

March 25, 2019

Prepared for:

Union Square RELP Master Developer LLC

Prepared by:

Stantec Consulting Services

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Executive Summary

The currently proposed D2 Block portion of the Union Square Revitalization will be constructed within an approximately 154,000 square foot parcel (3.54 acres) parcel of land within the approved Union Square Redevelopment area in Somerville, Massachusetts. This development site is bordered to the north by Somerville Avenue, to the east by residential and commercial properties and Allen Street, to the south by MBTA railroad tracks, and to the west by Prospect street. The development site includes three parcels which will be referred to as D2.1, D2.2 and D2.3. Two structures are proposed, with an internal lot line dividing the D2.3 and D2.3 parcels. The D2.1 project will consist of a commercial/life-science building while the D2.2 and D2.3 will be mixed used residential. D2.2 and D2.3, although distinct buildings for DSPR purposes, will operate as one residential project. Combined, the three building projects total approximately 195,550 SF of commercial space, with 21,430 SF being retail, 16,220 SF dedicated to Arts and Creative Economy uses, and the balance Office or Lab space. The residential portion of the project includes 450 dwelling units.

D2.1 is a 7-story, approximately 178,890 square foot commercial life-science building. It is comprised of approximately 12,090 square feet of ground floor retail, above which 166,800 square feet of commercial space is distributed across 6 additional levels. Approximately 8,900 square feet of this commercial area will be dedicated to Arts and Creative Enterprise uses. Parking needs of D2.1 will be accommodated by the shared parking garage that sits below the D2.2 and D2.3 building footprints. D2.1 loading and servicing occurs through a three-bay loading docking accessible via the new D2 Alley. Two WB-40 trucks will provide service to commercial tenants on upper levels while a smaller bay for single unit trucks will provide for retail servicing. 58 bicycle parking spaces will be provided for D2.1 44 of these spaces will be sheltered and secured within a dedicated bicycle parking area at the ground floor. 14 additional spaces will be provided at the building's exterior for short-term use.

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TRANSPORTATION ACCESS PLAN | Union Square Revitalization Parcel D2.1

TRANSPORTATION ACCESS PLAN

1.0 ILLUSTRATIVE SITE PLAN

The proposed D2.1 development (Office/Lab | Union Square Revitalization) will be located on the corner of Somerville Avenue and Prospect Street, abutting the proposed thoroughfare on the East and Bennett Court on the west. The D2.1 development will be a stand-alone structure that shares parking and civic amenities located on the D2.2 and D2.3 parcels.

The attached illustrative site plan depicts the site landscaping and ground level floor plans.

2.0 TRANSPORTATION ELEMENTS PLAN

The D2.1 parcel abuts the public sidewalk along Prospect Street and Somerville Avenue, as part of the project the public sidewalks along Prospect Street side will be rehabilitated and widened including the addition of streetscape and connections to the civil space located on the D2 parcel. The City of Somerville will reconstruct the sidewalk along Somerville Avenue as part of its Somerville Avenue Utility Improvement Project, resulting in a wider pedestrian path and improved streetscape prior to occupancy of D2.1. Two curb cuts will be created, one for Bennett Court and one for Milk alley. Three curb cuts along Prospect Street and two along Somerville Avenue will be closed resulting in a net reduction of three curb cuts.

The attached transportation elements plan (Figure 2) depicts proposed transportation elements in blue, existing to be removed in red and existing to remain in grey.

2.0.1 STREET SIGNAGE

Street signage will be provided along Milk Alley, Charlestown Place and Bennett Court to enforce parking regulations and increase pedestrian safety. All intersections will be stop controlled and pedestrian crossing signs will be installed on both sides of the Bennett Court and Charlestown Place crosswalks. Parking enforcement signs for short term drop off / pick will be installed at the end of the Charlestown Place near the entrance to the MBTA station and Bennett Court. Two building mounted no parking signs will be posted on the Alley side of D2.1 and an additional four no parking signs on sign posts will be installed along Bennett Court. The Prospect Street and Somerville Avenue sides of the building will not require signage. The attached transportation elements plan (Figure 2) shows all proposed sign locations.

2.0.2 PAVEMENT MARKINGS

Pavement markings will be limited to stop bars at each stop-controlled intersection, crosswalk markings at the intersection of the alley and Somerville Avenue, Bennett Court and Charlestown Place and Short-Term parking along Charlestown Place. The attached transportation elements plan (Figure 2) shows all proposed pavement markings.



TRANSPORTATION ACCESS PLAN | Union Square Revitalization Parcel D2.1

2.0.3 STREET FURNITURE

The D2.1 parcel will abut the public sidewalks along Prospect Street and Somerville Avenue (both are designated as pedestrian streets in the Union Square zoning), as a result an effort has been made to reduce street furniture within primary pedestrian routes in the public right of way. Amenities such as benches and seating areas are concentrated in the civic space where ample space is available. Short-term bicycle parking has been consolidated to provide parking on the exterior of each building without reducing sidewalk width.

3.0 PEDESTRIAN ACCESS PLAN

Pedestrian access is available on all faces of the building, by way of either sidewalks or the civic space connecting to Bennett Court. Bennett Court, located on the southern side of the D2.1 parcel, will be a flush plaza designed to promote pedestrian access between the Green Line and the project site. Vehicular access will also occur through Bennett Court and deliveries will be coordinated with the property manager and encouraged to occur during off peak hours. Consistent with the CDSP, the proposed civic spaces are concentrated around the new Green Line Union Square MBTA station and along the Prospect Street frontage (a designated pedestrian street in the Union Square Zoning) in order to create a strong pedestrian connection between Union Square Station and the Union Square Plaza. The primary access for vehicles will be the alley allowing the proposed building structures to separate primary onsite pedestrian activity and onsite vehicular activity zones.

Pedestrians will be encouraged to use entry points along Prospect Street and Somerville Avenue. On site pedestrian walkways and seating areas will be located within the civic space parallel to Prospect Street. The intersection of Bennett Court and Prospect Street will be at grade connecting the pedestrian plaza to the public right of way and providing ADA access to the Project and MBTA Union Square Station. Sidewalks with variable width will be provided on all sides of the D2.1 structure. Along the Milk Alley side of D2.1, 4.0' minimum clear width sidewalks are provided, pedestrian access widens to a 6' minimum clear width along Bennett Court, 7' minimum clear width along Prospect Street and a 12'+ along Somerville Avenue. Sidewalks will connect to the residential neighborhood along Charlestown Street providing pedestrian access to and from the MBTA station as well as the civic space.

Transit Access

The Union Square Area is currently served by several MBTA bus service stops within a half-mile radius and rapid transit via the orange approximately one mile away (Sullivan Square). With the addition of the Union Square Green Line station the D2 parcel will become a transit hub. Consistent with the goals of the Union Square Revitalization Plan, the project will help facilitate improved public transit service by constructing critical improvements that benefit the future Union Square Station and access to it.

Pedestrian and bicycle access will be considerably improved, public sidewalks along Prospect Street and Somerville Avenue will be widened and connected to the civic space. Public sheltered bicycle parking will be provided directly adjacent to the MBTA platform, accessible from the north via Milk Alley which provides connectivity to Somerville's existing bicycle path network. The proposed thoroughfare will also connect Charlestown Place to the existing residential neighborhood to the South-East of the project site. The new east-west connection will provide a point of access to the site and future MBTA station.



Transit riders using vehicles to access the site will have public parking available in the garage, with spaces dedicated for carpools, vanpools, car-share vehicles and green vehicles among others. The MBTA's The Ride paratransit service will also be accommodated on site. Located at the end of Charlestown Place in a prioritized location within 100 feet of the MBTA station entry, a designated accessible drop off area for The Ride vehicle will be supported with a five foot wide access aisle in compliance with MassDOT requirements. East of the preferred point of arrival, three additional short-term parking spaces facilitate short term delivery and pick up of passengers and remain within convenient distance of the station.

4.0 BICYCLE PARKING PLAN

Existing bicycle paths located or planned along Prospect Street and Somerville Avenue will remain in the proposed condition. Primary access for the bicycles will be provided through the alley from Somerville Avenue. Along this section of Somerville Avenue the bicycle track lane runs next to the sidewalk and is vertically separated from vehicular lanes allowing bicycle access to the D2.1 site without creating a turning movement conflict.

Bicycle parking for D2.1 parcel will be provided on the D2.1 site with 61 spaces. 47 of these spaces will be interior and 14 additional spaces will be located on the exterior of the building for short term use. Bicycle requirements have been determined using the City of Somerville's short term and long-term rates based on proposed program. The results are summarized in Table 2 below. A bicycle parking plan (Figure 4) is also included depicting the locations of interior long-term parking and exterior short-term bicycle parking allocated for D2.1.

Use Category	Short Term (Minimum)	Long Term (Minimum)	Program Area (SF / RM / DU)	Short Term Req.	Long Term Req.
Arts & Creative Enterprise	1.0 PER 10,000 SF	1.0 PER 3,000 SF	8,800	1	3
Office	1.0 PER 20,000 SF	1.0 PER 3,000 SF	62,300	3	21
Lab	1.0 PER 20,000 SF	1.0 PER 5,000 SF	95,600	5	20
Retail	1.0 PER 2,500 SF	1.0 PER 10,000 SF	12,090	5	2
			Total	14	46

Table 2 – Short Term and Long Term Bicycle Parking Calculations

5.0 MOTOR VEHICLE PARKING PLAN

Vehicular On Street

On street parking is currently not permitted along the project frontage and no modifications will be made as part of the proposed development. A short-term drop-off / pick up area accommodating up to three vehicles and one additional space dedicated for ADA / the RIDE drop off will be included as part Charlestown Place adjacent to the MBTA station. Two Drop-off spaces, for shared use between Parcel D2.2 and D2.1 will be located on the South side of Bennett Court.



Vehicular Off Street

Parking needs of the D2.1 parcel will be accommodated by the shared parking garage located on the D2.2 / D2.3 parcels. The parking garage will be a three-story garage with approximately 269 total parking spaces. 51 of which will be designates for compact cars and 14 EV spaces with dual charging stations, 10 electric charging stations, 14 carpool spaces and 7 ADA accessible spaces. Parking will be evenly distributed across all three levels, with 82 spaces on the level 1, 109 on level 2 and 78 on level 3. Entrance and exit for the garage and the D2.1 interior loading dock are provided from the alley. Four drop-off parking spaces are located along Charlestown Place that will be shared for the D2 development and serve MBTA's The Ride paratransit program.

Parking Demand

Off-street parking requirements for the Union Square Overlay district (USQ) mandate a maximum number of parking spaces to promote alternate methods of transportation and will work in concert with the Project's transportation demand management strategies. Parking demand has been estimated using a demand model provided by the City of Somerville, the results are summarized in Table 3 below. Ultimately, as a shared and "unbundled" resource, parking by building use for each of D2.1, D2.2, and D2.3 will vary from demand calculations.

Building Use	GSF	Adjusted Rate	Required Parking
Office / Lab / Creative	166,800 SF	0.80 / 1,000 SF	133
Retail	12,090 SF	1.52 / 1,000 SF	18
Total	178,890	Total	151

Table 3 – D2.1 Vehicular Parking Demand Calculations

Vehicular parking plans (Figure 5A, 5B and 5C) is included with this narrative depict motor vehicle parking locations on site and within each floor of the shared parking garage.

