CITY OF CALLAWAY BOARD OF COMMISSIONERS
TUESDAY, JULY 8, 2025 – 6:00 P.M.
CALLAWAY ARTS & CONFERENCE CENTER
500 CALLAWAY PARK WAY
CALLAWAY, FL 32404

MAYOR
PAMN HENDERSON

COMMISSIONERS
SCOTT DAVIS
DAVID GRIGGS
BOB PELLETIER
KENNETH AYERS, JR.

KEVIN OBOS, CITY ATTORNEY | KEITH "EDDIE" COOK, CITY MANAGER | ASHLEY ROBYCK, CITY CLERK

REGULAR MEETING
AGENDA

CALL TO ORDER
INVOCATION & PLEDGE OF ALLEGIANCE
ROLL CALL
PRESENTATION

- **Presentation** BCSO-June Statistics Deputy Kip McKenzie
- **Yard of the Month** July 2025 William & Haley Wilkins
- **Proclamation** ADA Anniversary

MAYOR'S INSTRUCTIONS - Call for Additions/Deletions to the Agenda.

PUBLIC PARTICIPATION

- Speakers must come to the podium to be heard.
- Public Participation will be heard at the end of Commission discussion. for each item and at the end of the meeting for non-agenda items.
- Comments are limited to three (3) minutes.

APPROVAL OF MINUTES

- **June 24, 2025** Regular Meeting

REGULAR AGENDA

1. **TRIM Notice** FY2025/26 Max Millage
2. **Discussion** Utility Billing Shut Off Dates
3. **Budget Hearings** Setting of Workshops and Hearing Dates
4. **Information** Water & Sewer lines for new subdivision on Hwy 2297
5. **Discussion** Water & Sewer Rate Increases from Bay County

COMMISSION/STAFF COMMENTS

ANNOUNCEMENTS

All meetings will be held at the Callaway Arts & Conference Center, 500 Callaway Park Way, Callaway, FL, unless otherwise noted.

- **July 15, 2025** **Planning Board Meeting** **6:00 p.m.**
- **July 17, 2025** **Historical Society** **5:30 p.m.**
- **July 22, 2025** **Commission Meeting** **6:00 p.m.**

PUBLIC PARTICIPATION

ADJOURNMENT

Ashley Robyck, City Clerk

PURSUANT TO FLORIDA STATUTE 286.0105: Any person who decides to appeal any decision made at a meeting(s) announced in this notice with respect to any matter considered at such meeting(s) will need a record of the proceedings and for such purpose may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based. Any person requiring a special accommodation at this meeting because of a disability or physical impairment should contact Callaway's City Clerk, at 6601 E. Highway 22, Callaway, FL 32404; or by phone at (850) 871-6000 at least five calendar days prior to the meeting.

If you are hearing or speech impaired, and you possess TDD equipment, you may contact the City Clerk using the Florida Dual Party Relay System, which can be reached at 1-800-955-8770 (Voice) or 1-800-955-7661 (TDD).

BAY COUNTY
SHERIFF'S OFFICE
Sheriff Tommy Ford

MONTHLY ACTIVITY LIST
May 2025

Accidents:	41	Citations:	86
Arrests:	37	Miles Patrolled:	24,285
Calls for Service:	957	Traffic Stops:	134

2025 ANNUAL TOTALS

	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	12-Month Annual Totals	12-Month Monthly Average
Accidents	33	19	33	33	46	41							205	**34**
Arrests	40	41	45	52	51	37							266	**44**
Calls for Service	932	929	1,135	1,130	1,077	957							6,160	**1,027**
Citations	81	70	139	97	90	86							563	**94**
Miles Patrolled	22,796	17,963	24,461	32,159	23,845	24,285							145,509	**24,252**
Traffic Stops	126	102	206	185	140	134							893	**149**

Feburary Stats are not accurate due to the installation of a new computer program

CITY OF CALLAWAY

YARD OF THE MONTH

The City Commission for the City of Callaway, Florida, recognizes and honors

William & Haley Wilkins

for improvements and beautification to their property, with the
"Yard of the Month" Award for July 2025.

PRESENTED THIS 8TH DAY OF JULY 2025.

MAYOR

CITY MANAGER

252

City of Callaway
Proclamation

Whereas, on July 26, 1990, President George H.W. Bush signed into law the americans with Disabilities Act (ADA) to ensure the civil rights of people with disabilities; and

Whereas, the ADA has expanded opportunities for Americans with disabilities by reducing barriers and changing perceptions, and increasing full participation in community life; and

Whereas, we as the City of Callaway Commissioners established a clear and comprehensive national mandate for the elimination of discrimination against individuals with disabilities; and

Whereas, We celebrate and recognize the progress that has been made by reaffirming the principles of equality and inclusion and recommitting our efforts to reach full ADA compliance;

Now, Therefore, Be It Proclaimed, I, Pamn Henderson, Mayor of the City of Callaway, Florida, reaffirms to continue to work toward full ADA compliance on their 35th Anniversary

In Witness Whereof, I have hereunto set my hand and caused the Official Seal of the City of Callaway, Florida to be affixed this 8th day of July 2025.

City of Callaway, Florida

Attested:_____
Ashley Robyck, City Clerk

By: _____
Pamn Henderson, Mayor

CITY OF CALLAWAY
BOARD OF COMMISSIONERS
REGULAR MEETING MINUTES
JUNE 24, 2025– 6:00 P.M.

The City of Callaway Commission met in a Regular Session on June 24, 2025. In attendance were Pamn Henderson, Mayor, David Griggs, Mayor Pro tem, and Commissioners, Bob Pelletier, and Kenneth Ayers. Commissioner Scott Davis was present by phone. Also in attendance were Eddie Cook, City Manager; Kevin Obos, City Attorney; Ashley Robyck, City Clerk; David Schultz, Director of Finance; Tim Legare, Director of Leisure Services; and David Joyner, Fire Chief.

The meeting was called to order by Mayor Henderson, followed by Invocation, the Pledge of Allegiance and roll call.

APPROVAL OF MINUTES

June 10, 2025 Regular Meeting

City Clerk Robyck advised that City Manager Cook's name was left off of the attendance but has been corrected.

Motion:
Motion made by Commissioner Griggs and seconded by Commissioner Ayers to approve the minutes of June 10, 2025 as amended. Motion carried unanimously.

Discussion ensued regarding collections balances and what we have received so far this year.

REGULAR AGENDA

Resolution 25-10 Nuisance Abatement Lien

City Attorney Obos read the resolution as follows:

RESOLUTION 25-10
A RESOLUTION OF THE CITY OF CALLAWAY, FLORIDA, APPROVING AMOUNTS TO BE LIENED ON CERTAIN PROPERTY WITHIN THE CITY, TO WIT: 306 S GAY AVE, FOR COSTS INCURRED IN THE ABATEMENT OF NUISANCES UPON SUCH PROPERTIES, AUTHORIZING THE APPROPRIATE OFFICERS OF THE CITY TO RECORD THE LIENS AND NOTIFY INTERESTED PARTIES OF SUCH LIENS, AND PROVIDING AN IMMEDIATELY EFFECTIVE DATE.

Commissioner Griggs asked if this is a tax lien. City Attorney Obos confirmed that if it is not paid it will go on the tax roll.

Commissioner Davis asked about the ownership of the property and what happens if it is not paid.

Mayor Henderson for public participation; there was none.

Motion:
Motion made by Commissioner Ayers and seconded by Commissioner Griggs to approve Resolution 25-10- Nuisance Abatement Lien. The motion carried unanimously upon roll-call vote.

Resolution 25-11- Personnel Manual Update- Drug Free Workplace Policy

City Attorney Obos read the resolution as follows:

RESOLUTION NO. 25-11

A RESOLUTION OF THE CITY OF CALLAWAY CITY COMMISSION REVISING THE CITY OF CALLAWAY PERSONNEL MANUAL, SECTION 3.08 DRUG FREE WORKPLACE POLICY; REPEALING ALL RESOLUTIONS OR PARTS THEREOF, WHICH ARE IN CONFLICT HEREWITH; AND PROVIDING AN EFFECTIVE DATE.

City Manager Cook advised that the current policy was not adequate and in need of replacement. This will replace the policy in its entirety.

Commissioner Griggs asked about the sixty-day grace period noted in the policy versus the resolution being effective today. City Attorney Obos and City Manager Cook addressed.

Mayor Henderson for public participation; there was none.

Motion:
Motion made by Commissioner Griggs and seconded by Commissioner Ayers to approve Resolution 25-11- Personnel Manual Update. The motion carried unanimously.

Change Order- Legislative Paving Construction- Roberts & Roberts

City Manager Cook advised this is to complete the project on the Boat Race Road Paving Project and expend the remaining funds. He advised that this will be reimbursed by the state.

Mayor Henderson for public participation;

Martin Vossler, 6303 Boat Race Road, stated that this may be coming from grants, but it is still taxpayer money. City Manager Cook addressed.

Motion:
Motion made by Commissioner Ayers and seconded by Commissioner Griggs to approve the Change Order for Legislative Paving Construction. The motion carried unanimously.

Change Order- Legislative Paving CEI- DRMP

City Manager Cook advised this is to complete the project after many change orders on the Boat Race Road Paving Project and expend the remaining funds.

Mayor Henderson for public participation; there was none.

Motion:
Motion made by Commissioner Ayers and seconded by Commissioner Pelletier to approve the Change Order for Legislative Paving CEI. The motion carried unanimously.

COMMISSION/STAFF COMMENTS – The following were points of discussion:

Pamn Henderson, Mayor

- Compliments on the Fishing Rodeo
- New Courthouse parking
- Appreciation to FPL contributions to the Community
- Habitat for Humanity event

David Griggs, Commissioner, Ward II

- Road striping on Hwy 22 & Berthe Ave

Bob Pelletier, Commissioner, Ward III

- Towers for Utility Billing
- Ditching on Highway 22

Kenneth Ayers Jr, Commissioner Ward IV

- Meeting with City Manager
- Bay Estuary meeting
- Gulf Water temperatures

Eddie Cook, City Manager

- Cherry Street update
- Cemetery Fence update
- Roundabout project update
- Beacon Point project update
- Lift Stations project update
- Sandy Creek update
- Hugh Thomas project update
- Solid Waste bid update
- Berthe Ave Sidewalks Design project update
- Sandy Creek Mono Pole for FlexNet

ANNOUNCEMENTS

Mayor Henderson read the announcements as follows:

• **July 1, 2025**	**Planning Board Meeting**	**6:00 p.m.**
• **July 4, 2025**	**4th of July Celebration**	**10:00 a.m.**
• **July 8, 2025**	**Commission Meeting**	**6:00 p.m.**

PUBLIC PARTICIPATION

Anna Pelletier 7724 Shadow Bay Dr, asked about the drainage at the cemetery and asked City Manager to explain why we are not able to align Berthe and Boat Race Road and need to do a round-a-bout instead. City Manager Cook advised.

Vera Banks, Lannie Rowe Dr, complimented the Fishing Rodeo, commented on the water debt, shrubs blocking the view while turning on Highway 98, the City's website, and the growth in Callaway and the need to look at evacuations in case of a hurricane.

Tim Brewer, Cherry Street. Commented on the label of "4th of July" instead of "Independence Day."

Ron Shaner, 5711 Kevin Cir, asked about water deposits going by your credit score instead of a flat rate and play areas for children at high density properties.

Teresa Langston, 6031 Lance St, asked if a payment was postmarked by the 15th if it would still be considered late or does it have to be received by the 15th and commented on the 10-day grace period. City Manager Cook addressed.

Martin Vossler 6303 Boat Race Road, commented on the amount of rainfall and asked why we are spending money watering the new landscaping on Tyndall Parkway and the sidewalk going on Berthe Ave & the effect on citizen's property and the round-a-bout.

ADJOURNMENT

There being no further business, the meeting was adjourned at 7:11 p.m.

Attest: _____
Ashley Robyck, City Clerk

_____
Pamn Henderson, Mayor

Agenda Item # 1

CITY OF CALLAWAY
BOARD OF COMMISSIONERS
AGENDA ITEM SUMMARY

DATE: JULY 08, 2025

ITEM: CERTIFICATION OF MAXIMUM AD VALOREM TAX/MILLAGE RATE – FY 25/26

1. PLACED ON AGENDA BY:

EDDIE COOK, CITY MANAGER

AND

DAVID SCHULTZ, DIRECTOR OF FINANCE

2. AGENDA:

PRESENTATION ☐
PUBLIC HEARING ☐
OLD BUSINESS ☐
REGULAR ☒

3. IS THIS ITEM BUDGETED (IF APPLICABLE)?: YES ☐ NO ☐

N/A

4. BACKGROUND: (WHY, WHAT, WHO, WHERE, WHEN, HOW, & IDENTIFY ALL ATTACHMENTS)

Each year the City is required to certify the maximum millage rate with the Property Appraiser. The table below represents the TY25 Ad Valorem Tax Summary. The maximum millage rate is set as a benchmark; the Commission will have the ability to lower, but not exceed the maximum millage rate established. A summary of the current and alternative rates is shown below:

Ad Valorem Tax Summary			
Estimate of Taxable Property Values provided by Bay County Property Appraiser			$1,020,514,371
Estimate of Taxable Property Values provided by Bay County Property Appraiser at 95%			$969,488,652
Increment Value dedicated to CRA			$165,628,097
Adjusted Value for General Fund			$812,141,960
		Estimated Revenue @ 95%	**Increase over 2025**
At FY25 Rate:	2.7500	$ 2,666,094	$251,522
Alternative Rates:			**Revenue Difference**
Fiscal Year 2025 Rate	2.7500	$ 2,666,094	$ 0
Current Year ROLL BACK Rate	2.6981	$ 2,615,777	$ (50,316)
Staff Recommended Rate	2.9900	$ 2,898,771	$ 232,677
Adjusted Roll Back based on prior year	4.0275	$ 3,904,616	$ 1,238,522
MAJORITY Vote Required – Maximum	4.2091	$ 4,080,675	$ 1,414,581
2/3 Vote Required – Maximum	4.6300	$ 4,488,732	$ 1,822,639

Attachment(s):

- Form DR-420 – Certification of Taxable Value 2025
- Form DR-420MM-P – Maximum Millage Levy Calculation, Preliminary Disclosure
- Form DR-420TIF – Tax Increment Adjustment Worksheet

5. REQUESTED MOTION/ACTION: Staff requests approval of the Millage Rate to be increased to 2.9900 for the final rate for FY2026 Budget.

FLORIDA Department of Revenue

CERTIFICATION OF TAXABLE VALUE

DR-420
R. 5/12
Rule 12D-16.002
Florida Administrative Code
Effective 11/12

Year : 2025	County : Bay
Principal Authority : City of Callaway	Taxing Authority : City of Callaway - Operating

SECTION I : COMPLETED BY PROPERTY APPRAISER

1.	Current year taxable value of real property for operating purposes	$ 967,845,847			(1)
2.	Current year taxable value of personal property for operating purposes	$ 52,668,524			(2)
3.	Current year taxable value of centrally assessed property for operating purposes	$ 0			(3)
4.	Current year gross taxable value for operating purposes *(Line 1 plus Line 2 plus Line 3)*	$ 1,020,514,371			(4)
5.	Current year net new taxable value (Add new construction, additions, rehabilitative improvements increasing assessed value by at least 100%, annexations, and tangible personal property value over 115% of the previous year's value. Subtract deletions.)	$ 21,485,081			(5)
6.	Current year adjusted taxable value *(Line 4 minus Line 5)*	$ 999,029,290			(6)
7.	Prior year FINAL gross taxable value from prior year applicable Form DR-403 series	$ 954,640,289			(7)
8.	Does the taxing authority include tax increment financing areas? If yes, enter number of worksheets (DR-420TIF) attached. If none, enter 0	☑ YES	☐ NO	Number 1	(8)
9.	Does the taxing authority levy a voted debt service millage or a millage voted for 2 years or less under s. 9(b), Article VII, State Constitution? If yes, enter the number of DR-420DEBT, *Certification of Voted Debt Millage* forms attached. If none, enter 0	☐ YES	☑ NO	Number 0	(9)

SIGN HERE	**Property Appraiser Certification**	I certify the taxable values above are correct to the best of my knowledge.
	Signature of Property Appraiser: Electronically Certified by Property Appraiser	Date : 6/30/2025 12:28:08 PM

SECTION II : COMPLETED BY TAXING AUTHORITY

If this portion of the form is not completed in FULL your taxing authority will be denied TRIM certification and possibly lose its millage levy privilege for the tax year. If any line is not applicable, enter -0-.

10.	Prior year operating millage levy *(If prior year millage was adjusted then use adjusted millage from Form DR-422)*	2.7500 per $1,000	(10)
11.	Prior year ad valorem proceeds *(Line 7 multiplied by Line 10, divided by 1,000)*	$ 2,625,261	(11)
12.	Amount, if any, paid or applied in prior year as a consequence of an obligation measured by a dedicated increment value *(Sum of either Lines 6c or Line 7a for all DR-420TIF forms)*	$ 376,692	(12)
13.	Adjusted prior year ad valorem proceeds *(Line 11 minus Line 12)*	$ 2,248,569	(13)
14.	Dedicated increment value, if any *(Sum of either Line 6b or Line 7e for all DR-420TIF forms)*	$ 165,628,097	(14)
15.	Adjusted current year taxable value *(Line 6 minus Line 14)*	$ 833,401,193	(15)
16.	Current year rolled-back rate *(Line 13 divided by Line 15, multiplied by 1,000)*	2.6981 per $1000	(16)
17.	Current year proposed operating millage rate	2.7500 per $1000	(17)
18.	Total taxes to be levied at proposed millage rate *(Line 17 multiplied by Line 4, divided by 1,000)*	$ 2,806,415	(18)

Continued on page 2

19.	TYPE of principal authority (check one)	☐ County ☑ Municipality	☐ Independent Special District ☐ Water Management District	(19)
20.	Applicable taxing authority (check one)	☑ Principal Authority ☐ MSTU	☐ Dependent Special District ☐ Water Management District Basin	(20)
21.	Is millage levied in more than one county? (check one)	☐ Yes	☑ No	(21)

DEPENDENT SPECIAL DISTRICTS AND MSTUs STOP **STOP HERE - SIGN AND SUBMIT**

22.	Enter the total adjusted prior year ad valorem proceeds of the principal authority, all dependent special districts, and MSTUs levying a millage. *(The sum of Line 13 from all DR-420 forms)*	$ 2,248,569	(22)
23.	Current year aggregate rolled-back rate *(Line 22 divided by Line 15, multiplied by 1,000)*	2.6981 per $1,000	(23)
24.	Current year aggregate rolled-back taxes *(Line 4 multiplied by Line 23, divided by 1,000)*	$ 2,753,450	(24)
25.	Enter total of all operating ad valorem taxes proposed to be levied by the principal taxing authority, all dependent districts, and MSTUs, if any. *(The sum of Line 18 from all DR-420 forms)*	$ 2,806,415	(25)
26.	Current year proposed aggregate millage rate *(Line 25 divided by Line 4, multiplied by 1,000)*	2.7500 per $1,000	(26)
27.	Current year proposed rate as a percent change of rolled-back rate *(Line 26 divided by Line 23, **minus 1**, multiplied by 100)*	1.92 %	(27)

First public budget hearing	Date :	Time :	Place :

SIGN HERE

Taxing Authority Certification	I certify the millages and rates are correct to the best of my knowledge. The millages comply with the provisions of s. 200.065 and the provisions of either s. 200.071 or s. 200.081, F.S.	
Signature of Chief Administrative Officer :		Date :
Title :	Contact Name and Contact Title :	
Mailing Address :	Physical Address :	
City, State, Zip :	Phone Number :	Fax Number :

Instructions on page 3

FLORIDA DEPARTMENT OF REVENUE

MAXIMUM MILLAGE LEVY CALCULATION
PRELIMINARY DISCLOSURE

For municipal governments, counties, and special districts

DR-420MM-P
R. 5/12
Rule 12D-16.002
Florida Administrative Code
Effective 11/12

Year : 2025	County : Bay
Principal Authority : City of Callaway	Taxing Authority : City of Callaway - Operating

1.	Is your taxing authority a municipality or independent special district that has levied ad valorem taxes for less than 5 years?	☐ Yes	☑ No	(1)

IF YES, STOP *STOP HERE. SIGN AND SUBMIT. You are not subject to a millage limitation.*

2.	Current year rolled-back rate from Current Year Form DR-420, Line 16	2.6981 per $1,000	(2)
3.	Prior year maximum millage rate with a majority vote from *2023* Form DR-420MM, Line 13	3.9106 per $1,000	(3)
4.	Prior year operating millage rate from Current Year Form DR-420, Line 10	2.7500 per $1,000	(4)

If Line 4 is equal to or greater than Line 3, skip to Line 11. If less, continue to Line 5.

Adjust rolled-back rate based on prior year majority-vote maximum millage rate

5.	Prior year final gross taxable value from Current Year Form DR-420, Line 7	$ 954,640,289	(5)
6.	Prior year maximum ad valorem proceeds with majority vote ***(Line 3 multiplied by Line 5 divided by 1,000)***	$ 3,733,216	(6)
7.	Amount, if any, paid or applied in prior year as a consequence of an obligation measured by a dedicated increment value from Current Year Form DR-420 Line 12	$ 376,692	(7)
8.	Adjusted prior year ad valorem proceeds with majority vote ***(Line 6 minus Line 7)***	$ 3,356,524	(8)
9.	Adjusted current year taxable value from Current Year form DR-420 Line 15	$ 833,401,193	(9)
10.	Adjusted current year rolled-back rate ***(Line 8 divided by Line 9, multiplied by 1,000)***	4.0275 per $1,000	(10)

Calculate maximum millage levy

11.	Rolled-back rate to be used for maximum millage levy calculation ***(Enter Line 10 if adjusted or else enter Line 2)***	4.0275 per $1,000	(11)
12.	Adjustment for change in per capita Florida personal income (***See Line 12 Instructions)***	1.0451	(12)
13.	Majority vote maximum millage rate allowed ***(Line 11 multiplied by Line 12)***	4.2091 per $1,000	(13)
14.	Two-thirds vote maximum millage rate allowed ***(Multiply Line 13 by 1.10)***	4.6300 per $1,000	(14)
15.	Current year adopted millage rate	per $1,000	(15)
16.	**Minimum vote required to levy adopted millage:** (Check one)		(16)

☑ a. Majority vote of the governing body: Check here if Line 15 is less than or equal to Line 13. The maximum millage rate is equal to the majority vote maximum rate. ***Enter Line 13 on Line 17.***

☐ b. Two-thirds vote of governing body: Check here if Line 15 is less than or equal to Line 14, but greater than Line 13. The maximum millage rate is equal to adopted rate. ***Enter Line 15 on Line 17.***

☐ c. Unanimous vote of the governing body, or 3/4 vote if nine members or more: Check here if Line 15 is greater than Line 14. The maximum millage rate is equal to the adopted rate. ***Enter Line 15 on Line 17.***

☐ d. Referendum: The maximum millage rate is equal to the adopted rate. ***Enter Line 15 on Line 17.***

17.	The selection on Line 16 allows a maximum millage rate of ***(Enter rate indicated by choice on Line 16).***	4.2091 per $1,000	(17)
18.	Current year gross taxable value from Current Year Form DR-420, Line 4	$ 1,020,514,371	(18)

Continued on page 2

Taxing Authority : City of Callaway - Operating			DR-420MM-P R. 5/12 Page 2
19.	Current year adopted taxes *(Line 15 multiplied by Line 18, divided by 1,000).*	$	(19)
20.	Total taxes levied at the maximum millage rate *(Line 17 multiplied by Line 18, divided by 1,000).*	$ 4,295,447	(20)
	DEPENDENT SPECIAL DISTRICTS AND MSTUs	***STOP HERE. SIGN AND SUBMIT.***	
21.	Enter the current year adopted taxes of all dependent special districts & MSTUs levying a millage. *(The sum of all Lines 19 from each district's Form DR-420MM-P)*	$ 0	(21)
22.	Total current year adopted taxes *(Line 19 plus Line 21).*	$ 0	(22)
	Total Maximum Taxes		
23.	Enter the taxes at the maximum millage of all dependent special districts & MSTUs levying a millage *(The sum of all Lines 20 from each district's Form DR-420MM-P).*	$ 0	(23)
24.	Total taxes at maximum millage rate *(Line 20 plus Line 23).*	$ 4,295,447	(24)
	Total Maximum Versus Total Taxes Levied		
25.	Are total current year adopted taxes on Line 22 equal to or less than total taxes at the maximum millage rate on Line 24? (Check one)	☑ YES ☐ NO	(25)

SIGN HERE	**Taxing Authority Certification**	I certify the millages and rates are correct to the best of my knowledge. The millages comply with the provisions of s. 200.065 and the provisions of either s. 200.071 or s. 200.081, F.S.	
	Signature of Chief Administrative Officer :		Date :
	Title :	Contact Name and Contact Title :	
	Mailing Address :	Physical Address :	
	City, State, Zip :	Phone Number :	Fax Number :

Complete and submit this form to the Department of Revenue with the completed DR-487, Certification of Compliance, within 30 days of the final hearing.

Instructions on page 3

FLORIDA DEPARTMENT OF REVENUE

MAXIMUM MILLAGE LEVY CALCULATION
PRELIMINARY DISCLOSURE
For municipal governments, counties, and special districts

DR-420MM-P
R. 5/12
Rule 12D-16.002
Florida Administrative Code
Effective 11/12

Year : 2025	County : Bay
Principal Authority : City of Callaway	Taxing Authority : City of Callaway - Operating

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IF YES, STOP *STOP HERE. SIGN AND SUBMIT. You are not subject to a millage limitation.*

2.	Current year rolled-back rate from Current Year Form DR-420, Line 16	2.6981 per $1,000	(2)
3.	Prior year maximum millage rate with a majority vote from *2023* Form DR-420MM, Line 13	3.9106 per $1,000	(3)
4.	Prior year operating millage rate from Current Year Form DR-420, Line 10	2.7500 per $1,000	(4)

If Line 4 is equal to or greater than Line 3, skip to Line 11. If less, continue to Line 5.

Adjust rolled-back rate based on prior year majority-vote maximum millage rate

5.	Prior year final gross taxable value from Current Year Form DR-420, Line 7	$ 954,640,289	(5)
6.	Prior year maximum ad valorem proceeds with majority vote ***(Line 3 multiplied by Line 5 divided by 1,000)***	$ 3,733,216	(6)
7.	Amount, if any, paid or applied in prior year as a consequence of an obligation measured by a dedicated increment value from Current Year Form DR-420 Line 12	$ 376,692	(7)
8.	Adjusted prior year ad valorem proceeds with majority vote ***(Line 6 minus Line 7)***	$ 3,356,524	(8)
9.	Adjusted current year taxable value from Current Year form DR-420 Line 15	$ 833,401,193	(9)
10.	Adjusted current year rolled-back rate ***(Line 8 divided by Line 9, multiplied by 1,000)***	4.0275 per $1,000	(10)

Calculate maximum millage levy

11.	Rolled-back rate to be used for maximum millage levy calculation ***(Enter Line 10 if adjusted or else enter Line 2)***	4.0275 per $1,000	(11)
12.	Adjustment for change in per capita Florida personal income (***See Line 12 Instructions***)	1.0451	(12)
13.	Majority vote maximum millage rate allowed ***(Line 11 multiplied by Line 12)***	4.2091 per $1,000	(13)
14.	Two-thirds vote maximum millage rate allowed ***(Multiply Line 13 by 1.10)***	4.6300 per $1,000	(14)
15.	Current year adopted millage rate	per $1,000	(15)
16.	**Minimum vote required to levy adopted millage:** (Check one)		(16)

☑ a. Majority vote of the governing body: Check here if Line 15 is less than or equal to Line 13. The maximum millage rate is equal to the majority vote maximum rate. ***Enter Line 13 on Line 17.***

☐ b. Two-thirds vote of governing body: Check here if Line 15 is less than or equal to Line 14, but greater than Line 13. The maximum millage rate is equal to adopted rate. ***Enter Line 15 on Line 17.***

☐ c. Unanimous vote of the governing body, or 3/4 vote if nine members or more: Check here if Line 15 is greater than Line 14. The maximum millage rate is equal to the adopted rate. ***Enter Line 15 on Line 17.***

☐ d. Referendum: The maximum millage rate is equal to the adopted rate. ***Enter Line 15 on Line 17.***

17.	The selection on Line 16 allows a maximum millage rate of ***(Enter rate indicated by choice on Line 16).***	4.2091 per $1,000	(17)
18.	Current year gross taxable value from Current Year Form DR-420, Line 4	$ 1,020,514,371	(18)

Continued on page 2

Taxing Authority : City of Callaway - Operating	DR-420MM-P R. 5/12 Page 2

19.	Current year adopted taxes ***(Line 15 multiplied by Line 18, divided by 1,000).***	$	(19)
20.	Total taxes levied at the maximum millage rate ***(Line 17 multiplied by Line 18, divided by 1,000).***	$ 4,295,447	(20)

DEPENDENT SPECIAL DISTRICTS AND MSTUs STOP ***STOP HERE. SIGN AND SUBMIT.***

21.	Enter the current year adopted taxes of all dependent special districts & MSTUs levying a millage . ***(The sum of all Lines 19 from each district's Form DR-420MM-P)***	$ 0	(21)
22.	Total current year adopted taxes ***(Line 19 plus Line 21).***	$ 0	(22)

Total Maximum Taxes

23.	Enter the taxes at the maximum millage of all dependent special districts & MSTUs levying a millage ***(The sum of all Lines 20 from each district's Form DR-420MM-P).***	$ 0	(23)
24.	Total taxes at maximum millage rate ***(Line 20 plus Line 23).***	$ 4,295,447	(24)

Total Maximum Versus Total Taxes Levied

25.	Are total current year adopted taxes on Line 22 equal to or less than total taxes at the maximum millage rate on Line 24? (Check one)	☑ YES ☐ NO	(25)

SIGN HERE

Taxing Authority Certification	I certify the millages and rates are correct to the best of my knowledge. The millages comply with the provisions of s. 200.065 and the provisions of either s. 200.071 or s. 200.081, F.S.	
Signature of Chief Administrative Officer :		Date :
Title :	Contact Name and Contact Title :	
Mailing Address :	Physical Address :	
City, State, Zip :	Phone Number :	Fax Number :

Complete and submit this form to the Department of Revenue with the completed DR-487, Certification of Compliance, within 30 days of the final hearing.

