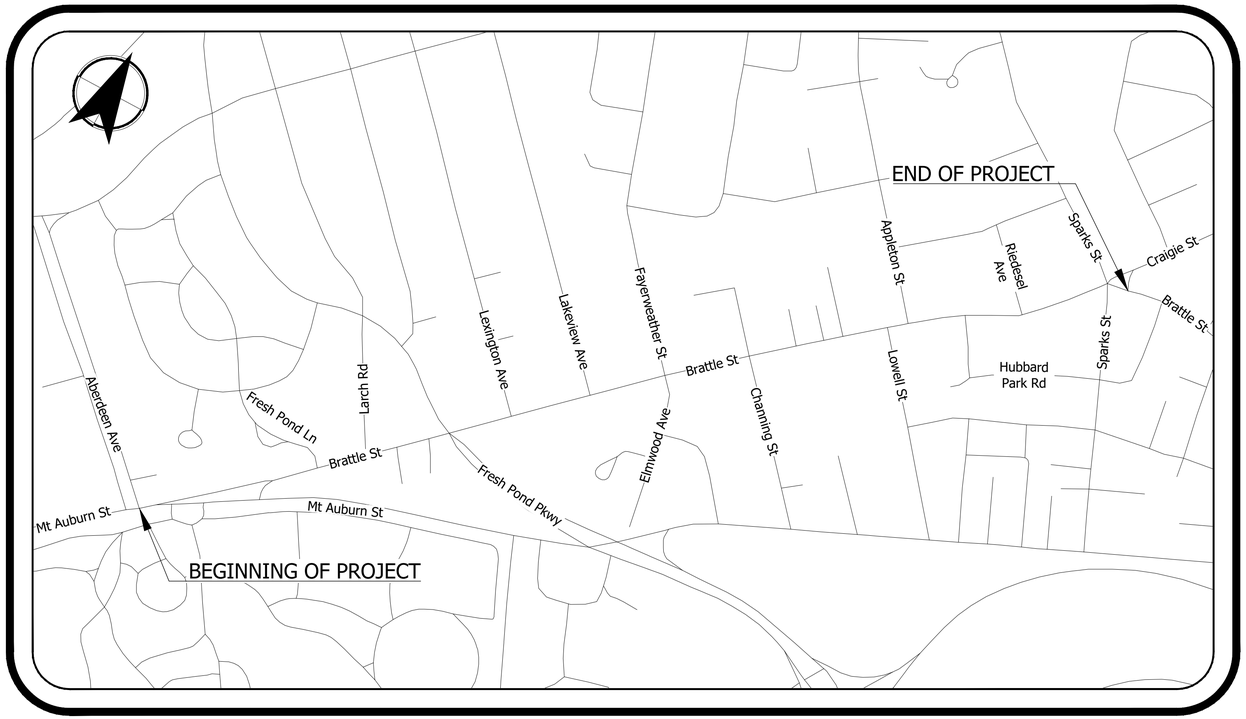
BRATTLE STREET REDESIGN PRELIMINARY PLANS

PREPARED FOR:

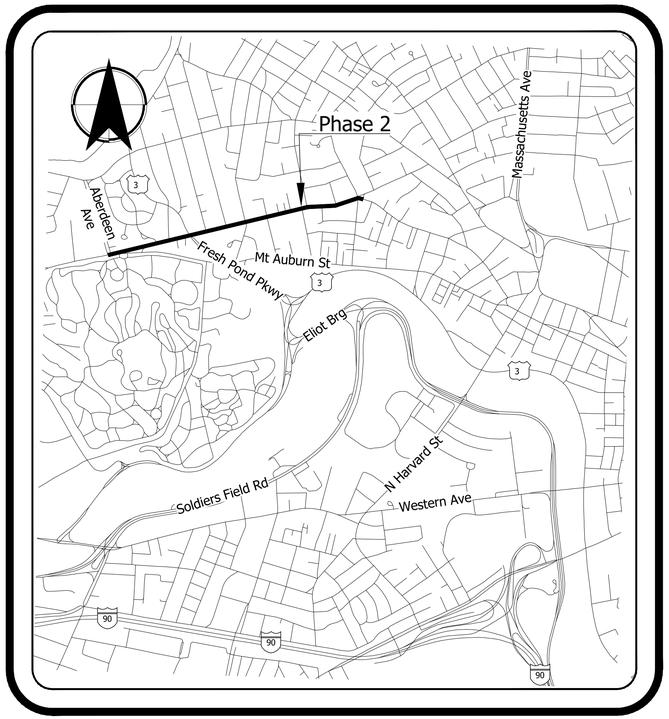
CITY OF CAMBRIDGE, MASSACHUSETTS

June 9, 2023



SITE MAP

SCALE: 1"=100'



VICINITY MAP

SCALE: NTS

BASIS OF STATIONING:

ALL DIMENSIONS AND LOCATIONS ARE BASED ON PHOTO-IDENTIFIABLE STREET FEATURES. PLANS DEVELOPED BASED ON AERIAL PHOTOGRAPHY AND GIS DATA. NO FIELD TOPOGRAPHIC DATA WERE COLLECTED.

SITE INFORMATION:

Located in West Cambridge, the stretch of Brattle Street from Aberdeen Avenue to Craigie Street.

DATUM:

HORIZONTAL DATUM

The Massachusetts State Plane coordinate system, (Zone 3601) NAD83.

PROJECT CONTACTS

CLIENT

CITY OF CAMBRIDGE, MA

CONTACT: Andreas Wolfe

ADDRESS: 344 Broadway, Cambridge, MA 02139

PHONE: (617) 349-9162

EMAIL: awolfe@cambridgema.gov

ENGINEER

KITTELSON & ASSOCIATES, INC.

CONTACT: Radu Nan, P.E.

ADDRESS: One Washington Mall, Suite 1101, Boston, MA 02108

PHONE: 617.377.4004

EMAIL: rnan@kittelson.com

INDEX

Sheet Number	Sheet Title
1	TITLE SHEET
2 - 3	LEGEND AND GENERAL NOTES
4 - 6	DETAILS
7 - 15	EXISTING CONDITIONS AND REMOVAL PLAN
16 - 24	SIGNING AND PAVEMENT MARKING PLAN
25 - 26	TRAFFIC SIGN INVENTORY
27 - 35	PAVEMENT MARKING PLAN

COMMONWEALTH OF MASSACHUSETTS
RADU I. NAN
CIVIL
NO. 53256
REGISTERED PROFESSIONAL ENGINEER

Date: 2023.06.09 13:15:04-04'00'

These plans have been digitally signed and sealed by Radu I. Nan, PE on the date affixed by the seal using a Digital Certificate.

KITTELSON & ASSOCIATES

ONE WASHINGTON MALL, SUITE 1101
BOSTON, MA 02108
P 617.377.4000

#	DATE	REVISION	APP'D

Submission Date: 06/09/2023

Drawn: AJD | Designed: AJD | Checked: RIN

PROJECT NO. 27477

BRATTLE STREET PHASE 2

TITLE

SHEET NO. 1

Plot Stamp: 6/9/2023 10:50:31 AM - Alec Donowitz
File: H:\23\23826 - Cambridge Engineering House Doctor\003 - Mass Ave and Brattle St Quick Build\design_CD\23826_CD_Brattle Plan Sheets (PH2).dwg

ABBREVIATIONS

BTB	[Mount] back-to-back
CONC	Cement Concrete
DWP	Detectable Warning Panel
EXIST	Existing
GRAN	Granite
LL	Level Landing
PBS	Post both sides
PROP	Proposed
PWD	Public Works Department (City of Cambridge)
R	Radius
REM	Remove
RET	Retain
R&R	Remove and reset
TYP	Typical
VGC	Vertical Granite Curb

LEGEND

- Existing Fire Hydrant
- Existing Street Light
- Existing Utility Pole
- Existing Sign (Steel Post)
- Existing Signal Pole (with Mast Arm)
- Existing On-Street Base for R1-6
- Existing Sign (SPEED LIMIT 25)
- Proposed Steel Sign Post
- Proposed Curb Reset
- Proposed Concrete Separator
- Proposed Sign (SPEED LIMIT 25)
- PAVEMENT MARKING ERADICATION AREA

PAVEMENT MARKING LEGEND

- EXISTING PAVEMENT MARKING
- BYCL — 6" BROKEN YELLOW CENTER LINE - 2' MARK, 4' SKIP
- DWL — 6" DASHED WHITE LINE - 2' MARK, 4' SKIP
- DDYCL — DASHED DOUBLE YELLOW CENTER LINE - 2' MARK, 4' SKIP
- DYCL — DOUBLE YELLOW CENTER LINE - 4" LINES, 4" APART
- SWL — 6" SOLID WHITE LINE
- SYL — 6" SOLID YELLOW LINE
- CW — 10' CROSSWALK - 2'-WIDE BAR, 2' SKIP
- 8" SOLID WHITE CHANNELIZATION LINES (SWCHL) - 45°
- 8" SOLID YELLOW CHANNELIZATION LINES (SYCHL) - 45°
- PAVEMENT ARROWS - WHITE
- BIKE LANE PAVEMENT MARKING
- YIELD LINE
- HIGH FRICTION GREEN SURFACE TREATMENT (HFGST)

KITTELSON & ASSOCIATES
ONE WASHINGTON MALL, SUITE 1101
BOSTON, MA 02108
P 617.377.4000

#	DATE	REVISION	APP'D

Submission Date: 06/09/2023

Drawn: AJD | Designed: AJD | Checked: RIN

PROJECT NO. 27477

BRATTLE STREET PHASE 2

LEGEND & ABBREVIATIONS

COMMONWEALTH OF MASSACHUSETTS
RADU I. NAN
CIVIL
NO. 53256
REGISTERED PROFESSIONAL ENGINEER

SHEET NO. 2

Plot Stamp: 6/9/2023 10:50:37 AM - Alec Donowitz
File: H:\23\23826 - Cambridge Engineering House Doctor\003 - Mass Ave and Brattle St Quick Build\design_CD\23826_CD_Brattle Plan Sheets (PH2).dwg

GENERAL NOTES

TRAFFIC MANAGEMENT:

1. All traffic control devices shall conform with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD).
2. All sign locations on details are shown schematically. Final locations shall be determined based on actual field conditions and city approval.
3. Additional traffic control devices shall be provided upon the city's request.
4. All temporary signage and traffic control devices shall be properly secured.
5. All drums not otherwise specified shall be equipped with type "c" -steady burn warning lights
6. Temporary traffic lanes within the work zone shall be a minimum of 11 feet.
7. Advisory speed limits shall be posted as directed by the city.
8. Flashing arrow boards shall be utilized for lane shifts where the existing speed limit is 35 m.p.h. or greater.
9. Non-essential traffic control devices shall be covered or removed during non-work hours.
10. All travel ways shall be protected from dust and construction debris at all times.
11. Traffic control includes necessary street sweeping and snow removal within the work zone.
12. Vehicular and pedestrian traffic shall be allowed access to private property at all times during construction.
13. All traffic control devices shall be placed and moved as necessary to maintain adequate abutter access at all times. Work may require additional signage and other traffic control devices, grading and temporary pavement for passage of pedestrian, vehicular and emergency traffic through work areas both during and after work hours.
14. Each abutter shall be notified by the contractor at least 24 hours in advance of the start of any work that will require the temporary closure of access.
15. Construction work zone shall be staged as to allow for continuous access at drive entrances and to minimize detours to Cambridge roads.
16. Excavations shall be protected by steel plates or barricades during non-work hours.
17. Grade separations in excess of 2" during non working hours will require delineation by drums.
18. Excavation edges in excess of 4" deep shall be protected during non-working hours by backfilling with a wedge of gravel compacted to a 4:1 slope.
19. Safe pedestrian walkways shall be provided and access to local businesses and residences. Public walkways shall remain open and accessible unless otherwise directed by city.
20. All existing pedestrian crossings shall be maintained. Alternative crossing shall be provided when existing crossings are disrupted by construction activity. Temporary locations, safety signage and safety controls shall be approved by the city prior to implementation.
21. Pedestrian walkways shall be protected along work zone with concrete barriers and fencing.
22. Police details shall be scheduled and coordinated by the contractor to maintain the safety of pedestrian and vehicular traffic.
23. Detours to shall only be allowed as indicated or as approved by the city of Cambridge Traffic and Parking Department.

KITTELSON & ASSOCIATES
ONE WASHINGTON MALL, SUITE 1101
BOSTON, MA 02108
P 617.377.4000

#	DATE	REVISION	APP'D

Submission Date: 06/09/2023

Drawn:	Designed:	Checked:
AJD	AJD	RIN

PROJECT NO. 27477

BRATTLE STREET PHASE 2

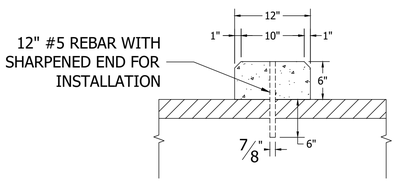
GENERAL NOTES

SHEET NO. 3

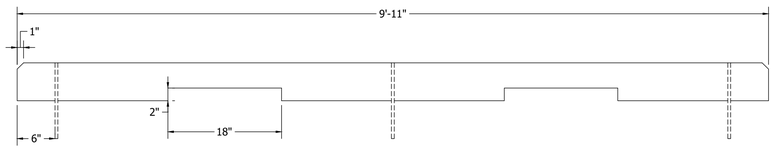
COMMONWEALTH OF MASSACHUSETTS
RADU I. NAN
CIVIL
NO. 53256
REGISTERED PROFESSIONAL ENGINEER

Plot Stamp: 6/9/2023 10:50:40 AM - Alec Donowitz
File: H:\23\23826 - Cambridge Engineering House Doctor\003 - Mass Ave and Brattle St Quick Build\design_CD\23826_CD_Brattle Plan Sheets (PH2).dwg

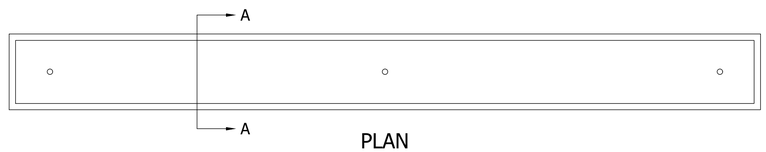
DETAILS



SECTION A-A



TYPICAL SECTION ELEVATION

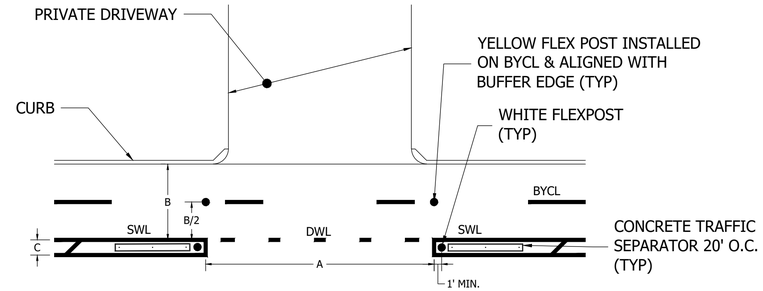


PLAN

NOTES:

1. CONCRETE TO BE 5000 PSO, SULFATE RESISTANT WITH FIBER REINFORCEMENT.
2. UNITS TO BE SECURED USING #5 CORROSION RESISTANT REBAR HAND DRIVEN TO DEPTHS INDICATED.

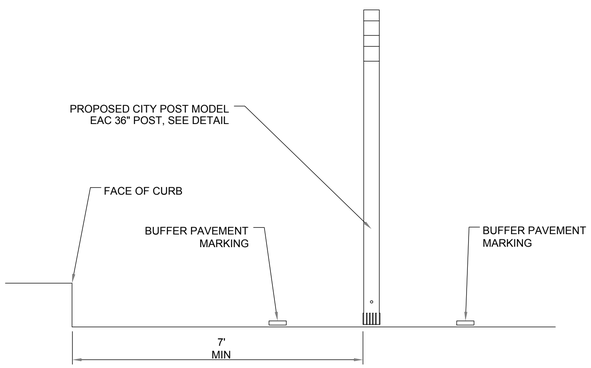
12" PRECAST CONCRETE CURBING FOR BICYCLE LANES (N.T.S.)

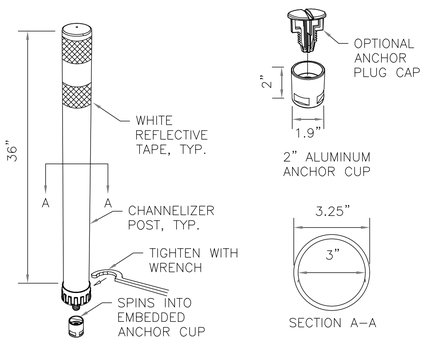


NOTES:

1. DIMENSIONS OF OPENING IN BUFFER (A, 15' MIN.), BIKE LANE (B), AND BUFFER (C) SHALL FOLLOW PLANS

TWO-WAY BICYCLE LANE DRIVEWAY TREATMENT (N.T.S.)

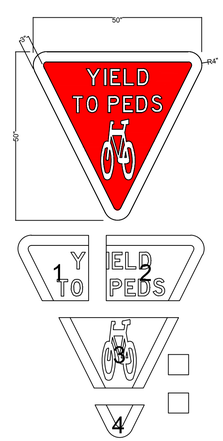




FLEXPOSTS NOTES:

1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DIMENSIONS, MATERIALS, AND ATTACHMENTS MAY VARY BETWEEN MANUFACTURERS.
3. COLOR OF POST SHALL BE WHITE EXCEPT WHEN PLACED ON THE CENTERLINE OF A TWO-WAY BICYCLE FACILITY.

CITY POST MODEL EAC 36" POST (N.T.S.)



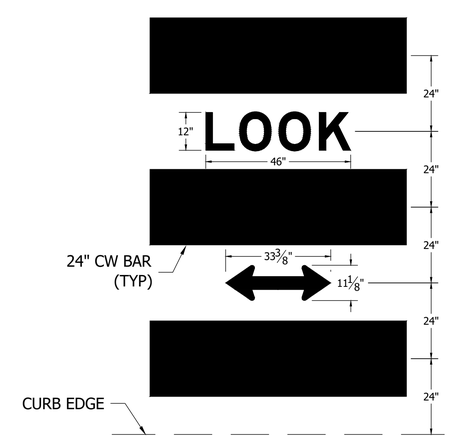
ENNIS-FLINT

4161 Piedmont Parkway
Suite 370, Greensboro, NC 27410
phone: (800) 331-8118
www.ennisflint.com

THE INFORMATION ON THIS DRAWING IS THE EXCLUSIVE PROPERTY OF ENNIS-FLINT, INC. IT CANNOT BE USED OR COPIED WITHOUT THE WRITTEN CONSENT OF ENNIS-FLINT, INC. GREENSBORO, NC, USA.

DESCRIPTION: 50" x 50" "YIELD TO PEDS" W/BIKE SYMBOL	
DESIGN #: 21-658-01	DESIGNER: GR DATE: 9/27/21

YIELD TO PEDS PAVEMENT LEGEND (N.T.S.)



TWO-WAY BICYCLE TRAFFIC CROSSWALK (N.T.S.)

