

FOUR RIVERS SANITATION AUTHORITY

COLLECTION SYSTEMS ADMIN BUILDING SITE IMPROVEMENTS PH 2 CAPITAL PROJECT #2306

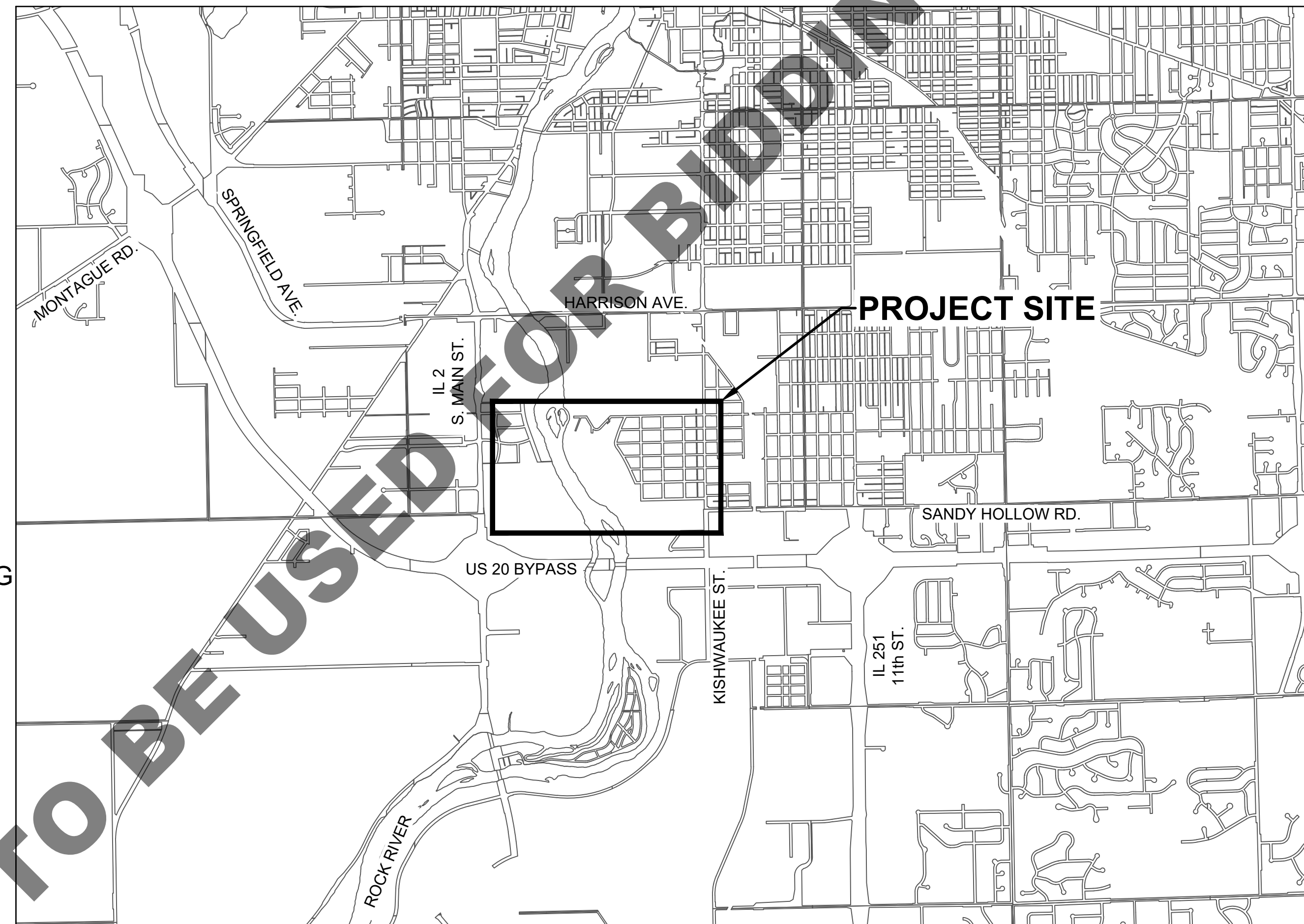
2023

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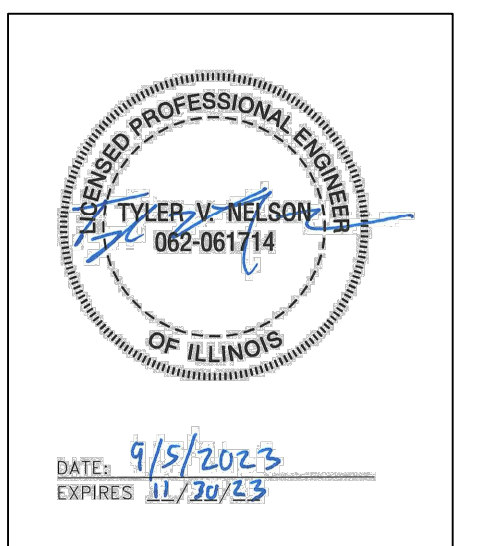
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EXPIRES NOVEMBER 30, 2024
Sean Marzano
Date: 9-6-2023

SEGMENTAL CONCRETE BLOCK
WALL AND COMPONENTS



DATE: 9/5/2023
EXPIRES 11/30/23

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LEGEND		
EXISTING	PROPOSED	
		RIGHT OF WAY LINE
		PROPERTY LINE
		BUILDING
		WATER EDGE
		EASEMENT - PERMANENT SANITARY
		EASEMENT - TEMPORARY CONSTRUCTION
		VEGETATION / TREE LINE
		TREE DRIPLINE
		CONTOUR - MAJOR
		CONTOUR - MINOR
		FENCE
		FENCE - TEMPORARY CONSTRUCTION
		FENCE - SILT (PERIMETER EROSION BARRIER)
		ROADWAY CENTERLINE
		EDGE OF PAVEMENT
		CURB & GUTTER
		GUARD RAIL
		RAILROAD TRACKS
		CABLE - OVERHEAD
		CABLE - UNDERGROUND
		ELECTRIC - OVERHEAD
		ELECTRIC - UNDERGROUND
		FIBER OPTIC
		GAS LINE
		TELEPHONE - OVERHEAD
		TELEPHONE - UNDERGROUND
		PEDESTALS (CATV, ELEC, TELE), GAS METER, ELEC METER
		ELECTRIC MANHOLE, HANDHOLE
		SOIL BORING
		BENCHMARK & CONTROL POINT
		MAILBOX
		UTILITY POLE W/ GUY WIRE & MAST ARM LIGHT POLE
		TREE (DECIDUOUS & CONIFEROUS)
		BUSH & SHRUB
		GROUND / LANDSCAPE LIGHT
		SPOT ELEVATION

LEGEND		
EXISTING	PROPOSED	
		SANITARY MANHOLE & SANITARY SEWER
		SANITARY SEWER SERVICE & CLEANOUT
		SANITARY FORCEMAIN
		TREATMENT PLANT PROCESS PIPING
		STORM SEWER
		STORM MANHOLE, CATCH BASIN, CURB & GUTTER INLET, CURB INLET SPECIAL
		DRAINAGE CULVERT, WITH END SECTION
		WATER MAIN
		WATER SERVICE & WATER SERVICE VALVE
		WATER MAIN VALVE
		WATER MAIN VALVE WITH BOX
		WATER MAIN VALVE WITH VAULT
		WATER MAIN REDUCER
		FIRE HYDRANT
		YARD HYDRANT
		WATER WELL
		SPRINKLER HEAD & SPRINKLER VALVE
		EXISTING SURFACE TYPE (HOT-MIX ASPHALT, AGGREGATE, CONCRETE, TURF)
		DITCH CHECK
		INLET OR PIPE PROTECTION

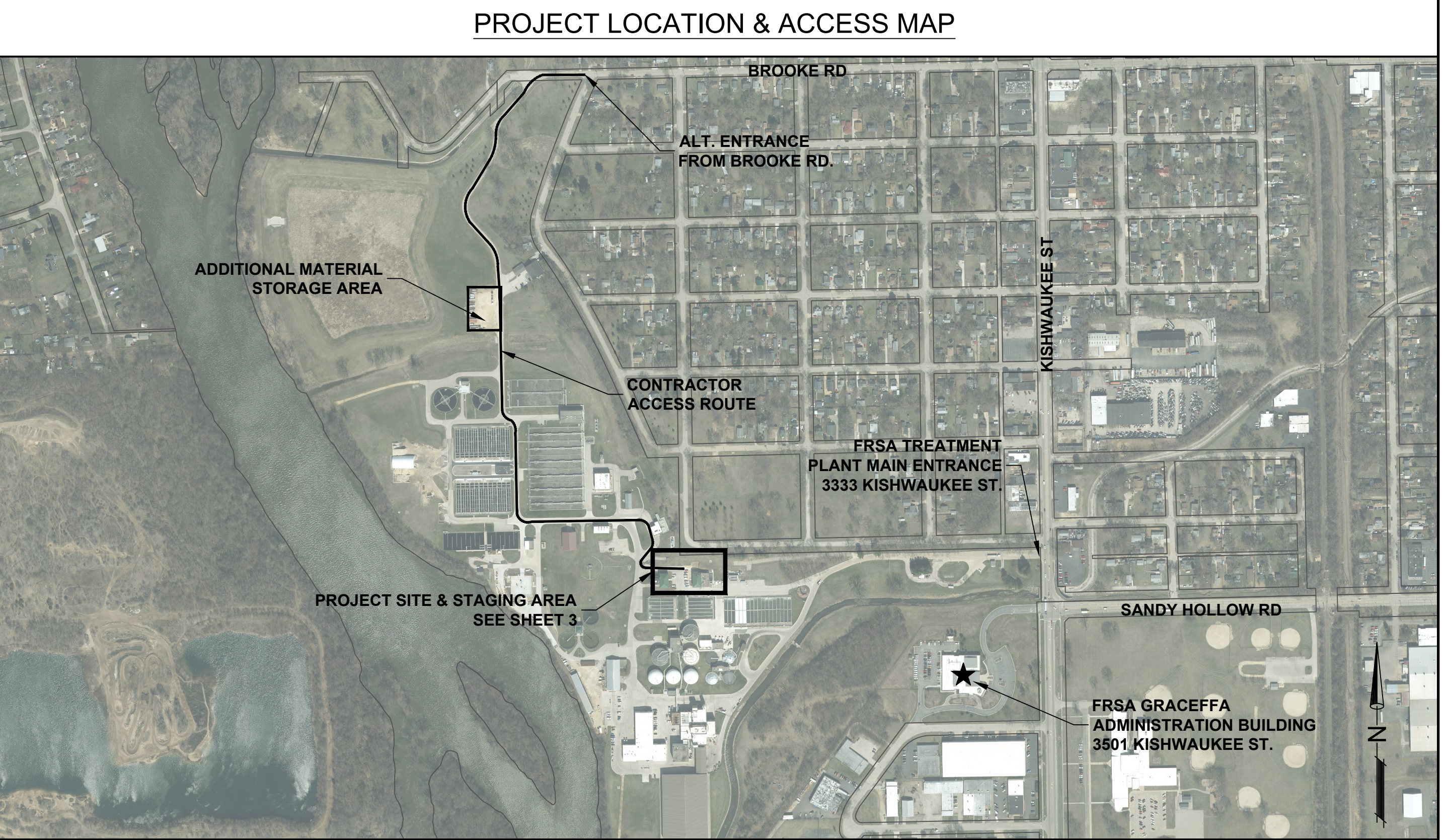
PROPOSED	
	EROSION CONTROL BLANKET
	HEAVY DUTY EROSION CONTROL BLANKET
	TEMPORARY EROSION CONTROL SEEDING
	SEEDING AREA, CLASS 1
	SEEDING AREA, CLASS 2, 3, OR 4
	LANDSCAPE

PROPOSED	
	STABILIZED CONSTRUCTION ENTRANCE
	RIP RAP
	PAVEMENT REPLACEMENT, PCC
	PAVEMENT REPLACEMENT, HMA
	DRIVEWAY REPLACEMENT
	AGGREGATE REPLACEMENT

ABBREVIATIONS	
ABD = ABANDON(ED)	LS = LUMP SUM
CMR = CORRUGATED METAL PIPE	MH = MANHOLE
CO = CLEAN OUT	PVMNT = PAVEMENT
CTRL = CONTROL	PRC = PRECAST REINFORCED CONCRETE
CY = CUBIC YARD(S)	PR = PROPOSED
DI = DUCTILE IRON	RCR = REINFORCED CONCRETE PIPE
EA = EACH	REM = REMOVE(D)
EL = ELEVATION	REPL = REPLACE(D)
EROS = EROSION	R/R = REMOVE & REPLACE
EX = EXISTING	SAN = SANITARY
FES = FLARED END SECTION	SVC = SERVICE
FM = FORCE MAIN	SY = SQUARE YARD(S)
FRSA = FOUR RIVERS SANITATION AUTHORITY	TY = TYPE
FT = FEET	UNK = UNKNOWN
INV = INVERT	VCP = VITRIFIED CLAY PIPE
LF = LINEAR FEET	WM = WATER MAIN
LINCIPP = LINED WITH CURED IN PLACE PIPE	

- ### GENERAL NOTES
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE EXECUTION OF WORK TO THE LINES AND GRADES SHOWN ON THE PLANS. CONSTRUCTION SHALL NOT VARY FROM THE PLANS WITHOUT PRIOR APPROVAL FROM THE FOUR RIVERS SANITATION AUTHORITY (FRSA).
 - THE PROJECT MANAGER ASSIGNED TO THIS PROJECT IS TYLER NELSON, (815-387-7651).
 - FOR UTILITY LOCATES WITHIN PLANT BOUNDARIES, THE CONTRACTOR SHALL CONTACT THE ASSISTANT DIRECTOR OF PLANT OPERATIONS, MICHAEL CHRISTENSEN AT 815-262-5858, 48 HOURS, MINIMUM, PRIOR TO START OF CONSTRUCTION, TO ARRANGE FOR THE LOCATION OF PLANT INFRASTRUCTURE.
 - FOR UTILITY LOCATES OUTSIDE OF PLANT BOUNDARIES, THE CONTRACTOR SHALL IDENTIFY ALL UTILITY LOCATIONS IN THE FIELD BY CONTACTING J.U.L.I.E. AT 811 OR 1-800-892-0123 AND ALL UTILITIES NOT ON THE J.U.L.I.E. NETWORK 48 HOURS, MINIMUM, PRIOR TO START OF CONSTRUCTION.
 - ALL UTILITY OUTAGES SHALL BE COORDINATED WITH THE PROJECT MANAGER AND THE PLANT OPERATIONS MAINTENANCE DIVISION MANAGER. PROVIDE A MINIMUM OF 72 HOURS ADVANCED NOTICE PRIOR TO ANY SERVICE INTERRUPTION. DURING THE ENTIRE PERIOD OF THE CONTRACT, PROVIDE RESTORATION OF ANY UNSCHEDULED SERVICE INTERRUPTION WITHIN 30 MINUTES DURING NORMAL WORKING HOURS, OR WITHIN 2 HOURS OUTSIDE OF NORMAL WORKING HOURS. THE FRSA RESERVES THE RIGHT TO REQUEST ADDITIONAL ADVANCED NOTICE AND/OR COORDINATION MEETINGS FOR MAJOR OUTAGES.
 - PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS AND SHALL IMMEDIATELY NOTIFY THE PROJECT MANAGER OF ANY DISCREPANCIES WITH THE PROJECT PLANS OR SPECIFICATIONS.
 - ALL WORK ON FRSA PLANT GROUNDS MUST BE PERFORMED DURING NORMAL CONTRACTOR WORKING HOURS, FROM 6:00 AM TO 5:00 PM, M-F, EXCLUDING WEEKENDS AND FRSA-OBSERVED HOLIDAYS. THE CONTRACTOR SHALL NOTIFY THE PROJECT MANAGER 24 HOURS, MINIMUM, PRIOR TO PERFORMING WORK OUTSIDE OF THESE HOURS AND SHALL PROVIDE A LIST OF ALL EMPLOYEES, INCLUDING PRIMARY CONTACT(S), WHO WILL BE PRESENT FOR THE OFF-HOUR WORK.
 - ALL ROADWAY CONSTRUCTION SHALL BE COMPLETED IN ACCORDANCE WITH THE IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, AND THE FOUR RIVERS SANITATION AUTHORITY.
 - THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE IEPA NPDES PERMIT AND THE ILLINOIS URBAN MANUAL FOR SOIL EROSION AND SEDIMENT CONTROL.

- ### SPECIAL CONSIDERATIONS
- THE CONTRACTOR SHALL PROVIDE TEMPORARY RESTROOM FACILITIES FOR HIS WORKFORCE FOR THE DURATION OF THIS PROJECT.
 - THE CONTRACTOR SHALL BE AWARE OF ALL PROJECT CONSTRUCTION AND SCHEDULING CONSTRAINTS AND COORDINATION EFFORTS THAT WILL BE REQUIRED AS PART OF THIS PROJECT. THE CONTRACTOR'S CONSTRUCTION SCHEDULE SHALL ACCOMMODATE ACCORDINGLY. IT MAY BE NECESSARY TO STORE MATERIALS FURTHER FROM THIS PROJECT SITE AND BRING MATERIALS TO THE SITE AS NEEDED. THE CONTRACTOR WILL HAVE LIMITED ACCESS TO THE SITE FROM THE NORTH AND EAST, DUE TO EXISTING PROJECTS. GENERALLY, LIMITED ACCESS SHALL MEAN ACCESS FOR CONCRETE PLACING OPERATIONS ONLY.
 - CONSTRUCTION STAGING SHALL BE EXCLUDED FROM THE AREA SOUTH AND WEST OF THE CS ADMIN BUILDING DUE TO ON-GOING CONSTRUCTION ACTIVITIES IN AND AROUND THIS BUILDING, AS WELL AS NORTH OF THE EXISTING FENCE AT THE NORTH PERIMETER OF THIS PROJECT. THE CONTRACTOR SHALL COORDINATE WITH THE FRSA AND OTHER CONTRACTORS ACCORDINGLY.
 - THE EXISTING CHAIN LINK FENCE AT THE NORTH LIMITS OF THIS PROJECT WILL BE REMOVED BY FRSA.
 - THE EXISTING AIR HANDLING UNIT IMMEDIATELY NORTH OF THE CS ADMIN BUILDING SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES (**INCLUDING DUST**) AT ALL TIMES.
 - NEW SIDEWALK AND PAVEMENTS SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES, EQUIPMENT, AND MATERIALS (SUCH AS TOPSOIL AND MULCH) WITH PLYWOOD OR OTHER PROTECTION APPROVED BY THE OWNER.



