

APPENDIX E
PLAN CHECKLIST

PLAN CHECKLIST

STANDARD ITEMS: WATER, SANITARY SEWER, STORM SEWER, STREET, LIGHTING AND SIGNALS

GENERAL STANDARDS

Applicant Use *		Staff Use Only *
[]	Vicinity Map (Scale sufficient to cover project limits on one sheet or 1"=200' - whichever is greater)	[]
[]	Legend (APWA Standard Symbols)	[]
[]	North Arrow (draw plan so North Arrow points to left or to top of sheet)	[]
[]	Datum-Bench Mark Designation, Elevation, and Location (on all sheets where elevations are referenced). Show existing and proposed topography contours for entire site and minimum 30' beyond site boundary. Contours should be shown at 2 foot intervals (5 foot intervals for slopes greater than 15%, 10 foot intervals for slopes greater than 40%). Elevation labeling shall be at 10-foot intervals maximum for 2-foot contour intervals, maximum 25 feet for 5-foot contour intervals.	[]
[]	Datum-Use of Chelan County approved datum (NGVD 29) for survey reference is required.	[]
[]	Minimum lettering size 1/10 th inch.	[]
[]	Scale Bar - scale shall be a standard engineering ratio	[]
[]	Title Block: <ul style="list-style-type: none"> o Title: (add explanatory note if project name has changed) o Design by: o Drawn By: o Date: o Checked by: o Signature Approval Block: o Sheet Number of Total Sheets: o Professional Engineer's seal, signature, address and phone number. 	[]
[]	Quarter Section, Township, Range (on all sheets)	[]
[]	Utility System Map (showing all proposed utilities on one drawing)	[]
[]	Revision Block	[]
[]	Division or phase lanes showing proposed limits of construction.	[]
[]	Property lines (with distances and bearings), right-of-way lines, sensitive areas and setbacks and all existing and proposed easements with their recording numbers.	[]
[]	City of Chelan street names.	[]
[]	Each utility on separate sheet (storm and roadway and/or water and sewer may be combined).	[]
[]	Match lines with matched sheet number (where plan is drawn on two or more sheets). Where plan is shown on three or more sheets, include a total site plan key map at scale 1"-100.	[]

Applicant Use *		Staff Use Only *
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PLAN PORTION STANDARD ITEMS

<input type="checkbox"/>	Centerline and stations	<input type="checkbox"/>
<input type="checkbox"/>	Edge of pavement and width	<input type="checkbox"/>
<input type="checkbox"/>	Right-of-way and width	<input type="checkbox"/>
<input type="checkbox"/>	Proposed survey monumentation locations and details	<input type="checkbox"/>
<input type="checkbox"/>	Sidewalk and Width	<input type="checkbox"/>
<input type="checkbox"/>	Planter strip and width	<input type="checkbox"/>
<input type="checkbox"/>	Roadway sections	<input type="checkbox"/>
<input type="checkbox"/>	Existing utilities (Show all existing underground and surface improvements for the full width of the right-of-way or easement and sufficient distance on either side to show possible impacts on adjacent properties and/or relationship to related facilities.)	<input type="checkbox"/>
<input type="checkbox"/>	Existing (active and inactive) and proposed wells	<input type="checkbox"/>
<input type="checkbox"/>	Adjacent property lines, ownership, parcel number, and street address	<input type="checkbox"/>
<input type="checkbox"/>	Identify street names, right-of-way, lots	<input type="checkbox"/>
<input type="checkbox"/>	Identify match existing sheet numbers and stations	<input type="checkbox"/>
<input type="checkbox"/>	Easements, width and type	<input type="checkbox"/>
<input type="checkbox"/>	Define survey baseline	<input type="checkbox"/>
<input type="checkbox"/>	Stations for structures	<input type="checkbox"/>
<input type="checkbox"/>	Pipe size, length, material and slope	<input type="checkbox"/>
<input type="checkbox"/>	Flow direction arrows on all gravity lines.	<input type="checkbox"/>
<input type="checkbox"/>	Special features such as gas tanks, gas mains, etc.	<input type="checkbox"/>

