



WILMINGTON, NEW HANOVER COUNTY, NORTH CAROLINA

NEW HANOVER COUNTY LANDFILL

CONVENIENCE CENTER REDEVELOPMENT PROJECT

MARCH 2021



VICINITY PLAN
(NOT TO SCALE)



LOCATION PLAN
(NOT TO SCALE)

PROJECT DATA TABLE	
PROJECT NAME	NEW HANOVER COUNTY LANDFILL CONVENIENCE CENTER REDEVELOPMENT
PROJECT ADDRESS	5210 U.S. HIGHWAY 421 NORTH WILMINGTON, NC 28401
PARCEL ID(S)	R01500-002-001-001
OWNER'S NAME, ADDRESS, PHONE, FAX, AND EMAIL	NEW HANOVER COUNTY, 3002 U.S. HIGHWAY 421 NORTH WILMINGTON, NC 28401 PHONE: 910.798.4403 FAX: 910.798.4408 EMAIL: JSULEYMAN@NHCGOV.COM
PREPARER'S NAME, ADDRESS, PHONE, FAX, AND EMAIL	CDM SMITH INC., 5400 GLENWOOD AVE. SUITE 400, RALEIGH, NC 27612 PHONE: 919.325.3500 EMAIL: BROKAWMJ@CDMSMITH.COM
ZONING OF THE PROPERTY	I-2, INDUSTRIAL DISTRICT
CURRENT AND PROPOSED LAND USE	955, LANDFILL
AREA OF TRACT(S)	701.54 ACRES
REQUIRED SETBACKS	20' ALL SIDES
AMOUNT AND PERCENTAGE OF BUILT UPON AREA ALLOWED	84.185 AC. / 12.0% *
AMOUNT AND PERCENTAGE OF BUILT UPON AREA PROPOSED	TOTAL EXISTING: 38.45 AC./ 5.5% TOTAL PROPOSED: 42.47 AC./ 6.1%
PROPOSED PUBLIC ROADS	N/A
PROPOSED PUBLIC WATER/SEWER	ALL PRIVATE: PRIVATE SEPTIC SYSTEM PROPOSED (CONVENTIONAL), PRIVATE IRRIGATION WELL PROPOSED
PROPOSED PUBLIC STORMDRAIN	ALL PRIVATE
TOTAL NUMBER OF PARKING SPACES PROVIDED	4
NUMBER OF HANDICAPPED SPACES PROVIDED	1
FEMA DESIGNATED 100-YEAR FLOODPLAIN	NO
HISTORIC STRUCTURES	NO
LIMITS OF DISTURBANCE	7.1 ACRES

NOTE:

- * SITES UNDER 12% BUILT UPON AREA TYPICALLY CONSIDERED LOW-DENSITY DEVELOPMENT (<12% B.U.A.).

BUILDING/FIRE CODE TABLE		
BUILDING I.D. --	STAFF BLDG.	WELLHOUSE
BUILDING OCCUPANCY CLASSIFICATIONS	B, S-1	U
PROPOSED TYPE OF CONSTRUCTION	II-B	II-B
ACTUAL NUMBER OF STORIES ACTUAL MAXIMUM	1	1
BUILDING HEIGHT ACTUAL MAXIMUM	10'	9'
SQUARE FOOTAGE PER FLOOR	363 SF ENCLOSED CONDITIONED SPACE	120 SF ENCLOSED SPACE
SPRINKLER SYSTEM PLANNED	NO	NO

PERMIT SET - NOT FOR CONSTRUCTION



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DRAWING INDEX							
SHEET NO.	SHEET TITLE	SHEET NO.	SHEET TITLE	SHEET NO.	SHEET TITLE	SHEET NO.	SHEET TITLE
	GENERAL		CIVIL		ARCHITECTURAL		MECHANICAL
G001	COVER			A101	STAFF BUILDING FLOOR AND ROOF PLANS	M001	MECHANICAL ABBREVIATIONS, LEGEND AND GENERAL NOTES
G002	DRAWING INDEX	U200	OVERALL UTILITY PLAN	A102	CONVENIENCE CENTER OVERALL PLAN + ENLARGED BAY PLAN	M200	MECHANICAL PLAN AND SCHEDULES
G003	GENERAL NOTES AND LEGEND	U201	UTILITY PLAN INSETS	A111	REFLECTED CEILING PLAN AND FINISH PLAN	M500	MECHANICAL DETAILS I
G004	ARCHITECTURAL ABBREVIATIONS, SYMBOLS AND NOTES			A201	EXTERIOR ELEVATIONS	M501	MECHANICAL DETAILS II
G101	BUILDING CODE SUMMARY	C100	OVERALL GRADING AND DRAINAGE PLAN	A202	EXTERIOR ELEVATIONS		
		C101	GRADING AND DRAINAGE INSETS AND TABLES	A301	STAFF BUILDING SECTIONS		PLUMBING
C001	PROJECT LOCATION AND ACCESS PLAN	C111	STORM DRAINAGE PROFILES I	A401	ENLARGED TOILET AND KITCHENETTE ELEVATIONS	P001	PLUMBING ABBREVIATIONS, LEGEND, GENERAL NOTES, AND SCHEDULES
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	LAYOUT	C201	SEDIMENT AND EROSION CONTROL PLAN	A421	WALL SECTIONS I	P501	PLUMBING DETAILS II
L101	DEMOLITION PLAN	D101	PAVING DETAILS	A422	WALL SECTIONS II		
L201	LAYOUT PLAN	D201	UTILITY DETAILS I	A423	WALL SECTIONS III		ELECTRICAL
L210	STRIPING AND SIGNAGE PLAN	D202	UTILITY DETAILS II	A501	PLAN DETAILS I	E001	ELECTRICAL LEGEND AND NOTES
L401	PLANTING PLAN	D203	UTILITY DETAILS III	A502	PLAN DETAILS II	E002	ELECTRICAL GENERAL NOTES
L501	DETAILS	D301	GRADING AND DRAINAGE DETAILS I	A511	MILLWORK DETAILS	E100	SITE PLAN
L502	DETAILS	D302	GRADING AND DRAINAGE DETAILS II	A521	HEAD JAMB AND SILL DETAILS	E200	ELECTRICAL LIGHTING AND POWER PLAN
		D401	EROSION AND SEDIMENT CONTROL NOTES (NCGO1)	A525	ROOF DETAILS		
		D402	EROSION AND SEDIMENT CONTROL DETAILS I	A601	DOOR AND WINDOW SCHEDULE		
		D403	EROSION AND SEDIMENT CONTROL DETAILS II				
					STRUCTURAL		
		F-1	ASPHALT ROAD ALTERNATE	S100	GENERAL STRUCTURAL NOTES I		
				S100.1	GENERAL STRUCTURAL NOTES II		
				S101	FOUNDATION PLAN		
				S102	ROOF FRAMING PLAN		
				S201	STRUCTURAL FOUNDATION DETAILS		
				S301	STRUCTURAL FRAMING DETAILS		

REV. NO.	DATE	DRWN	CHKD	REMARKS

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NEW HANOVER COUNTY, NORTH CAROLINA

NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

DRAWING INDEX

PROJECT NO. 133920-237812
FILE NAME: G002GNLG.DWG

SHEET NO.
G002

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CIVIL AND SITE LEGEND

SYMBOL	FEATURE
	LIMITS OF DISTURBANCE
	PROPERTY LINE
	HORIZONTAL CONTROL POINT
	CDM SMITH BORING LOCATION (MAY 2019)
	EXISTING CHAINLINK FENCE OR GUARDRAIL
	TEMPORARY CONSTRUCTION FENCE
	SILT FENCE
	TREE LINE
	OVERHEAD UTILITY WIRES
	STORM DRAINAGE PIPE
	UNDERGROUND ELECTRIC LINE
	UNDERGROUND TELEPHONE/CABLE
	WATER LINE
	SANITARY SEWER
	EDGE OF PAVEMENT
	CONCRETE PAVEMENT
	ASPHALT PAVEMENT
	GRAVEL (WITH GEOCELL) PAVEMENT
	DEMOLISH OR REMOVE
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	PROPOSED DRAINAGE DITCH
	RIPRAP
	BUILDING OR STRUCTURE FOOTPRINT
	SILT FENCE OUTLET
	STONE CHECK DAM
	TEMPORARY CONSTRUCTION ENTRANCE
	FILER SOCK (SEDIMENT LOG)

	UTILITY POLE/LIGHT POLE
	GUY WIRE / ANCHOR
	SIGN
	BOLLARD/WOODEN POST
	WATER WELL
	WATER VALVE
	FIRE HYDRANT
	GRATED INLET
	FLARED-END SECTION
	ELECTRIC HANDHOLE/METER
	ELECTRIC CONTROL BOX
	SEWER MANHOLE
	TELEPHONE BOX/HANDHOLE
	SPOT ELEVATION
	DECIDUOUS TREE
	GROUNDWATER MONITORING WELL

ABBREVIATIONS

#	NUMBER
&	AND
@	DIAMETER
@	AT
ACM	ASBESTOS CONTAINING MATERIAL
ASPH	ASPHALT
BEG	BEGINNING
CL	CENTER LINE
CY	CUBIC YARDS
CONC	CONCRETE
CPP	CORRUGATED HDPE PIPE
EL	ELEVATION
EIP	IRON PIPE BOUNDARY MARKER
EP	EDGE OF PAVEMENT
FM	FORCE MAIN
FT	FEET/FOOT
GC	GEOCOMPOSITE
GCL	GEOCOMPOSITE CLAY LINER
GPS	GLOBAL POSITIONING SYSTEM
H	HORIZONTAL
HDPE	HIGH DENSITY POLYETHYLENE
HP	HIGH POINT
INV	INVERT
LP	LOW POINT
MAX	MAXIMUM
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MON	MONUMENT
MOT	MAINTENANCE OF TRAFFIC
NAD	NORTH AMERICAN DATUM
NAVD	NORTH AMERICAN VERTICAL DATUM
NO	NUMBER
NCDOT	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
NTS	NO POINT SET
NTS	NOT TO SCALE
OC	ON CENTER
OHE	OVERHEAD ELECTRIC
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
PC	POINT OF CURVE
PERF	PERFORATED
PI	POINT OF INTERSECTION
PT	POINT
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
R/W	RIGHT-OF-WAY
RCP	REINFORCED CONCRETE PIPE
REQ'D	REQUIRED
S	SECONDARY LINER
SB	STONE MONUMENT BOUNDARY
SDR	STANDARD DIAMETER RATIO
SCH	SCHEDULE
SS	STAINLESS STEEL OR SANITARY SEWER
STA	STATION
TEL	TELEPHONE
TEMP	TEMPORARY
TR	TRIANGULATION POINT
TYP	TYPICAL
V	VERTICAL
W	WIDTH
W/	WITH
WSE	WATER SURFACE ELEVATION
WWF	WELDED WIRE FABRIC
WV	WATER VALVE

SURVEY CONTROL NOTES:

- TOPOGRAPHIC SURVEY INFORMATION TAKEN FROM LIDAR DATA PROVIDED BY NEW HANOVER COUNTY, AND DATED MAY 2017. LIMITED UNDERGROUND UTILITY SURVEY OF THE PROJECT AREA WAS CONDUCTED BY ROBERT H. GOSLEE & ASSOCIATES, P.A. DATED JULY 12, 2019.
- THE CONTRACTOR SHALL MAKE HIS OWN DETERMINATION OF EXISTING CONDITIONS PRIOR TO BIDDING AND/OR STARTING WORK. NEW HANOVER COUNTY AND CDM SMITH ARE NOT RESPONSIBLE FOR CLAIMS, DAMAGES, OR LIABILITY ARISING FROM THE USE OF THE EXISTING CONDITIONS PROVIDED IN THIS DRAWING SET.
- HORIZONTAL DATUM SHOWN HEREIN IS WGS84, NC STATE PLANE COORDINATES, AND VERTICAL DATUM IS NAVD88.
- THE CONTRACTOR SHALL CONFIRM THE ACCURACY OF ANY BENCHMARKS PROVIDED WITHIN THIS DRAWING SET.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY ALL UTILITY OWNERS WHOSE FACILITIES WILL BE AFFECTED TO DETERMINE UTILITY LOCATION. THE CONTRACTOR SHALL PROTECT UTILITIES FROM DAMAGE UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL HOLD THE COUNTY HARMLESS FOR ANY THIRD-PARTY INCONVENIENCE CREATED BY WORK OF HIS OWN FORCES OR THAT OF HIS AGENTS.
 - FOR UTILITY LOCATIONS CALL NORTH CAROLINA ONE-CALL @ 1-800-632-4949
 - FOR UTILITY LOCATIONS NOT MEMBERS OF NC ONE-CALL CONTACT APPROPRIATE UTILITY OWNER

GENERAL NOTES:

- THE CONTRACTOR IS ADVISED OF THE PRESENCE OF LANDFILL GAS IN THE PROJECT AREA. THESE GASES ARE EMITTED FROM THE SURFACE OF THE LANDFILL AND CAN ACCUMULATE IN STRUCTURES. THE CONTRACTOR IS RESPONSIBLE FOR BEING AWARE OF THE DANGERS OF WORKING IN THE PRESENCE OF THESE GASES AND FOR PROVIDING PROPER SAFETY TRAINING AND EQUIPMENT FOR THE WORK FORCE.
- CONTRACTOR SHALL TAKE PRECAUTIONS NOT TO DAMAGE EXISTING UNDERGROUND PIPING IN THE PROJECT AREA, UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- CONTRACTOR IS RESPONSIBLE FOR PROTECTING, MAINTAINING, AND RESTORING ALL SITE UTILITIES, PRESERVATION AREAS, AND FACILITY SERVICES.
- NO ADDITIONAL PAYMENT SHALL BE MADE FOR MINOR FIELD ADJUSTMENTS DUE TO AUTOCAD INACCURACIES.
- THE LANDFILL AND FACILITIES WILL REMAIN IN OPERATION DURING THE EXECUTION OF THIS PROJECT. CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ACTIVITIES WITH NEW HANOVER COUNTY SO THAT LANDFILL OPERATIONS ARE NOT INTERRUPTED OR ADVERSELY IMPACTED. SOME FACILITIES WILL BE REQUIRED TO BE TEMPORARILY RELOCATED DURING CONSTRUCTION.
- NO SMOKING IS ALLOWED ON THE JOB SITE.
- THE LIMITS OF TRAILER AND STAGING AREA SHOWN ARE APPROXIMATE. STAGING SHALL BE COORDINATED WITH THE OWNER PRIOR TO BEGINNING CONSTRUCTION.
- REFER TO LAYOUT SHEETS FOR DEMOLITION NOTES, SITE LAYOUT NOTES, LANDSCAPE NOTES AND NEW HANOVER COUNTY NOTES.
- REFER TO SHEET C200 FOR SEQUENCE OF CONSTRUCTION AND SHEET D401 FOR EROSION AND SEDIMENT CONTROL NOTES.
- THERE ARE NO JURISDICTIONAL WETLANDS LOCATED ON OR ADJACENT TO THE PROPOSED CONSTRUCTION AREAS.
- CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN THE USE OF EQUIPMENT IN AND AROUND OVERHEAD AND UNDERGROUND ELECTRICAL WIRES AND SERVICES. IF AT ANY TIME IN THE PURSUIT OF THIS WORK, THE CONTRACTOR MUST WORK IN THE CLOSE PROXIMITY OF THE ABOVE-NOTED WIRES, THE ELECTRIC COMPANY SHALL BE CONTACTED PRIOR TO SUCH WORK AND THE PROPER SAFETY MEASURES TAKEN. A THOROUGH EXAMINATION OF THE OVERHEAD AND UNDERGROUND WIRES IN THE PROJECT AREA SHOULD BE MADE BY THE CONTRACTOR PRIOR TO THE INITIATION OF CONSTRUCTION.
- CONTRACTOR SHALL COORDINATE WITH OWNER ON TIMING OF ROAD CROSSING INSTALLATION AND ALL ACTIVITIES THAT MAY AFFECT DAILY OPERATIONS. THE ROAD CROSSING SHALL NOT BE CONDUCTED DURING OPERATIONAL HOURS AND SHALL BE COMPLETED PRIOR TO THE START OF OPERATIONAL HOURS. THE ROAD CROSSING SHALL NOT IMPACT OPERATIONS.

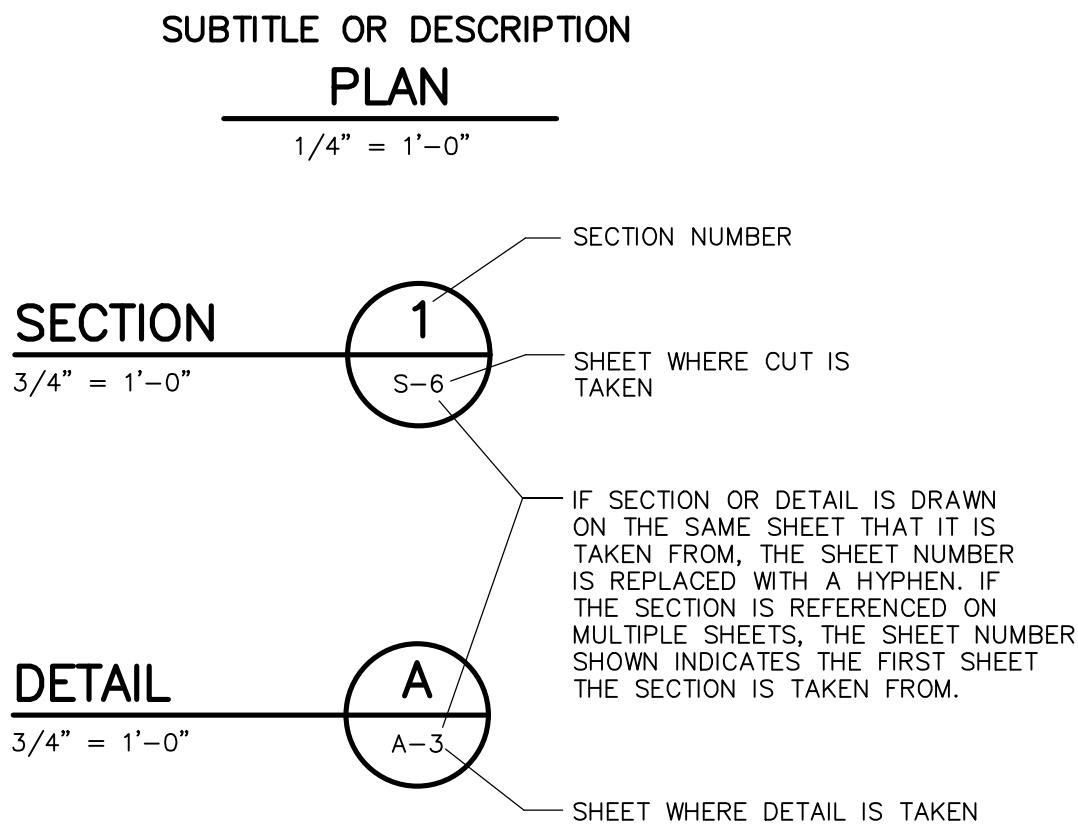
WATER AND SEWER NOTES:

- UTILITY DISCONNECTIONS TO BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY.
- BEFORE INSTALLATION OF STORM OR SANITARY SEWER, THE CONTRACTOR SHALL EXCAVATE AND VERIFY ALL CROSSINGS AND INFORM THE OWNER AND THE ENGINEER OF ANY CONFLICTS. THE ENGINEER WILL BE HELD HARMLESS IN THE EVENT HE IS NOT NOTIFIED OF DESIGN CONFLICTS PRIOR TO START OF CONSTRUCTION.
- ALL WATER AND SEWER CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIFICATIONS OF NEW HANOVER COUNTY.
- WATER LINES INSTALLED BELOW GRADE AND OUTSIDE OF BUILDINGS SHALL CONSIST OF:
 - PRIVATE WATER SERVICE LINES (3" OR SMALLER) – SHALL BE POLYVINYL CHLORIDE (PVC) WITH SCHEDULE 80 RATING, PER ASTM D1785. ASTM D3139 FOR GASKETED JOINTS USING WATERTIGHT ELASTOMERIC SEALS.
- SEWER LINES SHALL CONSIST OF:
 - GRAVITY SEWER (4", 6" OR 8") – FROM THE BUILDING TO SEPTIC TANK, AND SEPTIC TANK TO LEACH FIELD SHALL BE POLYVINYL CHLORIDE (PVC) WITH SCHEDULE 40 RATING, PER ASTM D2729 AND ASTM F794. ASTM D3212 FOR GASKETED JOINTS USING ELASTOMERIC SEALS.
 - SEPTIC FIELD TRENCH (4") – LEACHING PIPE IN SEPTIC FIELD TRENCHES SHALL BE CORRUGATED POLYETHYLENE (PE) PER ASTM F504. PIPE SHALL BE PERFORATED FOR TYPICAL SEPTIC FIELD APPLICATIONS.
- THE CONTRACTOR SHALL PAY ANY APPLICABLE WATER AND SEWER SERVICES INSPECTION FEES.
- ALL PROPOSED SANITARY SEWER LINES, PUMP STATIONS, WATER WELLS AND SEPTIC SYSTEMS SHALL BE PRIVATELY OWNED AND MAINTAINED BY NEW HANOVER COUNTY.
- ALL WATER LINES SHALL BE INSTALLED ABOVE SANITARY SEWER AND STORM SEWER LINES AND MAINTAIN A MINIMUM 18" VERTICAL SEPARATION IF/WHEN CROSSING. ALL UTILITIES SHALL MAINTAIN A MINIMUM 6' HORIZONTAL SEPARATION, EXCEPT WHEN CROSSING. HOWEVER, WATER LINES SHALL MAINTAIN A 10' HORIZONTAL SEPARATION FROM SEWER LINES AND ONSITE SEWAGE TREATMENT SYSTEM, WHERE POSSIBLE.
- THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL EXISTING UTILITIES AND TAKE CARE TO PROTECT UTILITIES THAT ARE TO REMAIN. REPAIR ANY DAMAGE ACCORDING TO LOCAL STANDARDS AND AT THE CONTRACTOR'S EXPENSE. COORDINATE ALL CONSTRUCTION WITH THE APPROPRIATE UTILITY COMPANY.
- ALL AND ANY FEES, LICENSES AND PERMITS NECESSARY FOR THIS CONSTRUCTION ARE TO BE OBTAINED PRIOR TO INITIATION OF CONSTRUCTION AND THE COST OF SAME TO BE BORNE BY THE CONTRACTOR. PERMITS SHALL BE PREPARED PER GOVERNING GUIDELINES AND MANUALS.
- ALL WATER MAIN AND SERVICE MATERIALS INCLUDING PIPE, VALVES, BACKFLOW PREVENTION DEVICES, APPURTENANCES, ETC. SHALL BE LEAD FREE AND COMPLY WITH THE "REDUCTION OF LEAD IN DRINKING WATER ACT" AS MANDATED BY THE EPA.

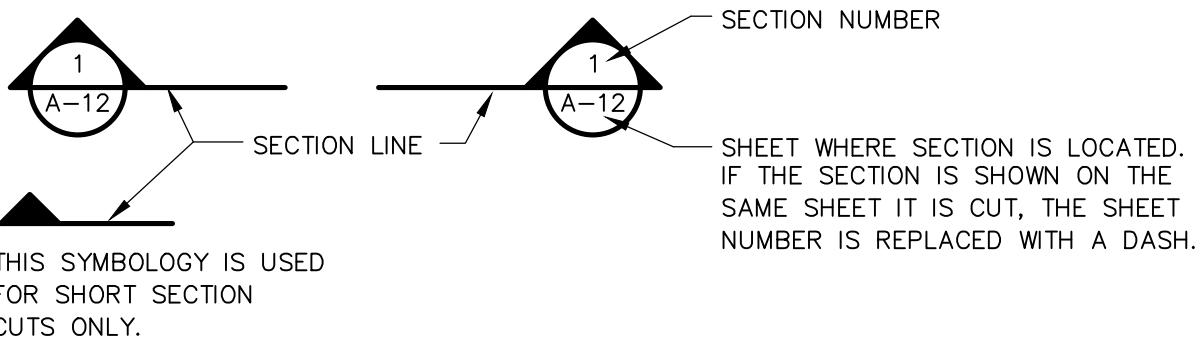
GRADING AND DRAINAGE NOTES:

- ALL GRADING, DRAINAGE, & EROSION CONTROL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND DETAILS.
- THE PROPOSED CONTOURS AND ELEVATIONS SHOWN ON THE DRAWINGS INDICATE FINISHED SURFACE GRADE. BOTTOM OF WALL ELEVATIONS AT RETAINING WALLS REFER TO FINISH GRADE, NOT TOP OR BOTTOM OF WALL FOOTING.
- NO WORK SHALL BE PERFORMED OUTSIDE THE PROJECT BOUNDARY WITHOUT THE PROPER AGREEMENTS WITH THE OWNER AND APPROPRIATE PERMITS.
- THE LOCATIONS AND/OR ELEVATIONS OF THE EXISTING UTILITIES SHOWN HEREON ARE BASED ON UTILITY COMPANY RECORDS, AND WHERE POSSIBLE, FIELD MEASUREMENTS. THE CONTRACTOR SHALL NOT RELY UPON THIS INFORMATION AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 3 DAYS BUT NOT MORE THAN 10 DAYS PRIOR TO ANY EXCAVATION AND REQUEST FIELD VERIFICATION OF UTILITY LOCATIONS. THE CONTRACTOR SHALL VERIFY DEPTH OF ALL UTILITIES TO REMAIN. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY DAMAGED UTILITIES ACCORDING TO LOCAL CODES AT THE CONTRACTORS EXPENSE.
- THE CONTRACTOR SHALL CHECK ALL EXISTING AND FINISHED GRADES, DIMENSIONS, ETC. PRIOR TO BEGINNING WORK. NOTIFY THE OWNERS REPRESENTATIVE OF ANY DISCREPANCIES AND/OR POTENTIAL ERRORS IN THE PLANS PRIOR TO COMMENCING WORK.
- TOPSOIL AND OTHER MATERIALS NOT SUITABLE FOR FILL OR REUSE SHALL BE DISPOSED OF AT AN APPROPRIATE FACILITY OR STOCKPILED AS DIRECTED BY THE OWNER.
- THE CONTRACTOR SHALL COMPLY WITH ALL PERTINENT O.S.H.A. PROVISIONS AND THE MANUAL OF ACCIDENT PREVENTION AND CONSTRUCTION ISSUED BY THE AGC OF AMERICA INCORPORATED, AND THE SAFETY AND HEALTH REGULATIONS OF CONSTRUCTION ISSUED BY THE U.S. DEPARTMENT OF LABOR.
- THE CONTRACTOR SHALL CONFORM TO ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES.
- THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE THROUGH THE SITE AND AWAY FROM EXISTING AND PROPOSED BUILDINGS DURING ALL PHASES OF CONSTRUCTION.
- SUBGRADE ELEVATIONS SHALL REFLECT THE SLOPE AND GRADE OF FINAL SURFACE ELEVATIONS.
- ALL CUT AND FILL SLOPES SHALL BE GRADED TO BE CONSISTENT AND UNIFORM AND SHALL NOT EXCEED 3H:1V.
- HANDICAP PARKING AREAS (PARKING SPACES AND ACCESS AISLES) SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION.
- SLOPE OF SIDEWALKS SHALL NOT EXCEED 4.5% UNLESS OTHERWISE NOTED.
- EXCAVATED SUBGRADES AND EACH LAYER OF FILL SHALL BE OF A QUALITY ACCEPTABLE TO THE OWNERS REPRESENTATIVE AND SHALL NOT INCLUDE ORGANIC MATERIAL, BOULDERS, DEBRIS, WET MATERIAL, ETC. CUT OR STRIPPED AREAS SHALL BE PROOF ROLLED PRIOR TO ANY FILLING. ALL GRADING ACTIVITY AND PLACEMENT OF MATERIAL SHALL BE MONITORED BY A QUALIFIED GEOTECHNICAL ENGINEER (OR THEIR REPRESENTATIVE). MATERIAL SHALL MEET OR EXCEED COMPACTION REQUIREMENTS SPECIFIED IN THE PROJECT SPECIFICATIONS.
- BY SUBMITTING A BID, THE CONTRACTOR ACKNOWLEDGES THAT THE SITE HAS BEEN INVESTIGATED TO DETERMINE TYPE, QUANTITY, QUALITY, AND CHARACTER OF EXCAVATION TO BE PERFORMED.
- THERE IS NO FILL WITHIN A DESIGNATED FLOODPLAIN PROPOSED AS PART OF THIS PROJECT.
- REFER TO EROSION AND SEDIMENT CONTROL PLANS (SHEETS C201) FOR EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
- APPLY TEMPORARY SEEDING TO SOIL STOCKPILES AND WHENEVER GRADING OPERATIONS ARE TEMPORARILY HALTED IN ACCORDANCE WITH THE GROUND STABILIZATION TIME FRAMES LISTED IN THE TABLE ON SHEET D401.
- APPLY PERMANENT SEEDING WHENEVER GRADING OPERATIONS ARE COMPLETED AND NO CONSTRUCTION OPERATIONS WILL IMPACT THE GRADED AREA.

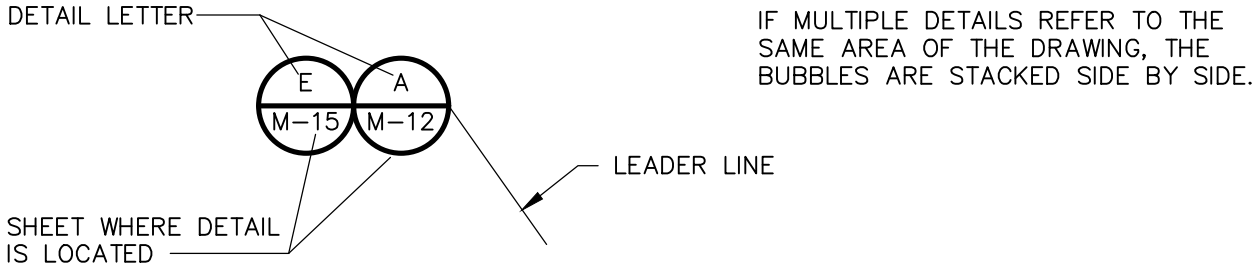
DRAWING. SECTION AND DETAIL TITLES



SECTION CUT SYMBOLS



DETAIL CALL OUT SYMBOLS



REV.	NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY:	M. BROKAW
DRAWN BY:	K. RYAN
SHEET CHK'D BY:	A. WEISPFENNING
CROSS CHK'D BY:	W. KARABLY
APPROVED BY:	M. BROKAW
DATE:	MARCH 2021

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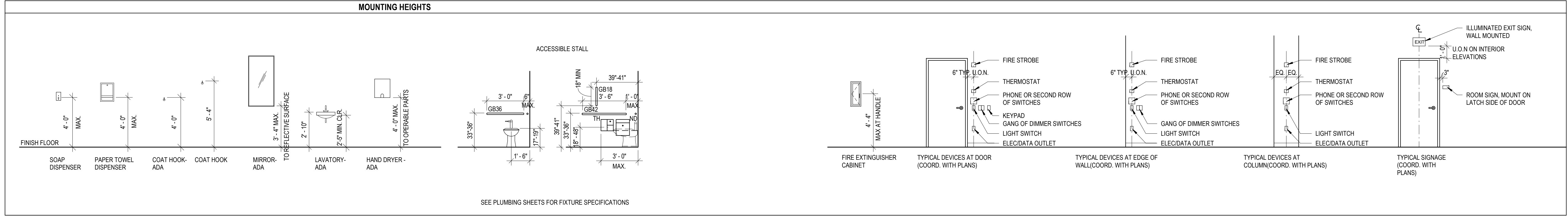
NEW HANOVER COUNTY, NORTH CAROLINA

NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

GENERAL NOTES AND LEGEND

PROJECT NO. 133920-237812 FILE NAME: G003CNLG.DWG
SHEET NO. G003

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ABBREVIATIONS			
@	AT	LAV	LAVATORY
AB	AIR BARRIER	LB	POUND
A/C	AIR CONDITION(ER)(ING)	LH	LEFT HAND
ACC	ACCESSIBLE	LVOC	LOW VOC
ACM	ALUMINUM COMPOSITE MATERIAL	MAX	MAXIMUM
ADJ	ADJACENT	MECH	MECHANICAL
AFF	ABOVE FINISH FLOOR	MFR	MANUFACTURER
AL	ALUMINUM	MIN	MINIMUM
ALT	ALTERNATE	MISC	MISCELLANEOUS
ARCH	ARCHITECT(URAL)	MO	MASONRY OPENING
BD	BOARD	MTL	METAL
BFF	BELOW FINISH FLOOR	N	NORTH
BLDG	BUILDING	NA	NOT APPLICABLE
BLKG	BLOCKING	NC	NON-COMBUSTIBLE
BOS	BOTTOM OF STEEL	NCSCB	NORTH CAROLINA STATE BUILDING CODE
BRG	BEARING	NIC	NOT IN CONTRACT
CG	CORNERGUARD	NO	NUMBER
CJ	CONTROL JOINT	NTS	NOT TO SCALE
CL	CENTERLINE	OC	ON CENTER
CLG	CEILING	OPP	OPPOSITE
CMU	CONCRETE MASONRY UNIT	OM	ORNAMENTAL METAL
COL	COLUMN	PL	PLATE
CONC	CONCRETE	PLAM	PLASTIC LAMINATE
CONT	CONTINUOUS	PLBG	PLUMBING
CPT	CARPET	PME	PLUMBING, MECHANICAL, ELECTRICAL
CW	CURTAIN WALL	PT	PRESSURE TREATED
DEMO	DEMOL(ISH)(ITION)	PVC	POLYVINYL CHLORIDE
DF	DRINKING FOUNTAIN	PWD	PLYWOOD
DIA	DIAMETER	RCP	REFLECTED CEILING PLAN
DIM	DIMENSION	RD	ROOF DRAIN
DN	DOWN	RDL	ROOF DRAIN LEADER
DTL	DETAIL	REF	REFRIGERATOR
DS	DOWNSPOUT	REINF	REINFORCE(D)(ING)(MENT)
DWG	DRAWING	REQ	REQUIRED
EA	EACH	RH	RIGHT HAND
EFS	EXTERIOR INSULATION AND FINISH SYSTEM	RM	ROOM
ELEC	ELECTRICAL	RO	ROUGH OPENING
EOD	EDGE OF DECK	RTU	ROOF TOP UNIT
EOS	EDGE OF STEEL	SCW	SOLID CORE WOOD
EQ	EQUAL	SF	SQUARE FOOT/FEET
EWC	ELECTRIC WATER COOLER	SFT	STOREFRONT
EXST	EXISTING	SIM	SIMILAR
EXT	EXTERIOR	SPEC	SPECIFICATION
FD	FLOOR DRAIN	SQ	SQUARE
FE	FIRE EXTINGUISHER	SS	STAINLESS STEEL
FEC	FIRE EXTINGUISHER CABINET	STD	STANDARD
FIN	FINISH	STL	STEEL
FLR	FLOOR	SUSP	SUSPENDED
FF	FINISH FLOOR	T&G	TONGUE & GROOVE
FPRF	FIREPROOFING	THRU	THROUGH
FRT	FIRE RETARDANT TREATED	TLT	TOILET
FT	FOOT/FEET	TOBB	TOP OF BOND BEAM
FV	FIELD VERIFY	TOM	TOP OF MASONRY
GA	GAUGE	TOP	TOP OF PARAPET
GALV	GALVANIZED	TOS	TOP OF STEEL
GC	GENERAL CONTRACTOR	TSTAT	THERMOSTAT
GFRC	GLASS FIBER REINFORCED CONCRETE	TYP	TYPICAL
GL	GLASS	UL	UNDERWRITERS LABORATORY
GLB	GYP SUM WALLBOARD	UON	UNLESS OTHERWISE NOTED
GYP	GYP SUM	VB	VAPOR BARRIER
HGT	HEIGHT	VCT	VINYL COMPOSITION TILE
HM	HOLLOW METAL	VIF	VERIFY IN FIELD
HR	HOUR	W	WITH
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING	WI	WITHIN
INFO	INFORMATION	WO	WITHOUT
INT	INTERIOR	WC	WATER CLOSET
JT	JOINT	WD	WOOD
		WT	WEIGHT
		WWF	WELDED WIRE FABRIC

MATERIAL LEGEND	
CMU	
BATT INSULATION	
WOOD	
BRICK	
STEEL	
GROUT, MORTAR, SAND, OR PRECAST	
ALUMINUM	
CONCRETE	
CARPET	
SOIL FILL	
ROCK FILL	
GYP SUM BOARD	
RIGID INSULATION	
PLYWOOD	
WOOD BLOCKING (CONTINUOUS)	
WOOD BLOCKING (INTERRUPTED)	

SYMBOL LEGEND	
ROOM NAME AND NUMBER	ROOM NAME 101
DOOR NUMBER	101
WALL TYPE	1
WINDOW TYPE	A
BUILDING ELEVATION	DRAWING NUMBER 1 A201 SHEET WHERE ELEV. IS DRAWN
INTERIOR ELEVATION	DRAWING NUMBER 1 A211 SHEET WHERE ELEV. IS DRAWN
BUILDING SECTION	DRAWING NUMBER 1 A211 SHEET WHERE SECT. IS DRAWN
WALL SECTION	DRAWING NUMBER 1 A211 SHEET WHERE SECT. IS DRAWN
EGRESS ARROW	
COLUMN BUBBLE	COLUMN LINE NUMBER OR LETTER 0 CENTERLINE
PLAN OR SECTION DETAIL	DRAWING NUMBER 1 A101 AREA DETAILED SHEET WHERE DETAIL IS DRAWN
NORTH ARROW	

GENERAL NOTES	
1.	GENERAL CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND PAYING FOR PERMITS AND INSPECTIONS REQUIRED BY PUBLIC AUTHORITIES GOVERNING THE WORK.
2.	REVIEW DOCUMENTS, VERIFY DIMENSIONS AND FIELD CONDITIONS. REPORT ANY CONFLICTS OR OMISSIONS TO THE ARCHITECT FOR CLARIFICATION PRIOR TO PERFORMING ANY WORK IN QUESTION.
3.	CONTRACTOR TO NOTIFY ARCHITECT OF ANY DISCREPANCIES BETWEEN ARCHITECTURAL AND CONSULTANT DRAWINGS, AND SHALL OBTAIN WRITTEN CLARIFICATION BEFORE PROCEEDING WITH THE WORK IN QUESTION OR RELATED WORK.
4.	SUBMIT REQUESTS FOR SUBSTITUTIONS, REVISIONS, OR CHANGES TO ARCHITECT ACCORDING TO THE PROJECT MANUAL.
5.	OWNER WILL PROVIDE WORK NOTED "BY OTHERS" OR "NIC" UNDER SEPARATE CONTRACT. INCLUDE SCHEDULE REQUIREMENTS IN CONSTRUCTION PROGRESS SCHEDULE AND COORDINATE TO ASSURE ORDERLY SEQUENCE OF INSTALLATION, UNLESS OTHERWISE DIRECTED. NOTIFY ARCHITECT OF ANY CONFLICTS OR DISCREPANCIES WITH NIC ITEMS. DO NOT SCALE DRAWINGS; WRITTEN DIMENSIONS GOVERN. IN CASE OF CONFLICT, CONSULT THE ARCHITECT.
7.	PROVIDE A PORTABLE FIRE EXTINGUISHER WITHIN 75 FOOT TRAVEL DISTANCE TO ALL PORTIONS OF THE BUILDING ON EACH FLOOR, AND ADDITIONAL FIRE EXTINGUISHERS AS REQUIRED BY FIRE OR BUILDING FIELD INSPECTORS.
8.	PROVIDE ILLUMINATED EXIT SIGN OVER REQUIRED EXITS, WHERE SHOWN ON DRAWINGS, AND ADDITIONAL SIGNS AS REQUIRED BY FIRE OR BUILDING FIELD INSPECTORS. CONNECT EXIT SIGNS TO EMERGENCY POWER CIRCUITS.
9.	GANG ADJACENT LIGHT SWITCHES AND COVER WITH A SINGLE PLATE.
10.	MAINTAIN INTEGRITY OF FIRE RESISTANCE RATING OF ALL RATED SHAFT ENCLOSURES AND RATED PARTITIONS BEHIND RECESSED WALL ACCESSORIES, SUCH AS FIRE EXTINGUISHER CABINETS, TOILET ACCESSORIES, AND ELECTRICAL BOXES.
11.	NO EXPOSED CONDUIT, WIRING, PIPING, OR BOXES IS PERMITTED WITHOUT ARCHITECT APPROVAL, UNLESS SPECIFICALLY NOTED OTHERWISE.
12.	GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR COORDINATION BETWEEN THE TRADES PROVIDING SYSTEMS IN OPEN CEILING CONDITIONS. COORDINATION DRAWINGS AND ANY CONFLICTS ARE TO BE REVIEWED WITH THE ARCHITECT PRIOR TO INSTALLATION.
13.	REFER TO THE PROJECT MANUAL FOR COMPLETE GENERAL REQUIREMENTS AND CONDITIONS OF THE CONTRACT. THE PROJECT MANUAL SHALL TAKE PRECEDENCE OVER THESE GENERAL NOTES IN THE EVENT OF A CONFLICT.
14.	IF PROVIDED, REFER TO ENLARGED PLANS AND PLAN DETAILS FOR ADDITIONAL INFORMATION AND DIMENSIONS.
15.	TYPICAL DETAILS SHOWN ON THE DRAWINGS SHALL BE INCORPORATED AT ALL APPROPRIATE LOCATIONS WHETHER OR NOT SPECIFICALLY REFERENCED AT EACH LOCATION.
16.	IN AREAS OF HARD CEILING, BUILDING SYSTEMS SHALL BE CONFIGURED TO AVOID OR MINIMIZE ABOVE-CEILING ACCESS. THE LOCATION OF ALL ACCESS DOORS MUST BE COORDINATED WITH AND APPROVED BY ARCHITECT PRIOR TO THE INSTALLATION OF ANY ABOVE-CEILING EQUIPMENT, DAMPERS, VALVES, JUNCTION BOXES, ETC. ANY ACCESS DOORS OR PANELS REQUIRED IN WALLS MUST ALSO BE COORDINATED WITH AND APPROVED BY THE ARCHITECT PRIOR TO THE INSTALLATION OF THE EQUIPMENT REQUIRING ACCESS.
17.	CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE ACCURACY OF HIS MEASUREMENTS AND TAKE-OFFS FOR MATERIAL ORDERS.
18.	VARIATIONS IN FLOOR LEVEL IN EXCESS OF 1/8" FOR EVERY 10'-0" (U.O.N.) SHALL BE LEVELED BY CONTRACTOR.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: _____ MDP_

DRAWN BY: _____ ABS_

SHEET CHK'D BY: _____ MDP_

CROSS CHK'D BY: _____ ABS_

APPROVED BY: _____ MDP_

DATE: _____ MARCH 2021_

CDM Smith

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NEW HANOVER COUNTY, NORTH CAROLINA

NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

ARCHITECTURAL ABBREVIATIONS,
SYMBOLS, AND GENERAL NOTES

PROJECT NO.: 133920-237812

FILE NAME: HA Project No. 1902

SHEET NO.

G004

PERMIT SET - NOT FOR CONSTRUCTION

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2018 APPENDIX B BUILDING CODE SUMMARY

NAME OF PROJECT: NEW HANOVER COUNTY LANDFILL - CONVENIENCE CENTER REDEVELOPMENT
ADDRESS: 5210 US-421N, Wilmington, NC 284021
PROPOSED USE: OFFICE BUILDING
OWNER/AUTHORIZED AGENT: NEW HANOVER COUNTY, JOE SULEYMAN
E-MAIL: JSULEYMAN@NHCGOV.COM
PHONE: 910.798.4408

OWNED BY: ☒ CITY/COUNTY ☐ PRIVATE ☐ STATE
CODE ENFORCEMENT JURISDICTION: ☐ CITY ☒ COUNTY ☐ STATE

LEAD DESIGN PROFESSIONAL: MIRANDA POTTHOFF, HUFFMAN ARCHITECTS

DESIGNER	FIRM	NAME	LICENSE #	PHONE #	EMAIL
ARCHITECTURAL	HUFFMAN ARCHITECTS	MIRANDA POTTHOFF	11663	(919)270-6455	MIRANDA@HUFFMANARCH.COM
CIVIL	CDM SMITH	MATTHEW J BROKAW	048829	(919)325-3527	BROKAWMJ@CDMSMITH.COM
ELECTRICAL	SIGMA ENGINEERD SOL	REGINALD ADAMS	19658	(919)840-9300	RADAMS@SIGMAES.COM
FIRE ALARM	SIGMA ENGINEERD SOL	REGINALD ADAMS	19658	(919)840-9300	RADAMS@SIGMAES.COM
PLUMBING	SIGMA ENGINEERD SOL	PAUL ROMITI	026581	(919)840-9300	PROMITI@SIGMAES.COM
MECHANICAL	SIGMA ENGINEERD SOL	PAUL ROMITI	026581	(919)840-9300	PROMITI@SIGMAES.COM
SPRINKLER	SIGMA ENGINEERD SOL	PAUL ROMITI	026581	(919)840-9300	PROMITI@SIGMAES.COM
STRUCTURAL	LYSAGHT & ASSOCIATES	CHARLES LYSAGHT	7929	(919)833.0495	CHUCK@LYSAGHTASSOCIATES.COM
RETAINING WALLS > 5' HIGH					
LANDSCAPE	TIMMONS GROUP	BRIAN STARKEY	549	(919)532-3240	BRIAN.STARKEY@TIMMONS.COM

2018 NC BUILDING CODE: ☒ NEW BUILDING ☐ ADDITION ☐ RENOVATION
☐ 1ST TIME INTERIOR COMPLETION
☐ SHELL/CORE
☐ PHASED CONSTRUCTION - SHELL/CORE

BASIC BUILDING DATA

CONSTRUCTION TYPE: ☐ I-A ☐ II-A ☐ III-A ☐ IV ☐ V-A
☐ I-B ☒ II-B ☐ III-B ☐ V-B

SPRINKLERS: ☒ NO ☐ PARTIAL ☐ YES ☐ NFPA 13 ☐ NFPA 13R ☐ NFPA 13D
STANDPIPES: ☒ NO ☐ YES CLASS: ☐ I ☐ II ☐ III ☐ WET ☐ DRY
FIRE DISTRICT: ☒ NO ☐ YES FLOOD HAZARD AREA: ☒ NO ☐ YES

SPECIAL INSPECTIONS REQUIRED: ☒ NO ☐ YES

GROSS BUILDING AREA TABLE:

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
3RD FLOOR	N/A	N/A	N/A
2ND FLOOR	N/A	N/A	N/A
MEZZANINE	N/A	N/A	N/A
1ST FLOOR	N/A	527	527
BASEMENT	N/A	N/A	N/A
TOTAL			527

ALLOWABLE AREA

PRIMARY OCCUPANCY CALCULATION

PRIMARY OCCUPANCY: ASSEMBLY: ☐ A-1 ☐ A-2 ☐ A-3 ☐ A-4 ☐ A-5
☒ BUSINESS ☐ EDUCATIONAL ☐ FACTORY-INDUSTRIAL: ☐ F-1 ☐ F-2
HIGH-HAZARD: ☐ H-1 ☐ H-2 ☐ H-3 ☐ H-4 ☐ H-5
INSTITUTIONAL: ☐ I-1 ☐ I-2 ☐ I-3 ☐ I-4
I-3 USE CONDITION: ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
☐ MERCANTILE ☐ RESIDENTIAL: ☐ R-1 ☐ R-2 ☐ R-3 ☐ R-4
STORAGE: ☐ S-1 ☐ S-2 ☐ HIGH-PILED
S-1 SPECIAL CONDITION: ☐ REPAIR GARAGE (406.6)
S-2 SPECIAL CONDITION: PARKING GARAGE: ☐ OPEN (406.3) ☐ ENCLOSED (406.4)
☐ UTILITY AND MISCELLANEOUS

OTHER USES: ACCESSORY USES (INDICATE PERCENTAGES):
INCIDENTAL USES: STORAGE

SPECIAL USES: ☐ 402 ☐ 403 ☐ 404 ☐ 405 ☐ 406 ☐ 407 ☐ 408 ☐ 409 ☐ 410 ☐ 411 ☐ 412
☐ 413 ☐ 414 ☐ 415 ☐ 416 ☐ 417 ☐ 418 ☐ 419 ☐ 420 ☐ 421

MIXED OCCUPANCY: ☒ NO ☐ YES SEPARATION: EXCEPTION:
☐ NON-SEPARATED MIXED OCCUPANCY (508.3.2)
☐ SEPARATED MIXED OCCUPANCY (508.3.3)

ACTUAL AREA OF OCCUPANCY A + ACTUAL AREA OF OCCUPANCY B < 1
ALLOWABLE AREA OF OCCUPANCY A ALLOWABLE AREA OF OCCUPANCY B

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA/TABLE 506.2 ¹ PER STORY (ACTUAL)	(B) AREA	(C) AREA FOR FRONTAGE INCREASE ¹	(D) ALLOWABLE AREA OR UNLIMITED	(E) MAXIMUM BUILDING AREA ¹
1	OFFICE/BREAKROOM	527	23,000	17,250	40,250	40,250

- FRONTAGE AREA INCREASES FROM SECTION 506.3 ARE COMPUTED THUS:
A. PERIMETER WHICH FRONTS A PUBLIC WAY OR OPEN SPACE HAVING 20 FEET MINIMUM WIDTH= .97 FT (F)
B. TOTAL BUILDING PERIMETER= 97.ET (P)
C. RATIO (F/P) = 97/97 = 1. (F/P)
D. W = MINIMUM WIDTH OF PUBLIC WAY = 30 FT (W)
E. PERCENT OF FRONTAGE INCREASE: (1 - 100 (97/97 - 0.25) x 30/30 = 100 [1-0.25] x 30/30 = 75(%)
- UNLIMITED AREA APPLICABLE UNDER CONDITIONS OF SECTION 507.
- MAXIMUM BUILDING AREA = TOTAL NUMBER OF STORIES IN THE BUILDING x D (MAXIMUM 3 STORIES) (506.2)
- THE MAXIMUM AREA OF OPEN PARKING GARAGES MUST COMPLY WITH TABLE 406.5.4.
- FRONTAGE INCREASE IS BASED ON THE UNSPRINKLERED AREA VALUE IN TABLE 506.2.

ALLOWABLE HEIGHT

	ALLOWABLE (TABLE 504.3) FEET _ 55 _	SHOWN ON PLANS 11'	CODE REFERENCE T504.3
BLDG HEIGHT IN FEET			
BLDG HEIGHT IN STORIES	STORIES _ 3 _	STORIES _ 1 _	T504.4

FIRE PROTECTION REQUIREMENTS
THIS SECTION REQUIRED FOR ALL PROJECTS

LIFE SAFETY PLAN SHEET #, IF PROVIDED:

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING REQ'D	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLIES	DESIGN # FOR RATED PENETRATION	DESIGN # FOR RATED JOINTS
BEARING WALLS						
EXTERIOR						
NORTH	30'	N/A				
EAST	30'	N/A				
WEST	30'	N/A				
SOUTH	30'	N/A				
INTERIOR	N/A	N/A				
NON-BEARING WALLS						
EXTERIOR						
NORTH	N/A	NC				
EAST	N/A	NC				
WEST	N/A	NC				
SOUTH	N/A	NC				
INTERIOR WALLS & PARTITIONS	N/A	NC				
STRUCTURAL FRAME, INCLUDING COLUMNS, GIRDERS, TRUSSES	OVER 30'	NC				
FLOOR CONSTRUCTION INCLUDING SUPPORTING BEAMS AND JOISTS: LIST CONSTRUCTION TYPE		N/A				
FLOOR CEILING ASSEMBLY		N/A				
COLUMNS SUPPORTING FLOORS		N/A				
ROOF CONSTRUCTION INCLUDING SUPPORTING BEAMS AND JOISTS*		NC				
ROOF CEILING ASSEMBLY		N/A				
COLUMNS SUPPORTING ROOF						
SHAFTS - EXIT ENCLOSURES	N/A	N/A				
SHAFT - OTHER (DESCRIBE)	N/A	N/A				
CORRIDOR SEPARATION	N/A	N/A				
OCCUPANCY SEPARATION	N/A	N/A				
PARTY/FIRE WALL SEPARATION	N/A	N/A				
INCIDENTAL USE SEPARATION	N/A	N/A				
DWELLING/SLEEPING UNIT SEPARATION	N/A	N/A				
SMOKE BARRIER SEPARATION	N/A	N/A				
TENANT SEPARATION	N/A	N/A				

* INDICATE SECTION NUMBER PERMITTING REDUCTION

PERCENTAGE OF WALL OPENING CALCULATIONS
THIS SECTION REQUIRED FOR ADDITIONS, NEW, AND CHANGE OF USE
ALLOWABLE OPENINGS PER TABLE 705.8

NO LIMIT

LIFE SAFETY SYSTEM REQUIREMENTS

EMERGENCY LIGHTING: ☐ NO ☒ YES
EXIT SIGNS: ☒ NO ☐ YES
FIRE ALARM: ☒ NO ☐ YES
SMOKE DETECTION SYSTEMS: ☒ NO ☐ YES ☐ PARTIAL
PANIC HARDWARE: ☒ NO ☐ YES

LIFE SAFETY PLAN REQUIREMENTS

LIFE SAFETY PLAN SHEET #: see A101

N/A ☐ FIRE AND/OR SMOKE RATED WALL LOCATIONS (CHAPTER 7)

N/A ☐ ASSUMED & REAL PROPERTY LINE LOCATIONS

N/A ☐ EXTERIOR WALL OPENING AREA WITH RESPECT TO DISTANCE TO ASSUMED PROPERTY LINES (705.8)

N/A ☐ EXISTING STRUCTURES WITHIN 30' OF THE PROPOSED BUILDING

☒ OCCUPANCY TYPES FOR EACH AREA AS IT RELATES TO OCCUPANT LOAD CALCULATION (TABLE 1004.1.1)

☒ OCCUPANT LOADS FOR EACH AREA

N/A ☐ EXIT ACCESS TO TRAVEL DISTANCES (1016)

N/A ☐ COMMON PATH OF TRAVEL DISTANCES (1014.3 & 1028.8)

N/A ☐ DEAD END LENGTHS (1018.4)

☒ CLEAR EXIT WIDTHS FOR EACH DOOR

☒ MAXIMUM CALCULATED OCCUPANT LOAD CAPACITY EACH EXIT DOOR CAN ACCOMMODATE BASED ON EGRESS WIDTH (1005.1)

☒ ACTUAL OCCUPANT LOAD FOR EACH EXIT DOOR

N/A ☐ A SEPARATE SCHEMATIC PLAN INDICATING WHERE FIRE RATED FLOOR/CEILING AND/OR ROOF STRUCTURE IS PROVIDED FOR PURPOSES OF OCCUPANCY SEPARATION

N/A ☐ LOCATION OF DOORS WITH PANIC HARDWARE (1008.1.10)

N/A ☐ LOCATION OF DOORS WITH DELAYED EGRESS LOCKS & THE AMOUNT OF DELAY (1008.1.9.7)

N/A ☐ LOCATION OF DOORS WITH ELECTROMAGNETIC EGRESS LOCKS (1008.1.9.8)

N/A ☐ LOCATION OF DOORS EQUIPPED WITH HOLD-OPEN DEVICES

N/A ☐ LOCATION OF EMERGENCY ESCAPE WINDOWS (1029)

N/A ☐ THE SQUARE FOOTAGE OF EACH FIRE AREA (902)

N/A ☐ THE SQUARE FOOTAGE OF EACH SMOKE COMPARTMENT (407.4)

N/A ☐ NOTE ANY CODE EXCEPTIONS OR TABLE NOTES THAT MAY HAVE BEEN UTILIZED REGARDING THE ITEMS ABOVE

ACCESSIBLE PARKING (SECTION 1106)

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES		# OF ACCESSIBLE SPACES PROVIDED			TOTAL # ACCESSIBLE PROVIDED
	REQUIRED	PROVIDED	REGULAR WITH 8' ACCESS AISLE	VAN SPACES WITH 132" ACCESS AISLE	8' ACCESS AISLE	
PARKING AT BUILDING		3			1	1
TOTAL		3			1	1

PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)

USE	WATERCLOSETS			URINALS	LAVATORIES			SHOWERS/ TUBS	DRINKING FOUNTAINS	
	MALE	FEMALE	UNISEX		MALE	FEMALE	UNISEX		REGULAR	ACCESSIBLE
STAFF OFFICE (OCCUPANT LOAD = 18)			1					1		AN ACCESSIBLE WATER COOLER WILL BE PROVIDED BY THE OWNER IN LIEU OF A DRINKING FOUNTAIN
TOTAL PROVIDED			1				1			
REQUIRED FIXTURES			1				1			

PER 2902.2, EXCEPTION 2, SEPARATE FACILITIES NOT REQUIRED IF OCCUPANT LOAD IS 25 OR FEWER.

SPECIAL APPROVALS

SPECIAL APPROVAL: (LOCAL JURISDICTION, DEPARTMENT OF INSURANCE, OSC, DPI, DHHS, ICC, ETC., DESCRIBE BELOW)
N/A

STRUCTURAL DESIGN

DESIGN LOADS

IMPORTANCE FACTORS: SNOW (S_s) _ 10 _
SEISMIC (I_E) _ 1.0 _

LIVE LOADS: ROOF _ 20 _ PSF
MEZZANINE _ N/A _ PSF
FLOOR _ 100 _ PSF

GROUND SNOW LOAD: _ 10 _ PSF

WIND LOAD: ULTIMATE WIND SPEED _ 147 _ MPH (ASCE-7)
EXPOSURE CATEGORY _ C _

SEISMIC DESIGN CATEGORY

☐ A ☐ B ☒ C ☐ D

PROVIDE THE FOLLOWING SEISMIC DESIGN PARAMETERS:

RISK CATEGORY (TABLE 1604.5) ☐ I ☒ II ☐ III ☐ IV ☐ V
SPECTRAL RESPONSE ACCELERATION S_s _ 20.4 _ %g S_t _ 6.2 _ %g

SITE CLASSIFICATION (ASCE7) ☐ A ☐ B ☐ C ☐ D ☒ E ☐ F ☐ G
DATA SOURCE: ☒ FIELD TEST ☐ PRESUMPTIVE ☐ HISTORICAL DATA

BASIC STRUCTURAL SYSTEM (CHECK ONE)

☒ BEARING WALL ☐ DUAL W/ SPECIAL MOMENT FRAME
☐ BUILDING FRAME ☐ DUAL W/ INTERMEDIATE R/C OR SPECIAL STEEL
☐ MOMENT FRAME ☐ INVERTED PENDULUM

ANALYSIS PROCEDURE: ☒ SIMPLIFIED ☐ EQUIVALENT LATERAL FORCE ☐ DYNAMIC
ARCHITECTURAL, MECHANICAL, COMPONENTS ANCHORED? ☒ YES ☐ NO

LATERAL DESIGN CONTROL: ☐ EARTHQUAKE ☒ WIND

SOIL BEARING CAPACITIES

FIELD TEST (PROVIDE COPY OF TEST REPORT) _ 2000 _ PSF
PRESUMPTIVE BEARING CAPACITY _ _ PSF
PILE SIZE, TYPE, AND CAPACITY _ _

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

THERMAL ZONE 3A

WINTER DRY BULB _ 23 DEGREES
SUMMER DRY BULB _ 93 DEGREES
SUMMER WET BULB _ 79 DEGREES

INTERIOR DESIGN CONDITIONS

WINTER DRY BULB _ 70 DEGREES
SUMMER DRY BULB _ 75 DEGREES

BUILDING HEATING LOAD _ 13.4 MBH

BUILDING COOLING LOAD _ 18.5 MBH

MECHANICAL SPACING CONDITIONING SYSTEM

UNITARY

DESCRIPTION OF UNIT _ SPLIT SYSTEM HEAT PUMP
HEATING EFFICIENCY _ 9.0 BTUH/WATT HSPF
COOLING EFFICIENCY _ 16 SEER
HEAT OUTPUT OF UNIT _ 11.8 MBH W/ 3.6 KW ELECTRIC HEAT
COOLING OUTPUT OF UNIT 18.8 MBH

BOILER N/A

SIZE CATEGORY: IF OVERSIZED, STATE REASON _

CHILLER N/A

SIZE CATEGORY: IF OVERSIZED, STATE REASON _

ENERGY SUMMARY

ENERGY REQUIREMENTS: THE FOLLOWING DATA SHALL BE CONSIDERED MINIMUM & ANY SPECIAL ATTRIBUTE REQUIRED TO MEET THE ENERGY CODE SHALL ALSO BE PROVIDED. EACH DESIGNER SHALL FURNISH THE REQUIRED PORTIONS OF THE PROJECT INFORMATION FOR THE PLAN DATA SHEET. IF PERFORMANCE METHOD, STATE THE ANNUAL ENERGY COST FOR THE STANDARD REFERENCE DESIGN VS. ANNUAL ENERGY COST FOR THE PROPOSED DESIGN.

CLIMATE ZONE ☒ 3 ☐ 4 ☐ 5

METHOD OF COMPLIANCE

☒ PRESCRIPTIVE (ENERGY CODE) ☐ PERFORMANCE (ENERGY CODE)
☐ PRESCRIPTIVE (ASHRAE 90.1) ☐ PERFORMANCE (ASHRAE 90.1)

THERMAL ENVELOPE

ROOF/CEILING ASSEMBLY (EACH ASSEMBLY)

DESCRIPTION OF ASSEMBLY: _ SEE SHEETS A421 AND A422 AND A525 _
U-VALUE OF TOTAL ASSEMBLY: _ SEE CALCULATIONS ON A421 AND A422 _
R-VALUE OF INSULATION: _ R-25 CONTINUOUS + TAPERED _
SKYLIGHTS IN EACH ASSEMBLY: N/A
U-VALUE OF SKYLIGHT: N/A
TOTAL SQUARE FOOTAGE OF SKYLIGHTS IN EACH ASSEMBLY: N/A

EXTERIOR WALLS (EACH ASSEMBLY)

DESCRIPTION OF ASSEMBLY: _ SEE SHEETS A421, A422, A501, A502 AND OTHER DETAILS _
U-VALUE OF TOTAL ASSEMBLY: _ 0.085 _
R-VALUE OF INSULATION: _ R-7.6 CONTINUOUS _
OPENINGS (WINDOWS OR DOORS WITH GLAZING)
U-VALUE OF ASSEMBLY: _ 0.29 _
SOLAR HEAT GAIN COEFFICIENT: _ 0.23 _
PROJECTION FACTOR: _ 0 _
DOOR R-VALUES: _ N/A _

WALLS BELOW GRADE (EACH ASSEMBLY)

DESCRIPTION OF ASSEMBLY: N/A
U-VALUE OF TOTAL ASSEMBLY: N/A
R-VALUE OF INSULATION: N/A

FLOORS OVER UNCONDITIONED SPACE (EACH ASSEMBLY)

DESCRIPTION OF ASSEMBLY: N/A
U-VALUE OF TOTAL ASSEMBLY: N/A
R-VALUE OF INSULATION: N/A

FLOORS SLAB ON GRADE

DESCRIPTION OF ASSEMBLY: _ SEE A421 AND A422 _
U-VALUE OF TOTAL ASSEMBLY: _ 0.78 _
R-VALUE OF INSULATION: N/A
HORIZONTAL/VERTICAL REQUIREMENT: _ NOT REQUIRED, VERTICAL SHOWN _
SLAB HEATED: N/A

SECTION 502.4.3 SEALING OF BUILDING ENVELOPE (INDICATE WHERE DETAILS ARE IN THE SET)

☒ JOINT AROUND FENESTRATION AND DOOR FRAMES
☒ JUNCTION BETWEEN WALLS AND FOUNDATIONS: WALLS AT BUILDING CORNERS, WALLS AND STRUCTURAL FLOORS OR ROOFS, WALLS AND ROOF OR WALL PANELS
☒ OPENINGS AT PENETRATIONS OF UTILITY SERVICES THROUGH ROOFS, WALLS, AND FLOORS INCLUDING BUT NOT LIMITED TO ELECTRICAL, PLUMBING, MECHANICAL, SECURITY AND COMMUNICATIONS.
☒ SITE-BUILT FENESTRATION AND DOORS
☒ JOINTS, SEAMS AND PENETRATIONS OF AIR BARRIER SYSTEM.
☐ OTHER OPENINGS IN THE BUILDING ENVELOPE.

SEE SHEETS A421, A422, A501, A502, A521, A525 AND SELECT DETAILS ON MECHANICAL AND PLUMBING DRAWINGS.

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

THIS SECTION REQUIRED FOR ALL PROJECTS THAT INCLUDE ELECTRICAL DESIGN.

METHOD OF COMPLIANCE: ENERY CODE: ☒ PRESCRIPTIVE ☐ PERFORMANCE
ASHRAE 90.1: ☐ PRESCRIPTIVE ☐ PERFORMANCE

LIGHTING SCHEDULE (EACH FIXTURE TYPE)

LAMP TYPE REQUIRED IN FIXTURE _ SEE FIXTURE SCHEDULE _
NUMBER OF LAMPS IN FIXTURE _ SEE FIXTURE SCHEDULE _
BALLAST TYPE USED IN THE FIXTURE _ SEE FIXTURE SCHEDULE _
NUMBER OF BALLASTS IN FIXTURE _ SEE FIXTURE SCHEDULE _
TOTAL WATTAGE PER FIXTURE _ SEE FIXTURE SCHEDULE _
TOTAL INTERIOR WATTAGE SPECIFIED VS. ALLOWED _ 500 VS 1000 _
TOTAL EXTERIOR WATTAGE SPECIFIED VS. ALLOWED _ 200 VS 700 _

ADDITIONAL PRESCRIPTIVE COMPLIANCE

☐ 506.2.1 MORE EFFICIENT MECHANICAL EQUIPMENT
☒ 506.2.2 REDUCED LIGHTING POWER DENSITY
☐ 506.2.3 ENERGY RECOVERY VENTILATION SYSTEMS
☐ 506.2.4 HIGHER EFFICIENCY SERVICE WATER HEATING
☐ 506.2.5 ON-SITE SUPPLY OF RENEWABLE ENERGY
☐ 506.2.6 AUTOMATIC DAYLIGHTING CONTROL SYSTEMS

REV. NO.	DATE	DRWN	CHKD		REMARKS

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- NOTES:
1. THE CONTRACTOR SHALL ENTER AND EXIT THE FACILITY FROM HWY 421. CONTRACTOR SHALL IMPLEMENT NECESSARY MEASURES, IN ADDITION TO MEASURES SHOWN ON SHEET C201, TO PREVENT SEDIMENT TRACKING WHEN EXITING THE SITE.
 2. CONTRACTOR SHALL COORDINATE WITH THE OWNER FOR ACCESS TO THE LANDFILL SITE, INCLUDING ALLOWED HOURS OF WORK AND GATE ACCESS KEYS IF PROVIDED BY THE COUNTY.
 3. CONTRACTOR SHALL MAINTAIN TEMPORARY CONSTRUCTION SIGNAGE AT THE ENTRANCE/EXIT TO THE PROJECT AREA, INCLUDING A LARGE HAZARD ORANGE SIGN READING 'CONSTRUCTION ACCESS, AUTHORIZED PERSONNEL ONLY', OR SIMILAR, AT ALL TIMES AND IMPLEMENT ADDITIONAL TRAFFIC CONTROL MEASURES WHEN NECESSARY.
 4. CONTRACTOR SHALL UTILIZE FLAGGERS AND IMPLEMENT ADDITIONAL TRAFFIC CONTROL MEASURES WHEN NECESSARY, OR DIRECTED BY THE OWNER AND/OR ENGINEER.
 5. CONTRACTOR SHALL MAINTAIN AND RESTORE GRAVEL ACCESS ROADS TO PRE-CONSTRUCTION CONDITIONS ALONG THE ROUTE SHOWN ON THIS PLAN. CONTRACTOR SHALL TAKE HIS/HER OWN PRE-CONSTRUCTION PHOTOGRAPHY ALONG THE ENTIRE HAUL ROUTE TO DOCUMENT EXISTING CONDITIONS.
 6. CONTRACTOR MAY USE REAR ENTRANCE (NORTH OF THE LANDFILL) FOR GENERAL ACCESS IF DESIRED. THIS ROUTE IS NOT SUITABLE FOR EQUIPMENT AND MATERIAL DELIVERIES.
 7. CONTRACTOR STAGING AREA IS LOCATED ON TOP OF AN IDENTIFIED ASBESTOS FIELD. CONTRACTOR SHALL, UNDER NO CIRCUMSTANCE, EXCAVATE WITHIN THIS AREA. CONTRACTOR IS ALLOWED TO STAGE ABOVE GROUND SURFACE ONLY. CONTRACTOR MAY COORDINATE WITH THE COUNTY TO UTILIZE THE NEARBY UTILITY POLE TO PROVIDE POWER TO A CONSTRUCTION TRAILER IF NEEDED.
 8. REFER TO SHEET C002 FOR HORIZONTAL CONTROL POINT TABLE (NORTHING AND EASTING COORDINATES).



REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: M. BROKAW
DRAWN BY: K. RYAN
SHEET CHK'D BY: A. WEISPFENNING
CROSS CHK'D BY: W. KARABLY
APPROVED BY: M. BROKAW
DATE: MARCH 2021

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NC F-1255

NEW HANOVER COUNTY, NORTH CAROLINA

NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

PROJECT LOCATION AND ACCESS PLAN

LANDFILL SITE CONTROL POINT DATA			
POINT NUMBER	NORTHING	EASTING	ELEVATION
CP-1	210102.37	2304635.31	26.10
CP-2 (NOT SHOWN)	210470.67	2306618.26	13.24
CP-3	211950.31	2305462.50	23.91

PROJECT NO. 133920-237812
FILE NAME: C001ESPL.DWG

SHEET NO.
C001

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LIMITS OF DISTURBANCE		
POINT NO.	NORTHING	EASTING
1	210974.22	2306005.07
2	210983.93	2306102.77
3	211007.84	2306176.06
4	211028.46	2306214.30
5	211083.77	2306201.35
6	211164.19	2306139.45
7	211342.87	2306109.62
8	211419.63	2306071.42
9	211497.43	2306027.71
10	211639.64	2305975.07
11	211637.84	2305882.36
12	211688.07	2305768.71
13	211692.29	2305692.33
14	211588.72	2305566.62
15	211329.70	2305734.63
16	211078.17	2305881.56
17	211000.20	2305906.70

STAGING AREA LIMITS (NOT SHOWN)		
POINT NO.	NORTHING	EASTING
18	211926.10	2305531.45
19	212017.84	2305625.04
20	212114.57	2305537.92
21	212019.60	2305436.50

NOTES:

- TOPOGRAPHIC SURVEY INFORMATION TAKEN FROM LIDAR DATA PROVIDED BY NEW HANOVER COUNTY AND DATED MAY 2019. UNDERGROUND UTILITY SURVEY OF THE PROJECT AREA WAS CONDUCTED BY ROBERT H. GOSLEE & ASSOCIATES, P.A. DATED JULY 12, 2019. THE CONTRACTOR SHALL MAKE HIS OWN DETERMINATION OF EXISTING CONDITIONS PRIOR TO STARTING WORK. THE OWNER AND CDM SMITH ARE NOT RESPONSIBLE FOR CLAIMS, DAMAGES, OR LIABILITY ARISING FROM THE USE OF THE EXISTING CONDITIONS SHOWN.
- HORIZONTAL DATUM IS NORTH CAROLINA STATE PLANE FEET (WGS84). VERTICAL INFORMATION REFERENCE DATUM NAVD 88. ALL COORDINATES AND ELEVATIONS SHOWN ON THESE PLANS ARE ASSUMED TO BE IN THIS DATUM UNLESS OTHERWISE NOTED.
- UNDERGROUND UTILITY SURVEYS SHOWN (WATER, STORM SEWER, ELECTRIC) WERE ONLY PARTIAL SURVEYS, LIMITED TO THE PROJECT AREA. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING AND LOCATING ALL UTILITIES PRIOR TO THE START OF WORK. ALL UTILITIES THAT ARE NOT INTENDED TO BE DEMOLISHED SHALL BE PROTECTED THROUGHOUT THE PROJECT. ANY DAMAGED UTILITIES SHALL BE REPAIRED OR REPLACED AT THE CONTRACTORS EXPENSE.
- TOTAL AREA OF DISTURBANCE FOR THE PROJECT SHALL BE UP TO 6.0 ACRES AS IDENTIFIED BY THE LIMITS OF DISTURBANCE SHOWN ON THIS SHEET. THE CONTRACTOR SHALL NOT EXCEED THESE LIMITS WITHOUT A MODIFICATION TO THE EROSION AND SEDIMENT CONTROL PERMIT THAT WOULD COME AT THE CONTRACTORS EXPENSE.
- SEE SHEET C001 FOR LOCATION OF CONTRACTOR STAGING AREA IN PLAN VIEW. STAGING IS LOCATED JUST NORTH OF COMPOSTING AREA IN DECOMMISSIONED ASBESTOS FIELD. CONTRACTOR SHALL NOT DISTURB GROUND COVER IN THIS AREA.
- SOME CONTOURS SHOWN ARE OF EXISTING COUNTY STOCKPILES. COUNTY MATERIALS MAY BE REMOVED FROM THE PROJECT AREA PRIOR TO CONSTRUCTION AND CONTOURS MAY VARY.
- REFERENCE GEOTECHNICAL REPORT IN CONTRACT DOCUMENTS FOR EXACT LOCATIONS AND COORDINATES OF BORINGS.



PLAN

1" = 40'

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: M. BROKAW
DRAWN BY: K. RYAN
SHEET CHK'D BY: A. WEISFENNING
CROSS CHK'D BY: W. KARABLY
APPROVED BY: M. BROKAW
DATE: MARCH 2021

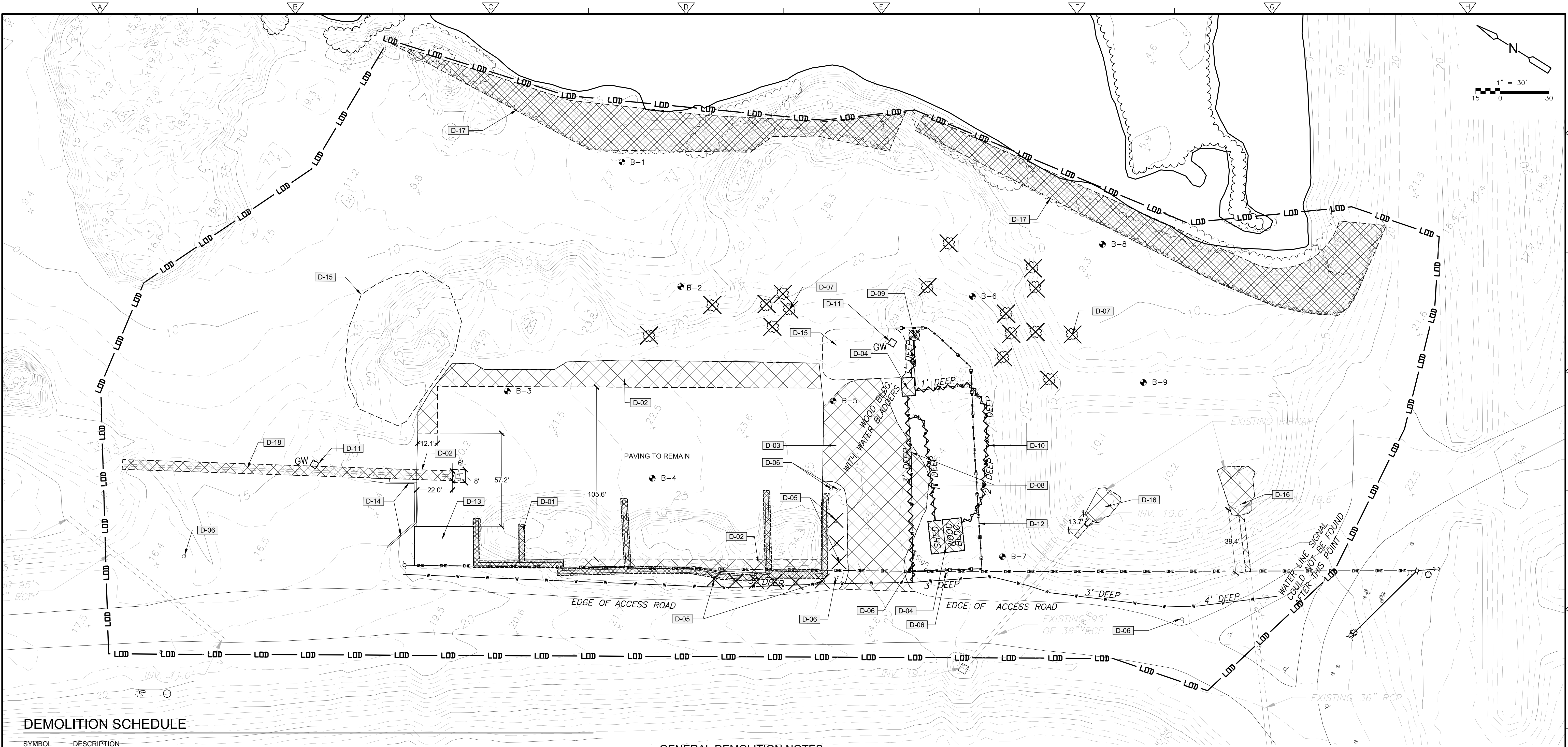
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NEW HANOVER COUNTY, NORTH CAROLINA
NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

EXISTING CONDITIONS PLAN

PROJECT NO. 133920-237812
FILE NAME: C002ECP.DWG
SHEET NO.
C002

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DEMOLITION SCHEDULE

SYMBOL	DESCRIPTION
D-01	OWNER TO RELOCATE INTERLOCKING CONCRETE BIN BLOCK WALLS PRIOR TO CONSTRUCTION. BIN BLOCKS APPROVED BY ENGINEER / OWNER TO BE REUSED FOR NEW WALLS AS SHOWN ON THE LAYOUT SHEET.
D-02	REMOVE CONCRETE PAVING IN ITS ENTIRETY TO LIMITS SHOWN. SAW CUT AT EXISTING JOINT AND PROTECT EDGE.
D-03	REMOVE GRAVEL PAVING IN ITS ENTIRETY TO LIMITS SHOWN.
D-04	OWNER TO RELOCATE BUILDING PRIOR TO CONSTRUCTION.
D-05	OWNER TO REMOVE NINE WOODEN POLES IN THEIR ENTIRETY, INCLUDING ANY FOOTINGS PRIOR TO CONSTRUCTION.
D-06	OWNER TO REMOVE AND DISPOSE OF SIGN IN ITS ENTIRETY, INCLUDING ANY FOOTINGS PRIOR TO CONSTRUCTION.
D-07	REMOVE 16 TREES IN THEIR ENTIRETY, INCLUDING ROOT BALLS.
D-08	REMOVE WATER LINE TO LIMITS SHOWN. CAP CONNECTION TO MAIN TRUNK. PROTECT WATER LINE TO REMAIN.
D-09	OWNER TO ABANDON WATER SUPPLY WELL PRIOR TO CONSTRUCTION.
D-10	REMOVE ELECTRICAL LINE TO LIMITS SHOWN.
D-11	EXISTING (2) GROUNDWATER WELLS TO BE RELOCATED BY NEW HANOVER COUNTY
D-12	OWNER TO REMOVE FENCE IN ITS ENTIRETY, INCLUDING ANY FOOTINGS, TO LIMITS SHOWN PRIOR TO CONSTRUCTION.
D-13	PROTECT EXISTING BUILDING.
D-14	PROTECT EXISTING LOADING DOCK WALL THROUGHOUT CONSTRUCTION.
D-15	CONCRETE RUBBLE AND PALETTE PILES. COUNTY TO REMOVE PILES, BUT CONTRACTOR RESPONSIBLE FOR ANY UNSUITABLE SOIL.
D-16	DEMOLISH AND REMOVE FLARED END SECTION. DEMOLISH AND REMOVE 36" RCP PIPE TO LIMITS SHOWN.
D-17	CLEAR AND GRUB EXISTING TREES TO LIMITS SHOWN
D-18	REMOVE 6" PIPE IN ITS ENTIRETY.

GENERAL DEMOLITION NOTES:

- General Contractor responsible for obtaining and paying for all required demolition permits and accompanying forms.
- All existing site features shall remain and be protected unless noted for removal. Items for removal and/or relocation are noted on the demolition, architectural, electrical and/or utility plans.
- Contractor is to field locate proposed site improvements and limits of removal or demolition for verification by the Landscape Architect, Engineer or Owner, prior to demolition.
- The Contractor shall be responsible for the location and/or relocation of all utilities in coordination with the appropriate utility agency or company. The Contractor is required to call the "One Call Center" before digging 1-800-632-4949.
- The Contractor shall coordinate with the Owner all utility disconnects, removals and relocations.
- The Contractor shall be responsible for repairing any damaged or ruptured utilities that occur during the demolition or construction operation that are not indicated to be removed.
- Existing utilities are shown for size, material, type and relative location only. These plans do not represent a comprehensive inventory or as-built survey of existing site utilities.
- Contractor is to clean and flush all storm drains within the project limits for inspection before and after completion of construction.
- All work shall be in accordance with current state and local standards and regulations and the specifications of the appropriate governmental agency and New Hanover County.
- An on-site pre-construction meeting must be held prior to any construction activity on site.
- Any non-toxic or hazardous buried waste, construction debris or trash which is found during the construction operation should be thoroughly excavated, and the waste material should and disposed of in the landfill prior to placement of fill soils or pavement construction in accordance with Specification 02200.
- Prior to the start of any demolition, contractor to allow the owner the opportunity to salvage any items.
- All materials noted for removal to be disposed of off-site and in a legal manner.
- Items or elements noted for removal & return to owner or relocation shall be stored on-site at owner's direction.
- Items not noted for removal shall be protected throughout construction. Damage to these items shall be corrected in kind at no additional cost to the owner.
- All erosion control measures and tree protection fencing needs to be installed and inspected prior to any construction activities.
- Reference grading plans for limits of grading.
- Sawcut pavement and curb at limits of removal as shown or to nearest joint.
- Yard waste operations to continue throughout duration of construction.
- All trees removed to be disposed of in yard waste area clear of debris and soil prior to disposal.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: J. BLASCO
DRAWN BY: J. BLASCO
SHEET CHK'D BY:
CROSS CHK'D BY: K. RYAN
APPROVED BY:
DATE: MARCH 2021

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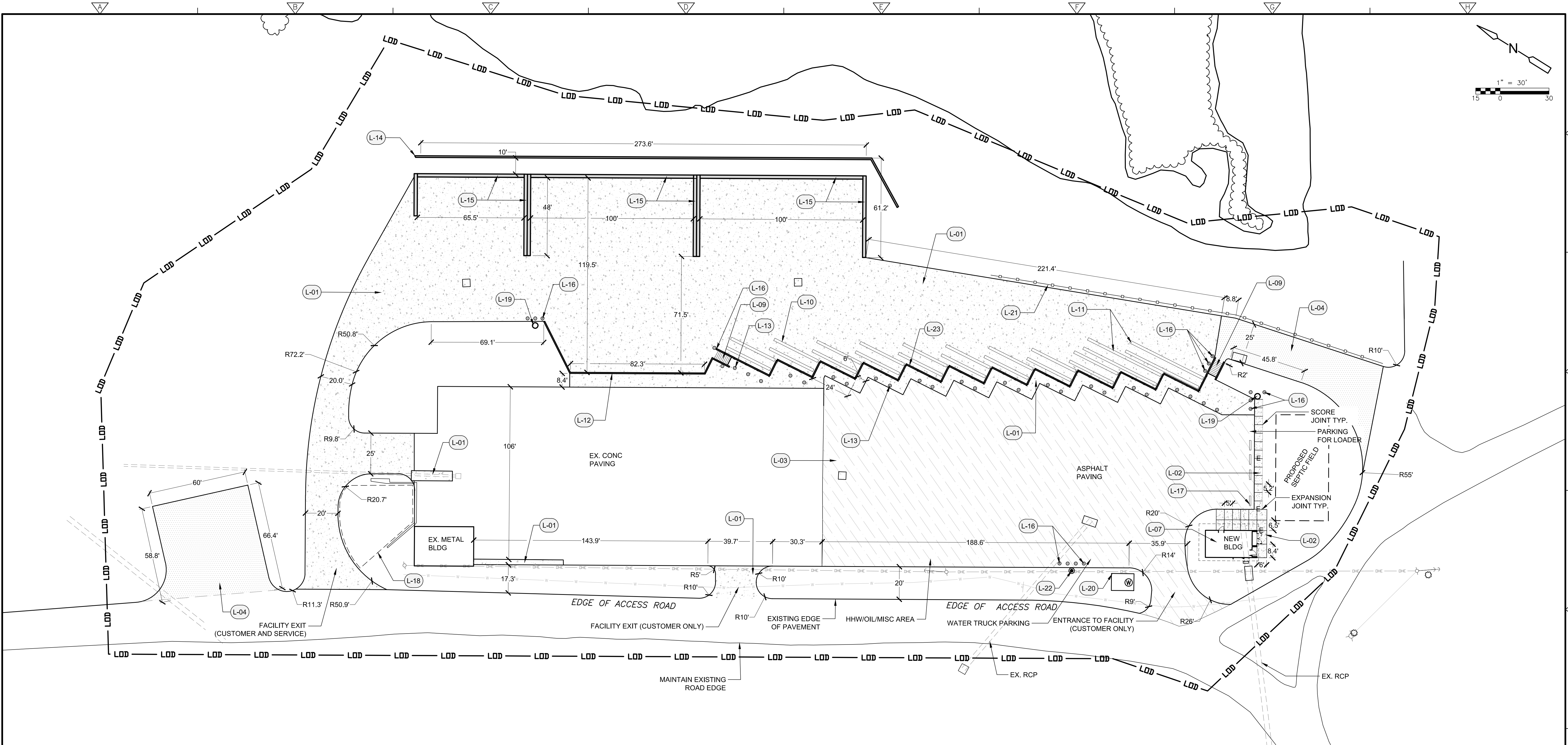
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NEW HANOVER COUNTY, NORTH CAROLINA
NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

DEMOLITION PLAN

PROJECT NO. 133920-237812
FILE NAME:
SHEET NO.
L101

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GENERAL LAYOUT NOTES:

- Any discrepancies in layout should be brought to the Landscape Architect's attention prior to construction.
- Written dimensions supercede scaled dimensions. Do not scale drawings. All dimensions are referenced to back of curb or edge of pavement unless otherwise noted.
- All staking work to be done by a licensed surveyor registered in the state of North Carolina.
- All groundwater monitoring wells, gas monitoring wells, leachate collection stubouts, gas extraction wells and gas collection valves must be protected throughout construction. When required, provide well protection using jersey barriers or approved method by Engineer. Contractor to replace any wells damaged during construction per Owner's direction.
- All proposed pavement to meet existing flush. Provide expansion joints where proposed concrete paving meets existing.
- All segmental block retaining walls shall be an integrally tinted brown or earth tone color.
- All disturbed areas not noted for pavement to be seeded with common bermuda, per the specifications.

LAYOUT SCHEDULE

SYMBOL	DESCRIPTION	DETAIL
(L-01)	HEAVY DUTY CONCRETE PAVING	B/D101
(L-02)	STANDARD DUTY CONCRETE PAVING.	C/D101
(L-03)	HEAVY DUTY ASPHALT PAVING.	D/D101
(L-04)	GRAVEL PAVING WITH GEO-CELL STABILIZATION	G/D101
(L-07)	NEW OFFICE BUILDING. REFER TO ARCHITECTURAL PLANS.	
(L-09)	CONCRETE STAIRS. REFER TO ARCHITECTURAL PLANS.	
(L-10)	30" STEEL RUNNERS.	6/L501
(L-11)	50" STEEL RUNNERS. (BAYS 1 AND 2 ONLY)	6/L501
(L-12)	CONCRETE RETAINING WALL. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS.	

SYMBOL	DESCRIPTION	DETAIL
(L-13)	DELINEATOR POST	3/L501
(L-14)	SEGMENTAL UNIT RETAINING WALL. CONTRACTOR TO PROVIDE ENGINEERED SHOP DRAWINGS FOR APPROVAL PRIOR TO CONSTRUCTION. BLOCKS TO BE STRAIGHT-FACED AND EARTH-TONE COLOR.	1/L502
(L-15)	CONCRETE BIN BLOCK WALL: 2 COURSES HIGH, REUSE SALVAGED BLOCKS IF FEASIBLE ALONG TOP ROW ONLY, OR AS DIRECTED BY ENGINEER. CORNER BLOCKS SHALL BE USED AT ALL CORNERS. COORDINATE WITH OWNER FOR FINAL LOCATION AND ARRANGEMENT	2/L502
(L-16)	STEEL BOLLARD WITH REFLECTIVE SLEEVE.	4/L501
(L-17)	CONCRETE WHEEL STOP	5/L501

SYMBOL	DESCRIPTION
(L-18)	EXISTING GRAVEL AREA TO REMAIN. ADD ABC AS REQUIRED TO MEET PROPOSED GRADES.
(L-19)	YARD HYDRANT, SEE CIVIL DETAIL
(L-20)	WELL HOUSE - REFER TO CIVIL AND MEP PLANS
(L-21)	250 LINEAR FEET OF GUARDRAIL. BUILD PER NCDOT SPECIFICATIONS AND STANDARD DETAILS.
(L-22)	UTILITY HYDRANT FOR WATER TRUCK FILLING. SEE CIVIL DETAILS
(L-23)	TIMBER WALL. REFER TO ARCHITECTURAL PLANS.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: J. BLASCO
DRAWN BY: J. BLASCO
SHEET CHK'D BY: _____
CROSS CHK'D BY: _____
APPROVED BY: _____
DATE: MARCH 2021

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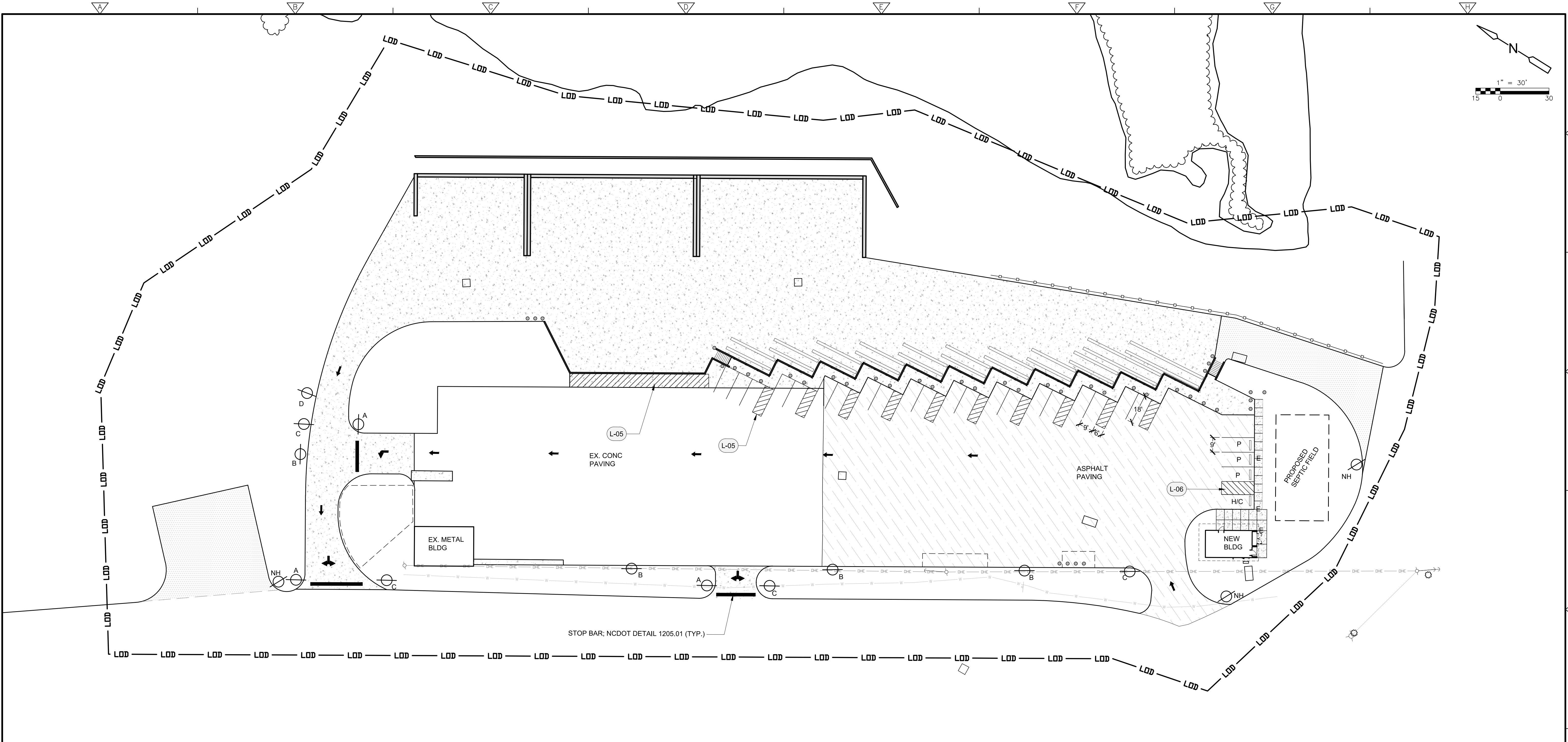
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NEW HANOVER COUNTY, NORTH CAROLINA
NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

LAYOUT PLAN
L201

PROJECT NO. 133920-237812
FILE NAME:
SHEET NO.
L201

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GENERAL STRIPING NOTES:

1. All striping shall conform to MUTCD and NCDOT standard specifications and details.

LAYOUT SCHEDULE

SYMBOL	DESCRIPTION	DETAIL
(L-05)	PAVEMENT STRIPING.	2/L501
(L-06)	ACCESSIBLE PARKING STRIPING.	1/L501

SIGNAGE KEY

KEY	SIGN	MUTCD
A	STOP	R1-1
B	ONE-WAY	R6-2R
C	DO NOT ENTER	R5-1
D	YIELD	R1-2
NH	INFORMATIONAL	

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: J. BLASCO
DRAWN BY: J. BLASCO
SHEET CHK'D BY: B. STARKEY
CROSS CHK'D BY: M. BROKAW
APPROVED BY: _____
DATE: MARCH 2021

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NEW HANOVER COUNTY, NORTH CAROLINA
NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

STRIPING & SIGNAGE PLAN
L210

PROJECT NO. 133920-237812
FILE NAME:
SHEET NO.
L210

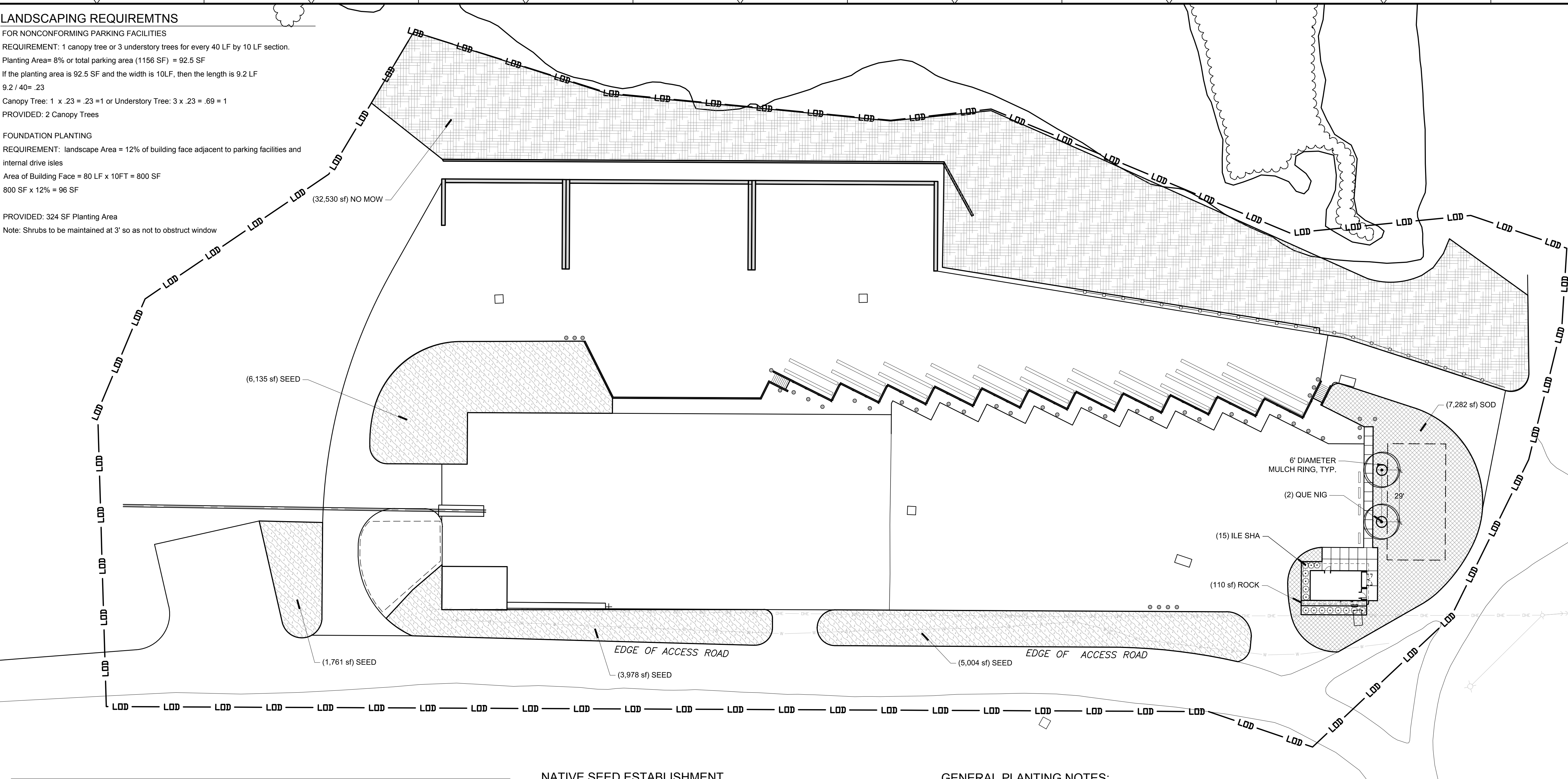
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LANDSCAPING REQUIREMTNS

FOR NONCONFORMING PARKING FACILITIES
REQUIREMENT: 1 canopy tree or 3 understory trees for every 40 LF by 10 LF section.
Planting Area= 8% or total parking area (1156 SF) = 92.5 SF
If the planting area is 92.5 SF and the width is 10LF, then the length is 9.2 LF
9.2 / 40= .23
Canopy Tree: 1 x .23 = .23 =1 or Understory Tree: 3 x .23 = .69 = 1
PROVIDED: 2 Canopy Trees

FOUNDATION PLANTING
REQUIREMENT: landscape Area = 12% of building face adjacent to parking facilities and internal drive isles
Area of Building Face = 80 LF x 10FT = 800 SF
800 SF x 12% = 96 SF

PROVIDED: 324 SF Planting Area
Note: Shrubs to be maintained at 3' so as not to obstruct window



PLANT SCHEDULE					
TREES	QTY	BOTANICAL NAME	COMMON NAME	MIN. INSTALLED SIZE	ROOT
QUE NIG	2	QUERCUS NIGRA	WATER OAK	3" CAL.	
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	MIN. INSTALLED SIZE	ROOT
ILE SHA	15	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY HOLLY	18" HT.	3 GAL
GROUND COVERS	QTY	BOTANICAL NAME	COMMON NAME	MIN. INSTALLED SIZE	ROOT
SOD	7,282 SF	BERMUDA SOD		SOD	
SEED	16,877 SF	GRASS SEED	BERMUDA	SEED	
NO MOW	32,530 SF	MMF POLLINATOR MIX	NATIVE SEED MIX	SEED	
ROCK	110 SF	RIVER JAX	RIVER JAX	1"- 3"	

MMF Pollinator Mix can be attained from Mellow Marsh Farm. Approved equal will be considered.
Mix consists of: Achillea millefolium 10%, Agrostis perennans 6%, Asclepias tuberosa 1%, Bidens aristosa 11%, Chamaecrista fasciculata 10%, Coreopsis lanceolata 10%, Echinacea purpurea 4%, Elymus virginicus 6%, Gallardia pulchella 8%, Helianthus angustifolius 2%, Helianthus maximiliani 2%, Monarda punctata 2%, Rudbeckia hirta 6%, Schizachyrium scoparium 4%, Sorghastrum nutans 6%, Symphyotrichum pilosum 1 %, Tridens flavus 4%, Tripsacum dactyloides 6%, Verbana hastata 1%

NATIVE SEED ESTABLISHMENT

Please note that native grass mixes establish differently than lawn/turf grasses. The seeds do not germinate all at once, but gradually throughout the growing season

Site preparation:

- Eradicate fescue, clover, bermuda grass, and any turfing non-native grass
- Apply lime according to soil test results.
- Do not use synthetic fertilizer.
- Before sewing seed, add one- to two-inch top dressing of well compost

Application rate: 20 lbs per acre. On steep slopes, 35 to 40 lbs/acre and light matting. Add a "nurse crop" or cover crop species to the mix. Nurse crops will vary with the seasons. For September to March use hard fescue at a rate of 15% for April to August use millet at a rate of 30%.

Application timing: Soil temperature should be at least 50 degrees to germinate. Seed via hydro-seeding in late March through May or September through November. Avoid hot, dry Summer months.

