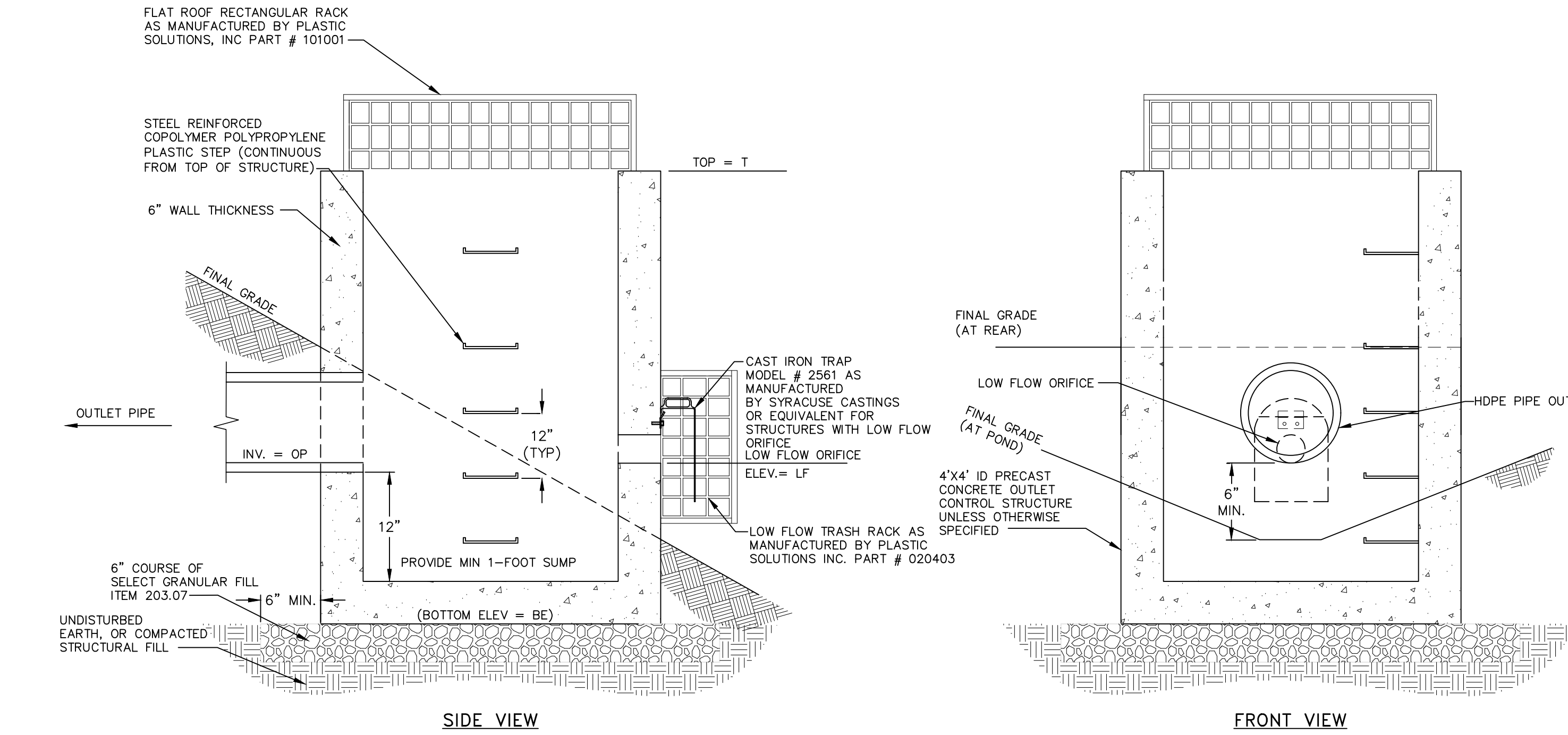


NOTES:
 1. PRECAST CONCRETE CATCH BASIN WITH CONCRETE STRENGTH OF 4000 PSI @ 28 DAYS.
 2. THE ENDS OF ALL PIPES SHALL BE CUT OFF FLUSH WITH THE INSIDE SURFACE OF THE CATCH BASIN AND PARGED AROUND.
 3. PIPES SHALL BE PARGED AROUND INTERIOR AND EXTERIOR PRIOR TO BACKFILLING OF STRUCTURE. CONNECTIONS MADE WITHIN 10 FEET OF A WATER MAIN (OR SERVICE LINE) OR A SEWER MAIN (OR SERVICE LATERAL) SHALL BE MADE WATER-TIGHT.
 4. PROVIDE A MINIMUM 0.1" DROP BETWEEN INLET AND OUTLET INVERTS (MATCH CROWNS FOR PIPES WITH DIFFERENT SIZES) UNLESS OTHERWISE NOTED ON THE PLAN.
 5. CATCH BASINS WITH AN INTERIOR DEPTH OF 4" AND GREATER SHALL BE FURNISHED WITH STEEL REINFORCED POLYPROPYLENE PLASTIC STEPS AT 12" INTERVALS.
 6. COURE PIPE SHALL BE PROVIDED WITH WATER-TIGHT CONNECTIONS. ADS MODEL N12 W118 OR APPROVED EQUAL.

