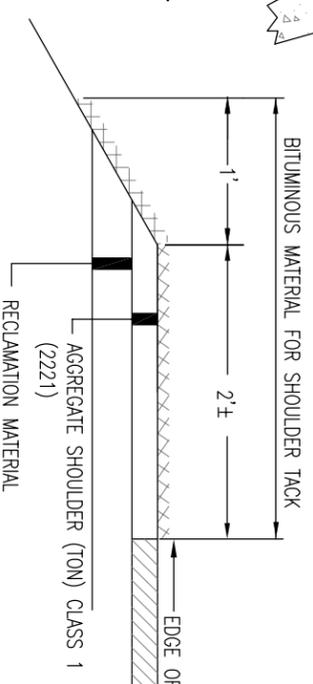


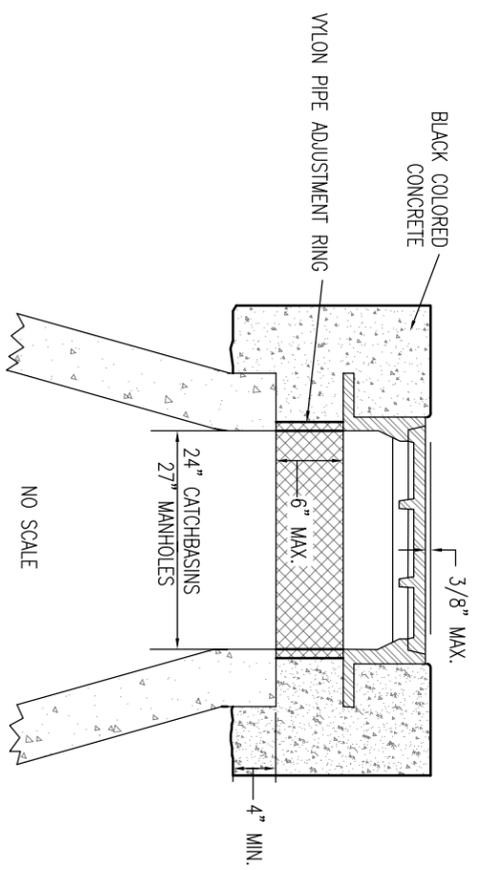
CONCRETE COLLAR TO ENCASE CASTING AND RINGS. BLACK COLORED CONCRETE MIX 3A32 SHALL BE USED FOR COLLAR. (INCIDENTAL TO ITEM 2506.602, ADJUST FRAME AND RING CASTING(SPECIAL))

THIS DETAIL SHALL APPLY TO ALL SANITARY MANHOLES

BASIS FOR ESTIMATED QUANTITIES	
BITUMINOUS MATERIAL FOR SHOULDER TACK:	0.18 GAL/SQ. YD.
BITUMINOUS MIXTURE:	125 LBS/SQ YD PER INCH OF DEPTH
CALCIUM CHLORIDE	0.25 GAL/SQ. YD.
SEED	70 LBS/ACRE
MULCH	2 TONS/ACRE
FERTILIZER	300 LBS/ACRE



BITUMINOUS SHOULDER TACK

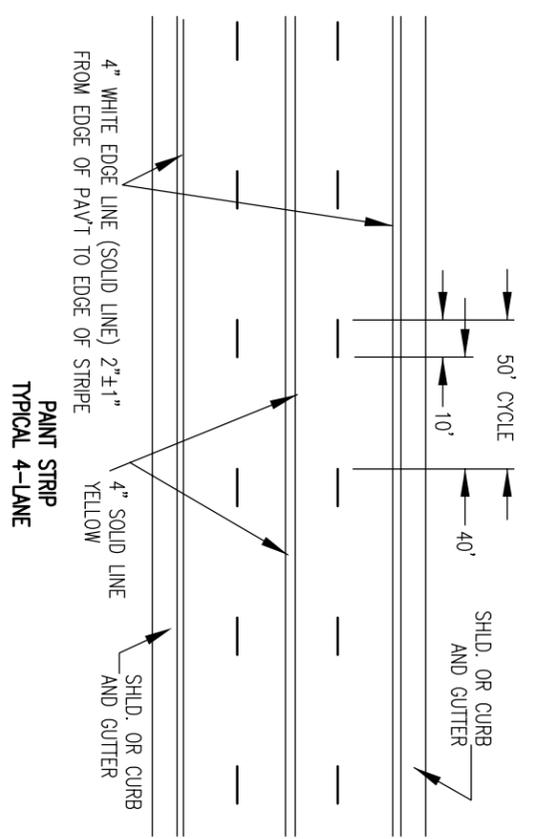


CONCRETE COLLAR TO ENCASE CASTING AND RINGS. BLACK DYED CONCRETE MIX 3A32 SHALL BE USED FOR COLLAR. (INCIDENTAL TO ITEM 2506.602, ADJUST FRAME AND RING CASTING(SPECIAL))

