



June 10, 2022

Mr. Joshua Berry, AICP  
Senior Planner  
Cranston City Hall  
869 Park Avenue  
Cranston, RI 02910

Re: Development of the former Trolley Barn Site Cranston, RI  
Traffic Study Peer Review  
Fuss & O'Neill Reference No. 20200078.T20

Dear Mr. Berry:

Fuss & O'Neill has conducted a review of the traffic study and associated Master Plan relating to the proposed development at 777 Cranston Street in Cranston, RI, also referred to as the former Trolley Barn site. The development consists of an AutoZone and warehouse, a car wash, a fast-food restaurant with a drive-thru window, and a convenience market/gas station.

Materials Reviewed:

1. Traffic Impact Study completed by BETA Group, Inc. titled "Trolley Barn Plaza" dated July 2021, Revised April 2022.
2. Master Plan Set entitled "Preliminary Plan Submission; Trolley Barn Plaza; 777 Cranston Street, Cranston, Rhode Island" prepared by DiPrete Engineering dated 5/24/2022 (15 sheets)

We offer the following comments:

#### Traffic Impacts

1. We concur that upon implementation of appropriate off-site mitigation, the proposed development will have no significant impact on traffic operations within the study area. We believe the analysis provided in the traffic study to be conservative, as the trip generation does not assume a reduction for pass-by trips or internal capture.

We recommend that the applicant conduct traffic counts at the site driveway and other intersections where signal re-timing is proposed during the opening month of the development. This will ensure that any off-site mitigation is required will be based on actual trip generation instead of estimates.

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June 10, 2022

Page 2

## On-Site Circulation and Parking

1. The proposed development is designed exclusively for vehicle traffic. Given the site's proximity to transit (RIPTA Route 30 Bus) and the Washington Secondary Bike Trail, as well as its location adjacent to densely populated residential neighborhoods, this site should be designed to serve all roadway users. We recommend a reduction in vehicle parking, the construction of sidewalks on site, and the inclusion of bicycle parking onsite.
2. Section 17.28.010(A)(5) – Pedestrian access from the right-of-way and on-site is not currently depicted. Although most customers are anticipated to be in passenger vehicles, it is important that there are accessible pedestrian routes around the site, and also clear access to dumpster for employees.
  - a. Recommended pedestrian access routes are depicted in the sketch Site Circulation Markup, enclosed.
3. Section 17.28.010(B)(4) – The Fast Food driveway opening (measuring curb to curb) is less than 60 feet from Cranston Street.
  - a. F&O understands that the City will be confirming the reference point for this measurement.
  - b. F&O recommends removing the second curb cut for the Fast Food use closest to Cranston Street. Master Plan only included one entrance for the Fast Food use.
4. Section 17.28.010(B)(4) and 17.48.010(D)(7) – There are multiple on-site driveway openings that are located within 40 feet of another driveway opening (measuring curb to curb). These proposed alignments should be revised to create clear 4-way intersections where possible.
  - a. It should be noted that the definition of “Driveway” is a private way for vehicles to move between a street and a location within a lot. Therefore, these Sections are applicable to all on-site driveway openings.
5. Section 17.28.010(B)(5) – There are multiple locations where the proposed driveway width is greater than 35 feet. These locations should be revised, or a waiver shall be requested.
  - a. Recommended revisions are depicted in the sketch Site Circulation Markup, enclosed.



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June 10, 2022

Page 3

6. Section 17.28.010(B)(9) – Dumpster for Building Nos. 2 & 3 is located on the main traffic circulation drive aisle on site. This dumpster should be relocated so that trash pickup wont block traffic flow for the other buildings.
  - a. A recommend location to the northwest is proposed and depicted in the sketch Site Circulation Markup, enclosed.
  
7. Section 17.28.010(B)(12) and 17.48.060(D) and 17.84.150(A)(2) – The majority of the recommended layout revisions depicted in the enclosed Site Circulation Markup sketch are to improve the on-site vehicle and pedestrian safety.

