

LEGEND

EXISTING PROPERTY LINE	—————
EXISTING 5' CONTOUR LINE	—————
EXISTING 25' CONTOUR LINE	—————
BUILDING SETBACK LINE	—————
EXISTING EDGE OF PAVEMENT	—————

LARK SUBDIVISION
 VILLAGE OF BLOOMING GROVE, ORANGE COUNTY, NEW YORK
 PROJECT TITLE

EXISTING CONDITIONS MAP
 DRAWING TITLE

KIRK ROTHER, P.E.
 CONSULTING ENGINEER, PLLC
 5 Saint Stephens Lane, Warwick, NY 10990
 (845) 988-0620

DATE	REVISIONS	DATE
08-22-25	INITIAL PREPARATION	

D.O.T. SHEET #	D.E.C. SHEET #	O.C.H.D. SHEET #	SHEET #
N.A.	N.A.	N.A.	2 OF 8
CAD #	PROJECT #	SCALE	
SP1	LARK SKETCH	AS SHOWN	

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2V : 1H ROCK CUT
HOUSES IN THIS SECTION TO BE PHASE 2

2V : 1H ROCK CUT
HOUSES IN THIS SECTION TO BE PHASE 2

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HOUSES IN THIS SECTION TO BE PHASE 2

CONCEPTUAL
STORMWATER
MANAGEMENT
CHAMBERS

ROAD C

ROAD D

ROAD C

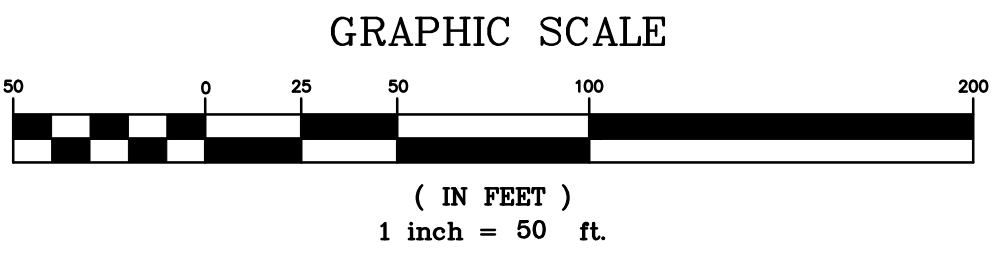
PROPOSED
SHUL
BUILDING

CONCEPTUAL
STORMWATER
MANAGEMENT
POND

TANAGER ROAD

LEGEND

EXISTING PROPERTY LINE	---
EXISTING 5' CONTOUR LINE	-----
EXISTING 25' CONTOUR LINE	-----
EXISTING 2' CONTOUR LINE	-----
PROPOSED 10' CONTOUR LINE	-----
BUILDING SETBACK LINE	-----
EXISTING EDGE OF PAVEMENT	-----
PROPOSED EDGE OF PAVEMENT	-----



DATE	REVISIONS
09-18-25	ADD CONCEPTUAL STORMWATER CONTROL
08-22-25	INITIAL PREPARATION

**LARK
SUBDIVISION**

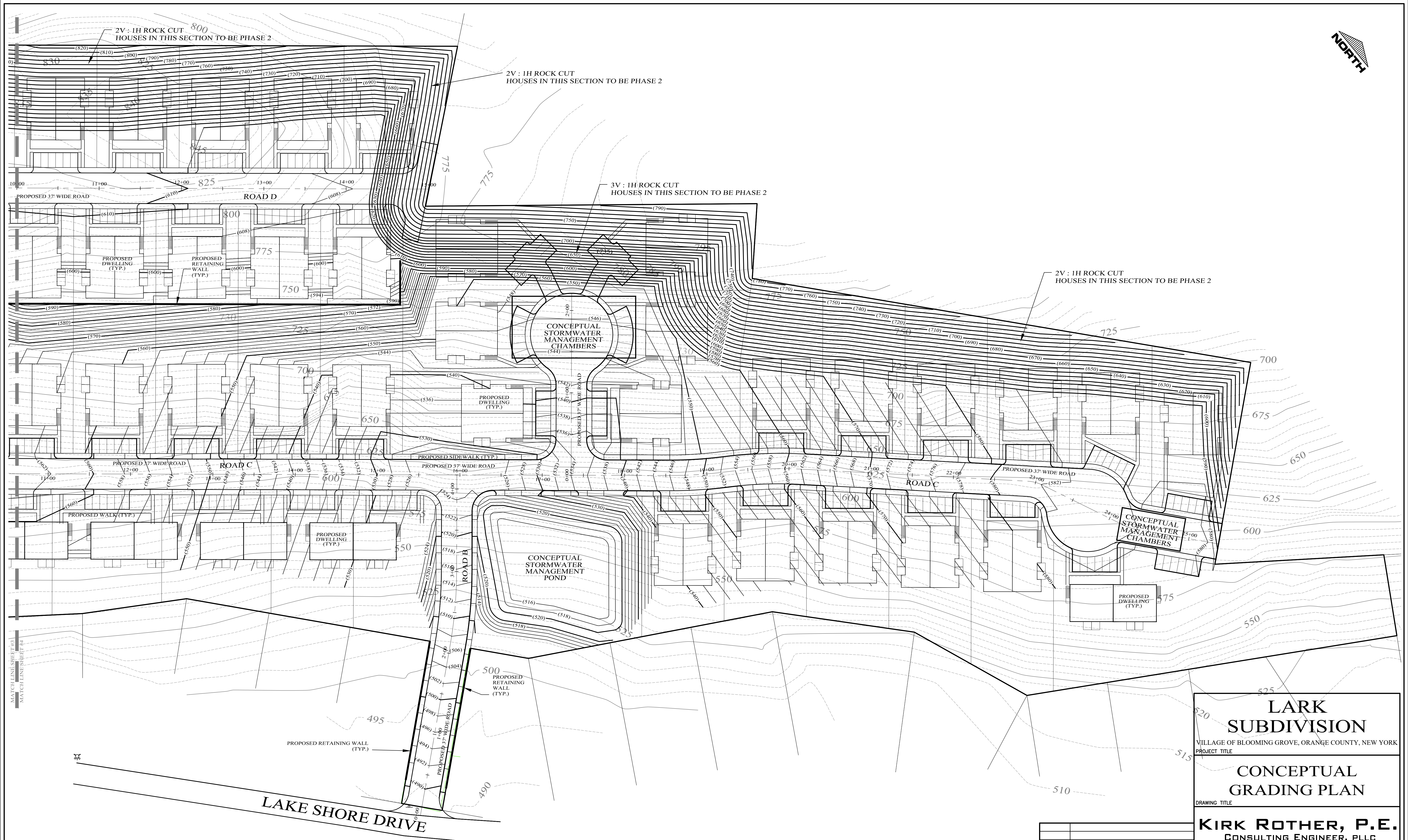
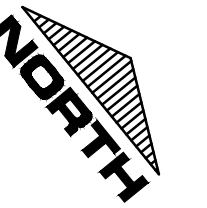
VILLAGE OF BLOOMING GROVE, ORANGE COUNTY, NEW YORK
PROJECT TITLE

**CONCEPTUAL
GRADING PLAN**

DRAWING TITLE

KIRK ROTHER, P.E.
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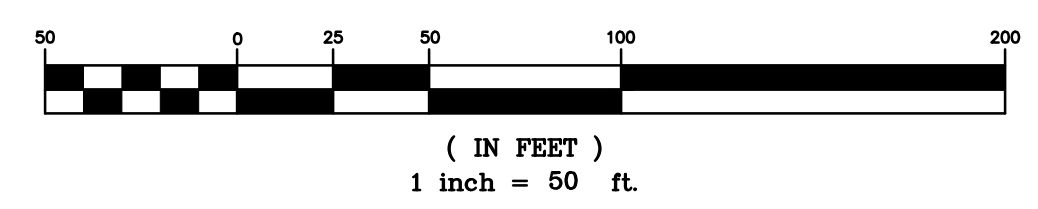


