M = MANDATORY
# = AVAILABLE OPTIONAL POINTS

ENERGY EFFICIENCY (CONTINUED)

YES ☐ NO ☐ MAYBE — M

5.5a Efficient Lighting: Interior Units
Follow the guidance appropriate for the project type: install the ENERGY STAR Advanced Lighting Package (ALP); ***OR*** follow the ENERGY STAR MFHR program guidelines, which require that 80% of installed lighting fixtures within units must be ENERGY STAR–qualified or have ENERGY STAR–qualified lamps installed; ***OR*** if replacing, new fixtures and ceiling fans must meet or exceed ENERGY STAR efficiency levels.

YES ☐ NO ☐ MAYBE — M

5.5b Efficient Lighting: Common Areas and Emergency Lighting
Follow the guidance appropriate for the project type: use ENERGY STAR–labeled fixtures or any equivalent high-performance lighting fixtures and bulbs in all common areas; ***OR*** if replacing, new common space and emergency lighting fixtures must meet or exceed ENERGY STAR efficiency levels. For emergency lighting, if installing new or replacing, all exit signs shall meet or exceed LED efficiency levels and conform to local building codes.

YES ☐ NO ☐ MAYBE — M

5.5c Efficient Lighting: Exterior
Follow the guidance appropriate for the project type: install ENERGY STAR–qualified fixtures or LEDs with a minimum efficacy of 45 lumens/watt; ***OR*** follow the ENERGY STAR MFHR program guidelines, which require that 80% of outdoor lighting fixtures must be ENERGY STAR–qualified or have ENERGY STAR-qualified lamps installed; ***OR*** if replacing, install ENERGY STAR compact fluorescents or LEDs with a minimum efficacy of 45 lumens/watt.

YES ☐ NO ☐ MAYBE — M

5.6a Electricity Meter *(New Construction and Substantial Rehab only)*
Install individual or sub-metered electric meters in all dwelling units.

YES ☐ NO ☐ MAYBE — 3

5.6b Electricity Meter *(Moderate Rehab only)*
Install individual or sub-metered electric meters in all dwelling units.

N/A

YES ☐ NO ☐ MAYBE — 12 max

5.7a Renewable Energy
Install photovoltaic (PV) panels, wind turbines, or other electric-generating renewable energy source to provide a specified percentage of the project's estimated energy demand.

YES ☐ NO ☐ MAYBE — 1 or 2

5.7b Photovoltaic/Solar Hot Water Ready
Site, design, engineer, and/or plumb the development to accommodate installation of photovoltaic (PV) or solar hot water system in the future.

YES ☐ NO ☐ MAYBE — 5

5.8 Advanced Metering Infrastructure
Site, design, engineer, and wire the development to accommodate installation of smart meters and/or be able to interface with smart grid systems in the future.

5 POINTS
SUBTOTAL OPTIONAL POINTS

6: MATERIALS BENEFICIAL TO THE ENVIRONMENT

YES ☐ NO ☐ MAYBE — M

6.1 Low/No VOC Paints and Primers
All interior paints and primers must be less than or equal to the following VOC levels: Flats—50 g/L; Non-flats—50 g/L; Floor—100 g/L

YES ☐ NO ☐ MAYBE — M

6.2 Low/No VOC Adhesives and Sealants
All adhesives must comply with Rule 1168 of the South Coast Air Quality Management District. All caulks and sealants must comply with regulation 8, rule 51, of the Bay Area Air Quality Management District.

YES ☐ NO ☐ MAYBE — M

6.3 Construction Waste Management
Commit to following a waste management plan that reduces non-hazardous construction and demolition waste by at least 25% by weight through recycling, salvaging, or diversion strategies.

2011 ENTERPRISE GREEN COMMUNITIES CRITERIA CHECKLIST

M = MANDATORY
# = AVAILABLE OPTIONAL POINTS

MATERIALS BENEFICIAL TO THE ENVIRONMENT (CONTINUED)

YES ☐ NO ☐ MAYBE — 5 max — 1

6.4 Construction Waste Management: Optional
Determine percentage of waste diversion and earn all points below that threshold:
- 35% waste diversion *[1 point]*
- 45% waste diversion *[1 point]*
- 55% waste diversion *[1 point]*
- 65% waste diversion *[1 point]*
- 75% waste diversion *[1 point]*

YES ☐ NO ☐ MAYBE — 5 — 5

6.5 Recycling Storage for Multifamily Project
Provide one or more easily accessible, permanent areas for the collection and storage of materials for recycling.

YES ☐ NO ☐ MAYBE — 5 max — 2

6.6 Recycled Content Material
Incorporate building materials that are composed of at least 25% post-consumer recycled content or at least 50% post-industrial recycled content. *Select from the following:*
- Framing materials *[1 point]*
- Exterior materials: siding, masonry, roofing *[1 point]*
- Concrete/cement and aggregate *[1 point]*
- Drywall/interior sheathing *[1 point]*
- Flooring materials *[1 point]*

YES ☐ NO ☐ MAYBE — 5 max — 2

6.7 Regional Material Selection
Use products that were extracted, processed, and manufactured within 500 miles of the home or building for a minimum of 50% of the building material value (based on cost). *Select any or all of these options:*
- Framing materials *[1 point]*
- Exterior materials: siding, masonry, roofing *[1 point]*
- Concrete/cement and aggregate *[1 point]*
- Drywall/interior sheathing *[1 point]*
- Flooring materials *[1 point]*

YES ☐ NO ☐ MAYBE — 5

6.8 Certified, Salvaged, and Engineered Wood Products
Commit to using wood products and materials of at least 25% that are (by cost): FSC-certified, salvaged products, or engineered framing materials without urea-formaldehyde binders.

YES ☐ NO ☐ MAYBE — 1 or 3

6.9a Reduced Heat-Island Effect: Roofing
Use Energy Star–compliant roofing or install a "green" (vegetated) roof for at least 50% of the roof area. *Select only one:* cool roof *[3 points]* or green roof *[1 point]*

YES ☐ NO ☐ MAYBE — 2

6.9b Reduced Heat-Island Effect: Paving
Use light-colored, high-albedo materials and/or an open-grid pavement, with a minimum solar reflectance of 0.3, over at least 50% of the site's hardscaped area.

13 POINTS
SUBTOTAL OPTIONAL POINTS

7: HEALTHY LIVING ENVIRONMENT

YES ☐ NO ☐ MAYBE — M

7.1 Composite Wood Products that Emit Low/No Formaldehyde
All composite wood products must be certified compliant with California 93120. If using a composite wood product that does not comply with California 93120, all exposed edges and sides must be sealed with low-VOC sealants.

M = MANDATORY
# = AVAILABLE OPTIONAL POINTS

HEALTHY LIVING ENVIRONMENT (CONTINUED)

YES ☐ NO ☐ MAYBE — M

7.2 Environmentally Preferable Flooring
Do not install carpets in entryways, laundry rooms, bathrooms, kitchens/kitchenettes, utility rooms, and all rooms of ground-connected floors. Any carpet products used must meet the Carpet and Rug Institute's Green Label or Green Label Plus certification for carpet, pad, and carpet adhesives. Any hard surface flooring products used must be either ceramic tile, unfinished hardwood floors, *OR* in compliance with the Scientific Certification System's FloorScore program criteria.

☐ YES ☑ NO ☐ MAYBE — 4

7.3 Environmentally Preferable Flooring: Alternative Sources
Use non-vinyl, non-carpet floor coverings in all rooms of building.

YES ☐ NO ☐ MAYBE — M

7.4a Exhaust Fans: Bathroom *(New Construction and Substantial Rehab only)*
Install Energy Star–labeled bathroom fans that exhaust to the outdoors, are connected to a light switch, and are equipped with a humidistat sensor, timer, or other control (e.g., occupancy sensor, delay off switch, ventilation controller).

☐ YES ☐ NO ☐ MAYBE — 6

N/A

7.4b Exhaust Fans: Bathroom *(Moderate Rehab only)*
Install Energy Star–labeled bathroom fans that exhaust to the outdoors, are connected to a light switch, and are equipped with a humidistat sensor, timer, or other control (e.g., occupancy sensor, delay off switch, ventilation controller).

YES ☐ NO ☐ MAYBE — M

7.5a Exhaust Fans: Kitchen *(New Construction and Substantial Rehab only)*
Install power-vented fans or range hoods that exhaust to the exterior at the appropriate cfm rate, per ASHRAE 62.2, or install a central ventilation system with rooftop fans that meet efficiency criteria.

☐ YES ☐ NO ☐ MAYBE — 6

7.5b Exhaust Fans: Kitchen *(Moderate Rehab only)*
Install power-vented fans or range hoods that exhaust to the exterior at the appropriate cfm rate,

N/A

YES ☐ NO ☐ MAYBE — M

7.6a Ventilation *(New Construction and Substantial Rehab only)*
Install a ventilation system for the dwelling unit capable of providing adequate fresh air per ASHRAE requirements for the building type.

☐ YES ☐ NO ☐ MAYBE — 5

7.6b Ventilation *(Moderate Rehab only)*
Install a ventilation system for the dwelling unit capable of providing adequate fresh air per ASHRAE requirements for the building type.

N/A

YES ☐ NO ☐ MAYBE — M

7.7 Clothes Dryer Exhaust
Clothes dryers must be exhausted directly to the outdoors using rigid-type duct work.

YES ☐ NO ☐ MAYBE — M

7.8 Combustion Equipment
Specify power-vented or closed-combustion equipment when installing new space and water-heating equipment in New Construction and any Substantial and Moderate Rehab projects.

YES ☐ NO ☐ MAYBE — M

7.9a Mold Prevention: Water Heaters
Provide adequate drainage for water heaters that includes drains or catch pans with drains piped to the exterior of the dwelling.

YES ☐ NO ☐ MAYBE — M

7.9b Mold Prevention: Surfaces
In bathrooms, kitchens, and laundry rooms, use materials that have durable, cleanable surfaces.

YES ☐ NO ☐ MAYBE — M

7.9c Mold Prevention: Tub and Shower Enclosures
Use non–paper-faced backing materials such as cement board, fiber cement board, or equivalent in bathrooms.

2011 ENTERPRISE GREEN COMMUNITIES CRITERIA CHECKLIST

M = MANDATORY
# = AVAILABLE OPTIONAL POINTS

HEALTHY LIVING ENVIRONMENT (CONTINUED)

YES ☐ NO ☐ MAYBE — M

7.10 Vapor Barrier Strategies *(New Construction and Rehab Projects with foundation work only)*
Install vapor barriers that meet specified criteria appropriate for the foundation type.

YES ☐ NO ☐ MAYBE — M

7.11 Radon Mitigation *(New Construction and Substantial Rehab only)*
For New Construction in EPA Zone 1 and 2 areas, install passive radon-resistant features below the slab. For Substantial Rehab projects in those Zones, test for the presence of radon and mitigate if elevated levels exist.

YES ☐ NO ☐ MAYBE — M

7.12 Water Drainage *(New Construction and Rehab projects replacing assemblies called out in Criterion only)*
Provide drainage of water away from windows, walls, and foundations by implementing list of techniques.

☐ YES ☐ NO ☐ MAYBE — M

N/A

7.13 Garage Isolation
Follow list of criteria for projects with garages, including: provide a continuous air barrier between the conditioned (living) space and any garage space to prevent the migration of any contaminants into the living space, and install a CO alarm inside the house in the room with a door to the garage *and* outside all sleeping areas.

YES ☐ NO ☐ MAYBE — M

7.14 Integrated Pest Management
Seal all wall, floor, and joint penetrations with low-VOC caulking or other appropriate sealing methods to prevent pest entry.

☐ YES ☑ NO ☐ MAYBE — M

N/A

7.15 Lead-Safe Work Practices *(Substantial and Moderate Rehab only)*
For properties built before 1978, use lead-safe work practices consistent with the EPA's Renovation, Repair, and Painting Regulation and applicable HUD requirements.

YES ☐ NO ☐ MAYBE — 9

7.16 Smoke-Free Building
Implement and enforce a no smoking policy in all common, individual living areas, and with a 25-foot perimeter around the exterior of all residential buildings.

9 POINTS
SUBTOTAL OPTIONAL POINTS

8: OPERATIONS + MAINTENANCE

YES ☐ NO ☐ MAYBE — M

8.1 Building Maintenance Manual *(All Multifamily Projects)*
Provide a building maintenance manual that addresses maintenance schedules and other specific instructions related to the building's green features.

YES ☐ NO ☐ MAYBE — M

8.2 Resident Manual
Provide a guide for homeowners and renters that explains the intent, benefits, use, and maintenance of green building features.

YES ☐ NO ☐ MAYBE — M

8.3 Resident and Property Manager Orientation
Provide a comprehensive walk-through and orientation for residents and property managers using the appropriate building maintenance or resident's manual.

☐ YES ☐ NO ☑ MAYBE — 12

8.4 Project Data Collection and Monitoring System
Collect and monitor project performance data on energy, water, and, if possible, healthy living environments for a minimum of five years.

0 POINTS
SUBTOTAL OPTIONAL POINTS

46 POINTS
TOTAL OPTIONAL POINTS

GREEN COMMUNITIES

2011 Enterprise Green Communities Criteria		Max Points	MLK	LEED Equivalent
ID 1.1a	INTEGRATIVE DESIGN: 1.1a - Green Development Plan: Integrative Design Meeting(s)	M	M	None
ID 1.1b	INTEGRATIVE DESIGN: 1.1b - Green Development Plan: Criteria Documentation	M	M	ID 1.4
ID 1.2a	INTEGRATIVE DESIGN: 1.2a - Universal Design: (New Construction only)	2	?	None
ID 1.2b	INTEGRATIVE DESIGN: 1.2b - Urban Design: (Substantial and Moderate Rehab only)	NA	NA	NA
LH 2.1	LOCATION + NEIGHBORHOOD FABRIC: 2.1 Sensitive Site Protection (New Construction only)	M	M	LL 2
LH 2.2	LOCATION + NEIGHBORHOOD FABRIC: 2.2 Connections to Existing Development & Infrastructure	M	M	LL 3.1, LL 3.2, LL 4
LH 2.3	LOCATION + NEIGHBORHOOD FABRIC: 2.3 Compact Development	M	M	SS 6.1, SS 6.2
LH 2.4	LOCATION + NEIGHBORHOOD FABRIC: 2.4 Compact Development	6	5	SS 6.3
LH 2.5	LOCATION + NEIGHBORHOOD FABRIC: 2.5 Proximity to Services	M	M	LL 5.1, LL 5.2
LH 2.6	LOCATION + NEIGHBORHOOD FABRIC: 2.6 Preservation of and Access to Open Space: Rural/Tribal	NA	N/A	NA
LH 2.7	LOCATION + NEIGHBORHOOD FABRIC: 2.7 Preservation of and Access to Open Space	3	0	LL 6
LH 2.8	LOCATION + NEIGHBORHOOD FABRIC: 2.8 Access to Public Transportation	5	5	LL 5.1, LL 5.2
LH 2.9	LOCATION + NEIGHBORHOOD FABRIC: 2.9 Walkable Neighborhood: Connections to Surrounding N	N/A	N/A	SS 7.1
LH 2.10	LOCATION + NEIGHBORHOOD FABRIC: 2.10 Smart Site Location: Passive Solar Heating/Cooling	7	0	ID 1.5
LH 2.11	LOCATION + NEIGHBORHOOD FABRIC: 2.11 Brownfield or Adaptive Resuse Site	2	2	LL 3.3
LH 2.12	LOCATION + NEIGHBORHOOD FABRIC: 2.12 Access to Fresh, Local Foods	6	6	None
LH 2.13	LOCATION + NEIGHBORHOOD FABRIC: 2.13 LEED for Neighborhood Development Certification	4	0	LL 1
SI 3.1	SITE IMPROVEMENTS: 3.1 Environmental Remediation	M	M	None
SI 3.2	SITE IMPROVEMENTS: 3.2 Erosion and Sedimentation Control	M	M	SS 1.1
SI 3.3	SITE IMPROVEMENTS: 3.3 Low-Impact Development	M	M	SS 1.2
SI 3.4	SITE IMPROVEMENTS: 3.4 Landscaping	M	M	SS 2.2
SI 3.5	SITE IMPROVEMENTS: 3.5 Efficient Irrigation and Water Reuse	M	M	SS 2.5, WE 1, WE 2.1 - WE 2.2
SI 3.6	SITE IMPROVEMENTS: 3.6 Surface Stormwater Manangement	6	2	SS 4.1 - 4.3
WC 4.1	WATER CONSERVATION: 4.1 Water-Conserving Fixtures	M	M	WE 3.1
WC 4.2	WATER CONSERVATION: 4.2 Advanced Water-Conserving Appliances and Fixtures	6	4	WE 3.2 - WE 3.3
WC 4.3	WATER CONSERVATION: 4.3 Water Reuse	4	0	WE 1
EE 5.1a	ENERGY EFFICIENCY: 5.1a Building Performance Standard: Single family and Multifamily	N/A	N/A	NA
EE 5.1b	ENERGY EFFICIENCY: 5.1b Building Performance Standard: Multifamily	M	M	EA 1.1
EE 5.1a	ENERGY EFFICIENCY: 5.1c Building Performance Standard: Single family and Multifamily	N/A	N/A	NA
EE 5.1b	ENERGY EFFICIENCY: 5.1d Building Performance Standard: Multifamily	M	N/A	NA
EE 5.2	ENERGY EFFICIENCY: 5.2 Additional Reductions in Energy Use	15	0	EA 1.3
EE 5.3	ENERGY EFFICIENCY: 5.3 Sizing of Heating and Cooling Equipment	M	M	EA 5.1, EA 6.1
EE 5.4	ENERGY EFFICIENCY: 5.4 ENERGY STAR Appliances	M	M	EA 1.3
EE 5.5a	ENERGY EFFICIENCY: 5.5a Efficient Lighting: Interior Units	M	M	EA 1.3
EE 5.5b	ENERGY EFFICIENCY: 5.5b Efficient Lighting: Common Areas and Emergency Lighting	M	M	EA 1.3
EE 5.5c	ENERGY EFFICIENCY: 5.5c Efficient Lighting: Exterior	M	M	EA 1.3
EE 5.6a	ENERGY EFFICIENCY: 5.6a Electricity Meter	M	M	None
EE 5.6b	ENERGY EFFICIENCY: 5.6b Electricity Meter	N/A	N/A	None
EE 5.7a	ENERGY EFFICIENCY: 5.7a Renewable Energy	12	0	EA 1.3
EE 5.7b	ENERGY EFFICIENCY: 5.7b Photovoltaic/Solar Hot Water Ready	2	0	None
EE 5.8	ENERGY EFFICIENCY: 5.8 Advanced Metering Intrastructure	5	?	None
M 6.1	MATERIALS 6.1: Low/No VOC Paints and Primers	M	M	MR 2.2
M 6.2	MATERIALS 6.2: Low/No VOC Adhesives and Sealants	M	M	MR 2.2
M 6.3	MATERIALS 6.3: Construction Waste Manangement	M	M	MR 3.1 - 3.2
M 6.4	MATERIALS 6.4: Construction Waste Manangement: Optional	5	1	None
M 6.5	MATERIALS 6.5: Recycling Storage for Multifamily Project	5	5	None
M 6.6	MATERIALS 6.6: Recycled Content Material	5	2	MR 2.2
M 6.7	MATERIALS 6.7: Regional Material Selection	5	2	MR 2.2
M 6.8	MATERIALS 6.8: Certified, Salvaged, and Engineering Wood Products	5	0	MR 2.1

