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Gabriel Solmer, Director
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Portland, Oregon 97204-1926
503-823-7404
portlandoregon.gov/water

To: Joan Frederiksen, BPS West District Liaison

From: Joel Hill

Cc: Mike Saling, Dave Evonuk, Teresa Elliott, Cherri Warnke, Ryan Curren

Date: October 14, 2020

Re: West Portland Town Center Plan District (WPTC) – Water Bureau Deficiency Review

The following is the Portland Water Bureau (PWB) review of the proposed zoning changes to the WPTC. Three analyses were preformed to evaluate existing water main sizes and available fire flow against PWB planning standards for the proposed zoning. There is a total of approximately 24,300 feet of main within the areas proposed to be up-zoned that would not meet minimum sizing standards for the proposed zoning. Please see the associated maps as well.

1. Less than 6-inch (non dead-end) Map: There are approximately 14,700 feet of existing undersized mains that do not meet current Water Bureau standards within the WPTC boundary. The PWB minimum size for distribution mains that are non dead-end is 6-inch in non-commercial areas. Hydrants on mains less than 6-inch can rarely provide standard fire flow. *
2. Commercial Zone Change Map: There are approximately 14,600 feet of existing mains that would become or already are undersized for areas to receive commercial zone changes as a part of WPTC zone changes. PWB standard for commercial zoning is a minimum 8-inch distribution main. This allows us to meet higher fire flow and retail demands in this zoning. *
3. Hydrant Flow Map: Three of five hydrants evaluated within the WPTC boundary showed below standard fire flow for the existing single family (R7) zoning. Only a few hydrants were sampled through-out the boundary and a larger modeling effort of more hydrants may be needed to better understand/define the extents of this deficiency. These hydrants were chosen at random, but with the intent to pick ones spread out across the WPTC area. The standard requirement for hydrant flow in a commercial zone is 3500 GPM provided by four hydrants. The four nearest hydrants to SW Brugger and SW 41st have a combined hydrant flow of 2,600 GPM which is only 75% of the standard commercial fire flow.

*There is approximately 5,000 feet of main overlap between maps 1 & 2.

Please note that PWB does not typically replace water pipelines as a direct response to zoning changes. Infrastructure changes are made in response to development, pipe failures, and aged-out pipe replacements needs. When these occur, new infrastructure would be built to the standards of the updated zoning.

PWB recognizes that the Light Rail Transit (LRT) development will also be passing through this area. PWB is preforming a separate coordination and review of the LRT design and the related impacts to the water infrastructure.

PWB has an 8-inch water main on the Barbur Transit Center property that is an important supply to the area. Any proposed development on this site will need to consider this pipeline.

PWB does not have any immediate actions that need to be addressed to support this zone change proposal.