MATCH LINE SHEET #3
MATCH LINE SHEET #4

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EXISTING 5' CONTOUR LINE	---
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PROPOSED 2' CONTOUR LINE	---
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EXISTING EDGE OF PAVEMENT	---
PROPOSED EDGE OF PAVEMENT	---

GRAPHIC SCALE



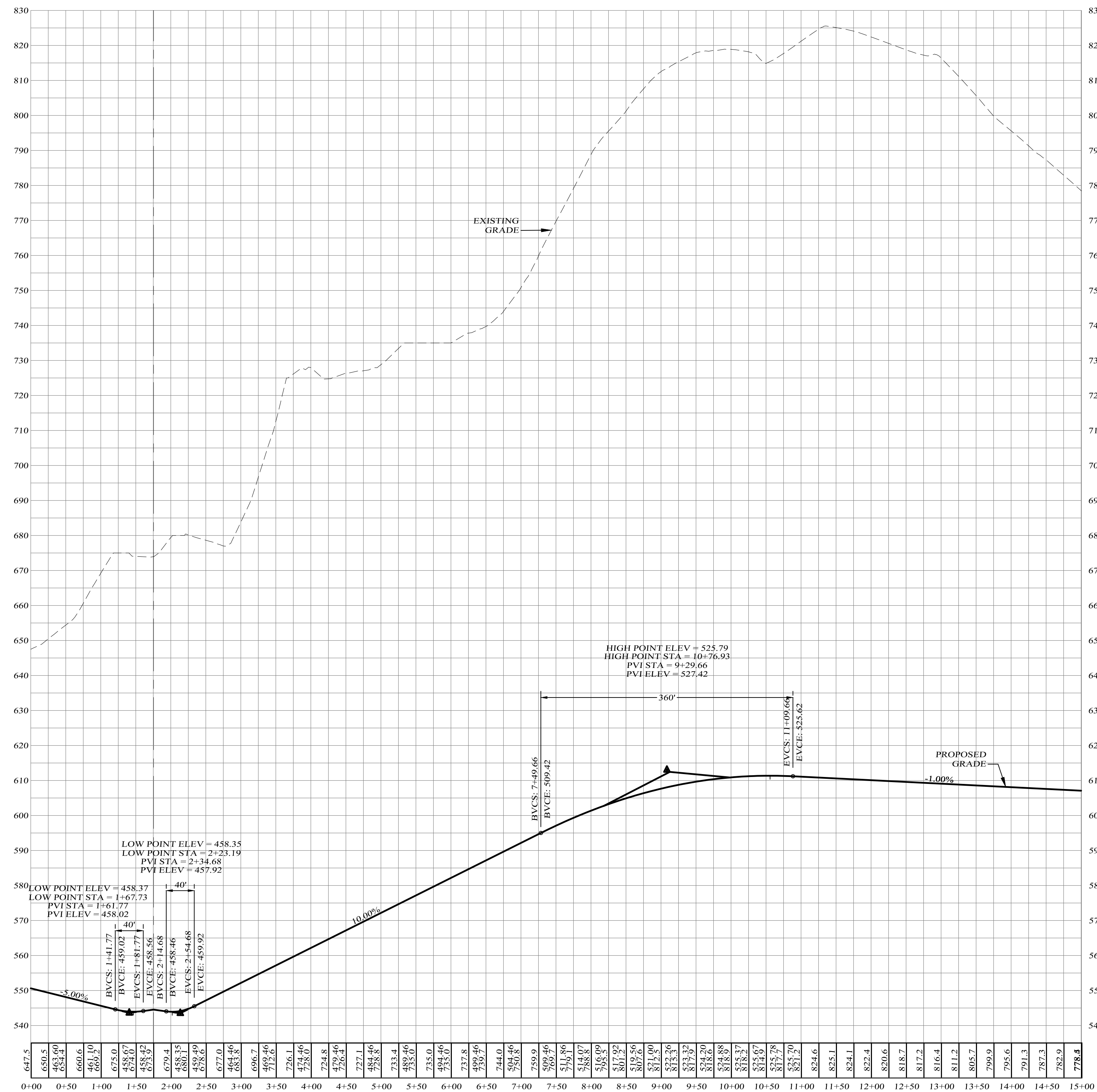
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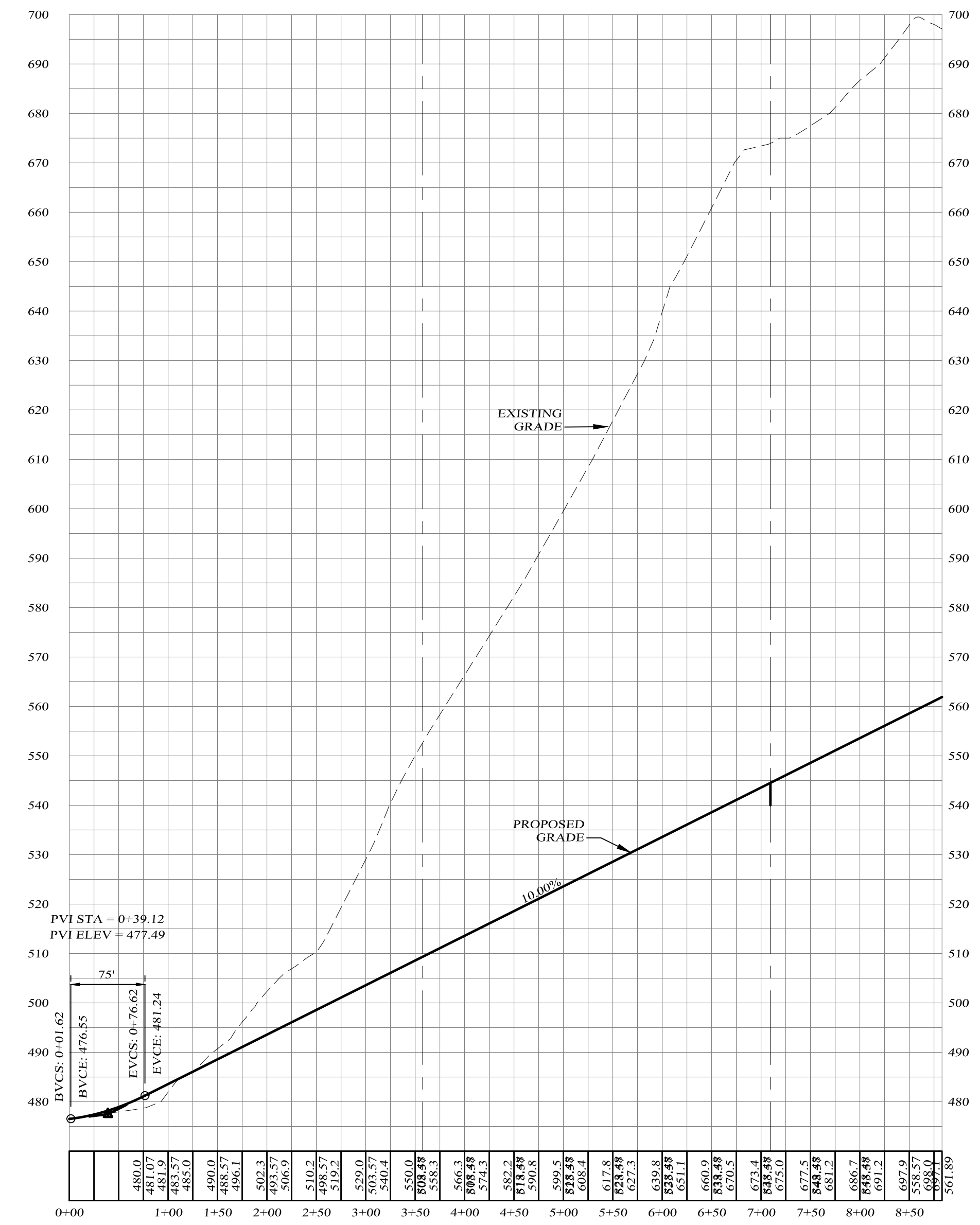
DATE	REVISIONS	KIRK ROTHER, P.E.	N.Y.S. LIC. NO. 079053
09-18-25	ADD CONCEPTUAL STORMWATER CONTROL	D.O.T. SHEET #	D.E.C. SHEET #
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			N.A.
			SHEET #
			4 OF 8