PROFILE PORTION STANDARD ITEMS

<input type="checkbox"/>	Profile grades (decimal Ft./Ft.) Proposed and existing.	<input type="checkbox"/>
<input type="checkbox"/>	Existing and proposed ground	<input type="checkbox"/>
<input type="checkbox"/>	Scale (horizontal and vertical)	<input type="checkbox"/>
<input type="checkbox"/>	Stationing	<input type="checkbox"/>
<input type="checkbox"/>	Pipe size, length, material and slope	<input type="checkbox"/>
<input type="checkbox"/>	Vertical elevation increments	<input type="checkbox"/>
<input type="checkbox"/>	Existing utilities	<input type="checkbox"/>
<input type="checkbox"/>	Utility crossings	<input type="checkbox"/>
<input type="checkbox"/>	<i>Miscellaneous:</i> o Detail Sheet o General Notes	<input type="checkbox"/>

SANITARY SEWER

Plan View:		
<input type="checkbox"/>	No smaller than 40 scale unless approved by the City	<input type="checkbox"/>
<input type="checkbox"/>	System Map (1"=300') showing tie-in to existing system, including line size and valves. Show existing improvements within ten feet of where they cross or connect to new improvements.	<input type="checkbox"/>
<input type="checkbox"/>	Located on the south and west side of the roadway as shown on the roadway details, where practical and/or possible.	<input type="checkbox"/>
<input type="checkbox"/>	Manholes o Station and offset shown at each manhole/cleanout o Manholes and clean outs numbered in sequential number o Rim and invert elevations	<input type="checkbox"/>

Applicant Use *		Staff Use Only *
	<ul style="list-style-type: none"> o Manhole size and type o Flow direction (with arrow on pipe) o Distance from water lines 	
[]	Depth at property line and distance from downhill manhole for side sewer	[]
[]	Service to each lot. Show all stub-out locations for future connections. Note if service is gravity or low pressure sewer with grinder pump.	[]
[]	Bearing/Distance (or station, offset and angle) of each pipe run when not parallel to centerline	[]
[]	Existing septic tanks/drainfields (with note to abandon if necessary)	[]
[]	Station, offset and size of tees, crossed, elbows, adapters, and valves	[]
Profile View		
[]	Manholes, clean outs and catch basins numbered	[]
[]	Invert elevation showing direction, in and out	[]
[]	Rim elevation	[]
[]	Grades shown (decimal form Ft./Ft.) (minimum slopes)	[]
[]	Type of pipe	[]
[]	Size of pipe	[]
[]	Length of pipe (in L.F.)	[]
[]	Existing utilities and crossings	[]
[]	Show fixtures (tees, crosses, valves, couplers)	[]
[]	Cover over pipe	[]
[]	<i>Miscellaneous</i> <ul style="list-style-type: none"> o Detail sheet o Sewer general notes 	[]

WATER

Plan View:		
[]	No smaller than 40 scale unless otherwise approved by City	[]
[]	System Map (1'=300') showing existing and proposed mains with line size, at least 2 existing valves – one on both sides of the project, and existing hydrants	[]
[]	Located on the north and east side of the roadway as shown on the roadway details, where practical and/or possible	[]
[]	Existing underground improvements within 10 feet of where they cross or connect to the new improvements	[]
[]	Existing utility conflicts	[]
[]	Fixtures (need horizontal and vertical control) <ul style="list-style-type: none"> o Fire hydrants (check with Chelan Fire District #7 for locations and spacing) o Blow-off (at end of line if no hydrant) o Vacuum and air release valves when required 	[]
[]	Station, offset and size of tees, crosses, elbows, adapters and valves	[]
[]	Valves	[]
[]	Fire Department connection	[]
[]	All dedicated fire lines shall be approved by separate permit	[]
[]	Backflow prevention devices	[]
[]	Thrust blocking required at all fittings	[]

