**Posted for Public Notice: March 16, 2022**

## City of Bend Standards and Specs Summary of Changes via Technical Amendment

- 3.1
  - Changed reference name from Signing & Striping Manual to Signing and Marking Manual

### 3.1 References

Designs shall conform to the City of Bend Standards and Specifications, as well as current versions of additional references specified in various subsections. Roadway design shall comply with minimum design standards as shown in the standard drawings. Additional references include, but are not limited to:

- City Development Code and Ordinances of the City of Bend
- A Policy on Geometric Design of Highways and Streets (AASHTO)
- Manual of Uniform Traffic Control Devices (MUTCD)
- Oregon Supplements to the MUTCD
- Highway Capacity Manual (TRB)
- Roadside Design Guide (AASHTO)
- Public Right-of-way Accessible Guidelines (U.S. Access Board)
- City of Bend Roundabout Design Manual
- City of Bend Signing and Marking Manual
- City of Bend Complete Streets Guide
- Oregon Standard Specifications
- Oregon Traffic Line Manual
- ODOT Analysis and Procedures Manual Chapter 14 Multimodal Analysis,
- Low Stress Bicycle Network (Transportation System Plan Figure 5-1),
- Pedestrian Connector Routes and Crossings Map (Part VI – Appendix C)
- All other referenced documents cited herein

- **Part III – Special Provisions to the OSS**
  - 00440.10
    - Added material reference to Section 02045 for fiber mesh

**00440.10 Materials** - Add the following to the end of the material list:

Fiber ..... 02045

  - 00440.40(d)

**00440.40(d) Weather** - Replace this subsection, except for the subsection number and title, with the following:

Do not place CGC when the air temperature is below 35 °F or above 100 °F without approval.

Protect CGC from freezing if the air temperature is expected to drop below 35 °F during the first 5 Calendar Days after placement.

All concrete placed below 35 °F shall be approved under the following prescribed cold weather concrete plan:

- Concrete may be placed when the ambient air temperature is 25° F and rising, and the projected day time temperature high will be above 35 °F for 2 days (unless otherwise approved by the City Engineer)
- Concrete shall not be poured below 25° F





- Concrete may not be poured on frozen ground
- If subgrade is frozen, all frozen material must be removed and new compacted base must be placed before concrete is poured
- Concrete subgrade must be inspected by the City prior to placing concrete
- At a minimum, when ambient air temperatures are between 30 °F and 40 °F, hot water will be used to maintain concrete temperatures not less than 55 °F at placement
- At a minimum, when ambient air temperatures are between 25 °F and 30 °F, hot water will be used to maintain concrete temperatures not less than 55°F at placement and 1% non-Chloride accelerator
- Provide batch tickets to the Inspector
- The City may require the use of a hi/low thermometer to record the temperature of the placed concrete for 7 calendar days. Concrete must be maintained at 40 °F minimum during this time
- If concrete temperature falls below 40 °F, the City may choose to have the concrete removed and replaced at the contractors/permittee expense
- Prevent concrete from freezing for 7 calendar days after concrete is placed
- At a minimum, cover all concrete at night if the 7 day forecast shows a potential for freezing. It is up to the contractor to determine the best practice for protecting the concrete.
- Alternate cold weather concrete plans may be submitted for review but approval is at the City's discretion.

When the air temperature exceeds 90 °F, place concrete in accordance with ACI 305R-10.

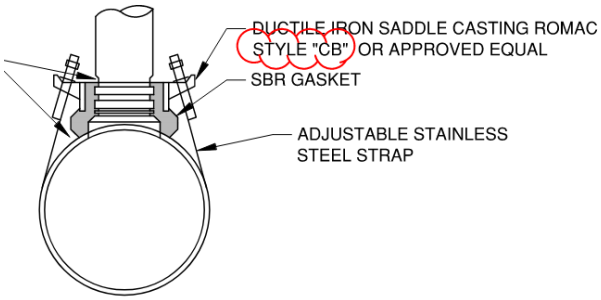
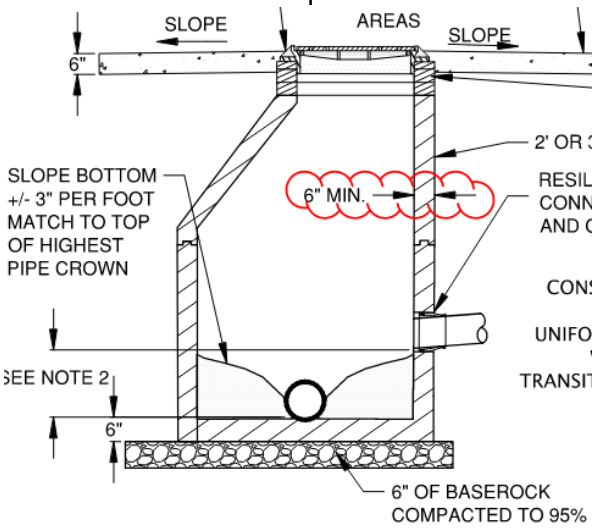
- Added "clean" to the drain rock material requirement

**00470.18 Drywell**

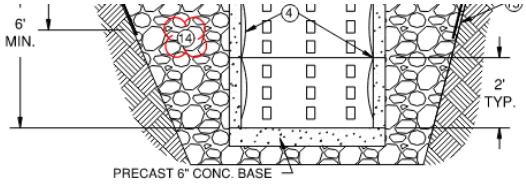
**(a) Drain Rock** – Furnish commercially available clean 2" – 3" crushed or river run drain rock.

