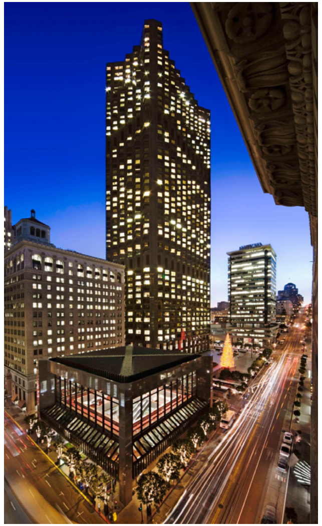



VORNADO
REALTY TRUST

NOVEMBER 2018

FORWARD LOOKING STATEMENTS

VORNADO REALTY TRUST

Certain statements contained in this investor presentation constitute forward-looking statements as such term is defined in Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Forward-looking statements are not guarantees of performance. They represent our intentions, plans, expectations and beliefs and are subject to numerous assumptions, risks and uncertainties. Consequently, the future results, financial condition and business of Vornado Realty Trust (“Vornado”) may differ materially from those expressed in these forward-looking statements. You can find many of these statements by looking for words such as “approximates”, “believes”, “expects”, “anticipates”, “estimates”, “intends”, “plans”, “would”, “may” or similar expressions in this presentation. We also note the following forward-looking statements: in the case of our development and redevelopment projects, the estimated completion date, estimated project cost and costs to complete, incremental rent, incremental revenue and NOI, yields, value created and cost to complete; and stabilized yields, estimates of future capital expenditures, dividends to common and preferred shareholders and operating partnership distributions. Many of the factors that will determine the outcome of these and our other forward-looking statements are beyond our ability to control or predict. These factors include, among others: the timing of and costs associated with property improvements, financing commitments, and general economic and competitive factors. For further discussion of factors that could materially affect the outcome of our forward-looking statements and other risks and uncertainties, see “Risk Factors” in Vornado’s Annual Report on Form 10-K for the year ended December 31, 2017.

For these statements, we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995. You are cautioned not to place undue reliance on our forward-looking statements. All subsequent written and oral forward-looking statements attributable to us or any person acting on our behalf are expressly qualified in their entirety by the cautionary statements contained or referred to in this section. We do not undertake any obligation to release publicly any revisions to our forward-looking statements to reflect events or circumstances occurring after the date of this presentation.

Market Data

Market data and industry forecasts are used in this presentation, including data obtained from publicly available sources. These sources generally state that the information they provide has been obtained from sources believed to be reliable but the accuracy and completeness of the information are not assured. Vornado has not independently verified any of such information.

NEW YORK CITY FOCUSED

PREMIER ASSETS

LEADING OPERATING PLATFORM

VORNADO REALTY TRUST

PENN DISTRICT OPPORTUNITY

FORTRESS BALANCE SHEET

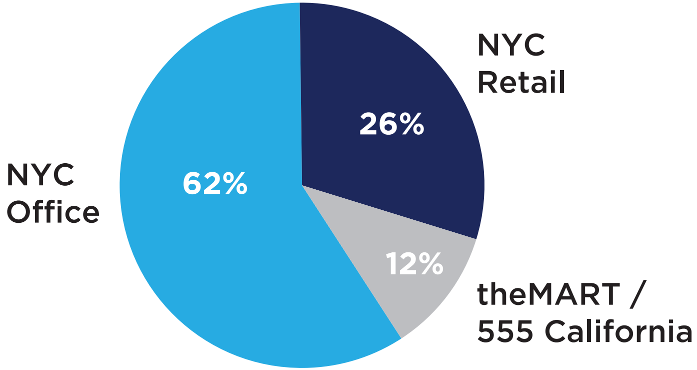
TRACK RECORD OF VALUE CREATION

VORNADO REALTY TRUST

Peerless NYC focused real estate company with premier office and street retail assets

- Vornado RemainCo's 5 and 10-year same-store NOI growth is the best among blue chip REITs
- Vornado's portfolio consists of 38MM SF (29.5MM SF at share)
- New York focused company, with an irreplaceable NYC portfolio generating 88% of the Company's NOI - Cash Basis
- NYC office includes trophy assets in best submarkets with a blue chip tenant roster
  - Well positioned with over 50% of SF in fast growing west side of Manhattan
- NYC street retail is among the scarcest and most valuable real estate in the world
  - Over 50% of NOI - Cash Basis comes from Upper Fifth Avenue and Times Square (the two premier submarkets), leased for term with high quality tenants
- theMART and 555 California Street — the best assets in Chicago and San Francisco

Components of NOI - Cash Basis[1]

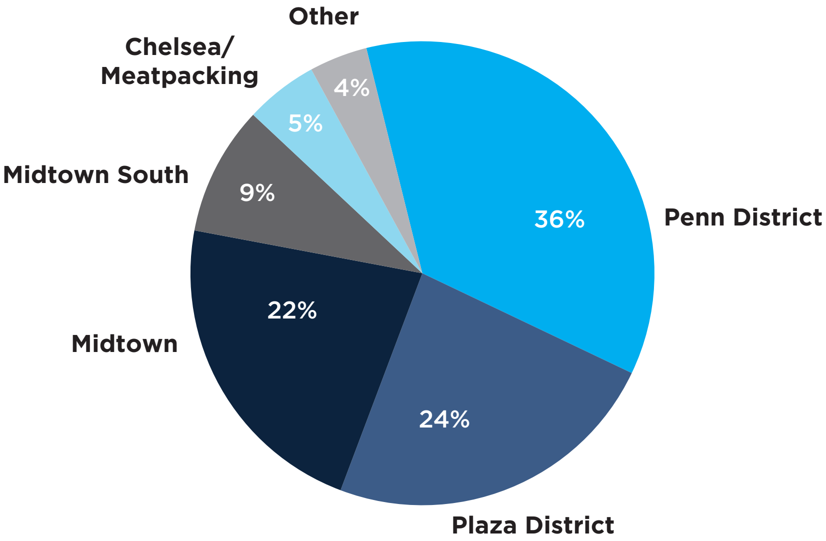


1. *For the trailing twelve months ended September 30, 2018 excluding other investments (see page 37 for non-GAAP reconciliation)*

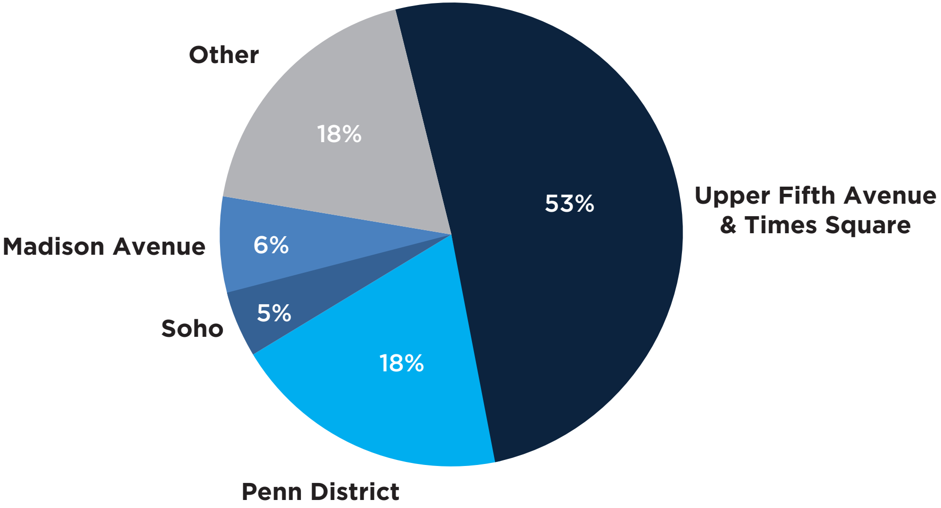
NEW YORK OFFICE & STREET RETAIL PORTFOLIOS BY SUBMARKET

