

RETAIL BASE

MATERIAL DESCRIPTION

THE PREDOMINANT MATERIAL OF THE RETAIL BASE IS THE RESTORED MASONRY FACADE . RETAIL ENTRANCES TO BE A COMBINATION OF ADDITIVE/ SUBTRACTIVE ELEMENTS FROM THE EXISTING BUILDING.

RETAIL BRICK:
M1



STOREFRONT:
M6



CANOPY:

GARAGE
DOOR:
M7



RESIDENTIAL

MATERIAL DESCRIPTION

RESIDENTIAL BUILDINGS TO BE M2, WITH ACCENTS OF M4, BALCONY TO BE M3. INFILL VOLUMES TO BE M2.

NOTE: BRICK PROPORTION SHOWN FOR ILLUSTRATIVE PURPOSES

BRICK:
M2



METAL AND/ OR
GLASS RAILING
SYSTEM:
M3



METAL PANEL:
M4



1270 4TH ST NE WASHINGTON, DC

PUD APPLICATION 2014 MAY 1 (REVISED 2015 MARCH 5)

BUILDING MATERIALS A14



1270 4TH ST NE WASHINGTON, DC

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PERSPECTIVES A15



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PERSPECTIVES A16



1270 4TH ST NE WASHINGTON, DC

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PERSPECTIVES A17



1. VIEW OF 4TH ST FACADE



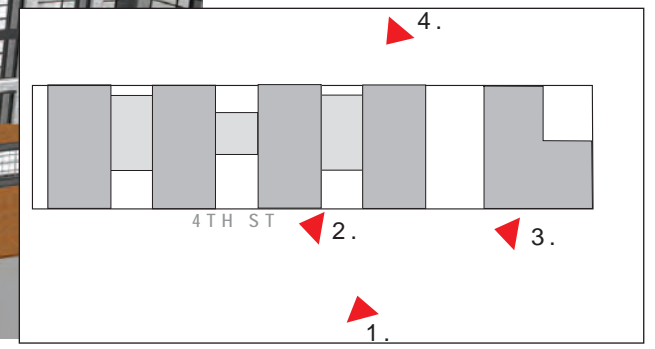
2. 4TH STREET RETAIL VIEW LOOKING SOUTH



3. RETAIL CORNER OF NEAL PLACE AND 4TH ST LOOKING SOUTH



4. VIEW OF WEST FACADE



1270 4TH ST NE WASHINGTON, DC

PUD APPLICATION 2014 MAY 1 (REVISED 2015 MARCH 5)

PERSPECTIVES | A18



LEED 2009 for New Construction and Major Renovations

1270 4th Street NE

Project Checklist

17	4	5	Sustainable Sites		Possible Points: 26
Y	?	N			
Y			Prereq 1	Construction Activity Pollution Prevention	
1			Credit 1	Site Selection	1
5			Credit 2	Development Density and Community Connectivity	5
		1	Credit 3	Brownfield Redevelopment	1
6			Credit 4.1	Alternative Transportation—Public Transportation Access	6
1			Credit 4.2	Alternative Transportation—Bicycle Storage and Changing Rooms	1
1	2		Credit 4.3	Alternative Transportation—Low-Emitting and Fuel-Efficient Vehicles	3
	2		Credit 4.4	Alternative Transportation—Parking Capacity	2
		1	Credit 5.1	Site Development—Protect or Restore Habitat	1
	1		Credit 5.2	Site Development—Maximize Open Space	1
1			Credit 6.1	Stormwater Design—Quantity Control	1
	1		Credit 6.2	Stormwater Design—Quality Control	1
1			Credit 7.1	Heat Island Effect—Non-roof	1
1			Credit 7.2	Heat Island Effect—Roof	1
		1	Credit 8	Light Pollution Reduction	1

4	3	3	Water Efficiency		Possible Points: 10
Y	?	N			
Y			Prereq 1	Water Use Reduction—20% Reduction	
2	2		Credit 1	Water Efficient Landscaping	2 to 4
		2	Credit 2	Innovative Wastewater Technologies	2
2	1	1	Credit 3	Water Use Reduction	2 to 4

12	6	17	Energy and Atmosphere		Possible Points: 35
Y	?	N			
Y			Prereq 1	Fundamental Commissioning of Building Energy Systems	
Y			Prereq 2	Minimum Energy Performance	
Y			Prereq 3	Fundamental Refrigerant Management	
9	4	6	Credit 1	Optimize Energy Performance	1 to 19
		7	Credit 2	On-Site Renewable Energy	1 to 7
		2	Credit 3	Enhanced Commissioning	2
	2		Credit 4	Enhanced Refrigerant Management	2
1		2	Credit 5	Measurement and Verification	3
2			Credit 6	Green Power	2

4	1	9	Materials and Resources		Possible Points: 14
Y	?	N			
Y			Prereq 1	Storage and Collection of Recyclables	
		3	Credit 1.1	Building Reuse—Maintain Existing Walls, Floors, and Roof	1 to 3
		1	Credit 1.2	Building Reuse—Maintain 50% of Interior Non-Structural Elements	1
1		1	Credit 2	Construction Waste Management	1 to 2
		2	Credit 3	Materials Reuse	1 to 2

			Materials and Resources, Continued		
Y	?	N			
2			Credit 4	Recycled Content	1 to 2
1	1		Credit 5	Regional Materials	1 to 2
		1	Credit 6	Rapidly Renewable Materials	1
		1	Credit 7	Certified Wood	1

7	6	2	Indoor Environmental Quality		Possible Points: 15
Y	?	N			
Y			Prereq 1	Minimum Indoor Air Quality Performance	
Y			Prereq 2	Environmental Tobacco Smoke (ETS) Control	
1			Credit 1	Outdoor Air Delivery Monitoring	1
		1	Credit 2	Increased Ventilation	1
1			Credit 3.1	Construction IAQ Management Plan—During Construction	1
	1		Credit 3.2	Construction IAQ Management Plan—Before Occupancy	1
1			Credit 4.1	Low-Emitting Materials—Adhesives and Sealants	1
1			Credit 4.2	Low-Emitting Materials—Paints and Coatings	1
	1		Credit 4.3	Low-Emitting Materials—Flooring Systems	1
1			Credit 4.4	Low-Emitting Materials—Composite Wood and Agrifiber Products	1
	1		Credit 5	Indoor Chemical and Pollutant Source Control	1
1			Credit 6.1	Controllability of Systems—Lighting	1
1			Credit 6.2	Controllability of Systems—Thermal Comfort	1
1			Credit 7.1	Thermal Comfort—Design	1
	1		Credit 7.2	Thermal Comfort—Verification	1
		1	Credit 8.1	Daylight and Views—Daylight	1
1			Credit 8.2	Daylight and Views—Views	1

5	1	Innovation and Design Process		Possible Points: 6	
Y	?	N			
1			Credit 1.1	Innovation in Design: Specific Title	1
1			Credit 1.2	Innovation in Design: Specific Title	1
1			Credit 1.3	Innovation in Design: Specific Title	1
1			Credit 1.4	Innovation in Design: Specific Title	1
	1		Credit 1.5	Innovation in Design: Specific Title	1
1			Credit 2	LEED Accredited Professional	1

2	2	Regional Priority Credits		Possible Points: 4	
Y	?	N			
1			Credit 1.1	Regional Priority: Specific Credit	1
1			Credit 1.2	Regional Priority: Specific Credit	1
		1	Credit 1.3	Regional Priority: Specific Credit	1
		1	Credit 1.4	Regional Priority: Specific Credit	1

51	21	38	Total		Possible Points: 110
Certified 40 to 49 points Silver 50 to 59 points Gold 60 to 79 points Platinum 80 to 110					

ZONING TABULATIONS

TOTAL SITE AREA: 67,200 sf

NORTH PARCEL AREA: ~16,200 SF; SOUTH PARCEL AREA : ~51,000 SF

ZONING REGULATION	REQUIRED/ ALLOWED	PROVIDED
Maximum Building Height(1)	110'	110'
Maximum FAR(2):	8.0 total	8.00 total (537,600 sf)
South Parcel		5.68 (384,351 sf)
Retail		29,042
Residential		355,309
North Parcel	8	2.32 (153,249 sf)
Retail		12,000
Residential		141,249
Green Area Ratio GAR:	0.2	0.2
Maximum Lot Occupancy(3):	commercial: 100% residential: 100%	
Rear Yard Minimum:	all uses: 2-1/2"/ft (12' min) 23'-6"	varies, see Z2
Side Yard Minimum:	not required	not provided
Court-Open: Min. Width	residential: 4"/ft (15' min) commercial: 3"/ft (12' min)	see diagram sheet Z2 see diagram sheet Z2
Court-Closed: Area (width same as open)	residential: 350 sf min., or 2 x width squared commercial: 250 sf min., or 2 x width squared	see diagram sheet Z2 see diagram sheet Z2
Inclusionary Zoning	8% of residential FAR	8% of residential FAR

ZONING REGULATION	REQUIRED/ ALLOWED	PROVIDED
Roof Structures (4)		
Gross Floor Area	0.37	0.37
Number: 1 per core per level max.	2	2
Maximum Height:	18'-6"	varies
Setbacks:	Equal to Height of Roof Structure	varies