Instructions on page 3

FLORIDA

TAX INCREMENT ADJUSTMENT WORKSHEET

DR-420TIF
R. 6/10
Rule 12D-16.002
Florida Administrative Code
Effective 11/12

Year : 2025	County : Bay
Principal Authority : City of Callaway	Taxing Authority : City of Callaway - Operating
Community Redevelopment Area : City of Callaway CRA	Base Year : 2006

SECTION I : COMPLETED BY PROPERTY APPRAISER

1.	Current year taxable value in the tax increment area	$ 358,205,483	(1)
2.	Base year taxable value in the tax increment area	$ 183,860,118	(2)
3.	Current year tax increment value *(Line 1 minus Line 2)*	$ 174,345,365	(3)
4.	Prior year Final taxable value in the tax increment area	$ 327,125,540	(4)
5.	Prior year tax increment value *(Line 4 minus Line 2)*	$ 143,265,422	(5)

SIGN HERE		
	Property Appraiser Certification	I certify the taxable values above are correct to the best of my knowledge.
	Signature of Property Appraiser : Electronically Certified by Property Appraiser	Date : 6/30/2025 12:28:08 PM

SECTION II: COMPLETED BY TAXING AUTHORITY Complete EITHER line 6 or line 7 as applicable. Do NOT complete both.

6. If the amount to be paid to the redevelopment trust fund IS BASED on a specific proportion of the tax increment value:

6a.	Enter the proportion on which the payment is based.	95.00 %	(6a)
6b.	Dedicated increment value *(Line 3 multiplied by the percentage on Line 6a)* ***If value is zero or less than zero, then enter zero on Line 6b***	$ 165,628,097	(6b)
6c.	Amount of payment to redevelopment trust fund in prior year	$ 376,692	(6c)

7. If the amount to be paid to the redevelopment trust fund IS NOT BASED on a specific proportion of the tax increment value:

7a.	Amount of payment to redevelopment trust fund in prior year	$	(7a)
7b.	Prior year operating millage levy from Form DR-420, Line 10	per $1,000	(7b)
7c.	Taxes levied on prior year tax increment value *(Line 5 multiplied by Line 7b, divided by 1,000)*	$	(7c)
7d.	Prior year payment as proportion of taxes levied on increment value *(Line 7a divided by Line 7c, multiplied by 100)*	%	(7d)
7e.	Dedicated increment value *(Line 3 multiplied by the percentage on Line 7d)* ***If value is zero or less than zero, then enter zero on Line 7e***	$	(7e)

SIGN HERE			
	Taxing Authority Certification	**I certify the calculations, millages and rates are correct to the best of my knowledge.**	
	Signature of Chief Administrative Officer :	Date :	
	Title :	Contact Name and Contact Title :	
	Mailing Address :	Physical Address :	
	City, State, Zip :	Phone Number :	Fax Number :

Agenda Item # 2

CITY OF CALLAWAY
BOARD OF COMMISSIONERS
AGENDA ITEM SUMMARY

DATE: JULY 8, 2025

ITEM: DISCUSSION- UTILITY BILLING SHUT OFF DATES

1. PLACED ON AGENDA BY:

BOB PELLETIER, COMMISSIONER

2. AGENDA:

PRESENTATION ☐
PUBLIC HEARING ☐
OLD BUSINESS ☐
REGULAR ☒

3. IS THIS ITEM BUDGETED (IF APPLICABLE)?: YES ☐ NO ☐

N/A

4. BACKGROUND: (WHY, WHAT, WHO, WHERE, WHEN, HOW, & IDENTIFY ALL ATTACHMENTS)

COMMISSIONER PELLETIER WOULD LIKE TO DISCUSS CHANGING UTILITY BILLING SHUT OFF DATE.

CURRENT TIMELINE:

BILLING IS DONE LAST WEEK OF THE MONTH AFTER THE 25TH (TYPICALLY 26TH- 28TH)

15TH- BILLS DUE. 15% LATE FEE.

25TH- AFTER 5 P.M., $50.00 DELINQUENT FEE

SHUT OFFS TO BEGIN THE FOLLOWING BUSINESS DAY.

5. REQUESTED MOTION/ACTION: DISCUSSION

SCHEDUAL FOR METER READER TECH

1st – 3rd

Complete work orders (turn on, turn off customers moving in and out) misc. work orders (check for leaks/misreads) service work orders (change out meter box, verify off and locked).

3rd –7th

Drive by Date will depend on what the day of the 3rd or 7th falls on.

Todd - Drive By – Drive By will be set up the evening prior, with Todd coming in at 7:30 to start.

Braden - Work Orders for his routes & Todd's as needed.

5th – 8th

Unread – trouble shoot and repair broken wires, bad transmitters, bad meters, and work orders. Complete work orders turn on; turn off; leak check etc.

8th -12th

Complete unread – trouble shoot and repair broken wires, bad transmitters, bad meters, and work orders.

12th-20th

Complete re-reads and work orders

20th – 25th

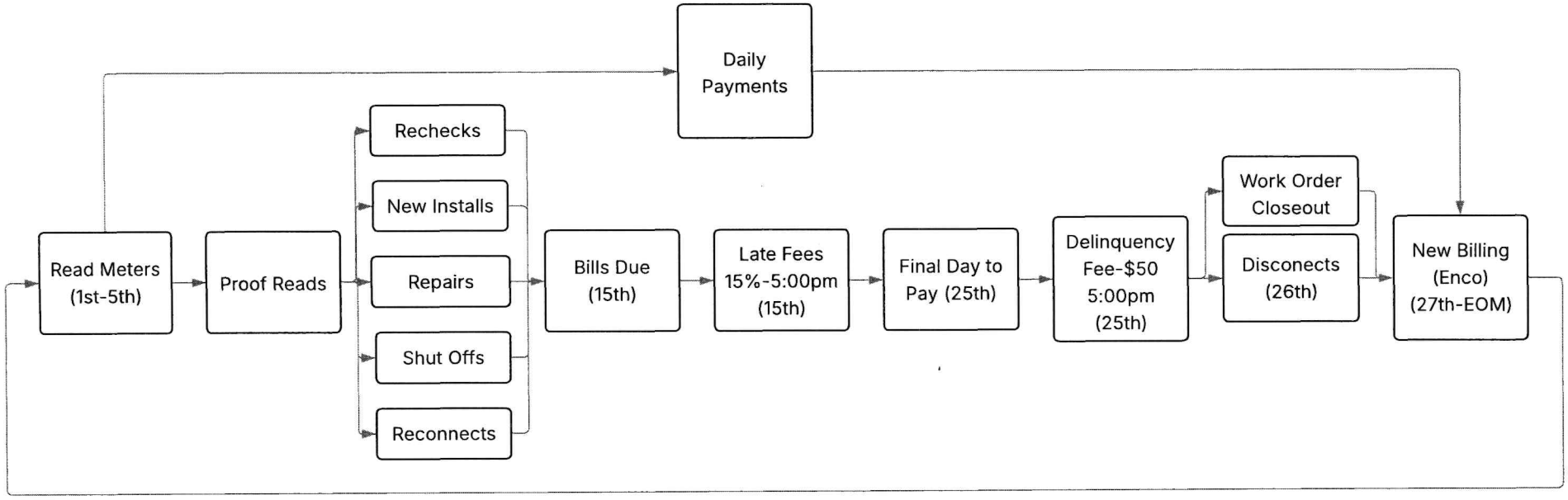
Complete work orders – All program meters are to be completed by the 25th

25th – 30th

Complete disconnects for nonpayment 200-400 avg./month, will need extra help. Service technicians are to return to City Hall throughout the day to check for new service request. Priority times are after lunch & 3:00pm.

Note: Service requests not completed are to be returned to City Hall (UB) prior to leaving for the day.

**All dates are approximant and may change depending on weekends/holidays and workflow


Daily Payments
Read Meters (1st-5th)
Proof Reads
Rechecks
New Installs
Repairs
Shut Offs
Reconnects
Bills Due (15th)
Late Fees 15%-5:00pm (15th)
Final Day to Pay (25th)
Delinquency Fee-$50 5:00pm (25th)
Work Order Closeout
Disconects (26th)
New Billing (Enco) (27th-EOM)

Agenda Item # 3

CITY OF CALLAWAY
BOARD OF COMMISSIONERS
AGENDA ITEM SUMMARY

DATE: JULY 8, 2025

ITEM: FY2025/26 BUDGET WORKSHOPS/HEARINGS SCHEDULE

1. PLACED ON AGENDA BY:

Eddie Cook, City Manager

&

Director Schultz, Finance Director

2. AGENDA:

PRESENTATION ☐
PUBLIC HEARING ☐
OLD BUSINESS ☐
REGULAR ☒

3. IS THIS ITEM BUDGETED (IF APPLICABLE)?: YES ☐ NO ☐

N/A

4. BACKGROUND: (WHY, WHAT, WHO, WHERE, WHEN, HOW, & IDENTIFY ALL ATTACHMENTS)

Staff proposes the following schedule for FY2025/26 Budget Workshops and Budget Hearings:

- Budget Workshop — Tuesday July 29th — 1:00 pm
- Budget Workshop — Tuesday, August 5th — 1:00 pm
- Budget Workshop — Tuesday, August 19th — 1:00 pm
- 1st Budget Hearing — Thursday, September 4th — 5:01 pm
- Final Budget Hearing — Thursday, September 18th — 5:01 pm

Staff has confirmed that there is no conflict with the Budget Hearings of the B.C. School Board, with hearings on July 31st and September 11th and Bay County Budget Hearings, which are on September 3rd and September 16th.

ATTACHMENTS:

5. REQUESTED MOTION/ACTION:

Approval of Budget Workshop/Hearing Schedule.

Agenda Item # 4

CITY OF CALLAWAY
BOARD OF COMMISSIONERS
AGENDA ITEM SUMMARY

DATE: JULY 8, 2025

ITEM: INFORMATIONAL PURPOSES. CITY TO ACCEPT NEW WATER AND SEWER LINES FOR NEW SUBDIVISION ON HWY. 2297.

1. **PLACED ON AGENDA BY:**

   EDDIE COOK – CITY MANAGER

   And

   Bill Frye, Director of Public Works & Planning

2. **AGENDA:**
   - PRESENTATION ☐
   - PUBLIC HEARING ☐
   - CONSENT ☐
   - OLD BUSINESS ☐
   - REGULAR ☒

3. **IS THIS ITEM BUDGETED (IF APPLICABLE): YES ☐ NO ☐**

   N/A

4. **BACKGROUND:** (WHY, WHAT, WHO, WHERE, WHEN, HOW, & IDENTIFY ALL ATTACHMENTS)

   A new subdivision will be constructed at 5530 Hwy 2297 that is in Unincorporated Bay County. The City of Callaway has water and sewer mains available to provide services to the property. Robert Carroll, PE of McNeil Carroll Engineering, Inc. has designed a looping water system and a force sewer system that the City of Callaway will accept to own to provide water and sewer to 10 single family units. All of the new water and sewer system will be built to the City of Callaway's standards and permitted by Florida Department of Environmental Protection.

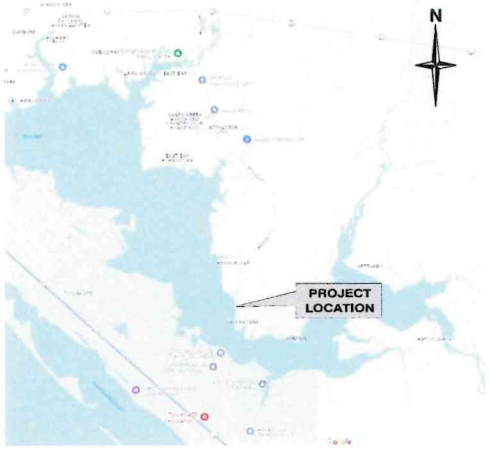
   Attachments: Civil drawings of East Bay Subdivision, 5530 Hwy. 2297

5. **REQUESTED MOTION/ACTION:**
   No action required. This is for informational purposes only to be transparent in operations of Public Works, Utilities Division.

EAST BAY SUBDIVISION
PANAMA CITY, FLORIDA

FOR:

CHUCK GANDY
2347 FOXWORTH DRIVE
PANAMA CITY, FL 32405



VICINITY MAP
NOT TO SCALE

PREPARED BY:

McNEIL—CARROLL
ENGINEERING, INC.
Professional Engineering Consultants
17800 Panama City Beach Parkway
Panama City Beach, Florida 32413
Phone: 850-234-1730
Fax: 850-234-1731
STATE OF FLORIDA CERTIFICATE OF AUTHORIZATION NUMBER: 7288

PROJECT 830.03

LEGAL DESCRIPTION

BEGINNING AT A POINT 354 FEET DUE SOUTH OF THE NORTHEAST CORNER OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 18, TOWNSHIP 5 SOUTH, RANGE 12 WEST, BAY COUNTY, FLORIDA; THENCE SOUTH 354 FEET; THENCE WEST 300 FEET, MORE OR LESS, TO WATERS EDGE OF EAST ST. ANDREWS BAY; THENCE NORTHWESTERLY ALONG SHORELINE OF EAST ST. ANDREWS BAY TO A POINT DUE WEST OF POINT OF BEGINNING; THENCE EAST TO POINT OF BEGINNING.

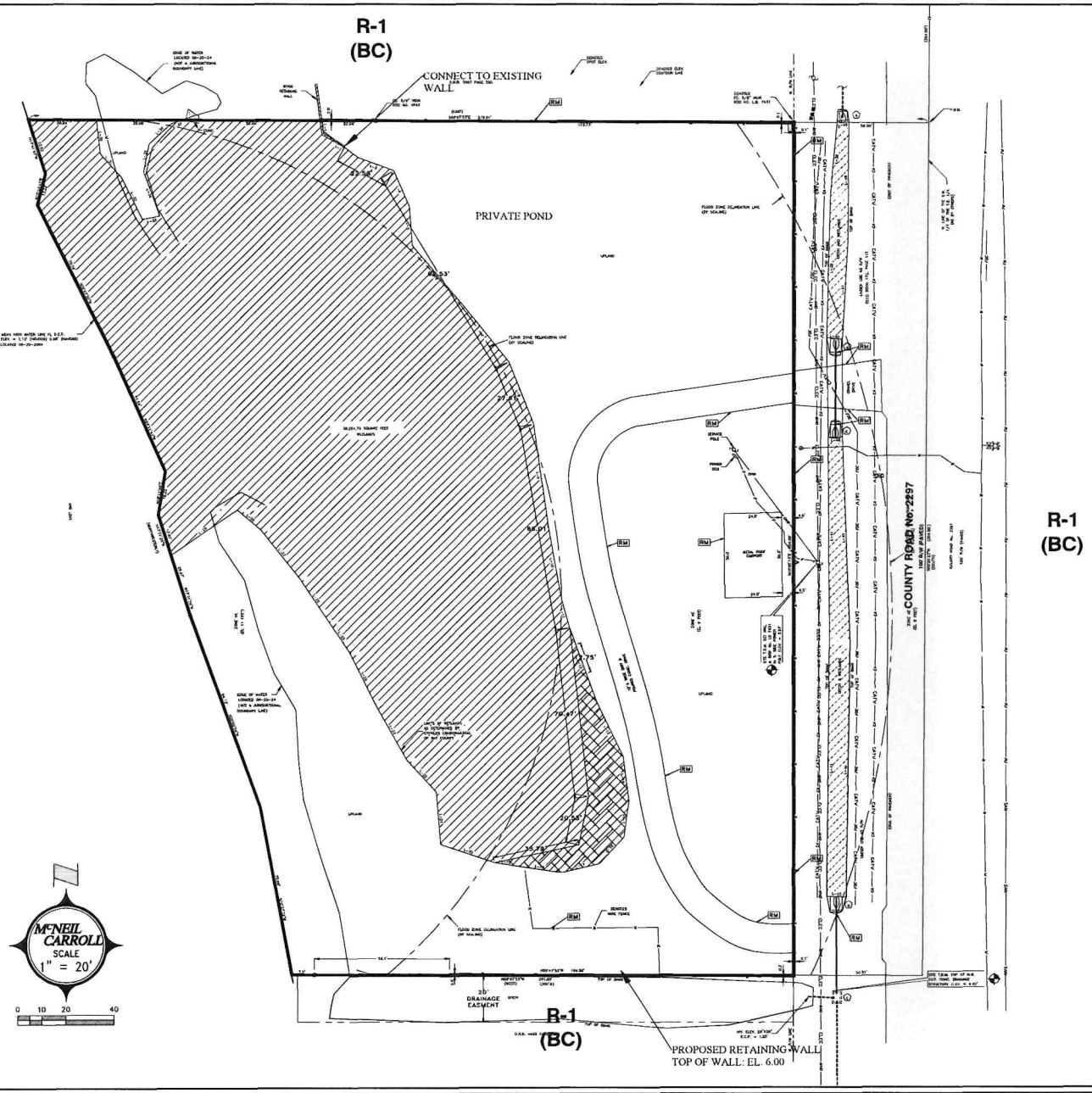
LESS AND EXCEPT THAT PORTION CONVEYED TO THE STATE OF FLORIDA IN DEED RECORDED IN DEED BOOK 172, PAGE 115, OF THE PUBIC RECORDS OF BAY COUNTY, FLORIDA.

INDEX OF SHEETS	SHEETS
SURVEY	
SITE DEMOLITION PLAN	1
SITE EROSION CONTROL PLAN	2
SITE LAYOUT PLAN	3
SITE GRADING AND DRAINAGE PLAN	4
SITE UTILITY PLAN	5
CONSTRUCTION DETAILS	6-10

Robert L Carroll
Digitally signed by Robert L Carroll
Date: 2025.07.01 15:11:14 -05'00'

ROBERT L. CARROLL
LICENSE
No. 57988
STATE OF FLORIDA
PROFESSIONAL ENGINEER
7/1/25

THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY ROBERT L. CARROLL, P.E. USING A DIGITAL SIGNATURE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED WITHOUT THE DIGITAL COPY. THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES IN ACCORDANCE WITH RULE 61G15-23.004 F.A.C.



SITE DEMOLITION DRAWING NOTES:

1. SEE SYMBOL LEGEND ON THIS SHEET FOR SYMBOL INFORMATION AND REFERENCED DETAILS.
2. ALL DEMOLISHED MATERIALS (i.e., SIGNS, CONCRETE, ASPHALT, ETC...) TO BE REMOVED AND DISPOSED OF IN A LEGAL MANNER.
3. ALTHOUGH EVERY ATTEMPT TO LOCATE UNDERGROUND UTILITIES HAS BEEN MADE, THERE IS THE POSSIBILITY OF UNDERGROUND GAS, ELECTRICAL, WATER SEWER, ETC... THAT HAS NOT BEEN LOCATED. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
4. THE DEVELOPER AND/OR CONTRACTOR IS RESPONSIBLE FOR FOLLOWING REQUIRED WASTE MANAGEMENT PRACTICES AS DEFINED IN THE BAY COUNTY MUNICIPAL CODE SECTION 22-91 "UNLAWFUL DISPOSAL OF WASTE, FAILURE TO DELIVER WASTE", WHICH MAKES IT UNLAWFUL FOR ANY PERSON TO DUMP, LEAVE OR BURY ANY SOLID WASTE ON PUBLIC OR OR PRIVATE PROPERTY.
5. IT IS THE CONTRACTORS RESPONSIBILITY TO CALL SUNSHINE ONE AT 811 FOR UTILITY LOCATES PRIOR TO CONSTRUCTION.
6. THE DEVELOPER OR DEVELOPER'S DESIGNATED AGENT MUST NOTIFY BAY COUNTY PUBLIC WORKS (JIM FAULKNER 850-248-8301 - JFAULKNER@BAYCOUNTYFL.GOV) AT LEAST 48-HOURS TO COMMENCEMENT OF CONSTRUCTION, INCLUDING LAND CLEARING OPERATION. A NOTICE OF INTENT TO USE NPDES GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES WILL NEED TO BE PROVIDED TO PUBLIC WORKS ENGINEERING DIVISION.
7. UNLAWFUL DISPOSAL OF WASTE FAILURE TO DELIVER WASTE: IT IS UNLAWFUL FOR ANY PERSON TO DUMP, LEAVE OR BURY AND SOLID WASTE ON PUBLIC OR PRIVATE PROPERTY. FAILURE TO DISPOSE OF SOLID WATER AS SPECIFIED IN SECTION 22-149 OF BAY COUNTY MUNICIPAL CODE OF ORDINANCES IS PUNISHABLE UNDER SECTION 1-6.

SYMBOL LEGEND

RM (REMOVE EXISTING MATERIALS)

DEMOLITION DATA SCHEDULE
TOTAL AREA OF SITE – 7.168 ACRES – 312,258 SQUARE FEET
TOTAL WETLANDS AREA – 2.11 ACRES – 91,912 SQUARE FEET
TOTAL IMPERVIOUS AREA TO BE REMOVED – 0.11 ACRES – 4,838 SQUARE FEET

PERMIT PURPOSES ONLY

SITE DEMOLITION PLAN
EAST BAY SUBDIVISION
5530 HWY 2297
PANAMA CITY, FLORIDA

SCALE SHOWN	
DESIGNED BY: JJT	
DRAWN BY: JJT	
REVIEWED BY: RLC	
ISSUE DATE: 7/1/2025	
CO/#: 830.03001	
NOT RELEASED FOR CONSTRUCTION UNTIL	

McNEIL — CARROLL ENGINEERING, INC.
Professional Engineering Consultants
STATE OF FLORIDA CERTIFICATE OF AUTHORIZATION NUMBER 7288
17800 Panama City Beach Parkway
Panama City Beach, Florida 32413
Phone: 850-234-1700
Fax: 850-234-1701

NO.	DATE	BY	REVISIONS
01			
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03			
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05			

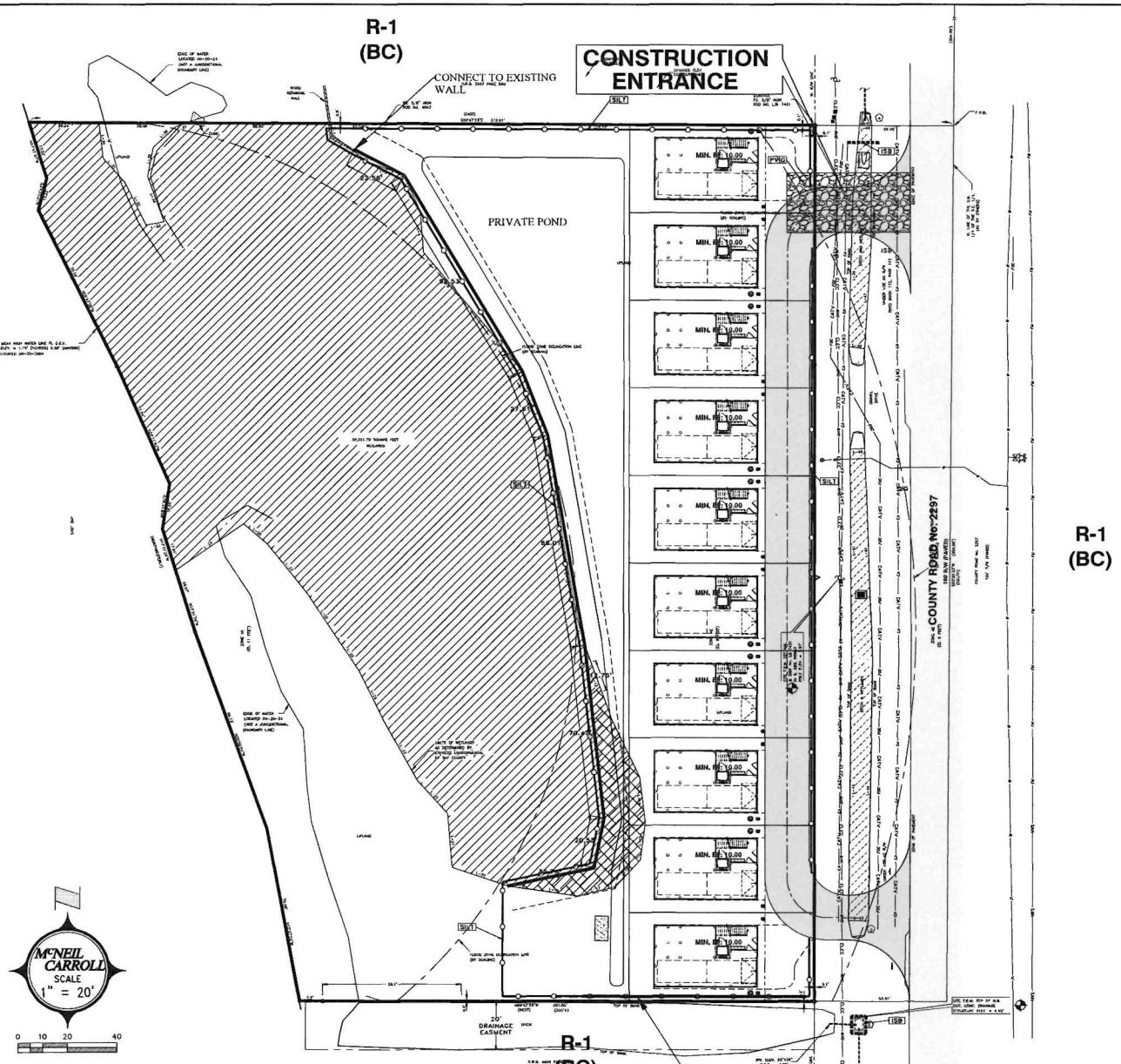
Sean D. McNeil, P.E.
PROFESSIONAL ENGINEER
FL LIC # 49520

Robert L. Carroll, P.E.
PROFESSIONAL ENGINEER
FL LIC # 57968

ROBERT L. CARROLL LICENSE No. 57968 STATE OF FLORIDA PROFESSIONAL ENGINEER
7/1/25

SHEET NUMBER 1 OF 10

830.03 – EAST BAY SUBDIVISION



SITE EROSION CONTROL DRAWING NOTES:

1. EROSION CONTROL SHALL BE MAINTAINED FOR THE DURATION FOR THE PROJECT.
2. ALL CONSTRUCTION OUTSIDE OF PROPERTY LINES IS SHOWN IN DETAIL ON PERMIT DRAWINGS. (SEE GENERAL NOTES.).
3. SEE SYMBOL LEGEND ON THIS SHEET FOR SYMBOL INFORMATION AND REFERENCED DETAILS.
4. SEE SECTIONS IN CONSTRUCTION DETAILS.
5. SILT FENCE TO BE INSTALLED AT PERIMETER OF SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES WILL BE UTILIZED THROUGHOUT THE CONSTRUCTION PHASE OF THIS PROJECT TO RESTRICT ANY TURBID RUNOFF FROM LEAVING THE CONSTRUCTION SITE.
6. CONTROL OF SEDIMENT-LADEN RUNOFF SHALL BE PROVIDED WITH HAY BALES AND/OR SEDIMENT STYLE FABRICS. ALL CONTROL MEASURES SHALL BE PROPERLY LOCATED AND CONSTRUCTED TO PREVENT SEDIMENT TRANSPORT. THE MEANS FOR RETAINING THE SEDIMENTS WILL BE MAINTAINED BY THE CONTRACTOR UNTIL PERMANENT IMPROVEMENTS ARE COMPLETE.
7. THE CONTRACTOR IS RESPONSIBLE FOR TREATING ALL ONSITE STORMWATER DRAINAGE AS REQUIRED TO MEET THE CRITERIA OF 62-3 FLORIDA ADMINISTRATIVE CODE, F.A.C. PRIOR TO DISCHARGE.
8. ALL CATCH BASINS, INLETS AND ACCESSES TO UNDERGROUND STORMWATER SYSTEMS SHALL BE PROTECTED IN ACCORDANCE WITH THE ATTACHED DETAILS.
9. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH THE TERMS AND CONDITIONS OF ANY STORMWATER PERMITS THAT MAY APPLY (FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, FLORIDA DEPARTMENT OF TRANSPORTATION, BAY COUNTY, WATER MANAGEMENT DISTRICT, ETC.).
10. CONSTRUCTION DRIVES SHALL SLOPE AWAY FROM THE ROADWAY AT A MINIMUM SLOPE OF 2.00% TO DISTANCE OF NOT LESS THAN 15 FEET FROM THE EDGE OF PAVEMENT. THE MAXIMUM WIDTH OF THE DRIVE SHALL BE 30 FEET WITH #57 GRAVEL SURFACE 6 INCHES THICK. SIGNS SHALL BE PLACED (IN ACCORDANCE WITH CITY AND STATE REQUIREMENTS) TO WARN APPROACHING DRIVERS AND PEDESTRIANS.
11. THE DEVELOPER AND/OR CONTRACTOR IS RESPONSIBLE FOR FOLLOWING REQUIRED WASTE MANAGEMENT PRACTICES AS DEFINED IN THE BAY COUNTY MUNICIPAL CODE SECTION 22-81 "UNLAWFUL DISPOSAL OF WASTE. FAILURE TO DELIVER WASTE", WHICH MAKES IT UNLAWFUL FOR ANY PERSON TO DUMP, LEAVE OR BURY ANY SOLID WASTE ON PUBLIC OR OR PRIVATE PROPERTY.
12. THE DEVELOPER AND/OR CONTRACTOR IS RESPONSIBLE FOR OBTAINING COVERAGE UNDER THE FDEP GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES PRIOR TO START OF CONSTRUCTION OR ANY DISTURBANCE OF LAND GREATER THAN 1 ACRE. THE DEVELOPER/CONTRACTOR WILL FORWARD A COPY OF THE PERMIT AND WILL PROVIDE 48 HOUR NOTIFICATION TO THE APPROPRIATE AGENCIES PRIOR TO COMMENCEMENT OF CONSTRUCTION. ALL REQUIRED ELEMENTS OF THE SWPP MUST BE IN PLACE PRIOR TO COMMENCEMENT OF CONSTRUCTION. FAILURE TO COMPLY COULD RESULT IN CODE ENFORCEMENT ACTION AND FINES.
13. QUALIFIED PERSONNEL SHALL INSPECT THE FOLLOWING ITEMS AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND/OR WITHIN 24 HOURS OF THE END OF A STORM EVENT (RAINFALL) THAT IS A 1/2 INCH OR GREATER:
    A. POINTS OF DISCHARGE TO WATERS OF THE UNITED STATES.
    B. POINTS OF DISCHARGE TO MUNICIPAL SEPARATE STORM WATER SYSTEMS.
    C. DISTURBED AREAS OF THE SITE THAT HAVE NOT BEEN FINALLY STABILIZED.
    D. AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION.
    E. STRUCTURAL CONTROLS.
    F. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE.
14. THE CONTRACTOR SHALL INITIATE REPAIRS WITHIN 24 HOURS OF INSPECTION THAT INDICATE ITEMS ARE NOT IN GOOD WORKING ORDER. TO COMPLY, THE CONTRACTOR SHALL INSTALL AND MAINTAIN RAIN GAGES AND DAILY RAINFALL RECORDS. WHERE SITES HAVE BEEN PERMANENTLY STABILIZED, INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE EVERY MONTH. THE CONTRACTOR SHALL ALSO INSPECT AND CERTIFY THAT CONTROLS INSTALLED IN THE FIELD AGREE WITH THE LATEST STORMWATER POLLUTION PREVENTION PLAN.
15. IF INSPECTIONS INDICATE THAT THE INSTALLED STABILIZATION AND STRUCTURAL PRACTICES ARE NOT SUFFICIENT TO MINIMIZE EROSION, RETAIN SEDIMENT, AND PREVENT DISCHARGING POLLUTANTS, THE CONTRACTOR SHALL PROVIDE ADDITIONAL MEASURES. WHERE SITES HAVE BEEN PERMANENTLY STABILIZED, INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE EVERY MONTH. AS NEEDED.
16. RECORDS OF THE INSPECTIONS AND THE CONSTRUCTION PERMIT MUST BE MAINTAINED AT THE CONSTRUCTION SITE AND BE READILY AVAILABLE FOR INSPECTION.
17. ALL STORMWATER MANAGEMENT FACILITIES AND EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION, DEMOLITION OR OTHER DISTURBANCE TO THE SUBJECT SITE.

CONSTRUCTION SEQUENCE AND BMP'S NWFWMD

18. THE INITIAL PART OF THE CONSTRUCTION PROCESS SHALL BE THE INSTALLATION OF SILT FENCE AROUND THE PERIMETER OF THE AREA THAT IS TO BE DISTURBED TO ENSURE NO TURBID RUNOFF LEAVES THE CONSTRUCTION SITE. THE SILT FENCE SHALL BE INSTALLED PER THE CONSTRUCTION DETAILS. IF THERE IS A POSSIBILITY OF RUNOFF TO A WATER BODY, TURBIDITY CURTAIN SHALL BE INSTALLED PER THE CONSTRUCTION DETAILS. THE SECOND STEP SHALL BE THE INSTALLATION OF THE CONSTRUCTION ENTRANCE AND DEMOLITION OF ANY EXISTING IMPROVEMENTS AS NEEDED (SEE DEMOLITION PLAN). THIRD STEP SHALL BE TO CLEAR AND GRUB AREAS WHERE IMPROVEMENTS ARE TO BE INSTALLED. AS FILL IS BROUGHT INTO THE SITE, THE STORMWATER BASIN SHOULD BE CREATED TO CAPTURE ANY OVERLAND FLOW AND ACT AS A SEDIMENT TRAP. IT IS RECOMMENDED THAT THE BASIN BE CONSTRUCTED APPROXIMATELY 3' HIGHER THAN DESIGN AT THIS POINT TO ENSURE ALL SILTS AND FINES ARE REMOVED AT THE TIME OF FINAL GRADING OF THE STORMWATER BASIN.
19. TYPICALLY, THE SANITARY SEWER, STORM SEWER, AND WATER MAINS ARE INSTALLED RESPECTIVELY. UPON INSTALLATION OF THE STORM SEWER, HAY BALES AND FILTER FABRICS SHALL BE USED AT ALL INLET OPENINGS PER THE CONSTRUCTION DETAILS TO THE KEEP THE SYSTEM FREE OF SEDIMENTS DURING THE CONSTRUCTION PHASE. DEPENDING ON SITE CONDITIONS AND SIZE, SEDIMENT TRAPS SHALL BE UTILIZED TO PREVENT TURBID RUNOFF FROM LEAVING THE SITE (SEE EROSION CONTROL PLAN).
20. SITE STABILIZATION SHALL BE PROVIDED AS SOON AS THE GRADING WILL ALLOW IN ORDER TO STOP EROSION AND REDUCE TURBID RUNOFF. SEEDING, SODDING, OR HYDROSEEDING SHALL BE USED WHEN FINAL GRADES ARE ESTABLISHED.
21. EROSION CONTROL MEASURES SHALL BE UTILIZED THROUGHOUT THE CONSTRUCTION PHASE OF THIS PROJECT AND BE MANAGED IN ACCORDANCE THE THE STATE NPDES PROGRAM.
22. THE DESIGN OF THE STORMWATER MANAGEMENT SYSTEM FOR THIS PROJECT COMPLIES WITH THE REQUIREMENTS OF THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THE NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT.
23. THE ENGINEER OF RECORD IS RESPONSIBLE FOR MONITORING CONSTRUCTION OF THE STORMWATER MANAGEMENT FACILITY AND SUBMITTING TO THE APPROPRIATE AGENCY NOTICE OF COMMENCEMENT AND AS-BUILT CERTIFICATIONS FOR THE PROJECT WHEN COMPLETED.

SYMBOL LEGEND

⟹ (STORMWATER SURFACE FLOW)
ISB (INLET SEDIMENT BARRIER - SEE CONSTRUCTION DETAILS)
SILT (SILT FENCE - SEE CONSTRUCTION DETAILS)
PVC (24' WIDE x 50' DEEP (SIZE #1 OR #2 GRAVEL CONSTRUCTION ENTRANCE 8" THICK)

PERMIT PURPOSES ONLY

SITE EROSION CONTROL PLAN
EAST BAY SUBDIVISION
5530 HWY 2297
PANAMA CITY, FLORIDA

SCALE: SHOWN	
DESIGNED BY: JJT	
DRAWN BY: JJT	
REVIEWED BY: RLC	
WORK DATE: 7/1/2025	
O/N: 630.03(01)	
FIELD BOOK: PER CONSTRUCTION NOTE	

McNEIL CARROLL ENGINEERING, INC.
Professional Engineering Consultants
STATE OF FLORIDA CERTIFICATE OF AUTHORIZATION NUMBER 7289
17900 Panama City Beach Parkway
Panama City Beach, Florida 32413
Phone: 850-234-1730
Fax: 850-234-1731

NO.	DATE	BY	REVISIONS
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05			

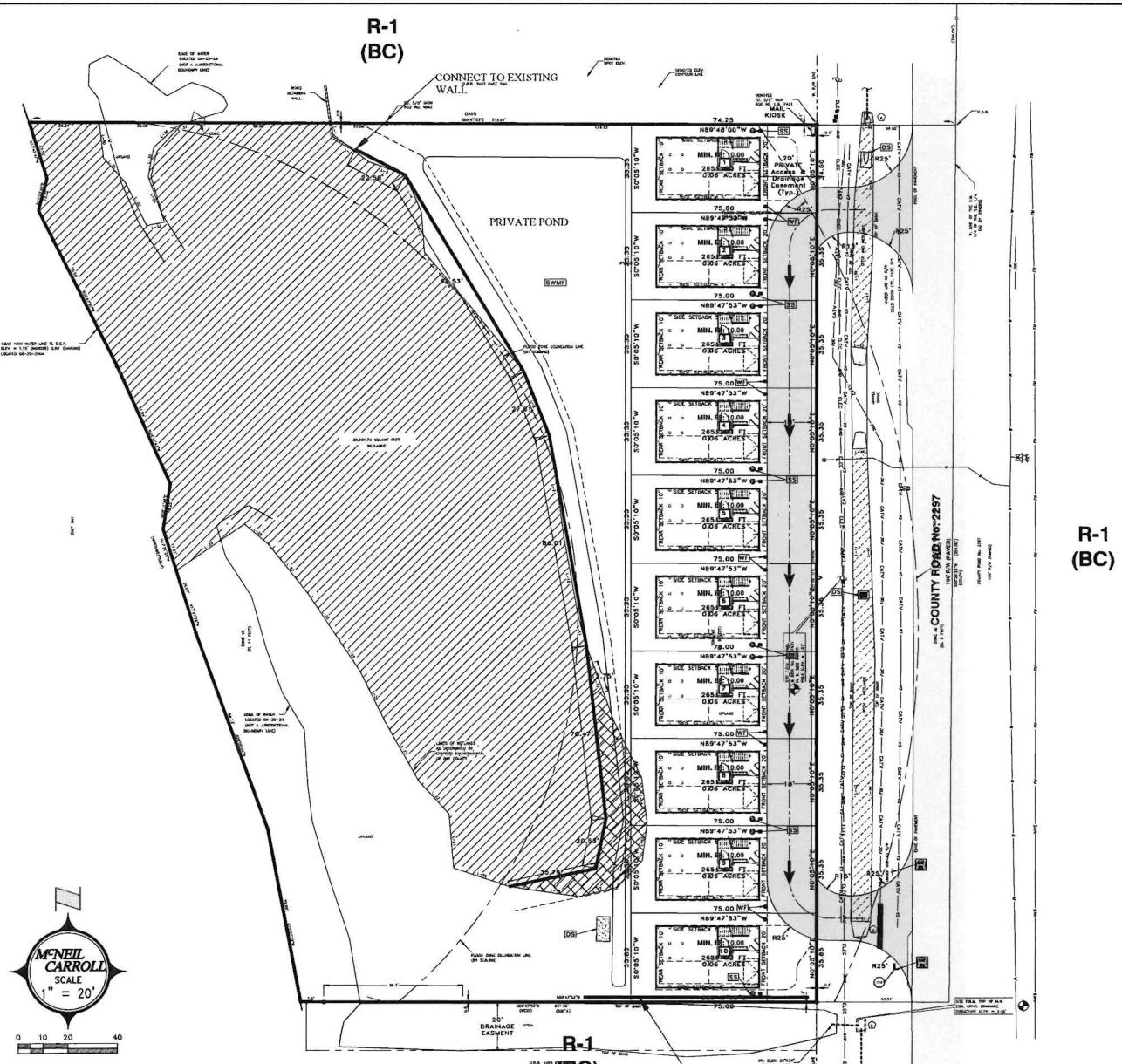
Sean B. McNeil, P.E.
PROFESSIONAL ENGINEER
FL LIC # 49928

Robert L. Carroll, P.E.
PROFESSIONAL ENGINEER
FL LIC # 57988

ROBERT L. CARROLL LICENSE No. 57988 STATE OF FLORIDA PROFESSIONAL ENGINEER
7/1/25

SHEET NUMBER 2 OF 10

630.03 - EAST BAY SUBDIVISION



SITE LAYOUT DRAWING NOTES:

1. ALL RADII AT FACE OF CURB ARE 5' UNLESS OTHERWISE SHOWN.
2. CONTRACTOR SHALL PROVIDE McNEIL CARROLL ENGINEERING, INC. FIVE (5) SETS OF AS-BUILT DRAWINGS AND ONE (1) DIGITAL COPY (AUTOCAD FORMAT) OF THE COMPLETED PROJECT. DRAWINGS SHALL BE PREPARED AND SIGNED & SEALED BY A FLORIDA REGISTERED SURVEYOR.
3. ALL DIMENSIONS AT CURB ARE FROM FACE OF CURB.
4. ALL DISTURBED AREAS SHALL BE RESTORED TO ORIGINAL CONDITION AND SODDED PER FDOT INDEX 105.
5. A COPY OF ALL REGULATORY PERMITS SHALL BE KEPT ON SITE.
6. THE CONTRACTOR SHALL REVIEW THE COMPLETE NWFWMD PERMIT PRIOR TO CONSTRUCTION COMMENCEMENT.
7. AN 8 1/2 x 11 NWFWMD WEATHER RESISTANT SIGN, INCLUDING THE PERMIT NUMBER SHALL BE PLACED ON THE PROPERTY FACING THE ROAD.
8. ALL PROPOSED UTILITIES TO BE PLACED UNDERGROUND.
9. ALL ABOVE GROUND UTILITIES TO BE SCREENED BY LANDSCAPING.

SYMBOL LEGEND

(DENOTES NEW "STOP" SIGN)

(DENOTES NEW "DO NOT ENTER" SIGN)

SS (SEWER STRUCTURE – SEE UTILITY PLAN)

SWMF (STORM WATER MANAGEMENT FACILITY)

WT (WATER FIXTURE – SEE UTILITY PLAN)

DS (DRAINAGE STRUCTURE – SEE GRADING & DRAINAGE PLAN)

SITE DATA TABLE		
PARCEL ID 04023-010-000 & 04023-015-000		
GOVERNING ENTITY – PANAMA CITY		
ZONING – RESIDENTIAL (R-1)		
TOTAL AREA OF SITE: 91,758 SQUARE FEET – 2.11 ACRES		
FLOOD ZONE(S) ON PROPERTY – AE (9')		
	ALLOWED/REQUIRED	PROPOSED
TOTAL IMPERVIOUS AREA	55,055 SQUARE FEET – 1.26 ACRES	17,448 SQUARE FEET – 0.40 ACRES
IMPERVIOUS SURFACE RATIO	0.60	0.19
SERVICE AREA	SUBURBAN	SUBURBAN
DENSITY	5 UNITS PER ACRE	4.74 UNITS PER ACRE
OPEN SPACE AREA	36,705 SQUARE FEET – 0.85 ACRES	74,312 SQUARE FEET – 1.71 ACRES
OPEN SPACE RATIO	0.4 MIN.	0.81
FRONT YARD SETBACK	20 FEET	30 FEET
SIDE YARD SETBACK	5 FEET	5 FEET
REAR YARD SETBACK	10 FEET	10 FEET

TRIP GENERATION SCHEDULE				
DESCRIPTION/ ITE CODE	UNIT DESIGNATION	EXPECTED UNITS	EXPECTED DAILY TRIPS	P.M. PEAK TRIPS
SINGLE FAMILY HOMES / 210	DWELLING UNITS	10	121	11

CALCULATION DERIVED FROM ITE 12th. EDITION.

PERMIT PURPOSES ONLY

SITE LAYOUT PLAN
EAST BAY SUBDIVISION
5530 HWY 2297
PANAMA CITY, FLORIDA

SCALE: SHOWN	
DESIGNED BY: JJT	
DRAWN BY: JJT	
REVIEWED BY: RLC	
ISSUE DATE: 7/1/2025	
W/O: 830.03E01	
FILE NAME: 830.03E01 SITE PLAN	

McNEIL CARROLL ENGINEERING, INC.
Professional Engineering Consultants
STATE OF FLORIDA CERTIFICATE OF AUTHORIZATION NUMBER 7288
17800 Panama City Beach Parkway
Panama City Beach, Florida 32413
Phone: 850-234-1730
Fax: 850-234-1731

NO.	DATE	BY	REVISIONS
01			
02			
03			
04			
05			

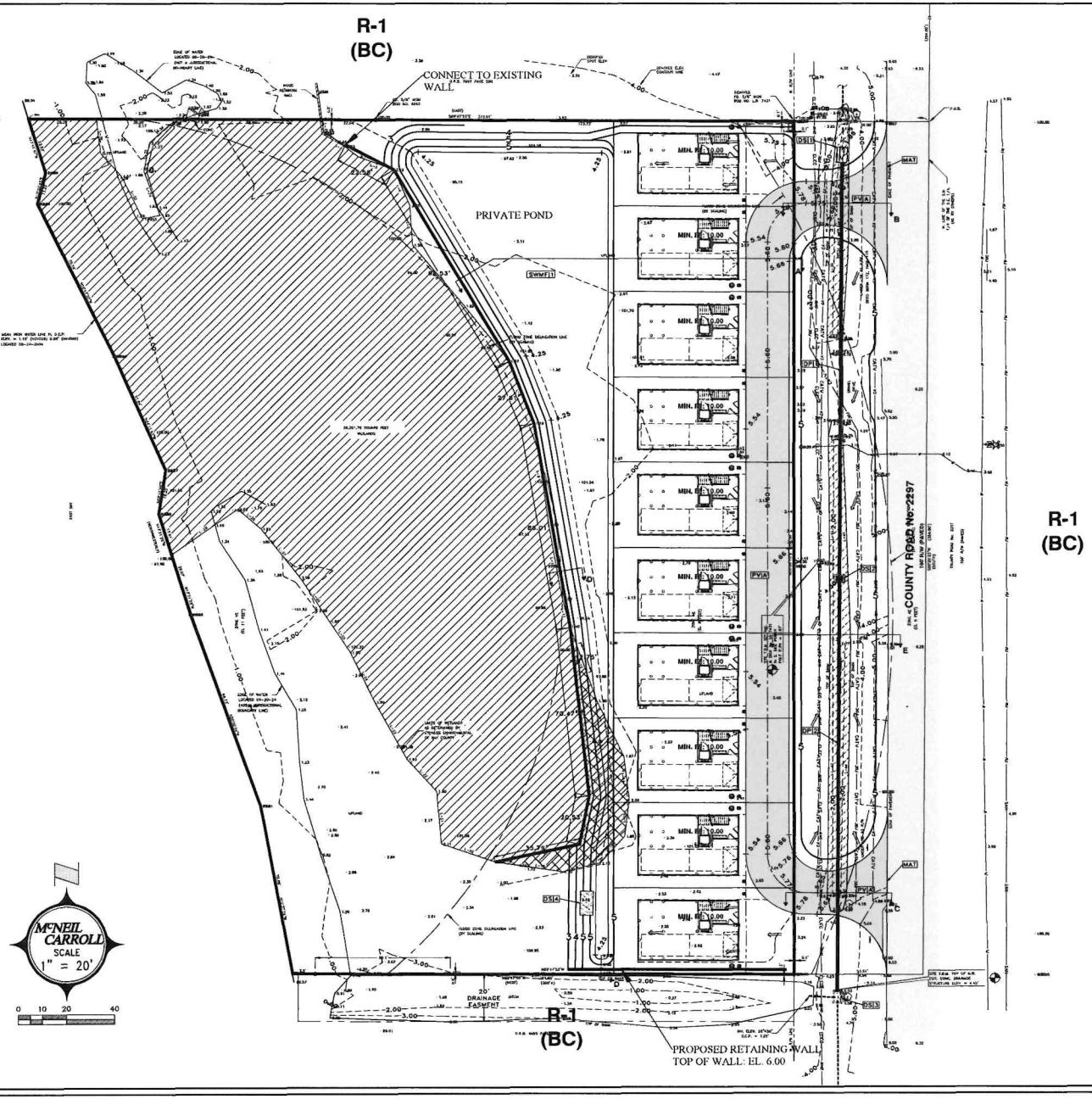
Sean D. McNeil, P.E.
PROFESSIONAL ENGINEER
FL LIC # 49303

Robert L. Carroll, P.E.
PROFESSIONAL ENGINEER
FL LIC # 57988

ROBERT L. CARROLL LICENSED No. 57988 STATE OF FLORIDA PROFESSIONAL ENGINEER
7/1/25

SHEET NUMBER 3 OF 10

830.03 – EAST BAY SUBDIVISION



SITE GRADING AND DRAINAGE DRAWING NOTES:

1. SEE SYMBOL LEGEND ON THIS SHEET FOR SYMBOL INFORMATION AND REFERENCED DETAILS.
2. ALL DEMOLISHED MATERIALS (i.e., SIGNS, CONCRETE, ASPHALT, ETC...) TO BE REMOVED AND DISPOSED OF IN A LEGAL MANNER. ALL EXISTING MONITORING WELLS ARE NOT TO BE REMOVED. WELLS IN PAVEMENT SHALL HAVE A MANHOLE LID INSTALLED.
3. SEE SECTIONS IN CONSTRUCTION DETAILS.
4. ALL DRAINAGE PIPES TO BE DEDICATED TO THE CITY OF PANAMA CITY BEACH SHALL BE VIDEO RECORDED AND PLACED ON A DIGITAL MEDIA (NO TAPES). VIDEO MUST BE REVIEWED AND APPROVED BY THE CITY.
5. ASS STRUCTURES TO BE CONSTRUCTED ON PILES WITH PARKING UNDERNEATH..
6. CONTRACTOR SHALL PROVIDE McNEIL CARROLL ENGINEERING, INC. FIVE (5) SETS AND ONE (1) DIGITAL COPY (AUTOCAD FORMAT) OF AS-BUILT DRAWINGS OF THE COMPLETED PROJECT. DRAWINGS SHALL BE PREPARED AND SIGNED & SEALED BY A FLORIDA REGISTERED SURVEYOR.
7. IT IS THE CONTRACTORS RESPONSIBILITY TO CALL SUNSHINE ONE AT 811 FOR UTILITY LOCATES PRIOR TO CONSTRUCTION.
8. ALL DISTURBED AREAS SHALL BE RESTORED TO ORIGINAL CONDITION AND SODDED PER FDOT INDEX 570-010.

SYMBOL LEGEND

- 34.44 (EXISTING SPOT ELEVATION)
- 36 (EXISTING CONTOUR)
- 12.50 (PROPOSED FINISHED GRADE)
- (STORMWATER SURFACE FLOW)
- DP1.0 (SEE DRAINAGE PIPE SCHEDULE THIS SHEET in_#16)
- DSI.2 (SEE DRAINAGE STRUCTURE SCHEDULE THIS SHEET in_#12)
- PVIA (ASPHALT PAVEMENT - SEE CONSTRUCTION DETAILS)
- MAT (MATCH PROPOSED FLUSH WITH EXISTING SURFACE)
- SWMF1 (SEE STORM WATER MANAGEMENT FACILITY SCHEDULE THIS SHEET)

DRAINAGE PIPE SCHEDULE

NO.	SIZE	LF	TYPE	SLOPE
DP1	18"	78	ADS HP	0.15%
DP2	18"	171	ADS HP	0.14%

ALL ADS PIPE SHALL BE AS SHOWN OR EQUAL.
ALL PERFORATED PIPE SHALL HAVE A GRAVEL PACK
ALL ADS PIPE SHALL BE RATED N-12
SEE CONSTRUCTION DETAILS.

STORM WATER MANAGEMENT FACILITY SCHEDULE

NO.	BASIN AREA	TOP OF BANK ELEV.	SIDE SLOPE	BOTTOM ELEV.	WATERSHED AREA
SWMF1	0.22 AC	EL. 5.00	3 TO 1	EL. 4.25	0.24 AC

SEE SITE LAYOUT PLAN FOR DIMENSIONS

DRAINAGE STRUCTURE SCHEDULE

NO.	TYPE STRUCTURE	TOP OF GRATE	PIPE INVERT	SLOT INVERT
DSI1	36" CONCRETE WINGED END	EL. 5.00	EL. 1.68	EL.
DSI2	TYPE "P" INLET	EL. 4.30	EL. 1.63	EL.
DSI3	TYPE "P" INLET	EL. 4.31	EL. 1.63	EL.
DSI4	10' CONCRETE WEIR	EL. 4.60	EL. 1.40(N), 1.38(S), 1.40(W)	EL.

SEE CONSTRUCTION DETAILS.
2' SUMP UNLESS OTHERWISE NOTED.

STORMWATER OPERATION AND MAINTENANCE SCHEDULE

AFTER EACH RAINFALL EVENT

1. PAVEMENT AREAS: CLEAN/SWEEP DEBRIS AND DIRT FROM PAVEMENT AREAS.
2. SEDIMENTS IN RETENTION/DETENTION AREAS: REMOVE IMMEDIATELY.
3. DEBRIS IN RETENTION/DETENTION AREAS: ALL DEBRIS AND FOREIGN MATERIAL SHALL BE REMOVED IMMEDIATELY.
4. YARD INLETS, CATCH BASINS, ETC.: ALL DEBRIS AND FOREIGN MATERIALS SHALL BE REMOVED IMMEDIATELY.

PERIODIC POND/SYSTEM MAINTENANCE

1. CLEANING/ SWEEPING OF PAVEMENT AREAS SHALL BE ACCOMPLISHED WEEKLY OR AS REQUIRED.
2. INSPECT POND AT LEAST TWICE A MONTH FOR ACCUMULATION OF TRASH AND DEBRIS AND REMOVE UPON DISCOVERY. UPON ANY DISCOVERY OF TRASH AND DEBRIS ACCUMULATION, REMOVE AT ONCE.
3. MOWING AND LANDSCAPING MAINTENANCE SHOULD BE DONE ON A MONTHLY BASIS DURING THE ACTIVE GROWING SEASON FOR THIS AREA. INSPECT AND MAINTAIN AS REQUIRED DURING THE GROWING SEASON.
4. WEEDS OR UNDESIRABLE GROWTH SHALL BE REMOVED UPON DISCOVERY.
5. ALL STORMWATER STRUCTURES AND PIPES BASINS SHALL BE FLUSHED AS NECESSARY.
6. THE OWNER SHALL RE-GRADE AND RE-STABILIZE SWALE/ RETENTION/ DETENTION AREAS AS REQUIRED TO MAINTAIN THE APPROVED DESIGN, CROSS-SECTIONS, GRADES, ETC.
7. REMOVE SEDIMENT FROM POND WHEN ACCUMULATION REACHES TWO (2) INCHES. MEASUREMENTS FOR ACCUMULATION SHALL BE PERFORMED EVERY SIX MONTHS AND AFTER EACH MAJOR STORM EVENT.