- Added material reference to 02045 for fiber mesh

**00759.13 High Strength Concrete** – Furnish Class 5000 mix meeting the requirements of Section 02001 with ~~1.2 pounds per cubic yard~~ fiber mesh meeting the requirements of Section 02045.

- **Part V – Standard Drawings**
  - Changed style of Romac saddle to be used
    - 
      
  - Added dimension to require minimum 6” wall thickness for manholes
    - 
      
  - Added language in note to allow DCDA to be in building
    - 3. VAULT TO BE SIZED BY ENGINEER IN CONFORMANCE TO BUILDING/FIRE/PLUMBING CODE, MEETING THE DOUBLE CHECK DETECTOR ASSEMBLY (DCDA) MANUFACTURER'S INSTALLATION SPECIFICATIONS. DESIGN SHALL ACCOUNT FOR ANY FREEZE PROTECTION REQUIRED TO MEET FIRE CODE.
      - 3.1. WHERE BUILDING IS WITHIN 20 FEET OF THE RIGHT OF WAY LINE, AND AS APPROVED BY THE BUILDING OFFICIAL, THE DCDA CAN BE WITHIN THE BUILDINGS MECHANICAL ROOM WITH THE DCDA LOCATED AT THE BUILDING PENETRATION AND THE FDC VISIBLE FROM ROW. ACCESS TO THE MECHANICAL ROOM TO BE PROVIDED BY AN EXTERIOR DOOR WITH KNOX BOX.
      - 3.2. VAULTS ARE TO BE PLACED OUT OF HARD SURFACES (SIDEWALKS, DRIVEWAYS/ROADWAYS,ECT.)
    - 4. POST INDICATOR VALVE (PIV) AND FIRE DEPARTMENT CONNECTION (FDC) TO BE LOCATED IN CLEAR VIEW OF THE FRONTAGE STREET, WITH THE FDC LOCATED WITHIN AN ALLOWABLE DISTANCE FROM A HYDRANT. PIV AND FDC MAY BE MOUNTED ON THE

- Added drain rock material reference to 00470.18




NOTES:
* SEE ALSO THE CITY OF BEND STANDARDS AND SPECIFICATIONS FOR DESIGN CRITERIA
1. 6" CONCRETE CAP, CL. 3000, EXTEND TO UNDISTURBED MATERIAL 2' MIN. REQUIRED WITHIN ALL CITY OF BEND RIGHT OF WAY UNLESS NOTED OTHERWISE.
2. MOISTURE BARRIER-2 LAYERS OF 4 MIL POLY. ON ALL ROCK INSTALLATIONS.
3. NONWOVEN GEOFABRIC CONFORMING TO DRAINAGE GEOTEXTILE, OREGON TABLE 02320-1 REQUIRED ON ALL EARTH OR GRAVEL EXCAVATIONS TO 24" INTO ROCK. LAP 24" WITH MOISTURE BARRIER.
4. LINE INSIDE OF PERFORATED BARREL WITH HEAVY WEIGHT VINYL SCREEN, SUCH AS FULL FLOW VINYL SCREEN THAT MEETS THE REQUIREMENTS OF SPECIFICATION SECTION 00470. LINER SHALL BE FULLY AND CONTINUOUSLY ANCHORED, TOP AND BOTTOM OF EACH SECTION. ATTACH BY OVERLAPPING 12" MIN. BETWEEN JOINT OF MANHOLE CONE AND PERFORATED BARREL SECTION. INLET PIPE SHALL BE EXTENDED THROUGH THE SCREEN IF SCREEN IS ATTACHED ABOVE THE PIPE.
5. PRE-CAST SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-478. ALL CONCRETE SHALL BE COMMERCIAL GRADE CONCRETE
6. STANDARD RING AND COVER REQUIRED IN RIGHT-OF-WAY AREAS. NO SLOTTED COVERS WILL BE ALLOWED IN LIEU OF A CATCH BASIN.
7. CLASS "A" BACKFILL COMPACTED TO 95.0% OPTIMUM DRY DENSITY (AASHTO T-99).
8. CLASS "B" BACKFILL COMPACTED TO 95.0% OPTIMUM DRY DENSITY (AASHTO T-99).
9. PERFORATIONS TO BE 60" BELOW EXISTING UNDISTURBED GROUND.
10. INLET PIPE MUST BE DESIGNED SO IT CAN BE PLUGGED IN CASE OF SPILL. ALL PIPE PENETRATIONS ARE TO BE GROUTED OR WATER-TIGHT SEALED. PIPE INLETS NOT TO ENTER DRYWELL WITH PERFORATED BARREL.
11. DRYWELL RIMS TO BE PLACED OUTSIDE OF SIDEWALK, APRON & STREET SURFACES UNLESS APPROVED BY THE CITY ENGINEER.
12. PLANS SHALL PROVIDE VOLUME AND AREA OF ROCK PLACEMENT. ROCK PLACEMENT SHALL BE OUTSIDE WATER/SEWER TRENCHES. WHERE ROCK ENTERS PRIVATE PROPERTY, A DRAINAGE EASEMENT SHALL BE RECORDED.
13. GEOFABRIC TO BE EXTENDED FROM THE CONCRETE CAP TO BOTTOM OF DRYWELL STRUCTURE. WHERE THE EXCAVATION IS WITHIN SOLID ROCK (NO SIDEWALL SLOUGHING), GEOFABRIC CAN BE WAIVED AT ENGINEER'S DISCRETION.
14. CLEAN 2"-3" CRUSHED OR RIVER RUN DRAIN ROCK PER SECTION 00470.18.

- [illegible]