# **STAGE 3 – PRELMINARY CONSTRUCTION PLAN REVIEW SUMMARY**

# **Chapter 3 Link**

The Preliminary Construction Plan Review encompasses the submittal and review of utility, street, grading, drainage, storm water, and erosion control plans and specifications. The plans and specifications are subject to redlined comments and requested revisions to the submitted plans. Failure to address all redlined comments could require the plans to be resubmitted, which results in longer review turnaround time. For more complex or detailed projects (subdivisions, TEDs, condominium developments, etc.), all infrastructure (surface, water, sewer, storm water) must be submitted at same time, **in one submittal** (rather than staggered) to ensure a holistic comprehensive review. Common components of preliminary design include the following:

- Boulevard and landscaping plan
- Geotechnical
- Grading, drainage, and erosion control
- Horizontal and vertical alignment
- Lighting plan
- Non-motorized plan (bike and pedestrian, bike parking)

- Preliminary plat
- Right-of-way
- Signing and pavement markings
- Storm Water Drainage Report
- Traffic operations (Traffic plan)
- Utility plan

The transmittal cover sheet should highlight the request for the Water and/or Sewer Availability Notice (if applicable). The Utility Service Review Committee (USRC) approval must be included in submittal package that documents date of approval and any required conditions.

City Council approves subdivision conditions, zoning compliance permit conditions, and annexation conditions. As such, if a project is a subdivision or TED development, plans will be in conformance with these conditions and any preliminary plat infrastructure elements. All lots must have an address assigned by GIS and include lot lines and block numbers prior to Stage 4.

**Utility plans** must be reviewed and eventually approved if excavation is required for any mainline, primary, secondary, or cable construction within a ROW or public utility easement. All plans must identify **all easements** as either public or private. Any public or private common service easement for stub-outs must be shown on plans. Book, Page Number, or Plat COS must be identified for any existing recorded easement.

The Stage 3 packet will be internally distributed to applicable City staff for review. This submittal represents a 90% complete design package and shall include all plan sets that will be included in Stage 4 submittal. The City's review and subsequent redlines should result in an approved Stage 3 plan set, which should shorten the Stage 4 Release for Construction review. If Stage 3 is **approved**:

- 1. Redlines will be returned to the developer's representative,
- 2. Preliminary Construction Approval Notice will be sent under separate cover,
- 3. If requested, Sewer and/or Water Availability Notice will be sent under separate cover, and
- 4. Project may proceed to Stage 4, Release for Construction and Issuance of Building Permit

### **DENIAL of STAGE 3**

Incomplete submittals will suspend the review process; they will be returned for resubmittal and placed at the back of the queue. If a resubmittal is required, all redlines must either be corrected or include a written response as to justification of excluded redline comment. Lack of project number or correct project name can delay processing.



# PRELIMINARY CONSTRUCTION PLAN REVIEW CHECKLIST STAGE 3

This checklist is a guide to meet Missoula City Public Works Standard Specifications Manual, specific regulations Titles 12 & 17 (Articles 3, 5, and 9) and other minimum requirements that will enable City Staff to adequately review and approve submitted documents required for this stage. (This checklist is not all inclusive, other information may also be required)

Project Name:

City Project # (**MUST** be provided):

Developer's Representative Name/Contact Info:

Developer/Owner Name/Email/Contact Info:

Date Submitted:

Plans Submitted ("x" as applicable):

Surface	Sewer	Water	Storm

Other (specify)

All submitted construction drawings shall include and reference the current version or latest revision of any and all applicable City of Missoula Standard Drawings. Prior to submittal, review the City of Missoula website for current version of standard drawings. Standard Drawings may be revised at the discretion of City Engineering, usually during the latter part of a calendar year.

STAGE NUMBER	STAGE PROCESS
1	Project/Development Initiation
2	Conceptual Design Review
3	Preliminary Construction Plan Review
4	Release for Construction (RFC) Plan Review
5	Inspection & Testing
6	Final Inspection & Acceptance
7	Warranty Inspection

# **REQUIRED SUBMITTAL DOCUMENTATION**

Do not leave boxes blank; ALL MUST BE EITHER CHECKED (X or  $\checkmark$ ) or N/A as appropriate

# PRELIMINARY CONSTRUCTION PLAN DOCUMENTATION

All documents shall be submitted as a single bookmarked pdf, using the formatting and file-naming conventions described below. Any submittals that have not been properly organized will be returned for re-submittal.

