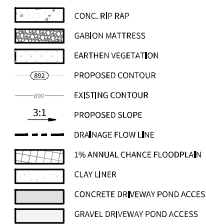




# LEGEND

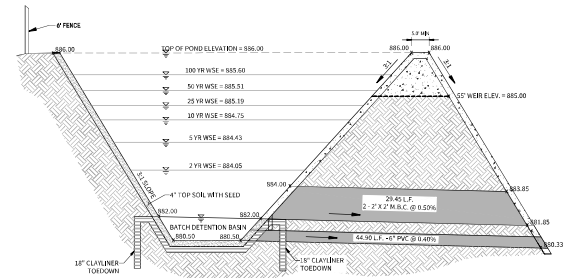


## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

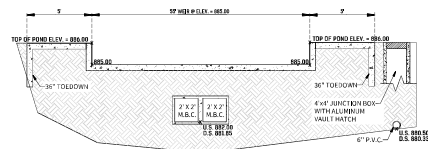
1. TSS REMOVAL REQUIRED BY APPLICABLE ORDINANCE & RG 348 FOR THIS SITE LOCATION = 80% = 1,472 LBS
2. PROVIDED WATER QUALITY CAPTURE VOLUME = 16,589 CUBIC FEET
3. TSS REMOVAL PROVIDED BY THIS POND = 1,743 LBS
4. RAINFALL DEPTH WATER QUALITY TREATMENT PROVIDED = 1.60 INCHES
5. WATER QUALITY DRAWDOWN TIME:
  - a. 6" CAPACITY AT 0.40% SLOPED OUTFALL = 0.55 CFS
  - b. DRAWDOWN TIME = 16,589 CF / 0.55 CFS = 8.36 HOURS

## SEQUENCE OF OPERATION

1. UPON ACTIVATION OF FLOAT SWITCH, DDC CONTROLLER TO START DETENTION TIMER #1.
2. DETENTION TIMER #1 TO BE MANUALLY SET TO 12 HOURS AND TO BE USER ADJUSTABLE.
3. WHEN DETENTION TIMER #1 HAS ELAPSED, A 6" BUTTERFLY VALVE IS TO OPEN AND RELEASE DETAINED WATER BASIN.
4. UPON DEACTIVATION OF FLOAT SWITCH, DDC CONTROLLER TO START DETENTION TIMER #2.
5. DETENTION TIMER #2 TO BE MANUALLY SET TO 24 HOURS AND TO BE USER ADJUSTABLE.
6. WHEN DETENTION TIMER #2 HAS ELAPSED, THE 6" BUTTERFLY VALVE IS TO CLOSE.
7. VALVE TO BE ACTIVATED PERIODICALLY TO SHOW ACTIVE REGARDLESS OF FLOAT SWITCH OPERATION.



SECTION A-A  
N.T.S.



SECTION B-B  
N.T.S.

## BASIN DESIGN DATA

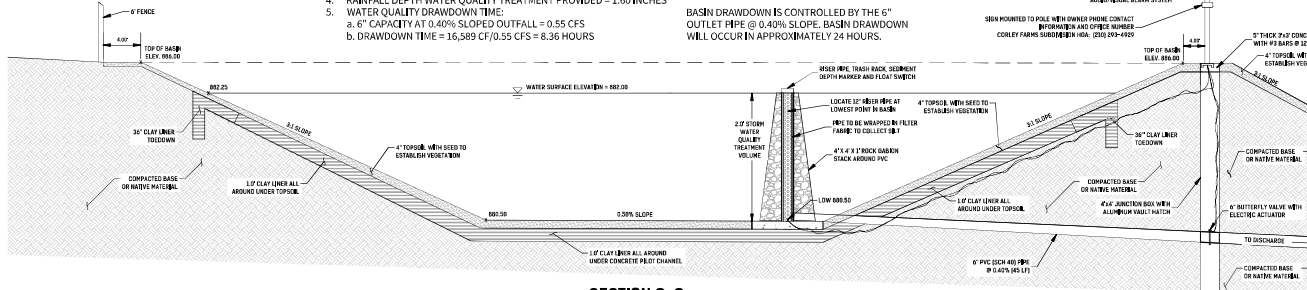
BASIN WATERSHED: 10.60 AC. (462,026 SF)  
DESIGN WATER SURFACE ELEV. = 882.25'  
TOP OF CLAY LINER ELEVATION = 880.50'  
WATER QUALITY STORAGE DEPTH = 1.75 FEET

