



December 14, 2021

Bourne Zoning Board of Appeals
c/o James E. Beyer, Chairman
24 Perry Avenue
Bourne, MA 02532

RE: Supplemental Information
Chase Estates at 230 Sandwich Road, MGL Ch. 40B Modification of Comp permit No. 08-18

Dear Chairman Beyer and Board Members,

On behalf of the applicant, Chase Developers, we are submitting this letter to describe activities conducted by the development team since the last meeting with the ZBA on November 17, 2021, including supplemental information that better describes the proposed site layout and mitigation measures included in the May 2021 site plans showing 12 duplex lots pending before the Board.

Supplemental Information

- **Site Visit Summary.** The ZBA-scheduled site visit was held on November 18, 2021, attended by Pat Nemet, another Board member, several town department heads, and several officials from Upper Cape Cod Regional Technical School, as well as the Applicant Tom Pappas, his attorney Drew Hoyt, architect Paul Giadakis, and myself. The group reviewed the pending May 2021 plans as well as the previously submitted Slope Protection Plan (16 copies have been provided to the Board). The group walked along the proposed roadway and lot areas, while viewing the project plans and discussing general locations/elevations of homesites and proposed grading. The group viewed the Slope Protection Plan that was previously submitted, where slopes steeper than town requirements of 2:1 cut are proposed at just 2 locations (left shoulder of proposed road near station 4+0 and rear yard of lots 1-3); all other proposed slopes meet the 2:1 cut and 3:1 fill requirements, and retaining walls are a maximum 4' high across the site. There was much discussion during the site visit concerning the proposed cut slopes and erosion control issues which are otherwise addressed in the current plan set where we have detailed grading and erosion control plans, and make use of standard engineered solutions for slope stabilization and erosion control measures. We also discussed additional measures that may be warranted during construction to avoid erosion issues, such as possibly requiring an Erosion Control Monitor to make periodic inspections of the site and recommendations during construction for the contractor to minimize erosion risks prior to storm events.
- **Cross Section Plan.** The attached Site Cross Section plan (December 9, 2021) was requested by Pat Nemeth during the site visit. This plan shows a cross section through the entire 150' wide site at roadway station 4+0, depicting existing and proposed grades through the lot line between lots 2 and 3. This is the general location where we have a proposed 1.6:1 cut slope at the back of lots 1-3. The cross section includes a view of Unit 3A in the distance, just east of the cross-section line. As discussed during the site visit and as shown on the cross section, the duplex homes on these 3 lots have a drive-under garage and entry porch in the front, and a 12' foundation wall at the back, and the finished grades then transition up in the back yard to match existing grade near the property line on the south side of the site. Based on the overall grading of the site, we have estimated there is a net cut of approximately 12,000 cubic yards that would be exported from the site (this does not include an estimate for soil materials such as loam for the yards or roadway gravel).

- **Architectural rendering** to be provided under separate cover.
- **Water system.** The applicant met with the Bourne Water District on November 23, 2021 and the proposed water system and service connections were discussed. Hydrant flow tests were conducted by Hoadley and Sons on November 29, 2021 and submitted to BWD (see attached). Further review of these flow tests to validate the proposed water system layout shown on the Utility Plan of the subdivision set is pending; BWD Superintendent Robert Prophet has indicated they may approve the water system subject to pending analysis.
- **Fire Department Access.** Within the last couple of weeks, we have contacted MassDOT and the Fire Department to inquire about possible entrance radii solutions to address comments in the October 20, 2021 letter from the Fire Department. We continue to await a resolution which may include locating the entrance further to the south or widening a section of Sandwich Road. Preliminarily we have confirmed that town's ambulance should have no difficulties with vertical clearance along the roadway. We will provide updated information after we resolve the entrance configuration.
- **Other Town Comments.** Per inquiry with the Zoning Dept.'s Cassie Hammond on December 9, 2021, we are not aware of any new town department comments relative to the site visit or the pending 40B modification plans at this time.

