GRAYTON BEACH TRANSIT FACILITY
WALTON COUNTY, FLORIDA

TAX ID: 08-3S-19-25000-004-0030

PROJECT # MIN22-000057

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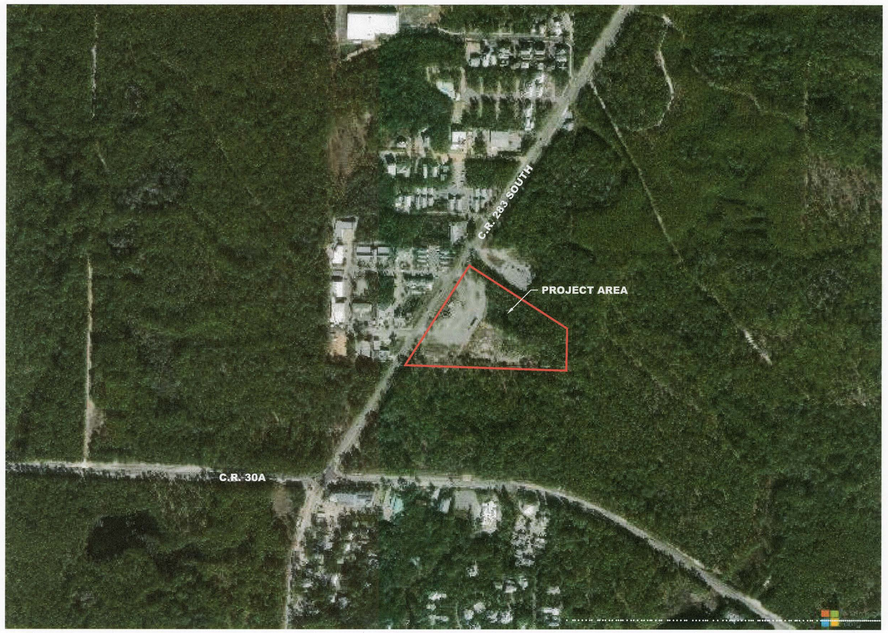
STRUCTURAL PLANS BY APEX ENGINEERING GROUP, DATED 3-29-2023 PART OF THIS PROJECT, UNDER SEPARATE COVER.
SEE SHEETS S-001, S-50, S-502

LANDSCAPE PLANS BY THE PATRICK HODGES LAND STUDIO, DATED 3-30-2023 PART OF THIS PROJECT, UNDER SEPARATE COVER.
SEE SHEETS L-1, L-2, L-3, L-4.

SITE LIGHTING PLANS BY HG ENGINEERS, DATED 3-29-2023 PART OF THIS PROJECT, UNDER SEPARATE COVER.
SEE SHEETS E001, E101, EP101.

ARCHITECTUAL PLANS BY RUSSELL JOHNSON, DATED 03-17-2023 PART OF THIS PROJECT, UNDER SEPARATE COVER.



VICINITY MAP
SCALE: 1" = 400'

DUTY TO INDEMNIFY

THE CONTRACTOR SHALL DEFEND, INDEMNIFY, KEEP AND SAVE HARMLESS THE OWNER AND ENGINEER AND THEIR RESPECTIVE MEMBERS, REPRESENTATIVES, AGENTS AND EMPLOYEES, IN BOTH INDIVIDUAL AND OFFICIAL CAPACITIES, AGAINST ALL SUITS, CLAIMS, DAMAGES, LOSSES AND EXPENSES, INCLUDING ATTORNEY'S FEES, CAUSED BY, GROWING OUT OF, OR INCIDENTAL TO THE PERFORMANCE OF THE WORK UNDER THE CONTRACT BY THE CONTRACTOR OR ITS SUBCONTRACTORS TO THE FULL EXTENT AS ALLOWED BY THE LAWS OF THE STATE OF FLORIDA AND NOT BEYOND ANY EXTENT WHICH WOULD RENDER THESE PROVISIONS VOID OR UNENFORCEABLE. IN THE EVENT OF ANY SUCH INJURY (INCLUDING DEATH) OR LOSS OR DAMAGE, OR CLAIMS THEREFORE, THE CONTRACTOR SHALL GIVE PROMPT NOTICE TO THE OWNER.

WALTON COUNTY BOARD OF COUNTY COMMISSIONERS

BRIAN KELLENBERGER
PROJECT MANAGER

WILLIAM "BOOTS" McCORMICK
DISTRICT 1 COMMISSIONER

DANNY GLIDEWELL - VICE CHAIR
DISTRICT 2 COMMISSIONER

MICHAEL BARKER
DISTRICT 3 COMMISSIONER - CHAIRMAN

TREY NICK
DISTRICT 4 COMMISSIONER

TONY ANDERSON
DISTRICT 5 COMMISSIONER

TONY CORNMAN
INTERIM COUNTY ADMINISTRATOR

PROPOSED USE OF SITE

MUNICIPAL PARKING LOT WITH PUBLIC TRANSIT AND RESTROOM FACILITY

UTILITIES INFORMATION

(ELECTRIC)
CHELCO
MATTHEW AVERY
PHONE: (850) 307-1190

(FIBER, TELEPHONE)
CENTURYLINK
BILL MCCLOUD
PHONE: (850) 599-1444

(CABLE)
MEDIACOM
EDDIE ARNOLD
PHONE: (850) 934-2560

(GAS)
OKALOOSA GAS DISTRICT
PHONE: (850) 729-4700

(FIBER)
UNITI FIBER LLC
JOHN HALLEY
PHONE: (251) 753-8695

(WATER/SEWER)
REGIONAL UTILITIES
RYAN DOUGLAS
PHONE: (850) 231-5114

CALL 48 HOURS BEFORE YOU DIG
IT'S THE LAW! DIAL 811
811 Know what's below. Call before you dig.
SUNSHINE STATE ONE CALL OF FLORIDA, INC.

CLIENT INFORMATION

WALTON COUNTY BOARD OF
COUNTY COMMISSIONERS
76 N 6TH STREET
DEFUNIAK SPRINGS, FL 32433
PHONE (850) 892-8155
www.co.walton.fl.us

GOVERNING STANDARDS:

ALL CONSTRUCTION SHALL CONFORM TO REGIONAL UTILITIES STANDARD SPECIFICATIONS AND/OR FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION AND THE FDOT DESIGN STANDARDS AND SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION) AND ALL ADA STATE & FEDERAL REQUIREMENTS UNLESS OTHERWISE SHOWN OR NOTED IN THESE PLANS.

DRMP, INC.
1625 SUMMIT LAKE DRIVE SUITE 200
Tallahassee, fl 32317
Phone: (850) 562-9600 Fax: (850) 575-5544
Certificate Of Authorization No. 2648
BENJAMIN R. LENNON, P.E.
LICENSE NO. 78674

REVISIONS

NO.	DATE	DESCRIPTION	BY

DESIGNED BY	RAJ
DRAWN BY	RAJ
CHECKED BY	WTZ
APPROVED BY	BRL

COVER SHEET

CONSTRUCTION PLANS FOR
GRAYTON BEACH TRANSIT FACILITY
COUNTY HIGHWAY 283 SOUTH
SANTA ROSA BEACH 32459

DO NOT SCALE THIS DRAWING - DIMENSIONS AND NOTES TAKE PREFERENCE

DRMP
ENGINEERS • SURVEYORS • PLANNERS • SCIENTISTS
Certificate of Authorization No. 2848
1625 SUMMIT LAKE DRIVE
TALLAHASSEE, FL 32317
Phone:850.562.9600 www.DRMP.COM
DRMP, Inc.

BENJAMIN R. LENNON LICENSE No. 78674 3-22-2024 STATE OF FLORIDA PROFESSIONAL ENGINEER
Benjamin R. Lennon, P.E.
State of Florida # 78674

PROJECT NO.: 19-0328.004
SCALE: AS SHOWN
DATE: JUNE 2023
DRAWING: G100

GENERAL NOTES

1. UNLESS OTHERWISE NOTED, ALL WORK SHALL BE PERFORMED CONSISTENT WITH REGIONAL UTILITIES AND/OR F.D.O.T. TECHNICAL SPECIFICATIONS WITH FDOT DESIGN STANDARDS (LATEST EDITION) AND THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION).
2. IF CONTRACTOR OR THEIR SUBCONTRACTORS DO NOT COMPLY WITH THE REQUIREMENTS OF THESE GENERAL NOTES, SPECIFICATIONS OR AGREEMENT BETWEEN OWNER AND CONTRACTOR, OWNER MAY, BUT IS NOT REQUIRED TO, GIVE WRITTEN NOTICE OF VIOLATION TO CONTRACTOR. SHOULD CONTRACTOR OR ITS SUBCONTRACTORS FAIL TO COMPLY WITH REQUIREMENTS OF THESE GENERAL NOTES WITHIN TWENTY-FOUR (24) HOURS FROM THE TIME OWNER ISSUES SUCH WRITTEN NOTICE OF NONCOMPLIANCE, OR WITHIN THE TIME OF ABATEMENT PERIOD SPECIFIED BY ANY GOVERNMENTAL AGENCY, WHICHEVER PERIOD IS SHORTER, CONTRACTOR SHALL BE IN MATERIAL DEFAULT OF THIS CONTRACT.
3. THE PROJECT DESIGN HAS BEEN BASED UPON FIELD SURVEYS AND SITE VISITS BY DRMP.
4. CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE SITE, INCLUDING ALL SURFACE AND SUBSURFACE CONDITIONS, LIMITS OF CONSTRUCTION, WORK REQUIRED AND ALL OTHER CONDITIONS THAT MAY EFFECT THE SUCCESSFUL COMPLETION OF THE PROJECT, PRIOR TO THE COMMENCEMENT OF WORK. IF CONTRACTOR DISCOVERS ANY ERRORS OR OMISSIONS IN THE PLANS OR SPECIFICATIONS, HE SHALL IMMEDIATELY NOTIFY OWNER OR OWNER'S AGENT.
5. CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS NOT PROVIDED, GIVE ALL NOTICES REQUIRED BY, AND COMPLY WITH ALL APPLICABLE LAWS, ORDINANCES, RULES, STATUTES, REGULATIONS, AND PERMIT CONDITIONS BEARING ON THE EXECUTION OF PROJECT, AS DRAWN AND SPECIFIED. IF CONTRACTOR OBSERVES THAT THE DRAWINGS OR SPECIFICATION ARE IN VARIANCE WITH ANY APPLICABLE LAWS, ORDINANCES, RULES, STATUTES, REGULATIONS OR PERMIT CONDITIONS, HE SHALL TAKE ANY ACTIONS NECESSARY TO MITIGATE ANY POTENTIAL DAMAGE, AND PROMPTLY NOTIFY ENGINEER IN WRITING OF SUCH VARIANCE. ANY NECESSARY CHANGES TO THE DRAWING AND SPECIFICATIONS SHALL BE MADE IN ACCORDANCE WITH THE PROVISIONS OF THE AGREEMENT BETWEEN OWNER AND CONTRACTOR.
6. CONTRACTOR SHALL BE RESPONSIBLE TO OWNER AND ENGINEER FOR THE ACTS AND OMISSIONS OF THE CONTRACTOR'S EMPLOYEES, AND ALL SUBCONTRACTORS AND THEIR AGENTS AND EMPLOYEES, AND ANY OTHER PERSONS PERFORMING ANY WORK UNDER THIS CONTRACT BETWEEN OWNER AND CONTRACTOR, FOR THIS PROJECT.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ALL NECESSARY ARRANGEMENTS WITH ALL GOVERNMENTAL AGENCIES, DEPARTMENT OR BODIES, PUBLIC AND PRIVATE UTILITIES, CARRIERS OR SERVICE COMPANIES, AND CORPORATIONS OWNING OR CONTROLLING ANY ROADWAYS, RAILWAYS, WATER, SEWER, GAS, ELECTRICAL, TELEPHONE OR TELEGRAPH FACILITIES, SUCH AS PAVEMENT, TRACKS, PIPING, WIRES, CABLES, CONDUITS, POLES, GUYS OR OTHER SIMILAR FACILITIES, INCLUDING INCIDENTAL STRUCTURES CONNECTED TO SUCH SERVICES, THAT ARE ENCOUNTERED DURING THE PROJECT, IN ORDER THAT SUCH ITEMS MAY BE PROPERLY PROTECTED, SUPPORTED OR RELOCATED AS NEEDED.
8. UNLESS OTHERWISE SPECIFIED IN THESE GENERAL CONDITIONS, SPECIFICATIONS OR IN THE AGREEMENT BETWEEN OWNER AND CONTRACTOR, ALL CONSTRUCTION IS TO BE GOVERNED BY THE PLANS, SPECIFICATION AND APPLICABLE PERMITS, ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS, ORDINANCES, RULES, STATUTES, REGULATIONS, PERMIT CONDITIONS AND BUILDING AND SAFETY CODES BEARING ON THE EXECUTION OF THE PROJECT.
9. PRIOR TO PERFORMING ANY WORK WITHIN ANY PUBLIC OR UTILITY RIGHT-OF-WAY OR EASEMENT, CONTRACTOR SHALL OBTAIN AUTHORIZATION AND PERMITS FROM THE APPLICABLE JURISDICTION RESPONSIBLE FOR SUCH RIGHT-OF-WAY OR EASEMENT. ADDITIONALLY, CONTRACTOR SHALL NOTIFY SUNSHINE STATE ONE CALL AT 1 (800) 432-4770 AT LEAST 72 HOURS PRIOR TO DIGGING OR OTHERWISE DISTURBING UTILITIES.
10. CONTRACTOR SHALL PRESERVE AND PROTECT ALL PERMANENT REFERENCE MONUMENTS, CONTROL POINTS, BENCHMARKS AND PROPERTY CORNERS. IN THE EVENT ANY REFERENCE MONUMENTS, CONTROL POINTS, BENCHMARKS OR PROPERTY CORNERS ARE DISTURBED, CONTRACTOR SHALL EMPLOY A FLORIDA REGISTERED LAND SURVEYOR TO RESET OR REPLACE SUCH.
11. THE OWNER, OWNER'S AGENT AND INSPECTORS OF APPLICABLE GOVERNMENT JURISDICTIONS AND AGENCIES SHALL HAVE ACCESS TO THE PROJECT AT ALL TIMES. CONTRACTOR SHALL PROVIDE REASONABLE AND PROPER FACILITIES FOR SUCH ACCESS AND INSPECTION OF THE WORK.
12. CONTRACTOR SHALL COMPLY IN EVERY ASPECT WITH THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 (OSHA) AS AMENDED AND ALL RULES, STATUTES AND REGULATIONS NOW OR HEREAFTER IN EFFECT UNDER SAID ACT. THE CONTRACTOR FURTHER AGREES TO COMPLY WITH ANY OTHER APPLICABLE FEDERAL, STATE AND LOCAL LAWS, ORDINANCES, RULES, STATUTES, REGULATIONS OR PERMIT CONDITIONS PERTAINING TO JOB SAFETY AND HEALTH, INCLUDING, BUT NOT LIMITED TO CFR 1910 AND 1926.
13. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE BUILDING AND SAFETY CODES, FEDERAL, STATE, AND LOCAL LAWS, ORDINANCES, RULES, STATUTES, REGULATIONS OR PERMIT CONDITIONS, INCLUDING BUT NOT LIMITED TO, LAWFUL ORDERS OF ANY QUASI PUBLIC OR OTHER AUTHORITY HAVING JURISDICTION FOR THE SAFETY OF PERSONS OR PROPERTY OR FOR THE PROTECTION AGAINST INJURY, DAMAGE, OR LOSS TO PERSONNEL, EQUIPMENT OR MATERIALS, OR DESIGNED TO PROTECT THE ENVIRONMENT. CONTRACTOR SHALL ERECT AND MAINTAIN, AS REQUIRED BY EXISTING CONDITIONS AND PROGRESS OF THE WORK, ALL REASONABLE AND REQUIRED SAFEGUARDS FOR THE SAFETY AND PROTECTION OF ALL PERSONNEL, EQUIPMENT OR MATERIALS, INCLUDING BUT NOT LIMITED TO, POSTING OF DANGER SIGNS AND OTHER WARNING AGAINST HAZARDS, PROMULGATING SAFETY REGULATIONS AND NOTIFYING OWNERS AND USERS OF ADJACENT UTILITIES OF THE EXISTENCE OF HAZARDS AND SAFETY REGULATIONS.
14. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL REASONABLE AND PRUDENT PRECAUTIONS FOR THE SAFE AND SECURE PROTECTION OF ALL INCOMPLETE WORK, MATERIALS AND EQUIPMENT STORED ONSITE AND OFFSITE, AND ANY UNAUTHORIZED ACCESS TO SUCH.
15. CONTRACTOR SHALL, AT ALL TIMES, UTILIZE ALL NORMALLY ACCEPTED AND REASONABLY EXPECTED SAFETY PRACTICES AND COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, ORDINANCES, RULES, STATUTES, REGULATIONS OR PERMIT CONDITIONS, AND GUIDELINES AND RECOMMENDATIONS PERTAINING TO THE SAFE UTILIZATION OF ALL EQUIPMENT AND MATERIALS, AS PUBLISHED BY MANUFACTURER OR SUPPLIER.
16. PRIOR TO INITIATING ANY EXCAVATION (INCLUDING, BUT NOT LIMITED TO, TUNNELS, DITCHES, SWALES, STORMWATER PONDS, CANALS, OR ARTIFICIAL LAKES), CONTRACTOR SHALL REVIEW AND MAKE ARRANGEMENTS TO COMPLY IN EVERY RESPECT WITH THE PROVISIONS OF ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, ORDINANCES, RULES, STATUTES, REGULATIONS OR PERMIT CONDITIONS, (INCLUDING BUT NOT LIMITED TO CFR 1926 SUBPART P, OSHA DIRECTIVES CPL 2.69 AND 2.87 AND STATE OF FLORIDA DHR REQUIREMENTS) PERTAINING TO SAFE TRENCHING AND EXCAVATION. CONTRACTOR SHALL INSTALL ALL NECESSARY FENCES AND BARRIERS, AND TAKE ALL OTHER REASONABLE AND PRUDENT STEPS TO ENSURE THAT ACCESS TO EXCAVATIONS BY UNAUTHORIZED INDIVIDUALS IS PREVENTED.
17. CONTRACTOR SHALL TAKE ALL REASONABLE PRECAUTIONS FOR THE SAFETY OF, AND SHALL PROVIDE ALL REASONABLE AND REQUIRED PROTECTION TO PREVENT INJURY, DAMAGE OR LOSS TO:
    A. ALL INDIVIDUALS INCLUDING CONTRACTOR'S EMPLOYEES, AND ALL SUBCONTRACTORS AND THEIR AGENTS AND EMPLOYEES, INSPECTORS AND ANY OTHER PERSONS PERFORMING ANY WORK UNDER A CONTRACT WITH THE CONTRACTOR;
    B. ALL THE WORK, MATERIALS AND EQUIPMENT TO BE INCORPORATED INTO THE FINAL PRODUCT, WHETHER IN STORAGE ONSITE OR OFFSITE, UNDER THE CARE, CUSTODY OR CONTROL OF THE CONTRACTOR OR ANY OF THE SUBCONTRACTORS; AND
    C. OTHER PROPERTY AT THE SITE OR ADJACENT TO THE SITE, INCLUDING BUT NOT LIMITED TO TREES, SHRUBS, LAWNS, WALKS, PAVEMENTS, ROADWAYS, STRUCTURES AND UTILITIES NOT DESIGNATED FOR REMOVAL OR DEMOLITION DURING THE COURSE OF THE PROJECT.
    D. ALL DAMAGE OR LOSS TO ANY PROPERTY, UNTIL FINAL ACCEPTANCE OF THE WORK BY THE OWNER, CAUSED IN WHOLE OR IN PART BY THE CONTRACTOR, CONTRACTOR'S EMPLOYEES, ANY SUBCONTRACTORS OR THEIR AGENTS, EMPLOYEES OR OTHER PERSONS PERFORMING WORK UNDER A CONTRACT WITH THE CONTRACTOR FOR WHOSE ACTS ANY OF THEM MAY BE LIABLE, SHALL BE REMEDIED BY THE CONTRACTOR, EXCEPT FOR DAMAGE OR PROPERTY LOSS ATTRIBUTED SOLELY TO THE ACTS OR OMISSIONS OF THE OWNER OR THE ENGINEER, OR ANY SUBCONTRACTORS OR THEIR AGENTS, EMPLOYEES OR OTHER PERSONS PERFORMING WORK FOR THEM, OR FOR WHOSE ACTS ANY OF THEM MAY BE LIABLE, SHALL AND NOT PROPERLY ATTRIBUTABLE IN WHOLE OR IN PART TO THE FAULT OR NEGLIGENCE OF THE CONTRACTOR.
18. ALL INJURY, DAMAGE OR LOSSES TO ANY PERSONNEL, EQUIPMENT, MATERIALS OR PROPERTY, AS NOTED IN THIS PARAGRAPH 18, CAUSED IN WHOLE OR IN PART, THROUGH FAULT OR NEGLIGENCE BY CONTRACTOR, SUBCONTRACTORS, SUPPLIERS OR BY ANYONE FOR WHOSE ACTS ANY OF THEM MAY BE LIABLE, SHALL BE REMEDIED BY THE CONTRACTOR, EXCEPT FOR INJURY, DAMAGE OR LOSS PROPERLY ATTRIBUTABLE SOLELY TO THE ACTS, ERRORS OR OMISSIONS OF OWNER, ENGINEER OR ANYONE EMPLOYED BY THEM, OR FOR THOSE ACTS ANY OF THEM MAY BE LIABLE AND NOT PROPERLY ATTRIBUTABLE IN WHOLE OR IN PART TO THE FAULT OR NEGLIGENCE OF THE CONTRACTOR.
19. UNTIL THE FINAL ACCEPTANCE OF THE PROJECT BY OWNER, CONTRACTOR SHALL HAVE THE COMPLETE CHARGE AND CARE OF, AND SHALL BEAR ALL RISKS AND EXPENSES FOR ANY INJURY, DAMAGE OR LOSS, OR TO ANY PORTION OF THE WORK, ALL MATERIALS STORED ONSITE OR OFFSITE BY THE ACTION OF THE ELEMENTS, OR FROM ANY OTHER CAUSE WHETHER ARISING FROM THE EXECUTION OR NON-EXECUTION OF THE WORK. CONTRACTOR SHALL BEAR ALL EXPENSES FOR ANY REPAIRS, REBUILDING OR RESTORATION, AND MAKE GOOD ALL INJURIES, DAMAGES OR LOSSES TO ANY PORTION OF THE WORK BEFORE FINAL ACCEPTANCE OF THE PROJECT BY OWNER.
20. CONTRACTOR SHALL NOT LOAD, CAUSE OR PERMIT ANY PART OF THE WORK TO BE LOADED SO AS TO ENDANGER SAFETY.
21. THOSE PARTS OF THE WORK IN PLACE, WHICH ARE SUBJECT TO DAMAGE, BECAUSE OF ACTIVITIES OR OPERATIONS BEING CARRIED OUT ADJACENT TO, SHALL BE COVERED, BOARDED UP OR SUBSTANTIALLY ENCLOSED WITH ADEQUATE PROTECTION BY CONTRACTOR AT HIS EXPENSE.
22. PERMANENT OPENINGS USED AS THOROUGHFARES FOR THE INTRODUCTION OF WORK, PERSONNEL, EQUIPMENT AND/OR MATERIALS TO STRUCTURES SHALL HAVE HEADS, JAMBS AND SILLS WELL BLOCKED AND BOARDED BY THE CONTRACTOR. OWNER RETAINS THE AUTHORITY, BUT ASSUMES NO DUTY TO ESTABLISH STANDARDS OF PROTECTION, AND TO REVIEW THE EFFICIENCY OF PROTECTIVE MEASURES TAKEN BY CONTRACTOR.
23. ADEQUATE TRAFFIC CONTROL, BARRICADES AND FLAGMEN SERVICES SHALL BE FURNISHED AND MAINTAINED BY CONTRACTOR AT ALL POINTS WHERE CONVEYING EQUIPMENT ENGAGED ON THE WORK REGULARLY ENTER ONTO, EXITS FROM OR CROSSES TRAFFIC CARRYING ROADS.
24. CONTRACTOR SHALL PROTECT AND KEEP OWNER (INCLUDING THEIR AGENTS AND EMPLOYEES) FREE AND HARMLESS FROM ANY AND ALL LIABILITY, PUBLIC OR PRIVATE, PENALTIES, CONTRACTUAL OR OTHERWISE, LOSSES, DAMAGES, COST, ATTORNEY'S FEES, EXPENSES, CAUSE OF ACTION, CLAIMS OR OTHER JUDGMENTS RESULTING FROM VIOLATIONS UNDER OSHA OR ANY RULES, STATUTES OR REGULATIONS PROMULGATED THERE UNDER, OR ANY FEDERAL, STATE OR LOCAL LAWS OR REGULATIONS PERTAINING TO JOB SAFETY AND HEALTH ARISING OUT OF, OR IN ANY WAY CONNECTED WITH THE PERFORMANCE OF THE WORK OR WORK TO BE PERFORMED ON THIS PROJECT. CONTRACTOR SHALL INDEMNIFY OWNER (INCLUDING THEIR AGENTS AND EMPLOYEES) FROM ANY SUCH CLAIMS, PENALTIES, SUITS OR ACTIONS, PUBLIC OR PRIVATE, ADMINISTRATIVE OR JUDICIAL, INCLUDING BUT NOT LIMITED TO ATTORNEY'S FEES PAID OR INCURRED BY, OR ON BEHALF OF OWNER, JOINTLY OR SEVERALLY, AND/OR THEIR AGENT AND EMPLOYEES. CONTRACTOR FURTHER AGREES IN THE EVENT OF A CLAIMED VIOLATION OF ANY FEDERAL, STATE OR LOCAL SAFETY AND HEALTH LAW OR REGULATION ARISING OUT OF, OR IN ANY WAY CONNECTED WITH THE PERFORMANCE OF THE WORK, OR WORK TO BE PERFORMED ON THIS PROJECT, OWNER MAY IMMEDIATELY TAKE ALL ACTIONS DEEMED NECESSARY TO REMEDY THE CLAIMED VIOLATIONS. ANY AND ALL COST OR EXPENSES PAID OR INCURRED BY OWNER IN TAKING SUCH ACTION SHALL BE BORNE SOLELY BY CONTRACTOR, AND CONTRACTOR AGREES TO PROTECT, HOLD HARMLESS AND INDEMNIFY OWNER AGAINST ANY AND ALL SUCH COST OR EXPENSES.
25. ALL WORK PERFORMED UNDER THIS CONTRACT, AND ALL EQUIPMENT, APPLIANCES, TOOLS AND LIKE ITEMS USED IN THE PERFORMANCE OF THE WORK SHALL CONFORM TO ALL APPLICABLE BUILDING AND SAFETY CODES, AND REGULATIONS OF ANY PUBLIC OR OTHER AUTHORITY HAVING JURISDICTION. IN THE EVENT OF CONFLICTING REQUIREMENTS, THE MORE STRINGENT INTERPRETATION OR REGULATION SHALL APPLY.
26. "HAZARDOUS MATERIALS" MEANS ANY SUBSTANCE WHICH:
    A. THE PRESENCE OF REQUIRES INVESTIGATION OR REMEDIATION UNDER ANY PRESENT FEDERAL, STATE, AND LOCAL LAWS, ORDINANCES, RULES, STATUTES, REGULATIONS OR PERMIT CONDITIONS, OR
    B. IS OR BECOMES DEFINED AS A "HAZARDOUS WASTE", "HAZARDOUS SUBSTANCE", POLLUTANT OR CONTAMINATE UNDER ANY PRESENT FEDERAL, STATE, AND LOCAL LAWS, ORDINANCES, RULES, STATUTES, REGULATIONS OR PERMIT CONDITIONS OR AMENDMENTS, INCLUDING BUT NOT LIMITED TO, THE 1980 COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA) AND/OR THE 1976 RESOURCE CONSERVATION AND RECOVERY ACT (RCRA), OR
    C. IS TOXIC, EXPLOSIVE, CORROSIVE, FLAMMABLE, INFECTIOUS, RADIOACTIVE, CARCINOGENIC, MUTAGENIC OR OTHERWISE HAZARDOUS AND IS REGULATED BY ANY GOVERNMENTAL AUTHORITY, AGENCY, DEPARTMENT, COMMISSION, BOARD OR INSTRUMENTALITY OF THE UNITED STATES, THE STATE(S) IN WHICH THE PROJECT IS LOCATED OR ANY POLITICAL SUBDIVISION THEREOF, OR
    D. THE PRESENCE OF ON THE PREMISES CAUSES OR THREATENS TO CAUSE A NUISANCE UPON THE PREMISES OR TO ADJACENT PROPERTIES OR POSES OR THREATENS TO POSE A HAZARD TO THE HEALTH OR SAFETY OF PERSONS ON OR ABOUT THE PREMISES, OR
    E. THE PRESENCE OF ON THE PREMISES CAUSES OR THREATENS TO CAUSE A NUISANCE UPON THE PREMISES OR TO ADJACENT PROPERTIES OR POSES OR THREATENS TO POSE A HAZARD TO THE ENVIRONMENT, OR
    F. CONTAINS GASOLINE, DIESEL FUEL OR OTHER PETROLEUM HYDROCARBONS, OR
    G. CONTAIN POLYCHLORINATED BIPHENYLS (PCB'S), ASBESTOS, MERCURY, LEAD OR UREA FORMALDEHYDE FOAM INSULATION.
27. CONTRACTOR AND ITS SUBCONTRACTORS SHALL PROPERLY USE, HANDLE, TRANSPORT AND DISPOSE OF ALL HAZARDOUS MATERIALS IN COMPLIANCE WITH ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, ORDINANCES, RULES, STATUTES, REGULATIONS OR PERMIT CONDITIONS, INCLUDING BUT NOT LIMITED TO, LAWFUL ORDERS OF ANY QUASI PUBLIC OR OTHER AUTHORITY HAVING JURISDICTION FOR THE SAFETY OF PERSONS OR PROPERTY OR FOR THE PROTECTION AGAINST INJURY, DAMAGE, OR LOSS TO PERSONNEL, EQUIPMENT OR MATERIALS, OR DESIGNED TO PROTECT THE ENVIRONMENT.
28. CONTRACTOR FURTHER AGREES THAT CONTRACTOR AND ITS SUBCONTRACTORS SHALL NOT CAUSE THE IMPROPER DISCHARGE, RELEASE OR DISPOSAL OF ANY HAZARDOUS MATERIALS OR SUBSTANCES CREATED BY ITS WORK ON OR ABOUT THE JOB SITE. IN THE EVENT OF ANY SPILL, RELEASE OR ANY OTHER REPORTABLE OCCURRENCE, CONTRACTOR SHALL TAKE ALL SUCH ACTIONS AS MAY BE NECESSARY TO MINIMIZE THE DELETERIOUS EFFECTS OF SUCH SPILL ON ANY PERSON OR PROPERTY, NOTIFY THE APPROPRIATE GOVERNMENTAL AGENCY AND NOTIFY OWNER IN WRITING.
29. CONTRACTOR AND ITS SUBCONTRACTORS SHALL, UPON COMPLETION OF PERFORMANCE OF ALL DUTIES UNDER THIS PROJECT, REMOVE ALL SUPPLIES, MATERIALS AND WASTE CONTAINING HAZARDOUS MATERIALS FROM THE JOB SITE. CONTRACTOR SHALL BEAR ALL FINANCIAL RESPONSIBILITY, BETWEEN THE PARTIES OF THE CONTRACT, FOR COMPLIANCE WITH THE PROVISIONS OF THESE GENERAL NOTES, SPECIFICATIONS OR AGREEMENT BETWEEN OWNER AND CONTRACTOR.
30. CONTRACTOR AGREES TO INDEMNIFY, DEFEND, PROTECT AND HOLD HARMLESS OWNER FROM AND AGAINST ANY CLAIMS INCLUDING, WITHOUT LIMITATION, ACTUAL ATTORNEY'S FEES AND ANY COST OF INVESTIGATION, SOIL TESTING, GOVERNMENTAL APPROVALS, REMEDIATION AND CLEANUP ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE FAILURE OF CONTRACTOR OR ITS SUBCONTRACTORS, OR THEIR AGENTS, EMPLOYEES, OFFICERS OR REPRESENTATIVES, TO COMPLY WITH THE TERMS OF THESE GENERAL NOTES.
31. SHOULD THE CONTRACTOR OR ITS SUBCONTRACTORS DISCHARGE, RELEASE OR DISPOSE OF ANY HAZARDOUS MATERIALS ON OR ABOUT THE JOB SITE IN VIOLATION OF THESE GENERAL NOTES, SPECIFICATIONS OR AGREEMENT BETWEEN OWNER AND CONTRACTOR OR IN THE EVENT OF ANY SPILL, RELEASE OR ANY REPORTABLE OCCURRENCES, CONTRACTORS SHALL IMMEDIATELY TAKE SUCH ACTIONS AS MAY BE NECESSARY TO MINIMIZE THE DELETERIOUS EFFECTS OF SUCH SPILLS ON PERSONS, PROPERTY OR THE ENVIRONMENT, NOTIFY THE APPROPRIATE GOVERNMENTAL AGENCY AND INFORM THE OWNER IN WRITING.
32. IN THE EVENT CONTRACTOR OR ANY OF ITS SUBCONTRACTORS ENCOUNTER ON THE PREMISES ANY PIPELINE, UNDERGROUND STORAGE TANK OR OTHER CONTAINER OF ANY KIND, THAT MAY CONTAIN A HAZARDOUS MATERIAL, OR ENCOUNTER ANY MATERIAL REASONABLY BELIEVED TO BE A HAZARDOUS MATERIAL, CONTRACTOR SHALL IMMEDIATELY STOP WORK IN THE AREA AFFECTED AND REPORT THE CONDITION TO THE OWNER IN WRITING.
33. MENTION OF A MANUFACTURER'S PROPRIETARY PRODUCT ON THESE PLANS IS TO ESTABLISH TYPE AND QUALITY ONLY. OTHER MANUFACTURER'S PRODUCTS OF SIMILAR QUALITY TYPE AND QUANTITY WILL ALSO BE CONSIDERED.
34. CONTRACTOR SHALL PROVIDE AS BUILT PLANS CERTIFIED BY A FLORIDA LICENSED SURVEYOR.
35. THE CONTRACTOR IS RESPONSIBLE FOR INSPECTING AND ACCEPTING THE EXISTING CONDITIONS OF THE SITE PRIOR TO BIDDING.
36. ALL DISTURBED AREAS WITHIN THE LIMITS OF RESTORATION SHALL BE REVEGETATED WITH CENTIPEDE SOD.
37. EXISTING UNDERGROUND UTILITIES SHOWN ARE BASED ON THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL ENSURE THAT THE UTILITY SYSTEMS DO NOT CONFLICT WITH THE PROPOSED PROJECT. CONFLICTS SHALL BE REPORTED TO THE PROJECT MANAGER IMMEDIATELY.
38. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES. REMOVAL AND/OR RELOCATION OF EXISTING UTILITIES IN CONFLICT WITH THE WORK, CONSTRUCTION OF TEMPORARY UTILITIES IN THE EVENT THAT EXISTING UTILITY SERVICE MUST BE INTERRUPTED AND ANY OTHER CONSTRUCTION RELATED ACTIVITIES THAT MAY AFFECT EXISTING OR PROPOSED UTILITIES. THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES IS BASED ON INFORMATION PROVIDED BY THE UTILITY OWNERS, AVAILABLE RECORDS, AND SURVEYED FIELD INFORMATION. THE INFORMATION MAY NOT REFLECT ACTUAL CONDITIONS, INCLUDE ALL UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED, OR SHOW THE UTILITIES IN THE CORRECT HORIZONTAL OR VERTICAL LOCATIONS. THE CONTRACTOR WILL MAKE HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UTILITIES AS NECESSARY TO ESTABLISH THEIR LOCATIONS AND AVOID DAMAGE.
39. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING ALL GRADE STAKES, LINES, AND LEVELS
40. THE CONTRACTOR SHALL SOLID SOD (CENTIPEDE GRASS) ALL DISTURBED AREAS UNLESS OTHERWISE SPECIFIED OR SHOWN.
41. NO SEPARATE PAYMENT WILL BE MADE FOR DEWATERING. THE COSTS FOR DEWATERING ARE INCLUDED IN THE UNIT PRICES FOR CONSTRUCTING THIS PROJECT.
42. ALL AREAS, STREETS, DRIVEWAYS, PARKING LOTS, ETC. DISTURBED BY CONSTRUCTION SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL OR BETTER CONDITION.
43. THE CONTRACTOR WILL HAVE ALL REQUIRED PERMITS IN-HAND PRIOR TO BEGINNING CONSTRUCTION, AND WILL PERFORM ALL WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE PERMITS OBTAINED BY THE OWNER AND THOSE PERMITS OBTAINED BY THE CONTRACTOR.
44. PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR WILL SUBMIT TO THE OWNER'S PROJECT MANAGER A SCHEDULE OF VALUES, A CONSTRUCTION SCHEDULE, AND A SAFETY PLAN.
45. THE CONSTRUCTION SCHEDULE WILL DESCRIBE IN DETAIL HOW THE CONSTRUCTION IS TO BE PHASED, ESTABLISH START AND FINISH DATES FOR ALL SIGNIFICANT CONSTRUCTION ACTIVITIES, AND IDENTIFY ALL CONTROLLING ITEMS OF WORK. THE SCHEDULE IS TO BE APPROVED BY THE OWNER'S PROJECT MANAGER, AND WILL BE UPDATED ON A MONTHLY BASIS TO REFLECT ACTUAL WORK PROGRESS. PAYMENT FOR PREPARING, UPDATING AND SUBMITTING THE SCHEDULE WILL BE INCLUDED IN THE PAY ITEM FOR MOBILIZATION OR OTHER PAY ITEMS AS APPROPRIATE.
46. THE CONTRACTOR SHALL SUBMIT AN EROSION CONTROL PLAN FOR APPROVAL BY THE OWNER'S PROJECT MANAGER AND WILL ADDRESS THE INSTALLATION AND MAINTENANCE OF ALL TEMPORARY AND PERMANENT SEDIMENT AND EROSION CONTROL DEVICES TO BE USED DURING EACH PHASE OF CONSTRUCTION, INCLUDING TREE REMOVAL, CLEARING AND GRUBBING, EXCAVATION, HAULING OF EXCAVATED MATERIALS, AND PLACEMENT OF EMBANKMENT AND BACKFILL. THE PLAN ALSO WILL DETAIL THE EROSION CONTROL MEASURES TO BE EMPLOYED AT ALL STOCKPILE AND CONSTRUCTION STAGING AREAS AND WILL DEFINE THE MAXIMUM LIMITS OF ALL ACTIVE CONSTRUCTION ZONES.
47. PRIOR TO ANY SCHEDULED INTERRUPTION OF UTILITY SERVICE, THE CONTRACTOR WILL COORDINATE SUCH INTERRUPTION WITH THE UTILITY PROVIDER AND WILL PROVIDE A MINIMUM 24-HOUR NOTICE TO THE AFFECTED PARTIES. THE CONTRACTOR WILL NOTIFY THE ELECTRIC UTILITY A MINIMUM OF TWO WEEKS PRIOR TO CONSTRUCTION IN THE VICINITY OF THEIR FACILITIES.
48. NO TRENCHES WILL BE ALLOWED TO REMAIN OPEN OVERNIGHT.
49. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF VEGETATION ON AND ADJACENT TO THE PROJECT SITE, AND WILL BE SOLELY LIABLE FOR DAMAGE TO VEGETATION ON PROPERTIES ADJACENT TO CONSTRUCTION WORK ZONES. ALL TREES WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE PROTECTED EXCEPT THOSE TREES IDENTIFIED ON THE PLANS TO BE REMOVED. ALL TREES OUTSIDE THE CONSTRUCTION WORK ZONE ARE TO BE PROTECTED TO THE MAXIMUM EXTENT PRACTICABLE. TREE BARRICADES WILL BE INSTALLED AND MAINTAINED AROUND ALL TREES TO BE PROTECTED AS SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE PROJECT MANAGER.
50. THE CONTRACTOR IS RESPONSIBLE TO PLACE AND MAINTAIN ROADSIDE WARNING SIGNS WHEN WORK IS BEING CONDUCTED IN THE PROPERTY RIGHT OF WAY OR WHEN MACHINERY IS ENTERING AND LEAVING THE PROJECT SITE.
51. THE CONTRACTOR IS RESPONSIBLE FOR DISPOSAL OF EXCAVATED MATERIAL OFF-SITE UNLESS OTHERWISE DIRECTED BY THE PROJECT MANAGER.
52. IF DEWATERING IS REQUIRED, A CONSUMPTIVE USE PERMIT (C.U.P.) SHALL BE REQUIRED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN SAID PERMIT THROUGH FDEP.

CONSTRUCTION SCHEDULE

1. POST THE ENVIRONMENTAL PERMIT PLACARD IN A CONSPICUOUS WEATHER-PROOF PLACE (WITHOUT PLACING A MAIL IN A TREE) AND SCHEDULE A PRE-CONSTRUCTION CONFERENCE WITH WALTON COUNTY, FDEP, AND REGIONAL UTILITIES PRIOR TO COMMENCING CONSTRUCTION.
2. CONTRACTOR SHALL STAKE THE LIMITS OF CONSTRUCTION/CLEARING PRIOR TO COMMENCING CONSTRUCTION.
3. CONTRACTOR SHALL INSTALL TREE PROTECTION & EROSION CONTROL DEVICES AS SHOWN IN THE PLANS OR AS REQUIRED BY THE COUNTY'S ENVIRONMENTAL INSPECTOR. CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENVIRONMENTAL INSPECTOR OF THE INSTALLATION OF THE TREE PROTECTION& EROSION CONTROL DEVICES PRIOR TO COMMENCING CONSTRUCTION.
4. CONTRACTOR SHALL CLEAR POND 1 AND 2 AREAS THEN DESILT POND 1 OUTFALL, INFLOW STORM PIPES, AND STRUCTURES E-1 AND E-2.
7. CONTRACTOR SHALL ROUGH GRADE SITE, STOCK PILE TOPSOIL, AND CONDUCT DEMOLITION.
11. CONSTRUCT POND 1 IMPROVEMENTS.
12. CONSTRUCT STRUCTURES S-1 THROUGH S-3 AND ASSOCIATED PIPES. AS ADDITIONAL INLETS/STRUCTURES ARE CONSTRUCTED, PLACE INLET PROTECTION AROUND THE NEW INLETS/STRUCTURES.
13. CONNECT TO EXISTING STRUCTURE E-1 ON THE NORTH END OF POND 1.
11. CONSTRUCT POND 2 IMPROVEMENTS.
12. CONSTRUCT STRUCTURES S-5 THROUGH S-8 AND ASSOCIATED PIPES. AS ADDITIONAL INLETS/STRUCTURES ARE CONSTRUCTED, PLACE INLET PROTECTION AROUND THE NEW INLETS/STRUCTURES.
13. CONSTRUCT POND 3A AND 3B IMPROVEMENTS.
14. CONSTRUCT STRUCTURES S-12 THROUGH S-14 AND ASSOCIATED PIPES. AS ADDITIONAL INLETS/STRUCTURES ARE CONSTRUCTED, PLACE INLET PROTECTION AROUND THE NEW INLETS/STRUCTURES.
15. FINISH GRADE SITE AND LANDSCAPE AS SPECIFIED IN THE LANDSCAPE PLAN. STABILIZE ALL DISTURBED AREAS.
16. CONTRACTOR SHALL COORDINATE FINAL CLOSE OUT OF THE PROJECT WITH THE OWNER, THE ENGINEER OR RECORD, REGIONAL UTILITIES, AND THE COUNTY. AS-BUILTS BY A PROFESSIONAL LAND SURVEYOR AND RECORD DRAWINGS CERTIFIED BY A REGISTERED PROFESSIONAL ENGINEER MUST BE SUBMITTED TO THE COUNTY AND REGIONAL UTILITIES.
17. EROSION CONTROL DEVICES SHALL NOT BE REMOVED UNTIL AFTER THE SITE HAS BEEN STABILIZED AND REMOVAL HAS BEEN APPROVED BY THE COUNTY'S ENVIRONMENTAL INSPECTOR.

STORMWATER MANAGEMENT SYSTEM OPERATION AND MAINTENANCE

AFTER SIGNIFICANT RAINFALL EVENTS:

1. INSPECT ALL SWALES, GRASSED RETENTION BASINS, AND EMBANKMENT SLOPES FOR RILLS AND EROSION. REPAIR ANY ERODED AREAS AND RESEED AND FERTILIZE AS NECESSARY.
2. TWICE ANNUALLY INSPECT SWALES AND RETENTION BASINS FOR SEDIMENTATION. REMOVE SILT TO THE LIMITS SHOWN ON THE CONSTRUCTION PLANS TO PREVENT BLOCKED DRAINAGE AND THE MOVEMENT OF STORMWATER.
3. INSPECT ALL INLETS, CATCH BASINS, CULVERTS, AND MANHOLES AT LEAST TWICE ANNUALLY AND REMOVE DEBRIS AS NECESSARY TO PROVIDE POSITIVE DRAINAGE. REMOVE DEBRIS FROM ALL CONTROL STRUCTURES, SUCH AS ORIFICES AND WEIRS.
4. INSPECT THE BOLD AND GOLD FILTER SYSTEM IN POND 1 AND POND 2 AT LEAST TWICE PER YEAR AND ALL PERFORM ALL NECESSARY REPAIRS AND MAINTENANCE.

BOLD AND GOLD SPECIFICATIONS

1.1 DESCRIPTION

BOLD & GOLD CTS FILTRATION MEDIA IS A BIOSORPTION ACTIVATED MEDIA (BAM) FOR STORMWATER TREATMENT IN CONJUNCTION WITH OTHER STRUCTURAL OR NON-STRUCTURAL STORMWATER BMPS. BOLD & GOLD FILTRATION MEDIA IS A PATENTED PRODUCT DEVELOPED AT THE STORMWATER MANAGEMENT ACADEMY OF THE UNIVERSITY OF CENTRAL FLORIDA. ENVIRONMENTAL CONSERVATION SOLUTIONS, LLC. (ECS) IS THE LICENSED MANUFACTURER OF THE BOLD & GOLD FILTRATION MEDIA.

1.2 RESPONSIBILITY

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SATISFACTORY DELIVERY, STOCKPILING, INSTALLATION, AND MAINTENANCE OF THE BOLD & GOLD CTS FILTRATION MEDIA DURING CONSTRUCTION BASED ON INFORMATION PROVIDED IN THE CONTRACT DOCUMENTS AND AS PROVIDED BY THE SUPPLIER. THE BOLD & GOLD CTS FILTRATION MEDIA SHALL BE PURCHASED FROM AN APPROVED SOURCE. CONTACT THE LOCAL FERGUSON WATERWORKS BRANCH FOR PRICING INFORMATION. ECS WILL PROVIDE A CERTIFICATE OF AUTHENTICITY TO THE ENGINEER OF RECORD AT THE COMPLETION OF THE PROJECT. THE CERTIFICATE OF AUTHENTICITY INCLUDES THE QUANTITY OF MEDIA DELIVERED TO THE PROJECT SITE AND CERTIFIES THE BOLD & GOLD MEDIA DELIVERED MEETS THE PATENT REQUIREMENTS OF THE UNIVERSITY OF CENTRAL FLORIDA.

1.3 MATERIAL

COMPOSITION:

THE BOLD & GOLD CTS FILTRATION MEDIA IS MANUFACTURED WITH MINERAL MATERIALS AND NO ORGANIC MATERIALS. THE FINAL PRODUCT HAS MORE THAN 2% BUT LESS THAN 6% PASSING THE US #200 (75 MICRON OPENING SIZE) SIEVE. THE MIX IS COMPOSED OF 85% POORLY GRADED CLEAN SAND (WASHED) AND 15% SORPTION MATERIALS BY VOLUME. THE SORPTION MATERIALS ARE COMPOSED OF RECYCLED TIRE CRUMB WITH NO METAL CONTENTS AND MINED KAOLIN CLAY THAT HAS NO LESS THAN 99% CLAY CONTENT. PERCENTAGES SHALL BE DETERMINED BY IN-PLACE VOLUME. WATER PASSING THROUGH THE MEDIA MUST NOT EXHIBIT ACUTE TOXICITY AND NOT CHANGE THE PH OF THE FILTERED WATER BY MORE THAN 1.0 UNIT. THE MATERIAL SHALL HAVE A WATER HOLDING CAPACITY (AMOUNT OF WATER THAT THE MEDIA CAN HOLD FOR CROP USE) OF AT LEAST 10% AS MEASURED BY POROSITY, AND TOTAL POROSITY OF 32%. THE PERMEABILITY AS MEASURED IN THE LABORATORY FOR A MEDIA AT 95 POUNDS PER CUBIC FEET MUST BE GREATER THAN 10.0 INCHES PER HOUR.

STORAGE AND HANDLING:

THE BOLD & GOLD CTS FILTRATION MEDIA IS DELIVERED PRE-MIXED AND READY TO INSTALL. MEDIA SHALL NOT BE STOCKPILED LONGER THAN 30 DAYS BEFORE INSTALLATION AND MUST BE COVERED TO PREVENT SEPARATION OF THE MATERIAL DUE TO ADVERSE WEATHER AND ENVIRONMENTAL CONDITIONS SUCH AS BUT NOT LIMITED TO RAINFALL AND WIN.

1.4 CONSTRUCTION

DELIVERY:

BOLD & GOLD CTS FILTRATION MEDIA IS DELIVERED TO THE JOBSITE PRE-MIXED AND READY FOR INSTALLATION. THE DELIVERED MATERIAL IS CERTIFIED TO MEET THE PATENT REQUIREMENTS AND A CERTIFICATE SHALL BE ISSUED AS STATED IN THIS SPECIFICATION.

INSTALLATION:

SURFACE ON WHICH THE BOLD & GOLD CTS FILTRATION MEDIA IS PLACED SHALL BE REASONABLY LEVELED WITHIN •••• ••• OF THE ELEVATIONS SHOWN IN THE PLANS. UNLESS A SLOPE GRADE IS SPECIFIED IN THE PLANS, A LEVEL SURFACE IS RECOMMENDED FOR THE SUBGRADE SOIL TO ENSURE EVEN INFILTRATION OF FILTERED STORMWATER SPREAD OVER THE ENTIRE SURFACE AREA.

1. THE SURFACE OF THE SUBGRADE SOIL UNDERNEATH THE BOLD & GOLD CTS FILTRATION MEDIA SHALL BE COMPACTED AND/OR SCARIFIED TO MEET THE REQUIREMENTS AS SPECIFIED BY THE DESIGN ENGINEER. ALL NECESSARY CONSTRUCTION PRACTICES SHALL BE TAKEN TO MINIMIZE THE COMPACTION OF THE SUBGRADE SOIL, ABOVE THE SPECIFIED SUBGRADE DENSITY, TO AVOID THE REDUCTION OF THE INFILTRATION RATE AT THE SOIL-FILTER MEDIA INTERFACE. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES NEEDED TO CONTROL THE DEPOSITION OF SEDIMENTS ON THE SURFACE OF THE SUBGRADE SOIL PRIOR TO THE PLACEMENT OF THE BOLD & GOLD CTS FILTRATION MEDIA.

2. THE BOLD & GOLD CTS FILTRATION MEDIA SHALL NOT BE INSTALLED UNTIL ALL AREAS THAT DRAIN TO IT HAVE TEMPORAL/PERMANENT EROSION AND SEDIMENTATION STABILIZATION IN PLACE. NO RUNOFF SHALL BE DIRECTED TO THE SPECIFIED LOCATION OF THE BOLD & GOLD CTS FILTRATION MEDIA UNTIL ALL DRAINAGE AREA LEADING TO THE LOCATION ARE STABILIZED. IF THE INSTALLED BOLD & GOLD CTS FILTRATION MEDIA BECOMES CONTAMINATED WITH SEDIMENT, PRIOR TO THE PLACEMENT OF THE COVER MATERIAL, IT SHALL BE REMOVED AND REPLACED ••••••••••••••••••••••••

3. THE BOLD & GOLD CTS FILTRATION MEDIA MAY BE PLACED IN ONE LIFT AND COMPACTED TO THE DENSITY SPECIFIED IN THE PLAN BY THE DESIGN ENGINEER. FOR TRAFFIC LOAD-BEARING BMP APPLICATIONS, THE BOLD & GOLD CTS FILTRATION MEDIA SHALL BE INSTALLED, IN NUMBER AND DEPTH OF LIFTS, AS SPECIFIED BY THE DESIGN ENGINEER TO ACHIEVE TARGET INSTALLATION DENSITY. THE MAXIMUM DRY DENSITY OF THE BOLD & GOLD CTS FILTRATION MEDIA RANGES BETWEEN 100 AND 105 POUNDS PER CUBIC FEET. UNLESS SPECIFIED BY THE DESIGN ENGINEER; A) THE SUGGESTED INSTALLATION DRY DENSITY OF THE BOLD & GOLD CTS FILTRATION MEDIA SHALL NOT BE GREATER THAN 95 POUNDS PER CUBIC FEET FOR ALL NON-TRAFFIC BEARING BMP APPLICATIONS; OR B) NO LESS THAN 100 POUNDS PER CUBIC FEET FOR ALL TRAFFIC BEARING BMP APPLICATIONS. THE FINAL IN-PLACE THICKNESS OF THE BOLD & GOLD CTS FILTRATION MEDIA SHALL NOT BE LESS THAN THE THICKNESS SHOWN IN THE PLANS FOR THE SPECIFIC PROJECT.

4. COMPACTION OF THE BOLD & GOLD CTS FILTRATION MEDIA SHALL BE ACHIEVED BY USING INDUSTRY-STANDARD COMPACTION TECHNIQUES. WATER FREE OF CONTAMINANTS (SEDIMENTS AND NUTRIENTS) MAY BE SPRINKLED ON TO THE BOLD & GOLD CTS FILTRATION MEDIA TO ACHIEVE THE COMPACTION REQUIREMENTS. IF THE COMPACTED BOLD & GOLD CTS FILTRATION MEDIA HAS AN IN-PLACE DENSITY GREATER THAN 105% OF THE REQUIRED DENSITY, THE MATERIAL WILL BE REWORKED TO MEET DENSITY REQUIREMENTS.

5. UNLESS SPECIFIED BY THE DESIGN ENGINEER, THE SURFACE OF THE BOLD & GOLD CTS FILTRATION MEDIA SHALL HAVE A SLOPE OF BETWEEN ZERO AND 0.5 PERCENT IN PREPARATION FOR THE PLACEMENT OF THE TOP COVER MATERIAL. THE TOP COVER MATERIAL SHALL SERVE AS A SPREADER OF RUNOFF OVER THE FILTER MEDIA AND PREFILTER OF GROSS POLLUTANTS FROM CONTAMINATING THE BOLD & GOLD CTS FILTRATION MEDIA. IN THE EVENT OF CLOGGING, THE TOP COVER MATERIAL SHALL BE REMOVED AND REPLACED WITH CLEAN TOP COVER MATERIAL, AT THE SAME DEPTH, TO REJUVENATE FLOW INTO THE FILTER MEDIA. THE TOP COVER SHALL BE FREE- DRAINING MATERIAL THAT IS FREE OF ORGANICS, SEDIMENTS AND ALL OTHER POLLUTANTS THAT NEGATES THE PURPOSE FOR THE INSTALLATION OF THE BOLD & GOLD CTS FILTRATION MEDIA. TOP COVER MATERIALS SHALL BE, BUT NOT LIMITED TO CLEAN SAND, GRAVEL, GEOTEXTILE, GRASS, AND OTHERS THAT MAY BE SPECIFIED BY THE DESIGN ENGINEER AND DOES NOT HINDER THE PERFORMANCE OF THE BOLD & GOLD CTS FILTRATION

6. IF REQUIRED BY THE DESIGN ENGINEER, SOD OR SEED SHALL BE PLACED OVER THE BOLD & GOLD CTS FILTRATION MEDIA WITHIN TWO DAYS OF PLACEMENT. THE SOD USED AS COVER FOR THE BOLD & GOLD CTS FILTRATION MEDIA SHALL HAVE BEEN GROWN IN A PREDOMINANTLY SANDY SITE WITH LESS THAN 5% OF THE SOIL ATTACHED TO THE SOD PASSING THE #200 (75 MICRON OPENING SIZE) SIEVE AND HAVE NO ADDED FERTILIZER.

7. AFTER PLACEMENT OF THE TOPSOIL OVER THE BOLD & GOLD CTS FILTRATION MEDIA, DRIVING AND PARKING ON THE INSTALLED BOLD & GOLD CTS FILTRATION MEDIA MAYBE ALLOWED, IF THE SURFACE IS INTENDED FOR TRAFFIC LOADING. IF RUTTING TO THE BOLD & GOLD CTS FILTRATION MEDIA OCCURS DUE TO VEHICLES OR EQUIPMENT DURING INSTALLATION, THE CONTRACTOR SHALL REPAIR IT TO THE GRADES AND ELEVATIONS IN THE PLANS.

1.5 MAINTENANCE

1. MAINTENANCE REQUIREMENTS FOR THE BOLD & GOLD CTS FILTRATION MEDIA SHALL BE DEPENDENT ON THE PROPER FUNCTIONING AND MAINTENANCE OF THE APPLICABLE BMP IN WHICH THE FILTER MEDIA IS USED. TO PREVENT THE CLOGGING OF THE VOIDS OF THE BOLD & GOLD CTS FILTRATION MEDIA, THERE SHALL BE INSTALLED AN INTERMEDIARY AGGREGATE MEDIA THAT IS FREE-DRAINING AND FREE OF ORGANICS (CLEAN SAND, ACCEPTABLE AGGREGATES, ETC.) AS COVER MATERIAL DIRECTLY ABOVE THE TOP OF THE FILTER MEDIA SURFACE. IN ADDITION, THE COVER MATERIAL SHALL SERVE TO CONTROL THE EROSION OF BOLD & GOLD CTS FILTRATION MEDIA.

2. IN THE EVENT OF THE CLOGGING RESULTING FROM THE REDUCTION OF PERMEABILITY THROUGH THE COVER MATERIAL AND THE FILTER MEDIA, THE SEDIMENT-LADEN COVER MATERIAL SHALL BE REMOVED AND REPLACED WITH NEW MATERIAL MEETING THE ORIGINAL SPECIFICATIONS. REDUCTION IN PERMEABILITY SHALL BE DESCRIBED AS THE INCREASE OF THE DRAWDOWN TIME THAT EXCEEDS THE DESIGN DURATION FOR THE SPECIFIC BMP APPLICATION.

3. BOLD & GOLD CTS FILTRATION MEDIA IS TYPICALLY DESIGNED TO LAST THE LIFE SPAN OF THE APPLICABLE BMP. HOWEVER, MAINTENANCE SHALL BE PERFORMED IF THE BOLD & GOLD CTS FILTRATION MEDIA HAS SHOWN A REDUCTION IN THE PERFORMANCE EFFICIENCIES ON THE REDUCTION OF TOTAL PHOSPHORUS (TP) BELOW THE DESIGN VALUE BEFORE AND/OR AT THE EXPIRATION OF THE DESIGN SERVICE LIFE. THE MAINTENANCE PROCEDURE SHALL INVOLVE THE REMOVAL OF THE COVER MATERIAL AND BOLD & GOLD CTS FILTRATION MEDIA AND REPLACED WITH NEW MATERIAL AND FILTER MEDIA MEETING THE ORIGINAL SPECIFICATIONS. THE SPENT FILTER MEDIA AND COVER MATERIAL SHALL BE DISPOSED OF AT AN APPROVED LANDFILL.

REVISIONS

NO.	DATE	DESCRIPTION	BY

DESIGNED BY	RAJ
DRAWN BY	RAJ
CHECKED BY	MTZ
APPROVED BY	BRL

GENERAL NOTES

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

CONSTRUCTION PLANS FOR
GRAYTON BEACH TRANSIT FACILITY
COUNTY HIGHWAY 283 SOUTH
SANTA ROSA BEACH 32459

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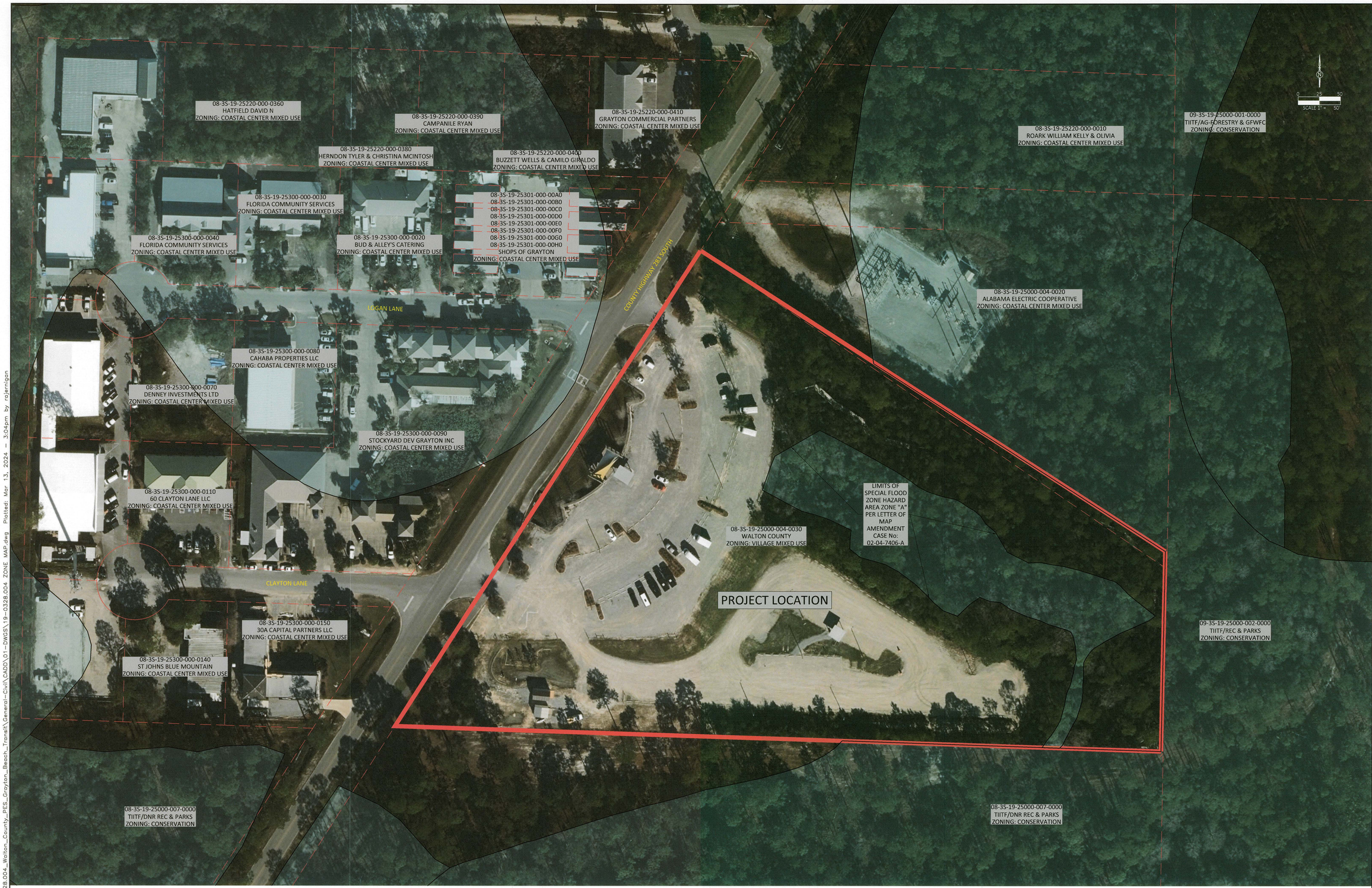
BENJAMIN R. LENNON LICENSE No. 78674 3-22-2024 STATE OF FLORIDA PROFESSIONAL ENGINEER

Benjamin R. Lennon, P.E.
State of Florida # 78674

PROJECT NO.: 19-0328.004
SCALE: AS SHOWN
DATE: JUNE 2023
DRAWING: G101



NOTES:
1. FLOOD ZONE A AREA INTERNAL TO PROJECT LOCATION PER LETTER OF MAP AMENDMENT CASE No: 02-04-7406-A.
2. FLOOD ZONE A AREA EXTERNAL TO THE PROJECT LOCATION IS PER FEMA GIS INFORMATION

LEGEND

GIS PARCEL LINES | PROJECT LOCATION | FLOOD ZONE A

REVISIONS			
NO.	DATE	DESCRIPTION	BY

DESIGNED BY	RAJ
DRAWN BY	RAJ
CHECKED BY	MTZ
APPROVED BY	BRL

ZONING MAP

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CONSTRUCTION PLANS FOR
GRAYTON BEACH TRANSIT FACILITY
COUNTY HIGHWAY 283 SOUTH
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BENJAMIN R. LEMIN LICENSE No. 78674 3-22-2024 STATE OF FLORIDA PROFESSIONAL ENGINEER

Benjamin R. Lemin, P.E.
State of Florida # 78674

PROJECT NO.: 19-0328.004
SCALE: AS SHOWN
DATE: JUNE 2023
DRAWING: C100

P:\Projects\19_19-0328.004_Walton_County_PES_Grayton_Beach_Transit\General-Civil\CADD\01-DWGS\19-0328.004 ZONE MAP.dwg Plotted: Mar 13, 2024 – 3:04pm by rajernigan

P:\Projects\19-0328.004_Walton_County_PES_Grayton_Beach_Transit\General-Civil\CADD\02-REFS\XREFS\19-0328.004 EXIST BASE.dwg Plotted: Mar 13, 2024 - 3:04pm by rajernigan

FND 4" ROUND TERRA COTTA PIPE W/MAG NAIL NE CORNER, SEC. 8, T-3-S, R-19-W

S1° 11' 58"W 1320.54'(M)

POB (LESS & EXCEPT)

FND 1.5" IP W/DSIK 0.20' E "FLDNR PLS 1718" FND 6"x6" CMOND "SIPC" 0.63' S, 0.32' W NE CORNER, SE ¼, NE ¼ SEC. 8, T-3-S, R-19-W

N1° 10' 57"E 425.28'(M)

S1° 11' 58"W 285.28'(M)

E. LINE SECTION 8, TOWNSHIP 3 SOUTH, RANGE 19 WEST (BASIS OF BEARING)

0.5' E

0.4' E

FND 4"X4"CMON W/DISK "736" FND 1"X2" LWH 0.46' S

N88° 06' 00"W 898.00'(M)

S57° 21' 33"E 649.44'(M)

S57° 18' 09"E 648.71'(M)

LIMITS OF SPECIAL FLOOD ZONE HAZARD AREA ZONE"A" PER FEMA GIS

LIMITS OF SPECIAL FLOOD ZONE HAZARD AREA ZONE"A" PER LETTER OF MAP AMENDMENT CASE No: 02-04-7406-A

R/W

SIGN "PUBLIC PARKING"

FND ½" IRD "LB3724"

INV=22.48'

13" OAK

ELEC. SERVICE CABINET

(2) WATER METER

14"x23" OVAL RCP

8" PVC

SURVEYED WETLAND LINE

SEWER MANHOLE LID ELEV= 23.15' INVERT W= 16.86' INVERT S= 16.84'

ASPHALT DRIVE

12" OAK

SIGN "STOP"

INV=22.28'

13" OAK

12" OAK

14" OAK

13" OAK

CATCH BASIN

4' HOGWIRE

SIGN "PEDESTRIAN CROSSING"

ASPHALT BIKE PATH

18" HDPE INV N: 19.04' INV S: 18.70'

14" CYPRESS

BLOCK RETAINING WALL

10" CYPRESS

15" CYPRESS

EXISTING POND 1

PILINGS

WOOD DECK

7'X7' STORAGE SHED

12'x16' PAVILION

8" CYPRESS

14" CYPRESS

12" CYPRESS

12" CLAY

(80' R/W)

COUNTY ROAD 283 SOUTH (PAVED ASPHALT)

EASTERN R/W LINE OR285

ELEC. SERVICE CABINET

GRAVEL PARKING AREA

EXISTING HYDRANT

INV=20.32'

18" HDPE INV N: 18.77' INV S: 18.62' CATCH BASIN

ELECTRIC IN 2" PVC PIPE

13" OAK

SIGN "STOP"

13" CYPRESS

15" CYPRESS

4' HOGWIRE

SIGN "NO OVERNIGHT PARKING"

TREELINE

4' HOG-WIRE FENCE

FND ½" IRD "LB 3724" 0.13' E

PORTABLE BATHROOM TRAILER

12" HDPE SOUTH END BURIED INV N=18.32' INV S=18.26'

WETLAND LINE PER PDEP PERMIT 66-0163257-001-OF

WETLAND BUFFER PER PDEP PERMIT 66-0163257-001-OF

SEWER MANHOLE LID ELEV= 21.06' INVERT N= 13.07' INVERT S= 13.05' INVERT W= 13.23'

INV=20.06'

BM1 SET ½" IRC "DRMP TRAV LB 2648" ELEV. 20.82'

BM2 SET ½" IRC "DRMP TRAV LB 2648" ELEV. 26.25'

GRAVEL PARKING AREA

11.7' x12' PAVILION

BIKE RACK

GRASS AREA

SIGN "PUBLIC PARKING"

4' HOGWIRE

WATER METER

4" PINE

SIGN "NO OVERNIGHT PARKING"

SURVEYED WETLAND LINE

EXISTING POND 2

10" PVC INV N=18.02' INV S=17.91'

10" PVC INV N=17.99' INV S=17.95'

3' WBF

EXISTING BUILDING (11.3'X21.3')

SEWER PUMP STATION LID ELEV= 18.67' INVERT = N/A

SEWER PUMP STATION LID ELEV= 18.80' INVERT = N/A

FND CMON

FND ½" IRC "LB 3724"

IRRIGATION CONTROL BOX

12'x16' BUILDING

0.85'x0.85' WOOD WALL

4' HOG-WIRE FENCE

(ON LINE)

TREELINE

REVISIONS			
NO.	DATE	DESCRIPTION	BY

DESIGNED BY:	RAJ
DRAWN BY:	RAJ
CHECKED BY:	MTZ
APPROVED BY:	BRL

EXISTING CONDITIONS

CONSTRUCTION PLANS FOR
GRAYTON BEACH TRANSIT FACILITY
COUNTY HIGHWAY 283 SOUTH
SANTA ROSA BEACH 32459

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DRMP, Inc.

BENJAMIN R. LIEN LICENSE No 78674 3-22-2024 STATE OF FLORIDA PROFESSIONAL ENGINEER

Benjamin R. Lien, P.E.
State of Florida # 78674

PROJECT NO.: 19-0328.004
SCALE: AS SHOWN
DATE: JUNE 2023
DRAWING: C101

LEGEND

- TO BE DEMOLISHED
- OBJECT TO BE REMOVED
- OBJECT TO BE REMOVED
- SF — SILT FENCE
- SSW — STRAW WATTLE
- CONSTRUCTION ENTRANCE
- INLET PROTECTION

NOTES:

1. CONTRACTOR SHALL ABANDON WELL IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS. THIS EFFORT WOULD INCLUDE APPROPRIATE PERMITS FOR ABANDONMENT.

2. CONTRACTOR SHALL INSTALL INLET PROTECTION TO PROPOSED INLETS AFTER INSTALLATION. PROPOSED INLETS AND PIPES SHOWN FOR CLARITY OF PROPOSED LOCATIONS.

3. CONTRACTOR SHALL DE-SILT EXISTING STORMWATER INFRASTRUCTURE. REMOVED MATERIAL SHALL BE REMOVED FROM SITE.

4. EXISTING CONCRETE VEHICLE STOPS IN GOOD CONDITION SHALL BE STOCKPILED ON SITE AND REUSED. IF NEW CONCRETE WHEEL STOPS ARE NEEDED, REFER TO DETAIL, SHEET C109.

5. CONTRACTOR SHALL ENSURE SEDIMENT AND DEBRIS DOES NOT ENTER PONDS OR FILTER MEDIA. IF SEDIMENT AND DEBRIS ENTER THE POND, IT IS THE CONTRACTORS RESPONSIBILITY TO REMOVE.

LIMITS OF SPECIAL FLOOD ZONE HAZARD AREA ZONE"A" PER FEMA GIS

CONSTRUCTION ENTRANCE (12' x 50') (SEE SHEET C109)

INSTALL INLET PROTECTION AROUND EXISTING INLET BEFORE CONSTRUCTION

EXISTING STORM CB TO REMAIN

EX. BLOCK RETAINING WALL TO REMAIN

EXISTING STORM CB TO REMAIN

INSTALL INLET PROTECTION AROUND EXISTING INLET BEFORE CONSTRUCTION

EXISTING 12" HDPE STORM TO REMAIN

CONSTRUCTION ENTRANCE (12' x 50') (SEE SHEET C109)

REMOVE EXISTING LIFT STATION AND CAP EXISTING 2" OUTLET PIPE FOR FUTURE CONNECTION.

CONTRACTOR SHALL COORDINATE DELIVERY OF EXISTING LIFT STATION TO WALTON COUNTY.

IRRIGATION CONTROL BOX (TO REMAIN)

CONTRACTOR SHALL COORDINATE WITH WALTON COUNTY TDC TO REMOVE BUILDINGS

PROPOSED STORM PIPE AND CB (TYP.)

INSTALL INLET PROTECTION AROUND PROPOSED STRUCTURES. SEE NOTES ON THIS SHEET

EXISTING SEGMENTAL BLOCK WALL (TO REMAIN)

EX. SIDEWALK TO REMAIN

REMOVE EXISTING 4' HOGWIRE FENCE

EXISTING LIGHTING AND POWER LINES TO BE REMOVED (SEE ELECTRICAL PLANS BY HG ENGINEERS)

PROPOSED STORM PIPE AND CB (TYP.)

WETLAND LINE PER PDEP PERMIT 66-0163257-001-DF

WETLAND BUFFER PER PDEP PERMIT 66-0163257-001-DF

PROPERTY LINE

LIMITS OF SPECIAL FLOOD ZONE HAZARD AREA ZONE"A" PER LETTER OF MAP AMENDMENT CASE No: 02-04-7406-A

FEMA ZONE "A" LIMITS PER GIS

SCALE 1" = 30'

REVISIONS

NO.	DATE	DESCRIPTION	BY

DESIGNED BY: RAJ
DRAWN BY: RAJ
CHECKED BY: MTZ
APPROVED BY: BRL

DEMOLITION PLAN AND EROSION CONTROL PLAN

CONSTRUCTION PLANS FOR
GRAYTON BEACH TRANSIT FACILITY
COUNTY HIGHWAY 283 SOUTH
SANTA ROSA BEACH 32459

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

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BENJAMIN R. LENOIR LICENSE NO. 78674 3-22-2024 STATE OF FLORIDA PROFESSIONAL ENGINEER

Benjamin R. Lenoir, P.E.
State of Florida # 78674

PROJECT NO.: 19-0328.004
SCALE: AS SHOWN
DATE: JUNE 2023
DRAWING: C102

P:\Projects19\19-0328.004_Walton_County_PFS_Grayton_Beach_Transit\General-Civil\CADD\01-DWGS\19-0328.004 DEMO.dwg Plotted: Mar 13, 2024 – 3:05pm by rajernigan

NOTE:
1. ALL PARKING STALLS SHALL HAVE VEHICLE STOPS. SEE DETAIL SHEET C109.
2. CONTRACTOR SHALL REFER TO FDOT STANDARD PLANS 522-002 FOR CONSTRUCTION OF SIDEWALK CURB CUT RAMPS. RAMP TYPE IS CALLED OUT IN PLANS AS "CR __".

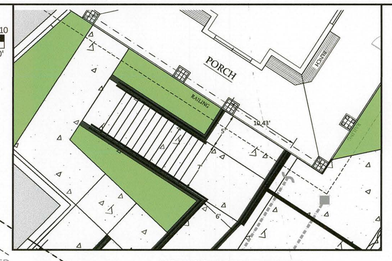
LEGEND

- NEW ASPHALT
- NEW CONCRETE
- NEW GRAVEL DRIVE
- NEW LANDSCAPE AREA
- POND AREA
- (##) REGULAR PARKING SPACE
- (H#) HANDICAP PARKING SPACE
- (E#) ELECTRIC VEHICLE PARKING SPACE
- (RV#) RECREATIONAL VEHICLE PARKING SPACE
- (G#) GOLF CART PARKING SPACE

FENCING NOTE:
SPEC. https://www.fence-depot.com/fence/48-inch-high-auburn-residential-quick-ship/
(OR APPROVED EQUAL)

HEIGHT: 48 INCHES
WIDTH: 72 INCHES
NUMBER OF HORIZONTAL RAILS: 3 RAILS
HORIZONTAL RAIL SIZE: 1 INCH SQUARE
VERTICAL PICKET SIZE: 5/8 INCH SQUARE
VERTICAL PICKET SPACING: 3 3/4 INCHES
RACKABILITY: 16 INCHES OVER 6 FOOT SPAN
COLOR: BLACK
MATERIAL: ALUMINUM
LIFETIME WARRANTY

INSTALL PER MANUFACTURES SPECIFICATIONS



SHOWER PLAZA AREA INSET

SITE DATA TABLE

PARCEL IDENTIFICATION:	08-3S-19-25000-004-0030		
CURRENT LAND USE:	COUNTY (8600)		
FUTURE LAND USE:	MIXED USE		
ZONING:	VILLAGE MIXED USE		
ZONING: FLOOR AREA RATIO:	2.00		
PROPOSED FLOOR AREA RATIO:	0.02		
PROPOSED MAXIMUM BUILDING HEIGHT	29'		
TOTAL SITE AREA:	319,749.94	SF OR	7.34 AC
MAX. IMPERVIOUS ALLOWED:	271,787.45	SF OR	85.00%
IMPERVIOUS AREA EXISTING:			
BUILDING:	1,393.01	SF OR	0.44%
GRAVEL AREA:	115,007.43	SF OR	35.97%
ASPHALT AREA:	2,521.70	SF OR	0.79%
CONCRETE AREA (PARKING AND SIDEWALK):	3,460.63	SF OR	1.08%
CURB AREA:	2,504.07	SF OR	0.78%
TOTAL EXISTING IMPERVIOUS :	124,886.84	SF OR	39.06%
EXISTING CONCRETE AREA: (TO BE REMOVED)	822.03	SF OR	0.26%
EXISTING ASPHALT AREA: (TO BE REMOVED)	1,161.42	SF OR	0.36%
EXISTING GRAVEL PARKING AREA: (TO BE REMOVED)	115,007.43	SF OR	35.97%
EXISTING BUILDINGS: (TO BE REMOVED)	1,393.01	SF OR	0.44%
CURB AREA: (TO BE REMOVED)	2,504.07	SF OR	0.78%
TOTAL EXISTING IMPERVIOUS REMOVED	120,887.96	SF OR	37.81%
EXISTING IMPERVIOUS AREA TO REMAIN	3,998.88	SF OR	1.25%

IMPERVIOUS AREA PROPOSED:			
PROPOSED ASPHALT AREA:	95,109.60	SF OR	29.74%
PROPOSED CONCRETE AREA(SIDEWALK AND FLUME):	6,905.23	SF OR	2.16%
PROPOSED CURB AREA:	7,599.93	SF OR	2.38%
PROPOSED BUILDINGS:			
TRANSIT FACILITY FOOTPRINT:	2,966.00	SF OR	0.93%
STORAGE SHED FOOTPRINT:	1,800.00	SF OR	0.56%
TOTAL BUILDINGS	4,766.00	SF OR	1.49%
TOTAL PROPOSED IMPERVIOUS:	114,380.76	SF OR	35.77%
TOTAL SITE IMPERVIOUS AREA:	118,379.64	SF OR	37.02%
OPEN SPACE PROVIDED:	201,370.30	SF OR	62.98%
PARKING SPACES REQUIRED:	14	(1 PER 350 SF)	
UPPER PARKING SPACES PROVIDED:			
STANDARD SPACES:	118.00		
RV SPACES:	4.00		
GOLF CART SPACES:	7.00		
ELECTRIC CAR SPACES:	4.00		
HANDICAP SPACES:	6.00		
TOTAL SPACES:	139.00		
BICYCLE SPACES:	20.00	(14 SPACES REQUIRED)	
LOWER PARKING SPACES PROVIDED:			
STANDARD SPACES:	62.00		
HANDICAP SPACES:	3.00		
TOTAL SPACES:	65.00		
BICYCLE SPACES:	10.00	(7 REQUIRED)	
TOTAL PARKING PROVIDED:			
STANDARD SPACES:	180.00		
RV SPACES:	4.00		
GOLF CART SPACES:	7.00		
ELECTRIC CAR SPACES:	4.00		
HANDICAP SPACES:	9.00		
TOTAL SPACES:	204.00		
BICYCLE SPACES:	30.00		

MILL 1" INCH AND RESURFACE EX. DRIVEWAY TURNOUT +- 151 SY.

CONST. 3' CURB DOWN TRANSITION

8" PVC

SEWER MANHOLE
LID ELEV= 23.15'
INVERT W= 16.86'
INVERT S= 16.84'

SURVEYED WETLAND LINE

INSTALL 5'Wx 5'Lx 12" D RIPRAP APRON D_{50} = 6"

ASPHALT BIKE PATH

SAWCUT EXISTING SIDEWALK

CONST. CONCRETE CURB AND GUTTER (TYP.) (SEE DETAIL, SHEET C109)

EXISTING WOODEN BOARDWALK CONNECTION (OPENING APPROXIMATE 6' WIDE)

INSTALL ALUMINUM PEDESTRIAN RAILING (WITH PICKET INFILL) PER FDOT STANDARD PLANS 515-062 CONTRACTOR SHALL LEAVE OPENING FOR WOODEN BOARDWALK CONNECTIVITY

COUNTY ROAD 283 SOUTH
(PAVED ASPHALT)

EXISTING POND 1

CONST 4' BLACK FENCE, W/4' PEDESTRAIN GATE (SEE FENCING NOTE)

INSTALL 5'Wx 5'Lx 12" D RIPRAP APRON D_{50} = 6"

FEMA ZONE "A" PER GIS

ELECTRIC VEHICLE (EV) CHARGING STATION. INSTALL PER MANUFACTURERS SPECIFICATIONS

CONST. 7.5' WIDE CONCRETE SIDEWALK

PROPOSED GRAYTON BEACH TRANSIT FACILITY.
880 SF MAIN BUILDING
1680 SF PORCH
412 SF BATHROOM UP
412 SF BATHROOM DOWN
F.F.E. 29.68

EXISTING FIRE HYD.

MILL 1" INCH AND RESURFACE EX. DRIVEWAY TURNOUT +- 231 SY.

CONST. 3' CURB DOWN TRANSITION

BICYCLE PARKING (10 SPACES)

25' FRONT SETBACK

INSTALL 1 CY MIN. RIPRAP APRON D_{50} = 6" (TYP.)

WETLAND LINE PER FDEP PERMIT 66-0163257-001-DF

25' WETLAND BUFFER PER FDEP PERMIT 66-0163257-001-DF

PROPOSED POND 3B

TRENCH DRAIN

SHOWER PLAZA AREA (SEE INSET)

INSTALL 2'Wx 5'Lx 12" D RIPRAP APRON D_{50} = 6"

CONST. 18" VALLEY CURB PER DETAIL, SHEET C109)

CONST. 6' WIDE CONCRETE SIDEWALK

CONST. 6' WIDE CONCRETE ADA RAMP W/ HANDRAILS

SURVEYED WETLAND LINE

PROPOSED POND 2

UPPER

LOWER

BICYCLE PARKING (20 SPACES)

MAINTENANCE BUILDING
1,800 SF
F.F.E. 20.50

PROPOSED POND 3A

INSTALL 5 CY MIN. RIPRAP APRON, D_{50} = 6"

IRRIGATION CONTROL BOX

0.85'x0.85' WOOD WALL (ON LINE)

4' HOG-WIRE FENCE

CONST. 6' WIDE CONC.

INSTALL 5 CY MIN. RIPRAP APRON, D_{50} = 6"

CHANGE IN ASPHALT PAVEMENT DESIGN
WEST SIDE OF LINE "UPPER", USE UPPER PARKING ASPHALT DETAIL
EAST SIDE OF LINE "LOWER", USE LOWER PARKING ASPHALT DETAIL
(SEE DETAILS, SHEET C109)

INSTALL 1 CY MIN. RIPRAP APRON D_{50} = 6" (TYP.)

CONST. FLUME (TYP.)
(SEE DETAIL, SHEET C106)

10' UNCOMPLIMENTARY LANDSCAPE BUFFER

10' POLICY BUFFER

INSTALL 5'Wx5'Lx12'D RIPRAP APRON, D_{50} = 6"

4' HOG-WIRE FENCE

R/W

CLAY

0 5 10 SCALE 1" = 10'

0 15 30 SCALE 1" = 30'

NO.	DATE	REVISIONS DESCRIPTION	BY
1	8/25/23	HYDRANT AND TRANSIT SEWER SERVICE RELOCATION	BRL

DESIGNED BY: RAJ
DRAWN BY: RAJ
CHECKED BY: MTZ
APPROVED BY: BRL

SITE PLAN

CONSTRUCTION PLANS FOR
GRAYTON BEACH TRANSIT FACILITY
COUNTY HIGHWAY 283 SOUTH
SANTA ROSA BEACH 32459

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

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DRMP, Inc.

BENJAMIN R. LENNON LICENSE NO. 78674 3-22-2024 STATE OF FLORIDA PROFESSIONAL ENGINEER

Benjamin R. Lennon, P.E.
State of Florida # 78674

PROJECT NO.: 19-0328.004
SCALE: AS SHOWN
DATE: JUNE 2023
DRAWING: C103

P:\Projects\19\19-0328.004_Walton_County_PES_Grayton_Beach_Transit\General-Civil\CADD\01-DWGS\19-0328.004 SITE PLAN.dwg Plotted: Mar 13, 2024 – 3:05pm by rajennon

P:\Projects19\19-0328.004_Walton_County_PES_Grayton_Beach_Transit\General-Civil\CADD\01-DWGS\19-0328.004 LANDSCAPE BUFFER.dwg Plotted: Mar 13, 2024 – 3:06pm by rajernigan

REVISIONS			
NO.	DATE	DESCRIPTION	BY
1	8/25/23	HYDRANT AND TRANSIT SEWER SERVICE RELOCATION	BRL

DESIGNED BY	RAJ
DRAWN BY	RAJ
CHECKED BY	MTZ
APPROVED BY	BRL

SITE SETBACKS AND BUFFERS

CONSTRUCTION PLANS FOR
GRAYTON BEACH TRANSIT FACILITY
COUNTY HIGHWAY 283 SOUTH
SANTA ROSA BEACH 32459

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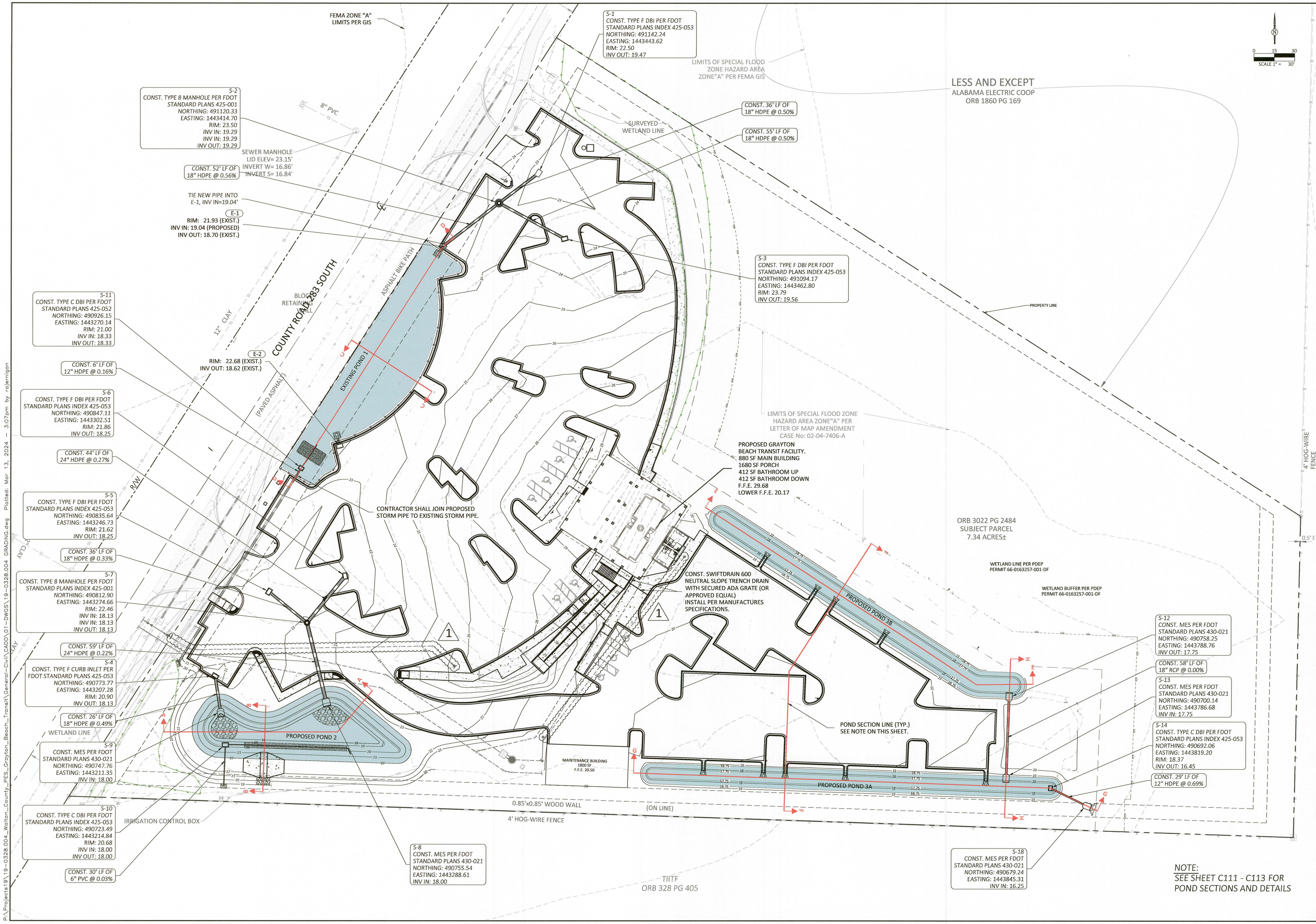
BENJAMIN R. LENNON LICENSE No. 78674 3-22-2024 STATE OF FLORIDA PROFESSIONAL ENGINEER
Benjamin R. Lennon, P.E.
State of Florida # 78674

PROJECT NO.: 19-0328.004
SCALE: AS SHOWN
DATE: JUNE 2023
DRAWING: C104



NOTE:
SEE SHEET C111 - C113 FOR POND SECTIONS AND DETAILS

P:\Projects19\19-0328.004_Walton_County_PES_Grayton_Beach_Transit\General-Civil\CADD\01-DWGS\19-0328.004 GRADING.dwg Plotted: Mar 13, 2024 - 3:07pm by rajernigan

NO.	DATE	DESCRIPTION	BY
1	8/25/23	HYDRANT AND TRANSIT SEWER SERVICE RELOCATION	BRL

REVISIONS

DESIGNED BY: RAJ
DRAWN BY: RAJ
CHECKED BY: MTZ
APPROVED BY: BRL

OVERALL GRADING AND DRAINAGE PLAN

CONSTRUCTION PLANS FOR
GRAYTON BEACH TRANSIT FACILITY
COUNTY HIGHWAY 283 SOUTH
SANTA ROSA BEACH 32459

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Benjamin R. Lennon, P.E.
State of Florida # 78674

PROJECT NO.: 19-0328.004
SCALE: AS SHOWN
DATE: JUNE 2023
DRAWING: C105

SURVEYED WETLANDS

FEMA ZONE "A" LIMITS PER GIS

COUNTY ROAD 283 SOUTH

LIMITS OF SPECIAL FLOOD ZONE HAZARD AREA ZONE "A" PER LETTER OF MAP AMENDMENT CASE No: 02-04-7406-A

WETLAND LINE PER FDEP PERMIT 66-0163257-001-DF

WETLAND BUFFER PER FDEP PERMIT 66-0163257-001-DF

EXISTING POND 1

R/W LINE

EXISTING ELECTRIC BOX

CONNECT TO EXISTING POND OUTLET PIPE

EXISTING POND 1 OUTFALL

TRANSIT FACILITY
UPPER F.F.E. = 29.68
LOWER F.F.E. = 20.17

PROPOSED POND 3B

PROPOSED POND 3A

PROPOSED POND 2

MAINTENANCE BUILDING
F.F.E = 20.50

S-1 S-2 S-3 S-4 S-5 S-6 S-7 S-8 S-9 S-10 S-11 S-12 S-13 S-14

E-1 E-2

0 15 30
SCALE 1" = 30'

0 5 10
SCALE 1" = 10'

CONCRETE FLUME DETAIL
N.T.S.

REVISIONS			
NO.	DATE	DESCRIPTION	BY
1	8/25/23	HYDRANT AND TRANSIT SEWER SERVICE RELOCATION	BRL

DESIGNED BY	RAJ
DRAWN BY	RAJ
CHECKED BY	MTZ
APPROVED BY	BRL

GRADING AND DRAINAGE PLAN

CONSTRUCTION PLANS FOR
GRAYTON BEACH TRANSIT FACILITY
COUNTY HIGHWAY 283 SOUTH
SANTA ROSA BEACH 32459

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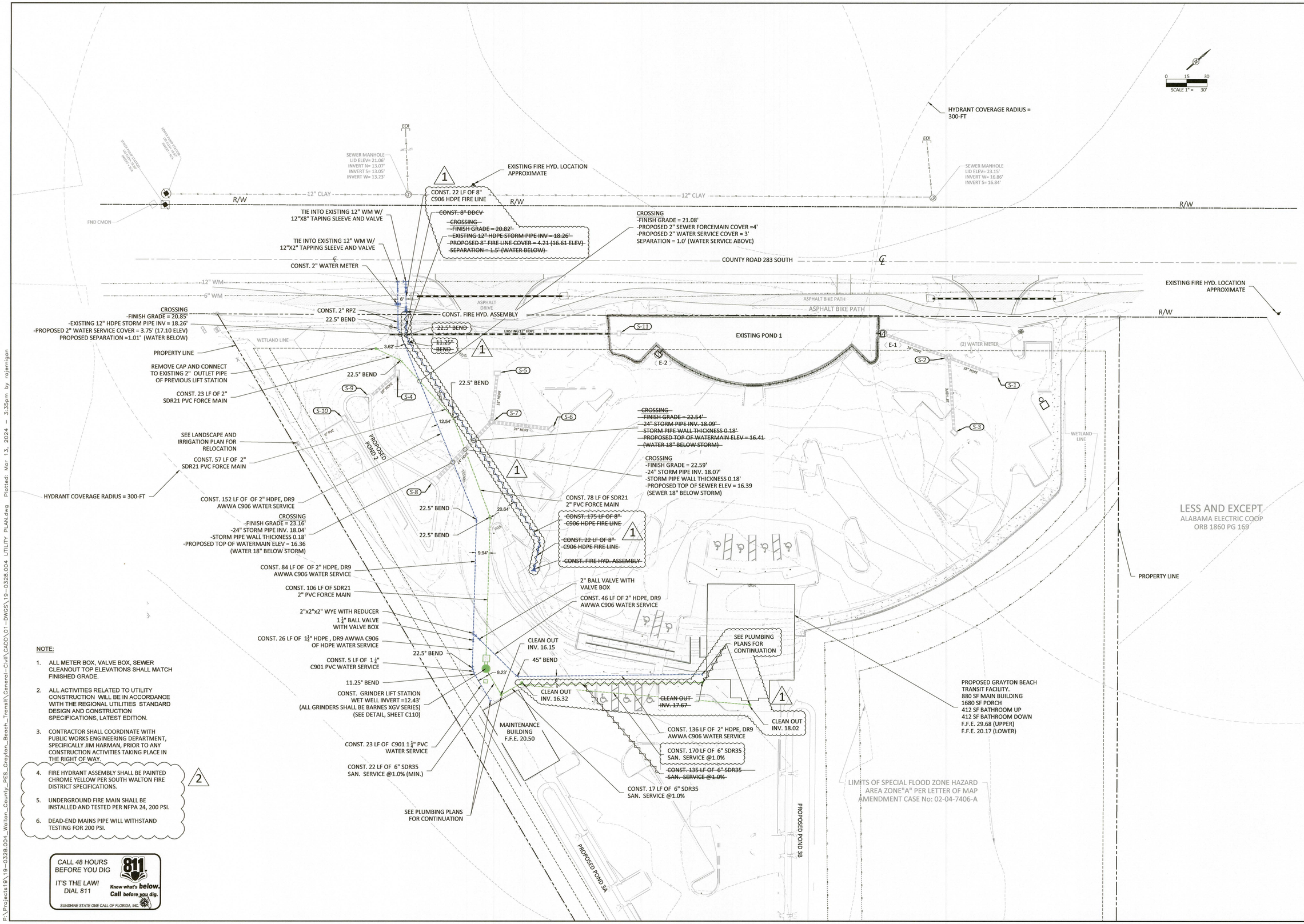
No. 78674
3-22-2024
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Benjamin R. Lennon, P.E.
State of Florida # 78674

PROJECT NO.: 19-0328.004
SCALE: AS SHOWN
DATE: JUNE 2023
DRAWING: C106

P:\Projects\19\19-0328.004_Walton_County_PFS_Grayton_Beach_Transit\General-Civil\CADD\01-DWGS\19-0328.004 GRADING.dwg Plotted: Mar 13, 2024 – 3:07pm by rjernigan



NOTE:

1. ALL METER BOX, VALVE BOX, SEWER CLEANOUT TOP ELEVATIONS SHALL MATCH FINISHED GRADE.
2. ALL ACTIVITIES RELATED TO UTILITY CONSTRUCTION WILL BE IN ACCORDANCE WITH THE REGIONAL UTILITIES STANDARD DESIGN AND CONSTRUCTION SPECIFICATIONS, LATEST EDITION.
3. CONTRACTOR SHALL COORDINATE WITH PUBLIC WORKS ENGINEERING DEPARTMENT, SPECIFICALLY JIM HARMAN, PRIOR TO ANY CONSTRUCTION ACTIVITIES TAKING PLACE IN THE RIGHT OF WAY.
4. FIRE HYDRANT ASSEMBLY SHALL BE PAINTED CHROME YELLOW PER SOUTH WALTON FIRE DISTRICT SPECIFICATIONS.
5. UNDERGROUND FIRE MAIN SHALL BE INSTALLED AND TESTED PER NFPA 24, 200 PSI.
6. DEAD-END MAINS PIPE WILL WITHSTAND TESTING FOR 200 PSI.

CALL 48 HOURS BEFORE YOU DIG
IT'S THE LAW! DIAL 811
811 Know what's below. Call before you dig.
SUNSHINE STATE ONE CALL OF FLORIDA, INC.

REVISIONS

NO.	DATE	DESCRIPTION	BY
1	8/25/23	HYDRANT AND TRANSIT SEWER SERVICE RELOCATION	BRL
1	3/13/24	PLANS ADJUSTMENTS FOR SWFD	BRL

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
RAJ	RAJ	MTZ	BRL

UTILITY PLAN

CONSTRUCTION PLANS FOR
GRAYTON BEACH TRANSIT FACILITY
COUNTY HIGHWAY 283 SOUTH
SANTA ROSA BEACH 32459

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BENJAMIN R. LISMAN LICENSE No. 78674 STATE OF FLORIDA PROFESSIONAL ENGINEER
3-22-2024
Benjamin R. Lisman, P.E.
State of Florida # 78674

PROJECT NO.: 19-0328.004
SCALE: AS SHOWN
DATE: JUNE 2023
DRAWING: C107

P:\Projects\19-0328.004_Walton_County_PES_Grayton_Beach_Transit\General-Civil\CADD\01-DWGS\19-0328.004 UTILITY PLAN.dwg Plotted: Mar 13, 2024 – 3:35pm by rajernigan

NOTES:

1. ALL STRIPING SHALL BE WHITE UNLESS OTHERWISE NOTED. (HANDICAP AREA STRIPING DETAIL)
2. ALL STRIPING SHALL BE THERMOPLASTIC.
3. ANY SIGNAGE REMOVED SHALL BE SAVED AND STOCKPILED FOR OWNER.
4. SIGHT DISTANCE LINEWORK AND TEXT IS FOR PERMITTING/INFORMATION PURPOSES ONLY.
5. EXISTING STOPS SIGN AT INGRESS/EGRESS POINTS AT CR 283 SHALL REMAIN.

REVISIONS			
NO.	DATE	DESCRIPTION	BY

DESIGNED BY	RAJ
DRAWN BY	RAJ
CHECKED BY	MTZ
APPROVED BY	BRL

SIGNING AND PAVEMENT MARKING PLAN

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

CONSTRUCTION PLANS FOR

GRAYTON BEACH TRANSIT FACILITY

COUNTY HIGHWAY 283 SOUTH
SANTA ROSA BEACH 32459

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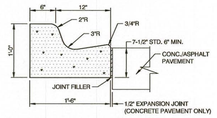
BENJAMIN R. LAMMON LICENSED No. 78674 5-22-2024 STATE OF FLORIDA PROFESSIONAL ENGINEER

Benjamin R. Lammon, P.E.
State of Florida # 78674

PROJECT NO.:	19-0328.004
SCALE:	AS SHOWN
DATE:	JUNE 2023
DRAWING:	C108

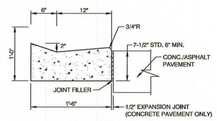
EROSION CONTROL NOTES

1. ALL EROSION AND SEDIMENTATION CONTROLS SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
2. ALL EROSION AND SEDIMENTATION CONTROLS SHALL BE INSPECTED DAILY AND REPAIRS MADE AS NECESSARY TO ENSURE THE PROPER AND CONTINUED FUNCTION OF THE CONTROL(S).
3. ALL EROSION AND SEDIMENTATION CONTROL SHALL REMAIN IN PLACE UNTIL A PERMANENT VEGETATIVE COVER HAS BEEN ESTABLISHED.
4. UNDER NO CIRCUMSTANCES SHALL SEDIMENTS BE PERMITTED TO EXIT THE PROJECT LIMITS, INCLUDING TRACKING BY VEHICLES ONTO PAVED ROADWAYS. THE CONTRACTOR SHALL MAKE IMMEDIATE REPAIRS OR ENHANCEMENTS TO ANY EROSION CONTROL SYSTEM THAT ALLOWS THE RELEASE OF SEDIMENTS.
5. THE CONTRACTOR SHALL, AT HIS EXPENSE, PROVIDE ROUTINE MAINTENANCE ON TEMPORARY EROSION CONTROL FEATURES UNTIL THE PROJECT IS COMPLETED AND ACCEPTED.
6. USE OF TEMPORARY EROSION CONTROL FEATURES WILL BE AUTHORIZED TO CORRECT CONDITIONS THAT DEVELOP DURING CONSTRUCTION THAT WERE NOT FORESEEN AT THE TIME OF DESIGN OR TO PROVIDE IMMEDIATE TEMPORARY CONTROL OF EROSION THAT DEVELOPS DURING NORMAL CONSTRUCTION OPERATIONS. TEMPORARY EROSION AND WATER POLLUTION CONTROL FEATURES SHALL CONSIST OF, BUT NOT BE LIMITED TO, TEMPORARY GRASSING, TEMPORARY SODDING, TEMPORARY MULCHING (FROM NATIVE SPECIES ONLY), SANDBAGGING, SLOPE DRAINS, SEDIMENT BASINS, SEDIMENT CHECK BERMS, STRAW BALES, FLOATING TURBIDITY BARRIER, STAKED TURBIDITY BARRIER AND SILT FENCE. SHOULD TEMPORARY GRASSING, SODDING, OR SEEDING BE REQUIRED TO STABILIZE SOIL AND REDUCE EROSION, THE TYPE AND LOCATION MUST BE APPROVED BY ENGINEER PRIOR TO USE.
7. EROSION CONTROL PLAN
   a. STORMWATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE PREPARED BY THE CONTRACTOR. CONTRACTOR SHALL EXECUTE ALL MEASURES NECESSARY TO LIMIT THE TRANSPORT OF SEDIMENTS OUTSIDE THE LIMITS OF THE PROJECT TO THE VOLUME AND AMOUNT AS THAT ARE EXISTING PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THIS CONDITION WILL BE SATISFIED FOR THE TOTAL ANTICIPATED CONSTRUCTION PERIOD. PROVISION MUST BE MADE TO PRESERVE THE INTEGRITY AND CAPACITY OF CHECK WEIRS, SEDIMENT BASINS, SLOPE DRAINS, GRADING PATTERNS, ETC. REQUIRED TO MEET THIS PROVISION THROUGHOUT THE LIFE OF THE CONSTRUCTION. CONTRACTOR SHALL PROVIDE STRAW BALES, SILT BARRIERS, TEMPORARY GRASSING, ETC. AS REQUIRED TO FULLY COMPLY WITH THE INTENT OF THIS SPECIFICATION.
   b. THE CONTRACTOR SHALL PREPARE A SWPPP DOCUMENT IN ACCORDANCE WITH THE NPDES REQUIREMENTS OUTLINED BY THE US ENVIRONMENTAL PROTECTION AGENCY AND THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION.
   c. THE CONTRACTOR SHALL PROVIDE CONTINUOUS MONITORING OF EROSION AND SEDIMENT CONTROLS AND SHALL DOCUMENT ALL CORRECTIVE MEASURES TAKEN.
   d. THE APPROVED SWPPP SHALL BE EXECUTED BY THE CONTRACTOR AND THE DOCUMENT SHALL BE KEPT ON SITE AT ALL TIMES FOR REVIEW BY THE OWNER'S REPRESENTATIVE AND BY NPDES INSPECTORS. CONTRACTOR SHALL PROVIDE A COPY OF THE NPDES NOTICE OF INTENT (NOI) ALONG WITH THE REQUIRED STORMWATER POLLUTION PREVENTION PLAN(SWPPP) TO WALTON COUNTY PRIOR TO COMMENCEMENT OF THE DEVELOPMENT.
8. IF DEWATERING IS REQUIRED, A CONSUMPTIVE USE PERMIT (C.U.P.) SHALL BE REQUIRED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN SAID PERMIT THROUGH FDEP.



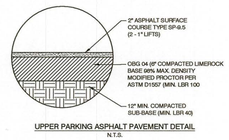
CONCRETE CURB & GUTTER DETAIL
N.T.S.

NOTE:
WHEN USED ON HIGH SIDE OF ROADWAYS, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT AND THE THICKNESS OF THE LIP SHALL BE 6" MIN., UNLESS OTHERWISE SHOWN ON PLANS. EXPANSION JOINT, PREFORMED JOINT FILLER AND JOINT SEAL ARE REQUIRED BETWEEN CURB AND CONCRETE PAVEMENT OR CONCRETE STRUCTURES.

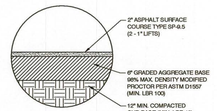


18" VALLEY CURB DETAIL
N.T.S.

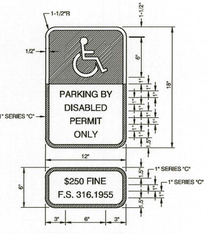
NOTE:
EXPANSION JOINT, PREFORMED JOINT FILLER AND JOINT SEAL ARE REQUIRED BETWEEN CURB AND CONCRETE PAVEMENT OR CONCRETE STRUCTURES.



UPPER PARKING ASPHALT PAVEMENT DETAIL
N.T.S.



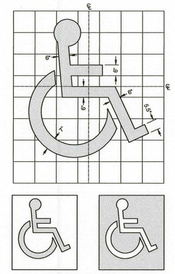
LOWER PARKING ASPHALT PAVEMENT DETAIL
N.T.S.



(FTP - 55) BACKGROUND LEGEND & BORDER — COLOR WHITE BLACK

THIS PANEL SHALL BE INSTALLED UNDER THE FTP-20-06 HANDICAP PARKING SIGN.

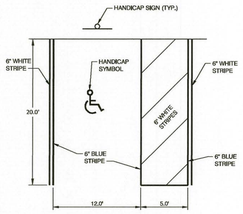
HANDICAP SIGN DETAIL
(F.D.O.T. STANDARD PLANS No. 700-100)
N.T.S.



COLOR CONTRAST
CHARACTERS AND SYMBOLS SHALL CONTRAST WITH THEIR BACKGROUNDS - EITHER LIGHT CHARACTERS ON A DARK BACKGROUND OR DARK CHARACTERS ON A LIGHT BACKGROUND.

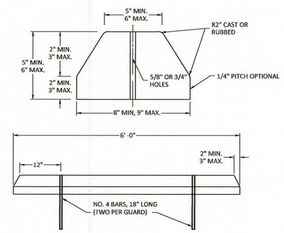
HANDICAP SYMBOL DETAIL
N.T.S.

NOTE:
SYMBOL SHALL BE PAINTED BLUE AND TO THE DIMENSIONS SHOWN.

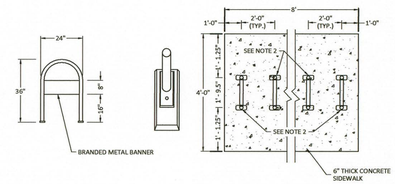


HANDICAP AREA STRIPING DETAIL
N.T.S.

NOTE:
HANDICAP PARKING SPACES SHALL BE A MINIMUM OF TWELVE (12) FEET WIDE, MEASURED FROM CENTER TO CENTER OF THE BLUE DEMARCATION LINES

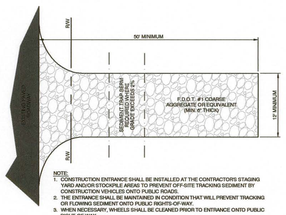


CONCRETE WHEEL STOP DETAIL
N.T.S.



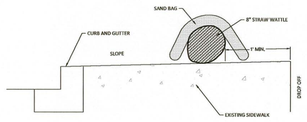
NOTE:
1. BOLTS THROUGH BOTTOM PLATE INTO PRE-DRILLED CONCRETE INTO GROUND ANCHORS. USE APPROPRIATE LENGTH AND SIZE BOLTS FOR LOCAL REQUIREMENTS.
2. INTERIOR BIKE RACKS SHALL BE PURCHASED FROM THE PARK CATALOG. PLEASE CONTACT CARRIE GEORGOPOULOS AT CARRIE@THEPARKCATALOG.COM, 888-447-2401 EXT. 60307 - REFERENCE WALTON

DETAIL - "U" BIKE RACK AND CONCRETE PAD
N.T.S.



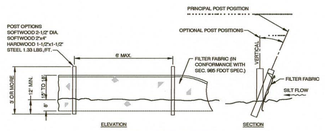
NOTE:
1. CONSTRUCTION ENTRANCE SHALL BE INSTALLED AT THE CONTRACTOR'S STAGING YARD AND/OR STOCKPILE AREAS TO PREVENT OFF-SITE TRACKING SEDIMENT BY CONSTRUCTION VEHICLES ONTO PUBLIC ROADS.
2. THE ENTRANCE SHALL BE MAINTAINED IN CONDITION THAT WILL PREVENT TRACKING OR FLOWING SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY.
3. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
4. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH FDOT #1 COARSE AGGREGATE OR EQUIVALENT THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

STABILIZED CONSTRUCTION ENTRANCE DETAIL
N.T.S.

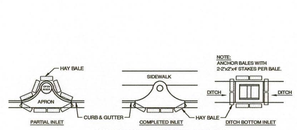


NOTE:
1. SANDBAGS SHALL BE PLACED TYFBY 3-4' AND ONE (1) SANDBAG ON EACH END.
2. WATTLE SHALL BE PLACED A MIN. 5' FROM THE BACK EDGE OF THE SIDEWALK.

DETAIL - STRAW WATTLE
N.T.S.



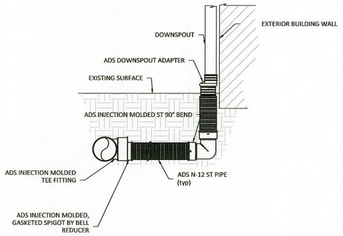
TYPE III SILT FENCE DETAIL
N.T.S.



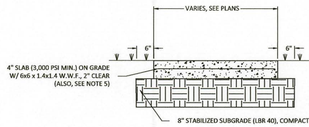
PROTECTION AROUND INLETS OR SIMILAR STRUCTURES

HAY BALE DIKE INLET PROTECTION DETAIL
N.T.S.

EROSION CONTROL DETAILS



DOWNSPOUT CONNECTION TO STORM DRAIN
N.T.S.

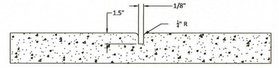


NOTES:
1. 0.5% MIN., 2% MAX. CROSS SLOPE
2. CONCRETE TO BE F.DOT CLASS I, 3,000 PSI MINIMUM.
3. INSPECTION REQUIRED ONCE SIDEWALK IS FORMED.
4. BROOM FINISH.
5. SIDEWALK SHALL BE 6" THICK WHEN LOCATION MAY BE SUBJECT TO VEHICULAR LOADING
6. REFER TO FDOT STD. PLANS 522-001 FOR ADDITIONAL NOTES AND SPECIFICATIONS INCLUDING JOINTS AND EDGES.

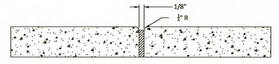
CONTROL JOINT NOTE:
FOR 4' AND 5' WIDE SIDEWALKS, PROVIDE CONTROL JOINTS @ 4' MINIUM AND 6' MAXIMUM SPACING. FOR 10' WIDE SIDEWALKS, PROVIDE CONTROL JOINTS @ 8' MINIMUM AND 10' MAXIMUM SPACING.

EXPANSION JOINT NOTE:
PROVIDE TRANSVERSE EXPANSION JOINTS @ APPROX. 30' SPACING MAX. SPACING OF 50'.

DETAIL - CONCRETE SIDEWALK
N.T.S.



DETAIL - CONTROL JOINT
N.T.S.



DETAIL - EXPANSION JOINT
N.T.S.

STANDARD DETAILS

NO.	DATE	DESCRIPTION	BY
		REVISIONS	

DESIGNED BY: RAJ
DRAWN BY: RAJ
CHECKED BY: MTZ
APPROVED BY: BRL

STANDARD DETAILS

CONSTRUCTION PLANS FOR
GRAYTON BEACH TRANSIT FACILITY
COUNTY HIGHWAY 283 SOUTH
SANTA ROSA BEACH 32459

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

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TALLAHASSEE, FL 32317
Phone:850.562.9600 WWW.DRMP.COM
DRMP, Inc.

BENJAMIN R. LENTZ LICENSE NO. 78674 STATE OF FLORIDA PROFESSIONAL ENGINEER
3-22-2024
Benjamin R. Lentz, P.E.
State of Florida # 78674

PROJECT NO.: 19-0328.004
SCALE: AS SHOWN
DATE: JUNE 2023
DRAWING: C109

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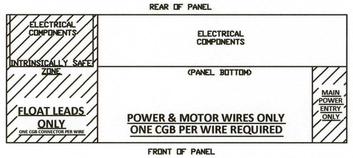
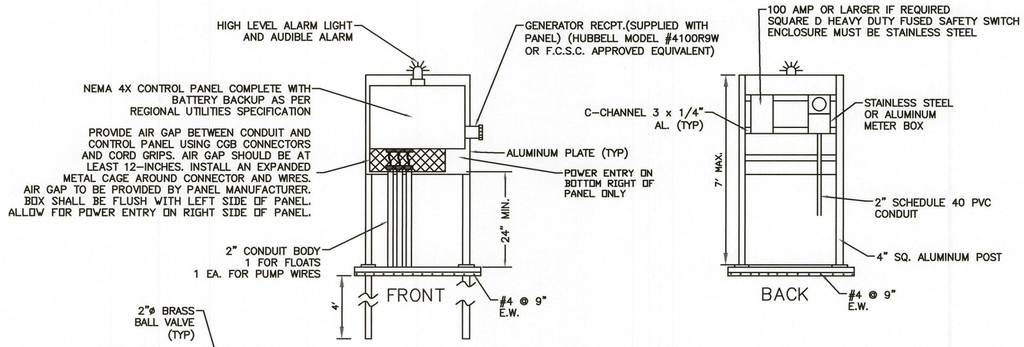


CGB CONNECTOR SCHEMATIC

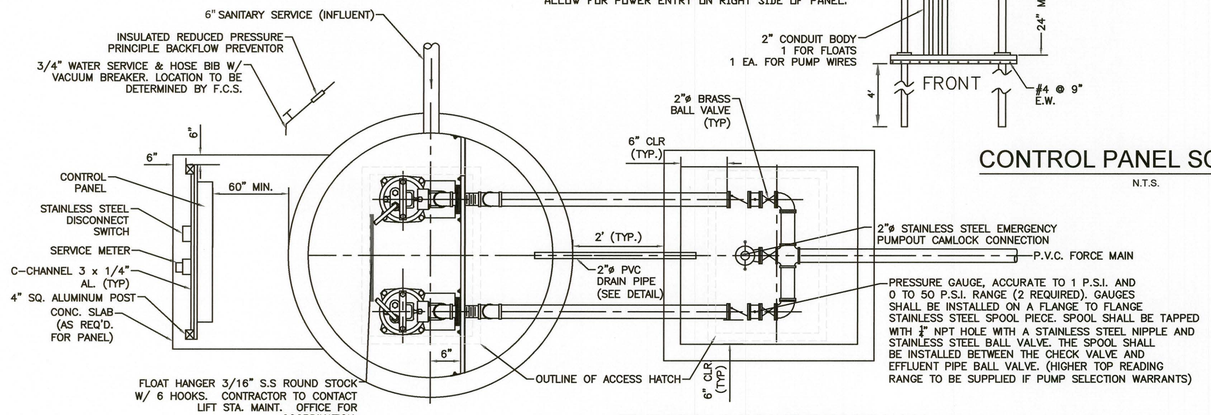
N.I.S.



CONTROL PANEL SCHEMATIC

N.T.S.

