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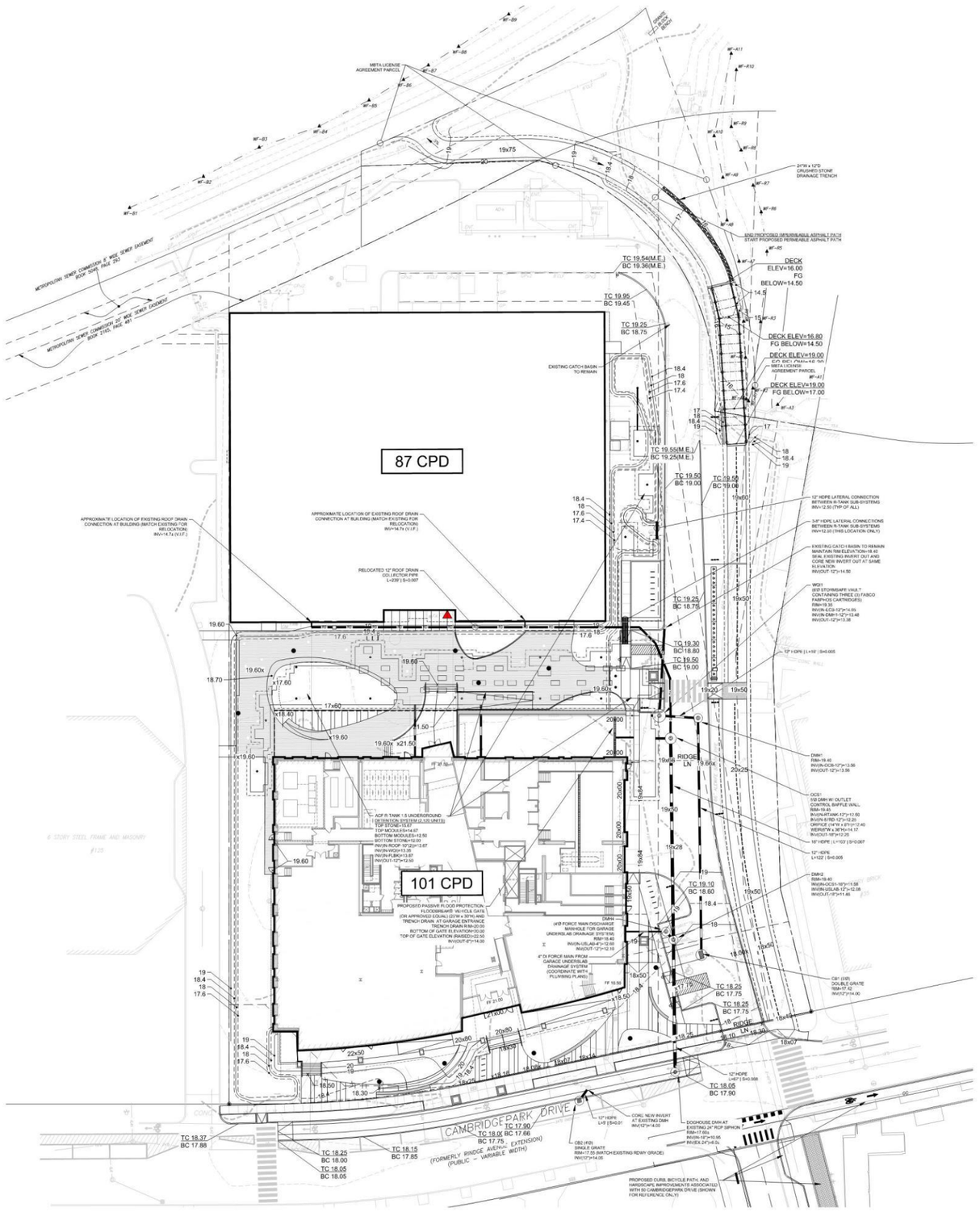
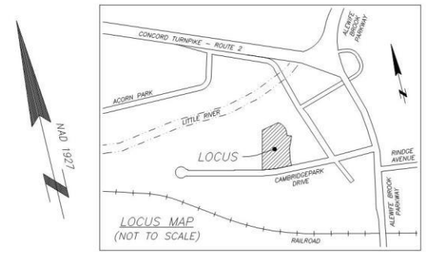




BASIS OF DESIGN

1. STORMWATER MANAGEMENT

1. RETAIN AND CONTROL RUNOFF VOLUME INCREASE BETWEEN EXISTING 2-YR/24 HR RAINFALL AND PROPOSED 25-YR/24 HR RAINFALL USING 2030 NOAA RAINFALL VOLUMES
2. CONTROL / MITIGATE PEAK RATE OF RUNOFF FOR 2014 NOAA 100-YR RAINFALL EVENT
3. PROVIDE LOW IMPACT DEVELOPMENT (LID) TECHNIQUES WHERE POSSIBLE

A. RAINFALL SUMMARY

STORM EVENT	RAINFALL
2014 NOAA 2-YEAR STORM	3.16 INCHES
2014 NOAA 25-YEAR STORM	6.03 INCHES
2014 NOAA 100-YEAR STORM	8.62 INCHES
2030 NOAA 2-YEAR STORM	3.34 INCHES
2030 NOAA 25-YEAR STORM	7.25 INCHES

B. RUNOFF VOLUME IMPACT

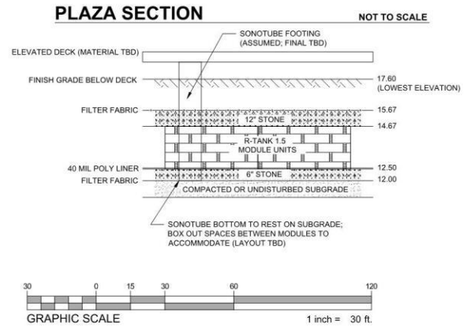
NET INCREASE IN IMPERVIOUS AREA:	2,510 SF
2030 NOAA 2-YR PRE-DEVELOPMENT RUNOFF VOLUME:	**0.337 AF**
2030 NOAA 25-YR POST-DEVELOPMENT RUNOFF VOLUME:	**0.964 AF**
RUNOFF VOLUME INCREASE:	**0.627 AF = 27,312 CF**

C. MITIGATION

- INSTALL STORMWATER DETENTION WITHIN PLAZA
- INSTALL 2,120 R-TANK™ 1.5 (SINGLE MINI) MODULES

- 2014 NOAA 2-YR PRE-DEVELOPMENT PEAK OUTFLOW RATE:	4.36 CFS
- 2014 NOAA 25-YR POST-DEVELOPMENT PEAK OUTFLOW RATE:	3.87 CFS
- 2014 NOAA PEAK OUTFLOW REDUCTION (2-YR PRE VS. 25-YR POST):	-0.49 CFS
- 2014 NOAA 2-YR PEAK STORAGE ELEVATION:	13.02 FT (1.65 FT FREEBOARD)
- 2014 NOAA 25-YR POST-DEVELOPMENT PEAK OUTFLOW RATE:	4.73 CFS
- 2014 NOAA 25-YR PEAK STORAGE ELEVATION:	13.81 FT (0.86 FT FREEBOARD)
- 2014 NOAA 100-YR PEAK STORAGE ELEVATION:	14.49 FT (0.18 FT FREEBOARD)
- 2030 NOAA 2-YR PRE-DEVELOPMENT PEAK OUTFLOW RATE:	4.73 CFS
- 2030 NOAA 25-YR POST-DEVELOPMENT PEAK OUTFLOW RATE:	4.53 CFS
- 2030 NOAA PEAK OUTFLOW REDUCTION (2-YR PRE VS. 25-YR POST):	0.20 CFS
- 2030 NOAA 2-YR PEAK STORAGE ELEVATION:	13.07 FT (1.60 FT FREEBOARD)
- 2030 NOAA 25-YR PEAK STORAGE ELEVATION:	14.19 FT (0.48 FT FREEBOARD)

PLAZA SECTION NOT TO SCALE



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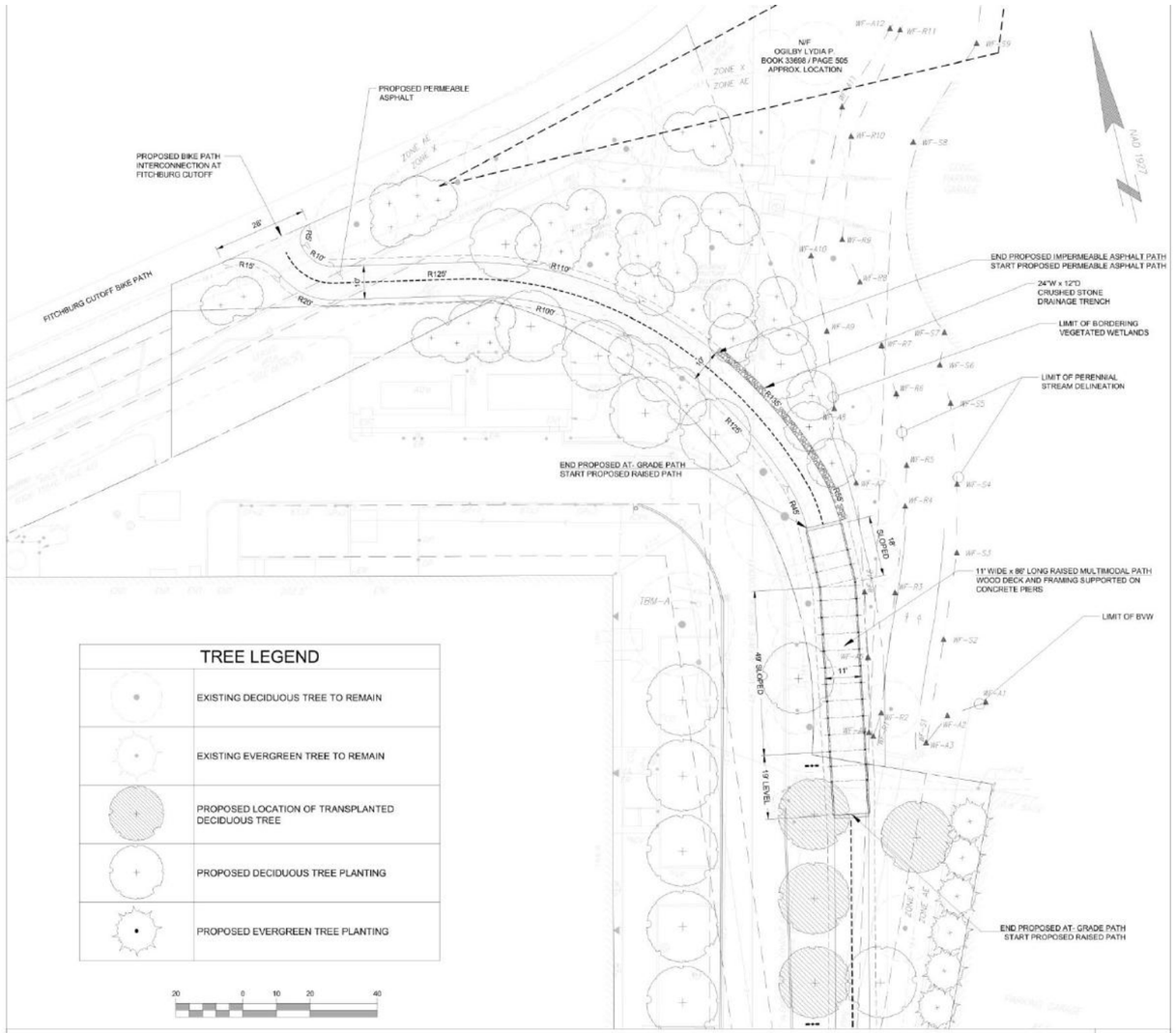
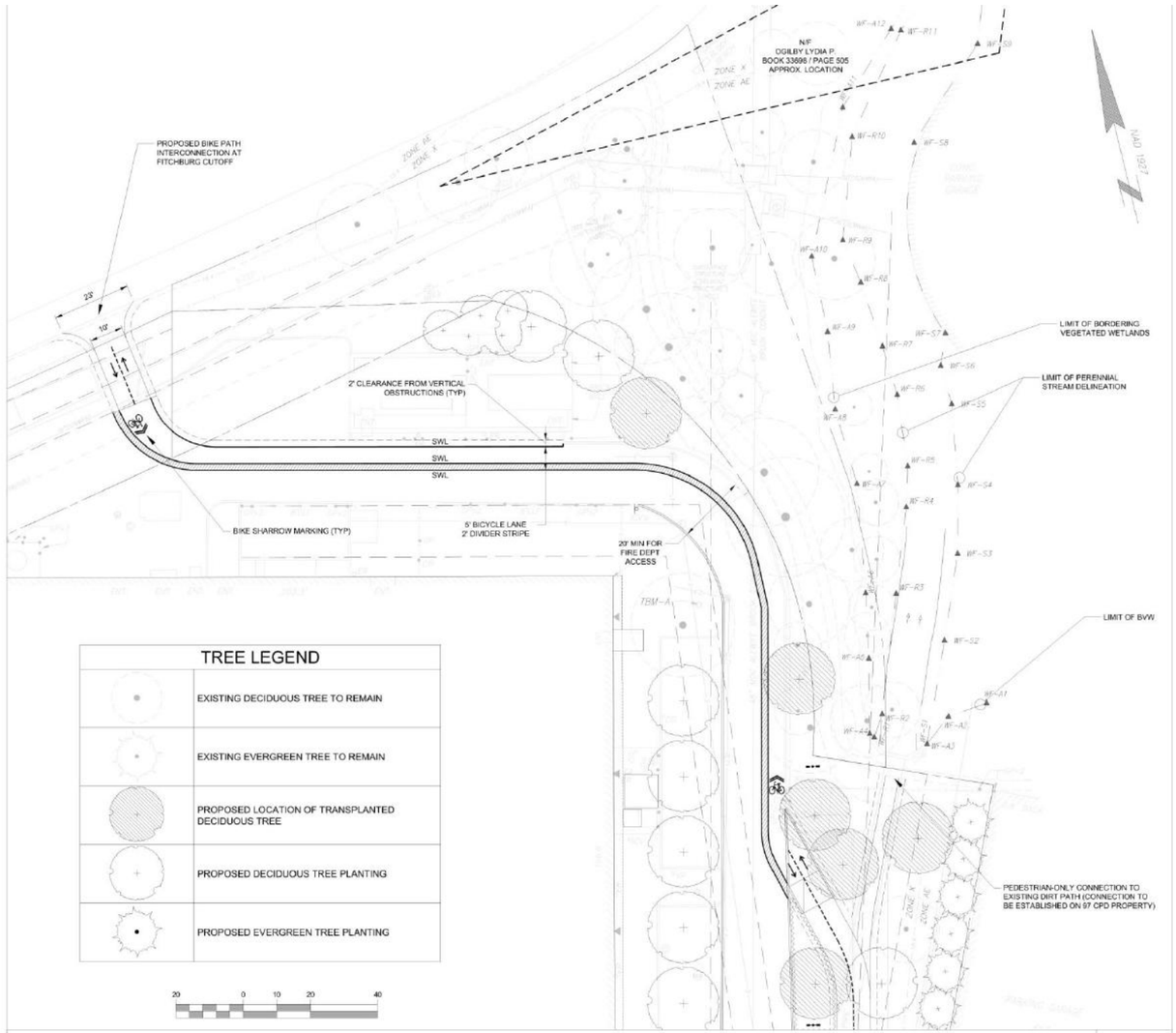
HIGHPOINT