6.0 VEHICULAR MOVEMENT PLAN

Loading Access

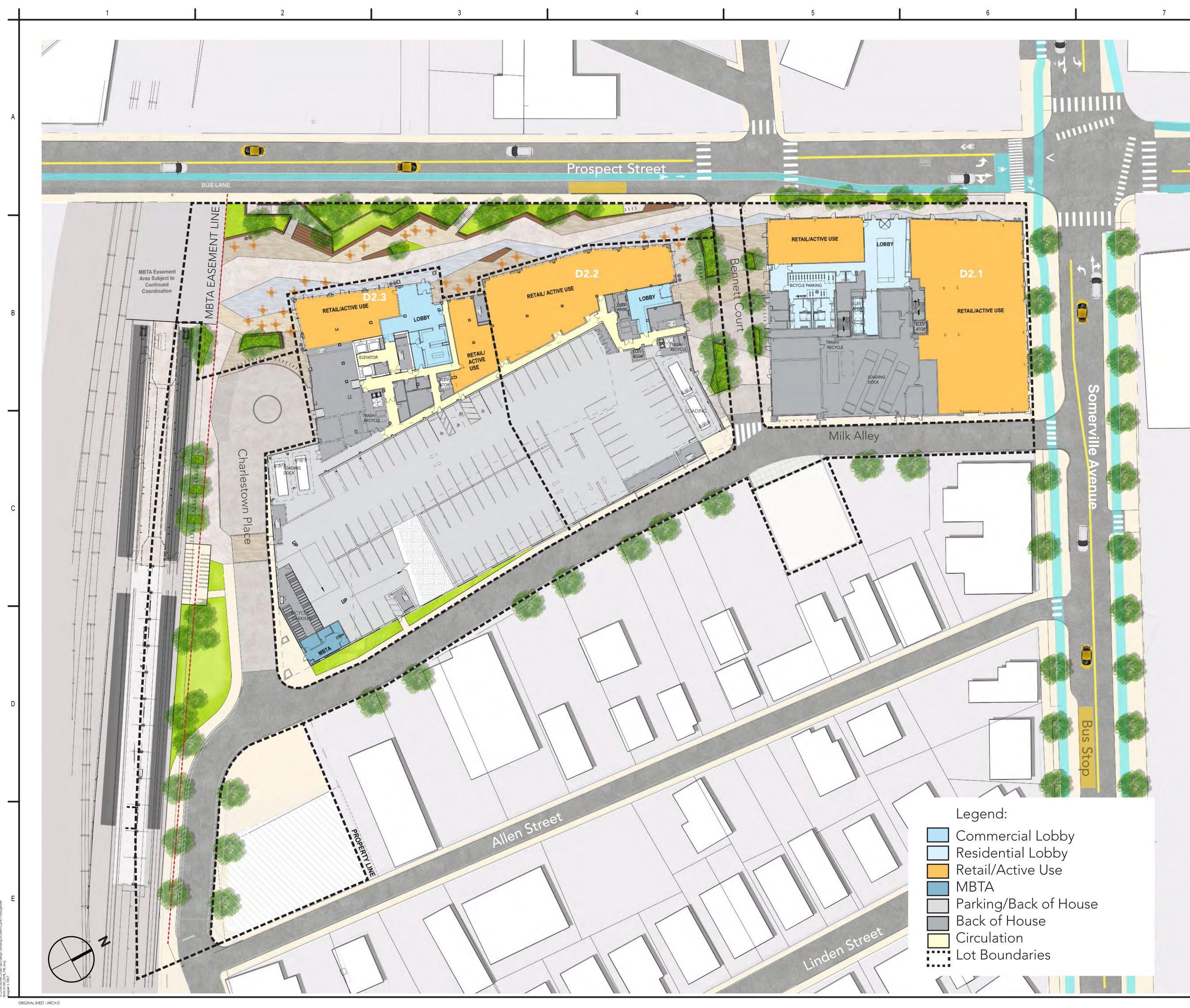
D2.1 loading and servicing occurs through a three-bay loading dock accessible via Milk Alley. The loading dock accommodates two WB-40 trucks to service commercial tenants on upper floor levels and one smaller bay for box-trucks providing service for retail uses. Primary access for the loading dock will be from Somerville Ave, access from Bennett court will be allowed, however deliveries will be coordinated with the property manager and encouraged to occur during off-peak hours.

Turning movements in and out of the site and loading dock have been analyzed for passenger cars, the RIDE vehicles, emergency vehicles and WB-40 tractor trailers. Passenger cars and the RIDE vehicles will be able to enter the site and turnaround using the traffic circle at the end of Charlestown place. Larger delivery vehicles, such as WB-40's will reverse into the loading dock and will either exit via Bennett court or use Bennett Court as a turn around in order to exit onto Somerville Avenue. Emergency vehicles will be able to enter and exit via Bennett Court without the need to reverse direction. Waste pick-up will also occur through the loading dock in a similar manner as WB-40 vehicles. During off-peak hours, waste removal vehicles will be able to exit the site via Bennett Court or Milk alley. Vehicular movement paths have been graphically shown using AutoTurn software in the attached vehicular movement plans.



FIGURES

Illustrative Site Plan



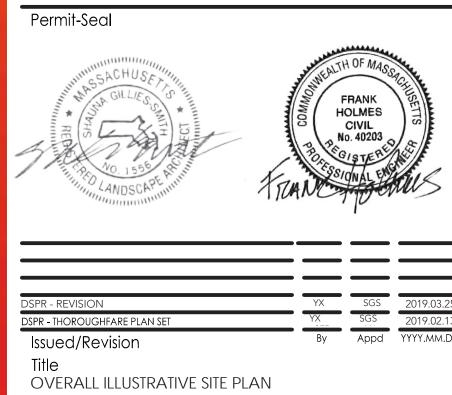
UNION SQUARE - D2 PARCEL SOMERVILLE, MA PREPARED BY:

Stantec STANTEC 226 CAUSEWAY STREET, 6TH FLOOR BOSTON, MA 02114



UNION SQUARE RELP MASTER DEVELOPER LLC (US2) 31 UNION SQUARE SOMERVILLE, MA 02143

SOMERVILLE USE ONLY



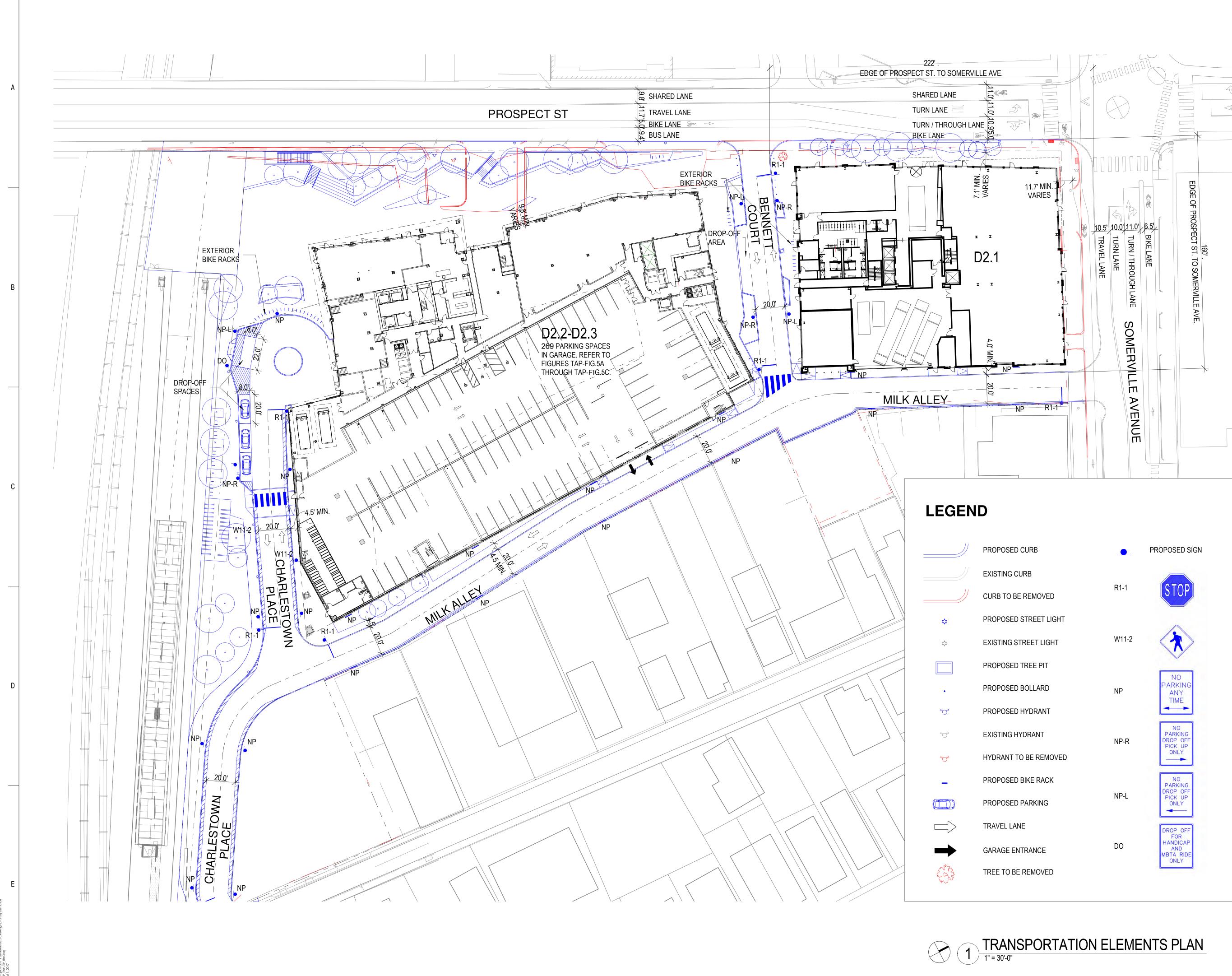
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TAP-FIG.1

FIGURES

Transportation Elements Plan



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ANT		
NT	NP-R	NO PARKING DROP OFF PICK UP
REMOVED		ONLY
RACK		NO PARKING
ING	NP-L	DROP OFF PICK UP ONLY
		DROP OFF FOR
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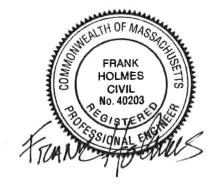
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bKL ARCHITECTURE LLC 225 N Columbus Drive Suite 100 Chicago, IL 60601 T 1.312.881.5999 F 1.312.469.8130 www.bklarch.com