INSPECTIONS

1. A MAINTENANCE INSPECTION SHALL BE PERFORMED AT MINIMUM EVERY FIFTH YEAR BY A REGISTERED PROFESSIONAL. THE INSPECTOR SHALL BE WORKING UNDER THE CHARGE OF A LICENSED PROFESSIONAL ENGINEER.
2. THE MAINTENANCE INSPECTION SHALL BE DOCUMENTED ON THE FDEP AND/OR NWFWMD STANDARD INSPECTION FORM 62-330-311(1).
3. THE INSPECTION SHALL BE SIGNED, SEALED AND DATED BY THE REGISTERED PROFESSIONAL AND SUBMITTED TO EITHER THE FDEP OR NWFWMD WITHIN 30 DAYS OF THE INSPECTION.
4. THE INSPECTION MUST BE CONDUCTED USING THE PLANS, CALCULATIONS AND SPECIFICATIONS APPROVED BY THE FDEP AND/OR NWFWMD.
5. THERE MUST BE AN INSPECTION COMPLETED BY A REGISTERED PROFESSIONAL ONE YEAR AFTER THE CONVERSION INTO OPERATION.

PERMIT PURPOSES ONLY

SITE GRADING AND DRAINAGE PLAN
EAST BAY SUBDIVISION
5530 HWY 2297
PANAMA CITY, FLORIDA

SCALE: SHOWN
DESIGNED BY: JJT
DRAWN BY: JJT
REVIEWED BY: RLC
ISSUE DATE: 7/1/2025
CP/D: 830.03C01
LAST REVISION OR GENERATION DATE:

McNEIL CARROLL ENGINEERING, INC.
Professional Engineering Consultants
STATE OF FLORIDA CERTIFICATE OF AUTHORIZATION NUMBER 7288
17800 Panama City Beach Parkway
Panama City Beach, Florida 32413
Phone: 850-234-1730
Fax: 850-234-1731

NO.	DATE	BY	REVISIONS
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02			
03			
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05			

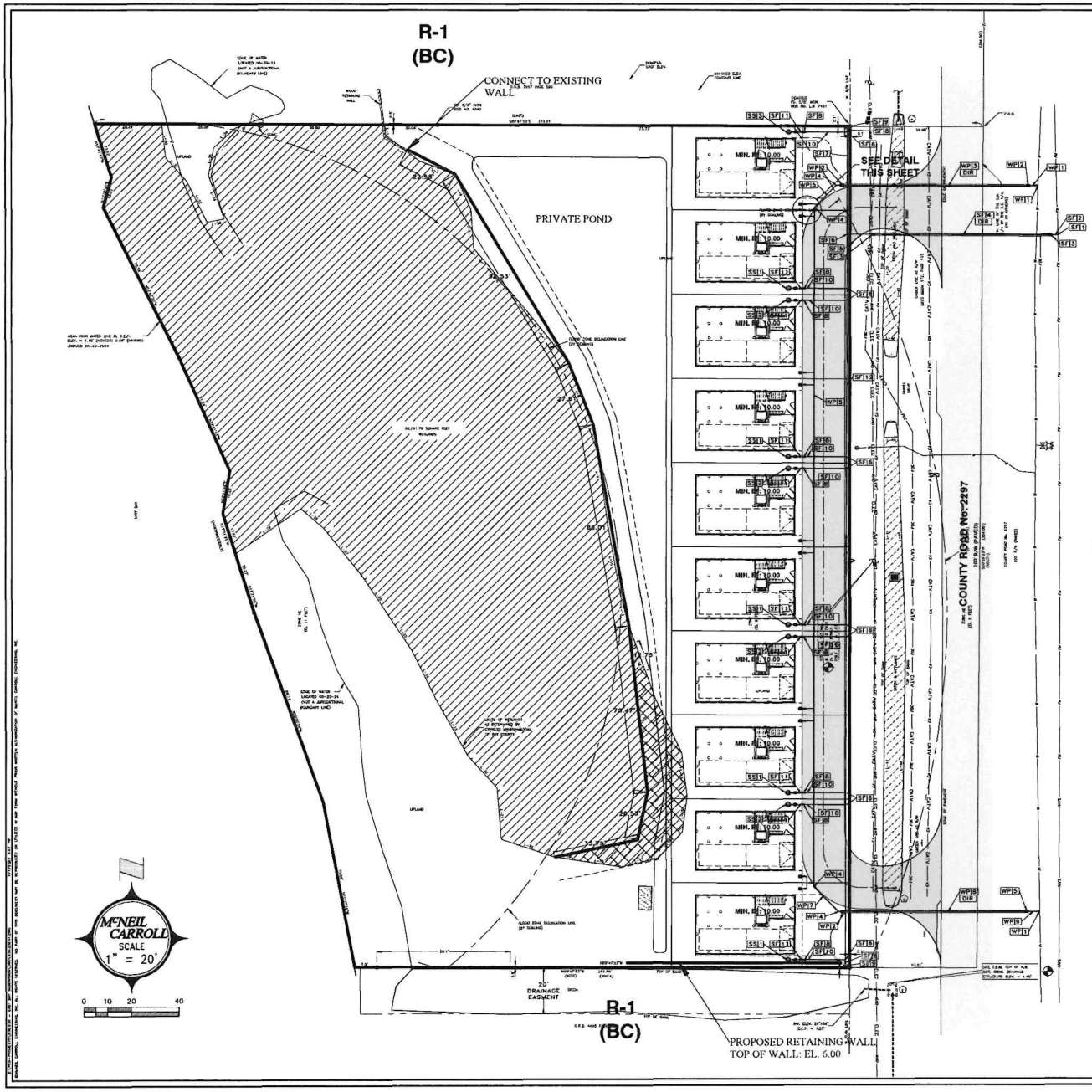
Sean D McNeil, P.E.
PROFESSIONAL ENGINEER
FL LIC # 49550

Robert L. Carroll, P.E.
PROFESSIONAL ENGINEER
FL LIC # 57988

ROBERT L. CARROLL LICENSED No. 57988 STATE OF FLORIDA PROFESSIONAL ENGINEER
7/1/25

SHEET NUMBER 4 OF 10

830.03 - EAST BAY SUBDIVISION



SITE UTILITY DRAWING NOTES:

1. SEE SYMBOL LEGEND ON THIS SHEET FOR SYMBOL INFORMATION AND REFERENCED DETAILS.
2. SEE SECTION AND DETAILS IN CONSTRUCTION DETAILS.
3. ALL PROPOSED UTILITIES SHALL BE PLACED UNDERGROUND.
4. ALL SEWER LINES TO BE DEDICATED TO THE CITY OF PANAMA CITY BEACH SHALL BE VIDEO RECORDED AND PLACED ON A DIGITAL MEDIA (NO TAPES). VIDEO MUST BE REVIEWED AND APPROVED BY THE CITY.
5. CONTRACTOR SHALL PROVIDE McNEIL CARROLL ENGINEERING, INC. FIVE (5) SETS AND ONE (1) DIGITAL COPY (AUTOCAD FORMAT) OF AS-BUILT DRAWINGS OF THE COMPLETED PROJECT. DRAWINGS SHALL BE PREPARED AND SIGNED & SEALED BY A FLORIDA REGISTERED SURVEYOR.
6. IT IS THE CONTRACTORS RESPONSIBILITY TO CALL SUNSHINE ONE AT 811 FOR UTILITY LOCATES PRIOR TO CONSTRUCTION.
7. ALL GRAVITY SEWER LINES SHALL BE VIDEO RECORDED AND PLACED ON DIGITAL MEDIA (NO TAPES). VIDEO MUST BE REVIEWED AND APPROVED BY McNEIL CARROLL ENGINEERING, INC.
8. ALL DISTURBED AREAS SHALL BE RESTORED TO ORIGINAL CONDITION AND SODDED PER FDOT INDEX 570-010.

SYMBOL LEGEND

SF18 (SEE SEWER FORCE MAIN PIPE SCHEDULE THIS SHEET #_#8 SEE CONSTRUCTION DETAILS)
SP18 (SEE GRAVITY SEWER PIPE SCHEDULE THIS SHEET #_#18 SEE CONSTRUCTION DETAILS)
SS12 (SEE SEWER STRUCTURE SCHEDULE THIS SHEET #_#12 SEE CONSTRUCTION DETAILS)
WF14 (SEE WATER FIXTURE SCHEDULE THIS SHEET #_#14 SEE CONSTRUCTION DETAILS)
WP10 (SEE WATER PIPE SCHEDULE THIS SHEET #_#10 SEE CONSTRUCTION DETAILS)

WATER MAIN PIPE SCHEDULE

NO.	SIZE	LF	TYPE
WP1	2"	4	PVC
WP2	2"	--	FLEX COUPLING
WP3	2"	80	PVC
WP4	2"	--	45° BEND
WP5	2"	--	90° BEND
WP6	2"	488	PVC
WP7	2"	15	PVC
WP8	2"	73	HDPE
WP9	2"	5	PVC
WP10	2"	4	PVC
WP11	2"	23	PVC
WP12	2"	4	PVC

LESS THAN 4" WATER MAIN – ASTM D2241 SDR-21
4"-6" WATER MAIN – AWWA C900 DR18
8"-12" WATER MAIN – AWWA C900 DR25
ALL LINES SHALL BE THE COLOR BLUE.

WATER FIXTURE SCHEDULE

NO.	TYPE
WF1	18"x24" TAPPING SADDLE W/ VALVE ASSEMBLY (TOTAL 5)
WF2	1" WATER METER ASSEMBLY (TOTAL 10)

SEE CONSTRUCTION DETAILS.
ALL LINES SHALL BE THE COLOR BLUE

FORCE MAIN SEWER PIPE SCHEDULE

NO.	SIZE	LF	TYPE
SF1	10x6	--	TAPPING SADDLE W/ GATE VALVE ASSEMBLY
SF2	2"	3	PVC
SF3	2"	--	FLEX COUPLING
SF4	2"	75	PVC
SF5	2"	13	PVC
SF6	2"	--	90°
SF7	2"	45	PVC
SF8	2"	--	GATE VALVE ASSEMBLY
SF9	2"	--	CAP
SF10	2"	24	PVC (QTY. 10)
SF11	2"	--	CHECK VALVE
SF12	2"	306	PVC

LESS THAN 4" – ASTM D2241 SDR21
4"-8" FORCE MAIN – AWWA C900 DR18
8"-12" FORCE MAIN – AWWA C900 DR25
GREATER THAN 12" FORCE MAIN – AWWA C905 DR25
ALL LINES SHALL BE THE COLOR GREEN.

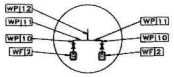
SEWER STRUCTURE SCHEDULE

NO.	TYPE STRUCTURE	TOP OF M.H.	NORTH INVERT	SOUTH INVERT	EAST INVERT	WEST INVERT
SS1	[illegible] STATION	EL. 9.50	EL. 3.00 IN	EL.	EL.	EL.
SS2	[illegible] STATION	EL. 9.00	EL.	EL. 3.00 IN	EL.	EL.
SS3	[illegible] STATION	EL. 4.00	EL.	EL. 0.50 IN	EL.	EL.

SEE CONSTRUCTION DETAILS.

CITY OF CALLAWAY UTILITY CONTACTS

UTILITY	CONTACT	
TELEPHONE	SUNSHINE STATE ONE CALL	1-800-432-4770
ELECTRIC	GULF POWER	1-850-872-3212
CABLE TV	COMCAST WOW CABLE	1-850-769-0392 1-850-747-0139
WATER & SEWER	CITY OF CALLAWAY	1-850-871-1033
GAS	TECO PEOPLES GAS FLORIDA GAS TRANSMISSION	1-850-872-6140 1-800-432-4770



UTILITY METER DETAIL (TYP)
NOT TO SCALE

PERMIT PURPOSES ONLY

SITE UTILITY PLAN
EAST BAY SUBDIVISION
5530 HWY 2297
PANAMA CITY, FLORIDA

SCALE SHOWN	
DESIGNED BY:	J/T
DRAWN BY:	J/T
REVIEWED BY:	RLC
ISSUE DATE:	7/1/2025
Q/A:	630.0501
PLOT DATE FOR CONSTRUCTION SHEET:	

McNEIL CARROLL ENGINEERING, INC.
Professional Engineering Consultants
STATE OF FLORIDA CERTIFICATE OF AUTHORIZATION NUMBER 7288
17800 Panama City Beach Parkway
Panama City Beach, Florida 32413
Phone 850-234-1730
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NO.	DATE	BY	REVISIONS
01			
02			
03			
04			
05			

Sean D. McNeil, P.E.
PROFESSIONAL ENGINEER
FL LIC # 49505

Robert L. Carroll, P.E.
PROFESSIONAL ENGINEER
FL LIC # 57988

ROBERT L. CARROLL LICENSED No. 57988 STATE OF FLORIDA PROFESSIONAL ENGINEER
7/1/25

SHEET NUMBER 5 OF 10

630.03 – EAST BAY SUBDIVISION

GENERAL NOTES

PREVENTION, CONTROL AND ABATEMENT OF EROSION

ALL ON AND OFF SITE WORK INCLUDED CONSISTS OF BUT NOT LIMITED TO THE FOLLOWING.

10.2643; SEEDING AND MULCHING OR SODDING FOR STABILIZATION.

CONSTRUCTION OF SEDIMENT BASINS, CHECK DAMS OR FLOATING BARRIERS.

PLACEMENT OF SILTATION FENCES DURING THE COURSE OF CONSTRUCTION.

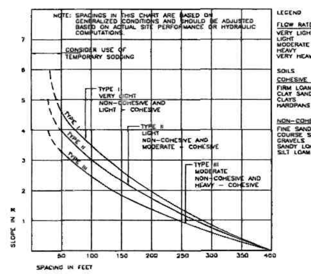
SILT FENCE TO BE INSTALLED AT PERIMETER OF SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES WILL BE UTILIZED THROUGHOUT THE CONSTRUCTION PHASE OF THIS PROJECT TO RESTRICT ANY TURBID RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

CONTROL OF SEDIMENT-LADEN RUNOFF SHALL BE PROVIDED WITH HAY BALES AND/OR GEOTECH STYLE FABRICS. ALL CONTROL MEASURES SHALL BE PROPERLY LOCATED AND CONSTRUCTED TO PREVENT SEDIMENT TRANSPORT. THE MEANS FOR RETAINING THE SEDIMENTS WILL BE MAINTAINED BY THE CONTRACTOR UNTIL PERMANENT IMPROVEMENTS ARE COMPLETE.

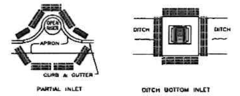
THE CONTRACTOR IS RESPONSIBLE FOR TREATING ALL ONSITE STORM WATER DRAINAGE AS REQUIRED TO MEET THE CRITERIA OF 62-3 FLORIDA ADMINISTRATIVE CODE, F.A.C. PRIOR TO DISCHARGE.

ALL CATCH BASINS, INLETS AND ACCESSES TO UNDERGROUND STORM WATER SYSTEMS SHALL BE PROTECTED IN ACCORDANCE WITH THE ATTACHED DETAILS.

THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH THE TERMS AND CONDITIONS OF ANY STORM WATER PERMITS THAT MAY APPLY (FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, FLORIDA DEPARTMENT OF TRANSPORTATION, BAY COUNTY, WATER MANAGEMENT DISTRICT, ETC.).



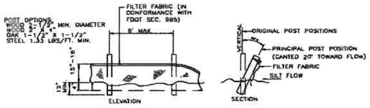
FDOT CHART I (BALED HAY OR STRAW BARRIERS AND SILT FENCES - INDEX 102



PARTIAL INLET   DITCH BOTTOM INLET

ANCHOR BALES WITH 2 - 2"X2"X4' STAKES PER BALE (SEE DETAIL)

PROTECTION AROUND INLETS OR SIMILAR STRUCTURES

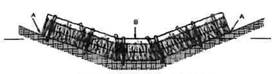


NOTE: SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR THE STAKED SILT FENCE (LF.)

TYPE III SILT FENCE

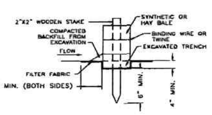
NOTE

LO.315.TO.252 DO NOT DEPLOY SILT FENCES IN A MANNER THAT WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES.
SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND AS TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.
SILT FENCE SHOULD BE REPLACED EVERY SIX (6) MONTHS.
SILT FENCE SHALL EXTEND A MINIMUM OF 4" BELOW GRADE.
SILT FENCE SHALL EXTEND 4' AWAY FROM STAKES.



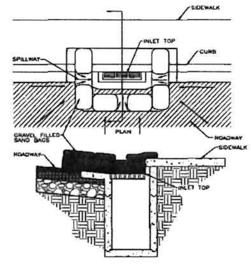
POINTS A SHOULD BE HIGHER THAN B

PROPER PLACEMENT OF BALES IN DRAINAGE WAY



EROSION CONTROL DETAILS

NOT TO SCALE

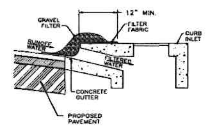


NOTE:

1. GRAVEL FILLED BAGS TO BE PLACED TIGHTLY TOGETHER AS TO NOT ALLOW ANY GAPS IN BETWEEN THE BAGS VERTICALLY AND HORIZONTALLY.
2. IF SEDIMENT IS PENETRATING BAGS, BAGS MAY NEED TO BE WRAPPED IN ADDITIONAL FILTER FABRIC.

CURB INLET SEDIMENT BARRIER (OPTION 1)

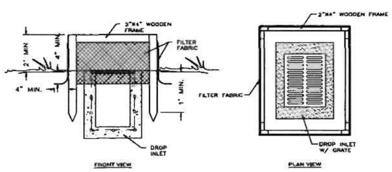
NOT TO SCALE



NOTES:
1. GRAVEL SHALL BE #57 STONE.

GRAVEL CURB INLET SEDIMENT FILTER (OPTION 2)

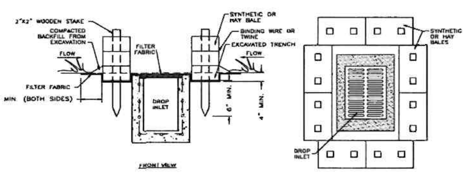
NOT TO SCALE



NOTES:
1. TOP FRAME REQUIRED FOR STABILITY.
2. THIS METHOD OF INLET PROTECTION IS NOT TO BE USED IN RIGHT-OF-WAYS OR MEDIANS.
3. STAKES SHALL EXTEND 1' MIN. BELOW GRADE.
4. FILTER FABRIC SHALL EXTEND 4" MIN. BELOW GRADE AND 4" MIN. BEYOND WOODEN FRAME.

DROP INLET SEDIMENT FILTER OPTION 1

NOT TO SCALE



DROP INLET SEDIMENT FILTER OPTION 2

NOT TO SCALE

WORK IN RIGHTS-OF-WAYS

ALL WORK WITHIN RIGHTS-OF-WAYS SHALL BE IN STRICT ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF THE RESPECTIVE AGENCIES.

THE CONTRACTOR SHALL COOPERATE WITH THE GOVERNING STATE AND LOCAL AGENCIES IN ALL PROCEDURES, MATERIALS AND METHODS OF CONSTRUCTION.

ALL OFF-SITE WORK INCLUDED CONSISTS OF BUT IS NOT LIMITED TO THE FOLLOWING:

CONSTRUCTION OF DRIVEWAY CONNECTIONS TO EXISTING MUNICIPAL ROADWAYS AS SHOWN ON PLANS.

PLACEMENT OF ABOVE OR BELOW GROUND UTILITIES AND CONNECTION TO EXISTING UTILITIES AS SHOWN ON PLANS.

SITE CLEARING AND DEMOLITION

ANY WORK WITHIN STREET OR HIGHWAY RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE GOVERNMENTAL AGENCIES HAVING JURISDICTION AND SHALL NOT BEGIN UNTIL THESE GOVERNING AUTHORITIES HAVE BEEN NOTIFIED AND PROPER PERMITS OBTAINED.

KEEP ALL AREAS WITHIN THE CONSTRUCTION AREA SUFFICIENTLY DAMPENED TO PREVENT DUST FROM RISING DUE TO CONSTRUCTION. COMPLY WITH ALL ANTI-POLLUTION ORDINANCES.

THIS SUBCONTRACTOR SHALL SEE TO IT THAT TRUCKS LEAVING THE SITE SHALL DO SO IN SUCH A MANNER THAT MUD AND EARTH WILL NOT BE DEPOSITED ON ADJACENT STREET PAVEMENTS. ANY MUD OR EARTH DEPOSITED ON STREET PAVEMENTS SHALL BE PROMPTLY REMOVED BY THIS SUBCONTRACTOR.

ALL CLEARING SHALL BE PERFORMED IN A MANNER SUCH AS TO PREVENT ANY WASH-OFF OF SOILS FROM THE SITE INTO STREAMS AND/OR STORM DRAINAGE SYSTEMS. APPROPRIATE SEDIMENTATION PONDS, DIKES, COLLARS, AND FILTER MEDIA SHALL BE EMPLOYED TO INSURE COMPLIANCE WITH THESE REQUIREMENTS. WHERE A SPECIFIC STATUTE GOVERNS THESE PROCEDURES, SUCH STATUTE SHALL BE COMPLIED WITH IN IT'S ENTIRETY.

TOPSOIL IS DEFINED AS FRIABLE CLAY LOAM SURFACE SOIL FOUND IN A DEPTH OF NOT LESS THAN 4". SATISFACTORY TOPSOIL IS REASONABLY FREE OF SUBSOIL, CLAY LUMPS, STONES, AND OTHER OBJECTS OVER 2" IN DIAMETER, AND WITHOUT WEEDS, ROOTS, AND OTHER OBJECTIONABLE MATERIAL.

STRIP TOPSOIL TO WHATEVER DEPTHS ENCOUNTERED IN A MANNER TO PREVENT INTERMINGLING WITH UNDERLYING SUBSOIL OTHER OBJECTIONABLE MATERIAL.

REMOVE HEAVY GROWTHS OF GRASS FROM AREAS BEFORE STRIPPING. WHERE TREES ARE INDICATED TO BE LEFT STANDING, STOP TOPSOIL STRIPING A SUFFICIENT DISTANCE TO PREVENT DAMAGE TO MAIN ROOT SYSTEM. DISPOSE OF UNSUITABLE OR EXCESS TOPSOIL SAME AS WASTE MATERIAL HEREIN SPECIFIED.

BURNING WILL NOT BE PERMITTED ON PROJECT SITE.

ALL EXISTING STRUCTURES, UTILITIES AND OTHER OBSTACLES IN CONFLICT WITH THE PROPOSED FACILITY SHALL BE REMOVED AND DISPOSED OF IN A LEGAL MANNER. SEE OTHER UTILITY AND MISCELLANEOUS NOTES CONCERNING REMOVAL.

ALLOW TESTING SERVICES TO INSPECT AND APPROVE SUBGRADE AND FILL LAYERS BEFORE FURTHER CONSTRUCTION WORK IS PERFORMED.

ATTENTION IS CALLED TO THE FACT THAT THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES TO OBTAIN LOCATIONS OF ALL EXISTING UTILITIES OR OBSTRUCTIONS WHICH HE MAY ENCOUNTER DURING CONSTRUCTION.

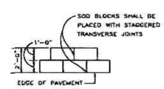
AFTER LOCATION OF UTILITIES BY THE APPROPRIATE UTILITY COMPANY, IT IS THE CONTRACTOR'S LIABILITY TO PROTECT ALL SUCH UTILITY LINES, INCLUDING SERVICE LINES AND APPURTENANCES, AND TO REPLACE AT HIS OWN EXPENSE ANY WHICH MAY BE DAMAGED BY THE CONTRACTOR'S EQUIPMENT OR FORCES DURING CONSTRUCTION.

TO PROTECT PERSON FROM INJURY AND TO AVOID PROPERTY DAMAGE, ADEQUATE BARRICADES, CONSTRUCTION SIGNS, TORCHES, RED LANTERNS AND GUARDS AS REQUIRED SHALL BE PLACED AND MAINTAINED DURING THE PROGRESS OF THE CONSTRUCTION WORK.

ADEQUATE PROVISION SHALL BE MADE FOR THE FLOW OF SEWERS, DRAINS, AND WATER COURSES ENCOUNTERED DURING CONSTRUCTION, AND THE STRUCTURES WHICH MAY HAVE BEEN DISTURBED SHALL BE SATISFACTORILY RESTORED BY THE CONTRACTOR.

EXCAVATING, FILLING AND GRADING

ADD NOTE: FILL MATERIAL MUST COMPLY WITH THE CITY'S "COASTAL CODE" ORDINANCE SECTION 8-131 "THE PURPOSE OF THE COASTAL CODE IS TO PROVIDE MINIMUM STANDARD FOR THE DESIGN AND CONSTRUCTION OF BUILDINGS AND STRUCTURES TO REDUCE THE HARMFUL EFFECTS OF HURRICANES AND OTHER SEVERE STORMS OCCURRING ALONG THE COASTAL AREA OF THE CITY OF PANAMA CITY BEACH WHICH FRONTS ON THE GULF OF MEXICO. THESE STANDARDS ARE INTENDED TO SPECIFICALLY ADDRESS DESIGN FEATURES WHICH AFFECT THE STRUCTURAL STABILITY OF THE BEACH, DUNES AND TOPOGRAPHY OF ADJACENT PROPERTIES. THE COASTAL CODE IS SITE SPECIFIC TO THE COASTAL BUILDING ZONE AS DEFINED HEREIN AND IS NOT APPLICABLE TO OTHER LOCATIONS. IN THE EVENT OF A CONFLICT BETWEEN THIS ARTICLE AND OTHER PROVISIONS OF THIS CODE, THE REQUIREMENTS RESULTING IN THE MORE RESTRICTIVE DESIGN SHALL APPLY. NO PROVISIONS IN THIS ARTICLE SHALL BE CONSTRUED TO PERMIT ANY CONSTRUCTION IN ANY AREA PROHIBITED BY CITY, COUNTY, STATE OR FEDERAL REGULATION.
THE STORING, DEPOSITING, TRANSFERRING OR USE OF RED OR COLORED CLAY OR SAND, OR ANY OTHER UNACCEPTABLE FILL MATERIAL SOUTH OF THE NORTH RIGHT-OF-WAY OF FRONT BEACH ROAD, SOUTH THOMAS DRIVE AND THOMAS DRIVE, IS HEREBY PROHIBITED. FOR PURPOSES OF THIS SECTION, UNACCEPTABLE FILL MATERIAL IS FILL MATERIAL NOT HAVING A MUNSELL VALUE OF 7 OR ABOVE, HUE 7.5YR OR 10YR OR 5Y, CHROMA/1 OR/2 (SEE MUNSELL SOIL COLOR CHARTS, KOLLMORGEN INSTRUMENT CORP., 1994) IN A WASHED, DRY STATE WITH A MEAN GRAIN SIZE OF 0.5 MM OR LESS, BUT NOT MORE THAN TEN PERCENT (10%) SILT. A MUNSELL VALUE OF 6 FOR UNWASHED FILL MATERIAL MAY BE DEPOSITED IF THE OWNER OF THE LAND BEING FILLED OR THE OWNER'S AGENT CAN SHOW THAT THE VALUE WILL INCREASE TO A MINIMUM OF 7 AFTER TEN WASHINGS. NOTWITHSTANDING ANYTHING HEREIN, NO FILL MATERIAL SHALL BE STORED, DEPOSITED, TRANSFERRED OR USED SOUTH OF THE NORTH RIGHT-OF-WAT OF FRONT BEACH ROAD, SOUTH THOMAS DRIVE AND THOMAS DRIVE UNLESS THE ENGINEERING DEPARTMENT FIRST FINDS IN WRITING THAT THE PROPOSED FILL MATERIAL MEETS THE STANDARDS OF THIS SECTION. SOIL AMENDMENTS IN THE TOP 6" SOIL SURFACE FOR LANDSCAPING USE AND STONE OR GRAVEL FOR STORM DRAINAGE EXFILTRATION SYSTEMS ARE EXEMPT FROM THIS SECTION."



THIS WORK CONSISTS OF SODDING AREAS CLEARED DURING CONSTRUCTION AND NOT PAVED, OR AS OTHERWISE SHOWN ON THE CONSTRUCTION PLANS. ALL MATERIAL AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH SECTION 570, 571, 573, OR 575 OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, LATEST REVISION.

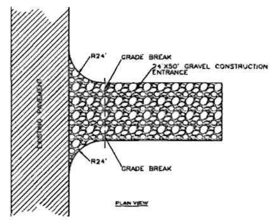
USE ST. AUGUSTINE GRASS (FLORATAM) SOD. THE SOD SHALL BE LIVE, FRESH AND UNINJURED AT THE TIME OF PLANTING AND SHALL HAVE A THICK MAT OF ROOTS WITH ENOUGH ADHERING SOIL TO ASSURE GROWTH. APPLY SOD WITHIN 72 HOURS OF CUTTING OR STACKING TO KEEP MOIST.