# Stage 3 – Preliminary Construction Plans

Completed Stage 3 Checklist signed by developer's representative (this document)
Preliminary Construction Plans; if submitting plans for surface and/or multiple
utilities, include the following:
Boulevard Landscaping Plan
Lighting Plan
Signing/Striping Plan
Non-Motorized Plan (Bike/Pedestrian, Bike Parking)
Draft specifications
Design Report – Water and sewer mains must be accompanied by a design report that complies
with the requirements in Chapter 4 and 5 of the Missoula City Public Works Standards and
Specifications Manual.
Letter from Fire Marshall approving hydrant locations and stating fire flow
requirements.
MT DEQ Deviation Requests, as necessary
Storm Water Site Evaluation Form – Projects classified as Medium and High Priority
shall submit a storm water drainage report that complies with the requirements in
Chapter 6 of the Missoula City Public Works Standards and Specifications Manual
Erosion Control Site Plan per the City's Erosion Control Site Plan Review Checklist
City/County approved conditions (subdivision, townhome exemption development, zoning
compliance permit, annexation, etc.)
Preliminary plat for addressing purposes (subdivision, TED, condo/apartment developments, etc.)
Overall utility plan that includes water, sewer, storm and dry utilities (gas, power,
fiber optic cable, telephone, etc.) all on the same plan. This information shall also
be shown on all infrastructure plans.
Include utility service location information on all infrastructure plans (e.g., water, sewer,
storm water, and dry services such as gas, power, telephone, fiber optic cable, etc.)
USRC approval application – REQUIRED if requesting Sewer/Water Availability Notice:
Legal description of site (Section, Township, Range)
Water/Sewer main connecting to
Water Design Report
Sewer Design Report
Other, list

### **DIGITAL / ELECTRONIC GIS FILE REQUIREMENTS**

#### **File Formats**

- Autodesk<sup>®</sup> AutoCAD<sup>™</sup> \*.DWG format or
- ESRI<sup>®</sup> ArcMap<sup>TM</sup>-compatible format file

#### File Naming Convention

File names should contain the prefix associated with the utility type followed by the suffix containing the city file number: **Utility Prefix + Project Number = Filename** Example for Lot, Parcel Layout, Easements, and Streets: *surface2020-036* 

#### Deliverables

All digital files shall be compressed together in .zip or .rar format using the city project file number followed by the stage number (ex. 2020-036\_Stage3), and individual files using the above naming convention.

#### **Coordinate System**

- Un-projected files or files with incorrectly applied projections will be rejected.
- Note: The City only requires that digital data be submitted in state plane grid. It is unnecessary to submit at ground.

#### Accuracy Requirements

- Submission must be accurate to **1/10<sup>th</sup> of a foot**. These items include all utilities and property corners within the project area or effected in the project.
- All submissions must be referenced to the National Spatial Reference System (NSRS) and comply with Montana Code Annotated, Title 70, Chapter 22, Part 2. For local control points tied to the NSRS, contact the Missoula County Surveyors Office.
- If derived from GNSS measurements, the submission must use and note the geoid model used. Valid models for our areas include:
  - GEOID18
  - GEOID12A
  - GEOID12B

#### 1) Lot/Parcel Layout/Easements and Streets

- Lot/Parcel Lines
- Lot Numbers
- □ Street Centerlines (New & Existing)
- Street Names (New & Existing)
- Sidewalks
- Curbs
- All easements related to the project, new and existing

Book and page number will be requested in Stage 4

# SURFACE INFRASTRUCTURE

Do not leave boxes blank; ALL MUST BE EITHER CHECKED (X or $\checkmark$ ) or N/A as appropriate
OPOGRAPHY/GEOTECHNICAL – Hillside/Site Grading average developed area slope 5% or more
Rock/outcrop issues Adjacent property topography (grade match) Grading plan (existing/proposed, pre-graded lots, cuts/fills, access issues) Cut and fills (ROW work must be located within ROW) or easements Disturbed slopes designed at 2:1 (50%) or less Ground water issues Slope stability/hazards (unstable slopes, etc.) Retaining walls
Weed control/topsoil/re-vegetation plan Existing and proposed surface drainage/storm water Other

#### BLOCKS

<u>Conformance to City Subdivision Regulations</u>, Article 3, or the *Missoula City Public Works Standards and Specifications Manual* if project is not subdivision related Length maximum uninterrupted block(s)

Configuration; appropriate access to all lots – see also "Driveways" – Access/Approaches Common area(s); access, maintenance agreements, etc.

