



NPI Expanded: Using QT

a Meeting of NCREIF Members
May 20th, 2024

New Subtypes



1. Residential
 - a. Apartment
 - b. Student
 - c. Manufactured Housing
 - d. Single Family
2. Hotel
 - a. Full Service
 - b. Limited Service
3. Industrial
 - a. Manufacturing
 - b. Flex
 - c. Warehouse
 - d. Specialized
 - e. Life Science
4. Office
 - a. Medical
 - b. Life Science
 - c. CBD
 - d. Urban
 - e. Secondary Business District
 - f. Suburban

5. Retail
 - a. Street
 - b. Strip
 - c. Mall
6. Seniors Housing
 - a. Independent living
 - b. Assisted Living
 - c. Continuing Care
 - d. Skilled Nursing
7. Self-storage
 - a. No subtypes
8. Other
 - a. Data Center
 - b. Operating Land
 - c. Entertainment
 - d. Parking
 - e. Other

Design Fields



Hotel: Resort

Hotel: Not Resort

Industrial: Air Cargo

Industrial: Distribution Warehouse

Industrial: General Purpose Flex

Industrial: General Purpose Warehouse

Industrial: Life Science

Industrial: Manufacturing

Industrial: Mixed

Industrial: Other

Industrial: R&D

Industrial: Refrigerated Storage

Industrial: Showroom

Industrial: Truck Terminal

Other: Data Center

Other: Entertainment

Other: Operating Land

Other: Other

Other: Parking

Residential: Apartment - Garden

Residential: Apartment - Not-Garden

Residential: Manufactured Housing

Residential: Single Family Rental - Attached

Residential: Single Family Rental - Detached

Residential: Single Family Rental - Scattered

Retail: Mall

Retail: Street

Retail: Strip

Seniors Housing: Assisted Living

Seniors Housing: Continuing Care Retirement Community

Seniors Housing: Independent Living

Seniors Housing: Skilled Nursing Care



Usage Fields

Hotel: Independent Hotels with F&B

Hotel: Luxury

Hotel: Upper Midscale

Hotel: Upper Upscale

Hotel: Upscale

Hotel: Economy

Hotel: Independent Hotels no F&B

Hotel: Midscale

Office: General

Office: Life Science

Office: Medical Office

Residential: Age Restricted

Residential: General

Residential: Student Housing - Off Campus

Residential: Student Housing - On Campus

Retail: High-End with Grocer

Retail: High-End without Grocer

Retail: Not High-End with Grocer

Retail: Not High-End without Grocer



| Type: | SUBTYPES: | | | | | |
|-----------------|---|--|---|---|--|---|
| Residential | Apartment*: Usage = General OR Age-Restricted AND Design = Garden OR Not Garden | Student*: Usage = Student On-Campus AND Student Off-Campus | Manufactured Housing: Usage = General OR Age-Restricted AND Design = Manufactured Housing | Single Family*: Usage = General OR Age-Restricted AND Design = Single Family Rental Attached OR Single Family Rental Detached OR Single Family Rental Scattered | | |
| Hotel | Full Service: Usage = Luxury OR Upper Upscale OR Upscale OR Upper Midscale OR Independent Hotels with F&B | | | Limited Service: Usage = Midscale OR Economy OR Independent Hotels without F&B | | |
| Industrial | Manufacturing: Design = Manufacturing | Flex: Design = General Purpose Flex OR R&D OR Showroom | Warehouse: Design = General Purpose Warehouse OR Distribution Warehouse | Specialized: Design = Refrigerated Storage OR Air Cargo OR Truck Terminal OR Mixed OR Other | Life Science: Design = Life Science | |
| Office | Medical: Usage = Medical | Life Science: Usage = Life Science | CBD: Usage = General AND (zip code lookup) | Urban: Usage = General AND (zip code lookup) | Secondary Business District: Usage = General (zip code lookup) | Suburban: Usage = General AND (zip code lookup) |
| Retail | Street: Design = Street | Strip: Design = Strip | Mall: Design = Mall | | | |
| Seniors Housing | Independent Living: Design = Independent Living | Assisted Living: Design = Assisted Living | Continuing Care: Design = Continuing Care Retirement Community | Skilled Nursing: Design = Nursing Care | | |
| Self-Storage | NONE | | | | | |
| Land | NONE | | | | | |
| Other | Data Center: Design = Data Center | Operating Land: Design = Operating Land | Entertainment: Design = Entertainment | Parking: Design = Parking | Other: Other improvement type not already specified | |