VORNADO REALTY TRUST

NYC Office Submarket by Square Footage
As of 9/30/2018



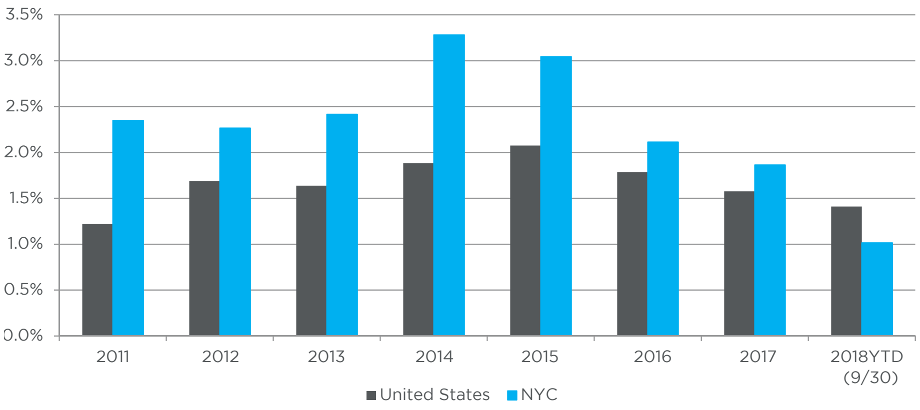
NYC Retail Submarket by NOI - Cash Basis
for the Trailing Twelve Months Ended 9/30/2018



NYC CONTINUES TO BE A MAGNET FOR TALENT

- New York is a global gateway city with strong projected population growth
  - Population projected to increase on average 23,700 annually for the next three decades, surpassing 9 million by 2040 (NYC.gov)
- Diversified employment base
  - In 1990, 1 in 2 New York City jobs were in the financial services industry - today the ratio is 1 in 4
  - Today, 1 in 4 office jobs are TAMI, and half of office jobs are in professional business services
  - Second largest tech center outside of Silicon Valley
  - Growing footprint of healthcare systems and emergence of life sciences industry
- Resurgence of financial services sector
- Continuing corporate investment in New York
  - J.P. Morgan Chase building new 2.5 million SF corporate headquarters at 270 Park Avenue
  - Google acquisition of 1.2 million SF Chelsea Market building
  - Disney purchase of 4 Hudson Square leasehold to build new headquarters

NYC Versus National Job Growth



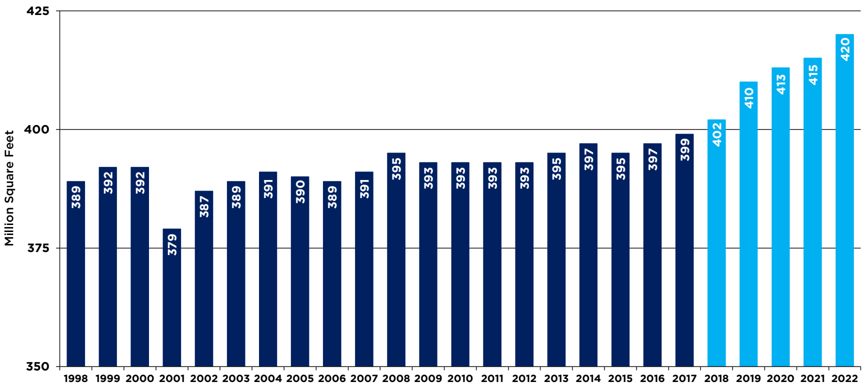
Sources: U.S. Bureau of Labor Statistics, NYS Department of Labor, Non-Farm Employment, Seasonally Adjusted

MANHATTAN IS WELL-POSITIONED TO ABSORB UPCOMING OFFICE SUPPLY

- Manhattan has benefited from negligible net new supply over the past 20 years
- New York City office-using jobs grew at an average of 34,000 per year from 2010 through 2017
- Average job growth of 15,120 per year will absorb the new supply

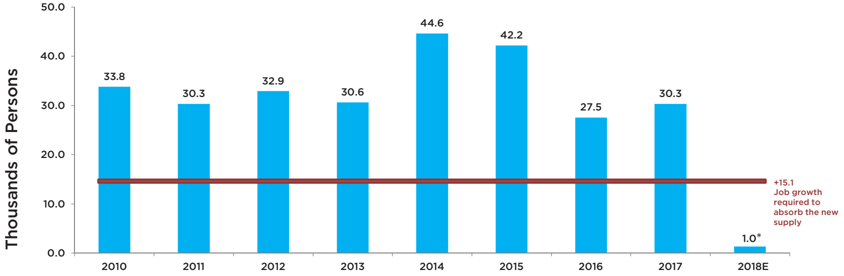
	SF in Millions
Under Development (2018-2022)	21.4
Less: Pre-Leased to Date	10.0
Available to be Leased	11.4
Future vacancy in Midtown due to relocations to new construction	7.5
Total Required New Leasing	**18.9**
Years to Complete	5
Estimated SF Per Person	250
Average Annual Job Growth Required to Absorb	**15,120**

Manhattan Office Inventory



Source: Cushman & Wakefield

NYC Office-Using Job Growth



**22,000 healthcare jobs not included*

Source: Cushman & Wakefield

CONSISTENT NYC TOURISM GROWTH SUPPORTS RETAIL SALES

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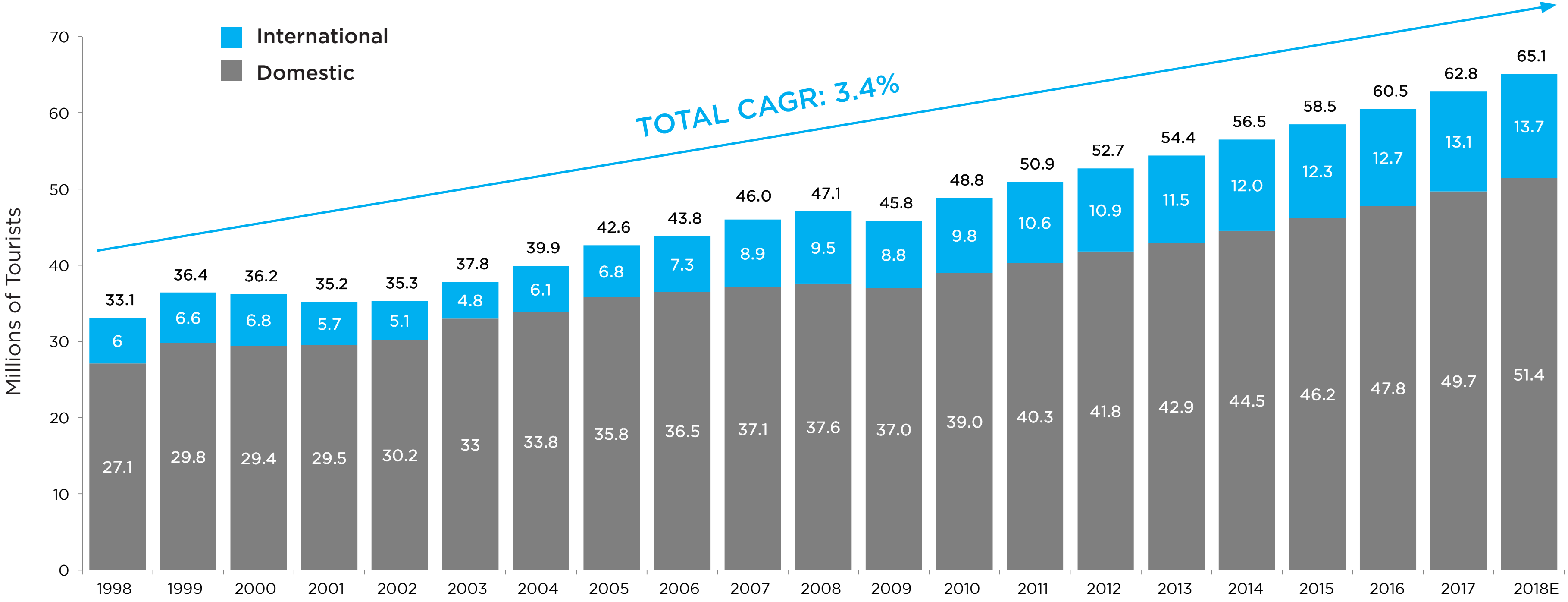

Source: NYC +Co

CATALYSTS FOR SHAREHOLDER VALUE CREATION

VORNADO REALTY TRUST

- Trading at a significant discount to NAV
- Only significant way to invest publicly in fast growing West Side of Manhattan
- Growth from creative-class new developments (1,336,000 SF at share)
    - 61 Ninth Avenue
    - 512 West 22nd Street
    - Farley Office Building
    - 260 Eleventh Avenue
    - 606 Broadway
- Penn District Redevelopment – over 9 million SF existing portfolio with significant NOI upside and value creation
    - 6.7 million SF of office with average in-place rents of $63 PSF
    - PENN1 redevelopment commences 4Q18
    - PENN2 redevelopment (1.8 million rentable SF) to commence in 1Q20
    - Hotel Pennsylvania (2.8 million rentable SF of development)
    - Other development sites
- Internal growth over time from highly sought-after existing assets
- Fortress balance sheet with substantial cash and available immediate liquidity (~$3.5 billion) to take advantage of market opportunities
    - Sale of $1 billion of non-core assets and anticipated sellout of 220 Central Park South luxury condominiums will generate significant additional dry powder
    - Closing of unit sales in 220 Central Park South began in 4Q18
- Attractive common dividend yield of 3.8% - highest among peers