PUMPING STATION DATA	
Designation	
Pump model	BARNES XGV 50N2
Impeller	5.25"
voltage (3 PHASE)	208/230/460 VOLT
h.p.	5.0
r.p.m.	3450
delivery, gpm (High System Head)	45
delivery, gpm (Low System Head)	80
TDH, feet (High System Head)	107
TDH, feet (Low System Head)	88
Top elev.	20.65
Influent Size	6"
Inv. Influent	15.93
High level alarm elev.	15.93
Lag pump on elev.	15.43
Lead pump on elev.	14.93
Both pumps off elev.	13.93
Bottom elev.	12.43
Force main	

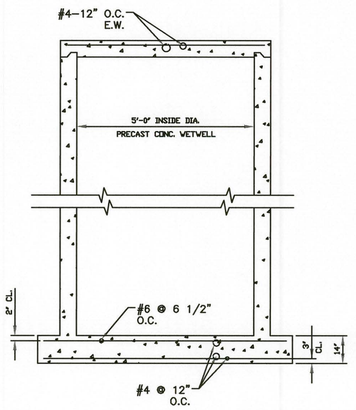


TYPICAL WET WELL PLAN

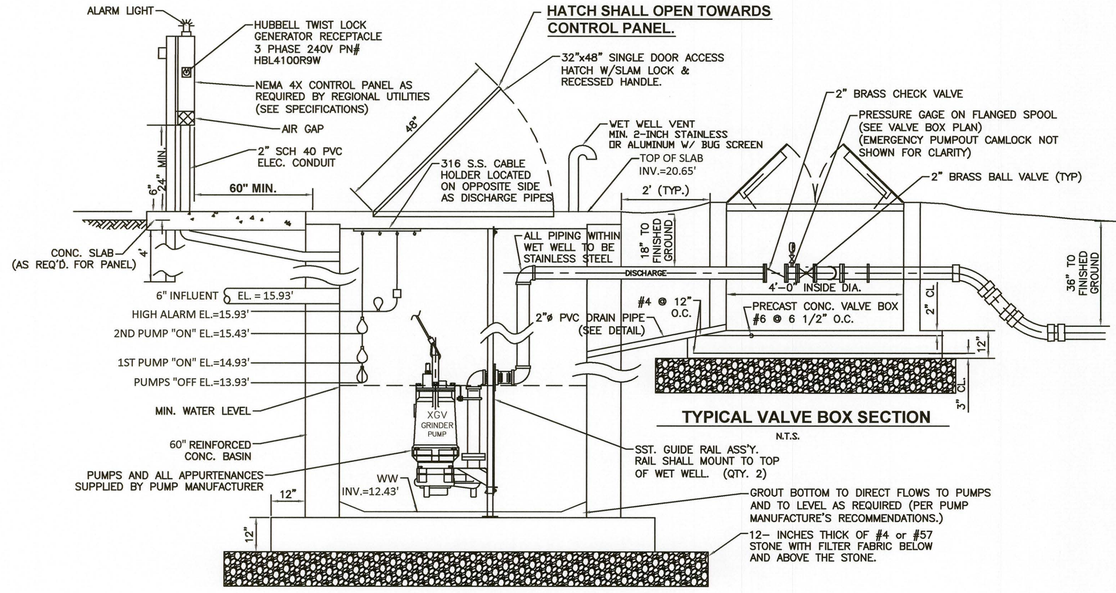
N.I.S.

TYPICAL VALVE BOX PLAN

N.I.S.



TOP AND BOTTOM SLAB REINFORCING



GRINDER LIFT STATION

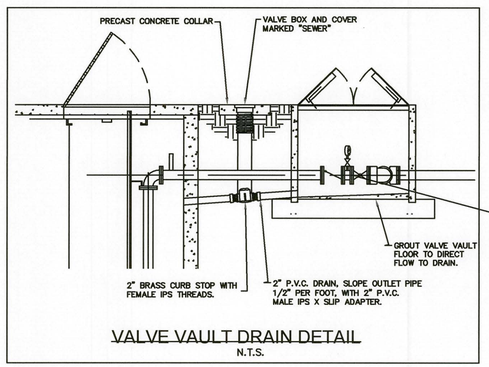
N.I.S.

TYPICAL VALVE BOX SECTION

N.T.S.

GRINDER LIFT STATION SECTION

N.T.S.



VALVE VAULT DRAIN DETAIL

N.T.S.

PRESSURE GAUGE, ACCURATE TO 1 P.S.I. AND 0 TO 50 P.S.I. RANGE (2 REQUIRED). GAUGES SHALL BE INSTALLED ON A FLANGE TO FLANGE STAINLESS STEEL SPOOL PIECE. SPOOL SHALL BE TAPPED WITH 1" NPT HOLE WITH A STAINLESS STEEL NIPPLE AND STAINLESS STEEL BALL VALVE. THE SPOOL SHALL BE INSTALLED BETWEEN THE CHECK VALVE AND EFFLUENT PIPE BALL VALVE. (HIGHER TOP READING RANGE TO BE SUPPLIED IF PUMP SELECTION WARRANTS)

GENERAL NOTES:

1. WET WELL AND VALVE VAULT SHALL BE COATED WITH KOP-COAT COAL TAR EPOXY 300-M INSIDE AND OUT. (TWO COATS, 9 MILS EACH)
2. BASE AND FIRST RISER UNIT TO BE CAST MONOLITHIC.
3. VALVE VAULT SHALL BE SIZED TO PERMIT EASY REMOVAL OF CHECK VALVE
4. ALL LOCATIONS WHERE PIPES ENTER OR LEAVE THE WET WELL OR VALVE VAUL SHALL BE MADE WATERTIGHT WITH WALL SLEEVE OR NON-SHRINK GROUT.
5. THERE SHALL BE NO VALVES OR ELECTRICAL JUNCTION BOXES IN WET WELL.
6. WET WELL AND VALVE VAULT COVERS SHALL BE ALUMINUM WITH 316 S.S. HARDWARE SIZE AS REQUIRED BY PUMP MANUFACTURER AND APPROVED BY FLORIDA COMMUNITY SERVICES.
7. FLEXIBLE COUPLING IF USED SHALL BE SLEEVE TYPE.
8. ALL HARDWARE IN WET WELL AND VALVE BOX TO BE 316 STAINLESS STEEL.
9. ALL ENCLOSURES SHALL BE NEMA 4X RATED.
10. ALL MECHANICAL JOINT FITTINGS ON PRESSURE PIPE SHALL HAVE BOTH "MEGALUG" TYPE JOINT RESTRAINING GLANDS AND THRUST BLOCKS.
11. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND MEETING THE REQUIREMENTS OF REGIONAL UTILITIES STANDARD DETAILS AND SPECIFICATIONS LATEST EDITION.
12. ANY LOCATION WHERE PRESSURE PIPELINES CURVATURE EXCEEDS MANUFACTU SPECIFICATIONS; APPROPRIATE MECHANICAL JOINT FITTINGS SHALL BE USED.
13. ALL 2-INCH VALVES SHALL BE BALL TYPE - 2-INCH GATE VALVES SHALL NOT BE USED.
14. ALL TIE IN TO EXISTING PRESSURIZED PIPELINES SHALL BE BY TAPPING SLEEVE (3 INCH TAP AND LARGER) (OR TAPPING SADDLE, 2 INCH TAP AND SMALLER) AND VALVE W/ VALVE BOX.
15. DEVELOPERS OF PRIVATE PROJECTS SHALL PROVIDE ALL WETLANDS PERMITS NECESSARY FOR UTILITY CONSTRUCTION.
16. ALL GRINDER LIFT STATIONS LOCATED IN A PUBLIC RIGHT-OF-WAY MUST BE DESIGNED AND CONSTRUCTED OF REINFORCED CONCRETE AS PER THE SECTION II "STRUCTURAL AND OTHER NOTES" DETAILED BELOW.

STRUCTURAL AND OTHER NOTES:

1. CONCRETE: DESIGN PER CURRENT EDITION OF A.C.I. (318-83).

   CONCRETE STRENGTH @ 28 DAYS IS:

   Fc'= 3500 PSI

   CONCRETE MIX SHOULD NOT CONTAIN MORE THAN 5 GALLONS OF WATER PER SACK OF CEMENT. AGGREGATES SHOULD HAVE LOW ABSORPTION AND SHOULD BE CLEAN, SOUND AND WELL GRADED FORM FINE TO COARSE. SAND MUST HAVE 10 TO 20 PERCENT OF PARTICLES PASSING A 50 MESH SIEVE. COARSE AGGREGATE MUST BE GRADED FROM 1/4" UP TO A MAXIMUM OF 2". KEEPING THE CONCRETE CURED FOR AT LEAST 7 DAYS IS ADVISABLE. REINFORCING ASTM A-615, GRADE 60.
2. CLEAR COVER FOR BASE SLAB - 3" FOR BOTTOM BARS AND - 2" FOR TOP BARS.
3. CLEAR COVER FOR TOP SLAB - 2" FOR TOP & BOTTOM BARS.
4. CLEAN SAND BACKFILL WITH A FRICTION FACTOR OF 30° ROUND AND WEIGHING 120 PCF TO 130 PCF IS ASSUMED. THE DESIGN IS BASED ON A SUBMERGED CONDITION.
5. ALL REINFORCING SHALL BE SECURELY HELD IN POSITION WITH STANDARD ACCESSORIES DURING THE PLACING OF THE CONCRETE.
6. SPLICES IN REINFORCEMENT ARE NOT PERMITTED.
7. IF FOOTING ELEVATIONS SHOWN OCCUR IN A DISTURBED, UNSTABLE OR UNSUITABLE SOIL, THE ENGINEER SHALL BE NOTIFIED.
9. MAXIMUM DESIGN SOIL PRESSURE ASSUMED = 2000 PSF.

REVISIONS			
NO.	DATE	DESCRIPTION	BY

DESIGNED BY	RAJ
DRAWN BY	RAJ
CHECKED BY	MTZ
APPROVED BY	BRL

GRINDER LIFT STATION - SITE SPECIFIC DETAILS

CONSTRUCTION PLANS FOR
GRAYTON BEACH TRANSIT FACILITY
COUNTY HIGHWAY 283 SOUTH
SANTA ROSA BEACH 32459

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BENJAMIN R. LENOX LICENSE NO. 78674 3-22-2024 STATE OF FLORIDA PROFESSIONAL ENGINEER
Benjamin R. Lenox, P.E.
State of Florida # 78674

PROJECT NO.: 19-0328.004
SCALE: AS SHOWN
DATE: JUNE 2023
DRAWING: C110

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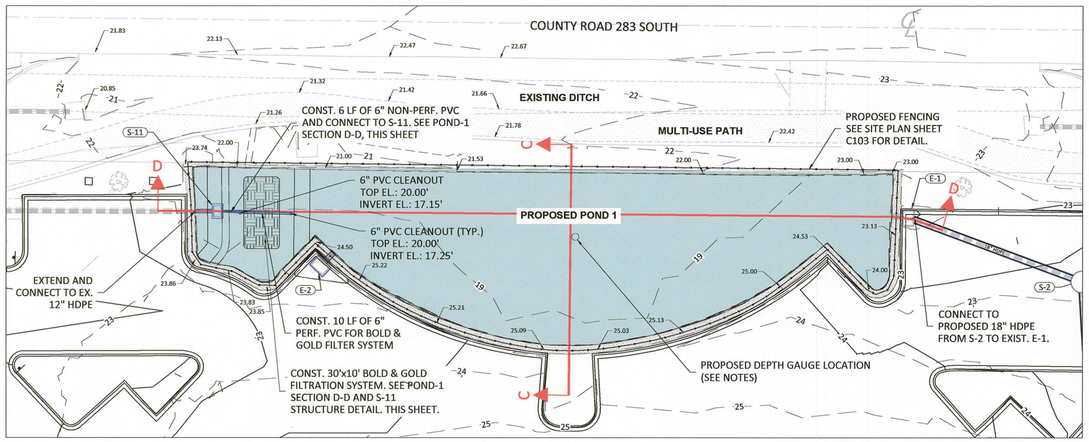
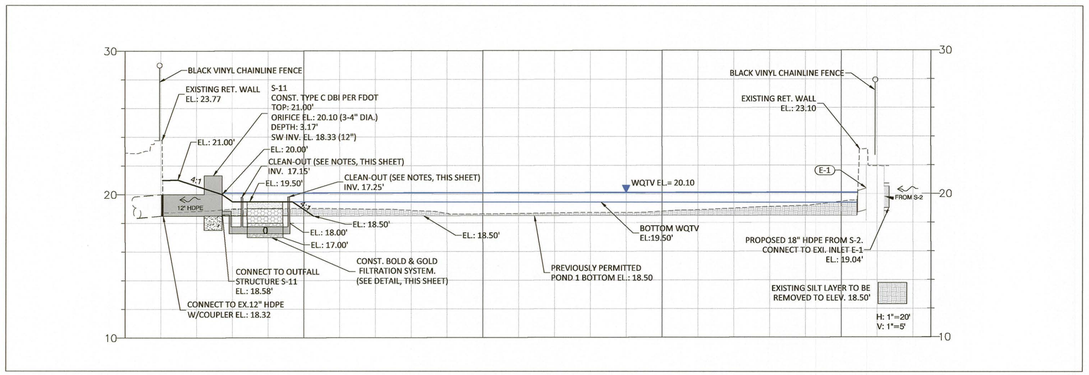
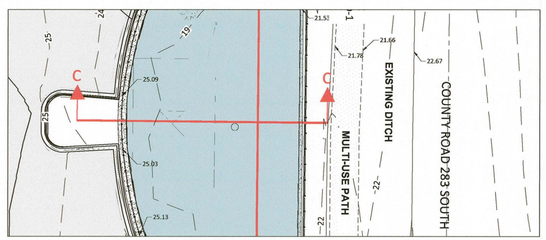


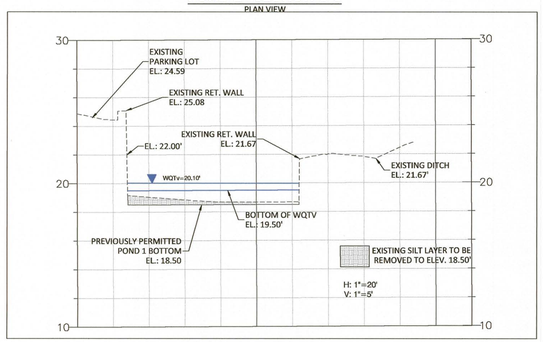
POND 1 - SECTION D-D
PLAN VIEW



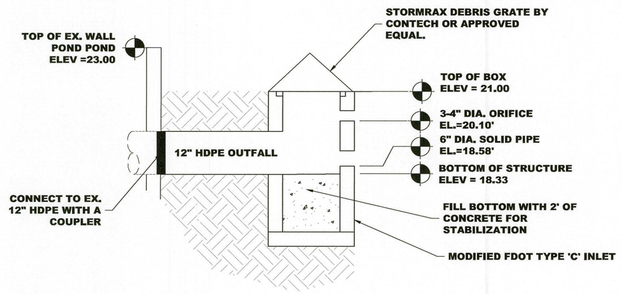
POND 1 - SECTION D-D
PROFILE VIEW



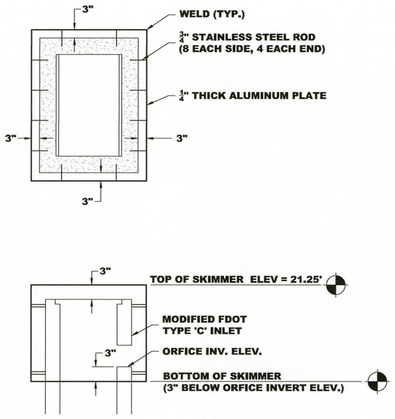
POND 1 - SECTION C-C
PLAN VIEW



POND 1 - SECTION C-C
PROFILE VIEW

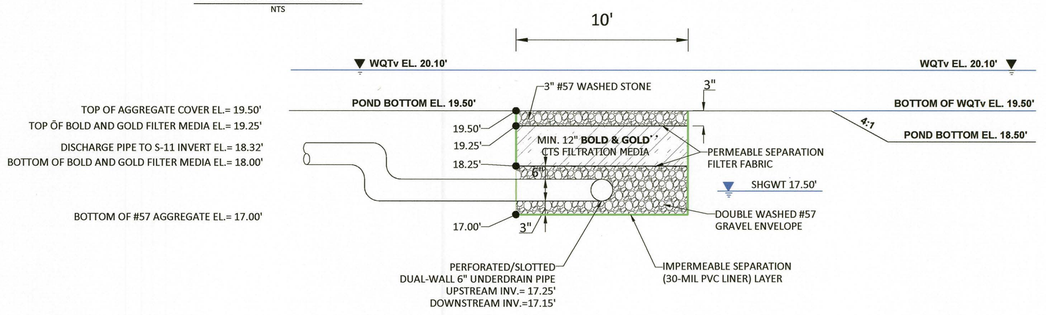


MODIFIED TYPE "C" INLET (S-11)
CONTROL STRUCTURE DETAIL
N.T.S.



MODIFIED TYPE "C" INLET (S-11)
OIL SKIMMER DETAIL
N.T.S.

S-11 STRUCTURE DETAIL
NTS



BOLD AND GOLD FILTER DETAIL
NTS

GENERAL NOTES:

1. PIPE FOR CLEAN OUTS AND CONNECTIONS OUTSIDE THE BOLD AND GOLD FILTER SYSTEM SHALL BE NON-PERFORATED PVC PIPE OF EQUAL DIAMETER.
2. BOLD & GOLD FILTER SYSTEM SHALL BE CONSTRUCTED PER MANUFACTURER STANDARD SPECIFICATIONS.
3. ALL POND SIDE SLOPES TO BE SODDED AND SLOPES GREATER THAN 3:1 (H:V) SHALL BE PINNED. POND BOTTOM TO BE GRADED FLAT AND WITHOUT SOD.
4. AFTER THE INTERIOR SIDE SLOPES AND POND BOTTOM HAVE BEEN GRADED TO FINAL DESIGN SPECIFICATIONS (LINES AND GRADES), THE EXCESS SOIL AND UNSUITABLE MATERIAL SHALL BE CAREFULLY EXCAVATED AND REMOVED FROM THE POND SO THAT ALL ACCUMULATED SILTS, CLAYS, ORGANICS, AND OTHER FINE SEDIMENT MATERIAL ARE REMOVED FROM THE RETENTION AREA. THE EXCAVATED MATERIAL SHALL BE DISPOSED OF BEYOND THE PROJECT AREA.
5. ONCE THE POND HAS BEEN EXCAVATED TO FINAL GRADE, THE ENTIRE POND BOTTOM SHALL BE DEEP RAKED AND LOOSENED FOR OPTIMAL INFILTRATION.
6. NO FILL OR OTHER CONSTRUCTION MATERIAL SHALL BE STORED AND/OR PLACED WITHIN THE LIMITS OF THE POND.

POND DRAWDOWN NOTES:

1. ALL PIPE FOR CLEAN OUTS AND CONNECTIONS OUTSIDE THE BOLD AND GOLD FILTER SYSTEM SHALL BE NON-PERFORATED PVC PIPE OF EQUAL DIAMETER.
2. BOLD & GOLD FILTER SYSTEM SHALL BE CONSTRUCTED PER MANUFACTURER STANDARD SPECIFICATIONS.
3. IN ORDER TO FACILITATE THE REQUIRED DRAWDOWN TEST, A DEPTH GAUGE, STAFF GAUGE OR EQUIVALENT SHALL BE INSTALLED AND MAINTAINED INSIDE EACH FILTER POND. THE GAUGE SHALL MEET THE FOLLOWING GUIDELINES:
4. THE GAUGE SHALL BE INSTALLED IN THE POND BOTTOM OR ANY PERMANENT VERTICAL SURFACE EXTENDING FROM THE POND BOTTOM, AND RISE VERTICALLY TO A HEIGHT EQUAL TO THE TREATMENT VOLUME STAGE ELEVATION (WQTV), PLUS ONE FOOT.
5. THE GAUGE SHALL BE MARKED IN ONE TENTH FOOT INCREMENTS WITH VERTICAL ELEVATIONS INDICATED AT ONE FOOT INTERVALS, OR BE MARKED WITH A SIMILAR STYLE APPROVED BY THE DISTRICT. THE ELEVATION REPRESENTING THE TREATMENT VOLUME STAGE SHALL BE CLEARLY INDICATED, AND SHALL BE VERIFIED BY SURVEY.
6. THE GAUGE SHALL BE MOUNTED AND STABILIZED TO PREVENT MOVEMENT DUE TO REASONABLY ANTICIPATED CONDITIONS.

CLEANOUT NOTES:

ALL B&G FILTER SYSTEM CLEAN-OUTS SHOWN ON THE CONSTRUCTION PLANS SHALL MEET THE FOLLOWING:

1. VERTICAL PORTIONS SHALL BE NON-PERFORATED
2. CLEAN-OUT CAP SHALL BE WATER-TIGHT
3. CLEAN-OUTS SHALL INCORPORATE FITTINGS (WYE FITTINGS OR BENDS) THAT HAVE NO LESS THAN 45 DEGREES AS MEASURED FROM THE UPSTREAM END OF THE FILTER PIPES
4. CLEAN-OUT TOPS SHALL BE A MIN. 12" ABOVE FINISHED GRADE, BE PROVIDED EVERY 400 FEET, AT EVERY BEND, AND AT THE TERMINUS.

DEPTH GAUGE NOTES:

IN ORDER TO FACILITATE THE REQUIRED DRAWDOWN TEST, A DEPTH GAUGE, STAFF GAUGE OR EQUIVALENT SHALL BE INSTALLED AND MAINTAINED INSIDE EACH FILTER POND. THE GAUGE SHALL MEET THE FOLLOWING GUIDELINES:

1. THE GAUGE SHALL BE INSTALLED IN THE POND BOTTOM OR ANY PERMANENT VERTICAL SURFACE EXTENDING FROM THE POND BOTTOM, AND RISE VERTICALLY TO A HEIGHT EQUAL TO THE TREATMENT VOLUME STAGE ELEVATION, PLUS ONE FOOT.
2. THE GAUGE SHALL BE MARKED IN ONE TENTH FOOT INCREMENTS WITH VERTICAL ELEVATIONS INDICATED AT ONE FOOT INTERVALS, OR BE MARKED WITH A SIMILAR STYLE APPROVED BY THE DISTRICT. THE ELEVATION REPRESENTING THE TREATMENT VOLUME STAGE SHALL BE CLEARLY INDICATED, AND SHALL BE VERIFIED BY SURVEY.
3. THE GAUGE SHALL BE MOUNTED AND STABILIZED TO PREVENT MOVEMENT DUE TO REASONABLY ANTICIPATED CONDITIONS.

REVISIONS			
NO.	DATE	DESCRIPTION	BY

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
RAJ	RAJ	MTZ	BRL

POND 1 SECTIONS AND DETAILS

CONSTRUCTION PLANS FOR
GRAYTON BEACH TRANSIT FACILITY
COUNTY HIGHWAY 283 SOUTH
SANTA ROSA BEACH 32459

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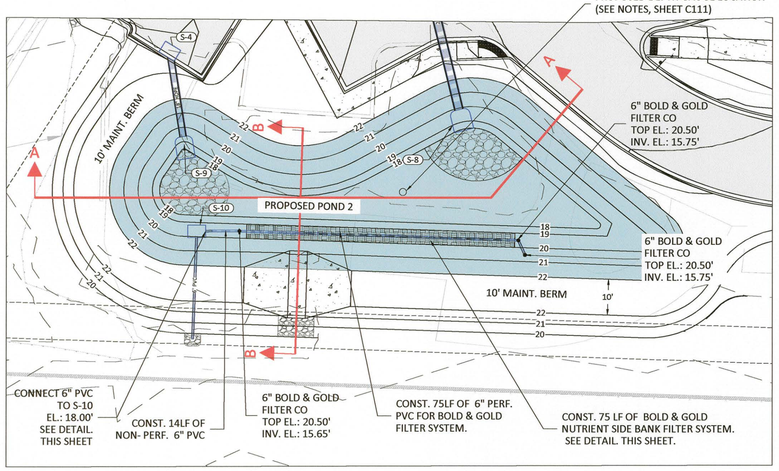
BENJAMIN R. LEMMON LICENSE No. 78674 3-22-2024 STATE OF FLORIDA PROFESSIONAL ENGINEER

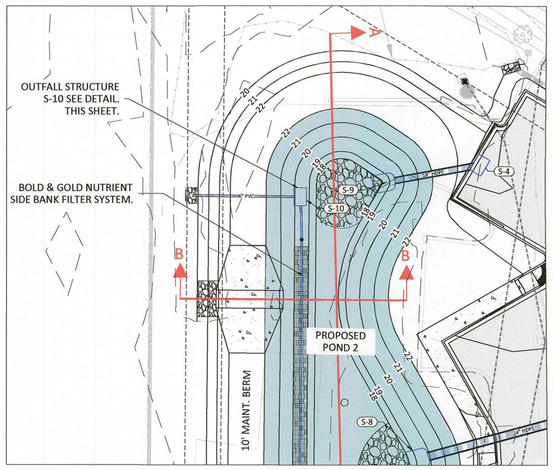
Benjamin R. Lemmon, P.E.
State of Florida # 78674

PROJECT NO.: 19-0328.004
SCALE: AS SHOWN
DATE: JUNE 2023
DRAWING: C111

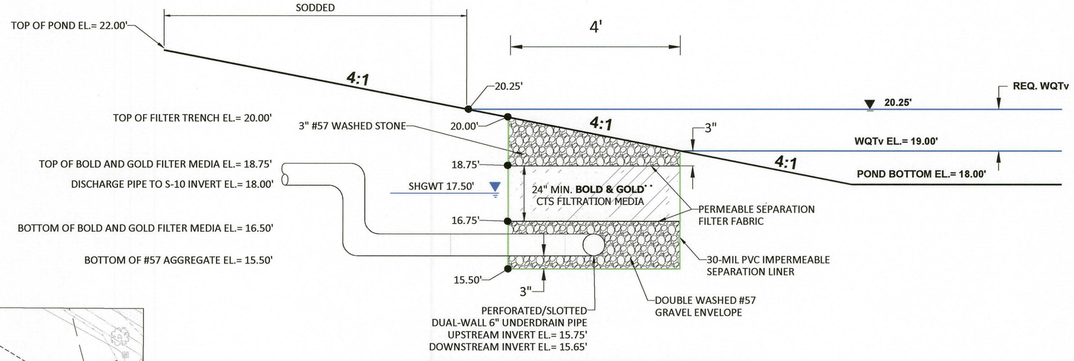
P:\Projects\19\19-0328.004_Walton_County_PES_Grayton_Beach_Transit\General-Civil\CADD\01-DWGS\19-0328.004 POND SECTIONS.dwg Plotted: Mar 13, 2024 – 3:09pm by rojernigan



PROPOSED POND 2 - SECTION A-A
PLAN VIEW



POND 2 - SECTION B-B
PLAN VIEW



BOLD AND GOLD SLOPED SHELF FILTER SECTION
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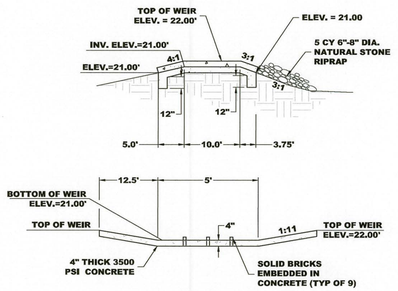
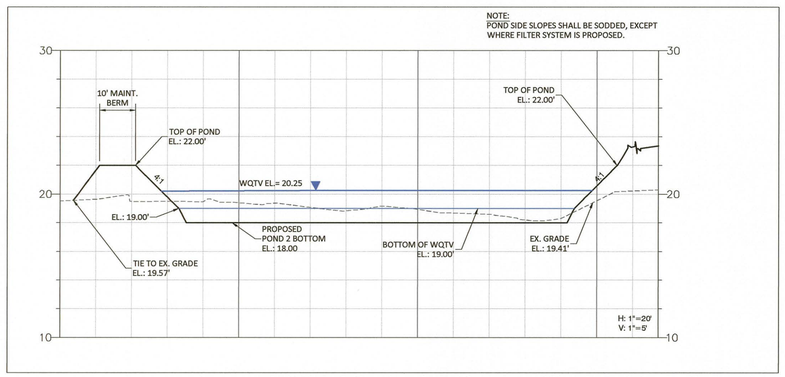
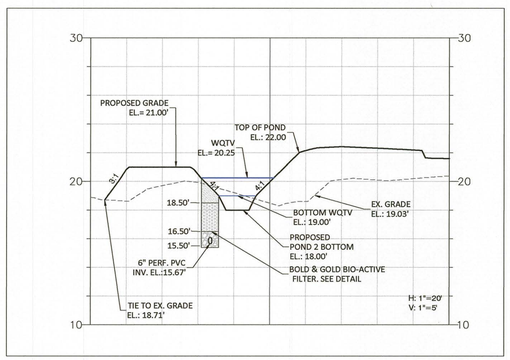


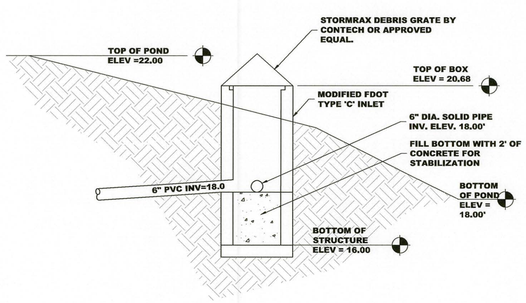
CONCRETE EMERGENCY OVERFLOW WEIR
N.T.S.



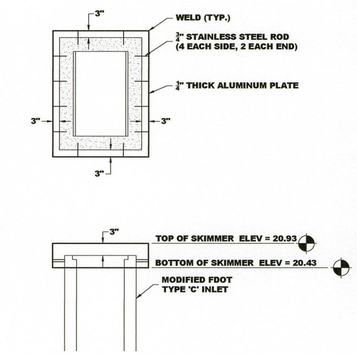
PROPOSED POND 2 - SECTION A-A
PROFILE VIEW



POND 2 - SECTION B-B
PROFILE VIEW



MODIFIED TYPE "C" INLET (S-10)
CONTROL STRUCTURE DETAIL
N.T.S.



MODIFIED TYPE "C" INLET (S-10)
OIL SKIMMER DETAIL
N.T.S.

NOTE:

NOTES (GENERAL NOTES, POND DRAWDOWN NOTES, CLEANOT NOTES, DEPTH GAUGE NOTES) FOUND ON SHEET C111 ALSO APPLY TO POND #2.

NO.	DATE	DESCRIPTION	BY

REVISIONS

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
RAJ	RAJ	MTZ	BRL

POND 2 SECTIONS AND DETAILS

CONSTRUCTION PLANS FOR
GRAYTON BEACH TRANSIT FACILITY
COUNTY HIGHWAY 283 SOUTH
SANTA ROSA BEACH 32459

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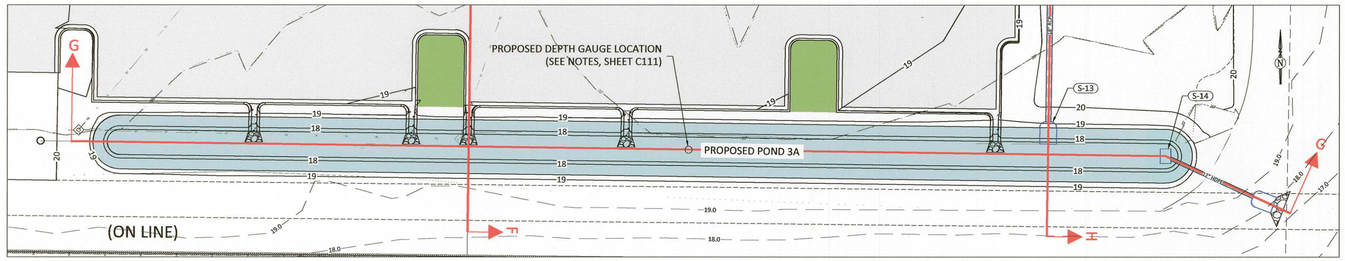
DRMP, Inc.

BENJAMIN R. LEMMON LICENSE No. 78674 STATE OF FLORIDA PROFESSIONAL ENGINEER
3-22-2024
Benjamin R. Lemmon, P.E.
State of Florida # 78674

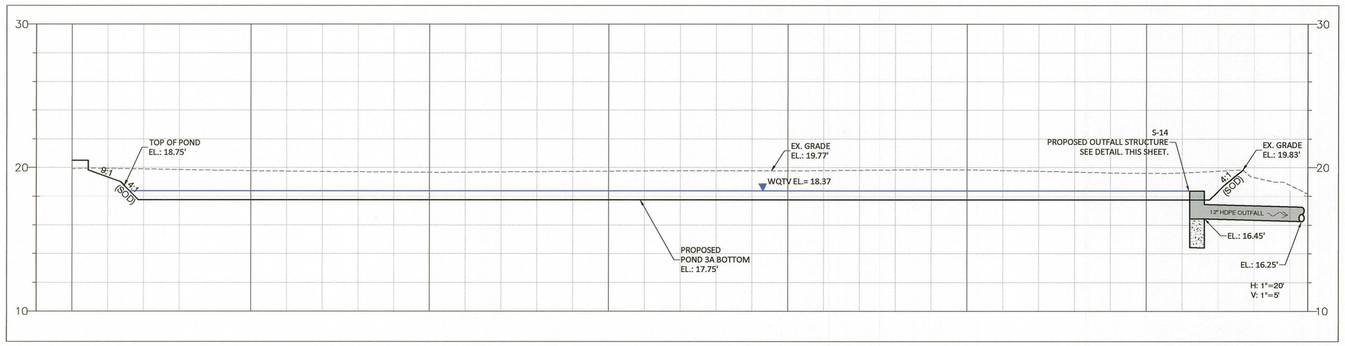
PROJECT NO.: 19-0328.004
SCALE: AS SHOWN
DATE: JUNE 2023
DRAWING: C112



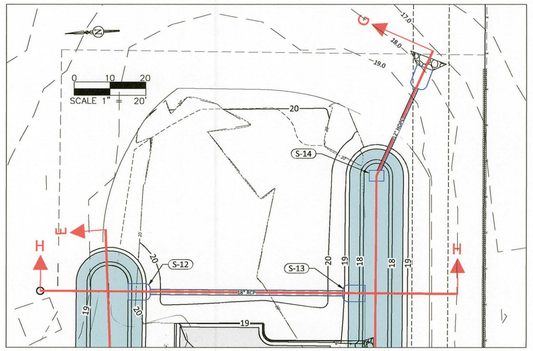
POND 3A- SECTION H-H
PLAN VIEW

NOTE:
POND SIDE SLOPES SHALL BE SODDED.

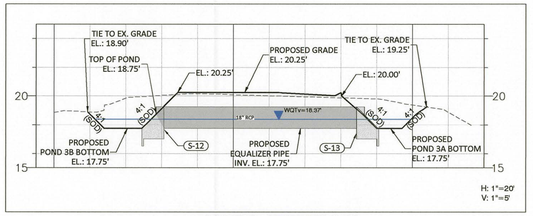
SCALE 1" = 20'



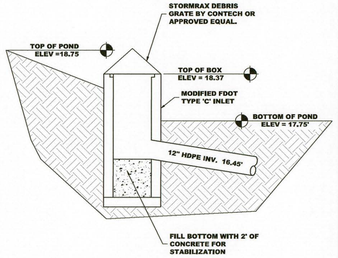
POND 3A - SECTION G-G
PROFILE VIEW



POND 3B- SECTION H-H
PLAN VIEW

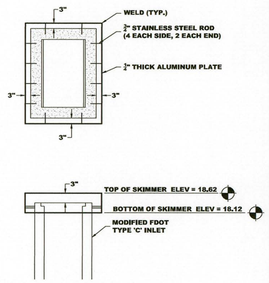


POND 3 - SECTION H-H
PROFILE VIEW

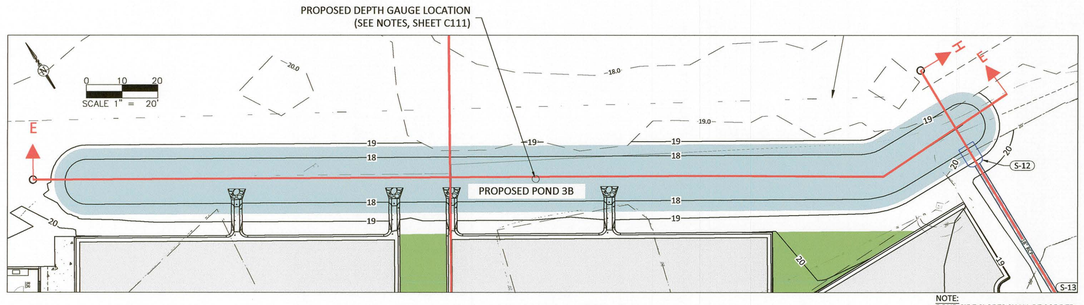


MODIFIED TYPE "C" INLET (S-14)
CONTROL STRUCTURE DETAIL
N.T.S.

STRUCTURE S-14 DETAIL
NTS

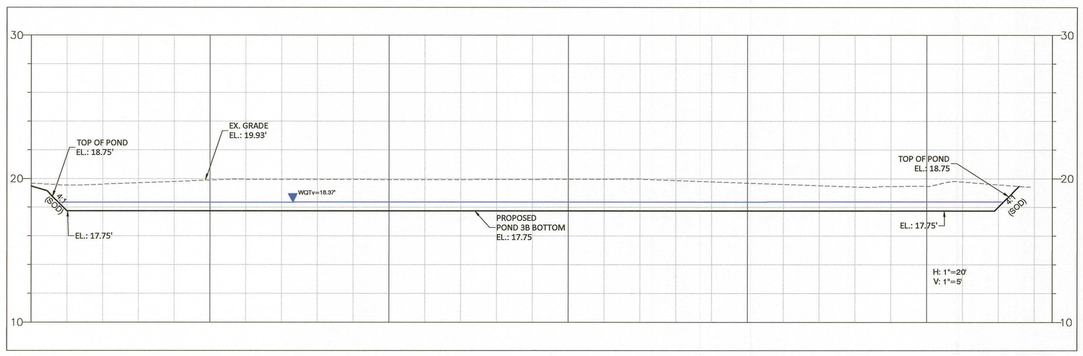


MODIFIED TYPE "C" INLET (S-14)
OIL SKIMMER DETAIL
N.T.S.

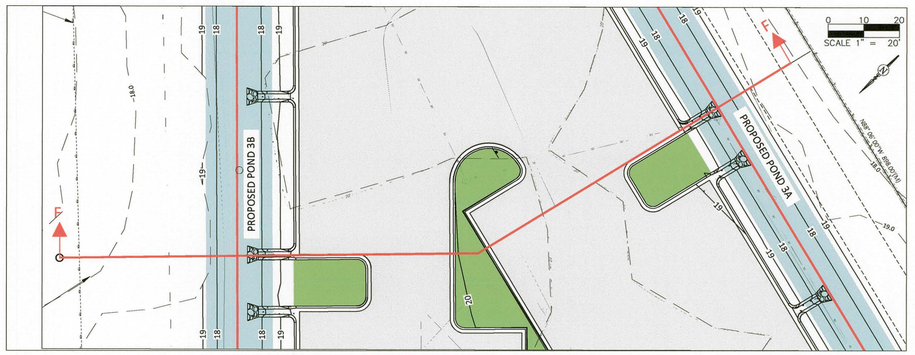


POND 3B- SECTION E-E
PLAN VIEW

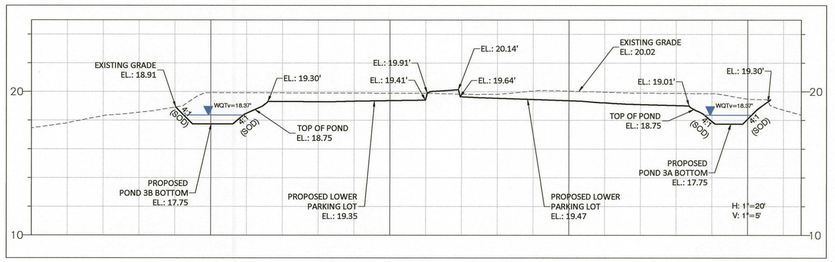
NOTE:
POND SIDE SLOPES SHALL BE SODDED.



POND 3B - SECTION E-E
PROFILE VIEW



POND 3 - SECTION F-F
PLAN VIEW



POND 3 - SECTION F-F
PROFILE VIEW

NOTE:

NOTES (GENERAL NOTES, POND DRAWDOWN NOTES, DEPTH GAUGE NOTES) FOUND ON SHEET C111 ALSO APPLY TO POND #3A & 3B.

NO.	DATE	DESCRIPTION	BY
		REVISIONS	

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
RAJ	RAJ	MTZ	BRL

POND 3A & 3B SECTIONS AND DETAILS

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

CONSTRUCTION PLANS FOR
GRAYTON BEACH TRANSIT FACILITY
COUNTY HIGHWAY 283 SOUTH
SANTA ROSA BEACH 32459

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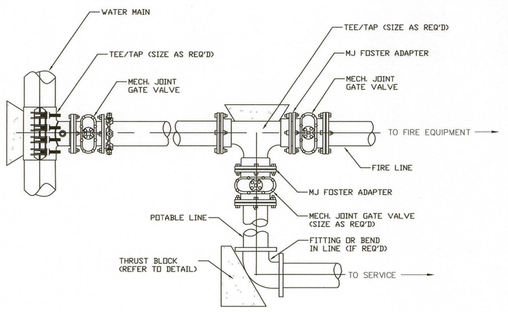
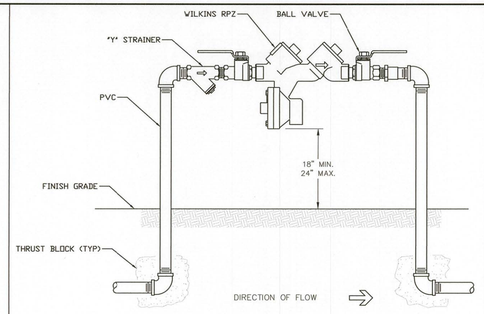
BENJAMIN R. LENOX LICENSE No. 78674 STATE OF FLORIDA PROFESSIONAL ENGINEER
3-22-2024
Benjamin R. Lenox, P.E.
State of Florida # 78674

PROJECT NO.: 19-0328.004
SCALE: AS SHOWN
DATE: JUNE 2023
DRAWING: C113

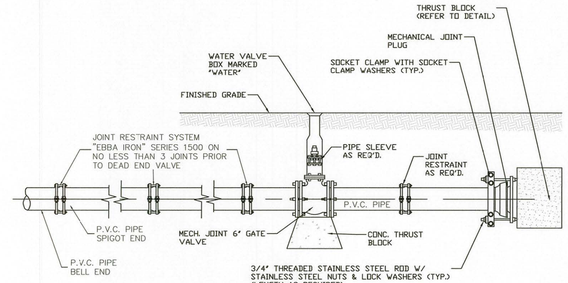


1 CONNECTION FOR FIRE AND WATER SERVICE
(FOR BORED WATER MAIN SITUATIONS ONLY)
N.T.S.



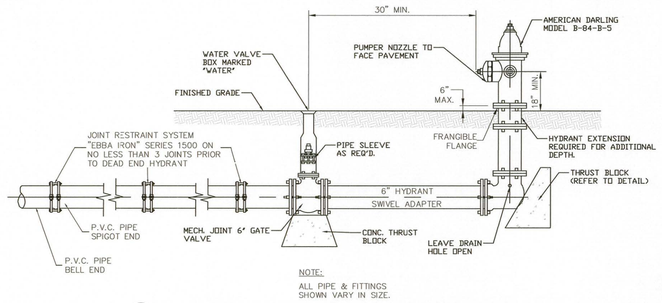
NOTES:
1. RPBA SHALL BE WILKINS UNLESS OTHERWISE APPROVED BY REGIONAL UTILITIES
2. DEVICE TO BE INSULATED WITH APPROVED MATERIALS

2 REDUCED PRESSURE BACKFLOW ASSEMBLY 3/4"-2"
N.T.S.



NOTE:
ALL PIPE & FITTINGS SHOWN VARY IN SIZE.

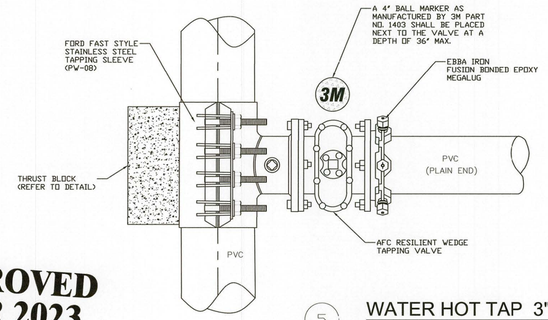
3 DEAD END STUB OUT
N.T.S.



NOTE:
ALL PIPE & FITTINGS SHOWN VARY IN SIZE.

4 DEAD END FIRE HYDRANT INSTALLATION
N.T.S.

APPROVED FOR 2023



NOTES:
1. THE EDGE OF THE TAPPING SLEEVE SHALL BE AT LEAST 24" FROM THE BELL END OF THE PIPE
2. TAPPING SLEEVE SHALL BE PRESSURE TESTED AT 150 PSI FOR A MINIMUM OF 15 MINUTES. TEST SHALL BE WITNESSED BY REGIONAL UTILITIES
3. RESTRAINTS REQUIRED ON AT LEAST TWO BELLS OR 40', WHICHEVER S GREATER, DOWNSTREAM OF TAPPING VALVE.

5 WATER HOT TAP 3" AND LARGER
N.T.S.

GENERAL NOTES – POTABLE WATER CONSTRUCTION

1. CONTRACTOR SHALL COORDINATE INSTALLATION OF POTABLE WATER MAINS WITH ALL OTHER UTILITIES PRIOR TO COMMENCING CONSTRUCTION.

2. HYDROSTATIC TESTS, LEAKAGE TESTS, DISINFECTION, AND BACTERIOLOGICAL TESTS SHALL BE PERFORMED IN ACCORDANCE WITH THE WRITTEN CONSTRUCTION SPECIFICATION OF REGIONAL UTILITIES AND ALL APPLICABLE F.D.E.P. AND AWWA REQUIREMENTS.

3. NO POTABLE WATER MAIN CONSTRUCTION SHALL COMMENCE UNTIL SHOP DRAWINGS HAVE BEEN APPROVED AND A PRE-CONSTRUCTION CONFERENCE HELD WITH REGIONAL UTILITIES STAFF.

4. PROVIDE LOCKS, IN ACCORDANCE WITH THE WRITTEN CONSTRUCTION SPECIFICATIONS OF REGIONAL UTILITIES, ON ALL CURB STOPS.

5. CONTRACTOR SHALL NOTIFY REGIONAL UTILITIES 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION. UTILITY REPRESENTATIVES WILL PERFORM ALL TAPS OF EXISTING LINES AND MUST WITNESS ALL TIES OF AND TESTS OF NEW LINES.

6. IT IS REQUIRED THAT ALL NEW AND RELOCATED WATER SERVICES AND PLUMBING SHALL BE IN CONFORMANCE WITH STATE AND FEDERAL REGULATIONS PERTAINING TO THE CONTROL OF LEAD AND COPPER.

7. CONTRACTOR SHALL PROVIDE A COMPOSITE METER BOX WITH A COMPOSITE LID AT THE CURB STOP OF ALL WATER SERVICES AS SHOWN IN THE TYPICAL WATER METER INSTALLATION DETAIL. MATERIALS SHALL BE IN ACCORDANCE WITH THE WRITTEN SPECIFICATIONS OF REGIONAL UTILITIES. METER IS TO BE SET BY REGIONAL UTILITIES.

8. CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS IN ACCORDANCE WITH REGIONAL UTILITIES SPECIFICATIONS.

9. THE LOCATION OF ALL WATER SERVICE STUBS ARE TO BE MARKED BY THE LETTER "W" SCRIBED A MINIMUM OF 2" HIGH AND 1/4 DEEP IN TOP OF CURB. IF NO CURBING IS INSTALLED A 3" SQUARE STEEL TAG INSCRIBED WITH A 2" LETTER "W" IS TO BE ATTACHED TO THE STREET PAVEMENT.

10. A 4" WATER BALL MARKER, AS MANUFACTURED BY 3M PART NO. 1403, SHALL BE PLACED AT ALL INLINE VALVES ALONG WATER MAIN, AT ALL CORP STOP LOCATIONS, AND IN ALL METER BOXES. MAXIMUM DEPTH OF MARKER BALL IS 36".

11. ALL MECHANICAL JOINTS SHALL USE MEGA-LUG RESTRAINT TYPE RETAINING GLANDS.

12. MINIMUM SEPARATION BETWEEN WATER OR SEWER AND ELECTRICAL CONDUITS OR ELECTRICAL LINES SHALL BE 72" MINIMUM HORIZONTAL & 18" VERTICAL WITH ELECTRICAL BEING BELOW THE WATER AND SEWER LINES. IN CASES WHERE 18" VERTICAL SEPARATION CAN NOT BE MET, 96" OF HORIZONTAL SEPARATION SHALL BE REQUIRED.

13. ALL MECHANICAL JOINT FITTINGS ON PRESSURE PIPE SHALL HAVE BOTH "MEGALUG" TYPE JOINT RESTRAINING GLANDS AND THRUST BLOCKS.

14. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND MEETING THE REQUIREMENTS OF REGIONAL UTILITIES STANDARD DETAILS AND SPECIFICATIONS LATEST EDITION.

15. ANY LOCATION WHERE PRESSURE PIPELINES CURVATURE EXCEEDS MANUFACTURES' SPECIFICATIONS; APPROPRIATE MECHANICAL JOINT FITTINGS SHALL BE USED.

16. ALL 2-INCH VALVES SHALL BE BALL TYPE. 2-INCH GATE VALVES SHALL NOT BE USED.

17. ALL TIE IN TO EXISTING PRESSURIZED PIPELINES SHALL BE BY TAPPING SLEEVE (3 INCH TAP AND LARGER) (OR TAPPING SADDLE, 2 INCH TAP AND SMALLER) AND VALVE.

18. DEVELOPERS OF PRIVATE PROJECTS SHALL PROVIDE ALL WETLANDS PERMITS NECESSARY FOR UTILITY CONSTRUCTION.

19. ALL CONSTRUCTION MUST BE IN ACCORDANCE WITH THE LATEST EDITION OF REGIONAL UTILITIES' STANDARD SPECIFICATIONS.

20. JOINT RESTRAINTS SHALL BE REQUIRED ON ALL WATER MAINS LOCATED IN PAVED AREAS AND WETLANDS.

21. ALL WATER TAPS SHALL BE LOCATED OUT FROM UNDER PROPOSED FUTURE PAVEMENT.

22. WATER SERVICES SHALL BE LOCATED ABOVE STORMWATER EXFILTRATION SYSTEMS.

23. POTABLE WATER MAINS SHALL BE LOCATED ABOVE STORMWATER EXFILTRATION SYSTEMS.

24. PRIOR TO A FINAL INSPECTION, ALL LOT CORNERS SHALL BE STAKED BY THE SURVEYOR. INSPECTOR WILL NOT PERFORM FINAL INSPECTION IF STAKING IS INCOMPLETE.

BACKFLOW PREVENTORS

1. ALL WATER SERVICE LINES SHALL BE REQUIRED TO HAVE A BACKFLOW DEVICE PURSUANT TO REGIONAL UTILITIES SPECIFICATIONS.

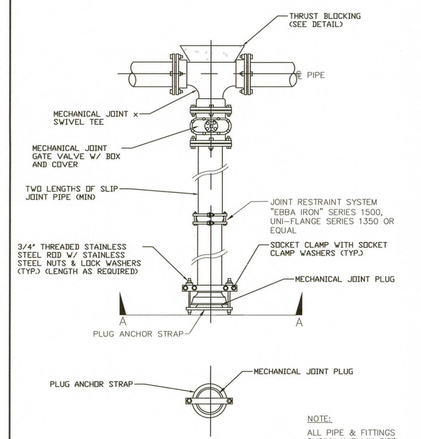
2. ALL FIRE LINES SHALL HAVE A DOUBLE DETECTOR CHECK VALVE ASSEMBLY WITH A 5/8" BYPASS METER. THE METER SHALL BE PURCHASED FROM REGIONAL UTILITIES.

3. REDUCED PRESSURE ZONE BACKFLOW ASSEMBLIES (RPZ) ARE REQUIRED FOR ALL COMMERCIAL, HIGH HAZARD WATER USES, AND FOR HOUSEHOLDS WITH RECLAIM WATER IRRIGATION SERVICES.

4. ALL BACKFLOW PREVENTORS SHALL BE OF THE TYPE REQUIRED BY F.D.E.P. AWWA AND NFPA CODES AND MUST BE PER REGIONAL UTILITIES BACKFLOW PREVENTION MANUAL.

5. ALL SWIMMING POOLS SHALL HAVE RPZ BACKFLOW PREVENTORS.

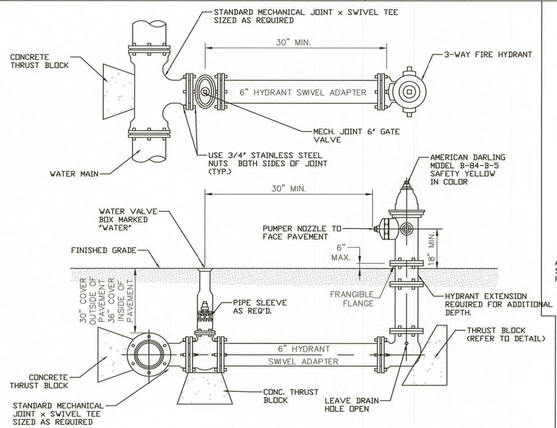
6. ALL WATER SERVICES 1-1/2" AND LARGER ARE REQUIRED TO HAVE AN RPZ BACKFLOW PREVENTOR REGARDLESS IF RESIDENTIAL OR COMMERCIAL.



NOTES:
1. IN A STRAIGHT RUN DEAD END INSTALLATION THE VALVE SHALL BE TIED TO THE NEXT UPSTREAM PIPE JOINT WITH SOCKET CLAMP AND TIE-RODS.
2. ALL MECHANICAL JOINTS TO USE RESTRAINT TYPE RETAINER GLANDS.
3. JOINT RESTRAINTS REQUIRED ON 3 JOINTS PRIOR TO PLUG.

NOTE:
ALL PIPE & FITTINGS SHOWN VARY IN SIZE.

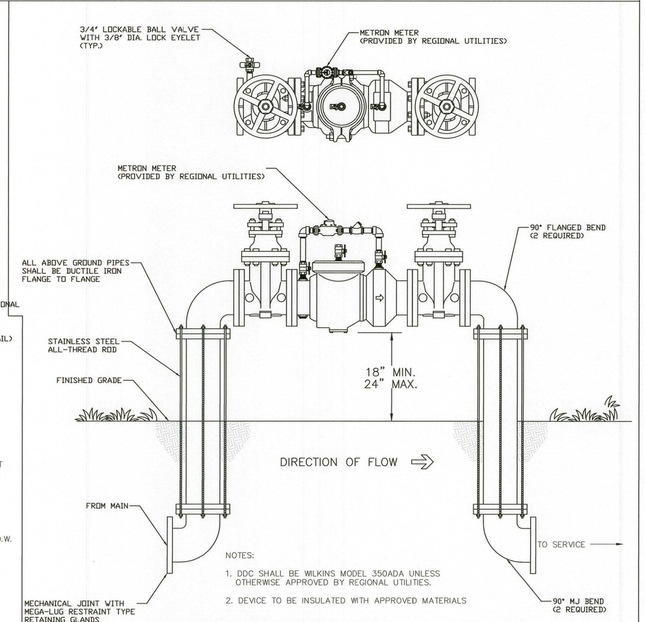
6 DEAD END STUB DETAIL
N.T.S.



NOTES:
1. FIRE HYDRANTS SHALL BE INSTALLED BETWEEN BACK OF CURB AND FACE OF SIDEWALK WITHIN R/W EXCEPT WHERE CONDITIONS AND OR REGULATION PROHIBIT, FIRE HYDRANTS SHALL BE LOCATED WITHIN RIGHTS OF WAY OR UTILITY EASEMENTS.
2. ALL RODS AND ASSOCIATED HARDWARE SHALL BE STAIN_ESS STEEL.
3. ALL MECHANICAL JOINTS SHALL USE MEGA-LUG RESTRAINT TYPE RETAINING GLANDS.
4. VALVE BOXES SHALL BE HEIGHT ADJUSTABLE.
5. AMERICAN DARLING MODEL B-84-B-5 HYDRANT ~~SAFETY YELLOW IN COLOR.~~ SEE SHEET C107, NOTE #4 FOR COLOR
6. IF A HYDRANT IS TO BE INSTALLED MORE THAN 10-FEET FROM THE WATER MAIN, A SECOND VALVE SHALL BE USED. REFER TO SECTION 6.3.14.11 OF THE DESIGN AND CONSTRUCTION SPECIFICATIONS.
7. HYDRANTS MUST HAVE A MINIMUM OF 3' CLEARANCE AROUND THEM.
8. HYDRANTS MUST BE PLACED AT LEAST 3' INSIDE OF R.O.W. FROM PROPERTY LINE.
9. HYDRANTS SHALL NOT BE PLACED NEAR POWER TRANSFORMERS.

1

7 TYPICAL FIRE HYDRANT INSTALLATION
N.T.S.



NOTES:
1. DDC SHALL BE WILKINS MODEL 350ADA UNLESS OTHERWISE APPROVED BY REGIONAL UTILITIES.
2. DEVICE TO BE INSULATED WITH APPROVED MATERIALS

8 FIRE LINE BACK FLOW PREVENTOR
N.T.S.

REVISIONS

NO.	DATE	DESCRIPTION	BY
1	3/13/24	PLANS ADJUSTMENTS FOR SWFD	BRL

	DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
NO.	RAJ	RAJ	MTZ	BRL
DATE				
APPR.				

REGIONAL UTILITIES
OPERATED BY FLORIDA COMMUNITY SERVICES
CORPORATION OF WALTON COUNTY INC.
4432 HWY 98 E
Santa Rosa Beach, FL 32459
Phone: (850) 231-5114
Fax: (850) 231-9696

REGIONAL UTILITIES
WATER DETAILS

CONSTRUCTION PLANS FOR
GRAYTON BEACH TRANSIT FACILITY
COUNTY HIGHWAY 283 SOUTH
SANTA ROSA BEACH 32459

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

PROJECT NAME:

SHEET TITLE: POTABLE WATER STANDARD DETAILS

SEAL:

DRAWN BY: FT | CHECKED BY: RAD
PROJECT NO.: 000-000
WORK ORDER: 00.0000
DRAWING SCALE: 1"=XX'
PLOT DATE:
SHEET NO. X OF XX
SHEET. W-1

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1625 SUMMIT LAKE DRIVE
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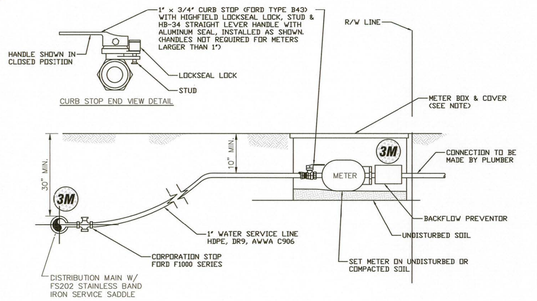
DRMP, Inc.

BENJAMIN R. JENNINGS
LICENSE
No. 78674
9-22-2024
STATE OF FLORIDA
PROFESSIONAL ENGINEER
Benjamin R. Jennings, P.E.
State of Florida # 78674

PROJECT NO.: 19-0328.004
SCALE: AS SHOWN
DATE: JUNE 2023
DRAWING: C114

P:\Projects\19\19-0328.004_Walton_County_PES_Grayton_Beach_Transit\General-Civil\CADD\01-DWGS\19-0328.004 REGIONAL UTILITIES DETAILS.dwg Plotted: Mar 13, 2024 - 3:09pm by rajennigan



3M A 4" BALL MARKER AS MANUFACTURED BY 3M PART NO.1403 SHALL BE PLACED NEXT TO CORPORATION STOP AND IN THE METER BOX. AT A DEPTH OF 36" MAX.

NOTES:

1. 5/8", 3/4", & 1" METERS SHALL BE INSTALLED IN DFW PLASTICS DFW36C-12 COMPOSITE METER BOX WITH DFW36-1A LID.

2. 1-1/2" & 2" METERS SHALL BE INSTALLED IN DFW PLASTICS DFW1730C-12 COMPOSITE METER BOX WITH DFW1730C-1A LID.

3. CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ONE METER BOX PER LOT AND THE WATER SERVICE WITH CURB STOP AND LOCKSEAL LOCK SHALL BE STUBBED IN BOX.

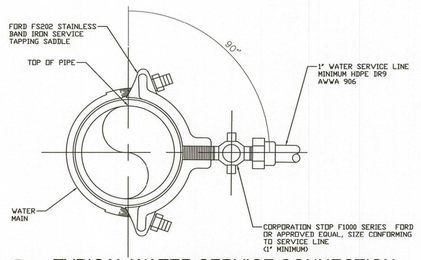
4. CONTRACTOR SHALL COORDINATE INSTALLATION OF POTABLE WATER SERVICES WITH ALL OTHER UTILITIES PRIOR TO COMMENCING CONSTRUCTION.

5. NO METERS WILL BE SET UNTIL REGIONAL UTILITIES HAS RECEIVED CLEARANCE TO PLACE THE SYSTEM INTO SERVICE FROM F.D.E.P.

IN ORDER TO RECEIVE CLEARANCE FROM F.D.E.P. THE FOLLOWING PROCEDURE MUST BE COMP..ETED:

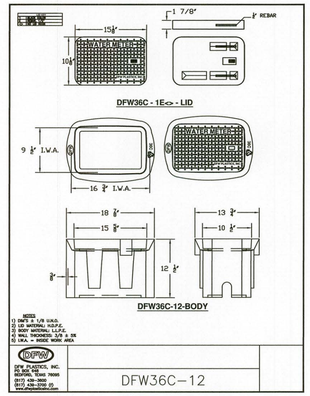
CONTRACTOR MUST PERFORM PRESSURE TEST, FLUSH AND ARRANGE FOR A FINAL INSPECTION. PRESSURE TEST AND FLUSH MUST BE WITNESSED BY A REGIONAL UTILITIES INSPECTOR. UPON PASSING THE PRESSURE TEST AND FINAL INSPECTION, REGIONAL UTILITIES WILL TAKE BACTERIOLOGICAL TEST. THE ENGINEER FOR THE PROJECT MUST SUBMIT THE BACTERIOLOGICAL TEST RESULTS, AS-BUILT DRAWINGS AND CERTIFICATION OF COMPLETION FORMS TO REGIONAL UTILITIES. REGIONAL UTILITIES WILL THEN SIGN THE COMPLETION FORMS AND FORWARD THEM TO F.D.E.P. WITH COPIES OF THE BACTERIOLOGICAL TEST RESULTS. UPON THEIR REVIEW AND APPROVAL, F.D.E.P. WILL SEND REGIONAL UTILITIES A LETTER GRANTING PERMISSION FOR THE SYSTEM TO BE PLACED INTO OPERATION.

1 TYPICAL WATER METER INSTALLATION
N.T.S.

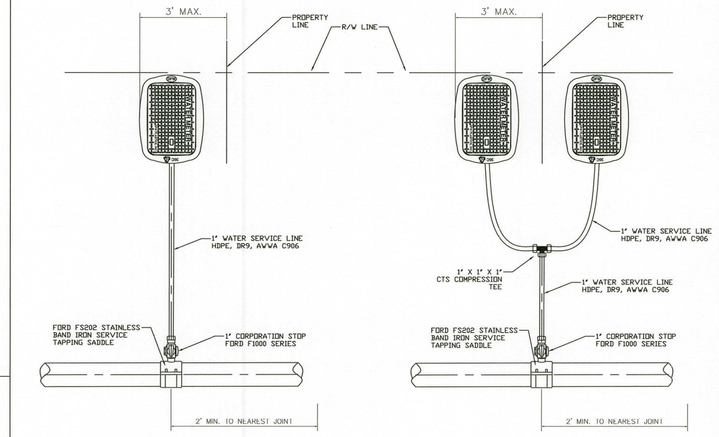


2 TYPICAL WATER SERVICE CONNECTION
N.T.S.

3 DETAIL NOT IN USE-SEE DETAIL 5
N.T.S.

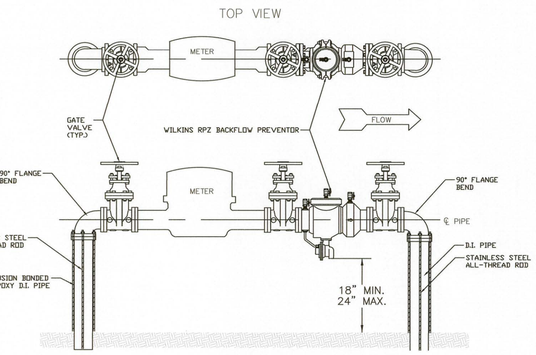


4 COMPOSITE METER BOX WITH TRAFFIC RATED COMPOSITE LID 3/4" - 1" METERS DFW PLASTICS, INC.
N.T.S.



5 TYPICAL WATER SERVICE INSTALLATIONS
N.T.S.

APPROVED FOR 2023



NOTES:

1. DUCTILE IRON PIPE SHALL BE COMPATIBLE WITH METER SIZE.

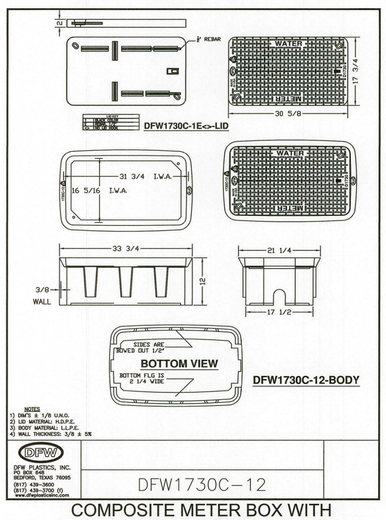
2. DUCTILE IRON PIPE SHALL CONFORM TO REGIONAL UTILITIES STANDARDS AND SPECIFICATION.

3. ENTIRE ASSEMBLY MUST BE INSULATED.

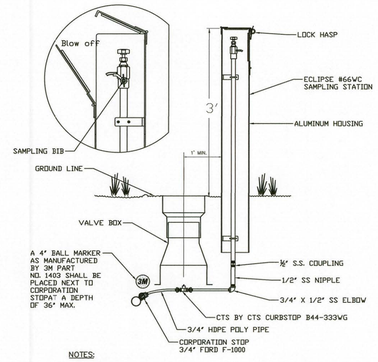
4. THE BACKFLOW PREVENTOR SHALL BE LOCATED DOWN STREAM FROM THE METER.

5. ALL ABOVE GROUND PIPE AND FITTINGS SHALL BE FLANGED.

6 3" OR LARGER ABOVE GROUND METER & RPZ BACKFLOW INSTALLATION
N.T.S.



7 COMPOSITE METER BOX WITH TRAFFIC RATED COMPOSITE LID 1-1/2" - 2" METERS DFW PLASTICS, INC.
N.T.S.



NOTES:

1. SAMPLING STATIONS SHALL BE 1' BURY, WITH A ½" MIP INLET, AND A 7/64" UNTHREADED BLOW OFF.

2. ALL STATIONS SHALL BE ENCLOSED IN A LOCKABLE, NON-REMOVABLE 6" SQUARE ALUMINUM HOUSING. ALL OPENINGS SHALL BE HINGED.

3. WHEN OPEN, THE STATION SHALL REQUIRE NO KEY FOR OPERATION, AND WATER WILL FLOW IN AN ALL STAINLESS STEEL WATERWAY.

4. ALL WORKING PARTS SHALL BE OF STAINLESS STEEL AND SERVICEABLE FROM ABOVE GROUND WITH NO DIGGING OR REPLACEMENT NEEDED.

5. A SLOW TURNING VALVE WITH 6 TURNS TO OPEN WILL CONTROL THE WATER FLOW, AND BE LOCATED AFTER THE SAMPLING BIB.

6. AS MANUFACTURED BY KUPFERLE FOUNDRY, ST. LOUIS MO. 63102. MODEL # 66WC, OR APPROVED EQUAL.

8 TYPICAL WATER SAMPLING STATION
N.T.S.

REVISIONS

NO.	DATE	APPR.	REVISION	BY

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
RAJ	RAJ	MTZ	BRL

REGIONAL UTILITIES
OPERATED BY FLORIDA COMMUNITY SERVICES
CORPORATION OF WALTON COUNTY INC.
4432 HWY 98 E
Santa Rosa Beach, FL 32459
Phone: (850) 231-5114
Fax: (850) 231-9696

PROJECT NAME: REGIONAL UTILITIES WATER DETAILS

SHEET TITLE: POTABLE WATER STANDARD DETAILS

SEAL:

DRAWN BY:	CHECKED BY:
RT	RAD

PROJECT NO.: 000-000
WORK ORDER: 00.0000
DRAWING SCALE: 1"=XX'
PLOT DATE:
SHEET NO. X OF XX
SHEET. W-2

CONSTRUCTION PLANS FOR
GRAYTON BEACH TRANSIT FACILITY
COUNTY HIGHWAY 283 SOUTH
SANTA ROSA BEACH 32459

DO NOT SCALE THIS DRAWING - DIMENSIONS AND NOTES TAKE PREFERENCE

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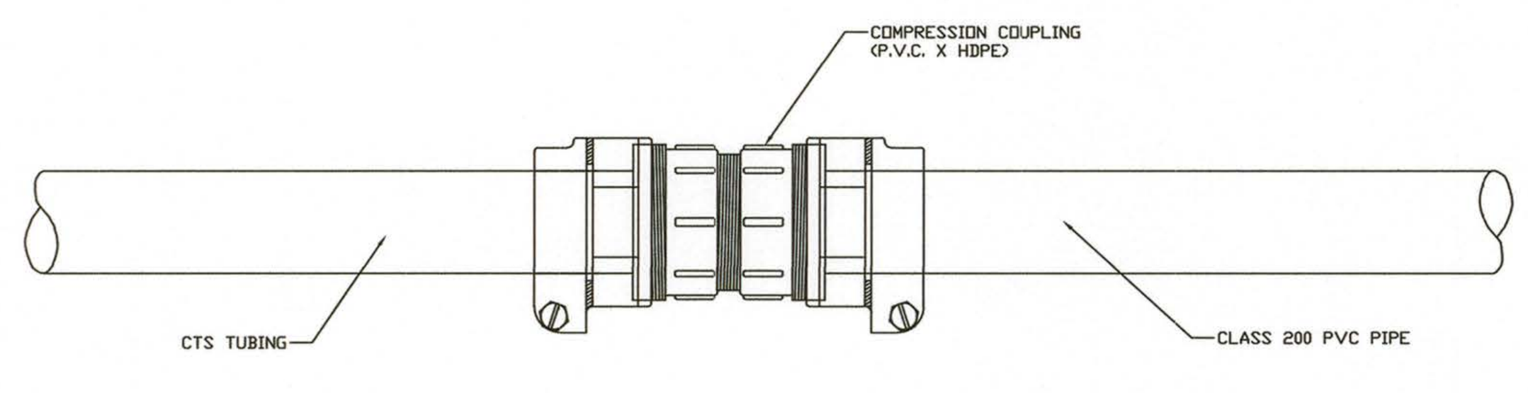
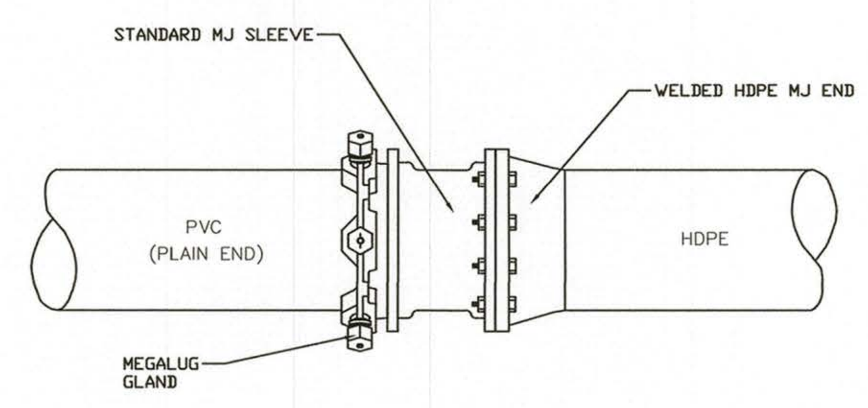
BENJAMIN R. LENNON LICENSE NO. 78674 3-22-2024 STATE OF FLORIDA PROFESSIONAL ENGINEER
Benjamin R. Lennon, P.E.
State of Florida # 78674

PROJECT NO.: 19-0328.004
SCALE: AS SHOWN
DATE: JUNE 2023
DRAWING: C115

P:\Projects\19--0328.004_Walton_County_PES_Grayton_Beach_Transit\General-Civil\CADD\01--DWGS\19-0328.004 REGIONAL UTILITIES DETAILS.dwg Plotted: Mar 13, 2024 - 3:09pm by rajernigan

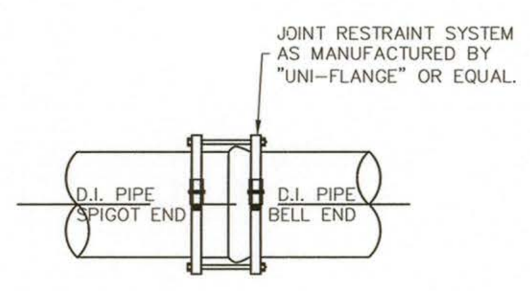


(1) HDPE TO PVC TRANSITION (UP TO 2" DIAMETER)
N.T.S.

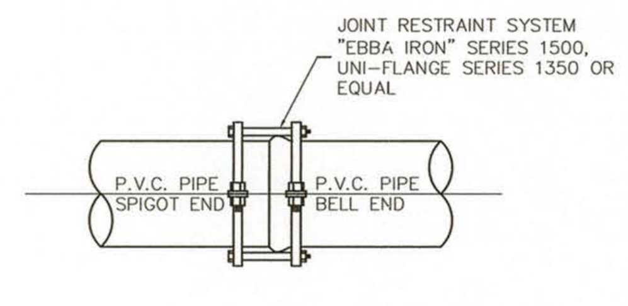


NOTE:
JOINT RESTRAINT REQUIRED ON 3 PVC JOINTS BEFORE TRANSITION CONNECTION

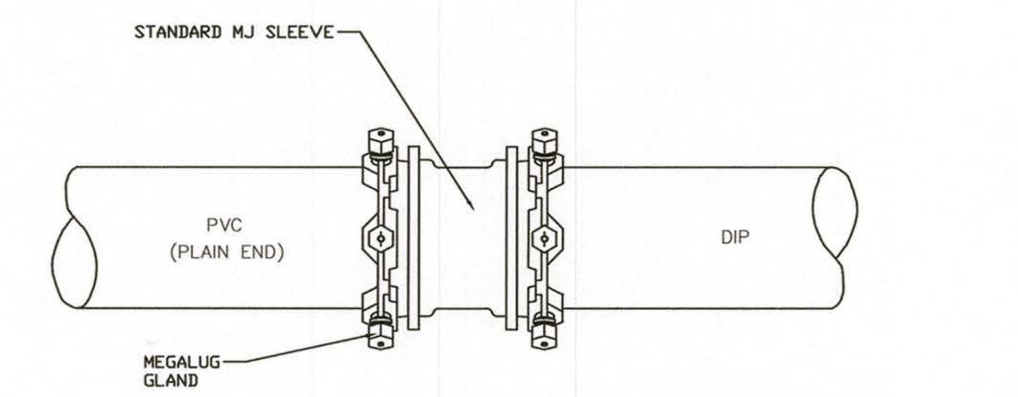
(2) HDPE-TO-PVC CONNECTION (3" PIPE AND LARGER)
N.T.S.



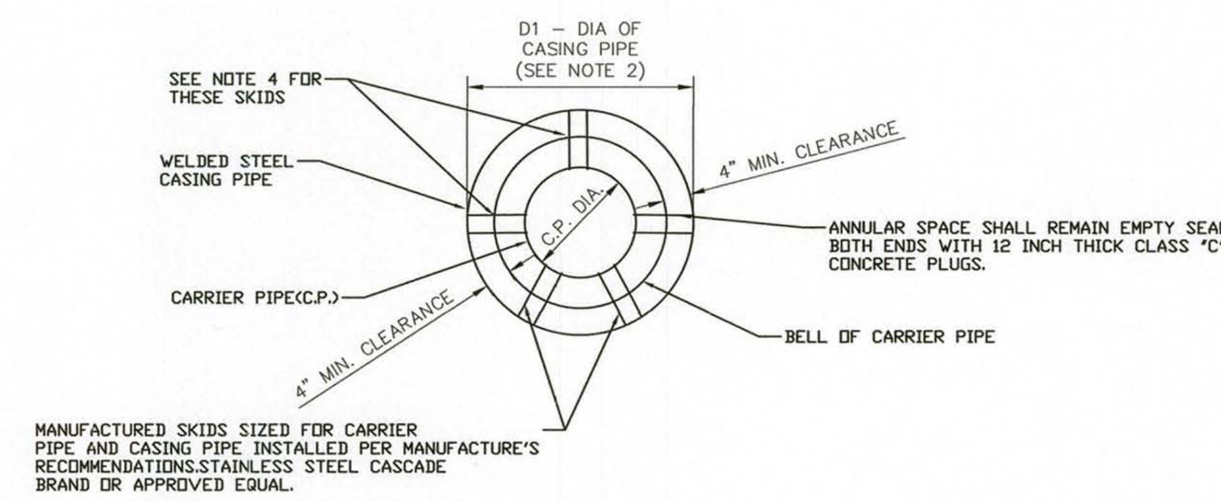
(3) TYPICAL RESTRAINED D.I. TO D.I. JOINT
N.T.S.



(4) TYPICAL RESTRAINED P.V.C. JOINT
N.T.S.



(5) TYPICAL RESTRAINED CAST IRON/DUCTILE IRON TO P.V.C. JOINT
N.T.S.

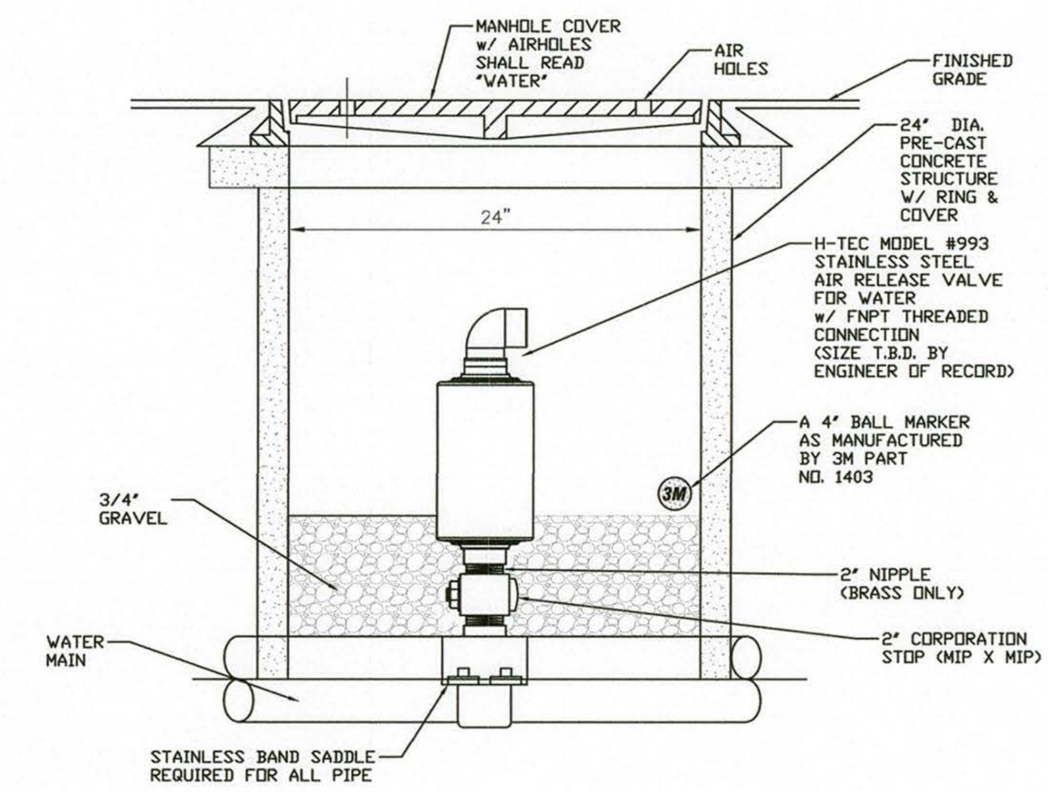


(6) TYPICAL CASING DETAIL
N.T.S.

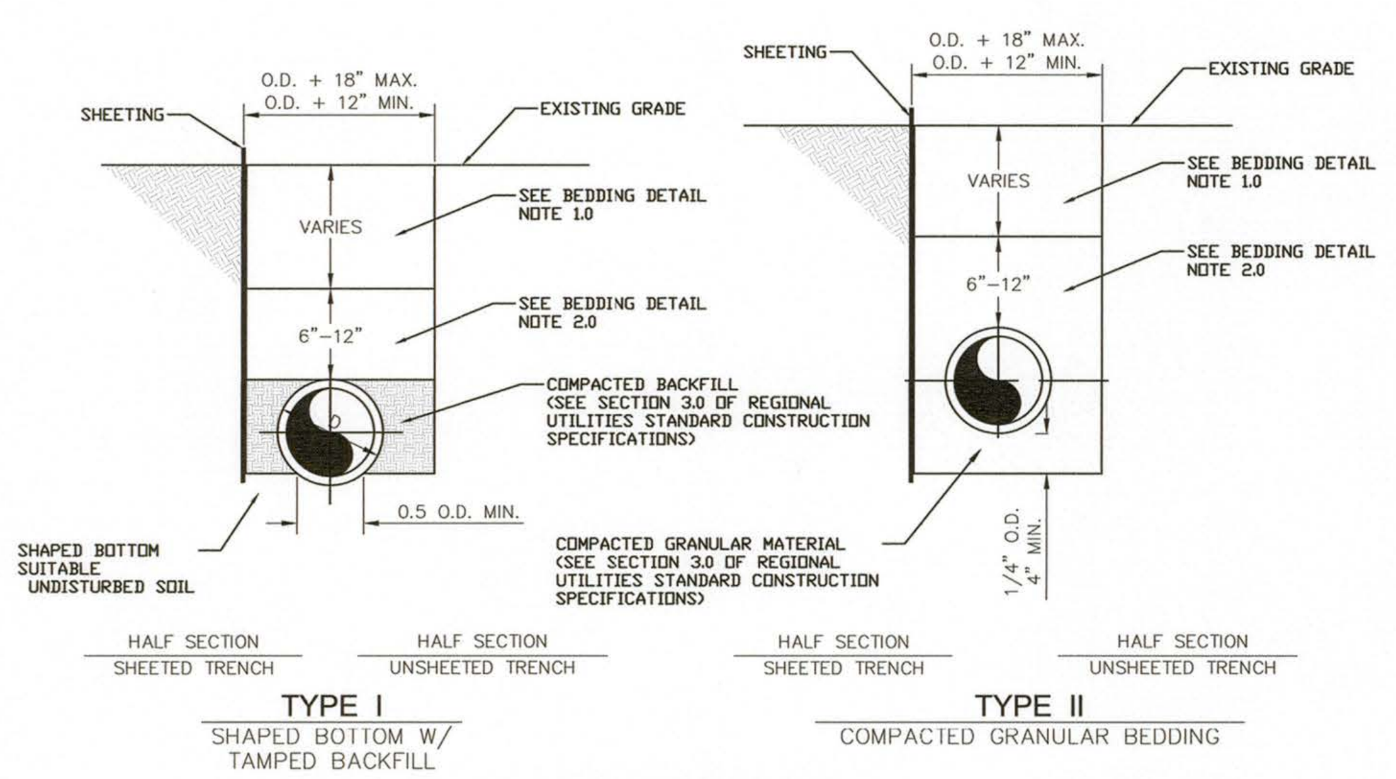
CASING PIPE SIZES (MIN.)												
CARRIER PIPE NOM. DIA. (D2)	4"	6"	8"	10"	12"	14"	16"	18"	22"	24"	30"	36"
CASING PIPE NOM. DIA. (D1)	8"	12"	16"	22"	24"	30"	30"	30"	36"	36"	48"	60"
HWY X-ING WALL THK.-INCHES	0.188	0.188	0.188	0.188	0.188	0.188	0.188	0.188	0.188	0.250	0.375	0.500

NOTES:
1. MIN. COVER TO TOP OF CASING SHALL BE 36".
2. THE INSIDE DIAMETER OF THE CASING PIPE SHALL BE 4" GREATER THAN THAN THE OUTSIDE DIAMETER OF THE CARRIER PIPE BELL OR COUPLING.
3. ALL JACK AND BORE CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION UTILITY ACCOMMODATION MANUAL, LATEST EDITION.
4. SKIDS SHALL BE SECURED TO THE CARRIER PIPE AS PER MANUFACTURERS RECOMMENDATIONS. (MINIMUM OF 3 SKIDS PER PIPE JOINT.)
5. ROTATION OF CARRIER PIPE INSIDE THE CASING PIPE WILL NOT BE PERMITTED. ALL JOINTS WITHIN THE CASING SHALL HAVE JOINT RESTRAINTS INSTALLED.
6. THE CONTRACTOR SHALL SUBMIT SHOP DRAWING OF CASING AND CARRIER PIPE INSTALLATION FOR APPROVAL PRIOR TO PURCHASING MATERIALS.
7. CASING SHALL EXTEND A MINIMUM OF 8 FEET PAST EDGE OF PAVEMENT.

WATER MAIN CROSSING FOR ROADWAYS



(7) H-TEC 2-INCH AUTOMATIC AIR RELEASE VALVE MODEL #993 STAINLESS STEEL
N.T.S.



BEDDING DETAIL NOTES:

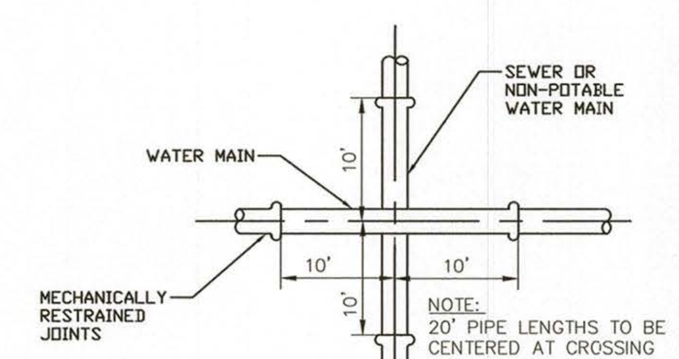
1.0 THE BACKFILL TO A POINT TWELVE (12) INCHES ABOVE THE PIPE SHALL BE PLACED BY HAND AND SHALL BE CAREFULLY SELECTED MATERIAL FREE FROM ROCKS, BOULDERS, CLODS, ORGANIC MATERIAL, OR OTHER DEBRIS AND LIGHTLY COMPACTED PRIOR TO PLACING REMAINING BACKFILL. THE BALANCE OF THE BACKFILL MAY BE PLACED IN THE DITCH BY HAND OR BY MECHANICAL EQUIPMENT. NO BACKFILL SHALL BE DROPPED DIRECTLY ONTO EXPOSED PIPE.

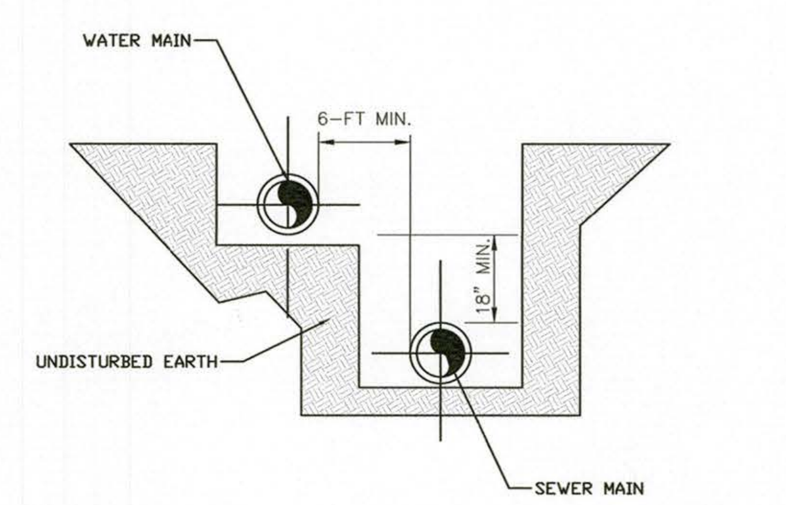
2.0 CONTRACTOR SHALL EMPLOY AN EXCAVATOR-MOUNTED TRENCH ROLLER OR OTHER MECHANICAL COMPACTION EQUIPMENT TO PROVIDE BACKFILL DENSITIES OF 95% OR GREATER AT ±2% OPTIMUM MOISTURE CONTENT. SURFACE FLOODING AND WATER JETTING OF BACKFILL SHALL NOT BE PERMITTED FOR BACKFILL CONSOLIDATION.

3.0 ALL BACKFILL SHALL BE IN ACCORDANCE WITH SECTION 3.0 OF REGIONAL UTILITIES CONSTRUCTION SPECIFICATIONS

4.0 PIPE COVER SHALL NOT BE LESS THAN 36 INCHES, NOR GREATER THAN 48 INCHES EXCEPT WHERE SPECIFICALLY SHOWN ON THE CONSTRUCTION DRAWINGS AND APPROVED BY REGIONAL UTILITIES.

(8) TYPICAL BEDDING DETAIL
N.T.S.



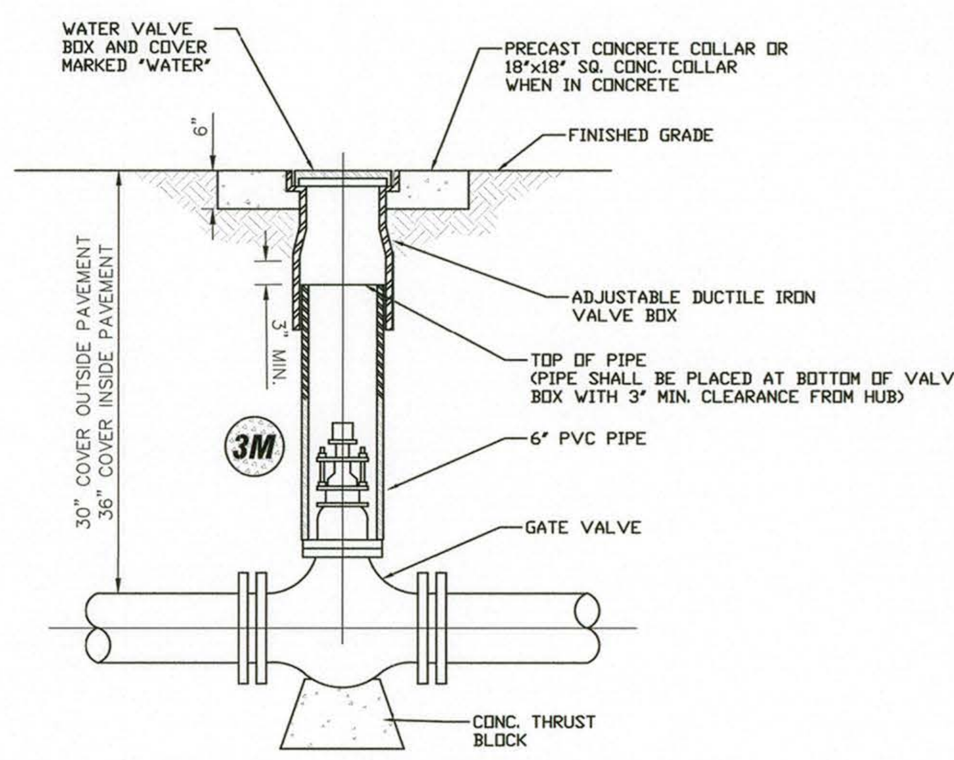


NOTES
1. WHERE A 18 INCH VERTICAL SEPARATION DISTANCE CANNOT BE MAINTAINED BETWEEN A WATER MAIN AND A SEWER MAIN OR NON-POTABLE WATER MAIN CROSSING THEN THE WATER MAIN SHALL PASS OVER THE SEWER MAIN OR NON-POTABLE WATER MAIN WITH A MINIMUM VERTICAL CLEARANCE OF 12 INCHES. THE SEWER OR NON-POTABLE WATER MAIN SHALL BE 20 FEET OF 6" CONCRETE ENCASEMENT CENTERED ON THE POINT OF CROSSING AND THE WATER MAIN SHALL BE 20 FEET OF 6" CONCRETE ENCASEMENT CENTERED ON THE POINT OF CROSSING. CONCRETE ENCASEMENT SHALL BE POURED SEPARATELY FOR EACH PIPE.
2. ANYTHING LESS THAN SHOWN MUST BE APPROVED BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION.

NOTES
1. WHERE A 10 FOOT PARALLEL SEPARATION CANNOT BE MAINTAINED BETWEEN A WATER MAIN AND A SEWER MAIN OR NON-POTABLE WATER MAIN, THEN THE WATER MAIN SHALL BE LAID IN A SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELF AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER MAIN OR NON-POTABLE WATER MAIN AND 6 FEET HORIZONTALLY FROM THE EDGE OF THE SEWER MAIN OR NOT-POTABLE WATER MAIN.
2. ANYTHING LESS THAN SHOWN MUST BE APPROVED BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION.

(9) WATER/SEWER CROSSING AND SEPARATION DETAIL
N.T.S.

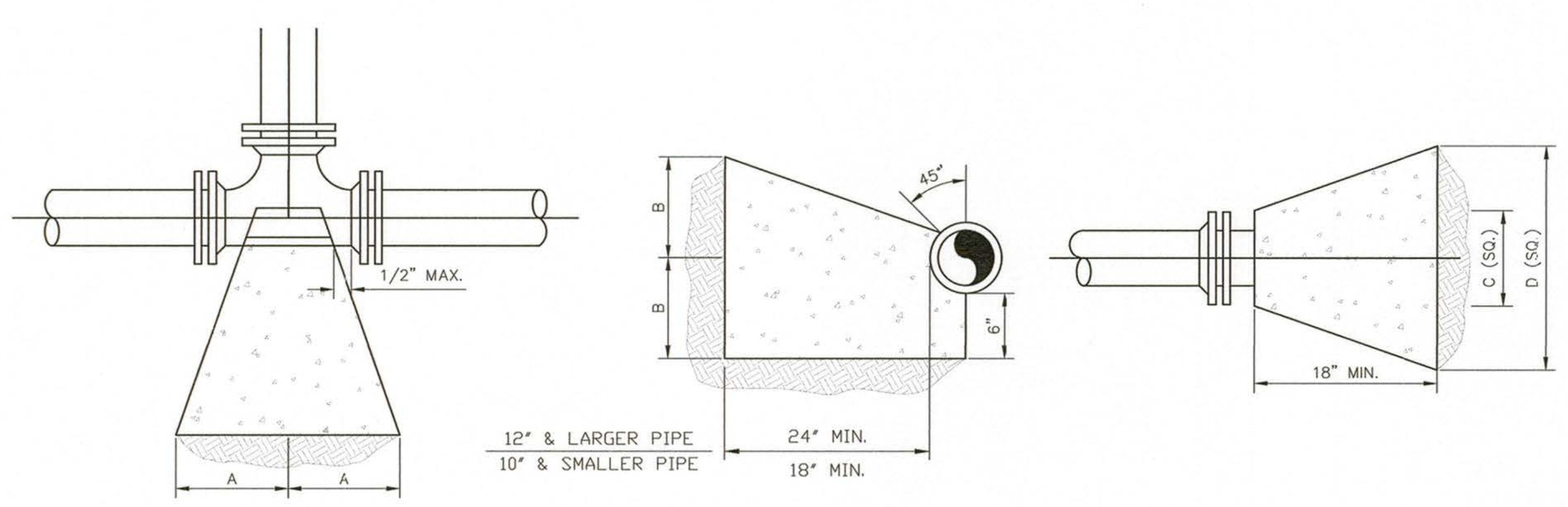
APPROVED FOR 2023



(3M) A 4" BALL MARKER AS MANUFACTURED BY 3M PART NO.1403 SHALL BE PLACED NEXT TO ALL VALVES AT A DEPTH OF 36" MAX.

NOTE:
ALL BELOW GROUND VALVES REQUIRE VALVE BOX.

(10) VALVE AND BOX DETAIL
N.T.S.

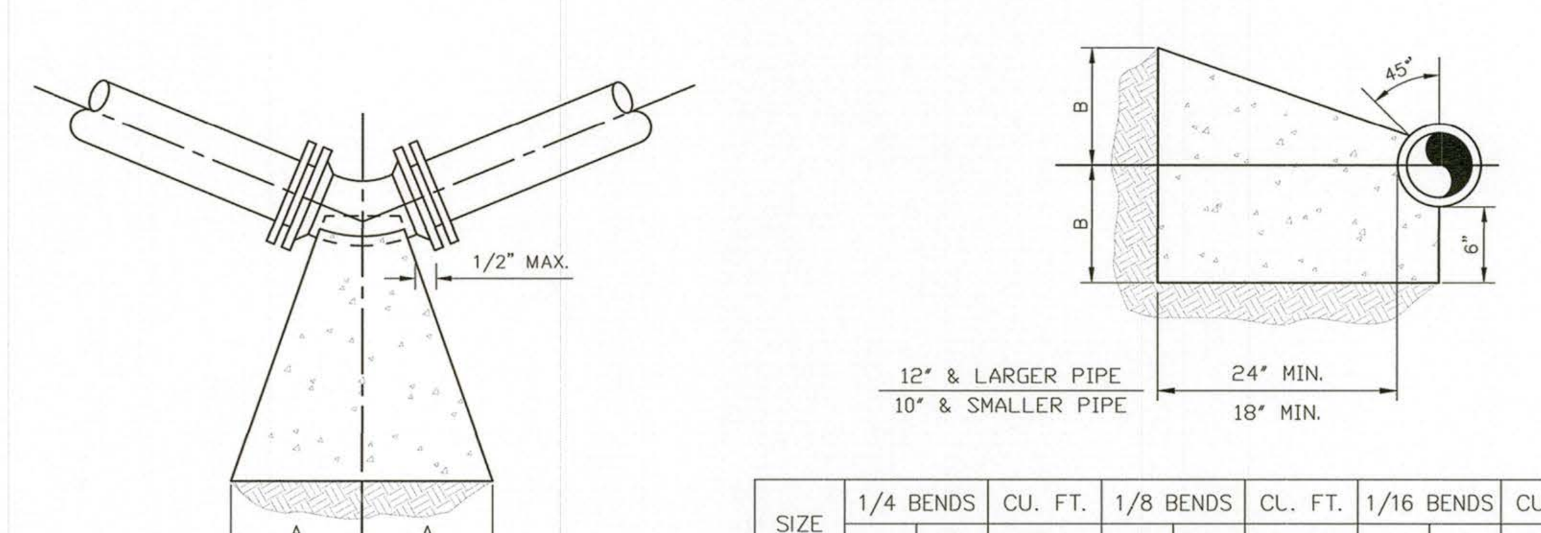


SIZE	TEE		CU. FT.
	A	B	CONC.
6"	10"	12"	3.5
8"	13"	16"	5.4
10"	16"	20"	9.4
12"	18"	24"	16.6
14"	22"	27"	23.2
16"	24"	30"	28.6
18"	26"	32"	36.2

NOTES:
1. ALL BEARING SURFACES TO BE CARRIED TO UNDISTURBED SOIL.
2. THESE TABLES SHOW MINIMUM SIZE THRUST BLOCKS FOR GOOD SOIL. (A-1 THROUGH A-3, CLEAN SAND AND GRAVEL)
3. POOR SOIL (A-4 THROUGH A-8, SILTY SOILS, CLAYS, MUCK AND PEAT) WILL REQUIRE LARGER THRUST BLOCKS.

SIZE	PLUG		CU. FT.
	C	D	CONC.
6"	10"	21"	2.6
8"	12"	29"	4.5
10"	14"	36"	6.9
12"	16"	41"	9.0
14"	18"	48"	12.3
16"	20"	54"	15.2
18"	22"	60"	19.2

(11) THRUST BLOCK DETAIL
N.T.S.



NOTES:
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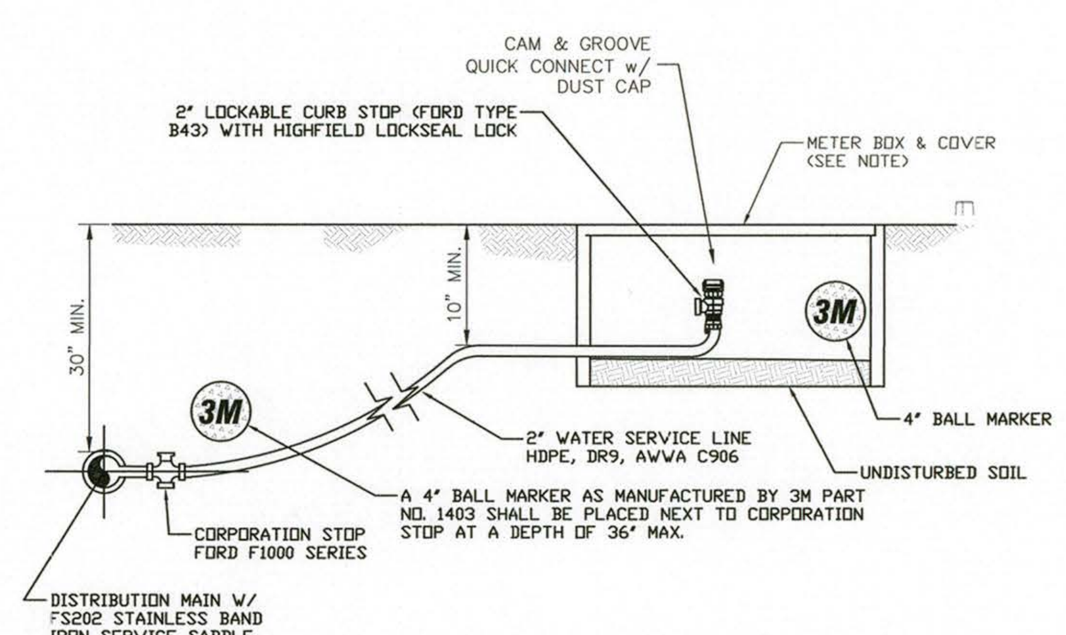
2. THESE TABLES SHOW MINIMUM SIZE THRUST BLOCKS FOR GOOD SOIL. (A-1 THROUGH A-3, CLEAN SAND AND GRAVEL)
3. POOR SOIL (A-4 THROUGH A-8, SILKY SOILS, CLAYS, MUCK AND PEAT) WILL REQUIRE LARGER THRUST BLOCKS.

SIZE	1/4 BENDS		CU. FT.	1/8 BENDS		CL. FT.	1/16 BENDS		CU. FT.
	A	B	CONC.	A	B	CONC.	A	B	CONC.
6"	16"	10"	3.2	9"	10"	3.0	6"	8"	1.3
8"	22"	13"	7.2	12"	13"	3.7	8"	10"	2.1
10"	26"	17"	11.5	14"	17"	5.9	10"	13"	3.6
12"	29"	21"	21.1	16"	21"	8.6	11"	16"	6.6
14"	35"	24"	29.8	19"	24"	14.9	12"	20"	8.9
16"	38"	27"	37.8	21"	27"	19.1	12"	24"	11.2
18"	42"	29"	47.8	22"	29"	24.2	13"	26"	14.2

(12) THRUST BLOCK DETAIL
N.T.S.



(13) BELOW GRADE FLUSH POINT
N.T.S.

NOTES:
1. FLUSH POINTS SHALL BE INSTALLED BETWEEN BACK OF CURB AND FACE OF SIDEWALK WITHIN R/W EXCEPT WHERE CONDITIONS AND OR REGULATION PROHIBIT. FLUSH POINTS SHALL BE LOCATED WITHIN RIGHTS OF WAY OR UTILITY EASEMENTS.
2. METER BOX AND COVER SHALL BE TRAFFIC RATED. SEE DETAIL #7 ON SHEET W-2.

REGIONAL UTILITIES
OPERATED BY FLORIDA COMMUNITY SERVICES CORPORATION OF WALTON COUNTY INC.
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POTABLE WATER STANDARD DETAILS

DRAWN BY: RT | CHECKED BY: RAD
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DRAWING SCALE: 1"=XX'
SHEET NO. X OF XX
SHEET: W-3

CONSTRUCTION PLANS FOR
GRAYTON BEACH TRANSIT FACILITY
COUNTY HIGHWAY 283 SOUTH
SANTA ROSA BEACH 32459

REGIONAL UTILITIES WATER DETAILS

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

DESIGNED BY RAJ | DRAWN BY RAJ | CHECKED BY MTZ | APPROVED BY BRL

REVISIONS: NO. | DATE | DESCRIPTION | BY

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ENGINEERS • SURVEYORS • PLANNERS • SCIENTISTS
Certificate of Authorization No. 2648
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TALLAHASSEE, FL 32317
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Benjamin R. Lennon, P.E.
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SCALE: AS SHOWN
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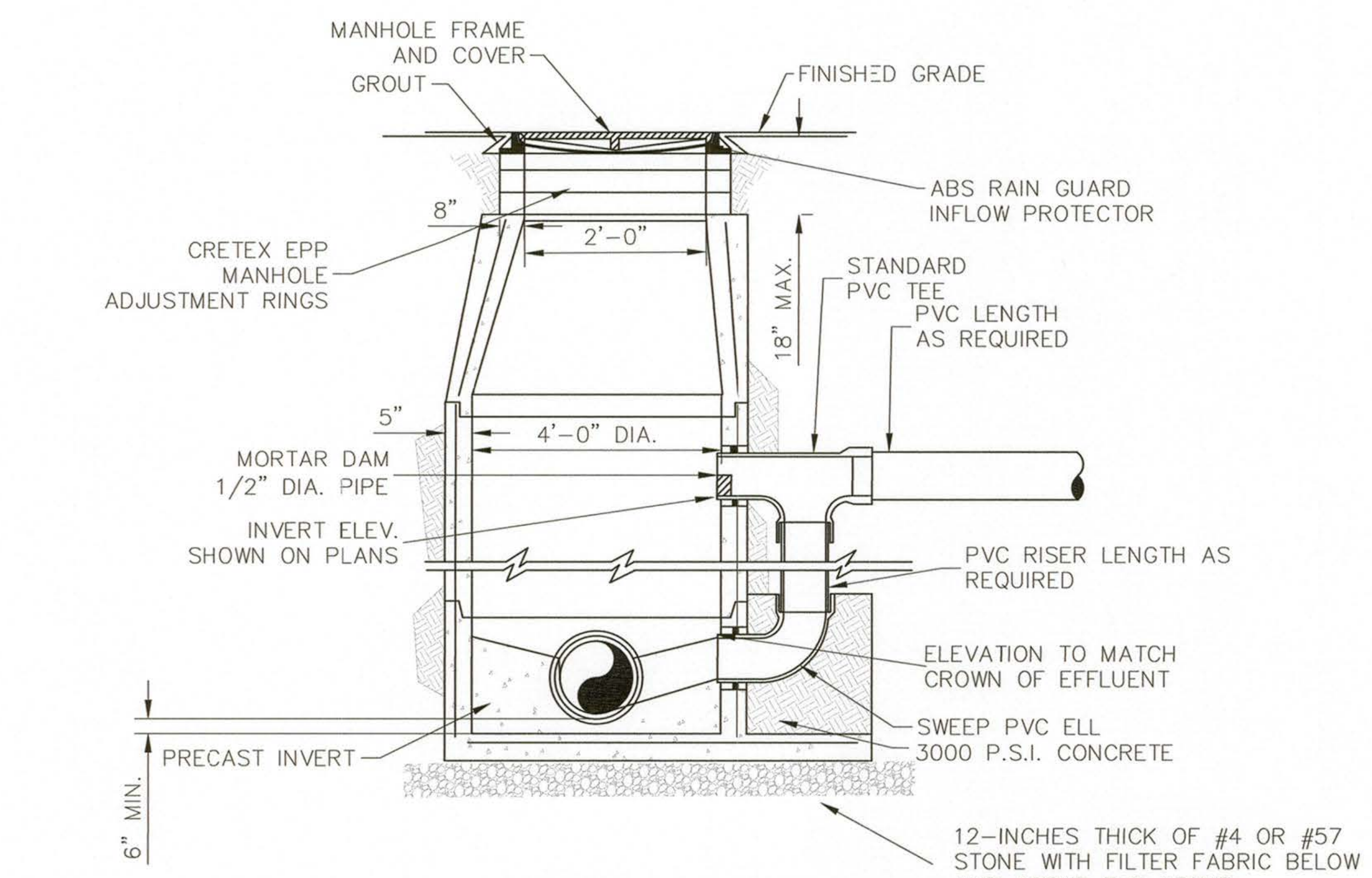
DRAWING: C116

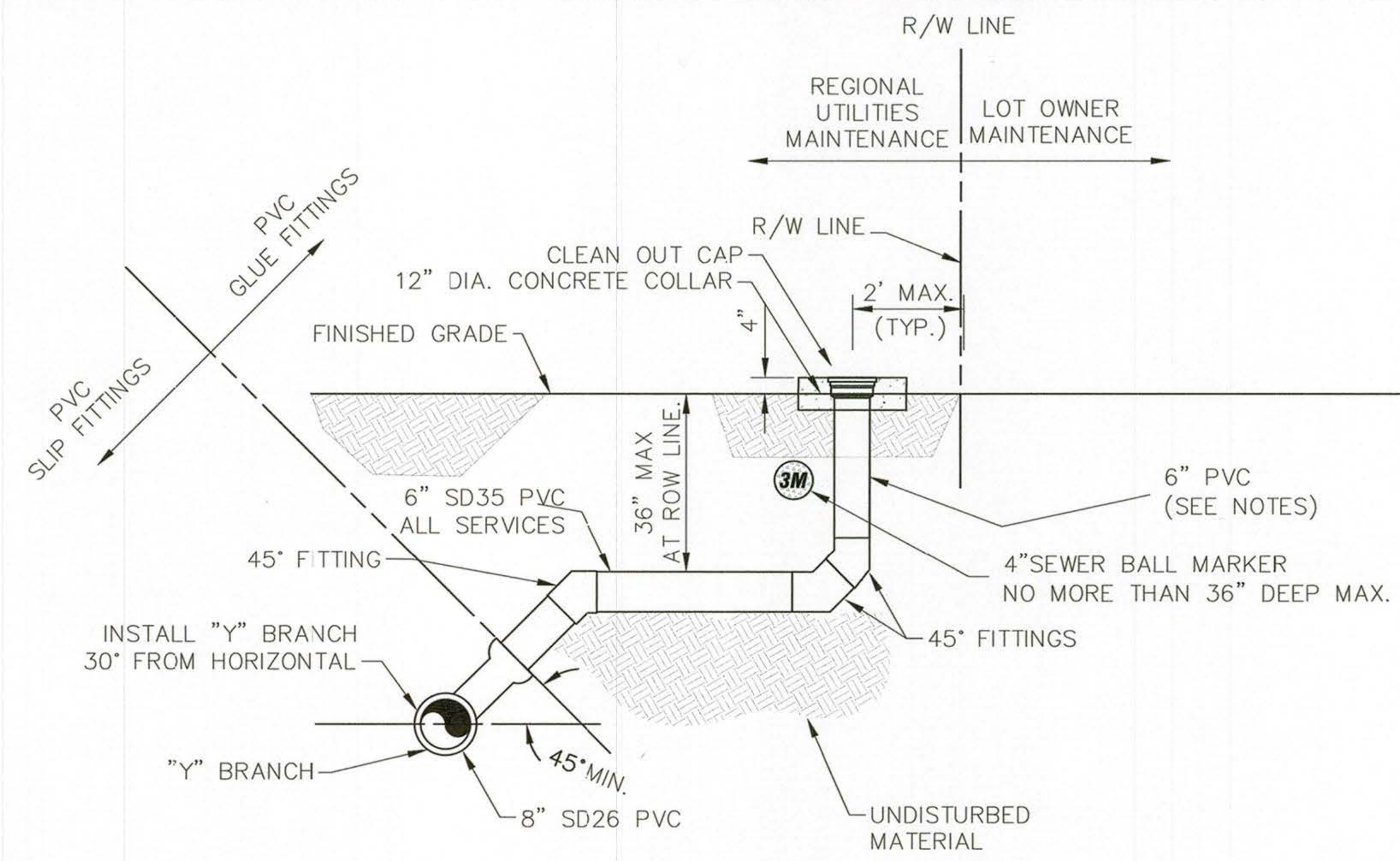
P:\Projects19\19-0328.004_Walton_County_PES_Grayton_Beach_Transit\General-Civil\CADD\01-DWGS\19-0328.004 REGIONAL UTILITIES DETAILS.dwg Plotted: Mar 13, 2024 – 3:09pm by rajernigan



SECTION VIEW

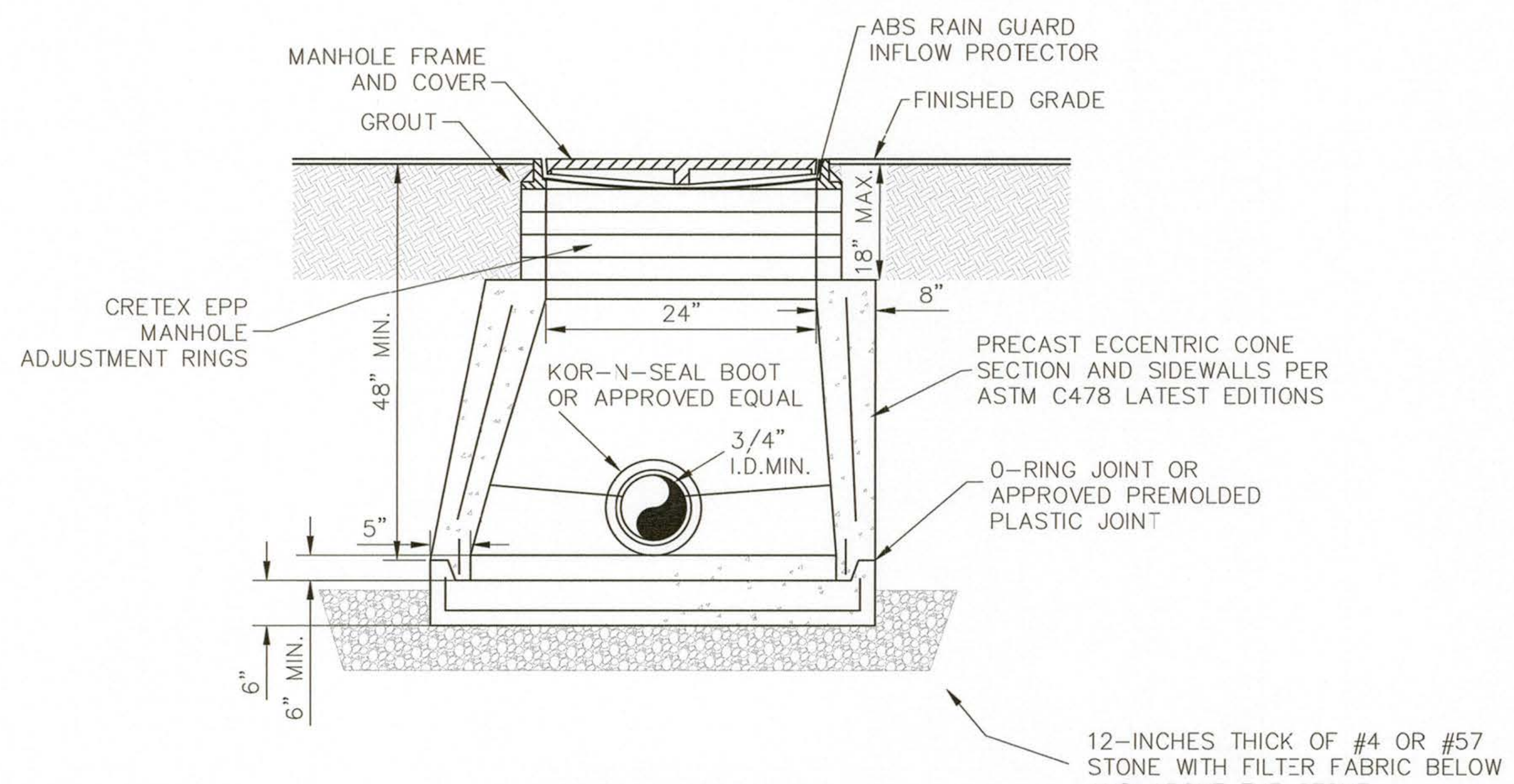
1 SANITARY SEWER DROP MANHOLE

N.T.S. (8"-21" SEWERS)



2 6" SANITARY SEWER SERVICE LATERAL

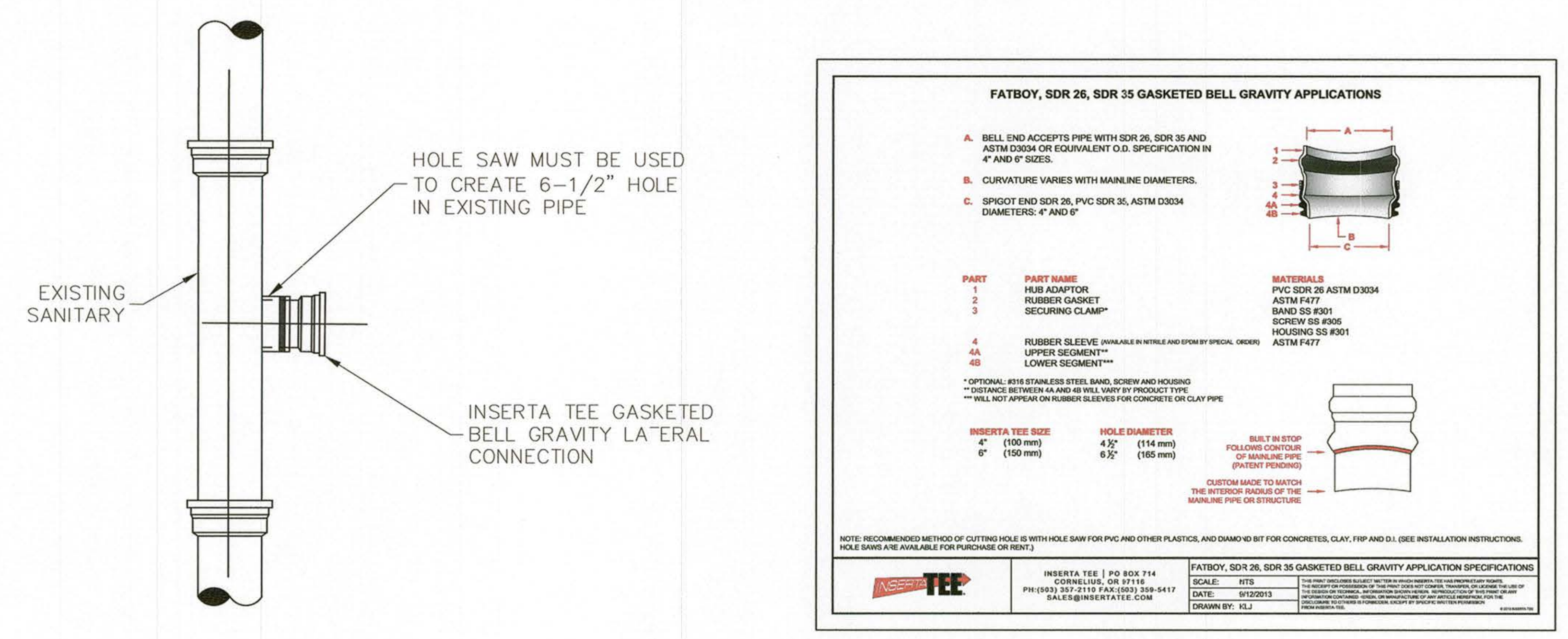
N.T.S.