STORM LINE TRENCH DETAIL
NOT TO SCALE

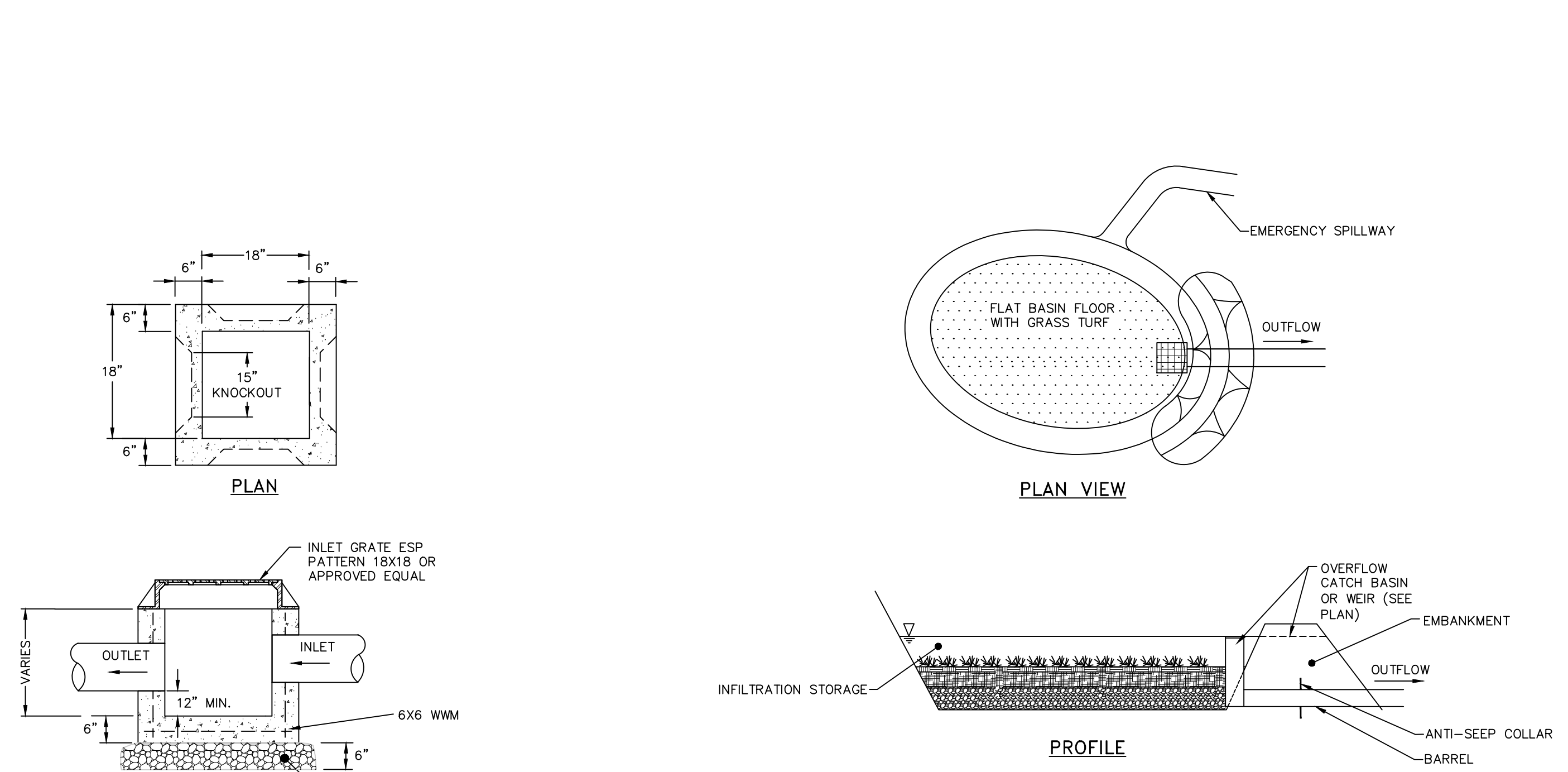


OUTLET CONTROL STRUCTURE DATA

OCS ID	STRUCTURE DIMENSIONS (IN)	LOW FLOW ORIFICE DIM (IN)	*LF* (FT)	HIGH FLOW ORIFICE DIM (IN)	# OF HIGH FLOW INLETS	*HF* (FT)	*TF* (FT)	OUTLET PIPE # (IN)	*OP* (FT)	HIGH FLOW ORIFICE TRASH RACK PART #
3	4'x4' LD	1'W X .75'H	59.4	NONE	NONE	N/A	61.65	15	55.00	N/A

NOTES:
 1. ALL TRASH RACKS SHALL HAVE UV PROTECTION MEETING OR EXCEEDING THE REQUIREMENTS OF ASTM D2565-99.
 2. TRASH RACKS SHALL BE SECURED PER THE MANUFACTURER'S RECOMMENDATIONS.
 3. WHERE HIGH FLOW ORIFICE EXTENDS TO TOP OF STRUCTURE, THE MAXIMUM ALLOWABLE GAP BETWEEN THE TRASH RACKS SHALL BE 4".

INFILTRATION OUTLET CONTROL STRUCTURE DETAIL
NOT TO SCALE



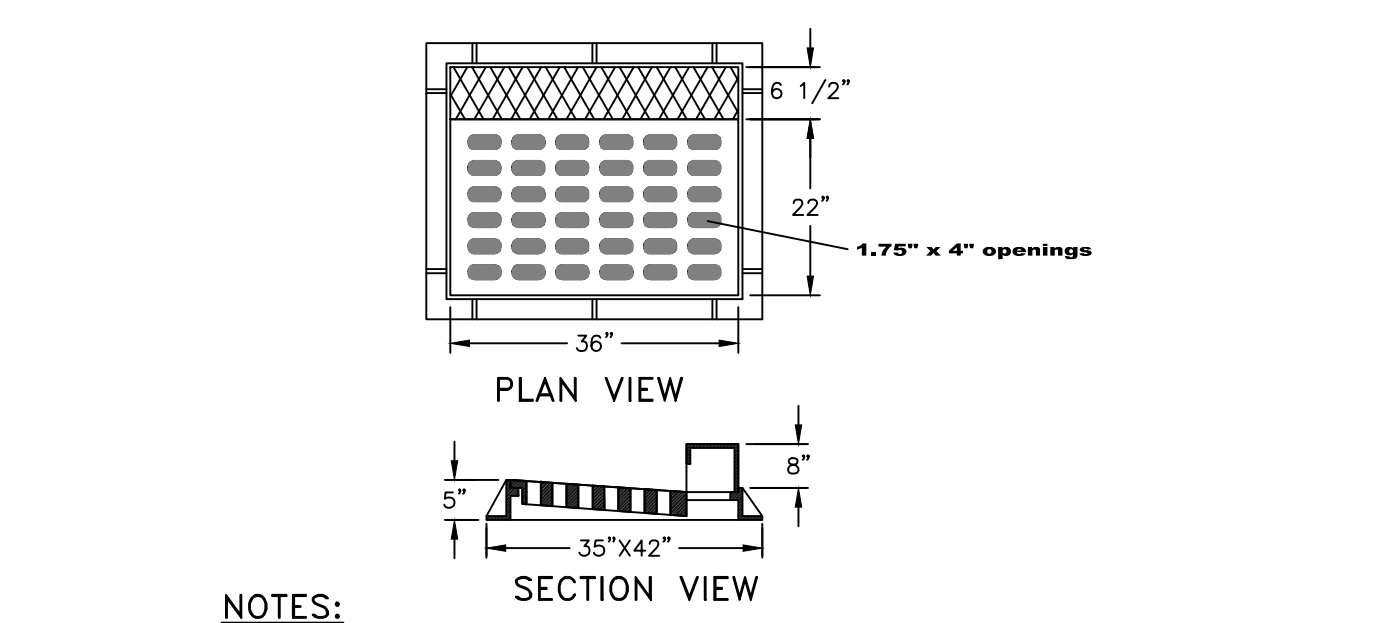
NOTES:
 1. YARD INLET BASINS SHALL BE PRE-CAST REINFORCED CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI AND SHALL BE IN CONFORMANCE WITH ASTM 4756-88. WALLS AND BASE SHALL BE ONE PIECE CONSTRUCTION. YARD INLET BASIN SHOWN BY EXPANDED SUPPLY PRODUCTS (ESP), 5330 ROUTE 9, GOLD SPRING, NY (845) 265-3771.
 2. BACKFILL USING SELECT MATERIAL, COMPACTED IN 6" LIFTS.
 3. SUMP SHALL BE 12".
 4. FRAMES AND GRATES SHALL BE SET IN A FULL BED OF MORTAR.