KITTELSON & ASSOCIATES
ONE WASHINGTON MALL, SUITE 1101
BOSTON, MA 02108
P 617.377.4000

#	DATE	REVISION	APP'D

Submission Date: 06/09/2023

Drawn: AJD	Designed: AJD	Checked: RIN

PROJECT NO. 27477

BRATTLE STREET PHASE 2

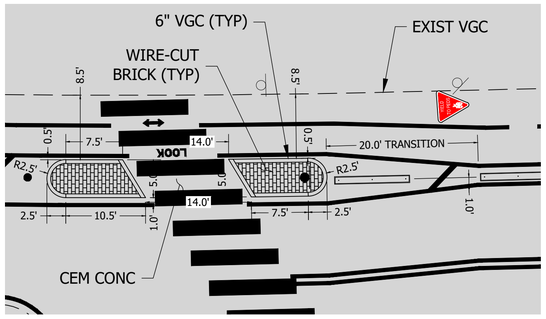
DETAILS

COMMONWEALTH OF MASSACHUSETTS
RADU I. NAN
CIVIL
NO. 53256
REGISTERED PROFESSIONAL ENGINEER

SHEET NO. 4

Plot Stamp: 6/9/2023 10:50:42 AM - Alec Donowitz
File: H:\23\23826 - Cambridge Engineering House Doctor\003 - Mass Ave and Brattle St Quick Build\design_CD\23826_CD_Brattle Plan Sheets (PH2).dwg

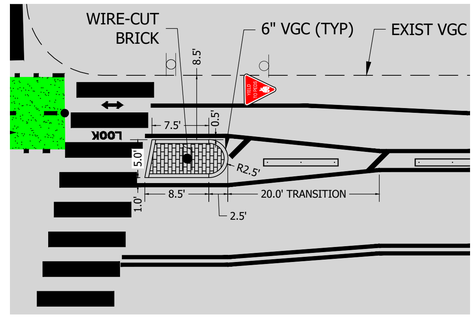
DETAILS



PEDESTRIAN REFUGE ISLAND
(251 BRATTLE STREET)

NOTES:

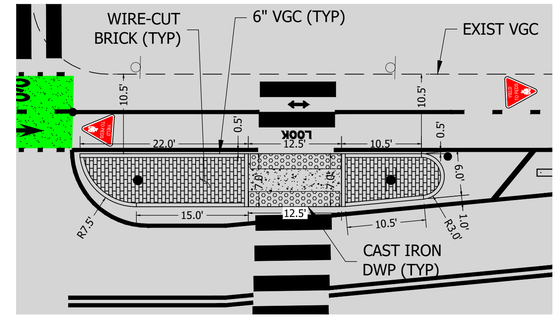
1. FACES OF CURB TO BE A MINIMUM OF 6" FROM EDGE OF BIKE LANE LINE (O.C.) AND 1' FROM EDGE OF VEHICLE LANE (O.C.)



PEDESTRIAN REFUGE ISLAND
(FRESH POND LANE)

NOTES:

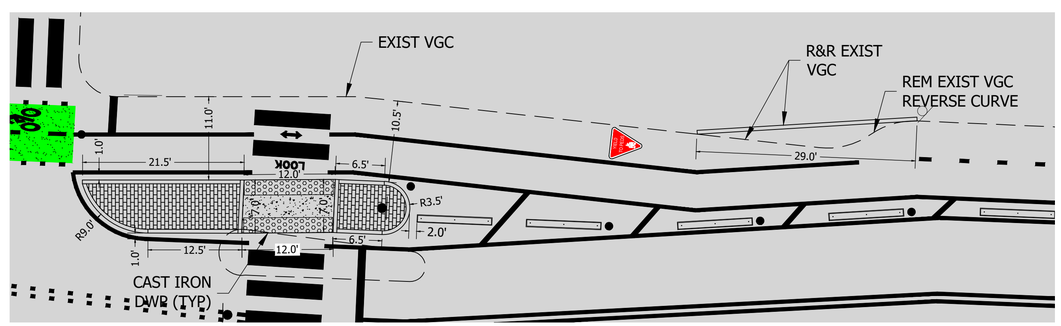
1. FACES OF CURB TO BE A MINIMUM OF 6" FROM EDGE OF BIKE LANE LINE (O.C.) AND 1' FROM EDGE OF VEHICLE LANE (O.C.)



PEDESTRIAN REFUGE ISLAND
(LEXINGTON AVENUE)

NOTES:

1. FACES OF CURB TO BE A MINIMUM OF 6" FROM EDGE OF BIKE LANE LINE (O.C.) AND 1' FROM EDGE OF VEHICLE LANE (O.C.)



PEDESTRIAN REFUGE ISLAND
(FAYERWEATHER STREET)

NOTES:

1. FACES OF CURB TO BE A MINIMUM OF 6" FROM EDGE OF BIKE LANE LINE (O.C.) AND 1' FROM EDGE OF VEHICLE LANE (O.C.)

KITTELSON & ASSOCIATES
ONE WASHINGTON MALL, SUITE 1101
BOSTON, MA 02108
P 617.377.4000

#	DATE	REVISION	APP'D

Submission Date: 06/09/2023

Drawn:	Designed:	Checked:
AJD	AJD	RIN

PROJECT NO. 27477

BRATTLE STREET PHASE 2

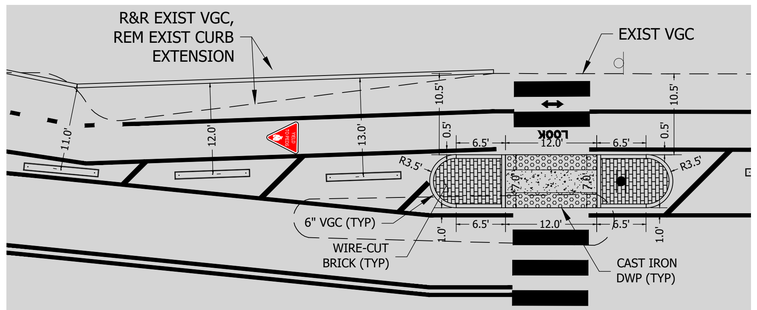
DETAILS

SHEET NO. 5

COMMONWEALTH OF MASSACHUSETTS
RADU I. NAN
CIVIL
NO. 53256
REGISTERED
PROFESSIONAL ENGINEER

Plot Stamp: 6/9/2023 10:52:48 AM - Alec Donowitz
File: H:\23\23826 - Cambridge Engineering House Doctor\003 - Mass Ave and Brattle St Quick Build\design_CD\23826_CD_Brattle Plan Sheets (PH2).dwg

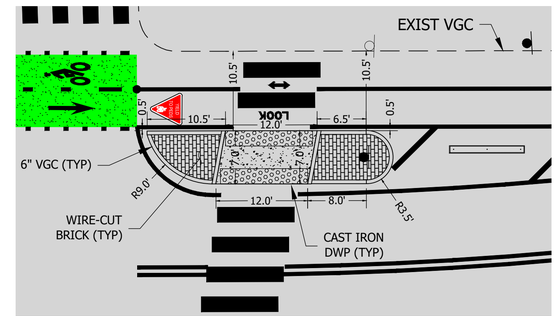
DETAILS



PEDESTRIAN REFUGE ISLAND
(LOWELL STREET)

NOTES:

1. FACES OF CURB TO BE A MINIMUM OF 6" FROM EDGE OF BIKE LANE LINE (O.C.) AND 1' FROM EDGE OF VEHICLE LANE (O.C.)



PEDESTRIAN REFUGE ISLAND
(APPLETON STREET)

NOTES:

1. FACES OF CURB TO BE A MINIMUM OF 6" FROM EDGE OF BIKE LANE LINE (O.C.) AND 1' FROM EDGE OF VEHICLE LANE (O.C.)

COMMONWEALTH OF MASSACHUSETTS
RADU I. NAN
CIVIL
NO. 53256
REGISTERED
PROFESSIONAL ENGINEER

KITTELSON & ASSOCIATES
ONE WASHINGTON MALL, SUITE 1101
BOSTON, MA 02108
P 617.377.4000

#	DATE	REVISION	APP'D

Submission Date:
06/09/2023

Drawn:	Designed:	Checked:
AJD	AJD	RIN

PROJECT NO.
27477

BRATTLE STREET PHASE 2

DETAILS

SHEET NO.
6

Plot Stamp: 6/9/2023 10:53:52 AM - Alec Donowitz
File: H:\23\23826 - Cambridge Engineering House Doctor\003 - Mass Ave and Brattle St Quick Build\design_CD\23826_CD_Brattle Plan Sheets (PH2).dwg

COMMONWEALTH OF MASSACHUSETTS
RADU I. NAN
CIVIL
NO. 53256
REGISTERED PROFESSIONAL ENGINEER

KITTELSON & ASSOCIATES
ONE WASHINGTON MALL, SUITE 1101
BOSTON, MA 02108
P 617.377.4000

#	DATE	REVISION	APP'D

Submission Date: 06/09/2023

Drawn:	Designed:	Checked:
AJD	AJD	RIN

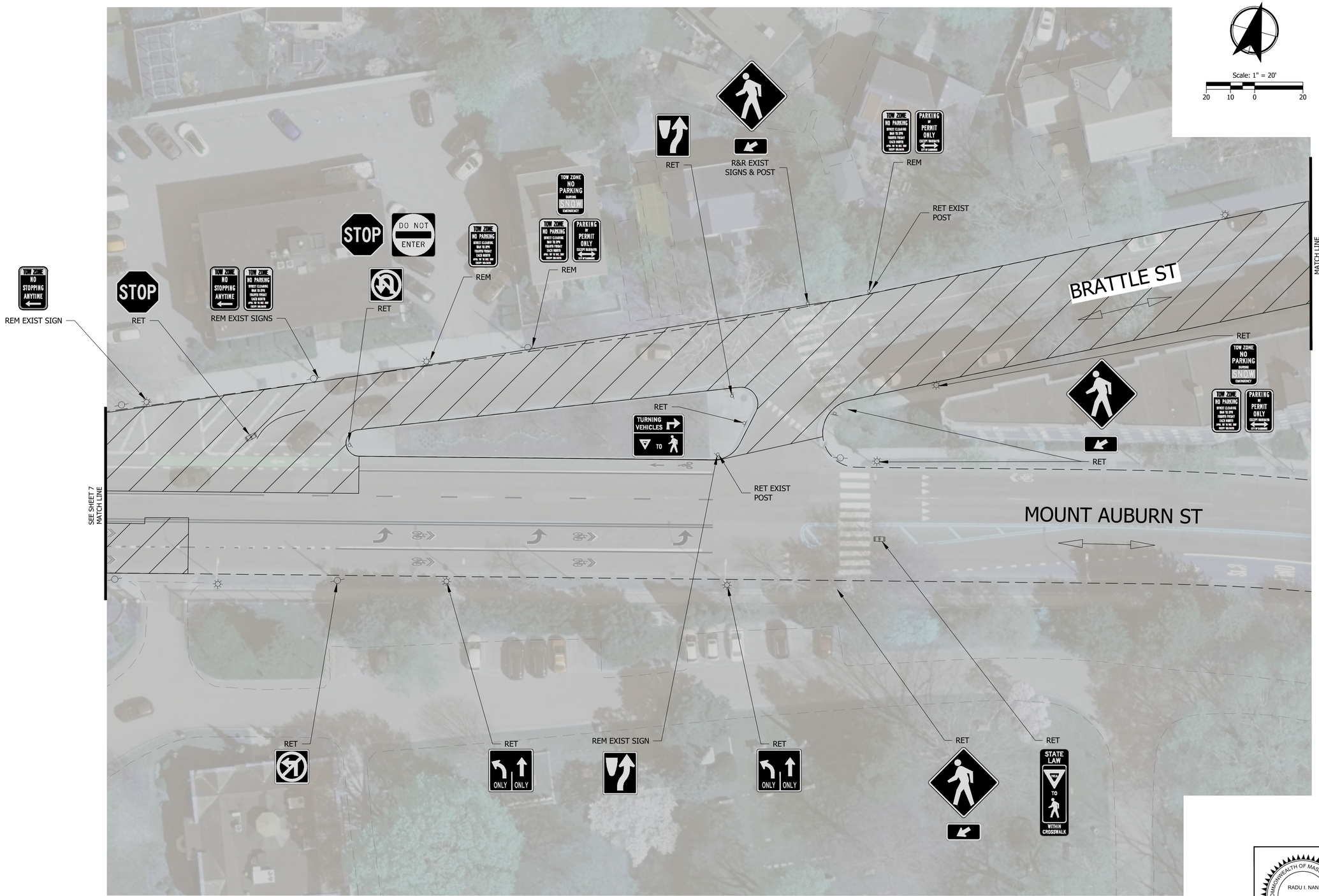
PROJECT NO. 27477

BRATTLE STREET PHASE 2

EXISTING CONDTIONS

SHEET NO. 7

Plot Stamp: 6/9/2023 10:54:35 AM - Alec Donowitz
File: H:\23\23826 - Cambridge Engineering House Doctor\003 - Mass Ave and Brattle St Quick Build\design_CD\23826_CD_Brattle Plan Sheets (PH2).dwg



KITTELSON & ASSOCIATES
ONE WASHINGTON MALL, SUITE 1101
BOSTON, MA 02108
P 617.374.4000

#	DATE	REVISION	APP'D

Submission Date: 06/09/2023

Drawn:	Designed:	Checked:
AJD	AJD	RIN

PROJECT NO. 27477

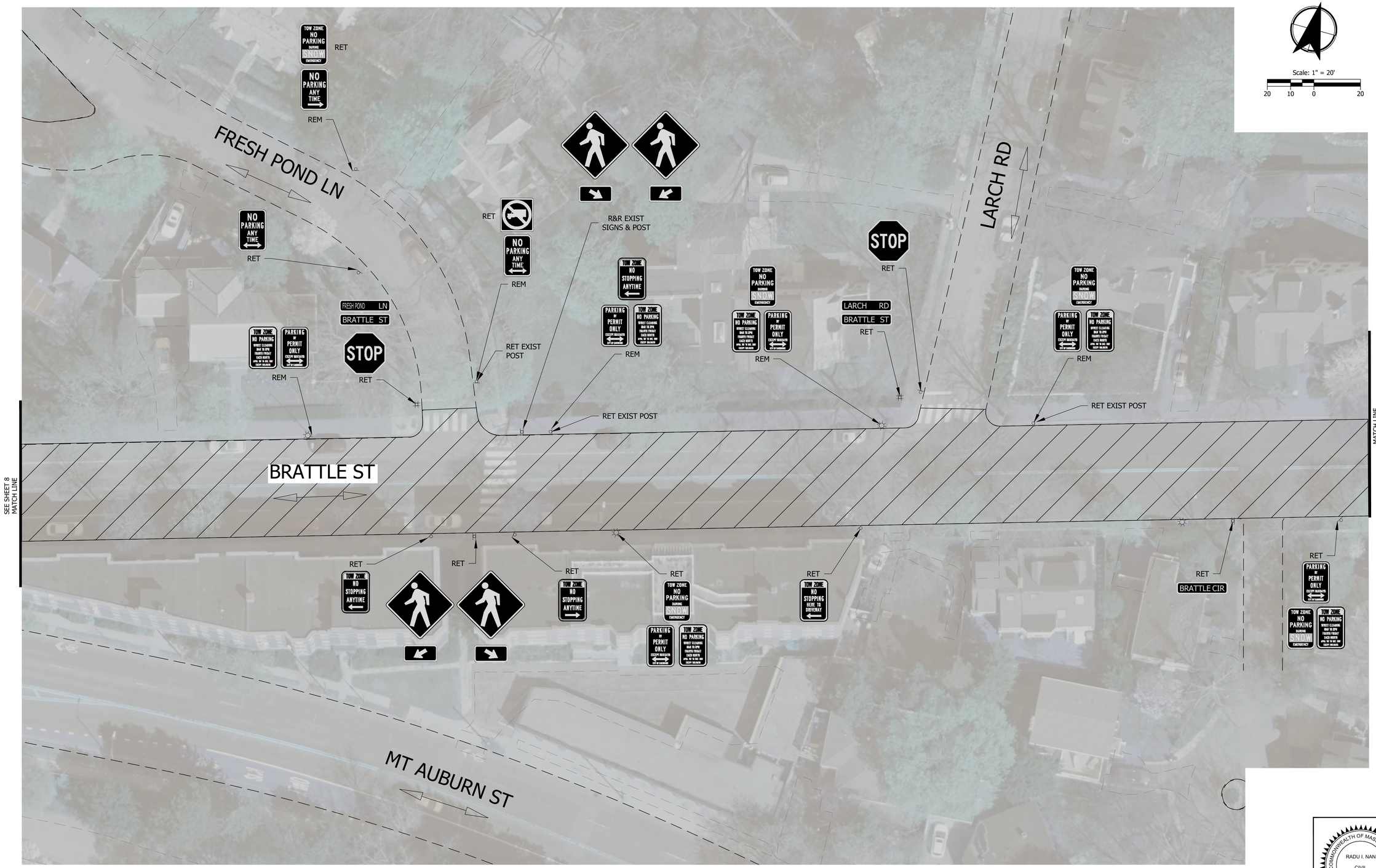
BRATTLE STREET PHASE 2

EXISTING CONDTIONS

SHEET NO. 8

COMMONWEALTH OF MASSACHUSETTS
RADU I. NAN
CIVIL
NO. 53256
REGISTERED PROFESSIONAL ENGINEER

Plot Stamp: 6/9/2023 10:55:22 AM - Alec Donowitz
File: H:\23\23826 - Cambridge Engineering House Doctor\003 - Mass Ave and Brattle St Quick Build\design_CD\23826_CD_Brattle Plan Sheets (PH2).dwg



KITTELSON & ASSOCIATES
ONE WASHINGTON MALL, SUITE 1101
BOSTON, MA 02108
P 617.377.4000

#	DATE	REVISION	APP'D

Submission Date: 06/09/2023

Drawn:	Designed:	Checked:
AJD	AJD	RIN

PROJECT NO. 27477

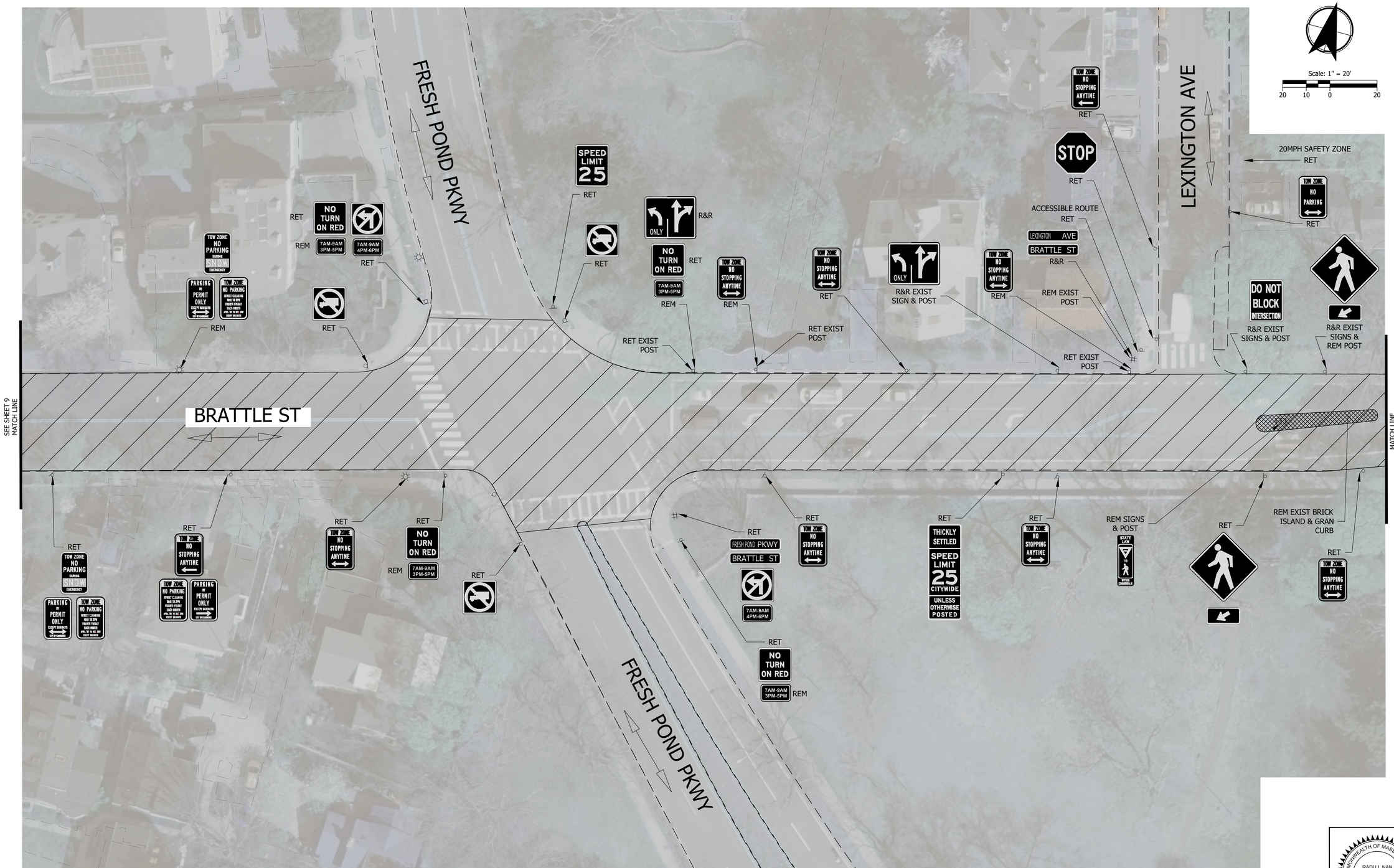
BRATTLE STREET PHASE 2

EXISTING CONDTIONS

SHEET NO. 9

COMMONWEALTH OF MASSACHUSETTS
RADU I. NAN
CIVIL
NO. 53256
REGISTERED PROFESSIONAL ENGINEER

Plot Stamp: 6/9/2023 10:56:16 AM - Alec Donowitz
File: H:\23\23826 - Cambridge Engineering House Doctor\003 - Mass Ave and Brattle St Quick Build\design_CD\23826_CD_Brattle Plan Sheets (PH2).dwg