SECTION VIEW

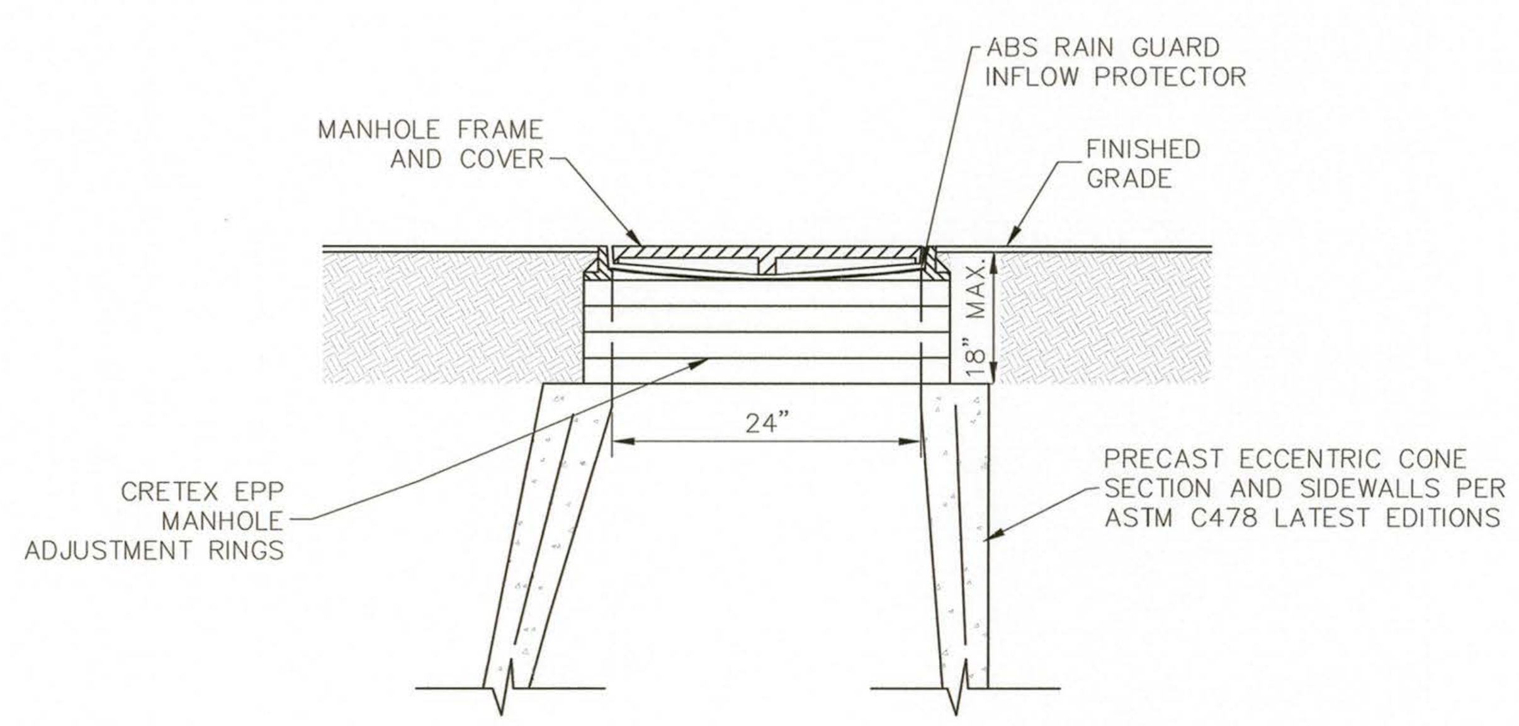
3 SANITARY SEWER SHALLOW DEPTH MANHOLE

N.T.S. (8"-21" SEWERS)



4 SANITARY SEWER SERVICE TO EXISTING GRAVITY LINE CONNECTION DETAILS

N.T.S.



SECTION VIEW

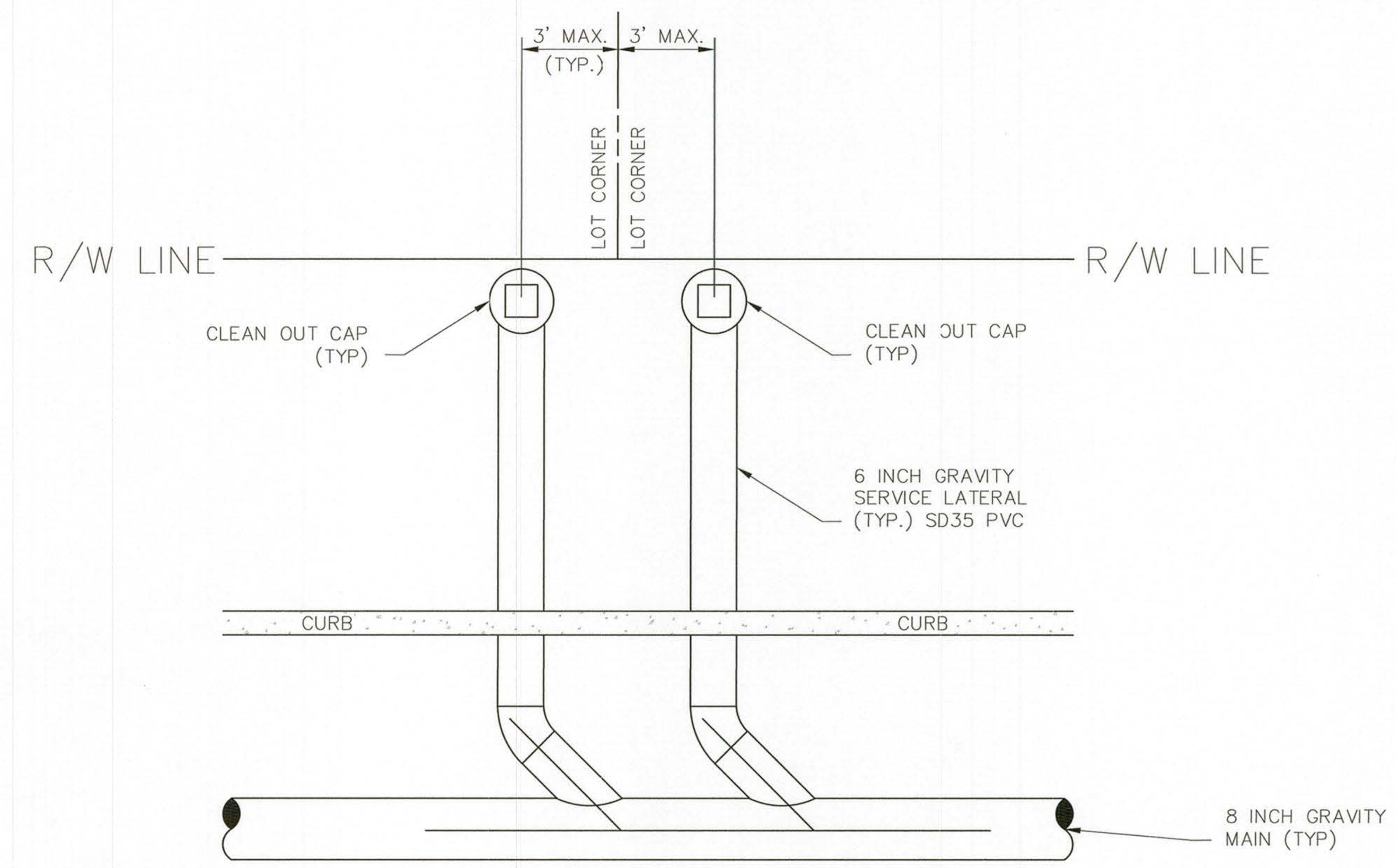
NOTES

1. CRETEX EXPANDED POLY PROPYLENE MANHOLE ADJUSTMENT RINGS, TO BE INSTALLED ON ALL MANHOLES WHERE RISERS ARE NECESSARY. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS.
2. AN ABS RAIN GUARD INFLOW PROTECTOR SHALL BE INSTALLED IN ALL MANHOLE RING AND COVERS.

APPROVED FOR 2023

5 TYPICAL MANHOLE RISER DETAIL

N.T.S.



6 TYPICAL GRAVITY SEWER SERVICE LOT PLACEMENT

N.T.S.

GENERAL NOTES:

1. REFER TO REGIONAL UTILITIES' LATEST WRITTEN SPECIFICATIONS REGARDING NEW TESTING PROCEDURES FOR GRAVITY SEWER SYSTEMS.

2. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND MEETING THE REQUIREMENTS OF REGIONAL UTILITIES STANDARD DETAILS AND SPECIFICATIONS LATEST EDITION.

3. DEVELOPERS OF PRIVATE PROJECTS SHALL PROVIDE ALL WETLANDS PERMITS NECESSARY FOR UTILITY CONSTRUCTION.

4. ALL MANHOLES SHALL HAVE FINAL PAVEMENT AROUND THEM FOR PROTECTION PRIOR TO ACCEPTANCE BY REGIONAL UTILITIES.

5. ALL SEWER MAINS SHALL BE COVERED TO FINISH GRADING FOR PROTECTION PRIOR TO ACCEPTANCE BY REGIONAL UTILITIES.

6. ALL MANHOLES SHALL HAVE NON-STEEL STEPS INSTALLED.

7. 90° FITTINGS SHALL NOT BE USED IN GRAVITY SEWER SYSTEMS.

SANITARY SEWER GENERAL NOTES

1. CONTRACTOR SHALL COORDINATE INSTALLATION OF SANITARY SEWERS WITH ALL OTHER UTILITIES PRIOR TO COMMENCING CONSTRUCTION.

2. VIDEO INSPECTION IS REQUIRED FOR ALL GRAVITY SEWER LINES AND LATERALS PRIOR TO PAVING BUT AFTER ALL OTHER UTILITIES HAVE BEEN INSTALLED. A FULL REPORT SHALL BE GIVEN TO REGIONAL UTILITIES UPON COMPLETION. COST OF VIDEO INSPECTION SHALL BE DONE BY THE CONTRACTOR. REFER TO SECTION 7 OF REGIONAL UTILITIES' DESIGN AND CONSTRUCTION SPECIFICATIONS.

3. NO SANITARY SEWER CONSTRUCTION SHALL COMMENCE UNTIL SHOP DRAWING SUBMITTALS HAVE BEEN APPROVED.

4. A PRE-CONSTRUCTION CONFERENCE IS REQUIRED PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL NOTIFY REGIONAL UTILITIES 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION. A REGIONAL UTILITIES REPRESENTATIVE MUST WITNESS ALL TIES TO EXISTING LINES AND TESTS OF NEW LINES.

5. ENGINEER SHALL PROVIDE AS-BUILT DRAWINGS IN ACCORDANCE WITH REGIONAL UTILITIES SPECIFICATIONS.

6. LOCATOR BALLS AS MANUFACTURED BY 3M PART NO. 1404 TO BE PLACED ON NORTH SIDE OF ALL MANHOLES NOT WITHIN PAVED AREAS. MANHOLES OUTSIDE OF PAVED AREAS SHALL BE CONSTRUCTED WITH TOP 6" ABOVE GRADE.

7. ALL GRAVITY SEWER SHALL BE VISUALLY INSPECTED BY REGIONAL UTILITIES PRIOR TO FINAL ACCEPTANCE.

8. ALL MECHANICAL JOINT CONNECTIONS SHALL BE RESTRAINED USING MEGA-LUG TYPE RESTRAINTS OR APPROVED EQUAL.

9. MIN. SERVICE SLOPE: 6" = 1/8" PER FOOT.

10. USE 6" SERVICES FOR ALL SINGLE FAMILY HOME CONNECTIONS. USE 6" SERVICES FOR MULTI-FAMILY AND COMMERCIAL CONNECTIONS.

11. A 4" BALL MARKER AS MANUFACTURED BY 3M PART NO. 1404 SHALL BE PLACED AT ALL CLEANOUT LOCATIONS NO DEEPER THAN 36-INCHES.

12. LOCATIONS OF SERVICE STUB TO BE MARKED BY THE LETTER "S" SCRIBED A MINIMUM OF 2" HIGH & 1/4" DEEP IN CURB.

13. IF NO CURBING IS INSTALLED A "3" SQUARE STEEL TAG INSCRIBED WITH A 2" LETTER "S" IS TO BE ATTACHED TO STREET PAVEMENT.

14. SERVICE TRENCHING TO CONFORM TO CITY/COUNTY STANDARDS FOR PIPE INSTALLATION.

15. USE HYDRAULIC CEMENT GROUT TO SEAL INTERIOR AND EXTERIOR OF ALL PRECAST MANHOLE JOINTS.

16. ALL GRAVITY SEWER MAINS AND SEWER SERVICES SHALL BE CONSTRUCTED OF P401 COATED DUCTILE IRON PIPE WHERE COVER IS LESS THAN 30 INCHES UNDER PAVEMENT OR LESS THAN 18 INCHES IN GREEN AREAS.

17. EXTERNAL DROP TYPE MANHOLES ARE REQUIRED WHERE MANHOLE INVERT ELEVATIONS VARY BY OVER 12-INCHES.

18. MANHOLE TOPS IN GREEN AREAS SHALL BE ELEVATED NO LESS THAN 6-INCHES ABOVE FINAL GRADE TO PROHIBIT STORM WATER ENTRY.

19. SEWER SERVICES SHALL BE CONSTRUCTED AT THE LOWER SIDE OF LOTS AS MAY BE APPLICABLE.

20. ALL CONSTRUCTION MUST BE IN ACCORDANCE WITH REGIONAL UTILITIES WRITTEN SPECIFICATIONS, LATEST EDITION.

21. A RAIN GUARD INFLOW PROTECTOR CONSTRUCTED OF ABS MATERIAL SHALL BE INSTALLED ON EVERY MANHOLE TO HELP PREVENT STORM WATER INFLOW.

22. A MANHOLE SHALL BE REQUIRED WHERE ANY 8" SEWER LATERAL CONNECTS TO AN 8" GRAVITY SEWER MAIN.

23. GRAVITY SEWER LATERAL TEE-WYE SHALL ENTER THE GRAVITY SEWER MAIN AT NO LESS THAN A 45° ANGLE.

24. WHERE A SEWER FORCE MAIN ENTERS A WET WELL THAT IS ALSO CONNECTED TO A GRAVITY SEWER SYSTEM, NO LESS THAN TWO MANHOLES UPSTREAM OF THE WET WELL, OR ANY MANHOLE WITHIN 400-FEET OF THE WET WELL SHALL BE LINED WITH RAVEN EPOXY COATING PER REGIONAL SPECIFICATION 9.3.1.14.

25. PRIOR TO A FINAL INSPECTION, ALL LOT CORNERS SHALL BE STAKED BY THE SURVEYOR. INSPECTOR WILL NOT PERFORM FINAL INSPECTION IF STAKING IS INCOMPLETE.

REGIONAL UTILITIES
OPERATED BY FLORIDA COMMUNITY SERVICES CORPORATION OF WALTON COUNTY INC.
4432 HWY 98 EAST, Santa Rosa Beach, FL 32459
Phone: (850) 231-5114
Fax: (850) 231-4924

PROJECT NAME:
SHEET TITLE: SANITARY SEWER STANDARD DETAILS

DRAWN BY:	CHECKED BY:
RT	RAD

PROJECT NO.: 000-000
DRAWING SCALE: N.T.S.
PLOT DATE:
SHEET NO. 1 OF 2
SHEET: S-1

NO.	DATE	APPR.	REVISION

REVISIONS

NO.	DATE	DESCRIPTION	BY

DESIGNED BY RAJ
DRAWN BY RAJ
CHECKED BY MTZ
APPROVED BY BRL

REGIONAL UTILITIES GRAVITY SEWER DETAILS

DO NOT SCALE THIS DRAWING - DIMENSIONS AND NOTES TAKE PREFERENCE

CONSTRUCTION PLANS FOR
GRAYTON BEACH TRANSIT FACILITY
COUNTY HIGHWAY 283 SOUTH
SANTA ROSA BEACH 32459

DRMP
ENGINEERS • SURVEYORS • PLANNERS • SCIENTISTS
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1625 SUMMIT LAKE DRIVE
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DRMP, Inc.
BENJAMIN R. LENNON LICENSE No 78674 3-22-2024 STATE OF FLORIDA PROFESSIONAL ENGINEER
Benjamin R. Lennon, P.E.
State of Florida # 78674

PROJECT NO.: 19-0328.004
SCALE: AS SHOWN
DATE: JUNE 2023
DRAWING: C117

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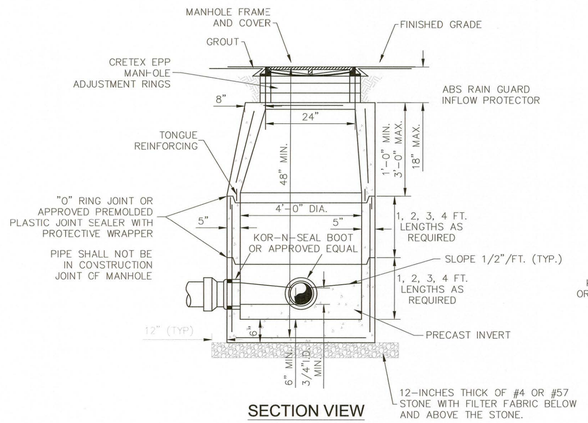
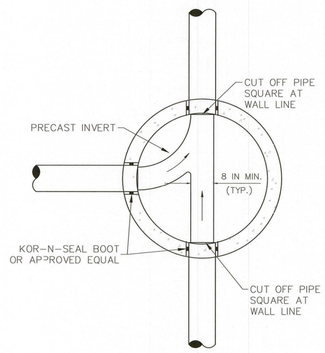


SECTION VIEW



PLAN VIEW

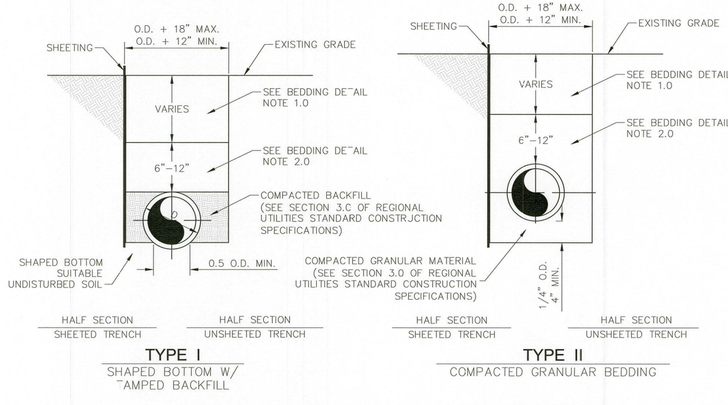
NOTES

1. PRECAST MANHOLE SECTIONS TO BE MANUFACTURED IN ACCORDANCE WITH LATEST EDITION OF ASTM C 478 WITH 4,000 LB. CONCRETE, TYPE II CEMENT.
2. THE INTERIOR AND EXTERIOR OF MANHOLE SHALL BE GIVEN TWO COATS OF FABERTITE BITUMINOUS WATERPROOFING MATERIAL, DO NOT COAT JOINT OF PIPE OPENING SURFACES.
3. STEPS ARE REQUIRED FOR ALL MANHOLES.

NOTE: MANHOLE FRAME AND COVER SHALL BE U.S. FOUNDRY E-170 OR EQUIVALENT.

1 SANITARY SEWER STANDARD MANHOLE

N.T.S. (8"-21" SEWERS)



BEDDING DETAIL NOTES:

1.0 THE BACKFILL TO A POINT TWELVE (12) INCHES ABOVE THE PIPE SHALL BE PLACED BY HAND AND SHALL BE CAREFULLY SELECTED MATERIAL FREE FROM ROCKS, BOULDERS, CLODS, ORGANIC MATERIAL, OR OTHER DEBRIS AND LIGHTLY COMPACTED PRIOR TO PLACING REMAINING BACKFILL. THE BALANCE OF THE BACKFILL MAY BE PLACED IN THE DITCH BY HAND OR BY MECHANICAL EQUIPMENT. NO BACKFILL SHALL BE DROPPED DIRECTLY ONTO EXPOSED PIPE.

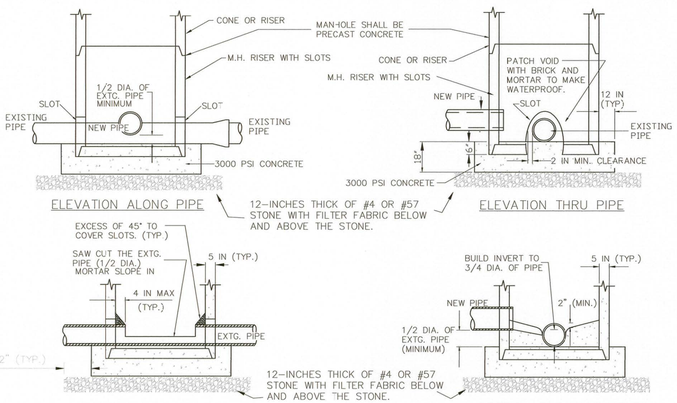
2.0 CONTRACTOR SHALL EMPLOY AN EXCAVATOR-MOUNTED TRENCH ROLLER OR OTHER MECHANICAL COMPACTION EQUIPMENT TO PROVIDE BACKFILL DENSITIES OF 95% OR GREATER AT ±2% OPTIMUM MOISTURE CONTENT. SURFACE FLOODING AND WATER JETTING OF BACKFILL SHALL NOT BE PERMITTED FOR BACKFILL CONSOLIDATION.

3.0 ALL BACKFILL SHALL BE IN ACCORDANCE WITH SECTION 3.0 OF REGIONAL UTILITIES CONSTRUCTION SPECIFICATIONS

4.0 PIPE COVER SHALL NOT BE LESS THAN 36 INCHES, NOR GREATER THAN 48 INCHES EXCEPT WHERE SPECIFICALLY SHOWN ON THE CONSTRUCTION DRAWINGS AND APPROVED BY REGIONAL UTILITIES.

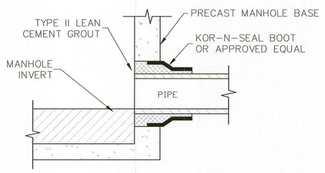
2 TYPICAL BEDDING DETAIL

N.T.S.



3 DOGHOUSE MANHOLE

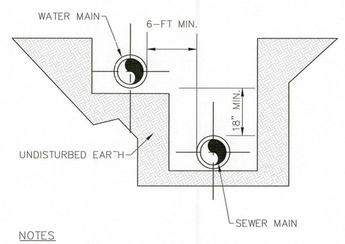
N.T.S. (8"-21" SEWERS)



4 PRECAST MANHOLE PIPE CONNECTIONS

N.T.S.

NOTES:
1. PRECAST MANHOLE SECTIONS TO BE MANUFACTURED IN ACCORDANCE WITH LATEST EDITIONS OF ASTM C-478 WITH 4,000 LB. CONCRETE, TYPE II CEMENT.
2. THE INTERIOR AND EXTERIOR OF MANHOLE SHALL BE GIVEN TWO COATS OF FABERTITE BITUMINOUS WATERPROOFING MATERIAL, DO NOT COAT JOINT OR PIPE OPENING SURFACES.
3. MANHOLE FRAME AND COVER SHALL BE U.S. FOUNDRY E-170 OR EQUIVALENT.
4. ALL GREASE INTERCEPTORS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH CHAPTER 10 OF THE 2004 FLORIDA BUILDING CODE, PLUMBING SECTION.

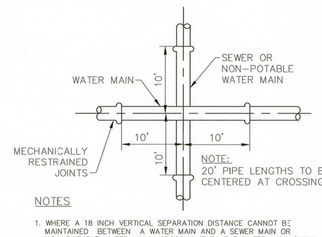


NOTES

1. WHERE A 10 FOOT PARALLEL SEPARATION CANNOT BE MAINTAINED BETWEEN A WATER MAIN AND A SEWER MAIN OR NON-POTABLE WATER MAIN, THEN THE WATER MAIN SHALL BE LAID IN A SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELF AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER MAIN OR NON-POTABLE WATER MAIN AND 6 FEET HORIZONTALLY FROM THE EDGE OF THE SEWER MAIN OR NOT-POTABLE WATER MAIN.
2. ANYTHING LESS THAN SHOWN MUST BE APPROVED BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION.

5 WATER/SEWER SEPARATION DETAIL

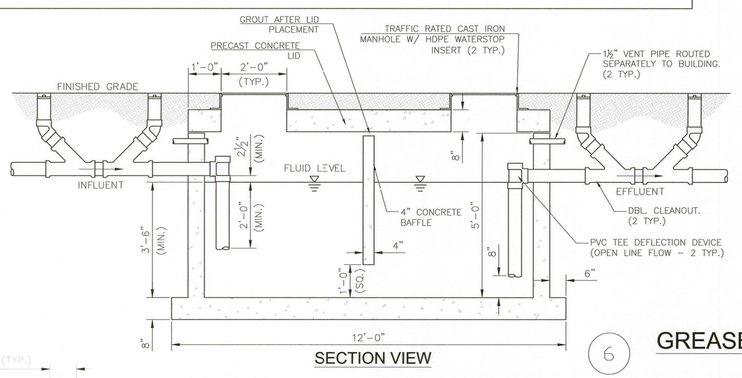
N.T.S.



NOTES

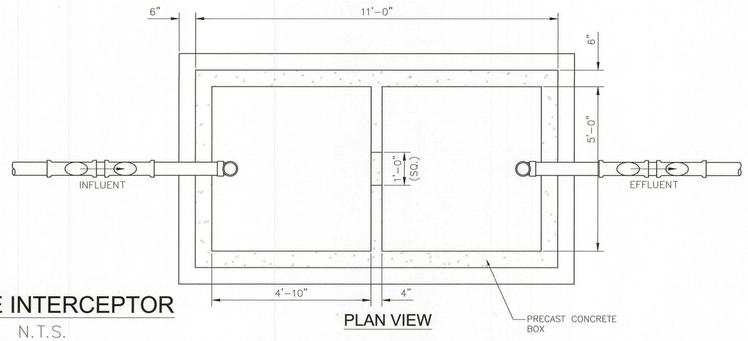
1. WHERE A 18 INCH VERTICAL SEPARATION DISTANCE CANNOT BE MAINTAINED BETWEEN A WATER MAIN AND A SEWER MAIN OR NON-POTABLE WATER MAIN CROSSING THEN THE WATER MAIN SHALL PASS OVER THE SEWER MAIN OR NON-POTABLE WATER MAIN WITH A MINIMUM VERTICAL CLEARANCE OF 12 INCHES. THE SEWER OR NON-POTABLE WATER MAIN SHALL BE 20 FEET OF 6" CONCRETE ENCASEMENT CENTERED ON THE POINT OF CROSSING AND THE WATER MAIN SHALL BE 20 FEET OF 6" CONCRETE ENCASEMENT CENTERED ON THE POINT OF CROSSING. CONCRETE ENCASEMENT SHALL BE POURED SEPARATELY FOR EACH PIPE.
2. ANYTHING LESS THAN SHOWN MUST BE APPROVED BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION.

APPROVED FOR 2023

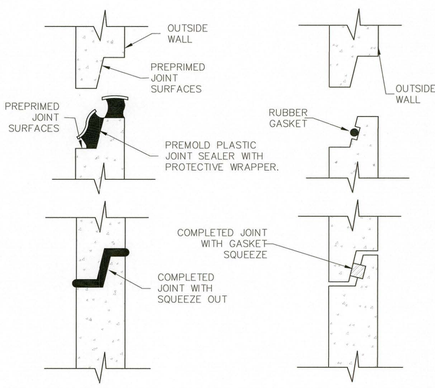


6 GREASE INTERCEPTOR

N.T.S.



PLAN VIEW



NOTE:
USE HYDRAULIC CEMENT GROUT INSIDE AND OUT AT JOINTS AND COAT WITH TWO COATS OF FABERTITE BITUMINOUS WATER PROOFING MATERIAL.

7 TYPICAL MANHOLE JOINT DETAIL

N.T.S.

REVISIONS

NO.	DATE	DESCRIPTION	BY

NO.	DATE	APPR.	REVISION

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
RAJ	RAJ	MTZ	BRL

REGIONAL UTILITIES
OPERATED BY FLORIDA COMMUNITY SERVICES CORPORATION OF WALTON COUNTY INC.
4432 HWY 98 EAST
Santa Rosa Beach, FL 32459
Phone: (850) 231-5114
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REGIONAL UTILITIES GRAVITY SEWER DETAILS

CONSTRUCTION PLANS FOR
GRAYTON BEACH
TRANSIT FACILITY
COUNTY HIGHWAY 283 SOUTH
SANTA ROSA BEACH 32459

DO NOT SCALE THIS DRAWING - DIMENSIONS AND NOTES TAKE PREFERENCE

PROJECT NAME:

SHEET TITLE: SANITARY SEWER STAND DETAILS

SEAL:

DRAWN BY:	CHECKED BY:
RT	RAD

PROJECT NO.: 000-000
DRAWING SCALE: N.T.S.
PLOT DATE:
SHEET NO. 2 OF 2
SHEET. S-2

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BENJAMIN R. LEMMON LICENSE NO. 78674 3-22-2024 STATE OF FLORIDA PROFESSIONAL ENGINEER
Benjamin R. Lemmon, P.E.
State of Florida # 78674

PROJECT NO.: 19-0328.004
SCALE: AS SHOWN
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DRAWING: C118

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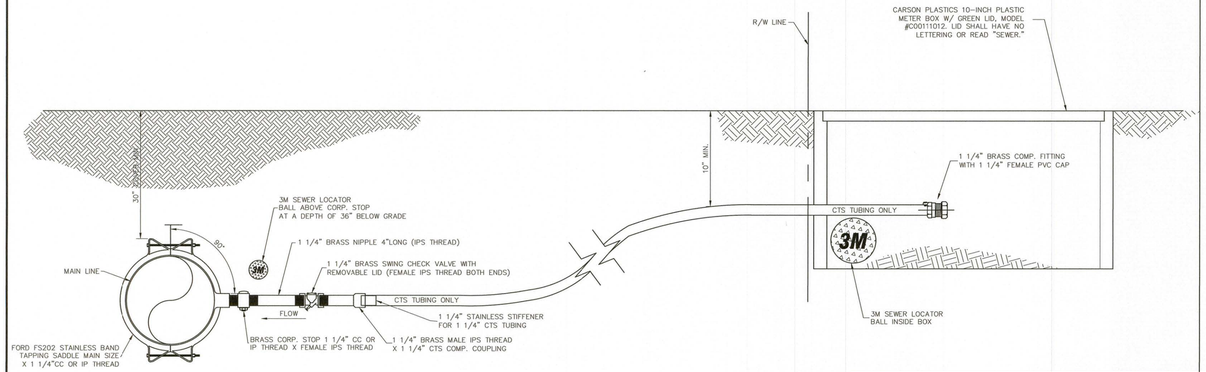
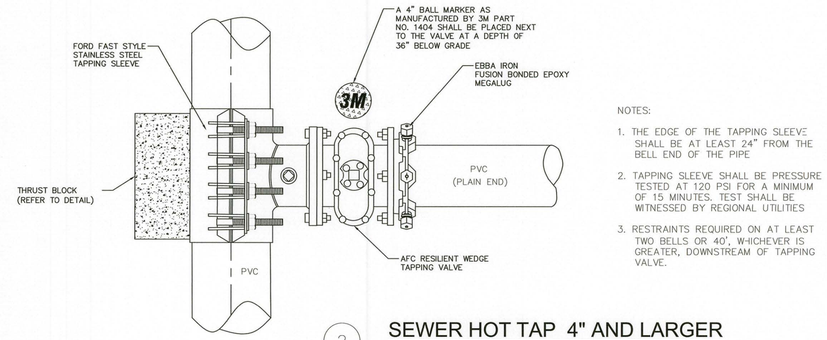


1 LOW PRESSURE SERVICE

N.T.S.



NOTES:

1. THE EDGE OF THE TAPPING SLEEVE SHALL BE AT LEAST 24" FROM THE BELL END OF THE PIPE
2. TAPPING SLEEVE SHALL BE PRESSURE TESTED AT 120 PSI FOR A MINIMUM OF 15 MINUTES. TEST SHALL BE WITNESSED BY REGIONAL UTILITIES
3. RESTRAINTS REQUIRED ON AT LEAST TWO BELLS OR 40', WHICHEVER IS GREATER, DOWNSTREAM OF TAPPING VALVE.

2 SEWER HOT TAP 4" AND LARGER

N.T.S.

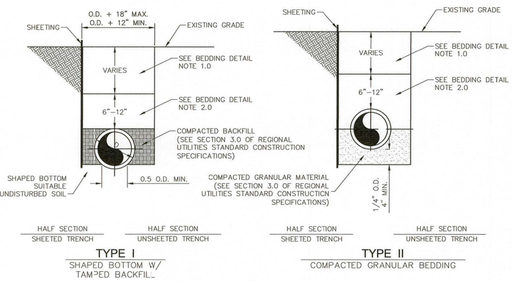
BEDDING DETAIL NOTES:

1.0 THE BACKFILL TO A POINT TWELVE (12) INCHES ABOVE THE PIPE SHALL BE PLACED BY HAND AND SHALL BE CAREFULLY SELECTED MATERIAL FREE FROM ROCKS, BOULDERS, CLODS, ORGANIC MATERIAL, OR OTHER DEBRIS AND LIGHTLY COMPACTED PRIOR TO PLACING REMAINING BACKFILL. THE BALANCE OF THE BACKFILL MAY BE PLACED IN THE DITCH BY HAND OR BY MECHANICAL EQUIPMENT. NO BACKFILL SHALL BE DROPPED DIRECTLY ONTO EXPOSED PIPE.

2.0 CONTRACTOR SHALL EMPLOY AN EXCAVATOR-MOUNTED TRENCH ROLLER OR OTHER MECHANICAL COMPACTION EQUIPMENT TO PROVIDE BACKFILL DENSITIES OF 95% OR GREATER AT ±2% OPTIMUM MOISTURE CONTENT. SURFACE FLOODING AND WATER JETTING OF BACKFILL SHALL NOT BE PERMITTED FOR BACKFILL CONSOLIDATION.

3.0 ALL BACKFILL SHALL BE IN ACCORDANCE WITH SECTION 3.0 OF REGIONAL UTILITIES CONSTRUCTION SPECIFICATIONS

4.0 PIPE COVER SHALL NOT BE LESS THAN 36 INCHES, NOR GREATER THAN 48 INCHES EXCEPT WHERE SPECIFICALLY SHOWN ON THE CONSTRUCTION DRAWINGS AND APPROVED BY REGIONAL UTILITIES.

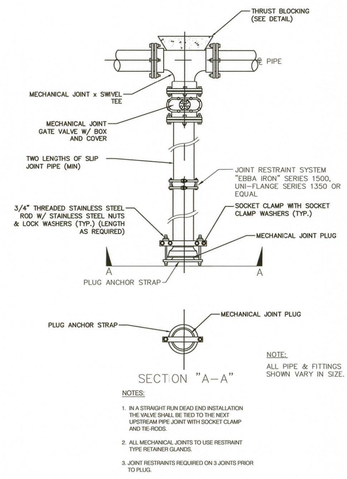


3 TYPICAL BEDDING DETAIL

N.T.S.

PRESSURE SEWER GENERAL NOTES:

1. ALL MECHANICAL JOINT FITTINGS ON PRESSURE PIPE SHALL HAVE BOTH "MEGALUG" TYPE JOINT RESTRAINING GLANDS AND THRUST BLOCKS.
2. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND MEETING THE REQUIREMENTS OF REGIONAL UTILITIES STANDARD DETAILS AND SPECIFICATIONS LATEST EDITION.
3. ANY LOCATION WHERE PRESSURE PIPELINES CURVATURE EXCEEDS MANUFACTURES' SPECIFICATIONS; APPROPRIATE MECHANICAL JOINT FITTINGS SHALL BE USED.
4. ALL 2-INCH VALVES SHALL BE BALL TYPE – 2-INCH GATE VALVES SHALL NOT BE USED.
5. ALL TIE IN TO EXISTING PRESSURIZED PIPELINES SHALL BE BY TAPPING SLEEVE (3 INCH TAP AND LARGER) (OR TAPPING SADDLE, 2 INCH TAP AND SMALLER) AND VALVE.
6. DEVELOPERS OF PRIVATE PROJECTS SHALL PROVIDE ALL WETLANDS PERMITS NECESSARY FOR UTILITY CONSTRUCTION.
7. ALL MANHOLES SHALL HAVE FINISHED GRADING AROUND THEM FOR PROTECTION PRIOR TO ACCEPTANCE BY REGIONAL UTILITIES.
8. ALL SEWER MAINS SHALL BE COVERED TO FINISH GRADING FOR PROTECTION PRIOR TO ACCEPTANCE BY REGIONAL UTILITIES.
9. LOCATOR BALLS PER SPECIFICATIONS SHALL BE REQUIRED AT ALL FORCE MAIN VALVE LOCATIONS.
10. JOINT RESTRAINTS SHALL BE REQUIRED ON ALL FORCE MAINS LOCATED IN PAVED AREAS.
11. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH REGIONAL UTILITIES' WRITTEN SPECIFICATIONS, LATEST EDITION.
12. AT ALL HIGH POINTS CRESTED DURING FORCE MAIN CONSTRUCTIONS, AIR RELEASE VALVES SHALL BE CONSTRUCTED.
13. CTS TUBING SHALL ONLY BE USED FOR LOW-PRESSURE GRINDER SERVICES.
14. ALL GRINDER SERVICES SHALL BE PRESSURE/FLOW TESTED.
15. PRIOR TO A FINAL INSPECTION, ALL LOT CORNERS SHALL BE STAKED BY THE SURVEYOR. INSPECTOR WILL NOT PERFORM FINAL INSPECTION IF STAKING IS INCOMPLETE.



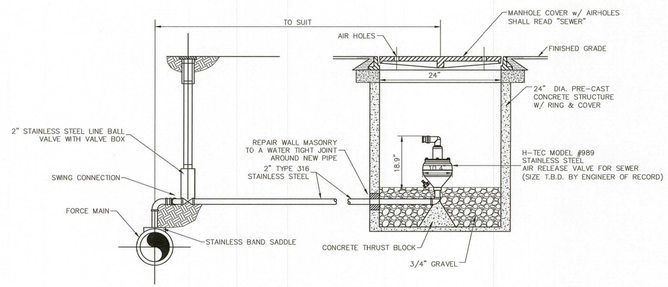
NOTE:
ALL PIPE & FITTINGS SHOWN VARY IN SIZE.

NOTES:

1. IN A STRAIGHT RUN DEAD END INSTALLATION THE VALVE SHALL BE TIED TO THE NEXT UPSTREAM PIPE JOINT WITH SOCKET CLAMP AND TIE RODS.
2. ALL MECHANICAL JOINTS TO USE RESTRAINT TYPE RETAINER GLANDS.
3. JOINT RESTRAINTS REQUIRED ON 3 JOINTS PRIOR TO PLUG.

4 DEAD END STUB DETAIL

N.T.S.



LOCATED AWAY FROM FORCE MAIN

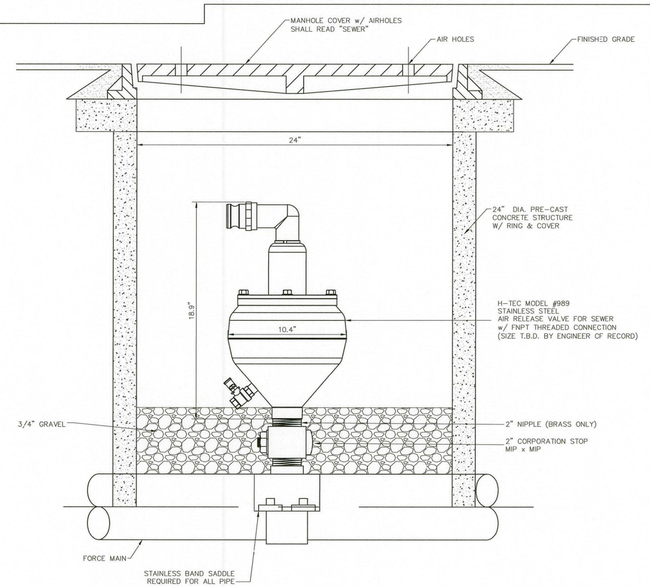
NOTES:

1. BOX TO BE LOCATED OUT OF PAVED AREAS. SET TOP FLUSH IF OCCURS IN SIDEWALK OR 1 1/2" ABOVE GROUND IF IN DIRT OR GRASS AREAS.
2. AUTOMATIC AIR RELEASE AND VACUUM VALVE MODEL #989, STAINLESS STEEL w/ FNPT THREADED CONNECTION (SIZE T.B.D. BY ENGINEER OF RECORD)

5 TYPICAL AIR AND/OR VACUUM VALVES

N.T.S.

APPROVED FOR 2023



6 TYPICAL PRESSURE SEWER AIR RELEASE MANHOLE

N.T.S.

REVISIONS

NO.	DATE	DESCRIPTION	BY

NO.	DATE	APPR.	REVISION

DESIGNED BY: RAJ
DRAWN BY: RAJ
CHECKED BY: MTZ
APPROVED BY: BRL

REGIONAL UTILITIES
OPERATED BY FLORIDA COMMUNITY SERVICES CORPORATION OF WALTON COUNTY INC.
4432 HWY 98 EAST
SANTA ROSA BEACH, FL 32459
Phone: (850) 231-5114
Fax: (850) 231-4924

REGIONAL UTILITIES PRESSURE SEWER DETAILS

CONSTRUCTION PLANS FOR
GRAYTON BEACH TRANSIT FACILITY
COUNTY HIGHWAY 283 SOUTH
SANTA ROSA BEACH 32459

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

PROJECT NAME:

SHEET TITLE: PRESSURE SEWER STANDARD DETAILS

SEAL:

DRAWN BY: RT
CHECKED BY: RAD
PROJECT NO.: 000-000
DRAWING SCALE: N.T.S.
PLOT DATE:
SHEET NO. 1 OF 2
SHEET. PS-1

DRMP
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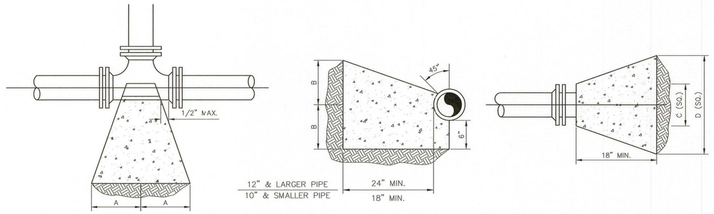
DRMP, Inc.

BENJAMIN R. LENNON LICENSE NO. 78674 3-22-2024 STATE OF FLORIDA PROFESSIONAL ENGINEER
Benjamin R. Lennon, P.E.
State of Florida # 78674

PROJECT NO.: 19-0328.004
SCALE: AS SHOWN
DATE: JUNE 2023
DRAWING: C119

P:\Projects\19\19-0328.004_Walton_County_PES_Grayton_Beach_Transit\General-Civil\CADD\01-DWGS\19-0328.004 REGIONAL UTILITIES DETAILS.dwg Plotted: Mar 13, 2024 - 3:10pm by rjernigan



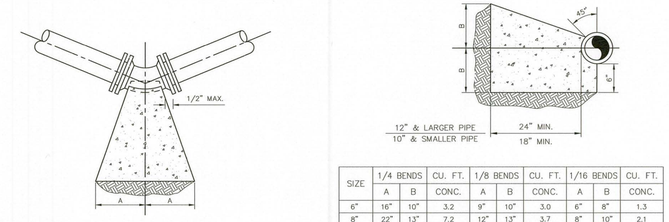
SIZE	TEE		CU. FT.
	A	B	CONC.
6"	10"	12"	3.5
8"	13"	16"	5.4
10"	16"	20"	9.4
12"	18"	24"	16.6
14"	22"	27"	23.2
16"	24"	30"	28.6
18"	26"	32"	36.2

SIZE	PLUG		CU. FT.
	C	D	CONC.
6"	10"	21"	2.6
8"	12"	29"	4.5
10"	14"	36"	6.9
12"	16"	41"	9.0
14"	18"	48"	12.3
16"	20"	54"	15.2
18"	22"	60"	19.2

NOTES:

1. ALL BEARING SURFACES TO BE CARRIED TO UNDISTURBED SOIL.
2. THESE TABLES SHOW MINIMUM SIZE THRUST BLOCKS FOR GOOD SOIL. (A-1 THRU A-3, CLEAN SAND AND GRAVELS)
3. POOR SOIL (A-4 THRU A-8, SILTY SOILS, CLAYS, MUCK AND PEAT) WILL REQUIRE LARGER THRUST BLOCKS.

1 THRUST BLOCK DETAIL
N.T.S.

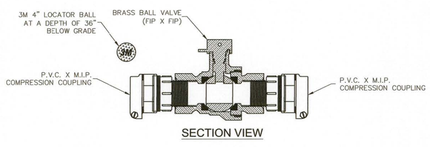


SIZE	1/4 BENDS		CU. FT.	1/8 BENDS		CU. FT.	1/16 BENDS		CU. FT.
	A	B	CONC.	A	B	CONC.	A	B	CONC.
6"	16"	10"	3.2	9"	10"	3.0	6"	8"	1.3
8"	22"	13"	7.2	12"	13"	3.7	8"	10"	2.1
10"	26"	17"	11.5	14"	17"	5.9	10"	13"	3.6
12"	29"	21"	21.1	16"	21"	8.6	11"	16"	6.6
14"	35"	24"	29.8	19"	24"	14.9	12"	20"	8.9
16"	38"	27"	37.8	21"	27"	19.1	12"	24"	11.2
18"	42"	29"	47.8	22"	29"	24.2	13"	26"	14.2

NOTES:

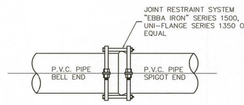
1. ALL BEARING SURFACES TO BE CARRIED TO UNDISTURBED SOIL.
2. THESE TABLES SHOW MINIMUM SIZE THRUST BLOCKS FOR GOOD SOIL. (A-1 THRU A-3, CLEAN SAND AND GRAVELS)
3. POOR SOIL (A-4 THRU A-8, SILTY SOILS, CLAYS, MUCK AND PEAT) WILL REQUIRE LARGER THRUST BLOCKS.

2 THRUST BLOCK DETAIL
N.T.S.

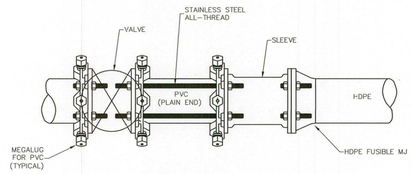


SECTION VIEW

3 TYPICAL BRASS BALL VALVE CONNECTION
N.T.S.

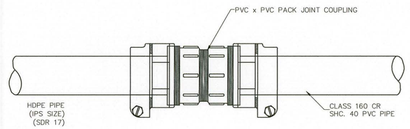


4 TYPICAL RESTRAINED P.V.C. JOINT
N.T.S.

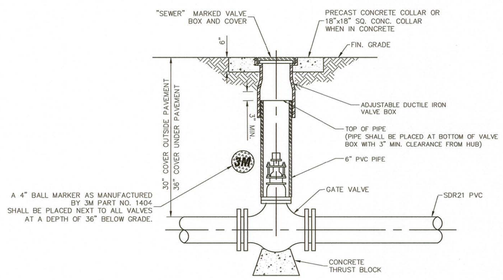


NOTE:
JOINT RESTRAINT REQUIRED ON 3 PVC JOINTS BEFORE TRANSITION CONNECTION

5 HDPE-TO-PVC CONNECTION (3" DIAMETER AND LARGER)
N.T.S.



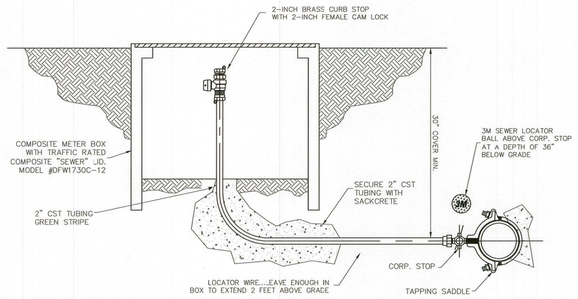
6 HDPE TO PVC TRANSITION (UP TO 2" DIAMETER)
N.T.S.



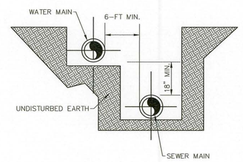
NOTE:
ALL BELOW GROUND VALVES REQUIRE VALVE BOX.
ALL PVC PIPE SHALL BE PRESSURE RATED NO DVW FITTING SHALL BE ALLOWED

7 TYPICAL INLINE VALVE
N.T.S.

APPROVED FOR 2023

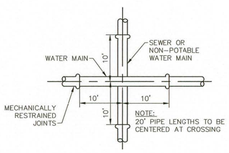


8 TYPICAL CLEANOUT
N.T.S.



NOTES

1. WHERE A 10 FOOT PARALLEL SEPARATION CANNOT BE MAINTAINED BETWEEN A WATER MAIN AND A SEWER MAIN OR NON-POTABLE WATER MAIN, THEN THE WATER MAIN SHALL BE LAID IN A SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELF AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER MAIN OR NON-POTABLE WATER MAIN AND 6 FEET HORIZONTALLY FROM THE EDGE OF THE SEWER MAIN OR NOT-POTABLE WATER MAIN.
2. ANYTHING LESS THAN SHOWN MUST BE APPROVED BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION.



NOTES

1. WHERE A 18 INCH VERTICAL SEPARATION DISTANCE CANNOT BE MAINTAINED BETWEEN A WATER MAIN AND A SEWER MAIN OR NON-POTABLE WATER MAIN CROSSING THEN THE WATER MAIN SHALL PASS OVER THE SEWER MAIN OR NON-POTABLE WATER MAIN WITH A MINIMUM VERTICAL CLEARANCE OF 12 INCHES. THE SEWER OR NON-POTABLE WATER MAIN SHALL BE 20 FEET OF 6" CONCRETE ENCASEMENT CENTERED ON THE POINT OF CROSSING AND THE WATER MAIN SHALL BE 20 FEET OF 6" CONCRETE ENCASEMENT CENTERED ON THE POINT OF CROSSING. CONCRETE ENCASEMENT SHALL BE POURED SEPARATELY FOR EACH PIPE.
2. ANYTHING LESS THAN SHOWN MUST BE APPROVED BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION.

9 WATER/SEWER SEPARATION DETAIL MUST BE APPROVED BY FDEP
N.T.S.

REVISIONS

NO.	DATE	APPR.	DESCRIPTION	BY
1	3/02/10	NOC	UPDATE CONSTRUCTION DETAILS	
2	2/11/13	NOC	ADDED NEW AIR RELEASE VALVE	

REGIONAL UTILITIES
OPERATED BY FLORIDA COMMUNITY SERVICES CORPORATION OF WALTON COUNTY INC.
4432 HWY 98 EAST
SANTA ROSA BEACH, FL 32459
Phone: (850) 231-5114
Fax: (850) 231-4924

PROJECT NAME: REGIONAL UTILITIES PRESSURE SEWER DETAILS

SHEET TITLE: PRESSURE SEWER STANDARD DETAILS

SEAL:

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
RAJ	RAJ	MTZ	BRL

DRAWN BY:	CHECKED BY:
RT	RAD

PROJECT NO.: 000-000
DRAWING SCALE: N.T.S.
PLOT DATE:
SHEET NO. 2 OF 2
SHEET. PS-2

CONSTRUCTION PLANS FOR
GRAYTON BEACH TRANSIT FACILITY
COUNTY HIGHWAY 283 SOUTH
SANTA ROSA BEACH 32459

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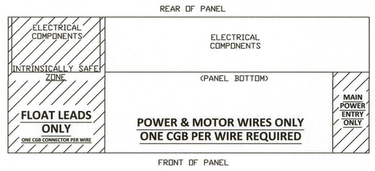
DRMP, Inc.

BENJAMIN R. LENHART LICENSED PROFESSIONAL ENGINEER No. 78674 3-22-2024 STATE OF FLORIDA PROFESSIONAL ENGINEER

Benjamin R. Lenhart, P.E.
State of Florida # 78674

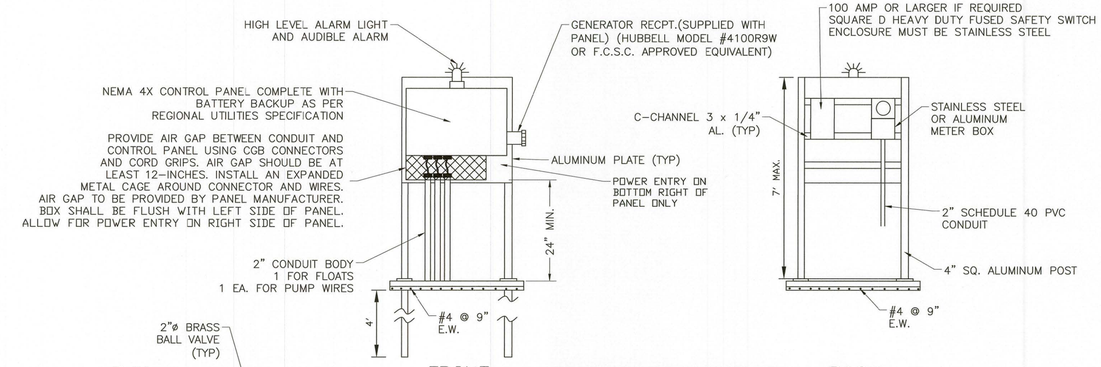
PROJECT NO.: 19-0328.004
SCALE: AS SHOWN
DATE: JUNE 2023
DRAWING: C120

P:\Projects\19-0328.004_Walton_County_PES_Grayton_Beach_Transit\General-Civil\CADD\01-DWGS\19-0328.004 REGIONAL UTILITIES DETAILS.dwg Plotted: Mar 13, 2024 - 3:10pm by rajernigan



CGB CONNECTOR SCHEMATIC

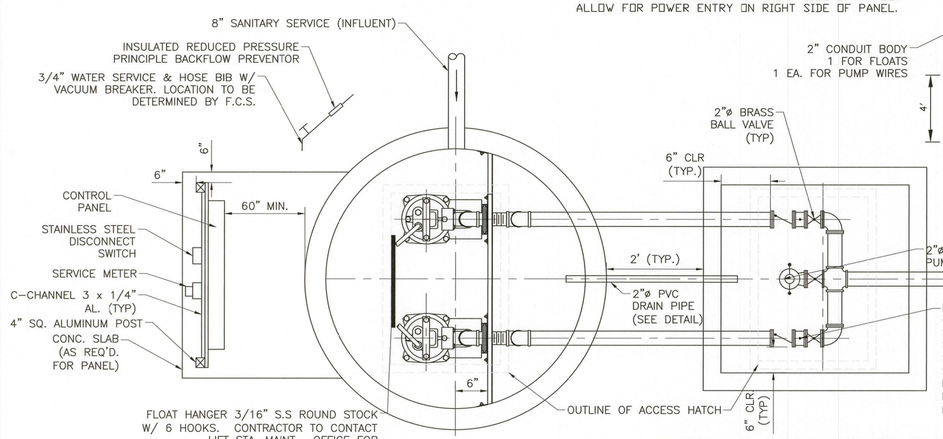
N.T.S.



CONTROL PANEL SCHEMATIC

N.T.S.

PUMPING STATION DATA	
Designation	
Pump model	BARNES XGV
Impeller	
voltage (3 PHASE)	120/208/240 Volt
h.p.	
r.p.m.	
delivery, gpm (High System Head)	
delivery, gpm (Low System Head)	
TDH, feet (High System Head)	
TDH, feet (Low System Head)	
Top elev.	
Influent Size	
Inv. Influent	
High level alarm elev.	
Lag pump on elev.	
Lead pump on elev.	
Both pumps off elev.	
Bottom elev.	
Force main	

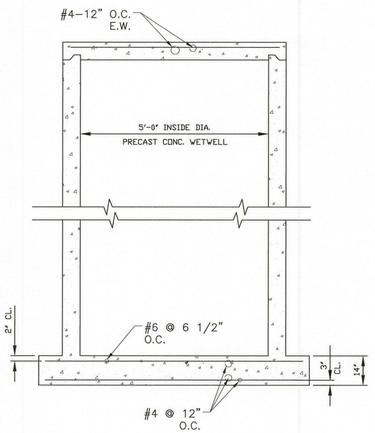


TYPICAL WET WELL PLAN

N.T.S.

TYPICAL VALVE BOX PLAN

N.T.S.

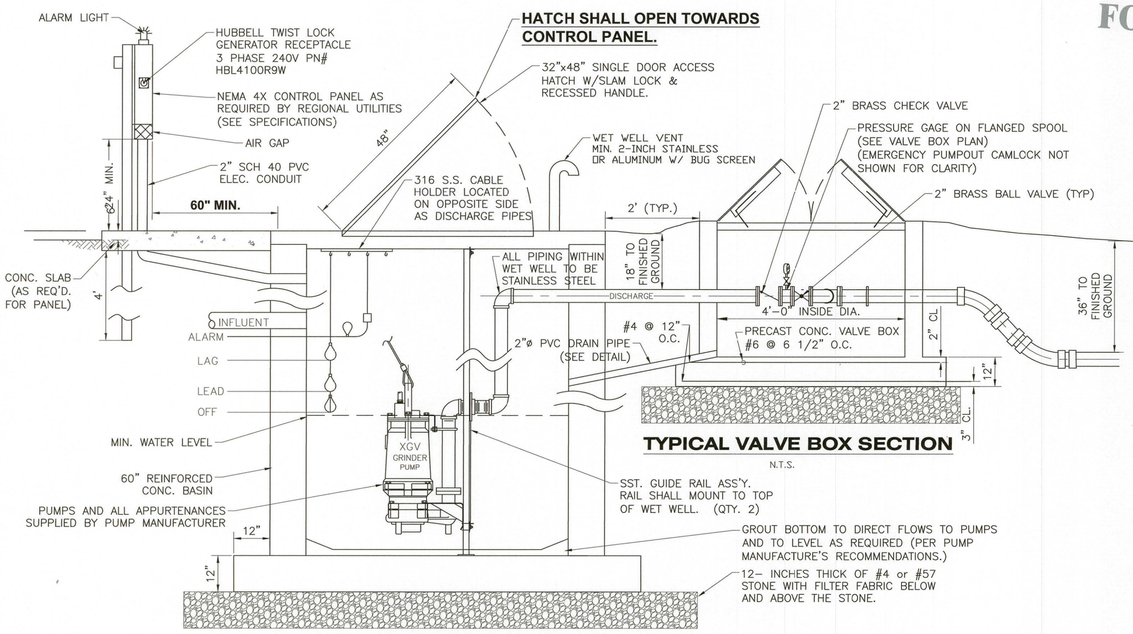


TOP AND BOTTOM SLAB REINFORCING

GRINDER LIFT STATION

N.T.S.

APPROVED FOR 2023

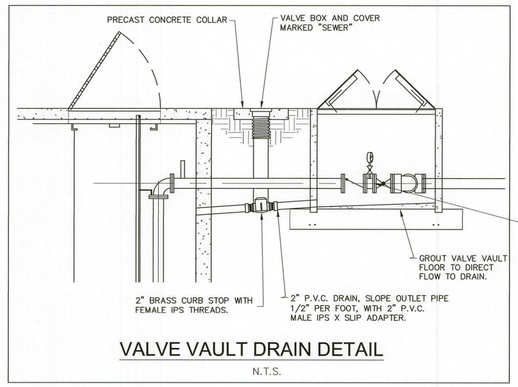


TYPICAL VALVE BOX SECTION

N.T.S.

GRINDER LIFT STATION SECTION

N.T.S.



VALVE VAULT DRAIN DETAIL

N.T.S.

GENERAL NOTES:

1. WET WELL AND VALVE VAULT SHALL BE COATED WITH KCP-COAT COAL TAR EPOXY 300-M INSIDE AND OUT. (TWO COATS, 9 MILS EACH)
2. BASE AND FIRST RISER UNIT TO BE CAST MONOLITHIC.
3. VALVE VAULT SHALL BE SIZED TO PERMIT EASY REMOVAL OF CHECK VALVE
4. ALL LOCATIONS WHERE PIPES ENTER OR LEAVE THE WET WELL OR VALVE VAULT SHALL BE MADE WATERTIGHT WITH WALL SLEEVE OR NON-SHRINK GROUT.
5. THERE SHALL BE NO VALVES OR ELECTRICAL JUNCTION BOXES IN WET WELL.
6. WET WELL AND VALVE VAULT COVERS SHALL BE ALUMINUM WITH 316 S.S. HARDWARE SIZE AS REQUIRED BY PUMP MANUFACTURER AND APPROVED BY FLORIDA COMMUNITY SERVICES.
7. FLEXIBLE COUPLING IF USED SHALL BE SLEEVE TYPE.
8. ALL HARDWARE IN WET WELL AND VALVE BOX TO BE 316 STAINLESS STEEL.
9. ALL ENCLOSURES SHALL BE NEMA 4X RATED.
10. ALL MECHANICAL JOINT FITTINGS ON PRESSURE PIPE SHALL HAVE BOTH "MEGALUG" TYPE JOINT RESTRAINING GLANDS AND THRUST BLOCKS.
11. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND MEETING THE REQUIREMENTS OF REGIONAL UTILITIES STANDARD DETAILS AND SPECIFICATIONS LATEST EDITION.
12. ANY LOCATION WHERE PRESSURE PIPELINES CURVATURE EXCEEDS MANUFACTURES' SPECIFICATIONS; APPROPRIATE MECHANICAL JOINT FITTINGS SHALL BE USED.
13. ALL 2-INCH VALVES SHALL BE BALL TYPE – 2-INCH GATE VALVES SHALL NOT BE USED.
14. ALL TIE IN TO EXISTING PRESSURIZED PIPELINES SHALL BE BY TAPPING SLEEVE (3 INCH TAP AND LARGER) (OR TAPPING SADDLE, 2 INCH TAP AND SMALLER) AND VALVE W/ VALVE BOX.
15. DEVELOPERS OF PRIVATE PROJECTS SHALL PROVIDE ALL WETLANDS PERMITS NECESSARY FOR UTILITY CONSTRUCTION.
16. ALL GRINDER LIFT STATIONS LOCATED IN A PUBLIC RIGHT-OF-WAY MUST BE DESIGNED AND CONSTRUCTED OF REINFORCED CONCRETE AS PER THE SECTION TITLED "STRUCTURAL AND OTHER NOTES" DETAILED BELOW.

STRUCTURAL AND OTHER NOTES:

1. CONCRETE: DESIGN PER CURRENT EDITION OF A.C.I. (318–83).
   CONCRETE STRENGTH @ 28 DAYS IS:
   Fc'= 3500 PSI
   CONCRETE MIX SHOULD NOT CONTAIN MORE THAN 5 GALLONS OF WATER PER SACK OF CEMENT. AGGREGATES SHOULD HAVE LOW ABSORPTION AND SHOULD BE CLEAN, SOUND AND WELL GRADED FORM FINE TO COARSE. SAND MUST HAVE 10 TO 20 PERCENT OF PARTICLES PASSING A 50 MESH SIEVE. COARSE AGGREGATE MUST BE GRADED FROM 1/4" UP TO A MAXIMUM OF 2". KEEPING THE CONCRETE CURED FOR AT LEAST 7 DAYS IS ADVISABLE. REINFORCING ASTM A–615, GRADE 60.
2. CLEAR COVER FOR BASE SLAB – 3" FOR BOTTOM BARS AND – 2" FOR TOP BARS.
3. CLEAR COVER FOR TOP SLAB – 2" FOR TOP & BOTTOM BARS.
4. CLEAN SAND BACKFILL WITH A FRICTION FACTOR OF 30° ROUND AND WEIGHING 120 PCF TO 130 PCF IS ASSUMED. THE DESIGN IS BASED ON A SUBMERGED CONDITION.
5. ALL REINFORCING SHALL BE SECURELY HELD IN POSITION WITH STANDARD ACCESSORIES DURING THE PLACING OF THE CONCRETE.
6. SPLICES IN REINFORCEMENT ARE NOT PERMITTED.
7. IF FOOTING ELEVATIONS SHOWN OCCUR IN A DISTURBED, UNSTABLE OR UNSUITABLE SOIL, THE ENGINEER SHALL BE NOTIFIED.
9. MAXIMUM DESIGN SOIL PRESSURE ASSUMED = 2000 PSF.

REVISIONS

NO.	DATE	APPR.	REVISION

NO.	DATE	DESCRIPTION	BY

REGIONAL UTILITIES
OPERATED BY FLORIDA COMMUNITY SERVICES
CORPORATION OF WALTON COUNTY INC.
4432 HWY 98 EAST
SANTA ROSA BEACH, FL 32459
Phone: (850) 231-5114
Fax: (850) 231-4924

DESIGNED BY: RAJ
DRAWN BY: RAJ
CHECKED BY: MTZ
APPROVED BY: BRL

REGIONAL UTILITIES
GRINDER LIFT STATION
DETAILS

CONSTRUCTION PLANS FOR
GRAYTON BEACH
TRANSIT FACILITY
COUNTY HIGHWAY 283 SOUTH
SANTA ROSA BEACH 32459

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

PROJECT NAME:

SHEET TITLE: LIFT STATION (GRINDER PUMP) STANDARD DETAIL

SEAL:

DRMP
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Certificate of Authorization No. 2848
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DRMP, Inc.

BENJAMIN R. LENNON LICENSE NO. 78674 STATE OF FLORIDA PROFESSIONAL ENGINEER
3-22-2024
Benjamin R. Lennon, P.E.
State of Florida # 78674

DRAWN BY:	CHECKED BY:
RT	RAD

PROJECT NO.: 000-000
DRAWING SCALE: N.T.S
PLOT DATE:
SHEET NO. 1 OF 1
SHEET. GS-1

PROJECT NO.: 19-0328.004
SCALE: AS SHOWN
DATE: JUNE 2023
DRAWING: C121

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ABBREVIATIONS

AB	ANCHOR BOLT
ADDL	ADDITIONAL
ALT	ALTERNATE
ALUM	ALUMINUM
APPROX	APPROXIMATE or (±)
ARCH	ARCHITECTURAL or ARCHITECT
B/	BOTTOM OF
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BEAM
BOS	BOTTOM OF STEEL
BRG	BEARING
B/S	BOTTOM SIDE
BTM or (B)	BOTTOM, "BOT" SIM
BTW	BETWEEN
CB	CARRIAGE BOLT
CFS	COLD FORMED STEEL
CIP	CAST IN PLACE
C.J.	CONTROL JOINT
CL or (℄)	CENTER LINE
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
C.O.	CASED OPENING
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUE or CONTINUOUS
CSJ	CONSTRUCTION JOINT
CTR	CENTERED, "CNTR'd" SIM
DET	DETAIL
DBL	DOUBLE
DIA or (ø)	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DIR	DIRECTION
D.L.	DEAD LOAD
DN	DOWN
DWG	DRAWING
DWL	DOWEL
EA	EACH
E.E.	EACH END
E.F.	EACH FACE
EJ	EXPANSION JOINT
ELEV	ELEVATION
EMBED	EMBEDDED or EMBEDMENT
EOS	EDGE OF SLAB
E.G.	EXISTING GRADE
E.S.	EACH SIDE
EQ	EQUAL
E.W.	EACH WAY
EX	EXISTING
EXPB	EXPANSION BOLT
EXT	EXTERIOR
F.F.	FAR FACE
FFE	FINISHED FLOOR ELEVATION
F.G.	FINISHED GRADE
FIN	FINISH
FL	FLOOR
FLG	FLANGE
FND	FOUNDATION
FOC	FACE OF CONCRETE
FOM	FACE OF MASONRY
FOS	FACE OF STUD
FP	FULL PENETRATION
F/S	FAR SIDE
FT or (')	FOOT OR FEET
FTG	FOOTING
GA	GAUGE
GALV	GALVANIZED
GB	GRADE BEAM
GLULAM	GLUE LAMINATED LUMBER
GDR	GIRDER
GP	GUSSET PLATE
HAS	HEADED ANCHOR STUD
HD	HOLDOWN
HDG	HOT DIP GALVANIZED
HDR	HEADER
HK	HOOK
HORZ	HORIZONTAL
HSB	HIGH STRENGTH BOLT
H.S.S.	HEADED SHEAR or "NELSON" STUD
HSS	HOLLOW STL SECTION or TUBE
I.F.	INSIDE FACE
IN or (")	INCH OR INCHES
INT.	INTERIOR
INV	INVERT
JST	JOIST
JT	JOINT
K	KIP (1,000 POUNDS)
LB or (#)	POUNDS
L.E.	LEFT END
L.L.	LIVE LOAD
LLD	LONG LEG DOWN
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LONG	LONGITUDINAL
LSLN	LONG SLOT HOLE NORMAL ALIGNED NORMAL TO or PERP TO LOAD
LVL	LAMINATED VENEER LUMBER
LWC	LIGHT WEIGHT CONCRETE
MAS	MASONRY
MAX	MAXIMUM
MB	MACHINE BOLT
MFGR	MANUFACTURER
MID or (M)	MIDDLE
MIN	MINIMUM
MISC	MISCELLANEOUS
M.R.D.	METAL ROOF DECK
MTL	METAL
MTRL	MATERIAL
N.F.	NEAR FACE
NOM	NOMINAL
NO.	NUMBER OR #
N/S	NEAR SIDE
NS	NON-SHRINK
N.T.S.	NOT TO SCALE
NWC	NORMAL WEIGHT CONCRETE
O.C.	ON CENTER, "C.C." SIM
O.C.E.W.	ON CENTER EACH WAY or EACH DIR
O.D.	OVERALL DIM. "O/O" SIM
O.F.	OUTSIDE FACE
OPP	OPPOSITE
OVS	OVERSIZED
PCC	PRECAST CONCRETE
PEN	PENETRATION
PERP	PERPENDICULAR
P.L.	POINT LOAD
PL	PLATE
PREFAB	PREFABRICATED
PRELIM	PRELIMINARY
PSL	PARALLEL STRAND LUMBER
PT	POINT
P.T.	PRESSURE TREATED or POST-TENSION
RAD or "R"	RADIUS DIM
R.E.	RIGHT END
REINF	REINFORCING
REF	REFERENCE
RET	RETURN
REQ	REQUIRED
R.L.L.	ROOF LIVE LOAD
R.O.	ROUGH OPENING
SC	SLIP CRITICAL
SCHED	SCHEDULE
S.D.N.	STRUCTURAL DESIGN NOTES
SIM	SIMILAR
SOG	SLAB ON GRADE
S.P.	STUD PACK
SPECS	SPECIFICATIONS
SQ	SQUARE
SS	STAINLESS STEEL, "S.S." SIM
SSLN	SHORT SLOT HOLE ALIGNED NORMAL TO or PERP TO LOAD
STAG	STAGGERED
STD	STANDARD
STIFF	STIFFENER
STL	STEEL
STR	STRUCTURAL, "STRUCT" SIMILAR
S.W.	SHEAR WALL
SYM	SYMMETRICAL
T or (T)	TOP
T&B	TOP AND BOTTOM
T&S	TEMPERATURE & SHRINKAGE REINF.
T/	TOP OF
T/S	TOP SIDE
TDR	THREADED ROD
TEMP.	"T&S" FOR REINF, ELSE TEMPORARY
THK	THICK OR THICKNESS
TOB	TOP OF BEAM
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOS	TOP OF STEEL
TOW	TOP OF WALL
TRANS	TRANSVERSE
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE, "U.N.O." SIM
UWA	UNDER WALL ABOVE, "U.W.A." SIM
VERT	VERTICAL
V.I.F.	VERIFY IN FIELD
W/	WITH
W/O	WITHOUT
WF	WIDE FLANGE
WP	WORKING POINT
WWF	WELDED WIRE FABRIC
WWM	WELDED WIRE MESH

SCOPE OF WORK:

THESE DOCUMENTS HAVE BEEN PROVIDED TO FACILITATE THE REVIEW BY THE BUILDING OFFICIAL FOR PROJECT PERMITTING. APEX ENGINEERING GROUP PLLC (AEG) IS ACTING AS THE STRUCTURAL ENGINEER OF RECORD (EOR or SEOR) AND HAS PROVIDED THIS DOCUMENT PACKAGE TO SATISFY THE STRUCTURAL DESIGN REQUIREMENTS OF THE 2020 FBC BUILDING, CHAPTER 16 AND F.A.C. 61G15-31.001. ONLY ORIGINAL SIGNED AND SEALED COPIES OF THESE DOCUMENTS ARE ALLOWED FOR USE IN PERMITTING AND CONSTRUCTION. ANY UNAPPROVED DEVIATION FROM THESE CONSTRUCTION DOCUMENTS WILL VOID THE ENTIRETY OF THE DESIGN AND PLANS.

NOT PART OF THE SCOPE OF WORK:

THIS DOCUMENT DOES NOT INCLUDE ANY DIRECTIVE FOR PROJECT COMPLIANCE WITH ADDITIONAL REQUIREMENTS OF FBC ACCESSIBILITY, FBC ENERGY CONSERVATION, FBC PLUMBING, FBC MECHANICAL, OR FBC FUEL GAS. THESE DOCUMENTS DO NOT PROVIDE RECOMMENDATIONS OR SPECIFICATIONS REGARDING GEOTECHNICAL, SITE CIVIL, MECHANICAL, ELECTRICAL OR PLUMBING PROFESSIONAL TRADES, NOR ARE THEY INTENDED TO BE ARCHITECTURAL DOCUMENTS. SPECIFICATIONS FOR LIFE SAFETY, ADA COMPLIANCE, BUILDING COMPONENTS AND CLADDING, WATER-RESISTIVE BARRIERS, WATERPROOFING, FLASHING, ALTERNATIVE WEATHER COVERINGS, INSULATION, AND FINISH MATERIALS SHALL BE BY OTHERS.

THESE DOCUMENTS MAY NOT HAVE BEEN FULLY COORDINATED WITH MECHANICAL ELECTRICAL AND PLUMBING (MEP) TRADES TO IDENTIFY ANY/ALL CONFLICTS WITH REQUIRED STRUCTURAL MEMBERS. IT IS THE CONTRACTORS RESPONSIBILITY TO COORDINATE THE FINAL CONSTRUCTION DOCUMENTS AND NOTIFY THE EOR OF ANY CONFLICTS PRIOR TO CONSTRUCTION.

IT IS THE CONTRACTORS SOLE RESPONSIBILITY TO FOLLOW THE RECOMMENDATIONS OF ANY ACCOMPANYING PROJECT DOCUMENTS PREPARED BY OTHER PROFESSIONALS, WHETHER REFERENCED WITHIN THIS DOCUMENT OR NOT. THIS DOCUMENT IS NOT INTENDED TO SUPPLANT OR REPLACE ANY PROJECT REQUIREMENTS OR RECOMMENDATIONS MADE BY OTHER DESIGN PROFESSIONALS, WHETHER KNOWN OR UNKNOWN. THIS MAY INCLUDE SOUND OR VIBRATION MITIGATION PROTOCOLS, MONITORING, SPECIAL INSPECTIONS, PERFORMANCE BASED TESTING, FOLLOW-UP TESTS, CERTIFICATION OR ANY VERIFICATION FOR DESIGN BEYOND THE AEG'S SCOPE OF WORK.

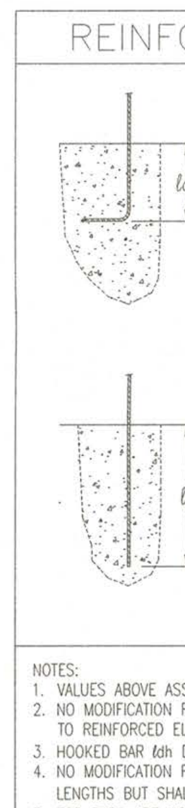
THE EOR IS NOT RESPONSIBLE FOR DAMAGES DUE TO BAD WORKMANSHIP, FAULTY FABRICATION, OR IMPROPER USAGE, AND HAS NO CONTROL OVER THE FABRICATION, HANDLING, SHIPPING, INSTALLATION OF ANY COMPONENTS OF THE STRUCTURE. AEG DOES NOT SUPERVISE OR DIRECT THE CONTRACTORS MEANS, METHODS OR TECHNIQUES, NOR DOES AEG TAKE RESPONSIBILITY FOR THE CONTRACTORS SCHEDULING, SAFETY PRACTICES AND/OR PRECAUTIONS.

TYP. REINFORCEMENT LAP SPLICE LENGTHS

BAR SIZE	3,000psi CONC. FOOTINGS	3,000psi CONC. FTG. DOWEL VERT. LAP	NORMAL WEIGHT CMU 6"	NORMAL WEIGHT CMU 8"	NORMAL WEIGHT CMU 12"	4,000psi CONC. U.N.O. C.I.P. WALLS VERT. BARS SINGLE	C.I.P. WALLS VERT. BARS 2 MATS	C.I.P. WALLS HORZ. BARS	BEAMS & SLABS TOP BARS	BEAMS & SLABS OTHER	C.I.P. COLUMNS CATEGORY 1	C.I.P. COLUMNS CATEGORY 2
# 3	21"	22"	19"	19"	19"	21"	16"	16"	22"	21"	16"	16"
# 4	23"	29"	25"	25"	25"	21"	18"	19"	29"	21"	18"	18"
# 5	29"	36"	39"	31"	31"	21"	19"	27"	36"	26"	19"	19"
# 6	37"	43"	81"	57"	53"	25"	22"	37"	43"	31"	22"	22"
# 7	50"	63"		79"	61"	39"	34"	60"	54"	39"	32"	37"
# 8		72"		113"	75"	51"	43"	74"	71"	51"	37"	45"
# 9						64"	54"	90"	90"	64"	43"	54"
# 10						81"	66"	108"	114"	81"	50"	62"

NOTES:
1. LAP LENGTHS SHOWN WITHIN SPECIFIC DETAILS OR OTHERWISE NOTED ON THE PLANS SHALL GOVERN OVER THE VALUES SCHEDULED ABOVE.
2. VALUES ABOVE ASSUME NORMAL WEIGHT CONCRETE USING 60ksi GRADE, NON-COATED, DEFORMED REBAR.
3. NO MODIFICATION FACTORS HAVE BEEN APPLIED TO THE SCHEDULED VALUES. MULTIPLY RESPECTIVE LENGTHS BY 1.5 FOR EPOXY COATED REBAR.
4. NONCONTACT LAPS ARE ALLOWED FOR CMU WALLS ONLY WITH BOTH BARS WITHIN THE SAME CELL U.N.O.
5. BARS USING NONCONTACT LAP SPLICES SHALL NOT BE SPACED TRANSVERSELY FARTHER APART THAN THE SMALLER OF ONE-FIFTH THE REQUIRED LAP SPLICE LENGTH LISTED IN THE SCHEDULE, OR 6".
6. WHEN LAP SPLICING BARS OF DIFFERENT SIZES, THE LAP LENGTH IS DETERMINED BY THE SMALLER BAR, BUT MAY NOT BE LESS THAN THE MINIMUM (CLASS "A") SPLICE LENGTH OF THE LARGER BAR.
7. NO LAPS SHALL BE LESS THAN 30 TIMES THE BAR DIA. OR 12" MIN.
8. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" FRESH CONCRETE CAST BELOW THE BARS.
9. TOP BAR LENGTHS SHALL BE APPLIED TO ALL PLAN SPECIFIED C.I.P. BEAM AND STRUCTURAL SLAB TOP REINF U.N.O.

REINFORCEMENT DEVELOPMENT LENGTHS



BAR SIZE	FOOTING DOWELS ℓ_{dh}	3,000psi CONC. ℓ_{dh}	3,000psi ℓ_d TYP.	3,000psi ℓ_d Top Bars	4,000psi CONC. ℓ_{dh}	4,000psi ℓ_d TYP.	4,000psi ℓ_d Top Bars
# 3	6.6"	8.2"	1'-0"	1'-1"	7.1"	1'-0"	1'-1"
# 4	9"	11.0"	1'-0"	1'-5"	9.5"	1'-0"	1'-5"
# 5	9"	13.7"	1'-3"	1'-9"	11.9"	1'-3"	1'-9"
# 6	SEE PLANS	16.5"	1'-8"	2'-3"	14.3"	1'-6"	2'-2"
# 7		19.2"	2'-2"	3'-1"	16.6"	1'-11"	2'-8"
# 8		21.9"	2'-11"	4'-0"	19.0"	2'-6"	3'-6"
# 9		24.7"	3'-8"	5'-1"	21.4"	3'-2"	4'-5"
# 10		27.9"	4'-7"	6'-5"	24.1"	4'-0"	5'-7"

NOTES:
1. VALUES ABOVE ASSUME NORMAL WEIGHT CONCRETE USING 60ksi GRADE, NON-COATED, DEFORMED REBAR.
2. NO MODIFICATION FACTORS HAVE BEEN APPLIED TO THE SCHEDULED ℓ_{dh} VALUES FOR BARS HOOKED ACROSS OR TIED TO REINFORCED ELEMENTS. SEE PLANS & DETAILS FOR SPECIFIC HOOKING INSTRUCTIONS.
3. HOOKED BAR ℓ_{dh} DEVELOPMENT LENGTH SHALL NOT BE LESS THAN THE GREATER OF 8 TIMES THE BAR DIA. OR 6" MIN.
4. NO MODIFICATION FACTORS HAVE BEEN APPLIED TO THE SCHEDULED ℓ_d VALUES FOR STRAIGHT BAR DEVELOPMENT LENGTHS BUT SHALL NOT BE LESS THAN 12".
5. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" FRESH CONCRETE CAST BELOW THE BARS.
6. TOP BAR LENGTHS SHALL BE APPLIED TO ALL PLAN SPECIFIED C.I.P. BEAM AND STRUCTURAL SLAB TOP REINF U.N.O.

DELEGATED DESIGN ELEMENTS:

AEG DOCUMENTS INCLUDE THE DESIGN FOR THE PRIMARY STRUCTURAL SYSTEMS FOR GRAVITY LOADING AND THE MAIN WIND FORCE RESISTING SYSTEMS. SPECIFIC ELEMENTS WITHIN THE PRIMARY STRUCTURAL SYSTEMS HAVE BEEN RESERVED AND IDENTIFIED BY THE EOR AS DELEGATED STRUCTURAL ELEMENTS IN ACCORDANCE WITH F.A.C. 61G15-31.002(7). THESE ARE REQUIRED TO BE DESIGNED BY A FLORIDA LICENSED PROFESSIONAL ENGINEER ACTING AS A SPECIALTY STRUCTURAL ENGINEER (SSE) AND SUBMITTED TO THE EOR FOR COMPLIANCE APPROVAL PER F.A.C. 61G30.006. IT IS THE INTENT OF THESE DOCUMENTS TO PROVIDE THE NECESSARY LOADING, DESIGN CRITERIA AND PERFORMANCE STANDARDS FOR EACH DELEGATED STRUCTURAL ELEMENT TO ENABLE THE SSE/SUBCONTRACTOR TO PROPERLY DEVELOP THEIR DESIGN PER F.A.C. 61G15-30.005. SSE'S SHALL NOTIFY THE EOR IF ANY ADDITIONAL DESIGN REQUIREMENTS ARE NEEDED OR IF ANY SPECIFIC CONSIDERATIONS OR CONFLICTS EXIST.

DELEGATED PRIMARY STRUCTURAL DESIGN ELEMENTS INCLUDE, BUT MAY NOT BE LIMITED TO:
- PRE-FABRICATED STRUCTURAL COMPONENTS
- CAST-IN-PLACE POST-TENSIONED CONCRETE STRUCTURAL SYSTEMS
- PRECAST, PRESTRESSED CONCRETE COMPONENTS
- OPEN WEB STEEL JOISTS AND JOIST GIRDERS
- SPECIALTY FOUNDATION SYSTEMS
- STRUCTURAL STEEL CONNECTIONS
- COLD FORM STEEL JOIST/STUD/TRUSS FRAMING, CONNECTIONS AND PRE-FABRICATED COMPONENTS
- PREFABRICATED WOOD TRUSSES, CROSS-LAMINATED TIMBER CONNECTIONS

DELEGATED SECONDARY STRUCTURAL ELEMENTS INCLUDE, BUT MAY NOT BE LIMITED TO:
- STAIRS, HANDRAILS, CATWALKS, LADDERS AND THEIR CONNECTIONS
- COMPONENTS, THEIR ASSEMBLIES, FRAMES, MULLS, MULLIONS AND CONNECTIONS TO THE PRIMARY STRUCTURAL SYSTEM
- DAVITS, HOISTS, PROPRIETARY TRACKS FOR UNDER-HUNG CRANES AND MONORAILS
- ELEVATOR SUPPORT RAILS AND BEAMS

WINDOW AND DOOR COMPONENTS:

THESE DOCUMENTS SHOW THE STRUCTURAL REQUIREMENTS FOR THE PRIMARY STRUCTURAL ENVELOPE ROUGH OPENINGS ONLY. ALL ROUGH OPENING DIMENSIONS MUST BE VERIFIED BY THE CONTRACTOR BASED ON THE ACTUAL COMPONENT FRAME SIZES AND MFGR REQUIREMENTS AND SPECIFICATIONS PRIOR TO CONSTRUCTION. SECONDARY COMPONENT FRAMING WITHIN THE PROVIDED ROUGH OPENINGS, INCLUDING HORZ AND VERT MULLIONS, MULLS, GANGED OR "TIGHT-MULLED" COMPONENT FRAMES, MUST BE PROVIDED BY THE COMPONENT MFGR OR DESIGNED BY A SSE AND SUBMITTED TO THE EOR FOR APPROVAL. DESIGN OF CUSTOM COMPONENT ASSEMBLIES, MULTI-UNIT ASSEMBLIES, STOREFRONT SYSTEMS, CURTAINWALLS, AND WINDOW WALLS IS NOT PROVIDED AND IS RESERVED AS A DELEGATED DESIGN AND SUBMITTED TO THE EOR FOR APPROVAL.

00.00 GENERAL

00.01 ALL CONSTRUCTION SHALL CONFORM TO THE FLORIDA BUILDING CODE 7TH EDITION (2020). REFERENCE TO OTHER CODES OR STANDARD SPECIFICATIONS REFER TO THE LATEST EDITION OF SUCH CODES OR SPECIFICATIONS, UNLESS STATED OTHERWISE.

00.02 THE CONTRACTOR SHALL COORDINATE ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND CIVIL WORKS DOCUMENTS WITH THE STRUCTURAL CONTRACT DOCUMENTS. NOTIFICATION SHALL BE MADE TO THE STRUCTURAL ENGINEER AND ARCHITECT OF ANY CONFLICT AND/OR OMISSIONS.

00.03 THE DRAWINGS SHOWN ARE FOR TYPICAL AND CERTAIN SPECIFIC CONDITIONS ONLY. PROVIDE DETAILS SIMILAR TO THOSE SHOWN FOR DETAILS THAT ARE NOT SPECIFICALLY SHOWN.

00.04 INFORMATION LISTED IN CALL-OUTS AND PLAN SCHEDULES ON S-100 SHEETS, AND SHOWN ON SPECIFIC SECTIONS AND DETAILS ON S-300 AND S-500 SHEETS RESPECTIVELY, GOVERN OVER INFORMATION LISTED ON THE THIS SHEET, S-001. CONFLICTS AND CONTRADICTIONS SHOULD BE BROUGHT TO THE E.O.R.'S ATTENTION FOR CLARIFICATION PRIOR TO CONSTRUCTION PER NOTE 00.06.

00.05 FOR DIMENSIONS NOT SHOWN ON THE STRUCTURAL CONTRACT DOCUMENTS, SEE THE ARCHITECTURAL DRAWINGS.

00.06 THE CONTRACTOR SHALL VERIFY EXISTING SITE CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO STARTING WORK. THE STRUCTURAL ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY DISCREPANCIES IN EXISTING SITE CONDITIONS, DIMENSIONS, OR ELEVATIONS TO THOSE SHOWN IN THE STRUCTURAL CONTRACT DOCUMENTS.

00.07 THE REVIEW OF SUBMITTALS AND/OR SHOP DRAWINGS BY THE STRUCTURAL ENGINEER DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW AND CHECK SHOP DRAWINGS PRIOR TO SUBMITTAL TO THE STRUCTURAL ENGINEER. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS, AND DIMENSIONS SPECIFIED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR ALSO SHALL BE RESPONSIBLE FOR MEANS, METHOD, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION.

00.08 THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN, CONSTRUCTION, AND ERECTION OF SAFE AND ADEQUATE BRACING, SHORING, TEMPORARY SUPPORTS, ETC. REQUIRED FOR STABILITY OF THE STRUCTURE DURING ALL INTERMEDIATE STAGES OF CONSTRUCTION.

00.09 IN NO CASE SHALL STRUCTURAL ALTERATIONS OR WORK AFFECTING A STRUCTURAL MEMBER BE MADE, UNLESS APPROVED BY APEX ENGINEERING GROUP, P.L.L.C. IN WRITING.

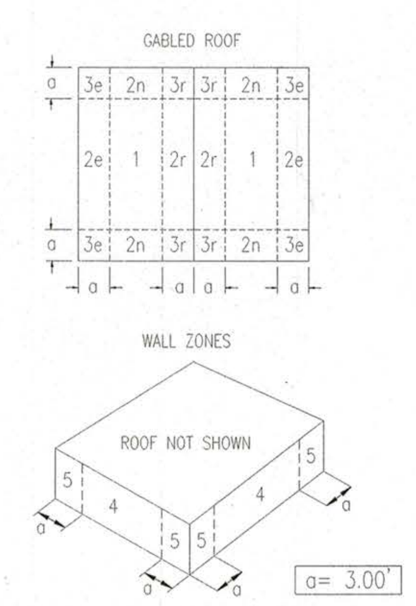
10.00 STRUCTURAL LOADS

10.01 SUPERIMPOSED DEAD LOADS:
DEAD LOADS SHALL BE TAKEN AS THE ACTUAL WEIGHTS OF MATERIALS AND CONSTRUCTIONS OR OTHERWISE SATISFACTORY VALUES DESCRIBED IN THE F.B.C.
-PARTITIONS 20 PSF

10.02 SUPERIMPOSED LIVE LOADS:
-GUARDRAILS & HANDRAILS 50 PLF (200#)
-YARDS AND TERRACES, PEDESTRIANS 100 PSF
-SIDEWALKS, VEHICULAR DRIVEWAYS & YARDS 250 PSF (8,000#)

10.03 WIND LOADS (ASCE 7-16):
BASIC WIND SPEED = 140 MPH
STRUCTURAL RISK CATEGORY = II
WIND EXPOSURE CATEGORY = C
ENCLOSURE CLASSIFICATION = ENCLOSED
INTERNAL PRESSURE COEFFICIENT = 0.18 +/-

COMPONENTS & CLADDING PRESSURES (per Chapter 30, Part 2 in ASD)			
COMPONENT	ZONE	DESIGN PRESSURE (PSF) +GCpi	DESIGN PRESSURE (PSF) -GCpi
ROOF (Per 30.5-1)	1	18.01	-42.24
	2e		-67.40
	2n		
	2r		
	3e		
	3r		-86.84
OVERHANGS (Per 30.4-2)	2e	9.60	-50.36
	2n		-75.54
	3e		-90.65
	3r		-97.33
WALLS (Per 30.5-1)	4	29.70	-32.15
	5		-39.72



NOTE:
VALUES SHOWN IN THE COMPONENTS AND CLADDING TABLE ARE LISTED IN ALLOWABLE STRESS DESIGN USING A LOAD FACTOR OF 0.6. NO FURTHER REDUCTIONS AREA ALLOWED.

WINDOW AND DOOR PRESSURES (ALLOWABLE STRESS DESIGN):

ALL COMPONENTS TO BE ZONE 4 UNLESS OVER HALF OF THE COMPONENT WIDTH FALLS WITHIN "A" ZONE MEASURED FROM THE EXTERIOR CORNERS OF THE BUILDING.

WINDOWS (ZONE 4):	DP +30 / -35 PSF
WINDOWS (ZONE 5):	DP +30 / -40 PSF
DOORS (ZONE 4):	DP +30 / -35 PSF
DOORS (ZONE 5):	DP +30 / -40 PSF
GARAGE DOORS:	DP +30 / -30 PSF OR E.O.R. APPROVED UNIT PER R301.2(4)
BIFOLD & SLIDING GLASS WALLS:	DP +30 / -35 PSF

ALL EXTERIOR GLAZED OPENINGS SHALL BE IMPACT RATED OR OTHERWISE PROTECTED FROM WIND-BORNE DEBRIS AS PER SECTION 1609.1.2 & R301.2.1.2 OF THE 2020 FLORIDA BUILDING CODE.

UNLESS OTHERWISE APPROVED, ALL EXTERIOR WINDOWS, CURTAIN WALLS, DOORS AND IMPACT PROTECTIVE SYSTEMS FOR THIS PROJECT SHALL MEET ASTM E-1996 "LARGE MISSILE" PROTECTION LEVEL "D" FOR STRUCTURES IN WIND EXPOSURE CATEGORIES "C & D" AND "MEDIUM MISSILE" PROTECTION LEVEL "C" FOR STRUCTURES IN WIND EXPOSURE CATEGORY "B". COMPONENT ASSEMBLIES LOCATED ON THE STRUCTURE AT ELEVATIONS HIGHER THAN 30FT ABOVE THE HIGHEST ADJACENT GRADE SHALL MEET ASTM E-1996 "SMALL MISSILE" PROTECTION LEVEL "A".

10.04 FLOOD DESIGN DATA:
FLOOD ZONE = A
BFE = SEE ARCH.
PANEL NO = 12131C0683H
EFF DATE = 12/30/2020

20.00 FOUNDATIONS AND SLAB-ON-GRADE

20.01 THE DESIGN OF SHALLOW FOUNDATIONS AND SLAB-ON-GRADE CONSTRUCTION IS BASED ON THE PRESUMPTIVE MINIMUM LOAD-BEARING CAPACITY OF 1,500 PSF PER TABLE 1806.2 OF SECTION 1806 OF THE FLORIDA BUILDING CODE.

20.02 SHOULD THE CONTRACTOR ENCOUNTER UNDESIRABLE OR QUESTIONABLE SOILS, STOP WORK AND IMMEDIATELY NOTIFY THE SEOR. ANY QUESTIONABLE SOILS IDENTIFIED DURING CONSTRUCTION SHALL REQUIRE A GEOTECHNICAL INVESTIGATION PER FBC 1803.5.2.

20.03 IT IS THE CONTRACTORS RESPONSIBILITY TO OBTAIN ANY/ALL PREVIOUSLY PERFORMED SITE SPECIFIC GEOTECHNICAL INVESTIGATIONS FROM THE OWNER/CLIENT AND TO FOLLOW FULLY THE RECOMMENDATIONS THEREIN. THE SEOR WILL NOT APPROVE DEVIATIONS FROM THE RECOMMENDATIONS WITHIN ANY GEOTECHNICAL REPORT USED AS A BASIS FOR DESIGN.

20.04 IT IS THE CONTRACTORS RESPONSIBILITY TO RETAIN A REGISTERED DESIGN PROFESSIONAL KNOWLEDGEABLE IN THE FIELD OF GEOTECHNICAL ENGINEERING TO VERIFY SITE CONDITIONS, DESIGN ASSUMPTIONS, AND ADEQUACY OF ALL SUBGRADES, FILLS AND BACKFILLS BEFORE PLACEMENT OF FOUNDATIONS, FOOTINGS, SLABS, WALLS, FILLS, BACKFILLS, ETC. IT IS THE CONTRACTORS RESPONSIBILITY TO SCHEDULE AND COORDINATE THIS SERVICE, AND RELAY THE FINDINGS TO THE SEOR.

20.05 ALL FOOTINGS SHALL REST EITHER ON UNDISTURBED SOIL OR A MANUALLY OPERATED VIBRATORY SLED OR TAMPER SHOULD BE USED TO DENSIFY ANY SOILS IN THE BOTTOM OF THE FOOTING TRENCHES LOOSENED DURING THE EXCAVATION OPERATION.

20.06 THE AREA UNDER FOOTINGS, FOUNDATIONS, AND CONCRETE SLABS-ON-GRADE SHALL HAVE ALL VEGETATION, STUMPS, ROOTS, AND FOREIGN MATERIALS REMOVED PRIOR TO THEIR CONSTRUCTION.

20.07 SIDES OF FOUNDATIONS SHALL BE FORMED UNLESS CONDITIONS PERMIT EARTH FORMING. FOUNDATIONS POURED AGAINST THE EARTH REQUIRE THE FOLLOWING PRECAUTIONS: SLOPE SIDES OF EXCAVATIONS AND CLEAN UP SLOUGHING BEFORE AND DURING CONCRETE PLACEMENT.

20.08 THE CONTRACTOR IS RESPONSIBLE FOR ADEQUATELY PROTECTING ALL EXCAVATION SLOPES. EXCAVATION FOR ANY PURPOSE SHALL NOT REDUCE VERTICAL OR LATERAL SUPPORT FOR ANY FOUNDATION OR ADJACENT FOUNDATION WITHOUT FIRST UNDERPINNING OR PROTECTING THE FOUNDATION AGAINST DETRIMENTAL LATERAL OR VERTICAL MOVEMENT, OR BOTH PER FBC 1804.1.

20.09 ANY LOCATION WHERE EXCAVATING NEAR ANY ADJACENT STRUCTURE OR FOUNDATION, A REGISTERED DESIGN PROFESSIONAL SHALL PREPARE AN ASSESSMENT OF THE STRUCTURE AS DETERMINED FROM EXAMINATION OF THE STRUCTURE, THE REVIEW OF AVAILABLE DESIGN DOCUMENTS AND, IF NECESSARY, EXCAVATION OF TEST PITS PER FBC 1803.5.7. THE REGISTERED DESIGN PROFESSIONAL SHALL DETERMINE THE REQUIREMENTS FOR UNDERPINNING AND PROTECTION AND PREPARE SITE-SPECIFIC PLANS, DETAILS AND SEQUENCE OF WORK FOR SUBMISSION. THIS STRUCTURAL SUBMITTAL SHALL BE REVIEWED AND APPROVED BY THE SEOR PRIOR TO CONSTRUCTION.

20.10 FILL MATERIALS SHOULD BE RELATIVELY CLEAN SANDS, SIMILAR TO THE EXISTING ON-SITE SOILS, WITH LESS THAN 12 PERCENT FINES (MATERIAL PASSING THE NO. 200 SIEVE), AND FREE OF NON-SOIL MATERIALS, CONSTRUCTION DEBRIS, ROCK FRAGMENTS LARGER THAN 3 INCHES IN DIAMETER AND ANY OTHER FOREIGN MATERIAL. FILL MATERIALS THAT CONTAIN ORGANIC DEBRIS ARE NOT SUITABLE FOR REUSE AS STRUCTURAL FILL.

20.11 FILL SHOULD BE PLACED IN THIN, HORIZONTAL LOOSE LIFTS (MAXIMUM 12-INCH) AND COMPACTED TO NOT LESS THAN 90 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D 1557). FILL MATERIALS USED IN STRUCTURAL AREAS SHOULD HAVE A TARGET MAXIMUM DRY DENSITY OF 95 PCF OR GREATER. STRUCTURAL FILL GREATER THAN 12 INCHES SHALL REQUIRE A GEOTECHNICAL EVALUATION PER FBC 1803.5.8.

20.12 FINISH GRADES SHALL BE SLOPED AWAY FROM THE FOUNDATION IN ACCORDANCE WITH FBC 1804.4. ANY FILL OR GRADING IN FLOOD HAZARD AREAS MUST COMPLY WITH FBC 1804.5 AND HAS NOT BE ANALYZED AS PART OF THE STRUCTURAL DESIGN SCOPE.

20.13 THE CONTRACTOR SHALL INVESTIGATE ACTUAL LOCATIONS OF UNDERGROUND LINES AND UTILITIES BEFORE EXCAVATING. ALL EXCAVATIONS NEAR THESE LINES SHALL BE CARRIED OUT WITH EXTREME CAUTION.

20.14 WHERE FOOTING STEPS ARE NECESSARY, THEY SHALL BE NO STEEPER THAN ONE VERTICAL TO TWO HORIZONTAL.

20.15 ANY LOCATION WHERE EXISTING GROUND-WATER TABLE IS ENCOUNTERED ABOVE OR WITHIN 5 FEET BELOW THE ELEVATION OF THE LOWEST FLOOR LEVEL WHERE SUCH FLOOR IS LOCATED BELOW THE FINISHED GROUND LEVEL ADJACENT TO THE FOUNDATION WILL REQUIRE A SITE SPECIFIC GEOTECHNICAL INVESTIGATION.

20.16 DE-WATERING IS RECOMMENDED TO AT LEAST TWO FEET BELOW BOTTOM OF LOWEST FOUNDATION IF GROUNDWATER IS ENCOUNTERED. NO DE-WATERING IS ALLOWED WITHOUT SITE-SPECIFIC PLANS, DETAILS AND SEQUENCE OF WORK PROVIDED BY A REGISTERED DESIGN PROFESSIONAL AND SUBMITTED TO THE SEOR FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION. NO DE-WATERING IS ALLOWED ADJACENT TO ANY EXISTING STRUCTURES CLOSER THAN 100 FEET WITHOUT WRITTEN APPROVAL OF THE SEOR.

20.17 SLAB-ON-GRADE REQUIREMENTS:
A. UNLESS NOTED OTHERWISE, THE SLAB-ON-GRADE SHALL BE A MINIMUM OF 4 INCHES THICK, PLACED ON COMPACTED SUBGRADE, AND REINFORCED AS INDICATED IN THE CONTRACT DRAWINGS. LAP SLAB REINF 48 BAR DIAMETERS MINIMUM; TYPICAL.
B. PLACE CONTROL OR CONSTRUCTION JOINTS AT LOCATIONS INDICATED BY "C.J.". CUT HALF OF REINFORCING CROSSING EACH JOINT TO FURTHER WEAKEN THE JOINT LOCATION. SAWCUT CONTROL JOINTS AS SOON AFTER POURING AS POSSIBLE, WHEN CONCRETE WILL NOT RAVEL; 12 HRS. MAX. CURE CONCRETE IN ACCORDANCE WITH ACI 301. BEGIN CURING IMMEDIATELY AFTER POURING TO LIMIT CRACKING PRIOR TO SAWCUTTING CONTROL JOINTS.
C. SUBGRADE SHALL BE PREPARED AS RECOMMENDED IN THE GEOTECHNICAL REPORT. APPLY TERMITE POISONING TO PREPARED SUBGRADE AS REQUIRED BY THE FLORIDA BUILDING CODE, LATEST EDITION.
D. VAPOR BARRIER SHALL CONFORM TO ASTM E1745, CLASS B OR C WITH A MINIMUM THICKNESS OF 10 MIL. VAPOR BARRIER SHOULD BE PLACED OVER COMPACTED SUBGRADE PER GEOTECHNICAL REPORT. VAPOR BARRIER SHOULD BE OVERLAPPED AND TAPED AT THE JOINTS AND CAREFULLY FITTED AROUND SERVICE OPENINGS PER PRODUCT MANUFACTURER'S SPECIFICATIONS

30.00 CONCRETE AND REINFORCING STEEL

30.01 CONCRETE WORK SHALL COMPLY WITH THE REQUIREMENTS OF ACI 318.

30.02 ALL CONCRETE SHALL BE NORMAL WEIGHT AND HAVE THE FOLLOWING MINIMUM 28 DAY COMPRESSIVE STRENGTHS UNO:
- FOUNDATIONS & SLAB-ON-GRADE 3,000 PSI
- STRUCTURAL SLABS 4,000 PSI
- CIP BEAMS, COLUMNS & WALLS 4,000 PSI
- EXTERIOR RETAINING WALLS 5,000 PSI (OR 4,000 PSI MIX, 0.40 W/CM RATIO, & 20-25% FLYASH)
- DESIGN STRENGTH REQUIREMENTS FOR DELEGATED DESIGN ELEMENTS SHALL COMPLY WITH THE APPROVED STRUCTURAL SUBMITTALS FOR EACH ELEMENT OR SYSTEM. THIS INCLUDES PRE-CAST, PRE-STRESSED AND POST-TENSIONED CONCRETE.

30.03 NOMINAL MAXIMUM SIZE OF COARSE AGGREGATE SHALL NOT BE LARGER THAN: 1/5 THE NARROWEST DIMENSION BETWEEN SIDES OF FORMS, 1/3 THE DEPTH OF SLABS, NOR 3/4 THE MINIMUM CLEAR SPACING BETWEEN INDIVIDUAL REINFORCING BARS OR WIRES.

30.04 ALL CONCRETE EXPOSED TO WEATHER SHALL HAVE 4%-6% ENTRAINED AIR, U.N.O. CONCRETE MAY CONTAIN A PROPERLY DESIGNED SUPERPLASTICIZER FOR WORKABILITY.

30.05 CHAMFER OR ROUND ALL EXPOSED CORNERS A MINIMUM OF 3/4".

30.06 THE MATERIALS AND MIX DESIGN SHALL BE FULLY DOCUMENTED AND REVIEWED BY THE OWNERS TESTING LABORATORY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR OBTAINING THE REQUIRED DESIGN STRENGTH.

30.07 CALCIUM CHLORIDE, CHLORIDE IONS, OR OTHER SALTS ARE NOT PERMITTED TO BE USED IN CONCRETE.

30.08 CONCRETE (OTHER THAN HIGH-EARLY-STRENGTH) SHALL BE MAINTAINED ABOVE 50°F (10°C) AND IN A MOIST CONDITION FOR AT LEAST THE FIRST 7 DAYS AFTER PLACEMENT, EXCEPT WHEN CURED IN ACCORDANCE WITH FLORIDA BUILDING CODE SECTION 1906.5.3 SPECIFICATION ON ACCELERATED CURING.

30.09 ADEQUATE EQUIPMENT SHALL BE PROVIDED FOR HEATING CONCRETE MATERIALS AND ALL REINFORCEMENT, FORMS, FILLERS, AND GROUND IN WHICH CONCRETE IS TO COME INTO CONTACT DURING FREEZING OR NEAR-FREEZING WEATHER.

30.10 ALL REINFORCING STEEL PLACEMENT SHALL BE REVIEWED BY A REGISTERED STRUCTURAL ENGINEER OR BY A REPRESENTATIVE RESPONSIBLE TO HIM/HER (REF: ACI 318 PAR 1.3.1.)

30.11 ALL REINFORCEMENT SHALL BE BENT COLD, UNLESS OTHERWISE APPROVED BY THE STRUCTURAL EOR.

30.12 SHOP DRAWINGS SHOWING ALL FABRICATION DIMENSIONS AND LOCATIONS FOR PLACING REINFORCING STEEL IN PRE-CAST PILES, ACIP PILES, PILE CAPS, MAT SLABS, CAST-IN-PLACE WALLS, AND STRUCTURAL SLABS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION.

30.13 FOR CONSTRUCTION OTHER THAN SINGLE FAMILY DWELLINGS, ALL CONCRETE REINFORCEMENT USED FOR STRUCTURAL ELEMENTS SHALL BE DETAILED, FABRICATED, LABELED, SUPPORTED AND SPACED IN FORMS AND SECURED IN PLACE IN ACCORDANCE WITH THE PROCEDURES AND REQUIREMENTS FOR REINFORCED CONCRETE, "ACI 318-02" AND THE "MANUALS OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES," ACI 315 (LATEST EDITION) UNLESS OTHERWISE APPROVED IN WRITING BY THE EOR.

30.14 REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60 UNLESS OTHERWISE NOTED.

30.15 WELDED WIRE FABRIC (MESH) SHALL CONFORM TO ASTM A185.

30.16 WELDED WIRE FABRIC SHALL BE LAPPED MIN. ONE FULL MESH PANEL PLUS 2" AT SIDES AND ENDS AND SHALL BE WIRED TOGETHER.

30.17 ALL STEEL REINFORCING AND WELD WIRE MESH USED IN SLAB-ON-GRADE CONSTRUCTION IS REQUIRED TO BE SUPPORTED IN THE CENTER TO UPPER ONE THIRD OF THE SLAB.

30.18 ALL REINFORCING STEEL AND EMBEDMENTS SHALL BE SECURELY TIED AND SUFFICIENTLY SUPPORTED TO MAINTAIN THE POSITION WITHIN SPECIFIED TOLERANCES DURING ALL CONSTRUCTION ACTIVITIES. "WET STICKING" DOWELS INTO CONCRETE IS NOT PERMITTED.

30.19 CONTINUOUS REINFORCEMENT SHALL BE PROVIDED WHEREVER POSSIBLE. REINFORCEMENT SHALL BE SPLICED ONLY AS SHOWN OR NOTED IN THE STRUCTURAL CONTRACT DOCUMENTS. STAGGER SPLICES WHERE POSSIBLE; USE FULL TENSION SPLICE (CLASS "B") UNLESS NOTED OTHERWISE. DOWELS SHALL MATCH THE SIZE AND SPACING OF THE SPECIFIED REINFORCEMENT AND SHALL BE LAPPED WITH FULL TENSION SPLICES (CLASS "B") UNLESS NOTED OTHERWISE. TERMINATE BARS WITH STANDARD HOOKS.

30.20 REINFORCING STEEL SHALL HAVE THE FOLLOWING CONCRETE MINIMUM CLEAR COVER UNO (PER ACI 318-05 PAR.7.7.1)
- CONCRETE AGAINST EARTH (NOT FORMED): 3"
- FORMED CONCRETE EXPOSED TO EARTH OR WEATHER: 2" (#6 BARS & LARGER) & 1-1/2" (#5 BARS & SMALLER)
- CONCRETE NOT EXPOSED TO EARTH OR WEATHER: 3/4" (SLABS), 1" (WALLS) & 1-1/2" (BEAM STIRRUPS & COLUMN TIES)

30.21 DO NOT PLACE DUCTS EXCEEDING ONE-THIRD THE SLAB OR WALL THICKNESS WITHIN THE SLAB OR WALL UNLESS SPECIFICALLY SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.

30.22 REINFORCING STEEL SHALL NOT BE WELDED OR TACK WELDED UNLESS APPROVED BY THE STRUCTURAL EOR.

30.23 WEATHER CONDITIONS SHALL NOT BE ACCEPTED AS A VALID REASON FOR INCORRECT OR OTHERWISE POOR QUALITY OF CONCRETE OR CONCRETE SURFACES.

30.24 ALL SHORING SHOULD REMAIN IN PLACE UNTIL CONCRETE HAS ATTAINED AT LEAST 75% OF ITS 28-DAY COMPRESSIVE STRENGTH. SHORING SHOULD BE LEFT 28 DAYS WITHOUT TESTING A CYLINDER TO CONFIRM STRENGTH. IT IS NOT ADVISABLE TO REMOVE SHORING WITHOUT A TEST FOR 21 DAYS UNDER ANY CIRCUMSTANCE. DESIGN OF CONSTRUCTION SHORING IS DELEGATED DESIGN BY OTHERS.

30.25 FOR CONCRETE PADS SEE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS.

40.00 MASONRY

40.01 DESIGN, MATERIAL AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS OF THE FLORIDA BUILDING CODE AND "BUILDING CODE REQUIREMENTS FOR CONCRETE MASONRY STRUCTURES" OF ACI 530.1-02 / ASCE 6-02.

40.02 CONCRETE BLOCKS USED FOR FIRE-RESISTIVE WALLS RATED 2 HOURS OR MORE, OR USED FOR LOAD-BEARING OR EXTERIOR WALLS, SHALL HAVE A MINIMUM FACE SHELL THICKNESS OF 1-1/4", A MINIMUM WEB THICKNESS OF 1", AND SHALL HAVE A NET CROSS-SECTIONAL AREA NOT LESS THAN 50 PERCENT OF THE GROSS SECTION WITH F'M= 1500 PSI.

40.03 STANDARD UNITS OF HOLLOW CONCRETE BLOCK SHALL CONFORM TO THE "STANDARD SPECIFICATION FOR HOLLOW LOAD-BEARING CONCRETE MASONRY UNITS," ASTM C 90, EXCEPT THAT THE MAXIMUM MOISTURE CONTENT SHALL NOT EXCEED 50 PERCENT OF THE TOTAL ABSORPTION.

40.04 MORTARS AND MATERIALS THEREIN SHALL CONFORM TO THE "STANDARD SPECIFICATIONS FOR MORTAR OF MASONRY UNITS," ASTM C 270.

40.05 GROUT TO BE 3000 PSI AND SHALL BE IN ACCORDANCE WITH ASTM C476, STANDARD SPECIFICATION. COURSE GROUT MAY ONLY BE USED WITH 8" AND 12" CMU.

40.06 WHEN MIXING GROUT, A SLUMP TEST IS REQUIRED FOR EACH BATCH TO ENSURE EACH MEETS THE 8" TO 11" SLUMP REQUIRED.

40.07 EXTERIOR WALLS OF UNIT MASONRY SHALL HAVE A MINIMUM THICKNESS OF 8"; HOWEVER, AS PER FLORIDA BUILDING CODE HOLLOW CONCRETE BLOCK UNITS MAY BE 7-5/8" X 7-5/8" X 15-5/8" MODULAR DIMENSION.

40.08 FILL ALL BLOCK CELLS WITH CONCRETE FROM THE TOP OF FOOTINGS TO THE FINISH FLOOR ELEVATION UNLESS INDICATED OTHERWISE.

40.09 ALL CONCRETE MASONRY UNIT REINFORCING STEEL BARS SHALL BE CONTINUOUS WITH LAP SPLICES OF A LEAST 48 BAR DIAMETERS, BUT NOT LESS THAN 12".

40.10 ALL VERTICAL REINFORCING IN CMU WALLS SHALL BE ANCHORED TO THE FOUNDATION OR BEAM/LINTEL UPON WHICH THE WALL RESTS, AND TO THE TIE BEAM OR TOP BOND BEAM COURSE AT THE TOP OF WALL, WITH ACI STANDARD HOOKS. RUN VERTICAL REINFORCING CONTINUOUS THROUGH ALL INTERMEDIATE WALL BOND BEAMS.

40.11 ALL OPENINGS IN CONCRETE MASONRY UNIT WALLS SHALL BE REINFORCED ON EACH SIDE, TOP, AND BOTTOM. OPENINGS NO GREATER THAN 4' SHALL BE REINFORCED WITH A MINIMUM OF (1)#5 BAR EACH SIDE. OPENINGS BETWEEN 4' AND 8' IN SHALL BE REINFORCED WITH A MINIMUM OF (2)#5 BARS EACH SIDE. OPENINGS EXCEEDING 8' IN WIDTH SHALL BE PROVIDED WITH TIE COLUMNS ON EACH SIDE.

40.12 TIE COLUMNS SHALL BE REINFORCED WITH NOT LESS THAN 4-#5 VERTICAL BARS FOR 8"X12" COLUMNS NOR LESS THAN 4-#6 VERTICAL BARS FOR 8"X16" AND 12"X12" COLUMNS WITH #3 HOOP TIES @ 12" O.C. UNLESS NOTED OTHERWISE ON PLANS.

40.13 AT A MINIMUM: PRE-CAST 8F8 LINTELS WITH (1)#5 BAR IN BOTTOM SHALL BE USED OVER OPENINGS UP TO 3' WIDE. PRE-CAST 8F16 LINTELS WITH (1)#5 BAR IN BOTTOM SHALL BE USED OVER OPENINGS 3' TO 6' WIDE. SEE PLANS FOR OPENINGS GREATER THAN 6'.

40.14 ALL LINTEL REINFORCING SHALL EXTEND 15" PAST THE EDGE OF THE OPENING AND SHALL BE BENT 90 DEGREES AND EXTENDED DOWN 8" WHERE STRAIGHT EXTENSIONS ARE NOT POSSIBLE.

40.15 CONTINUOUS CAST IN PLACE CONCRETE TIE BEAMS SHALL BE PLACED AT EACH FLOOR OR ROOF LEVEL AND AT INTERMEDIATE LEVELS NOT TO EXCEED 24 COURSES (16'-0").

40.16 TIE BEAMS SHALL BE 8" WIDE AND 16" DEEP AND SHALL BE REINFORCED WITH NOT LESS THAN (2)#5 BARS AT THE TOP AND (2)#5 BARS AT THE BOTTOM. REINF. BEAM W/ (4)#3 TIES AT 12" O.C. EACH SIDE OF BENDS & CORNERS, THEREAFTER REMAINDER OF TIES SHALL BE #3 BARS SPACED AT 24" O.C. UNLESS OTHERWISE NOTED.

40.17 UNLESS OTHERWISE SPECIFIED, CAST TIE BEAMS MAY BE SUBSTITUTED WITH (2) COURSES OF OPEN BOTTOM BOND BEAM BLOCK EACH REINFORCED WITH (2) CONTINUOUS #5 HORIZONTAL BARS. ALL TERMINATING VERTICAL BARS MUST BE HOOKED TO THE TOP COURSE.

40.18 BOND BEAM COURSES SHALL BE PLACED AT EACH FLOOR OR ROOF LEVEL AND AT INTERMEDIATE LEVELS NOT TO EXCEED 20 COURSES (13'-4") FOR BEARING WALLS, 36 COURSES (24'-0") FOR INTERIOR NON-BEARING WALLS, AND 18 COURSES (12'-0") FOR ALL OTHERS INCLUDING EXTERIOR WALLS, FREE STANDING, AND SITE WALLS UNLESS OTHERWISE NOTED.

40.19 UNLESS OTHEWISE SPECIFIED, INTERMEDIATE BOND BEAMS SHALL BE (2) COURSES OF OPEN BOTTOM BOND BEAM BLOCK EACH REINFORCED WITH (2) CONTINUOUS #5 HORIZONTAL BARS. ALL TERMINATING VERTICAL BARS MUST BE HOOKED TO THE TOP COURSE. ALL VERTICAL BARS ANCHORED TO BOND BEAMS FOR WALLS ABOVE MUST BE HOOKED TO THE BOTTOM COURSE.

40.20 ALL CMU ELEMENTS SHALL BE ADEQUATELY BRACED TO PROVIDE STABILITY UNTIL THE ENTIRE STRUCTURE IS COMPLETE TO PREVENT DAMAGE DURING CONSTRUCTION, ESPECIALLY DUE TO BACK FILLING AND SOIL COMPACTION OPERATIONS.