Mulching: light application of straw mulch

Maintenance

- Keep soil moist during germination period
- Trim once a year between August and September

*Refer to Specifications for further detail

GENERAL PLANTING NOTES:

1. All plant materials to comply with American Standard for Nursery Stock ANSI.Z60.
2. Contractor engaged in landscape implementation shall be a landscape contractor licensed in the state of North Carolina. Landscape Architect to approve bed layout in field.
3. Substitutions of plant materials specified can only occur with prior approval by Landscape Architect.
4. Prepare plant beds per specifications.
5. Install plants and mulch beds with 3" of triple-shredded hardwood mulch.
6. All disturbed areas not noted for plant beds or paving to be seeded with Hybrid Bermuda "Jackpot" turf, per specifications.
7. All seeded areas with a slope that equals 3:1 to be covered with erosion control matting per specifications, unless otherwise noted. Matting to be provided by Landscape Contractor.
8. Landscape Contractor to guarantee plant materials per specifications
9. Contractor to maintain plant material per specifications.
10. Areas damaged by Landscape Contractor to be repaired at no additional cost to owner.
11. Any existing vegetation, not involved in new construction, shall be isolated and protected by tree protection fencing.
12. Contractor shall insure that all plant material is free of fire ants prior to installation.
13. Maintain a 3' wide minimum turf shoulder at the back of curb or edge of pavement.
14. Shrubs to be maintained at a maximum height of 3'.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: J. BLASCO
DRAWN BY: J. BLASCO
SHEET CHK'D BY: B. STARKEY
CROSS CHK'D BY: M. BROKAW
APPROVED BY: _____
DATE: _____ MARCH 2021

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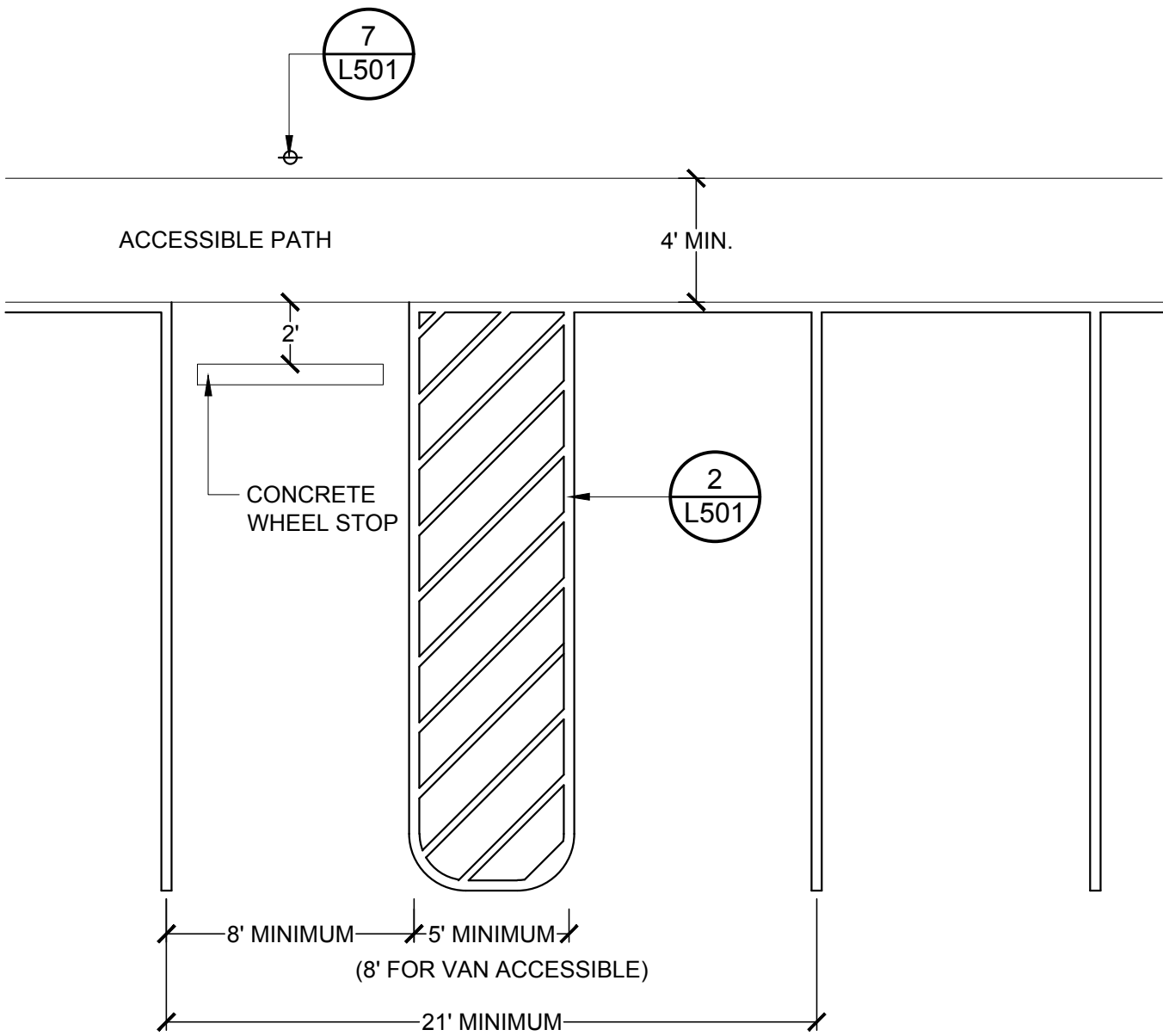
NEW HANOVER COUNTY, NORTH CAROLINA

NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

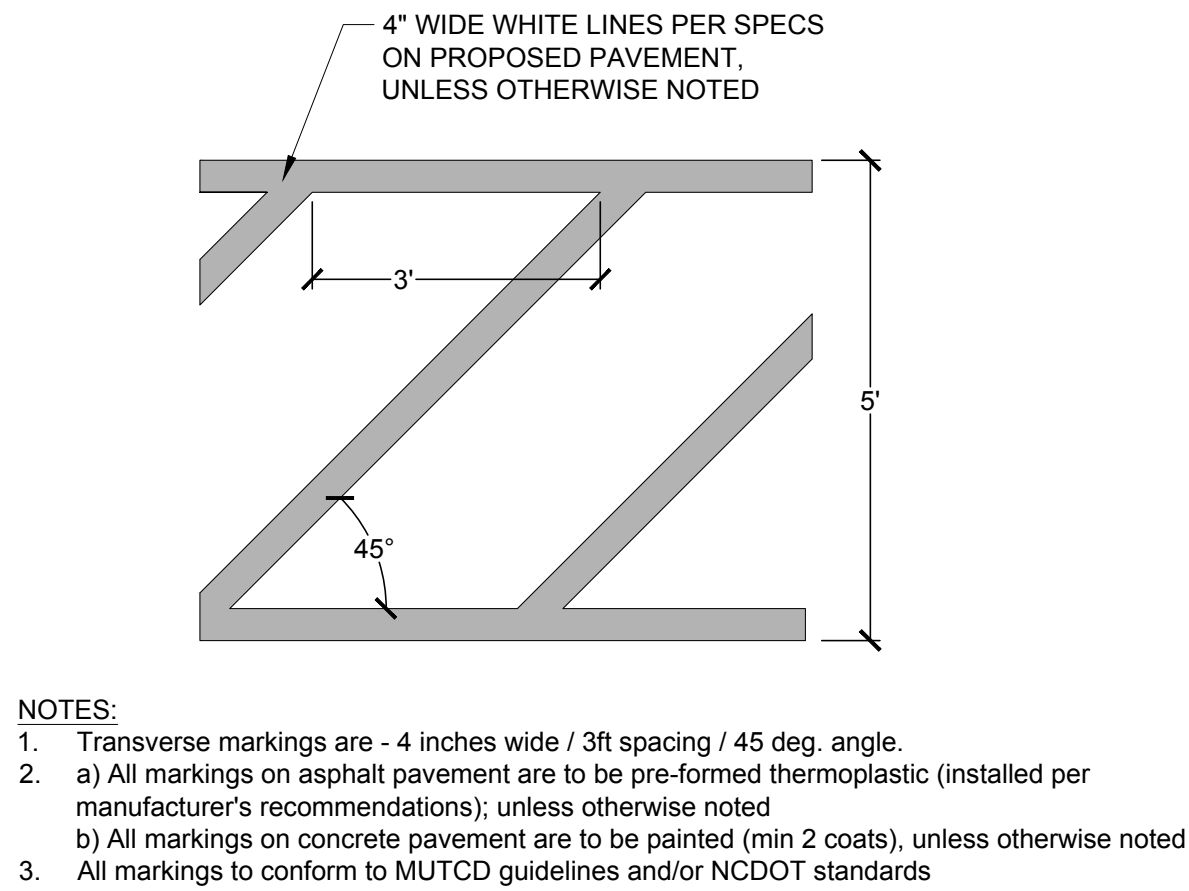
PLANTING PLAN

PROJECT NO. 133920-237812
FILE NAME:
SHEET NO.
L401

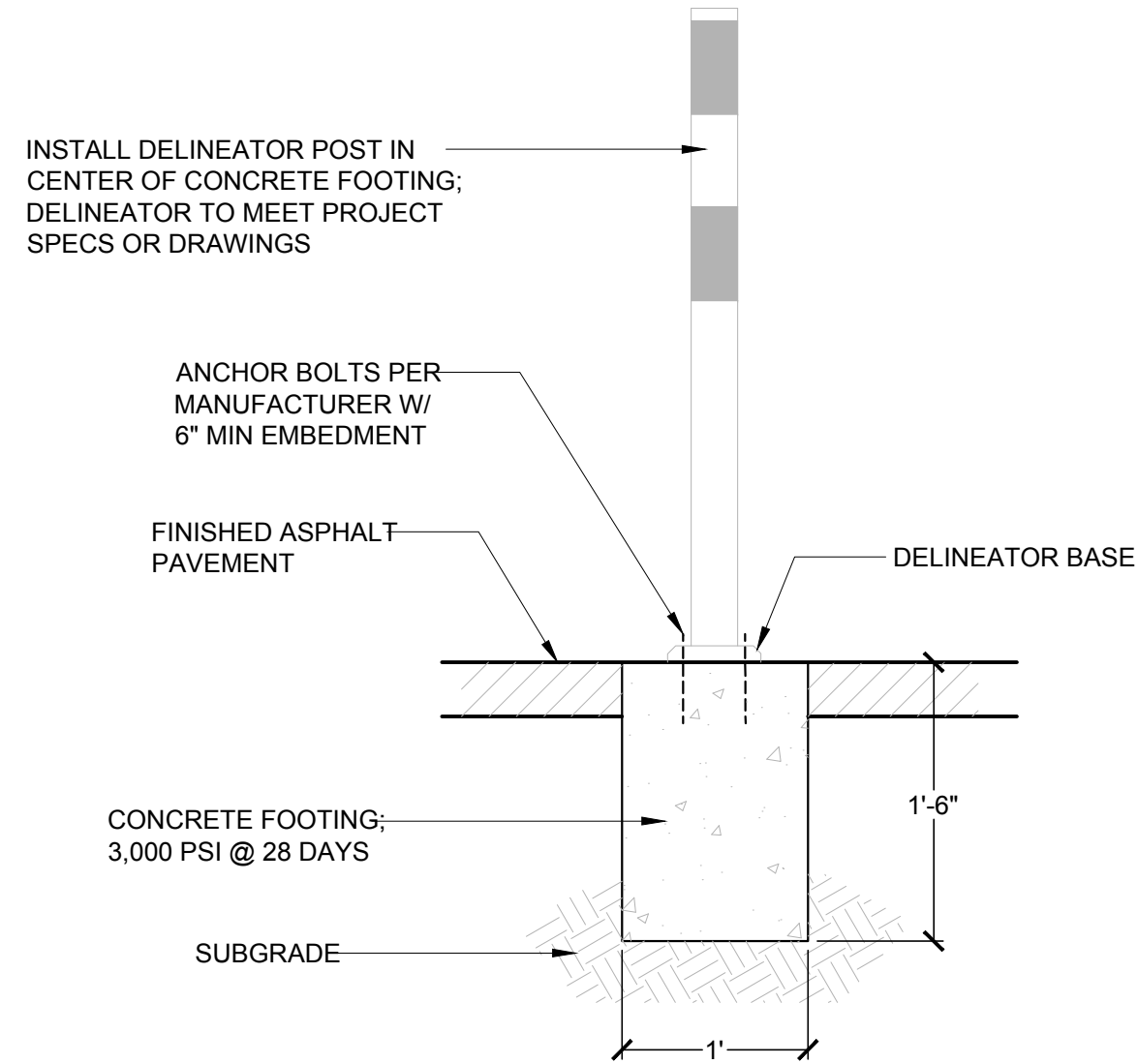
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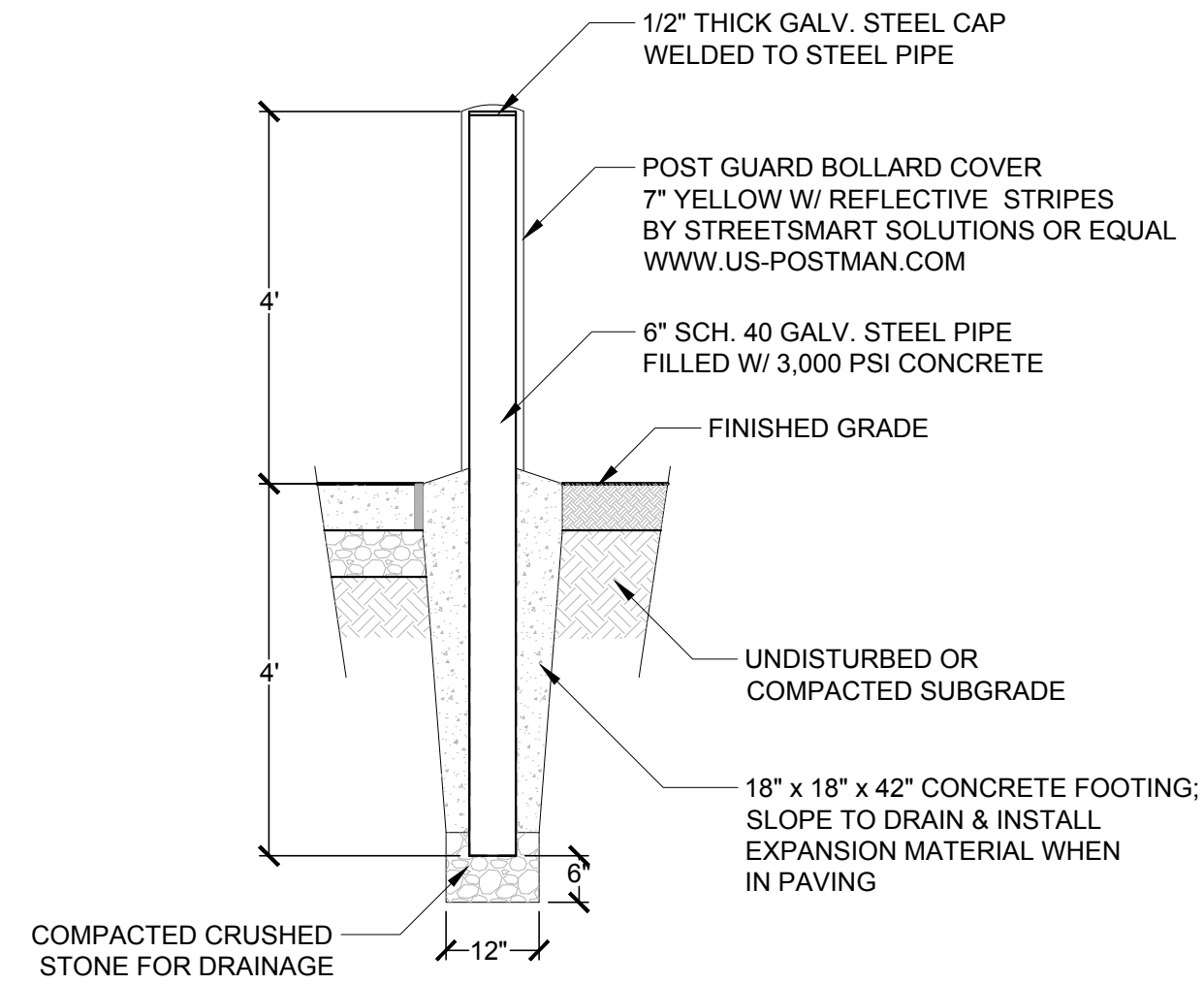
1 ACCESSIBLE PARKING SPACE STRIPING
3/16" = 1'-0"



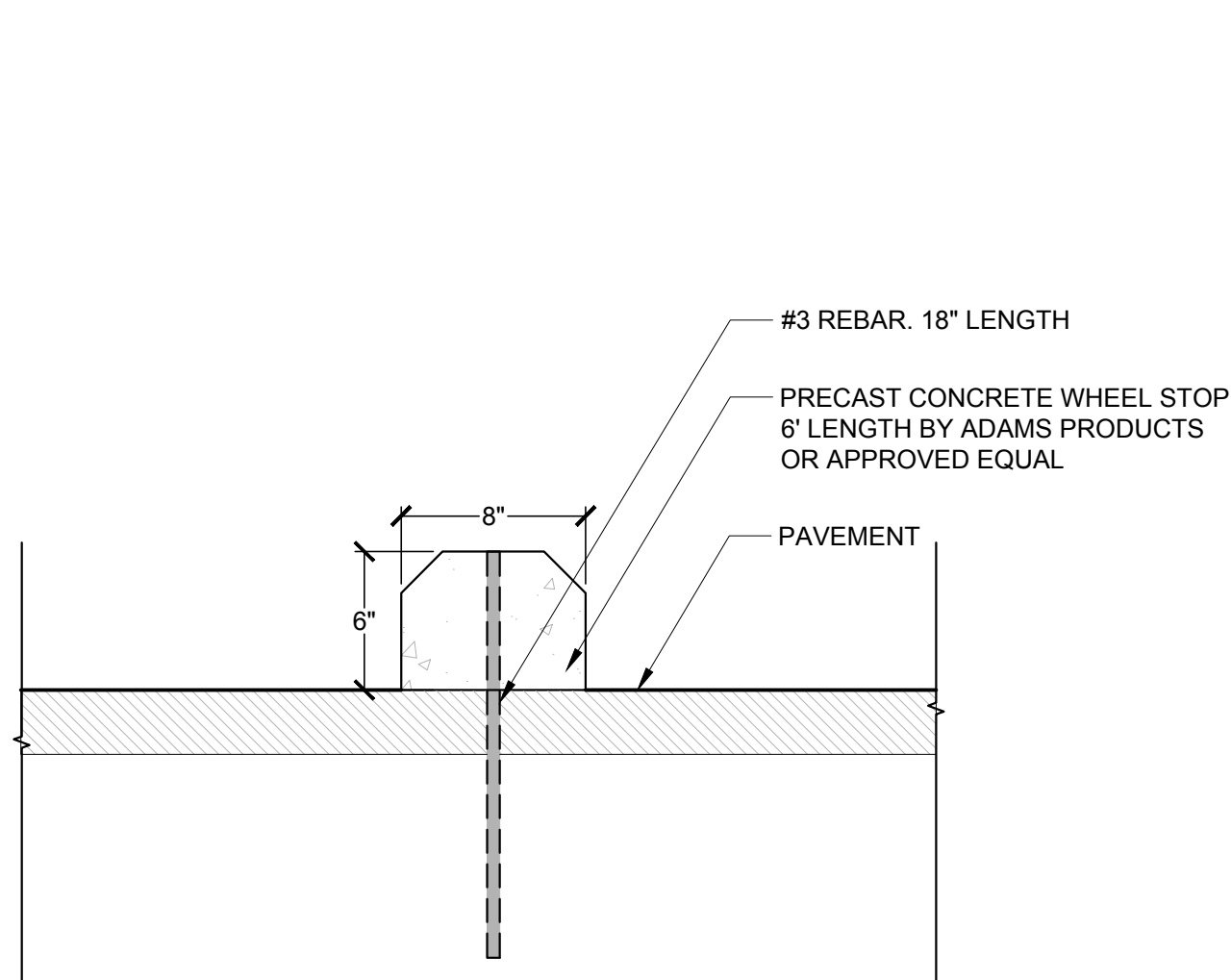
2 PAVEMENT MARKINGS
1/2" = 1'-0"



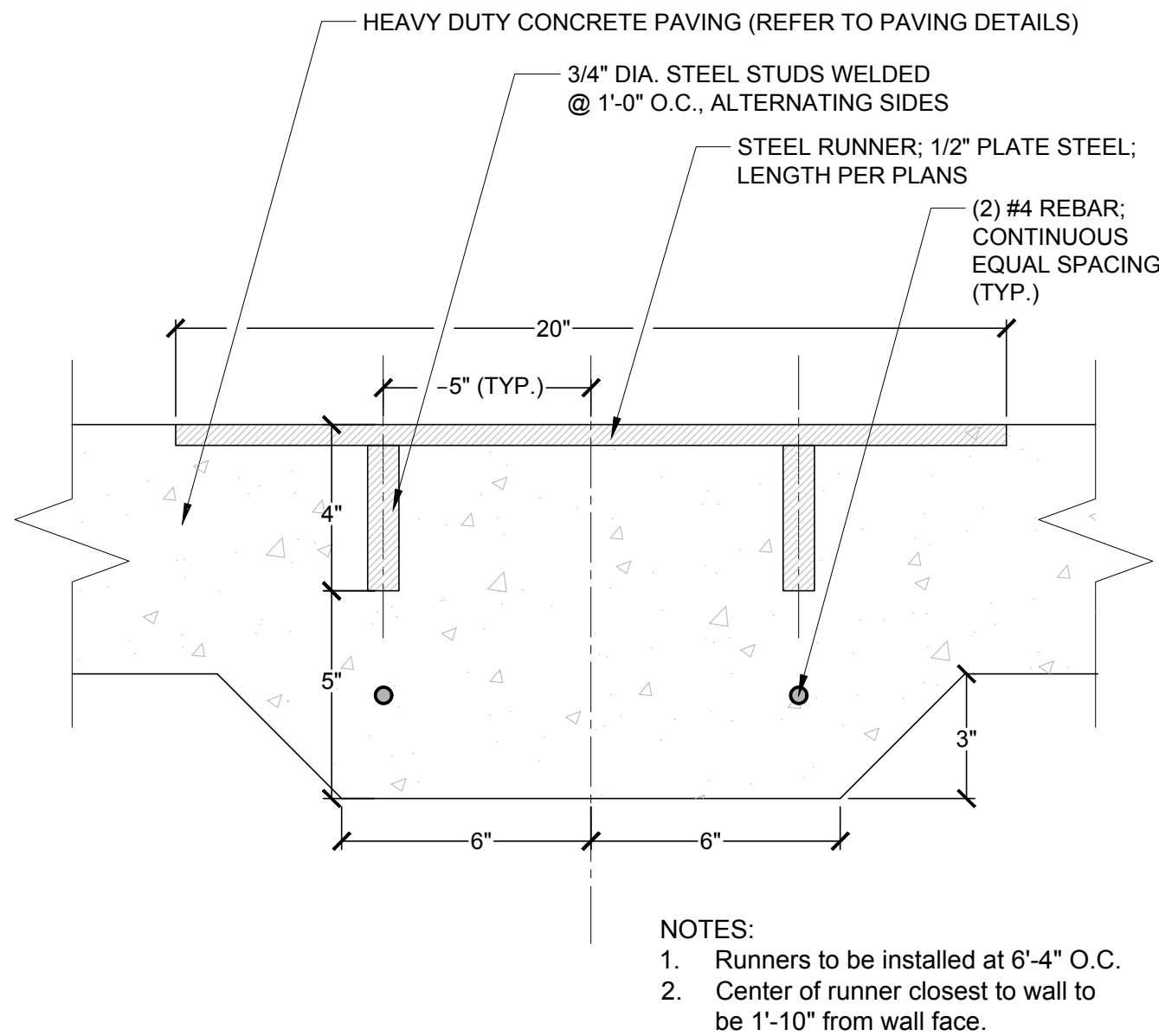
3 FLEXIBLE SAFETY BOLLARD
1" = 1'-0"



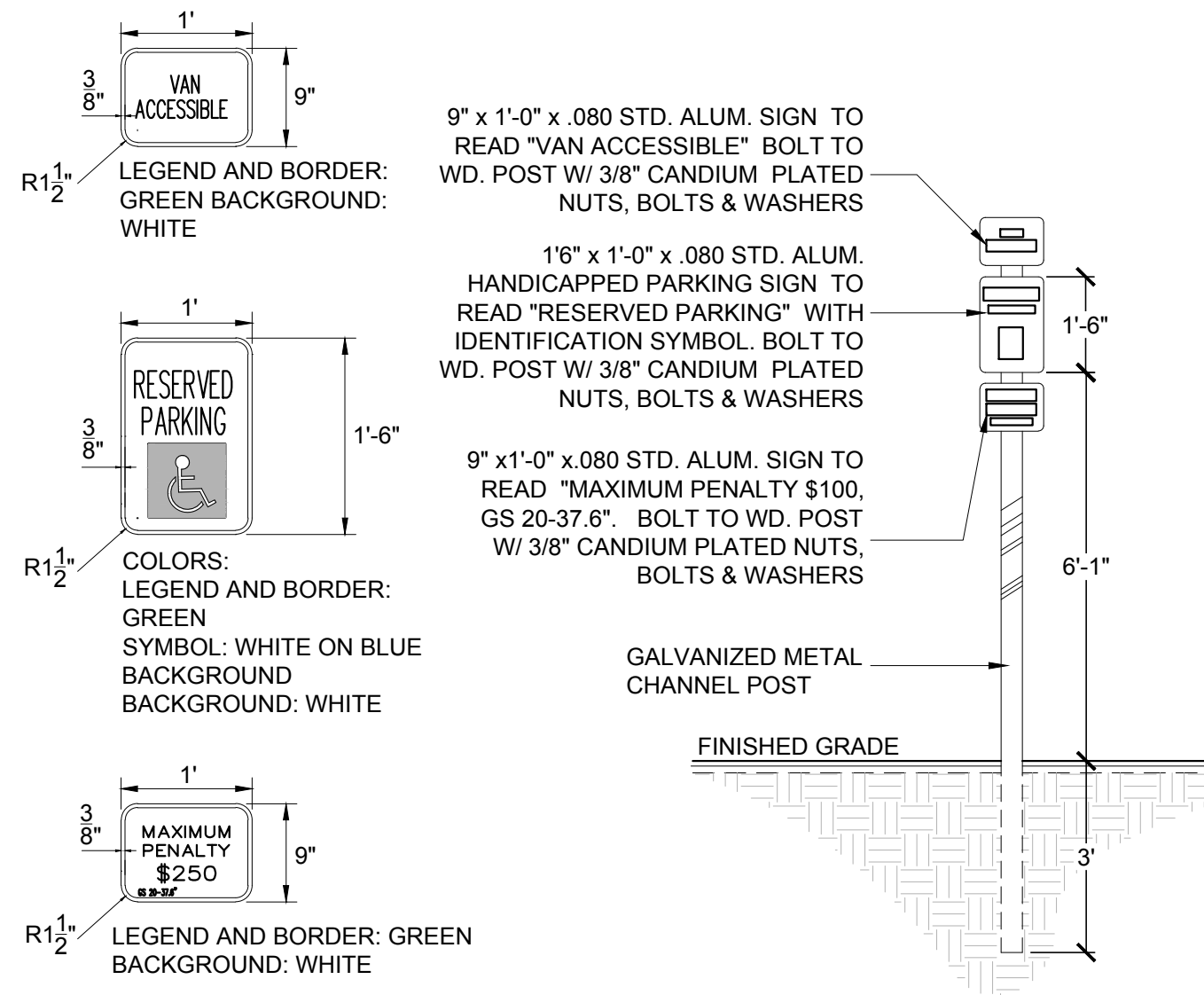
4 STEEL BOLLARD W/ SLEEVE
1/2" = 1'-0"



5 CONCRETE WHEEL STOP
1 1/2" = 1'-0"



6 STEEL RUNNERS
3" = 1'-0"



7 HANDICAP PARKING SIGN - GALVANIZED POST
3/8" = 1'-0"

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: J. BLASCO
DRAWN BY: J. BLASCO
SHEET CHK'D BY: B. STARKEY
CROSS CHK'D BY: M. BROKAW
APPROVED BY: _____
DATE: _____ MARCH 2021

CDM Smith

5400 Glenwood Avenue, Suite 400
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TIMMONS GROUP

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5410 Trinity Road, Suite 102 Raleigh, NC 27607
Office 919.866.4951
North Carolina License No. C-1652

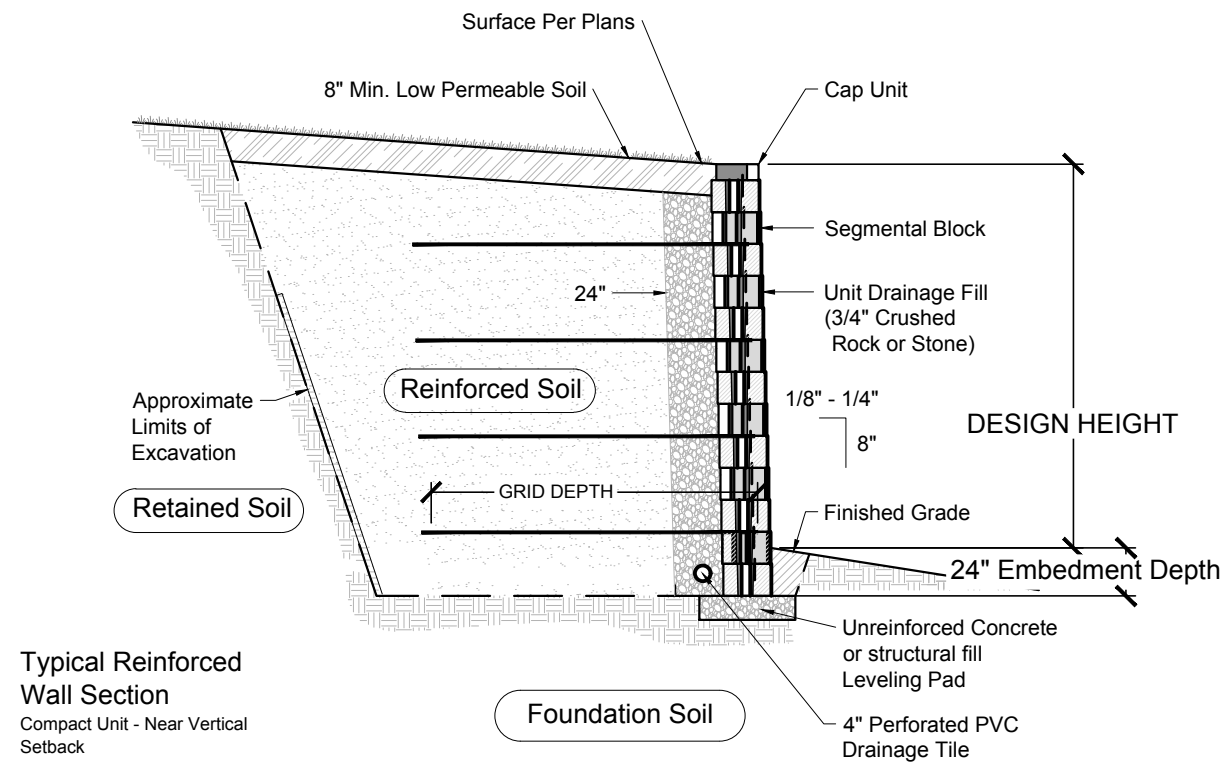
NEW HANOVER COUNTY, NORTH CAROLINA

NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

DETAILS	
L501	

PROJECT NO. 133920-237812
FILE NAME:
SHEET NO.
L501

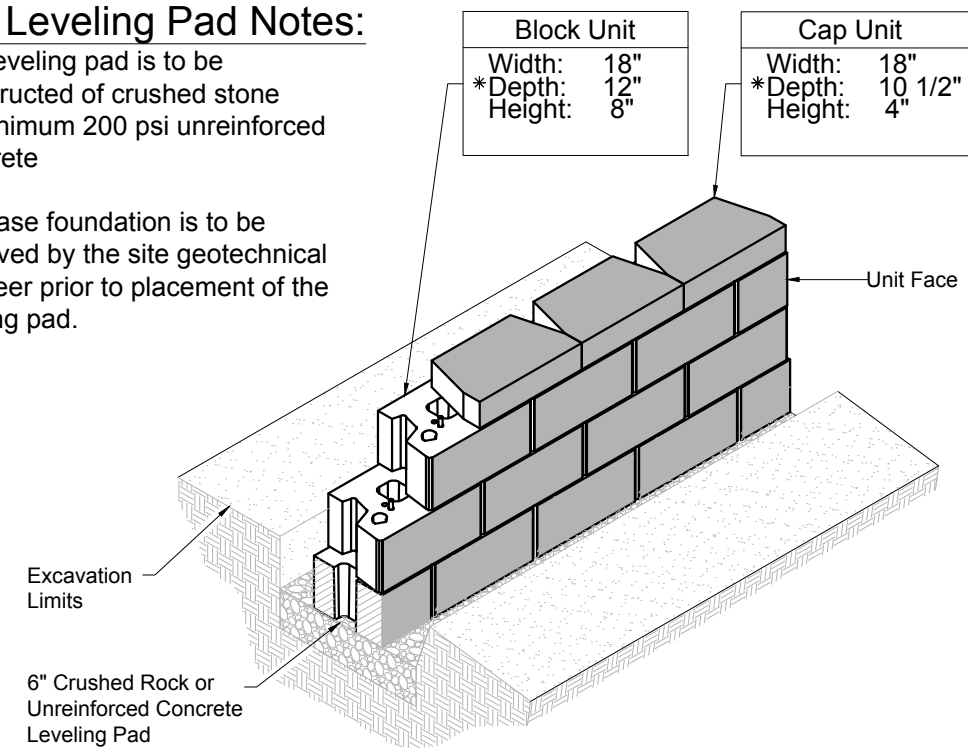
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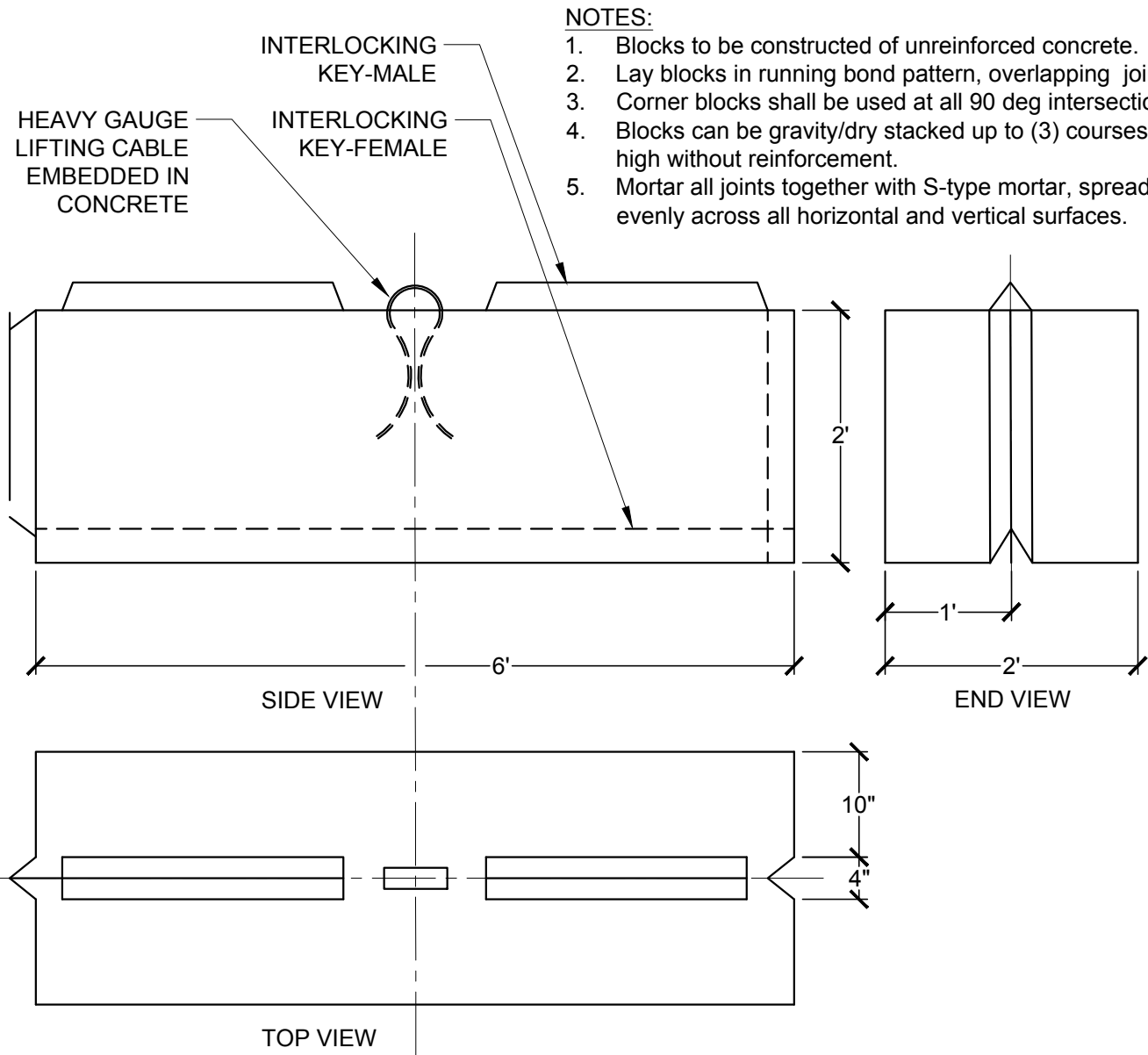
- NOTES:
- 1) Contractor to provide sealed engineered drawings for approval by Engineer prior to installation of wall(s).
 - 2) Contractor to provide block sample for approval by Engineer prior to installation of wall.
 - 3) When site conditions require, wrap drainage tile in 3/4" aggregate and filter fabric with drainage composite or aggregate back drain system, as directed by geotechnical engineer.
 - 4) Refer to Grading Plan(s) for wall height(s).
 - 5) Refer to Plan(s) and/or Specs for approved manufacturers, colors and block face.
 - 6) Refer to Specifications Section 312000 and 323223 for design criteria and construction requirements, related to geogrid, backfill, and other wall elements.

Base Leveling Pad Notes:

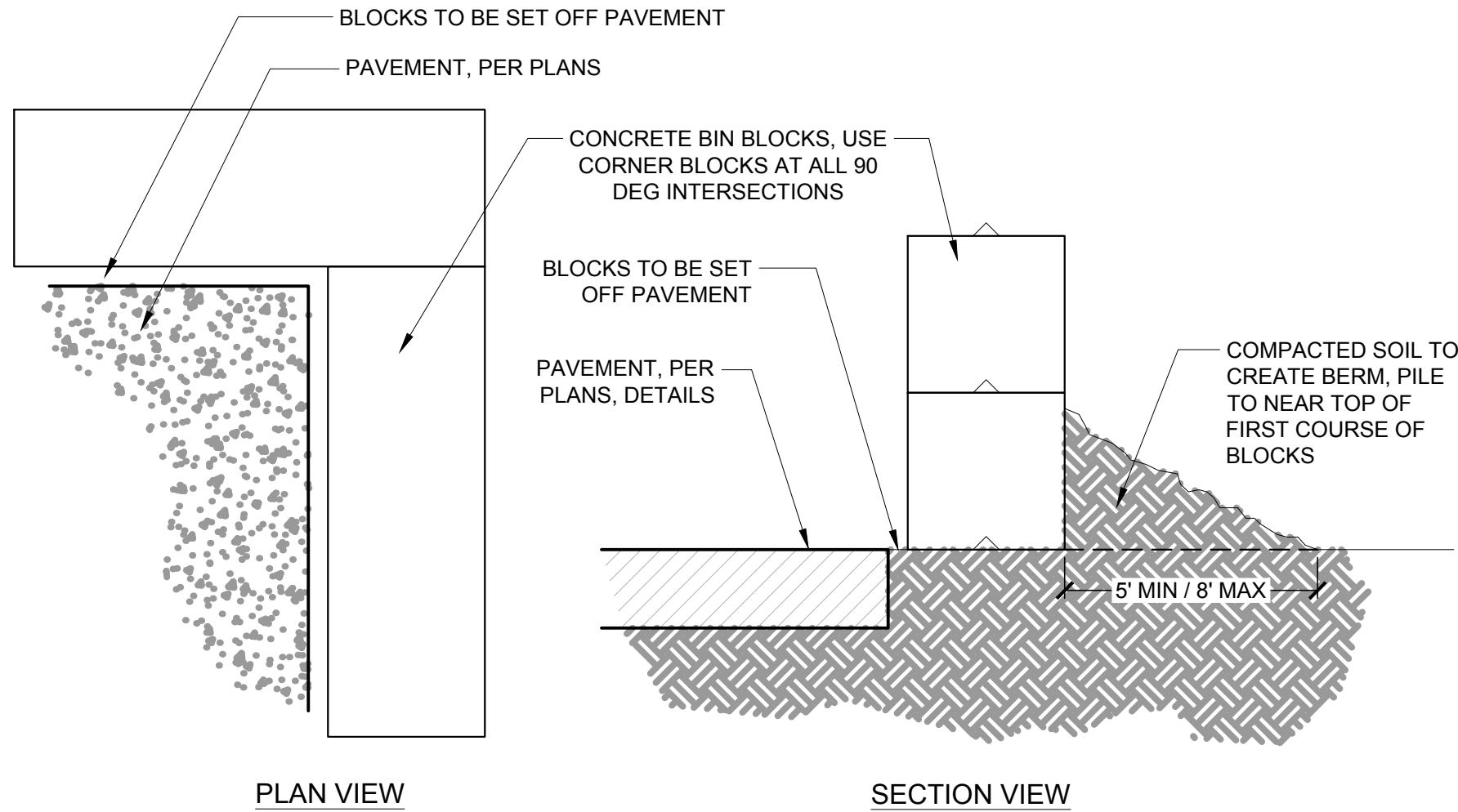
1. The leveling pad is to be constructed of crushed stone or minimum 200 psi unreinforced concrete
2. The base foundation is to be approved by the site geotechnical engineer prior to placement of the leveling pad.



* Isometric Section View
Dimensions May Vary by Region
(NOT TO SCALE)



- NOTES:
1. Blocks to be constructed of unreinforced concrete.
 2. Lay blocks in running bond pattern, overlapping joints.
 3. Corner blocks shall be used at all 90 deg intersections.
 4. Blocks can be gravity/dry stacked up to (3) courses high without reinforcement.
 5. Mortar all joints together with S-type mortar, spread evenly across all horizontal and vertical surfaces.



1 SEGMENTAL RETAINING WALL (NEAR VERTICAL)

Not To Scale

P-PU-NHC-01

2 INTERLOCKING CONCRETE BIN BLOCKS W/ GROOVE

3/4" = 1'-0"

3 BIN BLOCK WALL LAYOUT

1/2" = 1'-0"

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: J. BLASCO
DRAWN BY: J. BLASCO
SHEET CHK'D BY: B. STARKEY
CROSS CHK'D BY: M. BROKAW
APPROVED BY: _____
DATE: MARCH 2021

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NEW HANOVER COUNTY, NORTH CAROLINA
NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

DETAILS

PROJECT NO. 133920-237812
FILE NAME:
SHEET NO.
L502

PERMIT SET - NOT FOR CONSTRUCTION

XREFS: [CEP000ST, COWS_2234, CSP001PL] Images: []
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Know what's below.
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LAYOUT HORIZONTAL CONTROL POINTS		
POINT NO.	NORTHING	EASTING
1	211568.16	2305697.52
2	211509.33	2305658.65
3	211524.12	2305762.46
4	211501.40	2305810.41
5	211455.15	2305709.36
6	211457.24	2305852.47
7	211466.89	2305878.87
8	211436.81	2305860.59
9	211366.06	2305903.92
10	211356.37	2305921.38
11	211104.51	2306066.21
12	211320.21	2306016.64
13	211437.32	2306008.31
14	211524.03	2305954.59
15	211242.29	2305842.05
16	211089.60	2305932.34
17	211072.37	2305930.65
18	211139.92	2306016.74

LAYOUT HORIZONTAL CONTROL POINTS		
POINT NO.	NORTHING	EASTING
19	211286.28	2305931.36
20	211020.79	2305953.98
21	211045.93	2305971.21
22	211027.75	2306002.03
23	211025.49	2305999.13
24	211013.41	2306006.60
25	211006.48	2306014.40
26	211011.83	2306004.04
27	211004.90	2306011.85
28	210994.73	2306018.21
29	211002.39	2306030.28
30	211000.05	2306045.98
31	211023.69	2306083.10
32	211043.93	2306070.20
33	211020.29	2306033.09
34	211120.68	2306100.29
35	211015.35	2306128.54
36	211037.21	2305926.81

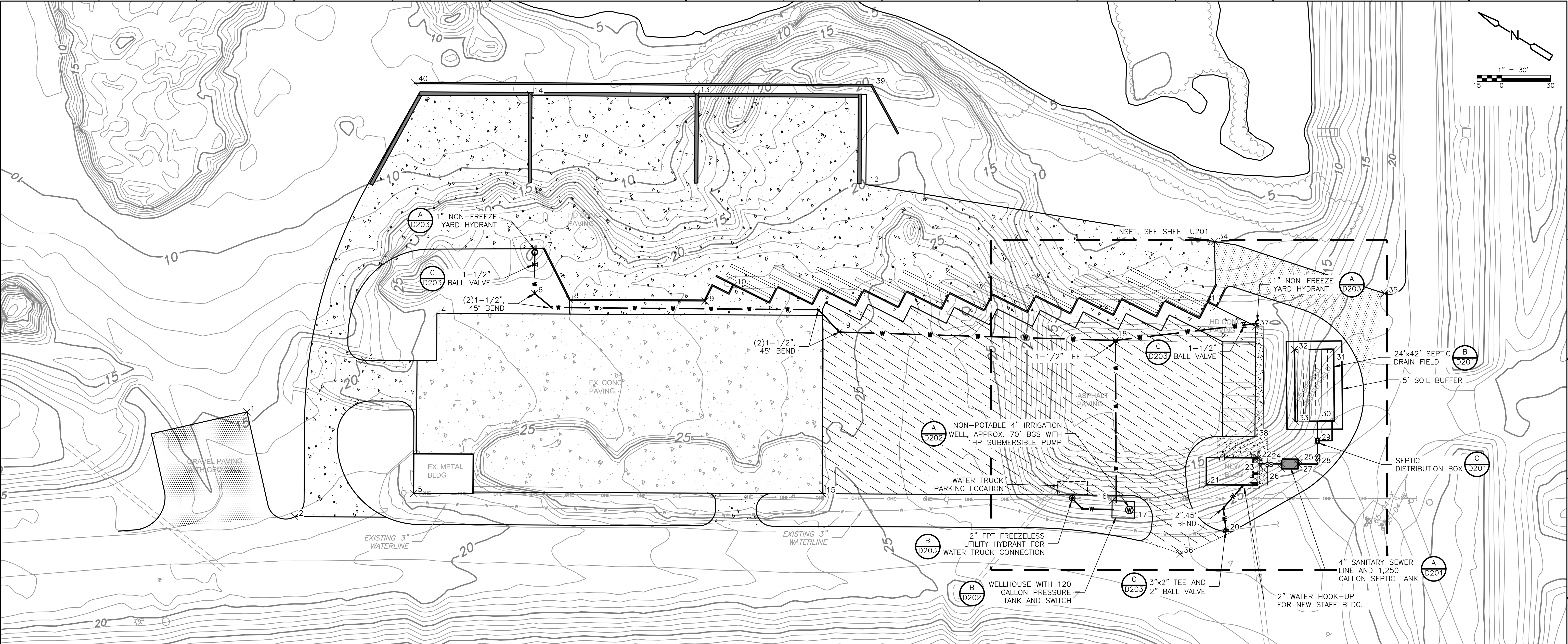
LAYOUT HORIZONTAL CONTROL POINTS		
POINT NO.	NORTHING	EASTING
37	211071.71	2306069.60
38	211036.23	2306012.16
39	211349.63	2306070.61
40	211588.20	2305923.20

PLAN

1" = 30'

NOTES:

- REFER TO G003 FOR WATER AND SEWER PIPE MATERIAL REQUIREMENTS AND ADDITIONAL NOTES.
- TO AVOID CONFLICTS, CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION AND DEPTHS OF EXISTING UTILITIES PRIOR TO INSTALLATION OF NEW UTILITIES. IF CONFLICT EXISTS, CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER.
- SEPTIC SYSTEM SHALL BE A CONVENTIONAL SEPTIC AND DRAIN FIELD AND ADHERE TO ALL HEALTH DEPARTMENT REQUIREMENTS AND TESTING PROCEDURES.
- CONTRACTOR SHALL COORDINATE WITH OWNER ON TIMING OF WATER LINE WORK AND CONNECTIONS, INCLUDING LOCATION OF UPSTREAM VALVES AND NOTIFICATION AS TO EXACT SCHEDULE WHEN WORK WILL TAKE PLACE.
- ALL NEW WATER AND SEWER WORK SHALL BE OWNED, OPERATED, AND MAINTAINED BY NEW HANOVER COUNTY LANDFILL AND CONSIDERED PRIVATE.
- MINIMUM 2% SLOPE ON ALL SEWER LINES IN THE DIRECTION OF THE SEPTIC FIELD (AWAY FROM BUILDING).
- 12 GA. COPPERHEAD SUPER FLEX TRACER WIRE, OR APPROVED EQUAL, SHALL BE INSTALLED ON TOP OF ALL PVC WATER LINES.



REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: M. BROKAW
DRAWN BY: K. RYAN
SHEET CHK'D BY: A. WEISPFENNING
CROSS CHK'D BY: W. KARABLY
APPROVED BY: M. BROKAW
DATE: MARCH 2021

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NEW HANOVER COUNTY, NORTH CAROLINA

NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

OVERALL UTILITY PLAN

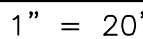
PROJECT NO. 133920-237812
FILE NAME: U200UTIL.DWG

SHEET NO.
U200

Images: []



1. ALL GRAVITY SANITARY SEWER LINE SHALL MAINTAIN A MINIMUM 2.0% SLOPE ($\frac{1}{4}$ " OVER 12') FOR POSITIVE DRAINAGE.
2. FOR TRENCHES REQUIRING SHORING AND BRACING, DIMENSIONS SHALL BE TAKEN FROM THE INSIDE FACE OF THE SHORING AND BRACING.
3. DEWATERING SHALL EXTEND TO 2' BELOW TRENCH BOTTOM DURING ALL EXCAVATION, PIPE INSTALLATION AND BACKFILL OPERATIONS.
4. SELECT COMMON FILL SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF THE MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D1557 WITHIN 3 PERCENTAGE POINTS OF OPTIMUM. SELECT COMMON FILL SHOULD BE COMPACTED IN MAXIMUM LOOSE LIFT THICKNESS OF 12 INCHES AND SHALL CONTAIN NO STONES GREATER THAN 6 INCHES IN DIAMETER.
5. COMMON FILL SHALL BE COMPACTED TO AT LEAST 90 PERCENT OF THE MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D1557 WITHIN 3 PERCENTAGE POINTS OF OPTIMUM. SELECT COMMON FILL SHOULD BE COMPACTED IN MAXIMUM LOOSE LIFT THICKNESS OF 12 INCHES AND SHALL CONTAIN NO STONES GREATER THAN 6 INCHES IN DIAMETER.
6. ALL EXCAVATED MATERIAL MIXED WITH DELETERIOUS SUBSTANCES DURING CONSTRUCTION SHALL NOT BE USED FOR BACKFILLING.
7. TRENCH SLOPES AND/OR SHORING AND BRACING SHALL BE AS REQUIRED BY OSHA.



1. REFER TO G003 FOR WATER AND SEWER PIPE MATERIAL REQUIREMENTS AND ADDITIONAL NOTES.

DESIGNED BY: _____ M. BROKAW
DRAWN BY: _____ K. RYAN
SHEET CHK'D BY: _____ A. WEISPFENNING
CROSS CHK'D BY: _____ W. KARABLY
APPROVED BY: _____ M. BROKAW
DATE: _____ MARCH 2021

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NEW HANOVER COUNTY, NORTH CAROLINA
NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

UTILITY PLAN INSETS

PROJECT NO. 133920-237812
FILE NAME: U201UTIL.dwg
SHEET NO.
U201

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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: M. BROKAW
DRAWN BY: K. RYAN
SHEET CHK'D BY: A. WEISFENNING
CROSS CHK'D BY: W. KARABLY
APPROVED BY: M. BROKAW
DATE: MARCH 2021

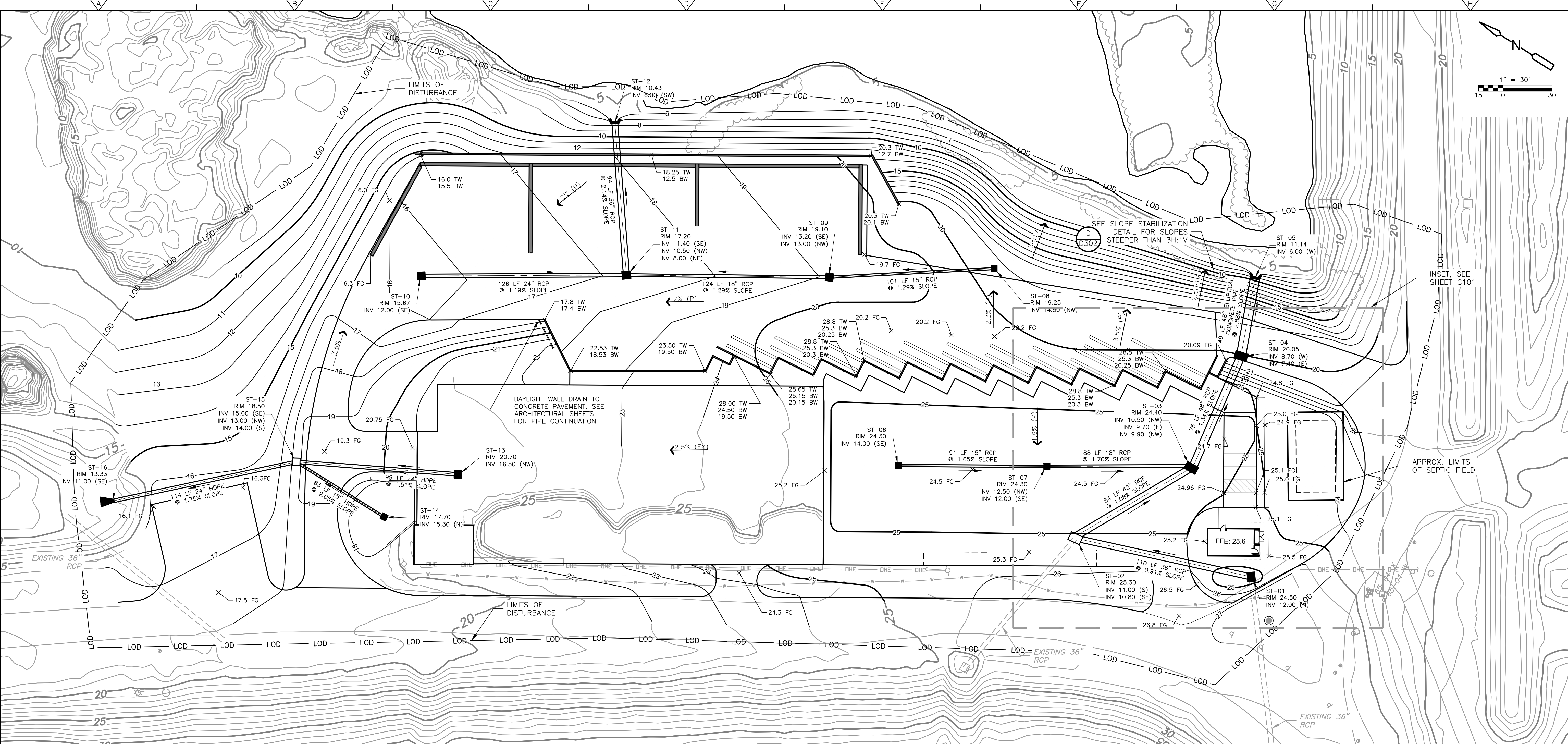
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NEW HANOVER COUNTY, NORTH CAROLINA
NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

OVERALL GRADING AND DRAINAGE PLAN

PROJECT NO. 133920-237812
FILE NAME: C100GPPL.DWG
SHEET NO.
C100

PERMIT SET - NOT FOR CONSTRUCTION



NOTES:

- PROPOSED CONTOURS SHOWN REPRESENT TOP OF FINAL GRADE.
- SLOPES SHALL NOT BE STEEPER THAN 3H:1V WITHOUT ADDITIONAL SLOPE AND SURFACE STABILIZATION.
- ALL PAVEMENT SHALL BE SLOPED TO DRAIN. PAVEMENT SHALL MEET THE MINIMUM SLOPES NEEDED TO PREVENT PONDING, OR 'BIRD BATHS' ON THE SURFACE OF THE PAVEMENT.
- REFER TO SHEETS C111 AND C112 FOR DRAINAGE PIPE PROFILES.
- ALL HDPE STORMDRAIN PIPE SHALL BE ADS N-12 CORRUGATED DUAL-WALLED HDPE PIPE, OR APPROVED EQUAL. ALL RCP SHALL BE MINIMUM CLASS 3 REINFORCED CONCRETE PIPE.
- PROPOSED GRADES ARE BASED ON EXISTING CONCRETE PAD TO REMAIN. CONTRACTOR SHALL FIELD VERIFY THE EXISTING ELEVATION OF THE CONCRETE PAD AND ADJUST PROPOSED ELEVATIONS ACCORDINGLY.

LEGEND

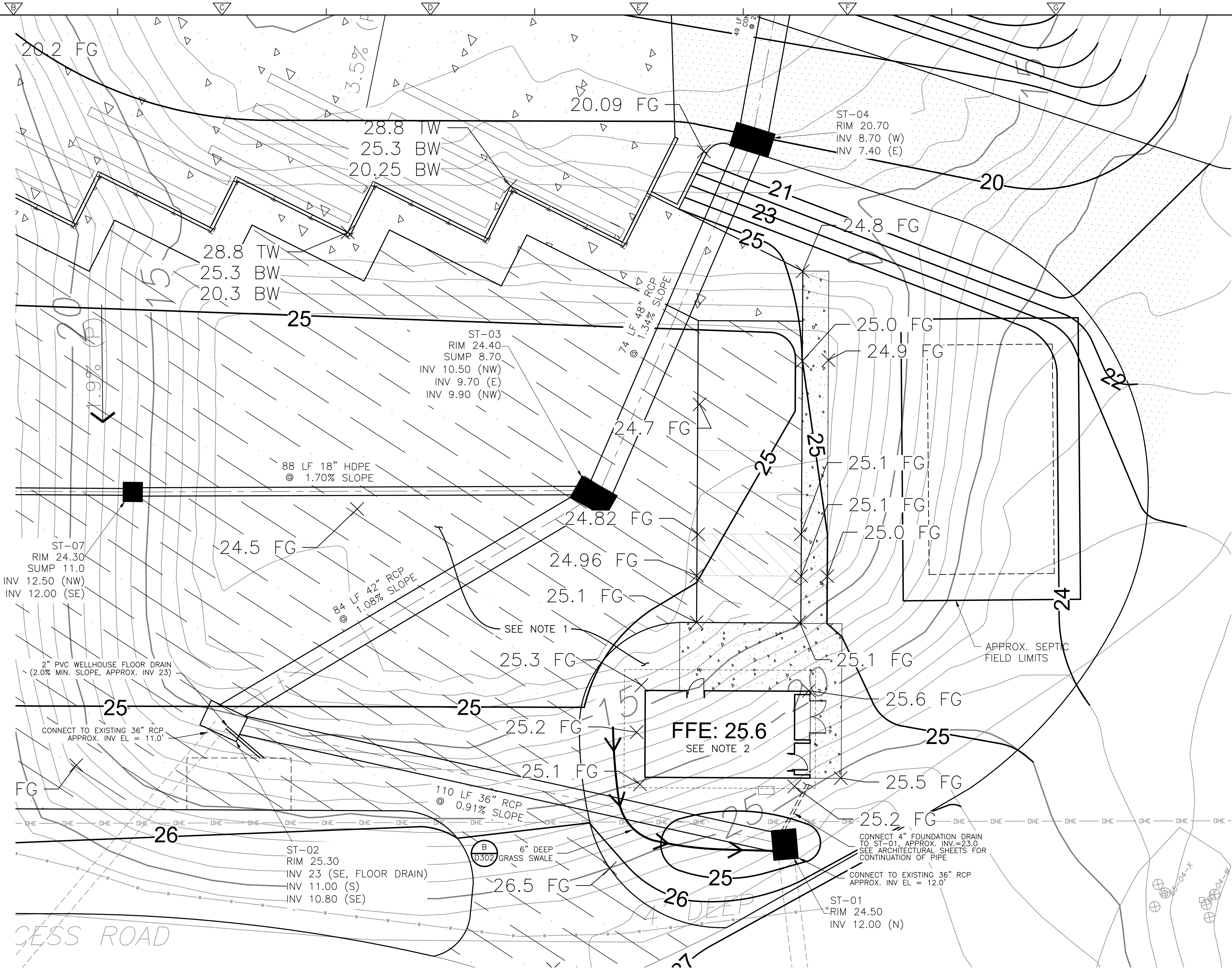
- RCP/HDPE STORMDRAIN PIPE (SEE NOTE 5)
- GRATE INLET/ AREA DRAIN
- JUNCTION BOX/ MANHOLE
- CONCRETE FLARED END SECTION
- CONCRETE HEADWALL/ WINGWALL

DRAINAGE STRUCTURE TABLE		STRUCTURE DETAILS
STRUCTURE NAME	STRUCTURE ELEVATIONS	
ST-01	RIM = EL 24.50' INV OUT = 12.00 (N)	48"x60" BOX WITH "DOUBLE-WIDE" GRATE INLET, SEE DETAILS B & C SHEET D301
ST-02	RIM = EL 25.30' INV IN = 23.00 (SE) INV IN = 11.00 (S) INV OUT = 10.80 (SE)	54"x84" JUNCTION BOX WITH MANHOLE COVER, SEE DETAILS B/D301 AND D/D302
ST-03	RIM = EL 24.40' INV IN = 10.50 (NW) INV IN = 9.90 (NW) INV OUT = 9.70 (E)	48"x84" BOX WITH "DOUBLE-WIDE" GRATE INLET, SEE DETAILS B & C SHEET D301
ST-04	RIM = EL 20.05' INV IN = 8.70 (W) INV OUT = 7.40 (E)	48"x84" BOX WITH "DOUBLE-WIDE" GRATE INLET, SEE DETAILS B & C SHEET D301
ST-05	RIM = EL 11.14' INV IN = 6.00 (W)	6.5' CONCRETE HEADWALL , SEE DETAIL A SHEET D302
ST-06	RIM = EL 24.30' INV OUT = 14.00 (SE)	36"x36" BOX WITH SINGLE GRATE INLET, SEE DETAILS B & C SHEET D301
ST-07	RIM = EL 24.30' INV IN = 12.50 (NW) INV OUT = 12.00 (SE)	36"x36" BOX WITH SINGLE GRATE INLET, SEE DETAILS B & C SHEET D301
ST-08	RIM = EL 19.25' INV OUT = 14.50 (NW)	36"x36" BOX WITH SINGLE GRATE INLET, SEE DETAILS B & C SHEET D301
ST-09	RIM = EL 19.10' INV IN = 13.20 (SE) INV OUT = 13.00 (NW)	48"x48" BOX WITH SINGLE GRATE INLET, SEE DETAILS B & C SHEET D301
ST-10	RIM = EL 15.67' INV OUT = 12.00 (SE)	48"x48" BOX WITH SINGLE GRATE INLET, SEE DETAILS B & C SHEET D301
ST-11	RIM = EL 17.20' INV IN = 11.40 (SE) INV IN = 10.50 (NW) INV OUT = 8.00 (NE)	48"x54" BOX WITH SINGLE GRATE INLET, SEE DETAILS B & C SHEET D301
ST-12	RIM = EL 10.43' INV IN = 6.00 (SW)	5.0' CONCRETE HEADWALL , SEE DETAIL A SHEET D302
ST-13	RIM = EL 20.70' INV OUT = 16.50 (NW)	48"x48" BOX WITH SINGLE GRATE INLET, SEE DETAILS B & C SHEET D301
ST-14	RIM = EL 17.70' INV OUT = 15.30 (N)	36"x36" BOX WITH SINGLE GRATE INLET, SEE DETAILS B & C SHEET D301
ST-15	RIM = EL 18.50' INV IN = 15.00 (SE) INV IN = 14.00 (S) INV OUT = 13.00 (NW)	48"x48" JUNCTION BOX WITH MANHOLE COVER, SEE DETAILS B/D301 AND D/D302
ST-16	RIM = EL 13.33' INV IN = 11.00 (SE)	24" CONCRETE FLARED-END SECTION, SEE DETAIL D SHEET D301

NOTE: ALL JUNCTION BOX DIMENSIONS NOTED ARE
INSIDE WALL TO INSIDE WALL DIMENSION.



Know what's **below**.
Call before you dig.



INSET
PLAN

$$1'' = 10'$$

- NOTES:
1. FILL MATERIAL PLACED WITHIN THE EXISTING PERCOLATION BASIN SHALL BE COMPACTED AND ALLOWED TO SETTLE FOR A PERIOD OF AT LEAST TWO (2) WEEKS, AS DESCRIBED IN SPECIFICATION SECTION 312000, PRIOR TO FOUNDATION OR PAVEMENT CONSTRUCTION.
 2. FINAL GRADE AT NEW BUILDING SHALL BE APPROXIMATELY 6" BELOW THE INTERIOR FINISHED FLOOR ELEVATION (F.F.E.) IN GRASSED AREAS, FLUSH WITH F.F.E. IN CONCRETE AREAS, AND SLOPED AWAY FROM THE BUILDING IN ALL DIRECTIONS.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: _____ M. BROKAW
DRAWN BY: _____ K. RYAN
SHEET CHK'D BY: A. WEISPFENNING
CROSS CHK'D BY: _____ W. KARABLY
APPROVED BY: _____ M. BROKAW
DATE: _____ MARCH 2021



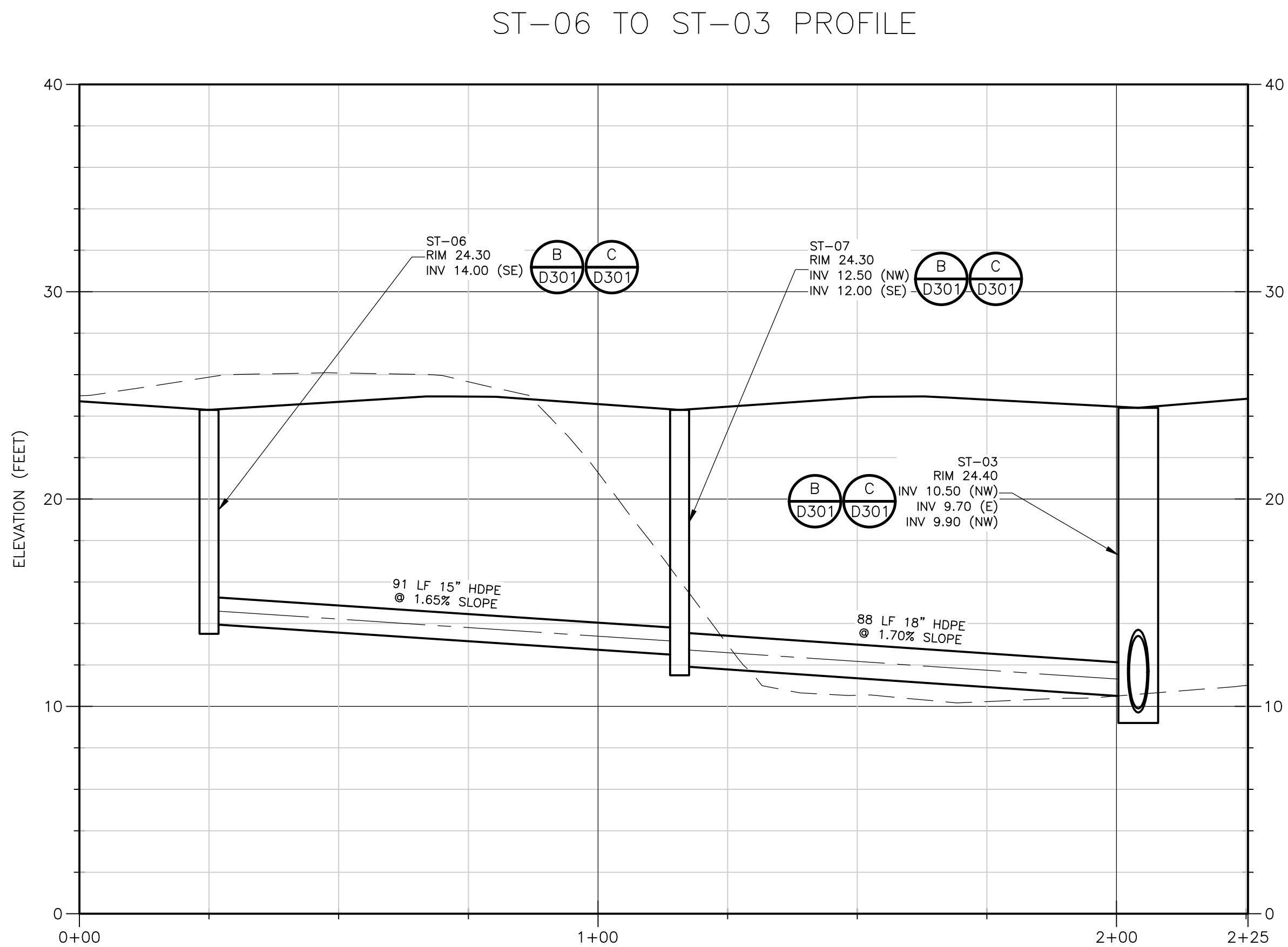
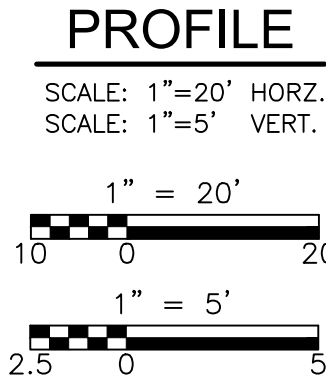
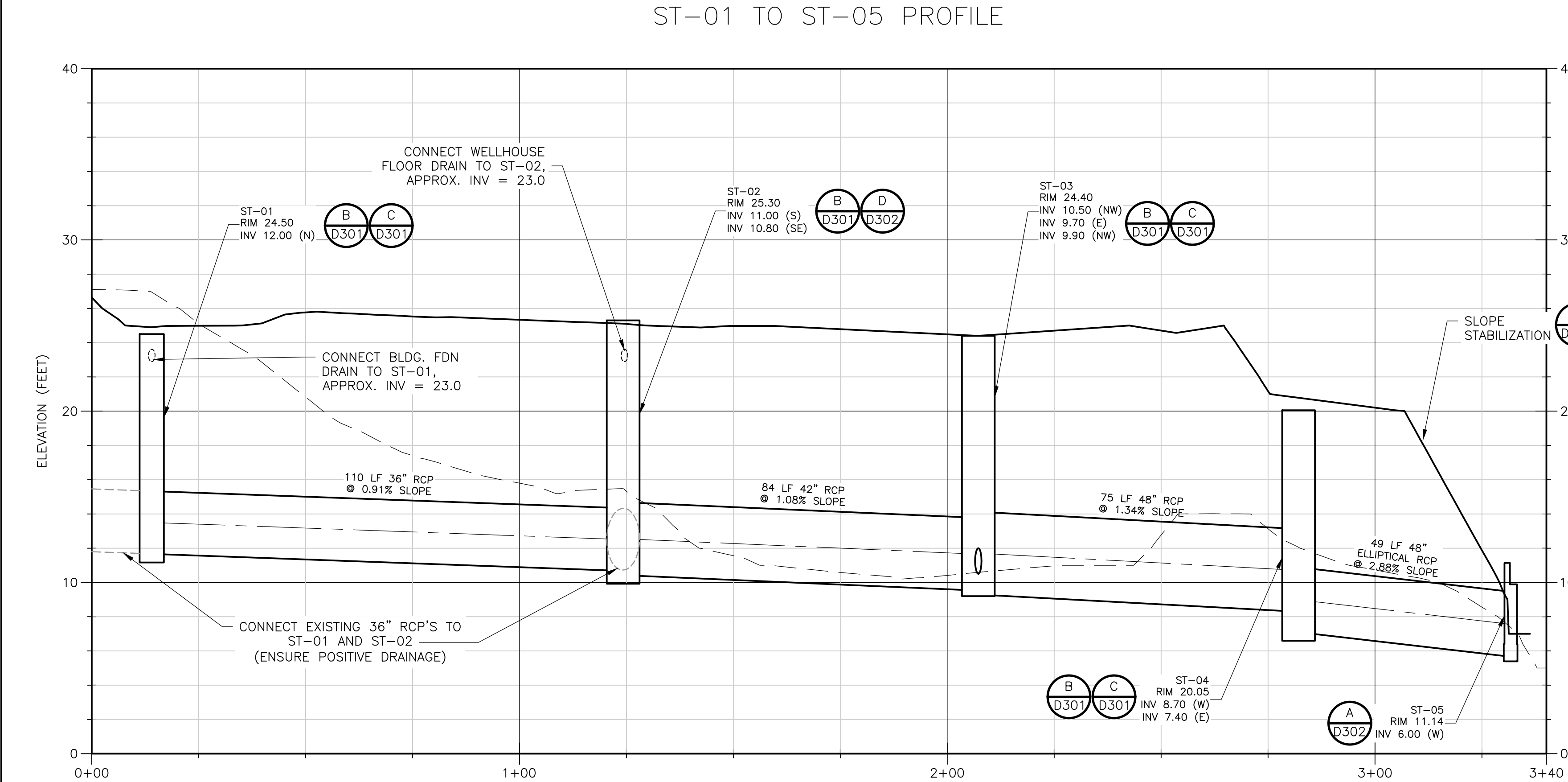
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NEW HANOVER COUNTY, NORTH CAROLINA
NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

GRADING AND DRAINAGE INSETS AND TABLES

PROJECT NO. 133920-237812
FILE NAME: C101GPPL.DWG
SHEET NO.
C101

XREFs: [C:\P000ST, COWS_2234, CWP000GD, CSP001PL] Images: []
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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY:	M. BROKAW
DRAWN BY:	K. RYAN
SHEET CHK'D BY:	A. WEISPFENNING
CROSS CHK'D BY:	W. KARABLY
APPROVED BY:	M. BROKAW
DATE:	MARCH 2021

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NEW HANOVER COUNTY, NORTH CAROLINA

NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

STORM DRAINAGE PROFILES I

PROJECT NO.	133920-237812
FILE NAME:	C111UTIL.DWG
SHEET NO.	C111

XREFs: \\CPE000ST, COWS_2234, CWP000GD, CSP001PL\\ Images: []
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DESIGNED BY: M. BROKAW
DRAWN BY: K. RYAN
SHEET CHK'D BY: A. WEISPFENNING
CROSS CHK'D BY: W. KARABLY
APPROVED BY: M. SANFORD
DATE: MARCH 2021

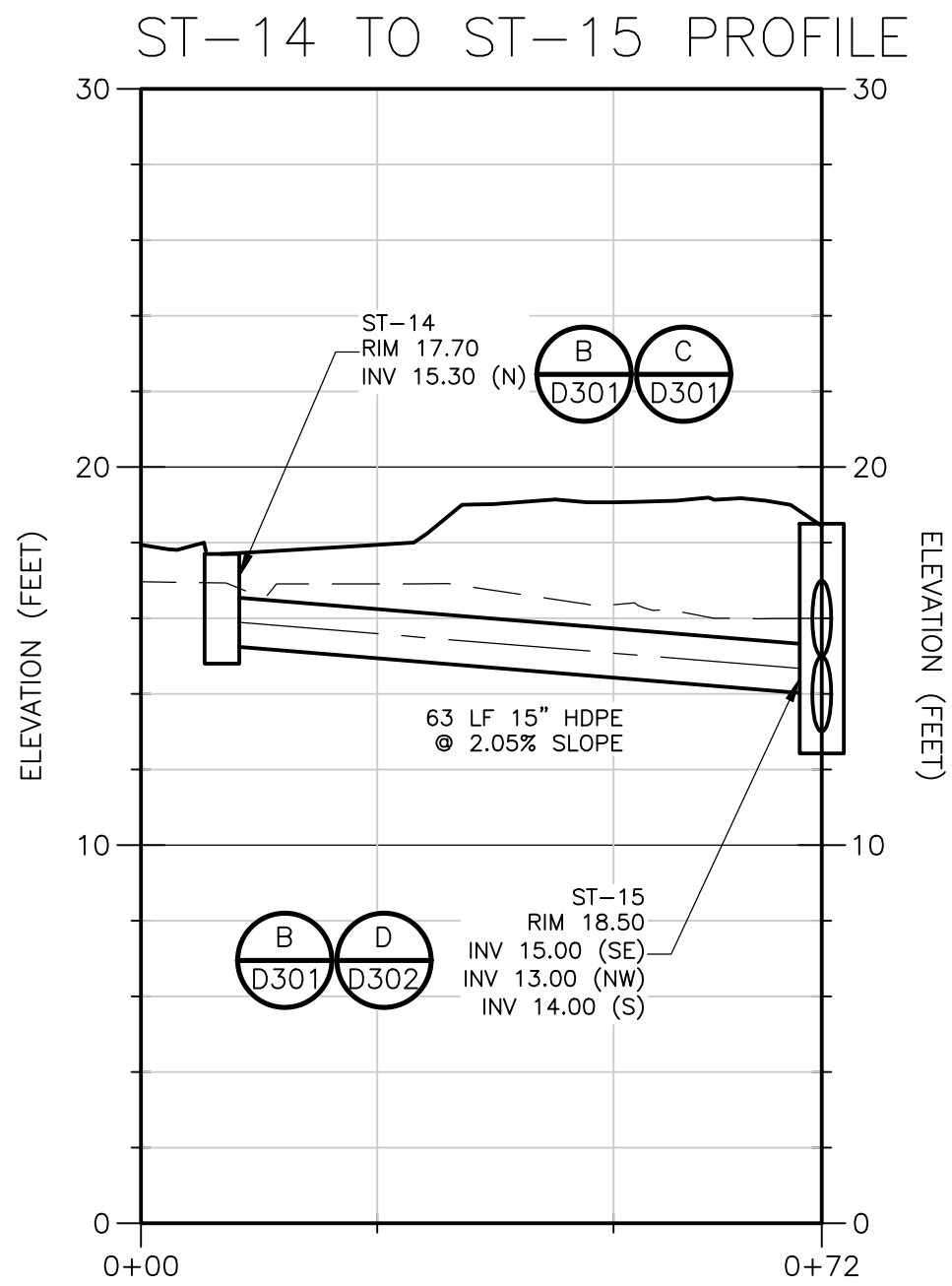
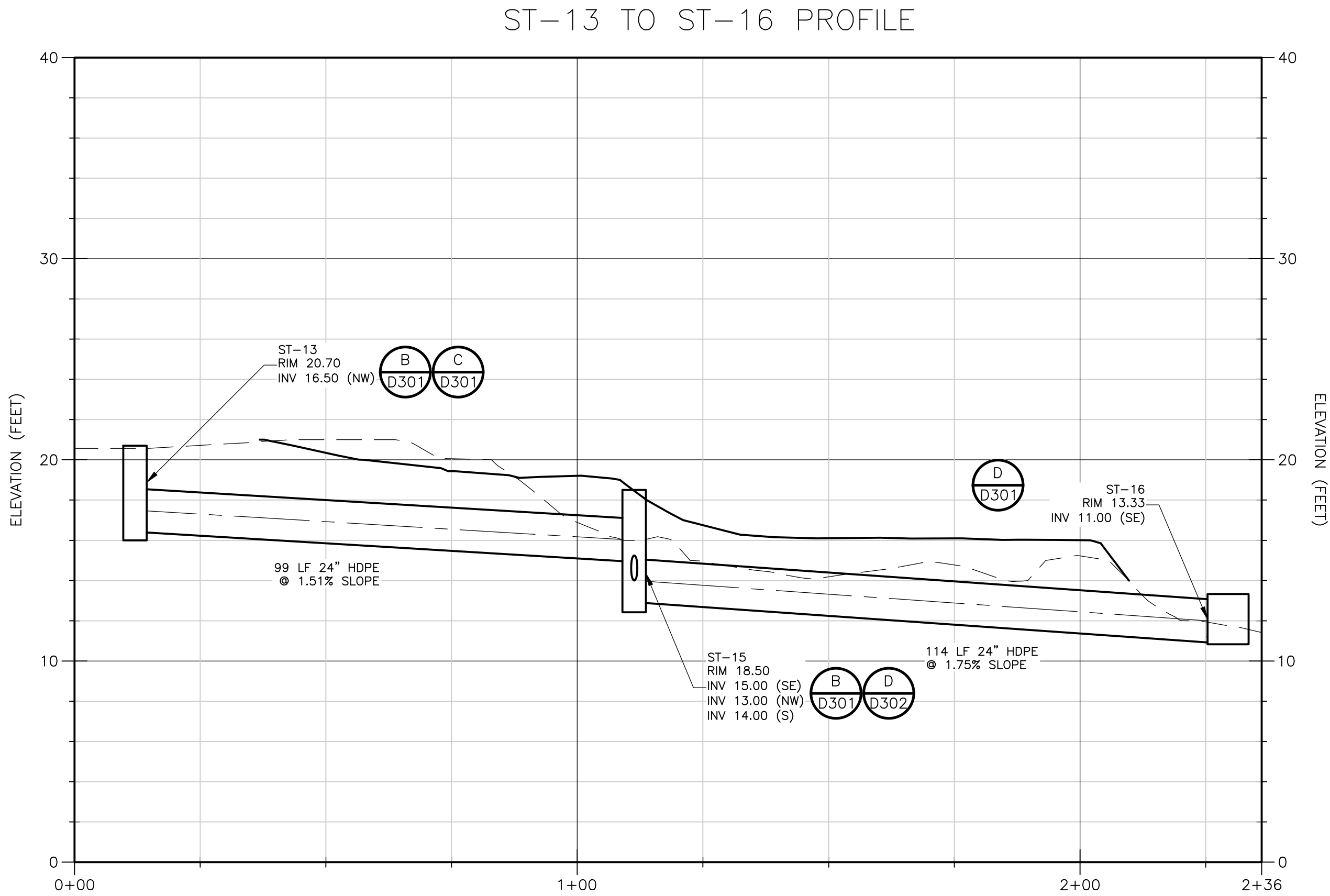
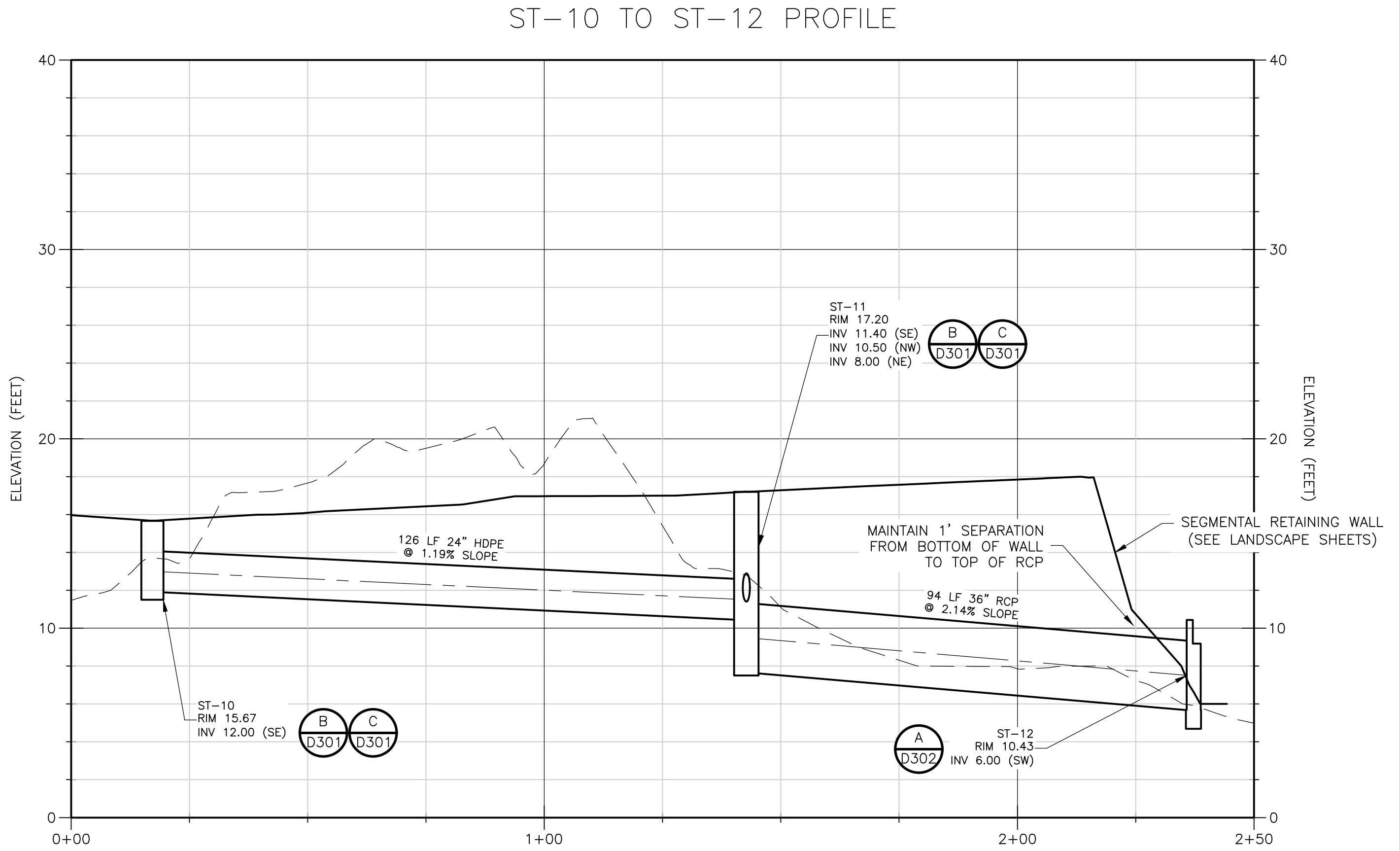
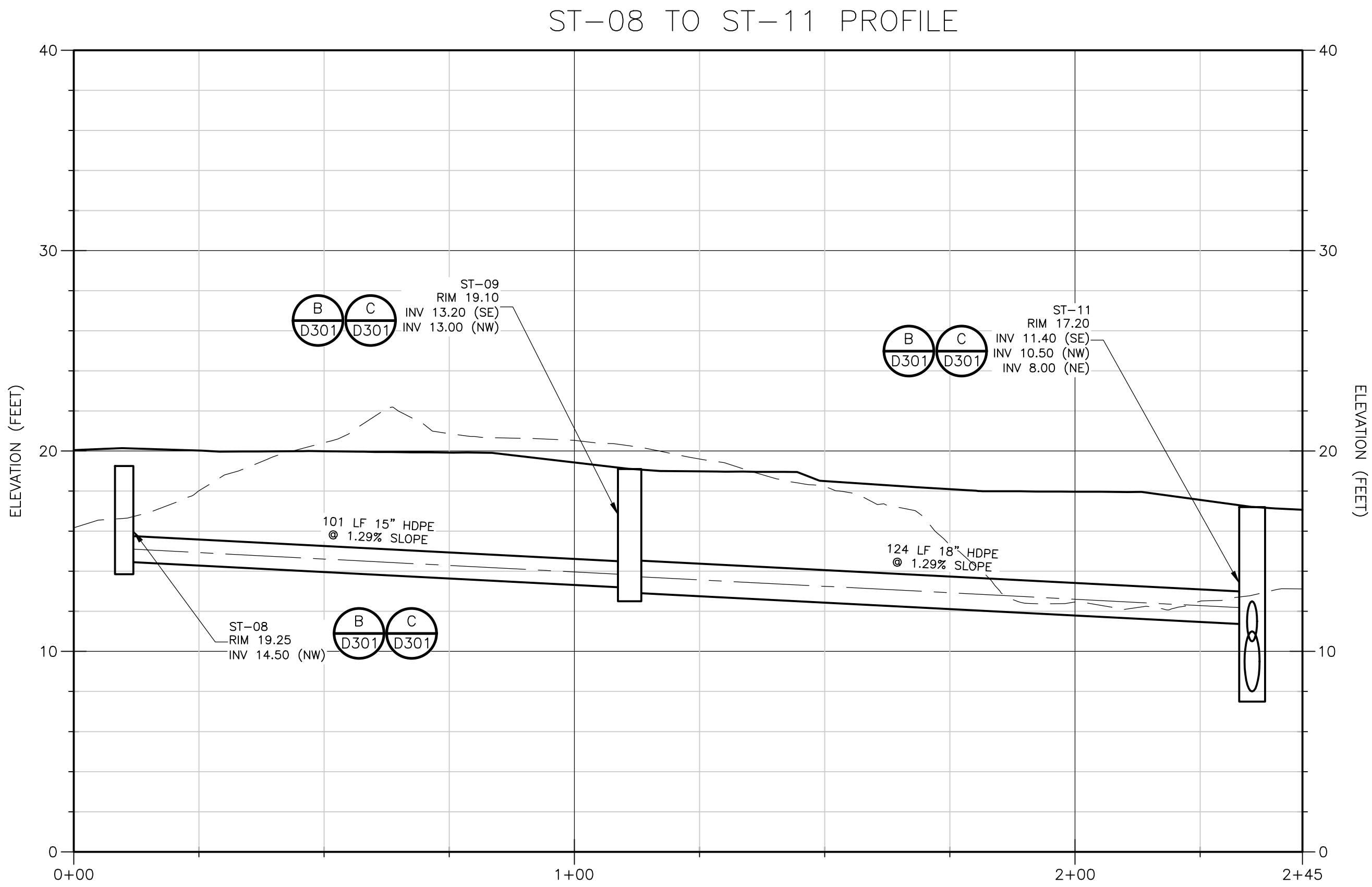
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NEW HANOVER COUNTY, NORTH CAROLINA
NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

STORM DRAINAGE PROFILES II

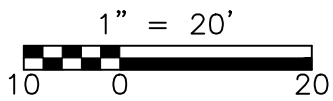
PROJECT NO. 133920-237812
FILE NAME: C112UTIL.DWG
SHEET NO.
C112

PERMIT SET - NOT FOR CONSTRUCTION

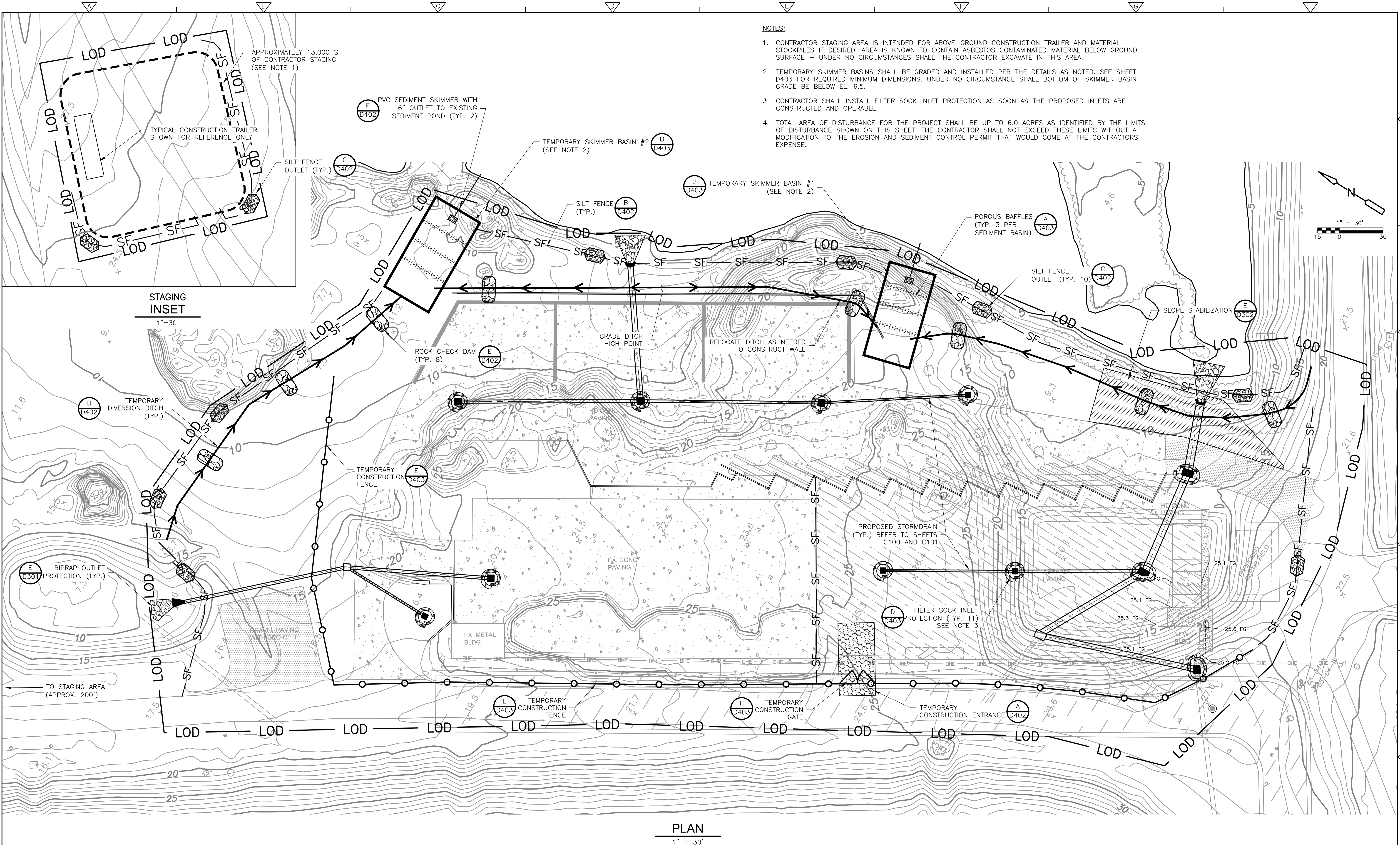


PROFILE

SCALE: 1"=20' HORZ.
SCALE: 1"=5' VERT.



XREFS: [C:\P00001\PL\ CWP00000] Images: []
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C:\p00001\brokawm\1587174\ C_201ECPL.dwg
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NOTES:

1. CONTRACTOR STAGING AREA IS INTENDED FOR ABOVE-GROUND CONSTRUCTION TRAILER AND MATERIAL STOCKPILES IF DESIRED. AREA IS KNOWN TO CONTAIN ASBESTOS CONTAMINATED MATERIAL BELOW GROUND SURFACE - UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR EXCAVATE IN THIS AREA.
2. TEMPORARY SKIMMER BASINS SHALL BE GRADED AND INSTALLED PER THE DETAILS AS NOTED. SEE SHEET D403 FOR REQUIRED MINIMUM DIMENSIONS. UNDER NO CIRCUMSTANCE SHALL BOTTOM OF SKIMMER BASIN GRADE BE BELOW EL. 6.5.
3. CONTRACTOR SHALL INSTALL FILTER SOCK INLET PROTECTION AS SOON AS THE PROPOSED INLETS ARE CONSTRUCTED AND OPERABLE.
4. TOTAL AREA OF DISTURBANCE FOR THE PROJECT SHALL BE UP TO 6.0 ACRES AS IDENTIFIED BY THE LIMITS OF DISTURBANCE SHOWN ON THIS SHEET. THE CONTRACTOR SHALL NOT EXCEED THESE LIMITS WITHOUT A MODIFICATION TO THE EROSION AND SEDIMENT CONTROL PERMIT THAT WOULD COME AT THE CONTRACTORS EXPENSE.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY:	M. BROKAW
DRAWN BY:	K. RYAN
SHEET CHK'D BY:	A. WEISPFENNING
CROSS CHK'D BY:	W. KARABLY
APPROVED BY:	M. BROKAW
DATE:	MARCH 2021

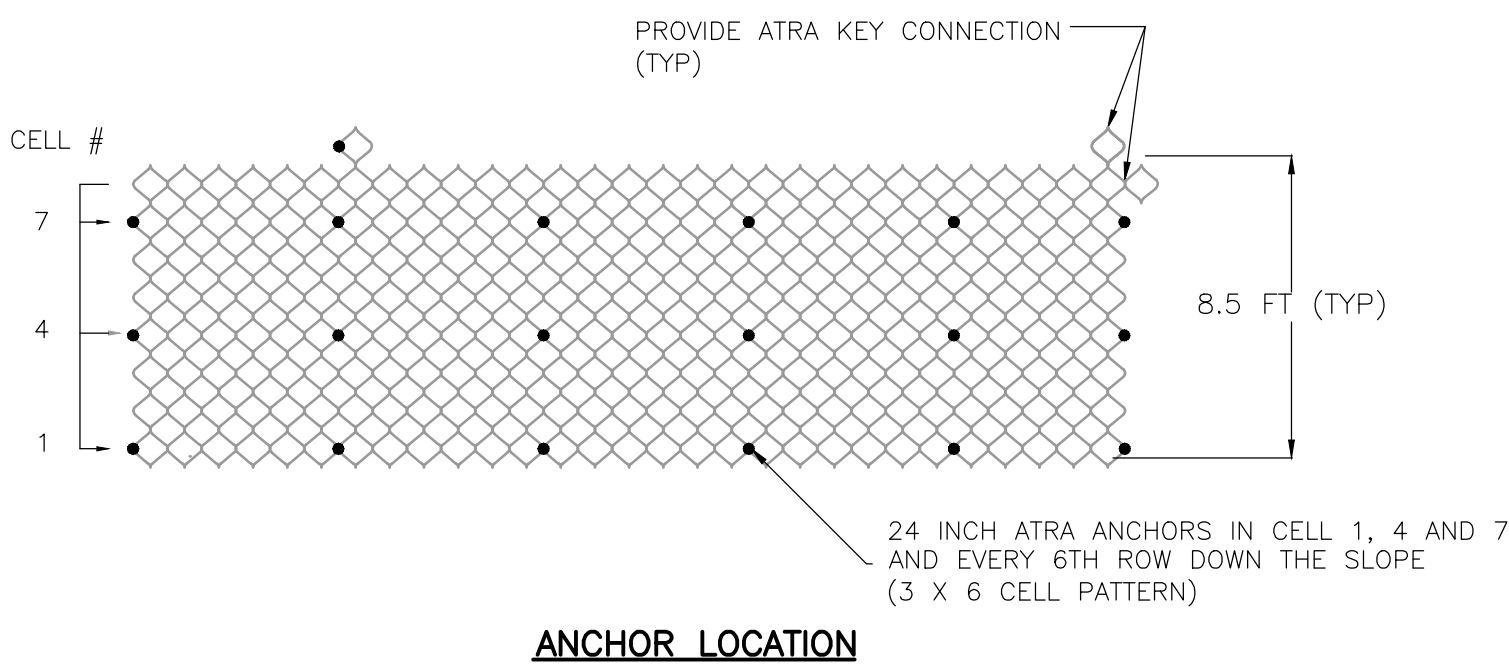
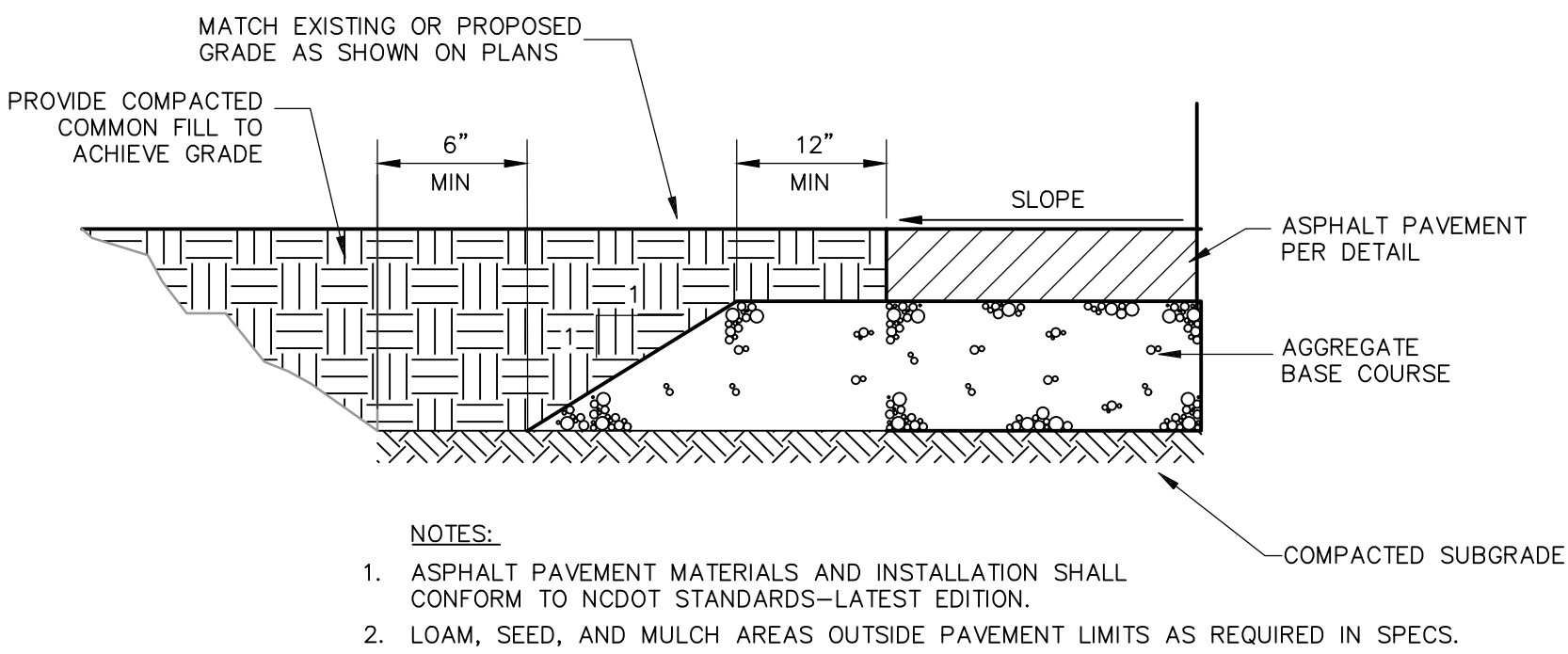
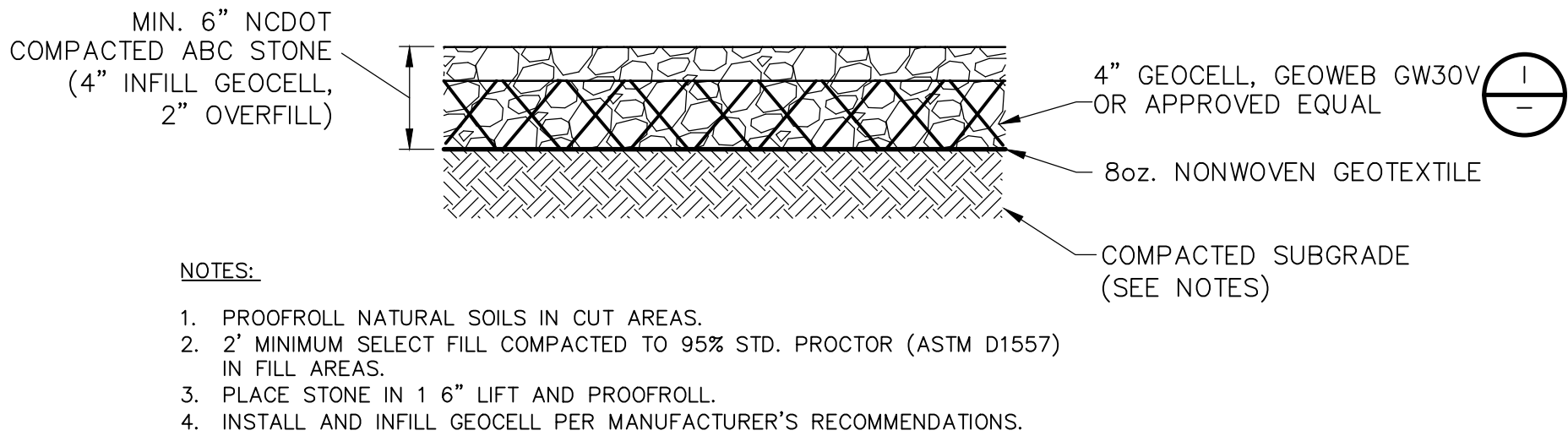
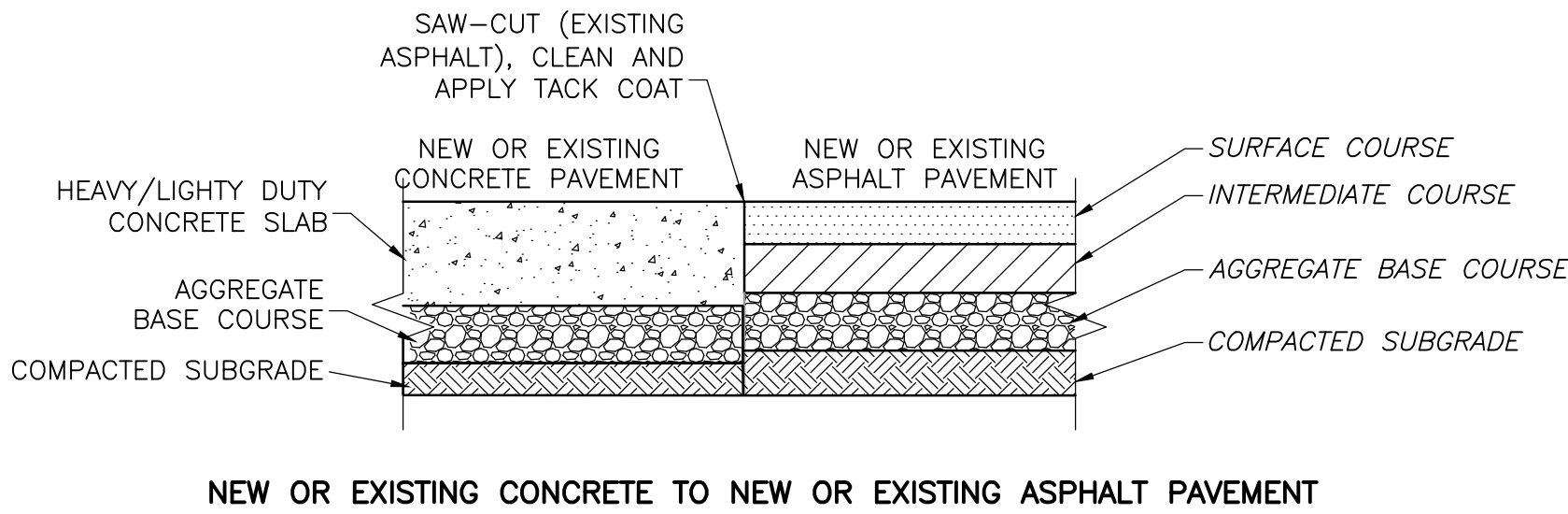
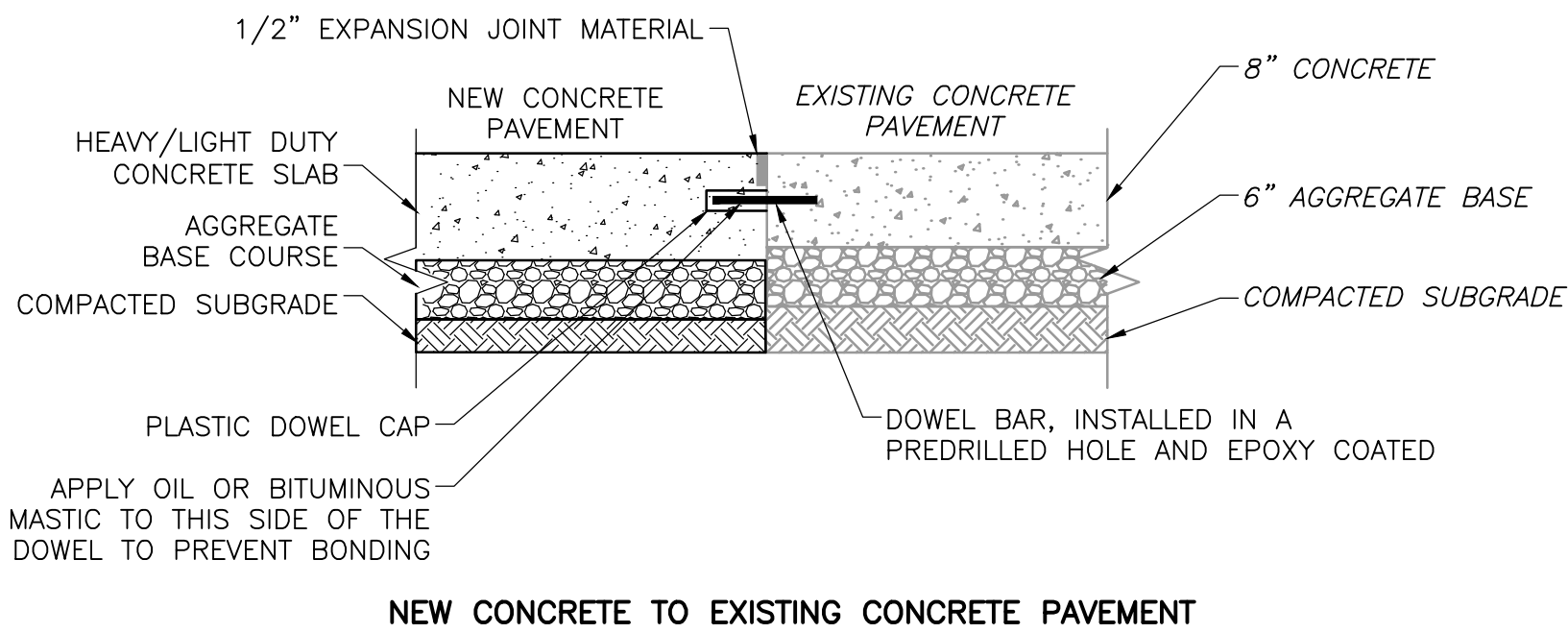
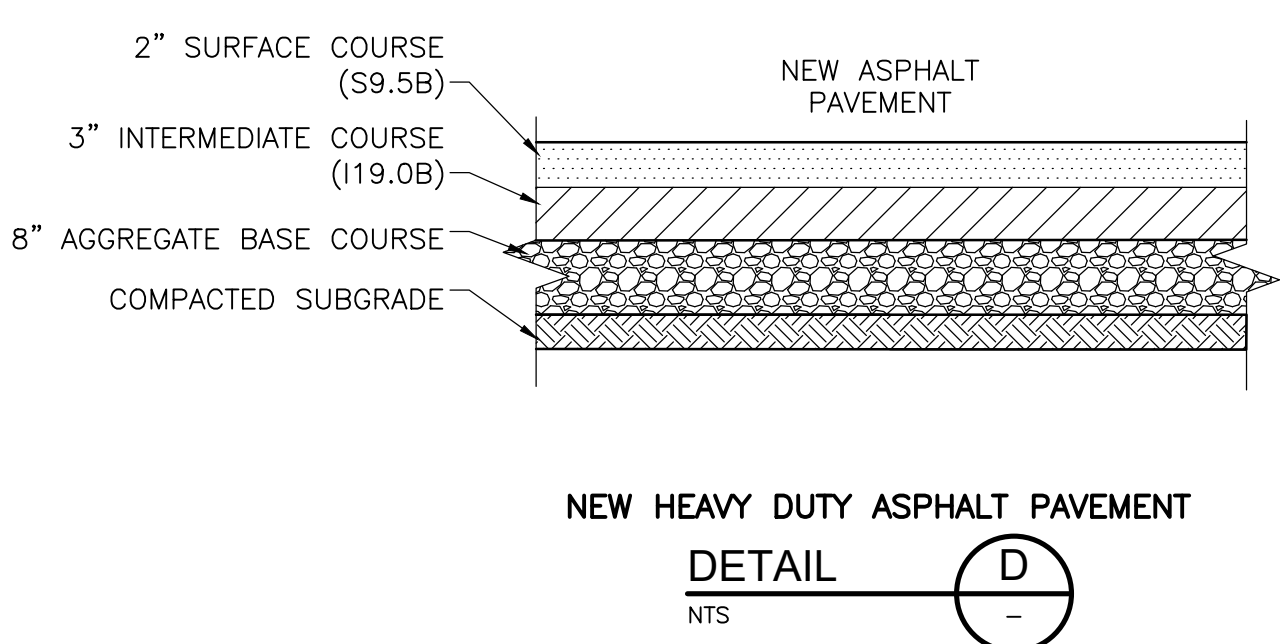
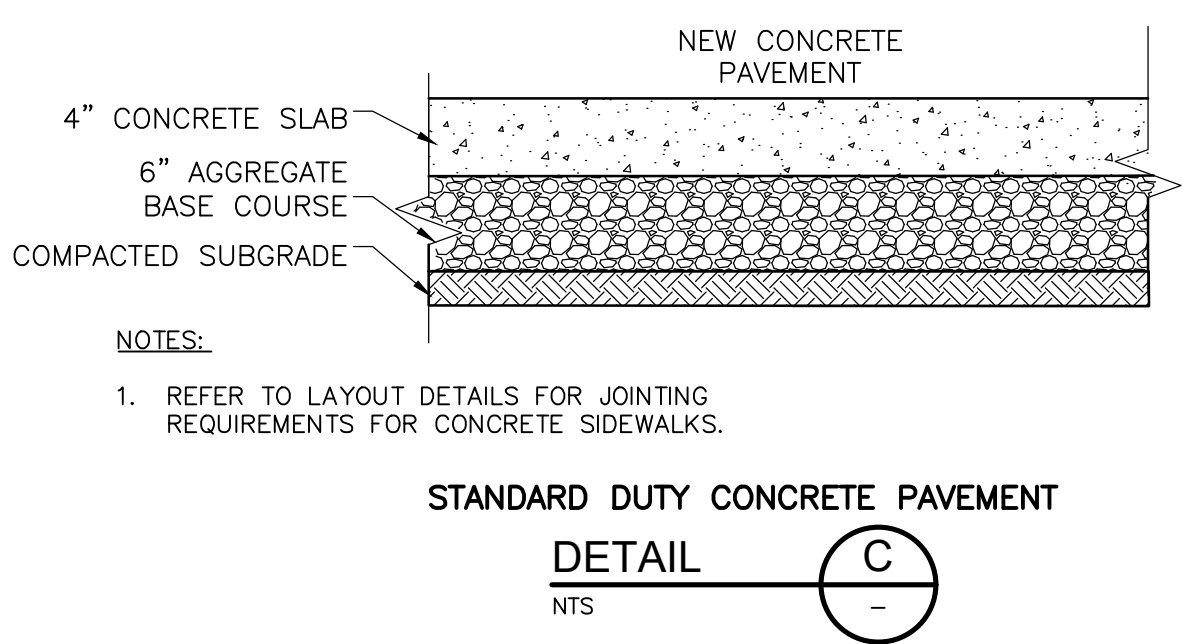
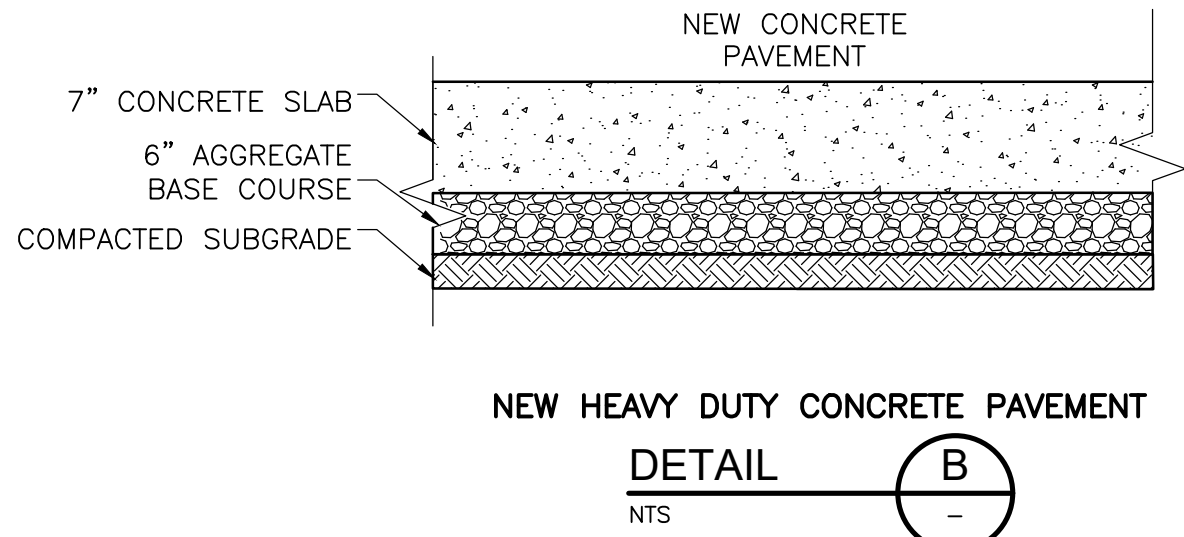
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NC F-1255

NEW HANOVER COUNTY, NORTH CAROLINA
NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

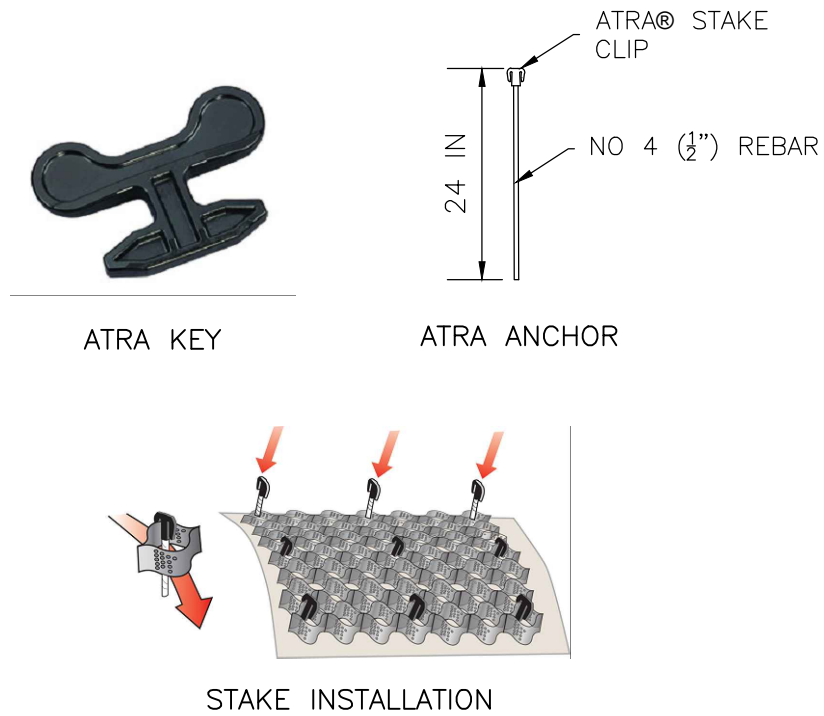
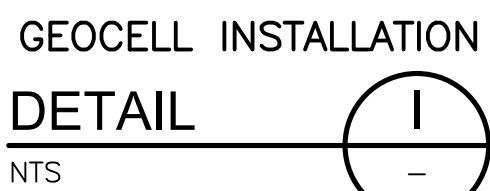
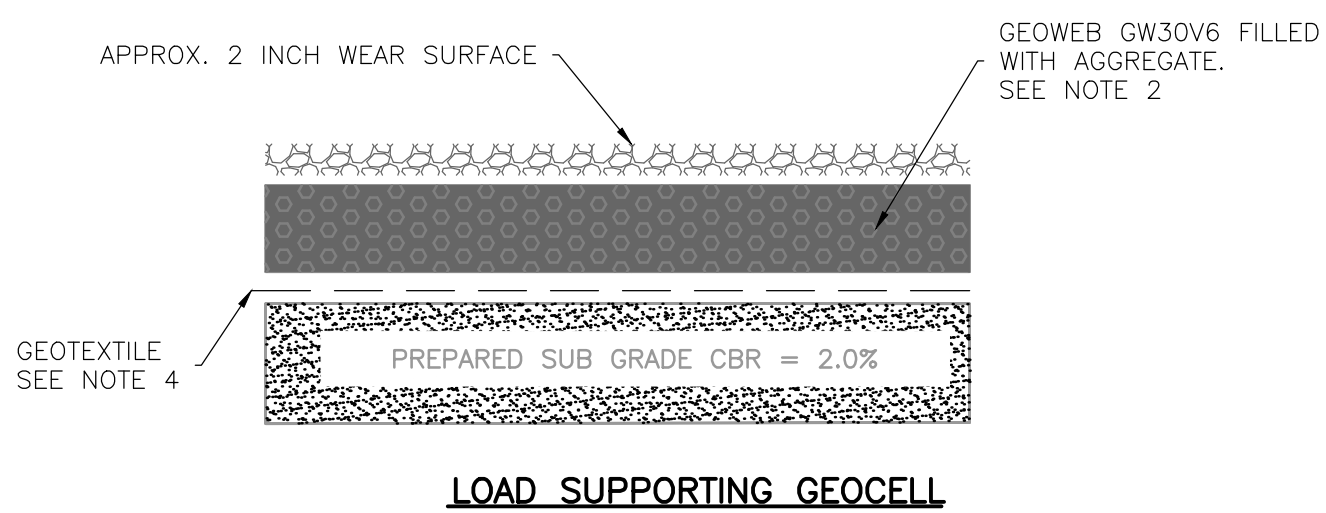
SEDIMENT AND EROSION CONTROL PLAN

PROJECT NO. 133920-237812
FILE NAME: C201ECPL.DWG
SHEET NO.
C201

XREFs: [CDMS_2234] Images: [300.03 Concrete Curb and Gutter]
Last saved by: BROKAWM Time: 1/31/2020 1:38:40 PM
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 - STONE GEOWEB INFILL SHALL BE OPEN GRADED NCDOT ABC STONE. LIMIT THE FINES TO LESS THAN 12% TO ALLOW FREE DRAINAGE.
 - PROVIDE AN 8 OZ. NON-WOVEN GEOTEXTILE SEPARATION LAYER AND INSTALL PER MANUFACTURER RECOMMENDATIONS INCLUDING OVERLAPS BASED ON SUB GRADE CBR.
 - THE GEOWEB PANELS SHALL BE CONNECTED WITH ATRA KEYS AT EACH INTERLEAF AND END TO END CONNECTION.
 - PROVIDE ATRA ANCHORS TO KEEP PANELS OPEN FOR INFILL AS REQUIRED.
 - LIMIT THE DROP OF INFILL TO PREVENT PANEL DISTORTION.



PAVING NOTES

PAVING GENERAL:

- ALL PAVING SHALL BE IN ACCORDANCE WITH NCDOT SPECIFICATIONS.
- ALL NEW PAVEMENT SHALL MEET EXISTING PAVEMENT FLUSH.
- SEE SPECIFICATIONS FOR SUBGRADE COMPACTION REQUIREMENTS BASED ON PAVEMENT TYPE.

HEAVY DUTY CONCRETE PAVING:

- THE CONTRACTOR SHALL SUBMIT FOR REVIEW A JOINTING PLAN SHOWING LONGITUDINAL AND TRANSVERSE JOINTS. THE PAVEMENT SHOULD BE DIVIDED INTO PANEL RANGING IN SIZE FROM 13 TO 15 FEET. THE RATIO OF LENGTH TO WIDTH FOR THE INDIVIDUAL PANELS SHOULD NOT EXCEED 1.25. ODD-SHAPED PANELS OR THOSE THAT EXCEED THE 1.25 RATIO SHALL HAVE A MINIMUM REINFORCEMENT OF 0.5 PERCENT. REINFORCEMENT SHALL BE #4 REBAR SPACED 10" IN BOTH DIRECTIONS WITH 2" CLEAR COVER ON TOP.
- DOWELS SHOULD BE PROVIDED AT THE TRANSVERSE JOINTS. THE DOWELS SHOULD BE 1-INCH IN DIAMETER AND 15 INCHES LONG AND PLACED AT A C/C SPACING OF 18 INCHES.
- ONLY THOSE JOINT SEALANTS THAT ARE ACCEPTABLE ON NCDOT PROJECTS SHALL BE USED.

SUBGRADE NOTES:

- THE CONTRACTOR SHALL PERFORM EXCAVATIONS TO FACILITATE DRAINAGE AND DIRECT SURFACE WATER AWAY FROM OPEN EXCAVATIONS USING DIVERSIONS TO LIMIT RUNOFF INTO THE EXCAVATIONS.
- CARE SHALL BE TAKEN TO AVOID EXCESS TRAFFIC ON THE EXCAVATED SUBGRADES PRIOR TO PLACEMENT OF FILL AND/OR PAVEMENT BASE COURSE MATERIALS. FINAL EXCAVATION IN SOIL SHALL BE MADE USING A SMOOTH EDGED BUCKET, WHERE POSSIBLE. ANY UNSUITABLE MATERIAL PRESENT AT THE SUBGRADE LEVEL SHOULD BE REMOVED AND REPLACED WITH COMPACTED SELECT FILL, CRUSHED STONE, OR SCREENED GRAVEL.
- THE TOP TWELVE (12) INCHES OF SUBGRADE IN CUT AREAS UNDER ANY PROPOSED ROADWAY SHALL BE COMPACTED TO A DENSITY OF 95 PERCENT MAXIMUM STANDARD PROCTOR DRY DENSITY AS DETERMINED BY ASTM D1155. INSPECTION OF THE SUBGRADE PRIOR TO THE PLACEMENT OF BASE COURSE SHALL BE PERFORMED BY PROOF ROLLING AND WITNESSED BY A GEOTECHNICAL ENGINEER OR AN EXPERIENCED SOILS TECHNICIAN.
- SELECT FILL SHALL BE PLACED TO A DEPTH OF UP TO 24 INCHES BELOW THE PAVEMENT SUBGRADE IN FILL AREAS AS STATED IN SPECIFICATIONS SECTION 02200.