1. TSS REMOVAL REQUIRED BY APPLICABLE ORDINANCE & RG 348 FOR THIS SITE LOCATION = 80% = 1,472 LBS
2. PROVIDED WATER QUALITY CAPTURE VOLUME = 16,589 CUBIC FEET
3. TSS REMOVAL PROVIDED BY THIS POND = 1,743 LBS
4. RAINFALL DEPTH WATER QUALITY TREATMENT PROVIDED = 1.60 INCHES
5. WATER QUALITY DRAWDOWN TIME:
  - a. 6" CAPACITY AT 0.40% SLOPED OUTFALL = 0.55 CFS
  - b. DRAWDOWN TIME = 16,589 CF / 0.55 CFS = 8.36 HOURS

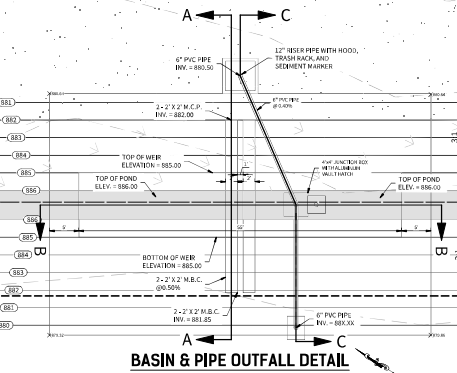
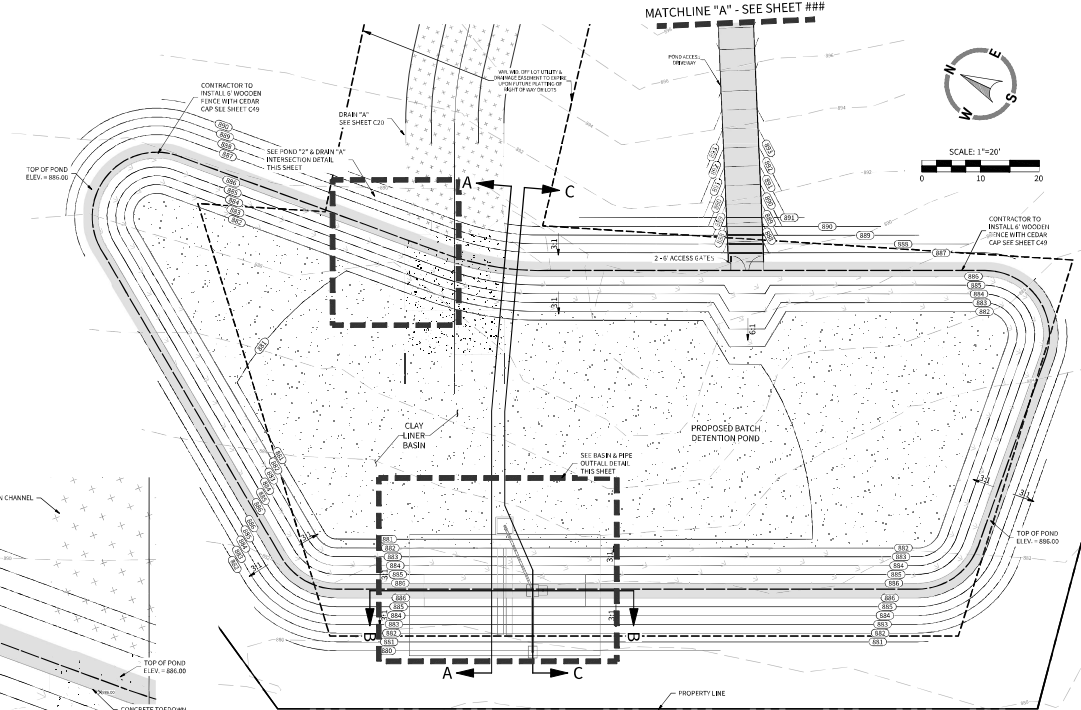
## POND "2" & DRAIN "A" INTERSECTION DETAIL

SCALE: 1" = 10'

BASIN DRAWDOWN IS CONTROLLED BY THE 6" OUTLET PIPE @ 0.40% SLOPE. BASIN DRAWDOWN WILL OCCUR IN APPROXIMATELY 24 HOURS.