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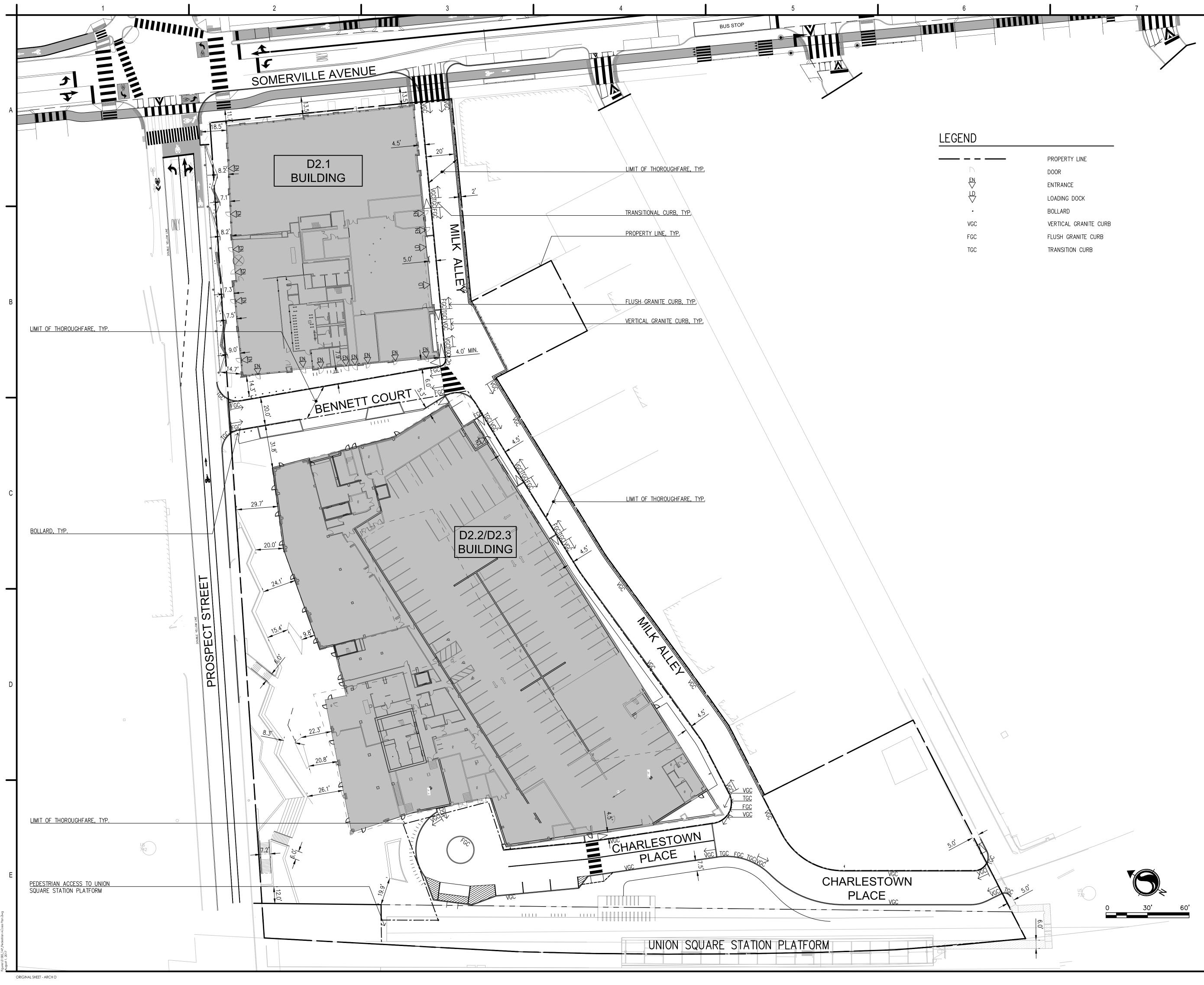
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FIGURES

Pedestrian Access Plan



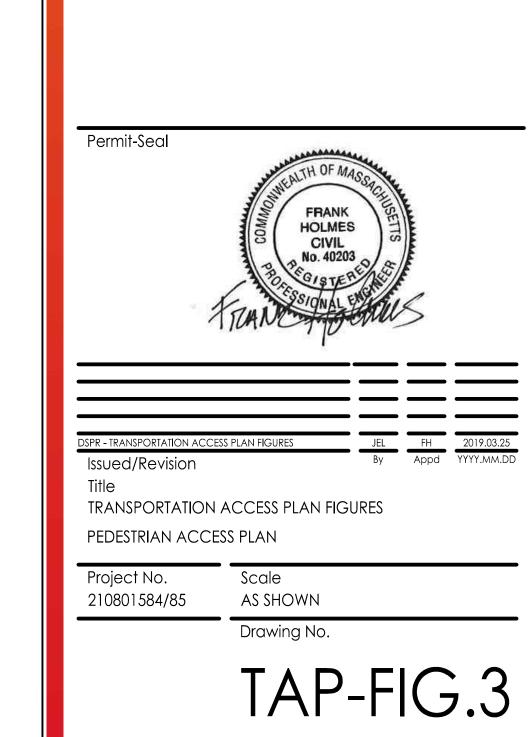
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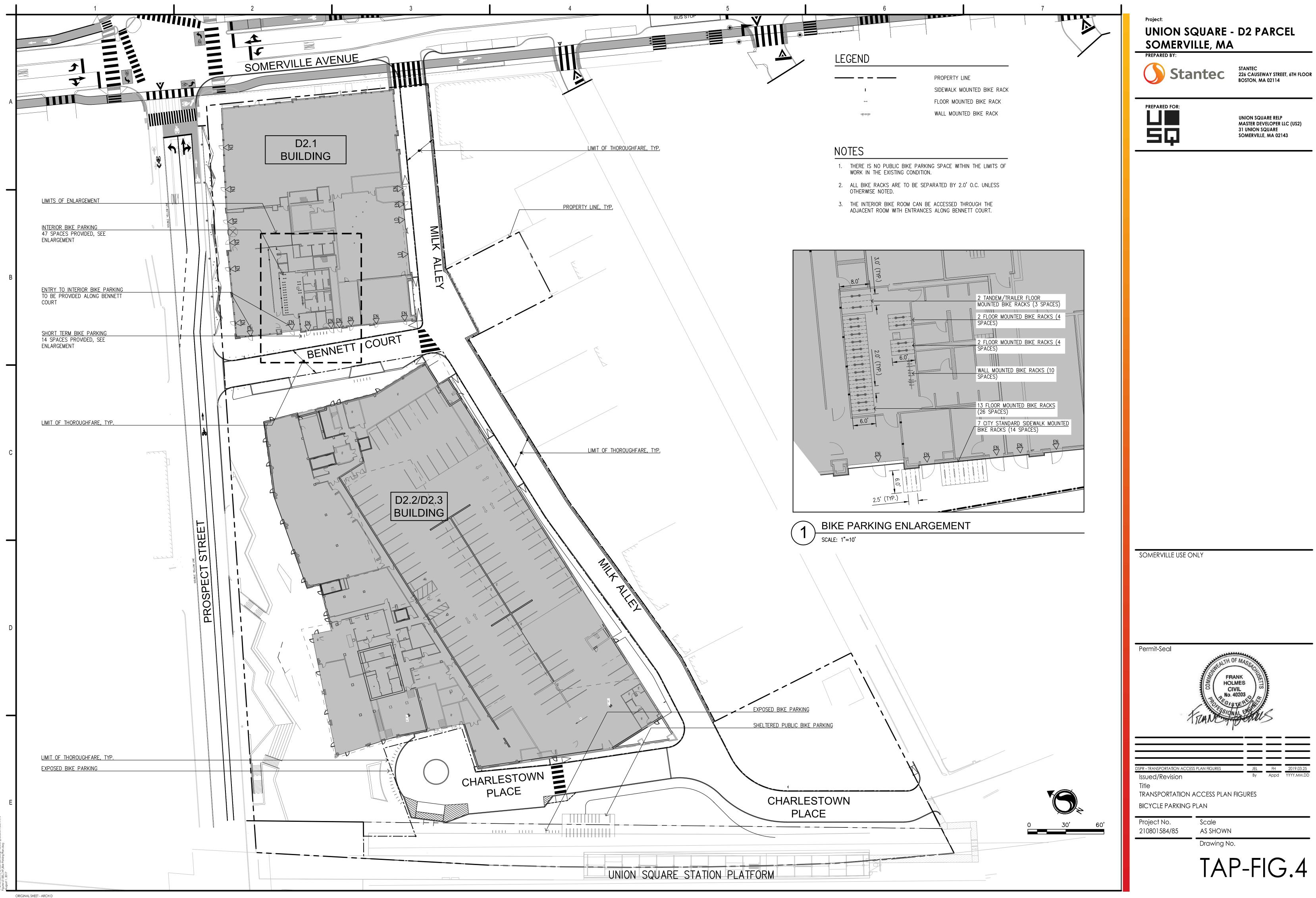


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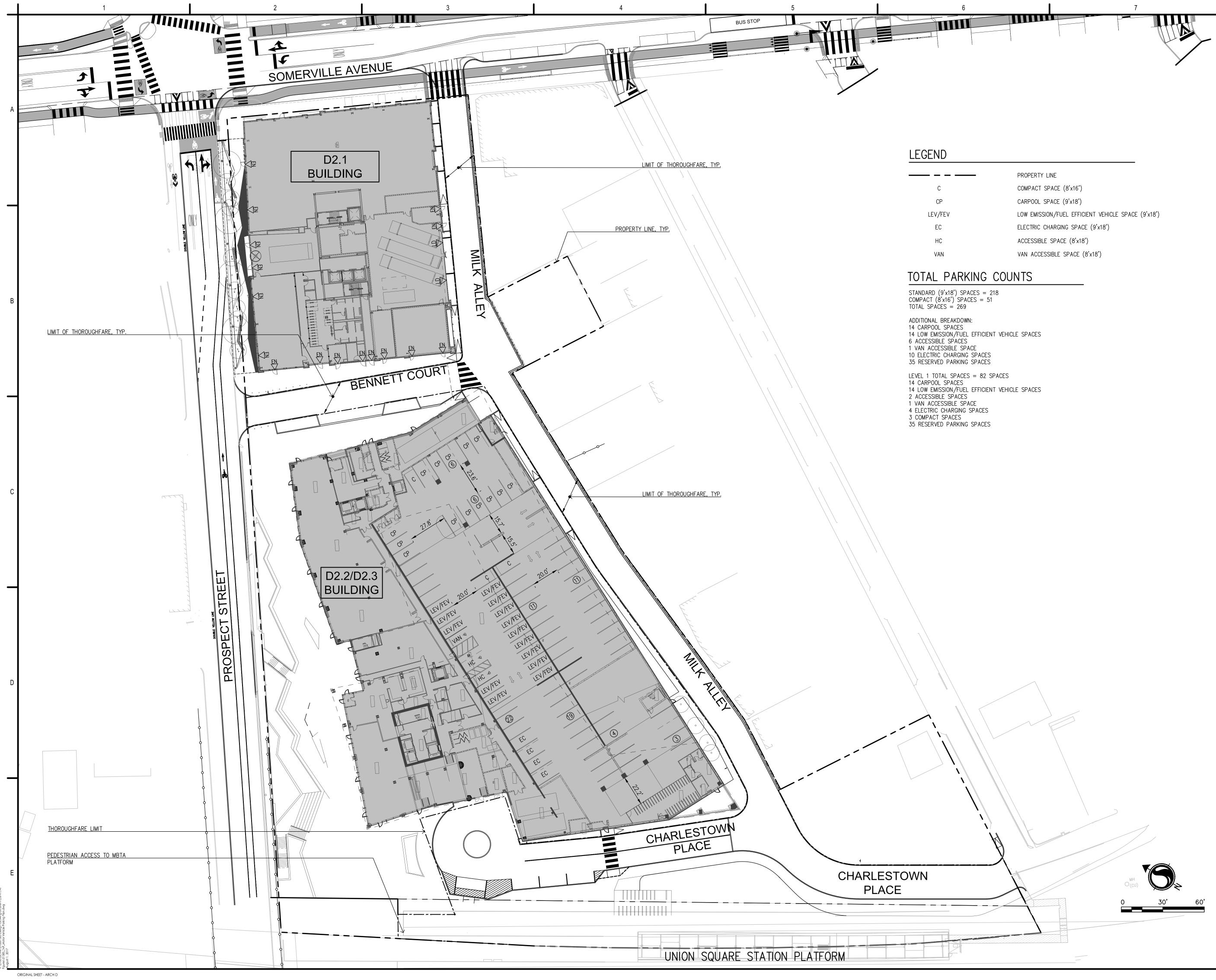
FIGURES