IMPLIED VALUE OF VNO'S NYC OFFICE PORTFOLIO AT SUBSTANTIAL DISCOUNT TO PRIVATE MARKET SALES

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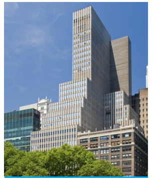
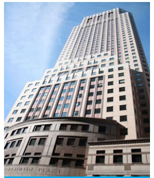
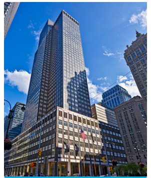
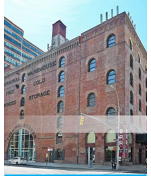


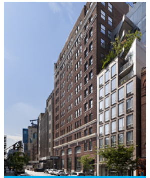



	425 LEXINGTON AVENUE	1745 BROADWAY	222 E 41ST STREET	5 BRYANT PARK	600 LEXINGTON AVENUE	350 W 50TH STREET	245 PARK AVENUE
Closing Date	10/2018	5/2018	4/2018	3/2018	1/2018	9/2017	5/2017
Sale Price ($)	705,000,000	595,800,000	332,500,000	640,000,000	305,000,000	1,725,000,000	2,210,000,000
Price PSF ($)	940	936	860	962	1,005	839	1,364
Cap Rate	4.5%	3.8%	4.0%	4.0%	4.3%	5.0%	4.9%









	224 TWELFTH AVENUE	540 W 26TH STREET	10 HUDSON YARDS	430 W 15TH STREET	330 HUDSON STREET	245-249 W 17TH STREET	218 W 18TH STREET
Closing Date	10/2018	7/2018	5/2018	4/2018	1/2018	10/2017	10/2017
Sale Price ($)	900,000,000	260,000,000	2,180,000,000	159,000,000	385,000,000	339,400,000	174,700,000
Price PSF ($)	853	1,576	1,202	1,563	826	1,207	1,055
Cap Rate	1.9%	5.1%	4.5%	4.8%	4.7%	4.9%	4.4%

Weighted Average Price per Square Foot of $1,043 and Cap Rate of 4.4%

At Vornado's stock price of $66.82 (11/2/18), our NYC Office implied Price per Square Foot is $525, with a Cap Rate of 7.5%.(1)

1. Based on NOI and Cap Rates for other holdings per 12/31/2017 NAV Analysis

FORTRESS BALANCE SHEET[1]

(Amounts in millions)

		AT 9/30/18
Secured debt	$	8,172
Unsecured debt		1,680
Pro rata share of non-consolidated debt (excluding Toys R Us)		2,800
Less: noncontrolling interests' share of consolidated debt		(605)
Total debt		**12,047**
220 CPS (mortgage + term loan)		(1,700)
Projected cash proceeds from 220 Central Park South in excess of the $1,700 debt repaid		(1,011)
Cash, restricted cash and marketable securities		(1,078)
Net Debt	**$**	**8,258**
TTM EBITDA, as adjusted[1]	**$**	**1,287**
Net Debt/EBITDA, as adjusted		**6.4x**

- Investment grade — Baa2/BBB
- $2.4 BN in revolver capacity
- $1.1 BN in cash
- Weighted average debt maturity — 3.8 years
- ~$11 BN of unencumbered assets

1. *See page 38 for non-GAAP reconciliation*

VORNADO LEADER AMONG BEST-IN-CLASS REITS

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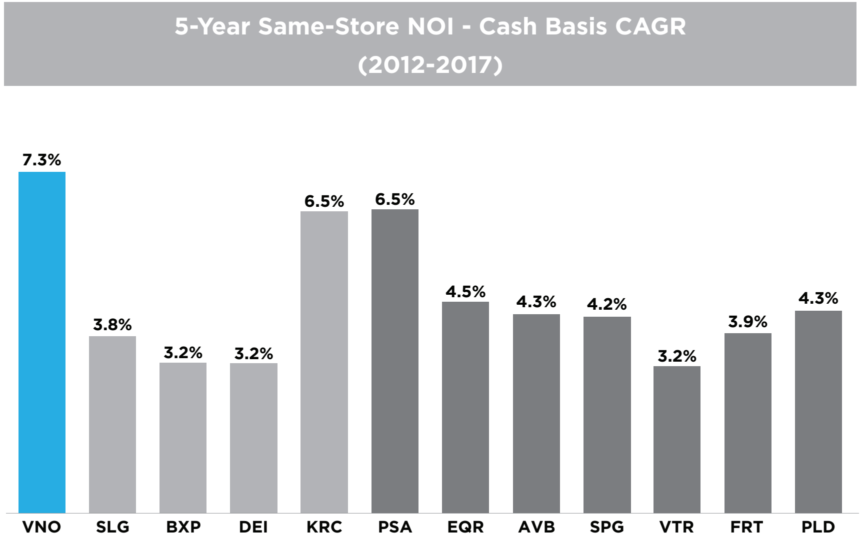
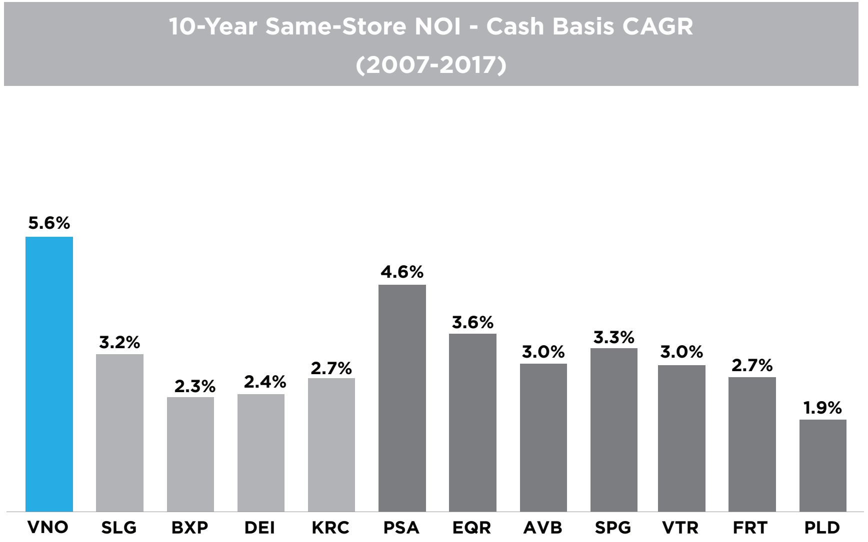
Vornado has delivered superior same-store NOI - Cash Basis growth relative to blue chip peers on both a 5-year and 10-year basis





Source: Green Street Advisors

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(Amounts in thousands, except per share)

	1290 AVENUE OF THE AMERICAS 2,113,000 SF	770 BROADWAY 1,183,000 SF	330 WEST 34TH STREET 721,000 SF	7 WEST 34TH STREET 477,000 SF
Incremental Stabilized Cash NOI	$ 38,500	$ 37,300	$ 21,200	$ 15,700
Capital Cost (Including TI/LC)	221,300	240,000	142,700	77,200
Yield	**17.4%**	**15.5%**	**14.9%**	**20.3%**
Value Created[(1)]	**$ 444,000**[(2)]	**$ 588,900**	**$ 328,400**	**$ 271,700**[(3)]
Value Created Per Share	**$ 2.18**	**$ 2.90**	**$ 1.62**	**$ 1.34**

1. Incremental NOI valued at 4.5% cap rate, less capital cost (including TI/LC)
2. Shown at 70% share
3. Shown at 100% share; Vornado monetized 47% of the value creation through sale of a partial interest

