MIAMI-DADE COUNTY
miamidade.gov

Water and Sewer
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MINIMUM GUIDELINES (SEE DISCLAIMER ON SHEET NO. 3)

SEE LATEST - WASD: DONATION STANDARD SPECIFICATIONS AND DETAILS FOR DESIGN AND CONSTRUCTION

General Information When Preparing Design Plans

		YES	NO	N/A
1	Design Plan matches POC Memo instructions			
2	Agreement in place, active, and POC MEMO issued prior to uploading plans to e-Builder			
3	Unity of title required (See RER-DERM Roundtable Meeting Minute for UT requirements)			
4	Any special conditions required such as phasing the project (Water Looped System REQ'D)			
5	Project within wellfield cone of influence to determine type of sanitary sewer material as per UC-370			
6	Site within salt water intrusion area (Add special Note - Zinc & Polyethylene) (WASD Standard A 9.0)			
7	Project within close proximity of Metrorail (Pre-application and Dry run approval REQ'D)			
8	Project within railroad crossing (Special Conditions/Casing & Dry Run Approval Required)			
9	Other utilities shown on plan (Drainage, FPL, Gas, Communication, Fiber Optics, etc.)			
10	Sewer & Water Mains, Storm Pipes, and other utility pipes shall cross perpendicular whenever possible			
11	Provided phasing plan with a G.V. at each phase line			
12	Verified all distances and elevations shown on plan and profile view			
13	Show restoration notes for all improvements disturbed during construction			
14	Latest site background and driveway connections shown on civil plans			
15	Show exfiltration trench and/or drainage pipes connected to the drainage structure			

General Information When Preparing Design Plans

		YES	NO	N/A
16	Provided site boundary and/or R/W topo survey not older than 2 years			
17	Landscape plans available for reference			
18	Other Utility Plan available for reference and for coordination with WASD assets			
19	If plans expired, upload a copy of original permitted plans with all regulatory stamps			
20	Site within wetland (Add disclosure note to plans related to endangered species)			
21	Any environmental concerns (Upload Env. Assesment report REQ'D)			
22	No reference to standard details on profile sheet			
23	No drainage, building overhangs, foundation structure, light poles, trees, etc. allowed within WASD easement			
24	Exist sidewalk, driveway, width and edge of pavement labeled			
25	Baseline & Stations with offset shown or descriptor use to identify each fitting and distances			
26	Provided min. face to face separation distance labeled between utilities per GS 1.5 and RER-DERM/FDOH			
27	Provided 25 ft. vertical clearance to overhead structures and/or utilities			
28	2.5 degree maximum DIP deflection. No deflection for PVC pipe allowed, add note where applicable			
29	Label overpass and locate supporting columns and foundations			
30	For large development include Fire Hydrant location and coverage area with radius			

Plans Format

		YES	NO	N/A
31	Maximum sheet size 24" x 36"			
32	Project title on all sheets must be the same as the agreement name			
33	Legal description on the covert sheet matches agreement and survey legal description			
34	Project address or provided vicinity location description on the cover sheet			
35	Folio number shown on the cover sheet			
36	Provided legend and abbreviation list on the cover sheet			
37	Labeled Section, Township and Range on the cover sheet			
38	Provided drawing index for plans with more than 3 sheets on the cover sheet			
39	Plans **digitally** signed and sealed with correct statement			
40	Plans **electronically** signed and sealed with correct SHA-1 statement			
41	Size of seal diameter minimum 1-7/8 inches per F.A.C. Rule 61G15 Chapter 23			
42	All sheets have the same date on the seal statement			
43	Engineer and company Information included			
44	Space for approval stamp provided			
45	North arrow shown and with correct direction			
46	Agreement ID number shown on all sheets			
47	Included latest Sunshine 811 graphic on plans			
48	Location sketch scale 1"=300' and matches agreement location exhibit			
49	Plans scales 1"=10' to 1"=40' and drawn to scale			
50	Profile vertical scale 1"=1' to 1"=4' plans scale (1/10 of plan scale, per UC-005)			
51	Proposed and existing buildings shown and labeled accordingly			