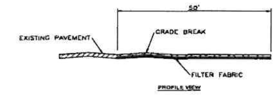
PREPARE THE GROUND BY LOOSENING THE SOIL. PLACE SOD ON THE PREPARED SOIL WITH EDGES IN CLOSE CONTACT. STAGGER THE SOD PIECES SO AS TO AVOID A CONTINUOUS DOWNHILL SEAM. TAMP THE OUTER EDGES OF THE SODDED AREA TO PRODUCE A SMOOTH CONTOUR.

KEEP SOD CONTINUOUSLY MOIST TO A DEPTH BELOW THE ROOT ZONE FOR THREE WEEKS AFTER PLACEMENT.

SODDING DETAIL

NOT TO SCALE



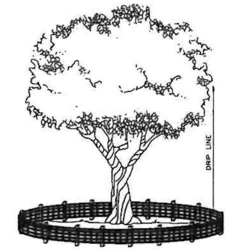


NOTE:

1. GRAVEL CONSTRUCTION ENTRANCE SHALL BE 24' WIDE AND 50' LONG.
2. CONSTRUCTION ENTRANCE SHALL BE 8" OF #57 STONE OVERLAYING FILTER FABRIC.
3. ALGEBRAIC DIFFERENCE OF SLOPE FROM EXISTING ROAD AND SLOPE FROM EDGE OF PAVEMENT TO GRADE BREAK SHALL NOT EXCEED 12%.
4. CONSTRUCTION ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS.
5. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR BASIN.

CONSTRUCTION ENTRANCE DETAIL

NOT TO SCALE



CORD FENCE - POSTS WITH A MINIMUM SIZE 2 INCHES SQUARE OR 2 INCHES IN DIAMETER SET SECURELY IN GROUND AND PROTRUDING AT LEAST 4 FEET ABOVE THE GROUND SHALL BE PLACED AT THE LIMITS OF CLEARING WITH ORANGE CONSTRUCTION MESH FENCING RUNNING BETWEEN POSTS.

TREE BARRIER DETAIL

NOT TO SCALE

SEEDING RATE ZONES

TYPE OF SEED	SEEDING RATES (LBS/AC)							
	ZONE I				ZONE II			
	COASTAL		INLAND		COASTAL		INLAND	
	MAR. TO NOV.	NOV. TO MAR.	MAR. TO OCT.	OCT. TO MAR.	FEB. TO DEC.	DEC. TO FEB.	FEB. TO DEC.	DEC. TO FEB.
PERMANENT GRASS								
UNHULLED BERMUDA	15	15	10	15	15	15	10	15
BAHIA ARGENTINA OR PENSACOLA			30	30			30	30
QUICK GROWING								
BROWN TOP MILLET	20		20		20		20	
ANNUAL RYE GRASS		20		20		20		20
TOTAL POUNDS PER ACRE	35	35	60	65	35	35	60	65

NOTE: THE SEEDING RATES SHOWN IN THIS TABLE APPLY ONLY WHEN SEED IS SPREAD BY AN APPROVED MECHANICAL SPREADER MEETING THE REQUIREMENTS OF SECTION 570 AND 577 OF THE STANDARD SPECIFICATIONS.

GENERAL NOTES

1. SPECIAL ATTENTION IS TO BE DIRECTED TO THE CONSTRUCTION OF THE REQUIRED 1" DROP-OFF AT EDGE OF PAVEMENT.
2. FERTILIZE ENTIRE UNPAVED SHOULDER AND FRONT SLOPE TO TOE OF SLOPE OR BOTTOM OF DITCH.
3. TOPSOIL OBTAINED FROM BORROW PITS OR OTHER SOURCES MAY BE USED IN LIEU OF EXCAVATED TURF AND TOPSOIL WHEN ECONOMICALLY FEASIBLE. NO ADDITIONAL PAYMENT WILL BE MADE FOR SUBSTITUTING TOPSOIL FOR EXCAVATED TURF OR TOPSOIL.

TOPSOIL: IF THE QUANTITY OF EXISTING STORED OR EXCAVATED TOPSOIL IS INADEQUATE FOR PLANTING, SUFFICIENT ADDITIONAL TOPSOIL SHALL BE FURNISHED. TOPSOIL FURNISHED SHALL BE A NATURAL, FERTILE, FRIABLE SOIL, POSSESSING CHARACTERISTICS OF REPRESENTATIVE PRODUCTIVE SOILS IN THE VICINITY. IT SHALL BE OBTAINED FROM NATURALLY WELL-DRAINED AREAS.

TOPSOIL SHALL BE WITHOUT ADMIXTURE OF SUBSOIL AND FREE FROM JOHNSON GRASS (SORGHUM HALEPENSE), NUT GRASS (CYPERUS ROTUNDUS) AND OBJECTIONABLE WEEDS AND TOXIC SUBSTANCES.

GROUND LIMESTONE (DOLOMITE) CONTAINING NOT LESS THAN 85 PERCENT OF TOTAL CARBONATES, AND SHALL BE GROUND TO SUCH A FINENESS THAT 50 PERCENT WILL PASS A 100-MESH SIEVE AND 90 PERCENT WILL PASS A 20-MESH SIEVE.

16-16-16 FORMULATION OF WHICH 50 PERCENT OF THE NITROGEN IS IN THE UREA-FORMALDEHYDE FORM AND SHALL CONFORM TO THE APPLICABLE STATE FERTILIZER LAWS. IT SHALL BE GRANULATED SO THAT 80 PERCENT IS HELD ON A 16-MESH SCREEN, UNIFORM IN COMPOSITION, DRY AND FREE-FLOWING. MULCH: CLEAN HAY OR FREE STRAW MULCH.

AREAS TO BE GRASSED SHALL BE GRADED TO REMOVE DEPRESSIONS, UNDULATIONS, AND IRREGULARITIES IN THE SURFACE BEFORE GRASSING.

PLACING TOPSOIL: AREAS TO BE GRASSED SHALL HAVE A MINIMUM TOPSOIL OVER OF TWO INCHES. TOPSOIL SHALL NOT BE PLACED WHEN THE SUBGRADE IS EXCESSIVELY WET, EXTREMELY DRY OR IN A CONDITION OTHERWISE DETRIMENTAL TO THE PROPOSED PLANTING OR PROPER GRADING.

TILLAGE: THE AREA TO BE GRASSED SHALL BE THOROUGHLY TILLED TO A DEPTH OF FOUR INCHES USING A PLOW AND DISC HARROW OR ROTARY TILLING MACHINERY UNTIL A SUITABLE BED HAS BEEN PREPARED AND NO CLODS OR CLUMPS REMAIN LARGER THAN 1-1/2 INCHES IN DIAMETER.

APPLICATION OF LIME: THE PH OF THE SOIL SHALL BE DETERMINED. IF THE PH IS BELOW 5.0, SUFFICIENT LIME SHALL BE ADDED TO PROVIDE A PH BETWEEN 5.5 AND 6.5. THE LIME SHALL BE THOROUGHLY INCORPORATED INTO THE TOP THREE TO FOUR INCHES OF THE SOIL. LIME AND FERTILIZER MAY BE APPLIED IN ONE OPERATION.

APPLICATION OF FERTILIZER: FERTILIZER SHALL BE APPLIED AT THE RATE OF 6 POUNDS PER 1,000 SQUARE FEET AND SHALL BE THOROUGHLY INCORPORATED INTO THE TOP THREE TO FOUR INCHES OF SOIL.

ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE SEEDED AS SPECIFIED HEREIN. IMMEDIATELY BEFORE SEEDS ARE SOWN AND AFTER FERTILIZER AND LIME ARE APPLIED, THE GROUND SHALL BE SCARIFIED AS NECESSARY AND SHALL BE RAKED UNTIL HE SURFACE IS SMOOTH, FRIABLE, AND OF UNIFORMLY FINE TEXTURE. AREAS TO BE GRASSED SHALL BE SEEDED EVENLY WITH A MECHANICAL SPREADER, RAKED LIGHTLY, ROLLED WITH A 200-POUND ROLLER, AND WATERED WITH A FINE SPRAY.

SEEDS SHALL BE APPLIED AT THE FOLLOWING RATE:

SEEDS RATE OF APPLICATION

BERMUDA 6 LBS./1000 SQ.FT.

SEEDED AREAS SHALL BE MULCHED AT THE RATE OF NOT LESS THAN 1-1/2" LOOSE MEASUREMENT OVER ALL SEEDED AREAS. SPREAD BY HAND, BLOWER, OR OTHER SUITABLE EQUIPMENT. MULCH SHALL BE CUT INTO THE SOIL WITH EQUIPMENT CAPABLE OF CUTTING THE MULCH UNIFORMLY INTO THE SOIL. MULCHING SHALL BE DONE WITHIN 24 OURS OF THE TIME SEEDING IS COMPLETED.

AFTER SEEDING AND MULCHING, A CULTIPACKER, TRAFFIC ROLLER, OR OTHER SUITABLE EQUIPMENT SHALL BE USED FOR ROLLING THE GRASSED AREAS. AREAS SHALL THEN BE WATERED WITHIN A FINE SPRAY.

ALL AREAS TO BE GRASSED SHALL BE PROTECTED AGAINST EROSION AT ALL TIMES. FOR PROTECTION DURING WINTER MONTHS (NOVEMBER 1ST THRU MARCH 31ST) ITALIAN RYE GRASS SHALL BE PLANTED AT A RATE OF FOUR POUNDS PER 1,000 SQUARE FEET ON ALL AREAS WHICH ARE NOT PROTECTED BY PERMANENT GRASS.

SEEDING DETAIL

NOT TO SCALE

PERMIT PURPOSES ONLY

CONSTRUCTION DETAILS
EAST BAY SUBDIVISON
5530 HWY 2297
PANAMA CITY, FLORIDA

SCALE: SHOWN
DESIGNED BY: RLC
DRAWN BY: JJT
REVIEWED BY: RLC
ISSUE DATE: 7/1/2025
C/N: 830.03E02
NOT RELEASED FOR CONSTRUCTION BY: DATE:

McNEIL — CARROLL ENGINEERING, INC.
Professional Engineering Consultants
STATE OF FLORIDA CERTIFICATE OF AUTHORIZATION NUMBER 7398
17800 Panama City Beach Parkway
Panama City Beach, Florida 32413
Phone 850-234-1730
Fax 850-234-1731

NO.	DATE	BY	REVISIONS
01			
02			
03			
04			
05			

Sean D. McNeil, P.E.
PROFESSIONAL ENGINEER
FL LIC # 69305

Robert L. Carroll, P.E.
PROFESSIONAL ENGINEER
FL LIC # 57988

ROBERT L. CARROLL LICENSE No. 57988 STATE OF FLORIDA PROFESSIONAL ENGINEER 7/1/25

SHEET NUMBER 6 OF 10

830.03 - EAST BAY SUBDIVISON

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SITE DRAINAGE

ALL OFF-SITE AND ON-SITE WORK INCLUDED CONSISTS OF BUT IS NOT LIMITED TO THE FOLLOWING.

EXCAVATION, BEDDING, FILTER MATERIAL AND BACKFILL FOR ALL STORM SEWER, SUBSURFACE DRAINS AND DRAINAGE STRUCTURES.

COMPLETE INSTALLATION OF ALL STORM SEWER, SUBSURFACE DRAINS, CATCH BASINS, JUNCTION BOXES, MANHOLES, ETC., INCLUDING ALL RELATED FITTINGS, JOINTS COVERS, GRATES, FRAMES, RUNGS, ETC.

ANY WORK WITHIN STREET OR HIGHWAY RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE GOVERNMENTAL AGENCIES HAVING JURISDICTION AND SHALL NOT BEGIN UNTIL ALL OF THESE GOVERNING AUTHORITIES HAVE BEEN NOTIFIED.

POLYVINYL CHLORIDE (PVC), FOR PIPE UP TO AND INCLUDING TEN INCHES (10") IN DIAMETER, SHALL CONFORM TO ASTM D3034 SDR 35 WITH ELASTOMERIC GASKET JOINTS CONFORMING TO ASTM D3212.

REINFORCED CONCRETE PIPE, FOR PIPE TWELVE INCHES (12") IN DIAMETER AND UP, SHALL CONFORM TO ASTM C-76, CLASS IV OR AASHTO M-170 WITH BELL AND SPIGOT OR TONGUE AND GROOVE COMPRESSION JOINT CONFORMING TO ASTM C-443.

MANHOLES, CATCH BASINS, ETC. SHALL BE SIZE AND TYPE INDICATED ON THE DRAWINGS AND SHALL BE CONSTRUCTED OF THE FOLLOWING:

REINFORCED PRECAST CONCRETE MANHOLE SECTIONS INCLUDING CONCENTRIC OR ECCENTRIC CONES AND GRADE RINGS SHALL BE 4000 PSI CONCRETE AND CONFORM TO ASTM C478 OR AASHTO M-199. SECTIONS SHALL BE COMPLETE WITH 3/4" ROUND CAST IN PLACE WROUGHT IRON STEPS.

BRICK SHALL BE SOUND, HARD BURNED THROUGHOUT AND OF UNIFORM SIZE AND QUALITY AND SHALL BE IN ACCORDANCE WITH ASTM C-32, GRADE MS OR MM.

CONCRETE MASONRY SHALL BE SOLID PRECAST SEGMENTAL CONCRETE MASONRY UNITS CONFORMING TO ASTM C-139.

IRON CASTINGS SHALL CONFORM TO ASTM A-48, CLASS 30. BEARING SURFACES BETWEEN CAST IRON FRAMES, COVERS AND GRATES SHALL BE MACHINED, FITTED TOGETHER AND MATCH MARKED TO PREVENT ROCKING.

SYSTEM IDENTIFYING LETTER 2" HIGH SHALL BE STAMPED OR CAST INTO ALL COVERS SO THAT THE MAY BE PLAINLY VISIBLE.

CASTINGS SHALL BE MANUFACTURED BY EAST JORDAN IRON WORKS, INC. NEENAH FOUNDRY COMPANY, VULCAN FOUNDRY COMPANY OR EQUAL.

MANHOLE STEPS FOR BRICK OR CONCRETE MASONRY STRUCTURES SHALL BE CAST IRON ASPHALT COATED, NEENAH FOUNDRY COMPANY "R-1980-E" OR EQUAL.

CONCRETE AND MASONRY MATERIALS FOR CONSTRUCTION OF STORM DRAINAGE STRUCTURES SHALL CONSIST OF THE FOLLOWING

PORTLAND CEMENT SHALL BE STANDARD BRAND OF PORTLAND CEMENT CONFORMING TO ASTM C-150, TYPE I OR II.

FINE AND COARSE AGGREGATES FOR CONCRETE SHALL BE PER ASTM C-33. AGGREGATES SHALL BE WELL GRADED FROM FINE TO COARSE WITHIN LIMITS SPECIFIED IN ASTM C-33. MAXIMUM SIZE OF COARSE AGGREGATE SHALL BE 3/4".

AGGREGATE FOR CEMENT MORTAR SHALL BE CLEAN, SHARP SAND CONFORMING TO ASTM C-144. GRADE SAND FROM COARSE TO FINE WITH 100% PASSING NO. 8 SIEVE, AND NOT OVER 10 TO 30% PASSING NO. 50 SIEVE. HYDRATED LIME SHALL COMPLY WITH ASTM C-207, TYPE S. WATER SHALL BE CLEAN AND FREE FROM DELETERIOUS MATERIALS.

ALL MATERIAL USED FOR CONCRETE AND THE DESIGN OF ALL CONCRETE MIXES SHALL CONFORM WITH THE RECOMMENDATIONS OF THE AMERICAN CONCRETE INSTITUTE (ACI 211.1-81).

ALL CONCRETE, UNLESS NOTED OTHERWISE, SHALL DEVELOP A 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI.

JOINT SEALANT SHALL BE HOT LAID BITUMINOUS SEALER.

RIP RAP SHALL BE SOUND, TOUGH DURABLE ROCK OR BROKEN CONCRETE AS APPROVED BY THE GEOTECHNICAL ENGINEER. RIP RAP SHALL BE AT LEAST EIGHT INCH (8") IN ONE DIMENSION AN SHALL HAVE A VOLUME OF NOT LESS THAN 11/3 CUBIC FOOT. SMALLER PIECES PERMITTED FOR FILLING VOIDS.

REINFORCING STEEL FOR CONCRETE SHALL BE INTERMEDIATE GRADE NEW BILLET STEEL CONFORMING TO ASTM A-615, GRADE 40. WELDED WIRE MESH SHALL CONFORM TO ASTM DESIGNATION A185 FOR SMOOTH WIRE AND ASTM A497 FOR DEFORMED WIRE.

FORMS FOR FOUNDATIONS AND OTHER CONCRETE WORK SHALL BE WOOD. FORMS SHALL BE OF SUFFICIENT STRENGTH TO PREVENT DEFORMATION UNDER LOAD AND TIGHT ENOUGH TO PREVENT LEAKAGE. FOUNDATIONS MAY BE POURED AGAINST EARTH WHERE CONDITIONS PERMIT.

ALL REINFORCEMENT SHALL BE FABRICATED AND PLACED IN ACCORDANCE WITH ACI 318-77. WELDED WIRE MESH SHALL BE LAPPED 6-INCHES AT ALL EDGES.

THE MIXING, PLACING, CURING AND FINISHING OF CONCRETE SHALL COMPLY WITH ACI 304 AND ACI 318. ALL EXPOSED SURFACES SHALL BE GIVEN A HARD STEEL TROWEL FINISH WITH NO TROWEL MARKS REMAINING. NO CEMENT SHALL BE DUSTED ON THE SURFACE. ALL CONCRETE SHALL BE CURED BY COATING WITH A CLEAR CURING NO CEMENT CONFORMING TO ASTM C-304, OR BY KEEPING IT WET FOR AT LEAST SIX DAYS AFTER POURING. AFTER THE FORMS ARE STRIPPED, ALL EXPOSED CONCRETE SURFACES SHALL BE POINTED AS NEEDED AND RUBBED TO A UNIFORM FINISH.

CONCRETE, UNLESS OTHERWISE NOTED, SHALL HAVE COMPRESSIVE STRENGTH AFTER 28 DAYS OF 3000 PSI MINIMUM. MIX SHALL BE SO PROPORTIONED TO PROVIDE A MINIMUM OF 517 POUNDS OF CEMENT PER CUBIC YARD

CONCRETE FILL BELOW GRADE FOR PIPE CRADLES ETC. MAY BE 2500 PSI AT 28 DAYS.

CONCRETE, WHERE EXPOSED TO THE WEATHER, SHALL BE AIR ENTRAINED. AIR ENTRAINMENT SHALL BE ACCOMPLISHED BY THE USE OF ADDITIVES CONFORMING TO ASTM C-260. AIR CONTENT SHALL BE 6% + 1%. ADDITIVE SHALL BE USED STRICTLY IN ACCORDANCE WITH MANUFACTURER'S PRINTED DIRECTIONS.

READY-MIX CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-94.

CEMENT MORTAR SHALL BE AS SPECIFIED HEREINAFTER. USE METHODS OF MIXING MORTAR MATERIALS CAN BE CONTROLLED AND ACCURATELY MAINTAINED DURING WORK PROGRESS. MORTAR SHALL NOT BE MIXED IN GREATER QUANTITIES THAN SATISFACTORY WORKABILITY. RETEMPERING OF MORTAR IS NOT PERMITTED

MORTAR FOR LAYING BRICK OR CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C-270, TYPE M. AVERAGE COMPRESSIVE STRENGTH 2500 AT 28 DAYS. MORTAR MIX SHALL BE PROPORTIONED BY VOLUME. MORTAR FOR PARGING SHALL CONSISTS OF ONE PART PORTLAND CEMENT AND TWO PARTS SAND.

MORTAR FOR GROUTING OF RIP RAP SHALL CONSIST OF ONE PART PORTLAND CEMENT AND THREE PARTS SAND.

STORM WATER SEWERS: STORM SEWERS SHALL BE INSTALLED IN LOCATIONS AND OF SIZES INDICATED ON DRAWING

LAY PIPE, EMBED IT FIRMLY TO REQUIRED LINE AND GRADE WITH BELLS OF GROOVE END UP-GRADE. FIT ENDS TOGETHER, EXCAVATE BELL HOLES SO THAT SEWER WILL HAVE SMOOTH AND UNIFORM INVERT THROUGHOUT ITS LENGTH.

CORRUGATED METAL PIPE SHALL BE PLACED ON A FLAT BOTTOM TRENCH WITH HAUNCHES SOLIDLY SUPPORTED BY TAMPED BEDDING MATERIAL.

WHERE GROUND IS FOUND UNSUITABLE TO SUPPORT PIPE, PROVIDE CONCRETE CRADLES. DEPOSIT CONCRETE FULL WIDTH OF TRENCH 4" DEEP MINIMUM TO BOTTOM OF PIPE. REINFORCE CONTINUOUSLY WITH TWO (2) NO. 4 REINFORCING BARS. BEFORE CONCRETE IS SET, EMBED PIPE EVENLY. DEPOSIT REMAINDER OF CONCRETE TO CENTERLINE OF PIPE AND TAMP IN A MANNER TO AVOID DISTURBING PIPE.

WHERE STORM SEWER CROSSES A SANITARY SEWER OR WATER LINE AND THE STORM SEWER IS WITHIN ONE AND A HALF (1-1/2) FEET OF THE SANITARY SEWER PIPE OR WATER LINE, THE INTERSECTION OF THE PIPE OR LINE SHALL BE EMBEDDED IN CONCRETE FOR A DISTANCE OF FIVE FEET (5') EACH WAY FROM CENTERLINE OF INTERSECTION.

PROVIDE POURED CONCRETE FOUNDATIONS FOR DRAINAGE STRUCTURES.

PRECAST CONCRETE BASE MAY BE USED WHERE APPROVED BY THE GEO-TECHNICAL ENGINEER. PRECAST CONCRETE BASE MUST BE SET LEVEL ON SAND CUSHION OF NOT LESS THAN 2" NOR MORE THAN 4"

MANHOLES AND CATCH BASINS SHALL BE CONSTRUCTED OF BRICK, CONCRETE MASONRY OR PRECAST CONCRETE WITH CAST IRON FRAMES, COVERS AND MANHOLE STEPS, AS INDICATED ON DRAWINGS AND SPECIFIED HEREIN.

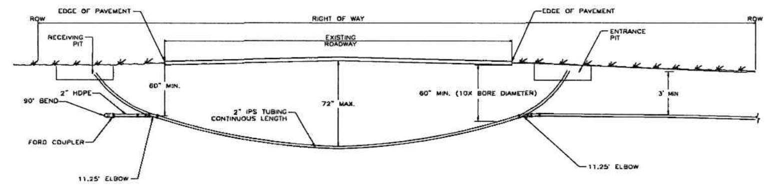
RIP RAP SHALL BE LAID OVER FILTER FABRIC FROM THE BOTTOM UPWARD, STONES SHALL BE LAID BY HAND WITH EIGHT (8") INCH MINIMUM DIMENSION PERPENDICULAR TO GRADE WITH WELL BROKEN JOINTS, COMPACTED AS IT GOES, TRUE TO LINE. ALL JOINTS SHALL BE FILLED WITH CEMENT MORTAR. SURFACE OF STONE TO BE EXPOSED. CLEAN JOINTS WITH SIRE BRUSH.

BEFORE BACKFILLING AROUND DRAINAGE STRUCTURES, ALL FORMS, TRASH AND DEBRIS SHALL BE REMOVED AND CLEARED AWAY. SELECTED EXCAVATED MATERIAL SHALL BE PLACED SYMMETRICALLY ON ALL SIDES IN EIGHT INCH (8") MAXIMUM LAYERS; EACH LAYER SHALL BE MOISTENED AND COMPACTED WITH MECHANICAL OR HAND TAMPERS.

INFILTRATION OF THE STORM DRAINAGE SYSTEM SHALL NOT EXCEED 0.60 GALLONS PER INCH OF INTERNAL PIPE DIAMETER PER ONE HUNDRED FEET (100') OF PIPELINE PER HOUR WITH A MAXIMUM HYDROSTATIC HEAD AT THE CENTER LINE OF THE PIPE OF TWENTY FIVE FEET (25'), OR AS REQUIRED BY GOVERNING CODE AUTHORITIES.

CATCH BASIN FRAMES AND GRATINGS: ASPHALT COATED GRAY CAST IRON, ANSI/ASTM A 48, CLASS 30 B

IT IS THE CONTRACTOR'S RESPONSIBILITY TO SUPPLY ALL MATERIALS NECESSARY TO COMPLETE DRAINAGE.



ALL POLYETHYLENE PIPING SHALL MEET CITY OF PANAMA CITY BEACH STANDARDS AND SPECIFICATIONS.

ALL HDPE PIPE SHALL BE ASTM D 2447, ASTM D 3350

HDPE PIPE REQUIRES 2 LOCATOR WIRES OF #12 SOLID CONDUCTOR WITH A BLUE SHEATH.

CONTRACTOR TO COMPLY WITH ALL RELEVANT FDOT MAINTENANCE OF TRAFFIC STANDARDS.

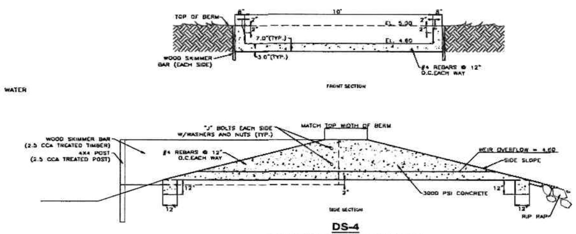
VERIFY LOCATIONS AND SIZE OF EXISTING UTILITIES WITH CITY OF PANAMA CITY BEACH UTILITY DEPARTMENT PRIOR TO CONSTRUCTION.

1. THE UTILITY DEPTH WILL BE EQUAL OR EXCEED TEN (10) TIMES THE BORE SIZE WHEN THE UTILITY WILL BE INSTALLED UNDER FDOT PAVEMENT.
2. WHEN INSTALLATIONS ARE OUTSIDE OF THE PAVEMENT AREA, THE OFFSET PARALLEL TO THE PAVEMENT MUST BE AT LEAST THREE AND ONE HALF (3.5) TIMES THE BORE SIZE.
3. NEW BORE INSTALLATIONS MUST MAINTAIN AT LEAST THREE AND ONE HALF (3.5) TIMES THE BORE SIZE CLEARANCE FROM VITRIFIED CLAY SANITARY PIPE AND ANY GAS LINE

SDR-9, CLASS 200 FOR POTABLE WATER & RECLAIMED WATER
SDR9 - ASTM D-2737 FOR SANITARY FORCE MAINS
COLOR CODED BLUE FOR POTABLE WATER
COLOR CODED PURPLE FOR RECLAIMED WATER
COLOR CODED GREEN FOR SANITARY FORCE MAIN

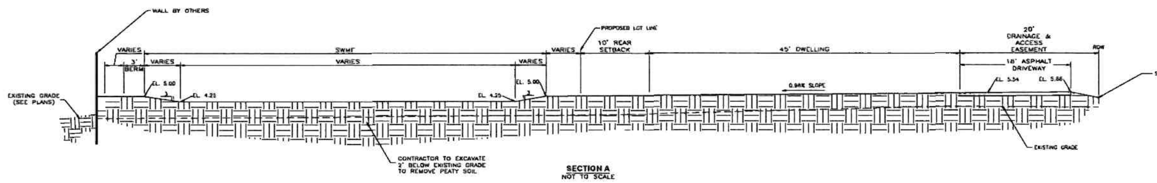
DIRECTIONAL BORE ROADWAY

1/4 SCALE



DS-4
WEIR STRUCTURE DETAIL

NOT TO SCALE



SECTION A
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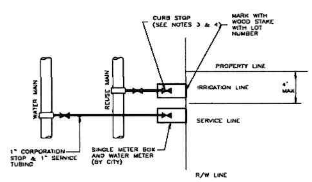
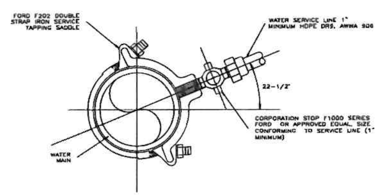


NOTES:
1. ALL FITTINGS SHALL BE BRASS WITH COMPRESSION/PACK JOINT TYPE CONNECTIONS.
2. NO SERVICE LINE SHALL TERMINATE UNDER A DRIVEWAY.
3. EACH SERVICE SHALL TERMINATE AT A CURB STOP WHICH SHALL BE FASTENED TO A 1" x 4" x 30" STAKE PAINTED WHITE AND MARKED WITH THE NUMBER OF THE LOT TO BE SERVED.
4. CURB STOP SHALL BE A FORD BALL METER VALVE B43-342W, B43-344W OR CITY APPROVED EQUAL.
5. ALL SERVICE TAPS TO BE LOCATED IN FIELD. TAPS SHALL BE NO CLOSER THAN AND WILL NOT BE SET IN DRAINAGE SWALES, EASEMENTS OR SIDEWALKS.
6. MAINTAIN A 3 FOOT MINIMUM SEPARATION BETWEEN POTABLE AND REUSE WATER SERVICES.