1535 BROADWAY (MARRIOTT) RETAIL ACQUISITION - VORNADO NOW OWNS 100%

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1535 BROADWAY - BEFORE

1535 BROADWAY - TODAY

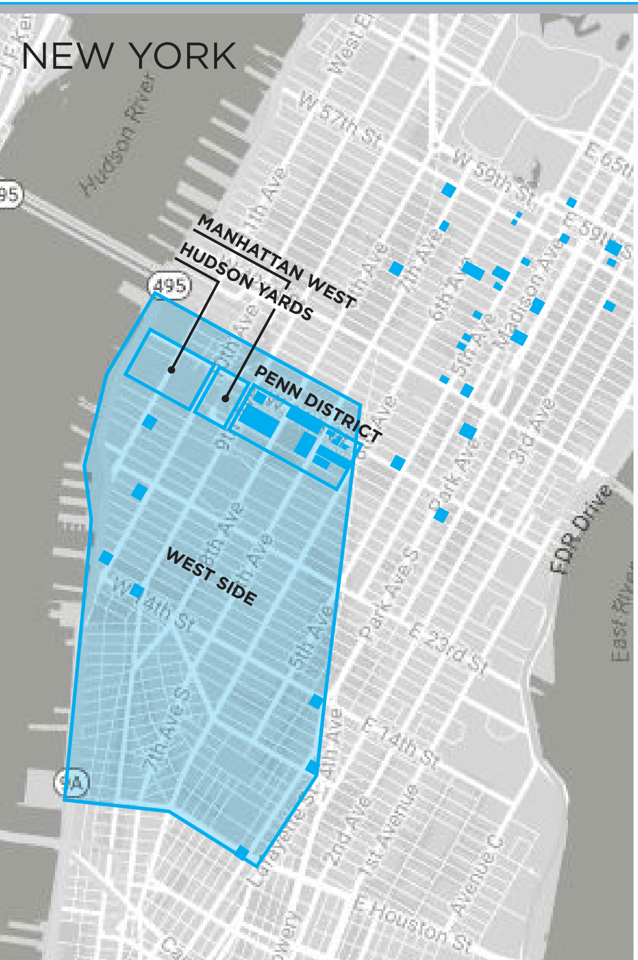
- On September 24, 2018, Vornado acquired from Host Hotels & Resorts ("Host") the remaining 46% interest in the retail condominium located at the base of the New York Marriott Marquis Times Square hotel (1535 Broadway) for $442MM, taking Vornado's ownership stake to 100%
- This transaction satisfied a put/call arrangement based on a formula negotiated at the time Vornado acquired its original 54% interest
- Vornado now owns 100% of the fee in 45,000 SF of retail which is 100% leased to T-Mobile, Invicta, Swatch, Levi's and Sephora, the 1,611 seat Marquis Theater leased to the Nederlander Organization, and the largest digital sign in New York with a 330 linear foot, 25,000 SF display

1535 BROADWAY (MARRIOTT)		
Vornado Basis[1]	$	663MM
Estimated 2019 Cash NOI	$	56MM
Estimated 2019 Cash NOI Yield		8.5%
Value at 4.25% Cap Rate	**$**	**1,326MM**
Value Created	**$**	**663MM**
Value Created Per Share	**$**	**3.26**

Average remaining retail lease term is 10.4 years

1. Basis post-transaction; inclusive of all capital previously invested

VORNADO'S OFFICE ASSETS LOCATED AT THE EPICENTER OF GROWTH



SELECT NEW YORK CITY OFFICE PROPERTIES

VORNADO
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PLAZA DISTRICT


888 SEVENTH AVENUE


650 MADISON AVENUE


595 MADISON AVENUE


640 FIFTH AVENUE


689 FIFTH AVENUE

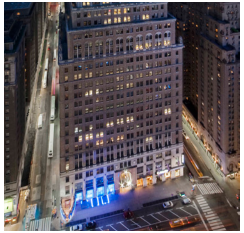
GRAND CENTRAL


330 MADISON AVENUE


90 PARK AVENUE

PENN DISTRICT


7 WEST 34TH STREET


PENN11


330 WEST 34TH STREET


PENN1/PENN2


FARLEY OFFICE BUILDING

MIDTOWN


731 LEXINGTON AVENUE


1290 AVENUE OF THE AMERICAS

MIDTOWN SOUTH


ONE PARK AVENUE


770 BROADWAY

PARK AVENUE


280 PARK AVENUE


350 PARK AVENUE

CHELSEA / MEATPACKING


61 NINTH AVENUE


512 WEST 22ND STREET


85 TENTH AVENUE

BLUE-CHIP OFFICE TENANT ROSTER

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FINANCIAL

- Bloomberg
- Goldman Sachs
- Bank of America
- Capital One
- UBS
- NEUBERGER BERMAN
- HSBC
- M&T Bank
- TPG
- GLENCORE
- pwc
- Morgan Stanley
- AB
- WELLS FARGO
- GUGGENHEIM
- DODGE & COX FUNDS
- FRANKLIN TEMPLETON INVESTMENTS
- Castle Harlan, Inc.
- INVESTCORP
- McKinsey&Company
- MFA FINANCIAL
- FACTSET
- KKR
- Fidelity INVESTMENTS
- PJT Partners
- American Century Investments
- GIC
- THOMSON REUTERS

TAMI

- IPG
- amazon
- Deutsch
- razorfish
- facebook
- Google
- yelp
- Microsoft
- MSG
- T-Mobile
- AMC NETWORKS
- cisco
- EMC²
- Oath: A Verizon company
- The McGraw·Hill Companies
- PayPal
- MOTOROLA
- YAMAHA
- SIEMENS
- hachette BOOK GROUP
- 1871
- Information Builders

HEALTHCARE / INSURANCE

- AXA
- NEW YORK UNIVERSITY
- COLUMBIA UNIVERSITY
- aetna
- Allscripts
- Allstate
- UnitedHealthcare
- Memorial Sloan Kettering Cancer Center
- BlueCross BlueShield
- Allergan

REAL ESTATE

- JLL
- CUSHMAN & WAKEFIELD
- COHEN & STEERS
- PARSONS BRINCKERHOFF
- HomeAdvisor
- RAMSA ROBERT A.M. STERN ARCHITECTS
- STRUCTURETONE

LEGAL

- KIRKLAND & ELLIS LLP
- ALSTON + BIRD LLP
- FOLEY — FOLEY & LARDNER LLP
- BRYAN CAVE
- JONES DAY
- Fenwick — FENWICK & WEST LLP
- SIDLEY

OTHER

- macy's
- RALPH LAUREN
- AMA American Management Association
- CONAGRA BRANDS
- Kellogg's
- THE UNITED STATES OF AMERICA
- OpenJar STUDIOS
- MoëtHennessy
- S|V|C

SELECT NEW YORK CITY STREET RETAIL PROPERTIES

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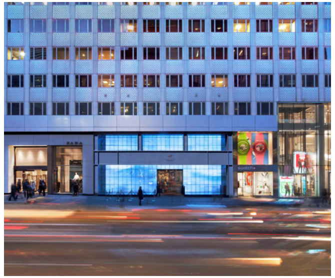
828-850 MADISON AVENUE