Off-Street Parking (5)	REQUIRED/ ALLOWED	PROVIDED
North Parcel		
Retail (above 3,000 gsf: 1/750 sf)	12,000/750 = 16	80-200 spaces
Residential (1/4 units)	130-200/4 = 33-100	
South Parcel		
Retail (above 3,000 gsf: 1/750 sf)	29,042/750 = 39	400-550 spaces
Residential (1/4 units)	415-510/4 = 104-128	

Off-Street Loading	REQUIRED/ ALLOWED	PROVIDED
Retail (20,000 sf - 30,000 sf)	2-30' berth, 1 20' delivery space	South Parcel: 2- 30' berths; North Parcel 1 30' berth
Grocery (5,000 sf - 20,000 sf)	1 30' berth, 1 20' space	
Residential	1-55' berth, 1 20' delivery space	South Parcel: 2-30' berths; North Parcel 1 30' berth

Indicates area where flexibility from the Zoning Regulations is requested

Bicycle Parking	Required	Provided
<u>South Parcel</u>	Retail 1/3,500 sf = 9 spaces Residential 1/3 units = 138-170 spaces total = 147-179 spaces	147-179 spaces
<u>North Parcel</u>	Retail 1/3,500 sf = 4 spaces Residential 1/3 units = 44-67 spaces total = 48-71 spaces	48-71 spaces

Notes:

- The Maximum building height is based on the width of 4th street (90' R.O.W.) for 110' allowable measured from the curb at the middle of the 4th street frontage
- Per 11-2405.2, the allowable FAR of each use is unrestricted up to a max of 8.0 FAR total.
- The residential occupancy varies by floor with the maximum lot occupancy occurring on the ground level and is 100%.
- The 'gross floor area' of the roof structures is 0.37 FAR.
- The total number of off-street parking spaces provided will be between 480-750 spaces for both parcels combined. This range is for flexibility to provide a B5 parking level, as well as flexibility in the total amount of parking in the North Parcel component.

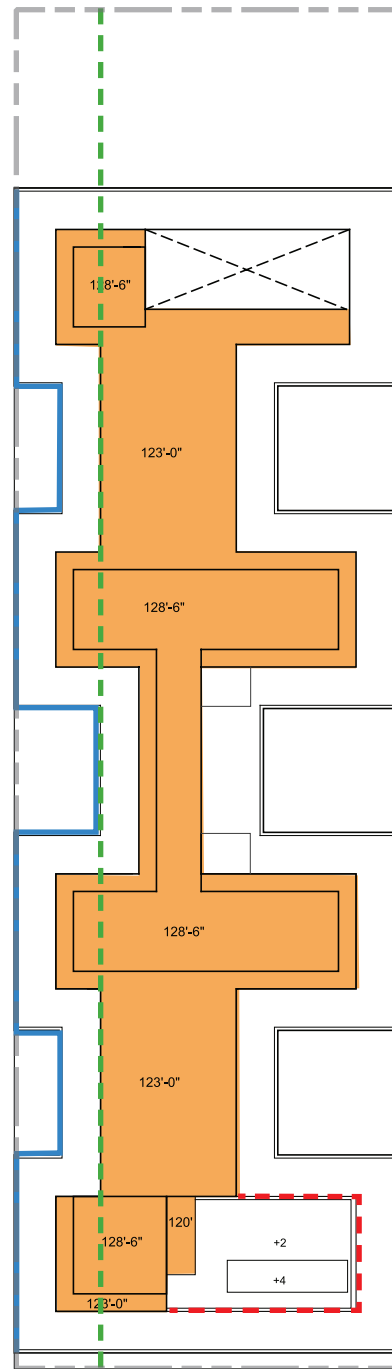
RESIDENTIAL UNITS

The building will provide a combination of unit types that will be designed for the specific market and location. Units will range in types from studios to 2 bedrooms. The units count will be between 130-200 units for the North Parcel, and 415-510 units for the South Parcel. The final count and design of the units will be finalized at building permit to project delivery as possible to ensure market viability.

AFFORDABLE HOUSING UNIT SUMMARY

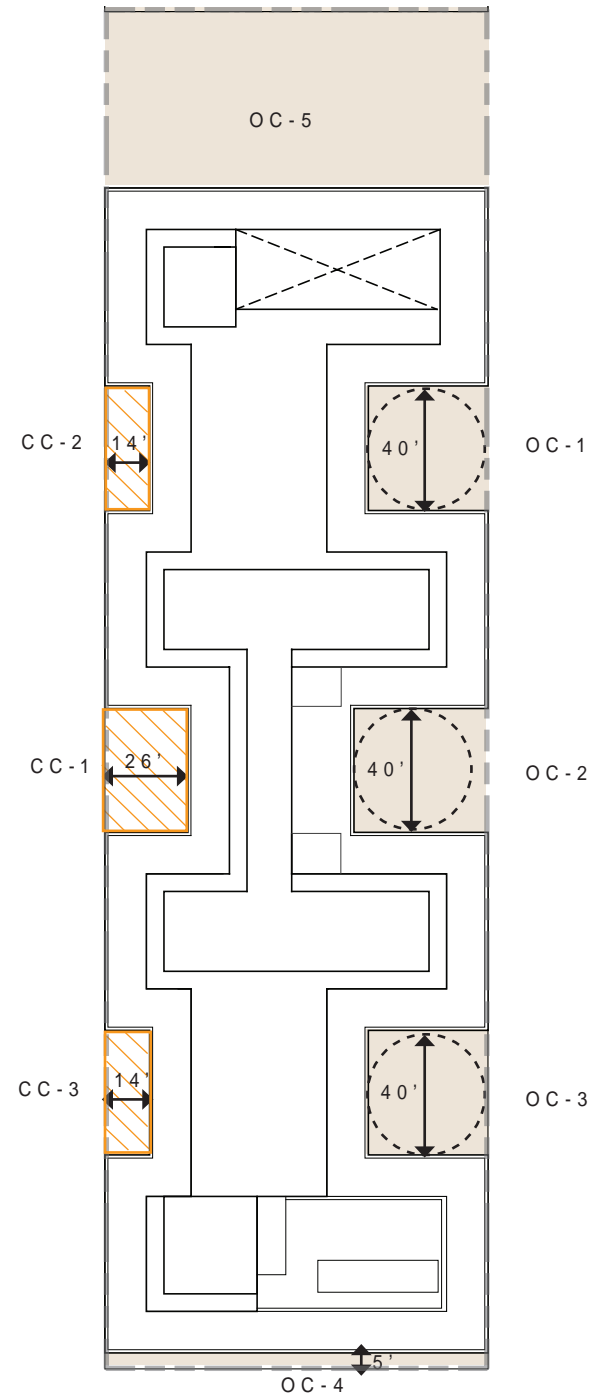
SOUTH PARCEL RESIDENTIAL GSF: 355,309 GSF

AFFORDABLE RESIDENTIAL GSF: 28,425 GSF (8% OF THE TOTAL RESIDENTIAL AREA)



BLDG SPOT ELEVATIONS INDICATED ARE TO TOP OF ADJACENT ROOF PARAPET

ROOF STRUCTURE PLAN / REAR YARD PLAN



OPEN AND CLOSED COURTS PLAN

SCHEDULE OF ROOFTOP STRUCTURE HEIGHTS/ SETBACK

Rooftop Structure	Height	Required Setback	Proposed Setback
RS-1	13'-0" / 18'-6"	13'-0" / 18'-6"	13'-0" / 18'-6"

SCHEDULE OF COURTS

OPEN COURT	REQUIRED WIDTH	PROVIDED WIDTH
OC-1	29.4'	40'
OC-2	29.4'	40'
OC-3	29.4'	40'
OC-4	32.7'	5'
OC-5	36.2'	50'

CLOSED COURT	REQUIRED WIDTH	PROVIDED WIDTH	REQUIRED AREA	PROVIDED AREA
CC-1	26.4'	26'	3200	1040
CC-2	29.4'	14'	3200	560
CC-3	26.4'	14'	3200	560

NOTES:

1. DIMENSIONS ON THIS SHEET ILLUSTRATE ZONING COURT, COURT NICHE, AND ROOF STRUCTURE SETBACKS.
2. SEE ROOF PLAN FOR OVERALL BUILDING DIMENSIONS.