LEED FOR HOMES MIDRISE

LEED Homes Mid-Rise 2010		Max Points	MLK
ID 1.1	Innovation and Design (ID) Integrated Project Planning: 1.1 Preliminary Rating	Prereq	Prereq
ID 1.2	Innovation and Design (ID) Integrated Project Planning: 1.2 Energy Expertise in Mid-Rise	Prereq	Prereq
ID 1.3	Innovation and Design (ID) Integrated Project Planning: 1.3 Professional Credentialed with Res	1	1
ID 1.4	Innovation and Design (ID) Integrated Project Planning: 1.4 Design Charrette	1	1
ID 1.5	Innovation and Design (ID) Integrated Project Planning: 1.5 Building Orientation for Solar Desi	1	1
ID 1.6	Innovation and Design (ID) Integrated Project Planning: 1.6 Trades Training for Mid-Rise	1	1
ID 2.1	Innovation and Design (ID) Durability Management Process: 2.1 Durability Planning	Prereq	Prereq
ID 2.2	Innovation and Design (ID) Durability Management Process: 2.2 Durability Management	Prereq	Prereq
ID 2.3	Innovation and Design (ID) Durability Management Process: 2.3 Third-Party Durability Manage	3	3
ID 3.1	Innovation and Design (ID) Innovative or Regional Design: 3.1 Innovation - 35% waste diversic	1	0
ID 3.2	Innovation and Design (ID) Innovative or Regional Design: 3.2 Innovation	1	0
ID 3.3	Innovation and Design (ID) Innovative or Regional Design: 3.3 Innovation	1	0
ID 3.4	Innovation and Design (ID) Innovative or Regional Design: 3.4 Innovation	1	0
LL 1	Location and Linkage (LL) LEED ND: 1. LEED for Neighborhood Development	10	0
LL 2	Location and Linkage (LL) Site Selection: 2. Site Selection	2	2
LL 3.1	Location and Linkage (LL) Preferred Location: 3.1 Edge Development	1	1
LL 3.2	Location and Linkage (LL) Preferred Location: 3.2 Infill	2	2
LL 3.3	Location and Linkage (LL) Preferred Location: 3.3 Brownfield Redevelopment for Mid-Rise	1	1
LL 4	Location and Linkage (LL) Infrastructure: 4. Existing Infrastructure	1	1
LL 5.1	Location and Linkage (LL) Community Resources/Transit: 5.1 Basic Community Resources/Trar	1	1
LL 5.2	Location and Linkage (LL) Community Resources/Transit: 5.2 Extensive Community Resources,	2	2
LL 5.3	Location and Linkage (LL) Community Resources/Transit: 5.3 Outstanding Community Resourc	3	0
LL 6	Location and Linkage (LL) Access to Open Space: 6. Access to Open Space	1	0
SS 1.1	Sustainable Sites (SS) Site Stewardship: 1.1 Erosion Controls During Construction	Prereq	Prereq
SS 1.2	Sustainable Sites (SS) Site Stewardship: 1.2 Minimize Disturbed Area of Site	1	0
SS 2.1	Sustainable Sites (SS) Landscaping: 2.1 No Invasive Plants	Prereq	Prereq
SS 2.2	Sustainable Sites (SS) Landscaping: 2.2 Basic Landscape Design	1	1
SS 2.3	Sustainable Sites (SS) Landscaping: 2.3 Limit Conventional Turf	2	0
SS 2.4	Sustainable Sites (SS) Landscaping: 2.4 Drought Tolerant Plants	1	0
SS 2.5	Sustainable Sites (SS) Landscaping: 2.5 Reduce Overall Irrigation Demand by at Least 20%	3	0
SS 3.1	Sustainable Sites (SS) Local Heat Island Effects: 3.1 Reduce Site Heat Island Effects	1	0
SS 3.2	Sustainable Sites (SS) Local Heat Island Effects: 3.2 Reduce Roof Heat Island Effects	1	0
SS 4.1	Sustainable Sites (SS) Surface Water Managment: 4.1 Permeable Lot	2	0
SS 4.2	Sustainable Sites (SS) Surface Water Managment: 4.2 Permanent Erosion Controls	1	0
SS 4.3	Sustainable Sites (SS) Surface Water Managment: 4.3 Stormwater Quality Control	2	0
SS 5	Sustainable Sites (SS) Nontoxic Pest Control: 5. Pest Control Alternatives	2	2
SS 6.1	Sustainable Sites (SS) Compact Development: 6.1 Moderate Density	2	2
SS 6.2	Sustainable Sites (SS) Compact Development: 6.2 High Density	3	3
SS 6.3	Sustainable Sites (SS) Compact Development: 6.3 Very High Density	4	4
SS 7.1	Sustainable Sites (SS) Alternative Transportation: 7.1 Public Transportation	2	2
SS 7.2	Sustainable Sites (SS) Alternative Transportation: 7.2 Bicycle Storage	1	1
SS 7.3	Sustainable Sites (SS) Alternative Transportation: 7.3 Parking Capacity/Low Emitting and Fuel-	1	0
WE 1	Water Efficiency (WE) Water Reuse: 1 Water Reuse for MidRise	5	0
WE 2.1	Water Efficiency (WE) Irrigation System: 2.1 High Efficiency Irrigation System	2	0
WE 2.2	Water Efficiency (WE) Irrigation System: 2.2 Reduce Overall Irrigation Demand by at Least 45%	2	0
WE 3.1	Water Efficiency (WE) Indoor Water Use: 3.1 High-Efficiency Fixtures and Fittings	3	0
WE 3.2	Water Efficiency (WE) Indoor Water Use: 3.2 Very High Efficiency Fixtures and Fittings	6	4
WE 3.3	Water Efficiency (WE) Indoor Water Use: 3.3 Water Efficient Appliances	2	0
EA 1.1	Energy and Atmosphere (EA) Optimize Energy Performance: 1.1 Minimum Energy Performanc	Prereq	Prereq
EA 1.2	Energy and Atmosphere (EA) Optimize Energy Performance: 1.2 Testing and Verification	Prereq	Prereq

GREEN COMMUNITIES

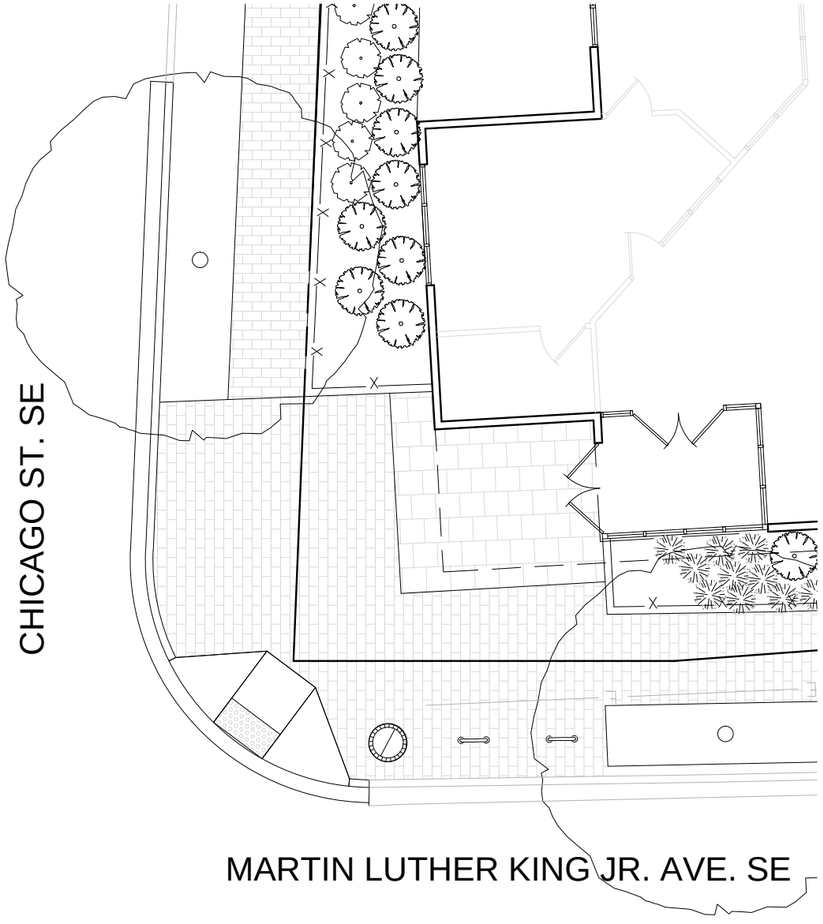
M 6.9a	MATERIALS 6.9a: Reduced Heat-Island Effect: Roofing	3	3	SS 3.2
M 6.9b	MATERIALS 6.9b: Reduced Heat-Island Effect: Paving	2	0	SS 3.1
HL 7.1	HEALTHY LIVING: 7.1 Composite Wood Products and Emit Low/No Formaldehyde	M	M	MR 2.2
HL 7.2	HEALTHY LIVING: 7.2 Environmentally Preferable Flooring	M	M	MR 2.2
HL 7.3	HEALTHY LIVING: 7.3 Environmentally Preferable Flooring: Alternative Sources	4	0	MR 2.2
HL 7.4a	HEALTHY LIVING: 7.4a Exhaust Fans: Bathroom	M	M	EQ 5.1
HL 7.4b	HEALTHY LIVING: 7.4b Exhaust Fans: Bathroom	N/A	N/A	NA
HL 7.5a	HEALTHY LIVING: 7.5a Exhaust Fans: Kitchen	M	M	EQ 5.1
HL 7.5b	HEALTHY LIVING: 7.5b Exhaust Fans: Kitchen	N/A	N/A	NA
HL 7.6a	HEALTHY LIVING: 7.6a Ventilation	M	M	EQ 4.1
HL 7.6b	HEALTHY LIVING: 7.6b Ventilation	N/A	N/A	NA
HL 7.7	HEALTHY LIVING: 7.7 Clothes Dryer Exhaust	M	M	None
HL 7.8	HEALTHY LIVING: 7.8 Combustion Equipment	M	M	EQ 2
HL 7.9a	HEALTHY LIVING: 7.9a Mold Prevention: Water Heaters	M	M	None
HL 7.9b	HEALTHY LIVING: 7.9b Mold Prevention: Surfaces	M	M	None
HL 7.9c	HEALTHY LIVING: 7.9c Mold Prevention: Tub and Shower Enclosures	M	M	None
HL 7.10	HEALTHY LIVING: 7.10 Water Vapor Strategies	M	M	None
HL 7.11	HEALTHY LIVING: 7.11 Radon Mitigation	M	M	EQ 9.1 - 9.2
HL 7.12	HEALTHY LIVING: 7.12 Water Drainage	M	M	None
HL 7.13	HEALTHY LIVING: 7.13 Garage Isolation	N/A	N/A	EQ 10.1 - 10.3
HL 7.14	HEALTHY LIVING: 7.14 Integrated Pest Management	M	M	SS 5
HL 7.15	HEALTHY LIVING: 7.15 Lead-Safe Work Practices	N/A	N/A	None
HL 7.16	HEALTHY LIVING: 7.16 Smoke-Free Building	9	9	EQ 11.1
OM 8.1	O+M: 8.1 Building Maintenance Manual	M	M	AE 1.1
OM 8.2	O+M: 8.2 Residential Manual	M	M	AE 1.3
OM 8.3	O+M: 8.3 Residential and Property Manager Orientation	M	M	AE 1.3, AE 2
OM 8.4	O+M: 8.4 Project Data Collection and Monitoring System	12	0	None
		TOTAL	46	

SUSTAINABLE FEATURES INCORPORATED IN THE PROJECT WILL EXCEED GREEN COMMUNITIES STANDARDS. WE ANTICIPATE TO RECEIVE 46 POINTS PER GREEN COMMUNITIES, WHICH IS EQUIVALENT TO "SILVER" CERTIFICATION PER LEED FOR HOMES MIDRISE .

LEED FOR HOMES MIDRISE

EA 1.3	Energy and Atmosphere (EA) Optimize Energy Performance: 1.3 Optimize Energy Performance	34	0
EA 7.1	Energy and Atmosphere (EA) Water Heating: 7.1 Efficient Hot Water Distribution	2	0
EA 7.2	Energy and Atmosphere (EA) Water Heating: 7.2 Pipe Insulation	1	1
EA 11.1	Energy and Atmosphere (EA) Residential Refrigerant Management: 11.1 Refrigerant Charge Te	Prereq	Prereq
EA 11.2	Energy and Atmosphere (EA) Residential Refrigerant Management: 11.2 Appropriate HVAC Re	1	1
MR 1.1	Materials and Resources (MR) Material-Efficient Framing: 1.1 Framing Order Wanste Factor Li	Prereq	Prereq
MR 1.2	Materials and Resources (MR) Material-Efficient Framing: 1.2 Detailed Framing Documents	1	0
MR 1.3	Materials and Resources (MR) Material-Efficient Framing: 1.3 Detailed Cut List and Lumber Or	1	0
MR 1.4	Materials and Resources (MR) Material-Efficient Framing: 1.4 Framing Efficiences	3	0
MR 1.5	Materials and Resources (MR) Material-Efficient Framing: 1.5 Off-Site Fabrication	4	0
MR 2.1	Materials and Resources (MR) Environmentally Preferable Products: 2.1 FSC Certified Tropical	Prereq	Prereq
MR 2.2	Materials and Resources (MR) Environmentally Preferable Products: 2.2 Environmentally Pref	8	8
MR 3.1	Materials and Resources (MR) Waste Management: 3.1 Construction Waste Management Pla	Prereq	Prereq
MR 3.2	Materials and Resources (MR) Waste Management: 3.2 Construction Waste Reduction	3	3
EQ 2	Indoor Environmental Quality (EQ) Combustion Venting: 2 Basic Combustion Venting Measure	Prereq	Prereq
EQ 3	Indoor Environmental Quality (EQ) Moisture Control: 3. Moisture Load Control	1	0
EQ 4.1	Indoor Environmental Quality (EQ) Outdoor Air Ventilation: 4.1 Basic Outdoor Air Ventilation	Prereq	Prereq
EQ 4.2	Indoor Environmental Quality (EQ) Outdoor Air Ventilation: 4.2 Enhanced Outdoor Air Ventila	2	0
EQ 4.3	Indoor Environmental Quality (EQ) Outdoor Air Ventilation: 4.3 Third-Party Performance Testi	1	0
EQ 5.1	Indoor Environmental Quality (EQ) Local Exhaust: 5.1 Basic Local Exhaust	Prereq	Prereq
EQ 5.2	Indoor Environmental Quality (EQ) Local Exhaust: 5.2 Enhanced Local Exhaust	1	0
EQ 5.3	Indoor Environmental Quality (EQ) Local Exhaust: 5.3 Third Party Performance Testing	1	1
EQ 6.1	Indoor Environmental Quality (EQ) Distribution of Space Heating and Cooling: 6.1 Room by Ro	Prereq	Prereq
EQ 6.2	Indoor Environmental Quality (EQ) Distribution of Space Heating and Cooling: 6.2 Return Air F	1	1
EQ 6.3	Indoor Environmental Quality (EQ) Distribution of Space Heating and Cooling: 6.3 Multiple Zoi	2	0
EQ 7.1	Indoor Environmental Quality (EQ) Air Filtering: 7.1 Good Filters	Prereq	Prereq
EQ 7.2	Indoor Environmental Quality (EQ) Air Filtering: 7.2 Better Filters	1	0
EQ 7.3	Indoor Environmental Quality (EQ) Air Filtering: 7.3 Best Filters	2	0
EQ 8.1	Indoor Environmental Quality (EQ) Contaminant Control: 8.1 Indoor Contaminant Control dur	1	1
EQ 8.2	Indoor Environmental Quality (EQ) Contaminant Control: 8.2 Indoor Contaminant Control	2	1
EQ 8.3	Indoor Environmental Quality (EQ) Contaminant Control: 8.3 Preoccupancy Flush	1	1
EQ 9.1	Indoor Environmental Quality (EQ) Radon Protection: 9.1 Radon-Resistant Construction in Hig	Prereq	Prereq
EQ 9.2	Indoor Environmental Quality (EQ) Radon Protection: 9.1 Radon-Resistant Construction in Mo	1	1
EQ 10.1	Indoor Environmental Quality (EQ) Garage Pollutant Protection: 10.1 No HVAC in Garage	Prereq	Prereq
EQ 10.2	Indoor Environmental Quality (EQ) Garage Pollutant Protection: 10.2 Minimize Pollutants fron	2	2
EQ 10.3	Indoor Environmental Quality (EQ) Garage Pollutant Protection: 10.3 Detached Garage or No (	3	0
EQ 11.1	Indoor Environmental Quality (EQ) Environmental Tobacco Smoke Control: 11.1 Environmenta	1	1
EQ 12.1	Indoor Environmental Quality (EQ) Compartmentalization of Units: 12.1 Compartmentalizatio	Prereq	Prereq
EQ 12.2	Indoor Environmental Quality (EQ) Compartmentalization of Units: 12.2 Enhanced Compartm	1	0
AE 1.1	Awareness and Education (AE) Education of the Homeowner or Tenant: 1.1 Basic Operations	Prereq	Prereq
AE 1.2	Awareness and Education (AE) Education of the Homeowner or Tenant: 1.2 Enhanced Training	1	1
AE 1.3	Awareness and Education (AE) Education of the Homeowner or Tenant: 1.3 Public Awareness	1	1
AE 2	Awareness and Education (AE) Education of Building Manager: 2. Education of Building Manag	1	1
		TOTAL	61

Certified	45-59
Silver	60-74



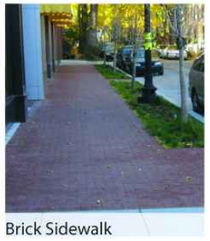

DDOT Standard Streetlights


#16 (mid-block)

Trash Receptacle


Bike Rack


Scored Concrete Sidewalk


Brick Sidewalk

LANDSCAPE AND STREETSCAPE NARRATIVE

AS PART OF THE PROJECT, THE STREETSCAPE (PUBLIC SPACE) ALONG CHICAGO STREET AND MLK WILL BE IMPROVED WITH FEATURES THAT ENHANCE THE PUBLIC ENVIRONMENT IN CONFORMANCE WITH EXISTING DISTRICT STANDARDS AND THE GREAT STREETS FRAMEWORK PLAN, MARTIN LUTHER KING, JR. AVENUE, SE.