Plans Format

		YES	NO	N/A
52	Label WASD Standards and Details on plan view			
53	Roads adjacent labeled, including FDOT roadway designation (if applicable)			
54	Mains with diameter larger than 20" show with double lines			
55	No Aerial Satelite images allowed from Google Maps (or other GPS System) can be used as the location sketch.			
56	Project PDF file with AutoCAD Layer off/Drawing Unlocked			
57	Latest version of GS 0.5 sheet 1 and 2 included on the plans			
58	Latest version of RER (4/30/2018) - DERM water-sewer general notes included on the plans			
59	Latest version of FDOH - Florida Department of Health notes included on the plans			
60	Existing WASD, FPL ,Utility and Ingress/Egress easements shown and labeled (Provide Survey)			
61	Provided O.R.B. / P.G. for existing easements			
62	Used the correct abbreviations per A 10.0			
63	Shown property lines, lot lines and/or leased boundary areas for outparcels			
64	ML, BL, R/W and CL labeled at two (2) points of the road fronting the project and all subsequent internal roads within the project as per UC-005			
65	Change in BL alignment shown and stations labeled			
66	Used standard linetypes for existing improvements per GS 3.0 (Standard Symbols)			
67	"Not Part of MDWASD's Notes nor Approval" note added where applicable			
68	NGVD noted or (other datum w/ conversion factor to NGVD)			
69	Plans legible & readable for review. Example - No overlapting of text and lines. Also, PDF file size must be reduced and operable for BlueBeam review.			
70	Larger Development Must Provide An Overall "Utility Site Plan" Including A Water & Sewer Utlity Tabulation Table to assist with invoicing project correctly			

Water		YES	NO	N/A
71	Existing Water Main located and labeled with the correct as-built number, diameter size, and material.			
72	Existing F.H. and related G.V. located and labeled			
73	Subject site with nearest fittings and closing valves shown			
74	Meters, F.H. and all other MDWASD utility accessories placed outside the proposed or existing WASD Water and Sewer easements			
75	Easement dimension labeled per WS 2.21			
76	Water Main located in center on easement			
77	Water Main tie to CL at two points			
78	Horizontal Distance from road CL or BL when changes on pipe alignment			
79	Tapping sleeve connection referenced to the nearest C/L and/or other cross road C/L			
80	Tapping sleeve and valve shown with the correct size and G.V. direction			
81	When two (or more) Fire Services are proposed, the Water Main must be looped			
82	Proposed aerial crossing, profile, structural dwgs and calculations included			
83	Proposed water/fire services for medical facilities per WS 2.40			
84	Vertical clearance face to face to other utilities/struct verified per GS 1.5/RER/FDOH			
85	Horizontal clear. face to face to other utilities/struct verified per GS 1.5/RER/FDOH			
86	Proposed Water Main cover >=4 ft.			
87	Protective slab provided per GS 1.2 for ground cover less than 2.5 ft.			
88	Proposed Water Main material labeled			
89	Proposed Water Main size correct			
90	Proposed Water Main extension total length labeled			
91	Proposed water valves and size identified			
92	Location, max separation and type of valves verified as per UC-005			
93	When a Cut & Plug is required, then the design plan must include a statement to be done "by Utility Contractor…"			
94	Prop. 16" or larger diameter Water Mains must use butterfly valves			
95	Used separate water meter for commercial and residential mixed use development			