LEGEND

- PROPERTY LINE
- ROOF STRUCTURES
- REQUIRED REAR YARD SETBACK
- PROVIDED REAR YARD SETBACK (VARIES)
- ▨ CLOSED COURT
- OPEN COURT
- ⊕ OPEN/ CLOSED COURT WIDTH

STANDARD DRAWING LEGEND

FOR ENTIRE PLAN SET
(NOT TO SCALE)

EXISTING NOTE	TYPICAL NOTE TEXT	PROPOSED NOTE	EXISTING NOTE	TYPICAL NOTE TEXT	PROPOSED NOTE
	ONSITE PROPERTY LINE / R.O.W. LINE			OVERHEAD WIRE	
	NEIGHBORING PROPERTY LINE / INTERIOR PARCEL LINE			UNDERGROUND TELEPHONE LINE	
	EASEMENT LINE			UNDERGROUND CABLE LINE	
	SETBACK LINE			STORM SEWER	
				SANITARY SEWER MAIN	
	CONCRETE CURB & GUTTER			HYDRANT	
				SANITARY MANHOLE	
				STORM MANHOLE	
	UTILITY POLE WITH LIGHT			WATER METER	
	POLE LIGHT			WATER VALVE	
	TRAFFIC LIGHT			GAS VALVE	
	UTILITY POLE			GAS METER	
	TYPICAL LIGHT			TYPICAL END SECTION	
	ACORN LIGHT			HEADWALL OR ENDWALL	
	TYPICAL SIGN			YARD INLET	
	PARKING COUNTS			CURB INLET	
				CLEAN OUT	
	CONTOUR LINE			ELECTRIC MANHOLE	
	SPOT ELEVATIONS			TELEPHONE MANHOLE	
				ELECTRIC BOX	
	SANITARY LABEL			ELECTRIC PEDESTAL	
	STORM LABEL			MONITORING WELL	
	SANITARY SEWER LATERAL			TEST PIT	
	UNDERGROUND WATER LINE			BENCHMARK	
	UNDERGROUND ELECTRIC LINE			BORING	
	UNDERGROUND GAS LINE			SIDEWALK	

GENERAL NOTES

1. THIS PLAN IS BASED ON THE FOLLOWING DOCUMENTS AND INFORMATION:

A) BOUNDARY & TOPOGRAPHIC SURVEY ENTITLED, "EDENS & AVANT, 1250-1252, 1260, 1270 & 1346 4TH STREET, NE, PARCELS 129/68, 129/95, 129/96, AND LOT 7, SQUARE 3587, DISTRICT OF COLUMBIA," PREPARED BY BOHLER ENGINEERING 09/19/13, FILE NO. SS132130.

B) ARCHITECTURAL CAD FILES ENTITLED, "Ground Plan," PREPARED BY SHALOM BARANES, DATED 01/19/15.

C) LANDSCAPE CAD FILES ENTITLED, "150216 Shapiro Ground plan on site," PREPARED BY EDEN'S, DATED 02/16/15.

2. LOCATION OF ALL UNDERGROUND UTILITIES ARE APPROXIMATE. ALL LOCATIONS AND SIZES ARE BASED ON ABOVE GROUND STRUCTURES THAT WERE VISIBLE & ACCESSIBLE IN THE FIELD, AND THE MAPS AS LISTED IN THE REFERENCES AVAILABLE AT THE TIME OF THE SURVEY. AVAILABLE AS-BUILT PLANS AND UTILITY MARK OUT DOES NOT ENSURE MAPPING OF ALL UNDERGROUND UTILITIES AND STRUCTURES. BEFORE ANY EXCAVATION IS TO BEGIN, ALL UNDERGROUND UTILITIES SHOULD BE VERIFIED AS TO THEIR LOCATION, SIZE AND TYPE BY THE PROPER UTILITY COMPANIES.

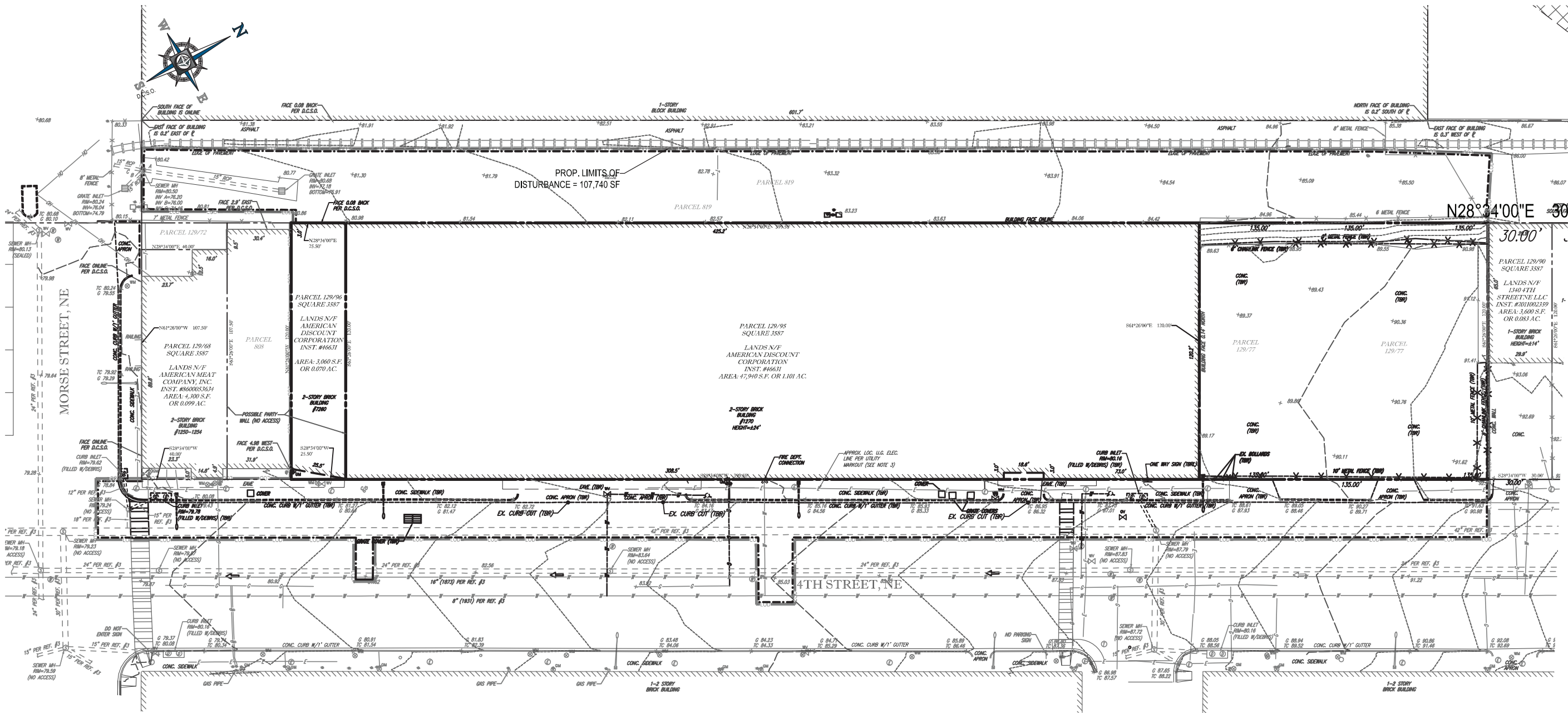
SHEET INDEX

SHEET TITLE	SHEET NUMBER
GENERAL NOTES AND LEGEND	C-1.0
EXISTING CONDITIONS/DEMOLITION PLAN	C-2.0
SITE/STREETSCAPE PLAN	C-3.0
GRADING/UTILITY PLAN	C-4.0
STORMWATER MANAGEMENT/GREEN AREA RATIO	C-4.1
STORMWATER MANAGEMENT NARRATIVE	C-4.2
GREEN AREA RATIO SCORESHEET	C-4.3
EROSION AND SEDIMENT CONTROL PLAN	C-5.0
PASSENGER CAR TURNS	C-6.0
SU-30 TRUCK TURNS	C-6.1
GARBAGE TRUCK TURNS	C-6.2
MSU TRUCK TURNS	C-6.3
CIRCULATION PLAN	C-7.0