KITTELSON & ASSOCIATES
ONE WASHINGTON MALL, SUITE 1101
BOSTON, MA 02108
P 617.377.4000

#	DATE	REVISION	APP'D

Submission Date: 06/09/2023

Drawn:	Designed:	Checked:
AJD	AJD	RIN

PROJECT NO. 27477

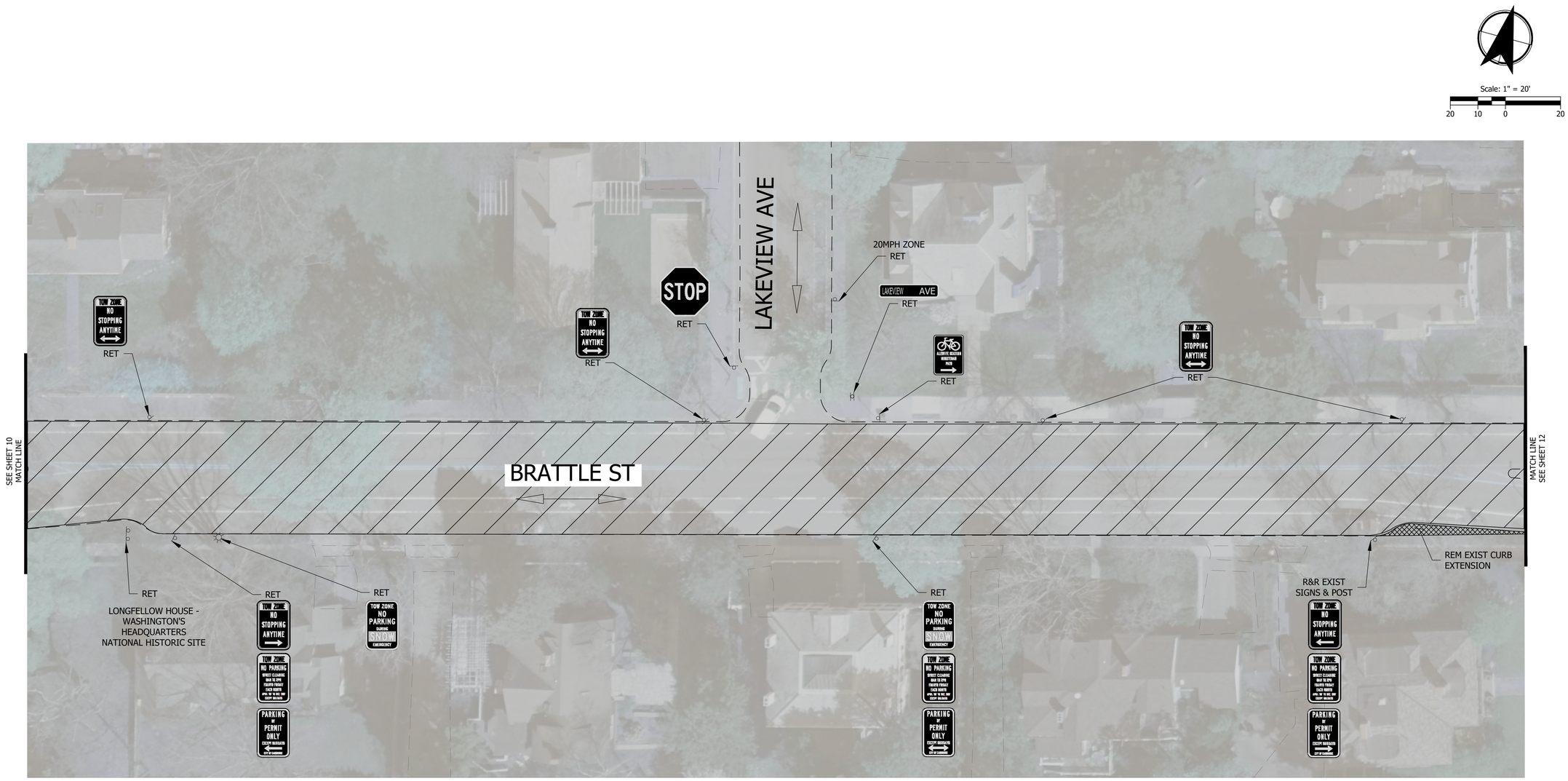
BRATTLE STREET PHASE 2

EXISTING CONDTIONS

SHEET NO. 10

COMMONWEALTH OF MASSACHUSETTS
RADU I. NAN
CIVIL
NO. 53256
REGISTERED PROFESSIONAL ENGINEER

Plot Stamp: 6/9/2023 10:57:22 AM - Alec Donowitz
File: H:\23\23826 - Cambridge Engineering House Doctor\003 - Mass Ave and Brattle St Quick Build\design_CD\23826_CD_Brattle Plan Sheets (PH2).dwg



KITTELSON & ASSOCIATES
ONE WASHINGTON MALL, SUITE 1101
BOSTON, MA 02108
P 617.377.4000

#	DATE	REVISION	APP'D

Submission Date: 06/09/2023

Drawn:	Designed:	Checked:
AJD	AJD	RIN

PROJECT NO. 27477

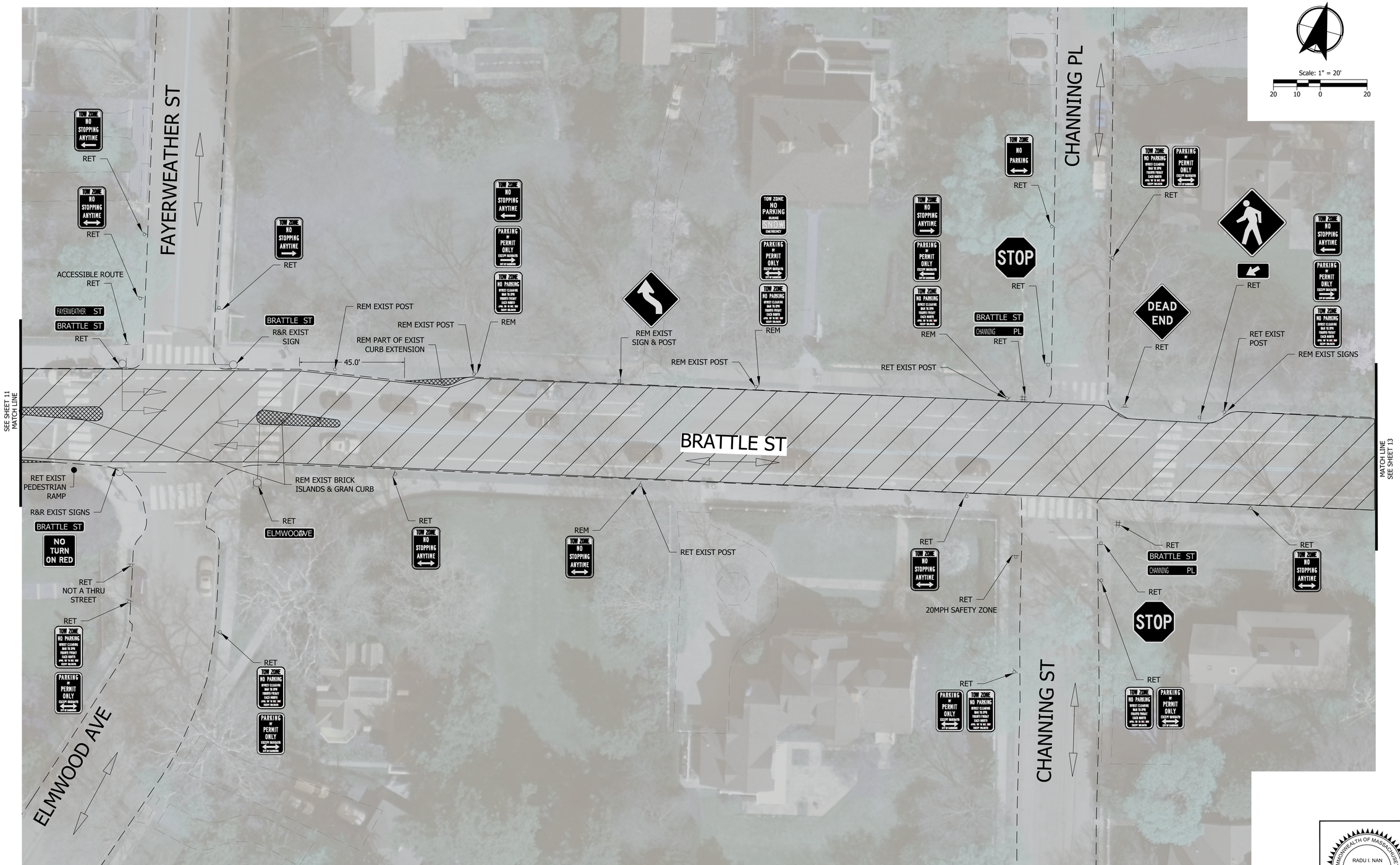
BRATTLE STREET PHASE 2

EXISTING CONDTIONS

COMMONWEALTH OF MASSACHUSETTS
RADU I. NAN
CIVIL
NO. 53256
REGISTERED PROFESSIONAL ENGINEER

SHEET NO. 11

Plot Stamp: 6/9/2023 10:57:56 AM - Alec Donowitz
File: H:\23\23826 - Cambridge Engineering House Doctor\003 - Mass Ave and Brattle St Quick Build\design_CD\23826_CD_Brattle Plan Sheets (PH2).dwg



Plot Stamp: 6/9/2023 10:58:48 AM - Alec Donowitz
File: H:\23\23826 - Cambridge Engineering House Doctor\003 - Mass Ave and Brattle St Quick Build\design_CD\23826_CD_Brattle Plan Sheets (PH2).dwg

KITTELSON & ASSOCIATES
ONE WASHINGTON MALL, SUITE 1101
BOSTON, MA 02108
P 617.377.4000

#	DATE	REVISION	APP'D

Submission Date: 06/09/2023

Drawn:	Designed:	Checked:
AJD	AJD	RIN

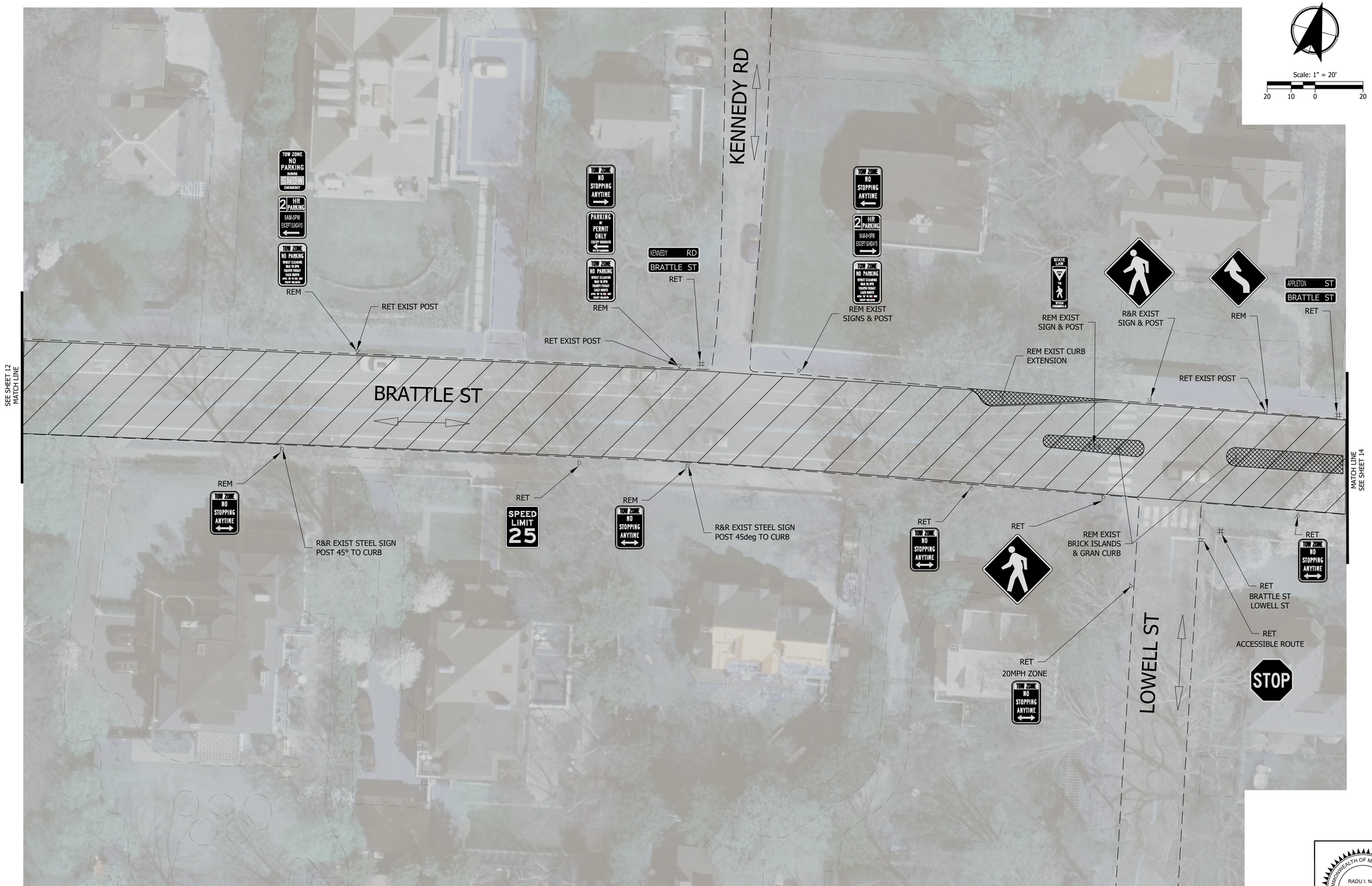
PROJECT NO. 27477

COMMONWEALTH OF MASSACHUSETTS
RADU I. NAN
CIVIL
NO. 53256
REGISTERED PROFESSIONAL ENGINEER

BRATTLE STREET PHASE 2

EXISTING CONDTIONS

SHEET NO. 12



COMMONWEALTH OF MASSACHUSETTS
RADU I. NAN
CIVIL
NO. 53256
REGISTERED PROFESSIONAL ENGINEER

KITTELSON & ASSOCIATES
ONE WASHINGTON MALL, SUITE 1101
BOSTON, MA 02108
P 617.377.4000

#	DATE	REVISION	APP'D

Submission Date: 06/09/2023

Drawn:	Designed:	Checked:
AJD	AJD	RIN

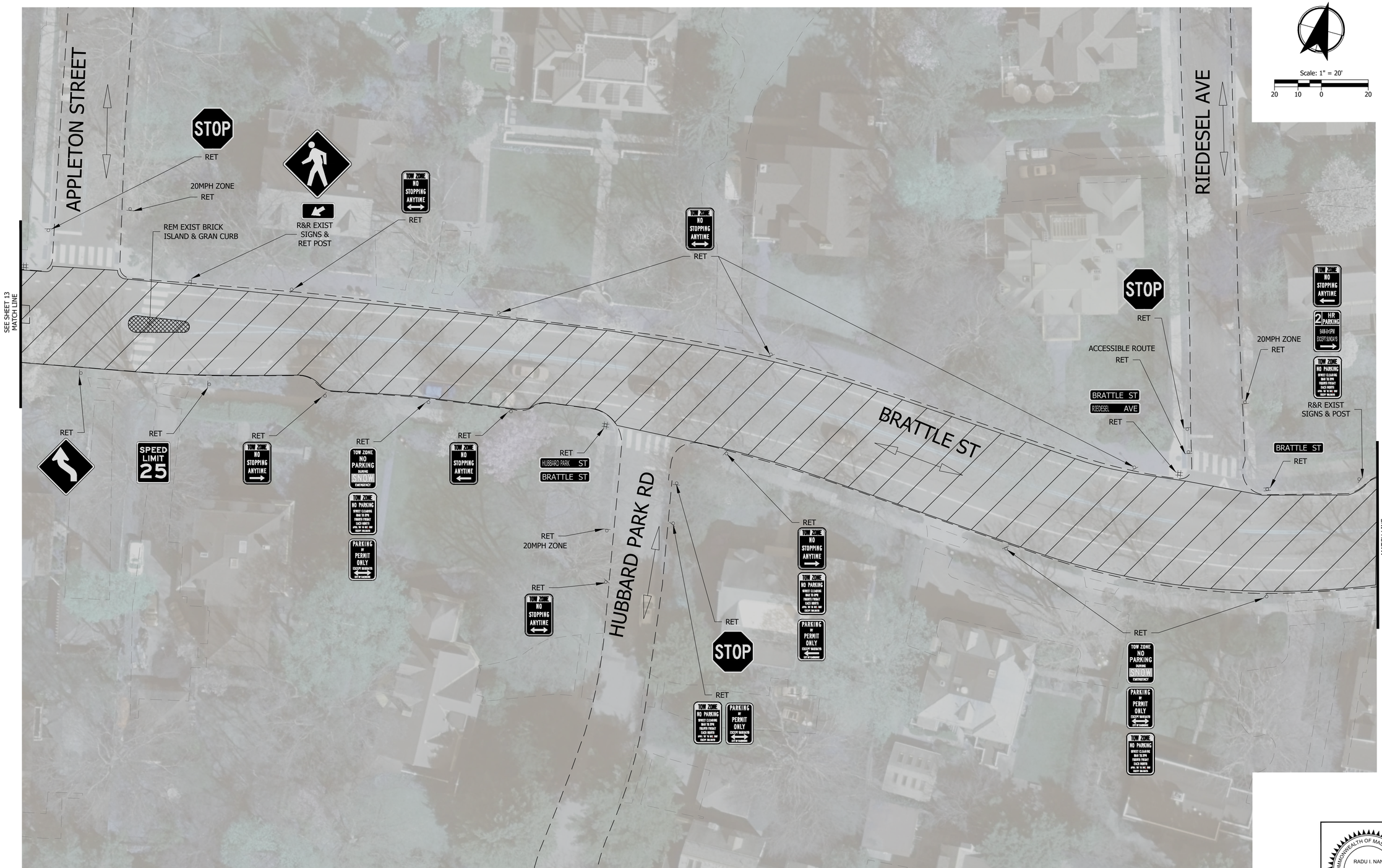
PROJECT NO. 27477

BRATTLE STREET PHASE 2

EXISTING CONDTIONS

SHEET NO. 13

Plot Stamp: 6/9/2023 10:59:36 AM - Alec Donowitz
File: H:\23\23826 - Cambridge Engineering House Doctor\003 - Mass Ave and Brattle St Quick Build\design_CD\23826_CD_Brattle Plan Sheets (PH2).dwg