595 MADISON AVENUE

650 MADISON AVENUE

677 MADISON AVENUE

4 UNION SQUARE


666 FIFTH AVENUE

689 FIFTH AVENUE

1535 & 1540 BROADWAY

640 FIFTH AVENUE


510 FIFTH AVENUE


655 FIFTH AVENUE


697 FIFTH AVENUE


478-486 BROADWAY


435 SEVENTH AVENUE

CONCENTRATION IN THE KEY HIGH STREET RETAIL SUBMARKETS IN MANHATTAN

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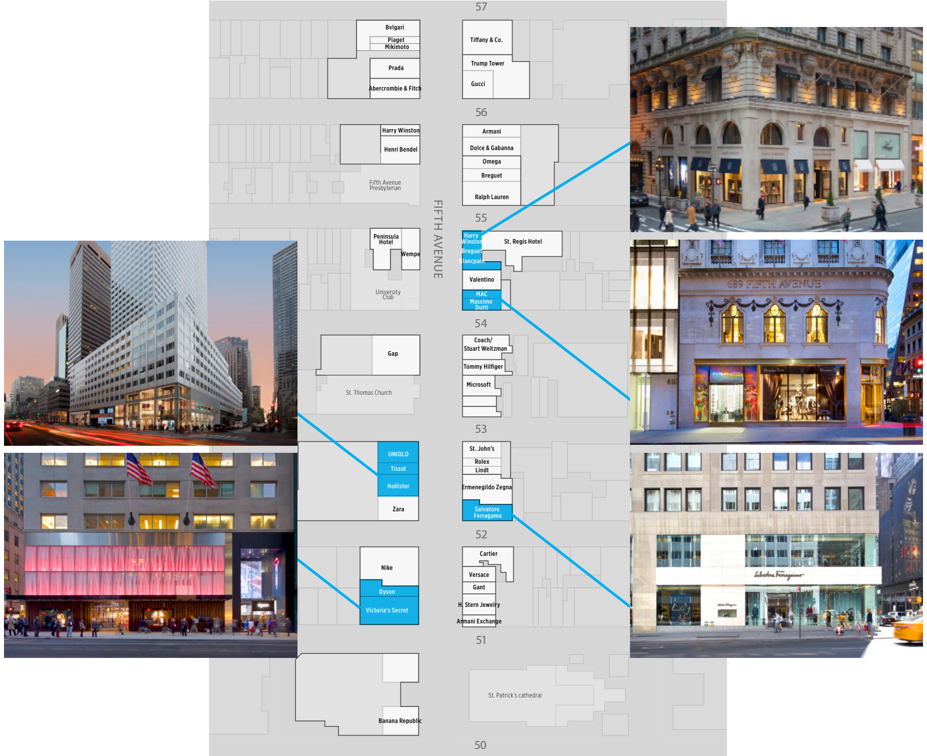
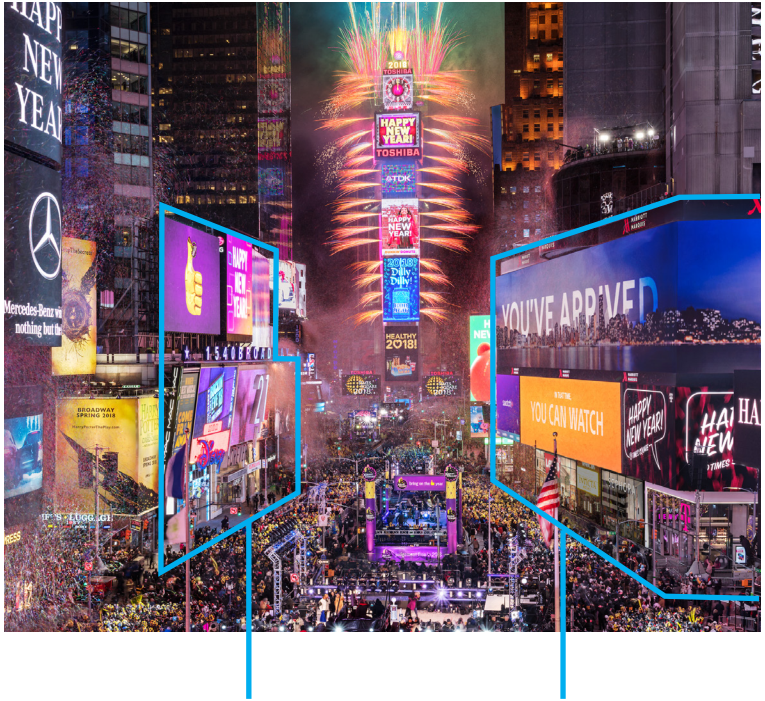
Upper Fifth Avenue
Own 23% of Frontage(1)



Times Square
Own Both Sides of the Bowtie



1. Excludes churches, clubs and retail owned by users

BLUE-CHIP RETAIL TENANT ROSTER

HARRY WINSTON
dyson
SEPHORA
Cartier
CELINE
Christofle
THE NORTH FACE
EQUINOX
TOPSHOP
BLANCPAIN
Levi's
TOD'S
sunglass hut
Salvatore Ferragamo
Disney
Berluti
COACH
STARBUCKS RESERVE
STARBUCKS
VICTORIA'S SECRET
amazon
J.CREW
H&M
INVICTA
WHOLE FOODS MARKET
FOREVER 21
Chloé
Massimo Dutti
M·A·C
OLD NAVY
HOLLISTER
Madewell
MONCLER
UNIQLO
TISSOT
T-Mobile
swatch
sandro
john varvatos
Breguet Depuis 1775

STREET RETAIL PORTFOLIO
UPPER FIFTH & TIMES SQUARE BUTTONED UP FOR TERM

VORNADO REALTY TRUST

Over 50% of Vornado street retail NOI - Cash Basis comes from Upper Fifth Avenue and Times Square. Both are locked up for term with high quality tenants

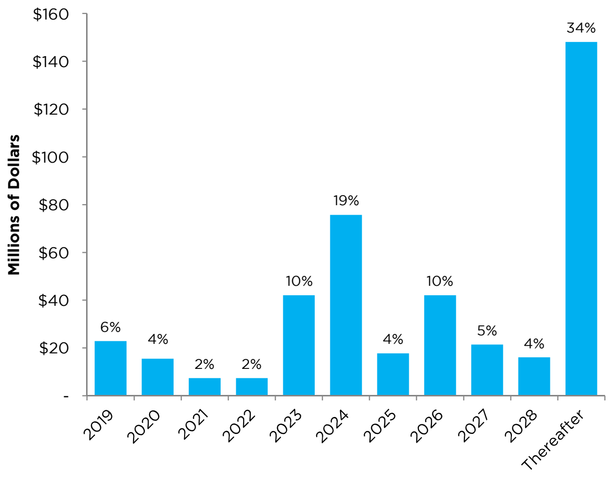
UPPER FIFTH AVENUE

Tenant	Year of Expiration
Zara	2019
MAC Cosmetics	2024
Hollister	2024
Uniqlo	2026
Tissot	2026
Dyson	2027
Ferragamo	2028
Swatch	2031[1]
Harry Winston	2031
Victoria's Secret	2032

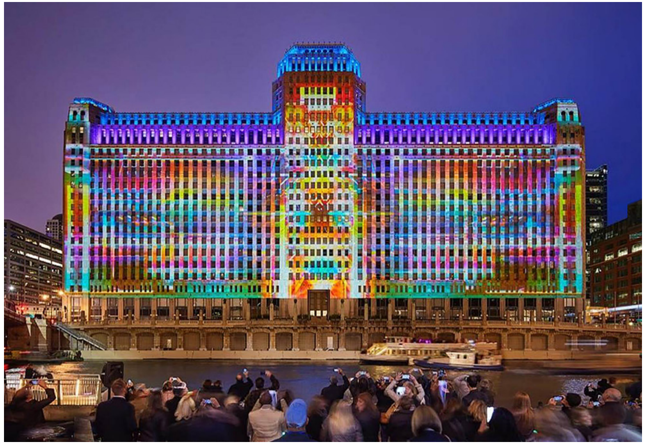
TIMES SQUARE

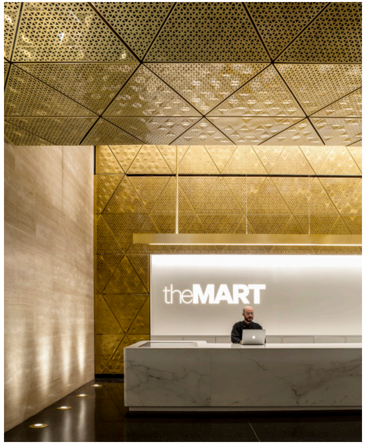
Tenant	Year of Expiration
US Polo	2023
Sunglass Hut	2023
Planet Hollywood	2023
MAC Cosmetics	2025
T-Mobile	2025
Disney	2026
Invicta	2028
Sephora	2029
Swatch	2030
Levi's	2030[2]
Forever 21	2031
Nederlander Theater	2050

New York Retail Expirations by Revenue as of 9/30/2018
Weighted Average Lease Term: 7.9 Years



1. Tenant has the right to cancel in 2023
2. Tenant has the right to cancel in 2024





theMART building (Chicago) – best example of contemporary office space outside of Silicon Valley. Transformed from a showroom building to the premier creative and tech hub in the Midwest, resulting in significant earnings growth and value creation

- **3,675,000 SF building – 95.5% Occupancy at 9/30/2018**
- Located in River North, the hottest submarket in Chicago
- Between 2011 and 3Q18, converted over 950,000 SF in the building from showroom/trade show space to creative office space
- 3.1 million SF of total space leased since 2012
- 9/30/2018 TTM Cash NOI (non-GAAP)[1] of $104.0 million versus 2011 Cash NOI (non-GAAP)[1] of $54.3 million
- In-place escalated rents average $43.41 PSF as of 9/30/2018 (office $38.75, showroom $48.84 and retail $50.54)
- In conjunction with the City of Chicago, theMART debuted *Art on theMART* on September 29, 2018. This curated series of digital artworks projects the work of renowned artists across the 2.5 acre exterior river-façade of theMART, creating the largest permanent digital art projection in the world.

