

# Traffic Management Plan & Queuing Analysis

For



# CALVARY

CHRISTIAN ACADEMY

Prepared By: Steven Frink, PE.

**Engineering Design & Construction, Inc.**

**A Division of Haley Ward, Inc.**

**10250 SW Village Parkway, Suite 201**

**Port St. Lucie, FL 34987**

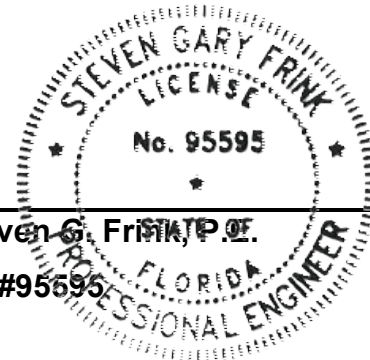
**Board of Professional Engineers Certificate of Authorization Number 9935**

**April 2024**

**Revised October 2024**

This document has been digitally signed and sealed by Steven G. Frink, PE #95595, on October 02, 2024.

Printed copies of this document are not considered signed and sealed and the the signature must be verified on any electronic copy.



---

Steven G. Frink, P.E.  
PE #95595

Date



## Contents

Project Description .....	3
On-Site Queuing .....	3
On-Site Queuing Contingency Plan.....	5
Vehicle Accumulation .....	5
Summary.....	11
Appendix A: Vehicle Queue .....	13
Appendix B: Vehicle Queue Contingency Plan .....	15
Appendix C: Site Plan .....	17



## Project Description

Calvary Christian Academy is located 5545 Northwest St James Dr in Port St Lucie, Florida. Calvary Christian Academy is proposing to expand its current enrollment of school-aged children from 395 students to 552 students and will include grades kindergarten through 12th grade. The high school use at this location is temporary until construction is completed on the proposed high school along St James Boulevard. Once the high school student population is relocated a re-evaluation of the Traffic Management Plan & Queuing Analysis will need to be completed.

A first-in-first-out (FIFO) approach was used to develop the queuing analysis. It was assumed that all parents/guardians will remain in their vehicle to drop-off and pick-up the child(ren) at a designated staging area each day. The school will utilize a staggered timing for operation, drop-off, and pick-up times. Before and after care is provided where approximately 35 students are enrolled. Additionally, approximately 14 students either ride a bike or walk to and from school. The school will continue to utilize the existing ingress and egress driveway located along NW Peachtree Blvd.

Table 1: Operating and Drop-off/Pick-up Hours

Grade	Operating Times	Morning Drop-off	Afternoon Pick-up
K - 6th	8:30 AM - 3:30 PM	8:00 AM - 8:30 AM	3:30 PM - 4:00 PM
7th - 12th	7:30 AM - 2:30 PM	7:00 AM - 7:30 AM	2:30 PM - 3:00 PM

## On-Site Queuing

Calvary Christian Academy wants to ensure that drop-off and pick-up will run smoothly to minimize drop-off and pick-up times and reduce impacts to adjacent roads. To accomplish this goal, parents will be instructed to remain in their vehicles to drop-off and pick-up students and enter one of the two designated lanes to drop-off/pick-up their child(ren). The two lanes have a combined length of 1,060 feet (ft) allowing for 42 vehicles to queue, assuming each vehicle occupies 25 ft, before impacting NW Peachtree Blvd, as shown in Appendix A: Vehicle Queue.



Vehicles will enter the property using the existing driveway connection from NW Peachtree Blvd and will be directed into one of the two designated lanes. After dropping off or picking up the student, the vehicle will then depart the property utilizing the same driveway. Trained staff members will assist in the drop-off/pick-up area and will be placed strategically around the drop-off/pick-up area at the locations the school determines to be the most effective. At pick-up time, staff members will transmit the student identification number to the interior of the school where the child will then be placed in a line for pick-up.

The proposed on-site queuing plan is anticipated to accommodate the arrival and departure of vehicles smoothly and effectively. The school will assign staff to critical areas for traffic management and safety, as well as utilize a traffic control officer or police officer and a state certified crossing guard for operation in the NW Peachtree Blvd right-of-way. Appendix A: Vehicle Queue depicts the location of each member and the members area of responsibility as follows:

- 1) Drop-off/Pick-up Release Director – A trained staff member will release vehicles following the loading and unloading of the students. The staff member will also assist students and parents during the drop-off and pick-up process as needed.
- 2) Unloading and Loading of Students at Drop-Off/Pick-Up Area(s) – Staff will be positioned within the designated drop-off and pick-up area(s) and at key locations on the site. Depending on the initial process and observed operations, up to 4 teachers and/or administrators will be directly involved in the process of directing students, cars, and traffic.
- 3) Traffic Control Personnel – A trained staff member will direct in coming vehicles to the proper lane to ensure that there is no congestion in the NW Peachtree Blvd right-of-way.



- 4) Traffic Control Officer/Police Officer/Crossing Guard – A Florida State certified crossing guard, traffic control officer or police officer will be located at the entrance to the site along NW Peachtree Blvd. The officer or crossing guard can stop traffic along NW Peachtree Blvd, at their discretion, to allow vehicles to leave the property and improve on-site operations. The personnel at this location can also impede the flow of traffic onto and out of the property to allow people to cross the driveway safely.

In the event that parents/guardians arrive prior to dismissal and begin impacting Peachtree Blvd, they shall be directed to the adjacent church for stacking.

### **On-Site Queuing Contingency Plan**

While the proposed ingress/egress can serve the anticipated increase in traffic volume during drop-off and pick-up, it is important to have a contingency plan in place for any unforeseen issue. The contingency plan, as shown in Appendix B: Vehicle Queue Contingency Plan consists of using the drive aisles as storage for additional stacking. This will allow an additional 16 vehicles to wait on-site should the need arise. This plan is not anticipated to be utilized and is provided to demonstrate the flexibility that the existing site has to increase the queuing length in the unlikely event that it is needed. Calvary Christian Academy will assign staff to critical areas for traffic management and safety. Appendix B: Vehicle Queue Contingency Plan depicts the location of each member.

### **Vehicle Accumulation – Current Schedule**

There are currently 395 students enrolled at Calvary Christian Academy. The expansion will allow the school to increase enrollment to 552, a change of 157 students. Table 2 provides the breakdown for each education level. Approximately 4% of the student body either rode a bike or walked and 35 students are enrolled in before/aftercare.



Table 2: Enrollment per Education Level

Grade	Current Enrollment	Proposed Enrollment	Change ( $\Delta$ )
Elementary	242	324	82
Middle	111	120	9
High	42	108	66
<b>Total</b>	<b>395</b>	<b>552</b>	<b>157</b>

To begin the analysis, the students were divided into their respective pick-up and drop-off times. For this analysis, it was assumed that one-third of middle school students would be dropped off and picked up during elementary hours. Table 3 provides the assumed student population for each designated drop-off and pick-up time. As the elementary drop-off and pick-up hours have the largest population, the analysis will focus on this group.

Table 3: Student Population for Drop-off/Pick-up

Grade	Morning Drop-off	Afternoon Pick-up	Students
K - 6th	8:00 AM - 8:30 AM	3:30 PM - 4:00 PM	364
7th - 12th	7:00 AM - 7:30 AM	2:30 PM - 3:00 PM	188
<b>Total</b>			<b>552</b>

For the kindergarten through six grade levels, it was assumed that all 35 students enrolled in before/after care are in this group and that 2% of this group, or eight students, either rode a bike or walked. Deducting these numbers from the student population of 364 resulted in 321 students arriving by personal vehicle. It was also assumed that each vehicle would carry one student to and from the school.

To determine the average number of vehicles that would queue, the utilization factor ( $\rho$ ) needed to be calculated, Equation 1. The utilization factor is the probability that the drop-off and pick-up area(s) will be occupied. This utilization factor is a ratio of the arrival rate of the vehicles and the rate at which the drop-off/pick-up area(s) will be used.



$$\begin{aligned}\rho &= \frac{\lambda}{\mu} \\ &= \frac{642}{720} \\ &= 0.891\bar{6} \\ &\approx 0.89\end{aligned}$$

Equation 1: Utilization Factor

Where:  $\rho$  = Utilization Factor

$\lambda$  = Arrival Rate (vph)

$\mu$  = Service Rate (vph)

As the equation is based on the number of vehicles per hour (vph), the number of vehicles was doubled to 642, and serves as the arrival rate. The service rate was determined assuming there would be six active areas for drop-off and pick-up that would take, on average, 30 seconds to complete one service. This would result in 720 services being completed per hour. The ratio of the arrival rate and the service rate produced a utilization factor of 0.89.

To find the average number of vehicles in the queue ( $L$ ), the difference between the service rate and the arrival would need to be determined. This difference was then used as a divisor with the arrival rate that produces the average number of vehicles in the queue, Equation 2. The utilization factor was then multiplied with the average number of vehicles in the queue to produce the average number of vehicles waiting in the queue ( $L_q$ ), Equation 3.



$$L = \frac{\lambda}{\mu - \lambda}$$

Equation 2: Average Number of Vehicles in the Queue

$$L_q = \rho L$$

Equation 3: Average number of Vehicles Waiting in the Queue

With 642 vehicles arriving at Calvary Christian Academy every hour, and with the potential of 720 drop-offs/pick-ups occurring every hour, the average number of vehicles in the queue is approximately nine. This would lead to the average number of vehicles waiting in the queue at eight. Recalling that every vehicle will occupy 25 ft, results in 225 ft used for the average number of vehicles in the queue and 200 used for the average number of vehicles waiting in the queue.

The results of the vehicle accumulation analysis mean that one vehicle would be added to the queue every minute until all of the vehicles have arrived. This created a maximum queue length of 24 vehicles, and occupy 600 ft, after 24 minutes have passed. The queue would then be reduced by 12 vehicles per minute (vpm) until no vehicles remained in the queue.