PRE-CAST CONCRETE YARD INLET DETAIL
NOT TO SCALE

NOTES:
 1. THE INFILTRATION BASIN SHALL NOT SERVE AS A SEDIMENT TRAP DURING CONSTRUCTION AND SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITY.
 2. RELATIVELY LIGHT TRACKED EQUIPMENT IS RECOMMENDED FOR CONSTRUCTION PURPOSES TO AVOID COMPACTION OF THE BASIN FLOOR.
 3. A HIGHLY PONDING FEATURE SHALL BE RETAINED ALONG THE BASIN FLOOR, ESPECIALLY WITHIN THE AREA IDENTIFIED AS BEING USED FOR INFILTRATION.
 4. ESTABLISH DENSE VEGETATION ON THE BASIN SIDE SLOPES AND FLOOR TO PREVENT EROSION AND SLOUGHING AND TO PROVIDE A NATURAL MEANS OF MAINTAINING RELATIVELY HIGH INFILTRATION RATES. GRASSES OF THE FESCUE FAMILY (LA TA FESCUE, WESTERN FESCUE OR RED FESCUE) ARE SPECIFIED ON THIS PLAN, PRIMARILY DUE TO THEIR ADAPTABILITY TO DRY SANDY SOILS, DROUGHT RESISTANCE, HARDINESS, AND ABILITY TO WITHSTAND BREEZING INUNDATIONS. FESCUE WILL ALSO ALLOW FOR LONG INTERVALS BETWEEN MOWINGS, WHICH SHALL OCCUR TWICE PER YEAR MINIMUM, TYPICALLY IN JUNE AND SEPTEMBER IS SATISFACTORY.
 5. THE BERMS SHALL BE SUFFICIENTLY COMPACTED AND OF SUCH MATERIAL TO PREVENT SEEPAGE.

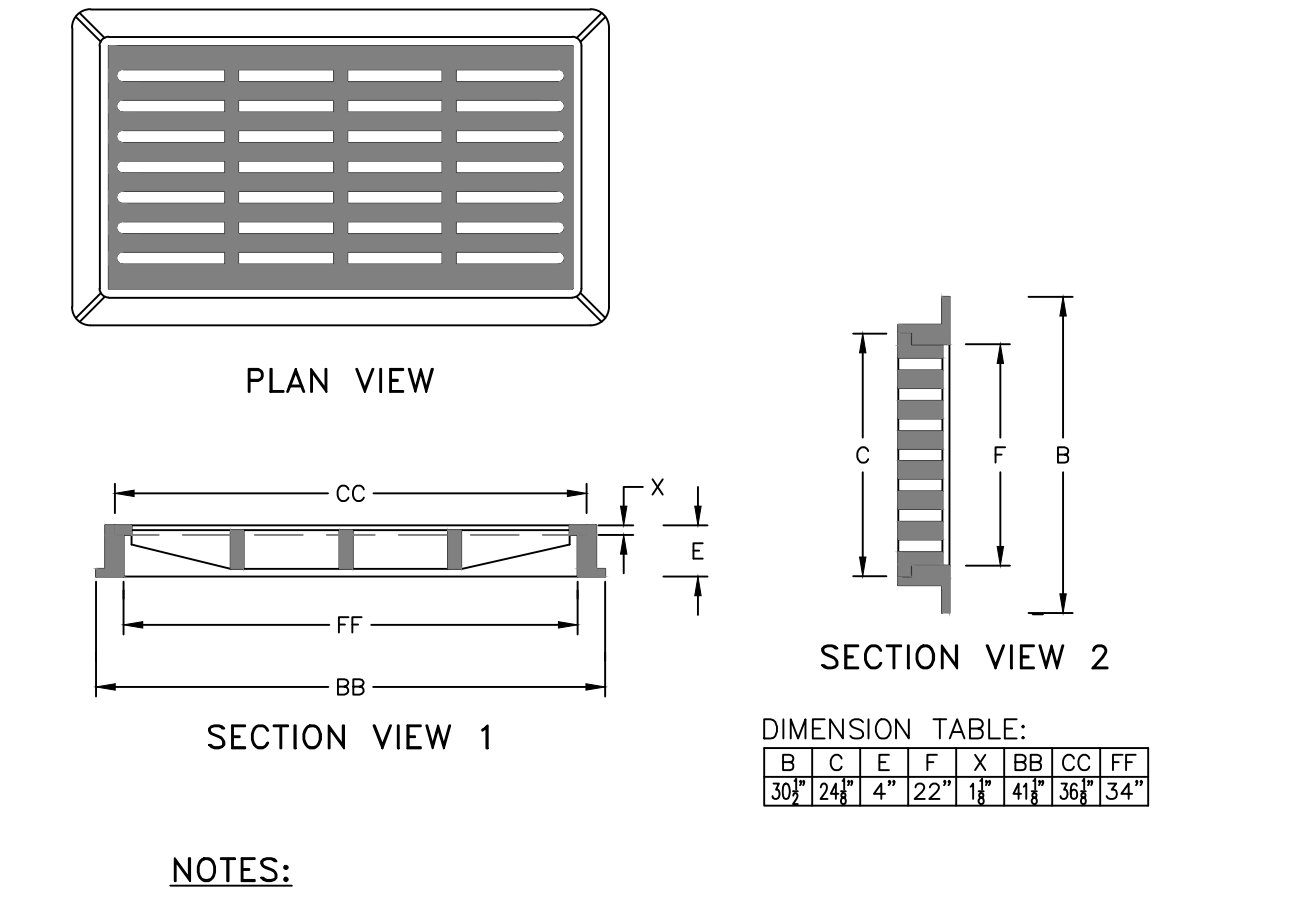
TYPICAL INFILTRATION BASIN DETAIL
NOT TO SCALE

