



## **ARCHITECT**

STANTEC
410 17th STREET, STE. 1400
DENVER, CO, 80202
CONTACT: KURT BASFORD, kurt.basford@stantec.com
(303) 382-4924

## LANDSCAPE ARCHITECT

STANTEC 410 17th STREET, STE. 1400 DENVER, CO, 80202 CONTACT: MATT DUNCAN, matthew.duncan@stantec.com (303) 575-8469

# STRUCTURAL ENGINEER

STANTEC
410 17th STREET, STE. 1400
DENVER, CO, 80202
CONTACT: FRANCIS CATANACH, francis.catanach@stantec.com
(575) 254-6062

### **CIVIL ENGINEER**

AUSTIN CIVIL GROUP
123 NORTH 7th STREET, STE. 300
GRAND JUNCTION, CO, 81501
CONTACT: SCOTT SORENSEN, scotts@austincivilgroup.com
(970) 242-7540

# **ELECTRICAL ENGINEER**

BIGHORN CONSULTING ENGINEERS 386 INDIAN ROAD GRAND JUNCTION, CO, 81501 CONTACT: DREW BROWN, drew@bighorneng.com (970) 241-8709

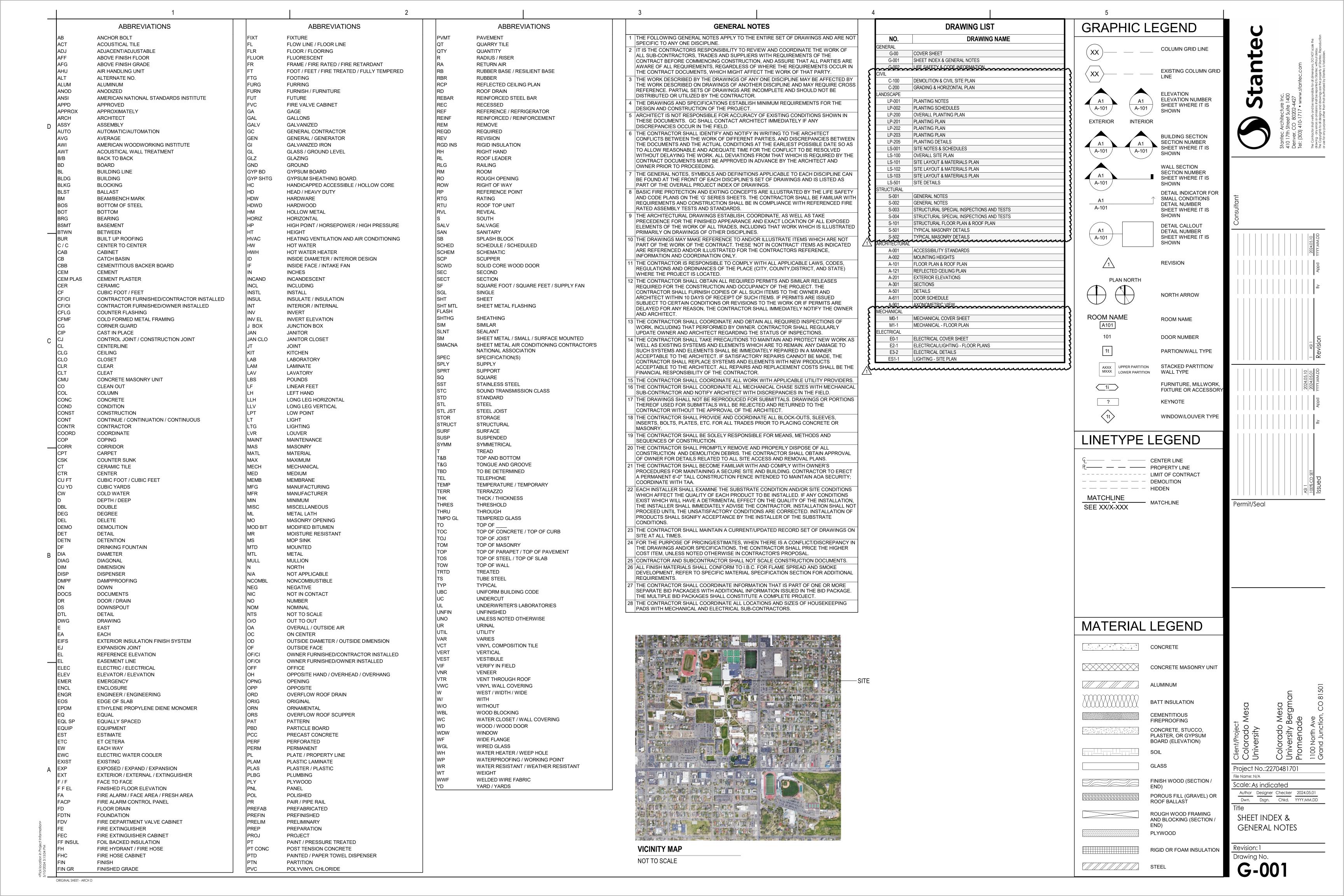
# Colorado Mesa University Bergman Promenade