Subtype Algorithm: Design and Usage Fields derive Subtype

Mapping File posted on member page, under “Introducing Expanded NPI”



Design Grouping in QT

Query Template:

Expanded NPI Returns ▼

Query Description:

This query gives value weighted returns.

Default Where Clause

[NPI_Plus] = 1

Filter Condition (Where Clause)

[yyyyq] > 20234

Grouping Condition (Group By Clause)

[propertytype],
[Design],
[propertysubtype]

RUN QUERY

When using Advanced Mode Grouping: Field Names enclosed in bracket and separated by comma. Each grouping adds another column of output to your data



Usage Grouping in QT

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RUN QUERY

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Can't I just Use Usage and Design at Once?

Grouping Condition (Group By Clause)

```
[propertytype],  
[usage],  
[design],  
[propertysubtype]
```

RUN QUERY

You can use Usage and Design grouping at once. However, it will only return props where Prop Types require both. I.E. Industrial does not have a Usage value. Therefore, using this grouping will NOT return Industrial Properties. Same issue with Office prop types. Office only has Usage value, not Design.

Clusters



For Residential Prop Types

**Apartment General:
Garden, High Rise, Low Rise,
Mid Rise**

**Student Housing:
Off Campus, On Campus**

**SFR:
Purpose Built Detached
Scattered Site**

Grouping Condition (Group
By Clause)

```
[propertytype],  
[clusters],  
[propertysubtype]
```

RUN QUERY

Group Results By Specific
Category

- Property Type
- Property Sub Type
- Region
- Division
- State
- CBSA or CBSA Div
- Fund Type
- CBSAName
- Clusters



Expanded NPI ODCE Allocations

How do we get a look at %allocations using Expanded NPI subtypes?

ODCE at Share Template, group by Property Type, Property Subtype

This template shows ALL ODCE props, not just NPI_PLUS qualifying. This includes Land, and any props in Development, Lease up.