Table 4: Maximum Queue Length per Minute





Equation 4: Maximum Queue Length per Minute

Time (t, min)	Vehicles Arrived	Vehicles Serviced	Vehicles in Queue	Vehicles Remaining To Be Serviced
0	0	0	0	321
1	13	12	1	309
2	26	24	2	297
3	39	36	3	285
4	52	48	4	273
5	65	60	5	261
6	78	72	6	249
7	91	84	7	237
8	104	96	8	225
9	117	108	9	213
10	130	120	10	201
11	143	132	11	189
12	156	144	12	177
13	169	156	13	165
14	182	168	14	153
15	195	180	15	141
16	208	192	16	129
17	221	204	17	117
18	234	216	18	105
19	247	228	19	93
20	260	240	20	81
21	273	252	21	69
22	286	264	22	57
23	299	276	23	45
24	312	288	24	33
25	321	300	21	21
26	321	312	9	9
27	321	321	0	0
28	321	321	0	0
29	321	321	0	0
30	321	321	0	0

## Vehicle Accumulation – Future Schedule

Beginning for the 2026 – 2027 school year, HB-733, will take affect requiring all middle schools to begin no early than 8:00 AM and high schools no earlier than 8:30 AM. To adhere to the new law, all grade levels will begin at 8:30 AM and end at 3:30 PM, with arrival beginning at 8:00 AM and pick-up beginning at 3:30 PM. The queuing assumptions stated previously apply along with the personnel required for traffic management.



To ensure that the updated operational hours will not impact the roadway network, an additional analysis was completed. It is still assumed that 35 students are enrolled in before/aftercare and 2% of the student population will either ride a bike or walk to and from the campus. With the inclusion of the high school population, it is assumed that 20% of students will drive to and from school. The remaining student population arriving by vehicle is 483. Table 5 provides a breakdown of the arrival and departure of the student population.

Table 5: Student Population Arrival/Departure Breakdown

Category	Students
Student Population	552
Before/After Care	35
Walk/Bike	12
Drive	22
<b>Remaining</b>	<b>483</b>

The number of vehicles was doubled to 966 to remain consistent with the current arrival rate. To accommodate the increase in arrivals and departures, the Academy has the capability to increase the number of servers from six to ten. Using the previous assumption of 30 seconds-per-service for one-hour, results in 1,200 services. This would produce a utilization factor of 0.81 for future hours. Following Equation 2 and Equation 3 results in an average number of vehicles in the queue and average number of vehicles waiting in the queue at five.

One vehicle is still being added to the queue every minute until minute 23. At that time, all vehicles have arrived and the queue is reduced to zero by minute 25. This creates a maximum queue of 23 vehicles and would occupy 575 ft.



Table 6: Maximum Queue Length per Minute for New Hours

Time (t, min)	Vehicles Arrived	Vehicles Serviced	Vehicles in Queue	Vehicles Remaining To Be Serviced
0	0	0	0	483
1	21	20	1	463
2	42	40	2	443
3	63	60	3	423
4	84	80	4	403
5	105	100	5	383
6	126	120	6	363
7	147	140	7	343
8	168	160	8	323
9	189	180	9	303
10	210	200	10	283
11	231	220	11	263
12	252	240	12	243
13	273	260	13	223
14	294	280	14	203
15	315	300	15	183
16	336	320	16	163
17	357	340	17	143
18	378	360	18	123
19	399	380	19	103
20	420	400	20	83
21	441	420	21	63
22	462	440	22	43
23	483	460	23	23
24	483	480	3	3
25	483	483	0	0

## Summary

Calvary Christian Academy is projecting a student body of 552 students, with 364 students arriving between 8:00 AM and 8:30 AM and departing between 3:30 PM and 4:00 PM. The remaining 188 students will arrive between 7:00 AM and 7:30 AM and depart between 2:30 PM and 3:00 PM. Of the 364 students, 35 are enrolled in before/after care and 8 either ride a bike or walk, resulting in 321 students arriving by vehicle.



Once HB-733 takes effect beginning with the 2026 – 2027 school year, all grade levels will match pick-up, drop-off times, and operation hours. This will require the number of available servers to increase from six to ten to accommodate the increase in demand.

The site can accommodate 42 vehicles the use of the 1,060 ft designated drop-off and pick-up lanes. A third drop-off/pick-up lane, with 400 ft of space, can be placed into operation in the rare circumstance that extra space is needed. This third lane will allow for an additional 16 vehicles to queue before impacting NW Peachtree Blvd.

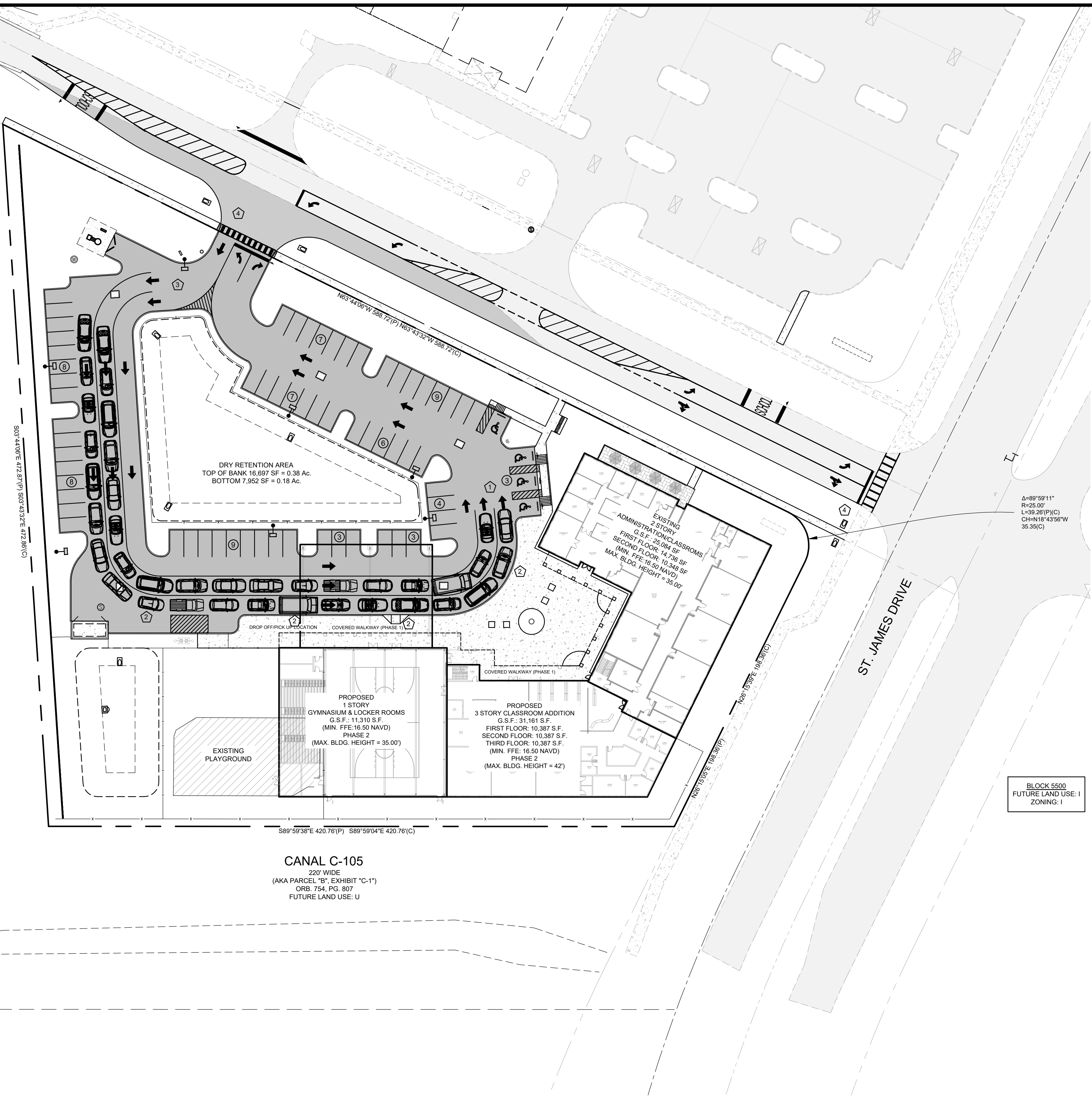


## Appendix A: Vehicle Queue

Z:\EDC-2024\34-112 - Calvary Christian Academy\ENGINEERING\CADD\DWG\Civil\Queuing.dwg, Queue, 10/2/2024 3:11:27 PM, Steven F. EDC, Inc., EDC, Inc.

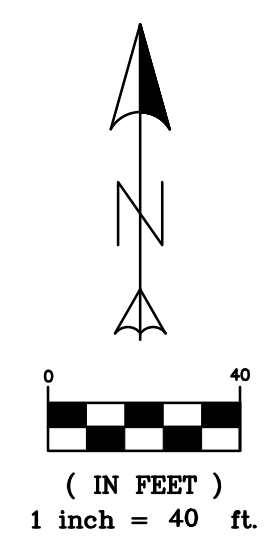
THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADOPTION BY EDC, INC. SHALL BE WITHOUT LIABILITY TO EDC, INC.