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COLLECTION SYSTEMS ADMIN BUILDING SITE IMPROVEMENTS PH 2
CAPITAL PROJECT #2306

LEGEND & GENERAL NOTES

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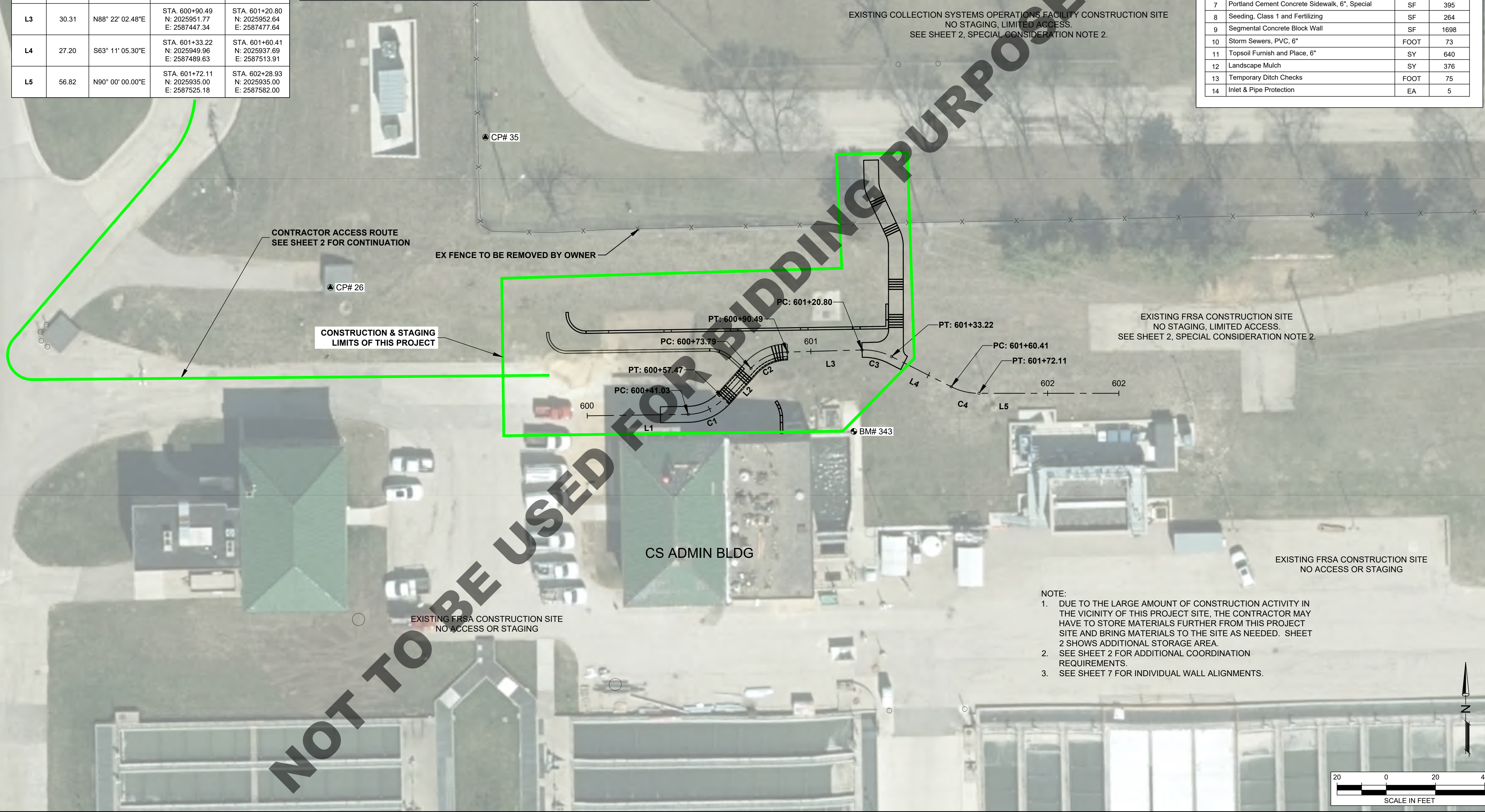
ALIGNMENT LINE TABLE				
LINE #	LENGTH (FT)	DIRECTION BEARING	START STATION	END STATION
L1	41.03	N89° 09' 31.37"E	STA. 600+00.00 N: 2025925.85 E: 2587366.01	STA. 600+41.03 N: 2025926.46 E: 2587407.04
L2	16.32	N42° 04' 00.21"E	STA. 600+57.47 N: 2025933.05 E: 2587421.59	STA. 600+73.79 N: 2025945.17 E: 2587432.53
L3	30.31	N88° 22' 02.48"E	STA. 600+90.49 N: 2025951.77 E: 2587447.34	STA. 601+20.80 N: 2025952.64 E: 2587477.64
L4	27.20	S63° 11' 05.30"E	STA. 601+33.22 N: 2025949.96 E: 2587489.63	STA. 601+60.41 N: 2025937.69 E: 2587513.91
L5	56.82	N90° 00' 00.00"E	STA. 601+72.11 N: 2025935.00 E: 2587525.18	STA. 602+28.93 N: 2025935.00 E: 2587582.00

ALIGNMENT CURVE TABLE						
CURVE #	DELTA	RADIUS (FT)	LENGTH (FT)	TANGENT (FT)	CHORD BEARING	CHORD DIST. (FT)
C1	286°28'44.03"	20.00	16.44	8.72	N65°36'45.79"E	15.98
C2	286°28'44.03"	20.00	16.70	8.87	N65°59'34.00"E	16.22
C3	229°10'59.22"	25.00	12.41	6.34	S77°24'31.41"E	12.29
C4	229°10'59.22"	25.00	11.70	5.96	S76°35'32.65"E	11.59

CONTROL POINT TABLE				
CP#	ELEVATION	NORTHING	EASTING	DESCRIPTION
26	711.82	2025978.06	2587261.66	CP CUT X
35	724.63	2026039.12	2587324.66	CP DISC 35
36	720.49	2026023.95	2587892.04	CP DISC 36
343	708.98	2025919.52	2587474.32	BM CHISELED SQUARE

SUMMARY OF QUANTITIES			
Item No.	Item Description	Unit	Qty.
1	Catch Basins, Type C, Type 8 Grate	EA	5
2	Construction Layout	LS	1
3	Erosion Control Blanket	SY	264
4	Pipe Guardrail, Special	FOOT	62
5	Pipe Handrail, Special	FOOT	60
6	Portland Cement Concrete Sidewalk, 6"	SF	600
7	Portland Cement Concrete Sidewalk, 6", Special	SF	395
8	Seeding, Class 1 and Fertilizing	SF	264
9	Segmental Concrete Block Wall	SF	1698
10	Storm Sewers, PVC, 6"	FOOT	73
11	Topsoil Furnish and Place, 6"	SY	640
12	Landscape Mulch	SY	376
13	Temporary Ditch Checks	FOOT	75
14	Inlet & Pipe Protection	EA	5

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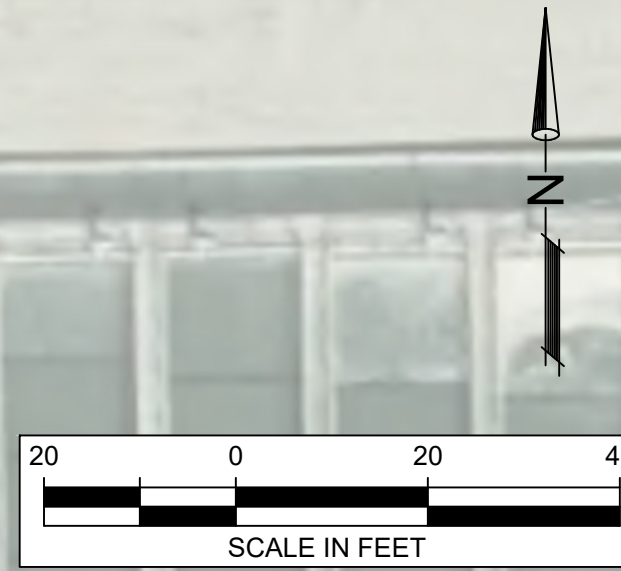
EXISTING COLLECTION SYSTEMS OPERATIONS FACILITY CONSTRUCTION SITE
NO STAGING, LIMITED ACCESS.
SEE SHEET 2, SPECIAL CONSIDERATION NOTE 2.

EXISTING FRSA CONSTRUCTION SITE
NO STAGING, LIMITED ACCESS.
SEE SHEET 2, SPECIAL CONSIDERATION NOTE 2.

EXISTING FRSA CONSTRUCTION SITE
NO ACCESS OR STAGING

EXISTING FRSA CONSTRUCTION SITE
NO ACCESS OR STAGING

- NOTE:
1. DUE TO THE LARGE AMOUNT OF CONSTRUCTION ACTIVITY IN THE VICINITY OF THIS PROJECT SITE, THE CONTRACTOR MAY HAVE TO STORE MATERIALS FURTHER FROM THIS PROJECT SITE AND BRING MATERIALS TO THE SITE AS NEEDED. SHEET 2 SHOWS ADDITIONAL STORAGE AREA.
 2. SEE SHEET 2 FOR ADDITIONAL COORDINATION REQUIREMENTS.
 3. SEE SHEET 7 FOR INDIVIDUAL WALL ALIGNMENTS.



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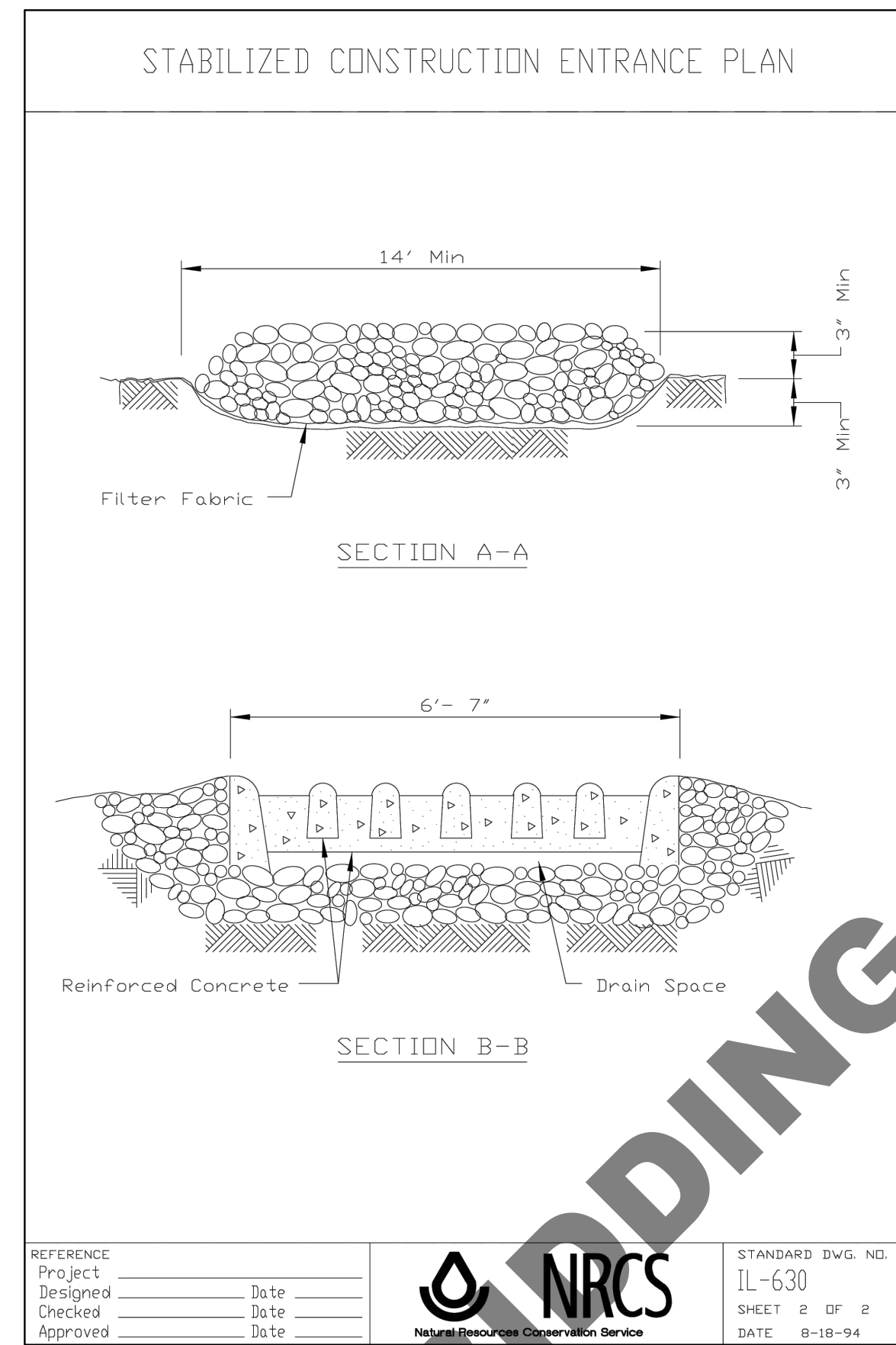
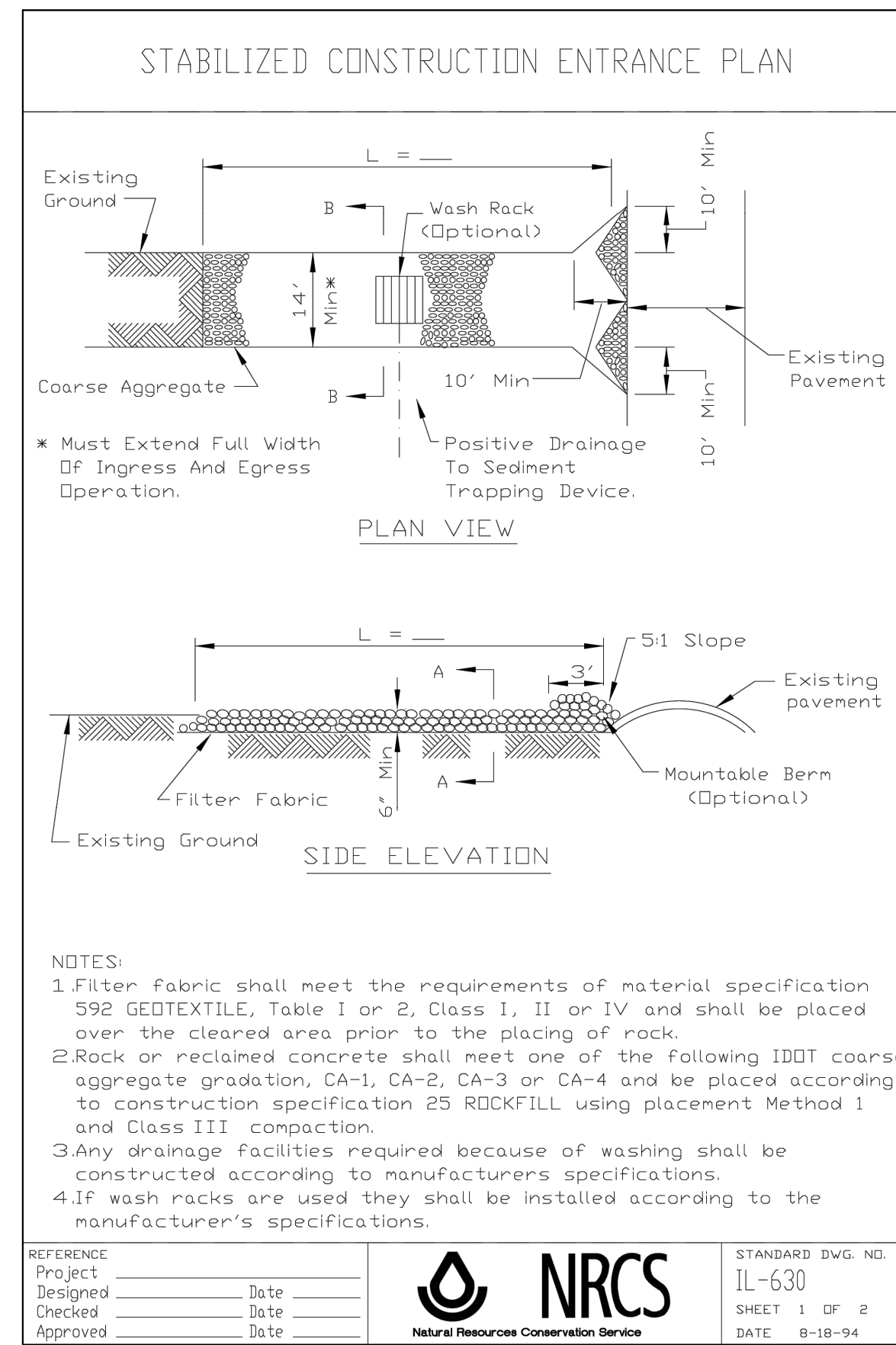
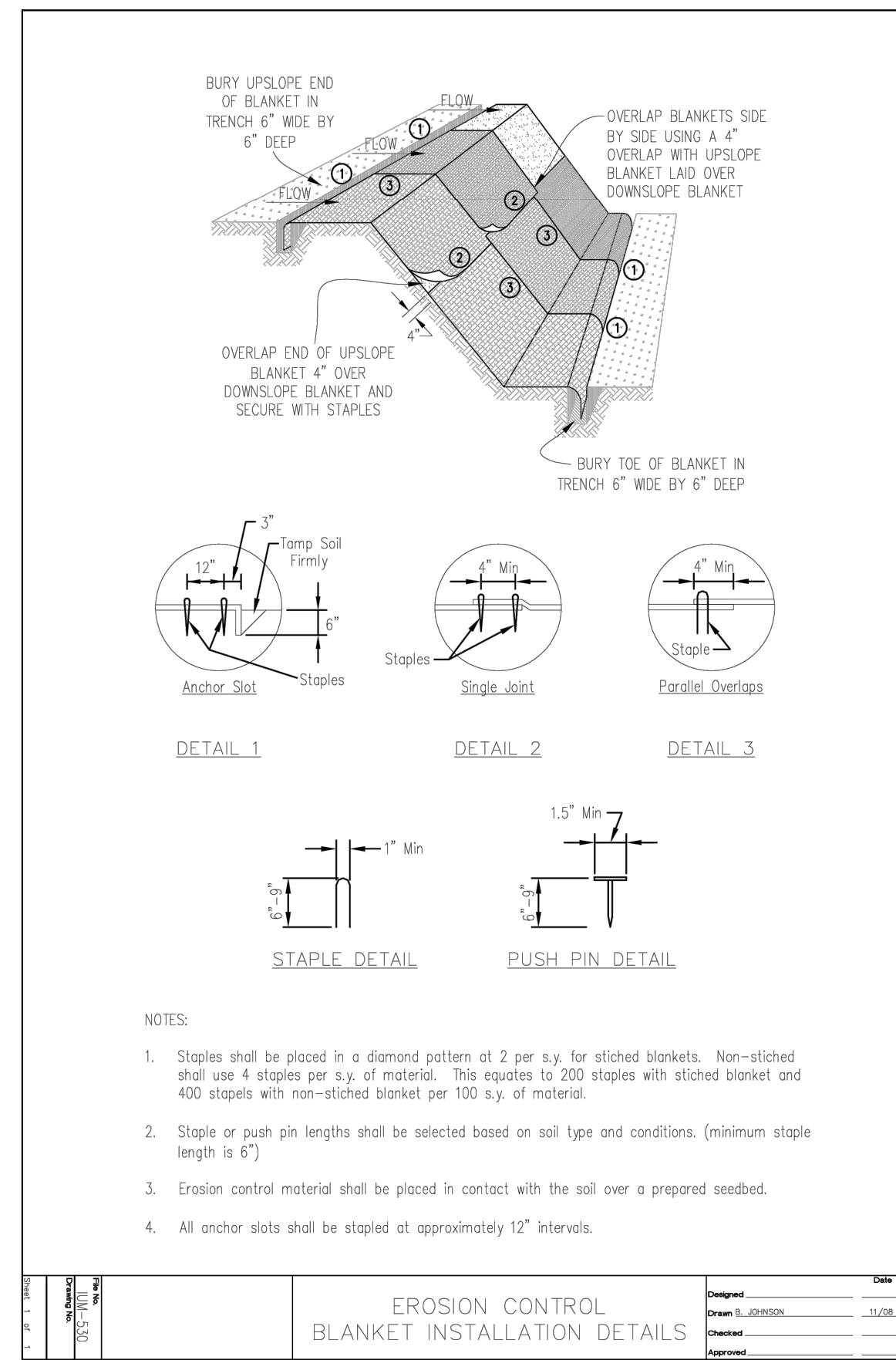
**COLLECTION SYSTEMS ADMIN BUILDING SITE IMPROVEMENTS PH 2
CAPITAL PROJECT #2306**

ALIGNMENT, TIES, BENCHMARKS, & SUMMARY OF QTYS

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EROSION CONTROL NOTES

GENERAL NOTES
 THE ESTIMATED AREA OF DISTURBANCE FOR THIS PROJECT IS LESS THAN 1 ACRE. THEREFORE, A NOTICE OF INTENT (NOI) WILL NOT BE FILED. AN EROSION CONTROL PLAN HAS BEEN PREPARED FOR THIS PROJECT. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF THE ILLINOIS URBAN MANUAL, CURRENT EDITION, IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION, THE FOUR RIVERS SANITATION AUTHORITY (FRSA), AND THE PROJECT SPECIFICATIONS AND DETAILS.