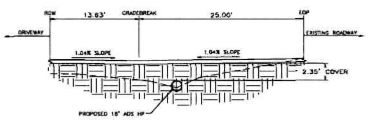
TYPICAL CITY SERVICE

NOT TO SCALE



TYPICAL WATER SERVICE CONNECTION

N.T.S.



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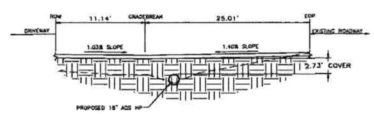

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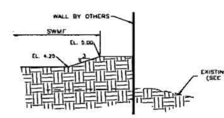

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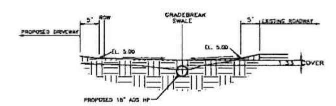

SECTION E
NOT TO SCALE

PERMIT PURPOSES ONLY

CONSTRUCTION DETAILS
EAST BAY SUBDIVISON
5530 HWY 2297
PANAMA CITY, FLORIDA

SCALE: SHOWN
DESIGNED BY: RLC
DRAWN BY: JJT
REVIEWED BY: RLC
ISSUE DATE: 7/1/2025
CF/D: 830.03E02
NOT RELEASED FOR CONSTRUCTION BY: DATE:

McNEIL — CARROLL ENGINEERING, INC.
Professional Engineering Consultants
STATE OF FLORIDA CERTIFICATE OF AUTHORIZATION NUMBER 7386

17800 Panama City Beach Parkway
Panama City Beach, Florida 32413
Phone 850-234-1730
Fax 850-234-1731

NO.	DATE	BY	REVISIONS
01			
02			
03			
04			
05			

Sean D. McNeil, P.E.
PROFESSIONAL ENGINEER
FL LC # 49309

Robert L. Carroll, P.E.
PROFESSIONAL ENGINEER
FL LC # 57988

ROBERT L. CARROLL LICENSE No. 57988 STATE OF FLORIDA PROFESSIONAL ENGINEER
7/1/25

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SITE UTILITIES

MATERIALS: WHERE GROUND IS FOUND UNSUITABLE TO SUPPORT PIPE, PROVIDE CRADLES OF 2500 PSI CONCRETE FULL WIDTH OF TRENCH WITH TWO NO. 4 REINFORCING BARS CONTINUOUSLY ALONG THE BOTTOM OF PIPE.

BACKFILL UNLESS OTHERWISE NOTED, SHALL BE COARSE SAND, FINE GRAVEL OR EARTH HAVING A LOW PLASTICITY INDEX, FREE OF ROCKS, DEBRIS AND OTHER FOREIGN MATERIALS AND DEFINED AS ALL PASSING THROUGH A 3/4" SIEVE AND NOT MORE THAN TEN PERCENT (10%) BY VOLUME PASSING THROUGH A 200 MESH SIEVE.

UTILITY PIPING AND FITTINGS SHALL BE SIZE AND TYPE INDICATED ON THE DRAWINGS AND SHALL CONFORM TO THE FOLLOWING: MANHOLES STRUCTURES SHALL BE SIZE AND TYPE INDICATED ON THE DRAWINGS AND SHALL BE CONSTRUCTED OF THE FOLLOWING

REINFORCED PRECAST CONCRETE MANHOLE SECTIONS CONSISTING CONCENTRIC OR ECCENTRIC CONES AND GRADE RINGS SHALL BE 4000 PSI CONCRETE AND CONFORM TO ASTM C-478 OR AASHTO M-199. SECTIONS SHALL BE COMPLETE WITH 3/4" ROUND CAST IN PLACE WROUGHT IRON STEPS

BRICK SHALL BE SOUND, HARD BURNED THROUGH-OUT AND OF UNIFORM SIZE AND QUALITY AND SHALL BE IN ACCORDANCE WITH ASTM C-32, GRADE MS OR MM.

CONCRETE MASONRY SHALL BE SOLID PRECAST SEGMENTAL CONCRETE MASONRY UNITS CONFORMING TO ASTM C-139.

IRON CASTING SHALL CONFORM TO ASTM A-48, CLASS 30. BEARING SURFACES BETWEEN CAST IRON FRAMES, COVERS, GRATES SHALL BE MACHINED, FITTED TOGETHER AND MATCH MARKED TO PREVENT ROCKING. SYSTEM IDENTIFYING LETTER 2" HIGH SHALL BE STAMPED OR CAST INTO ALL COVERS SO THAT THEY MAY BE PLAINLY VISIBLE. CASTING SHALL BE MANUFACTURED BY EAST JORDAN IRON WORKS, INC. NEENAH FOUNDRY COMPANY OR EQUAL.

CONCRETE AND MASONRY MATERIALS FOR CONSTRUCTION OF SITE UTILITY STRUCTURES AND PADS SHALL CONSIST OF THE FOLLOWING:

PORTLAND CEMENT SHALL BE STANDARD BRAND OF PORTLAND CEMENT CONFORMING TO ASTM C-150 TYPE I OR II.
FINE AND COARSE AGGREGATES FOR CONCRETE SHALL BE PER ASTM C-33. AGGREGATES SHALL BE WELL GRADED FROM FINE TO COARSE WITHIN LIMITS SPECIFIED IN ASTM C-33. MAXIMUM SIZE OF COARSE AGGREGATE SHALL BE 3/4".
AGGREGATE FOR CEMENT MORTAR SHALL BE CLEAN, SHARP SAND CONFORMING TO ASTM C-144. GRADE SAND FROM COARSE TO FINE WITH 100% PASSING NO. 8 SIEVE, AND NOT OVER 10% TO 30% PASSING NO. 50 SIEVE.
HYDRATED LIME SHALL COMPLY WITH ASTM C-207, TYPE S.
WATER SHALL BE CLEAN AND FREE FROM DELETERIOUS MATERIALS.

REINFORCING STEEL FOR CONCRETE SHALL BE INTERMEDIATE GRADE NEW BILLET STEEL CONFORMING TO ASTM A-615, GRADE 40.

FORMS FOR CONCRETE WORK SHALL BE WOOD. FORMS SHALL BE SUFFICIENT STRENGTH TO PREVENT DEFORMATIONS UNDER LOAD AND TIGHT ENOUGH TO PREVENT LEAKAGE. FOUNDATIONS MAY BE POURED AGAINST EARTH WHERE CONDITIONS PERMIT.

CONCRETE, UNLESS OTHERWISE NOTED, SHALL HAVE COMPRESSIVE STRENGTH AFTER 28 DAYS OF 3000 PSI MINIMUM AND SHALL BE SO PROPORTIONED TO PROVIDE A MINIMUM OF 517 POUNDS OF CEMENT PER CUBIC YARD. CONCRETE FILL BELOW GRADE FOR THRUST BLOCKS, PIPE CRADLES ETC. MAY BE 2500 PSI. AT 28 DAYS.

CONCRETE, WHERE EXPOSED TO THE WEATHER, SHALL BE AIR ENTRAINED. AIR ENTRAINMENT SHALL BE ACCOMPLISHED BY THE USE OF ADDITIVES CONFORMING TO ASTM C-260. AIR CONTENT SHALL BE 6% ± 1%. ADDITIVE SHALL BE USED IN STRICT ACCORDANCE WITH MANUFACTURER'S PRINTED DIRECTIONS.

READY-MIX CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-94.

TYPE M, AVERAGE COMPRESSIVE STRENGTH 2500 PSI. AT 28 DAYS. MORTAR MIX SHALL BE PROPORTIONED BY VOLUME.

MORTAR FOR PARGING SHALL CONSIST OF ONE PART PORTLAND CEMENT AND TWO PARTS SAND.

BACKFILL SHALL BE SAME MATERIAL SPECIFIED FOR PIPE BEDDING. WHERE SERVICE OR UTILITY LINES CROSS A STREET, BEDDING SHALL BE CARRIED TO FIVE FEET (5') BEHIND THE CURB, OR WHERE SIDEWALKS EXIST, TO THE SIDE OF THE SIDEWALK FARTHEST AWAY FROM THE STREET.

FLUSHING REQUIREMENTS FOR WATER AND SEWER FORCE MAINS

FLUSHING TIME SHALL BE AT LEAST THAT AMOUNT OF TIME NEEDED TO FLUSH 6 TIMES THE PIPE VOLUME AFTER 3 FPS VELOCITY IS REACHED OR UNTIL CLEAR, WHICHEVER IS LONGER. MAXIMUM LENGTH OF PIPE BETWEEN FLUSHING ASSEMBLIES SHALL BE 5,000 FEET.

SEWER COLLECTION SYSTEM

POLY (VINYL CHLORIDE) PIPE (PVC): PLASTIC GRAVITY SEWER PIPE AND FITTINGS SHALL BE UNPLASTICIZED POLYVINYL CHLORIDE (PVC) MEETING AND/OR EXCEEDING ASTM SPECIFICATIONS D-3034 (LATEST EDITION).

PIPE LENGTHS SHALL NOT EXCEED 20 FEET AND PROVISIONS SHALL BE MADE AT EACH JOINT TO ACCOMMODATE EXPANSION AND CONTRACTIONS.

COMPLY WITH REQUIREMENTS OF FS RR-F-621, FOR TYPE AND STYLE REQUIRED.

MATERIALS FOR SEWER FORCE MAINS: PVC PIPE FOR FORCE MAINS SHALL CONFORM TO THE REQUIREMENTS OF ASTM SDR-21 FOR PRESSURE RATING OF 200 PSI 230 C (73 DEGREES F). HOPE FORCE MAIN SHALL BE SDR-11. PIPE JOINTS SHALL BE INTEGRAL BELL AND SPIGOT TYPE WITH RUBBER RING SEALING GASKET. THE PIPE BELL SHALL BE DESIGNED TO BE AT LEAST AS STRONG AS THE PIPE WALL. STANDARD LENGTHS SHALL BE 20 FEET, EXCEPT THAT 13% OF TOTAL FOOTAGE MAY BE SHORTER LENGTHS. PIPE SHALL BE MARKED WITH THE MANUFACTURER'S NAME, PIPE SIZE AND GRADE. EACH PIECE OF PIPE SHALL BE TESTED BY THE MANUFACTURER TO 5000 PSI FOR A MINIMUM OF 5 SECONDS. THE BELL SHALL BE TESTED WITH THE PIPE. ALL PIPE SHALL BE LISTED BY UNDERWRITER'S LABORATORIES, INC. AND BY FACTORY MUTUAL AS APPROVED FOR USE IN UNDERGROUND MUNICIPAL WATER DISTRIBUTION SYSTEMS AND PRIVATE FIRE PROTECTION SYSTEM. CAST IRON OR DUCTILE IRON FITTINGS SHALL BE USED WITH PVC PIPE.

CAST IRON FITTINGS SHALL BE MECHANICAL JOINT AND SHALL CONFORM TO AND BE MANUFACTURED TO ASTM A-21 FITTINGS 12 INCHES AND SMALLER. CLASS 250 FITTINGS 14 INCHES AND LARGER SHALL BE CLASS 150 AND SHALL BE OF THE DIMENSIONS AND METAL THICKNESSES AS SHOWN IN THE HANDBOOK OF CAST IRON PIPE AS PUBLISHED BY THE CAST IRON PIPE RESEARCH ASSOCIATION. CAST IRON FITTINGS MAY BE USED IN DUCTILE IRON OR CAST IRON LINES, EXCEPT WHERE SHOWN OTHERWISE ON THE DRAWINGS.

DUCTILE IRON FITTINGS SHALL BE DESIGNED FOR PRESSURE RATING OF 250 PSI AND SHALL BE IN ACCORDANCE WITH ANSI SPECIFICATIONS A21.10. FITTING SHALL BE MECHANICAL JOINT. DUCTILE IRON FITTINGS MAY BE USED IN DUCTILE IRON OR CAST IRON LINES, EXCEPT WHERE SHOWN OTHERWISE ON THE DRAWINGS.

THE EXTERIOR OF ALL CAST IRON AND DUCTILE IRON FITTINGS SHALL BE COATED WITH AN APPROVED BITUMINOUS COATING. THE INTERIOR OF THE PIPE SHALL BE EPOXY LINED (PROTECTO 401) IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION (40 MILS NOMINAL DRY FILM THICKNESS).

MATERIALS FOR CONCRETE MANHOLES: PRECAST OF CAST-IN-PLACE, AT CONTRACTOR'S OPTION. USE CONCRETE WHICH WILL ATTAIN A 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI.

INSPECTIONS AND TESTS: IT IS IMPERATIVE THAT ALL SEWERS AND MANHOLES BE BUILT PRACTICALLY WATERTIGHT AND THAT THE CONTRACTOR MUST ADHERE RIGIDLY TO THE SPECIFICATIONS FOR MATERIAL AND WORKMANSHIP.

THE ALLOWABLE LIMIT OF GROUNDWATER INFILTRATION FOR THE GRAVITY SYSTEM OF NEW SEWERS OR ANY ONE TRUNK OR INTERCEPTOR, SHALL BE IN COMPLETE ACCORDANCE WITH ASTM 425-77T AND SHALL NOT EXCEED A LIMIT OF INFILTRATION EQUAL TO 0.2 GAL/INCH DIAMETER/HOUR/100 LINEAR FEET OF PIPE.

THE TEST WILL BE MADE BY MEASURING THE INFILTRATED FLOW OF WATER OVER A MEASURING weir SET UP IN THE INVERT OF THE SEWER OR BY ALTERNATE METHOD APPROVED BY THE ENGINEER. A KNOWN DISTANCE FROM A TEMPORARY BULKHEAD OR OTHER LIMITING POINT OF INFILTRATION AFTER THE SEWER OF SEWERS HAVE BEEN PUMPED OUT, AND NORMAL INFILTRATION CONDITIONS PREVAIL, TESTS SHALL BE STARTED.

TESTS SHALL BE RUN CONTINUOUSLY FOR A PERIOD OF NOT LESS THAN THREE HOURS, WITH NEW READINGS TAKEN AT 20 MINUTE INTERVALS.

PRESSURE AND LEAKAGE TESTS OF SEWAGE FORCE MAIN PIPING

CONTRACTOR SHALL FURNISH ALL GAUGES, METERS, PRESSURE PUMPS, EQUIPMENT, FITTINGS, AND LABOR NEEDED TO TEST THE LINE. THE COST OF THESE ITEMS SHALL BE INCLUDED IN THE PRICE OF THE PIPE. CONTRACTOR SHALL NOTIFY ENGINEER 48 HOURS PRIOR TO START OF TEST. ALL PIPE INSTALLED SHALL BE TESTED AND WRITTEN ACCEPTANCE ISSUED BY THE ENGINEER PRIOR TO CONNECTION OF NEW LINE TO EXISTING LINES.

THE CONTRACTOR MAY TEST THE SYSTEM WITH JOINTS EXPOSED OR BACKFILLING COMPLETE AT HIS OPTION. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL WATER USED. CARE SHALL BE USED TO PREVENT BACKFLOW OF TEST WATER INTO POTABLE WATER SOURCE. POTABLE WATER SOURCE SHALL BE DISCONNECTED PRIOR TO PRESSURIZING TEST LINE. WATER USED DURING TEST SHALL BE TAKEN FROM A CONTAINER, NOT DIRECTLY FROM THE EXISTING WATER SYSTEM.

AT LEAST 24 HOURS PRIOR TO THE START OF THE PRESSURE AND LEAKAGE TEST, PRESSURE SHALL BE RAISED TO 150 PSIG AND HELD TO ALLOW ANY "SOIL CREEP" OR OTHER STRESS RELAXATION TO OCCUR. IF ANY PRESSURE REDUCTION OCCURS DURING THE 24 HOUR "SHAKEDOWN" PERIOD, REESTABLISH THE REQUIRED HYDROSTATIC TEST PRESSURE, THEN PROCEED WITH THE LEAKAGE TEST.

THE PRESSURE REQUIRED FOR THE FIELD HYDROSTATIC PRESSURE TEST SHALL BE 150 PSI. THE CONTRACTOR SHALL PROVIDE TEMPORARY PLUGS AND BLOCKING NECESSARY TO MAINTAIN THE REQUIRED TEST PRESSURE. CORPORATION COCKS AT LEAST ¾ INCHES IN DIAMETER, PIPE NIPPLES AND VALVES SHALL BE INSTALLED AT THE HIGH POINTS IN ORDER TO BLEED THE LINE OF AIR. THE LINE, DURING THE PRESSURE TEST SHALL BE AT LEAST TWO HOURS. ALL LEAKS LINES WHICH FAIL TO MEET TESTS SHALL BE REPAIRED AND LEAKAGE ELIMINATED REGARDLESS OF TOTAL LEAKAGE AS SHOWN BY TEST. REPAIRED AND RESEIZED AND NECESSARY UNTIL TEST REQUIREMENTS ARE COMPLIED WITH. DEFECTIVE MATERIALS, PIPES, VALVES AND ACCESSORIES SHALL BE REMOVED AND REPLACED. THE PIPE LINES SHALL BE TESTED IN SUCH SECTION AS MAY BE DIRECTED BY THE ENGINEER BY SHUTTING VALVES OR INSTALLING TEMPORARY PLUGS AS REQUIRED. THE LINE SHALL BE FILLED WITH WATER, ALL AIR REMOVED, AND TEST PRESSURE SHALL BE MAINTAINED IN THE PIPE FOR THE ENTIRE TEST PERIOD BY MEANS OF A PADDLE OR ELECTRIC PUMP. TEST PUMP TO BE FURNISHED BY THE CONTRACTOR. ACCURATE MEANS SHALL BE PROVIDED FOR MEASURING THE WATER REQUIRED TO MAINTAIN THIS PRESSURE. THE AMOUNT OF WATER REQUIRED IS A MEASURE OF THE LEAKAGE.

NO PIPE INSTALLATION WILL BE ACCEPTED UNTIL THE LEAKAGE (EVALUATED ON A PRESSURE BASIS OF 150 PSI) IS LESS THAN 2.2 GALLONS PER 24 HOURS PER THOUSAND FEET PER INCH NOMINAL DIAMETER. THE FOLLOWING TABULATES THE ALLOWABLE LEAKAGE:

ALLOWABLE LEAKAGE PER 1000 FT OF PIPELINE (IN GALLONS)

DURATION OF TEST	2	3	4	6	8	10	12	14
1 HOUR	0.18	0.28	0.37	0.55	0.74	0.92	1.10	1.29
24 HOURS	4.35	6.52	8.70	13.05	17.40	21.75	26.10	30.45

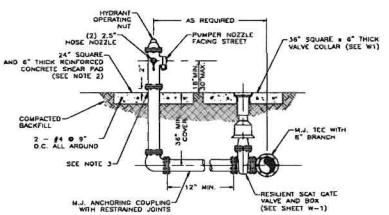
WHERE ANY SECTION OF A MAIN IS PROVIDED WITH CONCRETE REACTION BACKING THE HYDROSTATIC PRESSURE TEST SHALL NOT BE MADE UNTIL AT LEAST FIVE (5) DAYS HAVE ELAPSED AFTER THE CONCRETE REACTION BACKING WAS INSTALLED. IF HIGH EARLY-STRENGTH CEMENT IS USED IN THE CONCRETE REACTION BACKING, THE HYDROSTATIC PRESSURE TEST SHALL NOT BE MADE UNTIL AT LEAST THREE (3) DAYS HAVE ELAPSED.

LEAKAGE TESTS FOR GRAVITY SEWER

LINES SHALL BE TESTED FOR LEAKAGE BY LOW PRESSURE AIR TESTING. LOW PRESSURE AIR TESTING FOR CONCRETE PIPES SHALL BE AS PRESCRIBED IN ASTM C 828. LOW PRESSURE AIR TESTING FOR PVC PIPE SHALL BE AS PRESCRIBED IN ASTM F1417. AND PRESSURE DROP LIMITS SHALL BE PRESCRIBED IN ASTM C 828 AND ASTM F1417 RESPECTIVELY. THE CONTRACTOR SHALL PROVIDE ALL EQUIPMENT AND MATERIALS REQUIRED FOR THE PROCEDURE AND TESTING THAT PRESCRIBED IN ASTM C 828 AND ASTM C 924. AFTER CONSULTATION WITH THE PIPE MANUFACTURER. VISIBLE LEAKS ENCOUNTERED SHALL BE CORRECTED REGARDLESS OF LEAKAGE TEST RESULTS. WHEN LEAKAGE EXCEEDS THE MAXIMUM AMOUNT SPECIFIED, SATISFACTORY CORRECTION SHALL BE MADE AND RETESTING ACCOMPLISHED. TESTING, CORRECTION, AND RETESTING SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.

(ASTM F1417 TABLE 1
MINIMUM SPECIFIED TIME REQUIRED FOR 1.0 PSIG PRESSURE DROP FOR SIZE AND LENGTH OF PIPE INDICATED FOR Q=0.0015
1. SEE PRACTICE UNI-B-6-90.
2. CONSULT WITH PIPE AND APPURTENANCE MANUFACTURER FOR MAXIMUM TEST PRESSURE FOR PIPE SIZE GREATER THAN 30IN DIA.

PIPE DIAMETER IN.	MINIMUM TIME MIN:S	LENGTH FOR MINIMUM TIME,FT	TIME FOR LONGER LENGTH,S	SPECIFICATION TIME FOR LENGTH (L) SHOWN, MIN:S 100FT	150FT	200FT	250FT	300FT	350FT	400FT	450FT
4	3:46	597	0.380L	3:46	3:46	3:46	3:46	3:46	3:46	3:46	3:46
6	5:40	268	0.85L	5:40	5:40	5:40	5:40	5:40	5:40	5:54	6:23
8	7:34	238	1.50L	7:34	7:34	7:34	7:34	7:34	8:52	10:08	11:24
10	9:28	239	2.37L	9:28	9:28	9:28	9:43	11:52	13:51	15:43	17:38
12	11:22	199	3.41L	11:20	11:20	11:24	14:15	17:05	19:58	22:47	25:38
15	13:15	159	5.34L	13:15	13:15	17:49	22:13	26:42	31:09	35:34	40:01
18	17:02	133	7.69L	17:00	19:13	25:38	32:03	38:27	44:52	51:16	57:41
21	19:50	114	10.47L	19:50	29:10	34:54	43:37	52:21	61:05	69:48	78:31
24	22:40	99	13.67L	22:47	34:11	45:34	56:58	68:22	79:46	91:10	102:33
27	25:30	88	17.30L	28:51	43:16	57:41	72:07	86:32	100:57	115:22	129:48
30	28:20	80	21.38L	35:37	53:25	71:13	89:02	106:50	124:38	142:28	160:15
33	31:10	72	25.87L	43:05	64:38	86:10	107:43	129:15	150:43	172:21	193:53
36	34:00	66	30.79L	51:17	76:55	102:34	128:12	153:50	179:29	205:07	230:46



NOTES:

1.) FIRE HYDRANT SHALL BE SUPPLIED WITHOUT A WEEP HOLE OR WITH A PERMANENTLY PLUGGED WEEP HOLE.

2.) THE SHEAR PAD MAY BE RECESSED UP TO 6 INCHES BELOW FINISHED GRADE.

3.) CLEARANCE BETWEEN BOTTOM OF BOLTS AND TOP OF SHEAR PAD SHALL BE A 6" MINIMUM.

4.) HYDRANT SHALL BE AVK MODEL 2780 NOSTALGIC, AMERICAN DARLING B-84-B, OR US FIRE HYDRANT, MODEL SENTINEL 250 WITH SS VALVE ROD.

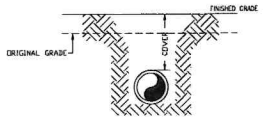
5.) A WEATHER SHIELD SHALL BE PROVIDED TO PROTECT OPERATING STEM ON NUT.

6.) THE HYDRANT'S UPPER AND LOWER STEM BREAK COUPLING, INTERNAL PINS AND CLIPS, AND ALL EXTERNAL BOLTING SHALL BE MANUFACTURED OF STAINLESS STEEL.

5-1/4" FIRE HYDRANT ASSEMBLY DETAIL
NOT TO SCALE

PIPE COVERAGE TABLE

PIPE DIAMETER	REQUIRED COVER
UP TO 12"	36"
ABOVE 12" UP TO 24"	42"
30" AND ABOVE	48"

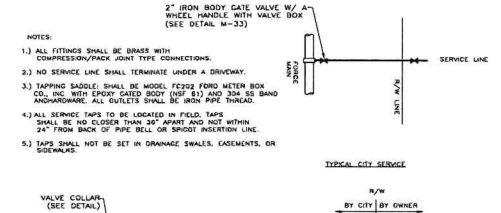


NOTES:

1. COVER SHALL BE MEASURED WHEN FINISH GRADE'S ARE ESTABLISHED.

2. COVER TOLERANCES ARE +6", -3", PROVIDED THE AVERAGE COVER MEETS TABLE REQUIREMENTS.

REQUIRED PIPE COVERAGE TABLE
NOT TO SCALE



NOTES:

1.) ALL FITTINGS SHALL BE BRASS WITH COMPRESSION/PACK JOINT TYPE CONNECTIONS.

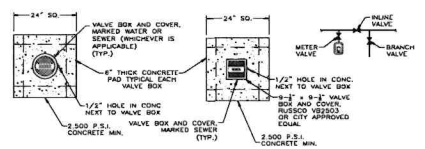
2.) NO SERVICE LINE SHALL TERMINATE UNDER A DRIVEWAY.

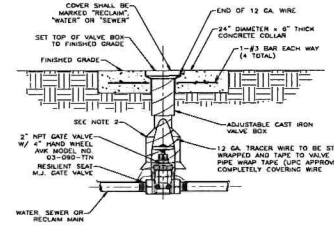
3.) TAPPING SADDLE: SHALL BE MODEL FC202 FORD METER BOX CO., INC WITH EPOXY COATED BODY (NSF 61) AND 304 SS BAND ANDWARWARE. ALL OUTLETS SHALL BE IRON PIPE THREAD.

4.) ALL SERVICE TAPS TO BE LOCATED IN FIELD. TAPS SHALL BE NO CLOSER THAN 36" APART AND NOT WITHIN 24" FROM BACK OF PIPE BELL OR SPIGOT INSERTION LINE.

5.) TAPS SHALL NOT BE SET IN DRAINAGE SWALES, EASEMENTS, OR SIDEWALKS.

GRINDER PUMP SERVICE DETAIL
NOT TO SCALE





NOTES:

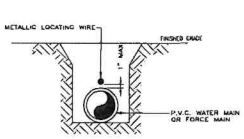
1.) PVC EXTENSIONS SHALL NOT BE USED ON VALVE BOX INSTALLATION.

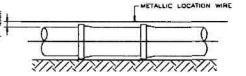
2.) THE ACTUATING NUT FOR DEEPER VALVES SHALL BE EXTENDED TO COME UP TO A FOOT DEPTH BELOW FINISHED GRADE.

3.) ALL WATER, SEWER & RECLAIM MAINS 2" & BELOW SHALL HAVE HAND WHEEL INSTEAD OF THE OPERATING NUT.

4.) PRECAST "DONUT" VALVE COLLARS ARE NOT ACCEPTABLE UNLESS WRITTEN AUTHORIZATION IS PROVIDED BY THE CITY

2" DUCTILE IRON GATE VALVE DETAIL (WATER, SEWER & RECLAIM)
NOT TO SCALE





NOTES:

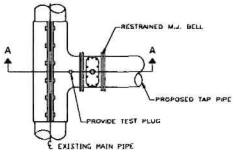
1.) PVC PIPE SHALL REQUIRE INSULATED METALLIC LOCATING WIRE (12 GAUGE COPPER) CAPABLE OF DETECTION BY A CABLE LOCATOR AND SHALL BE BURIED DIRECTLY ABOVE THE CENTERLINE OF THE PIPE.

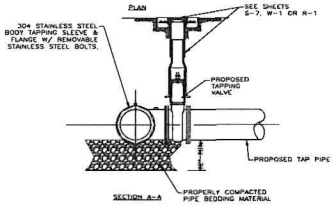
2.) LOCATING WIRE SHALL TERMINATE AT THE TOP OF EACH VALVE BOX AND BE CAPABLE OF EXTENDING 12" ABOVE TOP OF BOX IN SUCH A MANNER SO AS NOT TO INTERFERE WITH VALVE OPERATION.