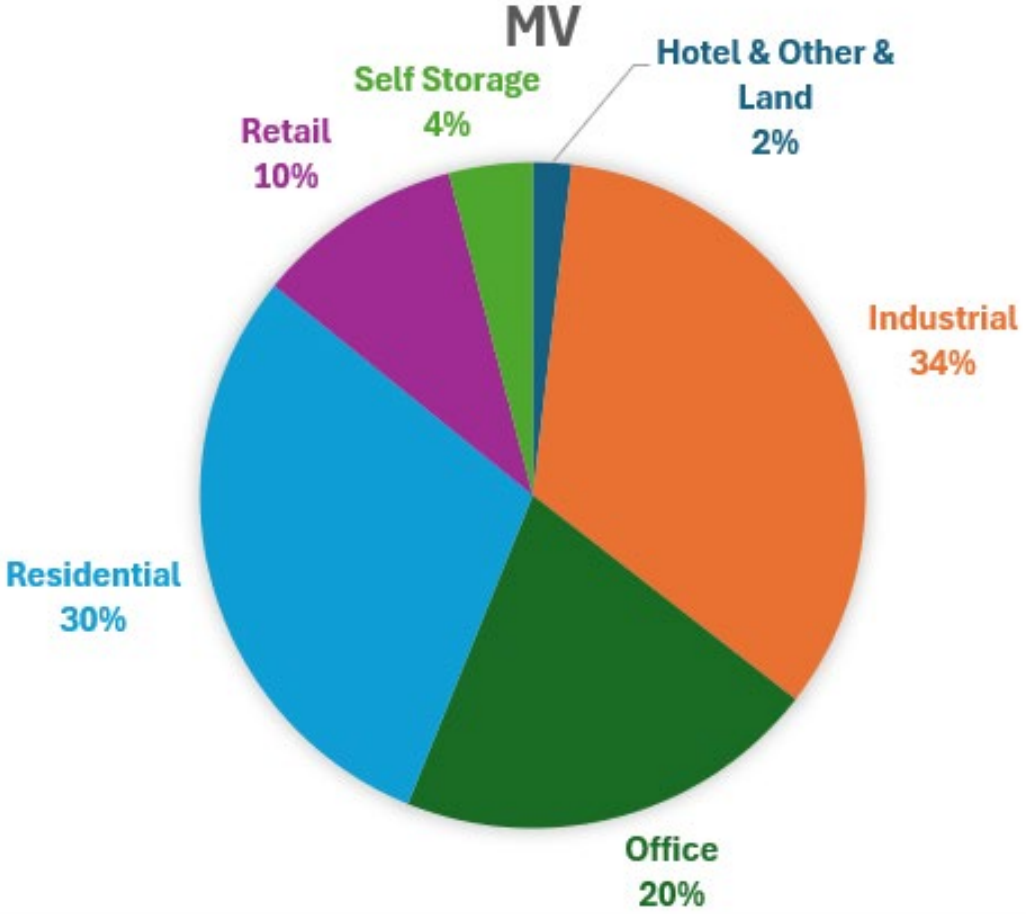


Expanded NPI ODCE Allocations by Property Type

| YYYYQ | PropertyType | MV | %Allocation | Income Return | Capital Return | Total Return | Prop Count |
|--------------|--------------|------------------------|-------------|---------------|----------------|--------------|------------|
| 20241 | Hotel | 600,919,000 | 0.21% | 0.03% | 0.30% | 0.33% | 6 |
| 20241 | Industrial | 95,285,256,771 | 33.67% | 0.87% | -0.98% | -0.11% | 1325 |
| 20241 | Land | 3,063,221,739 | 1.08% | 0.00% | -2.59% | -2.60% | 136 |
| 20241 | Office | 58,358,233,908 | 20.62% | 1.37% | -6.63% | -5.25% | 516 |
| 20241 | Other | 1,608,708,493 | 0.57% | 0.71% | -0.79% | -0.08% | 51 |
| 20241 | Residential | 84,019,533,960 | 29.69% | 0.99% | -1.96% | -0.97% | 918 |
| 20241 | Retail | 28,548,985,154 | 10.09% | 1.35% | -0.70% | 0.66% | 367 |
| 20241 | Self Storage | 11,513,127,782 | 4.07% | 0.99% | -1.49% | -0.50% | 652 |
| Total | | 282,997,986,807 | | | | | |



Expanded NPI ODCE Allocations by Property Type





| PropertySubType | MV | %Allocation |
|-------------------------------------|----------------|--------------------|
| Industrial: Flex | 2,275,288,448 | 0.80% |
| Industrial: Life Science | 371,860,000 | 0.13% |
| Industrial: Manufacturing | 1,763,015,619 | 0.62% |
| Industrial: Specialized | 6,776,789,406 | 2.39% |
| Industrial: Warehouse | 84,098,303,298 | 29.72% |
| Office: Central Business District | 29,722,734,265 | 10.50% |
| Office: Life Science | 8,797,439,864 | 3.11% |
| Office: Medical Office | 3,021,934,619 | 1.07% |
| Office: Secondary Business District | 3,007,331,546 | 1.06% |
| Office: Suburban | 3,441,398,852 | 1.22% |
| Office: Urban | 10,367,394,761 | 3.66% |
| Other: Data Center | 664,324,500 | 0.23% |
| Other: Other | 388,287,002 | 0.14% |
| Other: Parking | 533,858,192 | 0.19% |
| Residential: Apartment | 77,561,899,792 | 27.41% |
| Residential: Manufactured Housing | 712,869,337 | 0.25% |
| Residential: Single Family Rental | 2,219,709,151 | 0.78% |
| Residential: Student Housing | 3,525,055,680 | 1.25% |
| Retail: Mall | 9,770,202,190 | 3.45% |
| Retail: Street | 3,906,551,556 | 1.38% |
| Retail: Strip | 14,872,231,408 | 5.26% |
| Self Storage | 11,513,127,782 | 4.07% |
| Hotel And Land | 3,664,140,739 | 1.29% |

| | |
|--------------|------------------------|
| Total | 282,975,748,008 |
|--------------|------------------------|