KSP King Street Properties

GRADING & DRAINAGE PLAN
101 Cambridgepark Drive / 06/28/19
REVISED 02/11/20



BASE OPTION: OFF-SITE PATH



ALTERNATE OPTION: ON-SITE PATH

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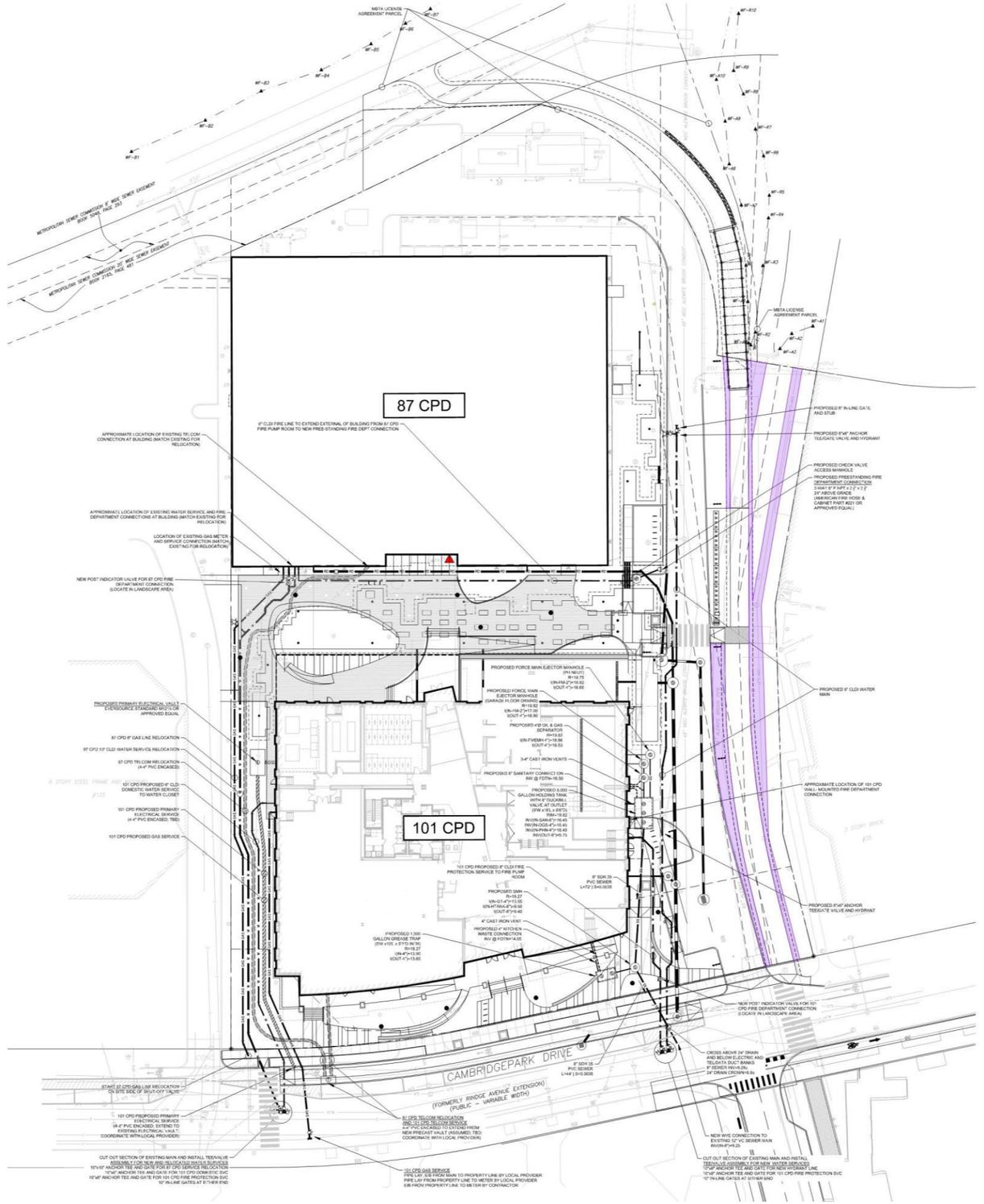
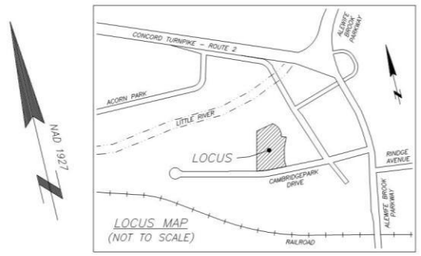




COLOR LEGEND (EASTERN PORTION OF SITE)

OPEN SPACE AREA NOT AVAILABLE FOR TREE PLANTING DUE TO EXISTING SUBSURFACE DRAINAGE/UTILITIES AND 2-FOOT MINIMUM VERTICAL OBSTRUCTION CLEARANCE

SEWAGE MITIGATION

1. STORE SANITARY FLOW FOR A PERIOD OF 8 HOURS WITH A FACTOR OF SAFETY OF 1.5

SEWAGE DISCHARGE ESTIMATE

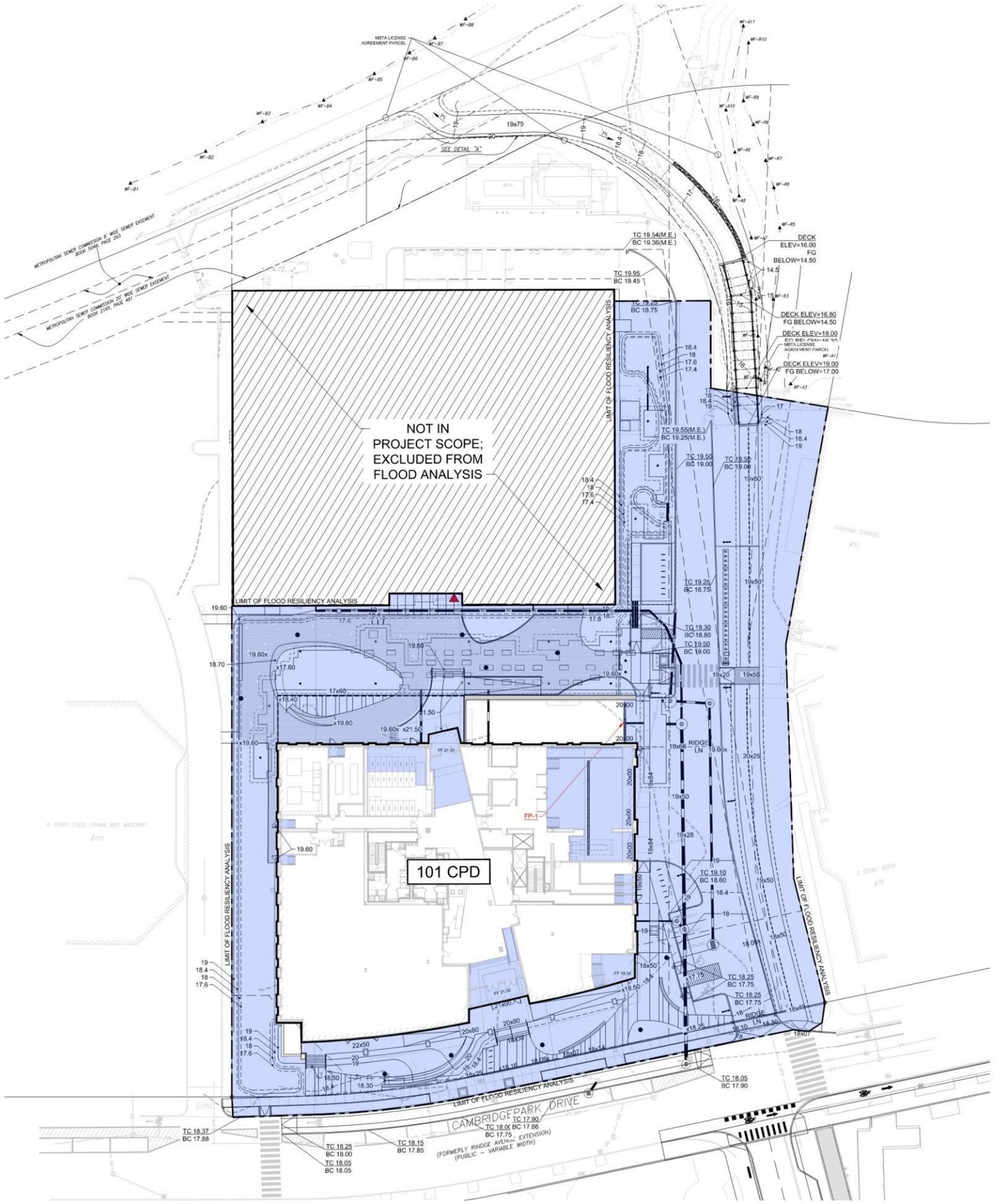
OFFICE/LAB:	(139,134 SF) x (75 GPD / 1,000 GSF)	= 10,435 GPD
RETAIL:	(2,700 SF) x (50 GPD / 1,000 GSF)	= 135 GPD
RESTAURANT:	(100 SEATS) x (35 GPD / SEAT)	= 3,500 GPD
PARKING GARAGE:	(123,375 SF) x (0.5 GPD / 1,000 GSF)	= 62 GPD
TOTAL:		= 14,132 GPD
(14,132 GPD) x (1 DAY / 24 HRS) x (8 HRS) = 4,711 GPD		(8 HRS FLOW / STORAGE)
(4,711 GPD) x (1.5 FOS)	= 7,067 GPD	(1.5 FACTOR OF SAFETY)

INSTALL 8,000 GALLON SEWAGE HOLDING TANK (9'x16' OLDCASTLE PRECAST CST-8000 OR APPROVED EQUAL) WITH DUCK - BILLED BACKWATER VALVE IN BOTTOM OF TANK OUTLET.

GREASE TRAP SIZING

RESTAURANT:	(100 SEATS) x (15 GPD / SEAT)	= 1,500 GPD

INSTALL 1,500 GALLON GREASE TRAP (5'x10' OLDCASTLE PRECAST GT-1500 OR APPROVED EQUAL)



NAD 1927

FLOODING SCENARIO SUMMARY

GROUND ELEVATION (MINIMUM)	= 11.8 ft-CCB
GROUND ELEVATION (MAXIMUM)	= 20.4 ft-CCB
2070: 100 Year SLR/SS	= 22.5 ft
2070: 100 Year Precipitation	= 20 ft
2070: 10 Year SLR/SS	= 22 ft
2030: 100 Year Precipitation	= 19.4 ft
2030: 10 Year Precipitation	= 19.4 ft
Present Day: 100 Year	= 19.4 ft
Present Day: 10 Year	= 18.8 ft
FEMA 500 Year	= 22.4 ft
FEMA 100 Year	= 18.4 ft

(Source: Cambridge FloodViewer Pilot mapping)

FLOOD RESILIENCY SUMMARY

FP-1
PROPOSED PASSIVE FLOOD PROTECTION:
FLOODBREAK® VEHICLE GATE
(OR APPROVED EQUAL) (25'W x 30'H) AND
TRENCH DRAIN AT GARAGE ENTRANCE
TRENCH DRAIN RIM=20.00
BOTTOM OF GATE ELEVATION=20.00
TOP OF GATE ELEVATION (RAISED)=22.50

NOTES:
1. ALL PAD-MOUNTED ELECTRICAL EQUIPMENT WITHIN BUILDING SHALL BE MOUNTED ON STRUCTURAL CONCRETE PADS WITH TOP OF PAD ELEVATION SET ABOVE ELEVATION 22.50. PAD DIMENSIONS AND LOCATIONS SHOWN HEREON ARE FOR GRAPHICAL PURPOSES ONLY AND ARE NOT FINAL.
2. EXISTING 87 CAMBRIDGEPARK DRIVE BUILDING IS EXCLUDED FROM FLOOD RESILIENCY ANALYSIS.

30 0 15 30 60 120
GRAPHIC SCALE 1 inch = 30 ft.