CATCH BASIN DETAIL
NOT TO SCALE



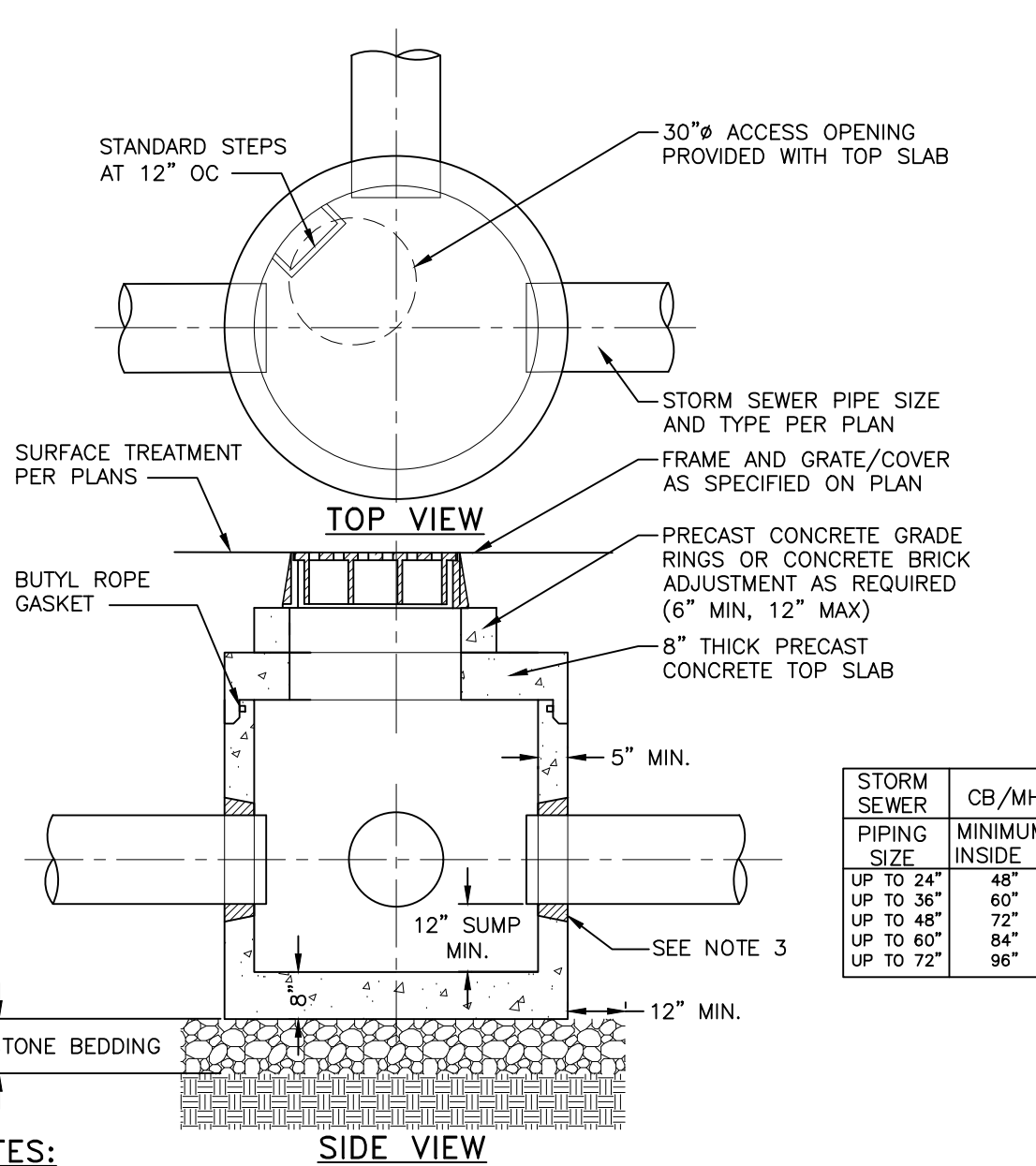
NOTES:
 1. HEAVY DUTY RECTANGULAR STORMWATER INLET GRATE TO BE CAMPBELL FOUNDRY MODEL 2541, OR APPROVED EQUAL.
 2. CATCH BASINS TO RECEIVE CURB INLETS ARE: CB 104, CB 301, CB 301A, CB 302, CB 303, CB 304, CB 304A, CB 305A AND CB 305B.
 3. DMH 1 AND DMH 3 RECEIVE SOLID CAST IRON COVERS.