CANAL C-104  
200' WIDE  
(AKA PARCEL "C", EXHIBIT "C-1")  
ORB. 754, PG. 807  
FUTURE LAND USE: OSC



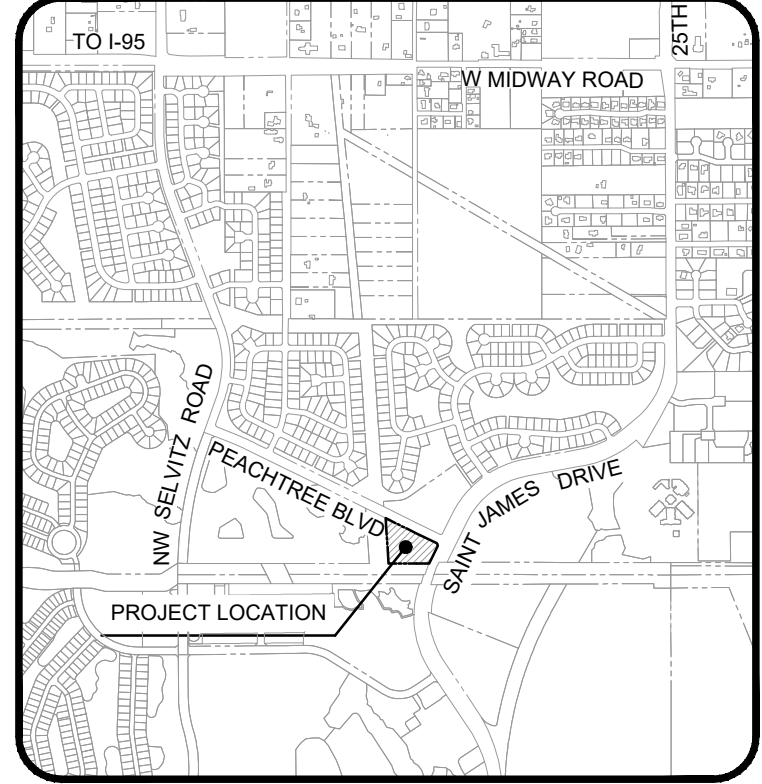
CANAL C-105  
220' WIDE  
(AKA PARCEL "B", EXHIBIT "C-1")  
ORB. 754, PG. 807  
FUTURE LAND USE: U

BLOCK 5500  
FUTURE LAND USE: I  
ZONING: I



**LEGEND**

	PARKING STALL COUNT
	PERSONNEL LOCATION



VICINITY MAP

PLSUSD FILE#5261  
CITY OF PORT SAINT LUCIE  
SITE PLAN REVIEW #P19-160-A1



PORT SAINT LUCIE OFFICE  
10250 SW VILLAGE PARKWAY - SUITE 201  
PORT SAINT LUCIE, FL 34987  
772-462-2455  
www.edc-inc.com

F.B.P.E. CERTIFICATE OF AUTHORIZATION 9935  
L.B. CERTIFICATE OF AUTHORIZATION 9099

DATE	REVISION COMMENTS

RJK  
DESIGNED BY  
VER  
DRAWN BY  
2024-08-30 queuing.dwg  
FILENAME  
Queue  
LAYOUT  
AS SHOWN  
SCALE  
28MAR24  
DATE

**CALVARY CHRISTIAN ACADEMY**

**QUEUING EXHIBIT**

PORT ST. LUCIE FLORIDA



24-112

1 OF 1



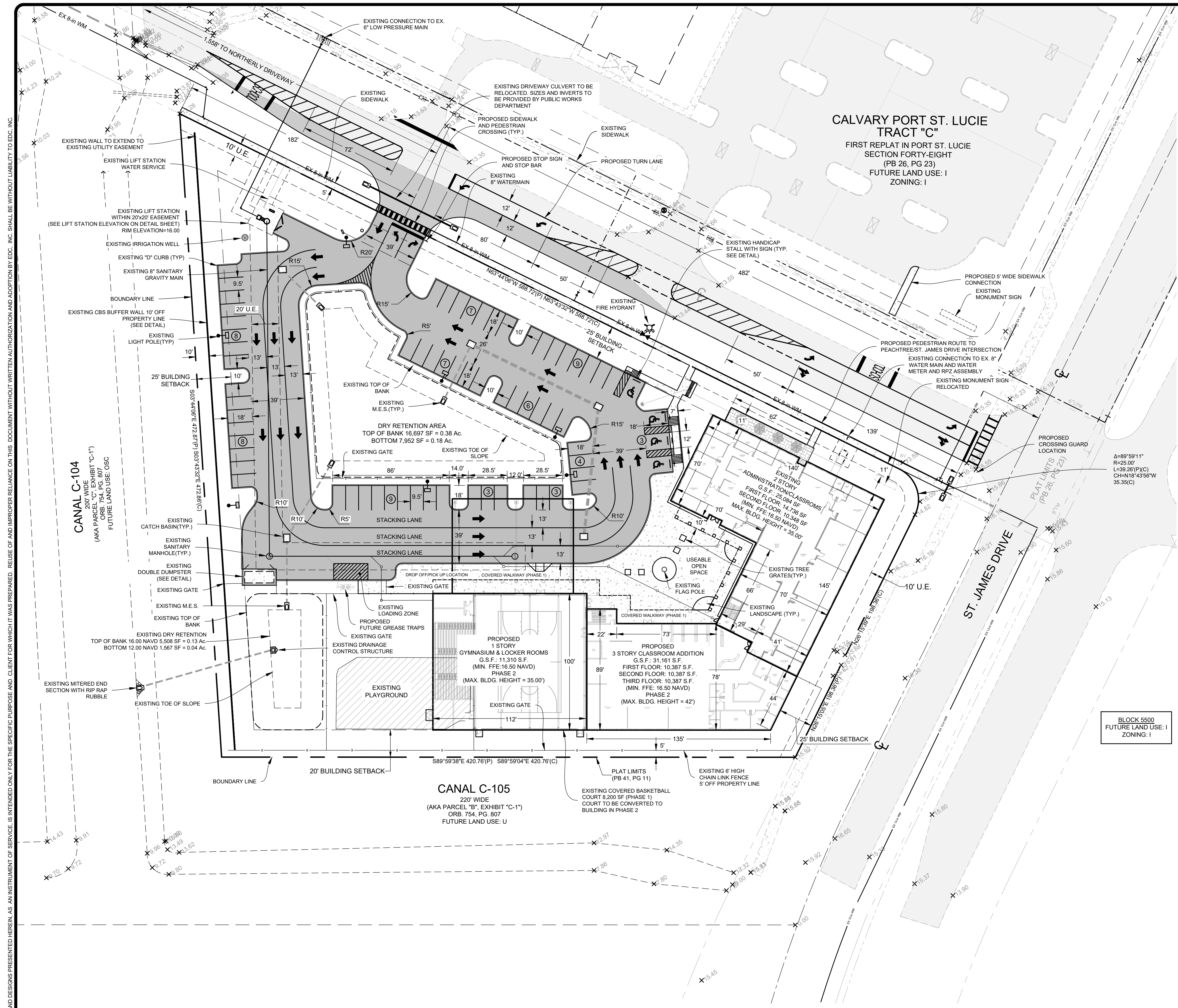
## **Appendix B: Vehicle Queue Contingency Plan**



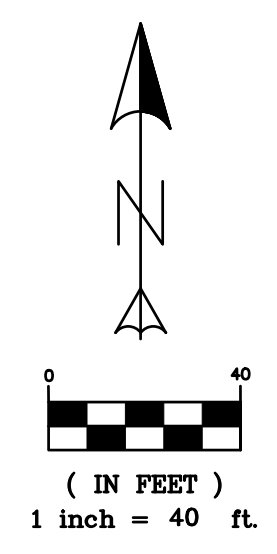




## Appendix C: Site Plan

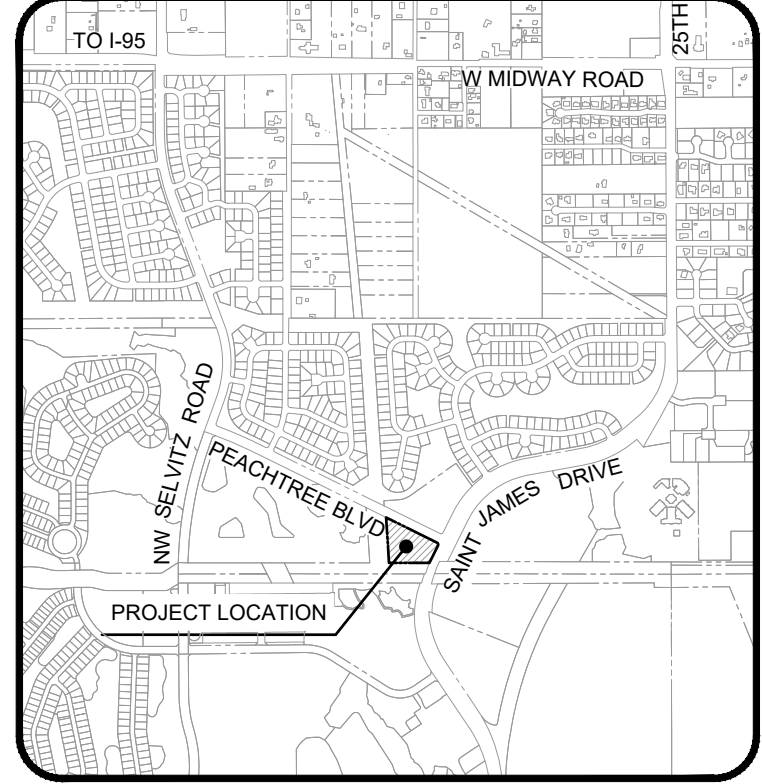


**CALVARY PORT ST. LUCIE TRACT "C"**  
 FIRST REPLAT IN PORT ST. LUCIE SECTION FORTY-EIGHT (PB 26, PG 23)  
 FUTURE LAND USE: I  
 ZONING: I



**LEGEND**

- EXISTING SPOT ELEVATION
- PARKING STALL COUNT
- PROPOSED LIGHT POLE (BY OTHERS)
- EXISTING ASPHALT
- PROPOSED ASPHALT
- EXISTING CONCRETE
- PROPOSED CONCRETE
- PART OF PHASE 2 CONSTRUCTION
- PART OF PHASE 3 CONSTRUCTION



**PROJECT STATEMENTS:**

**WATER, SEWER AND IRRIGATION:**  
 WATER SERVICE AND SEWER SERVICE WILL BE PROVIDED BY PSLUSD TO SERVE THE PROPOSED BUILDINGS. PROPOSED POINTS OF CONNECTION AND POINTS OF SERVICE ARE SHOWN ON THIS PLAN.