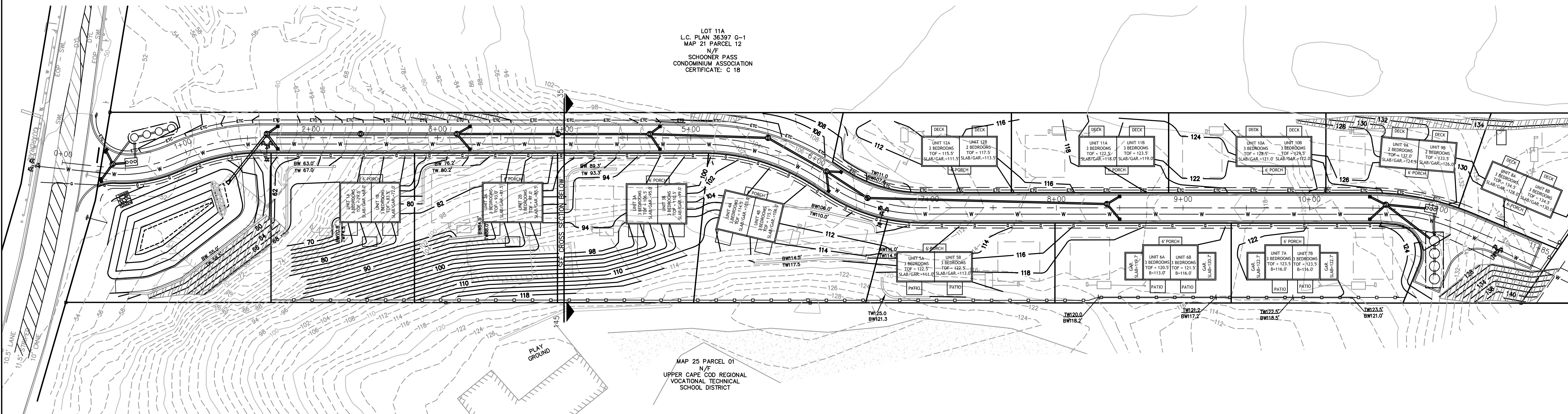
We look forward to meeting again with the Board on December 15, 2021. Should you have any comments or questions in the meantime, please contact me at (508) 946-9231 or email jpavlik@outback-eng.com.

Sincerely,
OUTBACK ENGINEERING, INC.

