



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



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ARCHITECTS
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Raleigh, North Carolina 27608



5410 Trinity Rd. #102
Raleigh, NC 27607
919-866-4951



120 Saint Mary's Street
Raleigh, NC 27605
919-833-0495



2100 Gateway Centre Blvd., Suite 100
Morrisville, NC 27560
919-840-9300

XREFS: [CDMS_2234] Images: []
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DRAWING INDEX

SHEET NO.	SHEET TITLE	SHEET NO.	SHEET TITLE	SHEET NO.	SHEET TITLE	SHEET NO.	SHEET TITLE
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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
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		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
C002	EXISTING CONDITIONS PLAN	C112	STORM DRAINAGE PROFILES II	A402	ENLARGED STAIR PLANS AND DETAILS	P200	PLUMBING PLANS
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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		
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					STRUCTURAL		
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				S101	FOUNDATION PLAN		
				S102	ROOF FRAMING PLAN		
				S201	STRUCTURAL FOUNDATION DETAILS		
				S301	STRUCTURAL FRAMING DETAILS		

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



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

CIVIL AND SITE LEGEND

SYMBOL	FEATURE
LOD LOD	LIMITS OF DISTURBANCE
---	PROPERTY LINE
16 X	HORIZONTAL CONTROL POINT
B-3	CDM SMITH BORING LOCATION (MAY 2019)
X X	EXISTING CHAINLINK FENCE OR GUARDRAIL
O O O O	TEMPORARY CONSTRUCTION FENCE
SF SF SF SF	SILT FENCE
~~~~~	TREE LINE
OHE OHE OHE	OVERHEAD UTILITY WIRES
=====	STORM DRAINAGE PIPE
UGE UGE UGE	UNDERGROUND ELECTRIC LINE
T T	UNDERGROUND TELEPHONE/CABLE
W W	WATER LINE
SS SS	SANITARY SEWER
=====	EDGE OF PAVEMENT
[Pattern]	CONCRETE PAVEMENT
[Pattern]	ASPHALT PAVEMENT
[Pattern]	GRAVEL (WITH GEOCELL) PAVEMENT
~~~~~	DEMOLISH OR REMOVE
15	PROPOSED MAJOR CONTOUR
15	PROPOSED MINOR CONTOUR
15	EXISTING MAJOR CONTOUR
15	EXISTING MINOR CONTOUR
← ← ←	PROPOSED DRAINAGE DITCH
[Pattern]	RIPRAP
[Symbol]	BUILDING OR STRUCTURE FOOTPRINT
[Symbol]	SILT FENCE OUTLET
[Symbol]	STONE CHECK DAM
[Symbol]	TEMPORARY CONSTRUCTION ENTRANCE
[Symbol]	FILER SOCK (SEDIMENT LOG)

[Symbol]	UTILITY POLE/LIGHT POLE
[Symbol]	GUY WIRE / ANCHOR
[Symbol]	SIGN
[Symbol]	BOLLARD/WOODEN POST
[Symbol]	WATER WELL
[Symbol]	WATER VALVE
[Symbol]	FIRE HYDRANT
[Symbol]	GRATED INLET
[Symbol]	FLARED-END SECTION
[Symbol]	ELECTRIC HANDHOLE/METER
[Symbol]	ELECTRIC CONTROL BOX
[Symbol]	SEWER MANHOLE
[Symbol]	TELEPHONE BOX/HANDHOLE
[Symbol]	5.3 SPOT ELEVATION
[Symbol]	DECIDUOUS TREE
[Symbol]	GROUNDWATER MONITORING WELL

ABBREVIATIONS

#	NUMBER
&	AND
ø	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.

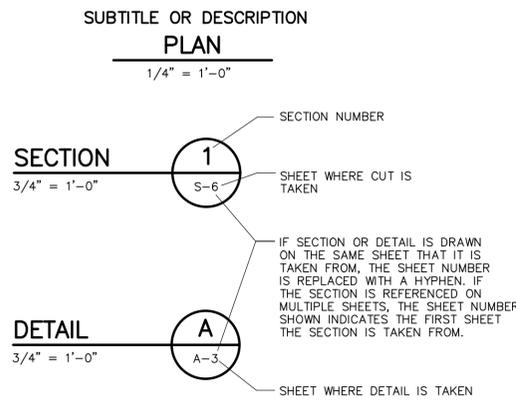
WATER AND SEWER NOTES:

- 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.

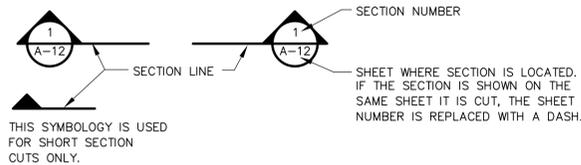
GRADING AND DRAINAGE NOTES:

- 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.

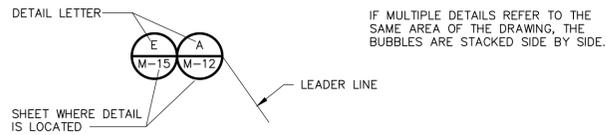
DRAWING, SECTION AND DETAIL TITLES



SECTION CUT SYMBOLS



DETAIL CALL OUT SYMBOLS



XREFS: [CDMS_2234] Images: []
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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

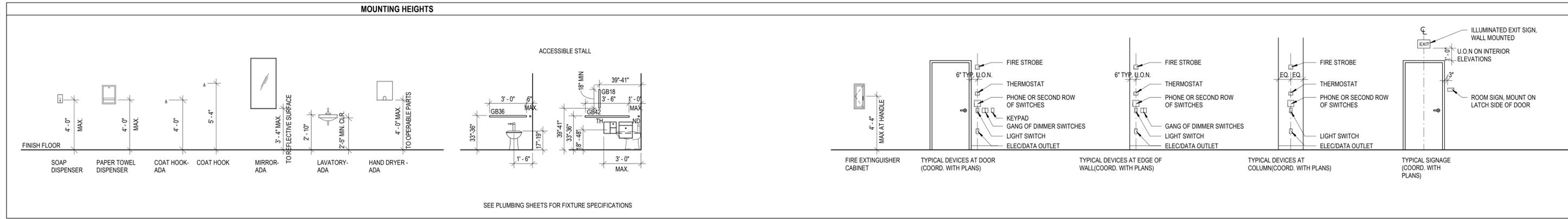
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NEW HANOVER COUNTY, NORTH CAROLINA
 NEW HANOVER COUNTY LANDFILL
 CONVENIENCE CENTER REDEVELOPMENT PROJECT

GENERAL NOTES AND LEGEND

PROJECT NO.	133920-237812
FILE NAME:	G003GNL.G.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
BLKC	BLOCKING	NC	NON-COMBUSTIBLE
BOS	BOTTOM OF STEEL	NCSBC	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
EIFS	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	GYPSUM WALLBOARD	UON	UNLESS OTHERWISE NOTED
GYP	GYPSUM	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	W/O	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	
GYPSUM 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 A201 SHEET WHERE ELEV. IS DRAWN
INTERIOR ELEVATION	DRAWING NUMBER A211 SHEET WHERE ELEV. IS DRAWN
BUILDING SECTION	DRAWING NUMBER 1 SHEET WHERE SECT. IS DRAWN
WALL SECTION	DRAWING NUMBER 1 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
- GENERAL CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND PAYING FOR PERMITS AND INSPECTIONS REQUIRED BY PUBLIC AUTHORITIES GOVERNING THE WORK.
 - REVIEW DOCUMENTS, VERIFY DIMENSIONS AND FIELD CONDITIONS. REPORT ANY CONFLICTS OR OMISSIONS TO THE ARCHITECT FOR CLARIFICATION PRIOR TO PERFORMING ANY WORK IN QUESTION.
 - 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.
 - SUBMIT REQUESTS FOR SUBSTITUTIONS, REVISIONS, OR CHANGES TO ARCHITECT ACCORDING TO THE PROJECT MANUAL.
 - 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.
 - 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.
 - 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.
 - GANG ADJACENT LIGHT SWITCHES AND COVER WITH A SINGLE PLATE.
 - 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.
 - NO EXPOSED CONDUIT, WIRING, PIPING, OR BOXES IS PERMITTED WITHOUT ARCHITECT APPROVAL, UNLESS SPECIFICALLY NOTED OTHERWISE.
 - 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.
 - 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.
 - IF PROVIDED, REFER TO ENLARGED PLANS AND PLAN DETAILS FOR ADDITIONAL INFORMATION AND DIMENSIONS.
 - TYPICAL DETAILS SHOWN ON THE DRAWINGS SHALL BE INCORPORATED AT ALL APPROPRIATE LOCATIONS WHETHER OR NOT SPECIFICALLY REFERENCED AT EACH LOCATION.
 - 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.
 - CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE ACCURACY OF HIS MEASUREMENTS AND TAKE-OFFS FOR MATERIAL ORDERS.
 - 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

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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

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)833.0499	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 PER STORY (ACTUAL)	(B) TABLE 506.2.1 AREA	(C) AREA FOR FRONTAGE INCREASE	(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 = 97.2 FT (P)
 C. RATIO (F/P) = 97/97.2 = 1.0 (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)	SHOWN ON PLANS	CODE REFERENCE
BLDG HEIGHT IN FEET	FEET 55	11'	T504.3
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 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						
NON-BEARING WALLS						
EXTERIOR						
NORTH	N/A	NC				
EAST	N/A	NC				
WEST	N/A	NC				
SOUTH	N/A	NC				
INTERIOR WALLS & PARTITIONS						
STRUCTURAL FRAME, INCLUDING COLUMNS, GIRDERS, TRUSSES						
FLOOR CONSTRUCTION INCLUDING SUPPORTING BEAMS AND JOISTS						
LIST CONSTRUCTION TYPE						
FLOOR CEILING ASSEMBLY						
COLUMNS SUPPORTING FLOORS						
ROOF CONSTRUCTION INCLUDING SUPPORTING BEAMS AND JOISTS*						
ROOF CEILING ASSEMBLY						
COLUMNS SUPPORTING ROOF						
SHAFTS - EXIT ENCLOSURES						
SHAFT - OTHER (DESCRIBE)						
CORRIDOR SEPARATION						
OCCUPANCY SEPARATION						
PARTY/FIRE WALL SEPARATION						
INCIDENTAL USE SEPARATION						
DWELLING/SLEEPING UNIT SEPARATION						
SMOKE BARRIER SEPARATION						
TENANT SEPARATION						

* 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	1
TOTAL		3		1	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 = 16)			1				1			AN ACCESSIBLE WATER COLDER 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_f): 1.0
 SEISMIC (F_s): 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

PROVIDE THE FOLLOWING SEISMIC DESIGN PARAMETERS:
 RISK CATEGORY (TABLE 1604.5) I II III IV
 SPECTRAL RESPONSE ACCELERATION S_s 20.4 %g S₁ 6.2 %g

SITE CLASSIFICATION (ASCE7) A B C D E F
 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 SPAING CONDITIONING SYSTEM

UNITARY
 DESCRIPTION OF UNIT SPLIT SYSTEM HEAT PUMP
 HEATING EFFICIENCY 9.0 BTU/HWATT 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-26 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: 0.089
 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 PENETRATION 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 PENETRATION 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: ENERGY 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

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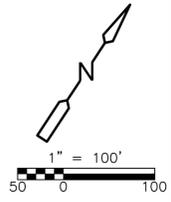
NEW HANOVER COUNTY, NORTH CAROLINA
 NEW HANOVER COUNTY LANDFILL
 CONVENIENCE CENTER REDEVELOPMENT PROJECT

BUILDING CODE SUMMARY

PROJECT NO.: 133920-237812
 FILE NAME: HA Project No. 1902
 SHEET NO.
G101

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).



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

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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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 NC F-1255

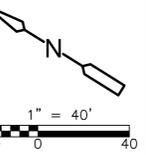
NEW HANOVER COUNTY, NORTH CAROLINA
NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

PROJECT LOCATION AND ACCESS PLAN

PROJECT NO. 133920-237812
FILE NAME: C001ESPL.DWG
SHEET NO.
C001

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'

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REV. NO.	DATE	DRWN	CHKD	REMARKS

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DRAWN BY:	K. RYAN
SHEET CHK'D BY:	A. WEISPFENNING
CROSS CHK'D BY:	W. KARABLY
APPROVED BY:	M. BROKAW
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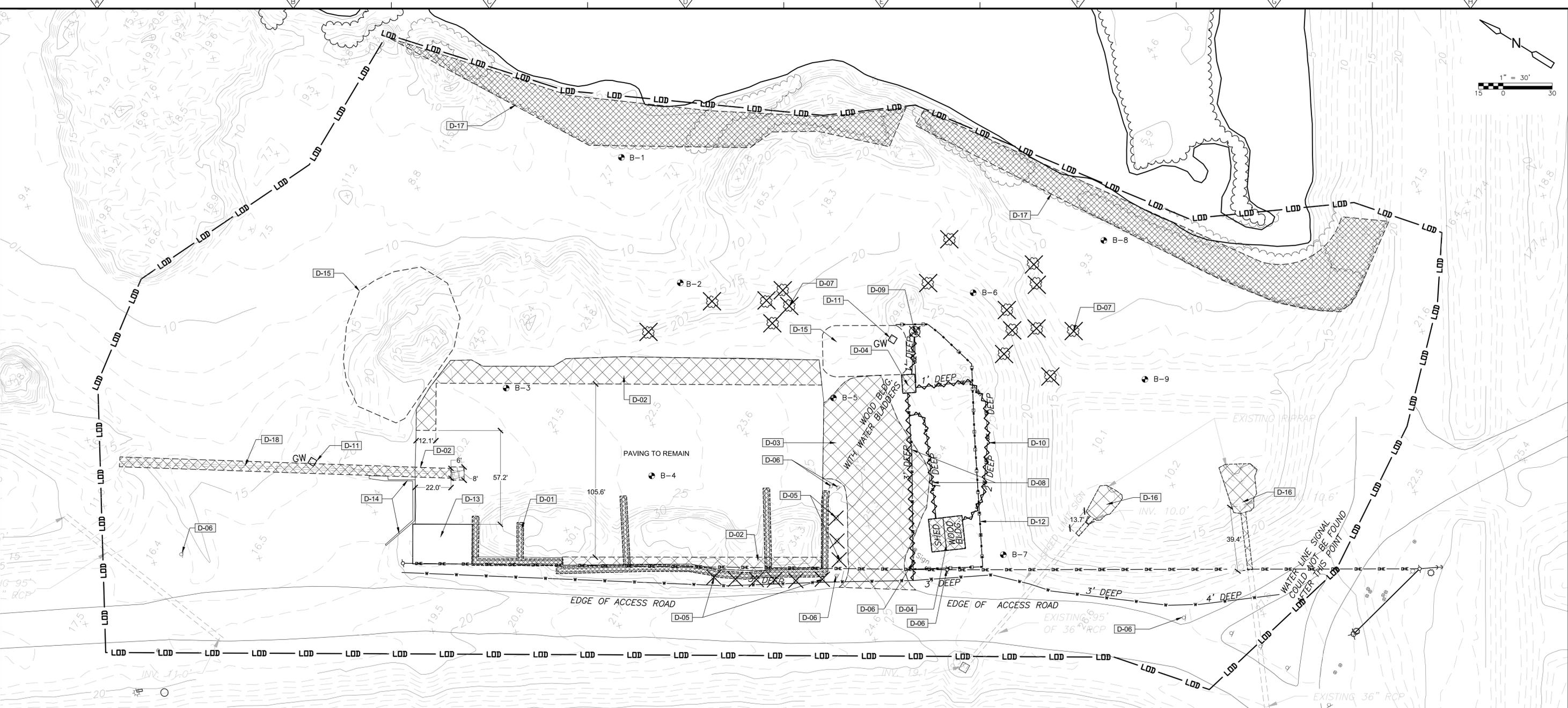
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NEW HANOVER COUNTY, NORTH CAROLINA
 NEW HANOVER COUNTY LANDFILL
 CONVENIENCE CENTER REDEVELOPMENT PROJECT

EXISTING CONDITIONS PLAN
 SHEET NO.
C002

PROJECT NO.	133920-237812
FILE NAME:	C002EPL.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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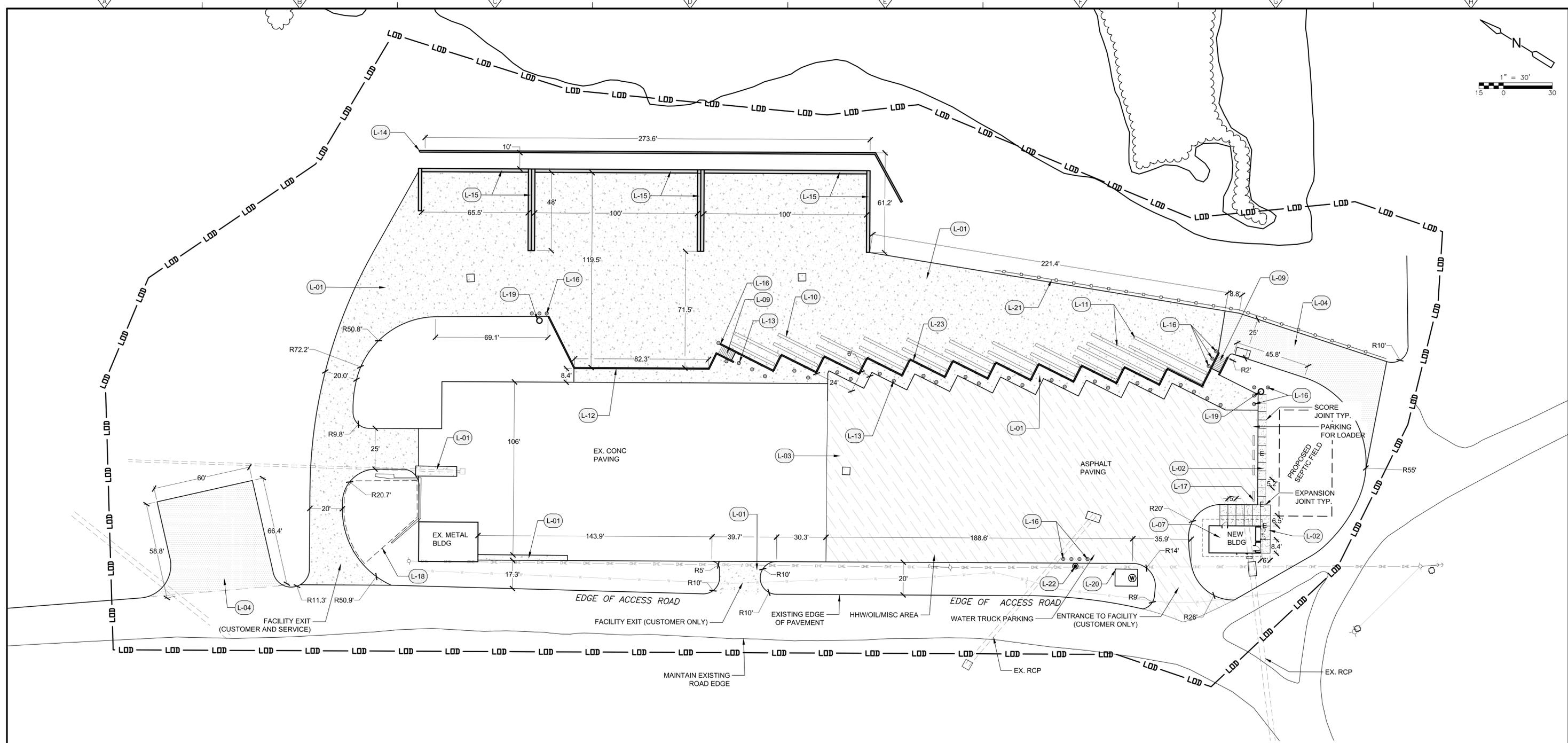
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NEW HANOVER COUNTY, NORTH CAROLINA
**NEW HANOVER COUNTY LANDFILL
 CONVENIENCE CENTER REDEVELOPMENT PROJECT**

DEMOLITION PLAN

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

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GENERAL LAYOUT NOTES:

1. Any discrepancies in layout should be brought to the Landscape Architect's attention prior to construction.
2. Written dimensions supercede scaled dimensions. Do not scale drawings. All dimensions are referenced to back of curb or edge of pavement unless otherwise noted.
3. All staking work to be done by a licensed surveyor registered in the state of North Carolina.
4. 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.
5. All proposed pavement to meet existing flush. Provide expansion joints where proposed concrete paving meets existing.
6. All segmental block retaining walls shall be an integrally tinted brown or earth tone color.
7. All disturbed areas not noted for pavement to be seeded with common bermuda, per the specifications.

LAYOUT SCHEDULE

SYMBOL	DESCRIPTION	DETAIL	SYMBOL	DESCRIPTION	DETAIL	SYMBOL	DESCRIPTION
(L-01)	HEAVY DUTY CONCRETE PAVING	B/D101	(L-13)	DELINEATOR POST	3/L501	(L-18)	EXISTING GRAVEL AREA TO REMAIN. ADD ABC AS REQUIRED TO MEET PROPOSED GRADES.
(L-02)	STANDARD DUTY CONCRETE PAVING.	C/D101	(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-19)	YARD HYDRANT. SEE CIVIL DETAIL
(L-03)	HEAVY DUTY ASPHALT PAVING.	D/D101	(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-20)	WELL HOUSE - REFER TO CIVIL AND MEP PLANS
(L-04)	GRAVEL PAVING WITH GEO-CELL STABILIZATION	G/D101	(L-16)	STEEL BOLLARD WITH REFLECTIVE SLEEVE.	4/L501	(L-21)	250 LINEAR FEET OF GUARDRAIL. BUILD PER NCDOT SPECIFICATIONS AND STANDARD DETAILS.
(L-07)	NEW OFFICE BUILDING. REFER TO ARCHITECTURAL PLANS.	6/L501	(L-17)	CONCRETE WHEEL STOP	5/L501	(L-22)	UTILITY HYDRANT FOR WATER TRUCK FILLING. SEE CIVIL DETAILS
(L-09)	CONCRETE STAIRS. REFER TO ARCHITECTURAL PLANS.					(L-23)	TIMBER WALL. 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.						

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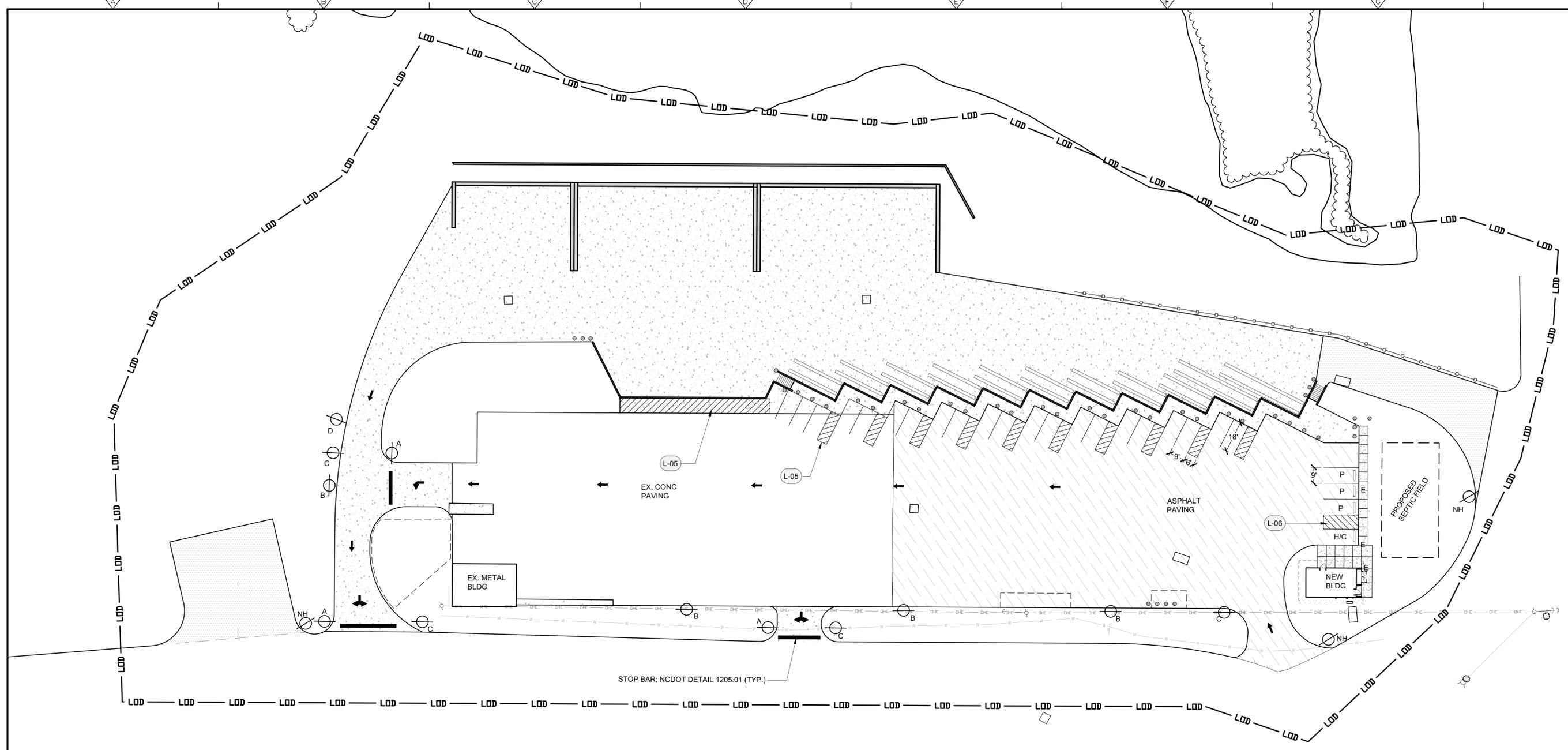
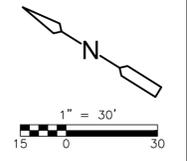
NEW HANOVER COUNTY, NORTH CAROLINA
**NEW HANOVER COUNTY LANDFILL
 CONVENIENCE CENTER REDEVELOPMENT PROJECT**

LAYOUT PLAN

L201

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

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GENERAL STRIPING NOTES:

- 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
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 CROSS CHK'D BY: M. BROKAW
 APPROVED BY: _____
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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

LANDSCAPING REQUIREMENTS

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

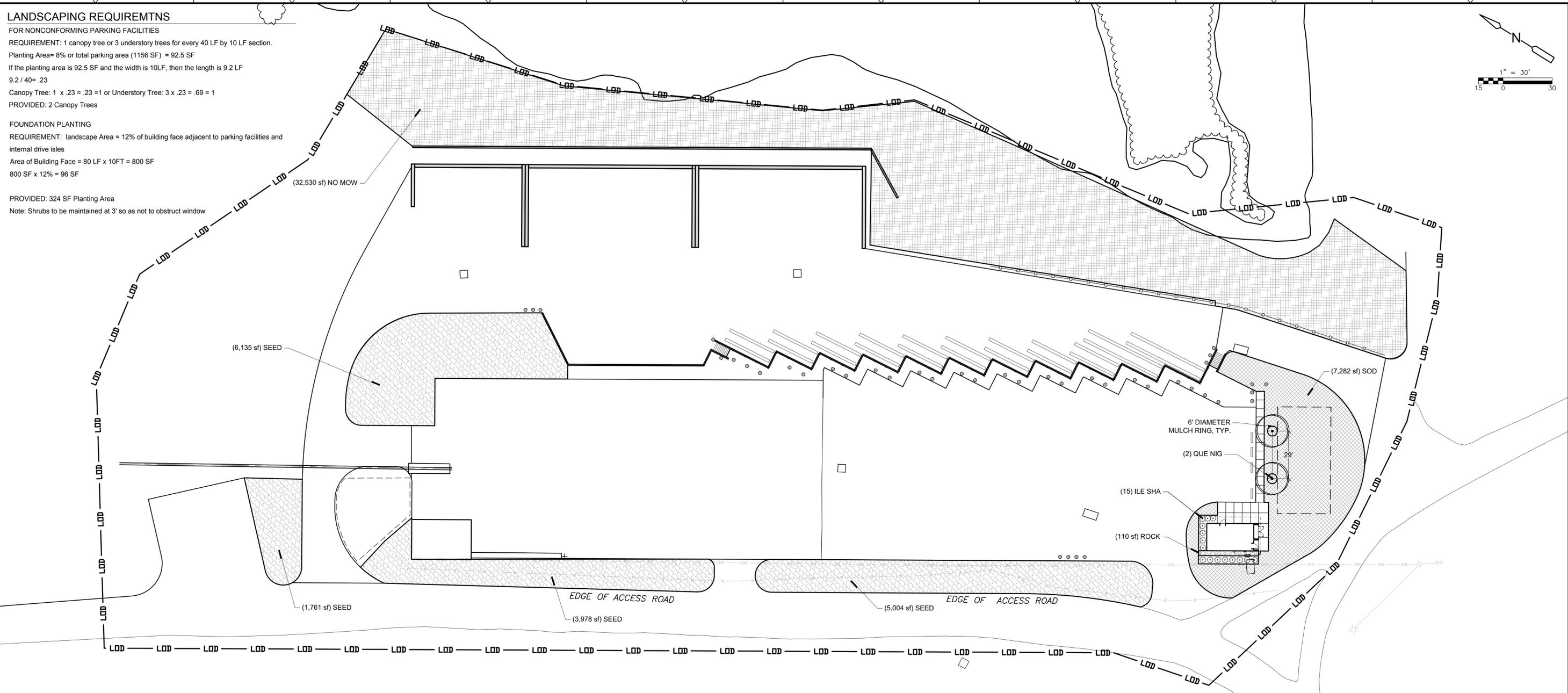
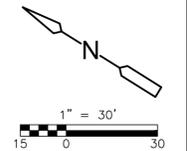
REQUIREMENT: landscape Area = 12% of building face adjacent to parking facilities and internal drive isles

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	BERMUDA	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. Contractor to maintain plant material per specifications.
11. Areas damaged by Landscape Contractor to be repaired at no additional cost to owner.
12. Any existing vegetation, not involved in new construction, shall be isolated and protected by tree protection fencing.
13. Contractor shall insure that all plant material is free of fire ants prior to installation.
14. Maintain a 3' wide minimum turf shoulder at the back of curb or edge of pavement.
15. Shrubs to be maintained at a maximum height of 3'.

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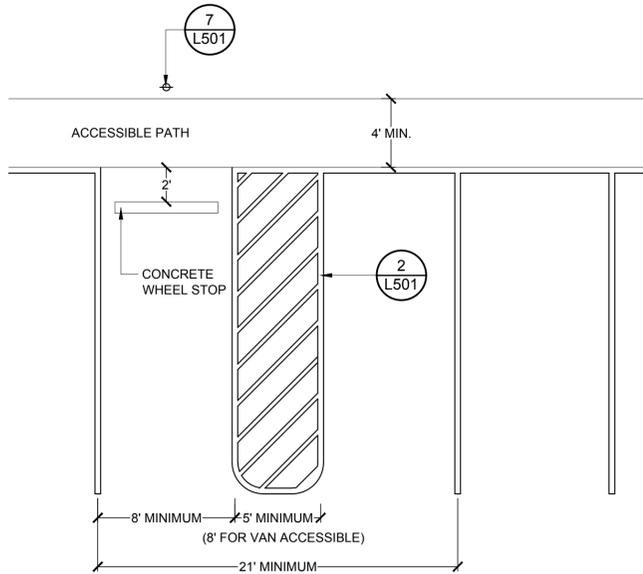
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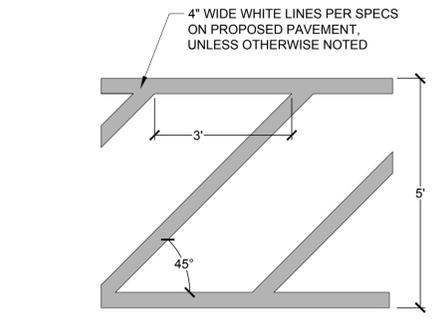
PLANTING PLAN
L401

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

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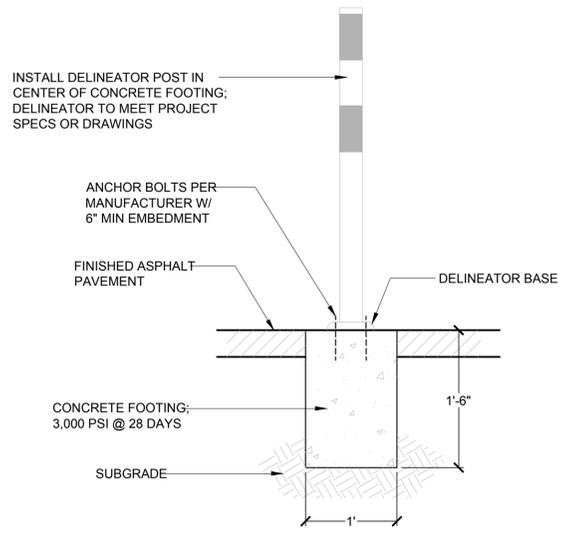


1 ACCESSIBLE PARKING SPACE STRIPING
3/16" = 1'-0"

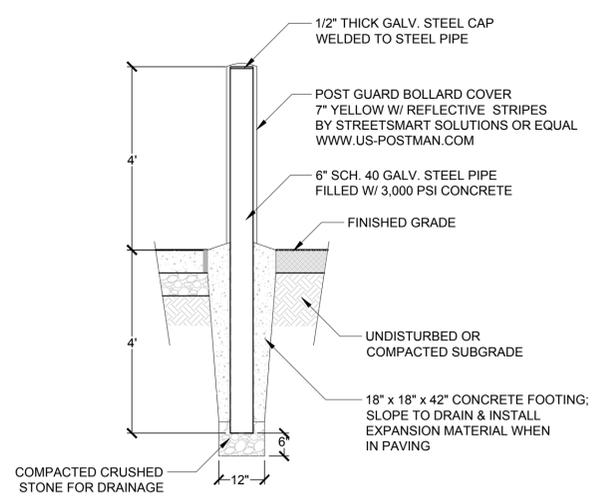


NOTES:
 1. Transverse markings are - 4 inches wide / 3ft spacing / 45 deg. angle.
 2. a) All markings on asphalt pavement are to be pre-formed thermoplastic (installed per manufacturer's recommendations); unless otherwise noted
 b) All markings on concrete pavement are to be painted (min 2 coats), unless otherwise noted
 3. All markings to conform to MUTCD guidelines and/or NCDOT standards

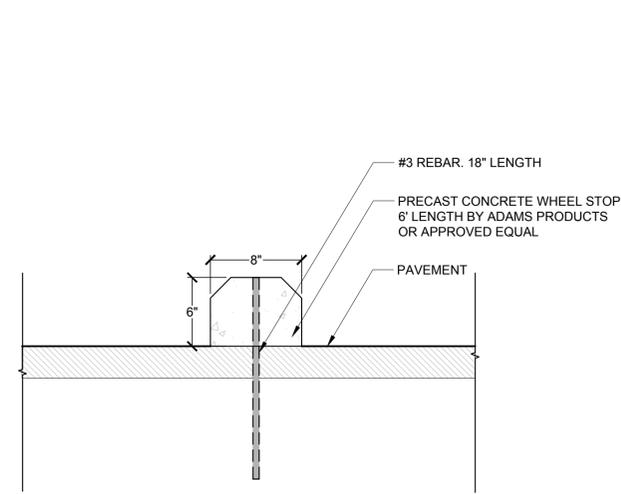
2 PAVEMENT MARKINGS
1/2" = 1'-0"



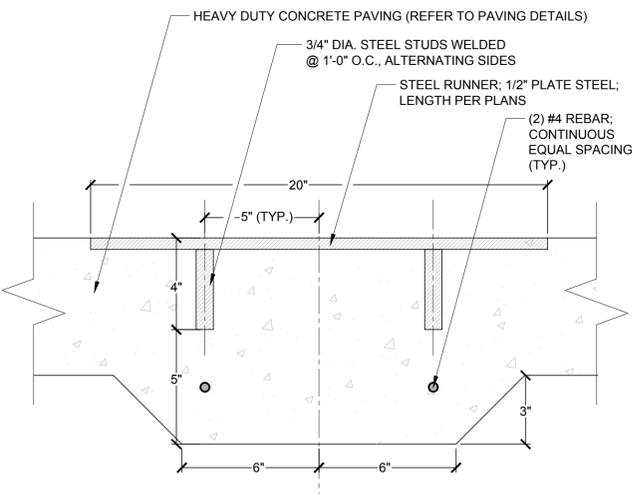
3 FLEXIBLE SAFETY BOLLARD
1" = 1'-0"



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

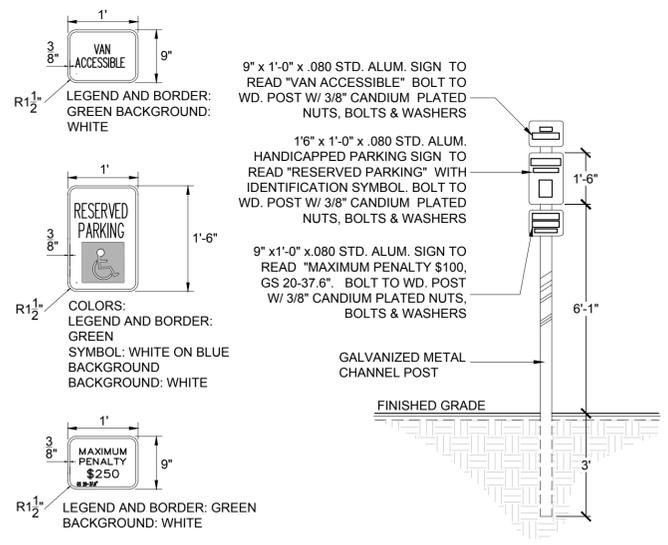


5 CONCRETE WHEEL STOP
1 1/2" = 1'-0"



NOTES:
 1. Runners to be installed at 6'-4" O.C.
 2. Center of runner closest to wall to be 1'-10" from wall face.

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

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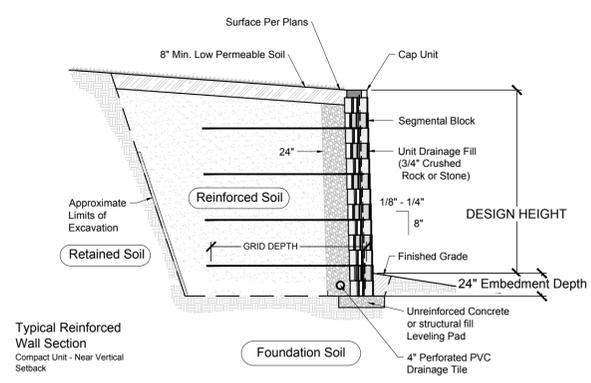
TIMMONS GROUP
 5410 Trinity Road, Suite 102 Raleigh, NC 27607
 Office 919.866.4951
 North Carolina License No. C-1652

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

DETAILS
 SHEET NO.
L501

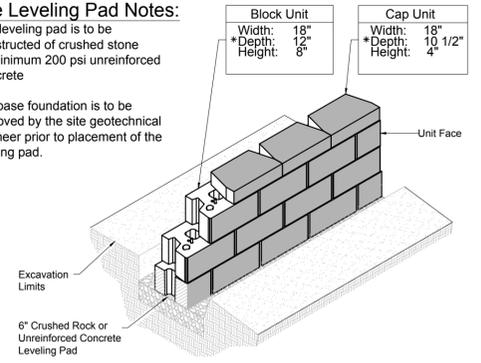
PROJECT NO. 133920-237812
 FILE NAME:
 SHEET NO.
L501

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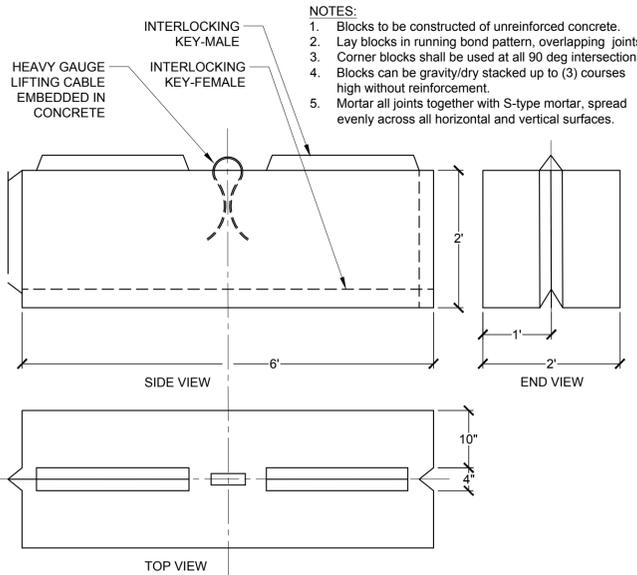


- NOTES:**
- 1) Contractor to provide sealed engineered drawings for approval by Engineer prior to installation of wall(s).
 - 2) Contractor to provide block sample for approval by Engineer prior to installation of wall.
 - 3) When site conditions require, wrap drainage tile in 3/4" aggregate and filter 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.

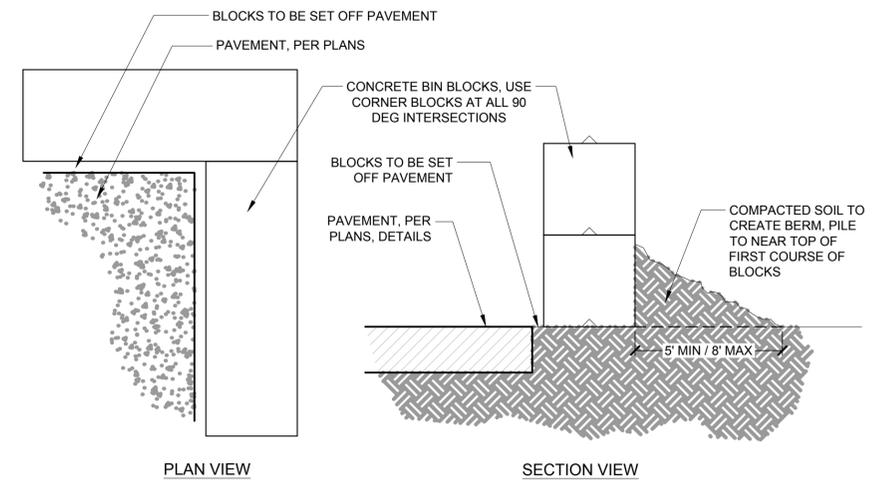
- Base Leveling Pad Notes:**
1. The leveling pad is to be constructed of crushed stone or minimum 200 psi unreinforced concrete
 2. The base foundation is to be approved by the site geotechnical engineer prior to placement of the leveling pad.



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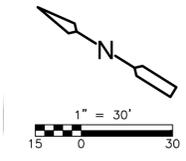
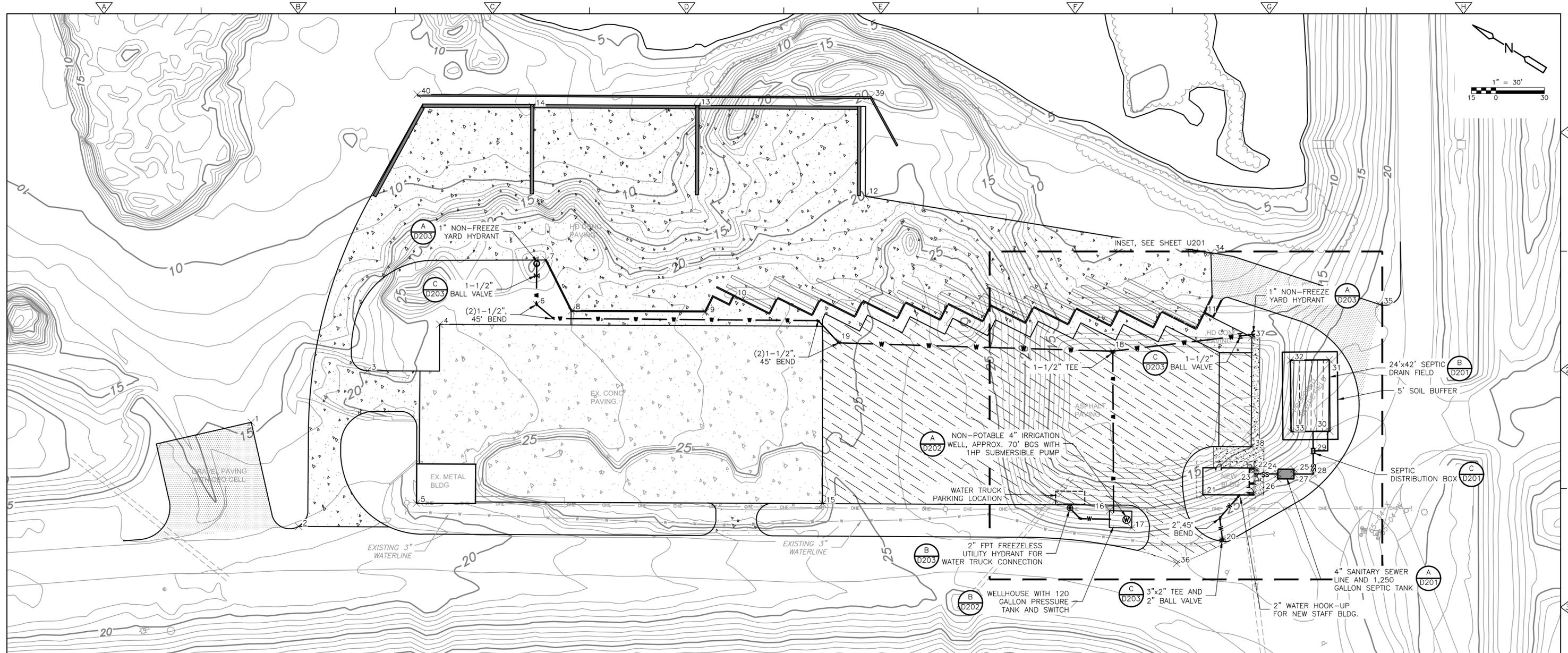
NEW HANOVER COUNTY, NORTH CAROLINA
NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

DETAILS

SHEET NO.
L502

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

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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

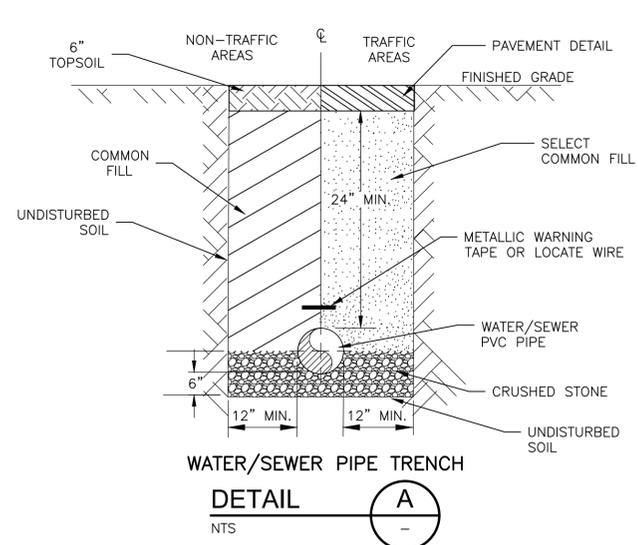
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 NEW HANOVER COUNTY LANDFILL
 CONVENIENCE CENTER REDEVELOPMENT PROJECT

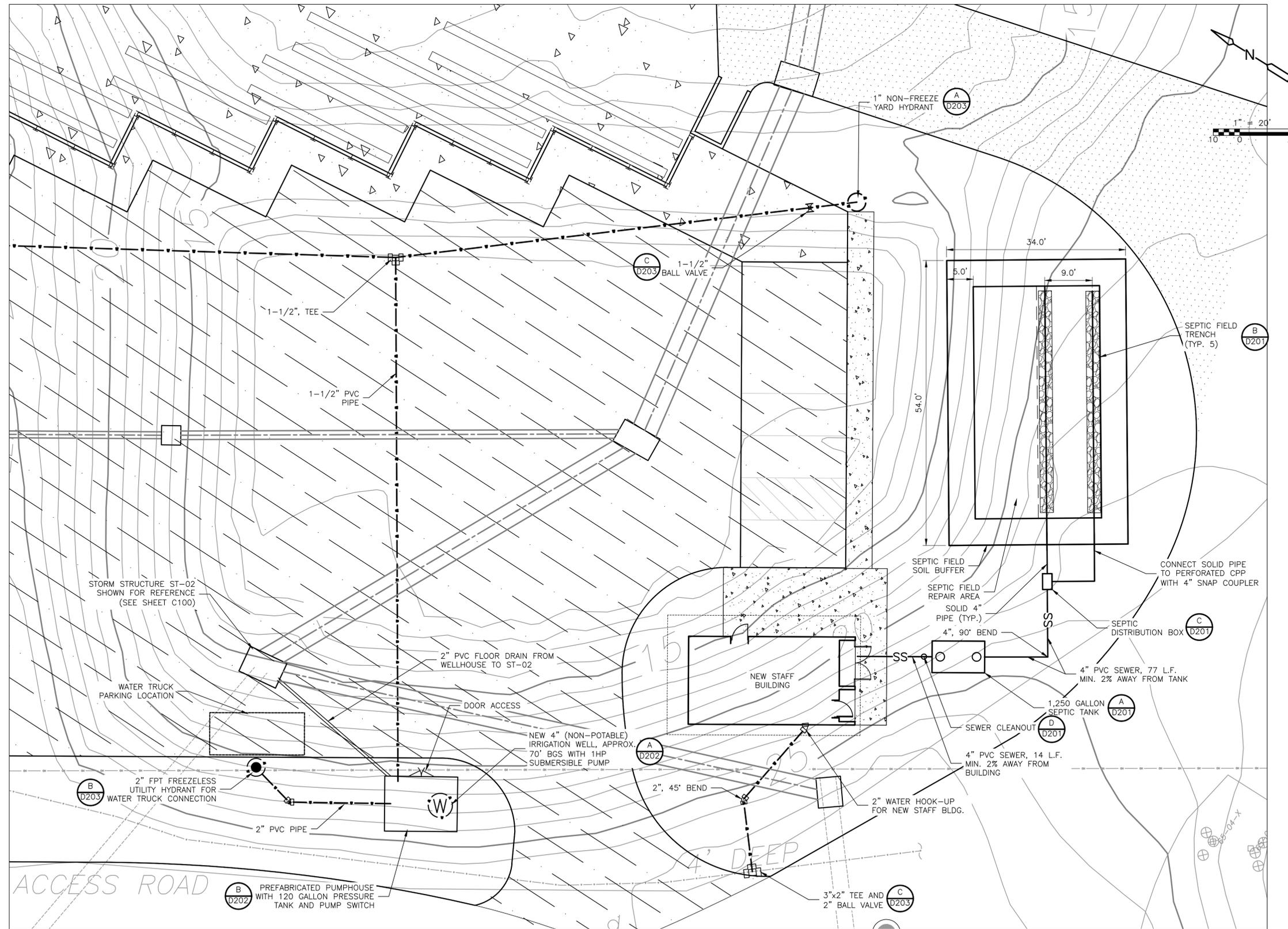
OVERALL UTILITY PLAN
 SHEET NO.
U200

PROJECT NO. 133920-237812
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- NOTES:**
1. ALL GRAVITY SANITARY SEWER LINE SHALL MAINTAIN A MINIMUM 2.0% SLOPE (¼" 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. EXCAVATED MATERIALS 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.