Water		YES	NO	N/A
96	Water Main must be located per Public Work Manual Per G 2.1			
97	Stub-outs with gate valve and FVO shown per WS 1.61			
98	Resilient-seat gate valves provided every 660 ft. on Water Mains			
99	Dead end restrained per GS 2.0			
100	Labeled water line service size and material			
101	Labeled water meter/backflow device size and meter box drawn to scale			
102	Length of water service and fire hydrant less than 50' from main to meter. Refer to UC-005			
103	Water meter outside driveway surface and approaches			
104	Prop. water meters and Fire Hydrants must be set outside of the proposed or existing WASD water and/or sewer easement with a continous or a separate easement as per UC-005			
105	Shown backflow preventer devices on private property, close to meter and accessible			
106	Backflow devices have 30" min horizontal clearance and service main matches backflow size			
107	Exist backflow devices are req'd to be installed on subject and commercial properties			
108	Fire line with max. distance w/o a G.V. is 25 ft. Otherwise, add a G.V. 2.5 ft from R/W line			
109	Fire line max. length is 50 ft. Otherwise, a Water Main extension is REQ'D			
110	Fire Hydrant feed line less than 50' with no horizontal bends to change alignments			
111	F.H. clearances correct per NFDA 1 18 3.4.1, 18, 3.4.2 (7.5 ft. in front of and to the sides of F.H.)			
112	F.H. feeding line is 6" diameter and main is 8" min.			
113	Building taller than 75', or 8 stories, add a redundant Fire Line. EOR must verify with Fire Department			
114	Water Main profile provided when crossing other utilities			
115	Main elevation labeled every 100 ft. on profile			
116	Ground elevation labeled every 100 ft. on profile			
117	Locate and show corp. stop location on Water Main profile			
118	Per City of Miami Public Works latest policy, Water & Sewer Mains that were abandoned previously in Public R/W are to be removed. Coordinate with City of Miami PW Dept.			
119	Show A.R.V. at high points per WS 1.60 (for pipe offsets greater than or equal to 1.5 ft)			

Sewer		YES	NO	N/A
120	EOR must obtain the latest MDC RER-DERM Sewer System Review Criteria for design			
121	Existing sewer mains and laterals pertinent to the subject site shown			
122	Existing sewer mains and lateral material labeled			
123	Existing sewer mains as-built labeled and flow direction shown			
124	All existing lateral servicing the subject property shown with C.O. included			
125	Unused laterals shall have a note "To be Cut & Cap at Main by Utility Contractor"			
126	Project proposed flow > 10,000 GPD will required a Master Planning Analysis			
127	Easement line layout drawn with dimensions labeled per WS 2.21			
128	Sewer main located in center on easement			
129	Gravity within 10 day cone of influence shall be DIP and within wellfield DIP/C-900			
130	Horizontal distance from road CL or BL when changes on pipe alignment			
131	Sewer Main and MH tied to the nearest C/L or crossing			
132	Proposed sewer mains material labeled (PVC-SDR 26/PVC-900/DIP)			
133	Proposed sewer main size correct			
134	MH in grass areas have concrete collar per SS 21.0			

Sewer		YES	NO	N/A
135	Sewer mains location according to Public Works Manual			
136	Gravity main and lateral within Industrial zoned area are DIP			
137	Proposed aerial crossing, profile, structural dwgs and calculations			
138	Vertical clearance face to face to other utilities/structures verified per GS 1.5/RER-DERM/FDOH			
139	Horizontal clearance face to face to other utilities/structures verified per GS 1.5/RER-DERM/FDOH			
140	Proposed gravity designed to full depth as requested by POC memo			
141	Are any stubs out shown for future use? (No Stub-Outs for future Sewer Main extensions allowed)			
142	Quantity, location and type of force main valves correct			
143	Main or lateral crossing drainage ditch as per SS 5.0			
144	Connection per SS 3.2 if liner is present			
145	Sanitary sewer extension onsite have stationing and offsets from a baseline, or other method of locating the manholes such as N. & E. coordinate points, or a descriptor to identify each MH.			
146	Lateral size, material, slope per SS 1.0 and invert elevation at Property Line			
147	Length of sewer service lateral less than 65 ft. within public right-of-way			
148	Proposed lateral slope min. 1.04% (1/8 per ft.) as per SS 1.0			

Sewer		YES	NO	N/A
149	Proposed mains length between manholes labeled and 400 ft. max.			
150	Proposed mains slope correct (8" main with min. 0.40% slope per ft. & 10" main with min. 0.28% per ft.) between MH			

Sewer		YES	NO	N/A
159	Provided 12" min. separation for main and lateral crossing over and under WM			
160	Sanitary Sewer Lateral over WM with 12" shall be PVC C-900, SDR26 or better per GS 1.5 (2/2)			