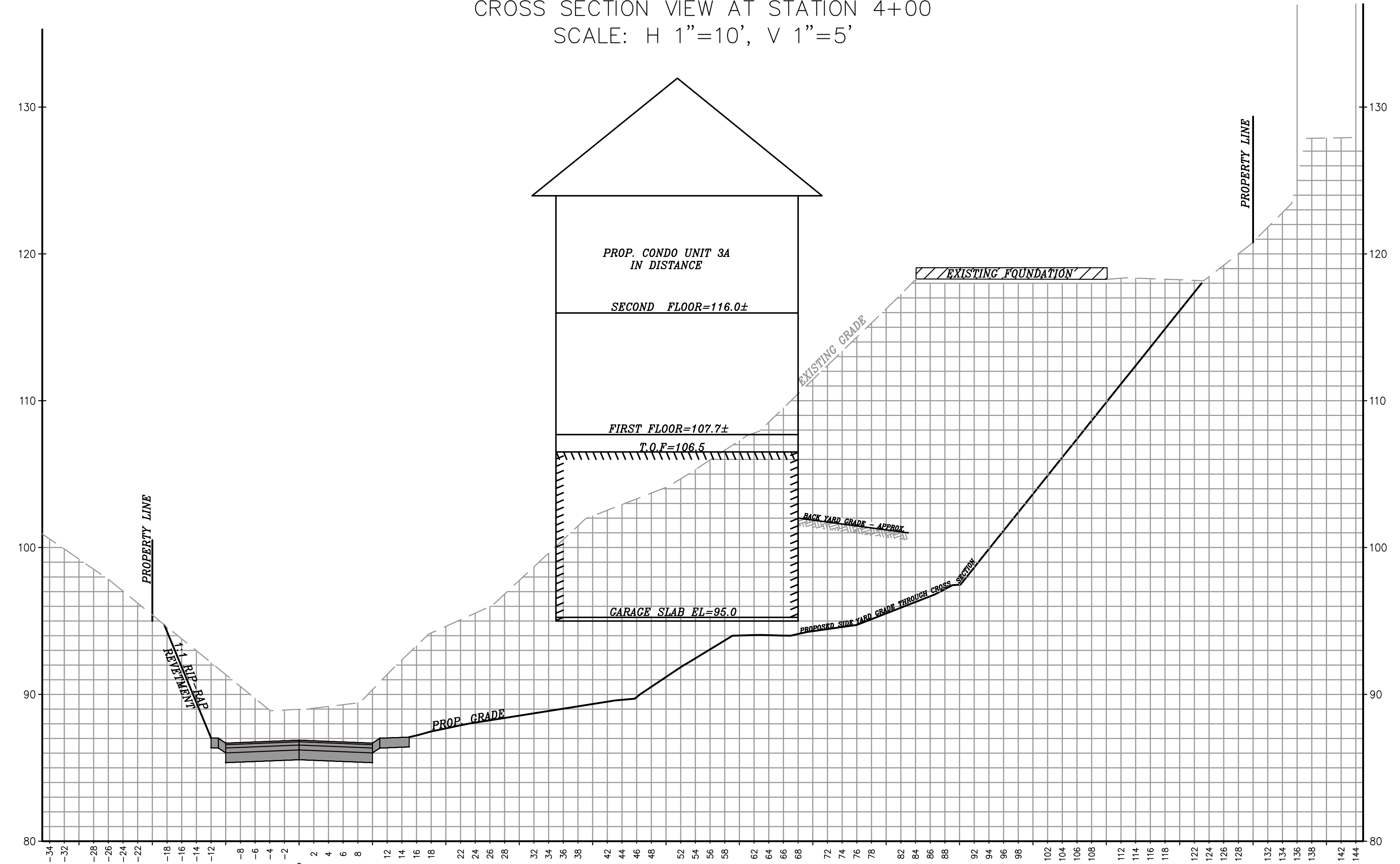
James A. Pavlik

James A. Pavlik, P.E.
Project Manager, Principal

cc : Tom Pappas, Chase Developers
Drew Hoyt



CROSS SECTION VIEW AT STATION 4+00
SCALE: H 1"=10', V 1"=5'



REVISIONS

NO.	DATE	DESCRIPTION

OWNER

230 SANDWICH ROAD REALTY TRUST
14 BOSUNS LANE
BOURNE, MA

APPLICANT

CHASE DEVELOPERS INC.
14 BOSUNS LANE
BOURNE, MA

SITE CROSS SECTION
"CHASE ESTATES"
SUBDIVISION
AT
230 SANDWICH ROAD
IN
BOURNE
MASSACHUSETTS

Outback
Engineering
Incorporated

165 EAST GROVE STREET
MIDDLEBOROUGH, MA 02346
TEL: (508)-946-9231
FAX: (508)-947-8873
www.outback-eng.com

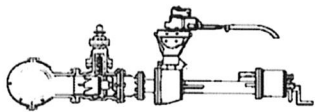
DATE: MAY 18, 2021

DRAWN BY: KAD CHECKED BY: JAP

SCALE: 1"=60' SHEET 1 OF 11

0' 60' 120' 180'

OE-3294A



John Hoadley and Sons, Inc.

- Water Works Specialist-

672 Union Street
Rockland, MA. 02370
T: (781) 878-8098
F: (781) 878-5298

FLOW TEST REPORT

Town of: Bourne, MA

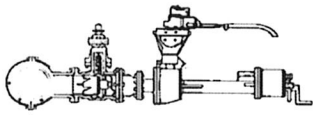
Name of Applicant: Outback Eng. Phone Number: _____
Address: 230 Sandwich Road City: Bourne State: MA
Date: 11/29/2021 Time of Test: 12:00pm
Location of Test: 230 Sandwich Road

Distance between Hydrant # 1 and Hydrant # 2 is 1120 feet.
Elevation of Hydrant # 1 _____ Elevation of Hydrant # 2 _____
Coefficient: _____ Size of Main : 16" DI

Hydrant # 1 Static: 97 PSI Residual: 90 PSI
Location: 231 Sandwich Road "Gallo Ice Rink"
Manufacture/ Type of Hydrant : Mueller Size: 5 1/4" Year: 1967
Flow Hydrant # 2 Static: 97 PSI Residual: 85 PSI
Location: Across from 220 Sandwich Rd
Manufacture/ Type of Hydrant : Mueller Size: 5 1/4" Year: 1968
Pitot Tube 1550 GPM Time Flow: 1 Minute

Test Conducted by: Ryan Hoadley & Mark Cronin

Inspector or Witness of Flow Test : _____ Signature on file _____



John Hoadley and Sons, Inc.

- Water Works Specialist-

672 Union Street
Rockland, MA. 02370
T: (781) 878-8098
F: (781) 878-5298

FLOW TEST REPORT

Town of: Bourne, MA

Name of Applicant: Outback Eng. Phone Number: _____
Address: 230 Sandwich Road City: Bourne State: MA
Date: 11/29/2021 Time of Test: 11:00AM
Location of Test: 14 Bosuns Lane

Distance between Hydrant # 1 and Hydrant # 2 is 433 feet.
Elevation of Hydrant # 1 _____ Elevation of Hydrant # 2 _____
Coefficient: _____ Size of Main : 8" PVC

Hydrant # 1 Static: 65 PSI Residual: 60 PSI
Location: 5 Bosuns Lane
Manufacture/ Type of Hydrant : Mueller Size: 5 1/4" Year: 2003
Flow Hydrant # 2 Static: 65 PSI Residual: 30 PSI
Location: 14 Bosuns Lane
Manufacture/ Type of Hydrant : Mueller Size: 5 1/4" Year: 2004
Pitot Tube 1000 GPM Time Flow: 1 Minute

Test Conducted by: Ryan Hoadley & Mark Cronin

Inspector or Witness of Flow Test : Signature on file