OWNER / DEVELOPER

EDENS
7200 WISCONSIN AVE, SUITE 400
BETHESDA, MD 20814
REYNOLDS ALLEN
PHONE: 301-347-3727



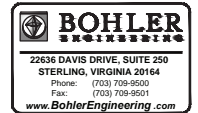


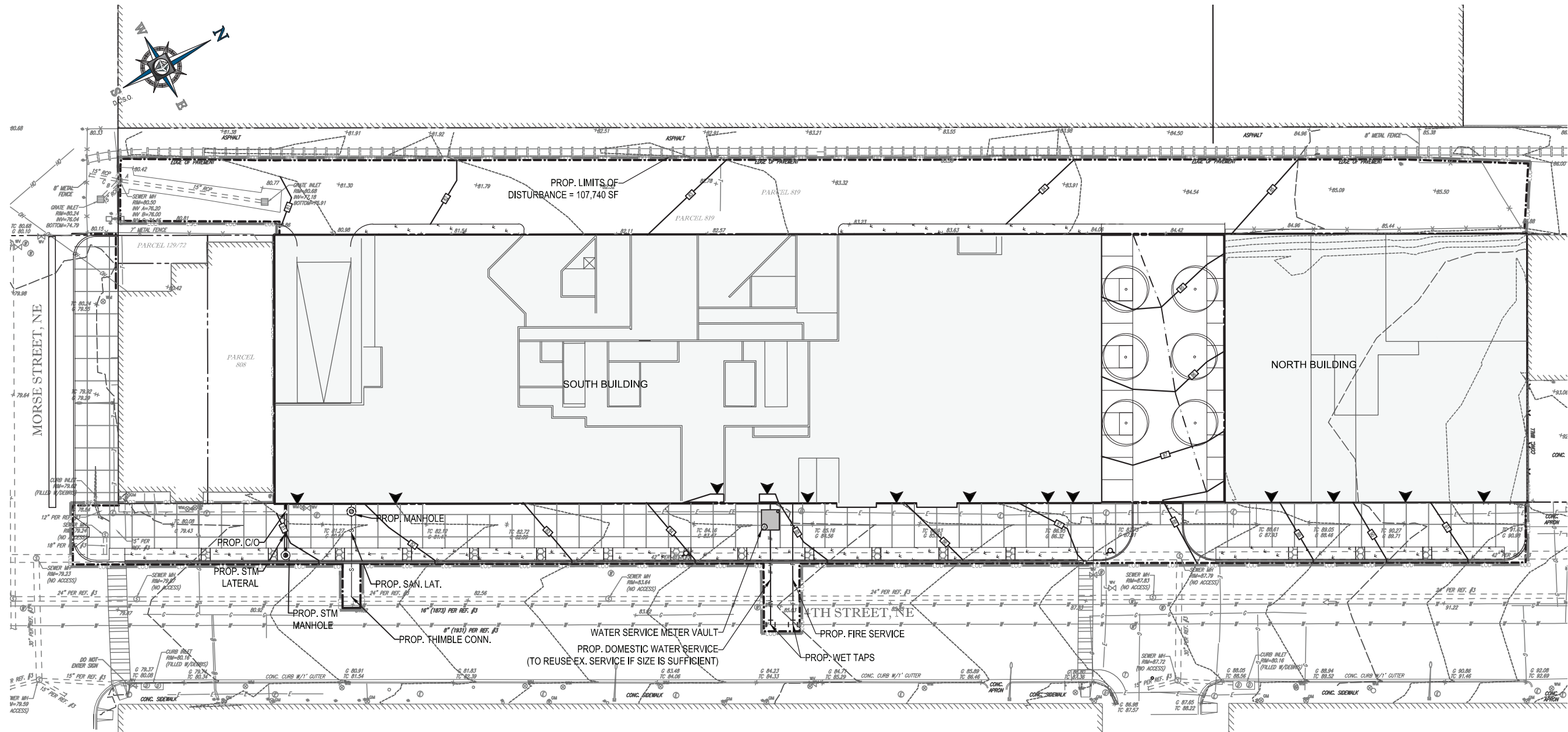
DEMOLITION NARRATIVE

THE EXISTING SITE IS MADE UP OF THREE (3) LOTS CONTAINING EXISTING BUILDINGS. THE PROPOSED PROJECT REQUIRES DEMOLITION OF EXISTING SITE FEATURES WITH THE EXCEPTION OF THE EXISTING BUILDING FACADE ALONG 4TH STREET, N.E.. THIS EXISTING FACADE WILL BE INCLUDED IN THE PROPOSED CONSTRUCTION OF A NEW 11 STORY RETAIL/RESIDENTIAL BUILDING WITH 10 STORIES OF RESIDENTIAL USE AND ONE (1) STORY OF RETAIL WITH POP-UP LEVEL ABOVE THE FOOTPRINT AND FIVE (5) LEVELS OF UNDERGROUND PARKING FOR THE RETAIL AND RESIDENTIAL FACILITIES. EXISTING UTILITIES ON SITE SHALL BE ABANDONED AND / OR REMOVED AT THE TIME OF DEMOLITION.

LEGEND

PROP LIMITS OF DISTURBANCE

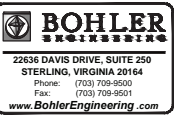


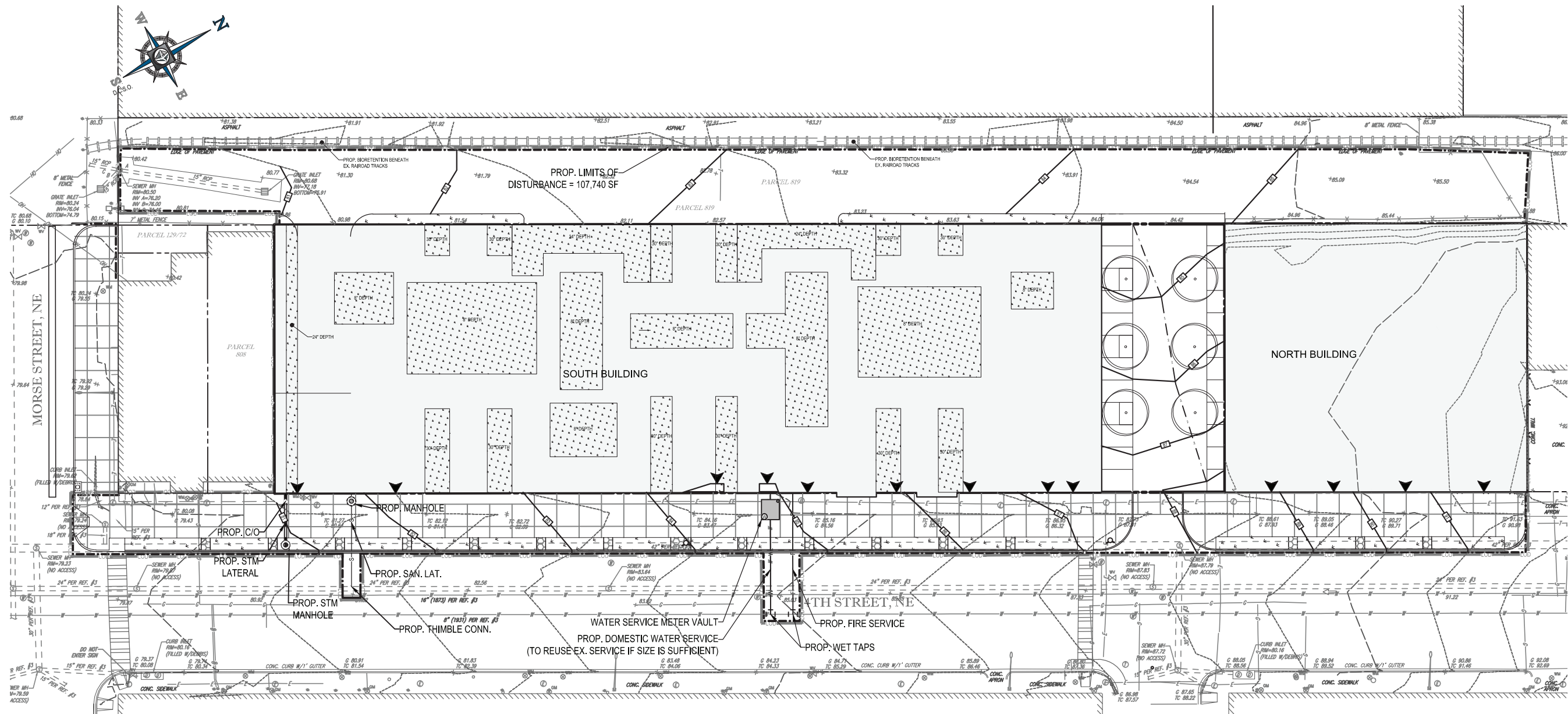


GRADING AND UTILITY NARRATIVE - SOUTH BUILDING

THE PROPOSED RETAIL AND RESIDENTIAL PROJECT INCLUDES CONSTRUCTION OF NEW UTILITY INFRASTRUCTURE TO SERVICE THE DEVELOPMENT. EXISTING WATER MAINS, SEWER MAINS, AND STORM DRAIN SHALL SERVE THE SITE AS WELL AS COMMUNICATION LINES, GAS MAINS, AND ELECTRIC SERVICE. PROPOSED UTILITY LATERALS SHOWN HEREON ARE APPROXIMATE. FINAL LOCATIONS OF LATERALS AND CONNECTIONS WILL BE DETERMINED DURING THE FINAL DESIGN OF THE BUILDING AND ASSOCIATED UTILITY ROOM LOCATIONS.

THE SITE DESIGN SHALL INCLUDE STORMWATER MANAGEMENT MEASURES IN ACCORDANCE WITH CURRENT DDOE REGULATIONS (SEE SHEET C-4.1 FOR STORMWATER MANAGEMENT PLAN). PRELIMINARY DESIGN INDICATES THAT STORMWATER AND SANITARY SEWER WILL OUTFALL FROM THE SITE TO EXISTING INFRASTRUCTURE EAST ALONG 4TH STREET, NE. EXISTING GRADES ARE SHOWN AT 1 FOOT INTERVALS TO IMPROVE PLAN CLARITY.





GREEN AREA RATIO NARRATIVE - SOUTH BUILDING:

THE PROPOSED ZONING FOR THE PROJECT IS C-3-C, WHICH WILL REQUIRE A GREEN AREA RATIO OF 0.20 FOR THE PURPOSE OF THIS PUD. GAR IS CALCULATED FOR THE SOUTHERN PROPERTY ONLY. GAR CALCULATIONS FOR THE NORTHERN BUILDING WILL BE PROVIDED WITH FUTURE SUBMISSIONS. THE GAR REQUIREMENTS WILL BE SATISFIED THROUGH THE INCLUSION OF A GREEN ROOF. THE GREEN ROOF LOCATIONS SHOWN ARE PRELIMINARY ONLY. THE GAR REQUIREMENTS ARE TO BE MET IF THEY ARE CHANGED DURING FINAL DESIGN.

