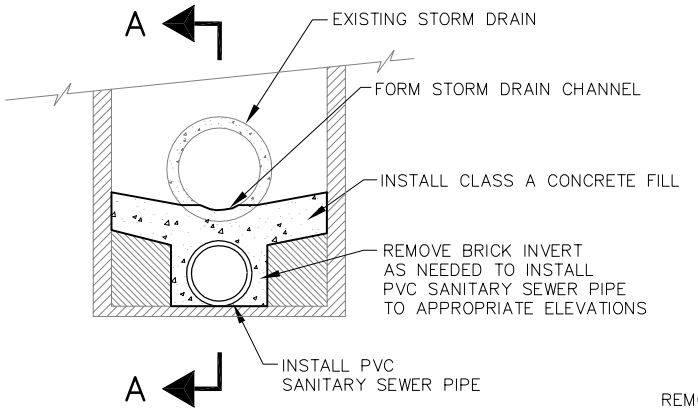

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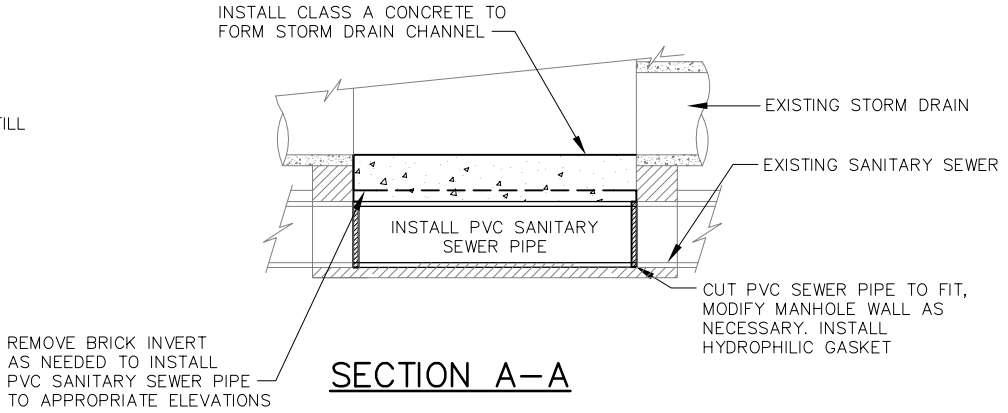


SECTION A–A

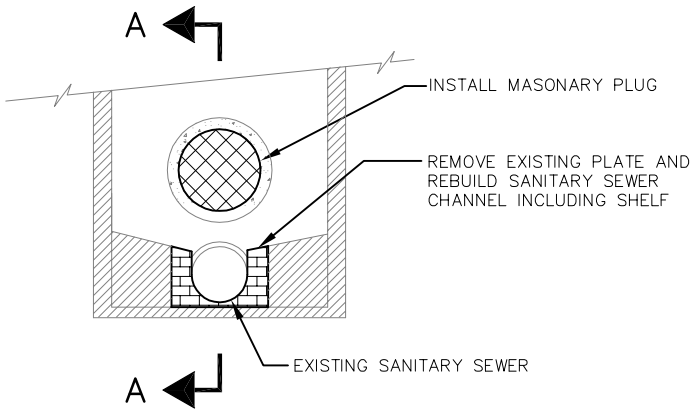
95% DETAILS
NOT FOR CONSTRUCTION

THE CAMBRIDGE DEPARTMENT OF PUBLIC WORKS

COMMON MANHOLE SEPARATION - TYPE 2
COMMON MANHOLE CONVERTED TO DRAIN MANHOLE DETAIL

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02252	2252.10



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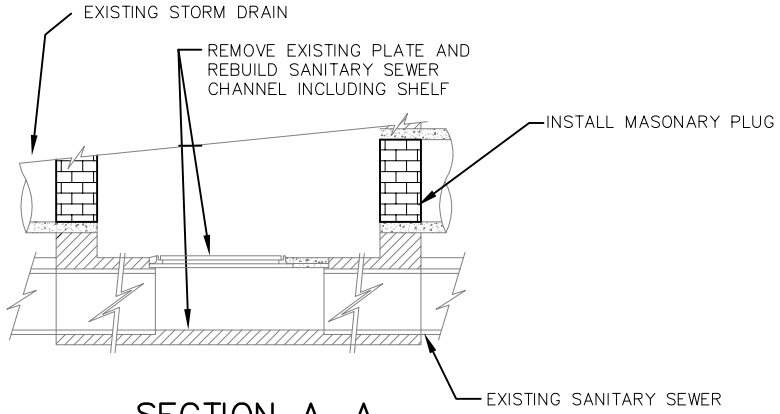


SECTION A–A

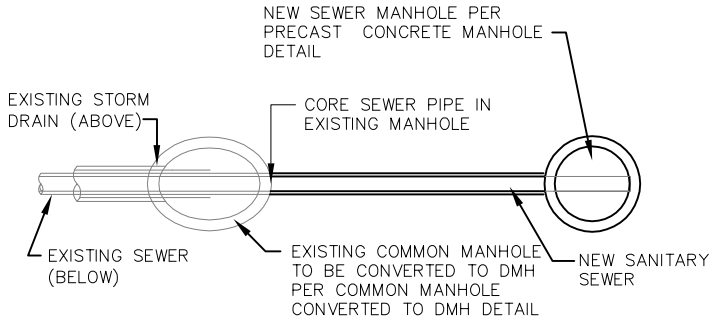
95% DETAILS
NOT FOR CONSTRUCTION

THE CAMBRIDGE DEPARTMENT OF PUBLIC WORKS

COMMON MANHOLE SEPARATION - TYPE 5
COMMON MANHOLE CONVERTED TO SEWER MANHOLE DETAIL

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

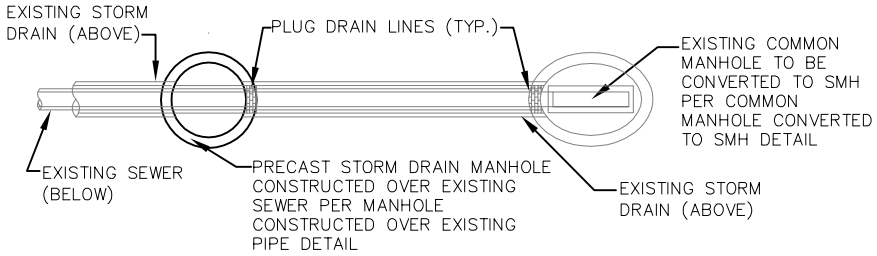
SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02252	2252.13



PLAN
END OF LINE COMMON MANHOLE TO BE CONVERTED TO DMH DETAIL

NOTES:
1. UNLESS OTHERWISE NOTED, PROPOSED PIPE TO MATCH INSIDE DIAMETER OF EXISTING PIPE

2. UNLESS OTHERWISE NOTED, PROPOSED SEWER SHALL BE PVC AND PROPOSED DRAIN SHALL BE RCP



PLAN
END OF LINE COMMON MANHOLE TO BE CONVERTED TO SMH DETAIL

NOTES:
1. LOCATE ALL EXISTING STORM DRAIN CONNECTIONS WITHIN THE PORTION OF EXISTING STORM DRAIN THAT IS TO BE ABANDONED AND RECONNECT THOSE CONNECTIONS TO THE STORM DRAIN.

2. ANY PORTION OF THE EXISTING STORM DRAIN THAT IS TO BE ABANDONED IN PLACE SHALL BE FILLED WITH FLOWABLE CONCRETE FILL AND PLUGGED.

3. VERIFY ALL DRAIN CONNECTIONS TO THE PROPOSED ABANDONED SECTION OF DRAIN, IF ANY LIVE CONNECTIONS EXIST, COORDINATE WITH THE ENGINEER TO PROVIDE RECONNECTION. IF SERVICE IS NOT LIVE, THE CONNECTION AT THE STORM DRAIN SHALL BE PLUGGED

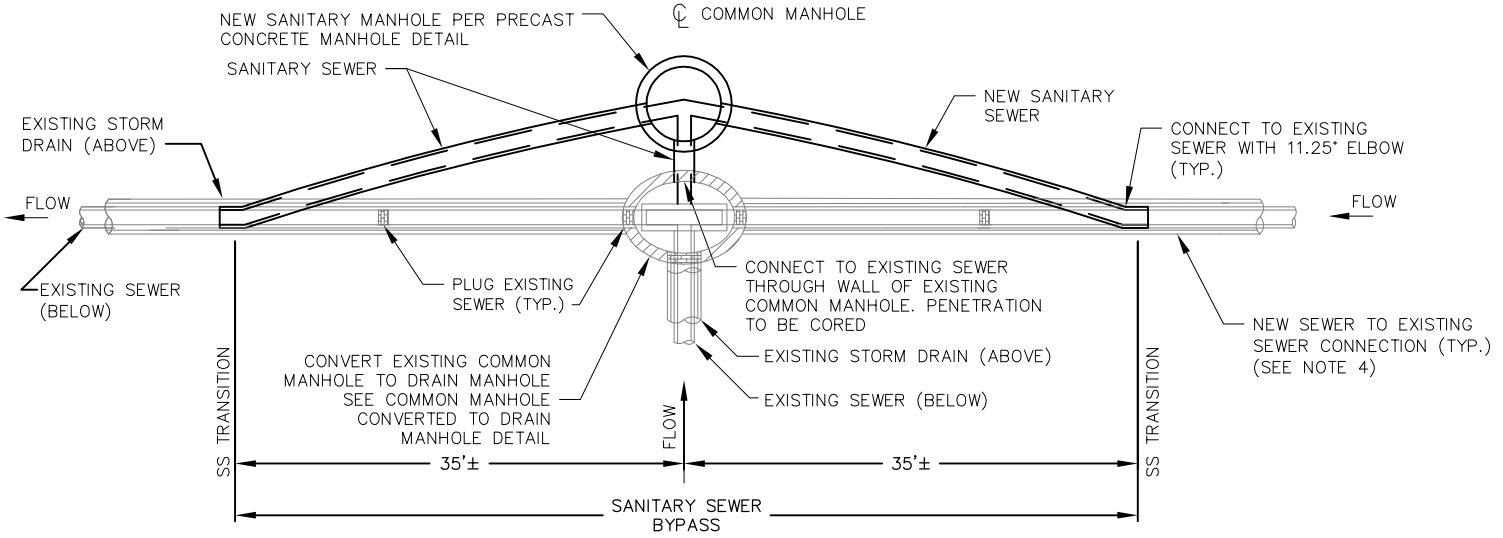
95% DETAILS
NOT FOR CONSTRUCTION

THE CAMBRIDGE DEPARTMENT OF PUBLIC WORKS

COMMON MANHOLE SEPARATION - TYPE 1
END OF LINE CONVERSIONS

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02252	2252.9



NOTES:
1. LOCATE ALL EXISTING SEWER CONNECTIONS WITHIN THE PORTION OF EXISTING SEWER THAT IS TO BE ABANDONED AND RECONNECT THOSE CONNECTIONS TO THE SEWER.

2. ANY PORTION OF THE EXISTING SEWER THAT IS TO BE ABANDONED IN PLACE SHALL BE FILLED WITH FLOWABLE CONCRETE FILL AND PLUGGED.

3. VERIFY ALL SEWER CONNECTIONS TO THE PROPOSED ABANDONED SECTION OF SEWER, IF ANY LIVE CONNECTIONS EXIST, COORDINATE WITH THE ENGINEER TO PROVIDE RECONNECTION. IF SERVICE IS NOT LIVE, THE CONNECTION AT THE SEWER SHALL BE PLUGGED.

4. SEE THE APPROPRIATE SPECIFICATION OR STANDARD FOR THE PROPOSED SEWER MATERIAL FOR PIPE TO PIPE CONNECTION REQUIREMENTS.

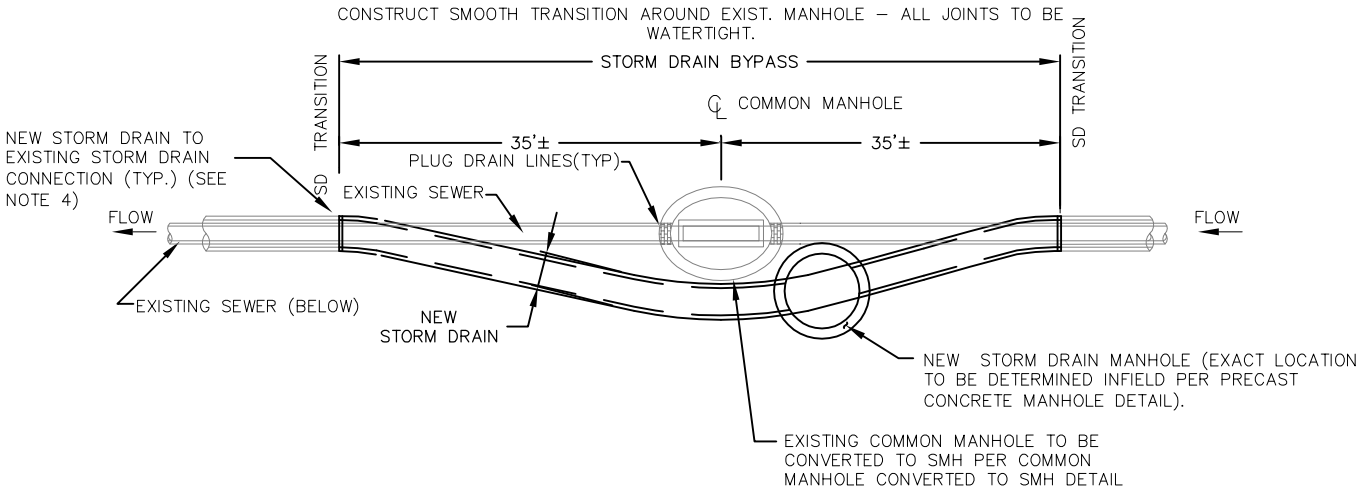
95% DETAILS
NOT FOR CONSTRUCTION

THE CAMBRIDGE DEPARTMENT OF PUBLIC WORKS

COMMON MANHOLE SEPARATION - TYPE 4
SANITARY SEWER BYPASS (WITH LATERAL)

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02252	2252.12



NOTES:
1. LOCATE ALL EXISTING STORM DRAIN CONNECTIONS WITHIN THE PORTION OF EXISTING STORM DRAIN THAT IS TO BE ABANDONED AND RECONNECT THOSE CONNECTIONS TO THE STORM DRAIN.

2. ANY PORTION OF THE EXISTING STORM DRAIN THAT IS TO BE ABANDONED IN PLACE SHALL BE FILLED WITH FLOWABLE CONCRETE FILL AND PLUGGED.

3. VERIFY ALL DRAIN CONNECTIONS TO THE PROPOSED ABANDONED SECTION OF DRAIN, IF ANY LIVE CONNECTIONS EXIST, COORDINATE WITH THE ENGINEER TO PROVIDE RECONNECTION. IF SERVICE IS NOT LIVE, THE CONNECTION AT THE STORM DRAIN SHALL BE PLUGGED.

4. SEE THE APPROPRIATE SPECIFICATION OR STANDARD FOR THE PROPOSED STORM DRAIN MATERIAL FOR PIPE TO PIPE CONNECTION REQUIREMENTS.

95% DETAILS
NOT FOR CONSTRUCTION

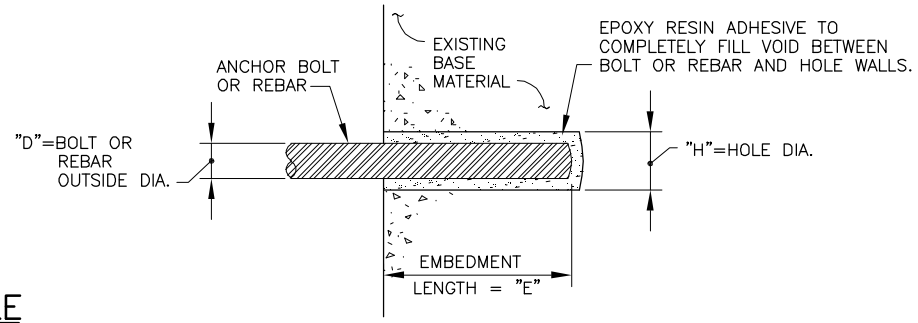
THE CAMBRIDGE DEPARTMENT OF PUBLIC WORKS

COMMON MANHOLE SEPARATION - TYPE 3
STORM DRAIN BYPASS

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02252	2252.11

	BOLT OR REBAR OUTSIDE DIAMETER "D" (INCHES)	REQUIRED EMBEDMENT LENGTH "E" (INCHES)	REQUIRED HOLE DIAMETER "H" (INCHES)	REQUIRED ALLOWABLE ADHESIVE BOND STRENGTH IN 4,000 psi CONCRETE USING S.F. = 4.0
ANCHOR BOLTS	3/8	3 3/8	7/16	2,270
	1/2	4 1/2	9/16	4,360
	5/8	5 5/8	3/4	7,545
	3/4	6 3/4	7/8	9,735
	7/8	7 7/8	1	10,595
	1	9	1 1/8	14,890
	1 1/4	11 1/4	1 3/8	22,940
	1 1/2	13 1/2	1 5/8	32,360
REBAR	#3 BAR	4 1/2	1/2	3,970
	#4 BAR	6	5/8	6,590
	#5 BAR	7 1/2	3/4	9,825
	#6 BAR	9	7/8	13,735
	#7 BAR	10 1/2	1	18,210
	#8 BAR	12	1 1/8	23,465
	#9 BAR	13 1/2	1 3/8	32,015



TYPICAL EPOXY DOWELLING DETAIL & SCHEDULE

NOTES:

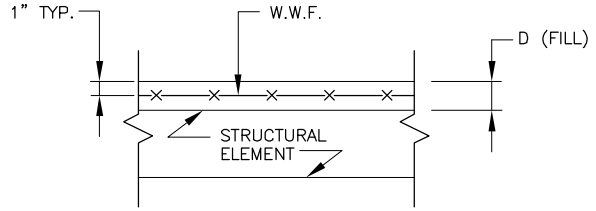
1. DRILL HOLES, CLEAN OUT AND INSTALL EPOXY AND BOLT OR REBAR IN STRICT CONFORMANCE WITH EPOXY MANUFACTURER'S WRITTEN RECOMMENDATIONS. REFER TO CAST IN PLACE CONCRETE FOR EPOXY REQUIREMENTS.
2. UNLESS OTHERWISE INDICATED ON DRAWINGS, PROVIDE THE EMBEDMENT LENGTH AND HOLE DIAMETER INDICATED IN THE SCHEDULE ABOVE, FOR THE BOLT OR REBAR SIZE REQUIRED.
3. REQUIRED EPOXY BOND STRENGTHS ARE BASED ON A SAFETY FACTOR (S.F.) OF 4.0.
4. PROVIDE STAINLESS STEEL SCREEN RODS IN HOLES IN HOLLOW BASE MATERIALS (MASONRY CAVITY WALLS).
5. UNLESS OTHERWISE INDICATED ALL ANCHOR BOLTS SHALL BE OF GALVANIZED A36 THREADED ROD STOCK. WHERE STAINLESS STEEL ANCHORS ARE REQUIRED THEY SHALL BE AISI TYPE 316 (ASTM A193).

THE CAMBRIDGE DEPARTMENT OF PUBLIC WORKS

EPOXY DOWELL DETAIL

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 03300	3300.2



NOTE:
1. PROVIDE W.W.F. IN CONCRETE FILL, SIZE AS TABULATED, UNLESS OTHERWISE NOTED.

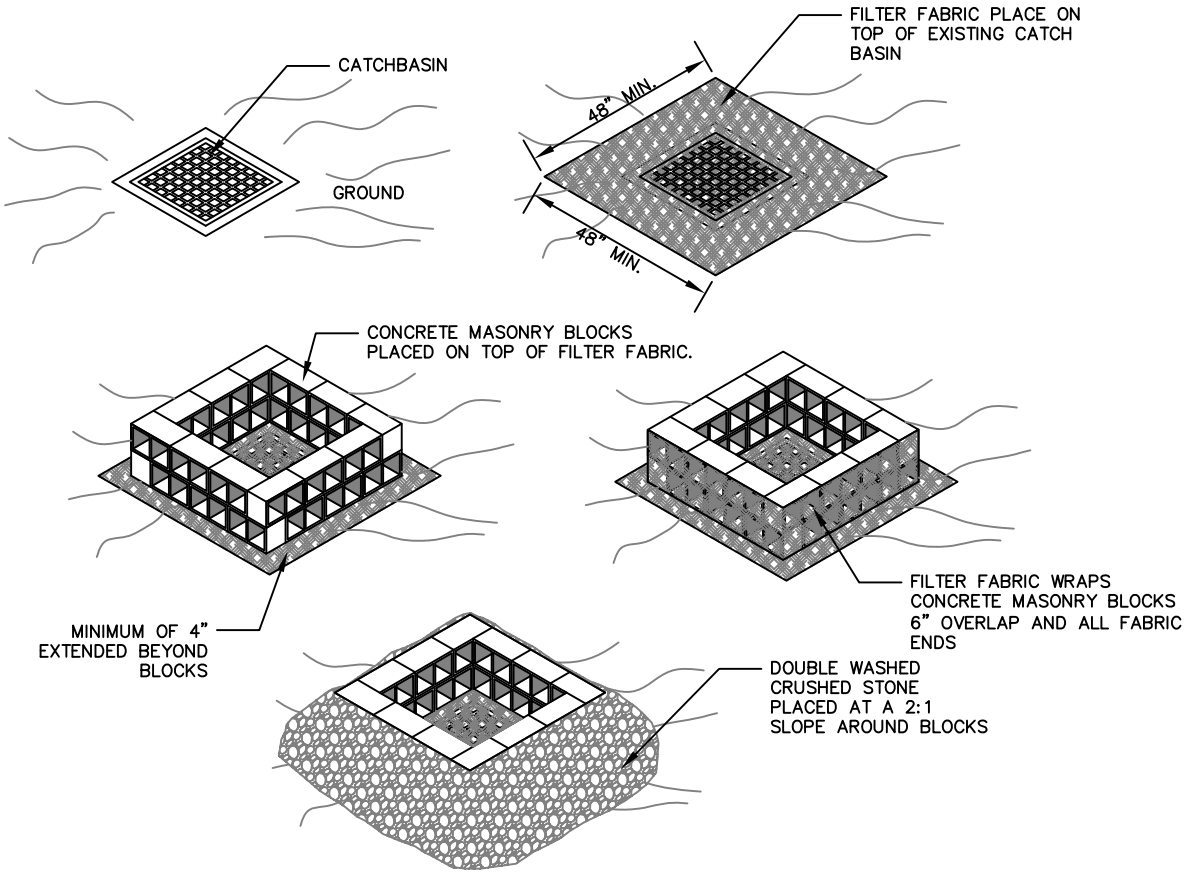
D	W.W.F.
2" TO 4"	6x6 – W 1.4 x W 1.4
5" TO 8"	6x6 – W 2.0 x W 2.0
9" PLUS	6x6 – W 2.9 x W 2.9

CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

TYPICAL WELDED WIRE FABRIC FOR CONCRETE FILL DETAIL

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 03300	3300.3



THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY FLOWS ARE ANTICIPATED AND OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING

INSPECTION SCHEDULE SHALL COMPLY WITH THE 2008 EPA CONSTRUCTION GENERAL PERMIT

MAINTENANCE SHALL OCCUR WHEN NECESSARY. FILTER FABRIC SHALL BE SWEPT CLEAN WHEN NEEDED AND GRAVEL SHALL BE REPLACED WHEN A NOTICEABLE AMOUNT OF FINES HAVE COLLECTED IN BETWEEN THE CRUSHED GRAVEL.

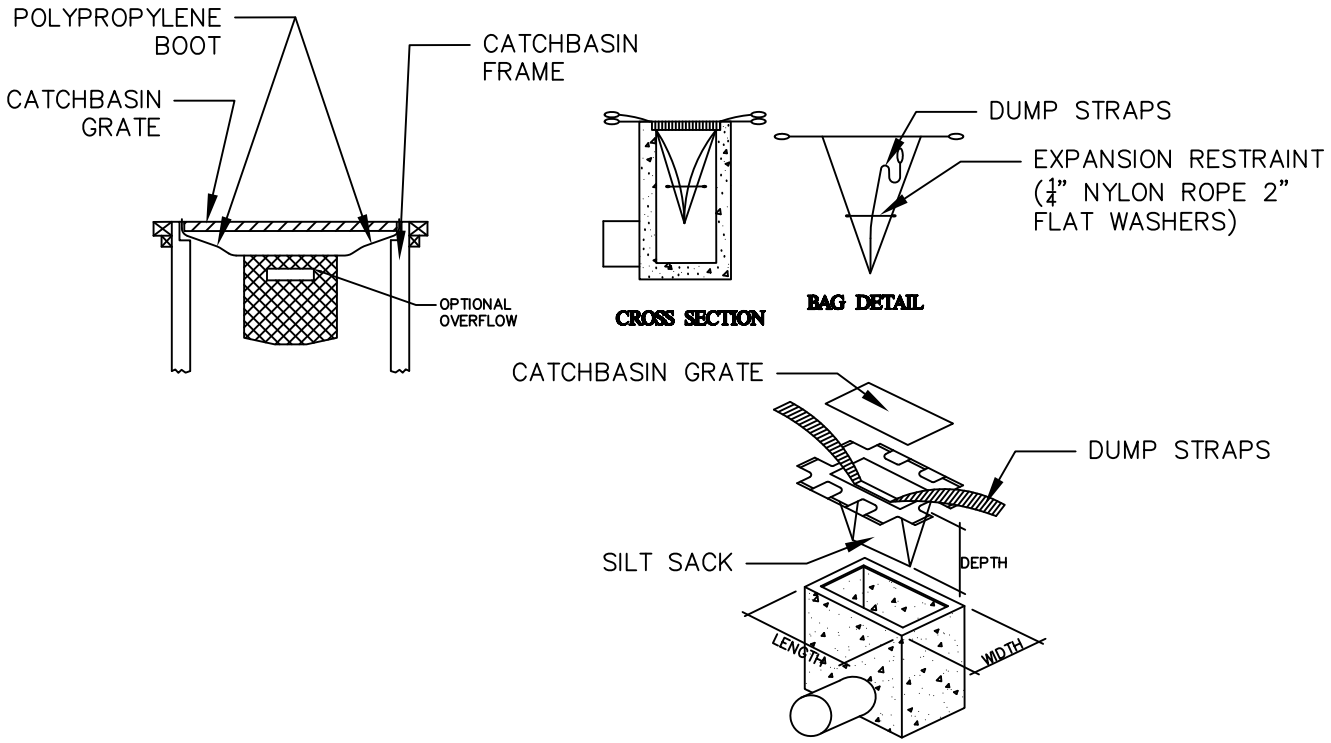
CATCH BASIN W/ BLOCK AND GRAVEL INLET PROTECTION

CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

INLET PROTECTION 1

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 07/09	SPEC. SECTION REF#:	



THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS SHEET, OVERLAND AND CONCENTRATED FLOWS (NOT GREATER THAN 1 CFS). THE METHOD CAN DRAIN FLAT AREA TO STEEP SLOPES. INLET CAPACITY WILL DECREASE WITH THIS METHOD AND CONTRACTOR SHALL EXPECT FLOODING TO OCCUR DURING HIGH FLOW EVENTS.

INSPECTION SCHEDULE SHALL COMPLY WITH THE 2008 EPA CONSTRUCTION GENERAL PERMIT

MAINTENANCE SHALL OCCUR WHEN NECESSARY. SILT SACKS SHALL BE CLEANED ONCE THE BAG IS FILLED HALF WAY WITH DEBRIS. CONTRACTOR SHALL REMOVE SILT SACK AND PLACE NEW UNIT. DO NOT EMPTY SILT SACK CONTENTS INTO THE CATCHBASIN.

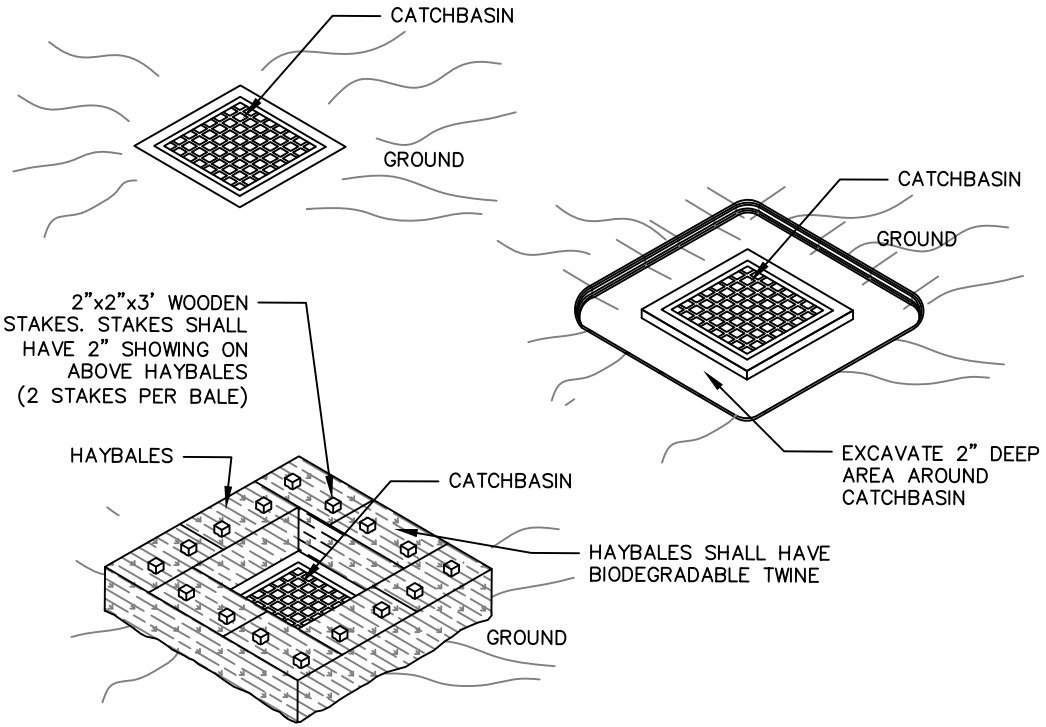
CATCH BASIN W/ SILT SACK
INLET PROTECTION

CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

INLET PROTECTION 2

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 07/09	SPEC. SECTION REF#:	



INSPECTION SCHEDULE SHALL COMPLY WITH THE 2008 EPA CONSTRUCTION GENERAL PERMIT

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (SLOPE NO GREATER THAN 5%). WHERE THE INLET ACCEPTS SHEET OR OVERLAND FLOWS (NOT GREATER THAN 1 CFS). THIS METHOD SHOULD NOT APPLY TO AN INLET ACCEPTING CONCENTRATED FLOW.

HAYBALES SHOULD BE MADE FROM REGIONALLY FARMED HAY TO REDUCE THE POSSIBILITY OF INVASIVE SPECIES. WHEN POSSIBLE STRAW BALES SHOULD BE USED.

HAYBALES SHOULD ONLY BE USED WHEN APPROVED BY THE CITY OF CAMBRIDGE. HAYBALES ARE ALLOWS FOR PROJECTS THAT HAVE A DURATION OF LESS THAN THREE MONTHS.

MAINTENANCE SHALL OCCUR WHEN NECESSARY. HAYBALES ARE HIGHLY IMPERVIOUS AND THE CONTRACTOR SHOULD EXPECT PONDING IN THE AREA. HAYBALES SHOULD BE REPLACED EVERY 1 TO 3 MONTHS DEPENDING ON CONDITIONS.

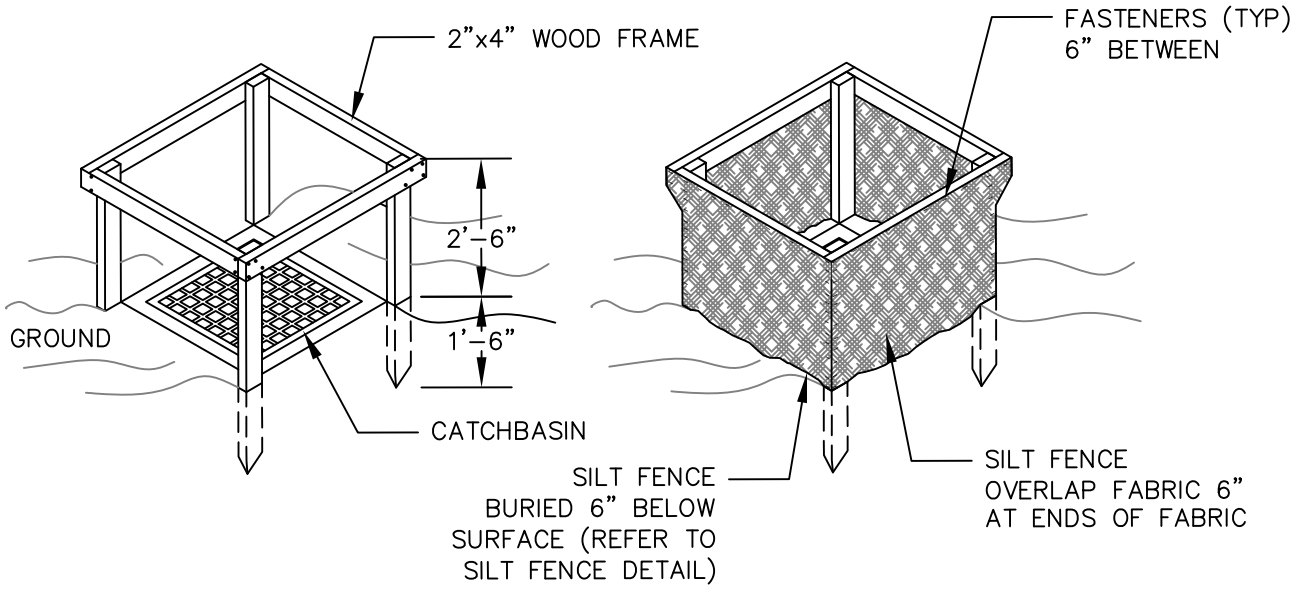
CATCH BASIN W/ HAYBALES INLET PROTECTION

CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

INLET PROTECTION 3

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 07/09	SPEC. SECTION REF#:	



THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (SLOPE NO GREATER THAN 5%). WHERE THE INLET ACCEPTS SHEET OR OVERLAND FLOW (NOT GREATER THAN 1 CFS) ARE TYPICAL. THE METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS

INSPECTION SCHEDULE SHALL COMPLY WITH THE 2008 EPA CONSTRUCTION GENERAL PERMIT

MAINTENANCE SHALL OCCUR WHEN NECESSARY. SILT FENCE SHALL BE REPLACE EVERY 6 MONTHS AND STACKS SHALL BE INSPECTED TO ENSURE STRUCTURAL INTEGRITY.

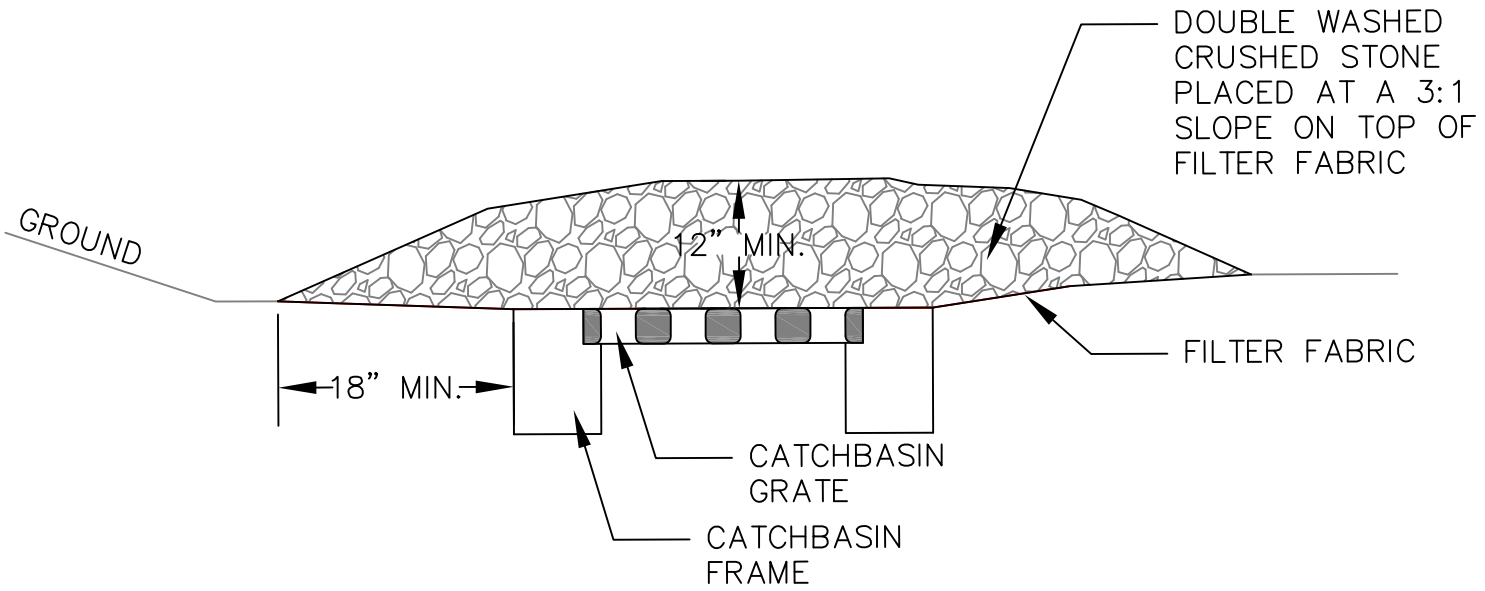
CATCH BASIN W/ SILT FENCE INLET PROTECTION

CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

INLET PROTECTION 4

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 07/09	SPEC. SECTION REF#:	



THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY FLOWS ARE ANTICIPATED BUT NOT WHERE PONDING AROUND THE STRUCTURE MIGHT CAUSE EXCESSIVE DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

INSPECTION SCHEDULE SHALL COMPLY WITH THE 2008 EPA CONSTRUCTION GENERAL PERMIT

MAINTENANCE SHALL OCCUR WHEN NECESSARY. GRAVEL SHALL BE REPLACED WHEN A NOTICEABLE AMOUNT OF FINES HAVE COLLECTED IN BETWEEN THE CRUSHED GRAVEL. FILTER FABRIC SHALL BE REPLACED EVERY 6 MONTHS.

