

DSG BASIS OF DESIGN

WATER

TYPE OF MAIN (TRANSMISSION, FEEDER, DISTRIBUTION)
 DESIGN FLOW RATE: _____ FLOW VELOCITY: _____
 TYPICAL PRESSURE: _____ PRESSURE ZONE(S): _____
 WORKING PRESSURE: _____ SURGE PRESSURE: _____
 PIPE MATERIALS: _____
 (TYPE, LINING, COATING, JOINTS, PRESSURE CLASS MINIMUM SLOPE, BUOYANCY SAFETY FACTOR, MINIMUM COVER [ROADS, NON-ROADWAY], DEFLECTION LAG FACTOR, CONSTRUCTION TOLERANCE, STEEL DEFLECTION LIMIT) BEDDING COMPACTION: _____
 (ROADWAY, NON-ROADWAY, BEDDING CONSTANT, MODULUS OF SOIL REACTION (E')) APPURTENANCES: _____
 (ISOLATION VALVES, BLOW-OFFS/DRAINS, LINE VALVES, AIR-VACUUM AND AIR-RELEASE VALVES, VALVE LIMIT SETTINGS FOR CONTROL VALVES, DESIGN CRITERIA FOR ALL VALVES)
 MANWAYS: _____ DATUM: _____
 BASIS OF HVAC DESIGN: _____ BASIS OF PROCESS CONTROL: _____
 PROJECT SPECIFIC/SPECIAL INFORMATION:

WASTEWATER

BASIN AREA (SF): _____ BASE FLOW RATE: _____ CFS
 DESIGN STORM FOR CONVEYANCE: _____ MAXIMUM FLOW RATE: _____ CFS
 PEAKING FACTOR: _____
 PROJECT SPECIFIC/SPECIAL INFORMATION:

STORM DRAINAGE

BASIN AREA (SF): _____ DESIGN STORM FOR CONVEYANCE: _____
 BASE FLOW RATE (CFS): _____ FLOW RATE (CFS): _____
 PEAK FLOW (CFS): _____ PEAKING FACTORS: _____
 PROJECT SPECIFIC/SPECIAL INFORMATION:

STORM WATER CODE COMPLIANCE

TYPE OF PROJECT (ROADWAY, TRAIL/SIDEWALK, PARCEL) _____
 BASIN (LISTED CREEK, NON-LISTED CREEK, COMBINED, RECEIVING WETLAND) _____
 FLOW CONTROL STANDARD (PASTURE, FOREST, PEAK CONTROL): _____
 AREA MITIGATED BY FLOW CONTROL (SF): _____
 FLOW CONTROL VOLUME (CF): _____ TYPE OF FC: _____
 GSI BMP'S: _____
 AREA MITIGATED BY WQ TREATMENT (SF): _____
 BASIC WQ FACILITY: _____
 WQ VOLUME/FLOW RATE: _____
 ENHANCED WQ FACILITY: _____
 OIL CONTROL FACILITY: _____
 BIORETENTION TYPE (CELL, CASCADE) TOP AREA (SF): _____
 BOTTOM AREA (SF): _____ LANDSCAPED AREA (SF): _____
 MATERIAL TYPE (GRASS, PLANTED) _____
 PONDING DEPTH (INCHES) _____
 DEPTH OF BIORETENTION SOIL (INCHES) _____
 NATIVE SOIL INFILTRATION RATE (IN/HR) _____
 PLANTING DATE: _____
 PERMEABLE PAVEMENT TYPE (FACILITY, SURFACE) _____
 MATERIAL: _____
 NATIVE SOIL INFILTRATION RATE (IN/HR) _____
 PAVEMENT AREA (SF): _____
 PROJECT SPECIFIC/SPECIAL INFORMATION:

STRUCTURAL

SOILS: LATERAL LOADING PRESSURE _____ PSI;
 VERTICAL LOADING PRESSURE _____ PSI
 WIND LOADING: _____ SNOW LOADING: _____
 SEISMIC CRITERIA: _____ DESIGN CODE AND EDITION: _____
 BRIDGE OR VAULT LOADING IN TRAFFIC BEARING AREAS:
 H-20 _____; HS-20 _____; H-25 _____; HS-25 _____; OTHER _____
 ALLOWABLE FLOOR LOADING: _____;
 DOES THE LOADING VARY? WHERE/WHY? _____
 PROJECT SPECIFIC/SPECIAL INFORMATION:

ELECTRICAL

SYSTEM VOLTAGE: _____V, _____PHASE AVAILABLE FAULT CURRENT _____A
 TOTAL CONNECTED LOAD: _____ FUTURE CAPACITY REQUIRED: _____
 SPARE REQUIREMENT: _____ LARGEST MOTOR SIZE: _____ HP
 EQUIPMENT REDUNDANCY LOAD: COINCIDENT __ NON-COINCIDENT __
 HAZARDOUS (CLASSIFIED) LOCATION: CLASS __ DIVISION __ GROUP __
 EMERGENCY POWER REQUIREMENT: EMERGENCY POWER SYSTEM _____
 LEGALLY REQUIRED STANDBY POWER SYSTEM: _____
 OPTIONAL STANDBY POWER SYSTEM: _____
 PROJECT SPECIFIC/SPECIAL INFORMATION:

PUMP STATIONS

PUMP OPERATING CONDITIONS: _____ GPM; _____ FT
 NUMBER OF PUMPS (PROVIDE INFO FOR EACH PUMP): _____
 SIZE OF PUMP (RANGE OF GPM): _____ DESIGN FLOW RATE: _____
 PUMP INFO: IMPELLER TYPE _____; MAXIMUM SIZING _____
 SPEED _____; EFFICIENCY _____: CONFIGURATION _____
 TYPE OF STATION: (EJECTOR, SUBMERSIBLE, DRYWELL, WET WELL, BOOSTER, WELL, STORAGE FACILITY, OTHER)
 PUMP SET POINTS: _____
 PRIMARY POWER SOURCE: _____
 BACKUP POWER SOURCE: _____
 NPSHA: _____ FT. UTILITY POWER: _____ PHASE: _____ V.
 FORCE MAIN: SIZE _____; TYPE _____; LENGTH _____
 STATIC HEAD ELEVATION: _____ FT. PRESSURE ZONE: _____
 SERVICE AREA: (STORM ONLY, SANITARY ONLY, COMBINED) _____
 WET WELL STORAGE: _____ HR.
 MANUFACTURER'S PUMP CURVE, SYSTEM CURVE
 PROJECT SPECIFIC/SPECIAL INFORMATION:

CATHODIC PROTECTION

LENGTH OF PIPE PROTECTED: _____
 WHAT WAS PROBLEM? HERE/WHY? _____
 EXISTING COATING CONDITION/ASSUMPTIONS: _____
 ASSUMED CURRENT REQUIREMENTS: _____ AMPS REQUIRED _____
 LIFE EXPECTANCY: _____ ANODE CONSUMPTION RATE: _____
 POTENTIAL POFILE: _____
 PROJECT SPECIFIC/SPECIAL INFORMATION:

BASIS OF DESIGN

APPROVED FOR ADVERTISING LIZ ALZEER DEPARTMENT OF FINANCE & ADMINISTRATIVE SERVICES SEATTLE, WASHINGTON 20	INITIALS AND DATE DESIGNED SPU DATE 02/02/2020 APPROVED SPU DATE 02/02/2020	DATUM HORIZONTAL: NAD 83/91 VERTICAL: NAVD-88
BY: _____ CITY PURCHASING & CONTRACTING SERVICES DIRECTOR		



Seattle Public Utilities
 SCALE: NONE PW NO. 2020-XXX

PROJECT TITLE

JOB PC CXXXXXX CO CXXXXXX VPI # 790-037 C-001 SHEET 1 OF 1
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VAULT SERIAL #	DATE	MARK	NATURE	REVISIONS