THE GREEN AREA FOR THE SITE IS CALCULATED AS FOLLOWS:

TOTAL SITE AREA:	51,000 SF
AREA OF GREEN ROOF (DEPTH ≥ 8"):	15,880 SF
GAR MULTIPLIER:	0.8
GREEN AREA RATIO NUMERATOR:	12,704

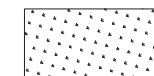
STORMWATER MANAGEMENT NOTES - SOUTH BUILDING

THE EXISTING SITE CONDITIONS HAVE NO STORMWATER QUALITY OR QUANTITY CONTROLS. BASED ON THE CURRENT DDOE STORMWATER REQUIREMENTS, THIS IS A MAJOR LAND-DISTURBING PROJECT AND WILL HAVE AN ON-SITE SWRV OF APPROXIMATELY 4,845 CF. THIS ON-SITE REQUIREMENT WILL BE MET WITH THE USE OF GREEN ROOFS. FINAL REQUIRED PUBLIC RIGHT-OF-WAY VOLUME WILL BE DETERMINED ONCE STREETScape IMPROVEMENTS ARE DESIGNED AND FINAL LIMITS OF DISTURBANCE ARE CALCULATED. THIS REQUIREMENT WILL BE TREATED ENTIRELY OR TO THE MAXIMUM EXTENT PRACTICABLE. SEE SHEET C-4.2 FOR DETAILED STORMWATER MANAGEMENT NARRATIVE AND CALCULATIONS.

IN ADDITION, THE PROJECT WILL INCORPORATE SUSTAINABLE FEATURES. THEY INCLUDE FEATURES TO MAXIMIZE WATER EFFICIENCY AND MEASURES BOTH TO MITIGATE THE BUILDING'S IMPACT ON THE ENVIRONMENT AND TO CREATE A HEALTHIER INTERIOR ENVIRONMENT.

LEGEND

GREEN ROOF



NOTE:

AREAS AND/OR VOLUMES USED FOR GREEN AREA RATIO SCORING AND FOR STORMWATER MANAGEMENT RETENTION VOLUME COMPUTATIONS ARE APPROXIMATE AND ARE SUBJECT TO CHANGE DUE TO SITE LAYOUT AND DESIGN CHANGES. ALL GAR SCORE AND STORMWATER MANAGEMENT STORAGE AREAS AND/OR VOLUMES ARE TO MEET CODE REQUIREMENTS IF THE DESIGN GEOMETRIES OR LAYOUT ARE MODIFIED.

SWM NARRATIVE - SOUTH BUILDING:

I. SITE DESCRIPTION:

THE SUBJECT SITE IS LOCATED AT 1270 4TH STREET, N.E THE SITE CONSISTS OF TWO PARCELS TOTALING APPROXIMATELY 51,000 S.F. (1.17 AC). THIS PROJECT WILL TOTAL PROJECT DISTURB APPROXIMATELY 107,740 SQUARE FEET (2.47 AC). FOR THE PURPOSES OF THIS PUD, THE STORMWATER MANAGEMENT FOR THE SOUTH BUILDING HAS BEEN DESIGNED AND DETAILED FOR THE PRIVATE SPACE SOUTH BUILDING IMPACTS ONLY. THE PROPOSED PROJECT WILL DISTURB APPROXIMATELY:

PRIVATE/ON-SITE - 51,000 S.F. (1.17 AC)
PRIVATE/OFF-SITE (ALLEY) - 19,147 S.F. (0.44 AC)
PUBLIC SPACE - 17,827 S.F. (0.41 AC)

PRIVATE/ON-SITE AND ADJOINING IMPROVEMENTS TO THE RIGHT-OF-WAY AND PRIVATE ALLEY ARE NOT INCLUDED IN THIS PUD 26,032 S.F. (0.60 AC)

II. METHODOLOGY:

THE CURRENT DDOE STORMWATER REGULATIONS WERE UTILIZED TO CALCULATE THE REQUIRED STORMWATER RETENTION VOLUMES FOR PRIVATE AND PUBLIC RIGHT-OF-WAY DRAINAGE AREAS. THE PRIVATE AND PUBLIC STORMWATER RETENTION CALCULATIONS ARE SHOWN BELOW.

ON-SITE SWRV REQUIREMENT (SOUTH BUILDING ONLY FOR PUD PURPOSES):

$$SWRV = \frac{[P \times ((RvI \times \%I) + (RvC \times \%C) + (RvN \times \%N) \times SA)]}{12}$$

$$SWRV = \frac{[1.2 \times ((0.95 \times 1.0) + (0.25 \times 0.0) \times 51,000)]}{12}$$

$$= 4,845 \text{ CF}$$

OFF-SITE PRIVATE AND OFF-SITE PROW ARE ASSUMED TO BE 100% IMPERVIOUS FOR THIS CALCULATION. THE RESULTING SWRV REQUIREMENTS ARE:

OFF-SITE/PRIVATE: 1,694 CF
OFF-SITE/PROW: 1,819 CF

III. STORMWATER RETENTION VOLUME (PRIVATE/ON-SITE):

PRIVATE/ON-SITE STORMWATER RETENTION WILL BE PROVIDED THROUGH THE IMPLEMENTATION OF A GREEN ROOF. DUE TO ARCHITECTURAL DESIGN, THE RETENTION VALUES ARE LIMITED BY THE MAXIMUM RETENTION VALUE FOR EACH DRAINAGE AREA. THE RETENTION VALUES OF THE PROPOSED GREEN ROOF AREAS HAVE BEEN CALCULATED AS FOLLOWS:

$$Sv = SWRV \text{ MAX} = \frac{[1.7 \times ((0.95 \times 1.0) + (0.25 \times 0.0) \times SA)]}{12}$$

TOTAL AREA DRAINING TO GREEN ROOF: 40,710 SF

$$Sv = \frac{[1.7 \times ((0.95 \times 1.0) + (0.25 \times 0.0) \times 40,710)]}{12}$$

$$Sv = 5,130 \text{ CF}$$

IV. STORMWATER RETENTION VOLUME (PRIVATE/OFF-SITE):

PRIVATE/OFF-SITE STORMWATER RETENTION FOR THE ALLEY IMPROVEMENTS WILL BE PROVIDED THROUGH THE IMPLEMENTATION OF PERMEABLE PAVING AND BIORETENTION. THE RETENTION VALUES OF THE PROPOSED BMP'S HAVE BEEN CALCULATED AS FOLLOWS:

THE PROPOSED PERMEABLE PAVER AREAS RECEIVE A RETENTION VALUE OF 4.5 CUBIC FEET PER 100 SQUARE FEET OF PRACTICE AREA. BASED ON AN AREA OF 15,163 SQUARE FEET, THE PROPOSED PERMEABLE PAVEMENT VOLUME HAS BEEN CALCULATED AS FOLLOWS:

$$RV = \frac{4.5 \text{ CF} \times 15,163 \text{ SF}}{100 \text{ SF}}$$

$$RV = 682 \text{ CF}$$

THE PROPOSED BIORETENTION DESIGN WILL HAVE A UNDERDRAIN, BUT NO INFILTRATION SUMP, SO IT HAS BEEN CALCULATED AS STANDARD BIORETENTION. THE ENTIRE FACILITY WILL HAVE A TRAPEZOIDAL CROSS SECTION, SO THE VOLUME IS CALCULATED USING THE AVERAGE SURFACE AREA FOR EACH MATERIAL TYPE. THE PROPOSED STORAGE VOLUME IS CALCULATED AS FOLLOWS:

$$RV = 0.6 \times SV$$

$$SV = SA \times (Dm \times Nm) + SA \times (Dg \times Ng)] + (SAp \times Dp)$$

$$SV = 1,337(0.70 \times 0.25) + 619(0.75 \times 0.40) + (2,054 \times 0.25)$$

$$= 933 \text{ CF}$$

$$RV = 0.6 \times 933 = 560 \text{ CF}$$

$$SV \text{ TOTAL} = 1,242 \text{ CF}$$

V. STORMWATER RETENTION VOLUME (OFF-SITE/PUBLIC SPACE):

PUBLIC RIGHT-OF-WAY STORMWATER RETENTION WILL BE PROVIDED THROUGH ENGINEERED TREE PITS (BIORETENTION BMP) WITH CONTINUOUS SOIL PANEL BELOW THE TREE/PLANTING AREAS, PERMEABLE PAVERS BETWEEN THE PLANTER AREAS AND ADJACENT CONVENTIONAL PAVEMENT.

