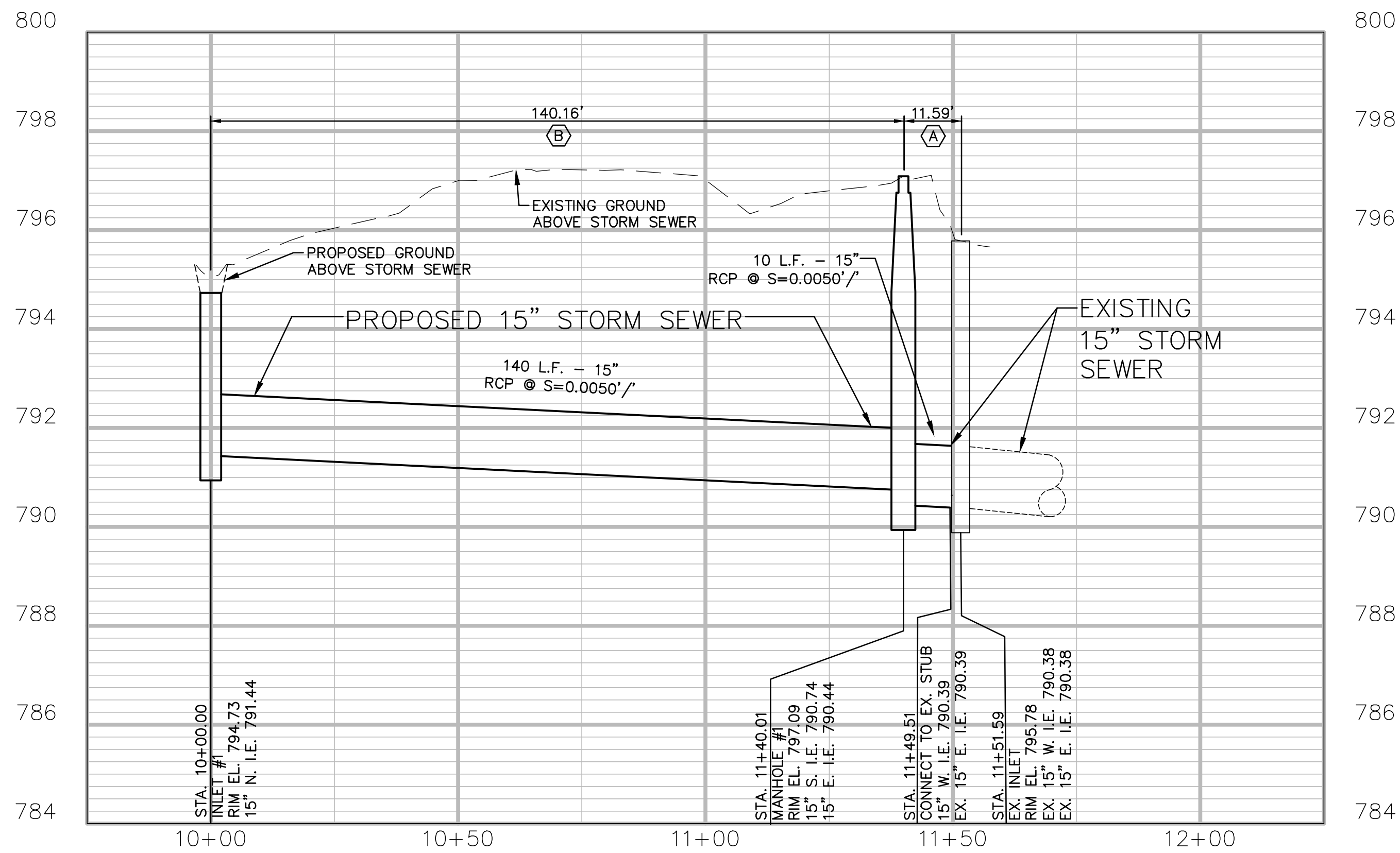
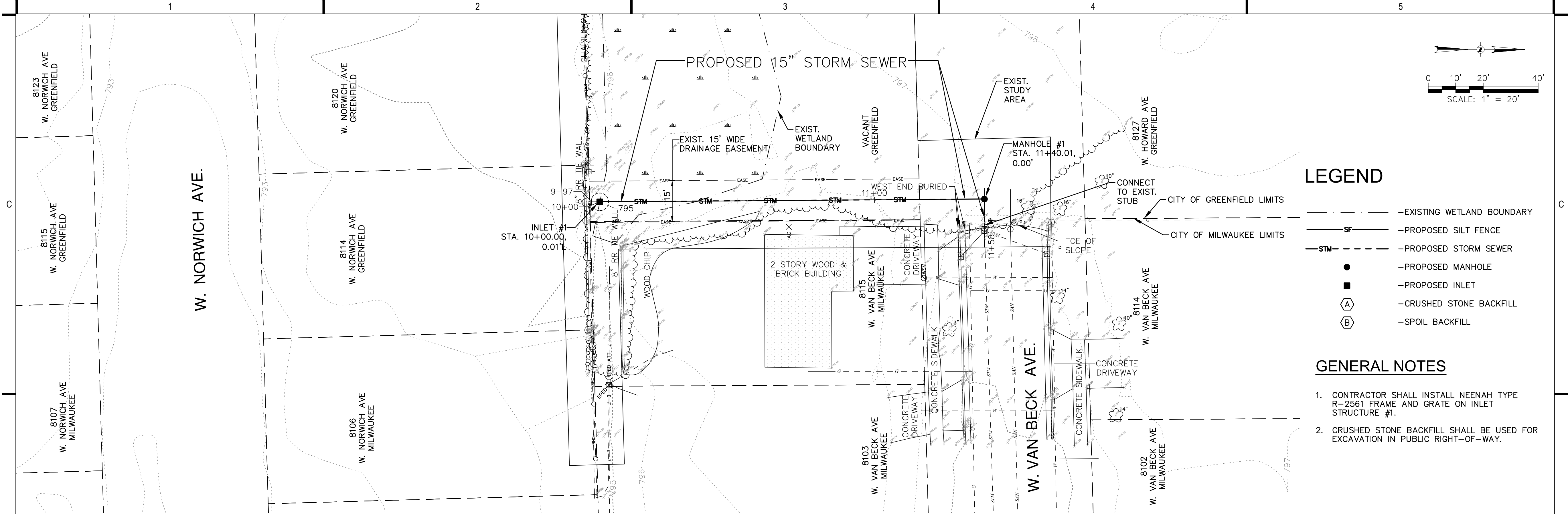