DIMELLA SHAFFER

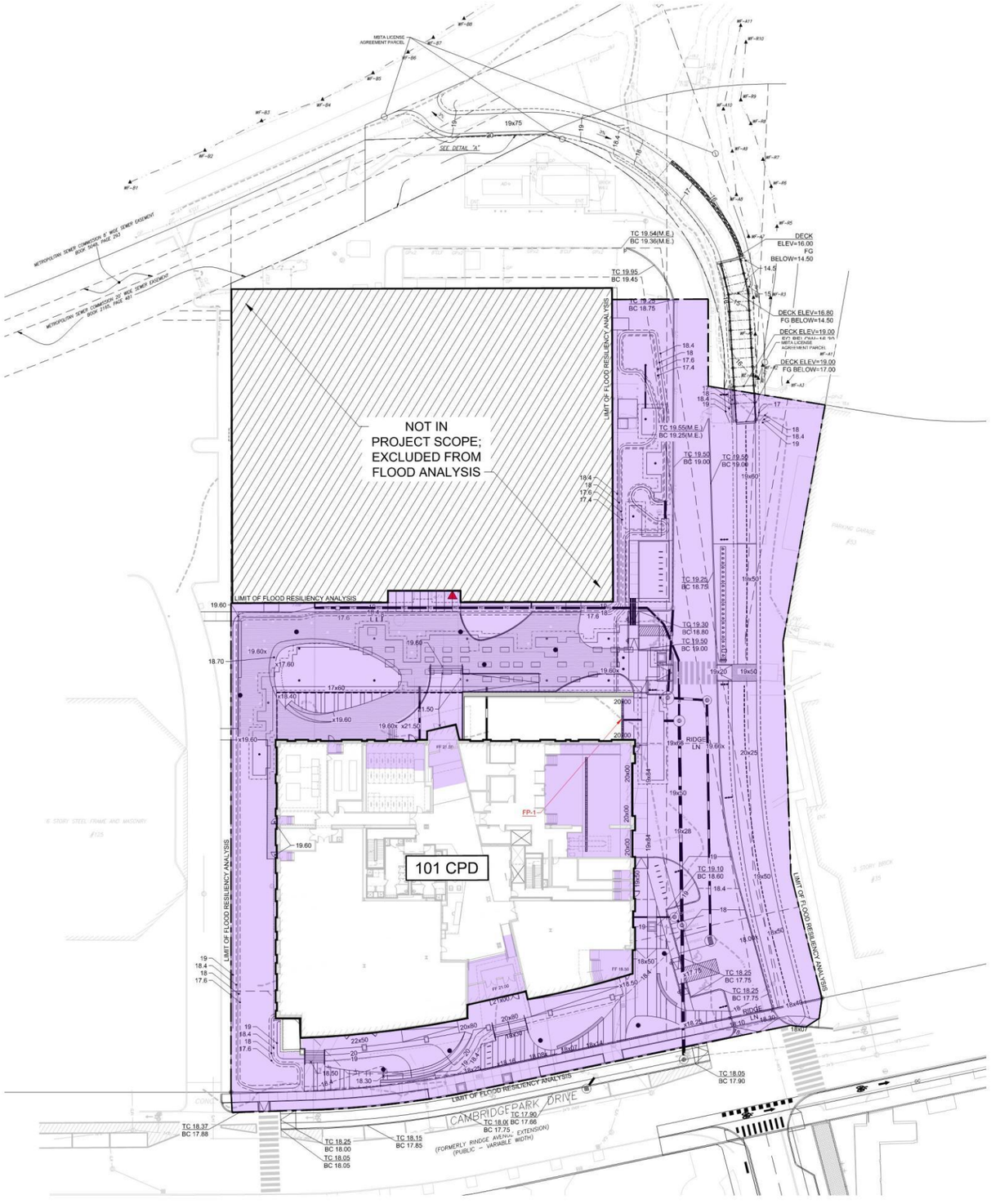
HIGHPOINT

KSP King Street Properties Placemaking for Science

FLOOD RESILIENCY PLAN

2070 100-YEAR SLR/SS PASSIVE DEPLOY

101 Cambridgepark Drive / 06/28/19 Revised 02/11/20



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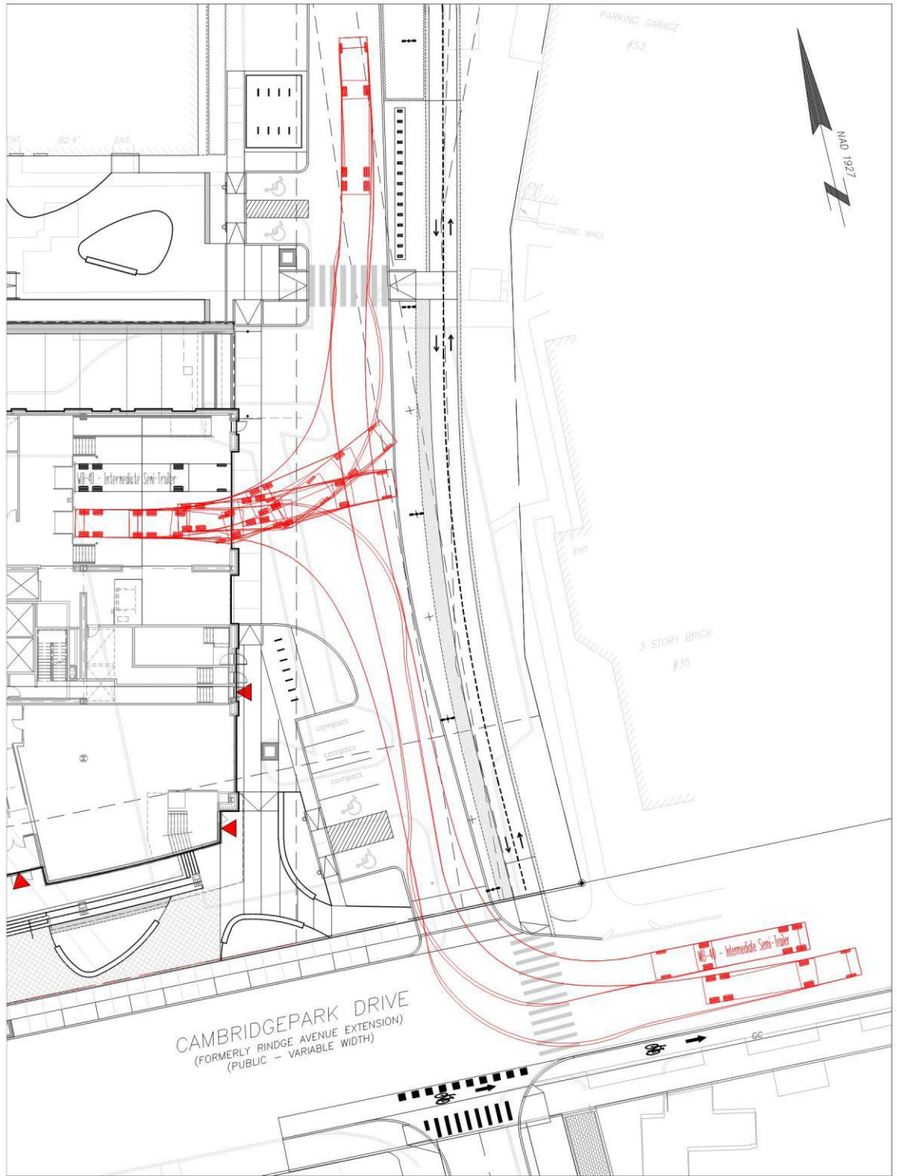
HIGHPOINT

KSP King Street Properties

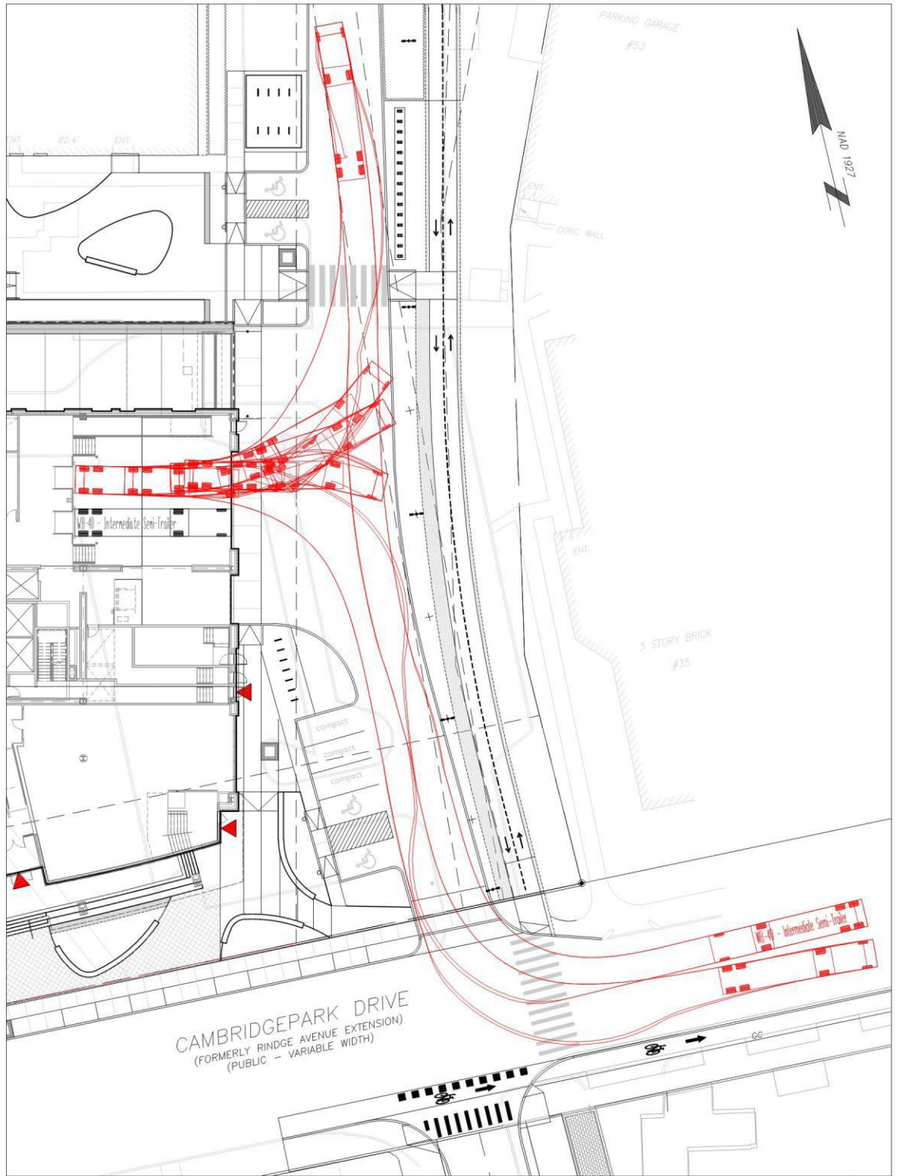
FLOOD RESILIENCY PLAN

2070 10-YEAR SLR/SS PASSIVE DEPLOY

101 Cambridgepark Drive / 06/28/19 Revised 02/11/20



WB-40 SEMITRAILER | SOUTH DOCK ACCESS WHILE NORTH DOCK OCCUPIED
1" = 20'



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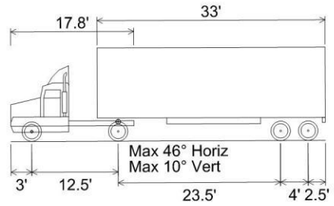
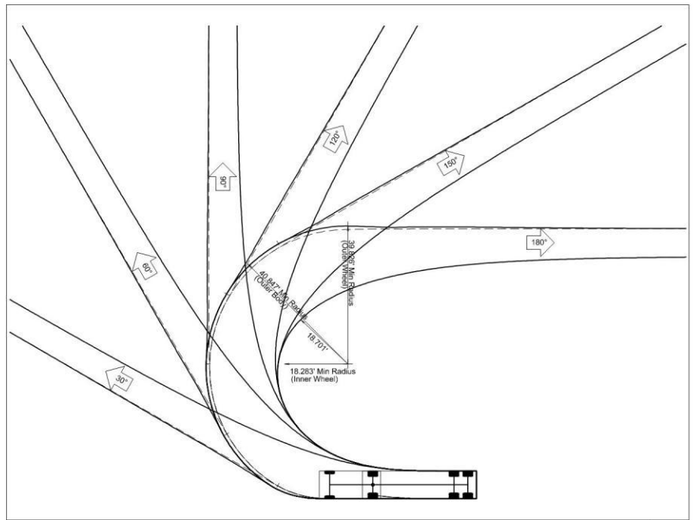


WB-40 - Intermediate Semi-Trailer	
Overall Length	45.499'
Overall Width	8.000'
Overall Body Height	13.500'
Min Body Ground Clearance	1.334'
Track Width	8.000'
Lock-to-lock time	4.00s
Max Steering Angle (Virtual)	20.30°

WB-40 SEMITRAILER PROFILE
1" = 10'



WB-40 SEMITRAILER TURNING TEMPLATE
1" = 10'

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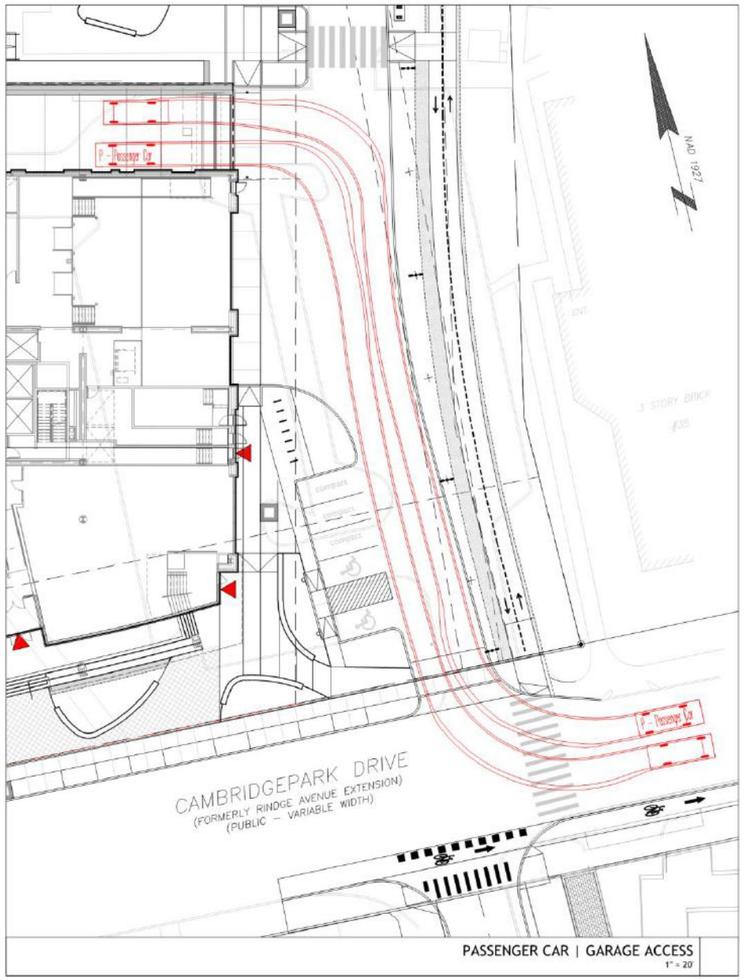
HIGHPOINT

0' 10' 20'