**THIS PLAN IS FOR PRELIMINARY ENGINEERING PURPOSES ONLY. ALL FINAL UTILITY DESIGN AND SIZES TO BE INCLUDED ON CONSTRUCTION LEVEL PLANS FOR APPROVAL BY PSLUSD.**

**DRAINAGE:**  
 THE SURFACE WATER MANAGEMENT SYSTEM FOR THE PROJECT WILL COLLECT SITE RUNOFF IN A SERIES OF INLETS WHICH WILL ROUTE THE RUNOFF TO THE PROPOSED DRY DETENTION AREA SIZED TO ACCEPT THE PROPOSED CONNECTION. WATER QUALITY AND ATTENUATION SHALL BE ACHIEVED PER SFWMD CRITERIA PRIOR TO DISCHARGING WEST INTO THE EXISTING CITY OF PORT ST. LUCIE CANAL C-104.

**ENVIRONMENTAL:**  
 THE SUBJECT PARCEL IS COMPRISED OF UPLAND AND WETLAND HABITAT WITH MODERATE EXOTIC VEGETATION THROUGHOUT. AT THE REQUEST OF THE CITY, TREE AND GOPHER TORTOISE SURVEYS SHALL BE PERFORMED PRIOR TO DEVELOPMENT APPROVALS. PERMITTING AND MITIGATION WILL BE REQUIRED FROM THE STATE, ARMY CORPS OF ENGINEERS, AND CITY OF PORT ST. LUCIE FOR IMPACTS TO THE EXISTING HERBACEOUS WETLAND.

**SOLID WASTE:**  
 BASED ON THE INTENDED USE OF THE BUILDING, THIS PROJECT WILL UTILIZE A PROPOSED DUMPSTER AREA FOR SOLID WASTE AND RECYCLABLE ITEMS.

**HAZARDOUS WASTE:**  
 ALL HAZARDOUS WASTES DISPOSAL SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS.

**FIRE PROTECTION:**  
 ALL HYDRANTS WITHIN 1000' ARE SHOWN.

**WELL FIELD PROTECTION:**  
 THE SUBJECT PARCEL IS NOT LOCATED WITHIN 1000 FEET OF A PUBLIC WATER SUPPLY WELL.

**ACCESSIBILITY AND ADA COMPLIANCE:**  
 ALL SIDEWALKS AND RAMPS WILL MEET FDOT AND ADA REQUIREMENTS.

**SITE LIGHTING:**  
 THE PROPERTY OWNER, CONTRACTOR, AND AUTHORIZED REPRESENTATIVES SHALL PLAN WITH APPROVED FIXTURES AND POLE HEIGHTS WILL BE REQUIRED AT THE TIME OF CONSTRUCTION PLAN APPROVAL.

**SITE RESTORATION STATEMENT:**  
 THE PROPERTY OWNER, CONTRACTOR, AND AUTHORIZED REPRESENTATIVES SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE AREA FROM THE EDGE OF PAVEMENT TO THE PROPERTY LINE WITHIN THE CITY'S RIGHT-OF-WAY IN ACCORDANCE WITH CITY CODE, SECTION 41.08 (5).

**BUILDING HEIGHT:**  
 MAXIMUM BUILDING HEIGHT FOR PROPOSED 3 STORY ADDITION NOT TO EXCEED 42' AS WAS APPROVED AT APRIL 2ND PLANNING & ZONING BOARD MEETING UNDER PROJECT #P24-029.

PARAPET WALL TO CONCEAL MECHANICAL EQUIPMENT NOT TO EXCEED 9.1' ABOVE ALLOWABLE BUILDING HEIGHT AS WAS APPROVED AT APRIL 2ND PLANNING & ZONING BOARD MEETING UNDER PROJECT #P24-029.

**LEGAL DESCRIPTION:**

PARCEL NO. 3, PEACHTREE PLACE, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 41, PAGE 11, PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.

**DATUM NOTE:**

ALL ELEVATIONS REFERENCE THE NATIONAL ADJUSTED VERTICAL DATUM OF 1988 (N.A.V.D. 88) TO CONVERT INTO N.G.V.D. ADD 1.475 TO N.A.V.D.

**SITE DATA:**

PARCEL SIZE:	167,674 S.F. (3.85 AC.)
PARCEL ID:	3408-602-0004-000-7
SECTION:	03
TOWNSHIP:	36S
RANGE:	40E
ZONING:	CG
LAND USE:	CG
BUILDING COVERAGE:	REQ = 40% MAX PROVIDED = 24.94%
IMPERVIOUS MAX = 80%	PROVIDED = 58.18%
MAX. BLDG HEIGHT (EXISTING):	35'
MAX. BLDG HEIGHT (PROPOSED):	42'

**DEVELOPER/OWNER:**

CALVARY CHAPEL  
 PORT ST LUCIE WEST INC  
 5555 NW SAINT JAMES DR  
 PORT ST LUCIE, FL 34983

**LAND USE TABLE:**

PHASE	TOTAL PARCEL SIZE:	167,674 S.F.	3.85 AC.	100%
PHASE 1	BUILDING AREA:	14,736 S.F.	0.34 AC.	8.79%
	PAVED AREA:	43,655 S.F.	1.00 AC.	26.04%
	CONCRETE AREA:	12,071 S.F.	0.28 AC.	7.20%
	HARD COURT:	8,200 S.F.	0.19 AC.	4.89%
TOTAL IMPERVIOUS:	78,662 S.F.	1.81 AC.	46.91%	
TOTAL PERVIOUS:	89,012 S.F.	2.04 AC.	53.09%	
PHASE 2	BUILDING AREA:	36,433 S.F.	0.84 AC.	21.73%
	PAVED AREA:	43,453 S.F.	1.00 AC.	25.92%
	CONCRETE AREA:	11,853 S.F.	0.27 AC.	7.07%
	PATIO:	690 S.F.	0.02 AC.	0.41%
	TOTAL IMPERVIOUS:	92,419 S.F.	2.12 AC.	55.13%
TOTAL PERVIOUS:	75,255 S.F.	1.73 AC.	44.87%	

**PHASING SCHEDULE:**

PHASE 1 INCLUDES ADMINISTRATION BUILDING, CLASSROOM CONSTRUCTION, BASKETBALL COURT, COVERED WALKWAY, PLAY AREA, AS WELL AS ALL PAVING, DRAINAGE AND UTILITIES. PHASE 2 INCLUDES CONSTRUCTION OF CLASSROOM EXPANSION, GYMNASIUM, AND CANOPY.

NOTE: ALL MECHANICAL EQUIPMENT MUST BE SCREENED FROM VIEW.

**PARKING INFORMATION**

SCHOOL PARKING (K-12)		
K-8 (2 SPACES PER CLASSROOM, 17 CLASSROOMS)		
9-12 (8 SPACES PER CLASSROOM, 4 CLASSROOMS)		
TOTAL PARKING REQUIRED:		66 STALLS
TOTAL PARKING PROVIDED:		67 STALLS
REQUIRED HANDICAPPED:		3 STALLS
PROVIDED HANDICAPPED:		4 STALLS

NOTE: PRIOR TO SITE PLAN APPROVAL, A FORMAL PARKING AGREEMENT IS REQUIRED WITH THE NEIGHBORING CHURCH PROPERTY TO ASSURE THAT THERE IS AMPLE PARKING FOR THE SCHOOL USE.

IF THE TEMPORARY HIGH SCHOOL USE IS INTENDED TO BECOME PERMANENT OR LAST LONGER THAN FOUR (4) YEARS, A SPECIAL EXCEPTION USE MODIFICATION AND SITE PLAN MODIFICATION SHALL BE REQUIRED.

IF THE TEMPORARY HIGH SCHOOL USE EXPANDS BEYOND 4 CLASSROOMS, A SITE PLAN AMENDMENT WILL BE REQUIRED TO CONSIDER AVAILABILITY OF PARKING.

PSLUSD FILE#5261  
**CITY OF PORT SAINT LUCIE**  
 SITE PLAN REVIEW #P19-160-A1

**PORT SAINT LUCIE OFFICE**  
 10250 SW VILLAGE PARKWAY - SUITE 201  
 PORT SAINT LUCIE, FL 34987  
 ☎ 772-462-2455  
 www.edc-inc.com

F.B.P.E. CERTIFICATE OF AUTHORIZATION 9935  
 L.B. CERTIFICATE OF AUTHORIZATION 9099

DATE	REVISION COMMENTS

RJK  
 DESIGNED BY  
 VER  
 DRAWN BY  
 24-112.spa.9.28.24.dwg  
 FILENAME  
 Site Plan  
 LAYOUT  
 AS SHOWN  
 SCALE  
 28MAR24  
 DATE