INSET PLAN
1" = 20'

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



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

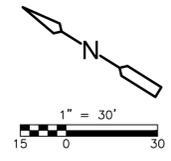
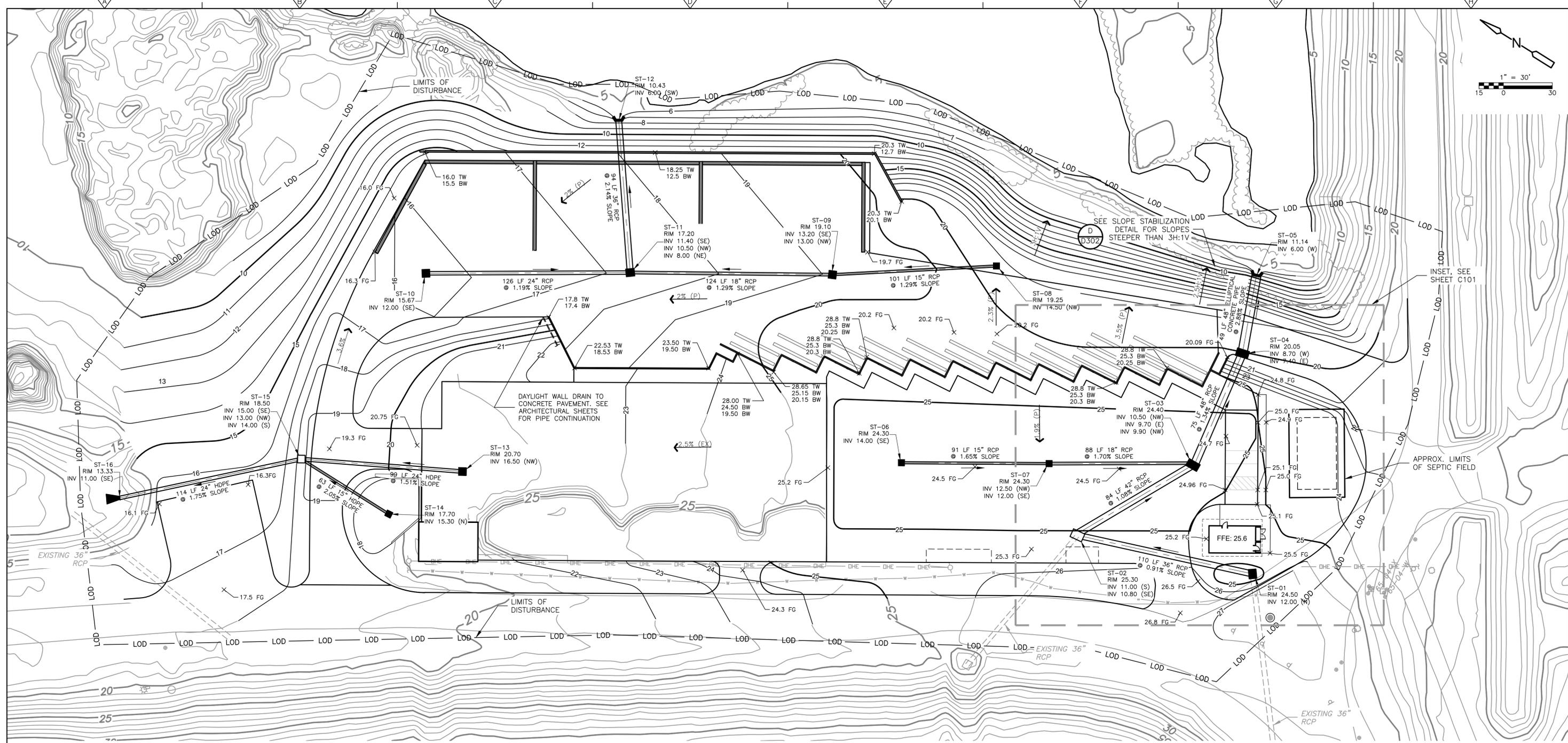
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NEW HANOVER COUNTY, NORTH CAROLINA
 NEW HANOVER COUNTY LANDFILL
 CONVENIENCE CENTER REDEVELOPMENT PROJECT

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

PERMIT SET - NOT FOR CONSTRUCTION

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PLAN
1" = 30'

NOTES:

1. PROPOSED CONTOURS SHOWN REPRESENT TOP OF FINAL GRADE.
2. SLOPES SHALL NOT BE STEEPER THAN 3H:1V WITHOUT ADDITIONAL SLOPE AND SURFACE STABILIZATION.
3. 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.
4. REFER TO SHEETS C111 AND C112 FOR DRAINAGE PIPE PROFILES.
5. 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.
6. 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



REV. NO.	DATE	DRWN	CHKD	REMARKS

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



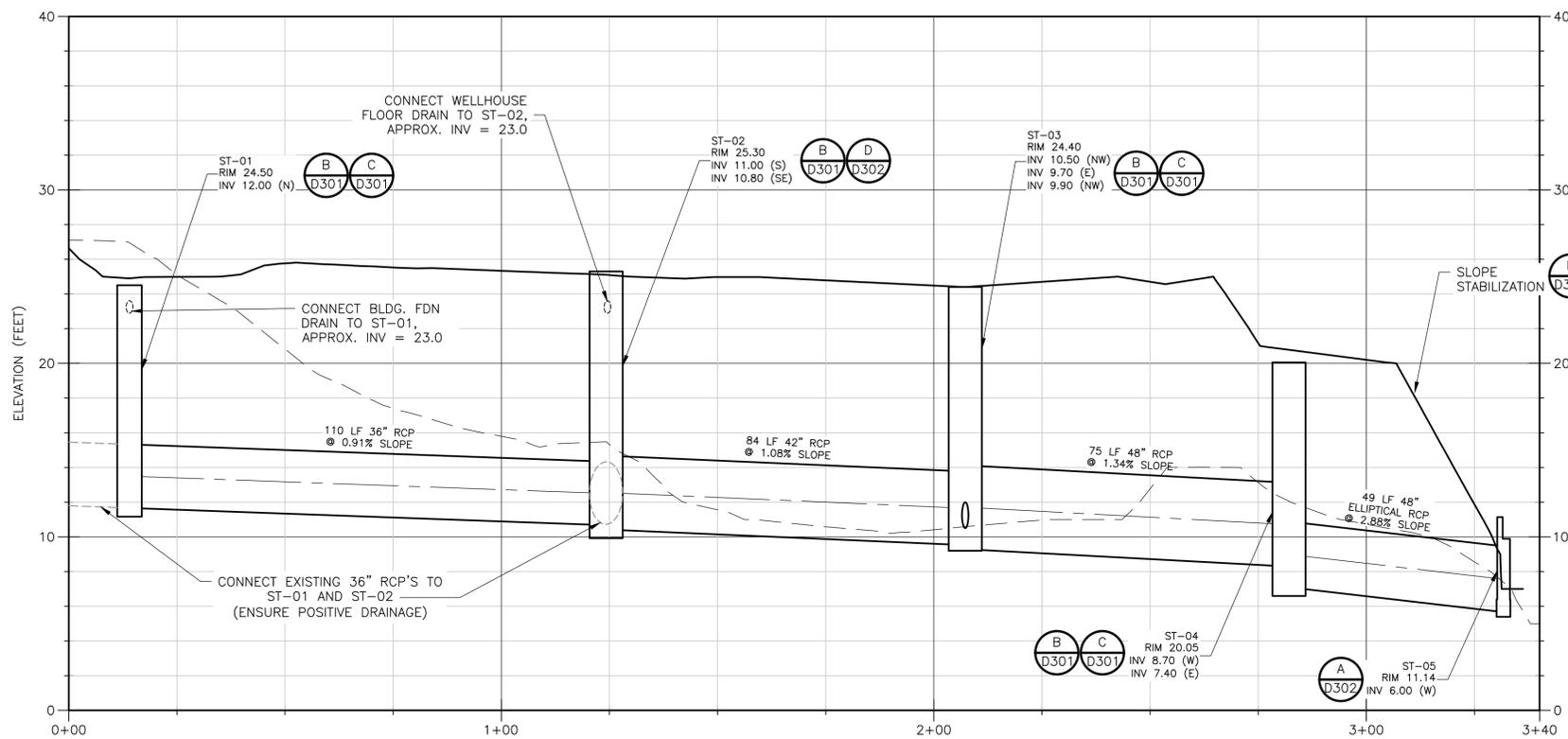
NEW HANOVER COUNTY, NORTH CAROLINA
 NEW HANOVER COUNTY LANDFILL
 CONVENIENCE CENTER REDEVELOPMENT PROJECT

OVERALL GRADING AND DRAINAGE PLAN
C100

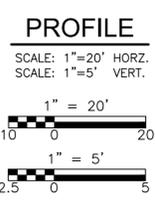
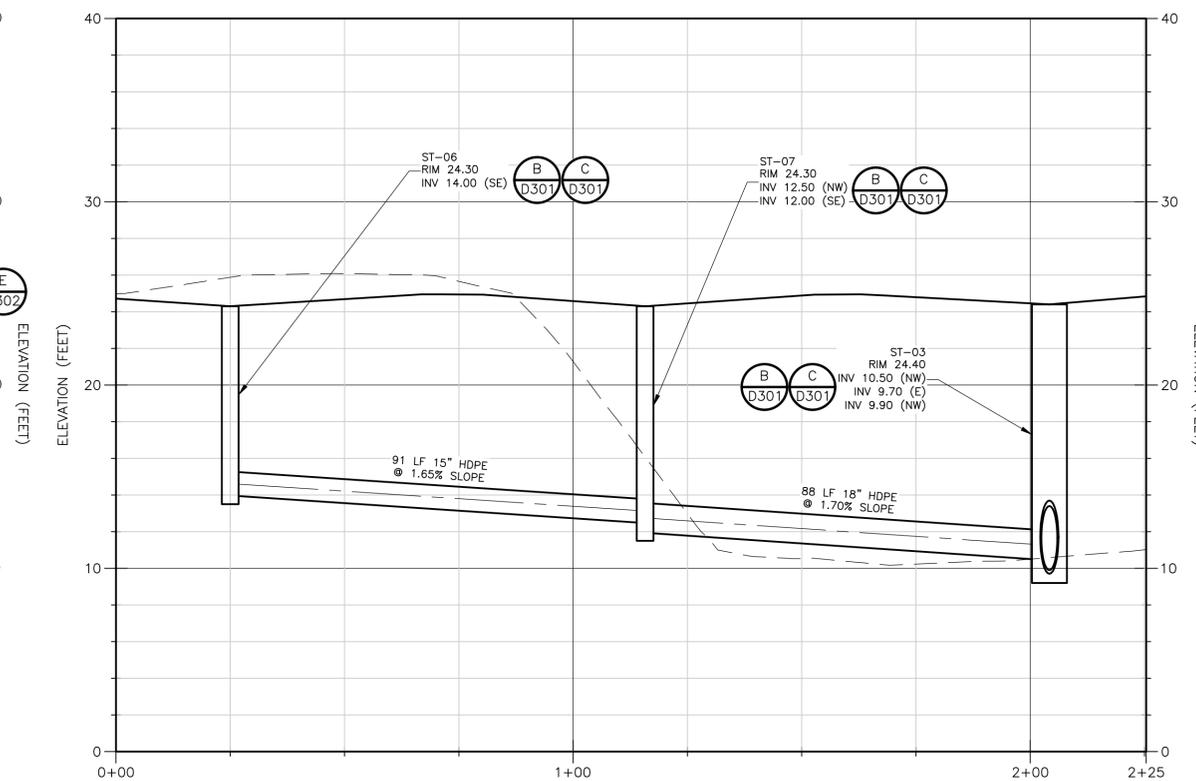
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ST-01 TO ST-05 PROFILE



ST-06 TO ST-03 PROFILE



REV. NO.	DATE	DRWN	CHKD	REMARKS

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



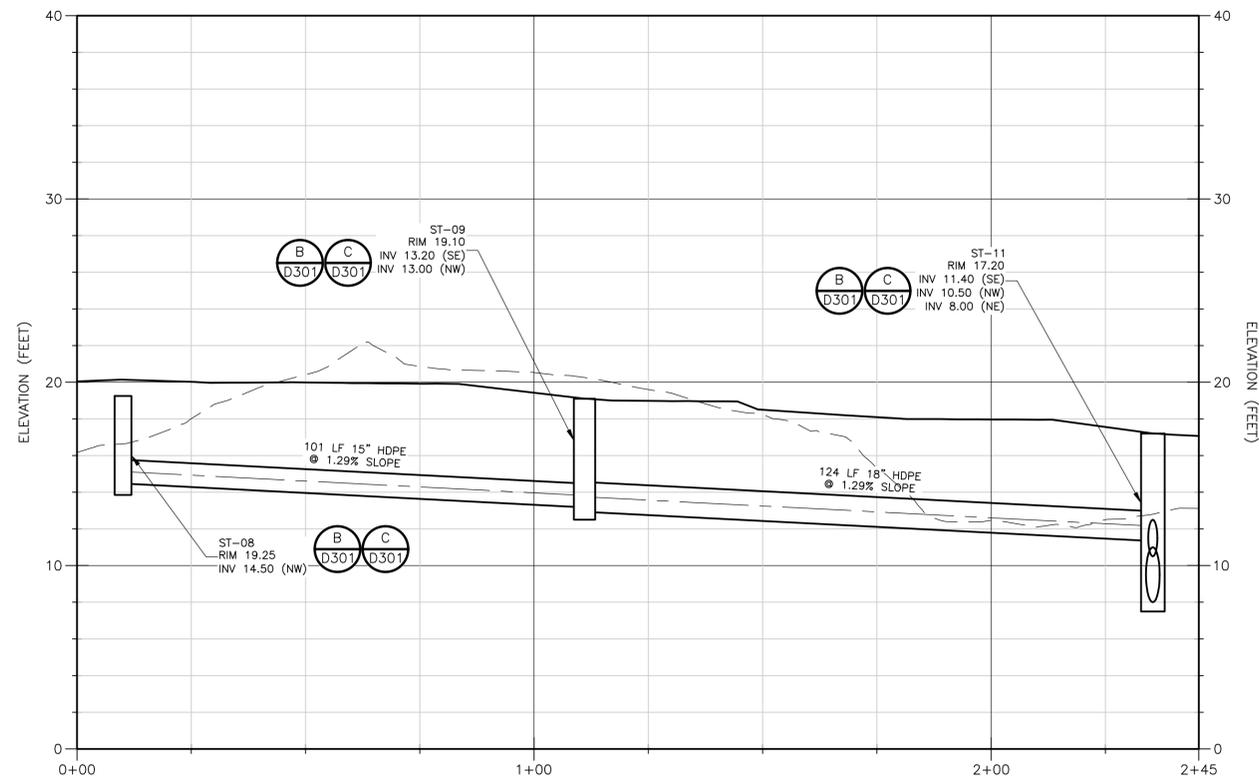
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 CONVENIENCE CENTER REDEVELOPMENT PROJECT

STORM DRAINAGE PROFILES I
 C111

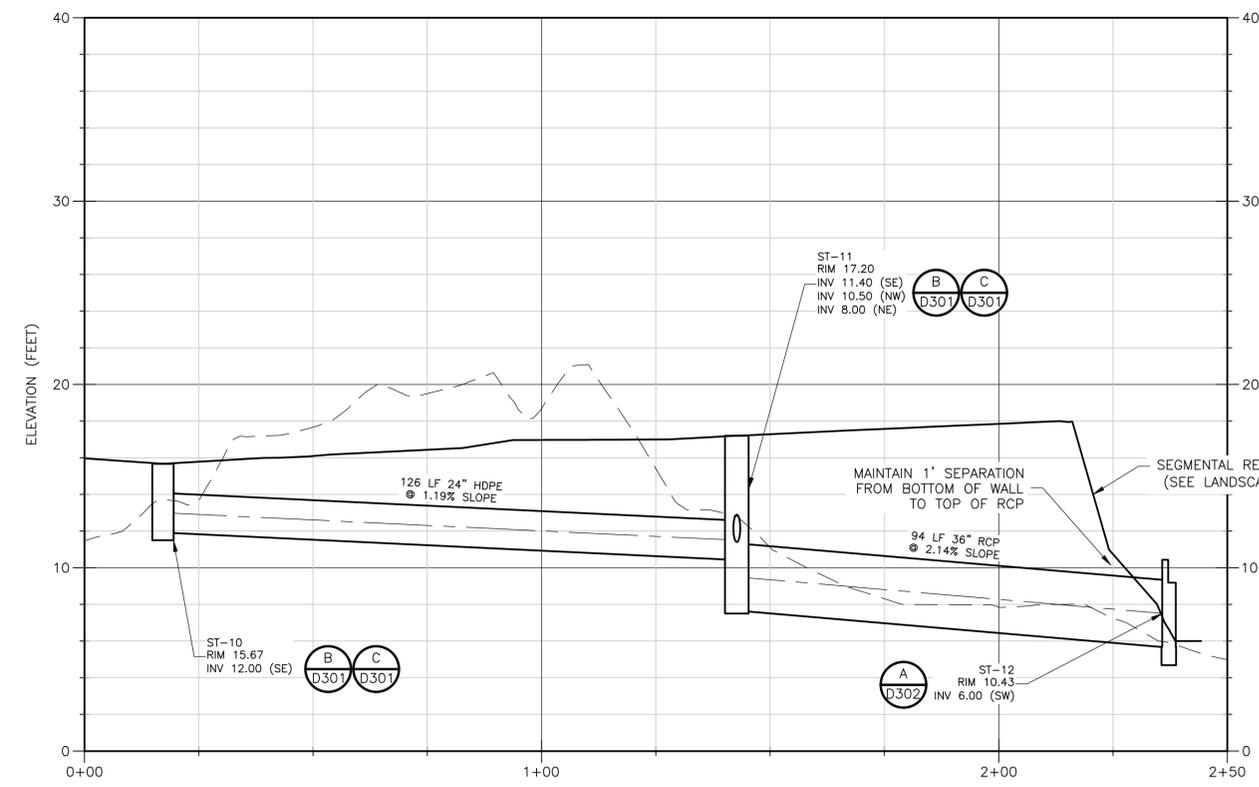
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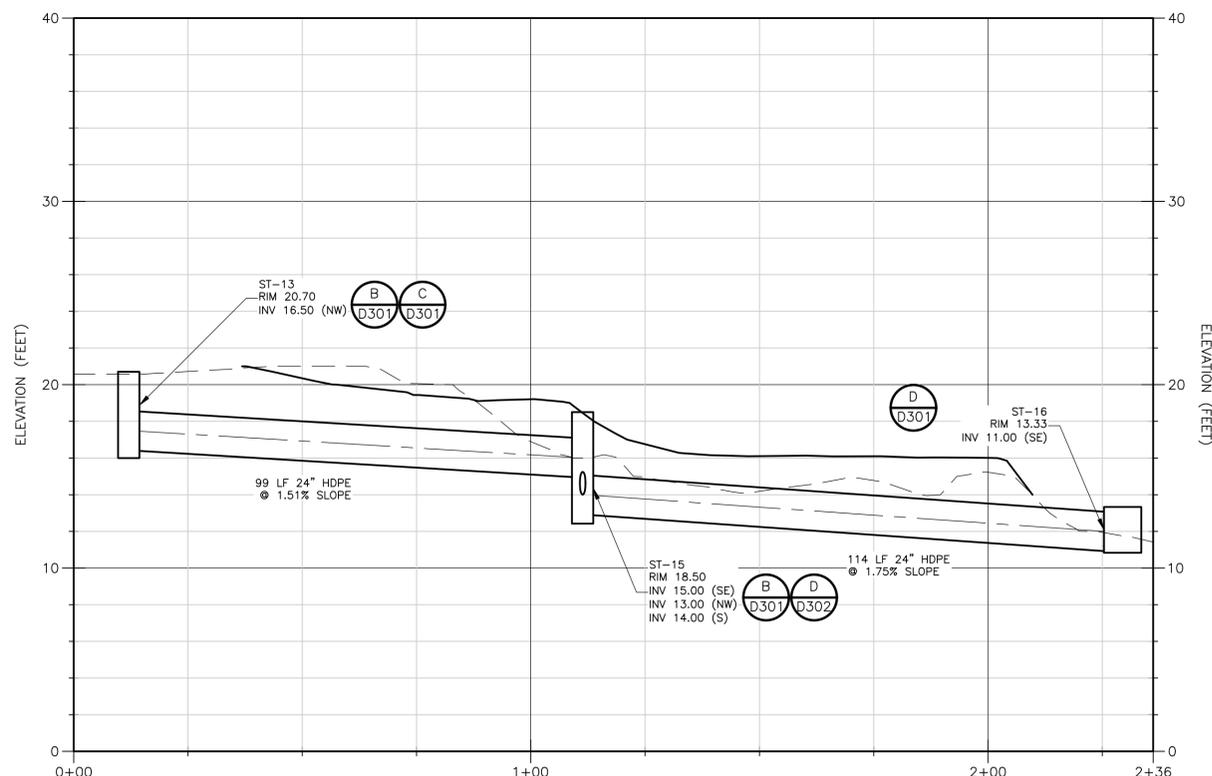
ST-08 TO ST-11 PROFILE



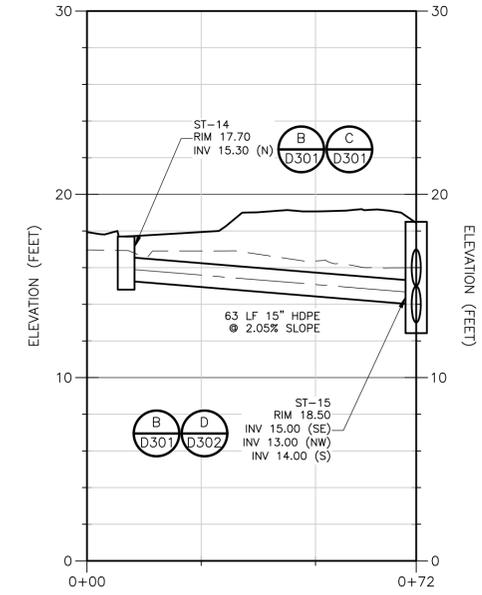
ST-10 TO ST-12 PROFILE



ST-13 TO ST-16 PROFILE

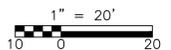


ST-14 TO ST-15 PROFILE



PROFILE

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



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

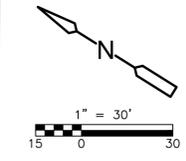
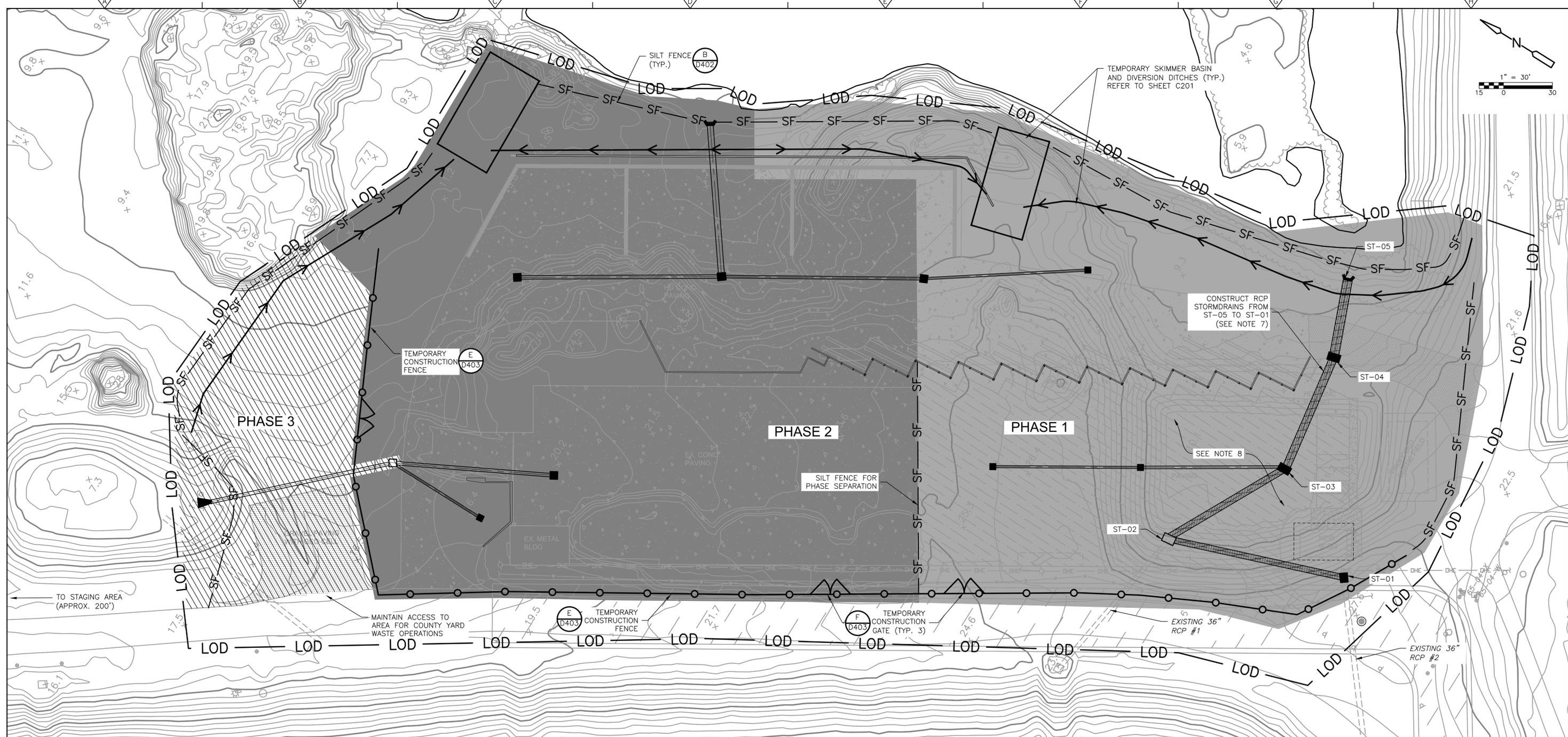


NEW HANOVER COUNTY, NORTH CAROLINA
 NEW HANOVER COUNTY LANDFILL
 CONVENIENCE CENTER REDEVELOPMENT PROJECT

STORM DRAINAGE PROFILES II
 SHEET NO. C112

PROJECT NO.	133920-237812
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SHEET NO.	C112

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CONSTRUCTION SEQUENCE NOTES:

- THE FOLLOWING IS ONE LOGICAL SEQUENCE OF CONSTRUCTION THAT IS CONSISTENT WITH THE EROSION AND SEDIMENT CONTROL PLAN AND THE OWNER'S OPERATIONAL NEEDS. ANY CHANGES TO PROPOSED SEQUENCE WILL NEED TO BE APPROVED BY THE ENGINEER AND OWNER.
1. EROSION AND SEDIMENT CONTROL (E&SC) PERMIT AND A CERTIFICATE OF COVERAGE (COC) MUST BE OBTAINED BEFORE ANY LAND DISTURBING ACTIVITIES OCCUR. THE COC CAN BE OBTAINED BY FILLING OUT THE ELECTRONIC NOTICE OF INTENT (E-NOT) FORM AT DEQ.NC.GOV/NCG01. A COPY OF THE E&SC PERMIT, THE COC, AND A HARD COPY OF THE PLAN MUST BE KEPT ON SITE, PREFERABLY IN A PERMITS BOX, AND ACCESSIBLE DURING INSPECTION.
 2. COORDINATE START OF WORK WITH OWNER, INCLUDING RELOCATION OF STOCKPILES AND OTHER ITEMS TO BE RELOCATED BY THE COUNTY. HOLD PRE-CONSTRUCTION MEETING ON SITE WITH COUNTY, ENGINEER, AND REQUIRED PERMITTING AGENCIES, INCLUDING NCDCE-DEMLR INSPECTOR.
 3. FLAG THE LIMITS OF CONSTRUCTION AND HORIZONTAL CONTROL POINTS. ESTABLISH STAGING AREA (NOT SHOWN - SEE SHEETS C001 AND C201).
 4. INSTALL TEMPORARY CHAINLINK FENCE, FENCE GATE, AND CONSTRUCTION ENTRANCE/EXIT AS SHOWN (SEE SHEET C201).
 5. ESTABLISH EROSION AND SEDIMENT PERIMETER CONTROLS WITHIN THE HATCHED PHASE 1 AREA, INCLUDING, BUT NOT LIMITED TO, SILT FENCE, TEMPORARY DIVERSION DITCHES, SILT FENCE OUTLETS, ROCK CHECK DAMS, AND (2) TEMPORARY SKIMMER BASINS.
 6. PERFORM WORK WITHIN THE HATCHED PHASE 1 AREA, BEGINNING IN THE SOUTH AND WORKING TOWARDS THE NORTH, TO ALLOW FOR THE COUNTY TRANSITION OF OPERATIONS.

7. STORMDRAINS ST-01 TO ST-05 SHALL BE CONSTRUCTED FROM THE EAST (DOWNSTREAM) TO THE WEST (UPSTREAM) DUE TO THE (2) EXISTING 36" RCP'S. ST-05 TO ST-02 SHALL FULLY CONSTRUCTED AND INSPECTED PRIOR TO CONNECTING TO EXISTING RCP #1. ST-02 TO ST-01 SHALL BE CONSTRUCTED AND INSPECTED PRIOR TO CONNECTING TO EXISTING RCP #2, AS SHOWN. CONTRACTOR SHALL DIVERT FLOW FROM EXISTING PIPE OUTLETS AND/OR IMPLEMENT PUMPING AS REQUIRED.
8. 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.
9. REPEAT STEPS 5 AND 6 FOR PHASE 2. ONCE WORK WITHIN THE PHASE 1 AND 2 AREAS HAVE BEEN COMPLETED TO THE EXTENT POSSIBLE, AND ALL AREAS WITHIN PHASE 1 AND 2 HAVE BEEN STABILIZED, CONTRACTOR MAY COMPLETE PHASE 3 WORK, MAINTAINING ALL PERIMETER CONTROLS AS SHOWN ON SHEET C201.
10. CONTRACTOR SHALL MINIMIZE THE DURATION OF WORK WITHIN THE PHASE 3 AREA, WHICH IMPACTS THE COUNTY'S ONGOING YARD WASTE OPERATIONS.
11. ONCE ALL ITEMS HAVE BEEN COMPLETED AND INSPECTED, REMOVE TEMPORARY EROSION CONTROL MEASURES AND COMPLETE FINE GRADING AND STABILIZATION.
12. WHEN THE PROJECT IS COMPLETE, THE PERMITTEE SHALL CONTACT DEMLR TO CLOSE OUT THE E&SC PLAN. AFTER DEMLR INFORMS THE PERMITTEE OF THE PROJECT CLOSE OUT, VIA INSPECTION REPORT, THE PERMITTEE SHALL VISIT DEQ.NC.GOV/NCG01 TO SUBMIT AN ELECTRONIC NOTICE OF TERMINATION (E-NOT). A \$100 ANNUAL GENERAL PERMIT FEE WILL BE CHARGED UNTIL THE E-NOT HAS BEEN FILLED OUT.

PLAN
1" = 30'

LEGEND

- PHASE 1 WORK AREA
- PHASE 2 WORK AREA
- PHASE 3 WORK AREA
- CRITICAL PIPE SEQUENCE

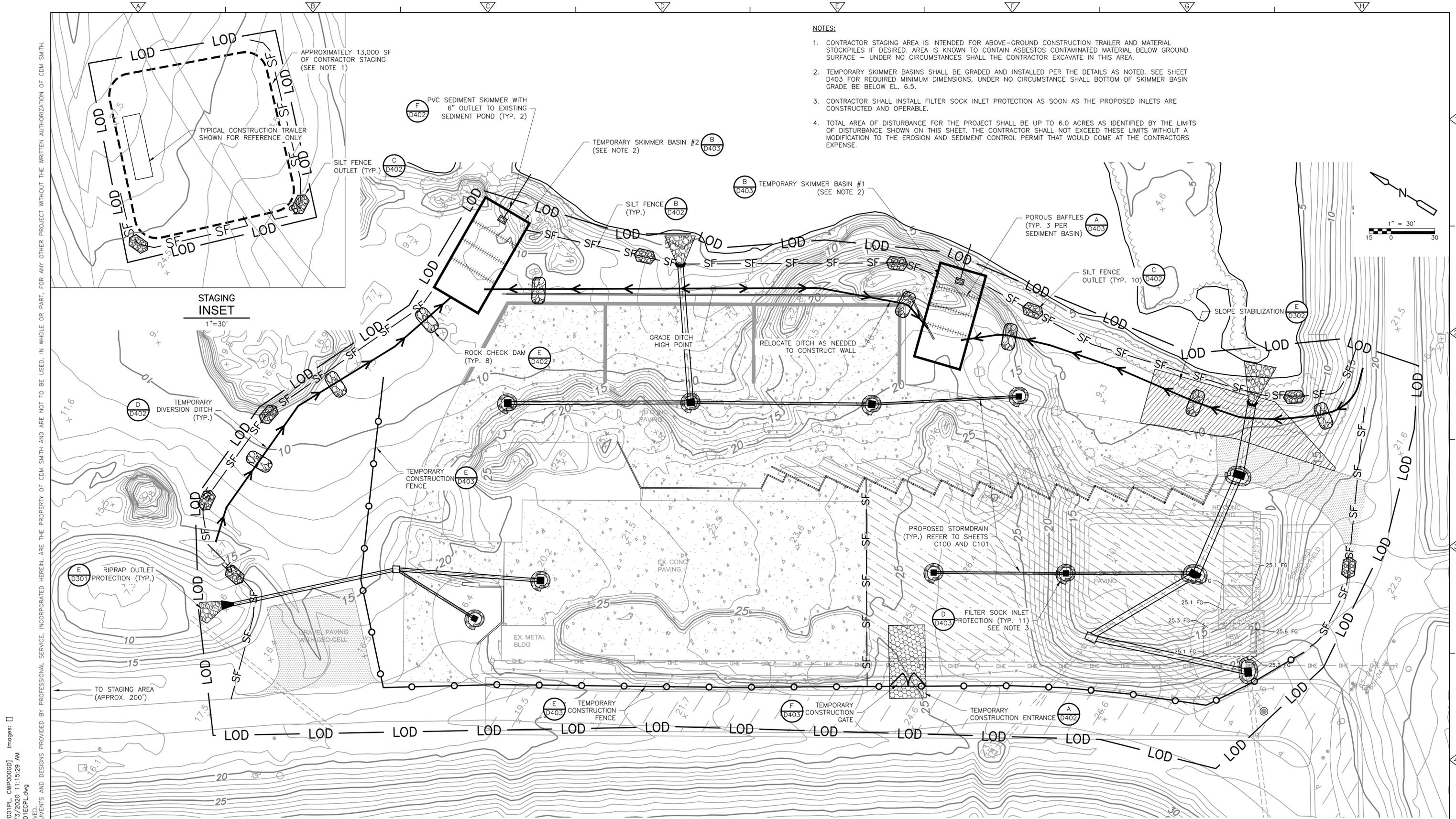
REV. NO.	DATE	DRWN	CHKD	REMARKS

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



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

CONSTRUCTION PHASING PLAN
 PROJECT NO. 133920-237812
 FILE NAME: C200ECPL.DWG
 SHEET NO.
C200



- 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.

PLAN
1" = 30'

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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

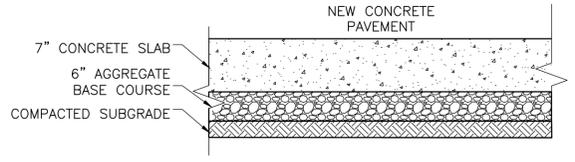
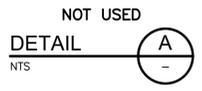
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 NEW HANOVER COUNTY LANDFILL
 CONVENIENCE CENTER REDEVELOPMENT PROJECT

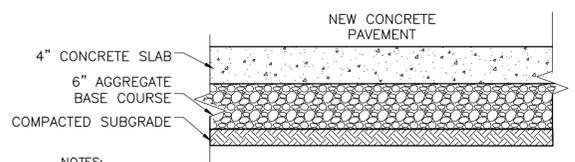
SEDIMENT AND EROSION CONTROL PLAN

PROJECT NO.	133920-237812
FILE NAME:	C201ECLP.DWG
SHEET NO.	C201

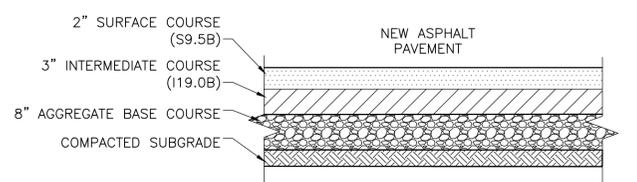
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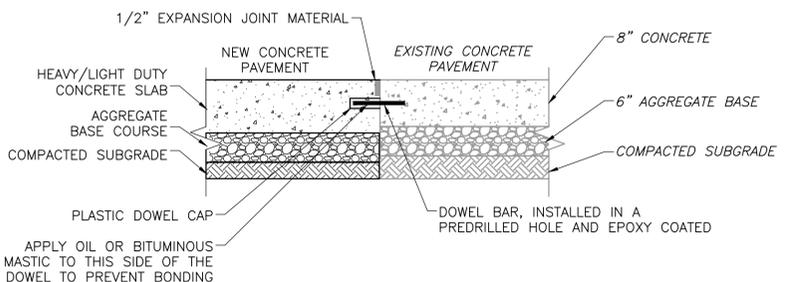
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DETAIL B
 NTS



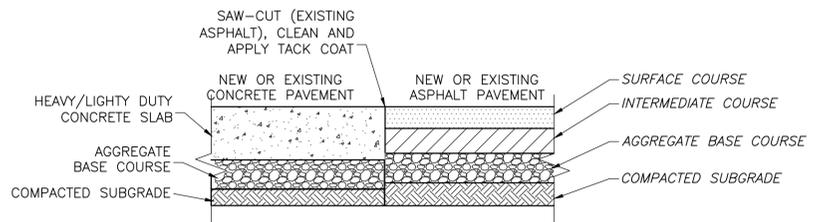
STANDARD DUTY CONCRETE PAVEMENT
DETAIL C
 NTS



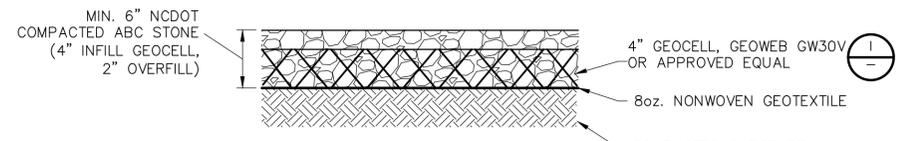
NEW HEAVY DUTY ASPHALT PAVEMENT
DETAIL D
 NTS



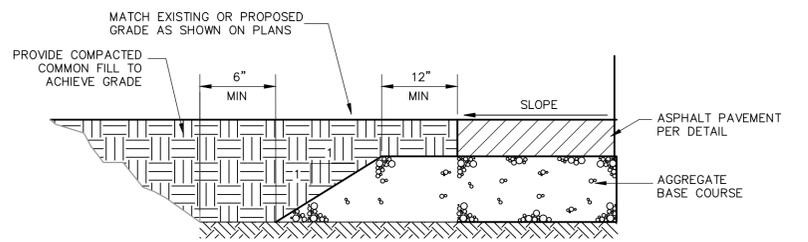
NEW CONCRETE TO EXISTING CONCRETE PAVEMENT
DETAIL E
 NTS



NEW OR EXISTING CONCRETE TO NEW OR EXISTING ASPHALT PAVEMENT
DETAIL F
 NTS



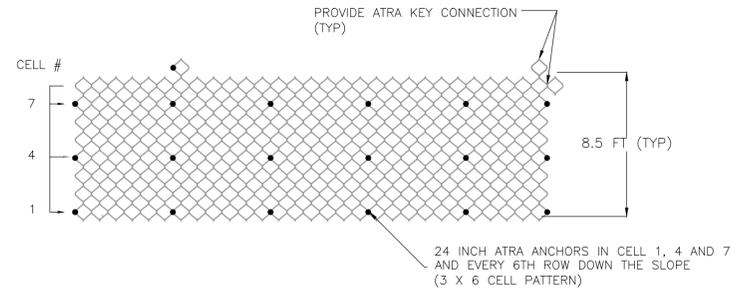
GRAVEL PAVEMENT WITH GEOCELL
DETAIL G
 NTS



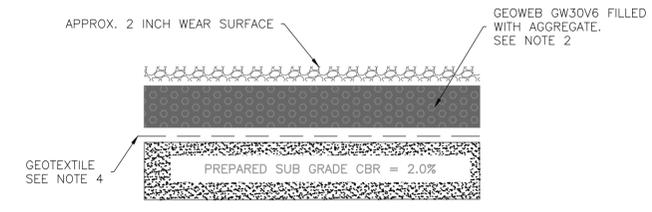
PAVEMENT SHOULDER DETAIL
DETAIL H
 NTS

- NOTES:**
1. PROOFROLL NATURAL SOILS IN CUT AREAS.
 2. 2' MINIMUM SELECT FILL COMPACTED TO 95% STD. PROCTOR (ASTM D1557) IN FILL AREAS.
 3. PLACE STONE IN 1 6" LIFT AND PROOFROLL.
 4. INSTALL AND INFILL GEOCELL PER MANUFACTURER'S RECOMMENDATIONS.

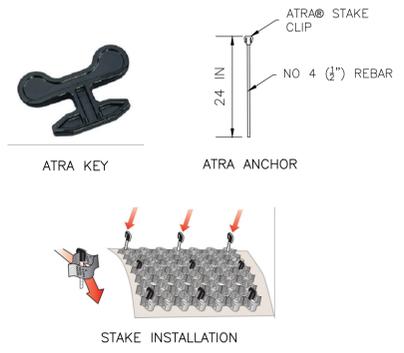
- NOTES:**
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 2. STONE GEOWEB INFILL SHALL BE OPEN GRADED NCDOT ABC STONE. LIMIT THE FINES TO LESS THAN 12% TO ALLOW FREE DRAINAGE.
 3. PROVIDE AN 8 OZ. NON-WOVEN GEOTEXTILE SEPARATION LAYER AND INSTALL PER MANUFACTURER RECOMMENDATIONS INCLUDING OVERLAPS BASED ON SUB GRADE CBR.
 4. THE GEOWEB PANELS SHALL BE CONNECTED WITH ATRA KEYS AT EACH INTERLEAF AND END TO END CONNECTION.
 5. PROVIDE ATRA ANCHORS TO KEEP PANELS OPEN FOR INFILL AS REQUIRED.
 6. LIMIT THE DROP OF INFILL TO PREVENT PANEL DISTORTION.