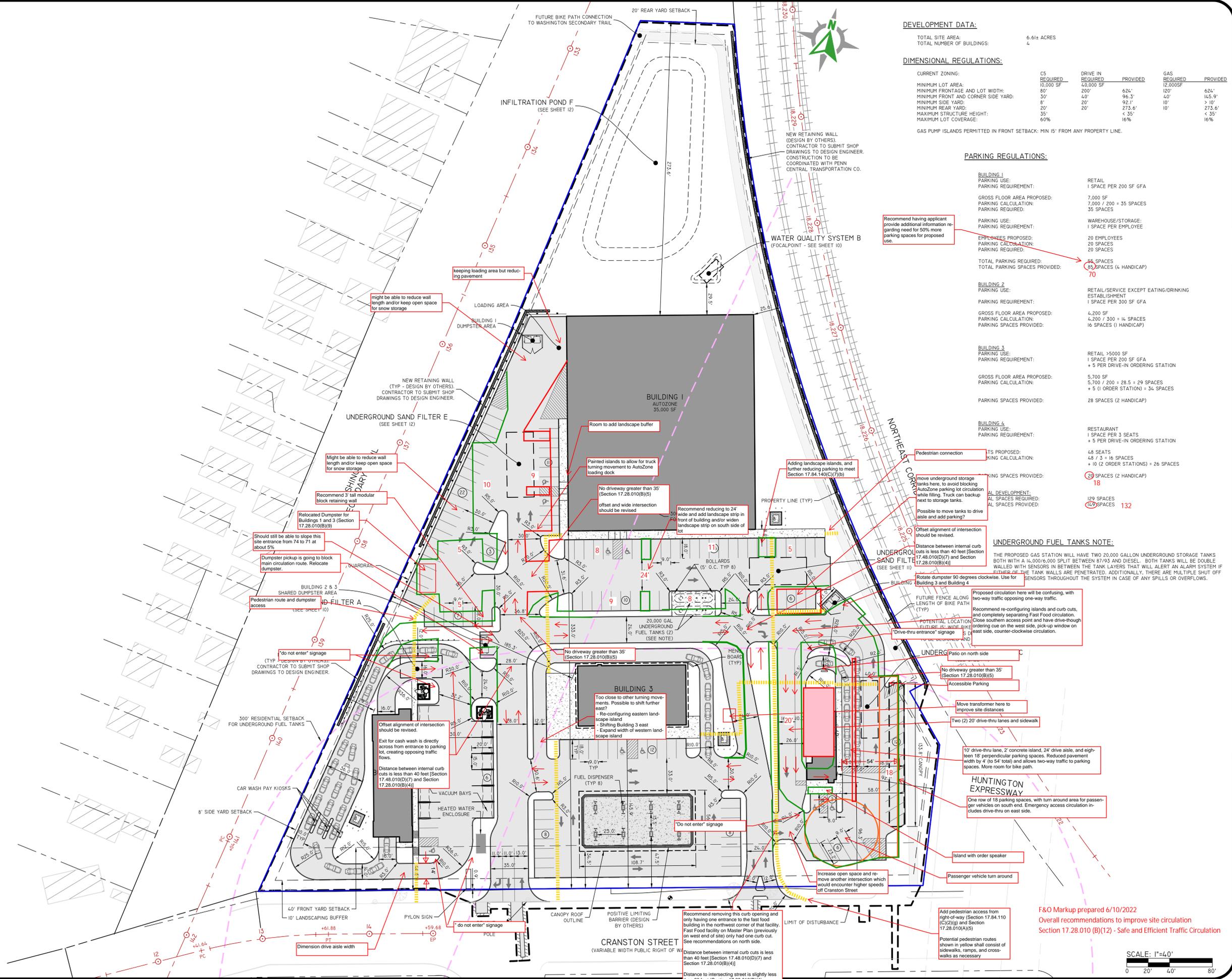
We appreciate the opportunity to provide the City of Cranston with this peer review. Please do not hesitate to contact us with any questions.