REV. NO.	DATE	DRWN	CHKD	REMARKS

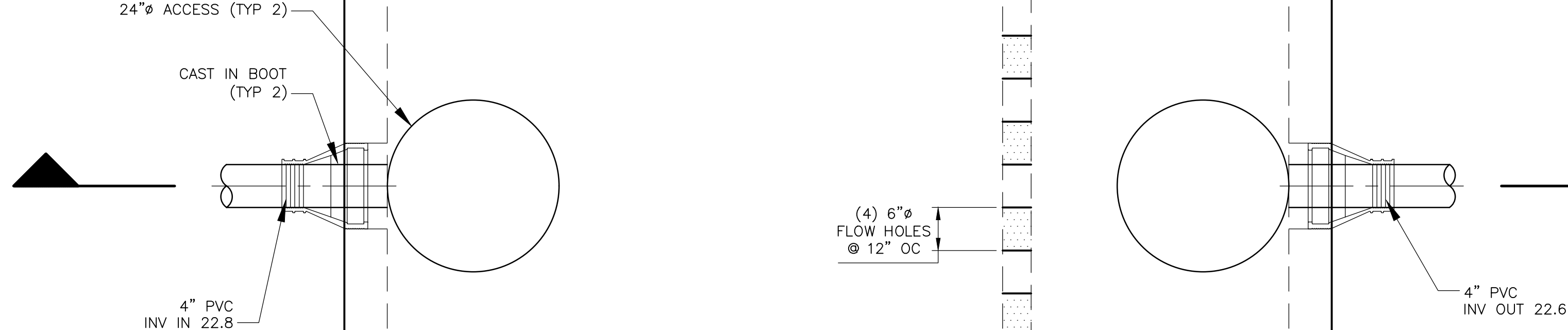
DESIGNED BY: M. BROKAW
DRAWN BY: K. RYAN
SHEET CHK'D BY: A. WEISPFENNING
CROSS CHK'D BY: W. KARABLY
APPROVED BY: M. SANFORD
DATE: MARCH 2021

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Raleigh, NC 27612 | Tel: (919) 325-3500
NC F-1255

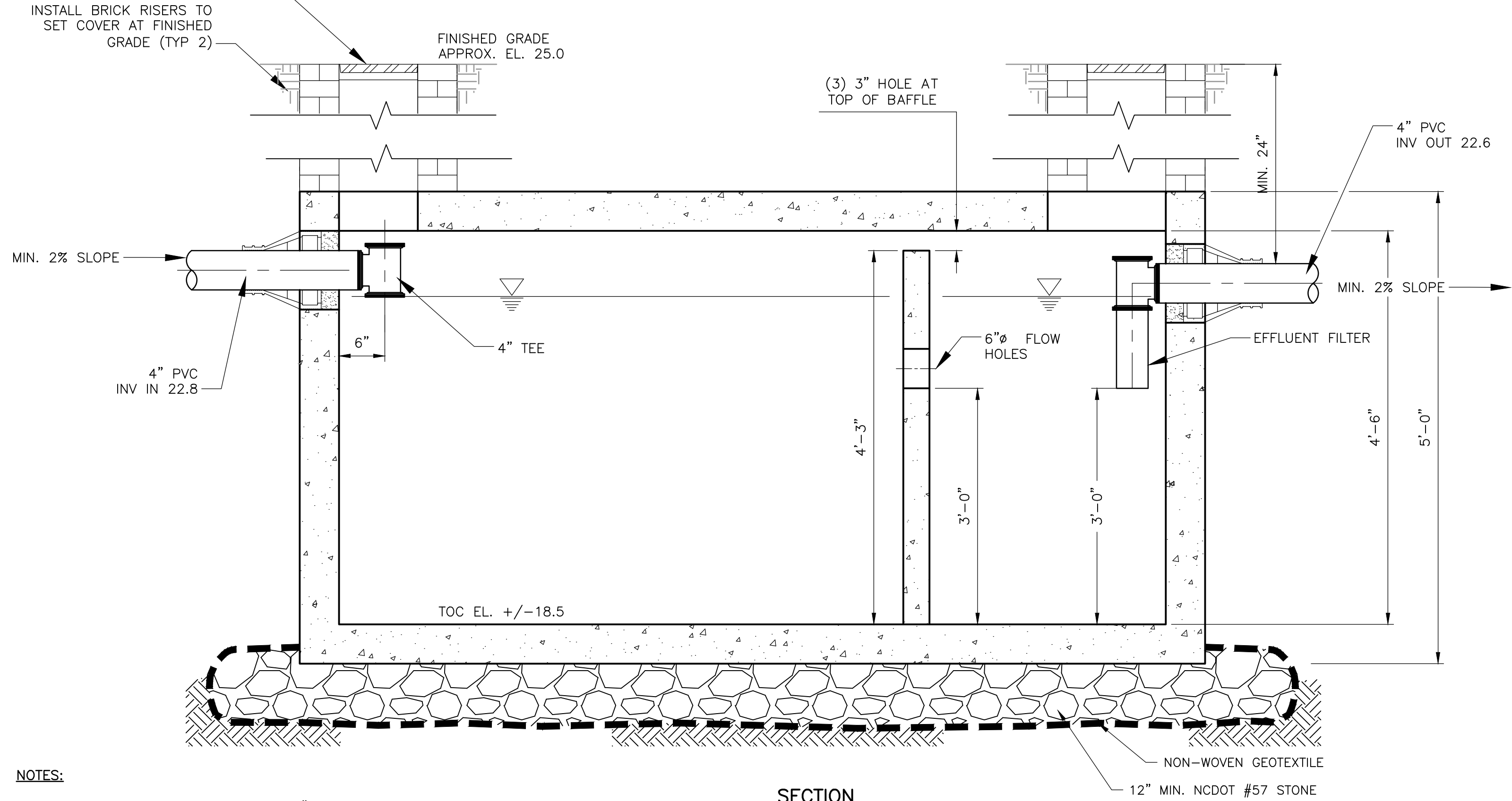
NEW HANOVER COUNTY, NORTH CAROLINA
NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

PAVING DETAILS

PROJECT NO. 133920-237812
FILE NAME: D101Dtls.DWG
SHEET NO.
D101



SECTION



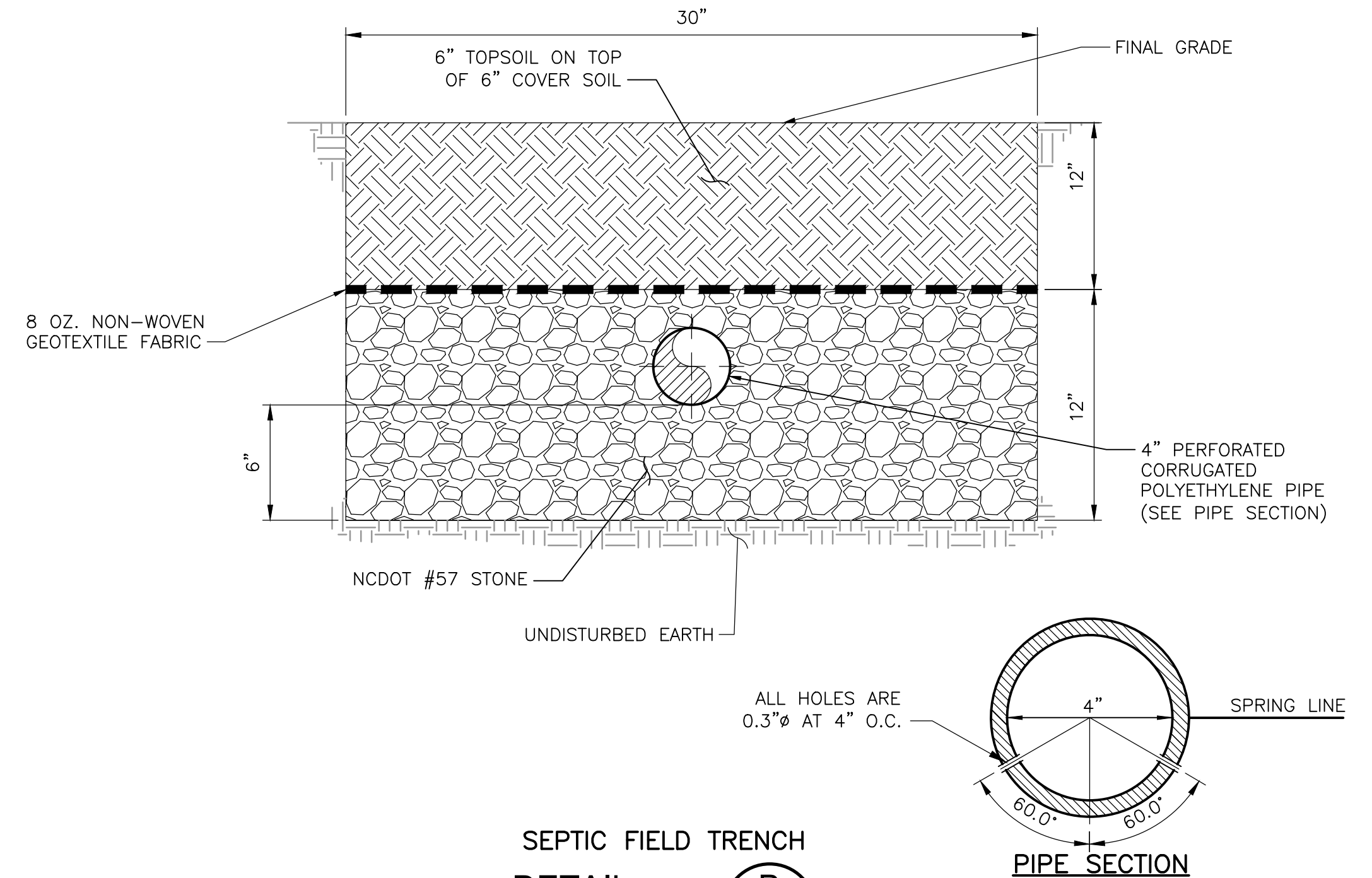
1. ALL PVC SHALL BE SCHEDULE 40 4" PVC PIPE.
2. SEPTIC TANK SHALL BE 1250 GALLON, PRECAST RECTANGULAR TANK, DI-PT-276-1250, OR APPROVED EQUAL.
3. SEPTIC TANK DIMENSIONS ARE APPROXIMATE. CONSULT MANUFACTURER FOR EXACT DIMENSIONS.

DETAIL

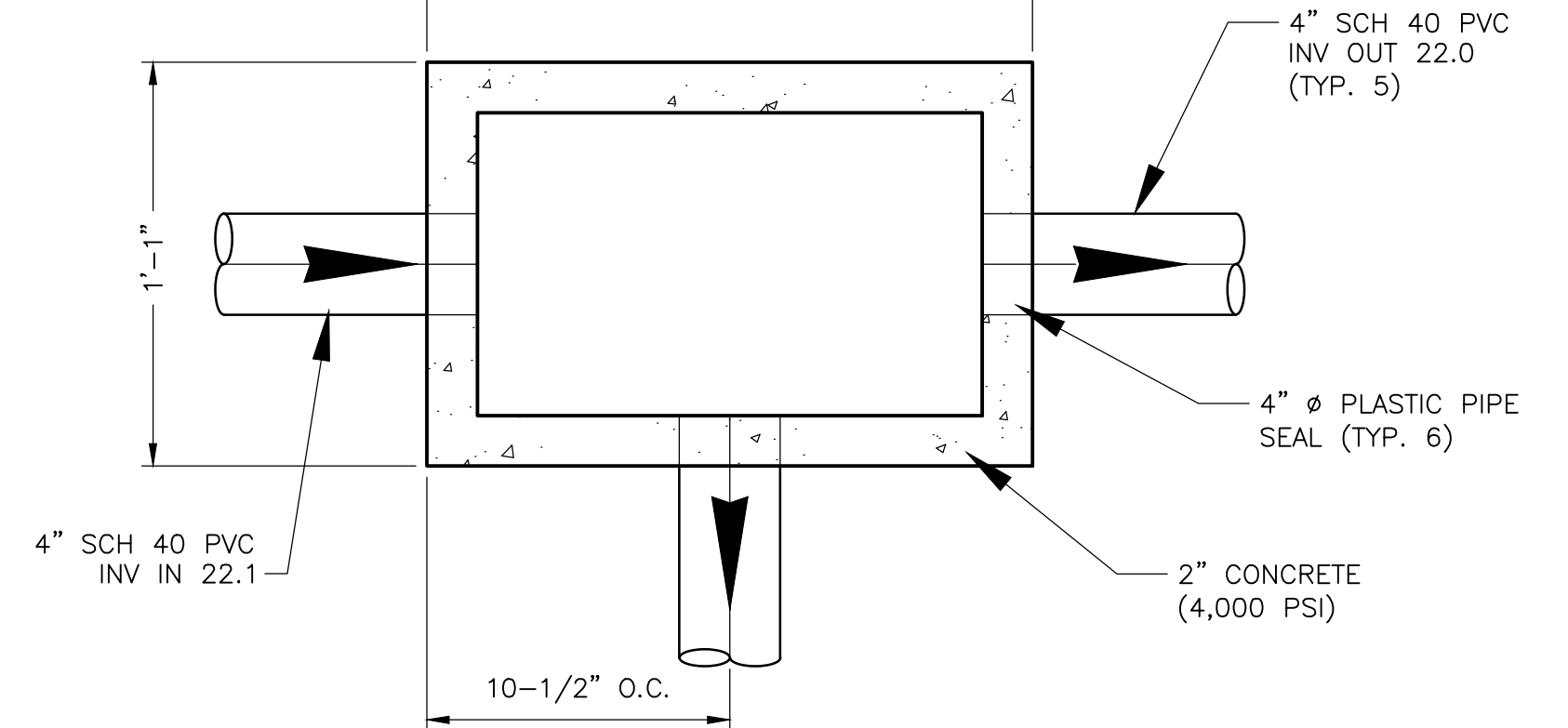
A
U200

DESIGNED BY: M. BROKAW
DRAWN BY: K. RYAN
SHEET CHK'D BY: A. WEISPFENNING
CROSS CHK'D BY: W. KARABLY
APPROVED BY: M. SANFORD
DATE: MARCH 2021

**CDM
Smith**
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Raleigh, NC 27612 | Tel: (919) 876-7000
NC F-1255

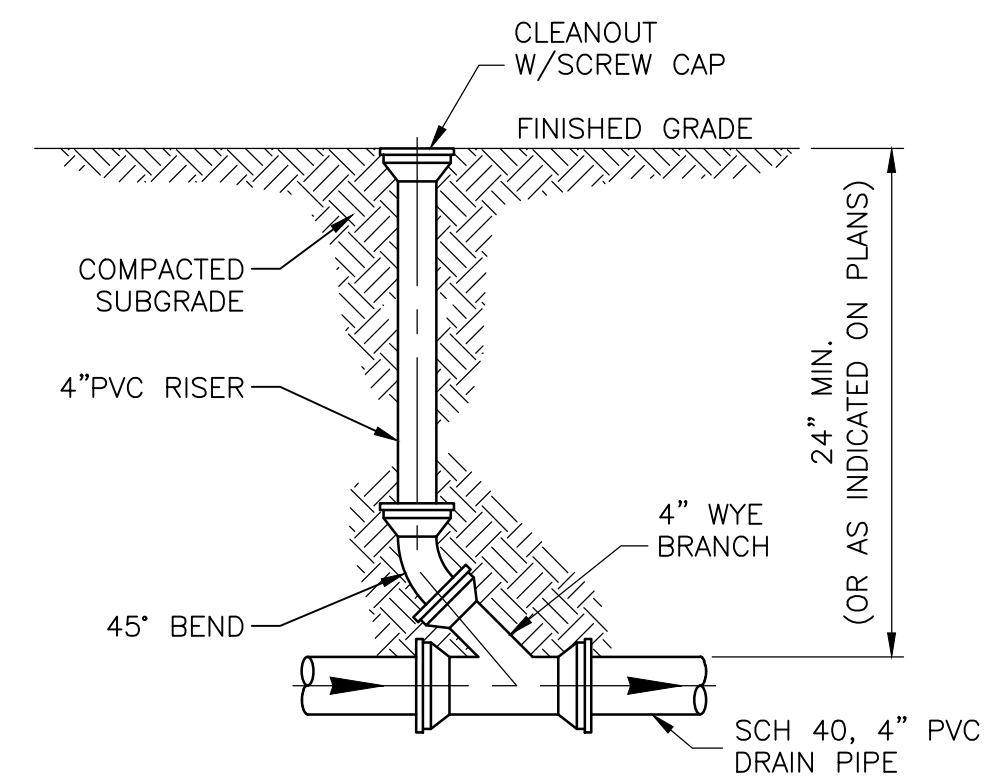


DETAIL



4" SCH 40 PVC PIPE SHALL CONNECT TO 4" CORRUGATED
POLYETHYLENE PIPE AT LEACH FIELD WITH ADS 4"
CORRUGATED SNAP COUPLER FITTING, OR EQUIVALENT.

DETAIL



DETAIL

D
U201

NEW HANOVER COUNTY, NORTH CAROLINA
NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

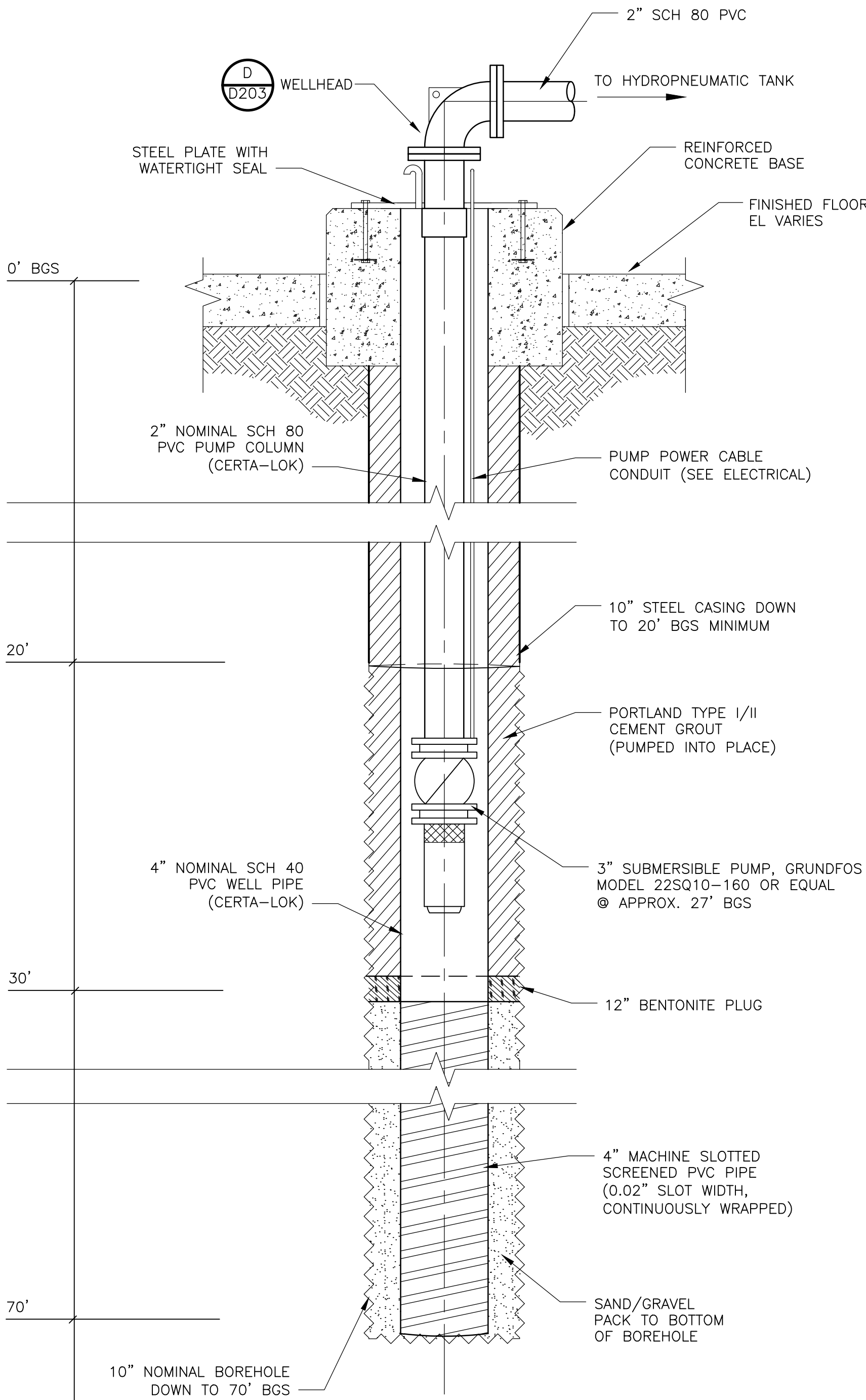
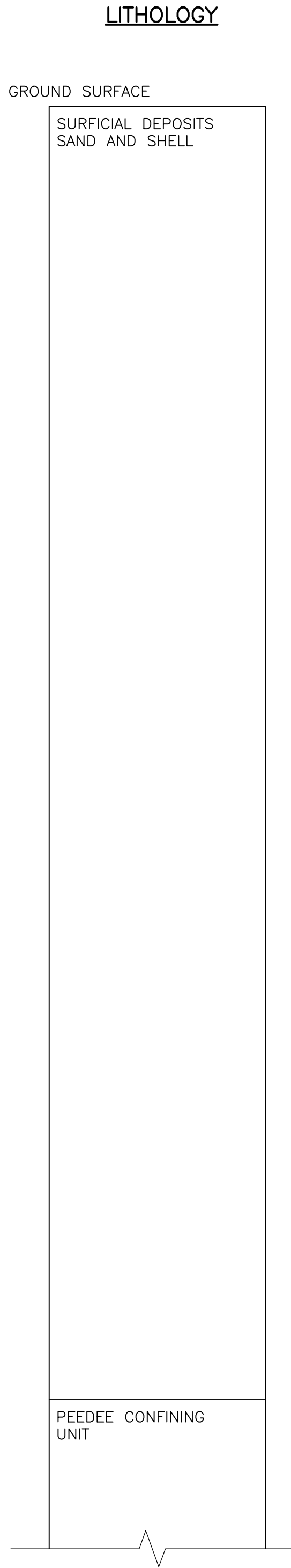
UTILITY DETAILS I

PROJECT NO. 133920-237812
FILE NAME: D201DTLS.DWG

SHEET NO.

D201

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NOTES:

1. CONTRACTOR SHALL CONFIRM A MINIMUM 40 GPM YIELD.
2. WELL BOREHOLE SHALL NOT EXTEND INTO CONFINING LAYER.
3. GROUT SHALL BE PLACE FROM THE BOTTOM, UP. GROUT SHALL BE PUMPED INTO PLACE WITH THE USE OF A TREMMIE PIPE OR PRESSURE METHOD.

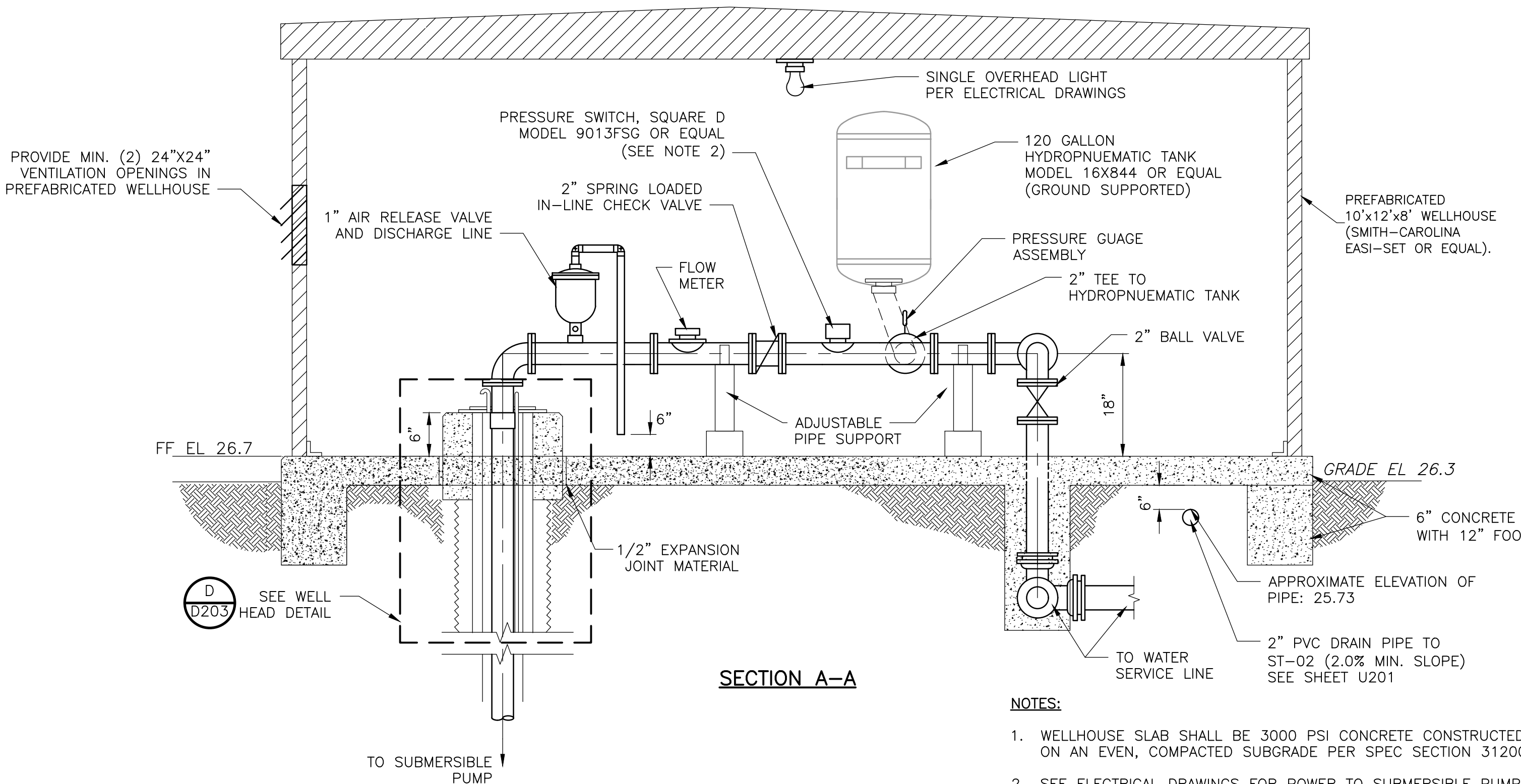
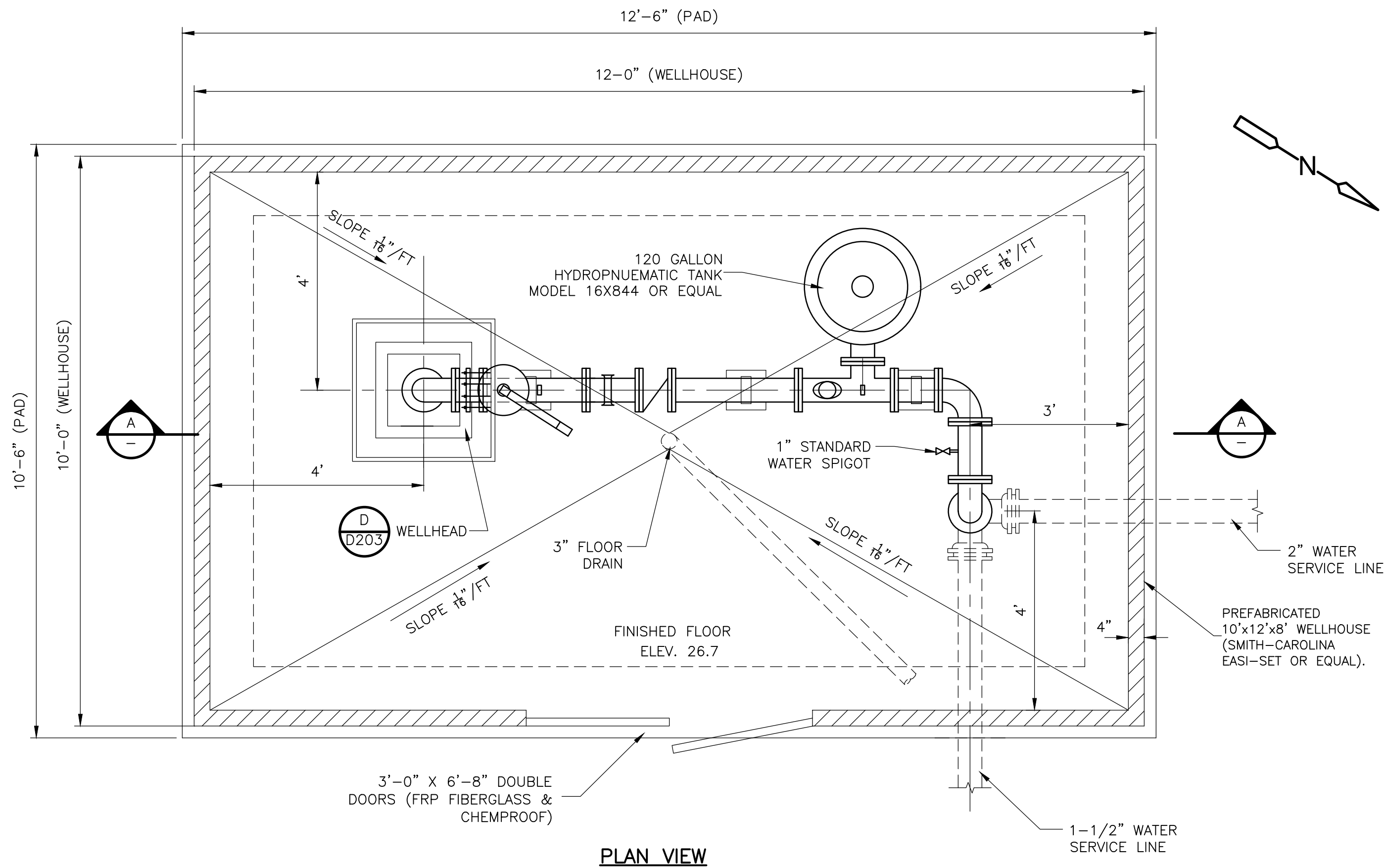
4" NON-POTABLE IRRIGATION WELL

DETAIL

NTS

A

U200



NOTES:

1. WELLHOUSE SLAB SHALL BE 3000 PSI CONCRETE CONSTRUCTED ON AN EVEN, COMPACTED SUBGRADE PER SPEC SECTION 312000.
2. SEE ELECTRICAL DRAWINGS FOR POWER TO SUBMERSIBLE PUMP AND PRESSURE SWITCH. PUMP AND PRESSURE SWITCH SHALL BE POWERED IN-LINE AND WIRED BY THE WELL INSTALLER.
3. ALL PIPE MATERIALS IN WELLHOUSE SHALL BE SCHEDULE 80 PVC, PER SPEC SECTION 330516.13. ALL PIPE UNDERNEATH SLAB SHALL BE CONCRETE ENCASED.

WELL PUMPHOUSE AND TANKS

DETAIL

NTS

B

U200

NEW HANOVER COUNTY, NORTH CAROLINA

NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

UTILITY DETAILS II

PROJECT NO. 133920-237812
FILE NAME: D202D.TLS.DWG

SHEET NO.

D202

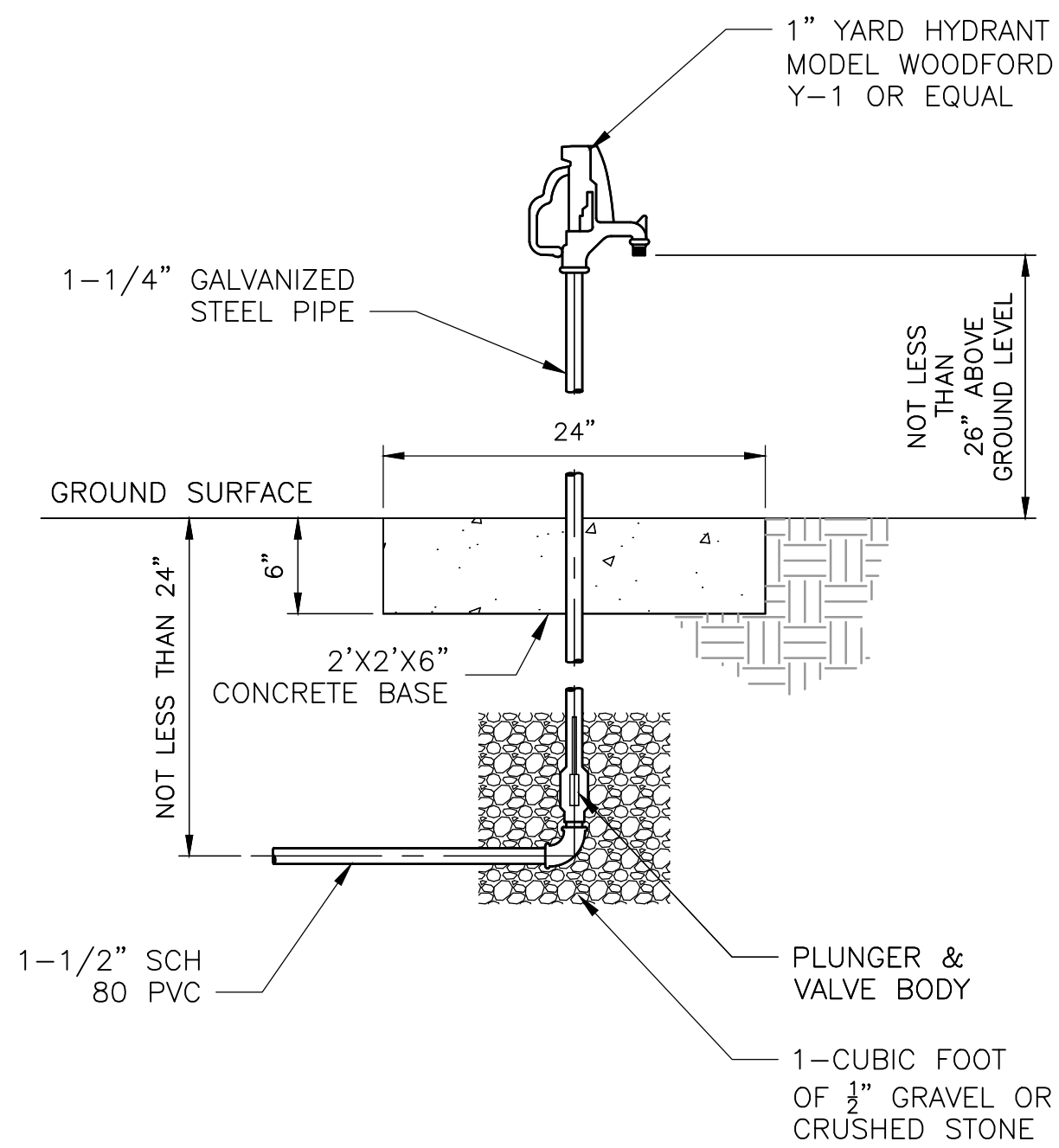
PERMIT SET - NOT FOR CONSTRUCTION

DESIGNED BY: M. BROKAW
DRAWN BY: K. RYAN
SHEET CHK'D BY: A. WEISPFENNING
CROSS CHK'D BY: W. KARABLY
APPROVED BY: M. SANFORD
DATE: MARCH 2021

**CDM
Smith**

5400 Glenwood Avenue, Suite 400
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NC F-1255

XREFs: [CDMS_2234] Images: []



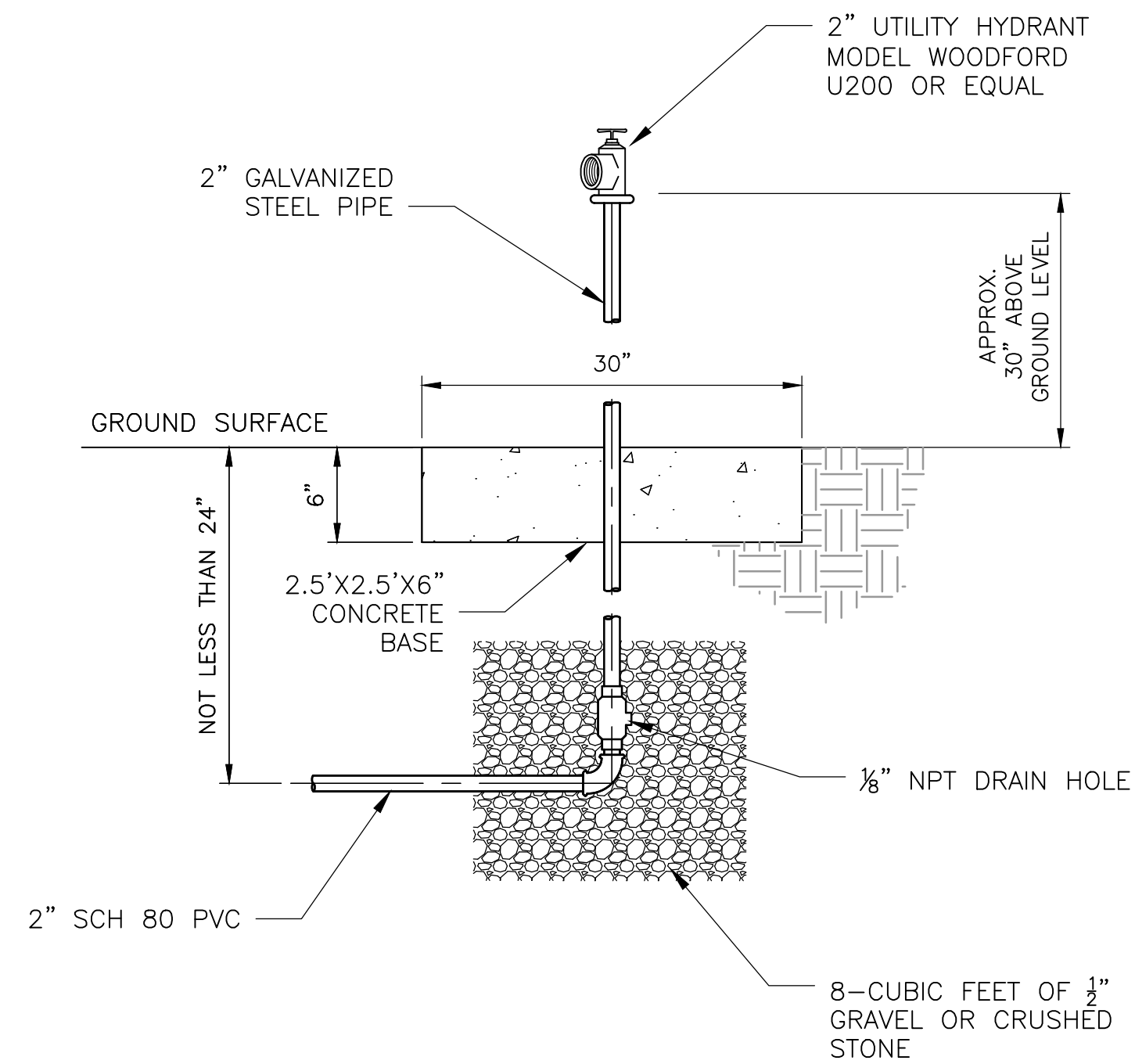
NON-FREEZE YARD HYDRANT

DETAIL

NTS

A

U200



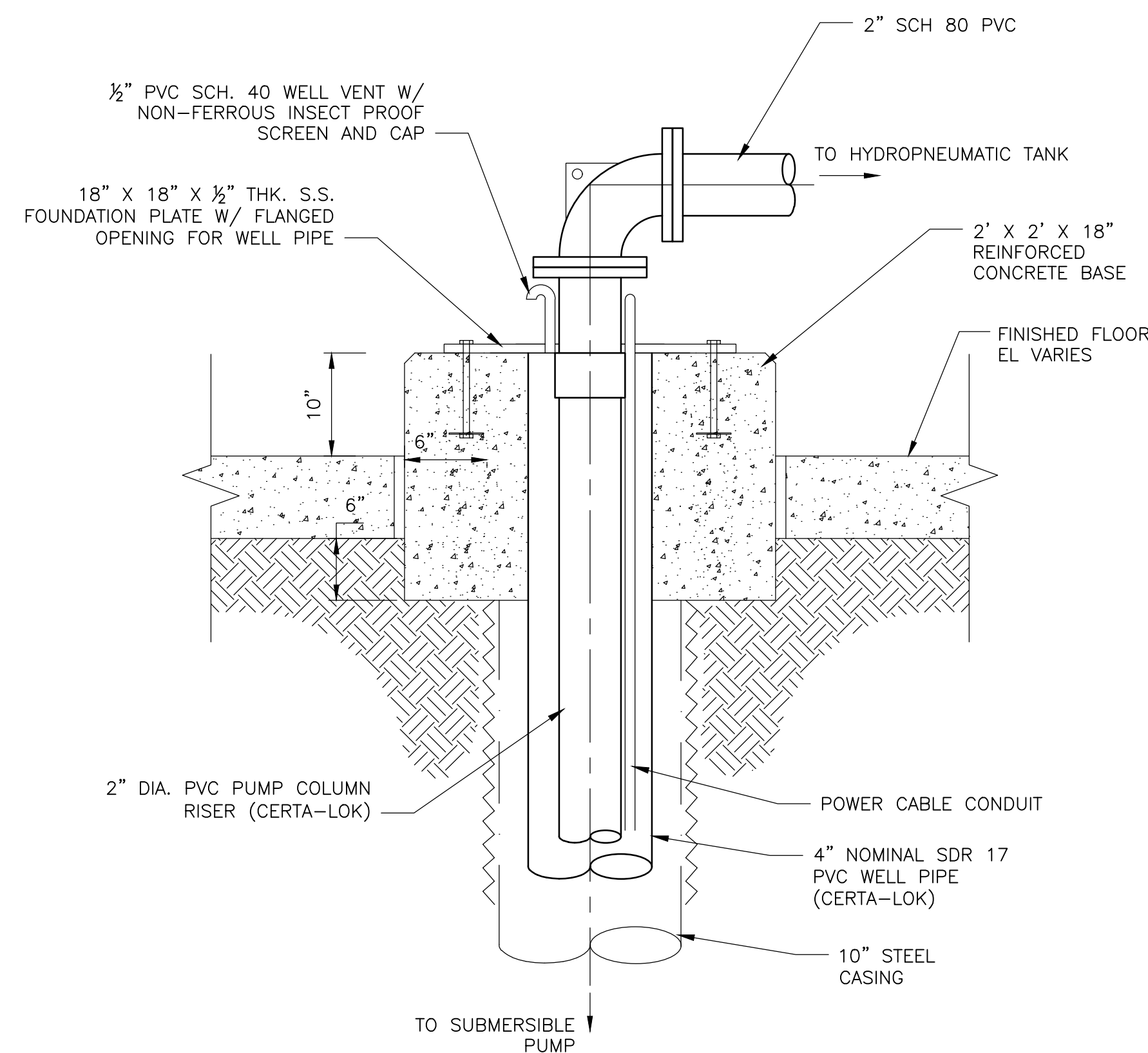
FPT FREEZELESS UTILITY HYDRANT

DETAIL

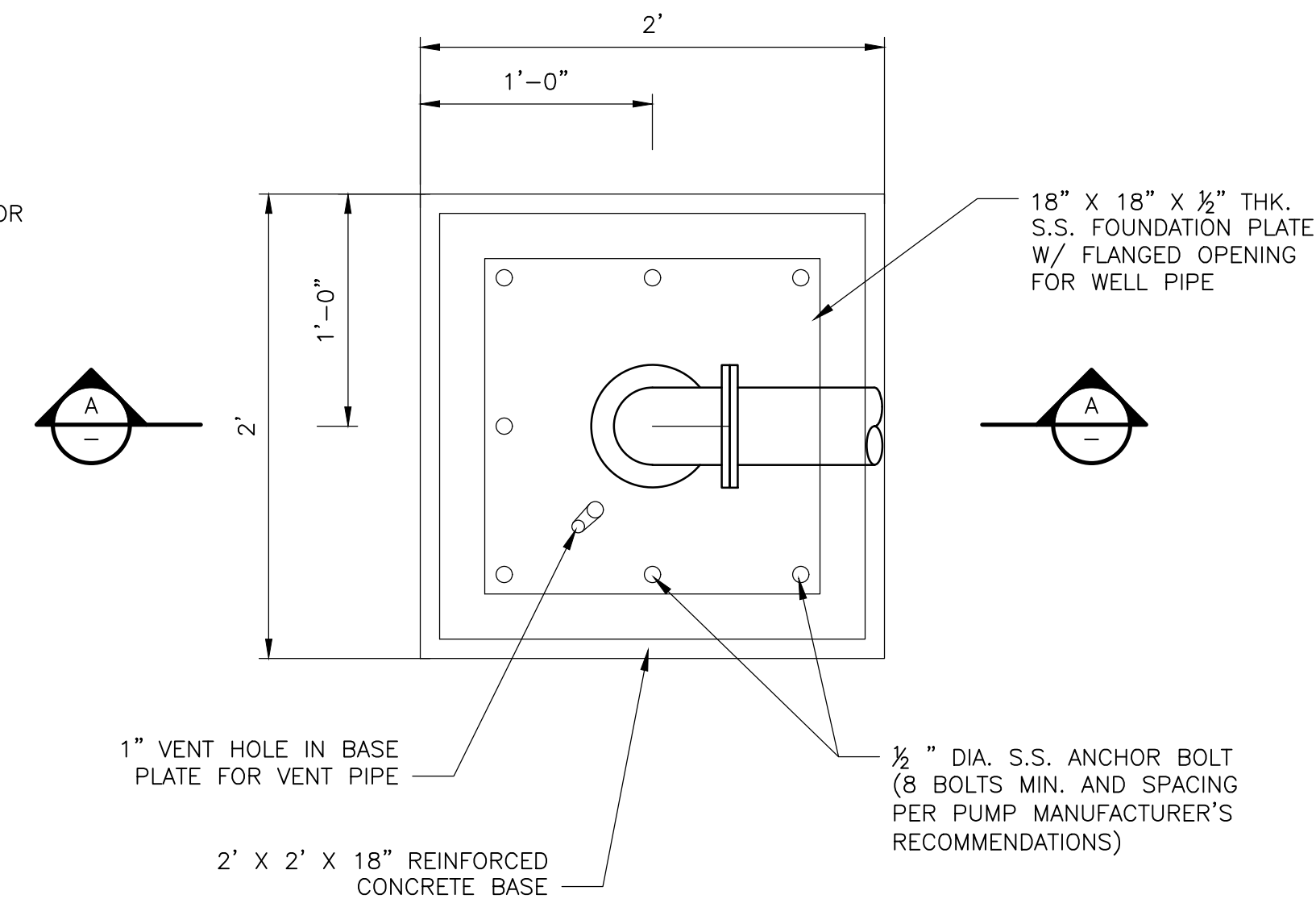
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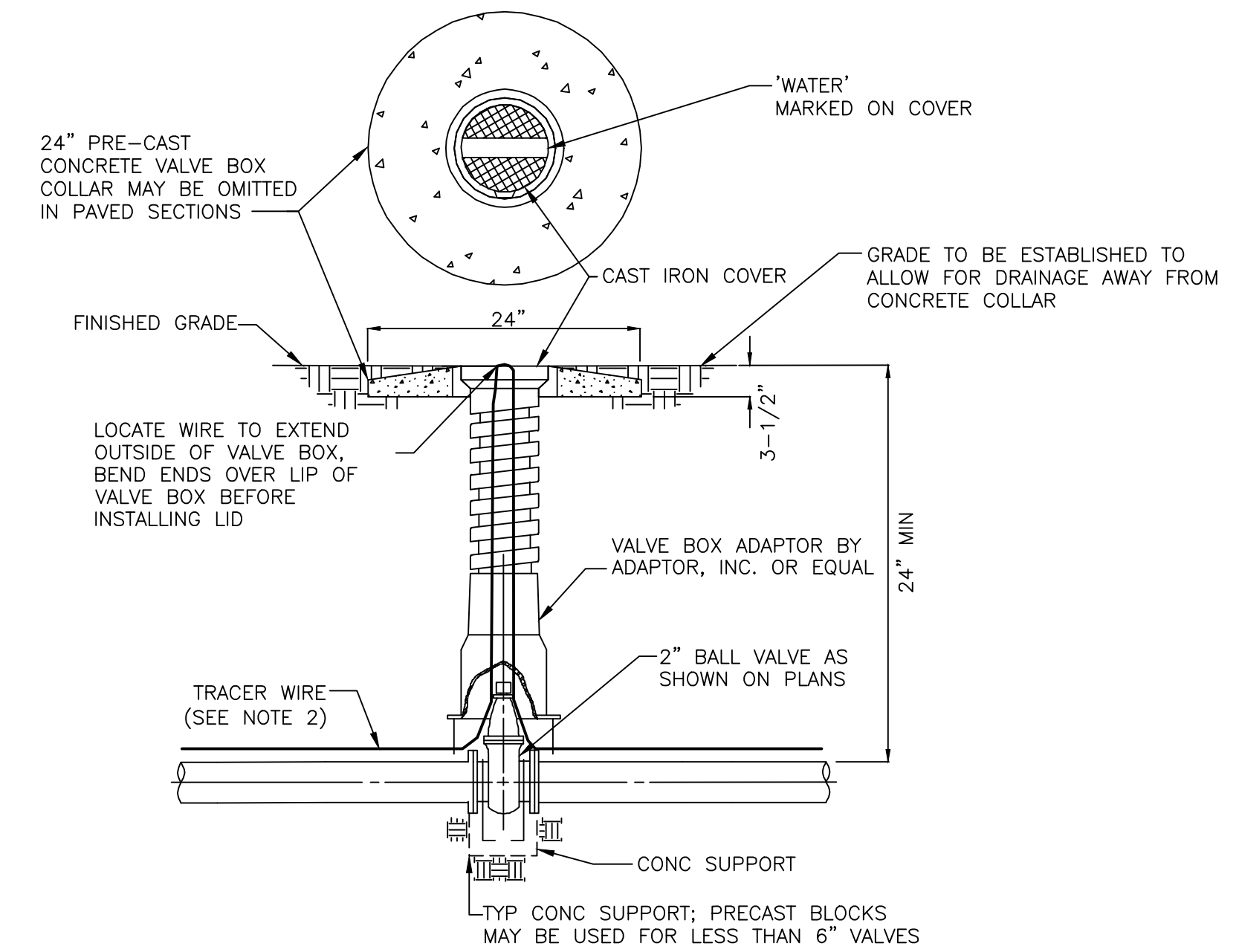
U200



SECTION A-A



4" WELLHEAD
DETAIL
NTS



NOTES:

1. EXTENSION STEM WILL BE REQUIRED TO BE WITHIN 2 FEET OF THE SURFACE IF OPERATING NUT WOULD OTHERWISE BE OVER 5 FEET BELOW GRADE. EXTENSIONS SHALL BE PERMANENTLY ATTACHED TO VALVE NUT AND SHALL BE PROVIDED WITH HORIZONTAL SPACERS FOR VERTICAL ALIGNMENT WITHIN THE VALVE BOX.
2. 12 GA. COPPERHEAD SUPER FLEX TRACER WIRE OR APPROVED EQUAL.

WATERLINE VALVE AND VALVE BOX

DETAIL

NTS

C

U200

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: M. BROKAW
DRAWN BY: K. RYAN
SHEET CHK'D BY: A. WEISPFENNING
CROSS CHK'D BY: W. KARABLY
APPROVED BY: M. SANFORD
DATE: MARCH 2021

**CDM
Smith**

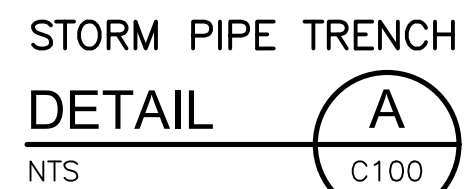
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NC F-1255

NEW HANOVER COUNTY, NORTH CAROLINA
NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

UTILITY DETAILS III

PROJECT NO. 133920-237812
FILE NAME: D203DTLS.DWG
SHEET NO.
D203

PERMIT SET - NOT FOR CONSTRUCTION



DIMENSIONS IN INCHES WEIGHTS IN POUNDS

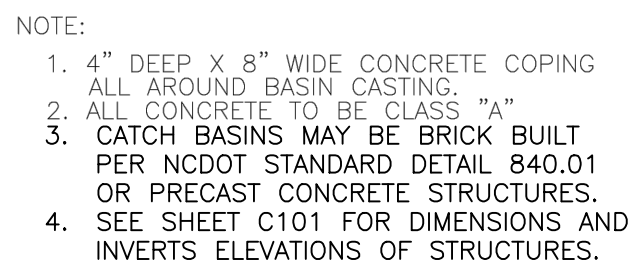
RCP FLARED-END SECTION


DETAIL

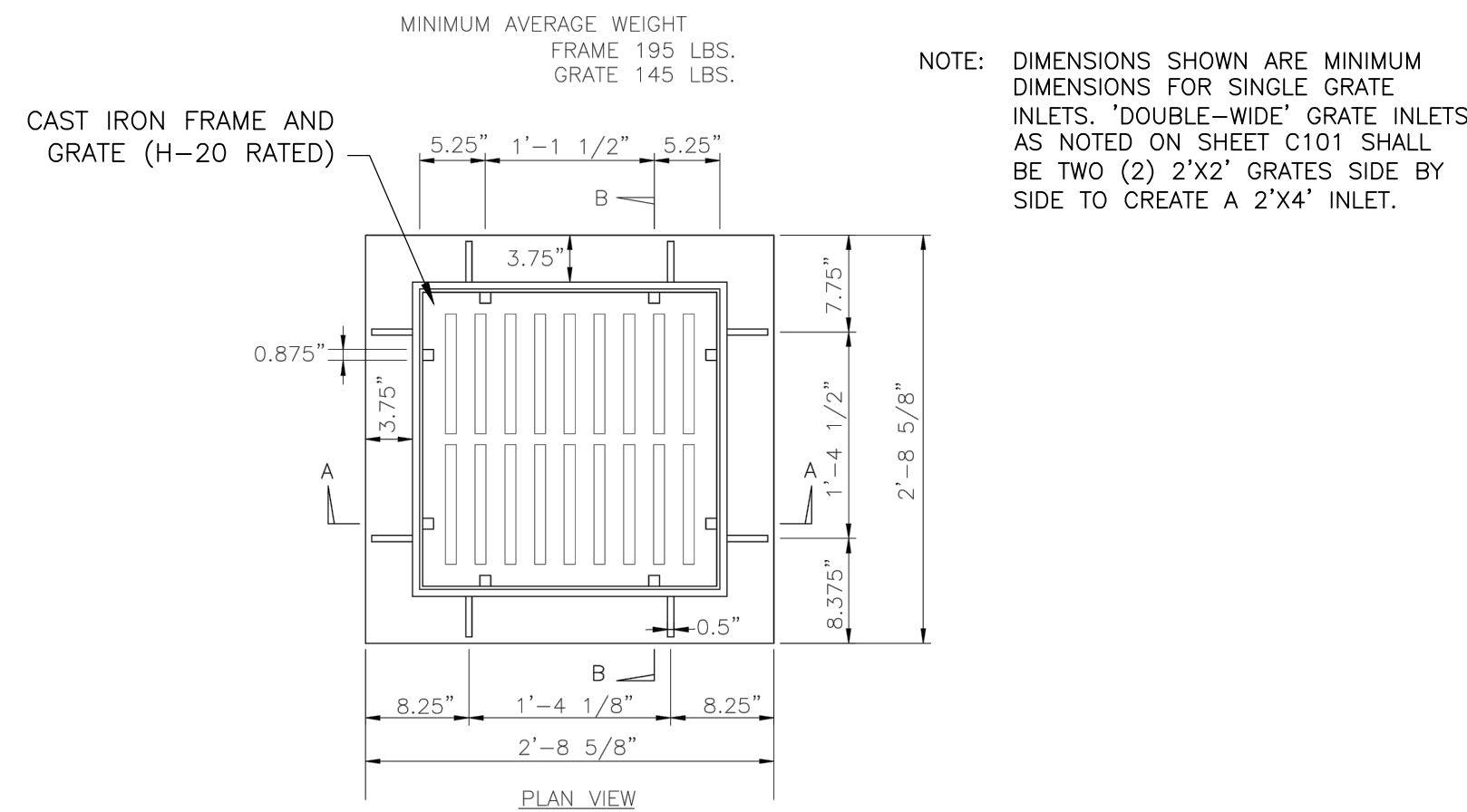
NTS

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C100




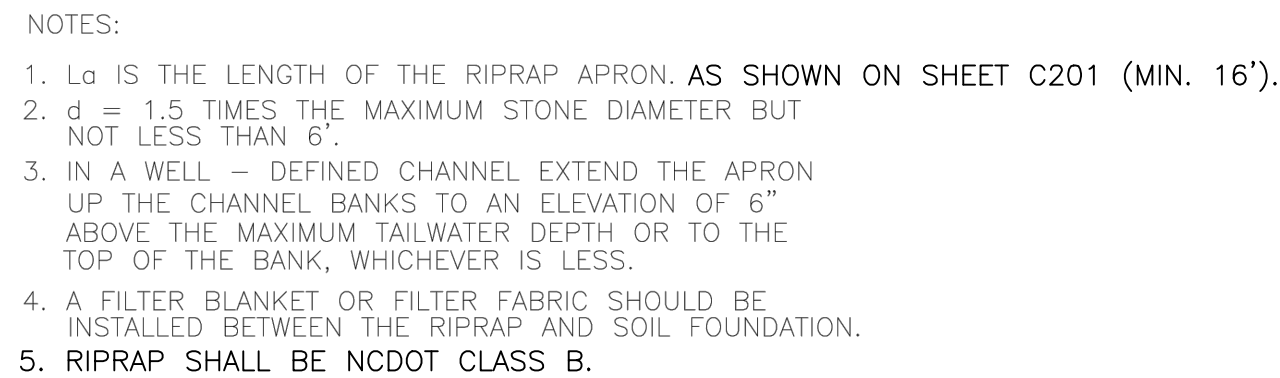
CATCH BASIN & CURB INLET
DETAIL 
NTS



CATCH BASIN FRAME AND GRATE


DETAIL  C


NTS  C100

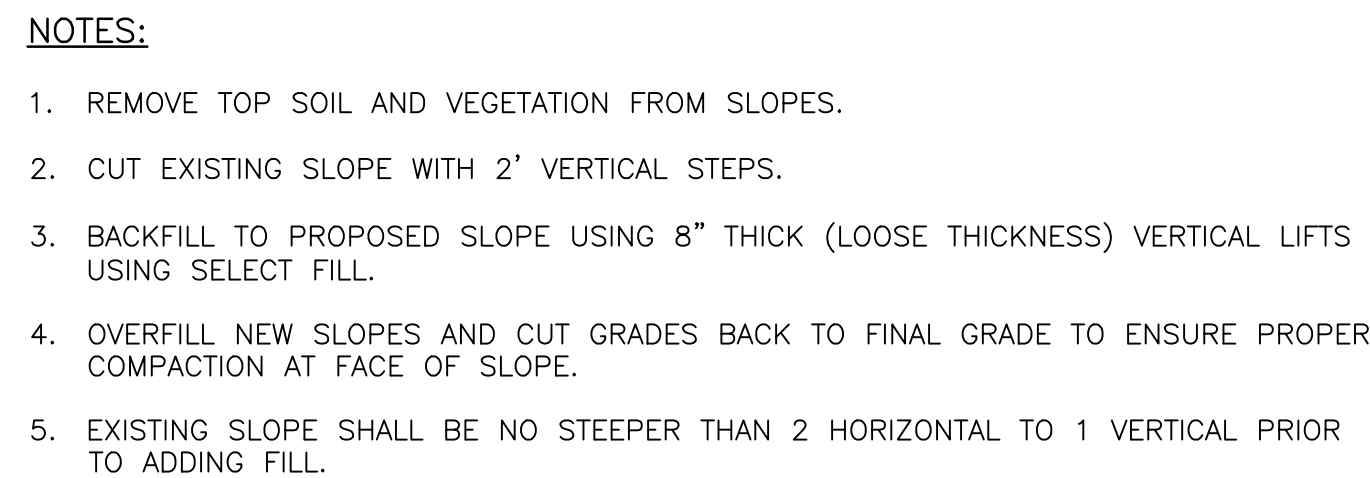



MINIMUM RIPRAP OUTLET PROTECTION (APRON) DIMENSIONS				
STRUCTURE NUMBER	WIDTH (PIPE OUTLET) (FT)	WIDTH (END) (FT)	LENGTH (FT)	THICKNESS (IN)
ST-05	9	10	16	18
ST-12	9	10	16	18
ST-16	6	6	10	18

RIPRAP OUTLET PROTECTION

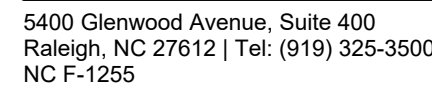
DETAIL  E

NTS  C100



FILL ON SLOPE
DETAIL 
NTS

DESIGNED BY: _____ M. BROKAW
DRAWN BY: _____ K. RYAN
SHEET CHK'D BY: A. WEISPFENNING
CROSS CHK'D BY: _____ W. KARABLY
APPROVED BY: _____ M. SANFORD
DATE: _____ MARCH 2021

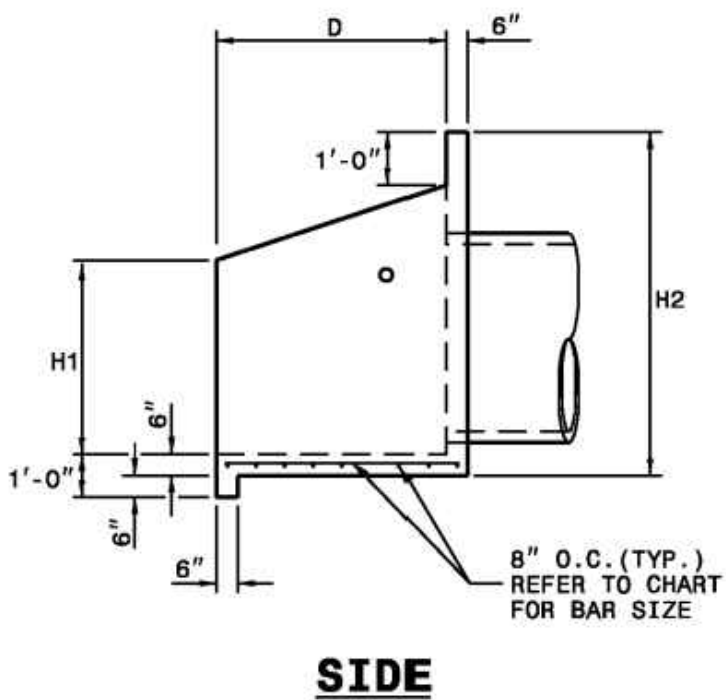
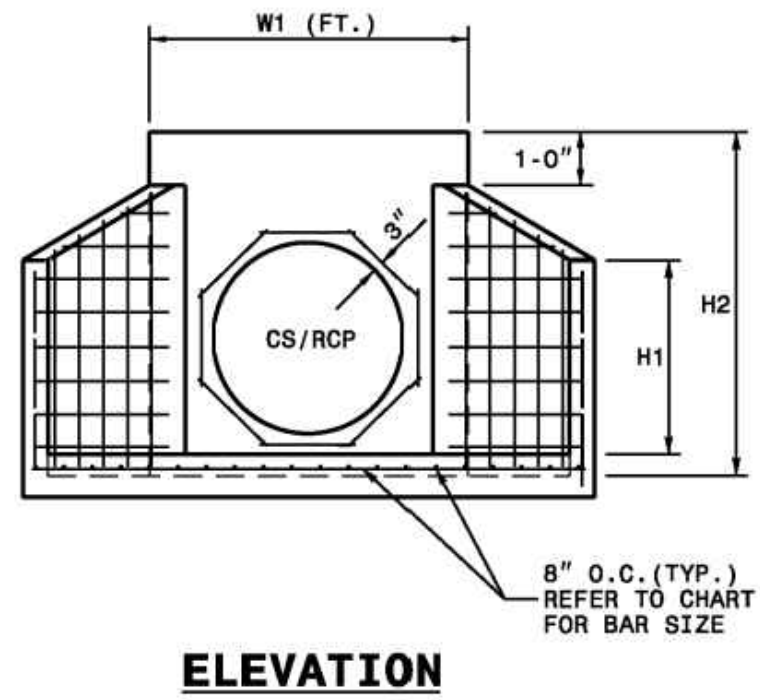


NEW HANOVER COUNTY, NORTH CAROLINA
NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

GRADING AND DRAINAGE DETAILS I

PROJECT NO. 133920-237812
FILE NAME: D301DTLS.DWG
SHEET NO.
D301

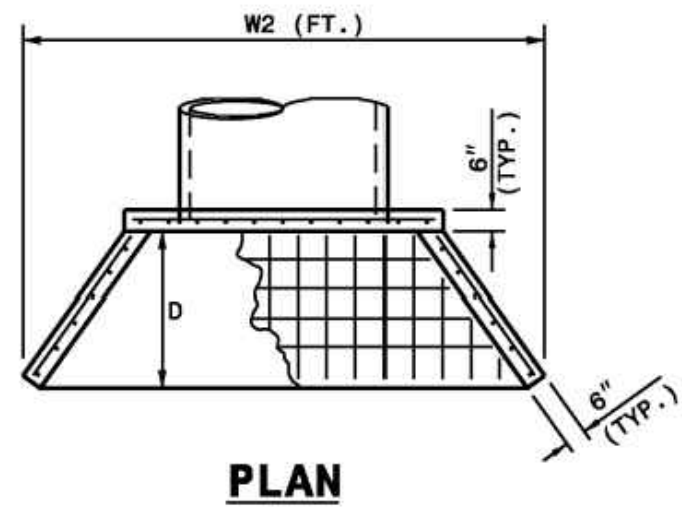
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- NCDOT NOTES:
- * THIS PRECAST ENDWALL MAY BE USED FOR THE FOLLOWING STANDARDS: 838.01, 838.11, 838.21, 838.27, 838.33, 838.39, 838.51, 838.57, 838.63 AND 838.69.
 - * INSTALL PRECAST ENDWALLS WITH WINGS AND PAY FOR IN ACCORDANCE WITH SPECIFICATION SECTION 838.
 - * USE 4000 PSI CONCRETE.
 - * PROVIDE ALL REINFORCING STEEL WHICH MEETS ASTM A615 FOR GRADE 60 AND WELDED WIRE FABRIC CONFORMING TO ASTM A195 WITH 2" MIN. CLEARANCE.
 - * PLACE LIFT HOLES OR PINS IN ACCORDANCE WITH OSHA STANDARD 1926.704.
 - * PIPE TO BE GROUTED INTO HEADWALL AT JOB SITE BY CONTRACTOR
 - * ALL ELEMENTS PRECAST TO MEET ASTM C913.
 - * WELDED WIRE FABRIC MAY BE SUBSTITUTED FOR REBAR AS LONG AS THE SAME AREA OF STEEL IS PROVIDED.
 - * CHAMFER ALL CORNERS 1" OR HAVE A RADIUS OF 1".

NOTE: THE MINIMUM BAR SIZE SHALL BE #5 BARS AT 8" CTS. THE CONTRACTOR WILL HAVE THE OPTION TO INCREASE THIS BAR SIZE AS NEEDED.

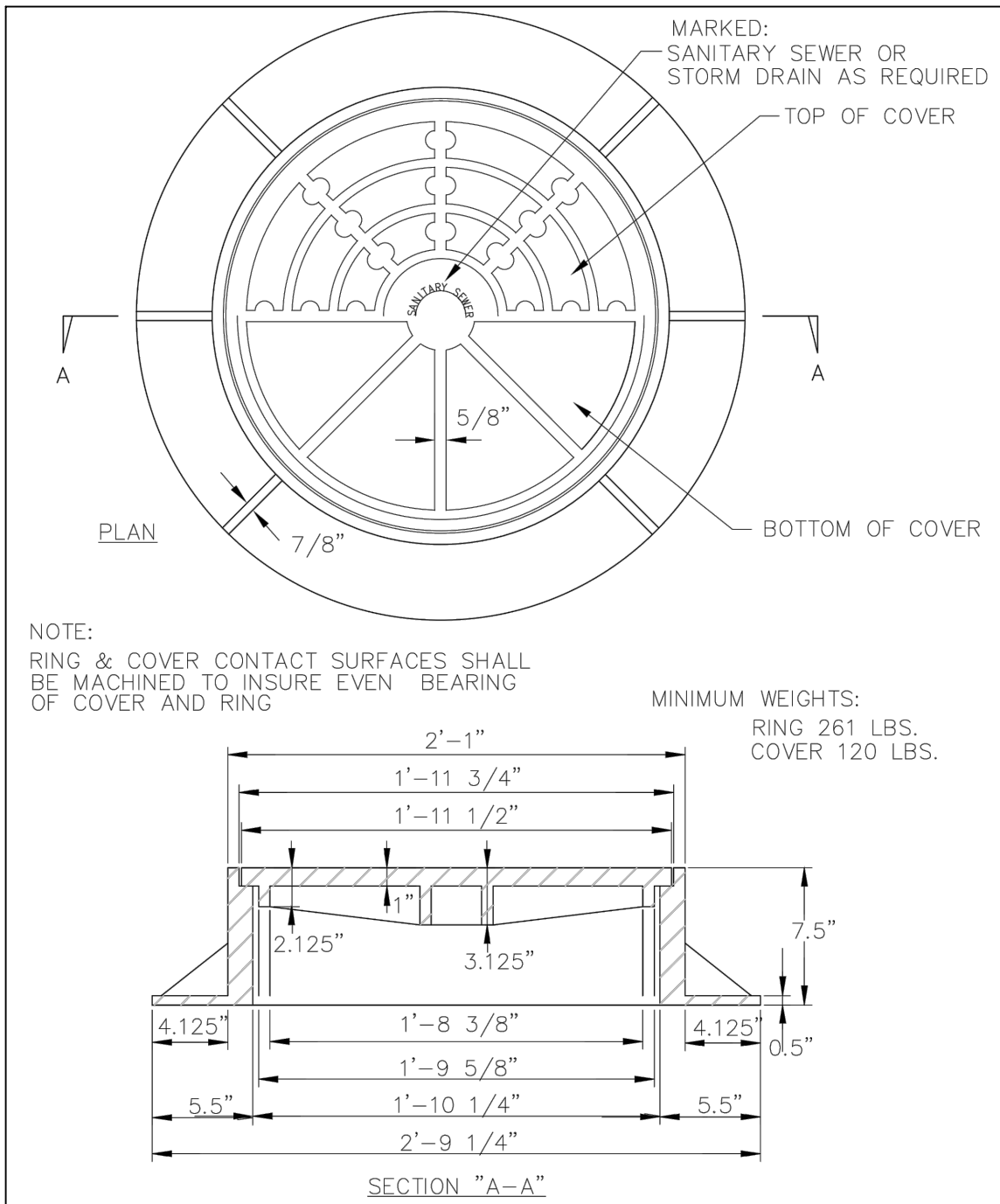
ENDWALL DIMENSIONS						
FT.	MINIMUM	MIN./MAX.	MIN./MAX.	MIN./MAX.	MIN./MAX.	MIN./MAX.
PIPE DIA.	BAR SIZE	H1(FT.)	H2(FT.)	D (FT.)	W1	W2
1.0	#5 @ 8"	1.25/2.00	2.00/3.75	1.25/1.75	3.00/3.75	5.50/6.00
1.25	#5 @ 8"	1.25/2.00	3.00/3.75	1.25/2.00	3.50/3.75	6.50/6.75
1.50	#5 @ 8"	1.25/2.00	3.00/4.25	1.50/2.50	3.50/3.75	6.50/6.75
2.0	#5 @ 8"	1.50/2.50	4.00/4.75	1.75/2.50	4.00/4.25	7.50/8.25
2.5	#5 @ 8"	2.50/3.50	4.00/6.00	2.00/3.00	4.50/5.50	10.00/11.50
3.0	#5 @ 8"	3.00/3.50	5.00/6.00	2.75/3.50	5.25/5.75	11.50/11.75
3.5	#5 @ 8"	3.25/4.50	6.00/6.75	3.25/3.50	6.00/6.75	12.00/13.25
4.0	#5 @ 8"	3.50/4.50	6.50/7.00	3.25/3.50	6.50/6.75	13.00/13.25
4.5	#5 @ 8"	4.00/5.00	6.50/8.50	3.25/4.00	7.00/9.25	13.50/15.75
5.0	#5 @ 8"	4.50/5.00	7.00/8.50	3.25/4.00	7.25/9.25	13.75/15.75
5.5	#5 @ 8"	4.50/5.00	7.50/8.50	3.25/4.00	7.25/9.25	14.00/15.75
6.0	#5 @ 8"	4.50/5.00	7.50/8.50	3.25/4.00	7.75/9.25	14.75/16.75



CONCRETE HEADWALL

DETAIL A

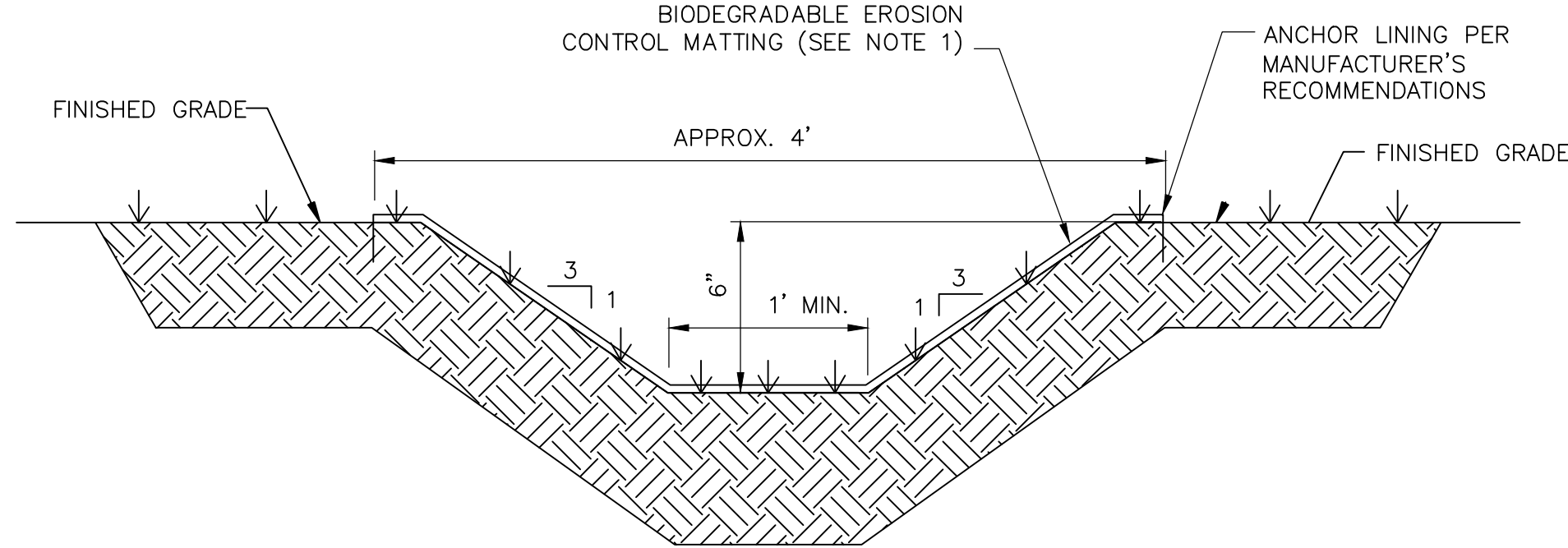
NTS



MAN-HOLE RING AND COVER

DETAIL C

NTS



SECTION

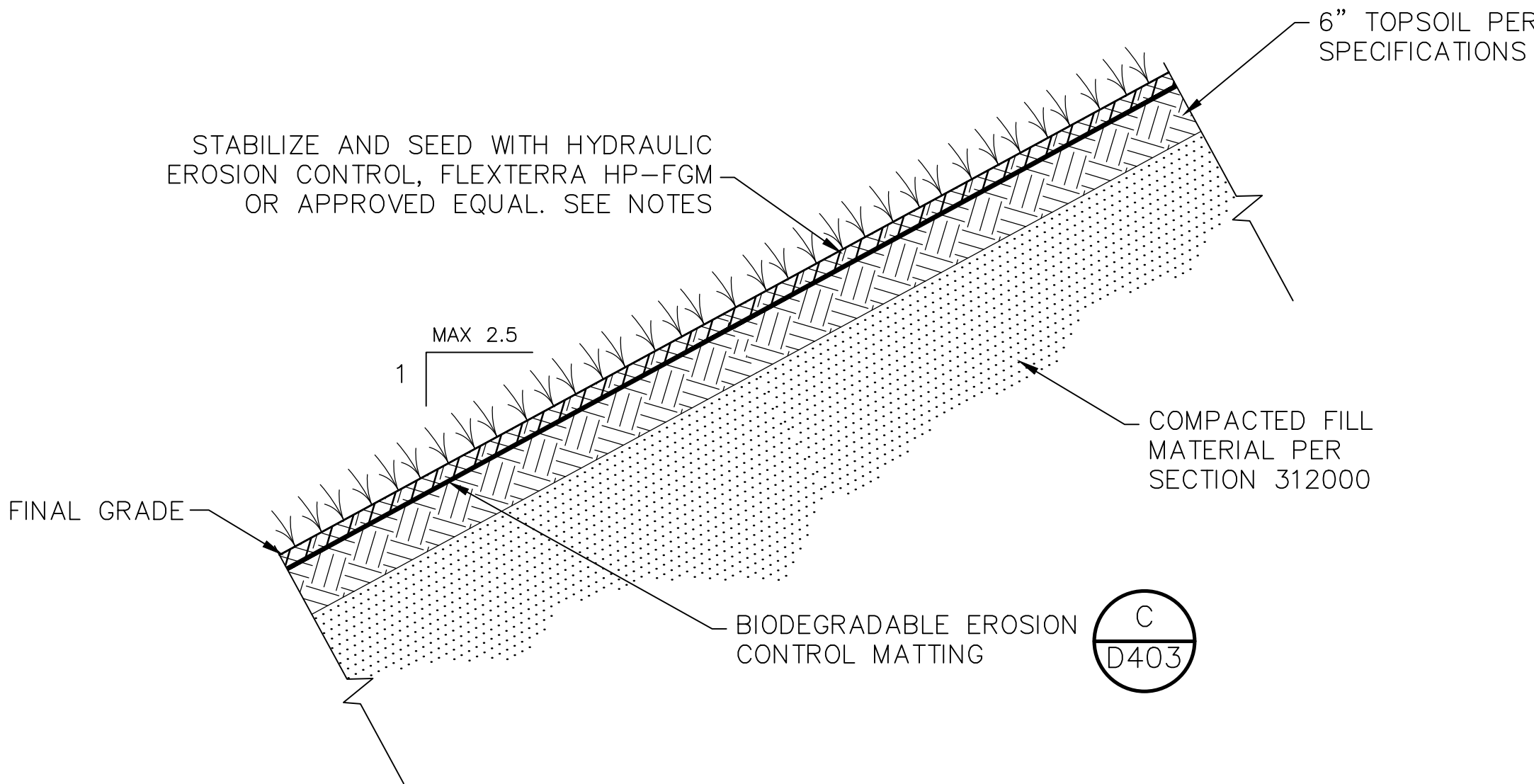
NOTES:

1. CONTRACTOR SHALL INSTALL BIODEGRADABLE EROSION CONTROL MATTING IMMEDIATELY FOLLOWING GRADING OF SWALE AND THEN TEMPORARY OR PERMANENT SEEDING BASED ON REQUIREMENTS ON SHEET D401.

TYPICAL GRASS SWALE

DETAIL B

NTS



NOTES:

1. ALL SLOPES 4H:1V AND STEEPER SHALL BE IMMEDIATELY STABILIZED WITH BIODEGRADABLE EROSION CONTROL MATTING AND SEED.
2. IN ADDITION TO EROSION BLANKETS, ALL SLOPES STEEPER THAN 3H:1V SHALL ALSO BE TREATED WITH HYDRAULICALLY APPLIED FLEXTERRA HP-FGM OR APPROVED EQUAL (HIGH PERFORMANCE HYDRAULIC EROSION CONTROL AND FLEXIBLE GROWTH MEDIUM) PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATION SECTION 312500.
3. BIOTIC SOIL MEDIA/SOIL AMENDMENTS SHALL BE ADDED PER MANUFACTURER'S RECOMMENDATIONS.
4. HYDRAULICALLY APPLY STANDARD PERMANENT SEEDING MIX PER SPECIFICATION SECTION 329200.

SLOPE STABILIZATION

DETAIL D

NTS

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: M. BROKAW
DRAWN BY: K. RYAN
SHEET CHK'D BY: A. WEISPFENNING
CROSS CHK'D BY: W. KARABLY
APPROVED BY: M. SANFORD
DATE: MARCH 2021

CDM Smith
5400 Glenwood Avenue, Suite 400
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NC F-1255

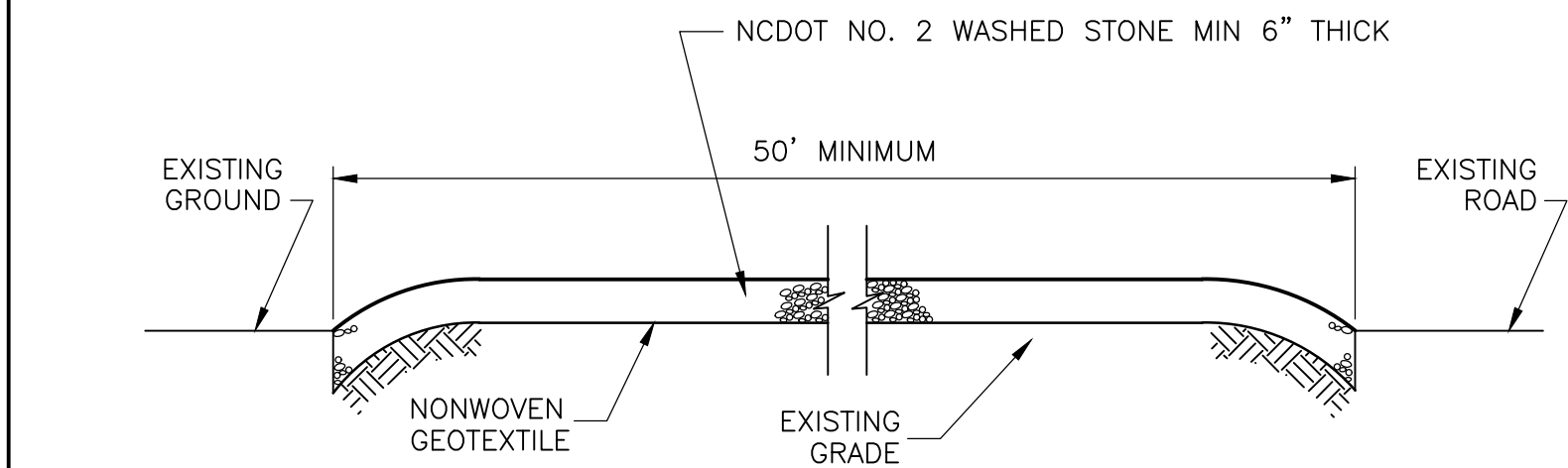
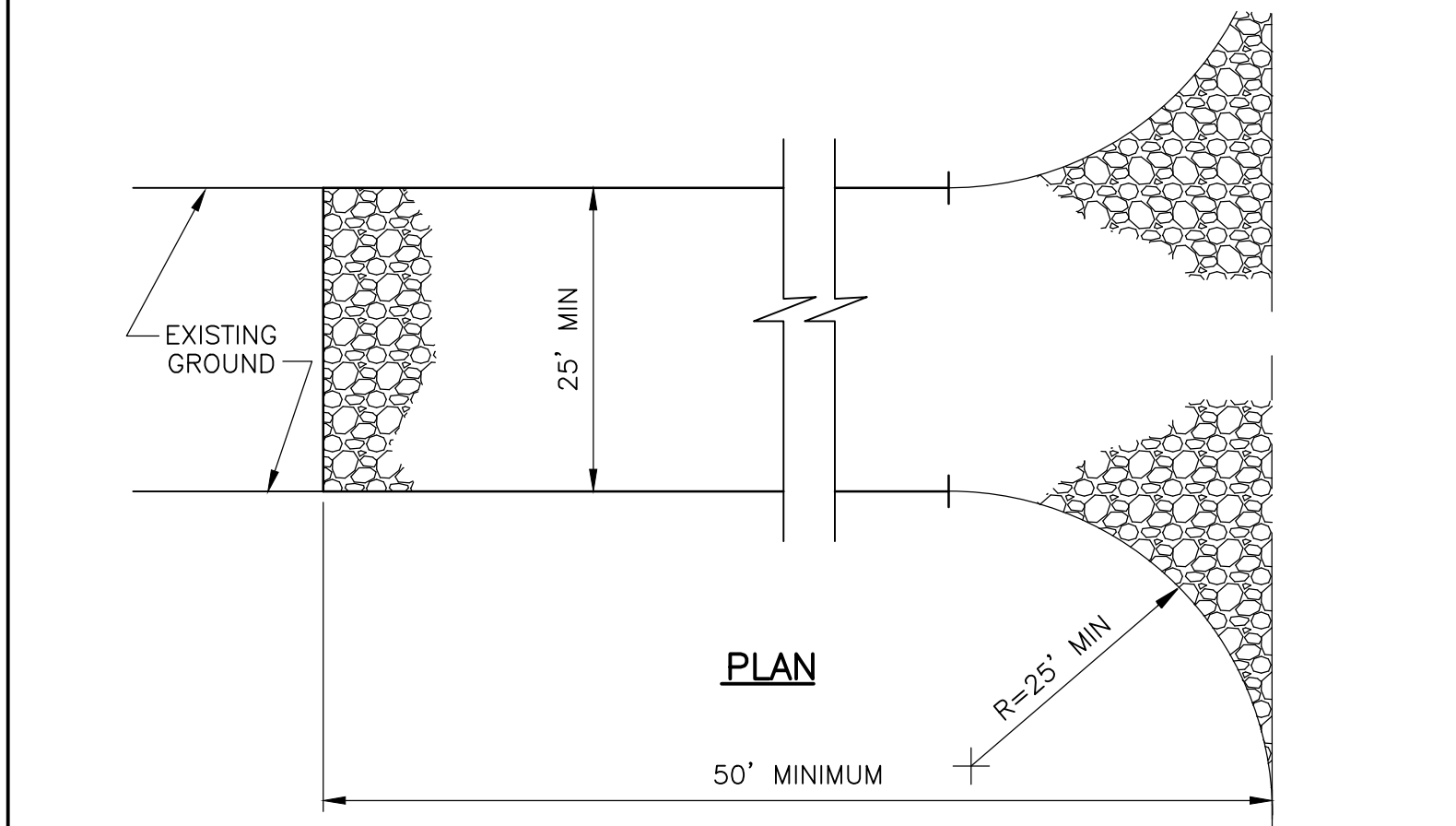
NEW HANOVER COUNTY, NORTH CAROLINA
NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

GRADING AND DRAINAGE DETAILS II

PROJECT NO. 133920-237812
FILE NAME: D302DTLS.DWG
SHEET NO.
D302

PERMIT SET - NOT FOR CONSTRUCTION

XREFs: [CEP000ST, COWS_2234] Images: []
Last saved by: BROKAWM Time: 4/23/2020 11:14:05 AM
C:\pw_rpt\brokawm\1587174\0_402DTLS.dwg
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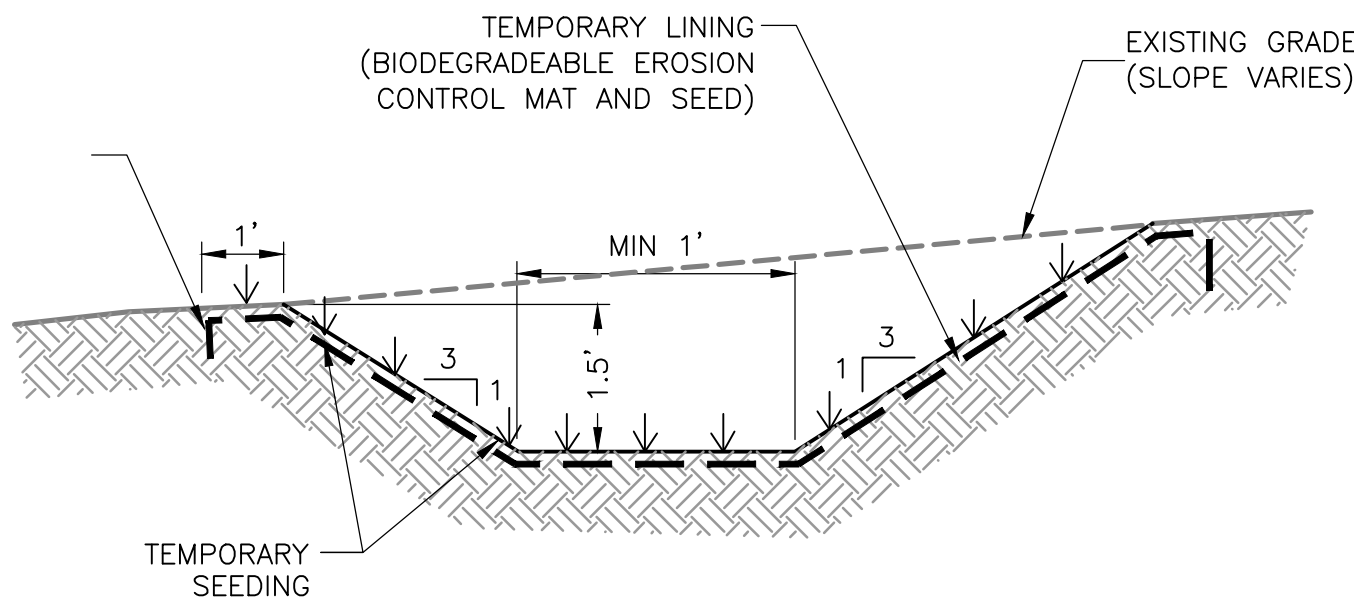
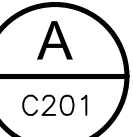


- NOTES
1. PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED CONSTRUCTION ENTRANCE AND EXISTING ROAD.
 2. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO EXISTING ROAD. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDING STONE TO THE LENGTH OF THE ENTRANCE.
 3. REPAIR AND CLEANOUT ANY MEASURES USED TO TRAP SEDIMENT.
 4. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO EXISTING ROADS MUST BE REMOVED IMMEDIATELY.
 5. PUT SILT FENCE OR TREE PROTECTION FENCE UP TO ENSURE CONSTRUCTION ENTRANCE IS USED.

CONSTRUCTION ENTRANCE

DETAIL

NTS



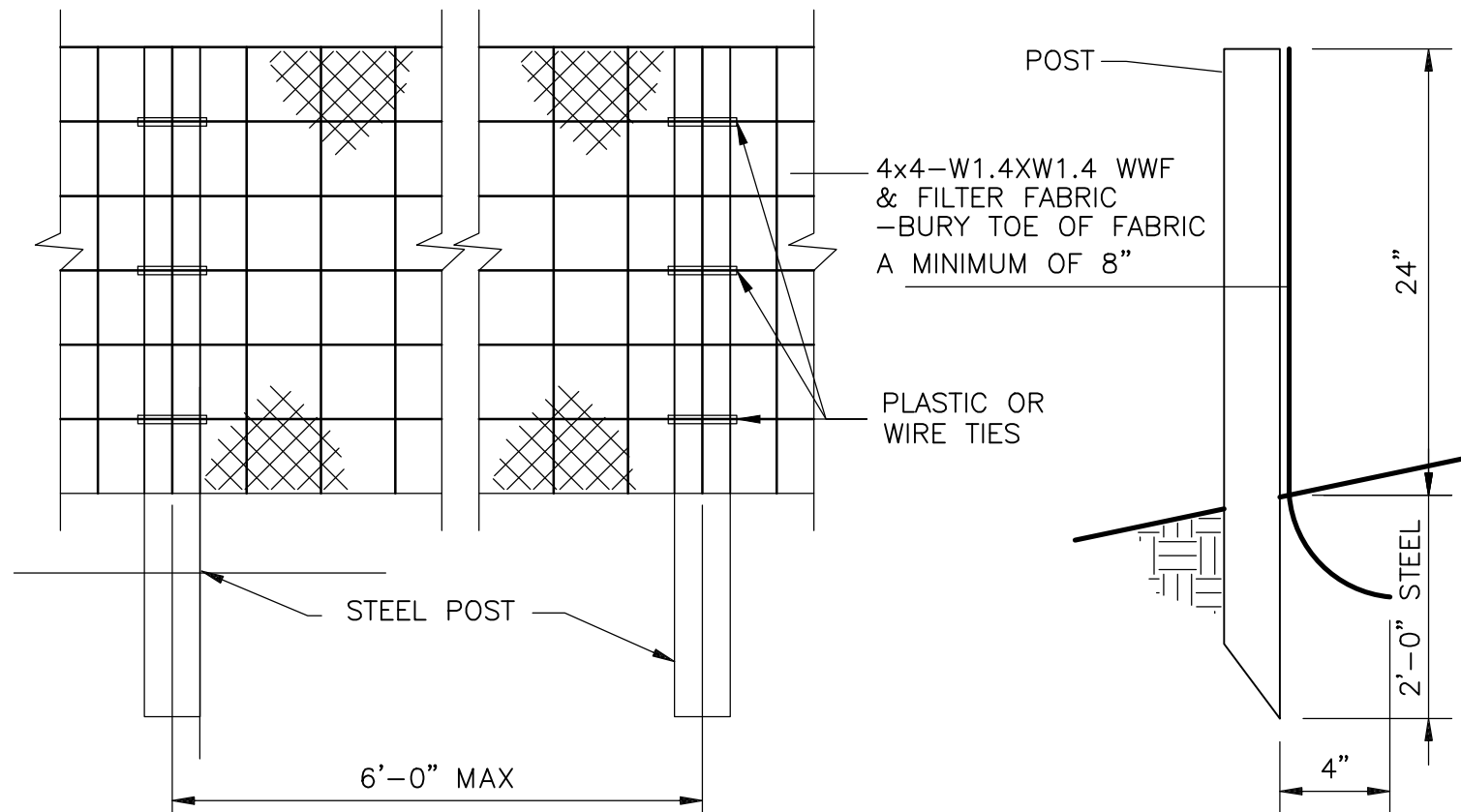
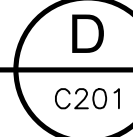
NOTES:

1. DETAIL SHOWS MINIMUM REQUIRED DIMENSIONS FOR TEMPORARY DIVERSION DITCH. ACTUAL DIMENSIONS OF DITCH MAY VARIES DUE TO CHANGES IN SURROUNDING GRADE.
2. MAXIMUM ALLOWABLE SLOPE IS 3H:1V. STEEPER SLOPES MUST BE APPROVED BY THE ENGINEER BEFORE ESTABLISHING.

TEMPORARY DIVERSION DITCH

DETAIL

NTS



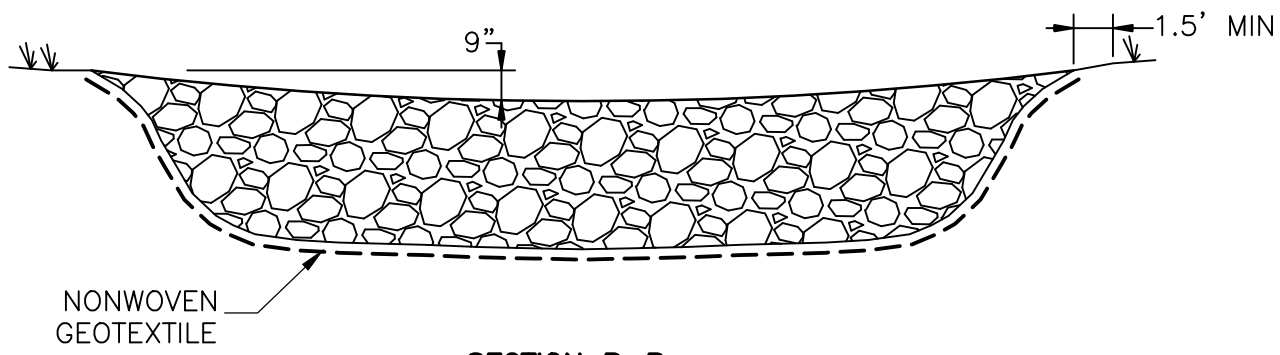
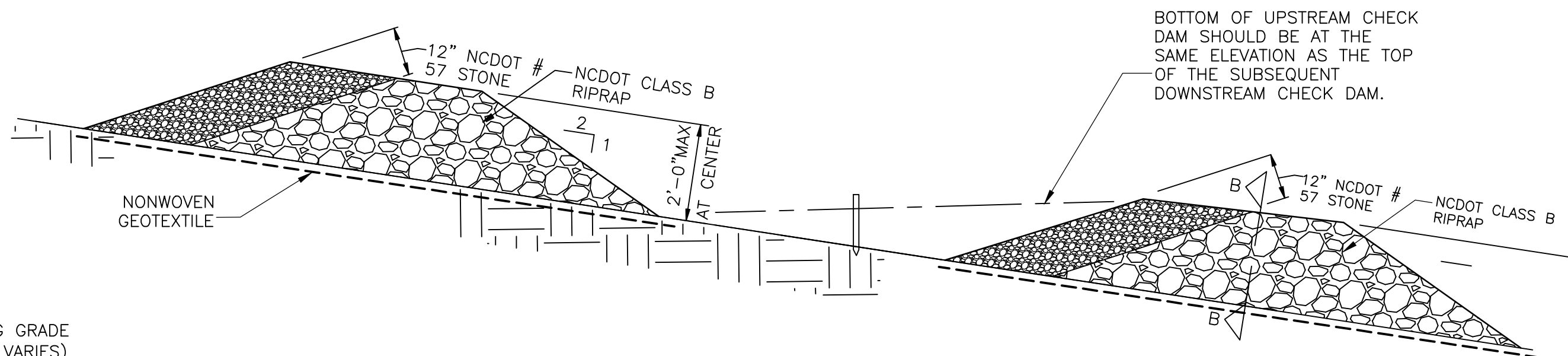
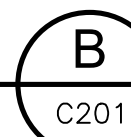
NOTES:

1. INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
2. SHOULD THE FABRIC COLLAPSE, TEAR, DCOMPOSE, OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.
3. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND REDUCE PRESSURE ON THE FENCE. TAKE CARE TO ADVIOD UNDERMINING THE FENCE DURING CLEANOUT.
4. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
5. BACKFILL TRENCH AND COMPACT THOROUGHLY.

SILT FENCE

DETAIL

NTS

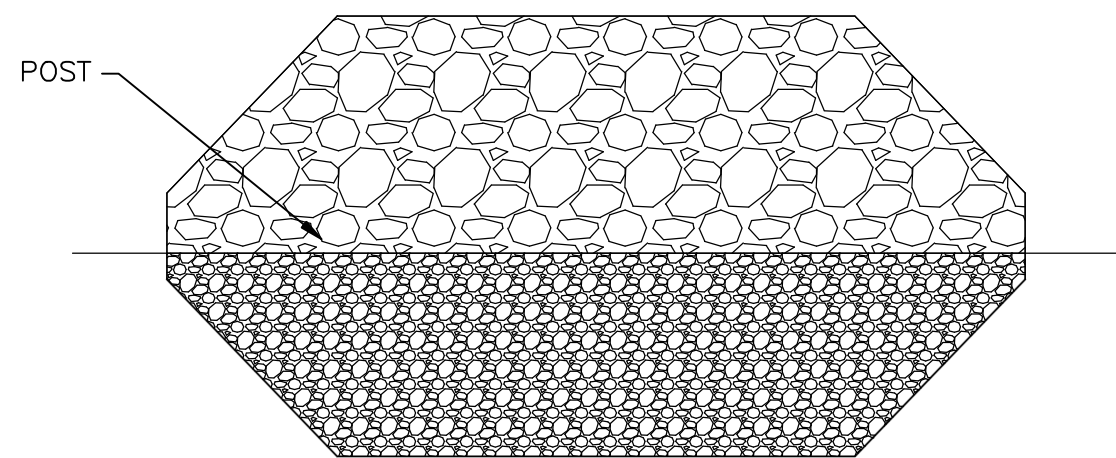
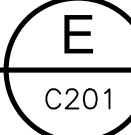


SECTION B-B

TEMPORARY ROCK CHECK DAM

DETAIL

NTS

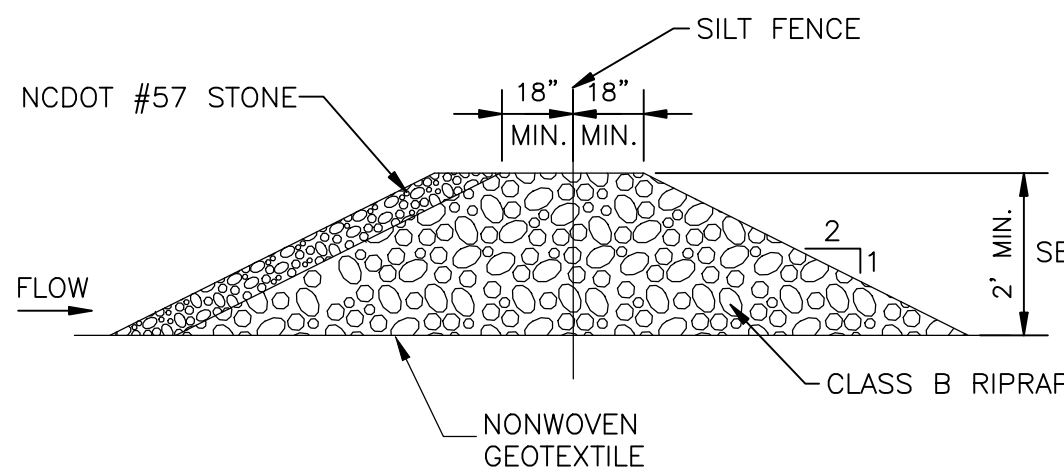
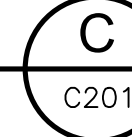


PLAN VIEW

SILT FENCE OUTLET

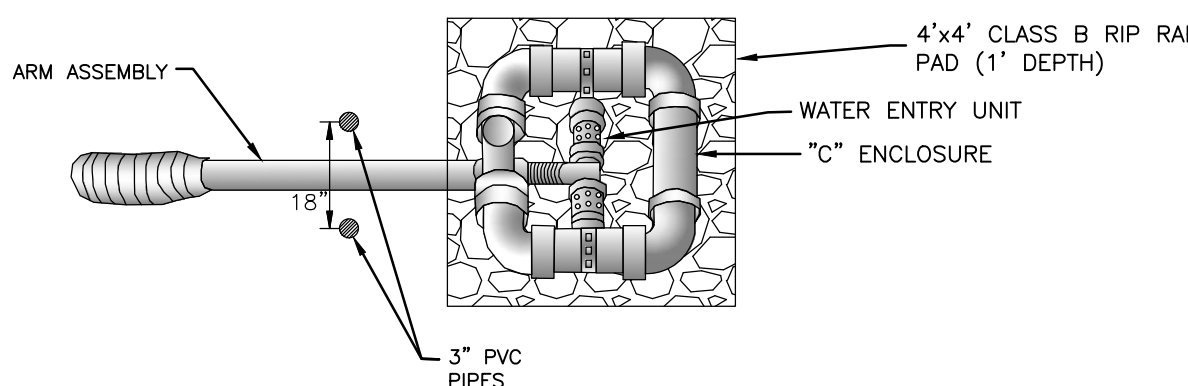
DETAIL

NTS

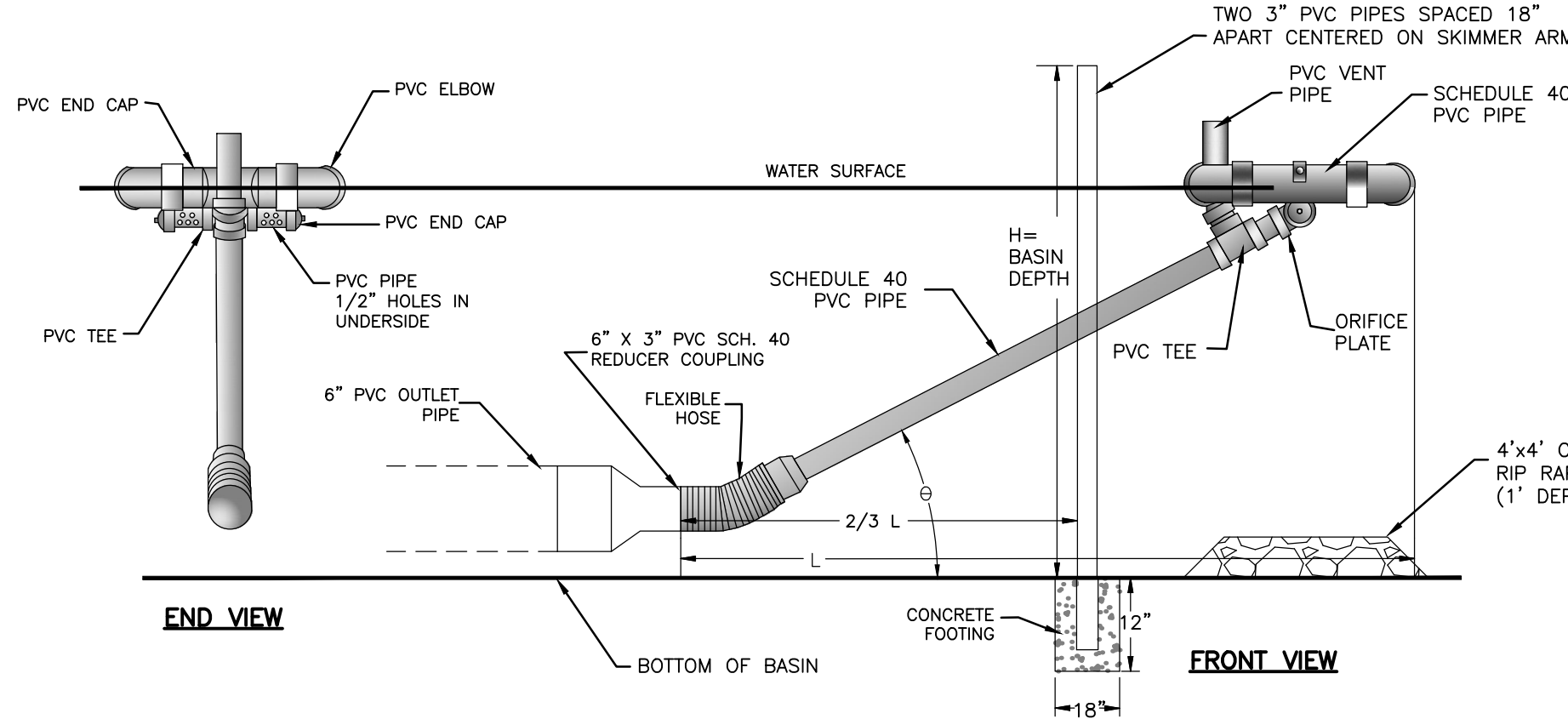


NOTES:

1. MATCH OUTLET HEIGHT TO HEIGHT OF SILT FENCE.
2. REMOVE SEDIMENT WHEN $\frac{1}{3}$ OF OUTLET IS COVERED.



PERSPECTIVE VIEW



END VIEW

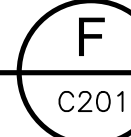
FRONT VIEW

BASIN	SKIMMER SIZE	ORIFICE DIA.	DEWATERING TIME
TSB-1	2.5"	1.25"	2.6 DAYS
TSB-2	2.0"	1.25"	2.6 DAYS

SEDIMENT SKIMMER

DETAIL

NTS



REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: M. BROKAW
DRAWN BY: K. RYAN
SHEET CHK'D BY: A. WEISPFENNING
CROSS CHK'D BY: W. KARABLY
APPROVED BY: M. SANFORD
DATE: MARCH 2021

CDM Smith
5400 Glenwood Avenue, Suite 400
Raleigh, NC 27612 | Tel: (919) 325-3500
NC F-1255

NEW HANOVER COUNTY, NORTH CAROLINA
NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

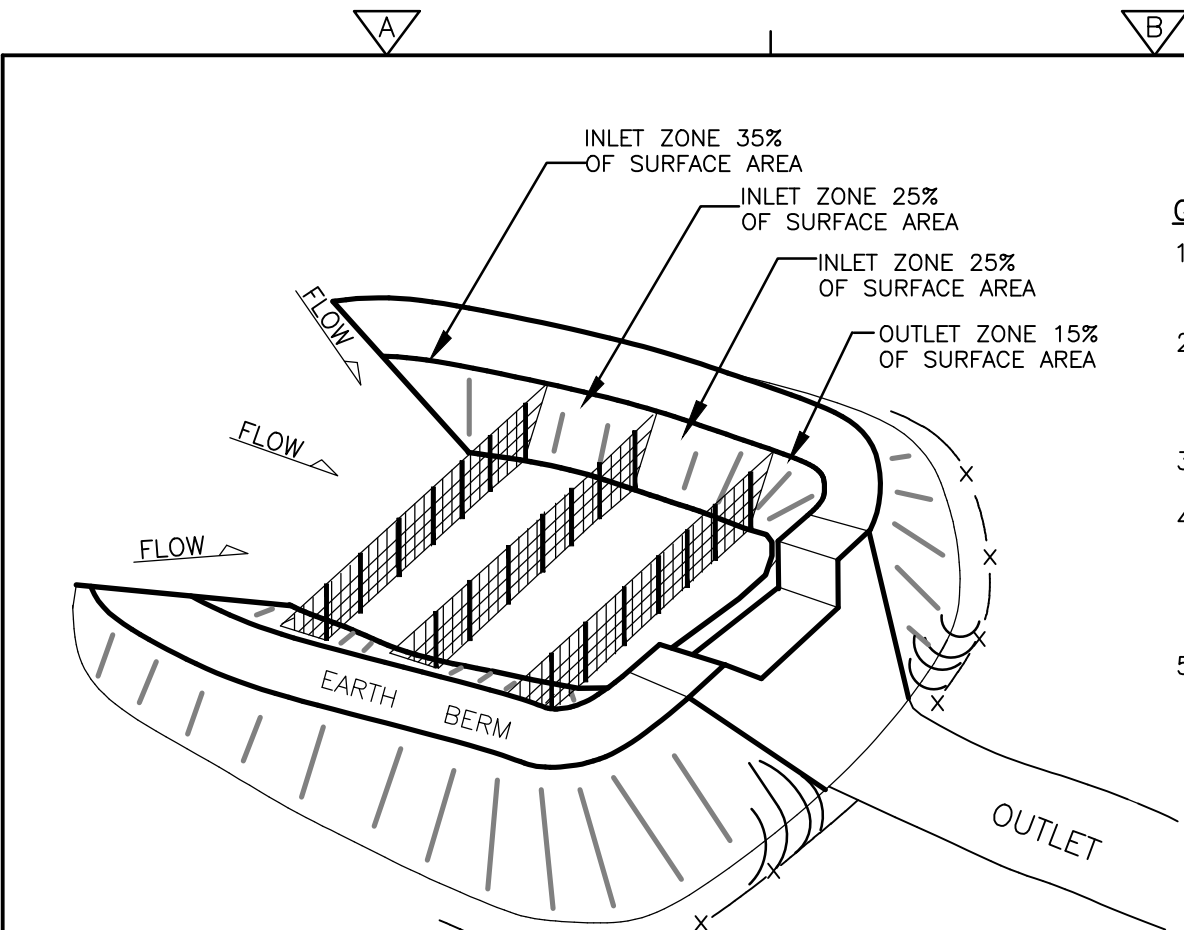
EROSION AND SEDIMENT
CONTROL DETAILS I

PROJECT NO. 133920-237812
FILE NAME: D402DTLS.DWG

SHEET NO.

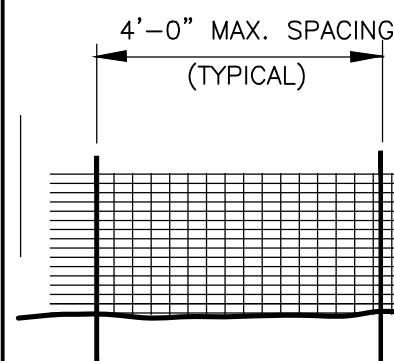
D402

XREFs: [C:\PE000\ST, CDMS_2234] Images: [Skimmer Basin Cross Section, Skimmer Basin Plan]
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C:\pw_p1\brokawm\1587174\0_403D\LS.dwg
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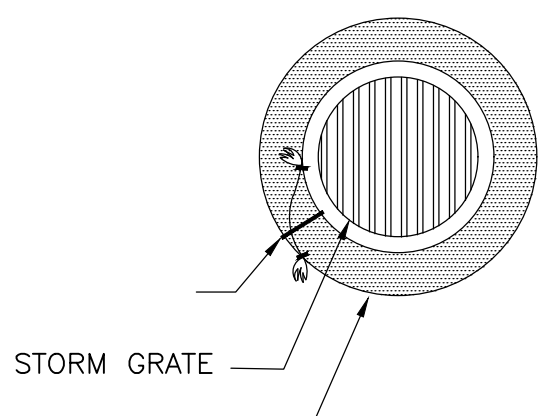
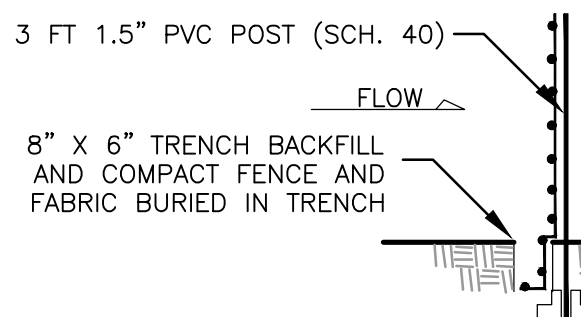
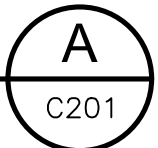
GENERAL NOTES:

1. DRIVE 5' STEEL POST AT LEAST 12" INTO SOLID GROUND.
2. USE STAPLES 1' APART HORIZONTALLY AND VERTICALLY TO ATTACH THE FILTER FABRIC TO THE WIRE FENCE.
3. MINIMUM BAFFLE SPACING IS 10'.
4. THE FLOOR OF THE BASIN IN THE OUTLET ZONE AND BERMS SHOULD BE SEEDED IMMEDIATELY AFTER THE BASIN IS CONSTRUCTED.
5. REFER TO NCSCPDMS SECTION #6.65 FOR ADDITIONAL SPECIFICATIONS.