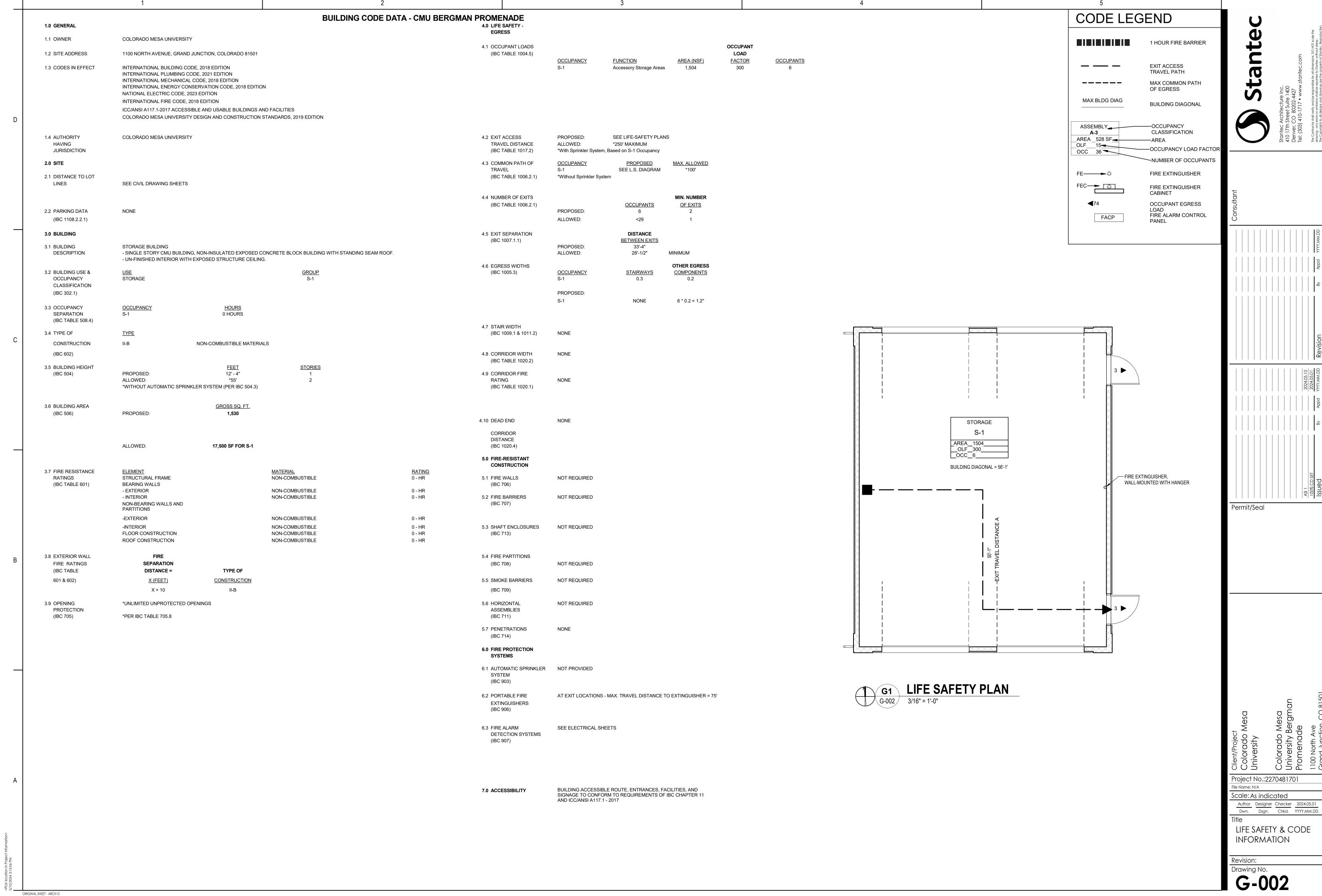
1100 North Ave Grand Junction, CO 81501

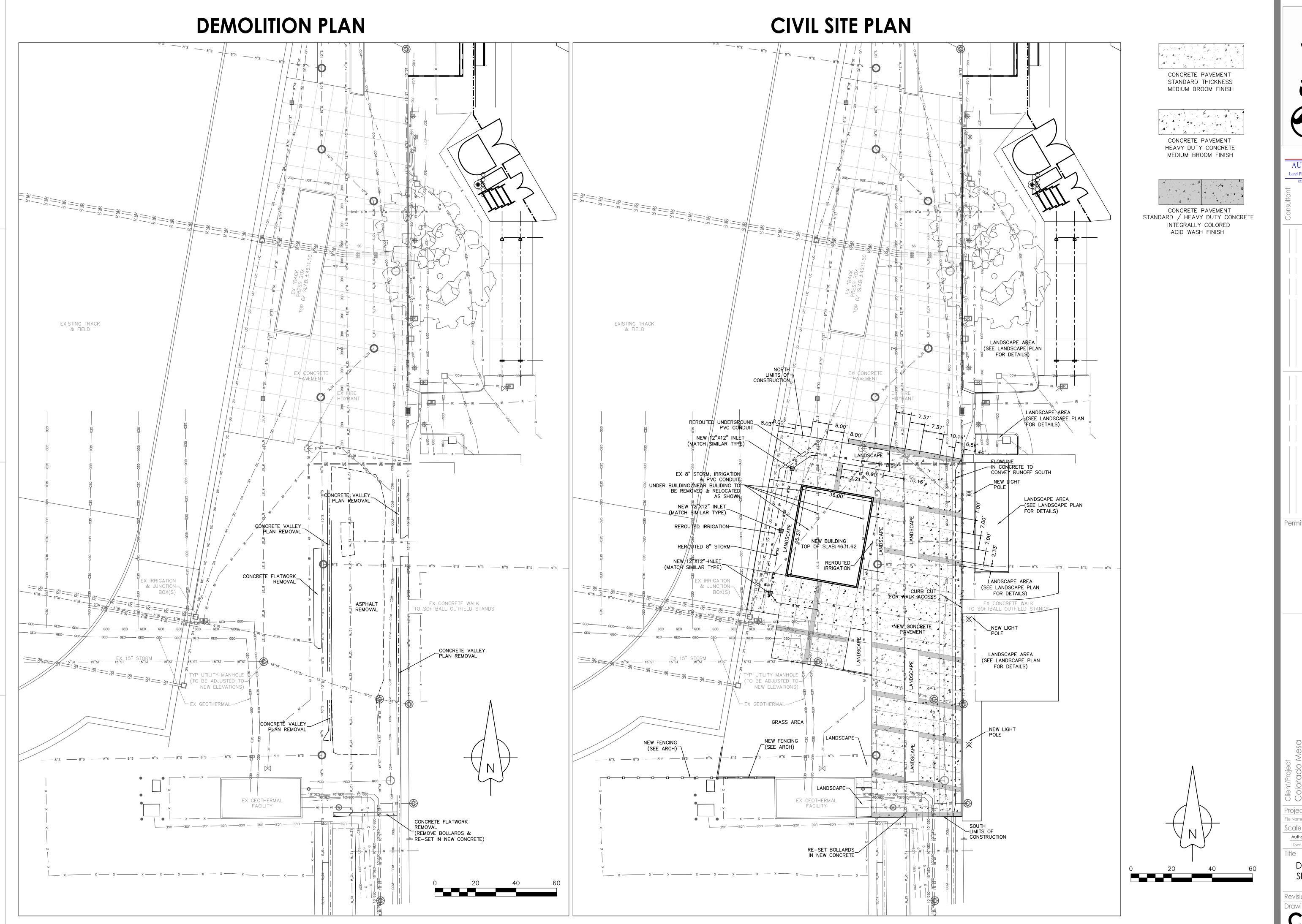
100% CONSTRUCTION DRAWINGS 05/01/2024

Stantec Project Number: 2270481701 Client Project Number: 1063-24-1









Stante



Stantec Architecture Inc 410 17th Street Suite 1400 Denver, CO 80202-4427 Tel: (303) 410-1717 • www

A • C • G

AUSTIN CIVIL GROUP, INC

Land Planning • Civil Engineering • Development Service

onsultant

STS STS 2024.05.08

DN DOCUMENTS STS 2024.05.01

By Appd YYYYY.MM.DD

Permit/Seal

rgman ade

University CMU Bergma Promenade

Project No.:2270481701
File Name:

| Scale: 1"=20" | Scale: 1"=20" | Signer | Checker | 05/01/24 | Dwn. | Dsgn. | Chkd. | YYYY.MM.DD

DEMOLITION & CIVIL SITE PLAN

Revision:

C-100



Author Designer Checker 05/01/24 Dwn. Dsgn. Chkd. YYYY.MM.DD

GRADING & HORIZONTAL PLAN

### **GENERAL NOTES:**

- 1. ALL WORK, INCLUDING CONSTRUCTION INSTALLATION, MATERIALS, TESTING AND INSPECTION, SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST ADOPTED EDITION OF THE INTERNATIONAL BUILDING CODE AND ALL OTHER APPLICABLE LOCAL AND STATE CODES, ORDINANCES AND REGULATIONS. ALL WORK IN PROCESS OR COMPLETE SHALL MEET ALL ADA, ADAAG, AND LOCAL JURISDICTIONAL REQUIREMENTS.
- 2. THOROUGHLY REVIEW THE SITE CONDITIONS, DRAWINGS, AND TECHNICAL SPECIFICATIONS PRIOR TO CONSTRUCTION. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH PLANS APPROVED BY THE APPLICABLE JURISDICTIONAL AUTHORITY. OBTAIN NECESSARY PERMITS FROM ALL JURISDICTIONS AS REQUIRED TO CONSTRUCT THE WORK OF THIS PROJECT.
- 3. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A COMPLETE UP-TO-DATE SET OF DRAWINGS AND SPECIFICATIONS AT THE CONSTRUCTION SITE AND ENSURING THE DOCUMENTS ARE READILY AVAILABLE FOR REVIEW BY THE LANDSCAPE ARCHITECT AND GOVERNING AGENCY.
- 4. REFER TO SPECIFICATIONS FOR ALL REQUIRED SUBMITTALS FOR APPROVAL BY OWNER'S REPRESENTATIVE, AS WELL AS ADDITIONAL INFORMATION PERTAINING TO THE PROJECT MATERIALS, PROCEDURES AND INSTALLATION PRIOR TO COMMENCEMENT OF THE WORK. WORK INSTALLED NOT IN COMPLIANCE WITH THE SPECIFICATIONS IS SUBJECT TO REMOVAL AT CONTRACTOR'S EXPENSE.
- 5. INFORMATION MENTIONED IN THE TECHNICAL SPECIFICATIONS AND NOT SHOWN ON THE DRAWINGS, OR SHOWN ON THE DRAWINGS AND NOT MENTIONED IN THE TECHNICAL SPECIFICATIONS SHALL BE OF LIKE EFFECT AS IF SHOWN ON OR MENTIONED IN BOTH.
- 6. THE DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY TO ONE ANOTHER AND IMPLIED TO CORRESPOND WITH ONE ANOTHER. ANY DISCREPANCIES SHOULD BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR RESOLUTION IMMEDIATELY.
- 7. NOTES AND DETAILS ON SPECIFIC DRAWINGS TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.
- 8. THESE DRAWINGS DO NOT SPECIFY SAFETY MEASURES, MATERIALS, EQUIPMENT, METHODS OR SEQUENCING TO PROTECT PERSONS AND PROPERTY. DIRECT AND IMPLEMENT SAFETY OPERATIONS AND PROCEDURES IN ACCORDANCE WITH ADA, ADAAG, AND LOCAL JURISDICTIONAL REQUIREMENTS TO PROTECT THE OWNER, OTHER CONTRACTORS, THE PUBLIC, AND OTHERS FOR THE DURATION OF THE CONTRACT.
- 9. THE LANDSCAPE ARCHITECT IS NOT RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, AND SEQUENCES OR FOR SAFETY PRECAUTIONS OR PROBLEMS UTILIZED IN CONNECTION WITH THE WORK, AND ASSUMES NO LIABILITY FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- 10. THE CONTRACT DOCUMENTS DO NOT REPRESENT OR CREATE, NOR SHALL BE CONSTRUED TO CREATE, ANY CONTRACTUAL RELATIONSHIP BETWEEN THE LANDSCAPE ARCHITECT AND THE CONTRACTOR OR ANY SUBCONTRACTOR.
- 11. SPECIAL CONSIDERATION HAS BEEN GIVEN TO THE DESIGN AND INTENDED RELATIONSHIP BETWEEN LANDSCAPE MATERIALS, FINISHES AND LAYOUT FOR NEW OR EXISTING IMPROVEMENTS IN RELATIONSHIP TO THE ARCHITECTURE AND/OR STREET, CURB & GUTTER AND SIDEWALK SYSTEMS. PAVEMENT JOINTING, FINISHES, COLOR AND GRADES HAVE BEEN STRICTLY COORDINATED. CONSTRUCTION OF THESE SYSTEMS SHALL ALSO BE STRICTLY COORDINATED.