ANCHOR LOCATION



LOAD SUPPORTING GEOCELL



GEOCELL INSTALLATION
DETAIL I
 NTS

PAVING NOTES

- PAVING GENERAL:**
1. ALL PAVING SHALL BE IN ACCORDANCE WITH NCDOT SPECIFICATIONS.
 2. ALL NEW PAVEMENT SHALL MEET EXISTING PAVEMENT FLUSH.
 3. SEE SPECIFICATIONS FOR SUBGRADE COMPACTION REQUIREMENTS BASED ON PAVEMENT TYPE.
- HEAVY DUTY CONCRETE PAVING:**
1. 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.
 2. 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.
 3. ONLY THOSE JOINT SEALANTS THAT ARE ACCEPTABLE ON NCDOT PROJECTS SHALL BE USED.
- SUBGRADE NOTES:**
1. THE CONTRACTOR SHALL PERFORM EXCAVATIONS TO FACILITATE DRAINAGE AND DIRECT SURFACE WATER AWAY FROM OPEN EXCAVATIONS USING DIVERSIONS TO LIMIT RUNOFF INTO THE EXCAVATIONS.
 2. 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.
 3. 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.
 4. 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	<p>5400 Glenwood Avenue, Suite 400 Raleigh, NC 27612 Tel: (919) 325-3500 NC F-1255</p>
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CROSS CHK'D BY: W. KARABLY	
APPROVED BY: M. SANFORD	
DATE: MARCH 2021	

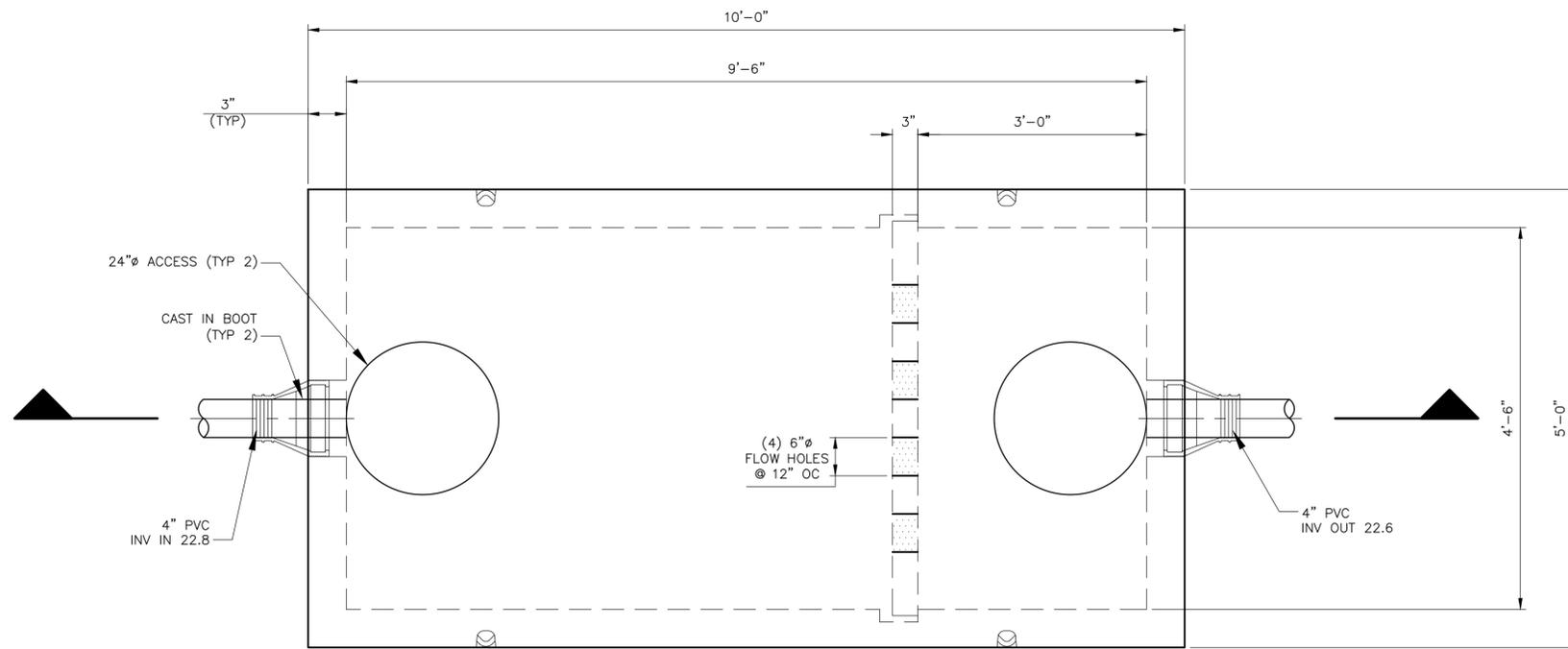
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 NEW HANOVER COUNTY LANDFILL
 CONVENIENCE CENTER REDEVELOPMENT PROJECT

PAVING DETAILS

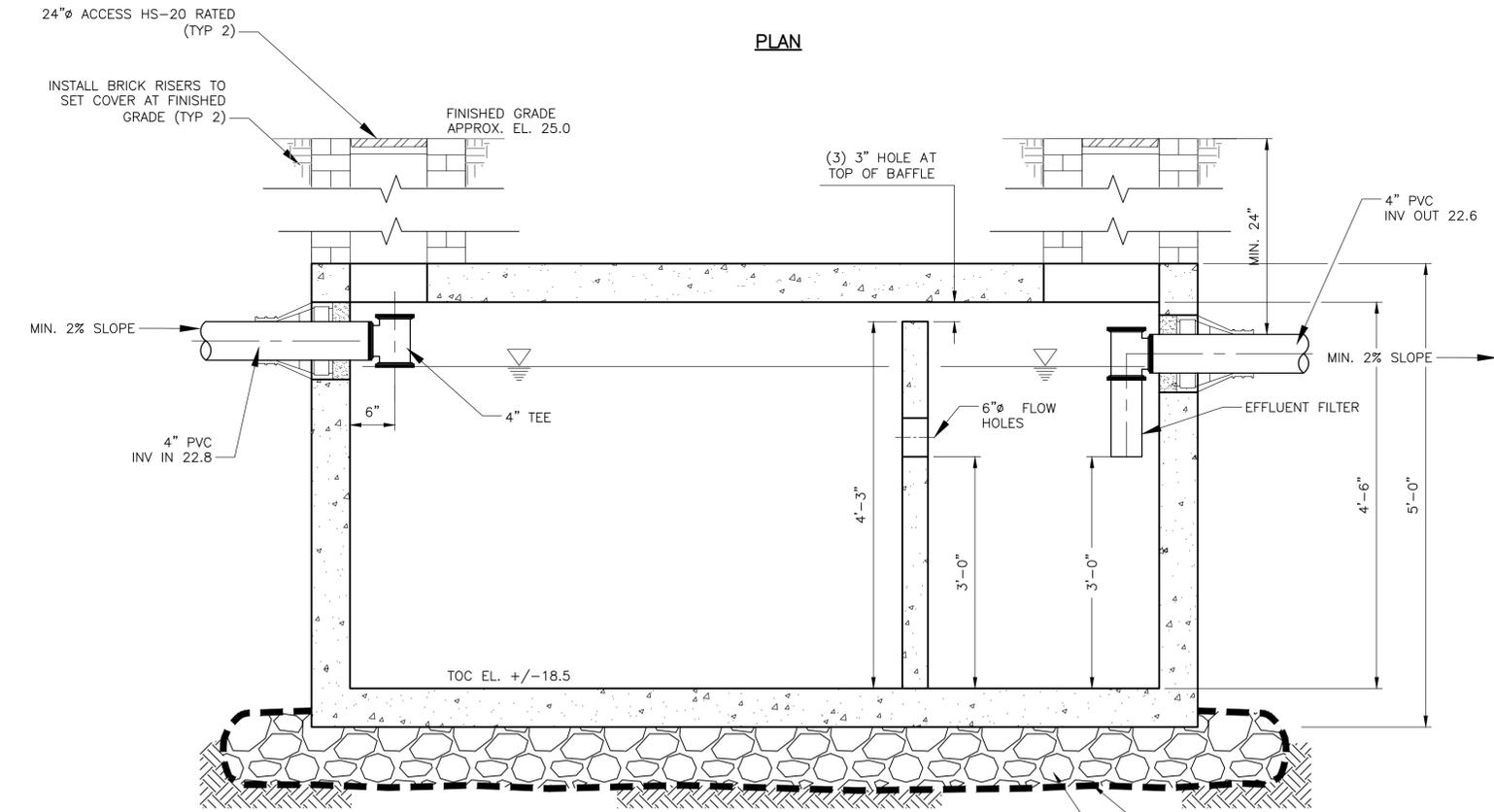
SHEET NO.
D101

PROJECT NO. 133920-237812
FILE NAME: D101D1LS.DWG
SHEET NO. D101

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PLAN

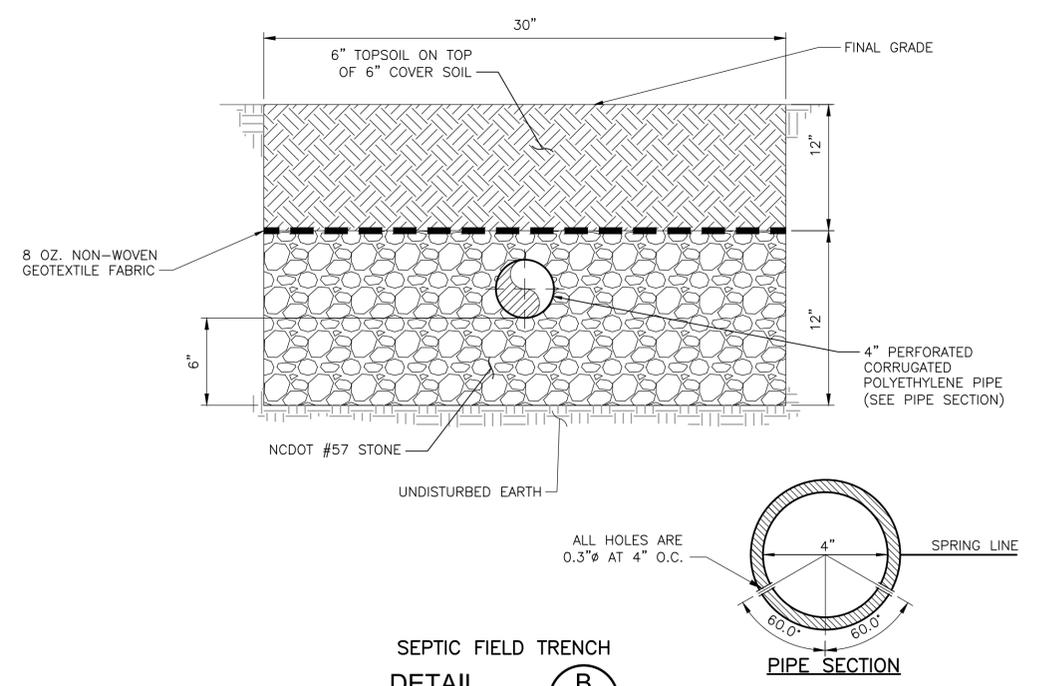


SECTION

1250 GAL. SEPTIC TANK

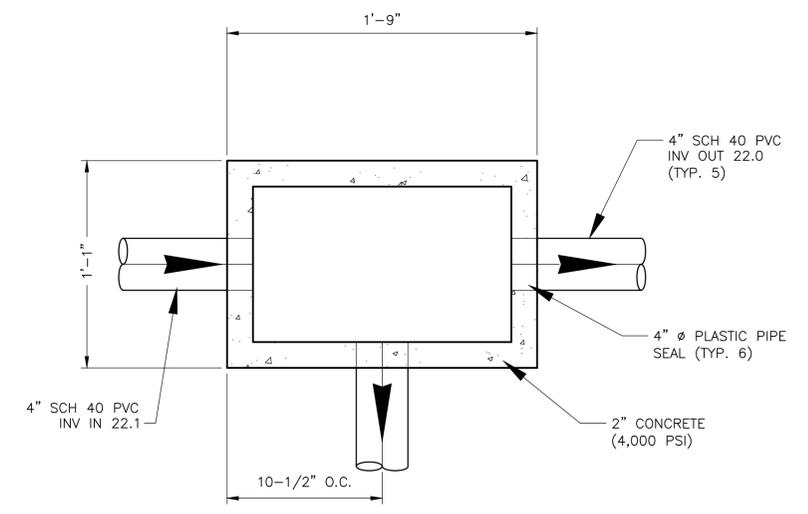
DETAIL A
NTS U200

- NOTES:**
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.



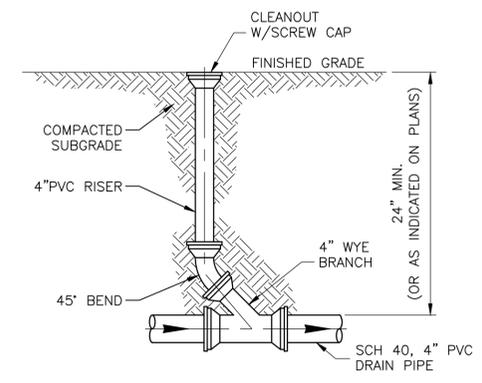
SEPTIC FIELD TRENCH
DETAIL B
NTS U201

PIPE SECTION



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

SEPTIC SYSTEM DISTRIBUTION BOX
DETAIL C
NTS U200



SANITARY SEWER CLEANOUT

DETAIL D
NTS U201

REV. NO.	DATE	DRWN	CHKD	REMARKS

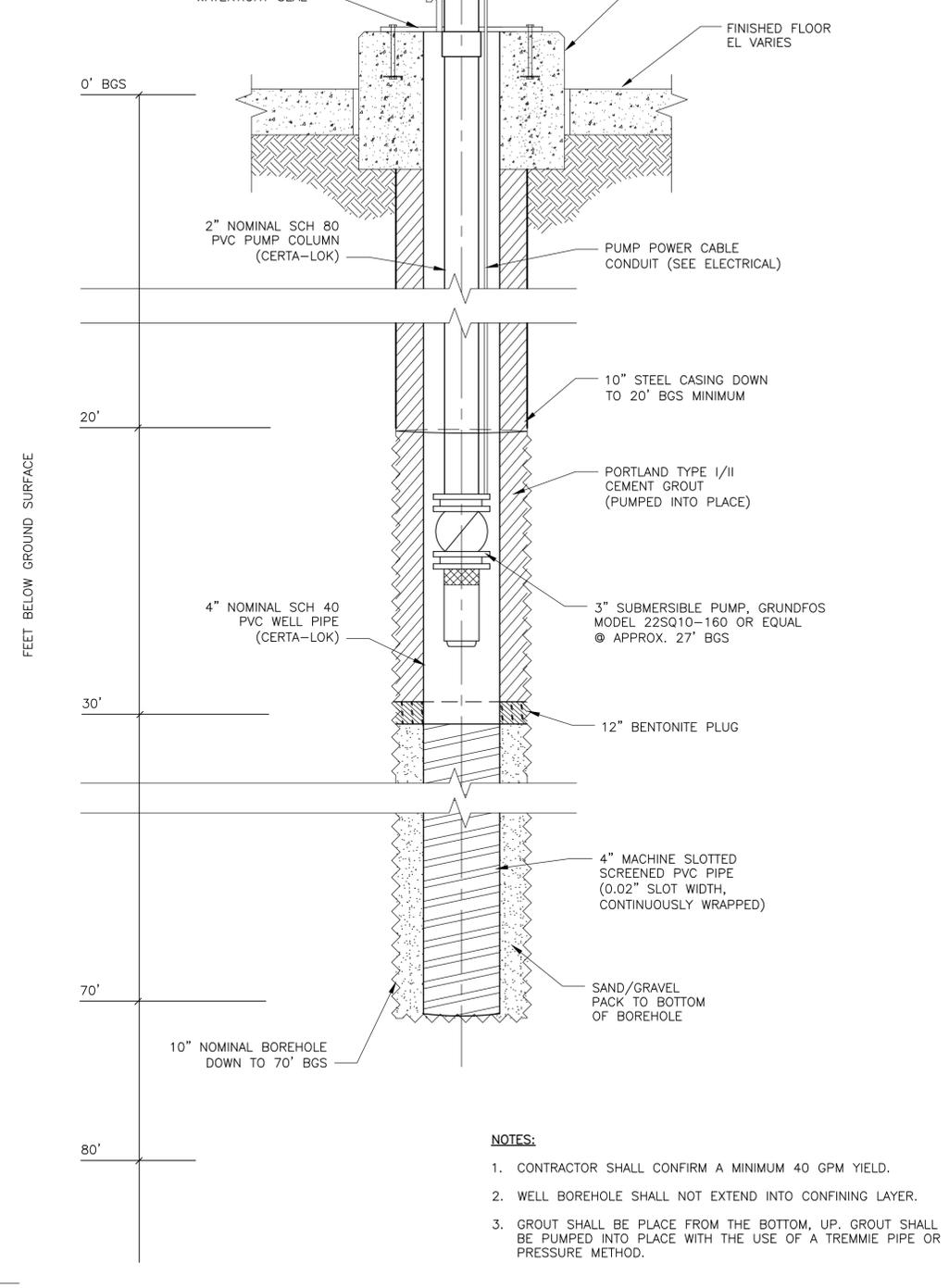
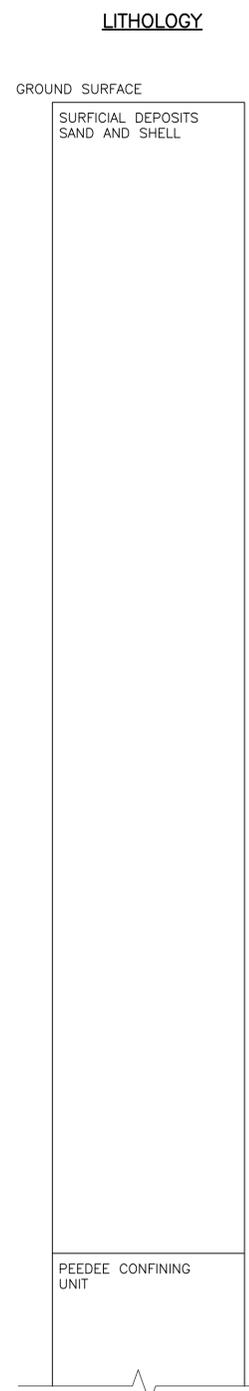
DESIGNED BY: M. BROKAW	 5400 Glenwood Avenue, Suite 400 Raleigh, NC 27612 Tel: (919) 325-3500 NC F-1255
DRAWN BY: K. RYAN	
SHEET CHK'D BY: A. WEISPFENNING	
CROSS CHK'D BY: W. KARABLY	
APPROVED BY: M. SANFORD	
DATE: MARCH 2021	

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

UTILITY DETAILS I
 SHEET NO.
D201

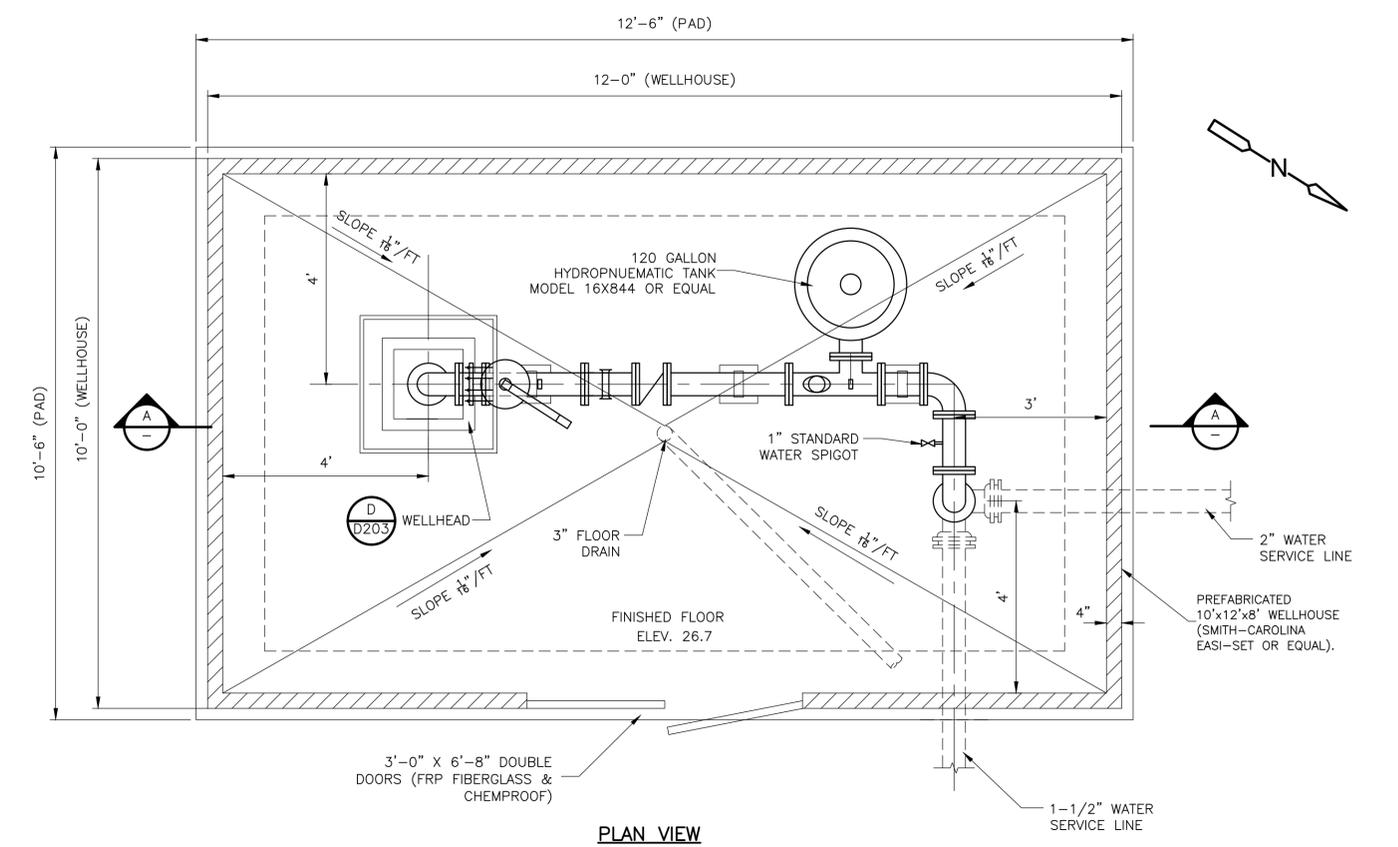
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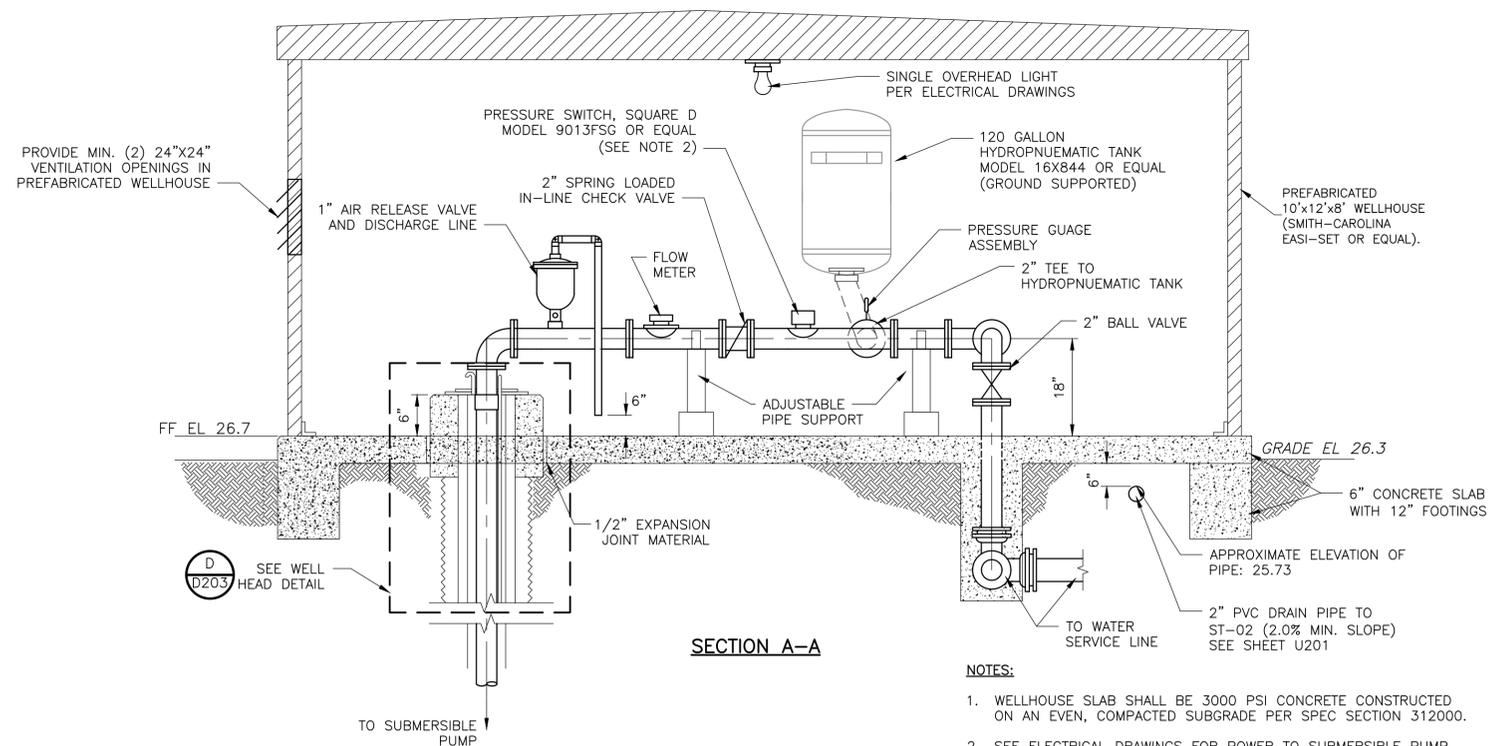


- NOTES:**
- CONTRACTOR SHALL CONFIRM A MINIMUM 40 GPM YIELD.
 - WELL BOREHOLE SHALL NOT EXTEND INTO CONFINING LAYER.
 - GROUT SHALL BE PLACE FROM THE BOTTOM, UP. GROUT SHALL BE PUMPED INTO PLACE WITH THE USE OF A TREMMIE PIPE OR PRESSURE METHOD.

4\"/>



PLAN VIEW



SECTION A-A

**WELL PUMPHOUSE AND TANKS
DETAIL B**

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

REV. NO.	DATE	DRWN	CHKD	REMARKS

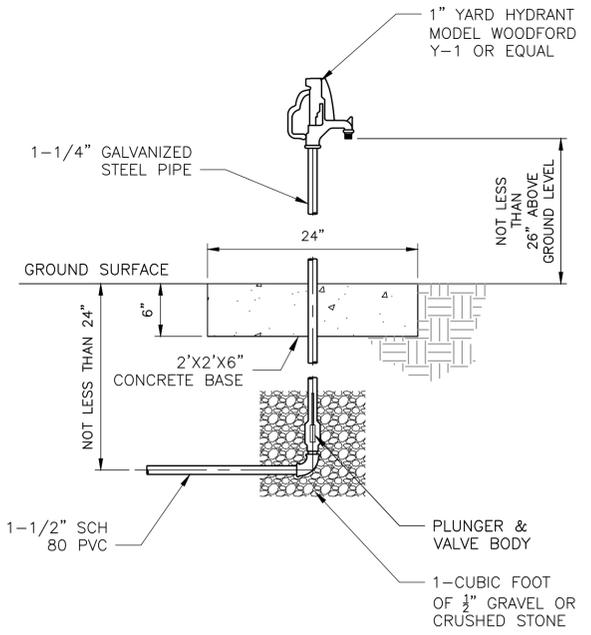
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DATE:	MARCH 2021

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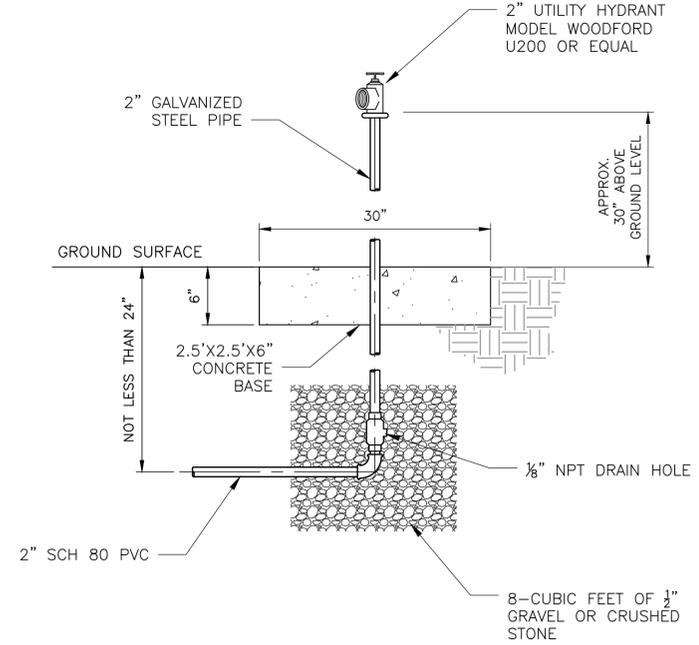
NEW HANOVER COUNTY, NORTH CAROLINA
 NEW HANOVER COUNTY LANDFILL
 CONVENIENCE CENTER REDEVELOPMENT PROJECT

PROJECT NO. 133920-237812
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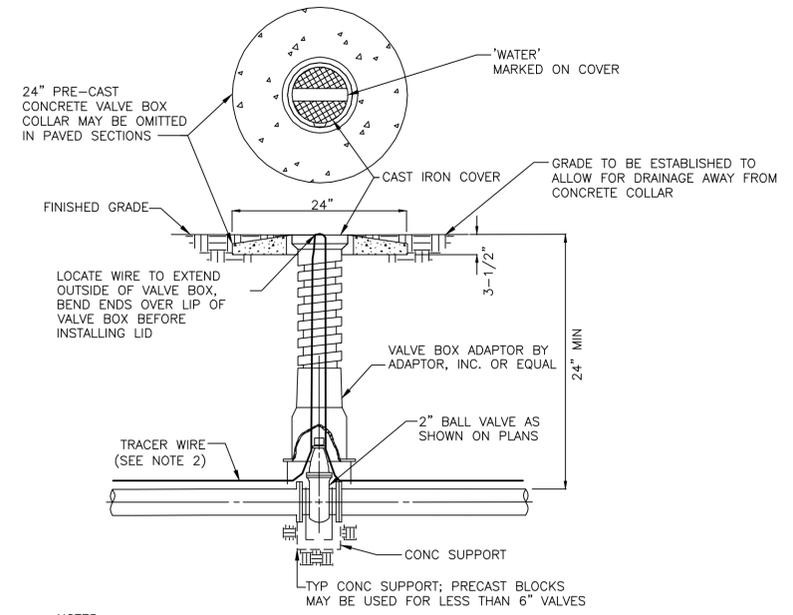
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NON-FREEZE YARD HYDRANT
 DETAIL A
 NTS U200

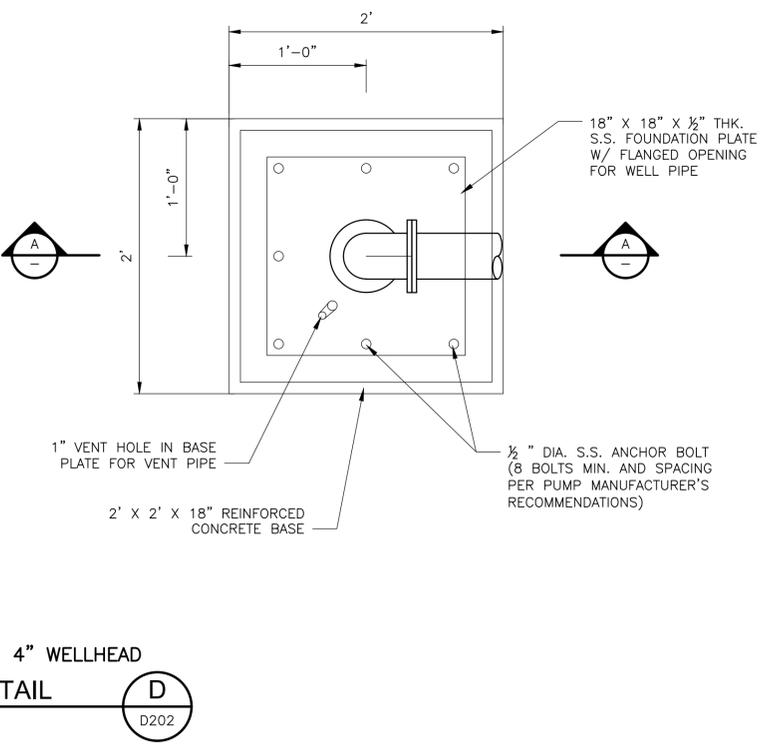
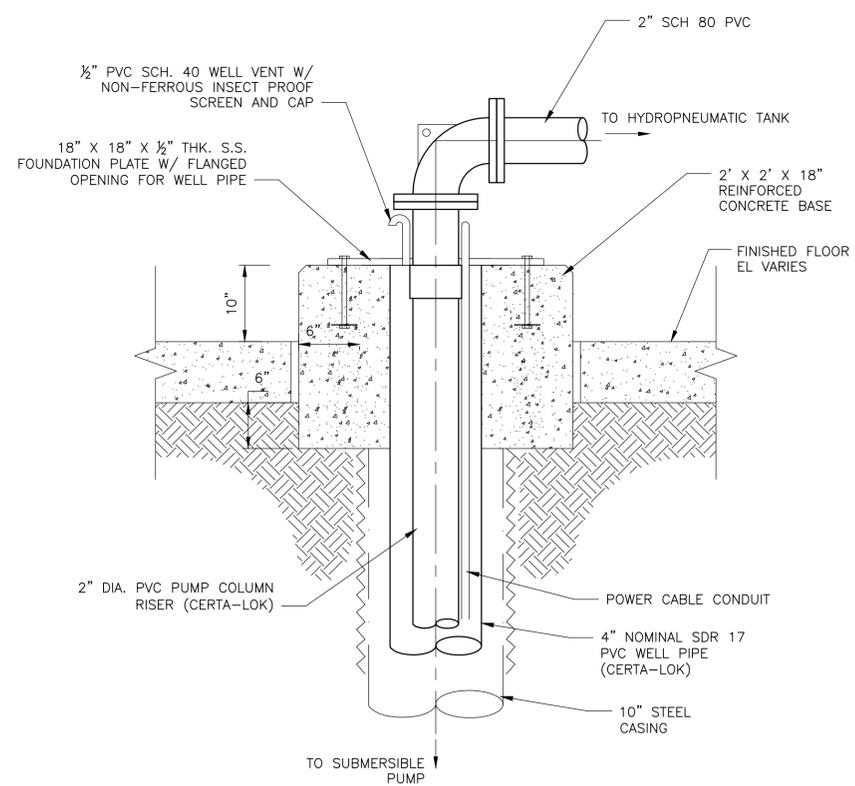


FPT FREEZELESS UTILITY HYDRANT
 DETAIL B
 NTS U200



- NOTES:
- 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.
 - 12 GA. COPPERHEAD SUPER FLEX TRACER WIRE OR APPROVED EQUAL.

WATERLINE VALVE AND VALVE BOX
 DETAIL C
 NTS U200



4" WELLHEAD
 DETAIL D
 NTS D202

REV. NO.	DATE	DRWN	CHKD	REMARKS

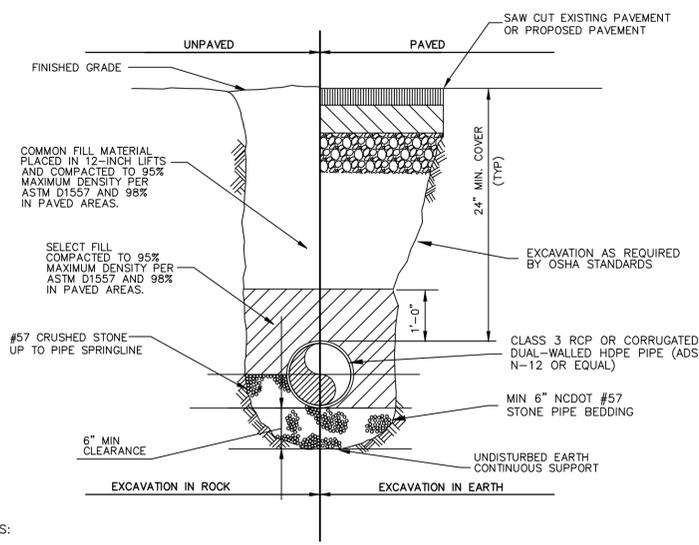
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DRAWN BY: K. RYAN	
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DATE: MARCH 2021	

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

UTILITY DETAILS III
 SHEET NO.
D203

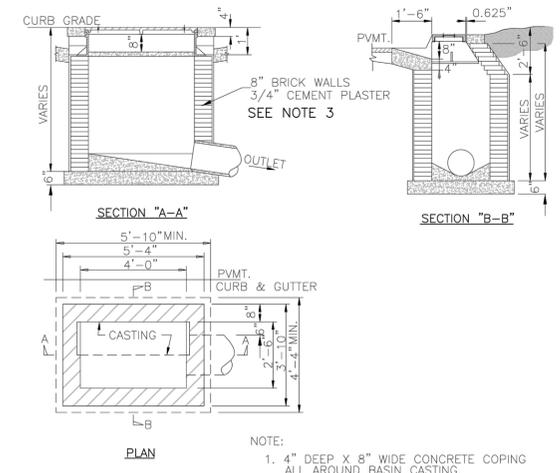
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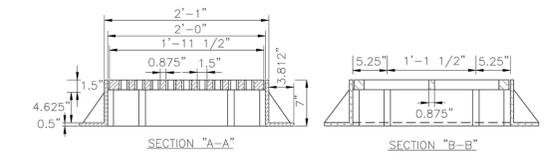
**STORM PIPE TRENCH
DETAIL A**
NTS C100

- NOTES:
- PIPE MATERIAL SHALL BE AS NOTED IN GRADING AND DRAINAGE PLAN AND PROFILE SHEETS.



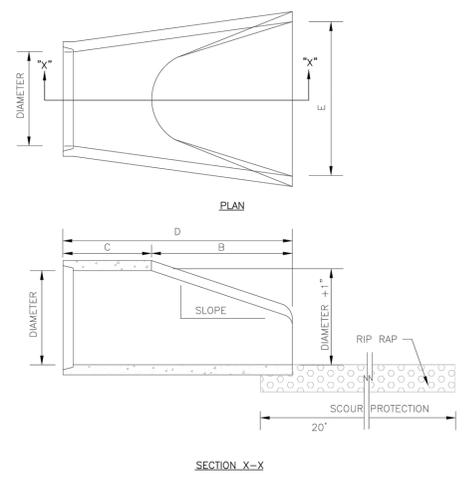
**CATCH BASIN & CURB INLET
DETAIL B**
NTS C100

- NOTE:
- 4" DEEP X 8" WIDE CONCRETE COPING ALL AROUND BASIN CASTING.
 - ALL CONCRETE TO BE CLASS "A".
 - CATCH BASINS MAY BE BRICK BUILT PER NCDOT STANDARD DETAIL 840.01 OR PRECAST CONCRETE STRUCTURES.
 - SEE SHEET C101 FOR DIMENSIONS AND INVERTS ELEVATIONS OF STRUCTURES.



**CATCH BASIN FRAME AND GRATE
DETAIL C**
NTS C100

- NOTE: DIMENSIONS SHOWN ARE MINIMUM DIMENSIONS FOR SINGLE GRATE INLETS. "DOUBLE-WIDE" GRATE INLETS AS NOTED ON SHEET C101 SHALL BE TWO (2) 2'X2' GRATES SIDE BY SIDE TO CREATE A 2'X4' INLET.

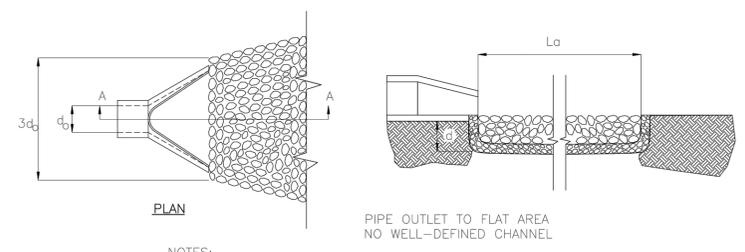


- NOTE:
- STRUCTURAL DESIGN OF END SECTION SHALL CONFORM WITH THAT OF STANDARD REINFORCED CONCRETE.

PIPE DIAMETER	WALL THICKNESS	SLOPE	B	C	D	E	UNIT WEIGHT
12	2 1/4	3:1	24	49	73	24	730
15	2 1/4	3:1	27	46	73	30	910
18	2 1/2	3:1	27	46	73	36	1190
21	2 3/4	3:1	36	37	73	42	1370
24	3	3:1	42	31 1/2	73 1/2	48	1770
27	3 1/4	3:1	48	25 1/2	73 1/2	54	2130
30	3 1/2	3:1	54	19 3/4	73 3/4	60	2380
33	3 3/4	3:1	60	36	96	66	3870
36	4	3:1	63	34 3/4	97 3/4	72	5320
42	4 1/2	3:1	63	35	98	78	5920
48	5	3:1	72	26	98	84	7470
54	5 1/2	2.4:1	66	34	100	90	8810
60	6	2:1	60	39	99	96	11180
72	7	2:1	78	21	99	108	13980

DIMENSIONS IN INCHES WEIGHTS IN POUNDS

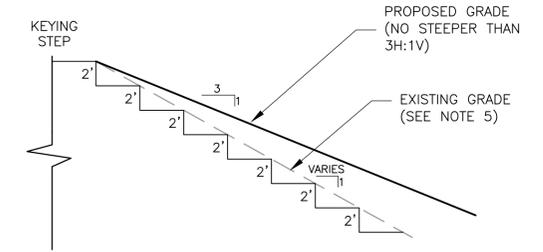
**RCP FLARED-END SECTION
DETAIL D**
NTS C100



- NOTE:
- L_d IS THE LENGTH OF THE RIPRAP APRON, AS SHOWN ON SHEET C201 (MIN. 16').
 - $d = 1.5$ TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6".
 - IN A WELL - DEFINED CHANNEL EXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" ABOVE THE MAXIMUM TAILWATER DEPTH OR TO THE TOP OF THE BANK, WHICHEVER IS LESS.
 - A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND SOIL FOUNDATION.
 - RIPRAP SHALL BE NCDOT CLASS B.

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



- NOTES:

- REMOVE TOP SOIL AND VEGETATION FROM SLOPES.
- CUT EXISTING SLOPE WITH 2' VERTICAL STEPS.
- BACKFILL TO PROPOSED SLOPE USING 8" THICK (LOOSE THICKNESS) VERTICAL LIFTS USING SELECT FILL.
- OVERFILL NEW SLOPES AND CUT GRADES BACK TO FINAL GRADE TO ENSURE PROPER COMPACTION AT FACE OF SLOPE.
- EXISTING SLOPE SHALL BE NO STEEPER THAN 2 HORIZONTAL TO 1 VERTICAL PRIOR TO ADDING FILL.

**FILL ON SLOPE
DETAIL G**
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

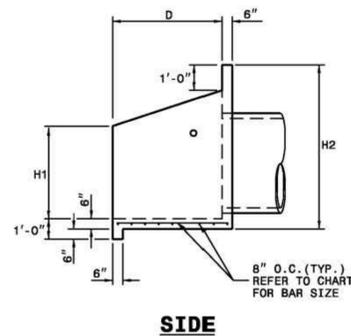
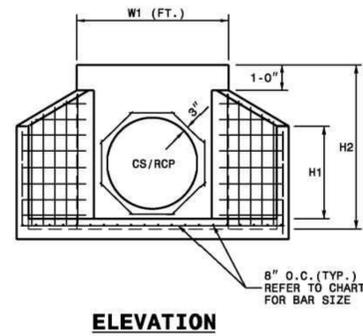
5400 Glenwood Avenue, Suite 400
 Raleigh, NC 27612 | Tel: (919) 325-3500
 NC F-1255

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

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

GRADING AND DRAINAGE DETAILS I

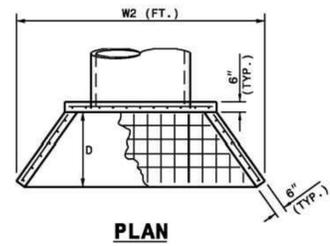
XREFS: [CDMS_2234] Images: [NCDOT 838.60 Precast Concrete Endwall] PROJECT NO. 133920-237812
 Last saved by: RYANKA Time: 3/9/2021 3:04:05 PM FILE NAME: D302DTLS.DWG
 pw\\cdmsmith-0202-pw.bentley.com\\PW_PL1\\133920\\237812\\04 Design Services NM_10R\\02 Civil\\10 CADD\\D_302DTLS.dwg
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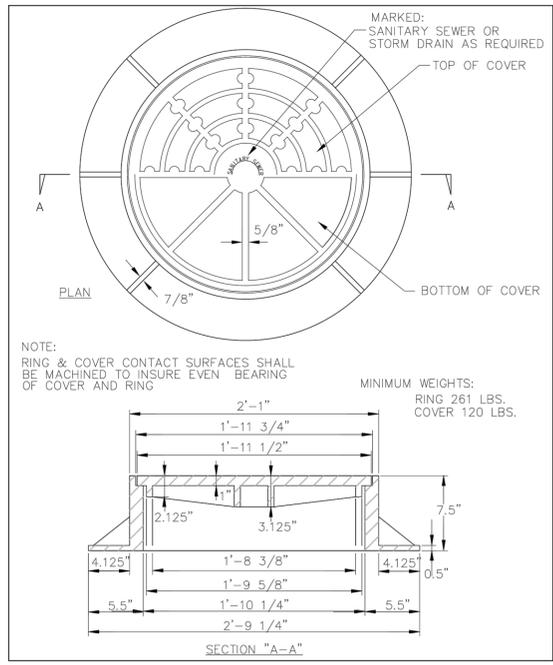
- NCDOT NOTES:**
- * THIS PRECAST ENDWALL MAY BE USED FOR THE FOLLOWING STANDARDS: 838.01, 838.11, 838.21, 838.27, 838.33, 838.39, 838.51, 838.57, 838.63 AND 838.69.
 - * INSTALL PRECAST ENDWALLS WITH WINGS AND PAY FOR IN ACCORDANCE WITH SPECIFICATION SECTION 838.
 - * USE 4000 PSI CONCRETE.
 - * PROVIDE ALL REINFORCING STEEL WHICH MEETS ASTM A615 FOR GRADE 60 AND WELDED WIRE FABRIC CONFORMING TO ASTM A185 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.

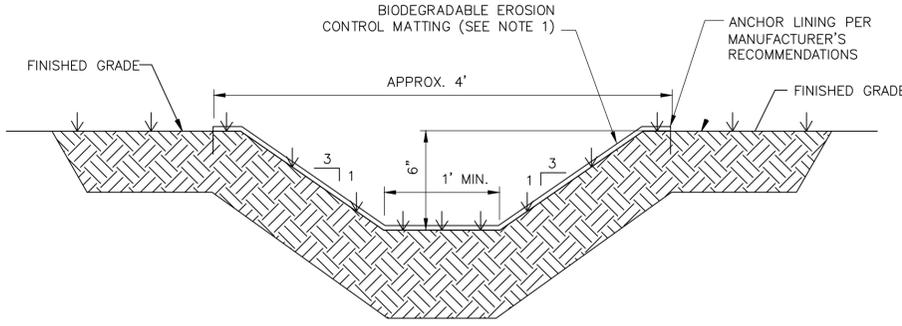
ENDWALL DIMENSIONS						
FT.	MINIMUM BAR SIZE	MIN. / MAX.				
PIPE DIA.		H1 (FT.)	H2 (FT.)	D (FT.)	W1	W2
1.0	#5 @ 8"	1.25/2.00	2.00/3.75	1.25/1.75	3.00/3.75	5.50/6.00
1.25	#5 @ 8"	1.25/2.00	3.00/3.75	1.25/2.00	3.50/3.75	6.50/6.75
1.50	#5 @ 8"	1.25/2.00	3.00/4.25	1.50/2.50	3.50/3.75	6.50/6.75
2.0	#5 @ 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

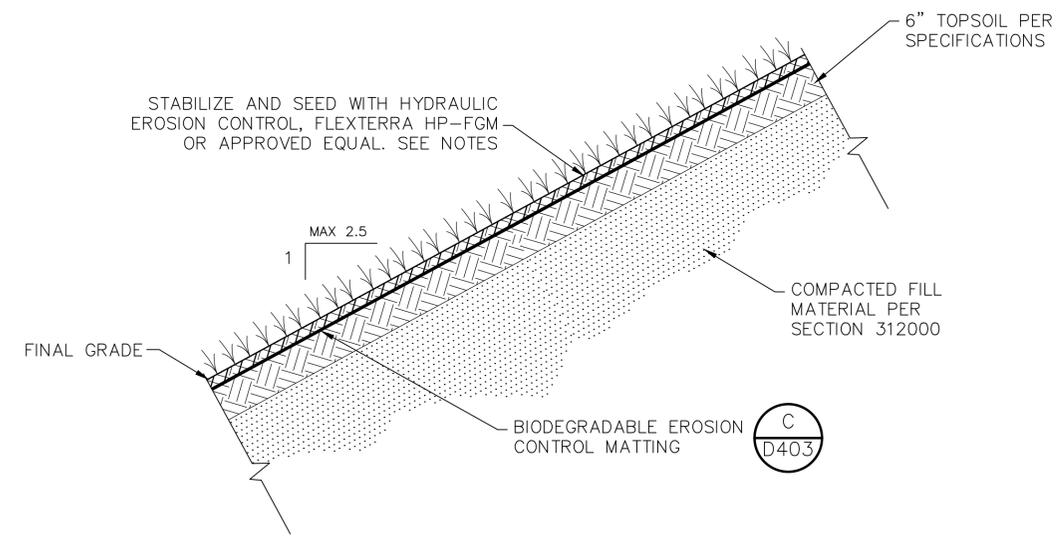


MAN-HOLE RING AND COVER
DETAIL C
NTS



- 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 SEEDING.
 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

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

GRADING AND DRAINAGE DETAILS II

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

XREFS: [CDMS_2234] Images: []
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GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT
Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

SECTION E: GROUND STABILIZATION

Required Ground Stabilization Timeframes		
Site Area Description	Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations
(a) Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b) High Quality Water (HQW) Zones	7	None
(c) Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed
(d) Slopes 3:1 to 4:1	14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed
(e) Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Temporary Stabilization	Permanent Stabilization
<ul style="list-style-type: none">Temporary grass seed covered with straw or other mulches and tackifiersHydroseedingRollled erosion control products with or without temporary grass seedAppropriately applied straw or other mulchPlastic sheeting	<ul style="list-style-type: none">Permanent grass seed covered with straw or other mulches and tackifiersGeotextile fabrics such as permanent soil reinforcement mattingHydroseedingShrubs or other permanent plantings covered with mulchUniform and evenly distributed ground cover sufficient to restrain erosionStructural methods such as concrete, asphalt or retaining wallsRollled erosion control products with grass seed

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

- Select flocculants that are appropriate for the soils being exposed during construction, selecting from the NC DWR List of *Approved PAMS/Flocculants*.
- Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
- Apply flocculants at the concentrations specified in the NC DWR List of *Approved PAMS/Flocculants* and in accordance with the manufacturer's instructions.
- Provide ponding area for containment of treated Stormwater before discharging offsite.
- Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

EQUIPMENT AND VEHICLE MAINTENANCE

- Maintain vehicles and equipment to prevent discharge of fluids.
- Provide drip pans under any stored equipment.
- Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
- Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
- Remove leaking vehicles and construction equipment from service until the problem has been corrected.
- Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

- Never bury or burn waste. Place litter and debris in approved waste containers.
- Provide a sufficient number and size of waste containers (e.g. dumpster, trash receptacle) on site to contain construction and domestic wastes.
- Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
- Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
- Anchor all lightweight items in waste containers during times of high winds.
- Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
- Dispose waste off-site at an approved disposal facility.
- On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

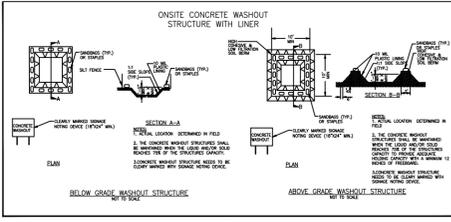
- Do not dump paint and other liquid waste into storm drains, streams or wetlands.
- Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
- Contain liquid wastes in a controlled area.
- Containment must be labeled, sized and placed appropriately for the needs of site.
- Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

PORTABLE TOILETS

- Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
- Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
- Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

EARTHEN STOCKPILE MANAGEMENT

- Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
- Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
- Provide stable stone access point when feasible.
- Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.



CONCRETE WASHOUTS

- Do not discharge concrete or cement slurry from the site.
- Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
- Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
- Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
- Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
- Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
- Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
- Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
- Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
- At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

HERBICIDES, PESTICIDES AND RODENTICIDES

- Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
- Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
- Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
- Do not stockpile these materials onsite.

HAZARDOUS AND TOXIC WASTE

- Create designated hazardous waste collection areas on-site.
- Place hazardous waste containers under cover or in secondary containment.
- Do not store hazardous chemicals, drums or bagged materials directly on the ground.

PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION A: SELF-INSPECTION

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend or holiday periods, and no individual-day rainfall information is available, record the cumulative rain measurement for those unattended days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero." The permittee may use another rain-monitoring device approved by the Division.
(2) E&S Measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the measures inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Indication of whether the measures were operating properly, 5. Description of maintenance needs for the measure, 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the discharge outfall inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, 5. Indication of visible sediment leaving the site, 6. Description, evidence, and date of corrective actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If visible sedimentation is found outside site limits, then a record of the following shall be made: 1. Actions taken to clean up or stabilize the sediment that has left the site limits, 2. Description, evidence, and date of corrective actions taken, and 3. An explanation as to the actions taken to control future releases.
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Description, evidence and date of corrective actions taken, and 2. Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of this permit.
(6) Ground stabilization measures	After each phase of grading	1. The phase of grading (installation of perimeter E&S measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover), 2. Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible.

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

The approved E&S plan as well as any approved deviation shall be kept on the site. The approved E&S plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&S plan shall be kept on site and available for inspection at all times during normal business hours.