\_\_\_\_\_No access strips (along collector street or above, at crosswalks, signals, etc.) \_\_\_\_\_Other

### Comments

# LOTS

Configuration: buildable area, slope, pre-grading

Access: slope, distance from intersections, no access designation

Sight obstruction & visibility triangles: NO structures permitted in visibility triangles

Storm water retained onsite, each lot/parcel or directed through easements, via development designed storm water management plan

\_\_\_\_Other

### Comments

# EASEMENTS, AGREEMENTS FOR MAINTENANCE, HOA, PRIVATE ROADS, etc.

No permanent structures or portions of structures, eaves, etc., allowed within easements.

- Existing easement(s)
- \_\_\_\_Proposed easement(s)
  - Public/Private utility easement(s) (location, width includes: overhead and/or buried sanitary sewer, storm water, water, electric, natural/ propane/high-pressure gas, petroleum, telephone, cable, and other utilities)
    - Main(s) 20 feet minimum easement width
    - ➔ Service(s) 15 feet minimum easement width
  - \_\_\_\_\_Public/Private common service easement (for stub-outs)
  - \_\_\_\_\_Public/Private drainage easement(s) (collection, retention, and detention ponds)
  - \_\_\_\_\_Public/Private foundation drainage easement(s) (width, location)
  - \_\_\_\_\_Public/Private access easement(s) (width, location)
  - \_\_\_\_\_Public/Private NO access easement(s) (width, location)
  - \_\_\_\_\_Public/Private non-motorized access easement(s) (width, location [trails])
  - \_\_\_\_\_Public sidewalk easement(s) (width, location)
  - \_\_\_\_\_Construction easement(s) (width, location)
  - \_\_\_\_\_Maintenance easement(s) (width, location)
  - \_\_\_\_Irrigation/ditch easement(s) (width, location)
  - \_\_\_\_\_Conservation easement(s) (width, location)
  - \_\_\_\_\_Off-site/adjacent properties easement(s) (width, location)
  - \_\_\_\_Other\_\_\_

\_\_\_\_Other

# Comments

# STREETS & ALLEYS – Paving (including Private Roads, Short Courts, and Cul-de-sacs)

Refer to Article 3 of the City Subdivision Regulations or the Missoula City Public Works Standards and Specifications for other projects

- \_\_\_\_\_Public Street/roadway
- Private Street/roadway/drive shall be curbed
- \_\_\_\_\_Public/Private Street/roadway names county verified and / or approved
- \_\_\_\_Cul-de-sac (length, turn-around)
- \_\_\_\_\_Short court (length, number of units served)

\_\_\_\_\_Allow Overflow parking (length, width, number of spaces) Maintenance/Encroachment

- \_\_\_\_\_Street/roadway/driveway layout/design cross-section private/public short courts
- Width/construction cross-section specifications and design (pavement thickness, base thickness, mix design, testing, type and location of pedestrian facilities/ sidewalks)
- \_\_\_\_\_Grades (preliminary grading plan, profiles, include vertical curve data, intersection grading is ADA compliant)
  - Provide "non-compressed" profile drawings
- \_\_\_\_\_All sidewalks and ADA ramps to have both running slope and cross slope labeled \_\_\_\_\_Cuts and fills: include topsoil and re-vegetation

### TRAFFIC SIGNALS – TRAFFIC CONTROL DEVICES

Sight obstruction/visibility triangles: NO structures permitted in visibility triangle
Maintenance agreements for private street/roadway/drive, short courts (see easements)
Bridges/culverts
Temporary turn-around, required at phase break(s)
_Infrastructure improvements to be constructed within the public right-of-way
_Clearly show tick marks for each item (i.e., gutter profile, intersection-to-
intersection, road x-sections, curb-to-curb, etc.)
Bike lane(s), location, design, connected, functional, ADA compliance
Other

### Comments

# TRAFFIC MANAGEMENT (must fully conform to MUTCD, FHWA, MDOT, UVC)

Must satisfy all requirements for location, design, minimum radii, landscaping and irrigation, signing and striping, pedestrian facilities, and maintenance agreements