ROAD D PROFILE

SCALES:
HOR: 1" = 100'
VER: 1" = 20'



ROAD A PROFILE

SCALES:
HOR: 1" = 100'
VER: 1" = 20'

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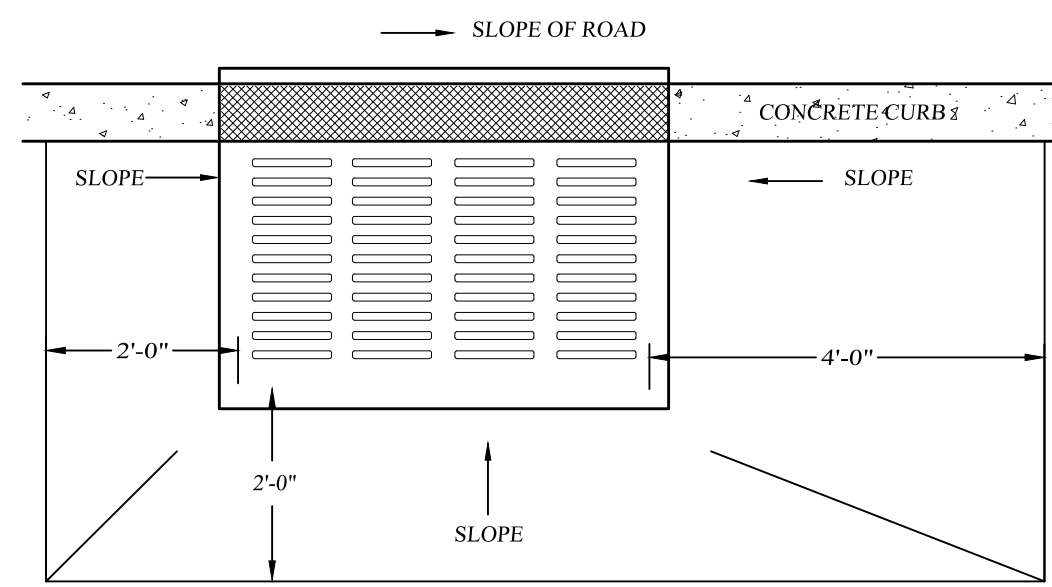
CONCEPTUAL ROAD PROFILES
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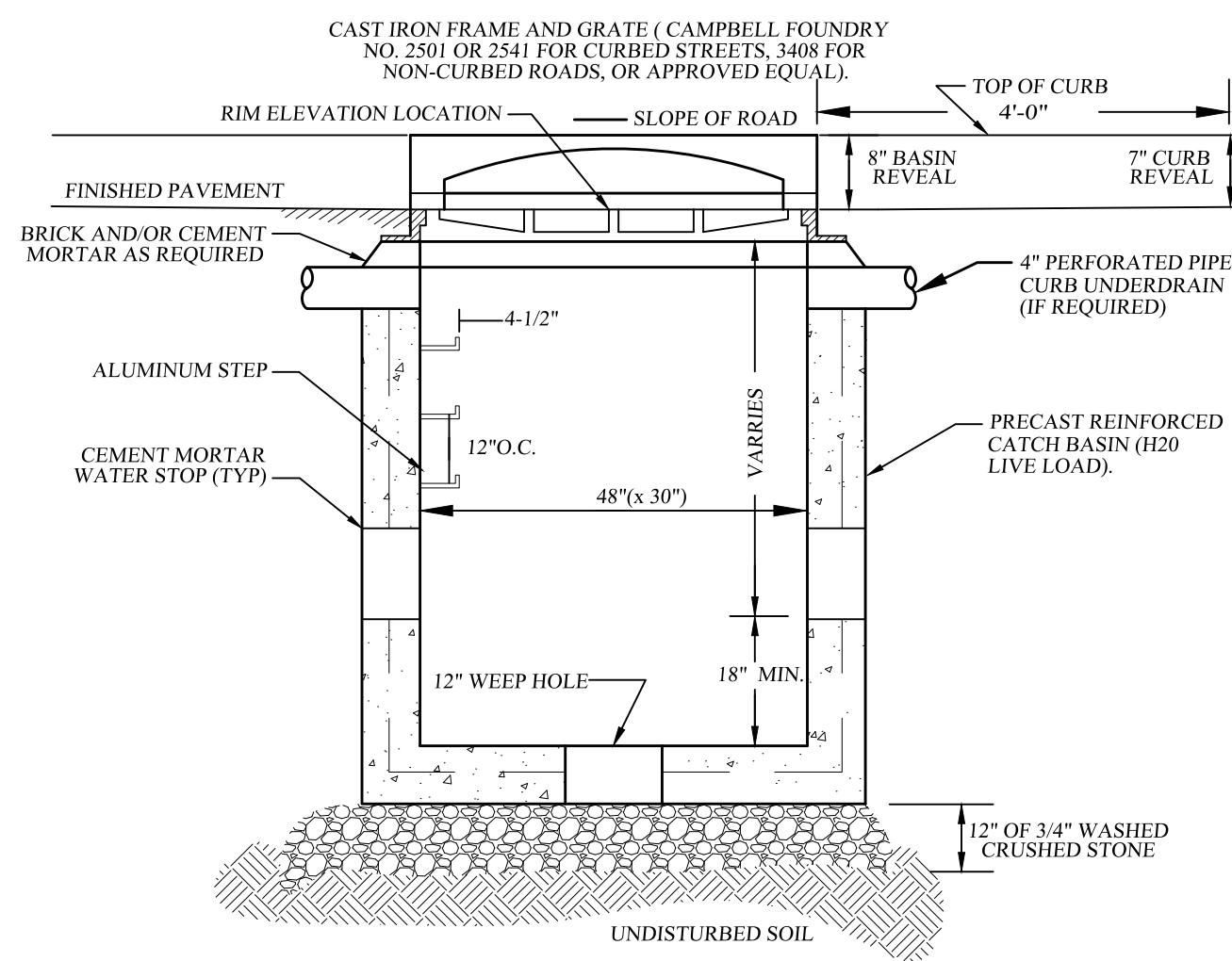
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PLAN