THE STREETSCAPE WILL BE COMPRISED OF TWO DISTINCT ZONES; THE FURNISHING / PLANTING ZONE AND THE WALKWAY ZONE. THE FURNISHING / PLANTING ZONE IMPROVEMENTS WILL INCLUDE NEW STREET TREES WITH CONTINUOUS TREE ROOT ZONES, BICYCLE RACKS AND STREETLIGHT ENHANCEMENTS. THE WALKWAY ZONE WILL PROVIDE FOR WIDER PEDESTRIAN–FRIENDLY SIDEWALKS. ON CHICAGO STREET AND ON MARTIN LUTHER KING, JR. AVENUE THE SIDEWALK WILL BE COMPOSED OF THE HISTORIC DISTRICT BRICK PAVING.

THE AREA BETWEEN THE SIDEWALK AND THE BUILDING WILL BE CHARACTERIZED BY AN ASSORTMENT OF PLANTING AREAS THAT ENHANCE THE BUILDING ARCHITECTURE. ALONG THE EAST PROPERTY LINE, A LANDSCAPED OPEN SPACE HAS BEEN PROVIDED THAT CONNECTS THROUGH THE PROPERTY. THE PLANTINGS WITHIN THESE AREAS WILL INCORPORATE SUSTAINABLE DESIGN PRINCIPLES AND WILL CONSIST OF NATIVE AND ADAPTED PERENNIALS, GRASSES, SHRUBS AND TREES.

Plant Pallet

Street Trees (Public Space)
- A. Platanus x acerfolia
- B. Pistacia chinensis
- C. Acer rubrum

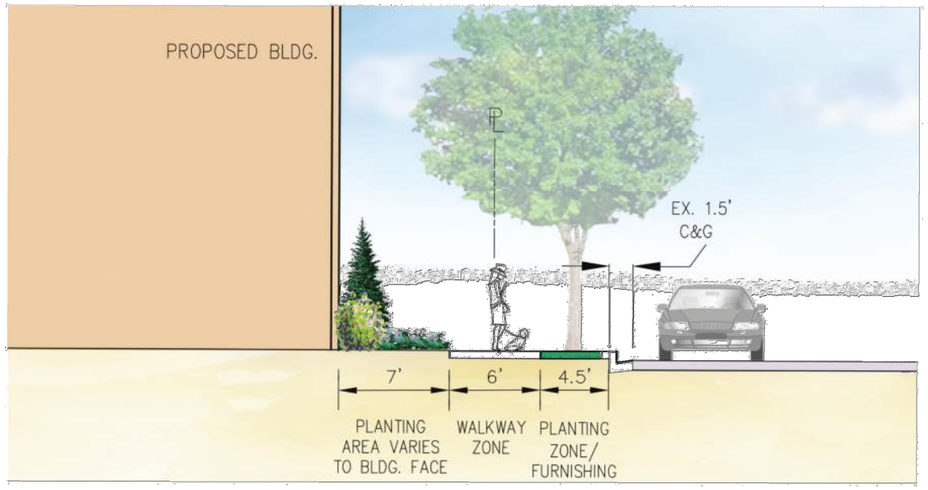
Understory Trees
- D. Cercis canadensis
- E. Amelanchier

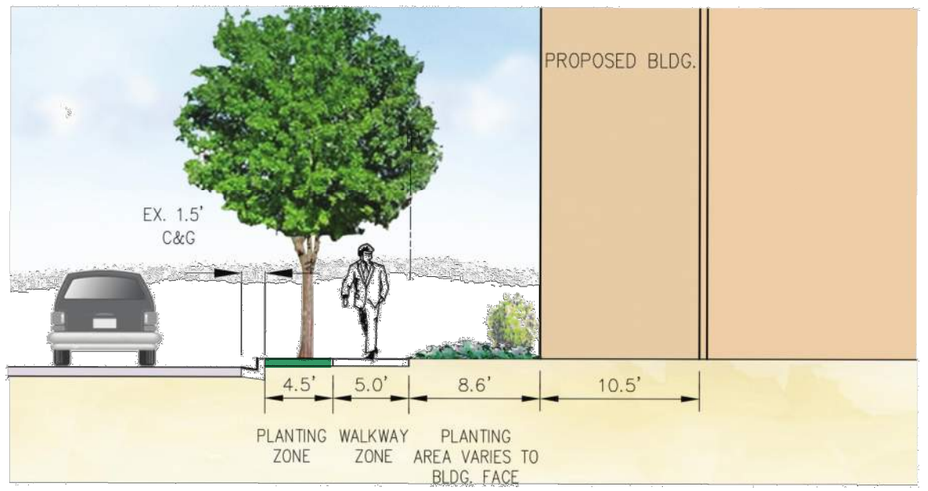
Perennials/ Grasses
- F. Ilex glabra 'Nigra'
- G. Fothergilla gardenii
- H. Panicum virgatum
- I. Muhlenbergia capillaris
- J. Rudbeckia fulgida
- K. Fothergilla gardenii
- L. Calamgrostis x acutiflora
- M. Rhus aromatic 'Grow Low'
- N. Carex pensylvanica
- O. Sedum telephium

Notes:
Plant species are intended to illustrate the design intent only. Final selection of all plant material will be developed during the detailed design phases of work.

NEW FENCE - TYPE 1
(6'- 0" HIGH BLACK ALUM.)

NEW FENCE - TYPE 2
(2'- 6" HIGH BLACK ALUM.)

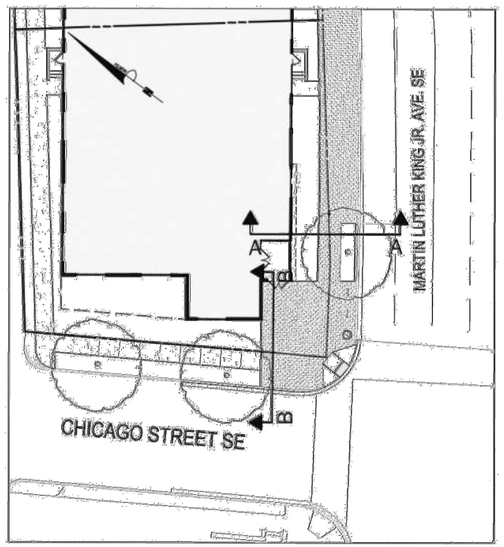




PROPOSED MARTIN LUTHER KING JUNIOR AVE.
STREETSCAPE SECTION A-A
LOOKING NORTH EAST
SCALE: 1"=10'

PROPOSED CHICAGO STREET
STREETSCAPE SECTION B-B
LOOKING NORTH WEST
SCALE: 1"=10'

KEY MAP



0 5 10
GRAPHIC SCALE
1" = 10'

FOUR POINTS

2255 MLK JR. AVE, SE

Washington, D.C.

38. STREETSCAPE SECTION

January, 2015

GRIMM AND PARKER

DEMOLITION NOTES:

1. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES FOR SHUTOFF, CAPPING AND CONTINUATION OF UTILITY SERVICES AS REQUIRED.
2. CONTRACTOR SHALL REMOVE AND TRANSPORT ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM ALL DEMOLITION OPERATIONS TO A LEGAL DISPOSAL OFF SITE.
3. REMOVAL OF ASPHALT AND CONCRETE PAVEMENT SHALL INCLUDE THE REMOVAL OF ALL SURFACE, BASE AND SUBBASE MATERIALS.
4. EXISTING CONDITIONS SHOWN HEREON WERE TAKEN FROM A SURVEY PREPARED BY VIKA, ENTITLED, "BOUNDARY AND TOPOGRAPHIC SURVEY, SQUARE 5772, 5783, 5785, WASHINGTON, DC", DATED 8/8/07, AND FROM AVAILABLE UTILITY COMPANY RECORDS.
5. ALL UNDERGROUND UTILITY LOCATIONS, INCLUDING WATER, STORM DRAINAGE, SANITARY SEWER, ELECTRICAL, TELEPHONE AND GAS WERE TAKEN FROM AVAILABLE RECORDS AND FIELD VERIFIED WHERE POSSIBLE. THE LOCATION OF ALL UTILITIES SHOWN ARE APPROXIMATE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY AND DETERMINE THE EXACT LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO COMMENCING WORK. REPORT ANY DISCREPANCY TO THE ENGINEER. MARKING LOCATIONS OF EXISTING UTILITIES, CONTACT "MISS UTILITY" AT 1-800-257-7777, 48-HOURS PRIOR TO ANY EXCAVATION.
6. THE CONTRACTOR MUST HAND-DIG TEST PITS AT ALL UTILITY CROSSINGS TO DETERMINE THE EXACT LOCATION AND DEPTH OF ALL UTILITIES AS WELL IN DEMOLITION WORK AND PRIOR TO ORDERING PIPE MATERIALS AND STRUCTURE. UTILITIES FOUND DURING DEMOLITION OR CONSTRUCTION ACTIVITIES SHALL BE THE RESPONSIBILITY OF ANY CONTRACTOR ENGAGED IN EXCAVATION AT THIS SITE. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY UTILITY FINDINGS WHICH DEVIATE FROM THE CONDITIONS SHOWN.
7. ALL SEDIMENT AND EROSION CONTROL METHODS SHALL BE INSTALLED BEFORE THE START OF ANY EXCAVATION AND/OR DEMOLITION AS PER DISTRICT OF COLUMBIA EROSION AND CONTROL HANDBOOK. IF ANY ONSITE INSPECTION REVEALS FURTHER EROSION CONTROL MEASURES ARE NECESSARY, THE SAME SHALL BE PROVIDED. REFER TO SHEETS C1.03, C5.01 AND C5.02 SEDIMENTATION AND EROSION CONTROL PLANS, NOTES, AND DETAILS.
8. SEE SEDIMENTATION AND EROSION CONTROL PLAN FOR ALL EXISTING TREES TO REMAIN AND BE PROTECTED.
9. NOTE PROXIMITY OF ADJACENT STRUCTURES AND UTILITY LINES AND MAINTAIN CONTINUED SERVICE DURING CONSTRUCTION. COORDINATE WITH RESPECTIVE UTILITY COMPANIES AND ENGINEER SHOULD RELOCATION OF SERVICE BE REQUIRED.
10. EXISTING UTILITIES (STRUCTURES AND LINES) NOT REQUIRED FOR FUTURE SERVICE TO BE REMOVED TO FACILITATE CONSTRUCTION. UTILITIES TO BE CAPPED AS PER UTILITY PURVEYOR'S STANDARDS AND SPECIFICATIONS. COORDINATE REQUIREMENTS WITH UTILITY PURVEYOR'S.
11. REMOVAL OF ALL WALLS/RETAINING WALLS AND FENCES SHALL INCLUDE THE REMOVAL OF THEIR FOUNDATION UNLESS OTHERWISE INDICATED ON THESE DRAWINGS.
12. ALL EXISTING DC STREETLIGHT POLES THAT ARE BEING PERMANENTLY REMOVED MUST BE RETURNED IN GOOD CONDITION TO THE DISTRICT OF COLUMBIA WAREHOUSE AT 1735 15TH STREET NE OFF WEST VIRGINIA AVENUE CONTACT NUMBER 202-576-5258.
13. EXISTING WATER AND SEWER SERVICES NOT REQUIRED FOR FUTURE USE TO BE REMOVED TO EXTENT NECESSARY TO FACILITATE NEW CONSTRUCTION. REMAINDER OF SERVICE TO BE CAPPED AT MAIN AND EXISTING VALVES AND TEES TO BE REMOVED PER DC/WATER STANDARDS SPECIFICATIONS.COORDINATE REQUIREMENTS WITH DC WATER UTILITY INSPECTOR AT 202-787-4299. PAVEMENT TO BE REMOVED PER DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS.
14. CONTRACTOR TO BE RESPONSIBLE FOR LAYOUT, EXTENT AND DESIGN OF SHEETING, SHORING AND SUPPORT OF EXISTING UTILITIES AND ADJACENT STRUCTURES. SHORING, BRACING AND UNDERPINNING SHALL BE DESIGNED BY A STRUCTURAL ENGINEER LICENSED IN THE DISTRICT OF COLUMBIA, HIRED BY THE CONTRACTOR AS NECESSARY TO ENSURE SUPPORT OF SURROUNDING STRUCTURES AND UTILITIES.
15. CONTRACTOR TO RELOCATE PARKING METERS IF REQUIRED AND AS DIRECTED BY D.C. BUREAU OF PARKING. COORDINATE REQUIREMENT WITH LARRY BROWN OF PARKING SERVICES AT 202-671-2291.
16. NOTIFY DC WATER AT (202) 787-4299 48 HOURS PRIOR TO START OF CONSTRUCTION.
17. UNLESS OTHERWISE SHOWN ON THESE DRAWINGS, EXISTING PAVEMENT ON MARTIN LUTHER KING STREET JR. AVENUE, SE AND CHICAGO STREET, SE TO REMAIN. PROVIDE PRE-CONSTRUCTION VIDEO OF EXISTING PAVEMENT ON MARTIN LUTHER KING STREET JR. AVENUE, SE AND CHICAGO STREET, SE EXISTING PAVEMENT THAT IS DISTURBED OR DAMAGED DURING CONSTRUCTION, SHALL BE REPLACED PER DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS AT NO ADDITIONAL COST.
18. PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES VERIFY INVERT ELEVATION OF EXISTING UTILITIES. NOTIFY ENGINEER OF ANY DISCREPANCIES WITH INFORMATION SHOWN PRIOR TO ORDERING ANY STRUCTURES.
19. CONTACT 'MISS UTILITY' AT 1 800 257-7777 48 HOURS PRIOR TO CONSTRUCTION.
20. CONTACT DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION-PUBLIC SPACE MAINTENANCE ADMINISTRATION 48 HOURS PRIOR TO START OF CONSTRUCTION AT (202) 645-6030 OR (202) 645-6031.
21. ALL PROPOSED UTILITY WORK TO BE PERFORMED UNDER THE INSPECTION OF DC WATER.
22. USE MANHOLE ENTRY SEALS WHERE REQUIRED.
23. CONTRACTOR TO PROVIDE A PRE AND POST TV VIDEO SEWER ON EXISTING SEWER AROUND THE SITE PER DC WATER STANDARDS AND SPECIFICATIONS.

SITE NOTES:

1. WHERE NEW WORK MEETS EXISTING, NOTE FIELD LOCATION AND ELEVATIONS OF EXISTING FEATURES BEFORE BEGINNING CONSTRUCTION AND REPORT ANY DISCREPANCY TO THE ARCHITECT OR ENGINEER.
2. VERIFY LOCATION OF EXISTING UTILITIES BEFORE PROCEEDING WITH WORK. NOTIFY OWNER'S REPRESENTATIVE, DC WATER (202-787-4299) AND "MISS UTILITY" 1-800-257-7777) 48 HOURS BEFORE PROCEEDING WITH ANY EXCAVATIONS. HAND DIG TEST PITS AT ALL UTILITY CROSSINGS AND DETERMINE EXACT CLEARANCE OF ALL PROPOSED INSTALLATIONS WELL IN ADVANCE OF CONSTRUCTION. NOTIFY ENGINEER OF ANY CONFLICTS WITH PLAN ELEVATIONS.
3. WORK AND MATERIALS IN THE PUBLIC RIGHT-OF-WAY SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE APPLICABLE DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS. ON-SITE WORK AND MATERIALS CODE.
4. ELEVATIONS SHOWN HEREON ARE BASED ON D.C. DATUM.
5. DIMENSIONS ARE TO FACE OF WALL AND CURB, EDGE OF WALK AND PAVEMENT, CENTERLINE OF COLUMN, PIPE AND UTILITY STRUCTURE. UNLESS OTHERWISE NOTED.
6. FRAMES AND COVERS OF EXISTING STRUCTURES TO BE ADJUSTED TO MATCH NEW FINISHED GRADES.
7. OMISSIONS AND/OR ADDITIONS OF UTILITIES FOUND DURING CONSTRUCTION SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY OF ANY INFORMATION CONCERNING FOUND UTILITY, NOT SHOWN ON PLANS.
8. EXISTING SURFACE CONDITIONS DISTURBED OR DAMAGED DURING CONSTRUCTION SHALL BE REPLACED TO MATCH EXISTING CONDITIONS. CONTRACTOR TO COORDINATE EXTENT WITH ARCHITECT OR ENGINEER.
9. TEST PITS ARE REQUIRED AT ALL LOCATIONS) WHERE PROPOSED UTILITIES CROSS EXISTING UTILITIES. INVESTIGATIONS) TO IDENTIFY HORIZONTAL LOCATION, ELEVATION AND SIZE OF EXISTING UTILITIES. THE ENGINEER IS TO BE NOTIFIED OF THIS INFORMATION.
10. IF A 1" MINIMUM VERTICAL CLEARANCE CAN NOT BE MAINTAINED AT UTILITY CROSSING, THE CONTRACTOR IS TO NOTIFY THE ENGINEER BEFORE PROCEEDING WITH WORK.
11. TRANSITION CURB, GUTTER, PAVING AND SIDEWALK TO MEET EXISTING IN LINE AND ON GRADE OR AS DIRECTED BY ENGINEER.
12. ALL DEBRIS AND EXCESS MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR AT AN APPROVED OFF-SITE LOCATION.
13. ALL ON-SITE WATER LINES TO HAVE A MINIMUM COVER OF 4'-0". WATER FITTINGS SHALL BE PROPERLY TIED AND ANCHORED, PER DC WATER STANDARDS AND SPECIFICATIONS.
14. WHERE PORTIONS OF EXISTING BITUMINOUS OR CONCRETE PAVING ARE TO BE REMOVED,THE EXISTING PAVEMENT SHALL BE SAW-CUT.
15. REMOVE FRAMES AND COVERS OF SEWER MANHOEE/INEETS AND/OR WATER MAIN VALVE CASTINGS TO BE ABANDONED AND FILL TO GRADE.
16. ALL CURB SPOT SHOTS ARE TOP OF CURB, UNLESS OTHERWISE NOTED. 17. NOTIFY WASHINGTON GAS AT 202-750-4205, 48 HOURS PRIOR TO ANY EXCAVATION IN THE VICINITY OF ANY TRANSMISSION MAIN. FOR FURTHER INFORMATION OR PROBLEMS, CONTACT MR. CHUCK WHITEY AT WASHINGTON GAS AT 703-750-4205.
17. PROVIDE A MINIMUM OF 5 FEET HORIZONTAL AND 1 FOOT VERTICAL CLEARANCE BETWEEN 12" DIAMETER AND SMALLER DISTRIBUTION EXISTING GAS FACILITIES AND PROPOSED FACILITIES.
18. PROVIDE A MINIMUM OF 5 FEET HORIZONTAL AND 2 FEET VERTICAL CLEARANCE BETWEEN 16" DIAMETER OR GREATER TRANSMISSION GAS FACILITIES AND PROPOSED FACILITIES.
19. ALL PROPOSED WORK TO BE CONSTRUCTED IN ACCORDANCE WITH LATEST STANDARDS AND SPECIFICATIONS OF THE DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION AND WATER AND SEWER AUTHORITY.
20. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING SIDEWALK, CURB AND GUTTER TO REMAIN OR TO REPLACE SIDEWALK, CURB AND GUTTER DAMAGED DURING CONSTRUCTION.
21. EXISTING FULL DEPTH PAVEMENT SECTION, CURB AND GUTTER TO BE REMOVED AND REPLACED TO EXTENT NECESSARY TO FACILITATE CONSTRUCTION OF NEW UTILITIES. MATERIALS TO COMPLY WITH DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS.