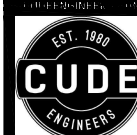
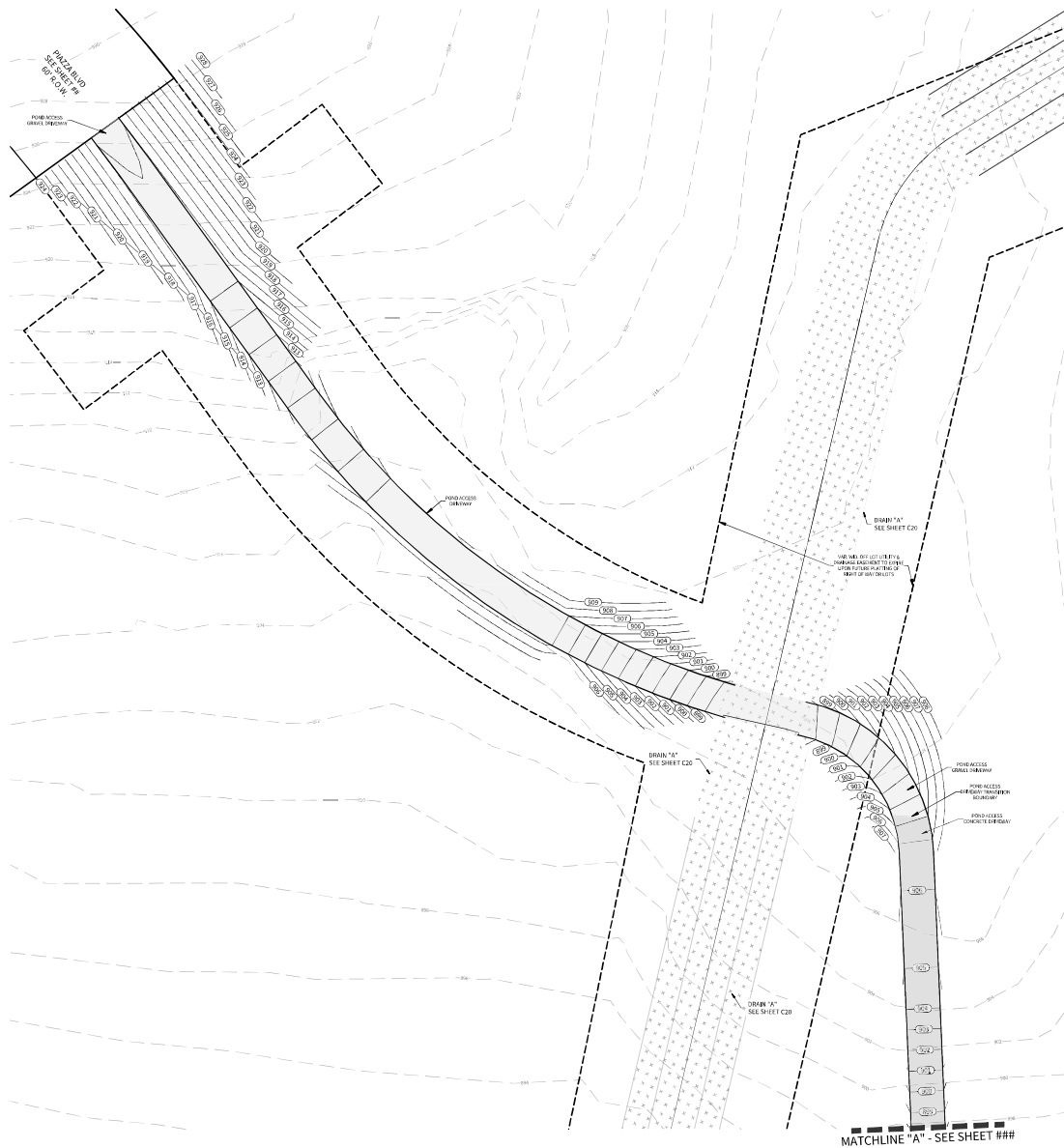


SECTION C-C  
N.T.S.