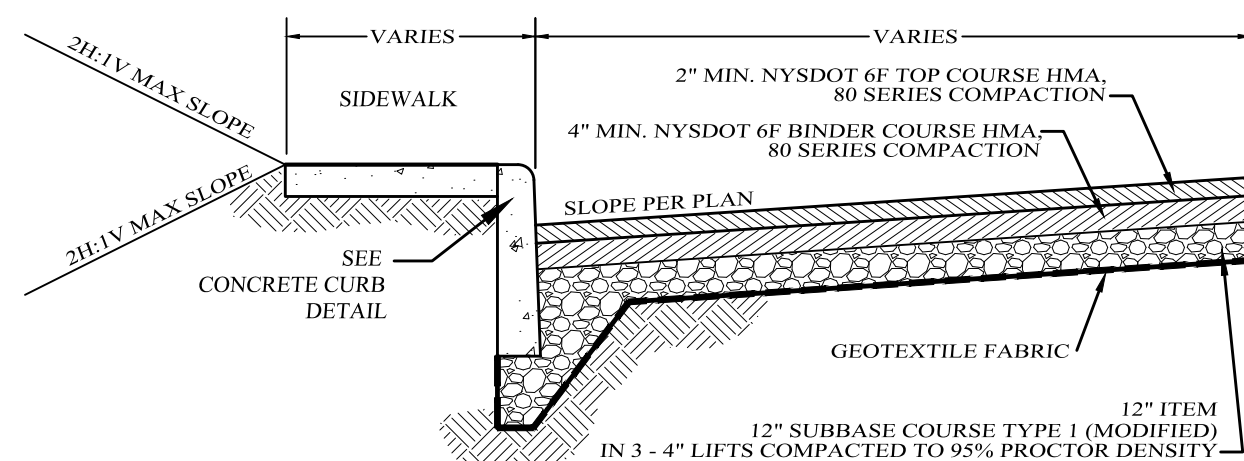


FRONT ELEVATION

- NOTES:
1. BACKFILL AROUND CATCH BASIN TO BE COMPACTED IN MAX. 8" LIFTS.
 2. THE ENDS OF ALL PIPES SHALL BE CUT OFF FLUSH WITH THE INSIDE SURFACE OF CATCH BASIN AND ADEQUATELY MORTARED.
 3. PRECAST CONCRETE TO BE 4000 PSI @ 28 DAYS

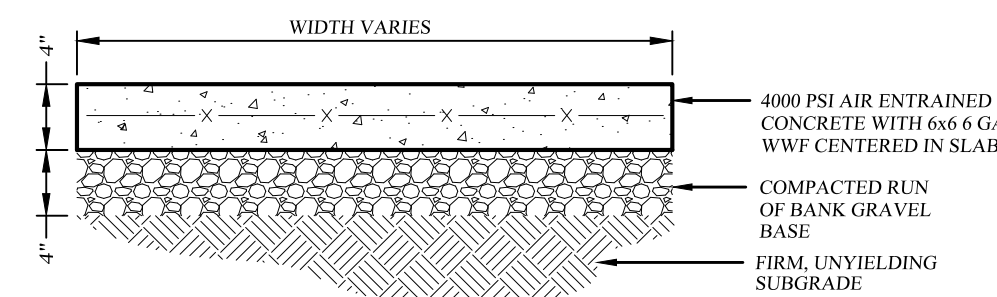
PRECAST CONCRETE CURB INLET DETAIL

NOT TO SCALE



TYPICAL VILLAGE ROAD SECTION

NOT TO SCALE

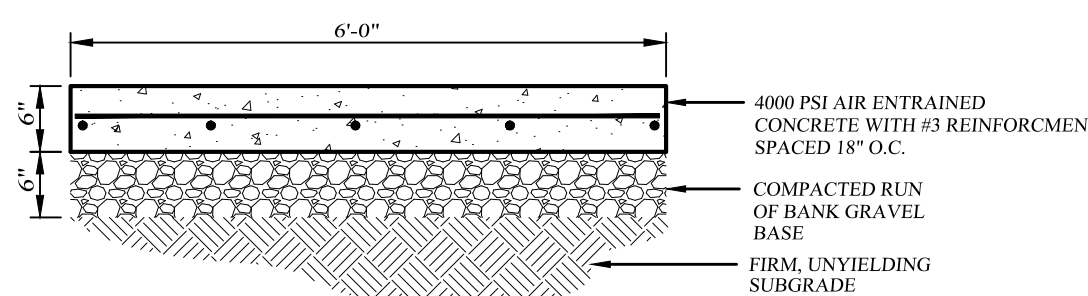


NOTES:

1. SIDEWALKS SHALL BE CAST IN PLACE CONCRETE WITH 1" DEEP JOINTS INSTALLED AT SPACING EQUAL TO THE SIDEWALK WIDTH.
2. CELLULOSE, OR EQUIVALENT, EXPANSION JOINTS SHALL BE INSTALLED 20 FOOT ON CENTER. IF THE SIDEWALK IS POURED AGAINST CONCRETE CURBS, BUILDINGS OR OTHER STRUCTURES, AN EXPANSION JOINT SHALL BE INSTALLED ALONG THE ENTIRE LENGTH OF CONTACT. SIDEWALKS SHALL SLOPE AWAY FROM BUILDINGS TO PROVIDE POSITIVE DRAINAGE AND CONFORM TO THE LATEST REVISION OF ALL APPLICABLE REGULATORY STANDARDS INCLUDING THE AMERICANS WITH DISABILITIES ACT.
3. MIX DESIGN SHALL BE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE GUIDELINES FOR CONCRETE EXPOSED TO FREEZING, THAWING AND DE-ICING CHEMICALS. CONCRETE SHALL HAVE A WATER - CEMENTITIOUS RATIO OF 0.45 AND AIR ENTRAINMENT OF 4 1/2% FOR A 1" NOMINAL AGGREGATE SIZE. CONCRETE TO TEST 4000 PSI AT 28 DAYS.
4. SIDEWALK SURFACE TO BE A BROOM FINISH WITH GROOVES RUNNING PERPENDICULAR TO THE LENGTH OF SIDEWALK.

CONCRETE SIDEWALK DETAIL

NOT TO SCALE

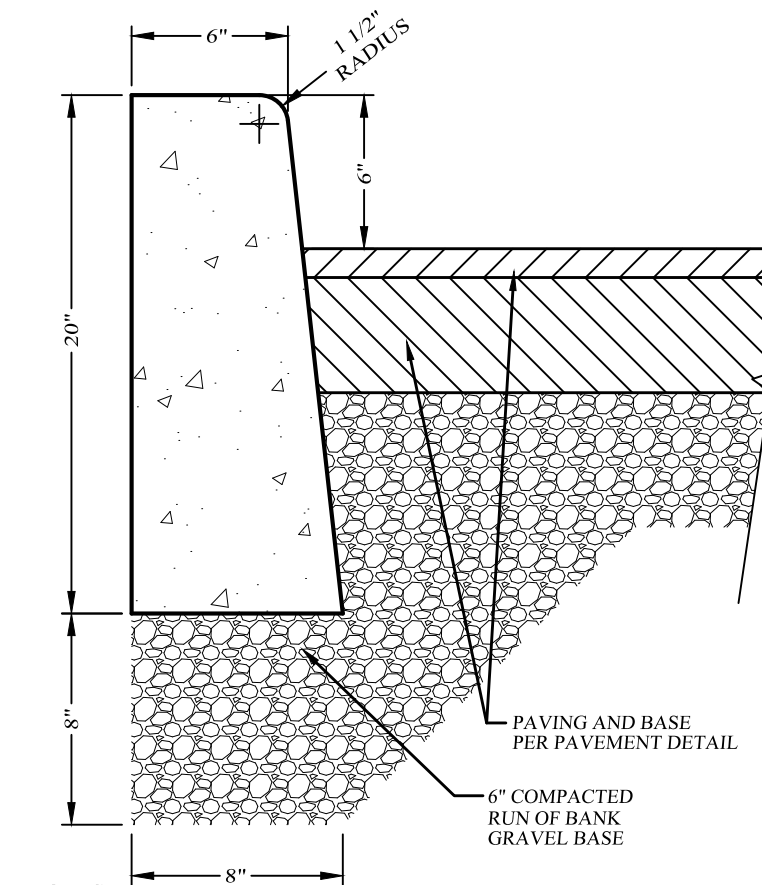


NOTES:

1. SIDEWALKS SHALL BE CAST IN PLACE CONCRETE WITH 1" DEEP JOINTS INSTALLED AT SPACING EQUAL TO THE SIDEWALK WIDTH.
2. CELLULOSE, OR EQUIVALENT, EXPANSION JOINTS SHALL BE INSTALLED 20 FOOT ON CENTER. IF THE SIDEWALK IS POURED AGAINST CONCRETE CURBS, BUILDINGS OR OTHER STRUCTURES, AN EXPANSION JOINT SHALL BE INSTALLED ALONG THE ENTIRE LENGTH OF CONTACT. SIDEWALKS SHALL SLOPE AWAY FROM BUILDINGS TO PROVIDE POSITIVE DRAINAGE AND CONFORM TO THE LATEST REVISION OF ALL APPLICABLE REGULATORY STANDARDS INCLUDING THE AMERICANS WITH DISABILITIES ACT.
3. MIX DESIGN SHALL BE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE GUIDELINES FOR CONCRETE EXPOSED TO FREEZING, THAWING AND DE-ICING CHEMICALS. CONCRETE SHALL HAVE A WATER - CEMENTITIOUS RATIO OF 0.45 AND AIR ENTRAINMENT OF 4 1/2% FOR A 1" NOMINAL AGGREGATE SIZE. CONCRETE TO TEST 4000 PSI AT 28 DAYS.
4. SIDEWALK SURFACE TO BE A BROOM FINISH WITH GROOVES RUNNING PERPENDICULAR TO THE LENGTH OF SIDEWALK.