Applicant Use *		Staff Use Only *
<input type="checkbox"/>	Distance from sewer	<input type="checkbox"/>
<input type="checkbox"/>	Bearing and distance of each pipe run when not parallel to centerline	<input type="checkbox"/>
<input type="checkbox"/>	Service to each lot (include open tracts)	<input type="checkbox"/>
<input type="checkbox"/>	Sample station (call Public Works for location)	<input type="checkbox"/>
<input type="checkbox"/>	Domestic meter with station, size and offset	<input type="checkbox"/>
<input type="checkbox"/>	Power source and type of service for irrigation system	<input type="checkbox"/>
Profile View		
<input type="checkbox"/>	Existing and proposed utility crossings	<input type="checkbox"/>
<input type="checkbox"/>	Show fixtures (tees, crosses, hydrants)	<input type="checkbox"/>
<input type="checkbox"/>	Pipe size, length, material and slope	<input type="checkbox"/>
<input type="checkbox"/>	Show valves and couplers	<input type="checkbox"/>
<input type="checkbox"/>	Size of water main	<input type="checkbox"/>
<input type="checkbox"/>	Length of water main in L.F.	<input type="checkbox"/>
<input type="checkbox"/>	Cover over pipe	<input type="checkbox"/>
<input type="checkbox"/>	Grades (Engineered Design Grade to Flow Line)	<input type="checkbox"/>
<input type="checkbox"/>	<i>Miscellaneous</i> <ul style="list-style-type: none"> o Detail Sheet o Water General Notes 	<input type="checkbox"/>

STORM SEWER

<input type="checkbox"/>	No smaller than 40 scale unless otherwise approved by the City	<input type="checkbox"/>
<input type="checkbox"/>	Drainage Plan Report <ul style="list-style-type: none"> o Prepared by registered civil engineer licensed in State of Washington o Runoff control o Water quality protection o Detention facilities o Soil logs 	<input type="checkbox"/>
<input type="checkbox"/>	Erosion and Sedimentation Control Plan Report <ul style="list-style-type: none"> o Construction sequence and procedure o Trapping sediment o Permanent erosion control and site restoration o Geotechnical analysis and report o Inspection sequence 	<input type="checkbox"/>
<input type="checkbox"/>	Maintenance Report <ul style="list-style-type: none"> o Required type and frequency of long-term maintenance o Identification of responsible maintenance organization o Frequency of sediment removal o Cleaning of catch basins o Vegetation control o Annual cost estimate of maintenance 	<input type="checkbox"/>
<input type="checkbox"/>	Drawings and Specification <ul style="list-style-type: none"> o Vicinity map o Project boundaries o Sub-basin boundaries o Off-site area tributary to project o Existing and proposed contours at maximum 2-foot intervals o Flow path 	<input type="checkbox"/>