CAST IRON STORMWATER CURB INLET GRATE DETAIL
NOT TO SCALE



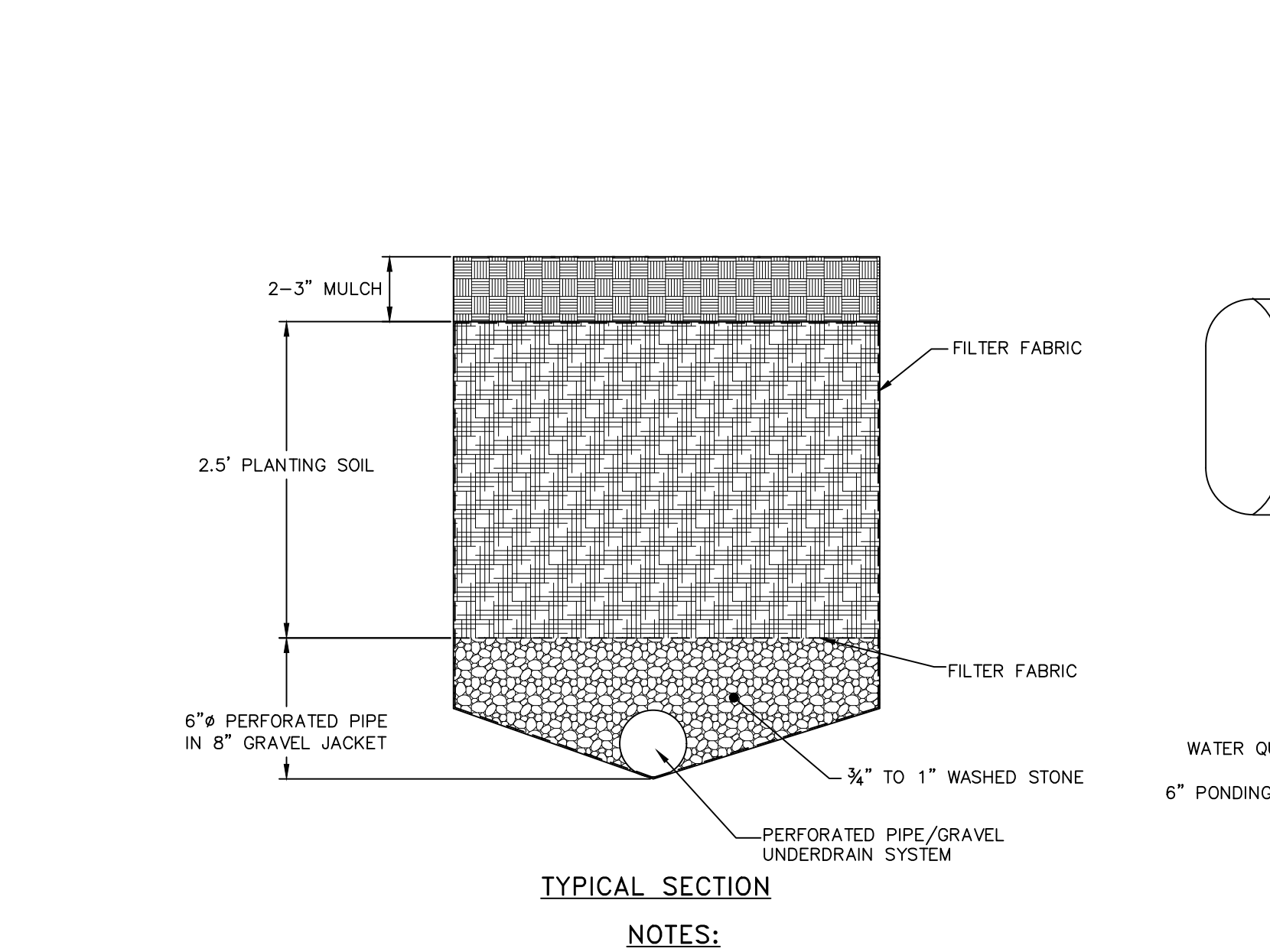
NOTES:
 1. HEAVY DUTY RECTANGULAR STORMWATER INLET GRATE TO BE CAMPBELL FOUNDRY MODEL 2543, OR APPROVED EQUAL.
 2. CATCH BASINS TO RECEIVE FLAT INLETS ARE: CB 101, CB 101A, CB 102, CB 103, CB 202, CB 208, CB 304A, CB 305A AND CB 305B.
 3. DMH 1 AND DMH 3 RECEIVE SOLID CAST IRON COVERS.

CAST IRON STORMWATER FLAT INLET GRATE DETAIL
NOT TO SCALE



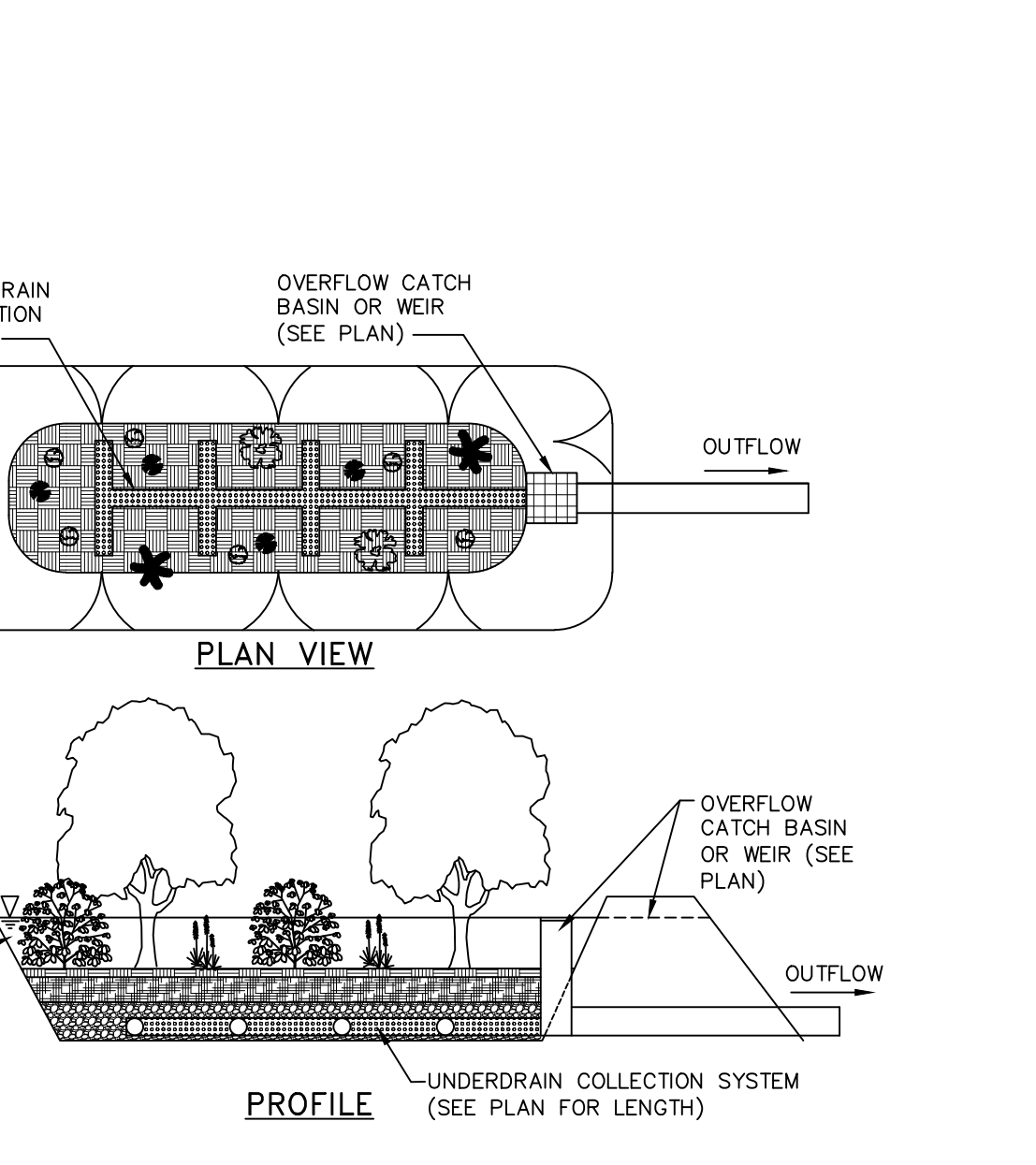
NOTES:
 1. PRECAST CONCRETE MANHOLE WITH CONCRETE STRENGTH OF 4000 PSI @ 28 DAYS.
 2. THE ENDS OF ALL PIPES SHALL BE CUT OFF FLUSH WITH THE INSIDE SURFACE OF THE MANHOLE AND PARGED AROUND.
 3. PIPES SHALL BE PARGED AROUND INTERIOR AND EXTERIOR PRIOR TO BACKFILLING OF STRUCTURE.
 4. CONCRETE STRUCTURE AND CASTING SHALL BE RATED FOR 100 TRAFFIC LOADING.
 5. INLET FRAME SHALL BE FULLY SUPPORTED ON THE CONCRETE STRUCTURE FOR 100 TRAFFIC LOADING.
 6. MANHOLES WITH AN INTERIOR DEPTH OF 4" AND GREATER SHALL BE FURNISHED WITH STEEL REINFORCED POLYPROPYLENE PLASTIC STEPS AT 12" INTERVALS.