\_\_\_\_\_Roundabout(s): location, design, functional; ADA compliant

\_\_\_\_\_Traffic circle(s): location, design, functional; ADA compliant

\_\_\_\_\_Bulb-out(s): location, design, functional; ADA compliance

\_\_\_\_\_Mid-block pedestrian crossing(s): location, design, functional; ADA compliance

\_\_\_\_\_Chicane(s): location, design, functional compliance

\_\_\_\_\_Medians/island(s): location, design, functional compliance; ADA compliance

\_\_\_\_\_Raised crosswalk(s): location, design, functional; ADA compliance

\_\_\_\_\_Speed table(s): location, design, functional; ADA compliance

Construction cross-section specifications and design (curb/pavement/sidewalk, asphalt /concrete thickness, base thickness, mix design, testing, type and location of pedestrian facilities/sidewalks)

\_\_\_\_Infrastructure improvements to be constructed within the public right-of-way

Construction quantities reported in the following units (no exceptions):

\_\_\_\_lineal feet for curb

\_\_\_\_\_sq. ft. for asphalt, sidewalk and aprons

\_\_Pedestrian warning lights

\_\_\_\_Other

\_\_\_\_\_Signal type, location, material, application, etc.

\_\_\_\_\_Modification, retiming

Electrical Plans

\_\_\_\_Other

### Comments

#### CURBING

#### Location

PRELIMINARY CONSTRUCTION PLAN REVIEW CHECKLIST Revised: August2020 \_\_\_\_Curb type; "A", "B", "K" – cove, "L", standard drawings

\_\_\_\_\_Design cross-section: materials, specifications, standard drawings

\_\_\_\_\_Access points/curb cut(s): location, width, transition, type—commercial/residential

<u>Controlled access:</u> right-in/right-out, "pork-chop" islands, etc.

\_\_\_\_\_ADA compliance – ramp: location, adjacent alignment

\_\_\_\_Callouts with each of these items labeled: width, grades, landings, cross- slope,

detectible/tactile warning/truncated domes, profile thru flow-line, etc.

\_\_\_\_\_Provide USPS letter authorizing mailbox location(s)

\_\_\_\_\_Mail-stop pullout (refer to standard drawing), bus stop pullout, over-flow parking, etc.

Construction cross-section specifications and design (curb thickness, profiles, base thickness, mix design, testing, type and location of pedestrian facilities/sidewalks)

Infrastructure improvements to be constructed within the public right-of-way

Construction quantities reported in the following units (no exceptions):

\_\_\_lineal feet for curb

\_\_\_\_\_sq. ft. for asphalt, sidewalk and aprons

\_\_\_\_Other

# Comments

# SIGNING AND STRIPING (must fully conform to MUTCD, FHWA, MDOT, UVC)

- \_\_\_\_Sign Plan: location, type, application, etc., per standard drawing
- Sign material specifications: retro-reflectivity (high-intensity), dimensions, thickness, height, width, symbols, etc.

\_\_\_\_\_Sign mounting/base

\_\_\_\_\_Sign text: wording/message(s); block numbers, font, etc.

\_\_\_\_\_Construction quantities: number of signs to be installed within the public right-of-way

\_\_\_\_\_Striping Plan: location, material, application, symbols, etc., per standard drawing dimensions, striping lengths, and City Engineering approval

\_\_\_\_\_Striping material specifications: paint thickness (coverage), waterborne epoxy, retro-reflectivity, color, glass bead application, etc.

Construction quantities: lineal feet of painted curbing and asphalt to be applied within the public right-of-way

\_\_\_\_Other

\_\_\_\_\_Plan sheets clearly labeled as "Signing and Striping Plan – Plan View – Details"

- \_\_\_\_\_North arrow shall generally be oriented up 90 degrees from the west, or to the right of the sheet (streets oriented north and south)
  - \_\_\_\_\_Scale bar plans shown "Not to Scale" will not be accepted

\_\_\_\_\_All signs shall be graphically depicted in the direction of travel as "New" according to the correct MUTCD designation with the correct sign ID code and appropriate size, station, or location

_Existing signs shall be shaded back and labeled as "Existing" designated to remain, to be
removed and salvaged, or to be relocated. Include graphic depiction in the direction of travel
with the correct MUTCD designation with the correct sign ID code and existing size and station
or location.