3.) USE DUCT TAPE AS NECESSARY TO HOLD WIRE ON THE TOP OF THE PIPE.

4.) ALL SPLICES SHALL BE MADE USING A WATER-TIGHT SEALING METHOD APPROVED BY THE CITY.

PVC PIPE LOCATING WIRE DETAIL
NOT TO SCALE





NOTES:

1.) NO TAPPING CUTS SHALL BE MADE BEFORE 1 MINUTE TEST AT 100 P.S.I. FOR FORCEMAINS OR 150 P.S.I. FOR POTABLE WATERMAINS AND RECLAIM WATERMAINS IS PERFORMED.

2.) ALL TAPS MUST BE PLACED NO CLOSER THAN 30" OR A DISTANCE EQUAL TO (1) MAIN PIPE DIAMETER PLUS (2) TAP PIPE DIAMETERS (WHICHEVER IS LARGER) FROM A JOINT OR FITTING.

3.) CONTRACTOR TO SUPPLY A DRY HOLE, PROPERLY CONFIGURED, FOR TAPPING CREW TO COMPLETE AND PRESSURE TO LOCKING MECHANICAL JOINT. TAPPING ASSEMBLY MUST BE BOLTED ON & PRESSURE TESTED BY THE CONTRACTOR & WITNESSED BY THE CITY PRIOR TO TAP.

TAPPING SLEEVE ASSEMBLY AND VALVE BLOCKING DETAIL
NOT TO SCALE

PERMIT PURPOSES ONLY

CONSTRUCTION DETAILS
EAST BAY SUBDIVISON
5530 HWY 2297
PANAMA CITY, FLORIDA

SCALE SHOWN	
DESIGNED BY: RLC	
DRAWN BY: JJT	
REVIEWED BY: RLC	
ISSUE DATE: 7/1/2025	
JOB NO. 630.03/03	
NOT SEALED FOR CONSTRUCTION	

McNEIL—CARROLL ENGINEERING, INC.
Professional Engineering Consultants
CERTIFICATE OF AUTHORIZATION NUMBER 7788
17800 Panama City Beach Parkway
Panama City Beach, Florida 32413
Phone 850-234-1730
Fax 850-234-1731

NO.	DATE	BY	REVISIONS
01			
02			
03			
04			
05			

Sean D McNeil, P.E.
PROFESSIONAL ENGINEER
FL LIC # 69300

Robert L. Carroll, P.E.
PROFESSIONAL ENGINEER
FL LIC # 57988

ROBERT L. CARROLL
LICENSED
No. 57988
STATE OF FLORIDA
PROFESSIONAL ENGINEER
7/1/25

SHEET NUMBER 8 OF 10

630.03 - EAST BAY SUBDIVISON

SHEETS, SURVEYS, DRAWINGS, SPECIFICATIONS, OR OTHER PRODUCTS OF THIS FIRM ARE INSTRUMENTS OF SERVICE THROUGH THE EXECUTION OF THE PROJECT FOR WHICH THEY WERE PREPARED AND ARE THE PROPERTY OF THIS FIRM. REPRODUCTION OF THESE DOCUMENTS IN WHOLE OR IN PART WITHOUT WRITTEN PERMISSION OF THIS FIRM IS PROHIBITED.

WATER DISTRIBUTION SYSTEM

PRODUCTS: PROVIDE ELLS, TEES, REDUCING TEES, WYES, COUPLINGS, AND OTHER REQUIRED PIPING ACCESSORIES OF SAME TYPE AND CLASS OF MATERIALS AS CONDUIT, OR OF MATERIAL HAVING EQUAL OR SUPERIOR PHYSICAL AND CHEMICAL PROPERTIES AS ACCEPTABLE TO THE ENGINEER.

UNPLASTICIZED POLYVINYL CHLORIDE (PVC PIPE SHALL HAVE AN INTEGRATED BELL-TYPE JOINT DESIGNED FOR CONVEYING POTABLE WATER UNDER PRESSURE.

RING-TYPE NEOPRENE GASKETS SHALL BE PROVIDED IN RECESSED IN THE BELLS TO MAKE JOINTS WATER TIGHT. ALL PIPES SHALL BE SUITABLE FOR USE AT MAXIMUM HYDROSTATIC PRESSURES OF 165 PSI AT 75 DEGREES F AND MEETING AND/OR EXCEEDING THE MINIMUM REQUIREMENTS OF AWWA C-900-07 MADE TO SDR 25 DIMENSIONS. MAXIMUM LAYING LENGTHS SHALL BE 40 FEET WITH MANUFACTURER'S OPTION TO SUPPLY UP TO 15 PERCENT RANDOMS (MINIMUM LENGTH EQUALS 10 FT.). ALL FITTINGS SHALL BE CAST IRON WITH MECHANICAL.

PIPE FITTINGS SHALL BE ASSEMBLED WITH A NON-TOXIC LUBRICANT AS RECOMMENDED BY THE MANUFACTURER. PVC PIPE SHALL BE AS MANUFACTURED BY THE U.S. PIPE COMPANY, THE CERTAIN-TEED PRODUCTS CORPORATION, THE JOHNS-MANSVILLE COMPANY, THE ETHYL CORPORATION, OR APPROVED EQUAL.

PROVIDE VALVES AND FLOW CONTROL DEVICES AS INDICATED:

MINIMUM WORK PRESSURE, 160 PSI, UNLESS OTHERWISE INDICATED.

GATE VALVES: STANDARD SHUT-OFF VALVES WITH MAXIMUM WORK PRESSURE CAST INTO BODY. OUTSIDE-SCREW-AND-YOKE TYPE COMPLYING WITH AWWA C-500. ALL VALVES SHALL BE COUNTERCLOCKWISE.

FOUR-INCHES AND OVER: SHALL BE CAST-IRON BODY, FULLY BRONZE MOUNTED DOUBLE-DISC, PARALLEL SEAL VALVES WIDE FLANGE OR SPIGOT END DEPENDING ON INSTALLATION. FLANGED GATE VALVES SHALL BE PROVIDED WITH 125 POUND AMERICAN STANDARD FLANGES.

ALL VALVES TO BE INSTALLED ABOVE THE GROUND SHALL BE FITTED WITH WHEEL-TYPE HAND OPERATORS. ALL VALVES TO BE SET BELOW GRADE SHALL BE FITTED WITH HUB-TYPE OPERATORS AND SHALL HAVE A CAT-IRON VALVE BOX INSTALLED CONCENTRICALLY OVER THE VALVE.

UNDER FOUR-INCHES: GATE VALVES UNDER FOUR-INCHES SHALL BE IRON OR BRONZE BODY, SOLID WEDGE VALVES EQUIPPED WITH OPERATING HAND WHEELS.

ALL ECCENTRIC VALVES 10-INCHES OR LARGER SHALL BE GEAR OPERATED WITH HAND WHEELS FOR ABOVE GROUND VALVES AND HUB OPERATED FOR BELOW GROUND VALVES.

ALL ECCENTRIC VALVES 8-INCHES AND SMALLER SHALL BE LEVEL OPERATED FOR ABOVE GROUND VALVES AND HUB OPERATED FOR BELOW GROUND VALVES.

ALL HUB OPERATED UNITS SHALL BE PROVIDED A CAST-IRON VALVES BOX AND COVER.

CHECK VALVES: THE CHECK VALVES OVER THREE INCHES SHALL BE IRON BODY, BRONZE MOUNTED, HORIZONTAL SWING CHECK WITH FLANGED ENDS. ALL WORK PARTS SHALL BE SPRING LOCATED TO PREVENT SLAMMING. THE CHECK VALVES SHALL BE CLOW F-2955, OR APPROVED EQUAL.

CHECK VALVES UNDER THREE INCHES SHALL BE SCREWED END, BRONZE BODY, SILENT CHECK VALVES AS MANUFACTURED BY CRANE COMPANY, NO. 34 OR APPROVED EQUAL.

PROVIDE ANCHORAGES FOR TEE, PLUGS, CAPS, AND BENDS.

AFTER INSTALLATION, APPLY A FULL COAT OF ASPHALT OR OTHER ACCEPTABLE CORROSION-RETARDING MATERIAL TO SURFACES OF RODS AND CLAMPS.

CLAMPS, STRAPS AND WASHERS: STEEL ANSI/ASTM A-506

RODS: STEEL, ANSI/ASTM A-575

ROD COUPLINGS: MALLEABLE IRON, ANSI/ASTM A-197

BOLTS: STEEL, ANSI/ASTM A-307

CAST IRON WASHERS: ANSI/ASTM A-126, CLASS A

WATER SERVICE IDENTIFICATIONS: PLASTIC LINE MARKS, NOMENCLATURE "CAUTION, BURIED WATER LINE BELOW".

FLEXIBLE COUPLINGS: STEEL MIDDLE RING, TWO STEEL FOLLOWER RINGS, TWO RESILIENT GASKETS AND STEEL BOLTS. DRESSER TYPE 38 OR APPROVED EQUAL.

INSPECTION AND HYDROSTATIC TESTING: AFTER THE PIPE HAS BEEN LAID AND BACKFILLED AS SPECIFIED EACH VALVED SECTION OF NEWLY LAID PIPE SHALL BE SUBJECTED TO HYDROSTATIC PRESSURE OF 150 PSI.

THE DURATION OF EACH PRESSURE TEST SHALL BE AT LEAST TWO HOURS OR UNTIL THE LINE HAS BEEN COMPLETELY INSPECTED FOR VISIBLE LEAKS.

PERMISSIBLE LEAKAGE: NO PIPE INSTALLATION WILL BE ACCEPTABLE UNTIL OR UNLESS THIS LEAKAGE (EVALUATED ON A PRESSURE BASIS OF 150 PSI) IS LESS THAN 4 U.S. GALLONS PER 24 HOURS PER THOUSAND FEET PER INCH NOMINAL DIAMETER IN ACCORDANCE WITH AWWA C600.

DISINFECTION SHALL BE AFTER THE DISTRIBUTION SYSTEM HAS BEEN TESTED TO THE SATISFACTION OF THE ENGINEER AND SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA SPECIFICATION C-651 WHICH PROVIDES FOR THE INJECTION OF A 50 PPM SOLUTION OF CHLORINE REMAINING FOR 24 HOURS.

IN THE PROCESS OF CHLORINATING WATER PIPE, ALL VALVES OR OTHER APPURTENANCES SHALL BE OPERATED WHILE THE PIPE LINE IS FILLED WITH CHLORINATING AGENT.

WATER VALVES 12" AND LESS SHALL BE EPOXY COATED RESILIENT SEAT GATE VALVE.

MAIN PIPE SIZE	HORIZ. BENDS			TEES (SIZE / LENGTH)					REDUCERS (SIZE / LENGTH)			PLUGS
	90°	45°	22.5°									
24	90	38	18	X24 / 177	X20 / 139	X16 / 94	X12 / 40	X10 / 6	X20 / 64	X16 / 117	X12 / 158	214
20	78	32	15	X20 / 148	X16 / 105	X12 / 56	X10 / 25	X8 / 0	X16 / 65	X12 / 115	X10 / 149	184
16	66	27	13	X16 / 116	X12 / 70	X10 / 42	X8 / 12		X12 / 64	X10 / 90	X8 / 111	151
12	51	22	10	X12 / 83	X10 / 59	X8 / 32	X6 / 0		X10 / 34	X8 / 62	X6 / 86	118
10	44	18	9	X10 / 66	X8 / 41	X6 / 8			X8 / 33	X6 / 61	X4 / 81	100
8	37	15	7	X8 / 50	X6 / 21	X4 / 0	X3 / 0		X6 / 35	X4 / 59		83
6	29	12	5	X6 / 30	X4 / 0				X4 / 32	X3 / 44		63
4	21	8	4	X4 / 14								45
3	17	7	4	X3 / 10								36

NOTES

1.) RESTRAIN TO NEXT FULL JOINT BEYOND GIVEN LENGTH.

2.) RESTRAIN 11.25° BENDS 50% OF LENGTH FOR 22.5° BENDS.

3.) ALL VALVES AND FITTINGS SHALL BE RESTRAINED TO THE CONNECTING SECTIONS OF PIPE.

4.) ALL VALVES MUST BE PROPERLY ANCHORED OR RESTRAINED TO RESIST A 180 PSI TEST PRESSURE IN EITHER DIRECTION.

5.) PIPE SIZES ARE GIVEN IN INCHES.

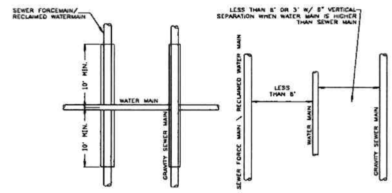
6.) PIPE LENGTHS ARE GIVEN IN FEET

7.) LENGTHS SHOWN ARE FOR A TEST PRESSURE OF 180 PSI.

8.) THE RESTRAINED LENGTHS SHOWN IN THESE TABLES ARE BASED ON THE USE OF LIGHTLY COMPACTED CLEAN SAND WITH AT LEAST A 95% COARSE PARTICLE CONTENT. ACTUAL SOIL CONDITIONS MUST BE DETERMINED BY THE ENGINEER OF RECORD AND THE RESTRAINED LENGTHS MODIFIED ACCORDINGLY.

REQUIRED LENGTH OF RESTRAINED JOINT PIPE FOR DR-18 PVC PIPE

NOT TO SCALE



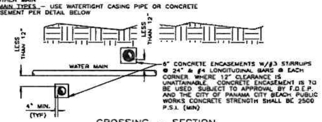
CROSSING – PLAN   PARALLEL – PLAN

USE ANY OF THE FOLLOWING:

1.) GRAVITY SEWER ONLY – USE PRESSURE RATED PIPE PER AWWA STDS.

2.) ALL MAIN TYPES – USE WELDED OR FUSED JOINTS FOR EITHER WATER OR OTHER MAIN

3.) ALL MAIN TYPES – USE WATERTIGHT CASING PIPE OR CONCRETE ENCASEMENT PER DETAIL BELOW



CROSSING – SECTION

GENERAL NOTES

A.) WHERE AN UNDERGROUND WATER MAIN IS BEING LAID LESS THAN THREE FEET HORIZONTALLY FROM ANOTHER PIPELINE AND WHERE AN UNDERGROUND WATER MAIN IS CROSSING ANOTHER PIPELINE AND IS BEING LAID LESS THAN THE REQUIRED MINIMUM VERTICAL DISTANCE FROM THE OTHER PIPELINE.

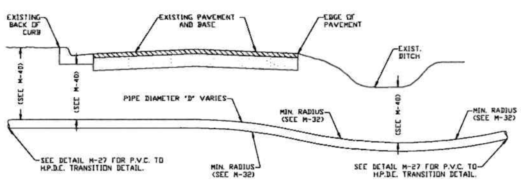
i. USE OF PIPE, OR CASING PIPE, HAVING HIGH IMPACT STRENGTH (I.E., HAVING AN IMPACT STRENGTH AT LEAST EQUAL TO THAT OF 0.25-INCH-THICK DUCTILE IRON PIPE) OR CONCRETE ENCASEMENT AT LEAST FOUR INCHES THICK FOR THE WATER MAIN; AND

ii. USE OF PIPE, OR CASING PIPE, HAVING HIGH IMPACT STRENGTH (I.E., HAVING AN IMPACT STRENGTH AT LEAST EQUAL TO THAT OF 0.25-INCH-THICK DUCTILE IRON PIPE) OR CONCRETE ENCASEMENT AT LEAST FOUR INCHES THICK FOR THE OTHER PIPELINE IF IT IS NEW AND IS CONVEYING WASTEWATER OR RECLAIMED WATER.

B.) THE USE OF ANY ASPECT OF THIS DETAIL MUST BE APPROVED BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THE CITY OF PANAMA CITY BEACH PUBLIC WORKS

SPECIAL CASE MAIN CROSSING/ SEPARATION DETAIL

NOT TO SCALE



1.) ALL POLYETHYLENE PIPING SHALL MEET CITY OF PANAMA CITY BEACH STANDARDS AND SPECIFICATIONS

2.) SDR 9, CLASS 250, PE4710 RESIN HDPE FOR 1" SERVICE TUBING. SDR-11, CLASS 200, PE4710 RESIN HDPE FOR 2" DIAMETER AND LARGER POTABLE WATER & RECLAIMED WATER. SDR-11, CLASS 160, PE4710 RESIN HDPE FOR 2" DIAMETER AND LARGER SANITARY FORCE MAINS COLOR CODED BLUE FOR POTABLE WATER COLOR CODED PURPLE FOR RECLAIMED WATER COLOR CODED GREEN FOR SANITARY FORCE MAIN.

3.) THE COLOR CODING SHALL MEETING REQUIREMENTS IN ACCORDANCE WITH SUBPARAGRAPH 62-555.320 (21)(B) 3 F.A.C. AND SHALL BE CO-EXTRUDED DURING PIPE MANUFACTURING.

4.) ALL HDPE PIPE 2" DIAMETER AND LARGER MUST BE IPS, NO CTS IS ALLOWED. ALL 1" SERVICE TUBING SHALL BE CTS.

5.) ALL DIRECTIONAL BORES SHALL BE A MINIMUM OF 36 INCHES UNDER ALL ROADWAYS AND START AND TERMINATE A MINIMUM OF 6 FEET OFF THE EDGE OF PAVEMENT.

6.) CONTRACTOR SHALL PROVIDE A DETAILED "AS-BUILT" PROFILE OF ALL DIRECTIONAL BORE AND JACK AND BORE LOCATION OF ACTUAL PIPE ELEVATIONS AT 10 FOOT INTERVALS ON AS-BUILT PLAN SHEETS.

DIRECTIONAL BORE ROADWAY CROSSING

NOT TO SCALE

MINIMUM BEND RADIUS IN FEET						
	PVC		FPVC		HDPE	
NOMINAL DIAMETER	IPS (200 x O.D.)	C900/C905 (250 x O.D.)	IPS	C900/C905	(25 x O.D.)
2	9		40		5
4	75	100	94	100	10
6	110	144	138	144	14
8	144	189	180	188	19
10	180	232	224	231	23
12	213	275	266	275	28
14	–	319	–	319	32
16	–	363	–	363	36
18	–	406	–	406	41
20	–	450	–	450	45
24	–	538	–	538	54
30	–	–	–	667	67
36	–	–	–	798	80

1.) ALL POLYETHYLENE PIPING SHALL MEET CITY OF PANAMA CITY BEACH STANDARDS AND SPECIFICATIONS

2.) SDR 9, CLASS 250, PE4710 RESIN HDPE FOR 1" SERVICE TUBING. SDR-11, CLASS 200, PE4710 RESIN HDPE FOR 2" DIAMETER AND LARGER POTABLE WATER & RECLAIMED WATER. SDR-11, CLASS 160, PE4710 RESIN HDPE FOR 2" DIAMETER AND LARGER SANITARY FORCE MAINS COLOR CODED BLUE FOR POTABLE WATER COLOR CODED PURPLE FOR RECLAIMED WATER COLOR CODED GREEN FOR SANITARY FORCE MAIN.

3.) THE COLOR CODING SHALL MEETING REQUIREMENTS IN ACCORDANCE WITH SUBPARAGRAPH 62-555.320 (21)(B) 3 F.A.C. AND SHALL BE CO-EXTRUDED DURING PIPE MANUFACTURING.

4.) ALL HDPE PIPE 2" DIAMETER AND LARGER MUST BE IPS, NO CTS IS ALLOWED. ALL 1" SERVICE TUBING SHALL BE CTS.

5.) ALL PVC PIPE MUST BE C900/C905.

OTHER PIPE	HORIZONTAL SEPARATION	CROSSINGS (SEE NOTE 1)	JOINT SPACING @ CROSSINGS (FULL JOINT CENTERED)
STORM SEWER, STORMWATER FORCE MAIN, RECLAIMED WATER	WATER MAIN; 3' MIN.	WATER MAIN; 12" MIN. EXCEPT FOR STORM SEWER, THEN 6" IS THE MIN. AND 12" IS PREFERRED	ALTERNATE 3' MIN.; WATER MAIN
VACUUM SANITARY SEWER	WATER MAIN; 10' PREFERRED 3' MIN.	WATER MAIN; 12" PREFERRED 6" MIN.	ALTERNATE 3' MIN.; WATER MAIN
GRAVITY OR PRESSURE SANITARY SEWER, SANITARY SEWER FORCE MAIN	WATER MAIN; 10' PREFERRED 6' MIN. (SEE NOTE 2)	WATER MAIN; 12" MIN. EXCEPT FOR GRAVITY SEWER, THEN 6" IS THE MIN. AND 12" IS PREFERRED	ALTERNATE 6' MIN.; WATER MAIN
ON - SITE SEWAGE TREATMENT & DISPOSAL SYSTEM	10' MIN.	-----	-----

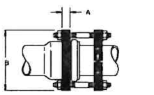
(1) WATER MAIN SHOULD CROSS ABOVE OTHER PIPE. WHEN WATER MAIN MUST BE BELOW OTHER PIPE, THE MIN. SEPARATION IS 12".

(2) 3' FOR GRAVITY SANITARY SEWER WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST 6" ABOVE THE TOP OF THE GRAVITY SANITARY SEWER.

(3) IF REQUIRED SEPARATION CANNOT BE PROVIDED SEE DETAIL M-35B FOR REQ'D ADDITIONAL PROTECTION.

STANDARD - MAIN CROSSING/SEPARATION DETAIL

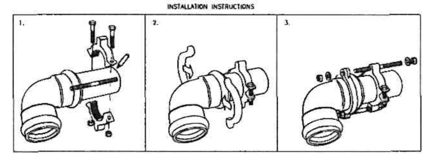
NOT TO SCALE



RESTRAINT DEVICE FOR IPS CLASS 200 PVC FITTINGS						
PIPE SIZE (INCHES)	PIPE O.D. (INCHES)	A	B	SIDE BOLTS NUMBER AND SIZE	CONNECTING RODS NUMBER AND SIZE	APPROX. WT. LBS.
2"	2.38	1-1/8"	6-3/8"	(2) 5/8"x11"	(2) 5/8"x3-1/2"	9.5
2-1/2"	2.88	1-1/8"	6-7/8"	(2) 5/8"x11"	(2) 5/8"x3-1/2"	10.0
3"	3.50	1-1/8"	7-5/8"	(2) 5/8"x11"	(2) 5/8"x3-1/2"	10.5

BASED ON UNI-FLANGE BLOCK BUSTER SERIES 1360 PIPE RESTRAINT. ALTERNATE, EQUIVALENT RESTAINTS MUST BE APPROVED BY THE CITY IN WRITING BEFORE USE.

INSTALLATION INSTRUCTIONS



1.) INSTALL PIPE INTO FITTING. INSTALL SERIES 1300 SPLIT CLAMPING RING ON THE SPIGOT END OF THE PIPE. (USE CONNECTING ROD AS A GUIDE TO POSITION SERRATED RESTRAINER.) TIGHTEN CLAMPING BOLTS EVENLY TO THE RECOMMENDED TORQUE.

2.) INSTALL SPLIT BACK-UP RING BEHIND GASKET RACE OF FITTING. MAKE SURE THE BEVEL FACES THE GASKET RACE. THE TWO HALVES INTERLOCK AT THE BOLT HOLES.

3.) INSERT RODS THROUGH SERIES 1300 AND BACK-UP RING. PLACE WASHERS AGAINST RESTRAINER AND BACK-UP RING EARS. SNUG RETAINING NUTS AGAINST WASHERS. DO NOT OVERTIGHTEN RETAINING NUTS. (HAND TIGHT, THEN ONE FULL TURN.)

2"-3" PVC FITTING RESTRAINT DEVICE INSTALLATION DETAIL

NOT TO SCALE

PERMIT PURPOSES ONLY

CONSTRUCTION DETAILS

EAST BAY SUBDIVISON

5530 HWY 2297

PANAMA CITY, FLORIDA

SCALE: SHOWN
DESIGNED BY: RLC
DRAWN BY: JJT
REVIEWED BY: RLC
ISSUE DATE: 7/1/2025
CF/P: 830.03E02
NOT RELEASED FOR CONSTRUCTION

McNEIL — CARROLL ENGINEERING, INC.
Professional Engineering Consultants
STATE OF FLORIDA CERTIFICATE OF AUTHORIZATION NUMBER 7898
17800 Panama City Beach Parkway
Panama City Beach, Florida 32413
Phone 850-234-1730
Fax 850-234-1731

NO.	DATE	BY	REVISIONS
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03			
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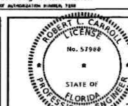
Sean D. McNeil, P.E.
PROFESSIONAL ENGINEER
FL LC # 48905

Robert L. Carroll, P.E.
PROFESSIONAL ENGINEER
FL LC # 57988



SHEET NUMBER

830.03 – EAST BAY SUBDIVISION

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ASPHALTIC CONCRETE PAVING

PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, SERVICES, ETC. NECESSARY AND INCIDENTAL TO THE COMPLETION OF ALL PAVEMENT AS SHOWN ON THE DRAWINGS AND AS SPECIFIED HEREIN.

SUBMIT A "LETTER OF INTENT" FOR THE FOLLOWING.

ASPHALT PAVING MATERIAL AND MIX DESIGN. PROVIDE COPIES OF MATERIALS CERTIFICATES SIGNED BY MATERIAL PRODUCER AND CONTRACTOR, CERTIFYING THAT EACH MATERIAL ITEM COMPLIES WITH, OR EXCEEDS, SPECIFIED REQUIREMENTS.

WEATHER LIMITATIONS: APPLY PRIME AND TACK COATS WHEN AMBIENT TEMPERATURE IS ABOVE 50 DEGREES F. (10 DEGREES C), AND WHEN TEMPERATURE HAS NOT BEEN BELOW 35 DEGREES F. (1 DEGREE C) FOR 12 HOURS IMMEDIATELY PRIOR TO APPLICATION. DO NOT APPLY WHEN BASE IS WET OR CONTAINS AN EXCESS OF MOISTURE.

CONSTRUCT ASPHALT CONCRETE SURFACE COURSE WHEN ATMOSPHERIC TEMPERATURE IS ABOVE 40 DEGREES F. (4 DEGREES C), AND WHEN BASE IS DRY. SURFACE COURSE MAY BE PLACED WHEN AIR TEMPERATURE IS ABOVE 30 DEGREES F. (-1 DEGREE C) AND RISING.

GRADE CONTROL: ESTABLISH AND MAINTAIN REQUIRED LINES AND ELEVATIONS

THE SUBCONTRACTOR SHALL WARRANT ALL ASPHALT PAVING AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF TWO YEARS.

PRODUCTS: USE LOCALLY AVAILABLE MATERIALS AND GRADATIONS WHICH EXHIBIT A SATISFACTORY RECORD OF PREVIOUS INSTALLATIONS.

AGGREGATE: CRUSHED STONE, CRUSHED GRAVEL, AND SHARP-EDGED NATURAL SAND.

MAXIMUM AGGREGATE SIZE SHALL BE NO GREATER THAN ONE-HALF OF THE DESIGN THICKNESS OF THE WEARING OR BINDER COURSE.

SURFACE PREPARATION: PROOF ROLL PREPARED BASE SURFACE TO CHECK FOR UNSTABLE AREAS AND AREAS REQUIRING ADDITIONAL COMPACTION.

NOTIFY CONTRACTOR OF UNSATISFACTORY CONDITIONS. DO NOT BEGIN PAVING WORK UNTIL DEFICIENT BASE AREAS HAVE BEEN CORRECTED AND ARE READY TO RECEIVE PAVING.

PRIME COAT: APPLY AT RATE OF 0.25 TO 0.5 GAL. PER SQ. YD. OVER COMPACTED BASE, USING MATERIAL TO PENETRATE AND SEAL BASE, BUT NOT FLOOD SURFACE AND DRY AS LONG AS NECESSARY TO ATTAIN PENETRATION AND EVAPORATION OF VOLATILE.

TACK COAT: APPLY TO CONTACT SURFACE OF PREVIOUSLY CONSTRUCTED ASPHALT OR PORTLAND CEMENT CONCRETE AND SURFACES ABUTTING OR PROJECTING INTO ASPHALT CONCRETE PAVEMENT. DISTRIBUTE AT RATE OF 0.05 TO 0.51 GAL. PER SQ. YD. OF SURFACE.

ALLOW TO DRY UNTIL AT PROPER CONDITION TO RECEIVE PAVING.

ASPHALT CONCRETE MIX: THIS ITEM SHALL CONSIST OF A WEARING SURFACE CONSTRUCTED OF ASPHALTIC CONCRETE ON A PREPARED BASE.