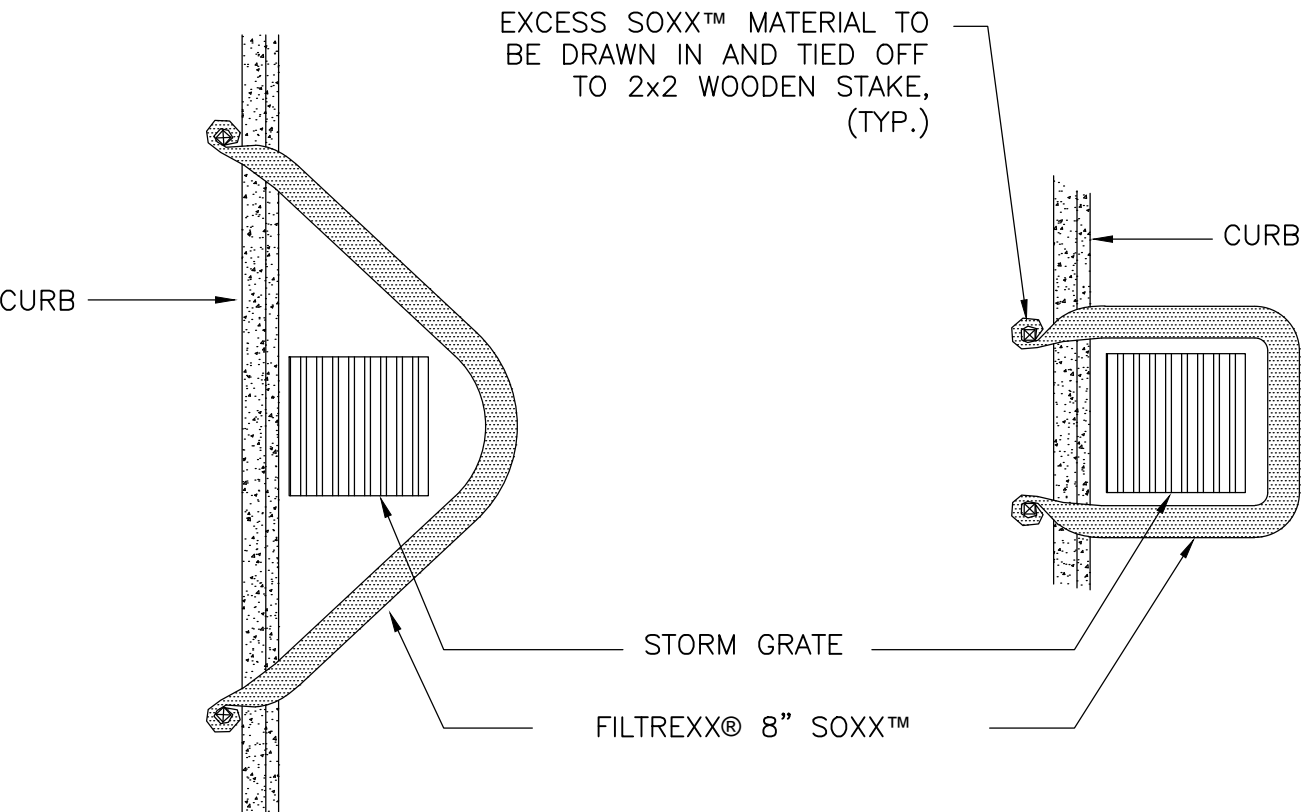


**POROUS BAFFLES
DETAIL**

NTS

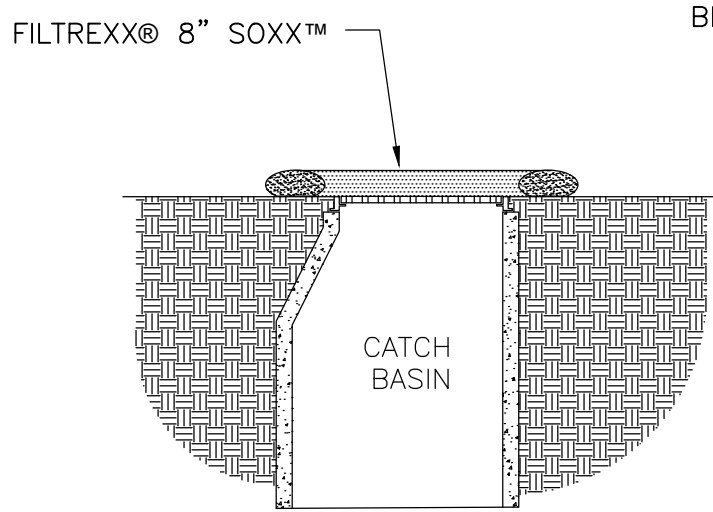


DRAIN INLET PLAN

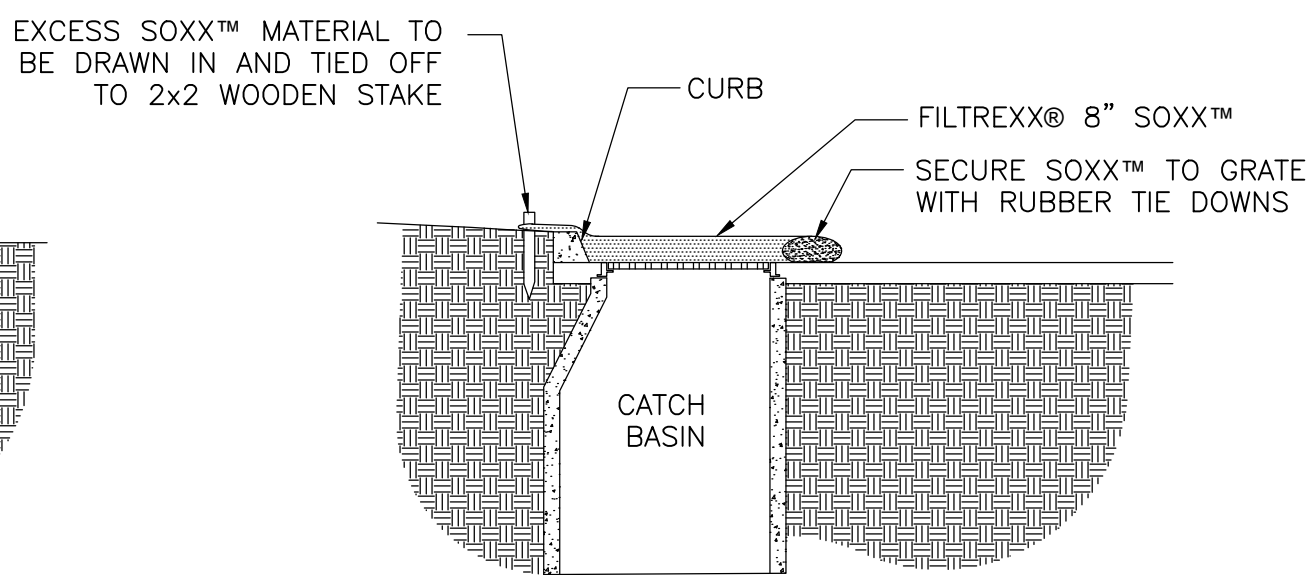


CURBSIDE OPTION "A" PLAN

CURBSIDE OPTION "B" PLAN



DRAIN INLET SECTION



CURBSIDE SECTION

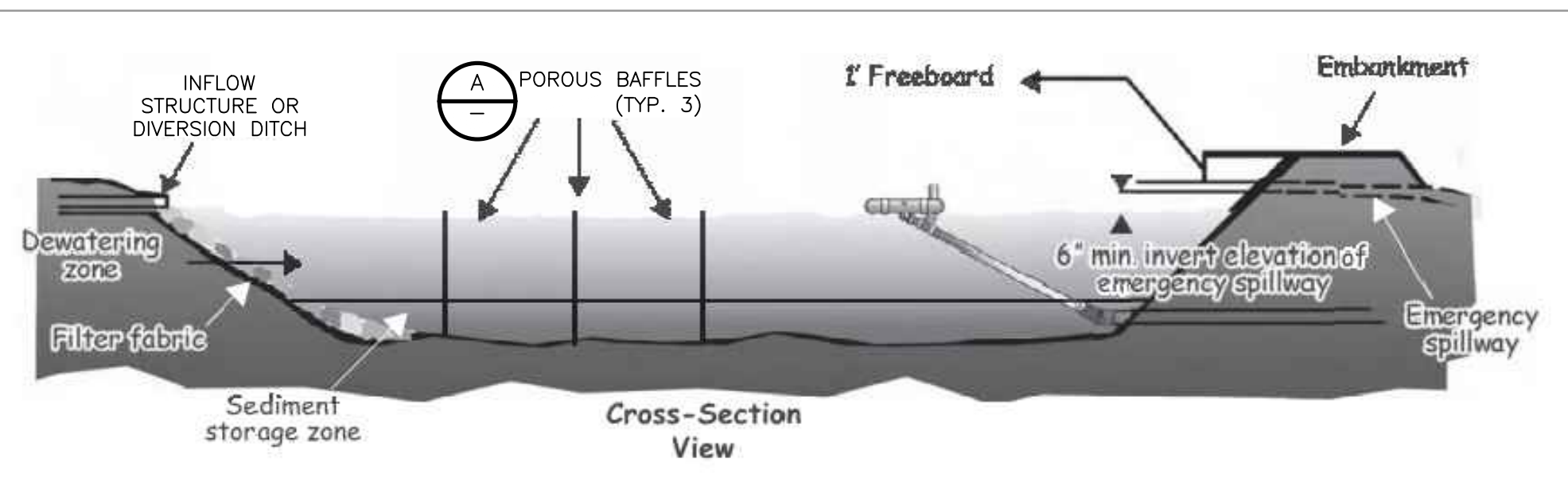
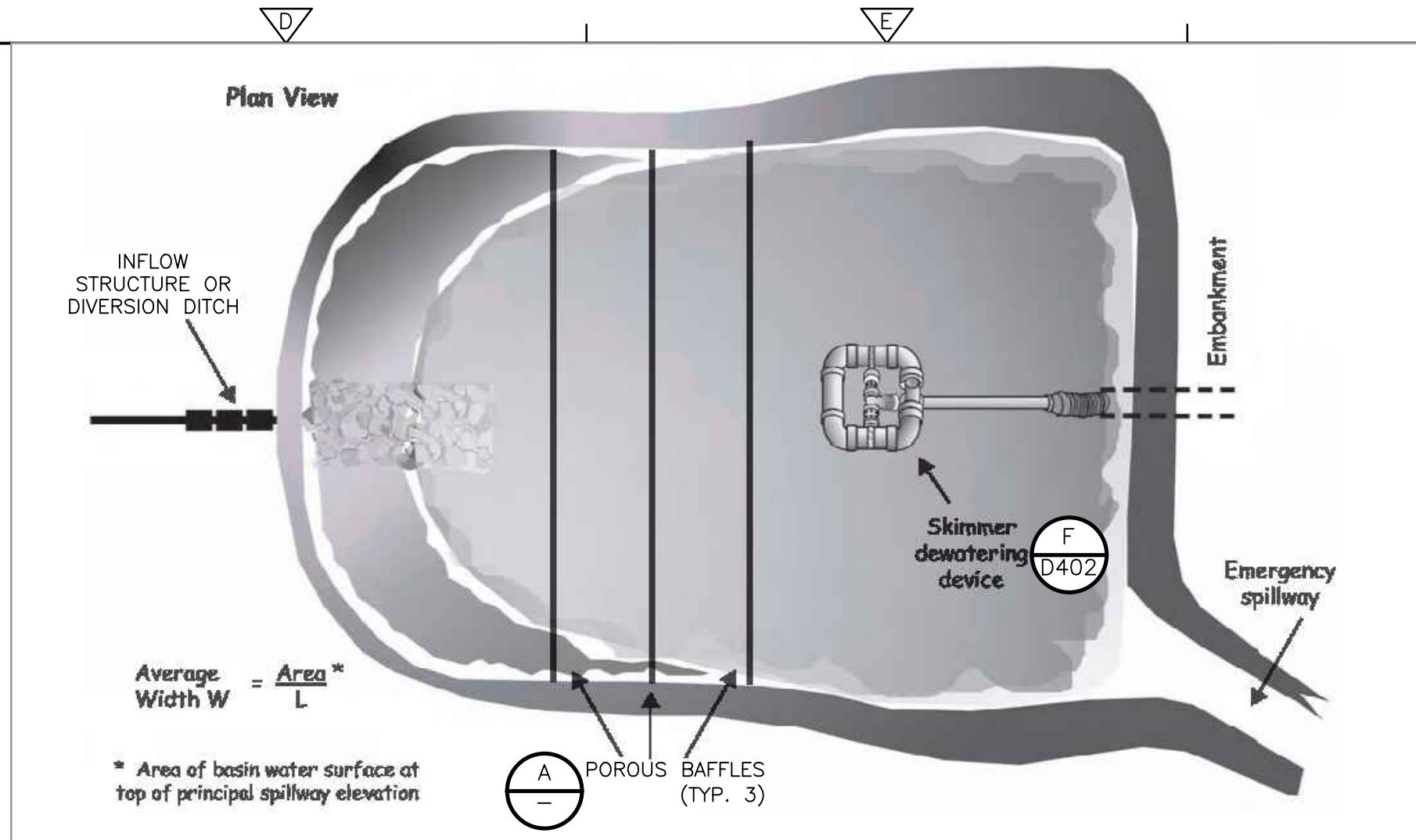
NOTES:

1. ALL MATERIAL TO MEET FILTREXX® SPECIFICATIONS.
2. FILTER MEDIA™ FILL TO MEET APPLICATION REQUIREMENTS.
3. ACCUMULATED SEDIMENT SHALL BE DISPOSED OF, AS DETERMINED BY ENGINEER.

FILTER SOCK INLET PROTECTION

DETAIL

NTS



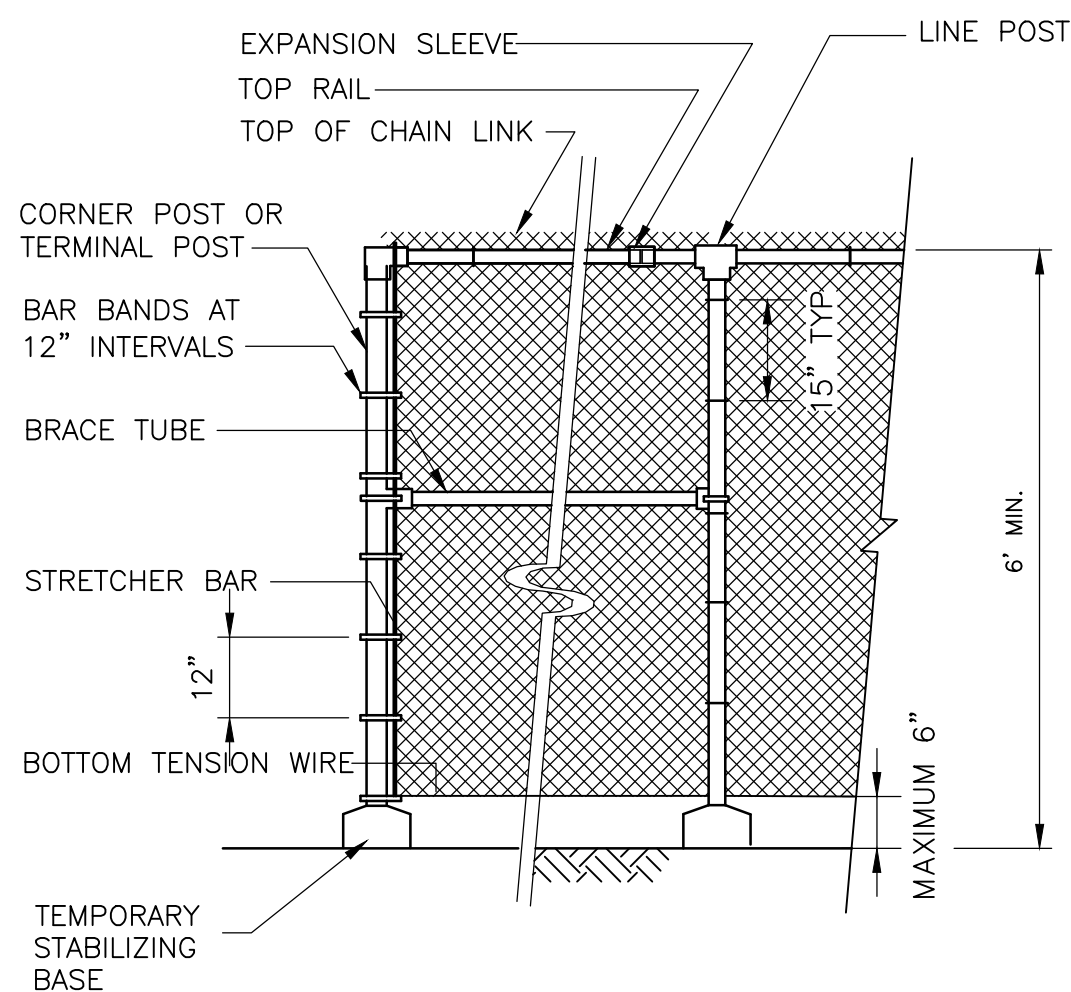
TEMPORARY SKIMMER BASINS

SKIMMER BASIN NO.	STORAGE VOLUME (FT³)	DEPTH OF POOL (FT)	SURFACE AREA (FT²)	BASIN WIDTH (FT)	BASIN LENGTH (FT)	SKIMMER SIZE (IN)	WEIR LENGTH (FT)	EMBANKMENT HEIGHT (FT)	SIDESLOPES	OUTLET	REFERENCE SHEET
TSB-1	4,524	3.0	2,312	34	68	2.5	6.0	4.5	3:1	6" PVC	C201
TSB-2	5,559	2.0	2,738	37	74	2.0	6.0	4	3:1	6" PVC	C201

TEMPORARY SKIMMER BASIN

DETAIL

NTS



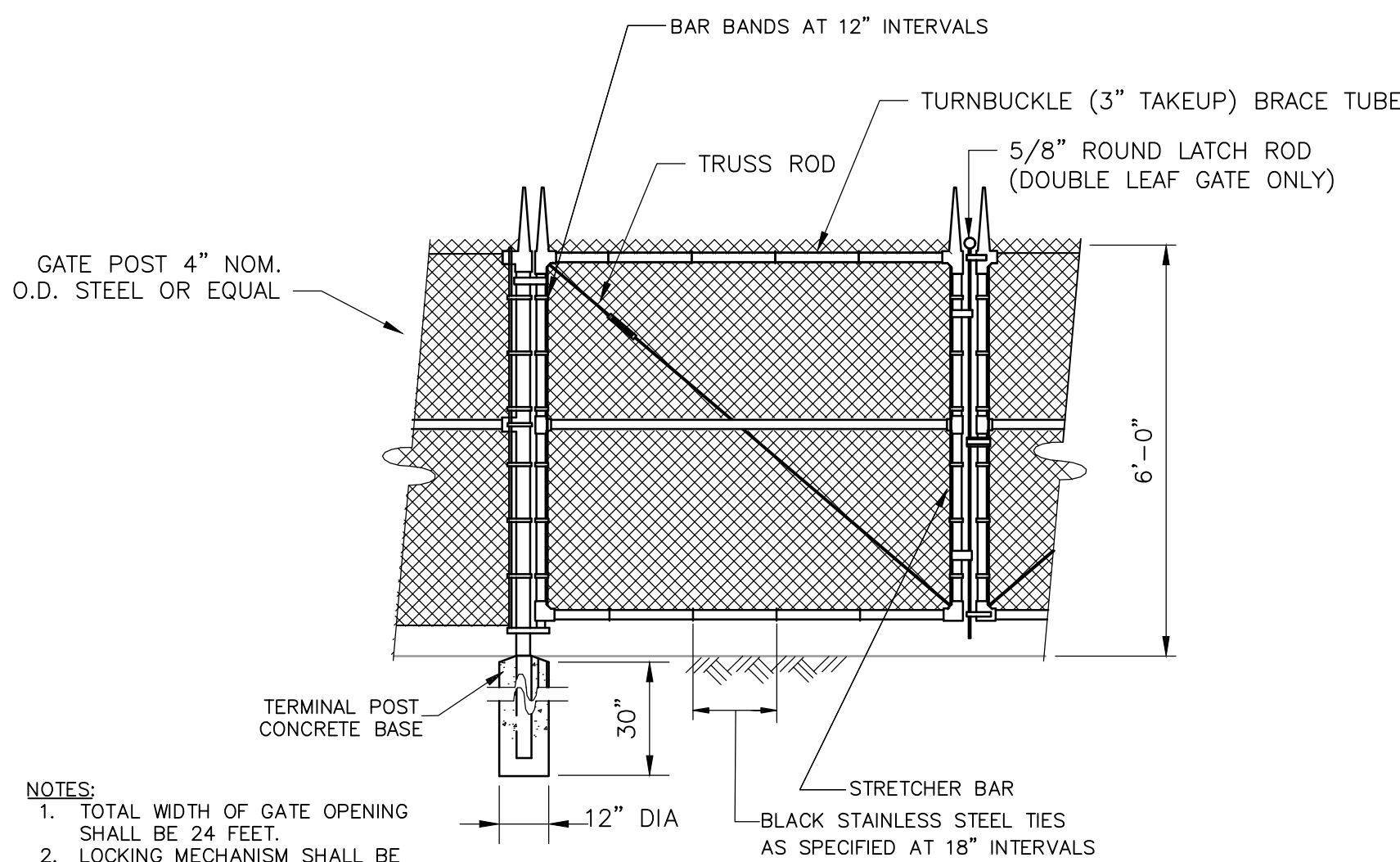
NOTES:

1. A TERMINAL POST SHALL BE PLACED EVERY 5TH POST AND AT CORNERS AND GATES.

TEMPORARY CONSTRUCTION FENCE

DETAIL

NTS



NOTES:

1. TOTAL WIDTH OF GATE OPENING SHALL BE 24 FEET.
2. LOCKING MECHANISM SHALL BE PROVIDED.

TEMPORARY CONSTRUCTION SWING GATE

DETAIL

NTS



**EROSION AND SEDIMENT
CONTROL DETAILS II**

PROJECT NO. 133920-237812
FILE NAME: D403D.TLS.DWG

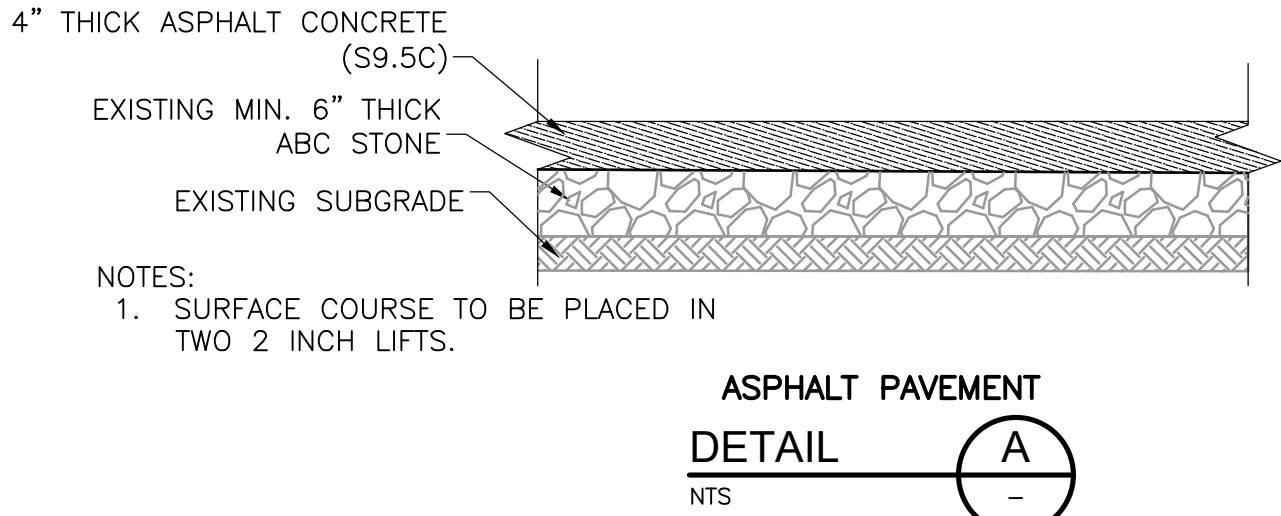
SHEET NO.

D403

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NOTES:

1. THE CONTRACTOR SHALL ENTER AND EXIT THE FACILITY FROM HWY 421. CONTRACTOR SHALL IMPLEMENT NECESSARY MEASURES, IN ADDITION TO MEASURES SHOWN ON SHEET C201, TO PREVENT SEDIMENT TRACKING WHEN EXITING THE SITE.
2. CONTRACTOR SHALL COORDINATE WITH THE OWNER FOR ACCESS TO THE LANDFILL SITE, INCLUDING ALLOWED HOURS OF WORK AND GATE ACCESS KEYS IF PROVIDED BY THE COUNTY.
3. CONTRACTOR SHALL MAINTAIN TEMPORARY CONSTRUCTION SIGNAGE AT THE ENTRANCE/EXIT TO THE PROJECT AREA, INCLUDING A LARGE HAZARD ORANGE SIGN READING 'CONSTRUCTION ACCESS, AUTHORIZED PERSONNEL ONLY', OR SIMILAR, AT ALL TIMES AND IMPLEMENT ADDITIONAL TRAFFIC CONTROL MEASURES WHEN NECESSARY.
4. CONTRACTOR SHALL UTILIZE FLAGGERS AND IMPLEMENT ADDITIONAL TRAFFIC CONTROL MEASURES WHEN NECESSARY, OR DIRECTED BY THE OWNER AND/OR ENGINEER.
5. CONTRACTOR SHALL MAINTAIN AND RESTORE GRAVEL ACCESS ROADS TO PRE-CONSTRUCTION CONDITIONS ALONG THE ROUTE SHOWN ON THIS PLAN. CONTRACTOR SHALL TAKE HIS/HER OWN PRE-CONSTRUCTION PHOTOGRAPHY ALONG THE ENTIRE HAUL ROUTE TO DOCUMENT EXISTING CONDITIONS.
6. CONTRACTOR MAY USE REAR ENTRANCE (NORTH OF THE LANDFILL) FOR GENERAL ACCESS IF DESIRED. THIS ROUTE IS NOT SUITABLE FOR EQUIPMENT AND MATERIAL DELIVERIES.
7. CONTRACTOR STAGING AREA IS LOCATED ON TOP OF AN IDENTIFIED ASBESTOS FIELD. CONTRACTOR SHALL, UNDER NO CIRCUMSTANCE, EXCAVATE WITHIN THIS AREA. CONTRACTOR IS ALLOWED TO STAGE ABOVE GROUND SURFACE ONLY. CONTRACTOR MAY COORDINATE WITH THE COUNTY TO UTILIZE THE NEARBY UTILITY POLE TO PROVIDE POWER TO A CONSTRUCTION TRAILER IF NEEDED.
8. REFER TO SHEET C002 FOR HORIZONTAL CONTROL POINT TABLE (NORTHING AND EASTING COORDINATES).



REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: M. BROKAW
DRAWN BY: K. RYAN
SHEET CHK'D BY: A. WEISPFENNING
CROSS CHK'D BY: W. KARABLY
APPROVED BY: M. BROKAW
DATE: MARCH 2021

CDM Smith
5400 Glenwood Avenue, Suite 400
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NC F-1255

NEW HANOVER COUNTY, NORTH CAROLINA

NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

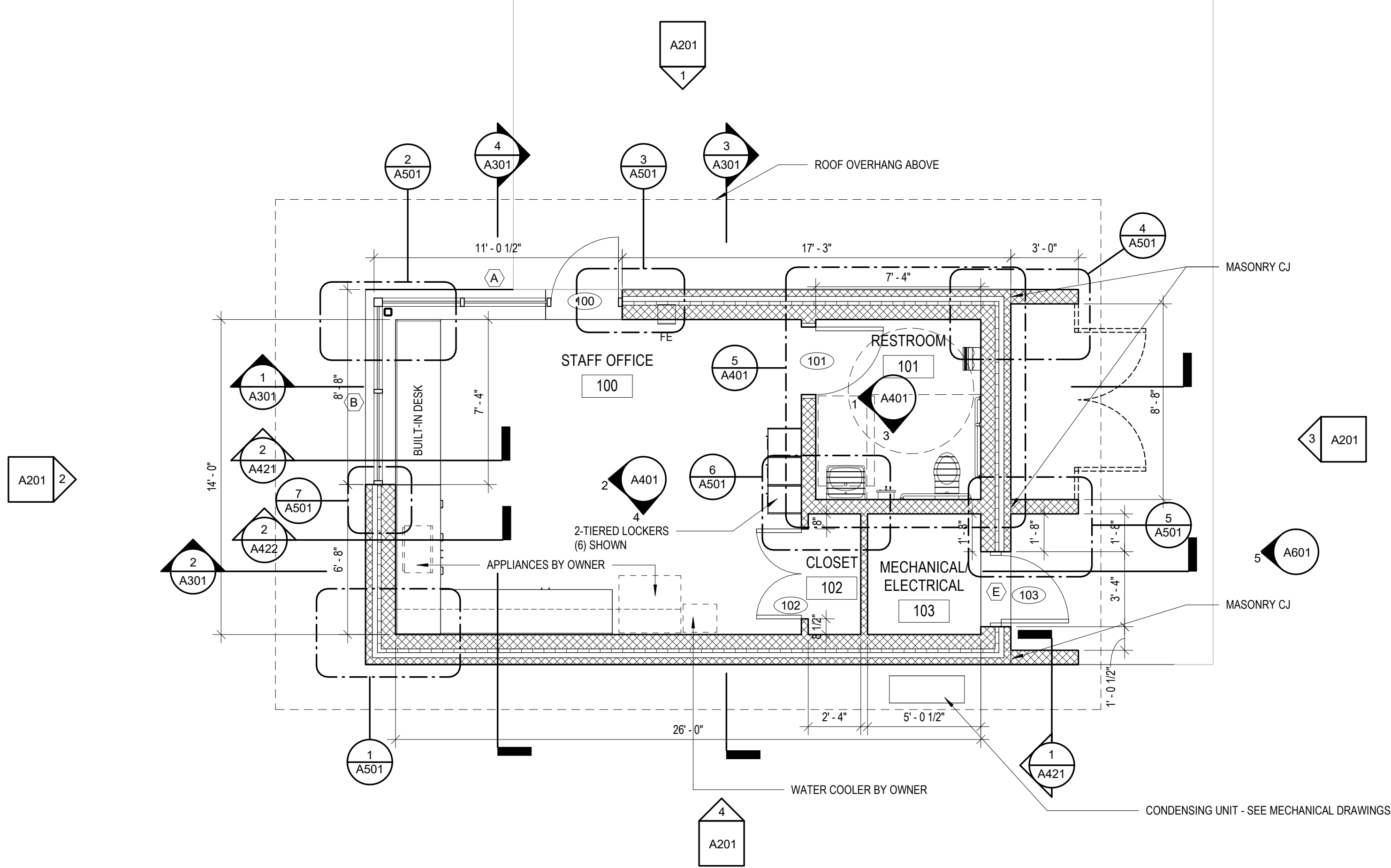
ASPHALT ROAD ALTERNATE

LANDFILL SITE CONTROL POINT DATA			
POINT NUMBER	NORTHING	EASTING	ELEVATION
CP-1	210102.37	2304635.31	26.10
CP-2 (NOT SHOWN)	210470.67	2306618.26	13.24
CP-3	211950.31	2305462.50	23.91

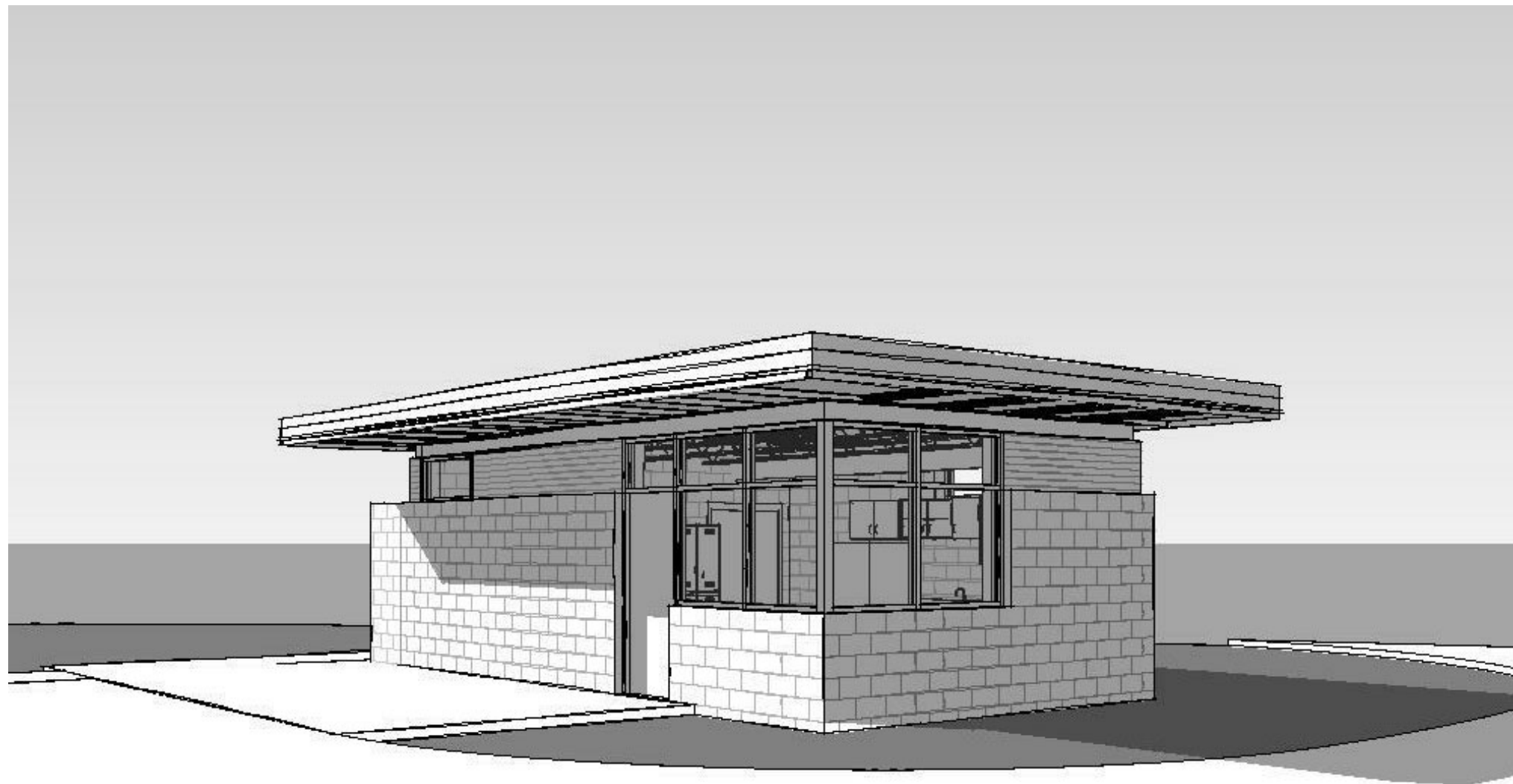
PROJECT NO. 133920-237812
FILE NAME: U200UTIL.DWG

SHEET NO.
F-1

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1 FIRST FLOOR - STAFF BUILDING
1/4" = 1'-0"



3 3D VIEW FROM CONVENIENCE CENTER
1 1/2" = 1'-0"

WALL LEGEND

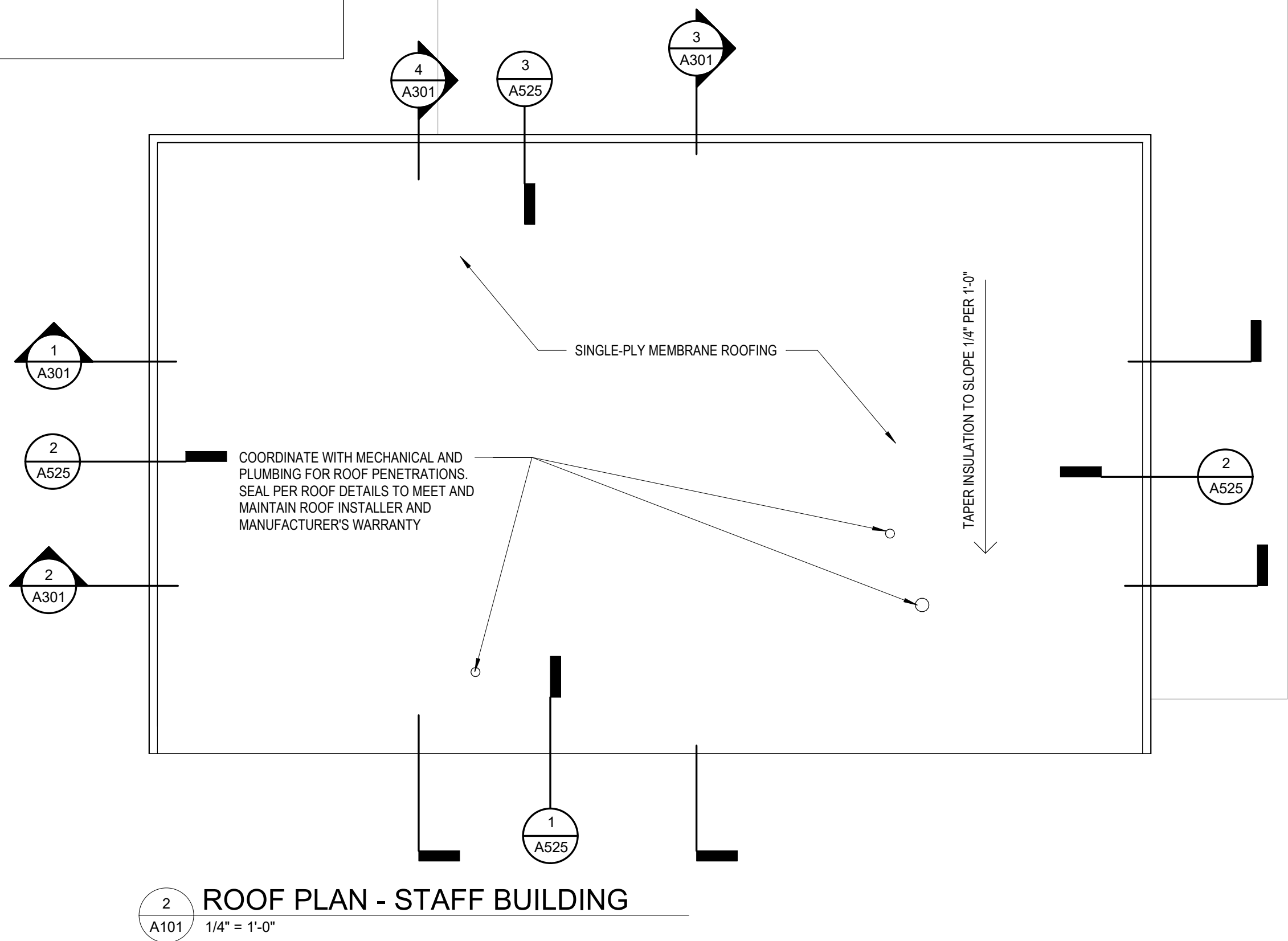
MASONRY WALL

NOTES

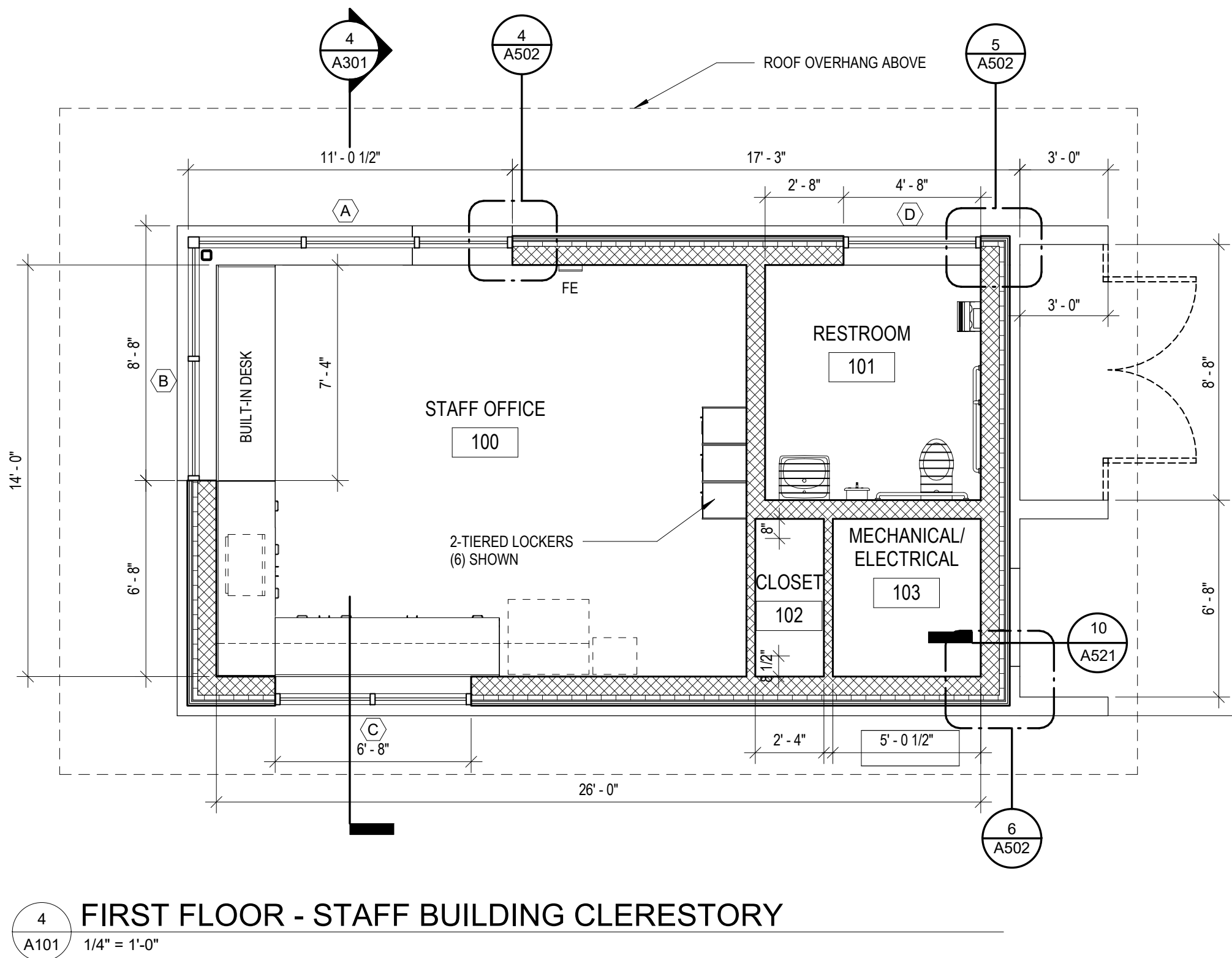
1. ALL DIMENSIONS ARE TO FINISHED FACE OF WALL.
2. COORDINATE AND PROVIDE BACKING/BLOCKING FOR MILLWORK AND ITEMS ATTACHED OR MOUNTED TO WALLS OR CEILINGS.
3. LOCATE DOOR OPENINGS 4" OFF PERPENDICULAR WALL, U.O.N.
4. CONTROL JOINTS (CJ) ARE LOCATED IN MASONRY WALLS ON THE FLOOR PLAN AND ELEVATIONS.
5. FINISH WALL TO FLOOR FOR BASE ADHESION.

ROOF PLAN LEGEND

1/4" PER FOOT SLOPE TAPERED INSULATION



2 ROOF PLAN - STAFF BUILDING
1/4" = 1'-0"



4 FIRST FLOOR - STAFF BUILDING CLERESTORY
1/4" = 1'-0"

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY:	MDP
DRAWN BY:	ABS
SHEET CHK'D BY:	MDP
CROSS CHK'D BY:	ABS
APPROVED BY:	MDP
DATE:	MARCH 2021

CDM Smith

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HUFFMAN ARCHITECTS

632 Pershing Road
Raleigh, North Carolina 27608
P 919.417.3788
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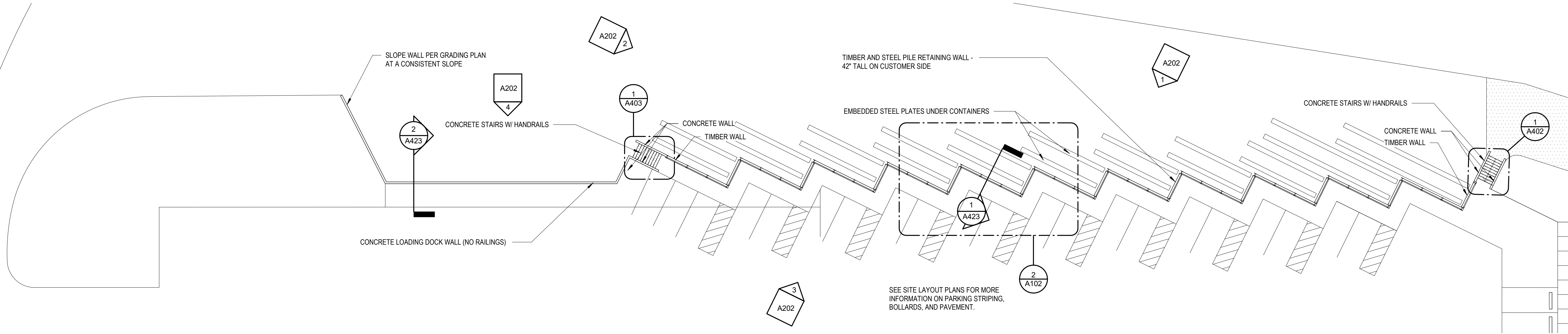
NEW HANOVER COUNTY, NORTH CAROLINA
NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

STAFF BUILDING FLOOR AND ROOF
PLANS

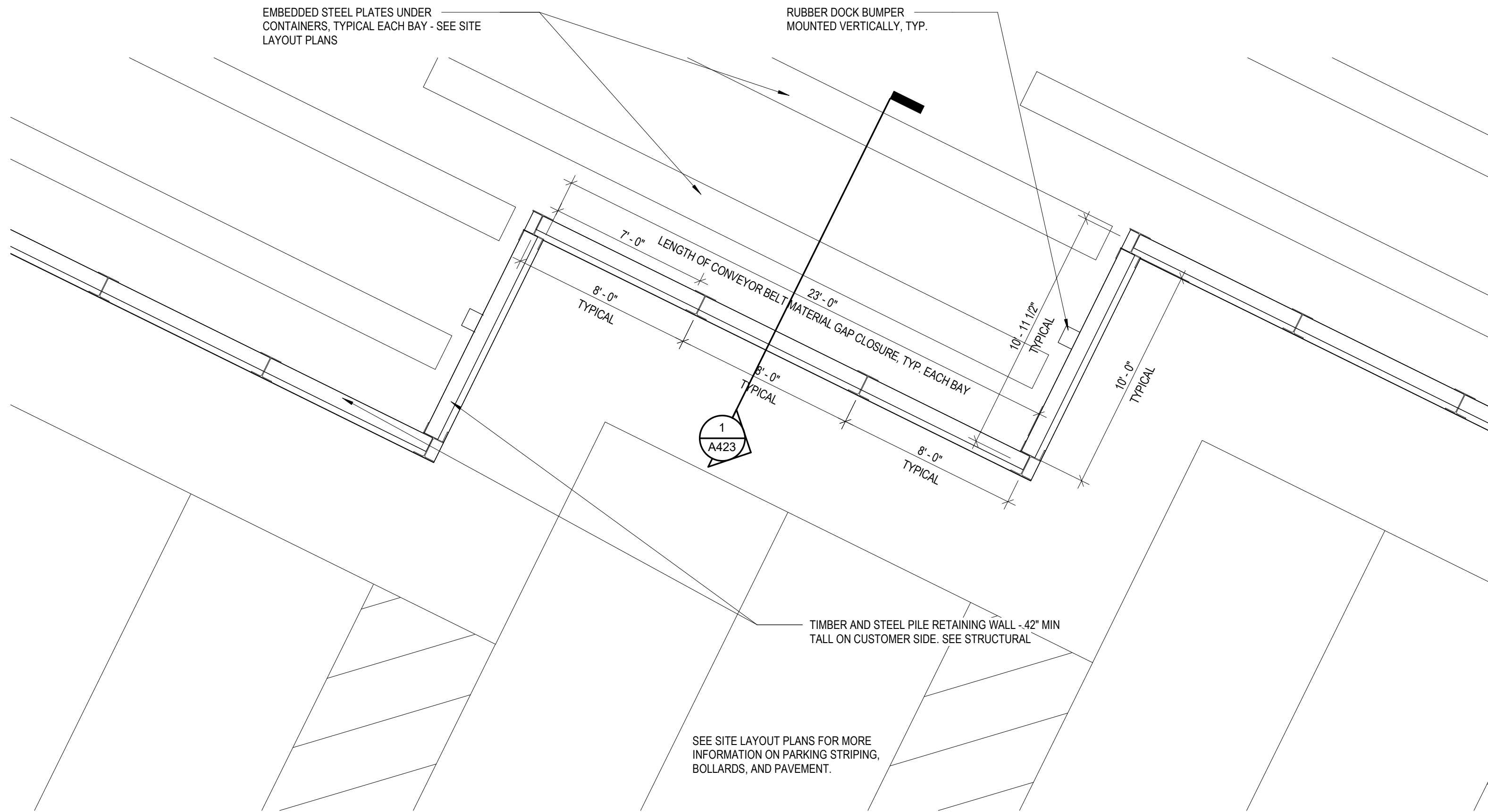
PROJECT NO.:	133920-237812
FILE NAME:	HA Project No. 1902
SHEET NO.	A101

PERMIT SET - NOT FOR CONSTRUCTION

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1
A102
CONVENIENCE CENTER OVERALL PLAN
1" = 20'-0"



2
A102
CONVENIENCE CENTER BAY
1/4" = 1'-0"

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: MDP
DRAWN BY: ABS
SHEET CHK'D BY: MDP
CROSS CHK'D BY: ABS
APPROVED BY: MDP
DATE: MARCH 2021

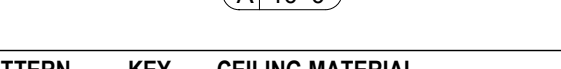



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NC F-1255

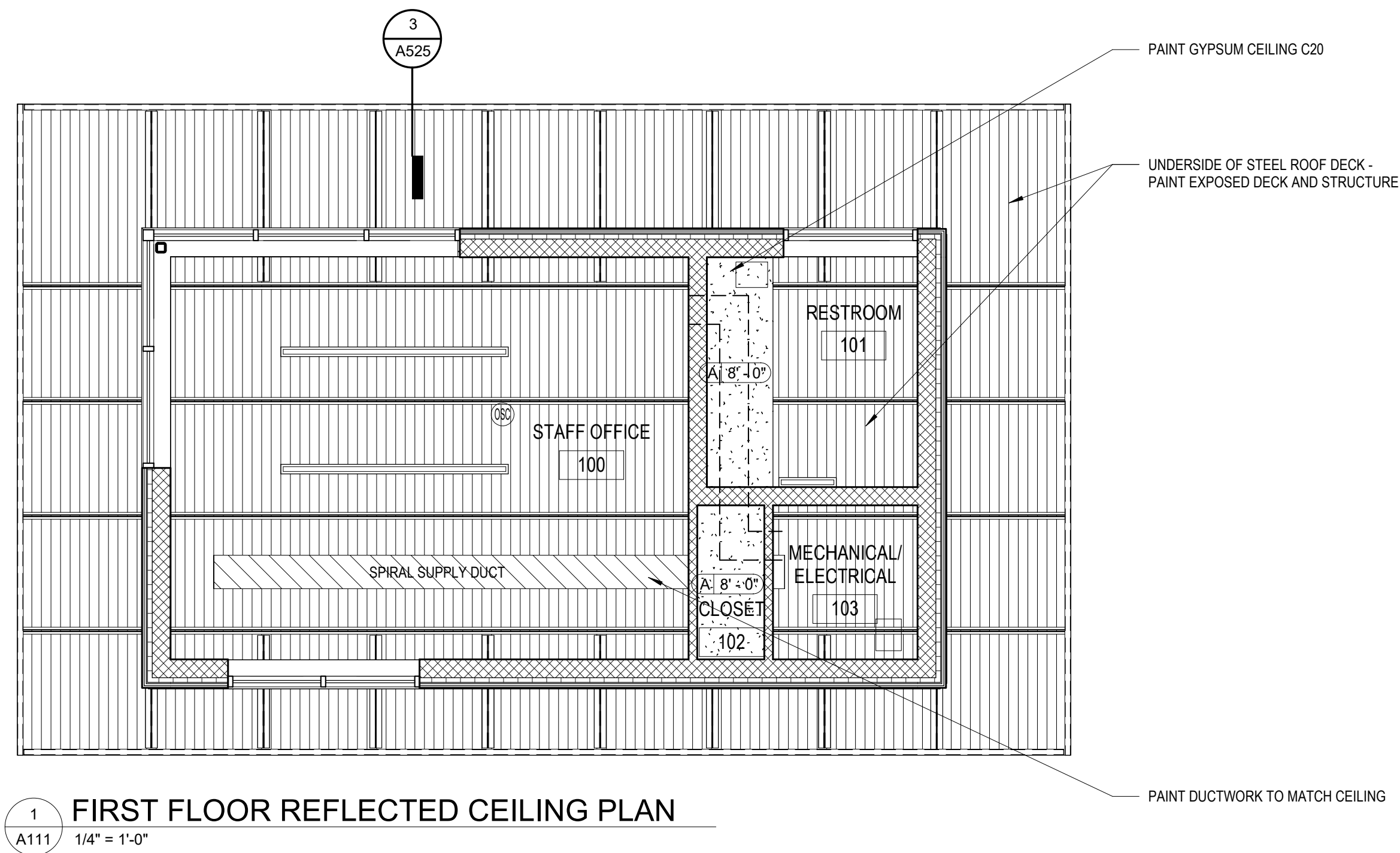
HUFFMAN ARCHITECTS
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WWW.HUFFMANARCH.COM

NEW HANOVER COUNTY, NORTH CAROLINA
NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

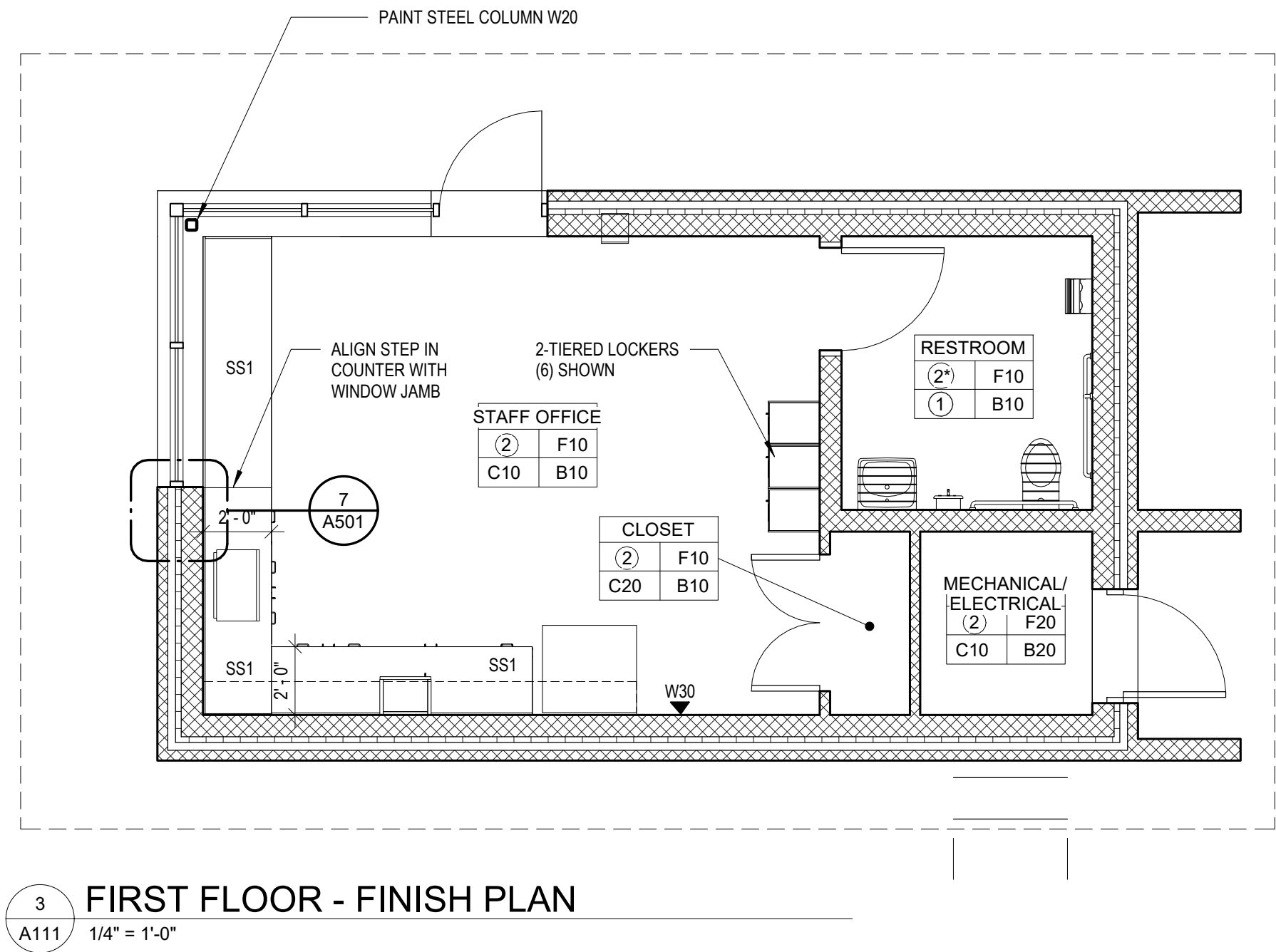
CONVENIENCE CENTER OVERALL
PLAN + ENLARGED BAY PLAN

PROJECT NO.: 133920-237812
FILE NAME: HA Project No. 1902
SHEET NO.
A102

CEILING LEGEND				
CEILING TYPE				
PATTERN	KEY	CEILING MATERIAL		
	A	GYPSUM BOARD		
SYMBOL	DESCRIPTION			
	LINEAR DIRECT/INDIRECT SUSPENDED OR WALL MOUNTED LIGHT FIXTURE			
	OCCUPANCY SENSOR			
CEILING NOTES:				
<ol style="list-style-type: none"> SEE ELECTRICAL AND MECHANICAL PLANS FOR MORE INFORMATION. WHERE CEILING KEYNOTE IS NOT NOTED, ROOM HAS EXPOSED STRUCTURE. ALL DIMENSIONS ARE TO CENTERLINE OF FIXTURE UNLESS OTHERWISE NOTED. SEE FINISH PLANS FOR PAINT COLORS OF CEILING SOFFITS. CONTRACTOR IS NOT TO INSTALL ANY ACCESS PANELS IN GWB CEILING WITHOUT PRIOR APPROVAL AND COORDINATION WITH ARCHITECT. 				



FINISH SCHEDULE		
ROOM NAME	ROOM ###	ROOM NUMBER
WALL FINISH	N## F##	FLOOR FINISH
Ceilings MATERIAL OR FINISH	C## B##	Wall Base Material
KEY	FLOOR MATERIAL	
F10	EPOXY FLOORING - DUR - A - FLEX INC DUR - OLIVESTONE	
F20	SEALED CONCRETE	
KEY	BASE MATERIAL	
B10	INTEGRAL EPOXY COVE BASE	
B20	4" RUBBER COVE BASE - JOHNSONITE - 44 DARK BROWN	
KEY	WALL MATERIAL	
W10	PAINT COLOR - SW 7570 EGRET WHITE	
W20	PAINT COLOR - SW 7019 GAUNTLET GRAY	
W30	PAINT COLOR - SW 6221 MOODY BLUE	
KEY	Ceiling Material	
C10	OPEN AND PAINTED - SW 7019 GAUNTLET GRAY	
C20	PAINTED GYPSUM - SW 7019 GAUNTLET GRAY	
KEY	SOLID SURFACE	
SS1	SOLID PLASTIC COUNTER - CORIAN - PINE	
KEYNOTES		
(1)	C10 AND C20, SEE REFLECTED CEILINGPLAN	
(2)	W10 BELOW 7'-4". W20 ABOVE 7'-4".	
NOTES:		
* INDICATES EPOXY FINISH, SEE SPECS		
1. ALL PAINT TO BE LATEX EGGSHELL FINISH, U.O.N.		
2. REFER TO INTERIOR ELEVATIONS FOR ADDITIONAL FINISH INFORMATION.		
3. REFER TO MILLWORK DRAWINGS FOR ADDITIONAL MILLWORK FINISHES AND APPLICATIONS. FINISH PLANS INDICATE COUNTERTOP MATERIAL ONLY. ALL CLOSET SHELVING TBD.		
4. ALL FINISHES TO MEET "CLASS B" FLAME SPREAD REQUIREMENTS ("CLASS A" IN A NON-SPRINKLERED BUILDING) PER NC STATE BUILDING CODE CHAPTER 8.		
5. HOLLOW METAL DOOR FRAMES AND DOORS - PAINT TO MATCH ALUMINUM STOREFRONT FRAMING, SEMI-GLOSS FINISH. SEE SPECIFICATION SECTION 099100.		
6. WOOD DOORS TO BE BIRCH VENEER WITH CLEAR FINISH.		
7. EXPOSED STRUCTURE/DECKING AND DUCTWORK TO BE PAINTED PER CEILING FINISH NOTES, FLAT FINISH. SPRAY APPLIED.		
8. PAINT THE UNDERSIDE OF SOFFITS AND BULKHEADS THE SAME COLOR AS THAT SPECIFIED FOR THE FACE, U.O.N.		



REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: _____ MDP
DRAWN BY : _____ ABS
SHEET CHK'D BY : _____ MDP
CROSS CHK'D BY : _____ ABS
APPROVED BY : _____ MDP
DATE : _____ MARCH 2021

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NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

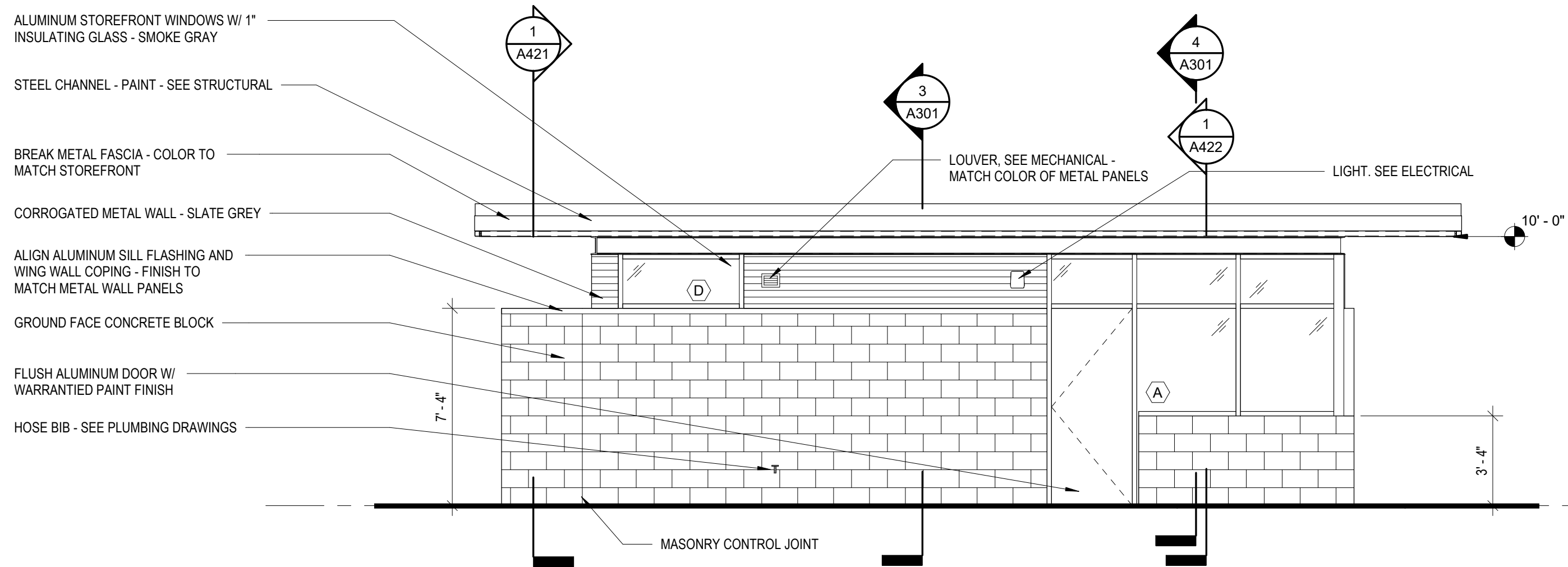
REFLECTED CEILING PLAN AND FINISH PLAN

PROJECT NO.: 133920-237812
FILE NAME: HA Project No. 1902

SHEET NO.

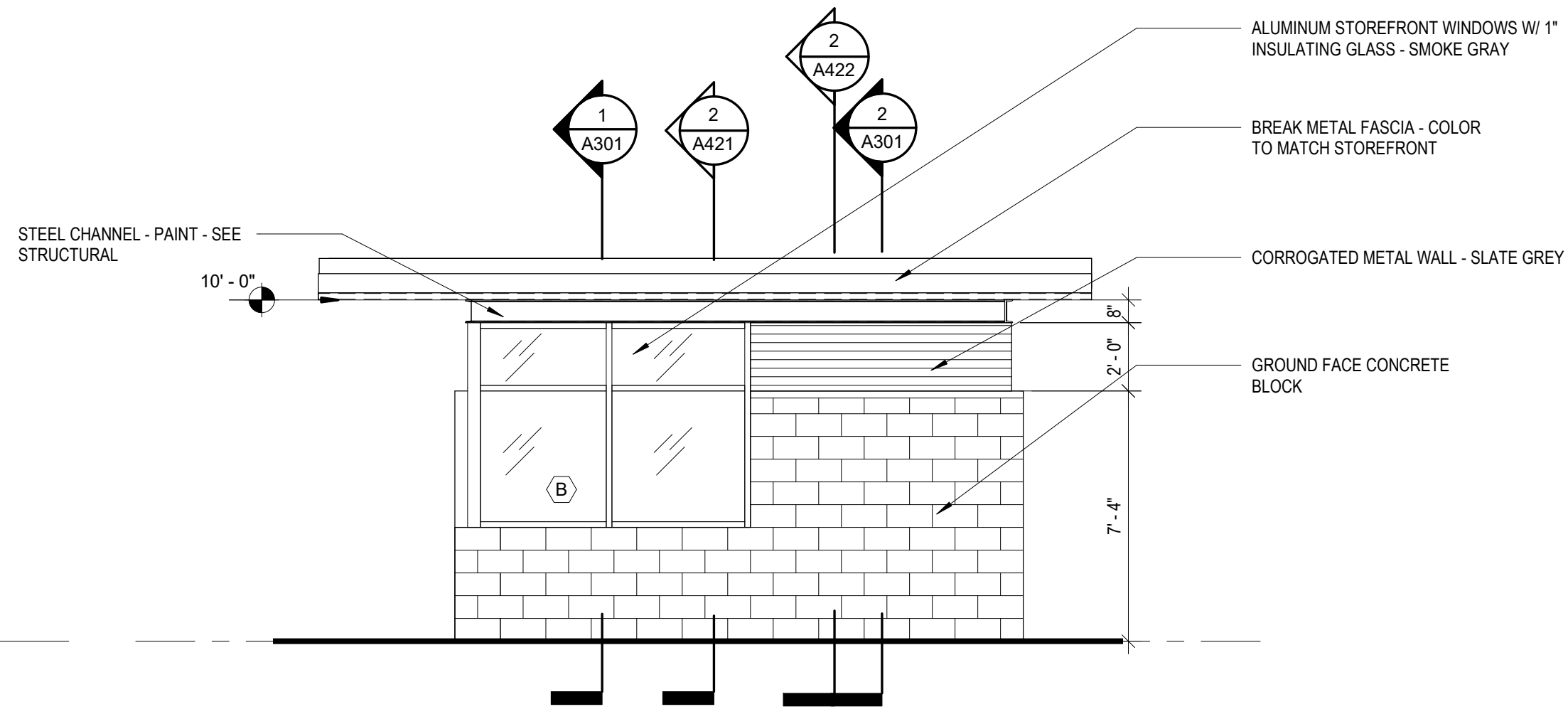
A111

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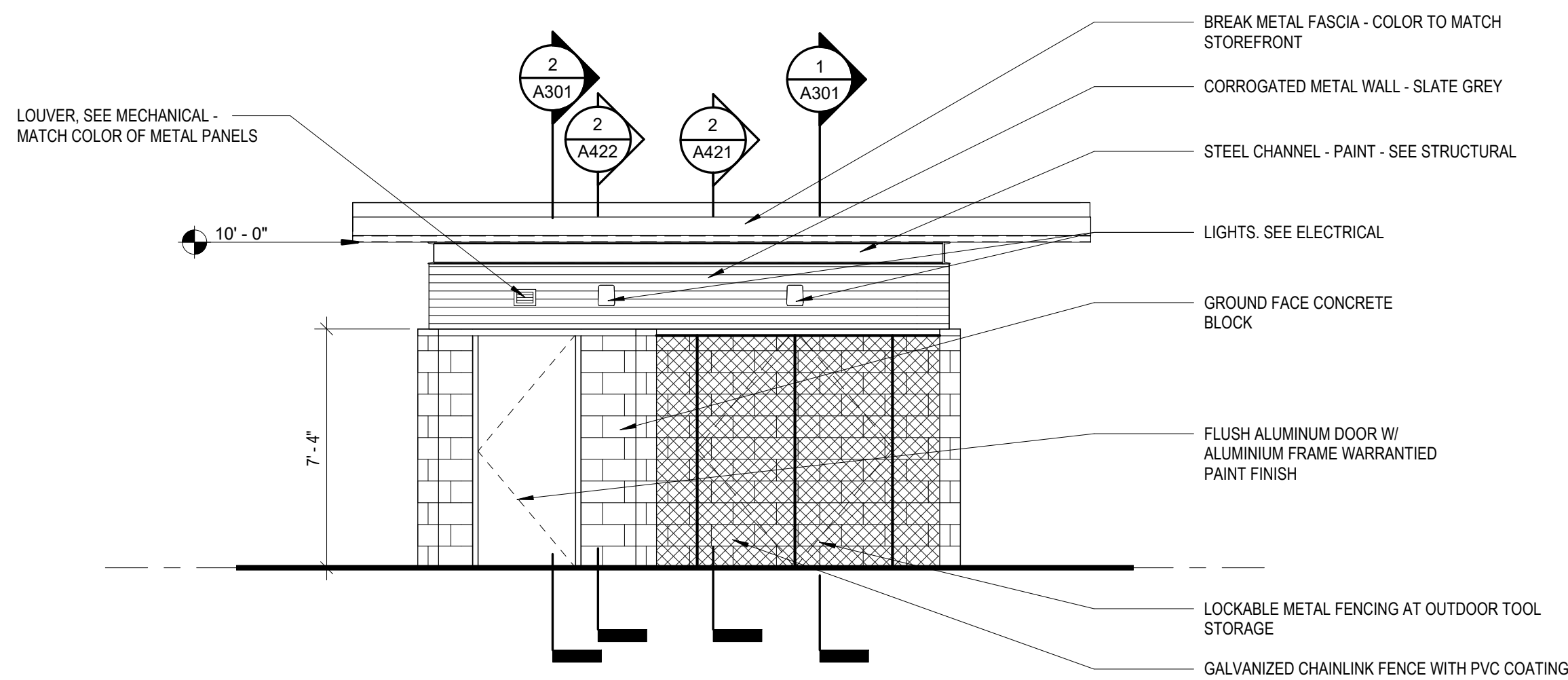
1
A201
1/4" = 1'-0"

NORTHEAST ELEVATION



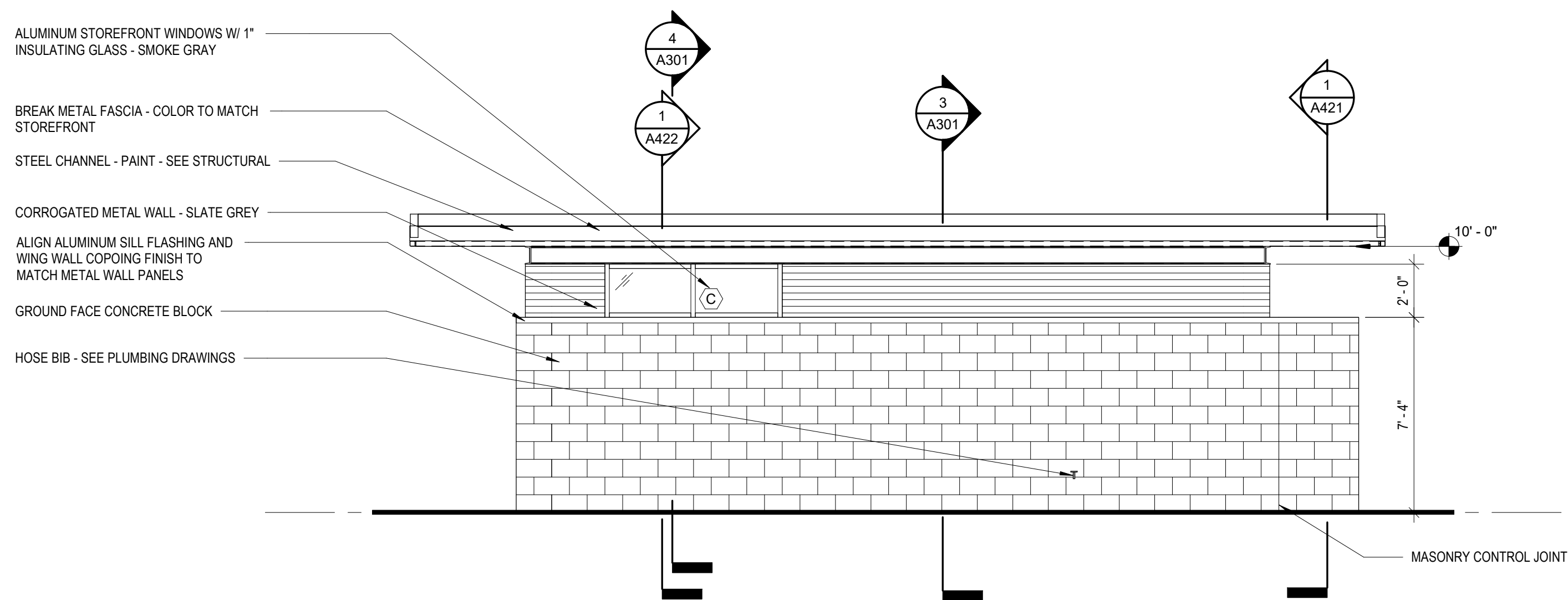
2
A201
1/4" = 1'-0"

NORTHWEST ELEVATION



3
A201
1/4" = 1'-0"

SOUTHEAST ELEVATION



4
A201
1/4" = 1'-0"

SOUTHWEST ELEVATION

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NEW HANOVER COUNTY LANDFILL
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STAFF BUILDING EXTERIOR
ELEVATIONS

PROJECT NO.: 133920-237812
FILE NAME: HA Project No. 1902
SHEET NO.
A201

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TIMBER AND STEEL PILE RETAINING WALL -
42" TALL ON CUSTOMER SIDE

CONCRETE STAIRS W/ HANDRAILS

2
A402

CONCRETE RETAINING WALL

4'-0"

1
A202
CONVENIENCE CENTER - LONG LOW SIDE
1/16" = 1'-0"

STAFF BUILDING BEYOND

TIMBER AND STEEL PILE RETAINING WALL -
42" TALL ON CUSTOMER SIDE

CONCRETE WALL

3'-6"
5'-0"

RUBBER DOCK BUMPERS AT CONCRETE RETAINING WALL
10" X 6'-8" TALL

CONCRETE WALL

CONCRETE RETAINING WALL

2
A202
CONVENIENCE CENTER - SHORT LOW SIDE
1/16" = 1'-0"

TIMBER AND STEEL PILE RETAINING WALL -
42" TALL ON CUSTOMER SIDE

3'-6"

2
A402

CONCRETE STAIRS W/ HANDRAILS

3
A202
CONVENIENCE CENTER - CUSTOMER SIDE
1/16" = 1'-0"

RUBBER DOCK BUMPERS AT CONCRETE
RETAINING WALL 3'-0" X 10" TALL

STEEL ANGLE CAST INTO CONCRETE AT
SLAB EDGE - SEE SECTION DETAILS

RUBBER DOCK BUMPERS AT CONCRETE
RETAINING WALL 10" X 3'-0" TALL

CONCRETE LOADING DOCK WALL AT SHRED AREA

2
A423

4'-0"

4
A202
CONVENIENCE CENTER - SHRED WALL
1/8" = 1'-0"

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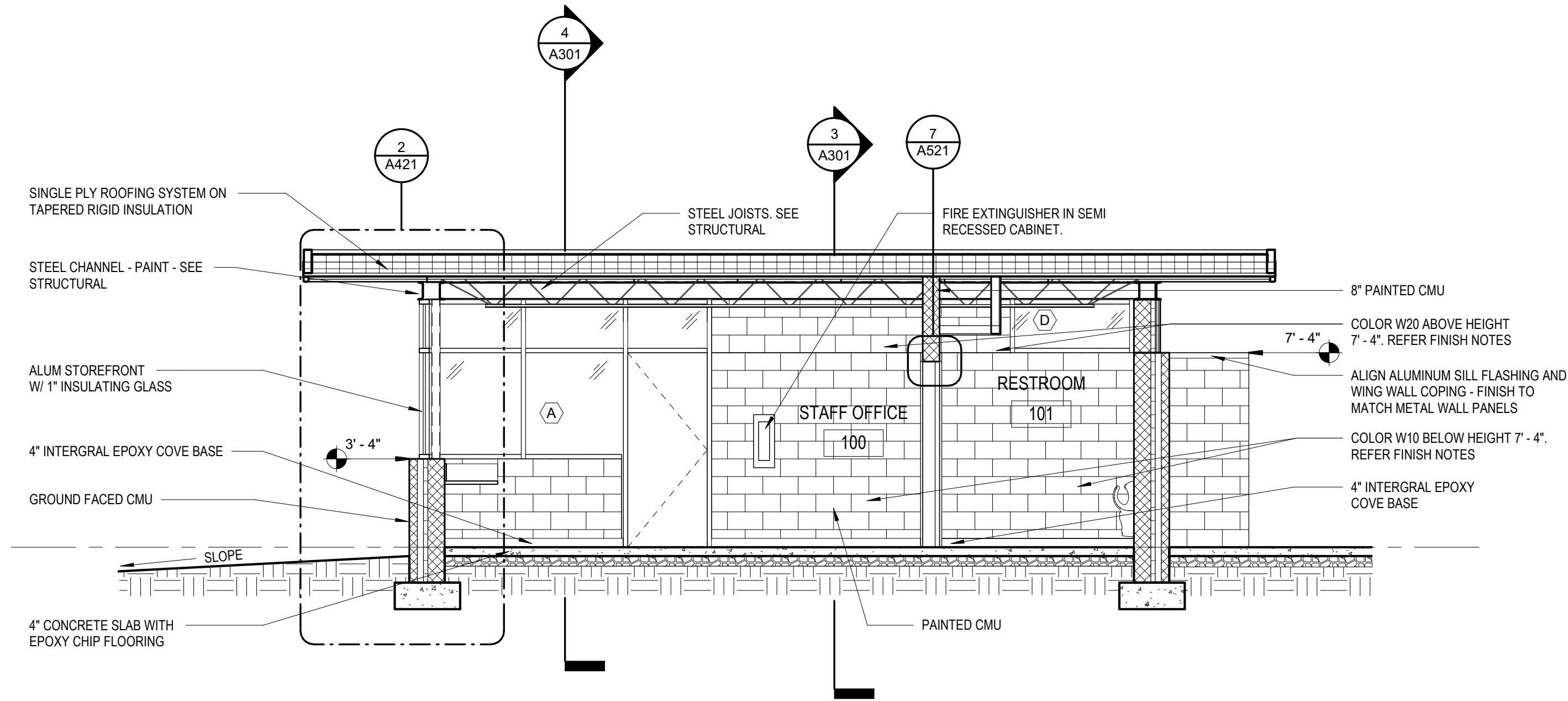
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NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

CONVENIENCE CENTER EXTERIOR
ELEVATIONS

PROJECT NO.: 133920-237812
FILE NAME: HA Project No. 1902
SHEET NO.
A202

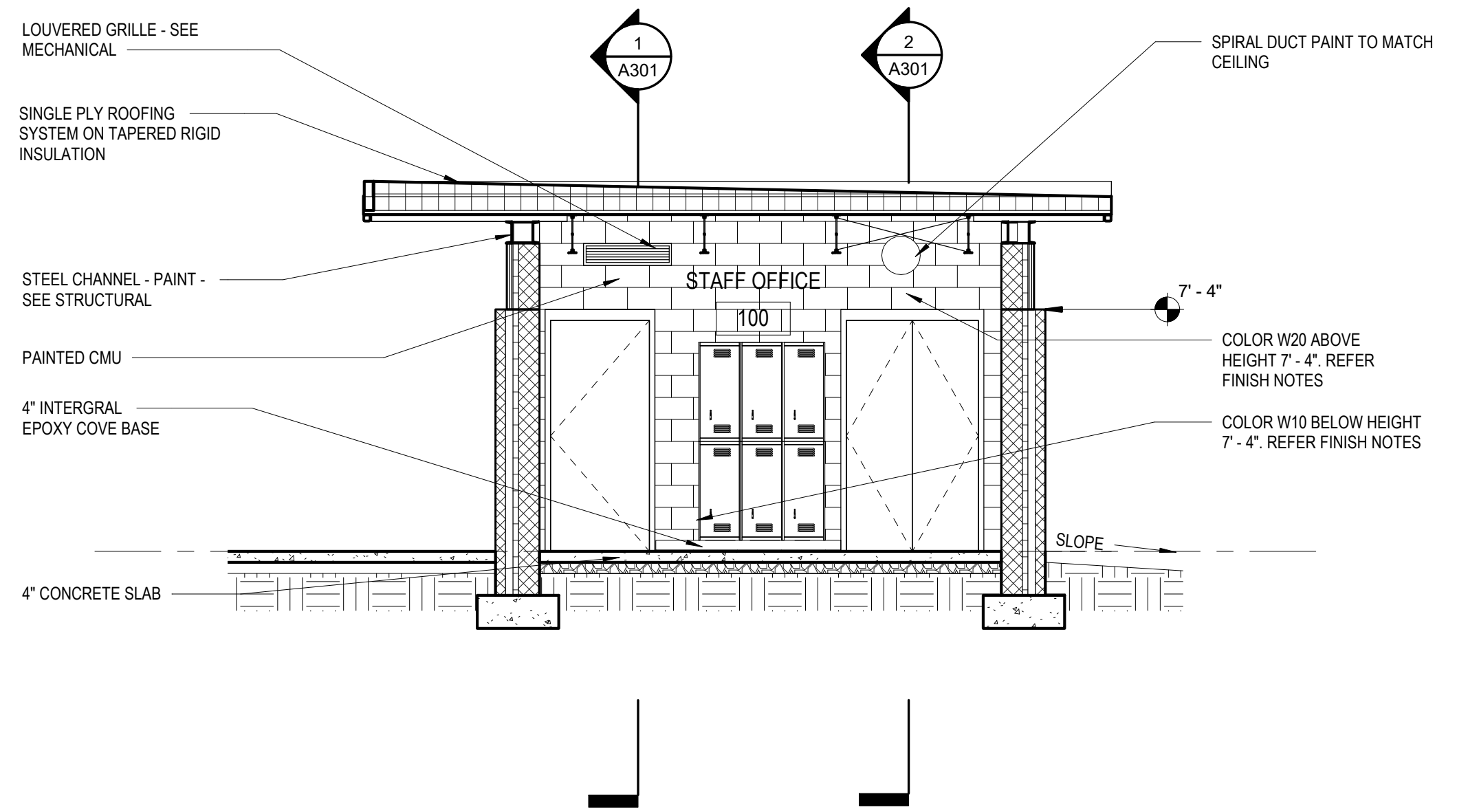
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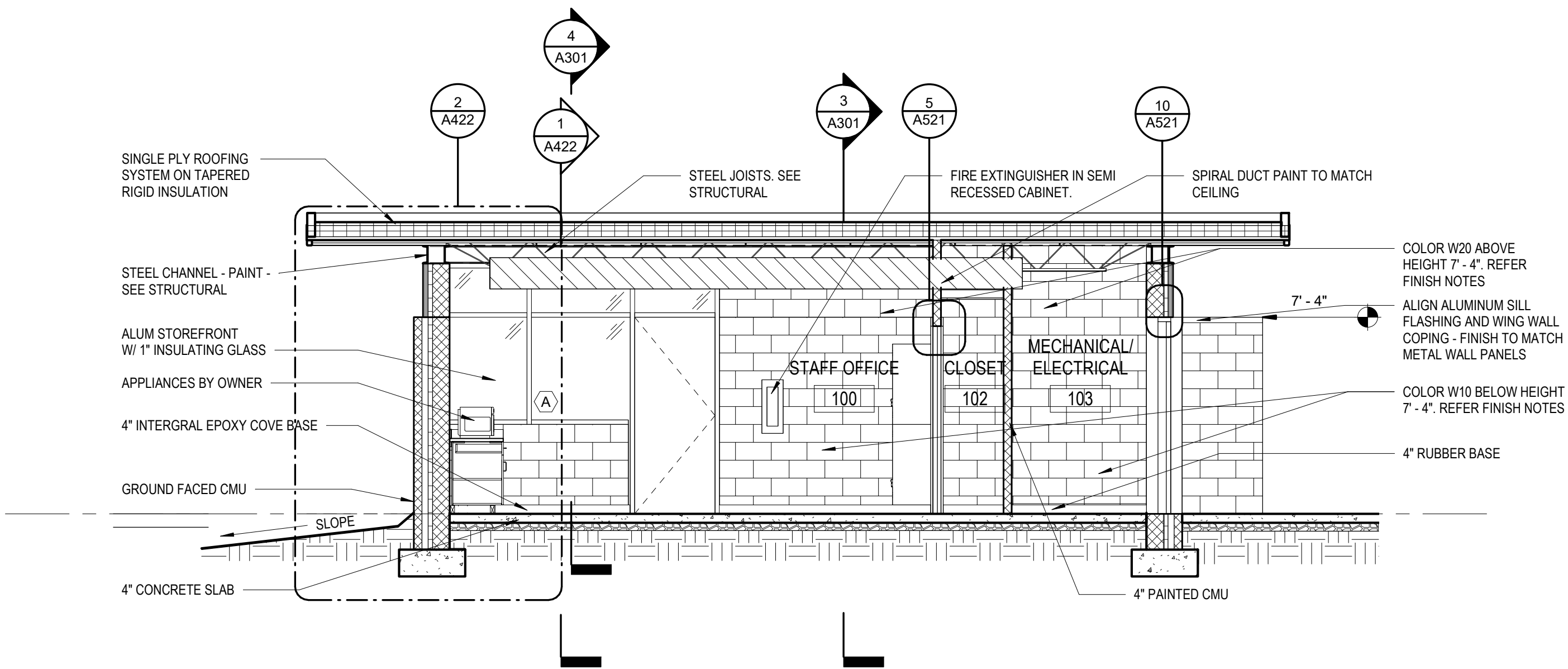
1
A301
1/4" = 1'-0"

STAFF BUILDING SECTION - LONGITUDINAL 1



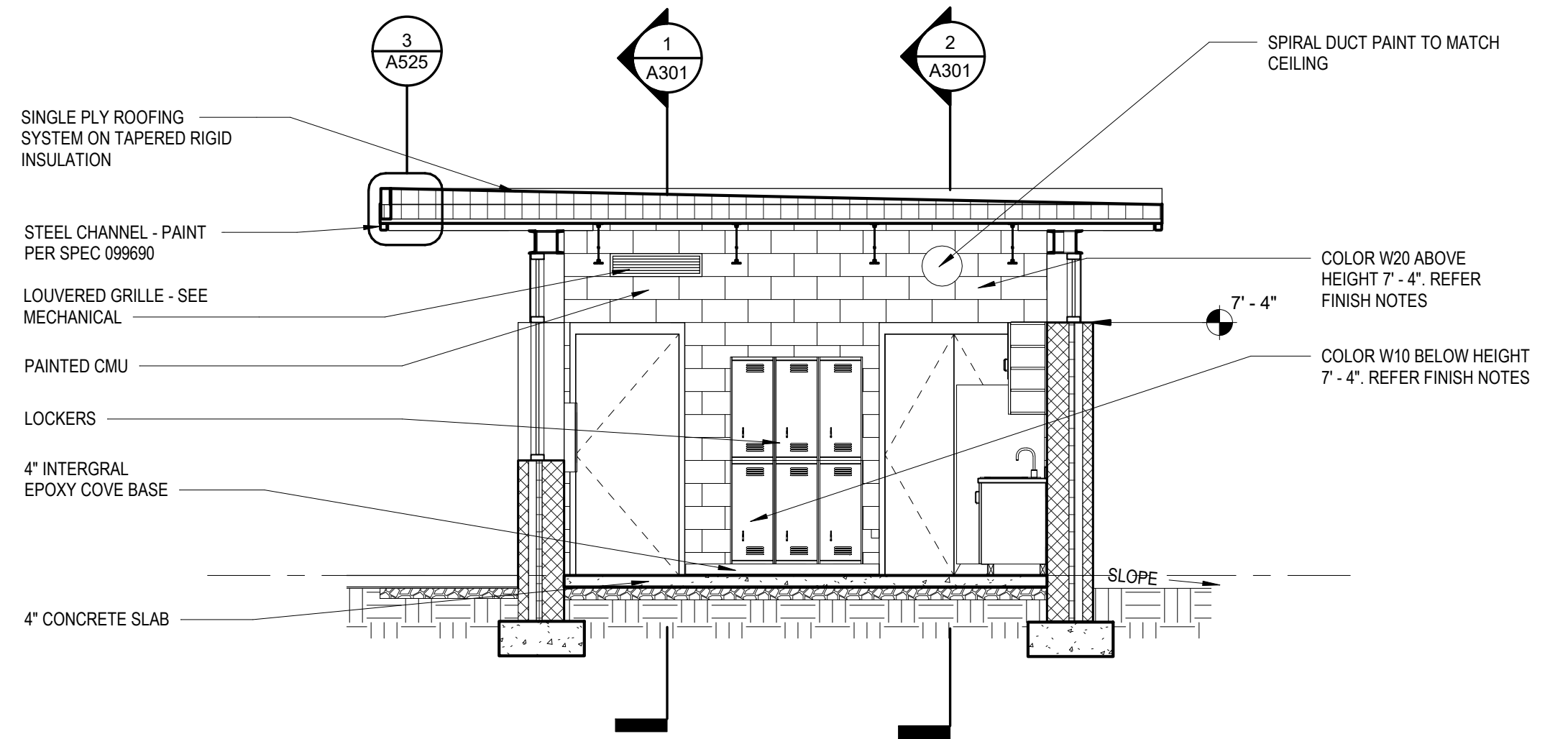
3
A301
1/4" = 1'-0"

STAFF BUILDING SECTION - LATERAL 1



2
A301
1/4" = 1'-0"

STAFF BUILDING SECTION - LONGITUDINAL 2



4
A301
1/4" = 1'-0"

STAFF BUILDING SECTION - LATERAL 2

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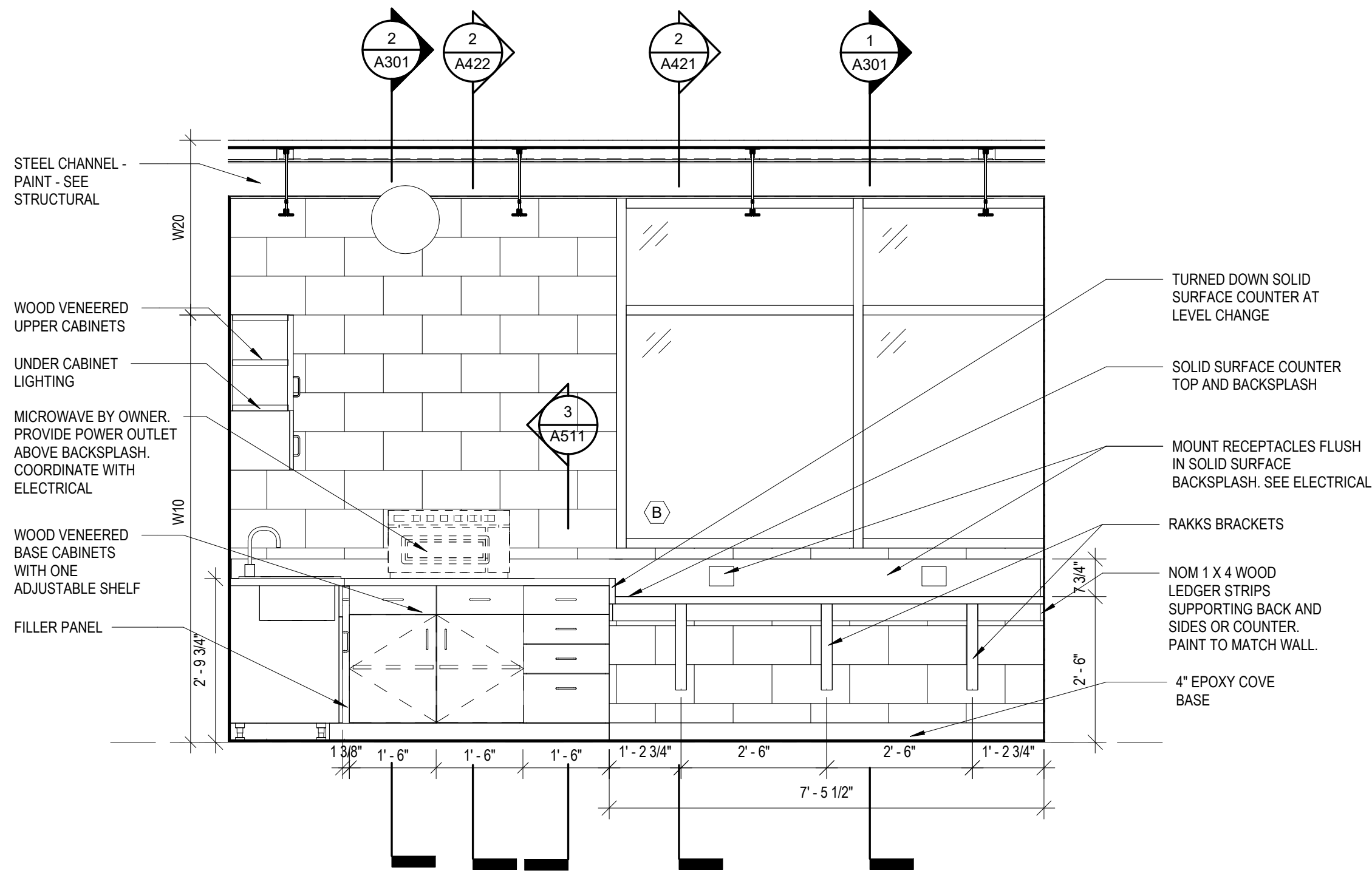
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NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

STAFF BUILDING SECTIONS

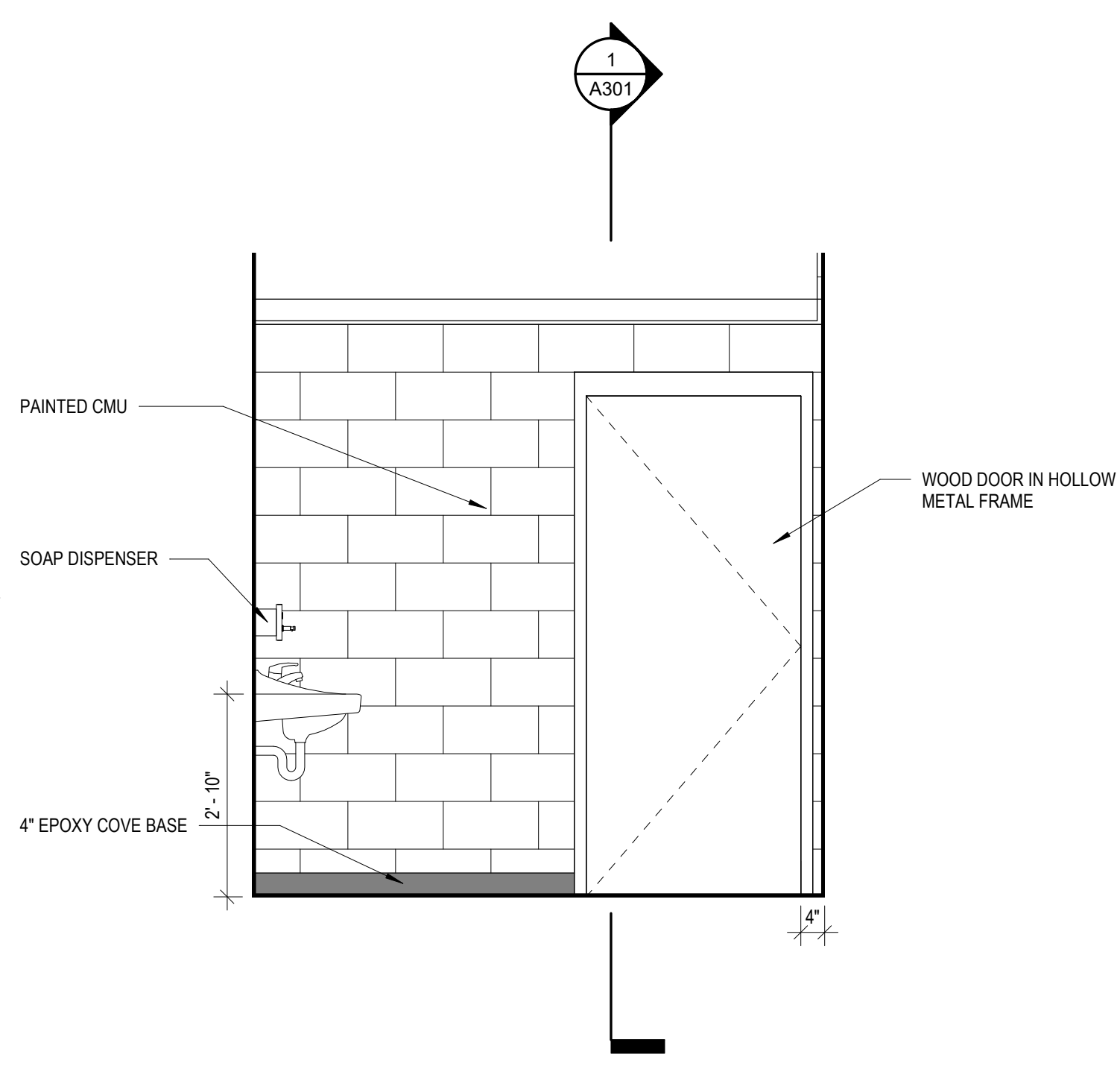
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FILE NAME: HA Project No. 1902
SHEET NO.
A301

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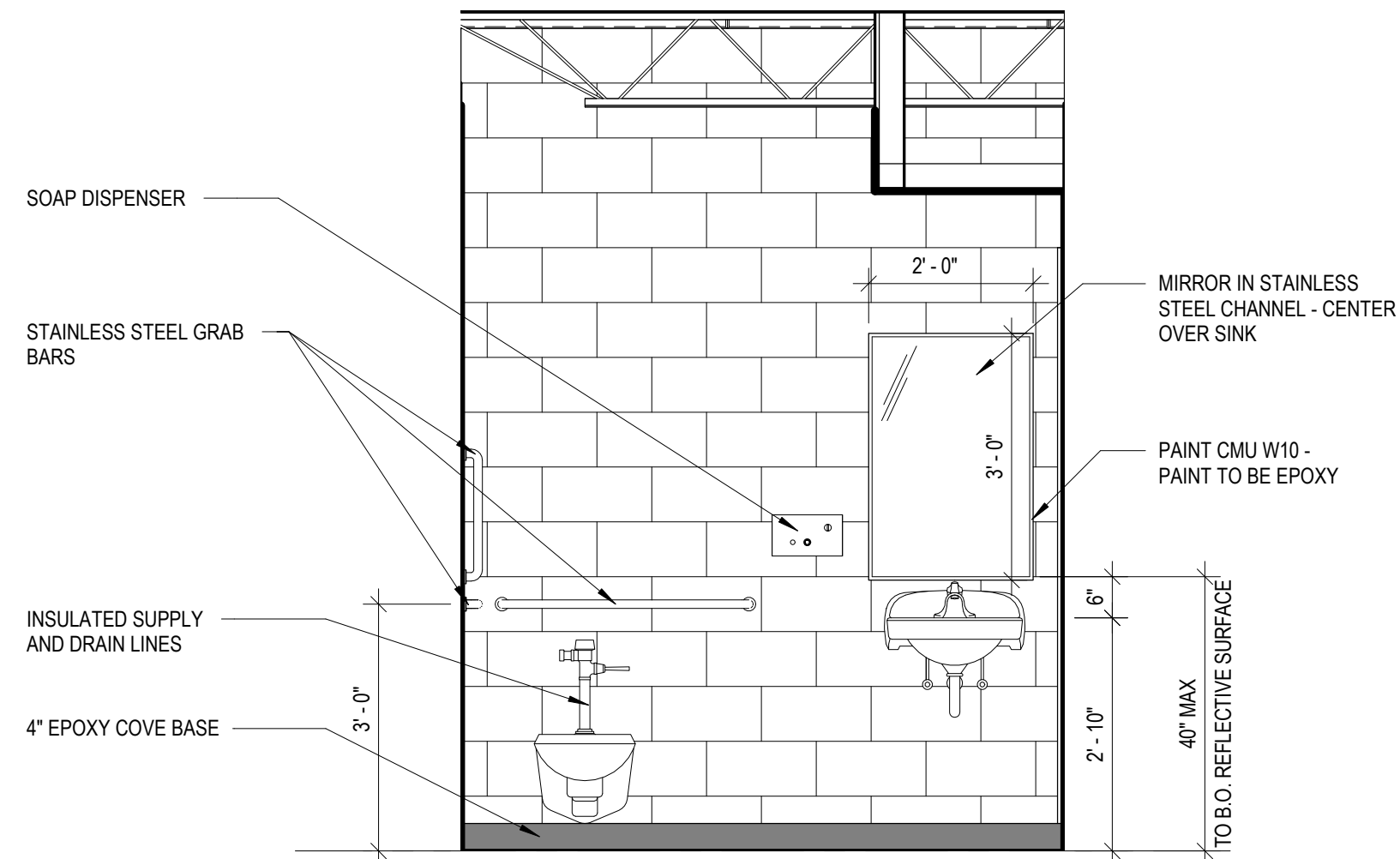
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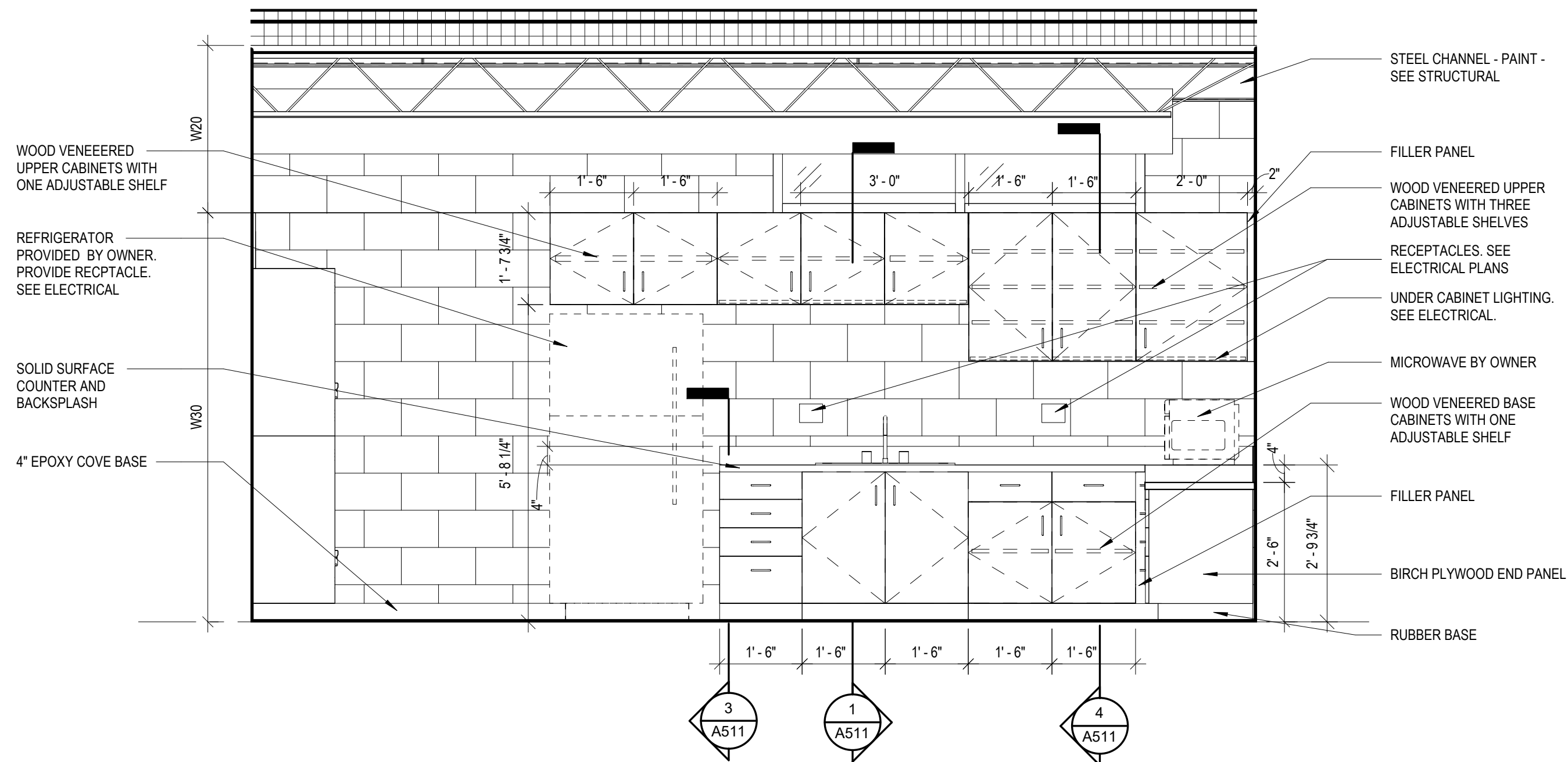
2 ELEVATION - STAFF OFFICE - BUILT-IN DESK
A401 1/2" = 1'-0"



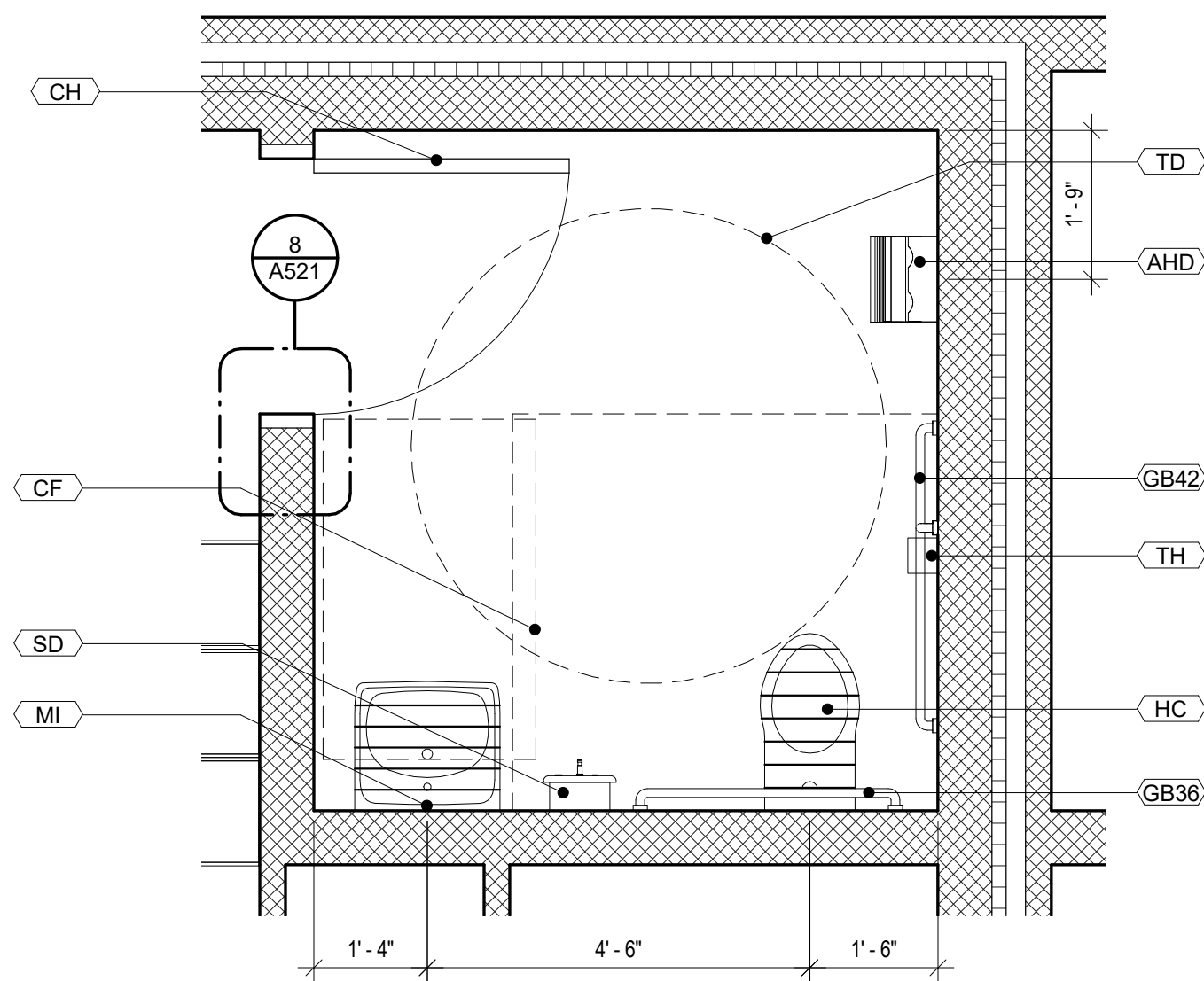
1 ELEVATION - RESTROOM WC
A401 1/2" = 1'-0"



3 ELEVATION - RESTROOM - SINK
A401 1/2" = 1'-0"



4 ELEVATION - STAFF BUILDING - KITCHENETTE
A401 1/2" = 1'-0"



5 PLAN DETAIL OF TOILET
A401 1/2" = 1'-0"

TOILET ACCESSORIES LEGEND	
CF	CLEAR FLOOR SPACE, 30" X 48"
CH	COAT HOOK
GB36	GRAB BAR, 36" LONG (REAR WALLS)
GB42	GRAB BAR, 42" LONG (SIDE WALLS)
HC	HANDICAPPED ACCESSIBLE FIXTURE
MI	MIRROR
SD	SOAP DISPENSER
TD	67" HANDICAPPED TURNING DIAMETER
TH	TOILET TISSUE HOLDER
AHD	AUTOMATIC HANDDRYER
NOTES:	
1. PLUMBING CONTRACTOR TO PROVIDE PROTECTIVE INSULATION AT HOT PIPES BELOW LAVATORY PER ACCESSIBILITY CODE.	
2. FLUSH CONTROL VALVES AT ACCESSIBLE TOILETS TO BE MOUNTED ON THE WIDE SIDE OF TOILET STALL OR ROOM.	
3. SEE SPECIFICATIONS FOR DETAILS OF TOILET ACCESSORIES.	
4. SLOPE FLOOR SLAB TO DRAIN.	
5. THRESHOLDS SLOPE IN DOOR OPENINGS SHALL NOT EXCEED 1:8 SLOPE OR 1/2" IN HEIGHT PER ACCESSIBILITY STANDARDS.	

