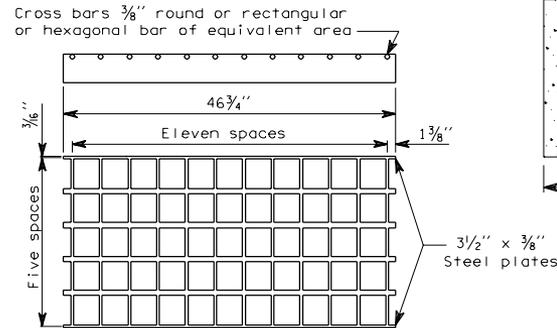
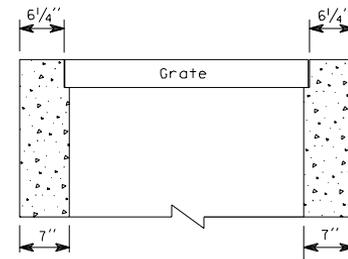


GRATE A
(Weight is approximately 215 Lbs)



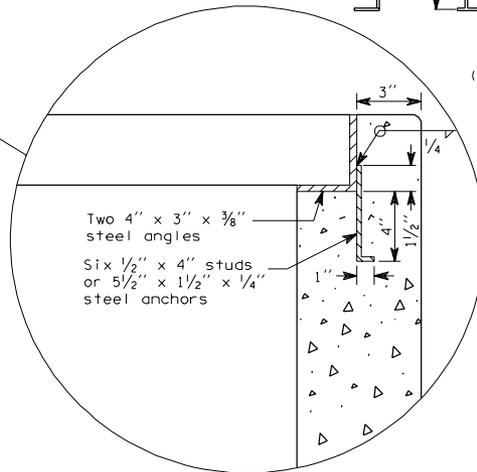
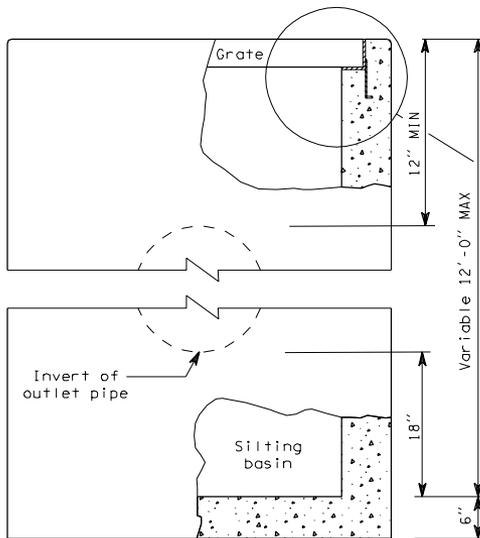
GRATE B
(Weight is approximately 215 Lbs)



SECTION C-C

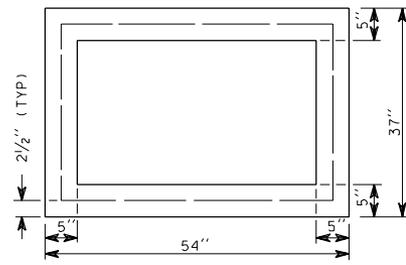
NOTES

1. Angles shall be set so that each bearing bar of prefabricated grate shall have full bearing on both ends. The finished top of concrete shall be even with the grate surface.
2. All exposed concrete shall be finished with a 1/2" radius edger tool.
3. The grade line of the top inside of any pipe shall enter no lower than the grade line of the top inside of the outlet pipe.
4. Culvert or sewer pipes may be set at any angle to the centerline of the highway and may enter the inlet on any side at any reasonable angle, provided the outside of the pipe can be contained between two opposite walls.
5. Grate B will be used only when specified in the Contract.