THE PROPOSED BIORETENTION DESIGN WILL HAVE A UNDERDRAIN, BUT NO INFILTRATION SUMP, SO IT HAS BEEN CALCULATED AS STANDARD BIORETENTION. THE PROPOSED STORAGE VOLUME IS CALCULATED AS FOLLOWS:

$$RV = 0.6 \times SV$$

$$SV = SA \times [(Dm \times Nm) + (Dg \times Ng)] + (SA \times Dp)$$

$$SV = 2,031 \times [(6 \times 0.25) + (0.17 \times 0.40)] + (2,031 \times 0)$$

$$= 3,185 \text{ CF}$$

$$RV = 0.6 \times 3,185 = 1,911 \text{ CF}$$

THE PROPOSED PERMEABLE PAVER AREAS RECEIVE A RETENTION VALUE OF 4.5 CUBIC FEET PER 100 SQUARE FEET OF PRACTICE AREA. BASED ON AN AREA OF 313 SQUARE FEET, THE PROPOSED

PERMEABLE PAVEMENT VOLUME HAS BEEN CALCULATED AS FOLLOWS:

$$RV = \frac{4.5 \text{ CF} \times 313 \text{ SF}}{100 \text{ SF}}$$

$$RV = 14 \text{ CF}$$

$$\text{TOTAL PUBLIC RIGHT-OF-WAY STORAGE VOLUME} = 1,925 \text{ CF}$$

VI. ON-SITE STORM SEWER NETWORK:

THE PROPOSED STORM SEWER SYSTEM CONVEYS AND FILTERS ONSITE STORMWATER THROUGH THE GREEN ROOF. STORMWATER FLOWS ABOVE THE 1.2" STORM EVENT WILL DISCHARGE TO A STORM LATERAL THAT CONNECTS TO THE PUBLIC STORM SEWER LINE WITHIN 4TH STREET, NW.

VII. SUMMARY:

ON-SITE RUNOFF FROM THE PROPOSED DEVELOPMENT IS STORED IN THE PROPOSED GREEN ROOF AREAS. STORM EVENTS IN EXCESS OF 1.2" WILL BE CONVEYED TO A PROPOSED STORM SEWER LATERAL, WHICH CONNECTS INTO THE EXISTING PUBLIC STORM SEWER UNDER 4TH STREET N.E. THE TOTAL STORAGE VOLUME CAPACITY PROVIDED IN THE GREEN ROOF AREAS MEETS STORAGE VOLUME REQUIREMENTS (4,845 CF) PLUS PROVIDING AN ADDITIONAL 285 CF OF STORAGE. THE OFF-SITE PUBLIC SPACE STORAGE VOLUME REQUIREMENT (1,819 CF) WILL BE MET THROUGH THE USE OF ENGINEERED TREE PITS AND PERMEABLE PAVEMENT WITH AN ADDITIONAL 106 CF OF STORAGE. THE PRIVATE OFF-SITE TREATMENT OPTIONS WILL BE FURTHER DISCUSSED WITH DDOE.

NOTE:

AREAS AND/OR VOLUMES USED FOR GREEN AREA RATIO SCORING AND FOR STORMWATER MANAGEMENT RETENTION VOLUME COMPUTATIONS ARE APPROXIMATE AND ARE SUBJECT TO CHANGE DUE TO SITE LAYOUT AND DESIGN CHANGES. ALL GAR SCORE AND STORMWATER MANAGEMENT STORAGE AREAS AND/OR VOLUMES ARE TO MEET CODE REQUIREMENTS IF THE DESIGN GEOMETRIES OR LAYOUT ARE MODIFIED.



Green Area Ratio Scoresheet

Address:

Ward: Lot: Square: Zoning District:

Other / BZA Order:

enter sq ft of lot: multiplier: SCORE:

Lot size (enter this value first) *

Landscape Elements	Square Feet	Factor	Total
A Landscaped areas (select one of the following for each area)			
1 Landscaped areas with a soil depth of less than 24"	<input type="text" value="0"/>	0.3	-
2 Landscaped areas with a soil depth of 24" or greater	<input type="text" value="0"/>	0.6	-
3 Bioretention facilities	<input type="text" value="0"/>	0.4	-
B Plantings (credit for plants in landscaped areas from Section A)			
1 Groundcovers, or other plants less than 2' tall at maturity	<input type="text" value="0"/>	0.2	-
2 Plants, not including grasses, 2' or taller at maturity - calculated at 9 sq ft per plant (typically planted no closer than 18" on center)	<input type="text" value="0"/>	0.3	-
3 Tree canopy for all new trees 2.5" to 6" in diameter or equivalent - calculated at 50 sq ft per tree	<input type="text" value="0"/>	0.5	-
4 Tree canopy for new trees 6" diameter or larger or equivalent - calculated at 250 sq ft per tree	<input type="text" value="0"/>	0.6	-
5 Tree canopy for preservation of existing tree 6" to 12" in diameter or larger or equivalent - calculated at 250 sq ft per tree	<input type="text" value="0"/>	0.7	-
6 Tree canopy for preservation of existing tree 12" to 18" in diameter or larger or equivalent - calculated at 600 sq ft per tree	<input type="text" value="0"/>	0.7	-
7 Tree canopy for preservation of all existing trees 18" to 24" in diameter or equivalent - calculated at 1500 sq ft per tree	<input type="text" value="0"/>	0.7	-
8 Tree canopy for preservation of all existing trees 24" in diameter or larger or equivalent - calculated at 2000 sq ft per tree	<input type="text" value="0"/>	0.8	-
9 Vegetated wall, plantings on a vertical surface	<input type="text" value="0"/>	0.6	-

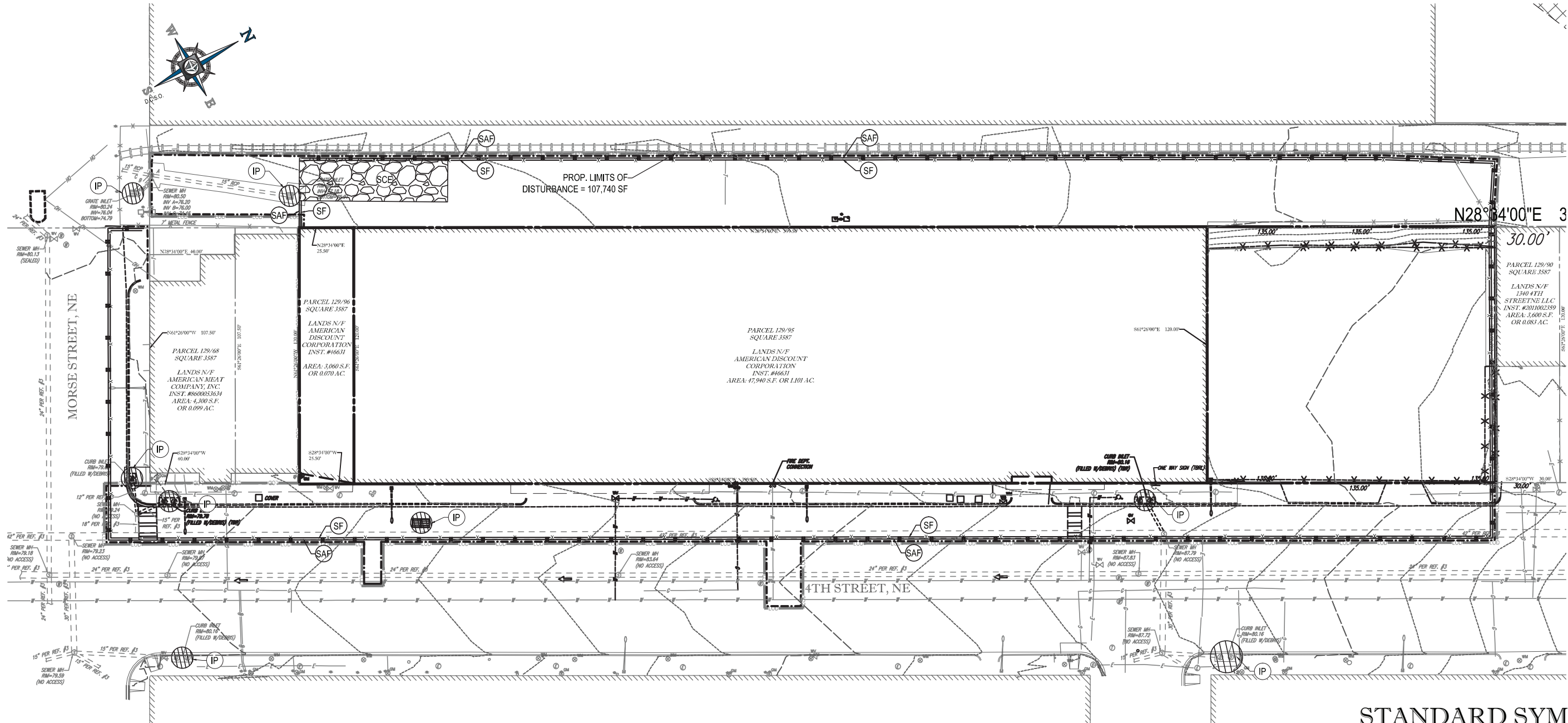
C Vegetated or "green" roofs			
1 Over at least 2" and less than 8" of growth medium	<input type="text" value="0"/>	0.5	-
2 Over at least 8" of growth medium	<input type="text" value="15880"/>	0.8	12,704.0
D Permeable Paving***			
1 Permeable paving over at least 6" and less than 24" of soil or gravel	<input type="text" value="0"/>	0.4	-
2 Permeable paving over at least 24" of soil or gravel	<input type="text" value="0"/>	0.5	-
E Other			
1 Enhanced tree growth systems***	<input type="text" value="0"/>	0.4	-
2 Renewable energy generation	<input type="text" value="0"/>	0.5	-
3 Approved water features	<input type="text" value="0"/>	0.2	-
<i>sub-total of sq ft =</i>		<i>15,880</i>	
H Bonuses			
1 Native plant species	<input type="text" value="0"/>	0.1	-
2 Landscaping in food cultivation	<input type="text" value="0"/>	0.1	-
3 Harvested storm water irrigation	<input type="text" value="0"/>	0.1	-
<i>Green Area Ratio numerator =</i>		<i>12,704</i>	