BASIN & PIPE OUTFALL DETAIL  
SCALE: 1" = 10'

LEGEND	
	CONC. RIP RAP
	GABION MATTRESS
	EARTHEN VEGETATION
	PROPOSED CONTOUR
	EXISTING CONTOUR
	PROPOSED SLOPE
	DRAINAGE FLOW LINE
	1% ANNUAL CHANCE FLOODPLAIN
	CLAY LINER
	CONCRETE DRIVEWAY POND ACCESS
	GRAVEL DRIVEWAY POND ACCESS



4122 Pond Hill Road, Suite 101  
San Antonio, Texas 78231  
P: (210) 681.2951 F: (210) 523.7112

**CONTESSA SUBDIVISION  
UNIT 1**

```
## ## ## ## ## ## ## ## ## ## ## ## ## ## ## ## ## ## ## ## ## ## ##
```

DATE  
06/09/2025  
PROJECT NO.  
04343.002  
DRAWN BY  
CG/JG/LJ/TCD  
CHECKED BY  
XV/AL

DATE	REVISIONS
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	



**CUDE ENGINEERS**  
TBPE No. 455  
TBPLS No. 10048500

**C44**

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## ## ## ## ## ## ## ## ## ## ## ## ## ## ## ## ## ## ## ## ## ## ##
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## REVISIONS

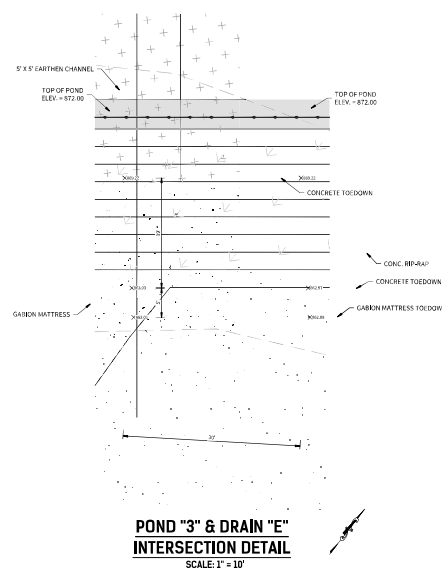
DATE \_\_\_\_\_

THIS DOCUMENT  
IS RELEASED FOR THE  
PURPOSE OF ~~FOIA~~ REVIEW  
ONLY UNDER THE AUTHORITY OF  
JMW/PC/CASTELLO, P.E. 202210  
05/09/2025  
IT IS NOT TO BE USED FOR

**CUDE ENGINEERS**  
TBPE No. 455  
TBPLS No. 10048500

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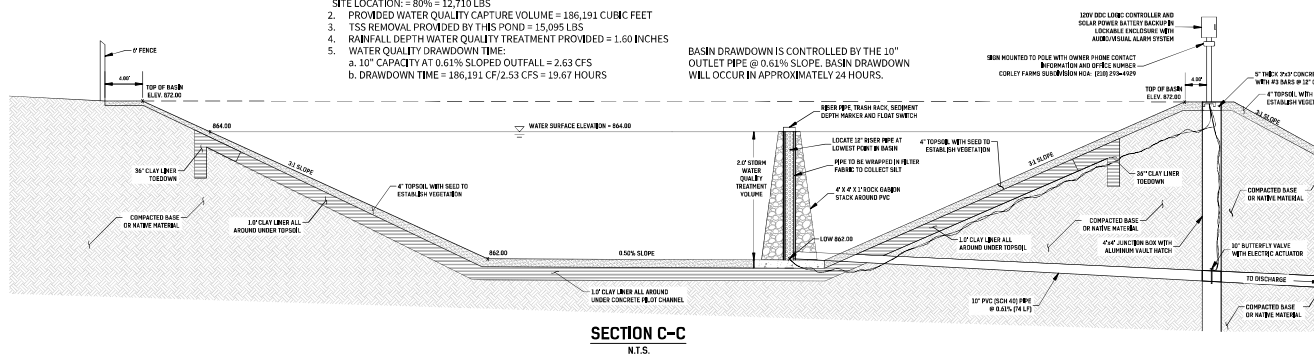
2000年12月10日 星期一