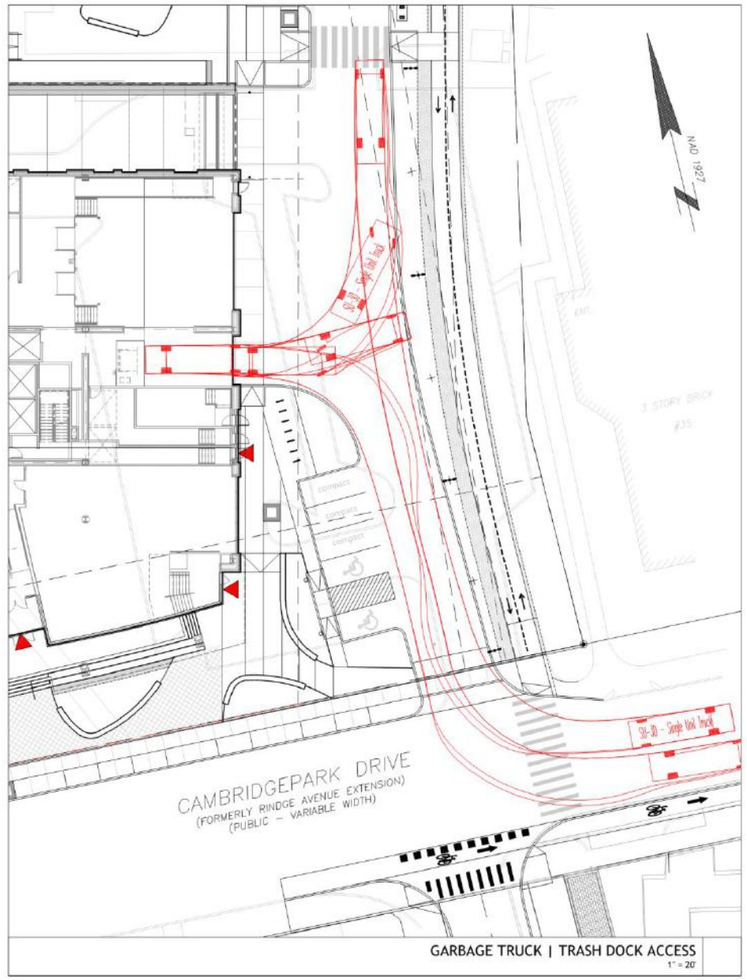
KSP King Street Properties

TRUCK TURNING - LOADING

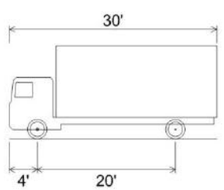
101 Cambridgepark Drive / 10/04/19



PASSENGER CAR | GARAGE ACCESS
1" = 20'



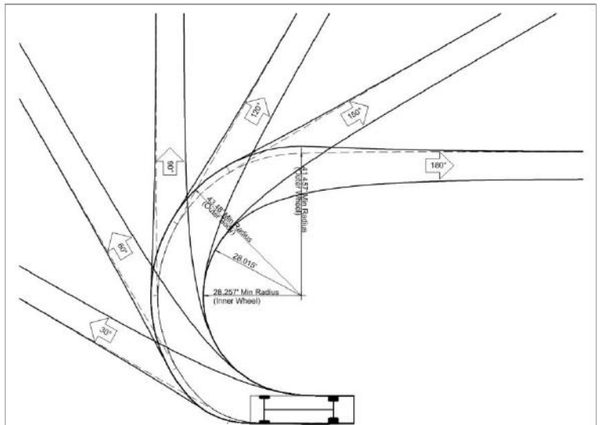
GARBAGE TRUCK | TRASH DOCK ACCESS
1" = 20'



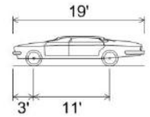
SU-30 - Single Unit Truck

Overall Length	30.000'
Overall Width	8.000'
Overall Body Height	13.500'
Min Body Ground Clearance	1.367'
Track Width	8.000'
Lock-to-lock time	5.00s
Max Steering Angle (Virtual)	31.80°

SINGLE UNIT TRUCK PROFILE
1" = 10'



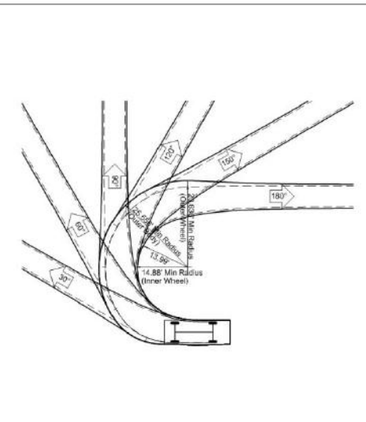
SINGLE UNIT TRUCK TURNING TEMPLATE
1" = 10'



P - Passenger Car

Overall Length	19.000'
Overall Width	7.000'
Overall Body Height	4.300'
Min Body Ground Clearance	1.115'
Track Width	6.000'
Lock-to-lock time	4.00s
Max Steering Angle (Virtual)	31.60°

PASSENGER CAR PROFILE
1" = 10'



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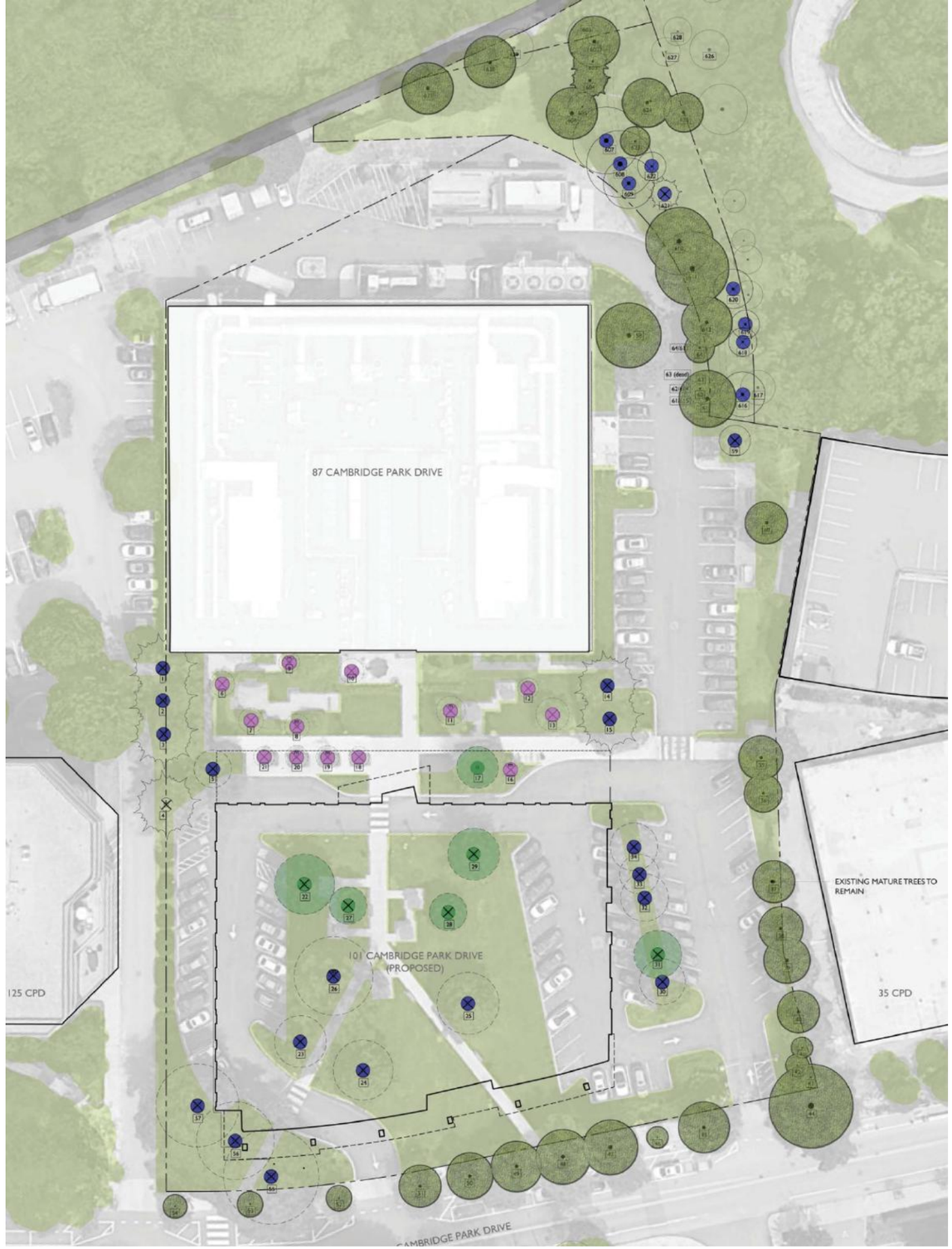
DIMELLA SHAFFER

HIGHPOINT

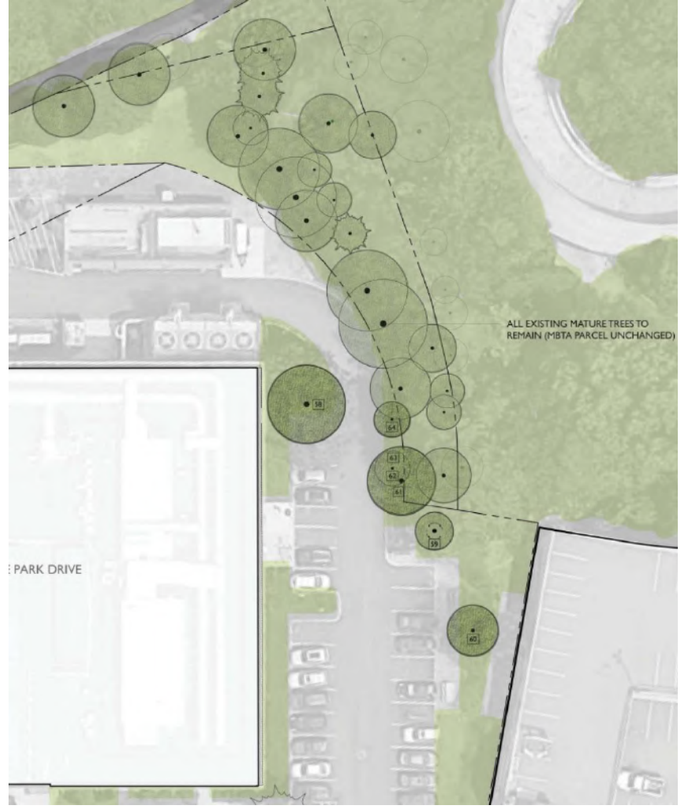
KSP King Street Properties

TURNING STUDY | TRASH DOCK & GARAGE

101 Cambridgepark Drive / 10/4/19



BASE MULTI-USE PATH CONNECTION



ALTERNATE MULTI-USE PATH CONNECTION

EXISTING TREE – TO REMAIN

EXISTING TREE - POTENTIAL FOR TRANSPLANT

EXISTING TREE TO BE REMOVED

EXISTING TREE TO BE REMOVED (INSIGNIFICANT)

TREES TO BE REMOVED, TO REMAIN AND TO BE TRANSPLANTED

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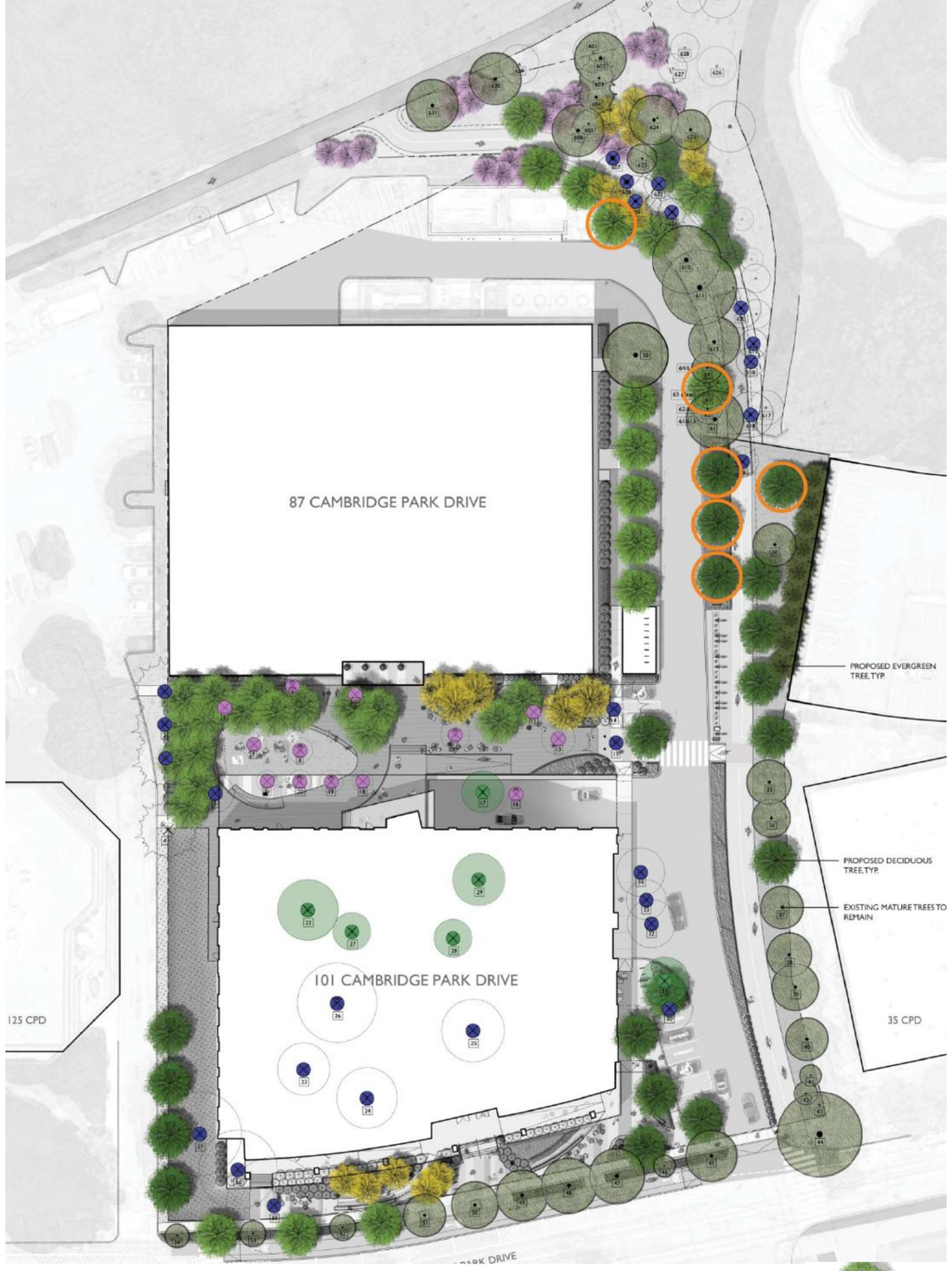
20 0 20 40
SCALE OF FEET

KSP King Street Properties

EXISTING TREE PLANS
101 Cambridgepark Drive / 06/28/19
REVISED 01/22/20



BASE MULTI-USE PATH CONNECTION

ALTERNATE MULTI-USE PATH CONNECTION

TREE REPLACEMENT CALCULATIONS
BASE MULTI-USE PATH CONNECTION

SITE	ACTION	# TREES	TOTAL TREE SIZE (DBH INCHES)
101 Cambridge Park Drive	TO REMAIN IN PLACE:	25	290
	TRANSPLANTING:	6	67
	REMOVING:	31	291
	REPLACING:	64	256
	NET:	**+ 33**	**- 35**
MBTA Parcel	TO REMAIN IN PLACE:	13	213
	REMOVING:	9	135
	REPLACING:	41	103
	NET:	**+ 32**	**- 32**
	PROJECT TOTAL:	**+ 65 TREES**	**- 67 INCHES**