STORMWATER MANHOLE DETAIL
NOT TO SCALE



NOTES:
 1. NO RUNOFF IS TO ENTER THE BIORETENTION AREA UNTIL ALL CONTRIBUTING DRAINAGE AREAS HAVE BEEN STABILIZED.
 2. LANDSCAPING TO BE PROVIDED BY THE PROJECT LANDSCAPE ARCHITECT AND AS FOLLOWS:
 • NATIVE PLANT SPECIES SHOULD BE SPECIFIED BASED ON SPECIFIED ZONE OF HYBRIC TOLERANCE
 • SELECTION OF TREES WITH AN UNDERSTORY OF SHRUBS AND HERBACEOUS MATERIALS SHOULD BE PROVIDED.
 • WOODY VEGETATION SHOULD NOT BE SPECIFIED AT INFLOW LOCATIONS.
 • TREES SHOULD BE PLANTED PRIMARILY ALONG THE PERIMETER OF THE FACILITY.
 • A TREE DENSITY OF 1 TREE PER 100 SQUARE FEET IS RECOMMENDED, AND SHRUBS/HERBACEOUS VEGETATION SHOULD GENERALLY BE PLANTED AT HIGHER DENSITIES (FIVE FEET ON CENTER AND 2.5 FEET ON CENTER, RESPECTIVELY).
 3. SEE PLAN FOR PRE-TREATMENT.

TYPICAL BIORETENTION DETAIL
NOT TO SCALE



NOTES:
 1. RIP RAP OUTLET PROTECTION SHALL BE 15" OF LIGHT STONE FILLING. STONE FILLING SIZE 650-8". RIVER ROCK MAY BE SUBSTITUTED FOR ANGULAR STONE.

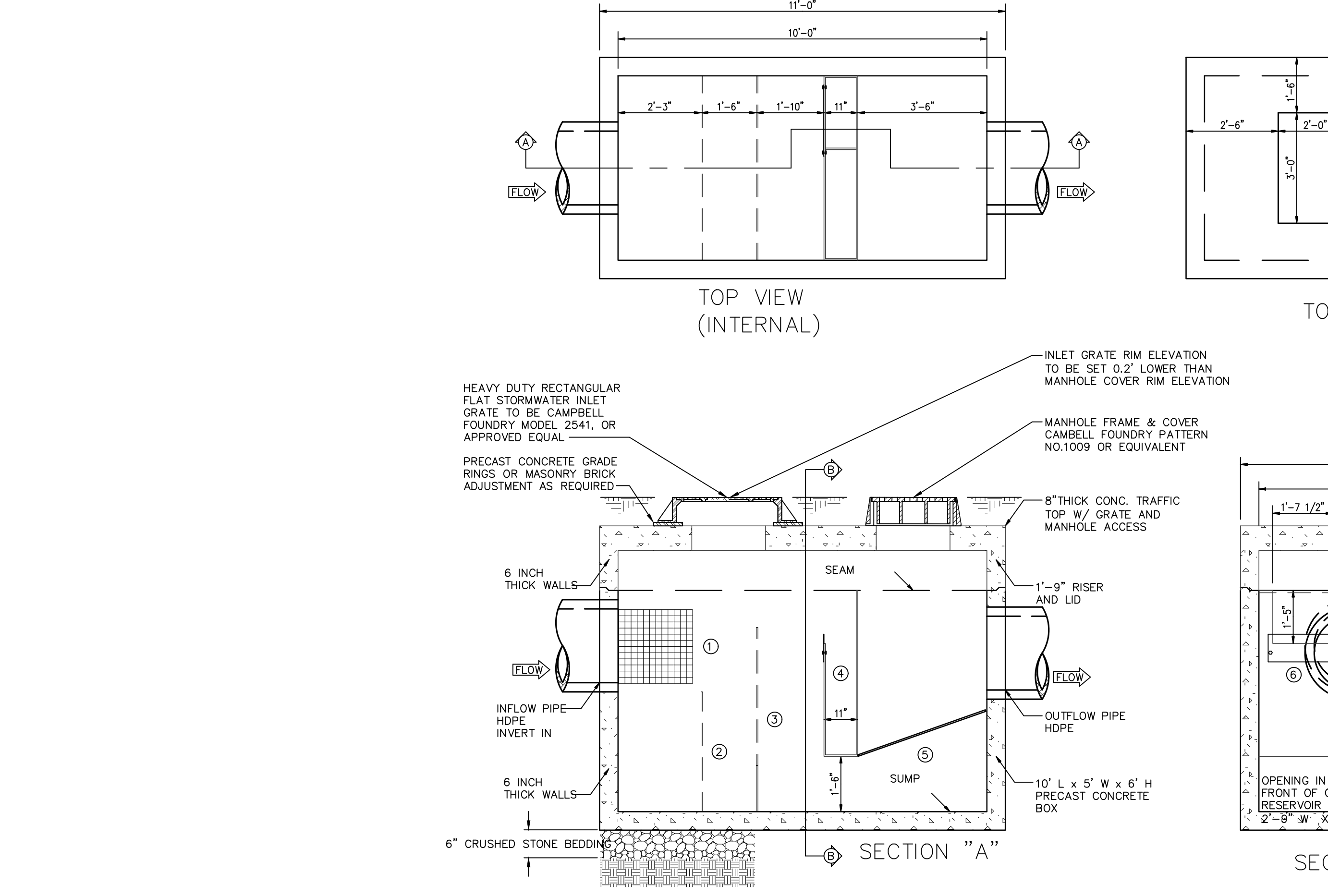
EMERGENCY OVERFLOW WEIR DETAIL
NOT TO SCALE