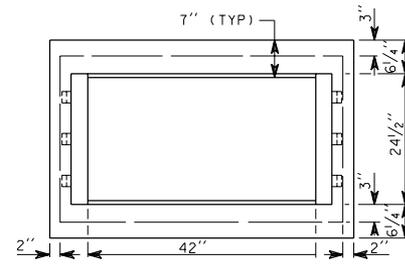


GRATE INLET TYPE 1

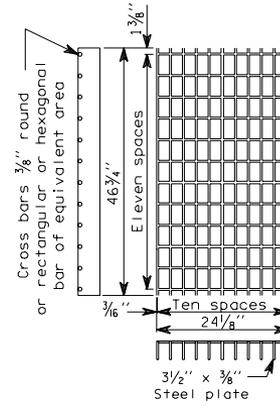
BAR LIST (All dimensions are out to out)					BENDING DIAGRAM
MARK	LOCATION	QTY	SIZE	LENGTH	
1	Bottom slab and side wall	3		5'-9"	
2	Bottom slab and side wall	2		12'-5"	
3	Bottom slab and side wall	2		7'-2"	
4	Bottom slab and side wall	2		2'-9" Straight	
5	Wall	4		9'-1" Hoop	
6	Side wall	3		14'-6" Hoop	
7	Unit H	2	3	14'-2" Hoop	
8	Unit J	2		14'-2" Hoop	
8	Unit K	3		14'-2" Hoop	
9	Unit K	4		0'-9" Straight	
10	Side wall	8		2'-8" Straight	
11	Bottom slab and side wall	4		7'-5"	
12	Bottom slab and side wall	3		6'-0"	
13	Side wall	4		14'-6" Hoop	



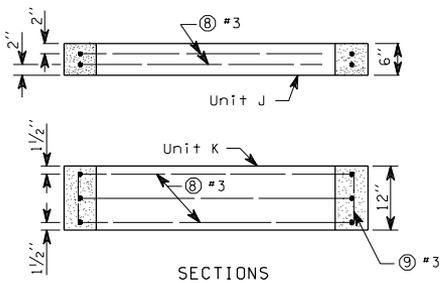
PLAN



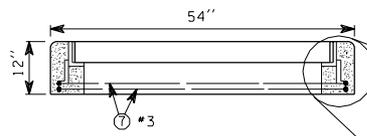
PLAN



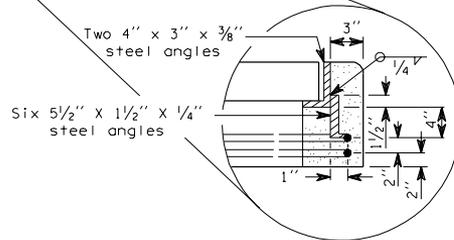
GRATE DETAILS



SECTIONS UNITS J AND K



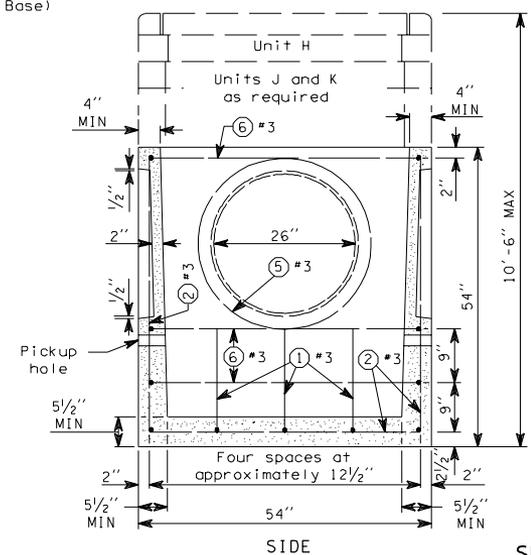
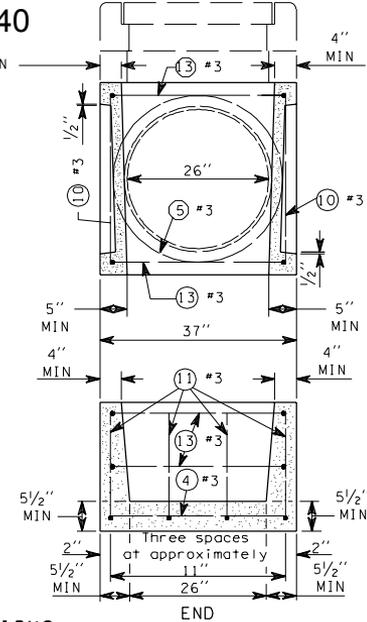
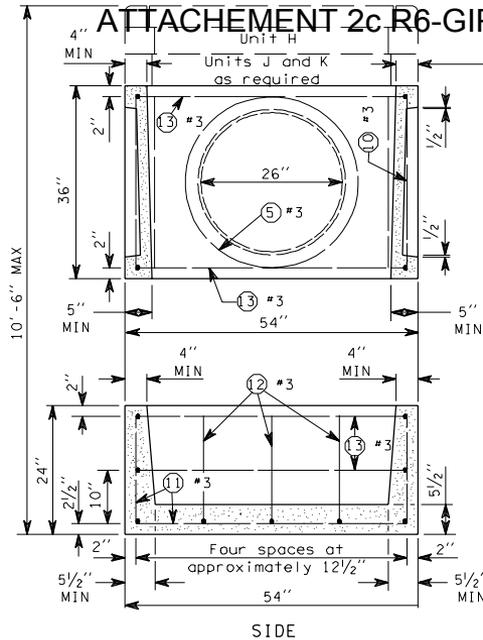
SECTION UNIT H