- The Design Engineer shall field verify all existing signs, including advance or approach and detains (temporary) signing applicable to the project and show on plans. Signs on the plan sheet shall be referenced, including location or station and status of the sign. Signs that are faded or damaged shall be identified and a notation added to remove and replace with new.
- Are there existing signs, which are old and need to be replaced within the project limits? All existing signs within the project limits shall be field checked and be included on the plans to be replaced with new signs.
- For existing signs outside project limits that are affected because of the project, signs are required to be replaced by the project. All other signs outside of project limits and/or not affected by the project will be City responsibility.
- \_\_\_\_\_When placing signs back to back, make sure the distinctive shape of the sign facing traffic is not occluded.
- \_\_\_\_\_Signing shall match the striping and vice versa.
- Break lines shall be used to show TRAFFIC CONTROL CHANGE AHEAD (if necessary) at the actual location and per the MUTCD (1000 feet before the intersection where new traffic control will be provided).
- \_\_\_\_\_To ensure no signs are left off the plans by identifying existing signs that are not exclusive to the project and coordinate with the City .
- \_\_\_\_\_Match lines shall be shown to the existing striping and labeled with stationing.
- \_\_\_\_\_Match lines and obliteration lines shall be for the entire roadway width unless otherwise necessary.
- \_\_\_\_\_All existing striping shall be shown (shaded back), identified by type and width, and completely dimensioned across the roadway.
- \_\_\_\_\_All new striping shall be clearly identified noting color and line width. Include beginning and ending stations. Striping shall be completely dimensioned across the roadway.
- \_\_\_\_\_All limits of striping to be removed shall be clearly marked and noted if to be removed by resurfacing or new pavement.
  - \_\_\_\_All pavement arrows, crosswalks, stop bars, symbols, bike lane symbols, sharrows, shall be located by station or dimension lines.
- Lane widths shall be shown from center of stripe to center of stripe or from center of stripe front of curb at each and every transition point (e.g., at beginning of add or drop lane tapers, etc.). This is necessary for layout during construction.
- \_\_\_\_\_Right-turn and left-turn striping length shall be shown and be consistent with the recommendations of the Traffic Impact Study.
- \_\_\_\_\_ROW shall be shown at beginning and end of project and where transition in ROW width exists. Multiple ROW lines shall be labeled with the name of the appropriate jurisdiction
  - Striping that may be stipulated with the Development/Project Conditions, Requirements Approval as required for any developments/projects (e.g., access points, provisions for transit stops, hatch striping for additional pavement in interim stages, etc.) shall be included.
- Detail of hatch striping shall be shown, complete with color and width of individual stripes, angle of and dimension distance between diagonals. Diagonal angles shall be shown from edge line.

Public intersections shall not be striped through. Striping shall continue through private streets or driveways.

\_\_\_\_All unnecessary line work shall be shaded back. New and existing edge of pavement or face of curb shall be shown and labeled as solid lines (shaded back), not dashed, so as not to be confused with striping that may be dashed.

\_\_Temporary striping can be paint instead of standard epoxy

### Comments

# DRIVEWAYS – Access / Approaches

Refer to Article 3 of the City Subdivision Regulations and the Missoula City Public Works Standard Specifications for projects that are not subdivision related

- \_\_\_\_\_Location (multiple/shared, public/private street/road/drive/alley, etc.)
- \_\_\_\_\_Distance from intersection: dimension minimum distance from intersection or crosswalk (must comply with MMC 12.12.170D and E)
- \_\_\_\_\_Width of approach(es), curb cut, must be constructed perpendicular (90° degrees) to the adjacent street
- \_\_\_\_\_Grades: 8% percent maximum
- \_\_\_\_\_Cross-section: as applicable to driveways, drainage cuts/fills, base/asphalt/concrete depth

Construction cross-section specifications and design (curb thickness, base thickness, mix design, testing, type and location of pedestrian facilities/sidewalks)

Construction quantities: lineal feet and/or square feet of asphalt and/or concrete infrastructure improvements to be constructed within the public right-of-way

\_\_\_Other

# Comments

# PEDESTRIAN ACCESS – Non-Motorized Circulation; Sidewalks, Trails, Bicycles

Non-motorized facilities, including sidewalks, shared use paths, bike lanes, and crossings, shall adhere to AASHTO and/or NACTO guidelines and meet ADA standards