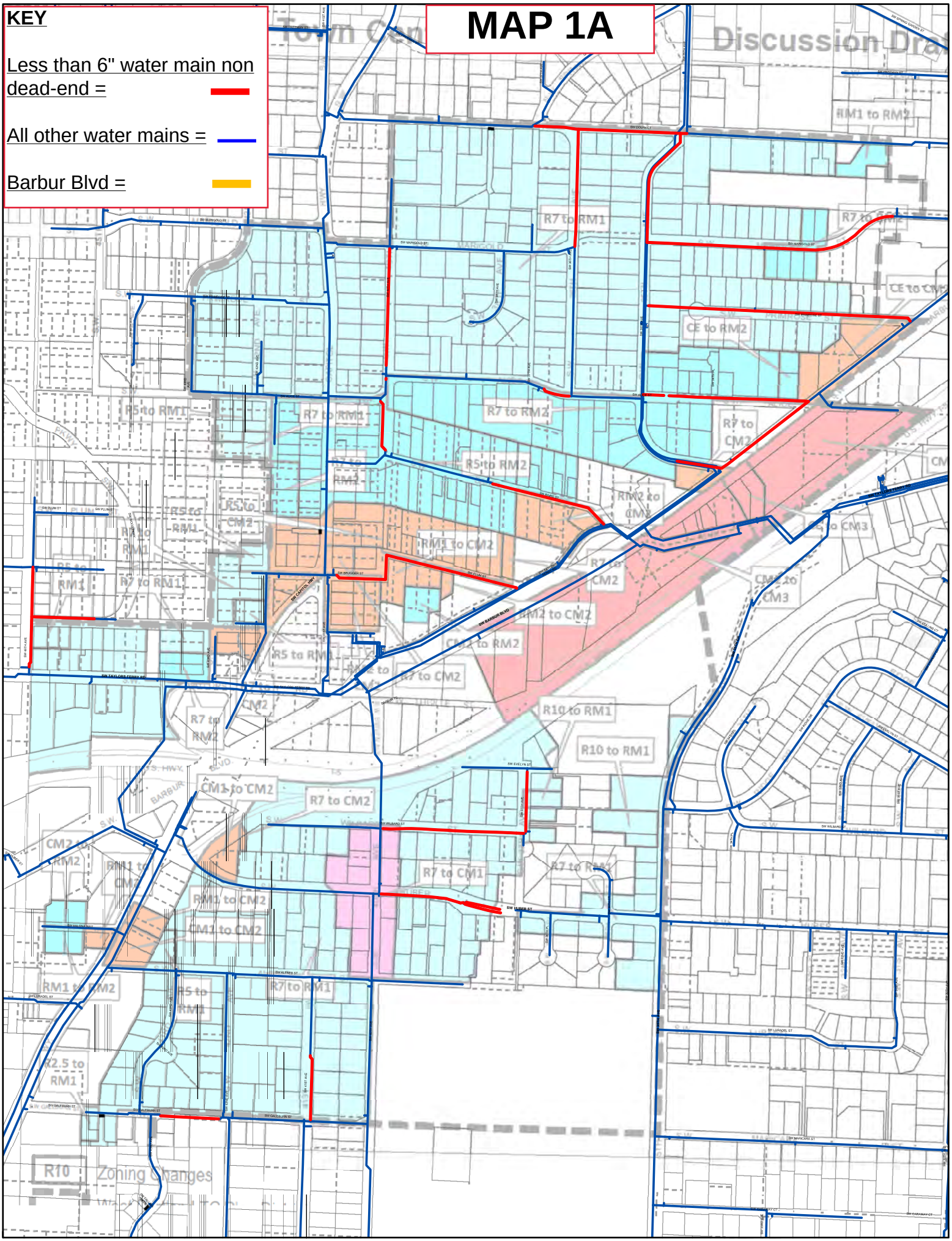
MAP 1A

KEY

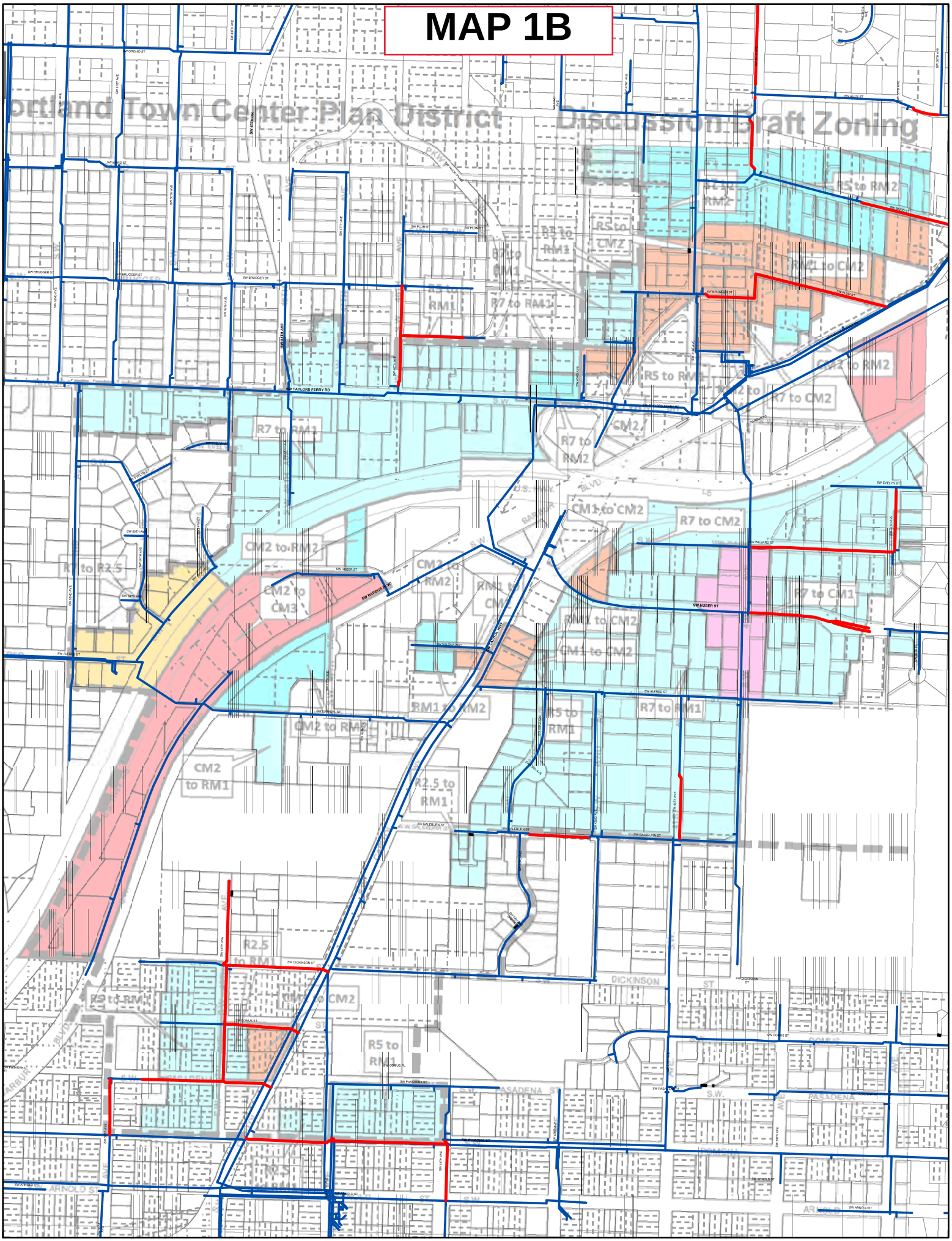
Less than 6" water main non dead-end =

All other water mains =

Barbur Blvd =



MAP 1B


Portland Town Center Plan District Discussion Draft Zoning
R5 to RM2
R7 to RM2
R5 to RM1
R5 to CM2
R7 to RM1
RM1 to CM2
R7 to RM1
R5 to RM1
CM2 to RM2
R7 to CM2
R7 to RM1
R7 to RM2
CM2
CM1 to CM2
R7 to CM2
CM2 to RM2
R7 to R2.5
CM2 to CM3
CM2 to RM2
RM1 to CM2
R7 to CM1
RM1 to CM2
CM1 to CM2
RM1 to RM2
CM2 to RM2
R5 to RM1
R7 to RM1
CM2 to RM1
R2.5 to RM1
R2.5 to RM1
R5 to RM1
CM2 to CM2
R5 to RM1
SW TAYLORS FERRY RD
SW BARBUR BLVD
SW HUBER ST
SW ALFRED ST
SW DICKINSON ST
SW PASADENA ST
SW ARNOLD ST
DICKINSON ST
PASADENA ST
ARNOLD ST