DISCLAIMER: The underground utilities shown have been located from field survey information and existing drawings. GRAEF makes no guarantees that the underground utilities shown comprise all such utilities in the area, either in service or abandoned. GRAEF further does not warrant that the underground utilities shown are in the exact location indicated. GRAEF has not physically located the underground utilities.



**GRĀEF**

275 West Wisconsin Avenue  
Suite 300  
Milwaukee, WI 53203-3318  
414 / 259 1500

## LEGEND

- |               |                            |
|---------------|----------------------------|
| — — — — —     | —EXISTING WETLAND BOUNDARY |
| —SF—          | —PROPOSED SILT FENCE       |
| —STM— - - - - | —PROPOSED STORM SEWER      |
| ●             | —PROPOSED MANHOLE          |
| ■             | —PROPOSED INLET            |
| ⬡<br>A        | —CRUSHED STONE BACKFILL    |
| ⬡<br>B        | —SPOIL BACKFILL            |

## GENERAL NOTES

1. CONTRACTOR SHALL INSTALL NEENAH TYPE R-2561 FRAME AND GRATE ON INLET STRUCTURE #1.
2. CRUSHED STONE BACKFILL SHALL BE USED FOR EXCAVATION IN PUBLIC RIGHT-OF-WAY.

PROJECT TITLE:

GREENFIELD - VAN BECK AVE.  
STORM SEWER

## PROJECT STATUS

CITY OF GREENFIELD  
7325 W. FOREST HOME AVE.  
GREENFIELD WI, 53220-3356

NO.	DATE	REVISIONS	BY
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PROJECT INFORMATION:

PROJECT NUMBER: 2024-0142

DATE: 06/27/2024

DRAWN BY: BAF

CHECKED BY: MNF

APPROVED BY: MNF

SCALE: AS SHOWN

SHEET TITLE:

## STORM SEWER PLAN AND PROFILE

SHEET NUMBER:

# C400



collaborate / formulate / innovate

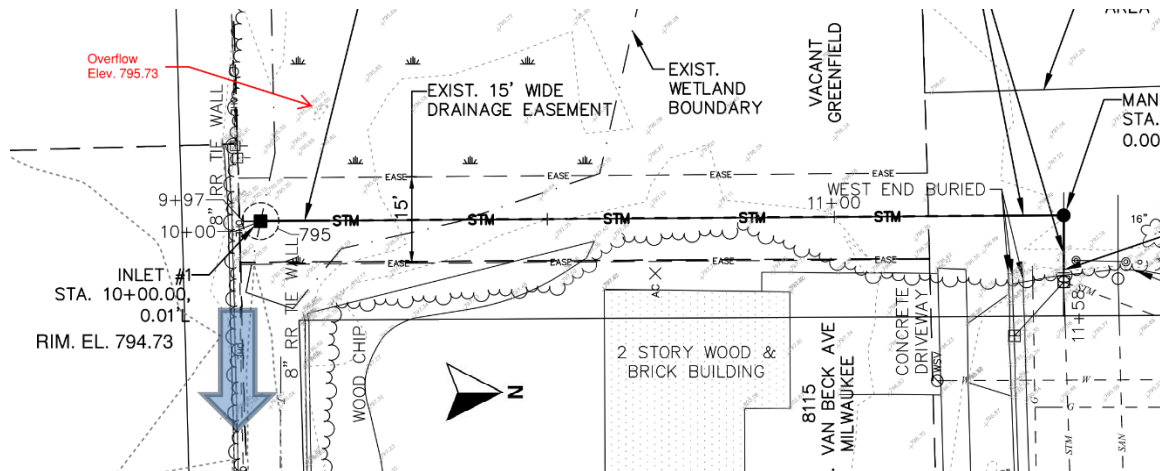
## MEMORANDUM

**TO:** File

**FROM:** Joy M Corona, PE, CFM

**DATE:** July 23, 2024

**SUBJECT:** Van Beck / Norwich, City of Greenfield  
Approximately 5.25-ac are tributary to a depression area in the vicinity of the unimproved W Van Beck Avenue ROW. The depression ponds until approximately 795.73 when it overtops to the SE.



The 5-ac watershed generates approximately 6.5-cfs during the 10-yr event (without accounting for attenuation in the depression). The proposed 15" storm sewer at 0.5% can accommodate approximately 6-cfs which should sufficiently convey the 10-yr event if the depression capacity was explicitly modeled. Runoff in excess of the storm sewer capacity will continue east as under current conditions.





I Want To...



100 ft





STORM SEWER DESIGN COMPUTATION SHEET

(Peak flow by Rational Method, NOAA Atlas 14 Rainfall Data )

Greenfield- Van Beck Ave. Storm Sewer

DESIGN STORM: YR.

Manning's n: 0.013

COMPUTED BY:

CHECKED BY:

PROJECT #:

Structure #		Trib Area		Rainfall and Runoff Data						Q=CIA		Pipe Design							
From	To	Incremental	Total Accumulated	Incremental C	Composite C	Tc Incremental	Tc Total	I (Intensity) Incremental	I (Intensity) Total	Q Inlet	Q Total	Length	Diameter	Slope	Material	n	Parts Full Actual	Q Actual	V Actual
		Acres	Acres			Min	Min	in/hr	in/hr	cfs	cfs	Ft	In	%			d/D	cfs	fps
10 year		5.25	5.25	0.35	0.35	15	15.0	4.12	4.12	7.57	7.57	140	15	0.50	pvc	0.01	1.00	5.94	4.84
5 year		5.25	5.25	0.35	0.35	15	15.0	3.53	3.53	6.49	6.49	140	15	0.50	pvc	0.01	1.00	5.94	4.84
2 year		5.25	5.25	0.35	0.35	15	15.0	2.79	2.79	5.12	5.12	140	15	0.50	pvc	0.01	1.00	5.94	4.84
1 year		5.25	5.25	0.35	0.35	15	15.0	2.33	2.33	4.28	4.28	140	15	0.50	pvc	0.01	1.00	5.94	4.84



## Orifice Flow Calculator

What do you need to calculate?

FLOW

GRATE OPEN AREA

Enter open area of grate (in<sup>2</sup>)

288

in<sup>2</sup>

RESET

CALCULATE RESULTS

WATER DEPTH (IN):	FLOW CAPACITY (CFS):
4	6.2
5	6.9
6	7.6
7	8.2
8	8.8
9	9.3
10	9.8
11	10.3
12	10.7
13	11.2
14	11.6
15	12.0
16	12.4