CONCRETE SIDEWALK AT PARKING LOT ENTRANCE DETAIL

NOT TO SCALE

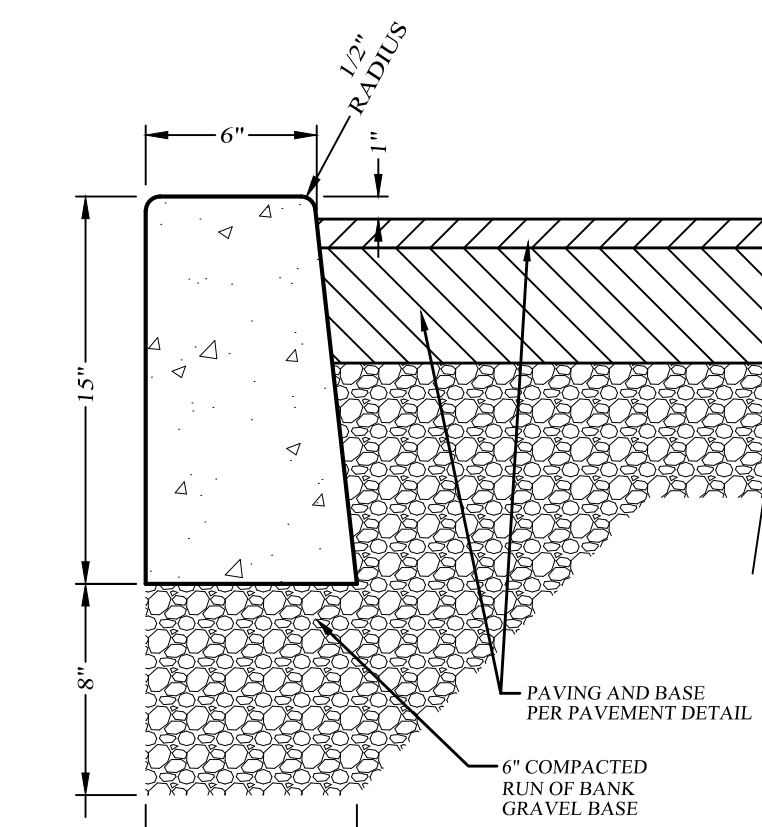


NOTES:

1. CURB SHALL BE CAST IN PLACE CONCRETE WITH CELLULOSE, OR EQUIVALENT, EXPANSION JOINTS INSTALLED AT TEN (10) FOOT INTERVALS.
2. MIX DESIGN SHALL BE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE GUIDELINES FOR CONCRETE EXPOSED TO FREEZING, THAWING AND DE-ICING CHEMICALS. CONCRETE SHALL HAVE A WATER - CEMENTITIOUS RATIO OF 0.45 AND AIR ENTRAINMENT OF 4 1/2% FOR A 1" NOMINAL AGGREGATE SIZE. CONCRETE TO TEST 4000 PSI AT 28 DAYS.

CONCRETE CURB DETAIL (WITHIN SITE)

NOT TO SCALE

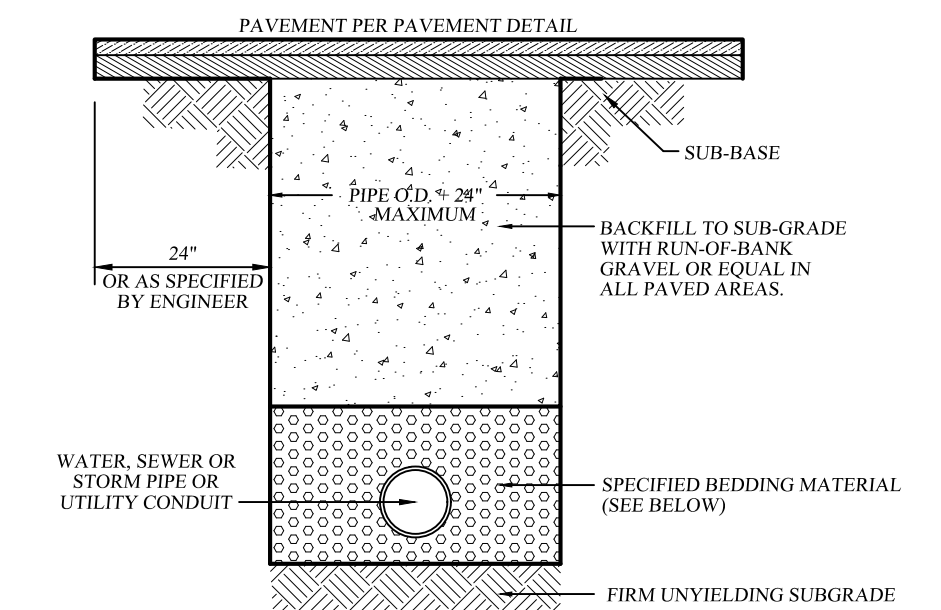


NOTES:

1. CURB SHALL BE CAST IN PLACE CONCRETE WITH CELLULOSE, OR EQUIVALENT, EXPANSION JOINTS INSTALLED AT TEN (10) FOOT INTERVALS.
2. MIX DESIGN SHALL BE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE GUIDELINES FOR CONCRETE EXPOSED TO FREEZING, THAWING AND DE-ICING CHEMICALS. CONCRETE SHALL HAVE A WATER - CEMENTITIOUS RATIO OF 0.45 AND AIR ENTRAINMENT OF 4 1/2% FOR A 1" NOMINAL AGGREGATE SIZE. CONCRETE TO TEST 4000 PSI AT 28 DAYS.

CONCRETE DROP CURB DETAIL

NOT TO SCALE



MATERIALS

- PIPE ZONE BEDDING MATERIAL:
1. WATER MAINS: SAND OR RUN-OF-BANK GRAVEL, AS APPROVED BY SOILS ENGINEER.
 1. WATER MAINS: ON-SITE MATERIAL FREE OF STONE, CLAY FOREIGN MATERIAL OR FROZEN EARTH AS APPROVED BY SOILS ENGINEER.

PIPE BEDDING AND BACKFILL DETAIL

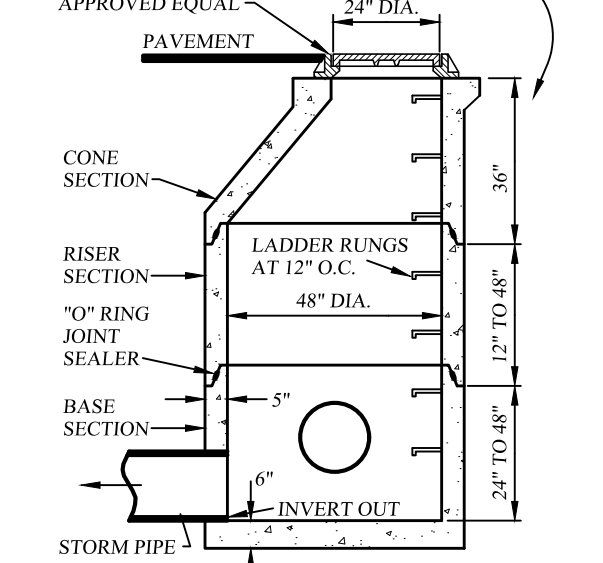
NOT TO SCALE

NATURAL SOIL OR A MAXIMUM OF 1' OF SAND IF NEEDED TO ACHIEVE PROPER ELEVATION.