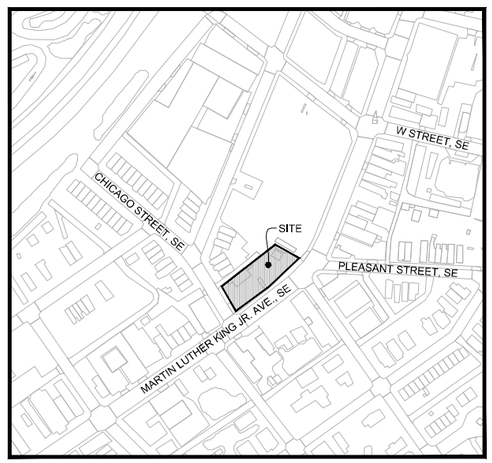
DC WATER STANDARD CONSTRUCTION NOTES:

1. CONTACT: NOTIFY THE FOLLOWING DC WATER DEPARTMENTS PRIOR TO THE COMMENCEMENT OF UTILITY CONSTRUCTION:
   a) CONSTRUCTION INSPECTION SECTION AT 202-787-4024 AT LEAST TWO WEEKS PRIOR TO THE COMMENCEMENT OF UTILITY CONSTRUCTION TO SCHEDULE PRE-CONSTRUCTION MEETING.
   b) WATER SERVICES AT 202-612-3400 OR 3460 AT LEAST ONE WEEK PRIOR TO THE COMMENCEMENT OF UTILITY CONSTRUCTION.
   c) SEWER SERVICES AT 202-264-3824 OR 3829 AT LEAST ONE WEEK PRIOR TO THE COMMENCEMENT OF UTILITY CONSTRUCTION.
2. STANDARDS: ALL CONSTRUCTION, MATERIALS, AND APPURTENANCES SHALL COMPLY WITH THE LATEST EDITIONS OF THE DC WATER PROJECT DESIGN MANUAL, STANDARD DETAILS & DESIGN GUIDELINES, AND SPECIFICATIONS.
3. LEAD SERVICE REPLACEMENT: IF THIS PROJECT INCLUDES THE REPLACEMENT OF A WATER MAIN THAT HAS EXISTING LEAD WATER SERVICE LATERALS, THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE DC WATER CONSTRUCTION INSPECTION SECTION AT 202-787-4024 AT LEAST 90 DAYS PRIOR TO CONSTRUCTION TO ALLOW ADEQUATE TIME TO INITIATE STANDARD LEAD SERVICE REPLACEMENT PROTOCOL. LATERAL REPLACEMENT INCLUDES THE FULL LENGTH OF PIPE IN PUBLIC SPACE.
4. OWNER RESPONSIBILITY: THE OWNER IS RESPONSIBLE FOR ALL WORK AND COSTS ASSOCIATED WITH EXCAVATION, INSTALLATION, AND RESTORATION OF PUBLIC SPACE TO PERFORM A WATER/SEWER CONNECTION/ABANDONMENT. ONCE THE CONTRACTOR HAS OBTAINED A PUBLIC SPACE PERMIT HE/SHE MUST THEN CONTACT DC WATER PRIOR TO PERFORMING THE EXCAVATION TO INSTALL/INSPECT THE UTILITY WORK. THE OWNER SHALL BE HELD RESPONSIBLE FOR ALL DAMAGES TO EXISTING STRUCTURES AND UTILITIES CAUSED BY CONSTRUCTION ACTIVITY.
5. DC WATER RESPONSIBILITY: DC WATER IS RESPONSIBLE FOR INSTALLATION OF SMALL WATER SERVICE TAPS (2" DIAMETER AND LESS) TO THE PUBLIC MAIN, SMALL WATER SERVICE TAP REMOVALS FROM THE PUBLIC MAIN, FURNISHING & INSTALLING THE METER IN PUBLIC SPACE, AND INSPECTION OF WORK PERFORMED ON THE PUBLIC SYSTEMS.
6. MISS UTILITY: CONTACT MISS UTILITY AT 800-257-7777 48 HOURS BEFORE ANY DIGGING.
7. PLAN SET: A SET OF SIGNED & SEALED AND DC WATER STAMPED PLANS SHALL BE KEPT AT ALL TIMES AT THE JOB SITE ON WHICH ALL CHANGES OR VARIATIONS IN THE WORK, INCLUDING ALL EXISTING UTILITIES, ARE TO BE RECORDED AND/OR CORRECTED DAILY.
8. ABANDONMENTS: THE OWNER MUST PHYSICALLY DISCONNECT EXISTING WATER, SEWER, AND STORM LATERALS THAT ARE ARE TO BE ABANDONED AT THEIR CONNECTION TO THE PUBLIC MAIN.
9. UNMETERED WATER: THERE SHALL BE NO UNMETERED CONNECTIONS TO THE CITY'S WATER SYSTEM, INCLUDING CONNECTIONS BYPASSING METERS FOR TESTING ON-SITE PLUMBING OR FOR OBTAINING CONSTRUCTION WATER.
10. PRESSURE TESTING AGAINST VALVES: PRESSURE TESTING AGAINST VALVES WILL NOT BE ALLOWED.
11. WATER METER INSTALLATION: TO SCHEDULE THE INSTALLATION OF A DOMESTIC WATER-METER CONTACT PERMIT OPERATIONS AT 202-646-8600. DC WATER WILL FURNISH AND INSTALL THE METER AFTER THE CONNECTION TO THE MAIN HAS BEEN MADE AND THE METER PIT/VAULT HAS BEEN INSTALLED.
12. CROSS CONTAMINATION CONTROL: ASSE 1048 CERTIFIED BACKFLOW PREVENTION ARE REQUIRED ON ALL FIRE SERVICES AND ARE TO BE LOCATED INSIDE THE BUILDING (UNLESS AN EXTERNAL LOCATION IS NECESSARY OR REQUIRED BY DC WATER) WHERE IT IS SUPPLIED, OWNED, OPERATED, AND MAINTAINED BY THE OWNER. DC WATER DOES NOT FURNISH NOR INSTALL FIRE DOUBLE CHECK DETECTOR FIRE PROTECTION BACKFLOW PREVENTION ASSEMBLIES.
13. UTILITY SERVICE DISRUPTIONS: PHASE ALL UTILITY WORK TO MAINTAIN UTILITY SERVICES TO THE SURROUNDING AREA DURING ALL PHASES OF CONSTRUCTION. LIMIT REQUIRED UTILITY SHUT-DOWNS IN NUMBER AND DURATION. COORDINATE THESE SHUT DOWNS WITH DC WATER CONSTRUCTION INSPECTION STAFF.
14. WATER VALVE OPERATION: THE CONTRACTOR IS REQUIRED TO COORDINATE WITH DC WATER FOR ALL NECESSARY WATER MAIN SHUT DOWNS WITH ADEQUATE ADVANCED NOTICE. ONLY DC WATER EMPLOYEES MAY SHUT DOWN A PUBLIC WATER MAIN. A CERTIFIED PLUMBER IS ONLY AUTHORIZED TO TURN OFF VALVES INSIDE METER PITS.
15. WATER GATE VALVE LOCATION: LOCATE GATE VALVES FOR DOMESTIC AND FIRE SERVICES AS CLOSE TO THE PUBLIC WATER MAIN TEE AS POSSIBLE. HOWEVER, IF NECESSARY ADJUSTMENTS ARE REQUIRED DUE TO CONFLICTS, COORDINATE WITH A DC WATER INSPECTOR.
16. MATERIAL: THE CONTRACTOR IS RESPONSIBLE FOR SUBMITTING SHOP CUTS TO THE APPROPRIATE DC WATER OFFICE FOR APPROVAL OR OBTAINING A DC WATER APPROVAL STAMP FOR ALL WORK IN PUBLIC SPACE IN ADVANCE OF INSTALLATION. ONLY APPROVED MATERIALS MAY BE USED.
17. TEMPORARY CONDITIONS MINIMUM COVER: A NOMINAL FOUR FEET OF COVER IS REQUIRED FOR ALL WATER MAINS AT FINAL GRADE. COVER OF LESS THAN FOUR FEET REQUIRES DC WATER APPROVAL.
18. AS-BUILT: DEVELOPERS, CONTRACTORS AND/OR PLUMBERS MUST SUBMIT FINAL CONSTRUCTION AS-BUILT INFORMATION TO THE APPROPRIATE DC WATER INSPECTOR(S) FOR REVIEW AND APPROVAL. UPON COMPLETION OF INSTALLATION OF NEW SERVICES OR ABANDONMENT OF EXISTING SERVICES. WHEN THE FINAL AS-BUILT IS APPROVED THE DEPOSIT WILL BE RETURNED TO THE APPLICANT. SEE DC WATER AS-BUILT REQUIREMENTS FOR ADDITIONAL INFORMATION.
19. CONFLICTS: THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF EXISTING UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF PROPOSED UTILITIES. A MINIMUM OF ONE FOOT VERTICAL AND FIVE FEET HORIZONTAL CLEARANCE FROM OTHER UTILITIES SHALL BE MAINTAINED FROM ANY UTILITIES AND PUBLIC WATER AND SEWER MAINS.
20. FIRE HYDRANT USE: THE USE OF A FIRE HYDRANT AS A WATER SOURCE IS PROHIBITED UNLESS A PERMIT HAS BEEN OBTAINED FROM DC WATER FOR USE OF A SPECIFIC HYDRANT(S). DAILY OR EXTENDED USE PERMITS CAN BE OBTAINED FROM DC WATER PERMIT OPERATIONS DEPARTMENT 202-646-8600.
21. FIRE HYDRANT STATUS: THE CONTRACTOR SHALL NOTIFY FEMS AT 202-277-1889, PRIOR TO TAKING ANY FIRE HYDRANT OUT OF SERVICE OR RENDERING ANY HYDRANT INACCESSIBLE FOR ANY REASON. FEMS IS ALSO TO BE PROVIDED WITH THE LOCATION OF ANY NEW INSTALLATION OF PRIVATE FIRE HYDRANTS.
22. DC WATER SAFETY OFFICE: THE DC WATER SAFETY OFFICE CAN BE CONTACTED AT 202-787-4350.
23. SEWER BACKWATER PREVENTION: THE PLUMBING SYSTEM MUST BE IN COMPLIANCE WITH SECTION 715 OF THE 2006 INTERNATIONAL PLUMBING CODE WHICH STATES A BACKWATER VALVE IS REQUIRED FOR ALL PLUMBING FIXTURES BELOW THE ELEVATION OF THE MANHOLE COVER OF THE NEXT UPSTREAM MANHOLE IN THE PUBLIC SEWER.

2255 MARTIN LUTHER KING JR. AVENUE, SE

SQUARE 5785; LOTS 839 & 906

WASHINGTON, DC



VICINITY MAP

SCALE: 1" = 200'

PROJECT NARRATIVE:

THE PROJECT CONSISTS OF THE DEVELOPMENT OF A RESIDENTIAL BUILDING AND ASSOCIATED IMPROVEMENTS THE CORNER OF MARTIN LUTHER KING AVENUE SE AND CHICAGO STREET SE. THE SITE WILL BE SERVICED BY NEW WATER, FIRE PROTECTION, STORMDRAIN, AND SANITARY SEWER SERVICES. SITE ACCESS TO THE BELOW GRADE PARKING SHALL BE OFF AN PARTLY PUBLIC AND PARTLY PRIVATE ALLEY WHICH WILL BE CONSTRUCTED IN PART WITH THIS PROJECT.

LEGEND

EXISTING		PROPOSED
350	INDEX CONTOUR	350
352	INTERMEDIATE CONTOUR	352
EX. E.P.	EDGE OF PAVEMENT	PROP. E.P.
EX. C & G	CURB AND GUTTER	
	TRANSITION	
	PROPOSED HEADER CURB	
	PROPERTY LINE	
	LOT LINE	
	RIGHT-OF-WAY	
	EASEMENT	
EX 6" W/M	WATER LINE	8" DIP W/M
EX. W/V	WATER VALVE	W
	REDUCER	W
EX 8" SAN	SANITARY SEWER	8" SAN
EX 15" RCP	STORM SEWER	15" RCPR
CATV	CABLE TV	CATV
E	ELECTRIC SERVICE-UNDERGROUND	E
OHE	ELECTRIC SERVICE-OVERHEAD	OHE
OHT	OVERHEAD TELEPHONE	OHT
T	TELEPHONE SERVICE	T
G	GAS LINE	G
+ 25.32	SPOT ELEVATION	25.32
	UTILITY POLE	
	GUY POLE	
	TRANSFORMER	T
	SIGN	
1255	SANITARY SEWER IDENTIFIER	A
1229	STORM DRAIN IDENTIFIER	2
	WATER METER	
	FIRE HYDRANT	
	STREET LIGHT	
	TEST PIT LOCATION RECOMMENDED/REQUIRED	TP
	HANDICAP RAMP	
15" OAK	TREE	
	CONCRETE SIDEWALK	

UTILITY CONTACTS:

SEWER/WATER:	DC WATER - (202) 787-4299 5000 OVERLOOK AVE. SW 5TH FLOOR WASHINGTON, DC 20032
ELECTRICITY:	PEPCO - FRED JOHNSON (202) 872-2833 701 9TH STREET NW, ROOM 6005 WASHINGTON, DC 20068
GAS:	WASHINGTON GAS CO. - VANN JONES (703) 750-5983 6801 INDUSTRIAL ROAD SPRINGFIELD, VA 22151
COMMUNICATIONS:	VERIZON COMMUNICATIONS - DIVINA YANCEY (301) 282-7736 FDC-1 13101 COLUMBIA PIKE CONDUIT GROUP - LOWER LEVEL SILVER SPRING, MD 20904

ENGINEER

CIVIL/LANDSCAPE ARCHITECT
BOWMAN CONSULTING GROUP
2121 EISENHOWER AVENUE, SUITE 302
ALEXANDRIA, VIRGINIA 22314
(703) 548-5781
ATTN: RYAN J BRANNAN, P.E.

ABBREVIATIONS:

APPROX	APPROXIMATE	EX	EXISTING
ASPH	ASPHALT	FC	FACE OF CURB
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	FD	FLOOR DRAIN
AWWA	AMERICAN WATER WORKS ASSOCIATION	FF	FIRST FLOOR
BC	BACK OF CURB	FG	FINISH GRADE
BF	BASEMENT FLOOR	FH	FIRE HYDRANT
BLDG	BUILDING	FL	FLOW LINE
BM	BENCHMARK	G	GAS
BOV	BLOW OFF VALVE	GR	GUARD RAIL OR GRATE INLET
BRL	BUILDING RESTRICTION LINE	HC	HANDICAP
BW	BOTTOM OF WALL	HP	HIGH POINT
C&G	CURB AND GUTTER	HR	HAND RAIL
CB	CATCH BASIN	INV	INVERT
CC	CONCRETE CURB	IP	IRON PIPE
CIP	CAST IRON PIPE	IPS	IRON PIPE SET
℄	CENTERLINE	LP	LOW POINT
CMP	CORRUGATED METAL PIPE	MH	MANHOLE
CO	CLEAN OUT	O/H	OVERHEAD
CONC	CONCRETE	PCC	PORTLAND CEMENT CONCRETE
DIP	DUCTILE IRON PIPE	PROP	PROPOSED
DI	DROP INLET	PVMT	PAVEMENT
DOM	DOMESTIC	SAN	SANITARY
EBL	EAST BOUND LANE	SEW	SEWER
EG	EDGE OF GUTTER	STD	STANDARD
EL	ELEVATION	S/W	SIDEWALK
ELEC	ELECTRIC	TC	TOP OF CURB
ELEV	ELEVATION	TEL	TELEPHONE
ENT	ENTRANCE	TP	TEST PIT OR TREE PROTECTION
EP	EDGE OF PAVEMENT	TW	TOP OF WALL OR TAILWATER
EQUIP	EQUIPMENT	UP	UTILITY POLE
ESMT	EASEMENT	UG	UNDERGROUND
EW	END WALL	UGE	UNDERGROUND ELECTRIC
		UGT	UNDERGROUND TELEPHONE
		UGC	UNDERGROUND CABLE
		UD	UNDERDRAIN
		WL	WATER LINE
		WM	WATER METER

CIVIL DRAWING LIST - PUD:

FOUR POINTS

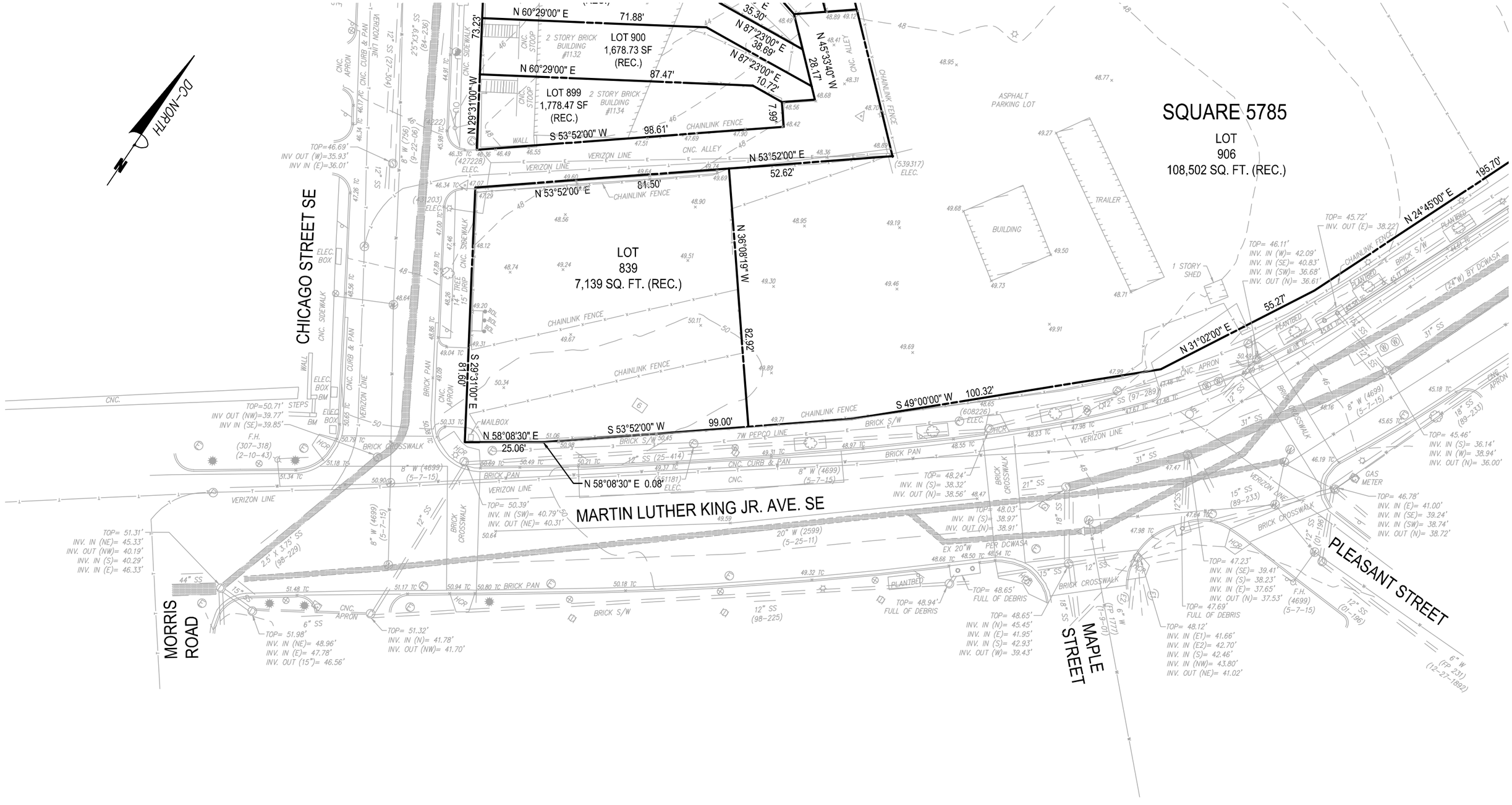
2255 MLK JR. AVE, SE

Washington, D.C.