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NEW HANOVER COUNTY, NORTH CAROLINA
NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

ENLARGED TOILET AND KITCHENETTE
ELEVATIONS

PROJECT NO.: 133920-237812
FILE NAME: HA Project No. 1902
SHEET NO.
A401

PLAN DETAIL @ STAIR A
 1/2" = 1'-0"

SECTION @ STAIR A
 1/2" = 1'-0"

NOTE: SEE STRUCTURAL DRAWINGS FOR TYP. STAIR REINFORCEMENT

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DRAWN BY : _____	ABS _____
SHEET CHK'D BY : _____	MDP _____
CROSS CHK'D BY : _____	ABS _____
APPROVED BY : _____	MDP _____
DATE : _____	MARCH 2021



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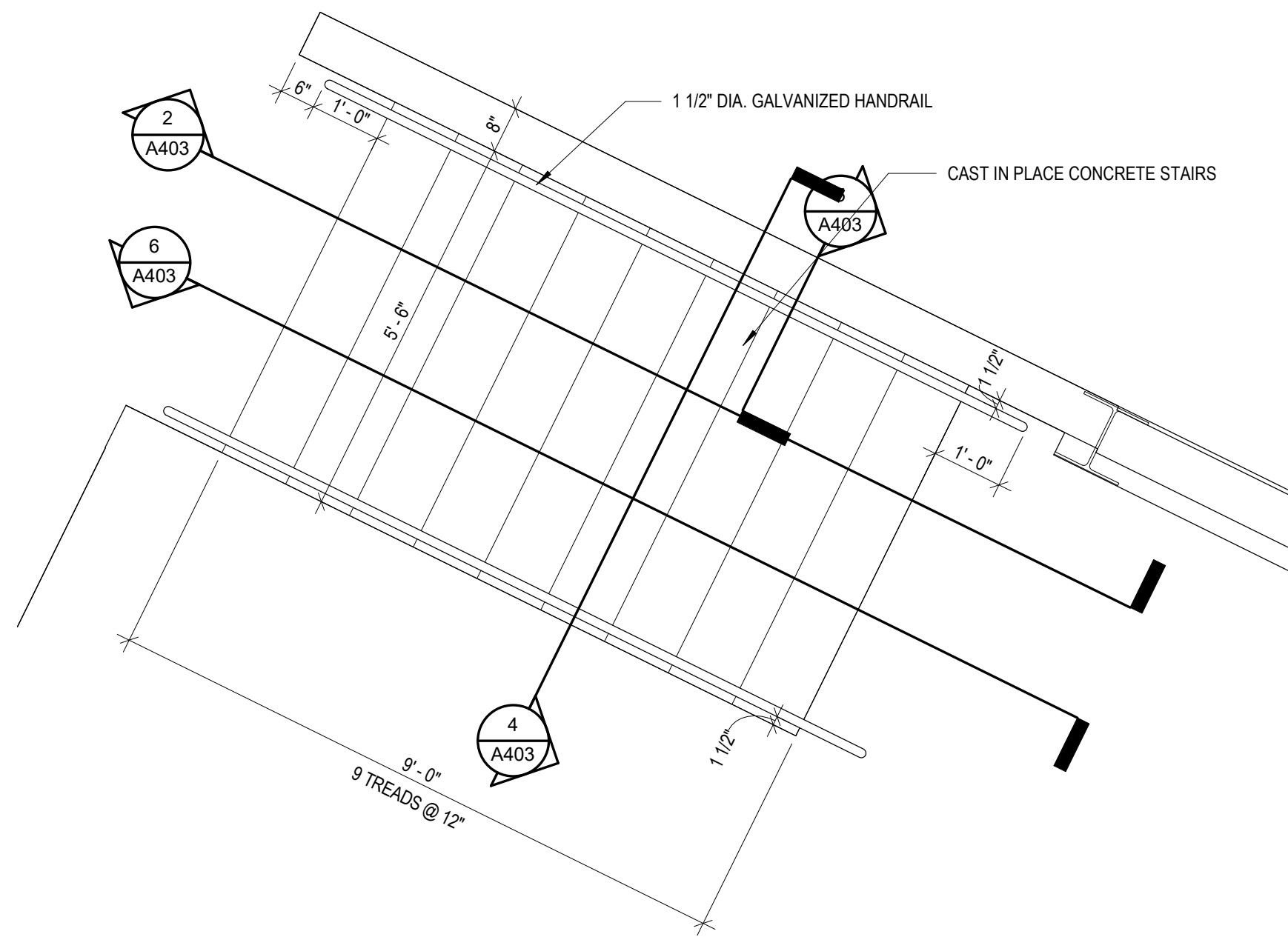


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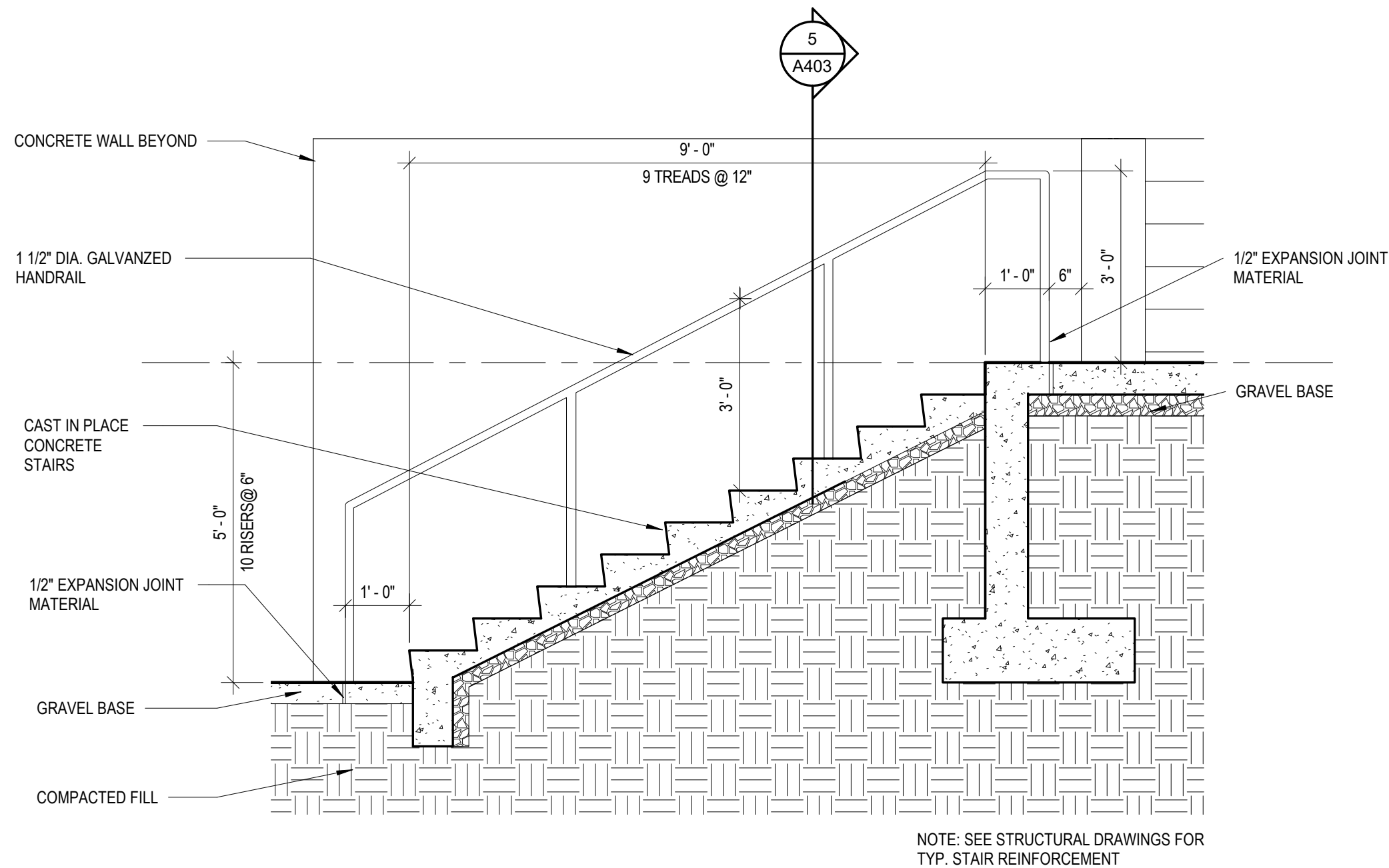
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NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

<p style="text-align: center;">ENLARGED STAIR PLANS AND DETAILS</p>	<p>PROJECT NO.: 133920-237812 FILE NAME: HA Project No. 1902 SHEET NO. A402</p>
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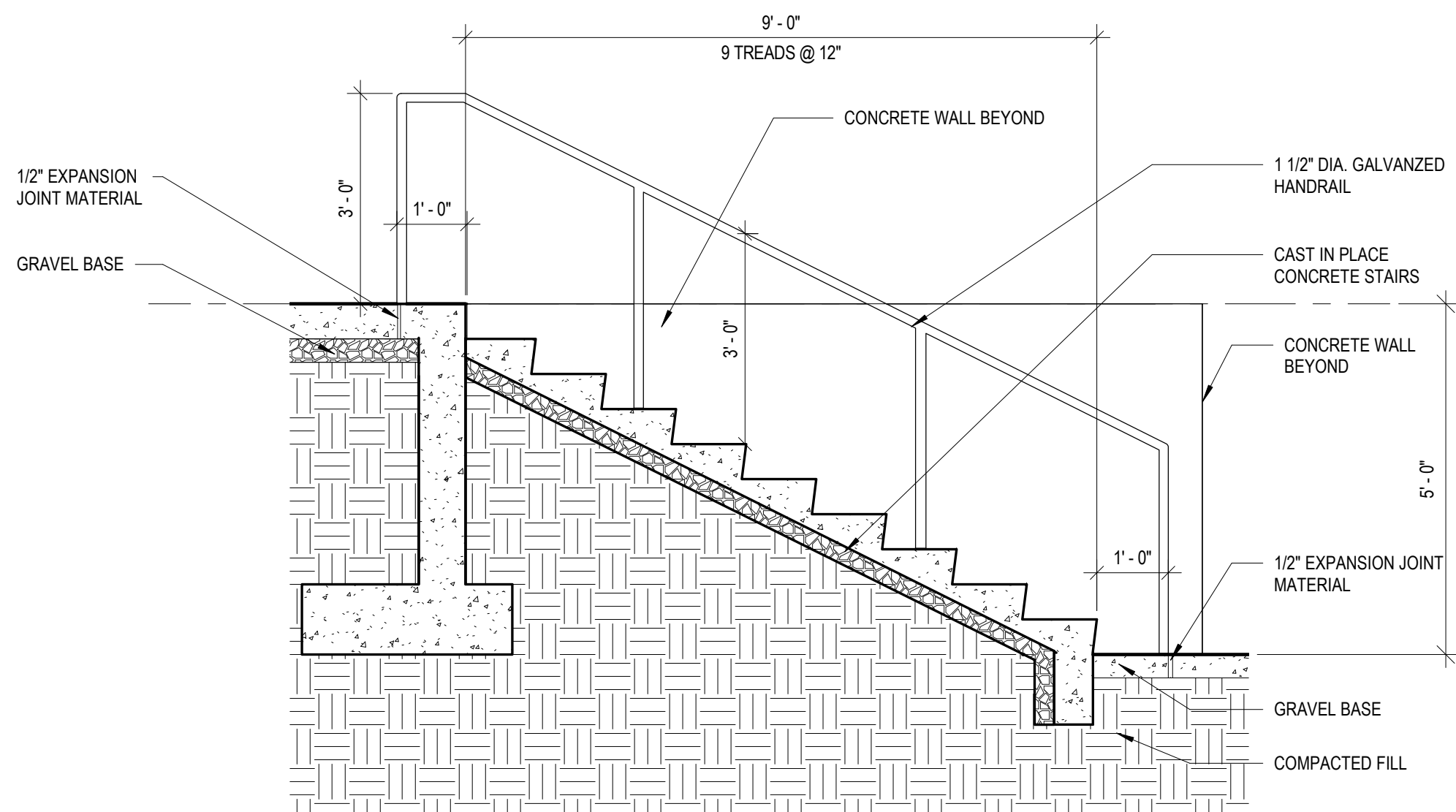
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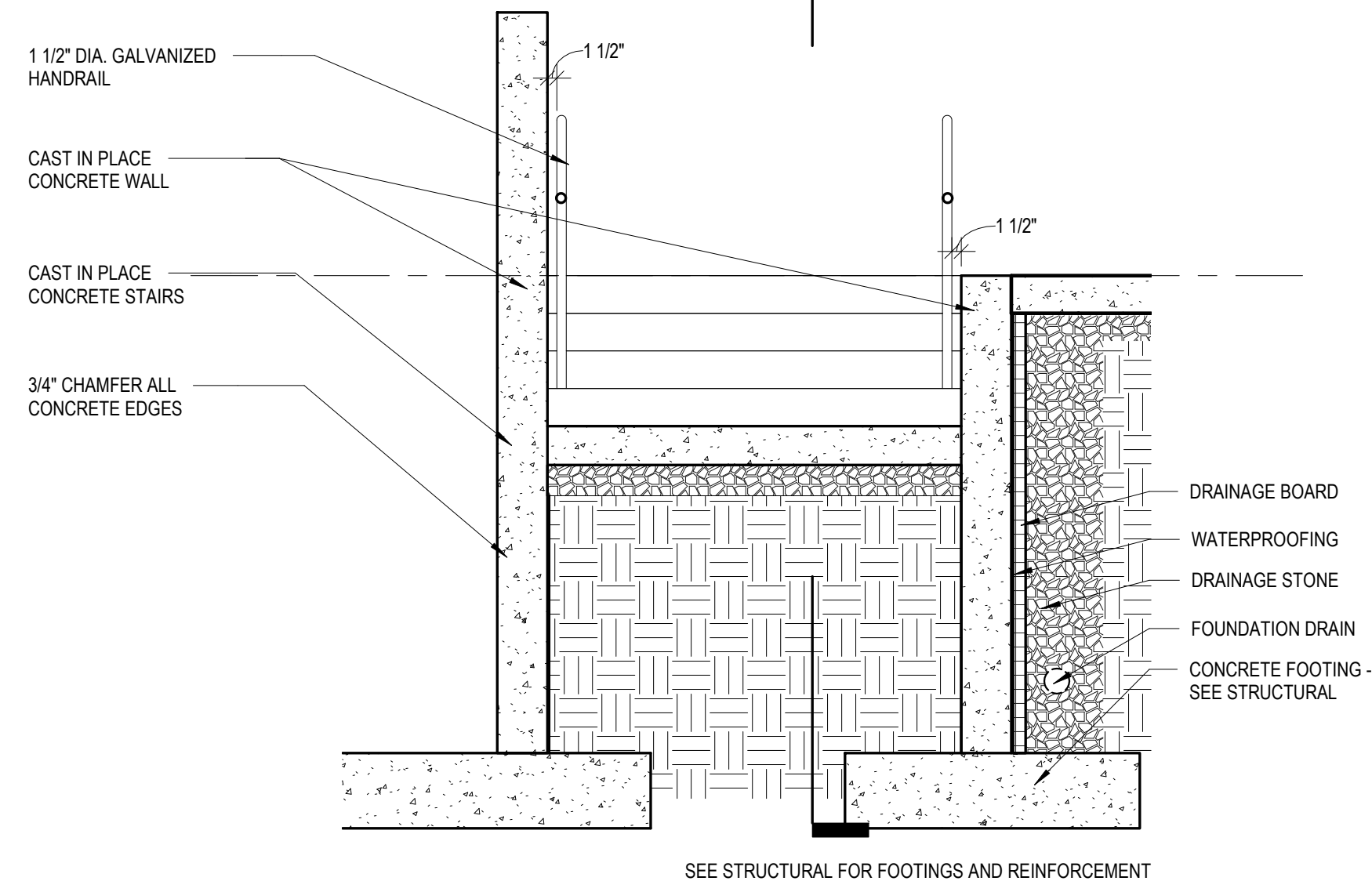
1 PLAN DETAIL@ STAIR B
A403 1/2" = 1'-0"



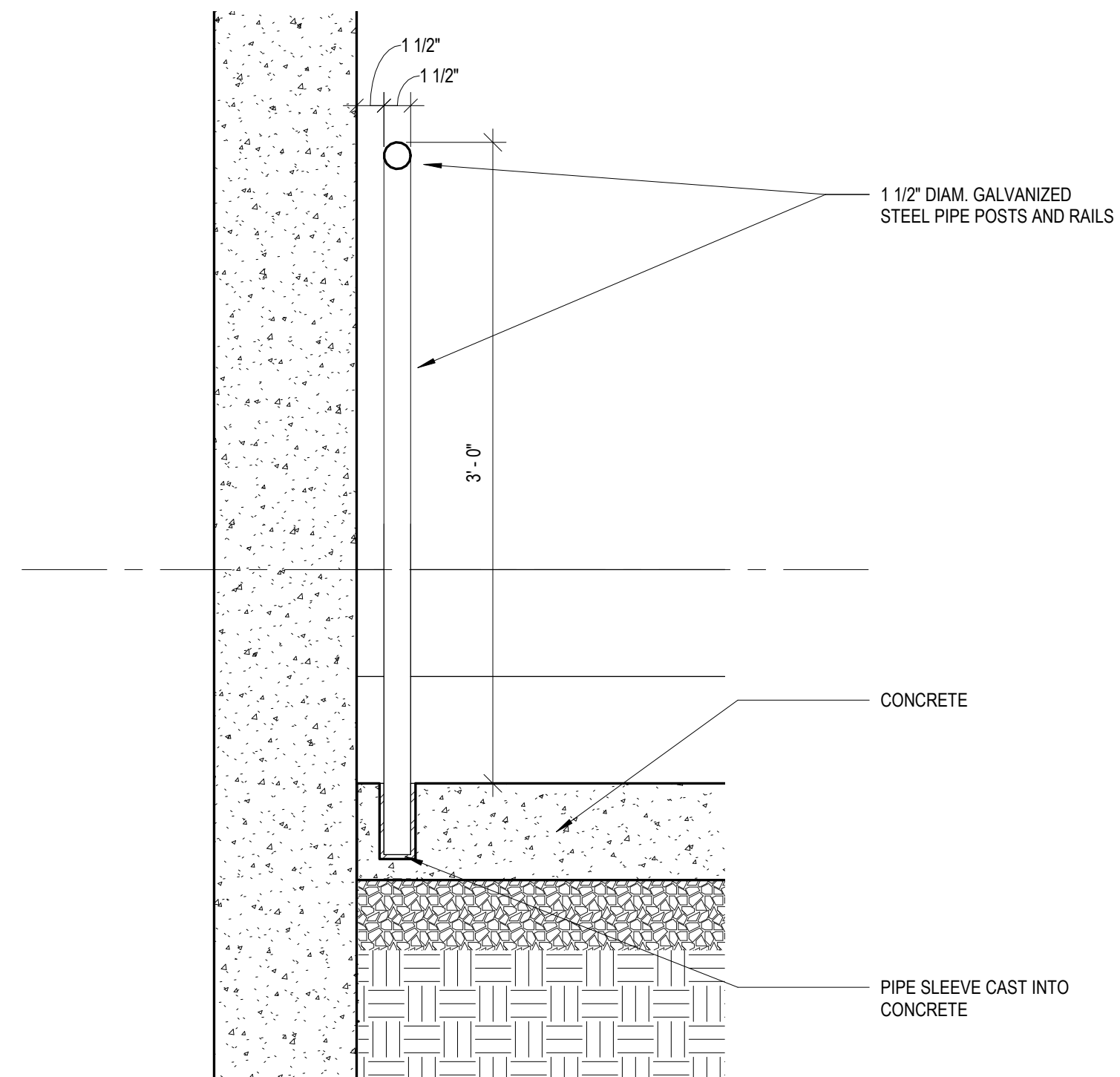
2 WALL SECTION @ STAIR B
A403 1/2" = 1'-0"



6 WALL SECTION @ STAIR B"
A403 1/2" = 1'-0"



4 SECTION @ STAIR B
A403 1/2" = 1'-0"



5 TYP RAILING DETAIL
A403 1 1/2" = 1'-0"

REV. NO.	DATE	DRWN	CHKD	REMARKS

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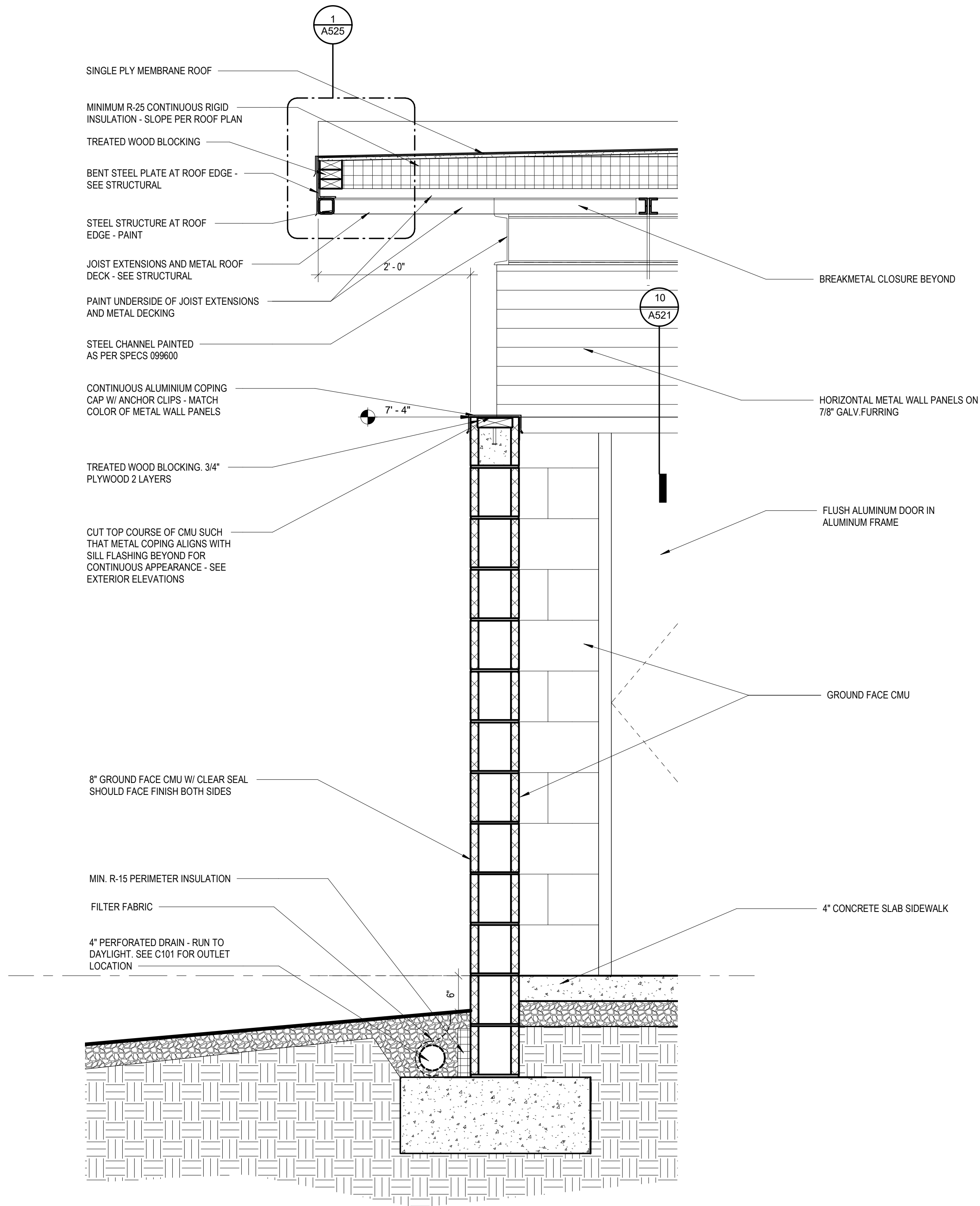
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ENLARGED STAIR PLANS AND
DETAILS II

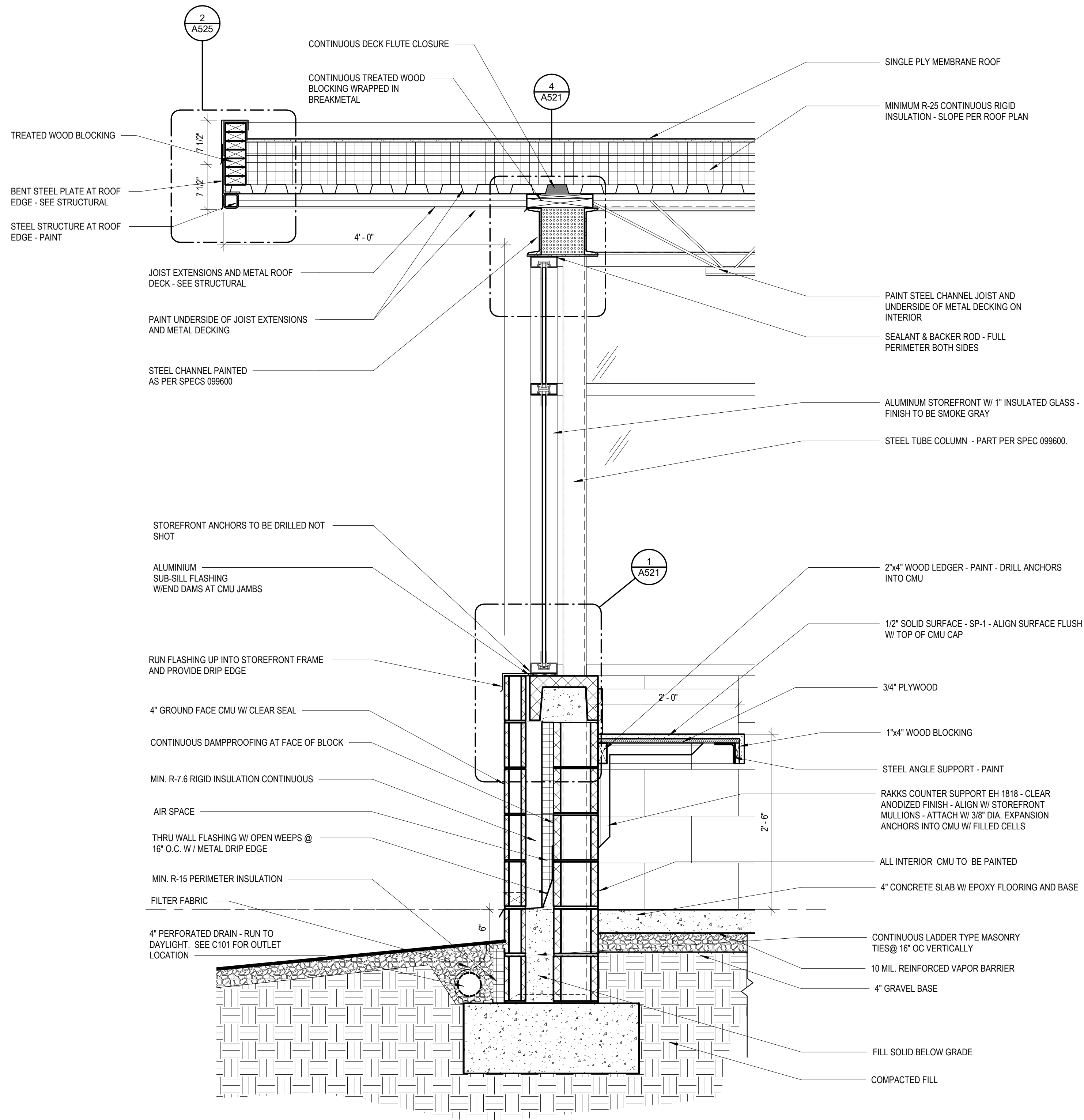
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FILE NAME: HA Project No. 1902
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1 WALL SECTION@ WING WALL
A421 1" = 1'-0"

R-VAULE TYPICAL WALL	
INTERIOR AIRFILM	R-0.68
8" CMU	R-1.04
RIGID INSULATION	R-7.6
AIRSPACE	R-1.0
4" CMU	R-0.71
EXTERIOR AIRFILM	R-0.17
TOTAL R-VALUE =	R-11.2
U-VALUE =	U-0.089



2 WALL SECTION @ STAFF BUILDING - COUNTER WALL
A421 1" = 1'-0"

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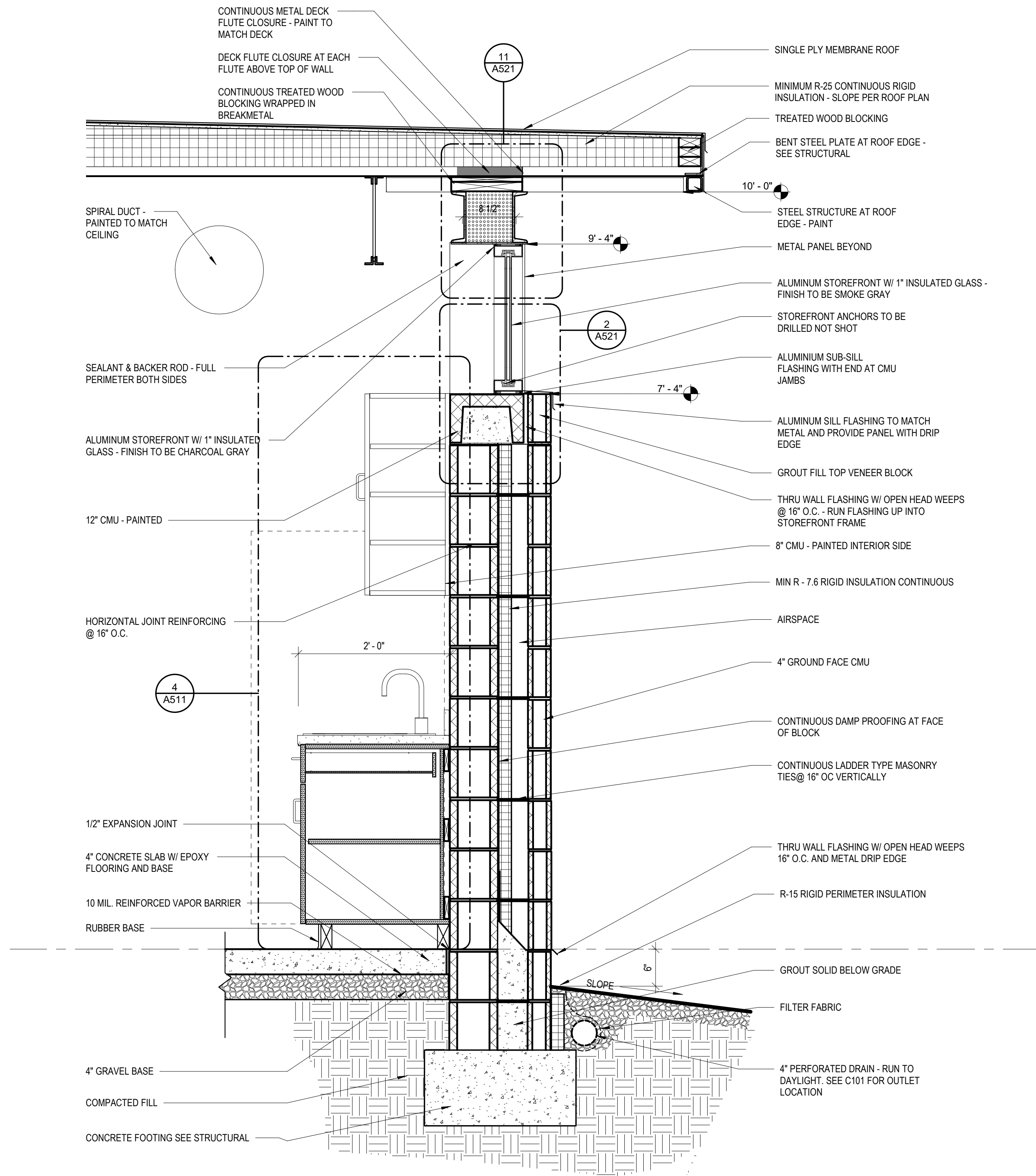
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CONVENIENCE CENTER REDEVELOPMENT PROJECT

WALL SECTIONS I

PROJECT NO.: 133920-237812
FILE NAME: HA Project No. 1902
SHEET NO.
A421

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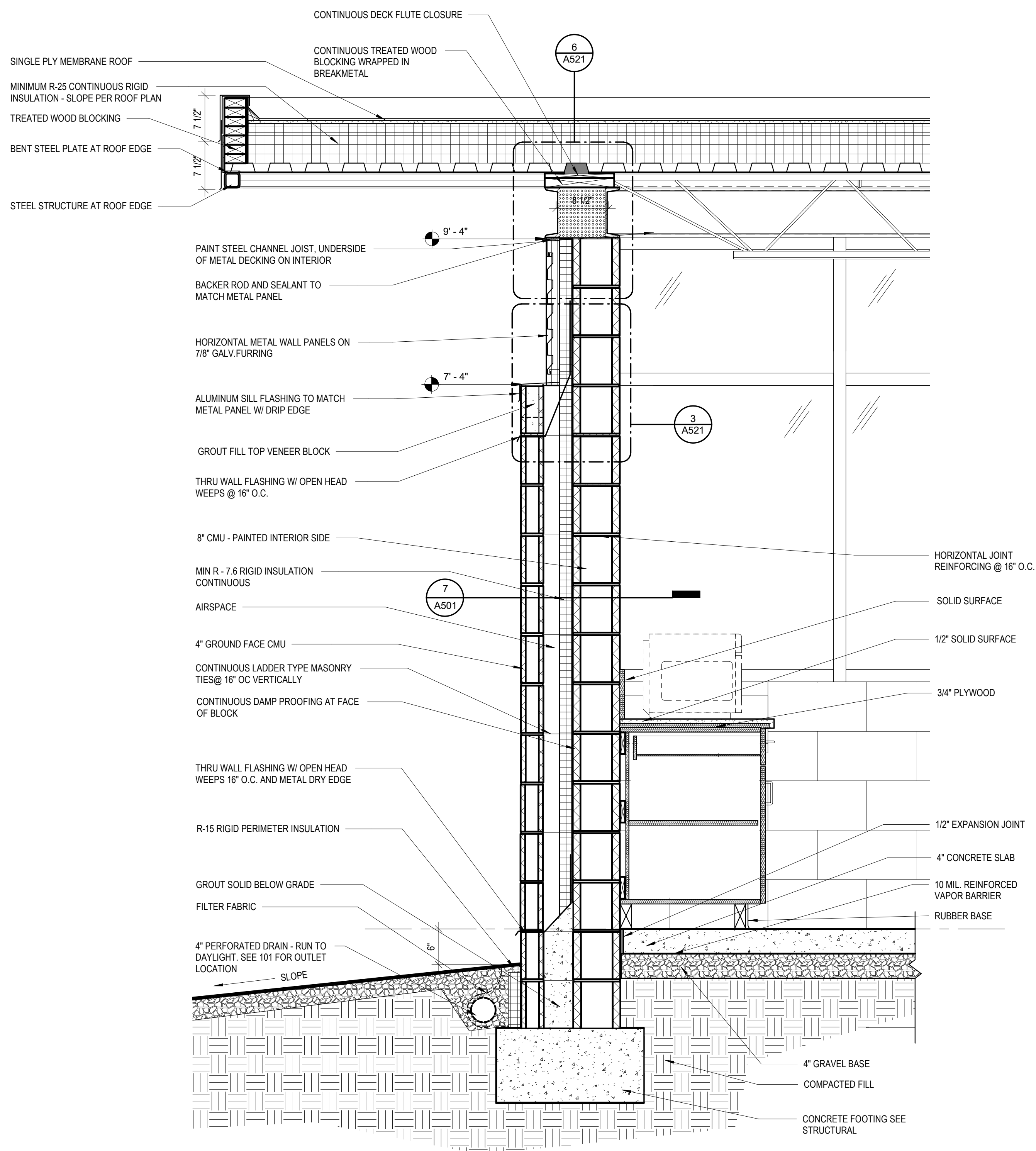
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1 WALL SECTION @ STAFF BUILDING WINDOW
1" = 1'-0"

R-VAULT TYPICAL WALL
INTERIOR AIRFILM
8" CMU
RIGID INSULATION
AIRSPACE
4" CMU
EXTERIOR AIRFILM
TOTAL R-VALUE =
U-VALUE =

R-0.68
R-1.04
R-7.6
R-1.0
R-0.71
R-0.17
R-11.2
U-0.089



2 WALL SECTION @ STAFF BUILDING METAL SIDING
1" = 1'-0"

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NEW HANOVER COUNTY, NORTH CAROLINA
NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

WALL SECTIONS II

PROJECT NO.: 133920-237812
FILE NAME: HA Project No. 1902
SHEET NO.

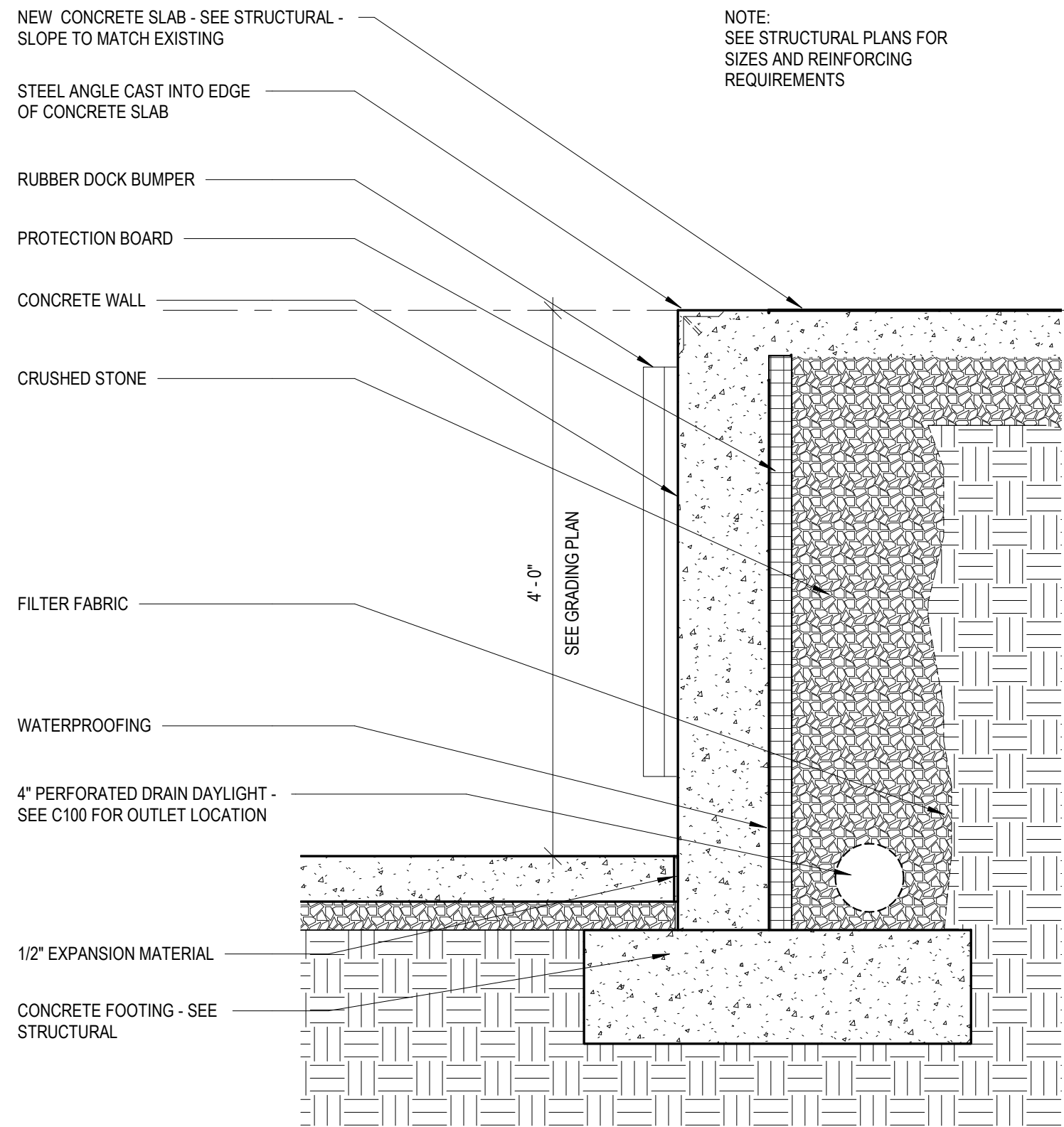
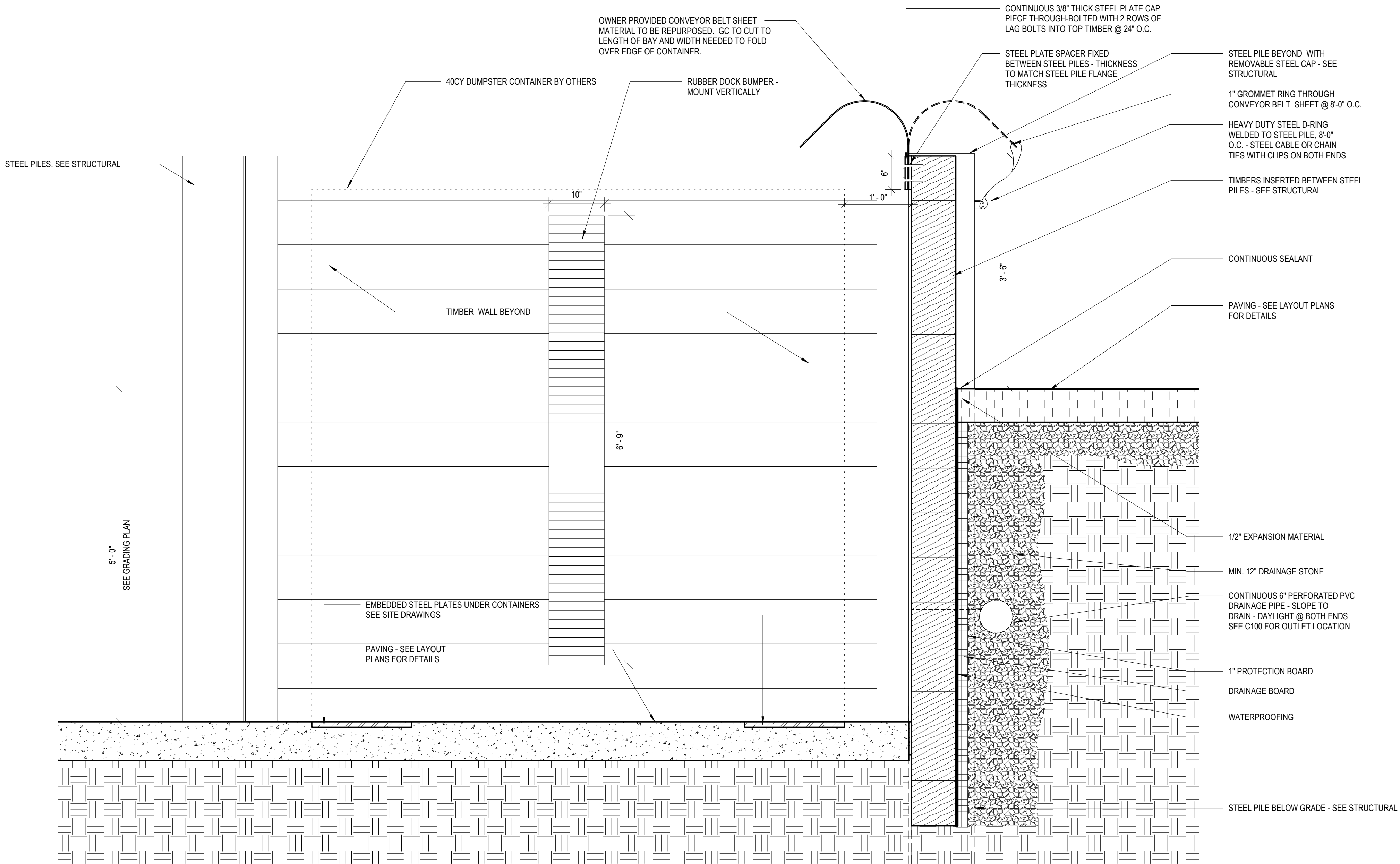
A422

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NOTES REGARDING OWNER PROVIDED CONVEYOR BELT MATERIAL:

- CONVEYOR BELT IS ONLY MATERIAL PROVIDED BY OWNER - ALL CUTTING, ATTACHMENTS, AND OTHER DETAILS ARE THE RESPONSIBILITY OF THE GC.
- THE MATERIAL IS 5' WIDE AND PRESUMED OF ENOUGH LENGTH FOR ALL BAYS.
- GC TO ASSEMBLE A MOCKUP AT ONE BAY FOR OWNER APPROVAL PRIOR TO CUTTING MATERIAL FOR THE REMAINING BAYS.
- PROVIDE THIS ASSEMBLY AT EACH BAY.



1 CONVENIENCE CENTER TIMBER RETAINING WALL SECTION
1" = 1'-0"

2 CONCRETE RETAINING WALL
1" = 1'-0"

REV. NO.	DATE	DRWN	CHKD	REMARKS

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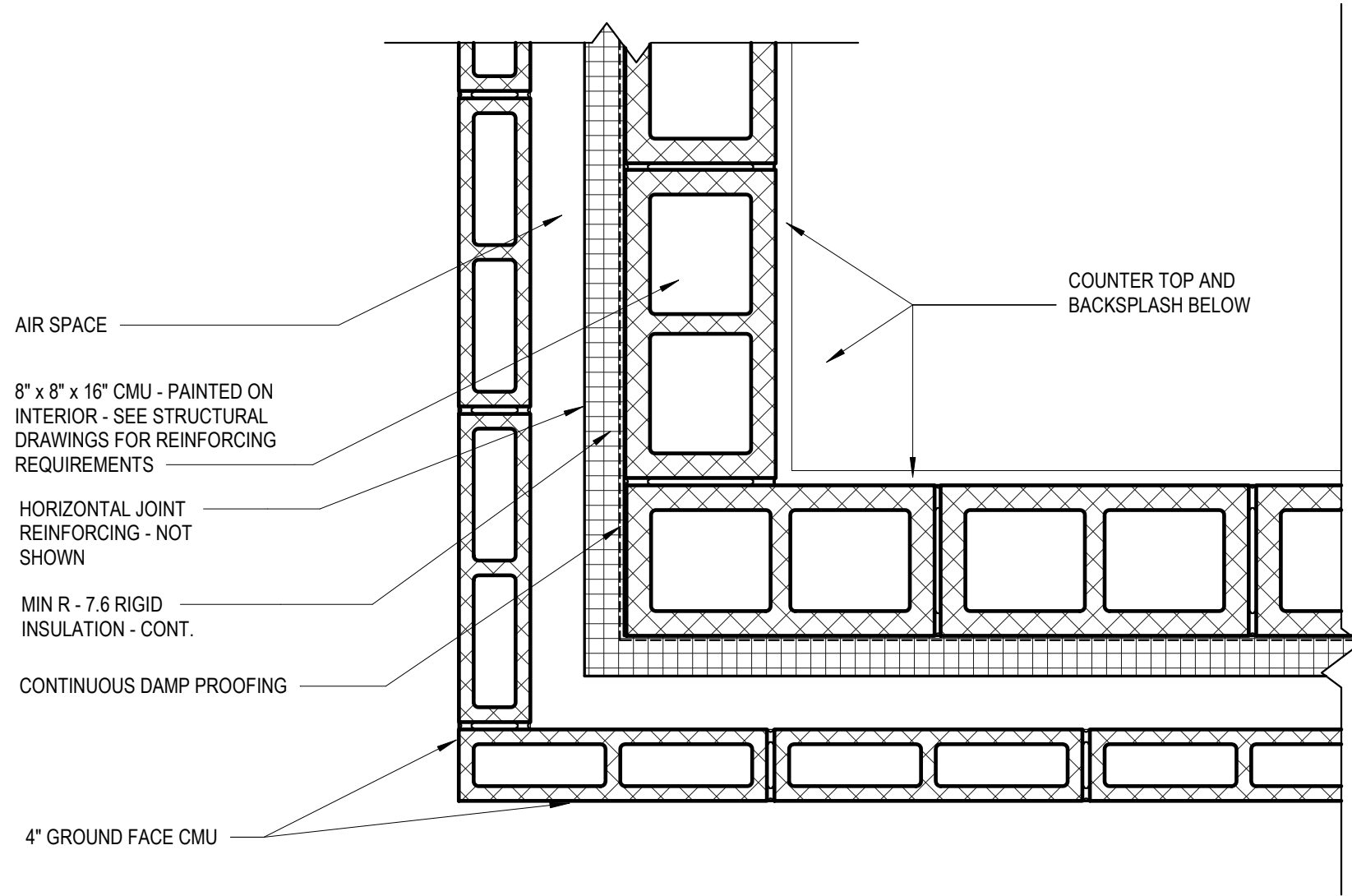
NEW HANOVER COUNTY, NORTH CAROLINA
NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

WALL SECTIONS III

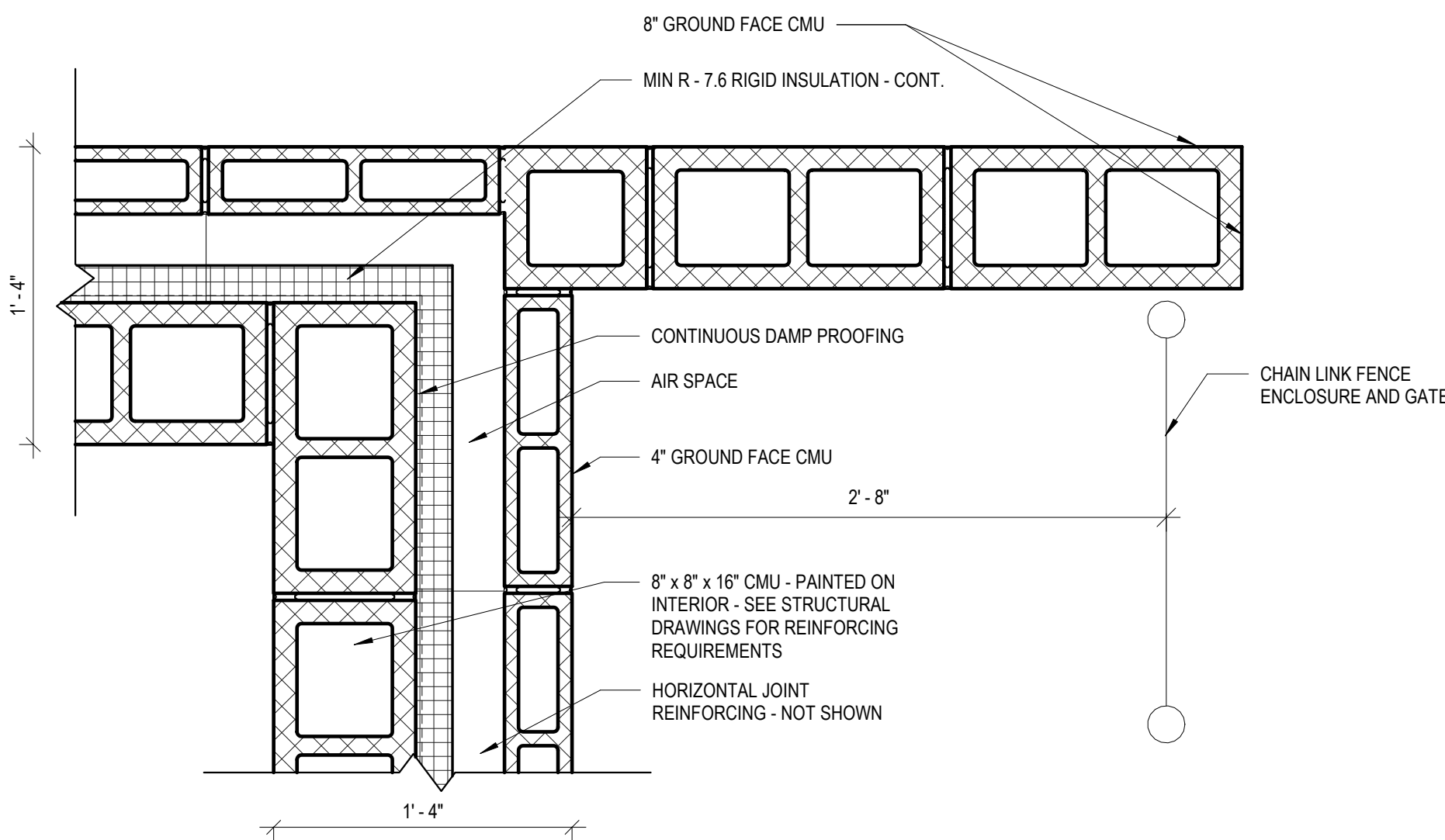
PROJECT NO.: 133920-237812
FILE NAME: HA Project No. 1902
SHEET NO.

A423

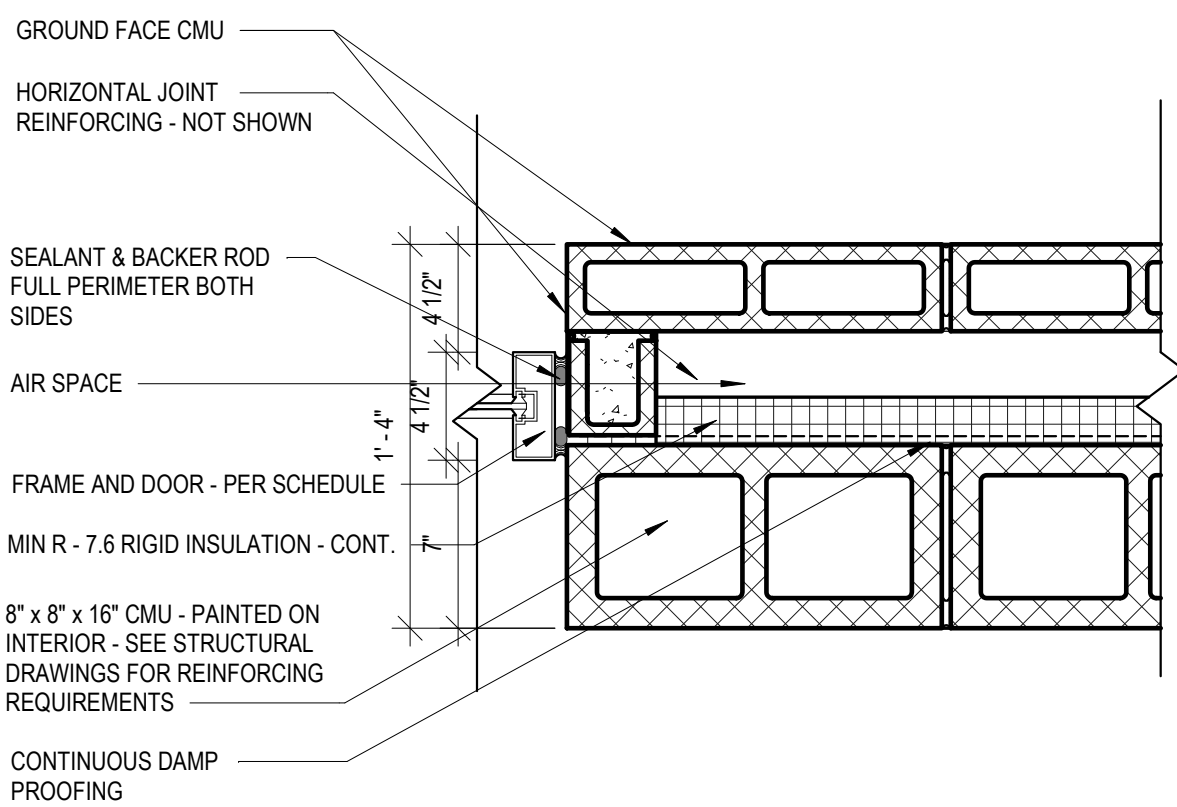
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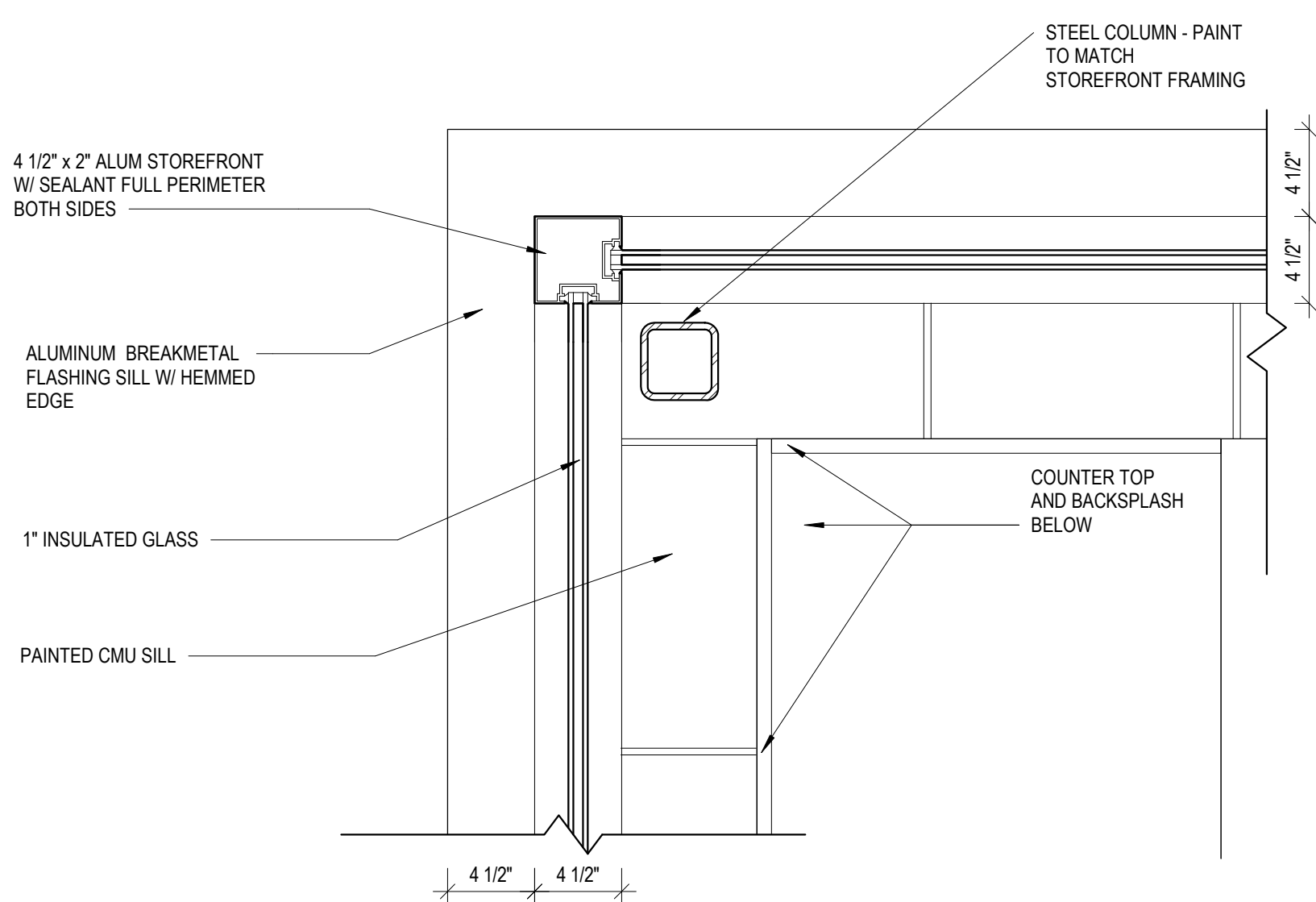
1 PLAN DETAIL @ CMU CORNER
A501 1 1/2" = 1'-0"



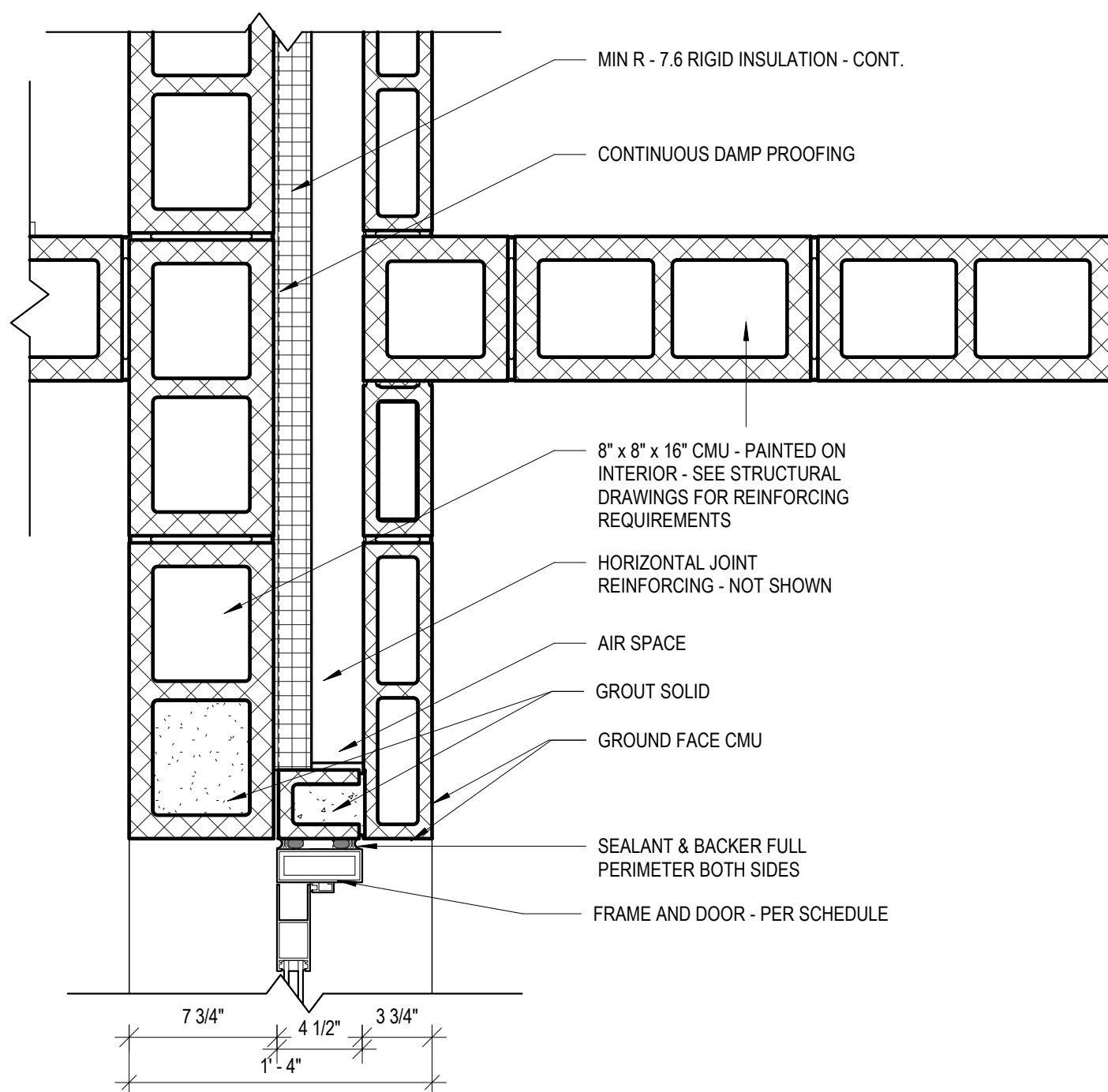
4 PLAN DETAIL @ OUTDOOR TOOL STORAGE
A501 1 1/2" = 1'-0"



7 PLAN DETAIL @ WINDOW B
A501 1 1/2" = 1'-0"

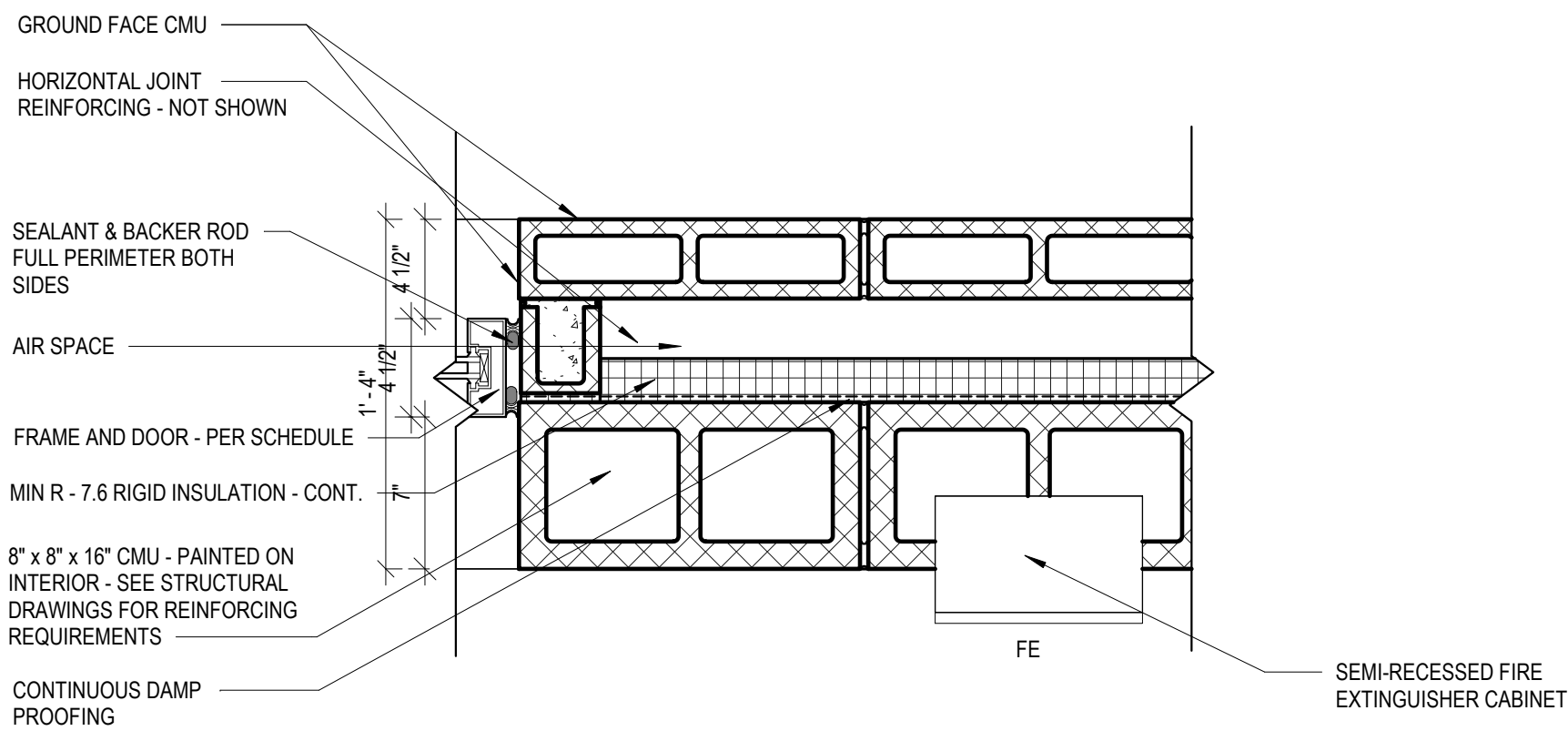


2 PLAN DETAIL @ STOREFRONT WINDOW CORNER
A501 1 1/2" = 1'-0"

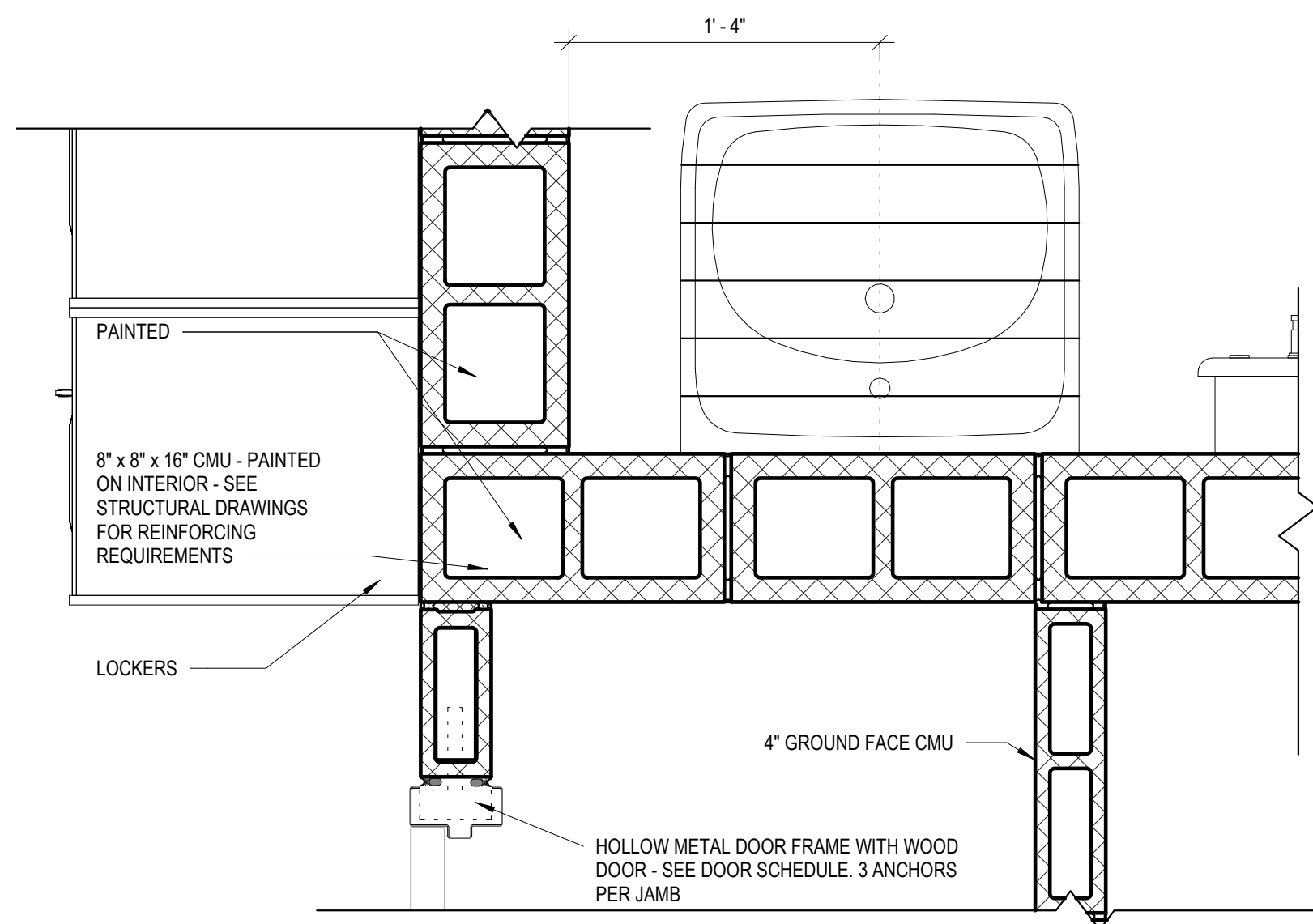


5 PLAN DETAIL @ MECHANICAL AND ELECTRICAL
A501 1 1/2" = 1'-0"

R-VALE TYPICAL WALL	
INTERIOR AIRFILM	R-0.68
8" CMU	R-1.04
RIGID INSULATION	R-7.6
AIRSPACE	R-1.0
4" CMU	R-0.71
EXTERIOR AIRFILM	R-0.17
TOTAL R-VALUE =	R-11.2
U-VALUE =	U-0.089



3 PLAN DETAIL @ DOOR 100
A501 1 1/2" = 1'-0"



6 PLAN DETAIL @ CLOSET WALL
A501 1 1/2" = 1'-0"

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: MDP
DRAWN BY: ABS
SHEET CHK'D BY: MDP
CROSS CHK'D BY: ABS
APPROVED BY: MDP
DATE: MARCH 2021

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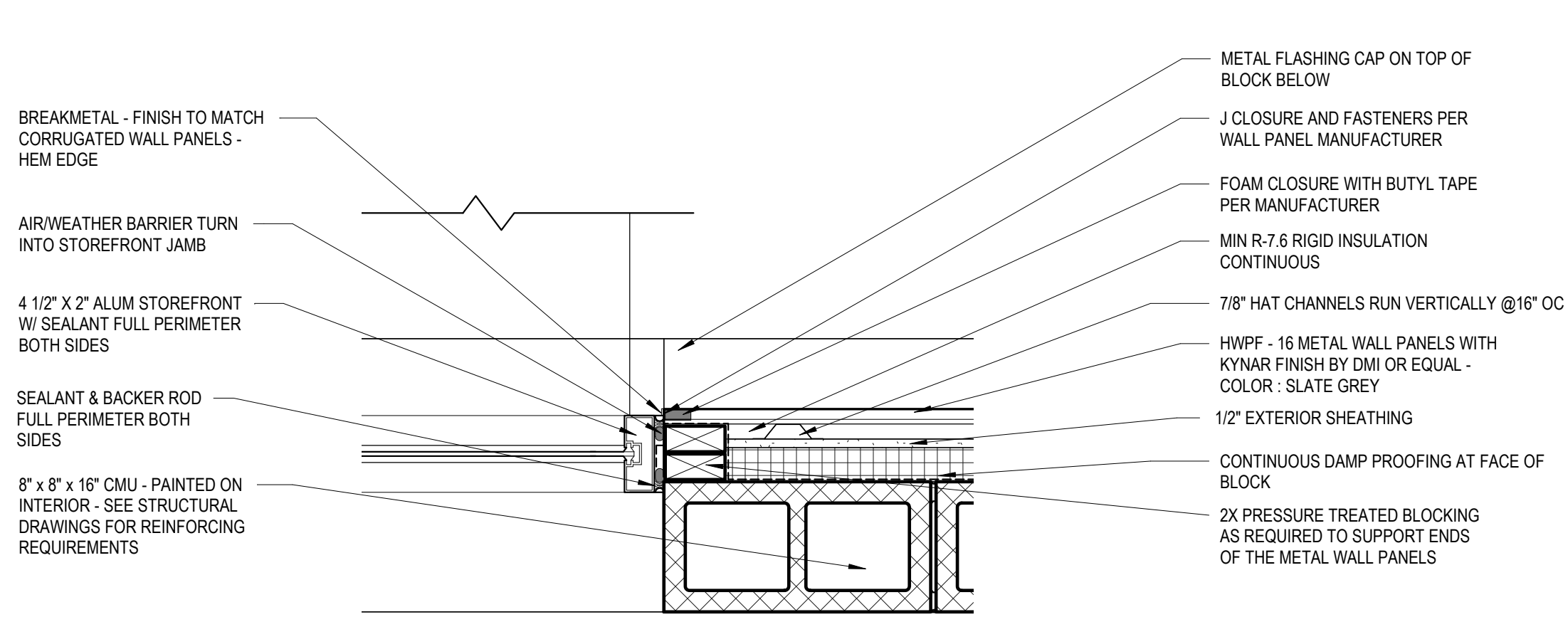
PLAN DETAILS I

PROJECT NO.: 133920-237812
FILE NAME: HA Project No. 1902
SHEET NO.

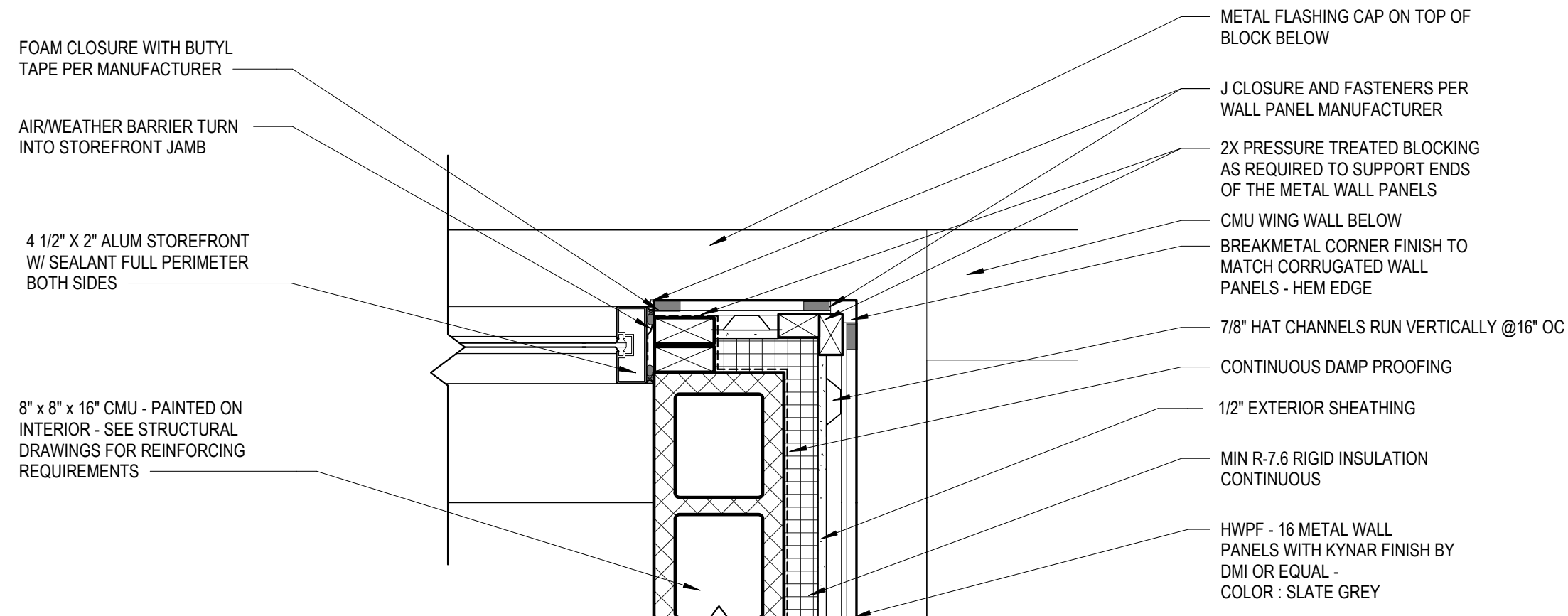
A501

PERMIT SET - NOT FOR CONSTRUCTION

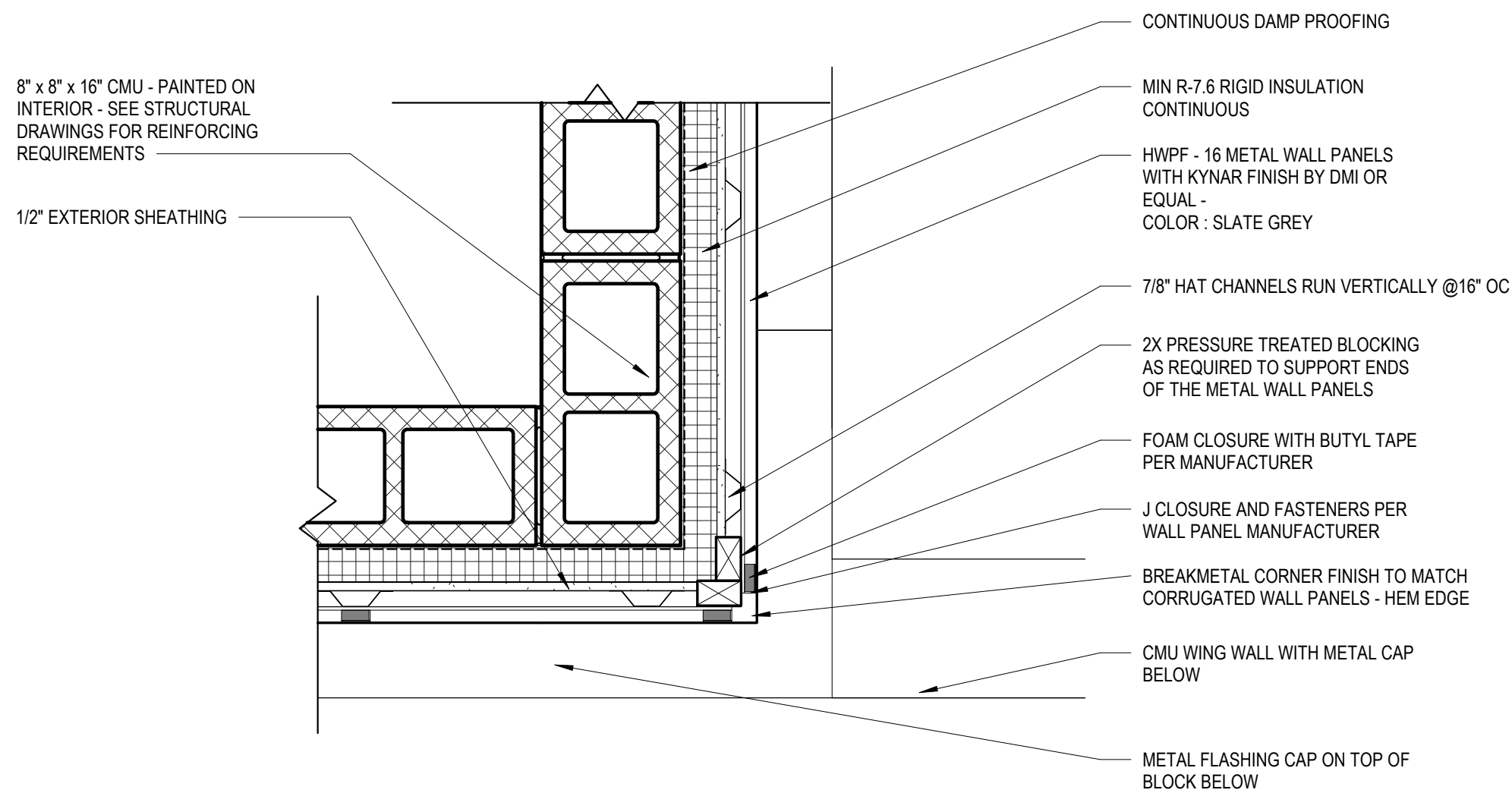
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4 PLAN DETAIL - STAFF BUILDING CLERESTORY - OPENING AND CMU JUNCTION'
A502 1 1/2" = 1'-0"



5 PLAN DETAIL - STAFF BUILDING CLERESTORY - METAL PANEL CORNER AND OPENING'
A502 1 1/2" = 1'-0"



6 PLAN DETAIL - STAFF BUILDING CLERESTORY - CMU AND METAL PANEL CORNER'
A502 1 1/2" = 1'-0"

REV. NO.	DATE	DRWN	CHKD	REMARKS

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CROSS CHK'D BY: ABS
APPROVED BY: MDP
DATE: MARCH 2021

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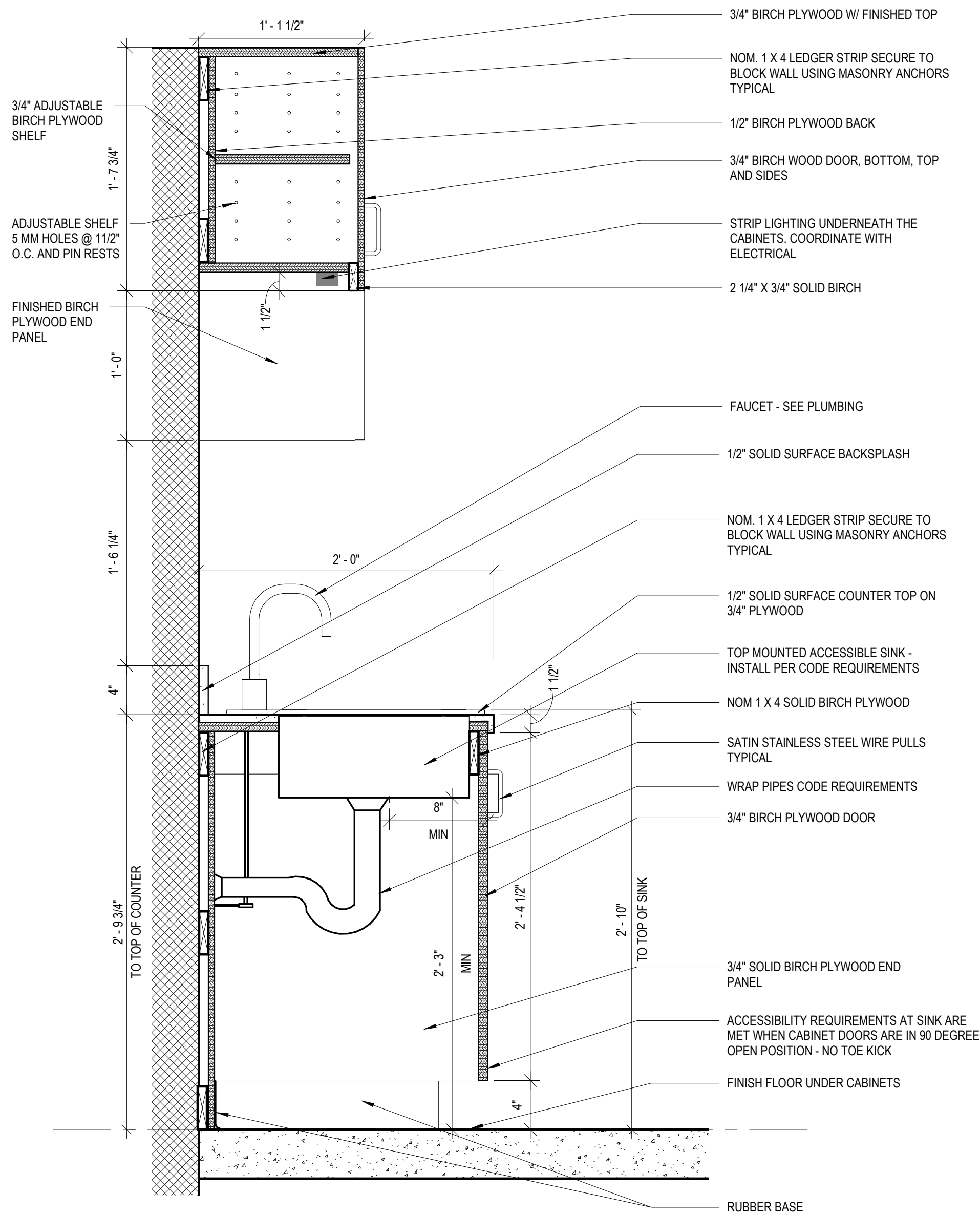
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PLAN DETAILS II

PROJECT NO.: 133920-237812
FILE NAME: HA Project No. 1902
SHEET NO.

A502

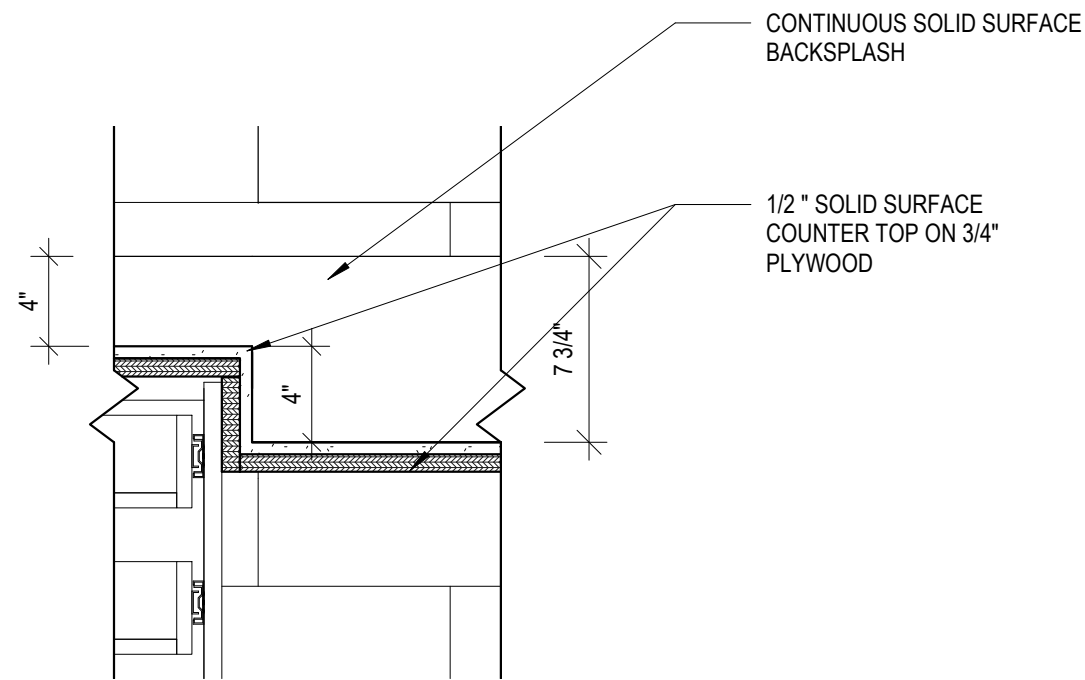
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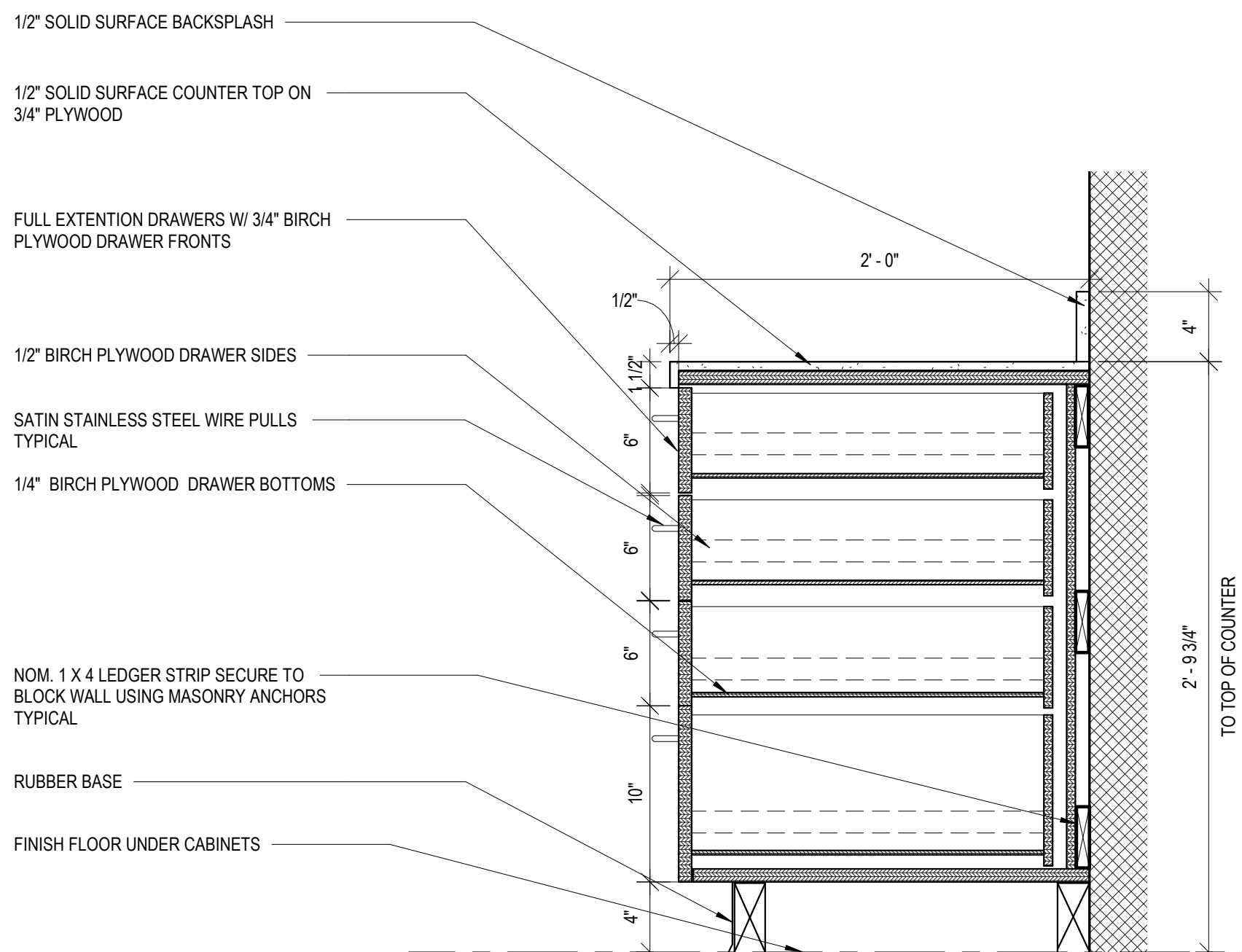
1 SECTION THROUGH SINK CABINET
A511 1 1/2" = 1'-0"

TYPICAL MILLWORK NOTES

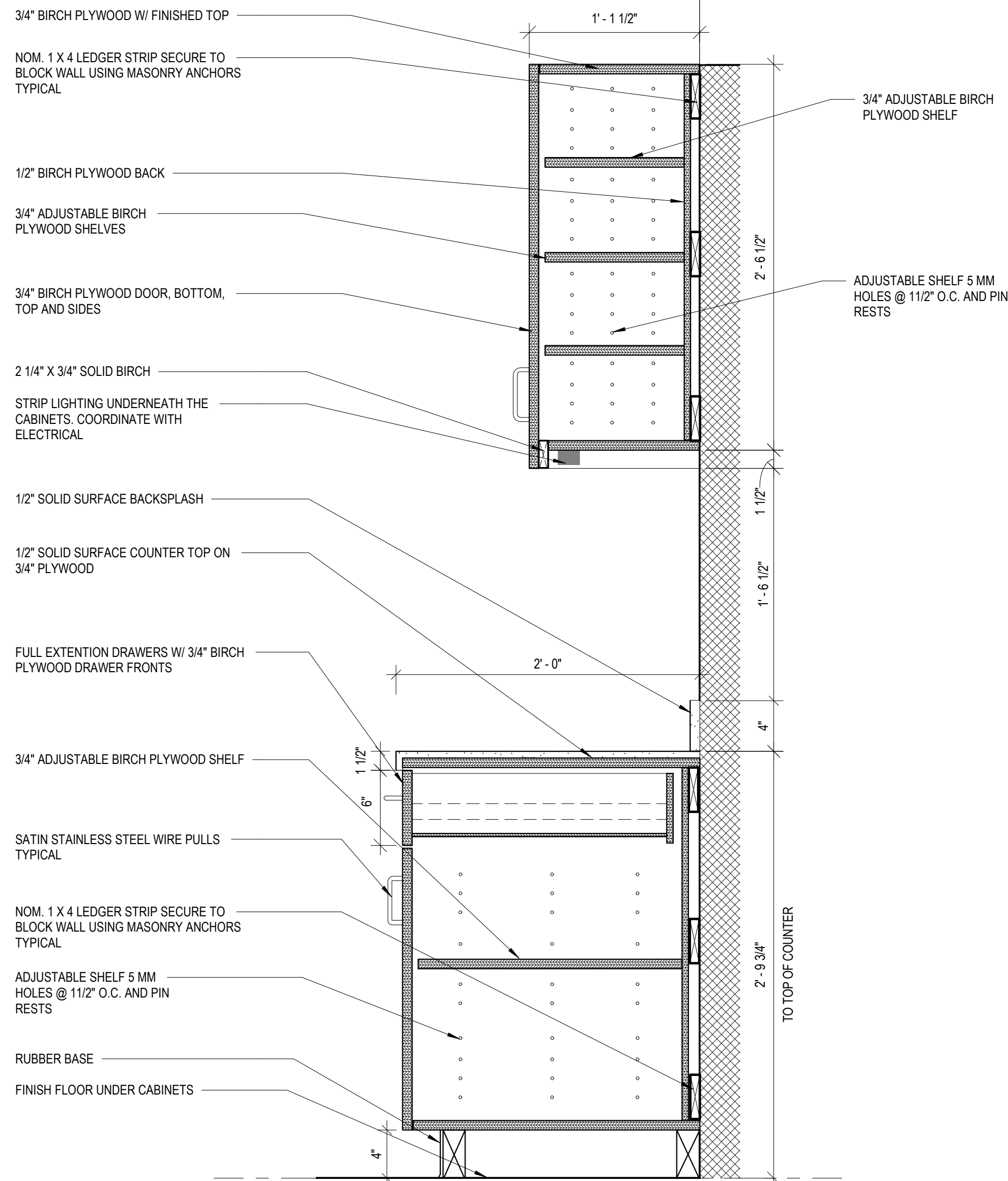
- ALL CABINET AND DRAWER SURFACES - INTERIOR AND EXTERIOR TO BE BIRCH PLYWOOD. ALL EXPOSED EDGES TO BE 3/4" X 3/4" SOLID BIRCH T + G SOLID WOOD.



2 SECTION THROUGH COUNTER TOP
A511 1 1/2" = 1'-0"



3 SECTION THROUGH DRAWERS
A511 1 1/2" = 1'-0"



4 SECTION THROUGH TALL UPPER CABINETS AND BASE CABINETS
A511 1 1/2" = 1'-0"

REV. NO.	DATE	DRWN	CHKD	REMARKS

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DRAWN BY: _____ ABS_
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CROSS CHK'D BY: _____ ABS_
APPROVED BY: _____ MDP_
DATE: _____ MARCH 2021

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MILLWORK DETAILS

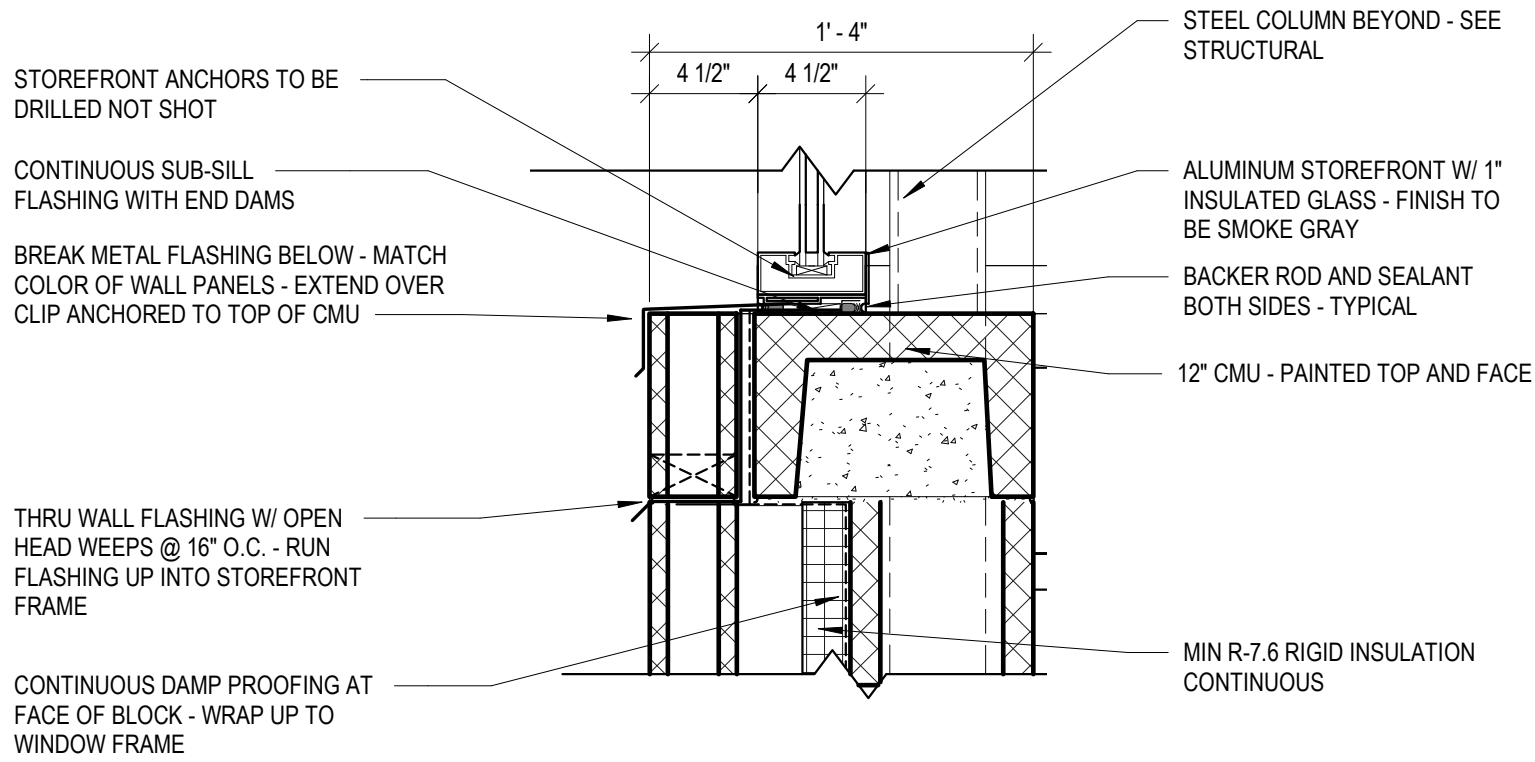
PROJECT NO.: 133920-237812
FILE NAME: HA Project No. 1902

SHEET NO.