PRECAST CONCRETE MANHOLE, MFG. BY MODERN CONCRETE SEPTIC TANK CO. OR APPROVED EQUAL.

WHEN NOT IN PAVED GRADE TO BE 8" MIN. ABOVE GRADE

MANHOLE FRAME & COVER BY CAMPBELL FOUNDRY PATTERN NO. 1207 OR APPROVED EQUAL.



ALL INSIDE CONCRETE SURFACES SHALL BE SEALED WITH TWO COATINGS OF A BITUMINOUS COATING TO MINIMIZE CORROSION.

STORM SEWER MANHOLE DETAIL

NOT TO SCALE

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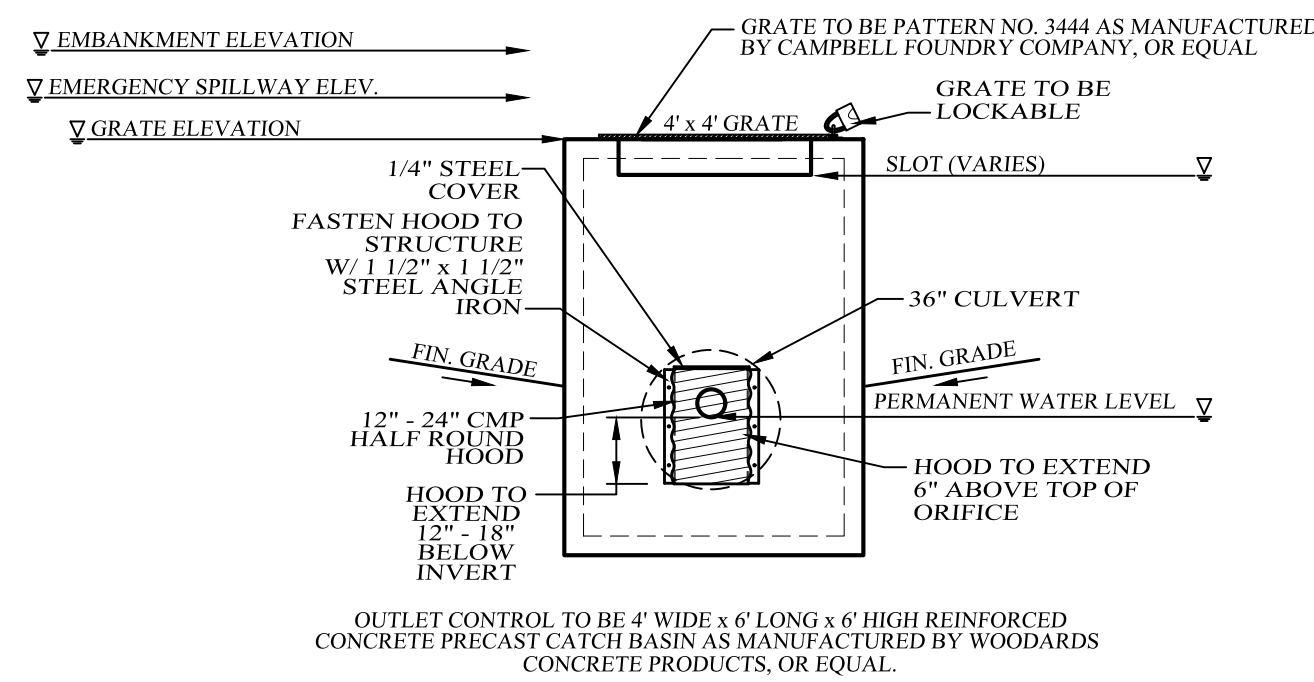
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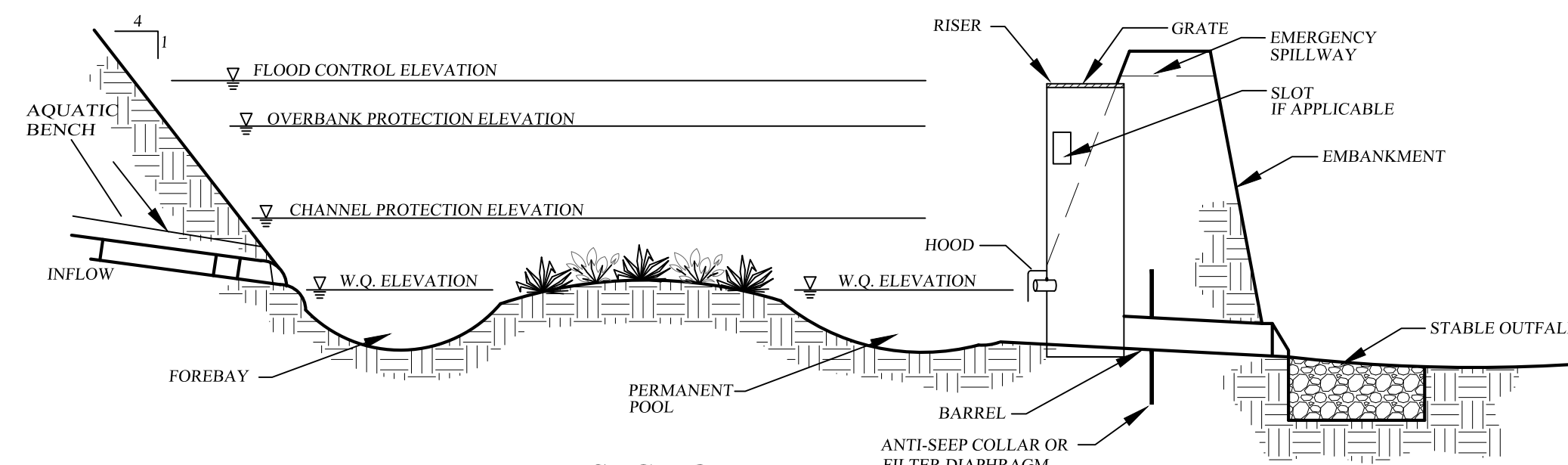
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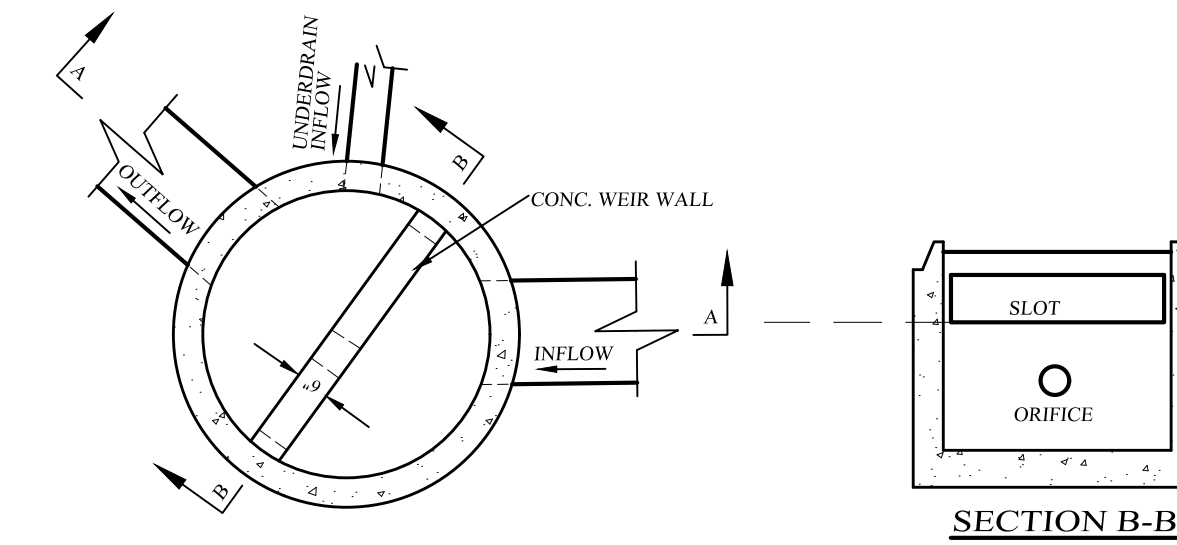
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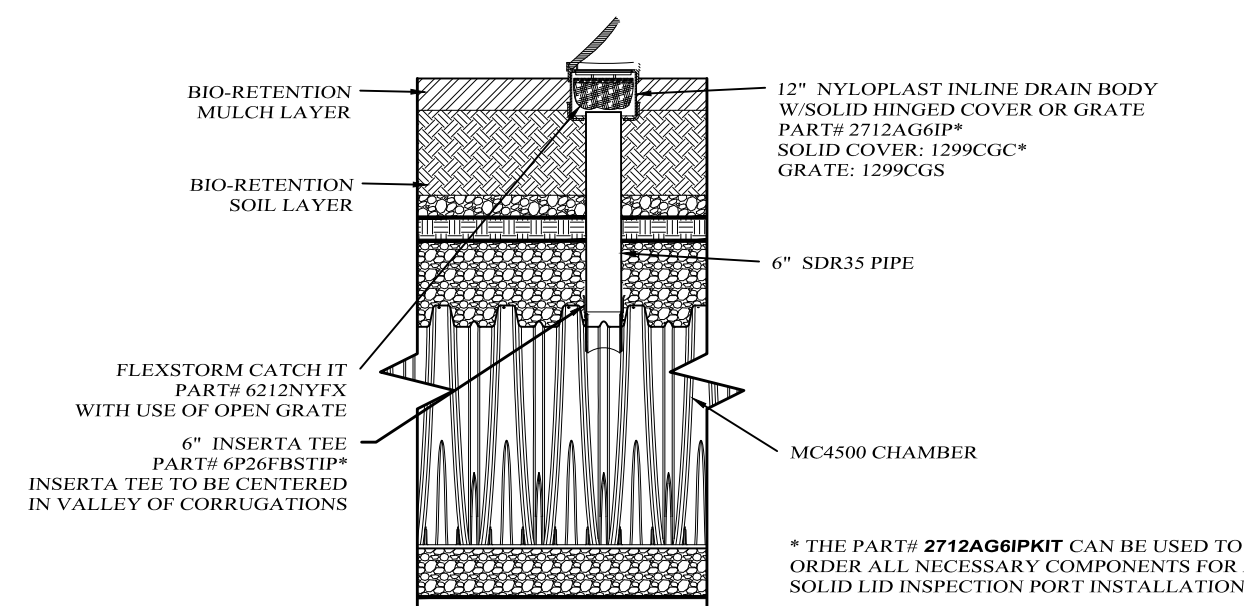
**POND 5B
OUTLET CONTROL DETAIL**
NOT TO SCALE