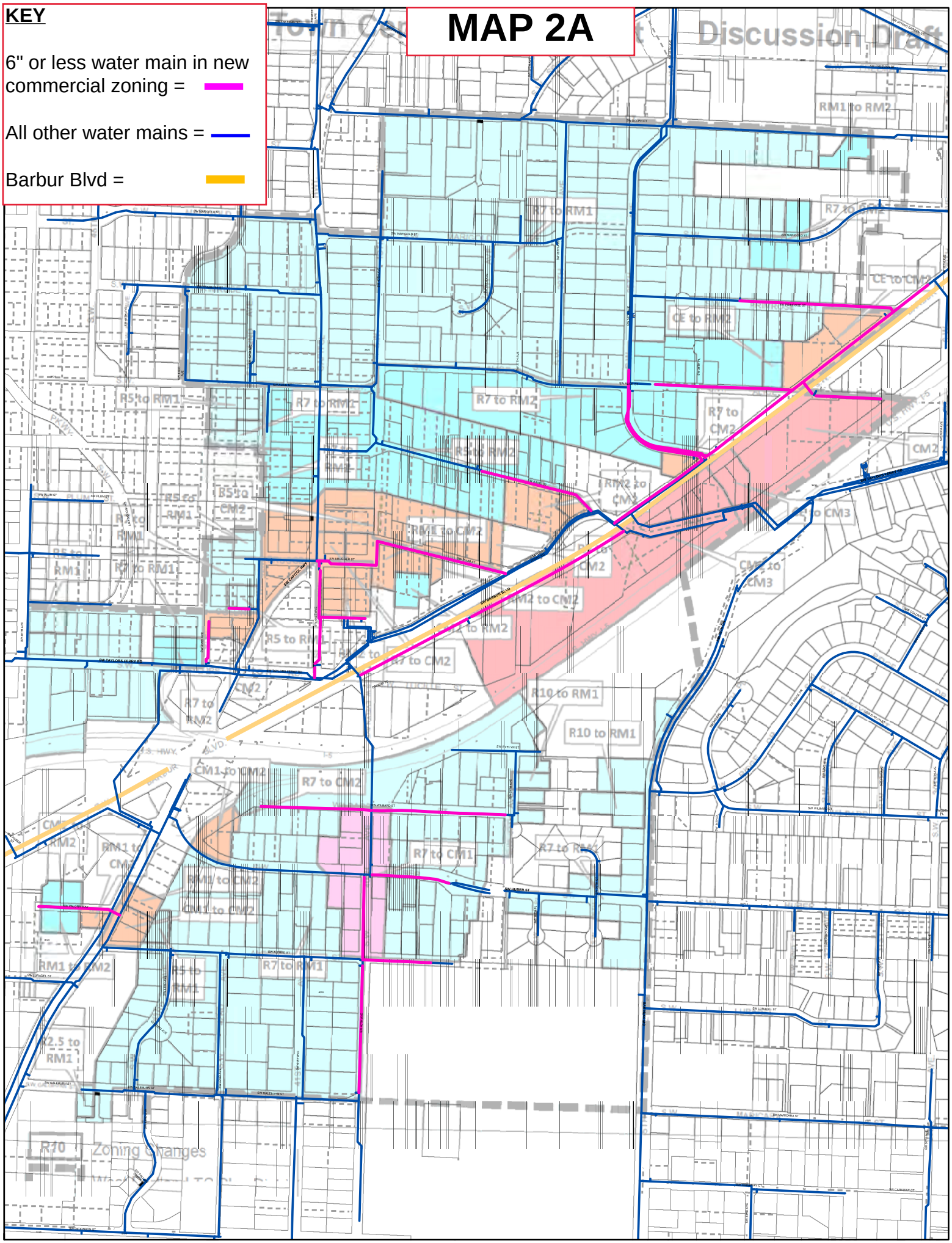
MAP 2A

KEY