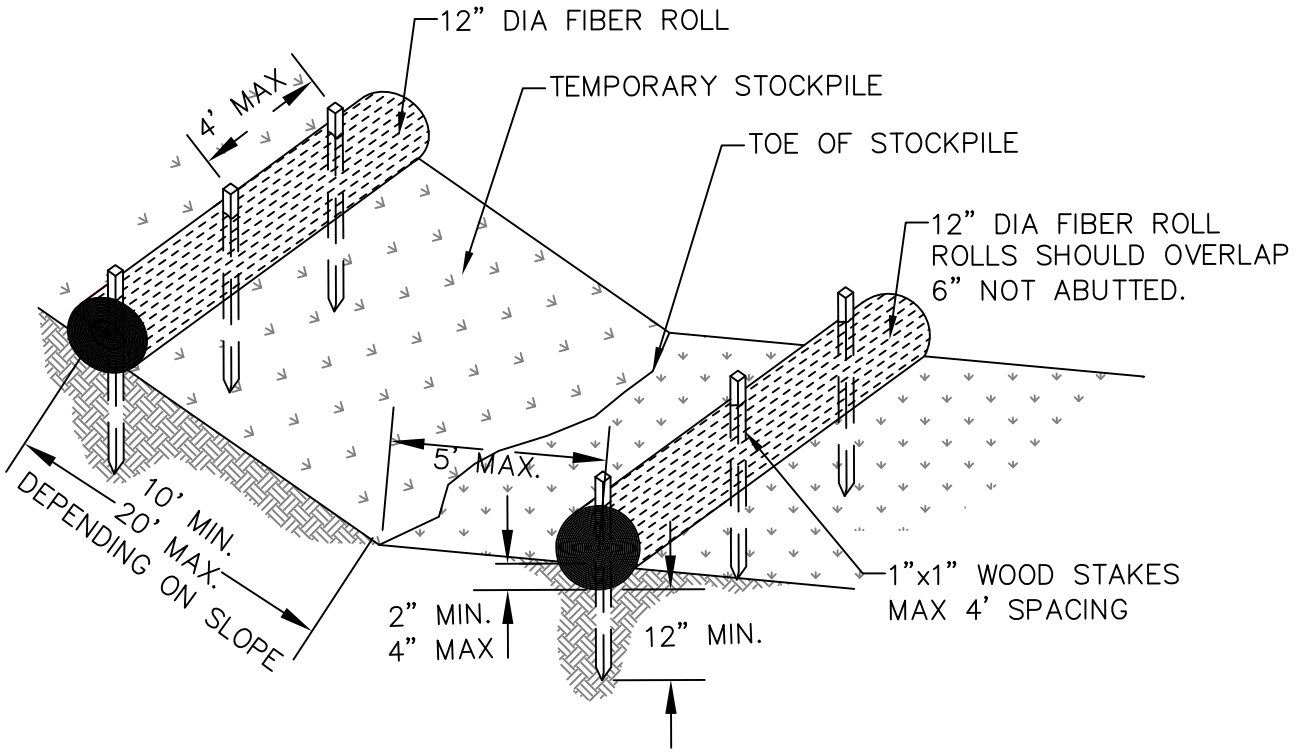
CATCH BASIN W/ GRAVEL INLET PROTECTION

CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

INLET PROTECTION 5

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 07/09	SPEC. SECTION REF#:	



INSPECTION SCHEDULE SHALL COMPLY WITH THE 2008 EPA CONSTRUCTION GENERAL PERMIT

MAINTENANCE SHALL OCCUR WHEN NECESSARY. FIBER ROLLS SHALL BE REPLACE EVERY 6 MONTHS AND STACKS SHALL BE INSPECTED TO ENSURE STRUCTURAL INTEGRITY. FIBER ROLLS SHALL BE INSPECTED WEEKLY AND ALL MAINTENANCE ISSUES SHALL BE CORRECT AT THAT TIME.

TEMPORARY STOCKPILES ARE STOCKPILES THAT WILL BE USED WITHIN 14 DAYS FOR BEING PLACED. IF A STOCKPILE IS BEING LEFT UNDISTURBED FOR LONGER THAT 14 DAYS THEN PERMANENT STABILIZATION WILL BE REQUIRED

CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

FIBER ROLL STOCKPILE PROTECTION

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 07/09	SPEC. SECTION REF#:	

EROSION AND SEDIMENT CONTROL NOTES

1. PRIOR TO ANY LAND DISTURBANCE ACTIVITIES COMMENCING ON THE SITE, THE DEVELOPER SHALL PHYSICALLY MARK LIMITS OF NO LAND DISTURBANCE ON THE SITE WITH TAPE, SIGNS, OR ORANGE CONSTRUCTION FENCE, SO THAT WORKERS CAN SEE THE AREAS TO BE PROTECTED. THE PHYSICAL MARKERS SHALL REMAIN IN PLACE UNTIL A CERTIFICATE OF COMPLETION HAS BEEN ISSUED.

2. APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO SOIL DISTURBANCE. MEASURES SHALL BE TAKEN TO CONTROL EROSION WITHIN THE PROJECT AREA. SEDIMENT IN RUNOFF WATER SHALL BE TRAPPED AND RETAINED WITHIN THE PROJECT AREA. WETLAND AREAS AND SURFACE WATERS SHALL BE PROTECTED FROM SEDIMENT.

3. MINIMIZE TOTAL AREA OF DISTURBANCE AND PROTECT NATURAL FEATURES AND SOIL.

4. THE CONTRACTOR SHALL SEQUENCE ALL ACTIVITIES TO MINIMIZE SIMULTANEOUS AREAS OF DISTURBANCE. MASS CLEARINGS AND GRADING OF THE ENTIRE SITE SHALL BE AVOIDED.

5. MINIMIZE SOIL EROSION AND CONTROL SEDIMENTATION DURING CONSTRUCTION,

6. DIVERT UNCONTAMINATED WATER AROUND DISTURBED AREAS.

7. INSTALL AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND GOOD ENGINEERING PRACTICES OR THE 2008 EPA'S CONSTRUCTION GENERAL PERMIT.

8. PROTECT AND MANAGE ON AND OFF-SITE MATERIAL STORAGE AREAS (OVERBURDEN AND STOCKPILES OF DIRT, BORROW AREAS, OR OTHER AREAS USED SOLELY BY THE PERMITTED PROJECT ARE CONSIDERED A PART OF THE PROJECT).

9. COMPLY WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS INCLUDING WASTE DISPOSAL, SANITARY SEWER OR SEPTIC SYSTEM REGULATIONS, AND AIR QUALITY REQUIREMENTS, INCLUDING DUST CONTROL.

10. SEDIMENT SHALL BE REMOVED ONCE THE VOLUME REACHES ¼ TO ½ THE HEIGHT OF THE EROSION CONTROL DEVICE. SEDIMENT SHALL BE REMOVED FROM SILT FENCE PRIOR TO REACHING THE LOAD-BEARING CAPACITY OF THE SILT FENCE WHICH MAY BE LOWER THAN ¼ TO ½ THE HEIGHT.

11. SEDIMENT FROM SEDIMENT TRAPS OR SEDIMENTATION PONDS SHALL BE REMOVED WHEN DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT.

12. BMPS TO BE USED FOR INFILTRATION AFTER CONSTRUCTION SHALL NOT BE USED AS BMPS DURING CONSTRUCTION UNLESS OTHERWISE APPROVED BY THE BOARD. MANY INFILTRATION TECHNOLOGIES ARE NOT DESIGNED TO HANDLE THE HIGH CONCENTRATIONS OF SEDIMENTS TYPICALLY FOUND IN CONSTRUCTION RUNOFF, AND THUS MUST BE PROTECTED FROM CONSTRUCTION RELATED SEDIMENT LOADINGS.

13. SOIL STOCKPILES MUST BE STABILIZED OR COVERED AT THE END OF EACH WORKDAY. STOCKPILE SIDE SLOPES SHALL NOT BE GREATER THAN 2:1. ALL STOCKPILES SHALL BE SURROUNDED BY SEDIMENT CONTROLS.

14. FOR ACTIVE CONSTRUCTION AREAS SUCH AS BORROW OR STOCKPILE AREAS, ROADWAY IMPROVEMENTS AND AREAS WITHIN 50 FEET OF A BUILDING UNDER CONSTRUCTION, A PERIMETER SEDIMENT CONTROL SYSTEM SHALL BE INSTALLED AND MAINTAINED TO CONTAIN SOIL.

15. A TRACKING PAD OR OTHER APPROVED STABILIZATION METHOD SHALL BE CONSTRUCTED AT ALL ENTRANCE/EXIST POINTS OF THE SITE TO REDUCE THE AMOUNT OF SOIL CARRIED ONTO ROADWAYS AND OFF THE SITE.

16. ON THE CUT SIDE OF ROADS, DITCHES SHALL BE STABILIZED IMMEDIATELY WITH ROCK RIP-RAP OR OTHER NON-ERODIBLE LINERS, OR WHERE APPROPRIATE, VEGETATIVE MEASURES SUCH AS HYDROSEEDING OR JUTE MATTING.

17. PERMANENT SEEDING SHALL BE UNDERTAKEN IN THE SPRING FROM MARCH THROUGH MAY, AND IN LATE SUMMER AND EARLY FALL FROM AUGUST TO OCTOBER 15. DURING THE PEAK SUMMER MONTHS AND IN THE FALL AFTER OCTOBER 15, WHEN SEEDING IS FOUND TO BE IMPRACTICAL, APPROPRIATE TEMPORARY STABILIZATION SHALL BE APPLIED. PERMANENT SEEDING MAY BE UNDERTAKEN DURING THE SUMMER IF PLANS PROVIDE FOR ADEQUATE MULCHING AND WATERING.

18. ALL SLOPES STEEPER THAN 3:1 (H:V, 33.3%), AS WELL AS PERIMETER DIKES, SEDIMENT BASINS OR TRAPS, AND EMBANKMENTS MUST, UPON COMPLETION, BE IMMEDIATELY STABILIZED WITH SOD, SEED AND ANCHORED STRAW MULCH, OR OTHER APPROVED STABILIZATION MEASURES. AREAS OUTSIDE OF THE PERIMETER SEDIMENT CONTROL SYSTEM MUST NOT BE DISTURBED.

19. TEMPORARY SEDIMENT TRAPPING DEVICES MUST NOT BE REMOVED UNTIL PERMANENT STABILIZATION IS ESTABLISHED IN ALL CONTRIBUTORY DRAINAGE AREAS.

20. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED AFTER FINAL SITE STABILIZATION. DISTURBED SOIL AREAS RESULTING FROM THE REMOVAL OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED WITHIN 30 DAYS OF REMOVAL.

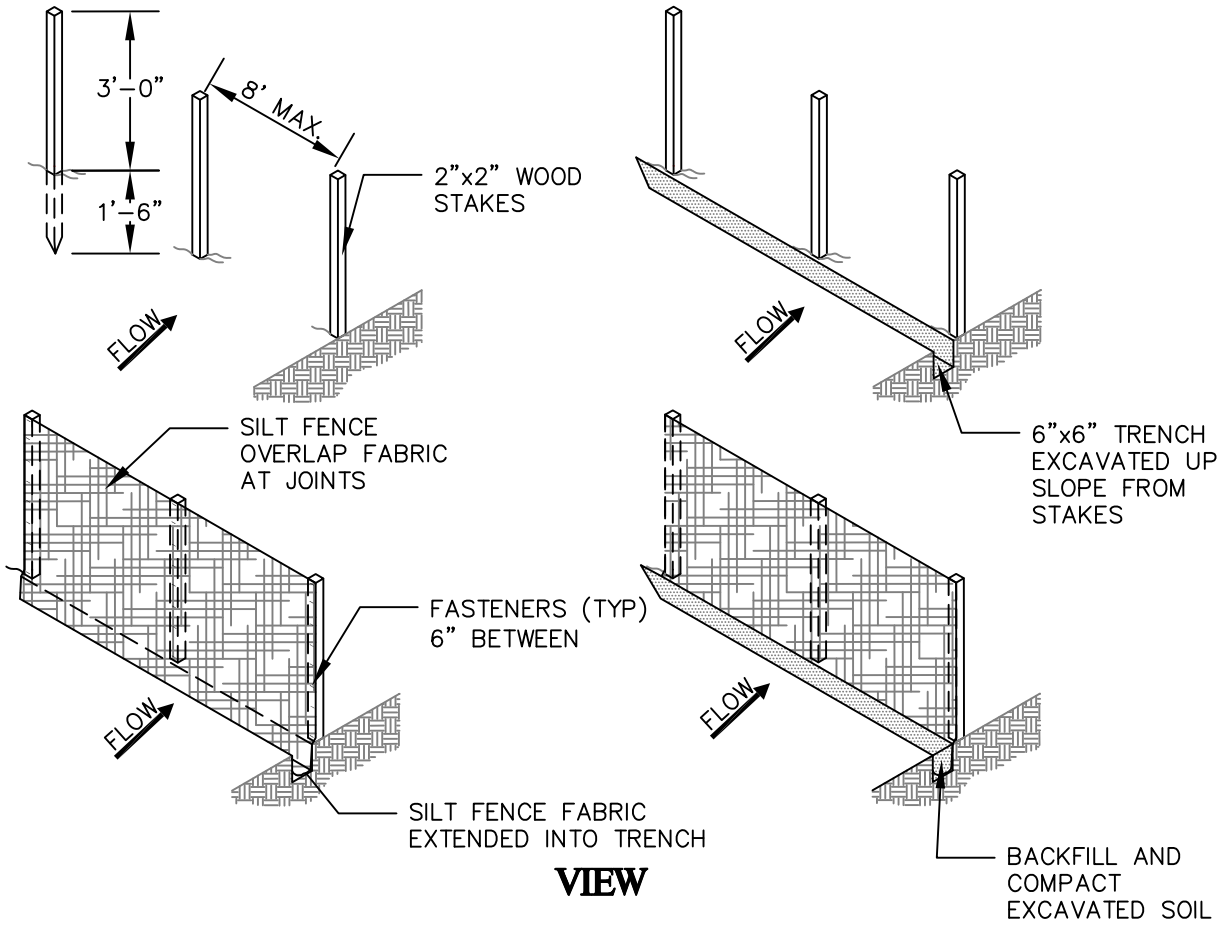
21. PROPERLY MANAGE ON-SITE CONSTRUCTION AND WASTE MATERIALS.

22. PREVENT OFF-SITE VEHICLE TRACKING OF SEDIMENTS.

23. DUST SHALL BE CONTROLLED AT THE SITE.

24. ALL PREVIOUSLY DISTURBED LAND SHALL BE STABILIZED BY APPROVED METHODS AFTER 14 DAYS IF LEFT UNDISTURBED. THIS INCLUDES STOCKPILES, CONSTRUCTION ENTRANCES, GRADED AREAS AND OTHER CONSTRUCTION ACTIVITY RELATED CLEARING.

25. IF WORK IS HALTED OVER WINTER MONTHS THE CONTRACTOR SHALL BE RESPONSIBLE FOR STABILIZING THE AREA THROUGH GROUNDCOVER PRACTICES..



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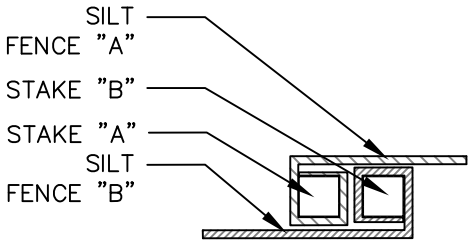
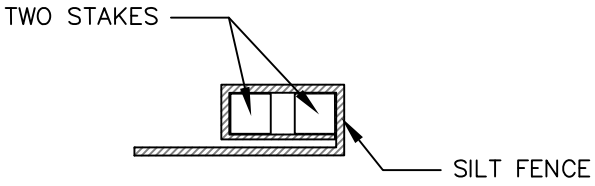


JOINT DETAIL



END JOINT DETAIL

INSPECTION SCHEDULE SHALL COMPLY WITH THE 2008 EPA CONSTRUCTION GENERAL PERMIT

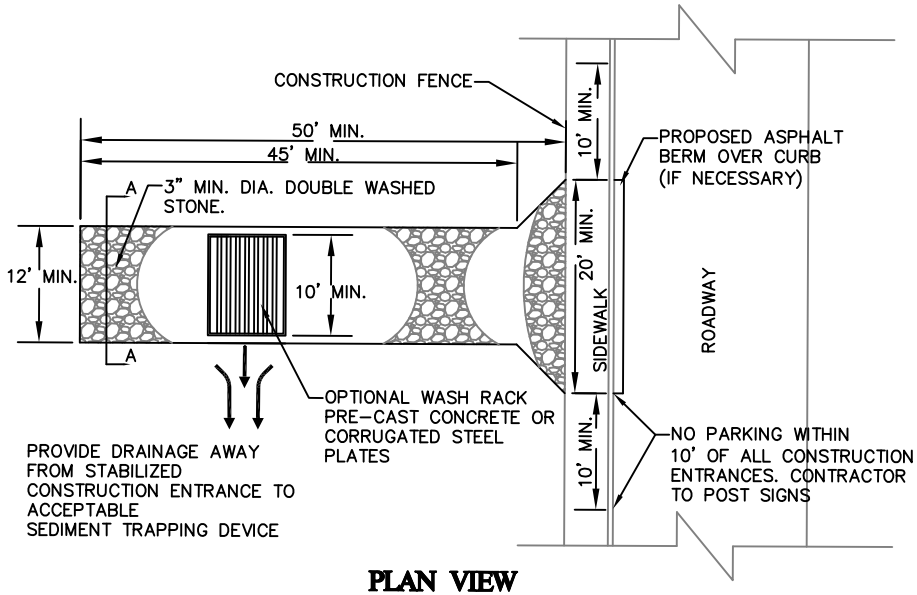
MAINTENANCE SHALL OCCUR WHEN NECESSARY. SILT FENCE SHALL BE REPLACE EVERY 6 MONTHS AND STACKS SHALL BE INSPECTED TO ENSURE STRUCTURAL INTEGRITY. SILT FENCE SHALL BE INSPECTED WEEKLY AND ALL MAINTENANCE ISSUES SHALL BE CORRECT AT THAT TIME.

CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

SILT FENCE

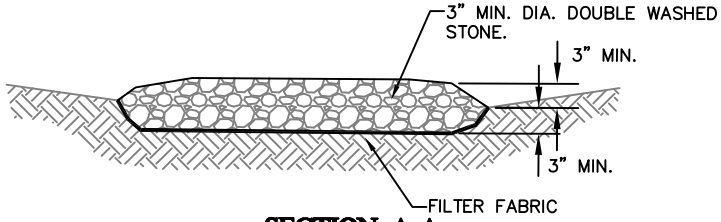
CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 07/09	SPEC. SECTION REF#:	



PLAN VIEW
NOT TO SCALE

CONTRACTOR TO PROVIDE A WATER SOURCE FOR A WASH STATION FOR ALL VEHICLES LEAVING THE SITE.



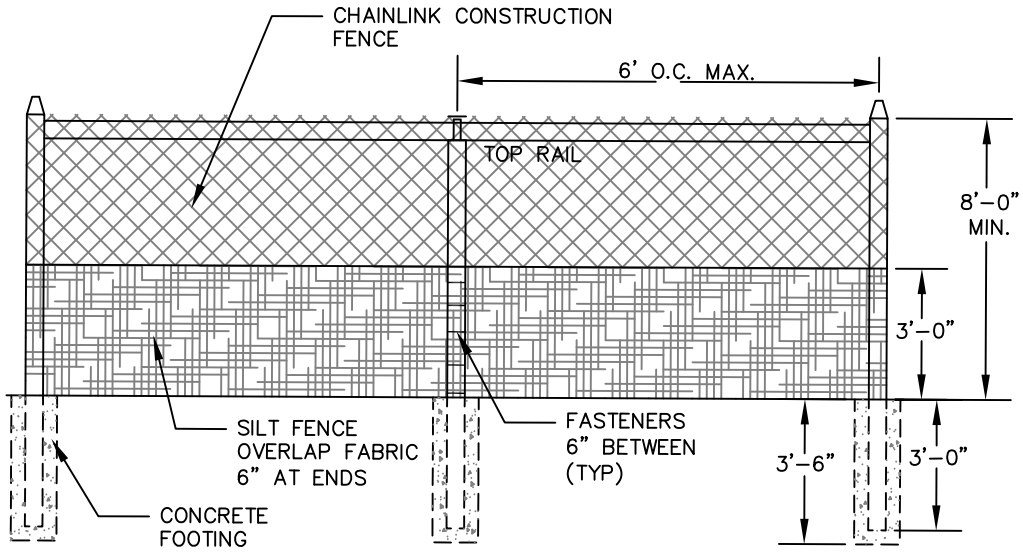
SECTION A-A

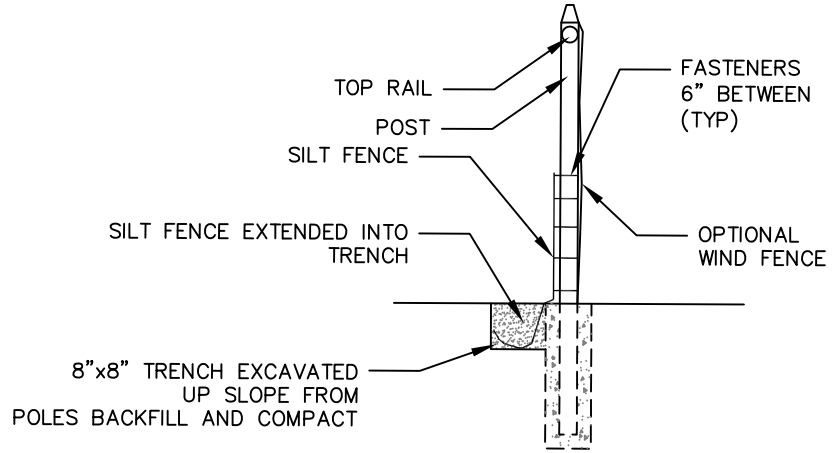
CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

STABILIZED CONSTRUCTION ENTRANCE

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 07/09	SPEC. SECTION REF#:	





INSPECTION SCHEDULE SHALL COMPLY WITH THE 2008 EPA CONSTRUCTION GENERAL PERMIT

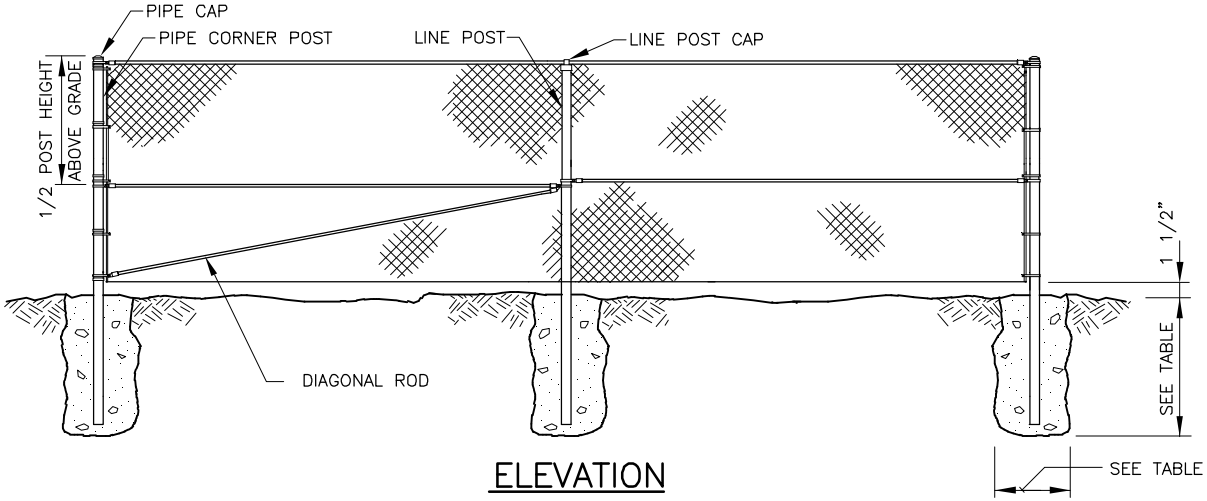
MAINTENANCE SHALL OCCUR WHEN NECESSARY. SILT FENCE SHALL BE REPLACE EVERY 6 MONTHS AND POST SHALL BE INSPECTED TO ENSURE STRUCTURAL INTEGRITY. SILT FENCE SHALL BE INSPECTED WEEKLY AND ALL MAINTENANCE ISSUES SHALL BE CORRECT AT THAT TIME.

CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

SUPER SILT FENCE

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 07/09	SPEC. SECTION REF#:	



ELEVATION

POST SETTING REQUIREMENT			
TYPE OF POST	HOLE DIA. AT TOP*	HOLE DEPTH	POST EMBEDMENT
LINE	9"	38"	36"
TERMINAL	12"	38"	36"

*MIN. HOLE DIAMETER IN SOFT OR LOOSE SOIL SHALL BE 18"

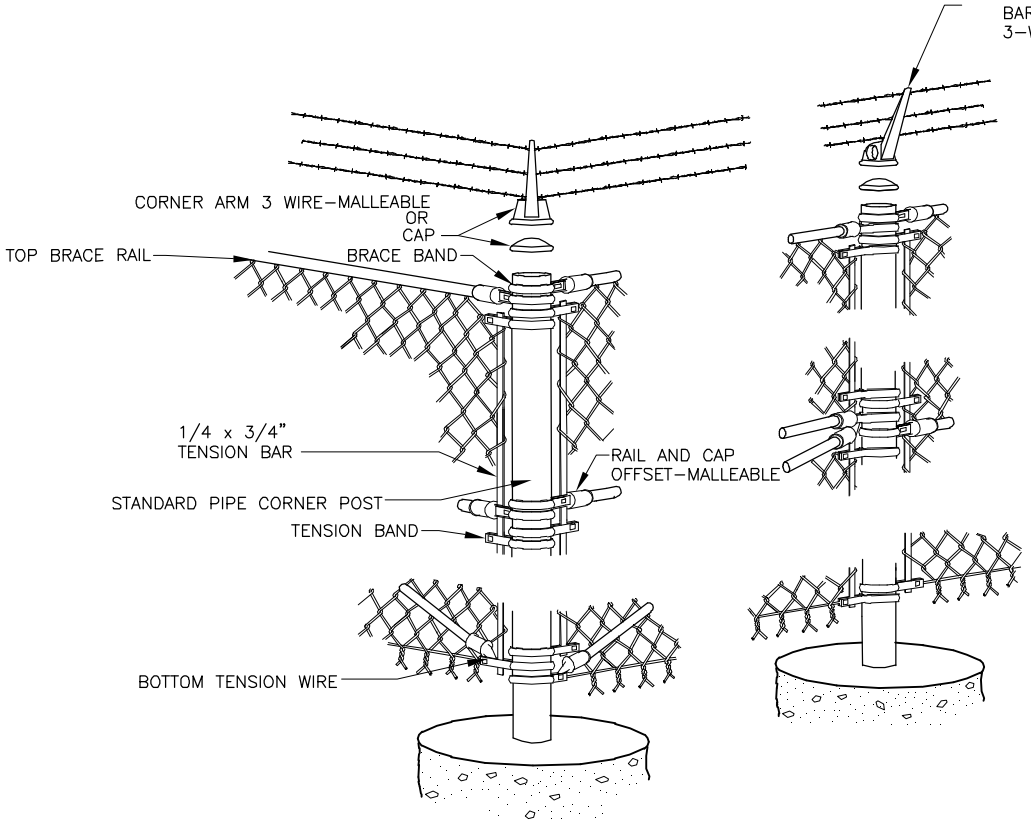
NOTES:
1. POST SPACING: LINE POSTS SHALL BE EVENLY SPACED, CENTER TO CENTER.
2. BARBED WIRE ARM WHERE REQUIRED SHALL BE PER CHAIN LINK FENCES AND GATES, AND CHAIN LINK FENCE DETAIL 2.
3. POST FOOTING SHALL HAVE A 1" CROWN FINISH
4. SEE CHAIN LINK FENCE DETAIL 2 FOR CHAIN LINK FENCE ASSEMBLY, ALTERNATE POSTS, AND FABRIC SELVAGE DETAILS.

CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

CHAIN LINK FENCE DETAIL 1

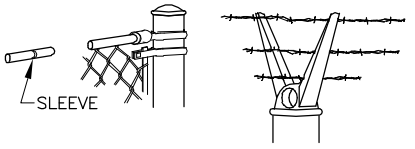
CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02830	2830.1



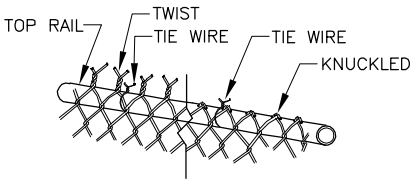
CHAIN LINK FENCE ASSEMBLY

WITH ONE–PIECE BARBED WIRE ARM (3–WIRE)

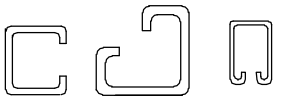


ONE–PIECE (6–WIRE)

BARBED WIRE ARM



FABRIC SELVAGE



TYPE C | TYPE C (CORNER) | TOP & BRACE RAIL

ALTERNATE POSTS

SEE CHAIN LINK FENCES AND GATES

CAMBRIDGE DEPARTMENT OF PUBLIC WORKS

CHAIN LINK FENCE DETAIL 2

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02830	2830.2

36" high by 36" wide by 24" deep

Fabricated from 1/8" steel

Door on one side with heavy duty hinges

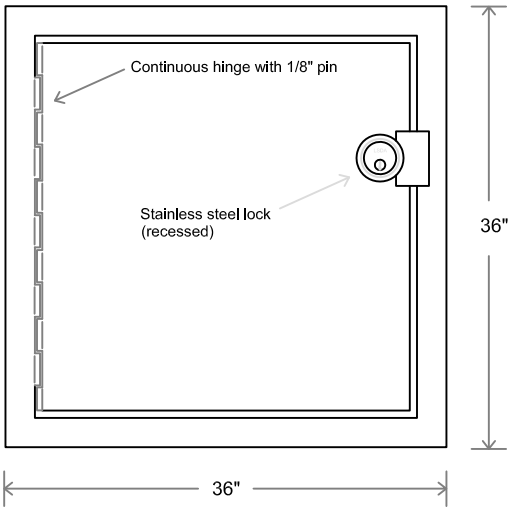
Locking device will be a deadbolt lock recessed into door

A shroud will cover the top of the lock

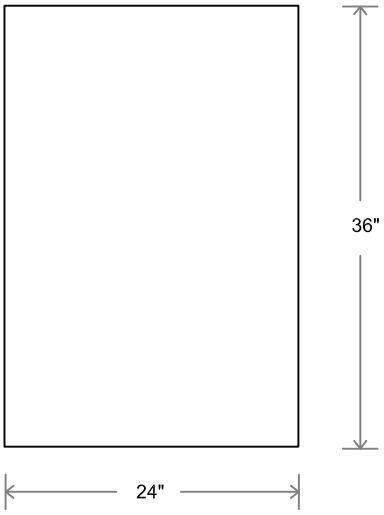
Box will be sanded and epoxy primed then painted with a urethane enamel top coat (black color)

Bottom of box will have a flange around the inside with a series of 1/2" holes to allow for mounting

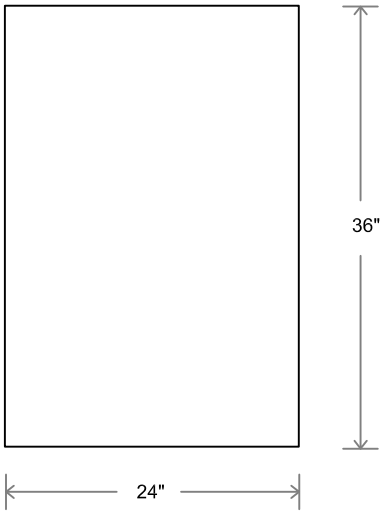
FRONT



SIDE



TOP

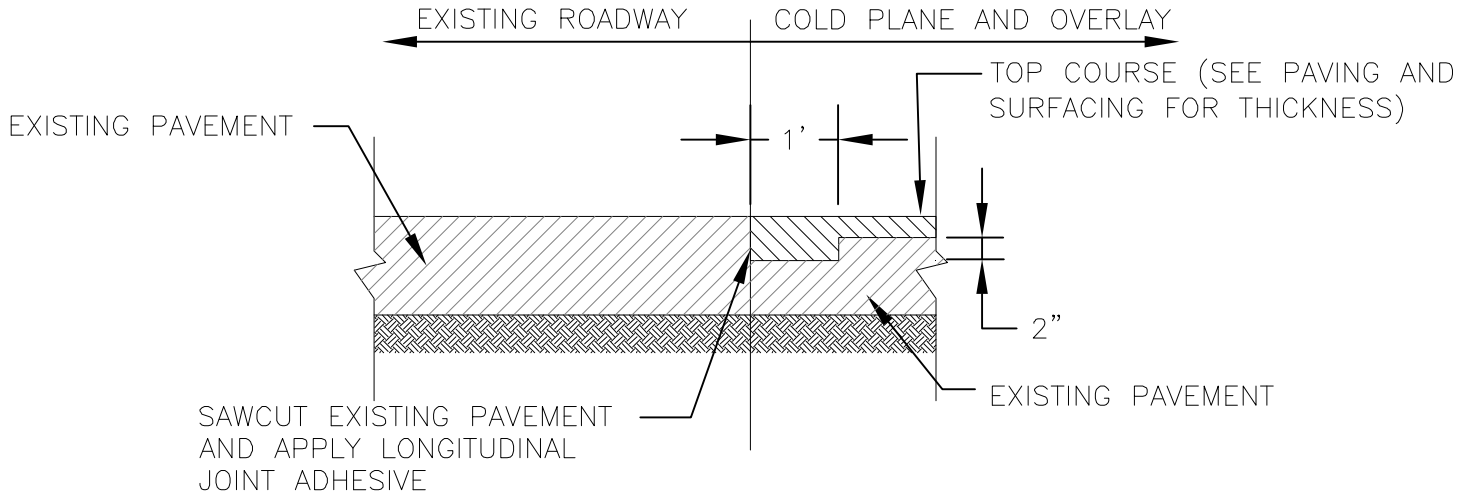


CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

IRRIGATION METER BOX

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

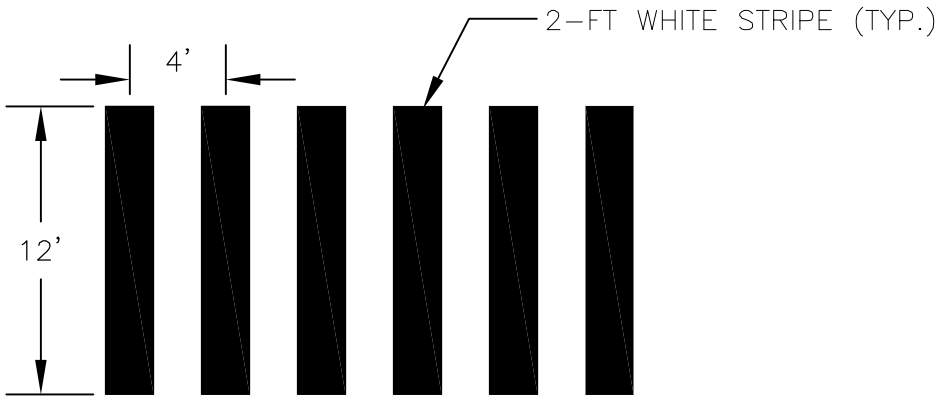
SCALE: N.T.S.	DATE OF ISSUE: 6/25/2018	SPEC. SECTION REF#: 2018-050	



NOTES:

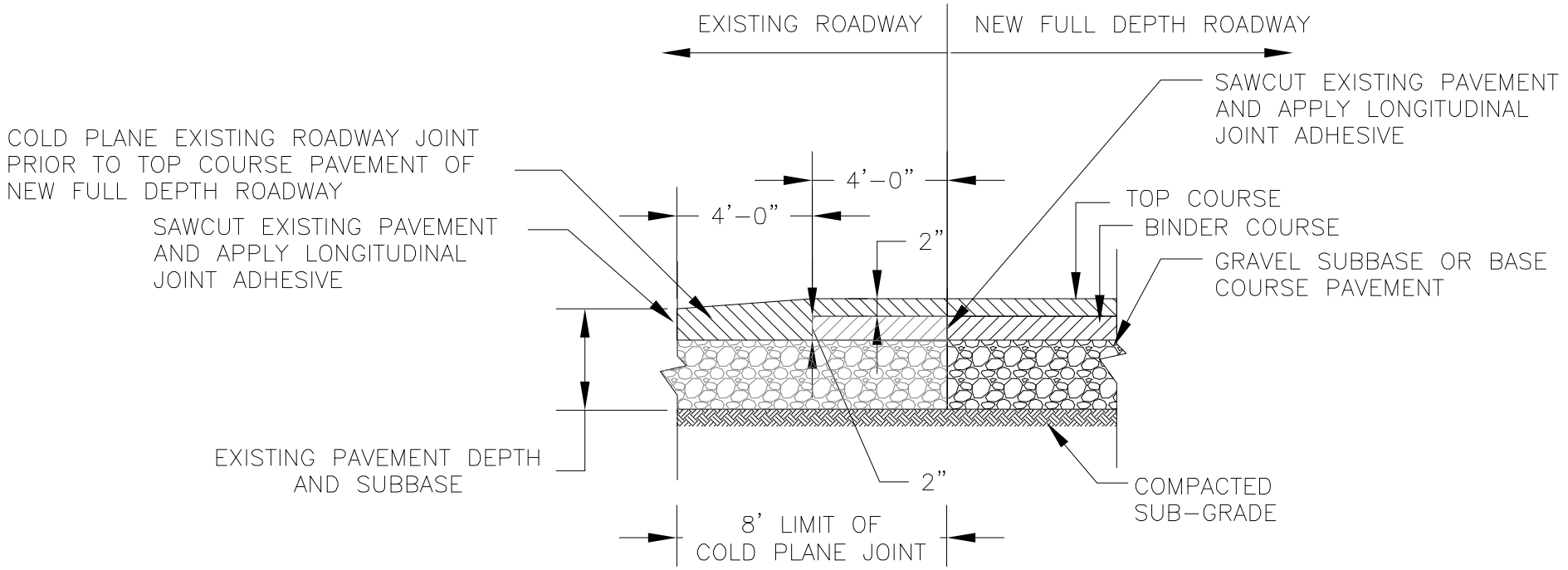
1. CLEAN ALL COLD PLANED SURFACES BEFORE APPLYING JOINT ADHESIVE AND FINAL PAVEMENT

CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS	COLD PLANE AND OVERLAY JOINT DETAIL			
	CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS			
	SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02500	2500.2



CAMBRIDGE STANDARD CROSSWALK

THE WORKS — CAMBRIDGE DEPARTMENT OF PUBLIC	CAMBRIDGE STANDARD CROSSWALK			
	CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS			
	SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02577	2577.1



NOTES:

1. CLEAN ALL COLD PLANED SURFACES BEFORE APPLYING JOINT ADHESIVE AND FINAL PAVEMENT

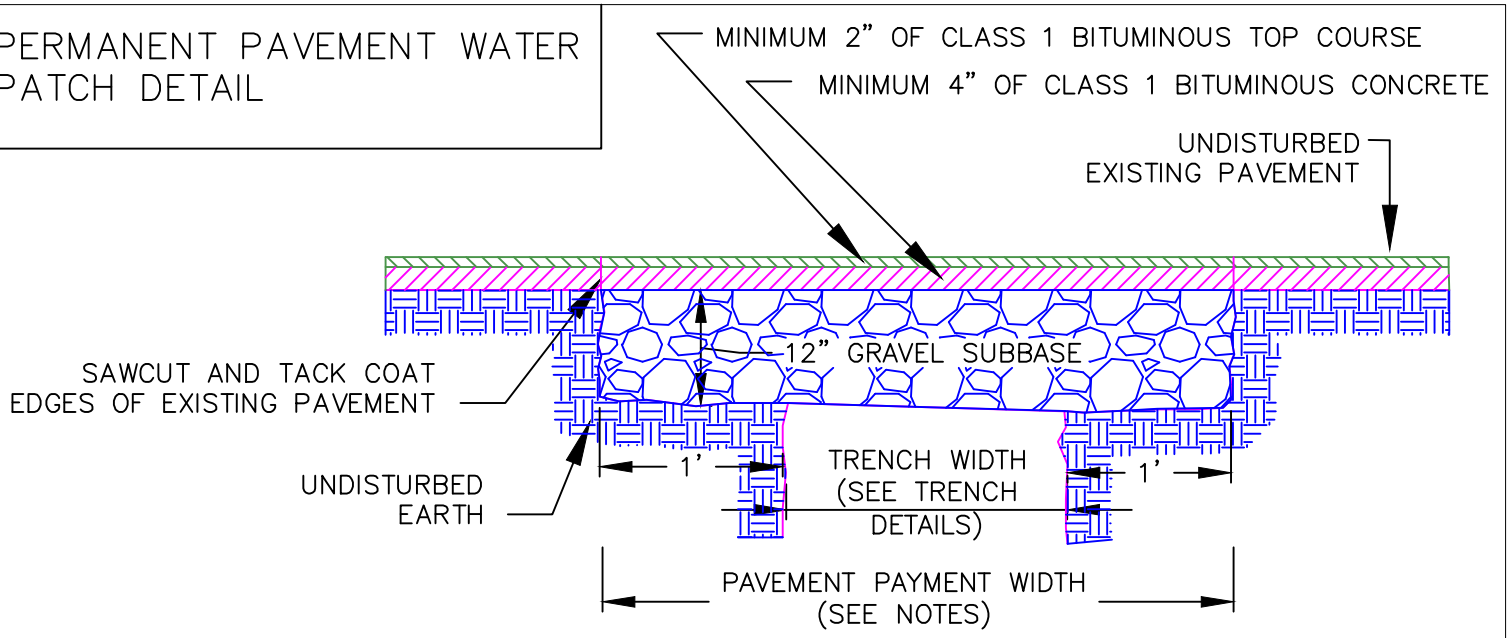
CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

FULL DEPTH PAVEMENT JOINT DETAIL

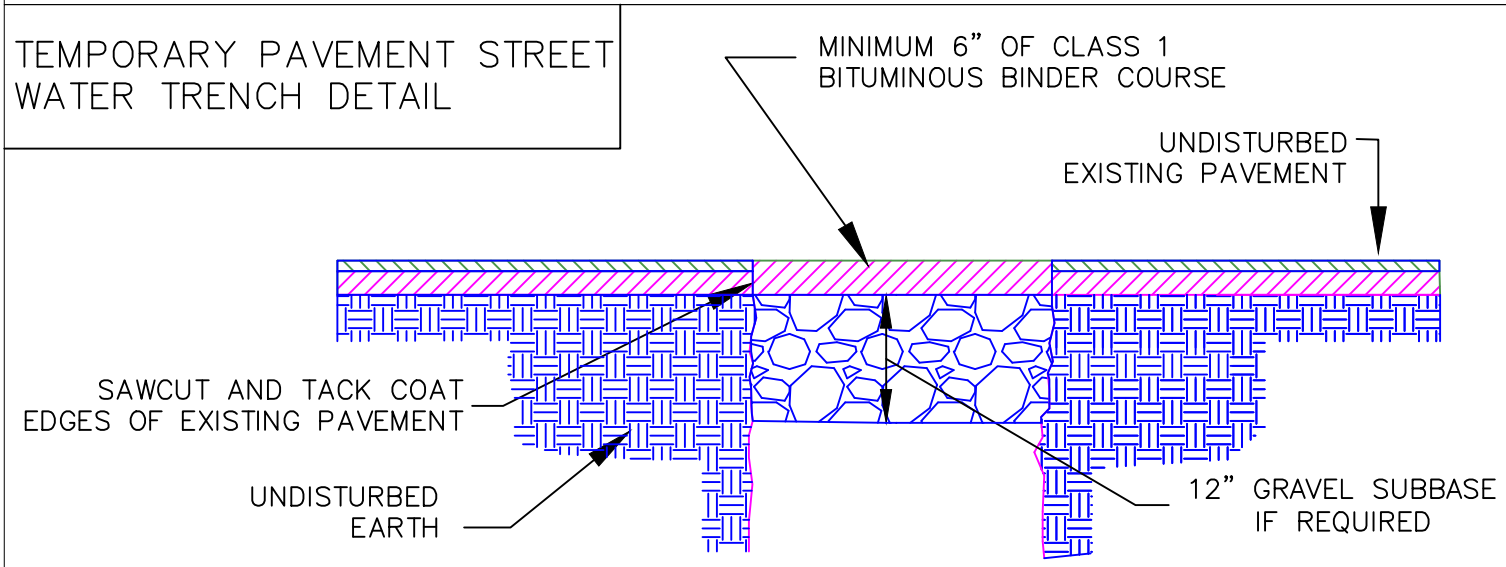
CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02500	2500.3

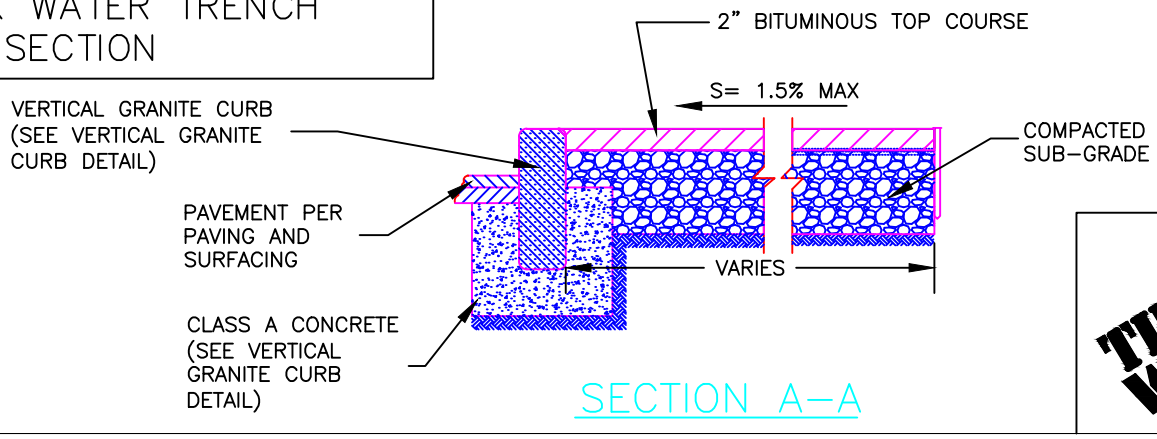
PERMANENT PAVEMENT WATER PATCH DETAIL



TEMPORARY PAVEMENT STREET WATER TRENCH DETAIL



TEMPORARY PAVEMENT SIDEWALK WATER TRENCH DETAIL –SECTION

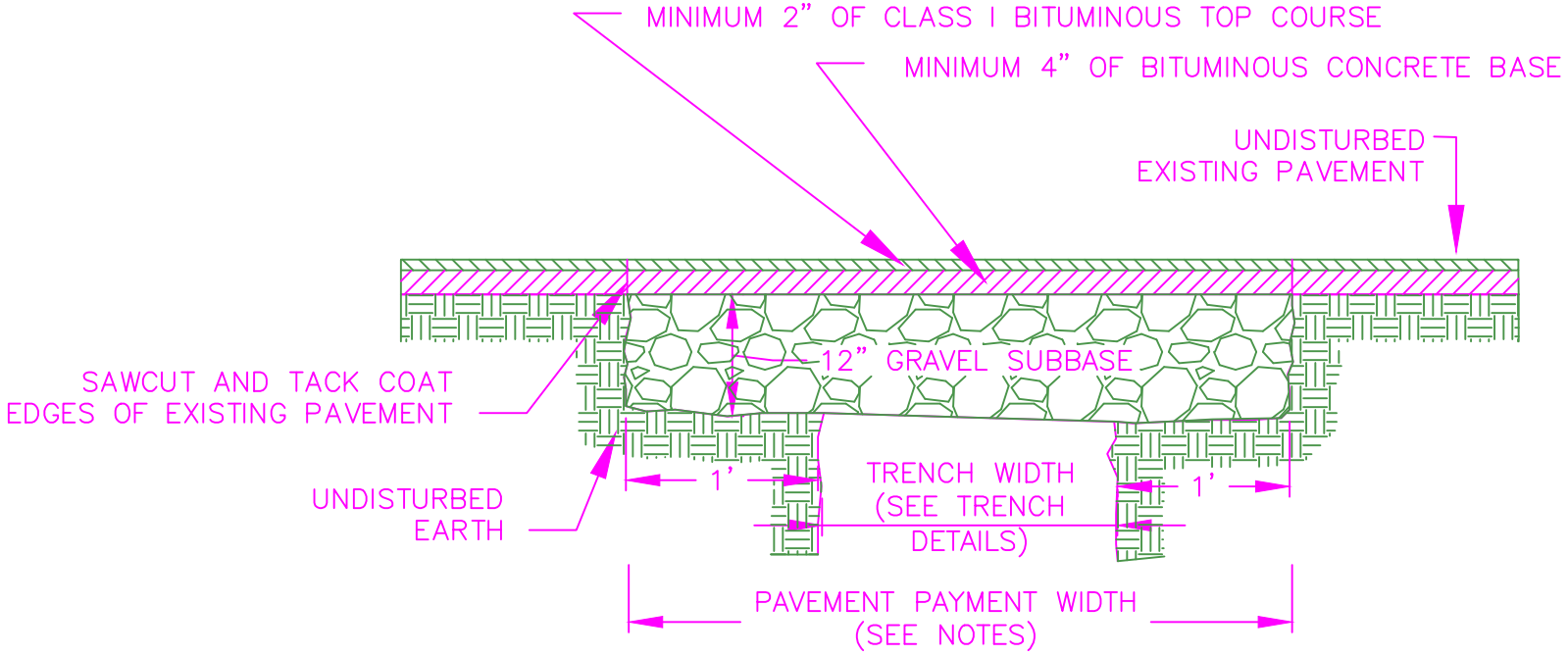


SECTION A–A

CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

NOTES:

1. PERMANENT TRENCH PAVEMENT PAYMENT WIDTH SHALL BE THE TRENCH PAY LIMIT PLUS 2 FEET
2. REMOVE AND DISPOSE ALL TEMPORARY PAVEMENT AS REQUIRED. RESTORE AND COMPACT SUBBASE AS REQUIRED PRIOR TO PERMANENT TRENCH PAVEMENT.
3. SIDEWALKS SHALL MATCH WIDTH AND SLOPE OF EXISTING SIDEWALKS UNLESS OTHERWISE NOTED.



NOTES:

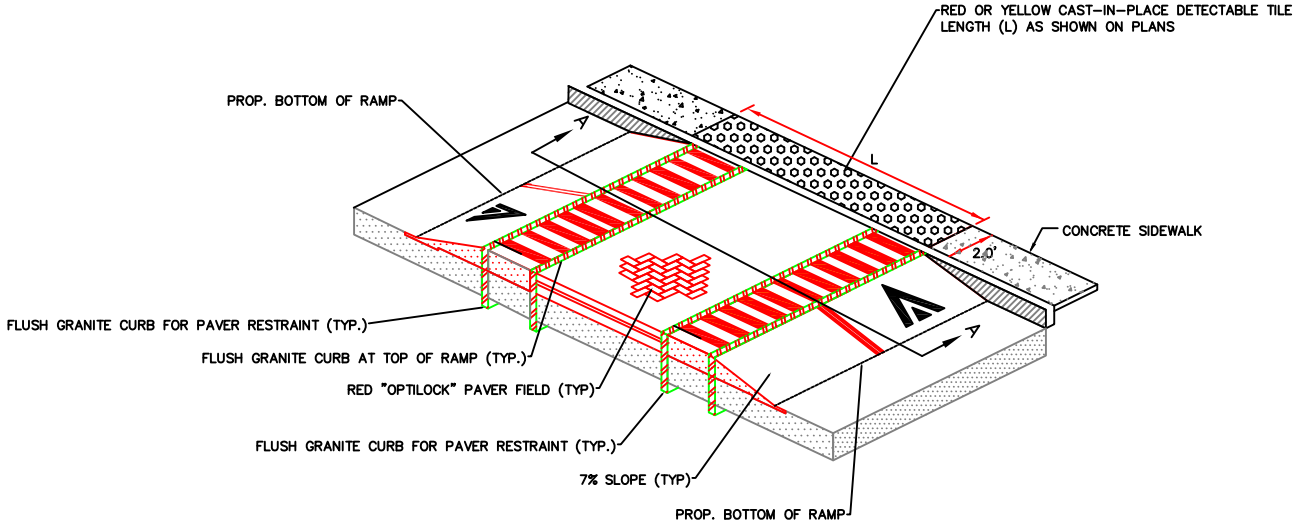
1. PERMANENT TRENCH PAVEMENT PAYMENT WIDTH SHALL BE THE TRENCH PAY LIMIT PLUS 2 FEET
2. REMOVE AND DISPOSE ALL TEMPORARY PAVEMENT AS REQUIRED. RESTORE AND COMPACT SUBBASE AS REQUIRED PRIOR TO PERMANENT TRENCH PAVEMENT.

CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

PERMANENT STREET WATER PATCH DETAIL

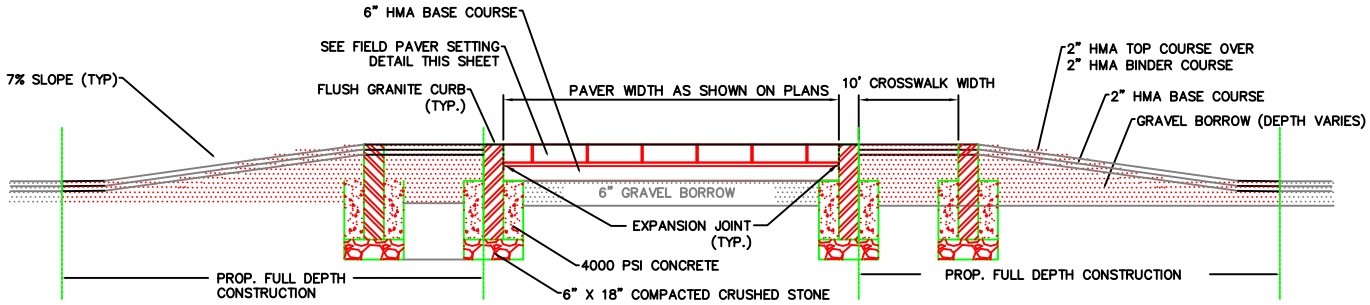
CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02500	2500.1

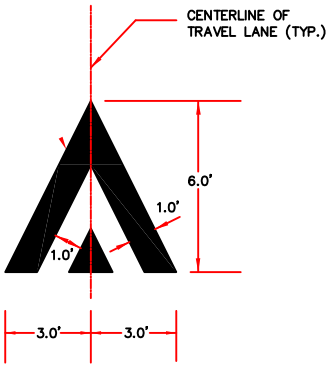


MID-BLOCK RAISED CROSSWALK ISOMETRIC PLAN

NTS

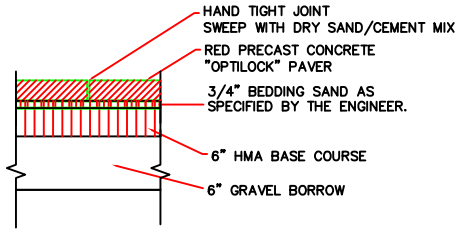


SECTION A-A



RAMP MARKING DETAIL

NTS



"FIELD" PAVER SETTING DETAIL

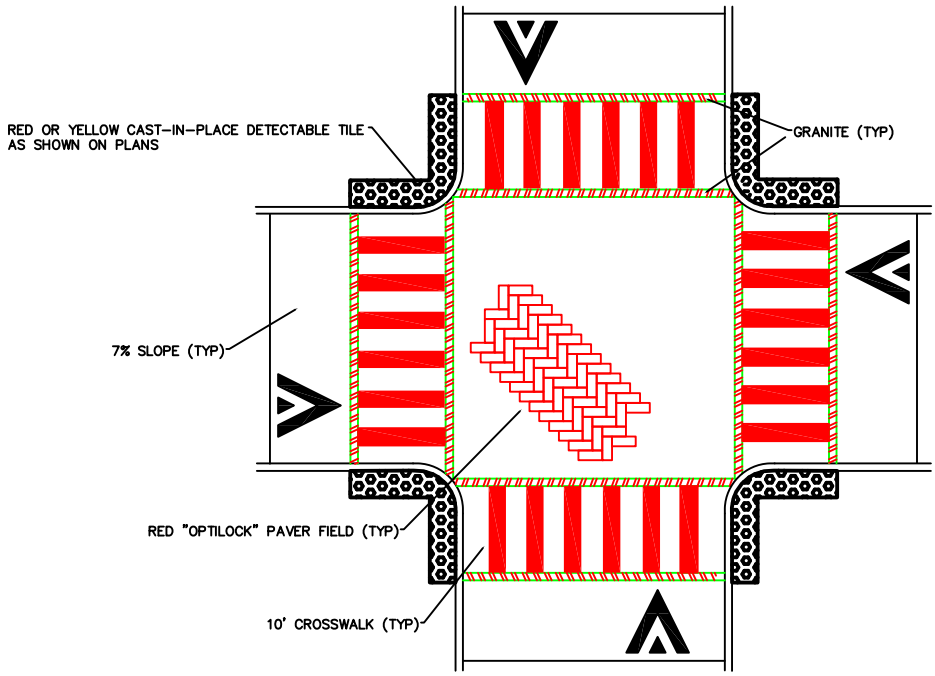
NTS

CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

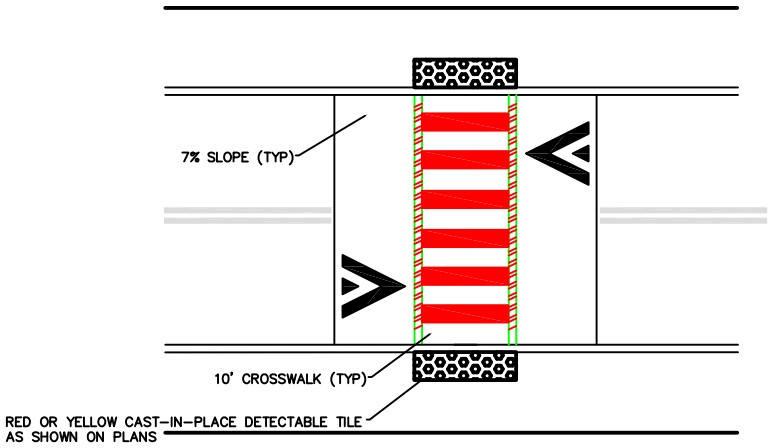
RAISED INTERSECTION / RAISED CROSSWALK DETAIL

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: NTS	DATE OF ISSUE: 5/2010	SPEC. SECTION REF#:	



4-WAY RAISED INTERSECTION PLAN
NTS

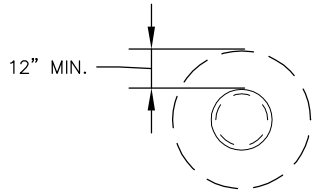


CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

MID-BLOCK RAISED CROSSWALK DETAIL

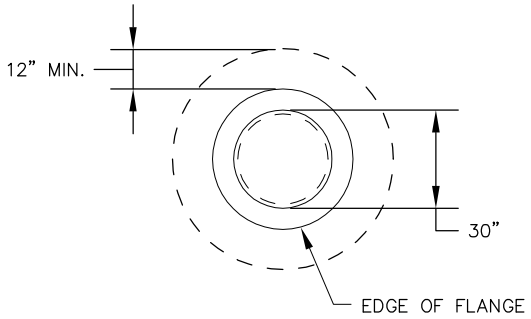
CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: NTS	DATE OF ISSUE: 5/2010	SPEC. SECTION REF#:	



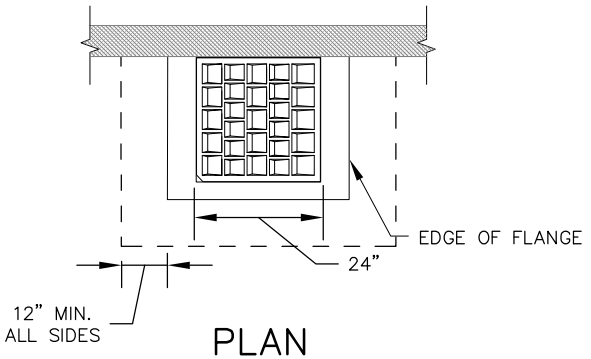
PLAN

GATE BOXES



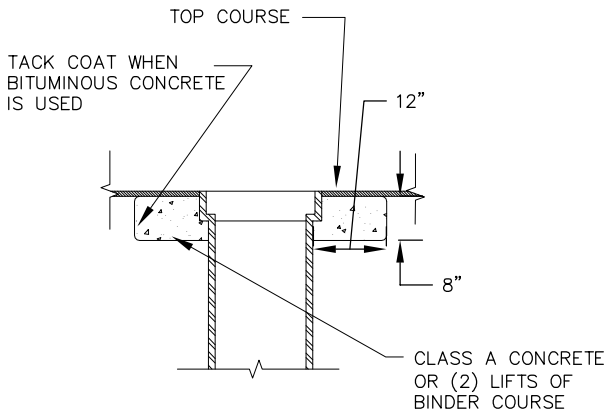
PLAN

MANHOLES

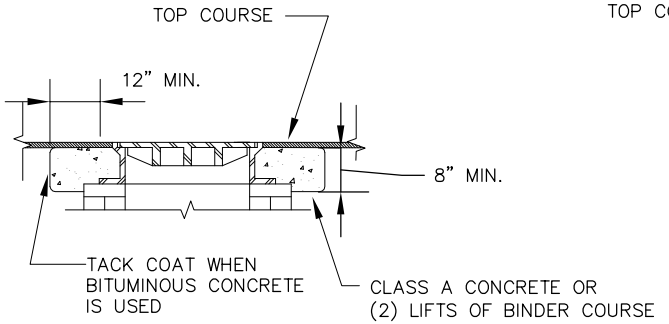


PLAN

CATCH BASINS



SECTION



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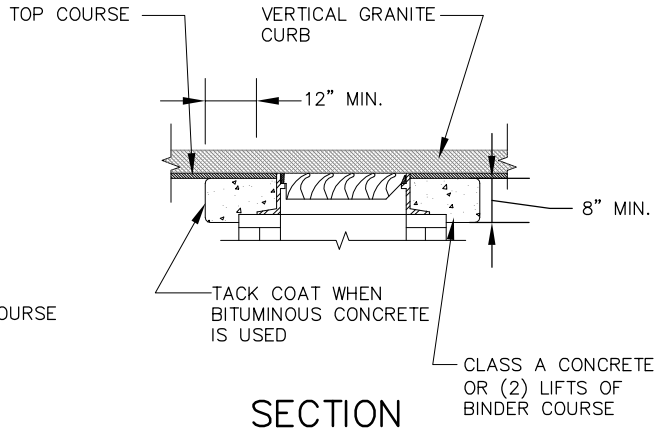


SECTION

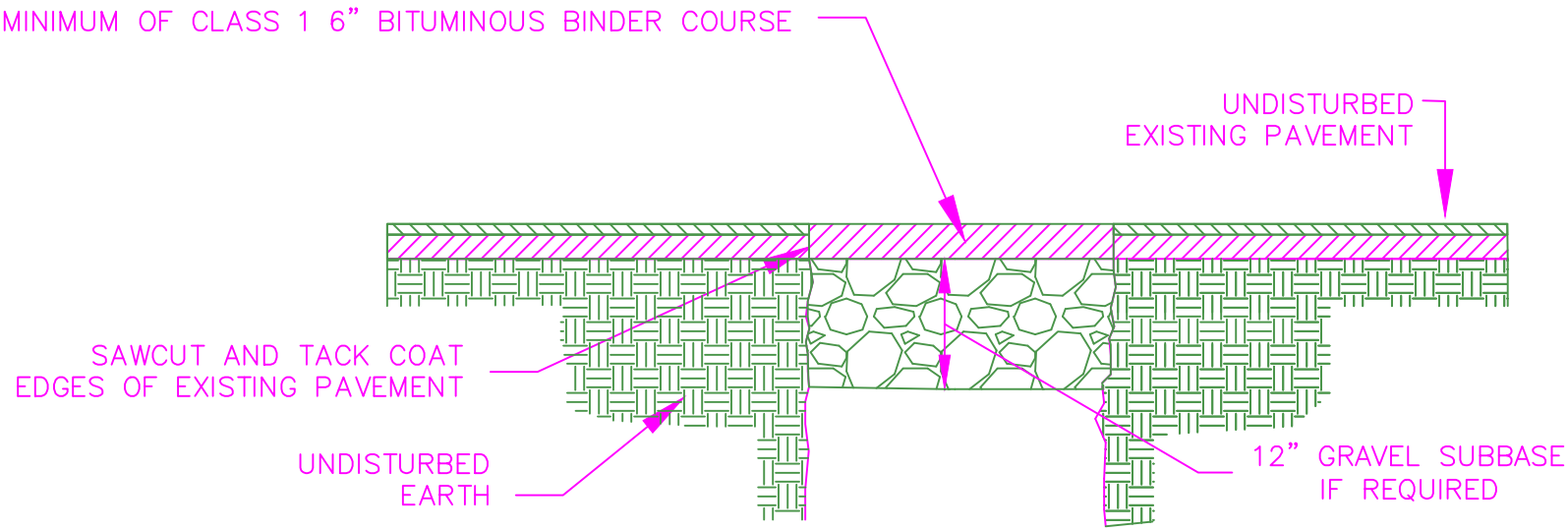
95% DETAILS
NOT FOR CONSTRUCTION

THE CAMBRIDGE DEPARTMENT OF PUBLIC WORKS

RAISING CASTINGS DETAIL

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02252	2252.14



NOTES:

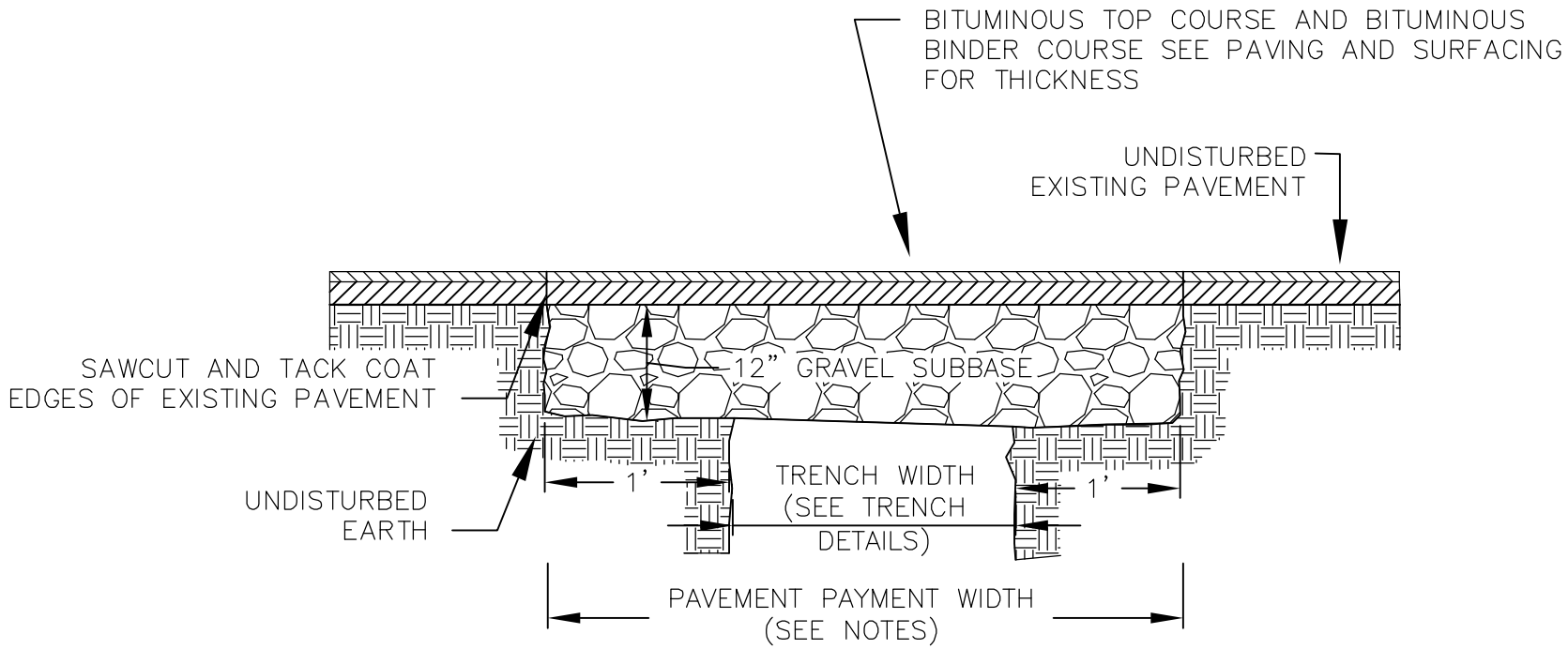
1. TEMPORARY TRENCH PAVEMENT PAYMENT WIDTH SHALL BE EQUAL TO THE TRENCH PAYMENT LIMIT
2. REMOVE AND DISPOSE ALL TEMPORARY PAVEMENT AS REQUIRED. RESTORE AND COMPACT SUBBASE AS REQUIRED PRIOR TO PERMANENT TRENCH PAVEMENT.

CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

TEMPORARY STREET WATER TRENCH PATCH DETAIL

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02500	2500.1



NOTES:

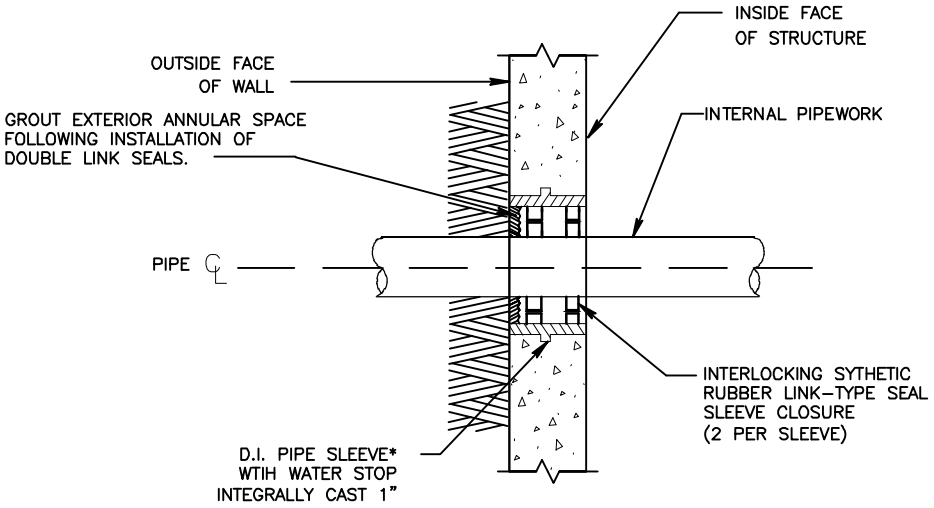
1. PERMANENT TRENCH PAVEMENT PAYMENT WIDTH SHALL BE THE TRENCH PAY LIMIT PLUS 2 FEET
2. TEMPORARY TRENCH PAVEMENT PAYMENT WIDTH SHALL BE EQUAL TO THE TRENCH PAYMENT LIMIT
3. REMOVE AND DISPOSE ALL TEMPORARY PAVEMENT AS REQUIRED. RESTORE AND COMPACT SUBBASE AS REQUIRED PRIOR TO PERMANENT TRENCH PAVEMENT.

CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

TRENCH PAVEMENT DETAIL

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02500	2500.1



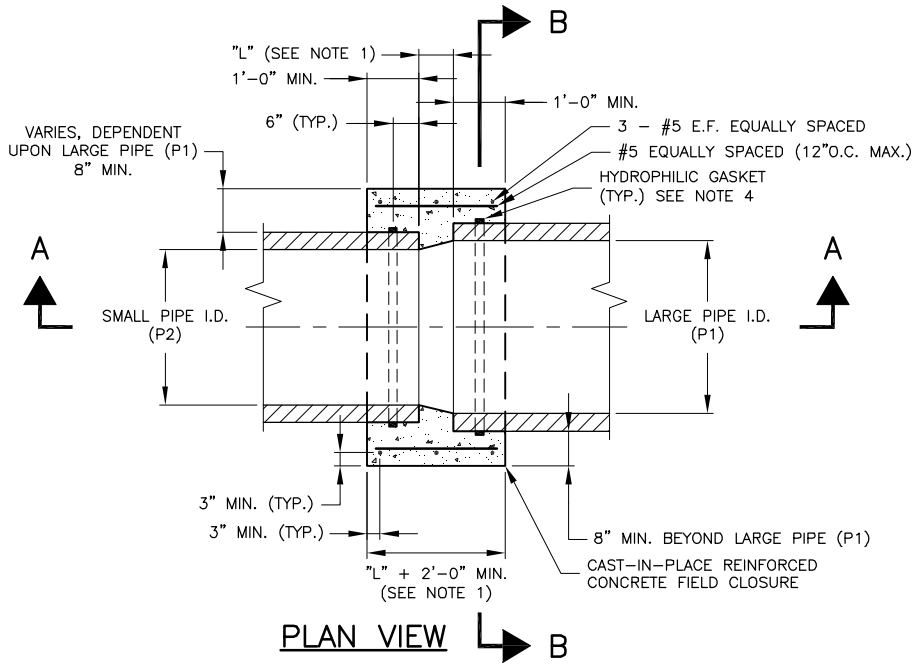
*SIZE OF SLEEVE TO SUIT PIPE SIZE AND SEAL.

THE CAMBRIDGE DEPARTMENT OF PUBLIC WORKS

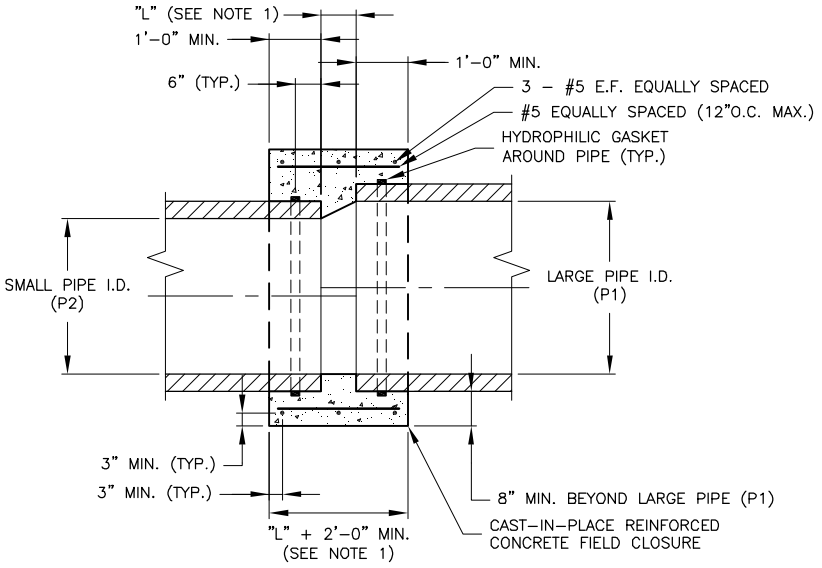
BURIED WALL PIPE SLEEVE CLOSURE

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 03300	3300.4

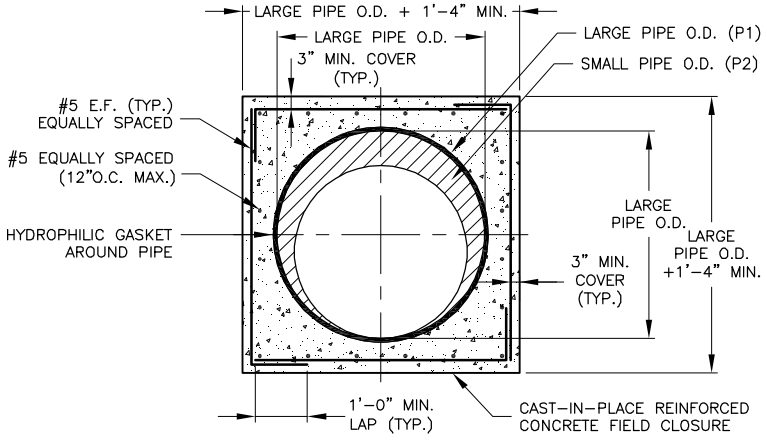


PLAN VIEW



SECTION A-A

NOTES:
1. SPACING BETWEEN PIPES (L) DEPENDS ON PIPE SIZES, FOR PIPES OF THE SAME SIZE USE 4". THE DISTANCE "L" EQUALS THE LARGE PIPE I.D. MINUS THE SMALL PIPE I.D. TIMES TWO [L=(P1-P2)x2] BUT NO LESS THAN 4".
2. PROPOSED PIPE INVERT SHALL MATCH EXISTING PIPE INVERT UNLESS OTHERWISE NOTED.
3. SAND BLAST EXISTING PIPE PERIMETER AND APPLY BONDING AGENT PRIOR TO CONCRETE ENCASEMENT.
4. CONCRETE AND REBAR REQUIREMENTS SHALL CONFORM TO CAST-IN-PLACE CONCRETE.
5. LOCATION OF FIELD CLOSURE SHALL BE SUBJECT TO THE ENGINEER'S APPROVAL.
6. FOR NON-PRESSURE PIPES OF DIFFERENT MATERIALS OR SIZES.