- 12. ARCHITECTURAL, CIVIL, STRUCTURAL AND UTILITY ELEMENTS ARE SHOWN ON LANDSCAPE PLANS FOR REFERENCE ONLY. REFER TO INCLUDED DRAWINGS FOR ACTUAL INFORMATION. NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
- 13. BASE INFORMATION, INCLUDING PROPERTY BOUNDARIES, EXISTING BUILDINGS, GRADING, EASEMENTS AND UTILITIES, ARE BASED ON SURVEY INFORMATION PROVIDED BY OTHERS. REFER TO SURVEY, PLAT, ROADWAY AND UTILITY DRAWINGS, AND OTHER AVAILABLE DOCUMENTS FOR PROPERTY LIMITS, EASEMENTS, EXISTING CONDITIONS, AND HORIZONTAL AND VERTICAL CONTROL. VERIFY ALL CONDITIONS AT JOB SITE AND NOTIFY LANDSCAPE ARCHITECT OF DIMENSIONAL ERRORS, OMISSIONS OR DISCREPANCIES BEFORE BEGINNING THE WORK.
- 14. VERIFY EXISTING SITE CONDITIONS INCLUDING PROPERTY LINES, EASEMENTS, UTILITIES, STRUCTURES, WALLS, VEGETATION, FENCES, LIMITS OF ROADWAYS, CURBS AND GUTTERS, AND OTHER OBSTRUCTIONS THAT MAY AFFECT THE PROGRESS OF WORK.
- 15. THE CONTRACTOR SHALL TAKE PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING IMPROVEMENTS FROM DAMAGE OR ALTERATION. ALL SUCH IMPROVEMENTS AND STRUCTURES DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR RECONSTRUCTED TO THE SATISFACTION OF THE OWNER AT THE CONTRACTOR'S EXPENSE.
- 16. CONTRACTOR SHALL NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGNED WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS, AREA DISCREPANCIES AND/OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN OR IDENTIFIED IN THE DRAWINGS. SUCH CONDITION SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR DECISION. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATION.
- 17. THE LIMITS OF WORK OCCUR AT THE 'LIMIT OF WORK' LINE AS DEPICTED ON PLANS. THE LIMIT OF WORK LINE OR CONSTRUCTION EASEMENT LINE FOR CONSTRUCTION IS SHOWN DIAGRAMMATICALLY AND OCCURS AT BACK OF CURB , EDGE OF ROAD, FACE OF BUILDING WALL OR PROPERTY LINE EXCEPT WHERE OTHERWISE NOTED.
- 18. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING MEANS AND METHODS FOR CONSTRUCTION. THESE DRAWINGS MAY INDICATE A LIMIT OF PROPOSED IMPROVEMENTS, LIMIT OF SITE DEMOLITIONS, ETC. FOR DELINEATION OF EXPECTED EXTENTS OF DISTURBANCE. HOWEVER, FINAL IMPACT SHALL BE DETERMINED IN THE FIELD. SHOULD LIMITS OF DISTURBANCE EXCEED BOUNDARIES DEFINED IN DRAWINGS, THE CONTRACTOR SHALL CONTACT THE LANDSCAPE ARCHITECT IMMEDIATELY FOR RESOLUTION.
- 19. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL WORK DISTURBED BY CONSTRUCTION OUTSIDE OF LIMIT LINES DEFINED ON DRAWINGS OR THROUGH CONTRACTOR MEANS AND METHODS TO A CONDITION BETTER THAN OR EQUAL TO THE EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.
- 20. TAKE NECESSARY STEPS TO PROTECT AND MAINTAIN ALL FINISHED WORK FOR THE DURATION OF THE CONTRACT UNTIL FINAL ACCEPTANCE. THE WORK OF THIS CONTRACT WILL NOT BE CONSIDERED COMPLETE UNTIL ALL AREAS HAVE BEEN CLEANED OF ALL DIRT AND DEBRIS AND ALL DAMAGED ITEMS ARE REPAIRED.