BASIN WATERSHED: 40.53 AC. (1,765,395 SF)  
DESIGN WATER SURFACE ELEV. = 867.50'  
TOP OF CLAY LINER ELEVATION = 862.00'  
WATER QUALITY STORAGE DEPTH = 5.50 FEET

1. TSS REMOVAL REQUIRED BY APPLICABLE ORDINANCE & RG 348 FOR THIS SITE LOCATION: = 80% = 12,710 LBS
2. PROVIDED WATER QUALITY CAPTURE VOLUME = 186,191 CUBIC FEET
3. TSS REMOVAL PROVIDED BY THIS POND = 15,095 LBS
4. RAINFALL DEPTH WATER QUALITY TREATMENT PROVIDED = 1.60 INCHES
5. WATER QUALITY DRAWDOWN TIME:
  - a. 10" CAPACITY AT 0.61% SLOPED OUTFALL = 2.63 CFS
  - b. DRAWDOWN TIME = 186,191 CF / 2.53 CFS = 19.67 HOURS

BASIN DRAWDOWN IS CONTROLLED BY THE 10" OUTLET PIPE @ 0.61% SLOPE. BASIN DRAWDOWN WILL OCCUR IN APPROXIMATELY 24 HOURS.



**SECTION C-C**  
N.T.S.



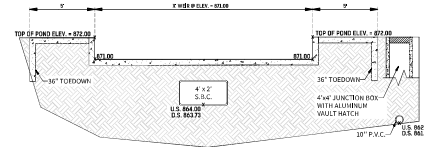
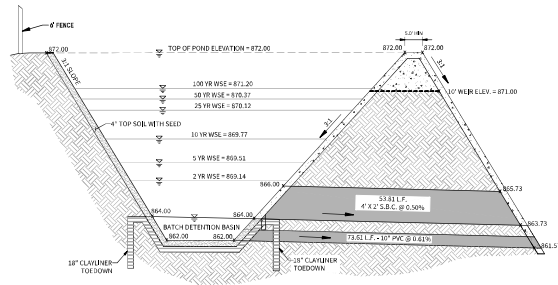