**CALVARY CHRISTIAN ACADEMY**  
**MAJOR SITE PLAN AMENDMENT**

PORT ST. LUCIE FLORIDA

**J.R. HARRISON, P.E. (DATE)**  
 #82270

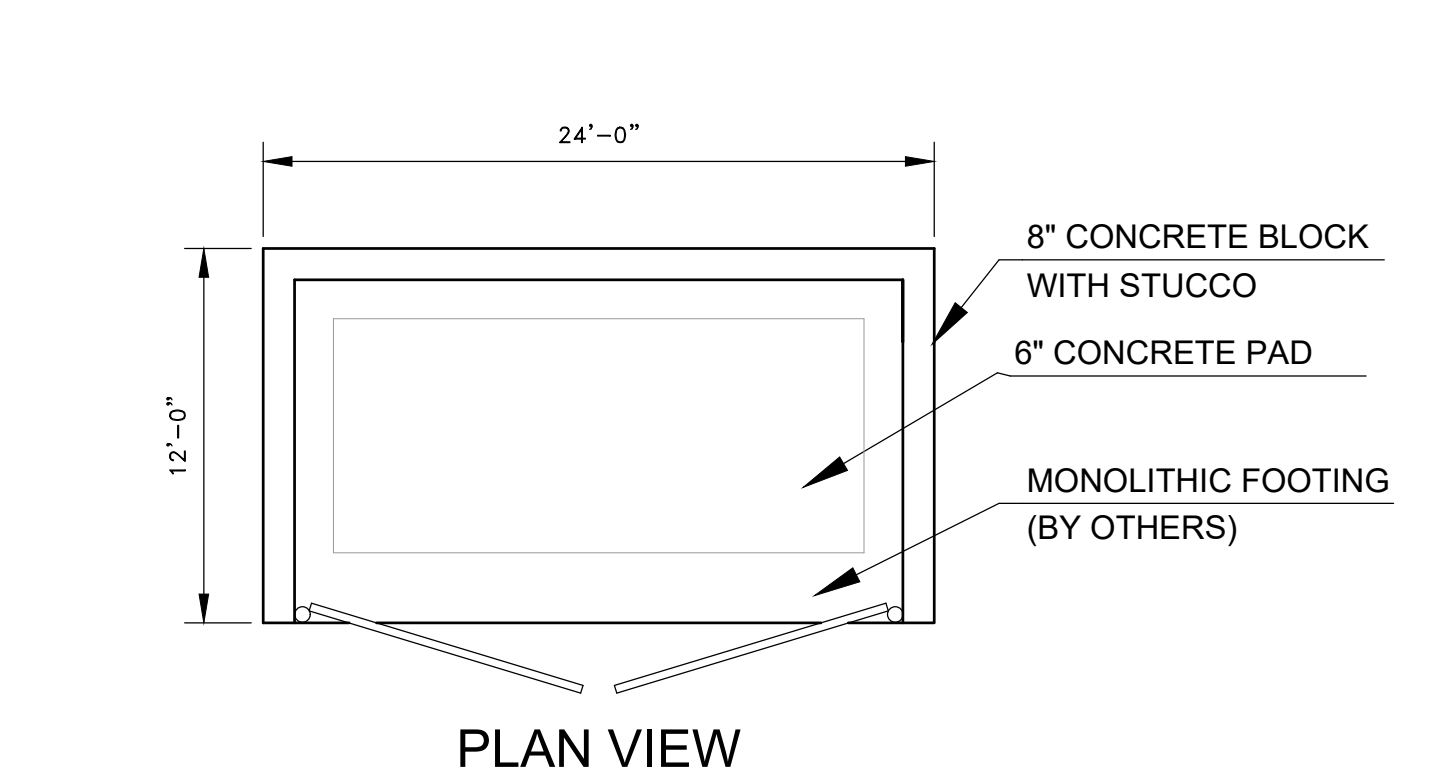
10250 SW VILLAGE PARKWAY - SUITE 201  
 PORT SAINT LUCIE, FL 34987  
 ☎ 772-462-2455

**24-112**

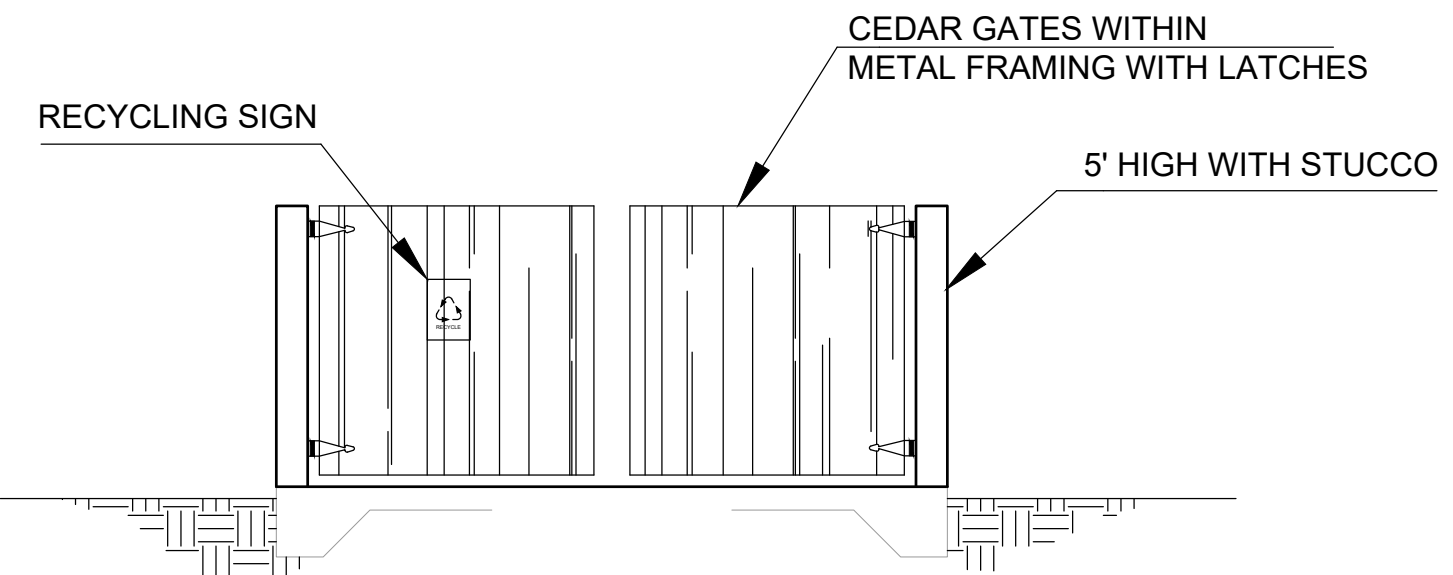
**1 OF 2**

Z:\EDC-2024\24-112\_Calvary Christian Academy\ENGINEERING\misc\CD\DWG\24-112\_SPA.9.28.24.dwg, 8/26/2024, 3:15:53 PM

THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, IS AN INSTRUMENT OF SERVICE, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADOPTION BY EDC, INC. SHALL BE WITHOUT LIABILITY TO EDC, INC.



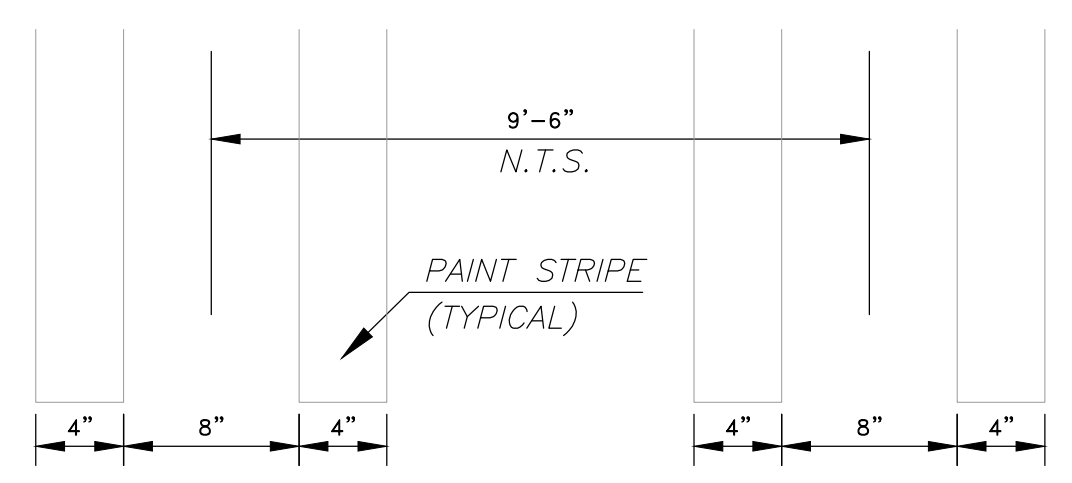
PLAN VIEW



ELEVATION VIEW

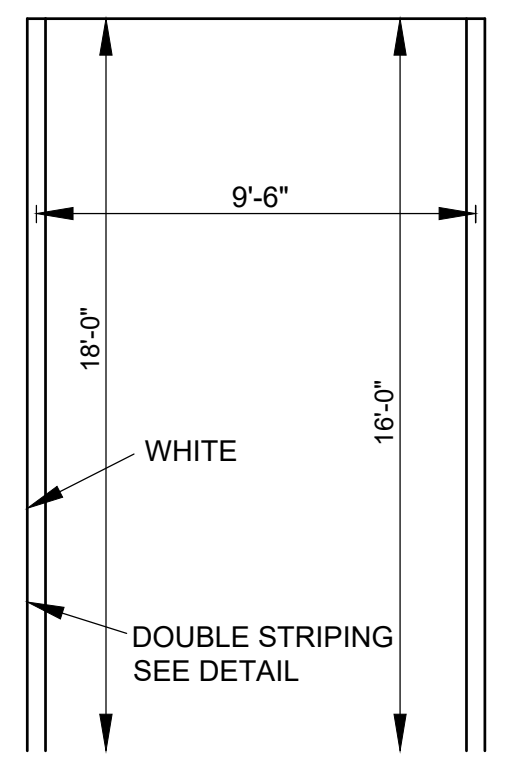
DOUBLE DUMPSTER DETAIL

N.T.S.