KITTELSON
& ASSOCIATES
ONE WASHINGTON MALL, SUITE 1101
BOSTON, MA 02108
P 617.377.4000

#	DATE	REVISION	APP'D

Submission Date:
06/09/2023

Drawn:	Designed:	Checked:
AJD	AJD	RIN

PROJECT NO.
27477

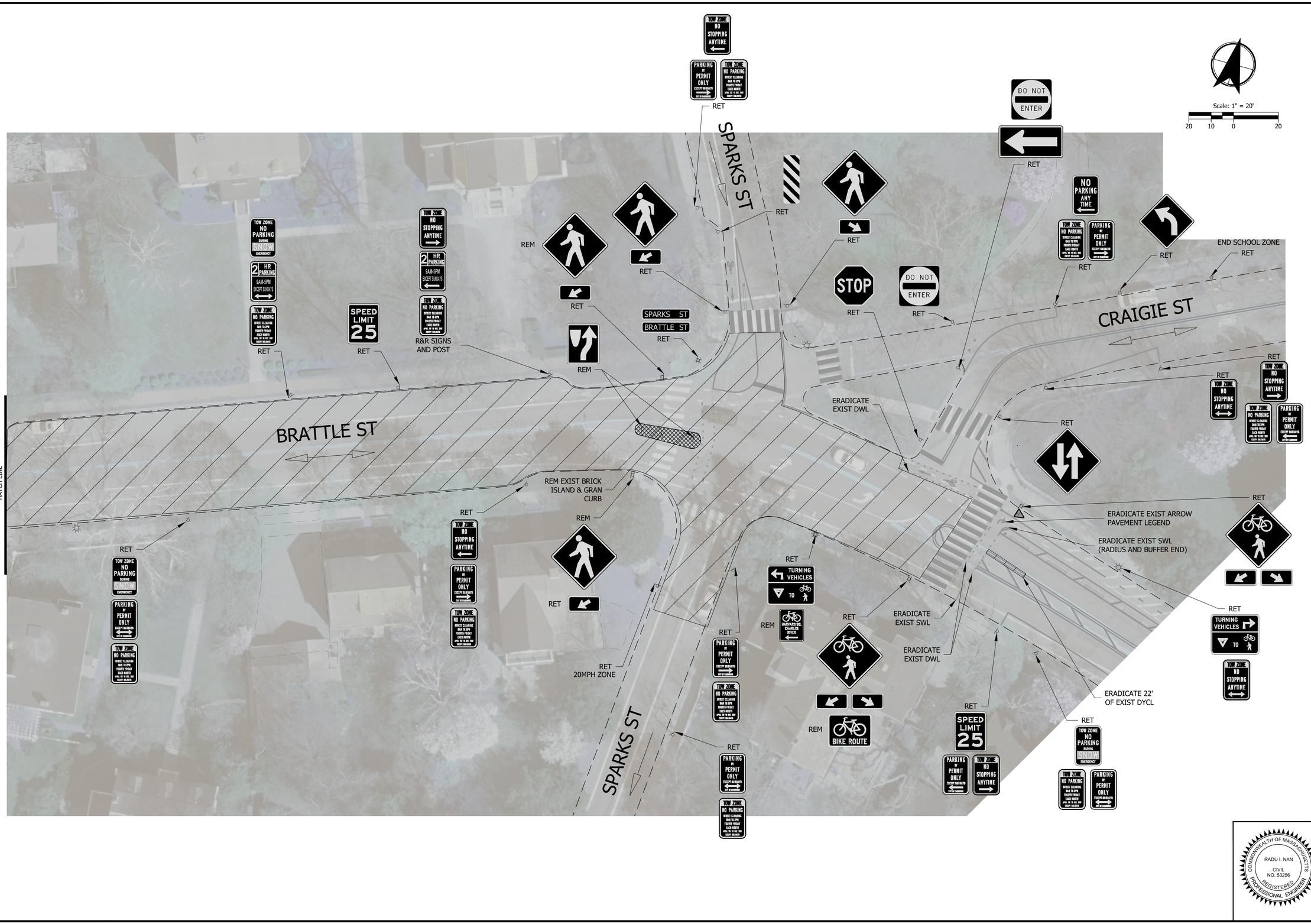
BRATTLE STREET PHASE 2

EXISTING CONDTIONS

SHEET NO.
14

COMMONWEALTH OF MASSACHUSETTS
RADU I. NAN
CIVIL
NO. 53256
REGISTERED
PROFESSIONAL ENGINEER

Plot Stamp: 6/9/2023 11:00:19 AM - Alec Donowitz
File: H:\23\23826 - Cambridge Engineering House Doctor\003 - Mass Ave and Brattle St Quick Build\design_CD\23826_CD_Brattle Plan Sheets (PH2).dwg



KITTELSON & ASSOCIATES
ONE WASHINGTON MALL, SUITE 1101
BOSTON, MA 02108
P 617.377.4000

#	DATE	REVISION	APP'D

Submission Date: 06/09/2023

Drawn:	Designed:	Checked:
AJD	AJD	RIN

PROJECT NO. 27477

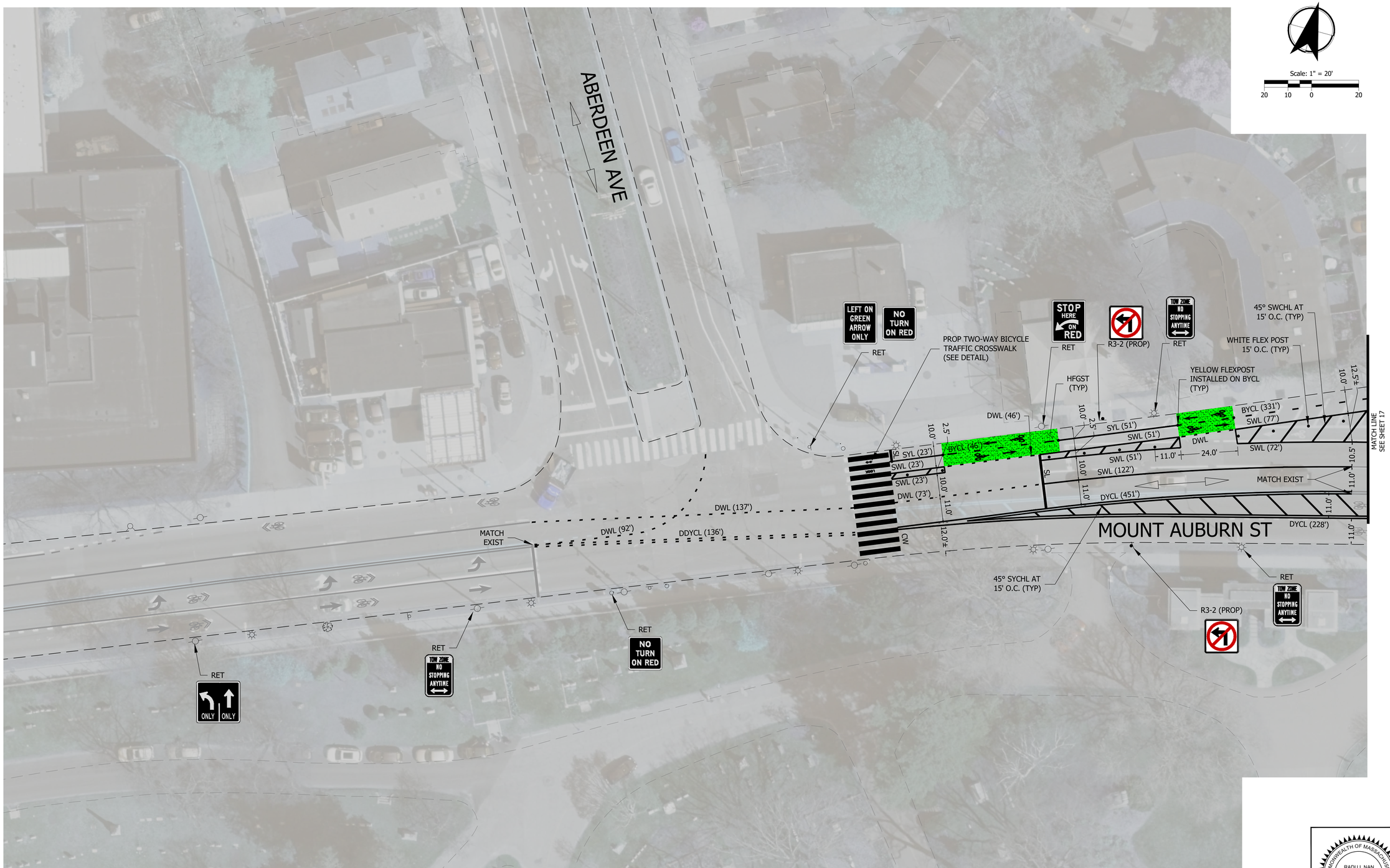
BRATTLE STREET PHASE 2

EXISTING CONDITIONS

COMMONWEALTH OF MASSACHUSETTS
RADU I. NAN
CIVIL
NO. 53256
REGISTERED PROFESSIONAL ENGINEER

SHEET NO. 15

Plot Stamp: 6/9/2023 11:01:03 AM - Alec Donovitz
File: H:\23\23826 - Cambridge Engineering House Doctor\003 - Mass Ave and Brattle St Quick Build\design_CD\23826_CD_Brattle Plan Sheets (PH2).dwg



KITTELSON & ASSOCIATES
ONE WASHINGTON MALL, SUITE 1101
BOSTON, MA 02108
P 617.377.4000

#	DATE	REVISION	APP'D

Submission Date: 06/09/2023

Drawn:	Designed:	Checked:
AJD	AJD	RIN

PROJECT NO. 27477

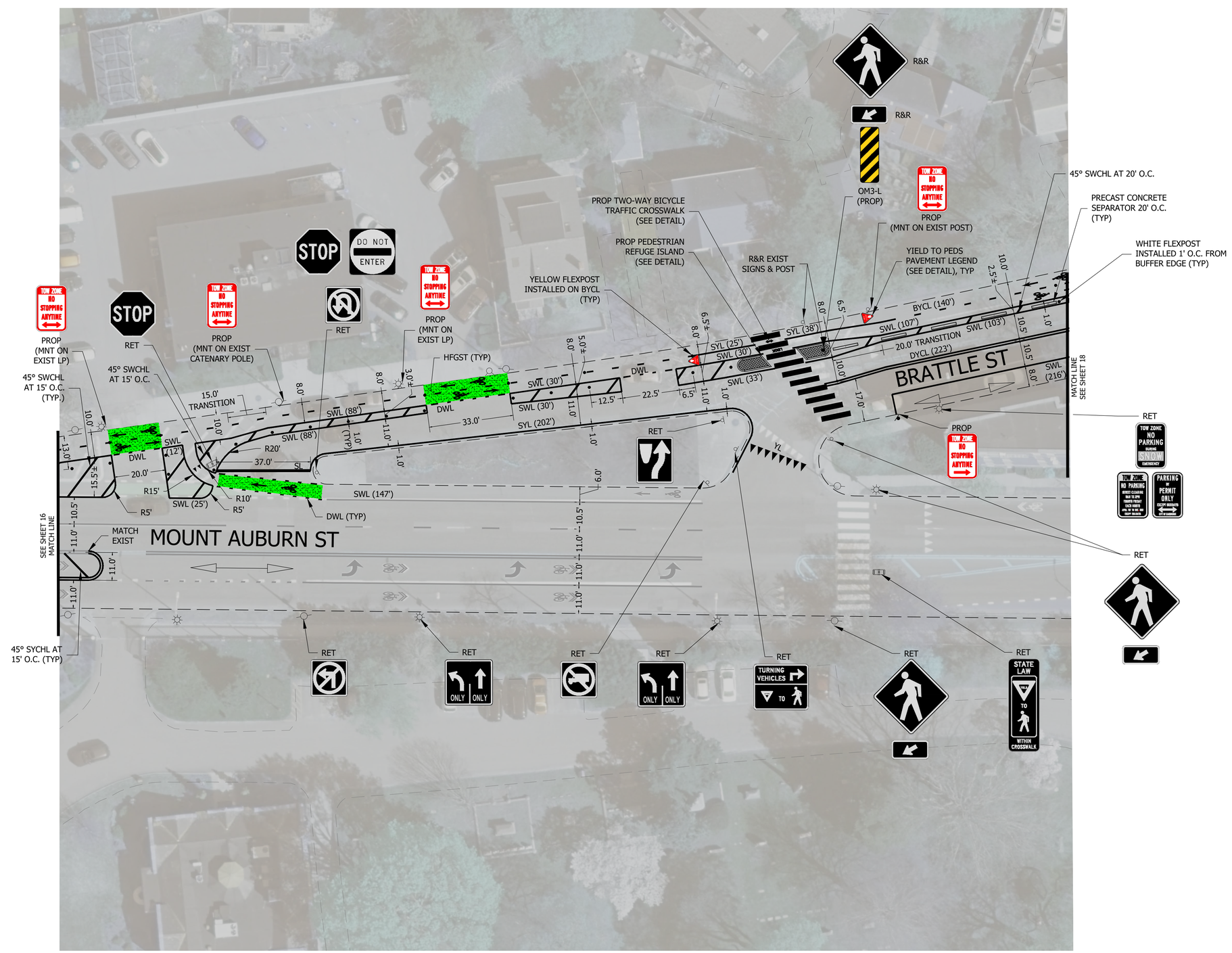
BRATTLE STREET PHASE 2

SIGNING & MARKING PLAN

SHEET NO. 16

COMMONWEALTH OF MASSACHUSETTS
RADU I. NAN
CIVIL NO. 53256
REGISTERED PROFESSIONAL ENGINEER

Plot Stamp: 6/9/2023 11:01:38 AM - Alec Donowitz
File: H:\23\23826 - Cambridge Engineering House Doctor\003 - Mass Ave and Brattle St Quick Build\design_CD\23826_CD_Brattle Plan Sheets (PH2).dwg



KITTELSON & ASSOCIATES
ONE WASHINGTON MALL, SUITE 1101
BOSTON, MA 02108
P 617.377.4000

#	DATE	REVISION	APP'D

Submission Date: 06/09/2023

Drawn:	Designed:	Checked:
AJD	AJD	RIN

PROJECT NO. 27477

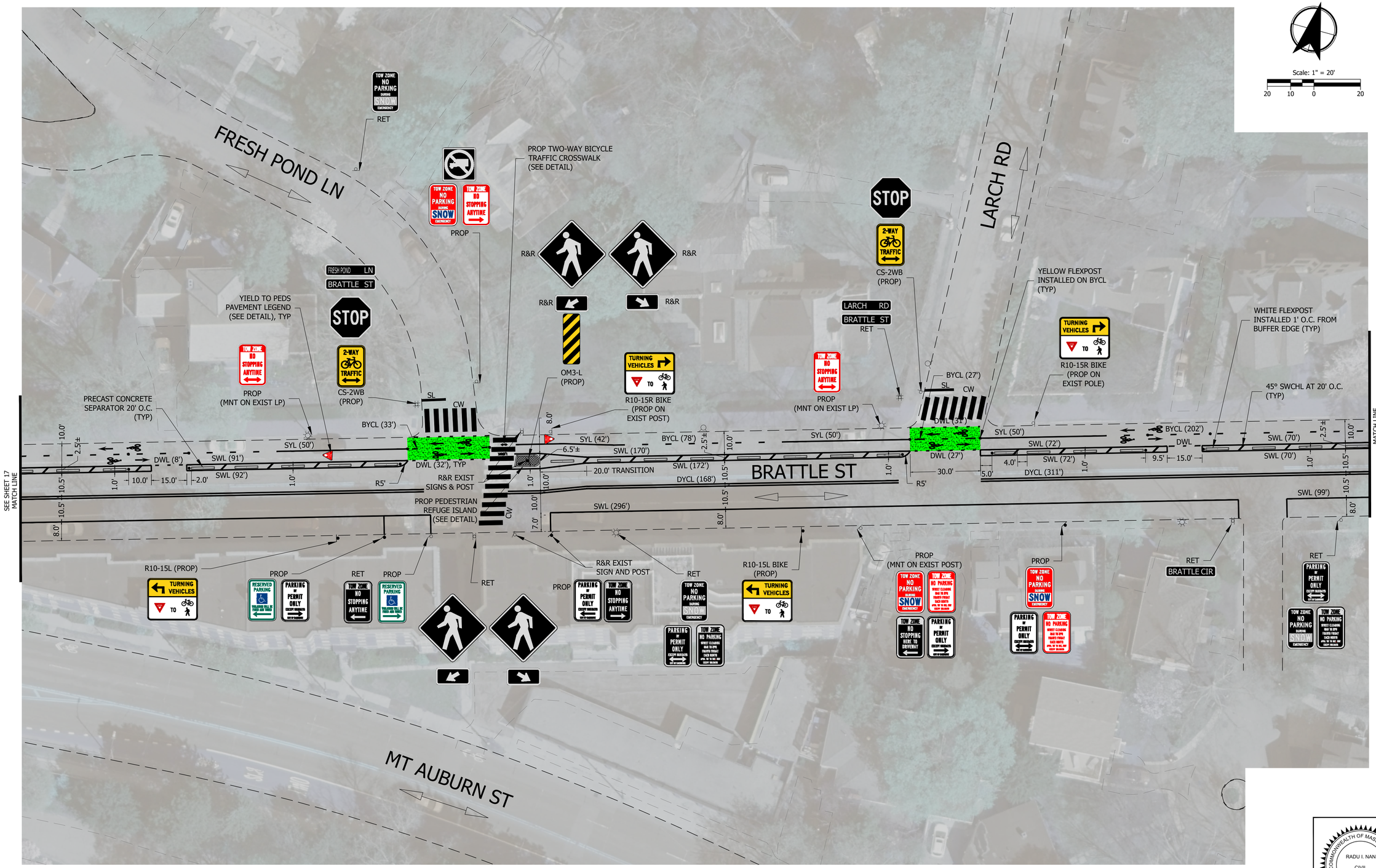
BRATTLE STREET PHASE 2

SIGNING & MARKING PLAN

COMMONWEALTH OF MASSACHUSETTS
RADU I. NAN
CIVIL
NO. 53256
REGISTERED PROFESSIONAL ENGINEER

SHEET NO. 17

Plot Stamp: 6/9/2023 11:02:12 AM - Alec Donowitz
File: H:\23\23826 - Cambridge Engineering House Doctor\003 - Mass Ave and Brattle St Quick Build\design_CD\23826_CD_Brattle Plan Sheets (PH2).dwg