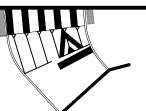
Bicycle Parking Plan



FIGURES

Motor Vehicle Parking Plan





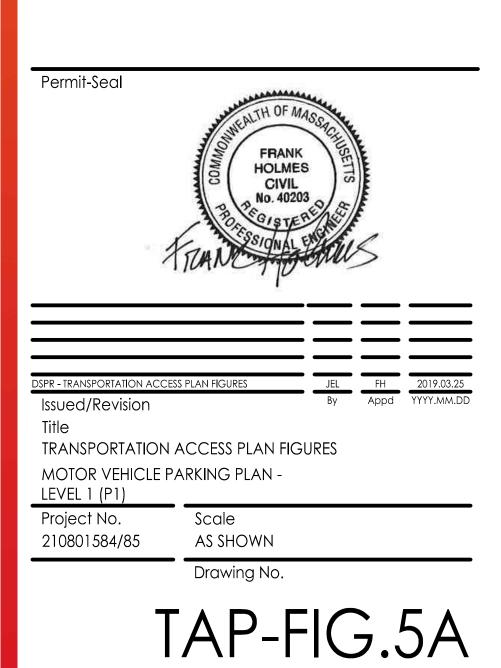
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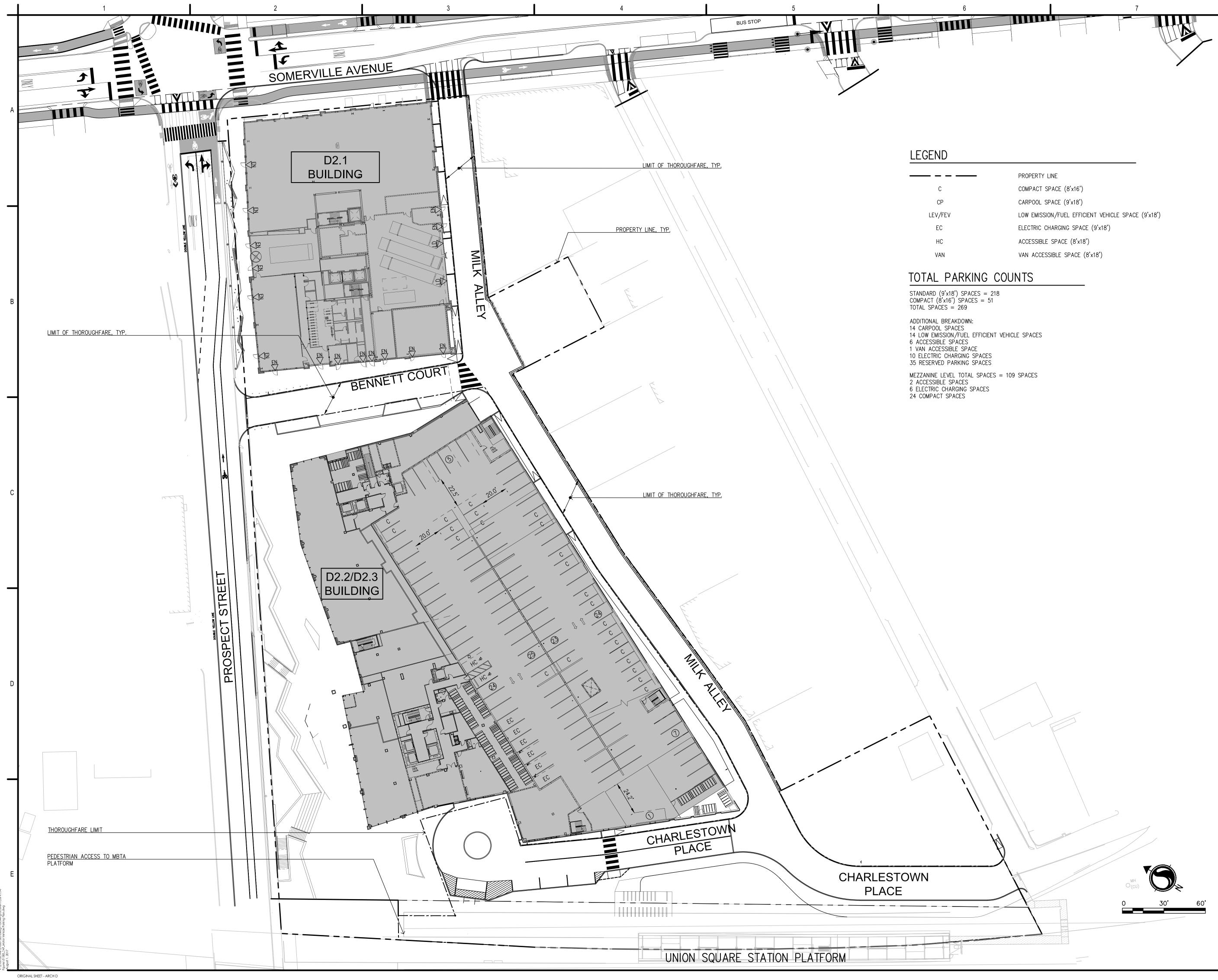
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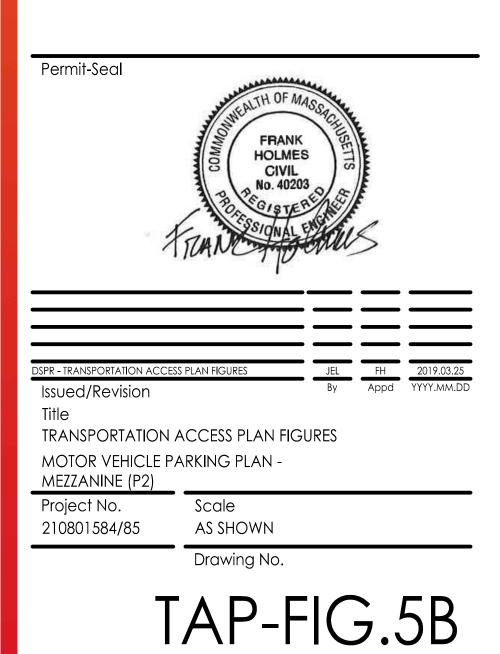


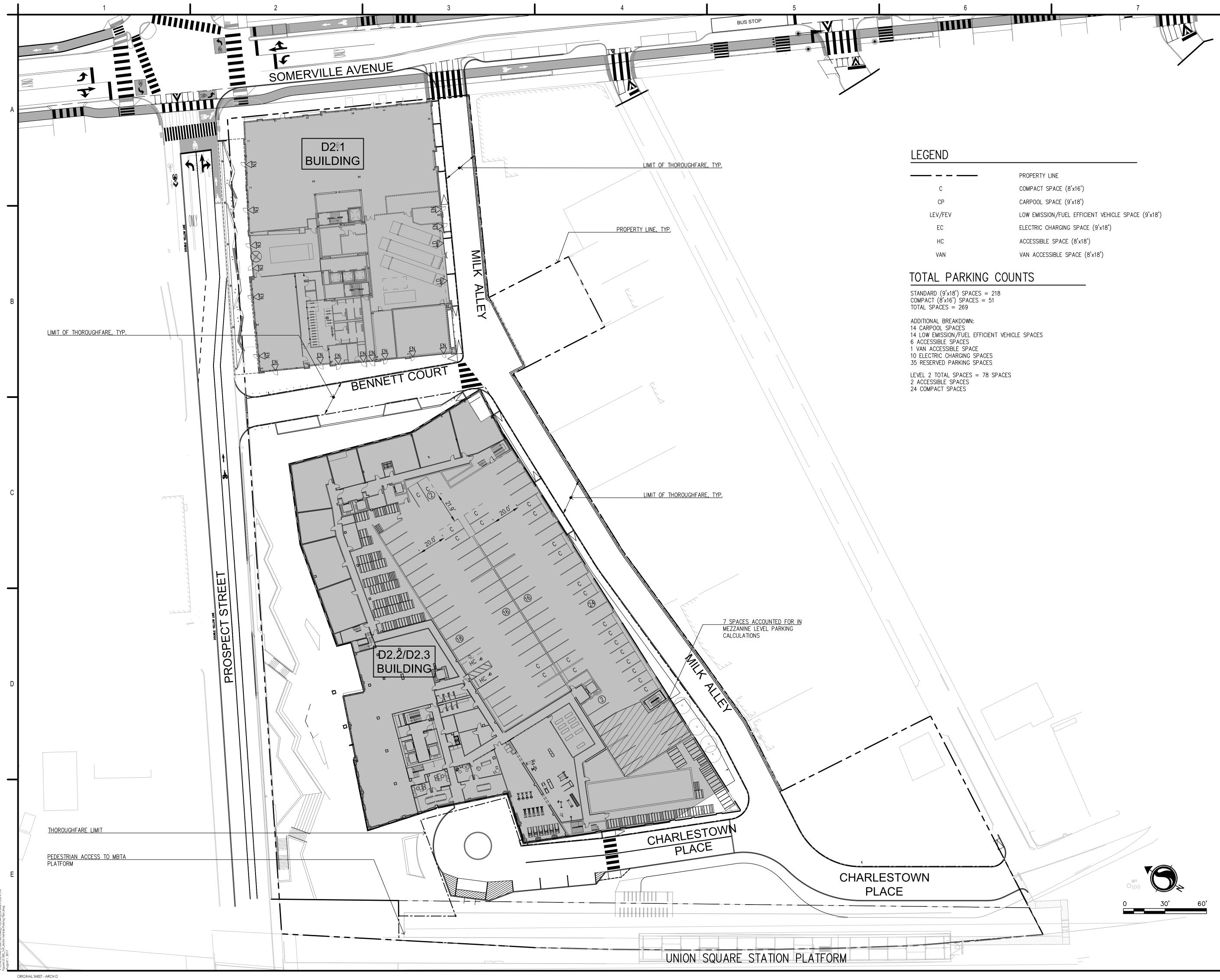
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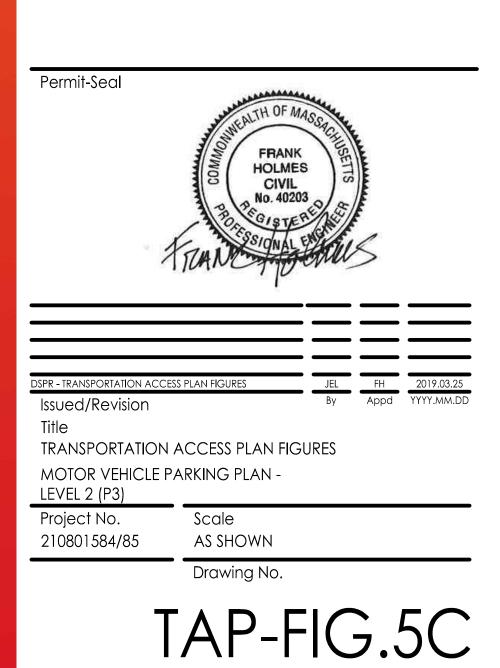
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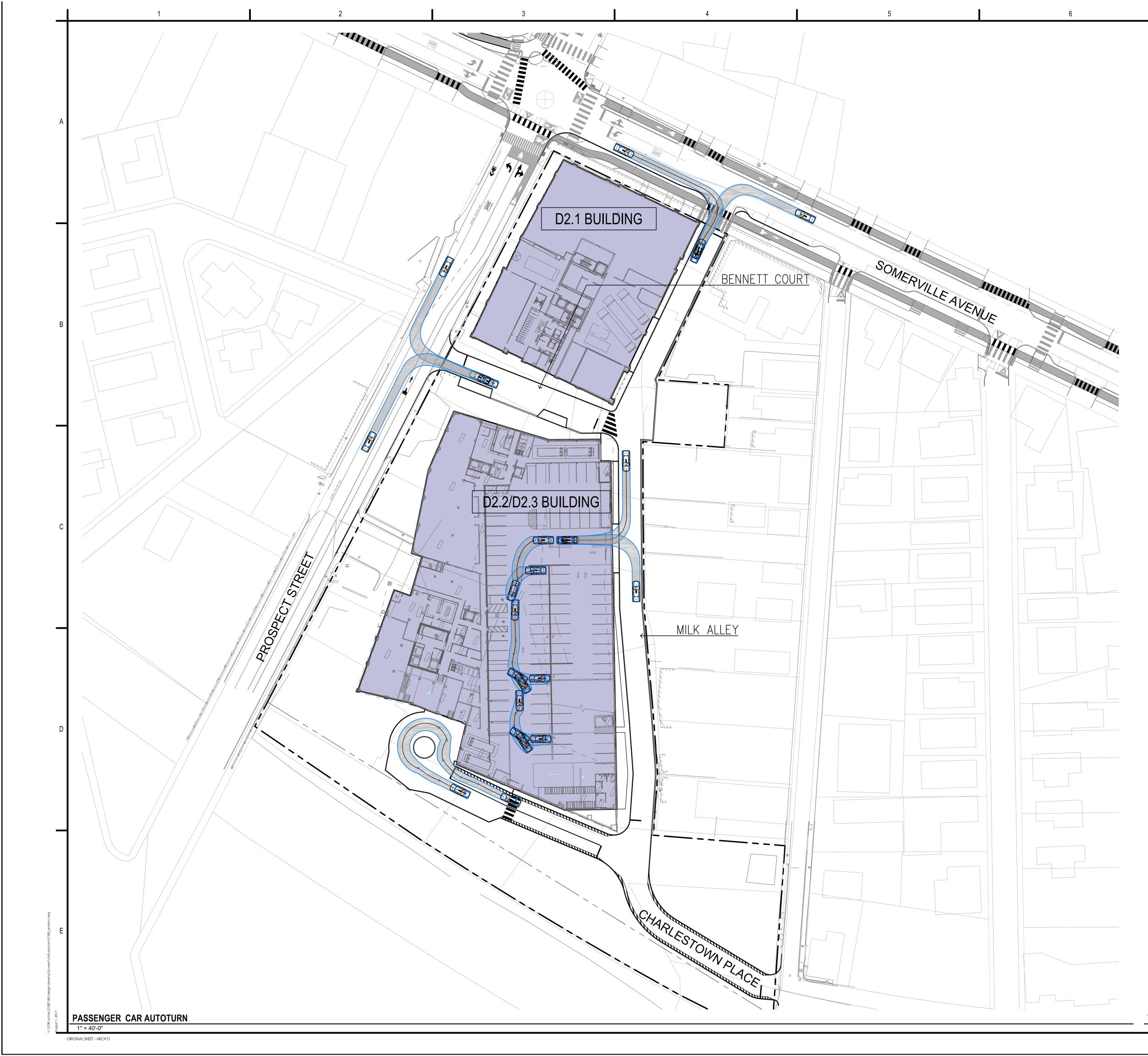