Major Tenants:

- Motorola Mobility (guaranteed by Google)
- ConAgra Foods Inc.
- 1871
- Kellogg's
- Allscripts Healthcare
- Yelp Inc.
- Paypal, Inc.
- Razorfish
- Allstate Insurance
- Caterpillar Inc.
- Steelcase
- Herman Miller

1. See page 39 for non-GAAP reconciliation

555 CALIFORNIA STREET

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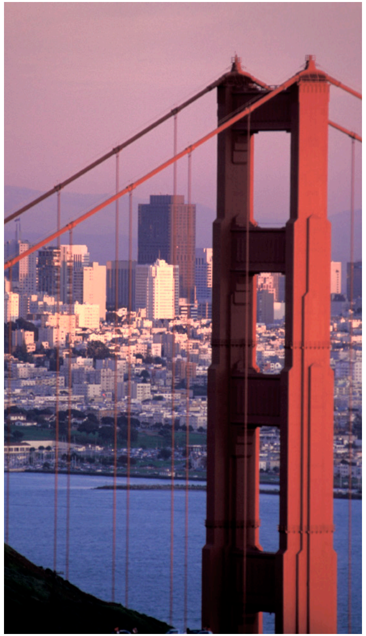

555 California Street – the franchise office building in San Francisco and arguably the most iconic building on the west coast – further NOI growth expected from redeveloped concourse and 315/345 Montgomery

- **1,819,000 SF building – 100% Occupancy at 9/30/2018**
- 1.7 million SF of office space leased since 2012
- 9/30/2018 TTM Cash NOI (non-GAAP)(1) of $55.8 million at share (which does not include Cash NOI from approximately 78,000 SF of space under redevelopment) versus 2012 Cash NOI (non-GAAP)(1) of $38.2 million at share
- In-place escalated rents average $75.26 PSF as of 9/30/2018

Major Tenants:

- Bank of America
- Dodge & Cox
- Fenwick & West LLP
- Microsoft
- Jones Day
- Goldman Sachs
- Kirkland & Ellis LLP
- Morgan Stanley
- UBS
- Wells Fargo
- KKR
- McKinsey & Company Inc.

1. See page 39 for non-GAAP reconciliation

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GROWTH FROM DEVELOPMENT

WELL-POSITIONED WITH EXISTING ASSETS AND NEW DEVELOPMENTS CONCENTRATED IN THE FAST GROWING WEST SIDE

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61 NINTH AVENUE (45.1%)

170,000 SF
Delivered

512 WEST 22ND STREET (55.0%)

173,000 SF
4Q18

606 BROADWAY (50.0%)

34,000 SF
4Q18

260 ELEVENTH AVENUE

340,000 SF
TBD

THE FARLEY BUILDING (95.0%)

850,000 SF
3Q20

PENN1

2,535,000 SF
TBD

PENN2

1,800,000 SF
TBD

As of 9/30/2018; square footage ("SF") shown at 100% share

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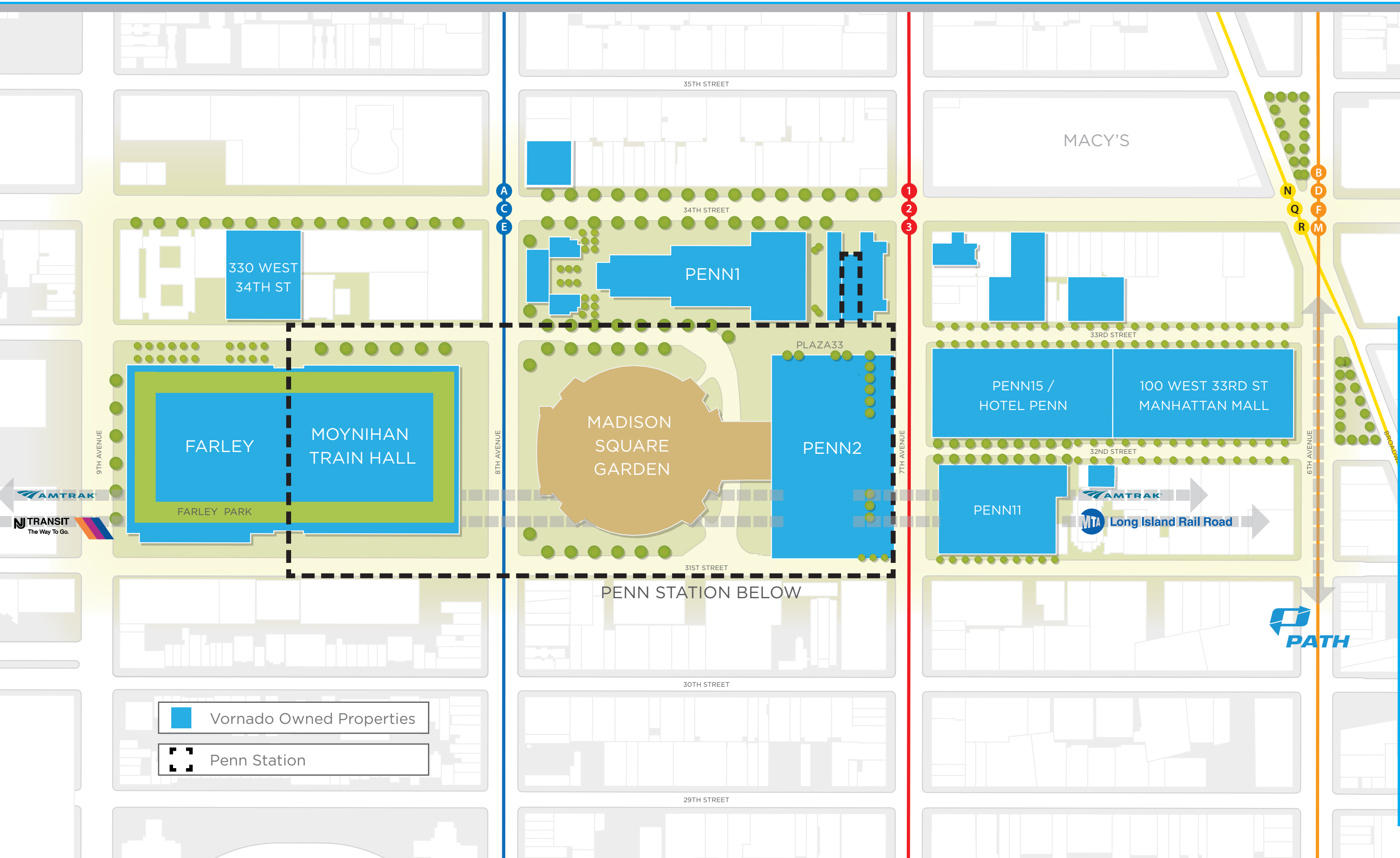

Unique Value Creation Opportunity

- Existing office leasable space of 6.7MM SF with average in-place rents of $63 PSF(1)
- Hudson Yards to the west asking rents range from $85-130 PSF(1)
- Transformation of the neighborhood will also substantially enhance the value of Vornado's Penn District retail holdings