Applicant Use *		Staff Use Only *
	<ul style="list-style-type: none"> ○ Spot elevations of pavement in parking lots, and runoff flow direction arrows. ○ Roof leaders and footing drains connecting into conveyance system ○ Label at least two cross-sections through detention pond. One cross-section shall show the control sequence. ○ Location and detail of emergency overflows and spillways. ○ Invert elevations of all pipes, inlets, tanks, vaults and spot elevations of pond bottom. Call out pond volume and dimensions and design surface elevation. ○ Section and plan views and details of all rock protection and energy dissipaters. ○ Section and plan view on restrictor/control structure, including size and elevation of orifices, overflow weirs, etc. ○ Length, width, and bottom width dimensions for all biofiltration and water quality swales and storm water conveyance swales. Include sectional view, showing side slopes and design depth of flow. ○ Seeding material information 	
[]	<p>Site map</p> <ul style="list-style-type: none"> ○ Existing topography at least 50 feet beyond site boundaries ○ Finished grades ○ Existing structures within 100 feet of project boundary ○ Utilities ○ Easements, existing and proposed ○ Environmentally sensitive areas ○ 100-year flood plain boundary ○ Existing and proposed wells within 1,200 feet of proposed retention facility ○ Existing and proposed fuel tanks ○ Existing and proposed on-site sanitary systems within 100 feet of detention/retention facilities ○ Proposed structures including roads and parking surfaces ○ Lot dimensions and areas ○ Proposed drainage facilities ○ Wellhead protection areas 	[]
[]	<p>Plan View – Conveyance System</p> <ul style="list-style-type: none"> ○ Station, offset, and number at each manhole/catch basin ○ Manhole/catch basin type and size ○ Manhole/catch basin rim elevation ○ Flow direction with arrow on pipe/channel ○ Type and size of pipe ○ Length of pipe in lineal feet 	[]
[]	<p>Profile View – Conveyance System (for private and public systems)</p> <ul style="list-style-type: none"> ○ Station, offset, and number at each manhole/catch basin ○ Rim elevation ○ Insert in and out ○ Length of pipe in lineal feet ○ Grades (Ft./Ft.) 	[]

Applicant Use *		Staff Use Only *
	o Minimum cover	
[]	Erosion control drawing: <ul style="list-style-type: none"> o Soil types o Location of soil pits and infiltration tests o Construction entrance detail o Silt fences and traps o Mulching and vegetation plan o Clearing and grubbing limits o Existing and finished grade o Details and locations of all BMPs recommended o Location and details of temporary sediment ponds 	[]
[]	Construction inspection report	[]
[]	<i>Miscellaneous:</i> <ul style="list-style-type: none"> o Detail sheet o Storm General Notes 	[]

STREET

Plan View		
[]	No smaller than 20 scale unless otherwise approved by the City	[]
[]	Street alignment in stations of 100-foot intervals	[]
[]	Review sight distance and clear sight triangle at intersections	[]
[]	Flow direction arrows at curb returns showing grade	[]
[]	Spot elevations on curb returns	[]
[]	Spot elevations at existing and proposed driveway cuts – both sides of street	[]
[]	Station PC, PT, PI and intersections	[]
[]	Curve information delta, radius, length and tangent on all horizontal curves, 50' stations minimum	[]
[]	BCR and ECR (begin curb radius, end curb radius)	[]
[]	Identify all field design situations	[]
[]	Edge of pavement and right-of-way (EP & R/W) for proposed streets	[]
[]	Signing – temporary and proposed permanent	[]
[]	Channelization, striping, and existing signing	[]
[]	Mailbox locations (existing and proposed)	[]
[]	Location of school bus and/or public bus shelter/pad	[]
[]	Typical sections of proposed streets	[]
[]	Pavement marking details with station and offset	[]
[]	Sidewalks <ul style="list-style-type: none"> o Driveway entrances <ul style="list-style-type: none"> • Elevations • Station (centerline) • Width, material (AC, PCC, other) • Driveway type o Handicap ramps – detail and type 	[]
[]	Landscaping plan and accent lighting	[]
[]	Bearings on street centerline (construction drawings only)	[]
[]	Topography within the right-of-way limits, including utilities	[]
[]	Label all streets and adjoining subdivisions	[]

Applicant Use *		Staff Use Only *
<input type="checkbox"/>	Existing and proposed drainage structures indicating direction of flows	<input type="checkbox"/>
Profile View		
<input type="checkbox"/>	Vertical information VPI, BVC, CVC, AP, low point, high point	<input type="checkbox"/>
<input type="checkbox"/>	Show grades with (+ or - slope)	<input type="checkbox"/>
<input type="checkbox"/>	Review sight distance and clear sight triangle at intersections	<input type="checkbox"/>
<input type="checkbox"/>	Super elevated roadways <ul style="list-style-type: none"> o Detail - show transitions o Special detail showing gutter flowing adequately 	<input type="checkbox"/>
<input type="checkbox"/>	Original ground line; control elevation on border of sheet	<input type="checkbox"/>
<input type="checkbox"/>	Stationing in intervals of 100 feet	<input type="checkbox"/>
<input type="checkbox"/>	Grade line showing grade percents and vertical curves	<input type="checkbox"/>
Miscellaneous		
<input type="checkbox"/>	Detail sheet	<input type="checkbox"/>
<input type="checkbox"/>	Street general notes	<input type="checkbox"/>
<input type="checkbox"/>	AASHTO street design worksheet, with soils report, if applicable	<input type="checkbox"/>