ORIGINAL SHEET - ARCH D

### SITE LAYOUT/CONSTRUCTION NOTES:

- 1. REFER TO GENERAL NOTES, THIS SHEET, FOR GENERAL SITE DEVELOPMENT INFORMATION AND REQUIREMENTS.
- 2. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION WITH SUBCONTRACTORS AND OTHER TRADES AS REQUIRED TO ACCOMPLISH ALL LANDSCAPE CONSTRUCTION OPERATIONS.
- 3. A SYSTEM OF DIAGRAMMATIC SYMBOLS AND NOTATIONS IS USED IN THESE DRAWINGS. NOTE THAT NOT ALL SYMBOLS MAY BE LABELED WITH A NOTATION. REVIEW NOTATION CAREFULLY AND NOTIFY LANDSCAPE ARCHITECT AND REQUEST CLARIFICATION OF ANY UNCLEAR NOTATION OR DISCREPANCY PRIOR TO COMMENCING WORK.
- 4. ALL SYMBOLS ARE SHOWN DIAGRAMMATICALLY ILLUSTRATING APPROXIMATE LOCATION OF EXISTING AND PROPOSED MATERIALS. ANY DISCREPANCIES OR CONFLICTS BETWEEN EXISTING AND PROPOSED CONDITIONS SHALL BE REPORTED TO THE LANDSCAPE ARCHITECT.
- 5. CONTRACTOR IS TO VERIFY ALL QUANTITIES. IN THE CASE OF ANY DISCREPANCIES, GRAPHICALLY SHOWN MATERIAL QUANTITIES SHALL TAKE PRECEDENCE.
- 6. REFERENCE TO NORTH REFERS TO TRUE NORTH.
- 7. REFERENCE TO SCALE IS FOR FULL SIZED DRAWINGS ONLY.
- 8. WRITTEN DIMENSIONS SUPERCEDE SCALED DIMENSIONS. DO NOT SCALE FROM DRAWINGS. IF THERE IS A QUESTION REGARDING DIMENSIONS, CONTACT LANDSCAPE ARCHITECT FOR VERIFICATION.
- 9. TAKE ALL DIMENSIONS PERPENDICULAR TO ANY REFERENCE LINE, BACK OF CURB, CENTER LINE OF TREES, AND CENTER LINE OF LIGHT POLE BASES, UNLESS
- 10. ALL DIMENSIONS CALLED OUT AS 'EQUAL' ARE EQUIDISTANT MEASUREMENTS.
- 11. ALL LAYOUT DIMENSIONS ARE TO BACK OF CURB (BOC), FACE OF WALL (FOW), OR FACE OF BUILDING (FOB) UNLESS OTHERWISE NOTED. ALL DIMENSIONS FROM STRUCTURE ARE FROM FACE OF FINISH OF EXTERIOR WALL UNLESS OTHERWISE
- 12. ALL LAYOUT DIMENSIONS ARE FROM PLAN VIEW CALCULATIONS. ACTUAL FIELD DIMENSIONS MAY VARY FROM PLAN DUE TO ACTUAL LENGTHS ALONG A SLOPED
- 13. ALL ANGLES ARE ASSUMED TO BE 90 DEGREES AND ALL LINES OF PAVING ARE TO BE PARALLEL OR PERPENDICULAR UNLESS OTHERWISE NOTED ON DRAWINGS. MAINTAIN HORIZONTAL ALIGNMENT OF ADJACENT ELEMENTS AS NOTED ON DRAWINGS.