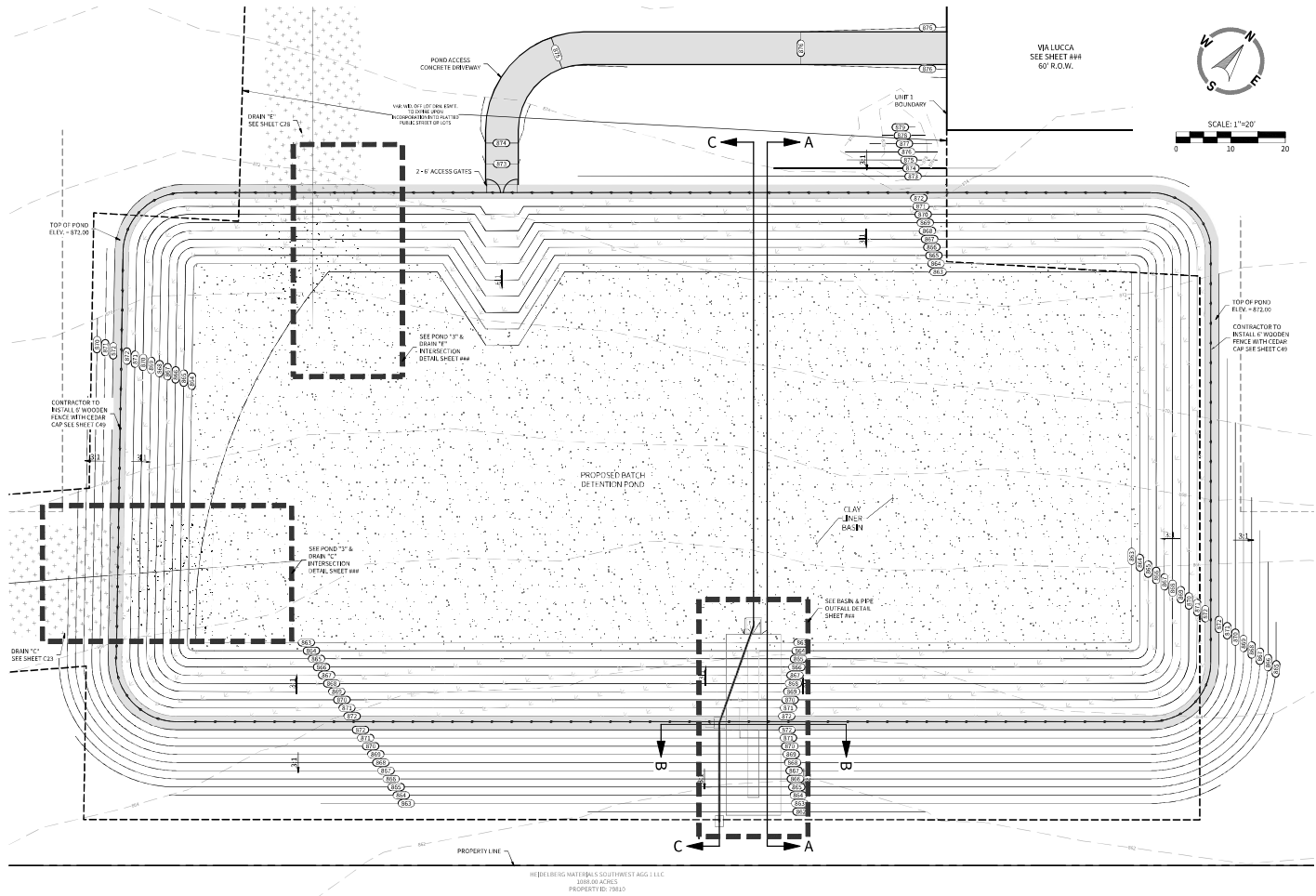
- LEGEND
- CONC. RIP RAP
  - GABION MATTRESS
  - EARTHEN VEGETATION
  - PROPOSED CONTOUR
  - EXISTING CONTOUR
  - PROPOSED SLOPE
  - DRAINAGE FLOW LINE
  - 1% ANNUAL CHANCE FLOODPLAIN
  - CLAY LINER
  - CONCRETE DRIVEWAY POND ACCESS
  - GRAVEL DRIVEWAY POND ACCESS

### TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

- TSS REMOVAL REQUIRED BY APPLICABLE ORDINANCE & RG 348 FOR THIS SITE LOCATION:  
= 80% = 12,710 LBS
- PROVIDED WATER QUALITY CAPTURE VOLUME = 186,191 CUBIC FEET
- TSS REMOVAL PROVIDED BY THIS POND = 13,095 LBS
- RAINFALL DEPTH WATER QUALITY TREATMENT PROVIDED = 2.60 INCHES
- WATER QUALITY DRAWDOWN TIME:  
a. 10" CAPACITY AT 0.61% SLOPED OUTFALL = 2.63 CFS  
b. DRAWDOWN TIME = 186,191 CF / 2.63 CFS = 19.67 HOURS