40.21 ALL CMU WALLS RETAINING MORE THAN 24" OF UNBALANCED FILL MUST BE ENGINEERED BY A LICENSED PROFESSIONAL ENGINEER.

50.00 PRE-ENGINEERED HANDRAILS AND STAIRS:

SUBMITTALS REQUIRED: DELEGATED DESIGN STRUCTURAL SUBMITTAL SHALL BE SUBMITTED TO THE E.O.R. FOR APPROVAL PRIOR TO FABRICATION AND INSTALLATION.

50.01 HANDRAILS AND GUARDRAILS, AS WELL AS THEIR CONNECTIONS, SHALL BE DESIGNED BY A SPECIALTY ENGINEER REGISTERED IN THE STATE OF FLORIDA. HANDRAIL AND GUARDRAIL SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY THE SPECIALTY ENGINEER. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR HANDRAIL LOCATIONS, CONFIGURATIONS AND MATERIALS.

50.02 SELF SUPPORTING STAIRS AND STRUCTURAL STAIR ASSEMBLIES (SPIRAL, CANTILEVERED, ROUNDED, ETC.), AS WELL AS THEIR CONNECTIONS, SHALL BE DESIGNED BY A SPECIALTY ENGINEER REGISTERED IN THE STATE OF FLORIDA. SUBMITTAL DRAWINGS SHALL BE SIGNED AND SEALED BY THE SPECIALTY ENGINEER. SUBMITTAL SHALL INCLUDE AND REACTIONS FOR ALL CONNECTIONS TO THE STRUCTURAL FRAMEWORK. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR LOCATIONS, CONFIGURATIONS AND MATERIALS.

50.03 CONCRETE FILLED METAL PAN STAIRS, AS WELL AS THEIR CONNECTIONS, SHALL BE DESIGNED BY A SPECIALTY ENGINEER REGISTERED IN THE STATE OF FLORIDA. SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY THE SPECIALTY ENGINEER. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR LOCATIONS, CONFIGURATIONS AND MATERIALS

90.00 STRUCTURAL STEEL

SUBMITTALS REQUIRED:
1. STEEL MFGR TO SUBMIT SHOP DRAWINGS FOR STRUCTURAL STEEL DIMENSIONS, LAYOUT AND ERECTION. SHOP DRAWINGS MUST INCLUDE MEMBER SPECIFICS AND CONSTRUCTION DETAILS PRIOR TO FABRICATION.
2. DELEGATED DESIGN STRUCTURAL SUBMITTAL SHALL BE SUBMITTED TO THE E.O.R. FOR ALL STEEL CONNECTIONS UNLESS OTHERWISE APPROVED BY THE EOR IN WRITING. THIS SUBMITTAL MUST INCLUDE DESIGN CALCULATIONS AND CONSTRUCTION DETAILS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA. EOR MUST APPROVE THE STRUCTURAL SUBMITTAL IN WRITING PRIOR TO FABRICATION.

SPECIAL INSPECTION: ANY CONNECTIONS OTHER THAN AISC PRE-APPROVED CONNECTIONS MUST BE INSPECTED.

90.01 STEEL CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE TOLERANCES, QUALITY, AND METHODS OF CONSTRUCTION AS SET FORTH IN THE FLORIDA BUILDING CODE AND WITH AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" NINTH EDITION.

90.02 STRUCTURAL STEEL SHALL CONFORM TO ASTM A572 GRADE 50 EXCEPT STRUCTURAL TUBING SHALL CONFORM TO ASTM A500 GRADE B. ALL EXPOSED STAINLESS STEEL SHALL BE GRADE 316, ALL OTHER STRUCTURAL STAINLESS STEEL APPLICATIONS SHALL BE GRADE 304 UNLESS NOTED OTHERWISE.

90.03 STRUCTURAL STEEL SHALL HAVE THE FOLLOWING MINIMUM YIELD STRENGTHS, UNLESS NOTED OTHERWISE ON THE DRAWINGS: STRUCTURAL TUBING (FY= 46 KSI), ANGLES, CHANNELS & PLATES (FY= 36 KSI), W-SECTIONS & WT'S (FY= 50 KSI)

90.04 HIGH STRENGTH BOLTING SHALL BE IN ACCORDANCE WITH AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS" (LATEST EDITION).

90.05 HIGH STRENGTH BOLTS, NUTS AND HARDENED WASHERS SHALL BE ASTM A325; MACHINE BOLTS AND NUTS SHALL BE ASTM A307 UNO.

90.06 ERECTION BOLTS USED IN HIGH STRENGTH BOLTED CONNECTIONS SHALL BE REMOVED AND REPLACED WITH HIGH STRENGTH BOLTS.

90.07 WHEN CONNECTIONS REQUIRE FIELD PREPARATION OF BOLT HOLES, THE HOLES SHALL BE DRILLED AND THE DIAMETER OF THE BOLT HOLES SHALL BE 1/16" GREATER THAN THE NOMINAL BOLT DIAMETER.

90.08 HEADED STUD SHEAR CONNECTORS: ASTM A 108, GRADES 1010 THROUGH 1020, HEADED-STUD TYPE, COLD-FINISHED CARBON STEEL; AWS D1.1, TYPE B. USE AUTOMATIC END WELDING OF HEADED-STUD SHEAR CONNECTORS ACCORDING TO AWS D1.1 AND MANUFACTURER'S WRITTEN INSTRUCTIONS.

90.09 COMPOSITE CONSTRUCTION SHEAR CONNECTORS: SOLID FLUXED SHEAR CONNECTORS STUDS AUTOMATICALLY WELDED THROUGH THE METAL DECK AS SHOWN ON THE DRAWINGS AND IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER (NELSON DIVISION OF TRW OR APPROVED EQUAL).

90.10 DEFORMED BAR ANCHORS (INDICATED AS "DBA" ON PLANS): DEFORMED STEEL REINFORCING BARS IN ACCORANCE WITH ASTM A-496 SPECIFICATIONS, YIELD STRENGTH 70 KSI. USE AUTOMATIC END WELDING OF HEADED-STUD SHEAR CONNECTORS ACCORDING TO AWS D1.1 AND MANUFACTURER'S WRITTEN INSTRUCTIONS.

90.11 WELDING SHALL BE IN ACCORDANCE WITH AMERICAN WELDING SOCIETY SPECIFICATIONS AWS D1.1 (LATEST EDITION).

90.12 WELDING ELECTRODES USED FOR SHOP OR FIELD CONNECTIONS ARE E70XX UNO WITH A MINIMUM ELECTRODE TENSILE STRENGTH OF 70 KSI. ELECTRODES SHALL CONFORM TO AWS A5. USE PRE-QUALIFIED WELDED JOINTS AS PER AISC, AND AWS D1.1 "STRUCTURAL WELDING CODE." USE ONLY CERTIFIED WELDERS. BARE ELECTRODE AND GRANULAR FLUX SHALL CONFORM TO AWS A5, F70 AWS FLUX CLASSIFICATION. MINIMUM WELD SIZE TO BE 3/16" FILLET WELD, U.N.O.

90.13 CUTS, BOLTS, COPING, ETC. REQUIRED FOR WORK OR OTHER TRADES SHALL BE SHOWN ON THE SHOP DRAWINGS AND MADE IN THE SHOP. CUTS OR BURNING HOLES IN STRUCTURAL STEEL MEMBERS IN THE FIELD WILL NOT BE PERMITTED. ANY FIELD CORRECTING OF FABRICATED STEEL SHALL NOT BE PERMITTED ON STRUCTURAL FRAMING MEMBERS WITHOUT PRIOR WRITTEN APPROVAL BY THE E.O.R.

90.14 PROVIDE STIFFENER PLATES ON EACH SIDE OF WEB OF BEAM OR GIRDER AT POINTS OF CONCENTRATED LOADS. MINIMUM STIFFENER PLATE THICKNESS SHALL BE 3/8" OR FLANGE THICKNESS OF COLUMNS ABOVE OR BELOW, WHICHEVER IS THICKER.

90.15 FILLER BEAMS OR JOISTS SHOULD BE SPACED EQUALLY BETWEEN THE COLUMNS IF NOT SHOWN OTHERWISE ON THE DRAWINGS.

90.16 FABRICATOR SHALL PREPARE STRUCTURAL SUBMITTAL DOCUMENTS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. PRE-APPROVED CONNECTIONS LISTED WITHIN THESE DOCUMENTS SHALL BE DETAILED BASED ON THE DESIGN INFORMATION PROVIDED IN THE CONTRACT DOCUMENTS. ALL DOCUMENTS MUST BE APPROVED PRIOR TO FABRICATION/INSTALLATION.

90.17 WHERE PRE-APPROVED CONNECTIONS ARE NOT SPECIFIED FOR USE, ALL MEMBER CONNECTIONS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEERING LICENSED IN THE STATE OF FLORIDA ACTING AS A DELEGATE SPECIALTY STRUCTURAL ENGINEER (SSE) IN ACCORDANCE WITH APPROVED ENGINEERING PRACTICE. A STRUCTURAL SUBMITTAL SIGNED AND SEALED BY THE SSE TO THE EOR, INCLUDING ALL ASSOCIATED DETAILING AND DESIGN CALCULATIONS, MUST BE APPROVED PRIOR TO FABRICATION.

90.18 STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL AND MECHANICAL DRAWINGS AND DRAWINGS RELATED TO OTHER TRADES. CONTRACTOR SHALL BE RESPONSIBLE TO CHECK AND COORDINATE DIMENSIONS, CLEARANCES, ETC. WITH THE WORK OF OTHER TRADES. THE STRUCTURAL STEEL CONTRACTOR SHALL PROVIDE FRAMING AROUND OPENINGS IN FLOOR AND ROOF SLAB AS INDICATED IN THE MECHANICAL AND ARCHITECTURAL DRAWINGS.

90.19 STRUCTURAL STEEL CONTRACTOR SHALL COORDINATE THE BOTTOM OF BASE PLATE ELEVATION WITH THE TOP OF CONCRETE ELEVATION. IN CASE OF CONFLICT, THE CONTRACTOR SHALL MAKE ALLOWANCE IN HIS BID FOR MORE STRINGENT REQUIREMENTS

90.20 ALL STRUCTURAL STEEL SHALL BE GALVANIZED UNLESS OTHERWISE NOTED ON PLANS AND APPROVED PRIOR TO FABRICATION.

90.21 WHEN APPROVED PRIOR TO FABRICATION: THE MINIMUM STEEL STANDARD SHOP PAINT SHALL BE RED ALKYD ZINC CHROMATE PRIMER PER FEDERAL SPECIFICATION TT-P-664 OR EQUIVALENT PROVIDED APPROVED PER MANUFACTURERS STANDARD. REFER TO ARCHITECTURAL SPECIFICATIONS FOR ACTUAL PROJECT SPECIFIC FINISH COAT RECOMMENDATIONS.

90.22 STEEL SURFACES SHALL BE CLEANED IN ACCORDANCE WITH SSPC-SP3, FOR PREPARATION PRIOR TO PRIMER PAINTING, UNLESS REQUIRED OTHERWISE BY PRIMER MANUFACTURER. ALL WELDED, BURNED, OR OTHERWISE DAMAGED AREAS SHALL BE REPAIRED AND RECOATED IN ACCORDANCE WITH COATING MATERIAL MANUFACTURER'S RECOMMENDATIONS.

90.23 DO NOT PAINT STEEL SURFACES TO BE ENCASED IN CONCRETE OR RECEIVE SPRAYED ON FIREPROOFING, CONNECTIONS DESIGNATED AS SLIP CRITICAL, OR TO BE WELDED. STEEL SURFACES RECEIVING AUTOMATICALLY WELDED SHEAR CONNECTORS STUDS IN THE FIELD SHALL NOT BE PAINTED.

90.24 PLAN SPECIFIED STAINLESS STEEL ELEMENTS SHALL NOT BE SUBSTITUTED FOR ANY OTHER MATERIAL, IRON BASED ALLOY, OR FINISH WITHOUT WRITTEN APPROVAL OF E.O.R. PRIOR TO FABRICATION.

90.25 PROVIDE TEMPORARY BRACING OF STRUCTURAL FRAMING TO PROVIDE LATERAL SUPPORT UNTIL ALL PERMANENT BRACING MOMENT CONNECTIONS AND FLOOR AND ROOF DECKS (DIAPHRAGMS) ARE COMPLETELY INSTALLED.

90.26 SEE ARCHITECTURAL DOCUMENTS FOR ADDITIONAL MISCELLANEOUS STEEL REQUIRED.

90.20 ALL STRUCTURAL STEEL SHALL BE GALVANIZED UNLESS OTHERWISE NOTED ON PLANS AND APPROVED PRIOR TO FABRICATION.

90.21 WHEN APPROVED PRIOR TO FABRICATION: THE MINIMUM STEEL STANDARD SHOP PAINT SHALL BE RED ALKYD ZINC CHROMATE PRIMER PER FEDERAL SPECIFICATION TT-P-664 OR EQUIVALENT PROVIDED APPROVED PER MANUFACTURERS STANDARD. REFER TO ARCHITECTURAL SPECIFICATIONS FOR ACTUAL PROJECT SPECIFIC FINISH COAT RECOMMENDATIONS.

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90.25 PROVIDE TEMPORARY BRACING OF STRUCTURAL FRAMING TO PROVIDE LATERAL SUPPORT UNTIL ALL PERMANENT BRACING MOMENT CONNECTIONS AND FLOOR AND ROOF DECKS (DIAPHRAGMS) ARE COMPLETELY INSTALLED.

90.26 SEE ARCHITECTURAL DOCUMENTS FOR ADDITIONAL MISCELLANEOUS STEEL REQUIRED.

Corey Alan Marchman, PE
FL Reg. No. 75452

WALTON COUNTY WIND LOAD STATEMENT

I CERTIFY THAT THE DESIGN PLANS AND SPECIFICATIONS FOR THIS CONSTRUCTION ARE IN COMPLIANCE WITH THE CRITERIA ESTABLISHED BY THE FLORIDA BUILDING CODE 7TH EDITION (2020) AND SECTION 4.02.06 OF THE WALTON COUNTY LAND DEVELOPMENT CODE. THIS BUILDING AND/OR STRUCTURE IS DESIGNED TO WITHSTAND A WIND VELOCITY OF 140 MPH (ASCE 7-16) AND CHAPTER 16 OF THE FLORIDA BUILDING CODE.

UPON COMPLETION OF THIS BUILDING AND/OR STRUCTURE, I WILL CERTIFY AT THAT TIME THE BUILDING AND/OR STRUCTURE HAS COMPLIED WITH THIS SPECIFIC BUILDING DESIGN. THIS MUST BE ON FILE AT THE WALTON COUNTY BUILDING DEPARTMENT BEFORE RECEIVING AN INSPECTION FOR POWER. I UNDERSTAND THAT ANY CHANGE IN DESIGN OR SPECIFICATION MUST BE SUBMITTED IN WRITING BY ME TO THE BUILDING DEPARTMENT. ALL DRAWINGS AND/OR CORRESPONDENCE SHALL BE SIGNED AND SEALED.

TYPICAL REQUIRED SCHEDULE OF INSPECTIONS

1. FOUNDATION:
   - DEEP FOUNDATION ELEMENTS MUST BE MONITORED DURING INSTALLATION PER NOTES.
   - OTHER: AEG MUST REVIEW AND APPROVE GENERAL FOUNDATION LAYOUT, ELEMENT SIZES, AND REINFORCING PRIOR TO CONCRETE POUR. ALL VERT. DOWEL REINF. MUST BE IN PLACE & TIED.
2. MASONRY CONSTRUCTION:
   - FOUNDATION STEM WALLS AND PIERS VERT. REINF., HORZ. REINF. & TIES
   - REINF. FOR CMU WALLS, PARTITIONS, SITE WALLS & RETAINING WALLS
   - REINF. REVIEW FOR LINTELS, BOND BEAMS, WALL TOP-OUT'S
   - SPECIAL INSPECTION REQUIRED FOR ALL REINF. NOT CENTERED WITHIN CELLS.
3. CAST-IN-PLACE CONCRETE:
   - REINF. FOR WALLS & COLUMNS PRIOR TO CLOSING FORMWORK
   - REINF. IN PILE CAPS, GRADE BEAMS, SLAB-ON-GRADE, CAST BEAMS, & STRUCTURAL SLABS
4. GENERAL FRAMING/STRAPPING:
   - FIRST FLOOR FRAMING LAYOUT & CONNECTORS MUST BE REVIEWED PRIOR TO DECKING
   - WALL SYSTEM FRAMING W/ KING STUDS AND STUD PACKS WHERE SPECIFIED
   - PLAN SPECIFIC STRUCTURAL ELEMENTS INCLUDING BEAMS, COLUMNS
   - REVIEW OF TRUSS FRAMING INSTALLATION *PRE-APPROVAL OF STRUCTURAL SUBMITTAL IS REQUIRED*
   - PLAN SPECIFIED CONNECTIONS, HOLDOWNS, STRAPPING & ANCHORING
5. ENGINEER FINAL INSPECTION & COUNTY WIND LOAD CERTIFICATION:
   - PRIOR TO FINAL CERT. THE EOR MUST PERFORM A FINAL WALK-THROUGH OF ALL PORTIONS OF THE STRUCTURE INCLUDED WITH EACH PERMIT NUMBER ASSOCIATED WITH THE PROJECT. THE BUILDING ENVELOPE MUST BE 100% STRUCTURALLY COMPLETE AND ENCLOSED AT THE TIME OF INSPECTION.

INSPECTION NOTES:
- A. THE E.O.R. CHECKPOINT INSPECTIONS LISTED ABOVE ARE SEPARATE FROM, AND IN NO WAY SUPPLANT THE COUNTY BUILDING INSPECTOR'S REQUIRED CONSTRUCTION INSPECTIONS.
- B. THE CONTRACTOR SHOULD TAKE ADEQUATE PICTURES OF ALL STRUCTURAL ELEMENTS DURING EACH AND ALL PHASES OF CONSTRUCTION TO PROVIDE VERIFICATION OF STRUCTURAL ELEMENTS AND CONSTRUCTION METHODS TO THE E.O.R. or BUILDING OFFICIAL UPON REQUEST.
- C. INSPECTIONS MUST BE SCHEDULED A MINIMUM OF 24 HOURS IN ADVANCE. ON SITE CANCELLATIONS WILL NOT BE ACCEPTED. SCHEDULING AND COORDINATING OF THESE INSPECTIONS IS THE CONTRACTOR'S RESPONSIBILITY.
- D. RE-INSPECTIONS RESULTING FROM REQUIRED REMEDIAL ACTIONS, CONTRACTOR ERROR, OR SCHEDULING MISS-QUEUE ARE IN ADDITION TO THE SCHEDULED INSPECTION FREQUENCY.
- E. THIS SCHEDULE MAY NOT INCLUDE ADDITIONAL "SPECIAL INSPECTIONS" NOTED BY EOR IN THE PROJECT PLAN SPECIFICATION NOTES. READ EACH SECTION FULLY TO IDENTIFY ADDITIONAL REQUIREMENTS.

REQUIRED STRUCTURAL SUBMITTALS

IN ADDITION TO ANY SUBMITTALS REQUIRED BY THE PROJECT SPECIFICATIONS OR ELSEWHERE IN THE CONST DOCUMENTS, THE FOLLOWING "STRUCTURAL SUBMITTALS" ARE TYPICALLY REQUIRED FOR REVIEW BY THE S.E.O.R. WHEN APPLICABLE:

1. GEOTECHNICAL INVESTIGATIONS:
   - REQUIRED AT ANY LOCATION WHERE QUESTIONABLE SOILS ARE ENCOUNTERED PER 1803.5.2.
   - REQUIRED FOR ALL DEEP FOUNDATION DESIGNS PER 1803.5.5 PRIOR TO CONSTRUCTION.
   - REQUIRED FOR EXCAVATION NEAR ADJACENT STRUCTURES AND FOUNDATIONS PER 1803.5.7.
   - REQUIRED FOR ANY DE-WATERING ACTIVITIES WITHIN 100' OF ANY ADJACENT FOUNDATION.
   - REQUIRED FOR STRUCTURAL COMPACTED FILL MATERIAL GREATER THAN 12" PER 1803.5.8.
2. CONCRETE:
   - THE CONTRACTOR SHALL SUBMIT ANY/ALL CONCRETE ADMIXTURES FOR APPROVAL PRIOR TO USE.
   - ONE CONCRETE 28-DAY STRENGTH TEST PER ASTM C39 FOR EVERY 50 YARDS OF CONCRETE DELIVERED TO THE SITE FOR STRUCTURAL CONCRETE APPLICATIONS U.N.O.
3. CONCRETE AND REINFORCING DETAILING:
   - CONCRETE DETAILING REINFORCEMENT AND ACCESSORIES PER ACI 315-80 DETAILING MANUAL. SUBMIT SHOP DRAWINGS PER F.A.C. 61G15-30.002 (8) FOR APPROVAL, SHOWING ALL FABRICATION DIMENSIONS AND LOCATIONS FOR PLACING REINFORCEMENT STEEL AND ACCESSORIES. DO NOT BEGIN FABRICATION UNTIL SHOP DRAWINGS ARE COMPLETE, REVIEWED, AND APPROVED.
4. ENGINEERED FILL COMPACTION TESTING:
   - SUBMIT MATERIAL TESTING REPORT VERIFYING MINIMUM COMPACTION DENSITY WAS REACHED FOR STRUCTURAL COMPACTED FILL.
5. STRUCTURAL STEEL AND CONNECTIONS:
   - SUBMIT SHOP DRAWINGS PER F.A.C. 61G15-30.002 (8) PREPARED IN ACCORDANCE WITH AISC MANUAL "DETAILING FOR STEEL CONSTRUCTION". DO NOT BEGIN FABRICATION UNTIL SHOP DRAWINGS ARE COMPLETE, REVIEWED, AND APPROVED.
6. HANDRAILS AND STAIRS:
   - ASSEMBLY GEOMETRY, MATERIALS, CONNECTIONS, CALCULATIONS AND REACTIONS.

STRUCTURAL SUBMITTAL NOTES:
- A. STRUCTURAL SUBMITTALS TO APEX ENGINEERING GROUP, P.L.L.C. WILL BE REVIEWED AND RETURNED WITHIN TEN (10) BUSINESS DAYS OF SUBMITTAL IN ACCORDANCE WITH INDUSTRY STANDARD PRACTICES UNLESS OTHERWISE SPECIFIED IN THE CONTRACT OR CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHOULD PLAN ACCORDINGLY TO PREVENT PROJECT DELAYS.
- B. COORDINATE STRUCTURAL CONTRACT DOCUMENTS WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND CIVIL. NOTIFY STRUCTURAL ENGINEER OF ANY CONFLICT AND/OR OMISSION. CONTRACTOR SHALL MAKE NO DEVIATION FROM DESIGN DRAWINGS WITHOUT WRITTEN APPROVAL OF THE ARCHITECT. FOR ADDITIONAL OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS, SEE ARCHITECTURAL, MECHANICAL, AND PLUMBING DRAWINGS.
- C. REVIEW OF SUBMITTALS AND/OR SHOP DRAWINGS BY THE STRUCTURAL ENGINEER DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO REVIEW AND CHECK SHOP DRAWINGS BEFORE SUBMITTAL TO THE STRUCTURAL ENGINEER. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS, AND DIMENSIONS SPECIFIED IN THE CONTRACT DOCUMENTS. CONTRACTOR IS ALSO RESPONSIBLE FOR MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION.
- D. ALL "STRUCTURAL SUBMITTALS" SHALL BE PREPARED BY A "SPECIALTY ENGINEER" IN ACCORDANCE WITH THE FBC2020, F.A.C. 61G15, AND F.S. CHAPTER 471.
- E. SHOP DRAWINGS PREPARED SOLELY AS A GUIDE FOR ERECTION AND INSTALLATION AND CATALOG INFORMATION WILL NOT REQUIRE AN ENGINEER'S SEAL; HOWEVER, THEY SHALL BEAR THE ENGINEER'S SIGNATURE INDICATING THAT HE/SHE HAS CHECKED THE WORK.
- F. DRAWINGS INTRODUCING ENGINEERING INPUT AND CALCULATIONS SHALL BE SEALED BY THE ENGINEER PREPARING SUCH WORK F.A.C. 61G15-30.006 (3).
- G. THE REVIEW OF STRUCTURAL SUBMITTALS BY THE E.O.R. SHALL ENSURE THAT THE SUBMITTALS HAVE BEEN FURNISHED AND PREPARED BY A QUALIFIED PERSON, THAT THE DELEGATED ENGINEER OF RECORD UNDERSTOOD THE INTENT OF THE DESIGN AND USED THE SPECIFIED CRITERIA, AND THAT THE CONFIGURATION OF THE DESIGN IS CONSISTENT WITH THE CONSTRUCTION DOCUMENTS. NO DETAILED CHECK OF DIMENSIONS WILL BE MADE.
- H. ANY DESIGN CHANGES MADE BY A "VALUE, SPECIALTY OR DELEGATED ENGINEER" SHALL BE PERFORMED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA. PRIOR TO FABRICATION ALL DESIGN CHANGES MUST BE SUPPORTED BY CALCULATIONS, SIGNED AND SEALED THEN SUBMITTED TO THE E.O.R. FOR APPROVAL.
- I. REFER TO F.A.C. SECTION 61G15-23.002, 30.002, 30.006 AND 31.002 FOR ADDITIONAL INFORMATION.

Not Valid without Original Signature.

APEX ENGINEERING GROUP, PLLC
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Florida Certificate of Authorization: # 32176
Phone: 850-231-4540, Email: info@apexengineeringgroup.net

GRAYTON BEACH
TRANSIT FACILITY
ADA RAMPS
WALTON COUNTY, FL

PROJECT NUMBER:	4002-2301
DESIGNED BY:	CAM
REVIEWED BY:	n/a
SHEET SCALE:	N.T.S.

RELEASE RECORD:

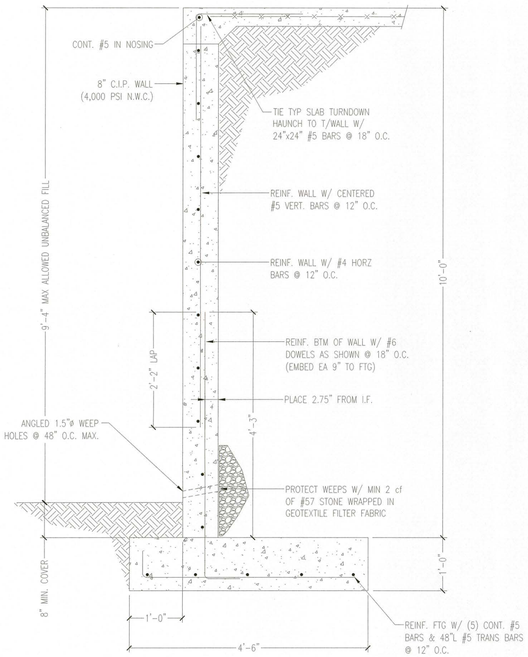
REVIEW ONLY / N.F.C.	03-29-2023
PERMIT	08-01-2023

DRAWING TITLE:

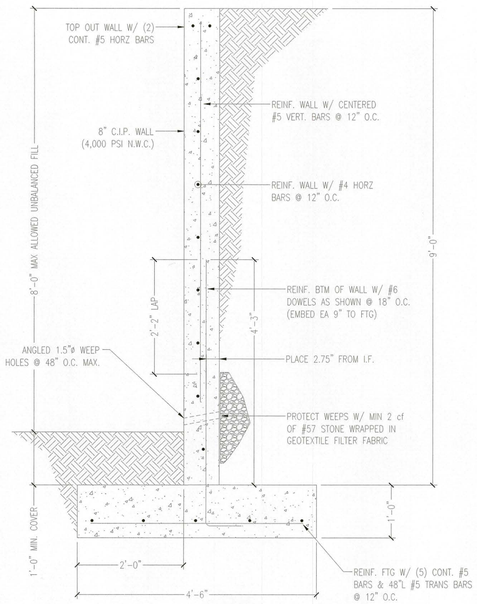
STRUCTURAL DESIGN NOTES

DRAWING NO.

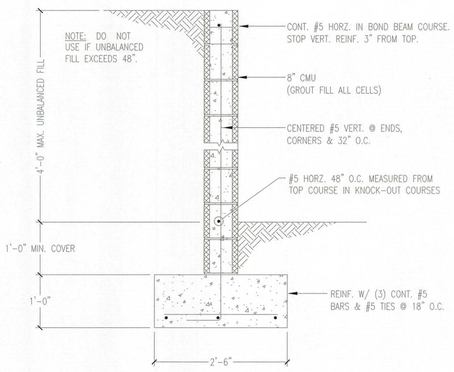
S-001



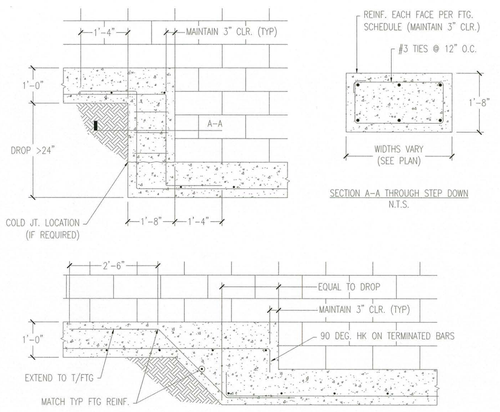
A S-501 RAMP RETAINING WALL SECTION
3/4" = 1'-0"



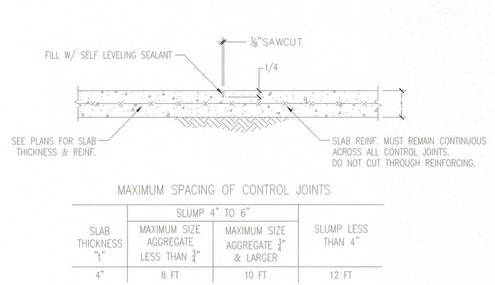
B S-501 8' FREE STANDING RETAINING WALL
3/4" = 1'-0"



C S-501 4' FREE STANDING RETAINING WALL
3/4" = 1'-0"



D S-501 TYP. FTG. REINF. @ CHANGE IN ELEV.
1/2" = 1'-0"



MAXIMUM SPACING OF CONTROL JOINTS

SLAB THICKNESS "t"	SLUMP 4" TO 6"		SLUMP LESS THAN 4"
	MAXIMUM SIZE AGGREGATE LESS THAN ¾"	MAXIMUM SIZE AGGREGATE ¾" & LARGER	
4"	8 FT	10 FT	12 FT

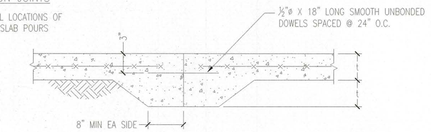
CONTROL JOINT NOTES:

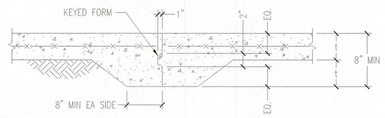
1. THE ACTUAL LOCATIONS OF ALL CONTROL JOINTS MUST BE FIELD LOCATED BY THE CONTRACTOR.
2. PLAN DENOTED CONTROL JOINTS ARE APPROXIMATE OR SHOWN FOR GENERAL INSTRUCTION ONLY. ACTUAL LOCATIONS SHALL BE VERIFIED TO LIMIT THE FREQUENCY AND WIDTH OF RANDOM CRACKS IN THE CONCRETE SLAB.
3. LOCATION AND INSTALLATION OF ALL CONTROL JOINTS SHALL BE IN ACCORDANCE WITH ACI 360R "DESIGN OF SLABS ON GROUND" AND THE DETAILS THEREIN.
4. MAXIMUM SPACING OF JOINTS SHALL BE PER THE TABLE IN THIS DETAIL UNLESS OTHERWISE APPROVED.
5. SLAB SHALL BE SAWN AS SOON AS THE CONCRETE WILL SAFELY SUPPORT MEN AND EQUIPMENT AFTER HARDENING.
6. KEYED FORM TO BE REMOVED BEFORE ADJACENT SLAB IS POURED.

E S-501 SLAB CONTROL JOINTS
N.T.S.

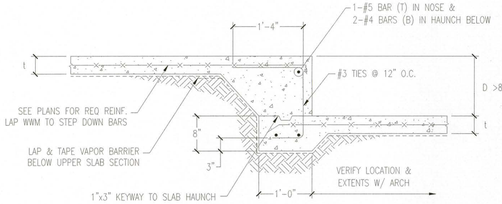
CONSTRUCTION JOINTS

REQUIRED AT ALL LOCATIONS OF DISCONTINUOUS SLAB POURS



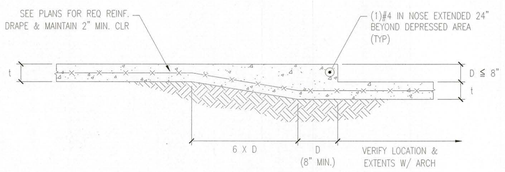


F S-501 TYP. CONC. FINISHING DETAILS
3/4" = 1'-0"

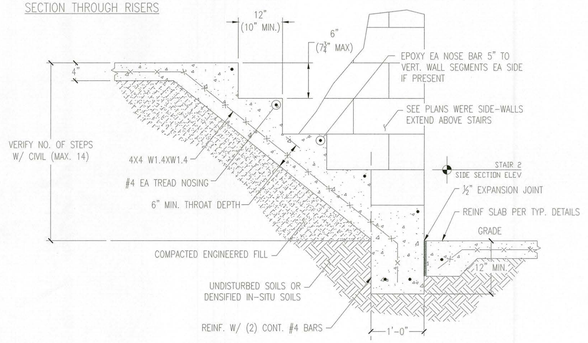


I S-501 TYP. NON-BEARING SLAB STEP DOWNS
3/4" = 1'-0"

NOTE:
"t" = SLAB THICKNESS. SEE PLANS.
"D" = DEPTH OF SLAB DEPRESSION. VERIFY W/ ARCH.

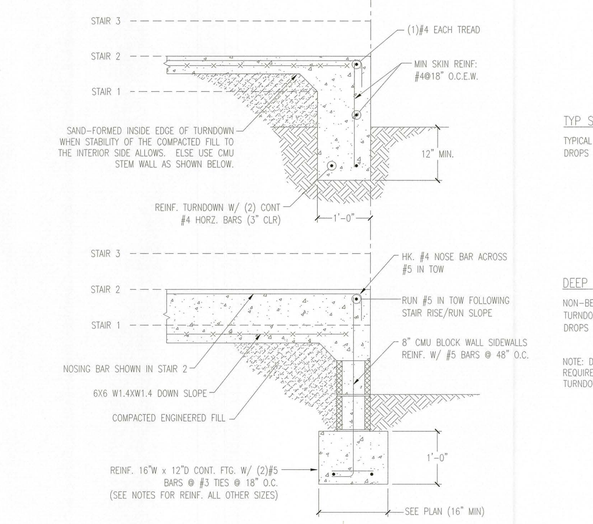


SECTION THROUGH RISERS

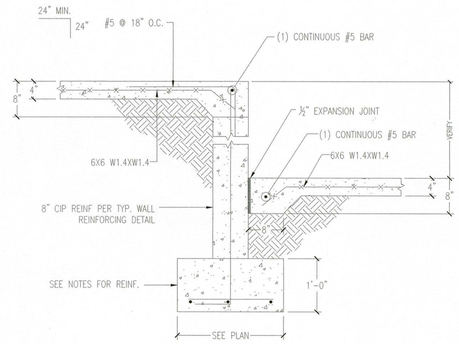


SIDE SECTION

PARTIAL VIEW & REINF. SHOWN FOR STAIR 2 ONLY. REPEAT EA STAIR ELEV.



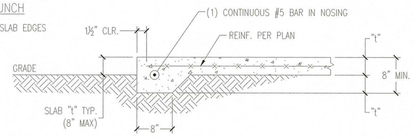
G S-501 FREE-STANDING S.O.G. STEPS
3/4" = 1'-0"



H S-501 TYPICAL SLAB PERIMETER @ WALL
3/4" = 1'-0"

TYP SLAB HAUNCH

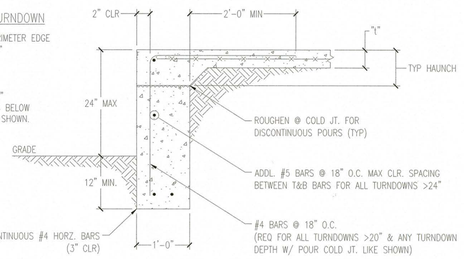
TYPICAL FOR ALL SLAB EDGES DROPS ≤ 8"



DEEP SLAB TURNDOWN

NON-BEARING PERIMETER EDGE TURNDOWNS ≤ 36" DROPS ≤ 24"

NOTE: DROPS >24" REQUIRE FOOTINGS BELOW TURNDOWN. NOT SHOWN.



J S-501 TYPICAL SLAB PERIMETER CONDITIONS
3/4" = 1'-0"

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GRAYTON BEACH
TRANSIT FACILITY
ADA RAMPS
WALTON COUNTY, FL

PROJECT NUMBER:	4002-2301
DESIGNED BY:	CAM
REVIEWED BY:	n/a
SHEET SCALE:	AS NOTED

RELEASE RECORD:

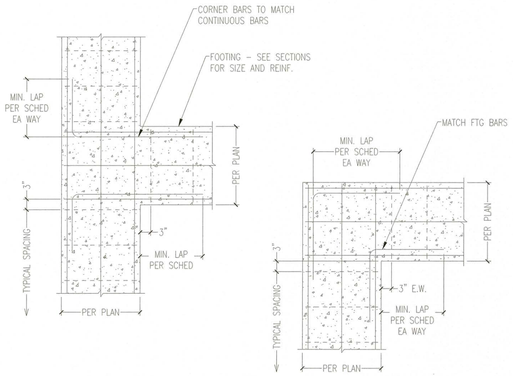
REVIEW ONLY / N.F.C.	03-29-2023
PERMIT	08-01-2023

DRAWING TITLE:

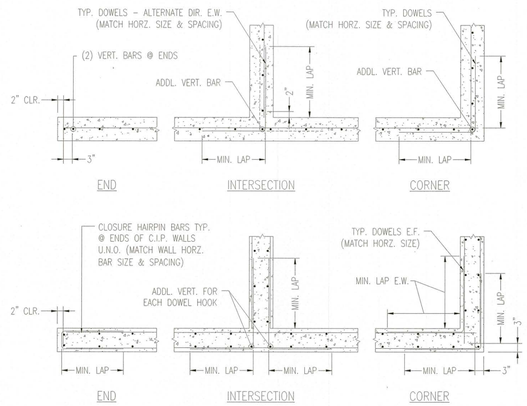
CONSTRUCTION DETAILS

DRAWING NO.

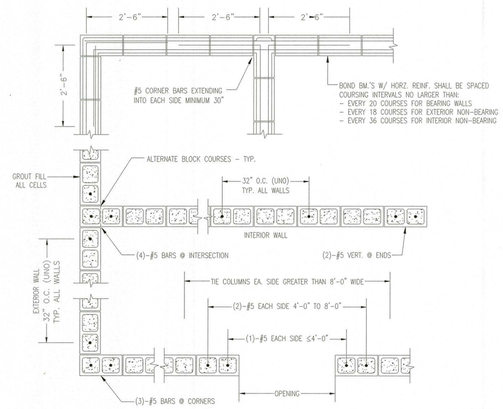
S-501



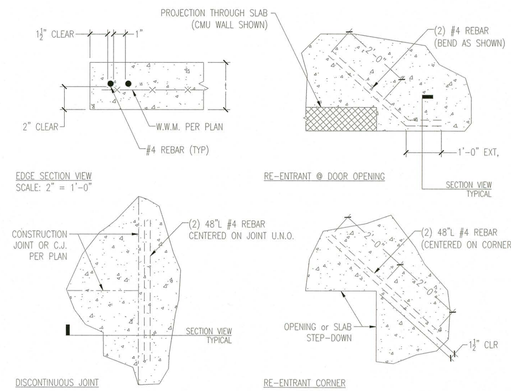
A S-502 TYPICAL FTG. REINF. @ INTERSECTIONS
N.T.S.



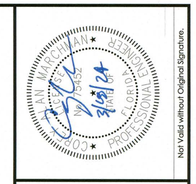
B S-502 TYP. C.I.P. WALL REINF.
1/2" = 1'-0"



C S-502 TYP. CMU WALL REINFORCING
N.T.S.



D S-502 SUPPLEMENTAL SLAB REINF.
1/2" = 1'-0"



Not Valid without Original Signature.

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GRAYTON BEACH
TRANSIT FACILITY
ADA RAMPS
WALTON COUNTY, FL

PROJECT NUMBER:	4002-2301
DESIGNED BY:	CAM
REVIEWED BY:	n/a
SHEET SCALE:	AS NOTED

RELEASE RECORD:

REVIEW ONLY / N.F.C.	03-29-2023
PERMIT	08-01-2023

DRAWING TITLE:

CONSTRUCTION DETAILS

DRAWING NO.

S-502

COUNTY ROAD 283 SOUTH
(80' RIGHT-OF-WAY)

CCS/ 120
SCRUB MINT

EXISTING TREE TO
REMIAN (TYP)

MVS/ 4
SWEET BAY

TFD/ 177
DWARF FAKAHATCHEE GRASS

MGD/ 4
MAGNOLIA DD BLANCHARD

TFD/ 117
DWARF FAKAHATCHEE GRASS

CCS/ 125
SCRUB MINT

* EHC/ 6
CORAL BEAN

TFD/ 133
DWARF
FAKAHATCHEE
GRASS

PROPERTY LINE

EXISTING DRAINAGE FACILITY

* EHC/ 7
CORAL BEAN

WETLAND LIMIT

LIMIT OF WORK LINE

MGD/ 2
MAGNOLIA DD BLANCHARD

* ATB/ 9
BUTTERFLY MILKWEED

TFD/ 97
DWARF
FAKAHATCHEE
GRASS

TFD/ 61
DWARF
FAKAHATCHEE
GRASS

ICD/ 1
DAHOON HOLLY

VOD/ 20
DWARF WALTERS
VIBURNUM

* EHC/ 23
CORAL BEAN
(3 BEDS)

LMG/ 600
GOPHER APPLE

QVL/ 16
LIVE OAK
(8 ISLAND BEDS)

LMG/ 600
GOPHER APPLE

IRRIGATION WELL
REFER TO
IRRIGATION PLANS

LTP/ 3
TULIP POPLAR

HQO/ 6
OAK LEAF
HYDRANGEA

TFD/ 76
DWARF
FAKAHATCHEE
GRASS

HQO/ 7
OAK LEAF
HYDRANGEA

TDC/ 7
BALD CYPRESS

HFD/ 915
DAY LILY

TFD/ 294
DWARF FAKAHATCHEE GRASS
(3 BEDS)

* ATB/ 14
BUTTERFLY MILKWEED

*LSB/ 8
BLAZING STAR

* ATB/ 12
BUTTERFLY MILKWEED

SOD
2175 SF

LIMIT OF WORK LINE

SRS/ 6
SAW PALMETTO

YCF/ 13
YUCCA

SRS/ 7
SAW PALMETTO

PROPOSED
DRAINAGE
FACILITY

CCS/ 220
SCRUB MINT

* LSB/ 6
BLAZING STAR

CCS/ 215
SCRUB MINT

10 designated native planting
* refer to civil plans for entire extents

BIKE RACKS
Refer to Civil
Drawings

VOD/ 32
DWARF WALTERS VIBURNUM

LSR/ 2
FRUITLESS
SWEETGUM

JBP/ 460
BLUE PACIFIC
JUNIPER

SRS/ 22
SAW PALMETTO

LSB/ 9
BLAZING STAR

YCF/ 8
YUCCA

HFD/ 512
DAY LILY

* LSB/ 6
BLAZING STAR

YCF/ 8
YUCCA

HFD/ 390
DAY LILY

SOD AS SPECIFIED
REQUIRED
AROUND
HYDRANT
LOCATION PER
CIVIL PLANS

PROPERTY LINE

SOD
9375 SF

SPB/ 3
SABAL PALM

* GPB/ 320
BLANKET FLOWER

* GPB/ 82
BLANKET FLOWER

COVERED
DROP-OFF

WETLAND LIMIT

LIMIT OF WORK LINE

1110 LF OF
NATIVE
PLANTING
BUFFER ZONE.
REFER TO
DETAIL B/L2.

IVN/ 26
DWARF YAUPON
HOLLY

LTP/ 3
TULIP POPLAR

TFD/ 133
DWARF FAKAHATCHEE GRASS

MCG/ 90
MUHLY GRASS

FACILITIES
BUILDING

SPB/ 3
SABAL PALM

ZFC/ 75
COONTIE

ZFC/ 70
COONTIE

SPB/ 6
SABAL PALM, BOTH SIDES

MCG/ 140
MUHLY GRASS

(*) - ASTERISK INDICATES NATIVE PLANTS WHICH HAVE BEEN APPROVED PREVIOUSLY BY THE SCENIC CORRIDOR DESIGN REVIEW BOARD AND WALTON COUNTY PLANNING DIRECTOR.

0' 20' 40' 60'
ONE INCH EQUALS 20 FEET
SCALE IN FEET

NORTH

REVISIONS			
NO.	DATE	DESCRIPTION	BY

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
PKH	CRS,AHB	PKH,CRS	PKH

PLANTING BASE SHEET

GRAYTON BEACH
PARKING AREA
COUNTY HIGHWAY 283 SOUTH
SANTA ROSA BEACH 32459

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

PREPARED BY:
THE PATRICK HODGES LAND STUDIO
PLANNING + URBAN DESIGN + LANDSCAPE ARCHITECTURE
Post Office Box 611052
Rosemary Beach, FL 32461
Phone: (850) 528-1535
Email: patrick@phlandstudio.com
LICENSE No LA0000850

Florida L.A. # LA0000850

PROJECT NO.: 19-0328.004

SCALE:

DATE: 8/1/2023

DRAWING: L-1

SOD AS SPECIFIED REQUIRED AROUND HYDRANT LOCATION PER CIVIL PLANS

IVN/ 26
YAUPON HOLLY

BIKE RACKS
Refer to Civil Drawings

TFD/ 133
DWARF FAKAHATCHEE GRASS

MCG/ 90
MUHLY GRASS

ZFC/ 75
COONTIE

SOD
4800 SF

CCS/ 536
SCRUB MINT

QVL/ 5
LIVE OAK

HQO/ 19
OAK LEAF HYDRANGEA

IVN/ 85
DWARF YAUPON HOLLY

SRS/ 12
SAW PALMETTO

1110 LF OF NATIVE PLANTING BUFFER ZONE.
REFER TO DETAIL B/L2.1.
IVN/44
MGD/33
VAB/66
SRS/88
PPL/44
ASW/3,180

ARM/ 3
RED MAPLE

TFD/ 372
DWARF FAKAHATCHEE GRASS

YCG/ 8
YUCCA

HFD/ 512
DAY LILY

LTP/ 3
TULIP POPLAR

SPB/ 3
SABAL PALM

* GPB/ 320
BLANKET FLOWER

JBP/ 460
BLUE PACIFIC JUNIPER

SRS/ 22
SAW PALMETTO

YCF/ 8
YUCCA

HFD/ 390
DAY LILY

* GPB/ 82
BLANKET FLOWER

COVERED DROP-OFF

FACILITIES BUILDING

SPB/ 3
SABAL PALM

ZFC/ 70
COONTIE

SPB/ 6
SABAL PALM

MCG/ 140
MUHLY GRASS

LMG/ 480
GOPHER APPLE

ASW/ 450
WIREGRASS

MCG/ 200
GULF MUHLY GRASS

* POS/ 3
SYCAMORE

MVS/ 4
SWEETBAY

MGD/ 5
MAGNOLIA

SRS/16
SAW PALMETTO

TDC/12
BALD CYPRESS

NWM/1650 SF
NORTHWEST FLORIDA NATIVE WILDFLOWER MIX

LIMIT OF WORK LINE

WETLAND LIMIT

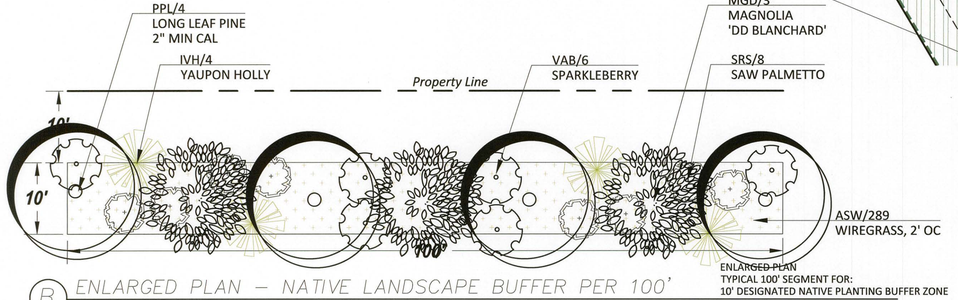
PROPERTY LINE

PROPERTY LINE

buffer zone extents

8'

14'



B ENLARGED PLAN – NATIVE LANDSCAPE BUFFER PER 100'
SCALE: 1" = 10'-0"

(*) - ASTERISK INDICATES NATIVE PLANTS WHICH HAVE BEEN APPROVED PREVIOUSLY BY THE SCENIC CORRIDOR DESIGN REVIEW BOARD AND WALTON COUNTY PLANNING DIRECTOR.

0' 20' 40' 60'
ONE INCH EQUALS 20 FEET
SCALE IN FEET

NORTH

REVISIONS

NO.	DATE	DESCRIPTION	BY

DESIGNED BY PKH
DRAWN BY CRS,AHB
CHECKED BY PKH,CRS
APPROVED BY PKH

PLANTING BASE SHEET

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

GRAYTON BEACH
PARKING AREA
COUNTY HIGHWAY 283 SOUTH
SANTA ROSA BEACH 32459

PREPARED BY:
THE PATRICK HODGES LAND STUDIO
PLANNING + URBAN DESIGN + LANDSCAPE ARCHITECTURE
Post Office Box 611052
Rosemary Beach, FL 32461
Phone: (850) 528-1925
Email: patrick@phlandstudio.com
LICENSE No LA0000850

Florida L.A. # LA0000850

PROJECT NO.: 19-0328.004

SCALE:

DATE: 8/1/2023

DRAWING: L-2

GENERAL NOTES AND REQUIREMENTS

1. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY PERMITS OR APPROVALS FROM THE FEDERAL, STATE OR LOCAL GOVERNMENT REQUIRED FOR THE WORK INCLUDED IN THIS CONTRACT AND ON THESE DRAWINGS.
2. LOCATE ALL UNDERGROUND UTILITIES, ELECTRICAL WIRING, WATER, SEWER, TELEPHONE, CABLE TV, ETC., PRIOR TO LANDSCAPE OR IRRIGATION INSTALLATION
3. STAKE OUT ALL TREE & LARGE SHRUB LOCATIONS FOR LA AND OWNER REVIEW AND APPROVAL PRIOR TO EXCAVATION OR PLANTING. PLAN LOCATIONS ARE SUBJECT TO FIELD ADJUSTMENT BY THE LA.
4. THE CONTRACTOR SHALL INSTALL AN IRRIGATION SYSTEM AS NEEDED TO PROVIDE A COMPLETE WORKING SYSTEM AND AS REQUIRED TO ENSURE 100% COVERAGE OF ALL NEW PLANTING AND SODDED LAWN AREAS. SEE IRRIGATION PLAN BY THE LANDSCAPE ARCHITECT OR PROVIDE SHOP DRAWINGS FOR LA APPROVAL.
5. INSTALL ONLY PLANTS GRADED FLORIDA NO.1 OR BETTER AS SET FORTH IN THE FLORIDA DEPARTMENT OF AGRICULTURE 'GRADES AND STANDARDS FOR NURSERY PLANTS" SECOND EDITION FEB. 1998 INCLUDING REVISIONS AND WHICH MEET OR EXCEED THE SIZES INDICATED IN THE PLANTING SCHEDULE AND DETAILS.
6. PLANT SHRUBS IN CIRCULAR PITS WITH A DIAMETER 16" GREATER THAN ROOTBALL OR CONTAINER. PLANT TREES IN CIRCULAR PITS WITH A DIAMETER 36" GREATER THAN ROOTBALL OR CONTAINER,. PLACE PLANTS WITH BEST "FACE" FORWARD.
7. FERTILIZE ALL TREES WITH AGRIFORM 21 GRAM TABLETS, SLOW-RELEASE 20-10-5 ANALYSIS WITH ONE TABLET PER 1/2" OF TRUNK DIAMETER.
8. BACKFILL ALL PLANTING PITS WITH THE FOLLOWING MIXTURE ; 1/2 ONSITE SOIL, 1/2 CLEAN FRIABLE TOPSOIL. SUBMIT TOPSOIL SAMPLE AND SOIL TEST ANALYSIS FOR APPROVAL BY LANDSCAPE ARCHITECT, (SEE PLANTING DETAILS). REMOVE EXCESS SOIL EXCAVATED FROM PLANT PIT FROM THE SITE OR DISTRIBUTE ON-SITE AS DIRECTED BY L.A.
9. APPLY "DIEHARD TRANSPLANT" MYCORRHIZAL INOCULANT AND 100% ORGANIC STARTER FERTILIZER TO EACH NEW TREE PLANTED AND SHRUB/GROUNDCOVER BEDS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS I.E. 8 OZ. PER 2" CALIPER, 3 LBS/100 S.F. AREA, ETC... CONTACT HORTICULTURAL ALLIANCE, INC. SARASOTA, FL. 34277 800-628-6373
10. FERTILIZE ALL PLANTING BEDS WITH OSMOCOTE 14-14-14 SLOW-RELEASE FERTILIZER AT THE RATE OF 16 POUNDS PER 1,000 SQUARE FEET. FURNISH RECEIPTS FOR MATERIAL USED.
11. TREAT ALL PLANTING BEDS WITH PRE-EMERGENT AND POST-EMERGENT HERBICIDES ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS. SUBMIT RECEIPTS FOR MATERIALS USED.
12. MULCH PLANTING BEDS TO A MINIMUM 2 1/2" COMPACTED THICKNESS WITH PINE STRAW, FREE OF WEEDS.
13. SOD ALL DISTURBED AREAS WHICH DO NOT HAVE SHRUB OR GROUNDCOVER PLANTINGS INDICATED WITH SOLID SOD LAID WITH CLOSELY ABUTTING JOINTS. FERTILIZE AFTER INSTALLATION WITH A SLOW-RELEASE FORMULA.
14. CONTRACTOR SHALL VERIFY ALL PLANT QUANTITIES BASED ON THE QUANTITIES IN PLACE AS INDICATED ON THE PLANS AND PROVIDE COMPOSITE UNIT PRICES FOR EACH PLANT INCLUDING ALL COSTS FOR MATERIALS AND INSTALLATION; I.E., LABOR, MULCH, FERTILZER, WATERING, STAKING, HERBICIDES, MOWING, WEEDING, SITE PREPARATION, ETC.
15. FERTILIZE PALMS WITH PALMGAIN 8-2-12 FORMULA AS MANUFACTURED BY BGI www.bgi-usa.com PER MANUFACTURER RECOMMENED RATE.
16. NOTIFY THE OWNER AND LANDSCAPE ARCHITECT OF ANY UNFORESEEN CONDITIONS, I.E., COMPACTED SOIL / SUBGRADE, POOR DRAINAGE, UNCONSOLIDATED SOIL, EROSION, UTILITY CONFLICTS, EXCESSIVE SUN OR SHADE, ETC., PRIOR TO PROCEEDING WITH LANDSCAPE INSTALLATION.
17. GUARANTEE ALL PLANTS FOR ONE YEAR.
18. ALL PLANTS, MATERIALS AND WORKMANSHIP ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT AND OWNER.
19. DO NOT MAKE SUBSTITUTIONS OR REVISIONS, ANY REVISION OR MODIFICATIONS TO THE LANDSCAPE PLAN MUST HAVE PRIOR APPROVAL BY THE THE LANDSCAPE ARCHITECT & OWNER
20. MAINTAIN ALL PLANTING INCLUDING WATERING, MOWING, MULCHING, WEED, PEST CONTROL, ETC. UNTIL FINAL ACCEPTANCE BY THE OWNER.
21. THESE DRAWING DOCUMENTS AND ALL CONTENTS ARE THE PROPERTY OF THE PATRICK HODGES LAND STUDIO, ALL RIGHTS ARE RESERVED. UNAUTHORIZED USE OR REPRODUCTION, IN PART OR WHOLE, FOR ANY PURPOSE IS UNLAWFUL AND PROHIBITED EXCEPT BY EXPRESS WRITTEN CONSENT.
22. LIGHTWEIGHT ENGINEERED SOILS PER MANUFACTURERS SPECIFICATIONS OUTLINED ON SHEET L-04.3. ANY ALTERNATES TO THE SPECIFIED SOIL SHALL BE SUBMITTED TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO PROCUREMENT.
23. NON-WOVEN GEO-TEXTILE PRODUCT INSTALLATION PER MANUFACTURERS SPECIFICATIONS OUTLINED ON SHEETS L-04.3. ANY ALTERNATES TO THE SPECIFIED PRODUCTS SHALL BE SUBMITTED TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO PROCUREMENT.

OVERALL PLANT SCHEDULE

SYM	QTY	SPECIFICATION
(*) - ASTERISK INDICATES NATIVE PLANTS WHICH HAVE BEEN APPROVED PREVIOUSLY BY THE SCENIC CORRIDOR DESIGN REVIEW BOARD AND WALTON COUNTY PLANNING DIRECTOR.		
ICD	1	ILEX CASSINE DAHOON HOLLY 65 GALLON CGS 10' HT.
LSR	2	LIQUIDAMBAR STYRICIFLUA 'ROTUNDILOBA' FRUITLESS SWEETGUM 4" CALIPER 14' HT.
MGD	11	MAGNOLIA GRANDIFLORA 'DD BLANCHARD' MAGNOLIA 4.5" CALIPER 100 GALLON OR LA APPROVED B&B
MGD	33	MAGNOLIA GRANDIFLORA 'DD BLANCHARD', 30 GAL. (BUFFER PLANTING)
MVS	8	MAGNOLIA VIRGINIANA SWEETBAY 3" CALIPER 65 GALLON CGS 12' HT. 4'SPRD
LTP	6	LIRIODENDRON TULIPIFERA - TULIP POPLAR 6" CALIPER 16'HT
QVL	21	QUERCUS VIRGINIANA LIVE OAK 6" CALIPER; 16' HT 12' SPRD
TDC	19	TAXODIUM DISTICHUM BALD CYPRESS, 4" CAL.
ARM	3	ACER RUBRUM RED MAPLE 4"
PPL	44	PINUS PALUSTRIS LONG LEAF PINE, 2" MIN CAL. , BUFFER PLANTING
*POS	3	PLANTANUS OCCIDENTALIS AMERICAN SYCAMORE 6" CAL. 16' MIN. HT.
Palms		
SPB	15	SABAL PALMETTO SABAL PALM (ENHANCED ROOT BALL/NO HURRICANE CUTS) 14' CLEAR-TRUNK HEIGHTS
Shrubs		
*ATB	35	ASCLEPIAS TUBEROSA - BUTTERFLY MILKWEED - 3 GAL AS SHOWN
VOD	104	DWARF WALTERS VIBURNUM, VIBURNUM OBOVATUM 'DENSA', 7 GAL, 3' OC
*EHC	36	ERYTHRINA HERBACEA CORAL BEAN 3' OC 7 GAL
HQO	32	HYDRANGEA QUERCIFOLIA - OAK LEAF HYDRANGEA - 7 GAL AS SHOWN
IVN	129	ILEX VOMITORIA DWARF YAUPON HOLLY, 3 GAL.
*LSB	29	LIATRIS SPICATA - BLAZING STAR - 3 GAL AS SHOWN
SRS	151	SERENOA REPENS - SAW PALMETTO - 7 GAL AT 4' OC
ZFC	145	ZAMIA FLORIDANA COONTIE 30" OC 7 GALLON 12" SPREAD WITH FULL FOLIAGE
YCF	29	YUCCA FILAMENTOSA 'COLOR GUARD', VARIEGATED YUCCA 3 GAL. @ 3'OC
VAB	66	VACCINUM ARBORETUM SPARKLEBERRY, 7 GAL.

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EXISTING TREE SCHEDULE

SYM	COMMON NAME	DISPOSITION
3	Bald Cypress	REMAIN
4	Bald Cypress	REMAIN
5	Bald Cypress	REMAIN
6	Bald Cypress	REMAIN
7	Bald Cypress	REMAIN
9	Bald Cypress	REMAIN
10	Bald Cypress	REMAIN
11	Bald Cypress	REMAIN

(REFER TO TOPO/TREE SURVEY FOR LOCATIONS)

Groundcovers & Vines

ASW	3,630	ARISTIDA STRICTA WIREGRASS 1 GAL, 18" OC,
CCS	1,216	CONRADINA CANESCENS SCRUB MINT 2' OC FULL GALLONS
HFD	902	HEMEROCALLIS FULVA - DAY LILY FULL GALLONS AT 12" OC
MCG	290	MUHLENBERGIA CAPILLARIS - MUHLY GRASS 3-GAL 30"OC
*GPB	402	GAILLARDIA PULCHELLA- BLANKET FLOWER FULL-GALLONS 12" OC
JBP	460	JUNIPERUS CONFERTA 'BLUE PACIFIC' - DWARF SHORE JUNIPER 18" OC FULL-GALLONS
TFD	1,460	TRIPACUM DACTYLOIDES DWARF FAKAHATCHEE GRASS 3 GAL, 24" OC
LMG	1,680	LICANIA MICHAUXII GOPHER APPLE 1GAL., FULL, 12" OC
NWM	1650 SF	NORTHWEST FLORIDA NATIVE WILDFLOWER MIX ***(NWM MIX CONSISTS OF $\frac{1}{4}$ LB OF EACH: 1)RUDBECKIA HIRTA/BLACK EYED SUSAN; 2)ECHINECEA PURPUREA/ PURPLE CONEFLOWER; 3)RUDBECKIA HIRTA/ GLORIOSA DAISY "PERENNIAL VARIETY"; 4)PHLOX DRUMMONDII/DRUMMOND PHLOX; 5)GAILLARDIA PULCHELLA/INDIAN BLANKET; 6)COREOPSIS LANCEOLATA/LANCE LEAF COREOPSIS) MIX SEED IN THE WEIGHT SPECIFIED AND APPLY TO PREPARED, BARE SOIL AS INDICATED ON PLAN.***
SOD	16,350 SF	BERMUDA GRASS 'TIF-TUFF HYBRID'

SOD - TURFGRASS - ALL EXISTING LAWN/TURF AREAS (WITHIN THE PROJECT LIMITS) THAT ARE DAMAGED OR DISTURBED BY CONSTRUCTION ACTIVITY SHALL BE RESTORED WITH TOPSOIL AND SODDED WITH '***TIF-TUFF***' HYBRID BERMUDA GRASS LAID SOLIDLY WITH CLOSELY ABUTTING JOINTS. CONTRACTOR SHALL ESTIMATE THE SOD QUANTITY REQUIRED AND PROVIDE A SF PRICE WITH BID. SOD ON SLOPES OF 2:1 OR GREATER SHALL BE PINNED WITH SOD STAPLES.

RECOMMENDED MAINTENANCE GUIDELINES

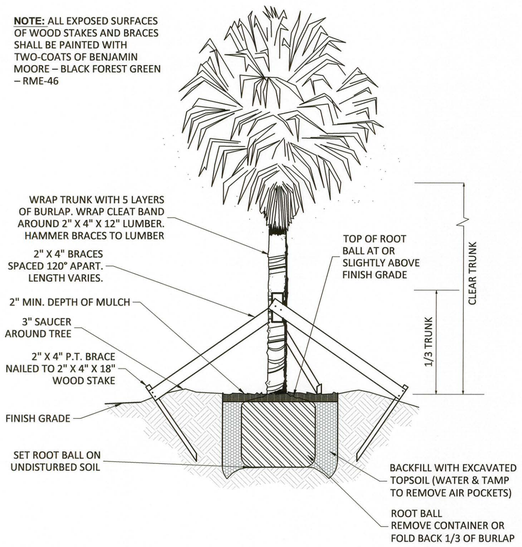
1. PRUNING | PLANTS SHALL BE PRUNED REGULARLY TO REMOVE ALL BROKEN, DEAD AND DISEASED LIMBS, ANY CROSS-RUBBING WOOD, SUCKERS AND WATER SPROUTS. SIGNIFICANT PRUNING SHOULD BE DONE IN LATE WINTER OR SPRING. NEVER REMOVE MORE THAN ONE-QUARTER OF A LIVE TREE CROWN IN A SINGLE YEAR. DO NOT PRUNE WHEN THE FLUSH OF NEW SPRING LEAVES IS FORMING. DO NOT PRUNE BRANCHES WITH A FLUSH CUT, BUT INSTEAD CUT TO THE OUTSIDE OF THE BRANCH COLLAR. ALL PRUNING CUTS SHALL BE CLEAN AND FREE OF ANY PAINTS OR SEALERS. SPRING FLOWERING SHRUBS SHALL BE PRUNED IMMEDIATELY AFTER SPRING BLOOMING. SUMMER FLOWERING SHRUBS SHALL BE PRUNED IN LATE WINTER. AVOID EXCESSIVE "SHEARING" OF SHRUBS, WHICH PROMOTES UNHEALTHY GROWTH CONDITIONS. PRUNE SHRUBS IN THE SPRING AND SUMMER BY ALTERNATING HEADING BACK AND SHEARING TECHNIQUES. MINIMIZE FALL PRUNING AS THIS ENCOURAGES NEW GROWTH, WHICH IS SUSCEPTIBLE TO COLD DAMAGE. HEDGES SHALL BE TRIMMED SO THAT THE BOTTOM IS WIDER THAN THE TOP. SHRUBS SHALL BE PRUNED NO LESS THAN, BUT NOT LIMITED TO THE REQUIRED HEIGHT OF THE SITUATION FOR WHICH IT IS BEING UTILIZED, I.E., PERIMETER SHRUB AT MINIMUM 30", SIGHT-TRIANGLE HEIGHT OF NO HIGHER THAN 2.5 FEET, OR ANY OTHER VISUAL HEIGHT REQUIREMENTS. MAINTAIN THE SIZE AND PROPORTION OF PLANTS TO EACH OTHER AND THE SURROUNDING LANDSCAPE.

2. FERTILIZER | APPLICATION OF FERTILIZER SHALL COMPLY WITH THE WALTON COUNTY FERTILIZER ORDINANCE. FERTILIZER MAY BE APPLIED IN THE SPRING AND FALL (USE LOW NITROGEN IN THE FALL). IN THE SPRING BROADCAST 15-5-15 FERTILIZER OVER THE AREA OF ROOT GROWTH AT A RATE OF SIX (6) POUNDS PER 1,000 SQUARE FEET. IN THE FALL BROADCAST 15-5-15, 5-5-20, 5-0-15 OR 5-0-20 FERTILIZER OVER THE AREA OF ROOT GROWTH AT A RATE OF TEN (10) POUNDS PER 1,000 SQUARE FEET. USE A GRANULAR, NON-BURNING PRODUCT, WITH MICRONUTRIENTS AND HALF OF THE NITROGEN IS TO BE IN A SLOW-RELEASE FORM. FOR AZALEAS, CAMELLIAS, GARDENIAS, AND DOGWOODS, USE A SPECIFIC, ACID-RICH FORMULA. FOR PALMS USE SPECIAL PALM FERTILIZERS WHICH CONTAIN EQUIVALENT RATES OF NITROGEN AND POTASSIUM, MICRONUTRIENTS AND ADDITIONAL MAGNESIUM. FERTILIZER SHALL BE APPLIED PER MANUFACTURER'S INSTRUCTIONS. NUTRIENT ABSORPTION WILL BE AFFECTED BY SOIL PH. SPECIFIC EVALUATION OF THIS NUTRIENT/PH RELATIONSHIP MAY BE NECESSARY IF PLANT PERFORMANCE IS LOW. (NOTE: FERTILIZER SHALL **NOT** BE USED FOR INSTALLATION OR MAINTENANCE OF PLANTINGS LOCATED WITHIN COUNTY RIGHT-OF-WAY OR LOCATED WITHIN THE STORMWATER MANAGEMENT FACILITIES)

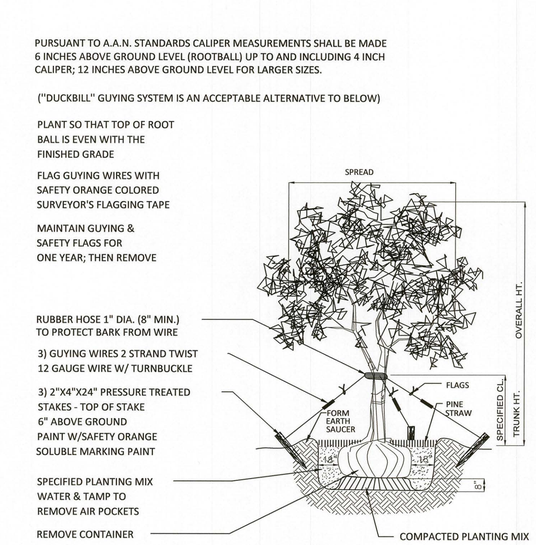
3. PEST CONTROL | PEST CONTROL SHALL ONLY BE APPLIED, AS NECESSARY. AN INTEGRATED PEST MANAGEMENT SYSTEM FOR ESTABLISHING A HEALTHY ENVIRONMENT FOR PROPER GROWTH CONDITIONSIS THE PREFERRED METHOD FOR PEST CONTROL. NON-TOXIC HORTICULTURAL OIL RECOMMENDED. APPLY A BROAD-SPECTRUM FOLIAR HERBICIDE TO MULCHED AREAS AS NEEDED BY SPOT SPRAYING. APPLY PRE-EMERGENT FOLIAR HERBICIDE SPRAY TO LAWNS IN LATE WINTER AND POST EMERGENT FOLIAR HERBICIDE SPRAY TO LAWNS IN EARLY SPRING.

4. MOWING | MOW TURF TO A CONSISTENT HEIGHT OF 1.5"-2" FOR ZOYSIA GRASS 2-3" FOR CENTIPEDE AND 3-4" FOR ST. AUGUSTINE AT A MINIMUM OF TWO-WEEK INTERVALS DURING GROWING SEASON. USE A MULCHING MOWER TO RECYCLE NUTRIENTS. DE-THATCHING AND AERATION MAY BE PERFORMED EVERY 2-3 YEARS OR AS NEEDED.

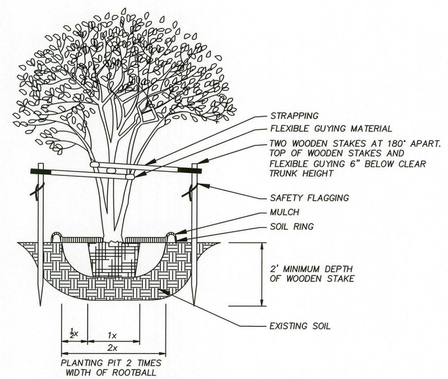
5. WATERING | THE MINIMUM WATERING SCHEDULE FOR NEWLY PLANTED MATERIAL SHALL BE EQUIVALENT TO A MINIMUM OF 1" OF RAINFALL PER WEEK. WATER SHOULD BE APPLIED IN THE EARLY MORNING HOURS. WATER REGULARLY FOR TWO YEARS OR UNTIL ESTABLISHED. DEEP, INFREQUENT SOAKINGS, WHICH ALLOW THE SOIL MOISTURE TO DRAIN, IS THE WATERING METHOD PREFERRED FOR ESTABLISHED PLANTS. THIS TYPE OF SOAKING WILL ENCOURAGE A DEEP ROOT SYSTEM, WHICH WILL ENABLE THE PLANTS TO WITHSTAND PERIODS OF DROUGHT.



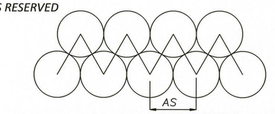
A LARGE PALM PLANTING DETAIL
SCALE: n/a



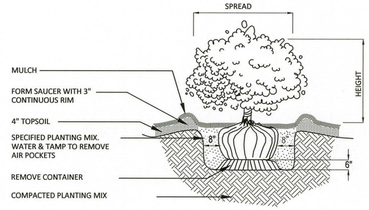
B TREE PLANTING DETAIL
SCALE: n/a



C MULTI-TRUNK TREE PLANTING DETAIL
SCALE: n/a



E GROUNDCOVER PLANTING AND TRIANGULAR SPACING DETAIL
SCALE: n/a



D SHRUB PLANTING DETAIL
SCALE: n/a

REVISIONS			
NO.	DATE	DESCRIPTION	BY

DESIGNED BY: PKH | DRAWN BY: CRS,AHB | CHECKED BY: PKH,CRS | APPROVED BY: PKH

PLANTING SCHEDULE, NOTES AND DETAILS

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

GRAYTON BEACH PARKING AREA
COUNTY HIGHWAY 283 SOUTH
SANTA ROSA BEACH 32459

PREPARED BY:
THE PATRICK HODGES LAND STUDIO
PLANNING • URBAN DESIGN • LANDSCAPE ARCHITECTURE
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PROJECT NO.: 19-0328.004
SCALE:
DATE: 8/1/2023
DRAWING: L-3

DAHOON HOLLY

SWEETGUM

MAGNOLIA 'DD BLANCHARD'

SWEETBAY MAGNOLIA

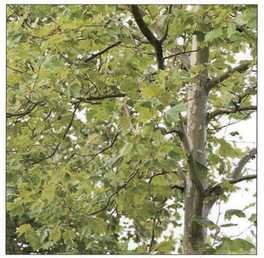
TULIP POPLAR

LIVE OAK

BALD CYPRESS

RED MAPLE

LONGLEAF PINE



AMERICAN SYCAMORE

TREES

BUTTERFLY MILKWEED*

SHRUBS

DWARF WALTERS VIBURNUM

CORAL BEAN*

OAK LEAF HYDRANGEA

YAUPON HOLLY

BLAZING STAR*

SAW PALMETTO

COONTIE

YUCCA FILAMENTOSA

SPARKLEBERRY

GROUNDCOVERS

WIREGRASS

SCRUB MINT

DAYLILY

MUHLY GRASS

BLANKET FLOWER*

BLUE PACIFIC JUNIPER

DWARF FAKAHATCHEE GRASS

GOPHER APPLE

GROUNDCOVERS

WILDFLOWER MIX

PURPLE CONEFLOWER & BLACK EYED SUSAN

GLORIOSA DAISY

DRUMMOND PHLOX

COREOPSIS & INDIAN BLANKET

(*) - ASTERISK INDICATES NATIVE PLANTS WHICH HAVE BEEN APPROVED PREVIOUSLY BY THE SCENIC CORRIDOR DESIGN REVIEW BOARD AND WALTON COUNTY PLANNING DIRECTOR.

REVISIONS

NO.	DATE	DESCRIPTION	BY

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
PKH	CRS,AHB	PKH,CRS	PKH

NOTES, LARGE PREFERENCE

SCALE THIS DRAWING — DIMENSIONS AND

DO NOT SCALE THIS DRAWING

GRAYTON BEACH
PARKING AREA

COUNTY HIGHWAY 283 SOUTH
SANTA ROSA BEACH 32459

PREPARED BY:
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PLANNING + URBAN DESIGN + LANDSCAPE ARCHITECTURE
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LICENSE No LA0000850

Florida L.A. # LA0000850

PROJECT NO.: 19-0328.004

SCALE:

DATE: 8/1/2023

DRAWING: L-4

ELECTRICAL LEGEND

"B" INDICATES FIXTURE TYPE; MARKS ACROSS RACEWAY RUN INDICATES THE NUMBER OF 10 CONDUCTORS; UNLESS NOTED OTHERWISE NO MARKS INDICATES TWO NO. 10 CONDUCTORS AND ONE NO. 10 GREEN GROUND CONDUCTOR IN 3/4" CONDUIT (2#10 & 1#10 GND–3/4"C)

POLE MOUNTED FIXTURE

RACEWAY INSTALLED CONCEALED IN FLOOR SLAB AND/OR BELOW GRADE

PHOTOCELL; EQUAL TO TORK MODEL 2101 (120V)

DIGITAL TIMESWITCH WITH RESERVE POWER; NEMA 3R ENCLOSURE; EQUAL TO TORK DCLC

PANEL; PROVIDED BY BUILDING ELECTRICAL DESIGNER.

ABBREVIATIONS

AFG – ABOVE FINISHED GRADE
C. – CONDUIT
C/L – CENTERLINE
EC – ELECTRICAL CONTRACTOR
EMT – ELECTRICAL METALLIC TUBING
GND – GROUND CONDUCTOR
GFI – GROUND FAULT PROTECTION
IMC – INTERMEDIATE METAL CONDUIT
LTG – LIGHTING
LTS – LIGHTS
PVC – POLYVINYL CHLORIDE CONDUIT
UNO – UNLESS NOTED OTHERWISE
WP – WEATHERPROOF
NEC – NATIONAL ELECTRIC CODE (NFPA–70)

ELECTRICAL GENERAL NOTES

A. CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO INSTALLATION. REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR EXACT SIZE AND LOCATION OF EQUIPMENT WHICH IS FURNISHED BY OTHERS AND CONNECTED BY ELECTRICAL.

B. PROVIDE GREEN GROUND CONDUCTOR IN ALL CIRCUITS – SIZE PER N.E.C.

C. ALL EXPOSED CONDUITS, BOXES, STRAPS AND HANGERS IN THE CONTRACT AREA WHETHER NEW OR EXISTING THAT ARE PART OF THE ELECTRICAL SYSTEM SHALL BE PAINTED TO MATCH ADJACENT FINISH.

D. GENERAL CONTRACTOR SHALL FIELD–VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING ANY WORK, AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT OF ANY DISCREPANCIES. FAILURE TO DO SO INDICATES THAT THE CONTRACTOR ACCEPTS THE CONDITIONS AS THEY EXIST, AND SHALL PERFORM THE WORK REQUIRED AS SHOWN AND SPECIFIED.

E. THE ELECTRICAL CONTRACTOR SHALL OBTAIN AND REVIEW SPECIAL EQUIPMENT SUBMITTALS PRIOR TO SUBMITTING THE ELECTRICAL SUBMITTALS. ANY ELECTRICAL EQUIPMENT, CONDUIT, AND WIRE SIZE CHANGES RESULTING FROM THIS REVIEW SHALL ALSO BE SUBMITTED FOR APPROVAL.

F. PROVIDE NEUTRAL AT ALL LINE VOLTAGE SWITCH LOCATIONS PER N.E.C. 404.2(C).

G. PROVIDE BUSHINGS ON ALL CONDUIT.

H. COMPLY WITH ALL LOCAL CODE, LAWS, AND ORDINANCES APPLICABLE TO ELECTRICAL WORK, THE STATE BUILDING CODE AND THE NATIONAL ELECTRIC CODE. OBTAIN ALL PERMITS REQUIRED BY LOCAL ORDINANCES.

I. OBTAIN ARCHITECTS APPROVAL OF ALL LIGHT FIXTURES PRIOR TO PURCHASING.

J. THE ELECTRICAL WORK SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. ALL NOT SO INSTALLED SHALL BE REMOVED AND REPLACED AT NO COST TO THE OWNER.

K. ALL WORK SHALL BE INSTALLED IN CONCEALED TYPE CONSTRUCTION. UNDERGROUND CONDUITS UP TO FIRST BOX IN CONCEALED CONSTRUCTION MAY BE SCH.40 PVC. EXTERIOR EXPOSED WORK SHALL BE I.M.C. BRANCH CIRCUIT CONDUIT RUN IN OPEN SPACES ABOVE CEILING OR IN WALLS MAY BE THINWALL (E.M.T.) CONDUIT 1/2" MIN. SIZE.

L. ALL CONDUCTORS LESS THAN 100A. SHALL BE COPPER #12 & #10 SOLID, #8 AND LARGER STRANDED, #6 AND SMALLER TO BE TYPE THWN, 600 VOLT INSULATION AND TYPE THWN OR THHN FOR #4 AND LARGER. ALUM. CONDUCTORS MAY BE USED FOR 100A. AND LARGER ONLY WHERE USED WITH COMPRESSION TERMINATIONS.

M. PROVIDE GROUNDING PER NATIONAL ELECTRIC CODE.

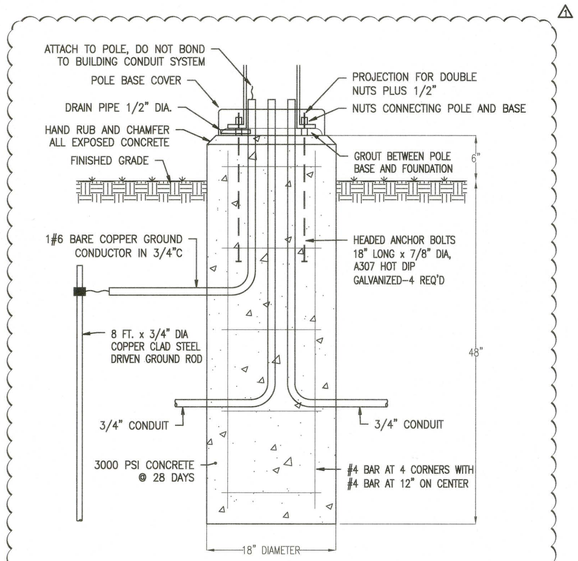
N. THE CONTRACTOR SHALL LEAVE THE ENTIRE ELECTRICAL SYSTEM INSTALLED IN PROPER WORKING ORDER, AND SHALL REPLACE WITHOUT ADDITIONAL COST, ALL WORK OR MATERIAL WHICH MAY DEVELOP DEFECTS, (ORDINARY WEAR AND TEAR OR DAMAGE RESULTING FROM IMPROPER HANDLING EXCEPTED) WITHIN A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE BY THE OWNER.

LIGHTING FIXTURE SCHEDULE

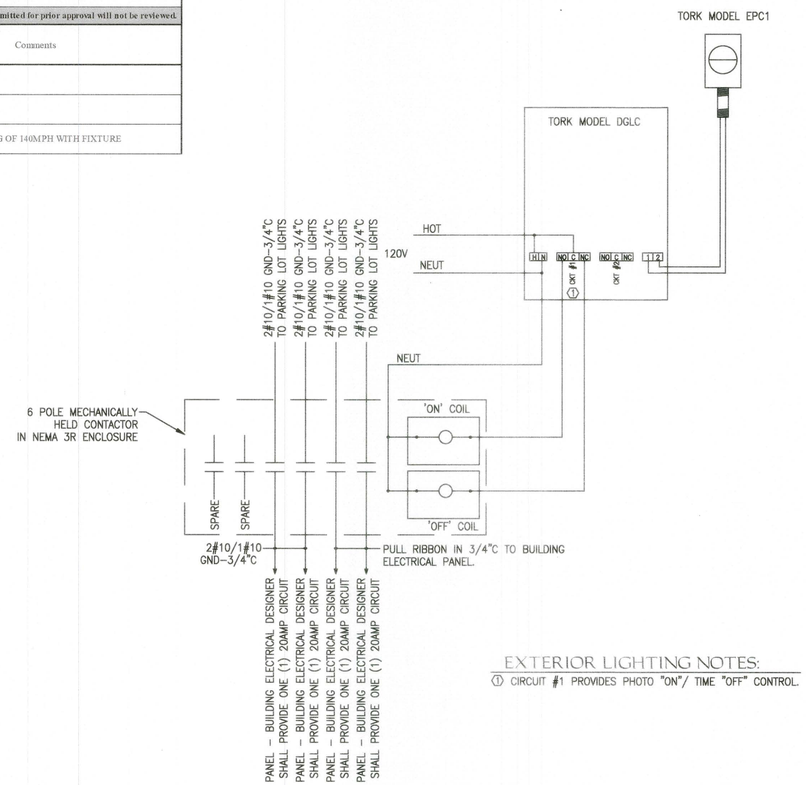
Project: 2126 - Grayton Beach Parking Facility

Note: Per electrical specifications, alternate fixtures shall be submitted to the engineer for prior approval a minimum of (10) ten business days prior to bid date. Any alternate fixtures not submitted for prior approval will not be reviewed.

Luminaire Designation	Manufacturer	Catalog Number	Connected Voltage	Luminaire Load (va)	Lamping Source	Color Rendering Index (CRI)	Kelvin Temperature	Mounting	Comments
PL2	GARDCO	ECF-S-32L-365-WW-G2-2-UNV-BZ	120V	40 VA	LED	>70	3000K	POLE MOUNT 20'-0" AFG	EPA: 0.21ft2
PL5	GARDCO	ECF-S-32L-365-WW-G2-5W-UNV-BZ	120V	40 VA	LED	>70	3000K	POLE MOUNT 20'-0" AFG	EPA: 0.21ft2
POLE FOR PL	VALMONT	R190830505T4-D1-DDB	N/A	N/A	N/A	N/A	N/A	CONCRETE BASE	MUST MEET EPA RATING OF 140MPH WITH FIXTURE



CONCRETE POLE BASE
FOR FIXTURE 'PL2' & 'PL5'
NOT TO SCALE



EXTERIOR LIGHTING NOTES:
① CIRCUIT #1 PROVIDES PHOTO "ON"/ TIME "OFF" CONTROL.

EXTERIOR LIGHTING CONTROL DIAGRAM
NOT TO SCALE

REVISIONS			
NO.	DATE	DESCRIPTION	BY
1	2023–10–16	POLE BASE DETAIL INFO	CL

DESIGNED BY	CL	CHECKED BY	CL
DRAWN BY	CL	APPROVED BY	DW

LEGEND, NOTES, AND DETAILS

GRAYTON BEACH PARKING AREA
COUNTY HIGHWAY 283 SOUTH
SANTA ROSA BEACH 32459

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

DRMP
ENGINEERS • SURVEYORS • PLANNERS • SCIENTISTS
Certificate of Authorization No. 2648
1096 Hwy 90 ~ Chipley, Florida 32428
850.638.1086 www.drmp.com

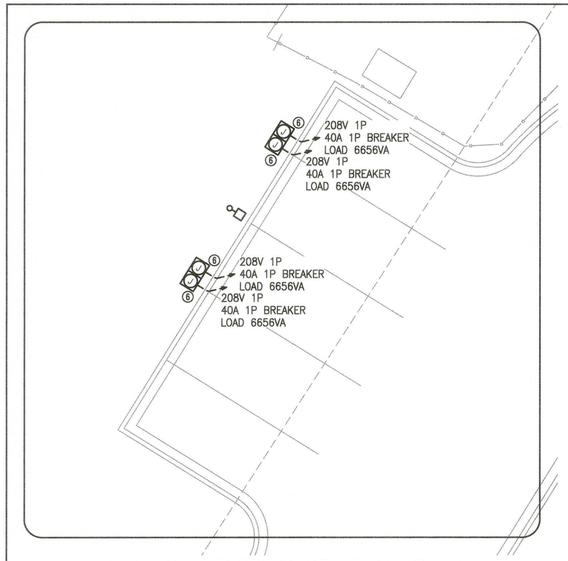
THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY CHRISTOPHER A. GARICK ON THE DATE ADJACENT TO THE SEAL. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES. 03-25-24

Florida Engineer # 73790

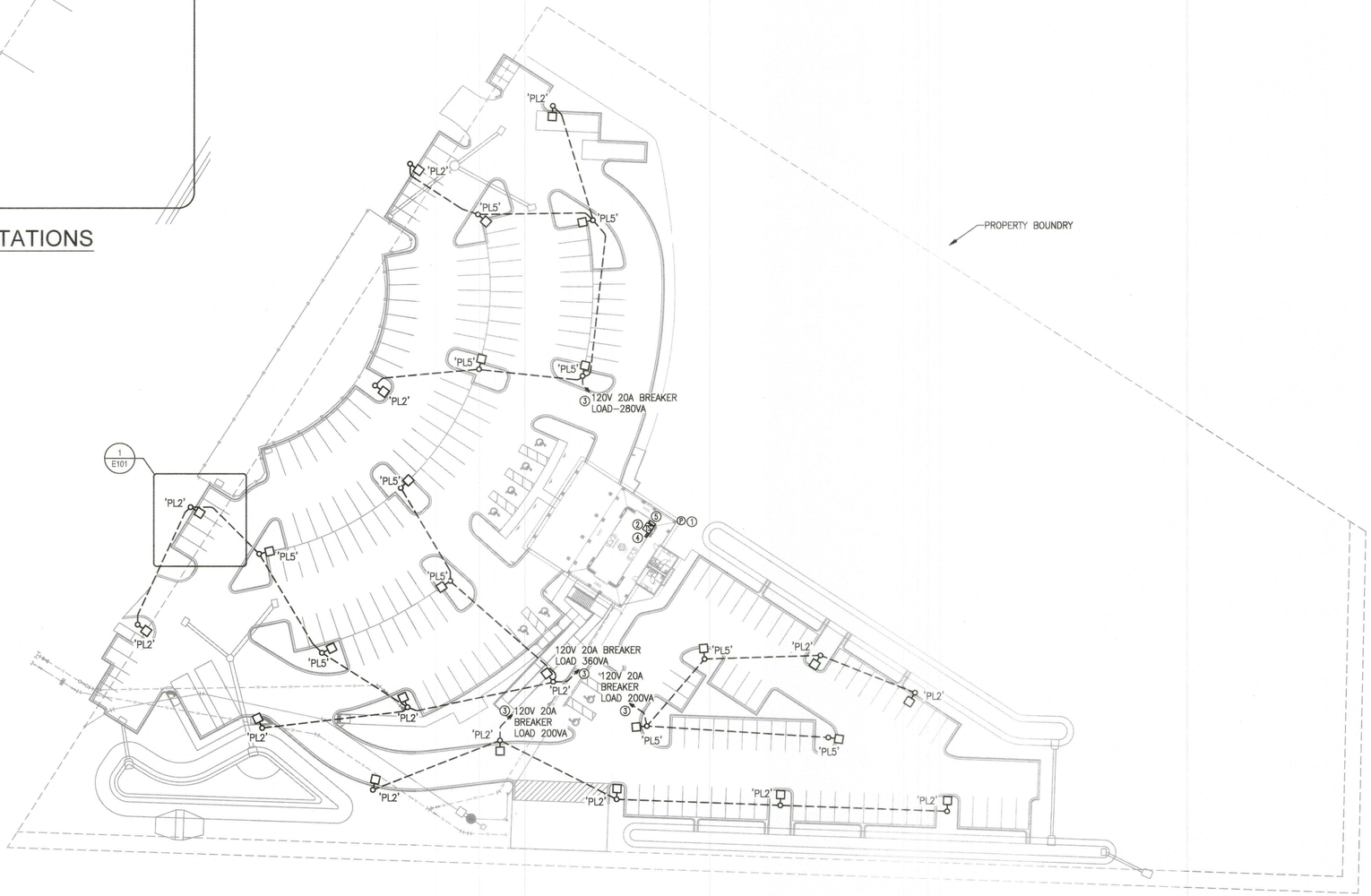
PROJECT NO. 19-0328.004
SCALE: N.T.S.
DATE: 03/29/23
DRAWING: E001

HG ENGINEERS
HG Engineers
621 N. Tyndall Pkwy, Unit C
Panama City, FL 32404
E-mail: office@hgengineers.com
Ph: 850.243.8723
FL Authorization No.00006580
Christopher A. Garick; FL. PE No.53924
Thomas A. Alexander; FL. PE No.73172
Daniel J. White; FL. PE No.73790
Caleb W. Leonard; FL. PE No.91782

2126 Job No.



① EV CHARGING STATIONS
1/8" = 1'-0"



SITE PLAN - ELECTRICAL
1" = 40'-0"

NOTES

① MOUNT PHOTOCELL AS HIGH AS POSSIBLE FACING NORTH. COORDINATE WITH BUILDING ELECTRICAL DESIGNER.

② COORDINATE LOCATION OF TIMESWITCH WITH BUILDING ELECTRICAL DESIGNER.

③ BUILDING ELECTRICAL DESIGNER SHALL PROVIDE 2 #10, #10G, IN 1" C CIRCUIT FOR PARKING LOT LIGHTING.

④ BUILDING ELECTRICAL DESIGNER SHALL PROVIDE ELECTRICAL PANEL LOCATION.

⑤ FOUR 1–POLE 60 AMP LIGHTING CONTACTOR IN NEMA 3R ENCLOSURE. COORDINATE LOCATION AND MOUNTING WITH BUILDING ELECTRICAL DESIGNER

⑥ ELECTRIC VEHICLE CHARGING STATION. CIRCUIT PROVIDED BY BUILDING ELECTRICAL DESIGNER; 2#4, #6G, IN 1" C SIZED TO MITIGATE VOLTAGE DROP; 40A 2 POLE BREAKER IN PANEL. COORDINATE WITH CIVIL AND MANUFACTURER SHOP DRAWINGS PRIOR TO ROUGH IN. PROVIDE ALL POWER AS NECESSARY FOR A FULLY FUNCTIONING CHARGING STATION AS SPECIFIED.

REVISIONS			
NO.	DATE	DESCRIPTION	BY

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
CL	CL	CL	DW

SITE PLAN - ELECTRICAL

GRAYTON BEACH
PARKING AREA
COUNTY HIGHWAY 283 SOUTH
SANTA ROSA BEACH 32459

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

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07-25-24

Florida Engineer # 73790

PROJECT NO.	19-0328.004
SCALE:	N.T.S.
DATE:	03/29/23
DRAWING:	E101

HG ENGINEERS
HG Engineers
621 N. Tyndall Pkwy, Unit C
Panama City, FL 32404
E-mail: office@hgengineers.com
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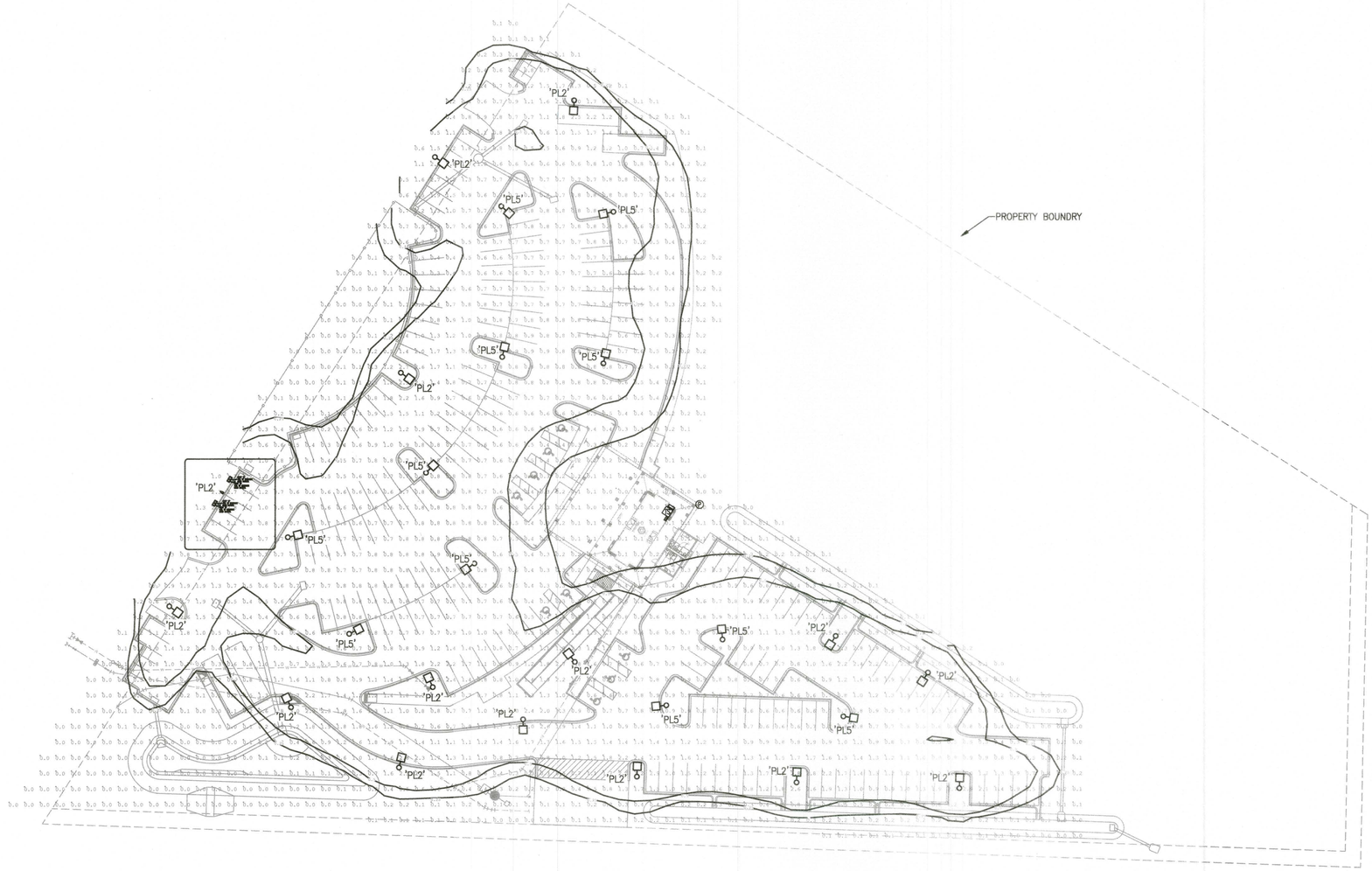
Thomas A. Alexander; FL. PE No.73172
Daniel J. White; FL. PE No.73790
Caleb W. Leonard; FL. PE No.91782

2126
Job No.

J:\current jobs\Jobs-21\2126 - grayton beach parking facility\Drawings\workingset\Sheets\E101 SITE PLAN - ELECTRICAL.dwg Plotted: Mar 25, 2024 - 7:51am by dwhite

Luminaire Schedule						
Label	Qty	Label	Arrangement	Total Lamp Lumens	LLF	Description
PL2	15	Fixture PL2	SINGLE	N.A.	0.900	ECF-S-32L-365-WW-G2-2
PL5	11	Fixture PL5	SINGLE	N.A.	0.900	ECF-S-32L-365-WW-G2-5W

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
PARKING LOT_Planar	Illuminance	Fc	0.69	3.3	0.0	N.A.	N.A.



SITE PLAN - PHOTOMETRIC STUDY

1" = 40'-0"

0 20' 40' 80'

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2126
Job No.

REVISIONS			
NO.	DATE	DESCRIPTION	BY

DESIGNED BY	CL
DRAWN BY	CL
CHECKED BY	CL
APPROVED BY	DW

SITE PLAN - PHOTOMETRIC STUDY

GRAYTON BEACH PARKING AREA
COUNTY HIGHWAY 283 SOUTH
SANTA ROSA BEACH 32459

DO NOT SCALE THIS DRAWING -- DIMENSIONS AND NOTES TAKE PREFERENCE

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03-25-24
PROFESSIONAL ENGINEER
Florida Engineer # 73790

PROJECT NO.
19-0328.004

SCALE:
N.T.S.

DATE:
03/29/23

DRAWING:
EP101

GRAYTON BEACH TRANSIT FACILITY
WALTON COUNTY FLORIDA

SYMBOL LEGEND

MATERIAL SYMBOLS

EARTH
GRANULAR FILL
CONCRETE
CONCRETE MASONRY UNIT
BRICK
FINISHED WOOD
ROUGH WOOD (CONTINUOUS)
ROUGH WOOD (NOT CONTINUOUS)
PLYWOOD
ACOUSTICAL OR CERAMIC TILE
GWB/PLASTER/ STUCCO/GROUT
RIGID INSULATION
FIRE SAFING/ COMP FILLER
BATT INSULATION
LATH
BIT DAMPROOFING

GENERAL SYMBOLS

DETAIL NUMBER 4 / SHEET REFERENCE A5.1 — DETAIL — SCALE: 1"=1'-0" — DETAIL TITLE
SECTION NUMBER 8 / SHEET REFERENCE A5.1 — BUILDING SECTION
SECTION NUMBER 14 / SHEET REFERENCE A9.1 — SECTION CUTS
NAME NUM — ROOM NAME / ROOM NUMBER
12'-4" — FINISH FLOOR ELEVATION
10 — DOOR MARK
A — INTERIOR ELEVATION
B — WINDOW MARK
2 A — COLUMN REFERENCE AND GRID LINES
W21 — WALL TYPE MARK

ABBREVIATIONS

@	AT	FDN	FOUNDATION	OC	ON CENTER(S)
ACT	ACOUSTICAL TILE	FE	FIRE EXTINGUISHER	OD	OUTSIDE DIAMETER
AD	AREA DRAIN	FEC	FIRE EXTINGUISHER CABINET	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
AE	ARCHITECT-ENGINEER	FF	FINISHED FLOOR		
AFF	ABOVE FINISHED FLOOR	FHC	FIRE HOSE CABINET	OFOI	OWNER FURNISHED OWNER INSTALLED
AHU	AIR HANDLING UNIT	FIN	FINISH(ED)		
APPROX	APPROXIMATE	FIXT	FIXTURE	OFCRI	OWNER FURNISHED CONTRACTOR ROUGH IN
ARCH	ARCHITECT(URAL)	FL	FLOOR		
		FO	FACE OF	OH	OVERHEAD
BD	BOARD	FT	FOOT/FEET	OPH	OPPOSITE HAND
BIT	BITUMINOUS	FTG	FOOTING	OPP	OPPOSITE
BLDG	BUILDING				
BLK	BLOCK	GA	GAGE/GAUGE	PL	PLATE
BLKG	BLOCKING	GALV	GALVANIZED	PLAM	PLASTIC LAMINATE
BM	BEAM	GL	GLASS/GLAZING	PR	PAIR
BOT	BOTTOM	GWB	GYPSUM WALL BOARD	PT	PRESSURE TREATED
BRG	BEARING	GYP	GYPSUM		
BRK	BRICK			QT	QUARRY TILE
BUR	BUILT UP ROOFING	HA	HANDICAP ACCESSIBLE		
		HDW	HARDWARE	R	RISER/RADIUS
CEM PL	CEMENT PLASTER	HM	HOLLOW METAL	RD	ROOF DRAIN
CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED	HR	HOUR	REC	RECESSED
		HT	HEIGHT/HIGH	REINF	REINFORCED(ING)
CHEM	CHEMICAL	HVAC	HEATING, VENTILATING AND AIR CONDITIONING	REQ	REQUIRED
CJ	CONTROL JOINT/ CONSTRUCTION JOINT			RES	RESILIENT
				REV	REVISE(SION)(D)
CL	CENTER LINE	ID	INSIDE DIAMETER	RM	ROOM
CLG	CEILING	IN	INCH	RO	ROUGH OPENING
CMU	CONCRETE MASONRY UNIT	INSUL	INSULATE(D)(ION)		
COL	COLUMN	INT	INTERIOR	S	SOUTH
CONC	CONCRETE			SC	SOLID CORE
CONF	CONFERENCE	JT	JOINT	SECT	SECTION
CONT	CONTINUE(OUS)			SIM	SIMILAR
CPT	CARPET(ED)	L	LENGTH	SPEC	SPECIFICATION(S)
CT	CERAMIC TILE	LAV	LAVATORY	SQ	SQUARE
		LF	LINEAL FEET	SS	STAINLESS STEEL
DEMO	DEMOLISH(TION)			STRUCT	STRUCTURAL
DET	DETAIL			SYS	SYSTEM
DF	DRINKING FOUNTAIN	MAX	MAXIMUM		
DIA	DIAMETER	MECH	MECHANIC(AL)	T	TREAD
DIM	DIMENSION	MET	METAL	THK	THICK(NESS)
DIV	DIVISION	MFR	MANUFACTURER(R)	TO	TOP OF
DN	DOWN	MIN	MINIMUM	TYP	TYPICAL
DR	DOOR	MISC	MISCELLANEOUS		
DWG	DRAWING(S)			UC	UNDERCUT
		N	NORTH	UL	UNDERWRITERS LABORATORY
E	EAST	NA	NOT APPLICABLE	UON	UNLESS OTHERWISE NOTED
EA	EACH	NIC	NOT IN CONTRACT		
EJ	EXPANSION JOINT	NO	NUMBER	VCT	VINYL COMPOSITION TILE
EL	ELEVATION	NOM	NOMINAL	VERT	VERTICAL
ELEC	ELECTRIC(AL)	NTS	NOT TO SCALE	VTR	VENT THRU ROOF
ELEV	ELEVATOR			VWC	VINYL WALL COVERING
EQ	EQUAL				
EQUIP	EQUIPMENT			W	WEST/WIDTH
EWC	ELECTRIC WATER COOLER			W/	WITH
EXIST	EXISTING			W/O	WITHOUT
EXP	EXPOSED			WPT	WORK POINT
EXT	EXTERIOR				

GENERAL NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE CODES REFERENCED IN THESE DOCUMENTS AND AS ADPOTED AND SUPPLEMENTED BY LOCAL REGULATIONS.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL BUILDING PERMITS FROM THE LOCAL BUILDING DEPARTMENTS AS REQUIRED BY CITY/COUNTY REGULATIONS. FEES FOR SUCH PERMITS SHALL BE PAID BY THE CONTRACTOR AND A SET OF APPROVED DRAWINGS AND ORIGINAL PERMITS SHALL BE RETAINED ON SITE FOR THE DURATION OF THE PROJECT.

3. THE DESIGN INFORMATION SHOWN ON THE DRAWINGS PROVIDES OVERALL DIMENSIONAL PARAMETERS AND DESCRIBES ELEMENTS TO BE CONSTRUCTED. THE CONTRACTOR SHALL ADJUST DIMENSIONS AND DETAILS AS REQUIRED TO FIT EXISTING CONDITIONS. THE ARCHITECT/ENGINEER SHALL BE NOTIFIED OF ALL PROPOSED MODIFICATIONS.

4. NO CHANGES TO THE INFORMATION SHOWN ON THE DRAWINGS SHALL BE MADE WITHOUT THE SPECIFIC WRITTEN APPROVAL OF THE ARCHITECT OR ENGINEER, AS APPICABLE.

5. THE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCRE PANCIES ON THESE DOCUMENTS.

6. THE CONTRACTOR SHALL ADHERE TO THE REQUIR EMENTS OF F.B.C. FOR SAFETY STANDARDS PERTAINING TO CONSTRUCTION PROCEDURES.

7. ALL GLAZING AND GLASS SHALL BE IMPACT RESISTANT GLASS. A FLORIDA APPROVED TESTING AGENCY MUST APPROVE AND LIST SUCH GLASS.

8. ALL EXTERIOR COMPONENTS SHALL HAVE FLORIDA APPROVAL NUMBERS.

9. ALL EXTERIOR DOORS SHALL BE IMPACT RATED ASSEMBLIES.

SHOP DRAWINGS

COPIES OF ALL SHOP DRAWINGS FOR STRUCTURAL OR LIFE SAFETY RELATED COMPONENTS SHALL BE SUBMITTED TO THE ARCHITECT & OWNER FOR APPROVAL..

THE CONTRACTOR SHALL SUBMIT DETAILED FABRICATION AND INSTALLATION DRAWINGS AND PRODUCT LITERATURE FOR THE FOLLOWING ITEMS. ARCHITECT REVIEW OF SHOP DRAWING IS FOR COMPLIANCE OF THE PRODUCT WITH THE DESIGN CONCEPTS DELINEATED IN THESE DOCUMENTS. THE CONTRACTOR AND/OR PRODUCT MANUFACTURER SHALL BE RESPONSIBLE FOR THE ACCURACY AND PERFORMANCE OF THE PRODUCT AND ITS COORDINATION WITH THE OTHER TRADES.

1. STRUCTURAL STEEL
2. METAL STUD FRAMING
3. ROOF TRUSSES, LVL, & PRE-ENGINEERED BEAMS
4. REINFORCING STEEL
5. CONCRETE DESIGN MIXES
6. WATERPROOF MEMBRANES
7. RAILINGS & HANDRAILS
8. ARCHITECTURAL PRE-CAST OR PRE-FORMED COLUMNS
9. APPLIED FOAM TRIM, WINDOW/DOOR HEADS, AND ARCHITECTURAL DETAILING
10. BATHROOM ACCESSOIRES & MIRRORS
11. ALL FOOR, WALL , AND CEILING FINISHES
12. ALL CABINETRY
13. ELEVATORS
14. STAIRS AND HANDRAILS
15. ALL HEATING & VENTILATING EQUIPMENT
16. ELECTRICAL FIXTURES & EQUIPMENT
17. ALL PLUBMING FIXTURES
18. DOORS, WINDOWS, AND ALL HARDWARE
19. FIREPLACES
20. APPLIANCES

PERFORMANCE STANDARDS

ALL MATERIALS, PRODUCTS AND THEIR INSTALLAITON SHALL MEET THE PRODUCT APPROVAL OF AND BE INSTALLED IN ACCORDANCE WITH THE STANDARDS ESTABLISHED BY THE FOLLOWING AGENCIES, AS APPICALBE:

ASTM AMERCIAN SOCIETY OF TESTING MATERIALS
ACI - AMERICAN CONCRETE INSTITUTE
AF&PA - AMERICAN FOREST & PAPER ASSSOCIATION
AISC - AMERICAN INSTITURE OF STEEL CONSTRUCTION
AWI - AMERICAN WOODWORK INSTITUTE
AWPB - AMERICAN WOOD PEIRSERVATIVES BUREAU
ANSI - AMERICAN NATIONAL STANDARDS INSTITUTE
AAMA - ARCHITECTURAL ALUMINUM MANUFACTURER'S ASSOCIATION
FBC - FLORIDA BUILDING CODE
GA - GYPSUM ASSOCIATION
LSC - LIFE SAFETY CODE
NER - NATIONAL EVALUATION SERVICE INC
NFPA - NATIONAL FIRE RPOTECTION ASSOCIATION
NDW - NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION
OSHA - OCCKUPATIONAL SAFETY AND HEALTH ACT
SJI - STEEL JOIST INSTITUTE
TCA - TILE COUNCIL OF AMERICA
UL - UNERWRITERS LABORATORIES

BUILDING DESIGN DATA

APPLICABLE CODES

2023 florida building code, building, 7th edition
2023 florida building code, accessibility, 7th edition
2023 florida building code, energy conservation, 7th edition
2023 florida building code, plumbing, 7th edition
2023 florida building code, mechanical, 7th edition,
2023 florida building code, fuel gas, 7th edition
florida fire prevention code, 8th edition
national electrical code 2017
nfpa 101 life safety code 2021 edition w/ amendments
nfpa 1 2021 edition
florida statutes
florida administrative code
refer to other drawings for other applicable codes

PROJECT DATA

This project consists of two buildings. Building no. 1 is a drop/off waiting facility consisting of a covered drop off / drive through entry, a covered porch, a main Waiting area, and restrooms. It is a wood frame structure, type VB construction type, non-firesprinklered. Building no. 2. is a pre-manufactured building consisting of storage areas, office and a bathroom, type VB FBC 2023 & IIOOO NFPA construction, non-firesprinklered.

BUILDING 1 CALCS:
TOTAL AREA = 3,392 SF
HEATED & COOLED = 1,646 SF
COVERED PORCH = 1,686 SF
MAIN WAITING AREA = 874 SF gross, 799 net
BATHROOMS = 772 SF

BUILDING 2 CALCS:
TOTAL SF = 1,800 SF
STORAGE AREA = 1280 SF
OFFICE / BATHROOMS = 520 SF

ARCHITECT
RUSSELL JOHNSON, ARCHITECT
P.O. BOX 1399
PANAMA CITY, FL. 32401
(850) 630.4483
AR 0012593
rajarch@msn.com

STRUCTURAL ENGINEER
APEX ENGINEERING GROUP, PLLC
78-A RICKER AVENUE
SANTA ROSA BEACH, FL 32459
(850) 231.4540
www.apexengineeringgroup.net

MECHANICAL ENGINEER
STEPHENS MECHANICAL ENG, LLC
925 TOMMY MUNRO DR
SUITE B
BILOXI, MS 39532
(228) 207-3322

ELECTRICAL ENGINEER
WELCON ELECTRICAL CONSULTANTS , PLLC
14116 CUSTOMS BLVD, SUITE #111
GULFPORT, MS 39503
(228).822.8000

INDEX OF DRAWINGS

MAIN BUILDING

STORAGE BUILDING

STRUCTURAL DRAWINGS

MECHANICAL / PLUMBING

ELECTRICAL ENGINEERING

REVISIONS FROM BIDDING SET OF ARCHITECTURAL DOCUMENTS TO PERMIT SET

REVISION 1: ADD LIFE SAFETY PLAN DWG A101.5, CHANGING FBC CODE REFERENCES FROM 2020 TO 2023.
REVISION 2: CHANGE CODE REFERENCE FROM FBC 2020 TO FBC 2023 - DWG A109
REVISION 3: CHANGE CODE REFERENCE FROM FBC 2020 TO FBC 2023 - DWG A113
REVISION 4: STORAGE BUILDING - ROOF OVERHANG TO BE CONTINUOUS PER CONTRACTOR REQUEST - DWG A115
REVISION 5: CHANGE CODE REFERENCE FROM FBC 2020 TO FBC 2023 - DWG A116

Russell Johnson

Digitally signed by Russell Johnson
Date: 2024.03.29 13:12:37 -05'00'

PERMIT DOCUMENTS
02.17.24

RUSSELL JOHNSON ARCHITECT PL
AR 0012593
rajarch@msn.com
ARCHITECTURE
850 630 4483

GRAYTON BEACH TRANSIT FACILITY
WALTON COUNTY FLORIDA

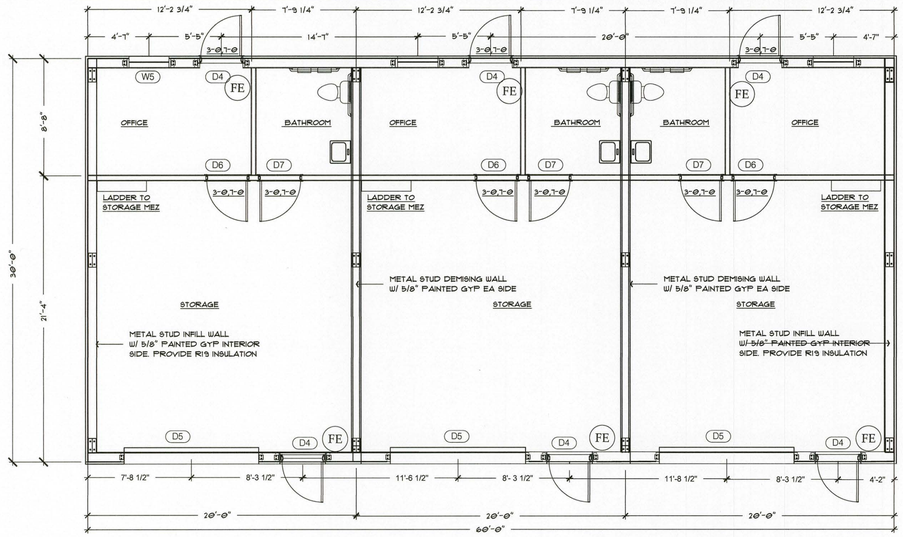
STATE OF FLORIDA — RUSSELL A JOHNSON — AR0012593 — REGISTERED ARCHITECT

TRANSIT FACILITY BUILDING LIFE SAFETY:

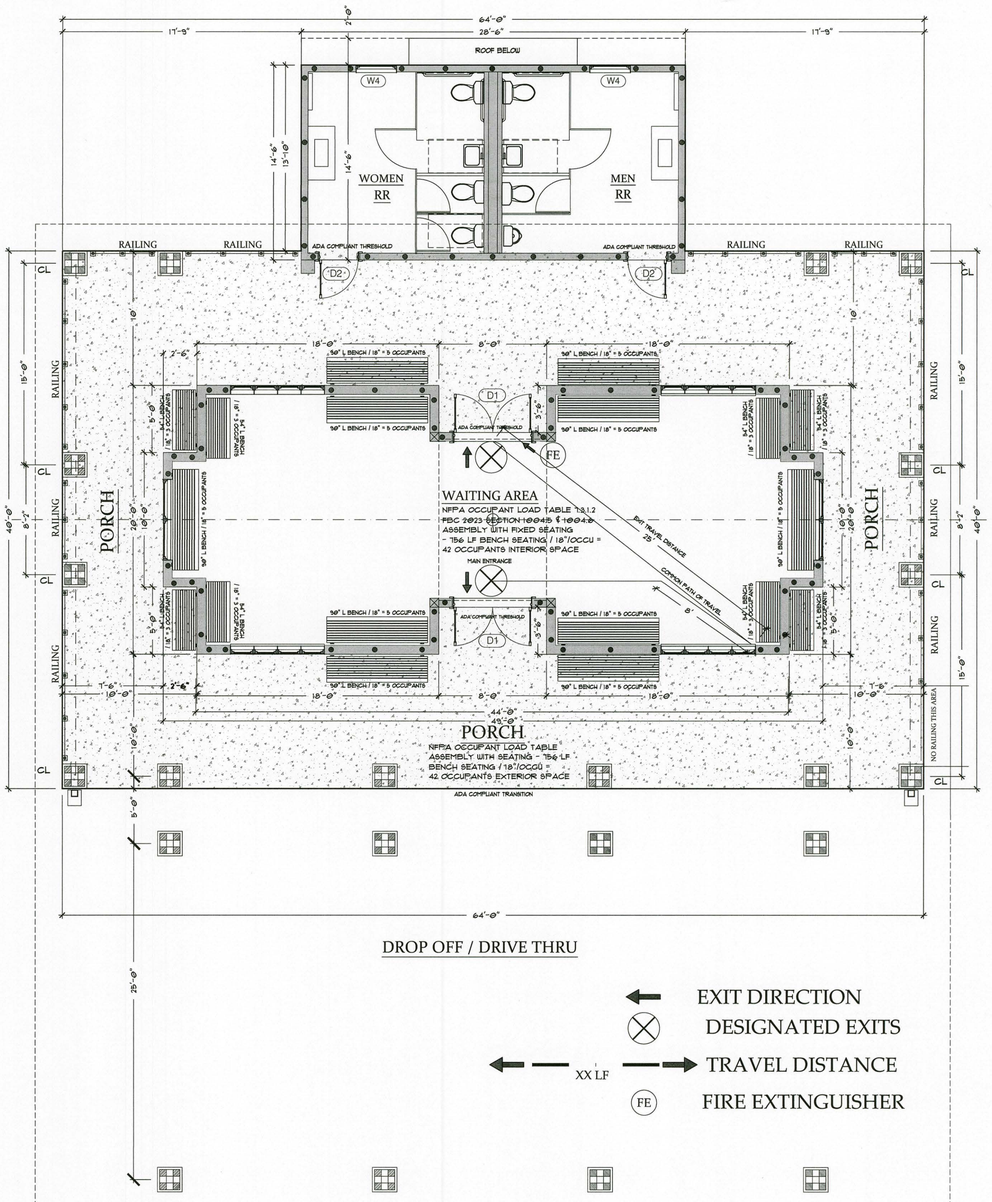
CONSTRUCTION TYPE V000 NFPA, VB FBC 2023
ASSEMBLY A3 OCCUPANCY
OCCUPANT LOAD = NFPA 7.3.1.2 & FBC 2023 1004.4 & 1004.6 - OCCUPANT LOAD TOTAL LF OF BENCH SEATING / 18" PER OCCUPANT
156 LF BENCH SEATING / 18" PER OCCUPANT = 42 OCCUPANTS
NUMBER OF EXITS = 1 EXIT REQUIRED PER FBC 1006.2.1, 2 EXITS PROVIDED
CHANGES IN ELEVATION - LIMITED TO 1/2" BEVELED, GREATER THAN 1/2" BEVELED REQUIRES RAMPS, (REFER TO CIVIL DWGS)
EXIT REMOTENESS - N.A. LESS THAN 50 OCCUPANT LOAD
EXIT DOORS - DOUBLE 3'-0 WIDE EGRESS DOORS OPENING OUTWARD, 68" CLEAR OPENING, PANIC HARDWARE W/ CLOSERS
EXIT CAPACITY - NFPA 101 7.3.3.1 = .2" / OCCUPANT X 42 OCCUPANTS = 8.4" REQUIRED, 136" PROVIDED
EXIT SIGNAGE TO BE PROVIDED PER NFPA 101 7.10.8.4 & 7.10.1.2
MAX TRAVEL DISTANCE PER NFPA 101 12.2.6.2 = 200 LF, ACTUAL TRAVEL DISTANCE = 25' LF
COMMON PATH OF TRAVEL PER NFPA 101 12.2.5.2 = 20 LF, ACTUAL COMMON PATH OR TRAVEL = 8 LF
DEAD END CORRIDORS - N.A.
STAIRS & HANDRAILS REFER TO CIVIL DRAWINGS FOR SITE STAIRS
GUARDS - 42" H MEETING CODE SPECS, REFER TO DWG A109
AISLES - N.A.
CORRIDORS - N.A.
EMERGENCY LIGHTING AND EXIT SIGNS - REFER TO ELECTRICAL DWGS
VERTICAL OPENINGS - N.A.
FIRE ALARM & SPRINKLER - N.A.
HIGH RISE BUILDING - N.A.
FIRE EXTINGUISHERS - TO BE SELECTED AND INSTALLED PER NFPA 10

STORAGE BUILDING LIFE SAFETY:

STORAGE BUILDING OCCUPANCY, ORDINARY HAZARD NFPA 101 6.2.2.3, FBC 91
CONSTRUCTION TYPE II000 NFPA 101, FBC 2023 TYPE III
ALLOWABLE AREA = 26,000 SF, ACTUAL SF = 1800 SF
OCCUPANT LOAD = (3) INDIVIDUAL SPACES @ 600 SF EACH / 500 SF /OCC = 2 OCCUPANTS (NFPA 101 TABLE 7.3.1.2 STORAGE)
NUMBER OF EXITS = 1 EXIT REQUIRED PER NFPA 42.2.4.1, 2 EXITS PROVIDED
CHANGES IN ELEVATION - LIMITED TO 1/2" BEVELED, GREATER THAN 1/2" BEVELED REQUIRES RAMPS, (REFER TO CIVIL DWGS)
EXIT DOORS - 3'-0 WIDE EGRESS DOORS OPENING OUTWARD, 32" CLEAR OPENING,
EXIT CAPACITY - NFPA 101 7.3.3.1 = .2" / OCCUPANT X 2 OCCUPANTS = .4" REQUIRED, 32" PROVIDED
EXIT SIGNAGE TO BE PROVIDED PER NFPA 101 7.10.8.4 & 7.10.1.2
MAX TRAVEL DISTANCE PER NFPA 101 42.2.5 = 200 LF, ACTUAL TRAVEL DISTANCE = 21 LF
COMMON PATH OF TRAVEL PER NFPA 101 42.2.5 = 50 LF, ACTUAL COMMON PATH OR TRAVEL = 21 LF
DEAD END CORRIDORS - N.A.
STAIRS & HANDRAILS REFER TO CIVIL DRAWINGS FOR SITE STAIRS
GUARDS - NA
AISLES - N.A.
CORRIDORS - N.A.
EMERGENCY LIGHTING AND EXIT SIGNS - REFER TO ELECTRICAL DWGS
VERTICAL OPENINGS - N.A.
FIRE ALARM & SPRINKLER - N.A.
HIGH RISE BUILDING - N.A.
FIRE EXTINGUISHERS - TO BE SELECTED AND INSTALLED PER NFPA 10



FLOOR PLAN - STORAGE BUILDING



FLOOR PLAN - TRANSIT BUILDING

1. FIRE EXTINGUISHER NOTES:
   1.1. THE LOCATION, SIZE, AND CLASS OF FIRE EXTINGUISHERS SHALL BE DETERMINED PER NFPA REQUIREMENTS BY THE FIRE EXTINGUISHER SUPPLIER AND AS APPROVED BY THE FIRE MARSHALL / INSPECTOR.
   1.2. THE INSTALLATION OF THE PORTABLE FIRE EXTINGUISHERS SHALL BE PER A FIRE PROTECTION CONTRACTOR IN CONJUNCTION WITH THE GENERAL CONTRACTOR.
   1.3. SUBMIT FIRE EXTINGUISHER LAYOUT, SIZE, AND CLASS TO THE APPROPRIATE FIRE MARSHALL / INSPECTOR FOR REVIEW AND APPROVAL INDICATING THE FIRE EXTINGUISHER HAZARD CLASSIFICATIONS, SIZES, PLACEMENTS AND TRAVEL DISTANCES PRIOR TO INSTALLATION.
   1.4. PROVIDE MINIMUM MULTIPURPOSE DRY CHEMICAL TYPE: UL-RATED 4-A: 60-BC, 10- LB NOMINAL CAPACITY IN ENAMELED STEEL CONTAINER BRACKET MOUNTED IN LOCATIONS INDICATED AND AS REQUIRED BY NFA PORTABLE FIRE EXTINGUISHERS - VERIFY WITH THE AHJ.
   1.5 ADDITIONAL FIRE EXTINGUISHERS MAY BE REQUIRED BY AHJ FOR THE STORAGE BUILDING - COORDINATE WITH AHJ.