Existing facilities within 300 feet of the project limits shall be shown on the plans

- Location: both/one side(s) of street, other/additional location(s)
- \_\_\_\_\_Sidewalk design

\_\_\_\_\_Width, cross-section, material, etc. – standard drawings

- Label widths, x-section slope, running slope (not combined)
- \_\_\_\_\_Sidewalk and boulevard width per approved construction plans

Construction cross-section specifications and design (concrete sidewalk thickness, base thickness, jointing, mix design, testing, type and location of pedestrian facilities / sidewalks)

\_\_\_Backfilling boulevard and adjacent to sidewalk

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ADA compliance; location, width, ramps/grades, landings, cross-slope, detectible warning/truncated domes, etc. provide ramp grade as a percentage (vector) down center of proposed

ramp

Label width, length, slope and cross slope, dimensions of detectable warning plates

\_\_\_\_\_Trail (width, location)

\_\_\_\_\_Connections; between on-site pedestrian facilities, parks, common area(s), with adjacent property(ies)/subdivision(s), etc.

\_\_\_\_\_Street-crossing (mid-block, bulb-out, etc.)

\_\_\_\_\_Bike lanes (width, location)

\_\_\_\_\_Bridges, non-motorized access; pedestrians, bicycles, trails, etc.

\_\_\_\_Other

# Comments

# PARKING – Overflow

Location: label—distance from intersections, access, and type; parallel, head in/back in, angled: 90°, 60°, 45°

\_\_\_\_\_Dimensions: length, width

\_\_\_\_\_Grading and drainage

Parking Signage

\_\_\_\_\_Pedestrian access: connection to sidewalks, trails, etc.

\_\_\_\_\_ADA compliance: width, ramps/grades, landings, cross-slope, etc.

\_\_\_\_\_Railroad crossing with truncated domes

\_\_\_\_Other

# Comments

# **BUS STOPS**

Location; distance from intersections, signing, configuration, standard drawings

- \_\_\_\_\_Pedestrian Access; connection to sidewalk, trails, etc.
- \_\_\_\_\_ADA compliance; width, ramps/grades, landings, cross-slope, etc.
- \_\_\_\_\_Bus Stop pull out

\_\_\_\_\_Mountain Line approval

\_\_\_\_Other

# Comments

# CLUSTER MAIL BOX FACILITIES (U.S.P.S. Postmaster approval required)

\_\_\_Location

\_Pedestrian Access; connection to sidewalk, trails, etc.

ADA compliance; width, ramps/grades, landings, cross-slope, etc. Documented U.S.P.S. (Postmaster) approval of location/design \_\_\_\_Letter of approval required with Stage 3 submittal Mail stop pull out

\_\_\_\_Other

# Comments

#### STREET LIGHTS

Location, minimum; intersections, pedestrian crossings, mid-block pedestrian crossings, etc.

\_\_\_\_\_Maintenance agreement: covenants

- Lighting District information and/or Establishment
- \_\_\_\_\_Compliance with Missoula Outdoor Lighting Ordinance MMC 8.64
- Photometric design plan sheet
- \_\_\_\_\_Electrical design plan sheet
- \_\_\_\_\_Equipment submittals
- \_\_\_\_Other

### Comments

Natural drainage: existing both on-site and adjacent off-site
Storm drainage: calculations, location on-site/off-site, collection/retention/detention,
(See also "STORM WATER" section below in "LITHITY INFRASTRUCTURE" review)
Surface drainage – existing/proposed; calculations, cross-sections, overflow, crossings culvert / bridge sizing, vegetation, etc.
Surface drainage – individual lots
Swales: between lots and through development / subdivision Covenants
Building permit specific conditions / requirements Other
Foundation drains (separate collection system for foundation drainage on hillside development)
Maintenance: public/private, homeowner's association, agreement(s)
Structures: inlets, dry wells, manholes; location, design, capacity, etc.
Construction quantities; structure inventory, type and lineal feet to be constructed within the public right-of-way
Other

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### EROSION CONTROL (must fully conform to US EPA and MT DEQ)

\_\_\_\_Erosion Control Site Plan per the City's site plan review checklist

Submit for Montana DEQ SWPPP Permit to ensure enough leadtime – For projects with a disturbance greater than one acre. Permit required prior to any work performed onsite. DEQ Notice of Intent (NOI) Confirmation Letter and SWPPP Packet submitted to DEQ will be provided at Stage 4 or at Permitting.