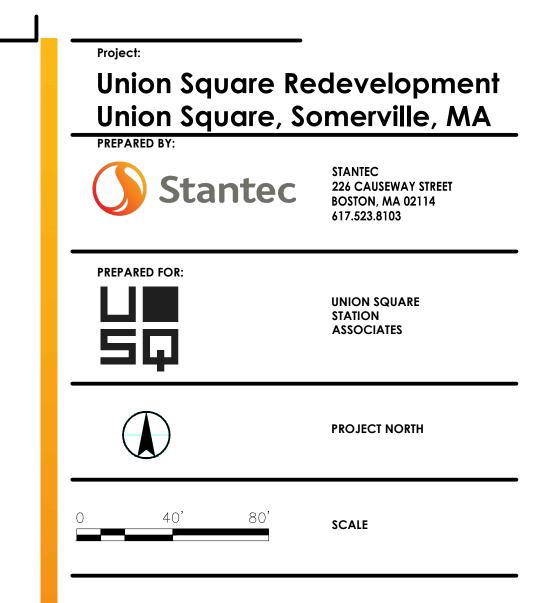
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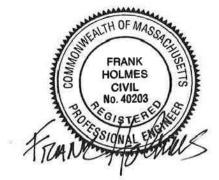
FIGURES

Vehicular Movement Plans





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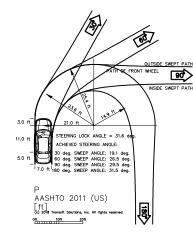
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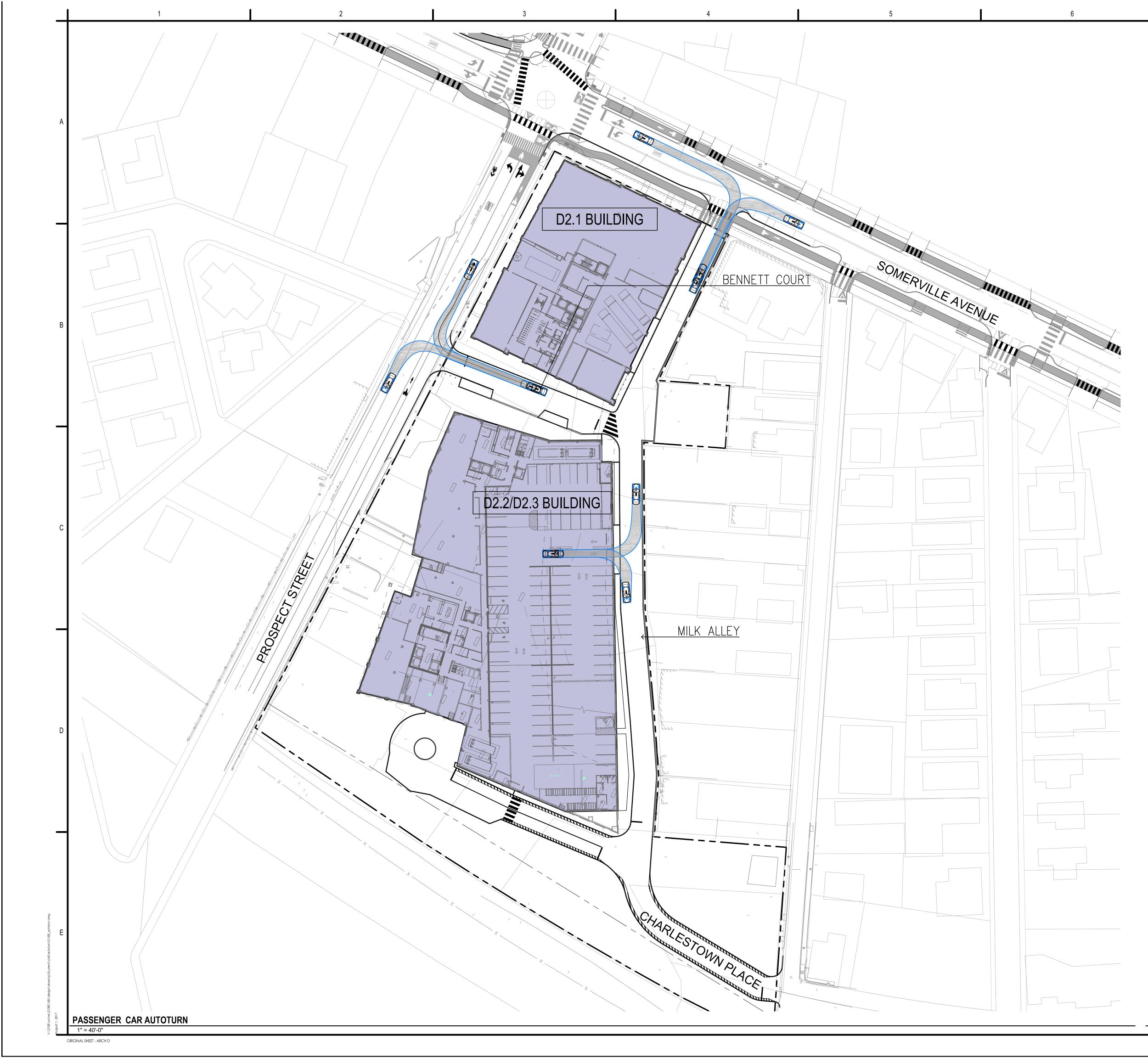
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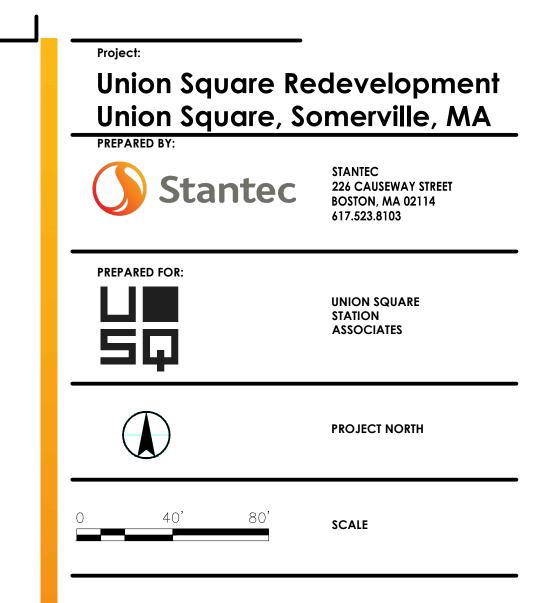
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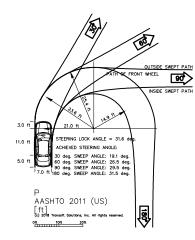
PASSENGER CAR - SITE EGRESS ANALYSIS