KITTELSON & ASSOCIATES
ONE WASHINGTON MALL, SUITE 1101
BOSTON, MA 02108
P 617.377.4000

#	DATE	REVISION	APP'D

Submission Date: 06/09/2023

Drawn:	Designed:	Checked:
AJD	AJD	RIN

PROJECT NO. 27477

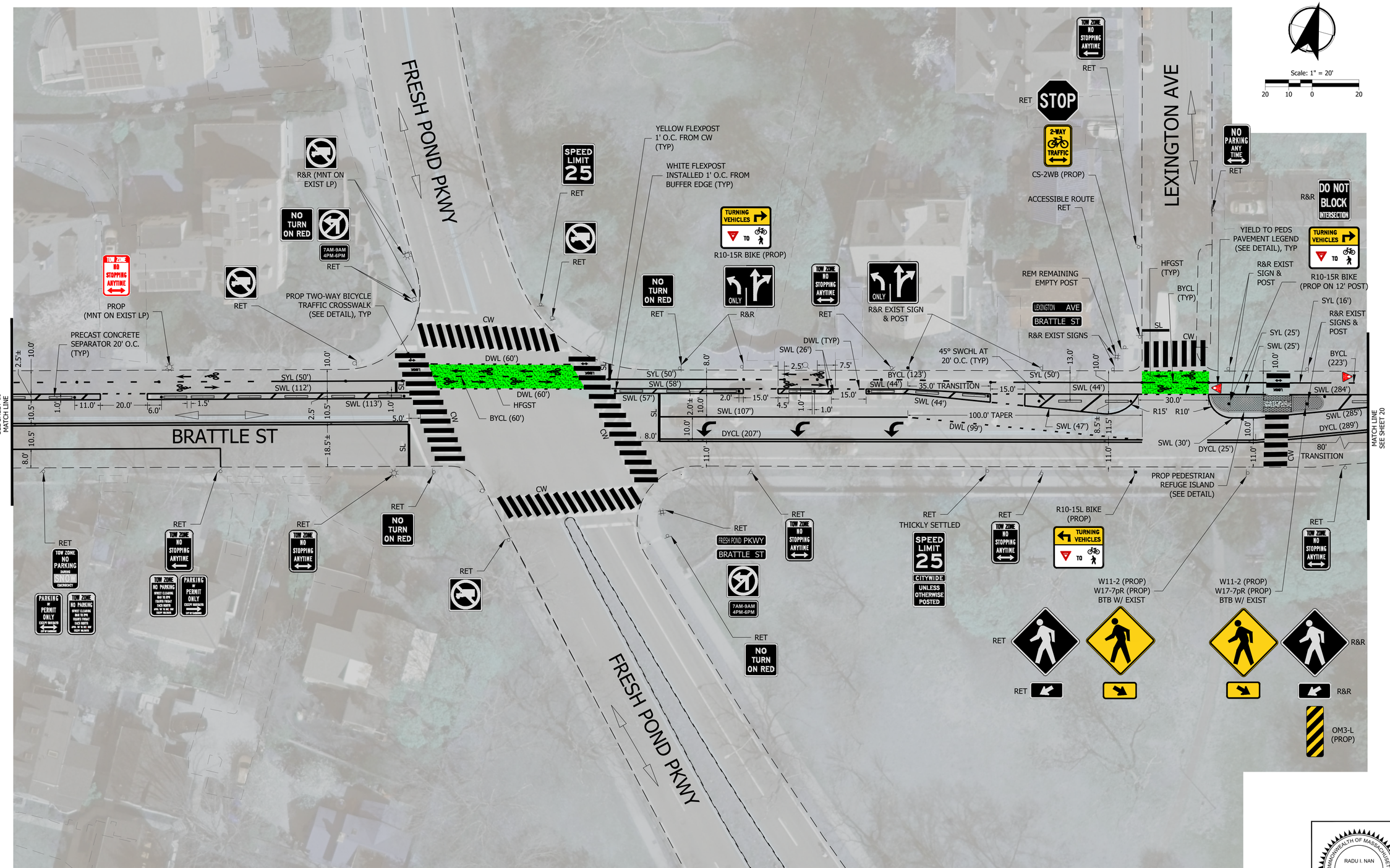
BRATTLE STREET PHASE 2

SIGNING & MARKING PLAN

SHEET NO. 18

COMMONWEALTH OF MASSACHUSETTS
RADU I. NAN
CIVIL
NO. 53256
REGISTERED PROFESSIONAL ENGINEER

Plot Stamp: 6/9/2023 11:02:52 AM - Alec Donowitz
File: H:\23\23826 - Cambridge Engineering House Doctor\003 - Mass Ave and Brattle St Quick Build\design_CD\23826_CD_Brattle Plan Sheets (PH2).dwg



KITTELSON & ASSOCIATES
ONE WASHINGTON MALL, SUITE 1101
BOSTON, MA 02108
P 617.377.4000

#	DATE	REVISION	APP'D

Submission Date: 06/09/2023

Drawn: AJD | Designed: AJD | Checked: RIN

PROJECT NO. 27477

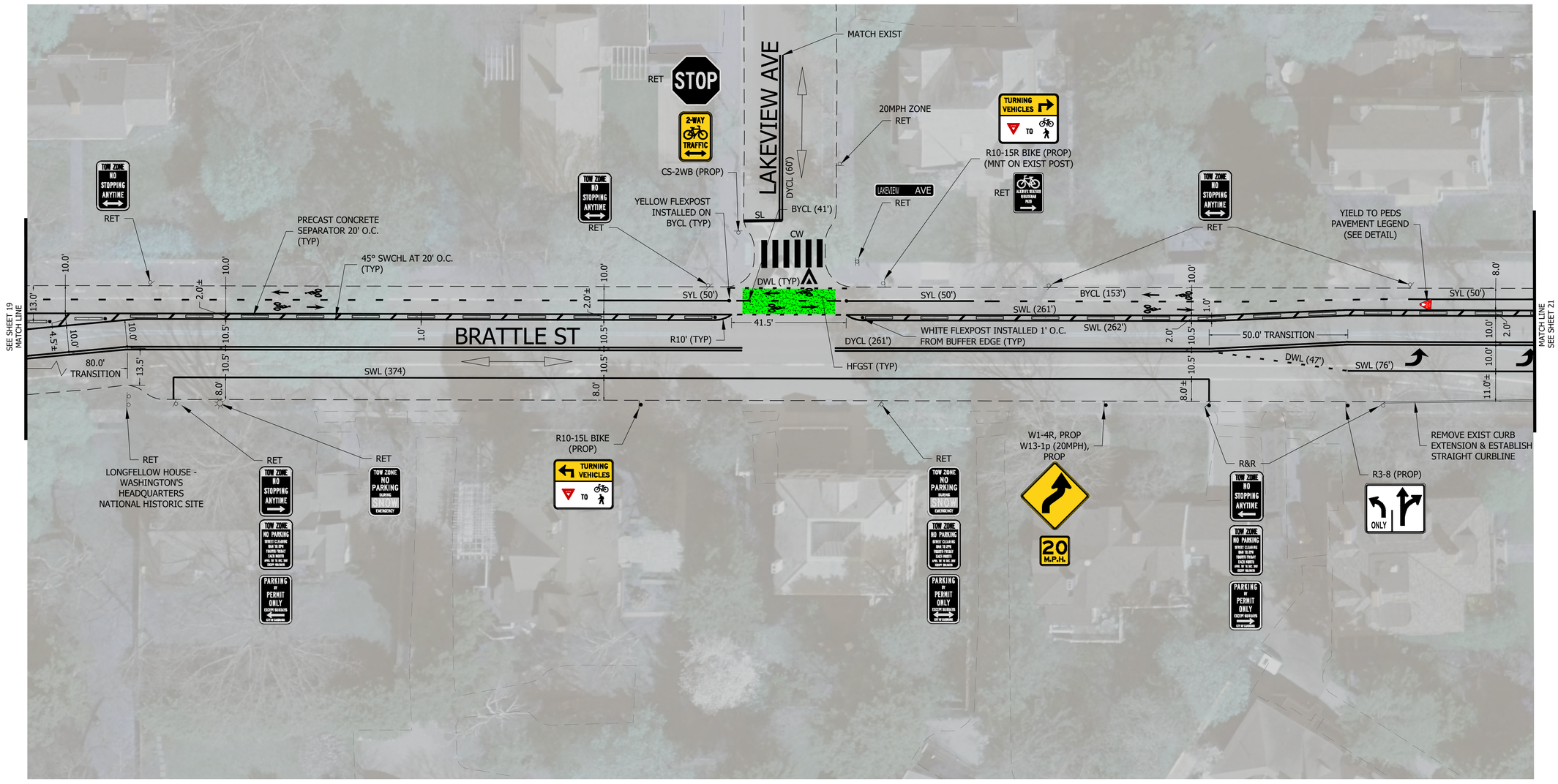
BRATTLE STREET PHASE 2

SIGNING & MARKING PLAN

SHEET NO. 19

COMMONWEALTH OF MASSACHUSETTS
RADU I. NAN
CIVIL NO. 53256
REGISTERED PROFESSIONAL ENGINEER

Plot Stamp: 6/9/2023 11:03:32 AM - Alec Donowitz
File: H:\23\23826 - Cambridge Engineering House Doctor\003 - Mass Ave and Brattle St Quick Build\design_CD\23826_CD_Brattle Plan Sheets (PH2).dwg



KITTELSON & ASSOCIATES
ONE WASHINGTON MALL, SUITE 1101
BOSTON, MA 02108
P 617.377.4000

#	DATE	REVISION	APP'D

Submission Date: 06/09/2023

Drawn:	Designed:	Checked:
AJD	AJD	RIN

PROJECT NO. 27477

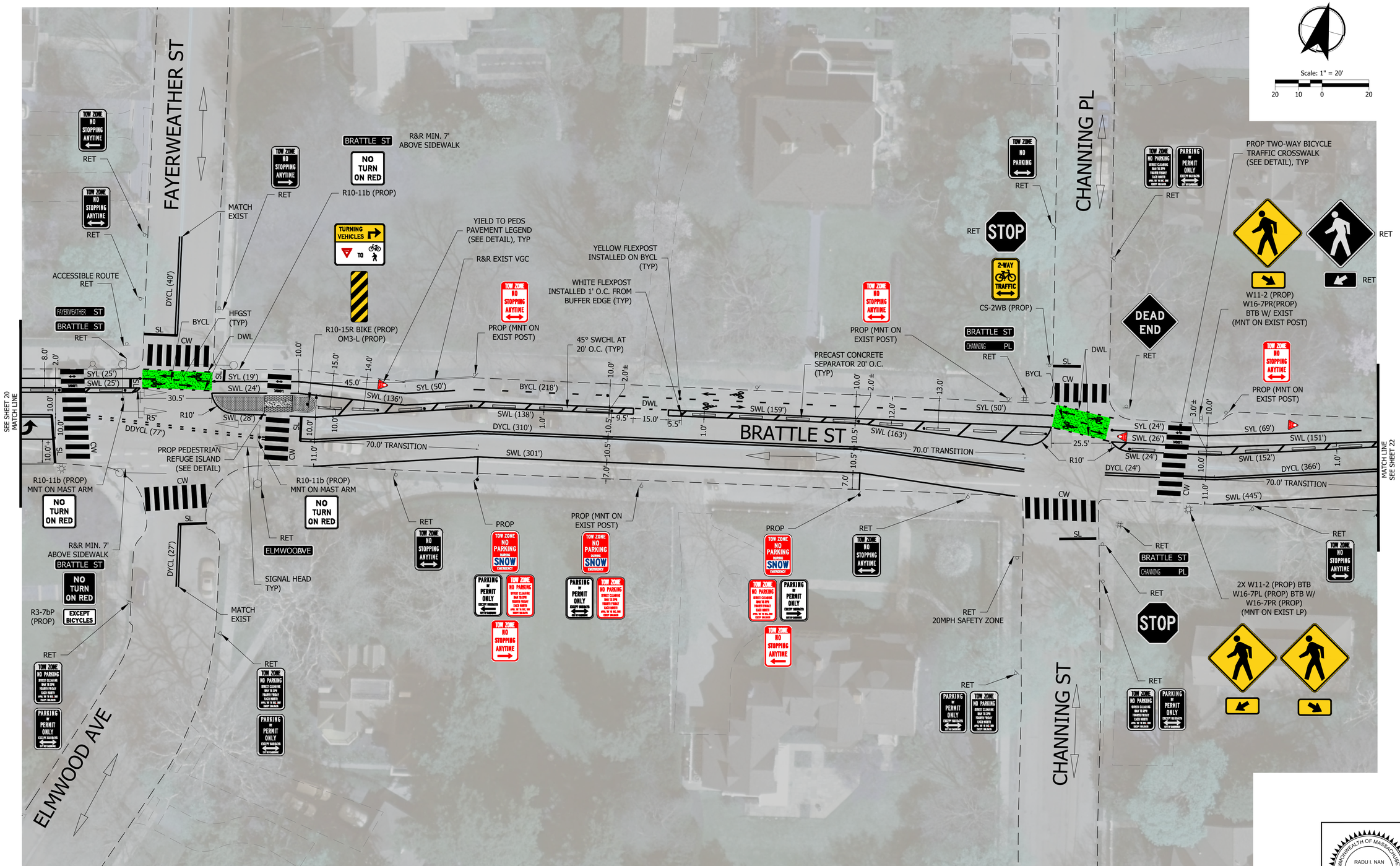
BRATTLE STREET PHASE 2

SIGNING & MARKING PLAN

COMMONWEALTH OF MASSACHUSETTS
RADU I. NAN
CIVIL
NO. 53256
REGISTERED PROFESSIONAL ENGINEER

SHEET NO. 20

Plot Stamp: 6/9/2023 11:04:05 AM - Alec Donowitz
File: H:\23\23826 - Cambridge Engineering House Doctor\003 - Mass Ave and Brattle St Quick Build\design_CD\23826_CD_Brattle Plan Sheets (PH2).dwg



KITTELSON & ASSOCIATES
ONE WASHINGTON MALL, SUITE 1101
BOSTON, MA 02108
P 617.377.4000

#	DATE	REVISION	APP'D

Submission Date: 06/09/2023

Drawn:	Designed:	Checked:
AJD	AJD	RIN

PROJECT NO. 27477

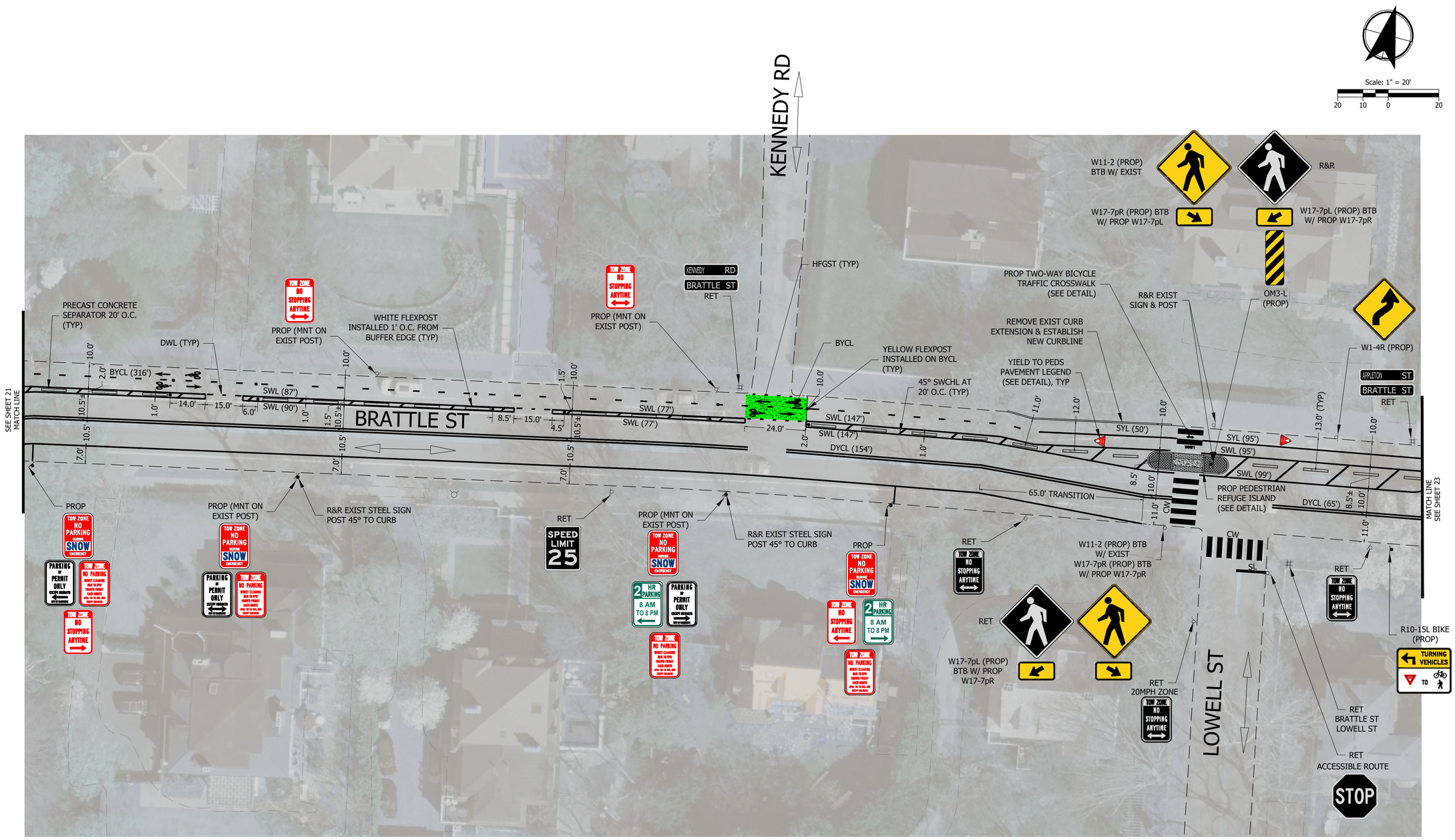
BRATTLE STREET PHASE 2

SIGNING & MARKING PLAN

COMMONWEALTH OF MASSACHUSETTS
RADU I. NAN
CIVIL
NO. 53256
REGISTERED PROFESSIONAL ENGINEER

SHEET NO. 21

Plot Stamp: 6/9/2023 11:04:44 AM - Alec Donowitz
File: H:\23\23826 - Cambridge Engineering House Doctor\003 - Mass Ave and Brattle St Quick Build\design_CD\23826_CD_Brattle Plan Sheets (PH2).dwg