Sincerely,

Andrew G. Glines, PE  
Senior Civil Engineer

  
Katherine O'Shea, EIT  
Transportation Engineer

Enclosures: Site Circulation Markup, 2 Sheets, dated June 10, 2022



**DEVELOPMENT DATA:**

TOTAL SITE AREA: 6.61± ACRES  
 TOTAL NUMBER OF BUILDINGS: 4

**DIMENSIONAL REGULATIONS:**

CURRENT ZONING:	C5 REQUIRED	DRIVE IN REQUIRED	PROVIDED	GAS REQUIRED	PROVIDED
MINIMUM LOT AREA:	10,000 SF	40,000 SF		12,000SF	
MINIMUM FRONTAGE AND LOT WIDTH:	80'	200'	624'	120'	624'
MINIMUM FRONT AND CORNER SIDE YARD:	30'	40'	96.3'	40'	145.9'
MINIMUM SIDE YARD:	8'	20'	92.1'	10'	> 10'
MINIMUM REAR YARD:	20'	20'	273.6'	10'	273.6'
MAXIMUM STRUCTURE HEIGHT:	35'	< 35'	16%	< 35'	16%
MAXIMUM LOT COVERAGE:	60%				

GAS PUMP ISLANDS PERMITTED IN FRONT SETBACK: MIN 15' FROM ANY PROPERTY LINE.

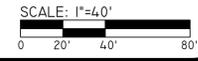
**PARKING REGULATIONS:**

BUILDING	PARKING USE:	RETAIL
BUILDING 1	RETAIL	1 SPACE PER 200 SF GFA
	PARKING REQUIREMENT:	7,000 SF
	GROSS FLOOR AREA PROPOSED:	7,000 / 200 = 35 SPACES
	PARKING CALCULATION:	35 SPACES
	PARKING REQUIRED:	
	PARKING USE:	WAREHOUSE/STORAGE:
	PARKING REQUIREMENT:	1 SPACE PER EMPLOYEE
	EMPLOYEES PROPOSED:	20 EMPLOYEES
	PARKING CALCULATION:	20 SPACES
	PARKING REQUIRED:	20 SPACES
	TOTAL PARKING REQUIRED:	55 SPACES
	TOTAL PARKING SPACES PROVIDED:	85 SPACES (4 HANDICAP)
		70
BUILDING 2	RETAIL/SERVICE EXCEPT EATING/DRINKING ESTABLISHMENT	1 SPACE PER 300 SF GFA
	PARKING REQUIREMENT:	4,200 SF
	GROSS FLOOR AREA PROPOSED:	4,200 / 300 = 14 SPACES
	PARKING CALCULATION:	16 SPACES (1 HANDICAP)
	PARKING SPACES PROVIDED:	
BUILDING 3	RETAIL > 5000 SF	1 SPACE PER 200 SF GFA
	PARKING REQUIREMENT:	+ 5 PER DRIVE-IN ORDERING STATION
	GROSS FLOOR AREA PROPOSED:	5,700 SF
	PARKING CALCULATION:	5,700 / 200 = 28.5 = 29 SPACES
	PARKING SPACES PROVIDED:	+ 5 (1 ORDER STATION) = 34 SPACES
		28 SPACES (2 HANDICAP)
BUILDING 4	RESTAURANT	1 SPACE PER 3 SEATS
	PARKING USE:	+ 5 PER DRIVE-IN ORDERING STATION
	PARKING REQUIREMENT:	48 SEATS
	PARKING CALCULATION:	48 / 3 = 16 SPACES
		+ 10 (2 ORDER STATIONS) = 26 SPACES
	PARKING SPACES PROVIDED:	29 SPACES (2 HANDICAP)
		18
	TOTAL DEVELOPMENT:	129 SPACES
	TOTAL SPACES REQUIRED:	132 SPACES

**UNDERGROUND FUEL TANKS NOTE:**

THE PROPOSED GAS STATION WILL HAVE TWO 20,000 GALLON UNDERGROUND STORAGE TANKS BOTH WITH A 14,000/6,000 SPLIT BETWEEN 87/93 AND DIESEL. BOTH TANKS WILL BE DOUBLE WALLED WITH SENSORS IN BETWEEN THE TANK LAYERS THAT WILL ALERT AN ALARM SYSTEM IF EITHER OF THE TANK WALLS ARE PENETRATED. ADDITIONALLY, THERE ARE MULTIPLE SHUT OFF SENSORS THROUGHOUT THE SYSTEM IN CASE OF ANY SPILLS OR OVERFLOWS.