### SEQUENCE OF OPERATION

- UPON ACTIVATION OF FLOAT SWITCH, DDC CONTROLLER TO START DETENTION TIMER #1.
- DETENTION TIMER #1 TO BE MANUALLY SET TO 12 HOURS AND TO BE USER ADJUSTABLE VALUE.
- WHEN DETENTION TIMER #1 HAS ELAPSED, A 10" BUTTERFLY VALVE IS TO OPEN AND RELEASE DETAINED WATER BASIN.
- UPON DEACTIVATION OF FLOAT SWITCH, DDC CONTROLLER TO START DETENTION TIMER #2.
- DETENTION TIMER #2 TO BE MANUALLY SET TO 24 HOURS AND TO BE USER ADJUSTABLE.
- WHEN DETENTION TIMER #2 HAS ELAPSED, THE 10" BUTTERFLY VALVE IS TO CLOSE.
- VALVE TO BE ACTIVATED PERIODICALLY TO SHOW ACTIVE REGARDLESS OF FLOAT SWITCH OPERATION.



EST. 1980  
**CUDE ENGINEERS**  
4122 Fossil Hill Road, Suite 301  
San Antonio, Texas 78231  
PH: (210) 681-2951 F: (210) 523-7112

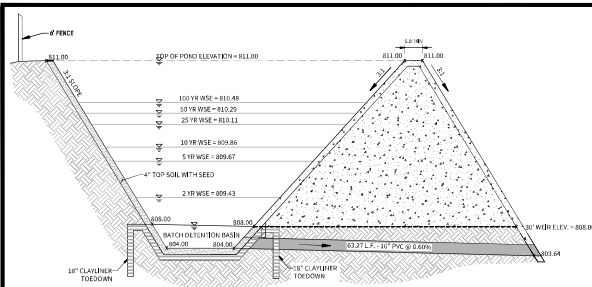
CONTESSA SUBDIVISION  
UNIT 1

DATE  
06/09/2025  
PROJECT NO.  
04343.002  
DRAWN BY  
CG/JG/LJ/TCD  
CHECKED BY  
XV/AL

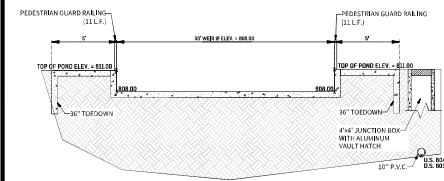
REVISIONS
DATE
DESCRIPTION

CUDE ENGINEERS  
TOPS: 455  
TOPS: 455  
TOPS: 455

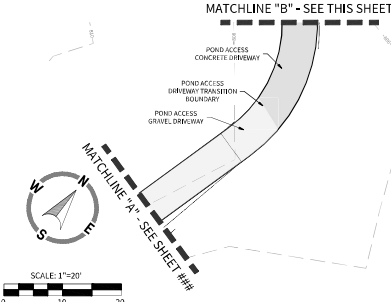
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**SECTION A-A**  
N.T.S.



**SECTION B-B**  
N.T.S.

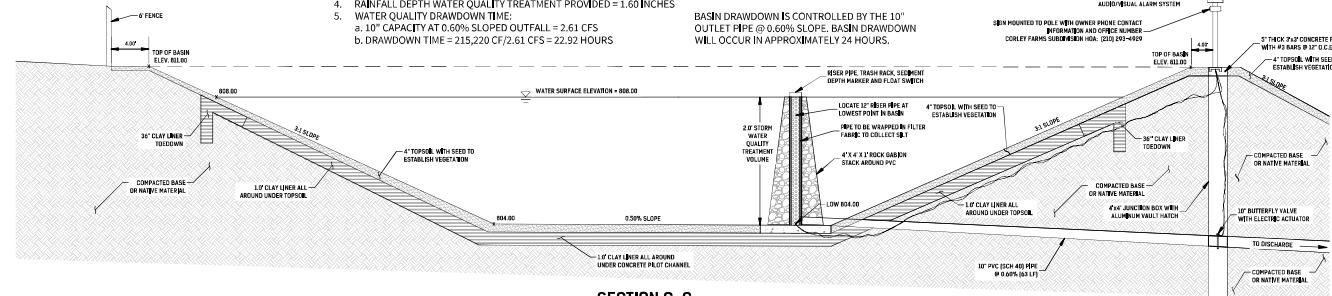


**BASIN DESIGN DATA**

BASIN WATERSHED: 80.07 AC. (3,487,843 SF)  
DESIGN WATER SURFACE ELEV. = 808.00'  
TOP OF CLAY LINER ELEVATION = 804.00'  
WATER QUALITY STORAGE DEPTH = 4.00 FEET