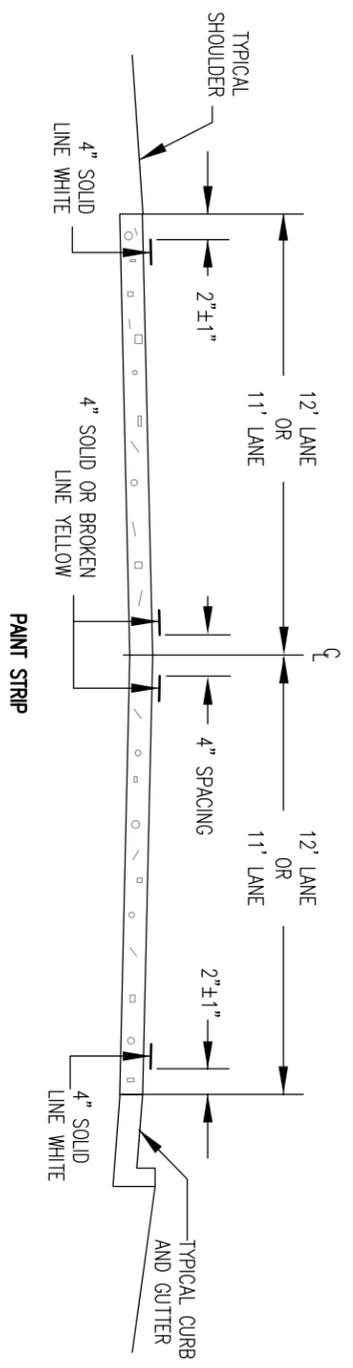
THIS DETAIL SHALL APPLY TO ALL STORM MANHOLES & CATCH BASINS

PLATE NO.	STANDARD PLATES
3000L	REINFORCED CONCRETE PIPE
3100G	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3133C	RIPPAP AT RCP OUTLETS
3006G	GASKET JOINT FOR RCP PIPE
3145F	CONCRETE PIPE TIES
4002F	MANHOLE OR CATCH BASIN
7035M	CONCRETE WALK & CURB RETURNS AT ENTRANCES
7036G	PEDESTRIAN CURB RAMP
7038A	DETECTABLE WARNING SURFACE
7100H	CONCRETE CURB AND GUTTER
8338D	W-BEAM GUARDRAIL & END ANCHORAGES (INSTALLATION WITH STEEL POSTS)
9102D	TURE ESTABLISHMENT AREAS
9350A	MAIL BOX SUPPORT

THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION SHALL APPLY ON THIS PROJECT