GRATE INLET TYPE 2

B-4c
05-09-97

ATTACHMENT 2c R6-GIP-4-040



NOTES

Angles shall be set so that each bearing bar or prefabricated grate shall have full bearing on both ends. The finished top of concrete shall be even with the grate surface.

Top of inlet grate shall be placed at ground level to present an unobstructed ditch or median section.

All exposed concrete edges shall be finished with a 1/2" radius edger tool.

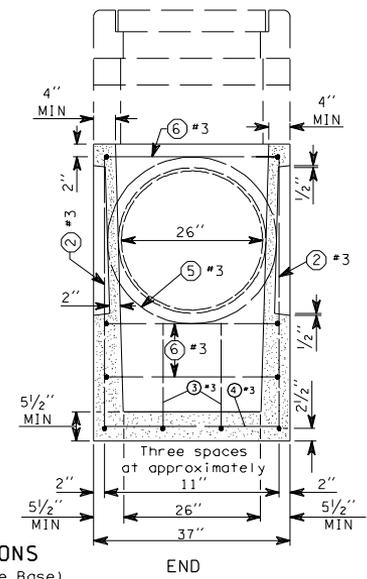
Pipes may enter through the knockouts on any side at any reasonable angle, provided the outside of the pipe can be contained between two opposite walls.

The flow line of the outlet pipe shall be 18" minimum above the inside bottom of the inlet structure.

The grade line of the top inside of any inlet pipe shall enter at a point no lower than the grade line of the top inside of the outlet pipe.

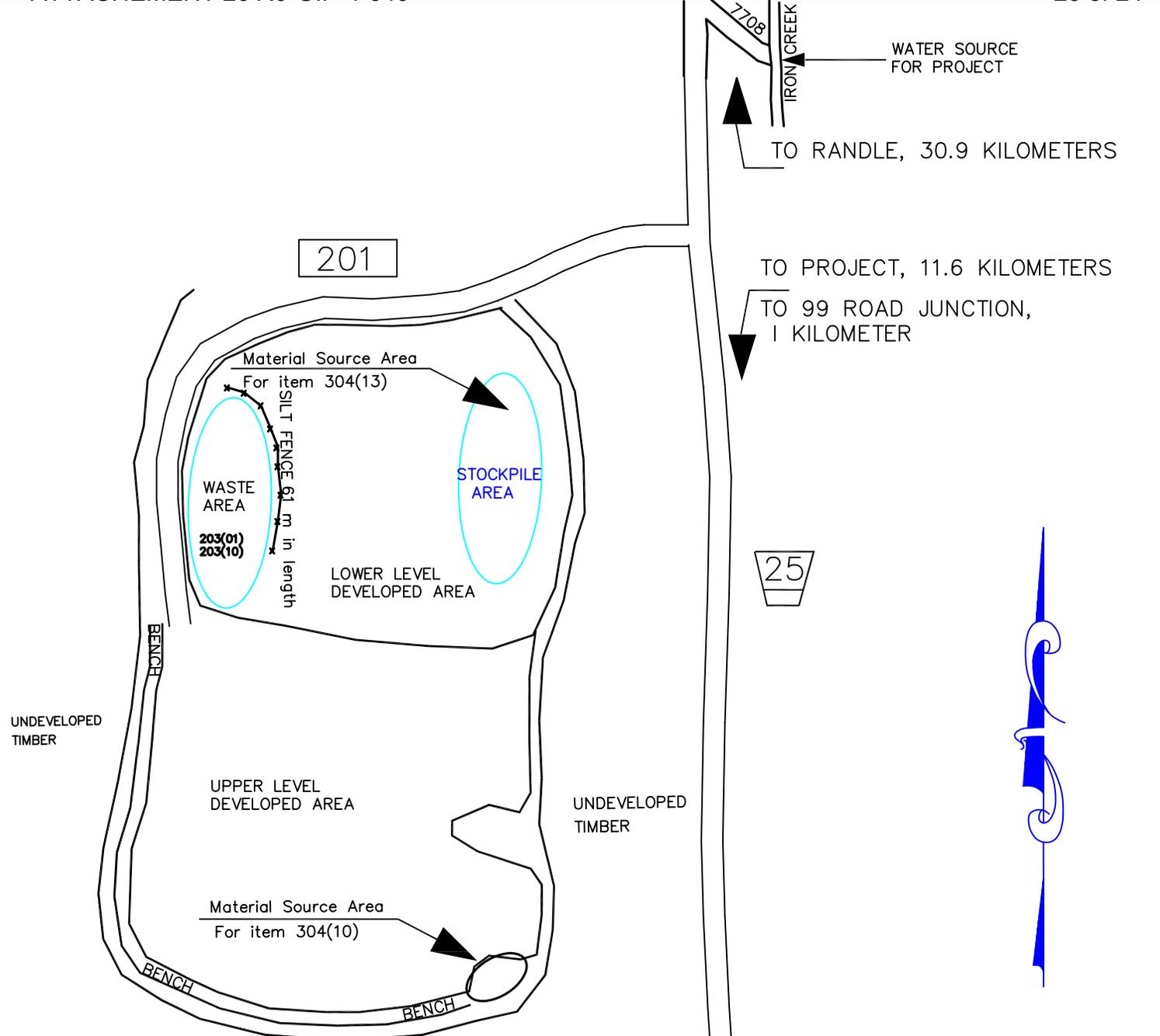
Unit H and optional extension units J and K shall be grouted in place to the satisfaction of the Engineer.