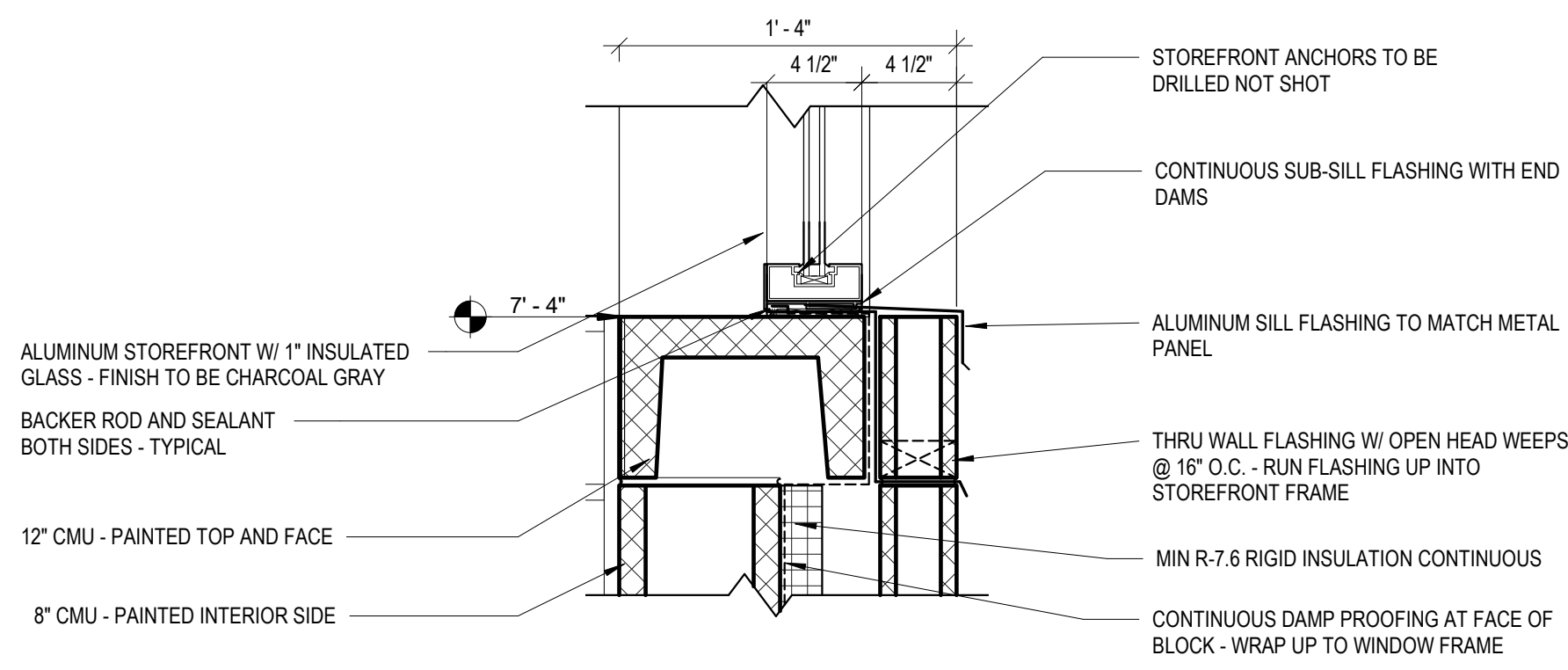
A511

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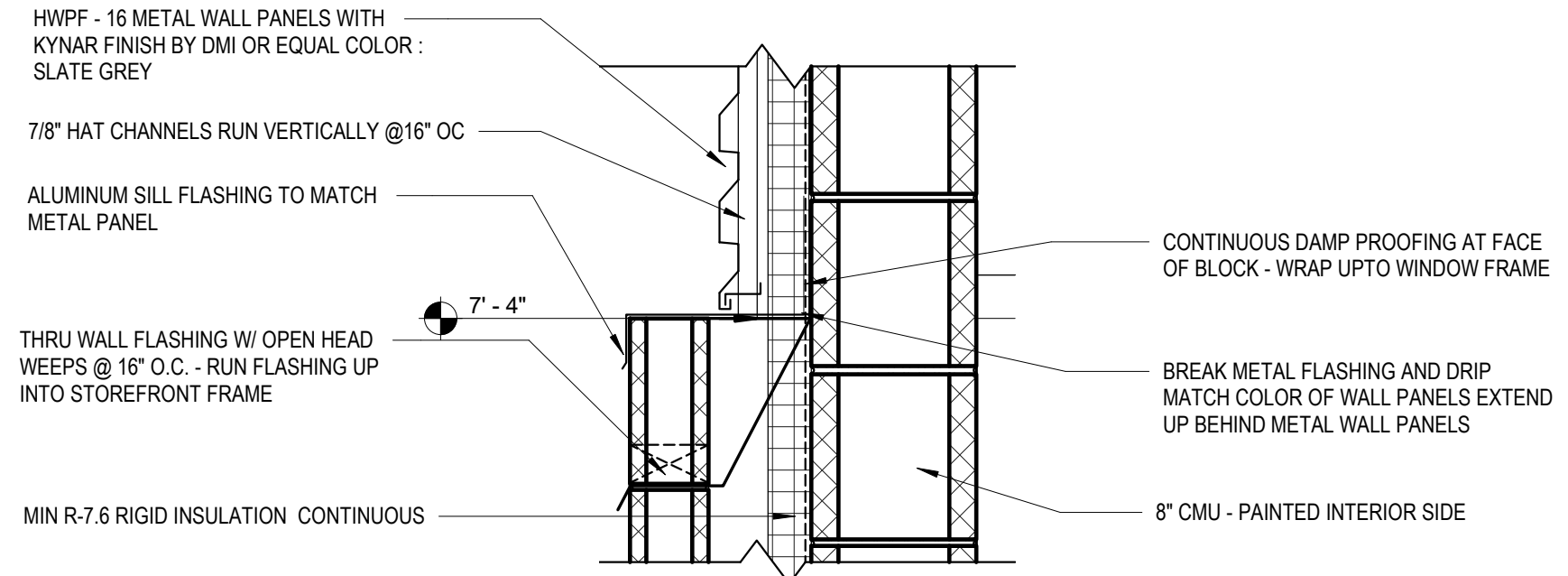
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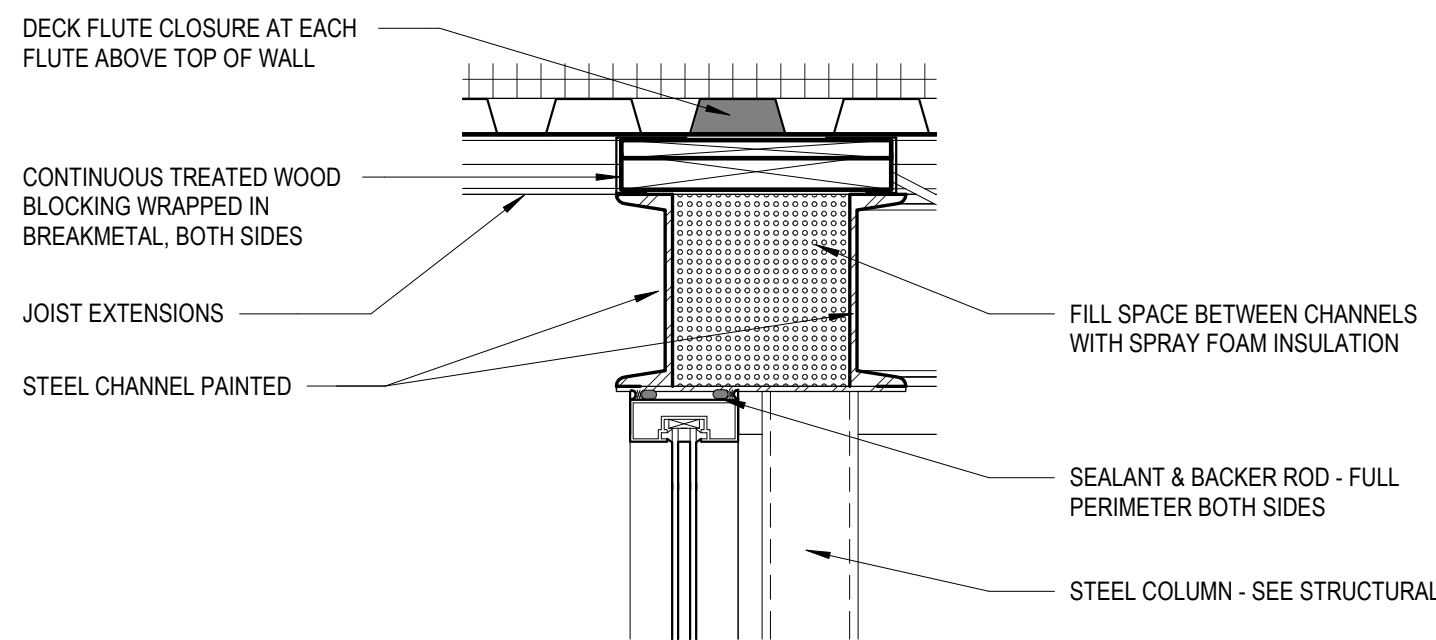
1 SILL - WINDOW A & B
A521 1 1/2" = 1'-0"



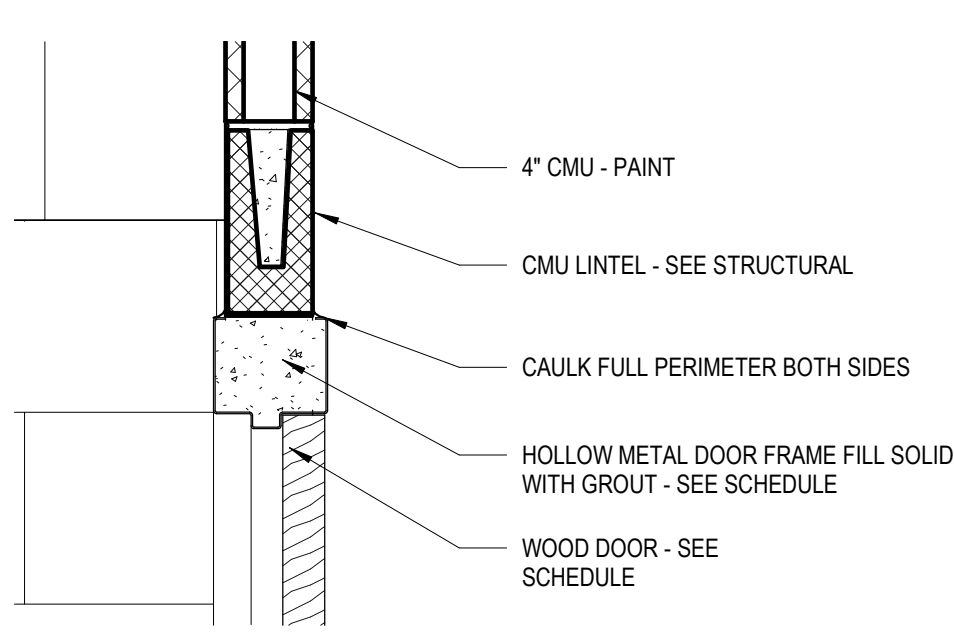
2 SILL - WINDOW C & D
A521 1 1/2" = 1'-0"



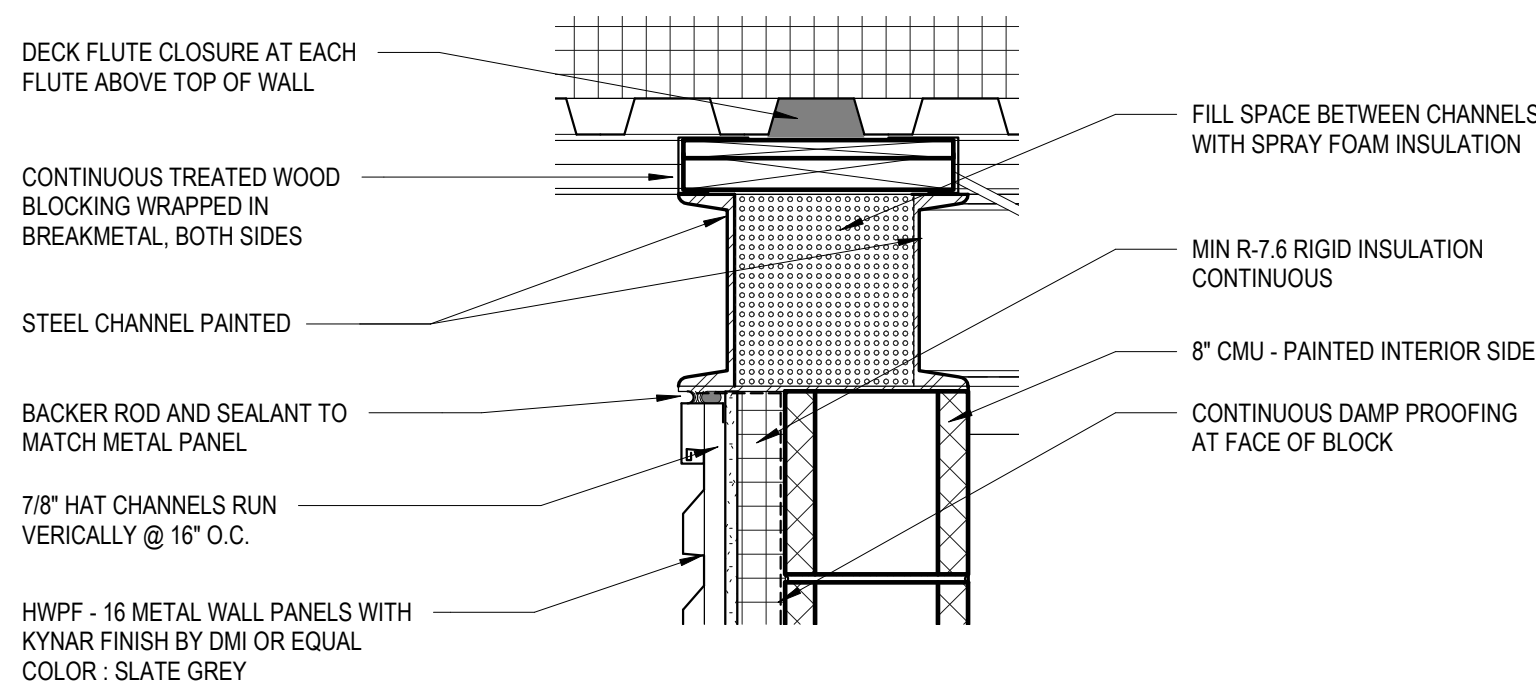
3 SILL - CMU TO METAL PANEL
A521 1 1/2" = 1'-0"



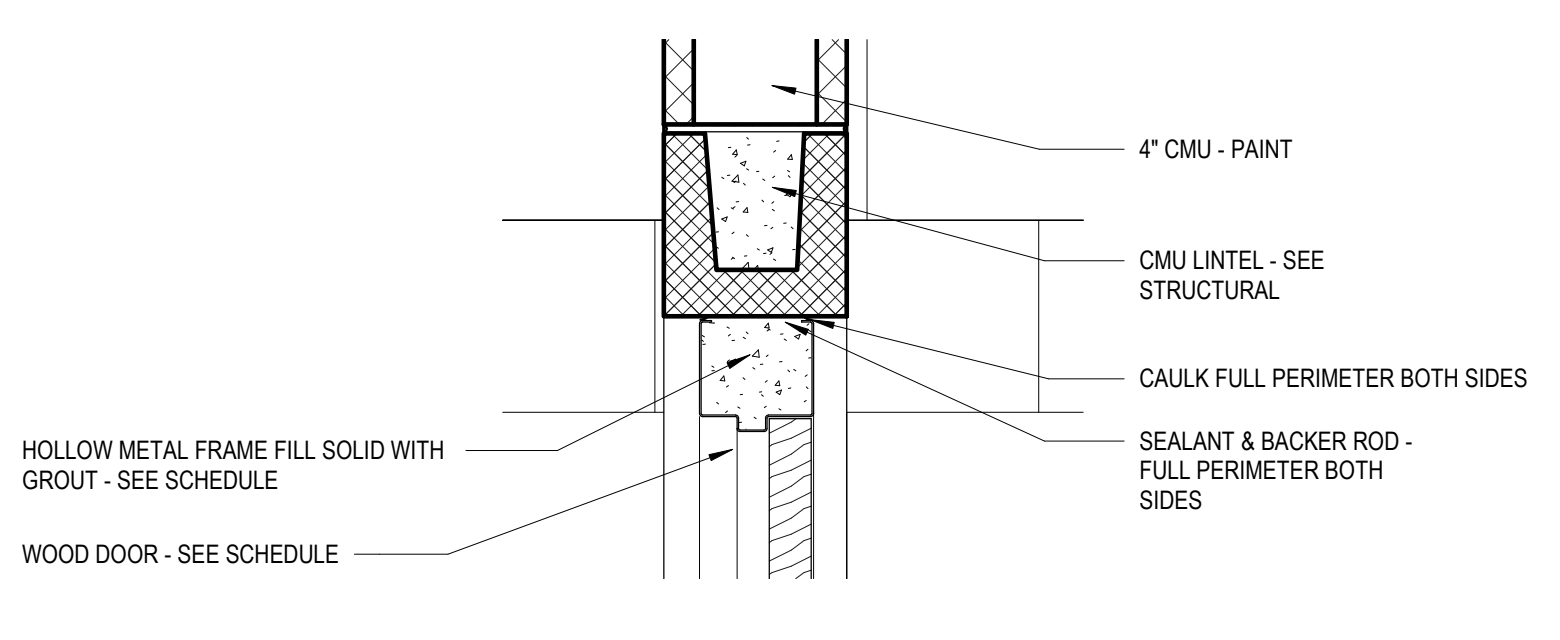
4 HEAD - WINDOWS A,B,C & D
A521 1 1/2" = 1'-0"



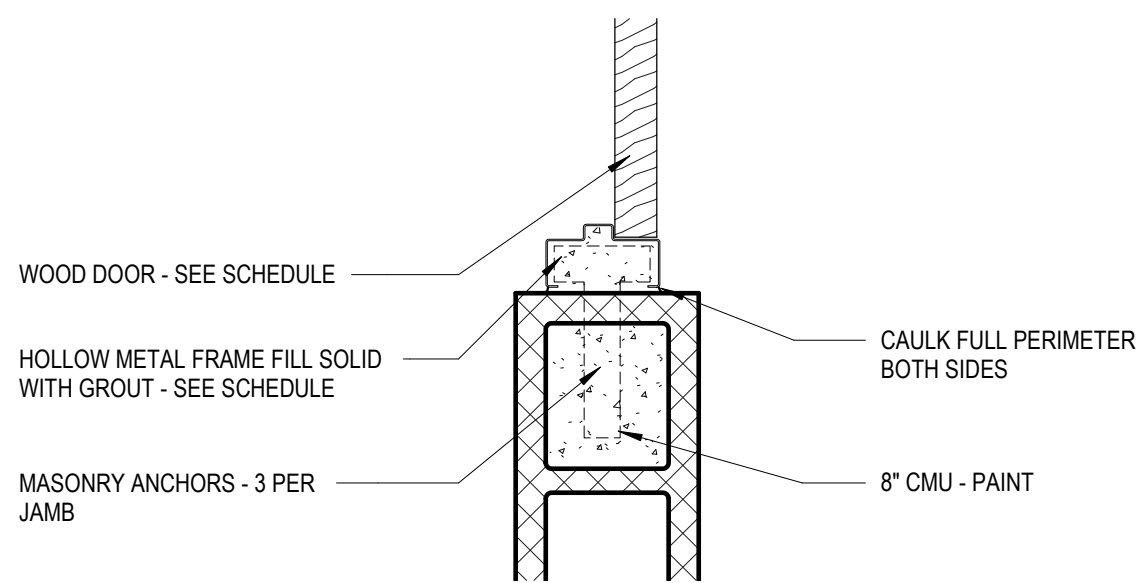
5 HEAD - INTERIOR DOOR 4" CMU
A521 1 1/2" = 1'-0"



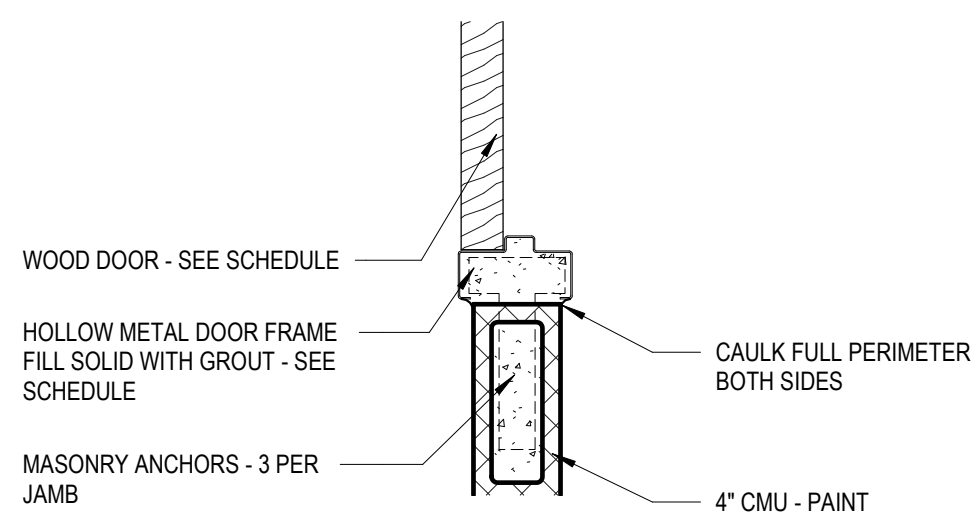
6 DETAIL@ TOP OF METAL PANEL
A521 1 1/2" = 1'-0"



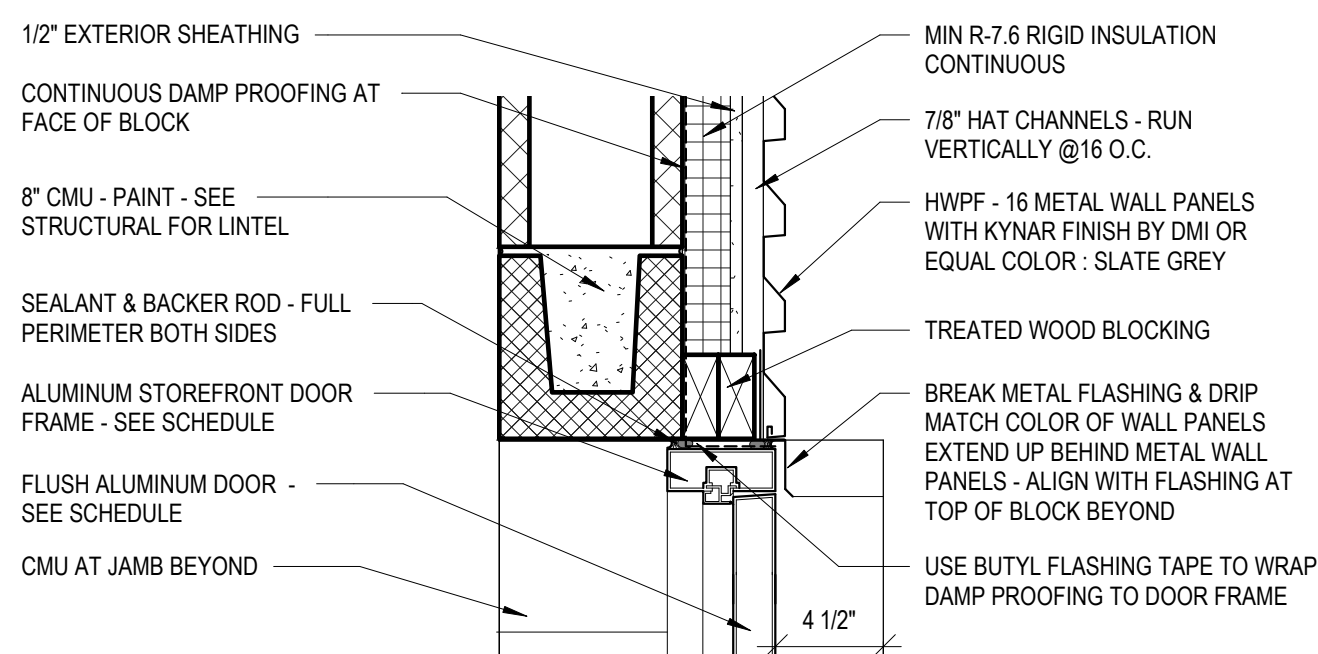
7 HEAD - INTERIOR DOOR 8" CMU
A521 1 1/2" = 1'-0"



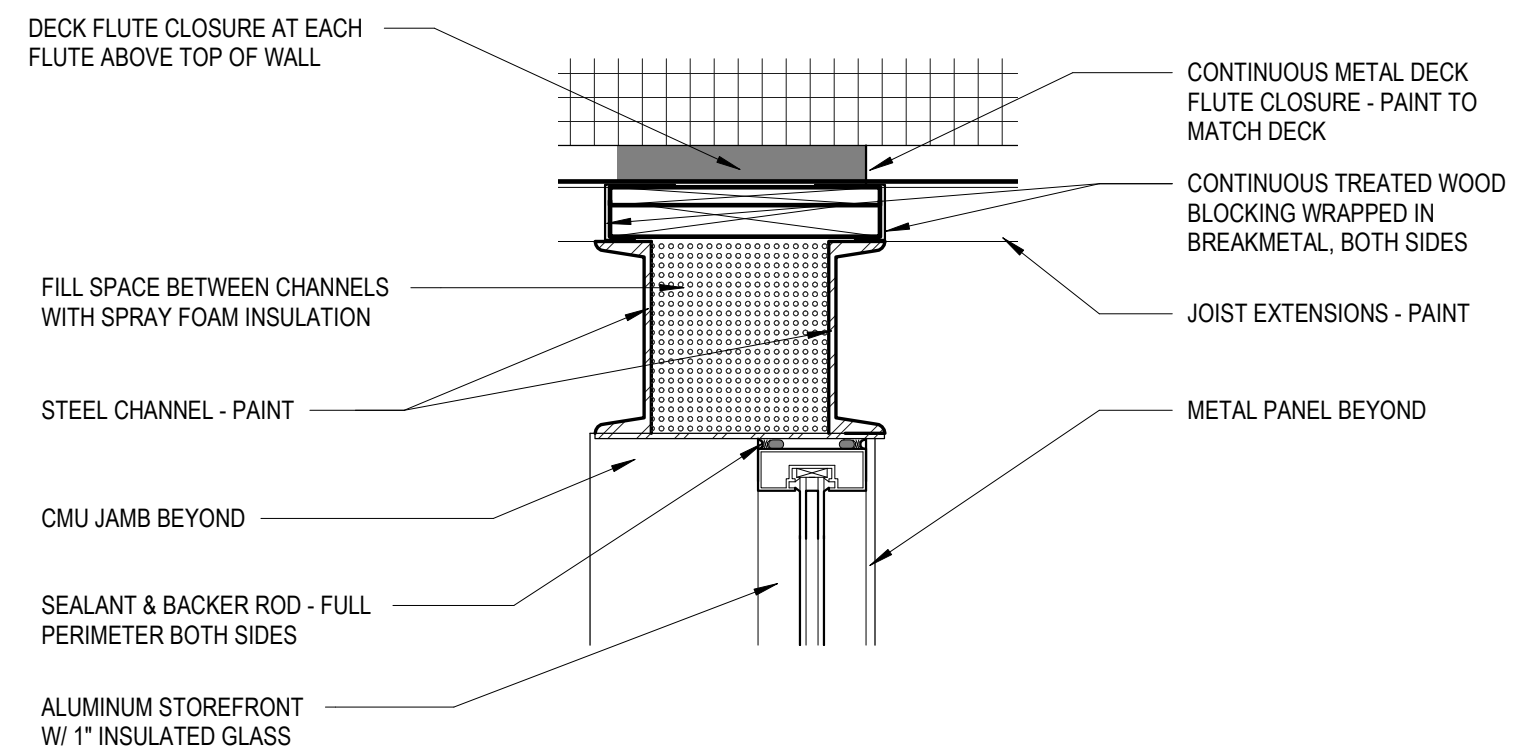
8 JAMB - INTERIOR DOOR 8" CMU
A521 1 1/2" = 1'-0"



9 JAMB - INTERIOR DOOR 4" CMU
A521 1 1/2" = 1'-0"



10 JAMB - EXTERIOR DOOR 8" CMU
A521 1 1/2" = 1'-0"



11 HEAD - METAL PANEL AND ROOF
A521 1 1/2" = 1'-0"

REV. NO.	DATE	DRWN	CHKD	REMARKS

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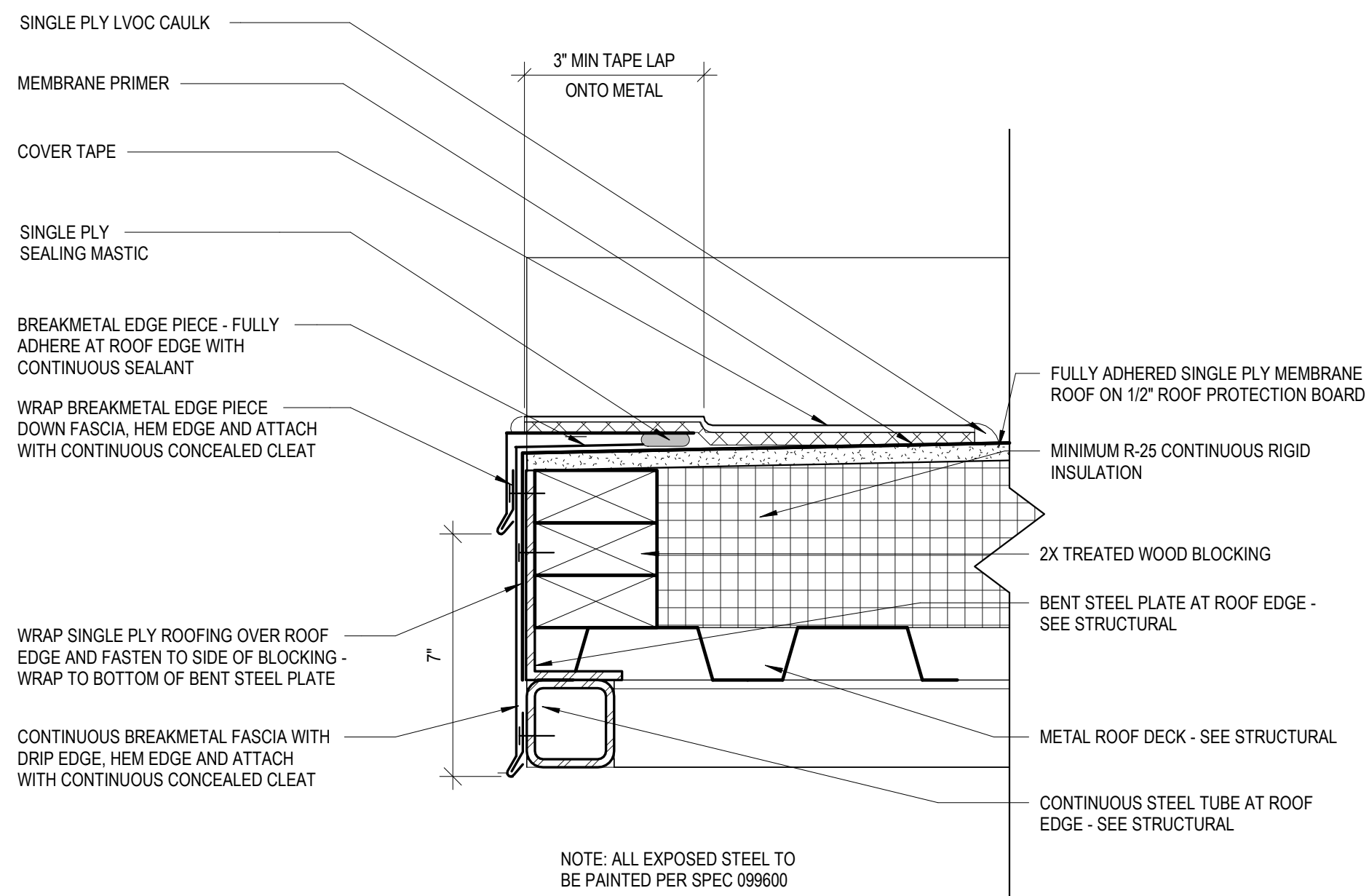
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HEAD JAMB AND SILL DETAILS

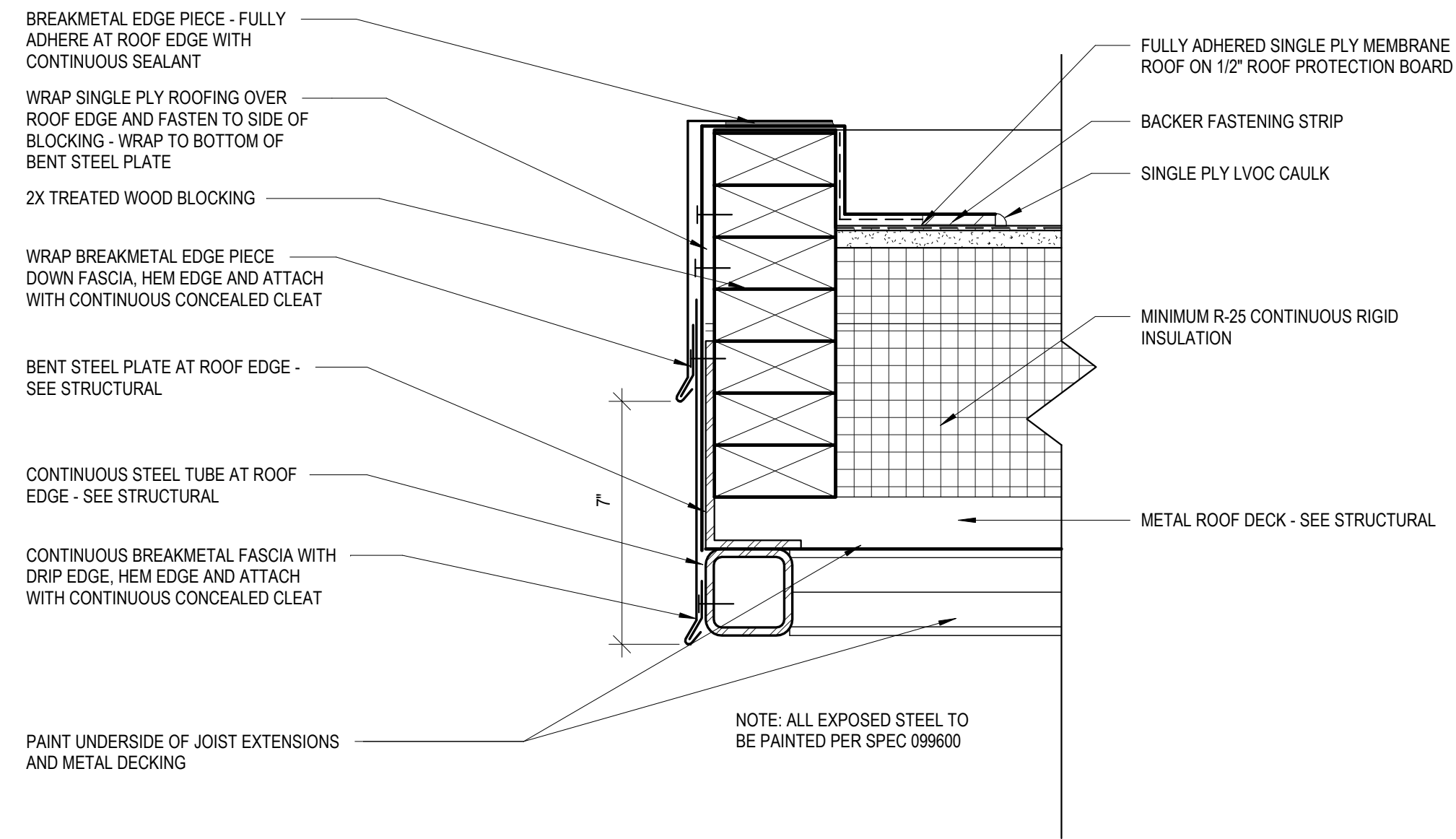
PROJECT NO.: 133920-237812
FILE NAME: HA Project No. 1902
SHEET NO.
A521

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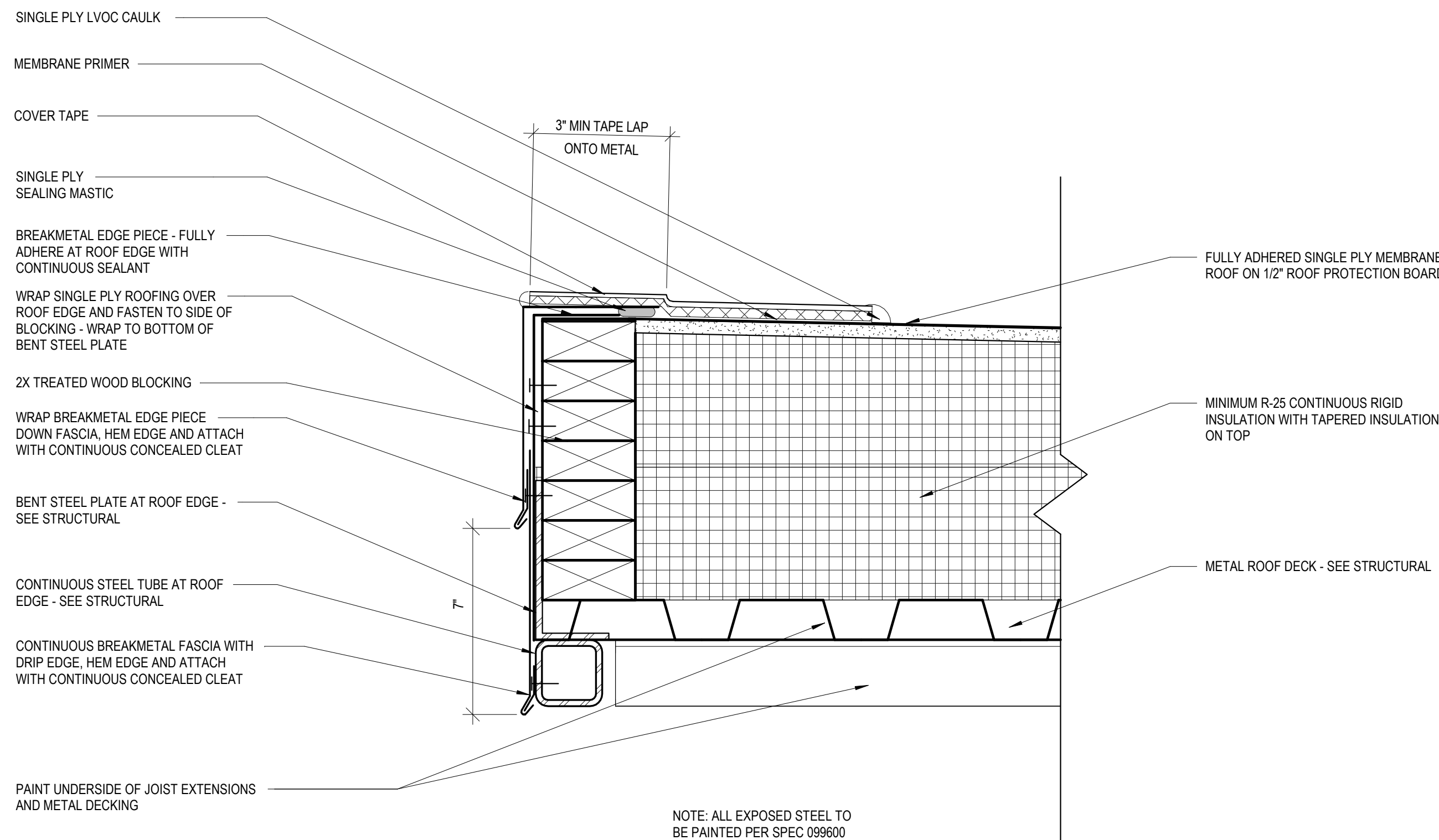
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1
A525
3" = 1'-0"



2
A525
3" = 1'-0"



3
A525
3" = 1'-0"

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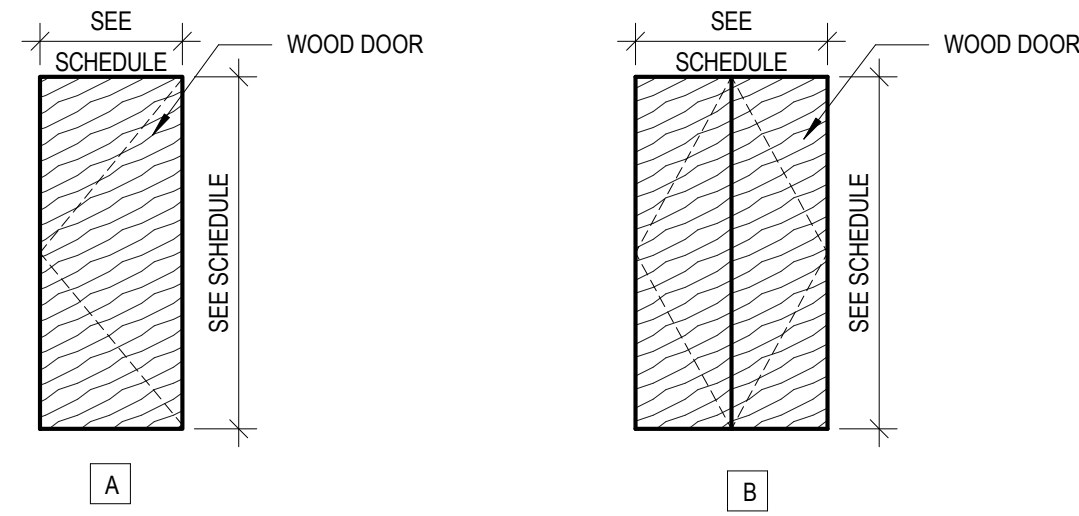
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NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

ROOF DETAILS

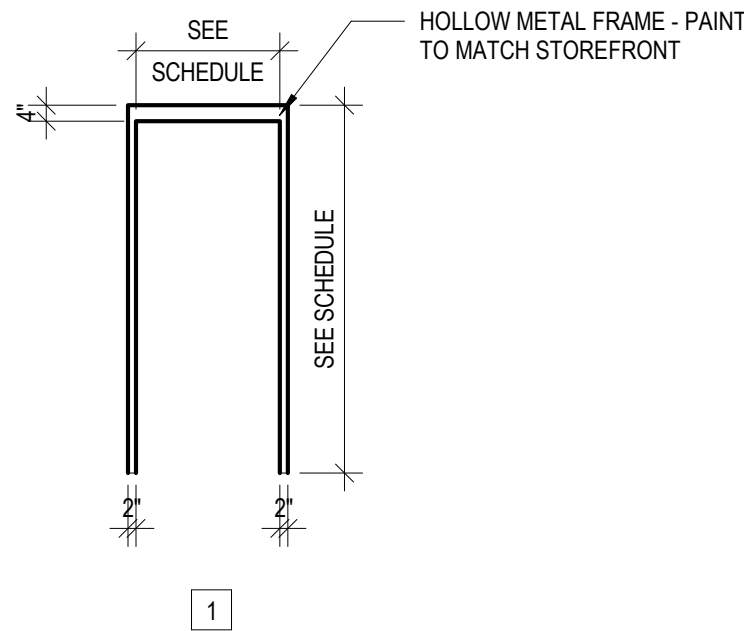
PROJECT NO.: 133920-237812
FILE NAME: HA Project No. 1902
SHEET NO.
A525

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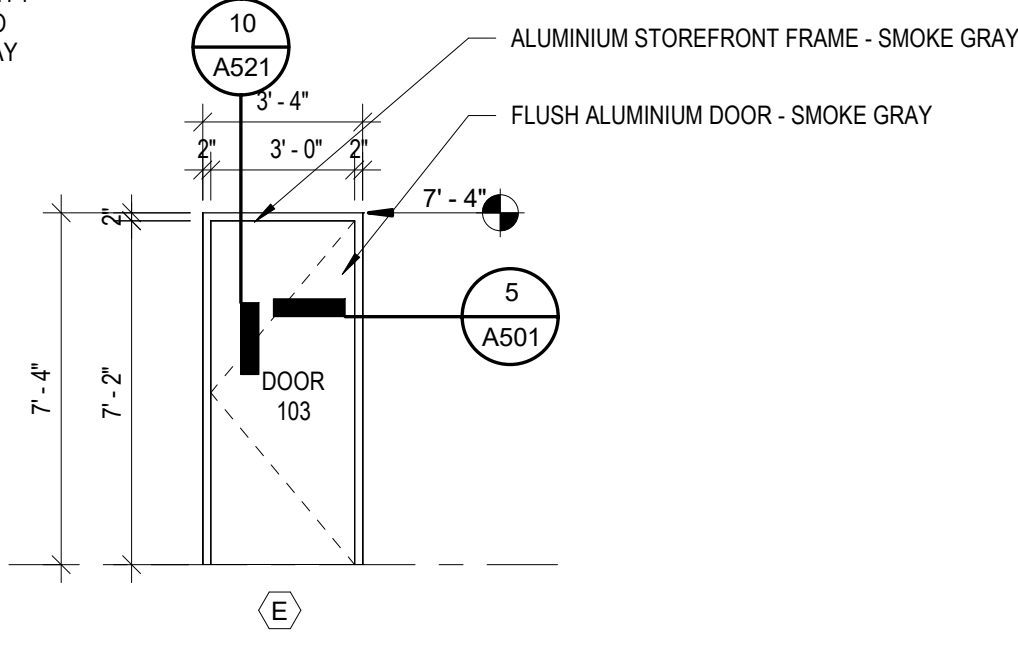
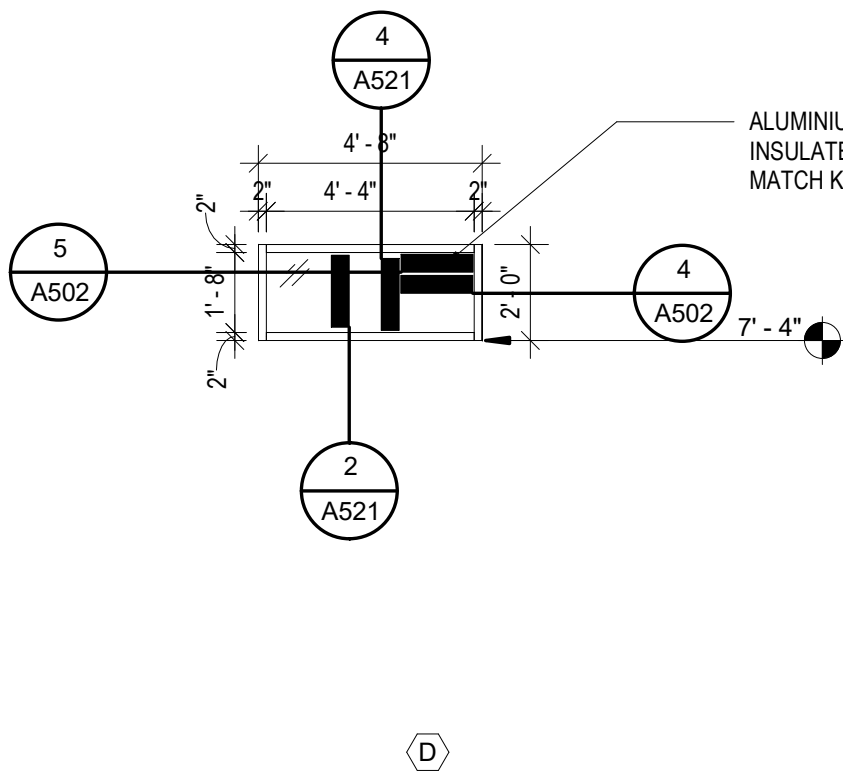
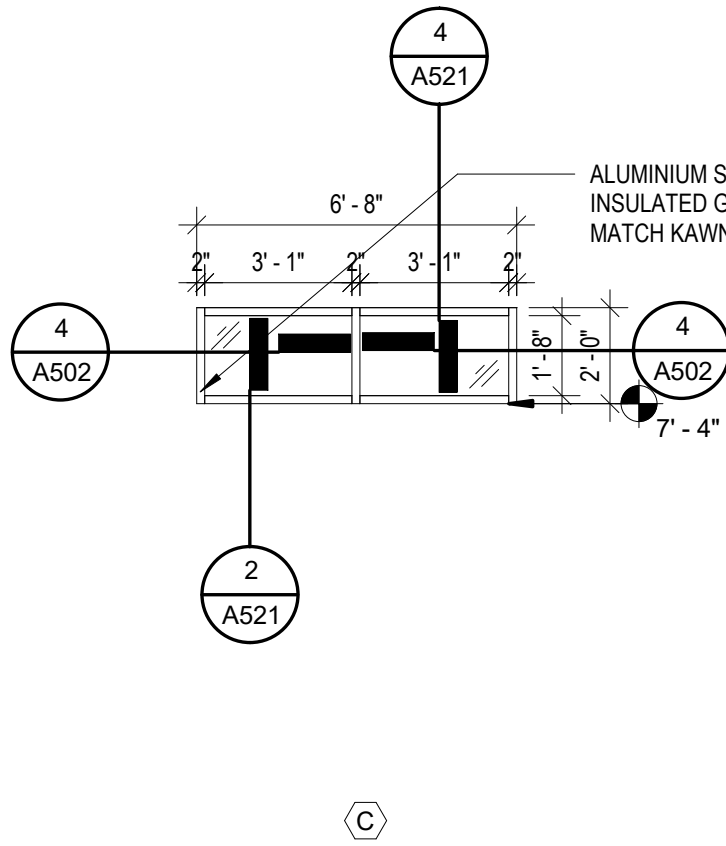
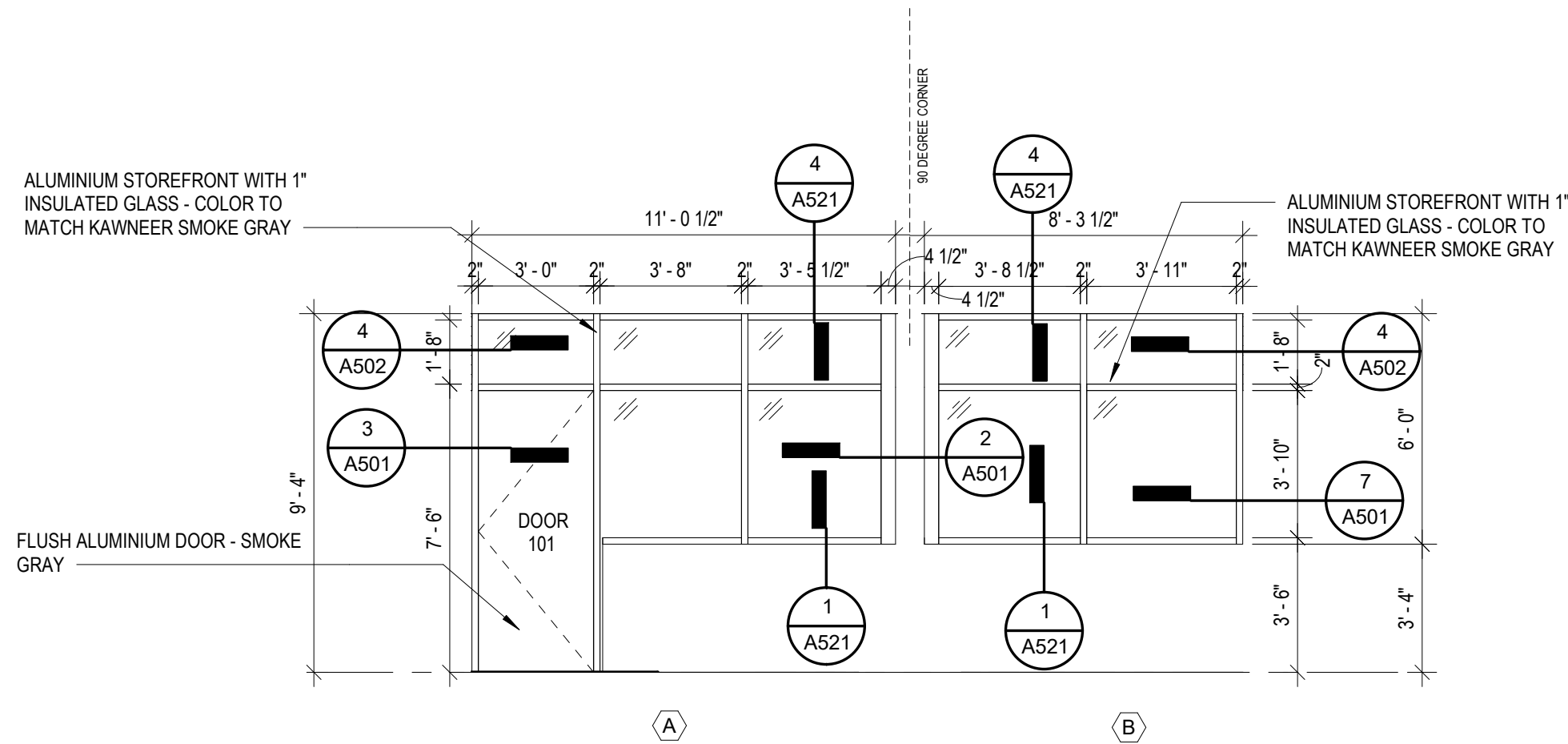
DOOR PANEL ELEVATIONS



DOOR FRAME ELEVATIONS



DOOR SCHEDULE														
NUMBER	DOOR					FRAME			DETAIL			HW	RATING	COMMENTS
	HEIGHT	WIDTH	MATERIAL	FINISH	ELEVATION	MATERIAL	FINISH	ELEVATION	HEAD	JAMB	SILL			
100	7'-4"	3'-0"	AL	PAINT	WINDOW A	AL	PAINT	WINDOW A	4/A521	3/A501	1/A521	1		
101	7'-0"	3'-0"	WD	CLEAR	A	HM	PAINT	1	5/A521	8/A521		2		
102	7'-0"	4'-0"	WD	CLEAR	B	HM	PAINT	1	5/A521	6/A501		3		
103	7'-2"	3'-0"	AL	PAINT	WINDOW E	AL	PAINT	WINDOW E	10/A521	5/A501		4		



REV. NO.	DATE	DRWN	CHKD	REMARKS

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NEW HANOVER COUNTY LANDFILL
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DOOR AND WINDOW SCHEDULE

PROJECT NO.: 133920-237812 FILE NAME: HA Project No. 1902
SHEET NO. A601

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GENERAL STRUCTURAL NOTES

GENERAL

THESE DRAWINGS, AS INSTRUMENTS OF PROFESSIONAL SERVICE, ARE THE PROPERTY OF LYSAGHT & ASSOCIATES, P.A., FOR USE SOLELY WITH THIS PROJECT AND SHALL NOT BE REPRODUCED FOR OTHER PURPOSES.

THE PROFESSIONAL ENGINEER WHOSE SEAL APPEARS ON THESE DRAWINGS IS THE PROJECT STRUCTURAL ENGINEER-OF-RECORD (SER) WHO BEARS LEGAL RESPONSIBILITY FOR THE PERFORMANCE OF THE FOOTINGS, SLABS ON GRADE, AND LIGHT GAGE METAL WALL FRAMING RELATING TO PUBLIC HEALTH, SAFETY, AND WELFARE. NO OTHER PARTY, WHETHER OR NOT A PROFESSIONAL ENGINEER, MAY COMPLETE, CORRECT, REVISE, DELETE, OR ADD TO THESE CONSTRUCTION DOCUMENTS OR PERFORM INSPECTIONS OF THE WORK WITHOUT THE WRITTEN PERMISSION OF THE SER.

USE STRUCTURAL DRAWINGS IN CONJUNCTION WITH JOB SPECIFICATIONS, AND OTHER DRAWINGS.

SECTIONS AND DETAILS SHOWN SHALL BE CONSIDERED TYPICAL FOR ALL SIMILAR CONDITIONS.

ALL NON-STRUCTURAL ELEMENTS INDICATED ON THE STRUCTURAL DRAWINGS HAVE BEEN SHOWN IN GENERAL RELATIONSHIP TO THE STRUCTURAL ELEMENTS. THEY SHALL NOT BE ASSUMED TO BE ACCURATE AND REFERENCE MUST BE MADE TO THE APPROPRIATE CONSULTANT(S) PLANS AND SPECIFICATIONS.

CONTRACTOR SHALL VERIFY ALL CONDITIONS IN THE FIELD AND TAKE ALL NECESSARY FIELD MEASUREMENTS.

THE STRUCTURE SHOWN ON THESE DRAWINGS IS STRUCTURALLY SOUND ONLY IN ITS COMPLETED FORM. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BRACING TO STABILIZE THE BUILDING DURING CONSTRUCTION.

SCOPE OF STRUCTURAL ENGINEERING SERVICES

LYSAGHT & ASSOCIATES, P.A. HAS PERFORMED THE STRUCTURAL DESIGN AND PREPARED THE STRUCTURAL WORKING DRAWINGS FOR THIS PROJECT. "CONSTRUCTION REVIEW" SERVICES ARE NOT A PART OF THIS CONTRACT. THE CONSTRUCTION MUST BE PERFORMED IN STRICT ACCORDANCE WITH THE STRUCTURAL DRAWINGS. ANY DEVIATION FROM THE DRAWINGS MUST BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER. ERRORS AND/OR OMISSIONS FOUND ON THE STRUCTURAL DRAWINGS MUST BE BROUGHT TO THE STRUCTURAL ENGINEER'S ATTENTION IMMEDIATELY.

PORTIONS OF THE STRUCTURAL DESIGN (AS NOTED ON THE DRAWINGS AND IN THESE NOTES) ARE THE RESPONSIBILITY OF THE MATERIAL SUPPLIERS. SHOP DRAWINGS FOR EACH OF THE STRUCTURAL COMPONENTS MUST BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION AND ERECTION.

THE STRUCTURAL ENGINEER IS RESPONSIBLE FOR THE DESIGN OF THE PRIMARY STRUCTURAL SYSTEM, EXCEPT FOR THE COMPONENTS NOTED ABOVE. RESPONSIBILITY FOR ANY SECONDARY STRUCTURAL AND NON-STRUCTURAL SYSTEMS NOT SHOWN ON THE STRUCTURAL PLANS RESTS WITH SOMEONE OTHER THAN THE STRUCTURAL ENGINEER.

FLAT ROOFS SHALL HAVE CONTROLLED DRAINAGE PROVISIONS AND SHALL BE EQUIPPED WITH A SECONDARY DRAINAGE SYSTEM AT A HIGHER ELEVATION WHICH PREVENTS PONDING ON THE ROOF ABOVE THAT ELEVATION. THE SECONDARY DRAINAGE MUST BE SET SO THAT A 4" MAXIMUM DEPTH OF WATER WILL POND ON THE ROOF DURING THE DESIGN RAINSTORM. THE DESIGN OF THE ROOF DRAINAGE, SECONDARY DRAINAGE AND/OR OVERFLOW SCUPPERS IS BEYOND THE SCOPE OF THE STRUCTURAL ENGINEER'S SERVICES.

THE STRUCTURAL ENGINEER HAS NOT DONE A SUBSURFACE INVESTIGATION (HE IS NOT A SOILS SPECIALIST). THE FOUNDATION DESIGN IS BASED UPON AN ASSUMED ALLOWABLE BEARING PRESSURE AS SHOWN IN THE "FOUNDATION" STRUCTURAL NOTES. THIS ALLOWABLE BEARING PRESSURE MUST BE VERIFIED BY THE CONTRACTOR OR OWNER. IF PROBLEMS ARE ENCOUNTERED, A SOILS ENGINEER SHALL BE RETAINED TO EVALUATE THE CONDITIONS AND RECOMMEND THE APPROPRIATE FOUNDATION SYSTEM.

THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR, AND WILL NOT HAVE CONTROL OF, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE CONSTRUCTION WORK; NOR WILL HE BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE CONSTRUCTION WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

FIELD MEASUREMENTS AND THE VERIFICATION OF FIELD DIMENSIONS ARE NOT PART OF THE STRUCTURAL ENGINEER'S RESPONSIBILITY. THE CONTRACTOR MUST CHECK ALL (ASSUMED) EXISTING CONDITIONS SHOWN ON THESE DRAWINGS FOR ACCURACY AND NOTIFY THE STRUCTURAL ENGINEER OF ANY DISCREPANCIES.

ABBREVIATIONS

A.B.	ANCHOR BOLT
A.F.F.	ABOVE FINISH FLOOR
C/G	CENTER TO CENTER
C.J.	CONTROL OR CONSTRUCTION JOINT IN SLAB
D.J.	DOUBLE JOIST
E.J.	EXPANSION JOINT
E.O.S.	EDGE OF SLAB
E.W.	EACH WAY
J.B.E.	JOIST BEARING ELEVATION
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
P.A.F.	POWDER ACTUATED FASTENER
P.T.	PRESSURE TREATED
T.O.F.	TOP OF FOOTING
T.O.S.	TOP OF STEEL
U.N.O.	UNLESS NOTED OTHERWISE
W.W.F.	WELDED WIRE FABRIC

CODE

NORTH CAROLINA STATE BUILDING CODE - 2018 EDITION (IBC 2015)
STRUCTURAL LOADING PER ASCE 7-2010

BUILDING RISK CATEGORY (NCBC 2018 TABLE 1604.5) II

DESIGN LOADS

ROOF DEAD LOAD	20	PSF
ROOF LIVE LOAD	20	PSF
FLOOR LIVE LOAD AT BUILDING	100	PSF
SLAB LIVE LOAD AT CONVENIENCE CENTER	300	PSF
SNOW LOAD DATA :		
GROUND SNOW LOAD	10	PSF
SNOW EXPOSURE FACTOR	1.0	
SNOW LOAD IMPORTANCE FACTOR	1.0	
THERMAL FACTOR	1.0	
FLAT ROOF SNOW LOAD	10	PSF
WIND LOAD DATA :		
ULTIMATE DESIGN WIND SPEED, V _{ULT}	147	MPH
WIND EXPOSURE	C	
INTERNAL PRESSURE COEFFICIENTS	+0.18, -0.18	
ULTIMATE WIND BASE SHEAR (X-Y DIRECTION)	19.2	KIPS
ULTIMATE WIND BASE SHEAR (Y-Y DIRECTION)	8.8	KIPS
WIND PRESSURE FOR COMPONENTS / CLADDING	PER ASCE 7-10	

THIS BUILDING IS IN THE WIND-BORNE DEBRIS REGION SO GLAZING SHALL BE IMPACT RESISTANT OR PROTECTED WITH AN IMPACT-RESISTANT COVERING MEETING THE REQUIREMENTS OF AN APPROVED IMPACT-RESISTANT STANDARD OR ASTM E1996 AND ASTM E1886 AS FOLLOWS:
1. GLAZED OPENINGS LOCATED WITHIN 30 FEET OF GRADE SHALL MEET THE REQUIREMENTS OF THE LARGE MISSILE TEST OF ASTM E1996.

SEISMIC LOAD DATA :		
SEISMIC IMPORTANCE FACTOR	I	1.00
MAPPED SPECTRAL RESPONSE ACCELERATION	S _s	0.204
MAPPED SPECTRAL RESPONSE ACCELERATION	S ₁	0.062
SITE CLASS	D	
SPECTRAL RESPONSE COEFFICIENT	S _{DS}	0.217
SPECTRAL RESPONSE COEFFICIENT	S _{DI}	0.099
SEISMIC DESIGN CATEGORY	C	
BASIC STRUCTURAL SYSTEM	BEARING WALL SYSTEM	
SEISMIC RESISTING SYSTEM	INTERMEDIATE REINFORCED CMU	
RESPONSE MODIFICATION COEFFICIENT	R	3.50
SYSTEM OVERSTRENGTH FACTOR	Omega	2.50
DEFLECTION AMPLIFICATION FACTOR	C _d	2.25
SEISMIC RESPONSE COEFFICIENT	C _s	0.087
ANALYSIS PROCEDURE	SIMPLIFIED ALTERNATIVE DESIGN	
SEISMIC BASE SHEAR		8.2 KIPS

LATERAL DESIGN CONTROL WIND

EARTHQUAKE

ALL EXCAVATIONS AND SUPPORT SYSTEMS SHALL CONFORM TO APPLICABLE OSHA EXCAVATION, TRENCHING, AND SHORING STANDARDS WHICH ARE CONTAINED IN THE U.S. CODE OF FEDERAL REGULATIONS 29 (C.F.R.) 1926.650-1926.653, OTHER FEDERAL, STATE OR LOCAL REQUIREMENTS. IN THE EVENT OF A CONFLICT, COMPLY WITH THE MORE RESTRICTIVE APPLICABLE REQUIREMENTS.

EXCAVATION SHALL BE PERFORMED IN-THE-DRY AND SHALL BE ACCOMPLISHED BY METHODS WHICH PRESERVE THE UNDISTURBED STATE OF SUBGRADE SOILS. DRAINAGE AND DENATERING SYSTEMS SHALL BE IN PLACE AND OPERATIONAL PRIOR TO BEGINNING EXCAVATION WORK. IN NO CASE SHALL THE EARTH BE PLOWED, SCRAPED OR EXCAVATED BY ANY MEANS SO NEAR TO THE FINISH SUBGRADE THAT WOULD DISTURB THE FINISHED SUBGRADE. HAND EXCAVATION OF THE FINAL 3" TO 6" MAY BE REQUIRED TO OBTAIN A SATISFACTORY, UNDISTURBED SUBGRADE. SUBGRADE SOILS WHICH BECOME SOFT, LOOSE, "QUICK", OR OTHERWISE UNSATISFACTORY FOR SUPPORT OF STRUCTURES AS A RESULT OF INADEQUATE EXCAVATION, DENATERING, OR OTHER CONSTRUCTION METHODS SHALL BE REMOVED AND REPLACED WITH LEAN CONCRETE, COMPACTED STRUCTURAL FILL OR SUITABLE CRUSHED ROCK, SUBJECT TO APPROVAL BY THE ENGINEER, AT NO ADDITIONAL COST TO THE OWNER.

UNUSABLE, WASTE AND SURPLUS EXCAVATED MATERIAL SHALL BE REMOVED AND DISPOSED OF OFF-SITE. CONTRACTOR SHALL COORDINATE WITH THE OWNER REGARDING DISPOSAL OF APPROPRIATE MATERIAL AT THE LANDFILL. MATERIALS MAY BE TEMPORARILY STOCKPILED IN AN AREA WITHIN THE LIMITS OF CONSTRUCTION THAT DOES RESTRICT ACCESS TO THE WORK SITE.

BACKFILL MATERIAL
SELECT COMMON FILL SHALL MEET THE REQUIREMENTS OF SECTION 310515 OF THE PROJECT MANUAL.

SELECT COMMON FILL SHALL BE COMPACTED TO 95% OF THE STANDARD PROCTOR (ASTM D1557) MAXIMUM DRY DENSITY, OR AS OTHERWISE SHOWN IN THE DRAWINGS. IN AREAS BENEATH ROADWAYS, THE TOP 24" LAYER OF SELECT FILL SHALL BE COMPACTED TO 98% OF THE MAXIMUM DRY DENSITY OF THE ASTM D1557. THE SOILS SHALL BE WETTED OR DRIED AS NECESSARY SO THAT THE MOISTURE CONTENT DURING COMPACTION IS WITHIN 2 PERCENT OF THE OPTIMUM MOISTURE CONTENT.

QUALITY ASSURANCE
REGULATIONS: PERFORM ALL WORK IN ACCORDANCE WITH CURRENT APPLICABLE REGULATIONS AND CODES OF ALL FEDERAL, STATE AND LOCAL AGENCIES.

THE CONTRACTOR SHALL HAVE AT LEAST 5 YEARS OF EXPERIENCE WITH WORK COMPATIBLE TO THE WORK SHOWN AND SPECIFIED, EMPLOYING LABOR AND SUPERVISORY PERSONNEL WHO ARE SIMILARLY EXPERIENCED IN THIS TYPE OF WORK.

FOUNDATIONS

FOUNDATION CONSTRUCTION SHALL NOT COMMENCE FOR AT LEAST TWO WEEKS (14 DAYS) FOLLOWING PLACEMENT OF STRUCTURAL FILL BENEATH THE NEW STAFF BUILDING TO PERMIT IMMEDIATE SETTLEMENT OF THE FILL MATERIALS.

ALL FOOTINGS SHALL REST ON SOIL CAPABLE OF SAFELY SUPPORTING 2000 PSF. CONTACT STRUCTURAL ENGINEER IF UNSATISFACTORY SUBSURFACE CONDITIONS ARE ENCOUNTERED.

FOOTINGS SHALL BE CARRIED TO A LOWER ELEVATION THAN THOSE INDICATED ON THESE DRAWINGS IF NECESSARY TO REACH FIRM UNDISTURBED SOIL.

THE BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE A MINIMUM OF 16" BELOW FINISHED GRADE UNLESS NOTED OTHERWISE.

SLAB ON GRADE SHALL BE FOUNDED ON STABLE NATURAL SOIL OR CONTROLLED COMPACTED STRUCTURAL FILL. THE MINIMUM BEARING CAPACITY SHALL BE 2000 PSF.

ALL FILL BENEATH STRUCTURES AND PAVEMENTS SHALL BE PLACED IN 8" MAXIMUM LOOSE LIFTS AND SHALL BE COMPACTED TO A MINIMUM OF 95 PERCENT MAXIMUM DRY DENSITY AS DETERMINED IN ACCORDANCE WITH ASTM D-698 (STANDARD PROCTOR METHOD). REFER TO SECTION 312000 FOR ADDITIONAL COMPACTION AND BACKFILLING REQUIREMENTS.

WALLS ACTING AS RETAINING WALLS SHALL NOT BE BACKFILLED WITHOUT BRACING UNTIL ALL SUPPORTING SOIL AND SLABS ARE IN PLACE.

LATERAL EARTH PRESSURE		
TYPE	ACTIVE	PASSIVE
NATIVE SOIL	38 PCF	345 PCF
STRUCTURAL FILL	37 PCF	390 PCF

CONCRETE

CONCRETE SHALL BE PROPORTIONED, MIXED AND PLACED IN ACCORDANCE WITH ACI 311 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" AND ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS." ANY ADMIXTURES MUST BE APPROVED BY THE STRUCTURAL ENGINEER.

CONCRETE DENOTED AS LIGHTWEIGHT CONCRETE SHALL HAVE AN EQUILIBRIUM WEIGHT OF 115 PCF. CONCRETE NOT SPECIFICALLY NOTED AS LIGHTWEIGHT CONCRETE SHALL BE NORMAL WEIGHT CONCRETE.

MINIMUM 28 DAY COMPRESSIVE STRENGTH OF CONCRETE SHALL BE AS FOLLOWS:

FOOTINGS	3000	PSI
POURED CONCRETE WALLS	4000	PSI
SLABS-ON-GRADE	4000	PSI

SLAB-ON-GRADE CONSTRUCTION

CONCRETE SHALL BE DESIGNED TO MEET 4000 PSI COMPRESSIVE STRENGTH @ 28 DAYS AND EXHIBIT 0.04% SHRINKAGE @ 28 DAYS. THE MIX SHALL CONTAIN APPROXIMATELY 12 CUBIC FEET OF COARSE AGGREGATE (1 1/2" TOP SIZE), THE SPECIFIED WATER REDUCING ADMIXTURE AND ACHIEVE A W/CM RATIO OF 0.53 (MAX.). INTERIOR SLABS SHALL NOT BE AIR-ENTRAINED; EXTERIOR SLABS SHALL BE AIR ENTRAINED.

MATERIALS	MIX
CEMENT	517-560 LBS.
FLY ASH/SLAG	PROHIBITED
COARSE AGGREGATE	12 CU FT +/- .50
FINE AGGREGATE	7 CU FT +/- (ADJUST AS NECESSARY)
1/2"-STRAND FIBER	3 LBS/ CU YD
WATER CONTENT	250 - 300 LBS.
AIR CONTENT (ENTRAPPED AIR ONLY)	3.0% (MAX.) AT INTERIOR SLABS
AIR CONTENT	4% - 6% AT EXTERIOR SLABS
MID-RANGE WATER REDUCER (TYPE A/F)	30Z-100Z/100WT +/-
W/CM	0.53 (MAX.)
INITIAL SLUMP (WATER)	3"
FINAL SLUMP	5.5" (MAX.)
SHRINKAGE	< 0.04% @ 28 DAYS

CALCIUM CHLORIDE OR ADMIXTURES CONTAINING MORE THAN 0.05% CHLORIDE IONS ARE NOT PERMITTED. FLYASH, SLAG, AND BOTTOM ASH ARE NOT PERMITTED.

PLACE FLOOR SLAB ON A WELL COMPACTED BASE. THE SUBGRADE SHALL BE GRANULAR, NON-EXPANSIVE SOIL (THAT IS, WITHOUT CLAY), WHICH HAS BEEN COMPACTED TO AT LEAST 95% AND VERIFIED BY ON-SITE TESTING.

CONCRETE STRENGTH SHALL BE 4000 PSI AT 28 DAYS. USE A WATER REDUCING ADMIXTURE TO REDUCE WATER, INCREASE WORKABILITY AND DECREASE SHRINKAGE CRACKS.

THE CONTROL JOINT SPACING SHALL BE APPROXIMATELY 12' FOR A 4" THICK SLAB. PLACE CONTROL JOINTS TO AVOID REENTRANT CORNERS. MAKE SAWCUTS TO FORM WEAKEN PLANE CONTROL JOINTS AS SOON AS POSSIBLE.

LIGHTLY DAMPEN THE SUBGRADE BEFORE PLACING CONCRETE TO PREVENT THE SUBGRADE FROM ABSORBING WATER FROM CONCRETE MIX. APPLY WATER AT NEARLY THE SAME RATE IT SOAKS INTO THE SUBGRADE SURFACE.

STEEL TROWEL THE CONCRETE TO A SHINY FINISH WHICH RESULTS IN A HARD, DENSE SURFACE.

DURING HOT WEATHER, USE A FOG SPRAY TO KEEP THE SURFACE DAMP BEFORE CURING.

START CURING AS SOON AS THE FINISHERS ARE DONE.

INTERIOR CURING
MOISTURE RETAINING COVER: ALL INTERIOR CONCRETE SLABS SHALL BE PROTECTED FROM PREMATURE DRYING FOR A MINIMUM OF FIVE DAYS, AS REQUIRED IN ACI 301, USING MOISTURE-RETAINING COVER. FLOOD THE INTERIOR SLAB WITH SUFFICIENT WATER TO COVER THE SLAB. COVER CONCRETE SURFACES WITH MOISTURE-RETAINING COVER, PLACED IN WIDEST PRACTICAL WIDTH WITH SIDES AND ENDS LAPPED AT LEAST 3A AND SEALED BY WATERPROOF TAPE OR ADHESIVE. IMMEDIATELY REPAIR ANY HOLES OR TEARS DURING CURING PERIOD USING COVER MATERIAL AND WATERPROOF TAPE. REMOVE ANY AIR BUBBLES IN BETWEEN THE COVER AND THE CONCRETE SLAB. AFTER THE MINIMUM FIVE DAY CURING PERIOD, REMOVE MOISTURE-RETAINING COVER AND IMMEDIATELY SCRUB THE ENTIRE AREA WITH AUTO-SCRUBBER AND INTERIOR CONCRETE FLOOR CLEANER. AFTER INTERIOR CONCRETE SLAB IS THOROUGHLY CLEANED OF ALL SALTS, LAITANCE, DIRT AND DEBRIS, ALLOW DRYING FOR AT LEAST SIX (6) HOURS.

EXTERIOR CURING AND SEALING
ASTM C1315, TYPE I, CLASS B, (100G/L): LIQUID TYPE MEMBRANE FORMING CURING COMPOUND, CLEAR STYRENE ACRYLATE TYPE, COMPLYING WITH ASTM C1315, TYPE I, CLASS B, 25% SOLIDS CONTENT MINIMUM. MOISTURE LOSS SHALL BE NOT MORE THAN 0.30 KG/M2 WHEN APPLIED AT 300 SQ. FT./GAL. MANUFACTURER'S CERTIFICATION IS REQUIRED. ACCEPTABLE PRODUCTS: "SUPER REZ SEAL" BY EUGLID CHEMICAL OR "KURE N SEAL 30" BY BASF.

REINFORCING STEEL

ALL DETAILING, FABRICATION AND PLACING OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH THE LATEST "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES", ACI 315.

REINFORCING BARS SHALL BE NEW BILLET STEEL CONFORMING TO ASTM A615, GRADE 60. CLEAR CONCRETE COVER OVER BARS SHALL BE 3" FOR FOOTINGS.

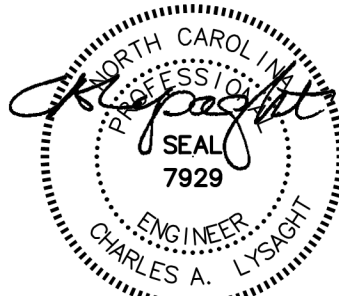
ALL SLABS ON GRADE SHALL BE REINFORCED WITH 6 x 6 W 14 x W 14 W.W.F. SUPPORT THE MESH AS REQUIRED TO INSURE THAT IT WILL BE LOCATED IN THE UPPER THIRD OF THE SLAB THICKNESS.

PROVIDE CORNER BARS AT ALL FOOTING STEPS AND CORNERS. BARS SHALL BE A MINIMUM OF 2'-6" LONG AND SHALL HAVE THE SAME SIZE AND SPACING AS HORIZONTAL REINFORCING.

LAP ALL SPLICES IN CAST-IN-PLACE CONCRETE AS SPECIFICALLY CALLED FOR, BUT AT LEAST 50 BAR DIAMETERS. LAP ALL SPLICES IN MASONRY T2 BAR DIAMETERS MINIMUM, UNLESS NOTED OTHERWISE.

PROVIDE DOWELS IN WALL FOOTINGS EQUIVALENT IN SIZE AND NUMBER TO VERTICAL STEEL EXTENDING 24 BAR DIAMETERS INTO FOOTING (UNLESS A HOOKED BAR IS PROVIDED) AND T2 BAR DIAMETERS INTO WALL, UNLESS NOTED OTHERWISE.

SUBMIT SHOP DRAWINGS TO THE STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION.



03/22/2021

REV. NO.	DATE	DRWN	CHKD		REMARKS

DESIGNED BY:	CAL
DRAWN BY:	GTH
SHEET CHK'D BY:	CAL
CROSS CHK'D BY:	CAL
APPROVED BY:	CAL
DATE:	MARCH 2021

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NEW HANOVER COUNTY, NORTH CAROLINA

NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

GENERAL STRUCTURAL NOTES I

PROJECT NO. 133920-237812
FILE NAME: LA# 12383

SHEET NO.

S100

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CONCRETE MASONRY

CONCRETE MASONRY UNITS SHALL BE ERECTED AS LOAD BEARING CONCRETE MASONRY, COMPLY WITH THE REQUIREMENTS OF ACI 530.1 / ASCE 6 / TMS 602 "SPECIFICATION FOR MASONRY STRUCTURES."

CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM SPECIFICATIONS FOR LOAD-BEARING CONCRETE MASONRY UNITS (ASTM C90). MORTAR SHALL CONFORM TO THE REQUIREMENTS OF ASTM STANDARD SPECIFICATIONS FOR MORTAR FOR UNIT MASONRY (ASTM C270), TYPE "M" OR "S". THE MINIMUM NET COMPRESSIVE STRENGTH OF MASONRY UNITS SHALL BE 2000 PSI (F'M = 2000 PSI FOR MASONRY SYSTEM).

ALL GROUT USED TO FILL REINFORCED MASONRY CAVITIES AND SHOWN AT OTHER LOCATIONS ON THE PLANS SHALL CONFORM TO ASTM C476 AND SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI.

PROVIDE HORIZONTAL JOINT REINFORCEMENT AT 16" O.C. IN ALL CMU WALLS UNLESS NOTED OTHERWISE ON THE DRAWINGS. USE LADDER TYPE DUR-O-WALL REINFORCEMENT, HOT DIP GALVANIZED AFTER FABRICATION. LONGITUDINAL WIRES SHALL BE A MINIMUM OF (2) NO. 9 GAGE. LOCATE JOINT REINFORCEMENT IN FIRST AND SECOND BED JOINTS, 8" APART IMMEDIATELY ABOVE LINTELS AND BELOW SILLS AT OPENINGS. REINFORCEMENT SHALL NOT EXTEND THROUGH VERTICAL MASONRY CONTROL JOINTS.

WHERE INTERIOR CONCRETE MASONRY PARTITIONS MEET OTHER INTERIOR PARTITIONS OR EXTERIOR WALLS, PROVIDE A CONTROL JOINT WITH METAL STRAP ANCHORS BETWEEN WALLS.

BACKFILLING AGAINST MASONRY WALLS SHALL NOT BE PERMITTED UNTIL SUFFICIENT LATERAL SUPPORT IS PROVIDED.

MASONRY WALLS ARE TO BE Laterally Braced During Construction in accordance with "STANDARD PRACTICE FOR BRACING MASONRY WALLS UNDER CONSTRUCTION" BY THE COUNCIL FOR MASONRY WALL BRACING AND THE MASON CONTRACTORS ASSOCIATION OF AMERICA. TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL PERMANENT SUPPORTING ELEMENTS OF THE STRUCTURE ARE IN PLACE.

REFER TO THE ARCHITECTURAL PLANS FOR LOCATIONS OF MASONRY CONTROL JOINTS, OR IF NOT SHOWN, COORDINATE WITH ARCHITECT. IN GENERAL, CONTROL JOINTS SHOULD BE LOCATED WITH A MAXIMUM SPACING OF 30'-0".

STRUCTURAL STEEL

FABRICATE AND ERECT ALL STRUCTURAL STEEL IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" (ANSI/AISC 360-10).

STRUCTURAL STEEL SHALL RECEIVE ONE SHOP COAT OF RUST-INHIBITIVE PAINT. STEEL COLUMNS BELOW GRADE THAT ARE NOT ENCASED IN CONCRETE SHALL BE FIELD PAINTED WITH A WATERPROOF MASTIC COMPOUND TO PREVENT CORROSION.

THE STEEL USED SHALL HAVE THE FOLLOWING MINIMUM YIELD STRESS:

WIDE FLANGE SHAPES (W SHAPES)	50 KSI (A992)
HP SHAPES	50 KSI (A572)
CHANNELS, ANGLES, PLATES, MISC. SHAPES	36 KSI (A36)
STRUCTURAL PIPE SHAPES	35 KSI (A53, B)
HSS TUBE SHAPES	46 KSI (A500, B OR C)

USE 3/4" DIAMETER ASTM F3125, GRADE A325 BOLTS FOR ALL STEEL TO STEEL CONNECTIONS U.N.O. DESIGN FOR THREADS INCLUDED (TYPE N) CONDITIONS, U.N.O. BOLTS SHALL BE TIGHTENED TO THE SNUG TIGHT CONDITION UNLESS NOTED OTHERWISE. THE SNUG TIGHT CONDITION IS DEFINED AS THE TIGHTNESS THAT EXISTS WHEN ALL PLIES IN A JOINT ARE IN FIRM CONTACT.

USE ASTM F1554 (GRADE 36) BOLTS FOR ALL ANCHOR BOLTS U.N.O. HEADED WELD STUDS SHALL BE MADE OF MATERIAL CONFORMING TO ASTM A108. USE E-TO ELECTRODES FOR ALL SHOP AND FIELD WELDING.

ALL EXPANSION ANCHORS SHALL BE INSTALLED WITH STANDARD EMBEDMENT DEPTH (5-1/2" FOR 3/4" DIA. ANCHORS, 3-1/2" FOR 1/2" DIA. ANCHORS). EXPANSION ANCHORS MUST BE LOCATED 1-3/8" MINIMUM FROM VERTICAL MORTAR JOINTS.

EXPANSION ANCHOR BOLTS SHALL BE INSTALLED IN GROUT FILLED MASONRY CORES (UNLESS ANCHORS ARE DESIGNED TO BE INSTALLED IN HOLLOW CORES) OR SOLID CONCRETE. THEY SHALL PROVIDE THE FOLLOWING MINIMUM WORKING LOADS:

SIZE	PULLOUT LBS	SHEAR LBS	MIN SPACING	MIN EDGE DISTANCE	MIN EMBED
1/2" DIA	1050	1890	5"	2 1/2"	2 3/4"
3/4" DIA	2500	3100	7 1/2"	4"	3 1/4"

FOR MISCELLANEOUS STEEL NOT SHOWN ON THESE DRAWINGS, SEE ARCHITECTURAL AND OTHER ENGINEERING DRAWINGS.

CONNECTIONS BETWEEN STRUCTURAL STEEL MEMBERS SHALL BE AS SHOWN ON STRUCTURAL DRAWING DETAILS. ALTERNATE CONNECTION DETAILS MUST BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER OF RECORD, PRIOR TO THE SUBMITTAL OF SHOP DRAWINGS.

SUBMIT ERECTION AND SHOP DRAWINGS TO THE STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION.

SOLDIER PILES

INSTALL SOLDIER PILES WITH THE MINIMUM EMBEDMENT DEPTH AS SHOWN ON THE DRAWINGS AND IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 315001 OF THE PROJECT MANUAL.

SOLDIER PILES SHALL BE INSTALLED USING AN IMPACT HAMMER OR A VIBRATORY HAMMER.

DRIVEN PILES SHALL BE INSTALLED WITH DRIVING SHOES WHERE HARD DRIVING IS ANTICIPATED.

DRIVEN SOLDIER PILES SHALL BE ADVANCED WITHOUT THE AID OF A WATER JET.

INSTALL LAGGING SUCH THAT GROUND LOSS DOES NOT OCCUR BETWEEN ADJACENT OR BELOW THE LOWEST BOARD. AS EXCAVATION PROCEEDS, THE MAXIMUM HEIGHT OF UNLAGGED FACE OF EXCAVATION SHALL NOT EXCEED 4 FEET. THE UNLAGGED FACE SHALL NOT EXCEED 2 FEET IF WATER SEEPS OR FLOWS FROM THE FACE OF THE EXCAVATION OR IF THE FACE OF THE EXCAVATION BECOMES UNSTABLE.

AS INSTALLATION PROGRESSES, BACKFILL THE VOIDS BETWEEN THE EXCAVATION FACE AND THE LAGGING. PACK WITH MATERIALS SUCH AS HAY, BURLAP, OR GEOTEXTILE FILTER FABRIC WHERE NECESSARY TO ALLOW DRAINAGE OF GROUND WATER WITHOUT LOSS OF GROUND.

OPEN WEB JOISTS

DESIGN, FABRICATION AND ERECTION OF STEEL JOISTS SHALL CONFORM WITH THE LATEST EDITION OF THE STEEL JOIST INSTITUTE SPECIFICATION.

THE OPEN WEB JOIST DETAILS SHOWN ON THESE DRAWINGS ARE FROM THE VULCRAFT "STEEL JOISTS & JOIST GIRDERS" DESIGN MANUAL.

WELD EACH JOIST TO BEAM WITH A FILLET WELD EACH SIDE OF JOIST. WELD LENGTH SHALL BE A MINIMUM OF 2 3/8" UNLESS NOTED OTHERWISE.

USE BRIDGING AS INDICATED ON THE DRAWINGS OR AS REQUIRED BY THE STEEL JOIST INSTITUTE. CONTINUE ALL BRIDGING TO ROLLED STEEL SHAPES AND/OR WALLS WHICH ARE PARALLEL TO THE JOISTS AND ANCHOR IN ACCORDANCE WITH STEEL JOIST INSTITUTE SPECIFICATIONS.

ALL BRIDGING SHALL BE SECURED TO TOP AND BOTTOM OF ALL JOISTS AND BEAMS AND SHALL BE IN ACCORDANCE WITH STEEL JOIST INSTITUTE SPECIFICATIONS.

SUSPENDED CEILINGS, LIGHT FIXTURES, DUCTS, AND OTHER UTILITIES OR FINISHES SHALL NOT BE SUPPORTED BY JOIST BRIDGING MEMBERS.

JOISTS SHALL BEAR 2-3/8" MINIMUM ON STEEL UNLESS OTHERWISE NOTED.

JOIST MANUFACTURER MUST CHECK THE SYSTEM FOR A NET UPLIFT PRESSURE OF 35 PSF AND PROVIDE BRIDGING AS REQUIRED TO ADEQUATELY BRACE THE BOTTOM CHORDS AGAINST LATERAL MOVEMENT.

THE JOIST SUPPLIER SHALL DESIGN ALL K-SERIES JOIST SEATS FOR A "ROLL-OVER" RESISTANCE OF 1000 LBS.

ALL JOISTS SHALL RECEIVE A SHOP-COAT OF HIGH QUALITY RUST INHIBITIVE PRIMER.

SUBMIT ERECTION DRAWINGS TO THE STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION.

METAL DECK

DESIGN, FABRICATION AND ERECTION OF METAL DECK SHALL CONFORM TO THE STEEL DECK INSTITUTE "DESIGN MANUAL FOR COMPOSITE DECKS, FORM DECKS AND ROOF DECKS".

METAL ROOF DECK SHALL BE 20 GAGE, TYPE "B" BY VULCRAFT, WIDE RIB STEEL WITH 1 1/2" NOMINAL CORRUGATION DEPTH, OR APPROVED EQUAL. THE MINIMUM YIELD STRESS SHALL BE 33 KSI.

WELD METAL ROOF DECK IN A 36/1 WELD PATTERN, AS SPECIFIED BY VULCRAFT. SEVEN PUDDLE WELDS AT EACH SUPPORT MEMBER WITH (1) #10 TEK SCREW SIDELAP FASTENER AT THE MID-POINT OF DECK SPANS. LOCATE PUDDLE WELDS WITH A 6" MAXIMUM SPACING AT THE DIAPHRAGM PERIMETER. PROVIDE 20ga FILLER SHEETS WHERE NECESSARY TO ACHIEVE DECK WELD AT THE DIAPHRAGM PERIMETER.

SUSPENDED CEILINGS, LIGHT FIXTURES, DUCTS, AND OTHER UTILITIES OR FINISHES SHALL NOT BE SUPPORTED BY THE METAL DECK.

ALL ROOF DECK SHALL BE GALVANIZED IN CONFORMANCE WITH ASTM A653-94, G60 MINIMUM.

SUBMIT ERECTION DRAWINGS TO THE STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION.

LUMBER (LAGGING)

PROVIDE LUMBER GRADED BY AN AGENCY CERTIFIED BY THE ALSG BOARD OF REVIEW TO INSPECT AND GRADE LUMBER UNDER THE RULES INDICATED. DOC PS 20 AND APPLICABLE RULES OF GRADING AGENCIES INDICATED.

-FACTORY MARK EACH PIECE OF LUMBER WITH GRADE STAMP OF GRADING AGENCY.

-WHERE NOMINAL SIZES ARE INDICATED, PROVIDE ACTUAL SIZES REQUIRED BY DOC PS 20 FOR MOISTURE CONTENT SPECIFIED. WHERE ACTUAL SIZES ARE INDICATED, THEY ARE MINIMUM DRESSED SIZES FOR DRY LUMBER.

-PROVIDE DRESSED LUMBER, S4S, UNLESS OTHERWISE INDICATED.

LUMBER SHALL BE MIXED SOUTHERN PINE, NO. 1 GRADE; SP1B. COAT SIDE EXPOSED TO EARTH WITH BITUMASTIC COATING.

PROVIDE LUMBER WITH 19 PERCENT MAXIMUM MOISTURE CONTENT.

LUMBER SHALL RECEIVE PRESERVATIVE TREATMENT BY PRESSURE PROCESS AWPA C2. PRESERVATIVE CHEMICALS ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION AND CONTAINING NO ARSENIC OR CHROMIUM. KILN-DRY LUMBER AFTER TREATMENT TO A MAXIMUM MOISTURE CONTENT OF 14 PERCENT. DO NOT USE MATERIAL THAT IS WARPED OR DOES NOT COMPLY WITH REQUIREMENTS FOR UNTREATED MATERIAL.

REV. NO.	DATE	DRWN	CHKD		REMARKS

DESIGNED BY:	_____	CAL
DRAWN BY:	_____	GTH
SHEET CHK'D BY:	_____	CAL
CROSS CHK'D BY:	_____	CAL
APPROVED BY:	_____	CAL
DATE:	_____	MARCH 2021

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NEW HANOVER COUNTY, NORTH CAROLINA

NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

GENERAL STRUCTURAL NOTES II



03/22/2021

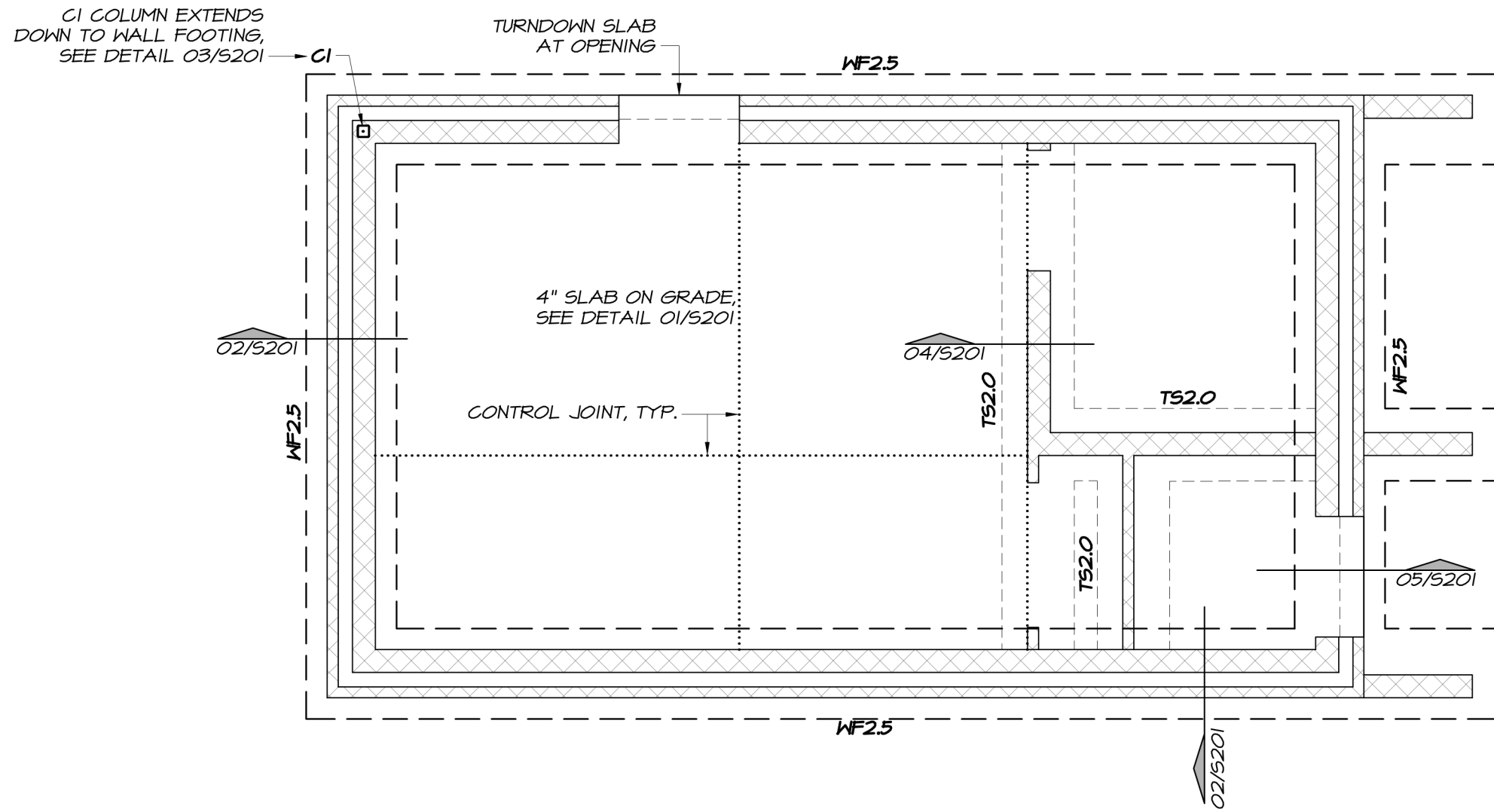
PROJECT NO. 133920-237812

FILE NAME: LA# 12383

SHEET NO.

S100.1

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01 FOUNDATION PLAN
1/4" SCALE

- FOUNDATION PLAN NOTES**
- ALL ELEVATIONS ARE MEASURED FROM A REFERENCE FINISHED FLOOR ELEVATION OF 0'-0".
 - TOF (-1'-4") DENOTES A TOP OF FOOTING ELEVATION OF 1'-4" BELOW TOP OF FINISHED FLOOR.
 - SEE DETAIL 01/S201 FOR TYPICAL SLAB ON GRADE CONSTRUCTION.
 - IF STEPPED FOOTINGS ARE REQUIRED, CONTACT STRUCTURAL ENGINEER OF RECORD FOR DETAILS.
 - SLOPE EXTERIOR SLABS AWAY FROM BUILDING FOUNDATION WALLS FOR DRAINAGE.
 - SEE PLUMBING DRAWINGS FOR FLOOR DRAIN AND PIPING PENETRATIONS THROUGH THE FLOOR SLAB AND FOR PIPES ENTERING THE BUILDING. STEP FOOTINGS AS REQUIRED SO THAT PIPES CAN GO UNDER OR OVER FOOTINGS. COMPACT SOIL AROUND PIPES.
 - REFER TO ARCHITECTURAL PLANS FOR ALL DIMENSIONS.

FOOTING SCHEDULE			
MK#	SIZE	REINFORCING	NOTES
TS2.0	2'-0" W x 1'-0" THICK	(2)#5 CONT.	1-2
MF2.5	2'-6" W x 1'-0" THICK	(3)#5 CONT.	1-2

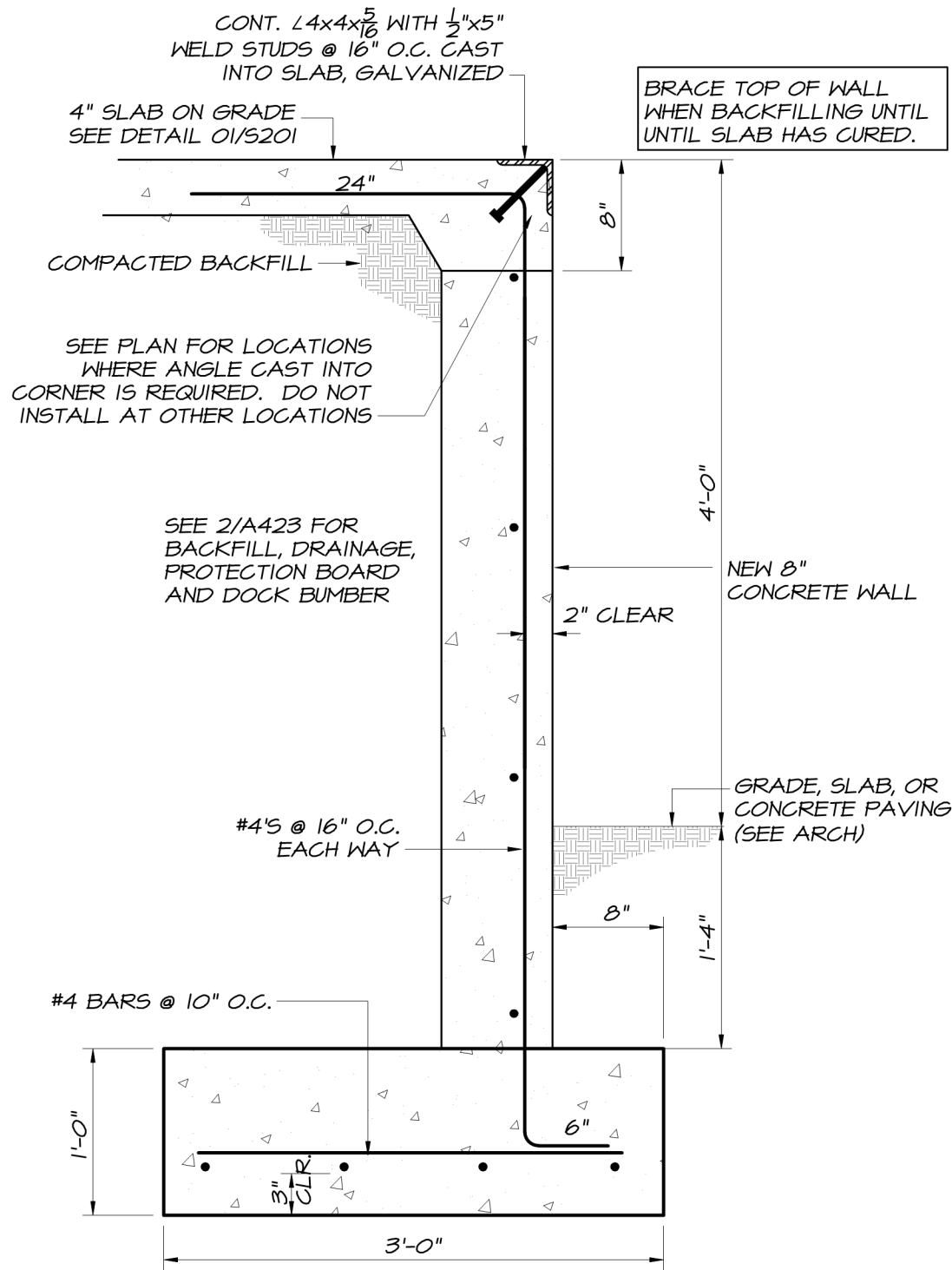
NOTES

- BOTTOM BARS ARE LOCATED 3" FROM BOTTOM OF FOOTING.
- SEE GENERAL STRUCTURAL NOTES FOR REINFORCING AND CONCRETE REQUIREMENTS.

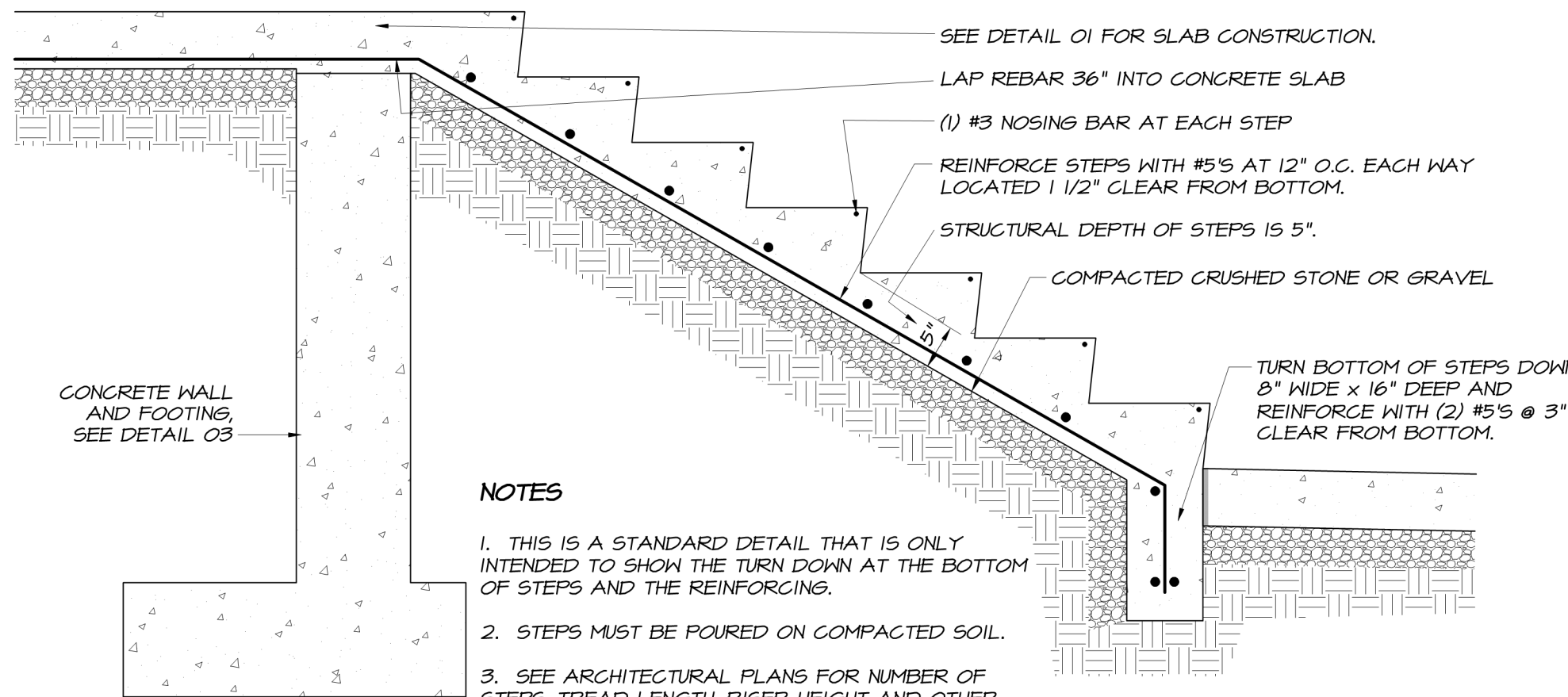
COLUMN SCHEDULE				
MK#	SHAPE	BASEPLATE	A. B.	PATTERN
C1	HSS 4x4x3/8"	3/4 x 12 x 12	3/4" DIA.	4" x 4"

NOTES

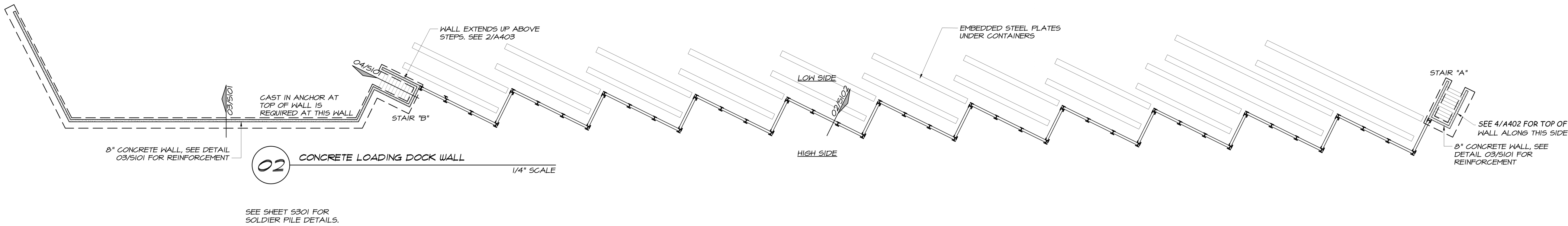
- HSS TUBE COLUMNS ARE ASTM A500 (FY = 46 KSI FOR TUBE).
- USE F1554 (GRADE 36) A.B.'S WITH WASHERS AND HEAVY HEX NUTS BOTH ENDS.
- A.B.'S SHALL HAVE 8" MINIMUM EMBED + 4" HOOK.



03 SECTION THROUGH RETAINING WALL
1" SCALE



04 SECTION THROUGH CONCRETE STEPS ON GRADE
3/4" SCALE



02 CONCRETE LOADING DOCK WALL
1/4" SCALE

REV. NO.	DATE	DRWN	CHKD	REMARKS

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DRAWN BY: GTH
SHEET CHK'D BY: CAL
CROSS CHK'D BY: CAL
APPROVED BY: CAL
DATE: MARCH 2021

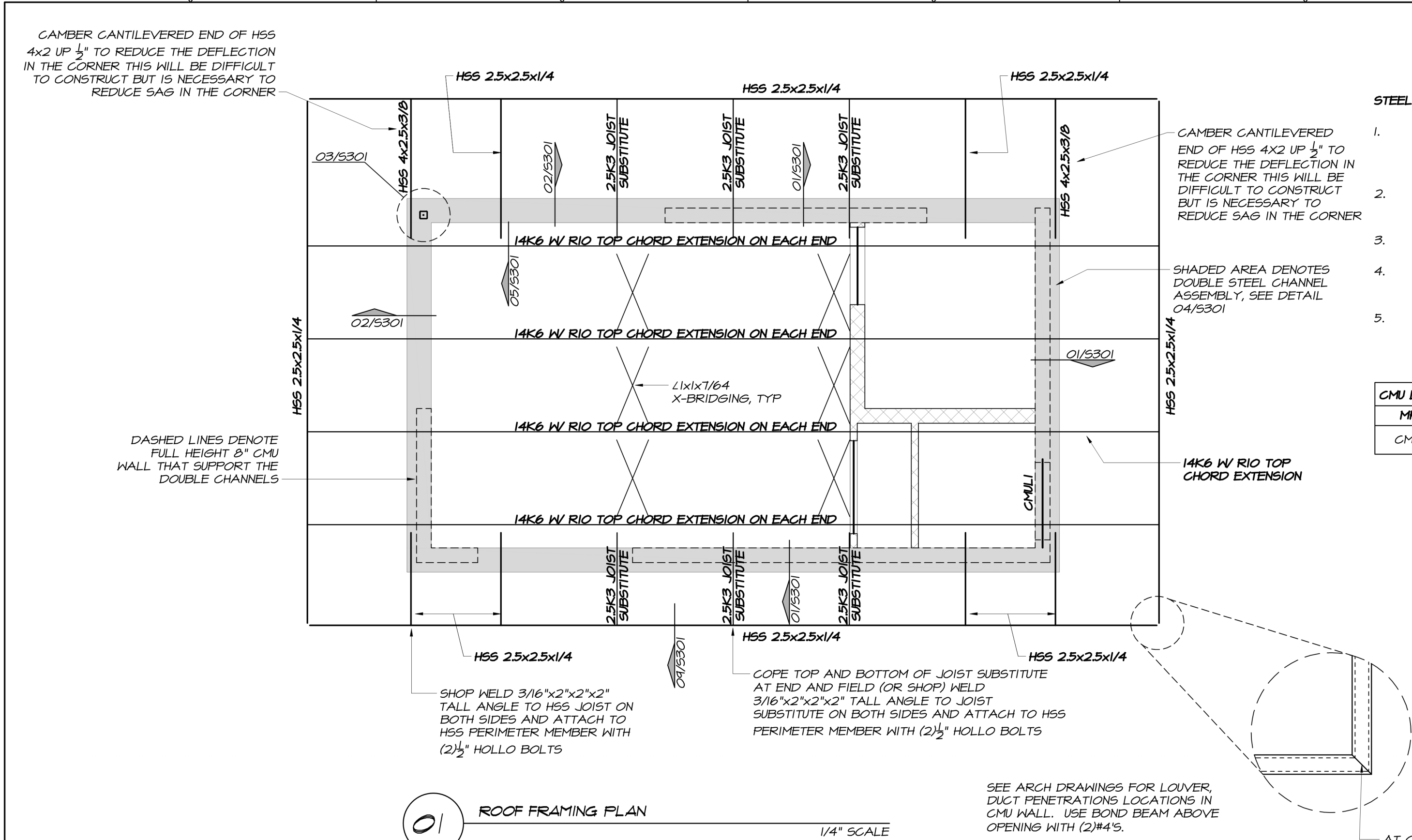
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NEW HANOVER COUNTY, NORTH CAROLINA
NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

FOUNDATION PLAN

PROJECT NO. 133920-237812
FILE NAME: LA# 12383
SHEET NO.
S101

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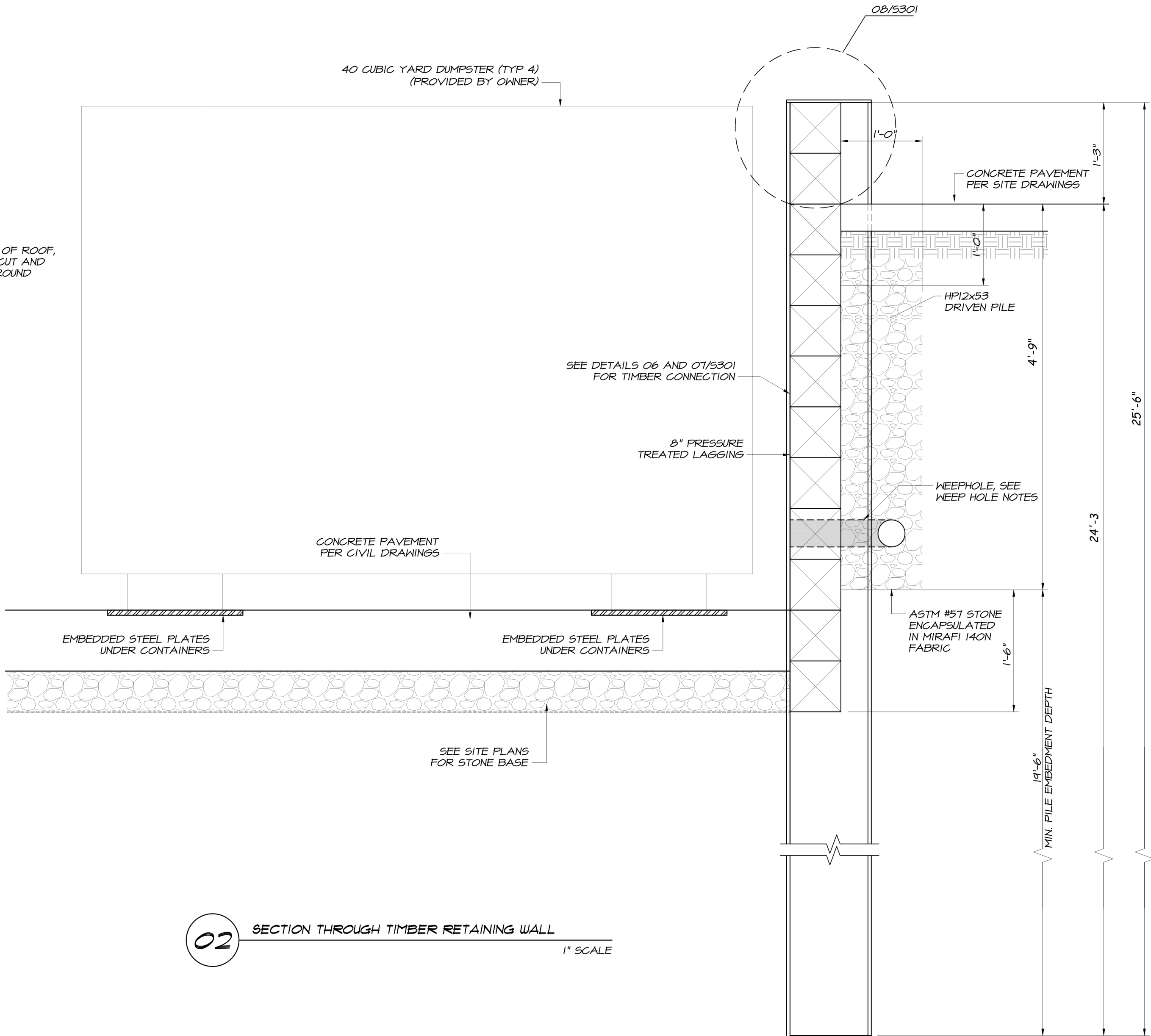
STEEL ROOF FRAMING PLAN NOTES

1. ROOF DECK WILL BE 1 1/2"x20 GAGE, SEE ROOF DECK SECTION OF GENERAL STRUCTURAL NOTES FOR MORE INFORMATION.
2. SEE DETAIL 10/S301 FOR JOIST REINFORCING DETAIL AT CONCENTRATED LOADS.
3. SEE ARCHITECTURAL DRAWINGS FOR ROOF DRAINAGE PLAN.
4. TOP & BOTTOM CHORD JOIST BRIDGING ANGLES SHALL BE 1x1x7/64.
5. USE 4 X 4 X 1/4 ANGLE TO FRAME OUT ROOF OPENINGS. COORDINATE SIZE AND LOCATION WITH MECHANICAL DRAWINGS, SEE DETAIL 11/S301.

CMU LINTEL SCHEDULE			
MK#	MAX. OPNG.	8" CMU LINTEL	BEARINGS
CMUL1	4'-0"	8" X 8" CMU BOND BEAM WITH (2) #4 CONT.	6" EACH END

WEEP HOLE NOTES

1. INSTALL 4" PERFORATED PVC PIPE ALONG LENGTH OF WALL, 4" ABOVE BOTTOM OF GRANULAR FILL.
2. PROVIDE (2) PVC TEE CONNECTIONS SPACED AT 4'-0" BETWEEN ADJACENT PILES.
3. WEEP HOLES SHALL BE INSTALLED AT MIDPOINT OF FIRST LAGGING BOARD ABOVE CONCRETE PAD.