1. TSS REMOVAL REQUIRED BY APPLICABLE ORDINANCE & RG 348 FOR THIS SITE LOCATION = 80% = 10,942 LBS
2. PROVIDED WATER QUALITY CAPTURE VOLUME = 215,220 CUBIC FEET
3. TSS REMOVAL PROVIDED BY THIS POND = 13,720 LBS
4. RAINFALL DEPTH WATER QUALITY TREATMENT PROVIDED = 1.60 INCHES
5. WATER QUALITY DRAWDOWN TIME:
  - a. 10' CAPACITY AT 0.60% SLOPED OUTFALL = 2.61 CFS
  - b. DRAWDOWN TIME = 215,220 CF / 2.61 CFS = 22.92 HOURS

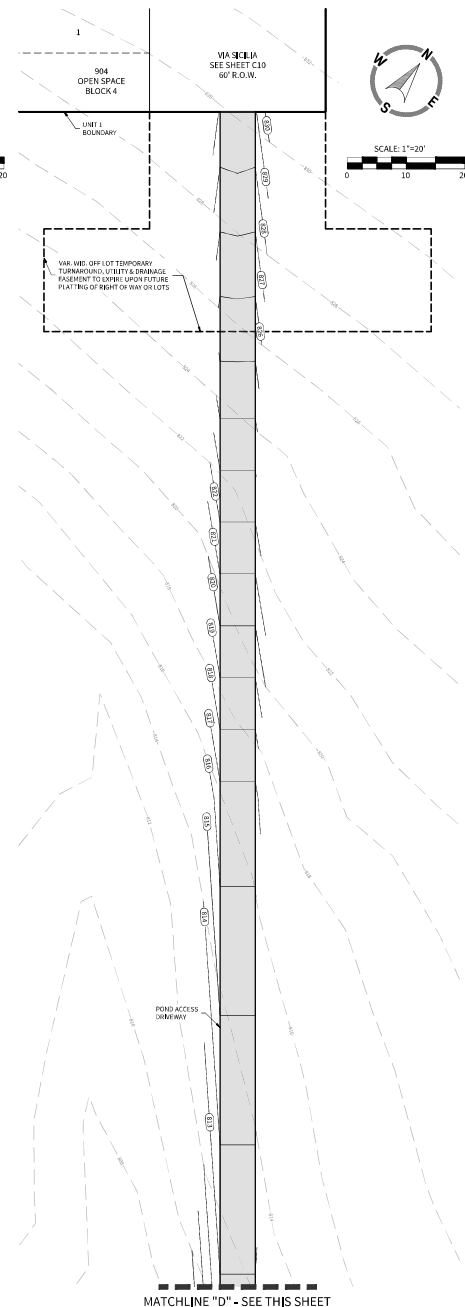
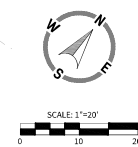
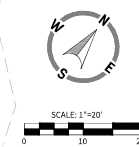
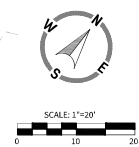
BASIN DRAWDOWN IS CONTROLLED BY THE 10" OUTLET PIPE @ 0.60% SLOPE. BASIN DRAWDOWN WILL OCCUR IN APPROXIMATELY 24 HOURS.



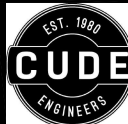
**SECTION C-C**  
N.T.S.

MATCHLINE "C" - SEE THIS SHEET

MATCHLINE "D" - SEE THIS SHEET



MATCHLINE "D" - SEE THIS SHEET



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ENGINEERS

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**UNIT 1**

#####

DATE	REVISIONS
06/09/2025	

**PROJECT NO.**  
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XV/AL

**CUDE ENGINEERS**  
TPOE No. 455  
TPOE No. 455

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