All pickup holes shall be grouted full after the basin has been placed.



GRATE INLET TYPE 2

B-4c
05-09-97



NOTES

- 1) MATERIAL SOURCE AREA SHALL BE FLAGGED BY THE U.S. FOREST SERVICE PRIOR TO ENTRY.
- 2) QUARRY FLOOR SHALL BE OUTSLOPED 4% FOR DRAINAGE.
- 3) SLOPES SHALL NOT BE LEFT IN AN UNSTABLE OR DANGEROUS CONDITION AND SHALL BE FREE OF LOOSE MATERIAL.
- 4) NO REHABILITATION IS REQUIRED AT THIS ENTRY.
- 5) MATERIAL DISPLACED OUTSIDE OF THE DEVELOPMENT AREA SHALL BE RETRIEVED AND UTILIZED.
- 6) NO CLEARING AND GRUBBING NEEDED THIS ENTRY.
- 7) SPOTTED OWL RESTRICTION, NO ACTIVITY IN QUARRY MARCH 1 TO JUNE 30.

THE AREA SHOWN ABOVE FOR THE PRODUCTION OF PAY ITEM 304(10) CRUSHED ROCK MAY BE ACCESSED BY BULL DOZER AND AIR TRACK DRILL RIG WITHOUT FURTHER DEVELOPMENT WORK. EXISTING OVERSIZED MATERIAL ON THE PIT FLOOR MAY BE UTILIZED IN THE PRODUCTION OF PAY ITEM 304(10). ALL OVERSIZED MATERIAL CREATED DURING THE CONTRACTOR'S (OR SUBCONTRACTOR'S) OPERATIONS SHALL BE REDUCED TO A SIZE THAT ALLOWS FOR INCORPORATION IN THE PROJECT UNLESS ALLOWED OTHERWISE BY THE CONTRACTING OFFICER.

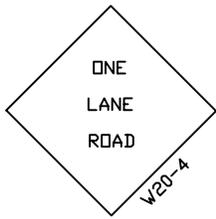
THE WASTE AREA IDENTIFIED ABOVE IS FOR THE DISPOSAL OF ALL EXCAVATION (PAY ITEM 203(01), 203(10)A, 203(10)B) GENERATED BY THIS PROJECT. END DUMP MATERIAL, BURY CULVERTS AND GUARD RAIL SECTIONS, DOZER SHAPE TO DRAIN. INSTALL 61 METERS OF SILT FENCING AS DIRECTED BY CONTRACTING OFFICER. SILT FENCING IS INCIDENTAL TO PAY ITEM 304(10) CRUSHED ROCK.