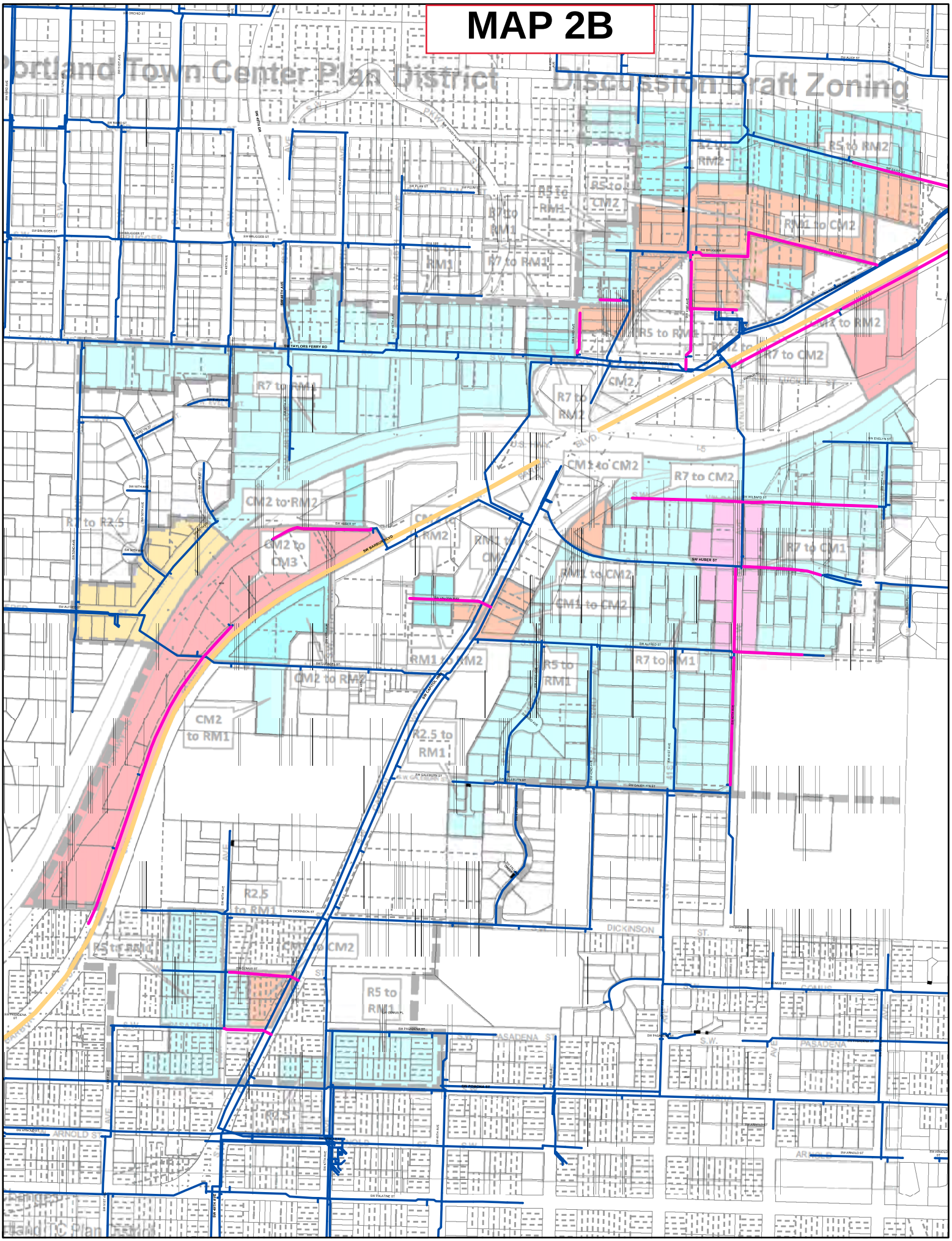
6" or less water main in new commercial zoning =