THE EROSION CONTROL DEVICES, MATERIALS AND PROCEDURES SHOWN IN THESE PLANS ARE TO BE CONSIDERED A MINIMUM. ADDITIONAL DEVICES OR MATERIALS MAY BE REQUIRED BASED ON EXISTING SITE CONDITIONS, AT THE DIRECTION OF THE ENGINEER. ANY DEVICES, MATERIALS, OR PROCEDURES REQUIRED BY THE ENGINEER DUE TO THE CONTRACTOR'S ACTIONS OR NEGLIGENCE WILL BE AT NO ADDITIONAL COST TO THE FRSA.

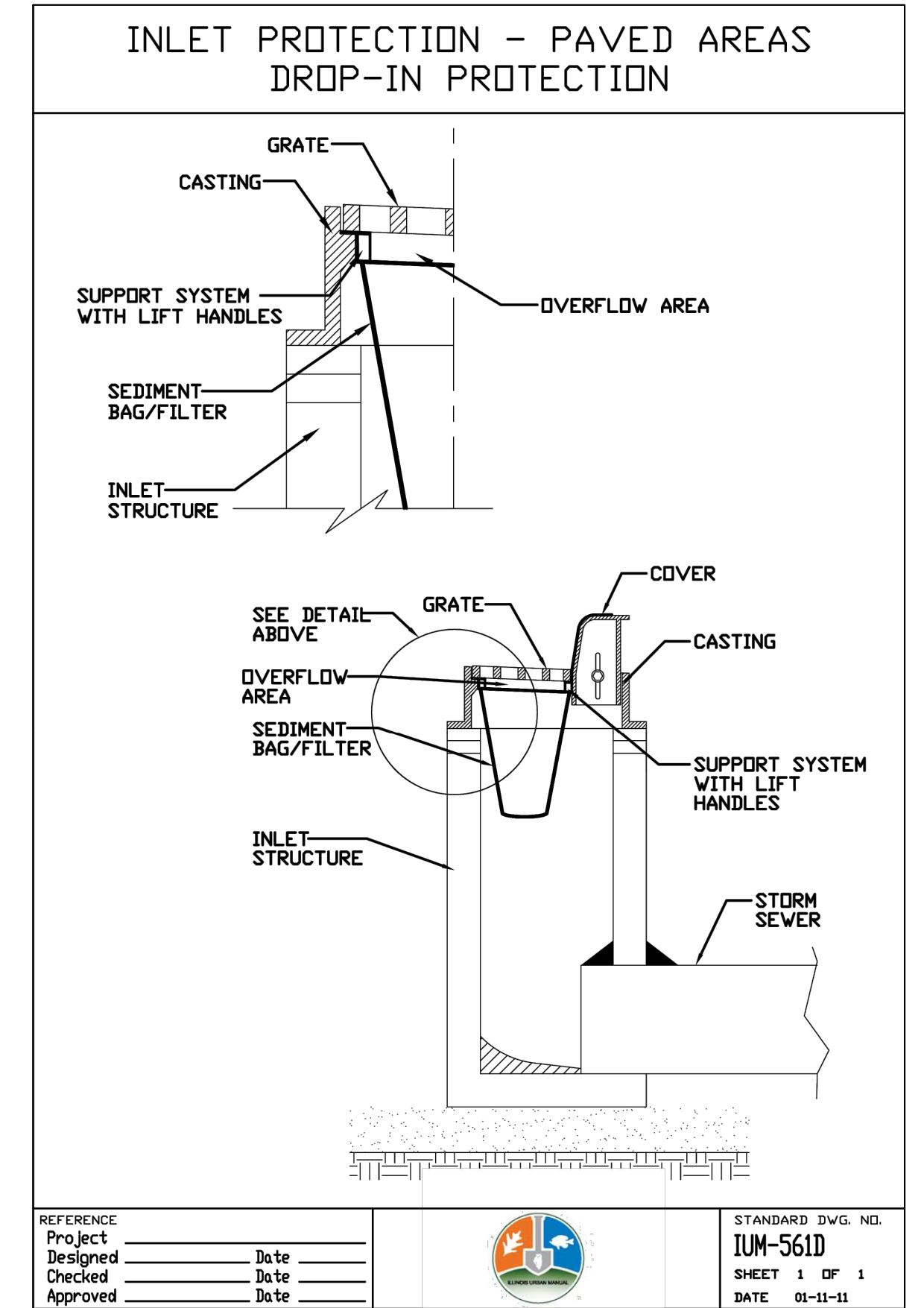
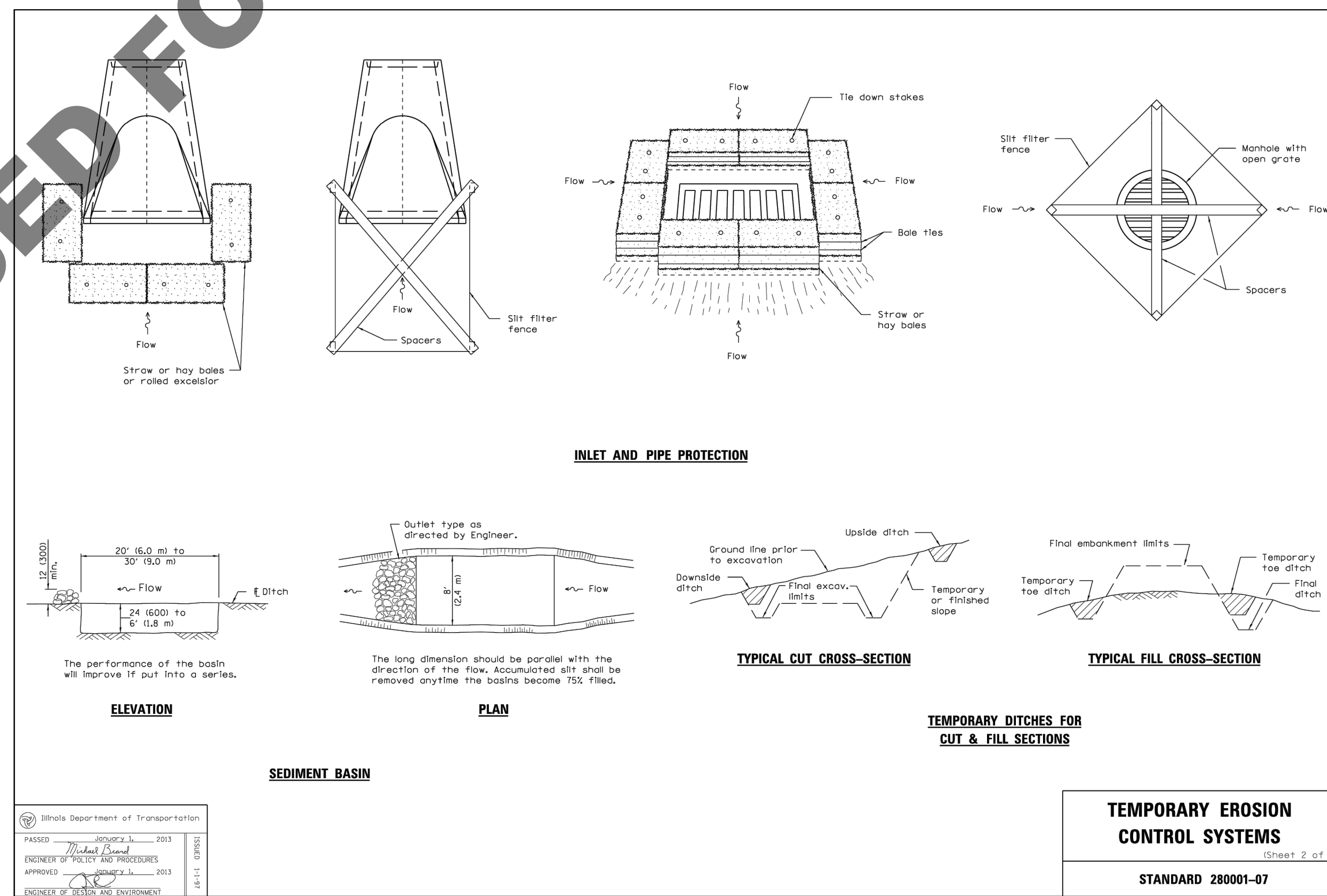
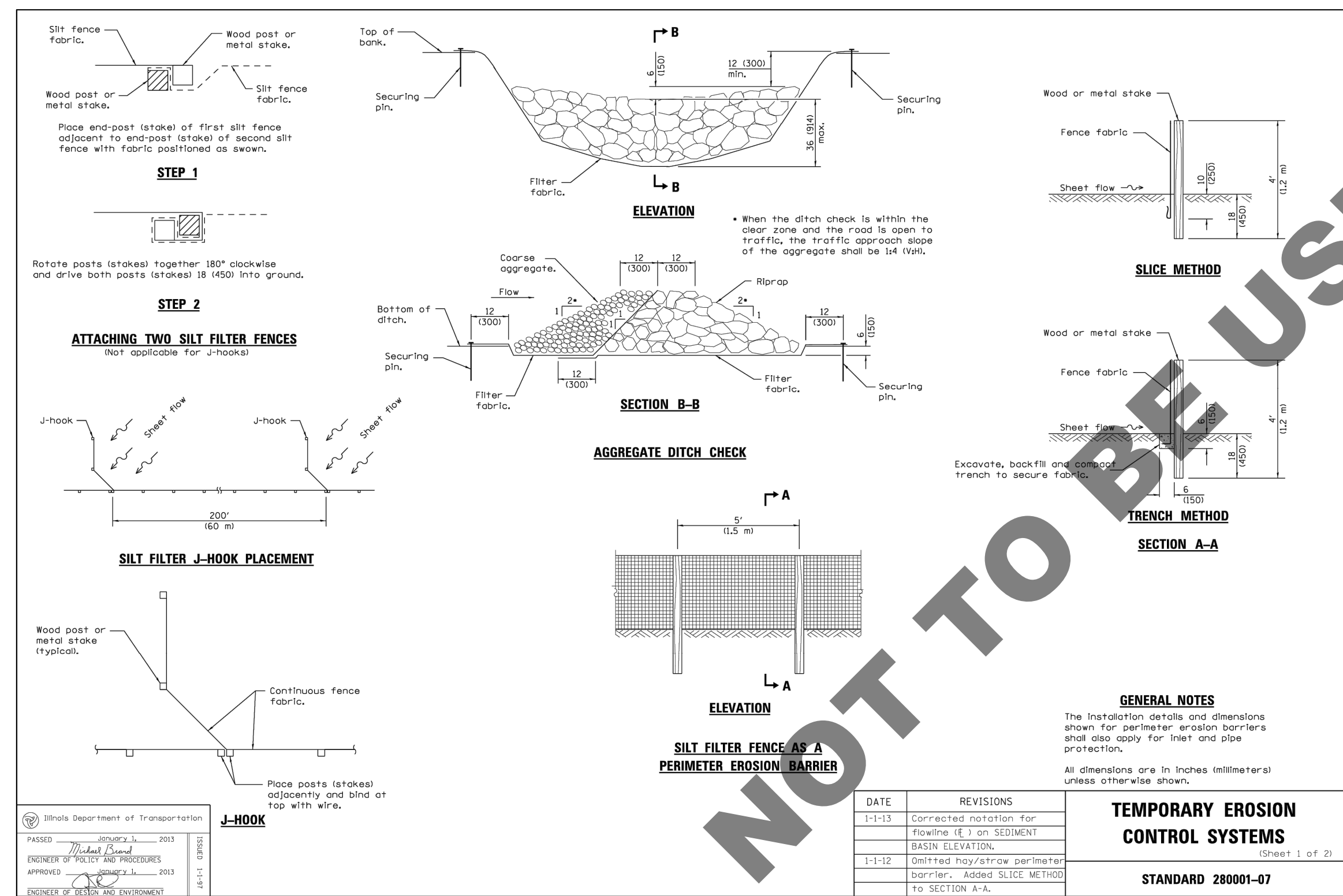
ALL DISTURBED AREAS SHALL BE SEEDED UNLESS AGRICULTURAL OR OTHERWISE NOTED ON THE PLANS. THE CONTRACTOR IS RESTRICTED TO WORK IN TEMPORARY EASEMENTS OR WORK AREAS DELINEATED ON PLANS. THE CONTRACTOR SHALL TAKE WHATEVER ACTIONS AND MEASURES ARE DEEMED NECESSARY BY THE FRSA OR AUTHORIZED AGENCY TO ELIMINATE EXCESSIVE SILTATION OR EROSION AND TO STABILIZE THE PROJECT AREA. DISCHARGE OF HAZARDOUS SUBSTANCES INTO STORM WATER IS SUBJECT TO IEPA REPORTING AND CLEANUP REQUIREMENTS.

CONTROL MEASURES
 EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE BEFORE CONSTRUCTION IN EACH AREA, AS DETERMINED BY THE ENGINEER, AND SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION. CONSTRUCTION ACTIVITIES SHALL ENSURE THAT EXISTING VEGETATION IS PRESERVED WHERE PRACTICAL. THE FOLLOWING CONTROLS WILL BE PROVIDED AS A MINIMUM FOR THE DURATION OF THIS PROJECT:

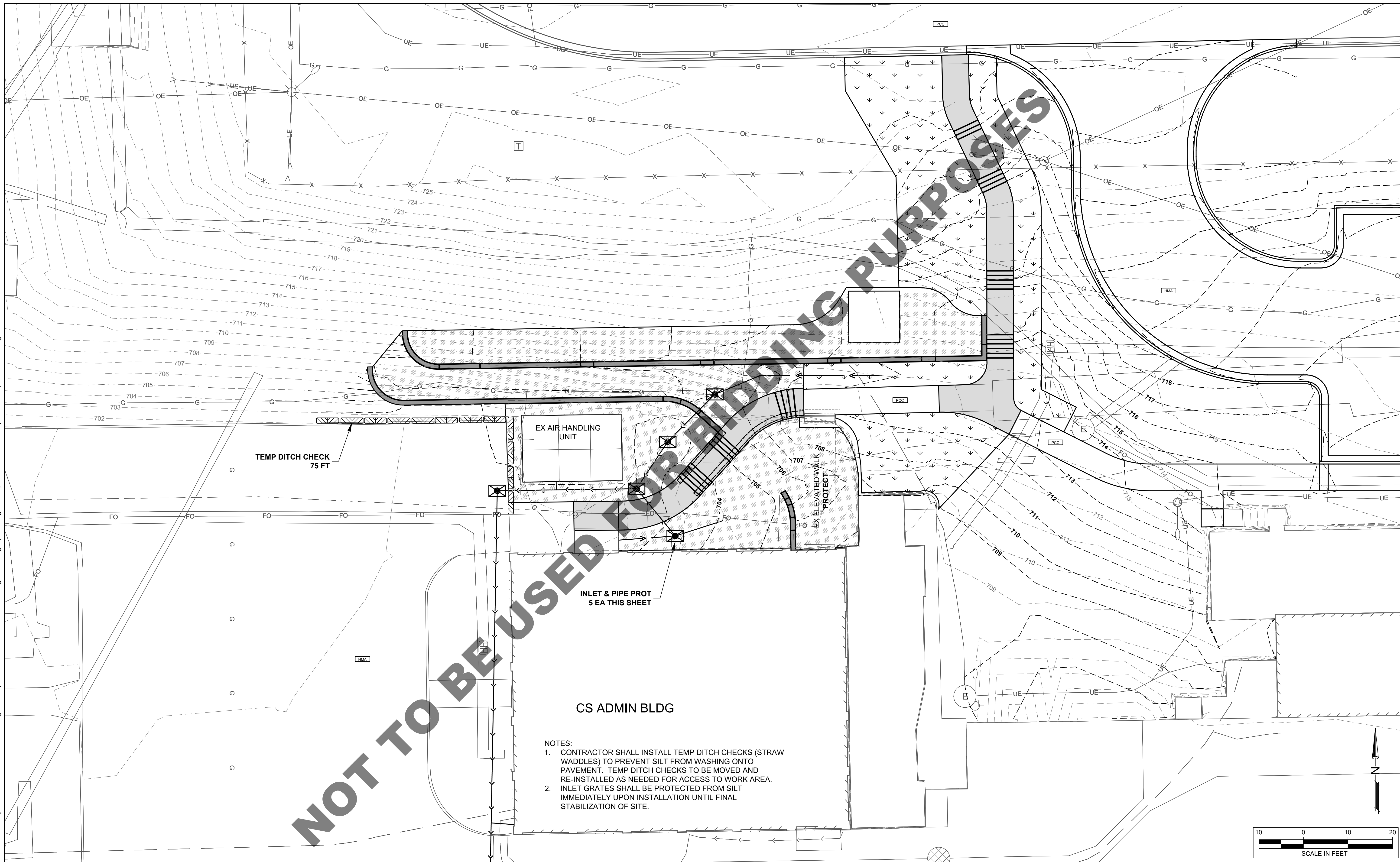
- SEDIMENT CONTROL SHALL BE PROVIDED DOWNSLOPE OF ALL STOCKPILE AREAS.
- STABILIZED CONSTRUCTION ENTRANCES MUST BE INSTALLED AS DETAILED AND WHERE REQUIRED BY THE ROADWAY AUTHORITY OR FRSA.
- INLET PROTECTION MUST BE INSTALLED FOR ALL INLETS THAT COULD BE SUBJECT TO SILTATION, AS DETERMINED BY THE ENGINEER.
- ALL ROADWAYS SHALL BE KEPT CLEAN OF DEBRIS, MUD, SOIL, AND CONSTRUCTION MATERIALS AND SHALL BE INSPECTED AT THE END OF EACH DAY AND CLEANED AS NECESSARY.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN 7 DAYS IF THEY ARE TO REMAIN DISTURBED FOR MORE THAN 14 DAYS.