Item to Document	Documentation Requirements
(a) Each E&S measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&S plan.	Initial and date each E&S measure on a copy of the approved E&S plan or complete, date and sign an inspection report that lists each E&S measure shown on the approved E&S plan. This documentation is required upon the initial installation of the E&S measures or if the E&S measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&S plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&S plan.	Initial and date a copy of the approved E&S plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&S measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&S measures.	Initial and date a copy of the approved E&S plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

2. Additional Documentation to be Kept on Site

In addition to the E&S plan documents above, the following items shall be kept on the site and available for inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

- This General Permit as well as the Certificate of Coverage, after it is received.
- Records of inspections made during the previous twelve months. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.

3. Documentation to be Retained for Three Years

All data used to complete the e-NOI and all inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

PART II, SECTION G, ITEM (4) DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT

Sediment basins and traps that receive runoff from drainage areas of one acre or more shall use outlet structures that withdraw water from the surface when these devices need to be drawn down for maintenance or close out unless this is infeasible. The circumstances in which it is not feasible to withdraw water from the surface shall be rare (for example, times with extended cold weather). Non-surface withdrawals from sediment basins shall be allowed only when all of the following criteria have been met:

- The E&S plan authority has been provided with documentation of the non-surface withdrawal and the specific time periods or conditions in which it will occur. The non-surface withdrawal shall not commence until the E&S plan authority has approved these items.
- The non-surface withdrawal has been reported as an anticipated bypass in accordance with Part III, Section C, Item (2)(c) and (d) of this permit.
- Dewatering discharges are treated with controls to minimize discharges of pollutants from stormwater that is removed from the sediment basin. Examples of appropriate controls include properly sited, designed and maintained dewatering tanks, weir tanks, and filtration systems.
- Vegetated, upland areas of the sites or a properly designed stone pad is used to the extent feasible at the outlet of the dewatering treatment devices described in Item (c) above.
- Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and
- Sediment removed from the dewatering treatment devices described in Item (c) above is disposed of in a manner that does not cause deposition of sediment into waters of the United States.

PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: REPORTING

1. Occurrences that Must be Reported

- Permittees shall report the following occurrences:
- Visible sediment deposition in a stream or wetland.
 - Oil spills if:
 - They are 25 gallons or more,
 - They are less than 25 gallons but cannot be cleaned up within 24 hours,
 - They cause sheen on surface waters (regardless of volume), or
 - They are within 100 feet of surface waters (regardless of volume).
 - Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.
 - Anticipated bypasses and unanticipated bypasses.
 - Noncompliance with the conditions of this permit that may endanger health or the environment.

2. Reporting Timeframes and Other Requirements

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Department's Environmental Emergency Center personnel at (800) 858-0368.

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	<ul style="list-style-type: none">Within 24 hours, an oral or electronic notification.Within 7 calendar days, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis.If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions.
(b) Oil spills and release of hazardous substances per Item 1(b)-(c) above	<ul style="list-style-type: none">Within 24 hours, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.A report at least ten days before the date of the bypass, if possible. The report shall include an evaluation of the anticipated quality and effect of the bypass.
(c) Anticipated bypasses [40 CFR 122.41(m)(3)]	<ul style="list-style-type: none">Within 24 hours, an oral or electronic notification.Within 7 calendar days, a report that includes an evaluation of the quality and effect of the bypass.
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	<ul style="list-style-type: none">Within 24 hours, an oral or electronic notification.Within 7 calendar days, a report that contains a description of the non-compliance, and its causes; the period of non-compliance, including exact dates and times, and if the non-compliance has not been corrected, the anticipated time non-compliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the non-compliance. [40 CFR 122.41(i)(6)].Division staff may waive the requirement for a written report on a case-by-case basis.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment [40 CFR 122.41(i)(7)]	<ul style="list-style-type: none">Within 24 hours, an oral or electronic notification.Within 7 calendar days, a report that contains a description of the non-compliance, and its causes; the period of non-compliance, including exact dates and times, and if the non-compliance has not been corrected, the anticipated time non-compliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the non-compliance. [40 CFR 122.41(i)(6)].Division staff may waive the requirement for a written report on a case-by-case basis.

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

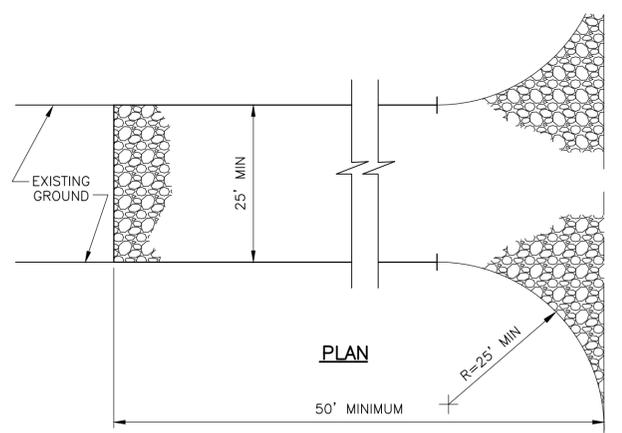


NEW HANOVER COUNTY, NORTH CAROLINA
NEW HANOVER COUNTY LANDFILL
CONVENIENCE CENTER REDEVELOPMENT PROJECT

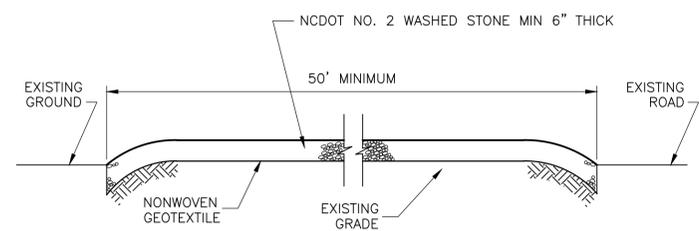
EROSION AND SEDIMENT CONTROL NOTES
(NCG01)

PROJECT NO. 133920-237812
FILE NAME: D401DLS.DWG
SHEET NO. D401

XREFS: [CEP0001, CDM_2234] Images: []
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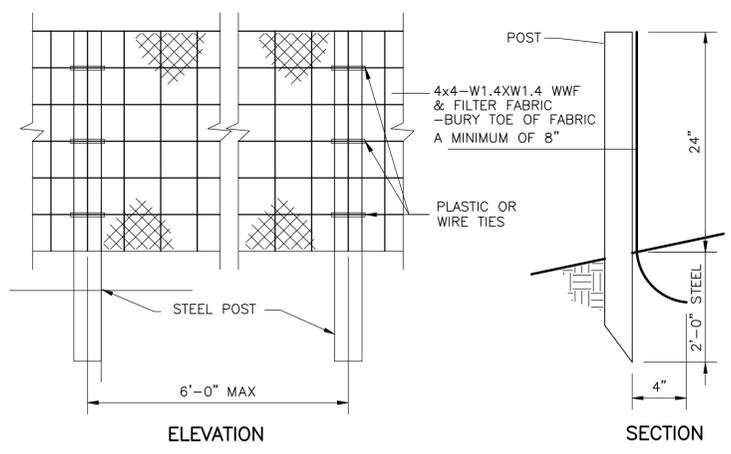
PLAN



PROFILE

- 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 A**
NTS C201

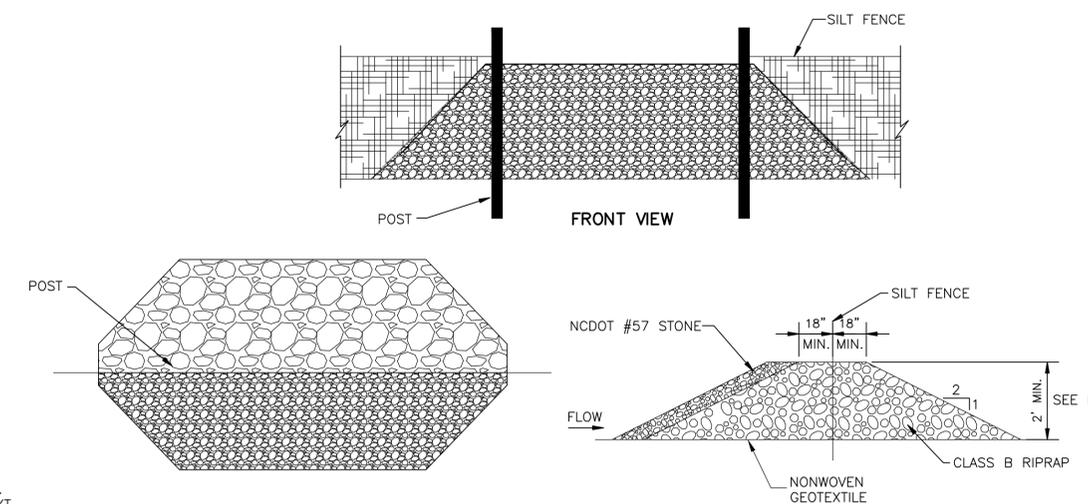


ELEVATION

SECTION

- 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, DECOMPOSE, 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 AVOID 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 B**
NTS C201

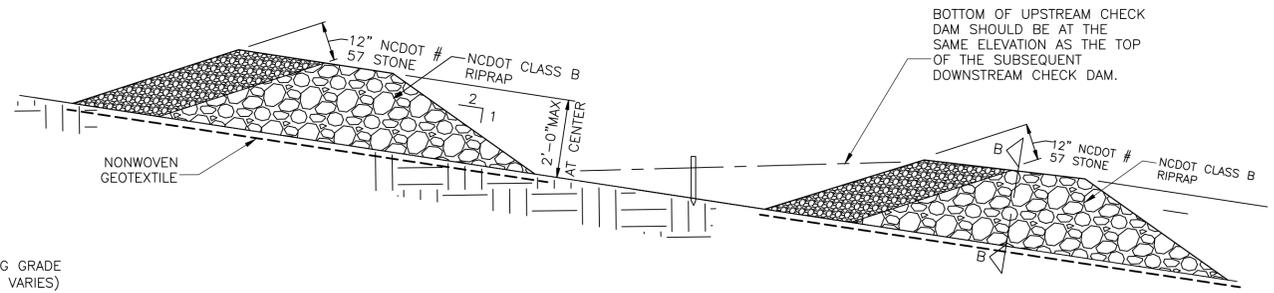


FRONT VIEW

PLAN VIEW

**SILT FENCE OUTLET
DETAIL C**
NTS C201

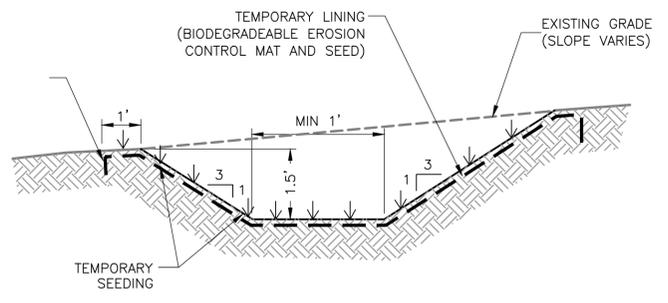
- NOTES:**
1. MATCH OUTLET HEIGHT TO HEIGHT OF SILT FENCE.
 2. REMOVE SEDIMENT WHEN 1/3 OF OUTLET IS COVERED.



SECTION B-B

TEMPORARY ROCK CHECK DAM

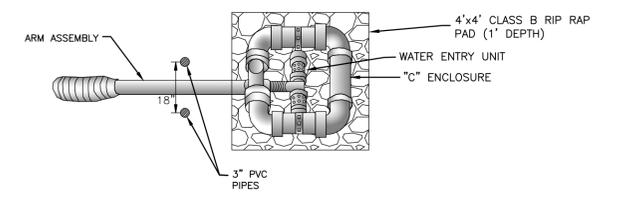
DETAIL E
NTS C201



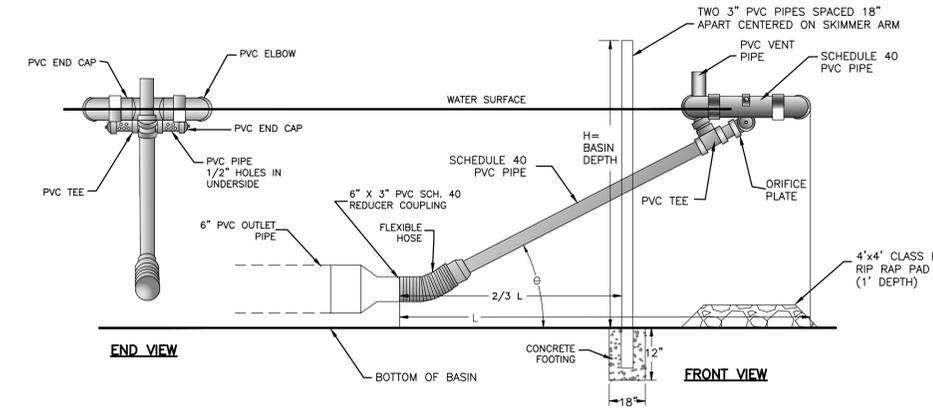
TEMPORARY DIVERSION DITCH

DETAIL D
NTS C201

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



PERSPECTIVE VIEW



END VIEW

FRONT VIEW

**SEDIMENT SKIMMER
DETAIL F**
NTS C201

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

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

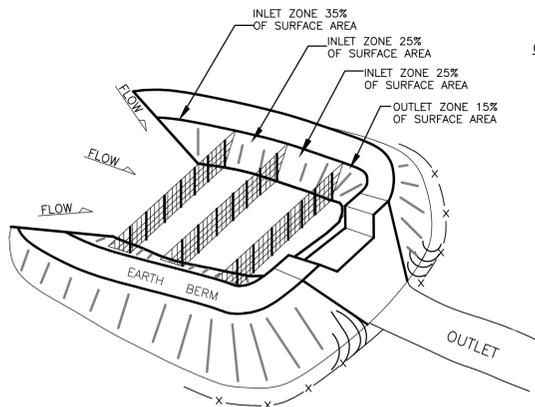
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 NEW HANOVER COUNTY LANDFILL
 CONVENIENCE CENTER REDEVELOPMENT PROJECT

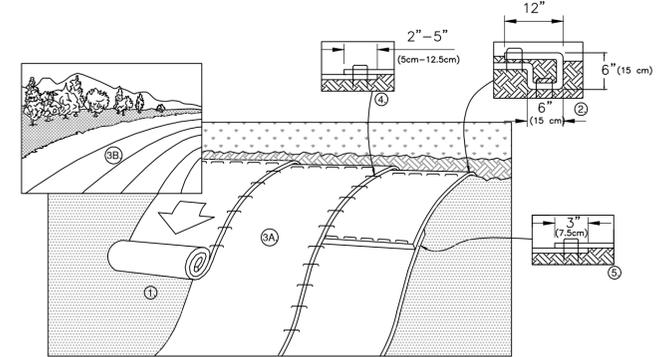
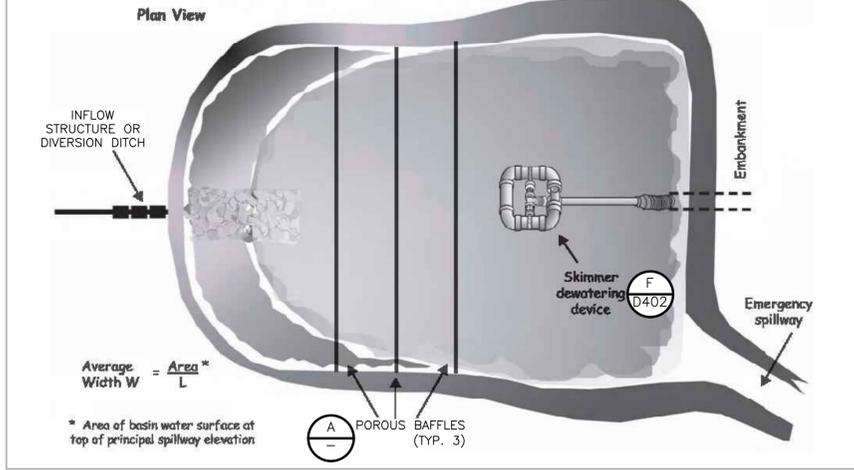
EROSION AND SEDIMENT
 CONTROL DETAILS I
 SHEET NO.
D402

PROJECT NO. 133920-237812
 FILE NAME: D402D.TLS.DWG
 SHEET NO.
D402

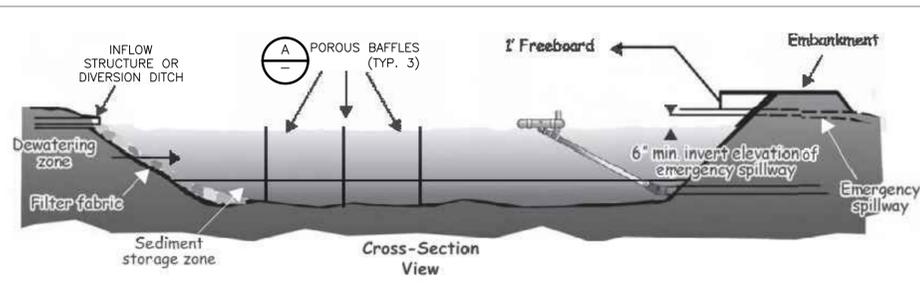
XREFS: [C:\PEP0001.DWG_2234] Images: [Skimmer Basin Cross Section, Skimmer Basin Plan]
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- GENERAL NOTES:**
1. DRIVE 5' STEEL POST AT LEAST 12" INTO SOLID GROUND.
 2. USE STAPLES 1' APART HORIZONTALLY AND VERTICALLY TO ATTACH THE FILTER FABRIC TO THE 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 NCSCOPDM SECTION #6.65 FOR ADDITIONAL SPECIFICATIONS.

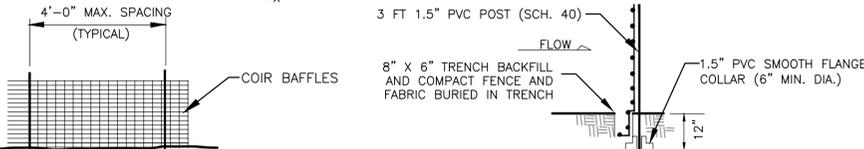


- NOTES:**
1. EROSION CONTROL BLANKETS (ECB) SHALL BE ANY TEMPORARY/BIODEGRADABLE PRODUCT MEETING THE SPECIFICATION REQUIREMENTS.
 2. PREPARE SOIL BEFORE INSTALLING ECB INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
 3. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE ECB IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF ECB EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE ECB WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF ECB BACK OVER SEED AND COMPACTED SOIL. SECURE ECB OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE ECB.
 4. ROLL THE ECB (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. ECB WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL ECB MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
 5. THE EDGES OF PARALLEL ECB MUST BE STAPLED WITH APPROXIMATELY 2"-5" (5 CM-12.5 CM) OVERLAP DEPENDING ON ECB TYPE.
 6. CONSECUTIVE ECB SPICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 6" (45 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE ECB WIDTH.
- NOTE: *IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE ECB.



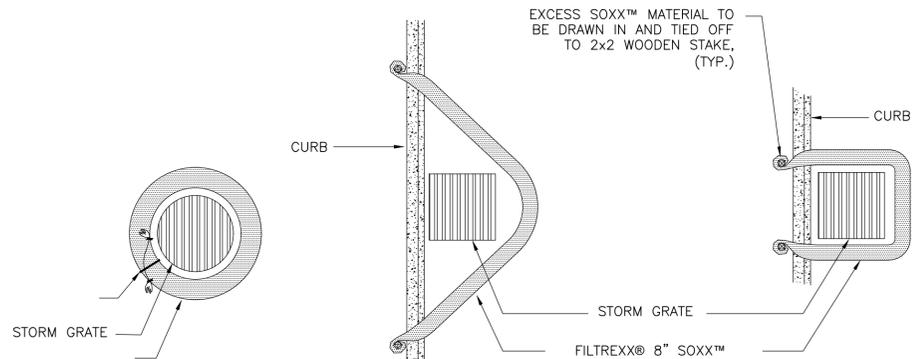
TEMPORARY SKIMMER BASINS											
SKIMMER BASIN NO.	STORAGE VOLUME (FT ³)	DEPTH OF POOL (FT)	SURFACE AREA (FT ²)	BASIN WIDTH (FT)	BASIN LENGTH (FT)	SKIMMER SIZE (IN)	WEIR LENGTH (FT)	EMBANKMENT HEIGHT (FT)	SIDESLOPES	OUTLET	REFERENCE SHEET
TSB-1	4,524	3.0	2,312	34	68	2.5	6.0	4.5	3:1	6" PVC	C201
TSB-2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

EROSION CONTROL BLANKETS
DETAIL C

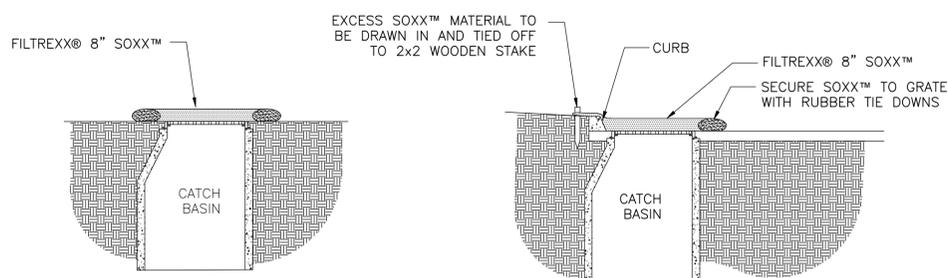


POROUS BAFFLES
DETAIL A

TEMPORARY SKIMMER BASIN
DETAIL B



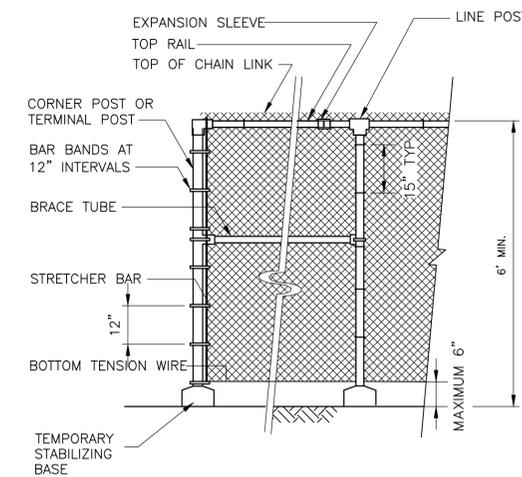
DRAIN INLET PLAN **CURBSIDE OPTION "A" PLAN** **CURBSIDE OPTION "B" PLAN**



DRAIN INLET SECTION **CURBSIDE SECTION**

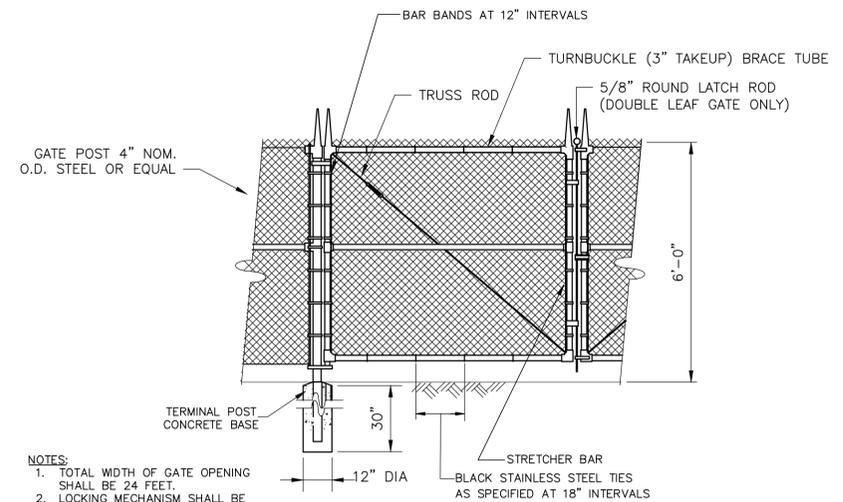
- NOTES:**
1. ALL MATERIAL TO MEET FILTREXX® SPECIFICATIONS.
 2. FILTER MEDIA™ FILL TO MEET APPLICATION REQUIREMENTS.
 3. ACCUMULATED SEDIMENT SHALL BE DISPOSED OF, AS DETERMINED BY ENGINEER.

FILTER SOCK INLET PROTECTION
DETAIL D



- NOTES:**
1. A TERMINAL POST SHALL BE PLACED EVERY 5TH POST AND AT CORNERS AND GATES.

TEMPORARY CONSTRUCTION FENCE
DETAIL E



- NOTES:**
1. TOTAL WIDTH OF GATE OPENING SHALL BE 24 FEET.
 2. LOCKING MECHANISM SHALL BE PROVIDED.

TEMPORARY CONSTRUCTION SWING GATE
DETAIL F

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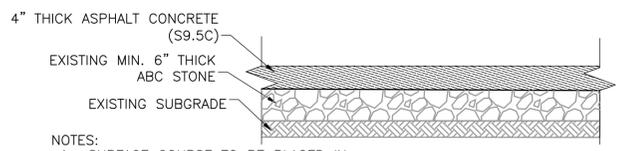
NEW HANOVER COUNTY, NORTH CAROLINA
 NEW HANOVER COUNTY LANDFILL
 CONVENIENCE CENTER REDEVELOPMENT PROJECT

EROSION AND SEDIMENT
 CONTROL DETAILS II

PROJECT NO.	133920-237812
FILE NAME:	D403D.TLS.DWG
SHEET NO.	D403

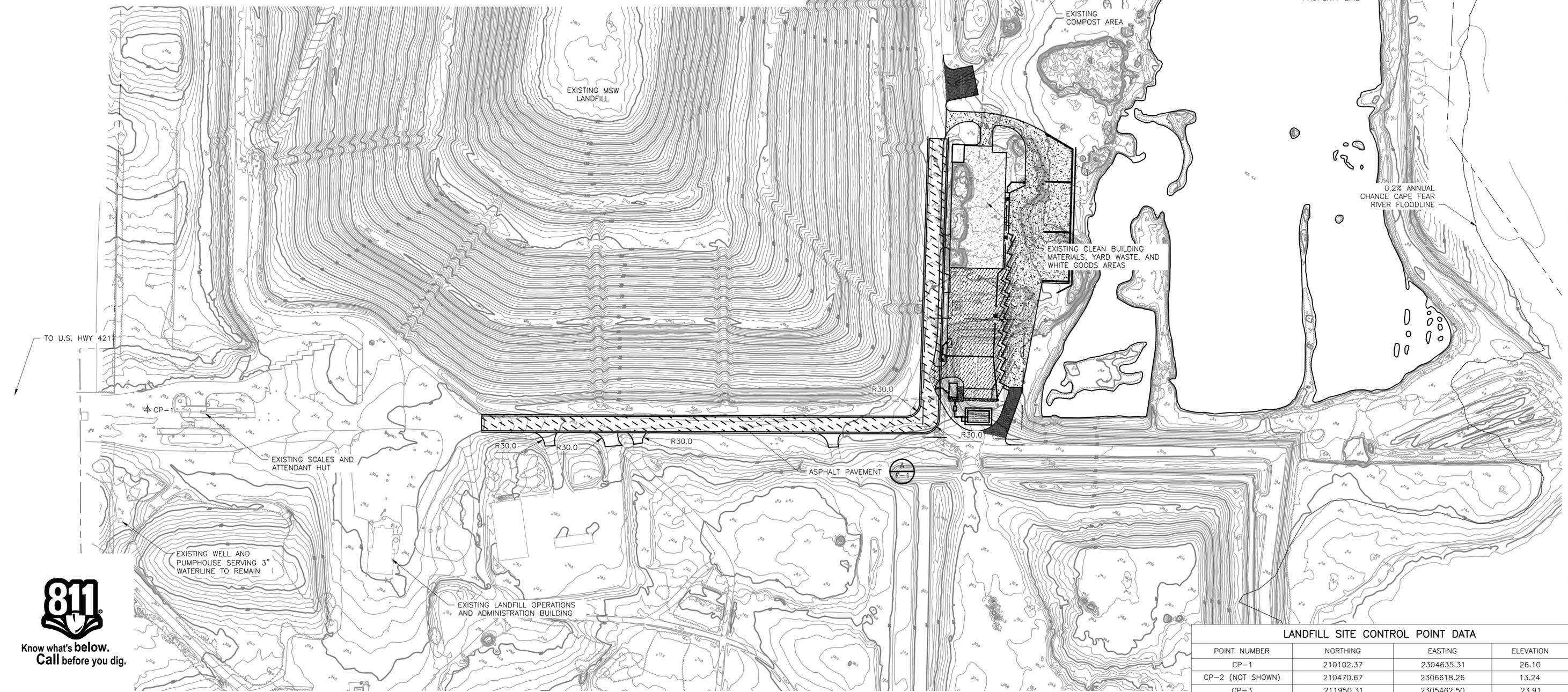
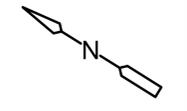
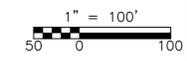
NOTES:

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).



NOTES:
1. SURFACE COURSE TO BE PLACED IN TWO 2 INCH LIFTS.

ASPHALT PAVEMENT
DETAIL A
NTS



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

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REV. NO.	DATE	DRWN	CHKD	REMARKS

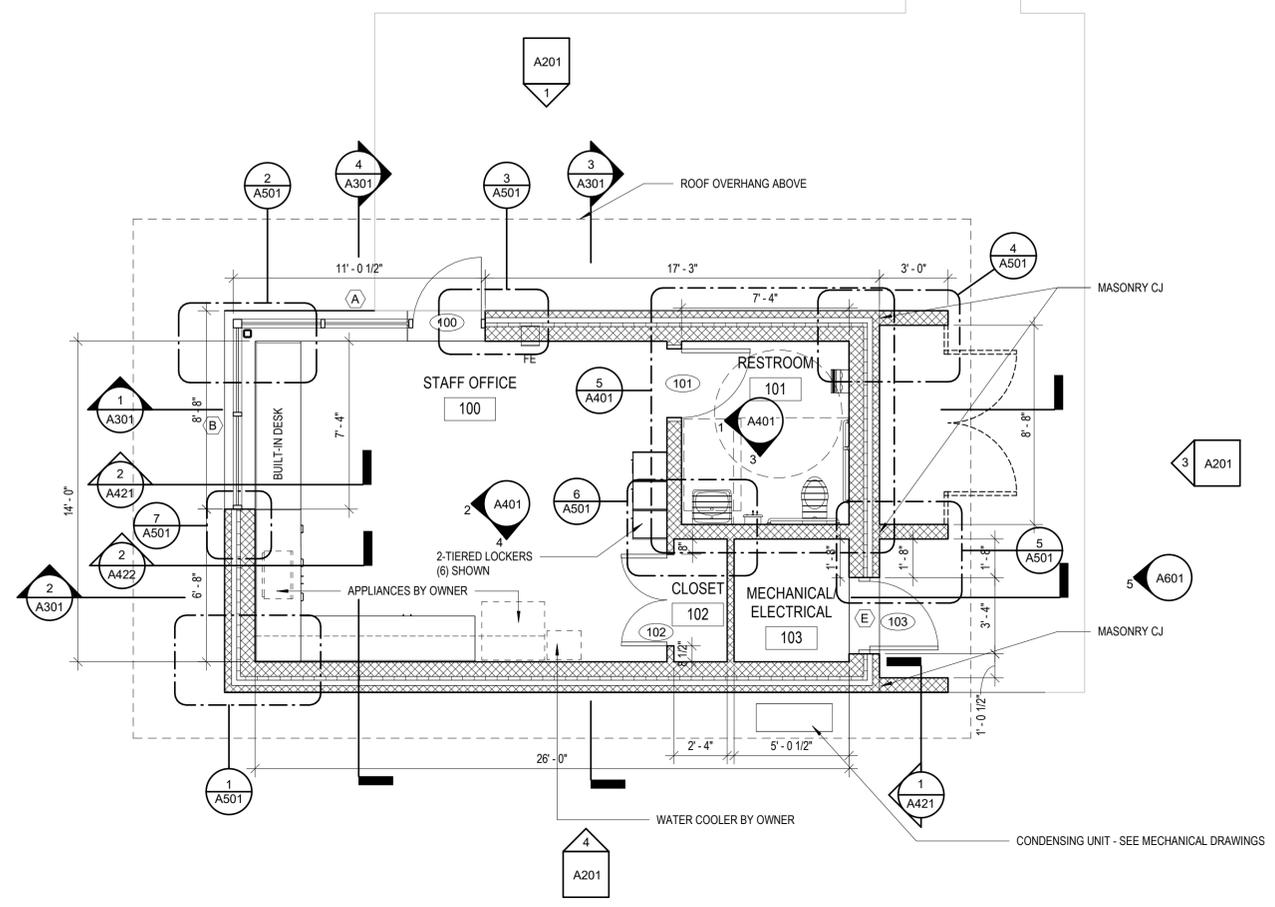
DESIGNED BY: M. BROKAW
 DRAWN BY: K. RYAN
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 CROSS CHK'D BY: W. KARABLY
 APPROVED BY: M. BROKAW
 DATE: MARCH 2021



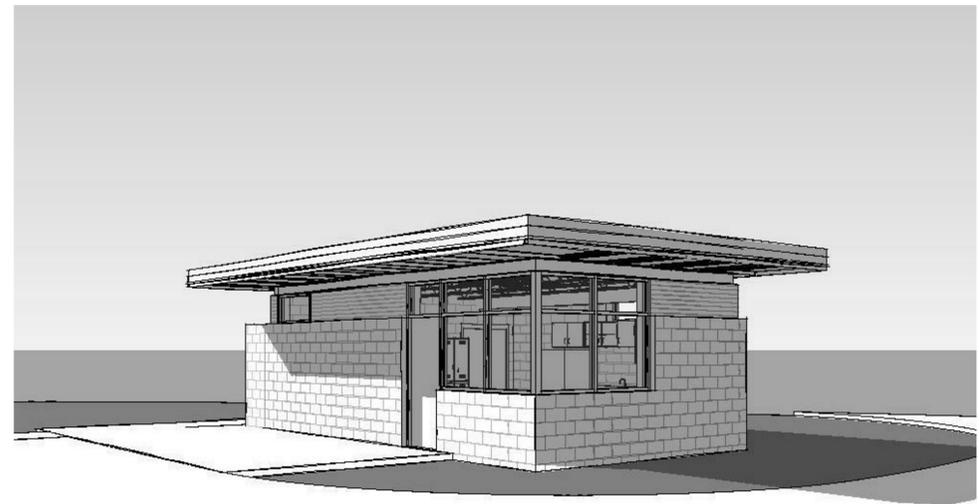
NEW HANOVER COUNTY, NORTH CAROLINA
 NEW HANOVER COUNTY LANDFILL
 CONVENIENCE CENTER REDEVELOPMENT PROJECT

ASPHALT ROAD ALTERNATE
 PROJECT NO. 133920-237812
 FILE NAME: U200UTIL.DWG
 SHEET NO. F-1

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1 FIRST FLOOR - STAFF BUILDING
A101 1/4" = 1'-0"



3 3D VIEW FROM CONVENIENCE CENTER
A101 1 1/2" = 1'-0"

WALL LEGEND

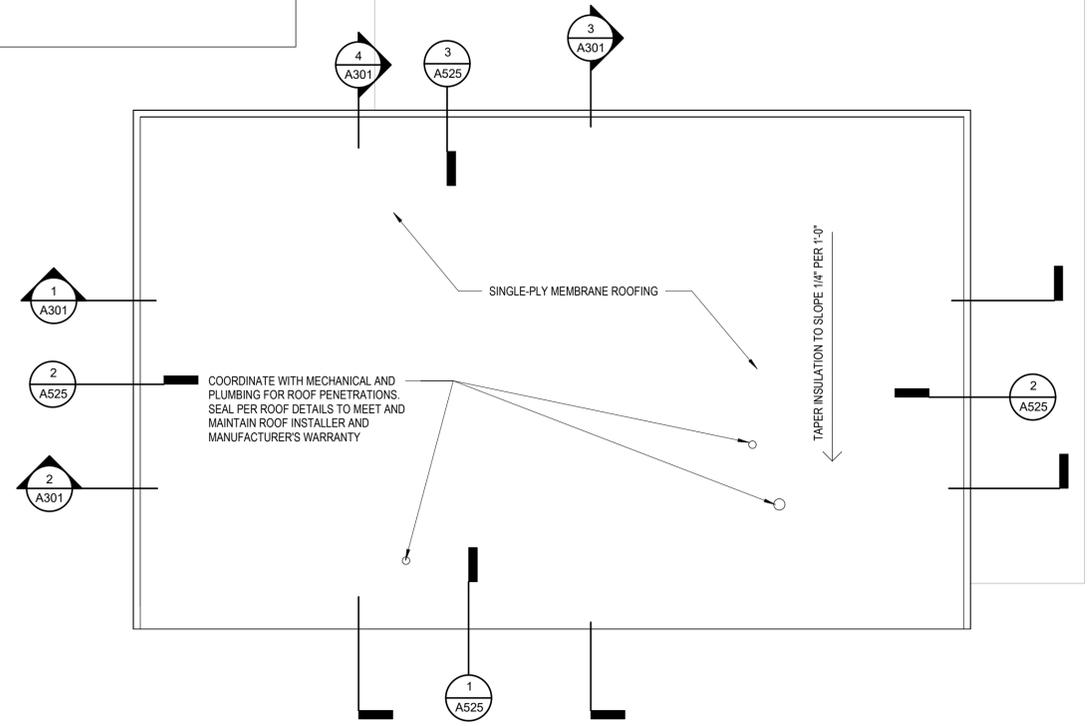
▨ MASONRY WALL

NOTES

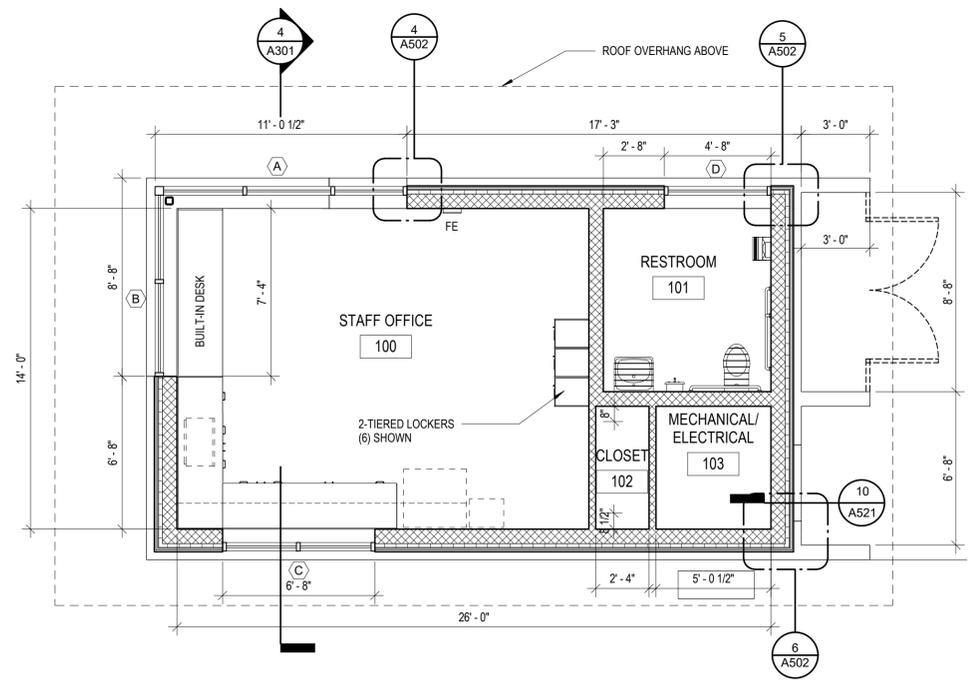
1. ALL DIMENSIONS ARE TO FINISHED FACE OF WALL.
2. COORDINATE AND PROVIDE BACKING/BLOCKING FOR MILLWORK AND ITEMS ATTACHED OR MOUNTED TO WALLS OR CEILINGS.
3. LOCATE DOOR OPENINGS 4" OFF PERPENDICULAR WALL, U.O.N.
4. CONTROL JOINTS (CJ) ARE LOCATED IN MASONRY WALLS ON THE FLOOR PLAN AND ELEVATIONS.
5.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

ROOF PLAN LEGEND

→ 1/4" PER FOOT SLOPE TAPERED INSULATION



2 ROOF PLAN - STAFF BUILDING
A101 1/4" = 1'-0"



4 FIRST FLOOR - STAFF BUILDING CLERESTORY
A101 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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HUFFMAN ARCHITECTS
 632 Pershing Road
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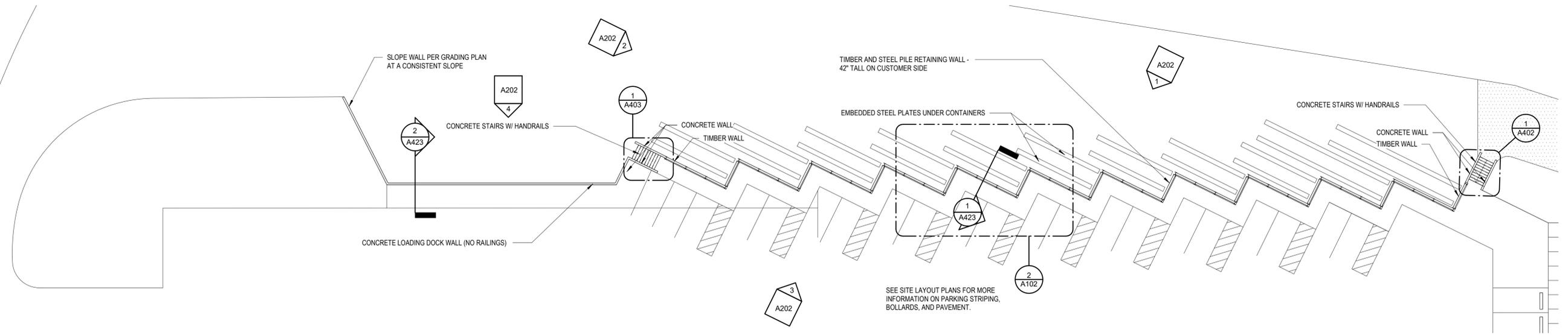
NEW HANOVER COUNTY, NORTH CAROLINA
 NEW HANOVER COUNTY LANDFILL
 CONVENIENCE CENTER REDEVELOPMENT PROJECT

STAFF BUILDING FLOOR AND ROOF PLANS

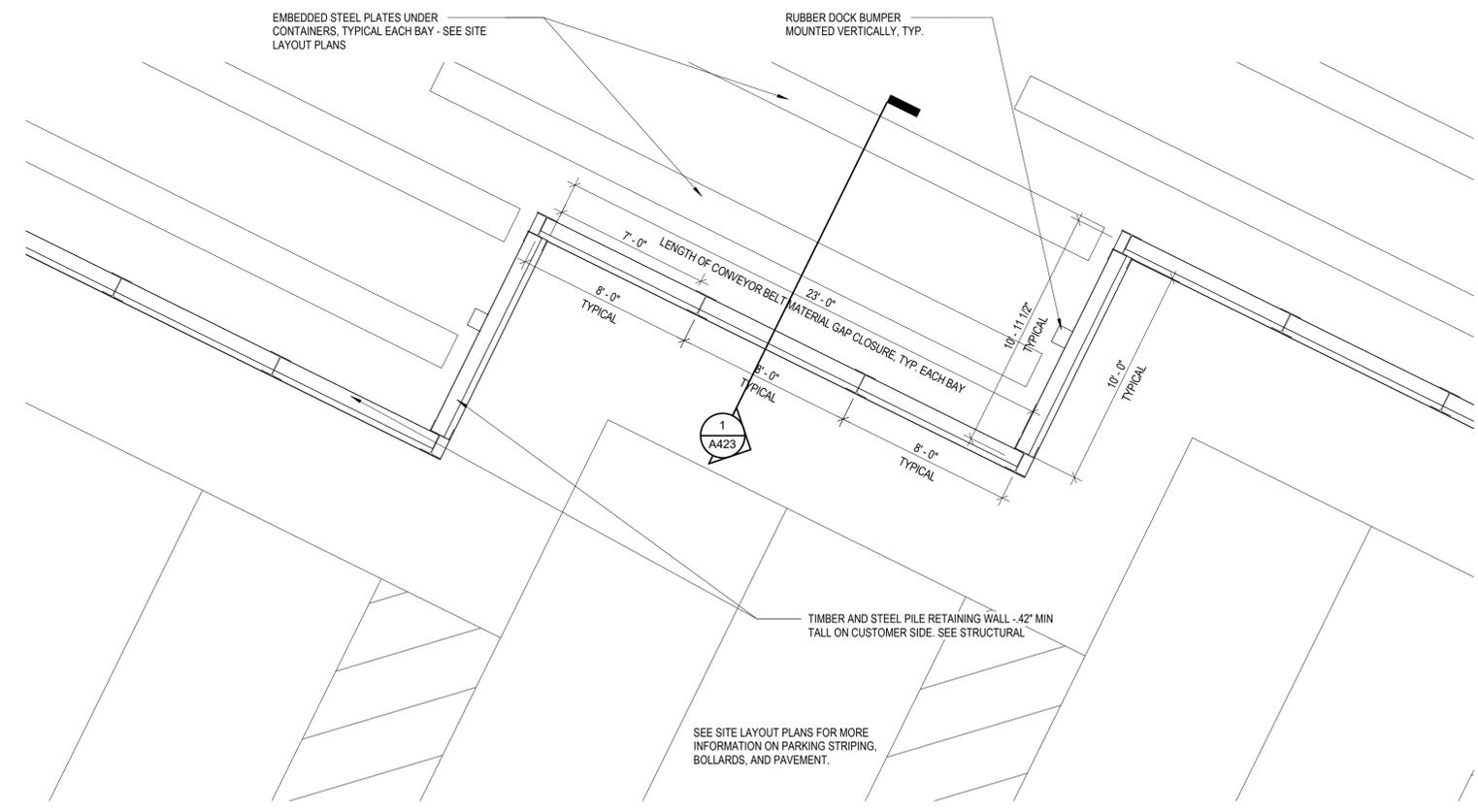
A101

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

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



2 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
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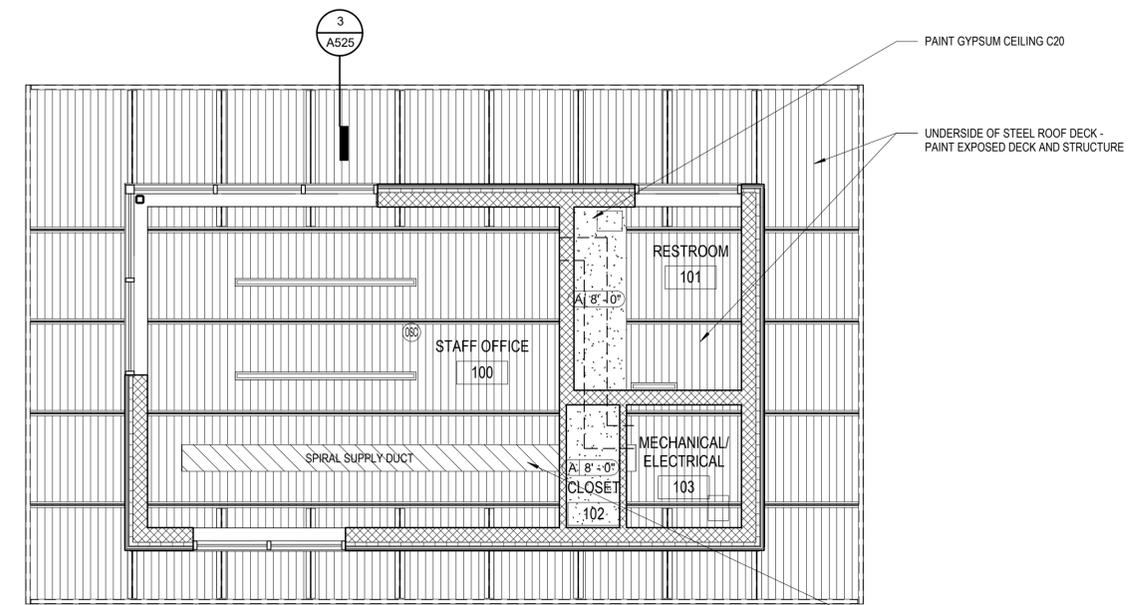
NEW HANOVER COUNTY, NORTH CAROLINA
 NEW HANOVER COUNTY LANDFILL
 CONVENIENCE CENTER REDEVELOPMENT PROJECT

CONVENIENCE CENTER OVERALL PLAN + ENLARGED BAY PLAN

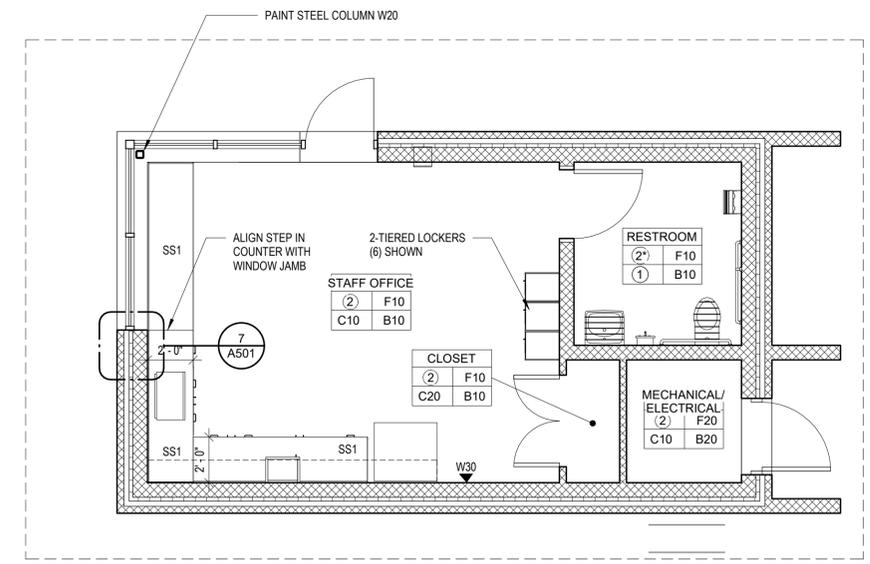
PROJECT NO.: 133920-237812
 FILE NAME: HA Project No. 1902
 SHEET NO.
A102

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CEILING LEGEND		
CEILING TYPE		CEILING HEIGHT
PATTERN	KEY	CEILING MATERIAL
	A	GYPSUM BOARD
SYMBOL	DESCRIPTION	
	LINEAR DIRECT/INDIRECT SUSPENDED OR WALL MOUNTED LIGHT FIXTURE	
	OCCUPANCY SENSOR	
CEILING NOTES:		
1. SEE ELECTRICAL AND MECHANICAL PLANS FOR MORE INFORMATION.		
2. WHERE CEILING KEYNOTE IS NOT NOTED, ROOM HAS EXPOSED STRUCTURE.		
3. ALL DIMENSIONS ARE TO CENTERLINE OF FIXTURE UNLESS OTHERWISE NOTED.		
4. SEE FINISH PLANS FOR PAINT COLORS OF CEILING SOFFITS.		
5. CONTRACTOR IS NOT TO INSTALL ANY ACCESS PANELS IN OWB CEILING WITHOUT PRIOR APPROVAL AND COORDINATION WITH ARCHITECT.		