151	Proposed cover >= 4 ft.			
152	Gravity depth > 14 ft., Ductile Iron main is required as per UC-005			
153	Protective slab provided per GS 1.2 for ground cover less than 2.5 ft.			
154	Proposed gravity sewer shows flow direction			
155	Prop. MH with number, rim elevation, invert elevations and main cardinal direction labeled on plans (SS 6.0 or SS 7.0 [Drop MH SS 9.0])			
156	Connection to existing MH by core drilling per SS 6.2			
157	Connection to existing/prop. MH with main cover less than 2.66 ft. is not allowed			
158	Public and private sanitary gravity system shown & described on design plans			

161	C/O on driveway to be installed in a No. 53 CI Valve Box and Lid per SS 13.0			
162	Duplex must have separate sewer laterals for each unit, or provide a unity of title			
163	Lateral with cover ≥ 14' are DIP			
164	Sewer profile provided for main and laterals crossing other utilities or longer than 25 ft. long			
165	All utilities on profile identified and coordinated with Plan View			
166	Force main elevation every 100 ft. on profile			
167	Showed top of Water and FM pipe Top of Pipe and finished grade elevation on profiles every 100 ft. as per UC-005			

Turbine Meter

		YES	NO	N/A
168	Standard Detail and cross-sections modified to match project specifics			
169	Removed guidelines notes, details, and dimensions not applicable to project specifics			
170	Enlarge Plan Detail Sketch 1" = 10' with site plan background included			

Turbine Meter

		YES	NO	N/A
171	Located on non-traffic areas and meter box drawn to scale			
172	Other design comments may apply by WASD Engineering Division			

Pump Station

		YES	NO	N/A
173	Plans comply with WASD Standard Table Part V (Appendices) for Pump Station (PS) Design			
174	Plans comply with the latest RER-DERM requirements for Pump Station Design			
175	Provided exhibit plan showing the overall PS Sewer Basin Gravity System			
176	Location sketch shows location and area to be served by the Pump Station (PS)			
177	Provided existing site elevations, proposed grading, and drainage plan for PS site			
178	Provided paved driveway 12 ft. x 25 ft. for ingress/egress access			
179	Maintained 5 ft. min. separation between gravity and force main			
180	Maintained 2 ft. min. distance from edge of pavement to any structure face			
181	Added setbacks dimensions between PS structures to property & easement lines			
182	Added Northing and Easting coordinates for center of proposed wet well			
183	Reconciled dimensions between mechanical and structural components			
184	Any demolition and/or relocation of existing PS components shown on plan			

Pump Station

		YES	NO	N/A
185	Pump station site minimum dimension (45 ft. x 65 ft.)			
186	Provided PS & Engineering Report			
187	Pump station site boundary defined as a Tract by T-Plat to be granted to MD-WASD			
188	Confirm PS site have direct access to adjacent public roadway or is adjacent to an ingress/egress and utility easement 20 ft wide per WASD latest Rules & Regulations"			
189	Flood Criteria & Tabulation shown on plans per FEMA requirements			
190	Provided 2% max. longitudinal and transverse slope for PS driveways and 4:1 transition green area slope to adjacent lots			
191	FPL transformer easement shown and described on plans			
192	Driveway and parking geometry included dimensions			
193	Added PS structure elevation & final grade based on flood criteria (Elec. Controls, slab, etc.)			
194	Structural Calculation Report provided with design plans			

Permit Applications

		YES	NO	N/A
195	Approved Public Works Dry-Run submitted to WASD before final plans approval			
196	FDEP Water Application			
197	FDEP Sewer Application			

Permit Applications

		YES	NO	N/A
198	Other Dry-Run approvals may apply based on existing infrastructure such as Railroads, Metrorail, Expressway and Canals Crossings, etc.			

DISCLAIMER: This guideline is intended to assist WASD staff and Developers in understanding the Donation Standard Specifications and Details for Design and Construction and the WASD Rules and Regulations under Implementing Order 10-8 when performing technical reviews and/or preparing a water and/or sewer design plan. This guideline is not a substitute for or an alternative to the latest WASD, RER-DERM, or other Regulatory and State Agency Standards and/or Rules or Policies that design plans must comply with.