*** Permeable paving and structural soil together may not qualify for more than one third of the Green Area Ratio score.

NOTE:

AREAS AND/OR VOLUMES USED FOR GREEN AREA RATIO SCORING AND FOR STORMWATER MANAGEMENT RETENTION VOLUME COMPUTATIONS ARE APPROXIMATE AND ARE SUBJECT TO CHANGE DUE TO SITE LAYOUT AND DESIGN CHANGES. ALL GAR SCORE AND STORMWATER MANAGEMENT STORAGE AREAS AND/OR VOLUMES ARE TO MEET CODE REQUIREMENTS IF THE DESIGN GEOMETRIES OR LAYOUT ARE MODIFIED.





PROP. LIMITS OF DISTURBANCE = 107,740 SF

PARCEL 129/95
SQUARE 3587
LANDS N/F AMERICAN DISCOUNT CORPORATION
INST. #46631
AREA: 17,940 S.F. OR 1.101 AC.

PARCEL 129/90
SQUARE 3587
LANDS N/F 1340 4TH STREET NE LLC
INST. #2011002359
AREA: 3,600 S.F. OR 0.083 AC.

NOTES:

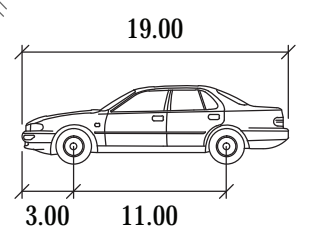
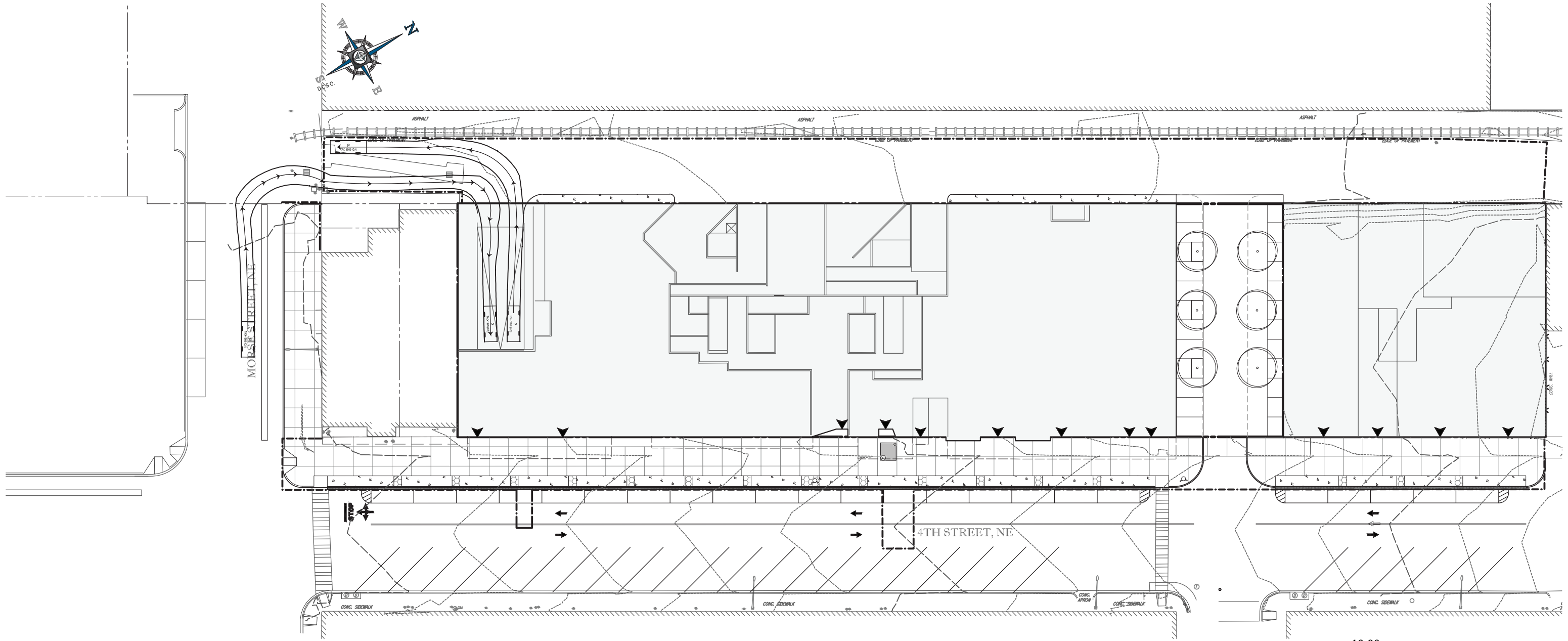
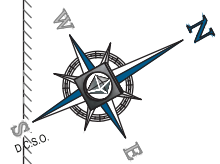
- SOME IMPACT TO ADJACENT PROPERTIES IS ANTICIPATED FROM REMOVING THE SOIL IN THOSE AREAS AND FOR THE WORK TO BE CONDUCTED WITHIN THE RIGHT-OF-WAY. SHEETING AND SHORING WILL BE INSTALLED AT THE REQUIRED LOCATIONS AS NEEDED.

STANDARD SYMBOLS

FOR EROSION AND SEDIMENT CONTROL PRACTICES

TITLE	KEY	SYMBOL
STABILIZED STONE CONSTRUCTION ENTRANCE	SCE	
SILT FENCE	SF	
SAFETY FENCE	SAF	
INLET PROTECTION	IP	





P	feet
Width	: 7.00
Track	: 6.00
Lock to Lock Time	: 6.0
Steering Angle	: 31.6



1270 4TH ST NE WASHINGTON, DC

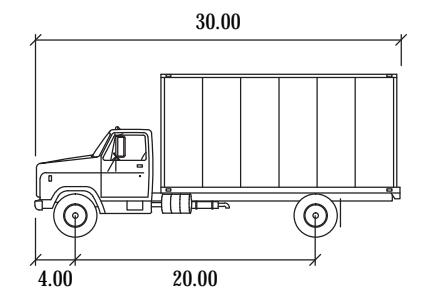
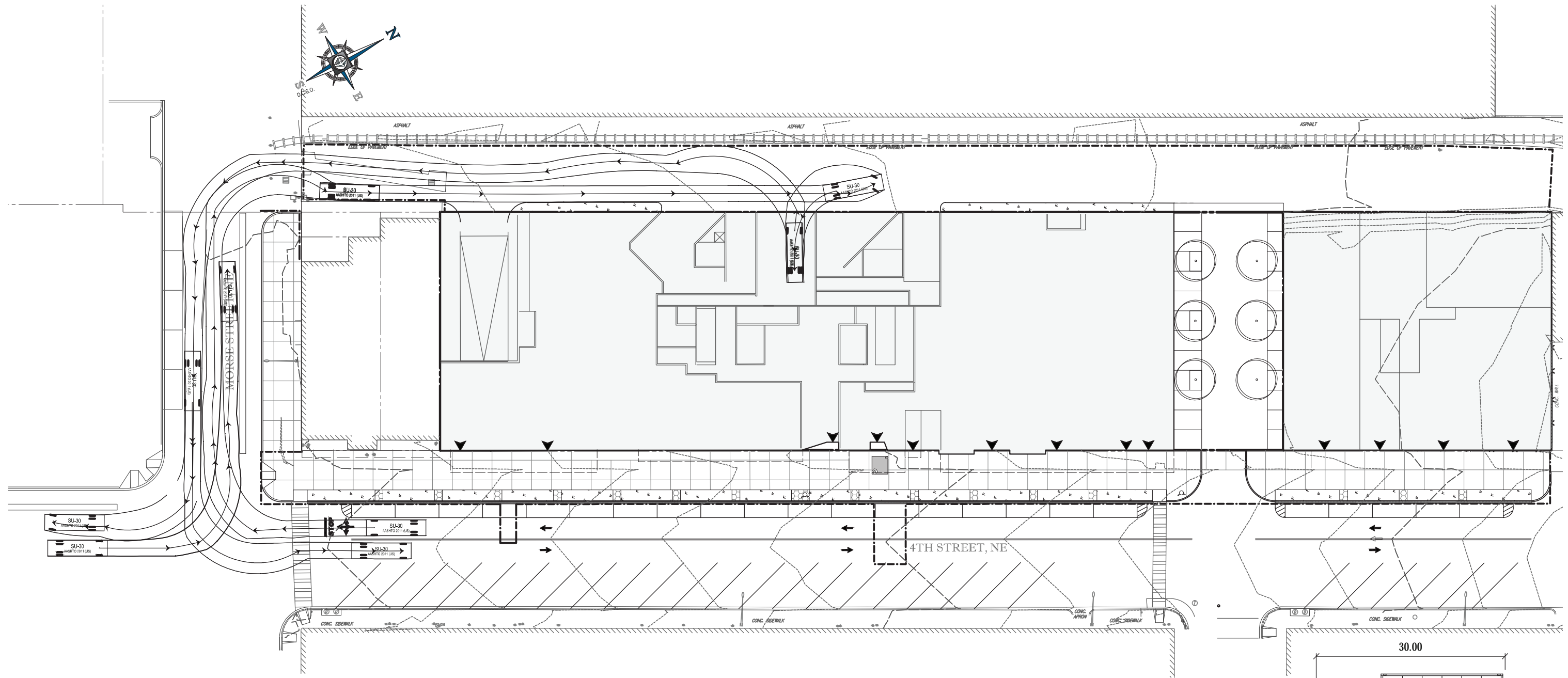
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PASSENGER CAR TURNS C 6