1 FIRST FLOOR REFLECTED CEILING PLAN
A111 1/4" = 1'-0"



3 FIRST FLOOR - FINISH PLAN
A111 1/4" = 1'-0"

FINISH SCHEDULE			
ROOM NAME	ROOM ###	ROOM NUMBER	
WALL FINISH	W##	F##	FLOOR FINISH
CEILING 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 CEILING PLAN		
(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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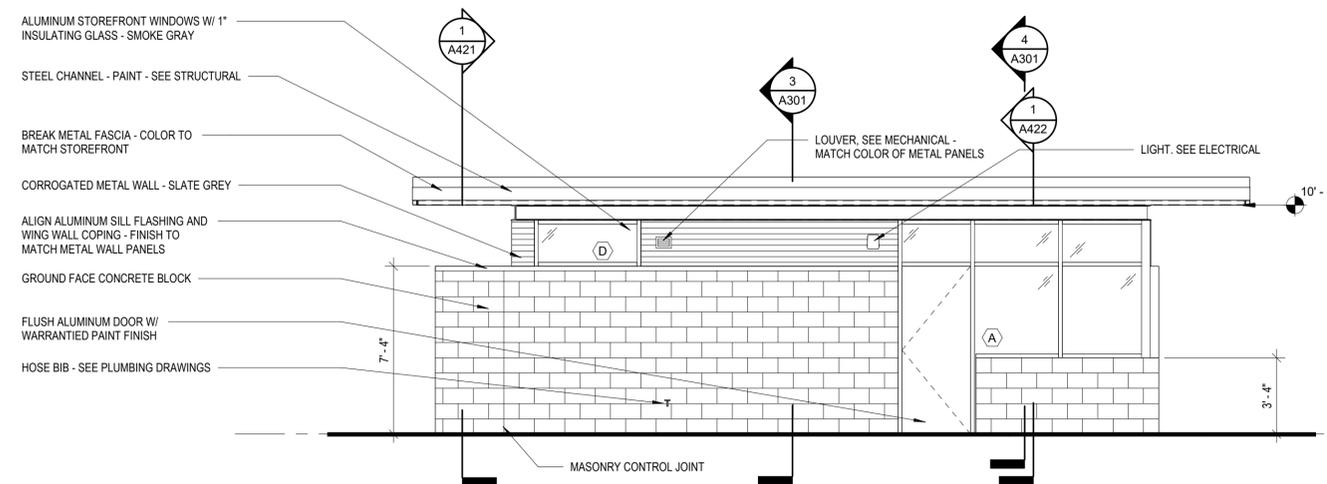
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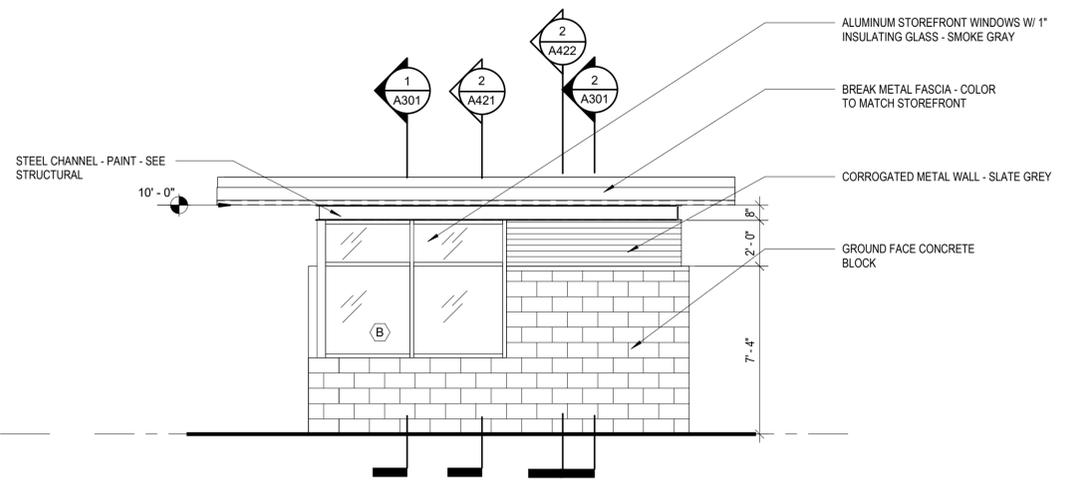
REFLECTED CEILING PLAN AND FINISH PLAN
 A111

PROJECT NO.: 133920-237812
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 A111

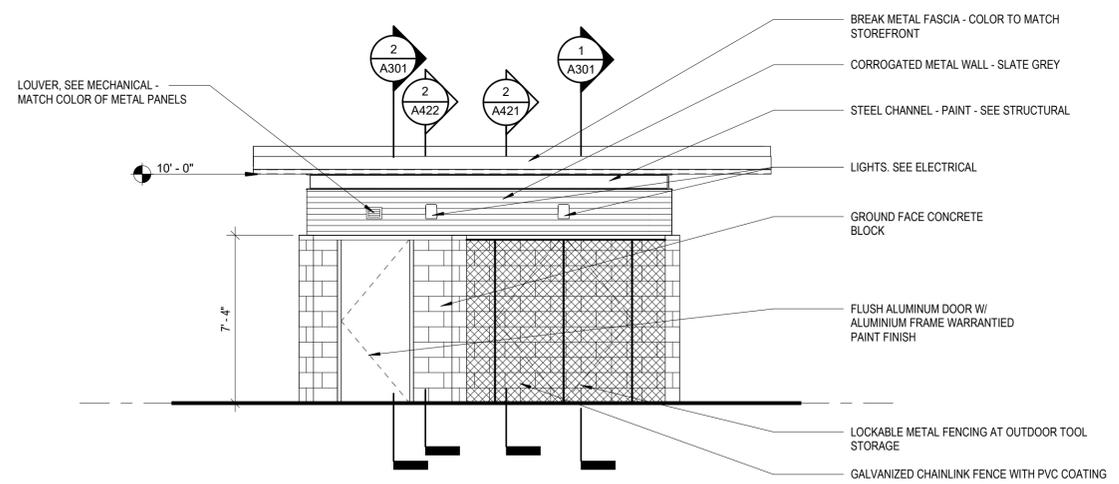
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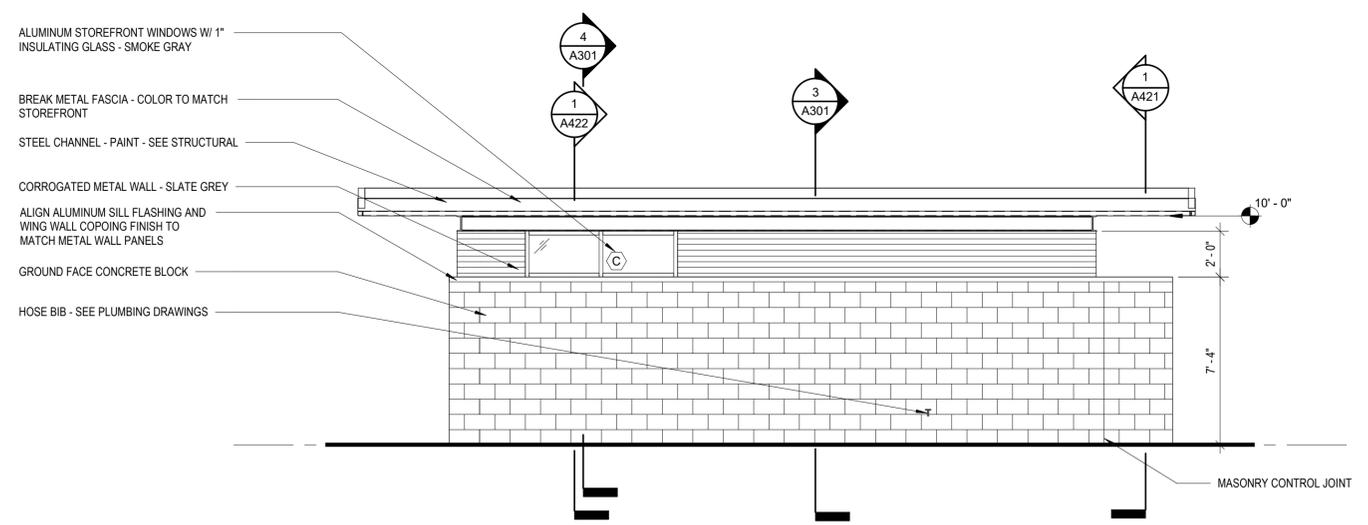
1
A201 1/4" = 1'-0"
NORTHEAST ELEVATION



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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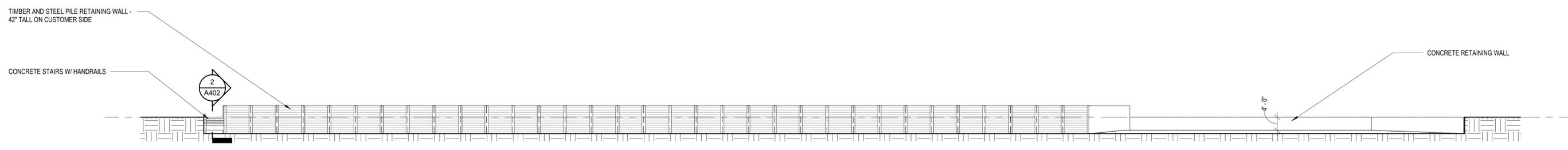
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 CONVENIENCE CENTER REDEVELOPMENT PROJECT

**STAFF BUILDING EXTERIOR
 ELEVATIONS**

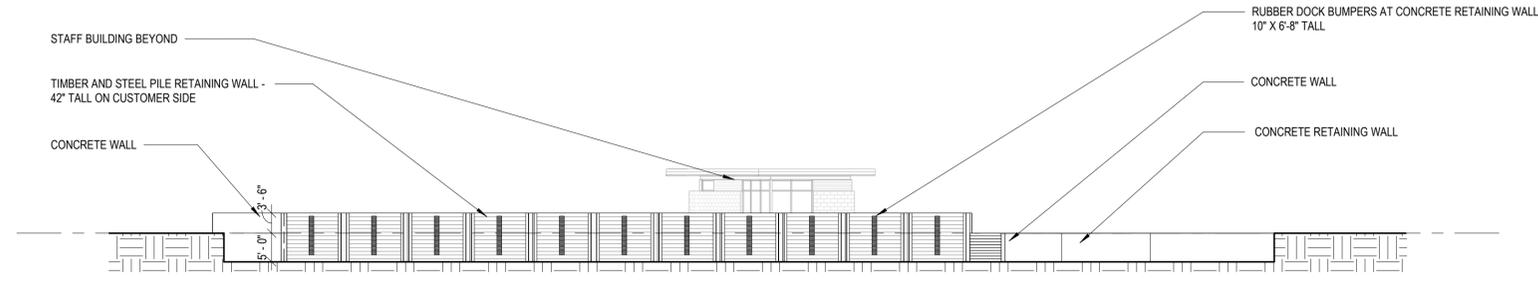
A201

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

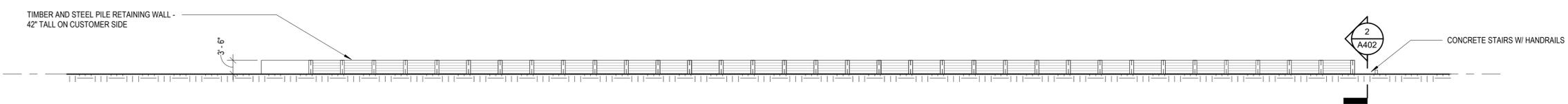
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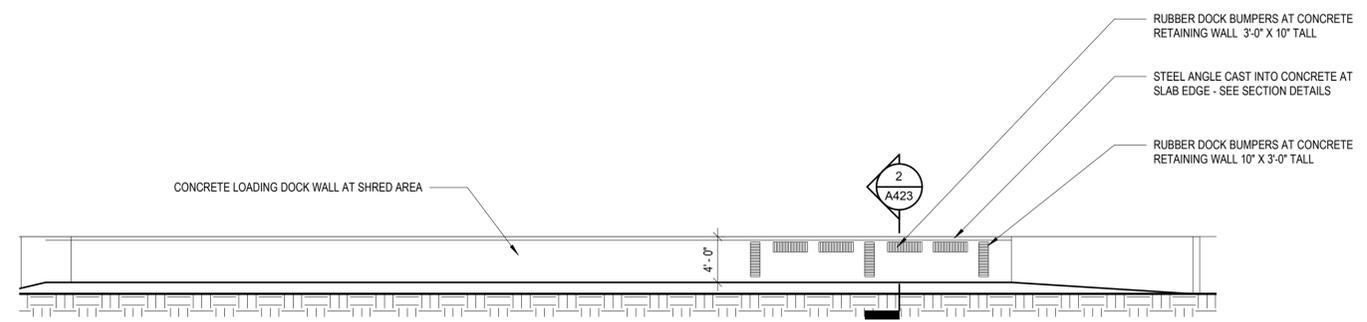
1
A202
CONVENIENCE CENTER - LONG LOW SIDE
1/16" = 1'-0"



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



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



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

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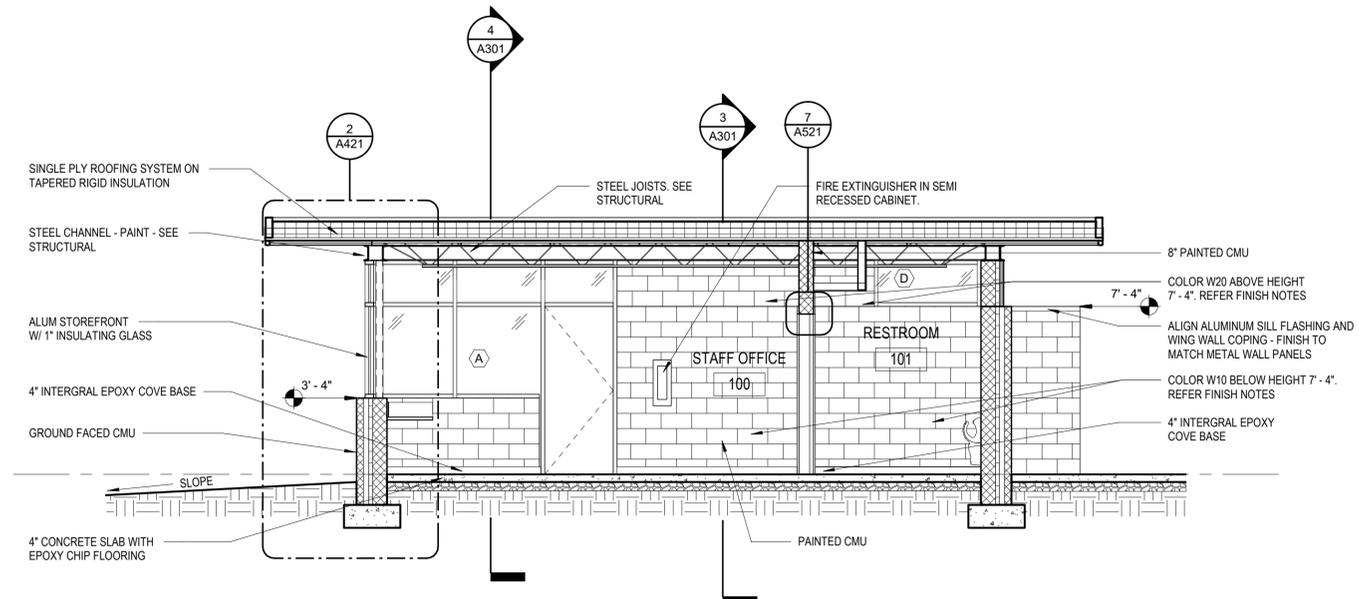
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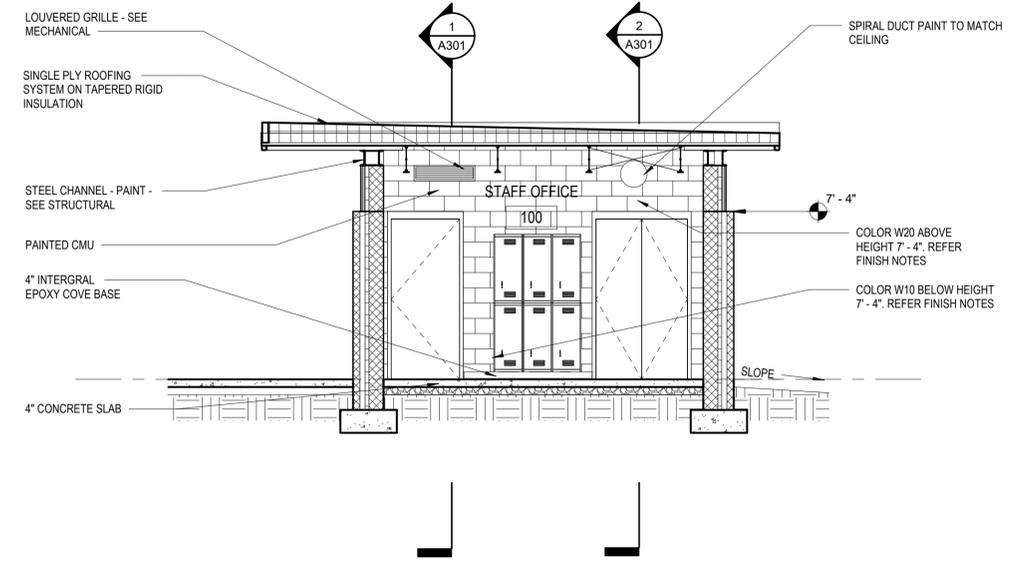
CONVENIENCE CENTER EXTERIOR ELEVATIONS

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

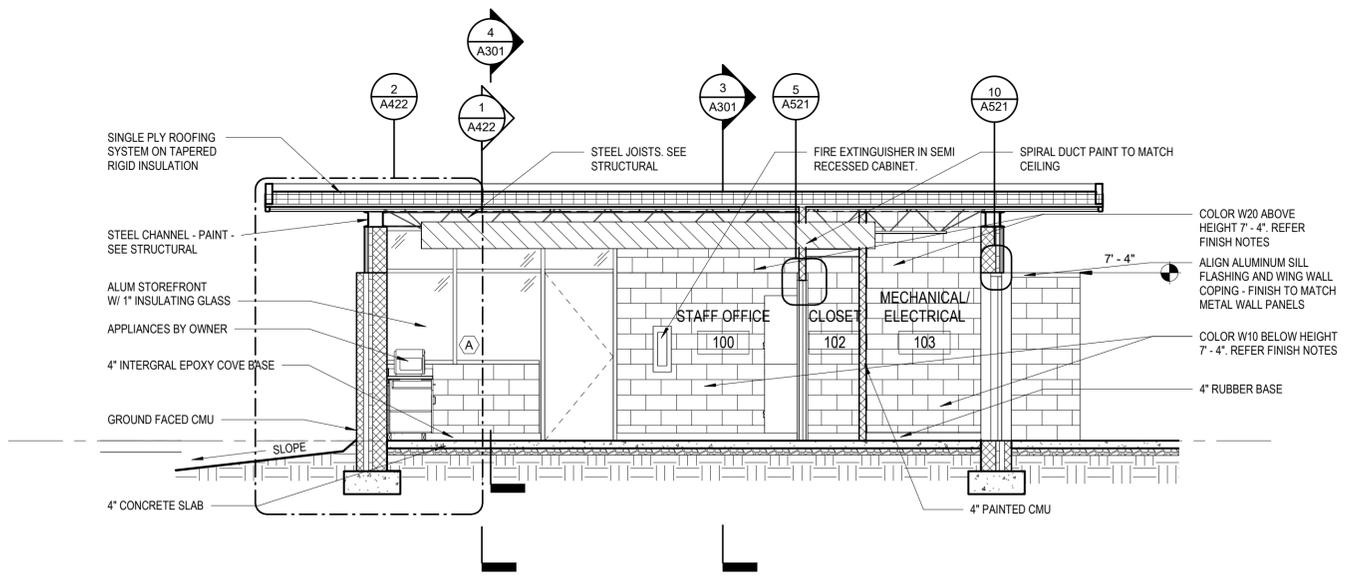
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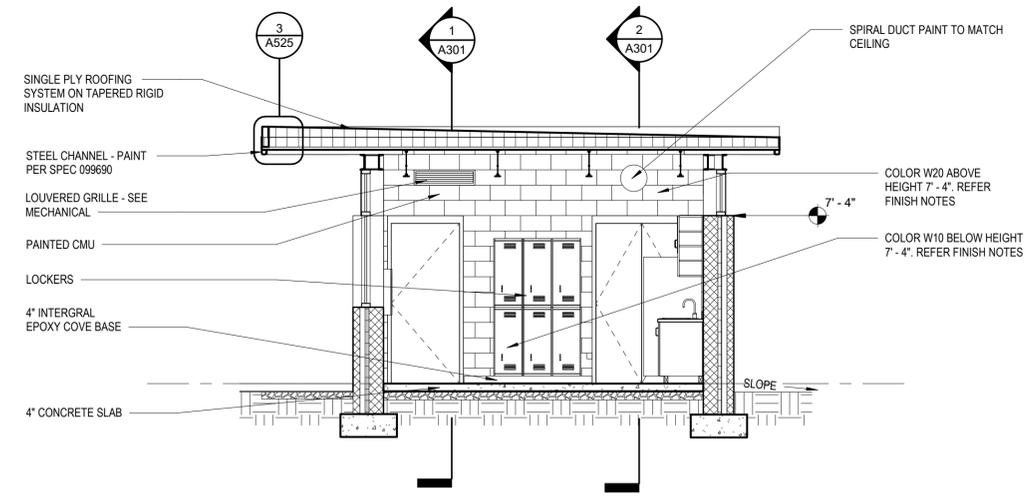
1 STAFF BUILDING SECTION - LONGITUDINAL 1
A301 1/4" = 1'-0"



3 STAFF BUILDING SECTION - LATERAL 1
A301 1/4" = 1'-0"



2 STAFF BUILDING SECTION - LONGITUDINAL 2
A301 1/4" = 1'-0"



4 STAFF BUILDING SECTION - LATERAL 2
A301 1/4" = 1'-0"

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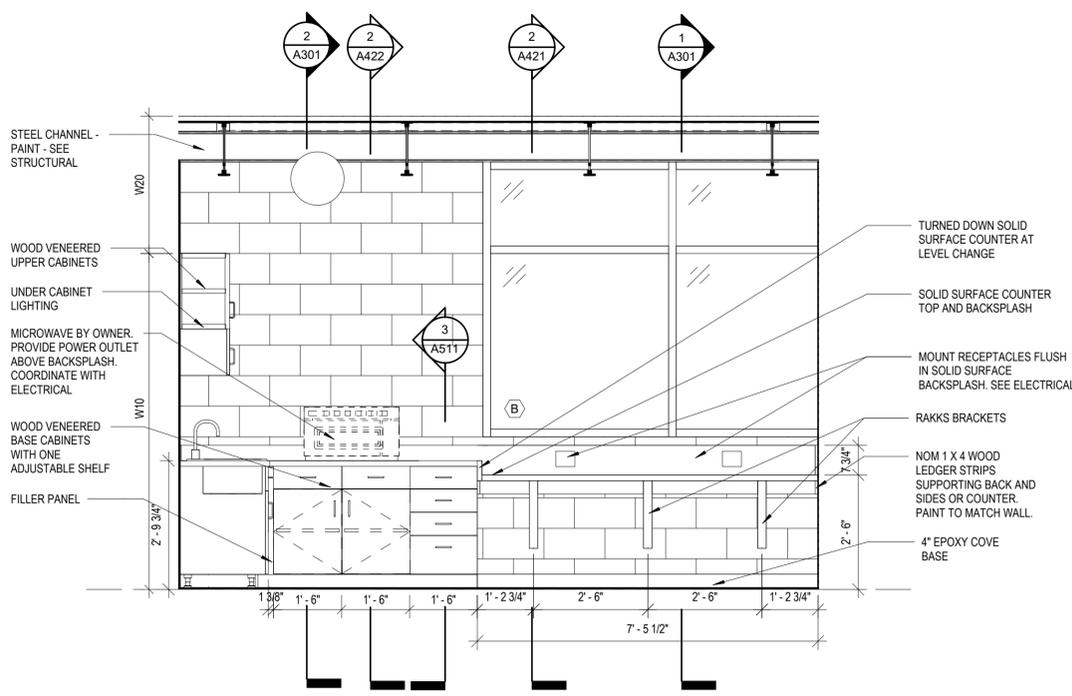
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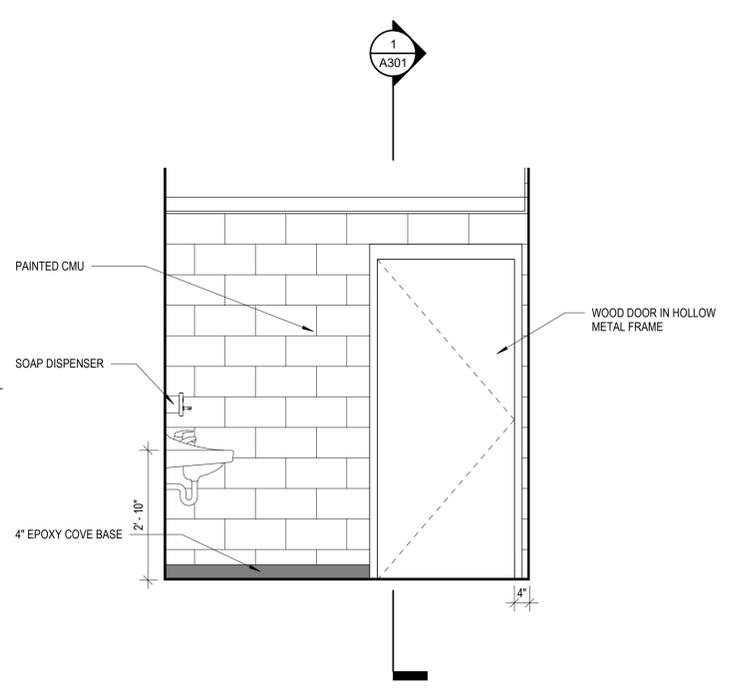
STAFF BUILDING SECTIONS
 A301

PROJECT NO.:	133920-237812
FILE NAME:	HA Project No. 1902
SHEET NO.:	A301

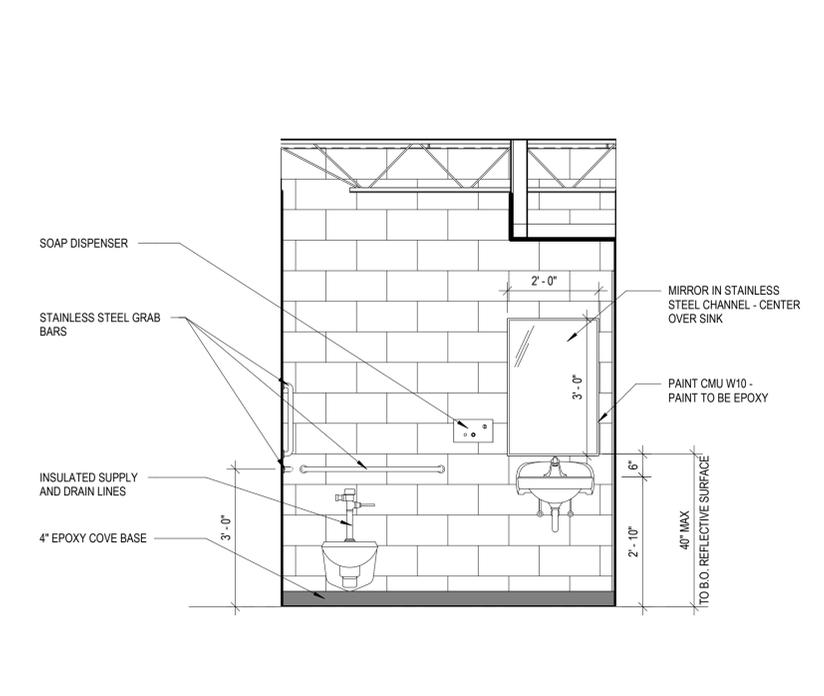
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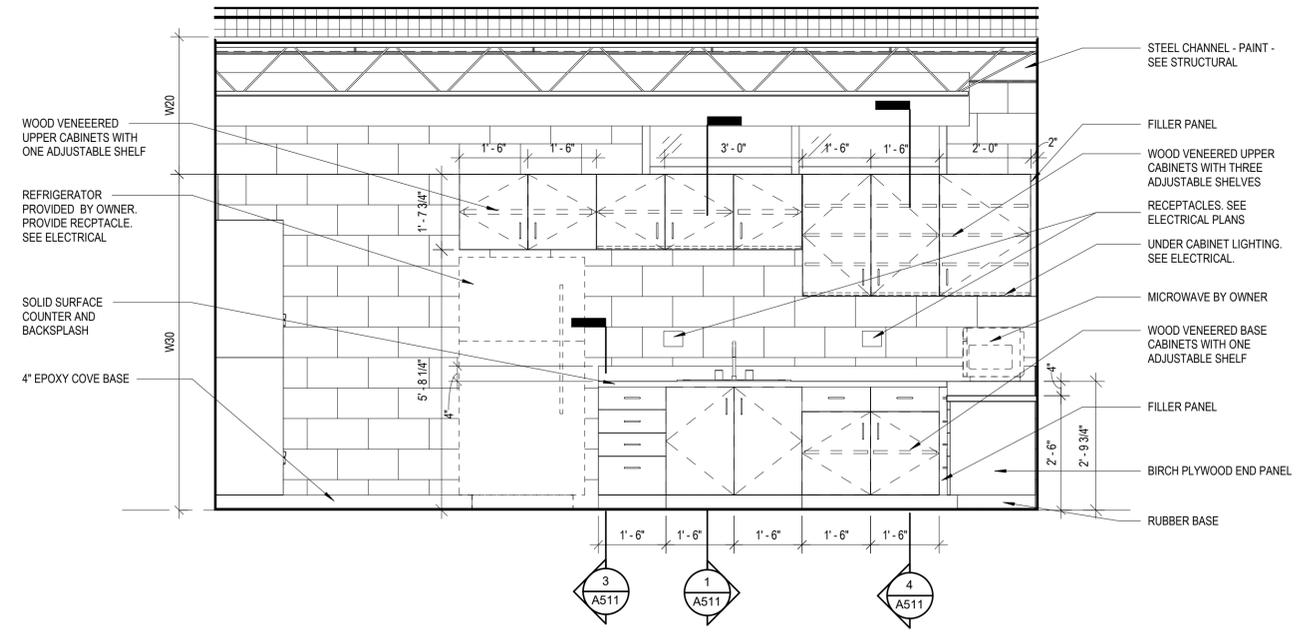
2 ELEVATION - STAFF OFFICE - BUILT-IN DESK
A401 1/2" = 1'-0"



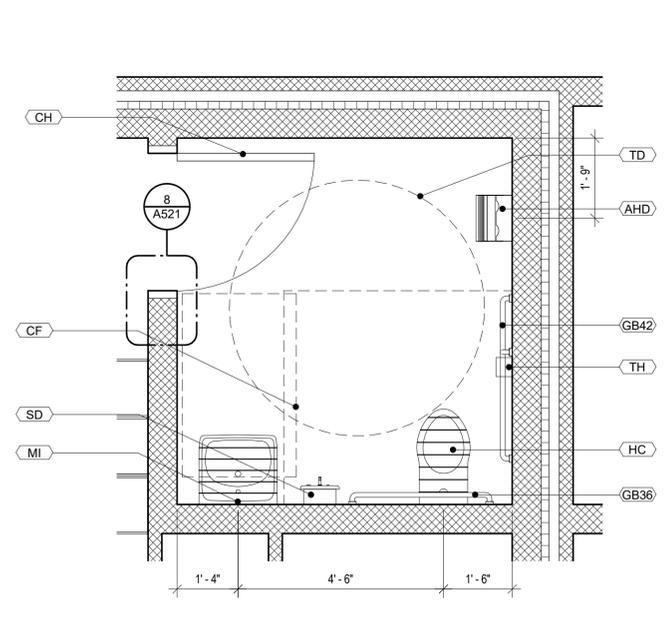
1 ELEVATION - RESTROOM WC
A401 1/2" = 1'-0"



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:

- PLUMBING CONTRACTOR TO PROVIDE PROTECTIVE INSULATION AT HOT PIPES BELOW LAVATORY PER ACCESSIBILITY CODE.
- FLUSH CONTROL VALVES AT ACCESSIBLE TOILETS TO BE MOUNTED ON THE WIDE SIDE OF TOILET STALL OR ROOM.
- SEE SPECIFICATIONS FOR DETAILS OF TOILET ACCESSORIES.
- SLOPE FLOOR SLAB TO DRAIN.
- THRESHOLDS SLOPE IN DOOR OPENINGS SHALL NOT EXCEED 1:8 SLOPE OR 1/2" IN HEIGHT PER ACCESSIBILITY STANDARDS.

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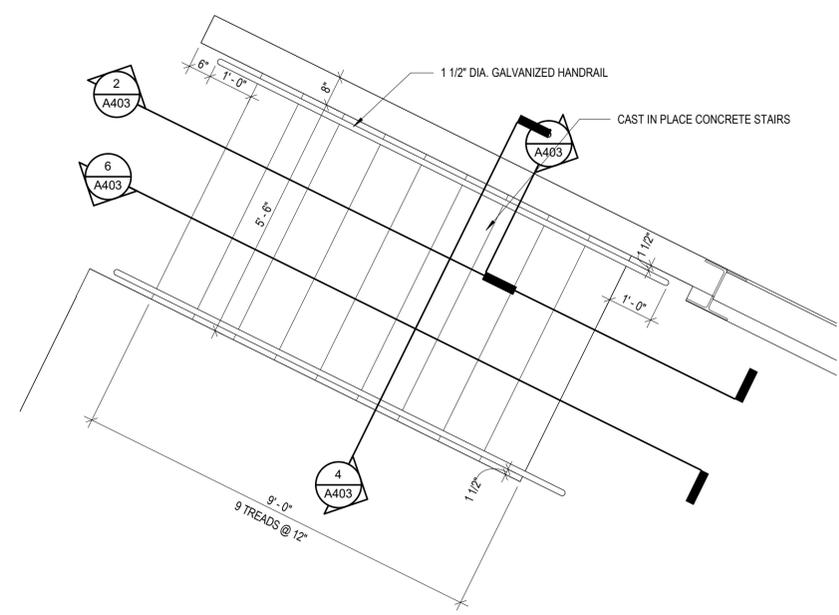
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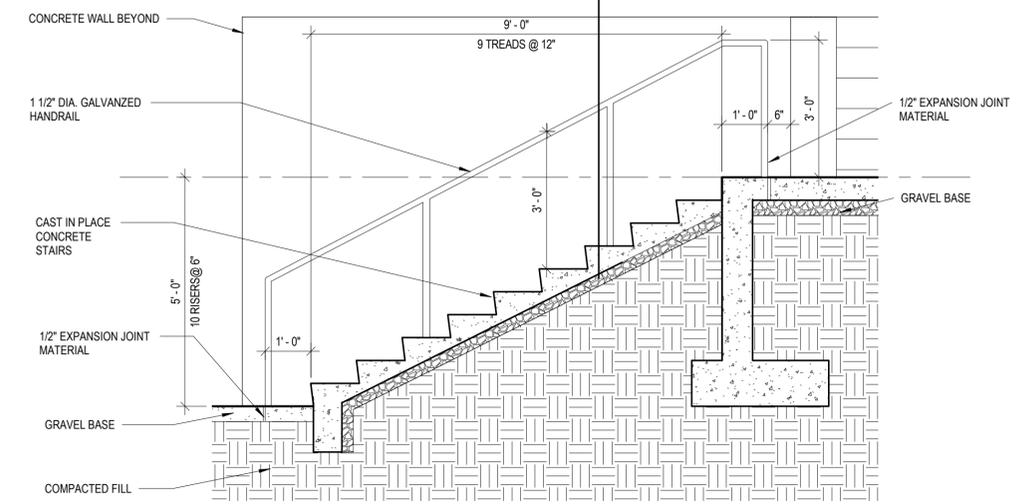
ENLARGED TOILET AND KITCHENETTE ELEVATIONS

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

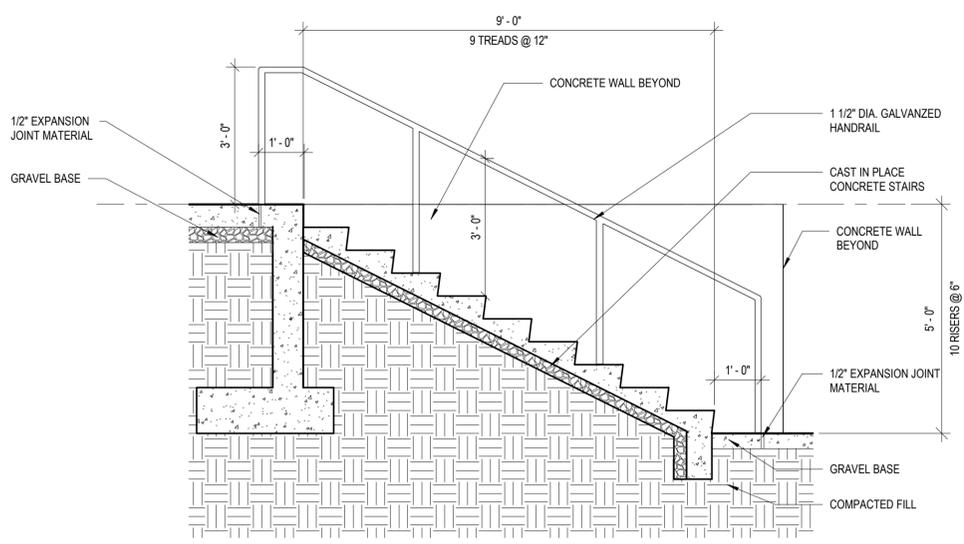
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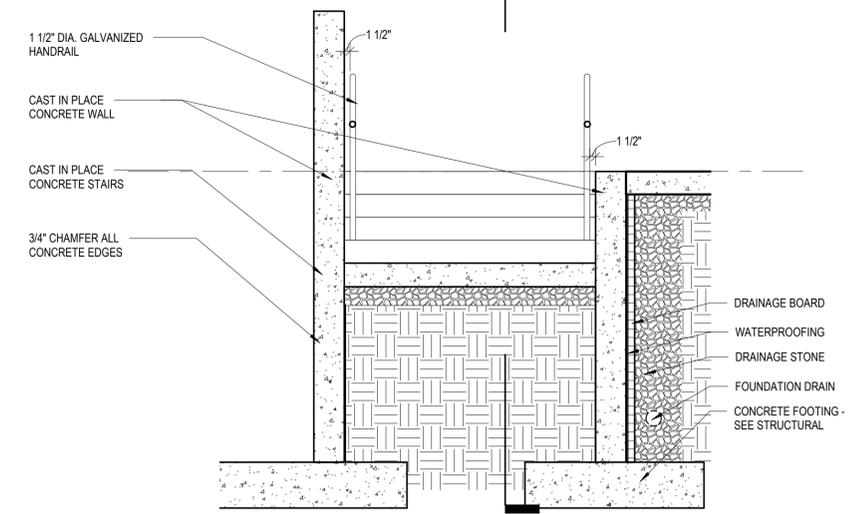
1 PLAN DETAIL @ STAIR B
 A403 1/2" = 1'-0"



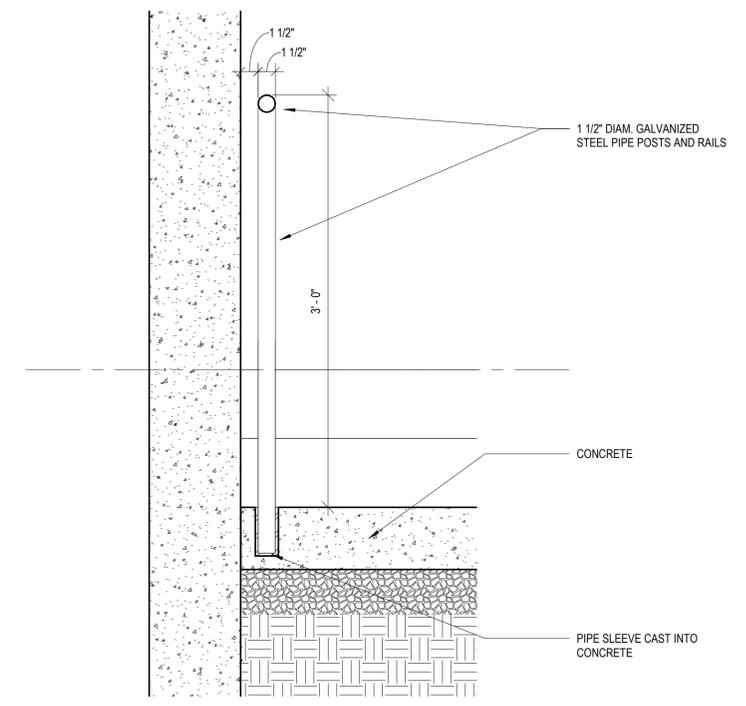
2 WALL SECTION @ STAIR B
 A403 1/2" = 1'-0"



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"

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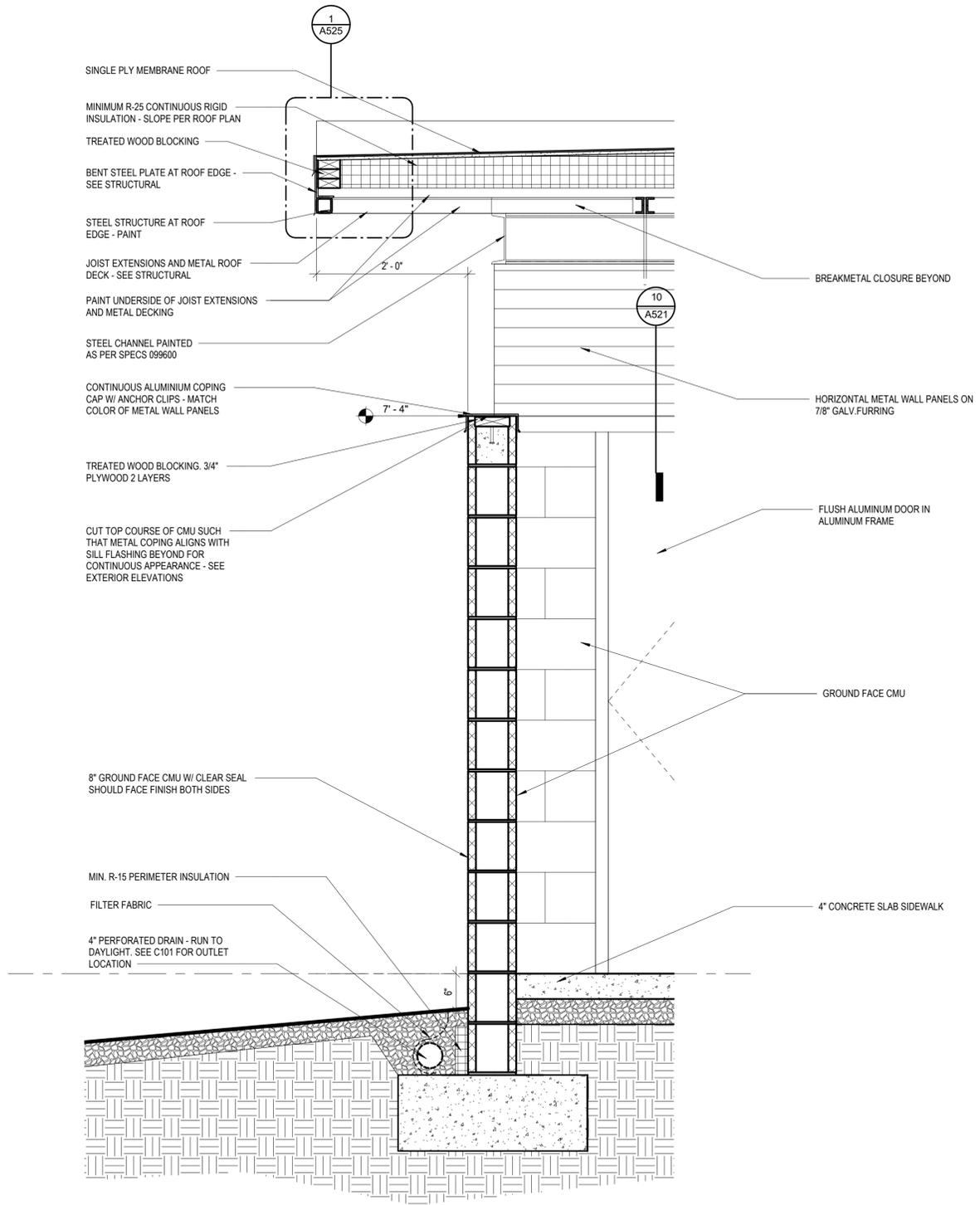
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 CONVENIENCE CENTER REDEVELOPMENT PROJECT

ENLARGED STAIR PLANS AND DETAILS II
A403

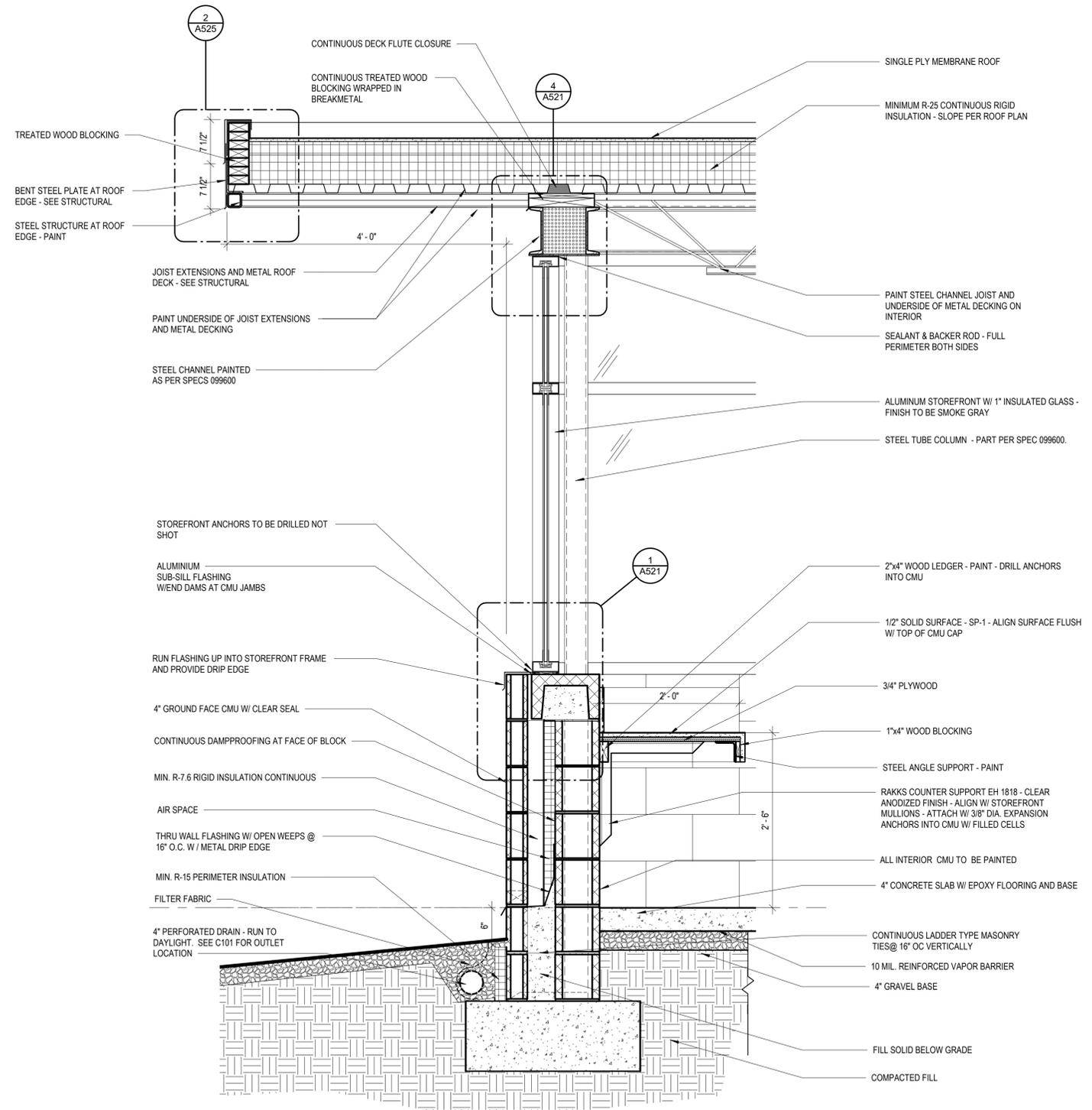
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A403