MAINTENANCE
 CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND REPAIR OF ALL EROSION AND SEDIMENT CONTROL DEVICES AND PROTECTIVE MEASURES AS REQUIRED TO MAINTAIN THE INTENDED FUNCTION. SEDIMENT COLLECTED FROM THE CONSTRUCTION SITE SHALL BE DISPOSED OF ON THE SITE ON A REGULAR BASIS AS NEEDED. ANY DEBRIS OR SILT DEPOSITED IN THE FLOW LINE OF DRAINAGE STRUCTURES, DITCHES, ETC., THAT COULD OBSTRUCT FLOW SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. ALL DRAINAGE STRUCTURES SHALL BE FREE OF DIRT AND DEBRIS. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL TEMPORARY EROSION CONTROL DEVICES WITHIN 30 DAYS OF FINAL SITE STABILIZATION APPROVAL BY THE FRSA. THE SITE SHALL HAVE A MIN. OF 70% VEGETATIVE COVER TO BE CONSIDERED STABILIZED.

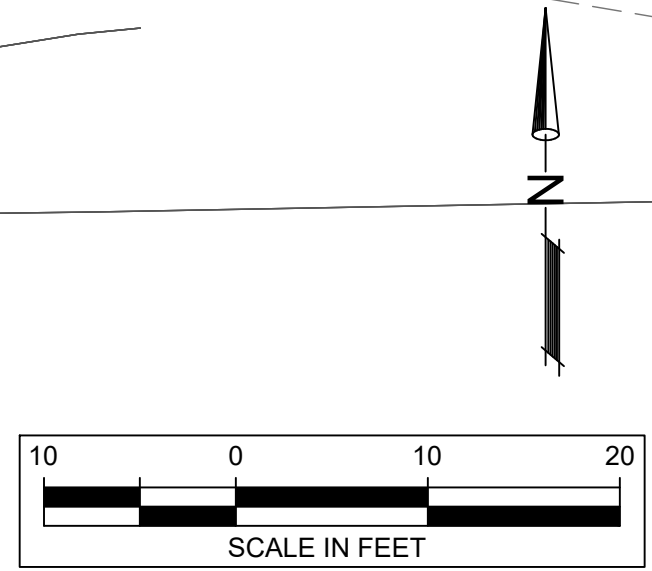
OTHER DISCHARGES
 NON STORM WATER DISCHARGES INCLUDING WASHING OF VEHICLES, CONCRETE WASH-OUT, WATER FOR DUST CONTROL, AND TRENCH DEWATERING DISCHARGES SHALL BE DIRECTED AWAY FROM UNPROTECTED, BARE, OR UNSTABILIZED SOIL AND APPROPRIATE MEASURES SHALL BE IMPLEMENTED TO PREVENT EROSION OR RUNOFF FROM THE SITE. DEWATERING DISCHARGE MUST BE INTO SILT CONTAINMENT BAGS WITH PROPERLY ENGINEERED ANIONIC POLYMER AND FABRIC PORE SIZE. UNDER NO CIRCUMSTANCE SHALL DEWATERING DISCHARGE BE ALLOWED TO FLOW DIRECTLY INTO WATERWAYS. A DEWATERING DISCHARGE PLAN SHALL BE SUBMITTED TO THE FRSA FOR APPROVAL.



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- NOTES:
1. CONTRACTOR SHALL INSTALL TEMP DITCH CHECKS (STRAW WADDLES) TO PREVENT SILT FROM WASHING ONTO PAVEMENT. TEMP DITCH CHECKS TO BE MOVED AND RE-INSTALLED AS NEEDED FOR ACCESS TO WORK AREA.
 2. INLET GRATES SHALL BE PROTECTED FROM SILT IMMEDIATELY UPON INSTALLATION UNTIL FINAL STABILIZATION OF SITE.



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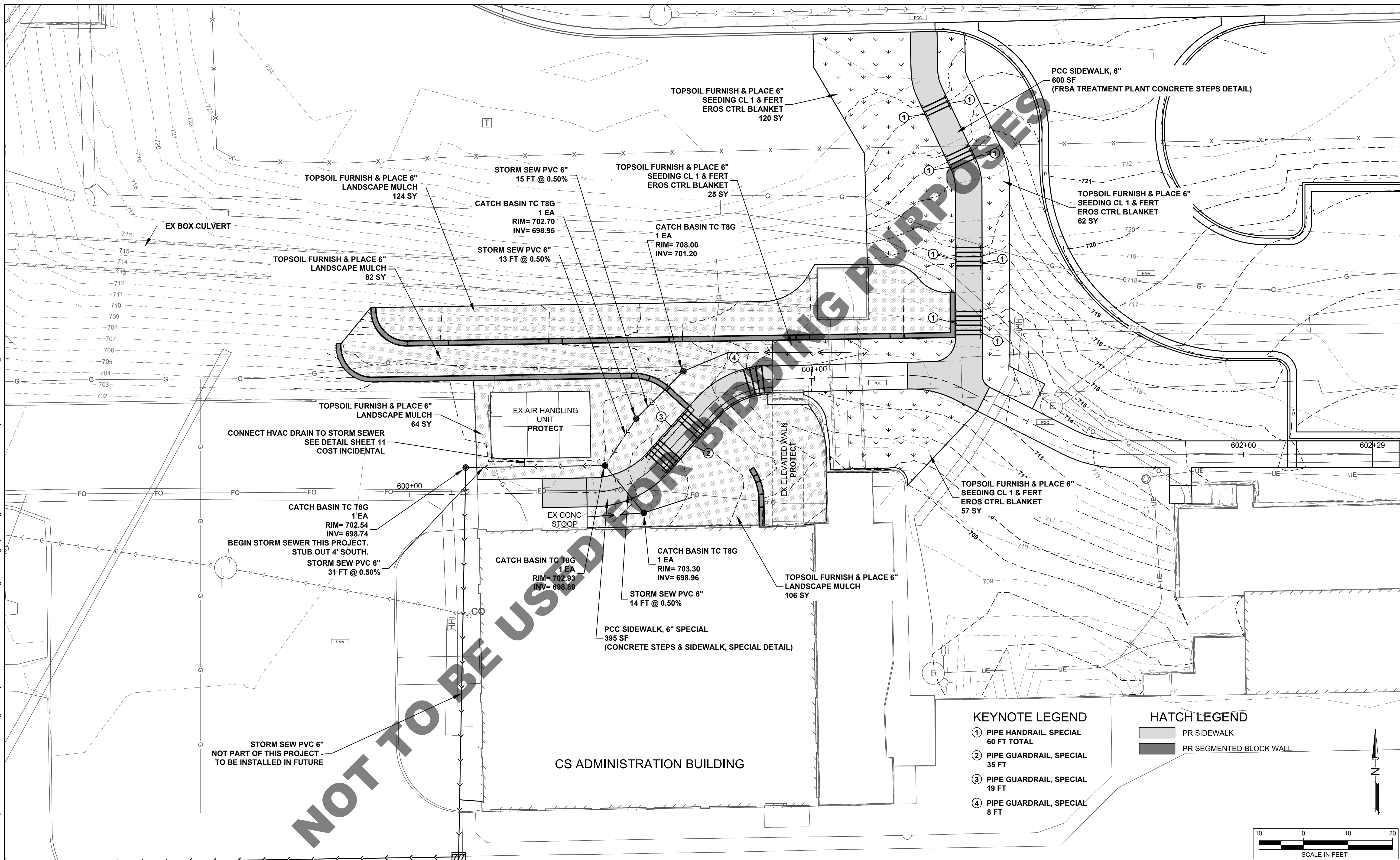
COLLECTION SYSTEMS ADMIN BUILDING SITE IMPROVEMENTS PH 2
CAPITAL PROJECT #2306

TEMPORARY EROSION CONTROL PLAN

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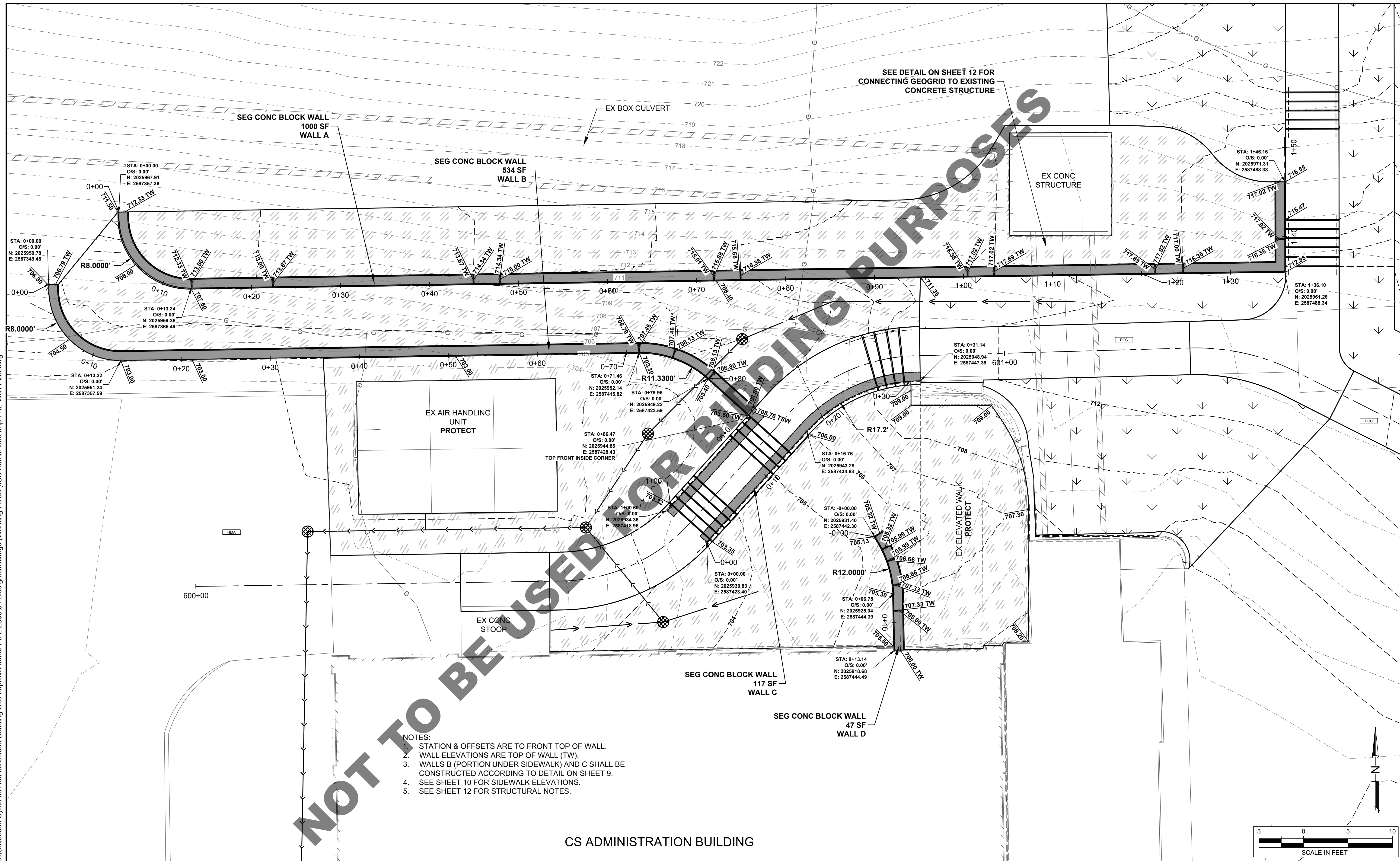
COLLECTION SYSTEMS ADMIN BUILDING SITE IMPROVEMENTS PH 2
CAPITAL PROJECT #2306

SITE PLAN

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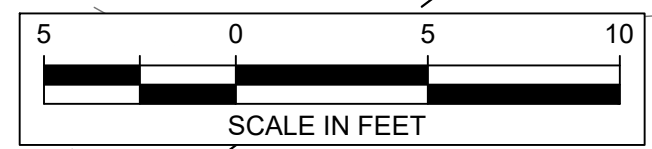
- NOTES:
1. STATION & OFFSETS ARE TO FRONT TOP OF WALL.
 2. WALL ELEVATIONS ARE TOP OF WALL (TW).
 3. WALLS B (PORTION UNDER SIDEWALK) AND C SHALL BE CONSTRUCTED ACCORDING TO DETAIL ON SHEET 9.
 4. SEE SHEET 10 FOR SIDEWALK ELEVATIONS.
 5. SEE SHEET 12 FOR STRUCTURAL NOTES.

CS ADMINISTRATION BUILDING

COLLECTION SYSTEMS ADMIN BUILDING SITE IMPROVEMENTS PH 2
CAPITAL PROJECT #2306

WALL & GRADING PLAN

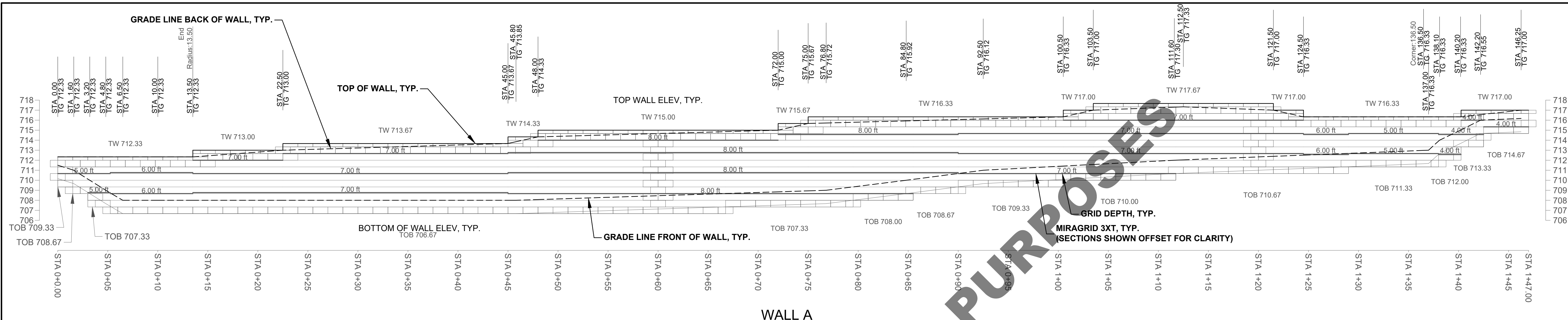
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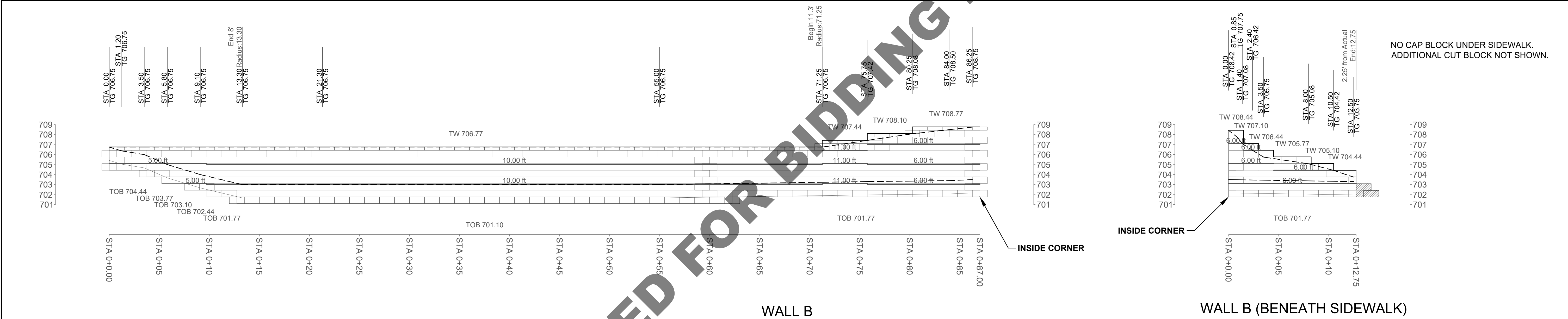
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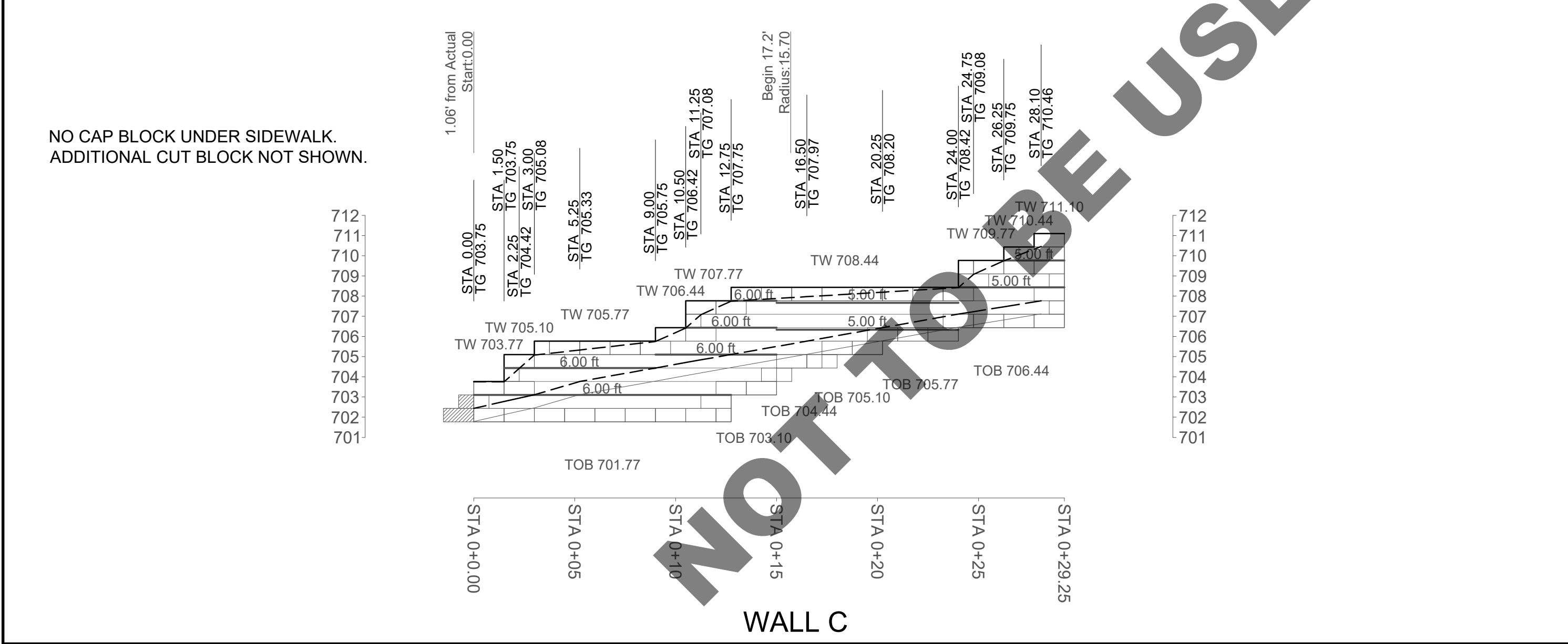