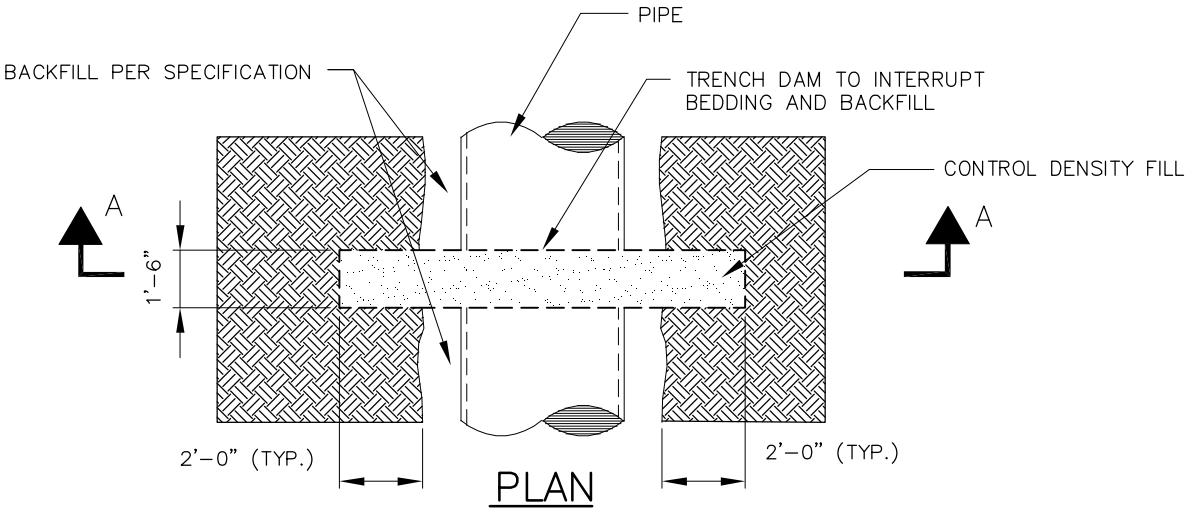
SECTION B-B

THE CAMBRIDGE DEPARTMENT OF PUBLIC WORKS

CAST IN PLACE FIELD CLOSURE

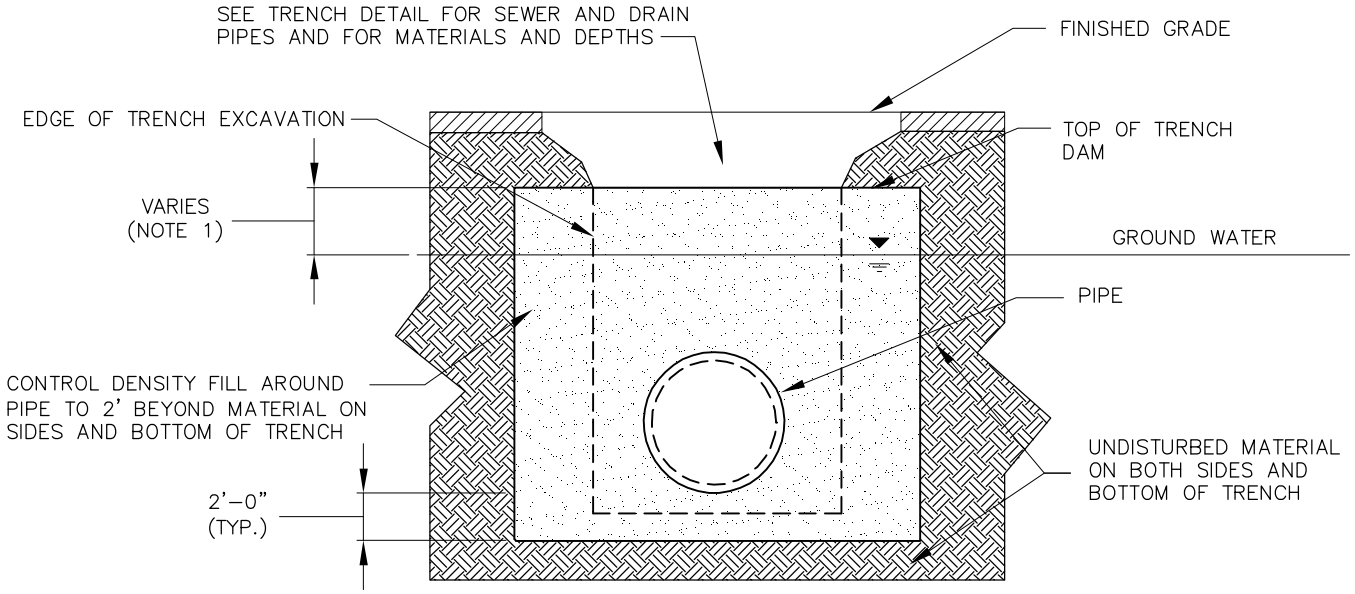
CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 03300	3300.1



PLAN

NOTES:
1. NOTCH TRENCH DAM A MINIMUM OF 2'-0" BEYOND UNDISTURBED MATERIAL ON SIDES AND BOTTOM OF TRENCH.



SECTION A-A

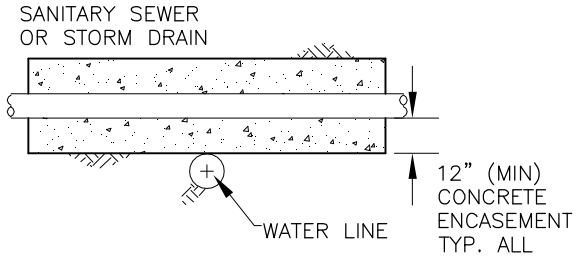
NOTES:
1. THE TOP OF THE TRENCH DAM SHALL EXTEND A MINIMUM OF 5'-0" ABOVE THE GROUND WATER LEVEL, AS DETERMINED BY THE NEAREST BORING OR BY THE ENGINEER, BUT SHALL NOT EXCEED A DEPTH OF 1'-0" BELOW FINISHED GRADE.
2. TRENCH DAMS SHALL BE INSTALLED AS INDICATED ON THE CONTRACT DRAWINGS OR AS DIRECTED BY THE ENGINEER.
3. IF PIPE MATERIAL IS DUCTILE IRON USE A NON FLY ASH BASED CONTROL DENSITY FILL

CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

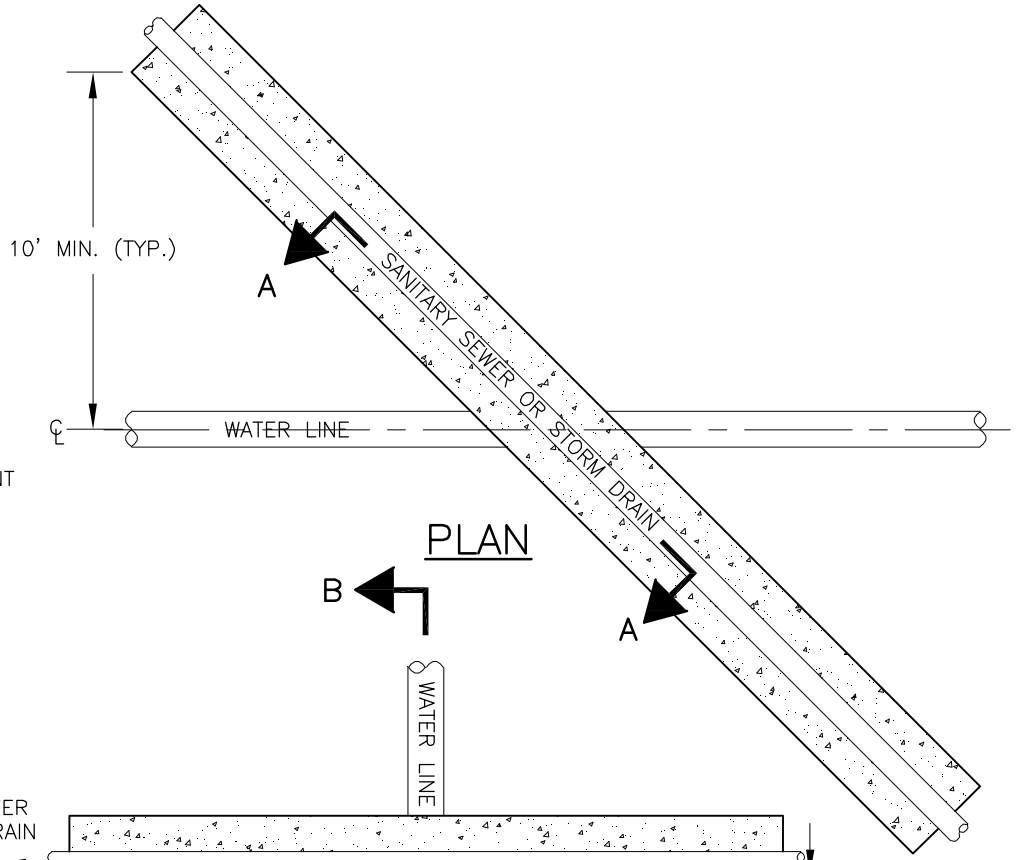
TRENCH DAM DETAIL

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02210	2210.2

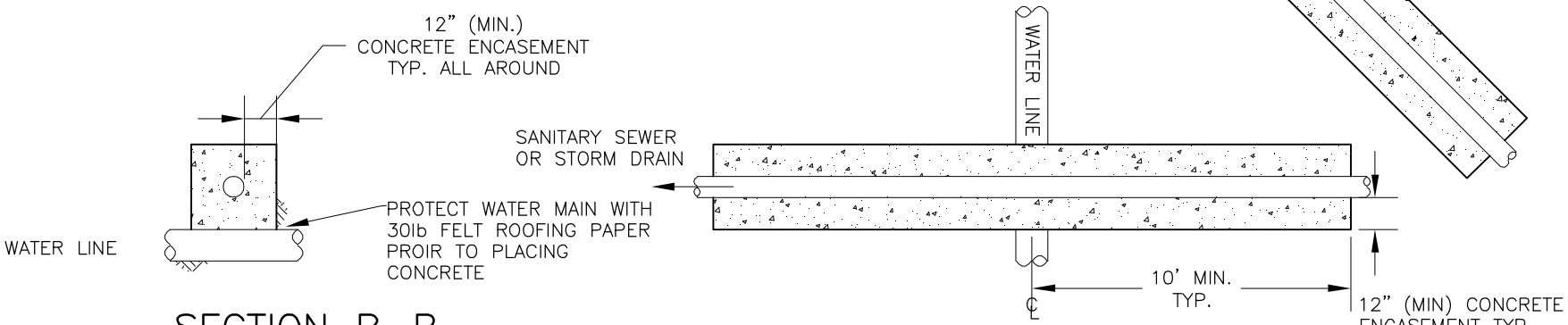


SECTION A–A



PLAN

B



SECTION B–B

NOTE:
1. CONCRETE SHALL HAVE A MINIMUM 3,000 PSI STRENGTH

B

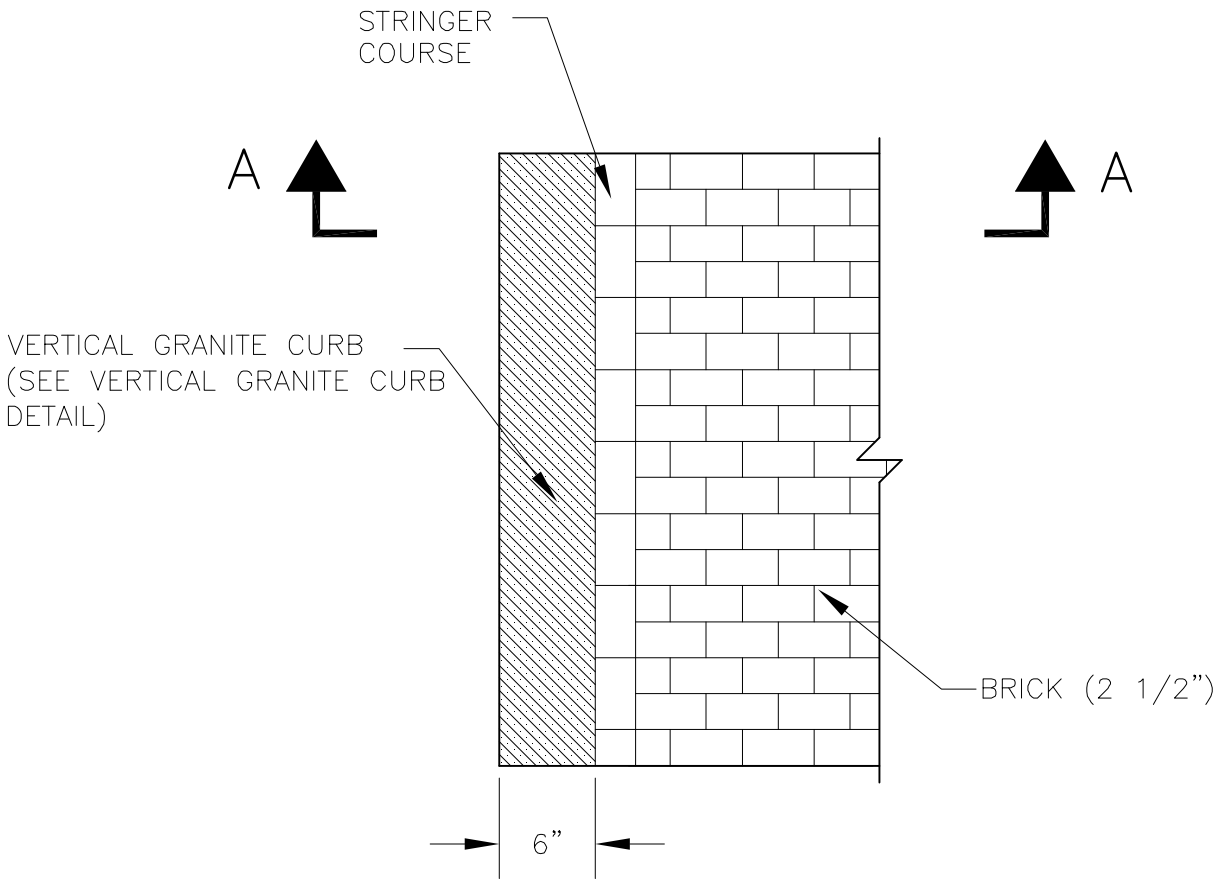
PLAN

THE CAMBRIDGE DEPARTMENT OF PUBLIC WORKS

STORM DRAIN AND SANITARY SEWER CROSSING ABOVE WATER MAIN

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

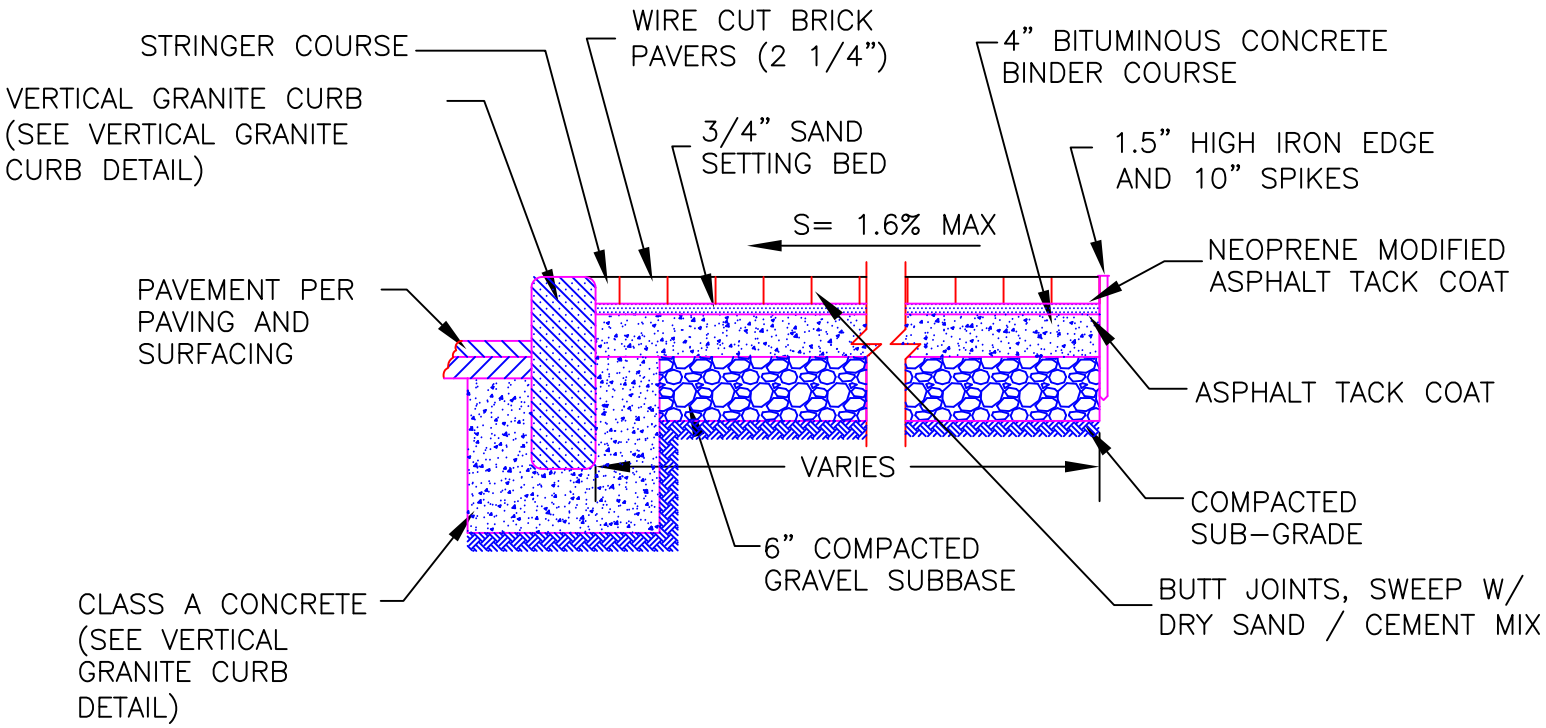
SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02630	2630.1



NOTE:
AROUND HYDRANTS, UTILITY POLES SIGN POSTS ETC., SEE EXPANSION JOINT DETAIL

PLAN

THE CAMBRIDGE DEPARTMENT OF PUBLIC WORKS	BRICK SIDEWALK DETAIL - PLAN			
	CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS			
	SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02524	2524.8



SECTION A–A

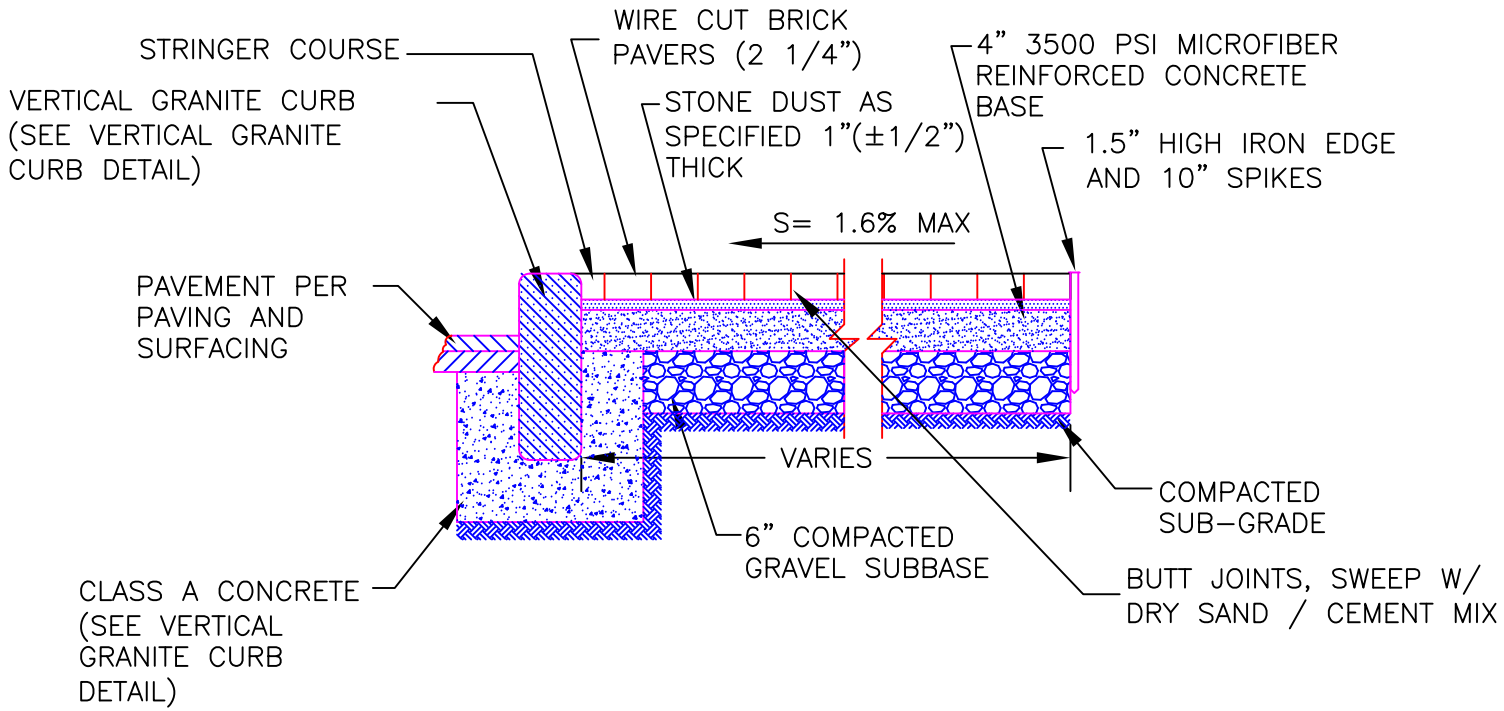
NOTES:
1. SIDEWALKS SHALL MATCH WIDTH AND SLOPE OF EXISTING SIDEWALKS UNLESS OTHERWISE NOTED.
2. BITUMINOUS CONCRETE BINDER COURSE SHALL BE 6" DEPTH (IN TWO 3" COURSES) AT DRIVEWAYS. REFER TO PROJECT DRAWINGS OR ENGINEER'S INSTRUCTIONS FOR LOCATIONS
3. FOR BRICK LAYOUT PATTERN SEE PLAN VIEW DETAIL 2524.8

CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

ASPHALT BASE BRICK SIDEWALK DETAIL - SECTION

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02524	2524.9



SECTION A–A

NOTES:
1. SIDEWALKS SHALL MATCH WIDTH AND SLOPE OF EXISTING SIDEWALKS UNLESS OTHERWISE NOTED.
2. FOR BRICK LAYOUT PATTERN SEE PLAN VIEW DETAIL 2524.8

CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

CONCRETE BASE BRICK SIDEWALK DETAIL - SECTION

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

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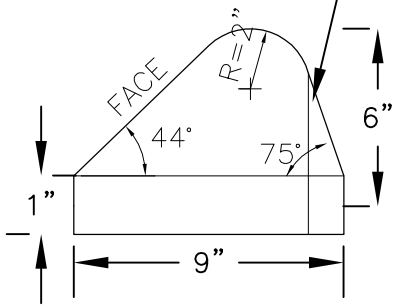
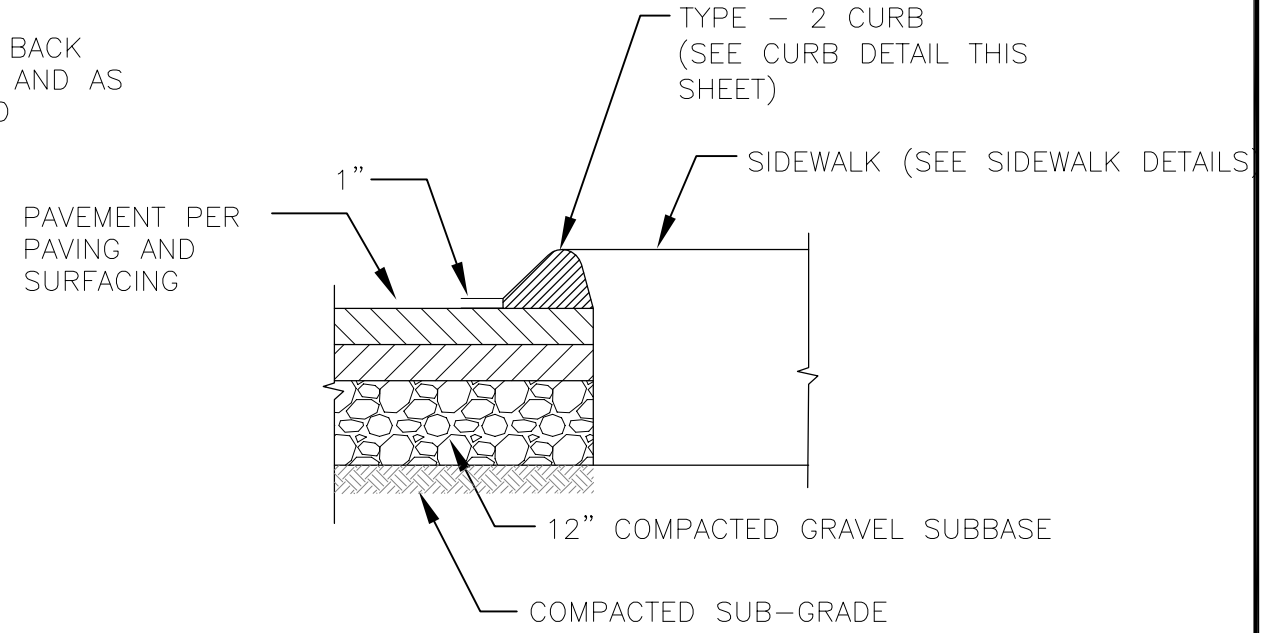


CURB DETAIL

CURB IS TYPE–2 PER MHD
CONSTRUCTION STANDARDS



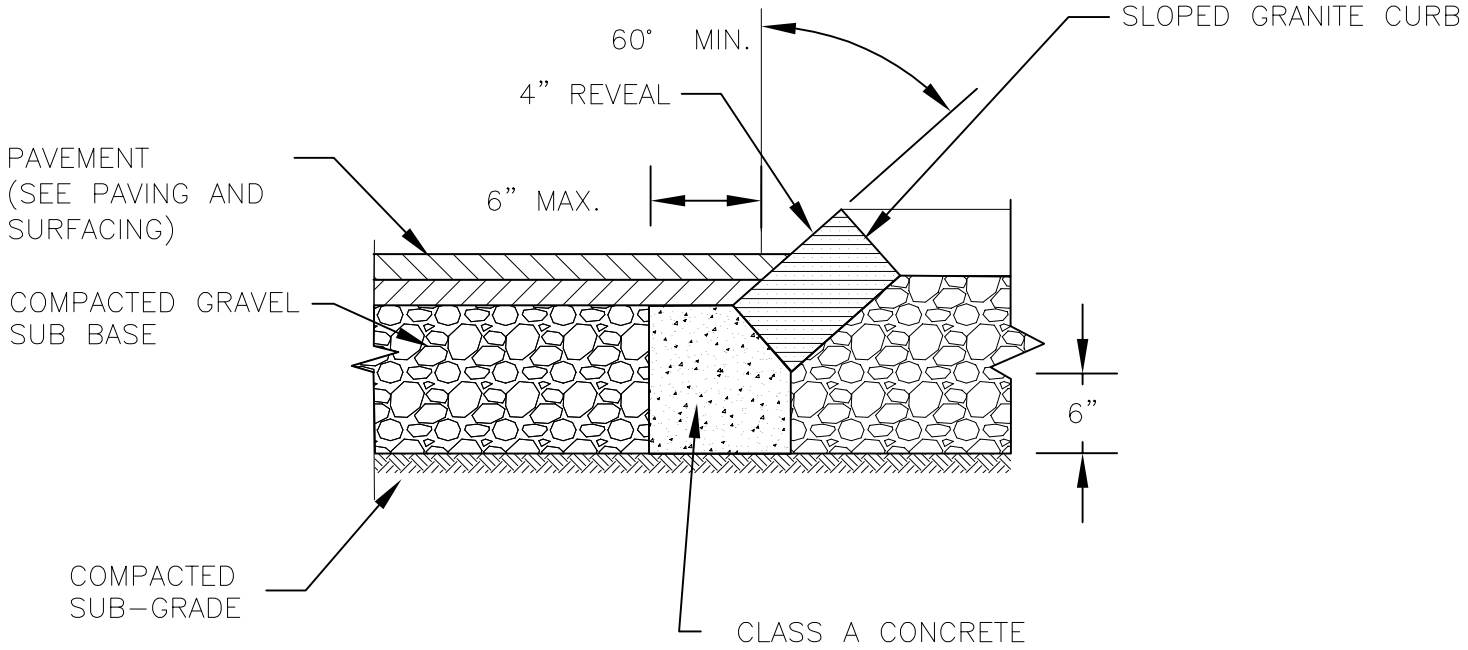
95% DETAILS
NOT FOR CONSTRUCTION

THE CAMBRIDGE DEPARTMENT OF PUBLIC WORKS

BITUMINOUS CONCRETE CURB DETAIL

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02524	2524.9



NOTES:

1. PLACE AND COMPACT GRAVEL PRIOR TO SETTING SLOPED GRANITE CURB

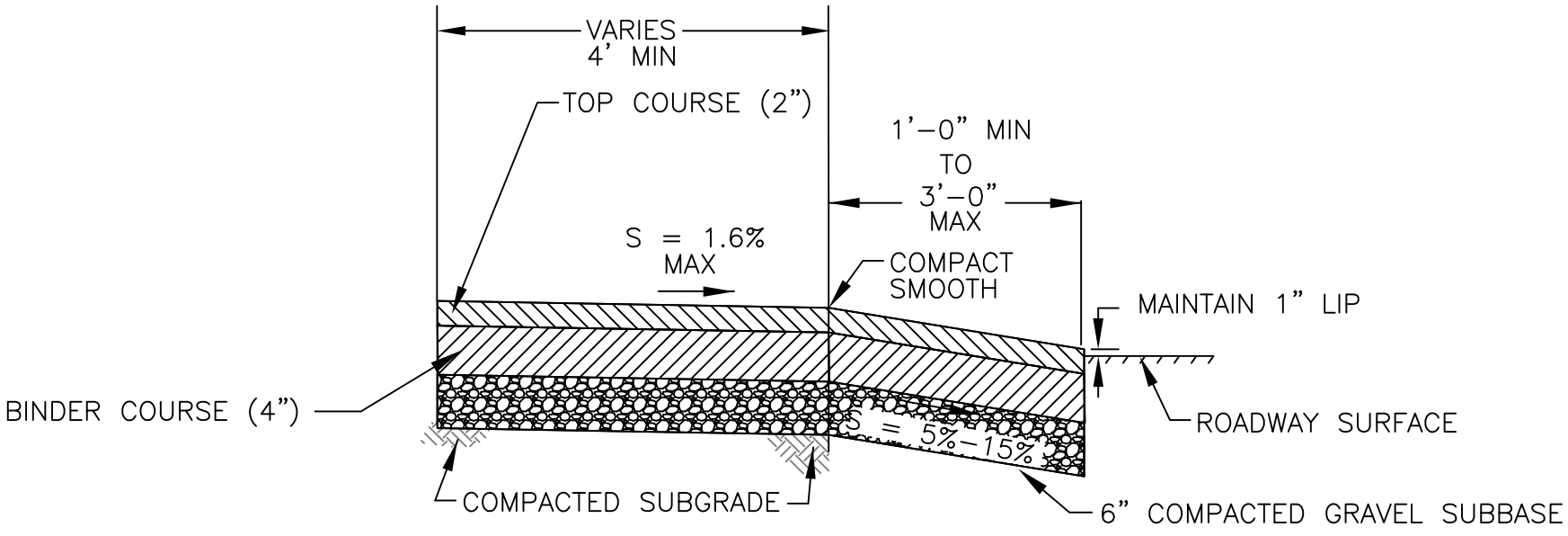
95% DETAILS
NOT FOR CONSTRUCTION

THE CAMBRIDGE DEPARTMENT OF PUBLIC WORKS

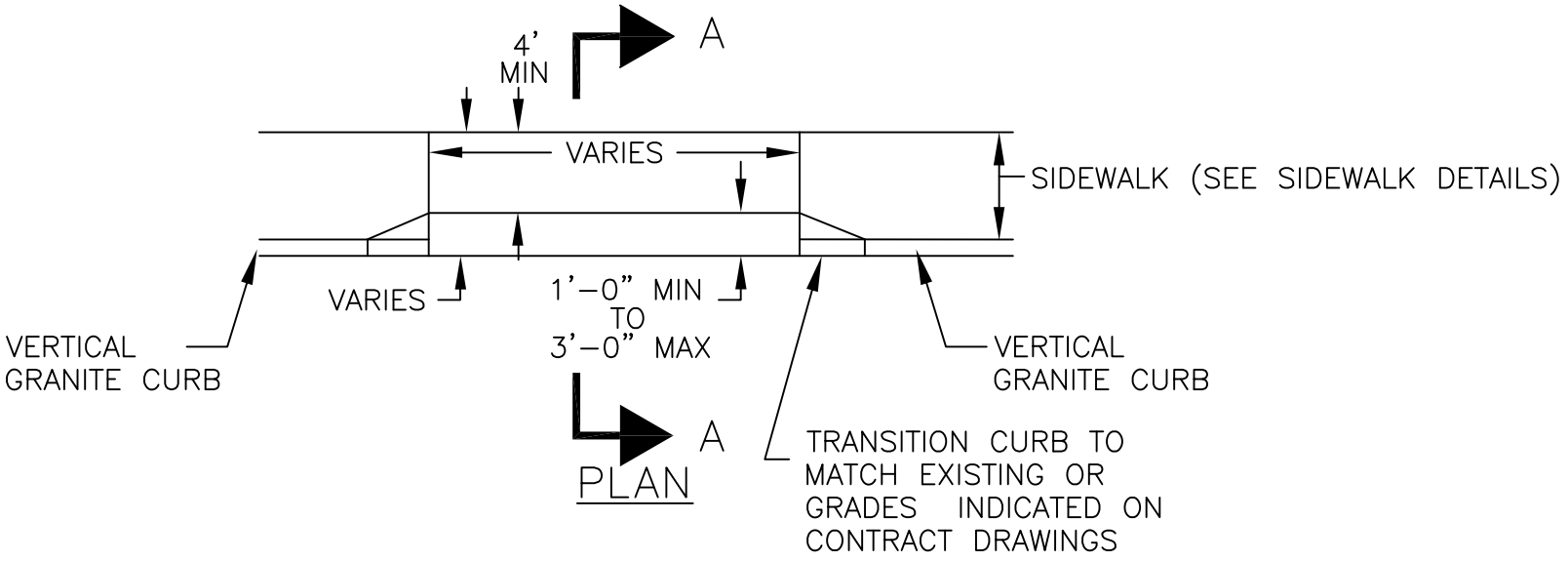
SLOPED GRANITE CURB DETAIL

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02524	2524.2



SECTION A-A



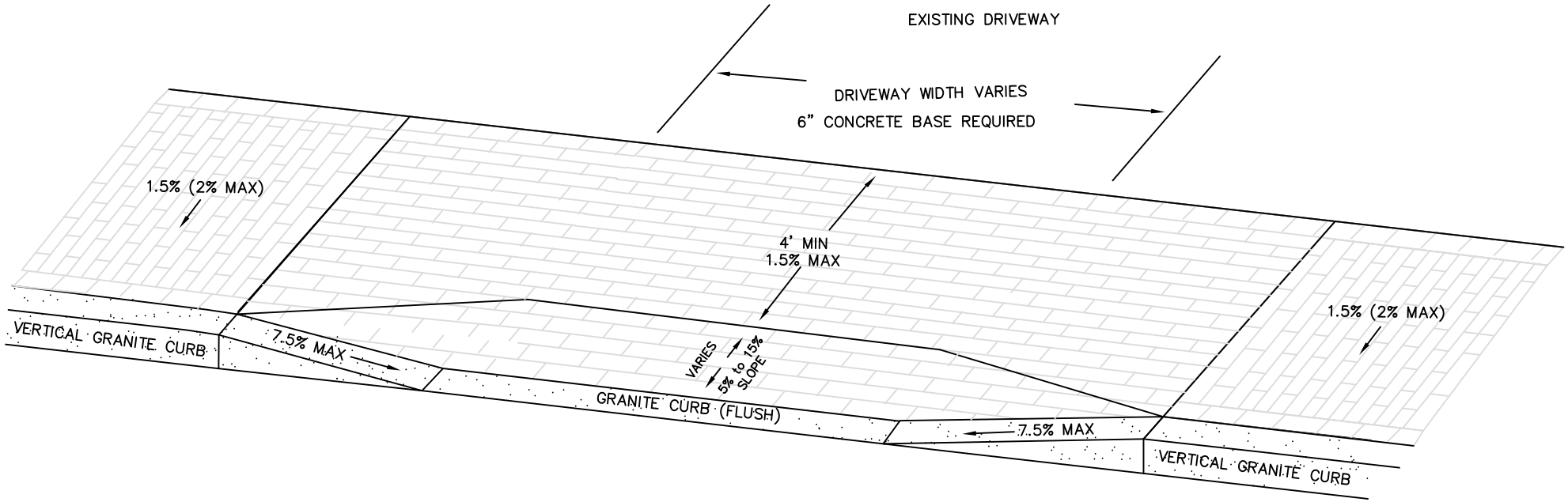
PLAN

CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

BITUMINOUS CONCRETE DRIVEWAY APRON DETAIL

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 01 / 19	SPEC. SECTION REF#: 02524	2524.6

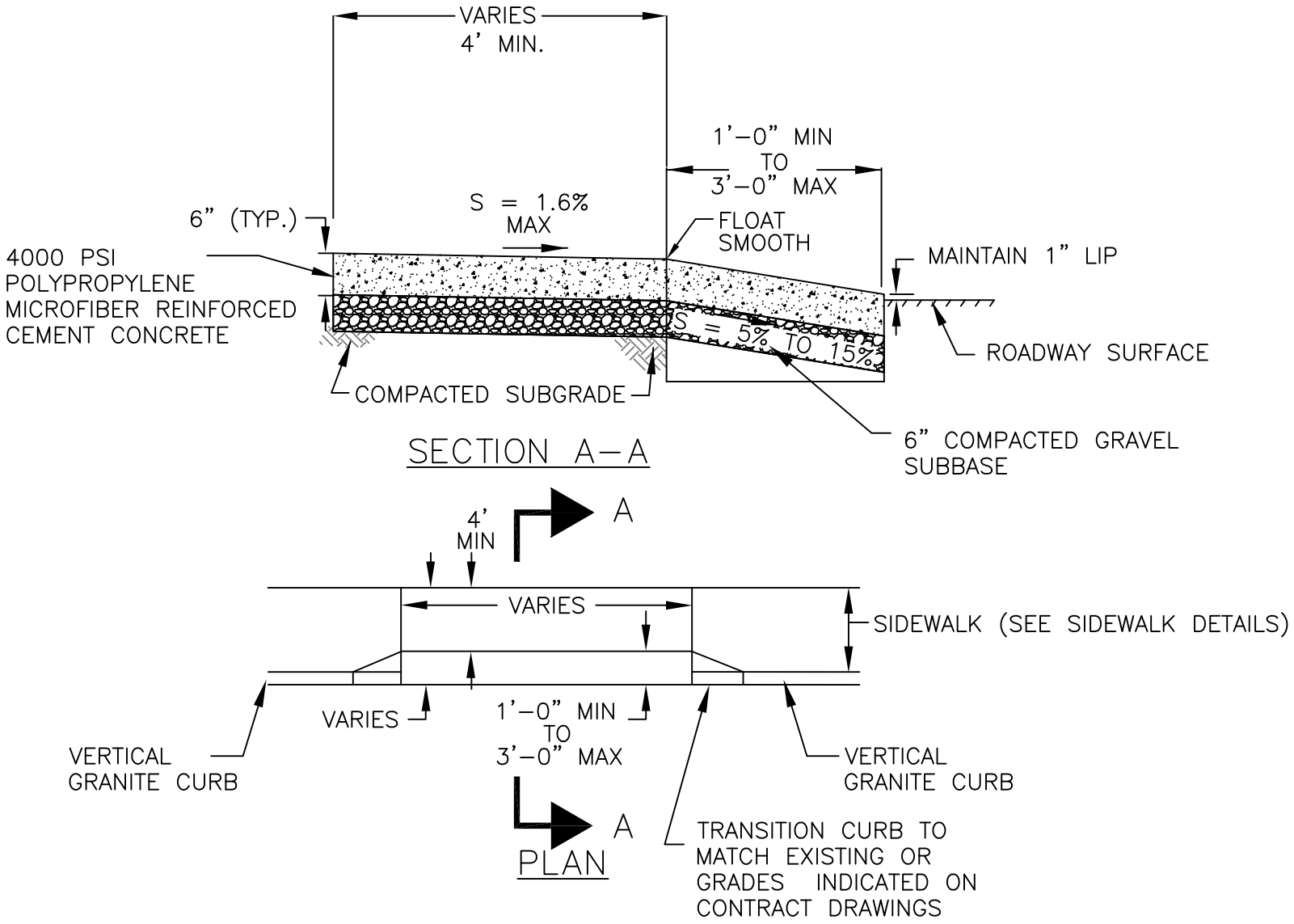


CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

BRICK DRIVEWAY APRON DETAIL

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 01 / 19	SPEC. SECTION REF#: 02524	2524.10