Maintenance responsibilities: shall remain in place and be adequately maintained throughout the duration of all site development and individual lot construction Other

# UTILITY INFRASTRUCTURE

# Do not leave boxes blank; ALL MUST BE EITHER CHECKED (X or $\checkmark$ ) or N/A as appropriate

WATER (reviewed by Missoula Water and City Fire Department)
Fittings: location, type, end connections (flanged, MJ, etc.) Mains: location, sizing, profile, separation, specifications, calculations, etc. Valves, hydrants, blowoffs, and air release valves: location, sizing, profile, etc. Orientation of butterfly valve actuator compared to mainline shall be indicated (e.g., "actuator
north of main") Easement locations, including easements that may be required to the property line for future extensions
Stub-outs: location, property marked
Specifications: pipe type(s), sizing, bedding, gradations, frost protection, marking, and compaction
Number and location (by lot) of stub-outs for auditing and permitting purposes
Construction quantities: lineal feet of pipe by size and inventory of appurtenances to be constructed within the public right-of-way
Plans show all utilities in plan view and all utility crossings in profile view
Approval letter from Fire Department for:
Fire hydrant locations
Fire flow requirements
Other
SANITARY SEWER
Ownership: Public or Private Type (Gravity, Dry lay, Siphon) County review for additional county rules and regulations
Conformance to City, County and State specifications and requirements; thrust

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restraint on mains over 20% grade, etc.

\_\_\_\_\_Structures: location, access,

\_\_\_\_\_Manholes: location, access, type, hole schematic

\_\_\_\_\_Gravity mains: location, sizing, profile, separation, specifications, calculations, etc.

Lift stations: location, sizing, access both to site and internal, security, specifications, etc.

\_\_\_\_\_Force mains: location, sizing, profile, ports, valves, etc.

Easement locations

S.T.E.P. systems and appurtenances designed and engineered for commercial use

\_\_\_\_\_S.T.E.P. mains: location, sizing, profiles, ports, valves, etc.

\_\_\_\_\_S.T.E.P. Tanks and appurtenances: residential, commercial, and community

\_\_\_\_\_Floodplain requirements

\_\_\_\_\_Stub-outs: location, property marked

\_\_\_\_\_Shallow groundwater requirements

\_\_\_\_\_Specifications: pipe type(s), sizing, dry wells, sumps, bedding, gradations, frost protection, marking, and compaction

\_\_\_\_\_Number and location (by lot) of stub-outs for auditing and permitting purposes

Construction quantities: lineal feet of pipe by size and inventory of appurtenances to be constructed within the public right-of-way

Plans show all utilities in plan view and all utility crossings in profile view

\_\_\_\_Other

# Comments

_Storm Water Management Site Plan per the City's site plan review checklist. Projects with dry
Storm Water Drainage Report
Ownership: Public or Private
Material Type (e.g., HDPE, PVC, reinforced concrete)
Conformance with current EPA and state (MT DEQ) rules, regulations, and practices
Mains: location, sizing, profile, separation, specifications, calculations, etc.
Appurtenances: manholes, inlets, grates, outfalls, manhole schematic, diffusers, beehives, et
_Access: appurtenances; collection, retention, and detention systems, etc.
Specifications: pipe type(s), sizing, dry wells, bedding, gradations, marking, and compaction
_Shallow groundwater requirements
_Construction quantities: lineal feet of pipe by size and inventory of appurtenances to
be constructed within the public right-of-way
_Plans show all utilities in plan view and all utility crossings in profile view
_Show impervious/drainage area per dry well
Other

#### PRIVATE UTILITIES

Master Plan
Gas: location, placement of related appurtenances, etc.
Electric: location, placement of related appurtenances, streetlights, etc.
Communications—telephone, television, etc.: placement of related appurtenances
Construction quantities: lineal feet of each utility and inventory of appurtenances to be constructed within the public right-of-way
Plans must show right-of-way limits, existing utilities, and proposed utilities
Comments

### **APPLICANTS CERTIFICATION:**

I have reviewed all information and this submittal is true and accurate. To the best of my knowledge, all requirements as specified in Title 17, Articles 3, 5 and 9 of Subdivision Regulations have been satisfied.

Developer Representative's Signature

Date