WALL A

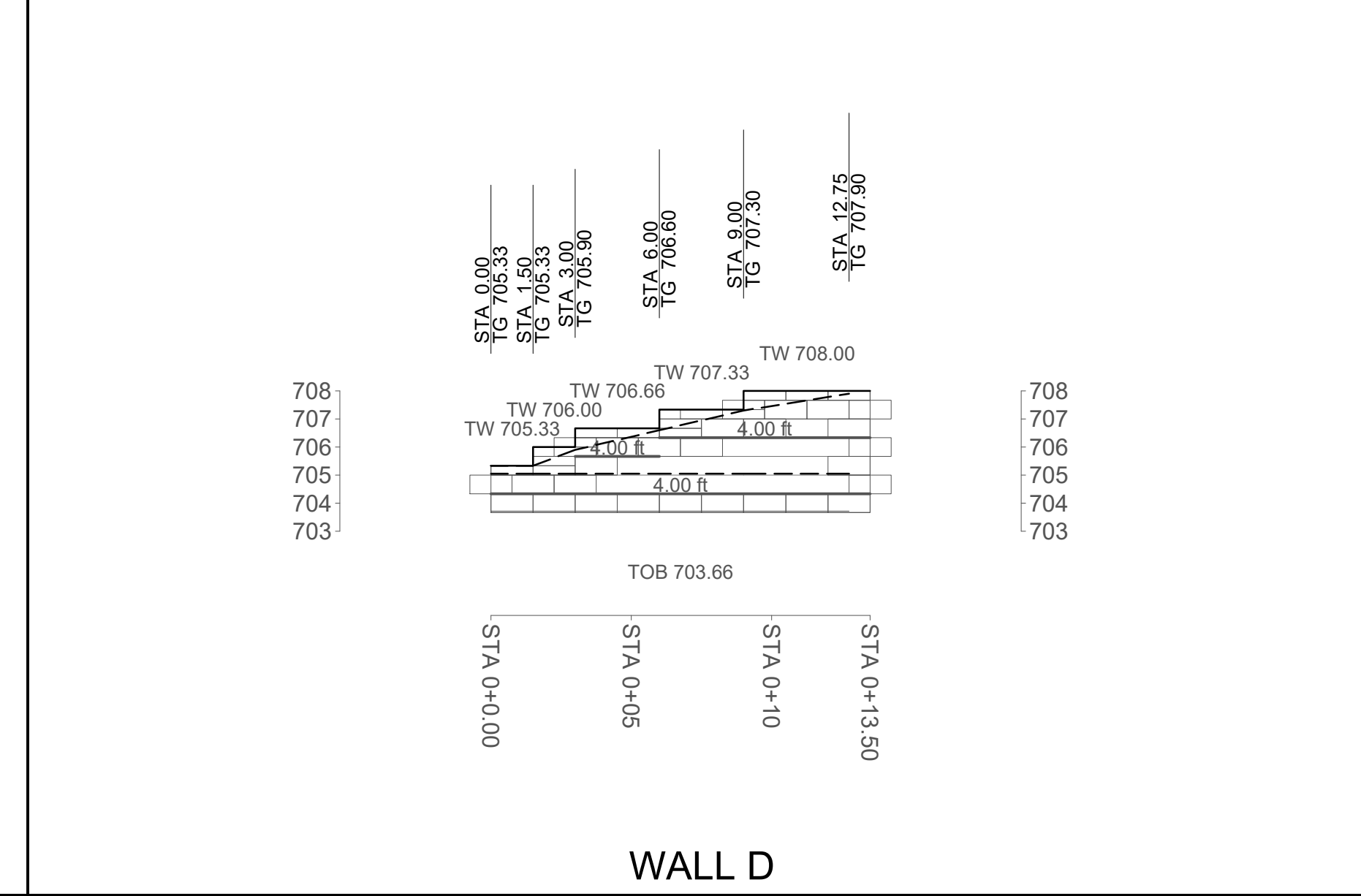


WALL B

WALL B (BENEATH SIDEWALK)



WALL C

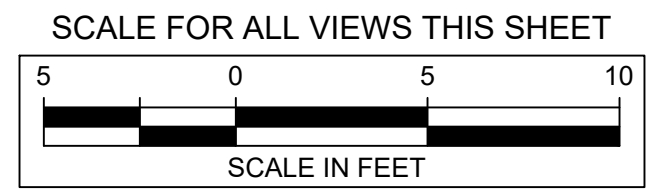


WALL D

- NOTES, ALL WALLS:
1. WALL ALIGNMENTS & PROFILES ARE UNFOLDED ALONG FRONT FACE OF WALL.
 2. ANY FIELD REVISIONS TO BE APPROVED BY OWNER.
 3. ALL WALLS ARE SHOWN PER ACTUAL DESIGN BY ILLINOIS LICENSED STRUCTURAL ENGINEER.
 4. SEE SHEET 12 FOR STRUCTURAL NOTES.

QUANTITIES

WALL	SQUARE FEET (FACE OF WALL)
A	1000
B	534
C	117
D	47

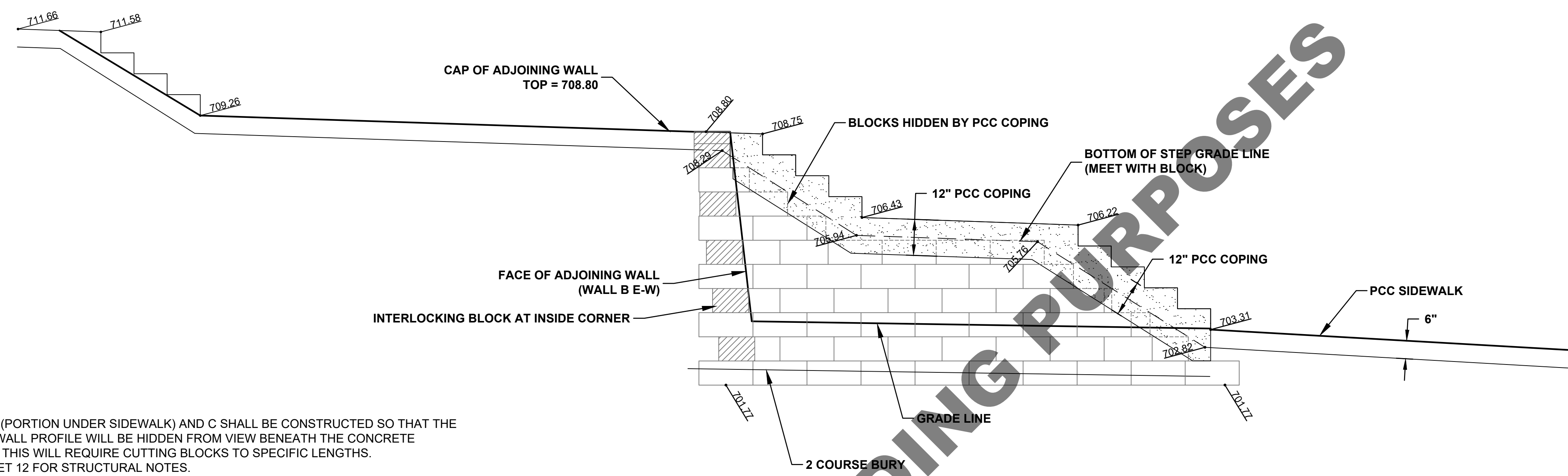


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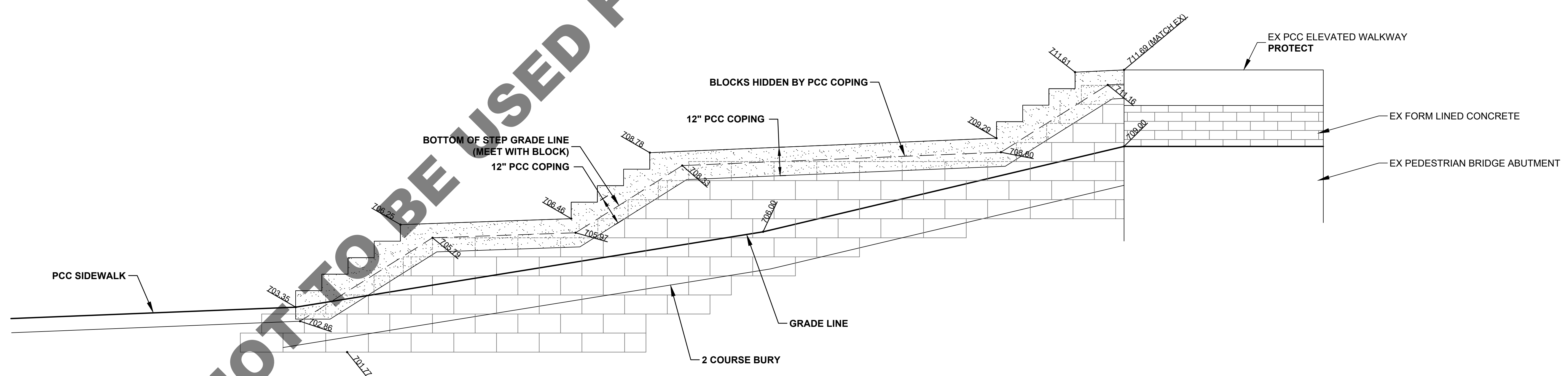
WALL ELEVATIONS

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NOTES:
 1. WALLS B (PORTION UNDER SIDEWALK) AND C SHALL BE CONSTRUCTED SO THAT THE TOP-OF-WALL PROFILE WILL BE HIDDEN FROM VIEW BENEATH THE CONCRETE COPING. THIS WILL REQUIRE CUTTING BLOCKS TO SPECIFIC LENGTHS.
 2. SEE SHEET 12 FOR STRUCTURAL NOTES.

WALL B (AT STAIRS)
 PROFILE VIEW - UNFOLDED ALONG FRONT WALL FACE



WALL C
 PROFILE VIEW - UNFOLDED ALONG FRONT WALL FACE



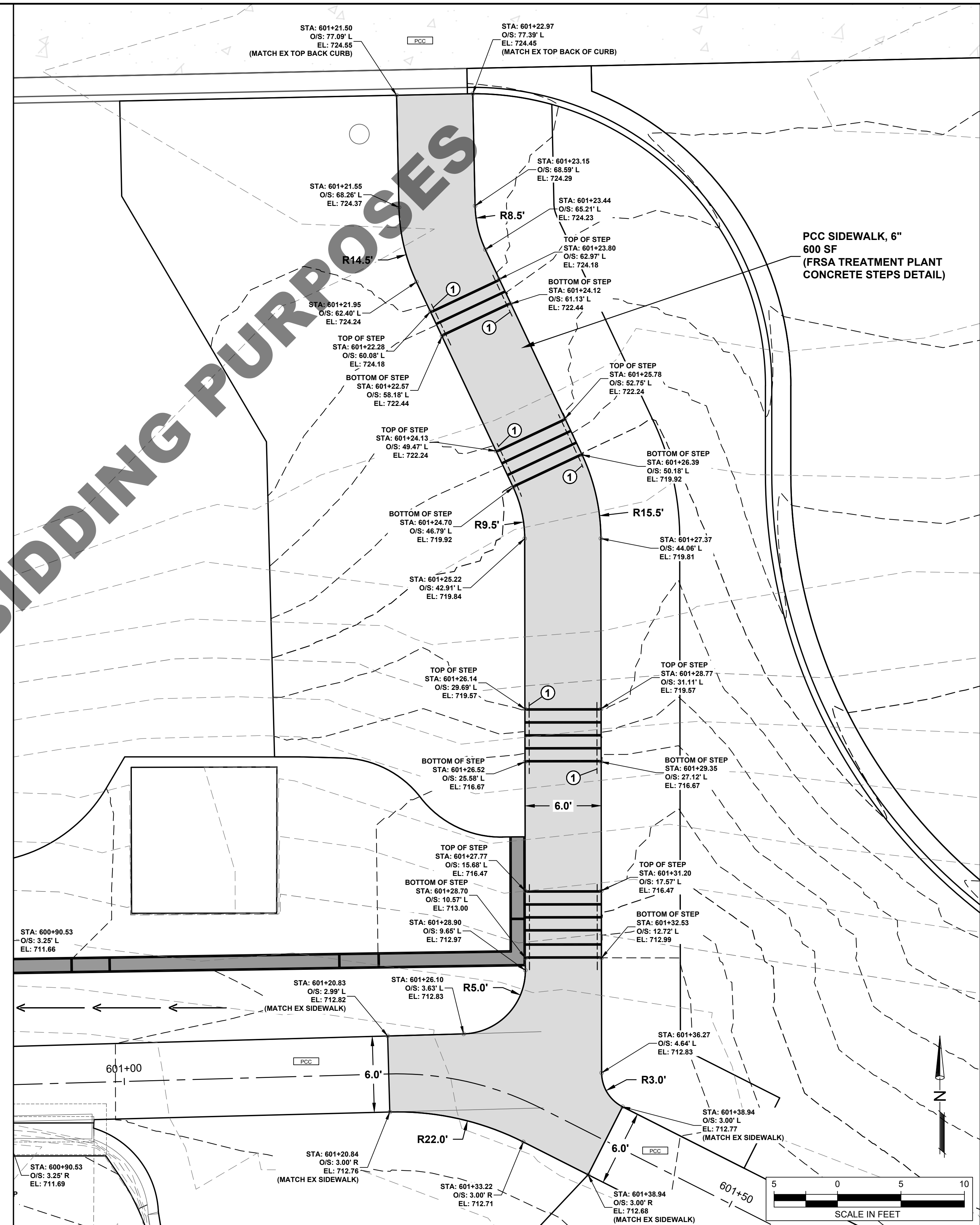
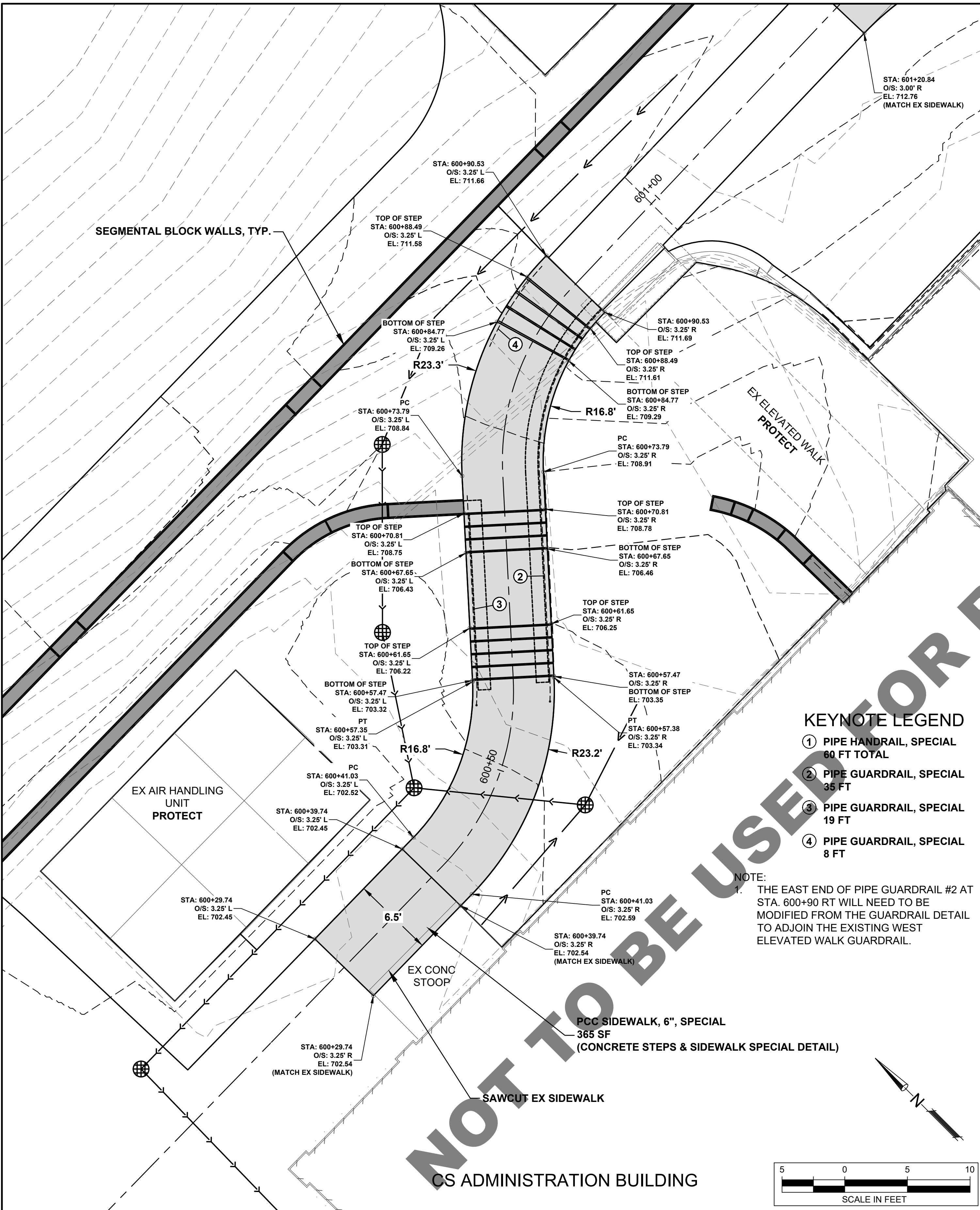
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WALL B & C PROFILE VIEWS

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NOT TO BE USED FOR BIDDING PURPOSES