THE MATERIALS AND CONSTRUCTION METHODS SHALL COMPLY WITH THOSE SET FORTH FOR ASPHALTIC CONCRETE IN THE LATEST F.D.O.T. EDITION OF THE STANDARD SPECIFICATIONS.

THE ASPHALTIC CEMENT SHALL MEET THE REQUIREMENTS OF AASHTO SPECIFICATIONS M-20, VISCOSITY GRADE AC-20 (PENETRATION GRADE 60-70).

JOB MIX FORMULA: THE MARSHALL TESTING WILL BE USED IN ESTABLISHING THE JOB MIX FORMULA AND FOR CONTROL TESTING THROUGHOUT THE WORK.

THE DENSITY OF FIELD SAMPLES SHALL NOT BE LESS THAN 95% OF THE MARSHALL LABORATORY COMPACTED MIXTURE COMPOSED OF THE SAME MATERIALS IN LIKE PROPORTIONS.

THE THICKNESS OF THE SURFACE SHALL BE AS SPECIFIED IN THE SITE WORK PLANS. THIS REQUIREMENT SHALL BE CHECKED BY CORES AND WHERE A DEFICIENCY OF MORE THAN 1/4" EXISTS, THE CONTRACTOR SHALL BE REQUIRED TO CORRECT THE DEFICIENCY EITHER BY REPLACING THE FULL THICKNESS OR OVERLAYING THE AREAS TO THE SATISFACTION OF THE ENGINEER.

SAND ASPHALT BASE

PLACE ASPHALT CONCRETE MIXTURE ON PREPARED SURFACE, SPREAD AND STRIKE-OFF. SPREAD MIXTURE AT MINIMUM TEMPERATURE OF 225 DEGREES F. (107 DEGREES C).

PLACE IN STRIPS NOT LESS THAN 10' WIDE, UNLESS OTHERWISE ACCEPTABLE TO THE ENGINEER AFTER FIRST STRIP HAS BEEN PLACED AND ROLLED. PLACE SUCCEEDING STRIPS AND EXTENDED ROLLING TO OVERLAP PREVIOUS STRIPS. COMPLETE BASE COURSE FOR A SECTION BEFORE PLACING SURFACE COURSE.

MAKE JOINTS BETWEEN OLD AND NEW PAVEMENTS, OR BETWEEN SUCCESSIVE DAYS' WORK, TO ENSURE CONTINUOUS BOND BETWEEN ADJOINING WORK. CLEAN CONTACT SURFACES AND APPLY TACK COAT.

BEGIN ROLLING WHEN MIXTURE WILL BEAR ROLLER WEIGHT WITHOUT EXCESSIVE DISPLACEMENT

ACCOMPLISH BREAKDOWN OR INITIAL ROLLING IMMEDIATELY FOLLOWING ROLLING OF JOINTS AND OUTSIDE EDGE. CHECK SURFACE AFTER BREAKDOWN ROLLING AND REPAIR DISPLACED AREAS BY LOOSENING AND FILLING WITH SUFFICIENT FRESH HOT MATERIAL. CONTINUE SECOND ROLLING UNTIL MIXTURE HAS BEEN THOROUGHLY COMPACTED.

PERFORM FINISH ROLLING WHILE MIXTURE IS STILL WARM ENOUGH FOR REMOVAL OF ROLLER MARKS. CONTINUE ROLLING UNTIL ROLLER MARKS ARE ELIMINATED AND COURSE HAS ATTAINED MAXIMUM DENSITY. AFTER FINAL ROLLING, DO NOT PERMIT VEHICULAR TRAFFIC ON PAVEMENT UNTIL IT HAS COOLED AND HARDENED. ERECT BARRICADES TO PROTECT PAVING FROM TRAFFIC UNTIL MIXTURE HAS COOLED ENOUGH NOT TO BECOME MARKED.

TEST IN-PLACE ASPHALT CONCRETE COURSES FOR PAVING AS DIRECTED BY ENGINEER. FOR SMOOTHNESS.

THICKNESS: IN-PLACE COMPACTED THICKNESS WILL NOT BE ACCEPTABLE IF EXCEEDING FOLLOWING ALLOWABLE VARIATION FROM REQUIRED THICKNESS:

BASE COURSE. 1/2" PLUS OR MINUS
SURFACE COURSE. 1/4" PLUS OR MINUS

SURFACE SMOOTHNESS: TEST FINISHED SURFACE OF EACH ASPHALT CONCRETE COURSE FOR SMOOTHNESS, USING 10' STRAIGHT EDGE APPLIED PARALLEL WITH, AND AT RIGHT ANGLES TO CENTER OF PAVED AREAS. SURFACES WILL NOT BE ACCEPTABLE IF EXCEEDING THE FOLLOWING TOLERANCES FOR SMOOTHNESS:

BASE COURSE SURFACE. 1/4"
WEARING COURSE SURFACE: 3/16"
CHECK SURFACES AREAS AT INTERVALS AS DIRECTED BY ENGINEER.

FIELD DENSITY AND SOIL BEARING CAPACITY TESTS SHALL BE PERFORMED BY THE GEOTECHNICAL ENGINEER. PROVIDE INSPECTION, CERTIFICATION OF PAVEMENT CONSTRUCTION, FIELD TESTS AND CORE SAMPLES OF THE COMPLETE PAVEMENT CONSTRUCTION.

MISCELLANEOUS PAVEMENT

WORK INCLUDES CONSISTS OF BUT IS NOT LIMITED TO THE FOLLOWING:

CONCRETE SIDEWALKS, CURBS, CURB AND GUTTER, INCLUDING POROUS FILL.

CONCRETE LIGHT POLE BASES.

SUBMIT A "LETTER OF INTENT" FOR THE FOLLOWING;

CONCRETE MIX DESIGN.

THIS SUBCONTRACTOR SHALL WARRANT ALL ASPHALT PAVING AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF TWO (2) YEARS.

POROUS FILL SHALL BE CLEAN COARSE SAND, FREE DRAINING GRAVEL, OR CRUSHED ROCK ALL AS APPROVED BY THE GEOTECHNICAL ENGINEER.

POROUS FILL UNDER SIDEWALKS, ETC., SHALL BE GRADED BETWEEN 3/8" AND NO. 200 SIEVE.

POROUS FILL SHALL BE CAPABLE OF BEING COMPACTED TO NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM-1557

STEEL REINFORCING BARS SHALL CONFORM TO "SPECIFICATIONS FOR DEFORMED BILLET STEEL BARS FOR CONCRETE REINFORCEMENT, ASTM A-615 GRADE NO. 60, HAVING A MINIMUM YIELD STRENGTH OF 60,000 PSI.

TIE WIRE SHALL BE BLACK ANNEALED WIRE, 16 GAUGE MINIMUM. BAR SUPPORTS SHALL CONFORM TO THE "BAR SUPPORT SPECIFICATIONS" CONTAINED IN "MANUAL OF STANDARD PRACTICE" AS PUBLISHED BY CRSI AND WCRSI. BAR SUPPORTS AND ACCESSORIES WITHIN 1/2" OF SURFACE OF CONCRETE EXPOSED TO WEATHER SHALL BE NON-CORROSIVE.

CEMENT SHALL BE GRAY PORTLAND CEMENT, TYPE I OR II, CONFORMING TO ASTM C-150 OR ASTM C-175 FOR AIR-ENTRAINING PORTLAND CEMENT.

CONCRETE AGGREGATES SHALL CONFORM TO ASTM C-33.

FINE AND COARSE AGGREGATES SHALL BE REGARDED AS SEPARATE INGREDIENTS AND EACH SHALL CONFORM TO THE APPROPRIATE GRADING REQUIREMENTS OF ASTM C-33.

AIR-ENTRAINING ADMIXTURES SHALL CONFORM TO ASTM C-260. EXPANSION JOINTS SHALL BE 1/2" THICK CANE FIBER EXPANSION JOINTS, CONFORMING TO ASTM D-1751.

EXPANSION JOINT SEALANT SHALL BE TRAFFIC GRADE, SELF LEVELING TREMCO THC-900" OR PERCORA CORPORATION "NF-200". COLOR SHALL BE BLACK. SHALL BE AS RECOMMENDED BY SEALANT MANUFACTURER.

CURING COMPOUND SHALL BE CLEAR, CONFORMING TO ASTM C-309. CURING COMPOUND SHALL BE COMPATIBLE WITH PAINTS ETC., SCHEDULED OR SPECIFIED FOR APPLICATION TO CONCRETE SURFACE.

ALL CONCRETE, UNLESS OTHERWISE NOTED, SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI AT 28 DAYS. MIX DESIGN SHALL BE SO PROPORTIONED TO PROVIDE A MINIMUM OF 517 POUNDS OF CEMENT PER CUBIC YARD.

ALL CONCRETE SHALL BE PROPORTIONED TO HAVE A SLUMP OF 4" MAXIMUM. TOLERANCE IN SLUMP SHALL NOT EXCEED AGI RECOMMENDATIONS.

READY-MIXED CONCRETE SHALL CONFORM TO ASTM C-94 AND THE NATIONAL READY MIX CONCRETE ASSOCIATION.

POROUS FILL SHALL BE LAID AND COMPACTED TO A MINIMUM DEPTH OF 3", UNLESS OTHERWISE INDICATED, UNDER ALL SIDEWALKS, ETC.

POROUS FILL SHALL BE COMPACTED TO NOT LESS THAN 95% MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-1557.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO SUPPLY ALL MATERIALS NECESSARY TO COMPLETE PAVING

SITE IMPROVEMENTS

ALL OFF-SITE WORK INCLUDED CONSISTS OF BUT IS NOT LIMITED TO THE FOLLOWING:

SITE RELATED FENCING.
GUARD POSTS, GUARD RAIL AND POSTS AND SIGN POSTS LOCATED ON THE SITE.
TRAFFIC CONTROL SIGNS. GUARD POSTS.

GUARD RAIL AND POSTS AND SIGN POSTS:

STEEL SHAPES SHALL CONFORM TO ASTM A-36.
STEEL PIPE SHALL CONFORM TO ASTM A-53, E OR S, TYPE B.
STEEL PIPE SHALL CONFORM TO ASTM A-501.

SHOP COAT SHALL BE RUST INHIBITING RED OXIDE, RED LEAD OR LEAD CHROMATE OR EQUAL. IT IS THE INTENT TO PERMIT THE USE OF THE FABRICATORS STANDARD PRIME COATING.

ASPHALT BASED COATING IS NOT PERMITTED.

CONCRETE FOR SETTING FENCE AND GUARD RAIL POSTS AND SETTING AND FILLING OF SIGN AND GUARD POSTS SHALL BE PORTLAND CEMENT COMPLYING WITH ASTM C-150, AGGREGATES COMPLYING WITH ASTM C-33 AND CLEAN WATER. MIX MATERIALS TO OBTAIN A MIXTURE OF A CONSISTENCY AND QUALITY SUITABLE FOR PLACING, USING AT LEAST 4 SACKS OF CEMENT PER CU. YD., 3/4" MAXIMUM SIZE AGGREGATE, MAXIMUM 3" SLUMP, AND 2% TO 4% ENTRAINED AIR. PREPARE TO CONFORM TO ASTM C-94

MISCELLANEOUS NOTES

THE CONTRACTOR IS CAUTIONED TO VISIT THE SITE AND FAMILIARIZE HIMSELF WITH THE PROJECT PRIOR TO BIDDING.

THE ENGINEER HAS ATTEMPTED TO LOCATE EXISTING STRUCTURES AND EXISTING UTILITIES IN THE PROJECT AREA. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATIONS OF FIELD STRUCTURE OCCUPIED UTILITIES AND THE COURSE OF THE UTILITY CONSTRUCTION. THE CONTRACTOR SHALL TAKE WHATEVER STEPS NECESSARY TO PROVIDE FOR THEIR PROTECTION AND RELOCATION OF UTILITIES IN CONFLICT WITH NEW CONSTRUCTION BY APPROPRIATE UTILITY COMPANY.

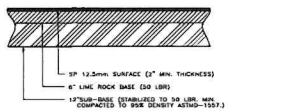
THE CONTRACTOR SHALL PLACE AND MAINTAIN ADEQUATE BARRICADES, CONSTRUCTION SIGNS, FLASHING LIGHTS, TORCHES, RED LANTERNS AND GUARDS DURING PROGRESS OF CONSTRUCTION WORK IN ACCORDANCE WITH STATE STANDARDS AND UNTIL IT IS SAFE FOR BOTH PEDESTRIAN AND VEHICULAR TRAFFIC.

CONTRACTOR IS RESPONSIBLE FOR REPLACING EXISTING SURROUNDINGS (I.E., ASPHALT, SIDEWALKS, CURBS, ETC.) THAT ARE DAMAGED DURING CONSTRUCTION. REPLACEMENT SHALL MATCH EXISTING.

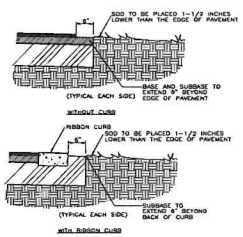
ALL SITE WORK MATERIALS AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.

CONTRACTOR SHALL HAVE ALL PERMITS PRIOR TO CONSTRUCTION IN WETLANDS, COUNTY RIGHT OF WAY, ETC.

CONSTRUCTION PLANS ARE BASED ON FIELD SURVEY AND OTHER DATA AS SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL LOCATIONS OF NEW AND EXISTING CONSTRUCTION AND UTILITIES TO COMPLETE THE WORK AS PLANNED. IN EVENT THERE IS A CONFLICT DUE TO UNFORESEEN OBSTRUCTIONS OR SHORT FALLS TO CONNECTIONS (WHICH DOES NOT MEET THE INTENT OF THE CONSTRUCTION PLANS) THE CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY FOR DIRECTION. THE CONTRACTOR SHALL RELOCATE OR REMOVE OBSTACLES AS DIRECTED BY OWNER.



ASPHALTIC PAVEMENT DETAIL
NOT TO SCALE

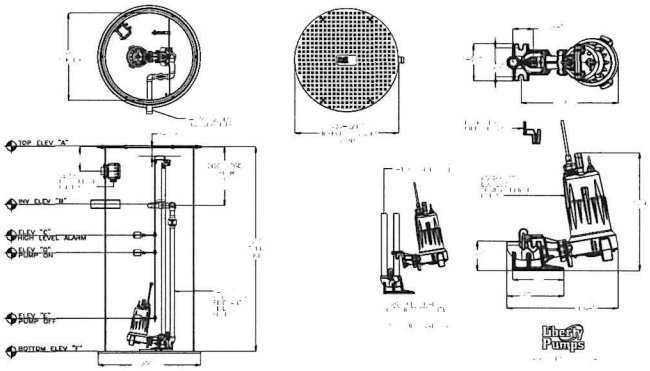


EDGE OF PAVEMENT DETAIL
NOT TO SCALE

TESTING SCHEDULE

ITEM	TEST	TEST IDENTIFICATION	TEST REQUIREMENTS	TEST FREQUENCY
UTILITY TRENCH FILL & BACKFILL	MAXIMUM DENSITY OPTIMUM MOISTURE	AASHTO T-180 ASTM D-1557	N/A	PER SOIL TYPE
	FIELD DENSITY GRADATION	AASHTO T-191, T-204 ASTM D-1556, D-2937 AASHTO M-92	95% OF MAXIMUM DENSITY (15% PASSING NO. 200)	ONE PER 500 LF HORIZONTAL OR ONE PER 750SY WITH A MINIMUM OF 3 TESTS, ALTERNATING LIFTS (12") ONE PER SOIL TYPE
FILL & BACKFILL UNDER ROADWAYS AND STRUCTURES	MAXIMUM DENSITY OPTIMUM MOISTURE	AASHTO T-180 ASTM D-1557	N/A	PER SOIL TYPE
	FIELD DENSITY GRADATION	AASHTO T-191, T-204, T-238 ASTM D-1556, D-2937, D-2922 AASHTO M-92	98% OF MAXIMUM DENSITY (15% PASSING NO. 200)	ONE PER 500 LF OR ONE PER 750SY WITH A MINIMUM OF 3 TESTS, ALTERNATING LIFTS (12") ONE PER SOIL TYPE
SUBGRADE	BEARING VALUES	LBR-FDOT	40 (MIN.)	ONE PER SITE OR AT MATERIAL CHANGES
	MAXIMUM DENSITY OPTIMUM MOISTURE	AASHTO T-180 ASTM D-1557	N/A	PER SOIL TYPE
	FIELD DENSITY & THICKNESS	AASHTO T-191, T-204 ASTM D-1556, D-2937	98% OF MAXIMUM DENSITY	ONE PER 500 LF HORIZONTAL OR ONE PER 750SY WITH A MINIMUM OF 3 TESTS
BASE	MAXIMUM DENSITY OPTIMUM MOISTURE	AASHTO T-180 ASTM D-1557	N/A	ONE PER SOURCE OR AT MATERIAL CHANGES
	FIELD DENSITY & THICKNESS	AASHTO T-191, T-204 ASTM D-1556, D-2937	98% OF MAXIMUM DENSITY	ONE PER 500 LF HORIZONTAL OR ONE PER 750SY WITH A MINIMUM OF 3 TESTS
ASPHALT	MATERIALS QUALITY BITUMEN CONTENT & GRADATION	AASHTO T-164, T-30 ASTM D-2172	FDOT SPEC. 320, 330, 334 FDOT SPEC. 916	MIN. ONE PER DAY FOR GRADATION OR AS REQUIRED BY INSPECTOR
	FIELD DENSITY & THICKNESS	ASTM D-2950	95% OF LAB DENSITY	ONE PER 500 LF HORIZONTAL OR ONE PER 750SY WITH A MINIMUM OF 3 TESTS
CONCRETE (MISC. SITE WORK)	SLUMP TEST	AASHTO T-119 ASTM C-143	2" TO 3"	AS REQUIRED BY INSPECTOR OR ONE PER SET OF CYLINDERS
	COMPRESSIVE STRENGTH	AASHTO T-23 ASTM C-31	4000 PSI	ONE SET OF 3 CYLINDERS PER 50CY PER DAY
	AIR CONTENT	AASHTO T-199	2% TO 6%	ONE PER SET OF CYLINDERS

NOTE: 1. CONCRETE FOR SITE WORK INCLUDES BUT IS NOT LIMITED TO CURB, CURB & GUTTER, SIDEWALKS, CONCRETE PAVING, ETC.
2. THIS TEST SCHEDULE APPLIES TO SITE WORK ONLY. SEE ARCHITECT'S SPECIFICATIONS FOR FOUNDATION/BUILDING TESTING.



GRINDER STATION INFORMATION		
DESCRIPTION	REF.	STATION 1
TOP	"A"	4.00'
INFLUENT INVERT	"B"	0.50'
HIGH LEVEL ALARM	"C"	-0.25'
PUMP ON	"D"	+0.75'
PUMP OFF	"E"	-1.92'
BOTTOM	"F"	-3.00'
WET WELL DEPTH		7.00'
WET WELL DIAMETER		24"
# OF PUMPS		1
GPM		22
TDH (FT)		80.68
VOLTAGE / PHASE		208-230 / 1
HP		2
PUMP MODEL		2484LSCX202-C

GRINDER STATION INFORMATION		
DESCRIPTION	REF.	STATIONS 2-10
TOP	"A"	3.50'
INFLUENT INVERT	"B"	2.00'
HIGH LEVEL ALARM	"C"	1.25'
PUMP ON	"D"	0.75'
PUMP OFF	"E"	-0.42'
BOTTOM	"F"	-1.50'
WET WELL DEPTH		7.00'
WET WELL DIAMETER		24"
# OF PUMPS		1
GPM		22
TDH (FT)		79.18
VOLTAGE / PHASE		208-230 / 1
HP		2
PUMP MODEL		2484LSCX202-C

PERMIT PURPOSES ONLY

CONSTRUCTION DETAILS
EAST BAY SUBDIVISON
5530 HWY 2297
PANAMA CITY, FLORIDA

SCALE SHOWN
DESIGNED BY: RLC
DRAWN BY: JJT
REVIEWED BY: RLC
ISSUE DATE: 7/1/2025
F.B./PG: 830.02/02
TOT MODIFIED PER Comments: 0/0

McNEIL-CARROLL ENGINEERING, INC.
Professional Engineering Consultants
CERT OF AUTHORIZATION #: EC0000010 LB#: 7998
17800 Panama City Beach Parkway
Panama City Beach, Florida 32413
Phone: 850-234-1730
Fax: 850-234-1731

NO.	DATE	BY	REVISIONS
01			
02			
03			
04			
05			

Sean D. McNeil, P.E.
PROFESSIONAL ENGINEER
FL LIC # 49908

Robert L. Carroll, P.E.
PROFESSIONAL ENGINEER
FL LIC # 57988

ROBERT L. CARROLL LICENSE No. 57988 STATE OF FLORIDA PROFESSIONAL ENGINEER
7/1/25

SHEET NUMBER 10 OF 10

830.03 - EAST BAY SUBDIVISON

THE PLANS, SPECIFICATIONS, ETC. AS BEING PROPOSED OR IN USE IN CONNECTION WITH THIS PROJECT ARE THE PROPERTY OF MCNEIL-CARROLL ENGINEERING, INC. AND SHALL BE RETURNED ON REQUEST. NO PART OF THE DESIGN MAY BE REPRODUCED OR UTILIZED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM WITHOUT PRIOR WRITTEN PERMISSION OF MCNEIL-CARROLL ENGINEERING, INC.

Agenda Item # 5

CITY OF CALLAWAY
BOARD OF COMMISSIONERS
AGENDA ITEM SUMMARY

DATE: JULY 08, 2025

DISCUSSION- WATER & SEWER RATE INCREASE

1. PLACED ON AGENDA BY:

EDDIE COOK, CITY MANAGER ,

AND

DAVID SCHULTZ, DIRECTOR OF FINANCE

2. AGENDA:

PRESENTATION ☐
PUBLIC HEARING ☐
OLD BUSINESS ☐
REGULAR ☒

3. IS THIS ITEM BUDGETED (IF APPLICABLE)?: YES ☐ NO ☒

4. BACKGROUND: (WHY, WHAT, WHO, WHERE, WHEN, HOW, & IDENTIFY ALL ATTACHMENTS)

The City has received letters from the Bay County indicating that sewer rates will be increasing as of October 1, 2025, and water rates will be increasing January 1, 2026 for the Fiscal Year 2026.

Water rates will increase 2.6% or $0.05 from $2.07 to $2.12 per thousand gallons.

Wastewater Treatment will increase 4.0% or $0.15 per thousand gallons from $3.64 to $3.79.

In order to increase rates for the City of Callaway, if decided to do so, the City must advertise the increase two months in advance of the date the increase will take effect. Staff seeks direction from Commission.

Attachment(s):

- Letters from Bay County of increased costs for FY 2026 Budget for Water and Wastewater Treatment.

5. REQUESTED MOTION/ACTION: Staff requests direction on how to proceed with increased costs.

BOARD OF COUNTY COMMISSIONERS

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DISTRICT II

DOUG CROSBY
DISTRICT III

DOUGLAS MOORE
DISTRICT IV

CLAIR PEASE
DISTRICT V

ROBERT J. MAIKA
COUNTY MANAGER

June 16, 2025

The Honorable Pam Henderson
City of Callaway
6601 E. Hwy 22
Callaway, FL 32404

Subject: Fiscal Year 2026 Military Point AWTF Wastewater Rate Calculation

Dear Mayor Henderson:

Pursuant to the Military Point Advanced Wastewater Treatment Facility (MPAWTF) Interlocal Agreement (Interlocal Agreement) Article V, Section 5.16 (iii), attached is a copy of the tentative MPAWTF Joint Venture budget for fiscal year 2026 (Exhibit 1). The attachments include the MPAWTF Fund 412 Revenues; the MPAWTF Operations (O&M) budget for the Joint Venture System, Department #0464; and the MPAWTF Renewal and Replacement budget, Department #0465. This capital/debt budget reflects the City of Callaway's projected share of debt service for fiscal year 2026. These tentative budgets will be presented to the Board of County Commissioners of Bay County, Florida (County) for approval later this summer. The budget information presented reflects the: i) operating results for fiscal year 2024; ii) adopted budget for fiscal year 2025; and iii) draft budget for fiscal year 2026.

Pursuant to the Interlocal Agreement, the Bay County Utilities Department (the "Operator") acting on behalf of the Cities of Callaway, Parker, Springfield, and the Bay County Retail Water and Wastewater System is tasked to complete a rate study every five years in order to validate the sufficiency of system revenues to meet the requirements of the MPAWTF.

Raftelis has prepared an updated forecast and recommendation for the MPAWTF. Last year's revenue sufficiency study, dated December 2, 2024, recommended a 9% increase to the Operating and Maintenance Component. However, based on the revised financial forecast and increases in projected revenues due to higher billed wastewater flows, a rate increase of 4% for fiscal year 2026 was identified. The fiscal year 2026 charge per 1,000 gallons of wastewater treated shall be $3.79, which is an increase of $0.15 (4%) above the current charge.

The Operating and Maintenance Component is the portion of costs covered by the volumetric rate charged for each thousand gallons of wastewater treated. All other components are a direct pass through, either established by contract or a function of debt service payments. Total billed flows for MPAWTF have significantly fluctuated year to year, with an increase in flows occurring in fiscal year 2024 compared to prior actual results and projections. Based on year-to-date information through March of 2025, billed flows are trending higher than prior year projections, allowing for a lower rate increase than previously projected. Should billed flows decline in the future, higher rate increases may be required to offset the decrease in revenue while keeping pace with the effects of inflation. The Fiscal Year 2026 Revenue Sufficiency Study will be available in the coming months and will provide the most recent 5-year forecast of MPAWTF Operating and Maintenance rate increases. The following presents a summary of historical and projected annual amounts by component for Fiscal Year 2024 through 2026.

Comparison of Bill for Wastewater Treatment – City of Callaway [1]

Charge Component	Actual FY 2024	Estimated FY 2025	Projected FY 2026	Variance FY25 to FY26	
				Amount	Percent
Operating and Maintenance	$1,945,547	$1,831,044	$1,904,286	$73,242	4.00%
Debt Service	259,749	258,638	258,524	(114)	-0.04%
Owner's Rate Reserve	38,962	38,796	38,779	(17)	-0.04%
Renewal & Replacement Fund	104,004	104,004	104,004	0	0.00%
Total Charges	**$2,348,262**	**$2,232,482**	**$2,305,593**	**$73,111**	**3.27%**

[1] Estimated values are subject to change based on actual results.

BOARD OF COUNTY COMMISSIONERS

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DISTRICT III

DOUGLAS MOORE
DISTRICT IV

CLAIR PEASE
DISTRICT V

ROBERT J. MAJKA
COUNTY MANAGER

Should you have any questions or need additional information, please contact Mike Allen, Utility Services Assistant Director, at (850) 248-5026.

Sincerely,

Robert J. Majka
County Manager

Cc: Joel Schubert, Deputy County Manager
Keith Bryant, Chief Infrastructure Officer
Maranda Griffin, Budget Director
Don Banks, County Attorney
Mike Allen, Utility Services Assistant Director

BOARD OF COUNTY COMMISSIONERS

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DISTRICT IV

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DISTRICT V

ROBERT J. MAIKA
COUNTY MANAGER

July 3, 2025

The Honorable Pam Henderson
City of Callaway
6601 E. Hwy 22
Callaway, FL 32404

Subject: Fiscal Year 2026 Wholesale Water Rate Increase

Dear Mayor Henderson:

Raftelis Financial Consultants, Inc. (Raftelis) has reviewed the sufficiency of Bay County's Wholesale Water System revenues for fiscal year 2026. The County's wholesale system provides the municipalities of Callaway, Lynn Haven, Mexico Beach, Panama City, Parker, Springfield, and Panama City Beach, as well as Tyndall Air Force Base, with potable water through individual contracts with each entity. Based on their analysis, the existing rate is not sufficient to fund the revenue requirements of the System for the upcoming fiscal year 2026. The growing capital reinvestment requirements and increases in operating and maintenance expenses from the effects of inflation are the primary drivers of the need to increase the wholesale water rate.

On May 5, 2009, the Board of County Commissioners enacted Resolution 2920. This Resolution increased the wholesale water rate and provided an automatic annual rate increase equal to the lesser of three percent (3.0%) or the Consumer Price Index (CPI) percentage increase. Pursuant to this Resolution and the CPI for fiscal year 2024 of 2.6%, the wholesale water rate will increase 2.6% from $2.07 to $2.12 per thousand gallons effective January 1, 2026.

Should you have any questions or need additional information please contact me at (850) 248-5026.

Sincerely,

Mike Allen
Utility Services Assistant Director

Cc: Joel Schubert, Deputy County Manager
Keith Bryant, Chief Infrastructure Officer
Maranda Griffin, Chief Financial Officer
Alicia Carrothers, Deputy County Attorney