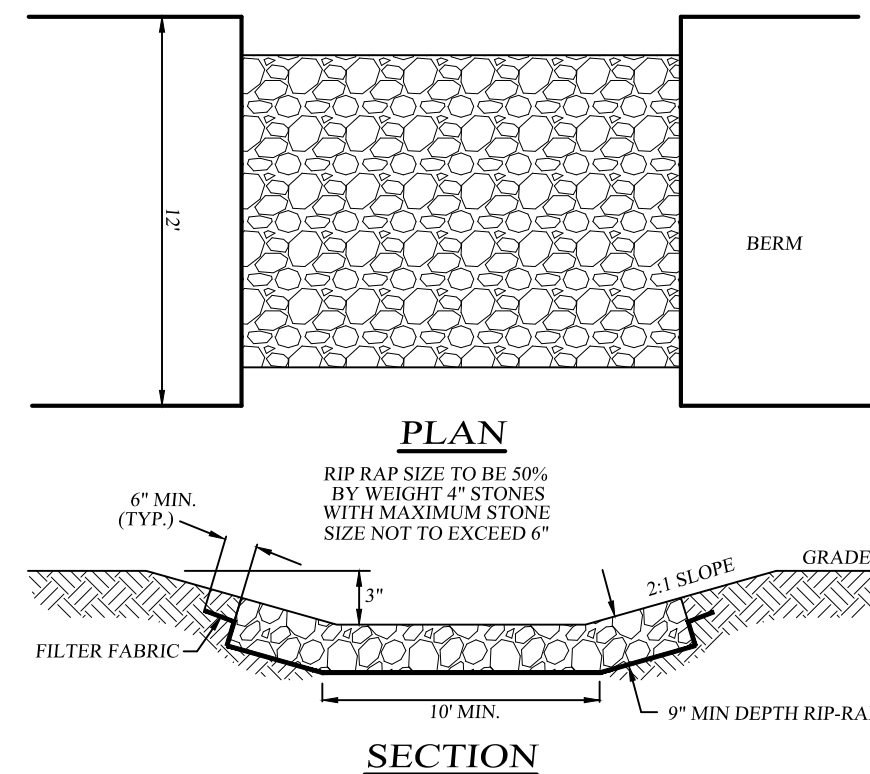
**SECTION
TYPICAL WATER QUALITY DETENTION POND
GENERAL DESIGN
SEE PLAN**
NOT TO SCALE