CEMENT CONCRETE DRIVEWAY APRON DETAIL

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

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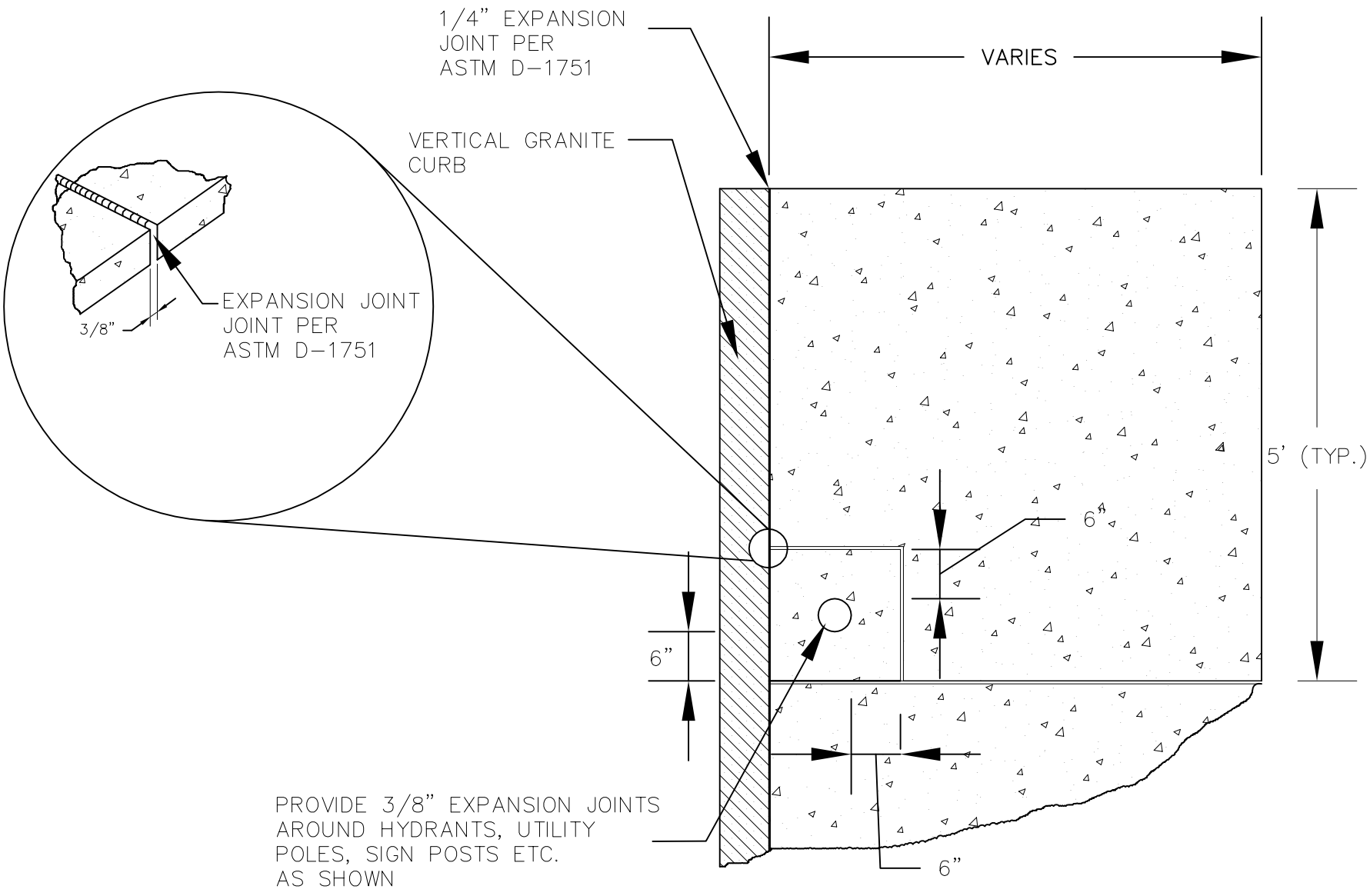

95% DETAILS
NOT FOR CONSTRUCTION

THE CAMBRIDGE DEPARTMENT OF PUBLIC WORKS

SIDEWALK EXPANSION JOINT DETAIL

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

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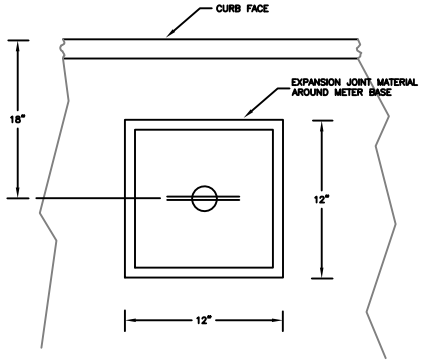
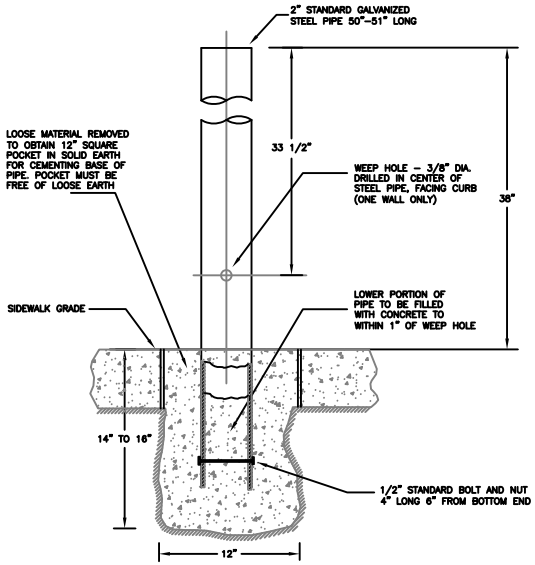
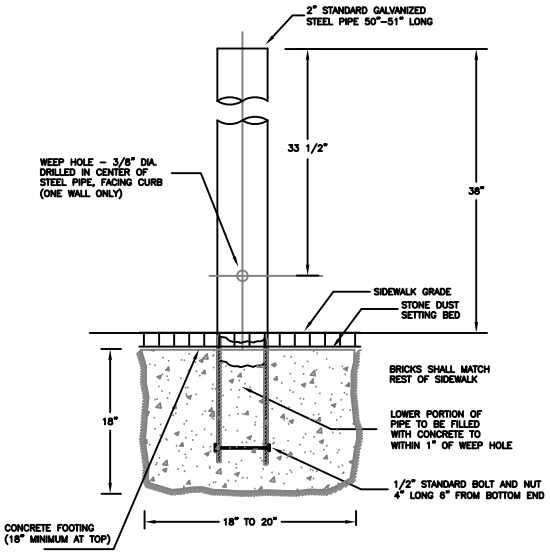


PLAN – PARKING METER POST



SECTION – PARKING METER POST, CONCRETE SIDEWALK



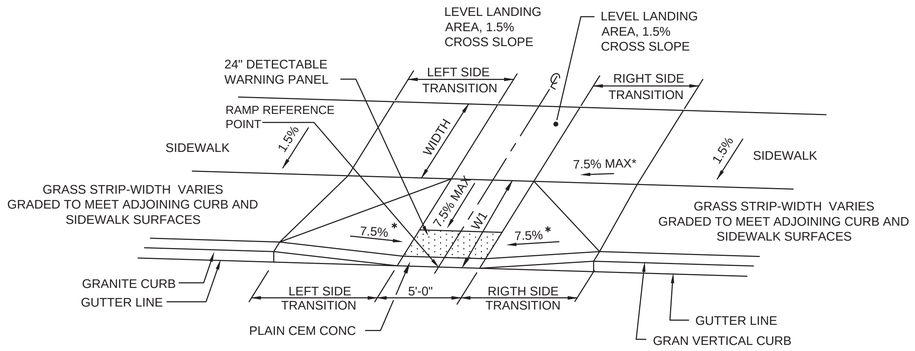
SECTION – PARKING METER POST, BRICK SIDEWALK

CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

PARKING METER POST

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: NTS	DATE OF ISSUE:	SPEC. SECTION REF#:	



WHEELCHAIR RAMP DETAIL - TYPE A

NOT TO SCALE

WHEELECHAIR RAMPS

WCR #	TYPE	RAMP REFERENCE POINT			WIDTH OF SIDEWALK (W)	WIDTH OF RAMP OPENING	DEPTH OF LEVEL LANDING	ROADWAY GUTTER SLOPE	TRANSITION LENGTH		REMARKS
		BASELINE	STATION	OFFSET					LEFT SIDE	RIGHT SIDE	
H1	-	HEALEY	20+22.64	13.50 LT	SEE RAISED CROSSWALK DETAIL ON SHEET 55						
H2	-	HEALEY	20+22.64	13.50 RT							
P1	-	PARKER	30+23.74	13.00 LT	SEE RAISED INTERSECTION DETAIL ON SHEET 55						
P2	-	PARKER	30+23.74	13.00 RT							
P3	-	PARKER	34+33.07	14.81 LT							
P4	-	PARKER	34+65.53	14.17 LT							
P5	-	PARKER	34+29.26	7.00 RT							
P5A	-	PARKER	34+67.03	7.00 RT							
P6	-	PARKER	37+44.30	13.00 RT	SEE RAISED CROSSWALK DETAIL ON SHEET 55						
P7	-	PARKER	37+36.65	13.00 LT							
P8	A	CONCORD	41+01.68	16.79 RT	8.50'	5.00'	4.00'	2.80%	6'-6"	11'-0"	
P9	A	CONCORD	41+01.68	16.68 LT	6.25'	5.00'	3.88'	-3.60%	6'-0"	6'-6"	
P10	-	BOND	50+27.21	17.06 RT	SEE RAISED INTERSECTION DETAIL ON SHEET 55						
P11	-	BOND	50+27.14	16.15 LT							
D1	-	CLIFTON	1+44.71	13.33 RT							
D2	-	DUDLEY	20+19.10	13.27 LT							
D3	-	DUDLEY	20+19.10	13.25 RT							
D4	-	JACKSON	0+76.26	13.18 RT							
D5	-	JACKSON	0+76.24	13.20 LT							
D6	A	DUDLEY	22+57.90	13.25 LT	6.50'	5.00'	4.00'	0.75%	6'-6"	4'-10"	
D7	A	DUDLEY	23+01.45	7.25 LT	13.00'	5.00'	7.00'	0.80%	6'-6"	7'-8"	
D8	A	DUDLEY	22+57.90	13.25 RT	6.50'	5.00'	4.00'	-0.75%	4'-9"	6'-6"	
D9	-	JACKSON	1+23.76	13.33 RT	SEE RAISED CROSSWALK DETAIL ON SHEET 55						
D10	-	JACKSON	1+23.74	13.31 LT							
D11	A	DUDLEY	23+01.45	13.25 RT	7.00'	5.00'	4.00'	-0.75%	7'-8"	4'-8"	
D12	A	DUDLEY	25+38.13	7.25 LT	13.00'	5.00'	7.00'	0.70%	6'-6"	7'-8"	
D13	-	CLAY	0+76.24	13.20 RT	SEE RAISED CROSSWALK DETAIL ON SHEET 55						
D14	-	CLAY	0+76.24	13.18 LT							
D15	A	DUDLEY	25+81.56	13.25 LT	7.19'	5.00'	3.19'	0.50%	6'-6"	7'-8"	
D16	A	DUDLEY	25+38.13	7.25 RT	12.63'	5.00'	6.63'	-0.70%	7'-8"	6'-6"	
D17	-	CLAY	1+23.74	13.19 RT	SEE RAISED CROSSWALK DETAIL ON SHEET 55						
D18	-	CLAY	1+23.76	13.21 LT							
D19	A	DUDLEY	25+81.56	13.25 RT	6.50'	5.00'	3.00'	-0.50%	7'-8"	6'-6"	
D20	A	DUDLEY	28+17.95	7.25 LT	13.00'	5.00'	7.00'	0.40%	6'-6"	7'-8"	
D21	-	MONTGOMERY	0+81.27	13.08 RT	SEE RAISED CROSSWALK DETAIL ON SHEET 55						
D22	-	MONTGOMERY	0+81.27	13.08 LT							
D23	A	DUDLEY	28+61.42	7.25 LT	12.50'	5.00'	6.50'	1.20%	6'-6"	9'-0"	
D24	A	DUDLEY	28+17.95	7.25 RT	12.00'	5.00'	6.00'	-0.50%	7'-8"	6'-6"	
D25	-	MONTGOMERY	1+23.77	13.24 RT	SEE RAISED CROSSWALK DETAIL ON SHEET 55						
D26	-	MONTGOMERY	1+23.77	13.07 LT							
D27	A	DUDLEY	28+61.42	13.25 RT	6.50'	5.00'	4.00'	-1.20%	6'-6"	6'-6"	
D28	A	DUDLEY	30+98.11	7.25 LT	12.50'	5.00'	6.50'	1.30%	6'-6"	9'-0"	
D29	-	REED	0+76.25	13.31 RT	SEE RAISED CROSSWALK DETAIL ON SHEET 55						
D30	-	REED	0+76.25	13.31 LT							
D31	A	DUDLEY	31+41.82	13.25 LT	6.67'	5.00'	4.17'	1.30%	6'-6"	9'-0"	
D32	A	DUDLEY	30+98.11	7.25 RT	12.65'	5.00'	6.65'	-1.30%	9'-0"	6'-6"	
D33	-	REED	1+18.75	13.35 RT	SEE RAISED CROSSWALK DETAIL ON SHEET 55						
D34	-	REED	1+18.75	13.35 LT							
D35	A	DUDLEY	31+41.82	7.25 RT	12.50'	5.00'	6.50'	-1.30%	9'-0"	6'-6"	
D36	-	DUDLEY	34+54.72	15.32 RT	SEE RAISED INTERSECTION DETAIL ON SHEET 55						
D37	-	DUDLEY	34+55.33	14.99 LT							
D38	-	DUDLEY	34+87.10	18.27 LT							
D39	-	DUDLEY	34+85.18	24.14 RT							
D40	-	DUDLEY	39+34.68	7.25 LT	SEE RAISED CROSSWALK DETAIL ON SHEET 55						
D41	-	DUDLEY	39+34.68	13.25 RT							
D42	A	MASS AVE	0+69.22	32.78 RT	17.00'	5.00'	12.00'	-1.70%	9'-0"	6'-6"	
D43	A	MASS AVE	0+76.35	32.81 LT	15.00'	5.00'	8.50'	1.70%	-	9'-0"	TREE PIT ON RIGHT

ORIGINAL SHEET - ARCH D

Stantec

Stantec Consulting Services Inc.
5 Burlington Woods Drive, Suite 300
Burlington MA 01803 U.S.A.
Tel. 781.221.1000
www.stantec.com

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Legend

Notes

A -	-	-	-
Revision	By	Appd.	YY.MM.DD
Issued	By	Appd.	YY.MM.DD

File Name: wcr_det_contract_22.dwg	DWN	CHKD	DSGN	DATE
	Dwn.	Chkd.	Dsgn.	YY.MM.DD

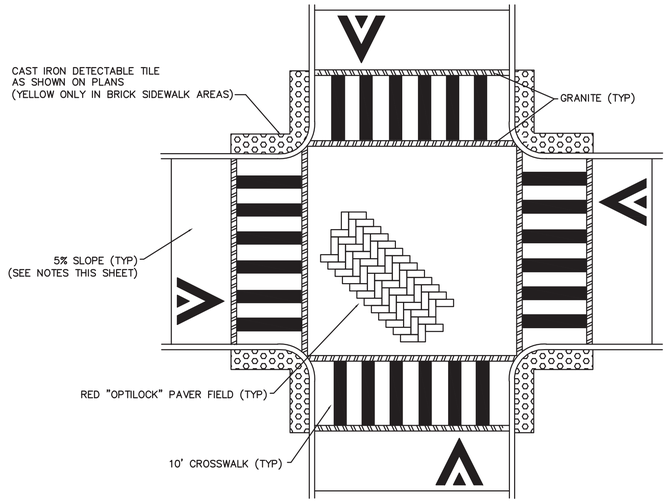
Permit-Seal

Client/Project
Cambridge Department of Public Works

Chapter 90 Contract 22
Healey St., Parker St. & Dudley St.
Cambridge, MA

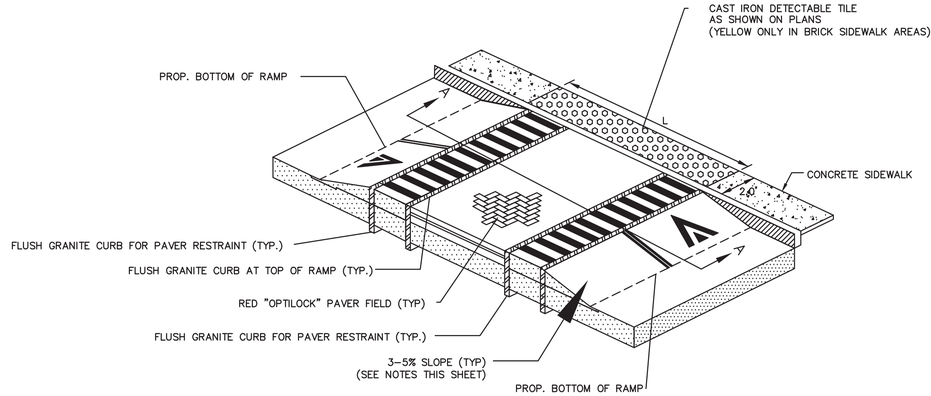
Title
WHEELCHAIR RAMP DETAILS

Project No.	Scale	
179410352	NOT TO SCALE	
Drawing No.	Sheet	Revision



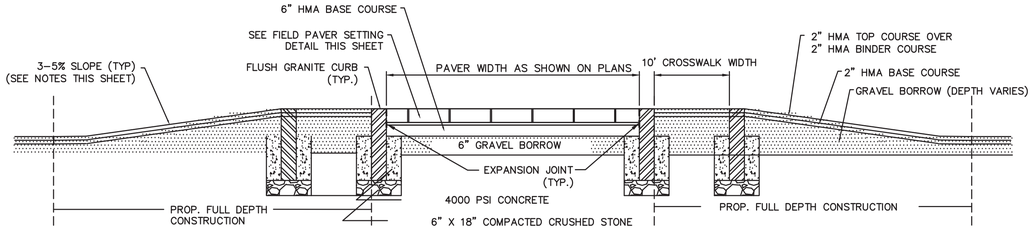
4-WAY RAISED INTERSECTION PLAN

NOT TO SCALE

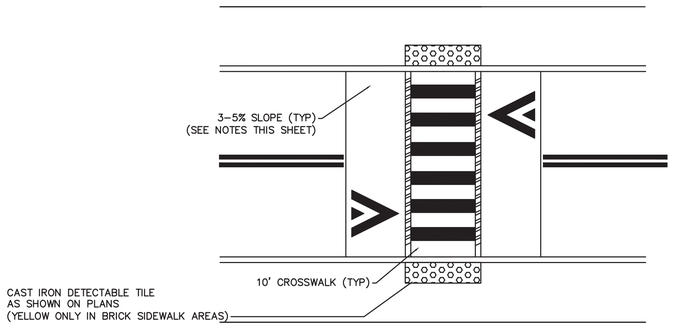


RAISED CROSSWALK ISOMETRIC PLAN

NOT TO SCALE

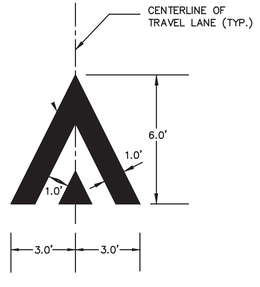


SECTION A-A



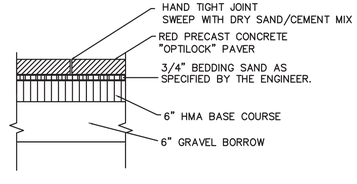
RAISED CROSSWALK PLAN

NOT TO SCALE



RAMP MARKING DETAIL

NOT TO SCALE



"FIELD" PAVER SETTING DETAIL

NOT TO SCALE

NOTES:

1. FOR RAISED CROSSWALK/INTERSECTION APPROACH RAMPS WITH A STOP CONTROL THE SLOPE OF THE RAMP SHALL BE A 3% CHANGE FROM THE APPROACHING ROADWAY PROFILE.
2. FOR RAISED CROSSWALK/INTERSECTION APPROACH RAMPS WITHOUT A STOP CONTROL THE SLOPE OF THE RAMP SHALL BE A 5% CHANGE FROM THE APPROACHING ROADWAY PROFILE.

Stantec

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5 Burlington Woods Drive, Suite 300
Burlington MA 01803 U.S.A.
Tel. 781.221.1000
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Legend

Notes

Revision	By	Appd.	YY.MM.DD
A -	-	-	-

Issued	By	Appd.	YY.MM.DD

File Name: det_contract 22.dwg

	Dwn.	Chkd.	Dsgn.	YY.MM.DD

Permit-Seal

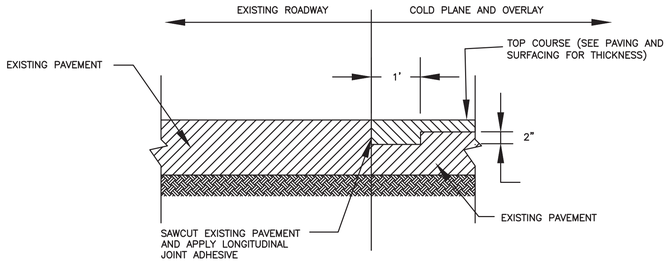
Client/Project
Cambridge Department of Public Works

Chapter 90 Contract 22
Healey St., Parker St. & Dudley St.
Cambridge, MA

Title CONSTRUCTION DETAILS
PART 1 OF 5

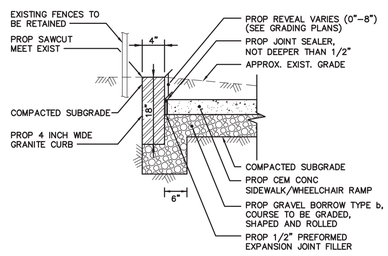
Project No. 179410352
Scale AS NOTED
Drawing No.
Sheet
Revision

ORIGINAL SHEET - ARCH D

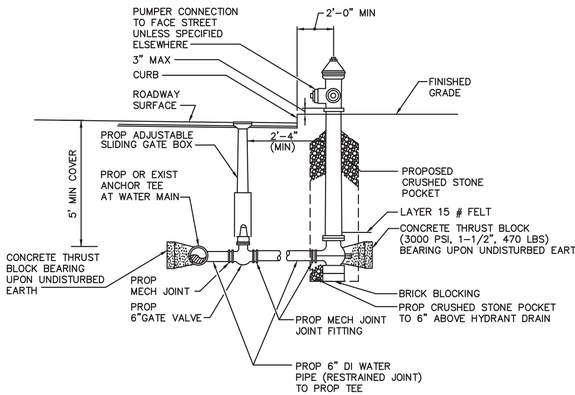


NOTES:
1. CLEAN ALL COLD PLANED SURFACES BEFORE APPLYING JOINT ADHESIVE AND FINAL PAVEMENT

COLD PLANE AND OVERLAY JOINT DETAIL
NOT TO SCALE

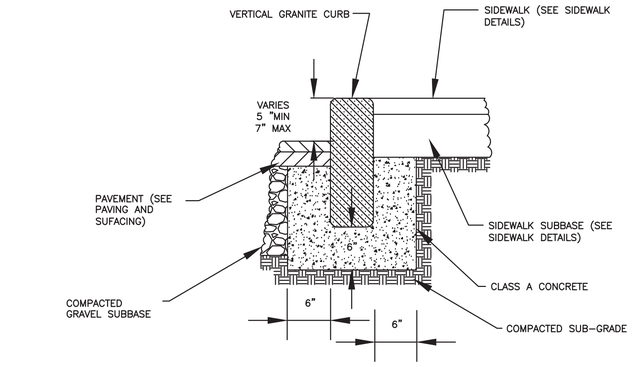


4 INCH GRANITE CURB AT BACK OF SIDEWALK
NOT TO SCALE



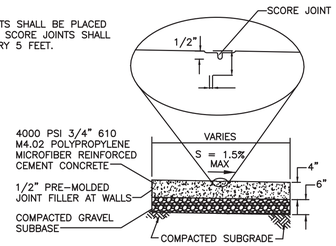
NOTES:
1. REFER TO TECHNICAL SPECIFICATIONS FOR MATERIAL REQUIREMENTS.
2. THE CONTRACTOR SHALL RESTRAIN ALL EXISTING PIPE AND FITTINGS WITH CLAMPS, HARNESSES AND/OR ANY OTHER MEANS ACCEPTED BY THE ENGINEER PRIOR TO REMOVING ANY OF THE EXISTING HYDRANT COMPONENTS.
3. FOR HYDRANTS RELOCATED TO NEW MAIN CONNECTION LOCATIONS, THE EXISTING TEE WILL BE REMOVED AND REPLACED WITH A MECHANICAL DRESSER COUPLING AND SUITABLE SIZED SECTION OF PIPE.
4. ALL HYDRANTS SHALL BE CONSISTENT WITH CITY OF MELROSE WATER DEPARTMENT STANDARDS.
5. IF CONCRETE THRUST BLOCK IS USED, DO NOT BLOCK DRAIN.

PROPOSED FIRE HYDRANT DETAIL
NOT TO SCALE



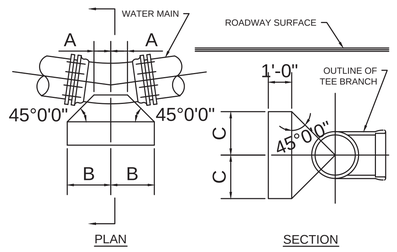
VERTICAL GRANITE CURB DETAIL
NOT TO SCALE

NOTES:
1. EXPANSION JOINTS SHALL BE PLACED EVERY 30 FEET. SCORE JOINTS SHALL BE PLACED EVERY 5 FEET.



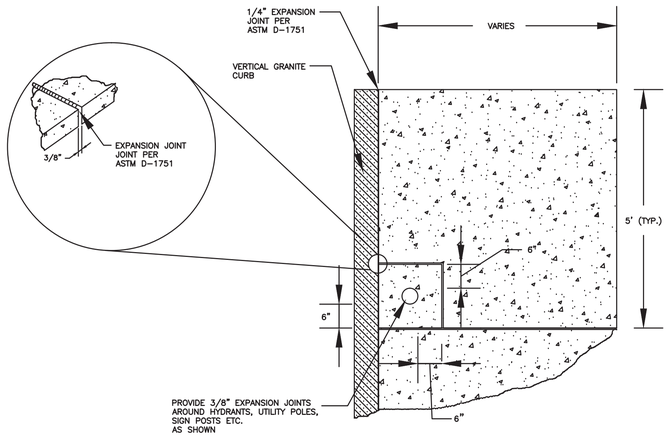
CEMENT CONCRETE SIDEWALK DETAIL
NOT TO SCALE

HORIZONTAL THRUST BLOCK SCHEDULE TABLE OF DIMENSIONS IN INCHES			
	A	B	C
6", 8" BEND			
1/32, 1/16	6"	10"	10"
1/8	6"	14"	14"
1/4	9"	19"	19"
TEE (BRANCH), HYDRANT			
6"	6"	15"	15"
8"	9"	16"	16"

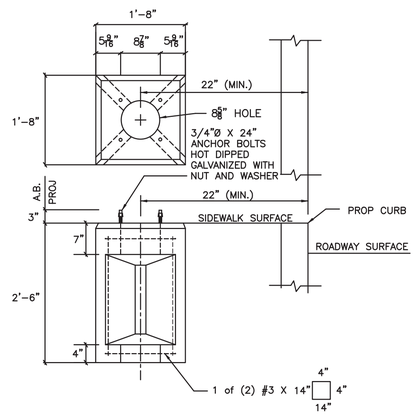


NOTES:
1. REFER TO TECHNICAL SPECIFICATIONS FOR MATERIAL REQUIREMENTS.
2. SUBJECT TO FIELD MODIFICATION BY ENGINEER.

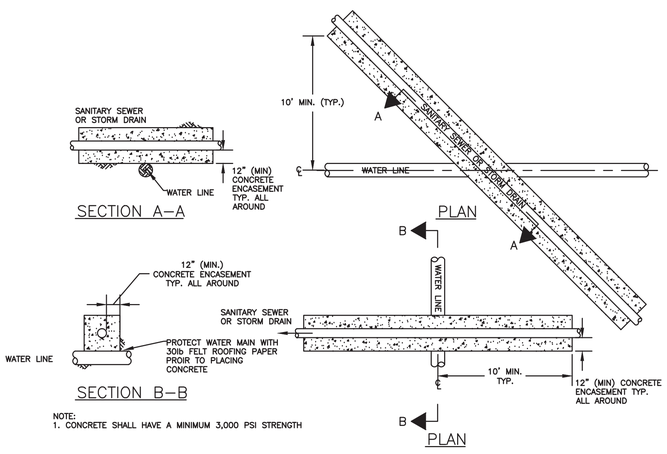
THRUST BLOCK DETAIL
NOT TO SCALE



SIDEWALK EXPANSION JOINT DETAIL
NOT TO SCALE



PRECAST PEDESTRIAN SIGNAL BASE
NOT TO SCALE



NOTE:
1. CONCRETE SHALL HAVE A MINIMUM 3,000 PSI STRENGTH

STORM DRAIN AND SANITARY SEWER CROSSING ABOVE WATER MAIN
NOT TO SCALE

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5 Burlington Woods Drive, Suite 300
Burlington MA 01803 U.S.A.
Tel. 781.221.1000
www.stantec.com

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Notes

Revision	By	Appd.	YY.MM.DD
A -	-	-	-

Issued	By	Appd.	YY.MM.DD
det_contract 22.dwg	TKH	GJF	TKH 16.04.03
File Name:	Dwn.	Chkd.	Dsgn. YY.MM.DD

Permit-Seal

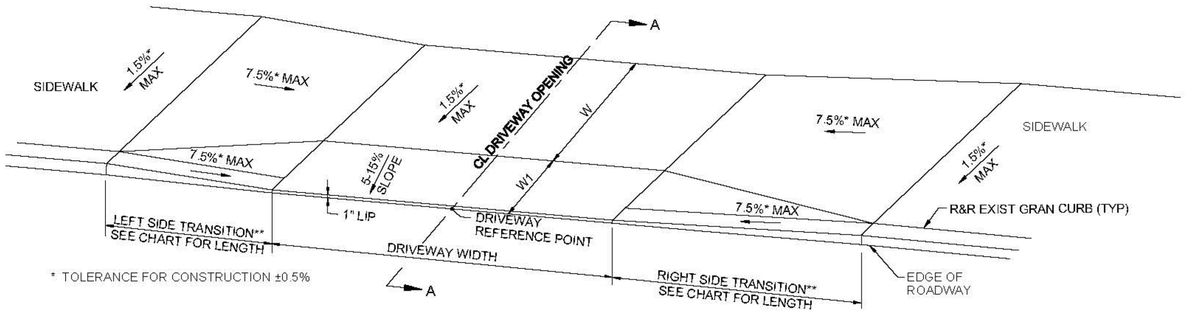
Client/Project
Cambridge Department of Public Works

Chapter 90 Contract 22
Healey St., Parker St. & Dudley St.
Cambridge, MA

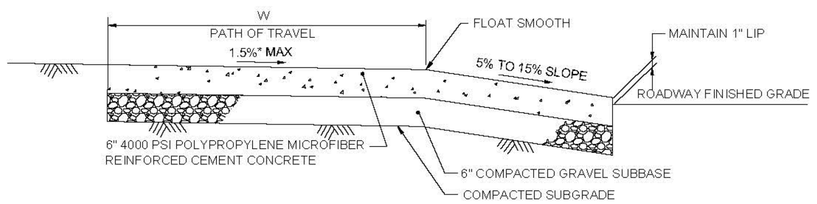
Title CONSTRUCTION DETAILS PART 2 OF 5

Project No.	Scale	
179410352	AS NOTED	
Drawing No.	Sheet	Revision

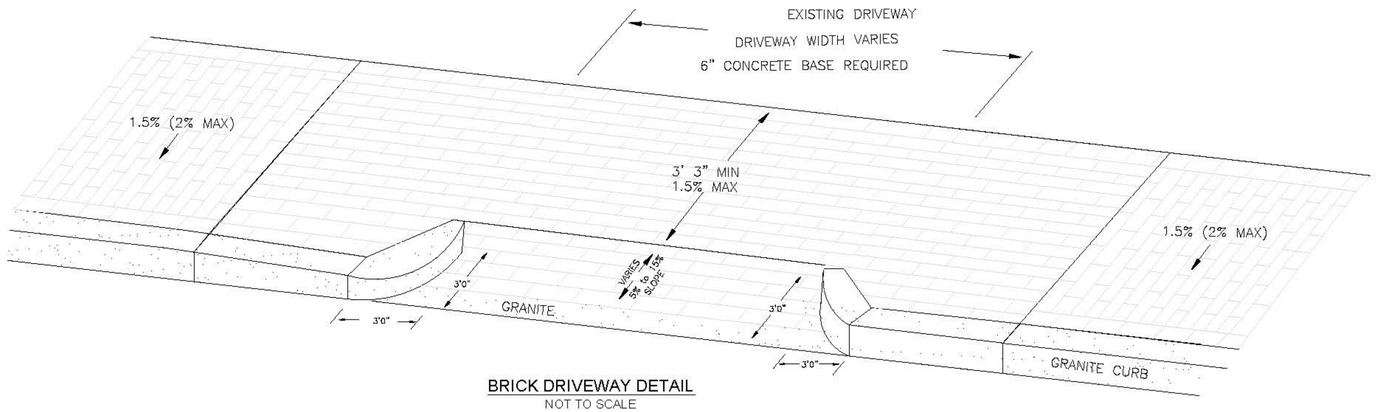
ORIGINAL SHEET - ARCH D



CEMENT CONCRETE DRIVEWAY DETAIL
NOT TO SCALE



SECTION A-A
NOT TO SCALE



BRICK DRIVEWAY DETAIL
NOT TO SCALE

DRIVEWAYS

DW#	RAMP REFERENCE POINT			WIDTH OF RAMP (W1)	WIDTH OF SIDEWALK (W)	WIDTH OF DRIVEWAY AT GUTTER	ROADWAY GUTTER SLOPE	TRANSITION LENGTH		REMARKS
	BASELINE	STATION	OFFSET					LEFT SIDE	RIGHT SIDE	
H1	HEALEY	20+78.12	13.50 RT	1.50'	3.32'	13.00'	9.70%	2'-0"	15'-0"	3 INCH REVEAL LT SIDE
H2	HEALEY	20+93.62	13.50 RT	1.50'	3.06'	10.00'	9.00%	6'-6"	2'-0"	3 INCH REVEAL RT SIDE
H3	HEALEY	21+07.35	13.50 LT	2.50'	3.00'	12.00'	-9.50%	15'-0"	3'-3"	3 INCH REVEAL RT SIDE
H4	HEALEY	21+26.32	13.50 RT	2.00'	3.00'	10.00'	6.00%	6'-6"	15'-0"	
H5	HEALEY	21+29.72	13.50 LT	2.00'	3.00'	12.00'	-4.20%	7'-2"	6'-6"	3 INCH REVEAL LT SIDE
H6	HEALEY	21+83.46	13.50 RT	2.00'	3.00'	10.00'	3.00%	6'-6"	14'-0"	
H7	HEALEY	22+15.07	13.50 LT	2.50'	3.00'	12.00'	1.70%	6'-6"	9'-0"	
H8	HEALEY	22+73.30	13.50 RT	2.00'	3.15'	14.00'	-0.50%	7'-8"	6'-6"	
H9	HEALEY	22+79.26	13.50 LT	2.00'	3.5'	20.00'	1.00%	6'-6"	9'-0"	
H10	HEALEY	23+60.86	13.50 LT	2.00'	4.00'	12.00'	0.50%	6'-6"	2'-0"	HIGH POINT RT SIDE
H11	HEALEY	23+75.76	13.50 LT	2.00'	4.00'	10.00'	-0.60%	2'-0"	6'-6"	HIGH POINT LT SIDE
P1	PARKER	30+85.47	13.00 LT	3.00'	4.16'	18.00'	-2.60%	14'-0"	6'-6"	
P2	PARKER	31+73.56	13.00 LT	3.00'	4.00'	13.00'	0.00%	6'-6"	6'-6"	AT HIGH POINT
P3	PARKER	32+79.50	13.00 RT	2.50'	4.50'	20.00'	-0.40%	7'-8"	6'-6"	
P4	PARKER	32+81.83	13.00 LT	2.50'	4.00'	12.00'	0.40%	6'-6"	7'-8"	
P5	PARKER	33+26.01	13.00 LT	3.00'	4.00'	12.00'	0.20%	7'-8"	6'-6"	
P6	PARKER	33+65.75	13.00 LT	3.00'	4.00'	11.00'	0.00%	6'-6"	6'-6"	AT HIGH POINT
P7	PARKER	33+74.16	13.00 RT	2.00'	5.00'	13.00'	0.00%	7'-8"	6'-6"	AT HIGH POINT
P8	PARKER	34+94.03	13.00 LT	2.50'	4.00'	10.00'	0.40%	6'-0"	7'-8"	
P9	PARKER	35+02.36	13.00 RT	2.00'	4.00'	16.00'	-0.50%	7'-8"	5'-4"	
P10	PARKER	35+37.05	13.00 LT	2.50'	4.00'	12.00'	1.75%	6'-6"	2'-0"	3 INCH REVEAL RT SIDE
P11	PARKER	35+53.50	13.00 RT	2.50'	4.00'	12.00'	-2.65%	9'-0"	6'-6"	
P12	PARKER	35+69.55	13.00 LT	2.50'	4.50'	45.00'	4.50%	2'-0"	15'-0"	3 INCH REVEAL LT SIDE
P13	PARKER	36+29.25	13.00 RT	2.00'	4.00'	12.00'	-4.20%	15'-0"	6'-6"	
P14	PARKER	36+67.90	13.00 RT	6.00'	6.00'	14.00'	-7.10%	15'-0"	6'-6"	
D1	DUDLEY	21+23.97	13.25 RT	6.50'	6.50'	21.00'	-1.00%	2'-0"	6'-6"	3 INCH REVEAL LT SIDE
D2	DUDLEY	21+54.91	13.25 LT	2.00'	5.00'	54.00'	0.80%	6'-6"	2'-0"	3 INCH REVEAL RT SIDE
D3	DUDLEY	21+45.47	13.25 RT	2.50'	4.00'	12.00'	-1.00%	7'-0"	2'-0"	3 INCH REVEAL RT SIDE
D4	DUDLEY	21+90.91	13.25 LT	2.00'	4.50'	10.00'	0.80%	2'-0"	7'-8"	3 INCH REVEAL LT SIDE