1. *As of 9/30/18*

PENN DISTRICT | BEST POSITIONED FROM TRANSIT STANDPOINT

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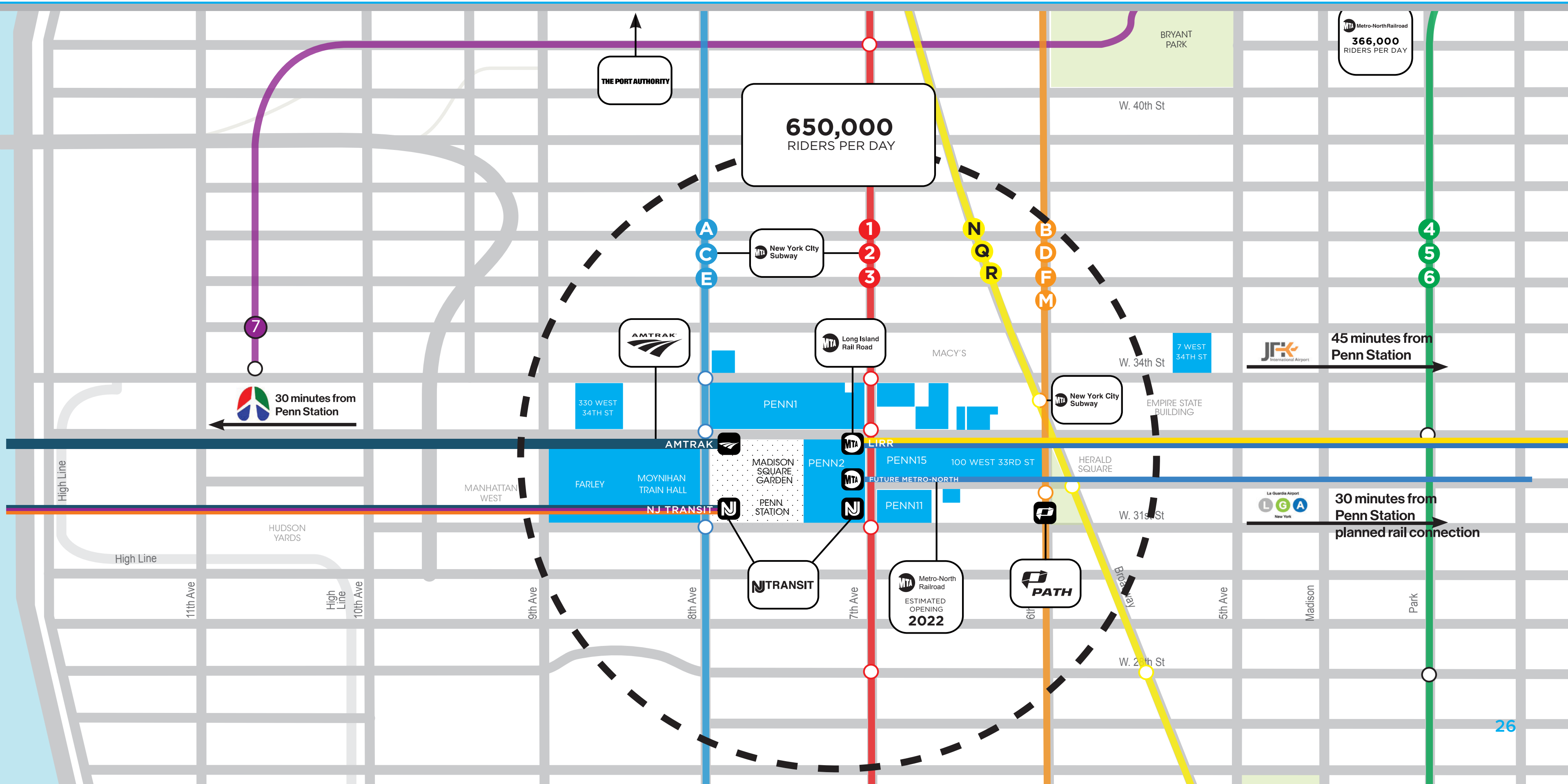

CURRENT DEVELOPMENT PROJECTS[1]

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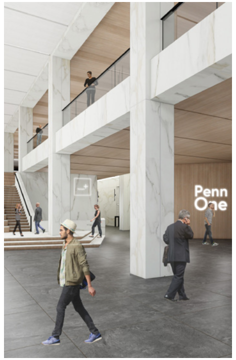
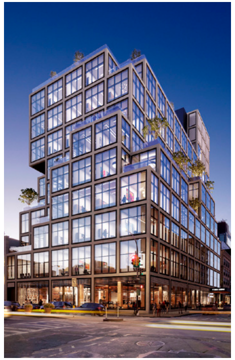
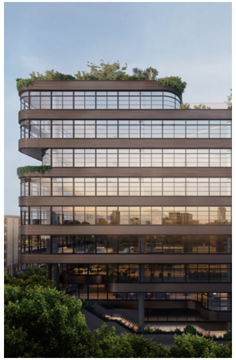
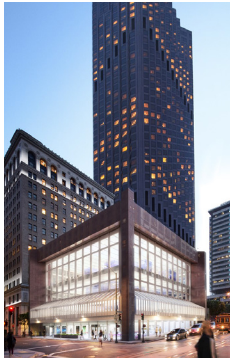
OUR CURRENT DEVELOPMENT PIPELINE IS EXPECTED TO INCREASE CASH NOI BY ~$130MM (AT SHARE) UPON STABILIZATION

(Amounts in thousands)






	PENN1 2,535,000 SF	61 NINTH AVENUE 170,000 SF	512 WEST 22ND STREET 173,000 SF	606 BROADWAY 34,000 SF	345 MONTGOMERY STREET 78,000 SF	THE FARLEY BUILDING[3] 850,000 SF	TOTAL CURRENT PROJECTS 3,826,000 SF
Full Quarter Stabilized Operations	N/A	Q2 2019	Q1 2020	Q2 2020	Q3 2020	Q2 2022	
VNO Share	100.0%	45.1%	55.0%	50.0%	70.0%	95.0%	
Development Budget (at Share)[2]							
Amount Expended	$ 6,253	$ 57,970	$ 50,065	$ 23,307	$ 9,523	$ 103,956	**$ 251,074**
Remaining	$ 193,747	$ 11,030	$ 21,935	$ 6,693	$ 22,477	$ 656,044	**$ 911,926**
Total Incremental Budget	$ 200,000	$ 69,000	$ 72,000	$ 30,000	$ 32,000	$ 760,000	**$ 1,163,000**

1. *Square footages shown at 100%; costs shown at share*
2. *Excludes land and acquisition costs*
3. *Farley Building figures reflect increase in ownership from 50.1% to 95% post-September 30, 2018*

FUTURE DEVELOPMENT PIPELINE

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FUTURE REDEVELOPMENT OPPORTUNITIES PROVIDE BUILT-IN SOURCE OF ADDITIONAL GROWTH

PENN2
1,800,000 SF

HOTEL PENNSYLVANIA
2,800,000 SF

260 ELEVENTH AVENUE
340,000 SF

Note: Shown at estimated rentable SF, subject to change

MOYNIHAN OFFICE BUILDING DEVELOPMENT
BEGINNING THE TRANSFORMATION OF PENN DISTRICT

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- Recently acquired an additional 44.9% from the Related Companies, increasing Vornado's ownership interest to 95%, in the joint venture that has a 99-year lease for the commercial space at the historic Farley Post Office building
- The joint venture is converting the Farley Post Office in Penn District into the new Moynihan Train Hall and office building, which includes the development of 850,000 SF of commercial space, comprised of approximately 730,000 SF of office space targeting creative class tenants and approximately 120,000 SF of retail space
- Total budget of $977 million at share
- Expected delivery 3Q 2020

SKYLIGHT SURROUNDED BY FARLEY OFFICE SPACE

70,000 SF OF PARK SPACE

MAIN OFFICE LOBBY DESIGN

INTERIOR CONCEPT DESIGN OF ANNEX FLOOR

FARLEY PARK - ROOF TERRACE PAVILION DESIGN

MOYNIHAN TRAIN HALL CONCOURSE

PENN1 REDEVELOPMENT

34TH STREET LOBBY ENTRY

34TH STREET LOBBY


34TH STREET LOBBY RECEPTION DESK

SECOND FLOOR LOUNGE


33RD STREET LOBBY


33RD STREET LOBBY LIBRARY

PENN1 REDEVELOPMENT - PRELIMINARY ESTIMATES

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34TH STREET LOBBY

PENN1		2.54MM SF
Development Cost	$	200MM
In-Place Office Rent	$	64 PSF
Average Market Rent After Development	$	84 PSF
Incremental Rent	$	20 PSF
Incremental NOI	$	48MM
Yield on Capital		**24%**
Value Created[(1)]	**$**	**867MM**
Value Created Per Share	**$**	**4.25**

Average remaining office lease term is 5.4 years

1. Incremental NOI valued at 4.5% cap rate, less development costs excluding recurring TI/LCs that would have been incurred on re-tenanting the building irrespective of this capital project

PENN2 REDEVELOPMENT

PROPOSED PENN2

PENN2 LOOKING SOUTH ON 7TH AVENUE AND PLAZA33

PROPOSED PENN2 OFFICE LOBBY

PROPOSED NORTH FACADE OF PENN2 LOOKING SOUTH AT PLAZA33

PROPOSED DOUBLE HEIGHT OFFICE SPACE LOCATED IN THE BUSTLE

PROPOSED ROOFTOP TERRACE

260 ELEVENTH AVENUE - DESIGNED BY RICHARD ROGERS

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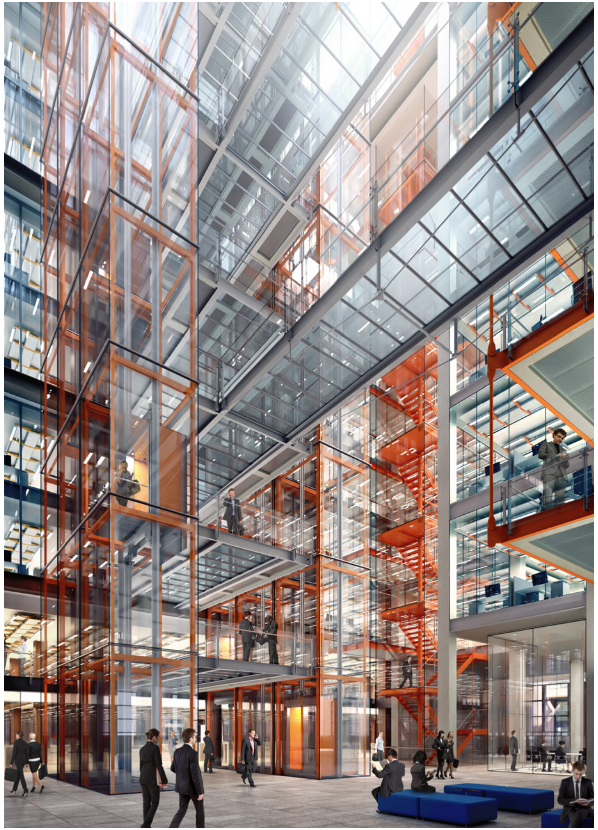