TREE REPLACEMENT CALCULATIONS
ALTERNATE MULTI-USE PATH

SITE	ACTION	# TREES	TOTAL TREE SIZE (DBH INCHES)
101 Cambridge Park Drive	TO REMAIN IN PLACE:	25	302
	TRANSPLANTING:	6	67
	REMOVING:	30	279
	REPLACING:	64	256
	NET:	**+ 34**	**- 23**
	PROJECT TOTAL:	**+ 34 TREES**	**- 23 INCHES**

PROPOSED DECIDUOUS SHADE TREE
PROPOSED DECIDUOUS ORNAMENTAL TREE
PROPOSED DECIDUOUS FLOWERING TREE

PROPOSED LOCATION FOR TRANSPLANTED TREE
EXISTING TREE - POTENTIAL FOR TRANSPLANT
EXISTING TREE TO BE REMOVED
EXISTING TREE TO BE REMOVED (INSIGNIFICANT)

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SCALE OF FEET

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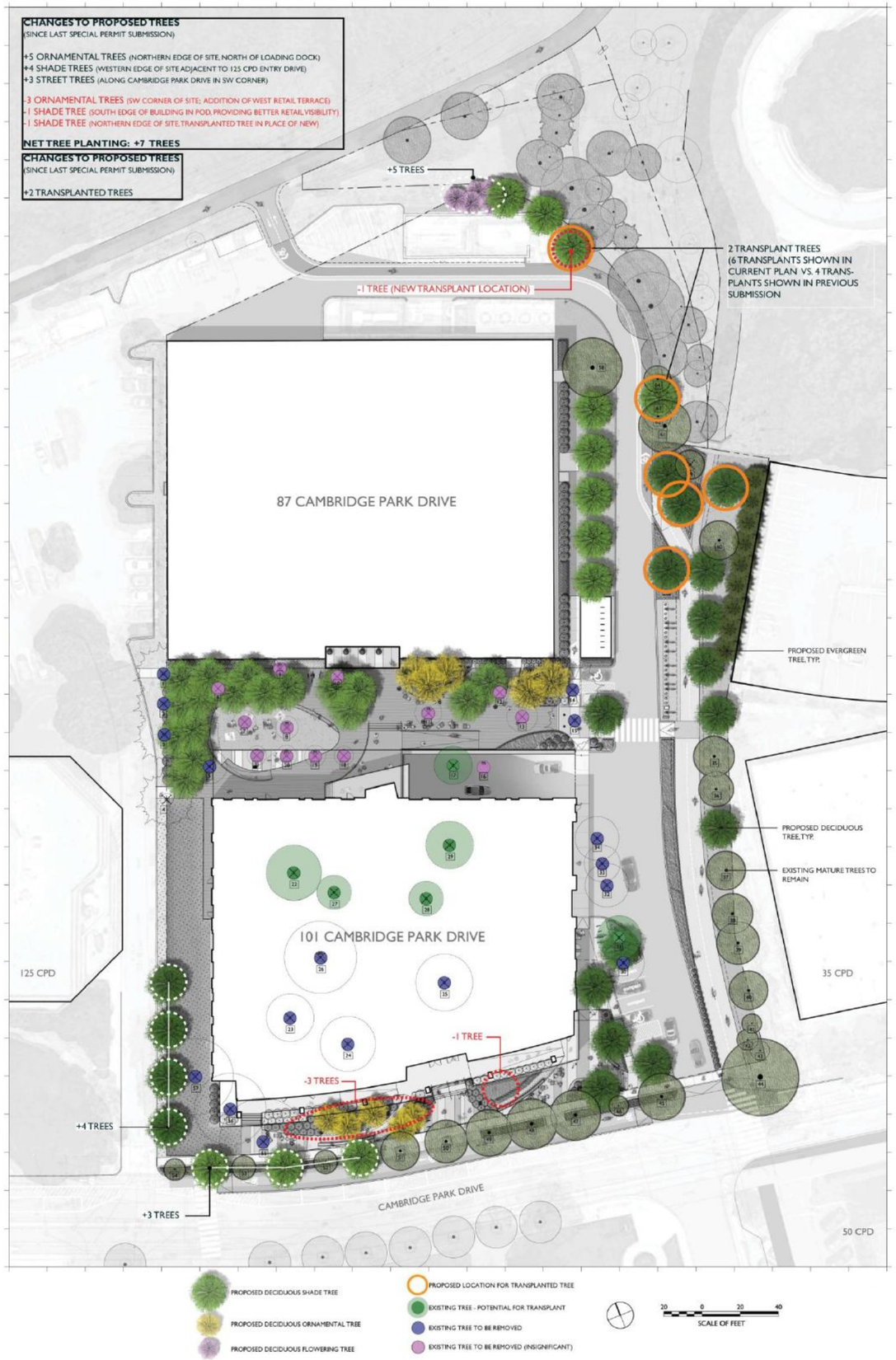
OVERLAY OF ALL TREES
EXISTING + NEW TREE PLANS
101 Cambridgepark Drive / 06/28/19
REVISED 02/112/20



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INDICATING TREES ADDED SINCE LAST SUBMISSION

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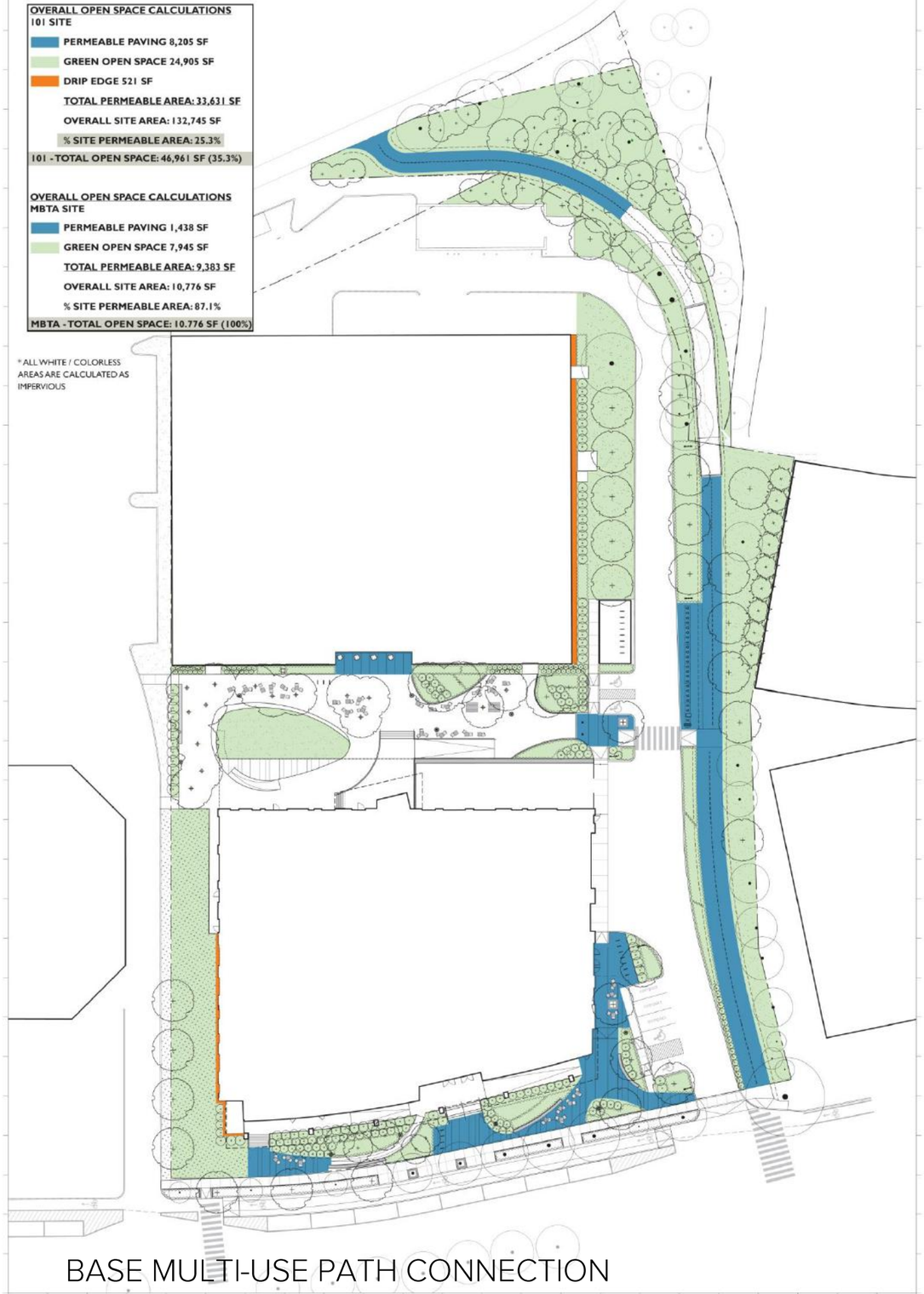
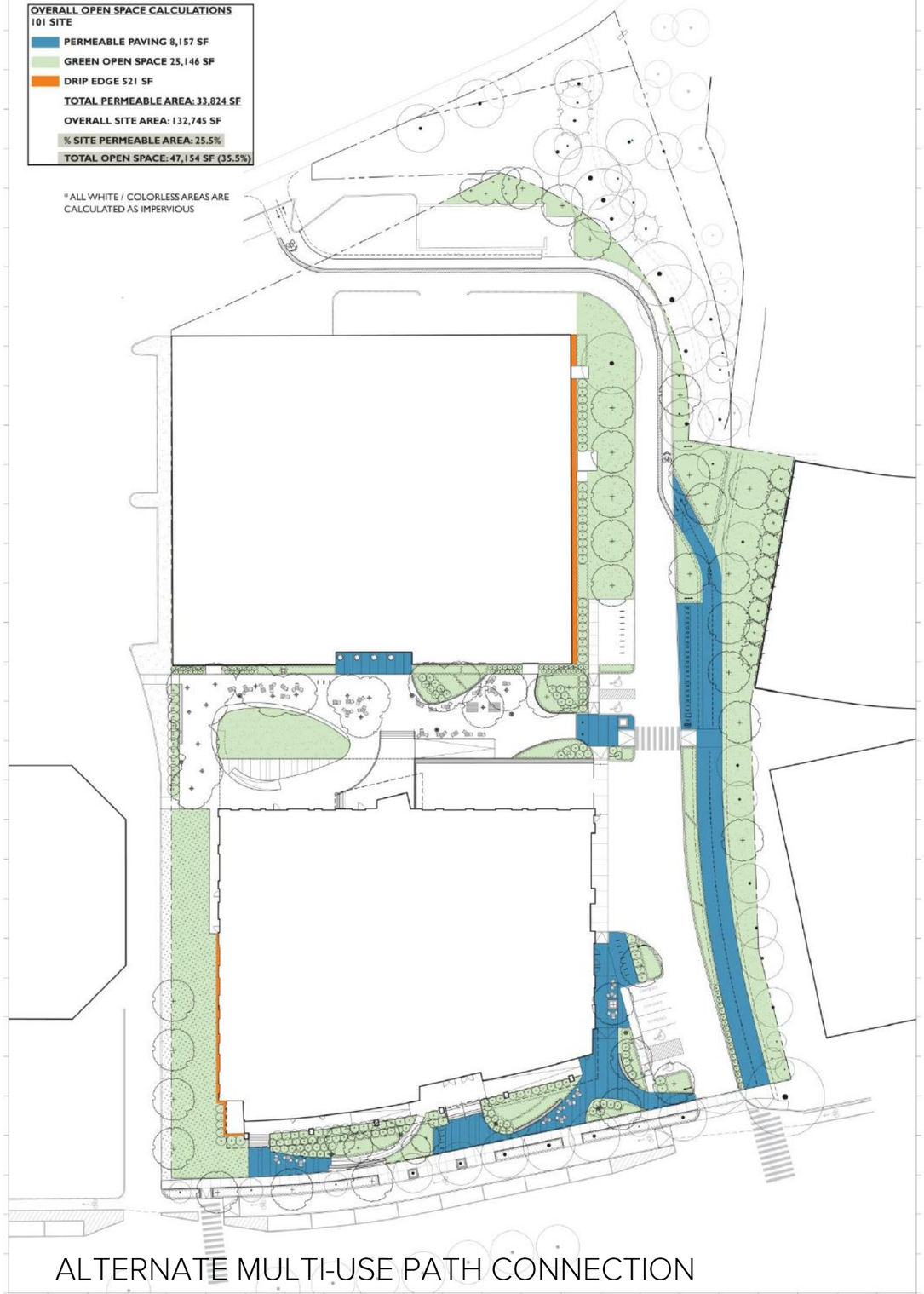
TREE PLAN

101 Cambridgepark Drive 02/11/20



BASE MULTI-USE PATH CONNECTION



ALTERNATE MULTI-USE PATH CONNECTION

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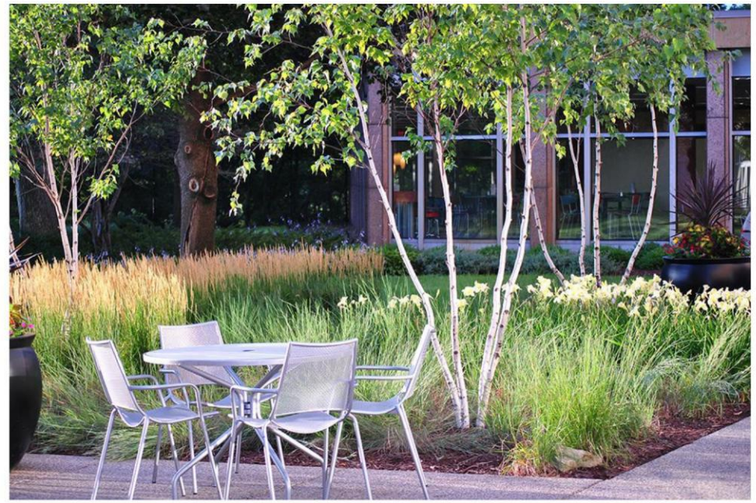
SCALE OF FEET