- 14. DIMENSIONS MARKED "VERIFY" ARE TO BE FIELD MEASURED. ANY FIELD DISCREPANCIES FROM THE NOTED DIMENSIONS ARE TO BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO FURTHER WORK.
- 15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL CONCURRENT WORK BY OTHER TRADES. PROVIDE SLEEVES AS REQUIRED FOR DRAINAGE, ELECTRICAL, IRRIGATION AND UTILITY LINES. COORDINATE AND FIELD VERIFY ALL SLEEVING LOCATIONS FOR ALL ELECTRICAL, IRRIGATION AND UTILITY LINES PRIOR TO CONSTRUCTION. REFERENCE ALL DRAWINGS INCLUDING CIVIL, STRUCTURAL, IRRIGATION AND ELECTRICAL FOR REQUIRED SLEEVING. REQUIRED SLEEVING MAY NOT BE SHOWN ON ALL PLANS.
- 16. IRRIGATION AND ELECTRICAL SLEEVES AND SUBSURFACE DRAINAGE SYSTEMS SHALL BE CONSTRUCTED PRIOR TO PAVING AND LANDSCAPE WORK. SLEEVES AND CONDUITS SHALL BE INSTALLED A MINIMUM OF 18 INCHES BELOW FINISHED GRADE AND SHALL EXTEND 12 INCHES BEYOND BACK OF CURBS, WALLS, AND PAVING OR AS NOTED OR STIPULATED BY SPECIAL CONDITIONS OR JURISDICTIONAL
- 17. COORDINATE PROPOSED WALKS AND RAMPS WITH ANY EXISTING CONDITIONS INCLUDING PUBLIC SIDEWALKS. STAKE PROPOSED WALKS AND REVIEW IN FIELD WITH LANDSCAPE ARCHITECT PRIOR TO FORMING.
- 18. CONCRETE SLABS OR FOOTINGS SHALL BE DOWELED INTO ABUTTING WALLS, FOUNDATIONS AND FOOTINGS AS PER SPECIFICATIONS OR AS SHOWN IN THE DRAWINGS. REQUIRED DOWELING MAY NOT BE SHOWN ON ALL PLANS.
- 19. PROVIDE EXPANSION JOINTS IN CONCRETE PAVING A MAXIMUM DISTANCE OF 50 FEET APART AND AT ALL INTERSECTIONS WHERE NEW CONCRETE PAVING ABUTS EXISTING CONCRETE PAVING, BUILDINGS, CURBS AND WALLS UNLESS OTHERWISE
- 20. PROVIDE CONTROL JOINTS EVENLY SPACED BETWEEN EXPANSION JOINTS AS SHOWN ON DRAWINGS, EXCEPT WHERE SPECIAL JOINTING PATTERNS ARE SPECIFIED.
- 21. LAYOUT OF ALL SITE FURNISHINGS, INCLUDING BENCHES, TRASH RECEPTACLES, AND BICYCLE RACKS IS TO BE STAKED IN THE FIELD AND APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. WHERE CONCRETE FOOTINGS ARE REQUIRED FOR SITE FURNITURE, THEY ARE TO BE STAKED AND VERIFIED IN THE FIELD BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLING ADJACENT PAVEMENT OR FINISHES.
- 22. SEE RELATED DISCIPLINE DRAWINGS FOR ALL DIMENSIONS.