PAINT STRIP TYPICAL 4-LANE



TYPICAL SHOULDER

- GENERAL CONSTRUCTION NOTES**
- ALL AREAS DISTURBED BY THE CONTRACTOR'S EQUIPMENT WHICH ARE OUTSIDE THE PLANNED CONSTRUCTION LIMITS SHALL BE RESTORED, AS APPROVED BY THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.
 - BITUMINOUS SURFACING, CONCRETE ITEMS, ABANDONED UTILITY ITEMS, OR ANY OTHER MATERIAL WHICH MAY BE ENCOUNTERED DURING CONSTRUCTION THAT ARE NOT SUITABLE FOR SALVAGE OR FOR ROADWAY CONSTRUCTION SHALL BE DISPOSED OF BY THE CONTRACTOR AT AN APPROVED DISPOSAL SITE AND SHALL BE INCIDENTAL TO THESE ITEMS.
 - THE CONTRACTOR SHALL PROVIDE A CONCRETE WASHOUT AND WASHOUT LOCATION AND CONTAINER ON THE PROJECT AND IT SHALL BE APPROVED BY THE ENGINEER PRIOR TO RELATED WORK. THE CONTRACTOR SHALL MAINTAIN THE CONTAINER AND DISPOSE OF ITS CONTENTS IN ACCORDANCE WITH MPCA REQUIREMENTS. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ALL CONCRETE ITEMS, FOR WHICH NO DIRECT COMPENSATION SHALL BE MADE.
 - THE CONTRACTOR IS ADVISED THAT THERE SHALL BE NO STOCKPILE OF MATERIALS ON SITE OUTSIDE THE PROJECT CONSTRUCTION LIMITS, UNLESS OTHERWISE NOTED.
 - PLACE BITUMINOUS MATERIAL FOR TACK COAT (SPEC 2357) IN BETWEEN BITUMINOUS LIFTS AT A RATE OF 0.03-0.05 GAL./SQ. YD. ON PAVED SURFACES AND 0.07-0.10 GAL./SQ. YD. ON MILLED SURFACES AND 0.5' OVERLAP ON LONGITUDINAL JOINTS WHICH SHALL BE CONSIDERED INCIDENTAL.
 - THE CONTRACTOR SHALL COMPLETE REMOVAL AND INSTALLATION OF CATCH BASIN ON THE SAME DAY. INLET PROTECTION SHALL BE REQUIRED AND COMPENSATED AS A LUMP SUM ITEM.
 - IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO UTILIZE THE "ONE CALL EXCAVATION NOTICE SYSTEM" (1-800-252-1166) REQUIRED BY MINNESOTA STATUTE 216D.
 - THE RIGHT-OF-WAY SHOWN IN THIS PLAN GIVES A GRAPHICAL LOCATION. ANY SAWING NECESSARY SHALL BE INCIDENTAL TO THESE ITEMS. SAWING SHALL BE DONE SUCH THAT A NEAT, STRAIGHT LINE IS PRODUCED IN THE REMOVAL. CARE SHALL BE TAKEN BY THE CONTRACTOR SO AS NOT TO DAMAGE THE REMAINING MATERIALS DIRECTLY ADJACENT TO THE MATERIALS TO BE REMOVED.
 - ANY DAMAGE TO THE EXISTING MATERIAL RESULTING FROM THE MATERIAL REMOVAL OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
 - THE CONTRACTOR SHALL HAVE ALL TRAFFIC CONTROL PLANS APPROVED BY THE ENGINEER PRIOR TO THE START OF CONSTRUCTION.
 - THE CONTRACTOR SHALL MAINTAIN TRAFFIC AT ALL TIMES DURING THE WORK, UNLESS APPROVED BY THE ENGINEER.
 - THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ANY WORK AREAS NEAR TRAFFIC IN ACCORDANCE WITH MNMUTCD.
 - THE CONTRACTOR SHALL MAINTAIN ACCESS TO BUSINESSES AT ALL TIMES DURING WORK HOURS, UNLESS OTHERWISE ARRANGED WITH THE BUSINESS OWNER AND APPROVED BY THE ENGINEER.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING TRAFFIC THROUGH THE WORK AND SHALL ERECT AND MAINTAIN SIGNS, BARRICADES, AND WARNING DEVICES IN ORDER TO CONTROL THE TRAFFIC, PROTECT THE WORKERS, AND PROTECT THE WORK. THE CONTRACTOR SHALL DETERMINE THE NUMBER AND TYPES OF SIGNS, BARRICADES, AND WARNING DEVICES NEEDED FOR THIS AND INCLUDE THOSE COSTS WITH THE LUMP SUM BID ITEM FOR TRAFFIC CONTROL AS REQUIRED FOR THE WORK. ALL PEDESTRIAN TRAFFIC CONTROL & TRAFFIC CONTROL MUST BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
 - PAYMENT FOR TRAFFIC CONTROL WILL BE MADE UNDER THE BID ITEM: TRAFFIC CONTROL, AT THE LUMP SUM BID PRICE. NO FURTHER COMPENSATION WILL BE PAID FOR ANY ASPECT OF TRAFFIC CONTROL, REGARDLESS OF THE CONTRACT EFFORT REQUIRED.
 - ALL CLOSURES, DETOURS, AND TRAFFIC CONTROL MUST BE APPROVED BY THE ENGINEER 24 HOURS PRIOR TO CONSTRUCTION.

CERTIFIED BY: CAROLINE PEDERSEN
 REG. NO.: 42634
 SIGNATURE: *Caroline Pedersen*
 DATE: 5-09-11

REVISION
 ADDITIONAL "INCIDENTAL" WORDING AND REMOVAL OF 4" MIN., ALL

PROJECT LOCATION - ALL PROJECTS
 CITY OF DULUTH
 CITY PROJECT NO.: 0787TR,0828TR,0829TR,0832TR,0835TR,0852TR

DRAWN BY: SCA
 DETAILS
 SHEET NO. 4 OF 63