39. COVER SHEET

January, 2015

GRIMM AND PARKER



FOUR POINTS

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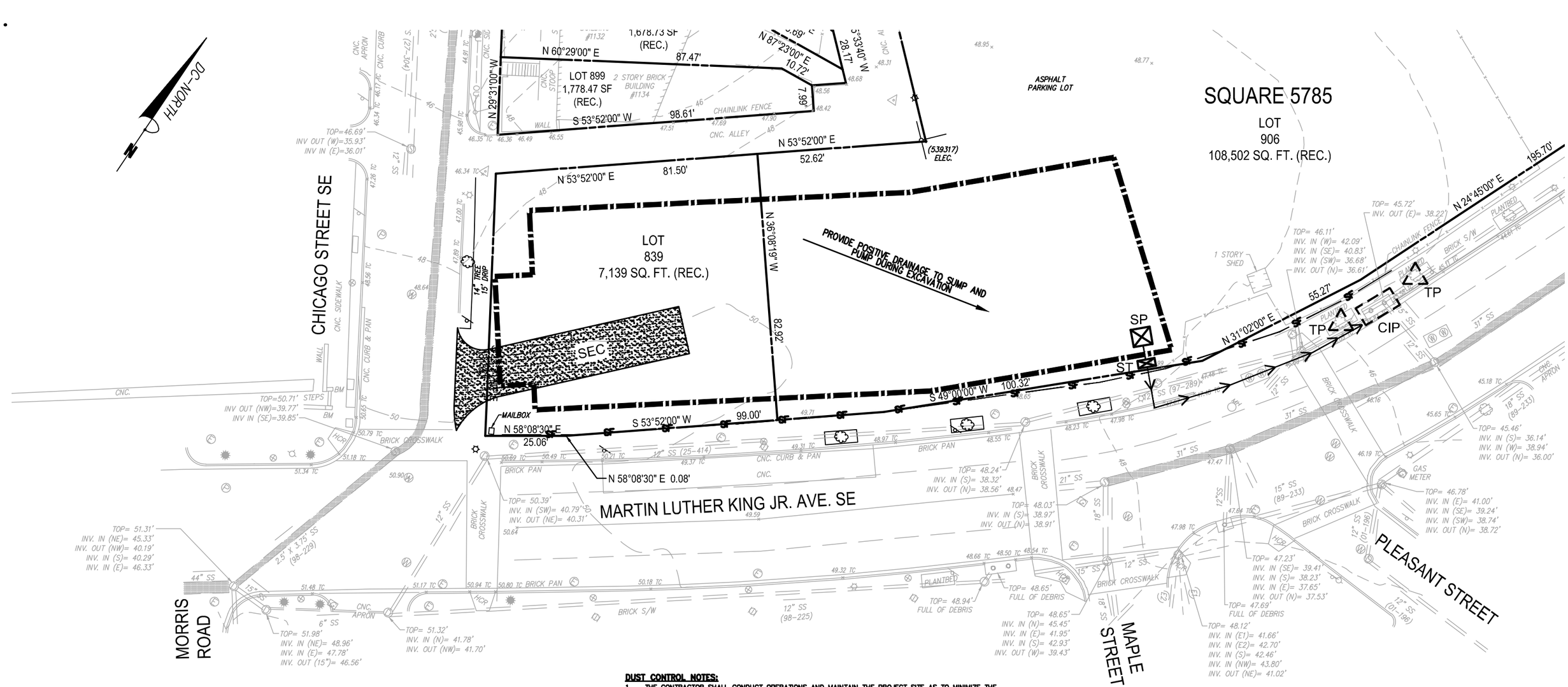
40. EXISTING CONDITIONS PLAN

January, 2015

GRIMM AND PARKER



LEGEND

- CURB INLET PROTECTION — CIP
- STABILIZED CONSTRUCTION ENTRANCE — SCE
- SILT FENCE — SF
- SAFETY FENCE (5' CHAIN LINK FENCE)
- TREE PROTECTION — TP
- LIMITS OF DISTURBANCE — LOD
- LIMITS OF EXCAVATION
- SUMP PIT — SP
- SEDIMENT TANK — ST

SEDIMENT AND EROSION CONTROL NARRATIVE:

INSTALL SEDIMENT AND EROSION CONTROL MEASURES INCLUDING SILT FENCE, INLET PROTECTION, TREE PROTECTION, AND STABILIZED CONSTRUCTION ENTRANCE AT SITE. FOLLOWING DISCONNECTION OF UTILITIES, CONCRETE ENTRANCE AND EXISTING CURB RAMPS. DURING DEMOLITION, DEBRIS WILL BE REMOVED FROM SITE BY TRUCK. CONTRACT DC DEPARTMENT OF THE ENVIRONMENT, WATERSHED PROTECTION DIVISION AT 202-535-2250 TO SCHEDULE PRE-CONSTRUCTION MEETING.

AREA OF DISTURBANCE:

TOTAL SITE AREA: 25,000 SF (0.57 ACRES)
AREA TO BE DISTURBED: 31,545 SF (0.72 ACRES)
VOLUME OF EARTH TO BE REMOVED: ±5,424 CY (ASSUMING 12' OF EXCAVATION OVER FOOTPRINT)

CONSTRUCTION AND STABILIZATION SEQUENCE:

1. CONTACT DC WATERSHED PROTECTION DIVISION AT 202-535-1364 TO SCHEDULE THE PRE-CONSTRUCTION MEETING PRIOR TO MOBILIZATION.
2. INSTALL SEDIMENT AND EROSION CONTROL MEASURES AS NEEDED INCLUDING STABILIZED CONSTRUCTION ENTRANCE, WASH RACK, INLET PROTECTION, AND SILT FENCE AS INDICATED ON THIS SHEET. SEE SHEET C5.02 FOR SEDIMENT AND EROSION CONTROL DETAILS.
3. SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AND APPROVED BY THE INSPECTOR PRIOR TO COMMENCING ANY OTHER LAND DISTURBING ACTIVITIES.
4. DISCONNECT UTILITIES AND RAZE BUILDING TO SURFACE.
5. AT THE COMPLETION OF THIS PHASE OF CONSTRUCTION, FOLLOWING SITE STABILIZATION AND UPON INSPECTOR'S APPROVAL, TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES CAN BE REMOVED.

DUST CONTROL NOTES:

1. THE CONTRACTOR SHALL CONDUCT OPERATIONS AND MAINTAIN THE PROJECT SITE AS TO MINIMIZE THE CREATION AND DISPERSION OF DUST. DUST CONTROL SHALL BE USED THROUGHOUT THE WORK AT THE SITE.
2. THE CONTRACTOR MUST PROVIDE CLEAN WATER, FREE FROM SALT, OIL AND OTHER DELETERIOUS MATERIAL TO BE USED FOR ON-SITE DUST CONTROL.
3. THE CONTRACTOR SHALL SUPPLY WATER SPRAYING EQUIPMENT CAPABLY OF ACCESSING ALL WORK AREAS.
4. THE CONTRACTOR SHALL IMPLEMENT STRICT DUST CONTROL MEASURES DURING ACTIVE CONSTRUCTION PERIODS ON SITE. THESE MEASURES WILL GENERALLY CONSIST OF WATER APPLICATIONS THAT SHALL BE APPLIED A MINIMUM OF ONCE PER DAY DURING DRY WEATHER OR MORE OFTEN AS REQUIRED TO PREVENT DUST EMISSIONS.
5. FOR WATER APPLICATION TO UNDISTURBED SOIL SURFACES, THE CONTRACTOR SHALL:
   A. APPLY WATER WITH EQUIPMENT CONSISTING OF TANK, SPRAY BAR, PUMP WITH DISCHARGE PRESSURE GAUGE;
   B. ARRANGE SPRAY BAR HEIGHT, NOZZLE SPACING, AND SPRAY PATTERN TO PROVIDE COMPLETE COVERAGE OF GROUND WITH WATER;
   C. DISPERSE WATER THROUGH NOZZLES ON SPRAY BAR AT 20 PSI (137.8 K PA) MINIMUM. KEEP AREAS DAMP WITHOUT CREATING NUISANCE CONDITIONS SUCH AS PONDING.
6. FOR WATER APPLICATION TO SOIL SURFACES DURING DEMOLITIONS AND/OR EXCAVATION, THE CONTRACTOR SHALL:
   A. APPLY WATER WITH EQUIPMENT CONSISTING OF A TANK, PUMP WITH DISCHARGE GAUGES, HOSES, AND MIST NOZZLES;
   B. LOCATE TANK AND SPRAYING EQUIPMENT SO THAT THE ENTIRE DISTURBED AREA CAN BE MISTED WITHOUT INTERFERING WITH DEMOLITION AND/OR EXCAVATION EQUIPMENT OR OPERATIONS. KEEP AREAS DAMP WITHOUT CREATING NUISANCE CONDITIONS SUCH AS PONDING;
   C. APPLY WATER SPRAY IN A MANNER TO PREVENT MOVEMENT OF SPRAY BEYOND SITE BOUNDARIES.

SEDIMENT AND EROSION CONTROL NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF SHEETING AND SHORING AND SUPPORT OF EXISTING UTILITIES AND ADJACENT STRUCTURES. SHORING, BRACING, AND UNDERPINNING DESIGNED BY THE CONTRACTOR'S STRUCTURAL ENGINEER LICENSED IN THE DISTRICT OF COLUMBIA SHALL BE PROVIDED AS NECESSARY TO ENSURE THEIR SUPPORT.
2. PROVIDE SILT FENCE AT THE PERIMETER OF DISTURBED AREA OR EXCAVATION TO REMAIN IN PLACE UNTIL SITE IS STABILIZED OR OTHERWISE APPROVED BY THE INSPECTOR.
3. PROVIDE CONSTRUCTION FENCE AT THE PERIMETER OF DISTURBED AREA OR EXCAVATION TO REMAIN IN PLACE UNTIL SITE IS STABILIZED OR OTHERWISE APPROVED BY THE INSPECTOR.
4. CONTRACTOR TO MAINTAIN ON-SITE STAMPED AND SIGNED, SEDIMENT AND EROSION CONTROL DRAWINGS APPROVED BY THE DEPARTMENT OF THE ENVIRONMENT, WATERSHED PROTECTION DIVISION.
5. THE APPLICATION MUST NOTIFY THE DEPARTMENT OF THE ENVIRONMENT BY PHONE (202-535-2250) AT LEAST 24 HOURS PRIOR TO START OF GRADING
   ACTIVITY AND WITHIN TWO (2) WEEKS AFTER COMPLETION OF PROJECT TO REQUEST INSPECTION. IF THERE IS NEED TO MAKE CHANGES OR MODIFICATIONS IN THE APPROVED DESIGN, DEPARTMENT OF THE ENVIRONMENT MUST BE NOTIFIED IMMEDIATELY.

CONSTRUCTION DATES:

- THE PROPOSED WORK DUE TO COMMENCE IN THE SPRING OF 2015 AND IS ANTICIPATED TO TAKE APPROXIMATELY 6 MONTHS.
- EXACT BEGINNING AND END OF CONSTRUCTION IS TO BE ESTABLISHED BY THE OWNER.

0 15 30
GRAPHIC SCALE
1" = 30'

FOUR POINTS

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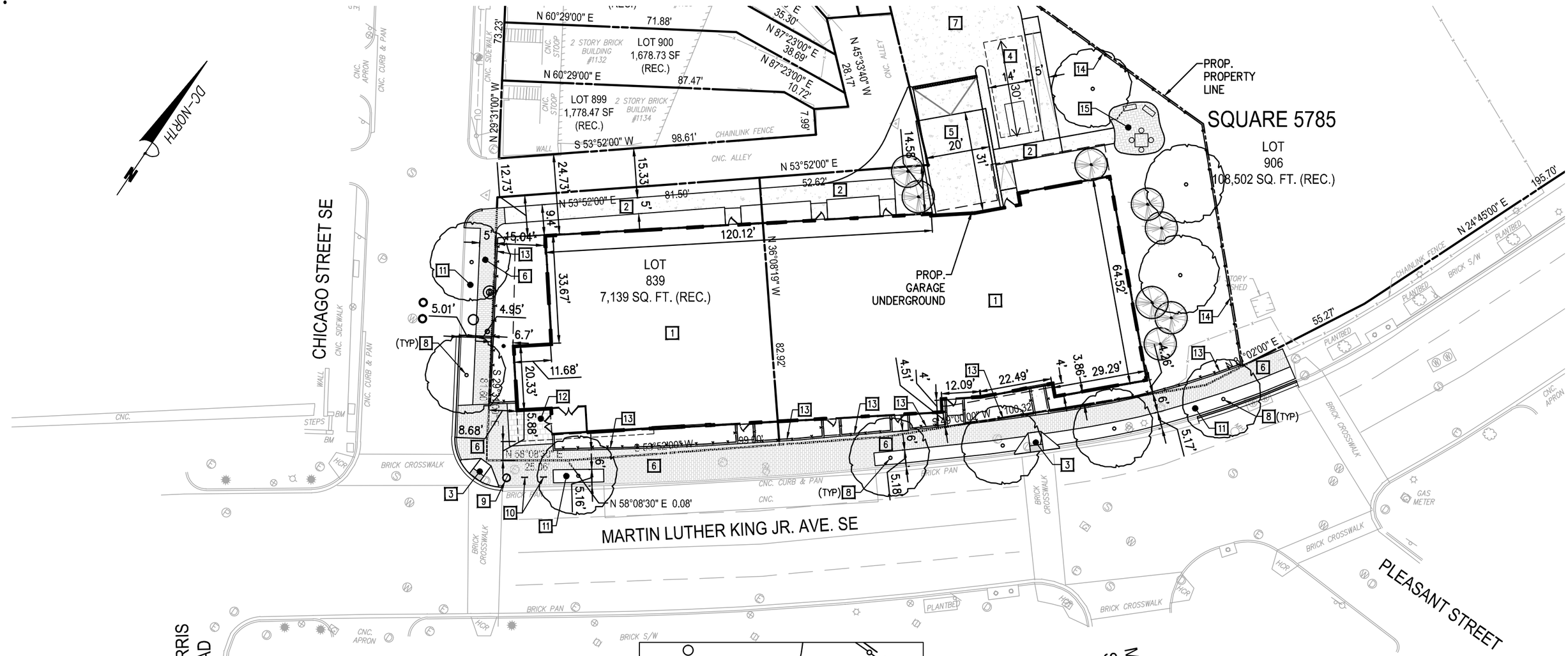
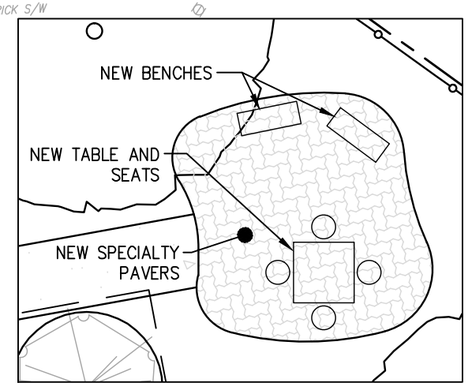
41. EROSION AND SEDIMENT CONTROL

January, 2015

G+P GRIMM AND PARKER





SEATING AREA DETAIL

SCALE: 1" = 10'

SITE KEYNOTES

1. NEW BUILDING. SEE ARCHITECTURAL DRAWINGS FOR DETAILS.
2. NEW CONCRETE SIDEWALK.
3. NEW ADA RAMP.
4. NEW LOADING AREA.
5. NEW RAMP DOWN TO PARKING GARAGE.
6. NEW BRICK SIDEWALK.
7. NEW CONCRETE PAVEMENT IN ALLEY.
8. NEW STREET TREE.
9. NEW TRASH CAN.
10. NEW BIKE RACK.
11. NEW TREE PLANTING AREA.
12. NEW SPECIALTY PAVING AT ENTRANCE.
13. NEW 6' HIGH ALUMINUM BLACK FENCE.
14. NEW 2'-6" HIGH ALUMINIUM BLACK FENCE.
15. NEW SEATING AREA. SEE DETAIL THIS SHEET.