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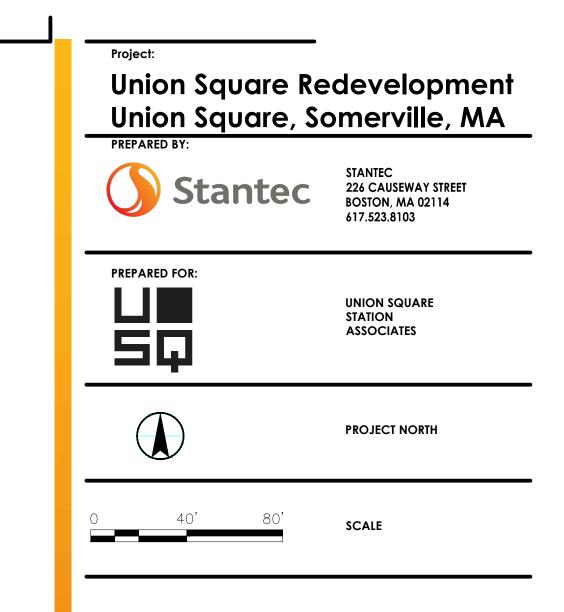
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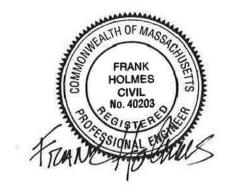
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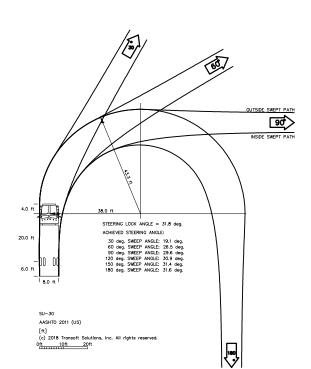
SINGLE UNIT - SITE ENTRANCE ANALYSIS

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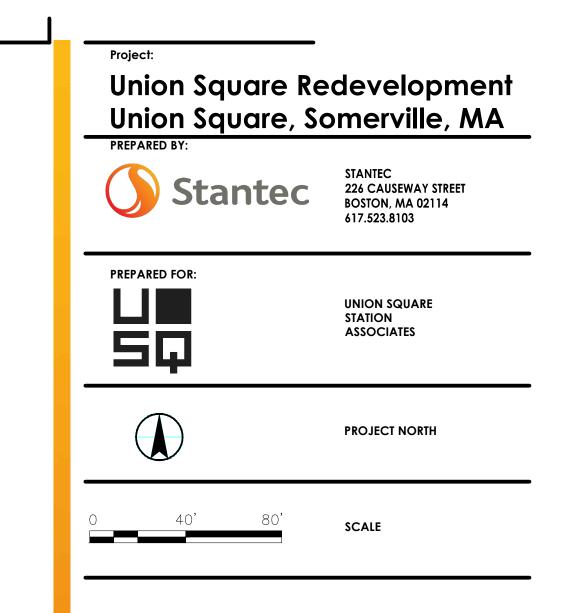
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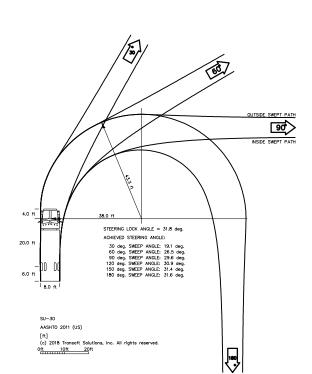


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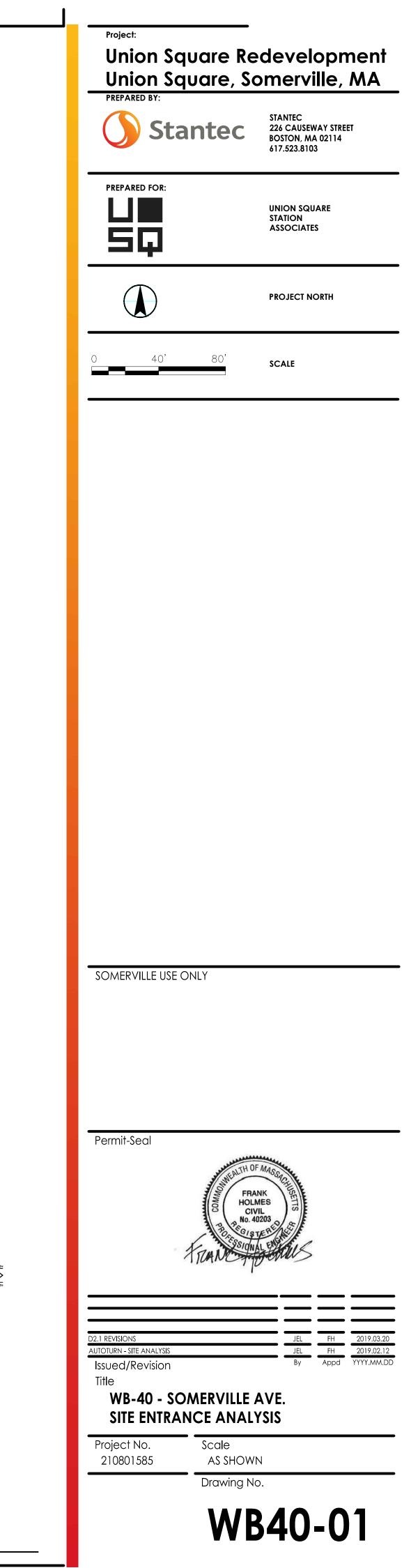
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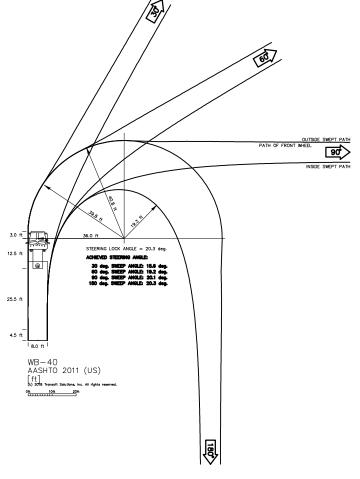
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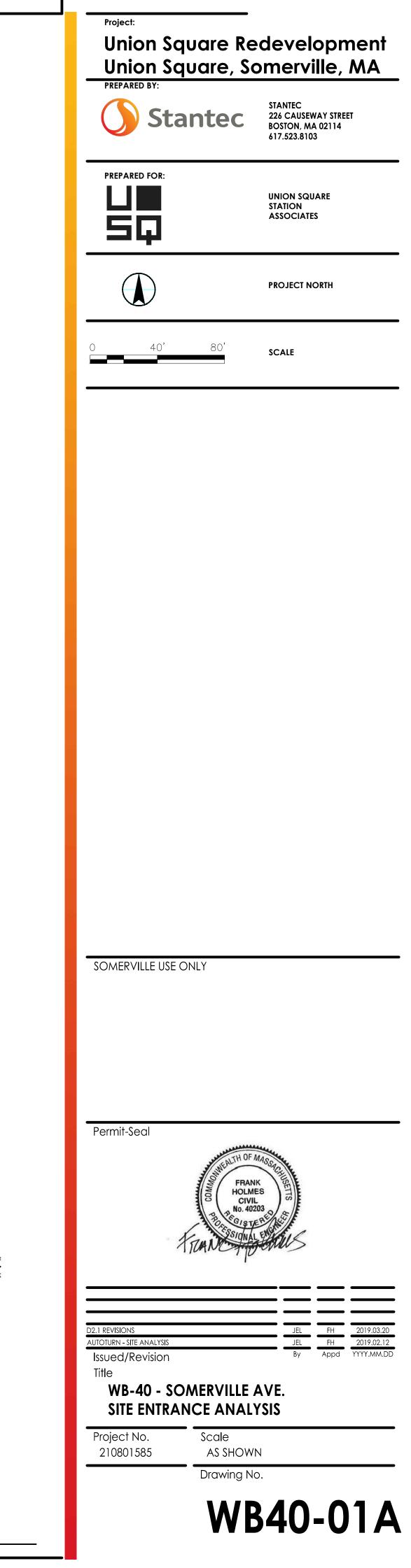