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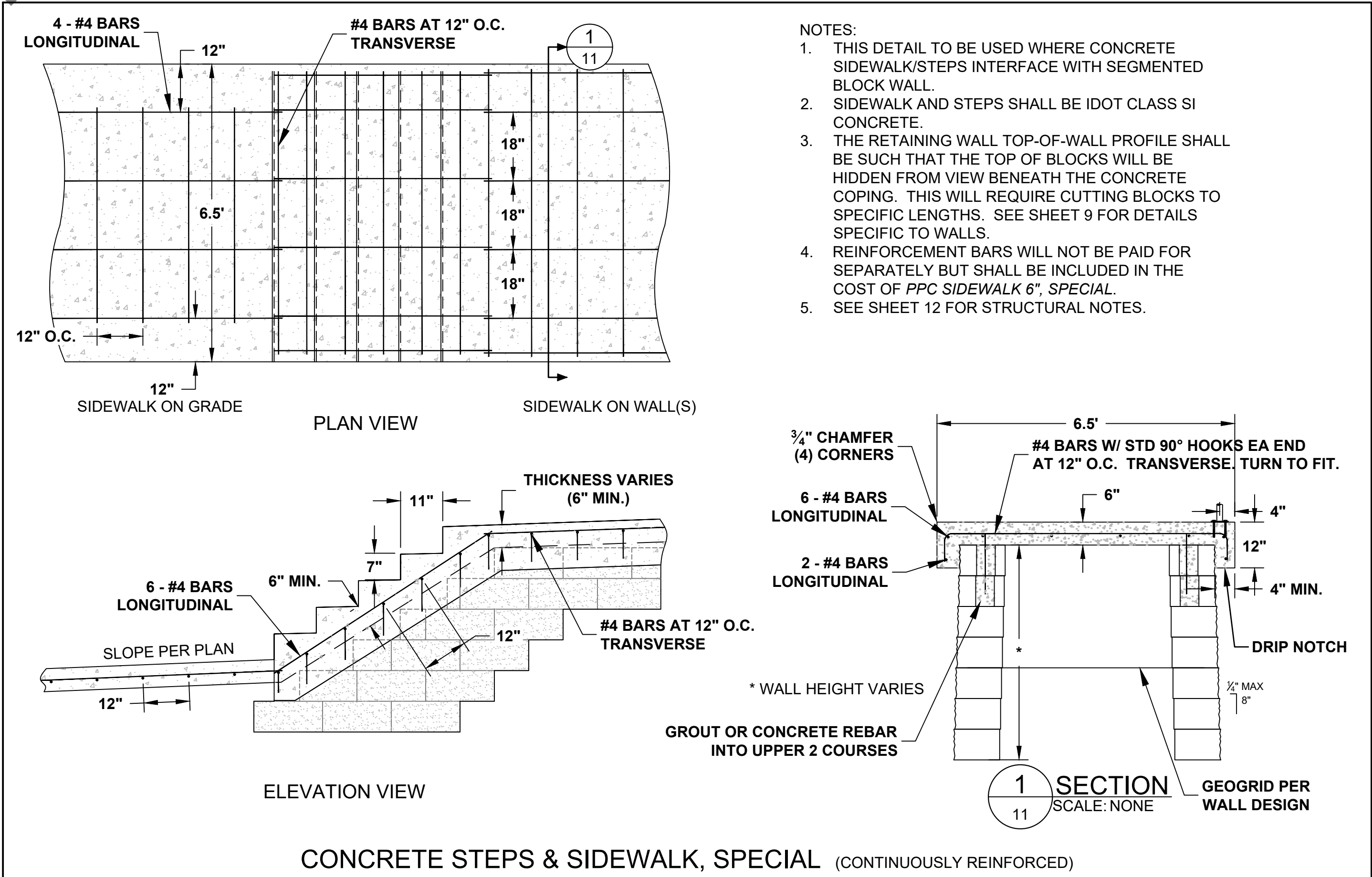
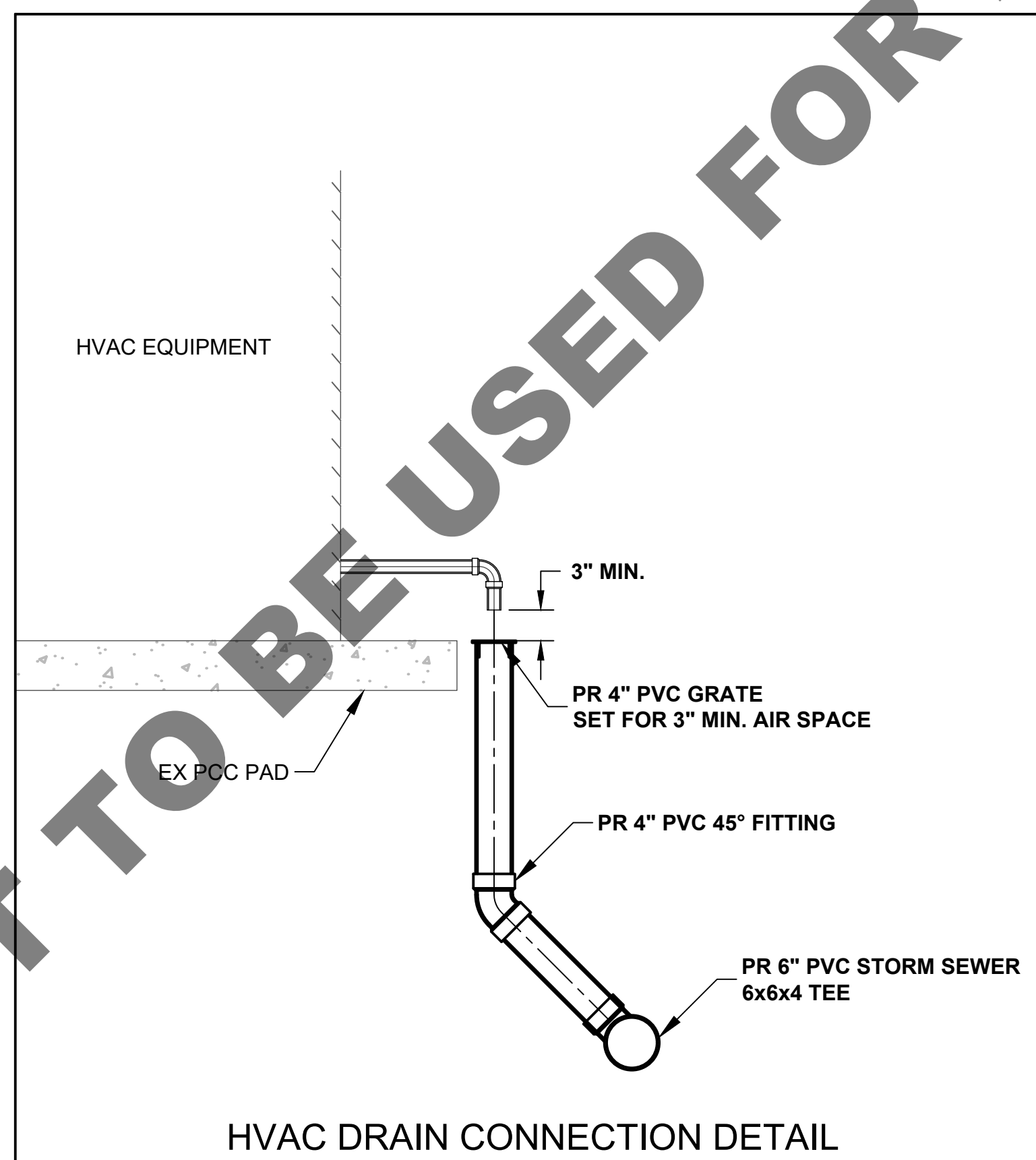
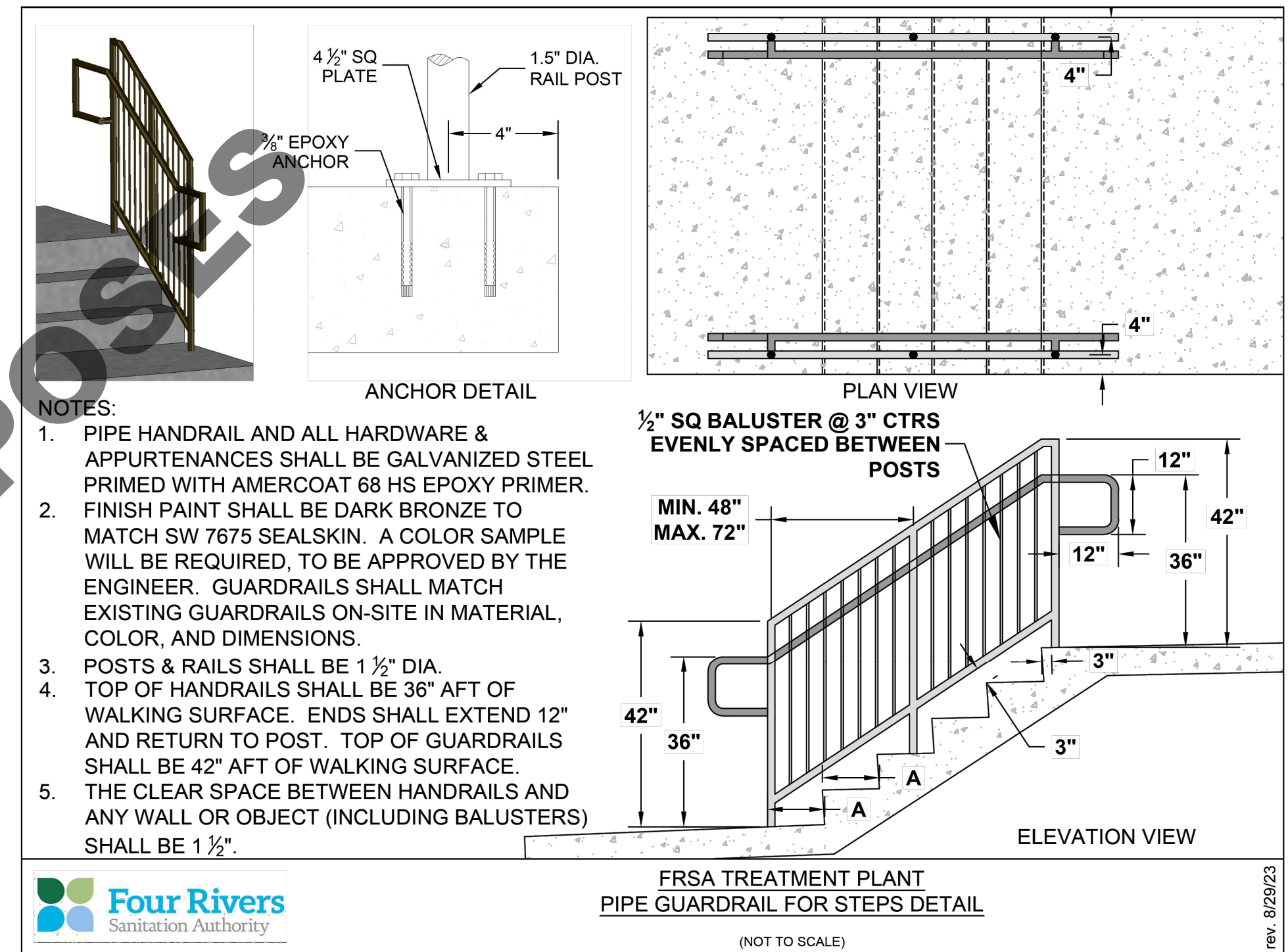
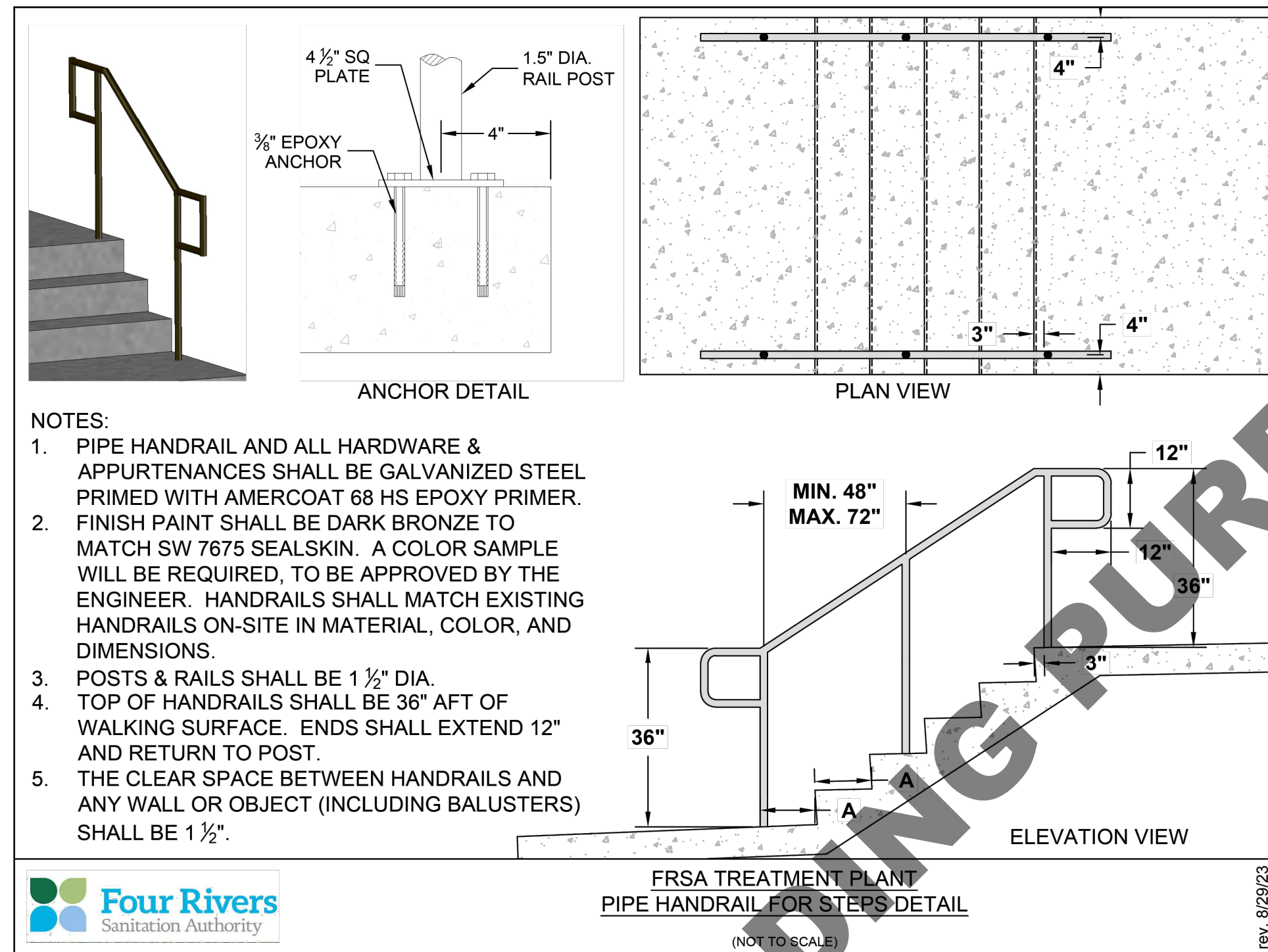
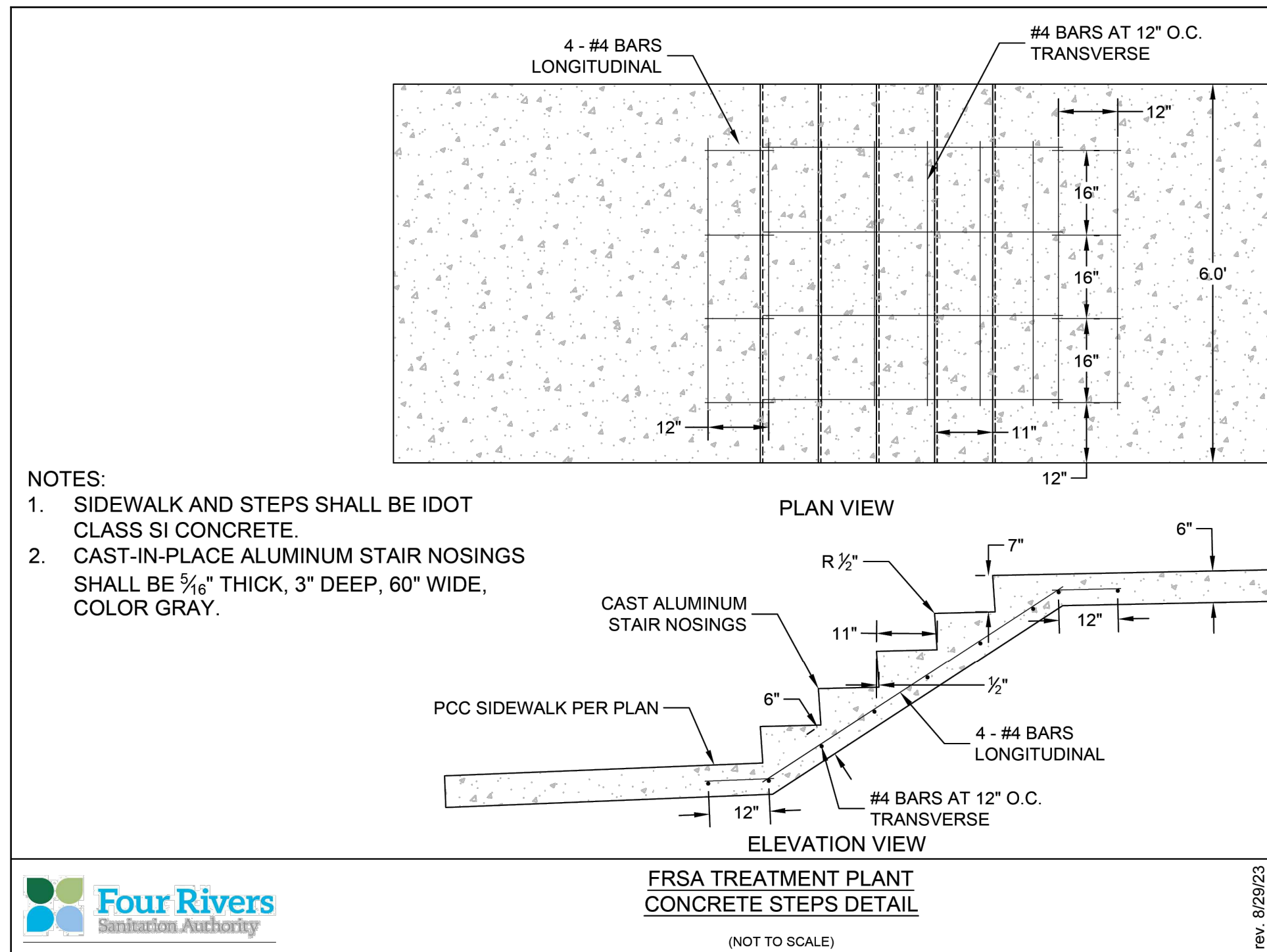
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SIDEWALK PLAN

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SEGMENTAL CONCRETE BLOCK WALL NOTES

WHEREVER IN THE PLANS OR SPECIAL PROVISIONS THE TERM "STANDARD SPECIFICATIONS" IS USED IT SHALL BE UNDERSTOOD BY THE CONTRACTOR TO MEAN THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AS PREPARED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION AND ADOPTED JANUARY 1, 2022.

EXISTING STRUCTURAL AND BURIED INFRASTRUCTURE SHALL BE PROTECTED FROM OVERLOADING DUE TO CONSTRUCTION LOADINGS. WITHOUT APPROVAL OF THE OWNER, HEAVY EQUIPMENT SHALL NOT BE OPERATED DIRECTLY OVER TUNNELS OR CULVERTS. DAMAGE TO ADJACENT FACILITIES DURING CONSTRUCTION SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE OWNER.

IT MAY BE NECESSARY TO UNDERCUT AND REMOVE EARTH AND ORGANIC MATERIAL AT LOCATIONS DETERMINED BY THE OWNER. ALL UNSTABLE, UNSUITABLE, OR ORGANIC MATERIAL SHALL BE DISPOSED OFF THE SITE AS APPROVED BY THE OWNER. UNDERCUT AREAS SHALL BE BROUGHT UP TO GRADE WITH CA-6 OR CA-10 COMPACTED TO 95% OF THE STANDARD LABORATORY DRY DENSITY DETERMINED ACCORDING TO ILLINOIS MODIFIED AASHTO T 99 (METHOD C) IN LAYERS NOT EXCEEDING 8" THICKNESS. THIS WORK SHALL BE MEASURED FOR PAYMENT IN CUBIC YARDS AND PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL FOR STRUCTURES.