03/22/2021

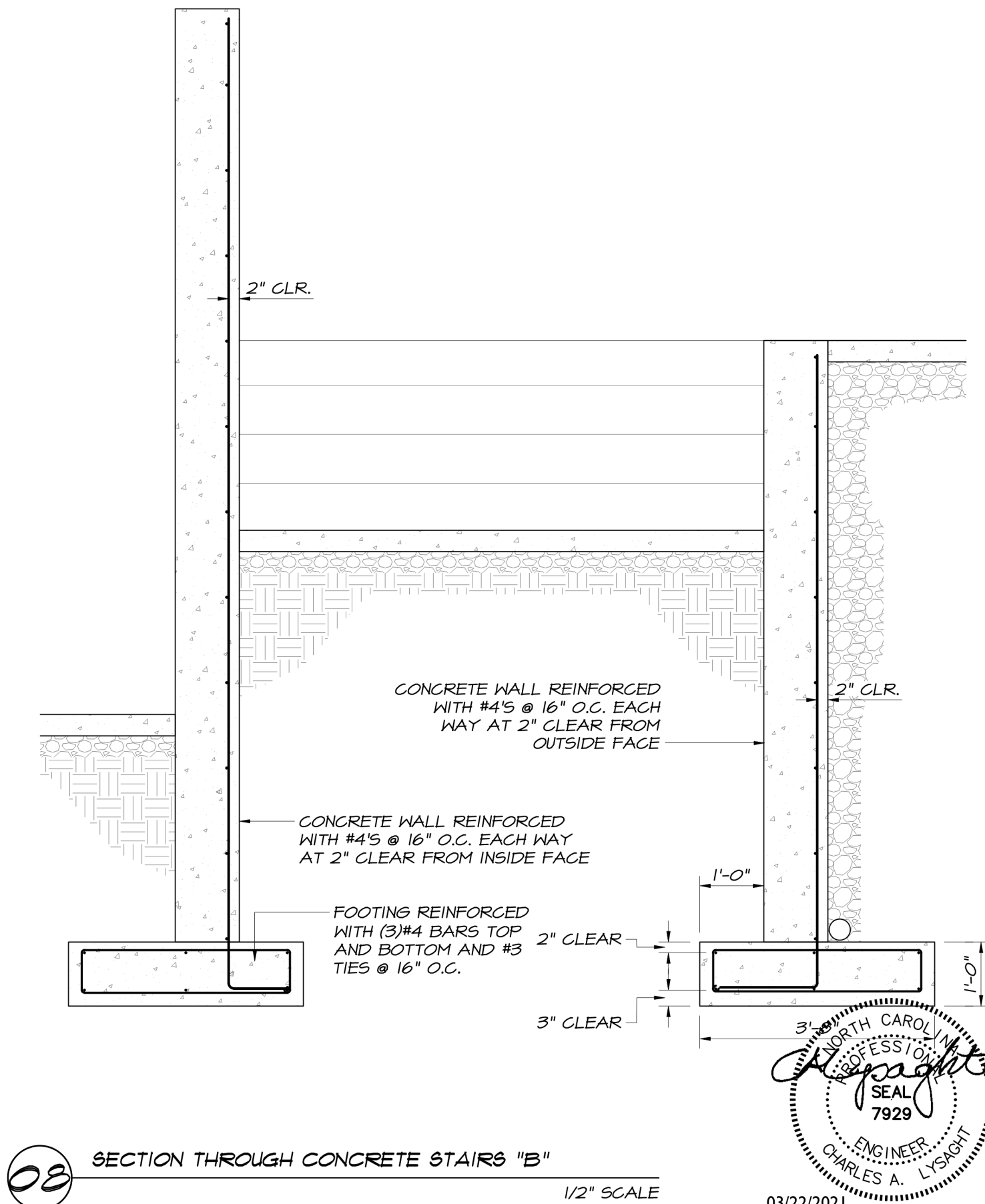
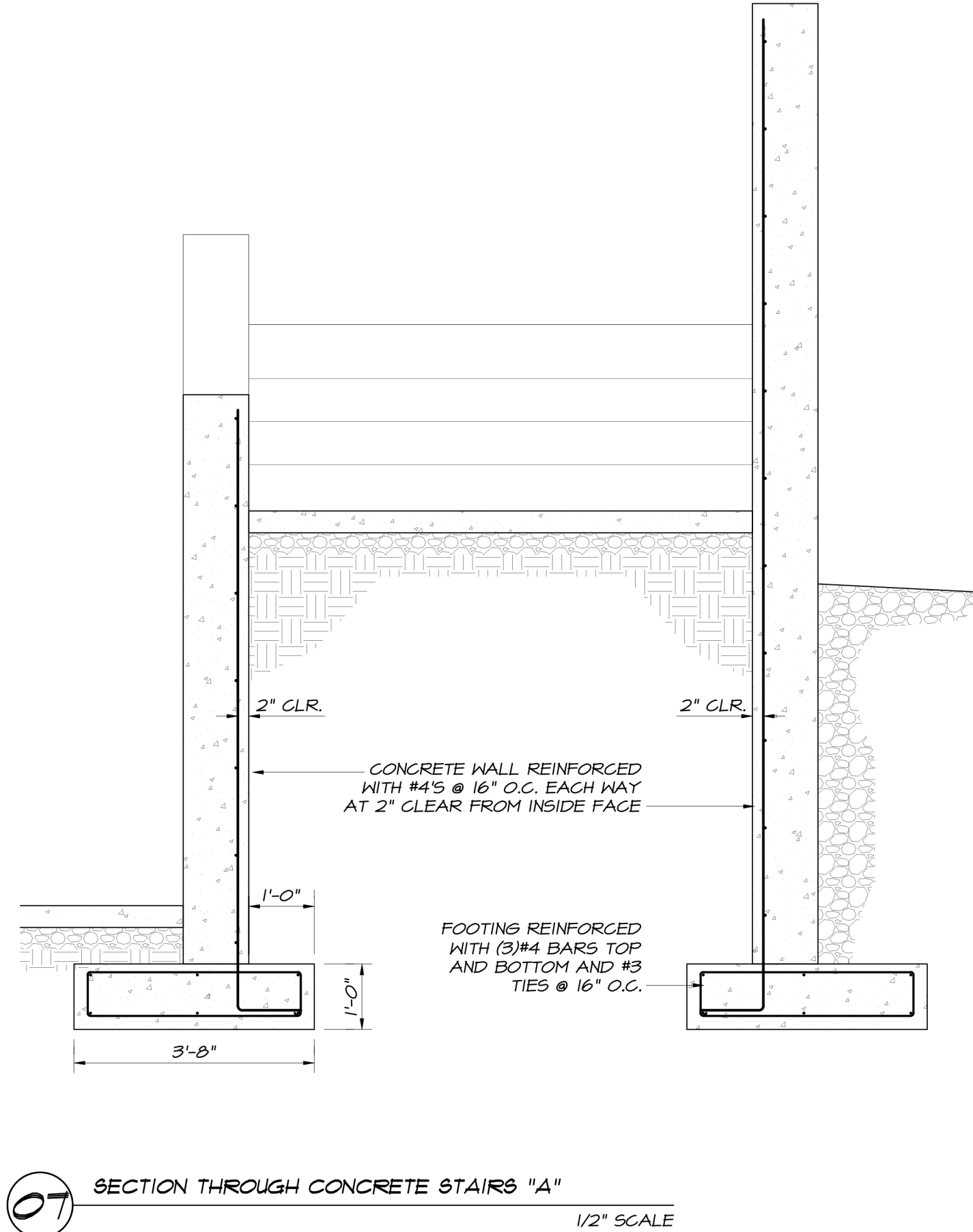
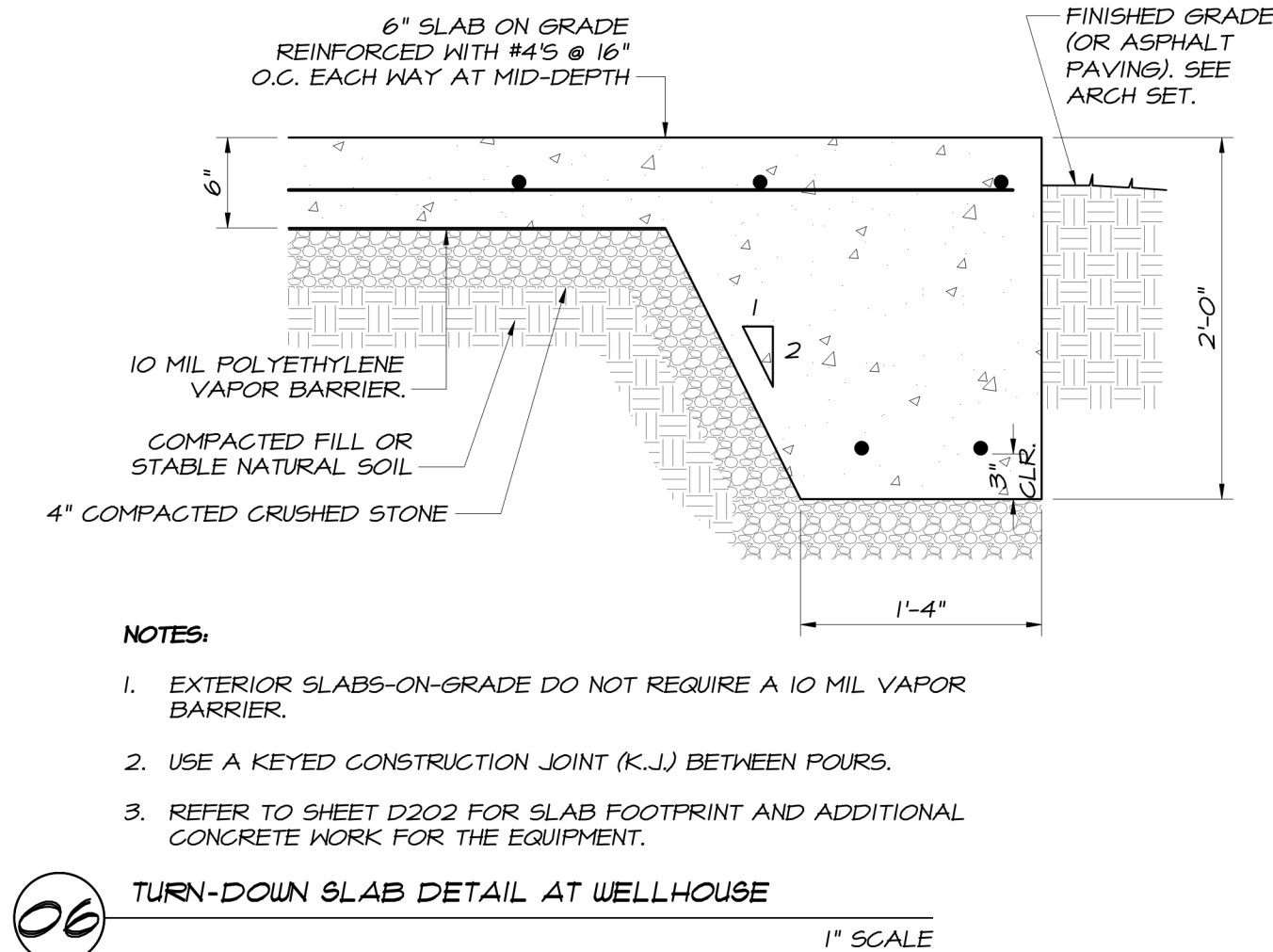
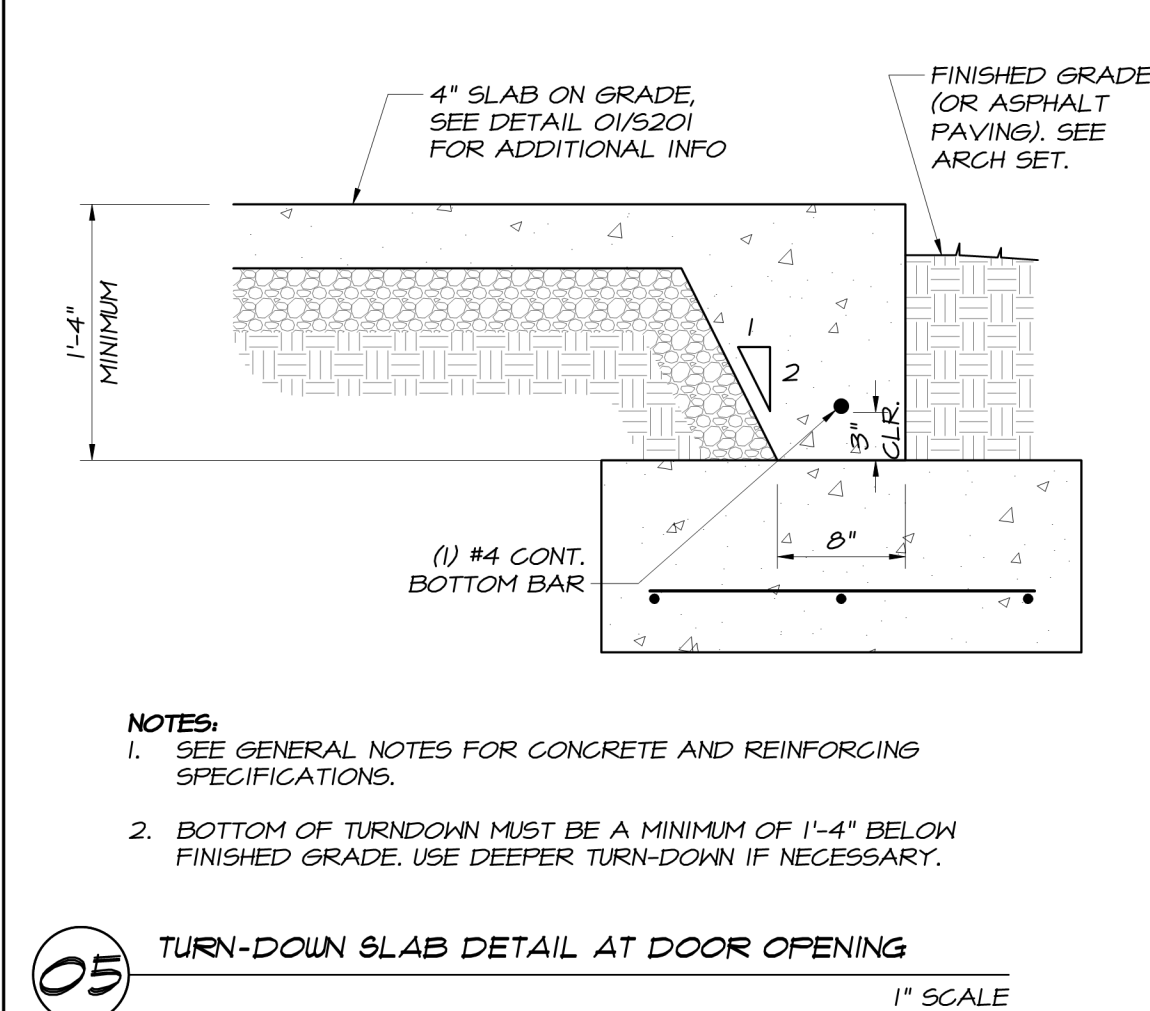
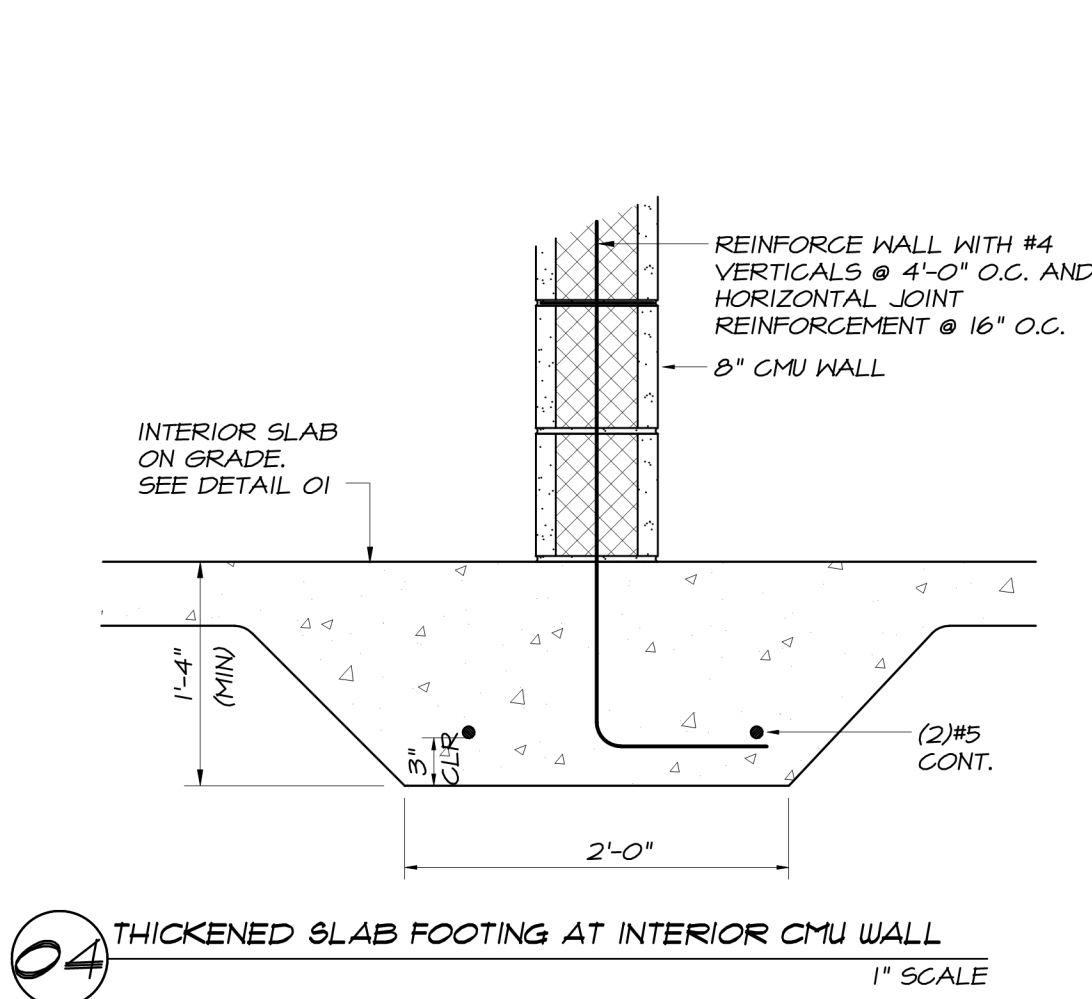
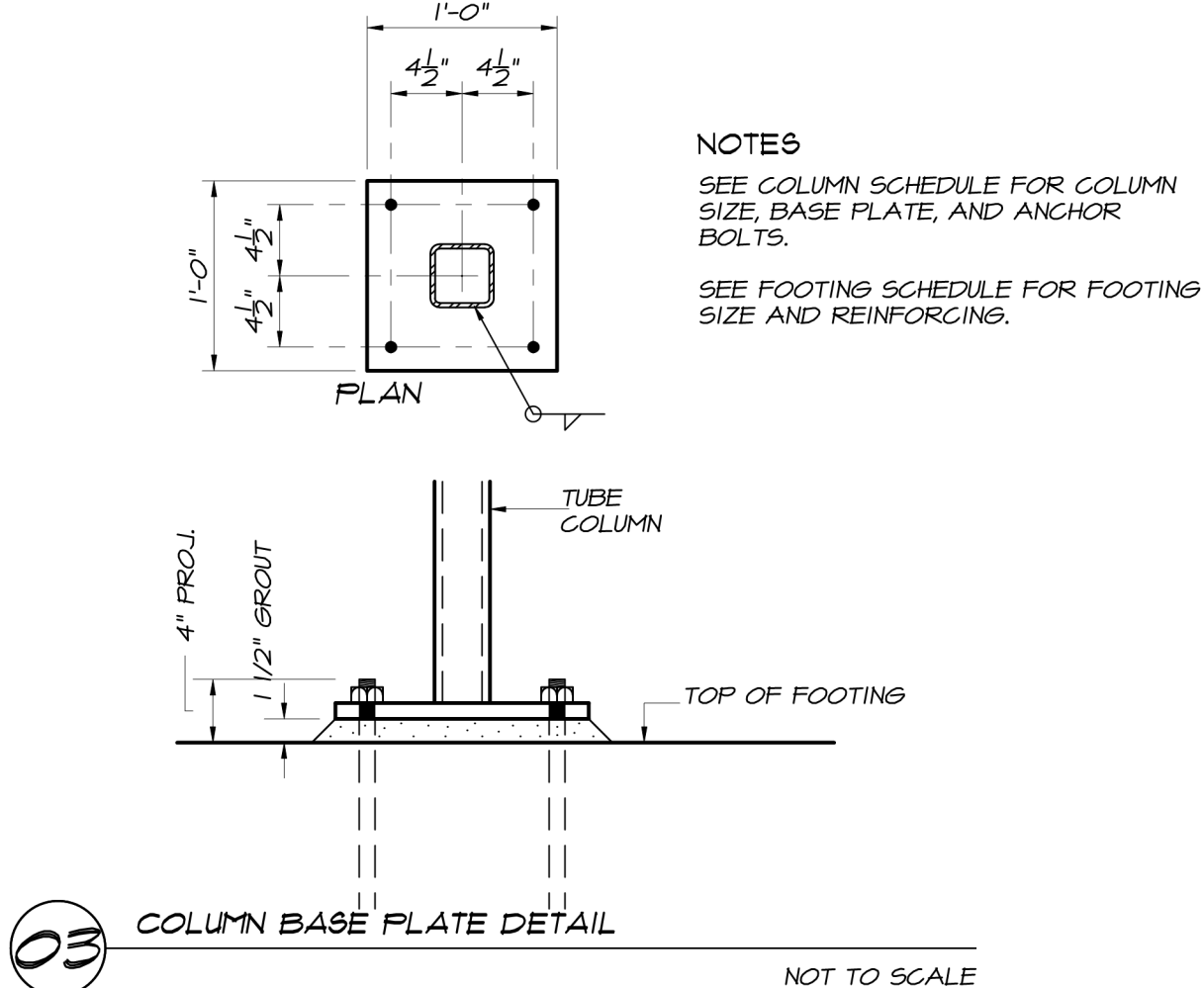
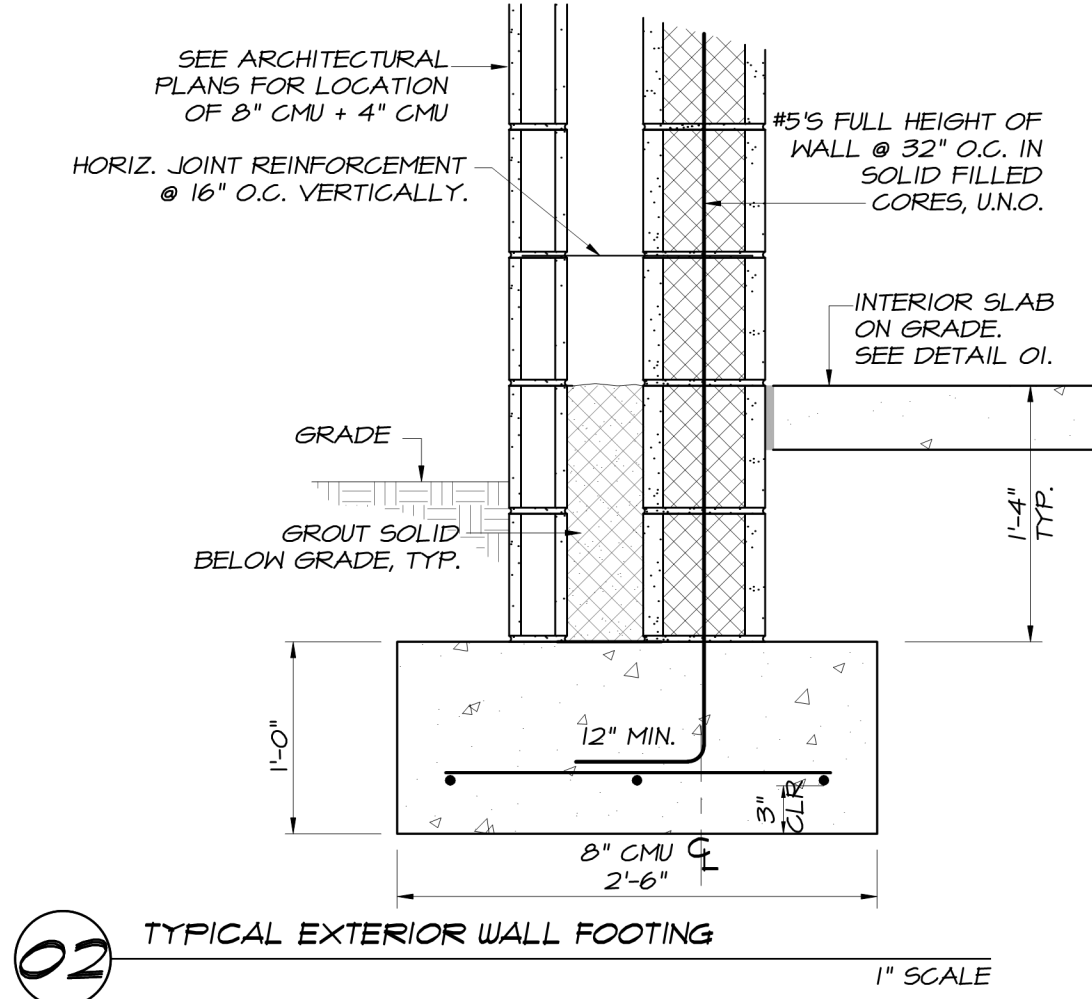
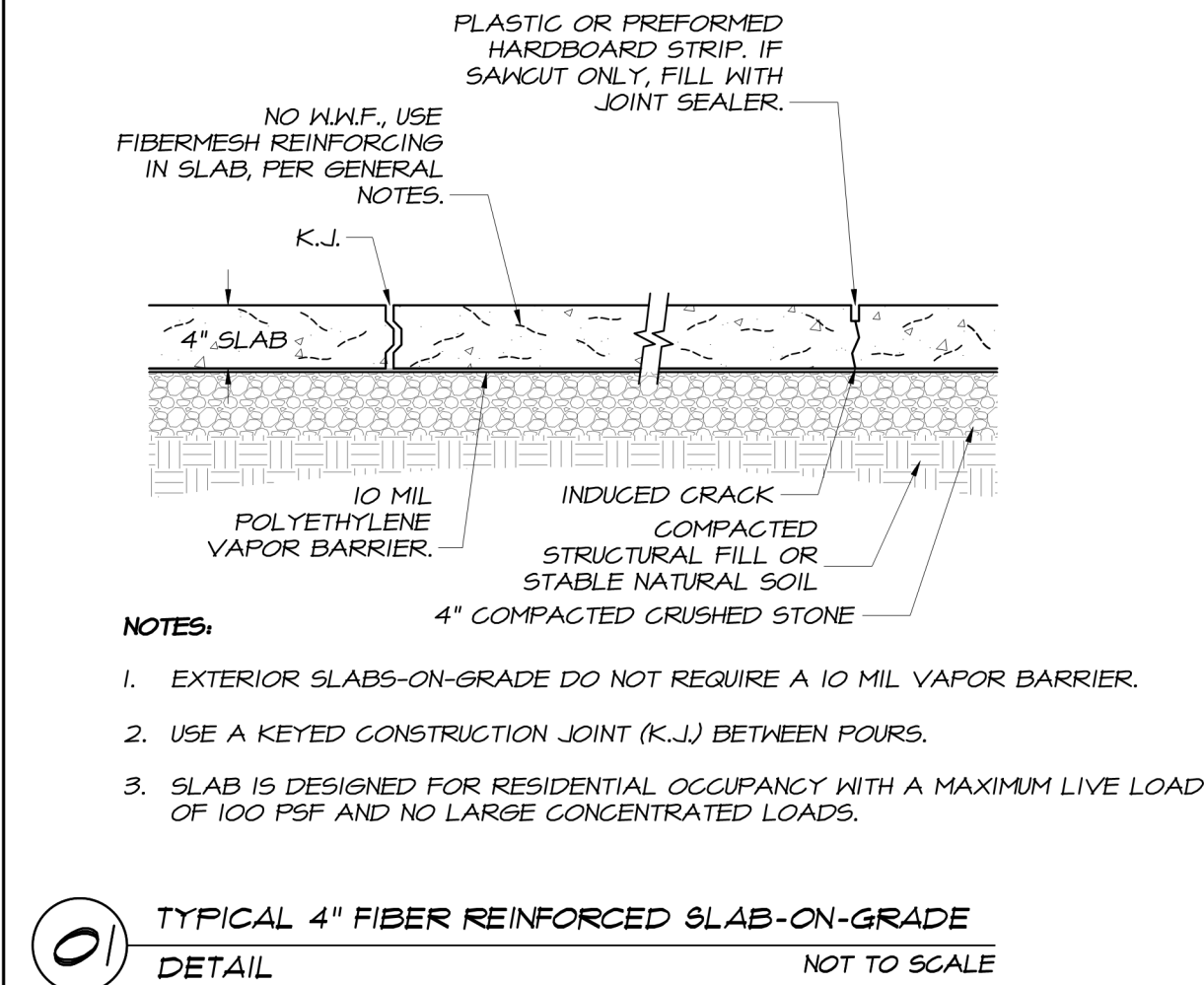
PROJECT NO. 133920-237812
FILE NAME: LA# 12383

SHEET NO.

S102

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SHEET CHK'D BY:	CAL
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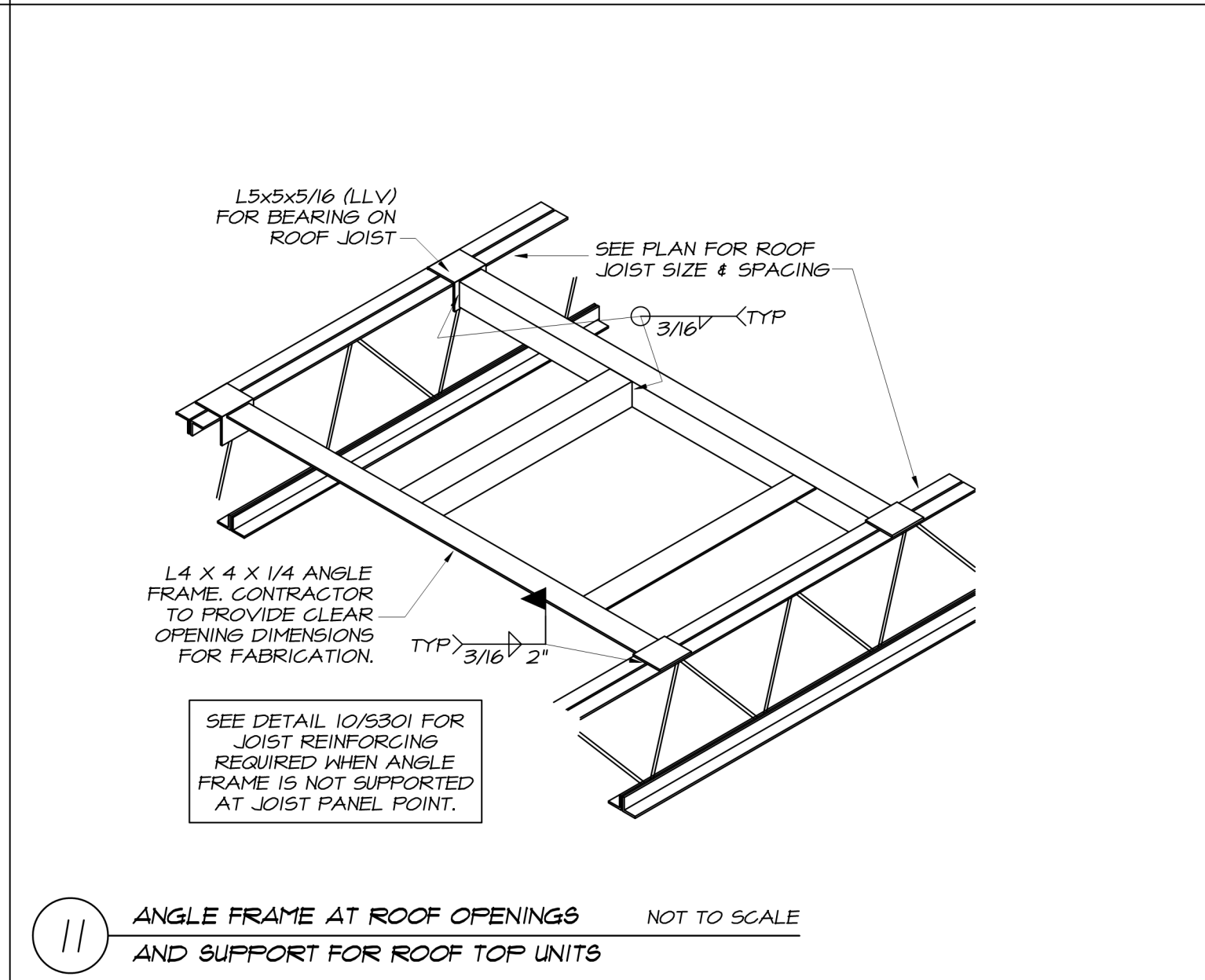
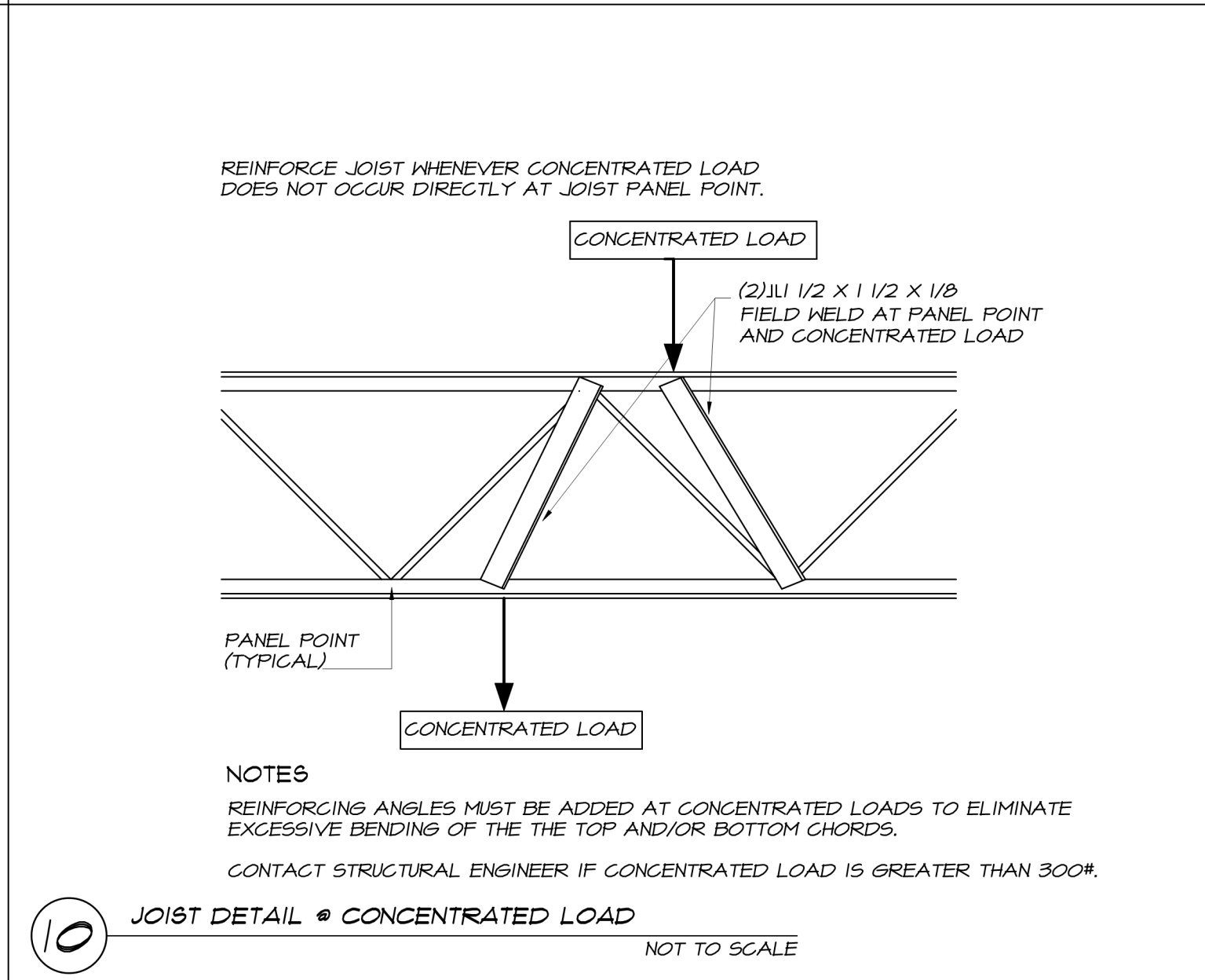
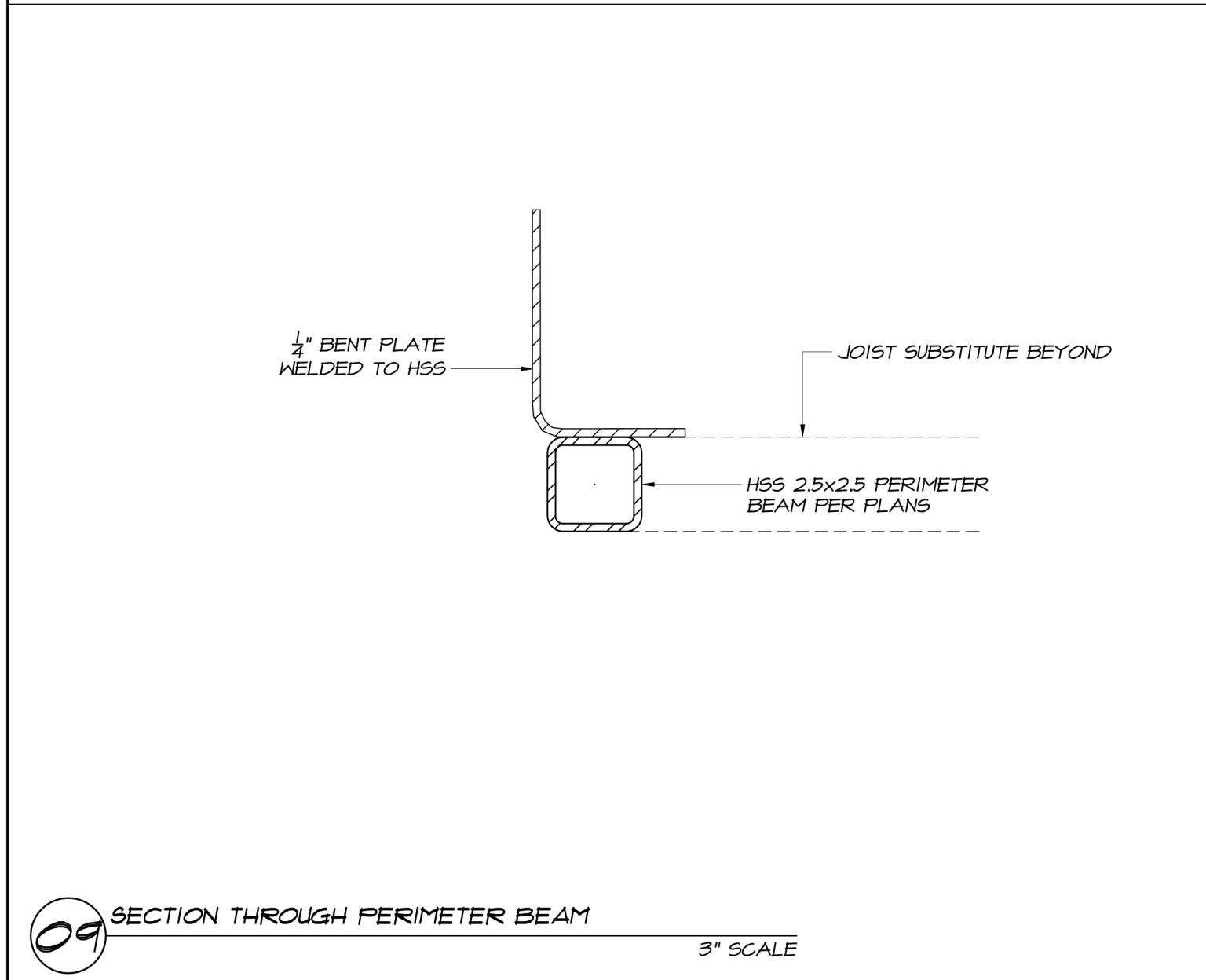
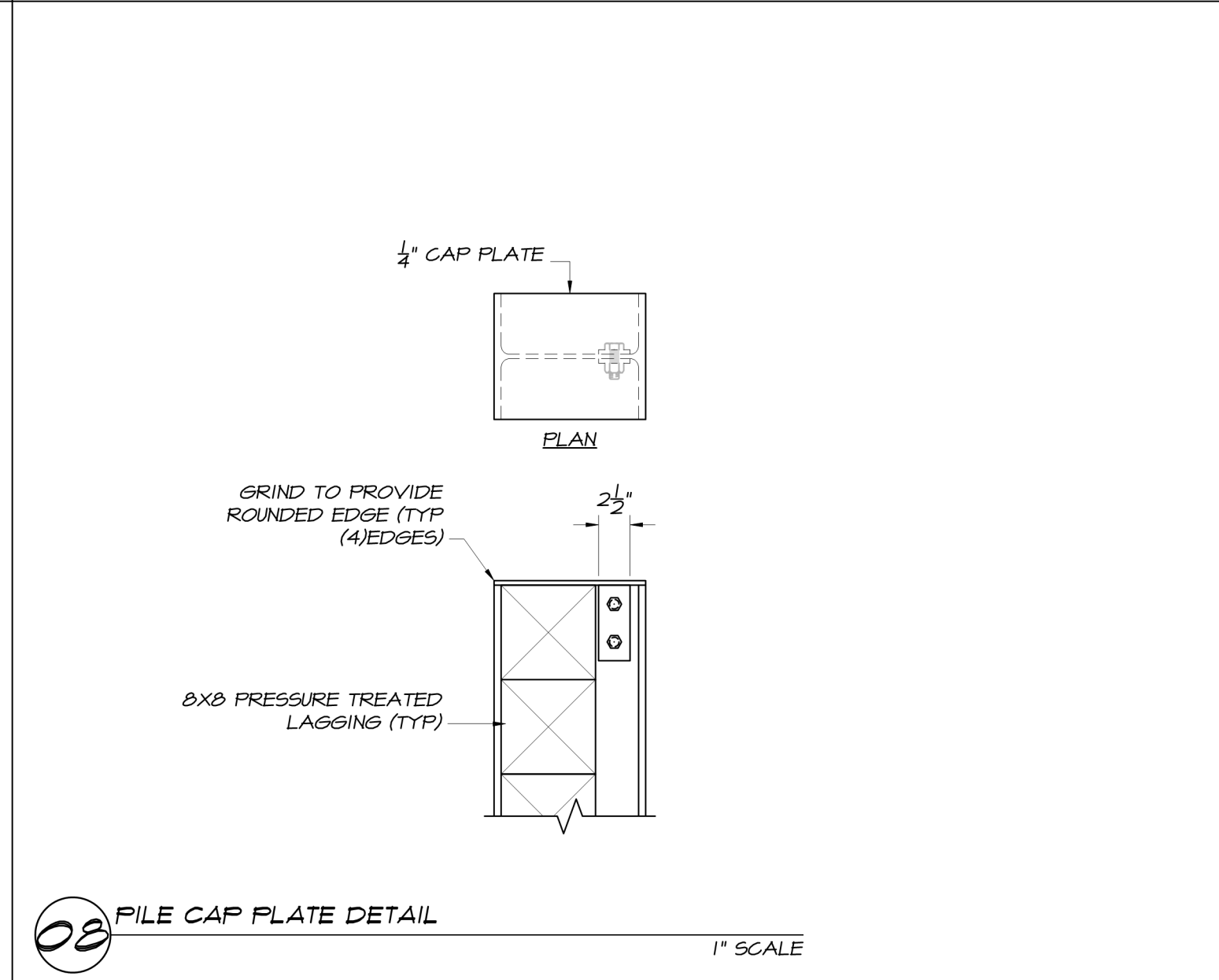
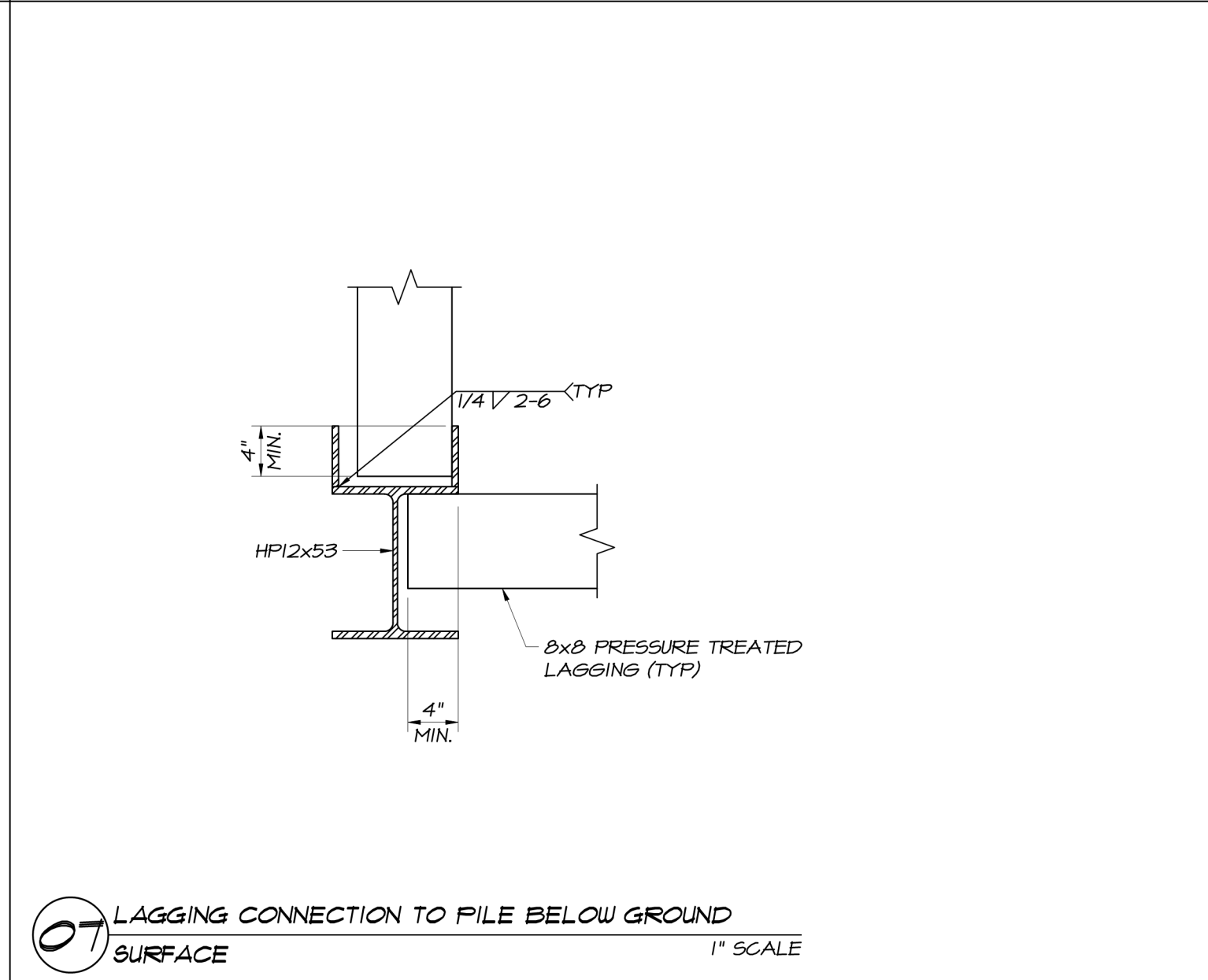
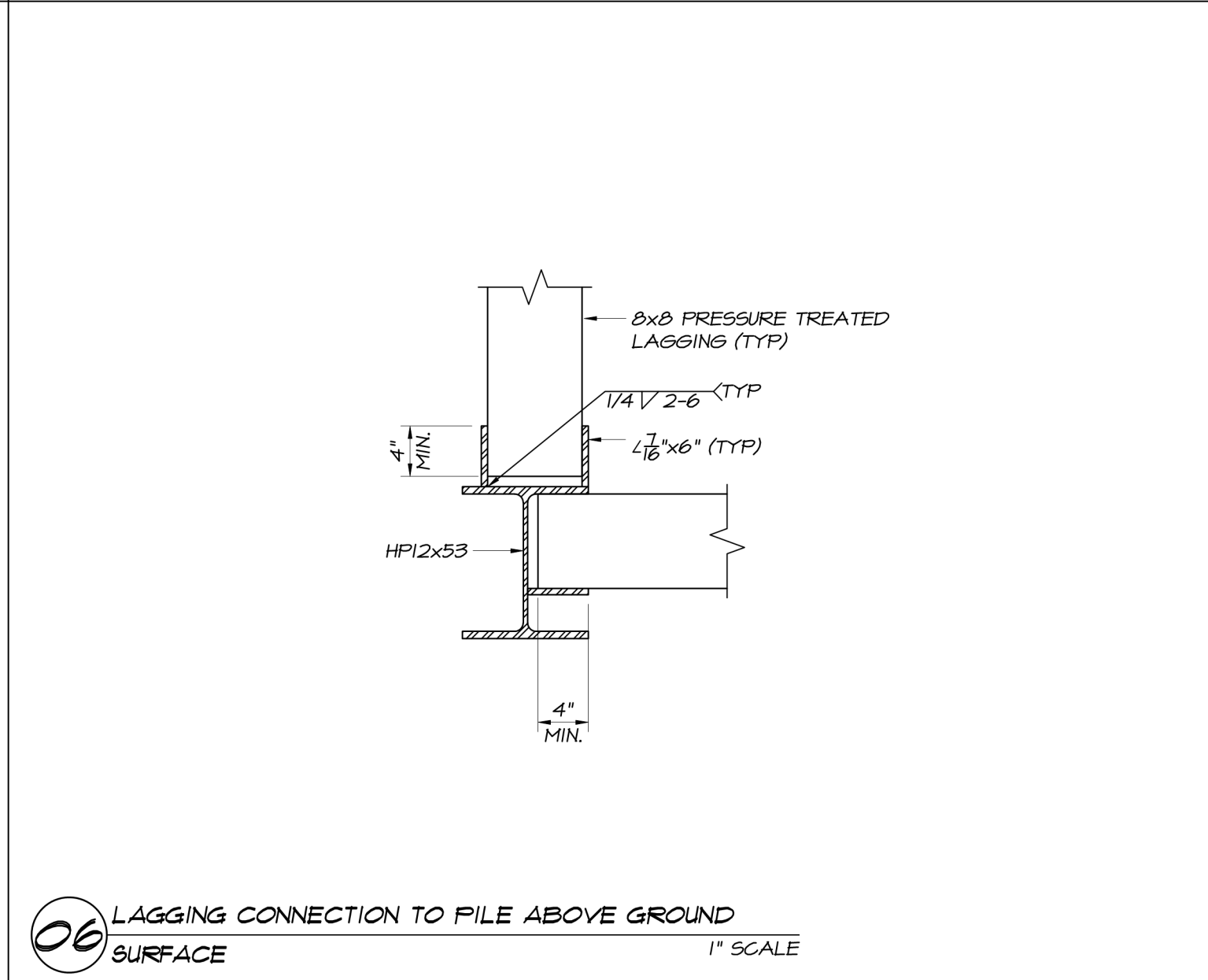
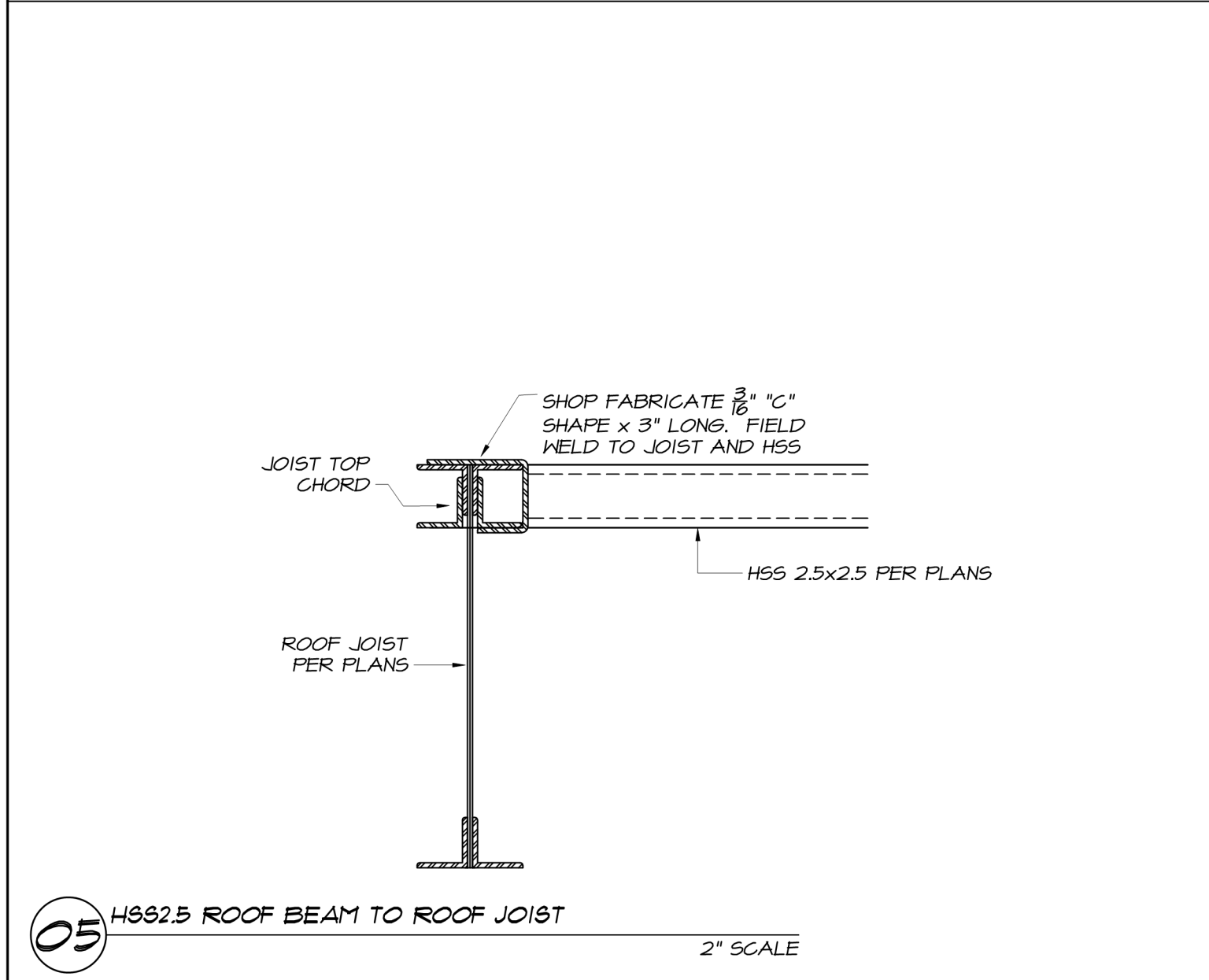
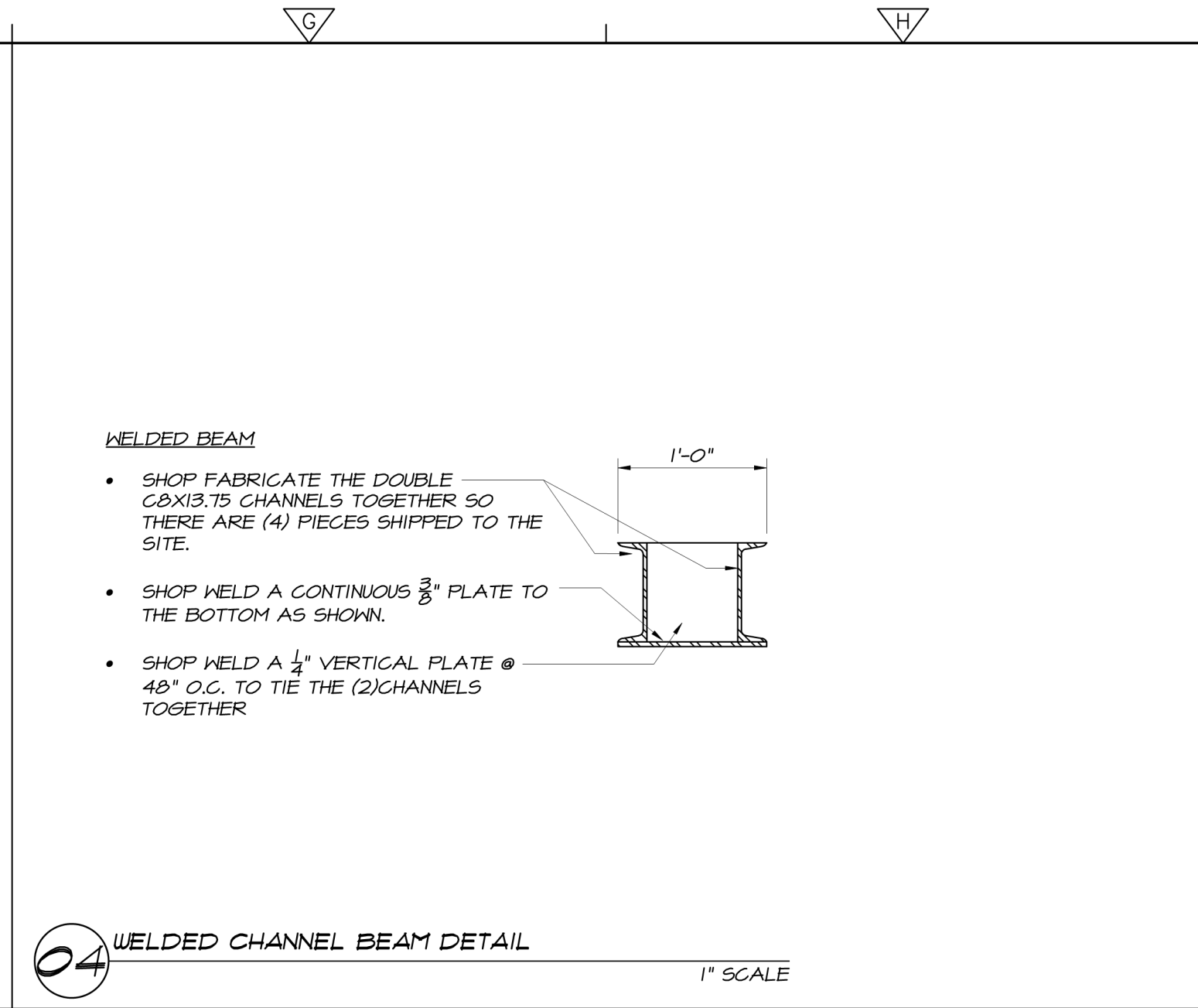
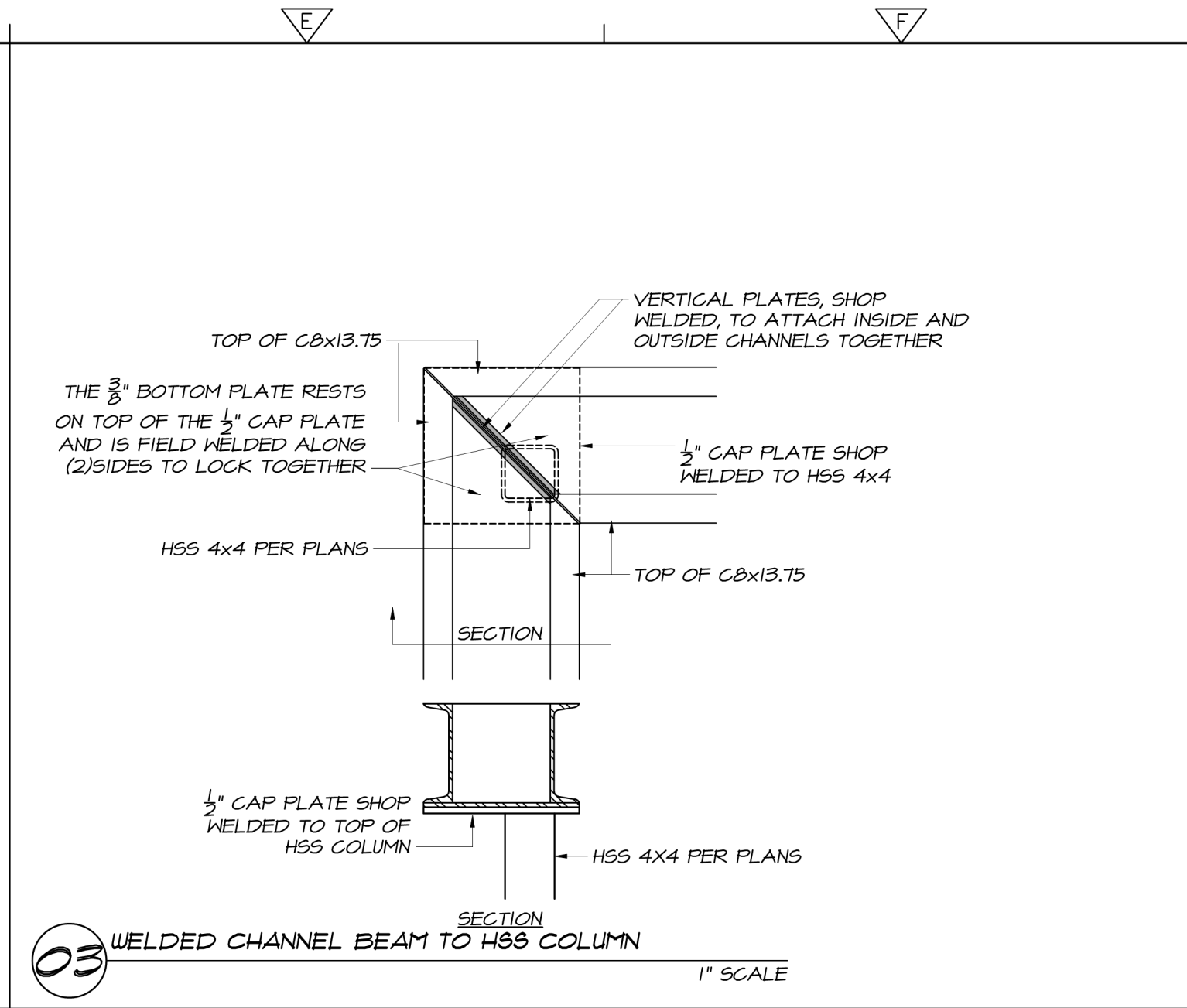
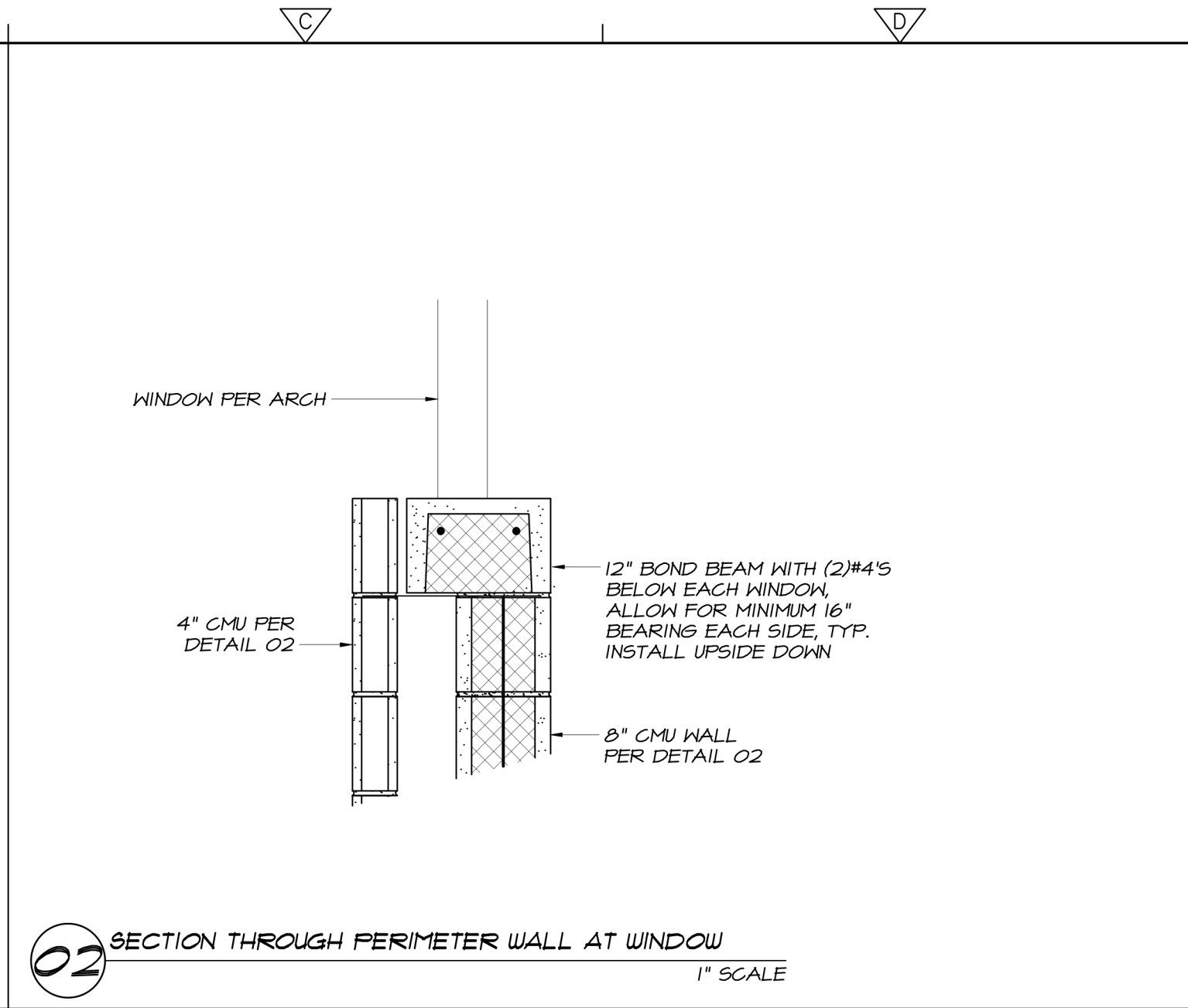
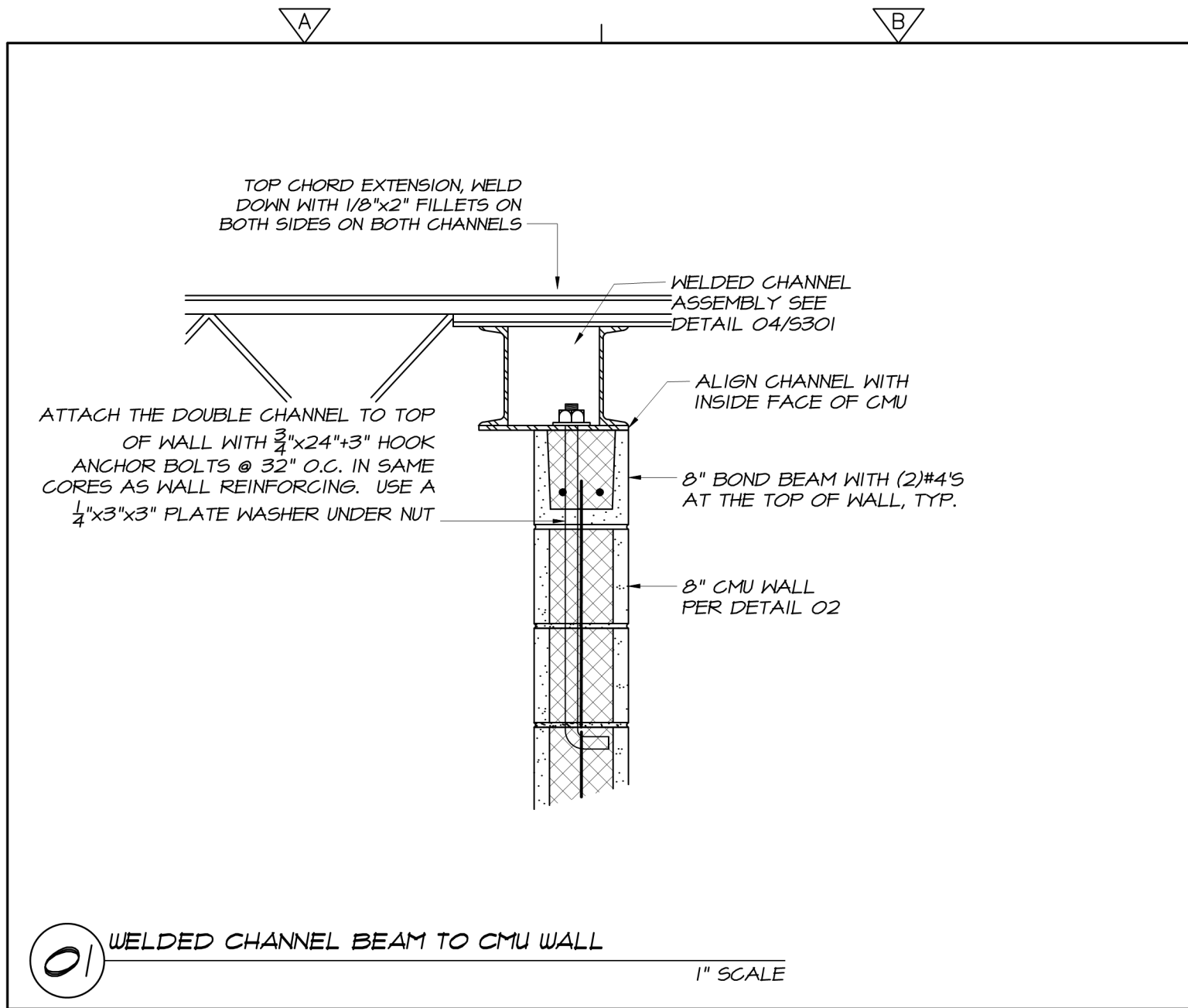
NEW HANOVER COUNTY, NORTH CAROLINA

NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

STRUCTURAL FOUNDATION
DETAILS

PROJECT NO.	133920-237812
FILE NAME:	LA# 12383
SHEET NO.	S201

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SHEET CHK'D BY: CAL
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APPROVED BY: CAL
DATE: MARCH 2021

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NEW HANOVER COUNTY, NORTH CAROLINA
NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

STRUCTURAL FRAMING
DETAILS

PROJECT NO. 133920-237812
FILE NAME: LA# 12383
SHEET NO. S301

MECHANICAL SYSTEMS ENERGY CODE COMPLIANCE

PRESCRIPTIVE: ☒

ENERGY COST BUDGET: ☐

THERMAL ZONE: 3A

EXTERIOR DESIGN CONDITIONS:

WINTER DRY BULB: 23°F

SUMMER DRY BULB: 93°F

SUMMER WET BULB: 79°F

INTERIOR DESIGN CONDITIONS:

WINTER DRY BULB: 70°F

SUMMER DRY BULB: 75°F

AREA HEAT LOAD: 13.4 MBH

AREA COOLING LOAD: 18.5 MBH

MECHANICAL CONDITIONING SYSTEM:

DESCRIPTION OF UNIT: SPLIT SYSTEM HEAT PUMP

HEATING EFFICIENCY: 9.00 BTU/H/WATT HSPF

COOLING EFFICIENCY: 16 SEER

HEATING OUTPUT: 11.8 MBH W/

3.6 KW ELECTRIC HEAT

COOLING OUTPUT: 18.8 MBH

BOILER OUTPUT: N/A

CHILLER TOTAL CAPACITY: N/A

DESIGNER STATEMENT:

TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN OF THIS BUILDING COMPLIES WITH THE MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT REQUIREMENTS OF THE NORTH CAROLINA STATE BUILDING CODE, 2018 ENERGY CONSERVATION CODE.

SIGNED: _____

NAME: PAUL J. ROMITI, PE

TITLE MECHANICAL ENGINEER

MECHANICAL CALCULATIONS

BUILDING DATA FOR DESIGN:
FLOOR AREA: **375 SF** ROOF AREA: **375 SF**

INTERIOR DESIGN CONDITIONS:
SUMMER DRY BULB: **75°F** WINTER DRY BULB: **70°F**
SUMMER HUMIDITY: **50%** WINTER HUMIDITY: **50%**

BUILDING HEAT LOAD: **17,902 BTUh**
DESIGN SKIN HEAT LOSSES: **7,957 BTUh**
SYSTEM LOSSES: **3,977 BTUh**
VENTILATION HEATING LOAD: **5,968 BTUh**








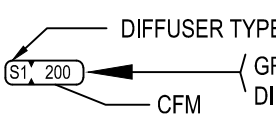
BUILDING COOLING LOAD: **1.5 Tons**
DESIGN SKIN HEAT GAIN: **4,790 BTUh**
SYSTEM LOSSES: **2,890 BTUh**
INTERNAL SENSIBLE HEAT GAIN: **5,887 BTUh**
INTERNAL LATENT HEAT GAIN: **392 BTUh**
VENTILATION COOLING LOAD: **4,578 BTUh**

OUTDOOR AIR CALCULATIONS:
DESIGN OCCUPANCY TYPE: **OFFICE**
OCCUPANCY: **2 PEOPLE**
OA VENTILATION RATE: **5 CFM/PERSON**
0.06 CFM/SQFT
TOTAL REQUIRED OA: **23 CFM**




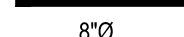
BUILDING PRESSURIZATION:
OUTSIDE AIR PROVIDED: **110 CFM**
EXHAUST AIR: **110 CFM**
BUILDING PRESSURIZATION: **EVEN**

MECHANICAL LEGEND

MISCELLANEOUS SYMBOLS AND ABBREVIATIONS

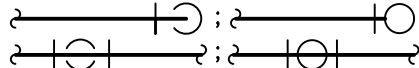
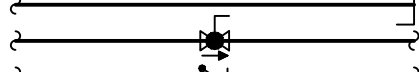

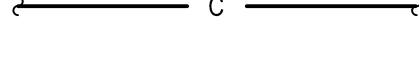



	SIDEWALL DIFFUSER, GRILLE OR REGISTER
	EXHAUST GRILLE OR REGISTER
	SUPPLY GRILLE OR DIFFUSER
	RETURN GRILLE OR REGISTER
	THERMOSTAT OR TEMPERATURE INDICATOR (THERMOSTATS SHALL BE MOUNTED A MAXIMUM OF 48" AFF.)
AAV	AUTOMATIC AIR VENT
AFF	ABOVE FINISH FLOOR
BFF	BELOW FINISHED FLOOR
L	CENTER LINE
CFM	CUBIC FEET PER MINUTE
COP	CLEAN OUT PLUG
CR	CONDENSATE RETURN
CTRL	CONTROL
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
DB	DRY BULB
DN	DOWN
ΔT	DELTA T
EA	EXHAUST AIR
EB	EXHAUST BOX
EC	ELECTRICAL CONTRACTOR
ESP	EXTERNAL STATIC PRESSURE
(ETR)	EXISTING TO REMAIN
EWT	ENTERING WATER TEMPERATURE
(EX)	EXISTING
FLA	FULL LOAD AMPS
FSM	FEET PER MINUTE
GA	GAUGE
GC	GENERAL CONTRACTOR
GPM	GALLONS PER MINUTE
GRD	GROUND
HP	HORSEPOWER
HPS	HIGH PRESSURE STEAM
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
LAT	LEAVING AIR TEMPERATURE
LPS	LOW PRESSURE STEAM
LWT	LEAVING WATER TEMPERATURE
MVD	MANUAL VOLUME CONTROL DAMPER
MB	MIXING BOX
MC	MECHANICAL CONTRACTOR
MPS	MEDIUM PRESSURE STEAM
MTD	MOUNTED
N/A	NOT APPLICABLE
OA	OUTSIDE AIR
OC	ON CENTER
OP	OPERATED
PC	PLUMBING CONTRACTOR
PHC	PREHEAT COIL
QTY	QUANTITY
RA	RETURN AIR
RAF	RETURN AIR FAN
REF	REFRIGERANT
RF	RELIEF AIR
RHC	REHEAT COIL
RM	ROOM
RPM	REVOLUTIONS PER MINUTE
RTU	ROOF TOP UNIT
(RX)	REMOVE EXISTING
SA	SUPPLY AIR
SAF	SUPPLY AIR FAN
TSP	TOTAL STATIC PRESSURE
TSTAT	THERMOSTAT
THRU	THROUGH
TYP	TYPICAL
UCD	UNDERCUT DOOR
UFAD	UNDER FLOOR AIR DISTRIBUTION
VAV	VARIABLE AIR VOLUME
VFD	VARIABLE FREQUENCY DRIVE
VP	VELOCITY PRESSURE
WB	WET BULB
XFER	TRANSFER
	REVISION NOTES
	SPECIFIC OR NEW WORK NOTES
21X12	RECTANGULAR DUCT
12"Ø	ROUND DUCT
21X12	FLAT OVAL DUCT
	

DUCTWORK SYMBOLS

	MANUAL VOLUME DAMPER (MVD)
	DUCT DROP
	DUCT RISE
	FLEXIBLE DUCT

NOTES:
ALL DUCT DIMENSIONS SHOWN ARE IN INCHES
AND ARE SHEET METAL SIZES UNLESS OTHERWISE SHOWN.

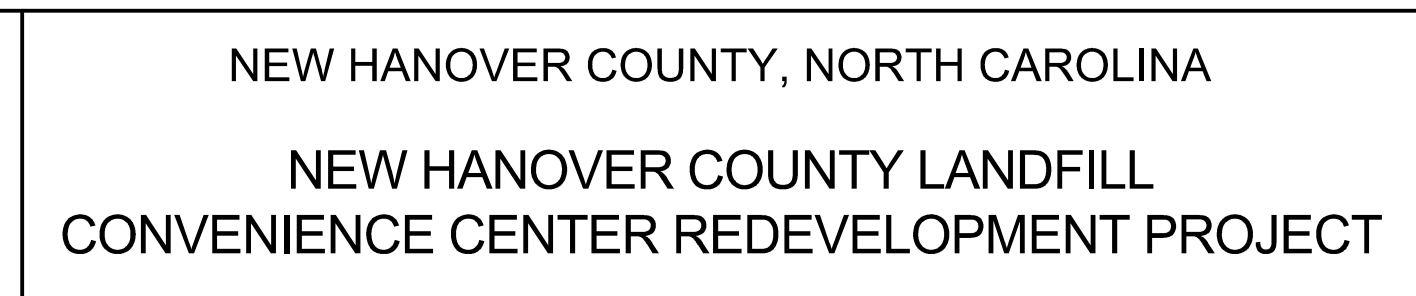
PIPING SYMBOLS

	PIPE ELBOW TURNS DOWN; UP
	PIPE TEES DOWN; UP
	PIPE CAP
	BALL VALVE
	CHECK VALVE
	REFRIGERANT
	CONDENSATE

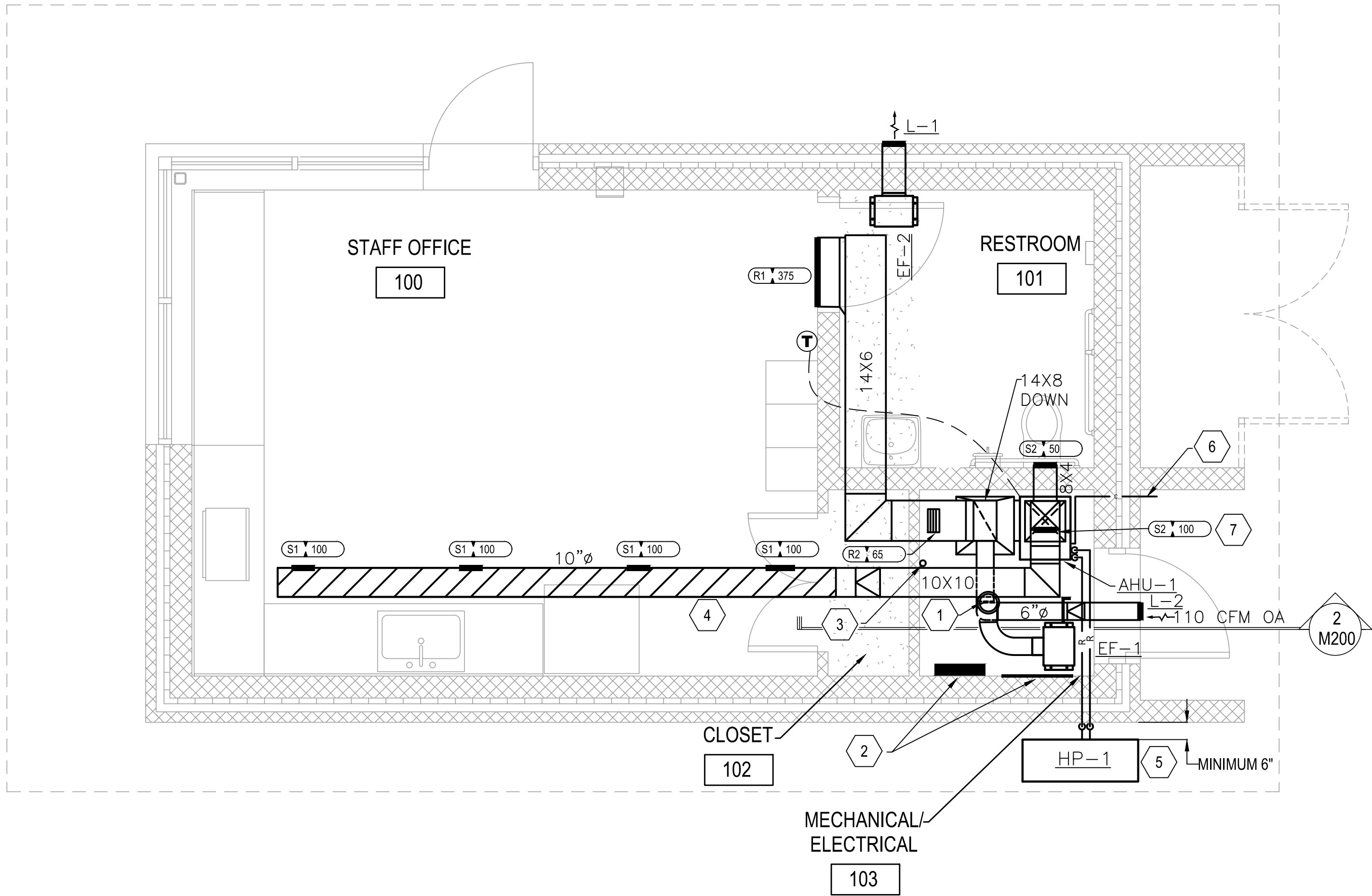
- THE DRAWINGS SHOW THE GENERAL ARRANGEMENT AND LOCATION OF EQUIPMENT, DUCTWORK, PIPING, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE MECHANICAL INSTALLATION WITH THE STRUCTURE AND OTHER TRADES AND SHALL PROVIDE ADDITIONAL OFFSETS AND FITTINGS AS NECESSARY.
2. PRIOR TO BIDDING, THE CONTRACTOR AND HIS SUBCONTRACTORS SHALL VISIT THE JOB SITE AND SHALL FAMILIARIZE THEMSELVES WITH ALL CONDITIONS UNDER WHICH WORK IS TO BE PERFORMED AND SHALL INCLUDE IN THE BID ALL WORK REQUIRED FOR A COMPLETE JOB. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN THE DRAWINGS AND EXISTING FIELD CONDITIONS A MINIMUM OF FIVE DAYS PRIOR TO BID.
3. THE HEATING, VENTILATING AND AIR CONDITIONING SYSTEMS SHALL COMPLY WITH THE 2018 NORTH CAROLINA MECHANICAL CODE AND NFPA 90A.
4. DUCT DIMENSIONS ON DRAWINGS ARE CLEAR INSIDE DIMENSIONS.
5. THE CONTRACTOR SHALL CHECK AND VERIFY ALL CLEARANCES PRIOR TO FABRICATION OR INSTALLATION OF EQUIPMENT, DUCTWORK, AND PIPING SYSTEMS. WHERE CONDITIONS REQUIRE A CHANGE IN DUCT OR PIPE ROUTING, NOTIFY THE ENGINEER FOR AN ACCEPTABLE ALTERNATIVE METHOD. AVOID ROUTING DUCTWORK DIRECTLY OVER LIGHT FIXTURES, DIFFUSERS, AND OTHER CEILING MTD. DEVICES. LOCATE ALL MECHANICAL EQUIPMENT SO THAT FILTERS AND COMPONENTS REQUIRING ACCESS (SERVICE AND MAINTENANCE) ARE FULLY ACCESSIBLE.
6. PROVIDE CURVED RADIUS ELBOW AT FIRST SUPPLY & RETURN FITTING FOR ALL HVAC UNITS. PROVIDE TURNING VANES IN ALL 90 DEGREE ELBOWS IN ALL RECTANGULAR SUPPLY/RETURN/EXHAUST DUCT SYSTEMS. ANY OFFSETS REQUIRED IN DUCT SYSTEMS SHALL BE INSTALLED PER SMACNA STANDARDS. SHARP ANGLED TRANSITIONS OR OFFSETS WILL NOT BE ALLOWED. PROVIDE DUCT ACCESS DOORS AT LOCATIONS SPECIFIED.
7. INSTALL ALL DUCT MOUNTED DEVICES (DAMPERS, ACCESS DOORS, ETC.) AND PIPING SPECIALTIES IN EASILY ACCESSIBLE LOCATIONS. ADVISE THE ENGINEER IN ADVANCE OF INSTALLATION IF ACCESS WILL BE HINDERED SO AN ALTERNATE LOCATION CAN BE SELECTED.
8. ALL MECHANICAL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS WITH PRESCRIBED CLEARANCES FOR SERVICE AND MAINTENANCE. THE CONTRACTOR SHALL NOTIFY THE CONTRACTING OFFICER IF RECOMMENDED CLEARANCES ARE NOT POSSIBLE BEFORE INSTALLING EQUIPMENT.
9. ALL ROTATING MECHANICAL EQUIPMENT SHALL BE PROVIDED WITH VIBRATION ISOLATION. PROVIDE FLEXIBLE NEOPRENE DUCT CONNECTORS BETWEEN DUCTWORK AND ISOLATED MECHANICAL EQUIPMENT.
10. THE CONTRACTOR SHALL FIRESTOP ALL PENETRATIONS OF FIRE RATED WALLS/FLOORS/CEILINGS BY DUCTWORK PIPING, ETC., WITH U.L. LISTED FIRE STOPPING MATERIAL TO MAINTAIN FIRE RATING OF THE BARRIER.
11. BALANCE ALL AIR DISTRIBUTION DEVICES, EXHAUST FANS, AND OUTSIDE AIR QUANTITIES AS OPENED/CLOSED OR SHOWN ON THE DRAWINGS. PROVIDE MARKERS AT ALL DAMPER LOCATIONS SHOWING FULL SCHEDULED POSITIONS AND DAMPER SETTING FOR REQUIRED AIRFLOW. PROVIDE FINAL TEST AND BALANCE REPORT ALONG W/ SCHEMATIC DRAWINGS SHOWING DIFFUSER LOCATION W/ DESIGN AND ACTUAL CFM. THE DIFFUSER TAGS ON THE DRAWINGS SHALL CORRESPOND TO THE DIFFUSER TAGS ON THE REPORT. THIS REPORT SHALL BE SUBMITTED BEFORE THE FINAL INSPECTION IS PERFORMED. SEE SPECIFICATION SECTIONS FOR FURTHER INFORMATION. DO NOT BALANCE FOR DIVERSITY.
12. IN THE AREA OF WORK, ANY 'OPEN' DUCTWORK INCLUDING INLET AND OUTLET REGISTERS AND DIFFUSERS SHALL BE COVERED WITH FILTRATING MATERIAL OR VISQUEU TO PROTECT INSIDE OF THE SYSTEM AGAINST DUST AND DEBRIS.

TABLE M1 : OUTSIDE AIR CALCULATIONS SUMMARY				
REF	OCCUPANCY TYPE	AREA	PEOPLE	REQUIRED VENTILATION AIR
	Offices :Office spaces	263 sf	2	23 CFM
		PEOPLE TOTAL	2	
			DIVERSITY	1.00
		UNCORRECTED TOTAL		23 CFM
	CRITICAL ZONE NAME & VENTILATION EFFICIENCY	Staff Office / Refreshment		1.000
		CORRECTED TOTAL		23 CFM

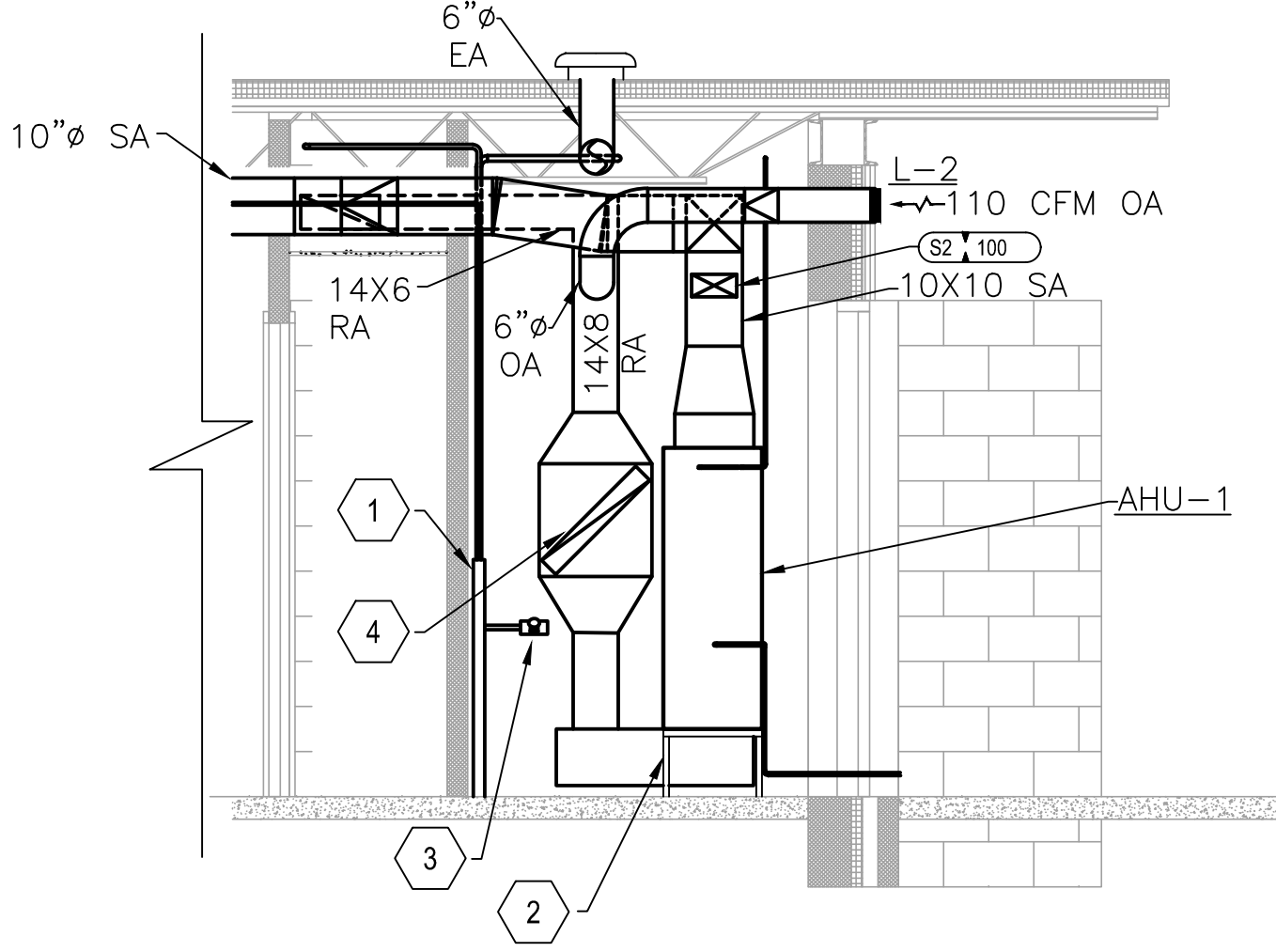
DESIGNED BY:_____	KHW
DRAWN BY:_____	KHW
SHEET CHK'D BY:_____	PJR
CROSS CHK'D BY:_____	RDA
APPROVED BY:_____	RDA
DATE: _____	MARCH 2021



PROJECT NO. 133920-237812
FILE NAME: M001.DWG
SHEET NO. M001



1 MECHANICAL FIRST FLOOR - STAFF BUILDING PLAN
M200 3/8" = 1'-0"



2 MECHANICAL FIRST FLOOR - SECTION 1
M200 1/4" = 1'-0"

GENERAL NOTES:

1. REFER TO SHEET M001 FOR MECHANICAL LEGEND AND ADDITIONAL GENERAL NOTES.

NOTES KEYED TO 1/M200:

- 1 EXHAUST DUCTWORK PENETRATION TO ROOF - PROVIDE WITH ROOF CAP. TERMINATE EXHAUST DUCTWORK 3' ABOVE THE TOP OF THE INTAKE LOUVER.
- 2 ELECTRICAL EQUIPMENT SHOWN FOR REFERENCE ONLY - REFER TO ELECTRICAL PLANS FOR FURTHER INFORMATION.
- 3 DOMESTIC WATER ENTRY SHOWN FOR REFERENCE ONLY - REFER TO PLUMBING PLANS FOR FURTHER INFORMATION.
- 4 EXPOSED DOUBLE-WALLED DUCTWORK IS TO BE SPIRAL ROUND AND FACTORY PRIMED FOR PAINTING.
- 5 REFRIGERANT LINE SETS SHALL BE IN RUBATEX OR EQUAL INSULATION. PIPING EXPOSED TO OUTDOORS SHALL HAVE WHITE PVC, UV RESISTANT JACKETING.
- 6 CONDENSATE DRAIN SHALL BE ROUTED TO EXTERIOR - TERMINATE TO SPLASH BLOCK.
- 7 REFER TO 2/M200 FOR SUPPLY GRILLE LOCATION.

NOTES KEYED TO 2/M200:

- 1 DOMESTIC WATER ENTRY INTO BUILDING - REFER TO PLUMBING PLANS FOR FURTHER INFORMATION.
- 2 PROVIDE RAISED SUPPORT FOR AIR HANDLING UNIT.
- 3 HOSE BIB - REFER TO PLUMBING PLANS FOR FURTHER INFORMATION.
- 4 20X20 FILTER BOX AND FRAME FOR 2" MERV 13 FILTER.

SPLIT SYSTEM HEAT PUMP SCHEDULE

TAG INDOOR/ OUTDOOR	*MANUFACTURER/MODEL INDOOR/OUTDOOR	PERFORMANCE							INDOOR UNIT												OUTDOOR UNIT						NOTES
		COOLING @ 93°F AMBIENT					HEATING @ 17°F AMBIENT		FAN				AUX ELECTRIC HEATING COIL					ELECTRICAL SINGLE POINT CONNECTION			COMPRESSOR		POWER SUPPLY		VOLT/ PHASE		
		CAPACITY		ENTERING AIR		MIN. SEER	CAPACITY	ENTERING AIR	SUPPLY	OUTSIDE	ESP	MOTOR SIZE	EAT	LAT	TOTAL CAPACITY	KW	STAGES	MCA	MOCP	POWER	RLA	LRA	MCA	MOCP			
		TOTAL	SENSIBLE	DB	WB																					DB	
		AHU-1 / HP-1	TRANE GAMS/4TWL	18,766 BTUH	13,175 BTUH	80°F	67°F	16	11,000 BTUH	60°F	550 CFM	110 CFM	0.5"	½ HP	80°F	107°F	16,387 BTUH	4.8	1	29	30	240/1P	10.1	56	13	20	

*BASIS OF DESIGN: PROVIDE TRANE, CARRIER OR YORK.
NOTES:

1. PROVIDE DISCONNECTING MEANS FOR ALL EQUIPMENT.
2. PROVIDE WITH 24 HR PROGRAMMABLE THERMOSTAT.
3. ALL EVAPORATOR AND CONDENSER COILS SHALL BE PLATE FIN.
4. PROVIDE OUTDOOR THERMOSTAT TO LOCKOUT ELECTRICAL HEAT STRIPS WHEN THE HEAT PUMP IS CAPABLE OF SATISFYING THE LOAD.

5. PROVIDE WITH LOW AMBIENT CONTROLS. PROVIDE WITH HEAD PRESSURE CONTROLLER.
6. PROVIDE WITH FACTORY COIL GUARDS ON CONDENSER.
7. COILS SHALL BE COPPER TUBE ALUMINUM FIN. NO SPLINE COILS.
8. PROVIDE WITH ANTI-SHORT CYCLE TIMER AND LOW AMBIENT KIT ACCESSORIES.
9. PROVIDE WITH MERV 13 FILTERS.
10. PROVIDE ADSIL MICROGUARD HVAC/R COIL PROTECTIVE TREATMENT FOR HP-1 COIL.

AIR DISTRIBUTION SCHEDULE

TAG	*MANUFACTURER/MODEL	FACE SIZE	MOUNT	MATERIAL	FINISH	DAMPER	TYPE	NC	NOTES	
S1	PRICE	SDGE	10X4	DUCT	ALUMINUM	REFER TO NOTE 3	OBD	LOUVERED	< 20	1,2,3
S2	PRICE	620	8X4	DUCT	ALUMINUM	REFER TO NOTE 3	OBD	LOUVERED	< 20	1,2,3
R1	PRICE	610Z	24X4	SIDEWALL	ALUMINUM	REFER TO NOTE 4	OBD	LOUVERED	< 30	1,2,4
R2	PRICE	80	8X4	DUCT	ALUMINUM	REFER TO NOTE 3	OBD	EGG CRATE	< 30	1,3
L1	PRICE	ESD-202	8X6	SIDEWALL	ALUMINUM	REFER TO NOTE 5	NONE	LOUVER	< 20	1,5
L2	PRICE	ESD-202	6X6	SIDEWALL	ALUMINUM	REFER TO NOTE 5	NONE	LOUVER	< 20	1,5

*BASIS OF DESIGN: PRICE, TITUS, OR METALAIRE.

1. SEE RUNOUTS ON PLANS FOR NECK SIZING.
2. PAINT INTERIOR OF DUCTWORK BLACK WHERE VISIBLE FROM SPACE THROUGH THIS GRILLE.
3. PAINT TO MATCH DUCT.
4. PAINT TO MATCH WALL PAINT.
5. FINISH SHALL MATCH EXTERIOR METAL WALL PANELS.

EXHAUST FAN SCHEDULE

TAG	SERVICE	*MANUFACTURER/MODEL	MAX AIRFLOW	SP	TYPE	MOTOR	RPM	DRIVE	POWER	NOTES	
EF-1	MECHANICAL/ELECTRICAL	GREENHECK	SP-A50	35	0.2"	CEILING	18 W	700	DIRECT	120V/1P/60Hz	ALL
EF-2	RESTROOM	GREENHECK	SP-A110	75	0.3"	CEILING	17 W	950	DIRECT	120V/1P/60Hz	ALL

*BASIS OF DESIGN: PROVIDE COOK, TWIN CITY, OR GREENHECK.

NOTES:

1. PROVIDE WITH DISCONNECTING MEANS.
2. PROVIDE UL 705 LISTED FAN.
3. CONTROL BY PROGRAMMABLE TIMECLOCK.
4. PROVIDE WITH BACKDRAFT DAMPER.

DESIGNED BY: _____	KHW
DRAWN BY: _____	KHW
SHEET CHK'D BY: _____	PJR
CROSS CHK'D BY: _____	RDA
APPROVED BY: _____	RDA
DATE: _____	MARCH 2021

**CDM
Smith**

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Sigma Project #: 19025
NC ENG LIC# C-2490

NEW HANOVER COUNTY, NORTH CAROLINA

NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

MECHANICAL PLAN AND SCHEDULES

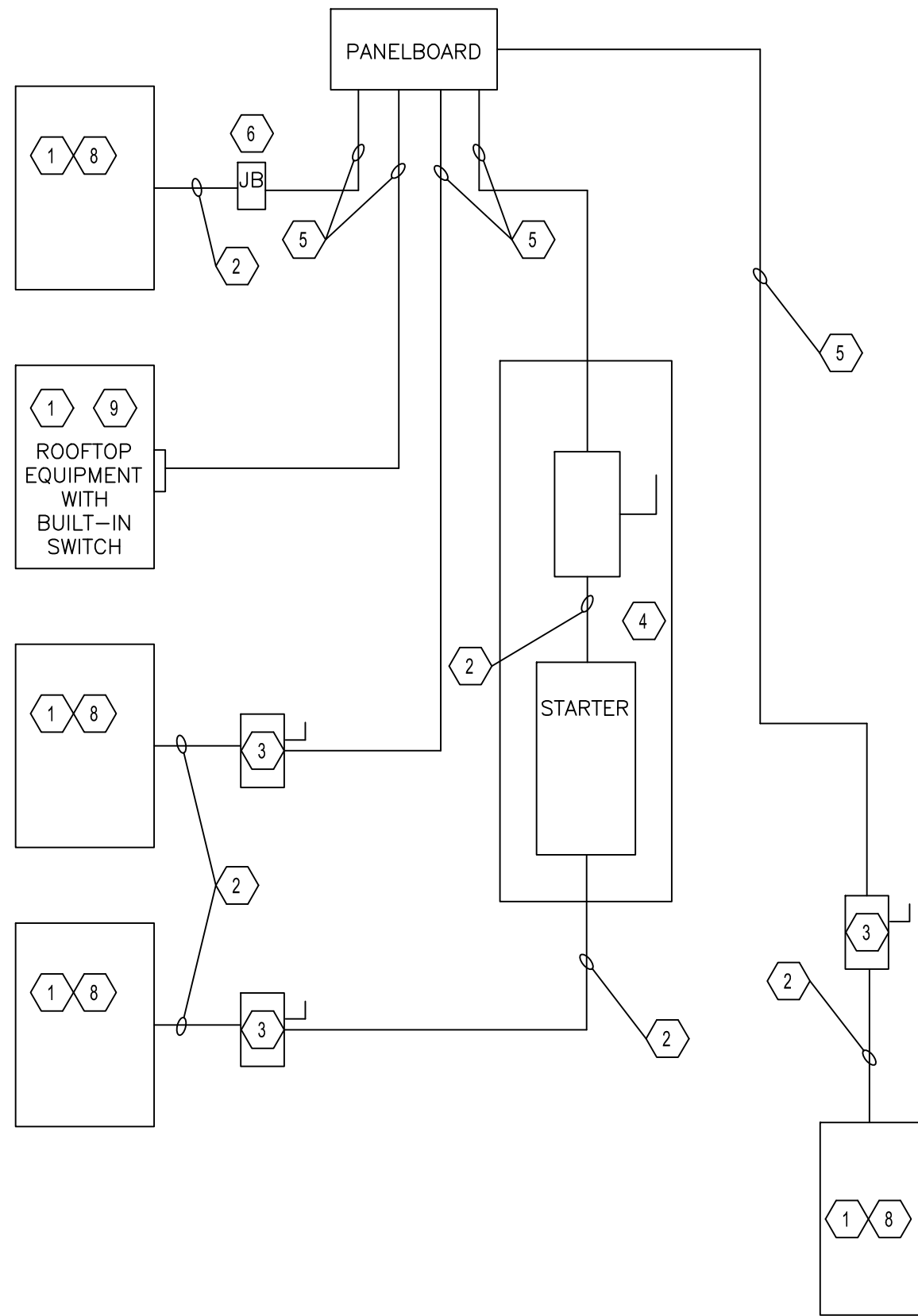
PROJECT NO. 133920-237812
FILE NAME: M200.DWG

SHEET NO.

M200

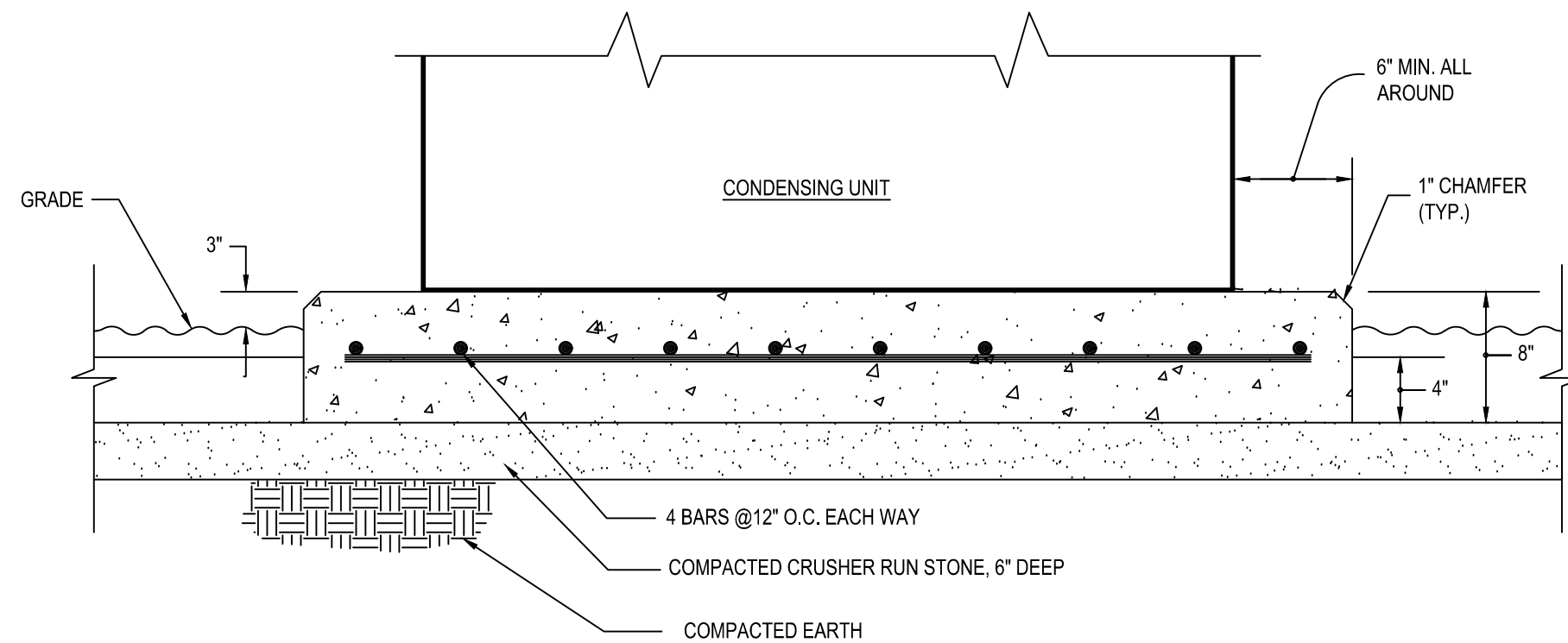
KEYED NOTES:

- 1 EQUIPMENT OF TRADES OTHER THAN ELECTRICAL.
- 2 CONDUIT & WIRING BY HVAC, PLUMBING CONTRACTOR OR OTHER TRADES.
- 3 IF AN ADDITIONAL DISCONNECT IS REQUIRED BY NEC, IT SHALL BE PROVIDED AND INSTALLED BY THE EQUIPMENT CONTRACTOR.
- 4 A COMBINATION STARTER OR VFD MAY BE USED IN LIEU OF A SEPARATE DISCONNECT SWITCH AND STARTER. LOCATED ADJACENT TO EQUIPMENT.
- 5 FEEDER CIRCUIT WIRING AND CONDUIT IN ELECTRICAL WORK. SEE PANELBOARD SCHEDULES FOR WIRE AND BREAKER SIZES.
- 6 JUNCTION BOX MAY BE SHOWN ON ELECTRICAL PLANS FOR SOME EQUIPMENT. IF NO STARTER OR DISCONNECT IS SUPPLIED, A JUNCTION BOX SHALL BE INSTALLED ADJACENT TO EQUIPMENT. THE ELECTRICAL CONTRACTOR SHALL PROVIDE LINE SIDE WIRING TO THE JUNCTION BOX. LOAD SIDE WIRING WILL BE PROVIDED BY MECHANICAL CONTRACTOR OR OTHER TRADES.
- 7 NOT USED.
- 8 IN ALL CASES THE EQUIPMENT CONTRACTOR SHALL MAKE FINAL CONNECTIONS, START UP, AND TEST EQUIPMENT.
- 9 IF THE ROOF TOP EQUIPMENT IS NOT PROVIDED WITH BUILT IN SWITCH, THE ELECTRICAL CONTRACTOR SHALL PROVIDE A DISCONNECT SWITCH.

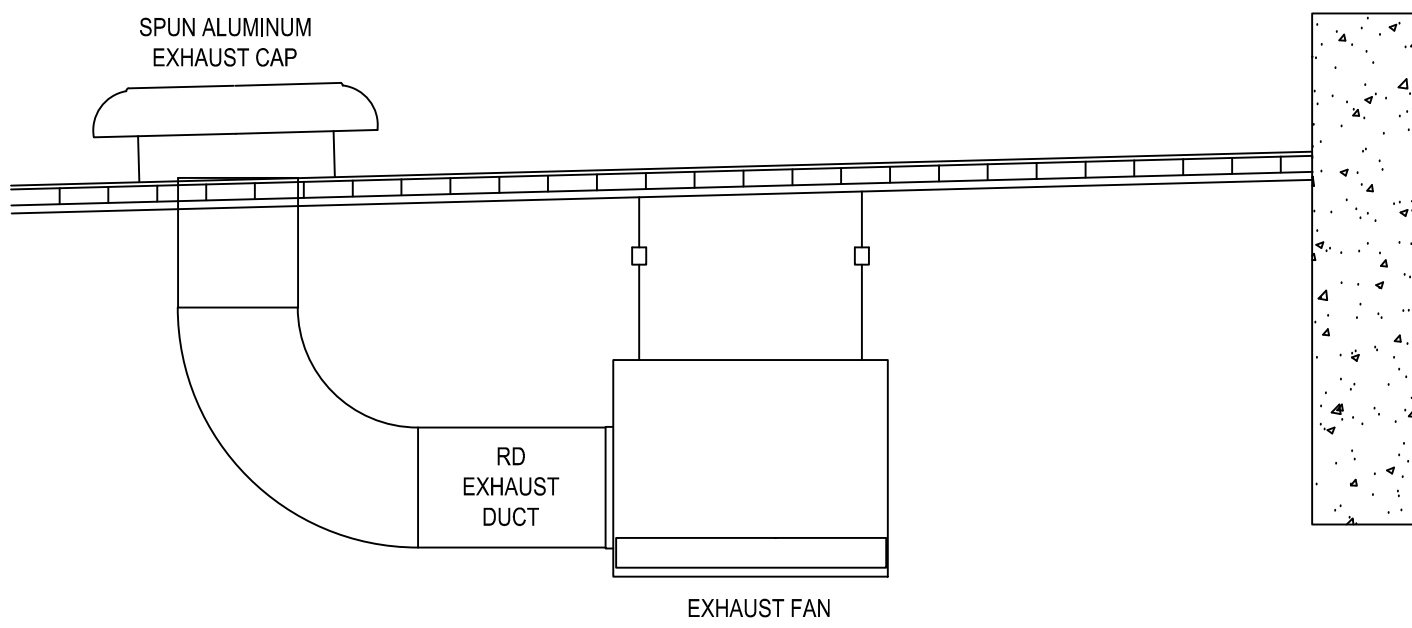


NOTES:
DIVISION 23 CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER DIRECTION OF ROTATION FOR ALL THREE PHASE EQUIPMENT.

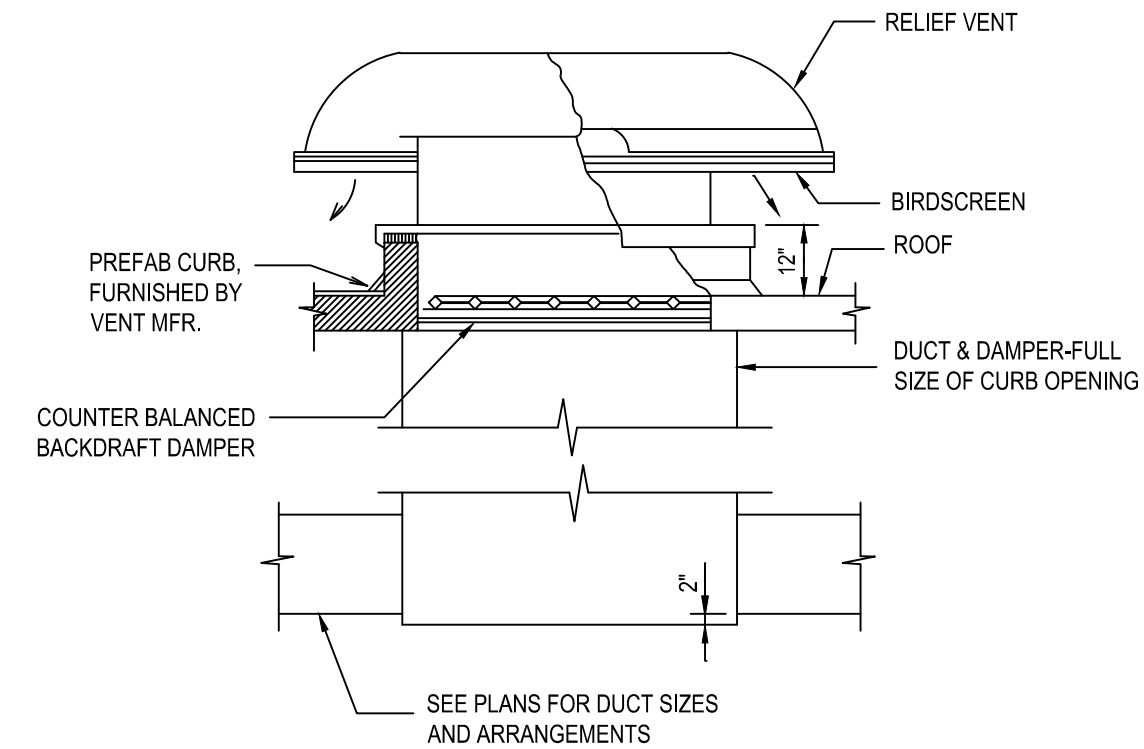
1 ELECTRICAL CONNECTIONS TO MECHANICAL EQUIPMENT DETAIL
M500 Scale: NONE



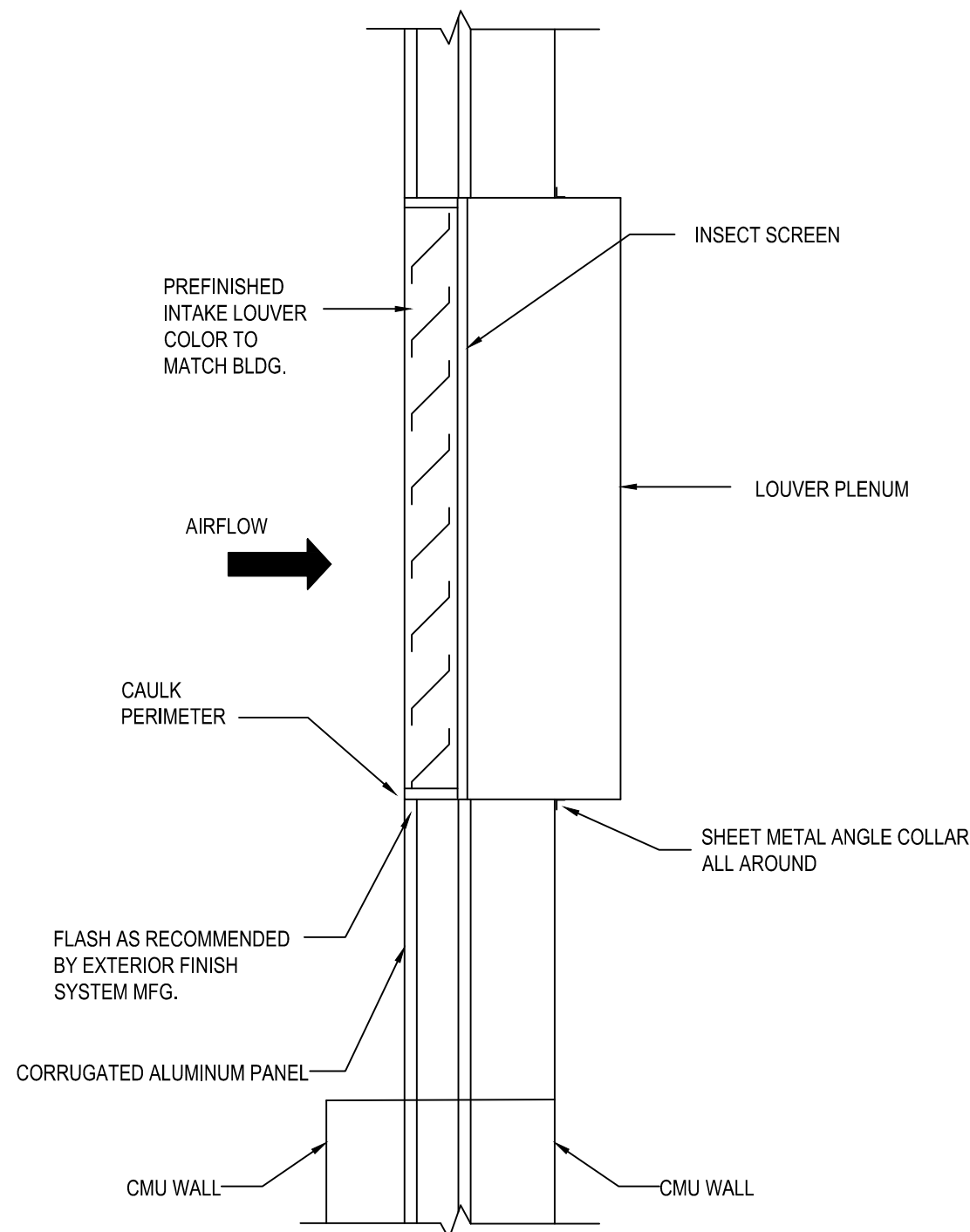
4 CONDENSING UNIT CONCRETE PAD DETAIL
M500 Scale: NONE



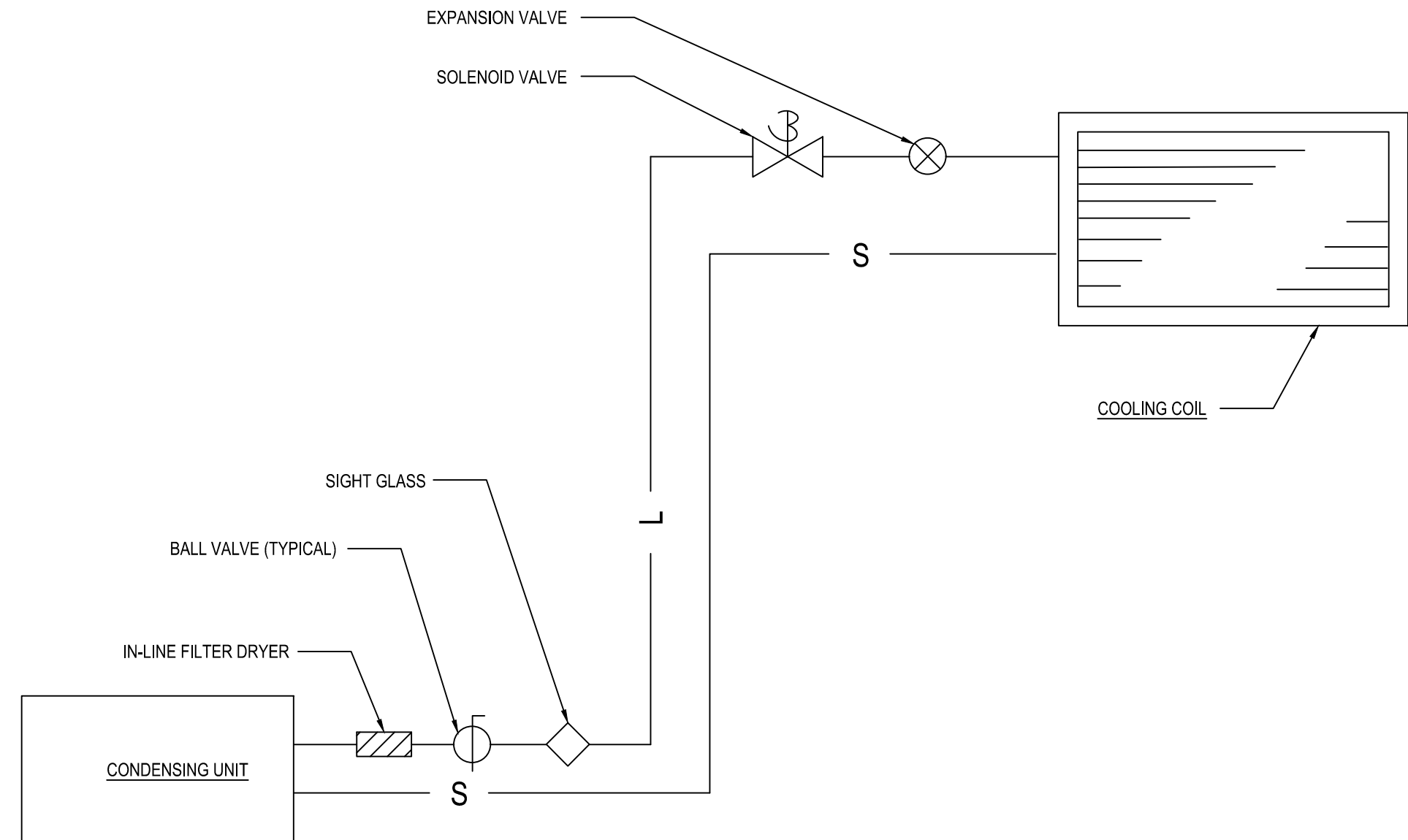
2 EXHAUST FAN DETAIL
M500 Scale: NONE



3 ROOF EXHAUST HOOD DETAIL
M500 Scale: NONE



5 INTAKE LOUVER INSTALLATION DETAIL
M500 Scale: NONE



6 REFRIGERANT PIPING DETAIL
M500 Scale: NONE

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: KHW
DRAWN BY: KHW
SHEET CHK'D BY: PJR
CROSS CHK'D BY: RDA
APPROVED BY: RDA
DATE: MARCH 2021

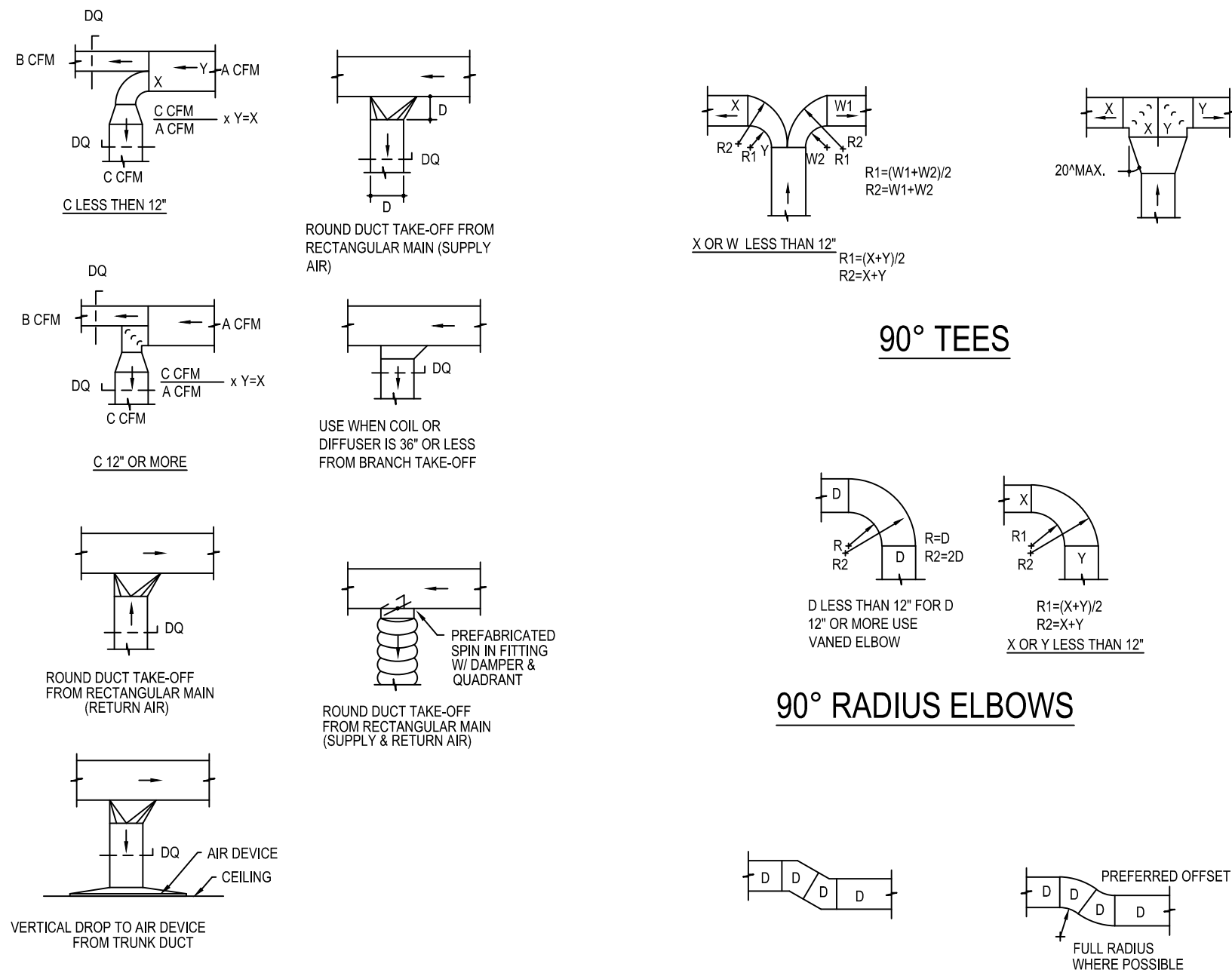
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Sigma Project #: 19025
NC ENG LIC# C-2490

NEW HANOVER COUNTY, NORTH CAROLINA
NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

MECHANICAL DETAILS I

PROJECT NO. 133920-237812
FILE NAME: M500.DWG
SHEET NO.
M500



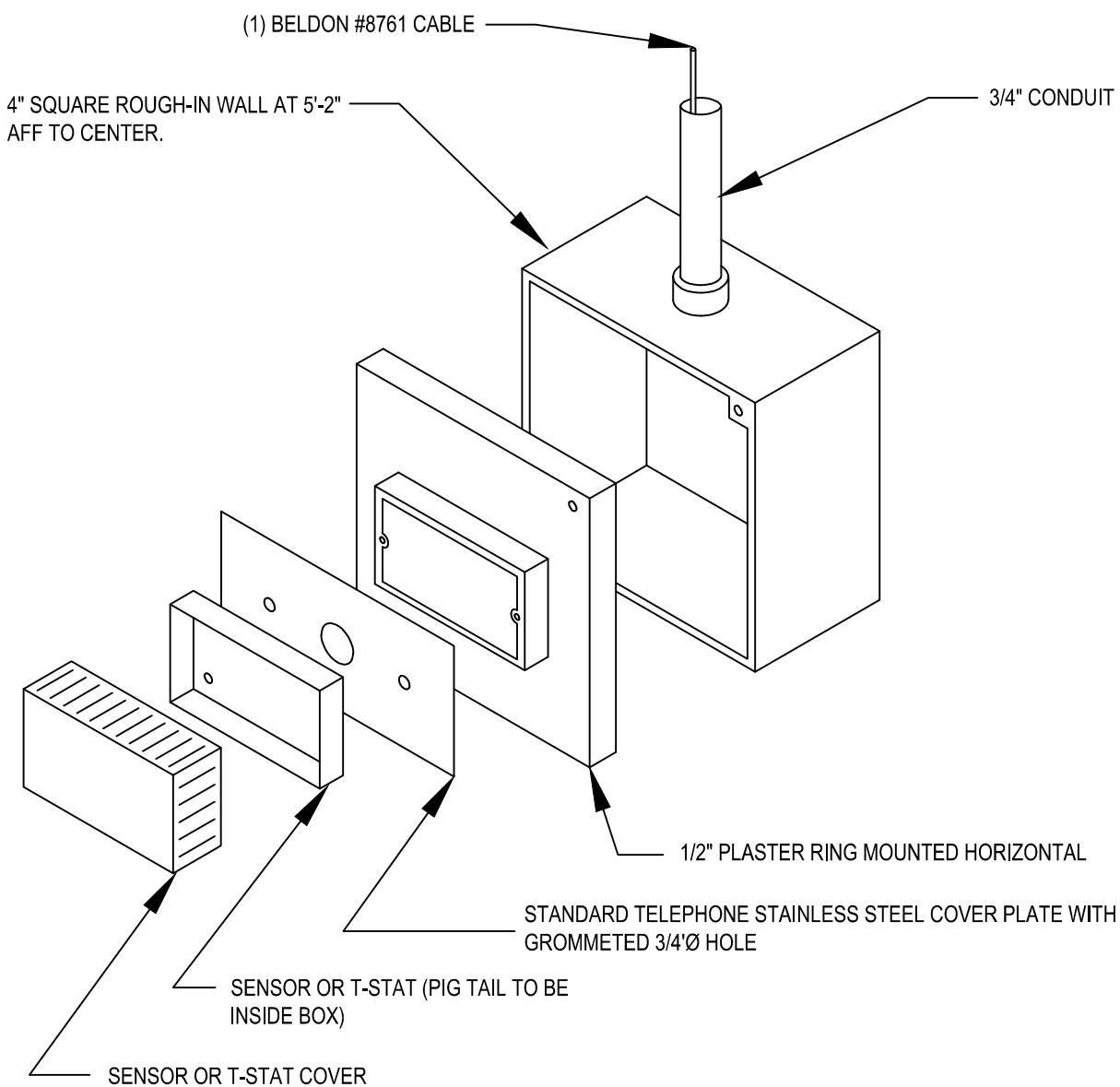
BRANCH TAKE-OFFS

90° TEES

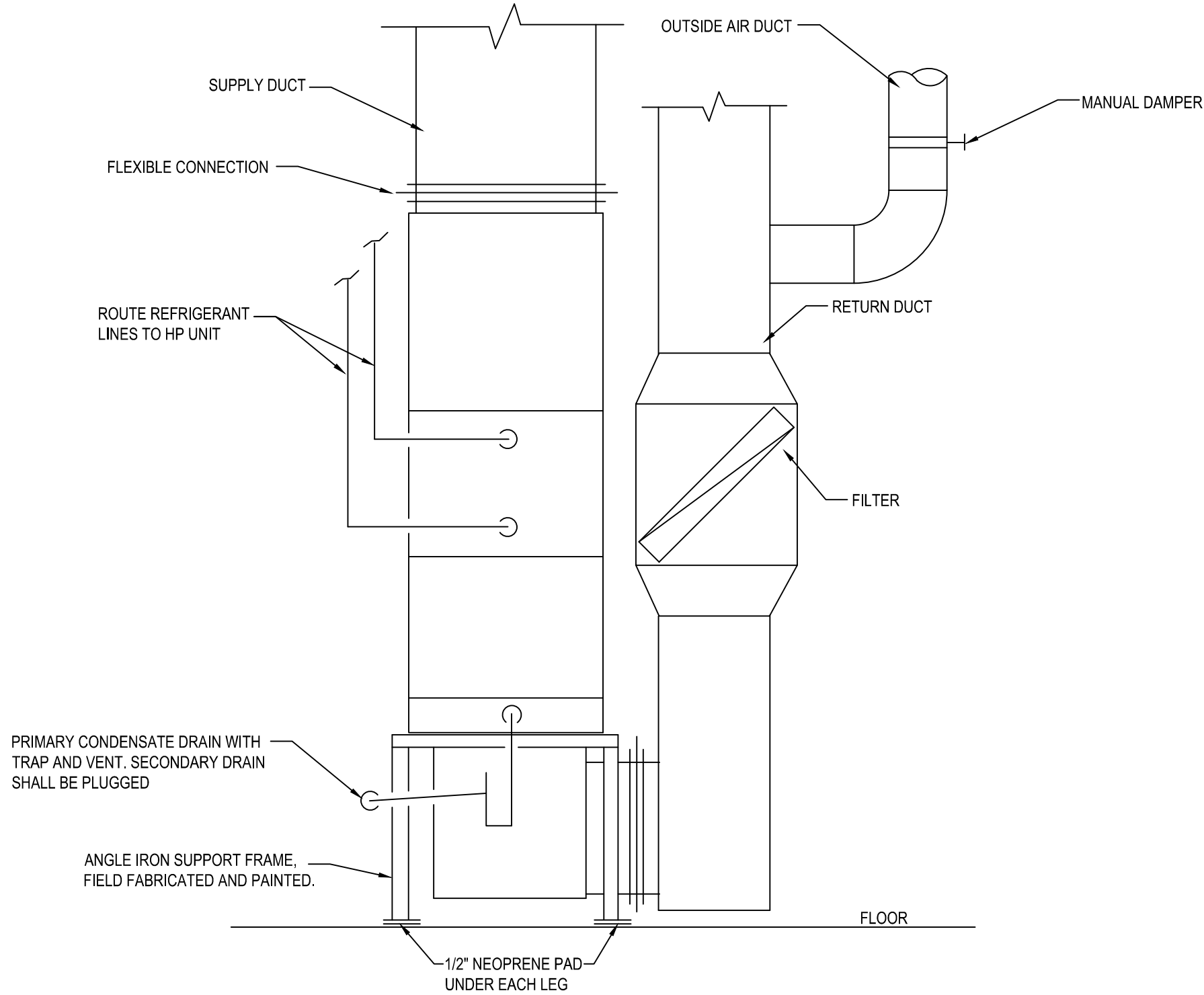
90° RADIUS ELBOWS

OFFSETS

1 LOW PRESSURE DUCTWORK
M501 Scale: NONE

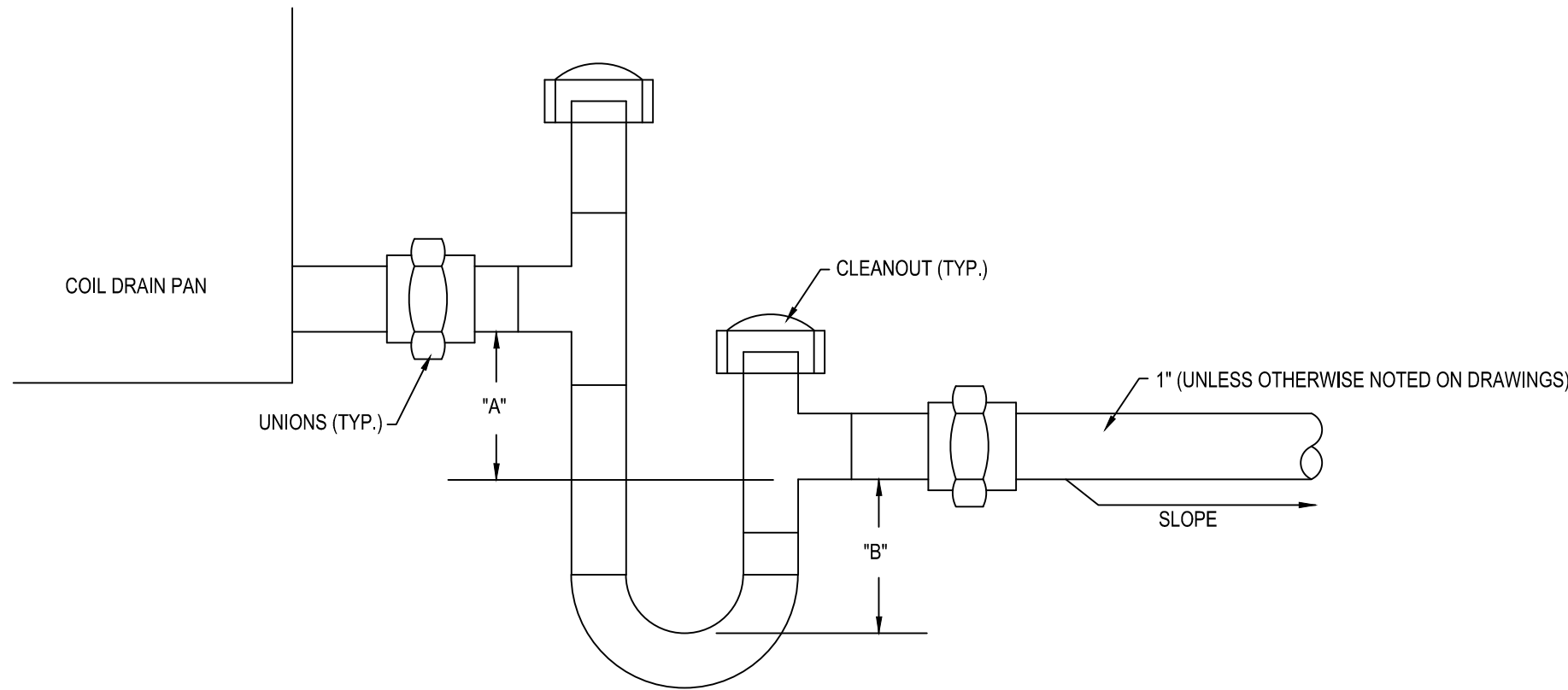


4 THERMOSTAT MOUNTING DETAIL
M501 Scale: NONE



NOTES:
INSTALL A WATERTIGHT GALVANIZED STEEL EMERGENCY DRAIN PAN UNDER THE UNIT. THE PAN SHALL BE 3" DEEP AND 3" WIDER THAN THE UNIT ALL AROUND. INSTALL A FLOAT SWITCH IN THE PAN AND WIRE INTO THE CONTROL CIRCUIT.