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1 WALL SECTION @ WING WALL
1" = 1'-0"

R-VALUE 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
1" = 1'-0"

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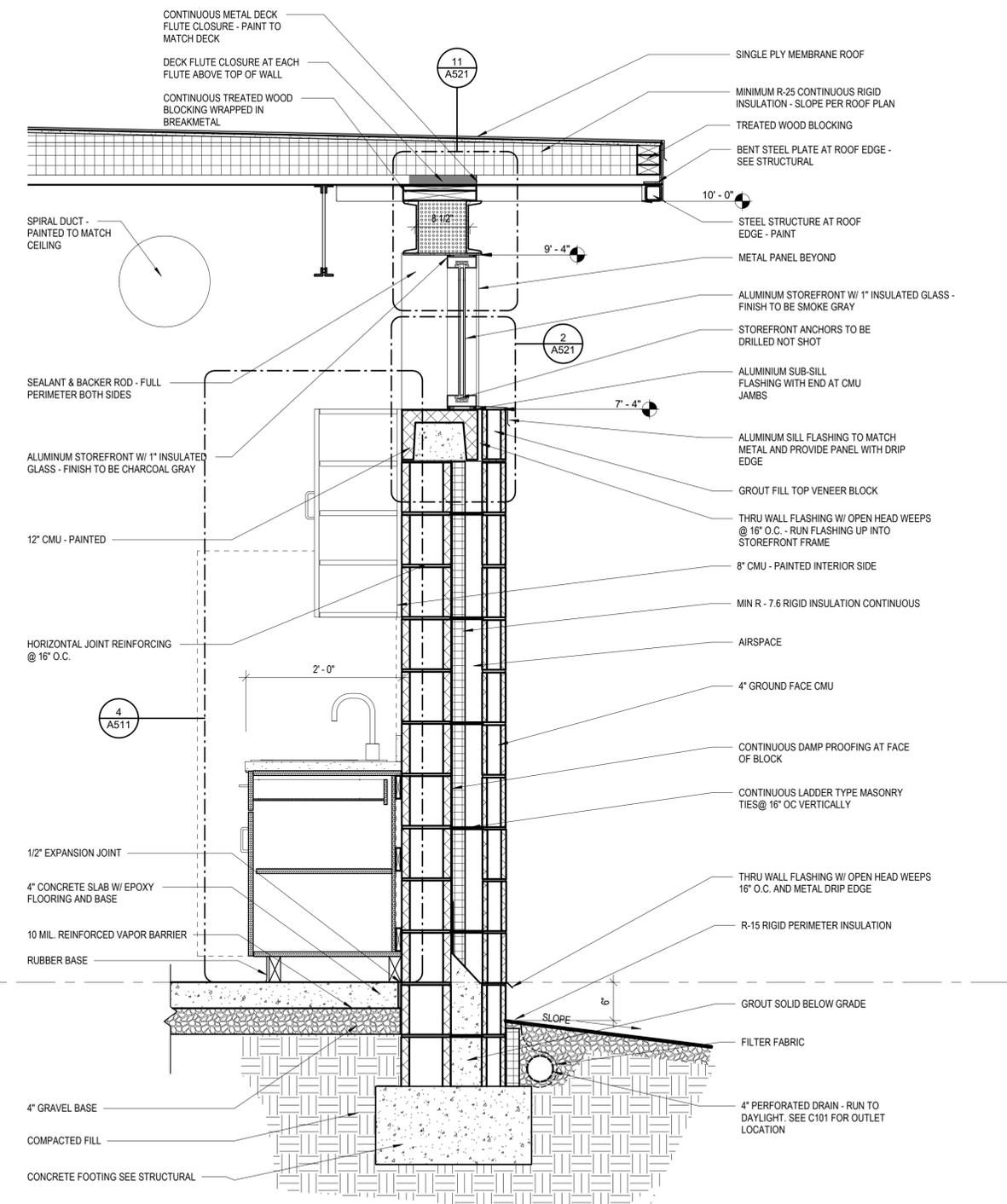
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WALL SECTIONS I

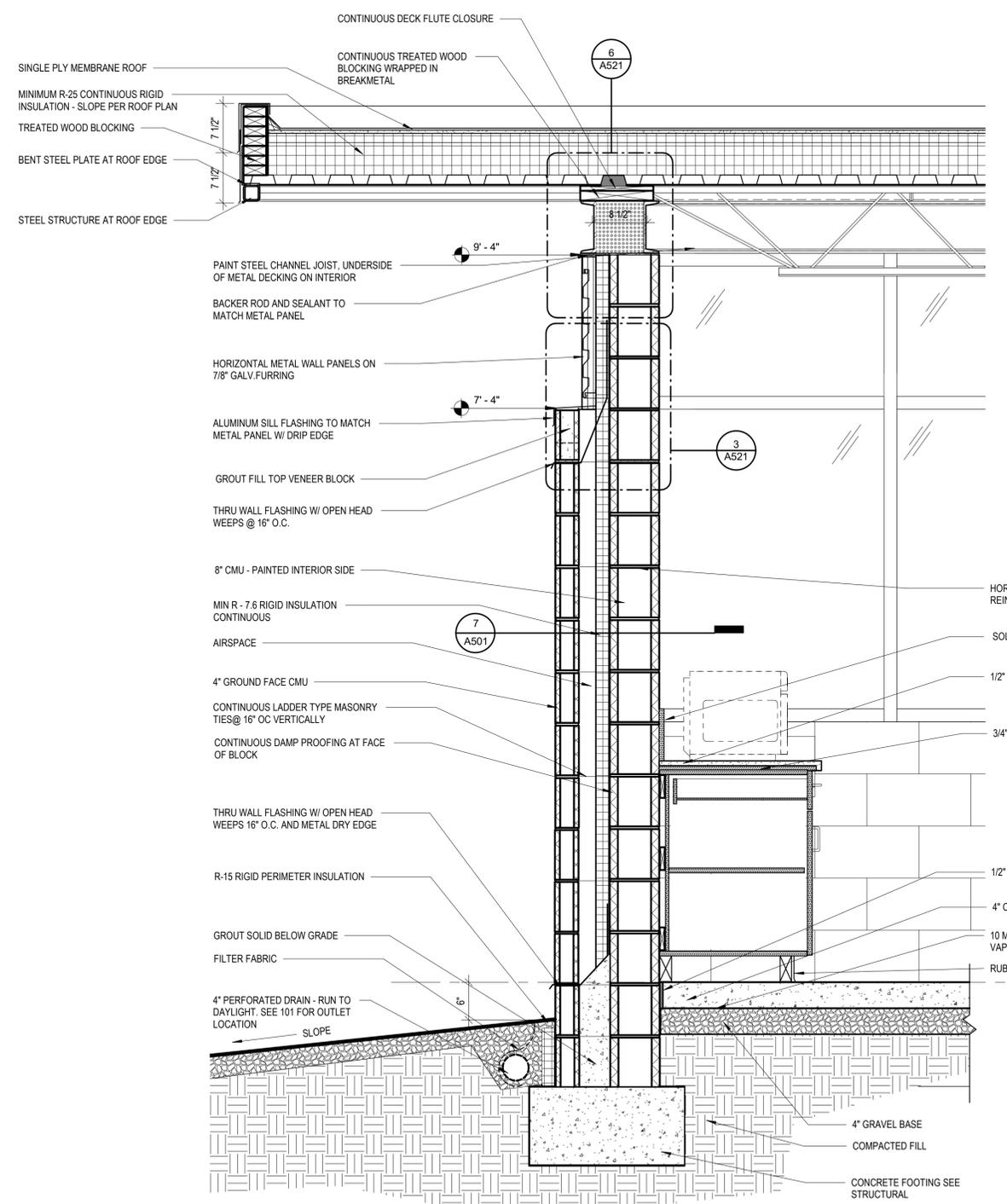
A421

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



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

R-VAULT 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

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WALL SECTIONS II

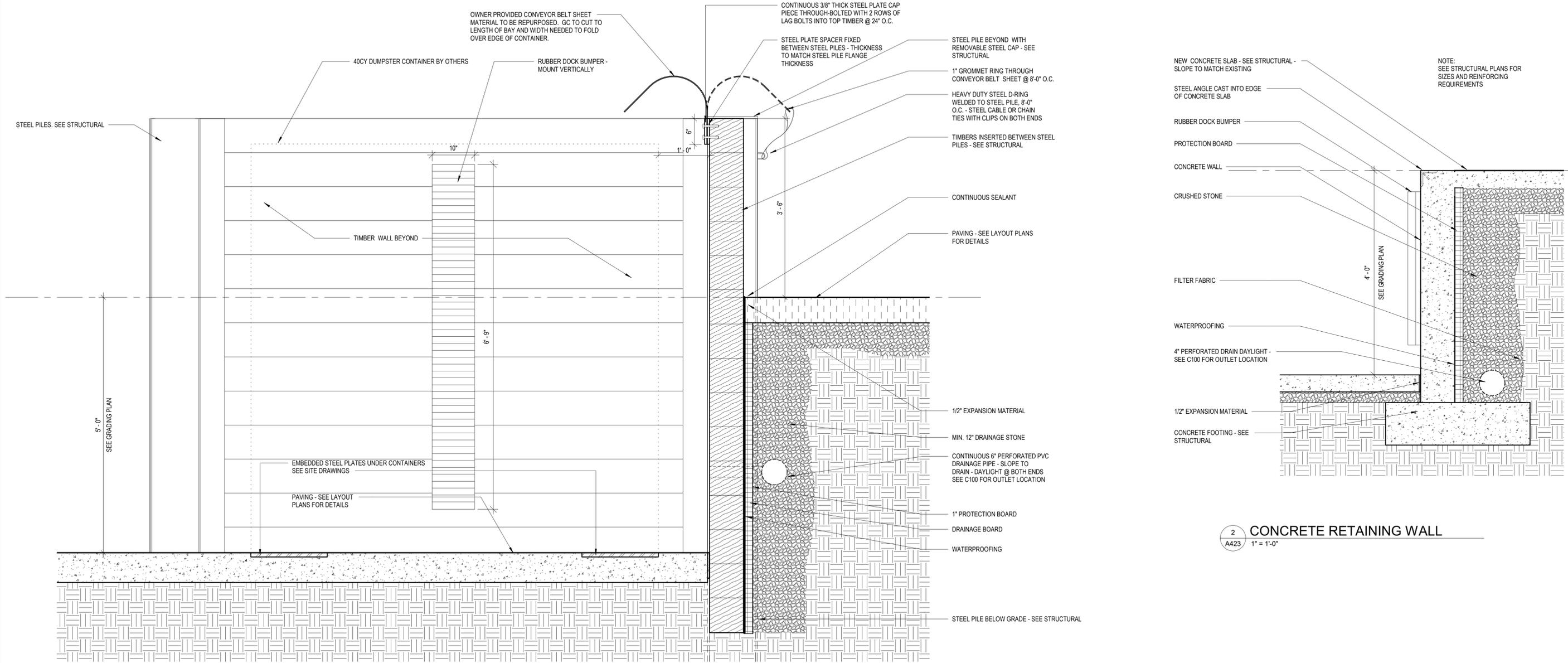
A422

PROJECT NO.: 133920-237812
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NOTES REGARDING OWNER PROVIDED CONVEYOR BELT MATERIAL:

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



1 CONVENIENCE CENTER TIMBER RETAINING WALL SECTION
A423 1" = 1'-0"

2 CONCRETE RETAINING WALL
A423 1" = 1'-0"

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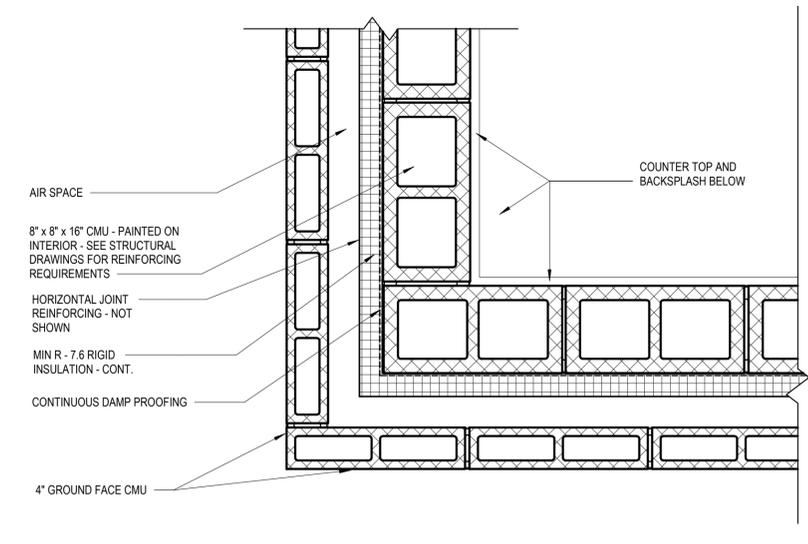
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WALL SECTIONS III

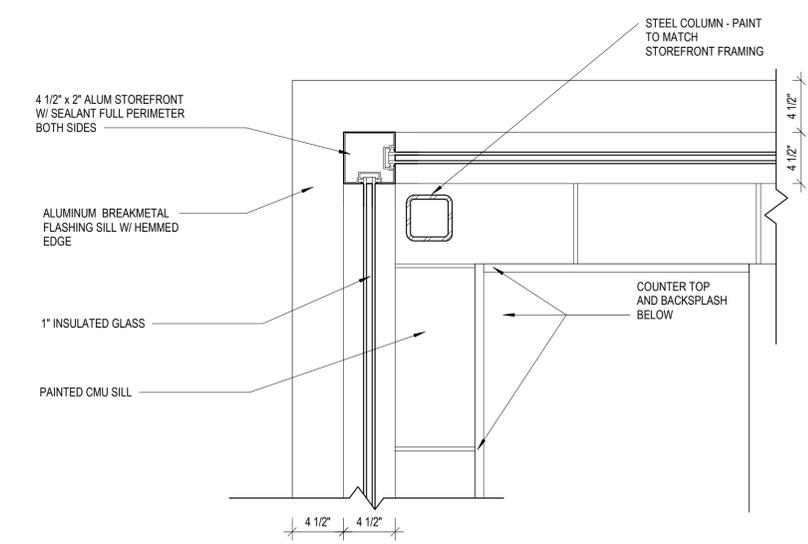
A423

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 SHEET NO.
A423

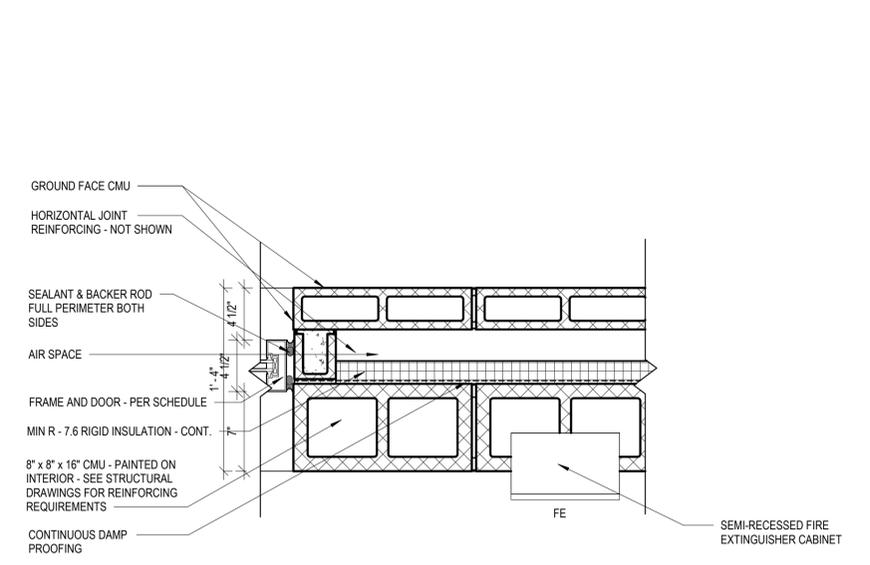
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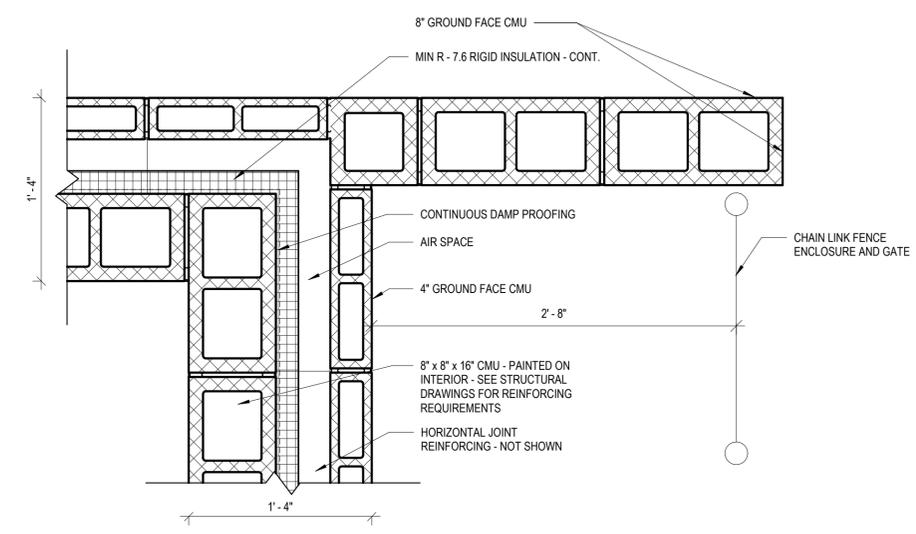
1 PLAN DETAIL @ CMU CORNER
A501 1 1/2" = 1'-0"



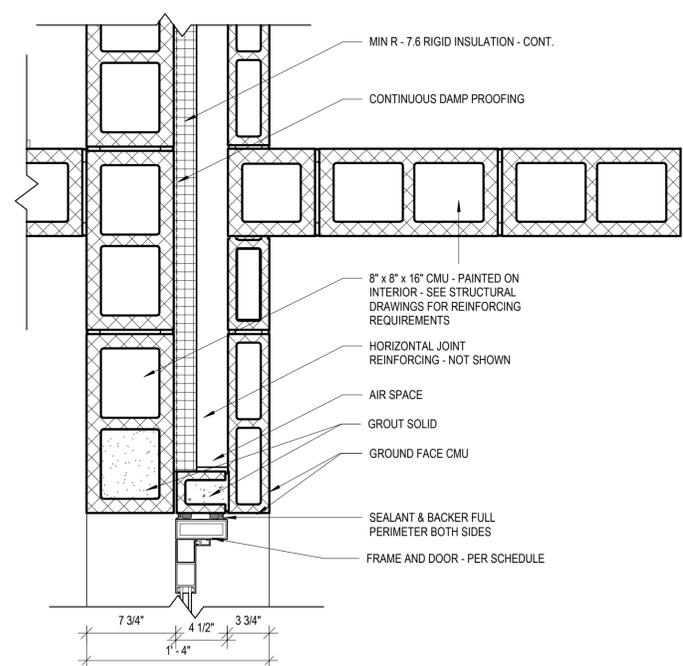
2 PLAN DETAIL @ STOREFRONT WINDOW CORNER
A501 1 1/2" = 1'-0"



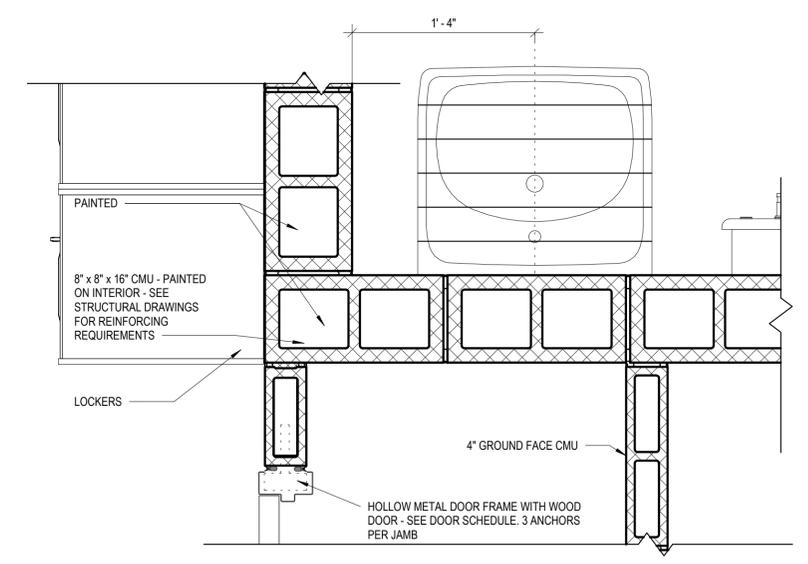
3 PLAN DETAIL @ DOOR 100
A501 1 1/2" = 1'-0"



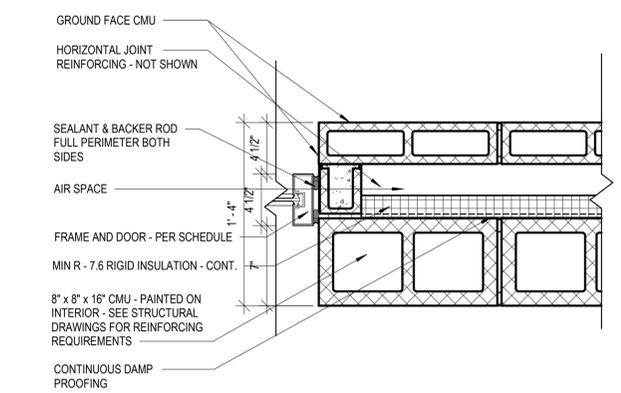
4 PLAN DETAIL @ OUTDOOR TOOL STORAGE
A501 1 1/2" = 1'-0"



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



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



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

REV. NO.	DATE	DRWN	CHKD	REMARKS

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 CROSS CHK'D BY: ABS
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 DATE: MARCH 2021

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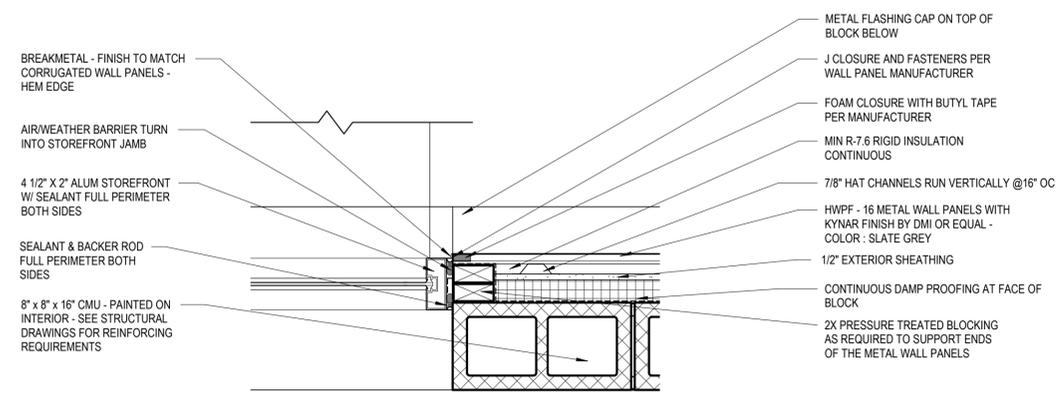
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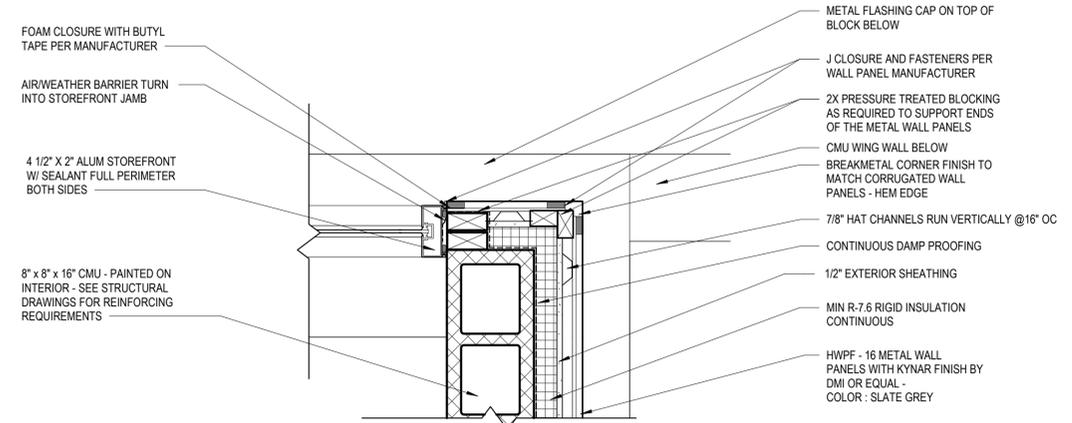
PLAN DETAILS I
A501

PROJECT NO.: 133920-237812
 FILE NAME: HA Project No. 1902
 SHEET NO.
A501

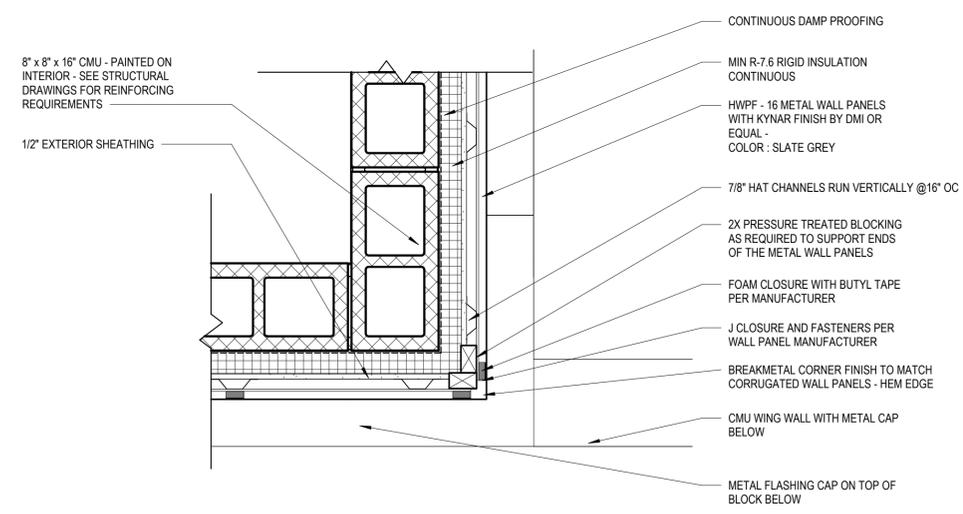
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4 PLAN DETAIL - STAFF BUILDING CLERESTORY - OPENING AND CMU JUNCTION'
A502 1 1/2" = 1'-0"



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"

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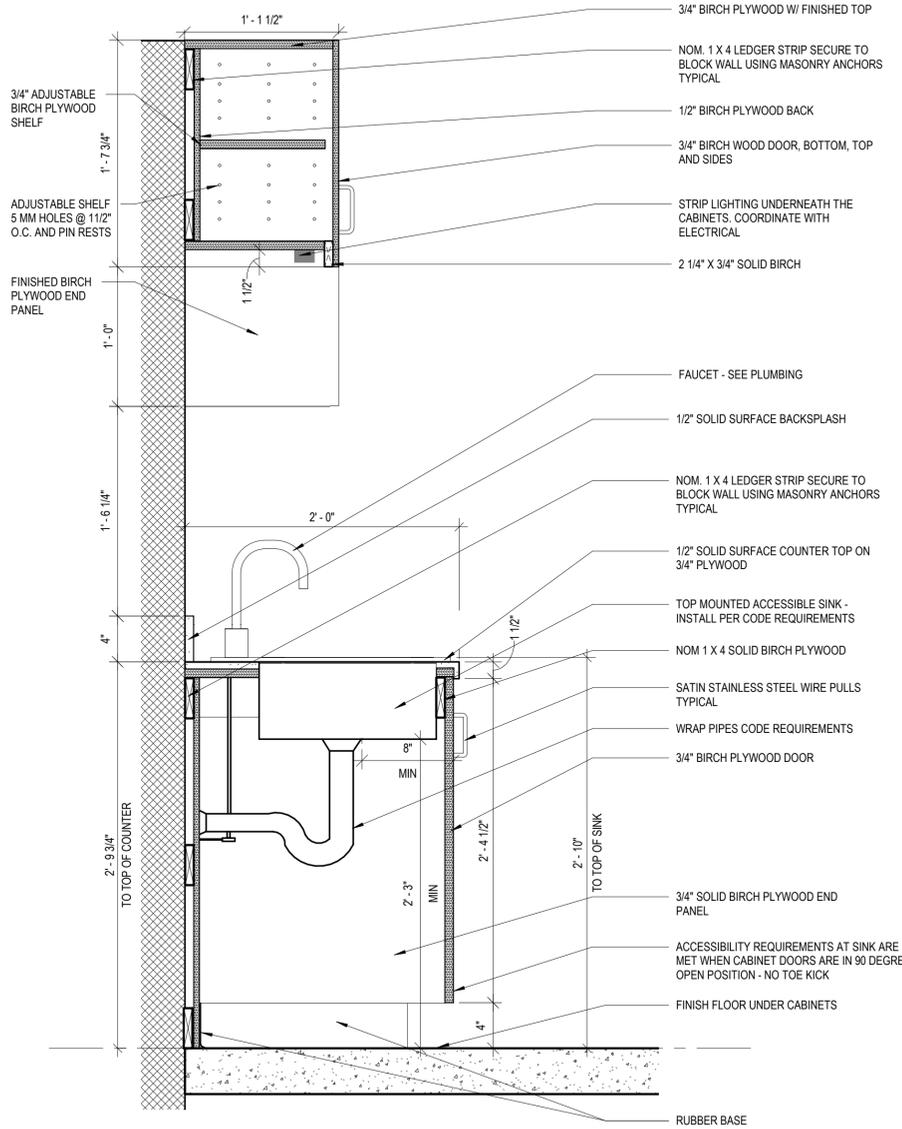
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PLAN DETAILS II

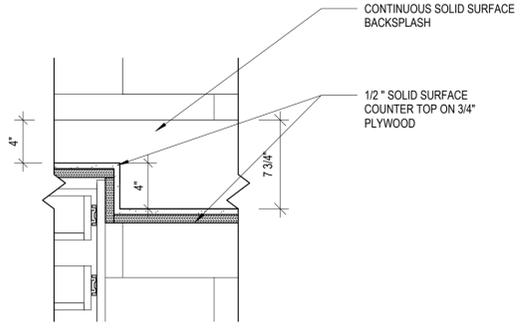
A502

PROJECT NO.: 133920-237812
 FILE NAME: HA Project No. 1902
 SHEET NO.
A502

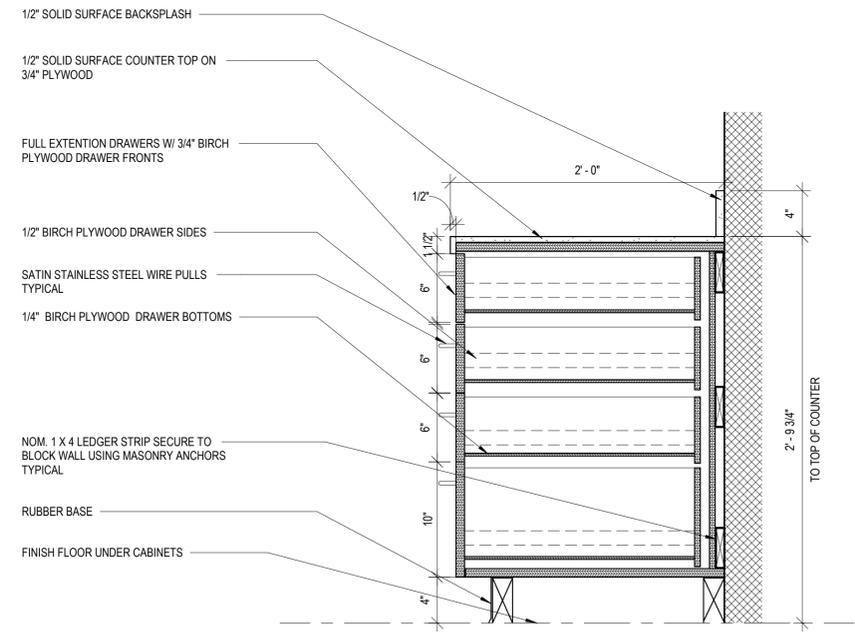
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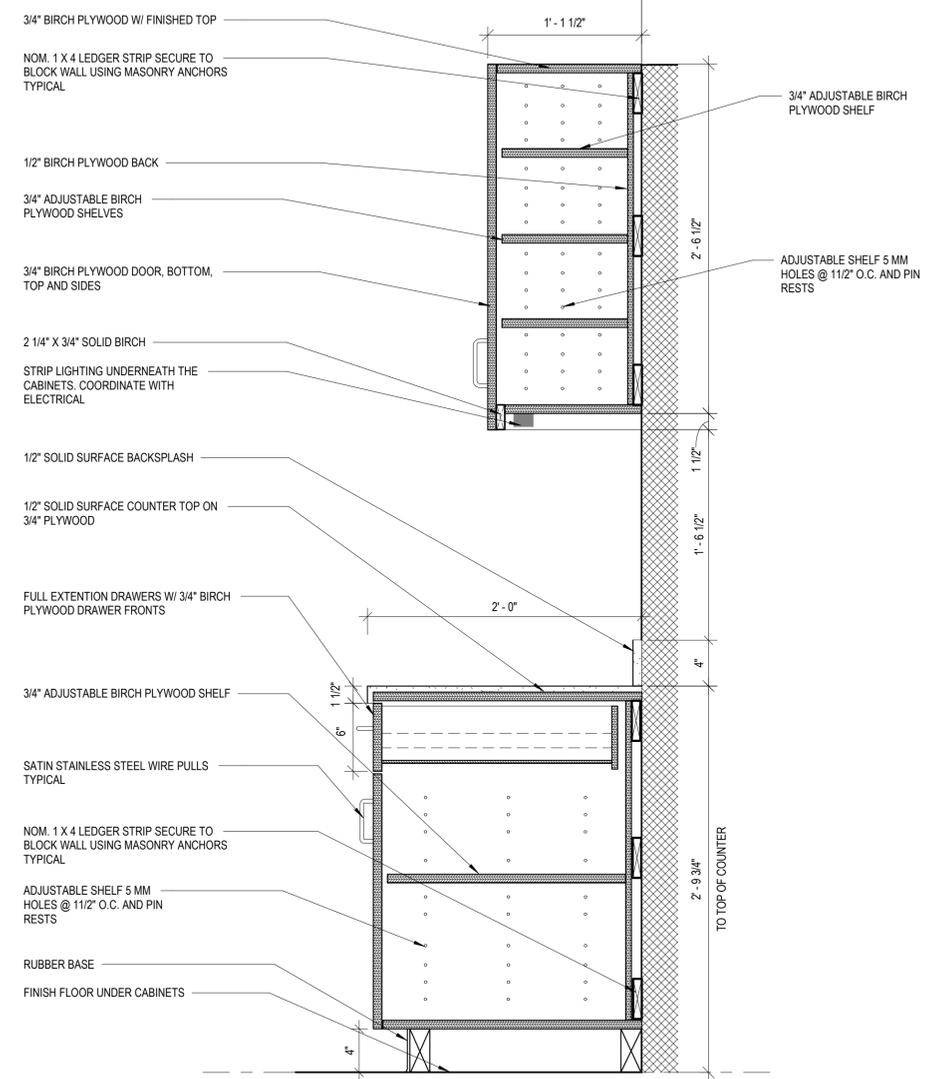
1 SECTION THROUGH SINK CABINET
A511 1 1/2" = 1'-0"



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"

TYPICAL MILLWORK NOTES

1. 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.

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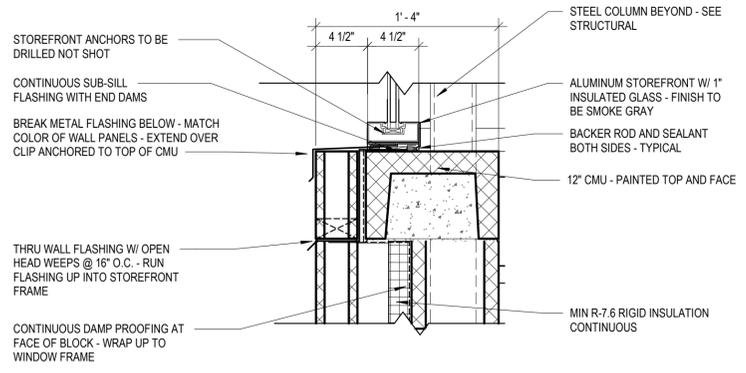
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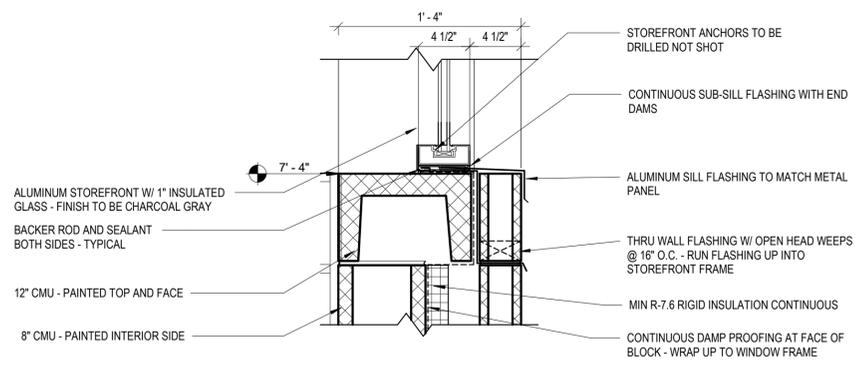
MILLWORK DETAILS

PROJECT NO.: 133920-237812
 FILE NAME: HA Project No. 1902
 SHEET NO.
A511

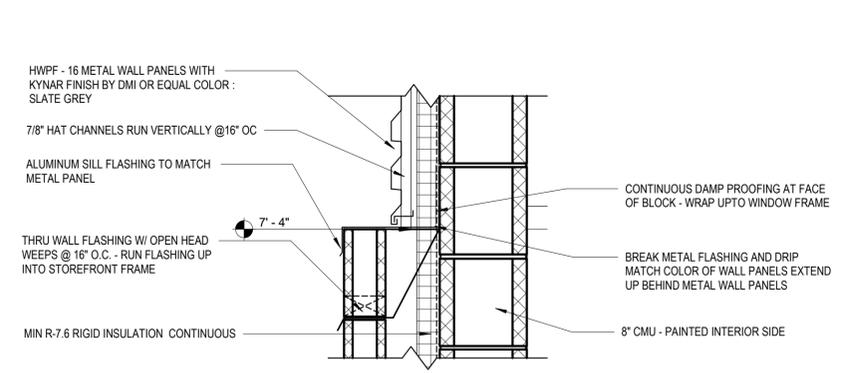
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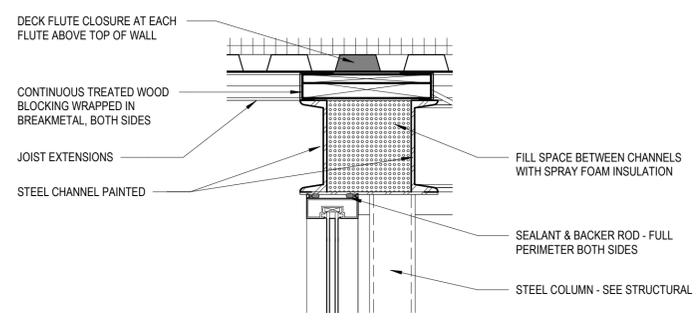
1 SILL - WINDOW A & B
 A521 1 1/2" = 1'-0"



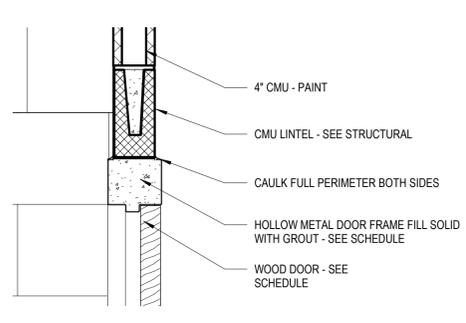
2 SILL - WINDOW C & D
 A521 1 1/2" = 1'-0"



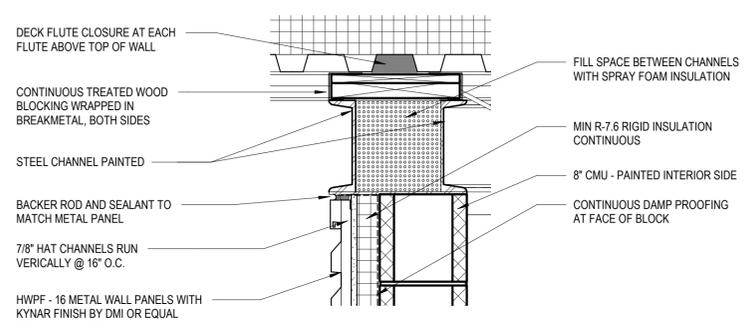
3 SILL - CMU TO METAL PANEL
 A521 1 1/2" = 1'-0"



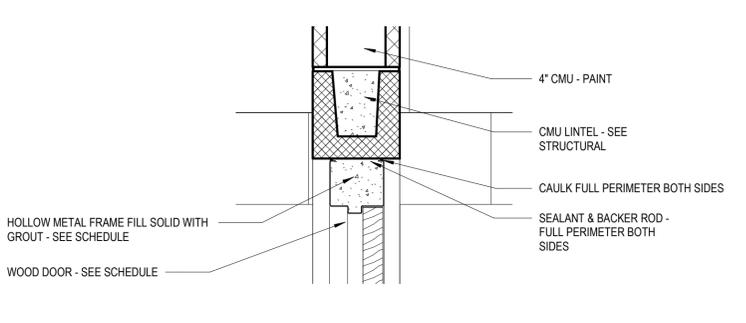
4 HEAD - WINDOWS A,B,C & D
 A521 1 1/2" = 1'-0"



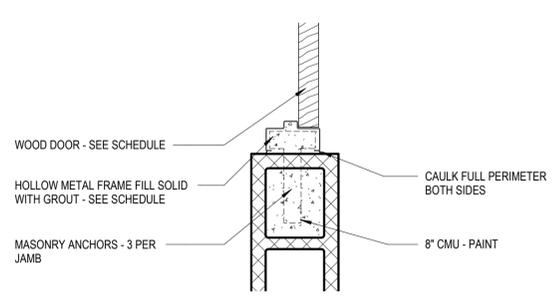
5 HEAD - INTERIOR DOOR 4" CMU
 A521 1 1/2" = 1'-0"



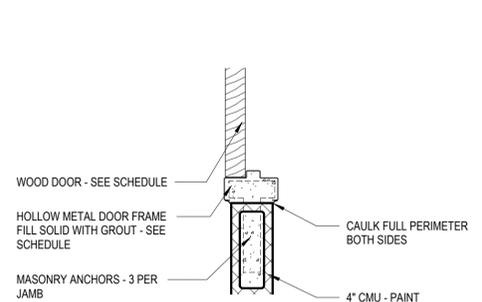
6 DETAIL@ TOP OF METAL PANEL
 A521 1 1/2" = 1'-0"



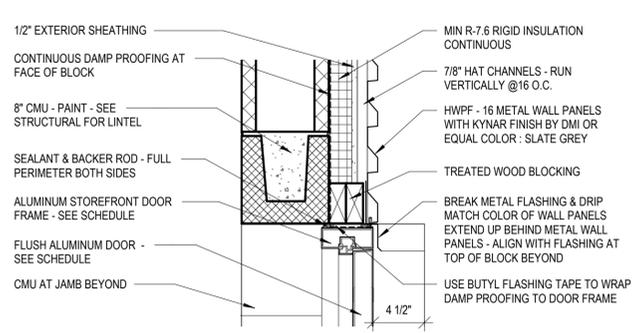
7 HEAD - INTERIOR DOOR 8" CMU
 A521 1 1/2" = 1'-0"



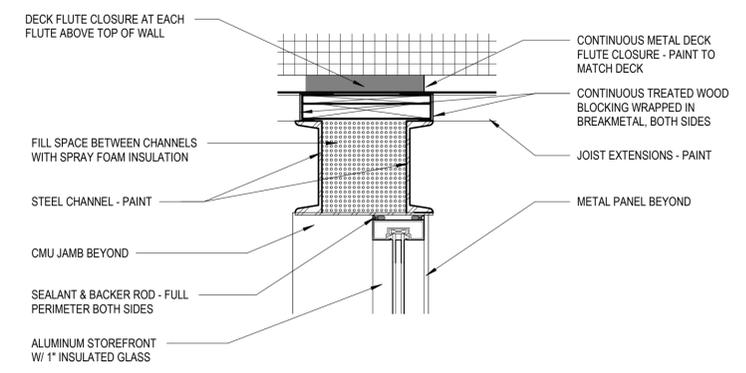
8 JAMB - INTERIOR DOOR 8" CMU
 A521 1 1/2" = 1'-0"



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"

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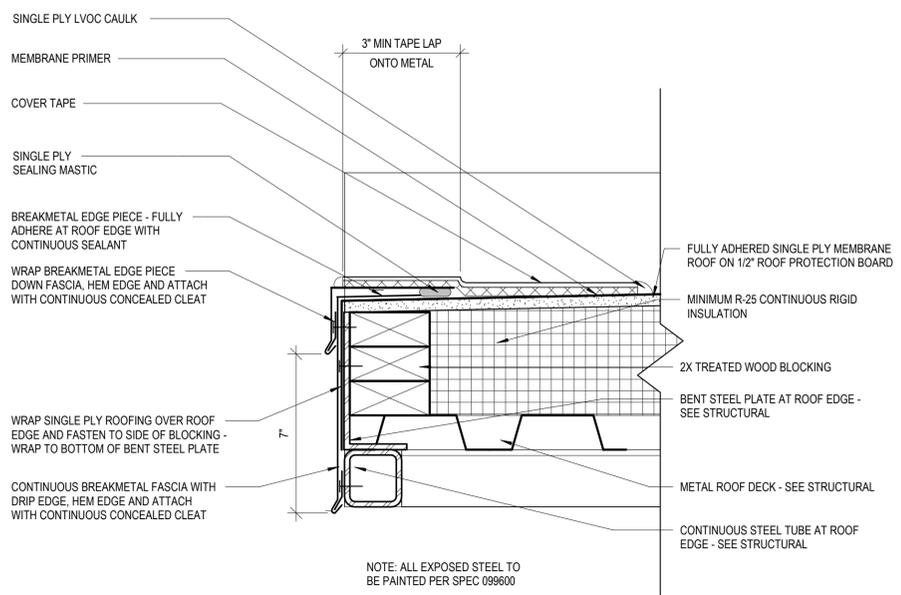
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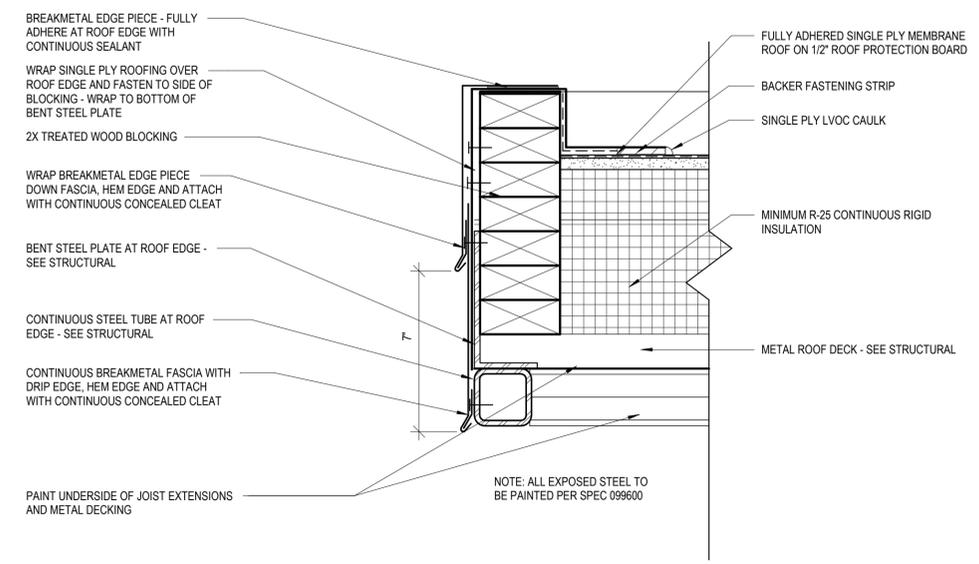
PROJECT NO.: 133920-237812
 FILE NAME: HA Project No. 1902
 SHEET NO.
A521

PERMIT SET - NOT FOR CONSTRUCTION

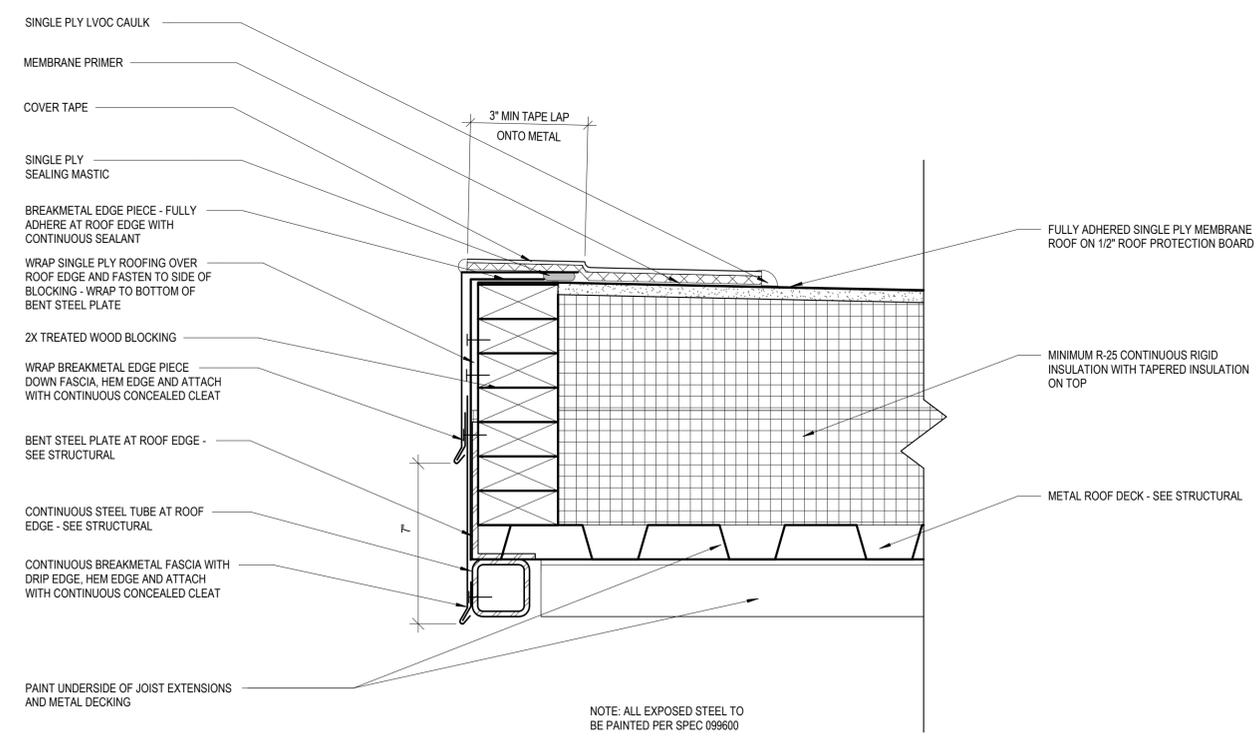
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1 ROOF DETAIL @ LOW END
A525 3" = 1'-0"



2 ROOF DETAIL @ SIDE
A525 3" = 1'-0"



3 ROOF DETAIL @ HIGH END
A525 3" = 1'-0"

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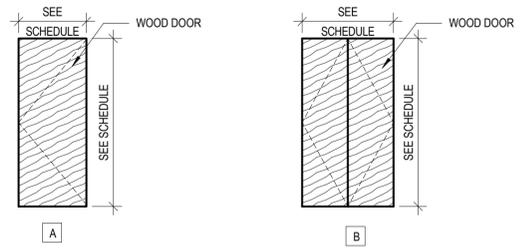
ROOF DETAILS

A525

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

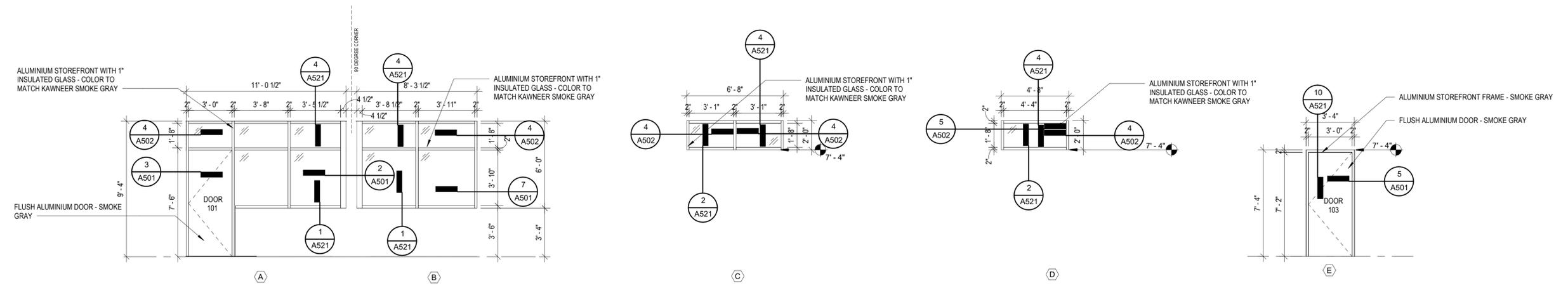
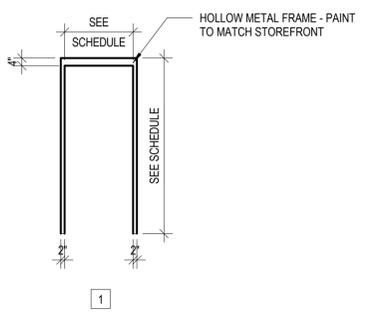
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DOOR PANEL ELEVATIONS



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		

DOOR FRAME ELEVATIONS



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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DOOR AND WINDOW SCHEDULE

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

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/C	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 FOOTINGS
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 LOADINGS 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-x DIRECTION)	19.2	KIPS
ULTIMATE WIND BASE SHEAR (y-y DIRECTION)	8.8	KIPS
WIND PRESSURE FOR COMPONENTS / CLADDING	FER 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 _{D1} 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

EARTHWORK

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 DENATURING 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, DENATURING, 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.