0 15 30

GRAPHIC SCALE
1" = 30'

FOUR POINTS

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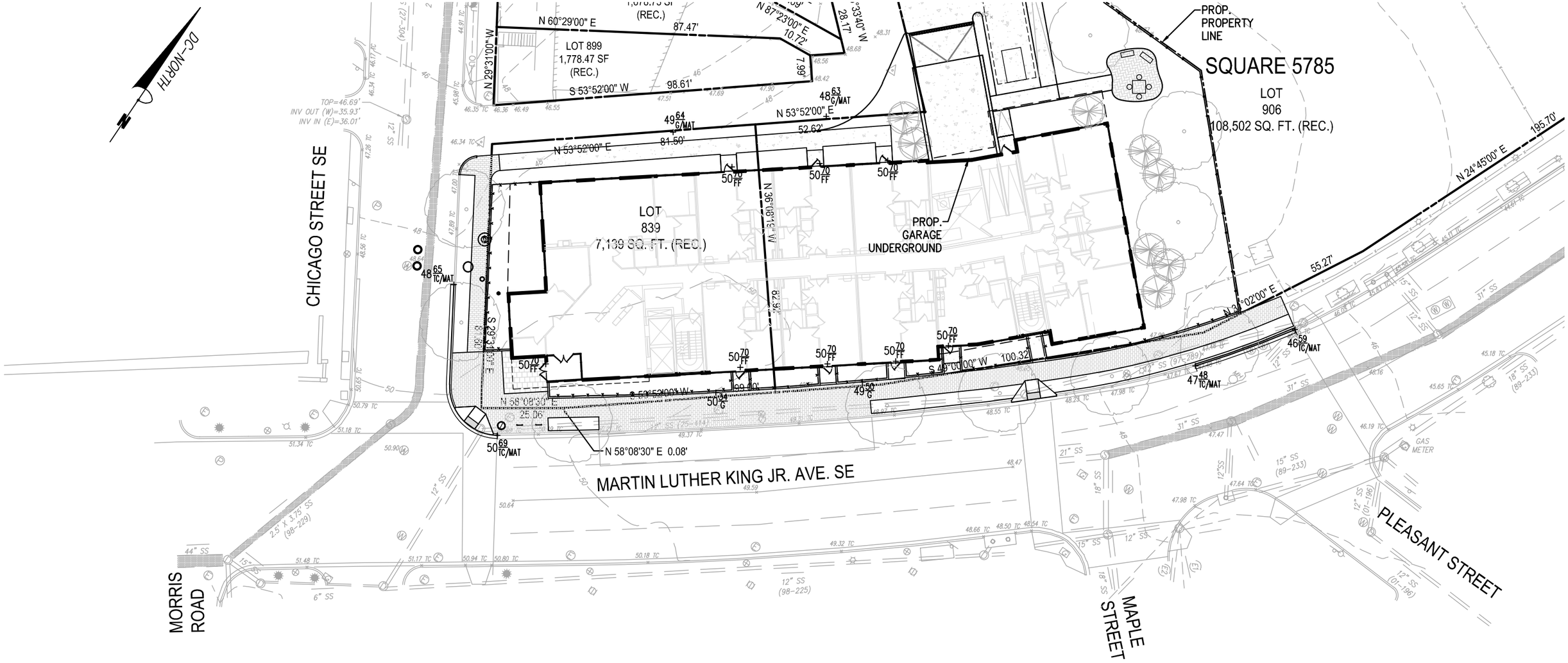
42. SITE PLAN

January, 2015

GRIMM AND PARKER



0 15 30

GRAPHIC SCALE
1" = 30'

FOUR POINTS

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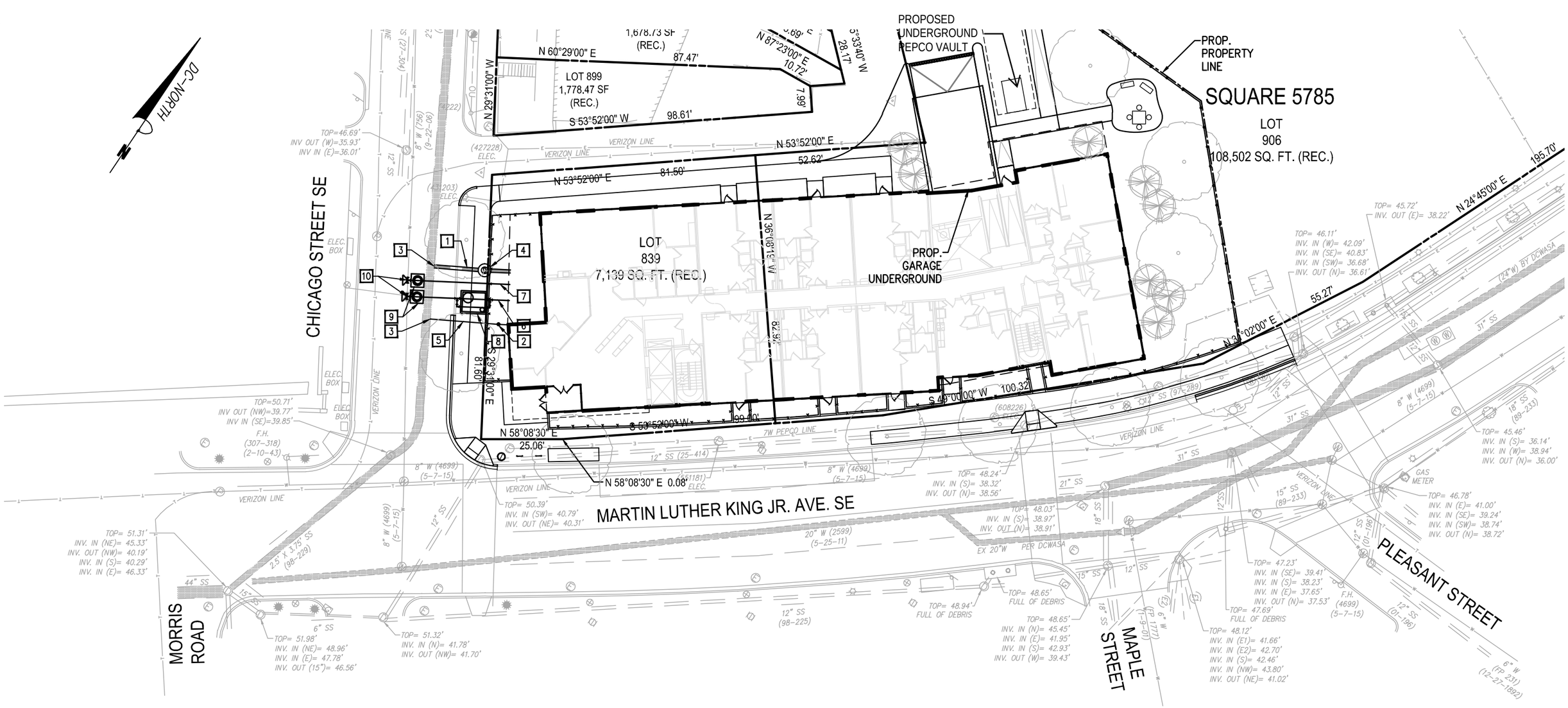
43. GRADING PLAN

January, 2015

GRIMM AND PARKER



WATER AND SEWER DEMAND

WATER:
260 GPD PER UNIT X 71 UNITS = 18,460 GPD

SEWER:
18,460 GPD = 0.029 CFS

UTILITY KEYNOTES

1. NEW 12" RCP STORM SEWER.
2. NEW CLEANOUT.
3. NEW ZEE STRAP CONNECTION TO EXISTING 2'–5" x 3'–9" SEWER.
4. NEW MANHOLE.
5. NEW 8" PVC SANITARY SEWER.
6. NEW 6" DOMESTIC WATERLINE.
7. NEW 6" FIRE SERVICE.
8. NEW WATER METER.
9. NEW WATER VALVE.
10. NEW 8" x 6" TEE WITH THRUST BLOCK.

0 15 30
GRAPHIC SCALE
1" = 30'

FOUR POINTS

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Washington, D.C.

44. UTILITY PLAN

January, 2015

G+P GRIMM AND PARKER

STANDARDS AND SPECIFICATIONS FOR DUST CONTROL:

1. THE CONTRACTOR SHALL CONDUCT OPERATIONS AND MAINTAIN THE PROJECT SITE AS TO MINIMIZE THE CREATION AND DISPERSION OF DUST. DUST CONTROL SHALL BE USED THROUGHOUT THE WORK AT THE SITE.
2. THE CONTRACTOR MUST PROVIDE CLEAN WATER, FREE FROM SALT, OIL AND OTHER DELETERIOUS MATERIAL TO BE USED FOR ON-SITE DUST CONTROL.
3. THE CONTRACTOR SHALL SUPPLY WATER SPRAYING EQUIPMENT CAPABLY OF ACCESSING ALL WORK AREAS.
4. THE CONTRACTOR SHALL IMPLEMENT STRICT DUST CONTROL MEASURES DURING ACTIVE CONSTRUCTION PERIODS ON SITE. THESE MEASURES WILL GENERALLY CONSIST OF WATER APPLICATIONS THAT SHALL BE APPLIED A MINIMUM OF ONCE PER DAY DURING DRY WEATHER OR MORE OFTEN AS REQUIRED TO PREVENT DUST EMISSIONS.
5. FOR WATER APPLICATION TO UNDISTURBED SOIL SURFACES, THE CONTRACTOR SHALL:
   A. APPLY WATER WITH EQUIPMENT CONSISTING OF TANK, SPRAY BAR, PUMP WITH DISCHARGE PRESSURE GAUGE;
   B. ARRANGE SPRAY BAR HEIGHT, NOZZLE SPACING, AND SPRAY PATTERN TO PROVIDE COMPLETE COVERAGE OF GROUND WITH WATER;
   C. DISPERSE WATER THROUGH NOZZLES ON SPRAY BAR AT 20 PSI (137.8 K PA) MINIMUM. KEEP AREAS DAMP WITHOUT CREATING NUISANCE CONDITIONS SUCH AS PONDING.
6. FOR WATER APPLICATION TO SOIL SURFACES DURING DEMOLITIONS AND/OR EXCAVATION, THE CONTRACTOR SHALL:
   A. APPLY WATER WITH EQUIPMENT CONSISTING OF A TANK, PUMP WITH DISCHARGE GAUGES, HOSES, AND MIST NOZZLES;
   B. LOCATE TANK AND SPRAYING EQUIPMENT SO THAT THE ENTIRE DISTURBED AREA CAN BE MISTED WITHOUT INTERFERING WITH DEMOLITION AND/OR EXCAVATION EQUIPMENT OR OPERATIONS. KEEP AREAS DAMP WITHOUT CREATING NUISANCE CONDITIONS SUCH AS PONDING;
   C. APPLY WATER SPRAY IN A MANNER TO PREVENT MOVEMENT OF SPRAY BEYOND SITE BOUNDARIES.

DISTRICT OF COLUMBIA STANDARD SEDIMENT CONTROL NOTES:

1. ALL SEDIMENT AND EROSION CONTROL METHODS SHALL BE INSTALLED BEFORE THE START OF AN EXCAVATION AND/OR CONSTRUCTION AS PER STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR THE DISTRICT OF COLUMBIA. IF AN ON-SITE INSPECTION REVEALS FURTHER EROSION CONTROL MEASURES ARE NECESSARY THE SAME SHALL BE PROVIDED.
2. ALL DEBRIS TO BE REMOVED FROM SITE.
3. ALLEY AND/OR STREETS SHALL BE SWEPT CLEAN AT ALL TIMES DURING EXCAVATION AND CONSTRUCTION.
4. ALL CATCH BASINS AND AREA DRAINS SHALL BE PROTECTED DURING EXCAVATION AND CONSTRUCTION.
5. IF ANY CATCH BASIN OR DRAIN BECOMES CLOGGED AS A RESULT OF EXCAVATION OR CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS CLEANING.
6. WHEN A SEDIMENT TRAP/SEDIMENT TANK HAS REACHED 67% CAPACITY, CLEAN OUT OF SAME IS REQUIRED.
7. ANY STOCKPILING, REGARDLESS OF LOCATION ON THE SITE, SHALL BE STABILIZED WITHIN 28 DAYS AFTER ESTABLISHMENT AND FOR THE DURATION OF THE PROJECT.

37.0 STANDARDS AND SPECIFICATIONS FOR LAND GRADING:

DEFINITION: RESHAPING OF THE EXISTING LAND SURFACE IN ACCORDANCE WITH A PLAN AS DETERMINED BY ENGINEERING SURVEY AND LAYOUT.

PURPOSE: THE PURPOSE OF LAND GRADING SPECIFICATIONS IS TO PROVIDE FOR EROSION CONTROL AND VEGETATIVE ESTABLISHMENT ON THOSE AREAS WHERE THE EXISTING LAND SURFACE IS TO BE RESHAPED BY GRADING ACCORDING TO A PLAN.

DESIGN CRITERIA: THE GRADING PLAN SHOULD BE BASED UPON THE INCORPORATION OF BUILDING DESIGNS AND STREET LAYOUTS THAT FIT AND UTILIZE EXISTING TOPOGRAPHY AND DESIRABLE NATURAL SURROUNDINGS TO AVOID EXTREME GRADE MODIFICATIONS. INFORMATION TO DETERMINE LIMITATIONS THAT MUST BE IMPOSED UPON THE GRADING OPERATION RELATED TO SLOPE STABILITY, EFFECT ON ADJACENT PROPERTIES, AND DRAINAGE PATTERNS, MEASURES FOR DRAINAGE AND WATER REMOVAL AND VEGETATIVE TREATMENT, ETC.

THE PLAN MUST SHOW EXISTING AND PROPOSED CONTOURS OF THE AREA(S) TO BE GRADED. THE PLAN
SHALL ALSO INCLUDE PRACTICES FOR EROSION CONTROL, SLOPE STABILIZATION, SAFE DISPOSAL OF RUNOFF
WATER AND DRAINAGE, SUCH AS WATERWAYS, LINED DITCHES, REVERSE SLOPE BENCHES (INCLUDE GRADE AND CROSS SECTION), GRADE STABILIZATION STRUCTURES, RETAINING WALLS, AND SURFACE AND
SUBSURFACE DRAINS. THE PLAN SHALL ALSO INCLUDE PHASING OF THESE PRACTICES. THE FOLLOWING
SHALL BE INCORPORATED INTO THE PLAN:

1. PROVISIONS SHALL BE MADE TO SAFELY CONDUCT SURFACE RUNOFF TO STORM DRAINS, PROTECTED OUTLETS OR TO STABLE WATER COURSES TO INSURE THAT SURFACE RUNOFF WILL NOT DAMAGE SLOPES OR OTHER GRADED AREAS.

2. CUT AND FILL SLOPES THAT ARE TO BE STABILIZED WITH GRASSES SHALL NOT BE STEEPER THAN 2:1. (WHERE THE SLOPE IS TO BE MOWED THE SLOPE SHOULD BE NO STEEPER THAN 3:1; 4:1 IS PREFERRED BECAUSE OF SAFETY FACTORS RELATED TO MOWING STEEP SLOPES.) SLOPES EXCEEDING 2:1 SHALL REQUIRE SPECIAL DESIGN AND STABILIZATION CONSIDERATIONS THAT SHALL BE ADEQUATELY SHOWN ON THE PLANS.

3. REVERSE BENCHES SHALL BE PROVIDED WHENEVER THE VERTICAL INTERVAL (HEIGHT) OF ANY 2:1 SLOPE EXCEEDS 20 FEET; FOR 3:1 SLOPE IT SHALL BE INCREASED TO 30 FEET AND FOR 4:1 TO 40 FEET. BENCHES SHALL BE LOCATED TO DIVIDE THE SLOPE FACE AS EQUALLY AS POSSIBLE AND SHALL CONVEY THE WATER TO A STABLE OUTLET. SOILS, SEEPS, ROCK OUTCROPS , ETC. , SHALL ALSO BE TAKEN INTO CONSIDERATION WHEN DESIGNING BENCHES.

   A. BENCHES SHALL BE A MINIMUM OF SIX-FEET WIDE TO PROVIDE FOR EASE OF MAINTENANCE.

   B. BENCHES SHALL BE DESIGNED WITH A REVERSE SLOPE OF 6:1 OR FLATTER TO THE TOE OF THE UPPER SLOPE AND WITH A MINIMUM OF ONE FOOT IN DEPTH. BENCH GRADIENT TO THE OUTLET SHALL BE BETWEEN 2 PERCENT AND 3 PERCENT, UNLESS ACCOMPANIED BY APPROPRIATE DESIGN AND COMPUTATIONS.

   C. THE FLOW LENGTH WITHIN A BENCH SHALL NOT EXCEED 800' UNLESS ACCOMPANIED BY APPROPRIATE DESIGN AND COMPUTATIONS. FOR FLOW CHANNEL STABILIZATION, SEE TEMPORARY SWALE.

37.0 STANDARDS AND SPECIFICATIONS FOR LAND GRADING:

4. SURFACE WATER SHALL BE DIVERTED FROM THE FACE OF ALL CUT AND/OR FILL SLOPES BY THE USE OF EARTH DIKES, DITCHES AND SWALES OR CONVEYED DOWNSLOPE BY THE USE OF A DESIGNED STRUCTURE, EXCEPT WHERE:

   A. THE FACE OF THE SLOPE IS OR SHALL BE STABILIZED AND THE FACE OF ALL GRADED SLOPES SHALL BE PROTECTED FROM SURFACE RUNOFF UNTIL THEY ARE STABILIZED.

   B. THE FACE OF THE SLOPE SHALL NOT BE SUBJECT TO ANY CONCENTRATE FLOWS OF SURFACE WATER SUCH AS FROM NATURAL DRAINAGEWAYS, GRADED SWALES, DOWNSPOUTS, ETC.

   C. THE FACE OF THE SLOPE WILL BE PROTECTED BY SPECIAL EROSION CONTROL MATERIALS, TO INCLUDE, BUT NOT LIMITED TO: APPROVED VEGETATIVE STABILIZATION PRACTICES (SEE SECTION G), RIP-RAP OR OTHER APPROVED STABILIZATION METHODS.

5. CUT SLOPES OCCURRING IN RIPABLE ROCK SHALL BE SERRATED AS SHOWN IN DETAIL 70, SERRATED SLOPES ON THE FOLLOWING DIAGRAM. THESE SERRATIONS SHALL BE MADE WITH CONVENTIONAL EQUIPMENT AS THE EXCAVATION IS MADE. EACH STEP OR SERRATION SHALL BE CONSTRUCTED ON THE CONTOUR AND WILL HAVE STEPS CUT AT NOMINAL TWO-FOOT INTERVALS WITH NOMINAL THREE-FOOT HORIZONTAL SHELVES. THESE STEPS WILL VARY DEPENDING ON THE SLOPE RATIO OR THE CUT SLOPE. THE NOMINAL SLOPE LINE IS 1:5:1. THESE STEPS WILL WEATHER AND ACT TO HOLD MOISTURE, LIME, FERTILIZER AND SEED THUS PRODUCING A MUCH QUICKER AND LONGER LIVED VEGETATIVE COVER AND BETTER SLOPE STABILIZATION. OVERLAND FLOW SHALL BE DIVERTED FROM THE TOP OF ALL SERRATED CUT SLOPES AND CARRIED TO A SUITABLE OUTLET.