2 VERTICAL AHU INSTALLATIONDETAIL
M501 Scale: NONE



NOTES:
1. "A" = SYSTEM STATIC IN INCHES, AT DRAIN POINT.
2. "B" = 1/2 SYSTEM STATIC IN INCHES, AT DRAIN POINT.
3. SIZE IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
4. CONDENSATE PIPING TO BE TYPE "L" WITH 1" ELASTOMERIC INSULATION.

3 CONDENSATE DRAIN DETAIL
M501 Scale: NONE

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: KHW
DRAWN BY: KHW
SHEET CHK'D BY: PJR
CROSS CHK'D BY: RDA
APPROVED BY: RDA
DATE: MARCH 2021

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NEW HANOVER COUNTY, NORTH CAROLINA
NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

MECHANICAL DETAILS II

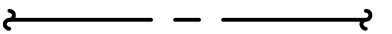
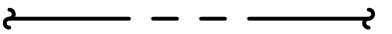
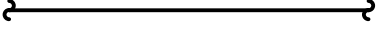
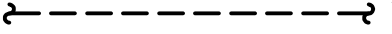
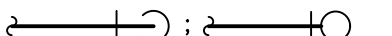
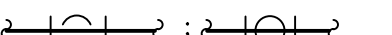







PROJECT NO. 133920-237812
FILE NAME: M501.DWG
SHEET NO.
M501

FIXTURE PLUMBING SCHEDULE												
MARK	FIXTURE	FIXTURE			FAUCET					PICTURE	REMARKS	ADA?
		SPECIFICATION/DESCRIPTION	SAN	VENT	PICTURE	DESCRIPTION	COLD WATER	HOT WATER	FLOW RATE			
<u>WC-1</u>	WATER CLOSET FLOOR-MOUNT FLUSH VALVE	SLOAN ST-2029 OR EQUAL ELONGATED, WHITE VIT CHINA, FLOOR MOUNTED WATER CLOSET WITH 2½" TRAPWAY, AND TOP SPUD. PROVIDE WITH MATCHING ELONGATED SEAT.	4"	2"		SLOAN "REGAL" 111-1.28 OR EQUAL MANUAL FLUSH VALVE, PROVIDE WITH NONHOLD OPEN HANDLE AND SELF-CLEANING BRASS PISTON.	1"	-	1.28GPF		PROVIDE ANTI-MICROBIAL, HEAVY DUTY, OPEN FRONT SEAT, COLOR WHITE.	
<u>LAV-1</u>	WALL HUNG SINK	AMERICAN STANDARD 0355.012 "LUCERNE" WALL HUNG SINK, REAR DRAIN, BARRIER FREE, WITH 4" CENTERS, WHITE VITREOUS CHINA, PROVIDE WITH FRONT OVERFLOW.	1½"	1¼"		T&S BRASS B-0892-CR-4-F05 4" CENTERSET FAUCET WITH 4" WRIST HANDLES AND RIGID GOOSENECK.	½"	½"	0.5GPM		PROVIDE WITH ½ TURN BALL VALVES, AND CHROME-PLATED P-TRAP w/CLEANOUT. INSTALL TO COMPLY WITH ADA REQUIREMENTS. PROVIDE TRUEBRO LAV SHIELD OR EQUAL FOR ADA COMPLIANCE.	
<u>KS-1</u>	KITCHEN SINK	KOHLER TOCCATA, 33"x22"x6", EQUAL DOUBLE BOWL, 4-HOLE SINK, 18 GA STAINLESS STEEL CONSTRUCTION, TOP MOUNT, PROVIDE WITH REMOVABLE STRAINER.	1½"	1¼"		CHICAGO 1102-HA8E35-317AB 8" CENTERSET DECK MOUNT FAUCET WITH ARC SPOUT, LEVER HANDLERS, AND SPRAYER.	½"	½"	1.5GPM		PROVIDE TURN BALL VALVES, AND P-TRAP w/CLEANOUT.	
<u>IMB-1</u>	ICE MAKER BOX	OATEY I2K ICE MAKER BOX	-	-		¾ TURN BRASS BALL VALVE AND ASSE 1032 DUAL CHECK VALVE WITH STRAINER EQUAL TO WATTS SD3. COORDINATE CONNECTION MATERIAL WITH PIPE MATERIAL.	½"	-	-	-	COORDINATE MOUNTING HEIGHT WITH REFRIGERATOR. PROVIDE CORRESPONDING PIPE CONNECTION MATERIAL, SUPPORT BRACKETS, AND TEMPERATURE INDICATOR CLIP.	-
<u>FD-1</u>	FLOOR DRAIN	WATTS Z415B FLOOR DRAIN WITH ADJUSTABLE STRAINER. 8" ROUND NICKEL BRONZE STRAINER. PROVIDE WITH P-TRAP.	4"	2½"		-	-	-	N/A	-	REFER TO DRAWING DETAILS COORDINATE WITH GEN. CONSTR. WORK TO SET THE FLOOR DRAIN FLUSH WITH FIN. FLOOR ADJUSTED FOR FLOOR SLOPE REQUIRED.	-
<u>HB-1</u>	HOSE BIBB	INTERIOR DUTY, POLYCARBONATE WHEEL HANDLE AND LOOSE TEE KEY	-	-		WOODFORD 24 FINISH: POLISHED CHROME	¾"	-	-	-	COORDINATE MOUNTING HEIGHT WITH WITH OWNER. REMOVE HANDLE AND RETURN TO OWNER ALONG WITH LOOSE TEE KEY.	-
<u>NFHB-1</u>	NON-FREEZE WALL HYDRANT	FREEZELESS, BRASS FINISH, LOOSE TEE KEY	-	-		WOODFORD MODEL B65 BRASS FINISH ANTI-SIPHON FREEZELESS WALL HYDRANT OR EQUAL	¾"	-	-	-	COORDINATE MOUNTING HEIGHT WITH WITH OWNER. PROVIDE WITH KEYED VALVE. DELIVER KEY TO OWNER.	-

- NOTES:
- PLUMBING FIXTURES SPECIFIED ARE GENERALLY AMERICAN STANDARD. FIXTURES AS MANUFACTURED BY KOHLER, ELKAY OR TOTO MAY BE SUBMITTED FOR APPROVAL PROVIDED THE SELECTION IS STRICTLY APPROVED EQUIVALENT.
 - PLUMBING FAUCETS SPECIFIED ARE GENERALLY DELTA. FAUCETS AS MANUFACTURED BY T&S BRASS OR CHICAGO MAY BE SUBMITTED FOR APPROVAL PROVIDED THE SELECTION IS STRICTLY APPROVED EQUIVALENT.
 - PLUMBING FLUSH VALVES SPECIFIED ARE GENERALLY AMERICAN STANDARD. FLUSH VALVES AS MANUFACTURED BY SLOAN OR DELANEY MAY BE SUBMITTED FOR APPROVAL PROVIDED THE SELECTION IS STRICTLY APPROVED EQUIVALENT.
 - FLOOR DRAINS AND FLOOR SINKS ARE GENERALLY ZURN. DRAINS AS MANUFACTURED BY JAY R. SMITH, JOSAM OR WATTS MAY BE SUBMITTED FOR APPROVAL PROVIDED THE SELECTION IS STRICTLY APPROVED EQUIVALENT.

ELECTRIC WATER HEATER SCHEDULE											
MARK	LOCATION	MODEL #	GALLONS PER MINUTE	ENERGY FACTOR MIN.	ELECTRICAL SERVICE			DIMENSIONS			REMARKS
					VOLTS	PHASE	KW	WIDTH	DEPTH	HEIGHT	
IWH-1	RESTROOM (UNDER SINK)	CHRONOMITE ELECTRIC TANKLESS WATER HEATER MODEL#M-20L/120	0.5	0.99	120	1	3.6	2½"	9⅝"	6¼"	INSTALL PER MANUFACTURERS SPECIFICATIONS. SET MAX TEMP TO 110°
IWH-2	STAFF OFFICE / REFRESHMENT (UNDER SINK)	CHRONOMITE ELECTRIC TANKLESS WATER HEATER MODEL#M-20L/120	0.5	0.99	120	1	3.6	2½"	9⅝"	6¼"	INSTALL PER MANUFACTURERS SPECIFICATIONS. SET MAX TEMP TO 110°

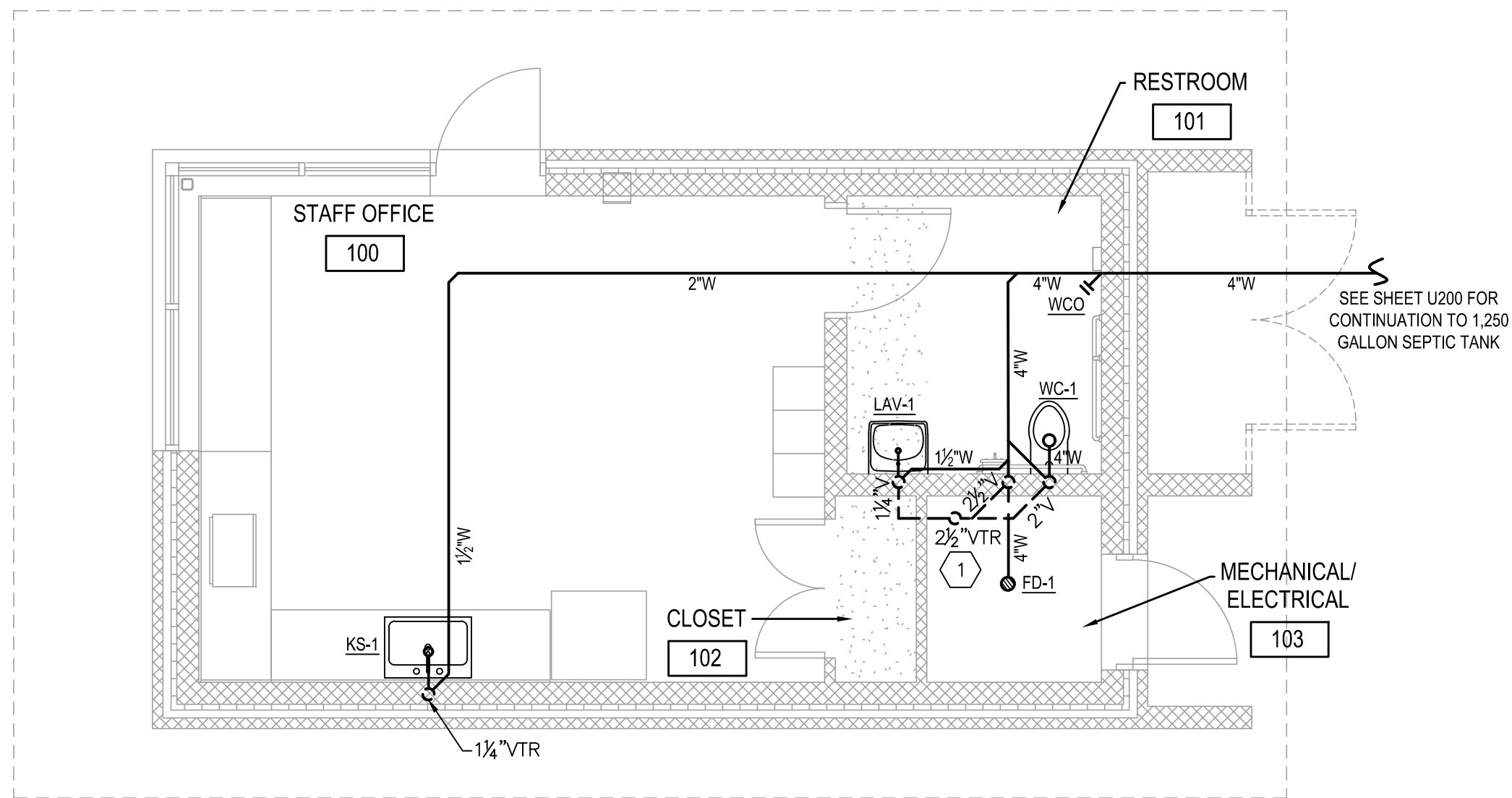
SANITARY SERVICE CALCULATIONS			
BUILDING D.F.U. DEMANDS			
FIXTURE TYPE	No.	DFU VALUE	SUBTOTAL DFU
WATER CLOSET (F.V.) Public	1	4	4
LAVATORY (PUBLIC)	1	1	1
Custom Fixture			
COMMERCIAL SINK - 1 COMP	1	3	3
Custom Fixture			
FLOOR DRAINS	1	2	2
CODE	NCPC 2018	TOTAL DFU	10
BUILDING SEWER SIZE	4	SLOPE	0.125
SLAB THICKNESS	4	LENGTH	60
COVER (CLEAR)	3	FALL	7 1/2
MATERIAL THICKNESS	11	DEPTH (FT)	1.54

PLUMBING LEGEND			
SYMBOL SCHEDULE		ABBREVIATIONS	
	DOMESTIC COLD WATER	AFC	ABOVE FINISH CEILING
	DOMESTIC HOT WATER SUPPLY	AFF	ABOVE FINISH FLOOR
	WASTE	AFG	ABOVE FINISH GRADE
	VENT	AFH	ANTI-FREEZE HYDRANT
	PIPE ELBOW TURNS DOWN; UP	AAV	AIR ADMITTANCE VALVE
	PIPE TEES DOWN; UP	BFF	BELOW FINISHED FLOOR
	PIPE CAP	CI	CAST IRON
	BALL VALVE	CO	CLEANOUT
	CHECK VALVE	CW	COLD WATER
	CIRCUIT SETTER	DNT	DO NOT TAP
	FLOOR CLEANOUT	EWC	ELECTRIC WATER COOLER
	END-OF-LINE CLEANOUT	(EX)	EXISTING
	CLEANOUT AT FINISH WALL (WCO)	FCO	FLOOR CLEANOUT
		FD	FLOOR DRAIN
		FDP	FLOOR DRAIN PARKING
		FPHB	FREEZE-PROOF HOSE BIBB
		GPH	GALLONS PER HOUR
		HB	HOSE BIBB
		HD	HUB DRAIN
		GCO	GRADE CLEANOUT
		HWS	HOT WATER SUPPLY
		HWR	HOT WATER RETURN
		IW	INDIRECT WASTE
		LAV	LAVATORY
		TYP	TYPICAL
		UR	URINAL
		V	VENT
		VTR	VENT THRU ROOF
		W	WASTE
		WC	WATER CLOSET
		WCO	WALL CLEANOUT
		WHA	WATER HAMMER
		YCO	YARD ARRESTOR
			YARD CLEANOUT

GENERAL PLUMBING NOTES

- NOT ALL SYMBOLS AND ABBREVIATIONS SHOWN ON THIS DRAWING MAY BE USED ON THIS PROJECT.
- ALL PLUMBING WORK SHALL BE FURNISHED AND INSTALLED PER THE NORTH CAROLINA STATE BUILDING CODE: PLUMBING CODE, LATEST EDITION.
- UNLESS OTHERWISE NOTED ON DRAWINGS, ALL 2½" OR SMALLER SANITARY WASTE AND VENT PIPING SHALL BE RUN AT ¼" PER FT SLOPE. ALL SANITARY WASTE AND VENT PIPING 3"-6" SHALL BE RUN AT ¼" PER FT SLOPE. ALL SANITARY WASTE 8" AND LARGER SHALL BE RUN AT ⅛" PER FT SLOPE. ALL STORM DRAINAGE PIPING SHALL BE RUN AT A MINIMUM OF ⅛" PER FT SLOPE UNLESS OTHERWISE NOTED.
- THE DESIGN/DETAIL/SCHEDULE SHOWN IS BASED ON (MANUFACTURER, MODEL) EQUIPMENT AND IS INTENDED ONLY TO SHOW THE GENERAL SIZE, CONFIGURATION, LOCATION, CONNECTIONS, AND/OR SUPPORT FOR EQUIPMENT OR SYSTEMS SPECIFIED WITH RELATION TO THE OTHER BUILDING SYSTEMS.
- INSTALL ALL PIPING AT THE MAXIMUM ELEVATION POSSIBLE. PROVIDE ALL FITTINGS, TRANSITIONS AND MATERIALS REQUIRED TO ACHIEVE MAXIMUM ELEVATION. COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO THE START OF WORK TO AVOID CONFLICTS.
- CONTRACTOR SHALL FURNISH ALL DISCONNECTS REQUIRED FOR PLUMBING EQUIPMENT.
- CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF ALL MANUFACTURER SUBSTITUTIONS OF PLUMBING EQUIPMENT. SUBMIT A DESCRIPTION OF ANY/ALL CHANGES REQUIRED BY THE SUBSTITUTION, INCLUDING ELECTRICAL AND PLUMBING CONNECTIONS, SIZES, WEIGHTS, AND CLEARANCES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL COST ASSOCIATED WITH THE SUBSTITUTION.
- THE CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL CODES AND REGULATIONS. THE CONTRACTOR SHALL INFORM THE ARCHITECT AND/OR ENGINEER OF ANY CONFLICTS AS SOON AS THEY ARE DETECTED.
- CONTRACTORS MUST CAREFULLY COORDINATE THE ARRANGEMENT AND INSTALLATION OF THE DUCT, PIPING, AND CONDUIT IN THE MECHANICAL CHASES PRIOR TO THE START OF WORK. ALL PENETRATIONS SHALL BE SLEEVED AND FIRE-PROOFED.
- ALL WORK SHALL BE NEW AND PROVIDED UNDER THIS CONTRACT UNLESS SPECIFICALLY MARKED "EX", "EXISTING", OR "EXIST".
- CONTRACTOR MUST VERIFY LOCATIONS AND DIMENSIONS OF ALL EXISTING EQUIPMENT AND COORDINATE ALL WORK PRIOR TO THE START OF CONSTRUCTION.
- THESE DRAWINGS ARE NECESSARILY DIAGRAMMATIC IN NATURE. NOT ALL FITTINGS, OFFSETS, VENTS, OR DRAINS ARE SHOWN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING AND INCLUDE ALL FITTINGS, OFFSETS, VENTS, AND DRAINS AS REQUIRED TO PROVIDE A COMPLETE AND FUNCTIONING SYSTEM.

					DESIGNED BY: <u> </u> KHW	<div><div>CDM Smith</div><div>Sigma SOLUTIONS</div></div> <div>Sigma Engineered Solutions, PC 2100 Gateway Centre Blvd Suite 100 Morrisville, NC 27560 Ph: 919.840.9300 Fx: 919.840.9600 www.sigmases.com Sigma Project #: 19025 NC ENG LIC# C-2490</div>	NEW HANOVER COUNTY, NORTH CAROLINA NEW HANOVER COUNTY LANDFILL CONVENIENCE CENTER REDEVELOPMENT PROJECT	PLUMBING ABBREVIATIONS, LEGEND, GENERAL NOTES AND SCHEDULES	PROJECT NO. 133920-237812 FILE NAME: P001.DWG SHEET NO. P001
					DRAWN BY: <u> </u> KHW				
					SHEET CHK'D BY: <u> </u> PJR				
					CROSS CHK'D BY: <u> </u> RDA				
					APPROVED BY: <u> </u> RDA				
REV. NO.	DATE	DRWN	CHKD	REMARKS	DATE: <u> </u> MARCH 2021				



1 PLUMBING FIRST FLOOR - STAFF BUILDING WASTE & VENT PLAN
P200 1/4" = 1'-0"

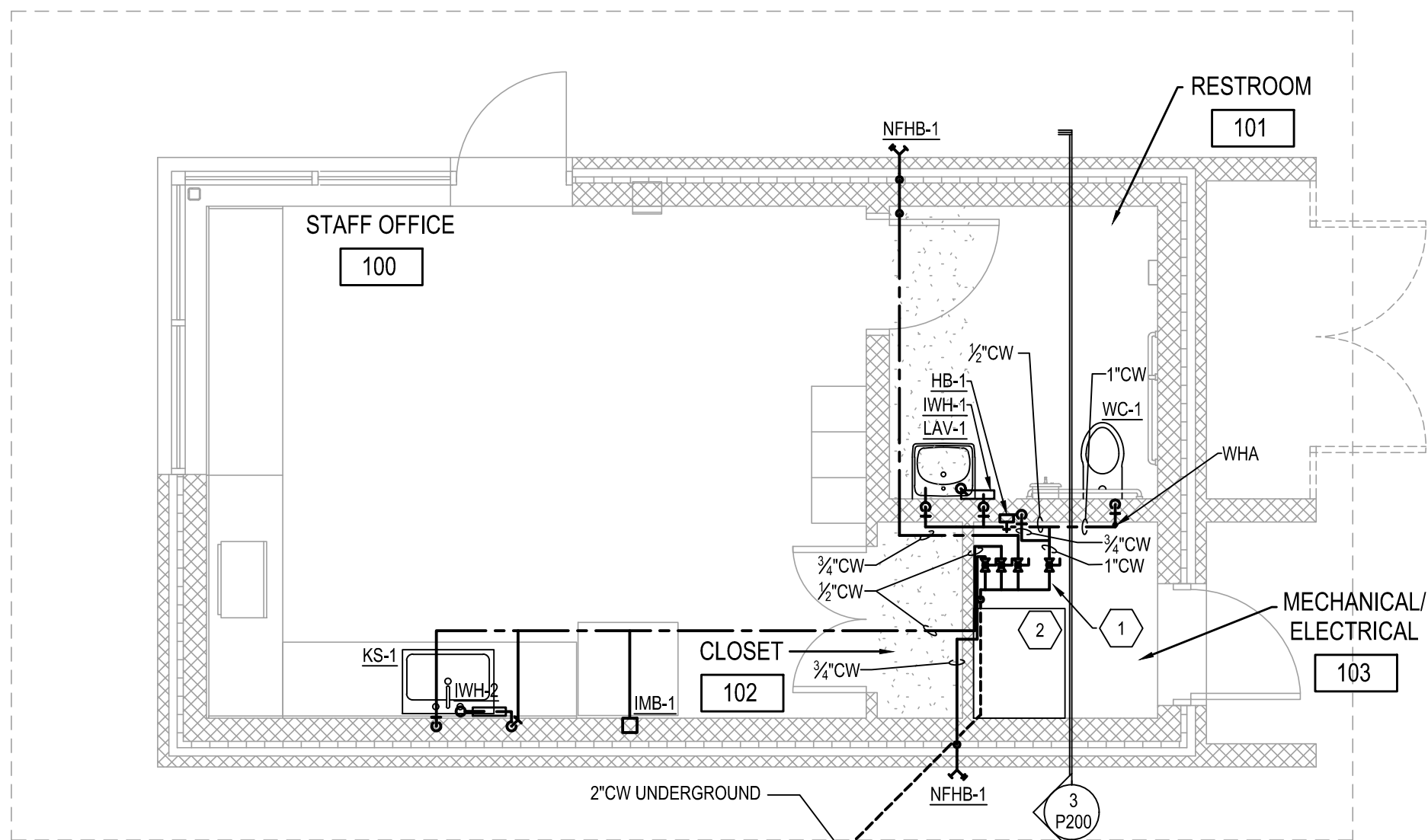


GENERAL NOTES:

1. REFER TO SHEET P001 FOR PLUMBING LEGEND AND ADDITIONAL GENERAL NOTES.

NOTES KEYED TO 1/P200:

1. TERMINATE VENT AT LEAST 3' ABOVE TOP OF MECHANICAL INTAKE LOUVER.

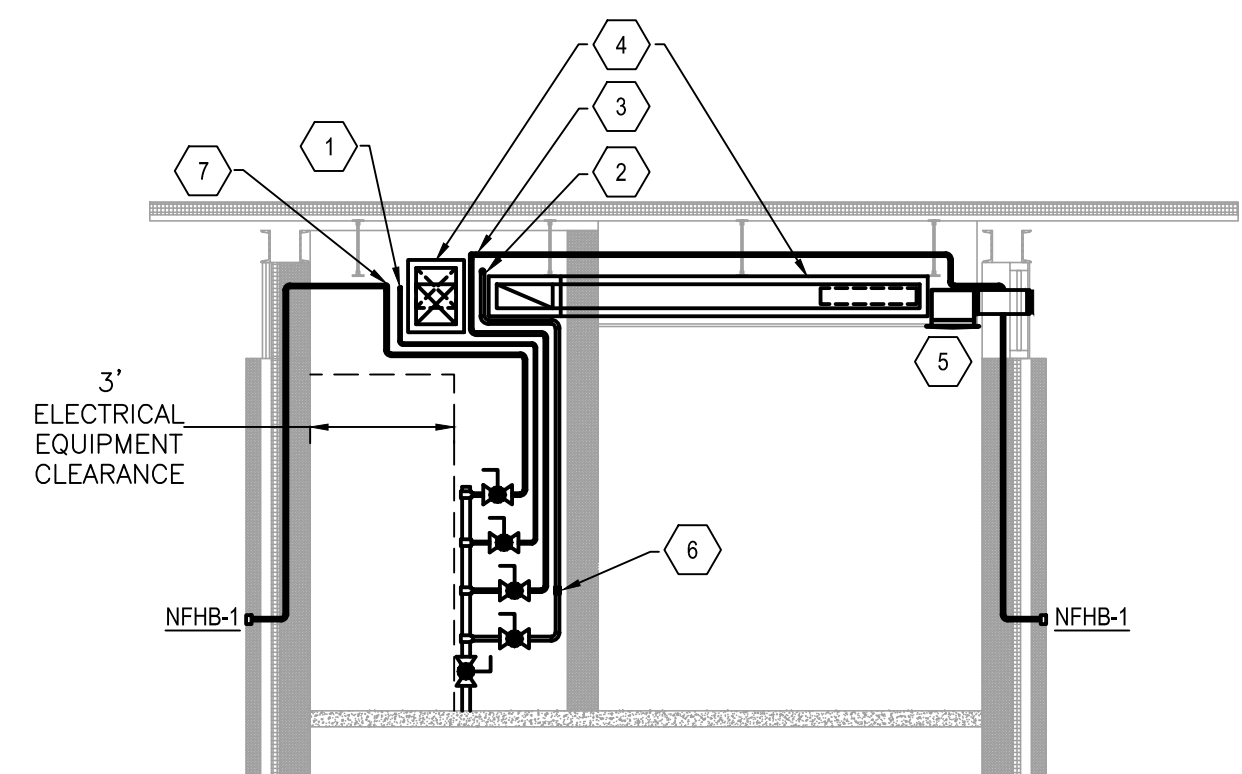


2 PLUMBING FIRST FLOOR - STAFF BUILDING WATER PLAN
P200 1/4" = 1'-0"



NOTES KEYED TO 2/P200:

1. VALVES OFFSET FOR CLARITY - STACK VERTICALLY AGAINST WALL. REFER TO SECTION 3/P200.
2. ELECTRICAL PANEL SERVICE CLEARANCE - SHOWN FOR REFERENCE. REFER TO ELECTRICAL DRAWINGS FOR FURTHER INFORMATION.

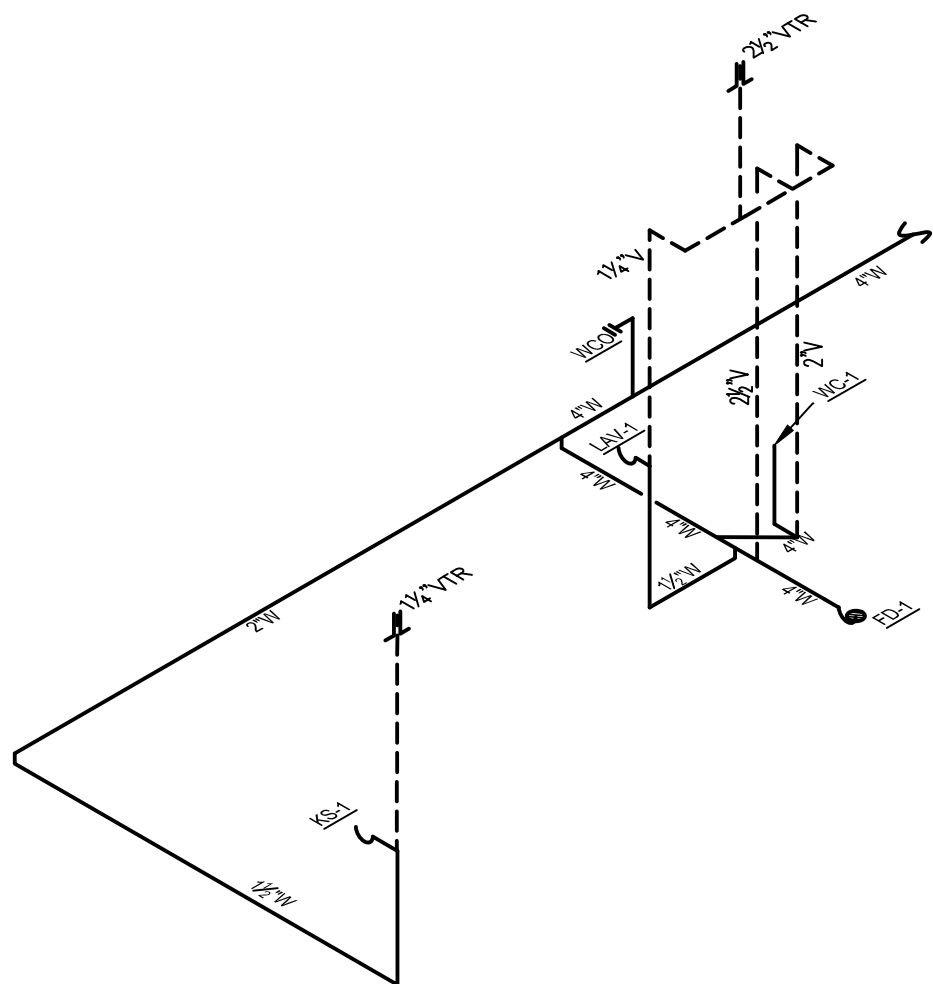


3 PLUMBING FIRST FLOOR - SECTION 3
P200 1/4" = 1'-0"

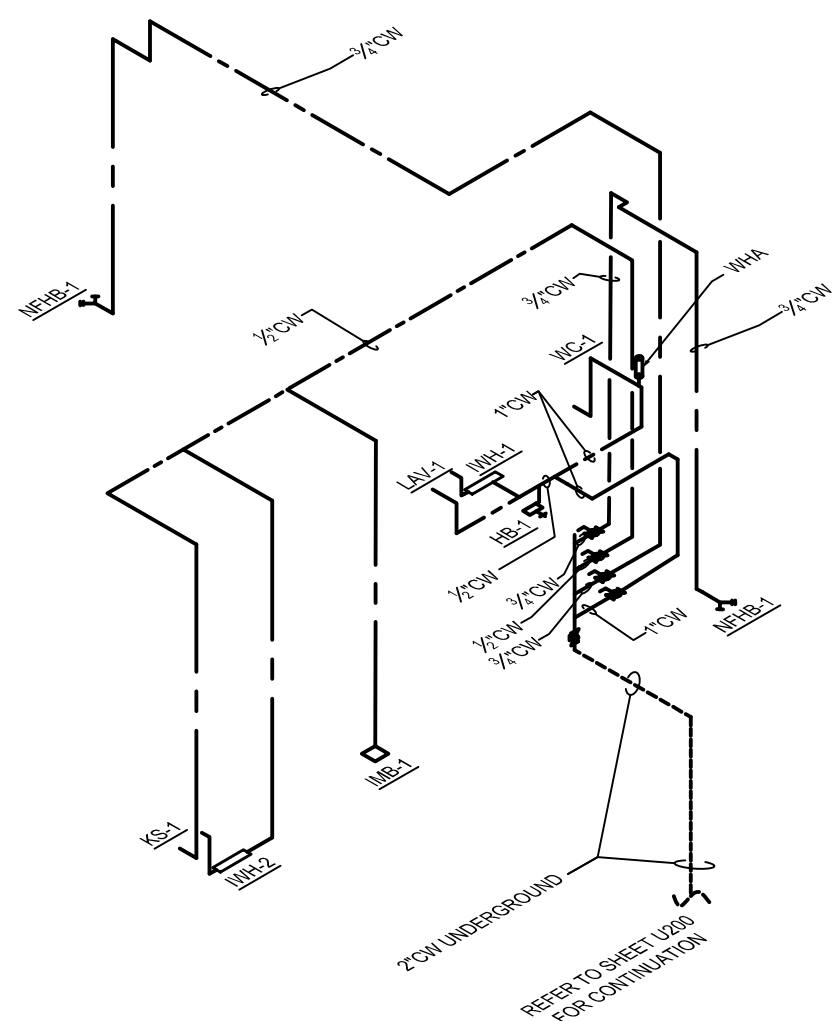


NOTES KEYED TO 3/P200:

1. 1/2" CW TO FIXTURES IN STAFF OFFICE.
2. 1" CW TO FIXTURES IN RESTROOM.
3. 3/4" CW TO NFHB-1 ON NORTH EAST SIDE OF BUILDING.
4. DUCTWORK WITH EXTERIOR INSULATION SHOWN FOR REFERENCE ONLY - REFER TO MECHANICAL DRAWINGS FOR FURTHER INFORMATION.
5. EXHAUST FAN SHOWN FOR REFERENCE ONLY - REFER TO MECHANICAL DRAWINGS FOR FURTHER INFORMATION.
6. 3/4" CW TO HB-1.
7. 3/4" CW TO NFHB-1 ON SOUTH WEST SIDE OF BUILDING.



4 WASTE & VENT RISER
P200 NO SCALE



5 WATER RISER
P200 NO SCALE

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: KHW
DRAWN BY: KHW
SHEET CHK'D BY: PJR
CROSS CHK'D BY: RDA
APPROVED BY: RDA
DATE: MARCH 2021

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5400 Glenwood Avenue, Suite 400
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NC F-1255

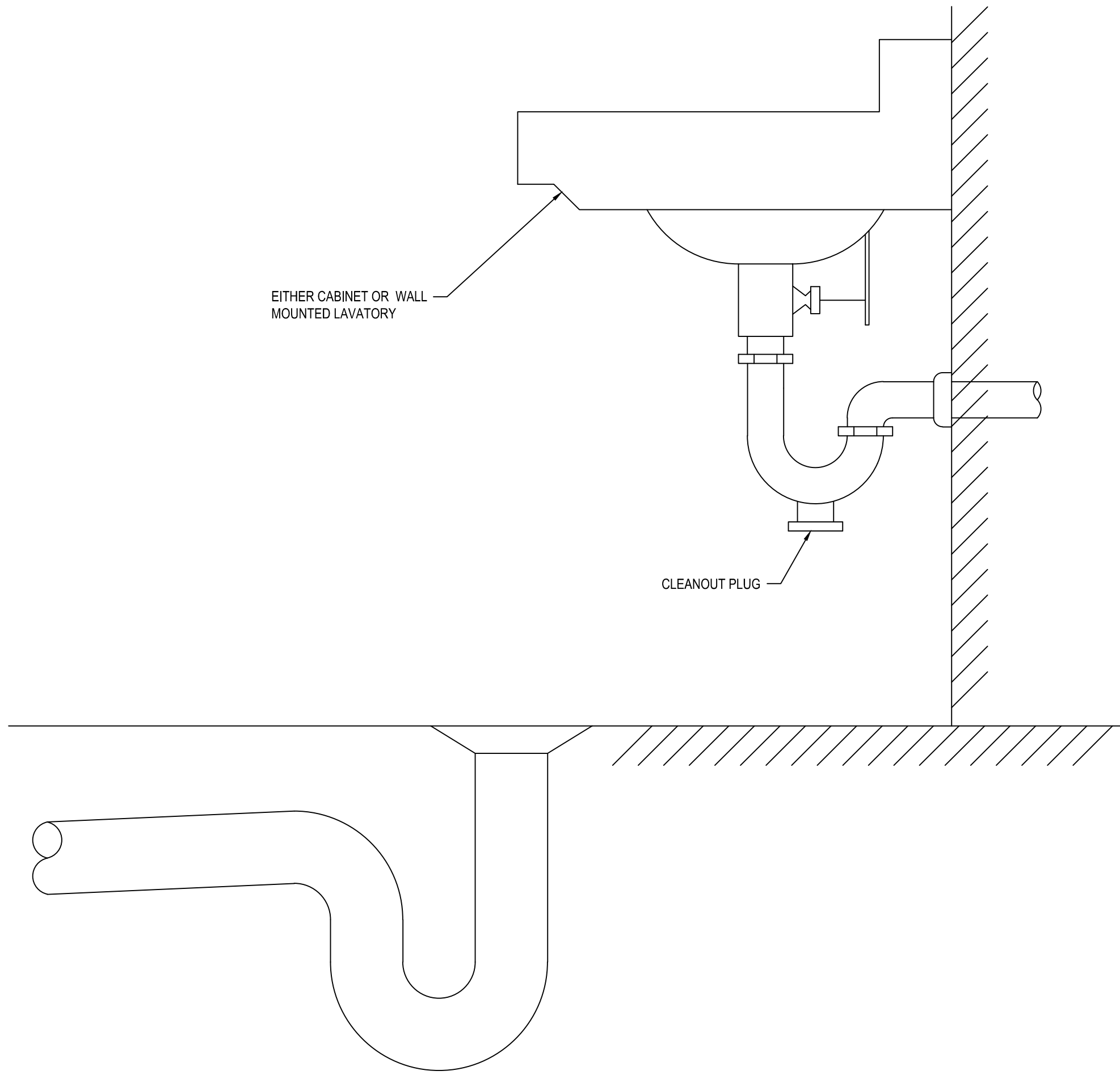
Sigma
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NC ENG LIC# C-2490

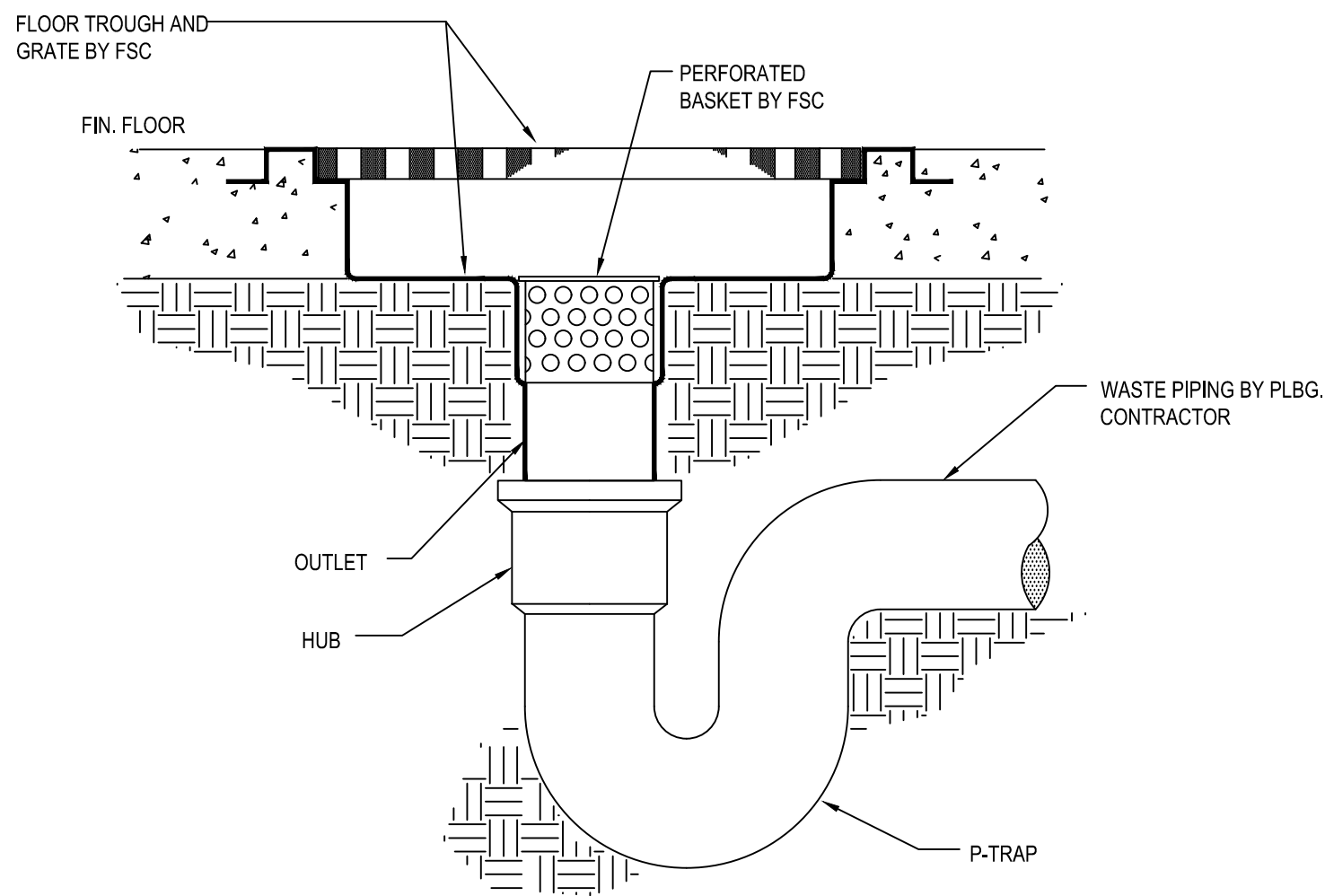
NEW HANOVER COUNTY, NORTH CAROLINA
NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

PLUMBING PLANS

PROJECT NO. 133920-237812
FILE NAME: P200.DWG
SHEET NO.
P200



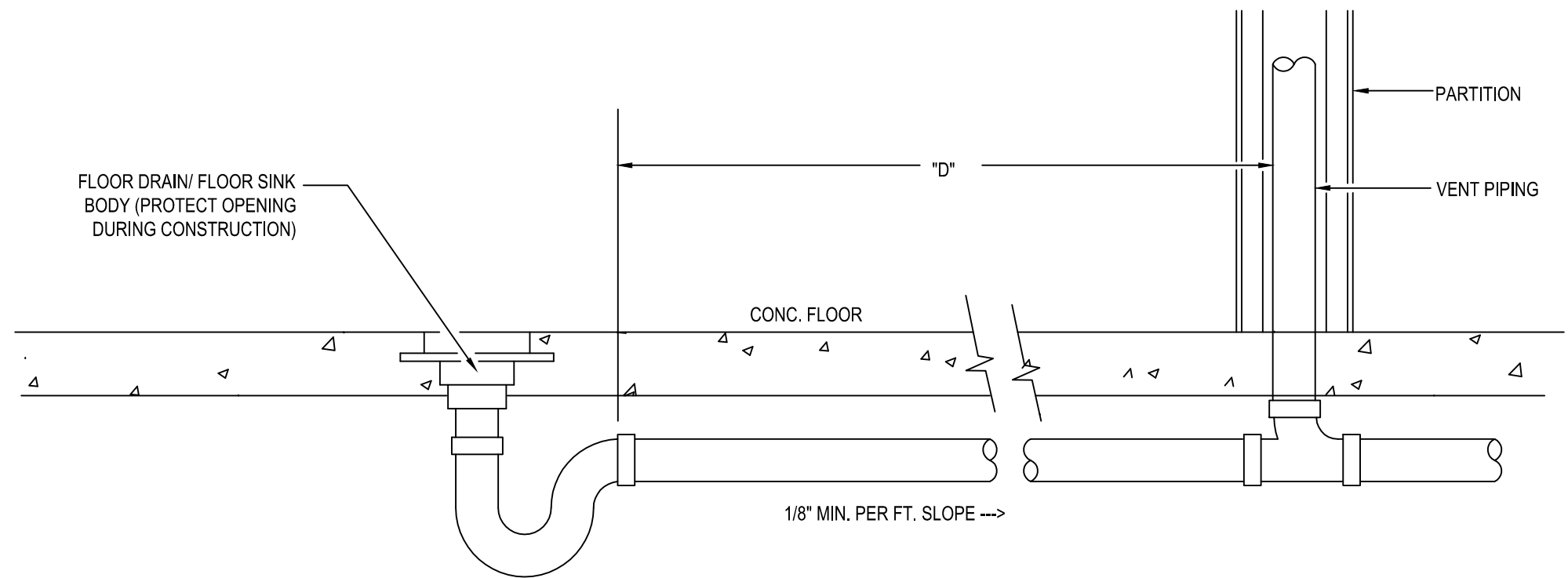
1 TRAP PRIMER DETAIL
P500 Scale: NONE



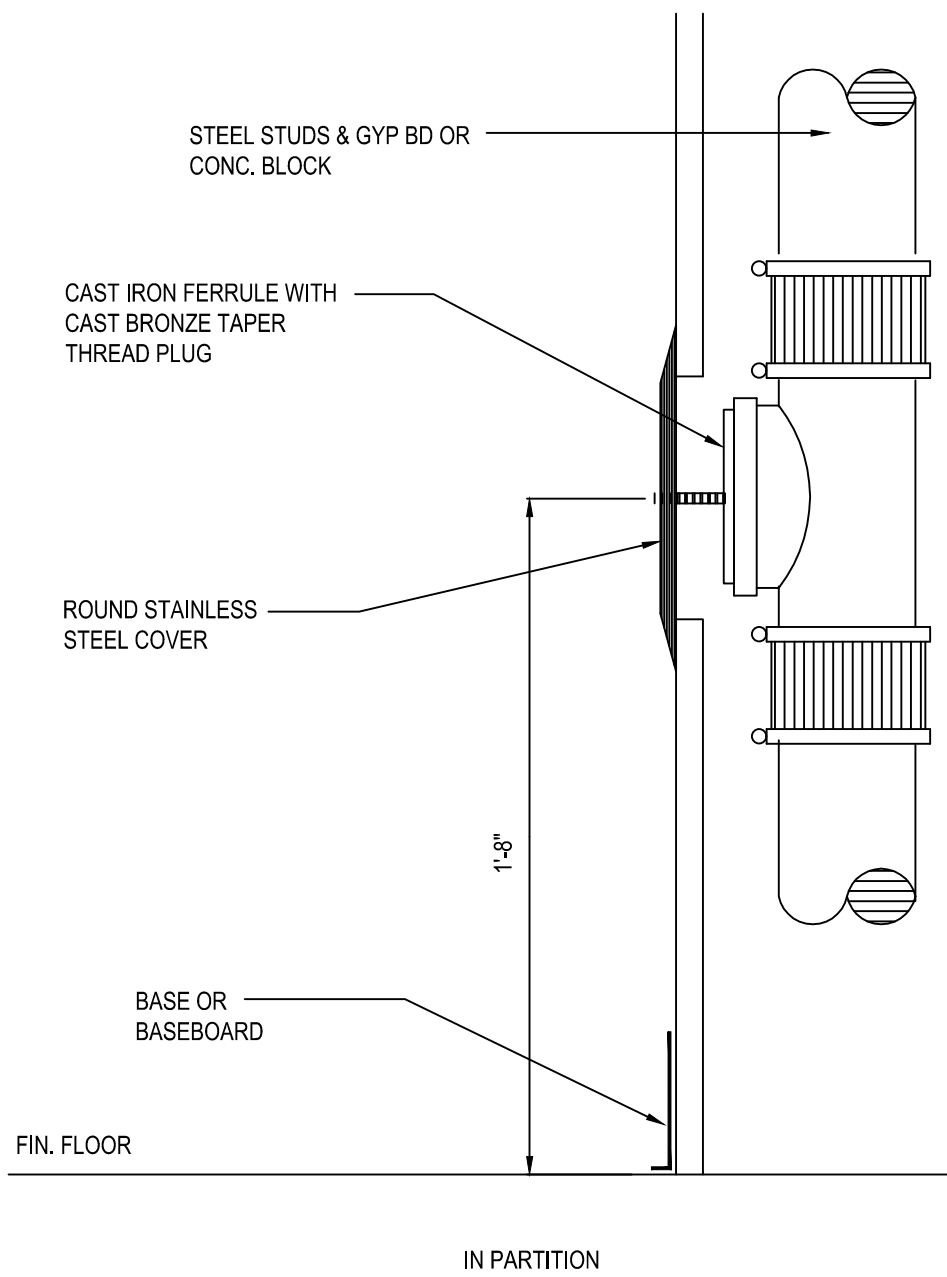
3 TYPICAL FLOOR THROUGH DETAIL
P500 Scale: NONE

MAXIMUM TRAP TO VENT DISTANCES

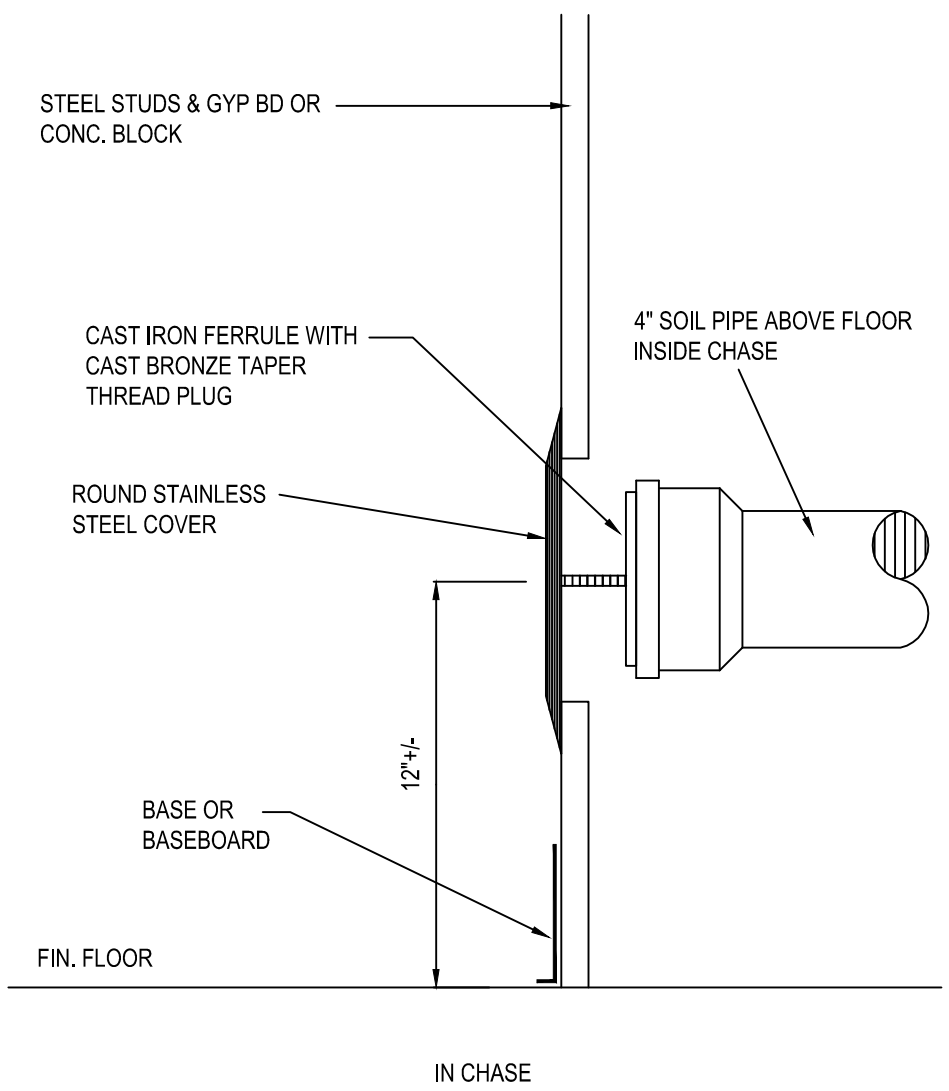
PIPE SIZE	DISTANCE(D)
2"	8'-0"
3"	10'-0"
4"	12'-0"



2 TYPICAL VENTING (FLOOR DRAIN) DETAIL
P500 Scale: NONE



4 WALL CLEANOUT DETAIL
P500 Scale: NONE



REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: KHW
DRAWN BY: KHW
SHEET CHK'D BY: PJR
CROSS CHK'D BY: RDA
APPROVED BY: RDA
DATE: MARCH 2021

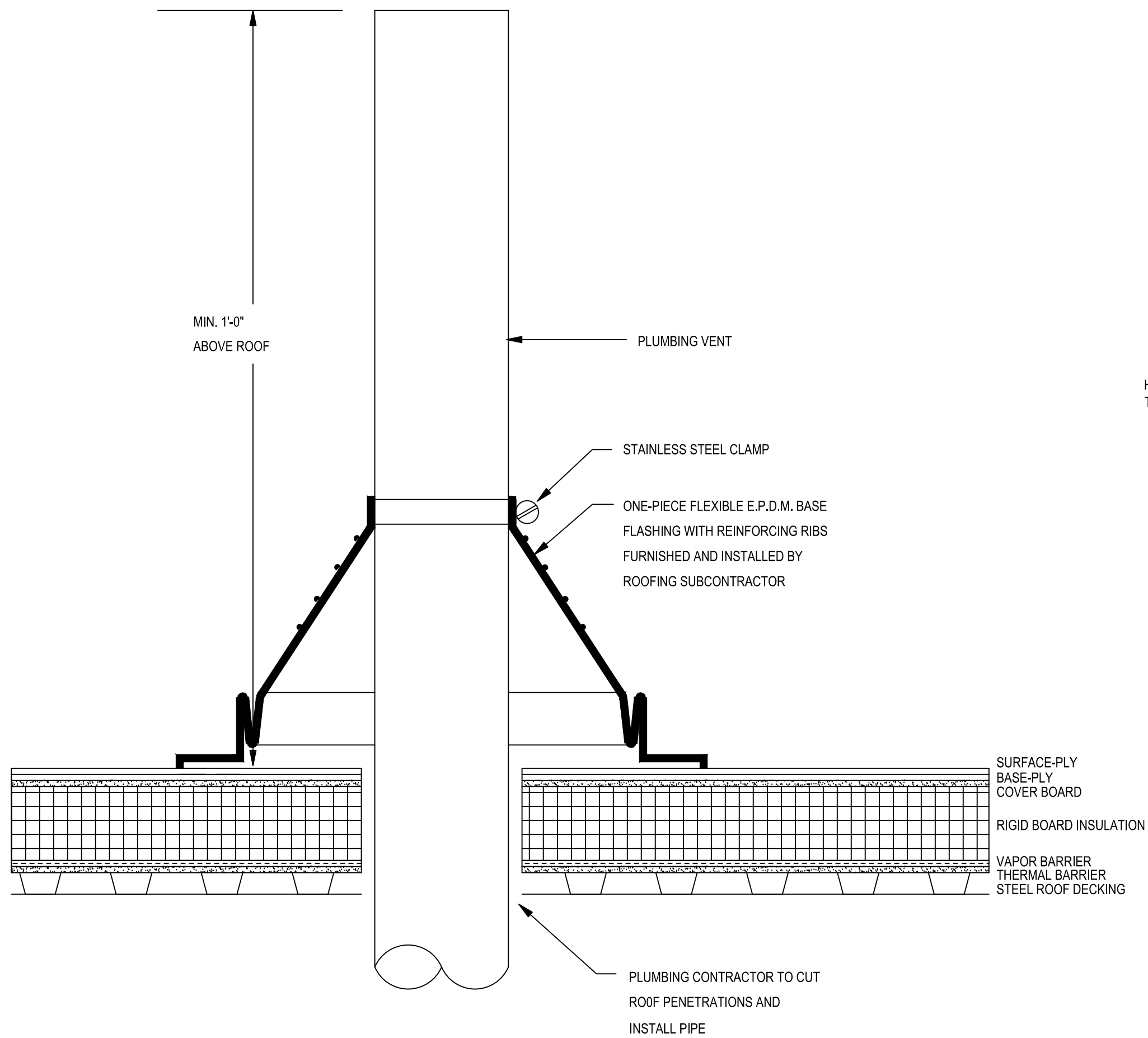
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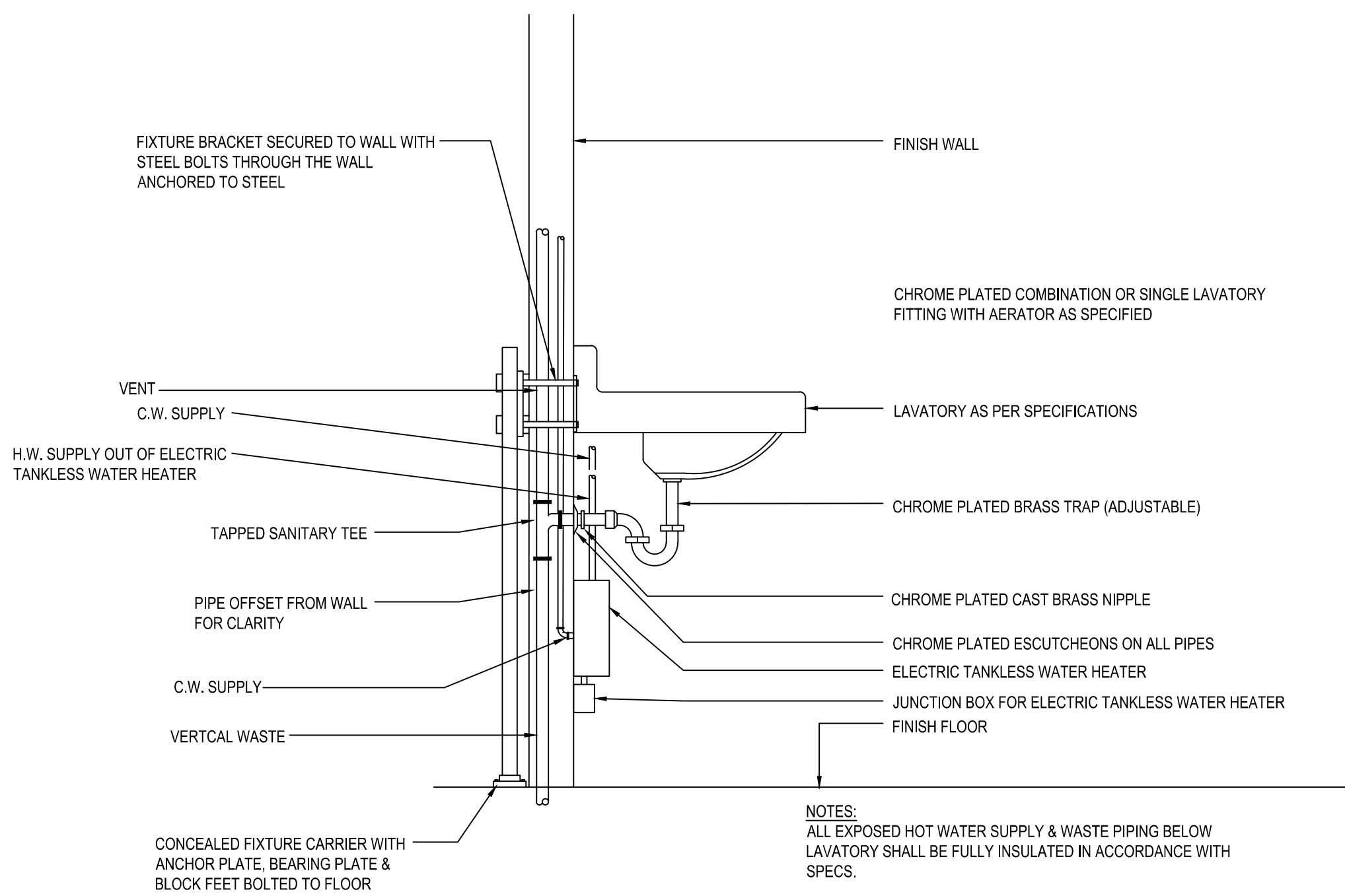
NEW HANOVER COUNTY, NORTH CAROLINA
NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

PLUMBING DETAILS I

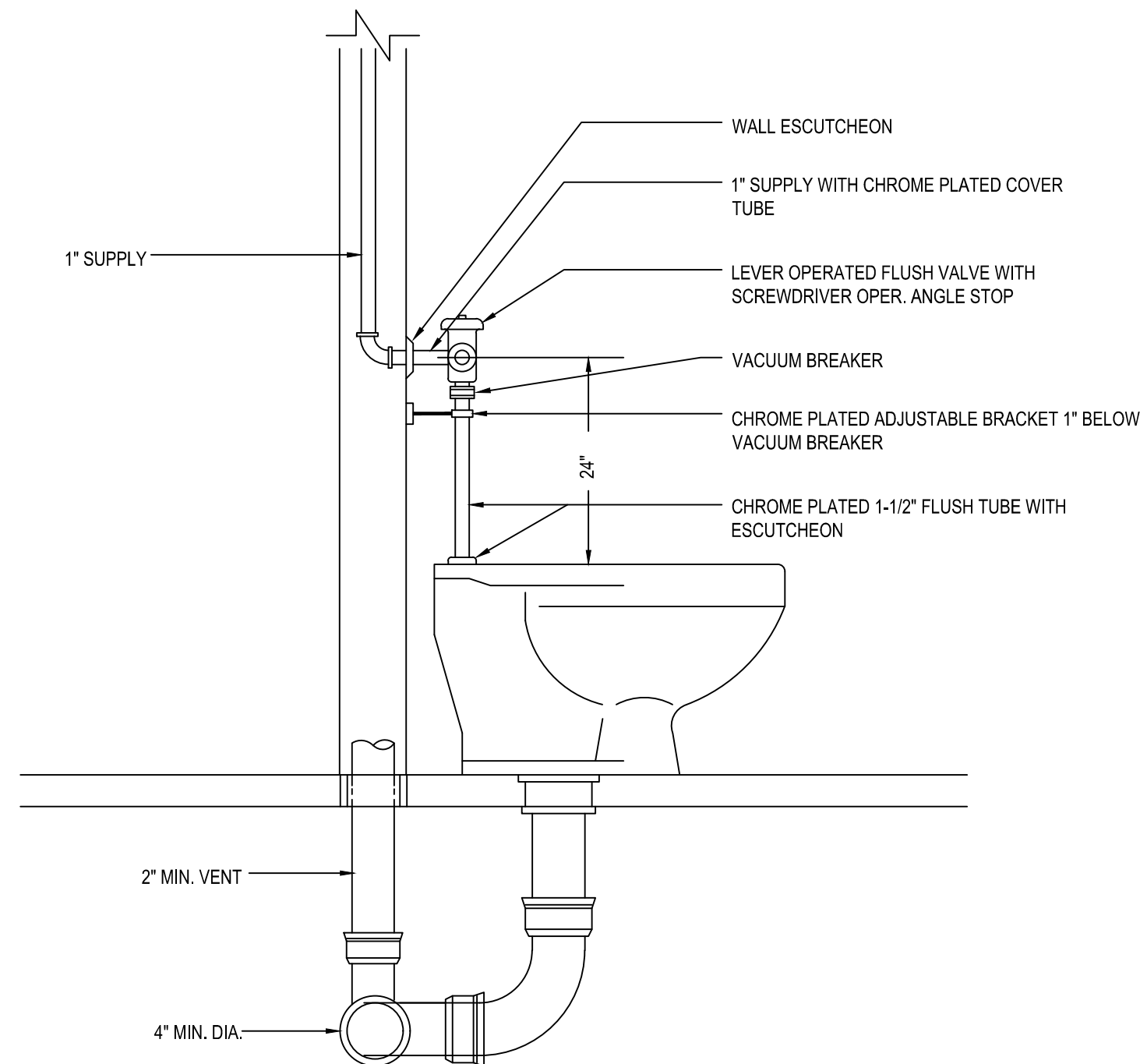
PROJECT NO. 133920-237812
FILE NAME: P500.DWG
SHEET NO.
P500



1
P501 **TYPICAL FLAT ROOF VENT PENETRATION DETAIL**
Scale: NONE



2
P501 **INSTALLATION OF LAVATORY**
Scale: NONE



3
P501 **TYPICAL INSTALLATION OF WATER CLOSET DETAIL**
Scale: NONE

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: KHV
DRAWN BY: KHV
SHEET CHK'D BY: PJR
CROSS CHK'D BY: RDA
APPROVED BY: RDA
DATE: MARCH 2021

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NEW HANOVER COUNTY, NORTH CAROLINA
NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

PLUMBING DETAILS II

PROJECT NO. 133920-237812
FILE NAME: P501.DWG
SHEET NO.
P501

1

2

3

4

GENERAL NOTES

1.

ALL WORK ON THIS PROJECT SHALL CONFORM TO THE 2017 NEC, ALL LOCAL AND STATE CODES, STATE BUILDING CODE AND REQUIREMENTS BY THE AUTHORITY HAVING JURISDICTION.

2.

SYMBOLS AND ABBREVIATIONS MAY NOT ALL BE UTILIZED FOR THIS PROJECT.

3.

UNLESS OTHERWISE INDICATED THE CONTRACTOR, IS RESPONSIBLE FOR ALL CUTTING, CORE- DRILLING AND PATCHING REQUIRED TO INSTALL ELECTRICAL RELATED WORK.

4.

THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ELECTRICAL RELATED WORK WITH OTHER TRADES. THE CONTRACTOR IS CAUTIONED THAT IT IS TOTALLY HIS RESPONSIBILITY TO COORDINATE HANGERS AND SUPPORTS WITH OTHER TRADES. ADDITIONAL REQUIRED HANGERS & SUPPORTS MUST BE IN PLACE PRIOR TO APPLICATION OF FIRE PROOFING MATERIAL. ANY DAMAGE INCURRED ON FIRE PROOFING MATERIAL DUE TO INSTALLATION OF ELECTRICAL HANGERS WILL BE REPAIRED BY FIRE PROOFING SUB-CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

5.

UTILITIES SERVING AREAS OF THIS PROJECT STILL OCCUPIED BY THE OWNER DURING DEMOLITION AND NEW CONSTRUCTION SHALL BE MAINTAINED UNTIL THE OWNER VACATES THE AREA. UNLESS OTHERWISE NOTED.

6.

ALL SHUTDOWNS WILL BE COORDINATED AND APPROVED THROUGH THE OWNER'S PROJECT MANAGER AND THE BUILDING MANAGER AND WILL REQUIRE ADVANCE NOTICE OF 10 WORKING DAYS EXCLUDING WEEKEND. THIS TIME LENGTH MAY BE LONGER OR SHORTER FOR SOME SHUTDOWNS AT THE OWNER'S DISCRETION. THE SCHEDULING OF SUCH SHUTDOWNS MAY TAKE TWO WEEKS OR MORE AND THE CONTRACTOR MUST BE PREPARED TO WORK SECOND OR THIRD SHIFT, SATURDAY OR SUNDAY AS NECESSARY TO PERFORM THE WORK. FURTHERMORE, IN SOME CASES AN ALTERNATE POWER SOURCE MAY BE REQUIRED, THE CONTRACTOR MUST BE PREPARED TO MAKE TAPS, INSTALL CIRCUIT BREAKERS, ETC., WHILE EXISTING EQUIPMENT IS ENERGIZED. ALL SHUTDOWNS WILL BE INITIATED AND CONTROLLED BY OWNER.

7.

VISIT THE SITE PRIOR TO BID DATE AND EXAMINE ALL AREAS TO BE DEMOLISHED AND RENOVATED. THOROUGHLY FAMILIARIZE YOURSELF WITH EXISTING CONDITIONS. NO EXTRA COMPENSATION WILL BE GIVEN FOR FAILURE TO THOROUGHLY EXAMINE EXISTING CONDITIONS TO DETERMINE THE EXACT SCOPE OF DEMOLITION WORK. "KEYED" NOTES ON THE DEMOLITION DRAWINGS ARE PROVIDED TO ASSIST BIDDERS TO DETERMINE THE SCOPE OF DEMOLITION WORK.

8.

EXISTING AREAS WHETHER WITHIN OR WITHOUT THE "GENERAL LIMITS OF CONSTRUCTION", SHALL BE REPAIRED WHERE ANY DAMAGE HAS OCCURRED DUE TO CONSTRUCTION BY THE CONTRACTOR.

9.

ALL AREAS OUTSIDE THE PROJECT LIMITS IN WHICH WORK MUST TAKE PLACE WILL BE CLEANED AND RETURNED TO NORMAL (INCLUSIVE OF CEILING TILE REPLACEMENT) AT THE END OF EACH DAY. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER'S REPRESENTATIVE EACH DAY BEFORE LEAVING THE CONTRACT PROJECT LIMITS REGARDING THE CLEANLINESS OF THE AREA IN WHICH WORK TOOK PLACE OUT SIDE OF THE PROJECT LIMITS.

10.

WHERE WORK IS TAKING PLACE OUTSIDE THE PROJECT LIMITS CANNOT ALLOW A RETURN TO NORMAL APPEARANCE OF WALLS, CEILING, ETC., AT THE END OF EACH DAY DUE TO ITS EXTENSIVE NATURE; THE CONTRACTOR SHALL ERECT A BLACK PLASTIC CURTAIN AROUND HIS WORK. SUCH A CURTAIN SHALL REMAIN IN PLACE UNTIL THE WORK IS COMPLETE. SUCH CURTAINS WILL HAVE CAUTIONARY SIGNS AFFIXED INDICATING CONSTRUCTION ACTIVITY WITHIN.

11.

PROVIDE 4" HIGH CONCRETE HOUSEKEEPING PADS WITH CHAMFERED EDGES UNDER ALL FLOOR MOUNTED ELECTRICAL EQUIPMENT.

12.

DO NOT MOUNT ANY WALL RECEPTACLES OR TELEPHONE/COMPUTER OUTLETS BACK TO BACK.

13.

USE 3/4" DEEP MUD RINGS ON BOXES IN 5/8" DRYWALL SO FACE OF RING IS FLUSH WITH FACE OF DRYWALL. PROVIDE CADDY #RLC ADAPTER ON ALL OUTLETS WHERE DRYWALL IS CUT IN EXCESS OF 1/8" LARGER THAN MUD RING OR WHERE THE DEVICE "EARS" ARE NOT SUPPORTED BY THE DRYWALL.

14.

20A BRANCH CIRCUIT WIRE SIZING SHALL BE IN ACCORD WITH THE FOLLOWING TABLE:

VOLTS	DISTANCE	REMAINDER (FIRST DEVICE)	OF CIRCUIT
120/208	0' - 50'	#12	#12
	50' - 100'	#10	#12
	100' - 150'	#8	#10

15.

THE ELECTRICAL CONTRACTOR SHALL VERIFY LOCATION OF LIGHTS, ETC. IN MECHANICAL ROOMS WITH MECHANICAL CONTRACTOR BEFORE ROUGH-IN TO AVOID CONFLICT WITH DUCT WORK.

16.

ALL CONDUCTORS SHALL BE COPPER WITH A MINIMUM SIZE OF #12 AWG EXCEPT FOR FIRE ALARM.

17.

ALL BRANCH CIRCUIT BREAKERS SHALL BE 20A, 1P, WITH 2 #12 AWG #12 GND IN 3/4" MINIMUM CONDUIT, UNLESS OTHERWISE NOTED. EXTERIOR CONDUIT OR UNDERGROUND/SLAB CONDUIT SHALL BE 1" MINIMUM.

18.

ALL WIRING LUGS THROUGHOUT THE PROJECT, INCLUDING BUT NOT LIMITED TO BREAKERS, PANELBOARD/SWITCHBOARD LUGS, SAFETY SWITCH LUGS, AND TRANSFORMER LUGS, SHALL BE RATED FOR USE WITH 75 DEGREE CONDUCTORS SIZED IN ACCORDANCE WITH NEC TABLE 310-16.

19.

ALL RACEWAYS SHALL BE METAL UNLESS SPECIFICALLY NOTED OR APPROVED OTHERWISE. ANY RACEWAY IN POURED CONCRETE SHALL BE RIGID METAL (HEAVY WALL). REFER TO SPECIFICATIONS FOR ALL OTHERS.

20.

CONTRACTOR SHALL MINIMIZE NUMBER OF HOME RUN CONDUITS. CONTRACTOR MAY COMBINE UP TO THREE CIRCUITS PER HOME RUN IN A SINGLE CONDUIT; WHERE MORE THAN THREE (3) CONDUCTORS ARE PROVIDED PER RACEWAY MINIMUM CONDUIT SIZE SHALL BE 3/4".

21.

IN GENERAL ALL ELECTRICAL CONDUIT WILL BE RUN AT THE ELEVATION JUST BELOW THE BOTTOM OF THE STRUCTURAL BEAMS. THE CONTRACTOR SHALL OFFSET THE ELECTRICAL CONDUIT TO AVOID INTERFERENCE WITH ANY DUCTWORK, SPRINKLER OR MECHANICAL PIPING. THE CONTRACTOR SHALL COORDINATE HIS CONDUIT AND RACEWAY LOCATIONS WITH ALL OTHER TRADES BEFORE INSTALLATION.

22.

THE ROUTING FOR THE RACEWAY SHOWN ON THE DWGS. IS DIAGRAMMATIC ONLY. BASED ON CURSORY FIELD SURVEY BY DESIGNER. CONTRACTOR IS CAUTIONED THAT SPACE ABOVE CLG. IS VERY CONGESTED WITH EXISTING MECHANICAL, ELECTRICAL & PLUMBING ITEMS, AND WORK SPACE IS LIMITED. CONTRACTOR IS REQUIRED TO VISIT THE SITE PRIOR TO BID DATE AND LOOK ABOVE THE CLG. OF THE PROPOSED ROUTING TO FAMILIARIZE HIMSELF WITH EXISTING CONDITIONS. PROVIDE ANY AND ALL ADDITIONAL JBS, OFFSETS, CONDUITS AND FITTINGS AS REQUIRED TO AVOID ANY EXIST. OBSTRUCTIONS ALONG THE PROPOSED ROUTING. ANY SHUTDOWNS CAUSED BY RELOCATING EXISTING EQUIPMENT SHALL BE COORDINATED WITH OWNER. FAILURE TO EXAMINE EXISTING CONDITIONS AND COORDINATE THE EXACT CONDUIT ROUTING WILL NOT EXCUSE CONTRACTOR FROM PERFORMING ALL DUTIES NECESSARY TO COMPLETE THE WORK. DO NOT ROUTE CONDUIT IN A MANNER THAT WILL BLOCK ACCESS TO EXISTING ITEMS AS JUNCTION BOXES, VALVES, FILTERS OR SERVICE ACCESS TO EQUIPMENT.

23.

ELECTRICAL PLANS ARE DIAGRAMMATIC. THE CONTRACTOR SHALL ALIGN FIXTURES, FIRE ALARM DETECTORS, CEILING DIFFUSERS, ETC. AS REQUIRED TO PROVIDE A PATTERN OF UNIFORMITY. AT NO TIME SHALL A SMOKE DETECTOR BE LOCATED WITHIN 3'-0" OF A SUPPLY OR RETURN GRILLE.

24.

WIRE AND CIRCUIT BREAKERS ARE SIZED FOR SPECIFIC EQUIPMENT. BEFORE ORDERING WIRE, BREAKERS AND CONDUIT FOR THIS PROJECT, THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE OTHER CONTRACTORS ON THE JOB AND SHALL VERIFY THE ELECTRICAL DATA FOR EQUIPMENT WHICH WILL ACTUALLY BE INSTALLED BY THE OTHER CONTRACTORS AND RECOMPUTE WIRE AND BREAKER SIZES IF REQUIRED TO COMPLY WITH THE N.E.C.

25.

REFER TO MECHANICAL DRAWINGS AND COORDINATE VERTICAL RUNS OF WIRE AND CONDUIT WITH MECHANICAL PIPING. COORDINATE WITH MECHANICAL CONTRACTORS. (NOTE: STACK RUNS OF CONDUIT AND PROVIDE OFFSETS AS NECESSARY.)

26.

LABEL ALL CONDUITS TERMINATING IN THE CEILING CAVITIES.

27.

LIGHTING & POWER PANELS ARE DESIGNED AROUND SQUARE "O" "NQOD" WITH A MAXIMUM DEPTH OF 5 3/4" AND WIDTH OF 20".

28.

THE MOUNTING HEIGHTS AND LOCATIONS OF ALL WALL MOUNTED OUTLETS, JUNCTION BOXES AND DISCONNECT SWITCHES SHALL BE REVIEWED AND COORDINATED WITH CASEWORK DRAWINGS AND ACTUAL EQUIPMENT LOCATION, PRIOR TO INSTALLATION. ANY DIFFERENCES SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.

29.

THE ELECTRICAL CONTRACTOR SHALL VERIFY ALL CEILING TYPES AND FINISHES BEFORE PURCHASE OF ANY LIGHT FIXTURES SO THAT THE PROPER TRIM WILL BE PROVIDED FOR THE CEILING TO BE INSTALLED. ANY DIFFERENCES SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.

30.

EACH CONTRACTOR SHALL PROVIDE HIS OWN SUPPORT OF ALL DEVICES AND EQUIPMENT PROVIDED BY HIM AND SHALL SUPPORT SUCH EQUIPMENT PER APPROVED GOVERNING CODES OR PER APPROVAL OF THE ENGINEER. UNACCEPTABLE WORKMANSHIP OR MATERIALS SHALL BE REPLACED AT THE REQUEST OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.

31.

THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR FLOOR PLAN DIMENSIONS. DO NOT SCALE THESE DRAWINGS.

32.

THE ELECTRICAL CONTRACTOR SHALL COORDINATE ANY AND ALL WORK WITH OTHER TRADES INVOLVED IN THE PROJECT, PRIOR TO THE INSTALLATION OF HIS EQUIPMENT, SO AS TO AVOID CONFLICTS DURING CONSTRUCTION AND TO ALLOW FOR OPTIMUM MAINTENANCE AND WORKING SPACE. PROVIDE COORDINATION DRAWINGS TO THE ENGINEER FOR APPROVAL. ANY REWORK THAT NEEDS TO BE DONE DO TO CONFLICTS BETWEEN TRADES SHALL BE DONE AT THIS CONTRACTORS EXPENSE.

33.

ALL LIGHT FIXTURES SHALL BE SUPPORTED INDEPENDENTLY OF THE SUSPENDED CEILING SYSTEM. REFER TO THE SPECIFICATIONS FOR MORE DETAILED INFORMATION.

34.

WHERE ELECTRICAL EQUIPMENT PENETRATES EXTERIOR WALLS OR THE ROOF, THEY SHALL BE PROPERLY SEALED WITH METHODS APPROVED BY THE ENGINEER. SUBMIT DETAIL OF PROPOSED WORK.

35.

IN ALL AREAS WHERE THE FIRE RATED WALLS, FLOORS AND CEILINGS ARE INSTALLED OR ARE EXISTING, ALL PENETRATIONS OF ELECTRICAL CONDUITS OR OTHER RELATED ELECTRICAL MATERIALS SHALL BE PROPERLY SEALED WITH APPROVED FIRE RATED MATERIALS TO MAINTAIN THE RATINGS OF THE BUILDING CONSTRUCTION.

36.

ALL FUSES, DISCONNECT SWITCHES AND BREAKER SIZES, SHOWN FOR MECHANICAL EQUIPMENT, SHALL BE VERIFIED BEFORE THE PURCHASE OR INSTALLATION OF SAID EQUIPMENT, WITH THE EQUIPMENT SUPPLIER AND MECHANICAL CONTRACTOR.

37.

UPON COMPLETION OF WORK ALL KEYS TO ELECTRICAL POWER PANELS SHALL BE TURNED OVER TO THE OWNER AND A SIGNED RECEIPT SHALL BE OBTAINED.

38.

ALL MULTIWIRE BRANCH CIRCUITS NEED TO HAVE SEPARATE NEUTRAL CONDUCTORS TO COMPLY WITH NEC 2014 ARTICLE 210.4. NO SHARED NEUTRAL CONDUCTORS PERMITTED ON THIS PROJECT.

41.

ANY RECEPTACLE WITH-IN 6'-0" OF A SINK SHALL BE A GROUND FAULT TYPE (GFI) RECEPTACLE.

42.

ALL WORK ON THIS PROJECT SHALL BE INSTALLED IN COMPLIANCE WITH ANSI A117.1, ADA STANDARDS FOR ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES.

					DESIGNED BY: _____ RDA
					DRAWN BY: _____ RDA
					SHEET CHK'D BY: _____ STB
					CROSS CHK'D BY: _____ RDA
					APPROVED BY: _____ RDA
REV. NO.	DATE	DRWN	CHKD	REMARKS	DATE: _____ MARCH 2021

CDM Smith

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Sigma Project #: 19025

NC ENG LIC# C-2490

NEW HANOVER COUNTY, NORTH CAROLINA

NEW HANOVER COUNTY LANDFILL

CONVENIENCE CENTER REDEVELOPMENT PROJECT

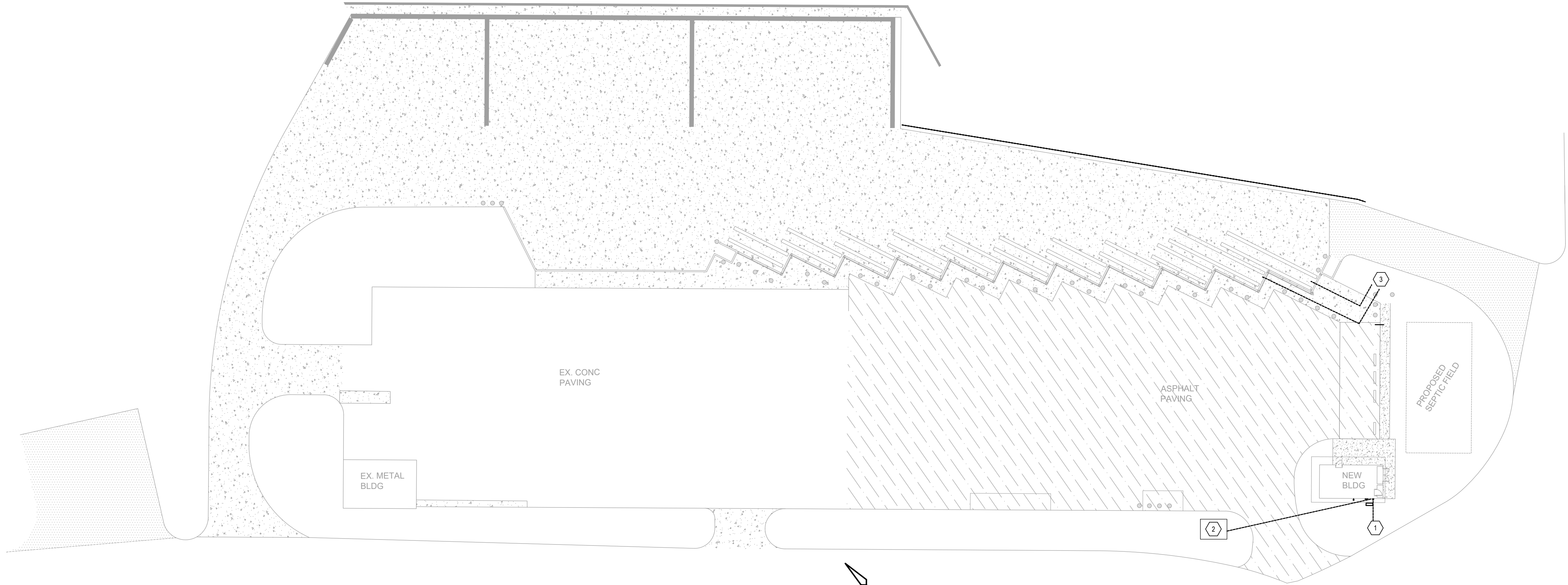
PROJECT NO. 133920-237812

FILE NAME: E-DRAW-E002.DWG

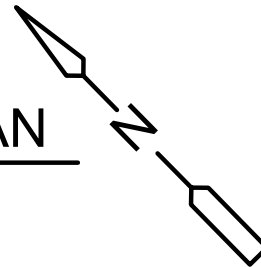
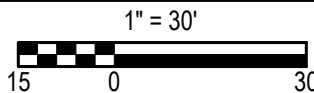
SHEET NO.

E002

PERMIT SET - NOT FOR CONSTRUCTION



NEW ELEC. SITE PLAN



GENERAL NOTES PLAN :

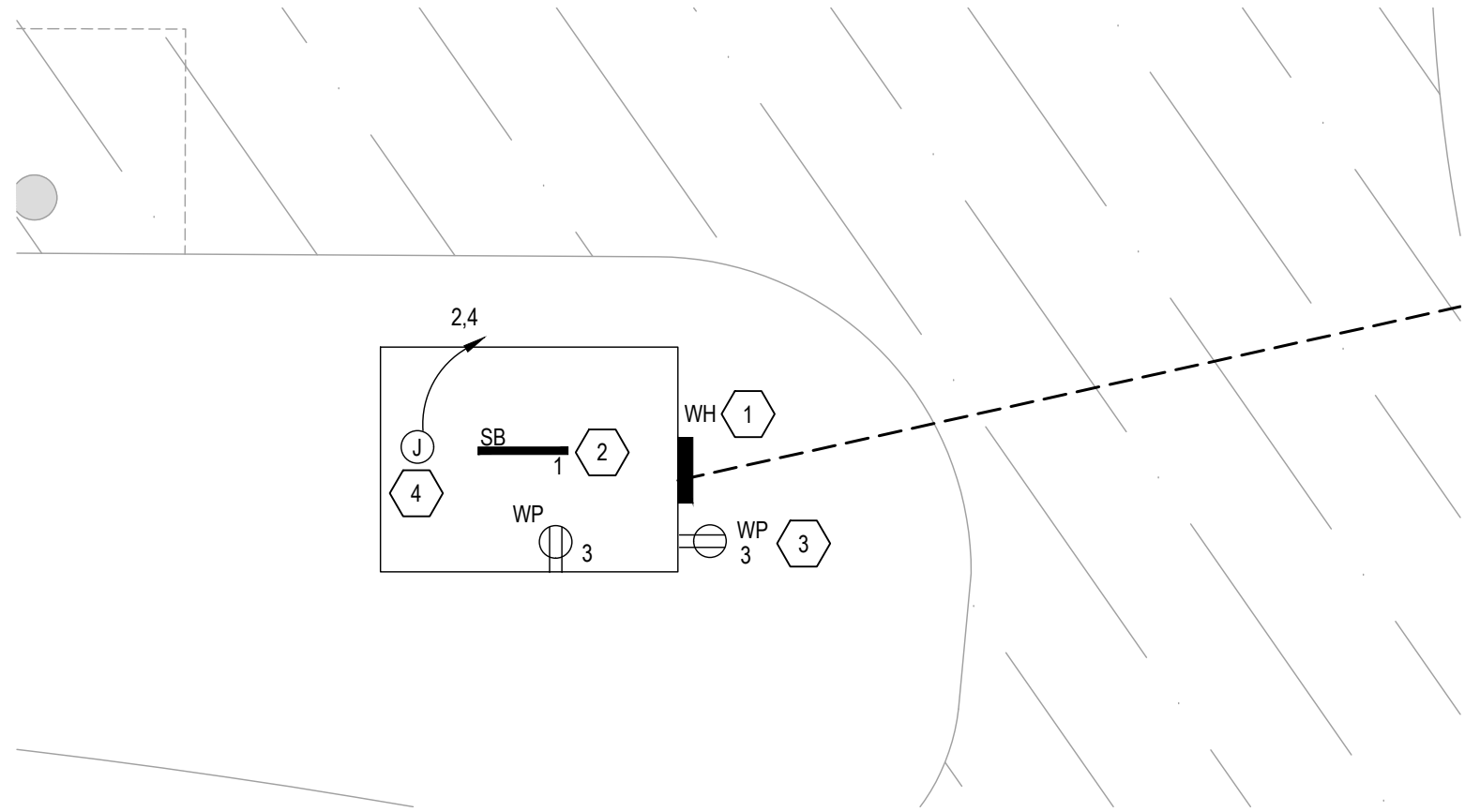
1. REFER TO SHEET E001 AND E002 FOR LEGEND AND ADDITIONAL GENERAL NOTES.

NOTES KEYED TO SITE PLAN :

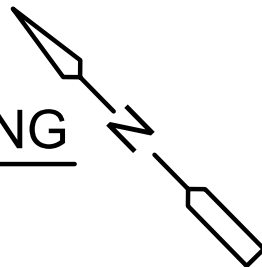
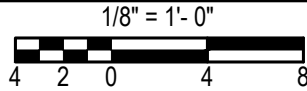
- 1 PROVIDE CONDUIT AS REQUIRED BY LOCAL UTILITY TO LOCATION OF SITE TRANSFORMER.
- 2 NEW WELL HOUSE. REFER TO PLAN THIS SHEET FOR ADDITIONAL INFORMATION.
- 3 PROVIDE 2'-4" FROM EACH BAY SHOWN TO LOCATION OUTSIDE OF CONVENIENCE CENTER.

NOTES KEYED TO PLAN 1:

- 1 PROVIDE NEW PANEL ON EXTERIOR WALL OF WELL HOUSE. REFER TO E-200 FOR RISER.
- 2 PROVIDE LED FIXTURE IN WELL HOUSE. PROVIDE LIGHT SWITCH AT ENTRANCE IN WP BOX.
- 3 PROVIDE WP/GFCI RECEPTACLES AT 18" AFF. TYPICAL.
- 4 PROVIDE POWER FOR WELL PUMP. WIRE PUMP THRU PRESSURE SWITCH PROVIDED WITH WELL SYSTEM. COORDINATE WITH WELL VENDOR.



PLAN 1-WELL BUILDING



REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY:	RDA
DRAWN BY:	RDA
SHEET CHK'D BY:	STB
CROSS CHK'D BY:	RDA
APPROVED BY:	RDA
DATE:	MARCH 2021

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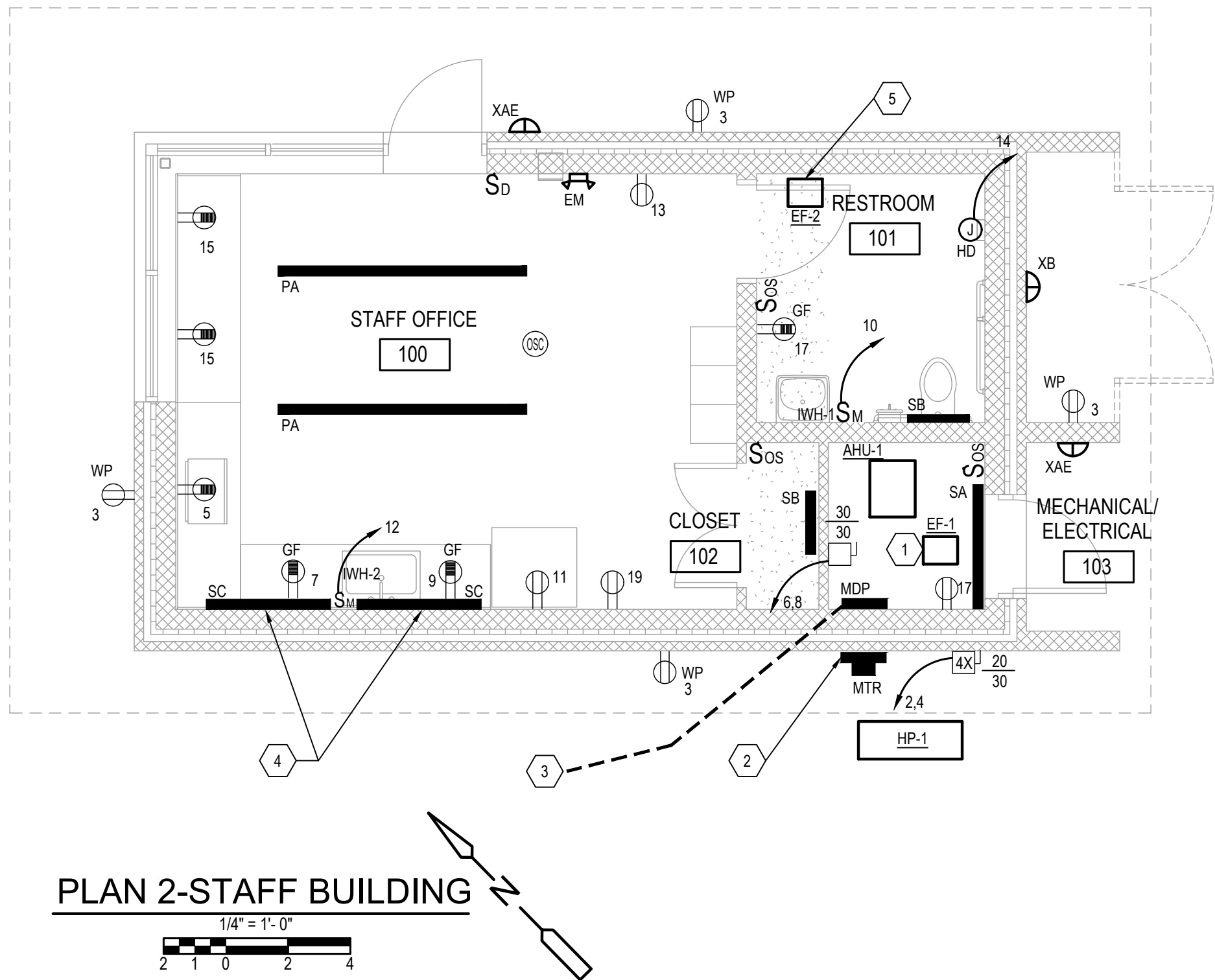
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Sigma Project #: 19025
NC ENG LIC# C-2490

NEW HANOVER COUNTY, NORTH CAROLINA

NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

SITE PLAN

PROJECT NO.	133920-237812
FILE NAME:	E-DRAW-E100.DWG
SHEET NO.	E100

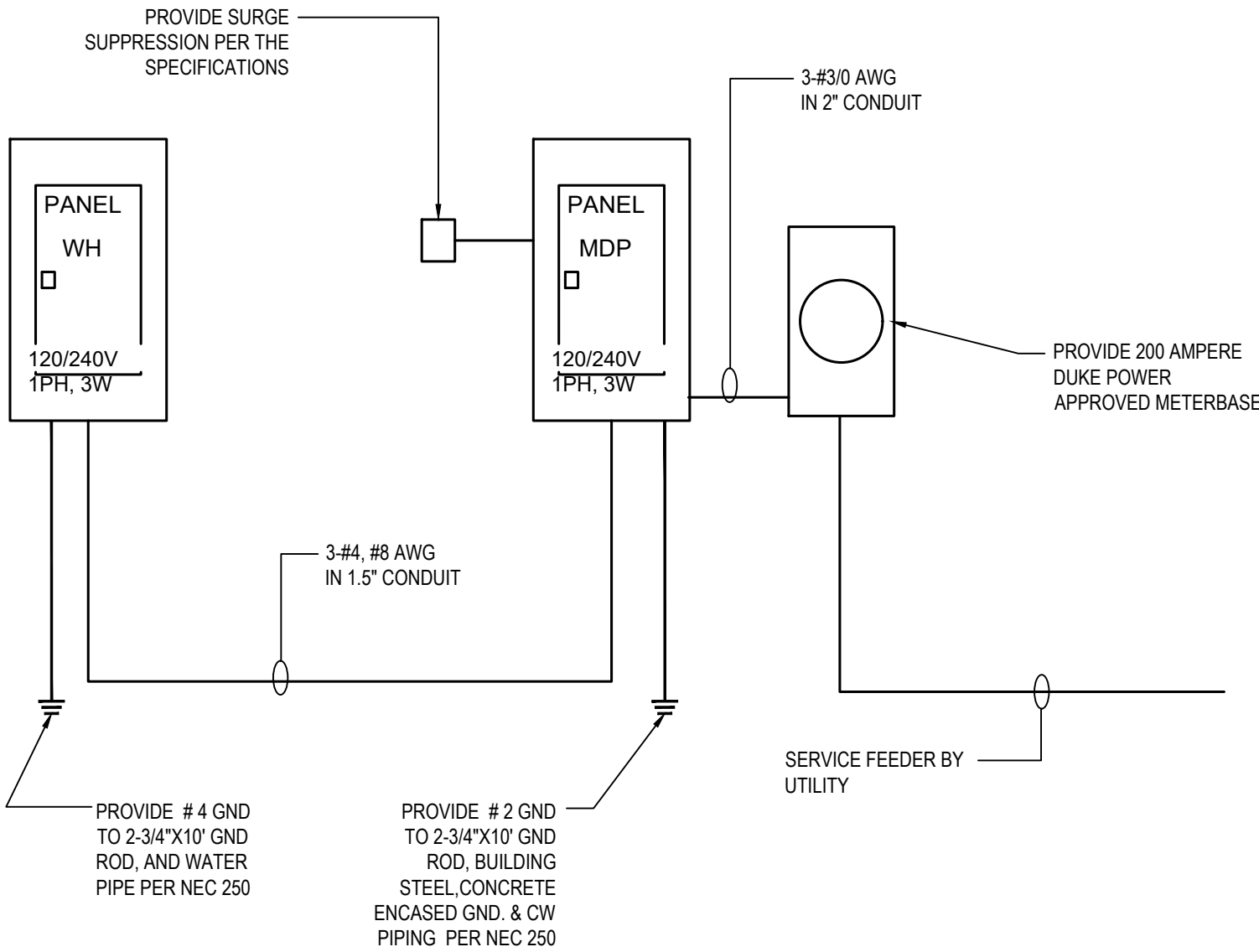


GENERAL NOTES PLAN 1:

1. REFER TO SHEET E001 AND E002 FOR LEGEND AND ADDITIONAL GENERAL NOTES.
2. ALL LIGHTING IS TO BE CIRCUITED TO MDP-1.
3. COORDINATE ALL DEVICE INSTALLATION WITH ARCHITECTURAL PLANS AND ELEVATIONS.

NOTES KEYED TO PLAN 2:

1. CONNECT EF-1 TO CIRCUIT #19.
2. PROVIDE METER BASE PER RISER THIS SHEET. COORDINATE LOCATION WITH NEW CONDENSING UNIT.
3. PROVIDE FEEDER TO WELL HOUSE PANEL PER RISER THIS SHEET.
4. PROVIDE UNDER CABINET LIGHTS AS SHOWN. REFER TO ARCHITECTURAL DRAWINGS FOR PLACEMENT AND ELEVATIONS.
5. CONNECT EF-2 TO OCC. SENSOR CONTROL VIA LOCAL LIGHTING CIRCUIT.



ELECTRICAL RISER

NONE

1

LIGHTING FIXTURE SCHEDULE									
TYPE	DESCRIPTION	MANUF. NAME	MANUFACTURER CAT. NUMBERS	LAMPS	NO. OF BALLASTS	INPUT WATTS	VOLTS	REMARKS	
PA	8'-0" DIRECT LINEAR PENDANT, EXTRUDED ALUMINUM, CLEAR DIFFUSER,	FORUM	SAD-39-95-SAT-C-AS SHOWN-120-TBD-SF-D10V	LED	DRIVER	58	120	MOUNT FIXTURE AT 7'-5" TO TOP OF FIXTURE	
SA	WALL MOUNTED LED LUMINAIRE	ALW	LPS SERIES	LED	DRIVER	20	120		
		MARK LIGHTING	S2LD SERIES						
SB	WALL MOUNTED LED LUMINAIRE	LITHONIA	ZTLN SERIES	LED	DRIVER	12.2	120		
		WILLIAMS	EQUAL						
		LSI	EQUAL						
		LITHONIA	WL2-121-LP635						
SC	UNDER-CABINET MOUNTED LED LUMINAIRE	WILLIAMS	SUF SERIES	LED	DRIVER	20	120	WALL MOUNTED UNDER CABINETS	
		LSI	EQUAL						
		LITHONIA	UGEL 48N						
		WILLIAMS	EQUAL						
EB1	SELF-CONTAINED EMERGENCY EGRESS LIGHT	LSI	EQUAL	INC	NA	20	120	MOUNTED AT 7'-0" AFF. PROVIDE WITH 90 MIN. NICAD BATTERY	
		LITHONIA	ELMG LED						
		COMPASS	CU2						
XAE	WALL MOUNTED LED EGRESS	EVENLITE	EQUAL	LED	DRIVER	10	120	PROVIDE WITH INTEGRAL BATTERY AND PHOTOCELL LUMINAIRE TO FUNCTION AS EGRESS AND SECURITY LIGHTING	
		SKINTX	MOE SERIES						
		EXTROX	NP3 SERIES						
XB	WALL MOUNTED LED LUMINAIRE	WILLIAMS	EQUAL	LED	DRIVER	20	120	PROVIDE WITH INTEGRAL PHOTOCELL	
		LITHONIA	OLVX1 LED 20 40K PE						
		LSI	EQUAL						
NOTES:									

LIGHTING SCHEDULE

NONE

2

PANEL "MDP"									
PANEL TYPE: NQOD									
BUS SIZE: 200A									
VOLTAGE: 120/240									
MCB: MOUNTING: SURFACE-NEMA 1									
MINIMUM AIC: 22,000									
CKT	LOAD SERVED	TRIP	POLE	WIRE SIZE	CONDUIT SIZE	KVA	A	B	CONDUIT SIZE
1	LIGHTING	20	1	#12/#12	3/4"	0.86	2.42		3/4"
3	RECEPTACLE	20	1	#12/#12	3/4"	0.72		2.28	#10/#10
5	RECEPTACLE	20	1	#12/#12	3/4"	1.00	4.48		#10/#10
7	RECEPTACLE	20	1	#12/#12	3/4"	1.00		4.48	#10/#10
9	RECEPTACLE	20	1	#12/#12	3/4"	1.00	4.60		#8/#10
11	RECEPTACLE	20	1	#12/#12	3/4"	1.00		4.60	#8/#10
13	RECEPTACLE	20	1	#12/#12	3/4"	0.72	3.12		#10/#10
15	RECEPTACLE	20	1	#12/#12	3/4"	0.72		0.72	
17	RECEPTACLE	20	1	#12/#12	3/4"	0.72		0.72	
19	RECEPTACLE	20	1	#12/#12	3/4"	0.72			
21	SPARE	20	1	#12/#12	3/4"		0.00		
23	SPARE	20	1					0.00	
25	SURGE SUPPRESSION	30	2	#10/#10	3/4"		1.46		PER RISER
27				#10/#10	3/4"		1.32		
CONNECTED LOAD						30.93	kVA		
MAXIMUM DEMAND LOAD						38.66	kVA		
DEMAND AMPERES						161	Amperes		
PROVIDE WITH UL SERVICE ENTRANCE LABEL.									

PANELBOARD SCHEDULE

NONE

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PANEL "WH"				PANEL TYPE: NQOD				MCB: MOUNTING: SURFACE-NEMA 4X							
				BUS SIZE: 60A				MINIMUM AIC: 10,000							
				VOLTAGE: 120/240											
CKT	LOAD SERVED	TRIP	POLE	WIRE SIZE	CONDUIT SIZE	KVA	A	B	CONDUIT SIZE	WIRE SIZE	KVA	POLE	TRIP	LOAD SERVED	CKT
1	LIGHTING	20	1	#12/#12	3/4"	0.86	1.46		3/4"	#10/#10	0.60				2
3	RECEPTACLE	20	1	#12/#12	3/4"	0.72		1.32	3/4"	#10/#10	0.60		20L	WELL PUMP	4
5	SPARE	20	1				0.00							SPACE	6
7	SPARE	20	1					0.00						SPACE	8