All other water mains =

Barbur Blvd =



MAP 2B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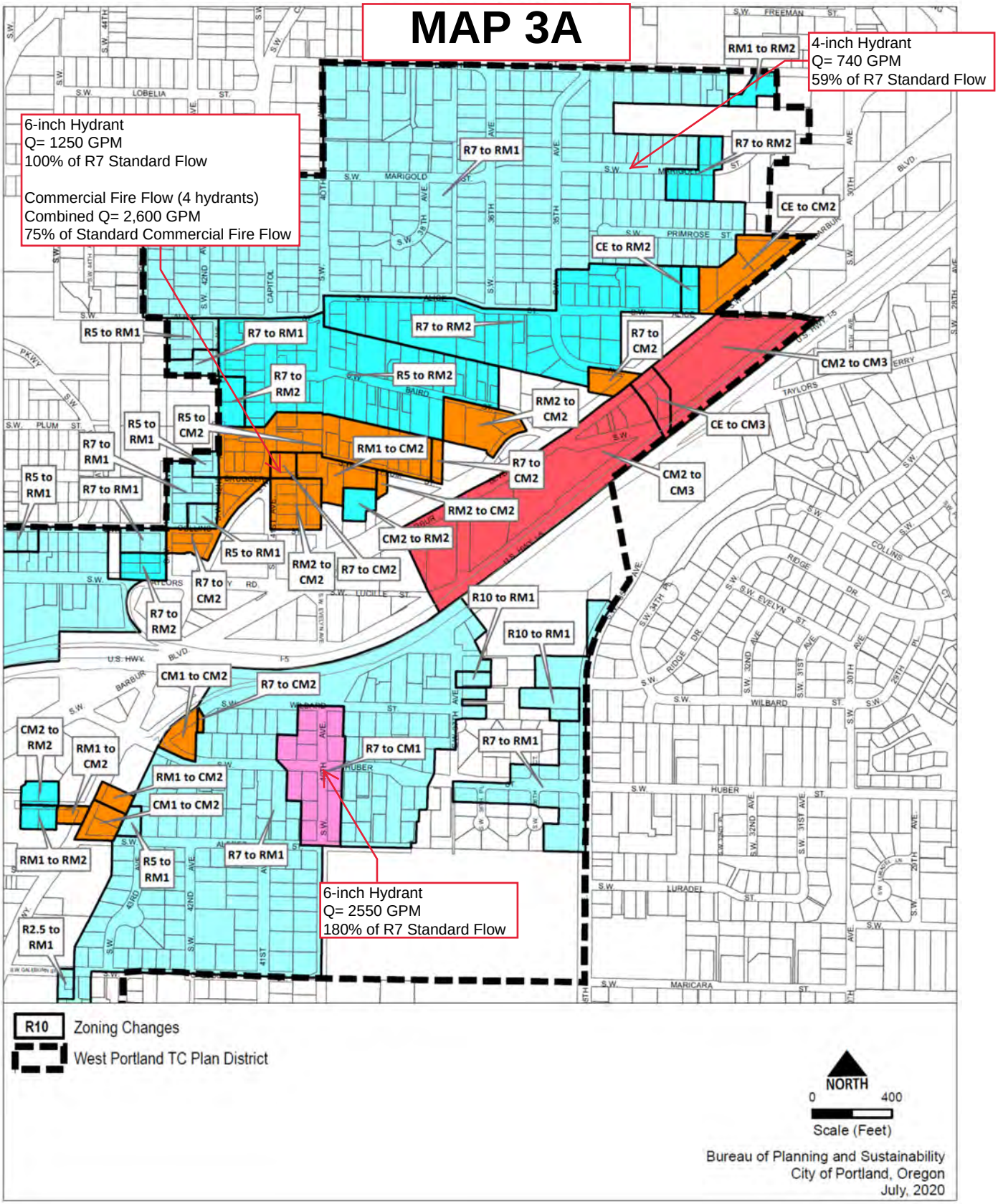
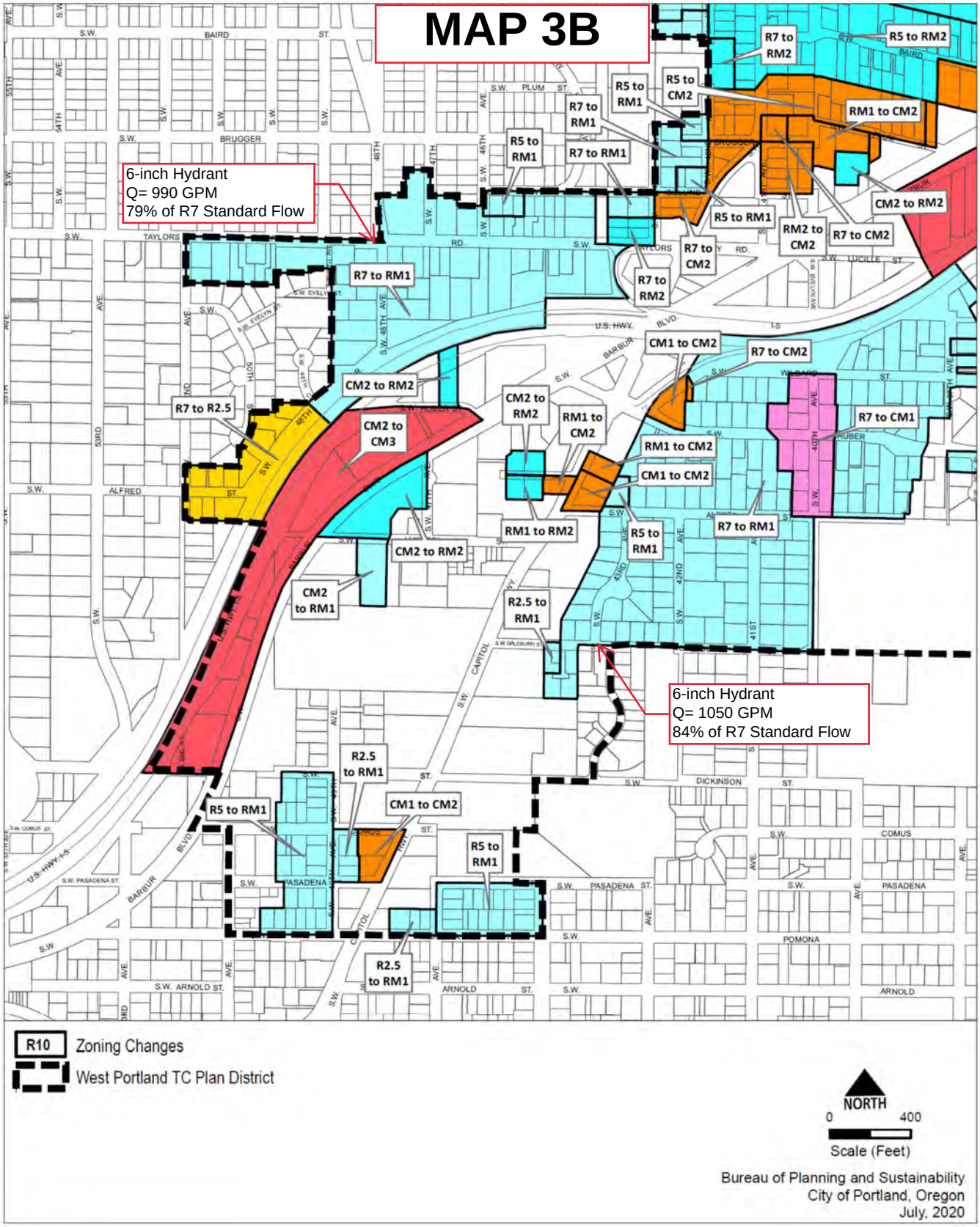
R7 to RM1
R5 to RM1
R7 to CM2
CM2
R7 to RM2
CM1 to CM2
R7 to CM2
R7 to R2.5
CM2 to RM2
CM2 to CM3
RM2
R7 to CM1
RM1 to CM2
CM1 to CM2
RM1 to RM2
R5 to RM1
R7 to RM1
CM2 to RM2
CM2 to RM1
R2.5 to RM1
R2.5 to RM1
R5 to RM1
CM2
R5 to RM1
DICKINSON ST.
PASADENA ST.
ARNOLD ST.
SW TAYLORS FERRY RD
SW BARBUR BLVD
SW HUBER ST
SW PORTER ST
SW DICKINSON ST
SW COMUS ST
SW PASADENA ST
SW ARNOLD ST
SW PALATINE ST
I-5

West Portland Town Center Plan District Discussion Draft Zoning



West Portland Town Center Plan District Discussion Draft Zoning



Bureau of Planning and Sustainability
City of Portland, Oregon
July, 2020