DRIVEWAYS

DW#	RAMP REFERENCE POINT			WIDTH OF RAMP (W1)	WIDTH OF SIDEWALK (W)	WIDTH OF DRIVEWAY AT GUTTER	ROADWAY GUTTER SLOPE	TRANSITION LENGTH		REMARKS
	BASELINE	STATION	OFFSET					LEFT SIDE	RIGHT SIDE	
D5	DUDLEY	23+45.19	13.25 RT	3.00'	4.00'	12.00'	-0.80%	7'-8"	6'-6"	
D6	DUDLEY	23+85.69	13.25 RT	3.00'	4.00'	12.00'	-1.20%	10'-9"	6'-6"	
D7	DUDLEY	23+85.91	13.25 LT	2.50'	4.00'	12.00'	1.20%	6'-6"	9'-0"	
D8	DUDLEY	24+23.51	13.25 LT	2.50'	4.00'	12.00'	1.20%	6'-6"	9'-0"	
D9	DUDLEY	24+64.84	13.25 LT	2.50'	4.00'	12.00'	1.20%	6'-6"	9'-0"	
D10	DUDLEY	24+64.55	13.25 RT	3.00'	4.00'	12.00'	-0.95%	7'-8"	6'-6"	
D11	DUDLEY	25+04.51	13.25 LT	2.00'	5.00'	12.00'	1.10%	9'-4"	9'-0"	
D12	DUDLEY	26+29.33	13.25 LT	3.00'	3.00'	10.00'	0.80%	6'-6"	7'-8"	
D13	DUDLEY	26+59.54	13.25 RT	2.50'	4.00'	13.00'	-0.50%	7'-8"	6'-6"	
D14	DUDLEY	26+63.26	13.25 LT	3.00'	3.50'	12.00'	0.80%	7'-0"	7'-8"	
D15	DUDLEY	27+10.69	13.25 RT	2.00'	4.50'	10.00'	-0.50%	7'-8"	6'-6"	
D16	DUDLEY	27+33.44	13.25 LT	3.00'	3.50'	12.00'	0.50%	6'-6"	7'-0"	
D17	DUDLEY	27+55.52	13.25 RT	2.00'	4.50'	12.00'	-0.50%	7'-8"	6'-6"	
D18	DUDLEY	29+19.22	13.25 RT	2.00'	5.00'	12.00'	-1.40%	8'-8"	6'-6"	
D19	DUDLEY	29+40.83	13.25 LT	2.00'	4.50'	12.00'	1.40%	4'-8"	9'-0"	
D20	DUDLEY	29+47.36	13.25 RT	2.50'	4.50'	14.00'	-1.40%	9'-0"	6'-6"	
D21	DUDLEY	30+19.55	13.25 LT	6.50'	6.50'	12.00'	1.40%	6'-6"	9'-0"	
D22	DUDLEY	30+24.05	13.25 RT	3.00'	3.70'	12.00'	-1.40%	9'-0"	6'-6"	
D23	DUDLEY	33+12.31	13.25 RT	2.00'	4.50'	18.00'	-1.10%	9'-0"	6'-6"	
D24	DUDLEY	34+13.80	13.25 LT	2.00'	4.50'	18.00'	1.00%	6'-6"	7'-0"	
D25	DUDLEY	35+89.31	13.25 LT	3.00'	4.00'	12.00'	0.50%	6'-6"	7'-8"	
D26	DUDLEY	36+23.63	13.25 LT	3.00'	4.00'	14.00'	0.60%	6'-6"	7'-8"	
D27	DUDLEY	36+70.74	13.25 LT	3.00'	4.00'	12.00'	0.50%	6'-6"	7'-8"	
D28	DUDLEY	36+74.80	13.25 RT	3.00'	4.00'	12.00'	-0.50%	7'-8"	6'-6"	
D29	DUDLEY	37+47.76	13.25 LT	3.00'	4.00'	14.00'	0.50%	6'-6"	7'-8"	
D30	DUDLEY	37+85.38	13.25 LT	3.00'	4.00'	12.00'	-0.10%	7'-8"	6'-6"	
D31	DUDLEY	38+34.51	13.25 LT	3.00'	4.00'	12.00'	-0.60%	7'-8"	6'-6"	
D32	DUDLEY	38+20.87	13.25 RT	3.00'	4.00'	26.00'	0.50%	9'-8"	4'-10"	

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Burlington MA 01803 U.S.A.
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Notes

Revision	By	Appd.	YY.MM.DD
A -	-	-	-

Issued	By	Appd.	YY.MM.DD

File Name: wcr_del_contract 22.dwg | DWN Dwn. | CHKD Chkd. | DSGN Dsgn. | DATE YY.MM.DD

Permit-Seal

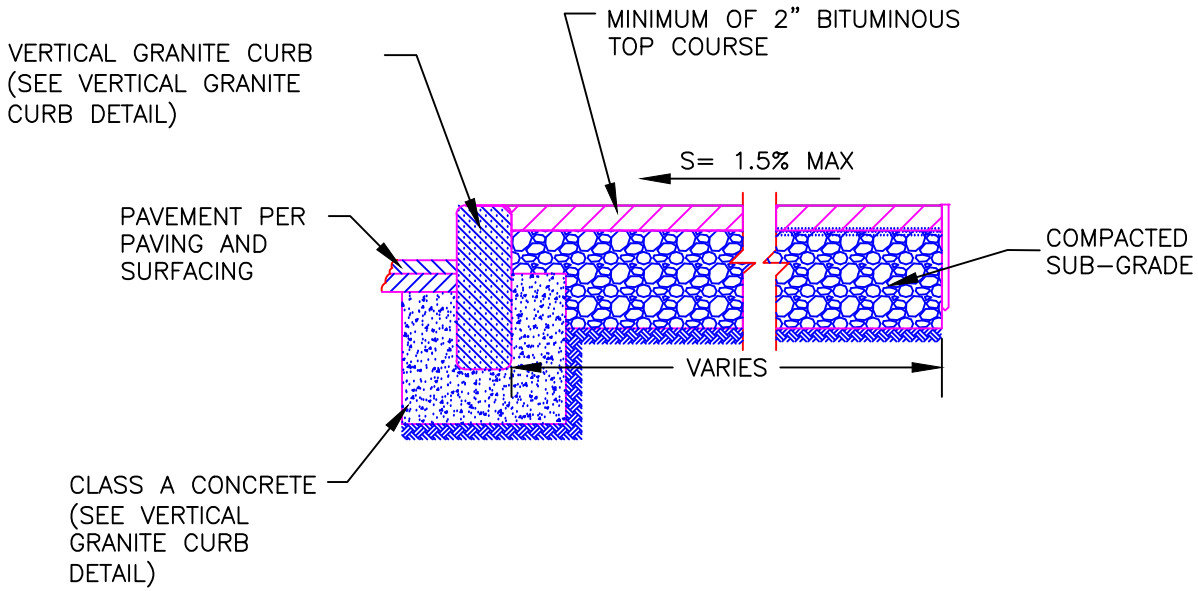
Client/Project
Cambridge Department of Public Works

Chapter 90 Contract 22
Healey St., Parker St. & Dudley St.
Cambridge, MA

Title
DRIVEWAY DETAILS

Project No. 179410352
Scale NOT TO SCALE
Drawing No.
Sheet
Revision

ORIGINAL SHEET - ARCH D



SECTION A–A

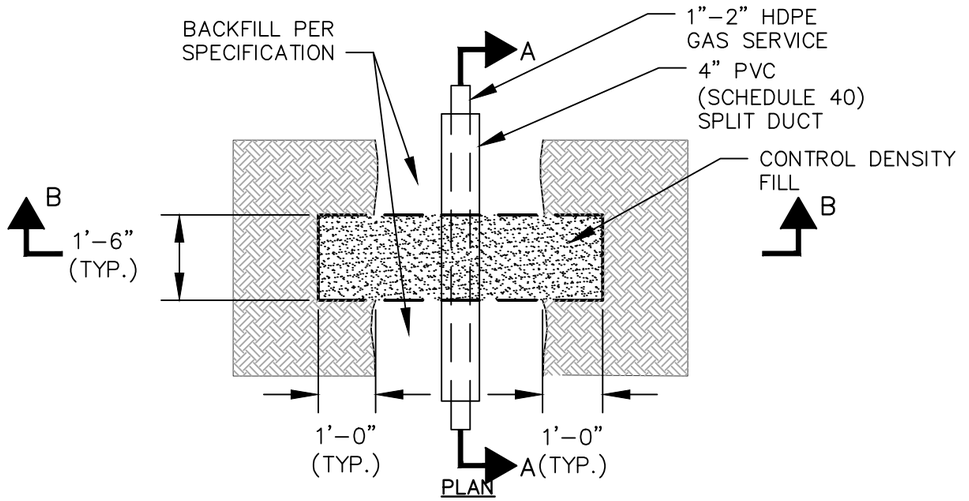
NOTES:
1. SIDEWALKS SHALL MATCH WIDTH AND SLOPE OF EXISTING SIDEWALKS UNLESS OTHERWISE NOTED.

CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

TEMPORARY SIDEWALK WATER TRENCH PATCH DETAIL – SECTION

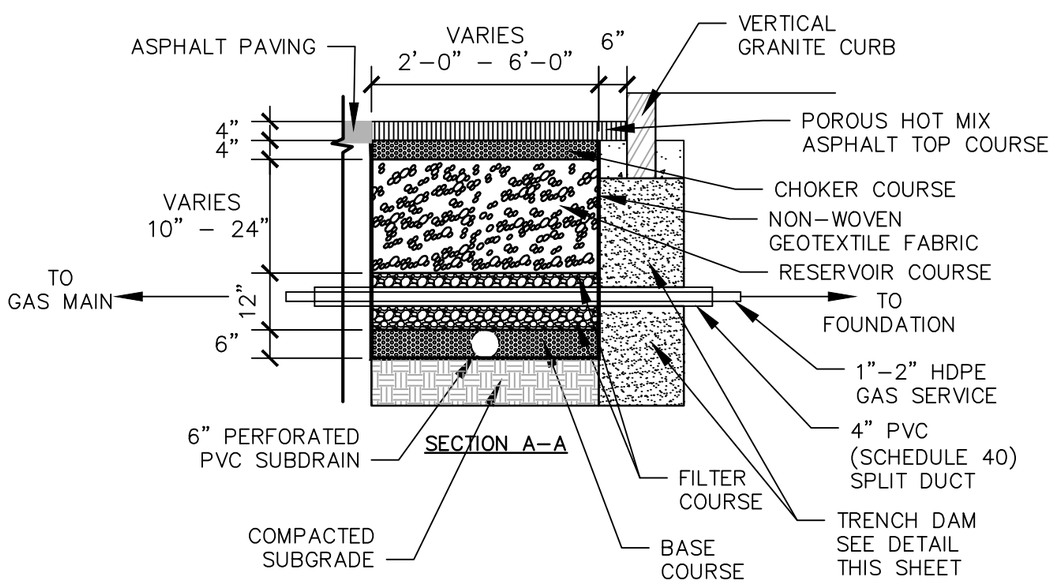
CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

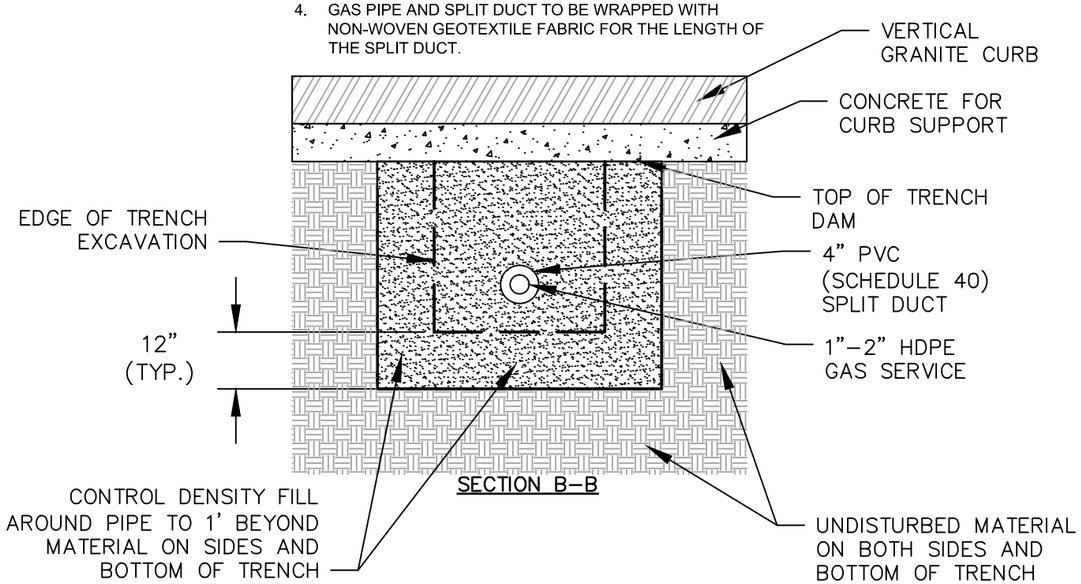
SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02524	2524.10



NOTES:

1. NOTCH TRENCH DAM A MINIMUM 0F 1'-0" BEYOND UNDISTURBED MATERIAL ON SIDES AND BOTTOM OF TRENCH.
2. SPLIT DUCT TO EXTEND A MINIMUM OF 1'-0" BEYOND THE LIMITS OF THE POROUS TRENCH AND TRENCH DAM.
3. END SEALS TO BE ADDED AT THE LIMITS OF THE SPLIT DUCT
4. GAS PIPE AND SPLIT DUCT TO BE WRAPPED WITH NON-WOVEN GEOTEXTILE FABRIC FOR THE LENGTH OF THE SPLIT DUCT.





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Bioengineering

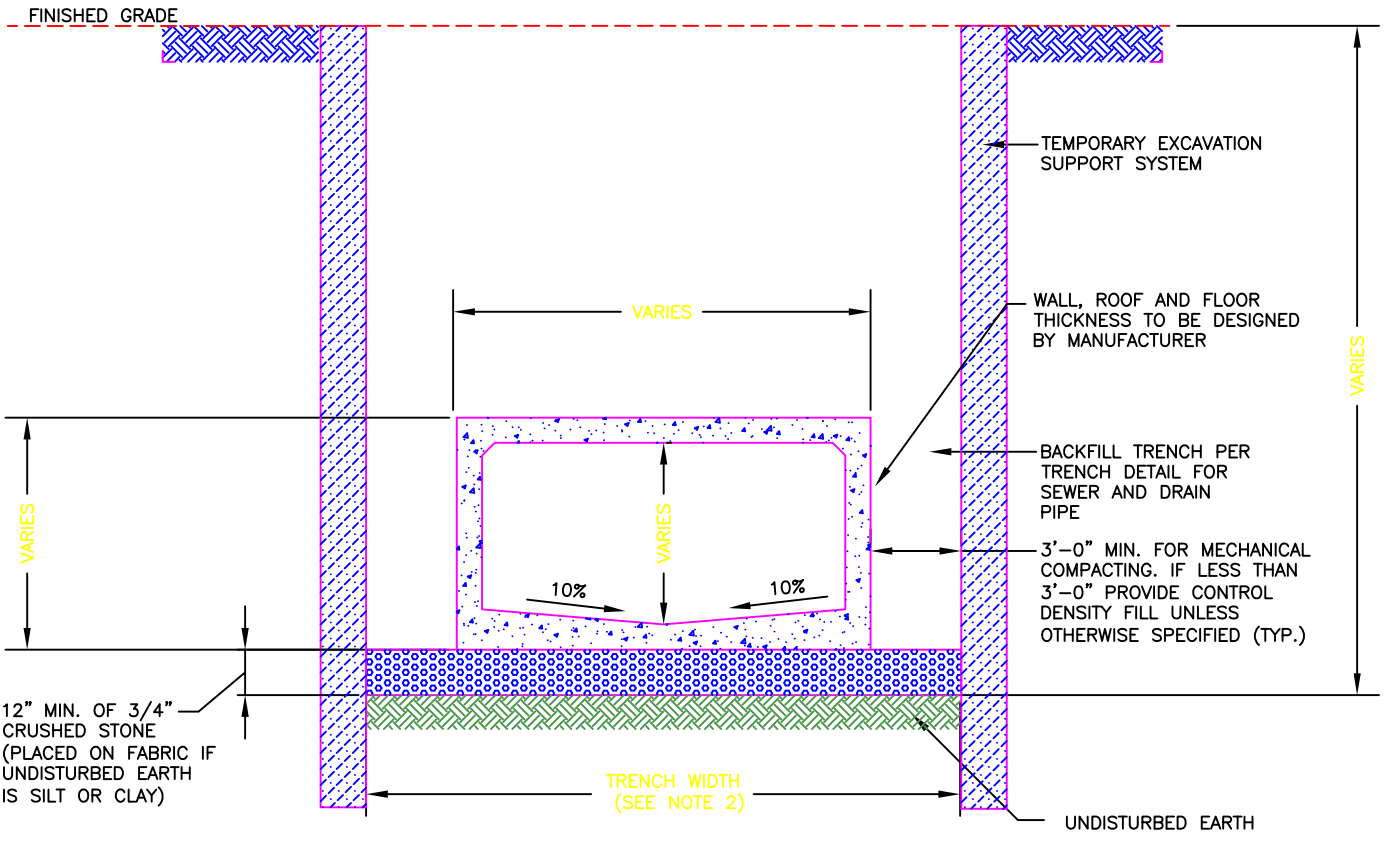
Scale	N.T.S.
Date	04/02/2014
Project No.	2011010.02-A
Designed by	TMP/JB
Drawn by	TMP/JB
Checked by	CD
Approved by	CD

Client: CITY OF CAMBRIDGE, MA

Project: HURON A SEWER SEPARATION PROJECT
CONTRACT NO. 8A

Drawing: SK-34

GAS SERVICE THROUGH POROUS TRENCH DETAIL



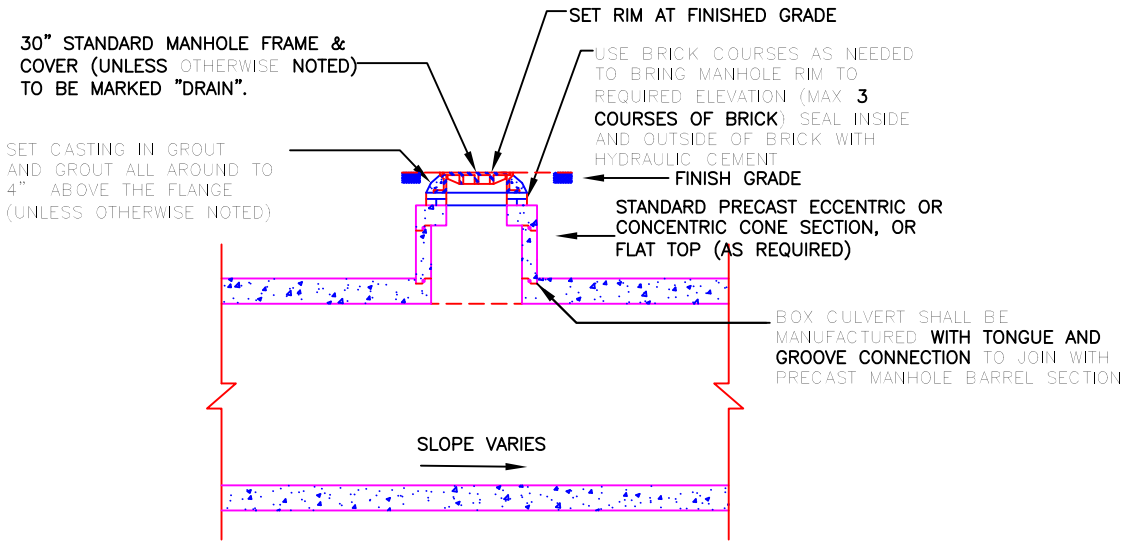
NOTES:
1. PRECAST REINFORCED CONCRETE BOX SECTIONS MANUFACTURED IN ACCORDANCE WITH PRECAST REINFORCED CONCRETE BOX CULVERT. WATERTIGHT GASKET JOINTS TO BE PROVIDED AS SPECIFIED.
2. TRENCH PAY LIMIT FOR BOX CULVERT IS OUTSIDE DIMENSION (WIDTH) PLUS 3' FOR TEMPORARY SUPPORT OF EXCAVATION PLUS SPACE BETWEEN CULVERT AND TEMPORARY SUPPORT OF EXCAVATION TO A MAXIMUM OF 6' TOTAL.

CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

BOX CULVERT DETAIL - SECTION

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02715	2715.1



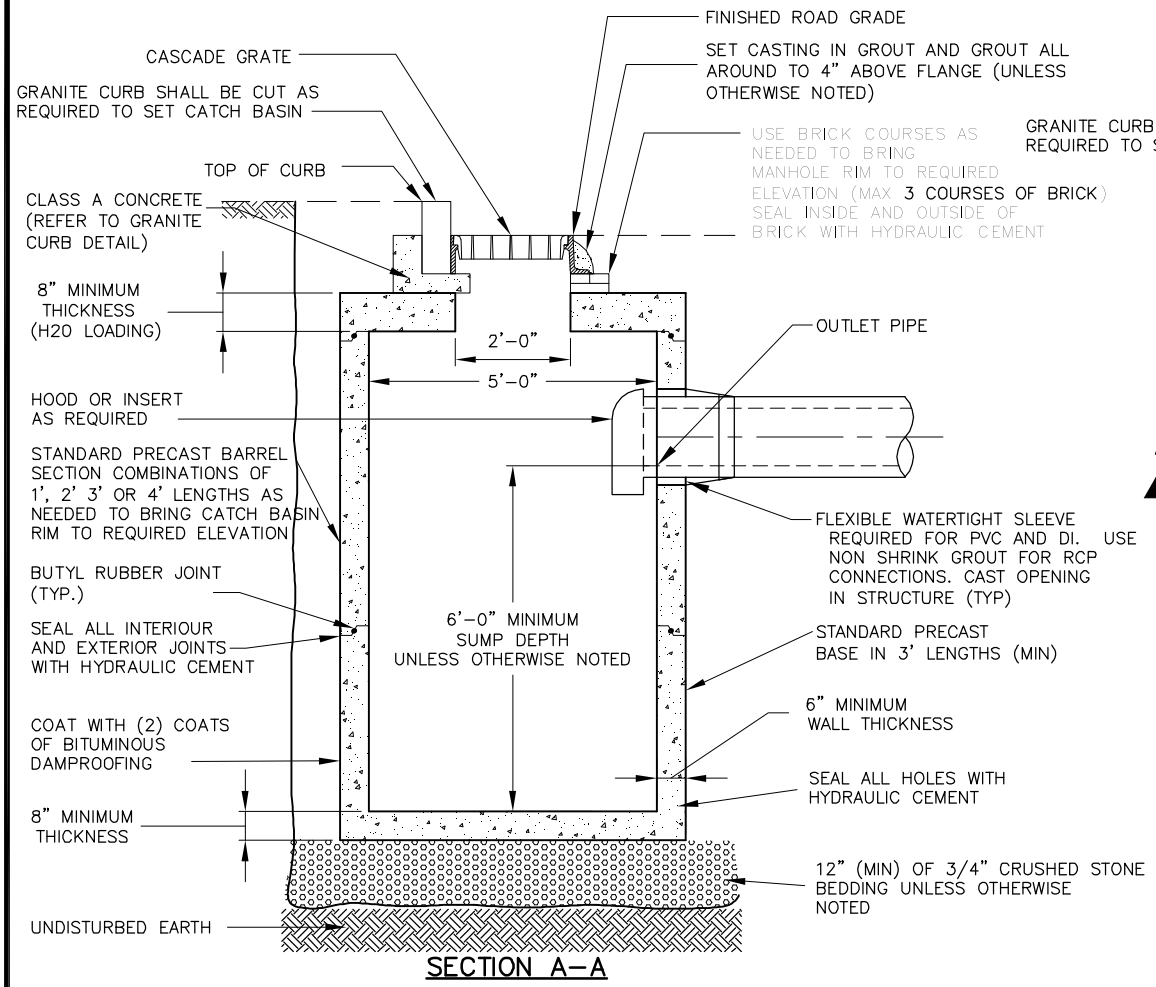
LONGITUDINAL SECTION

CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

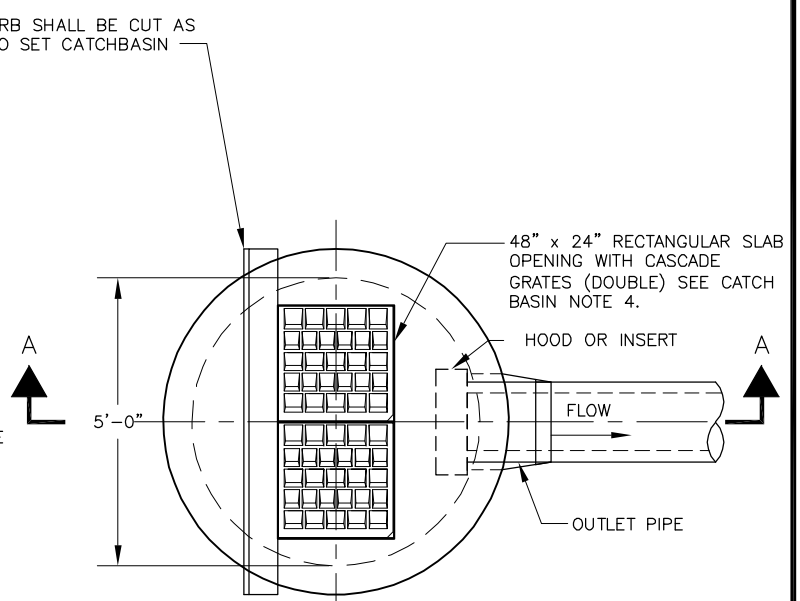
BOX CULVERT DETAIL - SECTION 2

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02715	2715.2



SECTION A–A

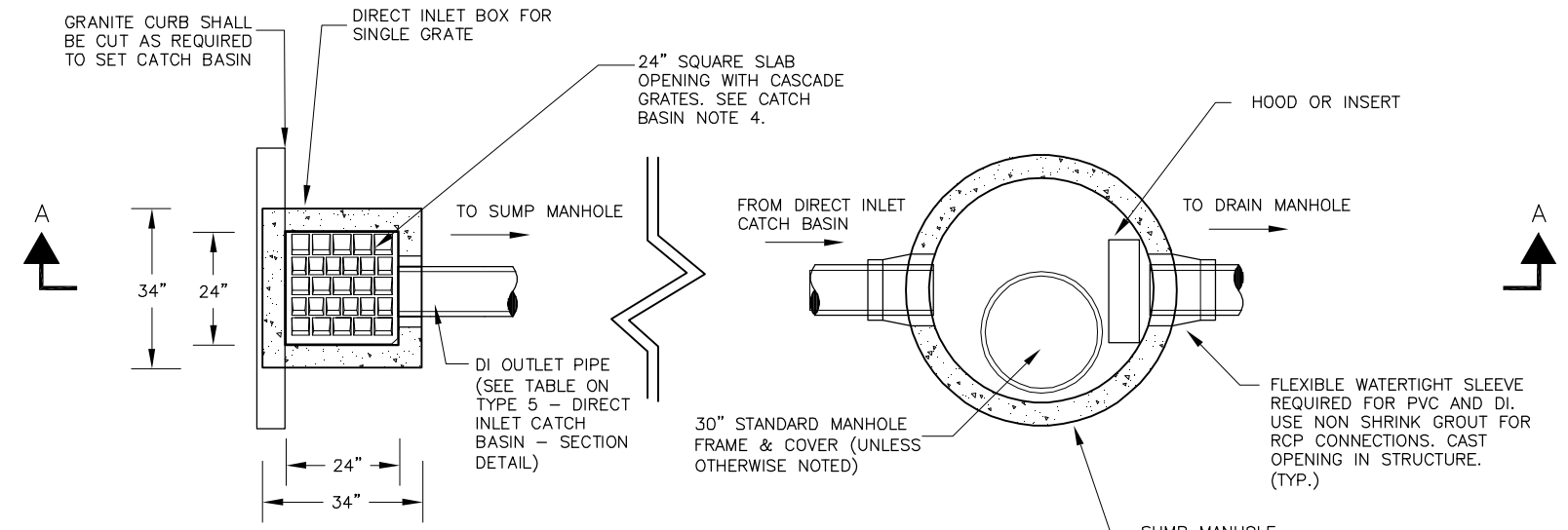


PLAN

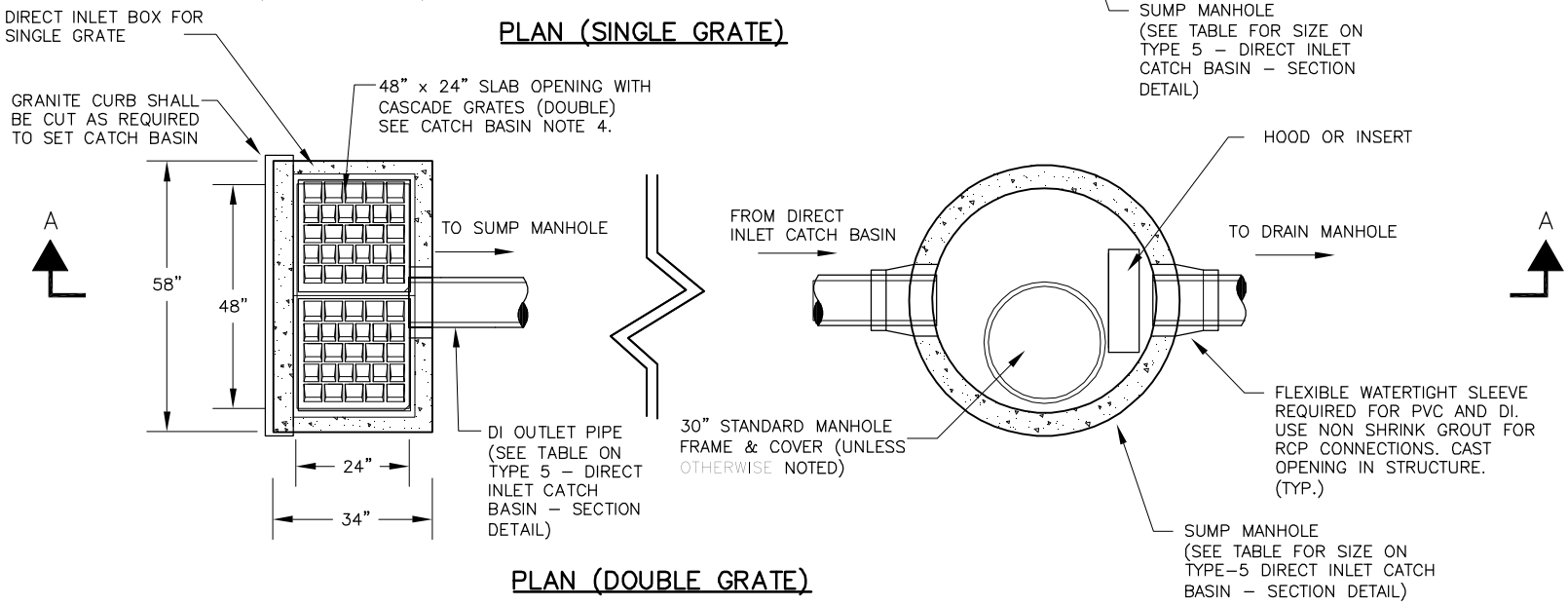
TYPE 2 - DOUBLE GRATE CATCH BASIN

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02604	2604.3



PLAN (SINGLE GRATE)



PLAN (DOUBLE GRATE)

CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

TYPE 5 - DIRECT INLET CATCH BASIN - PLAN

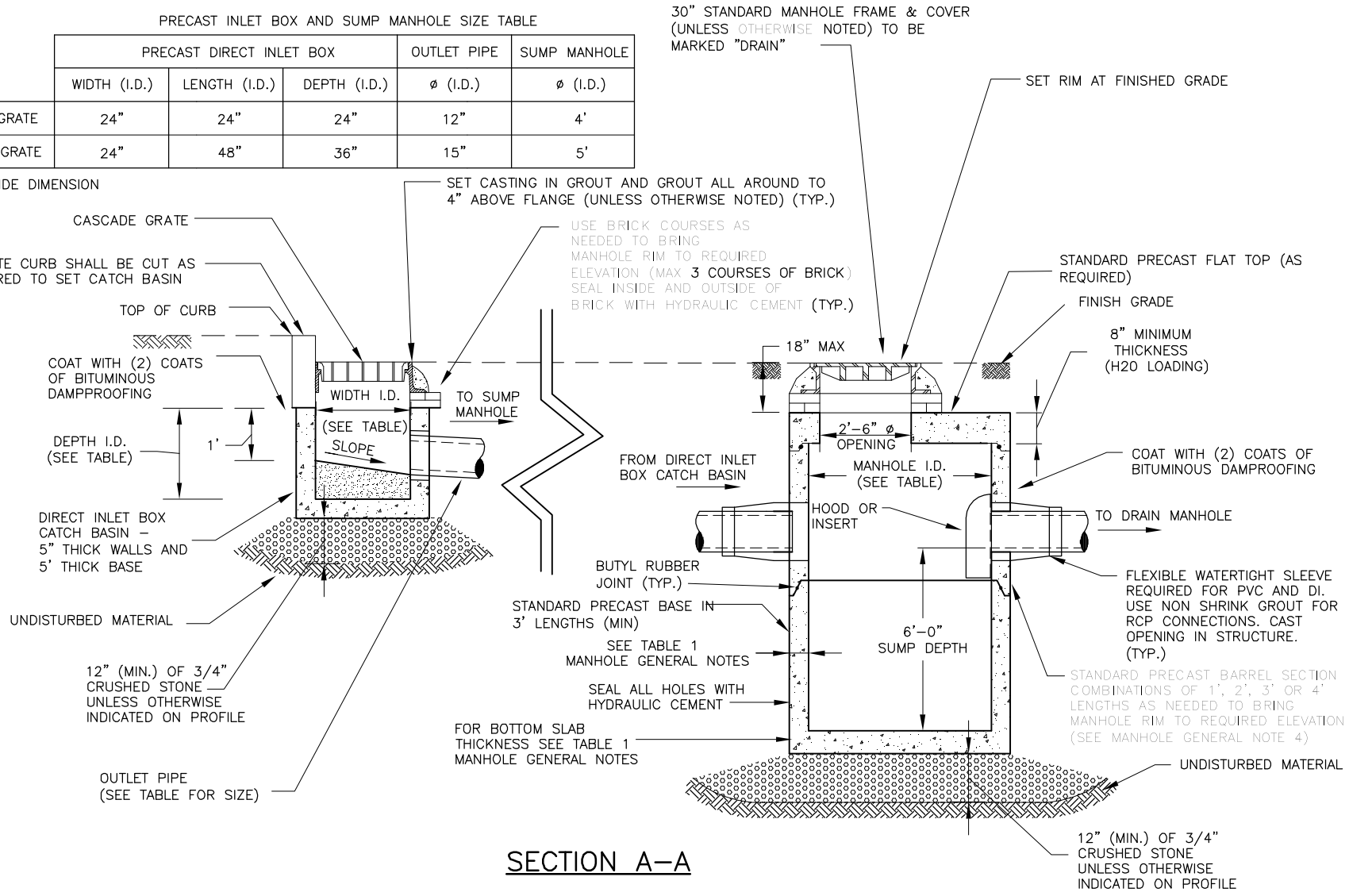
CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02604	2604.6

PRECAST INLET BOX AND SUMP MANHOLE SIZE TABLE

	PRECAST DIRECT INLET BOX			OUTLET PIPE	SUMP MANHOLE
	WIDTH (I.D.)	LENGTH (I.D.)	DEPTH (I.D.)	ø (I.D.)	ø (I.D.)
SINGLE GRATE	24"	24"	24"	12"	4'
DOUBLE GRATE	24"	48"	36"	15"	5'

I.D. = INSIDE DIMENSION



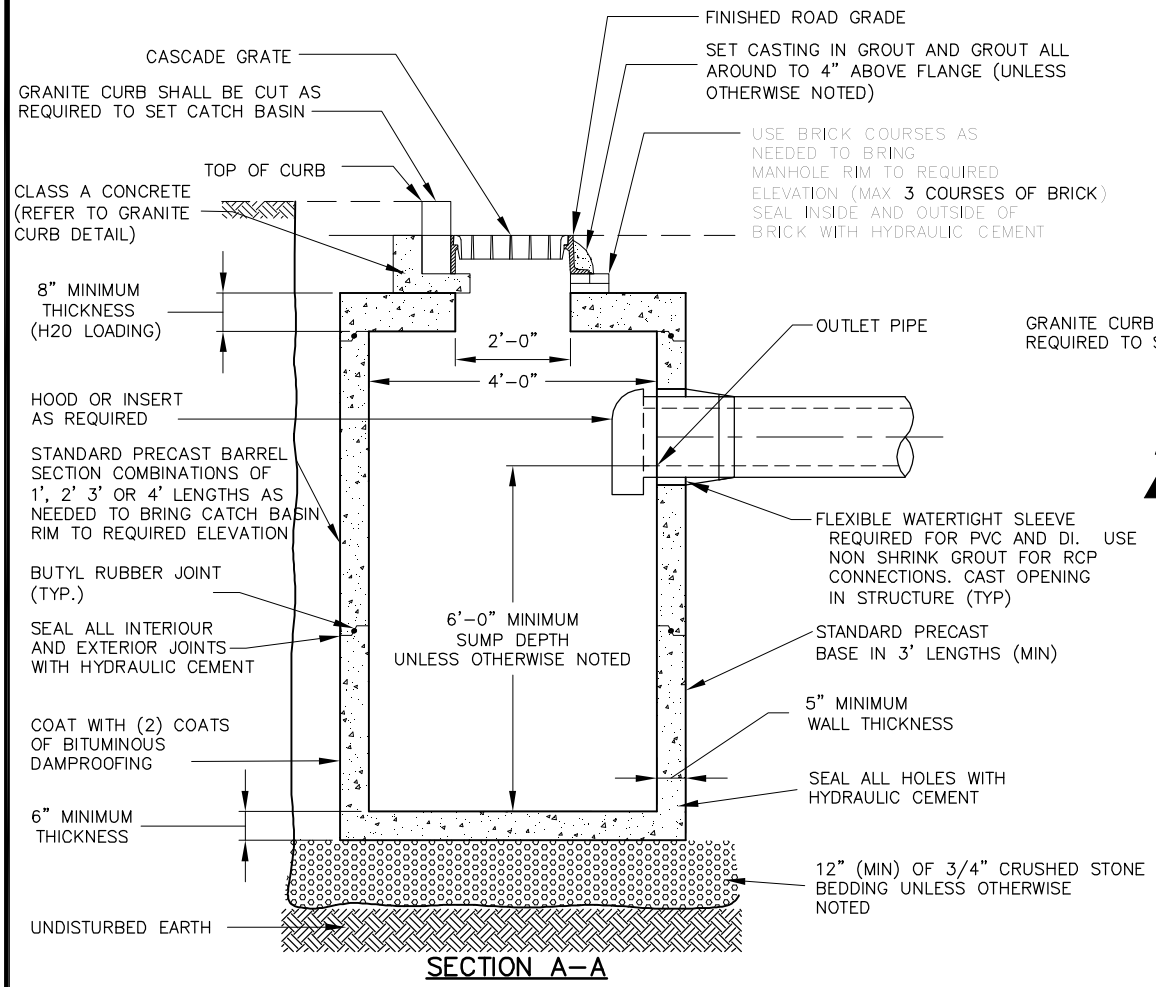
SECTION A–A

CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

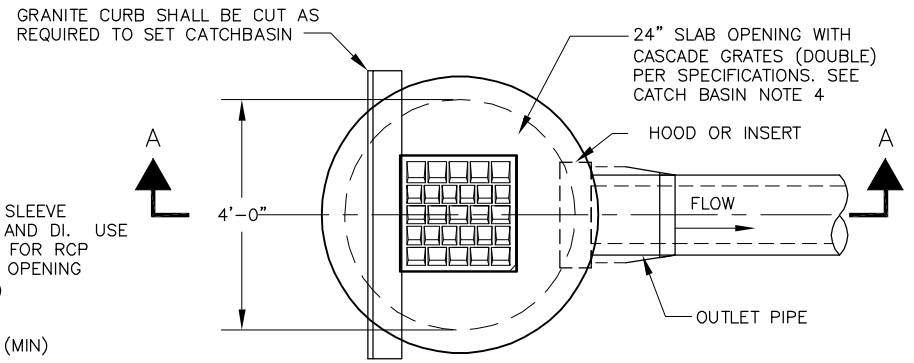
TYPE 5 - DIRECT INLET CATCH BASIN - SECTION