LIFE SAFETY PLANS
SCALE:3/16" = 1'-0"

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GRAYTON BEACH
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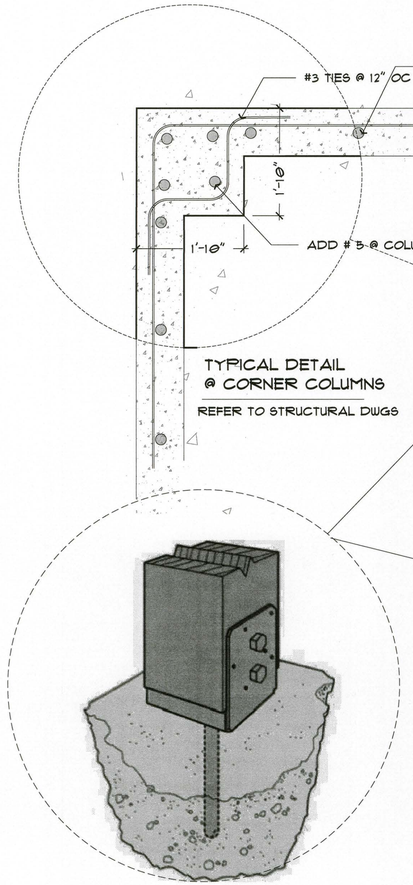
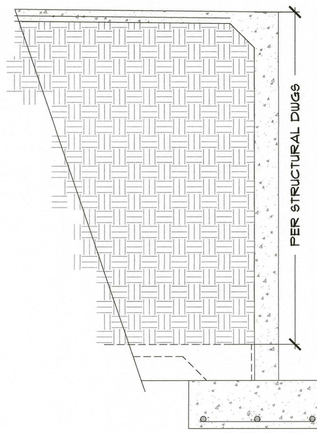
A - 101.5



TYPICAL DETAIL
@ CORNER COLUMNS

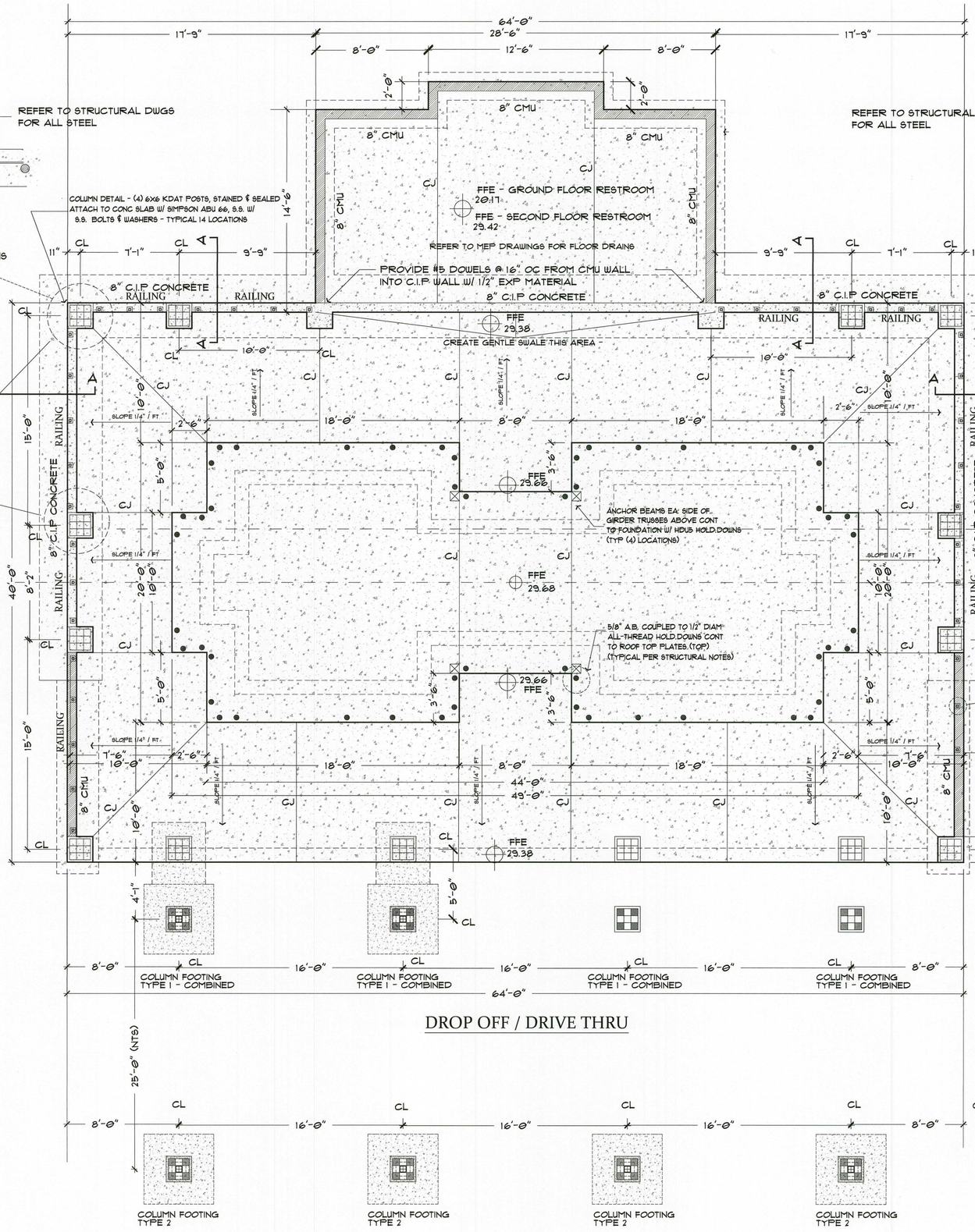
REFER TO STRUCTURAL DWGS

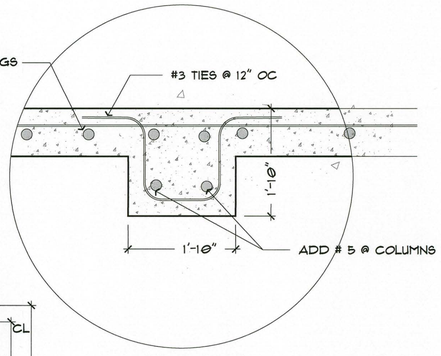
COLUMN DETAIL - (4) 6X6 KDAT POSTS, STAINED & SEALED
ATTACH TO CONC SLAB W/ SIMPSON ABU 66, S.S. W/
S.S. BOLTS & WASHERS - TYPICAL 14 LOCATIONS



RETAINING WALL A-A

REFER TO STRUCTURAL DWGS





TYPICAL DETAIL
@ SIDE COLUMNS

REFER TO STRUCTURAL DWGS

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INDICATES 8" CMU

INDICATES 8" C.I.P CONCRETRE

NOTE: REFER TO STRUCTURAL DRAWINGS FOR DETAILS, FOOTING SIZES, REINFORCEMENT, ETC.

CJ INDICATES A 1" DEEP SAWCUT W/IN 24 HOURS OF CONC POUR FILL GAP W/ APPROPRIATE EXPANSION MATERIAL

CONC SLAB NOTE:

1. ALL FLOOR FINISHES SHALL BE IN COMPLIANCE W/ FBC ACCESSIBILITY CHAPTER 3. EXPOSED / POLISHED CONCRETE SHALL HAVE SLIP-RESISTANT FINISHES IN COMPLIANCE W/ FBC ACCESSIBILITY AND THE CONCRETE POLISHING COUNCIL. ALL FLOORING SHALL MEET OR EXCEED THE FLOOR DYNAMIC COEFFICIENT OF FRICTION (DCOF) AS PER ACCESSIBILITY CODES FOR NON-SLIP / SLIP RESISTANT STANDARDS.

FOUNDATION PLAN

SCALE: 1/4" = 1'-0"

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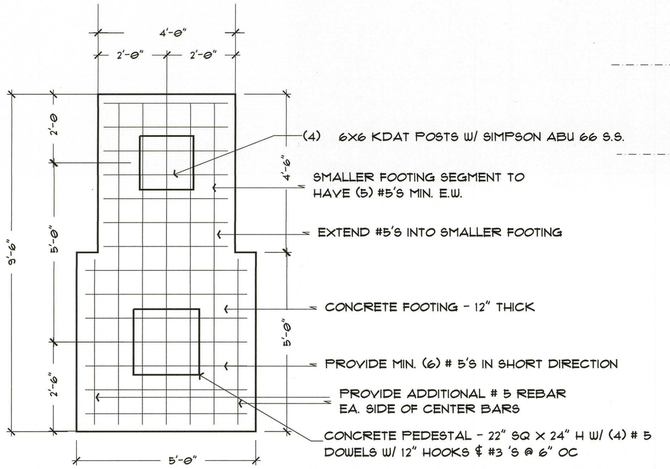
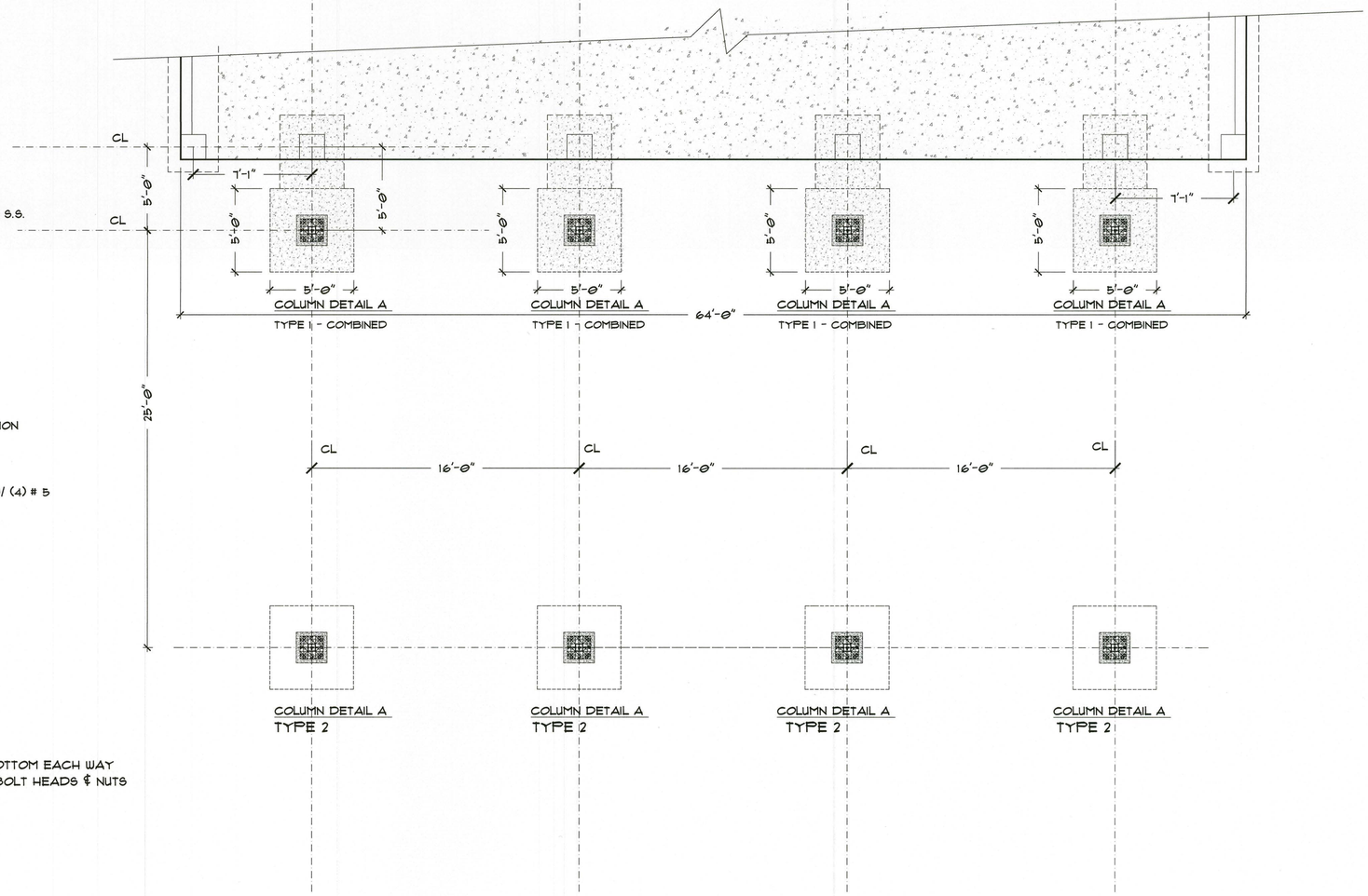


COLUMN FOOTING
TYPE 1 - COMBINED



COLUMN DETAIL A
TYPE 1 - COMBINED

COLUMN DETAIL A
TYPE 1 - COMBINED

COLUMN DETAIL A
TYPE 1 - COMBINED

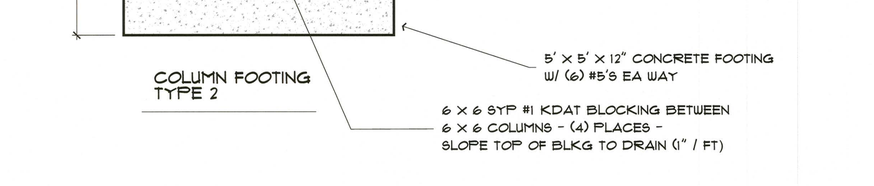
COLUMN DETAIL A
TYPE 1 - COMBINED

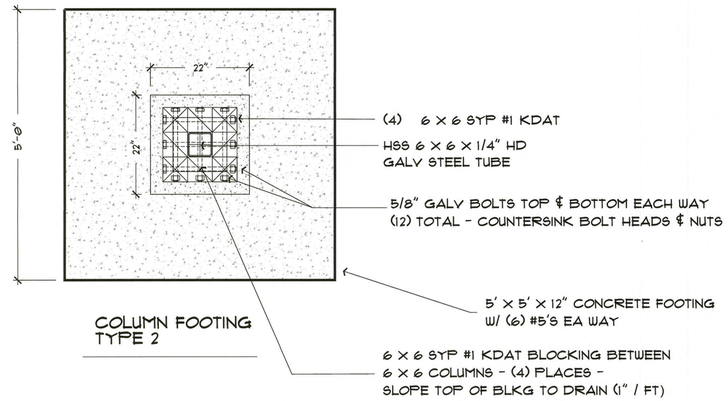
COLUMN DETAIL A
TYPE 2

COLUMN DETAIL A
TYPE 2

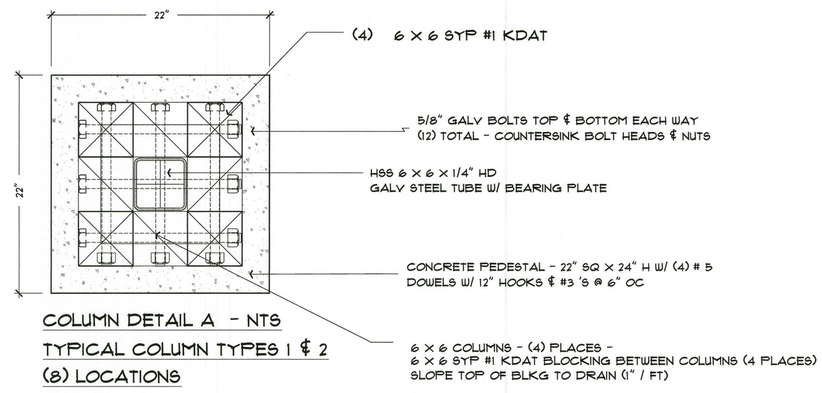
COLUMN DETAIL A
TYPE 2

COLUMN DETAIL A
TYPE 2





COLUMN FOOTING
TYPE 2



COLUMN DETAIL A - NTS
TYPICAL COLUMN TYPES 1 & 2
(8) LOCATIONS

NOTE: REFER TO STRUCTURAL DRAWINGS FOR DETAILS, FOOTING SIZES, REINFORCEMENT, ETC.

DROP OFF / DRIVE THRU
FOUNDATION PLAN

SCALE: 1/4" = 1'-0"

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WALTON COUNTY
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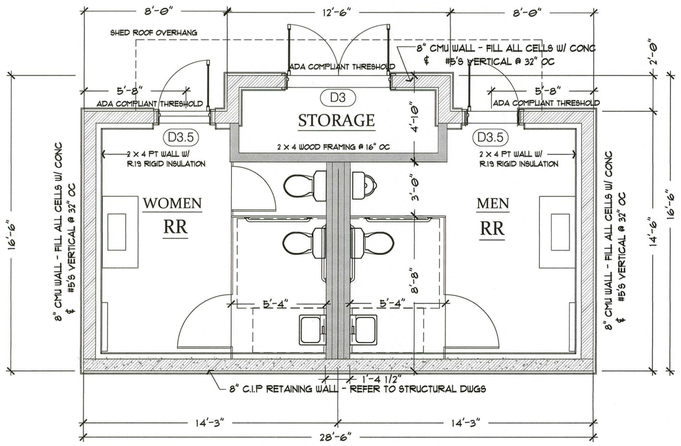
03.29.24

A - 103



RESTROOM FLOOR PLAN
LOWER PARKING LOT

DOOR SCHEDULE

REFER TO OTHER DRAWINGS FOR TOILET ACCESSORIES

	SYMBOL	TYPE	SIZE	DESCRIPTION	REMARKS
	D1	EXTERIOR DBL DOOR	2 (3-0 W, 8-0 H)	FIBERGLASS W/ FULL GLASS	IMPACT RATED W/ CLOSERS & ADA COMPLIANT LOCKSETS/HANDLES
	D2	EXTERIOR DOOR	3-0 W, 8-0 H	PAINTED METAL, HM FRAME	IMPACT RATED W/ CLOSERS & ADA COMPLIANT LOCKSETS/HANDLES
	D3	EXTERIOR DBL DOOR	3-0 W, 7-0 H	PAINTED METAL, HM FRAME	IMPACT RATED W/ CLOSERS & ADA COMPLIANT LOCKSETS/HANDLES
	D3.5	EXTERIOR DOOR	3-0 W, 7-0 H	PAINTED METAL, HM FRAME	IMPACT RATED W/ CLOSERS & ADA COMPLIANT LOCKSETS/HANDLES
STORAGE BLDG	D4	EXTERIOR DOOR	3-0 W, 7-0 H	PAINTED METAL, HM FRAME	IMPACT RATED W/ CLOSERS & ADA COMPLIANT LOCKSETS/HANDLES
STORAGE BLDG	D5	OH DOOR - MANUAL	3-0 W, 7-0 H	ALUMINUM OH DOOR	IMPACT RATED W/ CLOSERS & ADA COMPLIANT LOCKSETS/HANDLES
STORAGE BLDG	D6	OFFICE DOOR, INTERIOR	3-0 W, 7-0 H	PAINTED METAL, HM FRAME	
STORAGE BLDG	D7	BATHROOM DOOR	3-0 W, 7-0 H	PAINTED METAL, HM FRAME	W/ CLOSERS & ADA COMPLIANT LOCKSETS/HANDLES

DOOR NOTES:

1. EXTERIOR DOORS SHALL BE JELD WEN DESIGN PRO/SMOOTH PRO FIBERGLASS OUTSWING W/ COMPOSITE FRAMES, IMPACT RATED. APPROVED EQUALS ARE ACCEPTABLE. DOORS SHALL BE PAINTED TO MATCH SIDING.
2. ALL DOOR HARDWARE SHALL BE STAINLESS STEEL AND ALL LEVERS / LOCKS / HANDLE SETS SHALL BE COMMERCIAL GRADE ADA COMPLIANT
3. ALL EXTERIOR DOORS SHALL HAVE FLORIDA PRODUCT APPROVAL NUMBER AND SHALL BE INSTALLED PER MANUFACTURER'S REQUIREMENTS TO MEET APPLICABLE WIND RATINGS (REFER TO STRUCTURAL DWGS)
4. ALL DOORS TO HAVE ADA COMPLIANT THRESHOLDS

DOOR GENERAL NOTES:

1. PROVIDE COMPLETE DOOR SUBMITTALS FOR OWNER / ARCHITECT REVIEW AND APPROVAL, INCLUDING COMMERCIAL GRADE HARDWARE. COORDINATE LOCKSETS AND KEYING REQUIREMENTS W/ OWNER.
2. HAND-ACTIVATED DOOR OPENING HARDWARE SHALL BE CENTERED BETWEEN 34" AND 48" A.F.F. U.N.O..
3. REFER TO OTHER DRAWINGS FOR DOOR TYPE AND LOCATIONS.
4. DOOR CLOSER SWEEP PERIOD SHALL BE ADJUSTED SO THAT FROM THE OPEN POSITION OF 70 DEGREES, THE DOOR WILL TAKE AT LEAST 3 SECONDS TO MOVE TO A POINT 3 INCHES FROM THE LATCH, MEASURED TO THE LEADING EDGE OF THE DOOR.
5. THE MAXIMUM DOOR OPENING FORCE FOR PUSHING OR PULLING INTERIOR DOORS SHALL BE 5 POUNDS PER FOOT.
6. ALL EXTERIOR DOORS ARE TO OPEN OUTWARD AND ARE TO BE SELF CLOSING.
7. CLOSERS TO BE PARALLEL ARM STYLE WHERE APPLICABLE.
8. DOOR FRAMES TO BE EQUIPPED W/ SILENCER BUTTONS UNLESS GASKETS ARE SPECIFIED.
10. ALL EXTERIOR H.M. DOORS AND FRAMES SHALL BE INSULATED, DOORS TO HAVE WEATHER SEALS.
11. FILL ALL VOIDS IN THRESHOLDS W/ SEALANT TO MATCH GROUT.

HARDWARE FINISHES AND BASE METALS SHALL BE LISTED BELOW, UNLESS OTHERWISE INDICATED. SATIN STAINLESS STEEL (U832D) AND SATIN CHROMIUM PLATED (U626D) FINISHES AND BASE METALS, UNLESS OTHERWISE INDICATED.

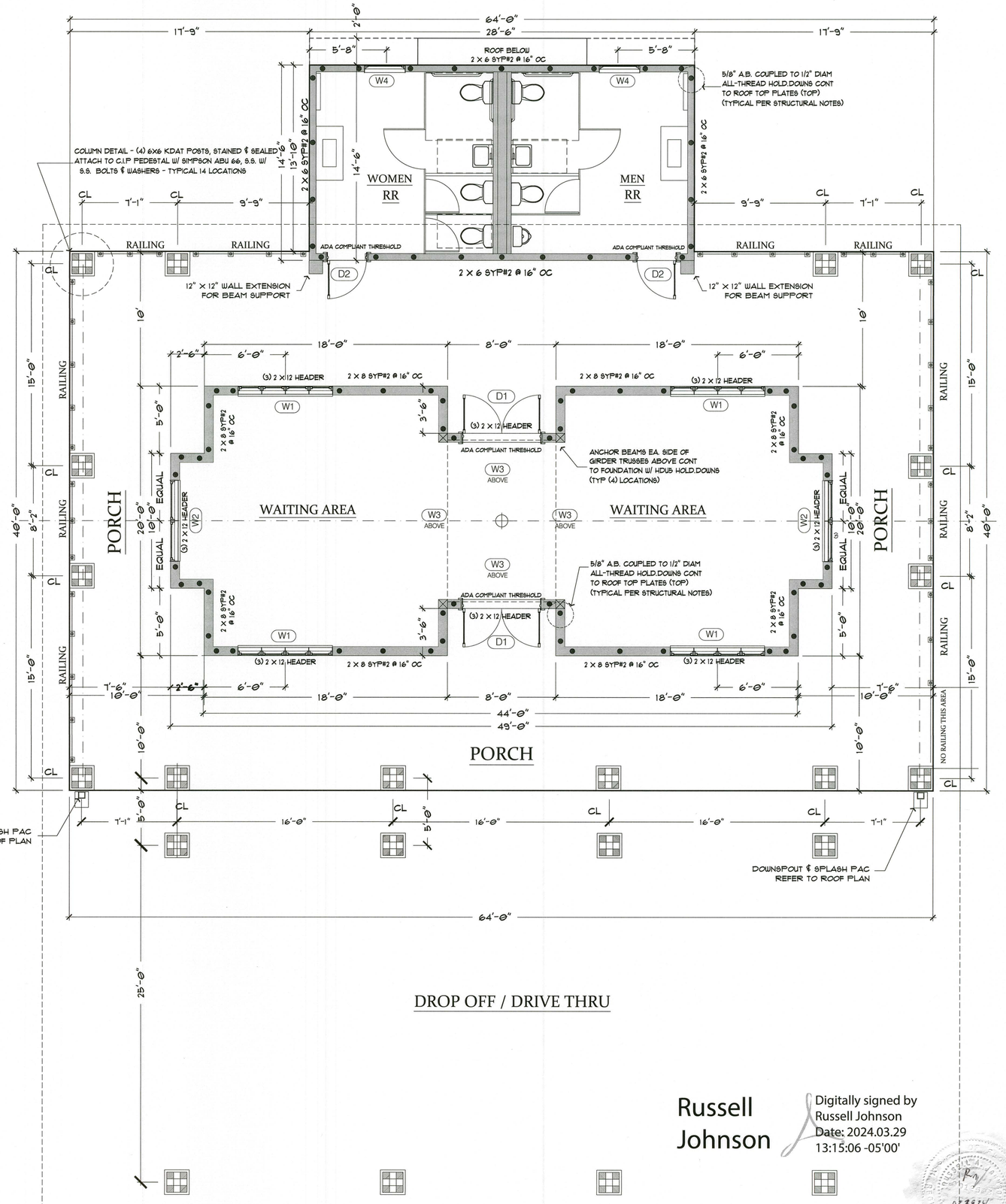
1. EXTERIOR HINGES U832D ON STAINLESS STEEL.
2. INTERIOR HINGES U626D ON STEEL.
3. FLUSH BOLTS U626D ON BRASS OR BRONZE.
4. LOCKS U832D ON STAINLESS STEEL.
5. EXIT DEVICES - 33 SERIES SPRAYED ALUMINUM.
6. EXIT DEVICES - 99 SERIES SPRAYED ALUMINUM.
7. PULLS, PUSH PLATES/BARS U832D ON STAINLESS STEEL.
8. COORDINATORS USP ON STEEL.
9. CLOSERS SPRAYED ALUMINUM.
10. OVERHEAD STOPS/HOLDERS U626D ON BRASS OR BRONZE.
11. KICKPLATE U832D ON STAINLESS STEEL.
12. DOOR EDGE GUARDS U832D ON STAINLESS STEEL.
13. ARMOR PLATES U832D ON STAINLESS STEEL.
14. STOPS, HOLDERS U626D ON BRASS OR BRONZE.
15. THRESHOLDS MILL ON ALUMINUM.
16. MISCELLANEOUS U626D ON BRASS OR BRONZE.

WINDOW SCHEDULE

SYMBOL	TYPE	SIZE	DESCRIPTION	REMARKS
W1	FIXED GLASS W/ MULLS AS INDICATED	(2) 3-6, 5-0	JELD-WEN PREMIUM ATLANTIC IMPACT OR APPROVED EQUAL	8-0 HEAD HEIGHT
W2	FIXED GLASS	3-0 W, 6-0 H 3-0 W, 2-6 H	JELD-WEN PREMIUM ATLANTIC IMPACT OR APPROVED EQUAL	11-6 HEAD HEIGHT
W3	FIXED GLASS	3-0 W, 2-0 H	JELD-WEN PREMIUM ATLANTIC IMPACT OR APPROVED EQUAL	CUPOLA
W4	FIXED GLASS W/ MULLS AS INDICATED	3-0, 4-4	JELD-WEN PREMIUM ATLANTIC IMPACT OR APPROVED EQUAL	6-8 HEAD HEIGHT
W5	STORAGE BUILDING FIXED GLASS W/ MULLS AS INDICATED	3-0, 4-0	JELD-WEN PREMIUM ATLANTIC IMPACT OR APPROVED EQUAL	7-0 HEAD HEIGHT

WINDOW NOTES:

1. WINDOWS SHALL BE JELD WEN PREMIUM ATLANTIC VINYL IMPACT RATED, W/ FLORIDA PRODUCT APPROVAL NUMBER, WHITE, W/ INSULATING GLASS OR APPROVED EQUAL. ALL WINDOWS SHALL BE INSTALLED PER THE MANUFACTURER'S REQUIREMENTS TO MEET APPLICABLE WIND RATINGS (REFER TO STRUCTURAL DWGS).



FLOOR PLAN

SCALE: 1/4" = 1'-0"

Russell Johnson

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Date: 2024.03.29 13:15:06 -05'00'

05.29.24

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GRAYTON BEACH TRANSIT FACILITY

WALTON COUNTY FLORIDA

STATE OF FLORIDA
RUSSELL A JOHNSON
AR0012593
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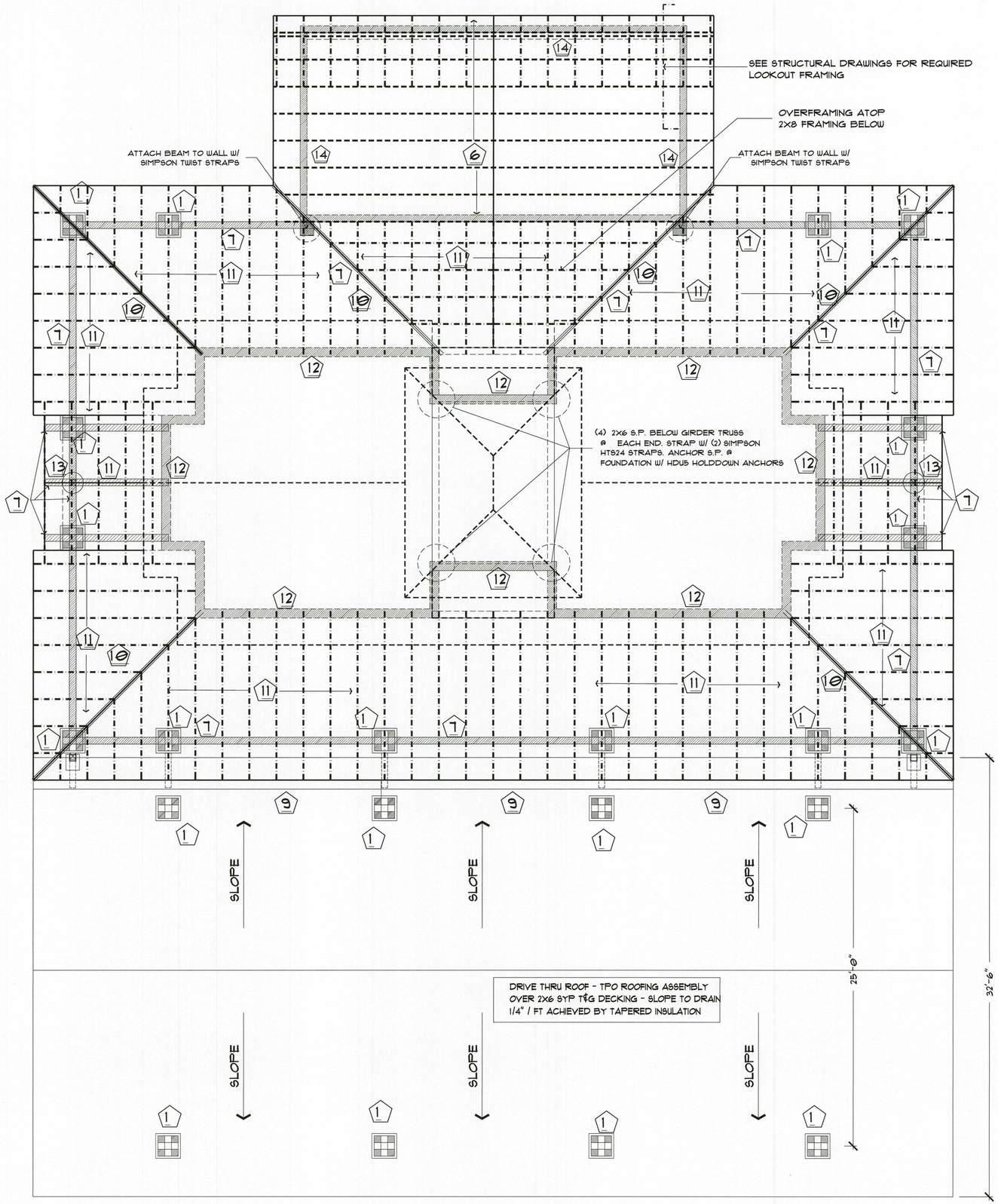
A - 104

LEGEND

1. COLUMN - (4) 6X6 SYP #1 KDAT (STAINED & SEALED) TYPICAL - REFER TO DETAILS OTHER DRAWINGS
2. 6 X 12.375" PT GLU LAM BEAM - STAINED & SEALED
3. 6 X 12.375" PT GLU LAM BEAMS @ 48" OC - STAINED & SEALED
4. 6 X 8 KDAT SYP #1 BRACE BELOW - STAINED & SEALED
5. TPO ROOFING OVER 2X6 SYP#2 T&G ROOF DECKING
6. PRE-ENGINEERED ROOF TRUSSES @ 24" OC - ATTACH TO TOP PLATES W/ SIMPSOM LTS12 EACH END OF EACH TRUSS
7. (3) 2 X 12'S PT BEAMS
8. CUPOLA ROOF FRAMING BY ROOF TRUSS MANUFACTURER
9. HALF ROUND GALV GUTTER & DOWNSPOUT SYSTEM
10. (2) 2X8'S PT HIPS & VALLEYS
11. 2 X 8 'S PT @ 24" OC - ATTACH TO GIRDERS W/ SIMPSON H2.5A SS
12. 2 X 8 SYP#2 WALL FRAMING @ 16" OC W/ STRUCTURAL SHEATHING
13. 6X6 KDAT VERTICAL - STAINED & SEALED
14. 2 X 6 SYP #2 WALL FRAMING @ 16" OC W/ STRUCTURAL SHEATHING



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ROOF FRAMING LOWER

SCALE: 1/4" = 1'-0"

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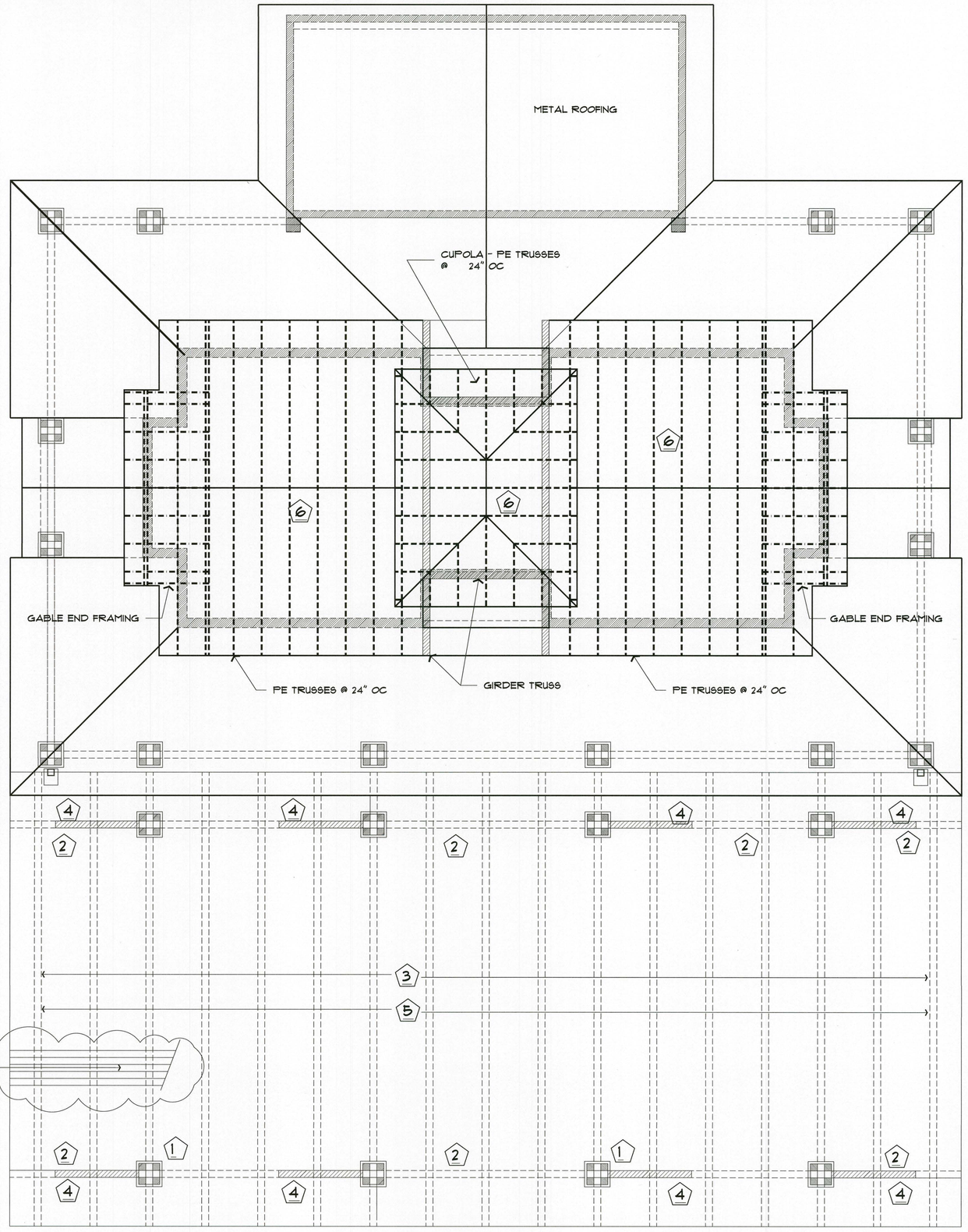
A - 105

LEGEND

1. COLUMN - (4) 6X6 SYP #1 KDAT (STAINED & SEALED) TYPICAL - REFER TO DETAILS OTHER DRAWINGS
2. 6 X 12.375" PT GLU LAM BEAM - STAINED & SEALED
3. 6 X 12.375" PT GLU LAM BEAMS @ 48" OC - STAINED & SEALED
4. 6 X 8 KDAT SYP #1 BRACE BELOW - STAINED & SEALED
5. TPO ROOFING OVER 2X6 SYP#2 T&G ROOF DECKING
6. PRE-ENGINEERED ROOF TRUSSES @ 24" OC - ATTACH TO TOP PLATES W/ SIMPSOM LTS12 EACH END OF EACH TRUSS
7. (3) 2 X 12'S PT BEAMS
8. CUPOLA ROOF FRAMING BY ROOF TRUSS MANUFACTURER
9. HALF ROUND GALV GUTTER & DOWNSPOUT SYSTEM
10. (2) 2X8'S PT HIPS & VALLEYS
11. 2 X 8 'S PT @ 24" OC - ATTACH TO GIRDERS W/ SIMPSON H2.5A SS
12. 2 X 8 SYP#2 WALL FRAMING @ 16" OC W/ STRUCTURAL SHEATHING
13. 6X6 KDAT VERTICAL - STAINED & SEALED
14. 2 X 6 SYP #2 WALL FRAMING @ 16" OC W/ STRUCTURAL SHEATHING



ATTACH 2 X 6 T&G SYP DECKING TO BEAMS BELOW WITH (3) 3" L # 8 WOOD SCREWS. (3 EA SIDE OF JT'S CENTERED ON BEAMS BELOW)

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ROOF FRAMING UPPER

SCALE: 1/4" = 1'-0"

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LEGEND

1. METAL ROOFING - STANDING SEAM, CONCEALED FASTENERS W/ SYNTHETIC CODE APPROVED UNDERLAYMENT OVER STRUCTURAL ROOF DECKING
2. RIDGE
3. HIP
4. VALLEY
5. TPO ROOFING SYSTEM OVER 2X6 SYP#2 ROOF DECKING
6. HALF ROUND GALV GUTTER & DOWNSPOUT SYSTEM W/ CONC SPLASH PADS
7. GABLE END
8. RIDGE VENT - BY ROOFING MANUFACTURER

1. ATTICS SHALL BE VENTED PER THE REQUIREMENTS OF FLORIDA BUILDING CODE 2017.

1.1. 1203.2 VENTILATION REQUIREMENTS - ENCLOSED ATTICS AND ENCLOSED RAFTER SPACES FORMED WHERE CEILINGS ARE APPLIED DIRECTLY TO THE UNDERSIDE OF ROOF FRAMING MEMBERS SHALL HAVE CROSS VENTILATION FOR EACH SEPARATE SPACE BY VENTILATION OPENINGS PROTECTED AGAINST THE ENTRANCE OF RAIN AND SNOW. BLOCKING AND BRIDGING SHALL BE ARRANGED SO AS NOT TO INTERFERE WITH THE MOVEMENT OF AIR. AN AIRSPACE OF NOT LESS THAN 1 INCH SHALL BE PROVIDED BETWEEN THE INSULATION AT THE ROOF SHEATHING. THE NET FREE VENTILATING AREA SHALL BE NOT LESS THAN 1/150 OF THE AREA OF THE SPACE VENTILATED. VENTILATORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.

1.2. EXCEPTION: THE NET FREE CROSS-VENTILATION AREA SHALL BE PERMITTED TO BE REDUCED TO 1/300 PROVIDED BOTH OF THE FOLLOWING CONDITIONS ARE MET:

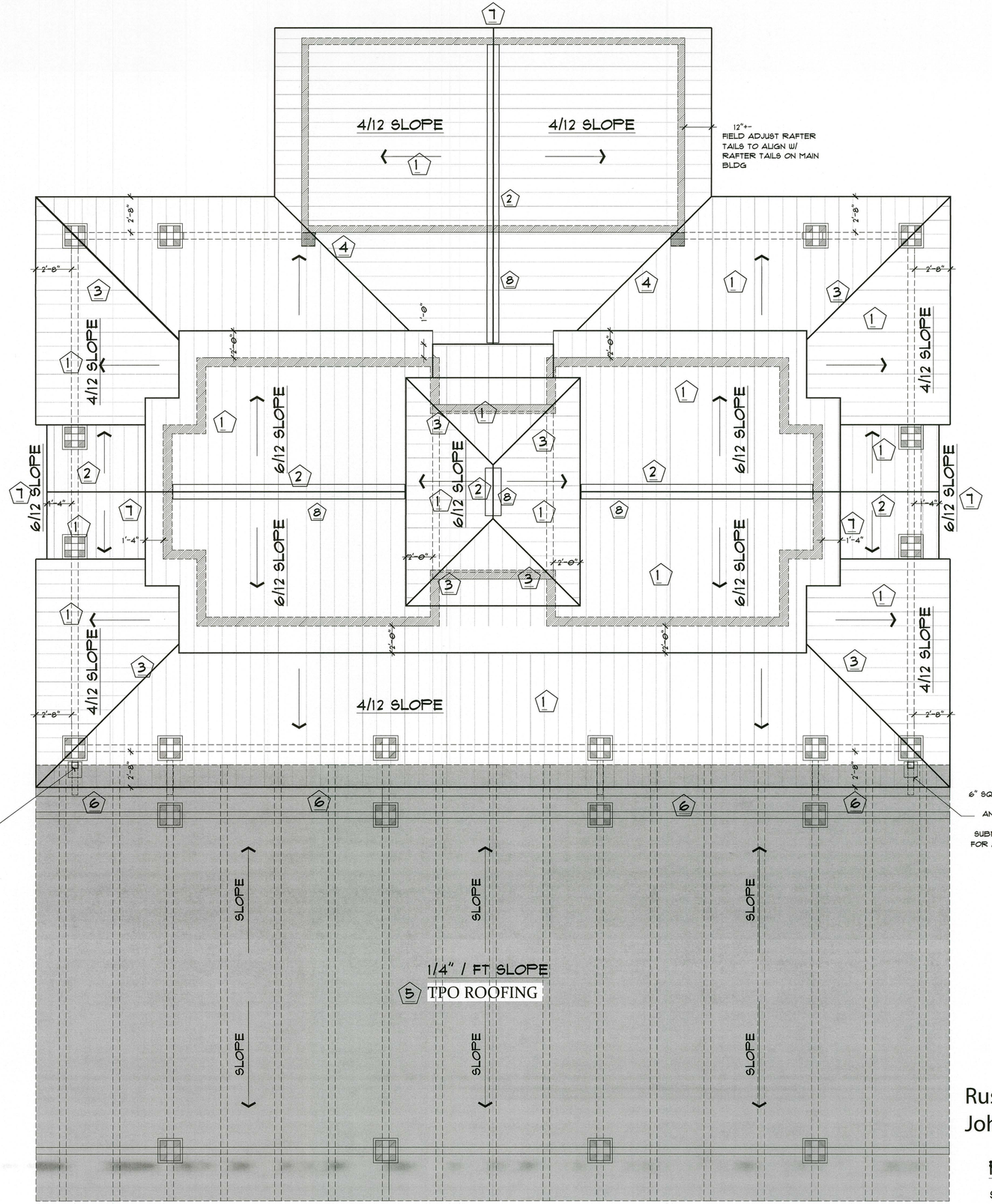
1.2.1. IN CLIMATE ZONES 6,7,& 8 A CLASS 1 OR II VAPOR RETARDER IS INSTALLED ON THE WARM IN WINTER SIDE OF THE CEILING

1.2.2. AT LEAST 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NOT MORE THAN 3 FEET BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY, WITH THE BALANCE OF THE VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION MORE THAN 3 FEET BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.

1.2.3 CUPOLA SOFFIT TO BE PAINTED HARDIE VENTEDPLUS SMOOTH VENTED SOFFIT.

1.2.4 PROVIDE 4" DIAM. BLACK ALUM. BIRD HOLE VENTS @ EACH RAFTER SPACE

2. PROVIDE ATTIC ACCESS PANELS INTO ATTIC SPACES - MAIN BUILDING & RESTROOM ATTICS. PANELS TO BE WHITE ALUMINUM, 20" X 30" MIN. PROVIDE SHOP DRAWINGS AND PRODUCT SAMPLE FOR OWNER / ARCHITECT APPROVAL



6" SQUARE GALVALUME DOWNSPOUT W/ CONCRETE SPLASH PAD AND 8" HALF ROUND GALVALUME GUTTER W/ 1/16" / FT SLOPE - SUBMIT SHOP DRAWINGS & SAMPLE FOR ARCHITECT/OWNER APPROVAL

METAL ROOFING OVER CODE APPROVED SYNTHETIC UNDERLAYMENT OVER STRUCTURAL DECKING SHALL BE ALUMINUM STANDING SEAM, 0.040 GAUGE MIN, CONCEALED FASTENER WITH A FLORIDA PRODUCT APPROVAL NUMBER AND ATTACHED PER THE MANUFACTURER'S REQUIREMENTS TO MEET THE REQUIRED WIND LOADING AS INDICATED IN THE STRUCTURAL DRAWINGS. THE METAL ROOFING SHALL BE A COMPLETE ASSEMBLY WITH ALL FLASHINGS, PENETRATIONS, GUTTERS, DOWNSPOUTS, METAL EDGE COMPONENTS ETC FOR A COMPLETE WATERTIGHT ASSEMBLY. ROOFING FINISH SHALL BE A WHITE KYNAR 500 PAINT FINISH W/ A MIN 35 YEAR SALTWATER EXPOSURE WARRANTY OR APPROVED EQUAL. SUBMIT FULL SHOP DRAWINGS FOR OWNER/ARCHITECT APPROVAL.

PROVIDE AN ALTERNATE BID FOR A 5-V CRIMP GALVANIZED PANEL ROOFING SYSTEM WITH A MARINE /COASTAL PAINT SYSTEM.

TPO ROOF SHALL BE FIRESTONE ULTRAPLY TPO MEMBRANE OR APPROVED EQUAL, ADHERED OR MECHANICALLY FASTENED AS REQUIRED BY THE MANUFACTURER, MIN. .060", USING FIRESTONE APPROVED BONDING ADHESIVE OVER MECHANICALLY OR ADHERED INSULATION BOARD (TAPERED INSULATION TO CREATE REQUIRED ROOF SLOPE) MEETING THE REQUIREMENTS OF THE TPO MANUFACTURER. ROOFING SYSTEM SHALL HAVE A FLORIDA PRODUCT APPROVAL NUMBER AND SHALL BE RATED BY THE MANUFACTURER FOR THE COMPONENTS AND CLADDING REQUIREMENTS AS INDICATED ON THE STRUCTURAL DRAWINGS. PROVIDE A COMPATIBLE FIRESTONE METAL EDGE COPING SYSTEM. ALL ROOFING COMPONENTS SHALL BE INSTALLED PER THE MANUFACTURER'S DETAILS. SUBMIT FULL SHOP DRAWINGS FOR OWNER/ARCHITECT APPROVAL. PROVIDE A FIRESTONE 25 YEAR RED SHIELD WARRANTY. APPROVED EQUALS ARE ACCEPTABLE

RUSSELL JOHNSON ARCHITECT PL
ARCHITECTURE
850 630 4483
AR 0012593
rajarch@msn.com

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REVISIONS
NO. | DATE
PROJECT #

GRAYTON BEACH TRANSIT FACILITY
WALTON COUNTY FLORIDA

Russell Johnson
Digitally signed by Russell Johnson
Date: 2024.03.29 13:30:19 -05'00'

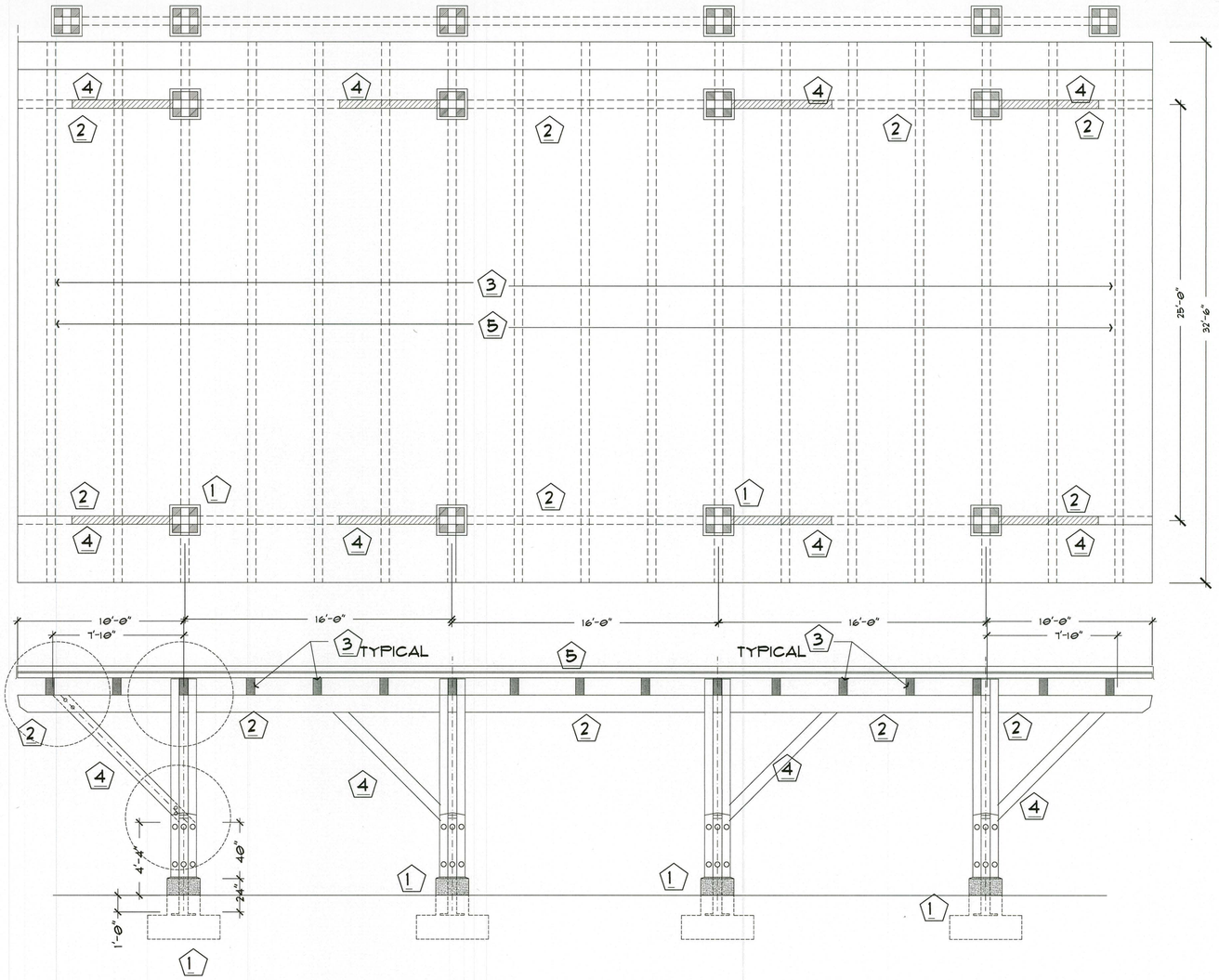
ROOF PLAN
SCALE: 1/4" = 1'-0"

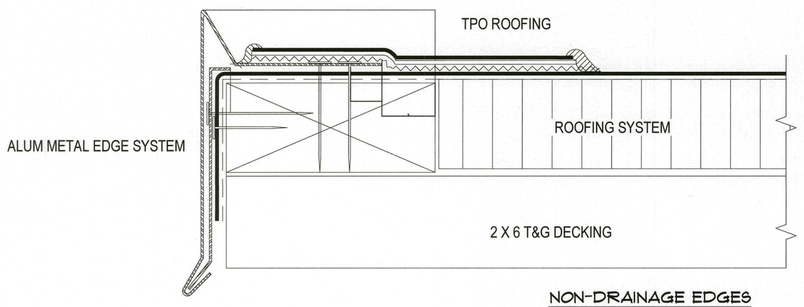
STATE OF FLORIDA · RUSSELL A JOHNSON · AR0012593 · REGISTERED ARCHITECT
03.29.24

A - 107

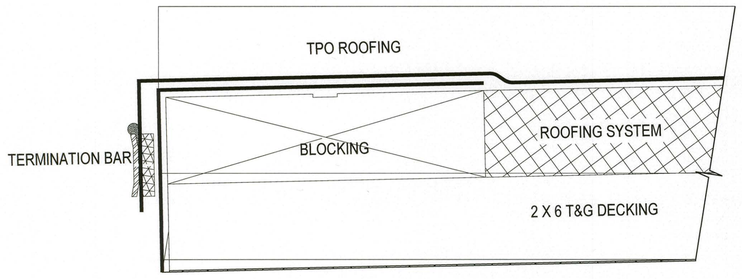
LEGEND

1. COLUMN - (4) 6X6 SYP #1 KDAT (STAINED & SEALED) TYPICAL - REFER TO DETAILS OTHER DRAWINGS
2. 6 X 12.375" PT GLU LAM BEAM - STAINED & SEALED
3. 6 X 12.375" PT GLU LAM BEAMS @ 48" OC - STAINED & SEALED
4. 6 X 8 KDAT SYP #1 BRACE BELOW - STAINED & SEALED
5. TPO ROOFING OVER 2X6 SYP#2 T&G ROOF DECKING
6. PRE-ENGINEERED ROOF TRUSSES @ 24" OC - ATTACH TO TOP PLATES W/ SIMPSOM LTS12 EACH END OF EACH TRUSS
7. (3) 2 X 12'S PT BEAMS
8. CUPOLA ROOF FRAMING BY ROOF TRUSS MANUFACTURER
9. HALF ROUND GALV GUTTER & DOWNSPOUT SYSTEM
10. (2) 2X8'S PT HIPS & VALLEYS
11. 2 X 8 'S PT @ 24" OC - ATTACH TO GIRDERS W/ SIMPSON H2.5A SS
12. 2 X 8 SYP#2 WALL FRAMING @ 16" OC W/ STRUCTURAL SHEATHING
13. 6X6 KDAT VERTICAL - STAINED & SEALED
14. 2 X 6 SYP #2 WALL FRAMING @ 16" OC W/ STRUCTURAL SHEATHING



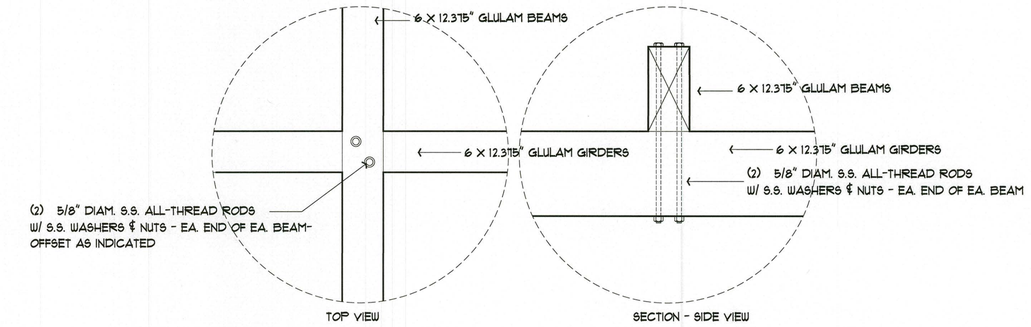


NON-DRAINAGE EDGES



DRAINAGE EDGES

DRIVE THRU ROOF EDGE DETAIL - NTS
NOTE: DETAILS SHOWN IS FOR DESIGN INTENT ONLY. DRAINAGE EDGE SHALL BE A DESIGN ALLOWING WATER DRAINAGE FROM ROOF. ACTUAL DETAILS SHALL BE PER THE ROOFING SYSTEM MANUFACTURER'S DETAILS AND SHALL BE INDICATED IN THE SUMBITTED SHOP DWGS.



BEAM TO GIRDER BELOW CONNECTION DETAIL

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ROOF FRAMING DRIVE THRU

SCALE: 1/4" = 1'-0"

03.29.24

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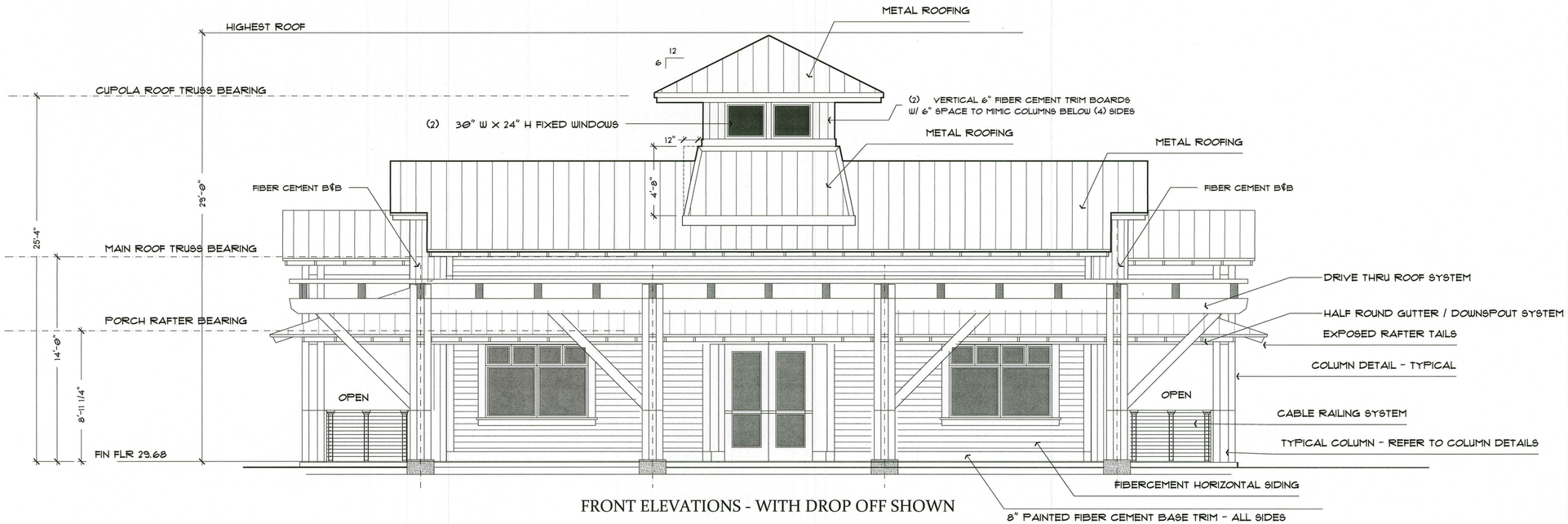


FRONT ELEVATIONS - WITH DROP OFF SHOWN

FIBER CEMENT SIDING

FIBER CEMENT SIDING SHALL BE JAMES HARDIE BOARD OR APPROVED EQUAL, ATTACHED PER MANUFACTURER'S INSTALLATION DETAILS, SUBMIT FULL SHOP DRAWINGS PRIOR TO CONSTRUCTION FOR OWNER/ARCHITECT REVIEW AND APPROVAL

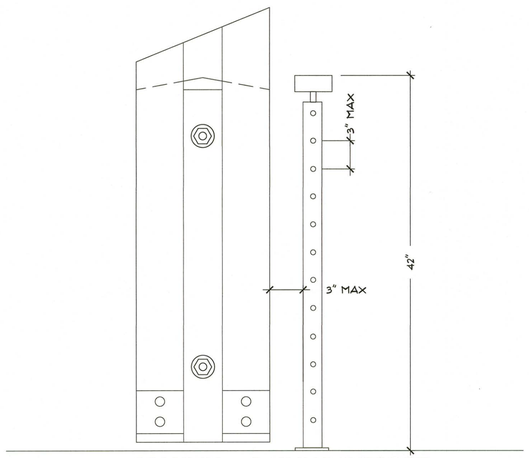
HORIZONTAL SIDING: PAINTED SMOOTH LAP SIDING, 7" EXPOSURE, WHITE

VERTICAL SIDING: PAINTED WHITE, BOARD & BATTEN, 9" EXPOSURE W/ 3" F.C. VERTICAL TRIM BOARDS, SMOOTH TEXTURE

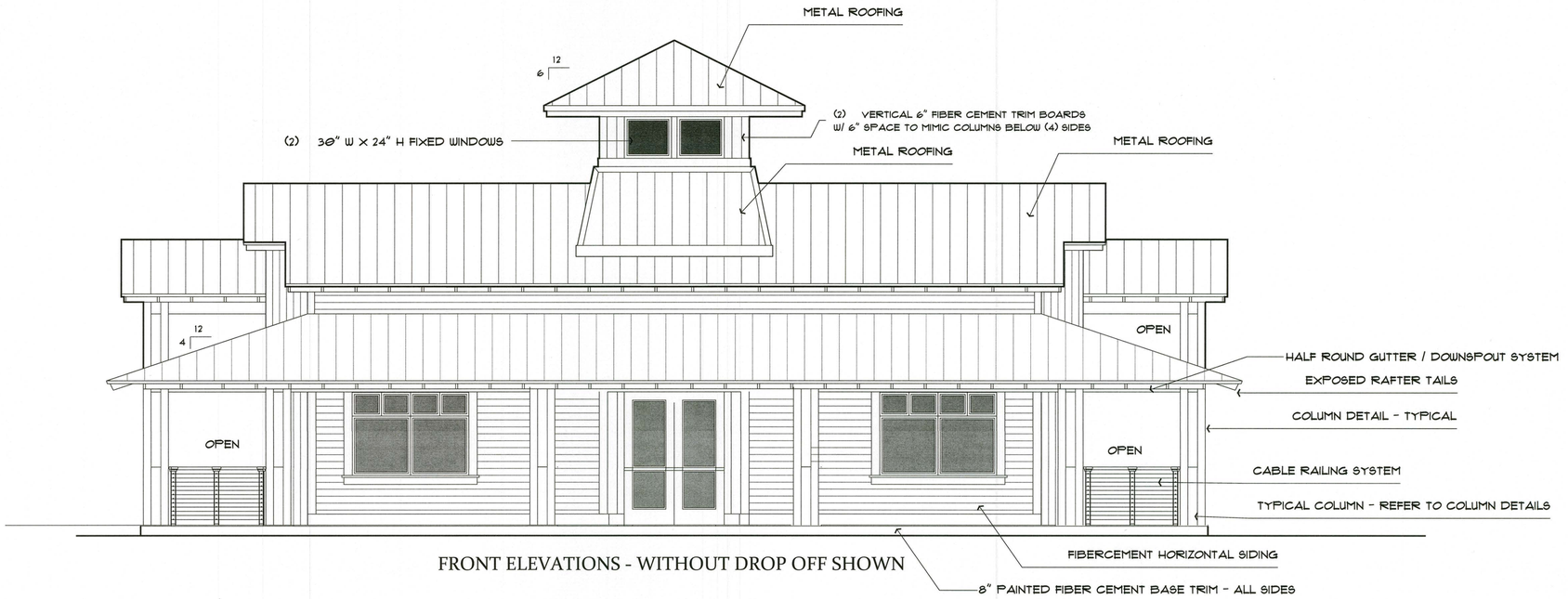
RAILING SPEC

42" H RAILINGS - CABLE RAILING SYSTEM BY "VIEWRAIL" OR APPROVED EQUAL CABLES TO BE 2205 GRADE COASTAL STAINLESS STEEL, MAX 3" SPACING SUPPORTS SHALL BE STAINLESS STEEL 2205 SERIES, SPECIAL APPLICATION MOUNTING POSTS USING MANUFACTURER'S MOUNTING ANCHORS.
HANDRAIL SHALL BE 2" X 1" 2205 STAINLESS STEEL "VIEWRAIL" PRODUCT.
POST SPACING SHALL BE PER MANUFACTURER'S REQUIREMENTS TO MEET FLORIDA BUILDING CODE 2023.
ALL HARDWARE SHALL BE 2205 GRADE STAINLESS STEEL

REVISION 2



COLUMN RAILING SUPPORT



FRONT ELEVATIONS - WITHOUT DROP OFF SHOWN

Russell Johnson
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Date: 2024.03.29 13:31:21 -05'00'

ELEVATIONS
SCALE: 1/4" = 1'-0"

03.24.24

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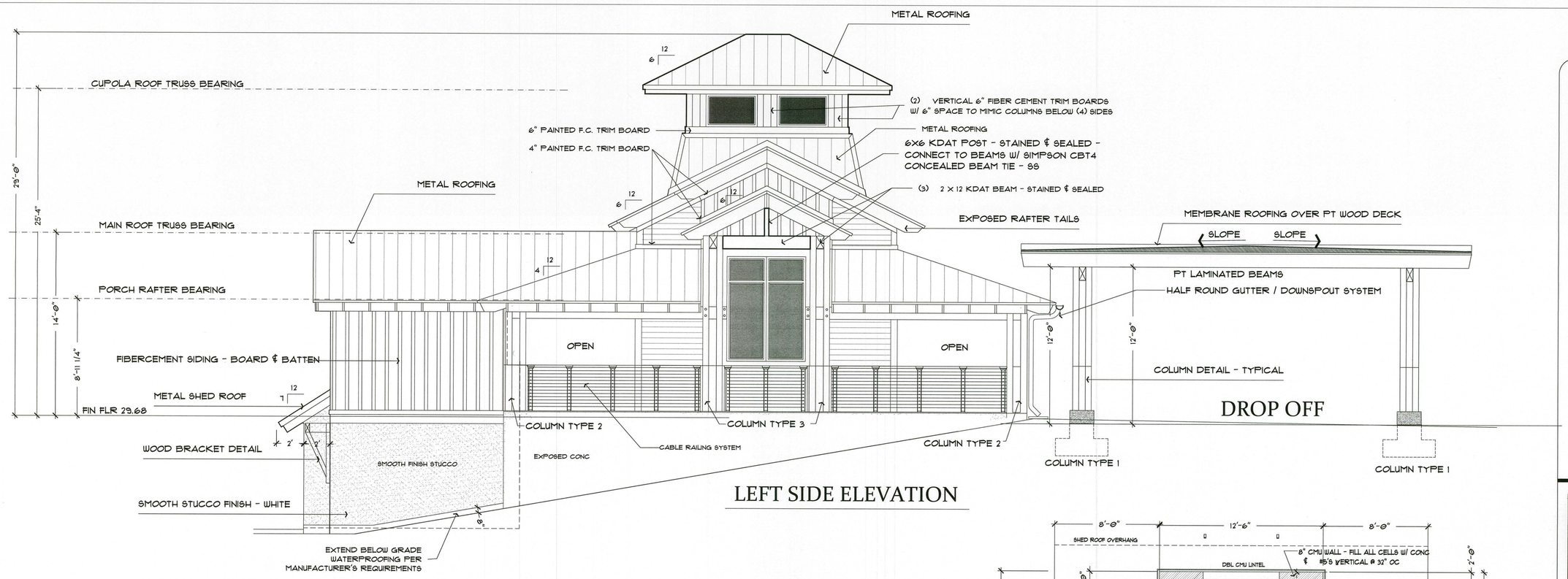
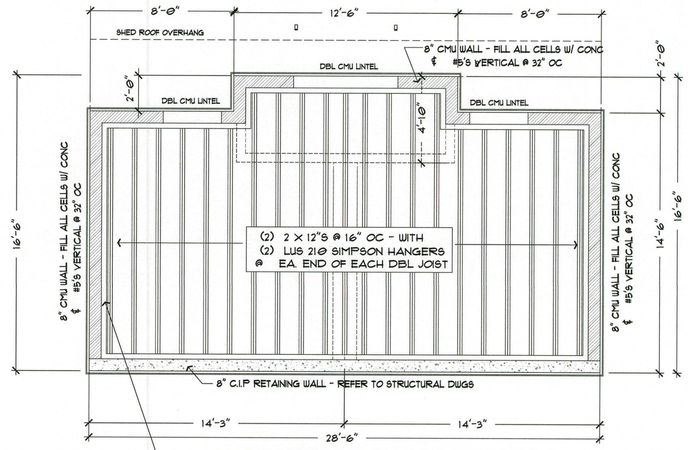
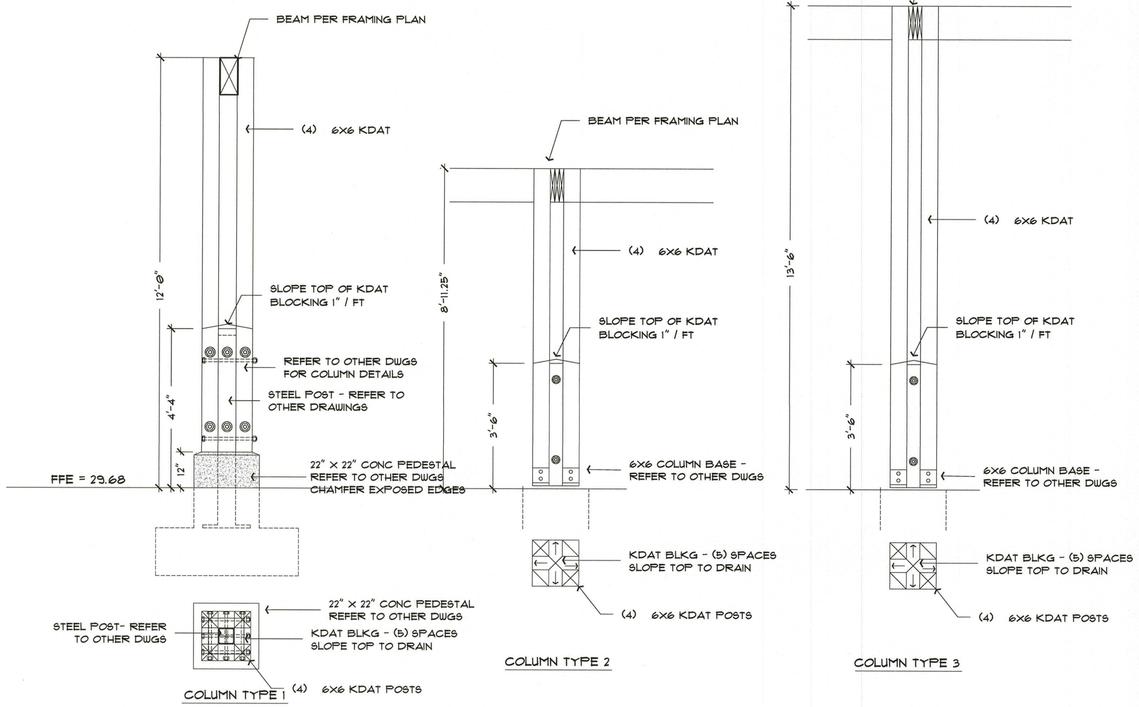


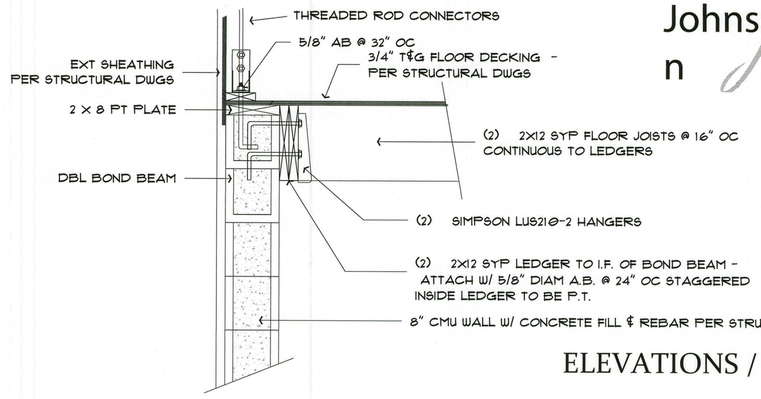
LEFT SIDE ELEVATION



RESTROOM FLOOR FRAMING PLAN



PROVIDE LEDGER ALL INSIDE FACES OF WALLS AS FOLLOWS:
(2) 2 X 12 LEDGER TO INSIDE FACE OF BOND BEAM COURSE. ATTACH TO BOND BEAM W/ (2) 5/8" AB @ 24" OC -\



ELEVATIONS / DETAILS

Russell Johnson

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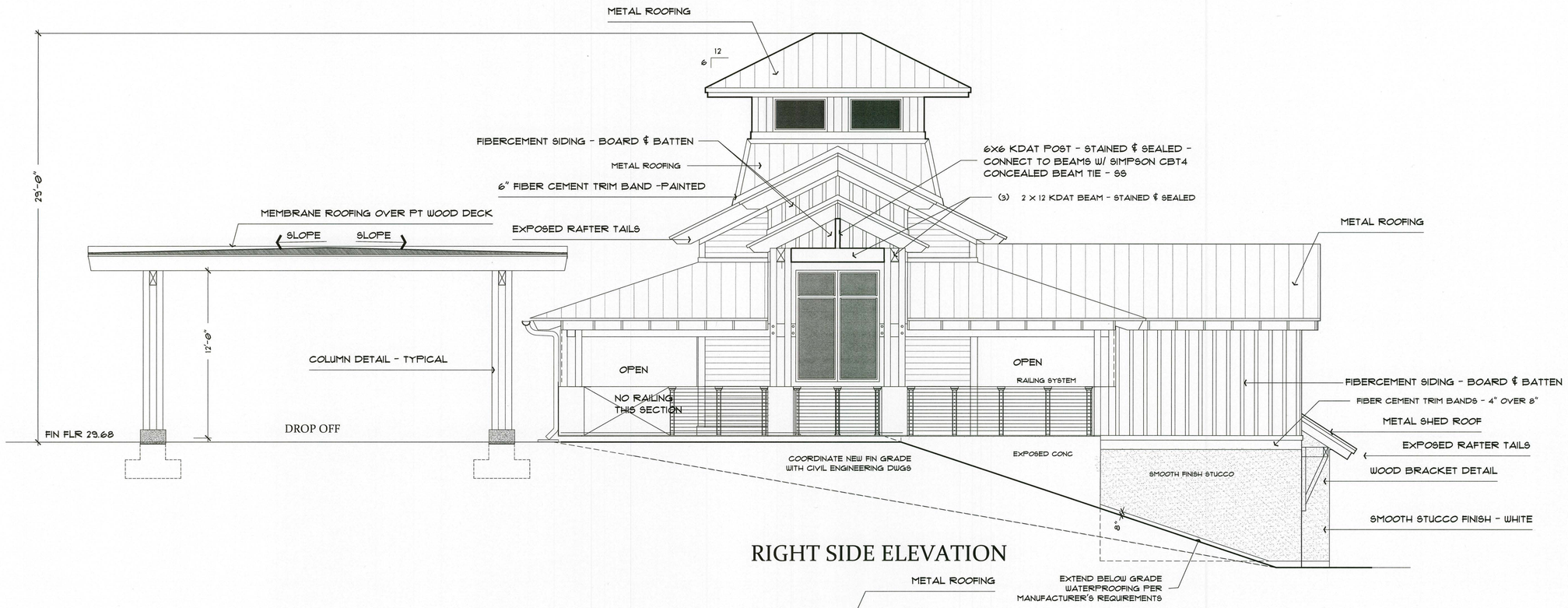
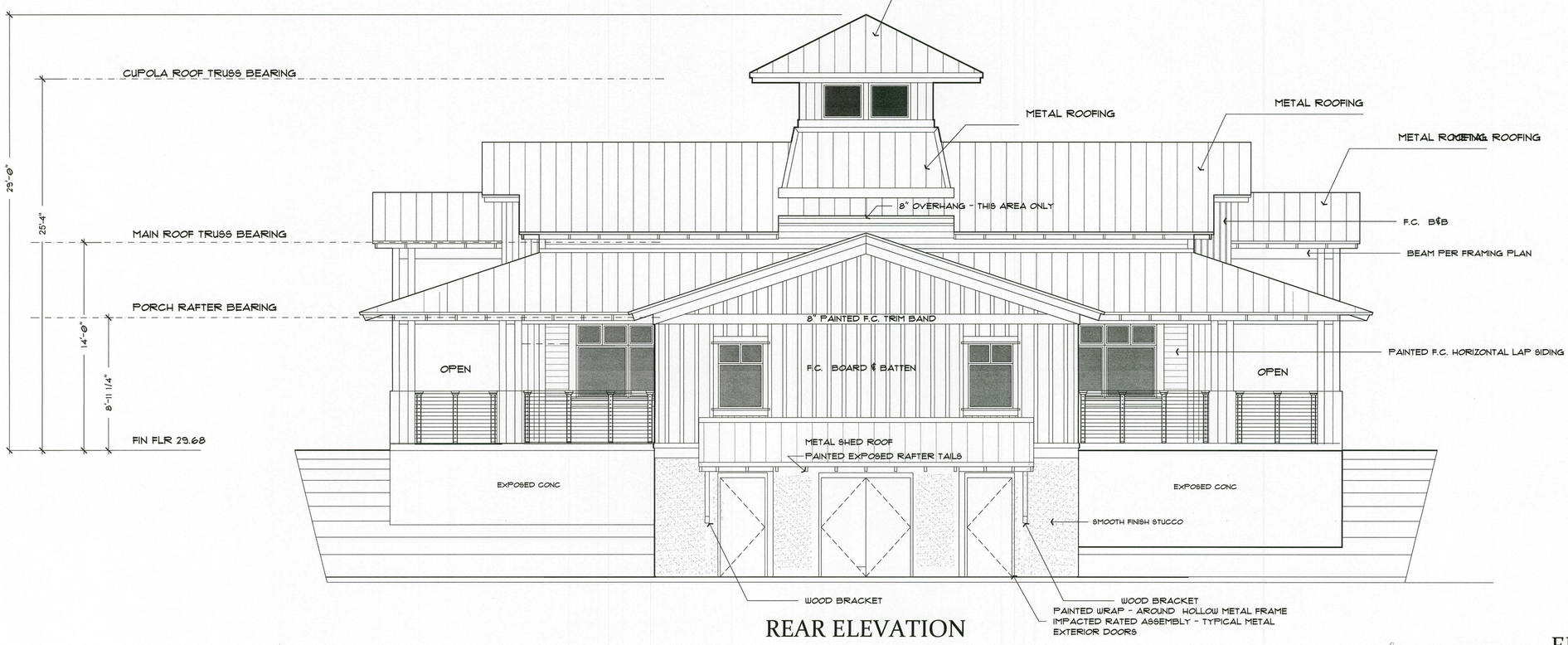


RIGHT SIDE ELEVATION



REAR ELEVATION

Russell Johnson

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ELEVATIONS

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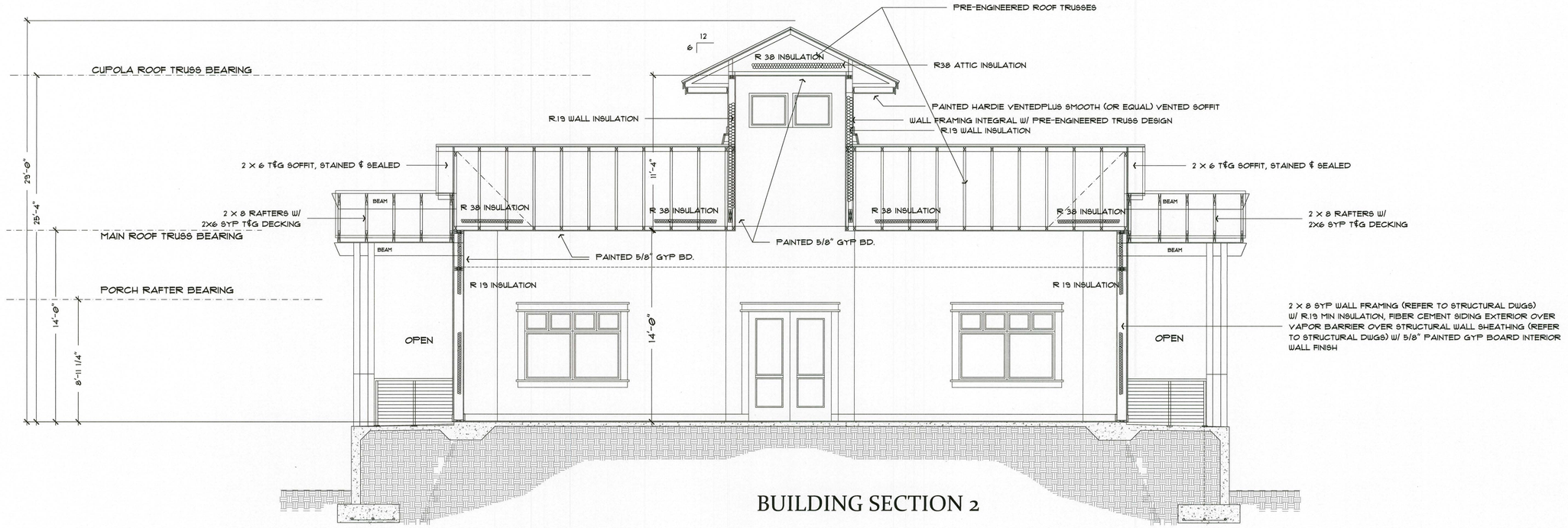
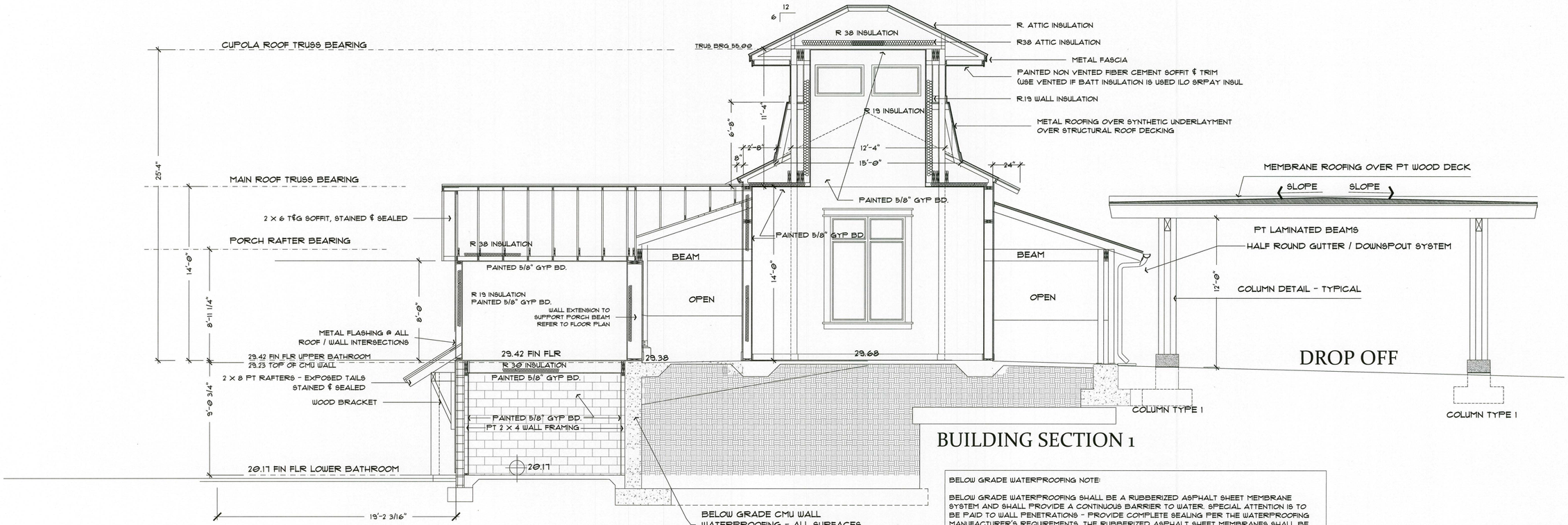


BUILDING SECTION 2



BUILDING SECTION 1

BELOW GRADE WATERPROOFING NOTE:

BELOW GRADE WATERPROOFING SHALL BE A RUBBERIZED ASPHALT SHEET MEMBRANE SYSTEM AND SHALL PROVIDE A CONTINUOUS BARRIER TO WATER. SPECIAL ATTENTION IS TO BE PAID TO WALL PENETRATIONS - PROVIDE COMPLETE SEALING PER THE WATERPROOFING MANUFACTURER'S REQUIREMENTS. THE RUBBERIZED ASPHALT SHEET MEMBRANES SHALL BE APPLIED OVER A PRIMER - COMPATIBLE W/ THE CONCRETE AND CMU SUBSTRATE AND AS SPECIFIED BY THE MEMBRANE MANUFACTURER. AFTER MEMBRANE IS APPLIED, ROLL W/ SUFFICIENT PRESSURE TO ENSURE ADEQUATE ADHESION. EXTEND MEMBRANE ABOVE FINISHED GRADE AS RECOMMENDED BY MEMBRANE MANUFACTURER. APPROVED ALTERNATES ARE ACCEPTABLE, SUBMIT FULL SHOP DRAWINGS FOR OWNER/ARCHITECT REVIEW AND APPROVAL.

Russell Johnson
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Date: 2024.03.29 13:32:56 -05'00'

BUILDING SECTION

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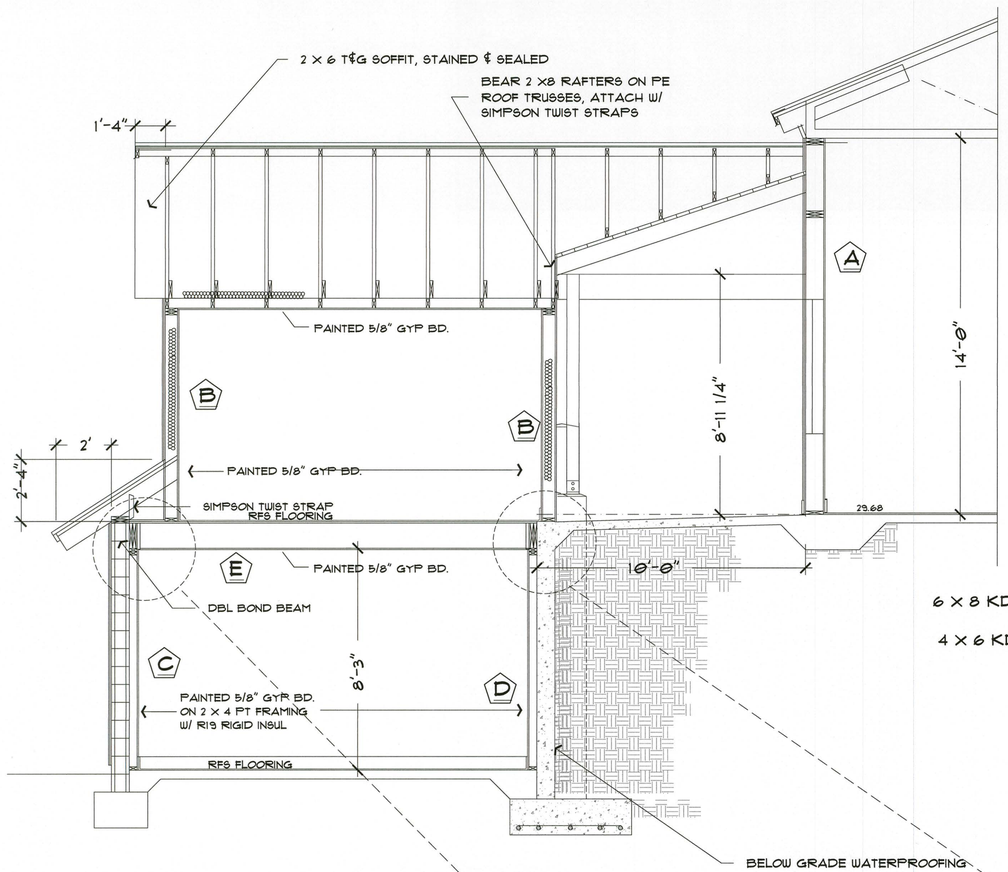
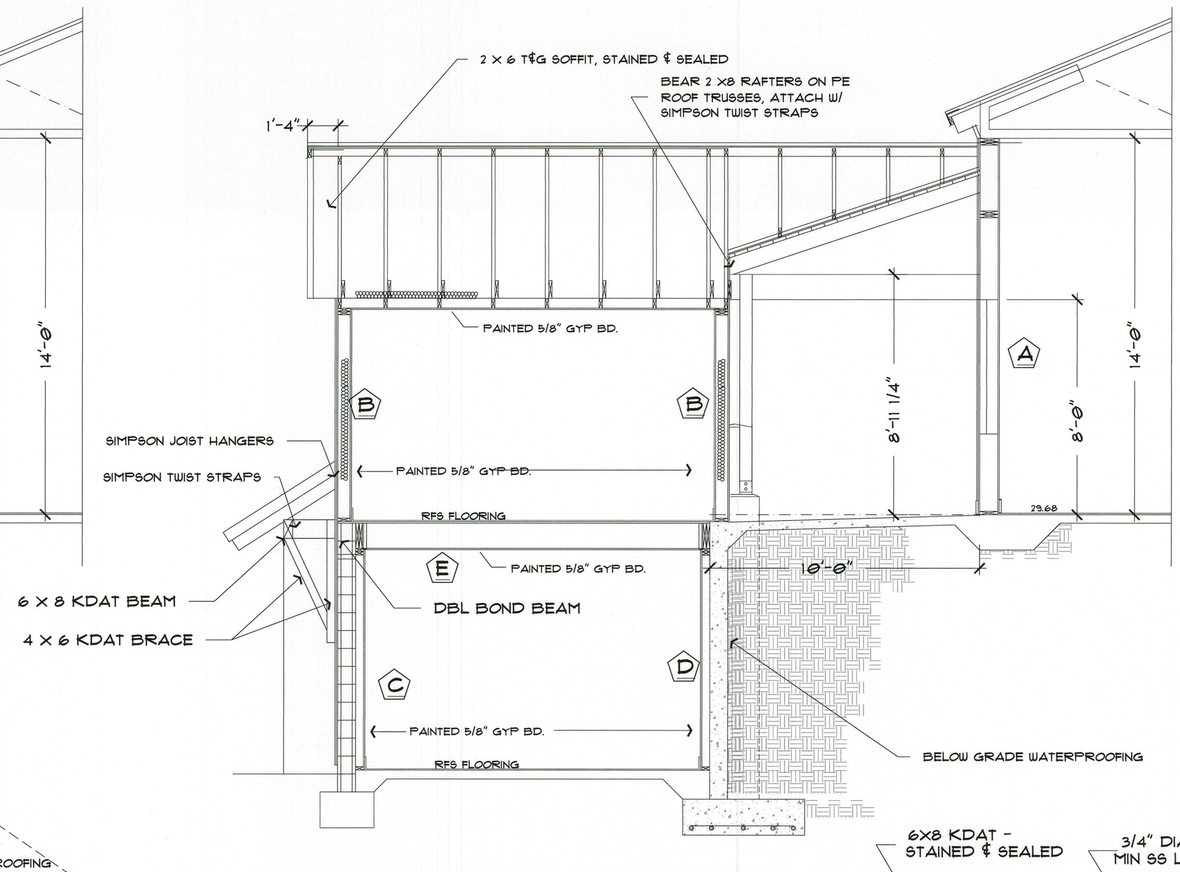
A - 112

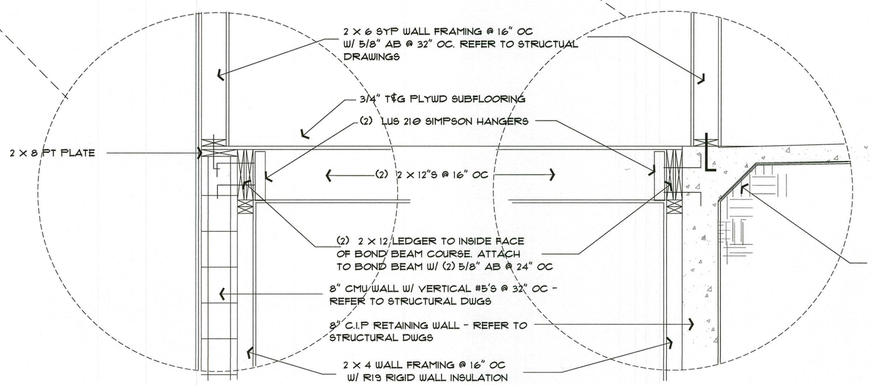


SECTION 1 THRU RESTROOMS

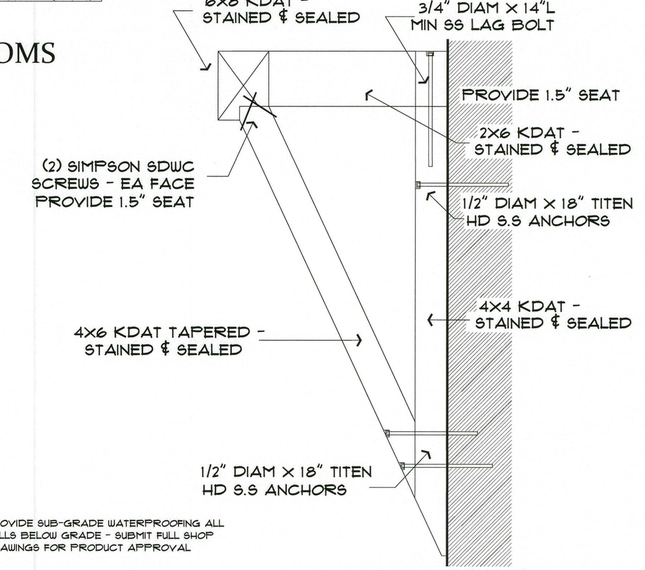


SECTION 2 THRU RESTROOMS

- (A) 2 X 8 SYP WALL FRAMING (REFER TO STRUCTURAL DWGS FOR ATTACHMENT, THREADED RODS, ETC.) W/ R.19 MIN INSULATION, FIBER CEMENT SIDING EXTERIOR OVER VAPOR BARRIER OVER STRUCTURAL WALL SHEATHING (REFER TO STRUCTURAL DWGS) W/ 5/8" PAINTED GYP BOARD INTERIOR WALL FINISH
- (B) 2 X 6 SYP WALL FRAMING (REFER TO STRUCTURAL DWGS FOR ATTACHMENT, THREADED RODS, ETC.) W/ R.19 MIN INSULATION, FIBER CEMENT SIDING EXTERIOR OVER VAPOR BARRIER OVER STRUCTURAL WALL SHEATHING (REFER TO STRUCTURAL DWGS) W/ 5/8" PAINTED GYP BOARD INTERIOR WALL FINISH
- (C) 8" CMU WALL W/ STUCCO FINISH EXTERIOR, VAPOR BARRIER, 2 X4 WOOD FRAMED INTERIOR W/ R 19 RIGID INSULATION AND 5/8" PAINTED MOISTURE RESISTANT GYP BOARD.
- (D) 8" C.I.P CONCRETE WALL W/ STUCCO FINISH EXTERIOR, VAPOR BARRIER, 2 X4 WOOD FRAMED INTERIOR W/ R 19 RIGID INSULATION AND 5/8" PAINTED MOISTURE RESISTANT GYP BOARD. PROVIDE BELOW GRADE WATER PROOFING FOR WALL AREAS BELOW GRADE.
- (E) DOUBLE 2 X 12'S @ 16" OC



LEDGER DETAILS



WOOD BRACE DETAIL
(2 LOCATIONS)

Russell Johnson

Digitally signed by Russell Johnson
Date: 2024.03.29 13:33:30 -05'00'

BUILDING SECTIONS
SCALE: 3/8" = 1'-0"

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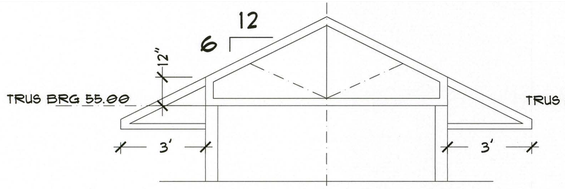
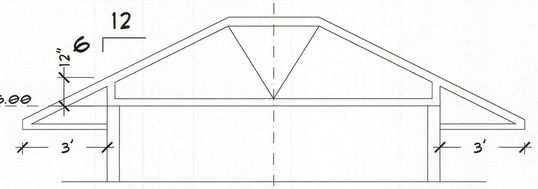
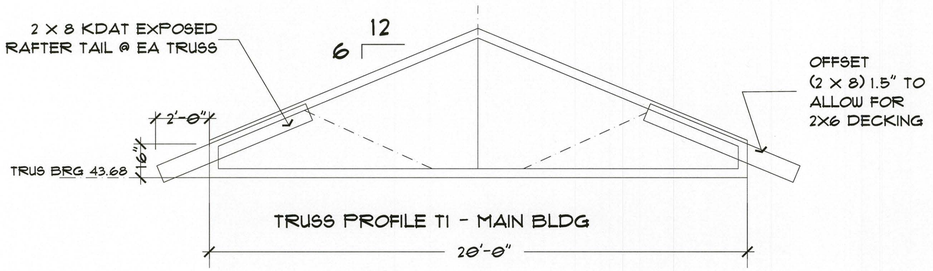


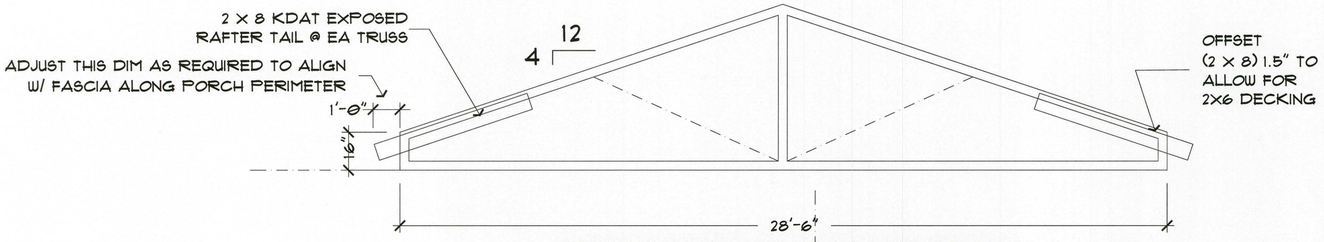
TRUSS PROFILE T2 - CUPOLA



TRUSS PROFILE T2 - CUPOLA

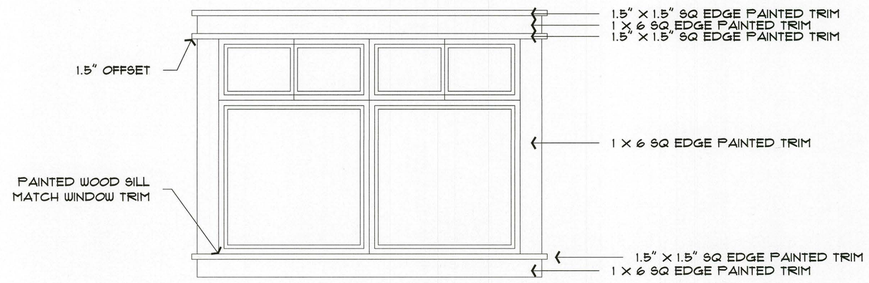


TRUSS PROFILE T1 - MAIN BLDG

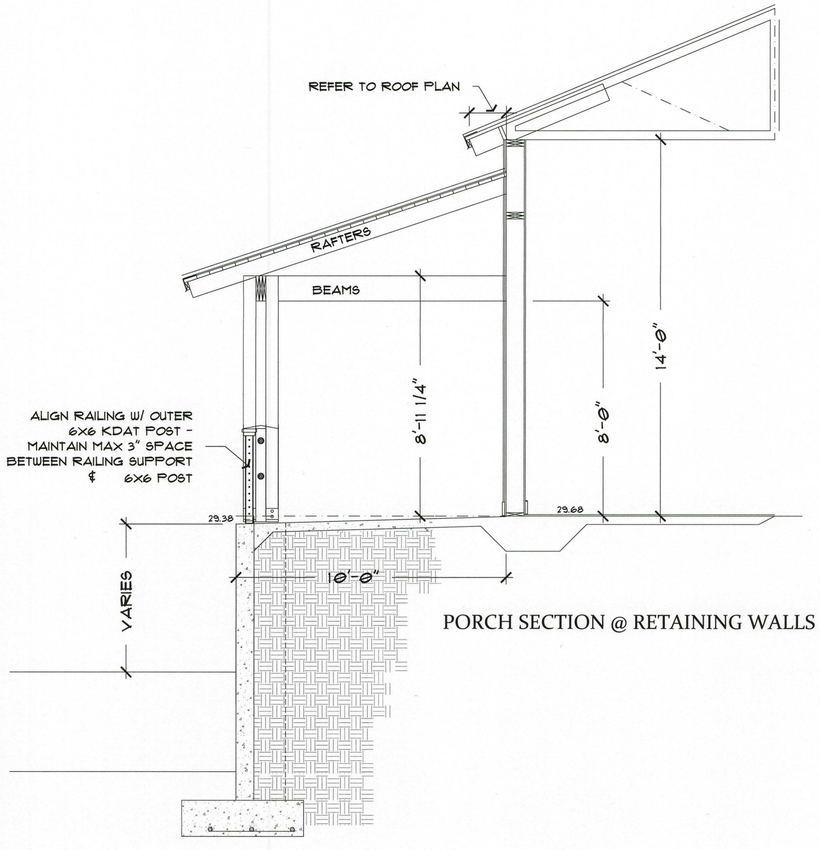


TRUSS PROFILE T3 - MAIN BLDG BATHROOMS

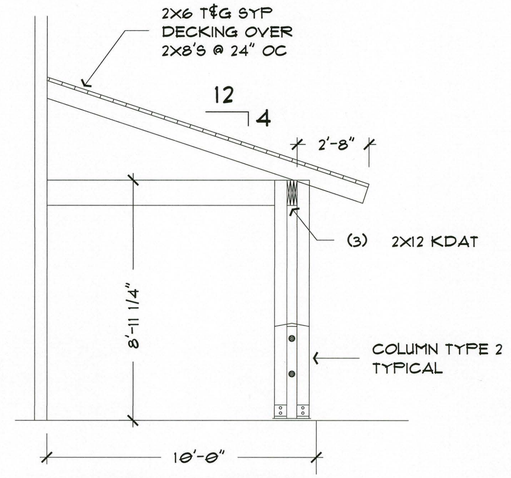
ROOF TRUSS PROFILES



INTERIOR DOOR / WINDOW INTERIOR TRIM



PORCH SECTION @ RETAINING WALLS



TYPICAL PORCH RAFTER FRAMING

Russell Johnson

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Date: 2024.03.29 13:34:02 -05'00'

SECTIONS / DETAILS

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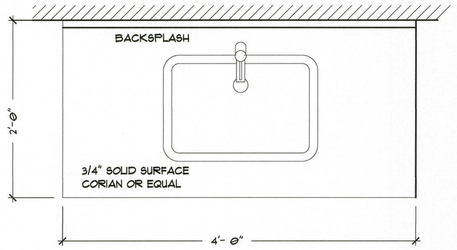
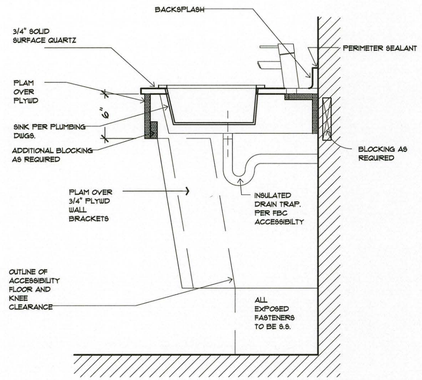
A112.2



TYPICAL BATHROOM VANITY



BATHROOM ACCESSORY PRODUCT SELECTION SCHEDULE

NOTE: Specified products listed are for design intent/quality control, approved equals are accepted as approved by owner. Submit complete shop drawings and specs for owner review and approval.

a COAT HOOK Bobrick B-6707 satin finished stainless steel finished single utility/coat hook.

b GB; Bobrick B-6806.99 series peened satin stainless steel finished grab bars for accessible toilet size 42" L side wall, 36" L back wall

c Mirror - Bobrick B-292 1830 seried welded satin stainless steel finish framed mirror with 5" shelf, 18" x 30".

d PTC; Bobrick B-262 classic series satin stainless steel finished surface mounted paper towel cabinet for folded paper.

e SDISP, Bobrick B-2111 classic series surface mounted soap dispensers with satin stainless steel finish.

f SND, Bobrick B-270 contura series surface mounted satin stainless steel finish sanitary napkin dispenser.

g TPH; Bobrick B-6867 classic series surface mounted satin stainless steel finish two roll toilet paper holder.

h ADA COMPLIANT American Specialties, Inc 10-9014 Plastic Surface Mount Horizontal baby station

I ADA COMPLIANT LAV (exposed piping shall be insulated per ada requirements)

j ADA COMPLIANT WATER CLOSET - KOHLER Persuade Curv Comfort Height or owner approved equal.

k ADA COMPLIANT WALL MOUNTED URINAL - kohler Steward Hybrid K-5244-ET-0 or owner approved equal

L FLOOR MOUNTED, OVERHEAD BRACED, ADA COMPLIANT PHENOLIC PARTITION W/ SS MOUNTING BRACKETS ALL STALL DOORS TO RECEIVE S.S. PIANO HINGES. ADA DOORS SHALL BE SELF CLOSING AND HAVE PULL HANDLES ON BOTH SIDES OF THE DOOR NEAR THE LATCH. DOOR TO BE 36" WIDE.

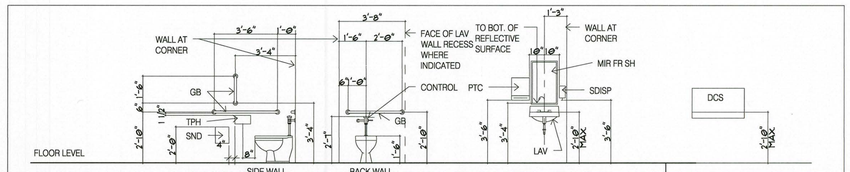
m Bobrick B 2260 satin stainless steel floor standing waste receptacle

n Bobrick B -165 2436 satin stainless mirror

O TYPICAL BATHROOM VANITY

ACCESSORIES INSTALLATION NOTES:

1. INSTALL PRODUCTS IN STRICT COMPLIANCE W/ MANUFACTURER'S WRITTEN INSTRUCTIONS AND RECOMMENDATIONS
2. VERIFY ALL BLOCKING HAS BEEN INSTALLED PROPERLY
3. VERIFY LOCATION DOES NOT INTERFERE W/ DOOR SWINGS OR USE OF FIXTURES
4. VERIFY MOUNTING SUBSTRATE IS COMPATIBLE W/ PRODUCT, RELOCATE PRODUCT AS REQUIRED
5. USE FASTENERS AND ANCHORS SUITABLE FOR SUBSTRATE AND PROJECT CONDITIONS. ALL FASTNERS TO BE STAINLESS STEEL.
6. INSTALL UNITS RIGID, STRAIGHT, PLUMB, AND LEVEL IN ACCORDANCE W/ MANUFACTURERS INSTALLATION INSTRUCTIONS AND APPROVED SHOP DRAWINGS.
7. CONCEAL EVIDENCE OF DRILLING, CUTTING, AND FITTING TO ROOM FINISH.
8. TEST FOR PROPER OPERATION.



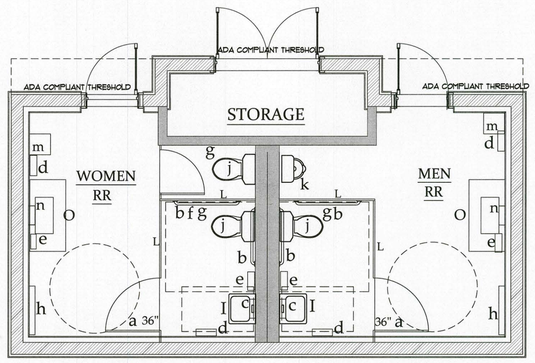
DESCRIPTION	TOILET/WATER CLOSETS ACCESSIBLE	LAVATORY BASIN/BATHROOMS	DIAPER CHANGING STATION
NOTES :	1. SND - SANITARY NAPKIN PISPOSAL. PROVIDE AT UNISEX, & WOMEN'S ONLY 2. GB - GRAB BARS. 3. FLUSH VALVE/CONTROL MUST BE LOCATED ON THE OUTSIDE OR WIDE SIDE OF THE TOILET 4. GB BLKG TO BE DESIGNED FOR 250 LB LAT. AND DEAD LOADS.	1. SEE PLAN FOR SPECIFIC LOCATION CONDITION 2. ENSURE MIN. 2'-3" X 8" DEEP KNEE SPACE. 3. EXPOSED HOT AND COLD WATER PIPES ARE TO BE INSULATED PER FBC ACCESSIBILITY CODE	1. ENSURE MIN. 2'-3" HIGH X 8" DEEP KNEE SPACE. 2. PULL DOWN HANDLE TO BE LOCATED 48" MAX AFL.

mounting heights / schedules

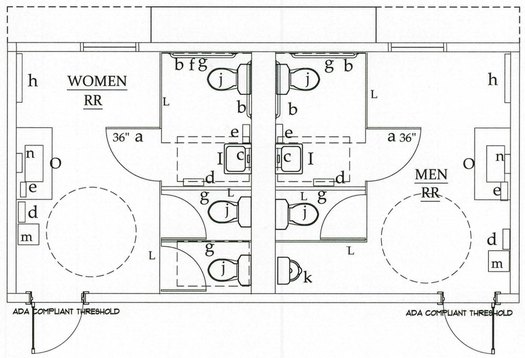
ROOM TYPE FINISHES SCHEDULE				
ROOM NAME	FLOOR	BASE	WALL	CEILING
DRIVE THROUGH -	PER CIVIL DWGS			WOOD STAINED & SEALED
PORCHES	SEALED CONC			WOOD STAINED & SEALED
WAITING AREA	SEALED CONC	PTD WOOD 1 X 6 SQ EDGE	PTD GYP BD	PTD GYP BD
BATHROOMS	RFS	RFS	PTD MOISTURE RESISTANT GYP BD	PTD MOISTURE RESISTANT GYP BD
STORAGE	SEALED CONC	vinyl	PTD GYP BD	PTD GYP BD

ROOM FINISH NOTES:

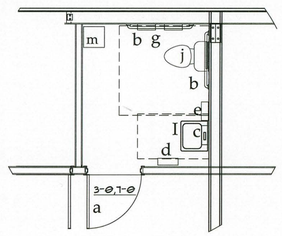
1. ALL FLOOR FINISHES SHALL BE IN COMPLIANCE W/ FBC ACCESSIBILITY CHAPTER 3. EXPOSED / POLISHED CONCRETE SHALL HAVE SLIP-RESISTANT FINISHES IN COMPLIANCE W/ FBC ACCESSIBILITY AND THE CONCRETE POLISHING COUNCIL. ALL FLOORING SHALL MEET OR EXCEED THE FLOOR DYNAMIC COEFFICIENT OF FRICTION (DCOF) AS PER ACCESSIBILITY CODES FOR NON-SLIP / SLIP RESISTANT STANDARDS.
2. ALL GYP BD SHALL BE 5/8" MIN. THICKNESS. ALL EXPOSED GYP BD SHALL BE PAINTED. MOISTURE RESISTANT GYP BD SHALL BE "PROROC" BY CERTAINEED OR APPROVED EQUAL FOR ALL MOISTURE RESISTANT CEILINGS, PROVIDE 2 X BLOCKING @ 12" OC E.W.
3. INTERIOR WALLS AND CEILINGS IN THE RESTROOMS SHALL BE PAINTED AS FOLLOWS:
   3.1 PRIMER: TNEMEC SERIES 151 ELASTO-GRIP FC APPLIED @ 1.0 MIL DRY FILM THICKNESS
   INTERMEDIATE: TNEMEC SERIES 113 TNEME-TUFCOAT APPLIED @ 4.0-6.0 MIL DRY FILM THICKNESS
   FINISH: TNEMEC SERIES 113 TNEME-TUFCOAT APPLIED @ 4.0-6.0 MIL DRY FILM THICKNESS
   REVISION 3
4. CHANGES IN LEVEL: ALL FLOOR CHANGES IN LEVEL SHALL MEET FBC 2023 ACCESSIBILITY CODE. VERTICAL CHANGES IN LEVEL BETWEEN 1/4" HIGH MAX ARE PERMITTED TO BE VERTICAL. CHANGES IN LEVEL BETWEEN 1/4" HIGH AND 1/2" HIGH MAX SHALL BE BEVELED WITH A SLOPE NOT STEEPER THAN 1:2 CHANGES IN LEVEL GREATER THAN 1/2" HIGH SHALL BE RAMPED AND SHALL COMPLY W/ SECTIONS 405 & 406.
5. RFS- RESINOUS FLOORING SYSTEM - ABRASION, IMPACT AND CHEMICAL RESISTANT AGGREGATE FILLED EPOXY RESIN-BASED MONOLITHC FLOOR SURFACING TO PRODUCE A SEAMLESS FLOOR AND INTEGRAL COVE BASE BY "HYCHEM" - PRODUCT E100 EP PRIMER WITH SP20FG FOR PLYWOOD AND CONCRETE FLOORING - INSTALL PER MANUFACTURER'S REQUIREMENTS. APPROVED EQUALS ARE ACCEPTABLE..
6. KDAT & PT MATERIAL - BEAMS, POSTS, RAFTERS, RAFTER TAILS, ETC TO BE STAINED W/ BEHR PREMIUM SEMI TRANSPARENT STAIN - CORDOVAN BROWN ST 104. SUBMIT COLOR SAMPLES ON EACH MATERIAL FOR OWNER / ARCHITECT APPROVAL 2 X 6 T&G ROOF DECKING TO BE STAINED AND SEALED TO MATCH RAFTERS.
7. 2 X 6 T & G ROOF DECKING TO HAVE V-EDGE ON EXPOSED SURFACES.