KSP King Street Properties

OPEN SPACE / PERMEABLE PLANS
101 Cambridgepark Drive 10/04/19
REVISED 02/11/20

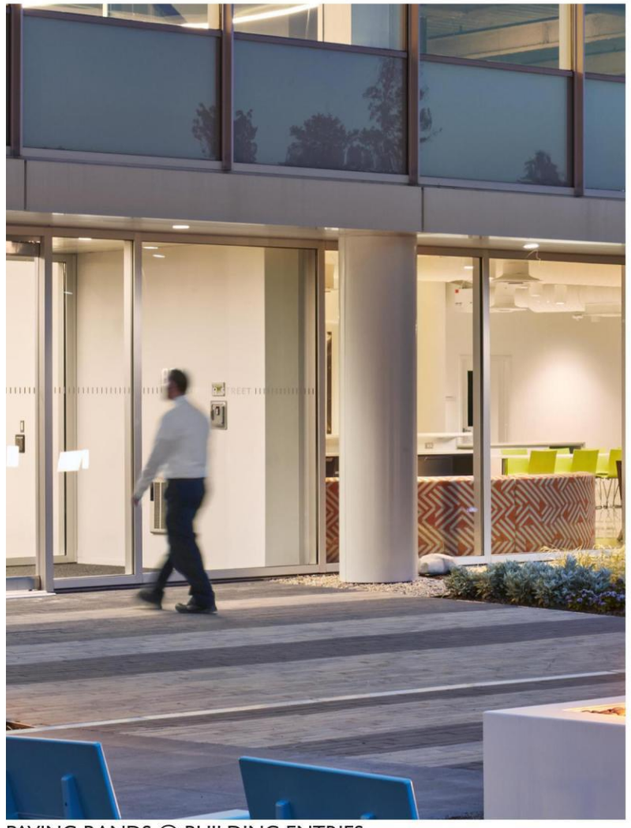
CURVING SEATWALLS WITH INTEGRATED PLANTING (STREETSCAPE)

CURVING BENCH WITH ADJACENT PLAZA (STREETSCAPE)

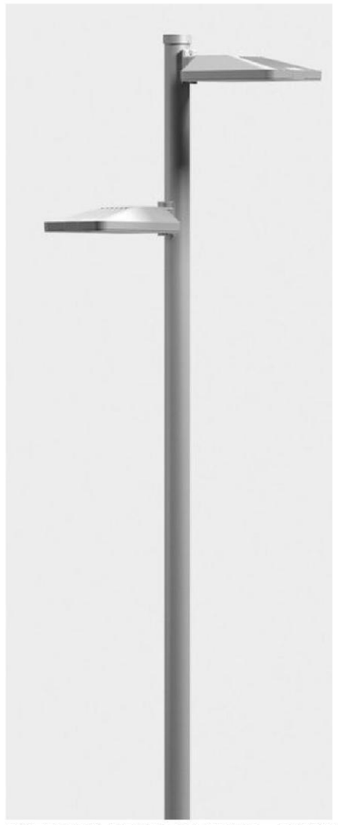


FLEXIBLE SEATING ON PLAZA DECK ABOVE CALMING PLANTED AREAS

BIKE SHELTER (SLAT PANELS WITH FLAT SOLID ROOF, LOCKABLE AND FULLY ENCLOSED FOR 16 BIKES)



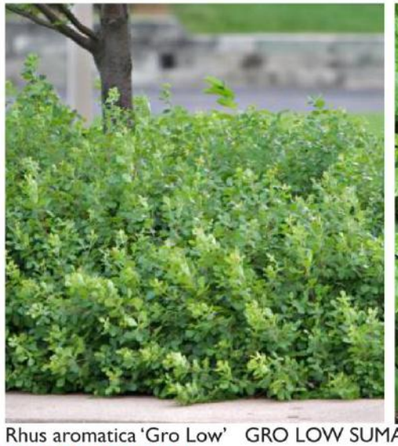
PAVING BANDS @ BUILDING ENTRIES



EXTERIOR POLE LIGHTING - DIFFERING POLE MOUNTING HEIGHTS
FOR PEDESTRIAN AND VEHICULAR TRAFFIC ALONG MULTIMODAL PATH


Betula nigra 'Dura Heat' RIVER BIRCH
(ALL TREES IN LARGE DECK OPENINGS)


Gleditsia triacanthos 'Streetkeeper' HONEYLOCUST
(ALL STREET TREES and ALL TREES GROWING THROUGH DECK)




Rhus aromatica 'Gro Low' GRO LOW SUMAC
(HEIGHT 30-36" tall)


Taxus x media 'Tauntonii' YEW
(HEIGHT 30-36" tall)


Liriope muscari 'Big Blue' LILYTURF
(HEIGHT 18" tall)


Calamagrostis x acutiflora 'Karl Foerster' FEATHER REED GRASS
(HEIGHT 36-42" tall)


Miscanthus sinensis 'Purpurascens' FLAME GRASS
(HEIGHT 60" tall)


Cornus sericea 'Alleman's Compact' REDTWIG DOGWOOD
(IN LARGE DECK OPENINGS - HEIGHT 60" tall, at least 18" above deck)


Matteuccia struthiopteris OSTRICH FERN
(IN LARGE DECK OPENINGS - HEIGHT 30-36" tall, at least 18" above deck)

PLANTING SCHEUDLE ON 101 CPD PARCEL

QTY	Symbol	TREE SCIENTIFIC NAME	TREE COMMON NAME	TREE SIZE (DBH; inch)	TOTAL TREE REPLACEMENT (caliper inch)
5	AG	Amelanchier x grandiflora 'Autumn Brilliand	SERVICEBERRY (multistem)	2.0	10.0
7	AR	Acer x freemanii 'Autumn Blaze'	AUTUMN BLAZE MAPLE	4.5	31.5
10	BN	Betula nigra 'BNMTF' DuraHeat single stem	DURA HEAT RIVER BIRCH	4.0	40.0
15	GS	Gleditsia triacanthos 'Street Keeper'	STREETKEEPER HONEYLOCUST	4.5	67.5
3	GT	Gleditsia triacanthos 'Shademaster'	SHADEMASTER HONEYLOCUST	4.5	13.5
9	JV	Juniperus virginiana	EASTERN RED CEDAR	4.0 (6-7' ht)	36.0
3	PX	Platanus x acerifolia	LONDON PLANETREE	4.5	13.5
4	QB	Quercus bicolor	SWAMP WHITE OAK	3.0	12.0
2	UA	Ulmus americana 'Valley Forge'	VALLEY FORGE AMERICAN ELM	4.5	9.0
6	ZS	Zelkova serrata 'Green Vase'	GREEN VASE ZELKOVA	4.5	27.0

	TOTAL TREE REPLACEMENT (caliper inch)
TOTAL REPLACEMENT:	250
REQUIRED CALIPER INCHES TO REPLACE:	291
% REPLACEMENT ATTAINED:	86%

BASE MULTI-USE PATH CONNECTION

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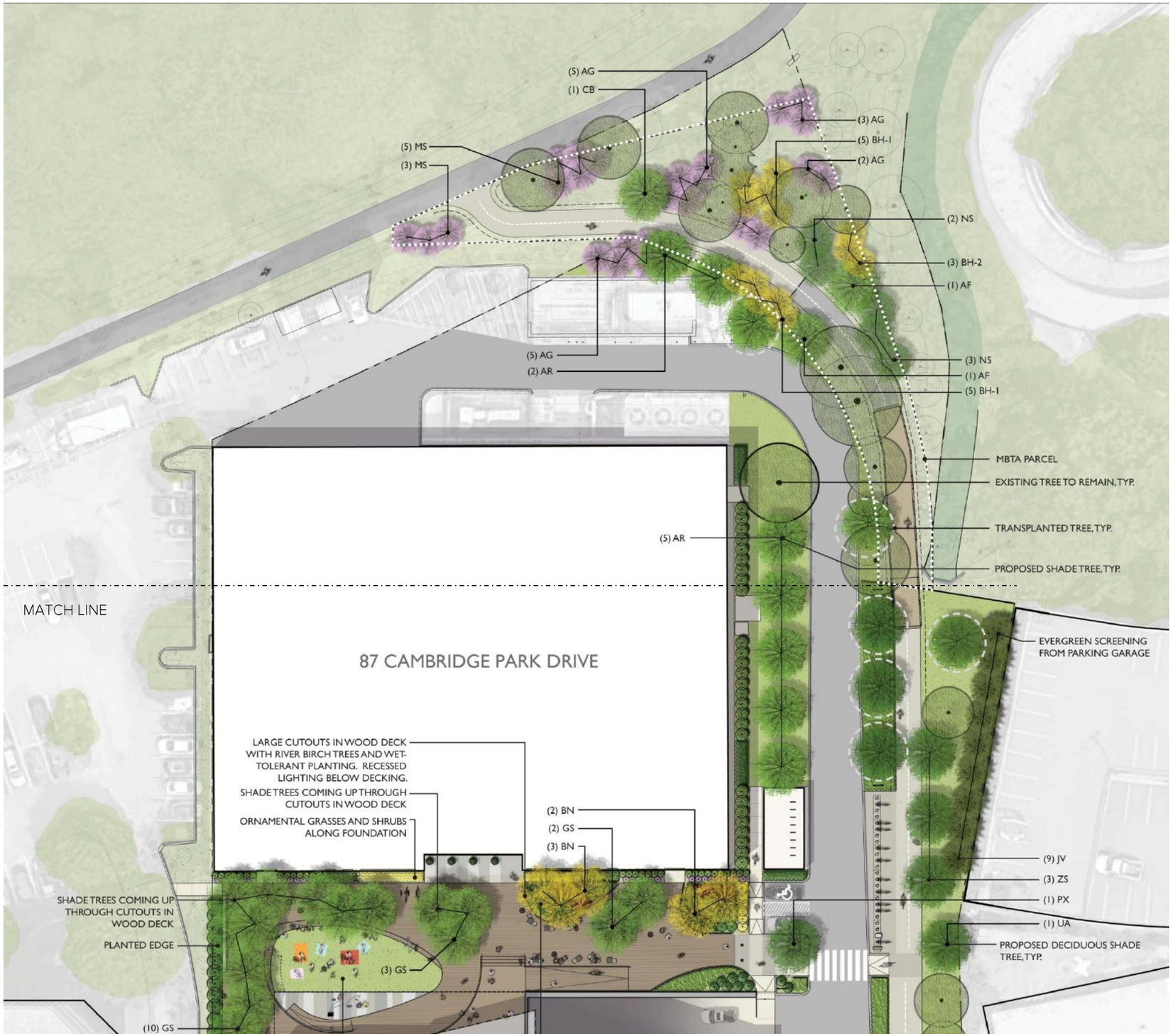
20 0 20 40
SCALE OF FEET

KSP King Street Properties Placemaking for Science

PLANTING PLAN (SOUTH)
101 Cambridgepark Drive 10/04/19
REVISED 2/11/20



PLANTING SCHEUDLE ON MBTA PARCEL

QTY	Symbol	TREE SCIENTIFIC NAME	TREE COMMON NAME	TREE SIZE (DBH; inch)	TOTAL TREE REPLACEMENT (caliper inch)
2	AF	Acer rubrum 'Franksred'	RED SUNSET RED MAPLE	4.0	8.0
12	AG	Amelanchier x grandiflora 'Autumn Brilliance	SERVICEBERRY (multistem)	2.0	24.0
10	BH-1	Betula nigra 'Heritage' single stem	HERITAGE RIVER BIRCH	3.0	30.0
3	BH-2	Betula nigra 'Heritage' single stem	HERITAGE RIVER BIRCH	2.0	6.0
1	CB	Carpinus betulus 'Fastigiata'	COMMON HORNBEAM	4.0	4.0
8	MS	Malus 'Snowdrift'	SNOWDRIFT CRABAPPLE	2.0	16.0
5	NS	Nyssa sylvatica 'Hayman's Red Rage'	RED RAGE TUPELO	3.0	15.0

	TOTAL TREE REPLACEMENT (caliper inch)
TOTAL REPLACEMENT:	103
REQUIRED CALIPER INCHES TO REPLACE (on MBTA land):	135
% REPLACEMENT ATTAINED:	76%

BASE MULTI-USE PATH CONNECTION

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20 0 20 40
SCALE OF FEET

KSP King Street Properties

PLANTING PLAN (NORTH)
101 Cambridgepark Drive 10/04/19
REVISED 02/11/20

PLANTING SCHEUDLE ON 101 CPD PARCEL

QTY	Symbol	TREE SCIENTIFIC NAME	TREE COMMON NAME	TREE SIZE (DBH; inch)	TOTAL TREE REPLACEMENT (caliper inch)
5	AG	Amelanchier x grandiflora 'Autumn Brilliand	SERVICEBERRY (multistem)	2.0	10.0
7	AR	Acer x freemanii 'Autumn Blaze'	AUTUMN BLAZE MAPLE	4.5	31.5
10	BN	Betula nigra 'BNMTF' DuraHeat single stem	DURA HEAT RIVER BIRCH	4.0	40.0
15	GS	Gleditsia triacanthos 'Street Keeper'	STREETKEEPER HONEYLOCUST	4.5	67.5
3	GT	Gleditsia triacanthos 'Shademaster'	SHADEMASTER HONEYLOCUST	4.5	13.5
9	JV	Juniperus virginiana	EASTERN RED CEDAR	4.0 (6-7' ht)	36.0
3	PX	Platanus x acerifolia	LONDON PLANETREE	4.5	13.5
4	QB	Quercus bicolor	SWAMP WHITE OAK	3.0	12.0
2	UA	Ulmus americana 'Valley Forge'	VALLEY FORGE AMERICAN ELM	4.5	9.0
6	ZS	Zelkova serrata 'Green Vase'	GREEN VASE ZELKOVA	4.5	27.0

	TOTAL TREE REPLACEMENT (caliper inch)
TOTAL REPLACEMENT:	250
REQUIRED CALIPER INCHES TO REPLACE:	291
% REPLACEMENT ATTAINED:	86%