F&O Markup prepared 6/10/2022  
 Overall recommendations to improve site circulation  
 Section 17.28.010 (B)(12) - Safe and Efficient Traffic Circulation



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 Two Stafford Court Cranston, RI 02920  
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**DANA R. NISSET**  
 No. 11876  
 REGISTERED PROFESSIONAL ENGINEER CIVIL

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NO.	DATE	DESCRIPTION
1	06/10/2022	DEVELOPMENT PLAN REVIEW SUBMISSION
2	06/17/2022	REVISION PLAN SUBMISSION
3	06/27/2022	REVISION PLAN SUBMISSION

DESIGN BY: NDK/UMS  
 DRAWN BY: NDK/UMS

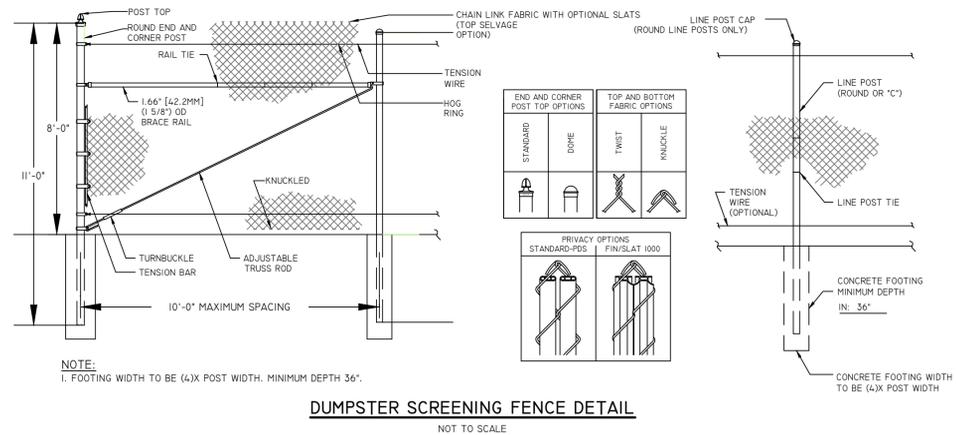
**SITE LAYOUT PLAN**  
**TROLLEY BARN PLAZA**  
 ASSESSOR'S PLAT 7 LOT 1  
 CRANSTON, RHODE ISLAND

PREPARED FOR:  
**TROLLEY BARN ASSOCIATES LLC**  
 C/O FIRST HARTFORD REALTY CORP.  
 P.O. BOX 1270, MANCHESTER, CT 06045

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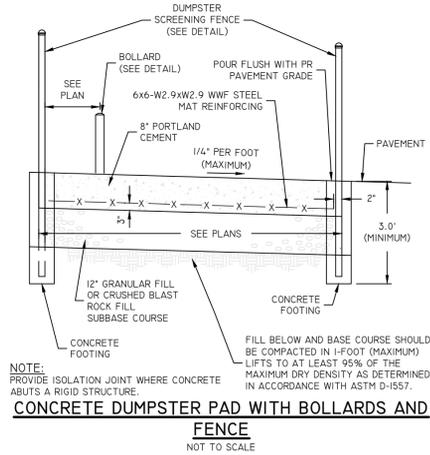
SHEET 6 OF 15