UNSUITABLE, 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	340 PCF

CONCRETE

CONCRETE SHALL BE PROPORTIONED, MIXED AND PLACED IN ACCORDANCE WITH ACI 318, "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 (1.2 - 3 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/C 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/C M	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 SPACINGS 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 TIGHTEST 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 INTERIOR 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 EUGLIC 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 318.

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 1.4 x W 1.4 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

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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

SHEET NO. S100

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 (FM = 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. 4 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 BRACINGS 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-70 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	1840	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 BRIDGINS 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 BRIDGINS 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 A653-44, 660 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 COATINGS.

PROVIDE LUMBER WITH 19 PERCENT MAXIMUM MOISTURE CONTENT.

LUMBER SHALL RECEIVE PRESERVATIVE TREATMENT BY PRESSURE PROCESS ANPA 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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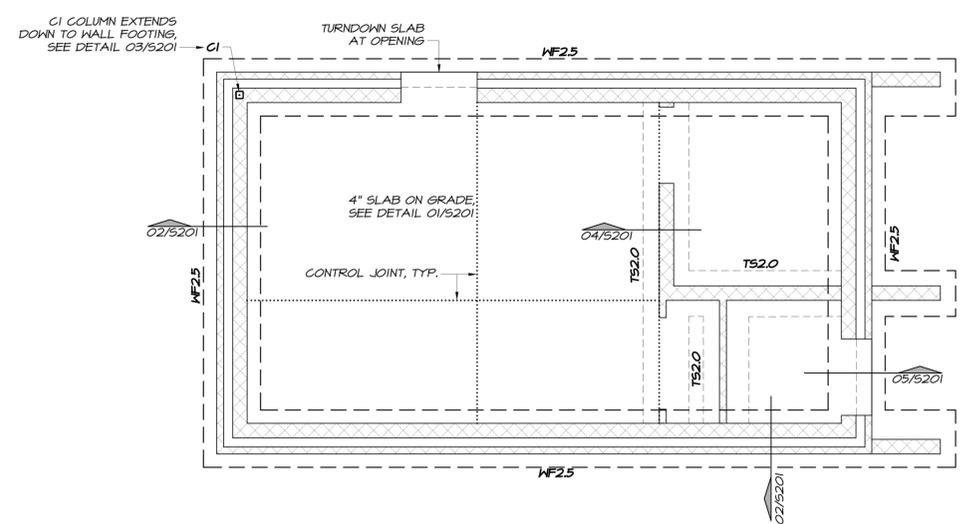
NEW HANOVER COUNTY, NORTH CAROLINA
 NEW HANOVER COUNTY LANDFILL
 CONVENIENCE CENTER REDEVELOPMENT PROJECT

GENERAL STRUCTURAL NOTES II
 S100.1

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".
- TOP (-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

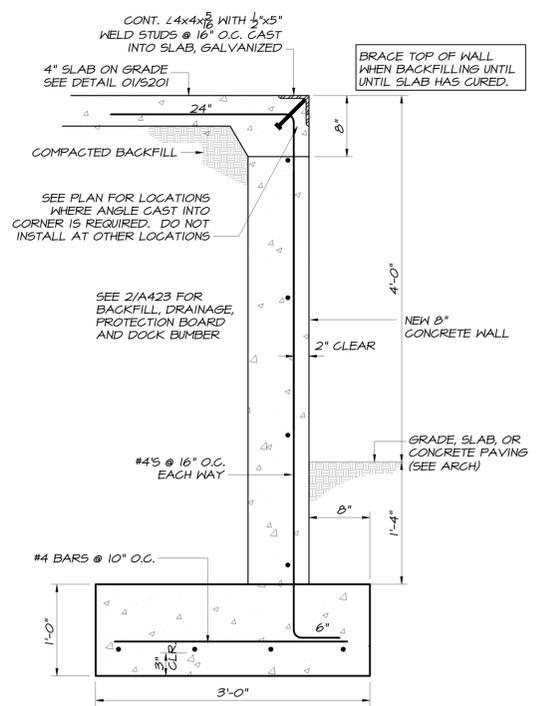
NOTES

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

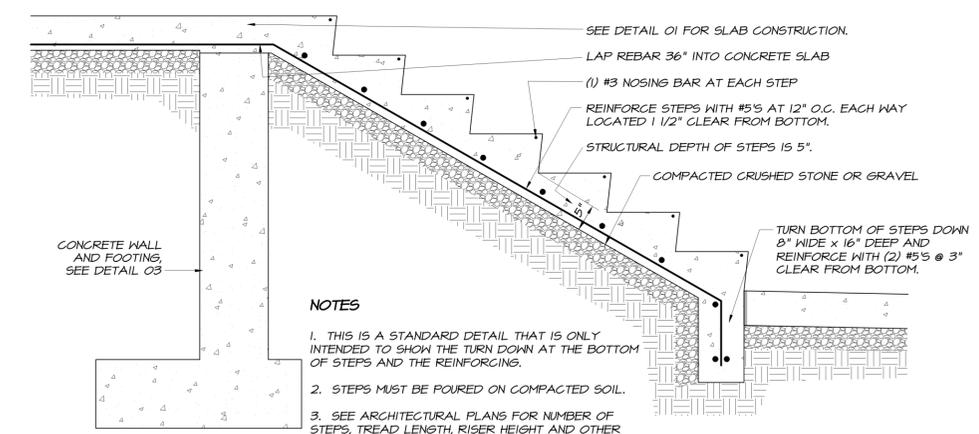
COLUMN SCHEDULE					
MK#	SHAPE	BASEPLATE	A. B.	PATTERN	NOTES
C1	HSS 4x4x3/8"	3/4 x 12 x 12	3/4" DIA.	4" x 4"	1-3

NOTES

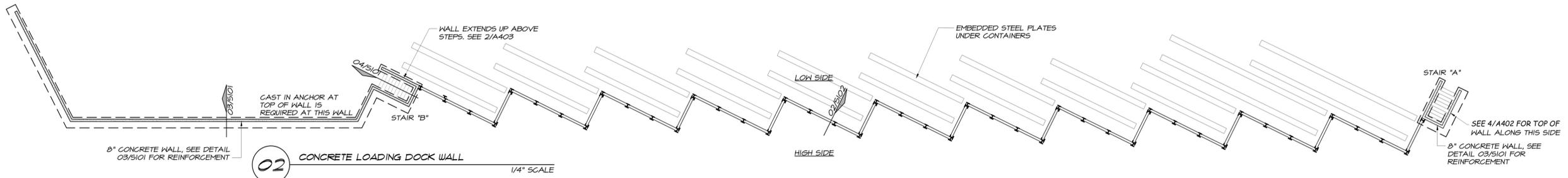
- HSS TUBE COLUMNS ARE ASTM A500 (FY = 46 KSI FOR TUBE)
- USE F1554 (GRADE 36) A.B.'S WITH WASHERS AND HEAVY HEX NUTS BOTH ENDS.
- A.B.'S SHALL HAVE 8" MINIMUM EMBED + 4" HOOK.



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

SEE SHEET S301 FOR SOLDIER PILE DETAILS.



REV. NO.	DATE	DRWN	CHKD	REMARKS

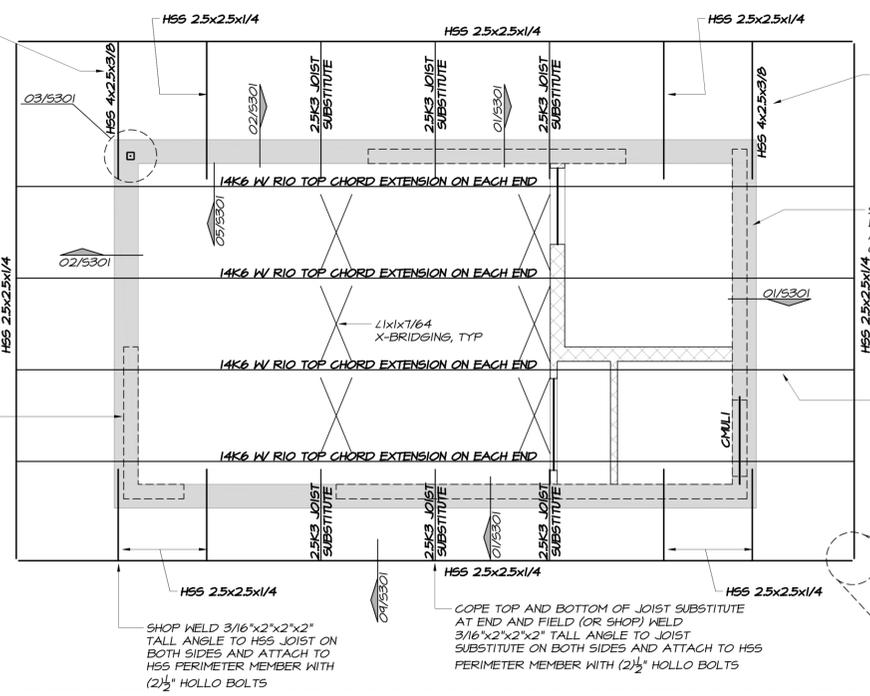
DESIGNED BY: _____	CAL
DRAWN BY: _____	GTH
SHEET CHK'D BY: _____	CAL
CROSS CHK'D BY: _____	CAL
APPROVED BY: _____	CAL
DATE: _____	MARCH 2021

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

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

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CAMBER GANTILEVERED END OF HSS 4x2 UP 1/4" TO REDUCE THE DEFLECTION IN THE CORNER THIS WILL BE DIFFICULT TO CONSTRUCT BUT IS NECESSARY TO REDUCE SAG IN THE CORNER



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 10/5301 FOR JOIST REINFORCING DETAIL AT CONCENTRATED LOADS.
3. SEE ARCHITECTURAL DRAWINGS FOR ROOF DRAINAGE PLAN.
4. TOP & BOTTOM CHORD JOIST BRIDGINGS 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 11/5301.

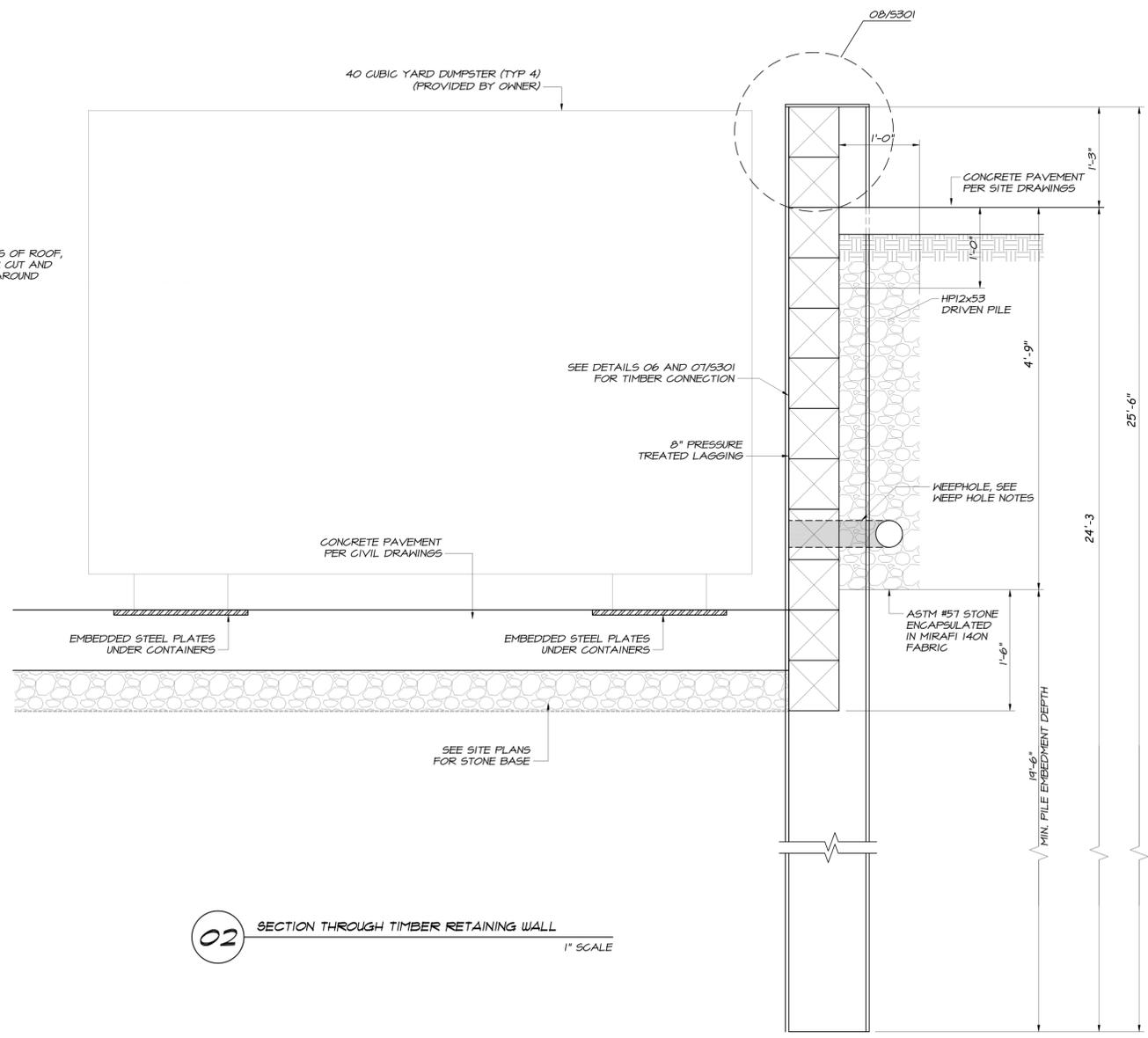
CMU LINTEL SCHEDULE			
MK#	MAX. OPNG.	8" CMU LINTEL	BEARING
CMUL1	4'-0"	8" X 8" CMU BOND BEAM WITH (2) #4 CONT.	6" EACH END

WEEPHOLE 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. WEEPHOLES SHALL BE INSTALLED AT MIDPOINT OF FIRST LAGGING BOARD ABOVE CONCRETE PAD.

01 ROOF FRAMING PLAN 1/4" SCALE

AT CORNERS OF ROOF, DO A MITER CUT AND WELD ALL AROUND



02 SECTION THROUGH TIMBER RETAINING WALL 1" SCALE

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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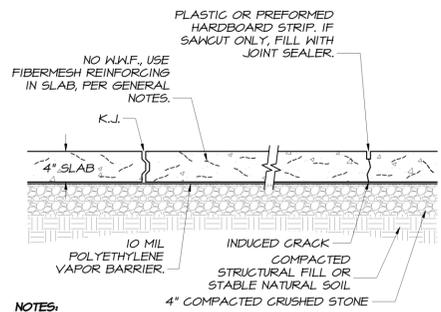
NEW HANOVER COUNTY, NORTH CAROLINA
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 CONVENIENCE CENTER REDEVELOPMENT PROJECT

PROJECT NO. 133920-237812
 FILE NAME: LA# 12383
 SHEET NO. S102



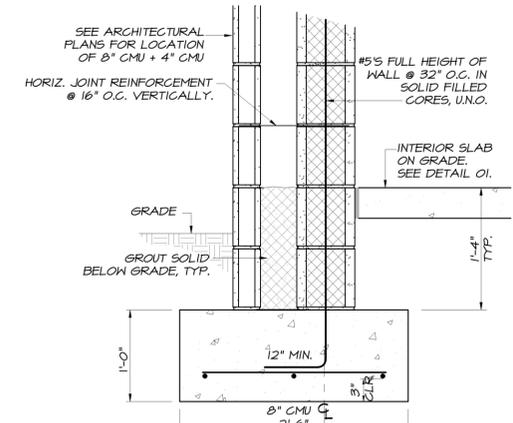
03/22/2021

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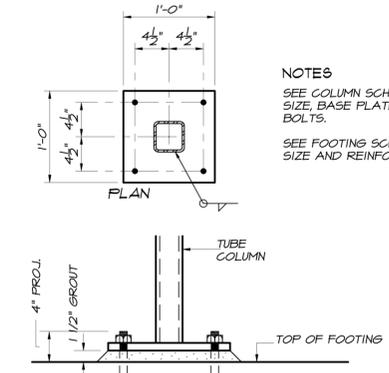


- NOTES:**
- EXTERIOR SLABS-ON-GRADE DO NOT REQUIRE A 10 MIL VAPOR BARRIER.
 - USE A KEYED CONSTRUCTION JOINT (K.J.) BETWEEN POURS.
 - SLAB IS DESIGNED FOR RESIDENTIAL OCCUPANCY WITH A MAXIMUM LIVE LOAD OF 100 PSF AND NO LARGE CONCENTRATED LOADS.

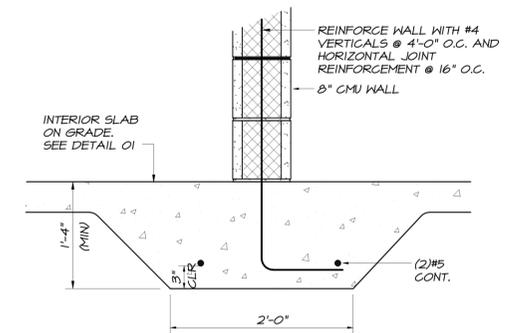
01 TYPICAL 4" FIBER REINFORCED SLAB-ON-GRADE DETAIL NOT TO SCALE



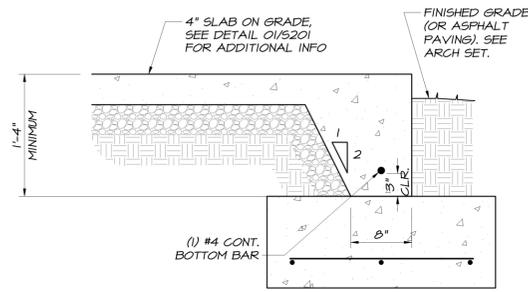
02 TYPICAL EXTERIOR WALL FOOTING 1" SCALE



03 COLUMN BASE PLATE DETAIL NOT TO SCALE

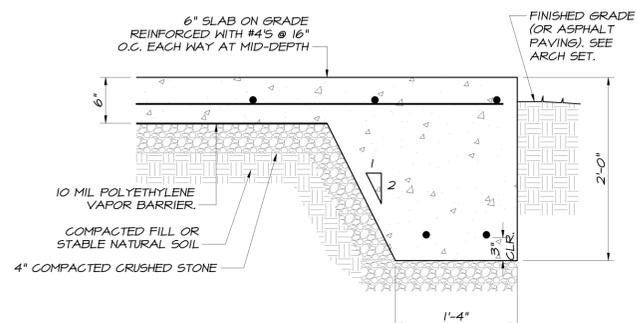


04 THICKENED SLAB FOOTING AT INTERIOR CMU WALL 1" SCALE



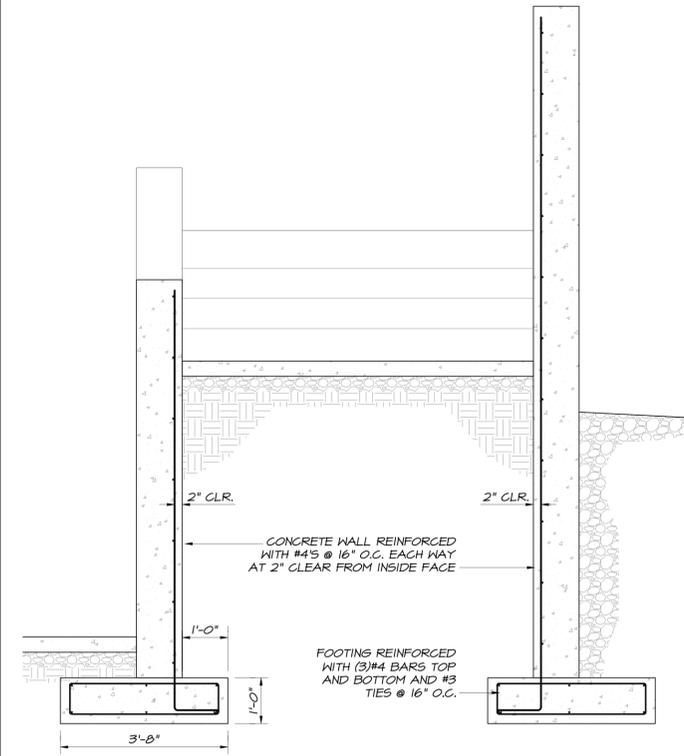
- NOTES:**
- SEE GENERAL NOTES FOR CONCRETE AND REINFORCING SPECIFICATIONS.
 - BOTTOM OF TURN-DOWN MUST BE A MINIMUM OF 1'-4" BELOW FINISHED GRADE. USE DEEPER TURN-DOWN IF NECESSARY.

05 TURN-DOWN SLAB DETAIL AT DOOR OPENING 1" SCALE

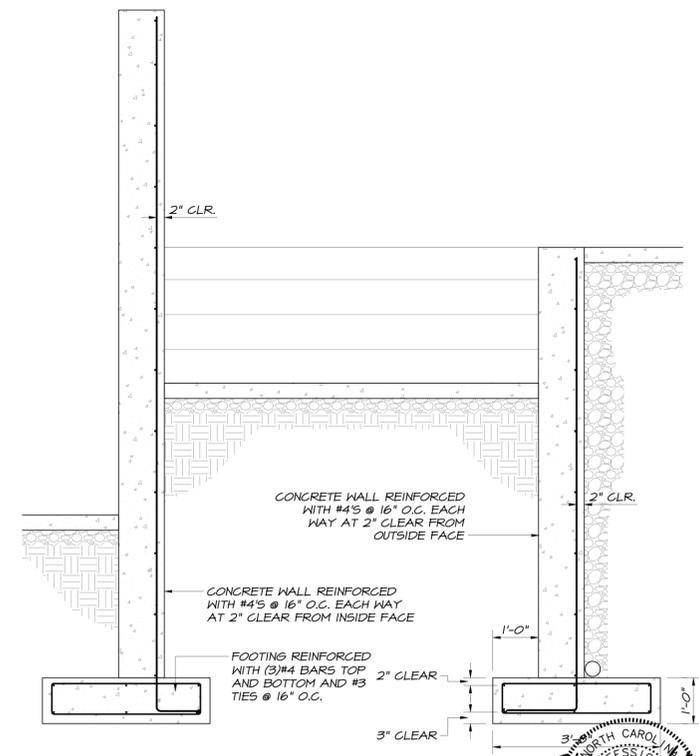


- NOTES:**
- EXTERIOR SLABS-ON-GRADE DO NOT REQUIRE A 10 MIL VAPOR BARRIER.
 - USE A KEYED CONSTRUCTION JOINT (K.J.) BETWEEN POURS.
 - REFER TO SHEET D202 FOR SLAB FOOTPRINT AND ADDITIONAL CONCRETE WORK FOR THE EQUIPMENT.

06 TURN-DOWN SLAB DETAIL AT WELLHOUSE 1" SCALE



07 SECTION THROUGH CONCRETE STAIRS "A" 1/2" SCALE



08 SECTION THROUGH CONCRETE STAIRS "B" 1/2" SCALE



REV. NO.	DATE	DRWN	CHKD	REMARKS

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

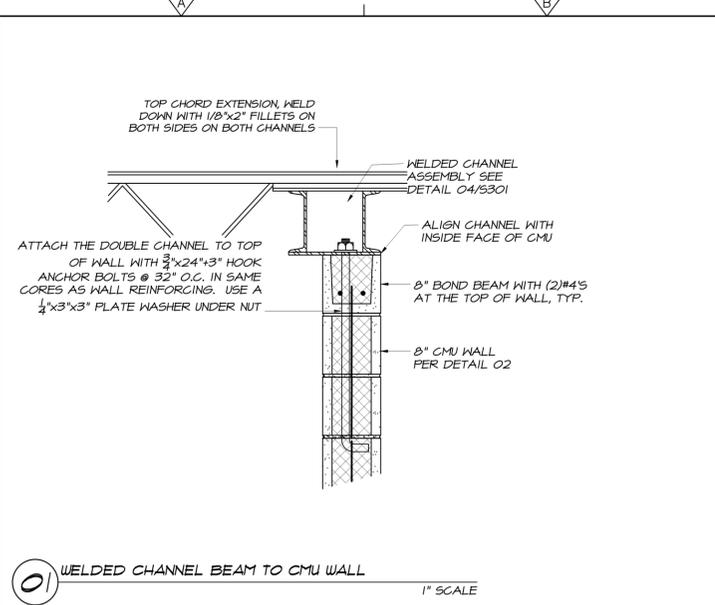
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 CONVENIENCE CENTER REDEVELOPMENT PROJECT

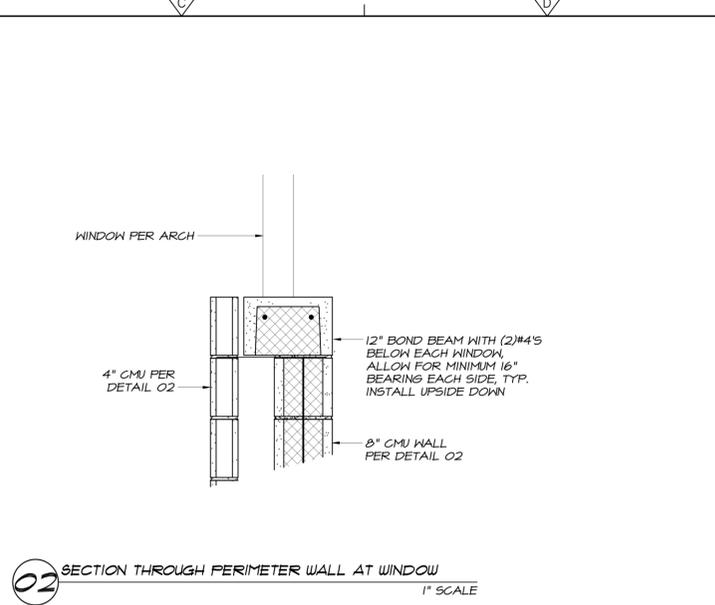
STRUCTURAL FOUNDATION
 DETAILS

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

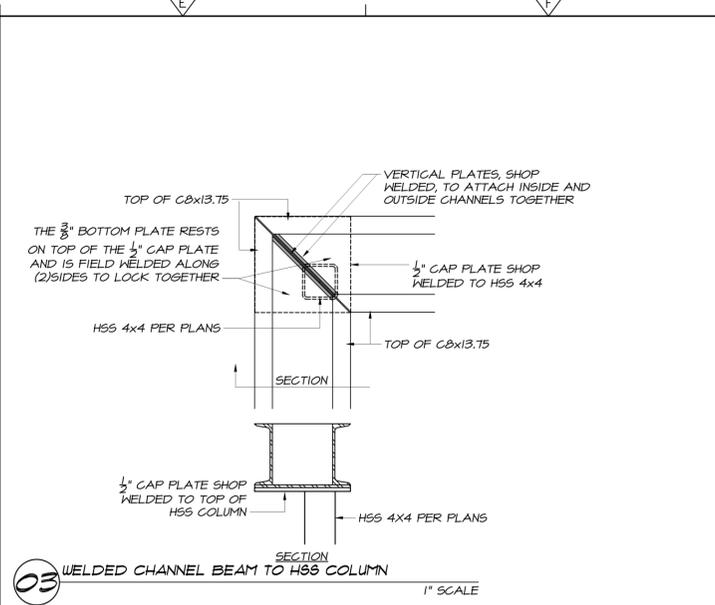
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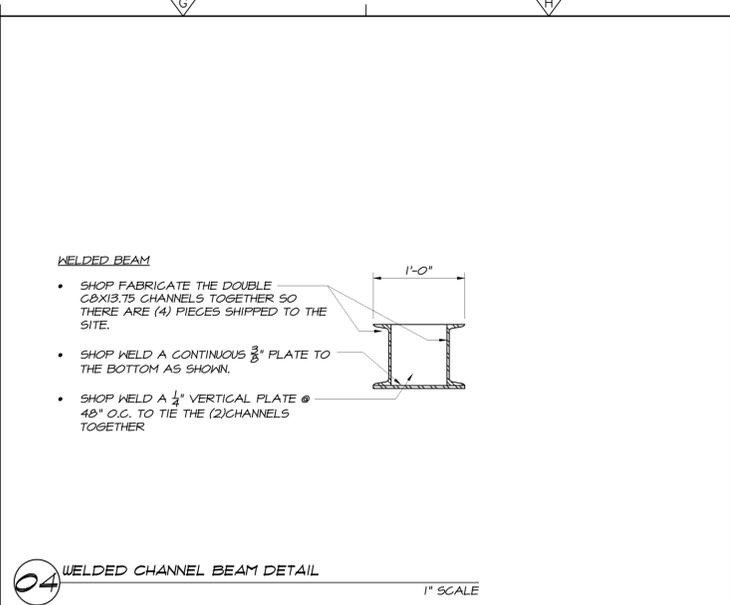
01 WELDED CHANNEL BEAM TO CMU WALL
1" SCALE



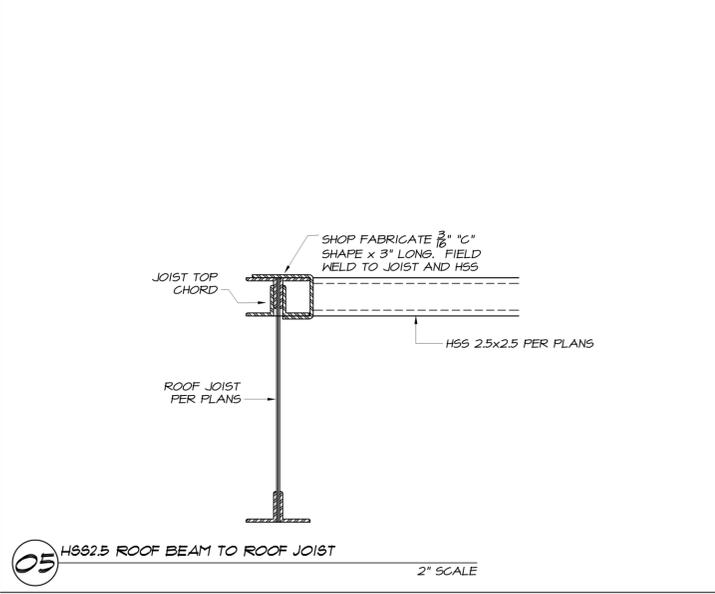
02 SECTION THROUGH PERIMETER WALL AT WINDOW
1" SCALE



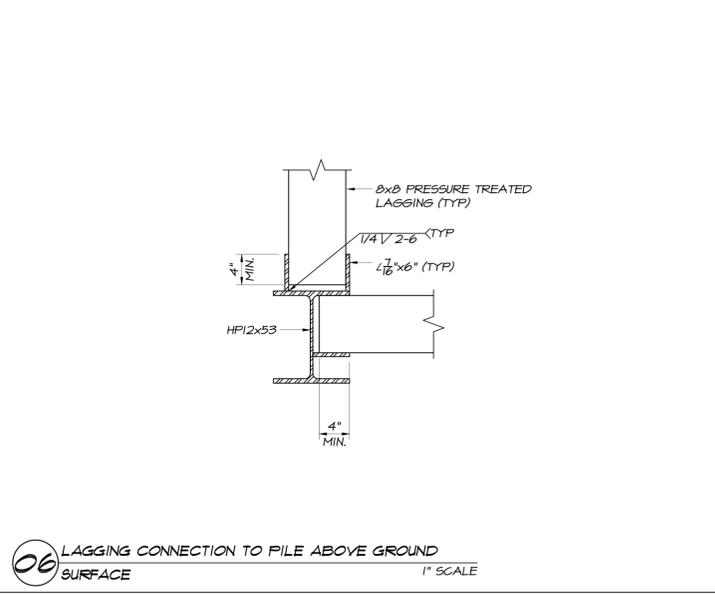
03 WELDED CHANNEL BEAM TO HSS COLUMN
1" SCALE



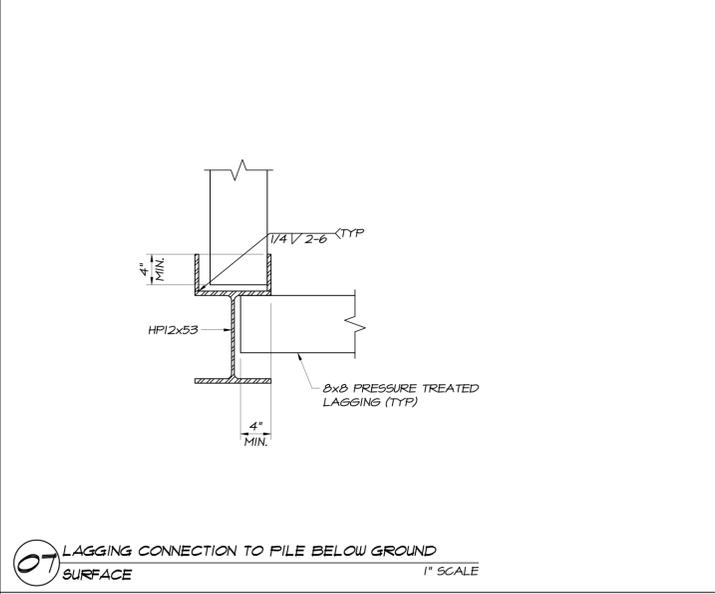
04 WELDED CHANNEL BEAM DETAIL
1" SCALE



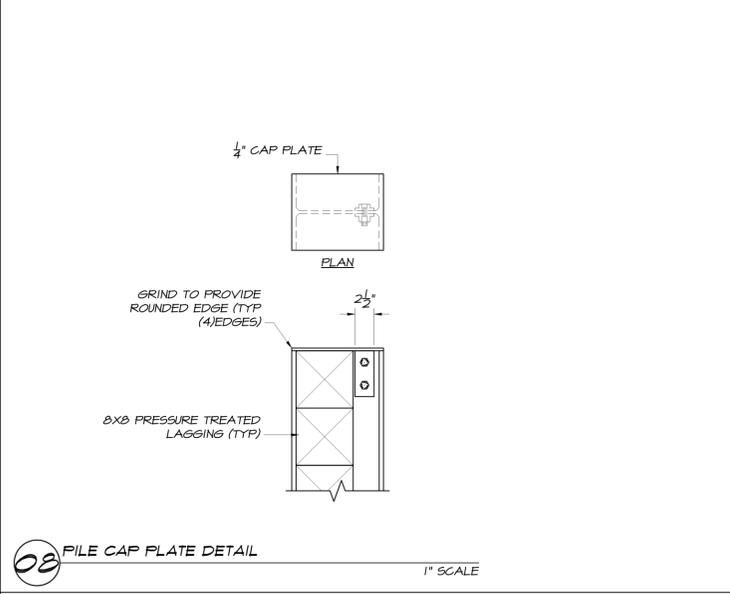
05 H882.5 ROOF BEAM TO ROOF JOIST
2" SCALE



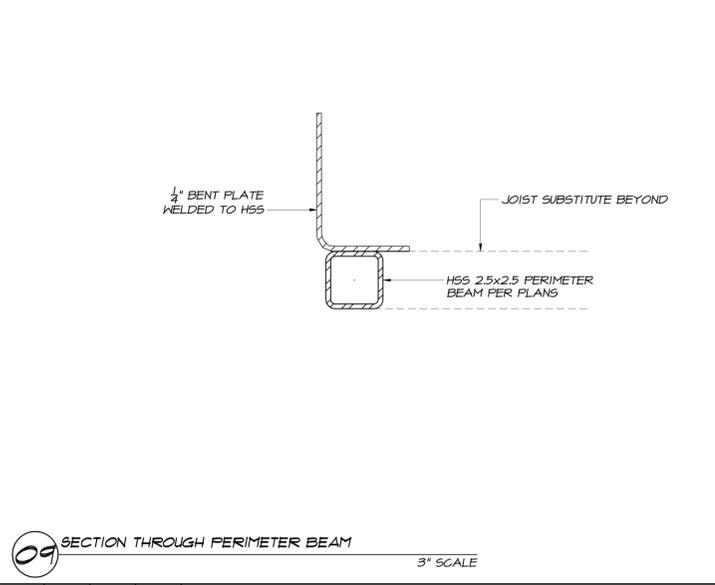
06 LAGGING CONNECTION TO PILE ABOVE GROUND SURFACE
1" SCALE



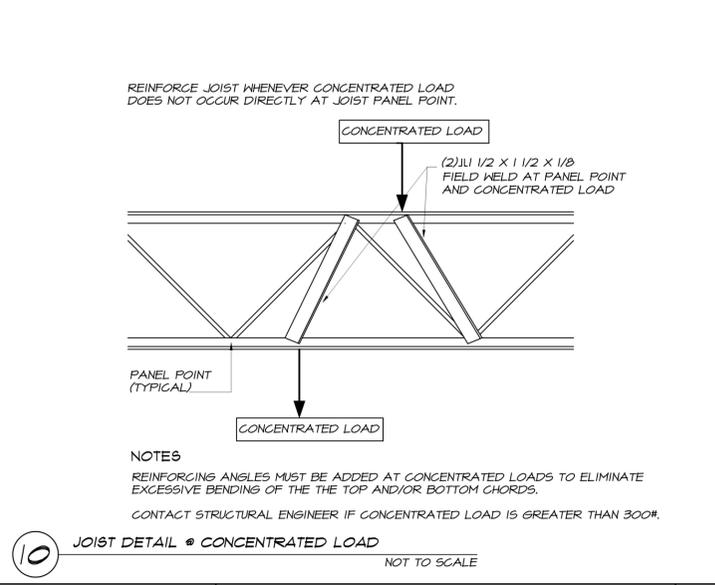
07 LAGGING CONNECTION TO PILE BELOW GROUND SURFACE
1" SCALE



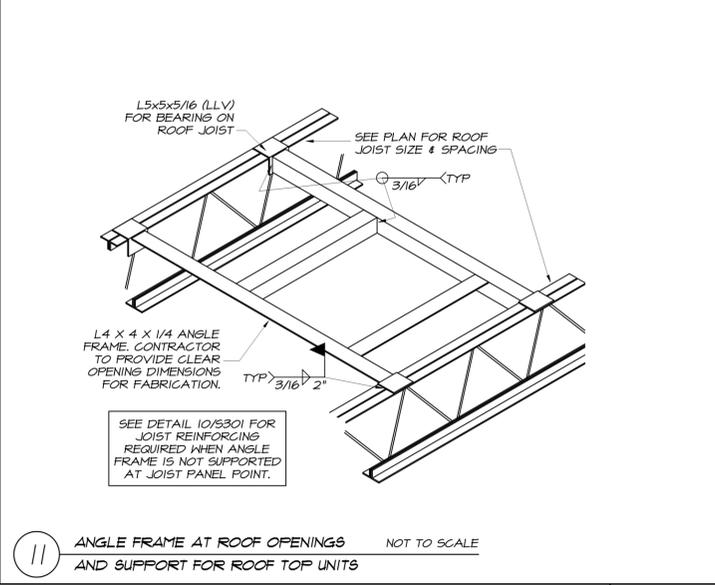
08 FILE CAP PLATE DETAIL
1" SCALE



09 SECTION THROUGH PERIMETER BEAM
3" SCALE



10 JOIST DETAIL @ CONCENTRATED LOAD
NOT TO SCALE



11 ANGLE FRAME AT ROOF OPENINGS AND SUPPORT FOR ROOF TOP UNITS
NOT TO SCALE

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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STRUCTURAL FRAMING
 DETAILS

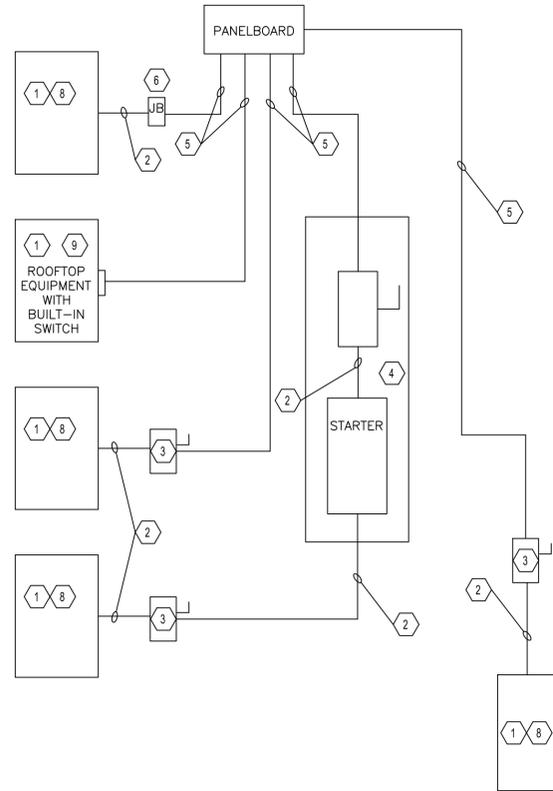
PROJECT NO. 133920-237812
 FILE NAME: LA# 12383
 SHEET NO.
S301



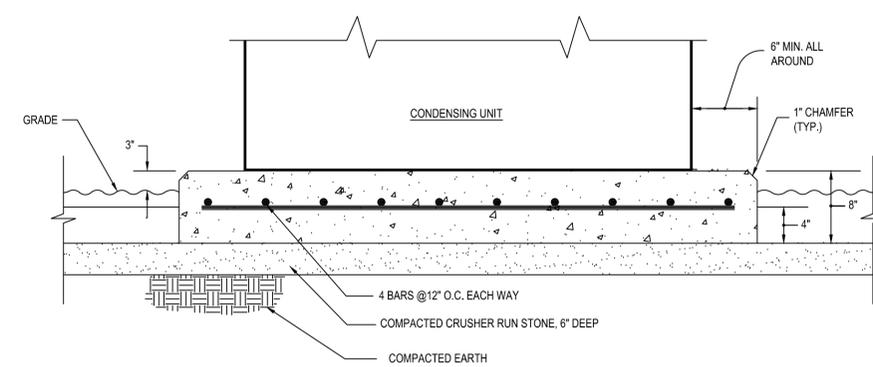
03/22/2021

KEYED NOTES:

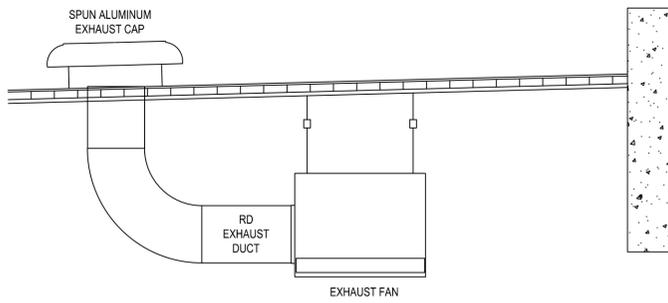
- 1 EQUIPMENT OF TRADES OTHER THAN ELECTRICAL.
- 2 CONDUIT & WIRING BY HVAC, PLUMBING CONTRACTOR OR OTHER TRADES.
- 3 IF AN ADDITIONAL DISCONNECT IS REQUIRED BY NEC, IT SHALL BE PROVIDED AND INSTALLED BY THE EQUIPMENT CONTRACTOR.
- 4 A COMBINATION STARTER OR VFD MAY BE USED IN LIEU OF A SEPARATE DISCONNECT 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.