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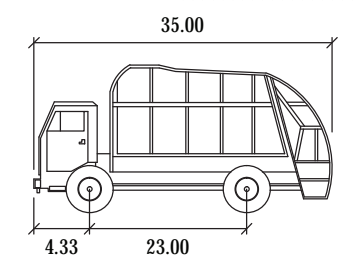
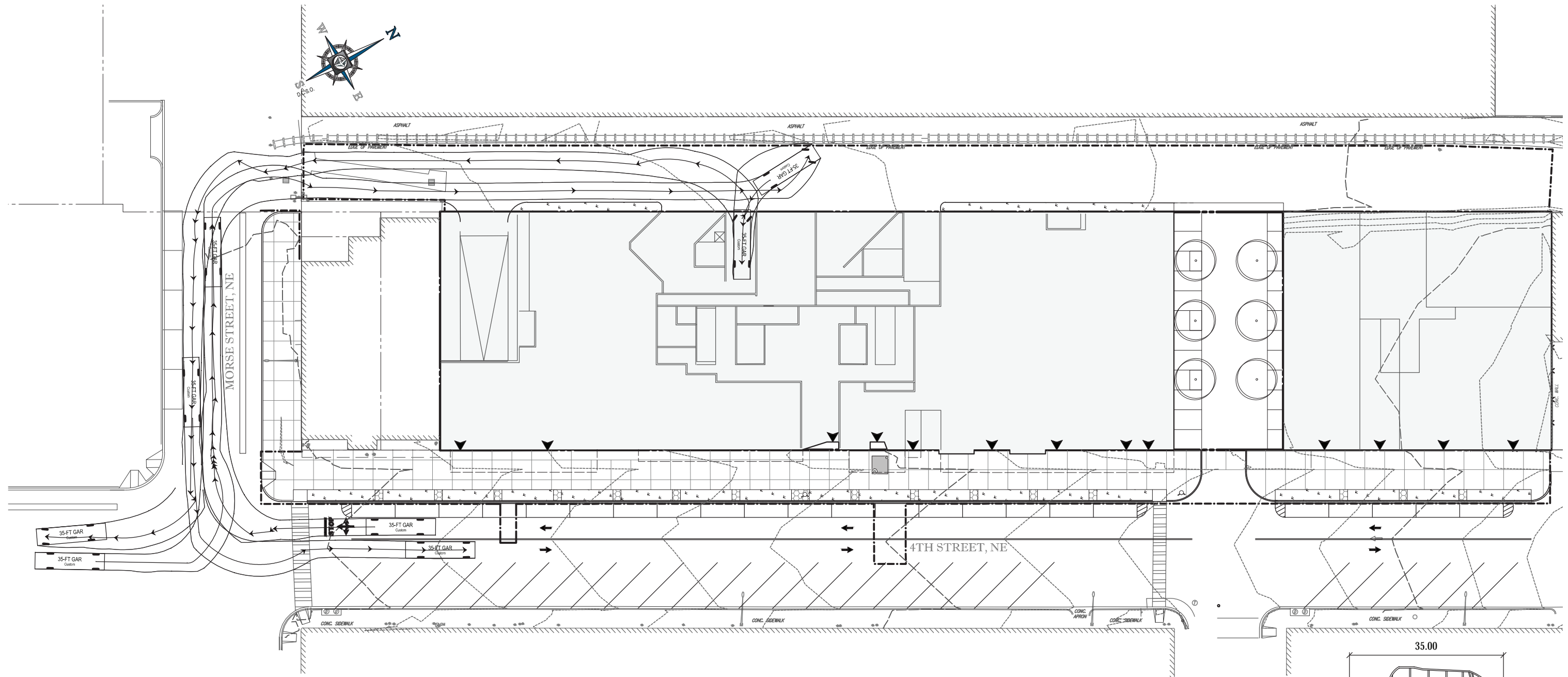
SU	feet
Width	: 8.00
Track	: 8.00
Lock to Lock Time	: 6.0
Steering Angle	: 31.8



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SU-30 TRUCK TURNS C 6.1



35-FT GAR	feet
Width	: 8.34
Track	: 8.20
Lock to Lock Time	: 6.0
Steering Angle	: 37.3



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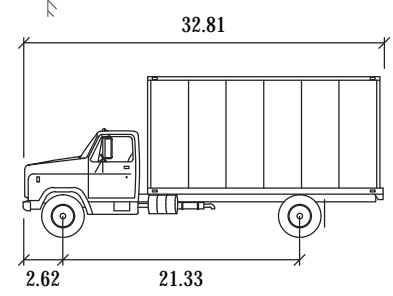
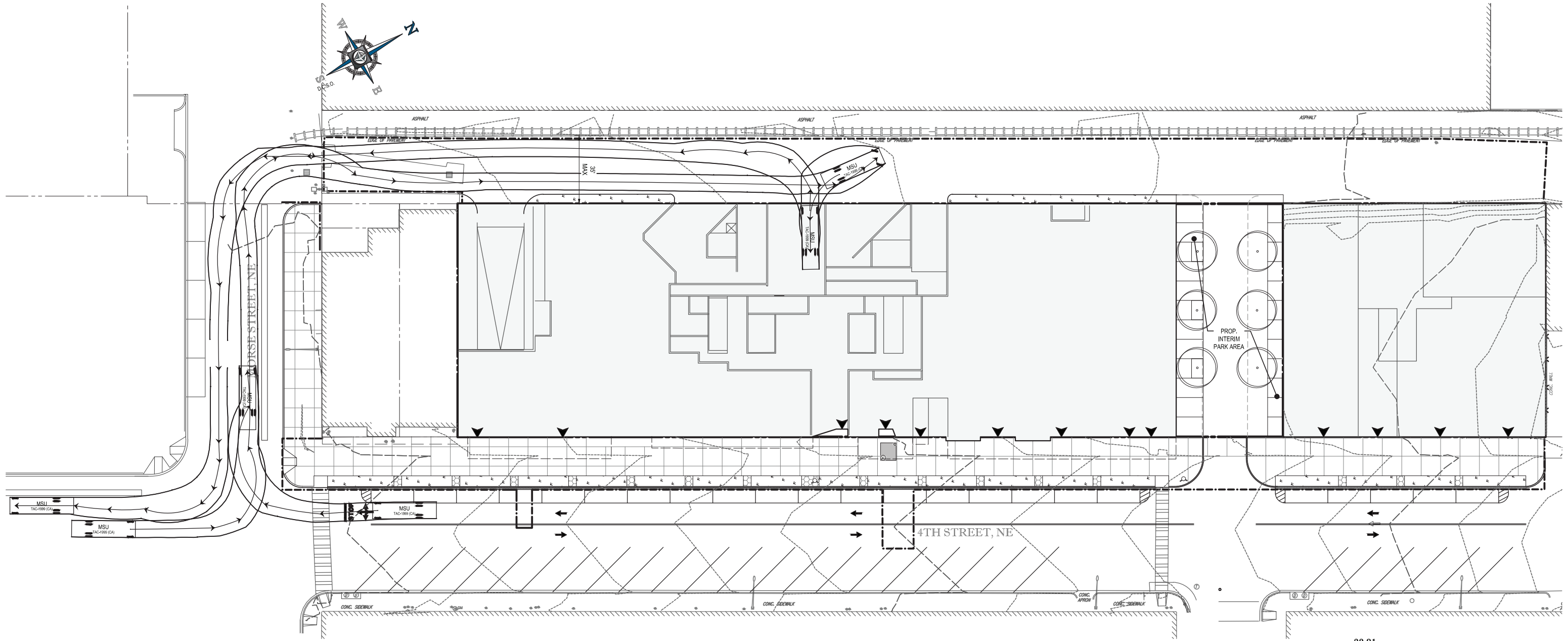
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GARBAGE TRUCK TURNS C 6.2



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MSU	feet
Width	: 8.53
Track	: 8.53
Lock to Lock Time	: 6.0
Steering Angle	: 40.1



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MSU TRUCK TURNS C 6.3