KITTELSON & ASSOCIATES
ONE WASHINGTON MALL, SUITE 1101
BOSTON, MA 02108
P 617.377.4000

#	DATE	REVISION	APP'D

Submission Date: 06/09/2023

Drawn:	Designed:	Checked:
AJD	AJD	RIN

PROJECT NO. 27477

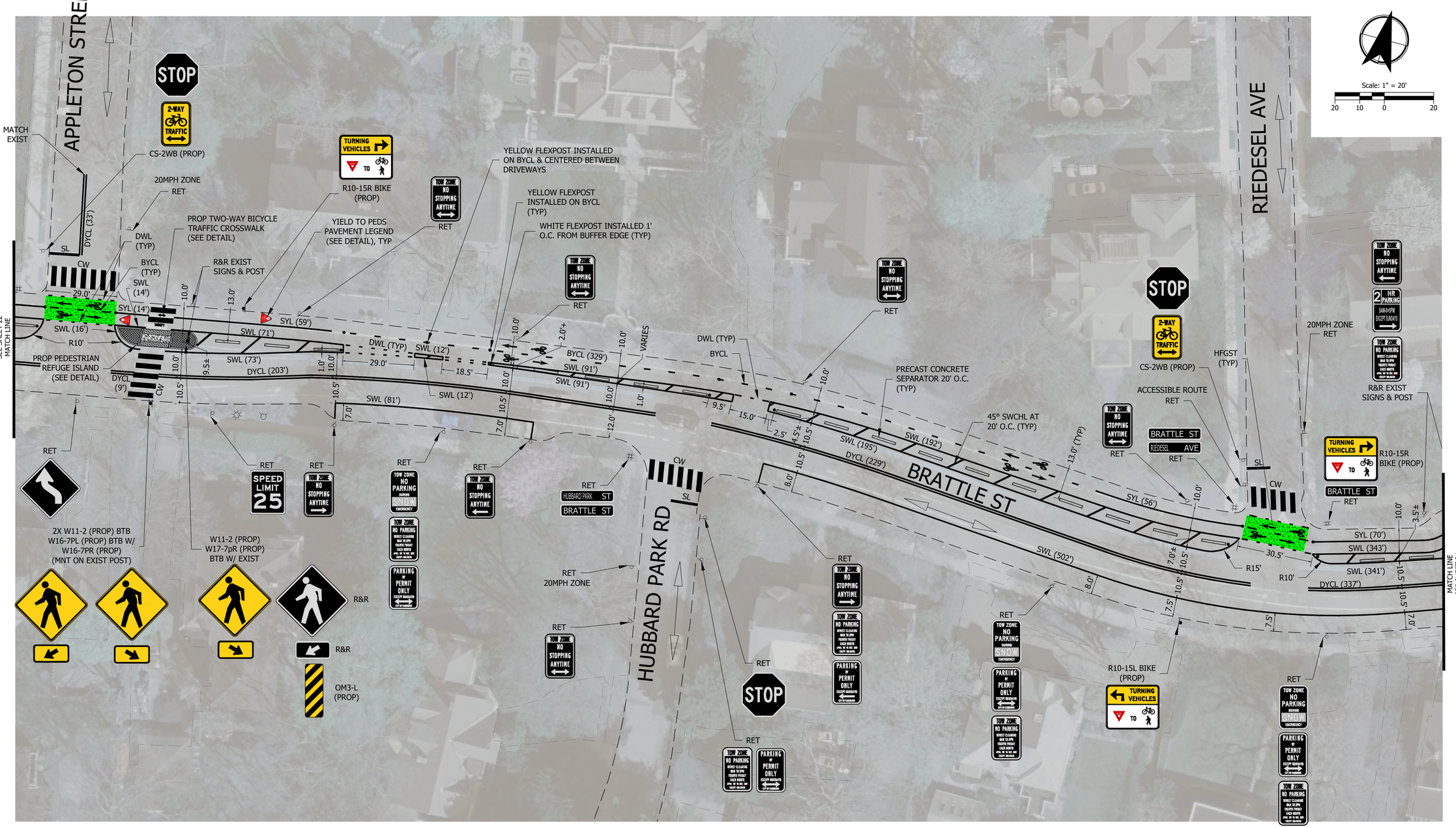
BRATTLE STREET PHASE 2

SIGNING & MARKING PLAN

SHEET NO. 22

COMMONWEALTH OF MASSACHUSETTS
RADU I. NAN
CIVIL
NO. 53256
REGISTERED PROFESSIONAL ENGINEER

Plot Stamp: 6/9/2023 11:05:25 AM - Alec Donowitz
File: H:\23\23826 - Cambridge Engineering House Doctor\003 - Mass Ave and Brattle St Quick Build\design_CD\23826_CD_Brattle Plan Sheets (PH2).dwg



Plot Stamp: 6/9/2023 11:06:00 AM - Alec Donowitz
File: H:\23\23826 - Cambridge Engineering House Doctor\003 - Mass Ave and Brattle St Quick Build\design_CD\23826_CD_Brattle Plan Sheets (PH2).dwg

KITTELSON & ASSOCIATES
ONE WASHINGTON MALL, SUITE 1101
BOSTON, MA 02108
P 617.377.4000

#	DATE	REVISION	APP'D

Submission Date: 06/09/2023

Drawn: AJD | Designed: AJD | Checked: RIN

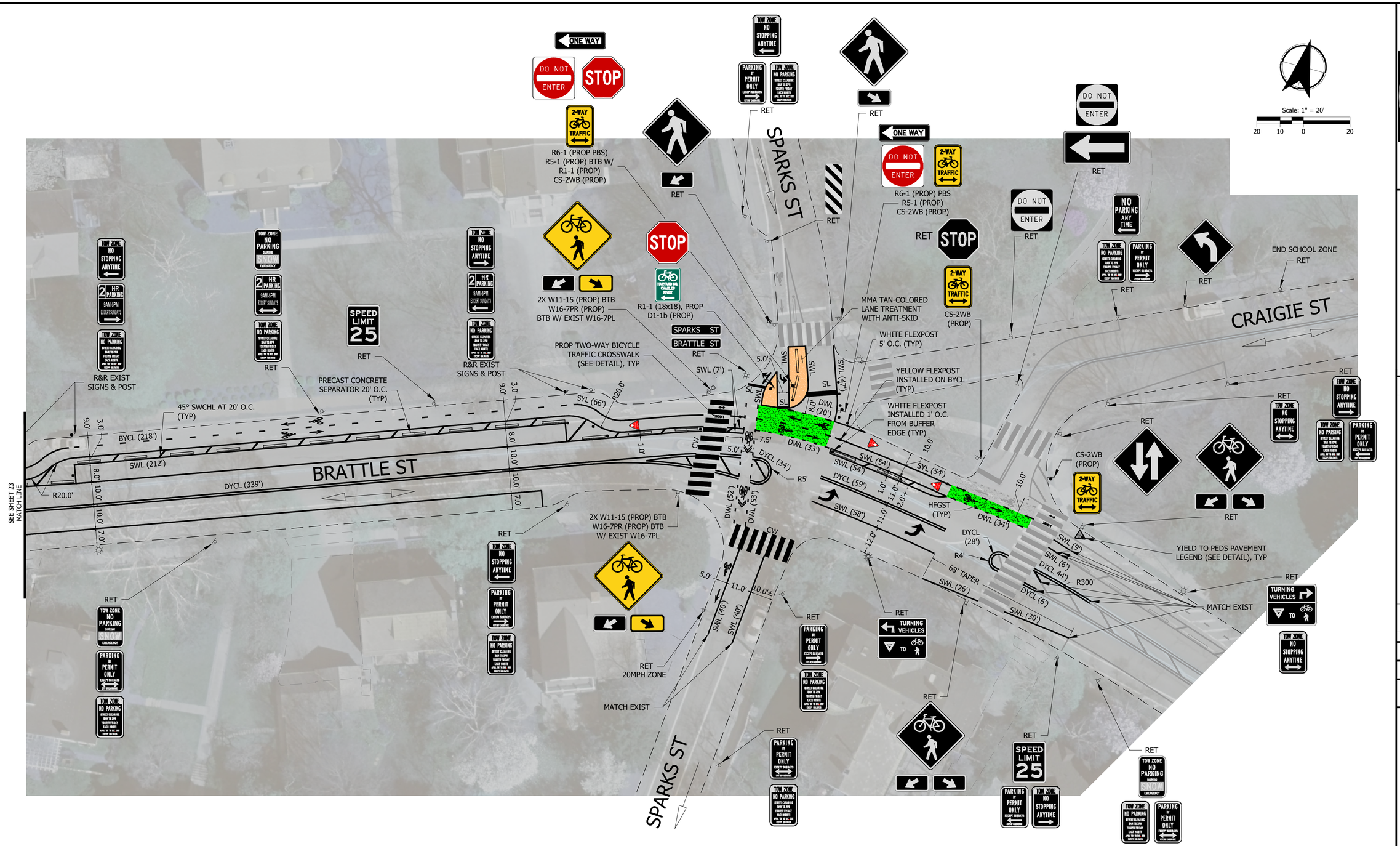
PROJECT NO. 27477

BRATTLE STREET PHASE 2

SIGNING & MARKING PLAN

COMMONWEALTH OF MASSACHUSETTS
RADU I. NAN
CIVIL
NO. 53256
REGISTERED PROFESSIONAL ENGINEER

SHEET NO. 23



KITTELSON & ASSOCIATES
ONE WASHINGTON MALL, SUITE 1101
BOSTON, MA 02108
P 617.377.4000

#	DATE	REVISION	APP'D

Submission Date: 06/09/2023

Drawn:	Designed:	Checked:
AJD	AJD	RIN

PROJECT NO. 27477

BRATTLE STREET PHASE 2

SIGNING & MARKING PLAN

COMMONWEALTH OF MASSACHUSETTS
RADU I. NAN
CIVIL
NO. 53256
REGISTERED PROFESSIONAL ENGINEER

SHEET NO. 24

Plot Stamp: 6/9/2023 11:06:33 AM - Alec Donowitz
File: H:\23\23826 - Cambridge Engineering House Doctor\003 - Mass Ave and Brattle St Quick Build\design_CD\23826_CD_Brattle Plan Sheets (PH2).dwg

TRAFFIC SIGN SUMMARY

IDENTIFI-CATION NUMBER	SIZE OF SIGN		TEXT	NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA (S.F.)	AREA IN SQUARE FEET
	WIDTH	HEIGHT			BACK-GROUND	LEGEND	BORDER			
R1-1	30	30	STOP	2	RED	WHITE	WHITE	MOUNT ON 2" POST (2)	6.25	12.50
R3-2	30	30	[NO LEFT TURN]	2	WHITE	RED/ BLACK	BLACK	MOUNT ON 2" POST (2)	6.25	12.50
R3-7bP	24	12	EXCEPT BICYCLES	1	WHITE	BLACK	BLACK	MOUNT ON EXIST POLE (1)	2.00	2.00
R3-8	30	30	[LANE CONTROL]	1	WHITE	BLACK	BLACK	MOUNT ON 2" POST (1)	6.25	6.25
R5-1	30	30	DO NOT ENTER	2	WHITE	RED/ WHITE	WHITE	MOUNT ON 2" POST (2)	6.25	12.50
R6-1	36	12	ONE WAY	2	BLACK	BLACK/ WHITE	WHITE	MOUNT ON 2" POST (2)	3.00	6.00
R7-8L	12	18	RESERVED PARKING [ACCESSIBLE] [LEFT]	1	WHITE	BLUE/ GREEN	GREEN	MOUNT ON 2" POST (1)	1.50	1.50
R7-8R	12	18	RESERVED PARKING [ACCESSIBLE] [RIGHT]	1	WHITE	BLUE/ GREEN	GREEN	MOUNT ON EXIST POST (1)	1.50	1.50
R10-11b	30	30	NO TURN ON RED	2	WHITE	BLACK	BLACK	MOUNT ON EXIST MAST ARM (2)	6.25	12.50
R10-15L BIKE	30	30	TURNING VEHICLES YIELD TO	6	YELLOW/ WHITE	BLACK/ RED	BLACK	MOUNT ON 2" POST (6)	6.25	37.50
R10-15R BIKE	30	30	TURNING VEHICLES YIELD TO	8	YELLOW/ WHITE	BLACK/ RED	BLACK	MOUNT ON 2" POST (3) & EXIST POST (5)	6.25	50.00
-	12	18	TOW ZONE NO STOPPING ANYTIME [TWO-WAY]	13	WHITE	RED/ BLACK	RED	MOUNT ON 2" POST (1), EXIST POLE (6) & EXIST POST (6)	1.50	19.50
-	12	18	TOW ZONE NO STOPPING ANYTIME [LEFT]	2	WHITE	RED/ BLACK	RED	MOUNT ON 2" POST (2)	1.50	3.00
-	12	18	TOW ZONE NO STOPPING ANYTIME [RIGHT]	3	WHITE	RED/ BLACK	RED	MOUNT ON 2" POST (2) & EXIST POST (1)	1.50	4.50
-	12	18	PARKING BY PERMIT ONLY EXCEPT SUNDAYS [TWO-WAY]	3	WHITE	BLACK	BLACK	MOUNT ON 2" POST (2) & EXIST POST (1)	1.50	4.50
-	12	18	PARKING BY PERMIT ONLY EXCEPT SUNDAYS [RIGHT]	4	WHITE	BLACK	BLACK	MOUNT ON 2" POST (3) & EXIST POST (1)	1.50	6.00
-	12	18	PARKING BY PERMIT ONLY EXCEPT SUNDAYS [LEFT]	3	WHITE	BLACK	BLACK	MOUNT ON 2" POST (3)	1.50	4.50
-	12	18	2 HR PARKING 8AM - 8PM EXCEPT SUNDAYS [LEFT]	1	WHITE	GREEN	GREEN	MOUNT ON EXIST POST (1)	1.50	1.50

IDENTIFI-CATION NUMBER	SIZE OF SIGN		TEXT	NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA (S.F.)	AREA IN SQUARE FEET
	WIDTH	HEIGHT			BACK-GROUND	LEGEND	BORDER			
-	12	18	2 HR PARKING 8AM - 8PM EXCEPT SUNDAYS [RIGHT]	1	WHITE	GREEN	GREEN	MOUNT ON 2" POST (1)	1.50	1.50
-	12	18	TOW ZONE NO PARKING STREET CLEANING 8AM TO 2PM FOURTH FRIDAY EACH MONTH	9	WHITE	RED	RED	MOUNT ON 2" POST (5) & EXIST POST (4)	1.50	13.50
-	12	18	TOW ZONE NO PARKING DURING SNOW EMERGENCY	10	RED/ WHITE	WHITE/ BLUE	WHITE	MOUNT ON 2" POST (7) & EXIST POST (3)	1.50	10.50
CS-2WB	12	18	2-WAY [BICYCLE] TRAFFIC [TWO-WAY]	11	YELLOW	BLACK	BLACK	MOUNT ON 2" POST (3) & EXIST POST (8)	1.50	16.50
W1-4R	30	30	[REVERSE CURVE]	2	YELLOW	BLACK	BLACK	MOUNT ON 2" POST (1) & EXIST POST (1)	6.25	12.50
W11-2	30	30	[PEDESTRIAN]	10	YELLOW	BLACK	BLACK	MOUNT ON 2" POST (5), EXIST POLE (2), & EXIST POST (3)	6.25	62.50
W11-15	30	30	[BICYCLE] [PEDESTRIAN]	4	YELLOW	BLACK	BLACK	MOUNT ON EXIST POST (4)	6.25	25.00
W13-1P	18	18	20 M.P.H.	1	YELLOW	BLACK	BLACK	MOUNT ON 2" POST (1)	2.25	2.25
W16-7PL	24	12	[DOWNWARDS DIAGONAL LEFT ARROW]	10	YELLOW	BLACK	BLACK	MOUNT ON 2" POST (4), EXIST POLE (1), & EXIST POST (5)	2.00	20.00
W16-7PR	24	12	[DOWNWARDS DIAGONAL RIGHT ARROW]	4	YELLOW	BLACK	BLACK	MOUNT ON 2" POST (2), EXIST POLE (1), & EXIST POST (1)	2.00	8.00
OM3-L	12	36	[DIAGONAL STRIPES]	6	YELLOW	BLACK	-	MOUNT ON 2" POST (6)	3.00	18.00
D1-1b	12	18	[BICYCLE] HARVARD SQ. CHARLES RIVER [LEFT]	1	GREEN	WHITE	WHITE	MOUNT ON 2" POST (1)	1.50	1.50

KITTELSON & ASSOCIATES
ONE WASHINGTON MALL, SUITE 1101
BOSTON, MA 02108
P 617.377.4000

#	DATE	REVISION	APP'D

Submission Date: 06/09/2023

Drawn: AJD | Designed: AJD | Checked: RIN

PROJECT NO. 27477

BRATTLE STREET PHASE 2

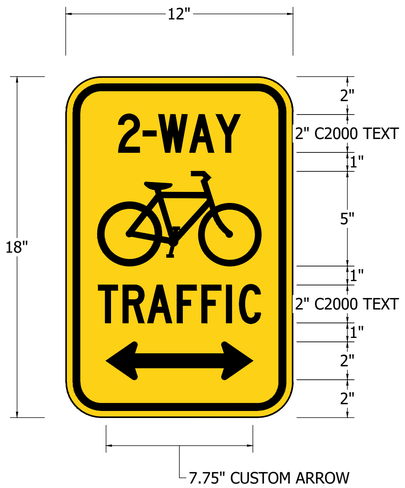
SIGN SUMMARY

SHEET NO. 25

COMMONWEALTH OF MASSACHUSETTS
RADU I. NAN
CIVIL
NO. 53256
REGISTERED PROFESSIONAL ENGINEER

Plot Stamp: 6/9/2023 11:06:36 AM - Alec Donowitz
File: H:\23\23826 - Cambridge Engineering House Doctor\003 - Mass Ave and Brattle St Quick Build\design_CD\23826_CD_Brattle Plan Sheets (PH2).dwg

TRAFFIC SIGN SUMMARY



CS-2WB
(N.T.S.)

KITTELSON & ASSOCIATES
ONE WASHINGTON MALL, SUITE 1101
BOSTON, MA 02108
P 617.377.4000

#	DATE	REVISION	APP'D

Submission Date: 06/09/2023

Drawn:	Designed:	Checked:
AJD	AJD	RIN

PROJECT NO. 27477

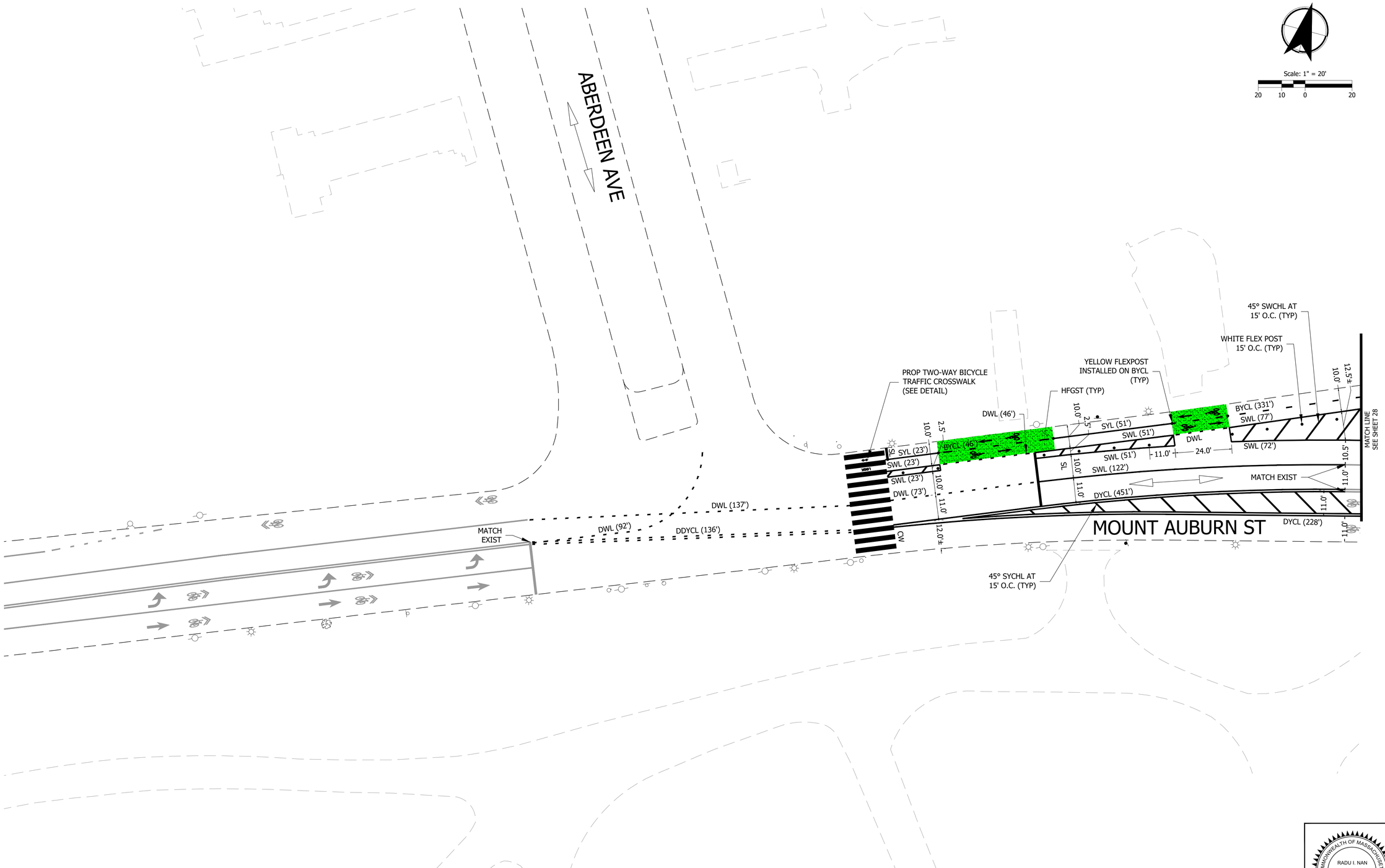
BRATTLE STREET PHASE 2

SIGN SUMMARY

SHEET NO. 26

COMMONWEALTH OF MASSACHUSETTS
RADU I. NAN
CIVIL
NO. 53256
REGISTERED PROFESSIONAL ENGINEER

Plot Stamp: 6/9/2023 11:06:37 AM - Alec Donowitz
File: H:\23\23826 - Cambridge Engineering House Doctor\003 - Mass Ave and Brattle St Quick Build\design_CD\23826_CD_Brattle Plan Sheets (PH2).dwg