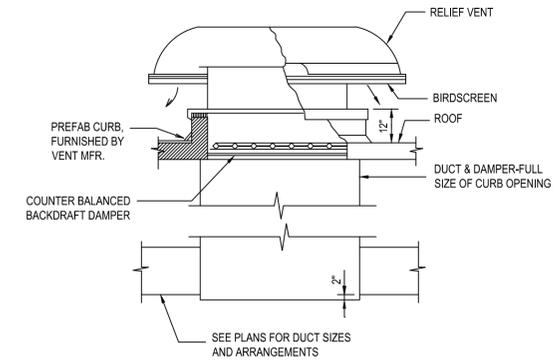
1 ELECTRICAL CONNECTIONS TO MECHANICAL EQUIPMENT DETAIL
M500 Scale: NONE



4 CONDENSING UNIT CONCRETE PAD DETAIL
M500 Scale: NONE

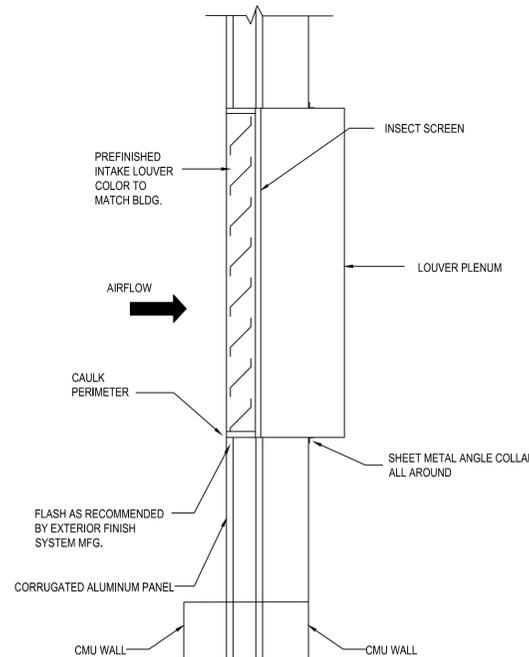


2 EXHAUST FAN DETAIL
M500 Scale: NONE

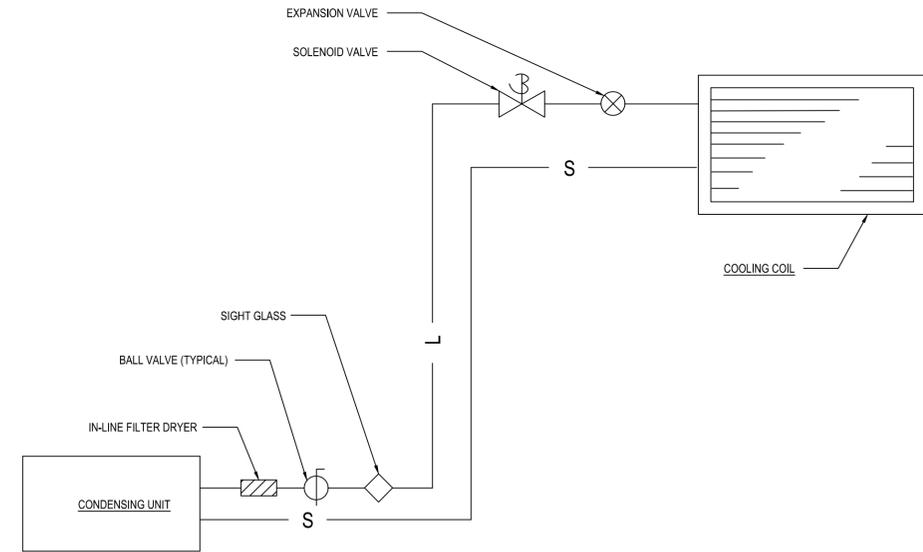


3 ROOF EXHAUST HOOD DETAIL
M500 Scale: NONE

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



5 INTAKE LOUVER INSTALLATION DETAIL
M500 Scale: NONE



6 REFRIGERANT PIPING DETAIL
M500 Scale: NONE

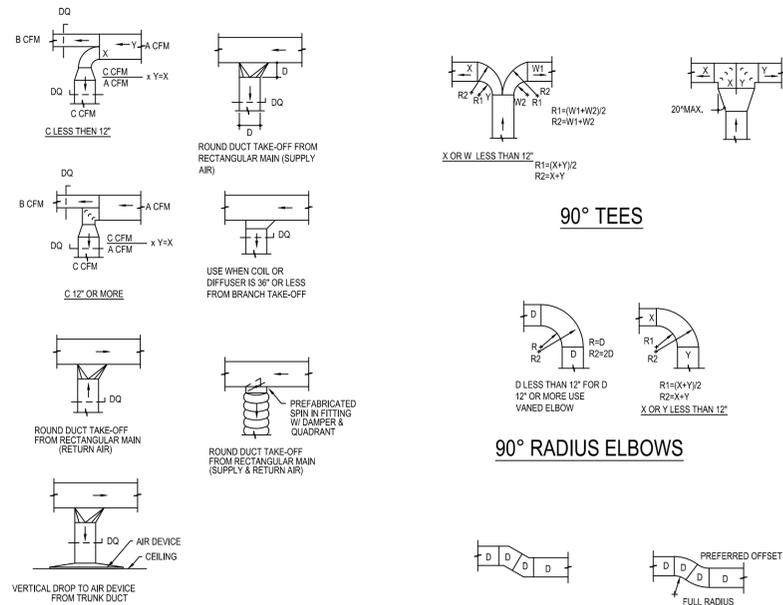
REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: <u> </u> KHW	<p>5400 Glenwood Avenue, Suite 400 Raleigh, NC 27612 Tel: (919) 325-3500 NC F-1255</p>
DRAWN BY: <u> </u> KHW	
SHEET CHK'D BY: <u> </u> PJR	
CROSS CHK'D BY: <u> </u> RDA	
APPROVED BY: <u> </u> RDA	
DATE: <u> </u> MARCH 2021	<p>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</p>

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

MECHANICAL DETAILS I
SHEET NO.
M500

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



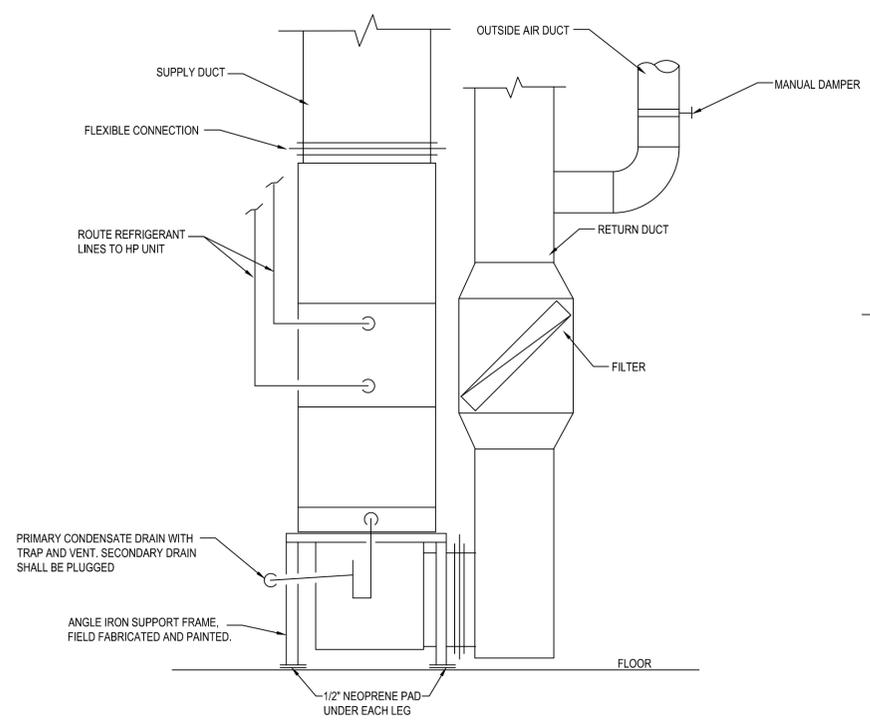
BRANCH TAKE-OFFS

90° TEES

90° RADIUS ELBOWS

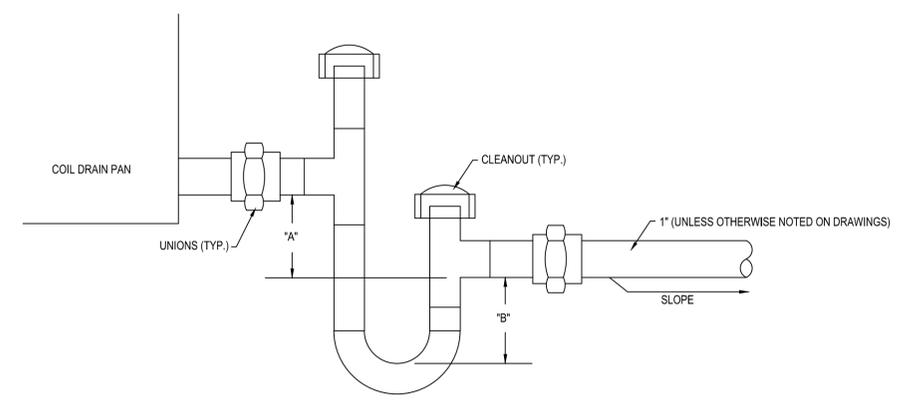
OFFSETS

1 LOW PRESSURE DUCTWORK
 M501 Scale: NONE



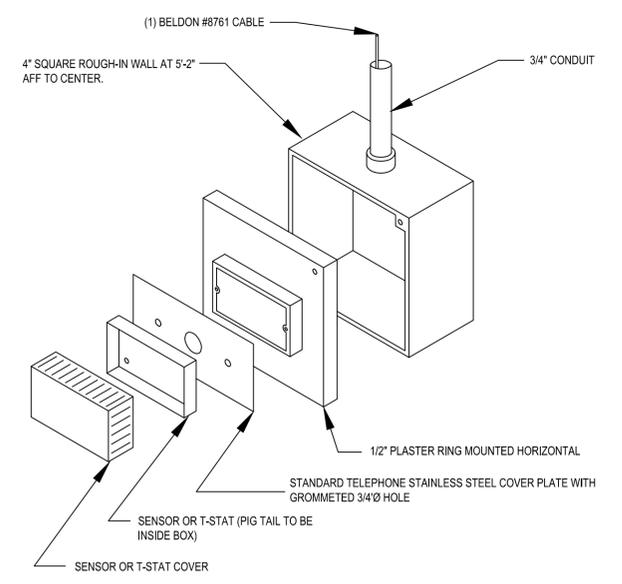
NOTES:
 INSTALL A WATERTIGHT GALVANIZED STEEL EMERGENCY DRAIN PAN UNDER THE UNIT. THE PAN SHALL BE 3" DEEP AND 3" WIDER THAN THE UNIT ALL AROUND. INSTALL A FLOAT SWITCH IN THE PAN AND WIRE INTO THE CONTROL CIRCUIT.

2 VERTICAL AHU INSTALLATION DETAIL
 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



4 THERMOSTAT MOUNTING DETAIL
 M501 Scale: NONE

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: _____	KHW
DRAWN BY: _____	KHW
SHEET CHK'D BY: _____	PLR
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

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

FIXTURE PLUMBING SCHEDULE												
MARK	FIXTURE	FIXTURE			FAUCET					REMARKS	ADA?	
		SPECIFICATION/DESCRIPTION	SAN	VENT	PICTURE	DESCRIPTION	COLD WATER	HOT WATER	FLOW RATE			PICTURE
WC-1	WATER CLOSET FLOOR-MOUNT FLUSH VALVE	SLOAN ST-2029 OR EQUAL ELONGATED, WHITE VIT CHINA, FLOOR MOUNTED WATER CLOSET WITH 2 1/2" TRAPWAY, AND TOP SPUD. PROVIDE WITH MATCHING ELONGATED SEAT.	4"	2"		SLOAN "REGAL" 111-1,28 OR EQUAL MANUAL FLUSH VALVE. PROVIDE WITH NON-HOLD OPEN HANDLE AND SELF-CLEANING BRASS PISTON.	1"	-	1.28GPF		PROVIDE ANTI-MICROBIAL, HEAVY DUTY, OPEN FRONT SEAT, COLOR WHITE.	
LAV-1	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.	1 1/2"	1 1/2"		T&S BRASS B-0892-CR-4-F05 4" CENTERSET FAUCET WITH 4" WRIST HANDLES AND RIGID GOOSENECK.	1/2"	1/2"	0.5GPM		PROVIDE WITH 1/2" 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.	
KS-1	KITCHEN SINK	KOHLER TOCCATA, 33"x22"x6", EQUAL DOUBLE BOWL, 4-HOLE SINK, 18 GA STAINLESS STEEL CONSTRUCTION, TOP MOUNT. PROVIDE WITH REMOVABLE STRAINER.	1 1/2"	1 1/2"		CHICAGO 1102-HA8E35-317AB 8" CENTERSET DECK MOUNT FAUCET WITH ARC SPOUT, LEVER HANDLERS, AND SPRAYER.	1/2"	1/2"	1.5GPM		PROVIDE TURN BALL VALVES, AND P-TRAP w/CLEANOUT.	
IMB-1	ICE MAKER BOX	OATEY I2K ICE MAKER BOX	-	-		1/2" TURN BRASS BALL VALVE AND ASSE 1032 DUAL CHECK VALVE WITH STRAINER EQUAL TO WATTS SD3. COORDINATE CONNECTION MATERIAL WITH PIPE MATERIAL.	1/2"	-	-	-	COORDINATE MOUNTING HEIGHT WITH REFRIGERATOR. PROVIDE CORRESPONDING PIPE CONNECTION MATERIAL, SUPPORT BRACKETS, AND TEMPERATURE INDICATOR CLIP.	-
FD-1	FLOOR DRAIN	WATTS Z415B FLOOR DRAIN WITH ADJUSTABLE STRAINER. 8" ROUND NICKEL BRONZE STRAINER. PROVIDE WITH P-TRAP.	4"	2 1/2"		-	-	-	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.	-
HB-1	HOSE BIBB	INTERIOR DUTY, POLYCARBONATE WHEEL HANDLE AND LOOSE TEE KEY	-	-		WOODFORD 24 FINISH: POLISHED CHROME	3/4"	-	-	-	COORDINATE MOUNTING HEIGHT WITH WITH OWNER. REMOVE HANDLE AND RETURN TO OWNER ALONG WITH LOOSE TEE KEY.	-
NFHB-1	NON-FREEZE WALL HYDRANT	FREEZELESS, BRASS FINISH, LOOSE TEE KEY	-	-		WOODFORD MODEL B65 BRASS FINISH ANTI-SIPHON FREEZELESS WALL HYDRANT OR EQUAL	3/4"	-	-	-	COORDINATE MOUNTING HEIGHT WITH WITH OWNER. PROVIDE WITH KEYED VALVE. DELIVER KEY TO OWNER.	-

- ### 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 2" OR SMALLER SANITARY WASTE AND VENT PIPING SHALL BE RUN AT 1/4" PER FT SLOPE. ALL SANITARY WASTE AND VENT PIPING 3"-6" SHALL BE RUN AT 1/8" PER FT SLOPE. ALL SANITARY WASTE 8" AND LARGER SHALL BE RUN AT 1/4" PER FT SLOPE. ALL STORM DRAINAGE PIPING SHALL BE RUN AT A MINIMUM OF 1/8" PER FT SLOPE UNLESS OTHERWISE NOTED.
 - THE DESIGN/DETAILS/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.

- 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

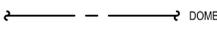
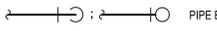
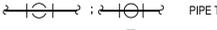
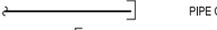
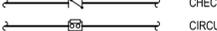
MARK	LOCATION	MODEL #	GALLONS PER MINUTE	ENERGY FACTOR MIN.	ELECTRICAL SERVICE			DIMENSIONS			REMARKS
					VOLTS	PHASE	KW	WIDTH	DEPTH	HEIGHT	
IWH-1	RESTROOM (UNDER SINK)	CHRONOMITE ELECTRIC TANKLESS WATER HEATER MODEL#M-20L120	0.5	0.99	120	1	3.6	2 1/2"	9 1/2"	6 1/2"	INSTALL PER MANUFACTURERS SPECIFICATIONS. SET MAX TEMP TO 110°
IWH-2	STAFF OFFICE / REFRESHMENT (UNDER SINK)	CHRONOMITE ELECTRIC TANKLESS WATER HEATER MODEL#M-20L120	0.5	0.99	120	1	3.6	2 1/2"	9 1/2"	6 1/2"	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	HD	HUB DRAIN
	DOMESTIC HOT WATER SUPPLY	AFF	ABOVE FINISH FLOOR	GCO	GRADE CLEANOUT
	WASTE	AFG	ABOVE FINISH GRADE	HWS	HOT WATER SUPPLY
	VENT	AFH	ANTI-FREEZE HYDRANT	HWR	HOT WATER RETURN
	PIPE ELBOW TURNS DOWN; UP	AAV	AIR ADMITTANCE VALVE	IW	INDIRECT WASTE
	PIPE TEES DOWN; UP	BFF	BELOW FINISHED FLOOR	LAV	LAVATORY
	PIPE CAP	CI	CAST IRON	TYP	TYPICAL
	BALL VALVE	CO	CLEANOUT	UR	URINAL
	CHECK VALVE	CW	COLD WATER	V	VENT
	CIRCUIT SETTER	DNT	DO NOT TAP	VTR	VENT THRU ROOF
	FLOOR CLEANOUT	EWC	ELECTRIC WATER COOLER	W	WASTE
	END-OF-LINE CLEANOUT	(EX)	EXISTING	WC	WATER CLOSET
	CLEANOUT AT FINISH WALL (WCO)	FCO	FLOOR CLEANOUT	WCO	WALL CLEANOUT
		FD	FLOOR DRAIN	WHA	WATER HAMMER
		FDP	FLOOR DRAIN PARKING		ARRESTOR
		FFHB	FREEZE-PROOF HOSE BIBB	YCO	YARD CLEANOUT
		GPH	GALLONS PER HOUR		
		HB	HOSE BIBB		

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

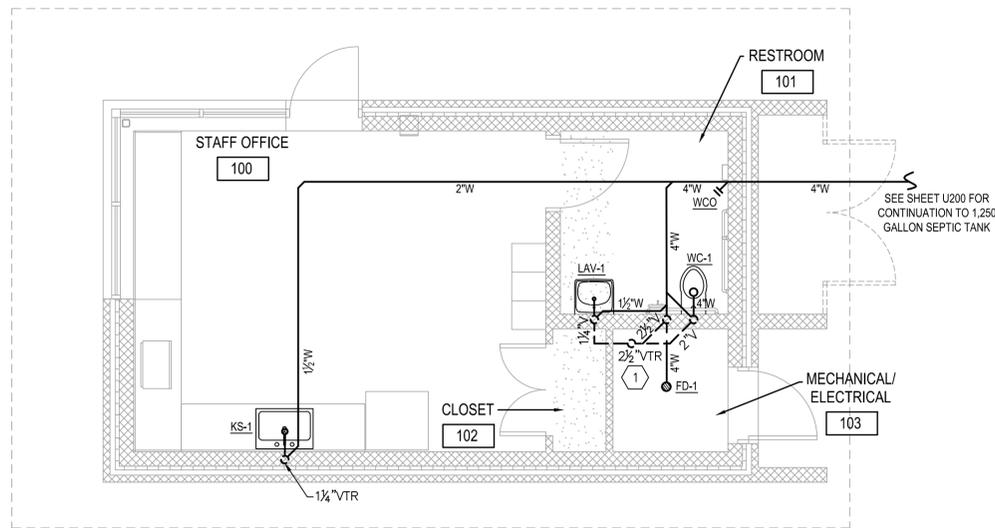
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 NC ENG LIC# C-2490

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

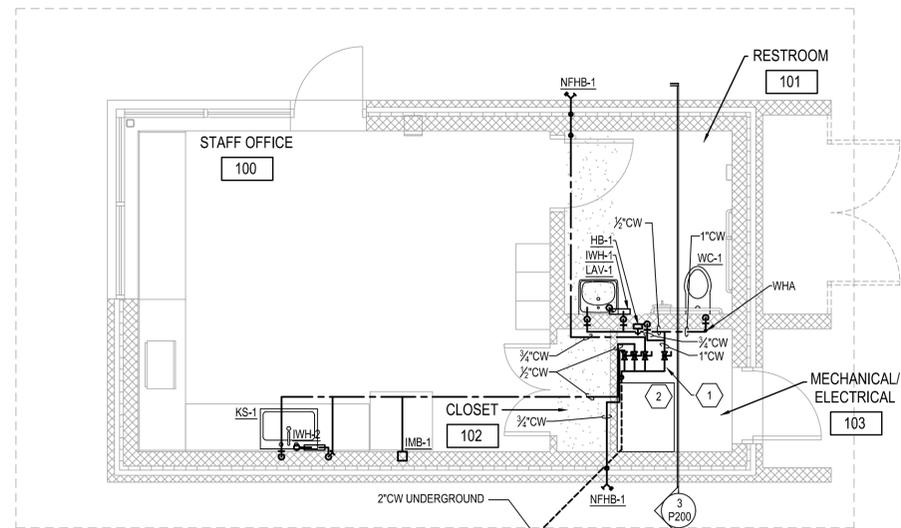


GENERAL NOTES:

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

NOTES KEYED TO 1/P200:

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

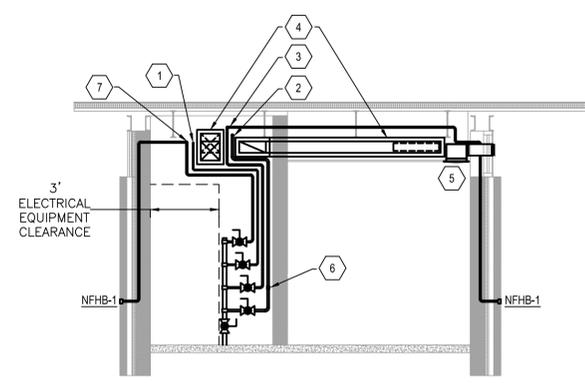


NOTES KEYED TO 2/P200:

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

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

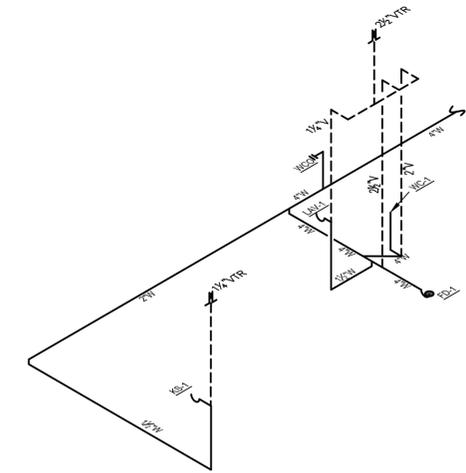
2 PLUMBING FIRST FLOOR - STAFF BUILDING WATER PLAN
 P200 1/4" = 1'-0"
 2 1 0 2 4



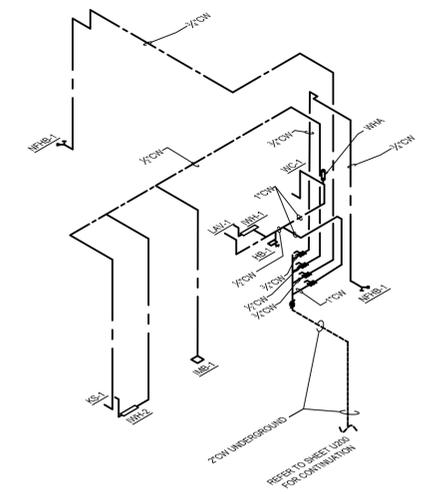
NOTES KEYED TO 3/P200:

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

3 PLUMBING FIRST FLOOR - SECTION 3
 P200 1/4" = 1'-0"
 2 1 0 2 4



4 WASTE & VENT RISER
 P200 NO SCALE



5 WATER RISER
 P200 NO SCALE

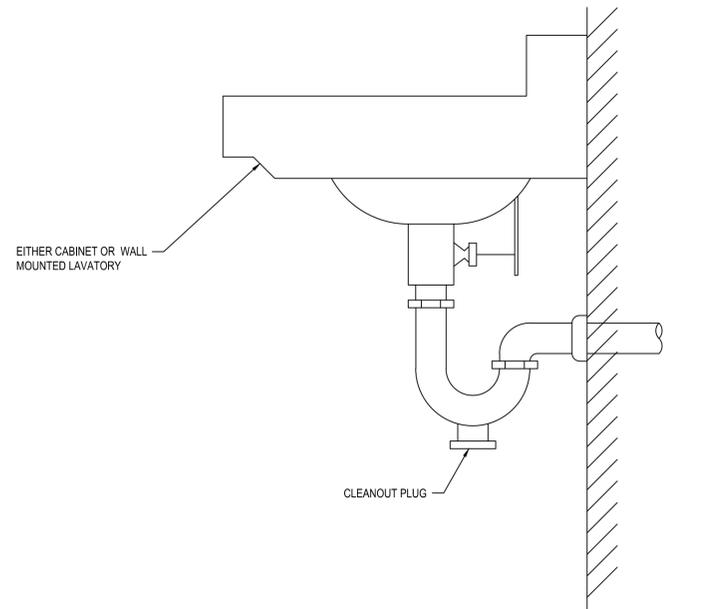
REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: KHW
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 APPROVED BY: RDA
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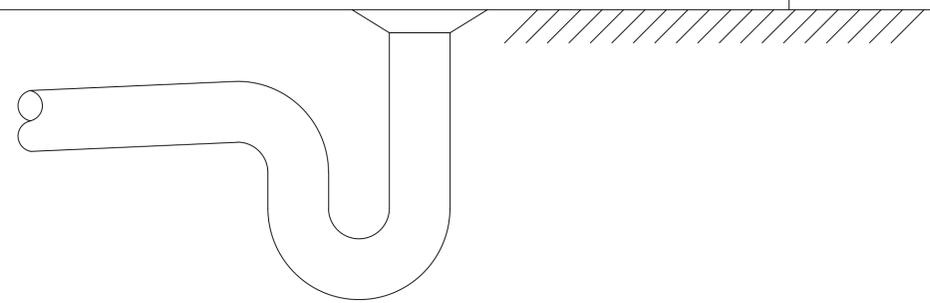
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NEW HANOVER COUNTY, NORTH CAROLINA
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PLUMBING PLANS
 PROJECT NO. 133920-237812
 FILE NAME: P200.DWG
 SHEET NO.
P200



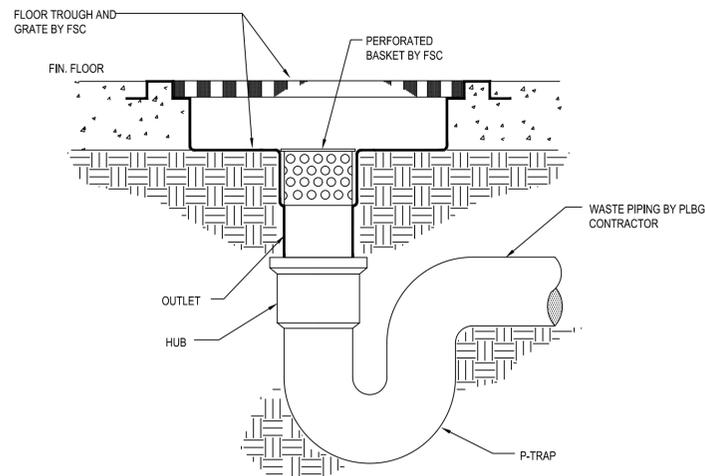
1 TRAP PRIMER DETAIL
P500 Scale: NONE



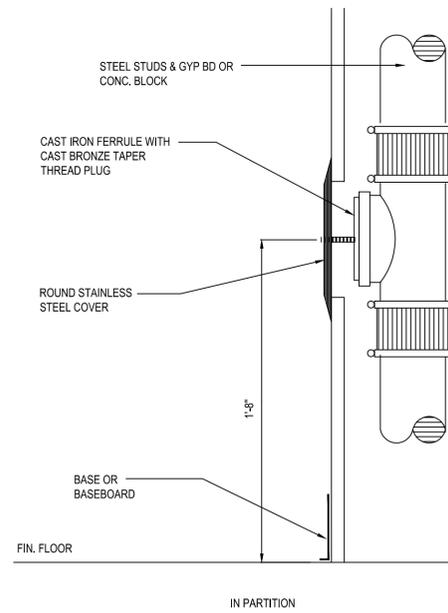
2 TYPICAL VENTING (FLOOR DRAIN) DETAIL
P500 Scale: NONE

MAXIMUM TRAP TO VENT DISTANCES

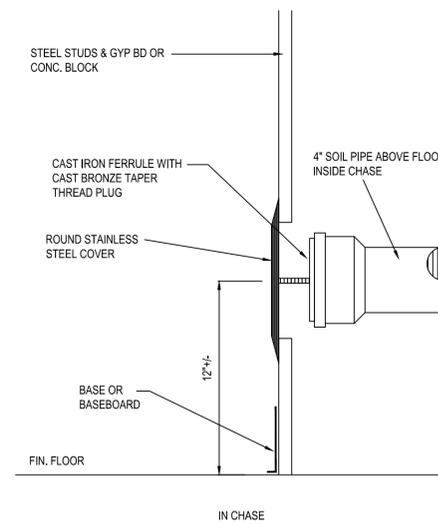
PIPE SIZE	DISTANCE(D)
2"	8'-0"
3"	10'-0"
4"	12'-0"



3 TYPICAL FLOOR THROUGH DETAIL
P500 Scale: NONE



4 WALL CLEANOUT DETAIL
P500 Scale: NONE



REV. NO.	DATE	DRWN	CHKD	REMARKS

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

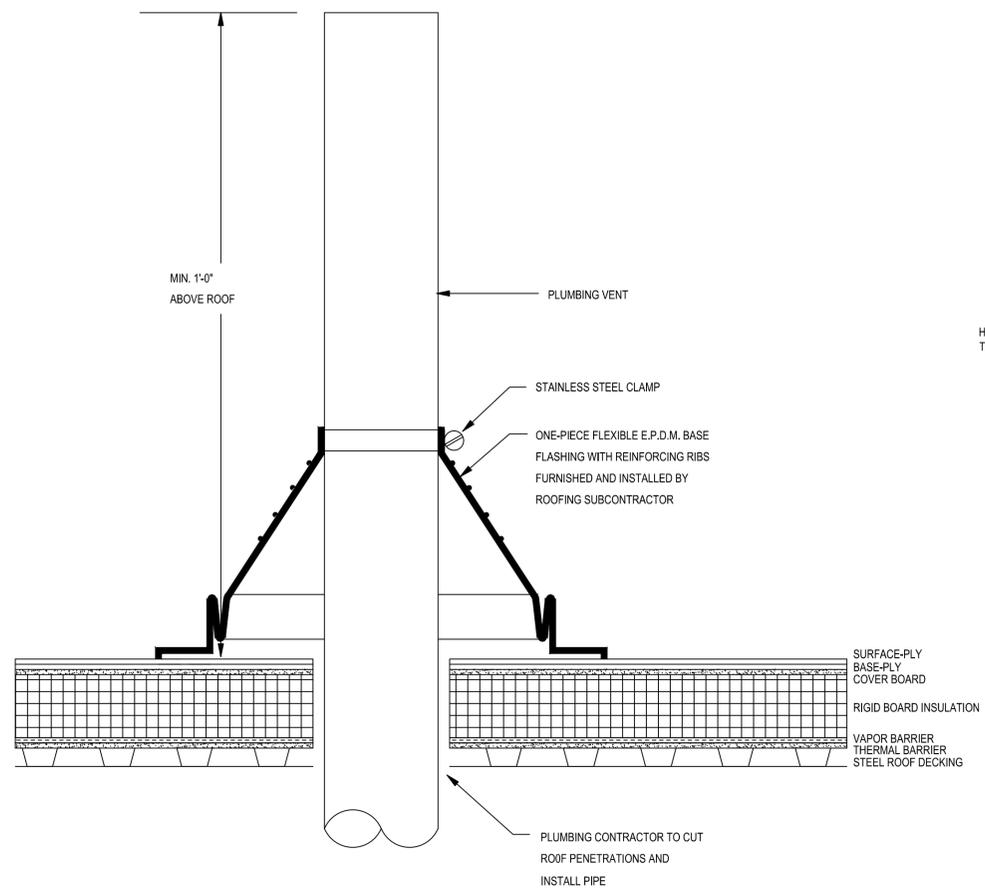
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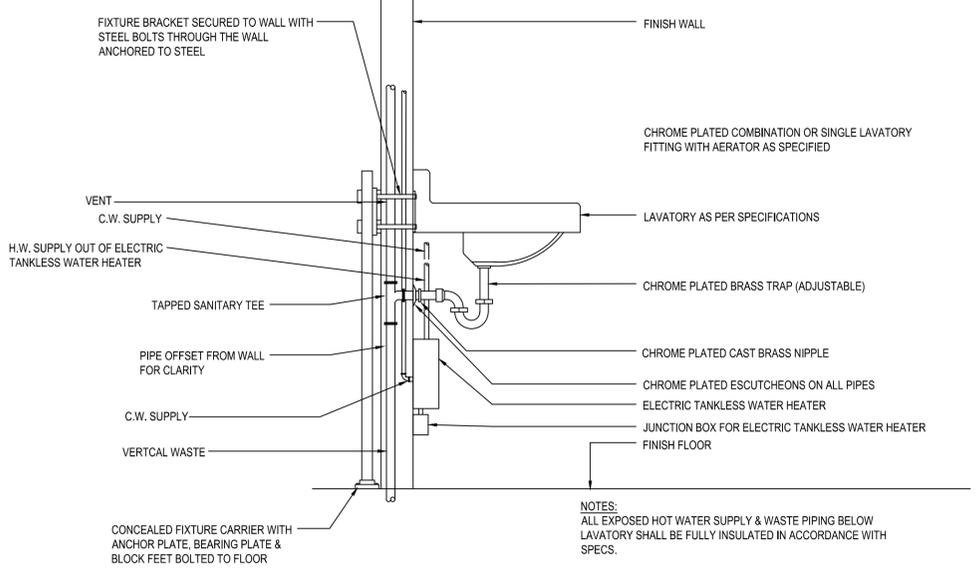
NEW HANOVER COUNTY, NORTH CAROLINA
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CONVENIENCE CENTER REDEVELOPMENT PROJECT

PLUMBING DETAILS I
P500

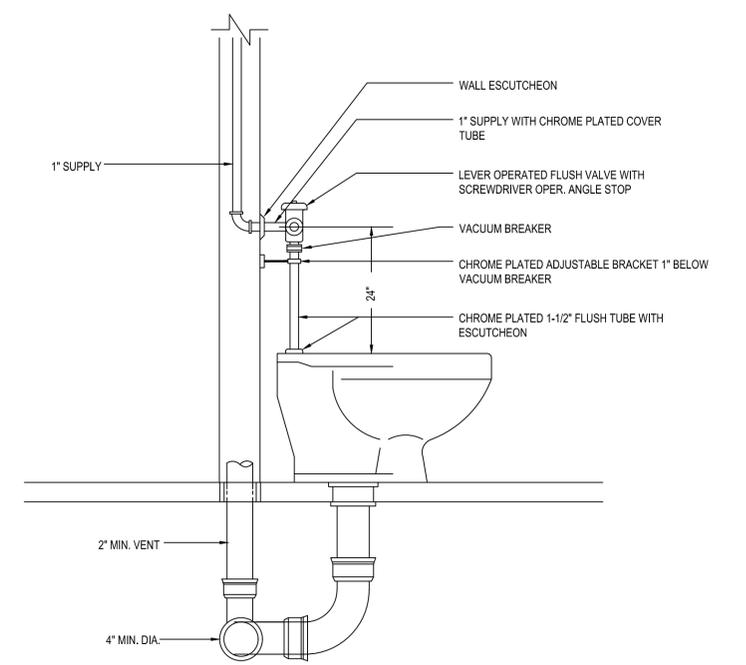
PROJECT NO. 133920-237812
FILE NAME: P500.DWG
SHEET NO. P500



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

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 DRAWN BY: KHW
 SHEET CHK'D BY: PJR
 CROSS CHK'D BY: RDA
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NEW HANOVER COUNTY, NORTH CAROLINA
 NEW HANOVER COUNTY LANDFILL
 CONVENIENCE CENTER REDEVELOPMENT PROJECT

PLUMBING DETAILS II
 SHEET NO.
P501

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

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 "D" "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.

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
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 NC ENG LIC# C-2490

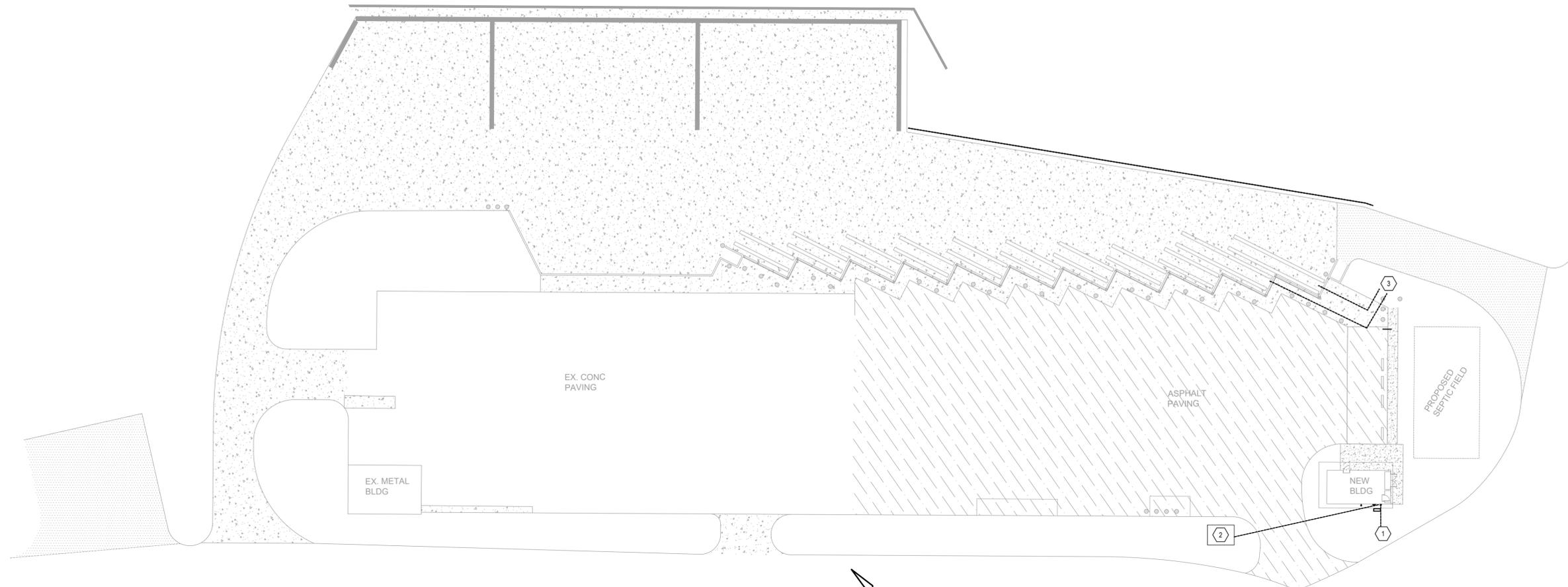
NEW HANOVER COUNTY, NORTH CAROLINA

NEW HANOVER COUNTY LANDFILL
 CONVENIENCE CENTER REDEVELOPMENT PROJECT

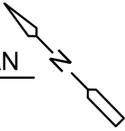
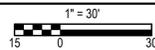
ELECTRICAL GENERAL NOTES

SHEET NO.
E002

PROJECT NO. 133920-237812
 FILE NAME: E-DRAW-E002.DWG



NEW ELEC. SITE PLAN



GENERAL NOTES PLAN :

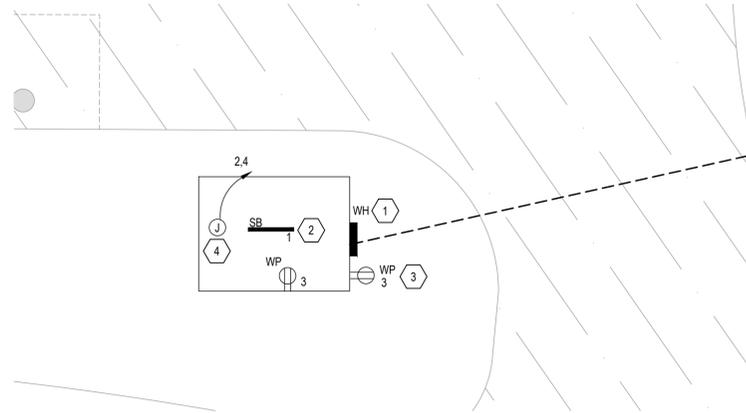
1. REFER TO SHEET E001 AND E002 FOR LEGEND AND ADDITIONAL GENERAL NOTES.

NOTES KEYED TO SITE PLAN :

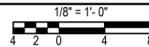
- ① PROVIDE CONDUIT AS REQUIRED BY LOCAL UTILITY TO LOCATION OF SITE TRANSFORMER.
- ② NEW WELL HOUSE. REFER TO PLAN THIS SHEET FOR ADDITIONAL INFORMATION.
- ③ PROVIDE 2-4" FROM EACH BAY SHOWN TO LOCATION OUTSIDE OF CONVENIENCE CENTER.

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

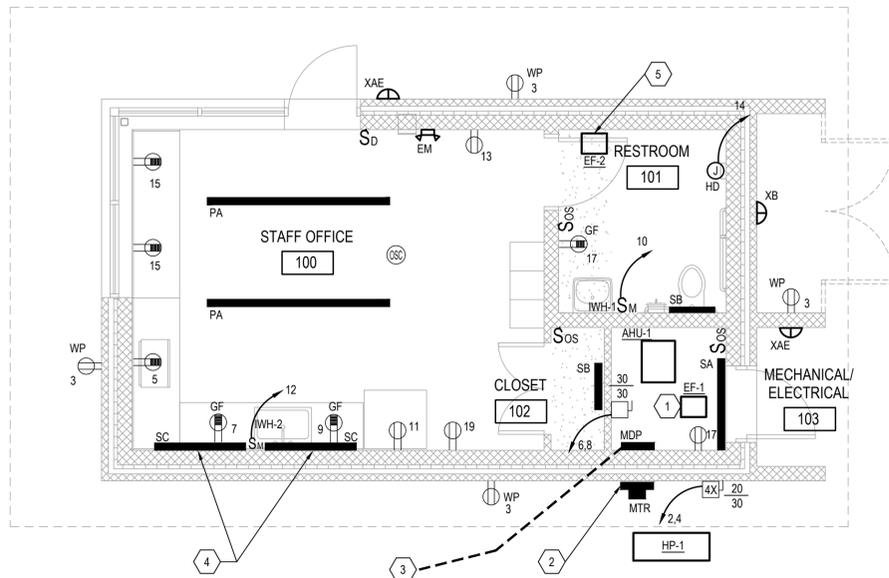
DESIGNED BY: RDA
 DRAWN BY: RDA
 SHEET CHK'D BY: STB
 CROSS CHK'D BY: RDA
 APPROVED BY: RDA
 DATE: MARCH 2021

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

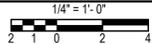
NEW HANOVER COUNTY, NORTH CAROLINA
 NEW HANOVER COUNTY LANDFILL
 CONVENIENCE CENTER REDEVELOPMENT PROJECT

SITE PLAN
 SHEET NO.
E100

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



PLAN 2-STAFF BUILDING

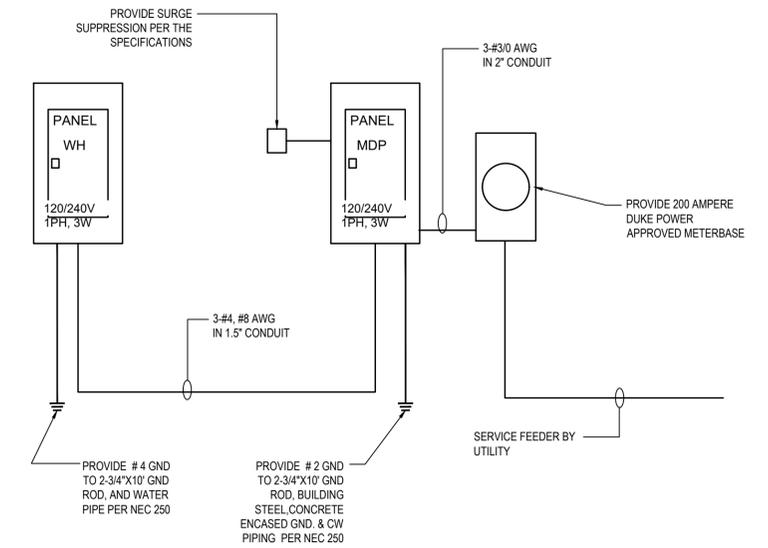


GENERAL NOTES PLAN 1:

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

NOTES KEYED TO PLAN 2:

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



ELECTRICAL RISER

1

LIGHTING FIXTURE SCHEDULE						
TYPE	DESCRIPTION	MANUF. NAME	MANUFACTURER CAT. NUMBERS	LAMPS	NO. OF BALLASTS	REMARKS
PA	6'-0" DIRECT LINEAR PENDANT, EXTRUDED ALUMINUM, CLEAR DIFFUSER	FORMI ALW MARK LIGHTING	SAD-33-95-SAT-C-AS SHOWN 120-TBD-SF-D10V LFS SERIES	LED	DRIVER	58 120 MOUNT FIXTURE AT 7'-5" TO TOP OF FIXTURE
SA	WALL MOUNTED LED LUMINAIRE	LITHONIA WILLIAMS	Z TLN SERIES EQUAL	LED	DRIVER	20 120
SB	WALL MOUNTED LED LUMINAIRE	LITHONIA WILLIAMS	WKS-12L-LR635 SLF SERIES	LED	DRIVER	12 120
SC	UNDER-CABINET MOUNTED LED LUMINAIRE	LITHONIA WILLIAMS	UCEL 48N EQUAL	LED	DRIVER	20 120 WALL MOUNTED UNDER CABINETS
EM1	SELF-CONTAINED EMERGENCY EGRESS LIGHT	LITHONIA COMPASS	ELM2 LED C02	INC	NA	20 120 MOUNTED AT 7'-0" AFF. PROVIDE WITH 90 MIN N/CAD BATTERY
XAE	WALL MOUNTED LED EGRESS	SIKHTEX	M0E SERIES	LED	DRIVER	10 120 PROVIDE WITH INTEGRAL BATTERY AND PHOTOCELL. LUMINAIRE TO FUNCTION AS EGRESS AND SECURITY LIGHTING
XB	WALL MOUNTED LED LUMINAIRE	LITHONIA WILLIAMS	OLW1 LED 20 40K PE EQUAL	LED	DRIVER	20 120 PROVIDE WITH INTEGRAL PHOTOCELL

LIGHTING SCHEDULE

2

PANEL "MDP"																	
		PANEL TYPE:		NOOD		MCB:		MCB									
		BUS SIZE:		200A		MOUNTING:		SURFACE-NEMA 1									
		VOLTAGE:		120/240		MINIMUM AIC:		22,000									
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"	3/4"	0.86	2.42		3/4"	#10/#10	1.56			HP-1	2		
3	RECEPTACLE	20	1	#12/#12 3/4"	3/4"	0.72		2.28	3/4"	#10/#10	1.56				4		
5	RECEPTACLE	20	1	#12/#12 3/4"	3/4"	1.00	4.48		3/4"	#10/#10	3.48		2	30	HP-1	8	
7	RECEPTACLE	20	1	#12/#12 3/4"	3/4"	1.00		4.48	3/4"	#10/#10	3.48					8	
9	RECEPTACLE	20	1	#12/#12 3/4"	3/4"	1.00	4.60		3/4"	#8/#10	3.60		1	35	IWH-1	10	
11	RECEPTACLE	20	1	#12/#12 3/4"	3/4"	1.00		4.60	3/4"	#8/#10	3.60		1	35	IWH-2	12	
13	RECEPTACLE	20	1	#12/#12 3/4"	3/4"	0.72	3.12		3/4"	#10/#10	2.40		1	20	HAND DRYER	14	
15	RECEPTACLE	20	1	#12/#12 3/4"	3/4"	0.72		0.72							SPACE	16	
17	RECEPTACLE	20	1	#12/#12 3/4"	3/4"	0.72	0.72								SPACE	18	
19	RECEPTACLE	20	1	#12/#12 3/4"	3/4"	0.72		0.72							SPACE	20	
21	SPARE	20	1					0.00							SPACE	22	
23	SPARE	20	1					0.00							SPACE	24	
25	SURGE SUPPRESSION	30	2	#10/#10 3/4"			1.46				1.46		2	60	PANEL "WH"	26	
27				#10/#10 3/4"							1.32					28	
CONNECTED LOAD						30.93 kVA											
MAXIMUM DEMAND LOAD						38.66 kVA											
DEMAND AMPERES						161 Amperes											

PANELBOARD SCHEDULE

3

PANEL "WH"																	
		PANEL TYPE:		NOOD		MCB:		MCB									
		BUS SIZE:		60A		MOUNTING:		SURFACE-NEMA 4X									
		VOLTAGE:		120/240		MINIMUM AIC:		10,000									
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"	3/4"	0.86	1.46		3/4"	#10/#10	0.80			WELL PUMP	2		
3	RECEPTACLE	20	1	#12/#12 3/4"	3/4"	0.72		1.32	3/4"	#10/#10	0.60		2	20L		4	
5	SPARE	20	1					0.00							SPACE	6	
7	SPARE	20	1					0.00							SPACE	8	
CONNECTED LOAD						2.78 kVA											
MAXIMUM DEMAND LOAD						3.48 kVA											
DEMAND AMPERES						15 Amperes											

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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 NC ENG LIC# C-2490

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

ELECTRICAL LIGHTING
 AND POWER PLAN

PROJECT NO. 133920-237812
 FILE NAME: E-DRAW-E200.DWG
 SHEET NO.
E200