Z:\DEPT\PROJECTS\1928-001 CRANSTON STREET 777\AUTOCAD DRAWINGS\1928-001-PLAN.DWG PLOTTED: 5/24/2022



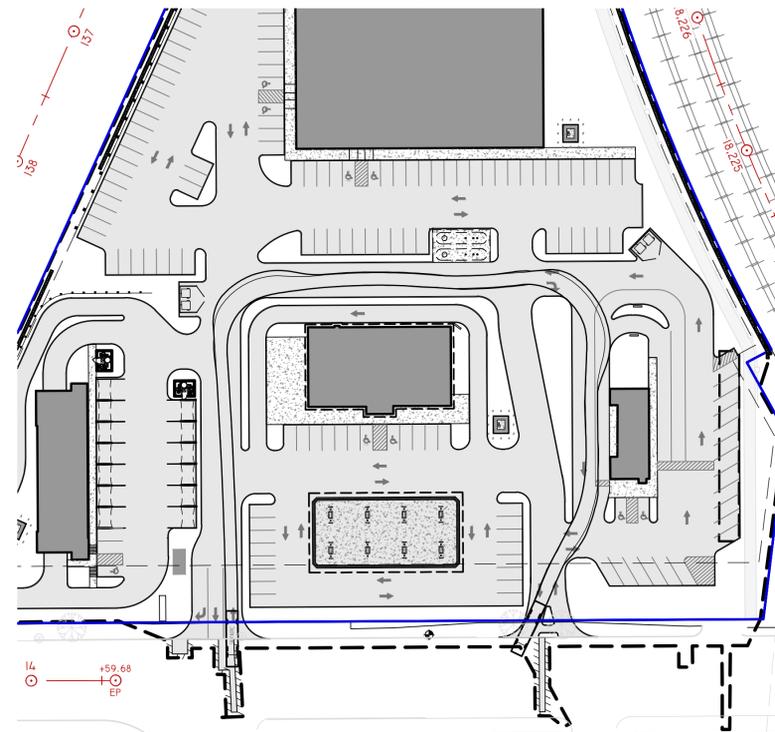
NOTE:  
1. FOOTING WIDTH TO BE (4X POST WIDTH, MINIMUM DEPTH 36".

**DUMPSTER SCREENING FENCE DETAIL**  
NOT TO SCALE

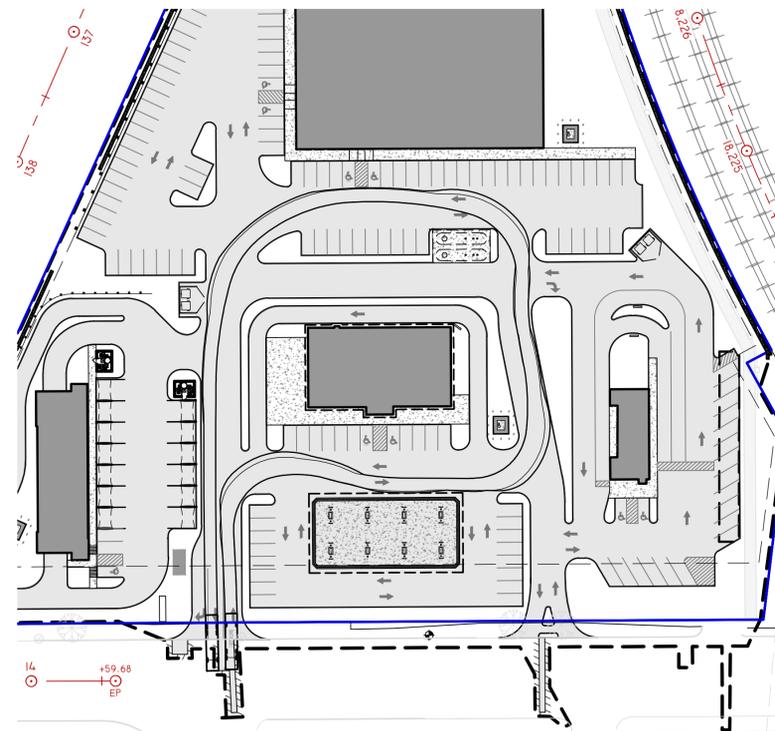


NOTE:  
PROVIDE ISOLATION JOINT WHERE CONCRETE ABUTS A RIGID STRUCTURE.  
FILL BELOW AND BASE COURSE SHOULD BE COMPACTED IN 1-FOOT (MAXIMUM) LIFTS TO AT LEAST 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED IN ACCORDANCE WITH ASTM D-1557.