EMERGENCY OVERFLOW WEIR TABLE

SWM ID	OVERFLOW WEIR ELEVATION (FT)	DIMENSION A (FT)	DIMENSION B (FT)	DIMENSION D (IN)
BIORETENTION AREA 1	99.0	15	3	12
BIORETENTION AREA 2	68.8	15	3	12
INFILTRATION BASIN 2	62.0	15	3	12

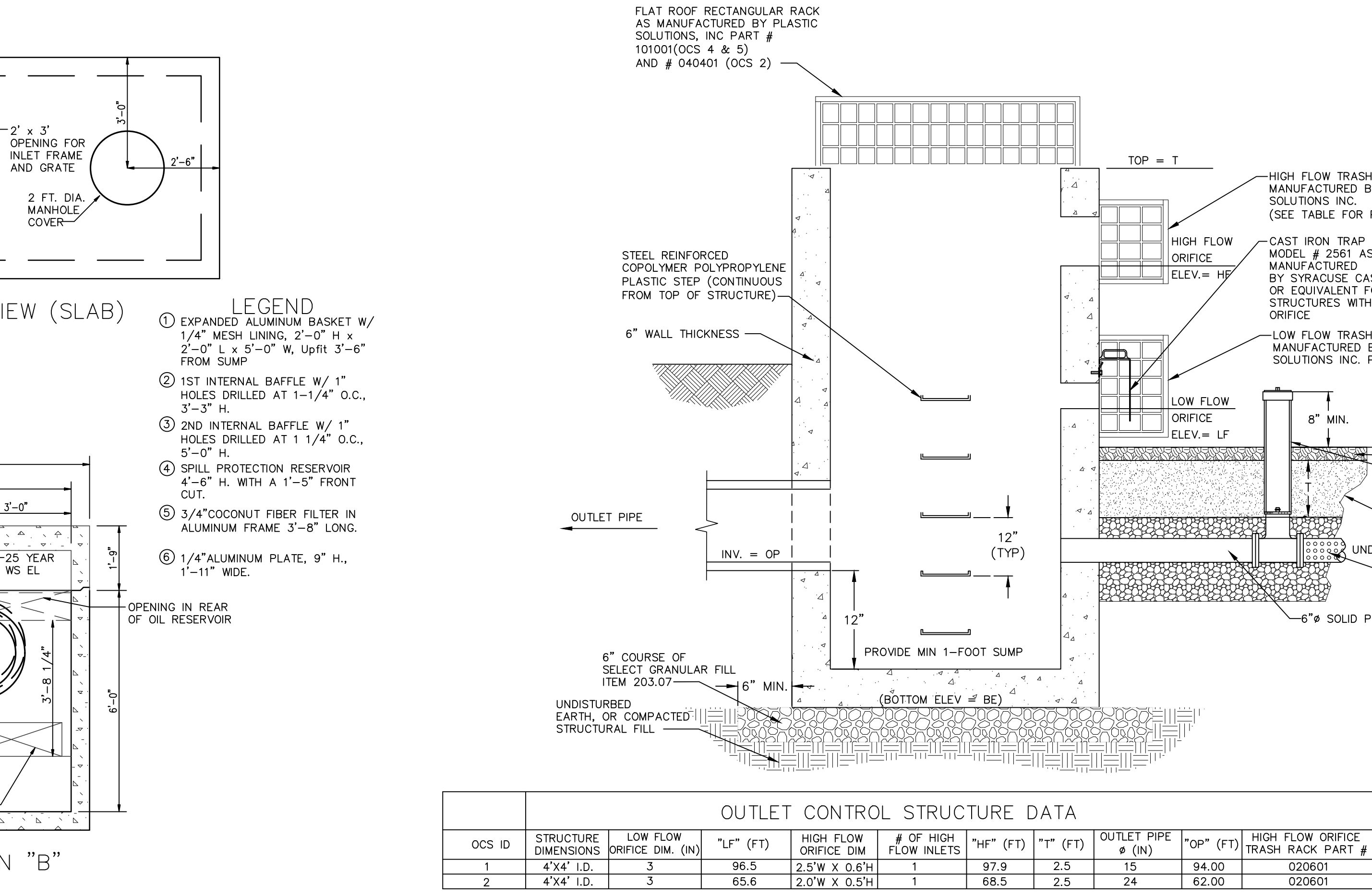
NOTES:
 1. RIP RAP OUTLET PROTECTION SHALL BE 15" OF LIGHT STONE FILLING. STONE FILLING SIZE 650-8". RIVER ROCK MAY BE SUBSTITUTED FOR ANGULAR STONE.