KITTELSON & ASSOCIATES
ONE WASHINGTON MALL, SUITE 1101
BOSTON, MA 02108
P 617.377.4000

#	DATE	REVISION	APP'D

Submission Date: 06/09/2023

Drawn:	Designed:	Checked:
AJD	AJD	RIN

PROJECT NO. 27477

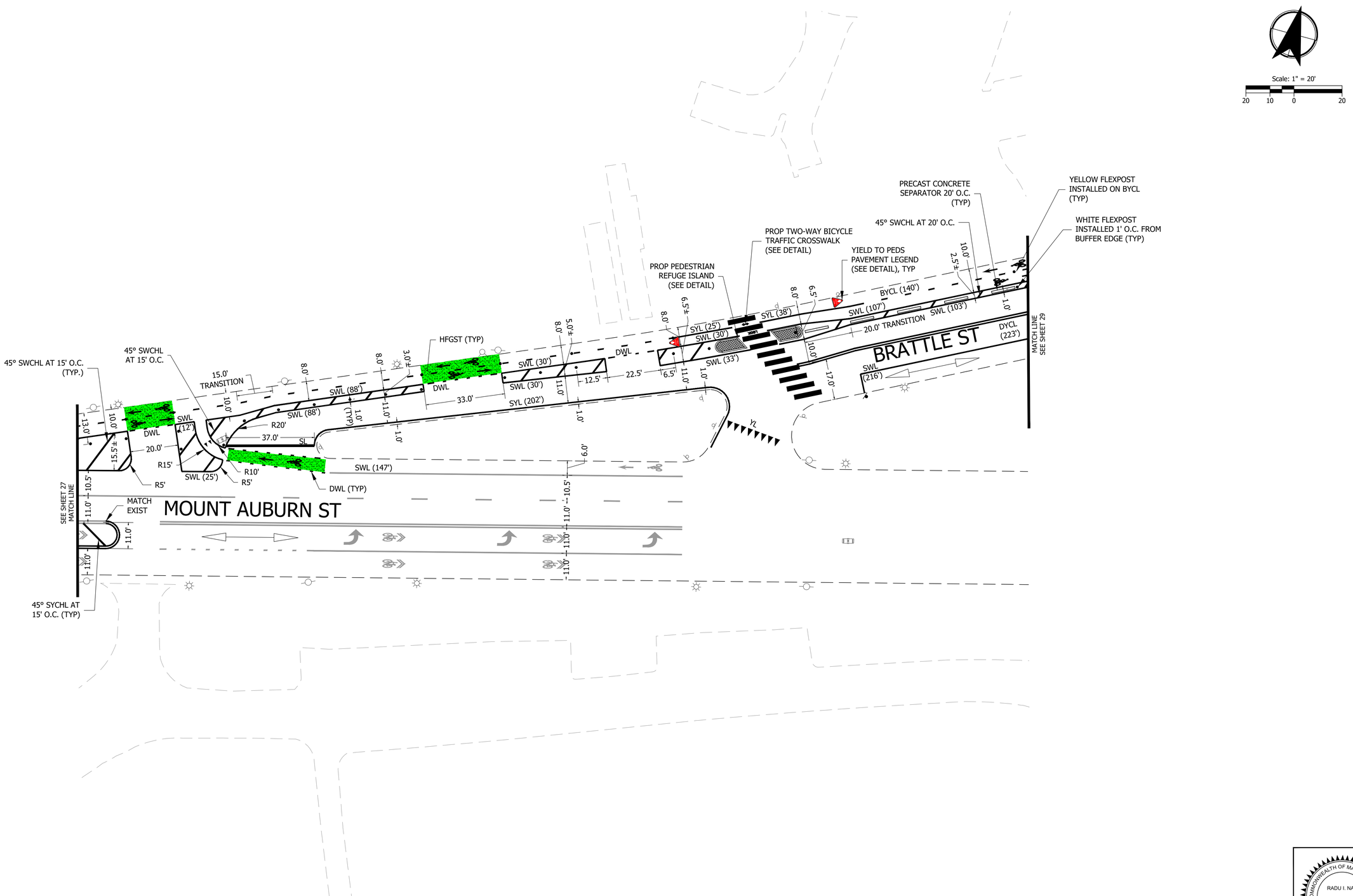
BRATTLE STREET PHASE 2

PAVEMENT MARKING PLAN

COMMONWEALTH OF MASSACHUSETTS
RADU I. NAN
CIVIL
NO. 53256
REGISTERED PROFESSIONAL ENGINEER

SHEET NO. 27

Plot Stamp: 6/9/2023 11:06:58 AM - Alec Donowitz
File: H:\23\23826 - Cambridge Engineering House Doctor\003 - Mass Ave and Brattle St Quick Build\design_CD\23826_CD_Brattle Plan Sheets (PH2).dwg



KITTELSON & ASSOCIATES
ONE WASHINGTON MALL, SUITE 1101
BOSTON, MA 02108
P 617.377.4000

#	DATE	REVISION	APP'D

Submission Date: 06/09/2023

Drawn:	Designed:	Checked:
AJD	AJD	RIN

PROJECT NO. 27477

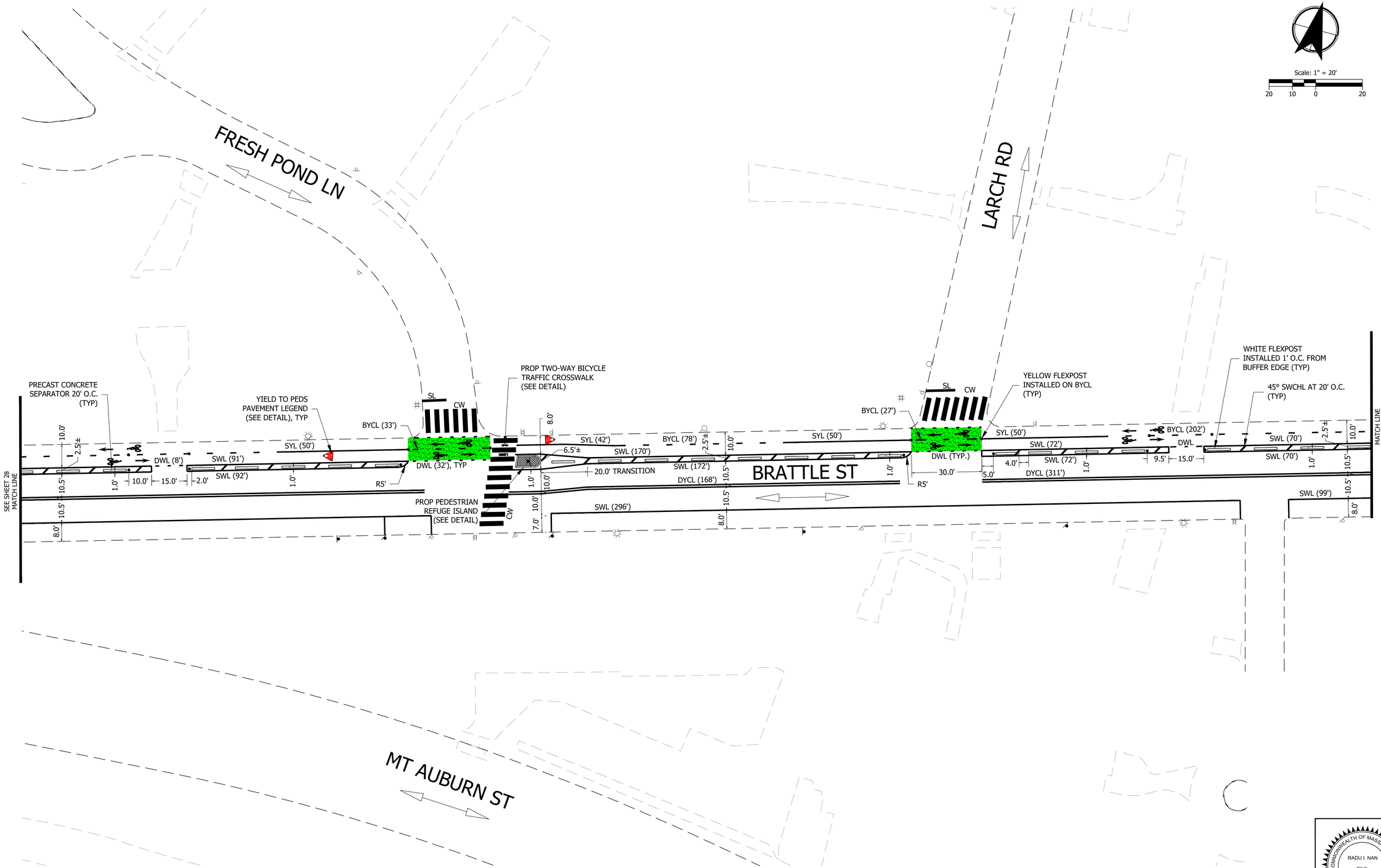
BRATTLE STREET PHASE 2

PAVEMENT MARKING PLAN

SHEET NO. 28

COMMONWEALTH OF MASSACHUSETTS
RADU I. NAN
CIVIL
NO. 53256
REGISTERED PROFESSIONAL ENGINEER

Plot Stamp: 6/9/2023 11:07:19 AM - Alec Donowitz
File: H:\23\23826 - Cambridge Engineering House Doctor\003 - Mass Ave and Brattle St Quick Build\design_CD\23826_CD_Brattle Plan Sheets (PH2).dwg



KITTELSON & ASSOCIATES
ONE WASHINGTON MALL, SUITE 1101
BOSTON, MA 02108
P 617.377.4000

#	DATE	REVISION	APP'D

Submission Date: 06/09/2023

Drawn:	Designed:	Checked:
AJD	AJD	RIN

PROJECT NO. 27477

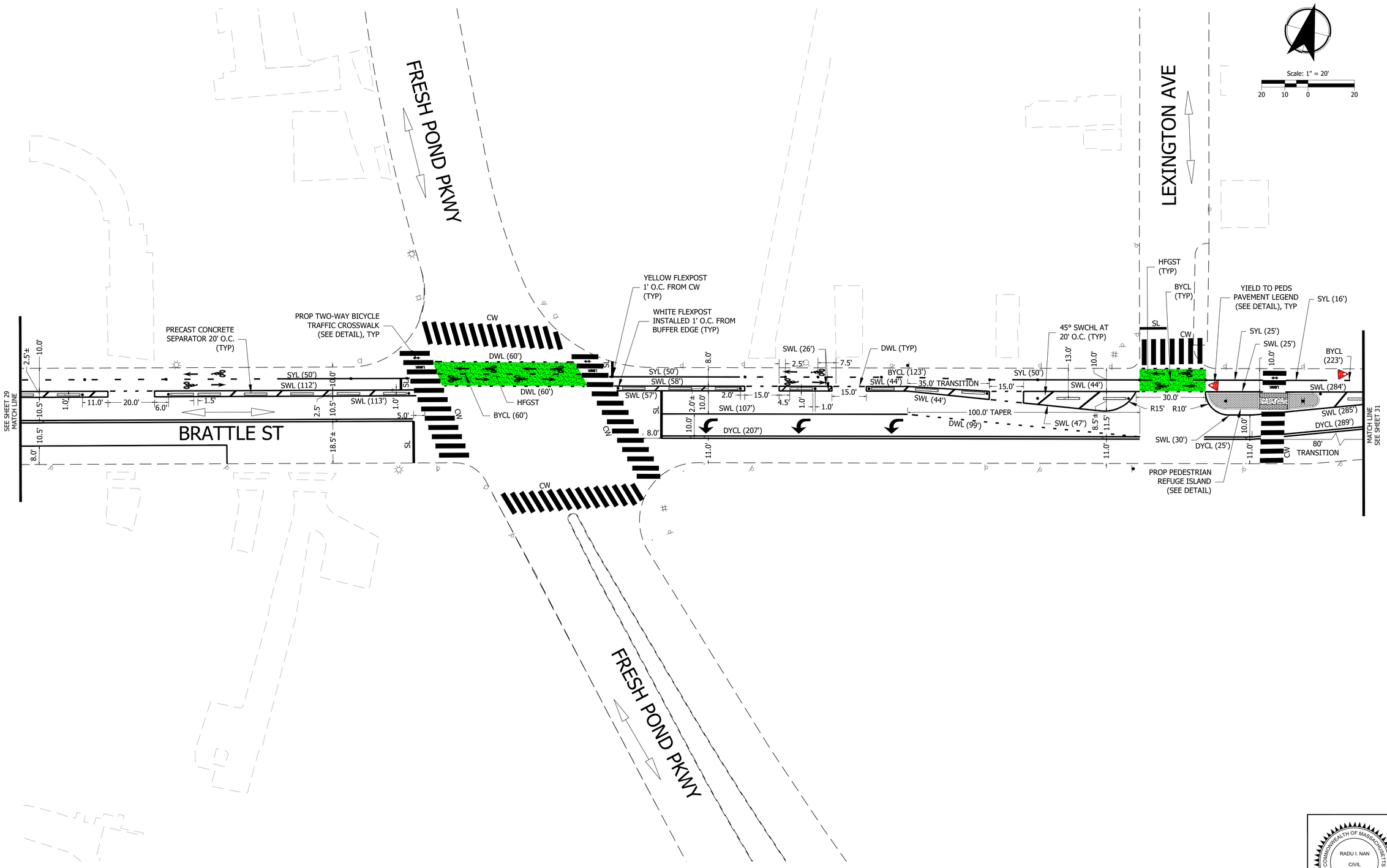
BRATTLE STREET PHASE 2

PAVEMENT MARKING PLAN

SHEET NO. 29

COMMONWEALTH OF MASSACHUSETTS
RADU I. NAN
CIVIL
NO. 53256
REGISTERED PROFESSIONAL ENGINEER
5/17/23

Plot Stamp: 6/9/2023 11:07:42 AM - Alec Donowitz
File: H:\23\23826 - Cambridge Engineering House Doctor\003 - Mass Ave and Brattle St Quick Build\design_CD\23826_CD_Brattle Plan Sheets (PH2).dwg



KITTELSON & ASSOCIATES
ONE WASHINGTON MALL, SUITE 1101
BOSTON, MA 02108
P 617.377.4000

#	DATE	REVISION	APP'D

Submission Date: 06/09/2023

Drawn:	Designed:	Checked:
AJD	AJD	RIN

PROJECT NO. 27477

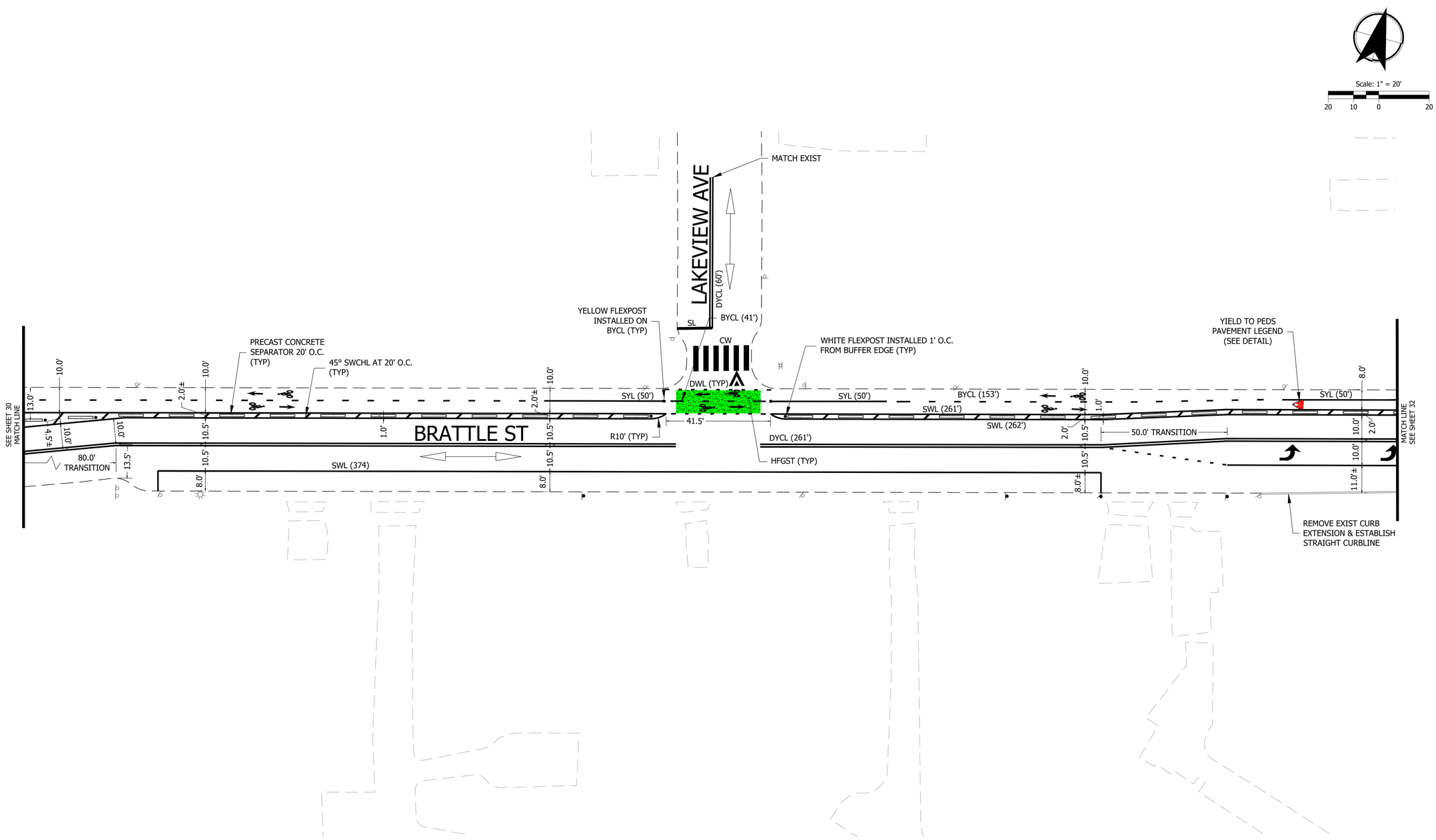
BRATTLE STREET PHASE 2

PAVEMENT MARKING PLAN

SHEET NO. 30

COMMONWEALTH OF MASSACHUSETTS
RADU I. NAN
CIVIL
NO. 53256
REGISTERED PROFESSIONAL ENGINEER

Plot Stamp: 6/9/2023 11:08:03 AM - Alec Donowitz
File: H:\23\23826 - Cambridge Engineering House Doctor\003 - Mass Ave and Brattle St Quick Build\design_CD\23826_CD_Brattle Plan Sheets (PH2).dwg