Expanded NPI ODCE Allocations by Property Subtype

Subtypes get masked out
as you drill down into
data – does not tie out to
total by Prop Type



Questions?

Usage Grouping



| YYYY | PropertyTy | Usage | PropertySubType | MV | Income Retu | Capital Retu | Total Retu | Prop Cou |
|-------|-------------|---|-----------------------------------|-----------------|-------------|--------------|------------|----------|
| 20241 | Hotel | Hotel: Luxury | Hotel: Full Service | 398,641,563 | 0.64% | 0.50% | 1.13% | 3 |
| 20241 | Hotel | Hotel: Upper Upscale | Hotel: Full Service | 1,121,452,921 | 1.10% | -1.51% | -0.41% | 7 |
| 20241 | Hotel | Hotel: Upscale | Hotel: Full Service | 1,550,313,730 | 1.32% | 0.40% | 1.72% | 59 |
| 20241 | Residential | Residential: Age Restricted | Residential: Apartment | 719,700,000 | 1.17% | -2.70% | -1.53% | 12 |
| 20241 | Residential | Residential: General | Residential: Apartment | 228,748,009,313 | 1.06% | -2.09% | -1.02% | 2226 |
| 20241 | Residential | Residential: General | Residential: Manufactured Housing | 1,118,217,314 | 0.87% | 2.81% | 3.68% | 33 |
| 20241 | Residential | Residential: General | Residential: Single Family Rental | 4,218,132,976 | 0.79% | -1.77% | -0.98% | 186 |
| 20241 | Residential | Residential: Student Housing - Off Campus | Residential: Student Housing | 10,238,583,101 | 1.22% | -0.48% | 0.74% | 173 |
| 20241 | Residential | Residential: Student Housing - On Campus | Residential: Student Housing | 1,262,400,000 | 1.85% | -0.96% | 0.89% | 14 |
| 20241 | Retail | Retail: High-End with Grocer | Retail: Mall | 11,892,091,115 | 1.37% | -0.41% | 0.96% | 10 |
| 20241 | Retail | Retail: High-End with Grocer | Retail: Street | 382,755,275 | 1.47% | -4.28% | -2.81% | 8 |
| 20241 | Retail | Retail: High-End with Grocer | Retail: Strip | 20,930,737,556 | 1.37% | -0.20% | 1.17% | 291 |
| 20241 | Retail | Retail: High-End without Grocer | Retail: Mall | 37,387,174,265 | 1.36% | -0.38% | 0.98% | 55 |
| 20241 | Retail | Retail: High-End without Grocer | Retail: Street | 3,583,049,422 | 1.00% | -3.66% | -2.67% | 72 |
| 20241 | Retail | Retail: High-End without Grocer | Retail: Strip | 4,639,120,346 | 1.44% | -0.98% | 0.46% | 50 |
| 20241 | Retail | Retail: Not High-End with Grocer | Retail: Mall | 742,300,000 | 1.34% | -1.26% | 0.08% | 7 |
| 20241 | Retail | Retail: Not High-End with Grocer | Retail: Street | 938,866,509 | 1.39% | -0.28% | 1.11% | 19 |
| 20241 | Retail | Retail: Not High-End with Grocer | Retail: Strip | 17,143,296,231 | 1.40% | -0.63% | 0.77% | 337 |
| 20241 | Retail | Retail: Not High-End without Grocer | Retail: Mall | 6,044,133,272 | 1.57% | -2.41% | -0.85% | 25 |
| 20241 | Retail | Retail: Not High-End without Grocer | Retail: Street | 2,695,310,438 | 1.11% | -2.59% | -1.48% | 84 |
| 20241 | Retail | Retail: Not High-End without Grocer | Retail: Strip | 9,709,738,942 | 1.53% | -0.67% | 0.86% | 179 |