THE MINIMUM REQUIRED NET BEARING CAPACITY IS 1500 POUNDS PER SQUARE FOOT AT THE BASE OF THE LEVELING PAD AND BELOW THE LIMITS OF THE SELECT FILL.

THE SEGMENTAL CONCRETE BLOCK WALL SYSTEM TO BE USED IS THE KEYSTONE COMPAC III TRI-PLANE. CONSTRUCTION OF THE WALL SHALL BE ACCORDING TO THE SPECIAL PROVISION FOR SEGMENTAL CONCRETE BLOCK WALL. THE DESIGN OF THE WALLS INCLUDING MINIMUM EMBEDMENT DEPTH, LENGTH OF GEOGRID REINFORCEMENT, LEVELING PAD WIDTH AND MATERIAL TYPE, DRAINAGE AGGREGATE TYPE, AND SELECT FILL TYPE ACCORDING TO THE PLANS AND THE SPECIAL PROVISIONS.

BASIS OF DESIGN: DESIGN MANUAL FOR SEGMENTAL RETAINING WALLS, NATIONAL CONCRETE MASONRY ASSOCIATION, 3RD EDITION.

DESIGN LOADS

DEAD LOAD SURCHARGE: ACTUAL (SIDEWALK, TIERED CONSTRUCTION)
LIVE LOAD SURCHARGE (SIDEWALK): 100 PSF

DESIGN CRITERIA

FACTOR OF SAFETY AGAINST OVERTURNING: 2.0
FACTOR OF SAFETY AGAINST BEARING CAPACITY 2.0
FACTOR OF SAFETY AGAINST BASE SLIDING: 1.5
FACTOR OF SAFETY AGAINST PULLOUT: 1.5
FACTOR OF SAFETY AGAINST INTERNAL SLIDING: 1.5
FACTOR OF SAFETY AGAINST TENSILE OVERSTRESS: 1.5
FACTOR OF SAFETY AGAINST CONNECTION STRENGTH: 1.5
FACTOR OF SAFETY AGAINST FACING SHEAR 1.5

SOIL PROPERTIES	FRICITION ANGLE	COHESION	UNIT WEIGHT
SELECT FILL (REINFORCED)	32°	0	120 PCF
FOUNDATION SOIL	28°	0	120 PCF
RETAINED EARTH (IN-SITU)	26°	0	120 PCF

THE SOIL DATA NOTED FOR THE FOUNDATION SOIL AND RETAINED EARTH ARE ASSUMED FOR DESIGN PURPOSES. FRSA IS RESPONSIBLE FOR ENSURING THE DATA NOTED ABOVE IS CORRECT PRIOR TO AND DURING CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IF CONDITIONS VARY.

THE SUBSTITUTION OF THE SEGMENTAL RETAINING WALL UNITS IS NOT ALLOWED. INSTALL THE SEGMENTAL BLOCK WALL IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS, THE PLANS AND SPECIAL PROVISIONS.

SUBSTITUTION OF THE GEOGRID REINFORCEMENT IS NOT ALLOWED WITHOUT APPROVAL OF THE ENGINEER. THE SAME GEOGRID REINFORCEMENT SHALL BE USED FOR ALL WALLS AT ALL LOCATIONS. INSTALL THE GEOGRID REINFORCEMENT WITH THE STRONG DIRECTION OF THE GRID PERPENDICULAR TO THE WALL IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

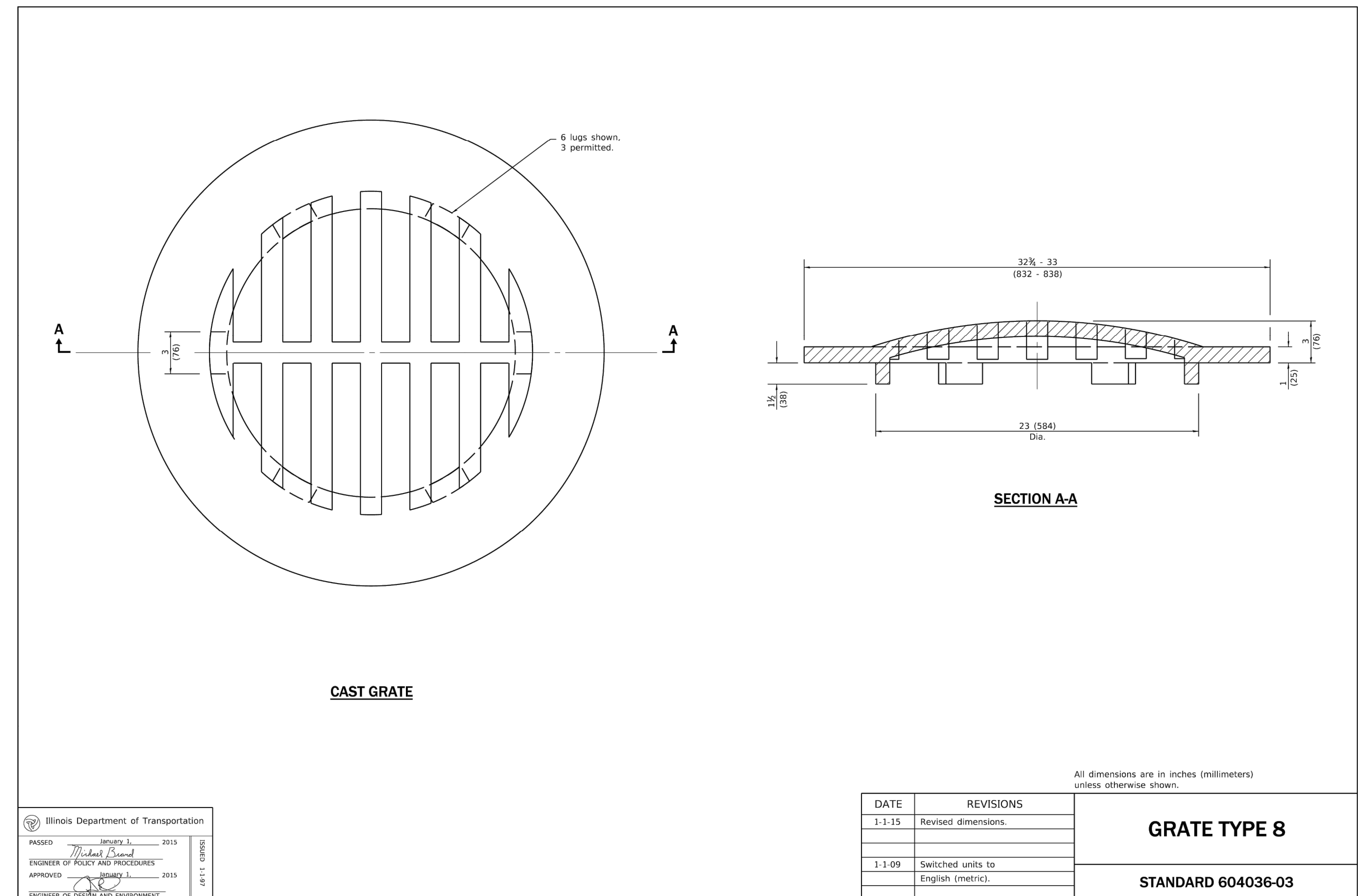
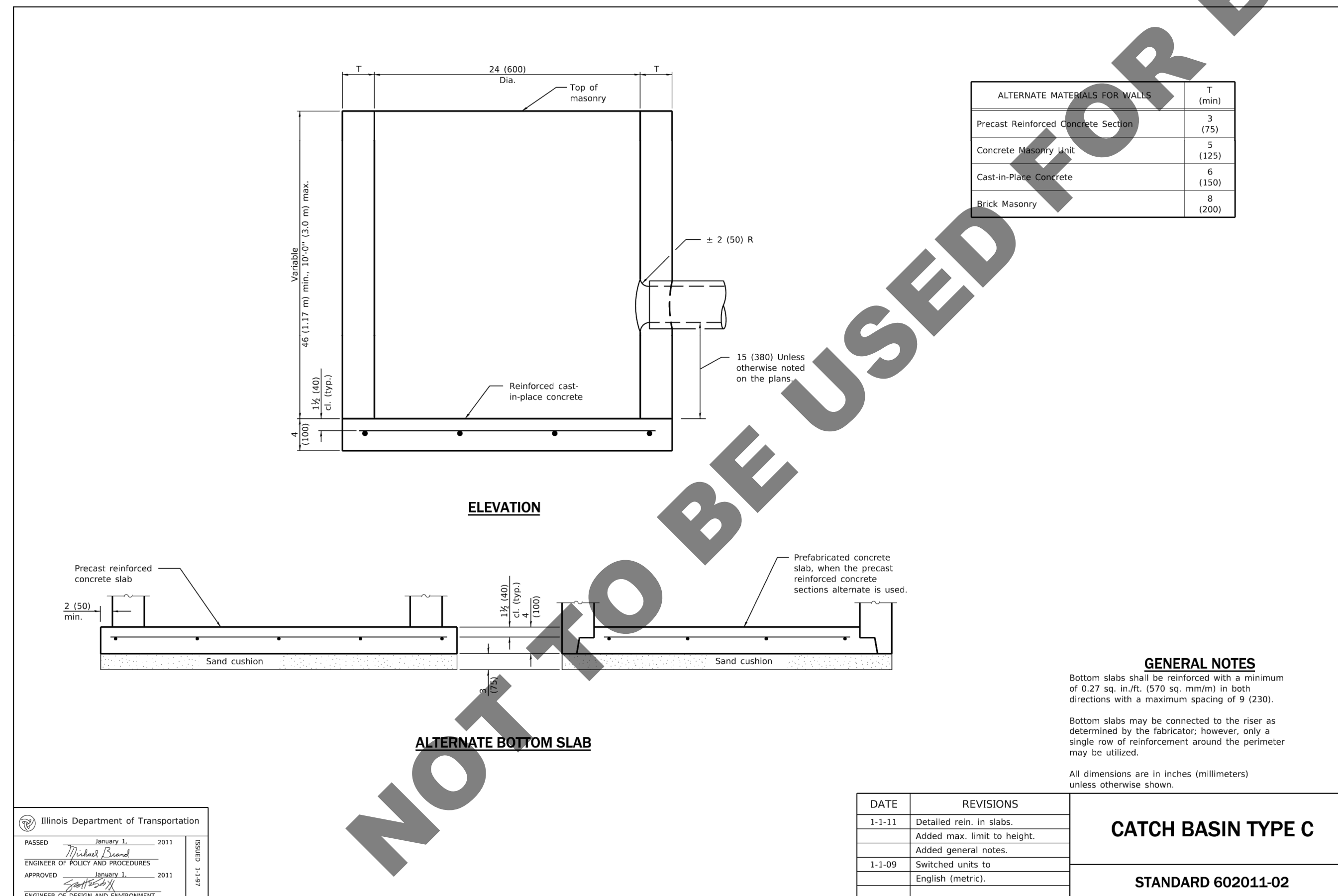
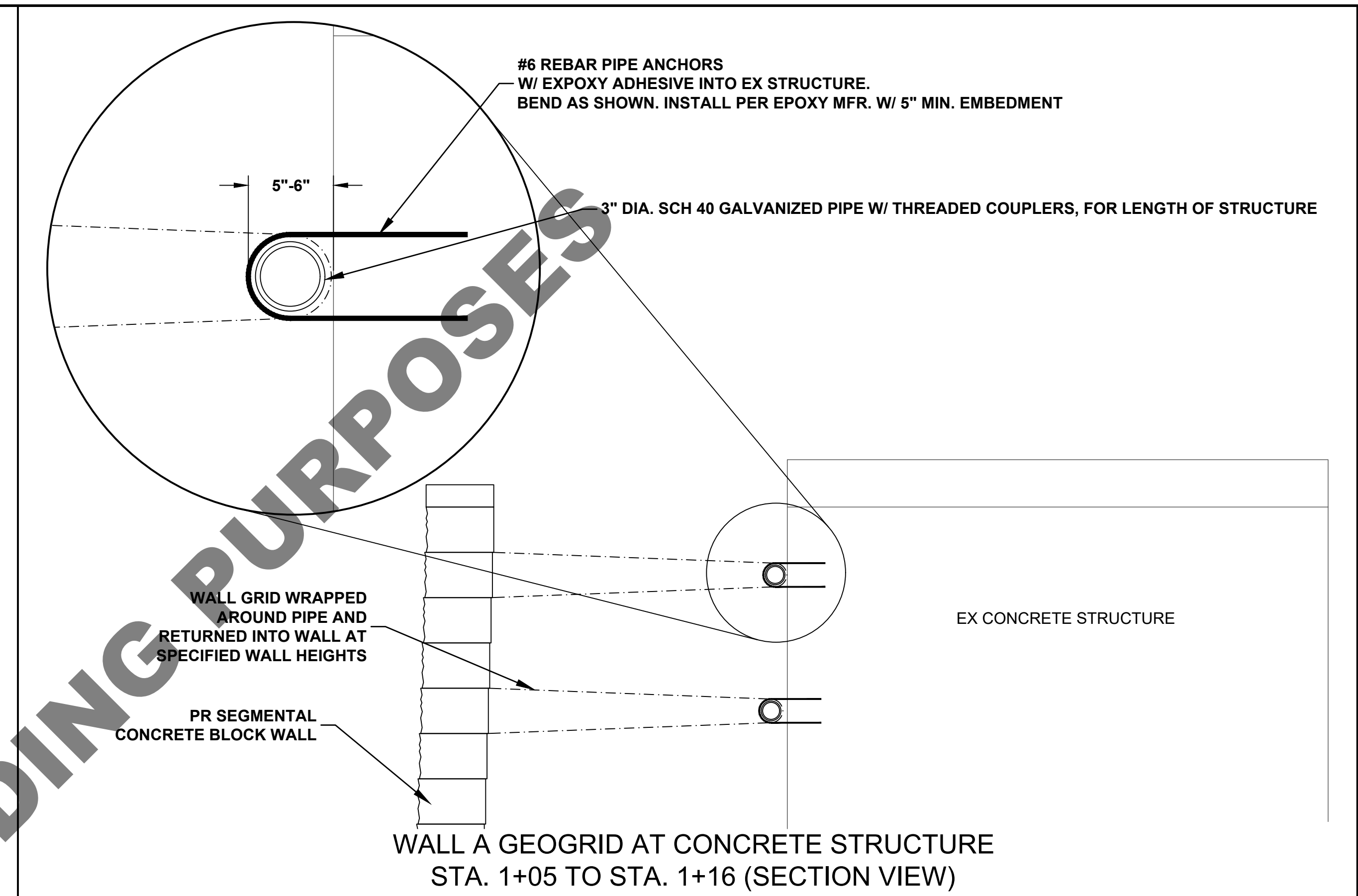
THE TOP OF THE LEVELING PAD SHALL BE A MINIMUM OF TWO FULL COURSES (1'-4") BELOW FINISHED GRADE AT THE FRONT FACE OF THE WALL AT ALL LOCATIONS.

DRAINAGE AGGREGATE SHALL BE PLACED FOR 12" WIDTH BEHIND ALL WALLS. A 4" PERFORATED DRAIN TILE (UNDERDRAIN) SHALL BE PLACED AT THE BASE OF DRAINAGE AGGREGATE AND SLOPED TO DRAIN TO DESIGNATED STORM WATER COLLECTION SYSTEM.

EPOXY REINFORCEMENT WHERE INDICATED SHALL BE HILTI HIT-RE 500 V3 OR EQUIVALENT.

MATERIAL REQUIREMENTS

SEGMENTAL CONCRETE BLOCK UNITS: KEYSTONE COMPAC III (TRI PLANE)
VERTICAL SETBACK: 1/8" PER COURSE (NEAR VERTICAL)
GEOGRID REINFORCEMENT: MIRAGRID 3XT BY TENCATE
TENSILE ULTIMATE STRENGTH: 1999 LBS/FT
CREEP REDUCED STRENGTH: 2414 LBS/FT
LONG TERM DESIGN STRENGTH (SAND/ CLAY-SILT): 1999 LBS/FT
LONG TERM DESIGN STRENGTH (3/4" AGGREGATE): 1900 LBS/FT
SOIL GRADATIONS (IDOT STANDARD SPECIFICATIONS)
LEVELING PAD: CA-6 OR CA-10
DRAINAGE AGGREGATE: CA-15 OR CA-16
SELECT FILL: CA-12 THRU CA-16, FA-1, FA-2 OR FA-20