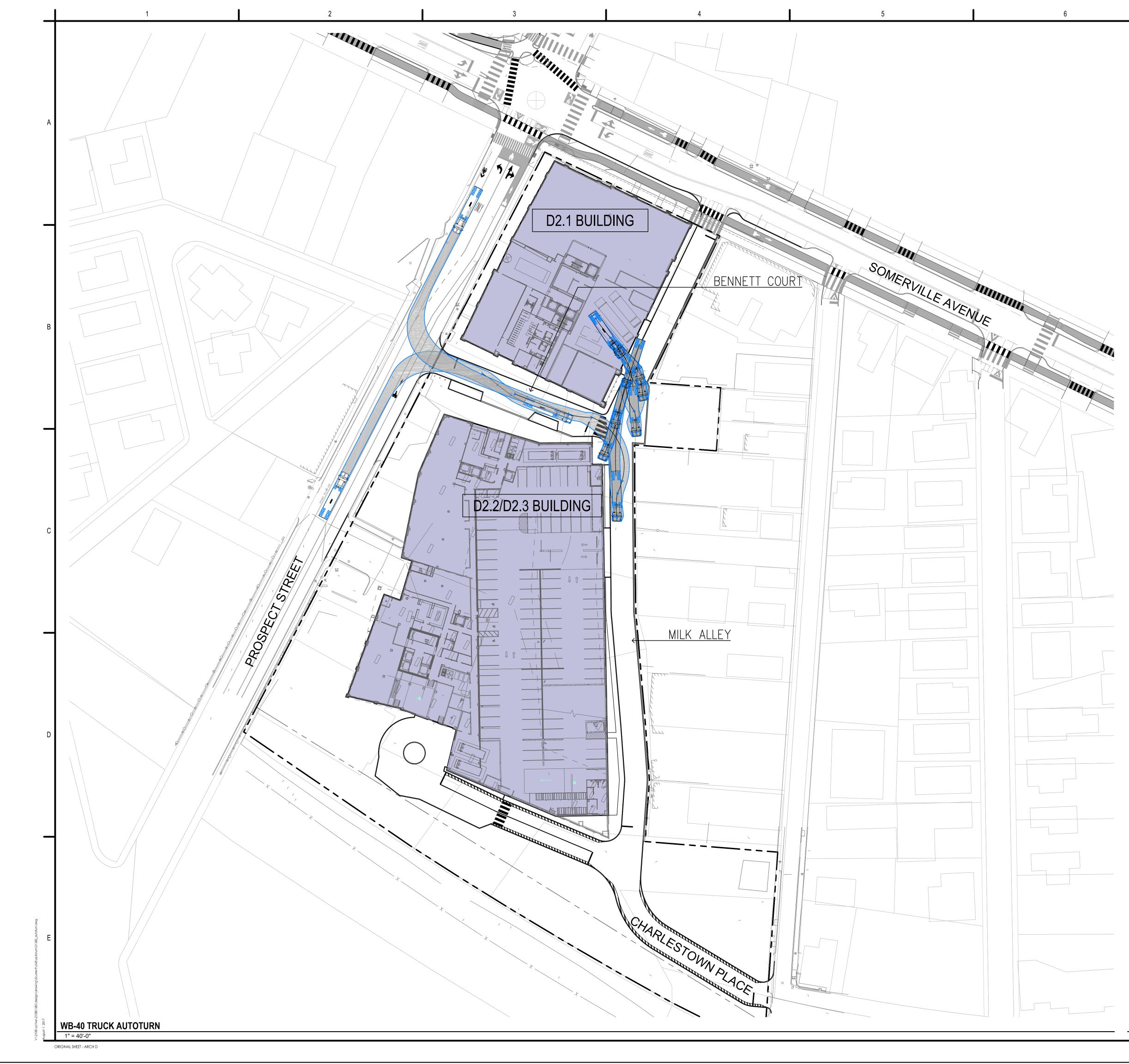


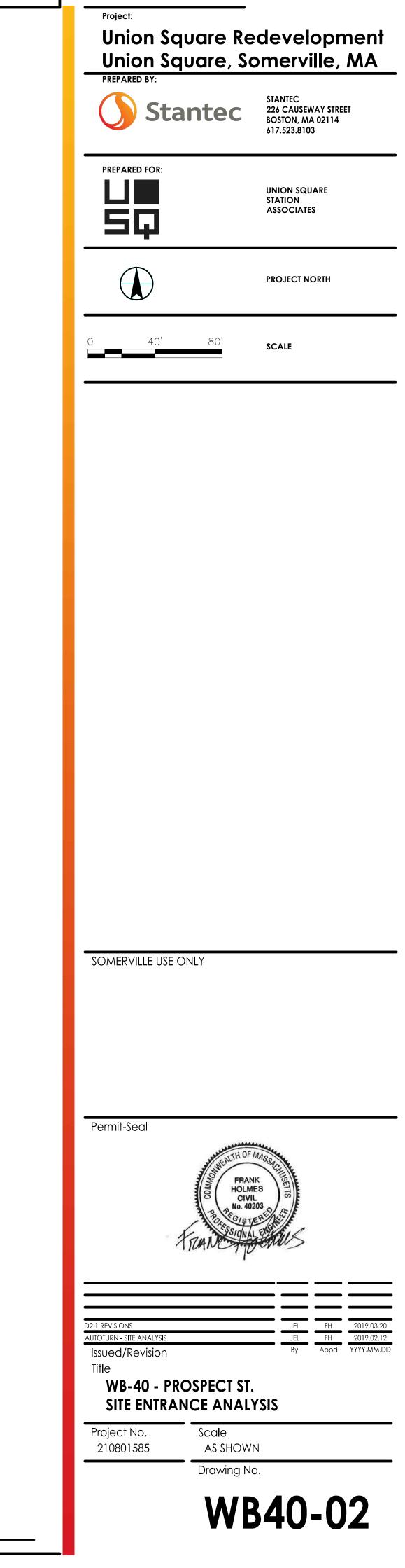


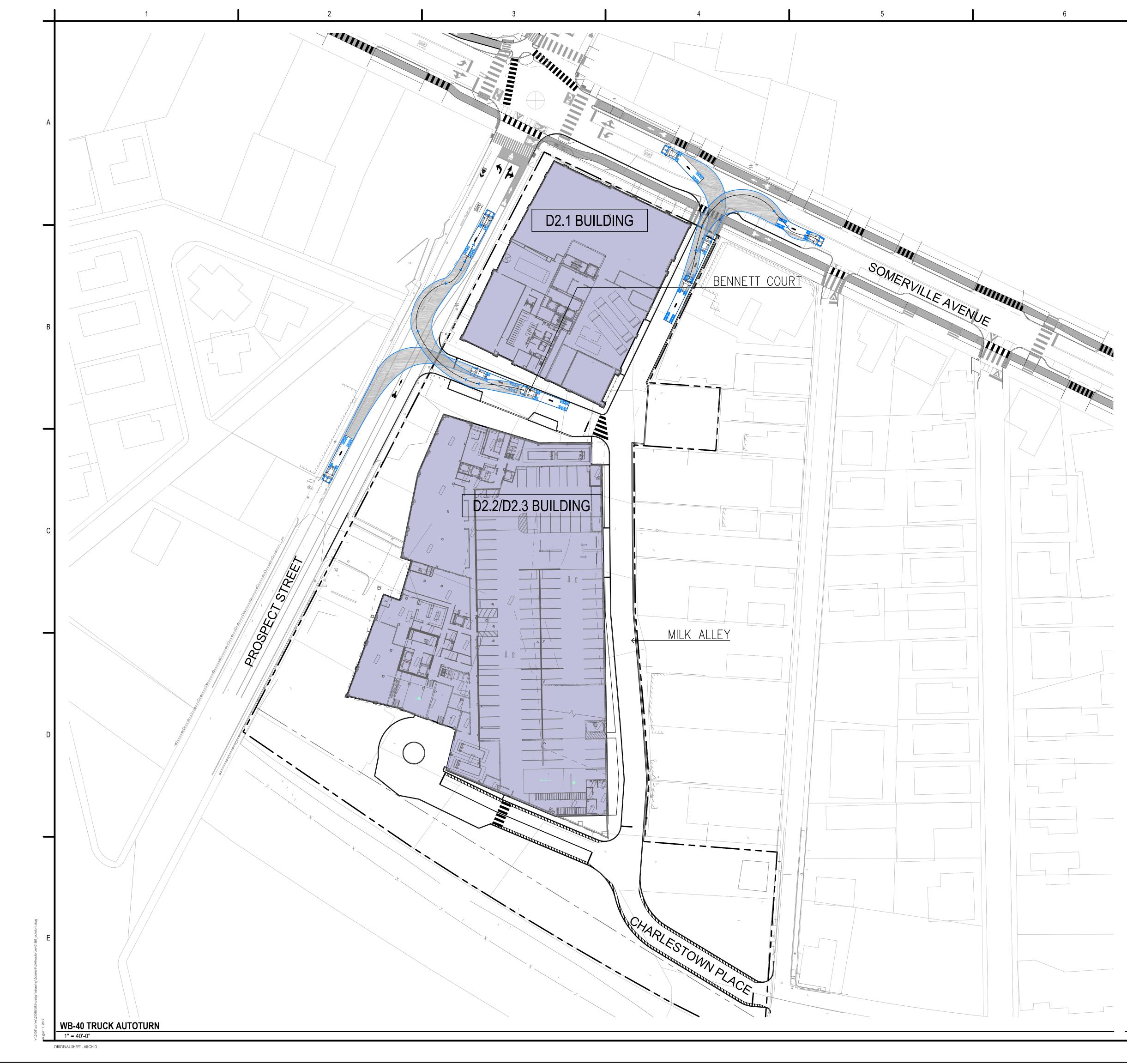


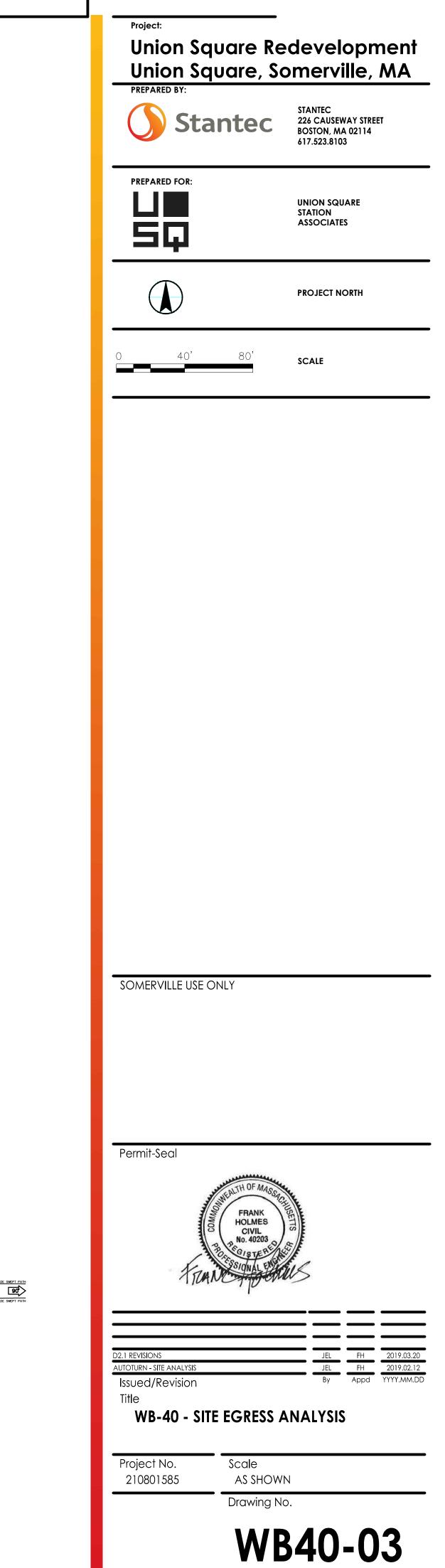


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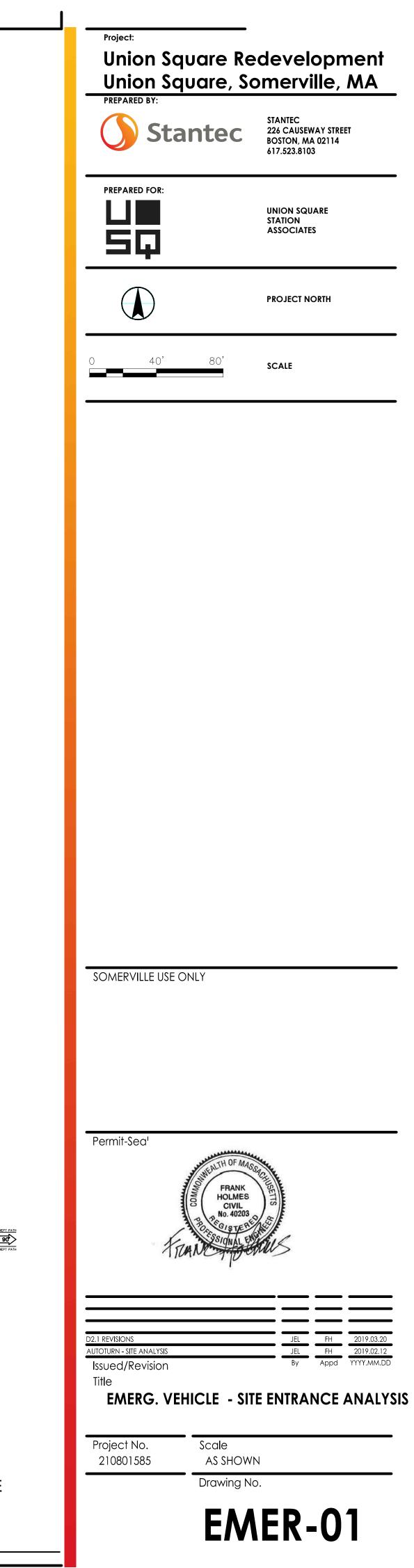