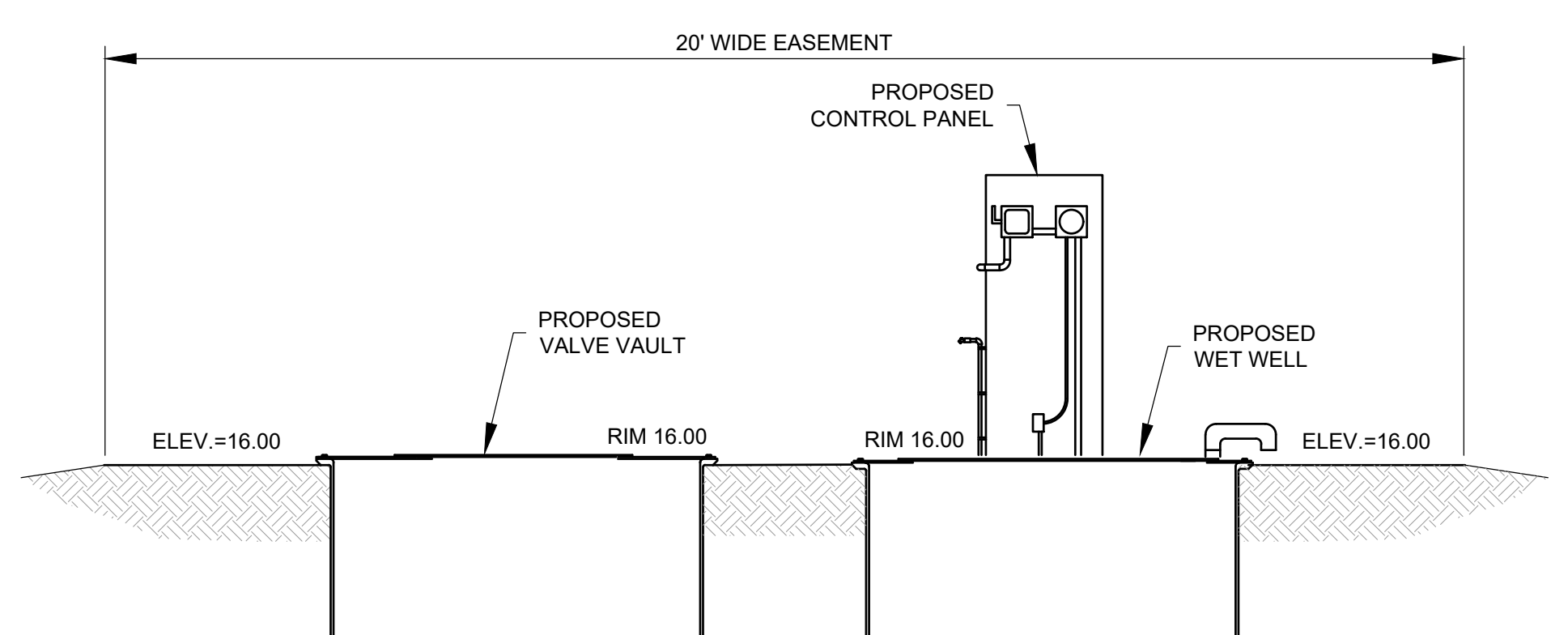
DOUBLE STRIPING DETAIL

N.T.S.



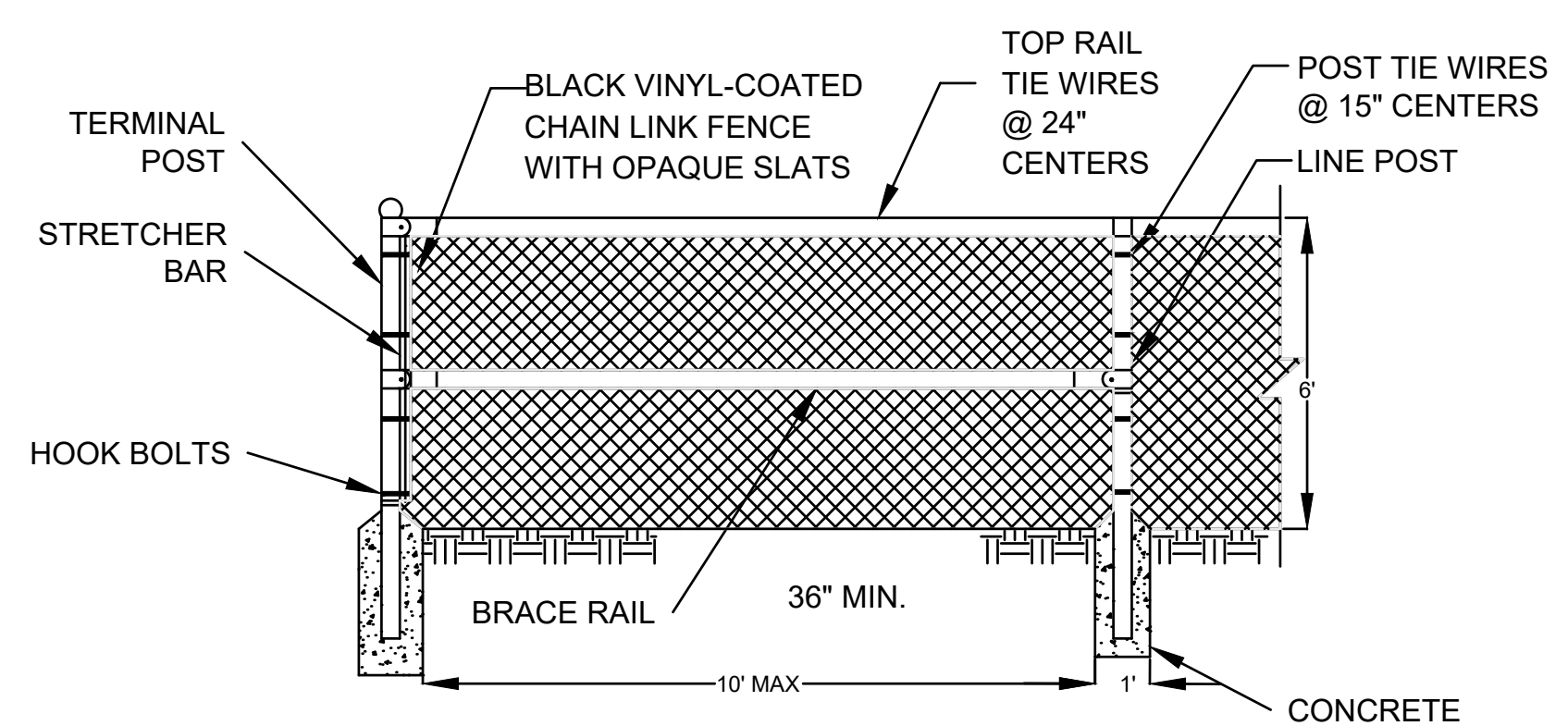
18' PARKING STALL DETAIL

N.T.S.



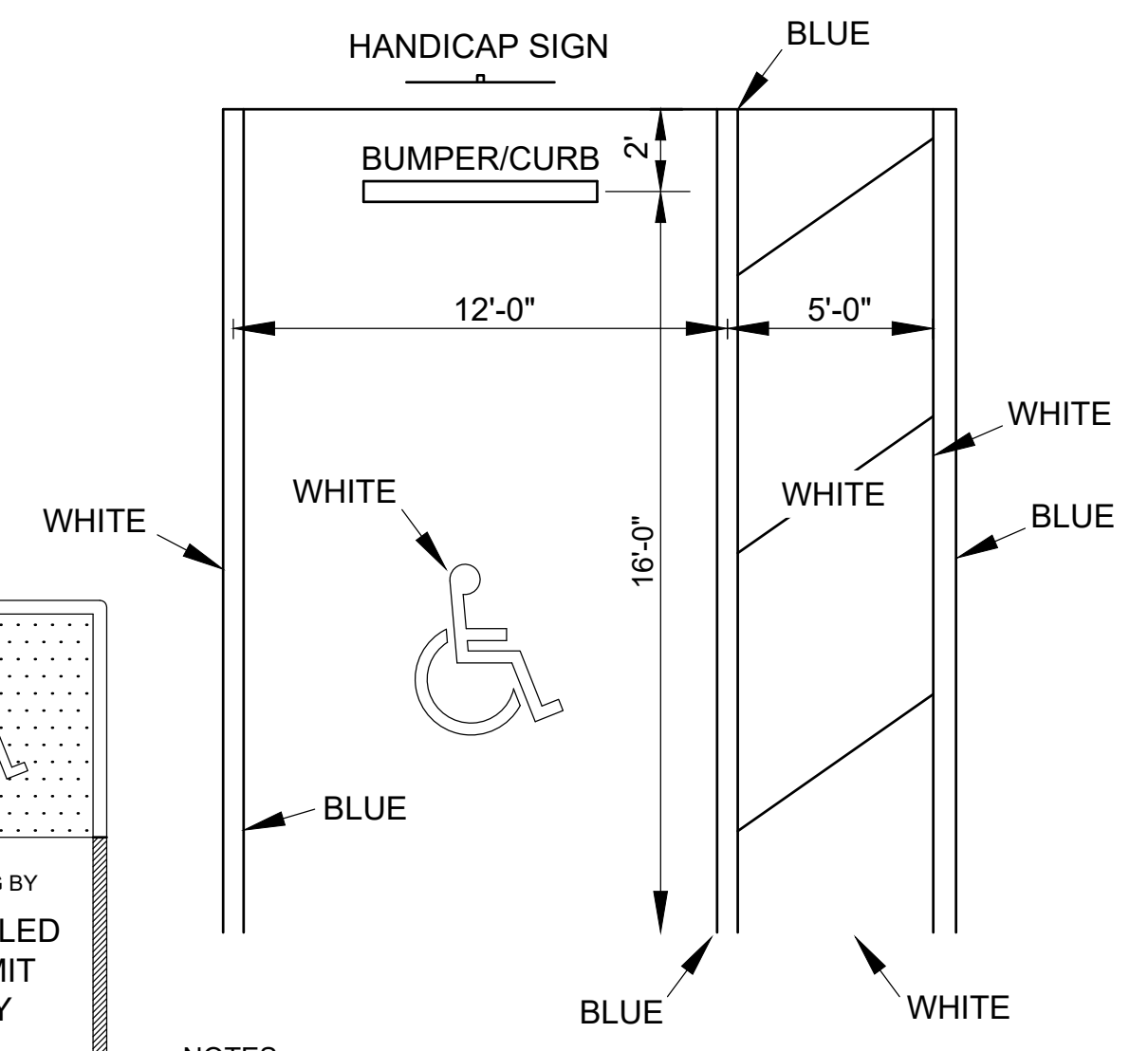
LIFT STATION ELEVATION

N.T.S.