RESTROOM FLOOR PLAN
LOWER PARKING LOT



RESTROOM FLOOR PLAN
UPPER LEVEL



RESTROOM FLOOR PLAN
STORAGE BUILDING - TYPICAL

Russell Johnson

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Date: 2024.03.29 13:34:29 -05'00'

BATHROOM ACCESSORIES

SCALE: 1/4" = 1'-0"

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REVISIONS
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PROJECT #

GRAYTON BEACH TRANSIT FACILITY
WALTON COUNTY FLORIDA

STATE OF FLORIDA · RUSSELL A JOHNSON · AR0012593 · REGISTERED ARCHITECT

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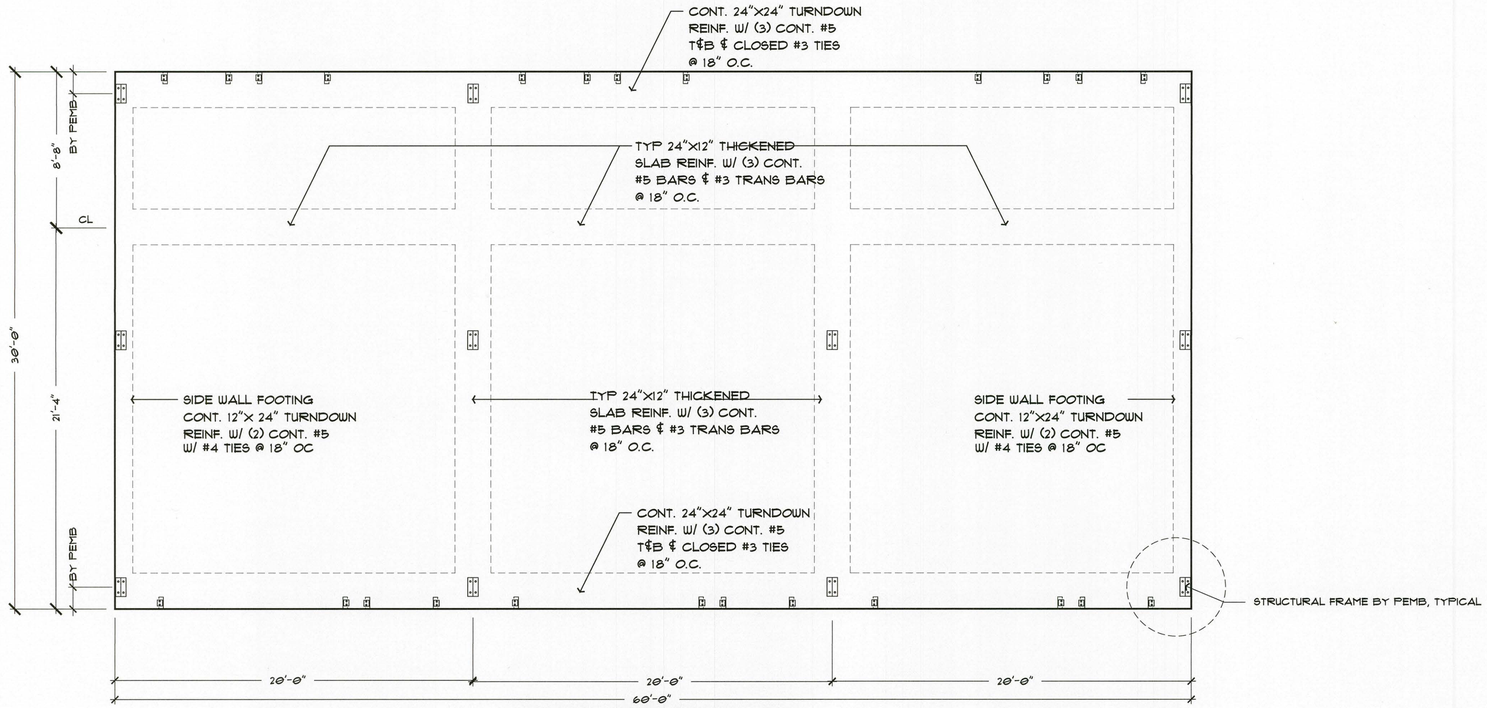
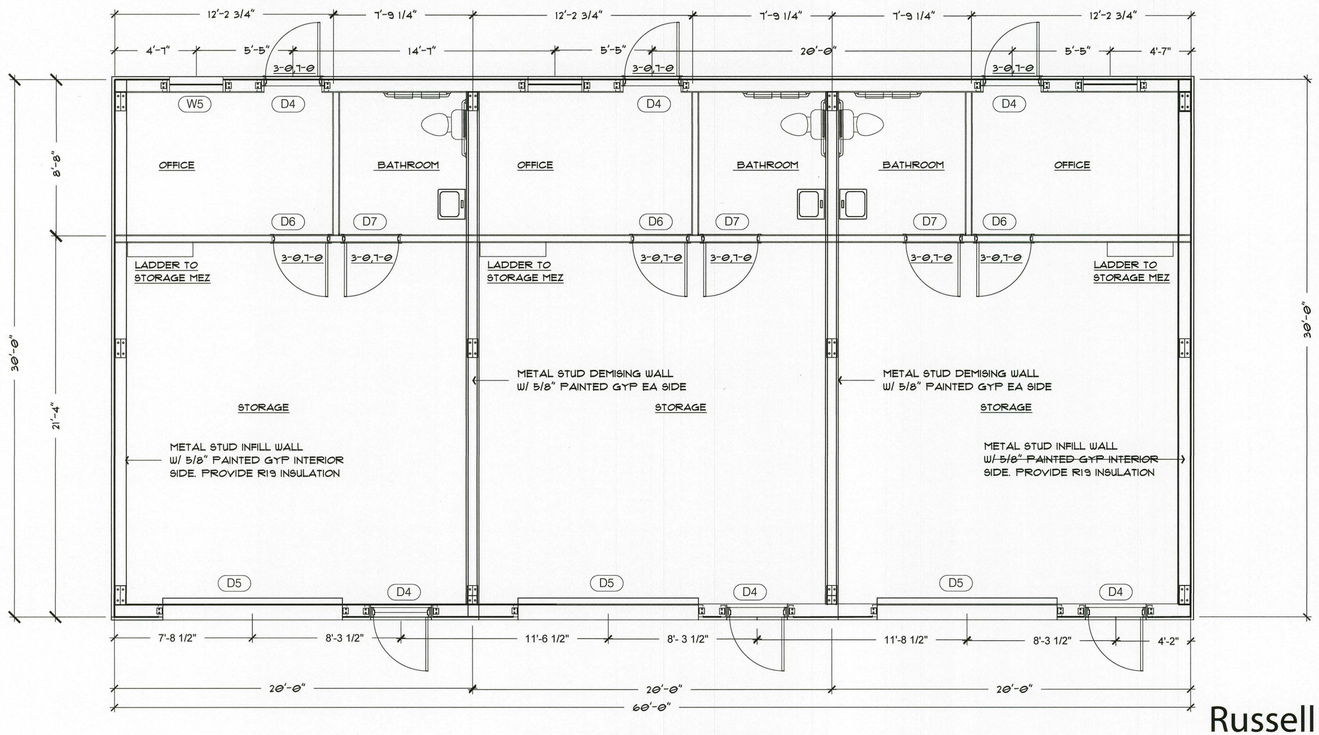


FOUNDATION PLAN

REFER TO STRUCTURAL DRAWINGS.
FOR SIZES & REINFORCEMENT DETAILING



FLOOR PLAN

GENERAL NOTES:

1. PROVIDE FULL METAL BUILDING SHOP DRAWINGS TO ENGINEER OF RECORD, INCLUDING ALL DESIGN LOADS, REACTIONS, ETC FOR ENGINEER VERIFICATION OF FOUNDATION DESIGN.
2. INTERIOR DEMISING WALLS & BATHROOM WALLS SHALL BE 20 GA MINIMUM STEEL STUDS @ 16" OC CONTINUOUS TO CEILING RAFTERS. PROVIDE 5/8" PAINTED GYP BD EA SIDE OF STUDS. PROVIDE BLOCKING FOR ALL TOILET ACCESSORIES, GRAB BARS, ETC. PROVIDE BRACING AS REQUIRED BY STUD MANUFACTURER FOR STUD GAUGE, SIZE, HEIGHT, AND SPACING. PROVIDE 3" SOUND ATTENUATION BATT INSULATION IN INTERIOR BATHROOM METAL STUD WALLS.
3. FIRE EXTINGUISHER NOTES:
   - 1.1. THE LOCATION, SIZE, AND CLASS OF FIRE EXTINGUISHERS SHALL BE DETERMINED PER NFPA REQUIREMENTS BY THE FIRE EXTINGUISHER SUPPLIER AND AS APPROVED BY THE FIRE MARSHALL / INSPECTOR.
   - 1.2. THE INSTALLATION OF THE PORTABLE FIRE EXTINGUISHERS SHALL BE PER A FIRE PROTECTION CONTRACTOR IN CONJUNCTION WITH THE GENERAL CONTRACTOR.
   - 1.3. SUBMIT FIRE EXTINGUISHER LAYOUT, SIZE, AND CLASS TO THE APPROPRIATE FIRE MARSHALL / INSPECTOR FOR REVIEW AND APPROVAL INDICATING THE FIRE EXTINGUISHER HAZARD CLASSIFICATIONS, SIZES, PLACEMENTS AND TRAVEL DISTANCES PRIOR TO INSTALLATION.

METAL BUILDING NOTES:
THIS BUILDING IS A PRE-ENGINEERED METAL BUILDING.
ALL METAL BUILDING COMPONENTS SHALL BE PER THE PEMB MANUFACTURER. SUBMIT COMPLETE SHOP DWGS FOR OWNER AND ENGINEER OF RECORD REVIEW - INDICATE ALL LOADS & REACTIONS

Russell Johnson

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Date: 2024.03.29 13:35:00 -05'00'

STORAGE BUILDING
FLOOR PLAN / FOUNDATION PLAN
SCALE: 1/4" = 1'-0"

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WALTON COUNTY
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03.21.24

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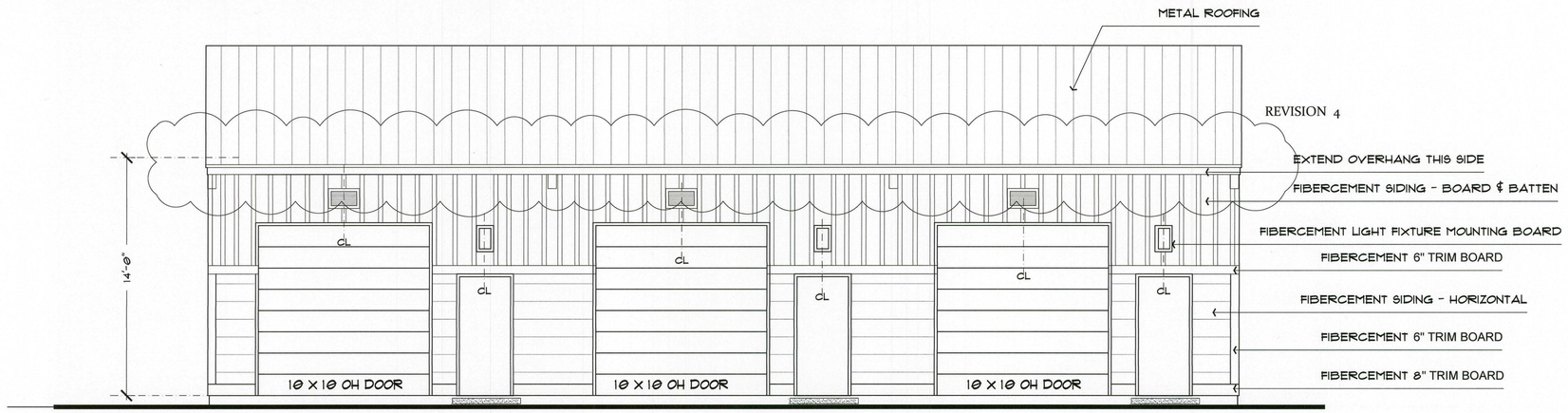
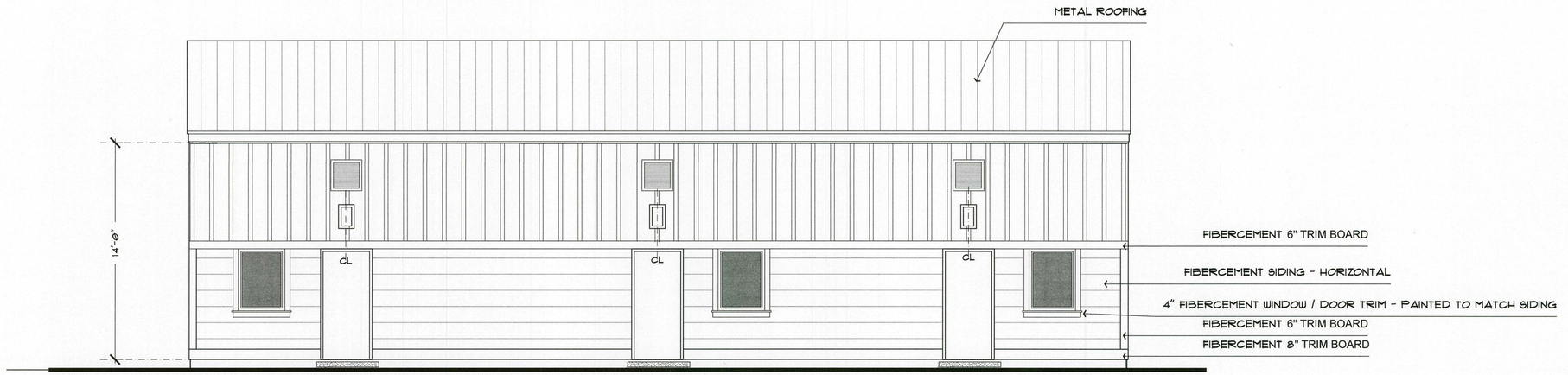
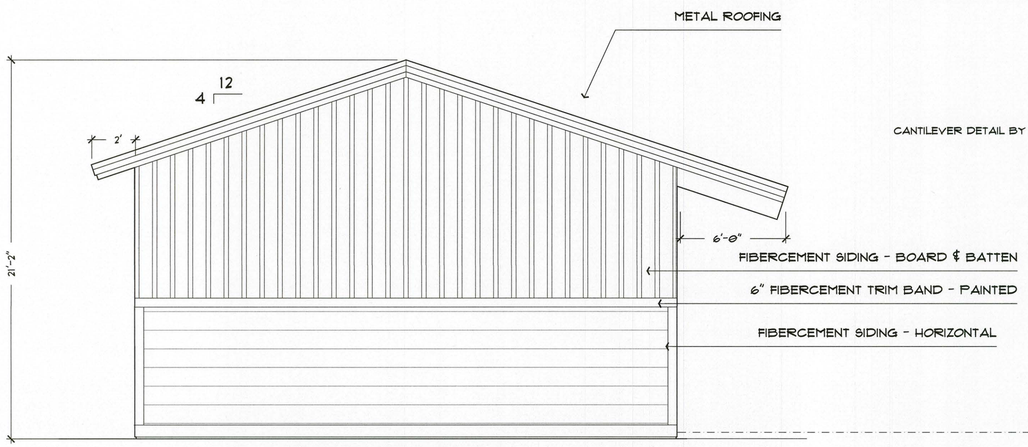


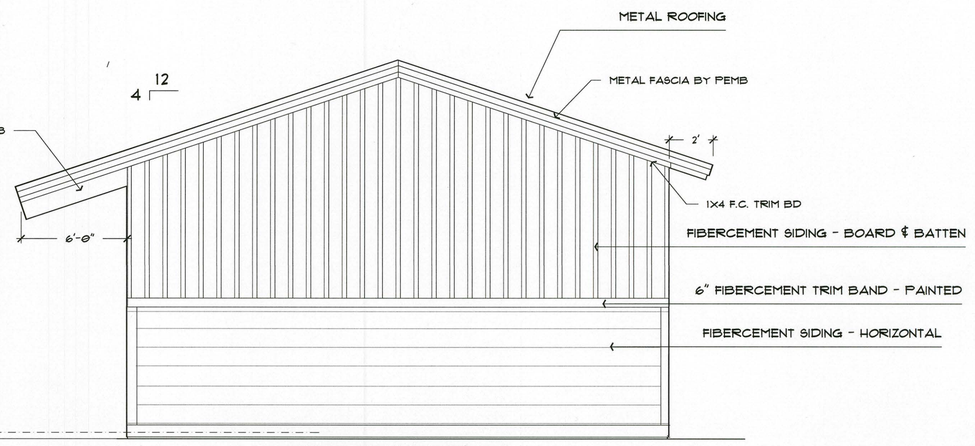
FRONT ELEVATION



REAR ELEVATION



LEFT SIDE ELEVATION



RIGHT SIDE ELEVATION

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03.29.24

FLOOR PLAN
SCALE: 1/4" = 1'-0"

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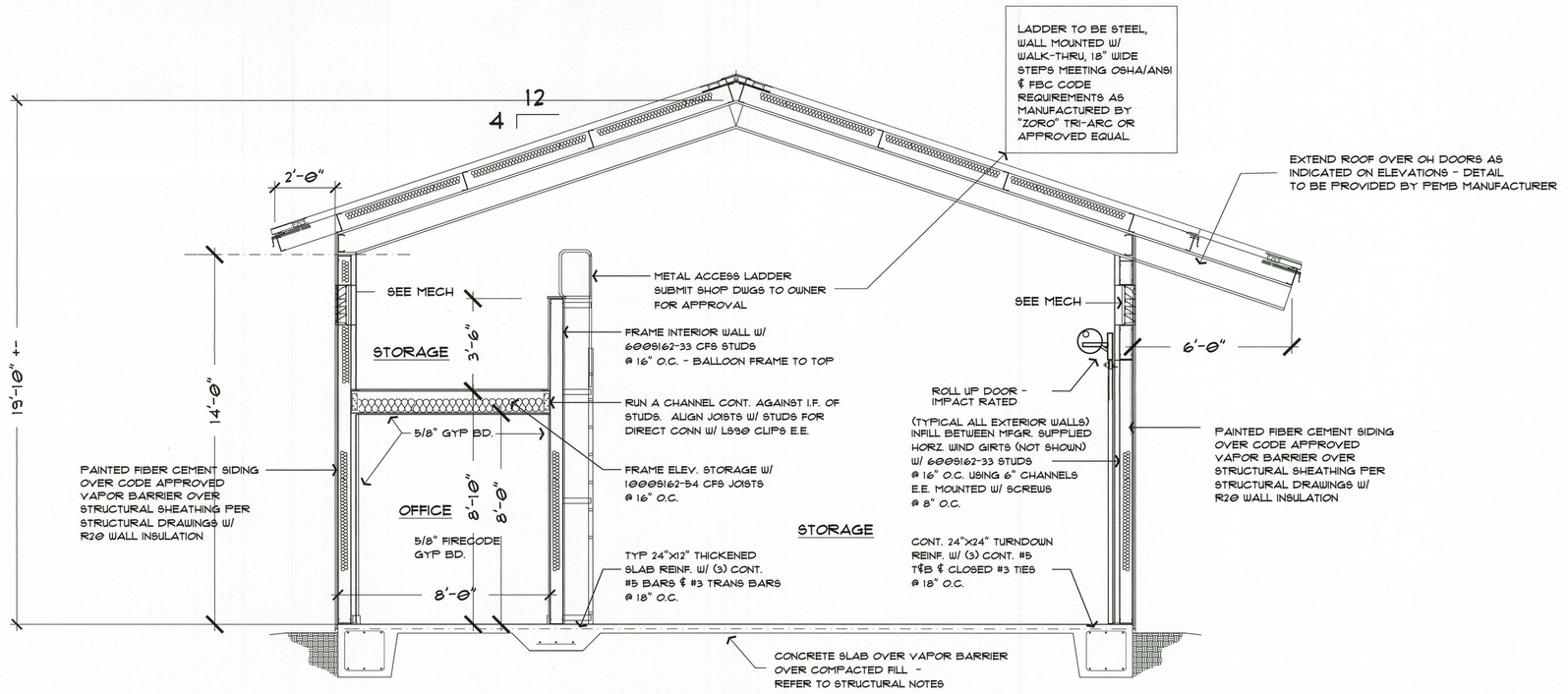

BUILDING SECTION

INSULATION SYSTEM

REVISION 5

1. INSULATION SYSTEM SHALL BE "SIMPLE SAVER SYSTEM" W/ OSHA COMPLIANT FALL PROTECTION OR APPROVED EQUAL
2. INSULATION SHALL BE IN COMPLIANCE W/ FBC 2023 ENERGY CODE FOR METAL BUILDING, CLIMATE ZONE 2, ALL OTHER CATEGORY.

CLIMATE ZONE	1		2		
	All other	Group R	All other	Group R	All
Insulation entirely above roof deck	R-20ci	R-25ci	R-25ci	R-25ci	R
Metal building[a, b]	R-19 + R-11 LS	R-19 + R-11 LS	R-19 + R11 LS	R-19 + R-11 LS	R R-
Attic and other	R-38	R-38	R-38	R-38	F
Mass	R-5.7ci[c]	R-5.7ci[c]	R-5.7ci[c]	R-7.6ci	R-
Metal building	R-13+ R-6.5ci	R-13 + R-6.5ci	R13 + R-6.5ci	R-13 + R-13ci	R R-
Metal framed	R-13 + R-5ci	R-13 + R-5ci	R-13 + R-5ci	R-13 + R-7.5ci	R R-
Wood framed and other	R-13 + R-3.8ci or R-20	R-13 + R-3.8ci or R-20	R-13 + R-3.8ci or R-20	R-13 + R-3.8ci or R-20	R R-3 F
Below-grade wall[d]	NR	NR	NR	NR	
Mass[e]	NR	NR	R-6.3ci	R-8.3ci	R
Joist/framing	NR	NR	R-30	R-30	F
Unheated slabs	NR	NR	NR	NR	
Heated slabs[f]	R-7.5 for 12" below	R-7.5 for 12" below	R-7.5 for 12" below	R-7.5 for 12" below	R- 24"
Nonswinging	R-4.75	R-4.75	R-4.75	R-4.75	R

For SI: 1 inch = 25.4 mm, 1 pound per square foot = 4.88 kg/m^2, 1 pound per cubic foot = 16 kg/m^3.

ci = Continuous insulation, NR = No requirement, LS = Liner system.

a. Assembly descriptions can be found in ANSI/ASHRAE/IESNA Appendix A.
b. Where using *R*-value compliance method, a thermal spacer block shall be provided, otherwise use the *U*-factor compliance method in Table C402.1.4.
c. R-5.7ci is allowed to be substituted with concrete block walls complying with ASTM C90, ungrouted or partially grouted at 32 inches or less on center v
d. Where heated slabs are below grade, below-grade walls shall comply with the exterior insulation requirements for heated slabs.

METAL BUILDING NOTES:
THIS BUILDING IS A PRE-ENGINEERED METAL BUILDING.
ALL METAL BUILDING COMPONENTS SHALL BE PER THE PEMB MANUFACTURER. SUBMIT COMPLETE SHOP DWGS FOR OWNER AND ENGINEER OF RECORD REVIEW - INDICATE ALL LOADS & REACTIONS

Russell Johnson

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Date: 2024.03.29 13:36:04 -05'00'

BUILDING SECTION
SCALE: 3/8" = 1'-0"

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GRAYTON BEACH TRANSIT FACILITY
WALTON COUNTY FLORIDA

STATE OF FLORIDA
RUSSELL A JOHNSON
AR0012593
REGISTERED ARCHITECT
3.29.24

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ABBREVIATIONS

AB	ANCHOR BOLT
ADDL	ADDITIONAL
ALT	ALTERNATE
ALUM	ALUMINUM
APPROX	APPROXIMATE or (±)
ARCH	ARCHITECTURAL or ARCHITECT
B/	BOTTOM OF
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BEAM
BOS	BOTTOM OF STEEL
BRG	BEARING
B/S	BOTTOM SIDE
BTM or (B)	BOTTOM, "BOT" SIM
BTW	BETWEEN
CB	CARRIAGE BOLT
CFS	COLD FORMED STEEL
CIP	CAST IN PLACE
C.J.	CONTROL JOINT
CL or (℄)	CENTER LINE
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
C.O.	CASED OPENING
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUE or CONTINUOUS
CSJ	CONSTRUCTION JOINT
CTR	CENTERED, "CNTR'd" SIM
DET	DETAIL
DBL	DOUBLE
DIA or (ø)	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DIR	DIRECTION
D.L.	DEAD LOAD
DN	DOWN
DWG	DRAWING
DWL	DOWEL
EA	EACH
E.E.	EACH END
E.F.	EACH FACE
EJ	EXPANSION JOINT
ELEV	ELEVATION
EMBED	EMBEDDED or EMBEDMENT
EOS	EDGE OF SLAB
E.G.	EXISTING GRADE
E.S.	EACH SIDE
EQ	EQUAL
E.W.	EACH WAY
EX	EXISTING
EXPB	EXPANSION BOLT
EXT	EXTERIOR
F.F.	FAR FACE
FFE	FINISHED FLOOR ELEVATION
F.G.	FINISHED GRADE
FIN	FINISH
FL	FLOOR
FLG	FLANGE
FND	FOUNDATION
FOC	FACE OF CONCRETE
FOM	FACE OF MASONRY
FOS	FACE OF STUD
FP	FULL PENETRATION
F/S	FAR SIDE
FT or (')	FOOT OR FEET
FTG	FOOTING
GA	GAUGE
GALV	GALVANIZED
GB	GRADE BEAM
GLULAM	GLUE LAMINATED LUMBER
GDR	GIRDER
GP	GUSSET PLATE
HAS	HEADED ANCHOR STUD
HD	HOLDOWN
HDG	HOT DIP GALVANIZED
HDR	HEADER
HK	HOOK
HORZ	HORIZONTAL
HSB	HIGH STRENGTH BOLT
H.S.S.	HEADED SHEAR or "NELSON" STUD
HSS	HOLLOW STL SECTION or TUBE
I.F.	INSIDE FACE
IN or (")	INCH OR INCHES
INT.	INTERIOR
INV	INVERT
JST	JOIST
JT	JOINT
K	KIP (1,000 POUNDS)
LB or (#)	POUNDS
L.E.	LEFT END
L.L.	LIVE LOAD
LLD	LONG LEG DOWN
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LONG	LONGITUDINAL
LSLN	LONG SLOT HOLE NORMAL ALIGNED NORMAL TO or PERP TO LOAD
LVL	LAMINATED VENEER LUMBER
LWC	LIGHT WEIGHT CONCRETE
MAS	MASONRY
MAX	MAXIMUM
MB	MACHINE BOLT
MFGR	MANUFACTURER
MID or (M)	MIDDLE
MIN	MINIMUM
MISC	MISCELLANEOUS
M.R.D.	METAL ROOF DECK
MTL	METAL
MTRL	MATERIAL
N.F.	NEAR FACE
NOM	NOMINAL
NO.	NUMBER OR #
N/S	NEAR SIDE
NS	NON-SHRINK
N.T.S.	NOT TO SCALE
NWC	NORMAL WEIGHT CONCRETE
O.C.	ON CENTER, "C.C." SIM
O.C.E.W.	ON CENTER EACH WAY or EACH DIR
O.D.	OVERALL DIM. "O/O" SIM
O.F.	OUTSIDE FACE
OPP	OPPOSITE
OVS	OVERSIZED
PCC	PRECAST CONCRETE
PEN	PENETRATION
PERP	PERPENDICULAR
P.L.	POINT LOAD
PL	PLATE
PREFAB	PREFABRICATED
PRELIM	PRELIMINARY
PSL	PARALLEL STRAND LUMBER
PT	POINT
P.T.	PRESSURE TREATED or POST-TENSION
RAD or "R"	RADIUS DIM
R.E.	RIGHT END
REINF	REINFORCING
REF	REFERENCE
RET	RETURN
REQ	REQUIRED
R.L.L.	ROOF LIVE LOAD
R.O.	ROUGH OPENING
SC	SLIP CRITICAL
SCHED	SCHEDULE
S.D.N.	STRUCTURAL DESIGN NOTES
SIM	SIMILAR
SOG	SLAB ON GRADE
S.P.	STUD PACK
SPECS	SPECIFICATIONS
SQ	SQUARE
SS	STAINLESS STEEL, "S.S." SIM
SSLN	SHORT SLOT HOLE ALIGNED NORMAL TO or PERP TO LOAD
STAG	STAGGERED
STD	STANDARD
STIFF	STIFFENER
STL	STEEL
STR	STRUCTURAL, "STRUCT" SIMILAR
S.W.	SHEAR WALL
SYM	SYMMETRICAL
T or (T)	TOP
T&B	TOP AND BOTTOM
T&S	TEMPERATURE & SHRINKAGE REINF.
T/	TOP OF
T/S	TOP SIDE
TDR	THREADED ROD
TEMP.	"T&S" FOR REINF, ELSE TEMPORARY
THK	THICK OR THICKNESS
TOB	TOP OF BEAM
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOS	TOP OF STEEL
TOW	TOP OF WALL
TRANS	TRANSVERSE
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE, "U.N.O." SIM
UWA	UNDER WALL ABOVE, "U.W.A." SIM
VERT	VERTICAL
V.I.F.	VERIFY IN FIELD
W/	WITH
W/O	WITHOUT
WF	WIDE FLANGE
WP	WORKING POINT
WWF	WELDED WIRE FABRIC
WWM	WELDED WIRE MESH

SCOPE OF WORK:

THESE DOCUMENTS HAVE BEEN PROVIDED TO FACILITATE THE REVIEW BY THE BUILDING OFFICIAL FOR PROJECT PERMITTING. APEX ENGINEERING GROUP PLLC (AEG) IS ACTING AS THE STRUCTURAL ENGINEER OF RECORD (EOR or SEOR) AND HAS PROVIDED THIS DOCUMENT PACKAGE TO SATISFY THE STRUCTURAL DESIGN REQUIREMENTS OF THE 2023 FBC BUILDING, CHAPTER 16 AND F.A.C. 61G15-31.001. ONLY ORIGINAL SIGNED AND SEALED COPIES OF THESE DOCUMENTS ARE ALLOWED FOR USE IN PERMITTING AND CONSTRUCTION. ANY UNAPPROVED DEVIATION FROM THESE CONSTRUCTION DOCUMENTS WILL VOID THE ENTIRETY OF THE DESIGN AND PLANS.

NOT PART OF THE SCOPE OF WORK:

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THESE DOCUMENTS MAY NOT HAVE BEEN FULLY COORDINATED WITH MECHANICAL ELECTRICAL AND PLUMBING (MEP) TRADES TO IDENTIFY ANY/ALL CONFLICTS WITH REQUIRED STRUCTURAL MEMBERS. IT IS THE CONTRACTORS RESPONSIBILITY TO COORDINATE THE FINAL CONSTRUCTION DOCUMENTS AND NOTIFY THE EOR OF ANY CONFLICTS PRIOR TO CONSTRUCTION.

IT IS THE CONTRACTORS SOLE RESPONSIBILITY TO FOLLOW THE RECOMMENDATIONS OF ANY ACCOMPANYING PROJECT DOCUMENTS PREPARED BY OTHER PROFESSIONALS, WHETHER REFERENCED WITHIN THIS DOCUMENT OR NOT. THIS DOCUMENT IS NOT INTENDED TO SUPPLANT OR REPLACE ANY PROJECT REQUIREMENTS OR RECOMMENDATIONS MADE BY OTHER DESIGN PROFESSIONALS, WHETHER KNOWN OR UNKNOWN. THIS MAY INCLUDE SOUND OR VIBRATION MITIGATION PROTOCOLS, MONITORING, SPECIAL INSPECTIONS, PERFORMANCE BASED TESTING, FOLLOW-UP TESTS, CERTIFICATION OR ANY VERIFICATION FOR DESIGN BEYOND THE AEG'S SCOPE OF WORK.

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DELEGATED DESIGN ELEMENTS:

AEG DOCUMENTS INCLUDE THE DESIGN FOR THE PRIMARY STRUCTURAL SYSTEMS FOR GRAVITY LOADING AND THE MAIN WIND FORCE RESISTING SYSTEMS. SPECIFIC ELEMENTS WITHIN THE PRIMARY STRUCTURAL SYSTEMS HAVE BEEN RESERVED AND IDENTIFIED BY THE EOR AS DELEGATED STRUCTURAL ELEMENTS IN ACCORDANCE WITH F.A.C. 61G15-31.002(7). THESE ARE REQUIRED TO BE DESIGNED BY A FLORIDA LICENSED PROFESSIONAL ENGINEER ACTING AS A SPECIALTY STRUCTURAL ENGINEER (SSE) AND SUBMITTED TO THE EOR FOR COMPLIANCE APPROVAL PER F.A.C. 61G30.006. IT IS THE INTENT OF THESE DOCUMENTS TO PROVIDE THE NECESSARY LOADING, DESIGN CRITERIA AND PERFORMANCE STANDARDS FOR EACH DELEGATED STRUCTURAL ELEMENT TO ENABLE THE SSE/SUBCONTRACTOR TO PROPERLY DEVELOP THEIR DESIGN PER F.A.C. 61G15-30.005. SSE'S SHALL NOTIFY THE EOR IF ANY ADDITIONAL DESIGN REQUIREMENTS ARE NEEDED OR IF ANY SPECIFIC CONSIDERATIONS OR CONFLICTS EXIST.

DELEGATED PRIMARY STRUCTURAL DESIGN ELEMENTS INCLUDE, BUT MAY NOT BE LIMITED TO:
- PRE-FABRICATED STRUCTURAL COMPONENTS
- SPECIALTY FOUNDATION SYSTEMS
- STRUCTURAL STEEL CONNECTIONS
- COLD FORM STEEL JOIST/STUD/TRUSS FRAMING, CONNECTIONS AND PRE-FABRICATED COMPONENTS
- PREFABRICATED WOOD TRUSSES, CROSS-LAMINATED TIMBER CONNECTIONS

DELEGATED SECONDARY STRUCTURAL ELEMENTS INCLUDE, BUT MAY NOT BE LIMITED TO:
- STAIRS, HANDRAILS, CATWALKS, LADDERS AND THEIR CONNECTIONS
- COMPONENTS, THEIR ASSEMBLIES, FRAMES, MULLS, MULLIONS AND CONNECTIONS TO THE PRIMARY STRUCTURAL SYSTEM

WINDOW AND DOOR COMPONENTS:

THESE DOCUMENTS SHOW THE STRUCTURAL REQUIREMENTS FOR THE PRIMARY STRUCTURAL ENVELOPE ROUGH OPENINGS ONLY. ALL ROUGH OPENING DIMENSIONS MUST BE VERIFIED BY THE CONTRACTOR BASED ON THE ACTUAL COMPONENT FRAME SIZES AND MFGR REQUIREMENTS AND SPECIFICATIONS PRIOR TO CONSTRUCTION. SECONDARY COMPONENT FRAMING WITHIN THE PROVIDED ROUGH OPENINGS, INCLUDING HORZ AND VERT MULLIONS, MULLS, GANGED OR "TIGHT-MULLED" COMPONENT FRAMES, MUST BE PROVIDED BY THE COMPONENT MFGR OR DESIGNED BY A SSE AND SUBMITTED TO THE EOR FOR APPROVAL. DESIGN OF CUSTOM COMPONENT ASSEMBLIES, MULTI-UNIT ASSEMBLIES, STOREFRONT SYSTEMS, CURTAINWALLS, AND WINDOW WALLS IS NOT PROVIDED AND IS RESERVED AS A DELEGATED DESIGN AND SUBMITTED TO THE EOR FOR APPROVAL.

WOOD FRAMED WALL HEADER SCHEDULE

LOCATION	MAXIMUM CLEAR SPAN LENGTH		
	Up to 3'	3' to 6'	6' to 8'
LINER/JACK/SUPPORT STUDS @ E.E.	1	2	3
KING STUDS OUTSIDE HEADER BEARING	2	2	3
ROOF BEARING ABOVE	3-2x6	3-2x10	3-2x12
1 FLOOR & ROOF BEARING ABOVE	3-2x8	3-2x12	SEE PLANS

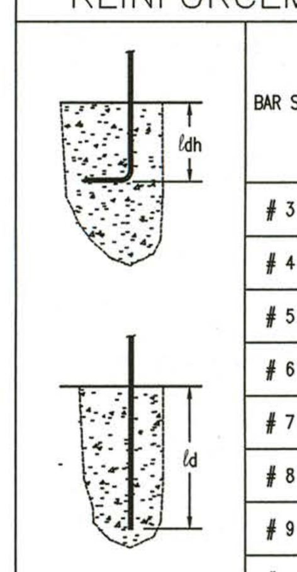
NOTE: SUPPORT CONDITIONS AND HEADER SIZES SPECIFICALLY CALLED OUT ON THE FRAMING PLANS or NOTED ON DETAILS SHALL GOVERN OVER THE VALUES LISTED IN THE TABLE ABOVE

TYP. REINFORCEMENT LAP SPLICE LENGTHS

BAR SIZE	3,000psi CONC.		NORMAL WEIGHT CMU			4,000psi CONC. U.N.O.						
						C.I.P. WALLS			BEAMS & SLABS		C.I.P. COLUMNS	
	FOOTINGS	FTG. DOWEL VERT. LAP	6"	8"	12"	VERT. BARS SINGLE	VERT. BARS 2 MATS	HORZ. BARS	TOP BARS	OTHER	CATEGORY 1	CATEGORY 2
# 3	21"	22"	19"	19"	19"	21"	16"	16"	22"	21"	16"	16"
# 4	23"	29"	25"	25"	25"	21"	18"	19"	29"	21"	18"	18"
# 5	29"	36"	39"	31"	31"	21"	19"	27"	36"	26"	19"	19"
# 6	37"	43"	81"	57"	53"	25"	22"	37"	43"	31"	22"	22"
# 7	50"	63"		79"	61"	39"	34"	60"	54"	39"	32"	37"
# 8		72"		113"	75"	51"	43"	74"	71"	51"	37"	45"
# 9						64"	54"	90"	90"	64"	43"	54"
# 10						81"	66"	108"	114"	81"	50"	62"

NOTES:
1. LAP LENGTHS SHOWN WITHIN SPECIFIC DETAILS OR OTHERWISE NOTED ON THE PLANS SHALL GOVERN OVER THE VALUES SCHEDULED ABOVE.
2. VALUES ABOVE ASSUME NORMAL WEIGHT CONCRETE USING 60ksi GRADE, NON-COATED, DEFORMED REBAR.
3. NO MODIFICATION FACTORS HAVE BEEN APPLIED TO THE SCHEDULED VALUES. MULTIPLY RESPECTIVE LENGTHS BY 1.5 FOR EPOXY COATED REBAR.
4. NONCONTACT LAPS ARE ALLOWED FOR CMU WALLS ONLY WITH BOTH BARS WITHIN THE SAME CELL U.N.O.
5. BARS USING NONCONTACT LAP SPLICES SHALL NOT BE SPACED TRANSVERSELY FARTHER APART THAN THE SMALLER OF ONE-FIFTH THE REQUIRED LAP SPLICE LENGTH LISTED IN THE SCHEDULE, OR 6".
6. WHEN LAP SPLICING BARS OF DIFFERENT SIZES, THE LAP LENGTH IS DETERMINED BY THE SMALLER BAR, BUT MAY NOT BE LESS THAN THE MINIMUM (CLASS "A") SPLICE LENGTH OF THE LARGER BAR.
7. NO LAPS SHALL BE LESS THAN 30 TIMES THE BAR DIA. OR 12" MIN.
8. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" FRESH CONCRETE CAST BELOW THE BARS.
9. TOP BAR LENGTHS SHALL BE APPLIED TO ALL PLAN SPECIFIED C.I.P. BEAM AND STRUCTURAL SLAB TOP REINFORCING U.N.O.

REINFORCEMENT DEVELOPMENT LENGTHS



BAR SIZE	FOOTING DOWELS	3,000psi CONC.			4,000psi CONC.		
			ℓd			ℓd	
	ℓdh	ℓdh	TYP.	Top Bars	ℓdh	TYP.	Top Bars
# 3	6.6"	8.2"	1'-0"	1'-1"	7.1"	1'-0"	1'-1"
# 4	9"	11.0"	1'-0"	1'-5"	9.5"	1'-0"	1'-5"
# 5	9"	13.7"	1'-3"	1'-9"	11.9"	1'-3"	1'-9"
# 6	SEE PLANS	16.5"	1'-8"	2'-3"	14.3"	1'-6"	2'-2"
# 7		19.2"	2'-2"	3'-1"	16.6"	1'-11"	2'-8"
# 8		21.9"	2'-11"	4'-0"	19.0"	2'-6"	3'-6"
# 9		24.7"	3'-8"	5'-1"	21.4"	3'-2"	4'-5"
# 10		27.9"	4'-7"	6'-5"	24.1"	4'-0"	5'-7"

NOTES:
1. VALUES ABOVE ASSUME NORMAL WEIGHT CONCRETE USING 60ksi GRADE, NON-COATED, DEFORMED REBAR.
2. NO MODIFICATION FACTORS HAVE BEEN APPLIED TO THE SCHEDULED ℓdh VALUES FOR BARS HOOKED ACROSS OR TIED TO REINFORCED ELEMENTS. SEE PLANS & DETAILS FOR SPECIFIC HOOKING INSTRUCTIONS.
3. HOOKED BAR ℓdh DEVELOPMENT LENGTH SHALL NOT BE LESS THAN THE GREATER OF 8 TIMES THE BAR DIA. OR 6" MIN.
4. NO MODIFICATION FACTORS HAVE BEEN APPLIED TO THE SCHEDULED ℓd VALUES FOR STRAIGHT BAR DEVELOPMENT LENGTHS BUT SHALL NOT BE LESS THAN 12".
5. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" FRESH CONCRETE CAST BELOW THE BARS.
6. TOP BAR LENGTHS SHALL BE APPLIED TO ALL PLAN SPECIFIED C.I.P. BEAM AND STRUCTURAL SLAB TOP REINFORCING U.N.O.

00.00 GENERAL

00.01 ALL CONSTRUCTION SHALL CONFORM TO THE FLORIDA BUILDING CODE 8TH EDITION (2023). REFERENCE TO OTHER CODES OR STANDARD SPECIFICATIONS REFER TO THE LATEST EDITION OF SUCH CODES OR SPECIFICATIONS, UNLESS STATED OTHERWISE.

00.02 THE CONTRACTOR SHALL COORDINATE ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND CIVIL WORKS DOCUMENTS WITH THE STRUCTURAL CONTRACT DOCUMENTS. NOTIFICATION SHALL BE MADE TO THE STRUCTURAL ENGINEER AND ARCHITECT OF ANY CONFLICT AND/OR OMISSIONS.

00.03 THE DRAWINGS SHOWN ARE FOR TYPICAL AND CERTAIN SPECIFIC CONDITIONS ONLY. PROVIDE DETAILS SIMILAR TO THOSE SHOWN FOR DETAILS THAT ARE NOT SPECIFICALLY SHOWN.

00.04 INFORMATION LISTED IN CALL-OUTS AND PLAN SCHEDULES ON S-100 SHEETS, AND SHOWN ON SPECIFIC SECTIONS AND DETAILS ON S-300 AND S-500 SHEETS RESPECTIVELY, GOVERN OVER INFORMATION LISTED ON THE THIS SHEET, S-001. CONFLICTS AND CONTRADICTIONS SHOULD BE BROUGHT TO THE E.O.R.'S ATTENTION FOR CLARIFICATION PRIOR TO CONSTRUCTION PER NOTE 00.06.

00.05 FOR DIMENSIONS NOT SHOWN ON THE STRUCTURAL CONTRACT DOCUMENTS, SEE THE ARCHITECTURAL DRAWINGS.

00.06 THE CONTRACTOR SHALL VERIFY EXISTING SITE CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO STARTING WORK. THE STRUCTURAL ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY DISCREPANCIES IN EXISTING SITE CONDITIONS, DIMENSIONS, OR ELEVATIONS TO THOSE SHOWN IN THE STRUCTURAL CONTRACT DOCUMENTS.

00.07 THE REVIEW OF SUBMITTALS AND/OR SHOP DRAWINGS BY THE STRUCTURAL ENGINEER DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW AND CHECK SHOP DRAWINGS PRIOR TO SUBMITTAL TO THE STRUCTURAL ENGINEER. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS, AND DIMENSIONS SPECIFIED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR ALSO SHALL BE RESPONSIBLE FOR MEANS, METHOD, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION.

00.08 THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN, CONSTRUCTION, AND ERECTION OF SAFE AND ADEQUATE BRACING, SHORING, TEMPORARY SUPPORTS, ETC. REQUIRED FOR STABILITY OF THE STRUCTURE DURING ALL INTERMEDIATE STAGES OF CONSTRUCTION.

00.09 IN NO CASE SHALL STRUCTURAL ALTERATIONS OR WORK AFFECTING A STRUCTURAL MEMBER BE MADE, UNLESS APPROVED BY APEX ENGINEERING GROUP, P.L.L.C. IN WRITING.

10.00 STRUCTURAL LOADS

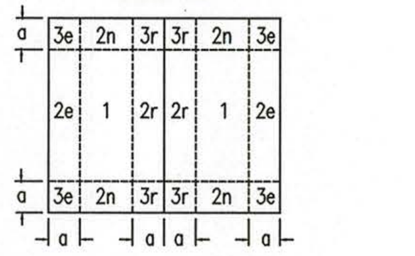
10.01 SUPERIMPOSED DEAD LOADS:
DEAD LOADS SHALL BE TAKEN AS THE ACTUAL WEIGHTS OF MATERIALS AND CONSTRUCTIONS OR OTHERWISE SATISFACTORY VALUES DESCRIBED IN THE F.B.C.
- PARTITIONS 20 PSF

10.02 SUPERIMPOSED LIVE LOADS:
- ROOF 20 PSF (300#)
- FLOORS 100 PSF
- STAIRS & EXITS100 PSF (300#)

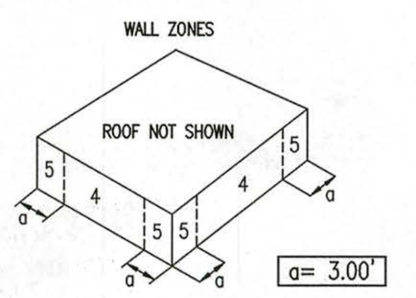
10.03 WIND LOADS (ASCE 7-22):
BASIC WIND SPEED = 146 MPH (INTERPOLATED VALUE PER ASCE 7-22, REF: HTTPS://ASCEHAZARDTOOL.ORG)
STRUCTURAL RISK CATEGORY = II
WIND EXPOSURE CATEGORY = C
ENCLOSURE CLASSIFICATION = ENCLOSED
INTERNAL PRESSURE COEFFICIENT = 0.18 +/-

COMPONENTS & CLADDING PRESSURES (per Chapter 30, Part 2 in ASD)			
COMPONENT	ZONE	DESIGN PRESSURE (PSF)	
		+GCpi	-GCpi
ROOF (Per 30.5-1)	1	18.01	-42.24
	2e		
	2n		-67.40
	2r		
	3e		
	3r		-86.84
OVERHANGS (Per 30.4-2)	2e	9.60	-50.36
	2n		-75.54
	3e		-90.65
	3r		-97.33
WALLS (Per 30.5-1)	4	29.70	-32.15
	5		-39.72

GABLED ROOF



WALL ZONES



a= 3.00'

NOTE:
VALUES SHOWN IN THE COMPONENTS AND CLADDING TABLE ARE LISTED IN ALLOWABLE STRESS DESIGN USING A LOAD FACTOR OF 0.6. NO FURTHER REDUCTIONS AREA ALLOWED.

WINDOW AND DOOR PRESSURES (ALLOWABLE STRESS DESIGN):

ALL COMPONENTS TO BE ZONE 4 UNLESS OVER HALF OF THE COMPONENT WIDTH FALLS WITHIN "A" ZONE MEASURED FROM THE EXTERIOR CORNERS OF THE BUILDING.

WINDOWS (ZONE 4): DP +30 / -35 PSF
WINDOWS (ZONE 5): DP +30 / -40 PSF
DOORS (ZONE 4): DP +30 / -35 PSF
DOORS (ZONE 5): DP +30 / -40 PSF

ALL EXTERIOR GLAZED OPENINGS SHALL BE IMPACT RATED OR OTHERWISE PROTECTED FROM WIND-BORNE DEBRIS AS PER SECTION 1609.1.2 & R301.2.1.2 OF THE 2023 FLORIDA BUILDING CODE.

UNLESS OTHERWISE APPROVED, ALL EXTERIOR WINDOWS, CURTAIN WALLS, DOORS AND IMPACT PROTECTIVE SYSTEMS FOR THIS PROJECT SHALL MEET ASTM E-1996 "LARGE MISSILE" PROTECTION LEVEL "D" FOR STRUCTURES IN WIND EXPOSURE CATEGORIES "C & D" AND "MEDIUM MISSILE" PROTECTION LEVEL "C" FOR STRUCTURES IN WIND EXPOSURE CATEGORY "B". COMPONENT ASSEMBLIES LOCATED ON THE STRUCTURE AT ELEVATIONS HIGHER THAN 30FT ABOVE THE HIGHEST ADJACENT GRADE SHALL MEET ASTM E-1996 "SMALL MISSILE" PROTECTION LEVEL "A".

10.04 FLOOD DESIGN DATA:
FLOOD ZONE = A
BFE = REF. ARCH.
PANEL NO = 12131C0683H
EFF DATE = 12/30/2020

20.00 FOUNDATIONS AND SLAB-ON-GRADE

20.01 THE DESIGN OF SHALLOW FOUNDATIONS AND SLAB-ON-GRADE CONSTRUCTION IS BASED ON THE PRESUMPTIVE MINIMUM LOAD-BEARING CAPACITY OF 1,500 PSF PER TABLE 1806.2 OF SECTION 1806 OF THE FLORIDA BUILDING CODE.

20.02 SHOULD THE CONTRACTOR ENCOUNTER UNDESIRABLE OR QUESTIONABLE SOILS, STOP WORK AND IMMEDIATELY NOTIFY THE SEOR. ANY QUESTIONABLE SOILS IDENTIFIED DURING CONSTRUCTION SHALL REQUIRE A GEOTECHNICAL INVESTIGATION PER FBC 1803.5.2.

20.03 IT IS THE CONTRACTORS RESPONSIBILITY TO OBTAIN ANY/ALL PREVIOUSLY PERFORMED SITE SPECIFIC GEOTECHNICAL INVESTIGATIONS FROM THE OWNER/CLIENT AND TO FOLLOW FULLY THE RECOMMENDATIONS THEREIN. THE SEOR WILL NOT APPROVE DEVIATIONS FROM THE RECOMMENDATIONS WITHIN ANY GEOTECHNICAL REPORT USED AS A BASIS FOR DESIGN.

20.04 IT IS THE CONTRACTORS RESPONSIBILITY TO RETAIN A REGISTERED DESIGN PROFESSIONAL KNOWLEDGEABLE IN THE FIELD OF GEOTECHNICAL ENGINEERING TO VERIFY SITE CONDITIONS, DESIGN ASSUMPTIONS, AND ADEQUACY OF ALL SUBGRADES, FILLS AND BACKFILLS BEFORE PLACEMENT OF FOUNDATIONS, FOOTINGS, SLABS, WALLS, FILLS, BACKFILLS, ETC. IT IS THE CONTRACTORS RESPONSIBILITY TO SCHEDULE AND COORDINATE THIS SERVICE, AND RELAY THE FINDINGS TO THE SEOR.

20.05 ALL FOOTINGS SHALL REST EITHER ON UNDISTURBED SOIL OR A MANUALLY OPERATED VIBRATORY SLED OR TAMPER SHOULD BE USED TO DENSIFY ANY SOILS IN THE BOTTOM OF THE FOOTING TRENCHES LOOSENED DURING THE EXCAVATION OPERATION.

20.06 THE AREA UNDER FOOTINGS, FOUNDATIONS, AND CONCRETE SLABS-ON-GRADE SHALL HAVE ALL VEGETATION, STUMPS, ROOTS, AND FOREIGN MATERIALS REMOVED PRIOR TO THEIR CONSTRUCTION.

20.07 SIDES OF FOUNDATIONS SHALL BE FORMED UNLESS CONDITIONS PERMIT EARTH FORMING. FOUNDATIONS POURED AGAINST THE EARTH REQUIRE THE FOLLOWING PRECAUTIONS: SLOPE SIDES OF EXCAVATIONS AND CLEAN UP SLOUGHING BEFORE AND DURING CONCRETE PLACEMENT.

20.08 THE CONTRACTOR IS RESPONSIBLE FOR ADEQUATELY PROTECTING ALL EXCAVATION SLOPES. EXCAVATION FOR ANY PURPOSE SHALL NOT REDUCE VERTICAL OR LATERAL SUPPORT FOR ANY FOUNDATION OR ADJACENT FOUNDATION WITHOUT FIRST UNDERPINNING OR PROTECTING THE FOUNDATION AGAINST DETRIMENTAL LATERAL OR VERTICAL MOVEMENT, OR BOTH PER FBC 1804.1.

20.09 ANY LOCATION WHERE EXCAVATING NEAR ANY ADJACENT STRUCTURE OR FOUNDATION, A REGISTERED DESIGN PROFESSIONAL SHALL PREPARE AN ASSESSMENT OF THE STRUCTURE AS DETERMINED FROM EXAMINATION OF THE STRUCTURE, THE REVIEW OF AVAILABLE DESIGN DOCUMENTS AND, IF NECESSARY, EXCAVATION OF TEST PITS PER FBC 1803.5.7. THE REGISTERED DESIGN PROFESSIONAL SHALL DETERMINE THE REQUIREMENTS FOR UNDERPINNING AND PROTECTION AND PREPARE SITE-SPECIFIC PLANS, DETAILS AND SEQUENCE OF WORK FOR SUBMISSION. THIS STRUCTURAL SUBMITTAL SHALL BE REVIEWED AND APPROVED BY THE SEOR PRIOR TO CONSTRUCTION.

20.10 FILL MATERIALS SHOULD BE RELATIVELY CLEAN SANDS, SIMILAR TO THE EXISTING ON-SITE SOILS, WITH LESS THAN 12 PERCENT FINES (MATERIAL PASSING THE NO. 200 SIEVE), AND FREE OF NON-SOIL MATERIALS, CONSTRUCTION DEBRIS, ROCK FRAGMENTS LARGER THAN 3 INCHES IN DIAMETER AND ANY OTHER FOREIGN MATERIAL. FILL MATERIALS THAT CONTAIN ORGANIC DEBRIS ARE NOT SUITABLE FOR REUSE AS STRUCTURAL FILL.

20.11 FILL SHOULD BE PLACED IN THIN, HORIZONTAL LOOSE LIFTS (MAXIMUM 12-INCH) AND COMPACTED TO NOT LESS THAN 90 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D 1557). FILL MATERIALS USED IN STRUCTURAL AREAS SHOULD HAVE A TARGET MAXIMUM DRY DENSITY OF 95 PCF OR GREATER. STRUCTURAL FILL GREATER THAN 12 INCHES SHALL REQUIRE A GEOTECHNICAL EVALUATION PER FBC 1803.5.8.

20.12 FINISH GRADES SHALL BE SLOPED AWAY FROM THE FOUNDATION IN ACCORDANCE WITH FBC 1804.4. ANY FILL OR GRADING IN FLOOD HAZARD AREAS MUST COMPLY WITH FBC 1804.5 AND HAS NOT BE ANALYZED AS PART OF THE STRUCTURAL DESIGN SCOPE.

20.13 THE CONTRACTOR SHALL INVESTIGATE ACTUAL LOCATIONS OF UNDERGROUND LINES AND UTILITIES BEFORE EXCAVATING. ALL EXCAVATIONS NEAR THESE LINES SHALL BE CARRIED OUT WITH EXTREME CAUTION.

20.14 WHERE FOOTING STEPS ARE NECESSARY, THEY SHALL BE NO STEEPER THAN ONE VERTICAL TO TWO HORIZONTAL.

20.15 ANY LOCATION WHERE EXISTING GROUND-WATER TABLE IS ENCOUNTERED ABOVE OR WITHIN 5 FEET BELOW THE ELEVATION OF THE LOWEST FLOOR LEVEL WHERE SUCH FLOOR IS LOCATED BELOW THE FINISHED GROUND LEVEL ADJACENT TO THE FOUNDATION WILL REQUIRE A SITE SPECIFIC GEOTECHNICAL INVESTIGATION.

20.16 DE-WATERING IS RECOMMENDED TO AT LEAST TWO FEET BELOW BOTTOM OF LOWEST FOUNDATION IF GROUNDWATER IS ENCOUNTERED. NO DE-WATERING IS ALLOWED WITHOUT SITE-SPECIFIC PLANS, DETAILS AND SEQUENCE OF WORK PROVIDED BY A REGISTERED DESIGN PROFESSIONAL AND SUBMITTED TO THE SEOR FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION. NO DE-WATERING IS ALLOWED ADJACENT TO ANY EXISTING STRUCTURES CLOSER THAN 100 FEET WITHOUT WRITTEN APPROVAL OF THE SEOR.

20.17 SLAB-ON-GRADE REQUIREMENTS:
A. UNLESS NOTED OTHERWISE, THE SLAB-ON-GRADE SHALL BE A MINIMUM OF 4 INCHES THICK, PLACED ON COMPACTED SUBGRADE, AND REINFORCED AS INDICATED IN THE CONTRACT DRAWINGS. LAP SLAB REINF 48 BAR DIAMETERS MINIMUM; TYPICAL.
B. PLACE CONTROL OR CONSTRUCTION JOINTS AT LOCATIONS INDICATED BY "C.J.". CUT HALF OF REINFORCING CROSSING EACH JOINT TO FURTHER WEAKEN THE JOINT LOCATION. SAWCUT CONTROL JOINTS AS SOON AFTER POURING AS POSSIBLE, WHEN CONCRETE WILL NOT RAVEL; 12 HRS. MAX. CURE CONCRETE IN ACCORDANCE WITH ACI 301. BEGIN CURING IMMEDIATELY AFTER POURING TO LIMIT CRACKING PRIOR TO SAWCUTTING CONTROL JOINTS.
C. SUBGRADE SHALL BE PREPARED AS RECOMMENDED IN THE GEOTECHNICAL REPORT. APPLY TERMITE POISONING TO PREPARED SUBGRADE AS REQUIRED BY THE FLORIDA BUILDING CODE, LATEST EDITION.
D. VAPOR BARRIER SHALL CONFORM TO ASTM E1745, CLASS B OR C WITH A MINIMUM THICKNESS OF 10 MIL. VAPOR BARRIER SHOULD BE PLACED OVER COMPACTED SUBGRADE PER GEOTECHNICAL REPORT. VAPOR BARRIER SHOULD BE OVERLAPPED AND TAPED AT THE JOINTS AND CAREFULLY FITTED AROUND SERVICE OPENINGS PER PRODUCT MANUFACTURER'S SPECIFICATIONS.

30.00 CONCRETE AND REINFORCING STEEL

30.01 CONCRETE WORK SHALL COMPLY WITH THE REQUIREMENTS OF ACI 318.

30.02 ALL CONCRETE SHALL BE NORMAL WEIGHT AND HAVE THE FOLLOWING MINIMUM 28 DAY COMPRESSIVE STRENGTHS UNO:
- FOUNDATIONS & SLAB-ON-GRADE 3,000 PSI
- STRUCTURAL SLABS 4,000 PSI
- CIP BEAMS, COLUMNS & WALLS 4,000 PSI
- EXTERIOR RETAINING WALLS 5,000 PSI (OR 4,000 PSI MIX, 0.40 W/CM RATIO, & 20-25% FLYASH)
- DESIGN STRENGTH REQUIREMENTS FOR DELEGATED DESIGN ELEMENTS SHALL COMPLY WITH THE APPROVED STRUCTURAL SUBMITTALS FOR EACH ELEMENT OR SYSTEM. THIS INCLUDES PRE-CAST, PRE-STRESSED AND POST-TENSIONED CONCRETE.

30.03 NOMINAL MAXIMUM SIZE OF COARSE AGGREGATE SHALL NOT BE LARGER THAN: 1/5 THE NARROWEST DIMENSION BETWEEN SIDES OF FORMS, 1/3 THE DEPTH OF SLABS, NOR 3/4 THE MINIMUM CLEAR SPACING BETWEEN INDIVIDUAL REINFORCING BARS OR WIRES.

30.04 ALL CONCRETE EXPOSED TO WEATHER SHALL HAVE 4%-6% ENTRAINED AIR, U.N.O. CONCRETE MAY CONTAIN A PROPERLY DESIGNED SUPERPLASTICIZER FOR WORKABILITY.

30.05 CHAMFER OR ROUND ALL EXPOSED CORNERS A MINIMUM OF 3/4".

30.06 THE MATERIALS AND MIX DESIGN SHALL BE FULLY DOCUMENTED AND REVIEWED BY THE OWNERS TESTING LABORATORY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR OBTAINING THE REQUIRED DESIGN STRENGTH.

30.07 CALCIUM CHLORIDE, CHLORIDE IONS, OR OTHER SALTS ARE NOT PERMITTED TO BE USED IN CONCRETE.

30.08 CONCRETE (OTHER THAN HIGH-EARLY-STRENGTH) SHALL BE MAINTAINED ABOVE 50°F (10°C) AND IN A MOIST CONDITION FOR AT LEAST THE FIRST 7 DAYS AFTER PLACEMENT, EXCEPT WHEN CURED IN ACCORDANCE WITH FLORIDA BUILDING CODE SECTION 1906.5.3 SPECIFICATION ON ACCELERATED CURING.

30.09 ADEQUATE EQUIPMENT SHALL BE PROVIDED FOR HEATING CONCRETE MATERIALS AND ALL REINFORCEMENT, FORMS, FILLERS, AND GROUND IN WHICH CONCRETE IS TO COME INTO CONTACT DURING FREEZING OR NEAR-FREEZING WEATHER.

30.10 ALL REINFORCING STEEL PLACEMENT SHALL BE REVIEWED BY A REGISTERED STRUCTURAL ENGINEER OR BY A REPRESENTATIVE RESPONSIBLE TO HIM/HER (REF: ACI 318 PAR 1.3.1.)

30.11 ALL REINFORCEMENT SHALL BE BENT COLD, UNLESS OTHERWISE APPROVED BY THE STRUCTURAL EOR.

30.12 SHOP DRAWINGS SHOWING ALL FABRICATION DIMENSIONS AND LOCATIONS FOR PLACING REINFORCING STEEL IN PRE-CAST PILES, ACIP PILES, PILE CAPS, MAT SLABS, CAST-IN-PLACE WALLS, AND STRUCTURAL SLABS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION.

30.13 FOR CONSTRUCTION OTHER THAN SINGLE FAMILY DWELLINGS, ALL CONCRETE REINFORCEMENT USED FOR STRUCTURAL ELEMENTS SHALL BE DETAILED, FABRICATED, LABELED, SUPPORTED AND SPACED IN FORMS AND SECURED IN PLACE IN ACCORDANCE WITH THE PROCEDURES AND REQUIREMENTS FOR REINFORCED CONCRETE, "ACI 318-02" AND THE "MANUALS OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES," ACI 315 (LATEST EDITION) UNLESS OTHERWISE APPROVED IN WRITING BY THE EOR.

30.14 REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60 UNLESS OTHERWISE NOTED.

30.15 WELDED WIRE FABRIC (MESH) SHALL CONFORM TO ASTM A185.

30.16 WELDED WIRE FABRIC SHALL BE LAPPED MIN. ONE FULL MESH PANEL PLUS 2" AT SIDES AND ENDS AND SHALL BE WIRED TOGETHER.

30.17 ALL STEEL REINFORCING AND WELD WIRE MESH USED IN SLAB-ON-GRADE CONSTRUCTION IS REQUIRED TO BE SUPPORTED IN THE CENTER TO UPPER ONE THIRD OF THE SLAB.

30.18 ALL REINFORCING STEEL AND EMBEDMENTS SHALL BE SECURELY TIED AND SUFFICIENTLY SUPPORTED TO MAINTAIN THE POSITION WITHIN SPECIFIED TOLERANCES DURING ALL CONSTRUCTION ACTIVITIES. "WET STICKING" DOWELS INTO CONCRETE IS NOT PERMITTED.

30.19 CONTINUOUS REINFORCEMENT SHALL BE PROVIDED WHEREVER POSSIBLE. REINFORCEMENT SHALL BE SPLICED ONLY AS SHOWN OR NOTED IN THE STRUCTURAL CONTRACT DOCUMENTS. STAGGER SPLICES WHERE POSSIBLE; USE FULL TENSION SPLICE (CLASS "B") UNLESS NOTED OTHERWISE. DOWELS SHALL MATCH THE SIZE AND SPACING OF THE SPECIFIED REINFORCEMENT AND SHALL BE LAPPED WITH FULL TENSION SPLICES (CLASS "B") UNLESS NOTED OTHERWISE. TERMINATE BARS WITH STANDARD HOOKS.

30.20 REINFORCING STEEL SHALL HAVE THE FOLLOWING CONCRETE MINIMUM CLEAR COVER UNO (PER ACI 318-05 PAR.7.7.1)
- CONCRETE AGAINST EARTH (NOT FORMED): 3"
- FORMED CONCRETE EXPOSED TO EARTH OR WEATHER: 2" (#6 BARS & LARGER) & 1-1/2" (#5 BARS & SMALLER)
- CONCRETE NOT EXPOSED TO EARTH OR WEATHER: 3/4" (SLABS), 1" (WALLS) & 1-1/2" (BEAM STIRRUPS & COLUMN TIES)

30.21 DO NOT PLACE DUCTS EXCEEDING ONE-THIRD THE SLAB OR WALL THICKNESS WITHIN THE SLAB OR WALL UNLESS SPECIFICALLY SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.

30.22 REINFORCING STEEL SHALL NOT BE WELDED OR TACK WELDED UNLESS APPROVED BY THE STRUCTURAL EOR.

30.23 WEATHER CONDITIONS SHALL NOT BE ACCEPTED AS A VALID REASON FOR INCORRECT OR OTHERWISE POOR QUALITY OF CONCRETE OR CONCRETE SURFACES.

30.24 ALL SHORING SHOULD REMAIN IN PLACE UNTIL CONCRETE HAS ATTAINED AT LEAST 75% OF ITS 28-DAY COMPRESSIVE STRENGTH. SHORING SHOULD BE LEFT 28 DAYS WITHOUT TESTING A CYLINDER TO CONFIRM STRENGTH. IT IS NOT ADVISABLE TO REMOVE SHORING WITHOUT A TEST FOR 21 DAYS UNDER ANY CIRCUMSTANCE. DESIGN OF CONSTRUCTION SHORING IS DELEGATED DESIGN BY OTHERS.

30.25 FOR CONCRETE PADS SEE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS.

40.00 MASONRY

40.01 DESIGN, MATERIAL AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS OF THE FBC CHAPTER 21, TMS 402/602-16 "BUILDING CODE FOR MASONRY STRUCTURES", AND TMS 404/604-16 WHERE APPLICABLE FOR MASONRY VENEERS.

40.02 CONCRETE BLOCKS USED FOR FIRE-RESISTIVE WALLS RATED 2 HOURS OR MORE, OR USED FOR LOAD-BEARING OR EXTERIOR WALLS, SHALL HAVE A MINIMUM FACE SHELL THICKNESS OF 1-1/4", A MINIMUM WEB THICKNESS OF 1", AND SHALL HAVE A NET CROSS-SECTIONAL AREA NOT LESS THAN 50 PERCENT OF THE GROSS SECTION WITH F'M= 1500 PSI.

40.03 STANDARD UNITS OF HOLLOW CONCRETE BLOCK SHALL CONFORM TO THE "STANDARD SPECIFICATION FOR HOLLOW LOAD-BEARING CONCRETE MASONRY UNITS," ASTM C 90, EXCEPT THAT THE MAXIMUM MOISTURE CONTENT SHALL NOT EXCEED 50 PERCENT OF THE TOTAL ABSORPTION.

40.04 MORTARS AND MATERIALS THEREIN SHALL CONFORM TO THE "STANDARD SPECIFICATIONS FOR MORTAR OF MASONRY UNITS," ASTM C 270.

40.05 GROUT TO BE 3000 PSI AND SHALL BE IN ACCORDANCE WITH ASTM C476, STANDARD SPECIFICATION. COURSE GROUT MAY ONLY BE USED WITH 8" AND 12" CMU.

40.06 WHEN MIXING GROUT, A SLUMP TEST IS REQUIRED FOR EACH BATCH TO ENSURE EACH MEETS THE 8" TO 11" SLUMP REQUIRED.

40.07 EXTERIOR WALLS OF UNIT MASONRY SHALL HAVE A MINIMUM THICKNESS OF 8"; HOWEVER, AS PER FLORIDA BUILDING CODE HOLLOW CONCRETE BLOCK UNITS MAY BE 7-5/8" X 7-5/8" X 15-5/8" MODULAR DIMENSION.

40.08 FILL ALL BLOCK CELLS WITH CONCRETE FROM THE TOP OF FOOTINGS TO THE FINISH FLOOR ELEVATION UNLESS INDICATED OTHERWISE.

40.09 ALL CONCRETE MASONRY UNIT REINFORCING STEEL BARS SHALL BE CONTINUOUS WITH LAP SPLICES OF A LEAST 48 BAR DIAMETERS, BUT NOT LESS THAN 12".

40.10 ALL VERTICAL REINFORCING IN CMU WALLS SHALL BE ANCHORED TO THE FOUNDATION OR BEAM/LINTEL UPON WHICH THE WALL RESTS, AND TO THE TIE BEAM OR TOP BOND BEAM COURSE AT THE TOP OF WALL, WITH ACI STANDARD HOOKS. RUN VERTICAL REINFORCING CONTINUOUS THROUGH ALL INTERMEDIATE WALL BOND BEAMS.

40.11 ALL OPENINGS IN CONCRETE MASONRY UNIT WALLS SHALL BE REINFORCED ON EACH SIDE, TOP, AND BOTTOM. OPENINGS NO GREATER THAN 4' SHALL BE REINFORCED WITH A MINIMUM OF (1)#5 BAR EACH SIDE. OPENINGS BETWEEN 4' AND 8' IN SHALL BE REINFORCED WITH A MINIMUM OF (2)#5 BARS EACH SIDE. OPENINGS EXCEEDING 8' IN WIDTH SHALL BE PROVIDED WITH TIE COLUMNS ON EACH SIDE.

40.12 TIE COLUMNS SHALL BE REINFORCED WITH NOT LESS THAN 4-#5 VERTICAL BARS FOR 8"X12" COLUMNS NOR LESS THAN 4-#6 VERTICAL BARS FOR 8"X16" AND 12"X12" COLUMNS WITH #3 HOOP TIES @ 12" O.C. UNLESS NOTED OTHERWISE ON PLANS.

40.13 AT A MINIMUM: PRE-CAST 8F8 LINTELS WITH (1)#5 BAR IN BOTTOM SHALL BE USED OVER OPENINGS UP TO 3' WIDE. PRE-CAST 8F16 LINTELS WITH (1)#5 BAR IN BOTTOM SHALL BE USED OVER OPENINGS 3' TO 6' WIDE. SEE PLANS FOR OPENINGS GREATER THAN 6'.

40.14 ALL LINTEL REINFORCING SHALL EXTEND 15" PAST THE EDGE OF THE OPENING AND SHALL BE BENT 90 DEGREES AND EXTENDED DOWN 8" WHERE STRAIGHT EXTENSIONS ARE NOT POSSIBLE.

40.15 CONTINUOUS CAST IN PLACE CONCRETE TIE BEAMS SHALL BE PLACED AT EACH FLOOR OR ROOF LEVEL AND AT INTERMEDIATE LEVELS NOT TO EXCEED 24 COURSES (16'-0").

40.16 TIE BEAMS SHALL BE 8" WIDE AND 16" DEEP AND SHALL BE REINFORCED WITH NOT LESS THAN (2)#5 BARS AT THE TOP AND (2)#5 BARS AT THE BOTTOM. REINF. BEAM W/ (4)#3 TIES AT 12" O.C. EACH SIDE OF BENDS & CORNERS, THEREAFTER REMAINDER OF TIES SHALL BE #3 BARS SPACED AT 24" O.C. UNLESS OTHERWISE NOTED.

40.17 UNLESS OTHERWISE SPECIFIED, CAST TIE BEAMS MAY BE SUBSTITUTED WITH (2) COURSES OF OPEN BOTTOM BOND BEAM BLOCK EACH REINFORCED WITH (2) CONTINUOUS #5 HORIZONTAL BARS. ALL TERMINATING VERTICAL BARS MUST BE HOOKED TO THE TOP COURSE.

40.18 BOND BEAM COURSES SHALL BE PLACED AT EACH FLOOR OR ROOF LEVEL AND AT INTERMEDIATE LEVELS NOT TO EXCEED 20 COURSES (13'-4") FOR BEARING WALLS, 36 COURSES (24'-0") FOR INTERIOR NON-BEARING WALLS, AND 18 COURSES (12'-0") FOR ALL OTHERS INCLUDING EXTERIOR WALLS, FREE STANDING, AND SITE WALLS UNLESS OTHERWISE NOTED.

40.19 UNLESS OTHEWISE SPECIFIED, INTERMEDIATE BOND BEAMS SHALL BE (2) COURSES OF OPEN BOTTOM BOND BEAM BLOCK EACH REINFORCED WITH (2) CONTINUOUS #5 HORIZONTAL BARS. ALL TERMINATING VERTICAL BARS MUST BE HOOKED TO THE TOP COURSE. ALL VERTICAL BARS ANCHORED TO BOND BEAMS FOR WALLS ABOVE MUST BE HOOKED TO THE BOTTOM COURSE.

40.20 ALL CMU ELEMENTS SHALL BE ADEQUATELY BRACED TO PROVIDE STABILITY UNTIL THE ENTIRE STRUCTURE IS COMPLETE TO PREVENT DAMAGE DURING CONSTRUCTION, ESPECIALLY DUE TO BACK FILLING AND SOIL COMPACTION OPERATIONS.

40.21 ALL CMU WALLS RETAINING MORE THAN 24" OF UNBALANCED FILL MUST BE ENGINEERED BY A LICENSED PROFESSIONAL ENGINEER.

50.00 WOOD

50.01 ALL WOOD FRAMING INCLUDING TRUSSES SHALL CONFORM TO THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION, AITC CODE.

50.02 ALL WOOD FRAMING SHALL BE SOUTHERN YELLOW PINE WITH A MAXIMUM MOISTURE CONTENT OF 19% AT THE TIME OF PERMANENT INCORPORATION TO THE STRUCTURE, UNLESS OTHERWISE NOTED IN THE STRUCTURAL DRAWINGS. WOOD FRAMING SHALL MEET THE FOLLOWING MINIMUM MATERIAL SPECIFICATIONS UNLESS OTHERWISE SPECIFIED (REFERENCE ANSI/AWC/ NDS 2018):
- DIMENSIONAL LUMBER (2" - 4" THICK): VISUALLY GRADED NO.2 SYP PER ANSI/AWC NDS 2018 TABLE 4B
- TIMBERS: VISUALLY GRADED NO.1 PER ANSI/AWC NDS 2018 TABLE 4D.

50.03 STUDS IN EXTERIOR WALLS SHALL BE 2X6 SPACED AT 16" O.C. ALL WOOD FRAME STUD WALLS SHALL HAVE SOLID BLOCKING AT MID-HEIGHT OR AT EACH SHEATHING POINT. MAXIMUM ALLOWABLE STUD LENGTH SHALL NOT EXCEED 13'-4". THIS TYPICAL STUD SIZE, SPECIES, SPACING AND GRADE IS NOT INTENDED FOR BALLOON FRAMING OR ANY UN-BRACED MULTI-STORY WALL CONSTRUCTION. SIGHT SPECIFIC ENGINEERING IS REQUIRED FOR ANY/ALL OTHER CONDITIONS.

50.04 SILLS AND BASE PLATES SHALL BE ATTACHED TO MASONRY OR CONCRETE WITH 5/8" DIAMETER BOLTS AT A MAXIMUM SPACING OF 32" EMBEDDED NOT LESS THAN 7" INTO GROUT FILLED MASONRY OR CONCRETE. EACH WALL SEGMENT SHALL HAVE A MINIMUM OF (2) ANCHOR BOLTS SPACED WITHIN 4.5" TO 12" FROM EACH END. ANCHOR BOLTS MUST BE LOCATED 4.5" TO 12" IN EACH DIRECTION AT WALL INTERSECTIONS AND EACH SIDE OF EXTERIOR BUILDING CORNERS.

50.05 ALL TOP PLATES OF STUD BEARING WALLS SHALL BE DOUBLED. SIMPSON SP2 STUD TIES SHALL BE INSTALLED AT 32" O.C. MAX. STARTING AT THE FIRST STUD AWAY FROM EACH SIDE OF A DOOR AND/OR WINDOW OPENING.

50.06 FLOOR SHEATHING SHALL BE 3/4" STRUCTURAL 1 RATED EXPOSURE 2. SHEATHING SHALL BE NAILED WITH 2-1/2" LONG 8D COMMON NAILS SPACED AT 6" O.C. AT PANEL EDGES AND 10" O.C. AT INTERMEDIATE SUPPORTS. GLUED AND SCREWED CONNECTIONS ARE PREFERRED FOR EXTENDED LIFE. INCREASE NAILING TO 6" O.C. TO ALL CROSSED MEMBERS WHERE DIAPHRAGM BLOCKING IS NOTED.

50.07 ALL TRUSSES AND RAFTERS SHALL BE STRAPPED OR HURRICANE CLIPPED TO SUPPORTING MEMBERS AT ALL BEARING POINTS.

50.08 ROOF SHEATHING SHALL BE 5/8" STRUCTURAL 1 RATED EXPOSURE 1. SHEATHING SHALL BE NAILED WITH 2-1/2" LONG 8D RING SHANK NAILS SPACED AT 6" O.C. AT PANEL EDGES AND INTERMEDIATE SUPPORTS. NAILING SPACING IN ROOF ZONE 2 & 3 (WITHIN THE "A" DIM, REF NOTE 10.03), AT GABLE ENDS, OVERHANGS AND ANY NOTED DIAPHRAGM BLOCKING, SHALL BE 4" O.C. AT PANEL EDGES AND INTERMEDIATE SUPPORTS WITH 10D RING SHANK NAILS. FULL HEAD NAILS REQUIRED. NO CLIPPED HEAD NAILS OR STAPLES.

50.09 ROOF PANEL SHEATHING CLIPS BETWEEN SUPPORTS MAY USED ALONG UNSUPPORTED PANEL EDGES IN ROOF ZONE 1 ONLY. SHEATHING IN ROOF ZONE 2 & 3 (WITHIN THE "A" DIM, REF NOTE 10.03) SHALL HAVE 2X4 EDGE BLOCKING AND BE FULLY NAILED.

50.10 PLYWOOD EXTERIOR WALL SHEATHING SHALL BE 1/2" STRUCTURAL 1 RATED EXPOSURE 1. SHEATHING SHALL BE NAILED WITH 2-1/2" LONG 8D COMMON NAILS SPACED AT 4" O.C. ALONG EDGES AND 6" O.C. TO INTERMEDIATE MEMBERS & BLOCKING.

50.09 ROOF PANEL SHEATHING CLIPS BETWEEN SUPPORTS MAY USED ALONG UNSUPPORTED PANEL EDGES IN ROOF ZONE 1 ONLY. SHEATHING IN ROOF ZONE 2 & 3 (WITHIN THE "A" DIM, REF NOTE 10.03) SHALL HAVE 2X4 EDGE BLOCKING AND BE FULLY NAILED.

50.10 PLYWOOD EXTERIOR WALL SHEATHING SHALL BE 1/2" STRUCTURAL 1 RATED EXPOSURE 1. SHEATHING SHALL BE NAILED WITH 2-1/2" LONG 8D COMMON NAILS SPACED AT 4" O.C. ALONG EDGES AND 6" O.C. TO INTERMEDIATE MEMBERS & BLOCKING.

50.11 UNLESS OTHERWISE APPROVED: ALL METAL BRACKETS, CLIPS, HANGERS, TIES, ETC. USED FOR FASTENING WOOD MEMBERS SHALL BE STAINLESS STEEL IN ALL LOCATIONS THAT ARE NOT FULLY WEATHER PROTECTED. Z-MAX OR GALVANIZED COATED FASTENERS SHALL BE USED ONLY IN LOCATIONS THAT ARE FULLY WEATHER PROTECTED.

50.12 PRESERVATIVE-TREATED WOOD SHALL BE USED FOR ALL SILL PLATES, BLOCKING, PLATES, AND OTHER MEMBERS THAT ARE IN CONTACT WITH CONCRETE, MASONRY, OR EARTH. MANUFACTURED LUMBER MEMBERS AND COLUMNS ARE NOT APPROVED FOR THESE APPLICATIONS.

50.13 UNLESS NOTED OTHERWISE, ALL MANUFACTURED STRUCTURAL COMPOSITE MEMBERS, GLULAMS, LAMINATED VENEER LUMBER (LVL) AND PARALLEL STRAND LUMBER (PSL) SHALL BE 2900FB, 2.0E APA EWS STRESS CLASS MINIMUM.

50.14 STRUCTURAL COMPOSITE LUMBER MUST BE FULLY WRAPPED AND WEATHER PROTECTED. ANY APPLICATIONS LEFT EXPOSED, INCLUDING FIRST FLOOR FRAMING, SHALL USE EXTERIOR RATED AND PRESSURE TREATED GLULAMS AND LVL'S OR WOLMANIZED PSL'S.

50.15 ALL CONNECTIONS FOR WOOD MEMBERS SHALL BE IN ACCORDANCE WITH FBC SECTION 2304.10. THE NUMBER AND SIZE OF FASTENERS CONNECTING WOOD MEMBERS SHALL NOT BE LESS THAN THAT SET FORTH IN TABLE 2304.10.1 UNLESS OTHERWISE SPECIFIED.

60.00 PRE-ENGINEERED WOOD TRUSS

SUBMITTAL REQUIRED: TRUSS MFGR TO SUBMIT DESIGN CALCULATIONS, LAYOUT, ERECTION AND CONSTRUCTION DETAILS TO E.O.R. FOR APPROVAL PRIOR TO FABRICATION. ALL CONSTRUCTION DOCUMENT SUBMITTALS SHALL BE SIGNED AND SEALED BY A DELEGATED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA PER F.A.C. 61G15-30.006 FOR ALL ROOF AND FLOOR TRUSS DELEGATED ENGINEERING DOCUMENTS IN ACCORDANCE WITH F.A.C. 61G15-31.002(7).

60.01 WOOD TRUSSES SHALL BE DESIGNED BY A DELEGATE SPECIALTY STRUCTURAL ENGINEER (SSE) IN ACCORDANCE WITH APPROVED ENGINEERING PRACTICE IN ACCORDANCE WITH F.A.C. 61G15-31.003. THE DESIGN AND MANUFACTURE OF METAL PLATE CONNECTED WOOD TRUSSES SHALL COMPLY WITH ANSI/TPI-1.

60.02 PRE-ENGINEERED FLOOR AND ROOF TRUSSES SHALL BE DESIGNED AND FABRICATED TO MEET STRUCTURAL DESIGN REQUIREMENTS PROVIDED BY THE EOR IN THESE DOCUMENTS IN ACCORDANCE WITH F.A.C. 61G15-31.003(2).

60.03 TRUSS SUPPLIER SHALL COORDINATE WITH THE ARCHITECT ALL CEILING AND BOTTOM CHORD REQUIREMENTS, AS WELL AS PROVISIONS FOR MECHANICAL CHASES AND DUCTWORK, ELECTRICAL, AND PLUMBING REQUIREMENTS PRIOR TO FABRICATING TRUSSES.

60.04 MINIMUM PRE-ENGINEERED TRUSS STRUCTURAL DESIGN LOADS:
- ROOF TOP CHORD LIVE LOAD 20 PSF
- ROOF TOP CHORD DEAD LOAD 15 PSF (METAL) / 20 (ASPHALTIC) / 30 (TILE) PSF
- ROOF BOTTOM CHORD DEAD LOAD 10 PSF
- FLOOR TOP CHORD LIVE LOAD 40 PSF
- FLOOR TOP CHORD DEAD LOAD 20 PSF (U.N.O.) + 20 PSF IF PARTITIONS ARE PRESENT
- FLOOR BOTTOM CHORD DEAD LOAD 10 PSF
- FLOOR TRUSS MAX DEFLECTION L/480 (LIVE) & L/360 (TOTAL LOAD)

60.05 GENERAL REQUIREMENTS FOR THE TRUSS SYSTEM LAYOUT INCLUDING SPAN DIRECTIONS, BEARING CONDITIONS, LOADING, SPACING AND LOCATIONAL CRITERIA HAVE BEEN PROVIDED WITHIN THESE DOCUMENTS BY THE EOR. ANY DEVIATION FROM THE PROVIDED TRUSS SYSTEM GENERAL REQUIREMENTS THAT INTRODUCE ENGINEERING INPUT MUST BE SIGNED AND SEALED BY A DELEGATE TRUSS SYSTEM ENGINEER PER 61G15-31.003(4) AND SHALL COMPLY WITH FBC2023, F.A.C. 61G15-30, F.A.C. 61G15-31 AND F.S. CHAPTER 471.

60.06 INDIVIDUAL ENGINEERED FLOOR AND ROOF TRUSSES SHALL BE SIGNED AND SEALED BY A DELEGATE TRUSS DESIGN ENGINEER PER 61G15-31.003(5) AND SHALL COMPLY WITH FBC2023, F.A.C. 61G15-30, F.A.C. 61G15-31 AND F.S. CHAPTER 471.

60.07 SIGNED AND SEALED TRUSS DESIGN DOCUMENTS MUST COMPLY WITH F.A.C. 61G15-30.006 AND BE SUBMITTED FOR REVIEW AND APPROVAL BY THE E.O.R. PRIOR TO FABRICATION AND INSTALLATION.

60.08 TRUSS SUPPLIER SHALL MAKE NECESSARY CORRECTIONS TO THE TRUSS DESIGN AS DIRECTED BY THE CONTRACTOR AND THE ENGINEER OF RECORD PRIOR TO COMMENCING WITH FABRICATION.

60.09 WRITTEN APPROVAL OF ALL ENGINEERING DOCUMENTS MUST BE PROVIDED BY APEX ENGINEERING GROUP, P.L.L.C. PRIOR TO FABRICATION OR INSTALLATION.

60.10 TRUSSES SHALL BE BRACED TO PREVENT ROTATION AND PROVIDE LATERAL STABILITY IN ACCORDANCE WITH THE REQUIREMENTS SPECIFIED IN THE CONSTRUCTION DOCUMENTS FOR THE BUILDING AND ON THE INDIVIDUAL TRUSS DESIGN DRAWINGS. IN THE ABSENCE OF SPECIFIC BRACING REQUIREMENTS, TRUSSES SHALL BE BRACED IN ACCORDANCE WITH THE TPI/WTCA BCSI.

60.11 NO ON-SITE CONSULTATIONS OR INSPECTIONS WILL BE PERFORMED PAST FIRST FLOOR FRAMING UNLESS TRUSS DOCUMENTS HAVE BEEN REVIEWED AND APPROVED BY E.O.R.

60.12 TRUSS MEMBERS AND COMPONENTS SHALL NOT BE CUT, NOTCHED, SPLICED OR OTHERWISE ALTERED IN ANY WAY WITHOUT THE APPROVAL OF A REGISTERED DESIGN PROFESSIONAL. ALTERATIONS RESULTING IN THE ADDITION OF LOAD (E.G., HVAC EQUIPMENT, WATER HEATER, ETC.), THAT EXCEED THE DESIGN LOAD FOR THE TRUSS, SHALL NOT BE PERMITTED WITHOUT VERIFICATION THAT THE TRUSS IS CAPABLE OF SUPPORTING THE ADDITIONAL LOADING.

70.00 TIE-DOWN NOTES

70.01 ANCHOR TIE-DOWN RODS SHALL HAVE A MINIMUM SHAFT DIAMETER OF ½" (ONE HALF INCH) U.N.O.

70.02 TIE-DOWN RODS MAY BE CONNECTED DIRECTLY TO THE PLAN SPECIFIED ⅝" ANCHOR BOLTS USING A SIMPSON CNW⅝"-½" TRANSITION COUPLER NUT ABOVE THE REQUIRED BP3-⅝" AND ⅝" NUT ATOP THE SILL PLATE.

70.03 TIE-DOWN DIRECT CONNECTION MAY BE USED BY UTILIZING SIMPSON SET ANCHORAGE ADHESIVE WITH MINIMUM ROD EMBEDMENT OF 6" WHEREVER CAST-IN-PLACE ANCHOR BOLTS ARE SPECIFIED FOR COUPLED EXTENSION TO ABOVE.

70.04 ANY PLACE WHERE A TIE-DOWN LOCATION IS FILLED WITH STUDS; USE A SIMPSON LTT131 OR HDU5 HOLDOWN CONNECTED AT THE TOP AND BOTTOM OF A MINIMUM 2PLY STUD PACK TO PRESERVE TENSION LOAD PATH TO FLOORS ABOVE AND/OR BELOW. RESUME INDICATED TIE-DOWN ROD PATH AT ENDS OF STUD PACK IF POSSIBLE.

70.05 SIMPSON LTT131 & HDU5 HOLDOWNS SHALL BE ANCHORED INTO GROUT FILLED CMU WALLS OR PIERS WITH A SIMPSON SB⅝ OR SSTB ANCHOR BOLT WITH EMBEDMENT PER MFGR. RECOMMENDATION.

70.06 RODS SHALL INSTALLED PLUMB. THE MAXIMUM ALLOWABLE ROD DRIFT FROM PLUMB SHOULD NOT EXCEED 1.33 DEGREES OR MAXIMUM CENTERLINE OFFSET DISTANCE OF 1.75" PER FLOOR.

70.07 TIE-DOWN RODS SHALL HAVE A SIMPSON BP-3 WITH NUT ATOP THE TERMINAL TOP PLATE. RODS AT SLOPED OR RAKED PLATES SHALL REQUIRE HILLSIDE WASHERS BETWEEN BP-3 AND NUT TO LEVEL.

70.08 ALL RODS ARE TO BE TIGHTENED AT EACH FLOOR AND THE TOP PLATE CONNECTION AFTER ROOF IS FULLY LOADED, JUST PRIOR TO GYPSUM BOARD INSTALLATION. ALL RODS WITH BP AND NUT CONNECTIONS TO THE BOTTOM SIDE OF THE FIRST FLOOR FRAMING SHALL BE TIGHTENED AT THE END OF THE CONSTRUCTION PROCESS PRIOR TO C.O. OPTIONAL: CONTRACTOR MAY INSTALL A SIMPSON BPRTUD AND RTUD TAKE-UP DEVICE AT THE TERMINAL TOP PLATE CONNECTION TO REMOVED UNWANTED SYSTEM SLACK DUE TO STRUCTURE SETTLING OR CREEP.

80.00 STRUCTURAL STEEL

SUBMITTALS REQUIRED:
1. STEEL MFGR TO SUBMIT SHOP DRAWINGS FOR STRUCTURAL STEEL DIMENSIONS, LAYOUT AND ERECTION. SHOP DRAWINGS MUST INCLUDE MEMBER SPECIFICS AND CONSTRUCTION DETAILS PRIOR TO FABRICATION.
2. DELEGATED DESIGN STRUCTURAL SUBMITTAL SHALL BE SUBMITTED TO THE E.O.R. FOR ALL STEEL CONNECTIONS UNLESS OTHERWISE APPROVED BY THE EOR IN WRITING. THIS SUBMITTAL MUST INCLUDE DESIGN CALCULATIONS AND CONSTRUCTION DETAILS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA. EOR MUST APPROVE THE STRUCTURAL SUBMITTAL IN WRITING PRIOR TO FABRICATION.

SPECIAL INSPECTION: ANY CONNECTIONS OTHER THAN AISC PRE-APPROVED CONNECTIONS MUST BE INSPECTED.

80.01 STEEL CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE TOLERANCES, QUALITY, AND METHODS OF CONSTRUCTION AS SET FORTH IN THE FLORIDA BUILDING CODE AND WITH AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" NINTH EDITION.

80.02 STRUCTURAL STEEL SHALL CONFORM TO ASTM A572 GRADE 50 EXCEPT STRUCTURAL TUBING SHALL CONFORM TO ASTM A500 GRADE B. ALL EXPOSED STAINLESS STEEL SHALL BE GRADE 316, ALL OTHER STRUCTURAL STAINLESS STEEL APPLICATIONS SHALL BE GRADE 304 UNLESS NOTED OTHERWISE.

80.03 STRUCTURAL STEEL SHALL HAVE THE FOLLOWING MINIMUM YIELD STRENGTHS, UNLESS NOTED OTHERWISE ON THE DRAWINGS: STRUCTURAL TUBING (FY= 46 KSI), ANGLES, CHANNELS & PLATES (FY= 36 KSI), W-SECTIONS & WT'S (FY= 50 KSI)

80.04 HIGH STRENGTH BOLTING SHALL BE IN ACCORDANCE WITH AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS" (LATEST EDITION).

80.05 HIGH STRENGTH BOLTS, NUTS AND HARDENED WASHERS SHALL BE ASTM A325; MACHINE BOLTS AND NUTS SHALL BE ASTM A307 UNO.

80.06 ERECTION BOLTS USED IN HIGH STRENGTH BOLTED CONNECTIONS SHALL BE REMOVED AND REPLACED WITH HIGH STRENGTH BOLTS.

80.07 WHEN CONNECTIONS REQUIRE FIELD PREPARATION OF BOLT HOLES, THE HOLES SHALL BE DRILLED AND THE DIAMETER OF THE BOLT HOLES SHALL BE 1/16" GREATER THAN THE NOMINAL BOLT DIAMETER.

80.08 HEADED STUD SHEAR CONNECTORS: ASTM A 108, GRADES 1010 THROUGH 1020, HEADED-STUD TYPE, COLD-FINISHED CARBON STEEL; AWS D1.1, TYPE B. USE AUTOMATIC END WELDING OF HEADED-STUD SHEAR CONNECTORS ACCORDING TO AWS D1.1 AND MANUFACTURER'S WRITTEN INSTRUCTIONS.

80.09 COMPOSITE CONSTRUCTION SHEAR CONNECTORS: SOLID FLUXED SHEAR CONNECTORS STUDS AUTOMATICALLY WELDED THROUGH THE METAL DECK AS SHOWN ON THE DRAWINGS AND IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER (NELSON DIVISION OF TRW OR APPROVED EQUAL).

80.10 DEFORMED BAR ANCHORS (INDICATED AS "DBA" ON PLANS): DEFORMED STEEL REINFORCING BARS IN ACCORANCE WITH ASTM A-496 SPECIFICATIONS, YIELD STRENGTH 70 KSI. USE AUTOMATIC END WELDING OF HEADED-STUD SHEAR CONNECTORS ACCORDING TO AWS D1.1 AND MANUFACTURER'S WRITTEN INSTRUCTIONS.

80.11 WELDING SHALL BE IN ACCORDANCE WITH AMERICAN WELDING SOCIETY SPECIFICATIONS AWS D1.1 (LATEST EDITION).

80.12 WELDING ELECTRODES USED FOR SHOP OR FIELD CONNECTIONS ARE E70XX UNO WITH A MINIMUM ELECTRODE TENSILE STRENGTH OF 70 KSI. ELECTRODES SHALL CONFORM TO AWS A5. USE PRE-QUALIFIED WELDED JOINTS AS PER AISC, AND AWS D1.1 "STRUCTURAL WELDING CODE." USE ONLY CERTIFIED WELDERS. BARE ELECTRODE AND GRANULAR FLUX SHALL CONFORM TO AWS A5, F70 AWS FLUX CLASSIFICATION. MINIMUM WELD SIZE TO BE 3/16" FILLET WELD, U.N.O.

80.13 CUTS, BOLTS, COPING, ETC. REQUIRED FOR WORK OR OTHER TRADES SHALL BE SHOWN ON THE SHOP DRAWINGS AND MADE IN THE SHOP. CUTS OR BURNING HOLES IN STRUCTURAL STEEL MEMBERS IN THE FIELD WILL NOT BE PERMITTED. ANY FIELD CORRECTING OF FABRICATED STEEL SHALL NOT BE PERMITTED ON STRUCTURAL FRAMING MEMBERS WITHOUT PRIOR WRITTEN APPROVAL BY THE E.O.R.

80.14 PROVIDE STIFFENER PLATES ON EACH SIDE OF WEB OF BEAM OR GIRDER AT POINTS OF CONCENTRATED LOADS. MINIMUM STIFFENER PLATE THICKNESS SHALL BE 3/8" OR FLANGE THICKNESS OF COLUMNS ABOVE OR BELOW, WHICHEVER IS THICKER.

80.15 FILLER BEAMS OR JOISTS SHOULD BE SPACED EQUALLY BETWEEN THE COLUMNS IF NOT SHOWN OTHERWISE ON THE DRAWINGS.

80.16 FABRICATOR SHALL PREPARE STRUCTURAL SUBMITTAL DOCUMENTS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. PRE-APPROVED CONNECTIONS LISTED WITHIN THESE DOCUMENTS SHALL BE DETAILED BASED ON THE DESIGN INFORMATION PROVIDED IN THE CONTRACT DOCUMENTS. ALL DOCUMENTS MUST BE APPROVED PRIOR TO FABRICATION/INSTALLATION.

80.17 WHERE PRE-APPROVED CONNECTIONS ARE NOT SPECIFIED FOR USE, ALL MEMBER CONNECTIONS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEERING LICENSED IN THE STATE OF FLORIDA ACTING AS A DELEGATE SPECIALTY STRUCTURAL ENGINEER (SSE) IN ACCORDANCE WITH APPROVED ENGINEERING PRACTICE. A STRUCTURAL SUBMITTAL SIGNED AND SEALED BY THE SSE TO THE EOR, INCLUDING ALL ASSOCIATED DETAILING AND DESIGN CALCULATIONS, MUST BE APPROVED PRIOR TO FABRICATION.

80.18 STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL AND MECHANICAL DRAWINGS AND DRAWINGS RELATED TO OTHER TRADES. CONTRACTOR SHALL BE RESPONSIBLE TO CHECK AND COORDINATE DIMENSIONS, CLEARANCES, ETC. WITH THE WORK OF OTHER TRADES. THE STRUCTURAL STEEL CONTRACTOR SHALL PROVIDE FRAMING AROUND OPENINGS IN FLOOR AND ROOF SLAB AS INDICATED IN THE MECHANICAL AND ARCHITECTURAL DRAWINGS.

80.19 STRUCTURAL STEEL CONTRACTOR SHALL COORDINATE THE BOTTOM OF BASE PLATE ELEVATION WITH THE TOP OF CONCRETE ELEVATION. IN CASE OF CONFLICT, THE CONTRACTOR SHALL MAKE ALLOWANCE IN HIS BID FOR MORE STRINGENT REQUIREMENTS

80.20 ALL STRUCTURAL STEEL SHALL BE GALVANIZED UNLESS OTHERWISE NOTED ON PLANS AND APPROVED PRIOR TO FABRICATION.

80.21 WHEN APPROVED PRIOR TO FABRICATION: THE MINIMUM STEEL STANDARD SHOP PAINT SHALL BE RED ALKYD ZINC CHROMATE PRIMER PER FEDERAL SPECIFICATION TT-P-664 OR EQUIVALENT PROVIDED APPROVED PER MANUFACTURERS STANDARD. REFER TO ARCHITECTURAL SPECIFICATIONS FOR ACTUAL PROJECT SPECIFIC FINISH COAT RECOMMENDATIONS.

80.22 STEEL SURFACES SHALL BE CLEANED IN ACCORDANCE WITH SSPC-SP3, FOR PREPARATION PRIOR TO PRIMER PAINTING, UNLESS REQUIRED OTHERWISE BY PRIMER MANUFACTURER. ALL WELDED, BURNED, OR OTHERWISE DAMAGED AREAS SHALL BE REPAIRED AND RECOATED IN ACCORDANCE WITH COATING MATERIAL MANUFACTURER'S RECOMMENDATIONS.

80.23 DO NOT PAINT STEEL SURFACES TO BE ENCASED IN CONCRETE OR RECEIVE SPRAYED ON FIREPROOFING, CONNECTIONS DESIGNATED AS SLIP CRITICAL, OR TO BE WELDED. STEEL SURFACES RECEIVING AUTOMATICALLY WELDED SHEAR CONNECTORS STUDS IN THE FIELD SHALL NOT BE PAINTED.

80.24 PLAN SPECIFIED STAINLESS STEEL ELEMENTS SHALL NOT BE SUBSTITUTED FOR ANY OTHER MATERIAL, IRON BASED ALLOY, OR FINISH WITHOUT WRITTEN APPROVAL OF E.O.R. PRIOR TO FABRICATION.

80.25 PROVIDE TEMPORARY BRACING OF STRUCTURAL FRAMING TO PROVIDE LATERAL SUPPORT UNTIL ALL PERMANENT BRACING MOMENT CONNECTIONS AND FLOOR AND ROOF DECKS (DIAPHRAGMS) ARE COMPLETELY INSTALLED.

80.26 SEE ARCHITECTURAL DOCUMENTS FOR ADDITIONAL MISCELLANEOUS STEEL REQUIRED.

DAH 2024.02.26 16:17:16-06'00'
D. Allen Barnes Jr, PE, LEED-AP
FL Reg. No. 70353

WALTON COUNTY WIND LOAD STATEMENT

I CERTIFY THAT THE DESIGN PLANS AND SPECIFICATIONS FOR THIS CONSTRUCTION ARE IN COMPLIANCE WITH THE CRITERIA ESTABLISHED BY THE FLORIDA BUILDING CODE 8TH EDITION (2023) AND SECTION 4.02.06 OF THE WALTON COUNTY LAND DEVELOPMENT CODE. THIS BUILDING AND/OR STRUCTURE IS DESIGNED TO WITHSTAND A WIND VELOCITY OF 146 MPH (INTERPOLATED VALUE PER ASCE 7-22) AND CHAPTER 16 OF THE FLORIDA BUILDING CODE.

UPON COMPLETION OF THIS BUILDING AND/OR STRUCTURE, I WILL CERTIFY AT THAT TIME THE BUILDING AND/OR STRUCTURE HAS COMPLIED WITH THIS SPECIFIC BUILDING DESIGN. THIS MUST BE ON FILE AT THE WALTON COUNTY BUILDING DEPARTMENT BEFORE RECEIVING AN INSPECTION FOR POWER. I UNDERSTAND THAT ANY CHANGE IN DESIGN OR SPECIFICATION MUST BE SUBMITTED IN WRITING BY ME TO THE BUILDING DEPARTMENT. ALL DRAWINGS AND/OR CORRESPONDENCE SHALL BE SIGNED AND SEALED.

WALTON COUNTY FLOOD ZONE DESIGN CERTIFICATION

I CERTIFY, TO THE BEST OF MY KNOWLEDGE, THAT THE FOUNDATION AND STRUCTURE IS DESIGNED AS ADEQUATELY ANCHORED TO PREVENT FLOATATION, COLLAPSE AND LATERAL MOVEMENT OF THE STRUCTURE RESULTING FROM HYDRODYNAMIC AND HYDROSTATIC LOADS, INCLUDING THE EFFECT OF BUOYANCY. THE DESIGN HAS TAKEN INTO ACCOUNT THE PROVISIONS OF (FBC R322/FBC 1612/ASCE 24) AND THE FLOOD LOADS IMPOSED BY A BASE FLOOD EVENT OF A 100 YEAR FLOOD AS SHOWN ON THE CURRENT WALTON COUNTY FLOOD INSURANCE MAP.

TYPICAL REQUIRED SCHEDULE OF INSPECTIONS

1. FOUNDATION:
   - DEEP FOUNDATION ELEMENTS MUST BE MONITORED DURING INSTALLATION PER NOTES.
   - OTHER: AEG MUST REVIEW AND APPROVE GENERAL FOUNDATION LAYOUT, ELEMENT SIZES, AND REINFORCING PRIOR TO CONCRETE POUR. ALL VERT. DOWEL REINF. MUST BE IN PLACE & TIED.
2. MASONRY CONSTRUCTION:
   - FOUNDATION STEM WALLS AND PIERS VERT. REINF., HORZ. REINF. & TIES
   - REINF. FOR CMU WALLS, PARTITIONS, SITE WALLS & RETAINING WALLS
   - REINF. REVIEW FOR LINTELS, BOND BEAMS, WALL TOP-OUT'S
   - SPECIAL INSPECTION REQUIRED FOR ALL REINF. NOT CENTERED WITHIN CELLS.
3. CAST-IN-PLACE CONCRETE:
   - REINF. FOR WALLS & COLUMNS PRIOR TO CLOSING FORMWORK
   - REINF. IN PILE CAPS, GRADE BEAMS, SLAB-ON-GRADE, CAST BEAMS, & STRUCTURAL SLABS
4. GENERAL FRAMING/STRAPPING:
   - FIRST FLOOR FRAMING LAYOUT & CONNECTORS MUST BE REVIEWED PRIOR TO DECKING
   - WALL SYSTEM FRAMING W/ KING STUDS AND STUD PACKS WHERE SPECIFIED
   - PLAN SPECIFIC STRUCTURAL ELEMENTS INCLUDING BEAMS, COLUMNS
   - REVIEW OF TRUSS FRAMING INSTALLATION *PRE-APPROVAL OF STRUCTURAL SUBMITTAL IS REQUIRED*
   - PLAN SPECIFIED CONNECTIONS, HOLDOWNS, STRAPPING & ANCHORING
5. ENGINEER FINAL INSPECTION & COUNTY WIND LOAD CERTIFICATION:
   - PRIOR TO FINAL CERT. THE EOR MUST PERFORM A FINAL WALK-THROUGH OF ALL PORTIONS OF THE STRUCTURE INCLUDED WITH EACH PERMIT NUMBER ASSOCIATED WITH THE PROJECT. THE BUILDING ENVELOPE MUST BE 100% STRUCTURALLY COMPLETE AND ENCLOSED AT THE TIME OF INSPECTION.

INSPECTION NOTES:
A. THE E.O.R. CHECKPOINT INSPECTIONS LISTED ABOVE ARE SEPARATE FROM, AND IN NO WAY SUPPLANT THE COUNTY BUILDING INSPECTOR'S REQUIRED CONSTRUCTION INSPECTIONS.
B. THE CONTRACTOR SHOULD TAKE ADEQUATE PICTURES OF ALL STRUCTURAL ELEMENTS DURING EACH AND ALL PHASES OF CONSTRUCTION TO PROVIDE VERIFICATION OF STRUCTURAL ELEMENTS AND CONSTRUCTION METHODS TO THE E.O.R. or BUILDING OFFICIAL UPON REQUEST.
C. INSPECTIONS MUST BE SCHEDULED A MINIMUM OF 24 HOURS IN ADVANCE. ON SITE CANCELLATIONS WILL NOT BE ACCEPTED. SCHEDULING AND COORDINATING OF THESE INSPECTIONS IS THE CONTRACTOR'S RESPONSIBILITY.
D. RE-INSPECTIONS RESULTING FROM REQUIRED REMEDIAL ACTIONS, CONTRACTOR ERROR, OR SCHEDULING MISS-QUEUE ARE IN ADDITION TO THE SCHEDULED INSPECTION FREQUENCY.
E. THIS SCHEDULE MAY NOT INCLUDE ADDITIONAL "SPECIAL INSPECTIONS" NOTED BY EOR IN THE PROJECT PLAN SPECIFICATION NOTES. READ EACH SECTION FULLY TO IDENTIFY ADDITIONAL REQUIREMENTS.

REQUIRED STRUCTURAL SUBMITTALS

IN ADDITION TO ANY SUBMITTALS REQUIRED BY THE PROJECT SPECIFICATIONS OR ELSEWHERE IN THE CONST DOCUMENTS, THE FOLLOWING "STRUCTURAL SUBMITTALS" ARE TYPICALLY REQUIRED FOR REVIEW BY THE S.E.O.R. WHEN APPLICABLE:

1. GEOTECHNICAL INVESTIGATIONS:
   - REQUIRED AT ANY LOCATION WHERE QUESTIONABLE SOILS ARE ENCOUNTERED PER 1803.5.2.
   - REQUIRED FOR ALL DEEP FOUNDATION DESIGNS PER 1803.5.5 PRIOR TO CONSTRUCTION.
   - REQUIRED FOR EXCAVATION NEAR ADJACENT STRUCTURES AND FOUNDATIONS PER 1803.5.7.
   - REQUIRED FOR ANY DE-WATERING ACTIVITIES WITHIN 100' OF ANY ADJACENT FOUNDATION.
   - REQUIRED FOR STRUCTURAL COMPACTED FILL MATERIAL GREATER THAN 12" PER 1803.5.8.
2. CONCRETE:
   - THE CONTRACTOR SHALL SUBMIT ANY/ALL CONCRETE ADMIXTURES FOR APPROVAL PRIOR TO USE.
   - ONE CONCRETE 28-DAY STRENGTH TEST PER ASTM C39 FOR EVERY 50 YARDS OF CONCRETE DELIVERED TO THE SITE FOR STRUCTURAL CONCRETE APPLICATIONS U.N.O.
3. CONCRETE AND REINFORCING DETAILING:
   - CONCRETE DETAILING REINFORCEMENT AND ACCESSORIES PER ACI 315-80 DETAILING MANUAL. SUBMIT SHOP DRAWINGS PER F.A.C. 61G15-30.002 (8) FOR APPROVAL, SHOWING ALL FABRICATION DIMENSIONS AND LOCATIONS FOR PLACING REINFORCEMENT STEEL AND ACCESSORIES. DO NOT BEGIN FABRICATION UNTIL SHOP DRAWINGS ARE COMPLETE, REVIEWED, AND APPROVED.
4. ENGINEERED FILL COMPACTION TESTING:
   - SUBMIT MATERIAL TESTING REPORT VERIFYING MINIMUM COMPACTION DENSITY WAS REACHED FOR STRUCTURAL COMPACTED FILL.
5. ENGINEERED ROOF AND FLOOR TRUSSES: **PRIOR TO FABRICATION AND/OR INSTALLATION**
   - SUBMIT DOCUMENTS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA PER F.A.C. 61G15-30.002(5) FOR ALL ROOF AND FLOOR TRUSSES.
6. STRUCTURAL STEEL AND CONNECTIONS:
   - SUBMIT SHOP DRAWINGS PER F.A.C. 61G15-30.002 (8) PREPARED IN ACCORDANCE WITH AISC MANUAL "DETAILING FOR STEEL CONSTRUCTION". DO NOT BEGIN FABRICATION UNTIL SHOP DRAWINGS ARE COMPLETE, REVIEWED, AND APPROVED.
7. HANDRAILS AND STAIRS:
   - ASSEMBLY GEOMETRY, MATERIALS, CONNECTIONS, CALCULATIONS AND REACTIONS.

STRUCTURAL SUBMITTAL NOTES:
A. STRUCTURAL SUBMITTALS TO APEX ENGINEERING GROUP, P.L.L.C. WILL BE REVIEWED AND RETURNED WITHIN TEN (10) BUSINESS DAYS OF SUBMITTAL IN ACCORDANCE WITH INDUSTRY STANDARD PRACTICES UNLESS OTHERWISE SPECIFIED IN THE CONTRACT OR CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHOULD PLAN ACCORDINGLY TO PREVENT PROJECT DELAYS.
B. COORDINATE STRUCTURAL CONTRACT DOCUMENTS WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND CIVIL. NOTIFY STRUCTURAL ENGINEER OF ANY CONFLICT AND/OR OMISSION. CONTRACTOR SHALL MAKE NO DEVIATION FROM DESIGN DRAWINGS WITHOUT WRITTEN APPROVAL OF THE ARCHITECT. FOR ADDITIONAL OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS, SEE ARCHITECTURAL, MECHANICAL, AND PLUMBING DRAWINGS.
C. REVIEW OF SUBMITTALS AND/OR SHOP DRAWINGS BY THE STRUCTURAL ENGINEER DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO REVIEW AND CHECK SHOP DRAWINGS BEFORE SUBMITTAL TO THE STRUCTURAL ENGINEER. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS, AND DIMENSIONS SPECIFIED IN THE CONTRACT DOCUMENTS. CONTRACTOR IS ALSO RESPONSIBLE FOR MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION.
D. ALL "STRUCTURAL SUBMITTALS" SHALL BE PREPARED BY A "SPECIALTY ENGINEER" IN ACCORDANCE WITH THE FBC2023, F.A.C. 61G15, AND F.S. CHAPTER 471.
E. SHOP DRAWINGS PREPARED SOLELY AS A GUIDE FOR ERECTION AND INSTALLATION AND CATALOG INFORMATION WILL NOT REQUIRE AN ENGINEER'S SEAL; HOWEVER, THEY SHALL BEAR THE ENGINEER'S SIGNATURE INDICATING THAT HE/SHE HAS CHECKED THE WORK.
F. DRAWINGS INTRODUCING ENGINEERING INPUT AND CALCULATIONS SHALL BE SEALED BY THE ENGINEER PREPARING SUCH WORK F.A.C. 61G15-30.006 (3).
G. THE REVIEW OF STRUCTURAL SUBMITTALS BY THE E.O.R. SHALL ENSURE THAT THE SUBMITTALS HAVE BEEN FURNISHED AND PREPARED BY A QUALIFIED PERSON, THAT THE DELEGATED ENGINEER OF RECORD UNDERSTOOD THE INTENT OF THE DESIGN AND USED THE SPECIFIED CRITERIA, AND THAT THE CONFIGURATION OF THE DESIGN IS CONSISTENT WITH THE CONSTRUCTION DOCUMENTS. NO DETAILED CHECK OF DIMENSIONS WILL BE MADE.
H. ANY DESIGN CHANGES MADE BY A "VALUE, SPECIALTY OR DELEGATED ENGINEER" SHALL BE PERFORMED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA. PRIOR TO FABRICATION ALL DESIGN CHANGES MUST BE SUPPORTED BY CALCULATIONS, SIGNED AND SEALED THEN SUBMITTED TO THE E.O.R. FOR APPROVAL.
I. REFER TO F.A.C. SECTION 61G15-23.002, 30.002, 30.006 AND 31.002 FOR ADDITIONAL INFORMATION.

PLAN REVISIONS

CALLOUT	DATE	BY	SHEET	DESCRIPTION:
1	02.26.24	DAB	S-001	PLANS UPDATED FOR FBC 2023, 8TH EDITION. DESIGN CRITERIA ACCOUNTS FOR ASCE 7-22 UPDATES.

DAVID ALLEN BARNES JR. LICENSE No. 70353 STATE OF FLORIDA PROFESSIONAL ENGINEER
Not Valid without Original Signature.

APEX ENGINEERING GROUP, PLLC
78-A Ricker Avenue, Santa Rosa Beach, Florida 32459
Florida Certificate of Authorization: # 32176
Phone: 850-231-4540, Email: Info@apexengineeringgroup.net

GRAYTON BEACH
TRANSIT FACILITY
WALTON COUNTY, FLORIDA

PROJECT NUMBER:	8307-2201
DESIGNED BY:	DAB
REVIEWED BY:	n/a
SHEET SCALE:	N.T.S.

RELEASE RECORD:	
ISSUED FOR BIDDING	11-21-2022
PERMIT DOCUMENTS	03-29-2023
CONST. DOCS/ REV. 1	02-26-2024

DRAWING TITLE:

STRUCTURAL DESIGN NOTES

DRAWING NO.

S-001

00.00 GENERAL

00.01 ALL CONSTRUCTION SHALL CONFORM TO THE FLORIDA BUILDING CODE 7TH EDITION (2020). REFERENCE TO OTHER CODES OR STANDARD SPECIFICATIONS REFER TO THE LATEST EDITION OF SUCH CODES OR SPECIFICATIONS, UNLESS STATED OTHERWISE.

00.02 THE CONTRACTOR SHALL COORDINATE ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND CIVIL WORKS DOCUMENTS WITH THE STRUCTURAL CONTRACT DOCUMENTS. NOTIFICATION SHALL BE MADE TO THE STRUCTURAL ENGINEER AND ARCHITECT OF ANY CONFLICT AND/OR OMISSIONS.

00.03 THE DRAWINGS SHOWN ARE FOR TYPICAL AND CERTAIN SPECIFIC CONDITIONS ONLY. PROVIDE DETAILS SIMILAR TO THOSE SHOWN FOR DETAILS THAT ARE NOT SPECIFICALLY SHOWN.

00.04 INFORMATION LISTED IN CALL-OUTS AND PLAN SCHEDULES ON S-100 SHEETS, AND SHOWN ON SPECIFIC SECTIONS AND DETAILS ON S-300 AND S-500 SHEETS RESPECTIVELY, GOVERN OVER INFORMATION LISTED ON THE THIS SHEET, S-001. CONFLICTS AND CONTRADICTIONS SHOULD BE BROUGHT TO THE E.O.R.'S ATTENTION FOR CLARIFICATION PRIOR TO CONSTRUCTION PER NOTE 00.06.