ALL POSTS REMOVED DURING REPLACEMENT OF GUARDRAIL SECTIONS TO BE REMOVED FROM THE FOREST AND DISPOSED OF BY THE CONTRACTOR

<p>U. S. DEPARTMENT OF AGRICULTURE FOREST SERVICE GIFFORD PINCHOT NATIONAL FOREST</p>	<p>BIG CREEK QUARRY DEVELOPMENT PLAN T10N, R7E, SEC 19</p>
	<p>99 ROAD MAINTENANCE PROJECT 06/04 SHEET 22 OF 23</p>



No. 2



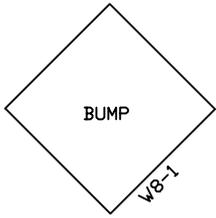
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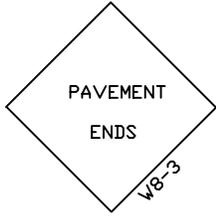
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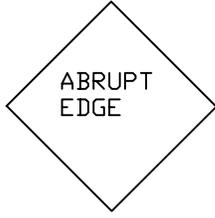
G20-4
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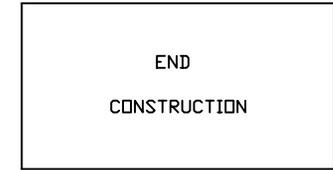
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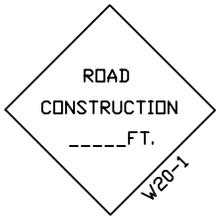
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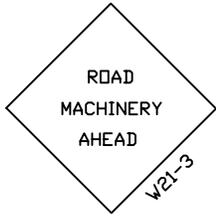
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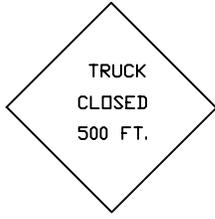
G20-2
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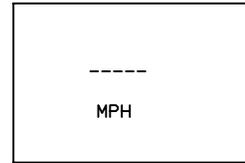
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No. _____



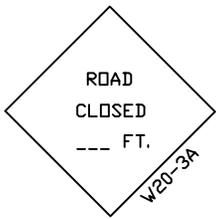
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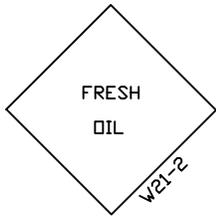
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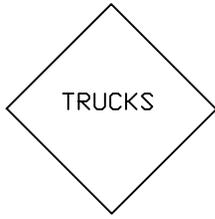
W20-7AP
No. _____



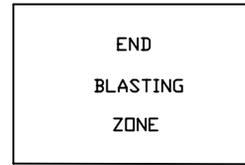
No. _____



No. _____



No. 4



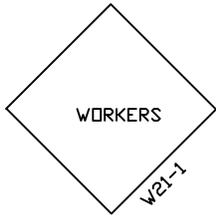
W22-3
No. _____



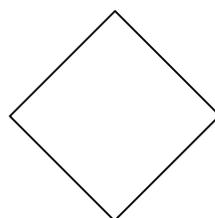
No. _____



No. 2



No. _____



No. _____

CONES

No. 30

BARRICADES

No. _____

THE CONTRACTOR WILL BE REQUIRED TO PROVIDE AND USE THE INDICATED SIGNS. ALL SIGNS ARE TO BE STANDARD COLORS AND SHAPES AS SHOWN IN THE CURRENT M.U.T.C.D. SIGNS WILL BE COVERED OR REMOVED WHEN NOT NEEDED.

DURING CONSTRUCTION TWO CERTIFIED FLAGGERS WILL BE REQUIRED AT EACH EXCAVATION AND / OR EMBANKMENT SITE SIGNING AND TRAFFIC MANAGEMENT IS INCIDENTAL TO PAY ITEM 203(10)A.

TRAFFIC CONTROL
DEVICES

DEPARTMENT OF AGRICULTURE
FOREST SERVICE
GIFFORD PINCHOT NATIONAL FOREST

STANDARD
DRAWING

104-GP1

7/88

99 ROAD
MAINTENANCE

SHEET 23 OF 23