Industrial Grouped by Design

| YYYYQ | PropertyType | Design | PropertySubType | MV | Income Re | Capital Ret | Total Retur | Prop Count |
|-------|--------------|---------------------------------------|---------------------------|-----------------|-----------|-------------|-------------|------------|
| 20241 | Hotel | Hotel: Not Resort | Hotel: Full Service | 3,325,208,214 | 1.08% | -0.28% | 0.80% | 71 |
| 20241 | Industrial | Industrial: General Purpose Flex | Industrial: Flex | 5,276,134,878 | 1.12% | 0.14% | 1.26% | 178 |
| 20241 | Industrial | Industrial: RD | Industrial: Flex | 1,205,437,295 | 1.23% | -1.93% | -0.70% | 19 |
| 20241 | Industrial | Industrial: Showroom | Industrial: Flex | 38,804,341 | 0.47% | 0.26% | 0.73% | 3 |
| 20241 | Industrial | Industrial: Life Science | Industrial: Life Science | 907,228,398 | 1.27% | -2.04% | -0.77% | 24 |
| 20241 | Industrial | Industrial: Manufacturing | Industrial: Manufacturing | 2,750,200,886 | 0.94% | -1.15% | -0.20% | 46 |
| 20241 | Industrial | Industrial: Mixed | Industrial: Specialized | 5,318,700,092 | 0.98% | -0.56% | 0.42% | 39 |
| 20241 | Industrial | Industrial: Other | Industrial: Specialized | 5,487,396,836 | 0.96% | -0.26% | 0.70% | 213 |
| 20241 | Industrial | Industrial: Refrigerated Storage | Industrial: Specialized | 2,928,701,850 | 1.09% | -0.66% | 0.42% | 46 |
| 20241 | Industrial | Industrial: Truck Terminal | Industrial: Specialized | 5,952,283,838 | 0.93% | 0.64% | 1.58% | 130 |
| 20241 | Industrial | Industrial: Distribution Warehouse | Industrial: Warehouse | 132,018,285,990 | 0.95% | -1.08% | -0.13% | 1,999 |
| 20241 | Industrial | Industrial: General Purpose Warehouse | Industrial: Warehouse | 125,799,044,981 | 0.97% | -0.75% | 0.23% | 2,746 |

Residential Prop Clusters



| YYYYQ | PropertyType | Clusters | PropertySubType | MV | Income Re | Capital Re | Total Retur | Prop Count |
|-------|--------------|------------------------|-----------------------------------|-------------------|-----------|------------|-------------|------------|
| 20241 | Residential | Garden | Residential: Apartment | 76,042,836,794.00 | 1.13% | -1.64% | -0.50% | 862 |
| 20241 | Residential | High-Rise | Residential: Apartment | 55,965,630,640.00 | 1.02% | -2.28% | -1.26% | 364 |
| 20241 | Residential | Low-Rise | Residential: Apartment | 38,578,747,136.00 | 1.05% | -2.43% | -1.39% | 417 |
| 20241 | Residential | Mid-Rise | Residential: Apartment | 57,512,794,743.00 | 1.03% | -2.34% | -1.31% | 585 |
| 20241 | Residential | Off- Campus | Residential: Student Housing | 10,238,583,101.00 | 1.22% | -0.48% | 0.74% | 173 |
| 20241 | Residential | On-Campus | Residential: Student Housing | 1,262,400,000.00 | 1.85% | -0.96% | 0.89% | 14 |
| 20241 | Residential | Purpose Built Detached | Residential: Single Family Rental | 1,510,342,789.00 | 0.81% | -1.71% | -0.90% | 57 |
| 20241 | Residential | Scattered Site | Residential: Single Family Rental | 2,248,090,187.00 | 0.75% | -1.38% | -0.63% | 122 |