6. SUBSURFACE DRAINAGE SHALL BE PROVIDED WHERE NECESSARY TO INTERCEPT SEEPAGE THAT WOULD OTHERWISE ADVERSELY AFFECT SLOPE STABILITY OR CREATE EXCESSIVELY WET SITE CONDITIONS.

7. SLOPES SHALL NOT BE CREATED SO CLOSE TO PROPERTY LINES AS TO ENDANGER ADJOINING PROPERTIES WITHOUT ADEQUATELY PROTECTING SUCH PROPERTIES AGAINST SEDIMENTATION, EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED DAMAGES.

8. FILL MATERIAL SHALL BE FREE OF SNOW, ICE, FROZEN MATERIALS, TRASH, BRICK, CLAY LUMPS, HAZARDOUS MATERIAL, BROKEN CONCRETE, TREE ROOTS, SOD, ASHES, CINDERS, GLASS, PLASTER, ORGANIC MATTER, BRUSH, LOGS, STUMPS, BUILDING DEBRIS AND ANY OTHER FOREIGN MATERIAL. IT SHOULD BE FREE OF STONES OVER TWO (2) INCHES IN DIAMETER WHERE COMPACTED BY HAND OR MECHANICAL TAMPERS OR OVER EIGHT (8) INCHES IN DIAMETER WHERE COMPACTED BY ROLLERS OR OTHER EQUIPMENT. FROZEN MATERIAL SHALL NOT BE PLACED IN THE FILL NOR SHALL THE FILL MATERIAL BE PLACED ON A FROZEN FOUNDATION.

9. STOCKPILES, BORROW AREAS AND SPOIL SHALL BE SHOWN ON THE PLANS AND SHALL BE SUBJECT TO THE PROVISIONS OF THIS STANDARD AND SPECIFICATIONS.

10. ALL DISTURBED AREAS SHALL BE STABILIZED STRUCTURALLY OR VEGETATIVELY IN COMPLIANCE WITH 42.0 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION.

38.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL:

DEFINITION: PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION

PURPOSE: TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR
UNACCEPTABLE SOIL GRADATION.

CONDITIONS WHERE PRACTICE APPLIES:

I. THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:

   a. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.

   b. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OF FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.

   c. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.

   d. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.

II. FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION. AREAS HAVING SLOPES STEEPER THAN 2:1 SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON THE PLANS.

CONSTRUCTION AND MATERIAL SPECIFICATIONS:

I. TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED IN THE NRCS DISTRICT OF COLUMBIA SOIL SURVEY MANUAL.

II. TOPSOIL SPECIFICATIONS – SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:

   I. TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE WATERSHED PROTECTION DIVISION. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 11/2 " IN DIAMETER.

   II. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSONGRASS, NUTSEDGE, POISON IVY, THISTLE, OTHER POSIONOUS PLANTS OR OTHERS AS SPECIFIED.

   III. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.

38.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL, CONT.:

III. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:

   I. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 42.0 VEGETATIVE STABILIZATION – SECTION I – VEGETATIVE STABILIZATION METHOD AND MATERIALS.

IV. FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:

   I. ON SOIL MEETING TOPSOIL SPECIFICATIONS, OBTAIN TEST RESULTS DICTATING FERTILIZER AND LIME AMENDMENTS REQUIRED TO BRING THE SOIL INTO COMPLIANCE WITH THE FOLLOWING:

      a. PH FOR TOPSOIL SHALL BE BETWEEN 6.0 AND 7.5. IF THE TESTED SOIL DEMONSTRATES A PH OF LESS THAN 6.0, SUFFICIENT LIME SHALL BE PRESCRIBED TO RAISE THE PH TO 6.5 OR HIGHER.

      b. ORGANIC CONTENT OF TOPSOIL SHALL BE NOT LESS THAN 1.5 PERCENT BY WEIGHT.

      c. TOPSOIL HAVING SOLUBLE SALT CONTENT GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.

      d. NO SOD OR SEED SHALL BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.

   NOTE: TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE WATERHED PROTECTION AGENCY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.

   II. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 42.0 VEGETATIVE STABILIZATION – SECTION I– VEGETATIVE STABILIZATION METHOD AND MATERIALS.

V. TOPSOIL APPLICATION

   I. WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.

   II. GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBEIT 4" – 8" HIGHER IN ELEVATION.

   III. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" – 8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER
   THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE
   FORMATION OF DEPRESSIONS OR WATER POCKETS.

   IV. TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.

VI. ALTERNATIVE FOR PERMANENT SEEDING – INSTEAD OF APPLYING THE FULL AMOUNTS OF LIME AND COMMERCIAL FERTILIZER, COMPOSTED SLUDGE AND AMENDMENTS MAY BE APPLIED AS SPECIFIED BELOW:

   I. COMPOSTED SLUDGE MATERIAL FOR USE AS A SOIL CONDITIONER FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES SHALL BE TESTED TO PRESCRIBE AMENDMENTS AND FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

      a. COMPOSTED SLUDGE SHALL BE SUPPLIED BY, OR ORIGINATE FROM, A PERSON OR PERSONS THAT ARE PERMITTED (AT THE TIME OF ACQUISITION OF THE COMPOST) BY EITHER THE STATE OF MARYLAND OR THE STATE OF VIRGINIA.

      b. COMPOSTED SLUDGE SHALL CONTAIN AT LEAST 1 PERCENT NITROGEN, 1.5 PERCENT PHOSPHORUS, AND 0.2 PERCENT POTASSIUM AND HAVE A PH OF 7.0 TO 8.0. IF COMPOST DOES NOT MEET THESE REQUIREMENTS, THE APPROPRIATE CONSTITUENTS MUST BE ADDED TO MEET THE REQUIREMENTS PRIOR TO USE.

      c. COMPOSTED SLUDGE SHALL BE APPLIED AT A RATE OF 1 TON/1,000 SQUARE FEET.

   II. COMPOSTED SLUDGE SHALL BE AMENDED WITH A POTASSIUM FERTILIZER APPLIED AT THE RATE OF 4 LB/1,000 SQUARE FEET, AND 1/3 THE NORMAL LIME APPLICATION RATE.

REFERENCES: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SODDING. MD- V A, PUB. #1, COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTES. REVISED 1973.

STANDARDS AND SPECIFICATIONS FOR VEHICLE WASH RACK:

DEFINITION: AN ON-SITE AREA WHERE TIRES AND UNDER CARRIAGE OF A VEHICLE CAN BE WASHED.

PURPOSE: THE "VEHICLE WASH AREA" IS PROVIDED TO MINIMIZE THE QUANTITY OF SEDIMENT DEPOSITED ON PUBLIC SPACE BY VEHICLES LEAVING THE SITE.

CONDITIONS WHERE PRACTICE APPLIES: THE "VEHICLE WASH AREA" SHALL BE PROVIDED ON-SITE AND DRAINED ON-SITE. THE AREA MAY BE CONSTRUCTED OF RUBBLE, OR OTHER HARD POROUS MATERIAL. A WORKING WATER HOSE MUST BE LOCATED IN THE AREA DURING ALL CONSTRUCTION ACTIVITY.

1.

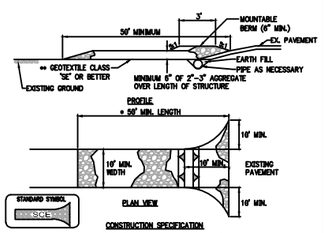
FABRIC PROPERTIES	MINIMUM ACCEPTABLE VALUE	TEST METHOD
GRAB TENSILE STRENGTH (LBS)	90	ASTM D1682
ELONGATION AT FAILURE (%)	50	ASTM D1682
MULLEN BURST STRENGTH (PSI)	190	ASTM D3786
PUNCTURE STRENGTH (LBS)	50	ASTM D751
SLURRY FLOW RATE (GAL/MIN/SF)	0.3	MODIFIED VIRGINIA DOT VTM-51
EQUIVALENT OPENING SIZE	40-80	US ST SIEVE CW-02215
ULTRAVIOLET RADIATION STABILITY (%)	90	ASTM G-26

2. FENCE POST (FOR FABRICATION UNITS): THE LENGTH SHALL BE A MINIMUM OF 36 INCHES LONG. WOOD POSTS WILL BE OF SOUND QUALITY HARDWOOD WITH A MINIMUM CROSS SECTIONAL AREA OF 3.0 SQUARE INCHES. STEEL POSTS WILL BE STANDARD T AND U SECTION WEIGHING NOT LESS THAN 1.00 POUND PER LINEAR FOOT.

3. WIRE FENCE (FOR FABRICATED UNITS): WIRE FENCING SHALL BE A MINIMUM OF 14 GAUGE 6" MESH OPENING, OR AS APPROVED.

4. PREFABRICATED UNITS: ENVIRONFENCE OR APPROVED EQUIVALENT MAY BE USED IN LIEU OF THE ABOVE METHOD PROVIDING THE UNIT IS INSTALLED PER THE MANUFACTURER'S INSTRUCTIONS.

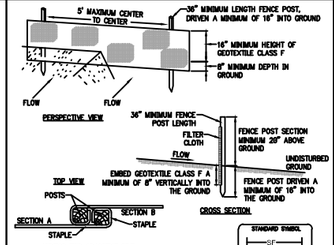
DETAIL 1 - STABILIZED CONSTRUCTION ENTRANCE



CONSTRUCTION SPECIFICATION

1. LENGTH – MINIMUM OF 50' (•30' FOR SINGLE RESIDENCE LOT).
2. WIDTH – 10' MINIMUM, SHOULD BE FLARED AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
3. GEOTEXTILE FABRIC (FILTER CLOTH) SHALL BE PLACED OVER THE EXISTING GROUND PRIOR TO PLACING STONE. •• THE FILM APPROVAL AUTHORITY MAY NOT REQUIRE SINGLE FAMILY RESIDENCES TO USE GEOTEXTILE.
4. STONE – CRUSHED AGGREGATE (2" TO 3") OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT SHALL BE PLACED AT LEAST 6" DEEP OVER THE LENGTH AND WIDTH OF THE ENTRANCE.
5. SURFACE WATER – ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED THROUGH THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PIPE INSTALLED THROUGH THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROTECTED WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 6" STONE OVER THE PIPE. WHEN THE SIZE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY A PIPE WILL NOT BE NECESSARY, PIPE SHOULD BE SIZED ACCORDING TO THE AMOUNT OF RUNOFF TO CONVEYED. A 6" MINIMUM WILL BE REQUIRED. THE MOUNTABLE BERM IS REQUIRED ON ALL SCEs NOT LOCATED AT A HIGH SPOT.
6. LOCATION – A STABILIZED CONSTRUCTION ENTRANCE SHALL BE LOCATED AT EVERY POINT WHERE CONSTRUCTION TRAFFIC ENTERS OR LEAVES A CONSTRUCTION SITE. VEHICLES LEAVING THE SITE MUST TRAVEL OVER THE ENTIRE LENGTH OF THE STABILIZED CONSTRUCTION ENTRANCE.

DETAIL 4 - SILT FENCE



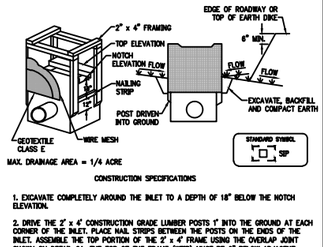
CONSTRUCTION SPECIFICATIONS

1. FENCE POSTS SHALL BE A MINIMUM OF 28" LONG DRIVEN 16" MINIMUM INTO THE GROUND. WOOD POSTS SHALL BE 1 1/2" x 1 1/2" MINIMUM DIMENSIONS (MIN.) CUT, OR 1 3/4" DIAMETER (MIN.) ROUND AND SHALL BE OF SOUND QUALITY HARDWOOD. STEEL POSTS SHALL BE STANDARD T OR U SECTION WEIGHTING NOT LESS THAN 1.00 POUND PER LINEAR FOOT.
2. GEOTEXTILE CLASS F SHALL BE FASTENED SECURELY TO EACH FENCE POST WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION AND SHALL MEET THE FOLLOWING REQUIREMENTS FOR GEOTEXTILE CLASS F.

TENSILE STRENGTH	50 LBS/IN (MIN.)	TEST: ASTM D-4595
TENSILE MODULUS	20 LBS/IN (MIN.)	TEST: ASTM D-4595
FLOW RATE	0.3 GAL/FT2/MINUTE (MAX.)	TEST: ASTM D-4491
FILTERING EFFICIENCY	75% (MIN.)	TEST: ASTM D-4491

3. WHERE ENDS OF GEOTEXTILE FABRIC COME TOGETHER, THEY SHALL BE OVERLAPPED, FOLDED AND STAPLED TO PREVENT SEDIMENT BYPASS.
4. SILT FENCE SHALL BE INSPECTED AFTER EACH RAINFALL EVENT AND MAINTAINED WHEN BULGES OCCUR OR WHEN SEDIMENT ACCUMULATION REACHED 50% OF THE FABRIC HEIGHT.

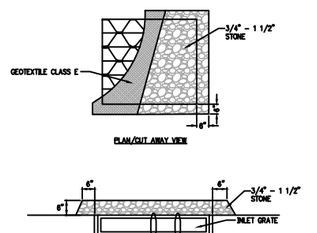
DETAIL 6A - STANDARD INLET PROTECTION



CONSTRUCTION SPECIFICATIONS

1. EXCAVATE COMPLETELY AROUND THE INLET TO A DEPTH OF 18" BELOW THE NOTCH ELEVATION.
2. DRIVE THE 2" x 4" CONSTRUCTION GRADE LUMBER POSTS 1' INTO THE GROUND AT EACH CORNER OF THE INLET. PLACE NAIL STRIPS BETWEEN THE POSTS ON THE ENDS OF THE INLET. ASSEMBLE THE TOP PORTION OF THE 2" x 4" FRAME USING THE OVERLAP JOINT SHOWN ON DETAIL 6A. THE TOP OF THE FRAME (WEIR) MUST BE 6" BELOW ADJACENT ROADWAYS WHERE FLOODING AND SAFETY ISSUES MAY ARISE.
3. STRETCH THE 1/2" x 1/2" WIRE MESH TIGHTLY AROUND THE FRAME AND FASTEN SECURELY. THE ENDS MUST MEET AND OVERLAP AT A POST.
4. STRETCH THE GEOTEXTILE CLASS E TIGHTLY OVER THE WIRE MESH WITH THE GEOTEXTILE EXTENDING FROM THE TOP OF THE FRAME TO 18" BELOW THE INLET NOTCH ELEVATION. FASTEN THE GEOTEXTILE FIRMLY TO THE FRAME. THE ENDS OF THE GEOTEXTILE MUST MEET AT A POST, BE OVERLAPPED AND FOLDED THAN FASTENEND DOWN.
5. BACKFILL AROUND THE INLET IN COMPACTING 6" LAYERS UNTIL THE LAYER OF EARTH IS LEVEL WITH THE NOTCH ELEVATION ON THE ENDS AND TOP ELEVATION ON THE SIDES.
6. IF THE INLET IS NOT IN A SUMP, CONSTRUCT A COMPACTED EARTH DIKE ACROSS THE DITCH LINE DIRECTLY BELOW IT. THE TOP OF THE EARTH DIKE SHOULD BE AT LEAST 6" HIGHER THAN THE TOP OF THE FRAME.
7. THE STRUCTURE MUST BE INSPECTED PERIODICALLY AND AFTER EACH RAIN AND THE GEOTEXTILE REPLACED WHEN IT BECOMES CLOGGED.

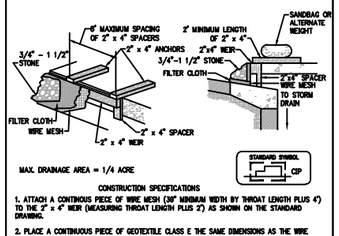
DETAIL 6B - AT GRADE INLET PROTECTION



CONSTRUCTION SPECIFICATIONS

1. LET GRATE AND WRAP WITH GEOTEXTILE CLASS E TO COMPLETELY COVER ALL OPENINGS, THEN SET GRATE BACK IN PLACE.
2. PLACE 3/4" TO 1 1/2" STONE, 4"-6" THICK ON THE GRATE TO SECURE THE FABRIC AND PROVIDE ADDITIONAL FILTRATION.

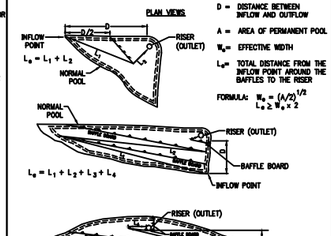
DETAIL 6C - CURB INLET PROTECTION (COG OR COS INLETS)



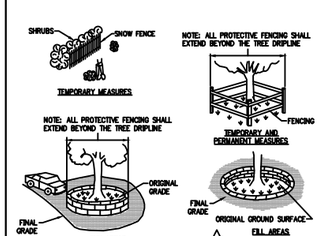
CONSTRUCTION SPECIFICATIONS

1. ATTACH A CONTINUOUS PIECE OF WIRE MESH (30" MINIMUM WIDTH BY THROAT LENGTH PLUS 4') TO THE 2" x 4" WEIR (MEASURING THROAT LENGTH PLUS 2') AS SHOWN ON THE STANDARD DRAWING.
2. PLACE A CONTINUOUS PIECE OF GEOTEXTILE CLASS E THE SAME DIMENSIONS AS THE WIRE MESH OVER THE WIRE MESH AND SECURELY ATTACH IT TO THE 2" x 4" WEIR.
3. SECURELY NAIL THE 2" x 4" WEIR TO A 9" LONG VERTICAL SPACER TO BE LOCATE BETWEEN THE WEIR AND THE INLET FACE (MAX. 4" APART).
4. PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND NAIL (MINIMUM 2' LENGTHS OF 2" x 4" TO THE TOP OF THE WEIR AT SPACER LOCATIONS). THESE 2" x 4" ANCHORS SHALL EXTEND ACROSS THE INLET TOP AND BE HELD IN PLACE BY SANDBAGS OR ALTERNATE WEIGHT.
5. THE ASSEMBLY SHALL BE PLACE SO THAT THE END SPACERS ARE A MINIMUM 1' BEYOND BOTH ENDS OF THE THROAT OPENING.
6. FORM THE 1/2" x 1/2" WIRE MESH AND THE GEOTEXTILE FABRIC TO THE CONCRETE GUTTER AND AGAINST THE FACE OF THE CURB ON BOTH SIDES OF THE INLET. PLACE GRAVEL 3/4" x 1 1/2" STONE OVER THE WIRE MESH AND GEOTEXTILE IN SUCH A MANNER TO PREVENT WATER FROM ENTERING THE INLET UNDER OR AROUND THE GEOTEXTILE.
7. THIS TYPE OF PROTECTION MUST BE INSPECTED FREQUENTLY AND THE FILTER CLOTH AND STONE REPLACED WHEN CLOGGED WITH SEDIMENT.
8. ASSURE THAT THE STORM FLOW DOES NOT BYPASS THE INLET BY INSTALLING A TEMPORARY EARTH OR ASPHALT DIKE TO DIRECT THE FLOW TO THE INLET.