00.05 FOR DIMENSIONS NOT SHOWN ON THE STRUCTURAL CONTRACT DOCUMENTS, SEE THE ARCHITECTURAL DRAWINGS.

00.06 THE CONTRACTOR SHALL VERIFY EXISTING SITE CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO STARTING WORK. THE STRUCTURAL ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY DISCREPANCIES IN EXISTING SITE CONDITIONS, DIMENSIONS, OR ELEVATIONS TO THOSE SHOWN IN THE STRUCTURAL CONTRACT DOCUMENTS.

00.07 THE REVIEW OF SUBMITTALS AND/OR SHOP DRAWINGS BY THE STRUCTURAL ENGINEER DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW AND CHECK SHOP DRAWINGS PRIOR TO SUBMITTAL TO THE STRUCTURAL ENGINEER. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS, AND DIMENSIONS SPECIFIED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR ALSO SHALL BE RESPONSIBLE FOR MEANS, METHOD, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION.

00.08 THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN, CONSTRUCTION, AND ERECTION OF SAFE AND ADEQUATE BRACING, SHORING, TEMPORARY SUPPORTS, ETC. REQUIRED FOR STABILITY OF THE STRUCTURE DURING ALL INTERMEDIATE STAGES OF CONSTRUCTION.

00.09 IN NO CASE SHALL STRUCTURAL ALTERATIONS OR WORK AFFECTING A STRUCTURAL MEMBER BE MADE, UNLESS APPROVED BY APEX ENGINEERING GROUP, P.L.L.C. IN WRITING.

10.00 DESIGN CRITERIA

10.01 BUILDING CODE: 2020 FLORIDA BUILDING CODE, BUILDING, SEVENTH EDITION

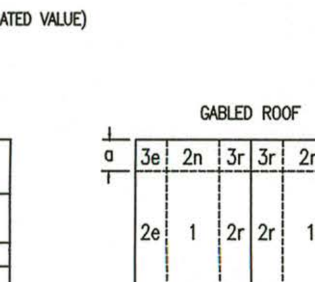
10.02 GRAVITY LOADS
A. SUPERIMPOSED DEAD LOADS:
DEAD LOADS SHALL BE TAKEN AS THE ACTUAL WEIGHTS OF MATERIALS AND CONSTRUCTIONS OR OTHERWISE SATISFACTORY VALUES DESCRIBED IN THE F.B.C.
- MINIMUM FOR UPLIFT 3 PSF
- SELF WEIGHT COLLATERAL 5 PSF
- PARTITIONS 20 PSF
B. SUPERIMPOSED LIVE LOADS:
- ROOF 20 PSF
- FLOORS 125 PSF (2,000#)
- ELEVATED PLATFORMS 100 PSF
C. SNOW LOADS:
- GROUND SNOW LOAD 0 PSF
- FLAT-ROOF SNOW LOAD 0 PSF
D. CONSTRUCTION LOADS:
NOT ANTICIPATED TO EXCEED THE DESIGN LIVE LOADS.

10.03 LATERAL LOADS
A. STRUCTURAL RISK CATEGORY = II
B. SEISMIC DESIGN CRITERIA:
- DESIGN BASE SHEAR PER BLDG MFGR
C. WIND LOADS (ASCE 7-10):
- BASIC WIND SPEED = 140 MPH (INTERPOLATED VALUE)
- WIND EXPOSURE CATEGORY = C
- ENCLOSURE CLASSIFICATION = ENCLOSED
- INTERNAL PRESSURE COEFFICIENT = 0.18 +/-

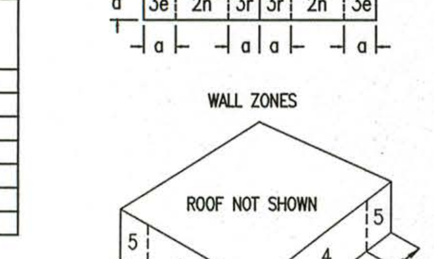
COMPONENTS & CLADDING PRESSURES (per Chapter 30, Part 2 in ASD)

COMPONENT	ZONE	DESIGN PRESSURE (PSF) +GCpi	DESIGN PRESSURE (PSF) -GCpi
ROOF (Per 30.5-1)	1	18.01	-42.24
	2e		
	2n		-67.40
	2r		
	3e		
	3r		-86.84
OVERHANGS (Per 30.4-2)	2e	9.60	-50.36
	2n		-75.54
	3e		-90.65
	3r		-97.33
WALLS (Per 30.5-1)	4	29.70	-32.15
	5		-39.72

GABLED ROOF



WALL ZONES



NOTE:
VALUES SHOWN IN THE COMPONENTS AND CLADDING TABLE ARE LISTED IN ALLOWABLE STRESS DESIGN USING A LOAD FACTOR OF 0.6. NO FURTHER REDUCTIONS AREA ALLOWED.

WINDOW AND DOOR PRESSURES (ALLOWABLE STRESS DESIGN):

ALL COMPONENTS TO BE ZONE 4 UNLESS OVER HALF OF THE COMPONENT WIDTH FALLS WITHIN "A" ZONE MEASURED FROM THE EXTERIOR CORNERS OF THE BUILDING.

WINDOWS: DP +30 / -35 PSF
DOORS: DP +30 / -35 PSF

ALL EXTERIOR GLAZED OPENINGS SHALL BE IMPACT RATED OR OTHERWISE PROTECTED FROM WIND-BORNE DEBRIS AS PER SECTION 1609.1.2 & R301.2.1.2 OF THE 2020 FLORIDA BUILDING CODE.

UNLESS OTHERWISE APPROVED, ALL EXTERIOR WINDOWS, CURTAIN WALLS, DOORS AND IMPACT PROTECTIVE SYSTEMS FOR THIS PROJECT SHALL MEET ASTM E-1996 "LARGE MISSILE" PROTECTION LEVEL "D" FOR STRUCTURES IN WIND EXPOSURE CATEGORIES "C & D" AND "MEDIUM MISSILE" PROTECTION LEVEL "C" FOR STRUCTURES IN WIND EXPOSURE CATEGORY "B". COMPONENT ASSEMBLIES LOCATED ON THE STRUCTURE AT ELEVATIONS HIGHER THAN 30FT ABOVE THE HIGHEST ADJACENT GRADE SHALL MEET ASTM E-1996 "SMALL MISSILE" PROTECTION LEVEL "A".

10.04 FLOOD DESIGN DATA:
FLOOD ZONE = A
BFE = REF. ARCH.
PANEL NO = 12131C0683H
EFF DATE = 12/30/2020

10.05 FOUNDATION DESIGN CRITERIA
MINIMUM BEARING CAPACITY = 2,000 PSF
SOIL DENSITY = 115 PCF
COEFFICIENT OF FRICTION = 0.30
FROST DEPTH = N/A

20.00 FOOTINGS AND SLAB-ON-GRADE

20.01 THE DESIGN OF FOUNDATIONS AND SLAB-ON-GRADE IS BASED ON AN ASSUMED MINIMUM BEARING CAPACITY OF 2,000 PSF. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD IF QUESTIONABLE SOIL CONDITIONS ARE ENCOUNTERED.

20.02 A QUALIFIED GEOTECHNICAL ENGINEER SHALL VERIFY CONDITION AND/OR ADEQUACY OF ALL SUBGRADES, FILLS AND BACKFILLS BEFORE PLACEMENT OF FOUNDATIONS, FOOTINGS, SLABS, WALLS, FILLS, BACKFILLS, ETC. SHOULD THE CONTRACTOR FIND UNDESIRABLE SOILS, HE SHALL STOP WORK AND IMMEDIATELY CONTACT THE ENGINEER OF RECORD.

20.03 ALL FOOTINGS SHALL REST EITHER ON UNDISTURBED SOIL OR A MANUALLY OPERATED VIBRATORY SLED OR TAMPER SHOULD BE USED TO DENSIFY ANY SOILS IN THE BOTTOM OF THE FOOTING TRENCHES LOOSENED DURING THE EXCAVATION OPERATION.

20.04 THE AREA UNDER FOOTINGS, FOUNDATIONS, AND CONCRETE SLABS-ON-GRADE SHALL HAVE ALL VEGETATION, STUMPS, ROOTS, AND FOREIGN MATERIALS REMOVED PRIOR TO THEIR CONSTRUCTION.

20.05 SIDES OF FOUNDATIONS SHALL BE FORMED UNLESS CONDITIONS PERMIT EARTH FORMING. FOUNDATIONS POURED AGAINST THE EARTH REQUIRE THE FOLLOWING PRECAUTIONS: SLOPE SIDES OF EXCAVATIONS AND CLEAN UP SLOUGHING BEFORE AND DURING CONCRETE PLACEMENT.

20.06 THE CONTRACTOR IS RESPONSIBLE FOR ADEQUATELY PROTECTING ALL EXCAVATION SLOPES.

20.07 FILL MATERIALS SHOULD BE RELATIVELY CLEAN SANDS, SIMILAR TO THE EXISTING ON-SITE SOILS, WITH LESS THAN 12 PERCENT FINES (MATERIAL PASSING THE NO. 200 SIEVE), AND FREE OF NON-SOIL MATERIALS, CONSTRUCTION DEBRIS, ROCK FRAGMENTS LARGER THAN 3 INCHES IN DIAMETER AND ANY OTHER FOREIGN MATERIAL. FILL MATERIALS THAT CONTAIN ORGANIC DEBRIS ARE NOT SUITABLE FOR REUSE AS STRUCTURAL FILL.

20.08 FILL SHOULD BE PLACED IN THIN, HORIZONTAL LOOSE LIFTS (MAXIMUM 12-INCH) AND COMPACTED TO AT LEAST 95 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D 1557). FILL MATERIALS USED IN STRUCTURAL AREAS SHOULD HAVE A TARGET MAXIMUM DRY DENSITY OF 95 PCF OR GREATER.

20.09 FINISH GRADE SHALL BE SLOPED AWAY FROM THE FOUNDATION FOR DRAINAGE.

20.10 THE CONTRACTOR SHALL INVESTIGATE ACTUAL LOCATIONS OF UNDERGROUND LINES AND UTILITIES BEFORE EXCAVATING. ALL EXCAVATIONS NEAR THESE LINES SHALL BE CARRIED OUT WITH EXTREME CAUTION.

20.11 WHERE FOOTING STEPS ARE NECESSARY, THEY SHALL BE NO STEEPER THAN ONE VERTICAL TO TWO HORIZONTAL.

20.12 DEWATER TO AT LEAST TWO FEET BELOW BOTTOM OF LOWEST FOUNDATION IF GROUNDWATER IS ENCOUNTERED.

20.13 THE FOUNDATION SYSTEM HAS BEEN DESIGNED TO SUPPORT A PRE-ENGINEERED BUILDING BASED UPON A DESIGN ANALYSIS PERFORMED BY THE FOUNDATION ENGINEER. THE FOLLOWING CONCRETE REQUIREMENTS FOR PRE-ENGINEERED BUILDING APPLY:
A. THE FOUNDATION MUST BE SQUARE AND LEVEL. OUT OF LEVEL TOLERANCE FOR TOP OF CONCRETE PIERS AND WALLS IS +/-1/8" IN 20'-0" AND +/-1/4" IN OVERALL LENGTH. TOLERANCE BETWEEN CENTERLINES OF COLUMN ANCHOR BOLT CLUSTERS IS +/-1/8" IN 20'-0" AND +/-1/4" OVERALL.
B. ADJUST THE ELEVATION OF THE TOP OF PIERS IN ACCORDANCE WITH BUILDING MANUFACTURER'S STANDARD. TROWEL FINISH TOP OF CONCRETE AT COLUMN BASES.TO PROVIDE A SMOOTH AND LEVEL BEARING SURFACE.
C. ADJUST DIMENSIONS OF CONCRETE PIERS GIVEN TO PROVIDE A MINIMUM 2" BEYOND ALL SIDES OF COLUMN BASE PLATE. NOTE: PIER SIZE GIVEN IS MINIMUM, ANY REVISIONS TO PIER SIZES SHOWN ON THE DRAWINGS SHALL BE PROVIDED TO THE ENGINEER FOR REVIEW.
D. ANCHOR RODS MUST BE SET BY MEANS OF A TEMPLATE. (DO NOT HAND SET)
E. MISCELLANEOUS JAMB POSTS ARE TO BE ANCHORED TO FOUNDATION BY MEANS OF POST-INSTALLED ANCHORS AS PER BUILDING MANUFACTURER'S DRAWINGS.
F. ENTIRE SLAB ON GRADE MUST BE IN PLACE BEFORE ERECTION OF PRE-ENGINEERED METAL BUILDING FRAME.

20.14 SLAB-ON-GRADE REQUIREMENTS:
A. UNLESS NOTED OTHERWISE, THE SLAB-ON-GRADE SHALL BE A MINIMUM OF 4 INCHES THICK UNO, PLACED ON COMPACTED SUBGRADE, AND REINFORCED AS INDICATED IN THE CONTRACT DRAWINGS. LAP SLAB REINF 48 BAR DIAMETERS MINIMUM; TYPICAL.
B. PLACE CONTROL OR CONSTRUCTION JOINTS AT LOCATIONS INDICATED BY "C.J.". CUT HALF OF REINFORCING CROSSING EACH JOINT TO FURTHER WEAKEN THE JOINT LOCATION. SAWCUT CONTROL JOINTS AS SOON AFTER POURING AS POSSIBLE, WHEN CONCRETE WILL NOT RAVEL; 12 HRS. MAX. CURE CONCRETE IN ACCORDANCE WITH ACI 301. BEGIN CURING IMMEDIATELY AFTER POURING TO LIMIT CRACKING PRIOR TO SAWCUTTING CONTROL JOINTS.
C. SUBGRADE SHALL BE PREPARED AS RECOMMENDED IN THE GEOTECHNICAL REPORT. APPLY TERMITE POISONING TO PREPARED SUBGRADE AS REQUIRED BY THE FLORIDA BUILDING CODE, LATEST EDITION.
D. VAPOR BARRIER SHALL CONFORM TO ASTM E1745, CLASS B OR C WITH A MINIMUM THICKNESS OF 10 MIL. VAPOR BARRIER SHOULD BE PLACED OVER COMPACTED SUBGRADE PER GEOTECHNICAL REPORT. VAPOR BARRIER SHOULD BE OVERLAPPED AND TAPED AT THE JOINTS AND CAREFULLY FITTED AROUND SERVICE OPENINGS PER PRODUCT MANUFACTURER'S SPECIFICATIONS.

30.00 CONCRETE AND REINFORCING STEEL

30.01 CONCRETE WORK SHALL COMPLY WITH THE REQUIREMENTS OF ACI 318.

30.02 ALL CONCRETE SHALL BE NORMAL WEIGHT AND HAVE THE FOLLOWING MINIMUM 28 DAY COMPRESSIVE STRENGTHS:
- FOUNDATIONS & SLAB-ON-GRADE 3,000 PSI
- STRUCTURAL SLABS 4,000 PSI
- CIP BEAMS, COLUMNS & WALLS 4,000 PSI
- EXTERIOR RETAINING WALLS 5,000 PSI (OR 4,000 PSI MIX, 0.40 W/CM RATIO, & 20-25% FLYASH)

30.03 NOMINAL MAXIMUM SIZE OF COARSE AGGREGATE SHALL NOT BE LARGER THAN: 1/5 THE NARROWEST DIMENSION BETWEEN SIDES OF FORMS, 1/3 THE DEPTH OF SLABS, NOR 3/4 THE MINIMUM CLEAR SPACING BETWEEN INDIVIDUAL REINFORCING BARS OR WIRES.

30.04 ALL CONCRETE EXPOSED TO WEATHER SHALL HAVE 4%-6% ENTRAINED AIR, U.N.O. CONCRETE MAY CONTAIN A PROPERLY DESIGNED SUPERPLASTICIZER FOR WORKABILITY.

30.05 CHAMFER OR ROUND ALL EXPOSED CORNERS A MINIMUM OF 3/4".

30.06 HE MATERIALS AND MIX DESIGN SHALL BE FULLY DOCUMENTED AND REVIEWED BY THE OWNERS TESTING LABORATORY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR OBTAINING THE REQUIRED DESIGN STRENGTH.

30.07 CALCIUM CHLORIDE, CHLORIDE IONS, OR OTHER SALTS ARE NOT PERMITTED TO BE USED IN CONCRETE.

30.08 CONCRETE (OTHER THAN HIGH-EARLY-STRENGTH) SHALL BE MAINTAINED ABOVE 50°F (10°C) AND IN A MOIST CONDITION FOR AT LEAST THE FIRST 7 DAYS AFTER PLACEMENT, EXCEPT WHEN CURED IN ACCORDANCE WITH FLORIDA BUILDING CODE SECTION 1906.5.3 SPECIFICATION ON ACCELERATED CURING.

30.09 ADEQUATE EQUIPMENT SHALL BE PROVIDED FOR HEATING CONCRETE MATERIALS AND ALL REINFORCEMENT, FORMS, FILLERS, AND GROUND IN WHICH CONCRETE IS TO COME INTO CONTACT DURING FREEZING OR NEAR-FREEZING WEATHER.

30.10 ALL REINFORCING STEEL PLACEMENT SHALL BE REVIEWED BY A REGISTERED STRUCTURAL ENGINEER OR BY A REPRESENTATIVE RESPONSIBLE TO HIM/HER (REF: ACI 318 PAR 1.3.1.)

30.11 ALL REINFORCEMENT SHALL BE BENT COLD, UNLESS OTHERWISE APPROVED BY THE STRUCTURAL EOR.

30.12 SHOP DRAWINGS SHOWING ALL FABRICATION DIMENSIONS AND LOCATIONS FOR PLACING REINFORCING STEEL IN MAT SLABS, CAST-IN-PLACE WALLS, AND STRUCTURAL SLABS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION.

30.13 ALL CONCRETE REINFORCEMENT SHALL BE DETAILED, FABRICATED, LABELED, SUPPORTED AND SPACED IN FORMS AND SECURED IN PLACE IN ACCORDANCE WITH THE PROCEDURES AND REQUIREMENTS FOR REINFORCED CONCRETE, "ACI 318-02" AND THE "MANUALS OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES," ACI 315 (LATEST EDITION).

30.14 REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60 UNLESS OTHERWISE NOTED.

30.15 WELDED WIRE FABRIC (MESH) SHALL CONFORM TO ASTM A185.

30.16 ALL WELDED WIRE FABRIC SHALL BE LAPPED MIN. ONE FULL MESH PANEL PLUS 2" AT SIDES AND ENDS AND SHALL BE WIRED TOGETHER

30.17 ALL REINFORCING STEEL AND EMBEDMENTS SHALL BE SECURELY TIED AND SUFFICIENTLY SUPPORTED TO MAINTAIN THE POSITION WITHIN SPECIFIED TOLERANCES DURING ALL CONSTRUCTION ACTIVITIES. "WET STICKING" DOWELS INTO CONCRETE IS NOT PERMITTED.

30.18 CONTINUOUS REINFORCEMENT SHALL BE PROVIDED WHEREVER POSSIBLE. REINFORCEMENT SHALL BE SPLICED ONLY AS SHOWN OR NOTED IN THE STRUCTURAL CONTRACT DOCUMENTS. STAGGER SPLICES WHERE POSSIBLE; USE FULL TENSION SPLICE (CLASS "B") UNLESS NOTED OTHERWISE. DOWELS SHALL MATCH THE SIZE AND SPACING OF THE SPECIFIED REINFORCEMENT AND SHALL BE LAPPED WITH FULL TENSION SPLICES (CLASS "B") UNLESS NOTED OTHERWISE. TERMINATE BARS WITH STANDARD HOOKS.

30.19 REINFORCING STEEL SHALL HAVE THE FOLLOWING CONCRETE CLEAR COVER UNO (PER ACI 318-05 PAR.7.7.1)
- CONCRETE AGAINST EARTH (NOT FORMED): 3"
- FORMED CONCRETE EXPOSED TO EARTH OR WEATHER: 2" (#6 BARS & LARGER); 1-1/2" (#5 BARS & SMALLER)
- CONCRETE NOT EXPOSED TO EARTH OR WEATHER: 3/4" (SLABS); 1" (WALLS); 1-1/2" (BEAM STIRRUPS & COLUMN TIES)

30.20 DO NOT PLACE DUCTS EXCEEDING ONE-THIRD THE SLAB OR WALL THICKNESS WITHIN THE SLAB OR WALL UNLESS SPECIFICALLY SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.

30.21 REINFORCING STEEL SHALL NOT BE WELDED OR TACK WELDED UNLESS APPROVED BY THE STRUCTURAL EOR.

30.22 ALL STEEL REINFORCING AND WELD WIRE MESH USED IN SLAB-ON-GRADE CONSTRUCTION IS REQUIRED TO BE SUPPORTED IN THE CENTER TO UPPER ONE THIRD OF THE SLAB.

30.23 LEVELING GROUT TO BE NON-SHRINK, NON-METALLIC TYPE, FACTORY PREMIXED IN ACCORDANCE WITH ASTM C 1107, HAVING A MINIMUM COMPRESSIVE STRENGTH OF NOT LESS THAN 5000 PSI. G-6 FOR ADDITIONAL INFORMATION NOT COVERED IN THESE GENERAL NOTES, REFER TO THE PROJECT SPECIFICATIONS. IN CASE OF CONFLICT BETWEEN THE GENERAL NOTES, SPECIFICATIONS, AND DRAWINGS, THE MOST STRINGENT REQUIREMENTS AS DETERMINED BY THE ENGINEER WILL GOVERN.

30.24 SLEEVES, INSERTS, MECHANICAL OPENINGS, CONDUITS, PIPES, RECESSES, DEPRESSIONS, CURBS AND OTHER EMBEDDED ITEMS TO BE PROVIDED FOR AS SHOWN ON THE ARCHITECTURAL AND ELECTRICAL DRAWINGS AND AS REQUIRED BY EQUIPMENT MANUFACTURERS. INSTALLATION OF THESE ITEMS TO BE COORDINATED AND PROVIDED FOR PRIOR TO PLACING CONCRETE.

30.25 ANCHOR ROD LOCATIONS SHALL BE AS INDICATED ON THE PRE-ENGINEERED METAL BUILDING (PEMB) DRAWINGS (BY OTHERS). THE MINIMUM ANCHOR ROD EMBEDMENT SHALL BE AS INDICATED ON THESE STRUCTURAL DRAWINGS. CONFLICTS BETWEEN THE PEMB DRAWINGS AND THESE DRAWINGS IN REGARDS TO ANCHOR ROD LAYOUT AND/OR ANCHOR ROD DIAMETER SHOULD BE BROUGHT TO THE ENGINEER'S ATTENTION IMMEDIATELY.

30.26 ANCHOR RODS TO BE ASTM F1554 (FY=36KSI), GALVANIZED.

30.27 CONCRETE SLABS TO BE CURED BY METHOD COMPATIBLE WITH SPECIFIED FLOOR FINISH. WHERE ACCEPTABLE USE A LIQUID MEMBRANE-CURING COMPOUND AT THE MANUFACTURERS RECOMMENDED COVERAGE.

30.28 SLOPE SURFACES OF SLABS-ON-GRADE TO DRAIN AS REQUIRED. MAINTAIN MINIMUM DESIGN THICKNESS INDICATED.

30.29 DIVIDE FLOOR SLABS-ON-GRADE INTO SEGMENTS BY MEANS OF ISOLATION, CONTROL AND CONSTRUCTION JOINTS AS INDICATED ON THE DRAWINGS. SAW JOINTS TO BE CUT AS SOON AS POSSIBLE WITHOUT RAVELING THE SURFACE. POSITION OF CONSTRUCTION JOINTS OTHER THAN THOSE SHOWN ON THE DRAWINGS ARE TO BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

30.30 WEATHER CONDITIONS SHALL NOT BE ACCEPTED AS A VALID REASON FOR INCORRECT OR OTHERWISE POOR QUALITY OF CONCRETE OR CONCRETE SURFACES.

30.31 ALL SHORING SHOULD REMAIN IN PLACE UNTIL CONCRETE HAS ATTAINED AT LEAST 75% OF ITS 28-DAY COMPRESSIVE STRENGTH. SHORING SHOULD BE LEFT 28 DAYS WITHOUT TESTING A CYLINDER TO CONFIRM STRENGTH. IT IS NOT ADVISABLE TO REMOVE SHORING WITHOUT A TEST FOR 21 DAYS UNDER ANY CIRCUMSTANCE.

30.32 FOR CONCRETE PADS SEE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS.

40.00 MASONRY

NOT ANTICIPATED TO BE REQUIRED FOR THE CONSTRUCTION ASSOCIATED WITH THE STORAGE BLDG SCOPE.

50.00 WOOD

NOT ANTICIPATED TO BE REQUIRED FOR THE CONSTRUCTION ASSOCIATED WITH THE STORAGE BLDG SCOPE.

60.00 PRE-ENGINEERED HANDRAILS AND STAIRS:

60.01 HANDRAILS AND GUARDRAILS, AS WELL AS THEIR CONNECTIONS, SHALL BE DESIGNED BY A SPECIALTY ENGINEER REGISTERED IN THE STATE OF FLORIDA. HANDRAIL AND GUARDRAIL SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY THE SPECIALTY ENGINEER. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR HANDRAIL LOCATIONS, CONFIGURATIONS AND MATERIALS.

60.02 SELF SUPPORTING STAIRS AND STRUCTURAL STAIR ASSEMBLIES (SPIRAL, CANTILEVERED, ROUNDED, ETC.), AS WELL AS THEIR CONNECTIONS, SHALL BE DESIGNED BY A SPECIALTY ENGINEER REGISTERED IN THE STATE OF FLORIDA. SUBMITTAL DRAWINGS SHALL BE SIGNED AND SEALED BY THE SPECIALTY ENGINEER. SUBMITTAL SHALL INCLUDE AND REACTIONS FOR ALL CONNECTIONS TO THE STRUCTURAL FRAMEWORK. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR LOCATIONS, CONFIGURATIONS AND MATERIALS.

60.03 CONCRETE FILLED METAL PAN STAIRS, AS WELL AS THEIR CONNECTIONS, SHALL BE DESIGNED BY A SPECIALTY ENGINEER REGISTERED IN THE STATE OF FLORIDA. SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY THE SPECIALTY ENGINEER. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR LOCATIONS, CONFIGURATIONS AND MATERIALS.

70.00 STRUCTURAL STEEL

70.01 STEEL CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE TOLERANCES, QUALITY, AND METHODS OF CONSTRUCTION AS SET FORTH IN THE FLORIDA BUILDING CODE AND WITH AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" NINTH EDITION.

70.02 STRUCTURAL STEEL SHALL CONFORM TO ASTM A572 GRADE 50 EXCEPT STRUCTURAL TUBING SHALL CONFORM TO ASTM A500 GRADE B. ALL EXPOSED STAINLESS STEEL SHALL BE GRADE 316, ALL OTHER STRUCTURAL STAINLESS STEEL APPLICATIONS SHALL BE GRADE 304 UNLESS NOTED OTHERWISE.

70.03 STRUCTURAL STEEL SHALL HAVE THE FOLLOWING MINIMUM YIELD STRENGTHS, UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- STRUCTURAL TUBING FY= 46 KSI
- ANGLES, CHANNELS, PLATES FY= 36 KSI
- W-SECTIONS & WT'S FY= 50 KSI

70.04 HIGH STRENGTH BOLTING SHALL BE IN ACCORDANCE WITH AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS" (LATEST EDITION).

70.05 HIGH STRENGTH BOLTS, NUTS AND HARDENED WASHERS SHALL CONFORM TO ASTM A325; MACHINE BOLTS AND NUTS SHALL CONFORM TO ASTM A307.

70.06 ERECTION BOLTS USED IN HIGH STRENGTH BOLTED CONNECTIONS SHALL BE REMOVED AND REPLACED WITH HIGH STRENGTH BOLTS.

70.07 WHEN CONNECTIONS REQUIRE FIELD PREPARATION OF BOLT HOLES, THE HOLES SHALL BE DRILLED AND THE DIAMETER OF THE BOLT HOLES SHALL BE 1/16" GREATER THAN THE NOMINAL BOLT DIAMETER.

70.08 HEADED STUD SHEAR CONNECTORS (INDICATED AS "HS" ON PLANS): ASTM A 108, GRADES 1010 THROUGH 1020, HEADED-STUD TYPE, COLD-FINISHED CARBON STEEL; AWS D1.1, TYPE B. USE AUTOMATIC END WELDING OF HEADED-STUD SHEAR CONNECTORS ACCORDING TO AWS D1.1 AND MANUFACTURER'S WRITTEN INSTRUCTIONS.

70.09 COMPOSITE CONSTRUCTION SHEAR CONNECTORS: SOLID FLUXED SHEAR CONNECTORS STUDS AUTOMATICALLY WELDED THROUGH THE METAL DECK AS SHOWN ON THE DRAWINGS AND IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER (NELSON DIVISION OF TRW OR APPROVED EQUAL).

70.10 DEFORMED BAR ANCHORS (INDICATED AS "DBA" ON PLANS): DEFORMED STEEL REINFORCING BARS IN ACCORDANCE WITH ASTM A-496 SPECIFICATIONS, YIELD STRENGTH 70 KSI. USE AUTOMATIC END WELDING OF HEADED-STUD SHEAR CONNECTORS ACCORDING TO AWS D1.1 AND MANUFACTURER'S WRITTEN INSTRUCTIONS.

70.11 WELDING SHALL BE IN ACCORDANCE WITH AMERICAN WELDING SOCIETY SPECIFICATIONS AWS D1.1 (LATEST EDITION).

70.12 WELDING ELECTRODES USED FOR SHOP OR FIELD CONNECTIONS ARE E70XX UNO WITH A MINIMUM ELECTRODE TENSILE STRENGTH OF 70 KSI. ELECTRODES SHALL CONFORM TO AWS A5. USE PRE-QUALIFIED WELDED JOINTS AS PER AISC, AND AWS D1.1 "STRUCTURAL WELDING CODE." USE ONLY CERTIFIED WELDERS. BARE ELECTRODE AND GRANULAR FLUX SHALL CONFORM TO AWS A5, F70 AWS FLUX CLASSIFICATION. MINIMUM WELD SIZE TO BE 3/16" FILLET WELD, U.N.O.

70.13 CUTS, BOLTS, COPING, ETC. REQUIRED FOR WORK OR OTHER TRADES SHALL BE SHOWN ON THE SHOP DRAWINGS AND MADE IN THE SHOP. CUTS OR BURNING HOLES IN STRUCTURAL STEEL MEMBERS IN THE FIELD WILL NOT BE PERMITTED. ANY FIELD CORRECTING OF FABRICATED STEEL SHALL NOT BE PERMITTED ON STRUCTURAL FRAMING MEMBERS WITHOUT PRIOR WRITTEN APPROVAL BY THE E.O.R.

70.14 PROVIDE STIFFENER PLATES ON EACH SIDE OF WEB OF BEAM OR GIRDER AT POINTS OF CONCENTRATED LOADS. MINIMUM STIFFENER PLATE THICKNESS SHALL BE 3/8" OR FLANGE THICKNESS OF COLUMNS ABOVE OR BELOW, WHICHEVER IS THICKER.

70.15 FILLER BEAMS OR JOISTS SHOULD BE SPACED EQUALLY BETWEEN THE COLUMNS IF NOT SHOWN OTHERWISE ON THE DRAWINGS.

70.16 FABRICATOR SHALL PREPARE STRUCTURAL SUBMITTAL DOCUMENTS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. CONNECTIONS SHALL BE DETAILED BASED ON THE DESIGN INFORMATION PROVIDED IN THE CONTRACT DOCUMENTS. ALL DOCUMENTS MUST BE APPROVED PRIOR

70.17 STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL AND MECHANICAL DRAWINGS AND DRAWINGS RELATED TO OTHER TRADES. CONTRACTOR SHALL BE RESPONSIBLE TO CHECK AND COORDINATE DIMENSIONS, CLEARANCES, ETC. WITH THE WORK OF OTHER TRADES. THE STRUCTURAL STEEL CONTRACTOR SHALL PROVIDE FRAMING AROUND OPENINGS IN FLOOR AND ROOF SLAB AS INDICATED IN THE MECHANICAL AND ARCHITECTURAL DRAWINGS.

70.18 STRUCTURAL STEEL CONTRACTOR SHALL COORDINATE THE BOTTOM OF BASE PLATE ELEVATION WITH THE TOP OF CONCRETE ELEVATION. IN CASE OF CONFLICT, THE CONTRACTOR SHALL MAKE ALLOWANCE IN HIS BID FOR MORE STRINGENT REQUIREMENTS

70.19 ALL STRUCTURAL STEEL SHALL BE GALVANIZED UNLESS OTHERWISE NOTED ON PLANS AND APPROVED PRIOR TO FABRICATION.

70.20 WHEN APPROVED PRIOR TO FABRICATION: THE MINIMUM STEEL STANDARD SHOP PAINT SHALL BE RED ALKYD ZINC CHROMATE PRIMER PER FEDERAL SPECIFICATION TT-P-664 OR EQUIVALENT PROVIDED APPROVED PER MANUFACTURERS STANDARD. REFER TO ARCHITECTURAL SPECIFICATIONS FOR ACTUAL PROJECT SPECIFIC FINISH COAT RECOMMENDATIONS.

70.21 STEEL SURFACES SHALL BE CLEANED IN ACCORDANCE WITH SSPC-SP3, FOR PREPARATION PRIOR TO PRIMER PAINTING, UNLESS REQUIRED OTHERWISE BY PRIMER MANUFACTURER. ALL WELDED, BURNED, OR OTHERWISE DAMAGED AREAS SHALL BE REPAIRED AND RECOATED IN ACCORDANCE WITH COATING MATERIAL MANUFACTURER'S RECOMMENDATIONS.

70.22 DO NOT PAINT STEEL SURFACES TO BE ENCASED IN CONCRETE OR RECEIVE SPRAYED ON FIREPROOFING, CONNECTIONS DESIGNATED AS SLIP CRITICAL, OR TO BE WELDED. STEEL SURFACES RECEIVING AUTOMATICALLY WELDED SHEAR CONNECTORS STUDS IN THE FIELD SHALL NOT BE PAINTED.

70.23 PLAN SPECIFIED STAINLESS STEEL ELEMENTS SHALL NOT BE SUBSTITUTED FOR ANY OTHER MATERIAL, IRON BASED ALLOY, OR FINISH WITHOUT WRITTEN APPROVAL OF E.O.R. PRIOR TO FABRICATION.

70.24 PROVIDE TEMPORARY BRACING OF STRUCTURAL FRAMING TO PROVIDE LATERAL SUPPORT UNTIL ALL PERMANENT BRACING MOMENT CONNECTIONS AND FLOOR AND ROOF DECKS (DIAPHRAGMS) ARE COMPLETELY INSTALLED.

70.25 SEE ARCHITECTURAL DOCUMENTS FOR ADDITIONAL MISCELLANEOUS STEEL REQUIRED.

COLD-FORMED STUDS, JOISTS, AND ACCESSORIES:

SUBMITTALS REQUIRED: DELEGATED STRUCTURAL ENGINEER MUST SUBMIT DESIGN CALCULATIONS, LAYOUT, ERECTION AND CONSTRUCTION DETAILS TO E.O.R. FOR APPROVAL PRIOR TO INSTALLATION. ALL CONSTRUCTION DOCUMENT SUBMITTALS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA.

80.01 ALL PRODUCTS TO BE MANUFACTURED BY THE CURRENT MEMBERS OF THE STEEL STUD MANUFACTURERS ASSOCIATION (SSMA). THE INSTALLATION SHALL COMPLY WITH THE MANUFACTURER'S RECOMMENDATIONS.

80.02 STRUCTURAL SUBMITTAL DOCUMENTS SHALL BE SUBMITTED AND APPROVED PRIOR TO INSTALLATION.

80.03 FRAMING MEMBERS SHALL BE IN ACCORDANCE WITH THE MOST RECENT STANDARDS:
A. AMERICAN IRON AND STEEL INSTITUTE SPECIFICATIONS FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS.
B. AMERICAN SOCIETY FOR TESTING AND MATERIALS: ASTM A446 SPECIFICATION FOR STEEL SHEET, ZINC COATED (GALVANIZED) BY HOT DIP PROCESS.
C. AMERICAN WELDING SOCIETY: AWS D1.0 CODE FOR WELDING N BUILDING CONSTRUCTION AND ANSI Z49.1 SAFETY IN WELDING AND CUTTING.

80.04 ALL 16 GAGE AND HEAVIER GALVANIZED (≥ 54 MILS) STRUCTURAL MEMBERS SHALL BE FORMED FROM STEEL THAT CORRESPONDS TO THE REQUIREMENTS OF ASTM A-446, GRADE D (MINIMUM YIELD OF 50 KSI).

80.05 ALL 18 GAGE AND LIGHTER GALVANIZED (< 54 MILS) STRUCTURAL MEMBERS SHALL BE FORMED FROM STEEL THAT CORRESPONDS TO THE REQUIREMENTS OF ASTM A-436, GRADE A (MINIMUM YIELD OF 33 KSI).

80.06 ALL STUDS INDICATED SHALL HAVE MINIMUM 1-5/8" WIDE FLANGES WITH A ½" LIP. ALL TRACK INDICATED SHALL HAVE MINIMUM 1-1/4" WIDE FLANGES.

80.07 ALL FRAMING COMPONENTS SHALL BE CUT SQUARELY OR AT AN ANGLE TO FIT SQUARELY AGAINST ABUTTING MEMBERS. MEMBERS SHALL BE HELD FIRMLY IN POSITION UNTIL PROPERLY FASTENED. PRE-FABRICATED PANELS SHALL BE SQUARE. WIRE TYING OF FRAMING COMPONENTS IN STRUCTURAL APPLICATIONS IS NOT PERMITTED.

80.08 PROVIDE LATERAL BRACING AND BRIDGING IN WALL, FLOOR AND ROOF SYSTEMS TO MANUFACTURER'S SPECIFICATIONS OR RECOMMENDATIONS.

80.09 ALL LIGHT GAGE STEEL FRAMING SHALL BE ERECTED BY APPROVED METHODS USING EQUIPMENT OF ADEQUATE CAPACITY TO SAFELY PERFORM THE WORK. CONTRACTOR TO PROVIDE TEMPORARY BRACING AS NECESSARY.

80.10 FASTENING OF COMPONENTS SHALL BE WITH SELF DRILLING SCREWS. FRAMING COMPONENTS SHALL BE SECURED WITH SCREWS AS DESIGNATED BY THE MANUFACTURER OR AT A MINIMUM USING THREE #10 SCREWS PER CONNECTION UNLESS NOTED OTHERWISE.

80.11 WELDING MAY BE USED WHERE THE THICKNESS OF THE THINNEST MATERIAL CONNECTED IS 43 MILS OR GREATER. WELDS SHALL BE MADE WITH E60XX ELECTRODES. AS A MINIMUM USE ONE INCH LONG FILLET OR FLARE GROVE WELDS AT EACH SIDE OF THE CONNECTION UNLESS NOTED OTHERWISE. ALL WELDS OF GALVANIZED STEEL SHALL BE COVERED WITH ZINC-RICH PAINT.

80.12 GALVANIZED STUDS, JOISTS AND ACCESSORIES SHALL BE FORMED FROM STEEL THAT MEETS THE MINIMUM REQUIREMENTS OF THE CURRENT A.I.S.I. STANDARDS WITH A MINIMUM YIELD STRENGTH OF 50 KSI AND HAVE A MINIMUM PROTECTIVE COATING EQUAL TO ASTM A653.

80.13 WHEN REQUIRED, DEFLECTION CONNECTIONS SHALL ALLOW FOR POSITIVE ATTACHMENT TO STRUCTURE AND STUB WEB TO PROVIDE FRICTIONLESS, VERTICAL MOVEMENT. CONNECTION PRODUCTS ARE REQUIRED TO HAVE A VALID ICC ES REPORT OR EQUIVALENT COMPLYING WITH ICC ACCEPTANCE CRITERIA AC261.

80.14 LATERAL DRIFT CLIPS ARE TO PROVIDE POSITIVE ATTACHMENT TO STRUCTURE AND STUD WEB TO PROVIDE FRICTIONLESS LATERAL AND VERTICAL MOVEMENT.

80.15 RIGID CONNECTIONS FOR ATTACHMENT OF METAL FRAMING TO METAL FRAMING AND TO THE PRIMARY STRUCTURE STALL BE FORMED FROM STRUCTURAL QUALITY STEEL WITH A MINIMUM YIELD STRENGTH OF 50 KSI AND HAVE A MINIMUM PROTECTIVE COATING EQUAL TO ASTM A653.

80.16 DESIGN BRIDGING CLIPS TO PROVIDE ATTACHMENT TO STUD WEB AND WRAPPING AROUND THE BRIDGING CHANNEL. BRIDGING ACCESSORIES SHALL BE FORMED FROM STRUCTURAL QUALITY STEEL WITH A MINIMUM YIELD STRENGTH OF 50 KSI AND HAVE A MINIMUM PROTECTIVE COATING EQUAL TO ASTM A653.

80.17 FRAMING OF WALL OPENINGS SHALL INCLUDE HEADERS AND SUPPORTING STUDS AS RECOMMENDED BY THE STUD MFGR. UNLESS NOTED OTHERWISE ON THE STRUCTURAL DOCUMENTS.

80.18 TRACK SHALL BE SECURELY ANCHORED TO FLOOR AND OVERHEAD STRUCTURE. AXIALLY LOADED STUDS SHALL BE SEATED SQUARELY IN THE TRACK WITH THE STUD WEB AND FLANGE ABUTTING THE TRACK WEB, AND ALL STUDS SHALL BE PLUMBED AND ALIGNED AND SECURELY ATTACHED TO THE FLANGES OR WEBS OF BOTH UPPER AND LOWER TRACKS.

80.19 MINIMUM CONNECTION REQUIREMENTS:
A. TRACK TO STEEL OPTIONS
- 0.145" DIA. P.A.F.S @ 8" O.C. STAGGERED.
- #12 HWH SELF TAPPING TEK SCREWS @ 8" O.C.
B. TRACK TO BLOCK W/ (2) 3/16" TAPCON SCREW ANCHORS AT EA JOIST/STUD EMBED 1¼" MINIMUM INTO BLOCK/GROUT.
C. TRACK TO CONCRETE OPTIONS
- 0.145" DIA. P.A.F.S @ 8" O.C. STAGGERED EMBED 1¼" MIN.
- 3/16" TAPCON SCREW ANCHORS @ 8" O.C. EMBED 1¼" MIN.
D. STUD TO STUD OR JOIST TO JOIST W/ (4) #10 HWH SELF TAPPING TEK SCREWS, MIN.
E. STUD TO TRACK W/ (2)#10 HWH SELF TAPPING TEK SCREWS
F. STUD TO STEEL OPTIONS
- (2) 0.145" DIA. P.A.F.'S
- (2) #12 HWH SELF TAPPING TEK SCREWS

METAL BUILDING SYSTEMS

MBS-1 DESIGN, FABRICATION AND ERECTION OF THE PRE-ENGINEERED METAL BUILDING SYSTEM SHALL BE SUFFICIENT TO WITHSTAND LOADS FROM WIND, SNOW, GRAVITY, STRUCTURAL MOVEMENT AND SEISMIC ACTION WITHOUT EXCEEDING ALLOWABLE STRESSES AND SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE FOLLOWING CODES:
A. METAL BUILDING MANUFACTURERS ASSOCIATION (MBMA) "METAL BUILDING SYSTEMS MANUAL" (LATEST EDITION).
B. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS" AND STEEL DESIGN GUIDE SERIES 3: "SERVICEABILITY DESIGN CONSIDERATIONS FOR LOW-RISE BUILDINGS".
C. IRON AND STEEL INSTITUTE (AISI) "NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS" (LATEST EDITION).
D. AMERICAN WELDING SOCIETY (AWS) "STRUCTURAL WELDING CODE STEEL AWS D1.1/D1.1M".

MBS-2 DEFORMATIONS OF THE PRE-ENGINEERED BUILDING (INCLUDING BUT NOT LIMITED TO LATERAL DRIFT, RACKING OF FRAMES, AND HORIZONTAL AND OR VERTICAL DEFLECTION OF STRUCTURAL ELEMENTS, CLADDING OR OTHER SUPPORTED ELEMENTS), IS TO BE LIMITED BY THE RECOMMENDATIONS SET FORTH IN AISC'S STEEL DESIGN GUIDE SERIES 3: "SERVICEABILITY DESIGN CONSIDERATIONS FOR LOW-RISE BUILDINGS," AND AS FOLLOWS:
A. LATERAL SWAY OF MAIN FRAMES AT EAVE HEIGHT H/200 MAX
B. HORIZ DEFLECTION OF GIRTS SUPPORTING METAL SIDING L/180 OR 2" MAX
C. VERTICAL DEFLECTION OF MAIN FRAME L/240 OR 6" MAX
D. VERTICAL DEFLECTION OF PURLINS L/240 OR 1-1/2" MAX
E. RACKING OF MAIN FRAME H/200 (H=EAVE HT)
F. RACKING OF END WALLS H/200 (H=EAVE HT)

MBS-3 WIND FORCES USED FOR COMPUTATION OF MEMBER STRESSES ARE TO BE BASED ON THE 50 YEAR DESIGN WIND EVENT. COMPUTE DEFLECTIONS DUE TO WIND USING THE 10 YEAR DESIGN WIND EVENT WHICH MAY BE APPROXIMATED TO BE 75% OF THE 50 YEAR DESIGN WIND PRESSURE.

MBS-4 PRIOR TO FABRICATION, CONTRACTOR IS TO SUBMIT THE FOLLOWING ITEMS TO THE ENGINEER FOR REVIEW. SUBMITTED ITEMS MUST BE PREPARED BY, OR UNDER THE SUPERVISION OF, A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA AND WILL BE CONSTRUCTED AND BEAR THE SEAL OF THAT PROFESSIONAL ENGINEER.
A. SUBMIT ERECTION DRAWINGS TO INCLUDE DETAILS SHOWING ERECTION AND ASSEMBLY OF THE METAL BUILDING SYSTEM INCLUDING SIDE WALL, END WALL, ROOF CANOPY AND ROOF FRAMING. INCLUDE BUILDING TRANSVERSE AND CROSS SECTIONS WITH ALL WIND AND SEISMIC BRACING PROPOSED FOR THE BUILDING SYSTEM.
B. SUBMIT ANCHOR ROD PLACEMENT DRAWING TO SHOW ALL ANCHOR ROD LOCATIONS. INCLUDE CALCULATED FOUNDATION LOADS AT THE BASE OF ALL COLUMNS.
C. SUBMIT PANEL LAYOUTS ON WALLS, ROOF CANOPIES AND ROOFS. DETAILS OF SUPPORTS ANCHORAGES AND SPECIAL CONDITIONS. INCLUDE DETAILS OF PANEL PROFILES.

MBS-5 CONTRACTOR IS TO ENGAGE AN EXPERIENCED INSTALLER TO ERECT THE PRE-ENGINEERED METAL BUILDING WHO IS EXPERIENCED IN THE ERECTION OF METAL BUILDINGS SIMILAR TO THAT REQUIRED FOR THIS PROJECT AND WHO IS CERTIFIED IN WRITING BY THE METAL BUILDING SYSTEM MANUFACTURER AS QUALIFIED FOR ERECTION OF THE MANUFACTURER'S PRODUCTS.

MBS-6 FABRICATE FRAMING COMPONENTS IN THE SHOP TO THE GREATEST EXTENT POSSIBLE. IN GENERAL, SHOP WELD AND FIELD BOLT CONNECTIONS.

MBS-7 EXERCISE CARE IN DELIVERING, UNLOADING, STORING AND ERECTING BUILDING MEMBERS, WALL AND ROOF COVERING PANELS AND OTHER BUILDING COMPONENTS TO PREVENT BENDING, WARPING, TWISTING AND SURFACE DAMAGE.

MBS-8 ERECT FRAMING TRUE TO LINE, LEVEL AND PLUMB. LEVEL BASE PLATES TO A TRUE PLANE WITH FULL BEARING TO SUPPORTING STRUCTURE; USE A NON-SHRINKING GROUT TO OBTAIN UNIFORM BEARING AND TO MAINTAIN A LEVEL BASE LINE ELEVATION.

MBS-9 DO NOT ERECT WALL AND ROOF PANELS ON PEMB STRUCTURE BEFORE PIER AND FOOTING CONCRETE HAS BEEN IN PLACE A MINIMUM OF SEVEN (7) DAYS.

MBS-10 THE FOUNDATION DESIGN ON THESE CONTRACT DRAWINGS IS PRELIMINARY AND BASED UPON AN ANALYSIS CONDUCTED BY THE FOUNDATION ENGINEER. UPON FINAL BUILDING DESIGN, THE ACTUAL COLUMN BASE REACTIONS ARE TO BE COMPARED TO THE PRELIMINARY FOUNDATION DESIGN LOADS BY THE GENERAL CONTRACTOR. IF THE ACTUAL REACTIONS EXCEED THE PRELIMINARY DESIGN LOADS BY 10%, THE FOUNDATION DESIGN PROVIDED IS VOID AND A REGISTERED PROFESSIONAL ENGINEER MUST BE EMPLOYED BY THE GENERAL CONTRACTOR TO COMPLETE A FOUNDATION DESIGN BASED UPON THE ACTUAL REACTIONS.

PRE-ENGINEERED METAL BUILDING NOTES:

MB-1 THE ENTIRE PRE-ENGINEERED METAL BUILDING SYSTEM SHALL BE DESIGNED BY THE METAL BUILDING MANUFACTURER IN CONFORMANCE TO THE INTERNATIONAL BUILDING CODE AND/OR STATE/LOCAL REQUIREMENTS, AND THE "LOW-RISE BUILDING SYSTEMS MANUAL" AS PUBLISHED BY THE METAL BUILDING MANUFACTURER'S ASSOCIATION. WHERE THESE CRITERIA CONFLICT, THE MORE STRINGENT CRITERIA SHALL APPLY.

MB-2 IT IS THE PRE-ENGINEERED METAL BUILDING MANUFACTURER'S RESPONSIBILITY TO DESIGN THE COMPLETE BUILDING SYSTEM (STEEL FRAMING, ANCHOR BOLTS, PURLINS, GIRTS, BRACING, CONNECTIONS, ROOFING, WALL PANELS, ETC. SUBMIT A CERTIFICATION LETTER BEARING THE SEAL OF A PROFESSIONAL ENGINEER STATING THE BUILDING SYSTEM DESIGN MEETS THE INDICATED CODE, PERFORMANCE, AND LOADING REQUIREMENTS.

MB-3 THE PRE-ENGINEERED METAL BUILDING MANUFACTURER SHALL BE CERTIFIED BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION CATEGORY MB.

MB-4 THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF THE ENTIRE METAL BUILDING SYSTEM FOR REVIEW. THE CONTRACTOR SHALL ALSO SUBMIT A COMPLETE STRUCTURAL DESIGN ANALYSIS OF THE BUILDING SYSTEM. THE SHOP DRAWING SUBMITTAL SHALL INCLUDE ALL ANCHOR BOLT REQUIREMENTS AND FOUNDATION REACTIONS. ALL SHOP DRAWING AND CALCULATION SUBMITTALS SHALL BEAR THE SEAL OF A PROFESSIONAL ENGINEER.

MB-5 DESIGN LOADS TO BE USED IN CONNECTION WITH THE METAL BUILDING DESIGN ARE PER THE "DESIGN CRITERIA NOTES". IN ADDITION TO THE ACTUAL DEAD LOAD, AN ADDITIONAL COLLATERAL ROOF FRAMING DEAD LOAD OF 10 PSF SHALL BE INCLUDED. COORDINATE ANY EQUIPMENT LOADS WITH THE MECHANICAL AND ARCHITECTURAL DRAWINGS.

MB-6 CALCULATIONS FOR FRAME DEFLECTIONS SHALL BE DONE USING ONLY THE BARE FRAME METHOD. REDUCTIONS BASED ON ENGINEERING JUDGEMENT USING THE ASSUMED COMPOSITE STIFFNESS OF THE BUILDING ENVELOPE SHALL NOT BE PERMITTED. DRIFT SHALL FOLLOW AISC'S "SERVICEABILITY DESIGN CONSIDERATIONS FOR LOW-RISE BUILDINGS". CALCULATIONS SHALL BE SUBMITTED VERIFYING THAT THE ACTUAL DRIFT UNDER CODE REQUIRED LOADINGS DOES NOT EXCEED THE ALLOWABLE.

MB-7 THE PRE-ENGINEERED MANUFACTURER SHALL PROVIDE ALL GIRTS, PURLINS, AND OTHER COMPONENTS REQUIRED FOR A COMPLETE SYSTEM. ALL WALL SYSTEMS, SUCH AS METAL STUDS, STOREFRONTS, ETC. SHALL BE PROPERLY SUPPORTED BY THE METAL BUILDING SYSTEM. ALLOWABLE DEFLECTIONS OF COMPONENTS SHALL BE IN ACCORDANCE WITH THE LATEST FBC / IBC.

MB-8 THE FOUNDATION DESIGN IS BASED UPON INDUSTRY STANDARDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ANY REVISIONS REQUIRED AS A RESULT OF A CHANGE IN THE BUILDING DESIGN ASSUMPTIONS, INCLUDING REDESIGN OF THE FOUNDATIONS.

MB-9 THE SIZE, NUMBER AND PLACEMENT PATTERN OF ALL ANCHOR BOLTS SHALL BE DETERMINED BY THE PRE-ENGINEERED BUILDING MANUFACTURER. MINIMUM ANCHOR BOLT EMBEDMENTS ARE INDICATED ON THE CONTRACT DRAWINGS.

MB-10 THE PRE-ENGINEERED METAL BUILDING SHALL BE DESIGNED BY THE MANUFACTURER TO RESIST LATERAL LOADS AS FOLLOWS: INTERIOR FRAME LINES - RIGID FRAMES (PINNED BASED COLUMNS) PERIMETER WALL LINES - BRACED BAYS OR PORTAL FRAMES.

MB-11 THE METAL BUILDING ERECTOR SHALL PROVIDE ALL TEMPORARY GUYING AND BRACING.

MB-12 UNLESS OTHERWISE NOTED OR SPECIFIED, ALL STEEL MEMBERS SHALL BE CLEANED AND PAINTED IN ACCORDANCE WITH MANUFACTURER'S STANDARD PROCEDURES OR THE CONTRACT DOCUMENTS, WHICHEVER IS MORE STRINGENT.

MB-13 THE FOUNDATIONS HAVE BEEN DESIGNED FOR THE REACTIONS INDICATED. THESE ARE BASED ON PINNED COLUMN BASES. "FIXED BASE" COLUMNS ARE NOT PERMITTED WITHOUT THE ENGINEER'S WRITTEN APPROVAL.

WALTON COUNTY WIND LOAD STATEMENT

I CERTIFY THAT THE DESIGN PLANS AND SPECIFICATIONS FOR THIS CONSTRUCTION ARE IN COMPLIANCE WITH THE CRITERIA ESTABLISHED BY THE FLORIDA BUILDING CODE 7TH EDITION (2020) AND SECTION 4.02.06 OF THE WALTON COUNTY LAND DEVELOPMENT CODE. THIS BUILDING AND/OR STRUCTURE IS DESIGNED TO WITHSTAND A WIND VELOCITY OF 140 MPH (ASCE 7-16) AND CHAPTER 16 OF THE FLORIDA BUILDING CODE.

UPON COMPLETION OF THIS BUILDING AND/OR STRUCTURE, I WILL CERTIFY AT THAT TIME THE BUILDING AND/OR STRUCTURE HAS COMPLIED WITH THIS SPECIFIC BUILDING DESIGN. THIS MUST BE ON FILE AT THE WALTON COUNTY BUILDING DEPARTMENT BEFORE RECEIVING AN INSPECTION FOR POWER. I UNDERSTAND THAT ANY CHANGE IN DESIGN OR SPECIFICATION MUST BE SUBMITTED IN WRITING BY ME TO THE BUILDING DEPARTMENT. ALL DRAWINGS AND/OR CORRESPONDENCE SHALL BE SIGNED AND SEALED.

WALTON COUNTY FLOOD ZONE DESIGN CERTIFICATION

I CERTIFY, TO THE BEST OF MY KNOWLEDGE, THAT THE FOUNDATION AND STRUCTURE IS DESIGNED AS ADEQUATELY ANCHORED TO PREVENT FLOATATION, COLLAPSE AND LATERAL MOVEMENT OF THE STRUCTURE RESULTING FROM HYDRODYNAMIC AND HYDROSTATIC LOADS, INCLUDING THE EFFECT OF BUOYANCY. THE DESIGN HAS TAKEN INTO ACCOUNT THE PROVISIONS OF (FBC R322/FBC 1612/ASCE 24) AND THE FLOOD LOADS IMPOSED BY A BASE FLOOD EVENT OF A 100 YEAR FLOOD AS SHOWN ON THE CURRENT WALTON COUNTY FLOOD INSURANCE MAP.

REQUIRED SCHEDULE OF INSPECTIONS

1. FOUNDATION ELEMENTS:
   - REVIEW OF GENERAL LAYOUT, ELEMENT SIZES, AND REINFORCING
   - ALL VERT. DOWEL REINF. MUST BE IN PLACE & TIED
2. GENERAL FRAMING/STRAPPING:
   - WALL SYSTEM FRAMING W/ KING STUDS AND STUD PACKS WHERE SPECIFIED
   - PLAN SPECIFIC STRUCTURAL ELEMENTS INCLUDING BEAMS, COLUMNS
   - TRUSS FRAMING *PRE-APPROVAL OF STRUCTURAL SUBMITTAL IS REQUIRED*
   - PLAN SPECIFIED CONNECTIONS, HOLDOWNS, STRAPPING & ANCHORING
3. CAST IN PLACE CONCRETE ELEMENTS:
   - REINF. FOR WALLS & COLUMNS PRIOR TO CLOSING FORMWORK
   - REINF. IN ALL C.I.P. BEAMS, & STRUCTURAL SLABS
4. ENGINEER FINAL INSPECTION & COUNTY WIND LOAD CERTIFICATION:
   - PRIOR TO FINAL CERT. THE EOR MUST PERFORM A FINAL WALK-THROUGH OF ALL PORTIONS OF THE STRUCTURE INCLUDED WITH EACH PERMIT NUMBER ASSOCIATED WITH THE PROJECT. THE BUILDING ENVELOPE MUST BE 100% STRUCTURALLY COMPLETE AT THE TIME OF THIS INSPECTION.

INSPECTION NOTES:
A. THE E.O.R. CHECKPOINT INSPECTIONS LISTED ABOVE ARE SEPARATE FROM, AND IN NO WAY SUPPLANT THE COUNTY BUILDING INSPECTOR'S REQUIRED CONSTRUCTION INSPECTIONS.
B. THE CONTRACTOR SHOULD TAKE ADEQUATE PICTURES OF ALL STRUCTURAL ELEMENTS DURING EACH AND ALL PHASES OF CONSTRUCTION TO PROVIDE VERIFICATION OF STRUCTURAL ELEMENTS AND CONSTRUCTION METHODS TO THE E.O.R. or BUILDING OFFICIAL UPON REQUEST.
C. INSPECTIONS MUST BE SCHEDULED A MINIMUM OF 24 HOURS IN ADVANCE. ON SITE CANCELLATIONS WILL NOT BE ACCEPTED. SCHEDULING AND COORDINATING OF THESE INSPECTIONS IS THE CONTRACTOR'S RESPONSIBILITY.
D. RE-INSPECTIONS RESULTING FROM REQUIRED REMEDIAL ACTIONS, CONTRACTOR ERROR, OR SCHEDULING MISS-QUEUE ARE IN ADDITION TO THE SCHEDULED INSPECTION FREQUENCY.

REQUIRED STRUCTURAL SUBMITTALS

1. SHOP DRAWINGS SHALL BE REVIEWED BY THE CONTRACTOR AND MARKED "APPROVED" PRIOR TO SUBMITTAL TO THE ARCHITECT/ENGINEER. NON-CONFORMING DRAWINGS SUBMITTALS WILL BE RETURNED WITHOUT REVIEW.

2. IN ADDITION TO ANY SUBMITTALS REQUIRED BY THE PROJECT SPECIFICATIONS OR ELSEWHERE IN THE CONST DOCUMENTS, THE GENERAL CONTRACTOR SHALL SUBMIT FOR ENGINEER REVIEW SHOP DRAWINGS FOR THE FOLLOWING ITEMS:
   A. PRE ENGINEERED METAL BUILDING & COMPONENTS (*)
   B. LIGHT GAGE METAL FRAMING (*)
   C. CONCRETE MIX DESIGNS
   D. HANDRAILS AND METAL STAIRS (*)
   E. CANOPY FRAMING (*)

3. ITEMS MARKED (*) SHALL HAVE SHOP DRAWINGS SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE IN WHICH THE PROJECT RESIDES AND SHALL MEET THE FOLLOWING CRITERIA:
   3.1. SUBMITTALS SHALL CLEARLY IDENTIFY THE SPECIFIC PROJECT AND APPLICABLE CODES, LIST THE DESIGN CRITERIA, AND SHOW ALL DETAILS AND DRAWINGS NECESSARY FOR PROPER FABRICATION AND INSTALLATION. CALCULATIONS AND SHOP DRAWINGS SHALL IDENTIFY SPECIFIC PRODUCT UTILIZED. GENERIC PRODUCTS WILL NOT BE ACCEPTED.
   3.2. SHOP DRAWINGS AND CALCULATIONS SHALL BE PREPARED UNDER THE DIRECT SUPERVISION AND CONTROL OF THE DELEGATED ENGINEER.
   3.3. SHOP DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED SIMULTANEOUSLY AND SHALL BE SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE STATE IN WHICH THE PROJECT RESIDES. COMPUTER PRINTOUTS ARE AN ACCEPTABLE SUBSTITUTE FOR MANUAL COMPUTATIONS PROVIDED THEY ARE ACCOMPANIED BY SUFFICIENT DESCRIPTIVE INFORMATION TO PERMIT THEIR PROPER EVALUATION. SUCH DESCRIPTIVE INFORMATION SHALL BE SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE STATE IN WHICH THE PROJECT RESIDES AS AN INDICATION THAT HE/SHE HAS ACCEPTED RESPONSIBILITY FOR THE RESULTS. THE STRUCTURAL ENGINEER WILL RETAIN ONE SIGNED AND SEALED SET FOR THEIR RECORDS.
   3.4. CATALOG INFORMATION ON STANDARD PRODUCTS DOES NOT REQUIRE THE SEAL OF A DELEGATED ENGINEER.
   3.5. REVIEW BY THE STRUCTURAL ENGINEER OF RECORD OF SUBMITTALS IS LIMITED TO VERIFYING THE FOLLOWING:
   (a) THAT THE SPECIFIED STRUCTURAL SUBMITTALS HAVE BEEN FURNISHED.
   (b) THAT THE STRUCTURAL SUBMITTALS HAVE BEEN SIGNED AND SEALED BY THE DELEGATED ENGINEER.
   (c) THAT THE DELEGATED ENGINEER HAS UNDERSTOOD THE DESIGN INTENT AND HAS USED THE SPECIFIED STRUCTURAL CRITERIA. (NO DETAILED CHECK OF CALCULATIONS WILL BE MADE).
   (d) THAT THE CONFIGURATION SET FORTH IN THE STRUCTURAL SUBMITTALS IS CONSISTENT WITH THE CONTRACT DOCUMENTS. (NO DETAILED CHECK OF DIMENSIONS OR QUANTITIES WILL BE MADE).
   3.6. SUBMITTALS NOT MEETING THE ABOVE CRITERIA WILL NOT BE REVIEWED.

4. ITEMS MARKED (#) SHALL BE SUBMITTED FOR ENGINEERS RECORD ONLY.

5. MANUFACTURER'S LITERATURE. SUBMIT TWO COPIES OF MANUFACTURER'S LITERATURE FOR ALL MATERIALS AND PRODUCTS USED IN CONSTRUCTION ON THE PROJECT.

6. SHOP DRAWINGS SHALL ADEQUATELY DEPICT THE STRUCTURAL ELEMENTS AND CONNECTIONS SHOWN ON THE CONTRACT DOCUMENTS. SHOP DRAWINGS WILL BE REVIEWED FOR GENERAL COMPLIANCE WITH THE DESIGN INTENT OF THE CONTRACT DOCUMENTS ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY COMPLIANCE WITH THE CONTRACT DOCUMENTS AS TO QUANTITY, LENGTH, ELEVATIONS, DIMENSIONS, ETC. REVIEW OF SUBMITTALS AND SHOP DRAWINGS DOES NOT RELIEVE THE CONTRACTOR OF FULL RESPONSIBILITY FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF THE SHOP DRAWINGS.

7. SHOP DRAWING SUBMITTALS SHALL INCLUDE ONE GOOD QUALITY REPRODUCIBLE AND THREE SETS OF BLUEPRINTS. ONE SET OF PRINTS WILL BE RETAINED BY THE ENGINEER OF RECORD, ONE BY THE ARCHITECT, ONE BY THE LOCAL BUILDING DEPARTMENT (WHERE REQUIRED) AND THE CONTRACTOR SHALL MAKE PRINTS FROM THE REPRODUCIBLE AS REQUIRED FOR DISTRIBUTION.

8. THE CONTRACT DOCUMENTS WILL GOVERN OVER THE SHOP DRAWINGS UNLESS OTHERWISE SPECIFIED IN WRITING BY THE ENGINEER OF RECORD.

9. CHANGES AND ADDITIONS MADE ON RE-SUBMITTALS SHALL BE CLEARLY FLAGGED AND NOTED. THE PURPOSE OF THE RE-SUBMITTALS SHALL BE CLEARLY NOTED ON THE LETTER OF TRANSMITTAL. ARCHITECT/ENGINEER OF RECORD REVIEW WILL BE LIMITED TO THOSE ITEMS CAUSING THE RE-SUBMITTAL. THE CONTRACTOR IS RESPONSIBLE FOR COSTS CAUSED BY MULTIPLE RE-SUBMITTALS (MORE THAN ONE) AT ARCHITECT/ENGINEERS' CURRENT HOURLY RATES.

10. STRUCTURAL SUBMITTALS TO APEX ENGINEERING GROUP, P.L.L.C. WILL BE REVIEWED AND RETURNED WITHIN TEN (10) BUSINESS DAYS OF SUBMITTAL IN ACCORDANCE WITH INDUSTRY STANDARD PRACTICES UNLESS OTHERWISE SPECIFIED IN THE CONTRACT OR CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHOULD PLAN ACCORDINGLY TO PREVENT PROJECT DELAYS.

11. REVIEW OF SUBMITTALS AND/OR SHOP DRAWINGS BY THE STRUCTURAL ENGINEER DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO REVIEW AND CHECK SHOP DRAWINGS BEFORE SUBMITTAL TO THE STRUCTURAL ENGINEER. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS, AND DIMENSIONS SPECIFIED IN THE CONTRACT DOCUMENTS. CONTRACTOR IS ALSO RESPONSIBLE FOR MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION.

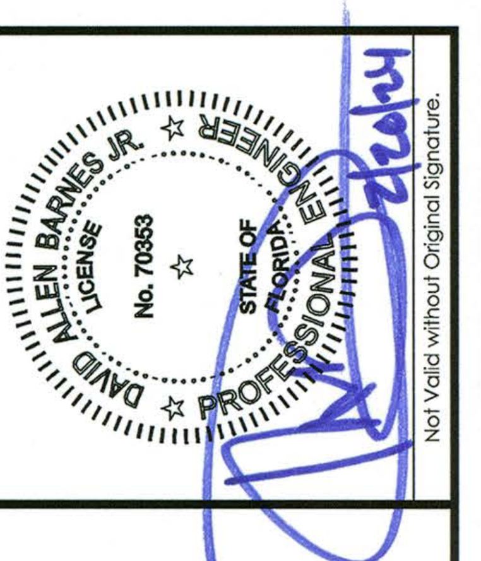
12. ALL "STRUCTURAL SUBMITTALS" SHALL BE PREPARED BY A "SPECIALTY ENGINEER" IN ACCORDANCE WITH THE FBC2020, F.A.C. 61G15, AND F.S. CHAPTER 471.

13. SHOP DRAWINGS PREPARED SOLELY AS A GUIDE FOR ERECTION AND INSTALLATION AND CATALOG INFORMATION WILL NOT REQUIRE AN ENGINEER'S SEAL; HOWEVER, THEY SHALL BEAR THE ENGINEER'S SIGNATURE INDICATING THAT HE/SHE HAS CHECKED THE WORK.

14. DRAWINGS INTRODUCING ENGINEERING INPUT AND CALCULATIONS SHALL BE SEALED BY THE ENGINEER PREPARING SUCH WORK F.A.C. 61G15-30.006 (3).

15. ANY DESIGN CHANGES MADE BY A "VALUE, SPECIALTY OR DELEGATED ENGINEER" SHALL BE PERFORMED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA. PRIOR TO FABRICATION ALL DESIGN CHANGES MUST BE SUPPORTED BY CALCULATIONS, SIGNED AND SEALED THEN SUBMITTED TO THE E.O.R. FOR APPROVAL.

16. REFER TO F.A.C. SECTION 61G15-23.002, 30.002, 30.006 AND 31.002 FOR ADDITIONAL INFORMATION.



Not Valid without Original Signature.

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78-A Ricker Avenue, Santa Rosa Beach, Florida 32459
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Phone: 850-231-4540, Email: info@apexengineeringgroup.net

GRAYTON BEACH
TRANSIT FACILITY
WALTON COUNTY, FLORIDA

PROJECT NUMBER:	8307-2201
DESIGNED BY:	DAB
REVIEWED BY:	n/a
SHEET SCALE:	N.T.S.

RELEASE RECORD:

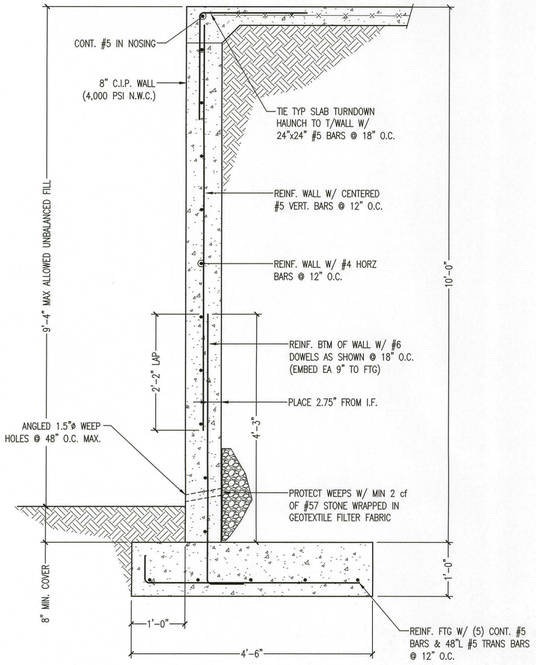
ISSUED FOR BIDDING	11-21-2022
PERMIT DOCUMENTS	03-29-2023
CONST. DOCS/ REV. 1	02-26-2024

DRAWING TITLE:

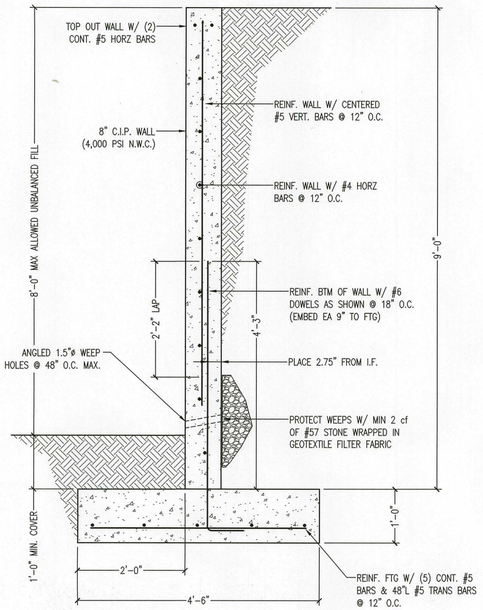
P.E.M.B.
STORAGE BUILDING
STRUCTURAL DESIGN
NOTES

DRAWING NO.

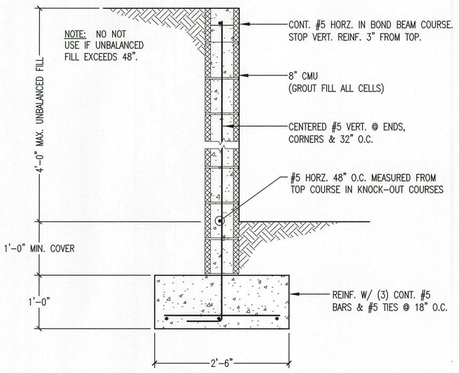
S-002



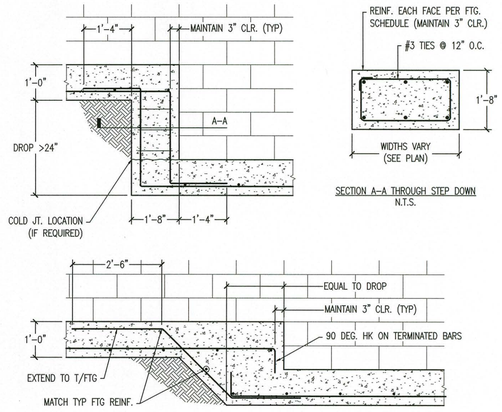
A S-501 BUILDING REAR RETAINING WALL SECTION
3/4" = 1'-0"



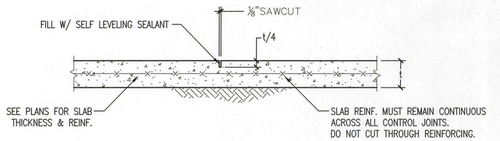
B S-501 8' FREE STANDING RETAINING WALL
3/4" = 1'-0"



C S-501 4' FREE STANDING RETAINING WALL
3/4" = 1'-0"



D S-501 TYP. FTG. REINF. @ CHANGE IN ELEV.
1/2" = 1'-0"



MAXIMUM SPACING OF CONTROL JOINTS

SLAB THICKNESS "t"	SLUMP 4" TO 6"		SLUMP LESS THAN 4"
	MAXIMUM SIZE AGGREGATE LESS THAN ¾"	MAXIMUM SIZE AGGREGATE ¾" & LARGER	
4"	8 FT	10 FT	12 FT

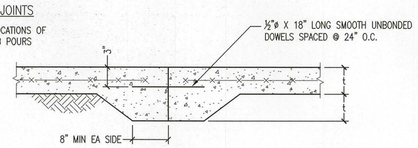
CONTROL JOINT NOTES:

1. THE ACTUAL LOCATIONS OF ALL CONTROL JOINTS MUST BE FIELD LOCATED BY THE CONTRACTOR.
2. PLAN DENOTED CONTROL JOINTS ARE APPROXIMATE OR SHOWN FOR GENERAL INSTRUCTION ONLY. ACTUAL LOCATIONS SHALL BE VERIFIED TO LIMIT THE FREQUENCY AND WIDTH OF RANDOM CRACKS IN THE CONCRETE SLAB.
3. LOCATION AND INSTALLATION OF ALL CONTROL JOINTS SHALL BE IN ACCORDANCE WITH ACI 360R "DESIGN OF SLABS ON GROUND" AND THE DETAILS THEREIN.
4. MAXIMUM SPACING OF JOINTS SHALL BE PER THE TABLE IN THIS DETAIL UNLESS OTHERWISE APPROVED.
5. SLAB SHALL BE SAWN AS SOON AS THE CONCRETE WILL SAFELY SUPPORT MEN AND EQUIPMENT AFTER HARDENING.
6. KEYED FORM TO BE REMOVED BEFORE ADJACENT SLAB IS POURED.

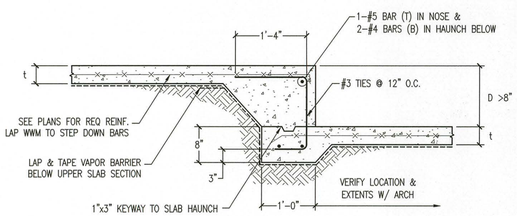
E S-501 SLAB CONTROL JOINTS
N.T.S.

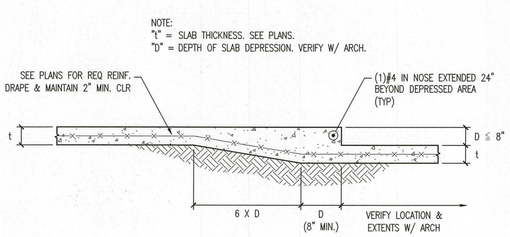
CONSTRUCTION JOINTS

REQUIRED AT ALL LOCATIONS OF DISCONTINUOUS SLAB POURS



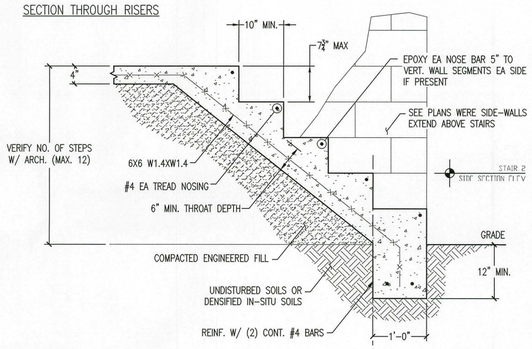
F S-501 TYP. CONC. FINISHING DETAILS
3/4" = 1'-0"





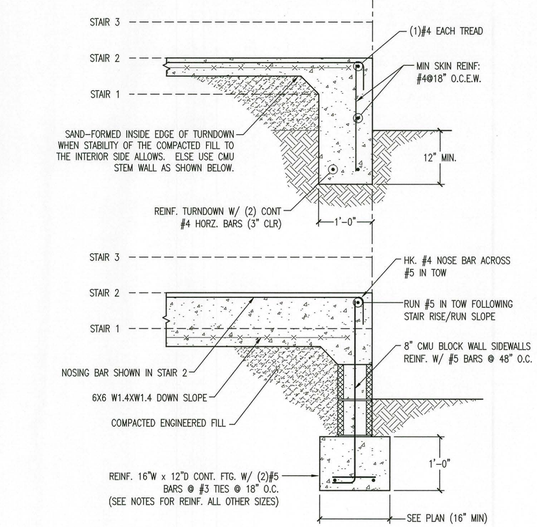
I S-501 TYP. NON–BEARING SLAB STEP DOWNS
3/4" = 1'-0"

SECTION THROUGH RISERS

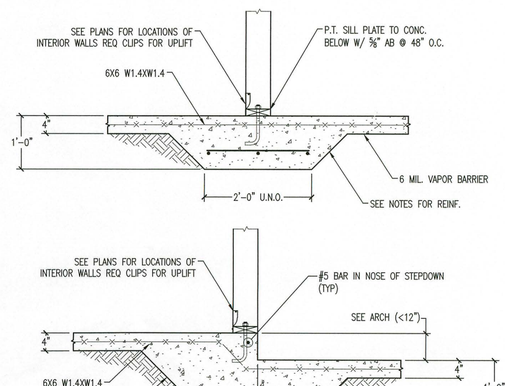


SIDE SECTION

PARTIAL VIEW & REINF. SHOWN FOR STAIR 2 ONLY. REPEAT EA STAIR ELEV.



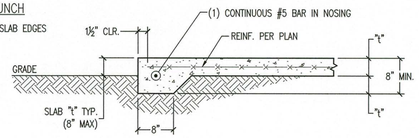
G S-501 FREE–STANDING S.O.G. STEPS
3/4" = 1'-0"



H S-501 THICKENED SLAB DETAIL
3/4" = 1'-0"

TYP SLAB HAUNCH

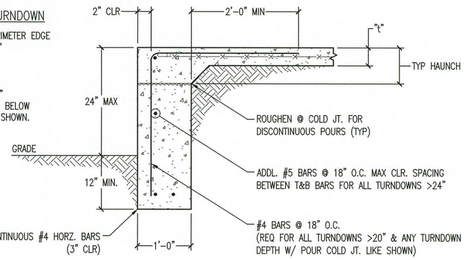
TYPICAL FOR ALL SLAB EDGES DROPS ≤ 8"



DEEP SLAB TURNDOWN

NON–BEARING PERIMETER EDGE TURNDOWNS ≤ 36" DROPS ≤ 24"

NOTE: DROPS >24" REQUIRE FOOTINGS BELOW TURNDOWN. NOT SHOWN.



J S-501 TYPICAL SLAB PERIMETER CONDITIONS
3/4" = 1'-0"

DAVID ALLEN BARNES JR. LICENSE No. 70089 STATE OF FLORIDA PROFESSIONAL ENGINEER
Not Valid without Original Signature.

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GRAYTON BEACH TRANSIT FACILITY
WALTON COUNTY, FLORIDA

PROJECT NUMBER:	8307-2201
DESIGNED BY:	DAB
REVIEWED BY:	n/a
SHEET SCALE:	AS NOTED

RELEASE RECORD:

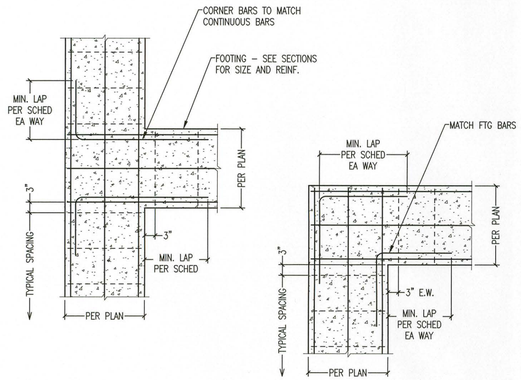
ISSUED FOR BIDDING	11-21-2022
PERMIT DOCUMENTS	03-29-2023
CONST. DOCS/ REV. 1	02-26-2024

DRAWING TITLE:

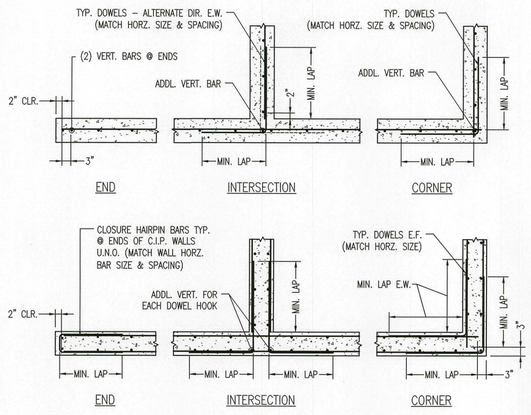
CONSTRUCTION DETAILS

DRAWING NO.

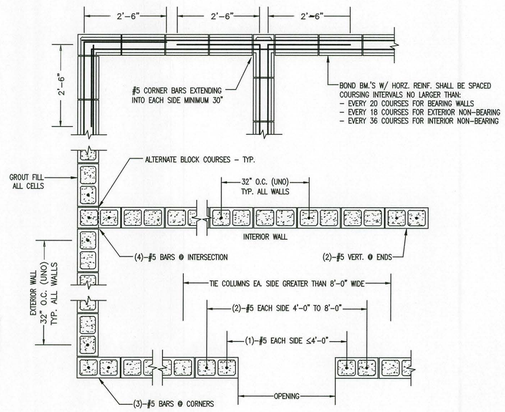
S-501



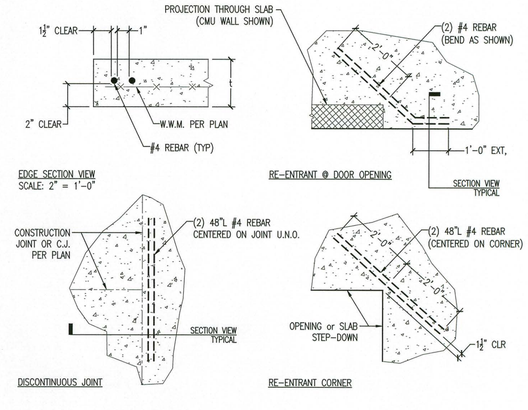
A S-502 TYPICAL FTG. REINF. @ INTERSECTIONS
N.T.S.



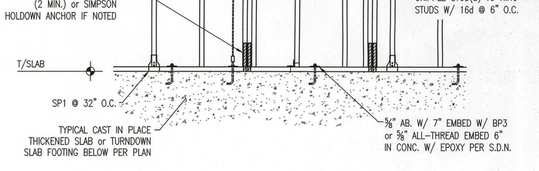
B S-502 TYP. C.I.P. WALL REINF.
1/2" = 1'-0"



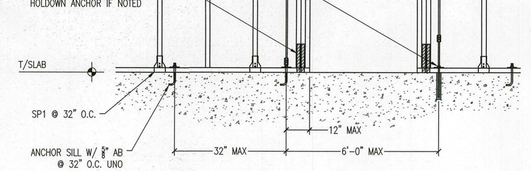
C S-502 TYP. CMU WALL REINFORCING
N.T.S.



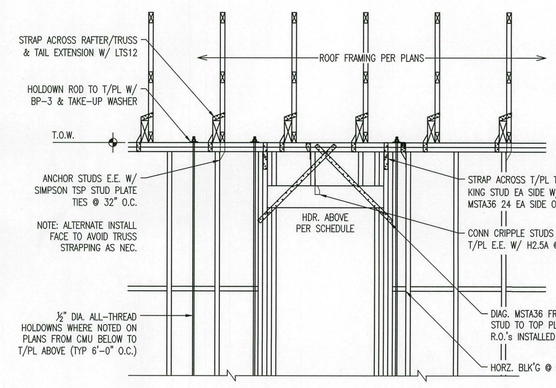
D S-502 SUPPLEMENTAL SLAB REINF.
1/2" = 1'–0"



E S-502 TYP. WALL STRAPPING
1/2" = 1'–0"

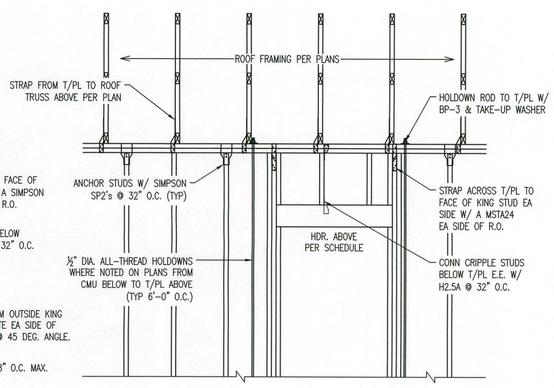


F S-502 TYP. WALL STRAPPING
1/2" = 1'–0"

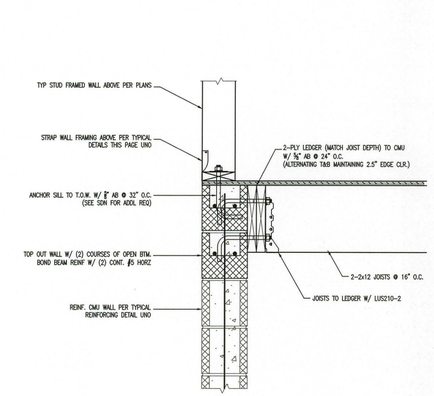


G S-502 EXTERIOR WALL STRAPPING @ ROOF
1/2" = 1'–0"

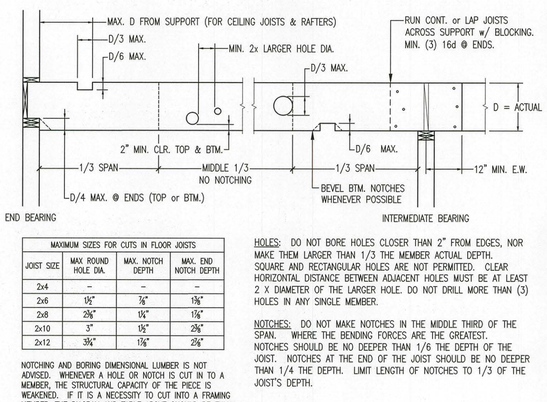
AT NOTED INTERIOR BEARING WALL ONLY



H S-502 ROOF BEARING WALL STRAPPING
1/2" = 1'–0"



I S-502 SECTION @ TOP OF WALL
1" = 1'–0"



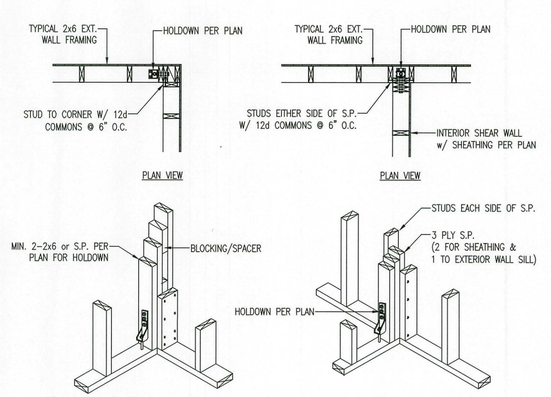
MAXIMUM SIZES FOR CUTS IN FLOOR JOISTS			
JOIST SIZE	MAX ROUND HOLE DIA.	MAX. NOTCH DEPTH	MAX. END NOTCH DEPTH
2x4	–	–	–
2x6	1½"	⅞"	1⅜"
2x8	2⅜"	1¼"	1⅞"
2x10	3"	1½"	2⅜"
2x12	3¾"	1⅞"	2⅞"

NOTCHING AND BORING DIMENSIONAL LUMBER IS NOT ADVISED. WHENEVER A HOLE OR NOTCH IS CUT IN TO A MEMBER, THE STRUCTURAL CAPACITY OF THE PIECE IS WEAKENED. IF IT IS A NECESSITY TO CUT INTO A FRAMING MEMBER, THE DIAGRAM AND TABLE ABOVE SHOULD BE FULLY ADHERED TOO. ANYTHING NOT COMPLIANT SHOULD BE APPROVED BY THE E.O.R. PRIOR TO MEMBER MODIFICATION.

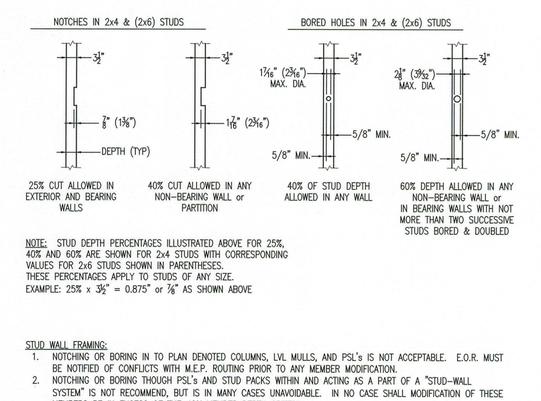
HOLES: DO NOT BORE HOLES CLOSER THAN 2" FROM EDGES, NOR MAKE THEM LARGER THAN 1/3 THE MEMBER ACTUAL DEPTH. SQUARE AND RECTANGULAR HOLES ARE NOT PERMITTED. CLEAR HORIZONTAL DISTANCE BETWEEN ADJACENT HOLES MUST BE AT LEAST 2 X DIAMETER OF THE LARGER HOLE. DO NOT DRILL MORE THAN (3) HOLES IN ANY SINGLE MEMBER.

NOTCHES: DO NOT MAKE NOTCHES IN THE MIDDLE THIRD OF THE SPAN. WHERE THE BENDING FORCES ARE THE GREATEST. NOTCHES SHOULD BE NO DEEPER THAN 1/6 THE DEPTH OF THE JOIST. NOTCHES AT THE END OF THE JOIST SHOULD BE NO DEEPER THAN 1/4 THE DEPTH. LIMIT LENGTH OF NOTCHES TO 1/3 OF THE JOIST'S DEPTH.

J S-502 PLACEMENT OF CUTS IN FLOOR JOISTS
N.T.S.



K S-502 STRUCTURAL CORNER FRAMING
1/2" = 1'–0"



NOTE: STUD DEPTH PERCENTAGES ILLUSTRATED ABOVE FOR 25%, 40% AND 60% ARE SHOWN FOR 2x4 STUDS WITH CORRESPONDING VALUES FOR 2x6 STUDS SHOWN IN PARENTHESES. THESE PERCENTAGES APPLY TO STUDS OF ANY SIZE. EXAMPLE: 25% x 3½" = 0.875" or ⅞" AS SHOWN ABOVE

STUD WALL FRAMING:
1. NOTCHING OR BORING IN TO PLAN DENOTED COLUMNS, LVL MULLS, AND PSL's IS NOT ACCEPTABLE. E.O.R. MUST BE NOTIFIED OF CONFLICTS WITH M.E.P. ROUTING PRIOR TO ANY MEMBER MODIFICATION.
2. NOTCHING OR BORING THOUGH PSL's AND STUD PACKS WITHIN AND ACTING AS A PART OF A "STUD–WALL SYSTEM" IS NOT RECOMMEND, BUT IS IN MANY CASES UNAVOIDABLE. IN NO CASE SHALL MODIFICATION OF THESE MEMBERS BE IN EXCESS OF THE 40% MEMBER DEPTH CRITERIA.
3. BORED HOLES SHALL NOT BE LOCATED IN THE SAME CROSS SECTION OF A STUD AS A CUT OR NOTCH.
4. REQUIRED SHIELD PLATES, NAIL STOPPERS, STRAP TIES, AND STUD SHOES ARE NOT SHOWN IN THESE DETAILS.

L S-502 PLACEMENT OF CUTS IN WALL STUDS
N.T.S.

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GRAYTON BEACH TRANSIT FACILITY
WALTON COUNTY, FLORIDA

PROJECT NUMBER:	8307-2201
DESIGNED BY:	DAB
REVIEWED BY:	n/a
SHEET SCALE:	AS NOTED

RELEASE RECORD:

ISSUED FOR BIDDING	11-21-2022
PERMIT DOCUMENTS	03-29-2023
CONST. DOCS/ REV. 1	02-26-2024

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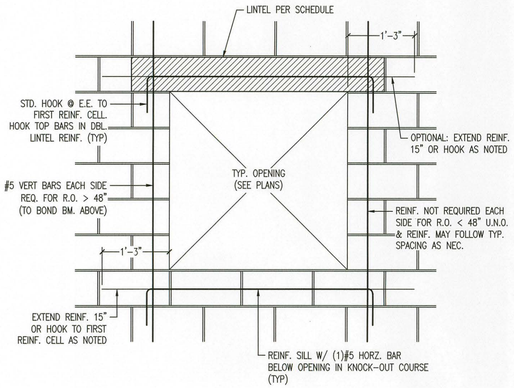


A S-503 TYP. CMU WALL OPENING REINF.
3/4" = 1'-0"

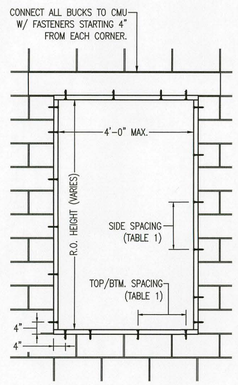
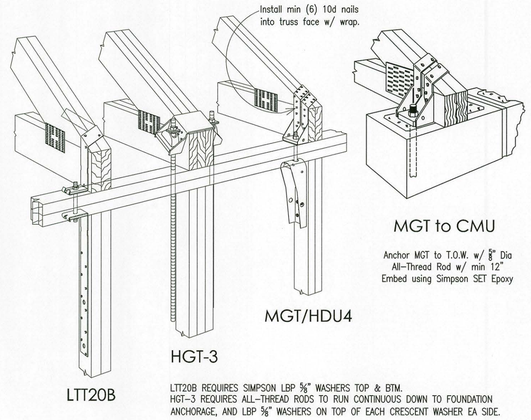


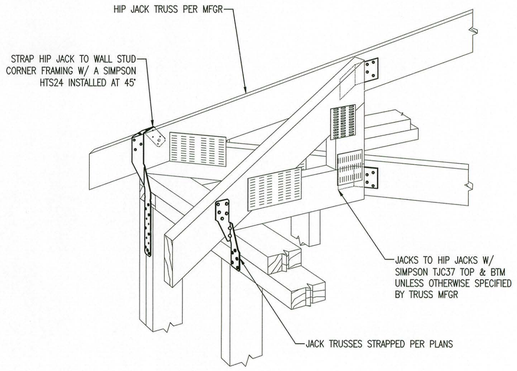
TABLE 1: TYPICAL SINGLE R.O. BUCK FASTENER SCHEDULE					
TYPE	MAX. SPACING O.C.		EDGE CLEARANCE		EMBED DEPTH
	SIDES	TOP/BTM.	CMU	WOOD	
¼"ø SCREWS	16"	24"	1.5"	1"	1"
¼"ø S.S. TITEN	11"	23"	1.5"	1"	1"
⅜"ø TITEN HD	18"	24"	4"	1.5"	4.5"

R.O. BUCKING NOTES:
1. TABLE 1 SHALL APPLY TO SINGULAR ROUGH OPENINGS ONLY UNLESS NOTED OTHERWISE. SEE TABLE 2 & ASSOCIATED DETAILS FOR FIELD MULLED MULTIPLE COMPONENT BUCK & MULL FASTENING REQUIREMENTS.
2. TABLE 2 SHALL APPLY TO ANY FACTORY "TIGHT MULLED" COMPONENTS WITHIN A SINGLE ROUGH OPENING WITH A WIDTH DIMENSION GREATER THAN 4'-0" & HEIGHT ≤ 8'-0"
3. ALL BUCKING MEMBERS MUST BE SOLID NOMINAL 2BY MATERIAL (1.5" ACTUAL) RUNNING CONTINUOUS FROM CORNER TO CORNER.
4. ALL BUCKING MEMBER DEPTH DIMENSION SIZE MUST BE ADEQUATE TO PROVIDE THE FASTENER EDGE CLEARANCES BOTH CMU AND WOOD FOR THE RESPECTIVE FASTENER TYPE CHOSEN FOR EACH APPLICATION.
5. FASTENER MAXIMUM SPACING SHALL BE LIMITED TO 16" O.C. FOR 2x4 BUCKS. NO FASTENER SPACING SHALL EXCEED 24".
6. MINIMUM FASTENER PENETRATION IS MEASURED FROM THE O.F. CMU.FASTENER HEADS MAY BE COUNTERSUNK & RECESSED IN THE BUCKS A MAXIMUM ½" PROVIDED THE WOOD EDGE CLEARANCE IS OBSERVED.
7. IT IS NOT RECOMMENDED TO COUNTERSINK ANY FASTENER MORE THAN IS NECESSARY TO PROVIDE FRAME/JAMB MINIMUM INSTALLATION CLEARANCE.
8. USE PHILLIPS FLAT HEAD SCREWS IN PLACE OF HEX-HEADS FOR FLUSH FIT WITHOUT COUNTERSINKING WHEN USING ¼" TITEN or TAPCON SCREWS.
9. PROJECT SPECIFIC BUCK FASTENING SHALL BE REQUIRED FOR ANY SINGLE R.O. WITH A WIDTH (or MULLED R.O. WITH A AVERAGE WIDTH) DIMENSION GREATER THAN 4'-0" AS NOTED.
10. THE AVERAGE WIDTH = OVERALL WIDTH / # OF CLEAR OPENINGS

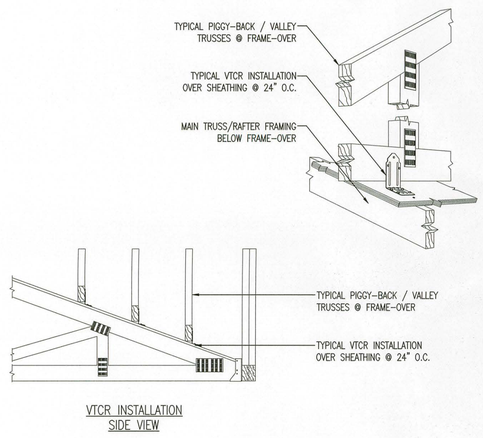
B S-503 SINGLE R.O. BUCKING CONNECTION
1/2" = 1'-0"



C S-503 TYPICAL ROOF GIRDER TRUSS HOLDOWNS
N.T.S.

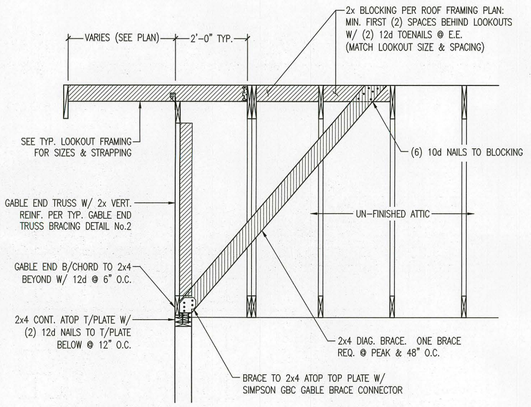


D S-503 TYP HIP JACK STRAPPING
1-1/2" = 1'-0"

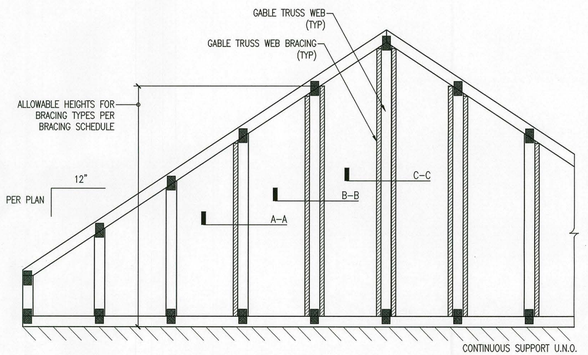


VTCR INSTALLATION SIDE VIEW

E S-503 TYP. TRUSS OVER-FRAMING DETAIL
N.T.S.



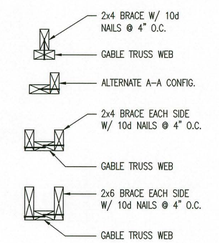
F S-503 TYP. DIAG. GABLE END TRUSS BRACING
1/2" = 1'-0"



G S-503 TYP. GABLE END TRUSS BRACING DETAIL
1/2" = 1'-0"

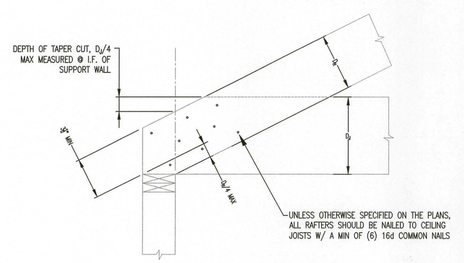
GABLE END TRUSS BRACING SCHEDULE				
VERT. SPACING	NO BRACING	TYPE A-A (1) 2x4	TYPE B-B (2) 2x4	TYPE C-C (2) 2x6
16" O.C.	0'-0" to 4'-0"	H ≤ 8'-0"	H ≤ 11'-0"	H ≤ 15-6"
24" O.C.	0'-0" to 4'-0"	H ≤ 6'-6"	H ≤ 8'-6"	H ≤ 12-6"

TYPE A-A
SCALE= 1½" = 1'-0"



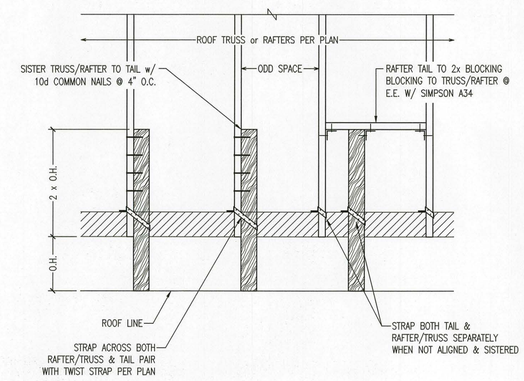
TYPE B-B
SCALE= 1½" = 1'-0"

TYPE C-C
SCALE= 1½" = 1'-0"

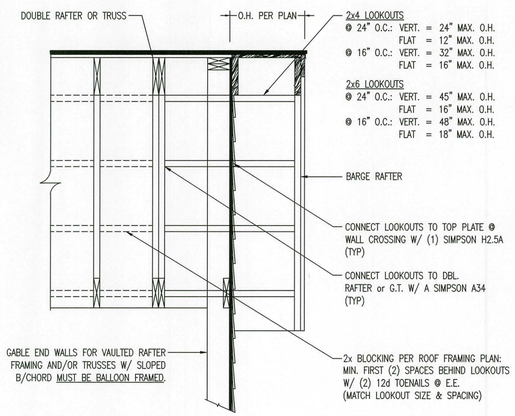


NOTES:
1. STRAPPING FROM RAFTERS TO T/PL NOT SHOWN. SEE PLANS.
2. RAFTER TAILS ARE NOT SPECIFICALLY SHOWN. SEE ARCHITECTURAL PLANS FOR SIZE AND SPACING.
3. SEE ARCHITECTURAL PLANS FOR RAFTER TAIL CUT AND SPECIFICATIONS.
4. RAFTER TAILS SHALL BE SCABBED ON TO ADJACENT RAFTERS OR TRUSSES W/10D COMMON NAILS @ 4" O.C. AND SHALL EXTEND BACK INTO ROOF SYSTEM AT A MINIMUM OF 2:1 INTERIOR EXTENSION LENGTH TO OVERHANG RATIO.
5. ALL EXPOSED RAFTERS AND RAFTER TAILS MUST BE PRESSURE TREATED.

I S-503 TYP RAFTER & JOIST CUTS
N.T.S.



J S-503 TYP. RAFTER TAIL APPLICATION DETAIL
3/4" = 1'-0"



K S-503 TYP. LOOKOUT FRAMING
1/2" = 1'-0"

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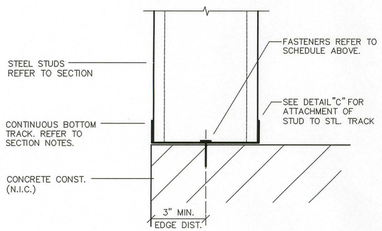
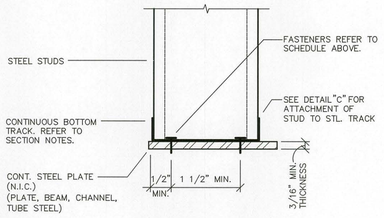
LOCATION	NUMBER OF FASTENERS REQUIRED
TYPICAL FRAMING	(1) 0.157"ø P.D.F. @ 8" O.C.
JAMB STUDS	(2) 0.157"ø P.D.F.'S @ EACH JAMB

1) 1" MIN. EMBED. REQ'D FOR ALL P.D.F.'S.
2) MAINTAIN 4" MIN. FASTENER SPACING FOR ALL FASTENERS

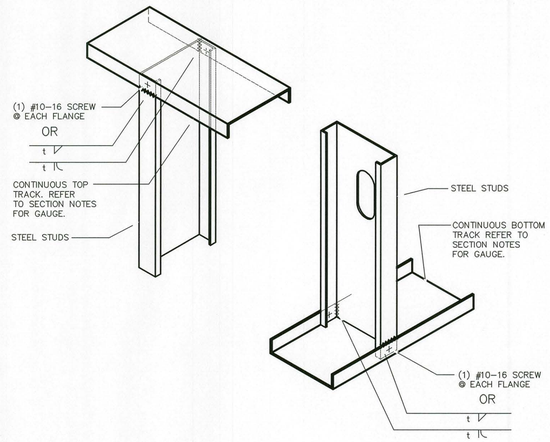


A S-504 TYPICAL TRACK CONNECTION TO CONC
N.T.S.

LOCATION	NUMBER OF FASTENERS REQUIRED
TYPICAL FRAMING	(2) 0.157"ø P.D.F.'S @ EACH STUD
JAMB STUDS	(4) 0.157"ø P.D.F.'S @ EACH JAMB

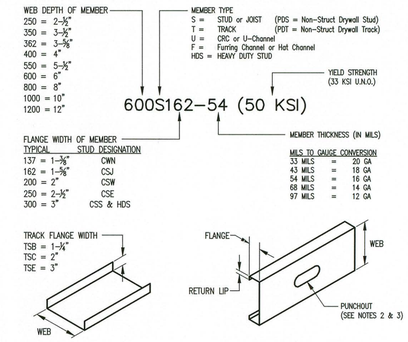


B S-504 TYPICAL TRACK CONNECTION TO STEEL
N.T.S.



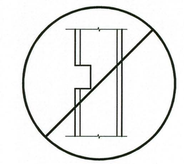
C S-504 TYP STUD TO STL. TRACK CONNECTION
N.T.S.

COLD-FORMED STEEL MEMBER DESIGNATION



TRACK SECTION

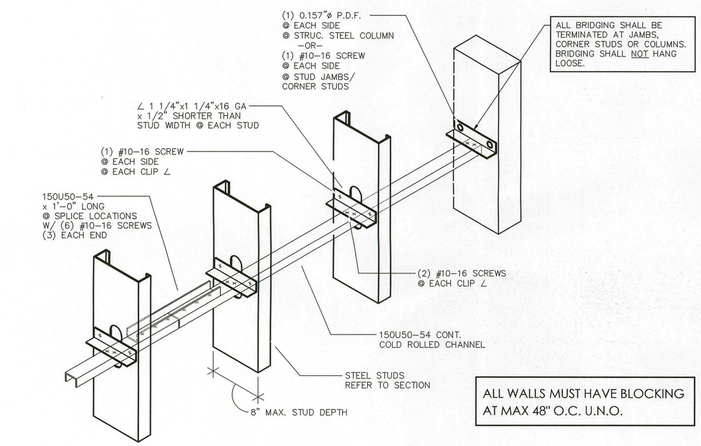
STUD SECTION



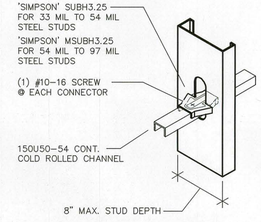
DO NOT NOTCH STEEL STUDS

ADDITIONAL NOTES:

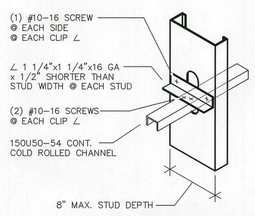
1. Unless Otherwise Specified, the Member Designation on these documents follows The American Iron and Steel Institute (AISI) system. Coding of each member is ordered in four parts:
   - A number which identifies the web depth of the member to two decimal places. Ex: 362= 3.625" & 1000= 10.00", etc.
   - A letter that tells you the type of member. Ex: S= Stud
   - A number that defines the flange dimension in inches to two decimal places. Ex: 162= 1.625" & 200= 2.00", etc.
   - A number following a hyphen denotes the minimum thickness in MILS.
     33 MILS = 33/1000 inches or approximately = 0.0329"
     See conversions above for MILS to Gauge (GA)
2. All Members used to frame rough openings (R.O.) including Headers and Head/Sill Tracks must be continuous and Un-Punched. Splicing of R.O. tracks is not allowed.
3. Typical wall stud framing and R.O. Jamb Studs may be punched unless otherwise noted.



D S-504 BRIDGING: TYPICAL FRAMING & CONNECTIONS
N.T.S.



SCREWED ATTACHMENT



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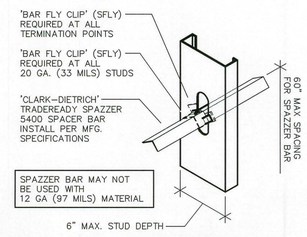
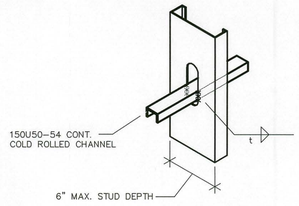


SPAZZER BAR ATTACHMENT

WELD THICKNESS	
STEEL STUD THICKNESS IN MILS	WELD THICKNESS (t)
33 MILS	NO WELDING
43 MILS	1/8"
54 MILS	1/8"
68 MILS	1/8"
97 MILS	5/32"



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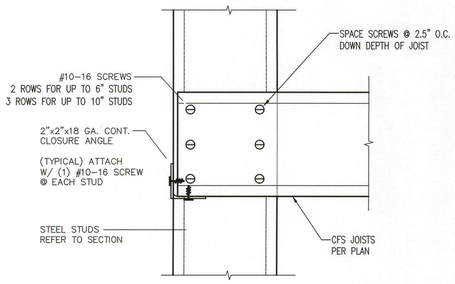
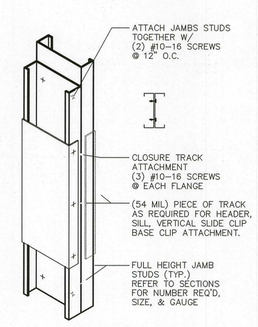
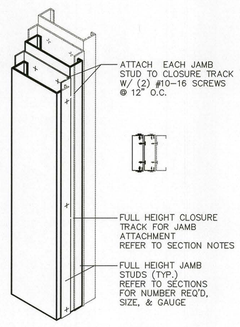


E S-504 TYP JOIST TO STUD LAP CONNECTION
N.T.S.



SCREWED OPTION



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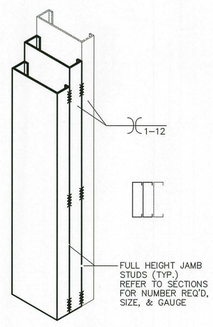

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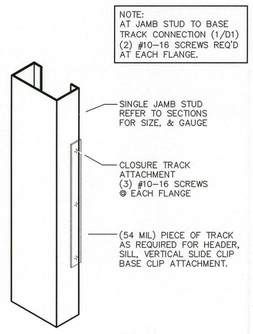

SINGLE STUD OPTION

F S-504 JAMB ATTACHMENT OPTIONS
N.T.S.

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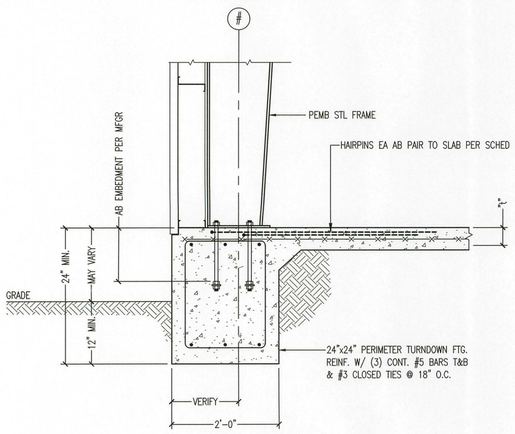
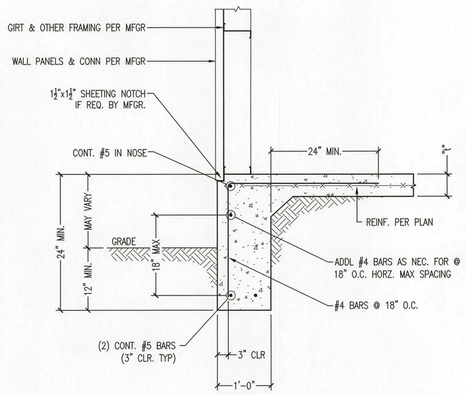
DRAWING NO.

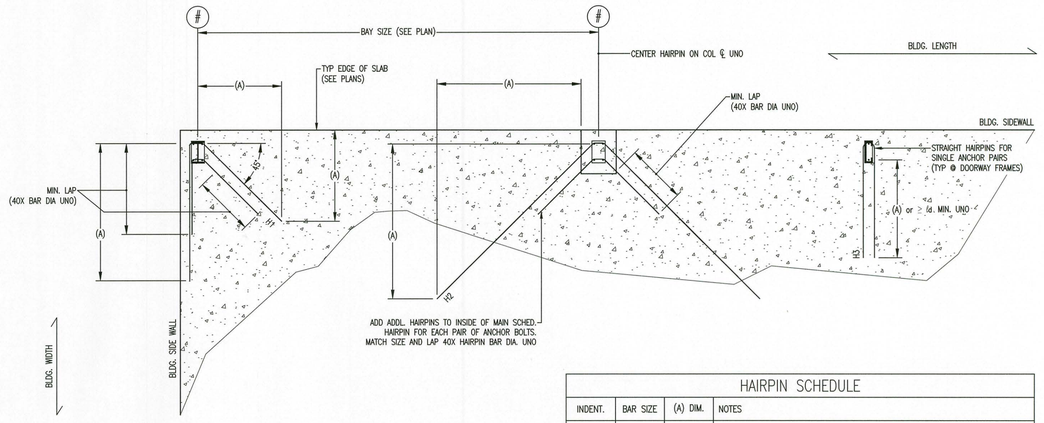
S-504



A S-505 PEMB MAIN FRAME TURNDOWN FTG
3/4" = 1'-0"



B S-505 PEMB SIDE WALL TURNDOWN FTG
3/4" = 1'-0"



C S-505 TYP. SLAB HAIRPIN LAYOUTS
N.T.S.

HAIRPIN SCHEDULE			
INDENT.	BAR SIZE	(A) DIM.	NOTES
H1	#4	5'-3"	1. USE HAIRPIN H1 FOR ALL P.E.M.B. FRAMES UNLESS OTHERWISE NOTED. 2. IF MORE THAN (2) ANCHOR BOLTS ARE USED, USE (1) HAIRPIN FOR EACH BOLT PAIR. 3. HAIRPINS MUST HAVE A MIN. ¾" CLEARANCE TO TOP OF SLAB. 4. SLAB WWM REINFORCING MUST RUN CONT. THROUGH ALL SLAB JOINTS. 5. ALL HAIRPINS MUST CONFORM TO ASTM A615.

DAVID ALLEN BARNES JR
LICENSE
No. 70583
STATE OF FLORIDA
PROFESSIONAL ENGINEER
Not Valid without Original Signature.

APEX ENGINEERING GROUP, PLLC
78-A Ricker Avenue, Santa Rosa Beach, Florida 32459
Florida Certificate of Authorization: # 32176
Phone: 850-231-4540, Email: info@apexengineeringgroup.net

GRAYTON BEACH
TRANSIT FACILITY
WALTON COUNTY, FLORIDA

PROJECT NUMBER:	8307-2201
DESIGNED BY:	DAB
REVIEWED BY:	n/a
SHEET SCALE:	AS NOTED

RELEASE RECORD:

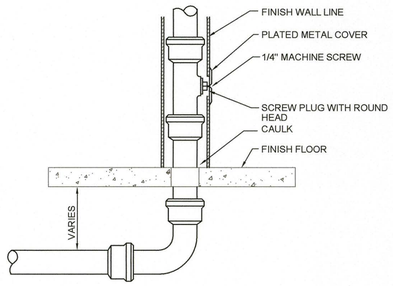
ISSUED FOR BIDDING	11-21-2022
PERMIT DOCUMENTS	03-29-2023
CONST. DOCS/ REV. 1	02-26-2024

DRAWING TITLE:

CONSTRUCTION DETAILS

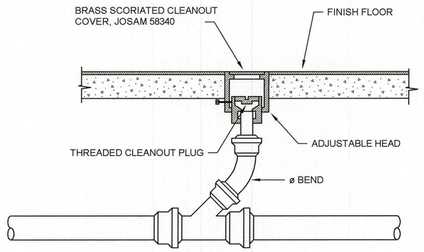
DRAWING NO.