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02604	2604.5



SECTION A–A

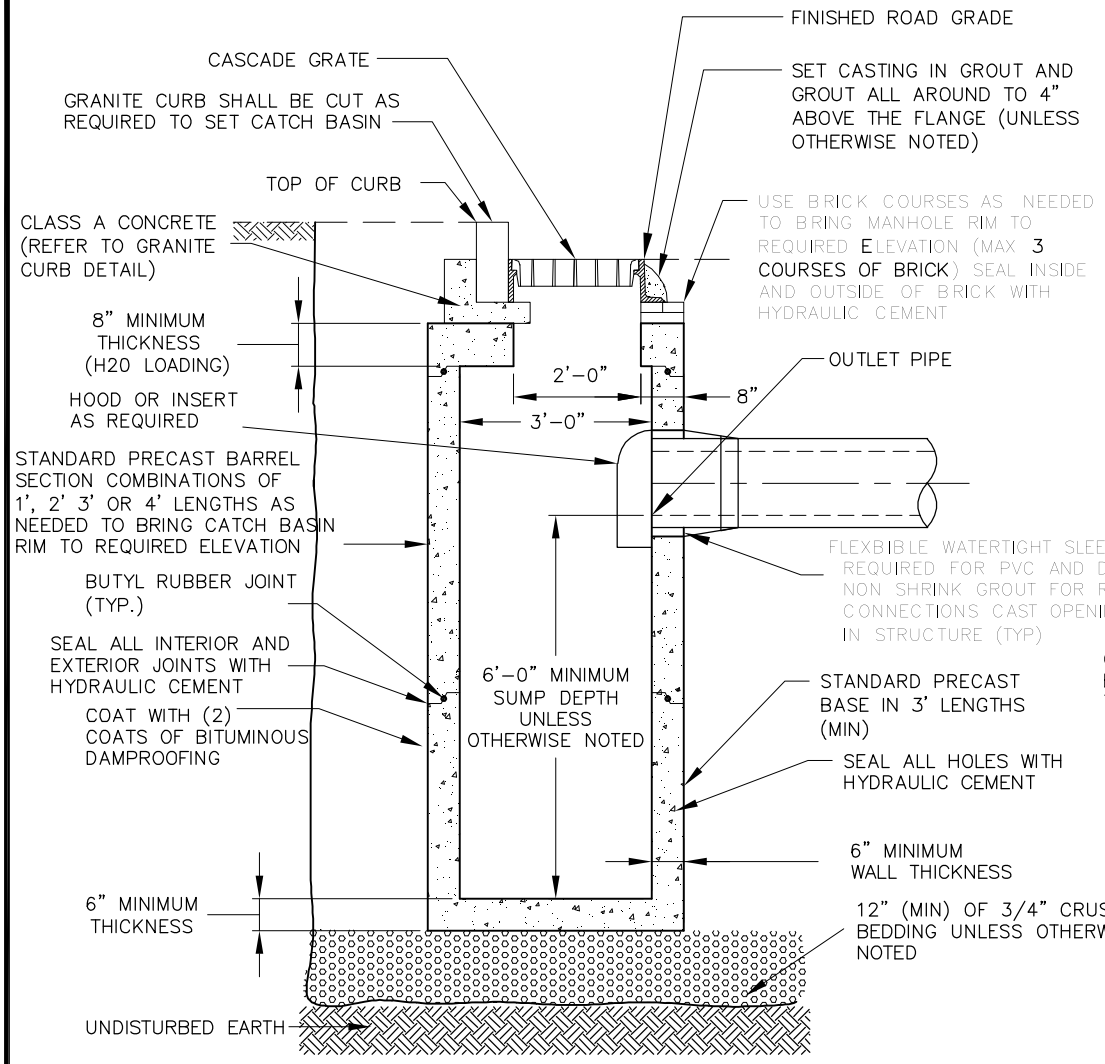


PLAN

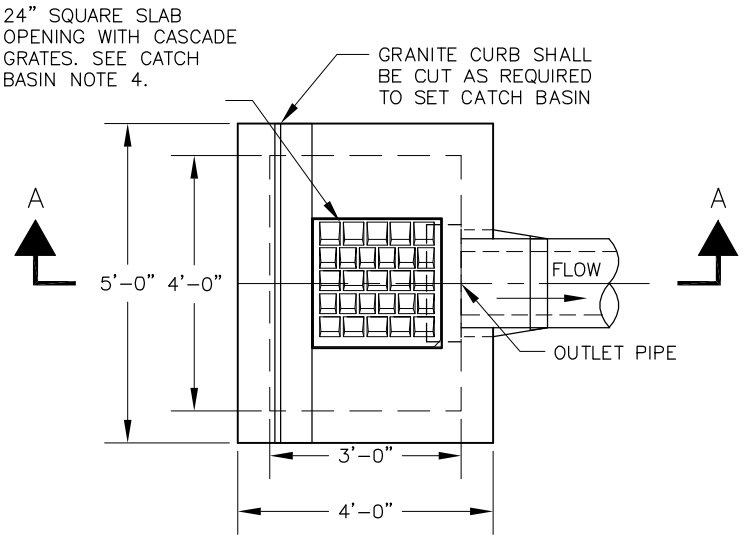
TYPE 1 - SINGLE GRATE CATCH BASIN

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

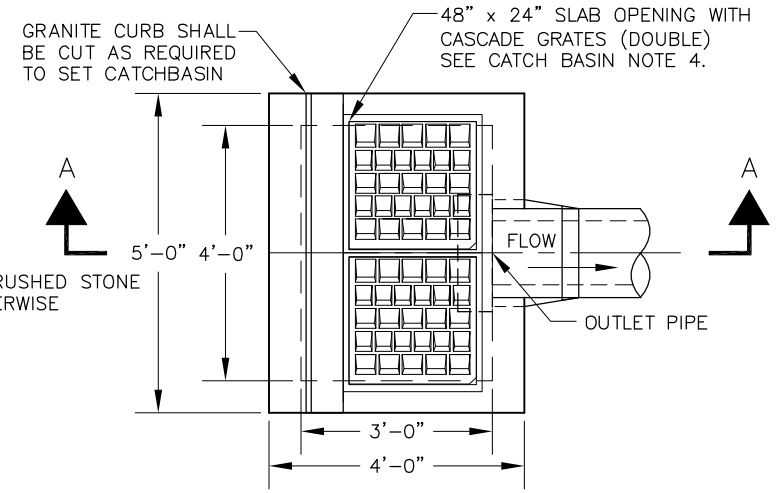
SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02604	2604.2



SECTION A–A



PLAN (SINGLE GRATE)



PLAN (DOUBLE GRATE)

TYPE 3-CATCH BASIN WITH (SINGLE) CASCADE GRATE AND TYPE 4-CATCH BASIN WITH (DOUBLE) CASCADE GRATE

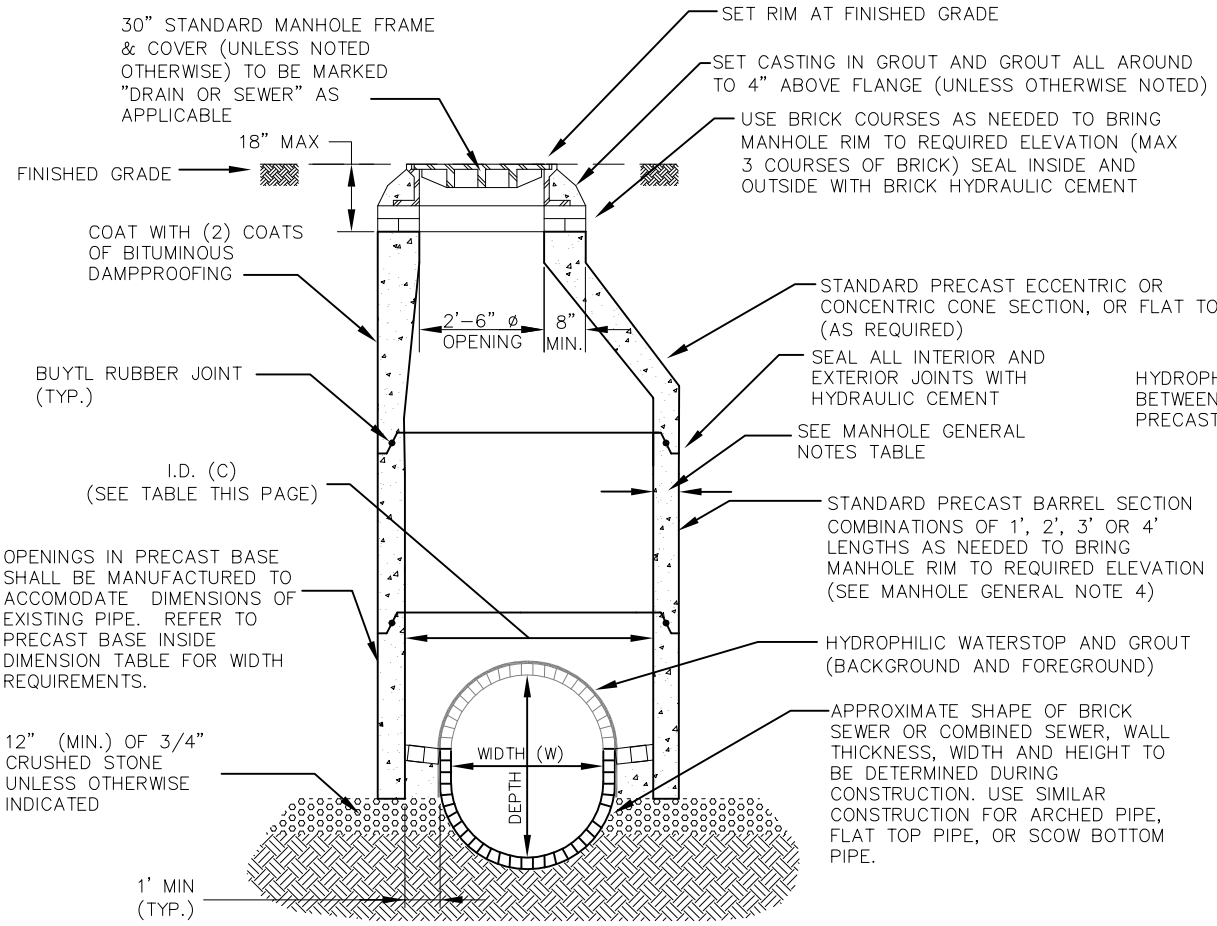
CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02604	2604.4

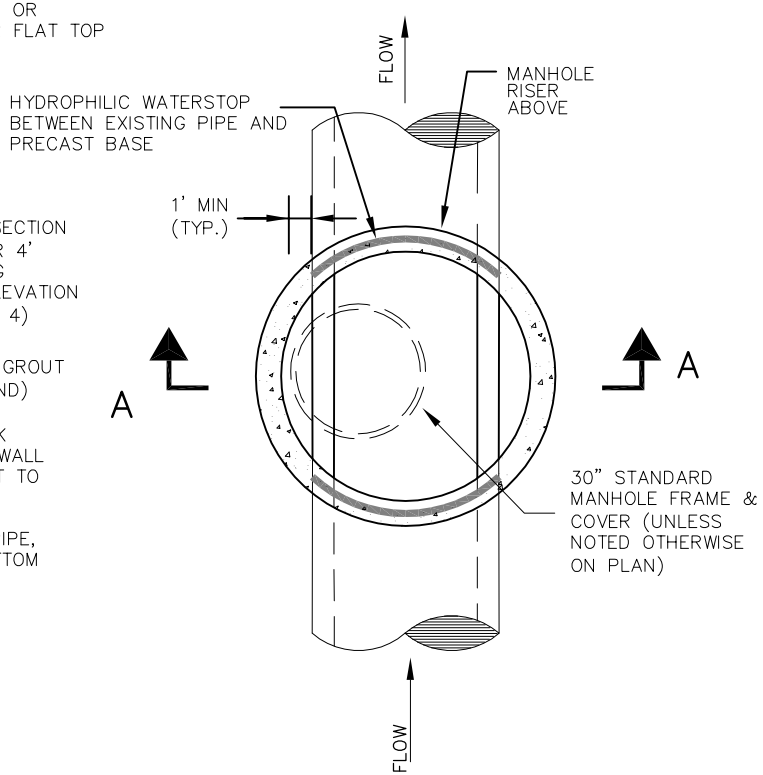
PRECAST BASE INSIDE DIMENSION TABLE

WIDTH (W)	I.D. (C)
8" TO 24"	4' ø
27" TO 36"	5' ø
48" TO 66"	6' ø
66" TO 72"	8' ø
> 72"	10' ø

I.D. = INSIDE DIMENSION



SECTION A–A



PLAN

NOTES:
1. REMOVE EXISTING BRICK PIPE TO SPRING LINE WITHIN THE INSIDE OF THE PRECAST MANHOLE BASE AND CONSTRUCT THE INVERT TO THE SPRING LINE AS SHOWN.

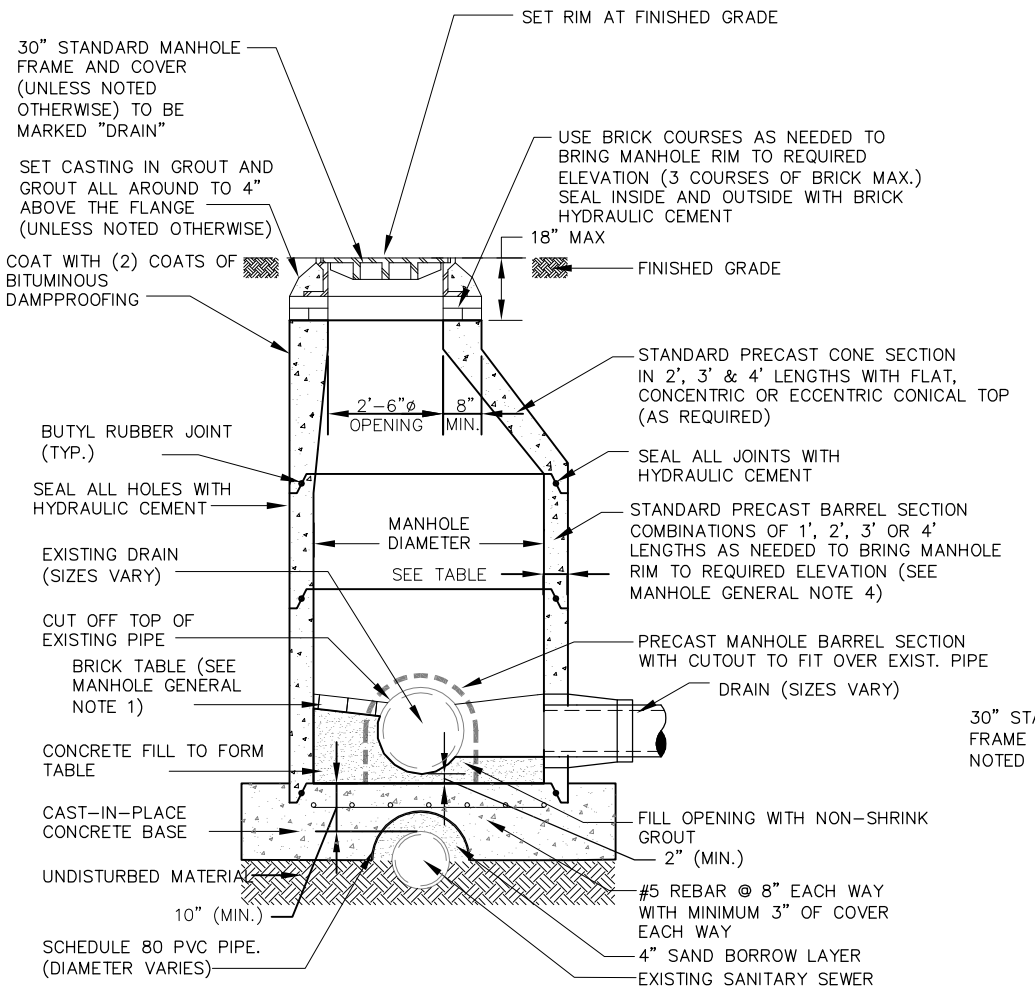
95% DETAILS
NOT FOR CONSTRUCTION

THE CAMBRIDGE DEPARTMENT OF PUBLIC WORKS

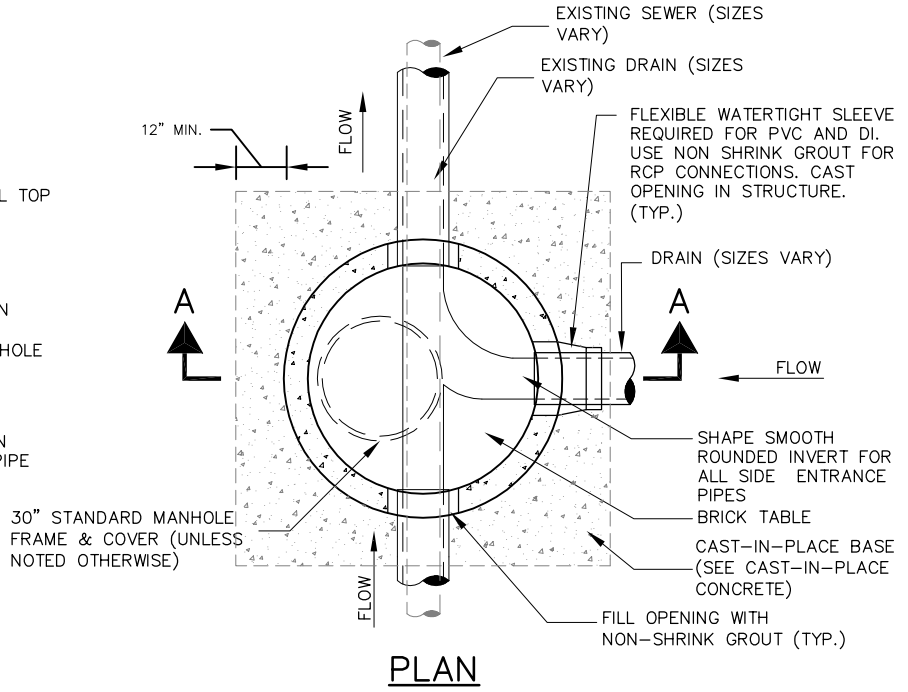
TYPE 2 - PRECAST DROP OVER MANHOLE DETAIL

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02252	2252.3



SECTION A-A



PLAN

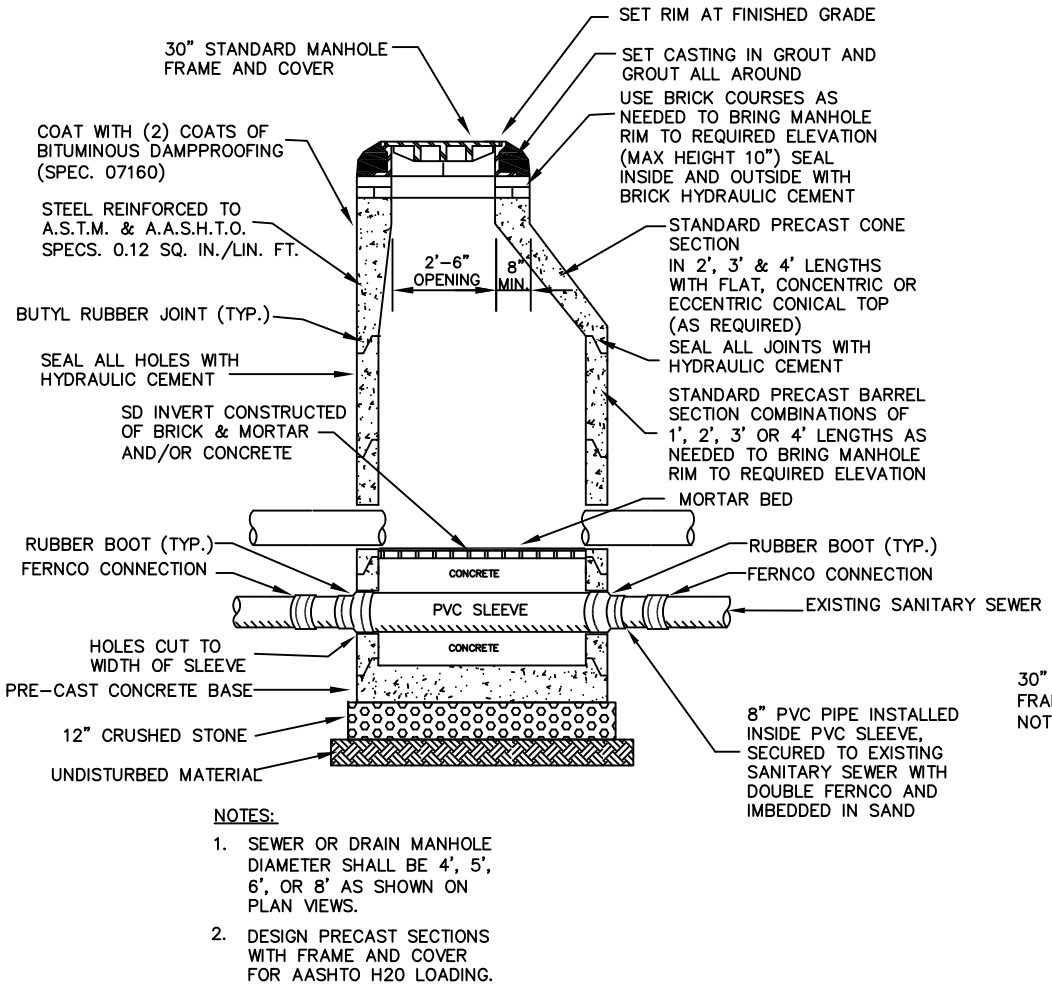
95% DETAILS
NOT FOR CONSTRUCTION

THE CAMBRIDGE DEPARTMENT OF PUBLIC WORKS

TYPE 5 - MANHOLE CONSTRUCTED OVER EXISTING SEWER DETAIL

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

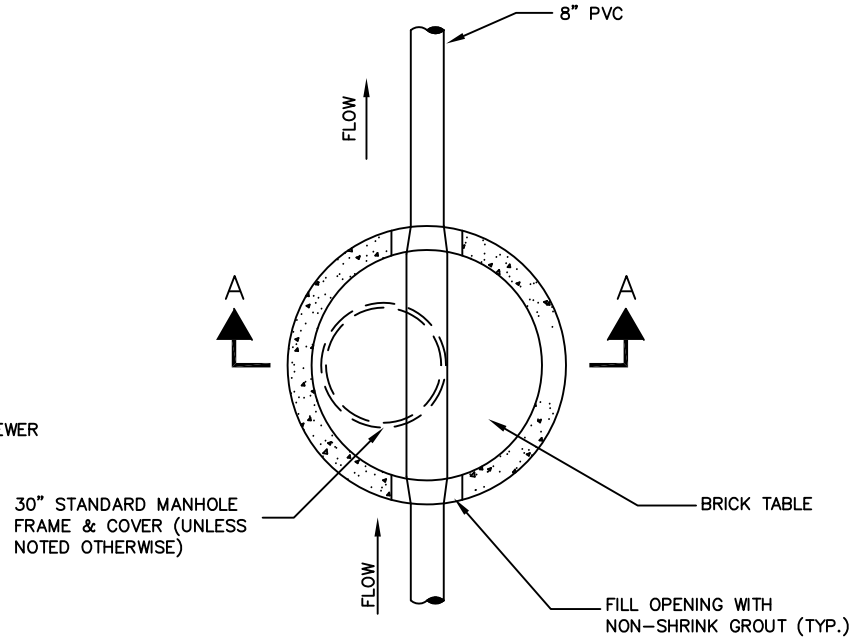
SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02252	2252.6



NOTES:

1. SEWER OR DRAIN MANHOLE DIAMETER SHALL BE 4', 5', 6', OR 8' AS SHOWN ON PLAN VIEWS.
2. DESIGN PRECAST SECTIONS WITH FRAME AND COVER FOR AASHTO H20 LOADING.

SECTION A-A



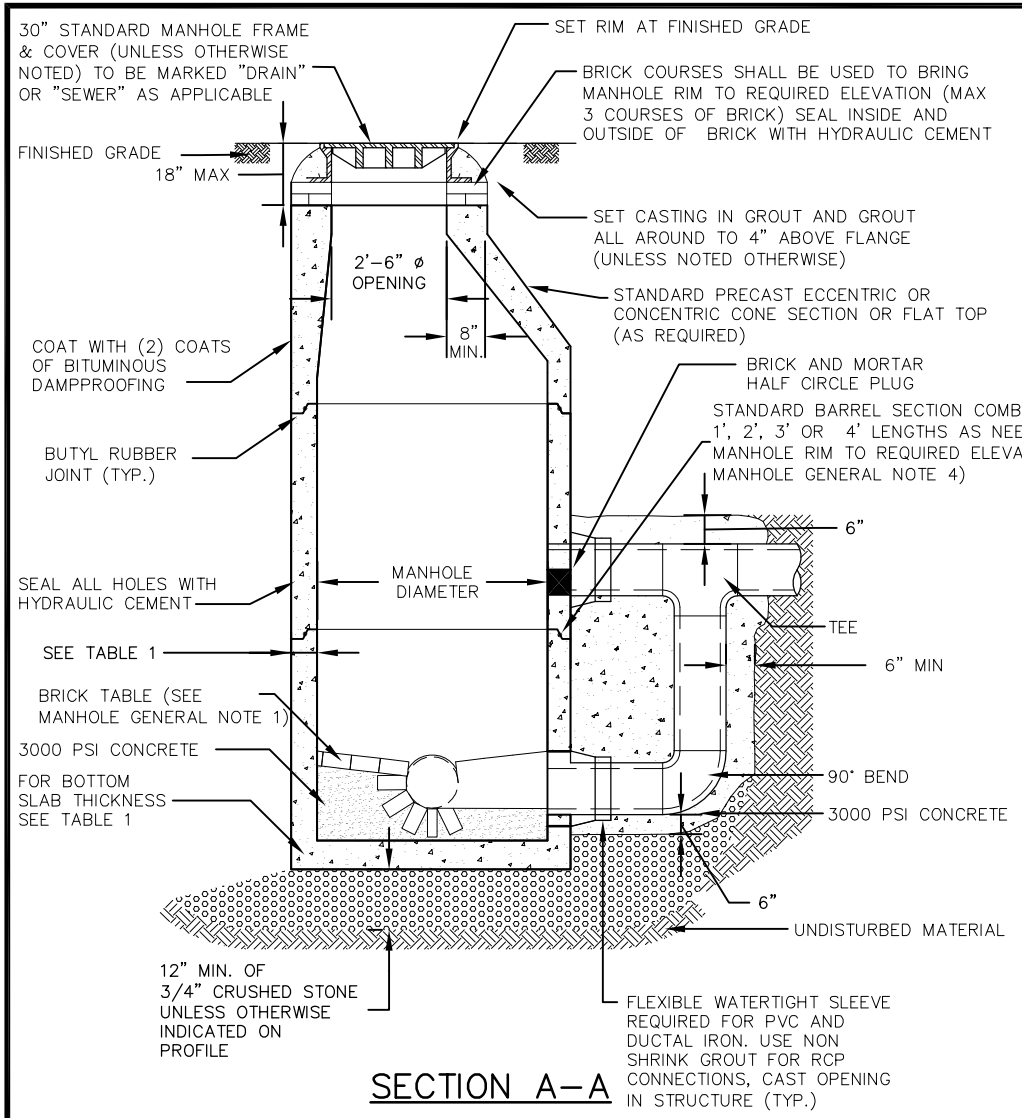
PLAN

THE WORKS CAMBRIDGE DEPARTMENT OF PUBLIC

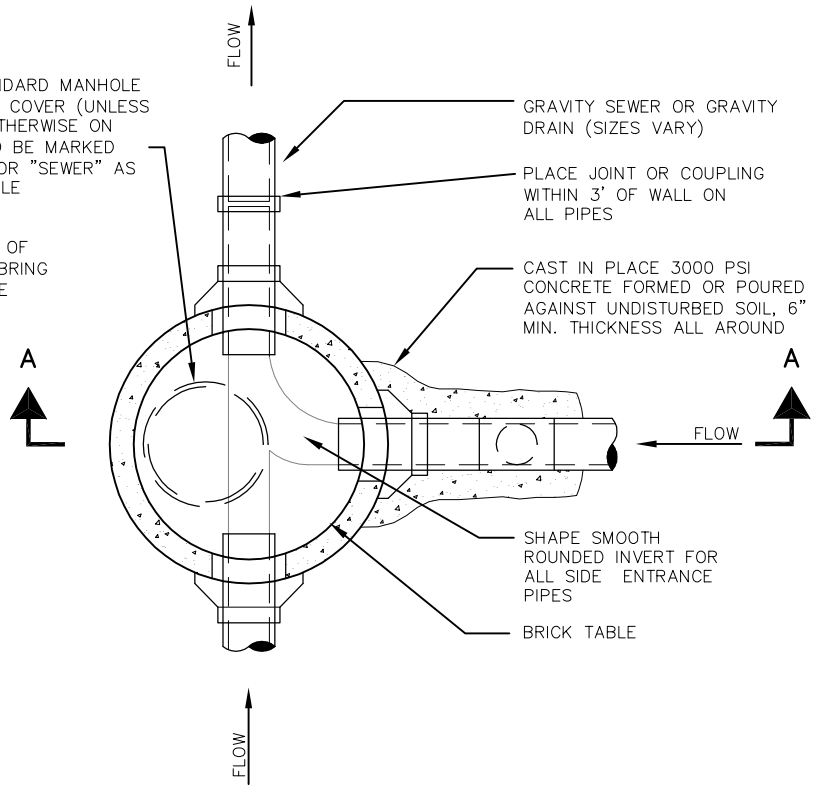
TYPE 6 - MANHOLE CONSTRUCTED OVER EXISTING UTILITY - WITH BASE

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02252	2252.7



SECTION A–A



PLAN

95% DETAILS
NOT FOR CONSTRUCTION

THE CAMBRIDGE DEPARTMENT OF PUBLIC WORKS

TYPE 3 - DROP MANHOLE

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02252	2252.4

TABLE 1				
MANHOLE DIAMETER	SIDE WALL MIN. THICKNESS	BOTTOM SLAB MIN. THICKNESS	MAX PIPE DIAMETER * RCP	DI/PVC
4'	5"	6"	24"	30"
5'	6"	8"	36"	42"
6'	6"	8"	48"	54"
8'	8"	8"	66"	72"
10'	10"	10"	72"	84"

* MAY VARY DEPENDING ON SIZE AND LOCATION OF ADDITIONAL PENETRATIONS OR RELATIONSHIP OF PENETRATIONS IN MANHOLE

TRENCH PAY LIMIT TABLE FOR MANHOLES

WALL THICKNESS	MAX TRENCH WIDTH
LESS THAN 6"	I.D. + 5'-0"
6" TO 12"	I.D. + 6'-0"
13" TO 18"	I.D. + 7'-0"
19" & GREATER	O.D. + 6'-0"

I.D. = INSIDE DIMENSION
O.D. = OUTSIDE DIMENSION

FOR TRENCHES GREATER THAN 5' DEEP ADD 3' FOR TEMPORARY SUPPORT OF EXCAVATION

MANHOLE GENERAL NOTES:

1. HIGHEST POINT OF BRICK TABLE AT MANHOLE WALL, TO BE AT ELEV OF CROWN OF PIPE. TABLE TO SLOPE AT 8.3%.

2. SEWER OR DRAIN MANHOLE DIAMETER SHALL BE 4', 5', 6', 8' OR 10' AS SHOWN ON PLAN/PROFILE VIEWS.

3. DESIGN PRECAST SECTIONS WITH FRAME AND COVER FOR AASHTO H20 LOADINGS. UNLESS OTHERWISE NOTED

4. MANHOLES LARGER THAN 4' IN DIAMETER AT THE BASE SHALL BE REDUCED IN DIAMETER TO 4' AT THE NEXT RISER SECTION UNLESS NOTED OTHERWISE ON PLANS.