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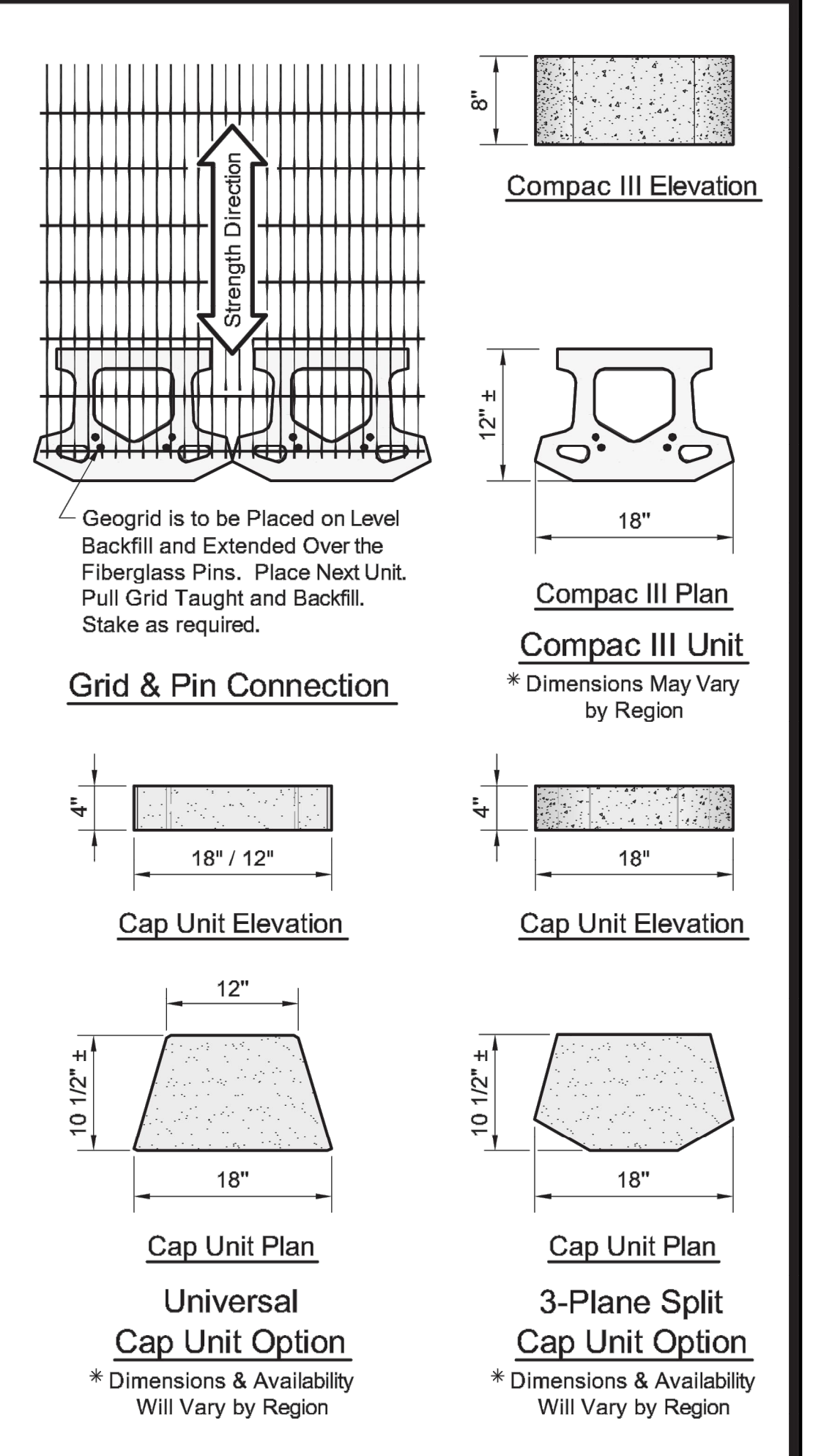
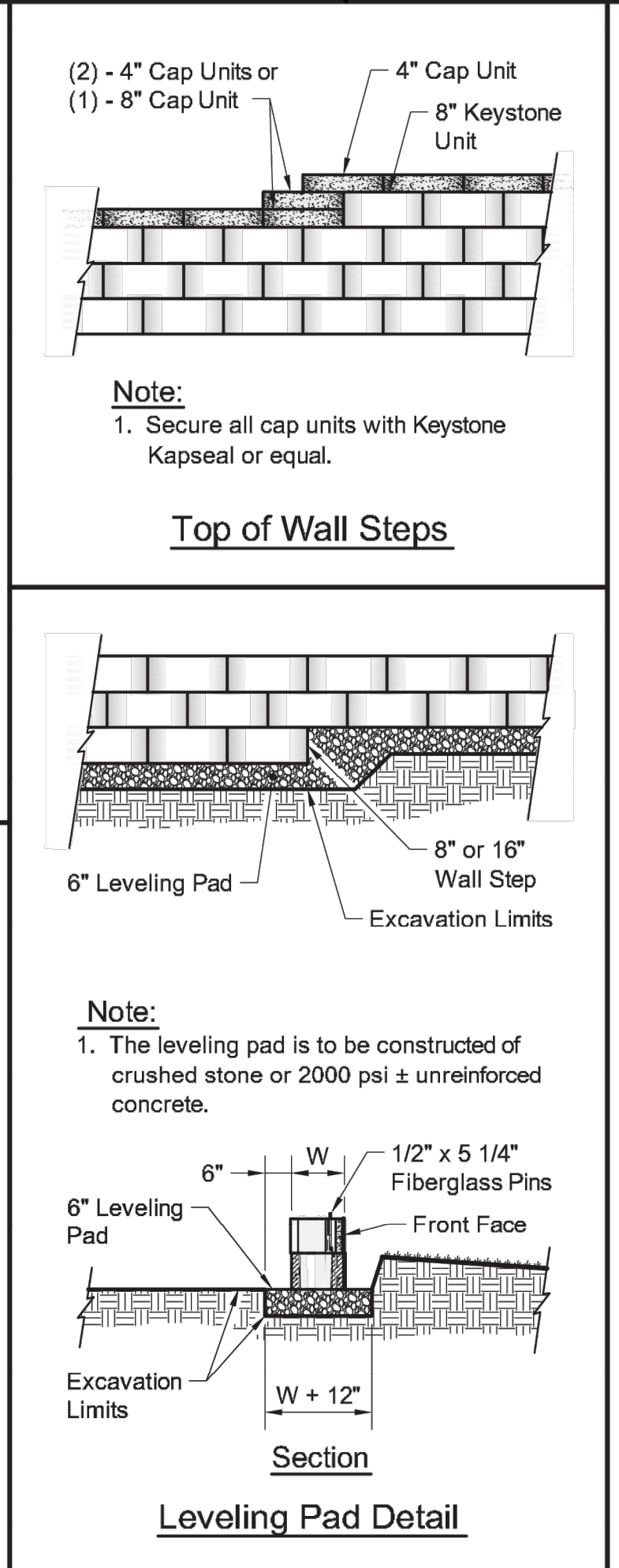
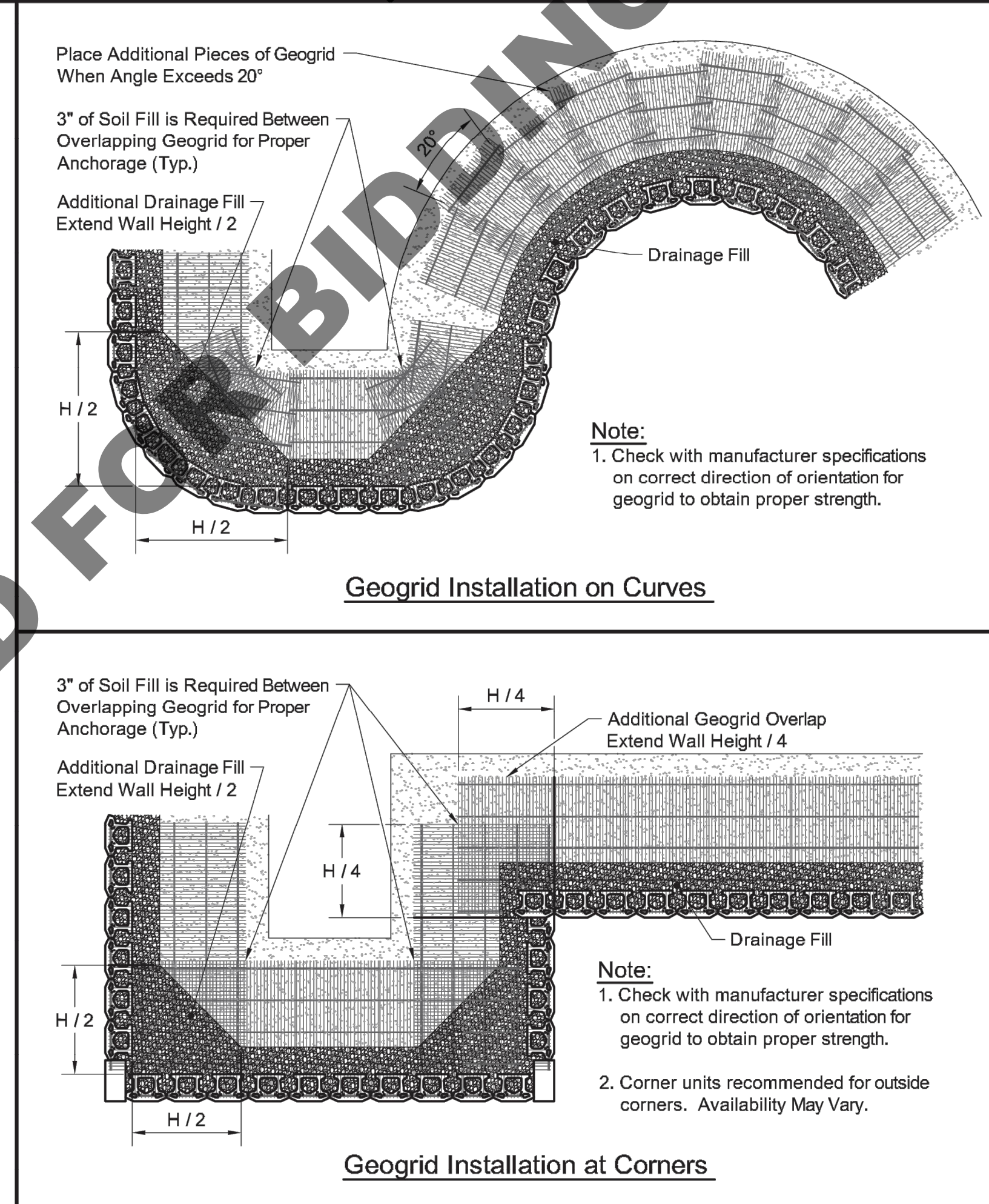
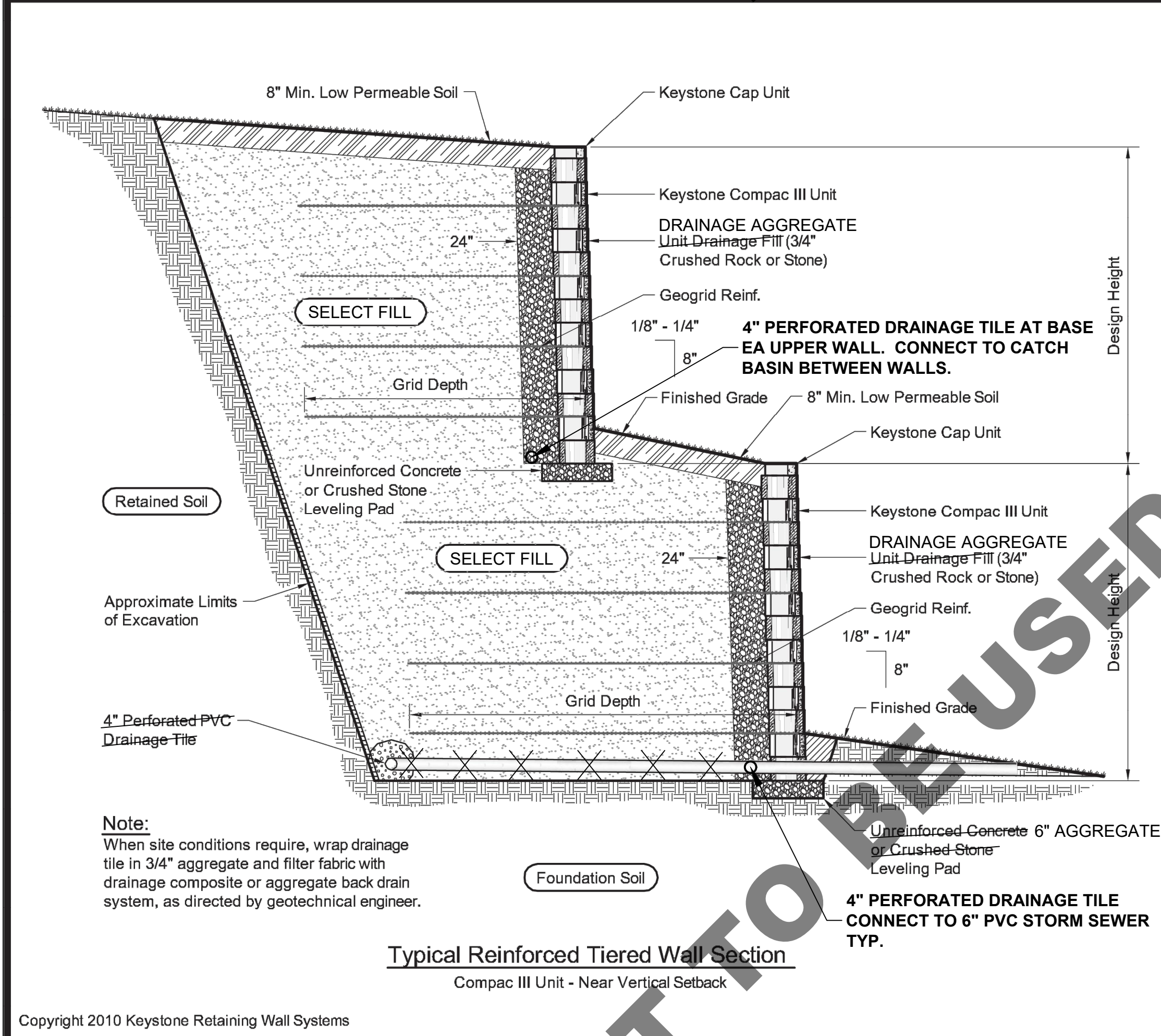
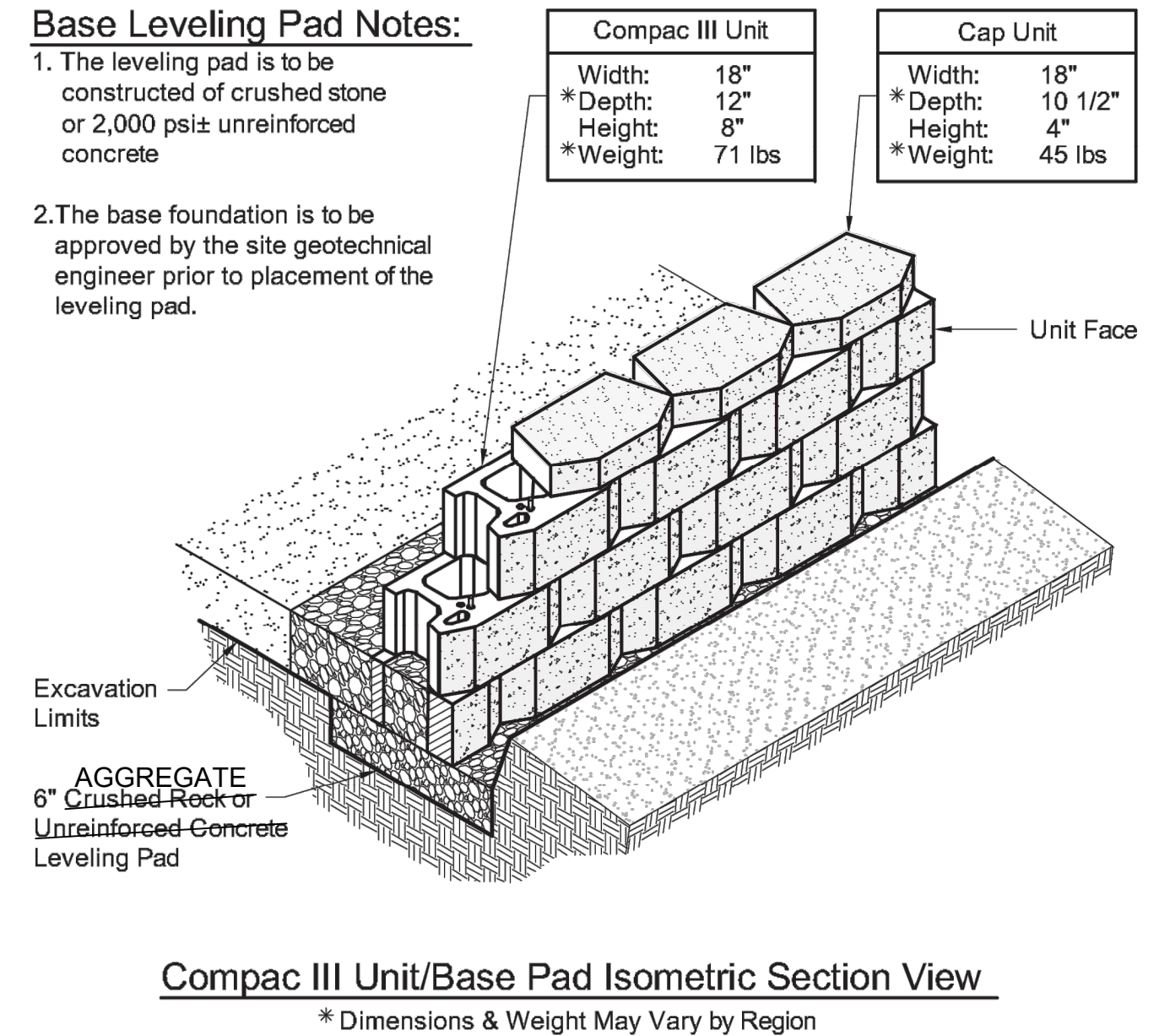
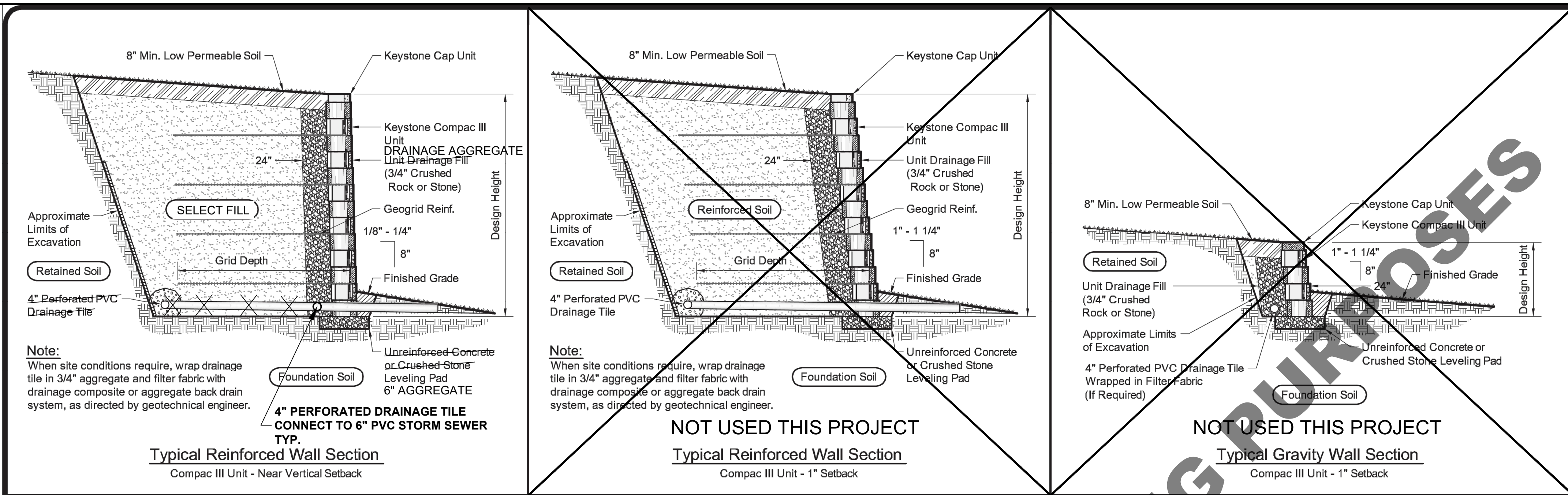
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PROJECT DETAILS 2 & STRUCTURAL NOTES

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Design is for internal stability of the KEYSTONE wall structure only. External stability, including but not limited to foundation and slope stability is the responsibility of the Owner. The design is based on the assumption that the materials within the retained mass, methods of construction, and quality of materials conform to KEYSTONE's specification for this project.

This drawing is being furnished for this specific project only. Any party accepting this document does so in confidence and agrees that it shall not be duplicated in whole or in part, nor disclosed to others without the consent of Keystone Retaining Wall Systems, Inc.

No.	Date	Revision	By

KEYSTONE
RETAINING WALL SYSTEMS
A CONTECH COMPANY

4444 W 78th Street
Minneapolis, MN 55435
952-897-1040

Designed By: RKM	Title: Compac III Unit - Tri Plane Face Details	Date:
Checked By: CDM	Project: Keystone Retaining Wall Systems Typical Wall Details	Project No:
Scale: No Scale		Drawing No:

Designed By: RKM	Title: Compac III Unit - Tri Plane Face Details	Date:
Checked By: CDM	Project: Keystone Retaining Wall Systems Typical Wall Details	Project No:
Scale: No Scale		Drawing No:

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