S-505



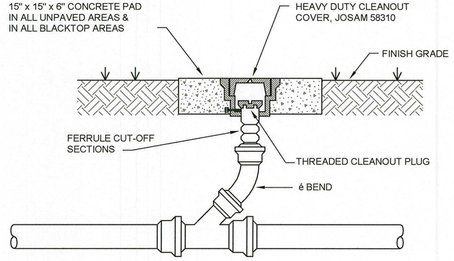
1 P100 **FINISH WALL DETAIL**

SCALE: NONE



2 P100 **FINISH FLOOR DETAIL**

SCALE: NONE

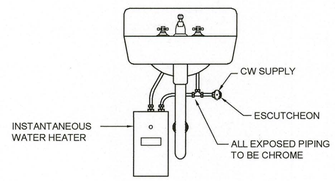


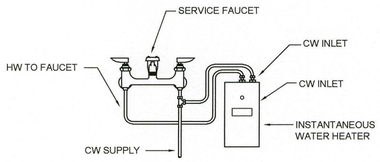
3 P100 **FINISH GRADE DETAIL**

SCALE: NONE

PLUMBING LEGEND

—SS—	SANITARY SEWER
———	SOIL OR WASTE PIPING (W.)
- - - - - - -	VENT PIPING
——-———	COLD WATER PIPING (CW)
——--———	HOT WATER PIPING (HW)
F.W.C.O.	FINISH WALL CLEANOUT
F.F.C.O.	FINISH FLOOR CLEANOUT
F.G.C.O.	FINISH GRADE CLEANOUT
VTR	VENT THRU ROOF
ABV.	ABOVE
CLG.	CEILING
CONC.	CONCRETE
FIN.	FINISH
O.C.	ON CENTER
—▷◁—	GATE VALVE (G.V.)
—◇—○—	BALL VALVE (B.V.)
(TYP.)	TYPICAL
BLDG	BUILDING
AFF.	ABOVE FINISH FLOOR





4 P100 **INSTANTANEOUS WATER HEATER**

SCALE: NONE

PLUMBING FIXTURE SCHEDULE

FIXTURE	MARK	TRAP	WASTE	VENT	CW	HW	REMARKS
WATER CLOSET	WC-1	-	4"	4"	1"	-	TANK TYPE FLOOR MOUNTED
WATER CLOSET	WC-2	-	4"	4"	1"	-	TANK TYPE FLOOR MOUNTED - ADA COMPLIANT
URINAL	UR-1	-	3"	2"	¾"	-	FLUSH VALVE WALL MOUNTED
URINAL	UR-2	-	3"	2"	¾"	-	FLUSH VALVE WALL MOUNTED - ADA COMPLIANT
LAVATORY	L-1	1¼"	2"	1½"	½"	½"	WALL HUNG
LAVATORY	L-2	1¼"	2"	1½"	½"	½"	WALL HUNG - ADA COMPLIANT
WATER HEATER	WH-1	-	-	-	¾"	¾"	SEE WH SCHEDULE
HOSE BIBB	HB-1	-	-	-	¾"	¾"	BOX MOUNTED, FREEZE PROOF, VACUUM BREAKER
FLOOR DRAIN	FD-1	3"	3"	2"	-	-	TYPE A - STRAINER
FLOOR DRAIN	FD-2	3"	3"	2"	½"	-	TYPE A - STRAINER, W/ TRAP PRIMER
NOTES:							

WATER HAMMER ARRESTOR SCHEDULE

SIZE	FIXTURE UNITS	PDI STANDARD
1/2"	1-11	A
3/4"	12-32	B
1"	33-60	C
1-1/2"	61-113	D
1-3/4"	114-154	E
2"	155-330	F

WATER HEATER SCHEDULE

MARK	LOCATION	MIN. STORAGE	MIN. RECOVERY	TEMP. SETTING	TEMP RISE	ELECTRICAL				NATURAL GAS			REMARKS
						VOLT.	PHASE	INPUT	ELEMENTS	INPUT	GAS PRESSURE	FLUE SIZE	
		GAL	GPH	°F	°F	V	ø	KW	#	BTU	IN. WC	IN.	
WH-1-4	RESTROOMS	-	-	100	60	120	3	3	1	-	-	-	STIEBEL ELTRON DHC 3-1
WH-5-7	STORAGE	-	-	100	60	120	3	3	1	-	-	-	STIEBEL ELTRON DHC 3-1
	NOTES:												

STEPHENS MECHANICAL ENGINEERING LLC.

925 TOMMY MUNRO DR,
SUITE B
BILOXI, MS 39532

FLCA: 30951

LAWRENCE STEPHENS
P.E.
FL PE: 63259

WORK SHALL COMPLY WITH THE 2023 FBC

STEPHENS
MECHANICAL ENGINEERING LLC.
925 TOMMY MUNRO DR., SUITE B
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228 207 3322 OFFICE
207 3346 FAX
LES@STEPHENSMECHENG.COM

GRAYTON BEACH
TRANSIT AUTHORITY
WALTON COUNTY FLORIDA

PLUMBING SCHEDULES AND DETAILS

LAWRENCE E. STEPHENS LICENSE No. 63259 STATE OF FLORIDA PROFESSIONAL ENGINEER

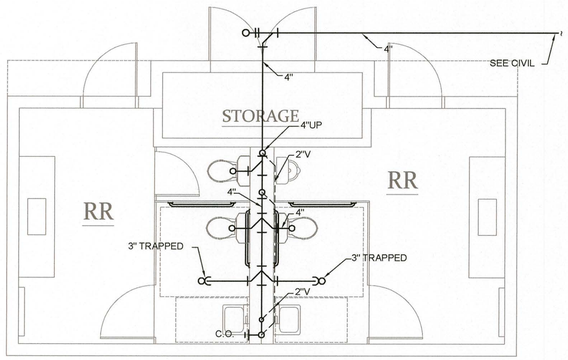
JOB NO.	DATE:	DRAWN BY:	DESIGNED BY:	CHECKED BY:
JOB No.	02.17.2024	MDH	MDH	LES

SHEET NUMBER

P100

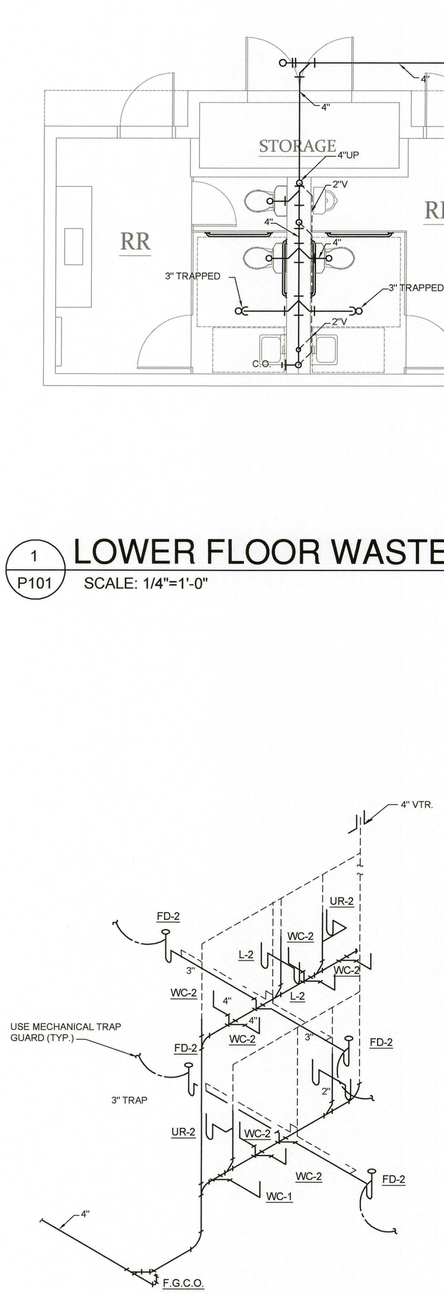
SHEET COUNT

1 OF 4



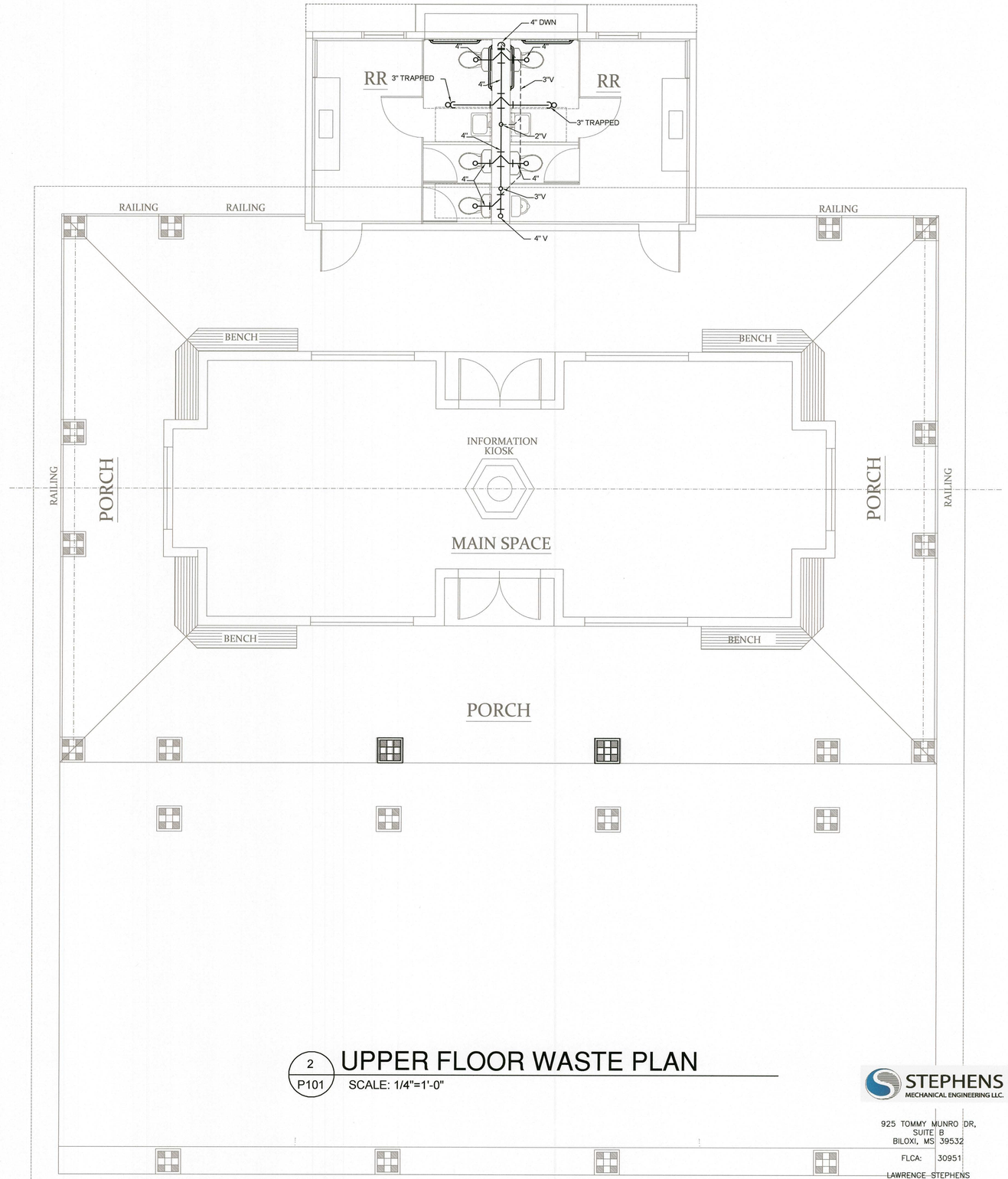
1 P101 **LOWER FLOOR WASTE PLAN**

SCALE: 1/4"=1'-0"



3 P101 **WASTE RISER**

SCALE: NONE



2 P101 **UPPER FLOOR WASTE PLAN**

SCALE: 1/4"=1'-0"

STEPHENS MECHANICAL ENGINEERING LLC.

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SUITE B
BILOXI, MS 39532

FLCA: 30951

LAWRENCE STEPHENS
P.E.
FL PE: 63259

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GRAYTON BEACH
TRANSIT AUTHORITY
WALTON COUNTY FLORIDA

PLUMBING WASTE PLANS
TRANSIT BUILDING

LAWRENCE E. STEPHENS
LICENSE
No. 63259
STATE OF FLORIDA
PROFESSIONAL ENGINEER
2-17-24

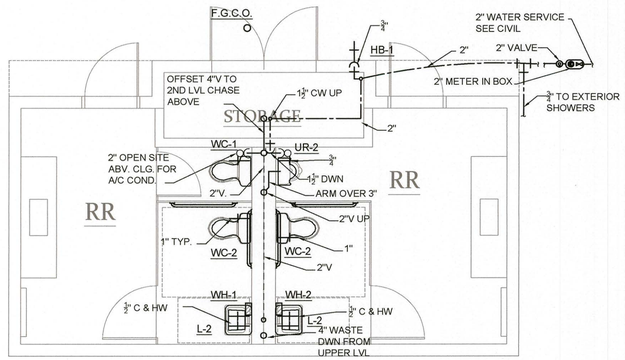
JOB No.	02.17.2024	MDH	MDH	LES
JOB NO.	DATE:	DRAWN BY:	DESIGNED BY:	CHECKED BY:

SHEET NUMBER

P101

SHEET COUNT

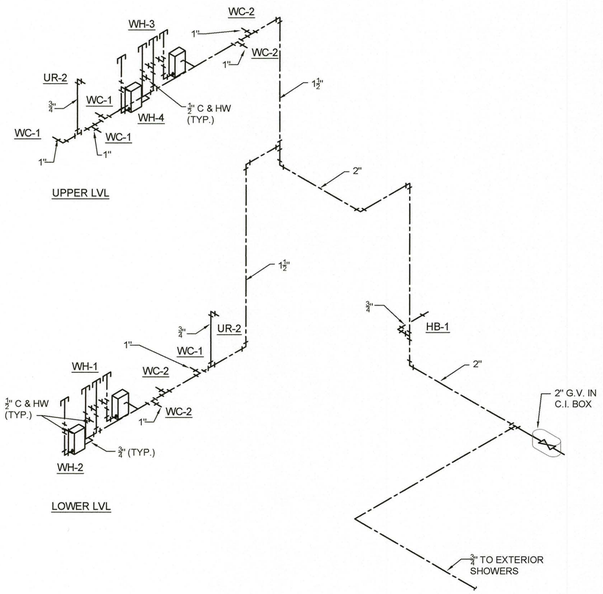
2 OF 4



1 P102

LOWER FLOOR DOMESTIC WATER PLAN

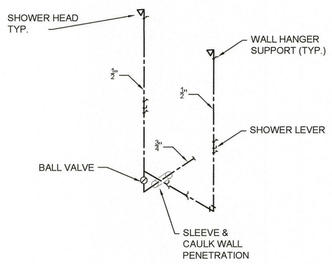
SCALE: NONE



3 P102

DOMESTIC WATER RISER

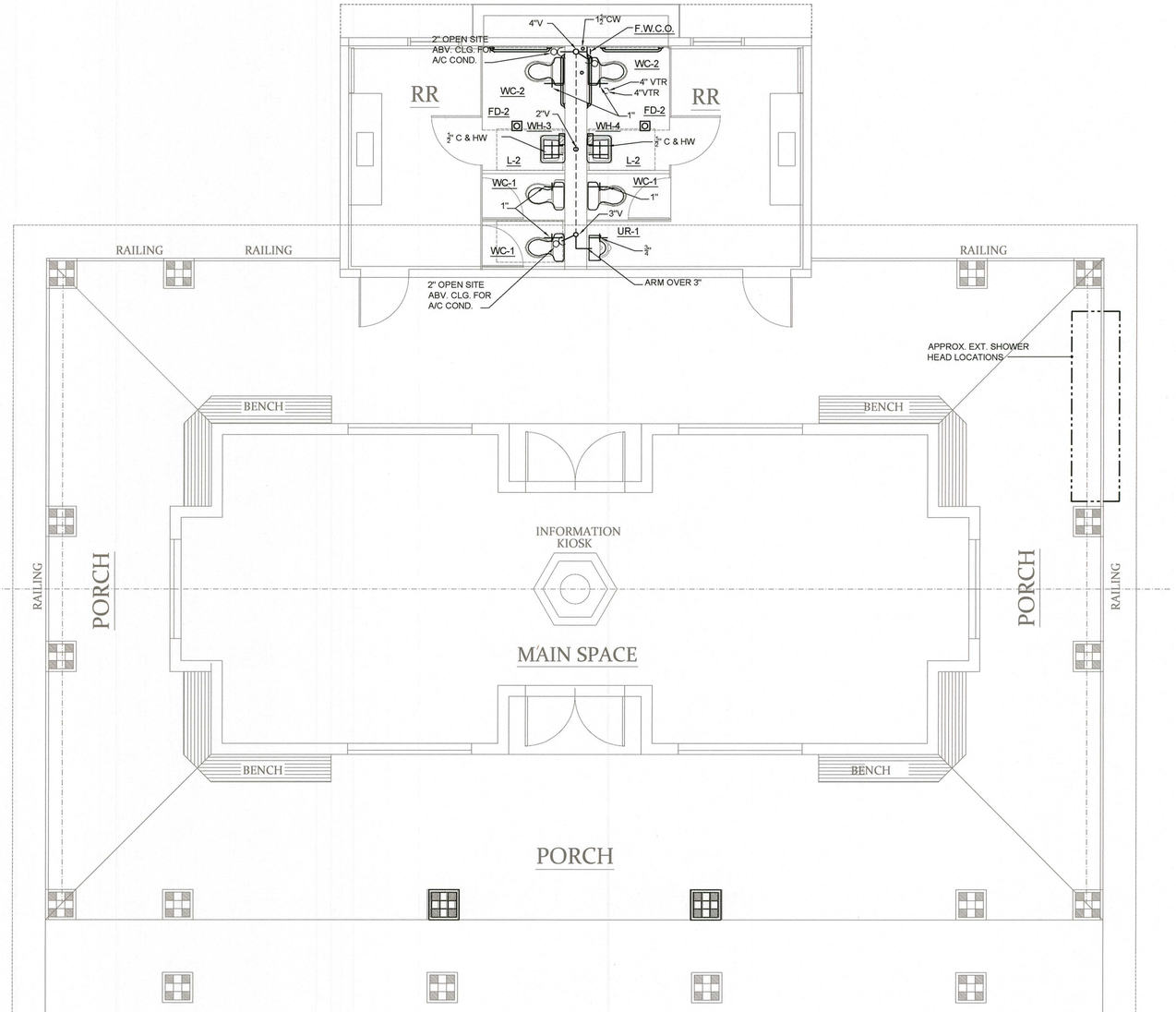
SCALE: NONE



4 P102

DOMESTIC WATER RISER (SHOWERS)

SCALE: NONE



2 P102

UPPER FLOOR DOMESTIC WATER PLAN

SCALE: 1/4"=1'-0"

925 TOMMY MUNRO DR, SUITE B
BILOXI, MS 39532
FLCA: 30951
LAWRENCE STEPHENS P.E.
FL PE: 63259

WORK SHALL COMPLY WITH THE 2023 FBC

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GRAYTON BEACH
TRANSIT AUTHORITY
WALTON COUNTY FLORIDA

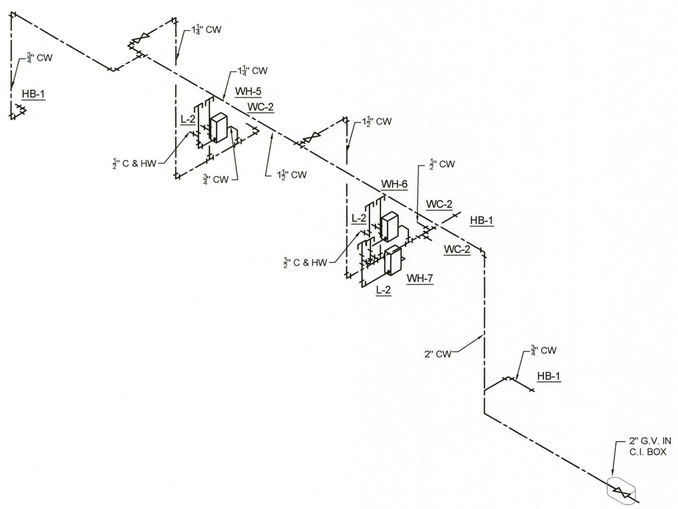
DOMESTIC WATER PLANS
TRANSIT BUILDING

LAWRENCE E. STEPHENS LICENSED No. 63259 STATE OF FLORIDA PROFESSIONAL ENGINEER
2-17-24

JOB No.	02.17.2024	MDH	MDH	LES
JOB NO.	DATE:	DRAWN BY:	DESIGNED BY:	CHECKED BY:

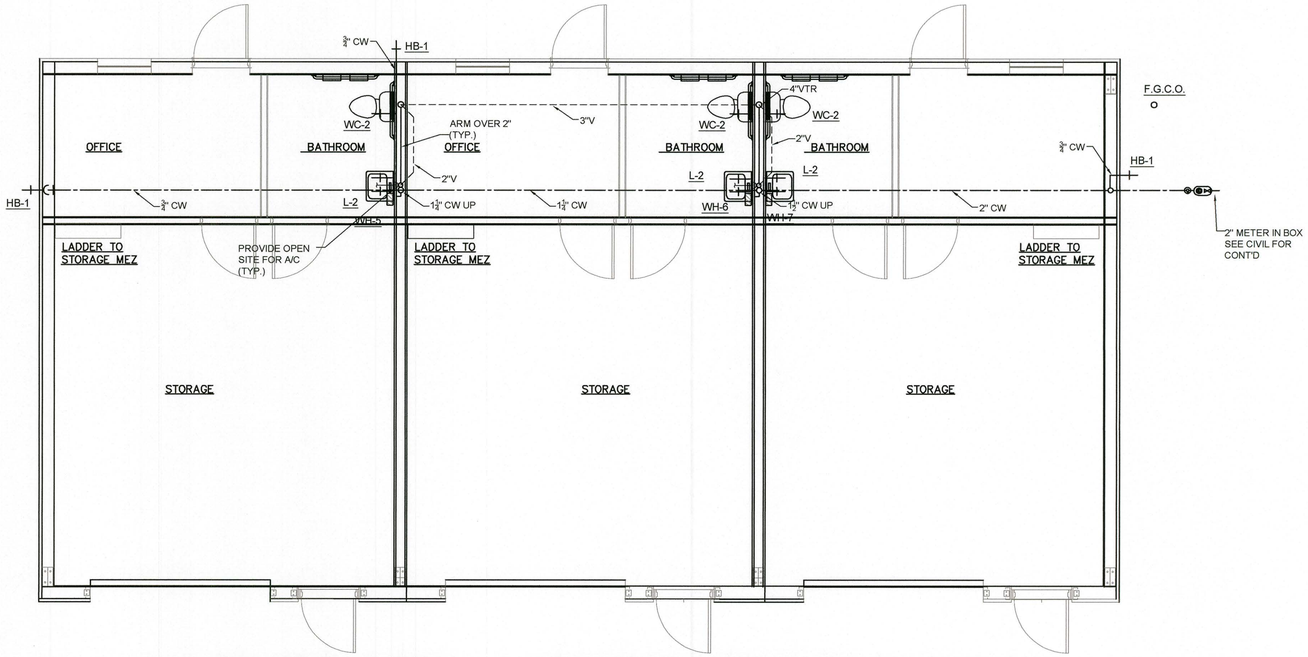
SHEET NUMBER
P102

SHEET COUNT
3 OF 4



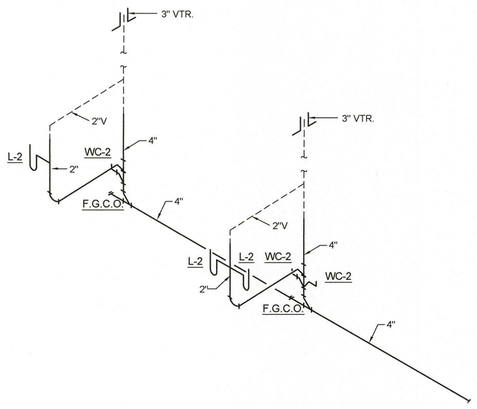
3 P103 STORAGE BLDG. -DOMESTIC WATER RISER

SCALE: NONE



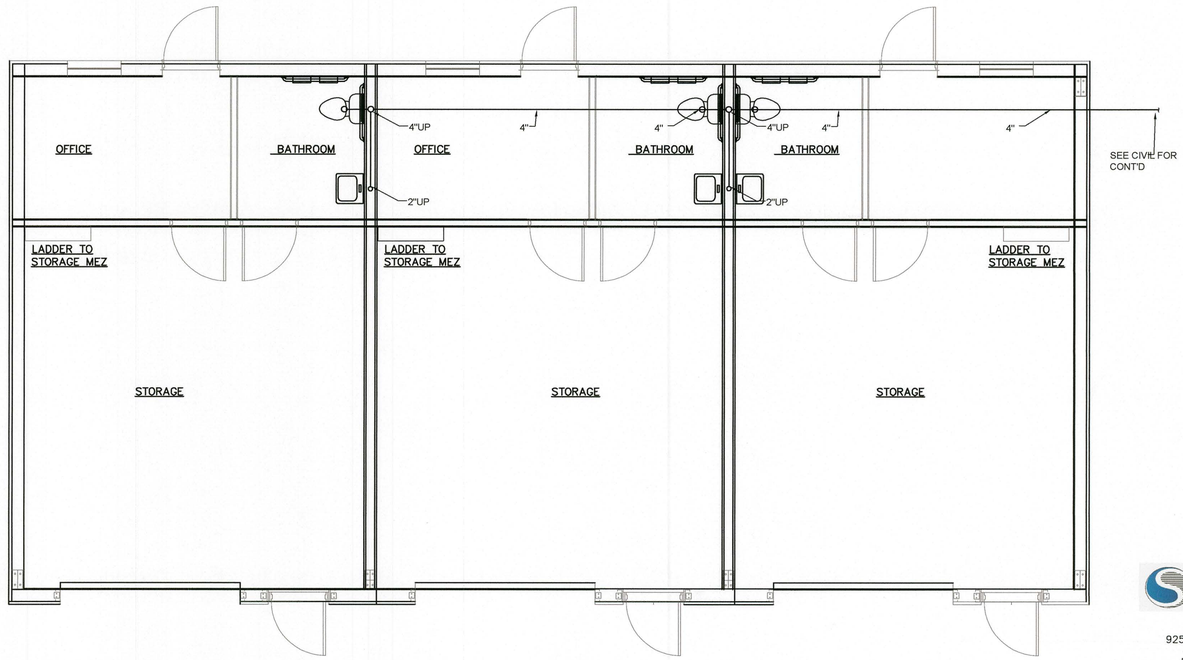
2 P103 STORAGE BLDG. - ABOVE FLOOR PLUMBING PLAN

SCALE: 1/4"=1'-0"



4 P103 STORAGE BLDG. - WASTE RISER

SCALE: NONE



1 P103 STORAGE BLDG. - BELOW FLOOR PLUMBING PLAN

SCALE: 1/4"=1'-0"

STEPHENS MECHANICAL ENGINEERING LLC.
925 TOMMY MUNRO DR, SUITE B
BILOXI, MS 39532
FLCA: 30951
LAWRENCE STEPHENS P.E.
FL PE: 63259

WORK SHALL COMPLY WITH THE 2023 FBC

STEPHENS MECHANICAL ENGINEERING LLC.
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BILOXI, MS 39532
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207 3346 FAX
LES@STEPHENSMECHENG.COM

GRAYTON BEACH
TRANSIT AUTHORITY
WALTON COUNTY FLORIDA

PLUMBING PLANS
STORAGE BUILDING

LAWRENCE E. STEPHENS No. 63259 STATE OF FLORIDA PROFESSIONAL ENGINEER
2-17-24

JOB NO.	DATE:	DRAWN BY:	DESIGNED BY:	CHECKED BY:
JOB No.	02.17.2024	MDH	MDH	LES

SHEET NUMBER
P103

SHEET COUNT
4 OF 4

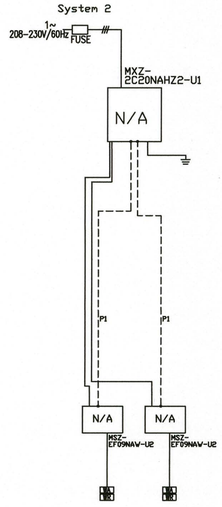
GRAYTON BEACH TRANSIT

DIAGRAM SYMBOL LEGEND		CONT.No	PAGE
DISPLAY	DESCRIPTION		
-//-	POWER WIRE		
———	CONTROL WIRE		
— —	REF. PIPE		

CITY MULTI

SYSTEM SCHEMATIC DWG.

Additional refrigerant charge is needed depending on the size and length of extended piping. Please refer the amount of pre-charge and the formula of calculation which is mentioned on the data book.
1.25mm²(16 AWG) : 1.25mm²(16 AWG) or more. 0.75mm²(20 AWG) : between 0.5mm²(24 AWG) and 0.75mm²(20 AWG).



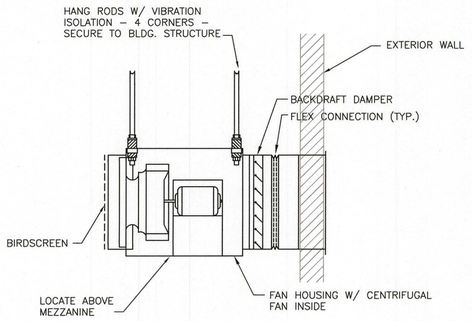
PIPING AND CONTROLS	
SYMBOL	LIQUID PIPE/GAS PIPE SIZE
P1	1/4 / 3/8
SYMBOL	MODEL NUMBER
MWR	stock controller

4.1.1.7
Mitsubishi Electric
Diamond System Builder
11/1/2022
1:46 PM

REMARKS
Comments:

4 M101 EF-8,9,10 SCHEMATIC

SCALE: NONE



MULTIZONE OUTDOOR UNIT HEAT PUMPS

MARK	TYPE	INDOOR UNIT – DX						OUTDOOR UNIT - AIR COOLED							
		VOLT	Ø	MCA	CL CAPACITY	HT CAPACITY	MODEL	MARK	MCA	MOCP	VOLT	Ø	CL CAPACITY	HT CAPACITY	MODEL
HP-1,2	WALL-MOUNTED	208	1	1	12,000 CLG	14,400 HTG	MITSUBISHI PKA-A12LA	OU-1	17.0	27	208	1	24,000	28,000	MITSUBISHI PUZ-HA24NHA1
HP-3,4,5,6	WALL-MOUNTED	208	1	1	9,000 CLG	10,000 HTG	MITSUBISHI MSZ-EF09NAW-U2	OU-2,3	17.2	20	208	1	20,000	25,000	MITSUBISHI MUZ-FS06NA
HP-7,8,9	WALL-MOUNTED	208	1	1	6,000 CLG	11,700 HTG	MITSUBISHI MSZ-FS06NA-U1	OU-4,5,6	10	15	208	1	6,000	6,000	MITSUBISHI MUZ-FS06NA

ACCESSORIES: FILTER, CONDENSATE PUMP, OUTDOOR UNIT COIL GUARD, REMOTE WIRELESS CONTROLLER, SINGLE POINT ELECTRICAL CONN. AT OUTDOOR UNIT FOR BOTH INDOOR & OUTDOOR POWER SOUND CRITERIA NOT TO EXCEED dbA 47 HIGH SPEED INDOOR UNIT, MARINE COATING ON CONDENSING UNIT

NOTES: 1) UNITS SHALL USE R-410A 2) MIN. SEER ON THESE UNITS SHALL BE 13 3) LOW AMBIENT COOLING TO 0 DEG FAHRENHEIT

EQUALS: LG, DIAKIN, SANYO

EXHAUST FAN SCHEDULE

MARK	SERVICE	CFM	SP	TYPE	OPENING	OUTLET	INTERLOCKED	ACCES.	MOTOR HP	VOLT	Φ	MODEL
EF-1,2,3,4	BATHROOM	100	0.18"	CEILING	13-¼" x 10-⅝"	8x6	SWITCH. SEE ELECTRICAL	2,6	FRAC	115	1	GREENHECK SP-A110
EF-5,6,7	BATHROOM	50	0.1"	CEILING	13-¼" x 10-⅝"	6"ø	SWITCH. SEE ELECTRICAL	2,6	FRAC	115	1	GREENHECK SP-A50
EF-8.9.10	MEZZANINE	800	0.458"	INLINE	10" X 12"	6"ø	SWITCH. SEE ELECTRICAL	1,2,3	1/6	115	1	GREENHECK SQ-120

ACCESSORIES: 1) BACKDRAFT DAMPER 2) DISCONNECT 3) BIRDSCREEN 4) PRE FAB ROOF CURB 5) MOTORIZED DAMPER 6) CEILING GRILLE 7) DOOR MICRO SWITCH

EQUALS: ACME, PENN, COOK, CARNES

2 M101 HP-3,4,5,6 SCHEMATIC

SCALE: NONE

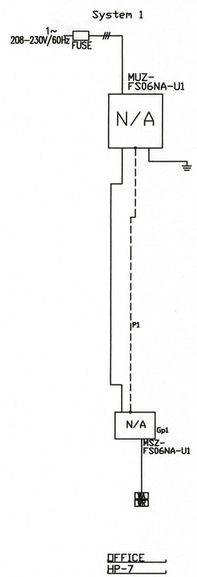
GRAYTON BEACH STORAGE

DIAGRAM SYMBOL LEGEND		CONT.No	PAGE
DISPLAY	DESCRIPTION		
-//-	POWER WIRE		
———	CONTROL WIRE		
— —	REF. PIPE		

CITY MULTI

SYSTEM SCHEMATIC DWG.

Additional refrigerant charge is needed depending on the size and length of extended piping. Please refer the amount of pre-charge and the formula of calculation which is mentioned on the data book.
1.25mm²(16 AWG) : 1.25mm²(16 AWG) or more. 0.75mm²(20 AWG) : between 0.5mm²(24 AWG) and 0.75mm²(20 AWG).



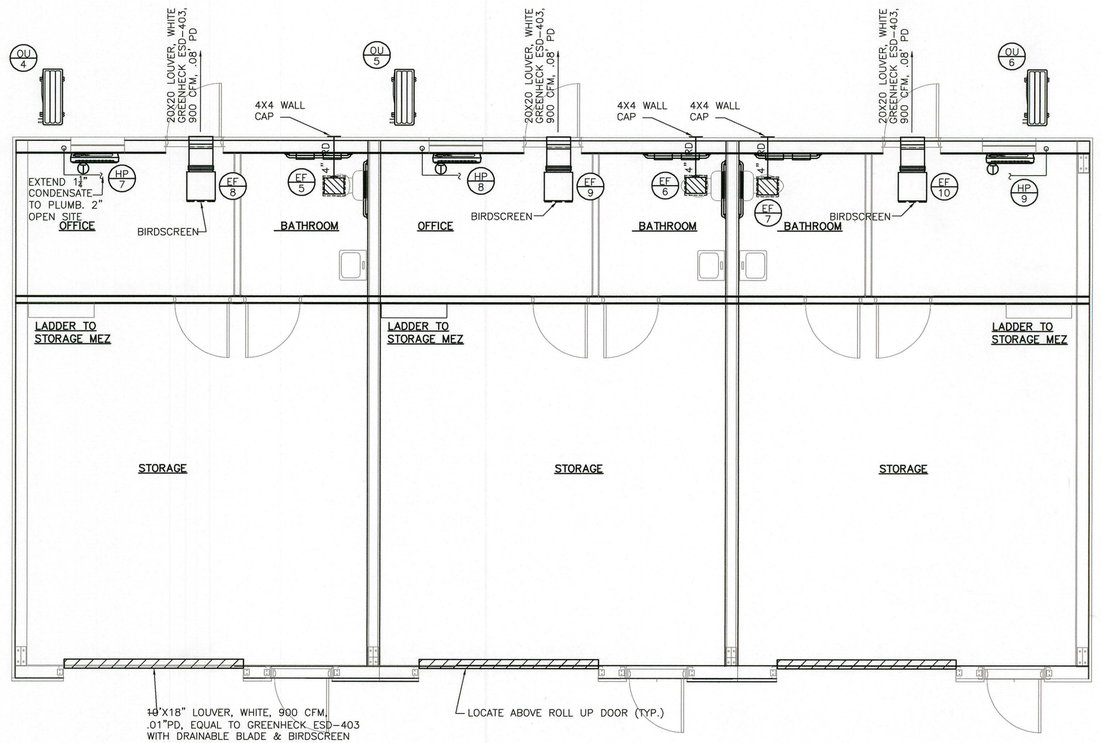
PIPING AND CONTROLS	
SYMBOL	LIQUID PIPE/GAS PIPE SIZE
P1	1/4 / 3/8

4.1.1.7
Mitsubishi Electric
Diamond System Builder
11/1/2022
11:27 AM

REMARKS
Comments:

3 M101 HP-7,8 & 9

SCALE: NONE



1 M101 STORAGE BLDG. - HVAC PLAN

SCALE: 1/4"=1'-0"

STEPHENS MECHANICAL ENGINEERING LLC.
925 TOMMY MUNRO DR, SUITE B
BILOXI, MS 39532
FLCA: 30951
LAWRENCE STEPHENS P.E.
FL PE: 63259

WORK SHALL COMPLY WITH THE 2023 FBC

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925 TOMMY MUNRO DR., SUITE B
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207 3346 FAX
LES@STEPHENSMECHENG.COM
MECHANICAL ENGINEERING LLC.

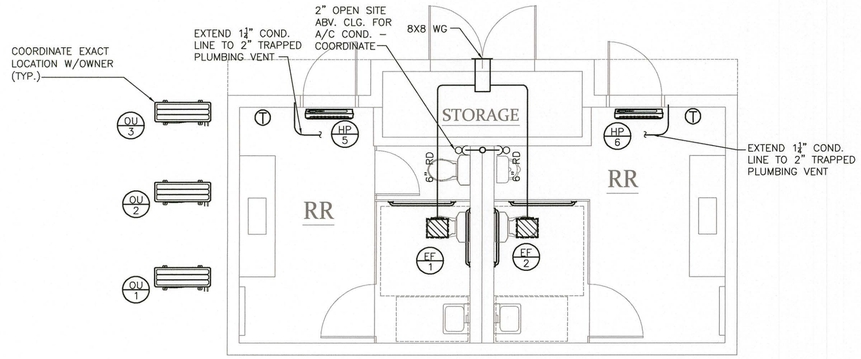
GRAYTON BEACH TRANSIT AUTHORITY
WALTON COUNTY FLORIDA
HVAC PLAN AND SCHEDULES

LAWRENCE E. STEPHENS LICENSE No. 63259 STATE OF FLORIDA PROFESSIONAL ENGINEER

JOB NO.	JOB No.
DATE:	02.17.24
DRAWN BY:	MDH
DESIGNED BY:	MDH
CHECKED BY:	LES

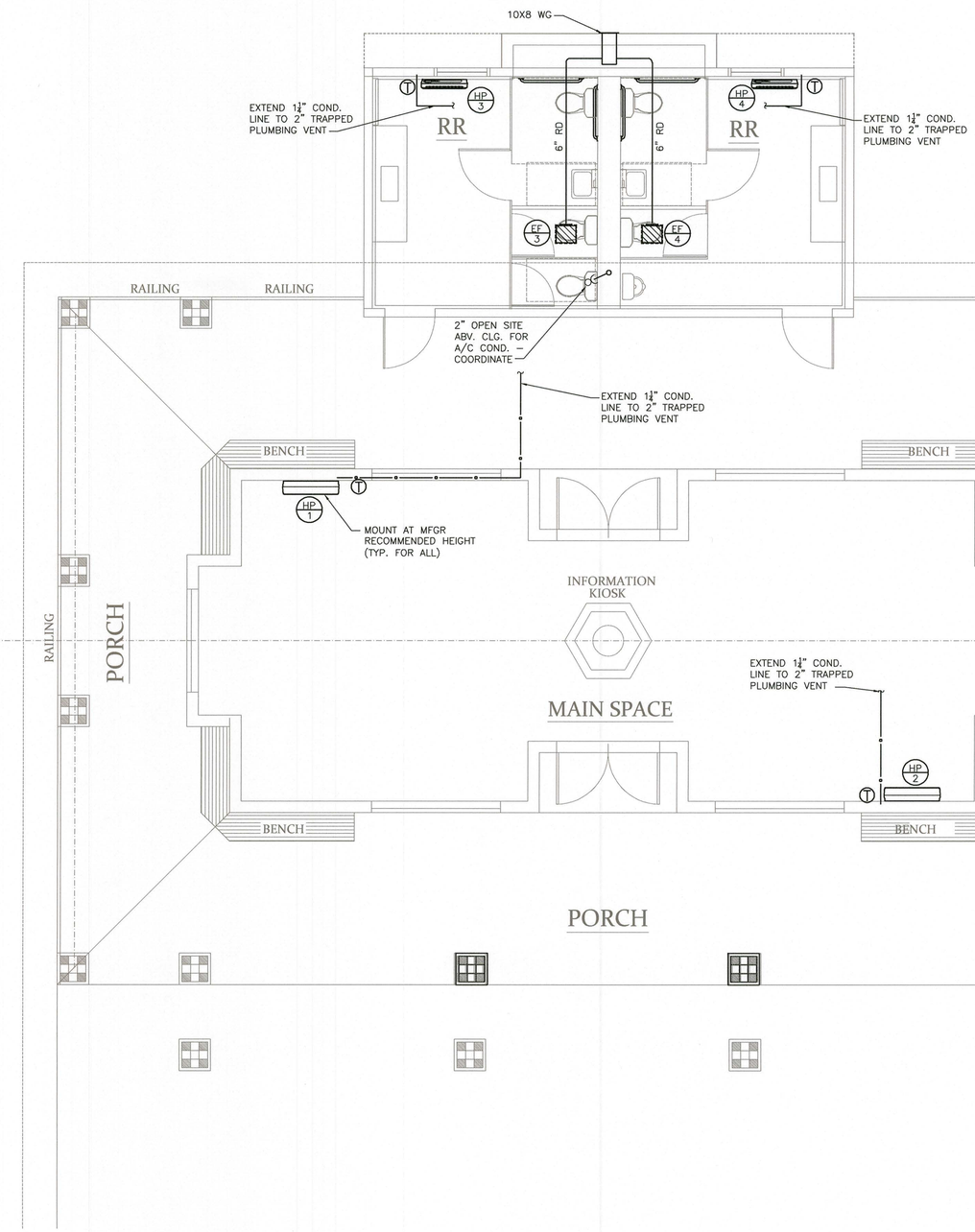
SHEET NUMBER
M100

SHEET COUNT
1 OF 2



1 / M101 LOWER FLOOR HVAC PLAN

SCALE: 1/4"=1'-0"



PFK

DIAGRAM SYMBOL LEGEND		CONT.No	PAGE
DISPLAY	DESCRIPTION		
///	POWER WIRE		
— —	CONTROL WIRE		
— —	REF. PIPE		

CITY MULTI

SYSTEM SCHEMATIC DWG.

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1.25mm²(16 AWG) : 1.25mm²(16 AWG) or more. 0.75mm²(20 AWG) : between 0.5mm²(24 AWG) and 0.75mm²(20 AWG).

PIPING AND CONTROLS	
SYMBOL	DESCRIPTION
P1	3/8" / 5/8"
P2	1/4" / 1/2"
SYMBOL	FIELD WORKS
CR	PAC-IF53CRF-J

4117
Mitsubishi Electric
Diamond System Builder
11/3/2022
1:57 PM

MAIN SPACE	MAIN SPACE
HP-1	HP-2

3 / M101 HP-1 & 2 SCHEMATIC

SCALE: NONE

2 / M101 UPPER FLOOR HVAC PLAN

SCALE: 1/4"=1'-0"

STEPHENS MECHANICAL ENGINEERING LLC.
925 TOMMY MUNRO DR, SUITE B
BILOXI, MS 39532
FLCA: 30951
LAWRENCE STEPHENS P.E.
FL PE: 63259

WORK SHALL COMPLY WITH THE 2023 FBC

STEPHENS
MECHANICAL ENGINEERING LLC.
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GRAYTON BEACH
TRANSIT AUTHORITY
WALTON COUNTY FLORIDA

HVAC PLANS AND SCHEMATIC

LAWRENCE E. STEPHENS
LICENSE
No. 63259
STATE OF FLORIDA
PROFESSIONAL ENGINEER
2-17-24

JOB NO.	JOB No.
DATE:	02.17.2024
DRAWN BY:	MDH
DESIGNED BY:	MDH
CHECKED BY:	LES

SHEET NUMBER
M101

SHEET COUNT
2 OF 2

ELECTRICAL LEGEND

LIGHTING

- SURFACE MOUNT, STRIP FIXTURE
- SURFACE MOUNT, WRAP FIXTURE
- RECESSED CEILING FIXTURE
- RECESSED CEILING FIXTURE - WALL WASH
- BATTERY BACKUP EMERGENCY/EGRESS FIXTURE
- BATTERY BACKUP EMERGENCY/EXIT FIXTURE
- BATTERY BACKUP COMBO EMERGENCY/EXIT FIXTURE
- WALL MOUNTED FIXTURE
- WALL MOUNTED FIXTURE
- POLE AND POLE MOUNTED FIXTURE
- CEILING FAN

CONDUIT AND WIRE

- FLEXIBLE CONDUIT, SEALTITE AT WET LOCATIONS
- CONDUIT CONCEALED IN WALL OR ABOVE CEILING
- CONDUIT BELOW FLOOR OR CONCEALED IN WALL
- CONDUIT EXPOSED
- CIRCUIT CONDUCTORS IN CONDUIT
- MULTIPLE CIRCUIT CONDUCTORS IN CONDUIT WITH NEUTRALS
- GROUND CONDUCTORS IN CONDUIT
- CONDUIT UP
- CONDUIT DOWN
- XX-XX CIRCUIT HOMERUN TO PANEL BOARD. XX-XX DENOTES PANEL NAME AND CIRCUIT NUMBER
- CONTINUATION OF CONDUIT RUN

SWITCHES

- SINGLE POLE SWITCH - 20A, 120/277V, +48" AFF, UNLESS NOTED
- THREE WAY SWITCH - 20A, 120/277V +48" AFF, UNLESS NOTED
- DIMMER SWITCH +48" AFF, UNLESS NOTED
- 2-POLE SWITCH, MOUNT NEXT TO EQUIPMENT SERVED, UNLESS NOTED
- SINGLE POLE FAN SWITCH - 20A, 120/277V, +48" AFF, UNLESS NOTED
- PHOTO ELECTRIC CONTROL, MOUNT AT BUILDING FACADE, UNLESS NOTED
- MOTION SENSOR SWITCH, WALL MOUNT 48" AFF
- SB SWITCHBANK. SEE DETAIL.

COMMUNICATIONS

- DATA OUTLET - ROUGH-IN +18" AFF, UNLESS NOTED
- COMBO DATA/TELEPHONE OUTLET - ROUGH-IN +18" AFF, UNLESS NOTED

SWITCHGEAR

- JUNCTION BOX
- NON FUSED SAFETY SWITCH NEMA 3R AT WET LOCATIONS
- FUSED SAFETY SWITCH NEMA 3R AT WET LOCATIONS
- LIGHT AND POWER PANELBOARD
- T TRANSFORMER
- METER
- C MULTI-POLE CONTACTOR
- TC TIME CLOCK
- SPECIAL ELECTRICAL CONNECTION
- WH WATER HEATER ELECTRICAL CONNECTION
- EF EX. FAN ELECTRICAL CONNECTION
- AC AIR-HANDLER UNIT ELECTRICAL CONNECTION
- CU CONDENSING UNIT ELECTRICAL CONNECTION

DEVICES

- SINGLE RECEPTACLE - 20A, 120V
- DUPLEX RECEPTACLE - 20A, 120V
- QUADRAPLEX RECEPTACLE - 20A, 120V
- G GFI DUPLEX RECEPTACLE - 20A, 120V
- WR GFI, WEATHER RESISTANT DUPLEX RECEPTACLE - 20A, 120V WITH IN-USE WEATHERPROOF COVER
- 30 SINGLE RECEPTACLE - 30A, 120V

MOUNT ALL DEVICES AT +18" AFF, UNLESS NOTED OTHERWISE.

* - DEVICES MOUNTED ABOVE COUNTER HEIGHTS SHALL BE 6" ABOVE BACKSPLASH.

COORDINATE WITH PLUMBING FOR INSTALLATION OF DEVICES AT INSTANT WATER HEATERS. INSTALL TO BE CONCEALED BY GUARD OR MILLWORK BELOW SINKS.

LUMINAIRE SCHEDULE

MARK	LAMPS	MOUNTING	DESCRIPTION	MANUFACTURER	EQUALS
C1	LED	RECESSED CEILING	LED, 4" RECESSED DOWNLIGHT, BLACK FINISH	GOTHAM EVO4-35/15-AR-LSS-MWD-MVOLT-GZ10-TRBL	OR APPROVED EQUAL
C1E	LED	RECESSED CEILING	LED, 4" RECESSED DOWNLIGHT, BLACK FINISH, W/ EMERGENCY	GOTHAM EVO4-35/15-AR-LSS-MWD-MVOLT-GZ10-ELSD-TRBL	OR APPROVED EQUAL
C2	LED	RECESSED CEILING	LED, 4" RECESSED DOWNLIGHT, WALL WASH, DIMMABLE, BLACK FINISH	GOTHAM EVO4WW-35/15-AR-LSS-MVOLT-GZ1-TRBL	OR APPROVED EQUAL
CF1		PENDANT; VERIFY HEIGHT	60" INTERIOR CEILING FAN, BLACK FINISH	BIG ASS FANS MK-ES62-052306-A786-IXX	OR APPROVED EQUAL
D1	LED	SURFACE CEILING	LED, 14" SQUARE SURFACE MOUNT DOWNLIGHT, WET LOCATION RATED, BLACK FINISH	JUNO JSFSQ-14IN 18LM-35K-90CRI-MVOLT ZT-BL	OR APPROVED EQUAL
D1E	LED	SURFACE CEILING	LED, 14" SQUARE SURFACE MOUNT DOWNLIGHT, WET LOCATION RATED, BLACK FINISH, W/ EMERGENCY	JUNO JSFSQ-14IN 18LM-35K-90CRI-MVOLT ZT-BL-E10WLCP	OR APPROVED EQUAL
EWP	LED	WALL; ABOVE DOOR	EMERGENCY/EGRESS FIXTURE, EXTERIOR, BLACK FINISH	ISOLITE OWL-EM-BZ-MB	OR APPROVED EQUAL
L1	LED	SURFACE CEILING	LED, 4' LINEAR SURFACE WRAP, POLYCARBONATE LENS	KENALL LMHA5-48-R-MB-PP-1-45L35K-DCC-1-DV	OR APPROVED EQUAL
L1E	LED	SURFACE CEILING	LED, 4' LINEAR SURFACE WRAP, POLYCARBONATE LENS, W/ EMERGENCY	KENALL LMHA5-48-R-MB-PP-1-45L35K-DCC-1-DV-LEL	OR APPROVED EQUAL
L2	LED	SURFACE CEILING	LED, 4' VOLUMETRIC SURFACE WRAP, ACRYLIC LENS	LITHONIA STL4-48L-GZ10-LP835	OR APPROVED EQUAL
L2E	LED	SURFACE CEILING	LED, 4' VOLUMETRIC SURFACE WRAP, ACRYLIC LENS, W/ EMERGENCY	LITHONIA STL4-48L-GZ10-LP835-E10WLCP	OR APPROVED EQUAL
S1	LED	SURFACE/STRUCTURE	LED, 4' STRIP FIXTURE	LITHONIA ZL1D-L48-SMR-3000LM-FST-MVOLT-35K-80CRI-WH	OR APPROVED EQUAL
S1E	LED	SURFACE/STRUCTURE	LED, 4' STRIP FIXTURE, W/ EMERGENCY	LITHONIA ZL1D-L48-SMR-3000LM-FST-MVOLT-35K-80CRI-E7W-WH	OR APPROVED EQUAL
V1	LED	WALL; ABOVE MIRROR	LED, 4' VANITY FIXTURE	LITHONIA WL4-40L-EZ1-LP835	OR APPROVED EQUAL
W1	LED	WALL; TOP OF COLUMN	LED, EXTERIOR WALL MOUNTED CYLINDER; MOUNTED AT TOP OF COLUMN, BLACK FINISH	GOTHAM EVO6WCWW-35/25-AR-LSS-MVOLT-TZ10-JBXCC-DN-WL-DBL	OR APPROVED EQUAL
W2	LED	WALL; VERIFY HEIGHT	LED, WALL MOUNTED UP/DOWN CYLINDER; MOUNTED AT CLERESTORY, BLACK FINISH	GOTHAM ICO4UDWC-35/25-AR-LSS-30D-U15LM-U30D-MVOLT-TZ10-JBX-DBL	OR APPROVED EQUAL
W3E	LED	WALL; ABOVE DOOR	LED, EXTERIOR WALL PACK, BLACK FINISH, W/ EMERGENCY	LITHONIA WDGE2-LED-P4-35K-90CRI-VW-MVOLT-E1-WH	OR APPROVED EQUAL
XE	RED LED	WALL/CEILING	COMBO EXIT/EMERGENCY EGRESS - 1 SIDE - BLACK HOUSING	ISOLITE RLP-R-U-BK-MTEB-SD	OR APPROVED EQUAL

NOTE: LUMINAIRES WITH "E" DESIGNATION SHALL HAVE INTEGRAL EMERGENCY BALLAST. CONNECT EMERGENCY BALLAST ONLY AHEAD OF ANY SWITCHING. NORMAL BALLAST TO BE SWITCHED AS INDICATED, UNLESS NOTED OTHERWISE.

WELCON
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Project Name and Address
GRAYTON BEACH
TRANSIT AUTHORITY
WALTON COUNTY, FLORIDA

Sheet Title
ELECTRICAL LEGEND, NOTES, AND
LUMINAIRE SCHEDULE

No.	Date	Revision

Seal

Project No.	22-SM-06
Date	3/6/2024
Drawn By	JWH
Checked By	GPW
Scale	AS SHOWN

Drawing No.
EB000
1 of 7 Sheets

ELECTRICAL GENERAL NOTES AND SPECIFICATIONS

BASIC ELECTRICAL REQUIREMENTS

1. ALL ELECTRICAL WORK TO CONFORM TO CURRENT EDITIONS OF ALL FLORIDA BUILDING CODES.
2. ALL WORK PERFORMED UNDER THIS DIVISION SHALL BE INSPECTED AND APPROVED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
3. CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS PRIOR TO BIDDING WORK. NO ADDITIONAL SCOPE WILL BE AUTHORIZED DUE TO LACKING OF UNDERSTANDING ON EXISTING CONDITIONS.
4. CONTRACTOR SHALL VERIFY WITH UTILITY COMPANIES FOR SERVICE ENTRANCE REQUIREMENTS TO THE BUILDING/FACILITY. SERVICE ENTRANCES TO BE INSTALLED PER RESPECTIVE UTILITY COMPANY REQUIREMENTS.
5. PROVIDE FOR ALL PERMITTING AND INSPECTIONS. INCLUDE PAYMENT OF ALL PERMIT AND INSPECTION FEES APPLICABLE THE WORK IN THIS DIVISION.
6. PROVIDE ONE YEAR WARRANTY, RECORD (AS-BUILT) DRAWINGS, AND OPERATION/MAINTENANCE MANUALS ON ALL ELECTRICAL EQUIPMENT AND LIGHTING.
7. DURING CONSTRUCTION, THE CONTRACTOR SHALL EXERCISE CARE AND TAKE APPROPRIATE PRECAUTIONARY MEASURES TO PREVENT ANY DAMAGE TO THE EXISTING STRUCTURES, SIDEWALKS, UTILITIES, COMMUNICATIONS, ETC. DURING THE PROJECT. THE CONTRACTOR SHALL CORRECT ALL DAMAGE CAUSED BY OR DURING THE PROJECT. CONTRACTOR SHALL PROVIDE NOT LESS THAN (2) AND NOT MORE THAN (10) WORKING DAYS ADVANCE WRITTEN, ELECTRONIC, OR TELEPHONIC NOTICE OF THE COMMENCEMENT, EXTENT, LOCATION AND DURATION OF THE EXCAVATION WORK TO FLORIDA ONE-CALL SYSTEM AND ANY NONMEMBERS OPERATOR(S) OF ANY UNDERGROUND UTILITY LINES OR UNDERGROUND FACILITIES IN AND NEAR THE EXCAVATION AREA, SO THAT THE ONE-CALL SYSTEM, INC OPERATOR(S) AND ANY NON-MEMBER OPERATOR(S) MAY LOCATE AND MARK THE LOCATION OF UNDERGROUND UTILITY LINES AND UNDERGROUND FACILITIES IN THE EXCAVATION AREA.
8. PROVIDE FOR AND INSTALL TEMPORARY LIGHTING AND POWER. COORDINATE WITH OWNER OR UTILITY COMPANY FOR CONNECTIONS. ALL TEMPORARY LIGHTING AND POWER SHALL CONFORM TO OSHA STANDARDS AND ALL CODE REQUIREMENTS.
9. WORKERS POSSESSING THE SKILLS AND EXPERIENCE OBTAINED IN PERFORMING WORK OF SIMILAR SCOPE AND COMPLEXITY SHALL PERFORM THE WORK OF THIS DIVISION.
10. FOR PURPOSES OF CLEARNESS AND LEGIBILITY, DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND THE SIZE AND LOCATION OF EQUIPMENT IS INDICATED TO SCALE WHENEVER POSSIBLE. VERIFY CONDITIONS, DIMENSIONS, INDICATED EQUIPMENT SIZES, AND MANUFACTURER'S DATA AND INFORMATION AS NECESSARY TO INSTALL THE WORK OF THIS DIVISION. COORDINATE LOCATION AND LAYOUT WITH OTHER WORK.
11. DRAWINGS INDICATE REQUIRED SIZE AND POINTS OF TERMINATION OF CONDUITS, NUMBER AND SIZE OF CONDUCTORS, AND DIAGRAMMATIC ROUTING OF CONDUIT. INSTALL CONDUITS WITH MINIMUM NUMBER OF BENDS TO CONFORM TO STRUCTURE, AVOID OBSTRUCTIONS, PRESERVE HEADROOM, KEEP OPENINGS AND PASSAGEWAYS CLEAR, AND COMPLY WITH APPLICABLE CODE REQUIREMENTS.
12. OUTLET LOCATIONS SHALL BE COORDINATED WITH ARCHITECTURAL ELEMENTS PRIOR TO START OF CONSTRUCTION. LOCATIONS INDICATED ON THE DRAWINGS MAY BE DISTORTED FOR CLARITY. WHERE INSTALLED AT MILLWORK, OUTLETS SHALL BE LOCATED IN KNEE SPACE OR ABOVE COUNTERTOP.
13. COORDINATE ELECTRICAL WORK WITH ALL OTHER WORK.
14. THE SCOPE OF THE ELECTRICAL WORK INCLUDES FURNISHING, INSTALLING TESTING AND WARRANTY OF ALL ELECTRICAL WORK AND COMPLETE ELECTRICAL SYSTEMS SHOWN ON THE ELECTRICAL DRAWINGS AND SPECIFIED HEREIN.
15. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL ELECTRICAL SYSTEMS TO PROVIDE A COMPLETE PACKAGE AS INDICATED BY THE CONTRACT DOCUMENTS. THE DOCUMENTS ARE INTENDED TO PROVIDE AN OUTLINE FOR THE REQUIRED INSTALLATIONS. THE CONTRACTOR SHALL ULTIMATELY PROVIDE A COMPLETE AND OPERATIONAL SYSTEM AT THE CONCLUSION OF THE PROJECT.
16. DETAILS ARE PROVIDED AS THEY RELATE TO THE INSTALLATION. CONTRACTOR SHALL PROVIDE AND INSTALL ALL MISCELLANEOUS COMPONENTS, PARTS, MATERIALS, FASTENERS, SPLICES, AND ANY OTHER INCIDENTAL ITEMS NECESSARY TO PROVIDE A COMPLETE INSTALLATION.
17. ELECTRICAL CONNECTIONS INDICATED ON DRAWINGS SHALL INCLUDE WIRING, INSTALLATION, CONNECTION AND ADJUSTMENT. REQUIRED ELECTRICAL CONNECTIONS SHALL BE PERFORMED FOR SUCH EQUIPMENT AND APPLIANCES. WORK SHALL INCLUDE FURNISHING AND INSTALLING SUITABLE OUTLETS, DISCONNECTING DEVICES, STARTERS, PUSH-BUTTON STATIONS, SELECTOR SWITCHES, CONDUIT, JUNCTION BOXES, AND WIRING NECESSARY FOR A COMPLETE ELECTRICAL INSTALLATION.
18. PROTECT MATERIALS AND EQUIPMENT FROM DAMAGE AND PROVIDE ADEQUATE AND PROPER STORAGE FACILITIES DURING PROGRESS OF THE WORK. DAMAGED MATERIALS AND/OR EQUIPMENT SHALL BE REPLACED. REMOVE RUBBISH, DEBRIS, AND WASTE MATERIALS AND LEGALLY DISPOSE OF OFF THE PROJECT SITE.
19. REMOVE GREASE AND OIL SPOTS WITH SOLVENT. SUCH SURFACES SHALL BE WIPED AND CORNERS AND CRACKS SCRAPED OUT. EXPOSED ROUGH METAL SHALL BE SMOOTH, FREE OF SHARP EDGES, CAREFULLY STEEL BRUSHED TO REMOVE RUST AND OTHER SPOTS, AND LEFT IN PROPER CONDITION TO RECEIVE FINISH PAINTING.
20. ADVISE THE GENERAL CONTRACTOR OR ARCHITECT BEFORE STARTING THE WORK OF THIS DIVISION.
21. EXPOSED CONDUITS SHALL BE PAINTED TO MATCH THE SURFACES ADJACENT TO INSTALLATION. REFER TO PAINTING AND COATING SECTION OF SPECIFICATIONS.
22. VERIFY ALL DIMENSIONS AND CLEARANCES WITH ARCHITECT AND OWNER.
23. SEAL ALL WALL PENETRATIONS WITH AN APPROVED CAULK COMPOUND EQUAL TO 3M FIRE BARRIER CAULK.
24. COORDINATE PHASING OF WORK WITH ARCHITECTURAL DRAWINGS AND OTHER TRADES / DISCIPLINES FOR ELECTRICAL INSTALLATIONS.
25. NOTIFY THE ENGINEER IMMEDIATELY OF ANY PLAN DISCREPANCIES PRIOR TO PROCEEDING WITH ROUGH-IN OR TRIM OUT.

BASIC ELECTRICAL MATERIALS, BOXES, CONDUIT, WIRING, AND GROUNDING

1. BOXES INSTALLED IN CONCEALED WORK SHALL BE GALVANIZED STEEL, PRESSED, OR WELDED TYPE, WITH KNOCKOUTS.
2. BOXES SHALL BE 4-INCH OCTAGON, 4-INCH SQUARE, 2-1/8 INCHES DEEP OR LARGER, DEPENDING UPON NUMBER OF CONDUCTORS OR CONDUITS THEREIN, UNLESS NOTED OTHERWISE. PLASTER OR TILE RINGS SHALL BE FURNISHED FOR SUITABLE MOUNTING OF LIGHT FIXTURE. PROVIDE SUITABLE COVERS FOR ALL BOXES.
3. JUNCTION AND PULL BOXES, IN ADDITION TO THOSE INDICATED, SHALL ONLY BE USED IN COMPLIANCE WITH CODES, RECOGNIZED STANDARDS, AND CONTRACT DOCUMENTS. PROVIDE NEMA 3R WHERE INSTALLED OUTDOORS OR SUBJECT TO MOISTURE. PROVIDE POLYMER CONCRETE PULL BOXES AS REQUIRED WHERE INSTALLED AT EXTERIOR AND AT GRADE LEVEL. PROVIDE SUITABLE COVERS FOR ALL BOXES.
4. ALL CONDUIT IN SLAB AND UNDERGROUND TO BE PVC SCH. 40.
5. ALL INTERIOR CONDUITS CONCEALED IN WALLS, ABOVE CEILINGS, OR IN EXPOSED STRUCTURE SHALL BE EMT WITH COMPRESSION FITTINGS FOR CONDUITS 1" AND SMALLER, CONDUITS 1-1/4" AND ABOVE SHALL HAVE STEEL SET-SCREW FITTINGS. METAL-CLAD (MC) CABLE MAY ONLY BE USED FOR FLEX CONNECTIONS TO LIGHT FIXTURES WHERE INSTALLED ABOVE LAY-IN ACOUSTICAL CEILINGS OR WHERE INSTALLED CONCEALED WITHIN BUILDING PURLING AT ROOF.
6. ALL EXPOSED CONDUITS SHALL BE GALVANIZED RIGID TO 10 FEET ABOVE FINISHED FLOOR WHEN INSTALLED IN AREAS SUSCEPTIBLE TO DAMAGE.
7. ALL CONDUITS SHALL BE INSTALLED PARALLEL AND PERPENDICULAR TO BUILDING STRUCTURE. DO NOT INSTALL CONDUITS AT "ANGLED" / "STRAIGHT-RUNS" BETWEEN BOXES.
8. FEEDER CONDUITS SHALL BE PVC BELOW GRADE, GRC ELBOWS AND RISERS UP TO PANELS FROM BELOW GRADE, OR EMT WHERE INSTALLED OVERHEAD AND COMPLETELY INDOORS, UNLESS NOTED OTHERWISE.
9. ALL WIRING SHALL BE COPPER.
10. ALL WIRING SHALL BE #12 AWG MINIMUM, THHN/THWN, UNLESS NOTED OTHERWISE.
11. ALL WIRING SHALL BE CONDUCTOR TYPE THHN OR THWN INSULATED WITH POLYVINYL CHLORIDE AND COVERED WITH A PROTECTIVE SHEATH OF NYLON, RATED AT 600 VOLTS. WIRES SHALL BE LISTED BY UNDERWRITER'S LABORATORIES (UL) FOR INSTALLATION IN ACCORDANCE WITH ARTICLE 310 OF THE NATIONAL ELECTRICAL CODE (NEC). CONDUCTORS MAY BE SOLID OR STRANDED COPPER FOR 12 AWG AND SMALLER CONDUCTORS, AND STRANDED COPPER FOR 10 AWG AND LARGER CONDUCTORS. CONDUCTORS SHALL BE INSULATED WITH PVC AND SHEATHED WITH NYLON.
12. GROUNDING SHALL BE INSTALLED PER NEC SECTION 250.
13. METALLIC OBJECTS ON THE PROJECT SITE THAT ENCLOSE ELECTRICAL CONDUCTORS, OR THAT ARE LIKELY TO BE ENERGIZED BY ELECTRICAL CURRENTS, SHALL BE EFFECTIVELY GROUNDED.
14. METAL EQUIPMENT PARTS, SUCH AS ENCLOSURES, RACEWAYS, AND EQUIPMENT GROUNDING CONDUCTORS, AND EARTH GROUNDING ELECTRODES SHALL BE SOLIDLY JOINED TOGETHER INTO A CONTINUOUS ELECTRICALLY CONDUCTIVE SYSTEM.
15. METALLIC SYSTEMS SHALL BE EFFECTIVELY BONDED TO THE MAIN GROUNDING ELECTRODE SYSTEM.
16. ELECTRICAL CONTINUITY TO GROUND METAL RACEWAYS AND ENCLOSURES, ISOLATED FROM EQUIPMENT GROUND BY INSTALLATION OF NON-METALLIC CONDUIT OR FITTINGS, SHALL BE PROVIDED BY A GREEN INSULATED GROUNDING CONDUCTOR OF REQUIRED SIZE WITHIN EACH RACEWAY CONNECTED TO ISOLATED METALLIC RACEWAYS, OR ENCLOSURES AT EACH END. EACH FLEXIBLE CONDUIT OVER 6 FEET IN LENGTH SHALL BE PROVIDED WITH A GREEN INSULATED GROUNDING CONDUCTOR OF REQUIRED SIZE.
17. COLD WATER, OR OTHER UTILITY PIPING SYSTEMS, SHALL NOT BE UTILIZED AS GROUNDING ELECTRODES DUE TO THE INSTALLATION OF INSULATING COUPLINGS AND NON-METALLIC PIPE IN SUCH INSTALLATIONS.
18. NON-CURRENT CARRYING METAL PARTS OF ELECTRICAL EQUIPMENT, PANELS, EQUIPMENT CABINETS, AND METAL FRAMES OF BUILDINGS SHALL BE PERMANENTLY AND EFFECTIVELY GROUNDED. PROVIDE A NEC SIZED GROUNDING CONDUCTOR IN EVERY RACEWAY.
19. NEUTRAL OF SERVICE CONDUCTORS SHALL BE GROUNDED AS FOLLOWS: NEUTRAL SHALL BE GROUNDED AT THE SERVICE PANELBOARD, OR MAIN SWITCH, EQUIPMENT AND CONDUIT GROUNDING CONDUCTORS SHALL BE BONDED TO THIS GROUNDING POINT, FEEDER NEUTRALS SHALL BE BONDED AT SERVICE ENTRANCE POINT ONLY, NEUTRALS OF SEPARATELY DERIVED SYSTEMS SHALL BE BONDED AT THE SOURCE ONLY.
20. WITHIN EVERY BUILDING, THE MAIN PANELBOARD, SHALL BE BONDED TO THE COLD WATER LINE. METALLIC PIPING SYSTEMS SUCH AS GAS, FIRE SPRINKLER, OR OTHER SYSTEMS SHALL BE BONDED TO THE COLD WATER LINE.
21. GROUNDING ELECTRODES SHALL BE COPPER-CLAD STEEL GROUND RODS, MINIMUM 3/4 INCH DIAMETER BY 10 FEET LONG. INSTALL ADDITIONAL ELECTRODES WHERE GROUND REMAINS HIGHER THAN 25 OHMS. INSTALL GROUNDING ELECTRODES AS NOTED ON DRAWINGS.
22. GROUNDING CONDUCTORS SHALL BE COPPER, #12 MINIMUM WITH GREEN INSULATION, UNLESS NOTED OTHERWISE.
23. GROUND TAILS SHALL BE COPPER, #12 MINIMUM WITH GREEN INSULATION, INSTALLED IN ALL METALLIC JUNCTION BOXES WHERE DEVICES ARE BEING INSTALLED. BRANCH CIRCUIT GROUND, JUNCTION BOX, AND DEVICES SHALL BE BONDED AT EACH JUNCTION BOX.

WIRING DEVICES

1. RECEPTACLES SHALL COMPLY WITH NEMA WD 1, NEMA WD 6, AND UL 498.
2. SWITCHES SHALL COMPLY WITH NEMA WD 1 AND UL 20.
3. DUPLEX RECEPTACLES SHALL BE HEAVY-DUTY SPECIFICATION GRADE, GROUNDING TYPE. TERMINAL SCREWS SHALL BE BACK AND SIDE WIRED WITH INTERNAL SCREW PRESSURE PLATES. MOUNTING STRAP SHALL FEATURE HEAVY-DUTY BRASS CONSTRUCTION. RECEPTACLE BACK BODY SHALL BE PVC. RECEPTACLE FACE SHALL BE IMPACT RESISTANT NYLON. RECEPTACLES SHALL HAVE TRIPLE WIPE BRASS POWER CONTACTS.
4. PROVIDE SPECIFICATION GRADE GROUND-FAULT CIRCUIT INTERRUPTER (GFCI) TYPE RECEPTACLES IN ACCORDANCE WITH UL STANDARDS. GFCI RECEPTACLES SHALL HAVE A TRIP INDICATION LIGHT. RECEPTACLE TERMINAL SCREWS SHALL BE BACK AND SIDE WIRE WITH INTERNAL SCREW PRESSURE PLATES. TEST AND RESET BUTTONS SHALL MATCH DEVICE BODY IN COLOR. GFCI RECEPTACLES SHALL BE MANUFACTURED IN STANDARD CONFIGURATION FOR INSTALLATION WITH STAINLESS STEEL SMOOTH PLATES. EXTERIOR MOUNTED RECEPTACLES SHALL BE MOUNTED INSIDE WEATHERPROOF ENCLOSURE.
5. FOR EQUIPMENT RECEPTACLES, PROVIDE 2-WIRE OR 3-WIRE, GROUNDING TYPE, RATED 30 OR 50 AMPS AT 125/250 VOLTS, NEMA RATING AS NOTED ON DRAWINGS OR AS REQUIRED FOR EQUIPMENT, WITH 2-GANG STAINLESS STEEL PLATES.
6. PROVIDE LOCAL SWITCHES, HIGH STRENGTH THERMOPLASTIC TOGGLE, SPECIFICATION GRADE, RATED 20 AMPS AT 120-277 VOLTS AC ONLY, WITH PLASTER EARS, EXTERNAL SCREW PRESSURE PLATE BACK AND SIDE WIRED, AND STANDARD SIZE COMPOSITION CUPS WHICH FULLY ENCLOSE MECHANISM. SWITCHES SHALL BE APPROVED FOR INSTALLATION AT CURRENTS UP TO FULL RATING ON RESISTIVE, INDUCTIVE, TUNGSTEN FILAMENT LAMP AND FLUORESCENT LAMP LOADS, AND FOR UP TO 80 PERCENT OF RATING FOR MOTOR LOADS. SWITCHES SHALL HAVE OVERSIZED SILVER ALLOY CONTACTS FOR LONG LIFE AND BETTER HEAT DISSIPATION. PROVIDE SWITCHES AS SINGLE POLE, DOUBLE POLE, 3-WAY, 4-WAY, NON-LOCK TYPE.
7. PROVIDE DIMMER SWITCHES, SPECIFICATION GRADE, SLIDE TYPE DIMMER TO BE COMPLETELY COMPATIBLE WITH LIGHTING LOAD BEING SERVED. 1000 WATT MINIMUM RATING.
8. WHERE NOTED, PROVIDE OCCUPANCY SENSOR SWITCHES (CEILING OR WALL MOUNT). SWITCHES SHALL BE DUAL TECHNOLOGY WITH INPUT VOLTAGE AND LOAD CHARACTERISTICS SUITABLE FOR LOADS BEING SERVED.
9. PROVIDE STAINLESS STEEL FACEPLATE ON ALL DEVICES.
10. WHERE DEVICES ARE TO BE INSTALLED AT MILLWORK OR ABOVE COUNTERS, COORDINATE WITH ARCHITECT FOR DEVICE HEIGHTS AND LOCATIONS PRIOR TO ROUGH-IN. INSTALL OUTLETS TO BE IN KNEE SPACE AREA OR IN AREA THAT WILL BE ACCESSIBLE AFTER MILLWORK IS COMPLETED.

PANELBOARDS AND SAFETY SWITCHES

1. PROVIDE ENGRAVED NAMEPLATE LABEL FOR ALL PANELBOARDS, SWITCHES (WHERE NOTED), DISCONNECTS, STARTERS, AND ANY EQUIPMENT NOTED OR REQUIRING NAMEPLATE IDENTIFICATION.
2. ALL ELECTRICAL PANELS SHALL BE COPPER BUSSING, PANELBOARDS AND CONSTRUCTED TO NATIONAL ELECTRIC CODE, ARTICLE 408, UL 67, PANELBOARDS; UL 50, CABINETS AND BOXES; UL 943, GFCI; UL 489, MOLDED CASE CIRCUIT BREAKERS; NEMA PB1; AND FEDERAL SPECIFICATIONS W-P-115C AND WC-375B. LOAD CENTERS NOT ALLOWED UNLESS NOTED OTHERWISE.
3. PANELBOARDS SHALL BE WALL-MOUNTED, ENCLOSED SAFETY TYPE WITH 120/240 VOLT, 3-WIRE SOLID NEUTRAL MAINS AS INDICATED ON DRAWINGS OR SPECIFIED. FIRST PANELBOARD OF EACH BUILDING SHALL BE PROVIDED WITH MAIN OR SUB-FEEDER CIRCUIT BREAKERS WHERE INDICATED. PROVIDE NEMA 3R PANEL ENCLOSURES WHERE INSTALLED OUTDOORS OR WHERE SUBJECT TO MOISTURE OR WHERE NOTED ON DRAWINGS.
4. SURGE SUPPRESSORS SHALL BE INSTALLED WHERE INDICATED ON DRAWINGS, PROVIDE TRANSIENT VOLTAGE SURGE SUPPRESSORS AS SEPARATELY INSTALLED OF PANELBOARDS. PANELBOARDS SHALL BE COMPLETE WITH FULLY RATED COPPER NEUTRAL BUS, GROUND BUS AND ISOLATED GROUND BUS. SURGE SUPPRESSORS SHALL BE AS FOLLOWS: SURGE CAPACITY: SERVICE ENTRANCE SPDS SHALL BE ANSI/UL LISTED TYPE 1 SPD WITH A 160 KA SURGE RATING PER MODE, WITH FIELD REPLACEABLE SURGE MODULES. DISTRIBUTION OR BRANCH PANELS SHALL BE UL LISTED TYPE 1 SPD WITH A 80 KA SURGE RATING PER MODE. SURGE SUPPRESSION UNITS SHALL MEET UL 1449 3RD EDITION SUPPRESSED VOLTAGE RATING. MOVS SHALL BE THERMALLY PROTECTED FOR LOW CURRENT FAULTS AND SHALL BE FUSED WITH SURGE-RATED FUSES. THE SURGE-RATED SURGE CURRENT PASSES AND CLEARS THE CIRCUIT SAFELY IF THE SURGE CAPACITY IS EXCEEDED. ENHANCED DIAGNOSTICS SHALL CONTINUOUSLY MONITOR THE UNIT'S STATUS AND SHALL INCLUDE LEDS TO SIGNAL A REDUCTION IN SURGE CAPACITY OR THE LOSS OF A SUPPRESSION CIRCUIT. AN AUDIBLE ALARM, WITH TEST AND SILENCE FEATURES, SHALL BE FURNISHED IN DIAGNOSTIC PACKAGE.
5. SINGLE POLE BRANCHES SHALL BE MOLDED CASE, THERMAL MAGNETIC CIRCUIT BREAKERS WITH INVERSE TIME DELAY, TRIP FREE, QUICK-MAKE, QUICK-BREAK MECHANISM AND SILVER ALLOY CONTACTS. CIRCUIT BREAKERS SHALL BE FULLY RATED, WITH AMPERE RATING MARKED ON HANDLE AND SHALL INDICATE ON/OFF AND TRIPPED POSITIONS. GROUND FAULT INTERRUPTERS SHALL BE INCORPORATED INTO CIRCUIT BREAKERS WHERE INDICATED. THEY SHALL BE LISTED BY UL, OR OTHER NRTL AS GROUND FAULT DEVICES. PROVIDE APPROPRIATE LUG KIT OF SUFFICIENT SIZE TO ACCOMMODATE THE FEEDERS.
6. TWO-POLE BRANCHES SHALL BE ENCLOSED, AND SHALL BE THERMAL MAGNETIC CIRCUIT BREAKERS WITH INVERSE TIME DELAY, TAMPER-PROOF, AMBIENT COMPENSATED, SINGLE HANDLE, INTERNAL COMMON TRIP, AND QUICK-MAKE, QUICK-BREAK MECHANISM WITH SILVER ALLOY CONTACTS. CIRCUIT BREAKERS SHALL BE FULLY RATED OR AS OTHERWISE INDICATED ON THE DRAWINGS.
7. MAIN AND SUBFEEDER CIRCUIT BREAKERS SHALL BE ENCLOSED, THERMAL MAGNETIC TYPE WITH INVERSE TIME DELAY, SINGLE HANDLE COMMON TRIP, QUICK-MAKE, QUICK-BREAK MECHANISM, CORROSION-RESISTANT BEARINGS AND SILVER ALLOY CONTACTS. AMPERE FRAME SIZE AND TRIP RATING SHALL BE AS INDICATED ON DRAWINGS. VOLTAGE RATING SHALL BE AS INDICATED ON DRAWINGS. BRANCH MOUNTED MAINS ARE NOT ACCEPTABLE.
8. CIRCUIT BREAKERS SHALL BE FULLY RATED AND OF ONE-PIECE, BOLT-ON TYPE AND SHALL MEET SHORT-CIRCUIT INTERRUPTING CAPACITY REQUIREMENTS INDICATED ON DRAWINGS.
9. INTERNAL PHASE AND GROUND BUSS SHALL BE COPPER.
10. PROVIDE A NEATLY TYPEWRITTEN PANELBOARD SCHEDULE WITH NUMBER OR NAME OF ROOM OR AREA, OR LOAD SERVED BY EACH PANELBOARD CIRCUIT. SCHEDULE SHALL ALSO INDICATE PANEL DESIGNATION, VOLTAGE AND PHASE, BUILDING AND DISTRIBUTION PANEL OR SWITCHBOARD FROM WHICH IT IS FED. SCHEDULE SHALL BE INSTALLED IN A FRAME UNDER TRANSPARENT PLASTIC ON INSIDE OF EACH PANELBOARD DOOR.
11. ALL ELECTRICAL DISCONNECTS SHALL BE HEAVY DUTY AND RATED FOR VOLTAGE AND AMPACITY OF EQUIPMENT BEING SERVED, UNLESS NOTED OTHERWISE. PROVIDE FUSES BASED ON EQUIPMENT RATINGS WHERE NOTED. PROVIDE NEMA 3R ENCLOSURES WHERE INSTALLED OUTDOORS OR WHERE SUBJECT TO MOISTURE OR WHERE NOTED ON DRAWINGS.
12. INSTALL ALL ELECTRICAL EQUIPMENT WITH CODE REQUIRED CLEARANCES.

LIGHTING

1. LIGHT FIXTURES MODEL NUMBERS WERE DETERMINED AT THE TIME THIS SPECIFICATION WAS WRITTEN; MODEL NUMBERS MAY NEED TO BE MODIFIED, OR MAY REQUIRE THE ADDITION OR DELETION OF OPTIONS TO FULLY MEET SPECIFICATION REQUIREMENTS.
2. DESIGN OF LIGHTING FIXTURES, ACCESSORIES, SUPPORTS, AND METHOD OF FIXTURE INSTALLATION SHALL COMPLY WITH REQUIREMENTS OF CEILING TYPE WHICH FIXTURE IS INSTALLED.
3. PROVIDE SUSPENSION POINTS AT NO MORE THAN 2 FEET FROM FIXTURE ENDS. SPACING BETWEEN SUPPORTS SHALL NOT EXCEED 8 FEET.
4. FOR FIXTURES MOUNTED IN GRID CEILING, PROVIDE FIXTURE SUPPORTS AT ALL (4) CORNERS OF THE FIXTURE INDEPENDENT OF CEILING GRID SYSTEM, OR MANUFACTURER'S APPROVED CEILING SUPPORT SYSTEM.
5. PROVIDE ALL NECESSARY COMPONENTS TO INSTALL FIXTURES IN CEILING TYPES BEING INSTALLED. SURFACE MOUNT FIXTURES SHALL BE ATTACHED TO STRUCTURE. TOGGLE BOLTS ARE NOT PERMITTED. PROVIDE BACKING WHERE REQUIRED.
6. WHERE SITE LIGHTING IS SHOWN, INSTALL FIXTURES LEVEL AND PLUMB ON CONCRETE BASE AS NOTED.
7. COMPONENTS AND FIXTURES SHALL BE LISTED AND APPROVED FOR THE INTENDED APPLICATION BY UNDERWRITER'S LABORATORIES (UL), OR OTHER NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL).
8. LIGHTING FIXTURES SHALL BE THE TYPE INDICATED ON DRAWINGS AND AS SPECIFIED. FIXTURES OF SAME TYPE SHALL BE OF ONE MANUFACTURER.
9. FIXTURES SHALL BE OF THE TYPES AND MANUFACTURERS DESCRIBED IN THE LUMINAIRE SCHEDULE OF THE DRAWINGS, WITH LAMPS, WATTAGE AND VOLTAGE AS INDICATED OR APPROVED EQUAL. SUBMIT TO ENGINEER FOR ANY SUBSTITUTION APPROVALS PRIOR TO PURCHASE AND INSTALLATION.
10. ALL FIXTURE SHALL BE HIGH EFFICIENCY, HAVE SUITABLE BALLASTS OR DRIVERS TO MATCH LAMP TYPES, AND BE RATED FOR VOLTAGE BEING SUPPLIED.
11. ALL LAMPS SHALL BE AS NOTED ON DRAWINGS. PROVIDE LAMPS FOR ALL FIXTURES AS NOTED.
12. WHERE EMERGENCY BATTERY PACKS ARE INSTALLED, PROVIDE CONSTANT HOT FOR EMERGENCY FIXTURES. UNLESS NOTED OTHERWISE, WHEN POWERING UNIT INVERTER POWER PACKS, USE THE SAME CIRCUIT THAT POWERS THE SWITCHED BALLAST TO POWER THE INVERTER.
13. WHERE EMERGENCY BALLAST(S) ARE SPECIFIED WITHIN THE FIXTURE, PROVIDE CONSTANT HOT FOR THE BALLAST(S). NONEMERGENCY BALLASTS WITHIN THE SAME FIXTURE SHALL BE SWITCHED AS INDICATED, UNLESS NOTED OTHERWISE.
14. CHECK AND ADJUST FIXTURES FOR REQUIRED ILLUMINATION. REPLACE DEFECTIVE LAMPS AND BALLASTS. TEST AND ADJUST LIGHTING CONTROL EQUIPMENT FOR PROPER OPERATION.

COMMUNICATIONS

1. COMMUNICATIONS DEVICES AND SYSTEMS SHALL BE INSTALLED COMPLETE WITH 4" SQUARE DEEP BOX WITH APPROPRIATE EXTENSION RING. STUB (1) 1" MINIMUM CONDUIT FOR DATA/TEL DEVICES TO ABOVE CEILING UNLESS NOTED OTHERWISE.
2. ALL COMMUNICATIONS CONDUITS AT COMMUNICATIONS DEVICES LOCATIONS AND FUTURE TELECOM SERVICE FEEDER CONDUITS SHALL BE TERMINATED WITH PLASTIC BUSHING ON ENDS OF CONDUITS.
3. PROVIDE PULL STRINGS IN ALL EMPTY CONDUITS.
4. INSTALL (1) 4"C BELOW GRADE FROM PROPERTY EDGE TO THE TELECOM TERMINAL LOCATION AT MAIN BUILDING AND (1) 2"C BELOW GRADE FROM MAIN BUILDING TO STORAGE BUILIDNG. STUB UP AT SERVICE LOCATIONS AS REQUIRED.
5. COORDINATE WITH OWNER AND UTILITIES FOR INSTALLATION REQUIREMENTS.

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Sheet Title
ELECTRICAL SPECIFICATIONS

No.	Date	Revision

Seal
GREGORY P WYROSDICK
LICENSE
No. 80146
STATE OF FLORIDA
PROFESSIONAL ENGINEER

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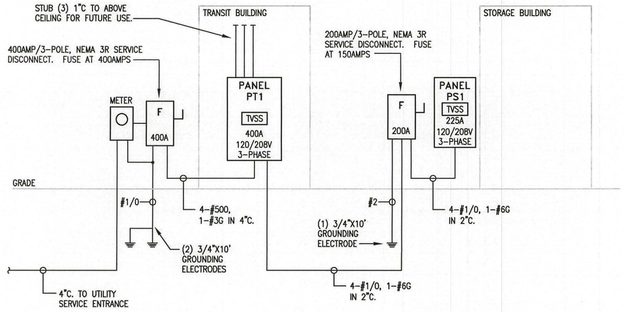
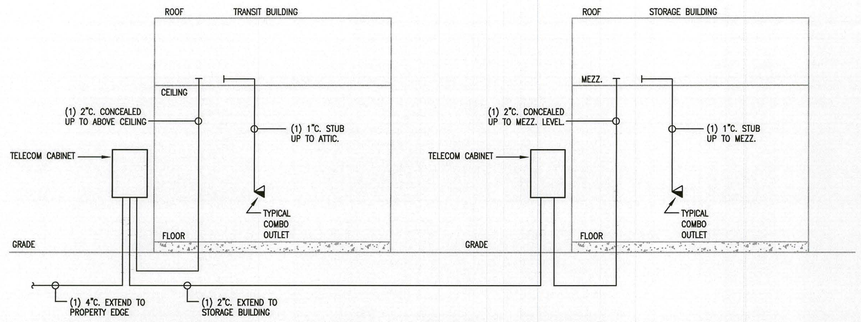
Checked By	GPW
Scale	AS SHOWN

Drawing No.
EB001
2 of 7 Sheets



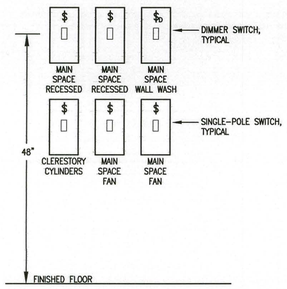
1 POWER RISER DETAIL

EB002 SCALE: NOT TO SCALE



2 TYPICAL COMMUNICATIONS WIRING DETAIL

EB002 SCALE: NOT TO SCALE



3 SWITCHBANK DETAIL

EB002 SCALE: NOT TO SCALE

PANEL	BUSS: 400 AMP	VOLT: 120/208, 3 PHASE, 4 WIRE							AIC RATING: 22,000			
PT1	MAINS: M.L.O.	MOUNT: SURFACE, NEMA 1							LOCATION: TRANSIT BUILDING - MAIN SPACE			
CKT.	BKR.	DESCRIPTION	FEEDER	LOAD (AMPS) A	B	C		LOAD (AMPS) A	B	C	FEEDER	DESCRIPTION	BKR.	CKT.
1	20/1	LIGHTS (RESTROOMS)	2-12, 1-12G	4				7.5			2-12, 1-12G	REC. (RESTROOMS, STORAGE)	20/1	2
3	20/1	LIGHTS (MAIN SPACE)	2-12, 1-12G		3.6				3		2-12, 1-12G	REC. (RESTROOMS)	20/1	4
5	20/1	FANS (MAIN SPACE)	2-12, 1-12G			2				4.5	2-12, 1-12G	REC. (PORCH)	20/1	6
7	20/1	LIGHTS (EXTERIOR)	2-12, 1-12G	5.8				4.5			2-12, 1-12G	REC. (PORCH)	20/1	8
9	20/1	PARKING LOT LIGHTS	2-10, 1-10G		2.5				4.5		2-12, 1-12G	REC. (MAIN SPACE)	20/1	10
11	20/1	PARKING LOT LIGHTS	2-10, 1-10G			3				4.5	2-12, 1-12G	REC. (MAIN SPACE)	20/1	12
13	20/1	PARKING LOT LIGHTS	2-10, 1-10G	2				6			2-12, 1-12G	REC. (INFO KIOSK)	20/1	14
15	20/1	PARKING LOT LIGHTS	2-10, 1-10G		2				25		2-10, 1-10G	WH-1 (WATER HEATER)	30/1	16
17	20/1	TIME CLOCK	2-12, 1-12G			1				25	2-10, 1-10G	WH-2 (WATER HEATER)	30/1	18
19	20/1	SPARE						25			2-10, 1-10G	WH-3 (WATER HEATER)	30/1	20
21	20/1	SPARE							25		2-10, 1-10G	WH-4 (WATER HEATER)	30/1	22
23	20/1	SPARE										SPARE	20/1	24
25	20/1	SPARE						27.7			2-4, 1-6G	EV CHARGING STATION	40/2	26
27	40/2	EV CHARGING STATION	2-4, 1-6G		27.7				27.7					28
29						27.7				27.7	2-4, 1-6G	EV CHARGING STATION	40/2	30
31	30/2	HP-1, HP-2, OU-1 (MINI-SPLIT)	2-10, 1-10G	17				27.7						32
33					17				27.7		2-4, 1-6G	EV CHARGING STATION	40/2	34
35	30/2	HP-3, HP-4, OU-2 (MINI-SPLIT)	2-10, 1-10G			17.2				27.7				36
37				17.2				93.5			4-1/0, 1-6G	PANEL "PS1"	150/3	38
39	30/2	HP-5, HP-6, OU-3 (MINI-SPLIT)	2-10, 1-10G		17.2				92					40
41						17.2				87.5				42
				46.0	70.0	68.1		191.9	204.9	176.9				
NOTES: 1. PROVIDE TVSS. 2. PROVIDE LOCKABLE COVER DOOR.			CONNECTED LOADS PER PHASE								A phase	237.9	amps	
											B phase	274.9	amps	
											C phase	245.0	amps	

PANEL	BUSS: 225 AMP	VOLT: 120/208, 3 PHASE, 4 WIRE							AIC RATING: 22,000			
PS1	MAINS: M.L.O.	MOUNT: SURFACE, NEMA 3R							LOCATION: STORAGE BUILDING			
CKT.	BKR.	DESCRIPTION	FEEDER	LOAD (AMPS) A	B	C		LOAD (AMPS) A	B	C	FEEDER	DESCRIPTION	BKR.	CKT.
1	20/1	LIGHTS (OFFICE, STORAGE)	2-12, 1-12G	2.6				7.5			2-12, 1-12G	REC. (OFFICE, RESTROOM)	20/1	2
3	20/1	LIGHTS (OFFICE, STORAGE)	2-12, 1-12G		2.6				6		2-12, 1-12G	REC. (STORAGE)	20/1	4
5	20/1	LIGHTS (OFFICE, STORAGE)	2-12, 1-12G			2.6				4.5	2-12, 1-12G	REC. (MEZZANINE)	20/1	6
7	20/1	LIGHTS (EXTERIOR)	2-12, 1-12G	1.5				7.5			2-12, 1-12G	REC. (OFFICE, RESTROOM)	20/1	8
9	20/1	REC. (EXTERIOR)	2-12, 1-12G		4.5				6		2-12, 1-12G	REC. (STORAGE)	20/1	10
11	20/1	REC. (EXTERIOR)	2-12, 1-12G			4.5				4.5	2-12, 1-12G	REC. (MEZZANINE)	20/1	12
13	20/1	SPARE						7.5			2-12, 1-12G	REC. (OFFICE, RESTROOM)	20/1	14
15	20/1	SPARE							6		2-12, 1-12G	REC. (STORAGE)	20/1	16
17	20/1	SPARE								4.5	2-12, 1-12G	REC. (MEZZANINE)	20/1	18
19	20/1	EF-8 (EXHAUST FAN)	2-12, 1-12G	4.4				10			2-12, 1-12G	HP-7, OU-4 (MINI-SPLIT)	20/2	20
21	20/1	EF-9 (EXHAUST FAN)	2-12, 1-12G		4.4				10					22
23	20/1	EF-10 (EXHAUST FAN)	2-12, 1-12G			4.4				10	2-12, 1-12G	HP-8, OU-5 (MINI-SPLIT)	20/2	24
25	30/1	WH-5 (WATER HEATER)	2-10, 1-10G	25				10						26
27	30/1	WH-6 (WATER HEATER)	2-10, 1-10G		25				10		2-12, 1-12G	HP-9, OU-6 (MINI-SPLIT)	20/2	28
29	30/1	WH-7 (WATER HEATER)	2-10, 1-10G			25				10				30
31	20/1	SPARE										SPARE	20/1	32
33	20/1	SPARE										SPARE	20/1	34
35	20/1	SPARE										SPARE	20/1	36
37	20/1	SPARE						17.5			4-6, 1-10G	GRINDER PUMP	60/3	38
39	20/1	SPARE							17.5					40
41	20/1	SPARE								17.5				42
				33.5	36.5	36.5		60.0	55.5	51.0				
NOTES: 1. PROVIDE TVSS 2. PROVIDE LOCKABLE CONER DOOR			CONNECTED LOADS PER PHASE								A phase	93.5	amps	
											B phase	92.0	amps	
											C phase	87.5	amps	

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TRANSIT AUTHORITY
WALTON COUNTY, FLORIDA

Sheet Title

ELECTRICAL DETAILS AND PANEL SCHEDULES

No.	Date	Revision

Seal

GREGORY P WELCON
LICENSE
No. 80081
3-6-24
STATE OF FLORIDA
PROFESSIONAL ENGINEER

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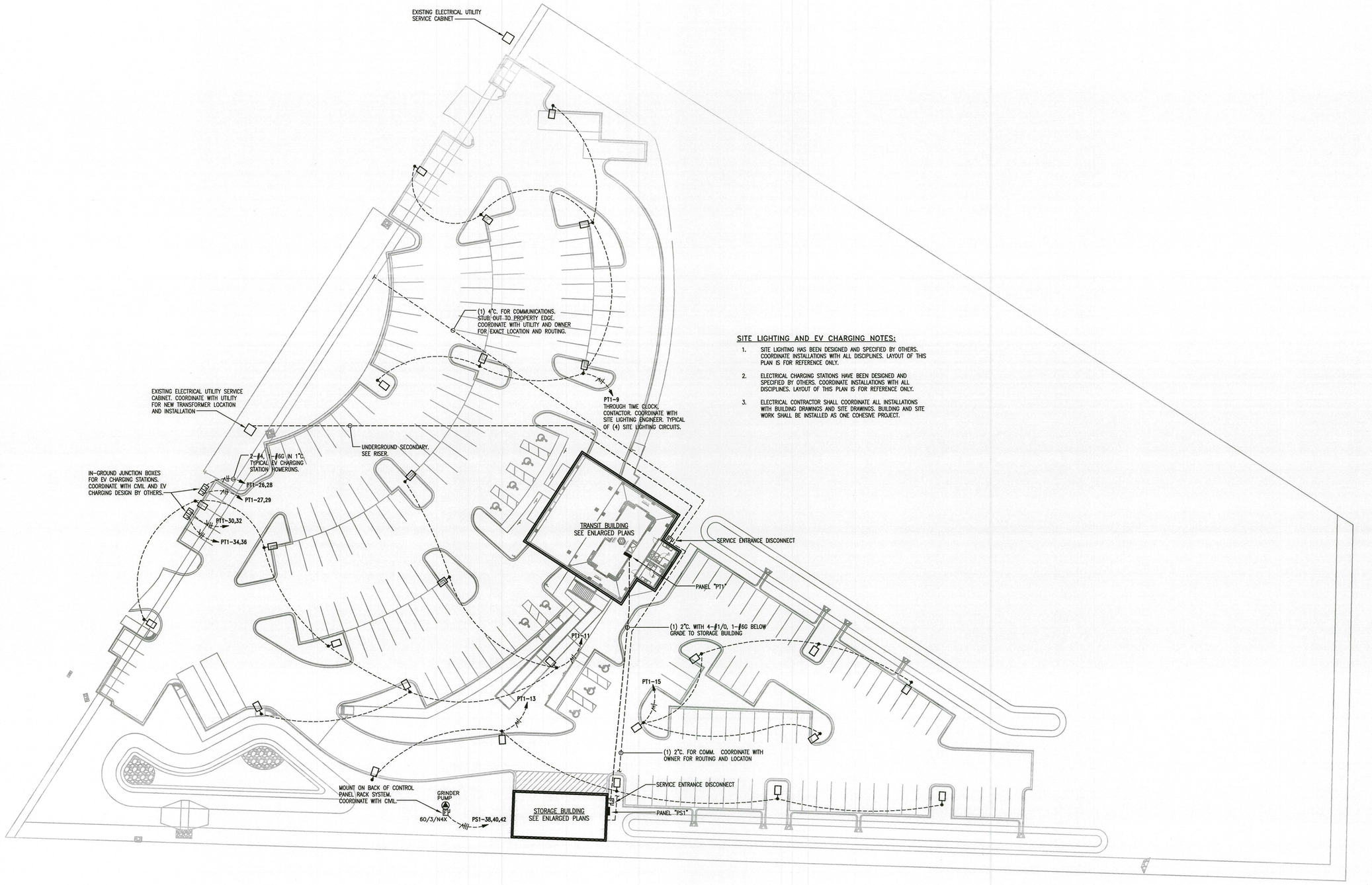
Checked By	GPW
Scale	AS SHOWN

Drawing No.

EB002

3 of 7 Sheets



SITE LIGHTING AND EV CHARGING NOTES:

1. SITE LIGHTING HAS BEEN DESIGNED AND SPECIFIED BY OTHERS. COORDINATE INSTALLATIONS WITH ALL DISCIPLINES. LAYOUT OF THIS PLAN IS FOR REFERENCE ONLY.
2. ELECTRICAL CHARGING STATIONS HAVE BEEN DESIGNED AND SPECIFIED BY OTHERS. COORDINATE INSTALLATIONS WITH ALL DISCIPLINES. LAYOUT OF THIS PLAN IS FOR REFERENCE ONLY.
3. ELECTRICAL CONTRACTOR SHALL COORDINATE ALL INSTALLATIONS WITH BUILDING DRAWINGS AND SITE DRAWINGS. BUILDING AND SITE WORK SHALL BE INSTALLED AS ONE COHESIVE PROJECT.

1 ELECTRICAL SITE PLAN
EB101 SCALE: 1" = 30'-0"

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Project Name and Address
GRAYTON BEACH
TRANSIT AUTHORITY
WALTON COUNTY, FLORIDA

Sheet Title
ELECTRICAL SITE PLAN

No.	Date	Revision

Seal
GREGORY P WYPOSKI
LICENSED
No. 68064
STATE OF FLORIDA
PROFESSIONAL ENGINEER

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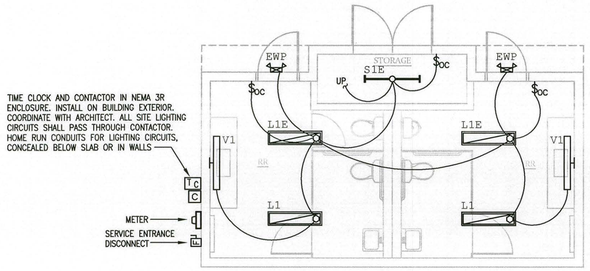
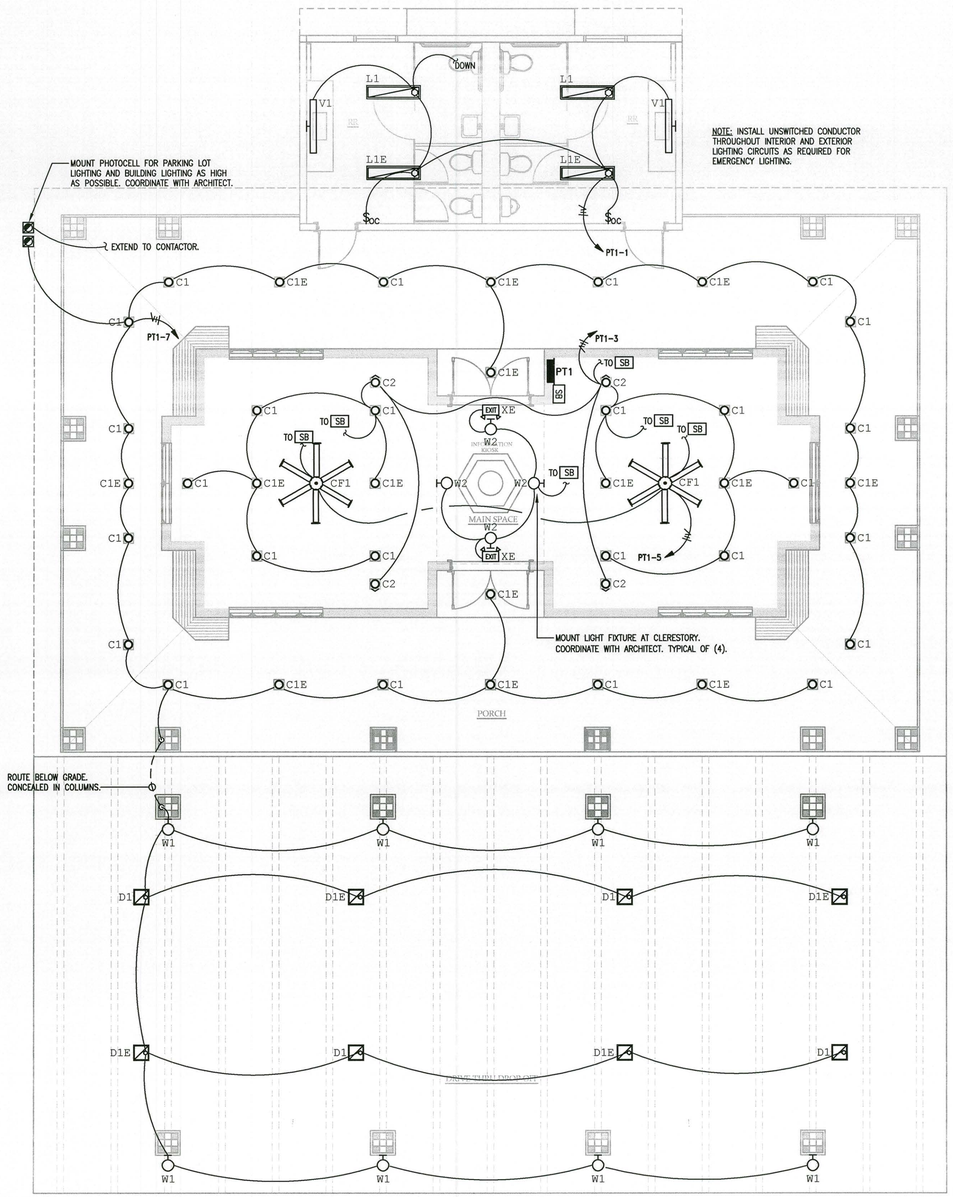
EB101
4 of 7 Sheets



2 LIGHTING PLAN – LOWER LEVEL (TRANSIT BUILDING)
EB201 SCALE: 3/16" = 1'-0"

NORTH



1 LIGHTING PLAN – UPPER LEVEL (TRANSIT BUILDING)
EB201 SCALE: 3/16" = 1'-0"

NORTH

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Project Name and Address
GRAYTON BEACH
TRANSIT AUTHORITY
WALTON COUNTY, FLORIDA

Sheet Title
LIGHTING PLAN
TRANSIT BUILDING

No.	Date	Revision

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GREGORY P. WYROSDICK
LICENSE
No. 70144
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3-6-24

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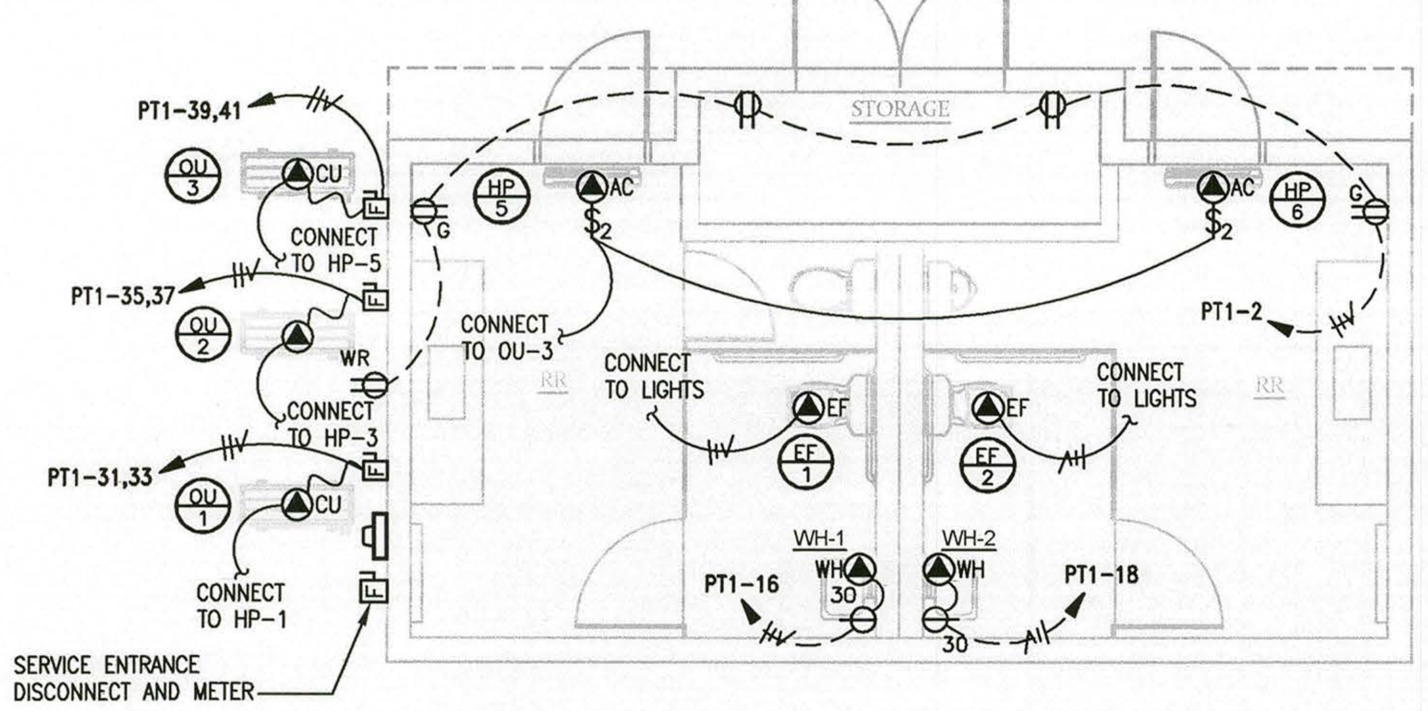
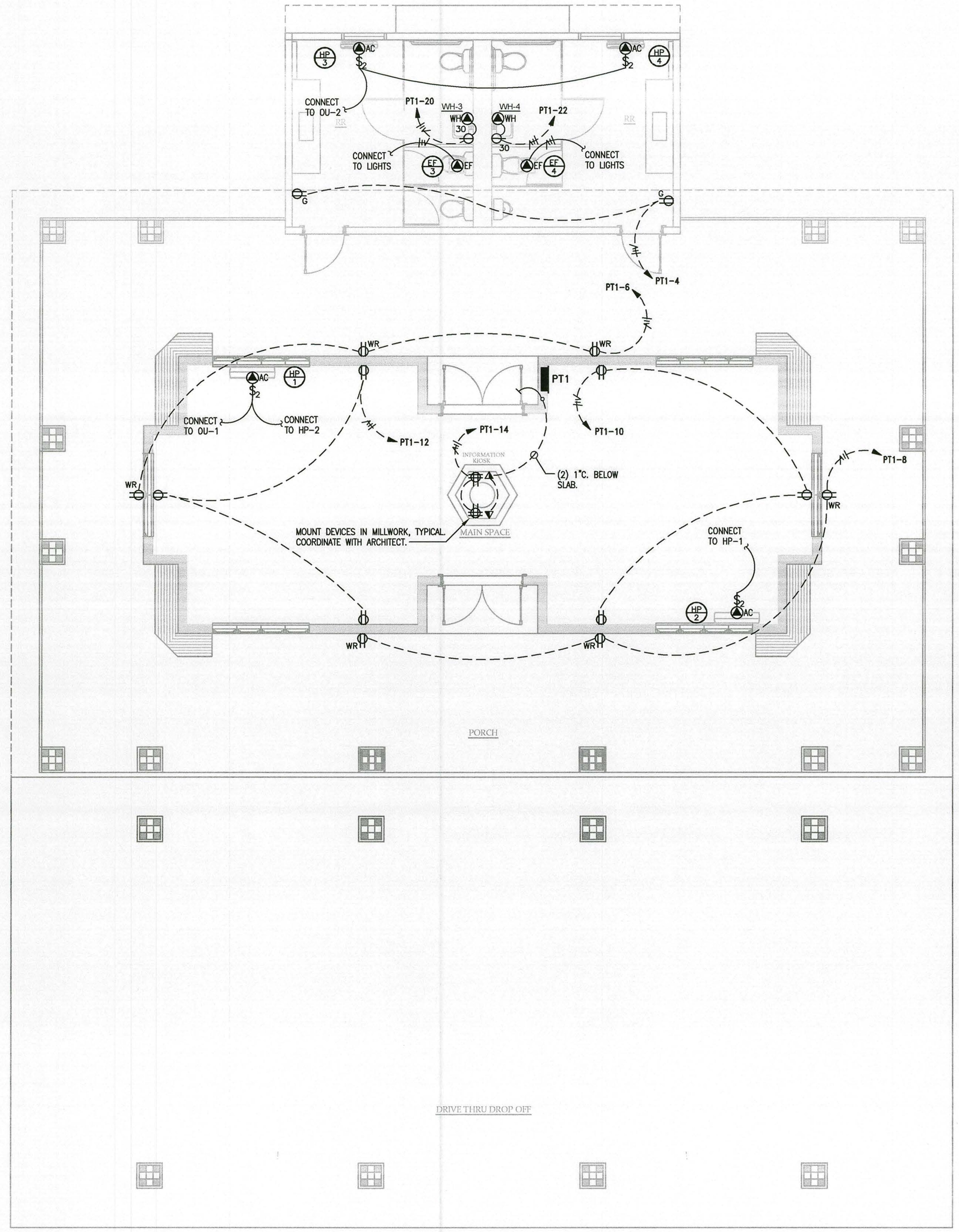
EB201
5 of 7 Sheets



2 POWER, COMM. & MECH. SYSTEMS PLAN – LOWER LEVEL (TRANSIT BUILDING)
EB202 SCALE: 3/16" = 1'-0"

NORTH



1 POWER, COMMUNICATIONS, & MECHANICAL SYSTEMS PLAN – UPPER LEVEL (TRANSIT BUILDING)
EB202 SCALE: 3/16" = 1'-0"

NORTH

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GRAYTON BEACH TRANSIT AUTHORITY
WALTON COUNTY, FLORIDA

Sheet Title
POWER, COMMUNICATIONS, AND MECHANICAL SYSTEMS PLAN TRANSIT BUILDING

No.	Date	Revision

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GREGORY P WYROSDICK LICENSE No. STATE OF FLORIDA PROFESSIONAL ENGINEER

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Drawing No.
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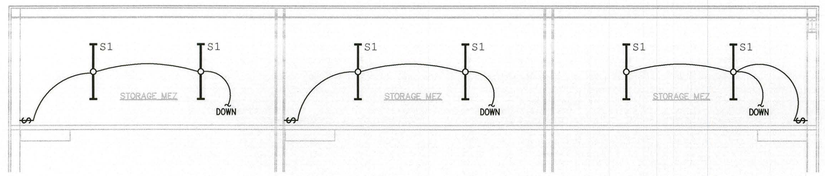
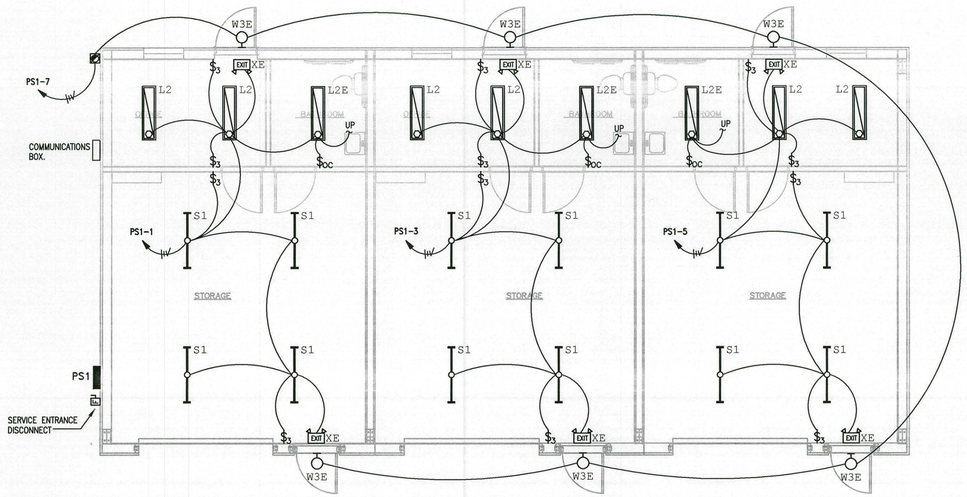


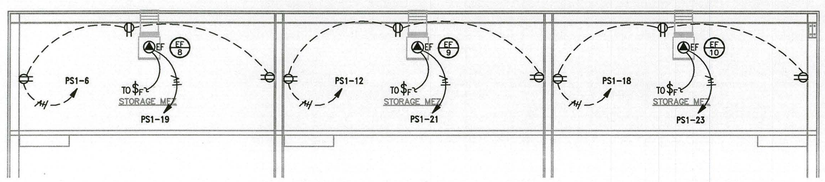
2 LIGHTING PLAN – MEZZANINE (STORAGE BUILDING)
EB301 SCALE: 3/16" = 1'-0"

NORTH



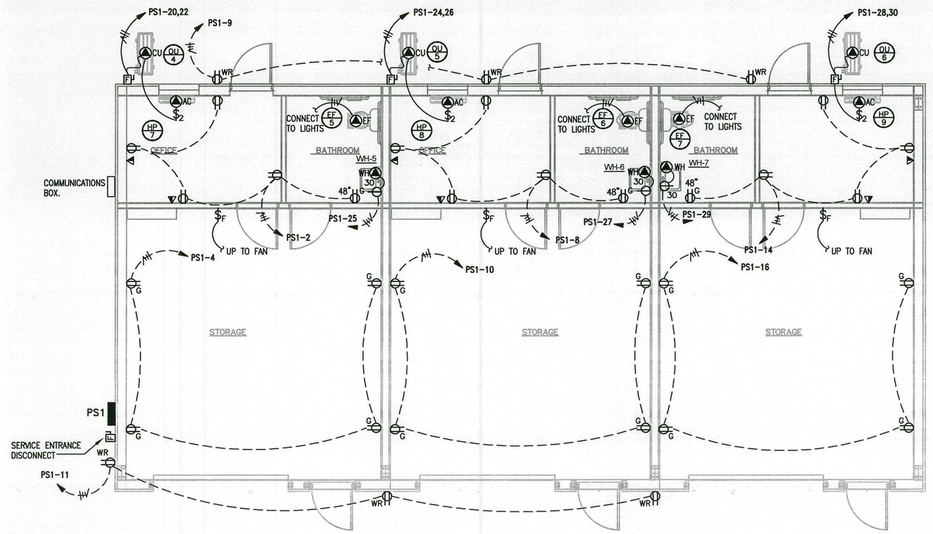
1 LIGHTING PLAN – GROUND LEVEL (STORAGE BUILDING)
EB301 SCALE: 3/16" = 1'-0"

NORTH



4 POWER & MECHANICAL SYSTEMS PLAN – MEZZANINE (STORAGE BUILDING)
EB301 SCALE: 3/16" = 1'-0"

NORTH



3 POWER, COMMUNICATIONS, & MECHANICAL SYSTEMS PLAN – GROUND LEVEL (STORAGE BUILDING)
EB301 SCALE: 3/16" = 1'-0"

NORTH

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Project Name and Address
GRAYTON BEACH
TRANSIT AUTHORITY
WALTON COUNTY, FLORIDA

Sheet Title
LIGHTING, POWER, COMMUNICATIONS, AND MECHANICAL SYSTEMS PLAN STORAGE BUILDING

No.	Revision	Date

Seal
GREGORY P. WYROSDICK
LICENSE
No. 69048
STATE OF FLORIDA
PROFESSIONAL ENGINEER

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Drawn By	JWH
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Scale	AS SHOWN

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7 of 7 Sheets