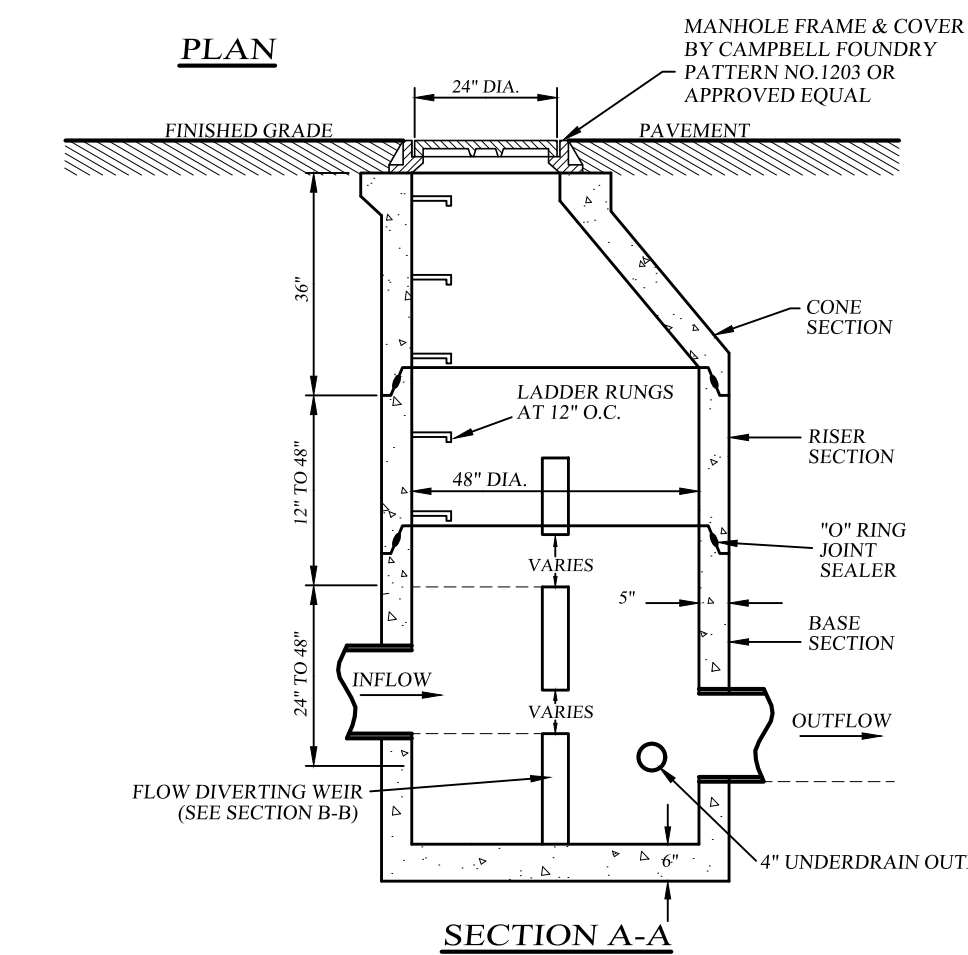
SECTION B-B



MC-4500 6" INSPECTION PORT DETAIL
NOT TO SCALE

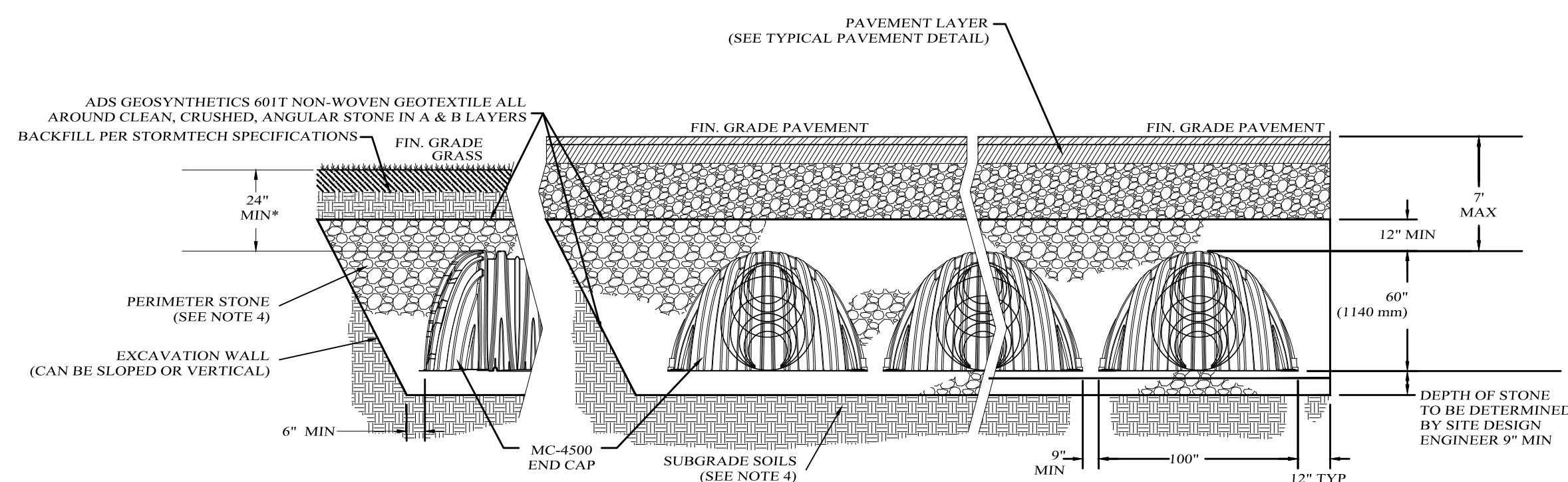


EMERGENCY SPILLWAY DETAIL
NOT TO SCALE



SECTION A-A

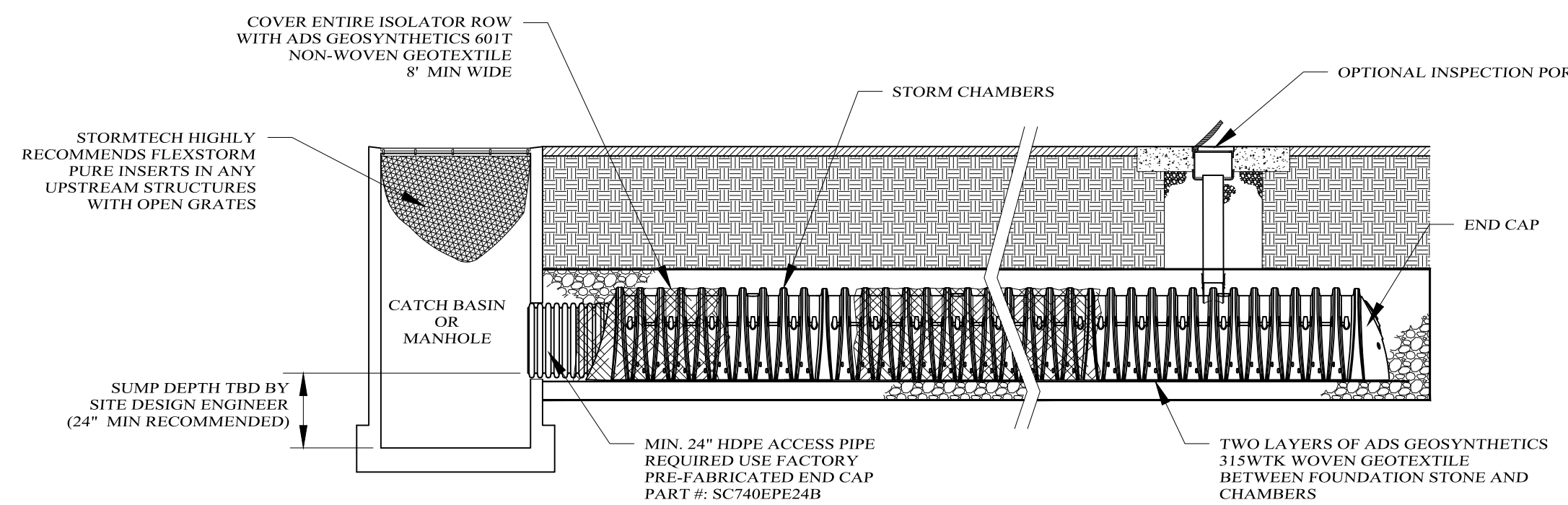
O.C.S. DRAINAGE MANHOLE 2F
NOT TO SCALE



STORMTECH MC-4500 CHAMBER SYSTEM
*FOR COVER DEPTHS GREATER THAN 7.0' PLEASE CONTACT STORMTECH
NOT TO SCALE

- NOTES:**
- REFER TO STORMTECH'S DESIGN MANUAL AND INSTALLATION MANUAL FOR DETAILED INSTALLATION INSTRUCTIONS AND FILL MATERIAL SPECIFICATIONS.
 - MC-4500 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
 - MC-4500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED W".
 - THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
 - PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
 - REQUIREMENTS FOR HANDLING AND INSTALLATION:
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, A) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/FT², AND B) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS



ISOLATOR ROW DETAIL
NOT TO SCALE

INSPECTION & MAINTENANCE

- STEP 1) INSPECT ISOLATOR ROW FOR SEDIMENT**
- INSPECTION PORTS (IF PRESENT)
 - REMOVE OPEN LID ON NYLOPLAST INLINE DRAIN
 - REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
 - USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
 - LOWER A CAMERA INTO ISOLATOR ROW FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
 - IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
 - ALL ISOLATOR ROWS
 - REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW
 - USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW THROUGH OUTLET PIPE
 - MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
 - FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
 - IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW USING THE JETVAC PROCESS**
- A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
 - APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
 - VACUUM STRUCTURE SUMP AS REQUIRED

- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.**
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.**

NOTES

- INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

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STORMWATER
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