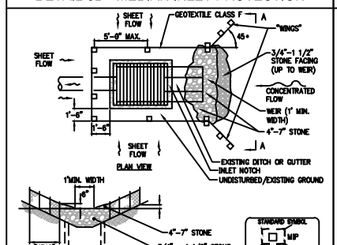
DETAIL 22 - SEDIMENT BASIN/TRAP BAFFLES



DETAIL 74 - TREE PROTECTION



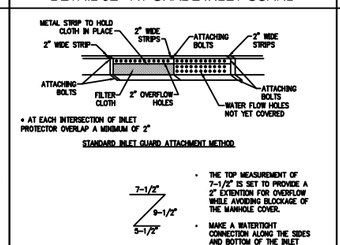
DETAIL 6D - MEDIAN INLET PROTECTION



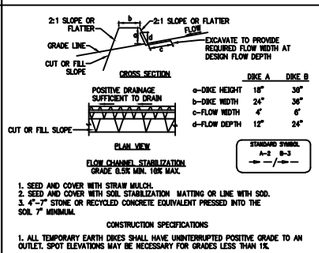
CONSTRUCTION SPECIFICATIONS

1. FENCE POSTS SHALL BE 36" (MIN.) LONG. DRIVEN 16" INTO THE GROUND AND SPACED 5' (MAX.) APART. WOOD POSTS SHALL BE 1 1/2" x 1 1/2" (MIN.) SQUARE CUT OR 1 3/4" (MIN.) DIAMETER ROUND AND SHALL BE OF SOUND QUALITY HARDWOOD. STEEL POSTS SHALL BE STANDARD T OR U SECTION WEIGHING NOT LESS THAN 1.0 #/LINEAR FOOT.
2. GEOTEXTILE CLASS F SHALL BE FASTENED SECURELY TO EACH POST WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION.
3. WHERE ENDS OF GEOTEXTILE FABRIC COME TOGETHER THEY SHALL BE OVERLAPPED, FOLDED AND STAPLED.
4. MEDIAN INLET PROTECTION SHALL BE INSPECTED AFTER EACH RAIN AND MAINTAINED WHEN BULGES OCCUR IN THE FABRIC OR WHEN THE STONE GETS CLOGGED.
5. STONE USED TO CONSTRUCT THE WEIR SHALL BE 4"-7" WITH A 1' THICK LAYER OF 3/4"-1 1/2" STONE ON THE UPSTREAM FACE.

DETAIL 6E - AT GRADE INLET GUARD



DETAIL 9 - EARTH DIKE



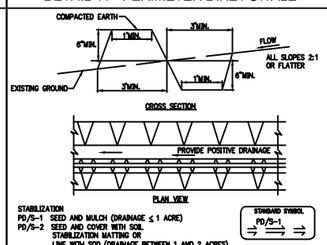
FLOW CHANNEL STABILIZATION GRADE 0.5% MIN. 10% MAX.

1. SEED AND COVER WITH STRAW MULCH.
2. SEED AND COVER WITH SOIL STABILIZATION MATTING OR LINE WITH SOD.
3. 4"-7" STONE OR RECYCLED CONCRETE EQUIVALENT PRESSED INTO THE SOIL 7" MINIMUM.

CONSTRUCTION SPECIFICATIONS

1. ALL TEMPORARY EARTH DIKES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET. SPOT ELEVATIONS MAY BE NECESSARY FOR GRADES LESS THAN 1%.
2. RUNOFF DIVERTED FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
3. RUNOFF DIVERTED FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED, STABILIZED AREA AT A NON-EROSIVE VELOCITY.
4. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE DIKE.
5. THE DIKE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
6. FILL SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT.
7. ALL EARTH REMOVED AND NOT NEEDED FOR CONSTRUCTION SHALL BE PLACED SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE DIKE.
8. INSPECTION AND MAINTENANCE MUST BE PROVIDED PERIODICALLY AND AFTER EACH RAIN EVENT.

DETAIL 11 - PERIMETER DIKE / SWALE



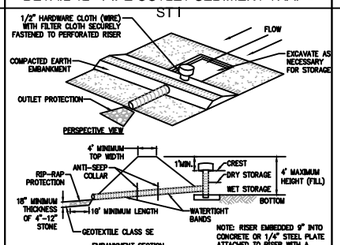
STABILIZATION
PD/S-1 SEED AND MULCH (DRAINAGE ≤ 1 ACRE)
PD/S-2 SEED AND COVER WITH SOIL STABILIZATION MATTING OR LINE WITH SOD (DRAINAGE BETWEEN 1 AND 2 ACRES)

CONSTRUCTION SPECIFICATIONS

1. ALL PERIMETER DIKE/SWALES SHALL HAVE AN UNINTERRUPTED POSITIVE GRADE TO AN OUTLET. SPOT ELEVATIONS MAY BE NECESSARY FOR GRADES LESS THAN 1%.
2. RUNOFF DIVERTED FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
3. RUNOFF DIVERTED FROM AN UNDISTURBED AREA SHALL OUTLET INTO AN UNDISTURBED STABILIZED AREA AT A NON-EROSIVE VELOCITY.
4. THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS-SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED IN THE STANDARD.
5. FILL SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT.
6. STABILIZATION WITH SEED AND MULCH OR AS SPECIFIED OF THE AREA DISTURBED BY THE DIKE AND SWALE SHALL BE COMPLETED WITHIN 7 DAYS UPON REMOVAL.
7. INSPECTION AND REQUIRED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN EVENT.

NOTE: THE MAXIMUM DRAINAGE FOR THIS PRACTICE IS 2 ACRES.

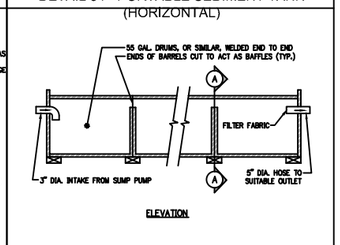
DETAIL 12 - PIPE OUTLET SEDIMENT TRAP - STT



CONSTRUCTION SPECIFICATIONS

1. THE AREA UNDER THE EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED.
2. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS OR OTHER WOODY VEGETATION AS WELL AS OVERSIZED STONES, ROCKS, ORGANIC MATERIAL, OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
3. THE TOTAL VOLUME AS MEASURED FROM THE BOTTOM TO RISER CREST ELEVATION SHALL BE 3600 CUBIC FEET PER ACRE OF DRAINAGE AREA (SEE TABLE 11). THE TOP OF EMBANKMENT MUST BE ≥ 1' ABOVE THE RISER CREST ELEVATION.
4. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF OF THE WET STORAGE DEPTH OF THE TRAP (600 CF/AC). THE SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
5. THE STRUCTURE SHALL BE INSPECTED PERIODICALLY AND AFTER EACH RAIN AND REPAIRS.

DETAIL 34 - PORTABLE SEDIMENT TANK (HORIZONTAL)

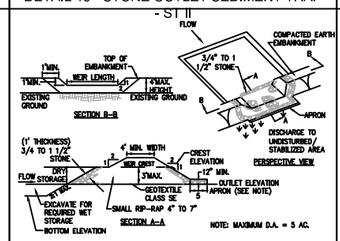


SOURCE: USDA – SCS

PIPE OUTLET SEDIMENT TRAP - ST I

6. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION ARE ABATED. ONCE CONSTRUCTED, THE TOP AND OUTSIDE FACE OF THE EMBANKMENT SHALL BE STABILIZED WITH SEED AND MULCH. POINTS OF CONCENTRATED INFLOW SHALL BE PROTECTED IN ACCORDANCE WITH GRADE STABILIZATION STRUCTURE CRITERIA. THE REMAINDER OF THE INTERIOR SLOPES SHOULD BE STABILIZED (ONE TIME) WITH SEED AND MULCH UPON TRAP COMPLETION AND MONITORED AND MAINTAINED EROSION FREE USING THE LIFE OF THE TRAP.
7. THE STRUCTURE SHALL BE REMOVED AND AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
8. ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER.
9. ALL PIPE CONNECTIONS SHALL BE WATERTIGHT.
10. ABOVE THE WET STORAGE ELEVATION, THE RISER SHALL BE PERFORATED WITH 1/2" MDE BY 6" LONG SLITS OR 1" DIAMETER HOLES SPACED 6" VERTICALLY AND HORIZONTALLY. NO PERFORATIONS WILL BE ALLOWED WITHIN 6" OF THE HORIZONTAL BARREL.
11. THE RISER SHALL BE WRAPPED WITH 1/2" HARDWARE CLOTH (WIRE) THEN WRAPPED WITH GEOTEXTILE CLASS E. THE FILTER CLOTH SHALL EXTEND 4" ABOVE THE HIGHEST SLIT AND 6" BELOW THE LOWEST SLIT. WHERE ENDS OF FILTER CLOTH COME TOGETHER, THEY SHALL BE OVERLAPPED, FOLDED AND FASTENED TO PREVENT BYPASS. FILTER CLOTH SHALL BE REPLACED AS NECESSARY TO PREVENT CLOGGING.
12. STRAPS OR CONNECTING BANDS SHALL BE USED TO HOLD THE FILTER CLOTH AND WIRE FABRIC IN PLACE. THEY SHALL BE PLACED AT THE TOP AND BOTTOM OF THE CLOTH.
13. FILL MATERIAL AROUND THE PIPE SPILLWAY SHALL BE HAND COMPACTED IN 4" LAYERS. A MINIMUM OF 2' OF HAND-COMPACTED BACKFILL SHALL BE PLACED OVER THE PIPE SPILLWAY BEFORE CROSSING IT WITH CONSTRUCTION EQUIPMENT.
14. THE RISER SHALL BE ANCHORED WITH EITHER A CONCRETE BASE OR STEEL PLATE BASE TO PREVENT FLOTATION. CONCRETE BASES SHALL BE AT LEAST TWICE THE RISER DIAMETER, 1/4" MINIMUM THICKNESS AND ATTACHED TO THE BOTTOM OF THE RISER BY A CONTINUOUS WELD TO FORM A WATERTIGHT CONNECTION. THEN PLACE 2' OF STONE, GRAVEL OR TAMPED EARTH ON THE PLATE.
15. ANTI SEEP COLLARS SHALL BE CONSTRUCTED IN ACCORDANCE WITH PLANS (REF. TABLE 18 AND DETAILS 17 AND 18).

DETAIL 13 - STONE OUTLET SEDIMENT TRAP - ST II

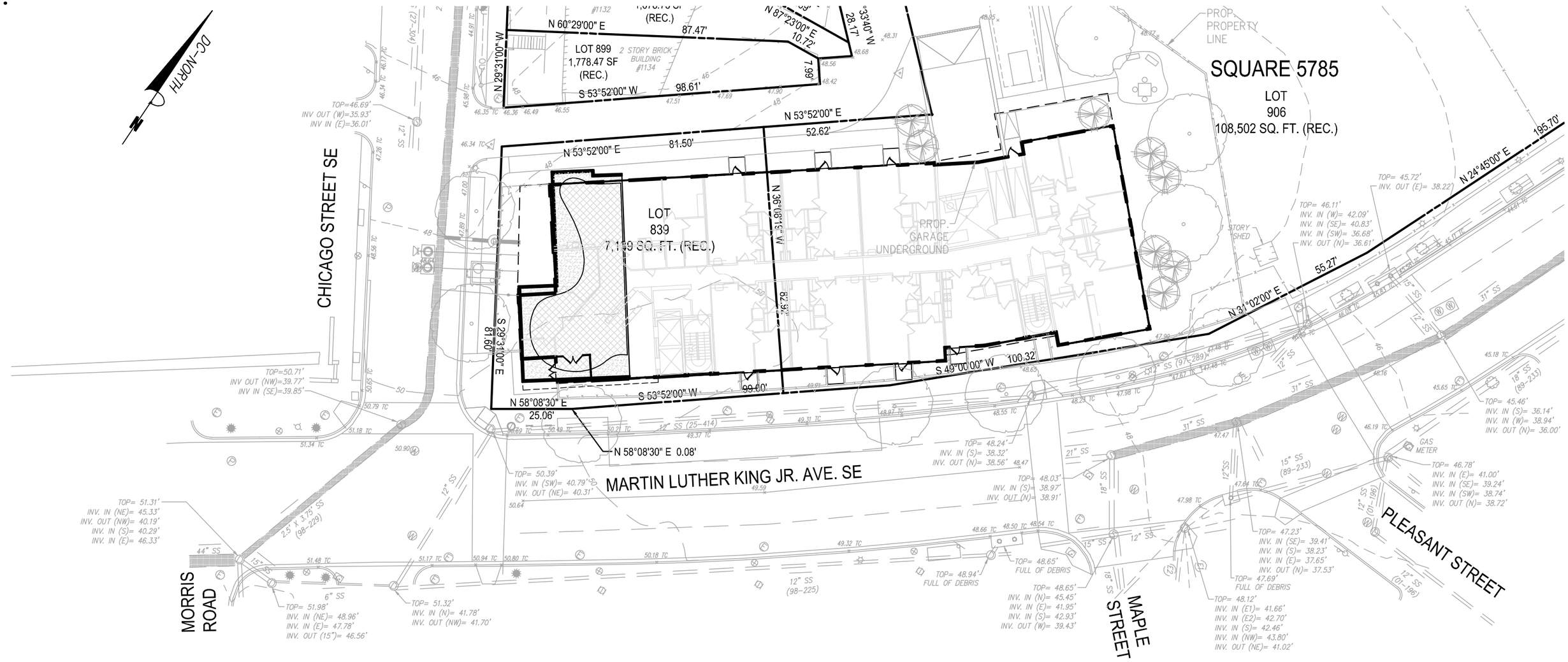


CONSTRUCTION SPECIFICATIONS

1. AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED.
2. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS AND OTHER WOODY VEGETATION AS WELL AS OVER-SIZED STONES, ROCKS, ORGANIC MATERIAL OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
3. ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER.
4. THE STONE USED IN THE OUTLET SHALL BE SMALL RIP-RAP 4" TO 7" IN SIZE WITH A 1' THICK LAYER OF 3/4" TO 1 1/2" WASHED AGGREGATE PLACED ON THE UPSTREAM FACE OF THE OUTLET. STONE FACING SHALL BE AS NECESSARY TO PREVENT CLOGGING. GEOTEXTILE CLASS 'E' MAY BE SUBSTITUTED FOR THE STONE FACING BY PLACING IT ON THE INSIDE FACE OF THE STONE OUTLET.
5. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF OF THE WET STORAGE DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.

STONE OUTLET SEDIMENT TRAP - ST II

6. THE STRUCTURE SHALL BE INSPECTED PERIODICALLY AND AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
7. CONSTRUCTION OF TRAPS SHALL BE CARRIED OUT IN SUCH A MANNER THAT SEDIMENT POLLUTION IS ABATED. ONCE CONSTRUCTED, THE TOP AND OUTSIDE FACE OF THE EMBANKMENT SHALL BE STABILIZED WITH



SWRv and WQTv Summary

	Site Development	Public Right of Way
Stormwater Retention Volume, SWRv (cubic feet)	**2,278**	**0**
Stormwater Retention Volume, SWRv (gallons)	**17,037**	**0**
Water Quality Treatment Volume, WQTv (cubic feet)	**NA**	**NA**
Water Quality Treatment Volume, WQTv (gallons)	**NA**	**NA**

SWM NOTE:
151 CUBIC FEET OF SWRv CAN BE PROVIDED BY THE PROPOSED 503 SQ FT OF 1' ROOF PLANTING. A BIORETENTION AREA IS PLANNED ADJACENT TO THE BUILDING TO ADDRESS RUNOFF THAT IS EXPECTED TO HAVE CAPACITY FOR 1,500 CBIT FEET OF STORMWATER. THIS LEAVES ABOUT 627 CUBIC FEET OF SWRv TO BE ACCOUNTED FOR IN FINAL ENGINEERING DESIGN THROUGH RAINWATER HARVESTING OR OFF-SITE OPTIONS..

STORMWATER MANAGEMENT NARRATIVE:

CONCEPTUAL STORMWATER MANAGEMENT PROVIDED FOR PUD REVIEW ONL. DURING THE FURTHER DEVELOPMENT OF THE PUD AND FORTHCOMING DEVELOPMENT OF THE FINAL SITE PLAN, STORMWATER MANAGEMENT DESIGN WILL BE ADVANCED TO REFLECT ADDITIONAL DETAILS. THE DESIGN CRITERIA FOR THE PROJECT INCLUDE:

- STORMWATER MANAGEMENT DESIGN WILL MEET OR EXCEED THE CURRENT STANDARDS OF THE DISTRICT OF COLUMBIA IN PLACE AT THE TIME OF PUD APPROVAL.
- THE STORMWATER RUNOFF WILL BE TREATED USING LOW IMPACT DEVELOPMENT BMP MEASURES
- THE STORMWATER RUNOFF WILL BE TREATED USING A COMBINATION OF ON-SITE AND OFF-SITE STORMWATER MANAGEMENT PRACTICES SUCH AS GREEN ROOF, BIORETENTION AREAS, AND CISTERNS FOR WATER REUSE.

NOTE: ONLY APPROXIMATE AREAS WHERE STORMWATER MANAGEMENT PRACTICES WILL BE LOCATED HAVE BEEN SHOWN ON THE PLAN, THE ACTUAL DESIGN OF THE FACILITIES WILL BE PROVIDED DURING FINAL SITE PLAN.

0 15 30
GRAPHIC SCALE
1" = 30'

FOUR POINTS

2255 MLK JR. AVE, SE

Washington, D.C.

47. STORMWATER MANAGEMENT PLAN

January, 2015

GRIMM AND PARKER

ORIGINAL

CURRENT

FOUR POINTS

2255 MLK JR. AVE, SE

Washington, D.C.

48. ELEVATION COMPARISON

January, 2015

G+P GRIMM AND PARKER

ORIGINAL

DECEMBER 18, 2014

CURRENT

FOUR POINTS

2255 MLK JR. AVE, SE

Washington, D.C.

49. ELEVATION COMPARISON

January, 2015

G+P GRIMM AND PARKER

ORIGINAL

DECEMBER 18, 2014

CURRENT

FOUR POINTS

2255 MLK JR. AVE, SE

Washington, D.C.

50. ELEVATION COMPARISON

January, 2015

G+P GRIMM AND PARKER