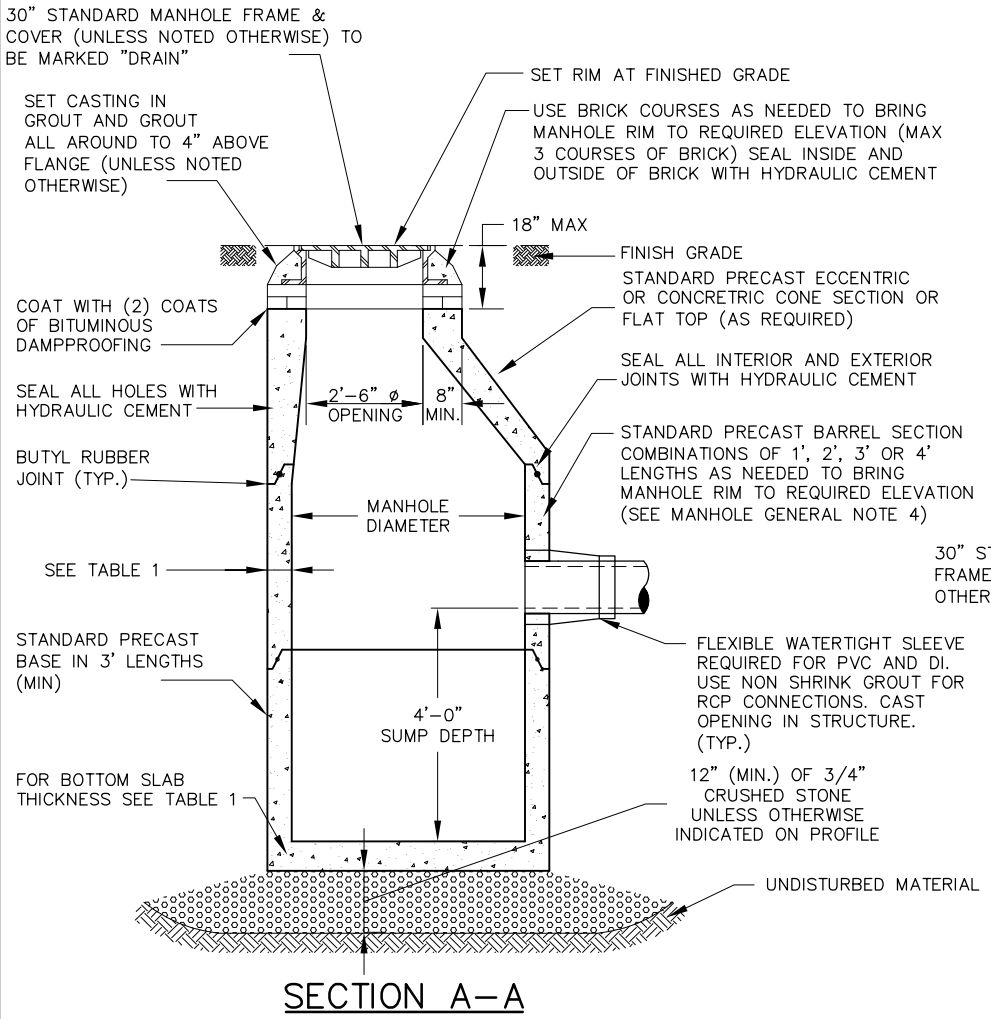
95% DETAILS
NOT FOR CONSTRUCTION

THE CAMBRIDGE DEPARTMENT OF PUBLIC WORKS

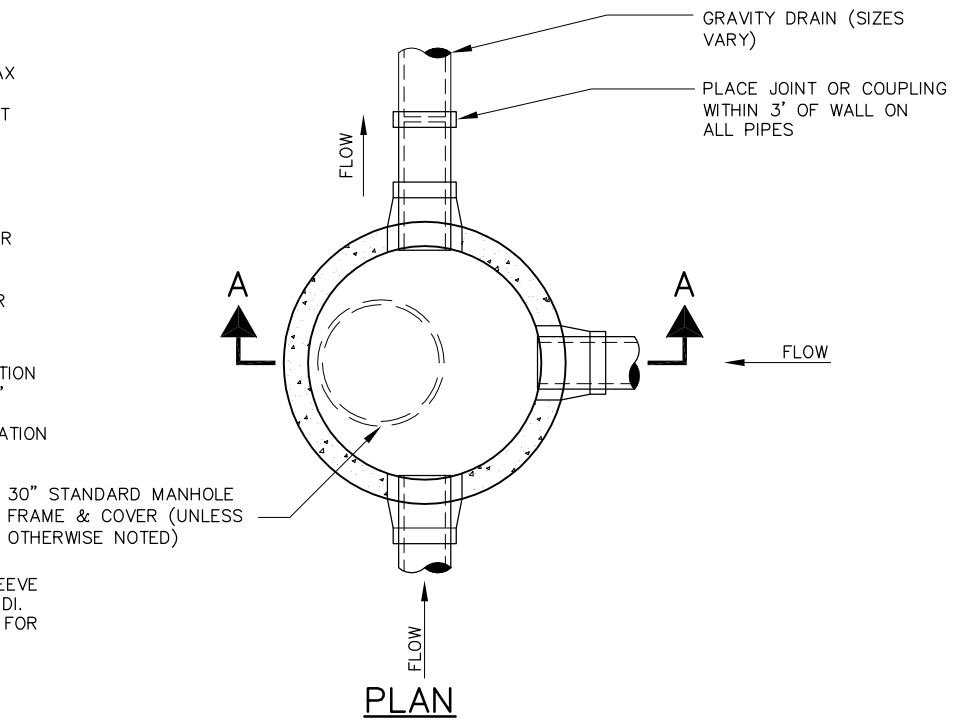
MANHOLES - GENERAL NOTES AND DIMENSIONS

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02252	2252.1



SECTION A–A



PLAN

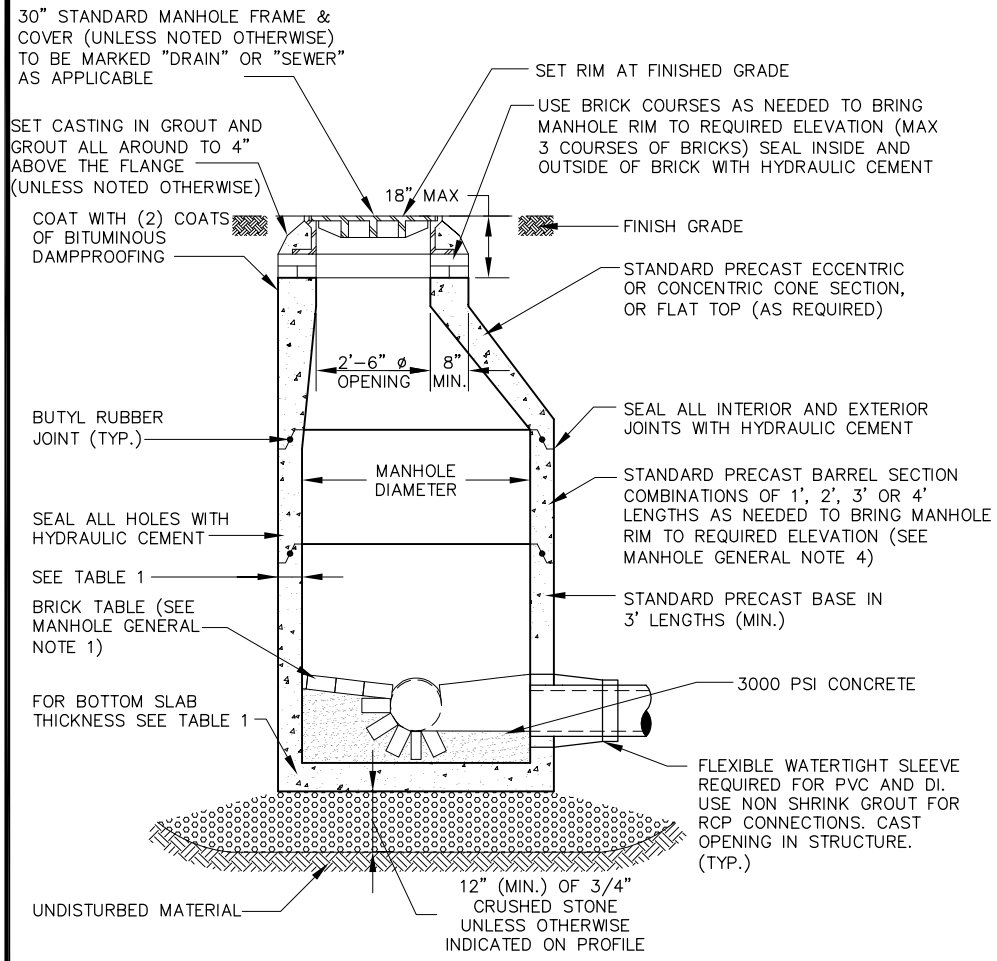
95% DETAILS
NOT FOR CONSTRUCTION

THE WORKS — CAMBRIDGE DEPARTMENT OF PUBLIC

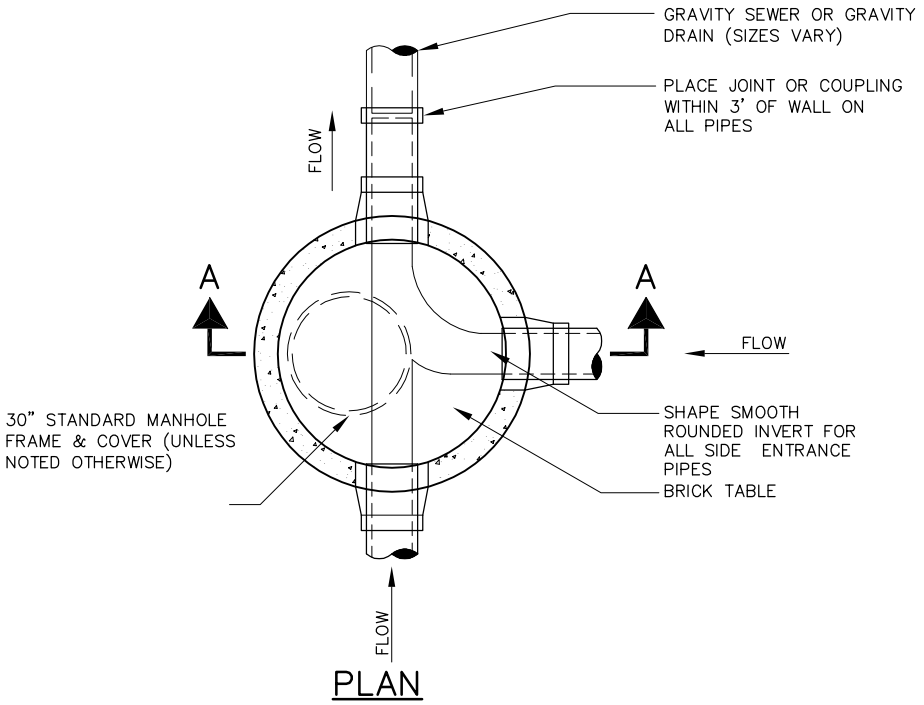
TYPE 4 - SUMP MANHOLE DETAIL

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02252	2252.5



SECTION A–A



PLAN

95% DETAILS
NOT FOR CONSTRUCTION

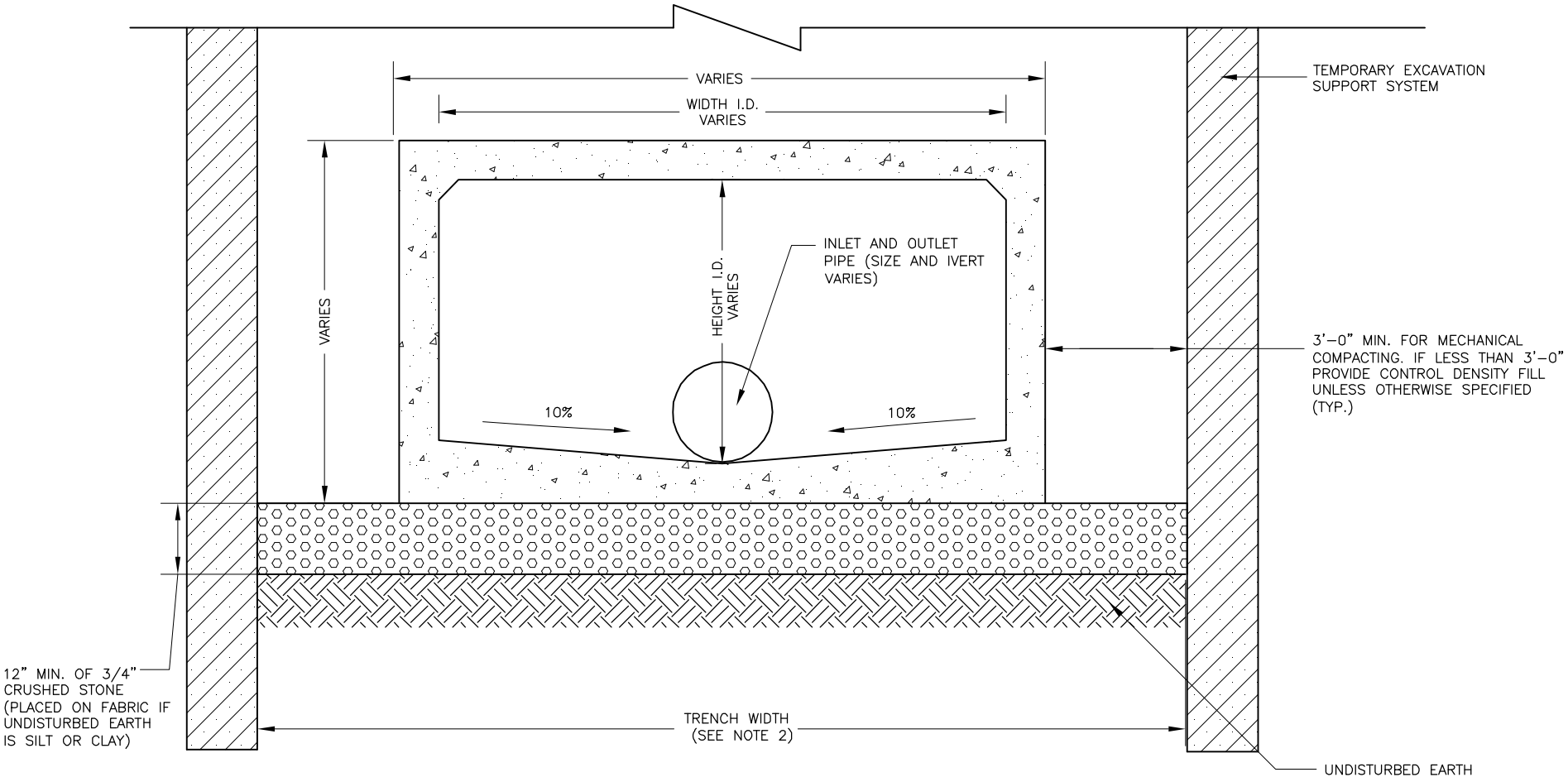
THE CAMBRIDGE DEPARTMENT OF PUBLIC WORKS

TYPE 1 - MANHOLE DETAIL

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02252	2252.2

NOTES:
1. PRECAST REINFORCED CONCRETE *BOX SECTIONS MANUFACTURED IN ACCORDANCE WITH* PRECAST REINFORCED STORAGE TANK. *WATERTIGHT GASKET JOINTS* TO BE PROVIDED *AS SPECIFIED.*
2. TRENCH PAY LIMIT FOR STORAGE TANK IS OUTSIDE DIMENSION (WIDTH) PLUS 3' FOR TEMPORARY SUPPORT OF EXCAVATION PLUS SPACE BETWEEN CULVERT AND TEMPORARY SUPPORT OF EXCAVATION TO A MAXIMUM OF 6' TOTAL.
3. STORAGE TANK WALL, ROOF AND SLAB THICKNESS TO BE DESIGNED BY THE MANUFACTURER
4. FLOATATION SLABS TO BE DESIGNED AND SPECIFIED BY THE MANUFACTURER

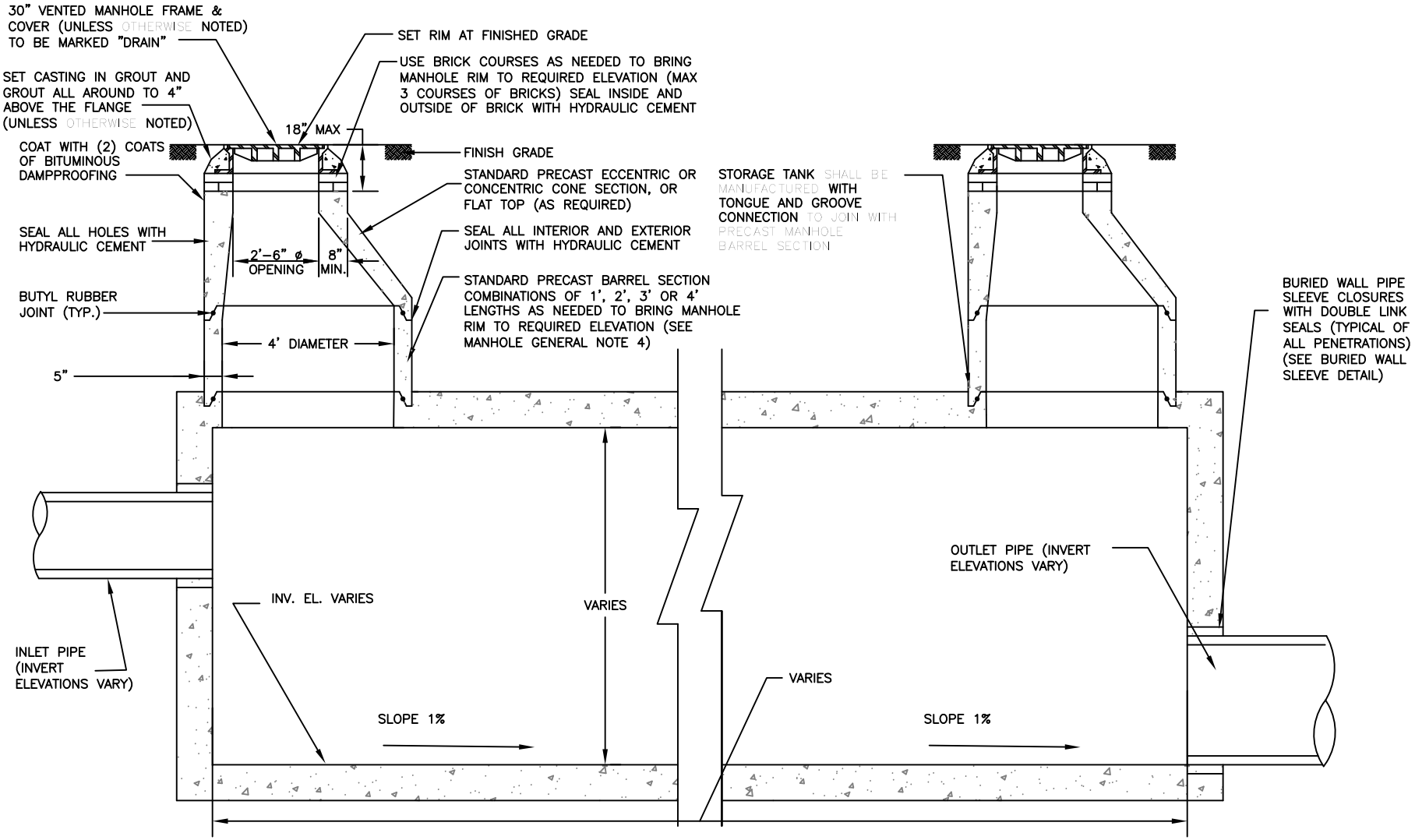


CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

STORAGE TANK DETAIL - SECTION

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02720	2720.2



CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

STORAGE TANK DETAIL - SECTION

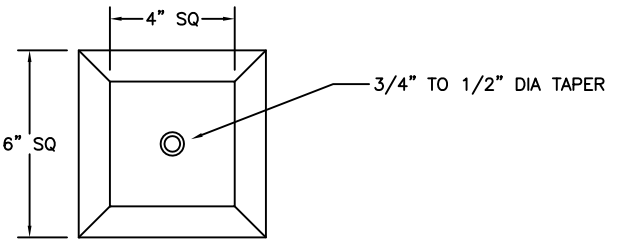
CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 02720	2720.2

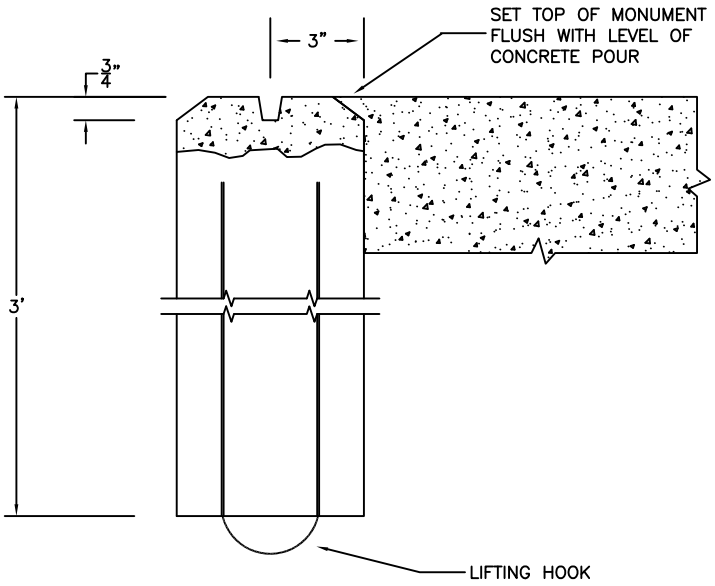
CITY OF CAMBRIDGE D.P.W.

ENGINEERING DEPARTMENT

SURVEY MONUMENT SPECIFICATION – 2008



PLAN VIEW



SIDE VIEW

E.F. SHEA ITEM NO. B–BM2	WT=110#
E.F. SHEA ITEM NO. B–BM3	WT=147#

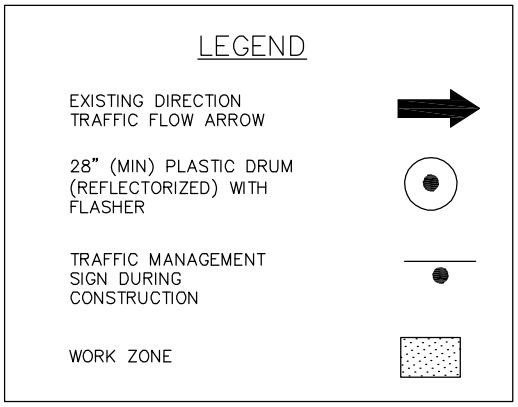
E.F. SHEA, AMESBURY MA (978) 388–1509
E.F. SHEA, WILMINGTON MA (978) 658–2645
E.F. SHEA, NOTTINGHAM, NH (603) 942–5668

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS

TRAFFIC MANAGEMENT GENERAL NOTES:

1. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D)
2. ALL SIGN LOCATIONS ON DETAILS ARE SHOWN SCHEMATICALLY. FINAL LOCATIONS SHALL BE DETERMINED BASED ON ACTUAL FIELD CONDITIONS AND CITY APPROVAL
3. ADDITIONAL TRAFFIC CONTROL DEVICES SHALL BE PROVIDED UPON THE CITY'S REQUEST
4. ALL TEMPORARY SIGNAGE AND TRAFFIC CONTROL DEVICES SHALL BE PROPERLY SECURED
5. ALL DRUMS NOT OTHERWISE SPECIFIED SHALL BE EQUIPPED WITH TYPE "C" –STEADY BURN WARNING LIGHTS
6. TEMPORARY TRAFFIC LANES WITHIN THE WORK ZONE SHALL BE A MINIMUM OF 11 FEET
7. ADVISORY SPEED LIMITS SHALL BE POSTED AS DIRECTED BY THE CITY
8. FLASHING ARROW BOARDS SHALL BE UTILIZED FOR LANE SHIFTS WHERE THE EXISTING SPEED LIMIT IS 35 M.P.H. OR GREATER
9. NON–ESSENTIAL TRAFFIC CONTROL DEVICES SHALL BE COVERED OR REMOVED DURING NON–WORK HOURS
10. ALL TRAVEL WAYS SHALL BE PROTECTED FROM DUST AND CONSTRUCTION DEBRIS AT ALL TIMES
11. TRAFFIC CONTROL INCLUDES NECESSARY STREET SWEEPING AND SNOW REMOVAL WITHIN THE WORK ZONE
12. VEHICULAR AND PEDESTRIAN SHALL BE ALLOWED ACCESS TO PRIVATE PROPERTY AT ALL TIMES DURING CONSTRUCTION
13. ALL TRAFFIC CONTROL DEVICES SHALL BE PLACED AND MOVED AS NECESSARY TO MAINTAIN ADEQUATE ABUTTER ACCESS AT ALL TIMES. WORK MAY REQUIRE ADDITIONAL SIGNAGE AND OTHER TRAFFIC CONTROL DEVICES, GRADING AND TEMPORARY PAVEMENT FOR PASSAGE OF PEDESTRIAN, VEHICULAR AND EMERGENCY TRAFFIC THROUGH WORK AREAS BOTH DURING AND AFTER WORK HOURS
14. EACH ABUTTER SHALL BE NOTIFIED BY THE CONTRACTOR AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OF ACCESS
15. CONSTRUCTION WORK ZONE SHALL BE STAGED AS TO ALLOW FOR CONTINUOUS ACCESS AT DRIVE ENTRANCES AND TO MINIMIZE DETOURS TO CAMBRIDGE ROADS
16. EXCAVATIONS SHALL BE PROTECTED BY STEEL PLATES OR BARRICADES DURING NON–WORK HOURS
17. GRADE SEPARATIONS IN EXCESS OF 2" DURING NON WORKING HOURS WILL REQUIRE DELINEATION BY DRUMS
18. EXCAVATION EDGES IN EXCESS OF 4" DEEP SHALL BE PROTECTED DURING NON–WORKING HOURS BY BACKFILLING WITH A WEDGE OF GRAVEL COMPACTED TO A 4:1 SLOPE
19. SAFE PEDESTRIAN WALKWAYS SHALL BE PROVIDED AND ACCESS TO LOCAL BUSINESSES AND RESIDENCES. PUBLIC WALKWAYS SHALL REMAIN OPEN AND ACCESSIBLE UNLESS OTHERWISE DIRECTED BY CITY.
20. ALL EXISTING PEDESTRIAN CROSSINGS SHALL BE MAINTAINED. ALTERNATIVE CROSSING SHALL BE PROVIDED WHEN EXISTING CROSSINGS ARE DISRUPTED BY CONSTRUCTION ACTIVITY. TEMPORARY LOCATIONS, SAFETY SIGNAGE AND SAFETY CONTROLS SHALL BE APPROVED BY THE CITY PRIOR TO IMPLEMENTATION
21. PEDESTRIAN WALKWAYS SHALL BE PROTECTED ALONG WORK ZONE WITH CONCRETE BARRIERS AND FENCING
22. POLICE DETAILS SHALL BE SCHEDULED AND COORDINATED BY THE CONTRACTOR TO MAINTAIN THE SAFETY OF PEDESTRIAN AND VEHICULAR TRAFFIC
23. DETOURS TO SHALL ONLY BE ALLOWED AS INDICATED OR AS APPROVED BY THE CITY OF CAMBRIDGE TRAFFIC AND PARKING DEPARTMENT

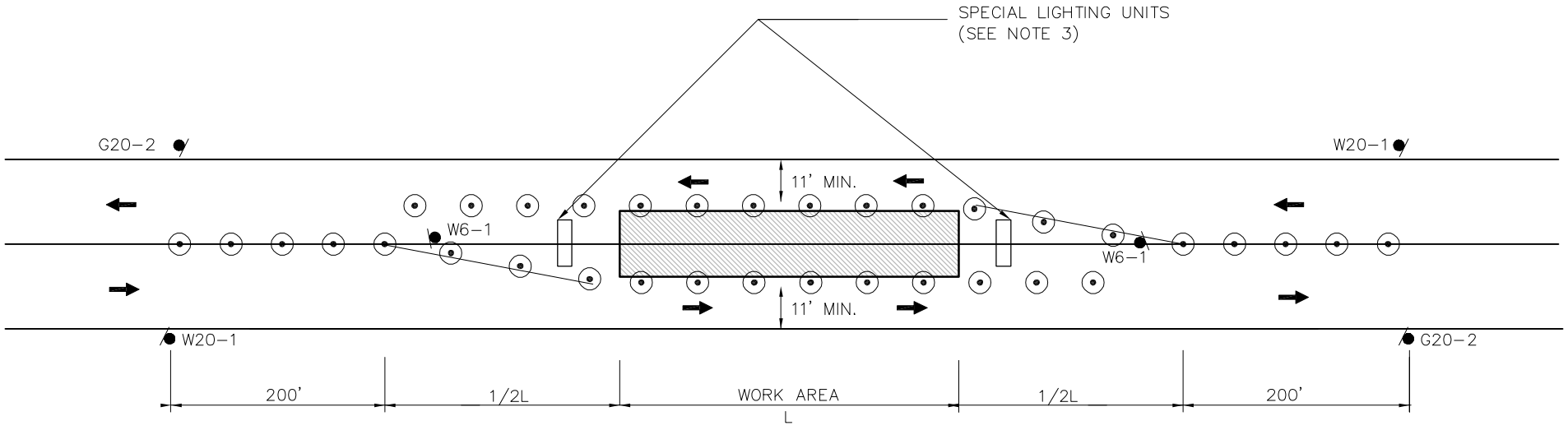


CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

TRAFFIC MANAGEMENT GENERAL NOTES AND LEGEND

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 01570	1570.1



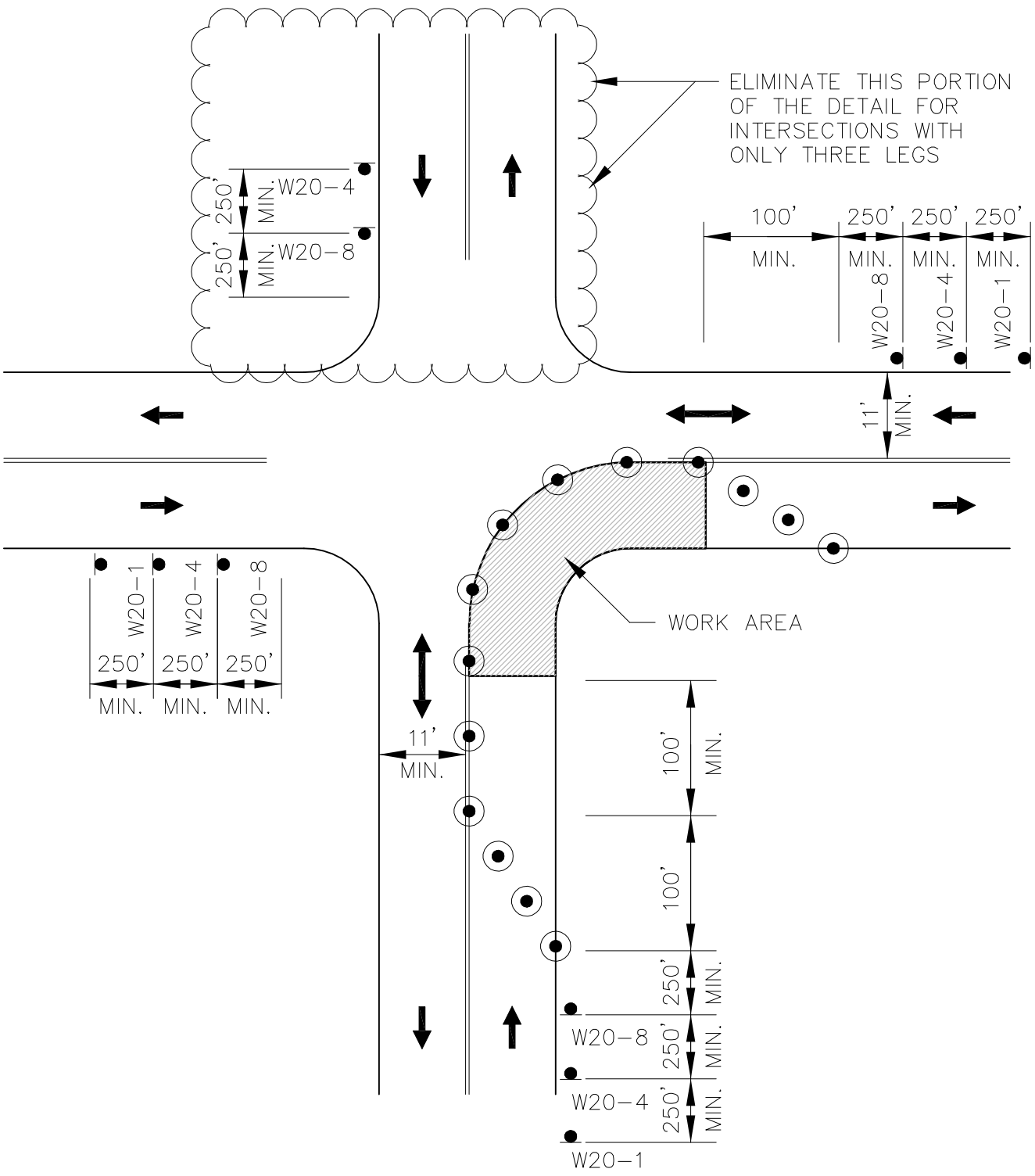
NOTES:
1. ALL CONES AND DRUMS TO BE SPACED @ 20' O.C.
2. L=AREA OF 1/2 DAY OF WORK (PER MUTCD MANUAL)
3. SPECIAL LIGHTING UNITS (ARROW BOARDS) TO BE ADDED ON BOTH SIDES OF WORKZONE WHERE SPEED LIMIT MEETS OR EXCEEDS 35 M.P.H.

CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

TYPICAL INTERIOR LANE CLOSURE

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 01570	1570.5



NOTES:
1. ADVANCE WARNING SIGN PLACEMENT TO BE ADJUSTED AS NECESSARY AND APROVED BY THE CITY.
2. ALL DRUMS AND CONES TO BE SPACED @ 20' O.C.

CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

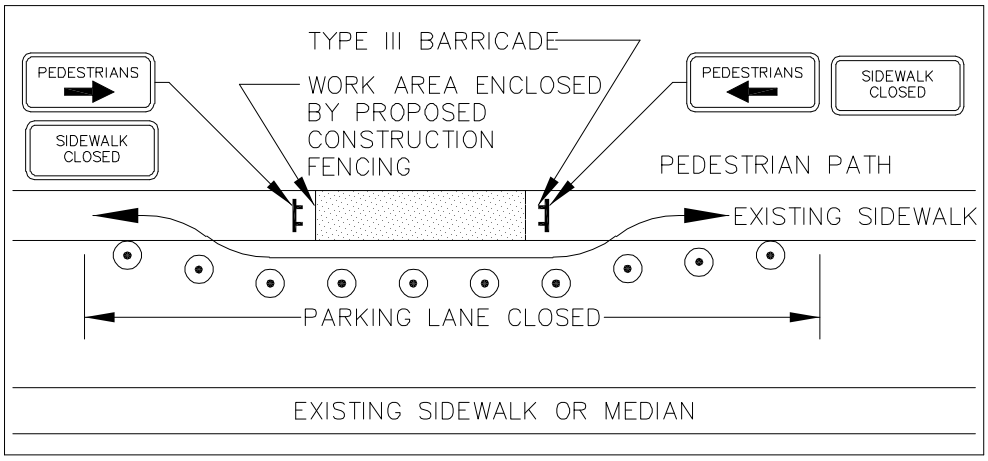
ONE LANE BI-DIRECTIONAL TRAFFIC AT INTERSECTIONS

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 01570	1570.7

TO BE USED IN CONJUNCTION WITH THE PROPOSED LANE CLOSURE DETAILS AND DURING CONSTRUCTION STAGING AND AS DIRECTED BY THE CITY.

TYPE I
N.T.S.



TYPE II
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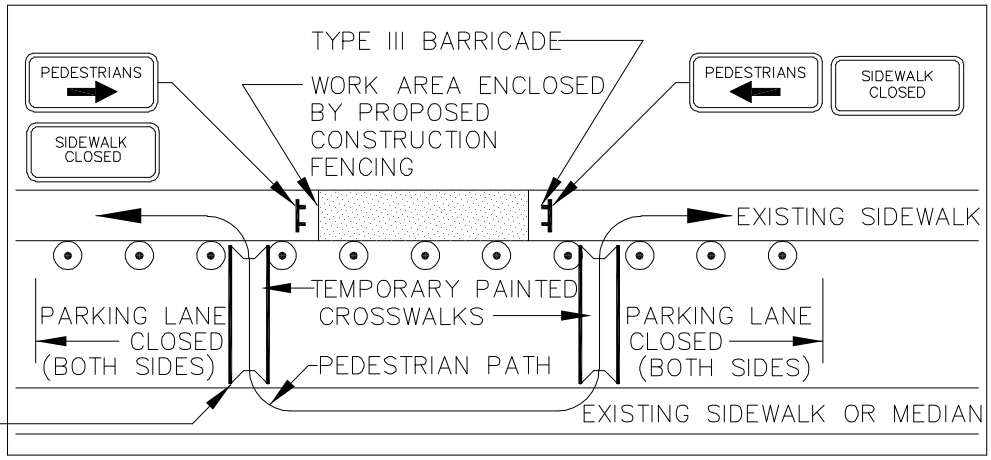


TEMPORARY BITUMINOUS CONCRETE WHEEL CHAIR RAMP. WIDTH AND LENGTH PER ADA REQUIREMNETS BUT SHALL NOT INTRUDE INTO TRAVEL WAY

PEDESTRIAN BYPASS NOTES:

1. ADDITIONAL ADVANCE WARNING MAY BE REQUIRED BY THE CITY.
2. CONTROLS FOR PEDESTRIAN TRAFFIC ONLY, ARE SHOWN. VEHICULAR TRAFFIC SHALL BE MAINTAINED AS DETAILED ELSEWHERE.
3. STREET LIGHTING SHALL BE CONSIDERED WHEN LOCATING CONTROL DEVICES.
4. EXISTING WHEELCHAIR RAMPS SHALL BE CONSIDERED WHEN LOCATING TEMPORARY PAINTED CROSSWALKS.
5. ◄——► DIRECTION OF PEDESTRIAN TRAVEL.
6. IF THE WORK ZONE DOES NOT PERMIT PEDESTRIANS TO TRAVEL ADJACENT TO IT AS SHOWN IN PEDESTRIAN BYPASS TYPE I, TEMPORARY CROSSWALKS WITH APPROPRIATE SIGNS SHALL BE INSTALLED TO CROSS PEDESTRIANS TO THE OPPOSITE SIDE OF THE STREET AS SHOWN IN PEDESTRIAN BYPASS TYPE II, AND AS DIRECTED BY THE ENGINEER.

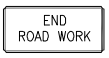
CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

PEDESTRIAN BYPASS DETAIL

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 01570	1570.8

CONSTRUCTION SIGN LEGEND

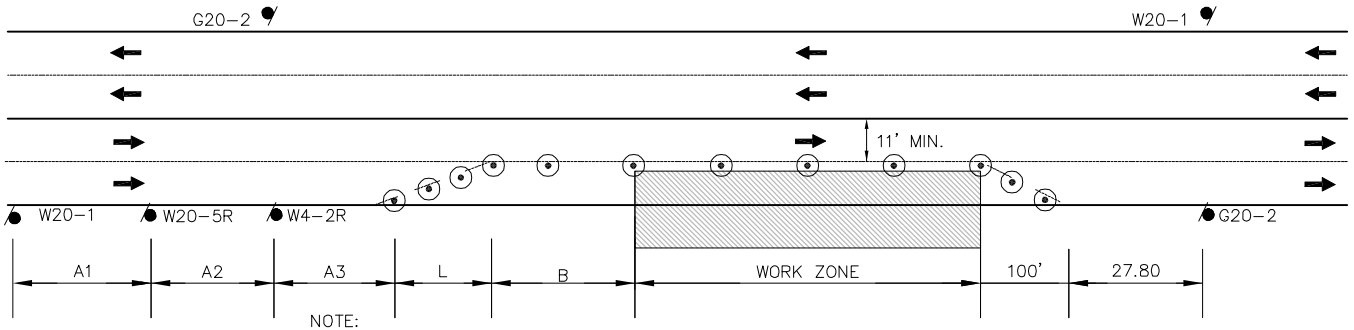
IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS			COLOR		
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW	BACK-GROUND	LEGEND	BORDER
G20-2	36"	24"		MUTCD STANDARD DETAIL			MUTCD STANDARD DETAIL		
W1-4L	30"	30"							
W1-4R	30"	30"							
W4-2L	48"	48"							
W4-2R	48"	48"							
W5-1	48"	48"							
W6-1	48"	48"							
W20-1	36"	36"							
W20-4	48"	48"							
W20-5L	48"	48"							
W20-5R	48"	48"							
W20-7b	36"	36"							
W20-8	36"	36"							

CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

CONSTRUCTION SIGN LEGEND

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 01570	1570.2



NOTE:
1. THIS DETAIL SHOWS A RIGHT LANE CLOSURE DETAIL. THIS DETAIL SHALL ALSO BE USED FOR LEFT LANE CLOSURES WITH THE SIGN PLACEMENT AND TYPE AS APPROPRIATE

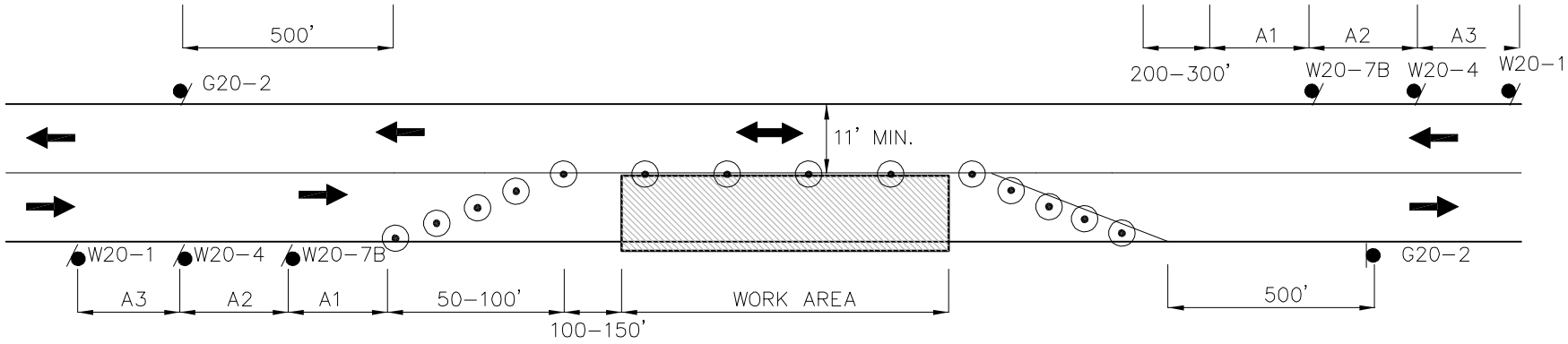
SPEED LIMIT (MPH)	SPACING FOR ADVANCE WARNING SIGNS (A1/A2/A3)	CHANNELIZING DEVICES			
		TRANSITION LENGTH (L)	BUFFER LENGTH (B)	DEVICE SPACING	MIN. #
25-40	500/500/500	320	160	20	30
45-55	500/1000/1000	680	360	40	30

CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

TYPICAL ONE LANE CLOSURE

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 01570	1570.3



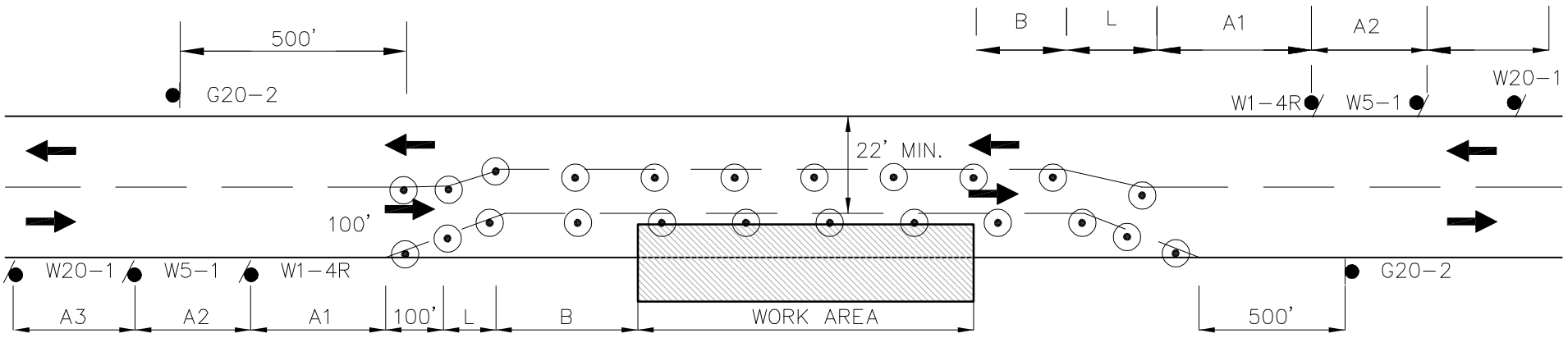
SPEED LIMIT (MPH)	SPACING FOR ADVANCE WARNING SIGNS (A1/A2/A3)	CHANNELIZING DEVICES	
		DEVICE SPACING	MIN. #
25-40	500/500/500	20	20
45-55	500/1000/1000	40	20

CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

TYPICAL TWO WAY ALTERNATING TRAFFIC

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 01570	1570.6



NOTES:
1. THIS DETAIL SHOWS A RIGHT LANE CLOSURE DETAIL. THIS DETAIL CAN ALSO BE USED FOR LEFT LANE CLOSURES, WITH SIGN PLACEMENT AND TYPE AS APPROPRIATE.

SPEED LIMIT (MPH)	SPACING FOR ADVANCE WARNING SIGNS (A1/A2/A3)	CHANNELIZING DEVICES			
		TRANSITION LENGTH (L)	BUFFER LENGTH (B)	DEVICE SPACING	MIN. #
25–40	500/500/500	320	160	20	90
45–55	500/1000/1000	680	360	40	90

CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

TYPICAL TWO-WAY STREET LANE SHIFT

CITY OF CAMBRIDGE STANDARD SPECIFICATIONS AND DETAILS

SCALE: N.T.S.	DATE OF ISSUE: 02/05	SPEC. SECTION REF#: 01570	1570.4