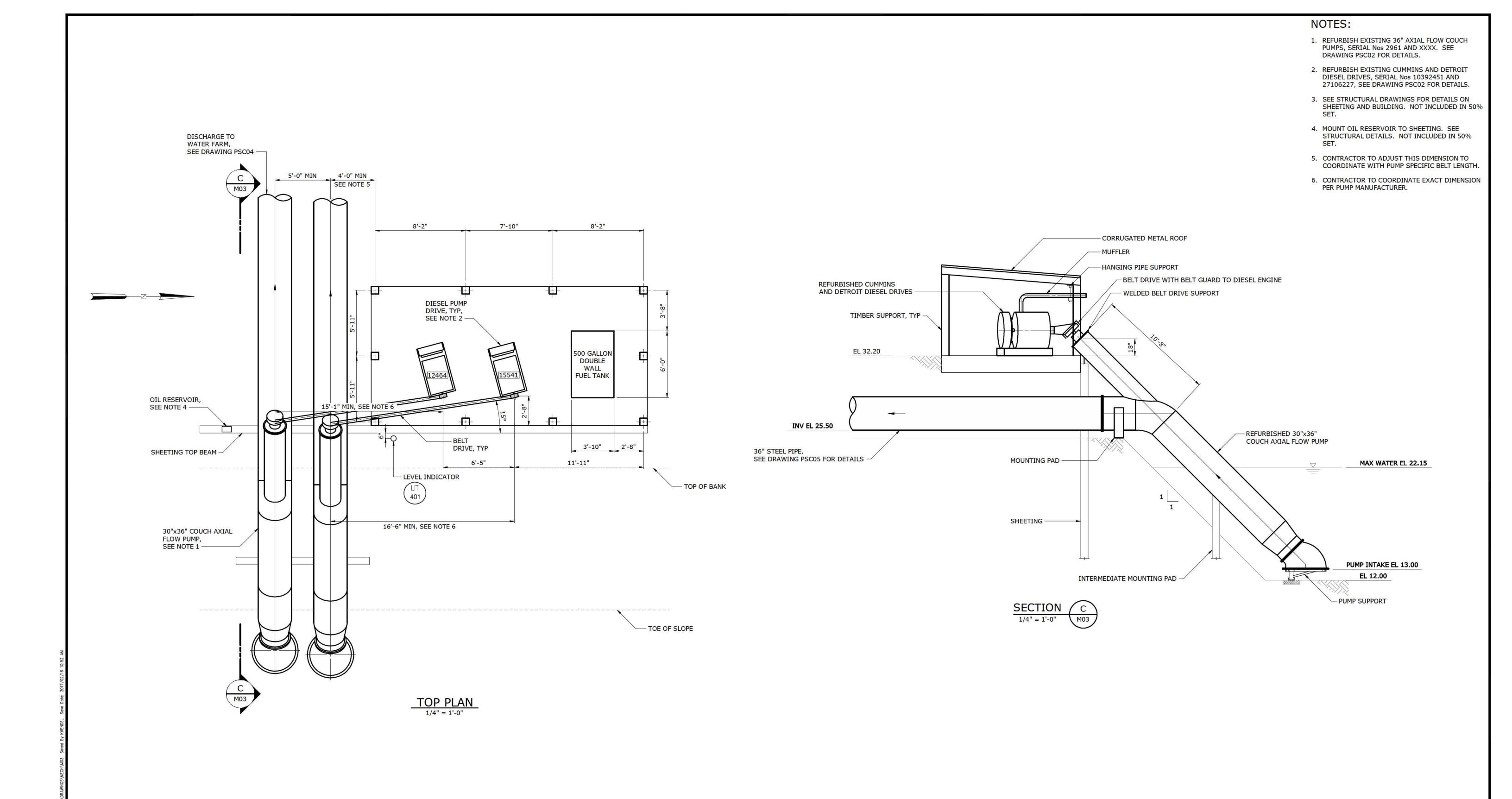
**EVANS PROPERTIES** 

BLUEFIELD GROVE WATER FARM DESIGN PARCEL MODIFICATIONS

BLUEFIELD PUMP STATION NO. 3
MECHANICAL
PLAN AND SECTION

DATE:	FEB	RUARY 2017
HAZEN I	NO.:	45529-009
CONTRA	ACT NO.:	1

DRAWING NUMBER: M02



WATER FAR				PROJECT ENGINEER:	R.B.T.
NEFIELD W				DESIGNED BY:	F.R.H.
-009 BLU				DRAWN BY:	K.E.W.
5/45529-				CHECKED BY:	J.C.K.
\PROJECTS\				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING	1/2" 1"
S REV	ISSUED FOR	DATE	BY	IS NOT TO FULL SCALE	

PRELIMINARY DRAWING DO NOT USE FOR CONSTRUCTION

Hazen HAZEN AND SAWYER
2101 CORPORATE BOULEVARD, SUITE 301
BOCA RATON, FLORIDA 33431
CERTIFICATE OF AUTHORIZATION No.: 2771

**EVANS PROPERTIES** 

BLUEFIELD GROVE WATER FARM DESIGN PARCEL MODIFICATIONS

BLUEFIELD PUMP STATION NO. 4 **MECHANICAL** PLAN AND SECTION

DATE:	FEBR	UARY	2017
HAZEN NO.:		45529-009	
CONTRA	ACT NO.:	1	1

DRAWING NUMBER: M03



ROOFING. SEE NOTE 4. EXISTING BELT GUARD.