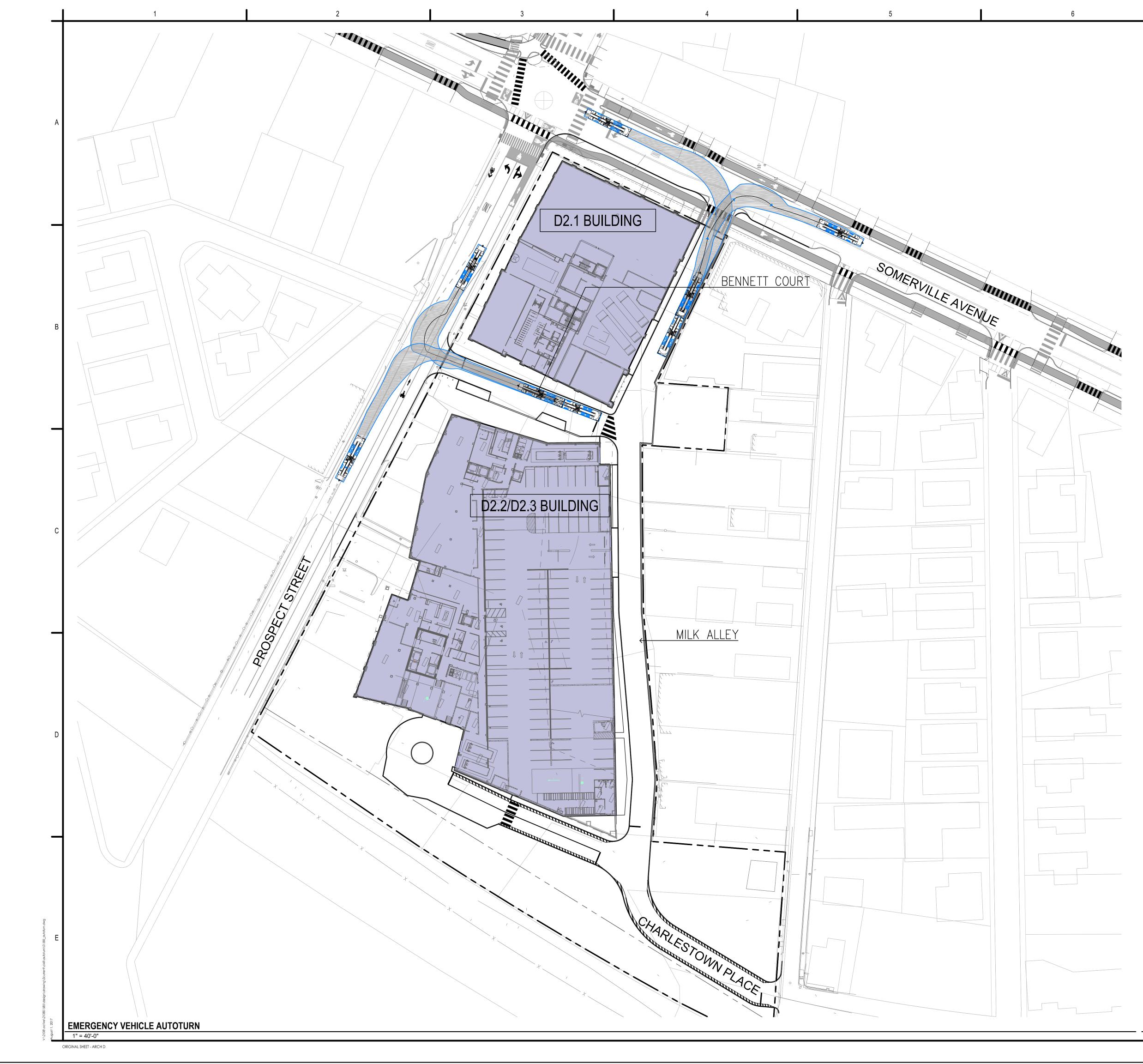
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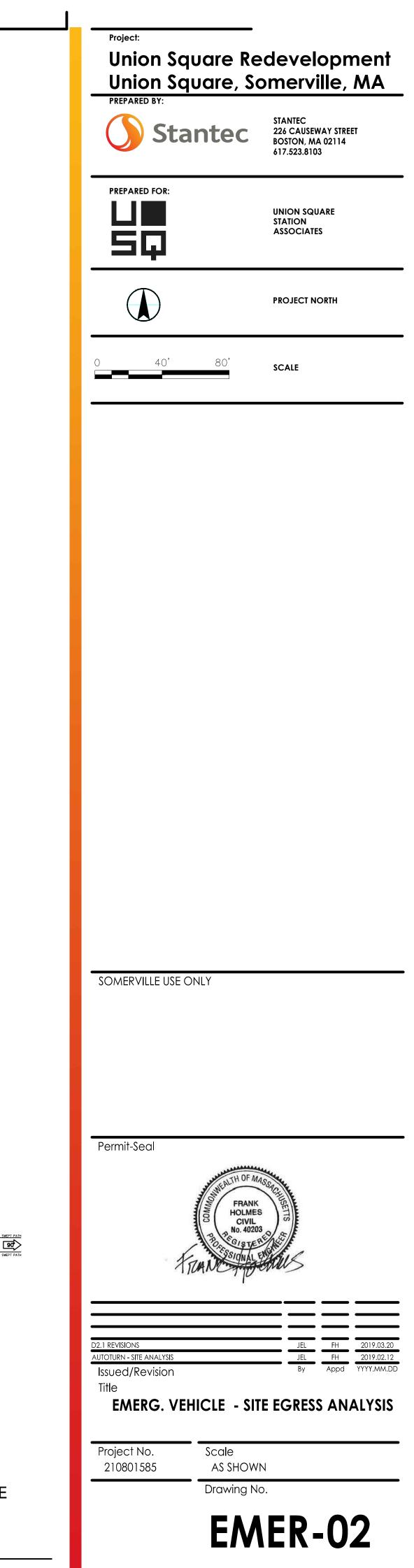




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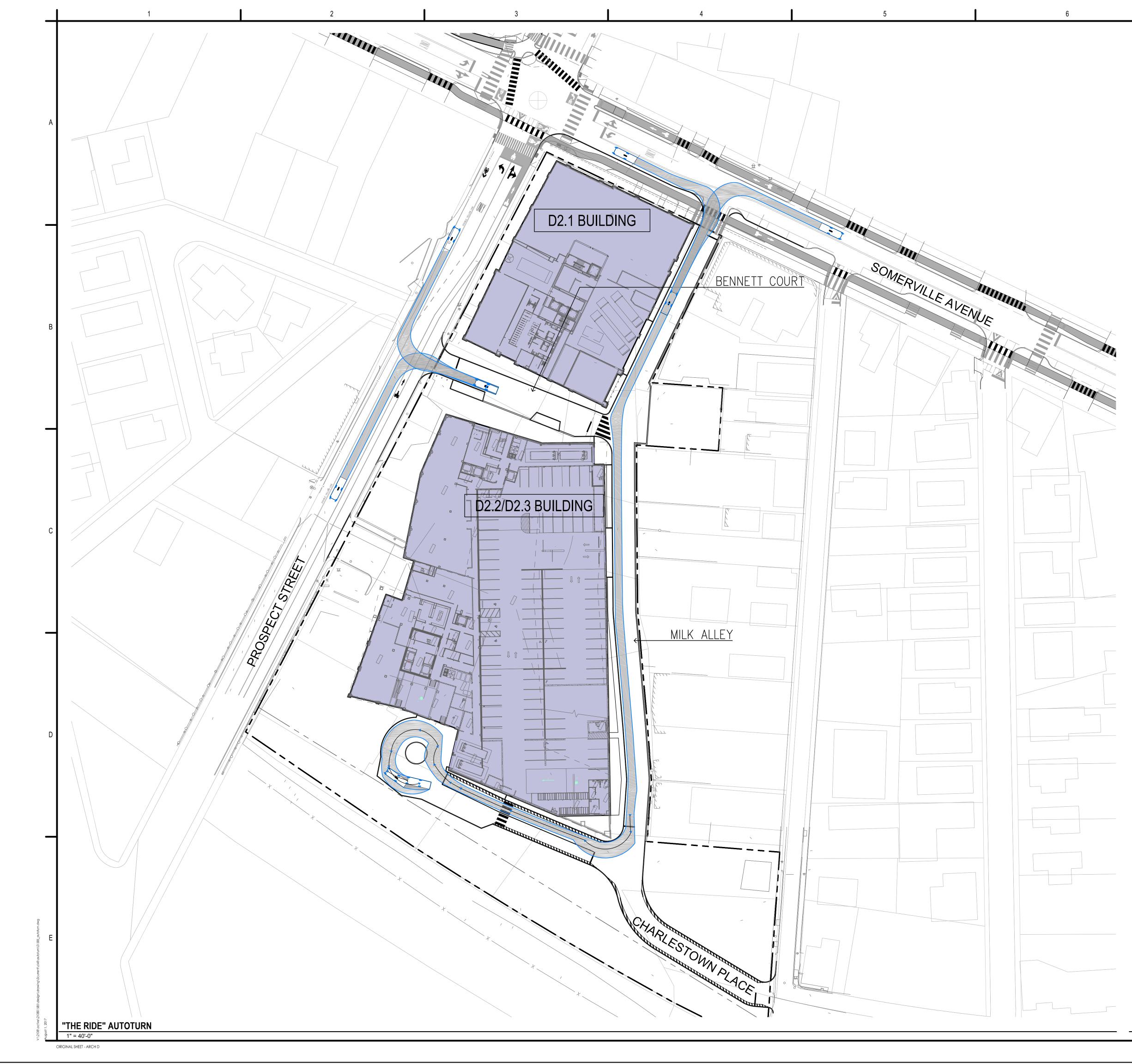
EMERGENCY VEHICLE TO BE CONFIRMED WITH SOMERVILLE FIRE DEPARTMENT

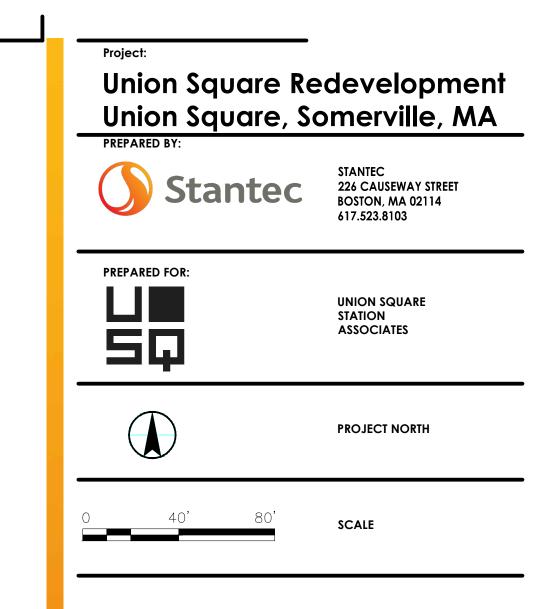




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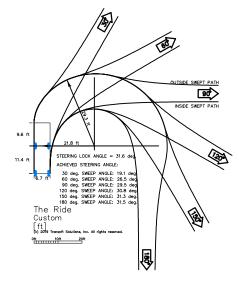
"THE RIDE"-SITE ENTRANCE ANALYSIS

Project No. 210801585

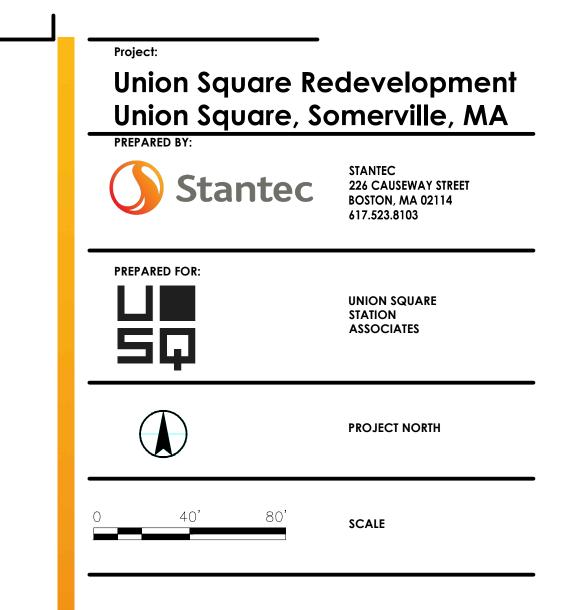
Title

Scale AS SHOWN Drawing No.

RIDE-01







Permit-Seal



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D2.1 REVISIONS	 JEL	FH	2019.03.20
Issued/Revision	 Ву	Appd	YYYY.MM.DD
Title			

"THE RIDE" - SITE EGRESS ANALYSIS

Project No. 210801585

Scale AS SHOWN Drawing No.