EMERGENCY OVERFLOW WEIR DETAIL
NOT TO SCALE



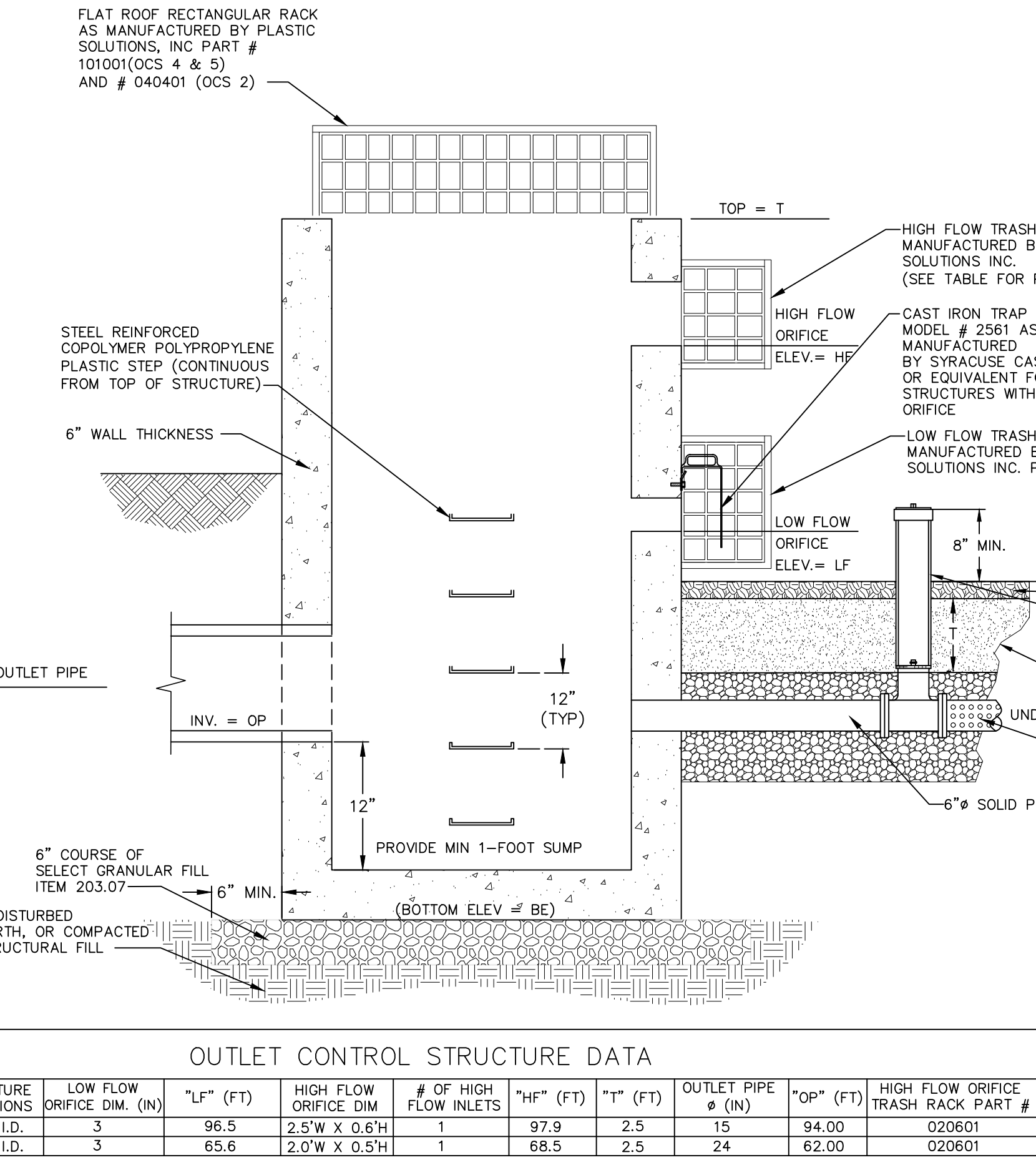
NOTES:
 1. WATER QUALITY INLET SHOWN IS "CRYSTAL CLEAN" MODEL # 1056 BY CRYSTAL STREAM TECHNOLOGIES, INC. OF LAWRENCEVILLE, GA. 1-800-648-6945.
 2. ALL PIPES SHALL BE CONSTRUCTED TO BE FLUSH WITH THE INSIDE WALLS.
 3. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL PIPES AND STRUCTURES BETWEEN AND AROUND THE WATER QUALITY VAULTS.
 4. ALL VAULT LIFTING CONNECTIONS SHALL BE LOCATED ON THE OUTSIDE OF THE VAULT WALLS.
 5. CONCRETE VAULT PRE-CASTER IS RESPONSIBLE FOR THE STRUCTURAL INTEGRITY OF THE CONCRETE VAULTS. WALL AND SLAB THICKNESSES SHALL BE ALTERED ACCORDINGLY.

WQJ DETAIL
NOT TO SCALE



NOTES:
 1. ALL TRASH RACKS SHALL HAVE UV PROTECTION MEETING OR EXCEEDING THE REQUIREMENTS OF ASTM D2565-99.
 2. TRASH RACKS SHALL BE SECURED PER THE MANUFACTURER'S RECOMMENDATIONS.
 3. WHERE HIGH FLOW ORIFICE EXTENDS TO TOP OF STRUCTURE, THE MAXIMUM ALLOWABLE GAP BETWEEN THE TRASH RACKS SHALL BE 4".

BIORETENTION OUTLET CONTROL STRUCTURE DETAIL
NOT TO SCALE



NOTES:
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 2. TRASH RACKS SHALL BE SECURED PER THE MANUFACTURER'S RECOMMENDATIONS.
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OUTLET CONTROL STRUCTURE DATA

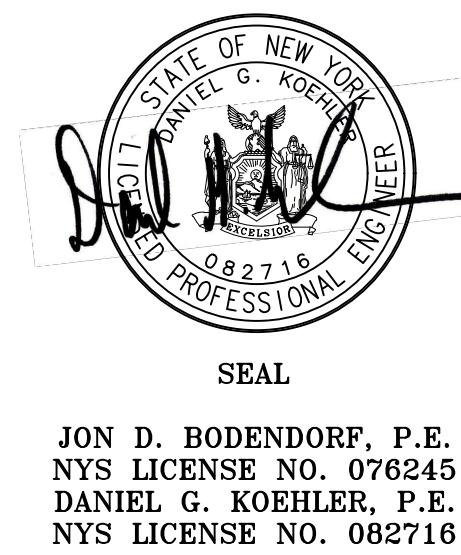
OCS ID	STRUCTURE DIMENSIONS (IN)	LOW FLOW ORIFICE DIM (IN)	*LF* (FT)	HIGH FLOW ORIFICE DIM (IN)	# OF HIGH FLOW INLETS	*HF* (FT)	*TF* (FT)	OUTLET PIPE # (IN)	*OP* (FT)	HIGH FLOW ORIFICE TRASH RACK PART #
1	4'x4' LD	3	96.5	2.5' W X 0.6' H	1	97.9	2.5	15	84.00	020601
2	4'x4' LD	3	65.6	2.0' W X 0.5' H	1	68.5	2.5	24	62.00	020601

RECOMMENDED FOR APPROVAL:
 MAYOR OF THE CITY OF BEACON _____ DATE _____
 APPROVED BY RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BEACON _____
 ON THE _____ DAY OF _____ 20____

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE _____ DAY OF _____ 20____ SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION; ANY CHANGE, ERRASURE, MODIFICATION OR REVISION OF THIS PLAN, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____ 20____ BY _____ CHAIRMAN _____ SECRETARY _____

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.



REVISIONS:

NO.	DATE	DESCRIPTION	BY
1	2/28/17	PER PLANNING BOARD COMMENTS	CMB
2	3/28/17	PER PLANNING BOARD COMMENTS	MAB
3	4/25/17	NO CHANGE THIS SHEET	MAB
4	5/30/17	PER PLANNING BOARD COMMENTS	MAB
5	7/25/17	PER PLANNING BOARD COMMENTS	MAB