ALTERNATE MULTI-USE PATH CONNECTION

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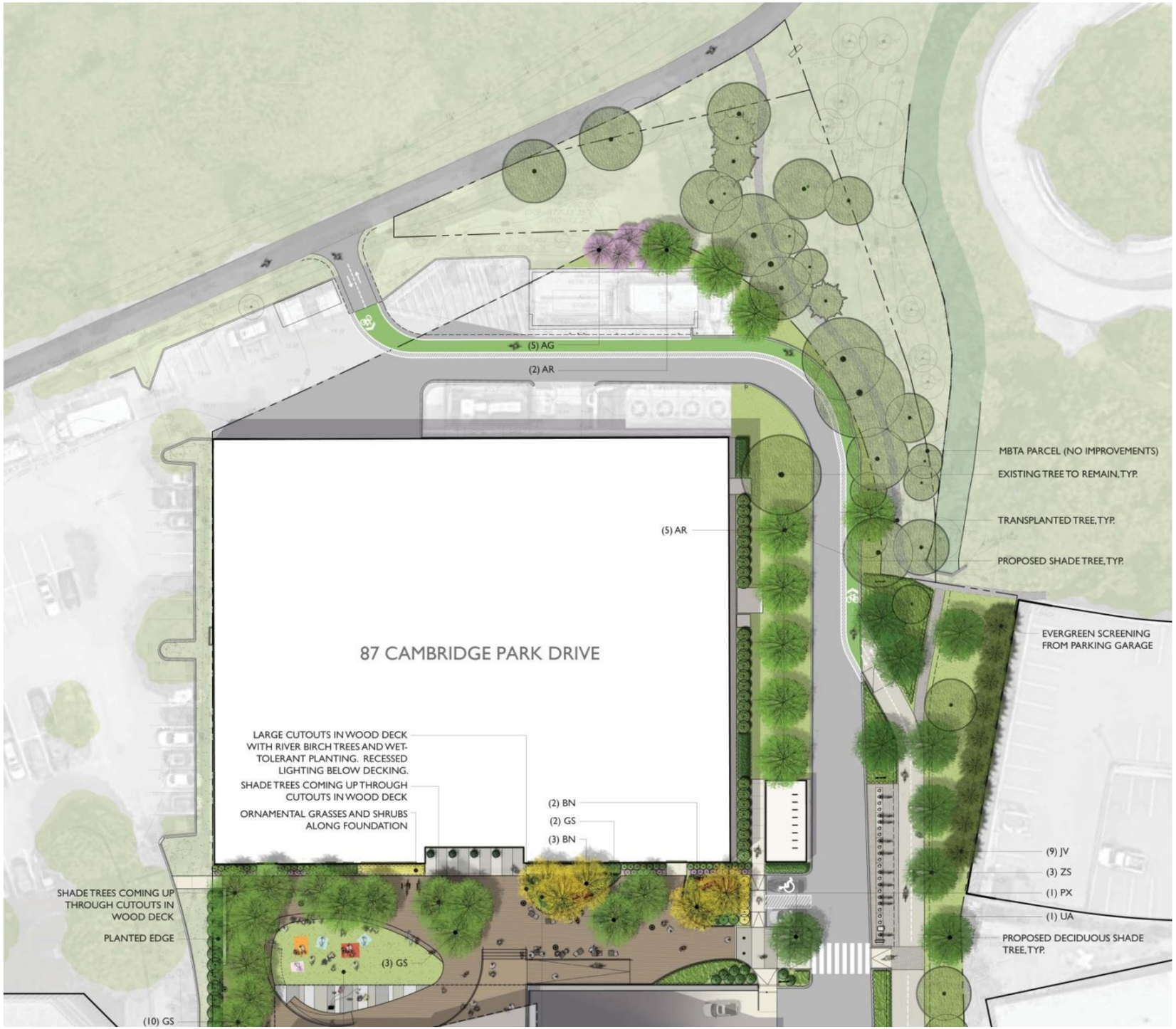
20 0 20 40
SCALE OF FEET

KSP King Street Properties

PLANTING PLAN (SOUTH)
101 Cambridgepark Drive 2/11/20



ALTERNATE MULTI-USE PATH CONNECTION

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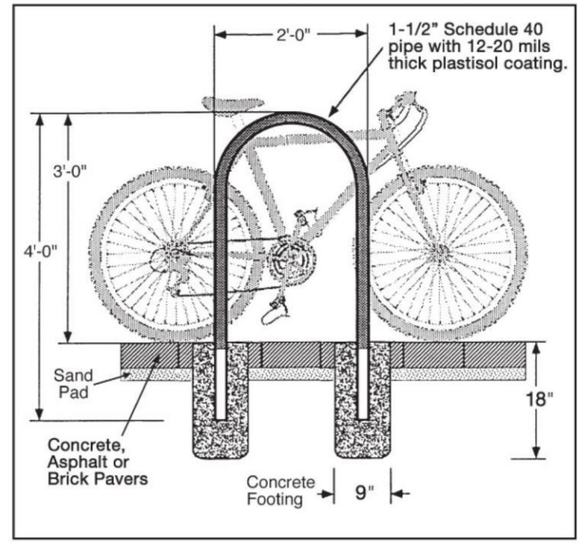
20 0 20 40
SCALE OF FEET

KSP King Street Properties

PLANTING PLAN (NORTH)
101 Cambridgepark Drive 02/11/20

INVERTED - U RACKS FOR ALL EXTERIOR BICYCLE PARKING



DETAIL A: LONG-TERM BICYCLE PARKING (87 CPD) - 16 BICYCLES
(FULLY COVERED AND PROTECTED FROM WEATHER)

DETAIL B: SHORT-TERM BICYCLE PARKING (87 CPD) - 6 BICYCLES

DETAIL C: LONG-TERM BICYCLE PARKING (101 CPD) - 48 BICYCLES
(SEE ARCHITECTURAL DRAWINGS)

DETAIL D: SHORT-TERM BICYCLE PARKING (101 CPD) - 14 BICYCLES

DETAIL E: SHORT-TERM BICYCLE PARKING (101 CPD) - 8 BICYCLES

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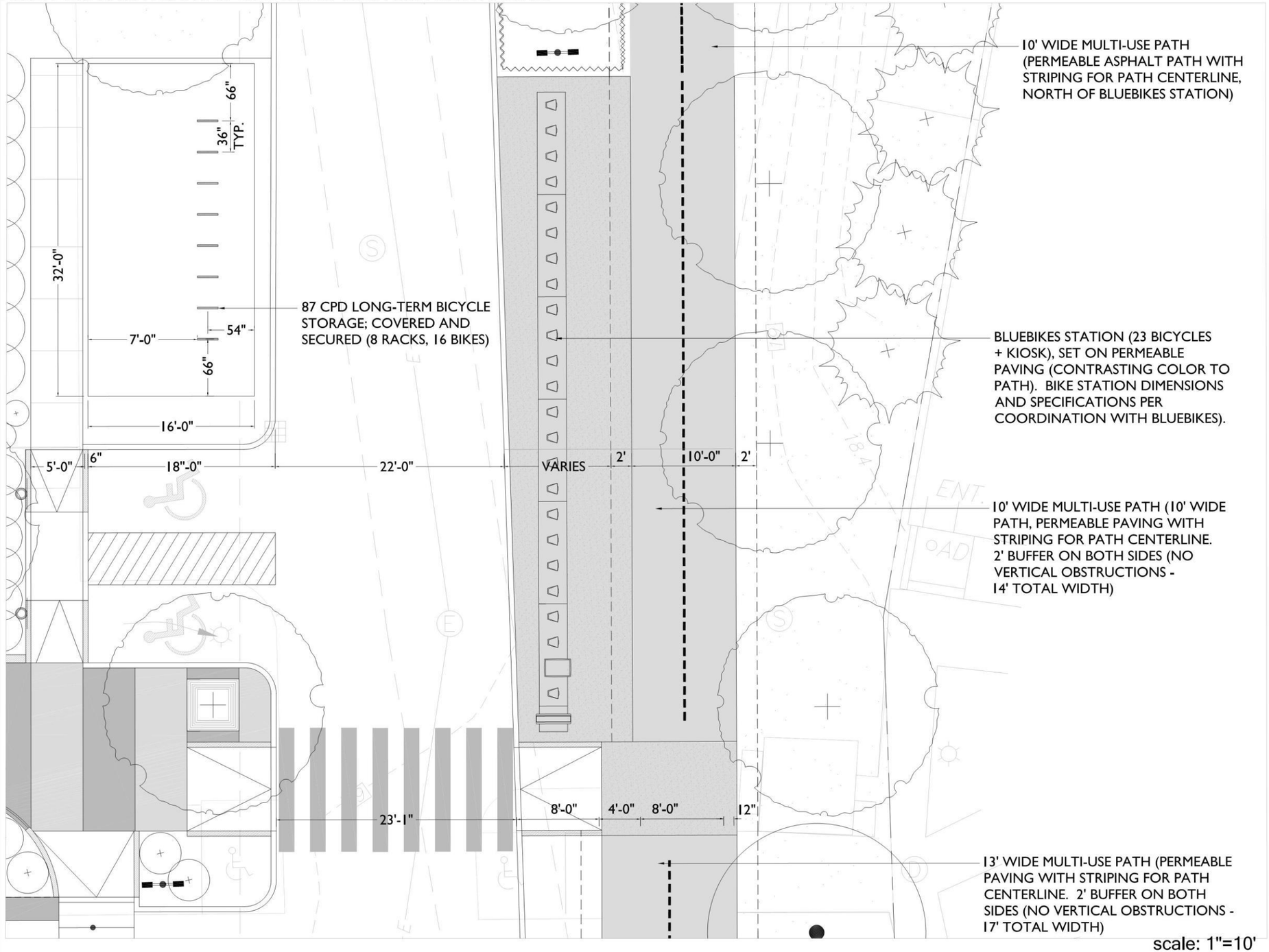
KSP King Street Properties

BICYCLE PARKING

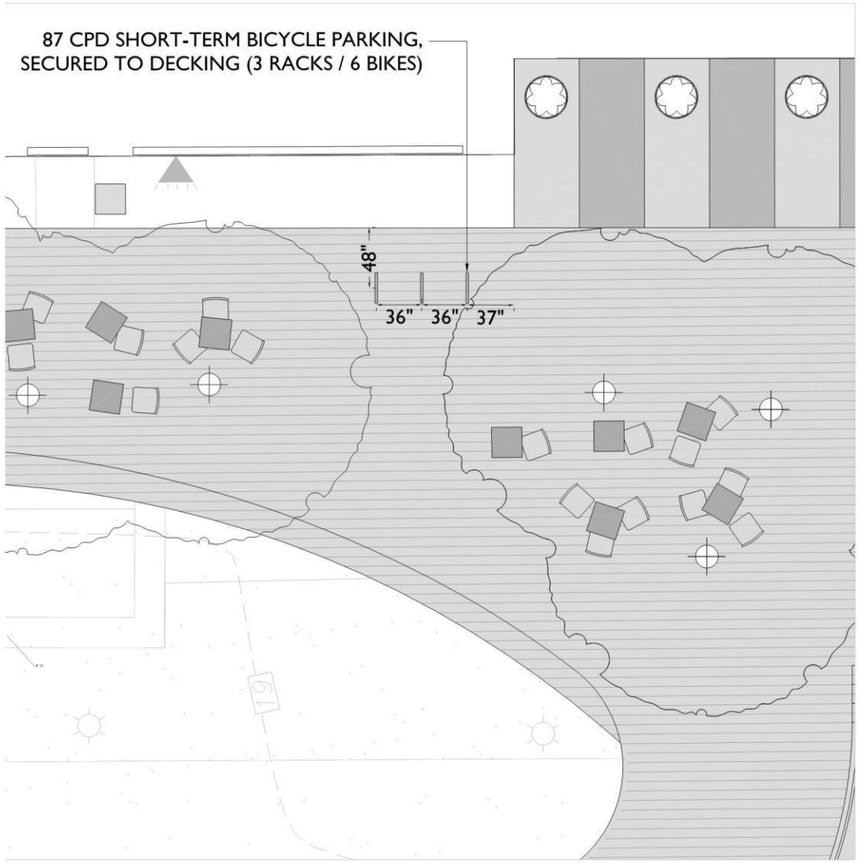
101 Cambridgepark Drive 10/04/19
REVISED 02/11/20

DETAIL A
MULTI-USE PATH PLAN / 87 CPD LONG-TERM BICYCLE PARKING



scale: 1"=10'

DETAIL B
87 CPD SHORT-TERM BICYCLE PARKING



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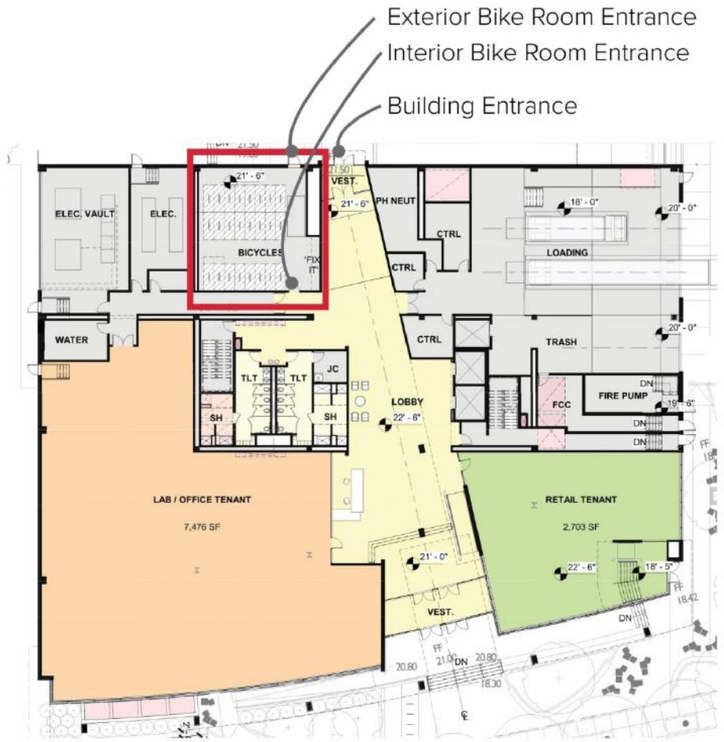
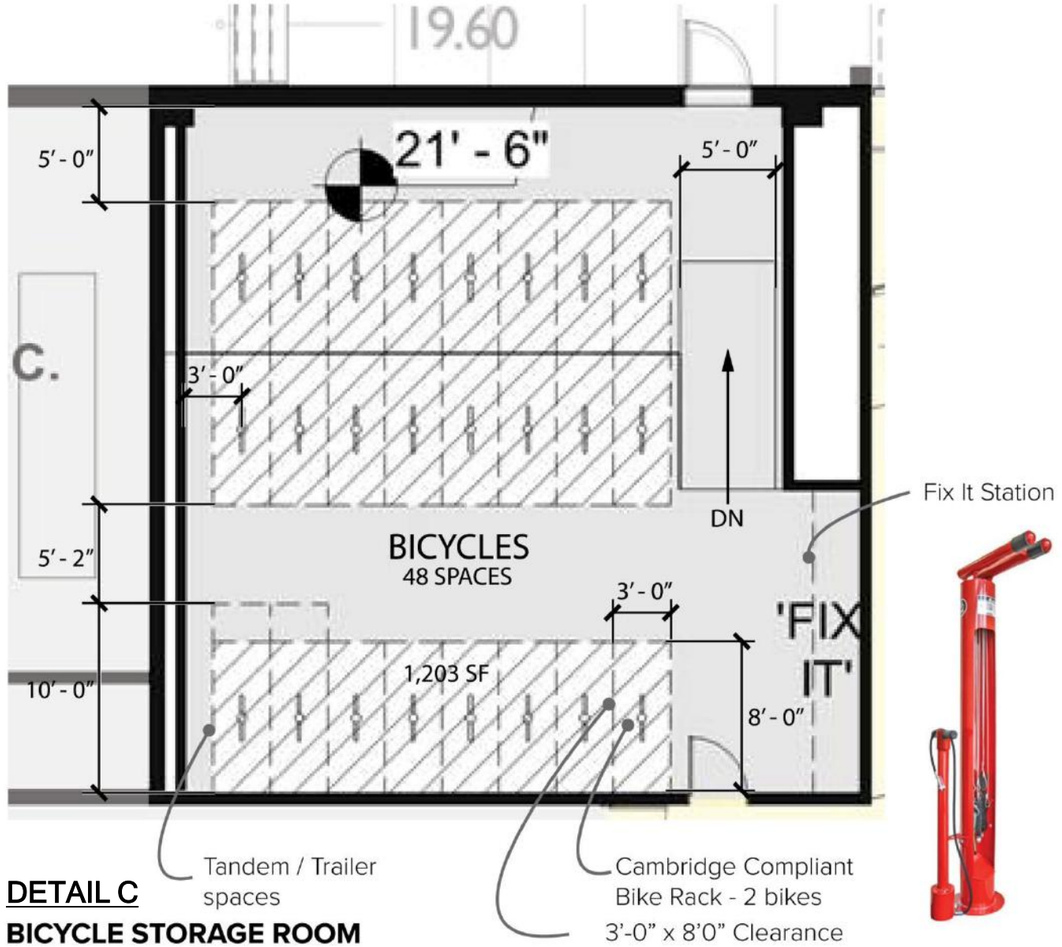
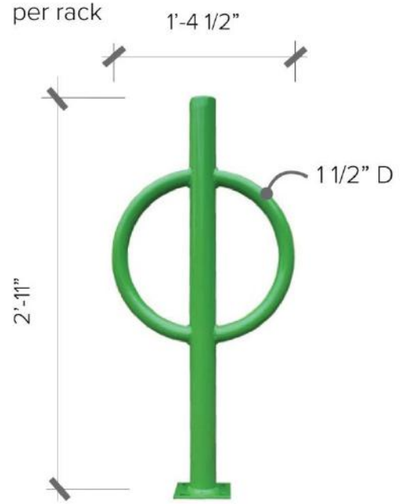