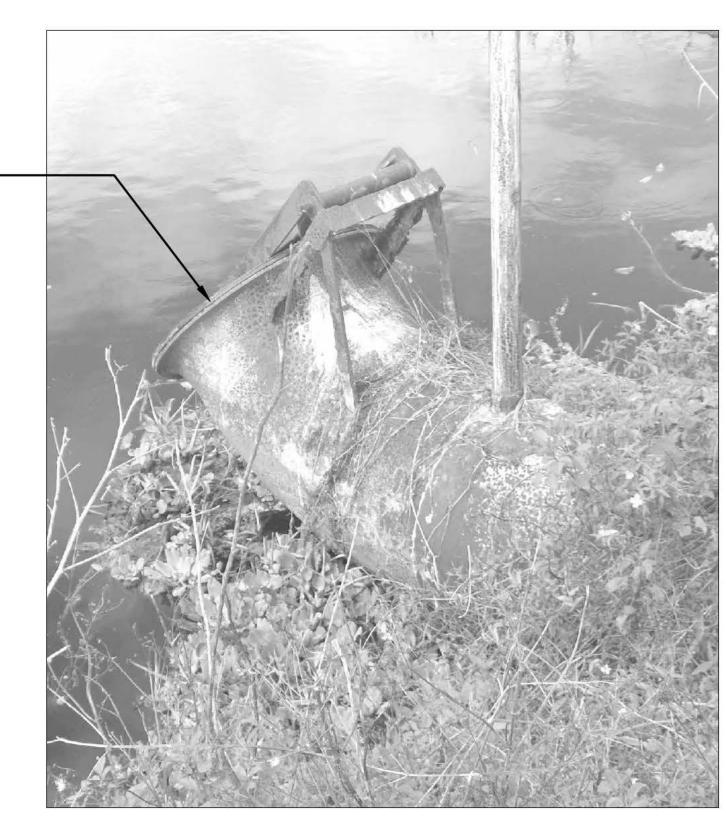
PHOTO 2

EXISTING DIESEL PUMP DRIVE. SEE NOTE 6. -HOUSEKEEPING PAD, SEE NOTE 3. —

- EXISTING DIESEL STORAGE TANK. SEE NOTE 7.

EXISTING DISCHARGE PIPE

AND FLAPGATE. SEE NOTE 8. -



# PHOTO 4

		1		PROJECT ENGINEER:	R.B.T.
				DESIGNED BY:	F.R.H.
				DRAWN BY:	K.E.W.
				CHECKED BY:	J.C.K.
				IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING	1/2" 1"
REV	ISSUED FOR	DATE	BY	IS NOT TO FULL SCALE	

PRELIMINARY DRAWING DO NOT USE FOR CONSTRUCTION

PHOTO 3

Hazen HAZEN AND SAWYER
2101 CORPORATE BOULEVARD, SUITE 301
BOCA RATON, FLORIDA 33431
CERTIFICATE OF AUTHORIZATION No.: 2771

**EVANS PROPERTIES** 

BLUEFIELD GROVE WATER FARM DESIGN PARCEL MODIFICATIONS

BLUEFIELD BLOCK B-1 **MECHANICAL** PHOTO ILLUSTRATIONS

DATE: FEBRUARY 201				
HAZEN N	IO.:	4552	9-009	
CONTRAC	CT NO.:	81	5	
DRAWING NUMBER				

M04

NOTES:

- EXISTING METAL

RECOAT EXISTING 70-FOOT LONG SHEETING SYSTEM. SEE PSC02 FOR DETAILS. NOT INCLUDED IN 50% EDSIGN.

2. REFURBISH EXISTING 26"X 30" COUCH AXIAL FLOW PUMP, SERIAL NO. 7634200. SEE PSCO2 FOR DETAILS. EXTEND PUMP HOOD IN ELEVATION BY 3'-8", APPROXIMATELY 5'-3" IN LENGTH.

3. CONSTRUCT 3'-8" HIGH EQUIPMENT PAD UNDER EXISTING DIESEL PUMP DRIVE. SEE STRUCTURAL DRAWINGS FOR DETAILS. NOT INCLUDED IN 50% DESIGN.

4. REPLACE EXISTING METAL ROOFING. SEE STRUCTURAL DRAWINGS FOR DETAILS. NOT INCLUDED IN 50% DESIGN.

RECOAT EXISTING BELT GUARD. SEE PSC02 FOR DETAILS. NOT INCLUDED IN 50% DESIGN.

REFURBISH EXISTING DEUTZ DIESEL PUMP DRIVE, SERIAL NO. F6L513R. SEE PSC02 FOR DETAILS.

7. REPLACE EXISTING 500 GALLON DIESEL STORAGE TANK. CONSTRUCT 3'-8" HIGH EQUIPMENT PAD UNDER NEW STORAGE TANK. SEE PSC02 AND STRUCTURAL DRAWINGS FOR DETAILS. NOT INCLUDED IN 50% DESIGN.

8. RECOAT EXISTING STEEL DISCHARGE PIPE WHERE EXPOSED. REHAB EXISTING DISCHARGE PIPING. REPLACE EXISTING FLAP GATE. SEE PSC02 FOR DETAILS. NOT INCLUDED IN 50% DESIGN.

MODIFY BUILDING SCREENING TO ACCOMMODATE REVISED ENTRY OF BELT AND GUARD.