ILLUMINATION AND SIGNALS

<input type="checkbox"/>	No smaller than 20 scale unless otherwise approved by the City	<input type="checkbox"/>
Lighting		
<input type="checkbox"/>	Design calculations (for roads with curves and roads that do not meet current roadway standards)	<input type="checkbox"/>
<input type="checkbox"/>	Station and offset to fixtures	<input type="checkbox"/>
<input type="checkbox"/>	Pole type, including manufacturer and model number	<input type="checkbox"/>
<input type="checkbox"/>	Mounting height, arm length, anchor bolt size and pattern	<input type="checkbox"/>
<input type="checkbox"/>	Power source <ul style="list-style-type: none"> o Wire size, type, conduit o Line loss calculations 	<input type="checkbox"/>
<input type="checkbox"/>	Luminaire type, lamp wattage	<input type="checkbox"/>
<input type="checkbox"/>	Location of service disconnects (5% maximum voltage drop from source to farthest luminaire)	<input type="checkbox"/>
<input type="checkbox"/>	J-box location and station	<input type="checkbox"/>
<input type="checkbox"/>	200 scale map with luminaire locations shown	<input type="checkbox"/>
Signals (Follow WSDOT specifications unless otherwise required by City)		
<input type="checkbox"/>	Station and offset to signal base, cabinets, ped. lead loops, etc.	<input type="checkbox"/>
<input type="checkbox"/>	Pole type, including manufacturer and model number	<input type="checkbox"/>
<input type="checkbox"/>	Wiring schedule <ul style="list-style-type: none"> o Signal heads and mounting assembly o Detection loops o Opticom o Control cabinet, size and layout o Power source o Conduit o Wire size and type 	<input type="checkbox"/>
<input type="checkbox"/>	Phasing schedule	<input type="checkbox"/>
<input type="checkbox"/>	Construction notes	<input type="checkbox"/>
<input type="checkbox"/>	J-box schedule	<input type="checkbox"/>
<input type="checkbox"/>	Pedestrian signal type with push button	<input type="checkbox"/>
<input type="checkbox"/>	Controller type, configuration, and wiring schematic	<input type="checkbox"/>

Applicant Use *		Staff Use Only *
Miscellaneous		
<input type="checkbox"/>	Detail sheet	<input type="checkbox"/>
<input type="checkbox"/>	General Notes (Street Light Construction)	<input type="checkbox"/>
<input type="checkbox"/>	Line Loss Calculations	<input type="checkbox"/>

MISCELLANEOUS

<input type="checkbox"/>	Easements and/or dedication deeds	<input type="checkbox"/>
<input type="checkbox"/>	Detailed engineer's estimate or contractor's bid for Public Works improvements	<input type="checkbox"/>
<input type="checkbox"/>	Engineer's estimate or contractor's bid for the entire project, summarized	<input type="checkbox"/>
<input type="checkbox"/>	Contract documents/specifications	<input type="checkbox"/>
Additional Items		
<input type="checkbox"/>	Sheet index (on title sheet if required)	<input type="checkbox"/>
<input type="checkbox"/>	Field verify note on drawing - expose connection points and verify fittings 48 hours prior to distributing shut-down notices	<input type="checkbox"/>
<input type="checkbox"/>	Call Before You Dig note (on each applicable sheet)	<input type="checkbox"/>

***N/A = Not Applicable**

C = Complete

I = Incomplete