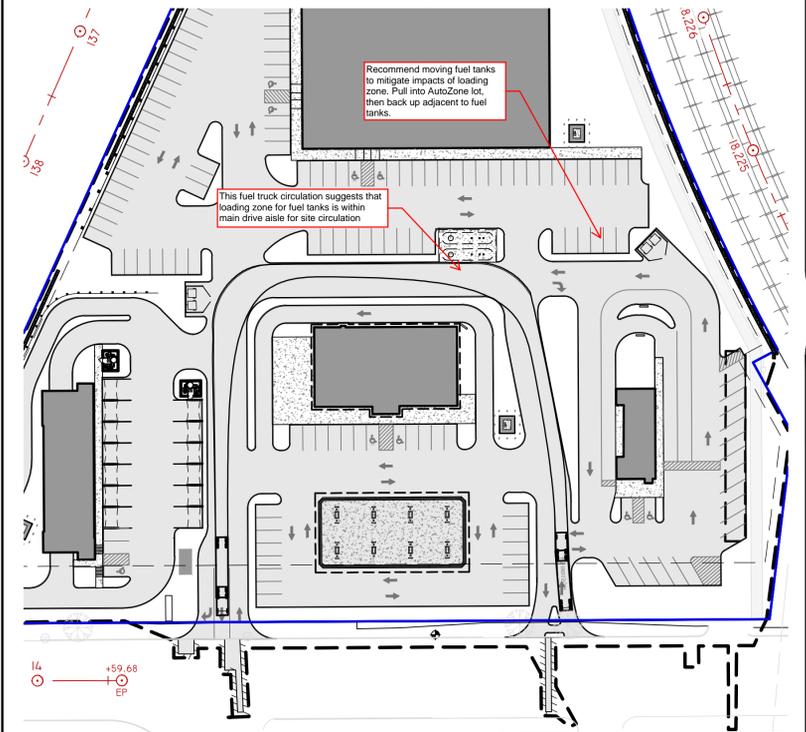
**CONCRETE DUMPSTER PAD WITH BOLLARDS AND FENCE**  
NOT TO SCALE



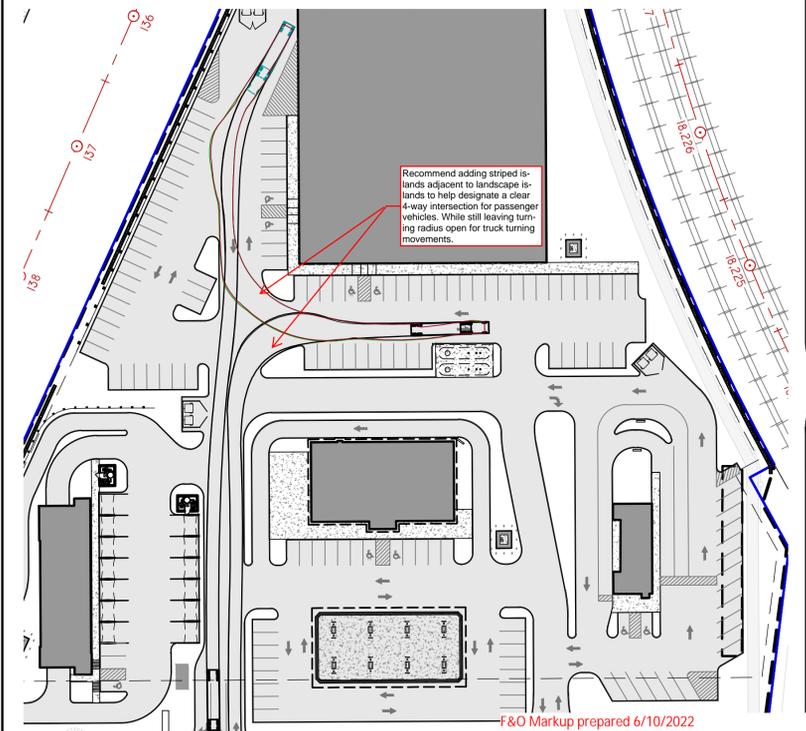
**BUILDING #4  
TRUCK CIRCULATION**



**BUILDING #3  
TRUCK CIRCULATION**

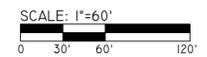


**BUILDING #3  
FUEL TRUCK CIRCULATION**



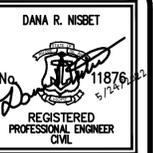
**BUILDING #1  
TRUCK CIRCULATION**

F&O Markup prepared 6/10/2022  
Overall recommendations to improve site circulation  
Section 17.28.010 (B)(12) - Safe and Efficient Traffic Circulation



**TRUCK MOVEMENTS & DUMPSTER DETAILS**  
**TROLLEY BARN PLAZA**  
ASSESSOR'S PLAT 7 LOT 1  
CRANSTON, RHODE ISLAND  
PREPARED FOR:  
**TROLLEY BARN ASSOCIATES LLC**  
C/O FIRST HARTFORD REALTY CORP.  
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