LEVEL ONE PLAN

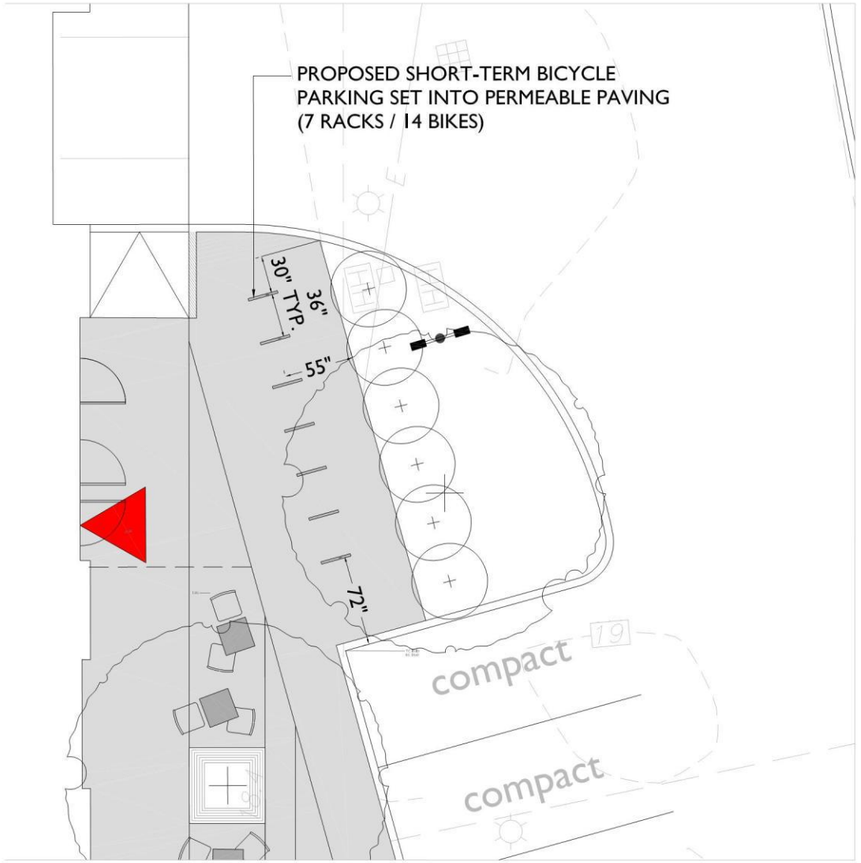


DETAIL C

BICYCLE STORAGE ROOM ENLARGED PLAN

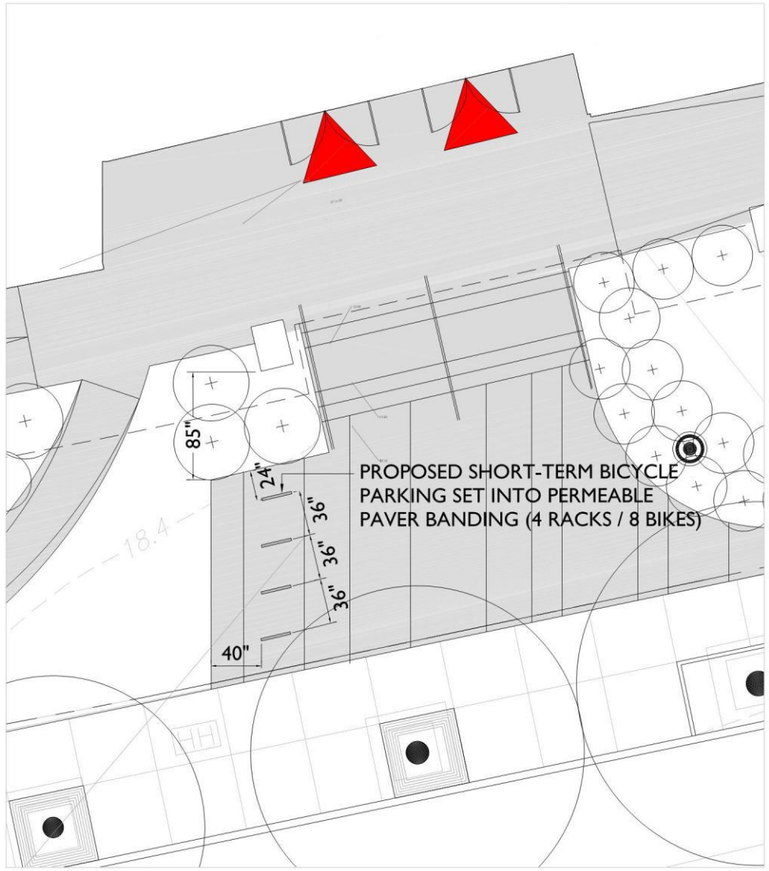


DETAIL D
101 CPD SHORT-TERM BICYCLE PARKING

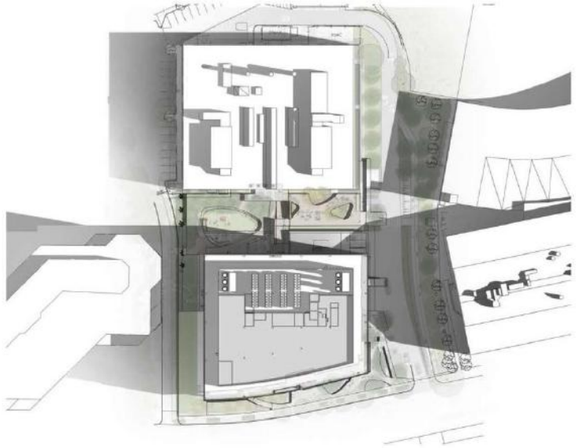


scale: 1"=10'

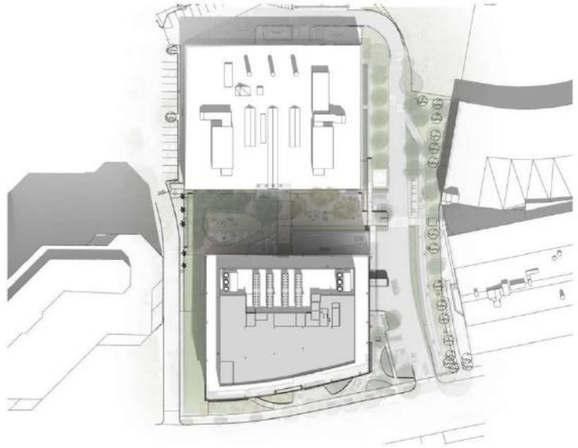
DETAIL E
101 CPD SHORT-TERM BICYCLE PARKING



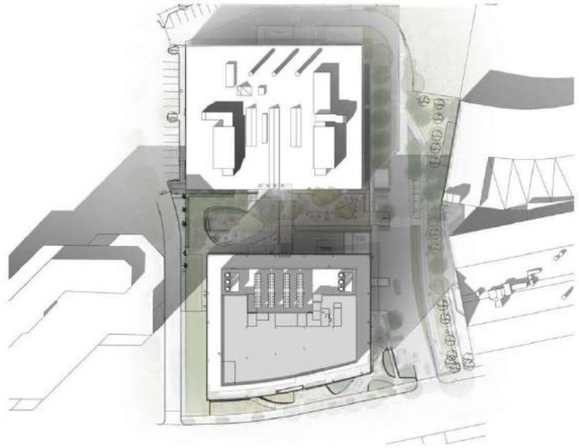
scale: 1"=10'



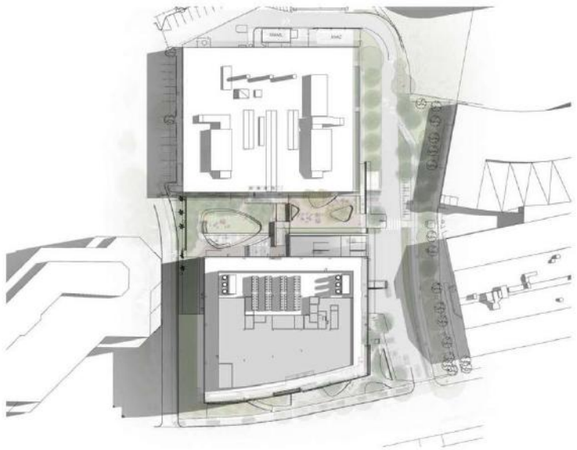
1 Shadow Studies - 03-20 8am
1/64" = 1'-0"



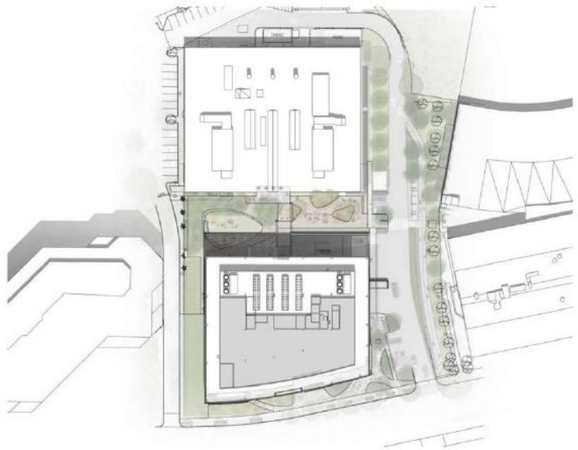
2 Shadow Studies - 03-20 12pm
1/64" = 1'-0"



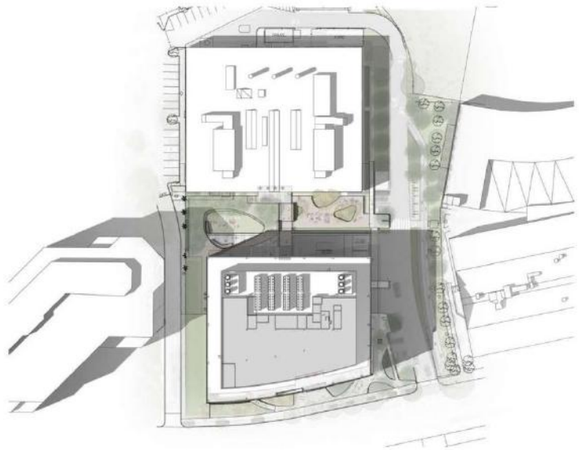
3 Shadow Studies - 03-20 3pm
1/64" = 1'-0"



4 Shadow Studies - 06-21 8am
1/64" = 1'-0"

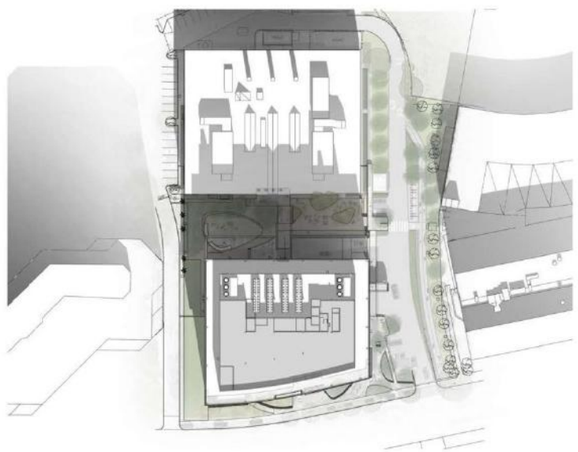


5 Shadow Studies - 06-21 12 pm
1/64" = 1'-0"

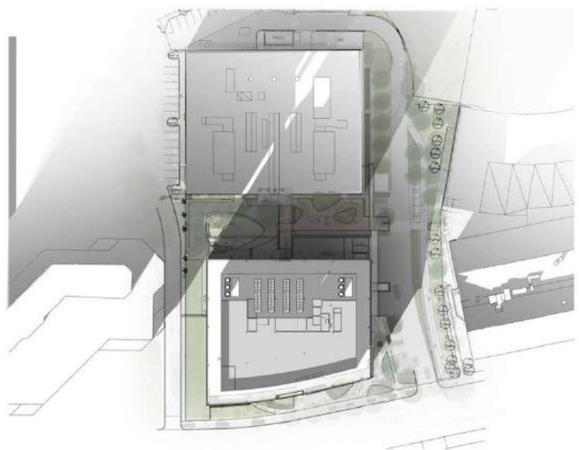


6 Shadow Studies - 06-21 3 pm
1/64" = 1'-0"

7 Shadow Studies - 12-21 8am
1/64" = 1'-0"



8 Shadow Studies - 12-21 12 pm
1/64" = 1'-0"



9 Shadow Studies - 12-21 3pm
1/64" = 1'-0"