OPAQUE FENCE DETAIL

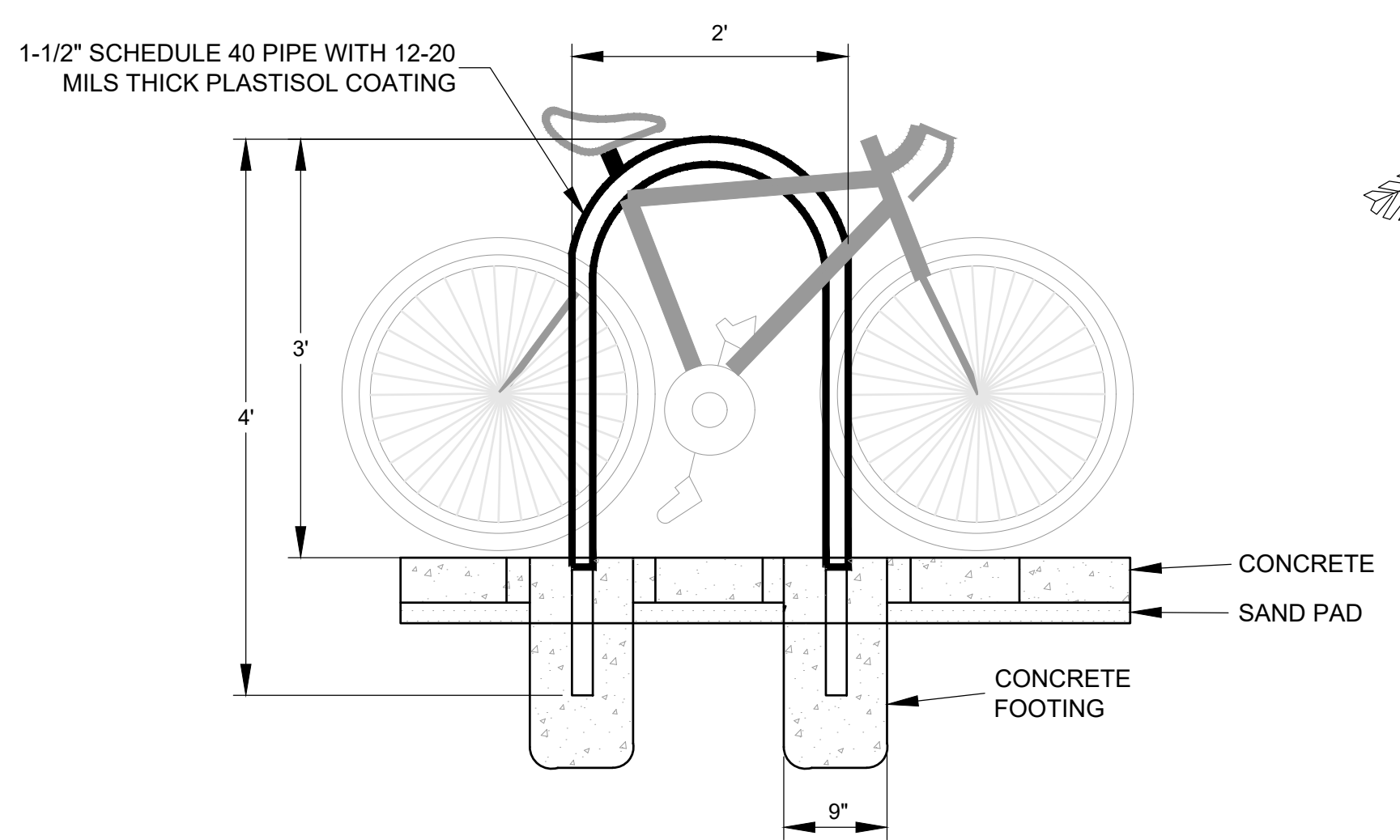
N.T.S.



HANDICAP SPACE DETAIL

N.T.S.

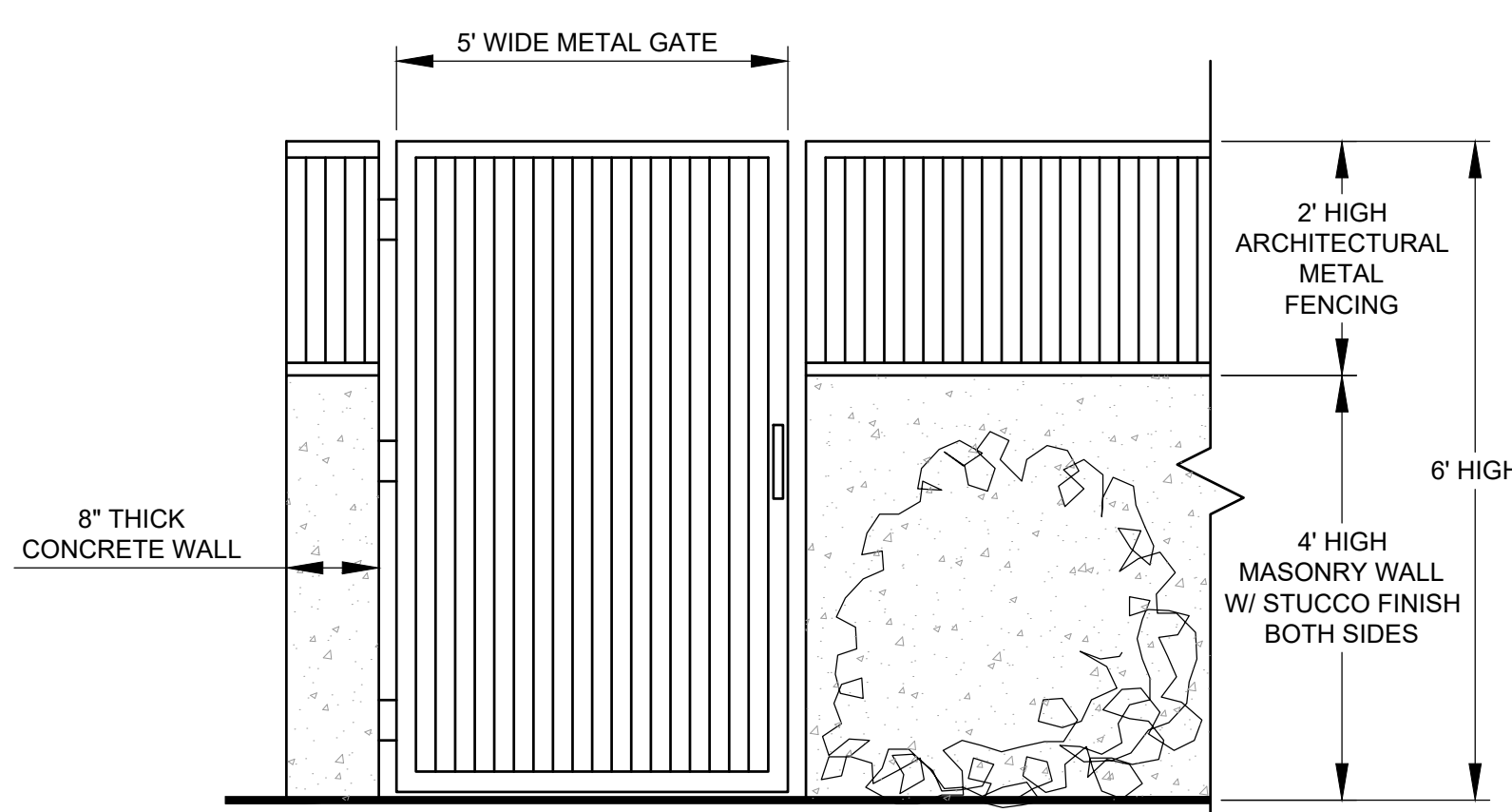
- NOTES:
1. TOP PORTION OF FTP 25 & 26 SHALL HAVE A REFLECTIVE BLUE BACKGROUND WITH WHITE REFLECTIVE SYMBOL AND BORDER.
  2. BOTTOM PORTION SHALL HAVE A REFLECTIVE WHITE BACKGROUND WITH BLACK OPAQUE LEGEND AND BORDER.
  3. FTP 25 & 26 MAY BE FABRICATED ON ONE PANEL OR TWO.
  4. FTP 25 IS FOR USE IN AREAS WHERE SPACE IS LIMITED.