NATIONALLY RECOGNIZED, INDUSTRY-LEADING SUSTAINABILITY PROGRAM

- 5-time Energy Star Partner of the Year, Sustained Excellence recipient 2018
- 23.6 million square feet of owned and managed LEED certified buildings
- Largest landlord of LEED certified buildings in New York City with over 17.9 million SF. All new commercial developments will be, at minimum, LEED Gold certified
- NAREIT Leader in the Light award 2018, 9th year in a row
- Global Real Estate Sustainability Benchmark (GRESB) "Green Star" since 2013; #3 among all listed US Real Estate companies, 2018
- 20% reduction in same-store greenhouse gas emission since 2009

VORNADO SUSTAINABILITY

ENERGY STAR AWARD 2018
PARTNER OF THE YEAR
Sustained Excellence

U.S. GREEN BUILDING COUNCIL LEED CERTIFIED USGBC

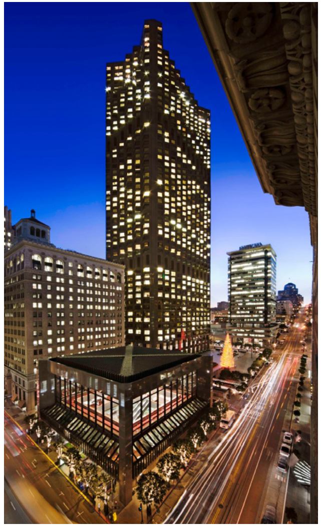
GRESB ★★★★★ 2018

NAREIT 2018 Leader In The Light
Sustainable Real Estate Practices

BMS GREEN CLEAN℠

EIP™ ENERGY INFORMATION PORTAL

fitwel

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APPENDIX

NON-GAAP FINANCIAL MEASURES

This investor presentation contains certain non-GAAP financial measures, including net operating income (“NOI”) and earnings before interest, taxes, depreciation and amortization (“EBITDA”).

NOI represents total revenues less operating expenses. We consider NOI to be the primary non-GAAP financial measure for making decisions and assessing the unlevered performance of our properties and segments as it relates to the total return on assets as opposed to the levered return on equity. As properties are bought and sold based on NOI, we utilize this measure to make investment decisions as well as to compare the performance of our assets to that of our peers. NOI should not be considered a substitute for net income. NOI may not be comparable to similarly titled measures employed by other companies. We calculate NOI on an Operating Partnership basis which is before allocation to the noncontrolling interest of Vornado Realty L.P. (the "Operating Partnership").

EBITDA represents earnings before interest, taxes, depreciation and amortization. EBITDA is essentially NOI less general and administrative expenses. We use EBITDA as a secondary non-GAAP measure primarily in the context of a net debt to EBITDA ratio. We calculate EBITDA on an Operating Partnership basis which is before allocation to the noncontrolling interest of Vornado Realty L.P. (the "Operating Partnership").

A reconciliation of NOI and EBITDA to net income, the most directly comparable GAAP measure, is provided on the following pages.

These non-GAAP financial measures are used by management, investors and analysts to facilitate meaningful comparisons of operating performance between periods and among our peers because they exclude the effect of real estate depreciation and amortization and net gains on sales, which are based on historical costs and implicitly assume that the value of real estate diminishes predictably over time, rather than fluctuating based on existing market conditions. These metrics do not represent cash generated from operating activities and are not necessarily indicative of cash available to fund obligations and should not be considered as an alternative to net income as performance measures or cash flow as liquidity measures. These non-GAAP metrics may not be comparable to similarly titled measures employed by other companies.

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(Amounts in millions)

Reconciliation of net income to NOI at share - Cash Basis for the trailing twelve months ended September 30, 2018

	For the TTM Ended September 30, 2018
Net income (loss)	$ 378
Deduct:	
Income from partially owned entities	(16)
Loss from real estate fund investments	33
Interest and other investment income, net	(18)
Net gains on disposition of wholly owned and partially owned assets	(165)
Income from discontinued operations	(2)
NOI attributable to noncontrolling interests in consolidated subsidiaries	(68)
Add:	
Depreciation and amortization expense	448
General and administrative expense	144
Acquisition and transaction related costs	18
Our share of NOI from partially owned entities	263
Interest and debt expense	358
Income tax expense	44
NOI at share	1,417
Non cash adjustments for straight-line rents, amortization of acquired below-market leases, net and other	(61)
NOI at share - Cash Basis	$ 1,356

NOI at share - Cash Basis by segment:

	For the TTM Ended September 30, 2018
New York:	
Office (includes $26MM of BMS NOI)	$ 716
Retail	327
Residential	22
Alexander's	48
Hotel Pennsylvania	12
	1,125
Other:	
theMART (including trade shows)	106
555 California Street	52
Other investments	73
	231
NOI at share - Cash Basis	$ 1,356

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(Amounts in millions)

Reconciliation of net income attributable to the Operating Partnership to EBITDA and EBITDA, as adjusted for the trailing twelve months ended September 30, 2018

	For the TTM Ended September 30, 2018
Net income attributable to the Operating Partnership	$ 402
Interest and debt expense	462
Depreciation and amortization	527
Income tax expense	44
EBITDA	1,435
Adjustments, net [1]	(148)
EBITDA, as adjusted	$ 1,287

1. *Includes income from our former Washington, DC segment, sold properties, our Real Estate Fund, gains on sale of real estate, impairment losses and other adjustments*

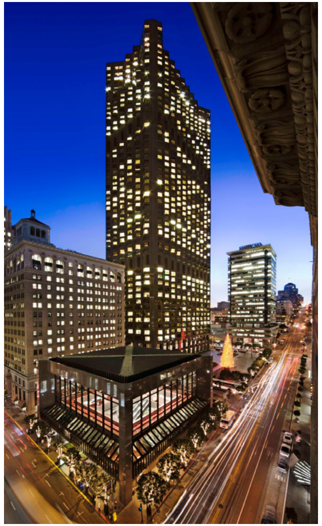
(Amounts in millions)

Reconciliation of theMART net income to EBITDA, NOI - Cash Basis and NOI - Cash Basis adding back free rent for the year ended December 31, 2011 and for the trailing twelve months ended September 30, 2018

	For the Trailing Twelve Months Ended September 30, 2018	For the Year Ended December 31, 2011
Net income (loss)	$ 35.2	$ (4.5)
Interest and debt expense	18.7	31.2
Depreciation and amortization	39.9	21.6
Income tax expense	—	—
EBITDA	93.8	48.3
Non-cash adjustments and other	0.9	3.1
NOI - Cash Basis	94.7	51.4
Adding back free rent	9.3	2.9
NOI - Cash Basis adding back free rent	$ 104.0	$ 54.3

Reconciliation of 555 California Street net income to EBITDA, NOI - Cash Basis and NOI - Cash Basis adding back free rent for the year ended December 31, 2012 and for the trailing twelve months ended September 30, 2018

	For the Trailing Twelve Months Ended September 30, 2018 at share	For the Year Ended December 31, 2012 at share
Net income (loss)	$ 8.9	$ (4.6)
Interest and debt expense	18.4	22.0
Depreciation and amortization	25.7	28.5
Income tax expense	0.4	0.3
EBITDA	53.4	46.2
Non-cash adjustments and other	(1.8)	(9.1)
NOI - Cash Basis	51.6	37.1
Adding back free rent	4.2	1.1
NOI - Cash Basis adding back free rent	$ 55.8	$ 38.2

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NOVEMBER 2018