KITTELSON & ASSOCIATES
ONE WASHINGTON MALL, SUITE 1101
BOSTON, MA 02108
P 617.377.4000

#	DATE	REVISION	APP'D

Submission Date: 06/09/2023

Drawn:	Designed:	Checked:
AJD	AJD	RIN

PROJECT NO. 27477

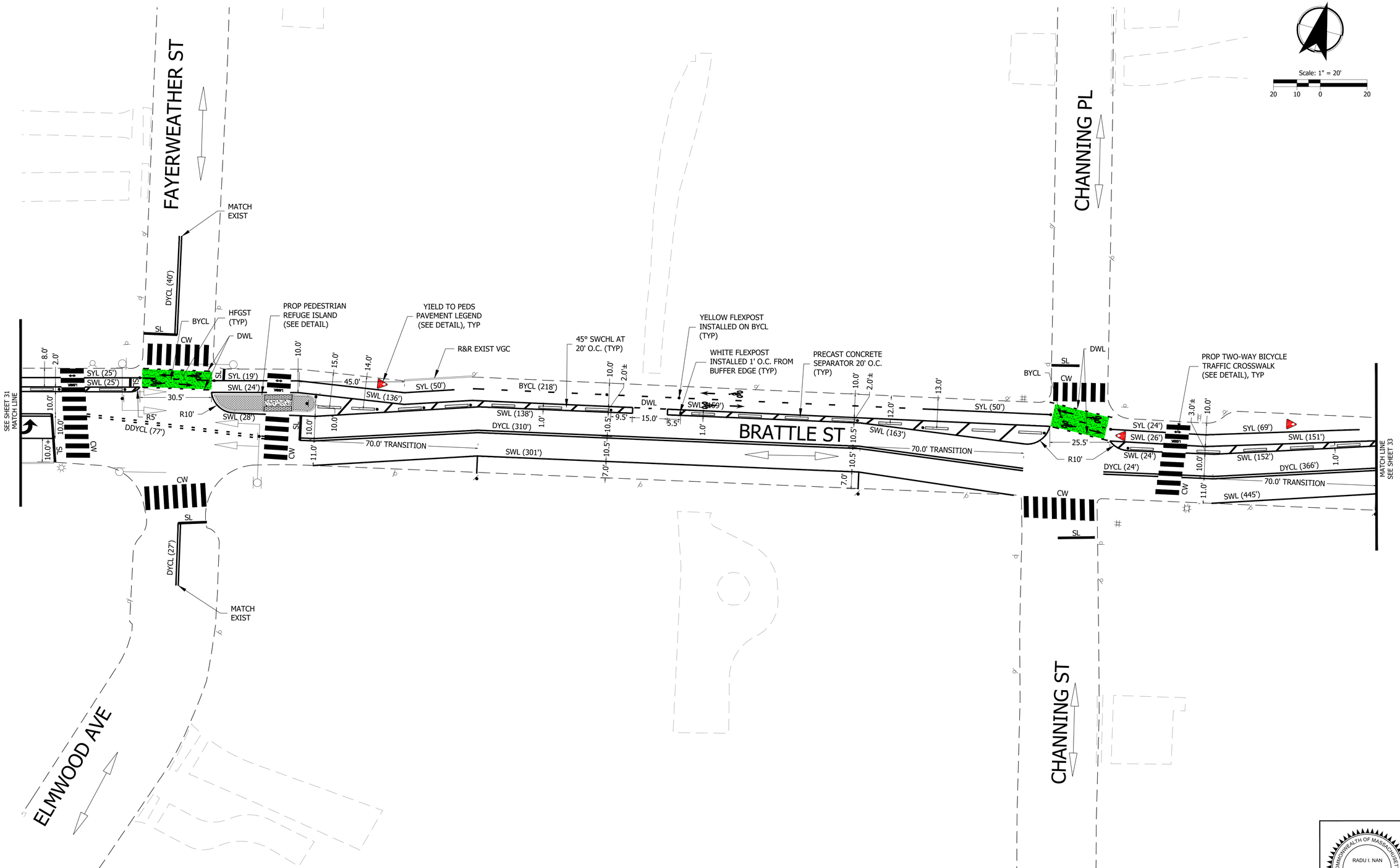
BRATTLE STREET PHASE 2

PAVEMENT MARKING PLAN

COMMONWEALTH OF MASSACHUSETTS
RADU I. NAN
CIVIL
NO. 53256
REGISTERED PROFESSIONAL ENGINEER

SHEET NO. 31

Plot Stamp: 6/9/2023 11:08:24 AM - Alec Donowitz
File: H:\23\23826 - Cambridge Engineering House Doctor\003 - Mass Ave and Brattle St Quick Build\design_CD\23826_CD_Brattle Plan Sheets (PH2).dwg



KITTELSON & ASSOCIATES
ONE WASHINGTON MALL, SUITE 1101
BOSTON, MA 02108
P 617.377.4000

#	DATE	REVISION	APP'D

Submission Date: 06/09/2023

Drawn:	Designed:	Checked:
AJD	AJD	RIN

PROJECT NO. 27477

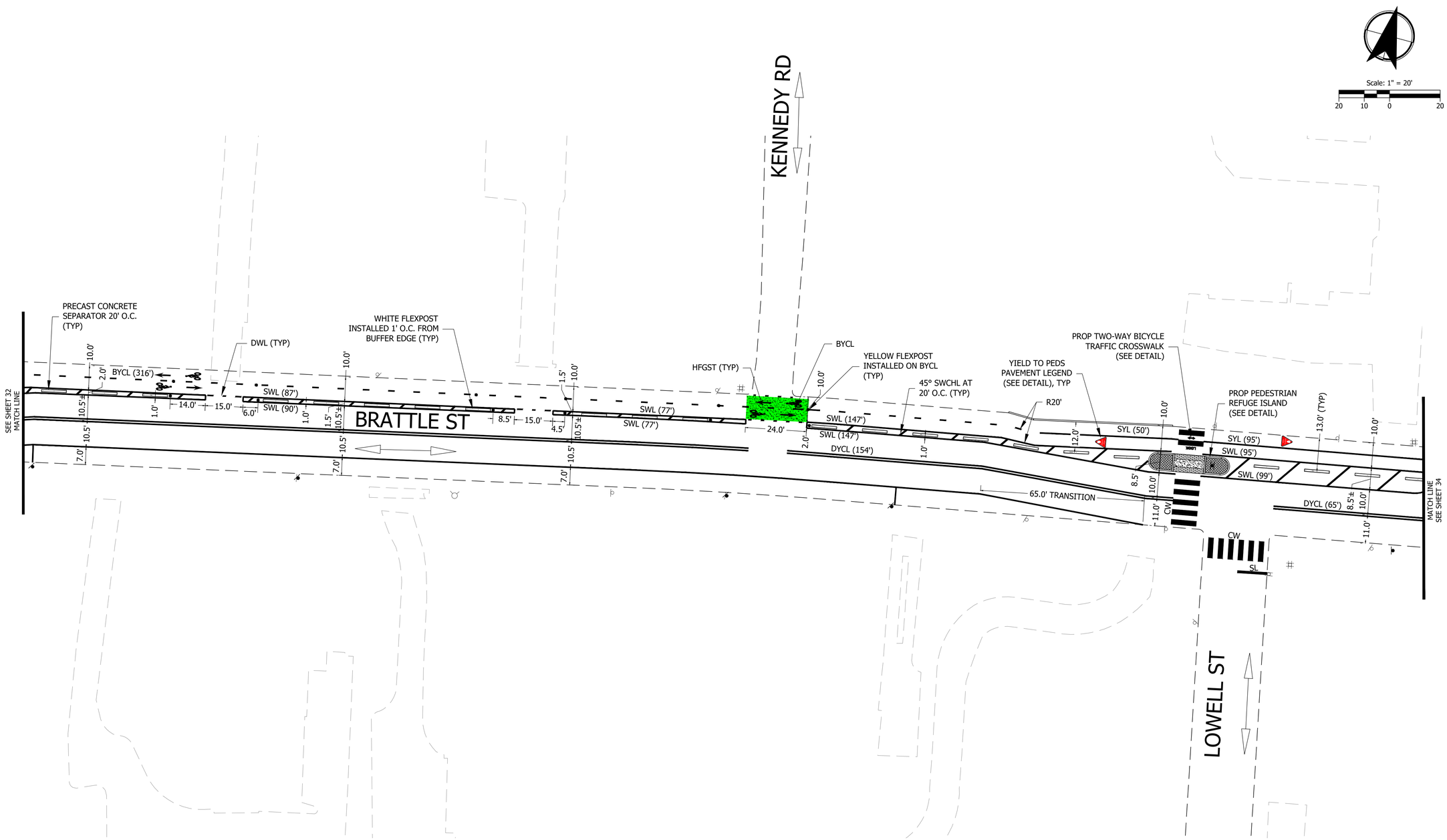
BRATTLE STREET PHASE 2

PAVEMENT MARKING PLAN

COMMONWEALTH OF MASSACHUSETTS
RADU I. NAN
CIVIL
NO. 53256
REGISTERED PROFESSIONAL ENGINEER

SHEET NO. 32

Plot Stamp: 6/9/2023 11:08:45 AM - Alec Donowitz
File: H:\23\23826 - Cambridge Engineering House Doctor\003 - Mass Ave and Brattle St Quick Build\design_CD\23826_CD_Brattle Plan Sheets (PH2).dwg



KITTELSON & ASSOCIATES
ONE WASHINGTON MALL, SUITE 1101
BOSTON, MA 02108
P 617.377.4000

#	DATE	REVISION	APP'D

Submission Date: 06/09/2023

Drawn:	Designed:	Checked:
AJD	AJD	RIN

PROJECT NO. 27477

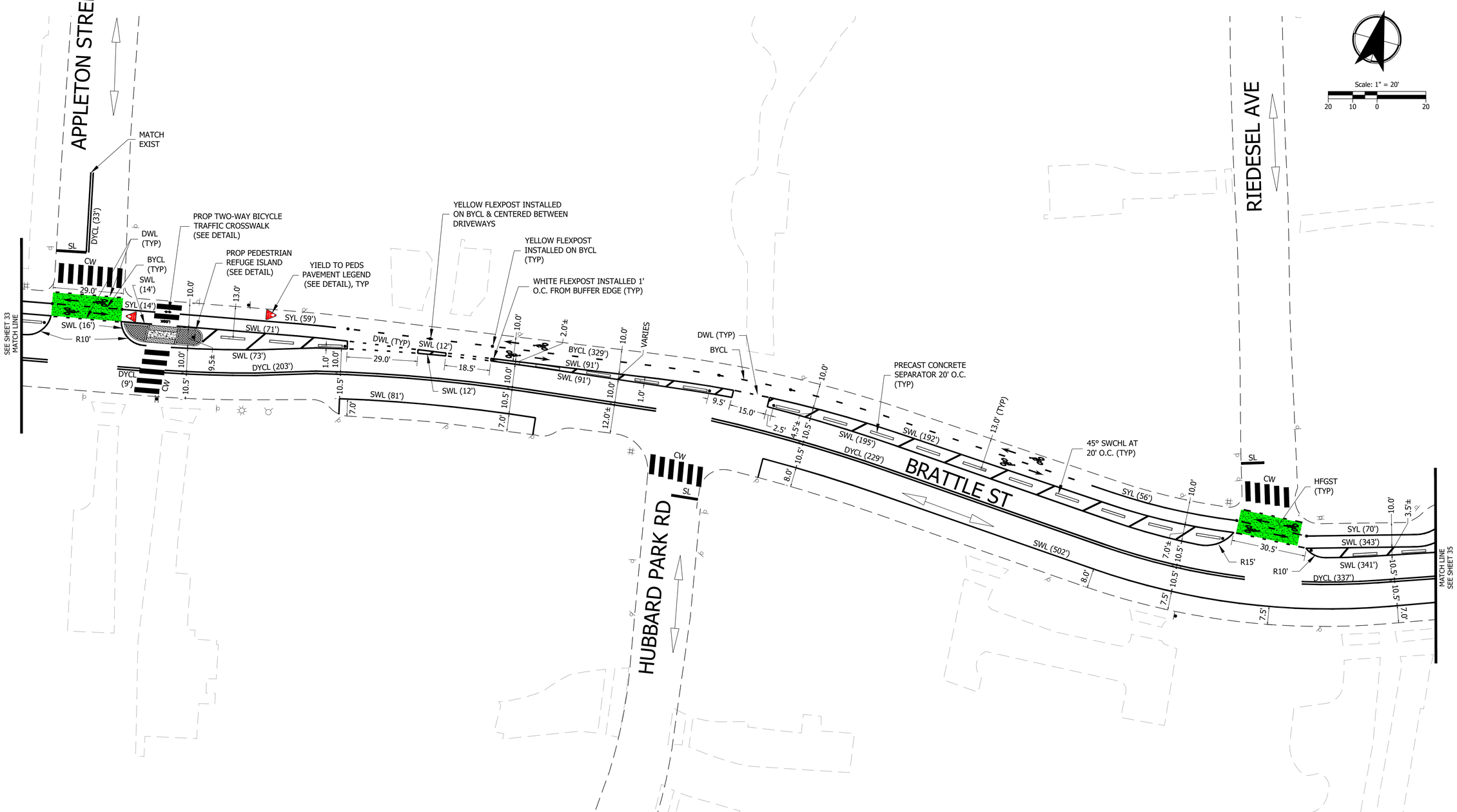
BRATTLE STREET PHASE 2

PAVEMENT MARKING PLAN

SHEET NO. 33

COMMONWEALTH OF MASSACHUSETTS
RADU I. NAN
CIVIL
NO. 53256
REGISTERED PROFESSIONAL ENGINEER

Plot Stamp: 6/9/2023 11:09:06 AM - Alec Donowitz
File: H:\23\23826 - Cambridge Engineering House Doctor\003 - Mass Ave and Brattle St Quick Build\design_CD\23826_CD_Brattle Plan Sheets (PH2).dwg



KITTELSON & ASSOCIATES
ONE WASHINGTON MALL, SUITE 1101
BOSTON, MA 02108
P 617.377.4000

#	DATE	REVISION	APP'D

Submission Date: 06/09/2023

Drawn:	Designed:	Checked:
AJD	AJD	RIN

PROJECT NO. 27477

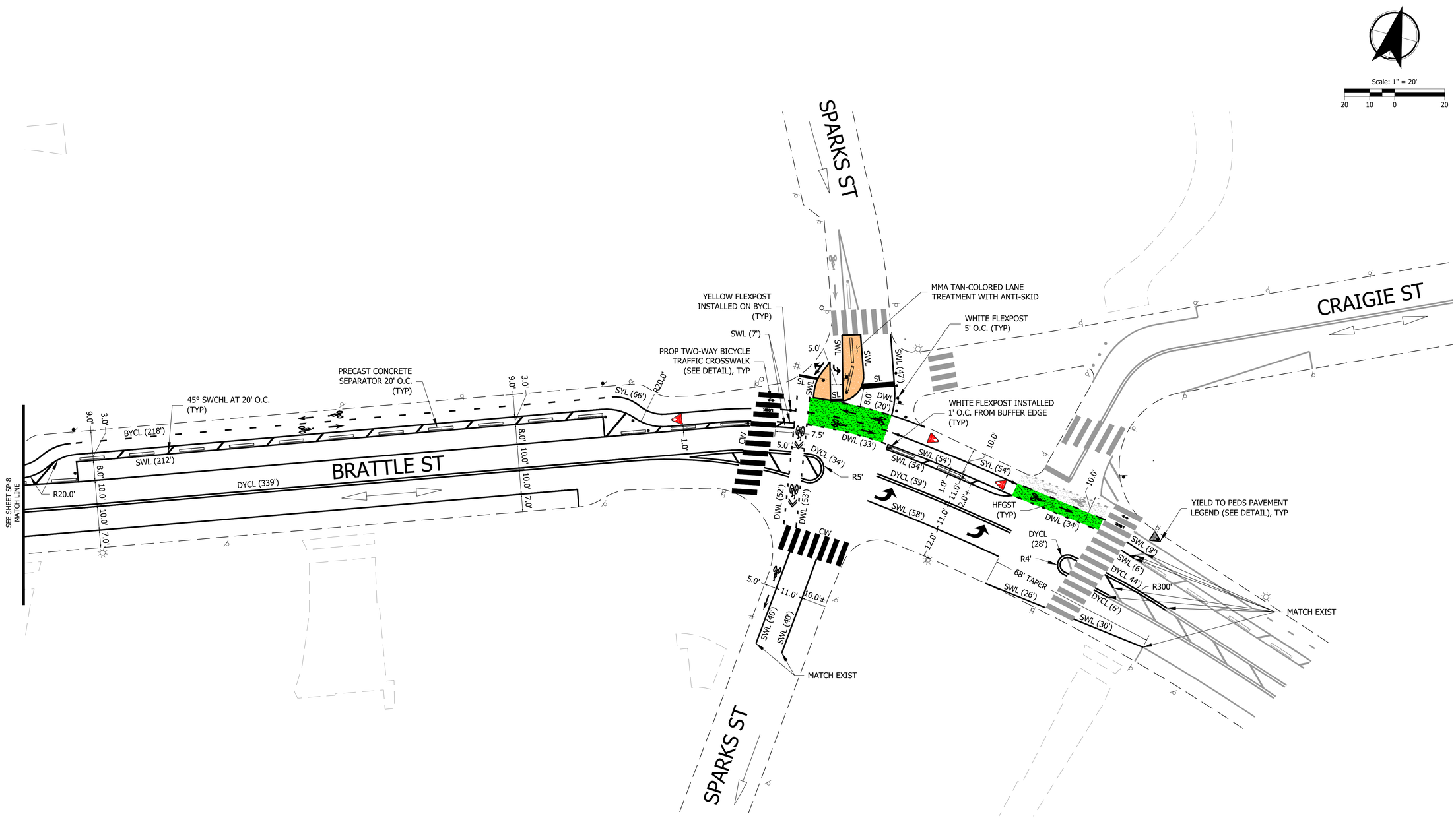
BRATTLE STREET PHASE 2

PAVEMENT MARKING PLAN

COMMONWEALTH OF MASSACHUSETTS
RADU I. NAN
CIVIL
NO. 53256
REGISTERED PROFESSIONAL ENGINEER

SHEET NO. 34

Plot Stamp: 6/9/2023 11:09:26 AM - Alec Donowitz
File: H:\23\23826 - Cambridge Engineering House Doctor\003 - Mass Ave and Brattle St Quick Build\design_CD\23826_CD_Brattle Plan Sheets (PH2).dwg



KITTELSON & ASSOCIATES
ONE WASHINGTON MALL, SUITE 1101
BOSTON, MA 02108
P 617.377.4000

#	DATE	REVISION	APP'D

Submission Date: 06/09/2023

Drawn:	Designed:	Checked:
AJD	AJD	RIN

PROJECT NO. 27477

BRATTLE STREET PHASE 2

PAVEMENT MARKING PLAN

COMMONWEALTH OF MASSACHUSETTS
RADU I. NAN
CIVIL
NO. 53256
REGISTERED PROFESSIONAL ENGINEER

SHEET NO. 35

Plot Stamp: 6/9/2023 11:09:47 AM - Alec Donowitz
File: H:\23\23826 - Cambridge Engineering House Doctor\003 - Mass Ave and Brattle St Quick Build\design_CD\23826_CD_Brattle Plan Sheets (PH2).dwg