BIKE RACK DETAIL

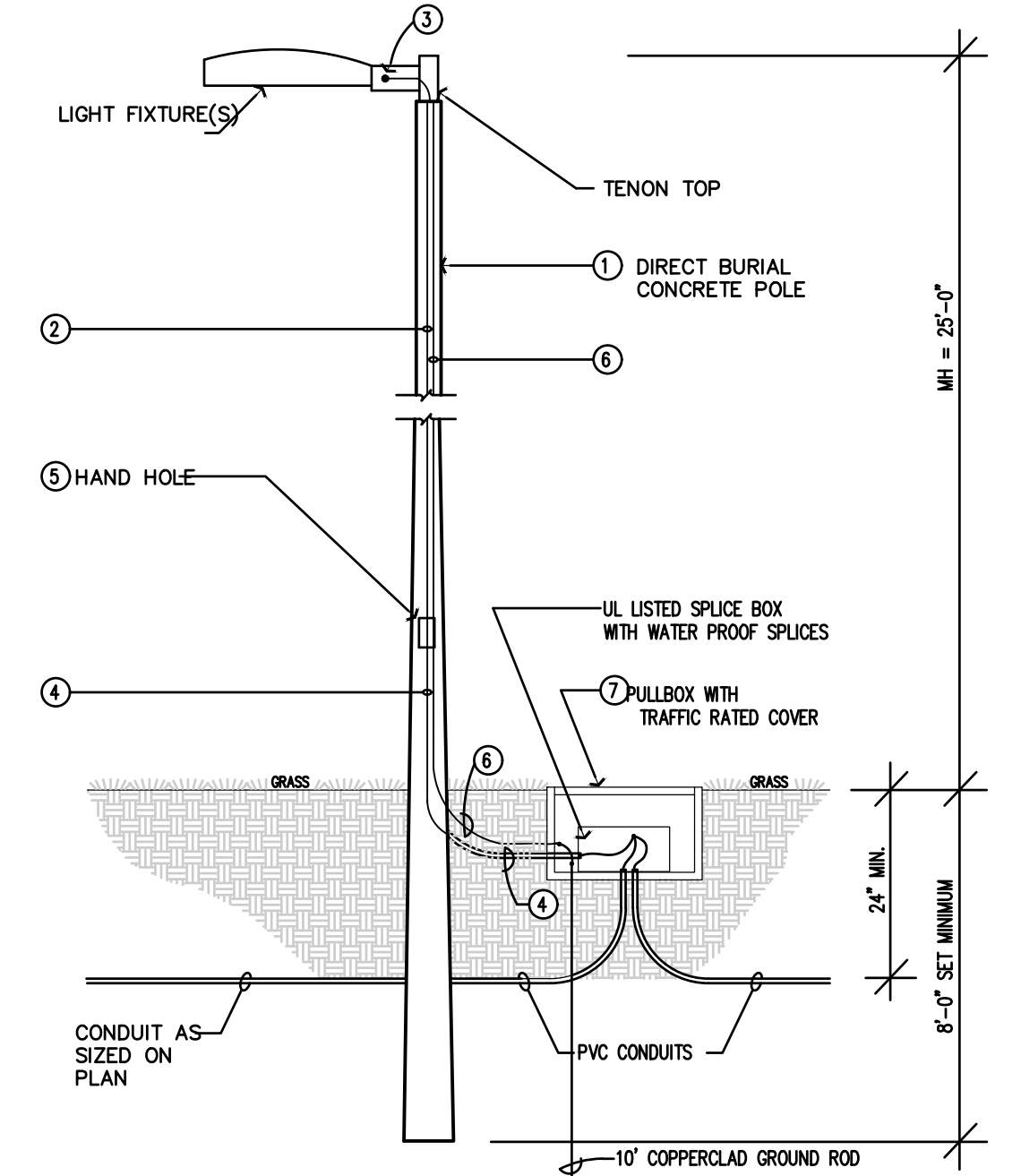
N.T.S.

- STANDARD LIGHTING POLE DETAIL**
- (1) LIGHTING POLE. THE MANUFACTURER IS TO PROVIDE CERTIFICATION BY FLORIDA PE, SHOWING WIND LOAD RATING OF 170 MPH WITH SPECIFIED FIXTURES INSTALLED. THE FINAL POLE SET IS TO BE DETERMINED BY THE PROFESSIONAL ENGINEER.
  - (2) INTERNAL WIRING. INTERNAL WIRING TO BE IN UL LISTED CONDUITS, INSIDE POLE. SEE NOTE 3.
  - (3) LIGHT FIXTURE CONNECTIONS. REFER TO LIGHT MANUFACTURER FOR REQUIREMENTS, INCLUDING TEMPERATURE REQUIREMENTS (COMMONLY 150C). CONDUCTORS TO BE UL LISTED "FIXTURE" CONDUCTORS. (UL "RECOGNIZED" APPLIANCE WIRES NOT PERMITTED.) OBTAIN BUILDING DEPARTMENT APPROVAL FOR CONDUCTORS, CONNECTORS, AND ACCESSIBILITY.
  - (4) CONDUITS. CONDUITS BELOW HAND HOLE IN POLE TO BE UL LISTED WITH "BRANCH CIRCUIT" THWN CONDUCTORS.
  - (5) HAND HOLE. HAND HOLE WITH UL LISTED BOX CAST IN POLE WITH WATERPROOF SPLICES.
  - (6) GROUND WIRE IN POLE. CONNECT BOTTOM TO #4 BARE GROUND CONDUCTOR. CONNECT TOP TO GROUND LUG IN FIXTURES.
  - (7) TRAFFIC RATED PULL BOX. HIGH STRENGTH COMPOSITE CONSTRUCTION RATED FOR DESIGN LOAD OF 5,000 LBS OVER A 10" SQUARE. COVER LETTERING = "LIGHTING". DO NOT PLACE IN PAVED AREA, KEEP IN GRASSED AREAS. QUIAZITE COMPOSOLITE PX STYLE. 1-800-346-3067
  - (8) MUCK. IF SOFT SOILS ARE FOUND ON THE PROPERTY, THIS POLE DESIGN WILL BE MODIFIED TO ACCOMMODATE. NOTIFY ENGINEER IMMEDIATELY.
  - (9) SITE CONDITIONS. IF SITE CONDITIONS ARE DISCOVERED WHICH REQUIRE ANY POLE (S) TO BE MOVED OVER 4 FEET, NOTIFY THE ENGINEER IMMEDIATELY.



PATIO WALL DETAIL

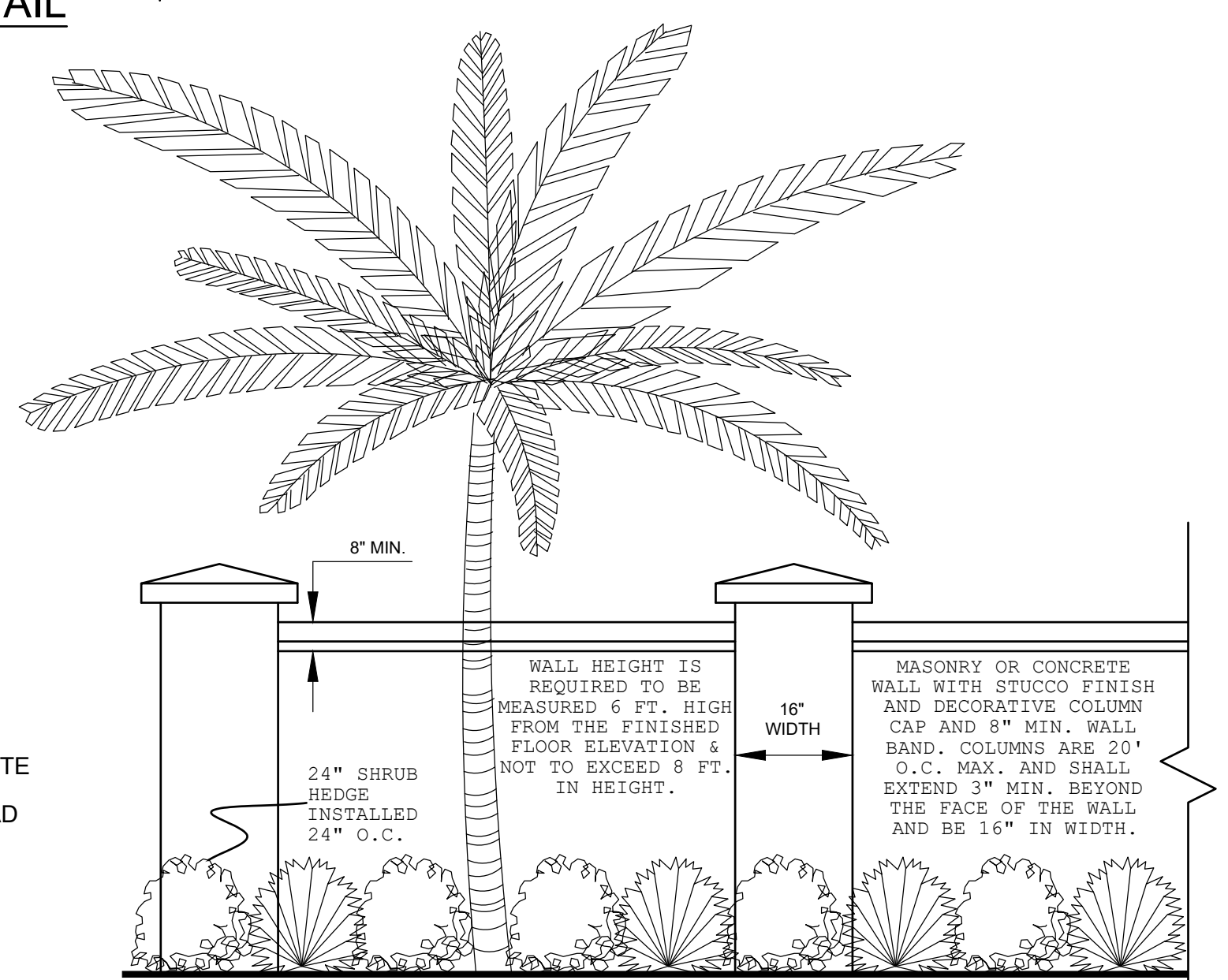
N.T.S.



LIGHT POLE DETAIL

N.T.S.

PLAN SYMBOL



MASONRY LANDSCAPE WALL

N.T.S.

CITY OF PORT SAINT LUCIE  
SITE PLAN REVIEW #P19-160

**EDC**  
ENGINEERS & SURVEYORS  
ENVIRONMENTAL

PORT SAINT LUCIE OFFICE  
10250 SW VILLAGE PARKWAY - SUITE 201  
PORT SAINT LUCIE, FL 34987  
772-462-2455  
www.edc-inc.com

F.B.P.E. CERTIFICATE OF AUTHORIZATION 9935  
L.B. CERTIFICATE OF AUTHORIZATION 9099

DATE	REVISION COMMENTS

RJK  
DESIGNED BY  
VER  
DRAWN BY  
24-112.spa 9-28-24.dwg  
FILENAME  
Details  
LAYOUT  
AS SHOWN  
SCALE  
28MAR24  
DATE

**CALVARY CHRISTIAN ACADEMY**

**MAJOR SITE PLAN AMENDMENT DETAILS**

PORT ST. LUCIE FLORIDA

J.R. HARRISON, P.E. (DATE)  
#82270

**EDC**  
10250 SW VILLAGE PARKWAY - SUITE 201  
PORT SAINT LUCIE, FL 34987  
772-462-2455

24-112

2 OF 2