### SITE UTILITIES NOTES:

- 1. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES, WHETHER OR NOT SHOWN OR DETAILED AND INSTALLED BY ANY OTHER CONTRACT. CALL 811 TWO (2) BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE OR EXCAVATE FOR MARKING OF UNDERGROUND MEMBER UTILITIES.
- 2. CONTRACTOR IS TO VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES, ABOVE AND BELOW GRADE, PRIOR TO EXCAVATION OR TRENCHING. NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES BEFORE STARTING ANY WORK. MAINTAIN LOCATION OF EXISTING UTILITIES DURING ALL PHASES OF WORK.
- 3. DO NOT DAMAGE UTILITY LINES/STRUCTURES. RESTORATION OF UTILITIES DAMAGED BY THE CONTRACTOR SHALL BE AT THE CONTRACTOR'S EXPENSE AND MEET JURISDICTIONAL REQUIREMENTS.

### SITE MATERIAL KEYNOTES:

| [, | 1.0 | PAVI | [<br>EMENTS, RAMPS, CURBS & EDGING   | SHEET    |
|----|-----|------|--|----------|
| \  | 1.0 | 1.1  | PVMT TYPE 1 - C.I.P. CONCRETE, STANDARD GRAY, MEDIUM BROOM FINISH, SAWCUT JOINTS             | A/LS-501 |
|    |     | 1.2  | PVMT TYPE 1 - C.I.P. CONCRETE (VEHICULAR), STANDARD GRAY, MEDIUM BROOM FINISH, SAWCUT JOINTS | A/LS-501 |
|    |     | 1.3  | PVMT TYPE 2 - C.I.P. CONCRETE, STANDARD GRAY, ACID WASH FINISH, SAWCUT JOINTS                | A/LS-501 |
|    |     | 1.4  | PVMT TYPE 2 - C.I.P. CONCRETE (VEHICULAR), STANDARD GRAY, ACID WASH FINISH, SAWCUT JOINTS    | A/LS-501 |
|    |     | 1.5  | CONCRETE EDGER - C.I.P. CONCRETE, STANDARD GRAY, MEDIUM BROOM FINISH, SAWCUT JOINTS          | B/LS-501 |
|    |     |      |  |          |

# $\langle 2.0 \rangle$ JOINTING ( NOT IN USE)

### SITE WALLS & EMBANKMENTS (NOT IN USE)

### SITE FURNITURE & AMENITIES (NOT IN USE)

## $\langle _{6.0} \rangle$ RAILINGS, BARRIERS, FENCING & GATES

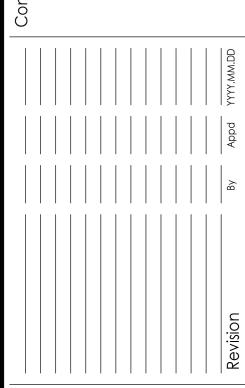
| 6.1 | FENCE TYPE 1A - COATED CHAIN LINK, 6' HEIGHT, W/ PRIVACY SCREEN, W/ MOW STRIP | C/LS-501 |
|-----|---|----------|
| 6.2 | FENCE TYPE 1B - COATED CHAIN LINK, 6' HEIGHT                                  | C/LS-501 |

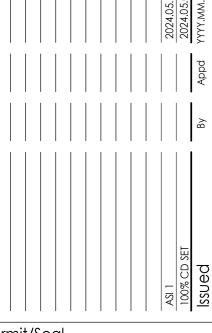
| <b>(7.0)</b> | SITE | E LIGHTING        |                    |
|--------------|------|-------------------|--------------------|
|              | 7.1  | POLE LIGHT TYPE 1 | RE: LIGHTING PLANS |

| 8.0 | <b>PLA</b> | PLANTING      |                    |  |  |  |  |
|-----|------------|---------------|--------------------|--|--|--|--|
|     | PA         | PLANTING AREA | RE: PLANTING PLANS |  |  |  |  |









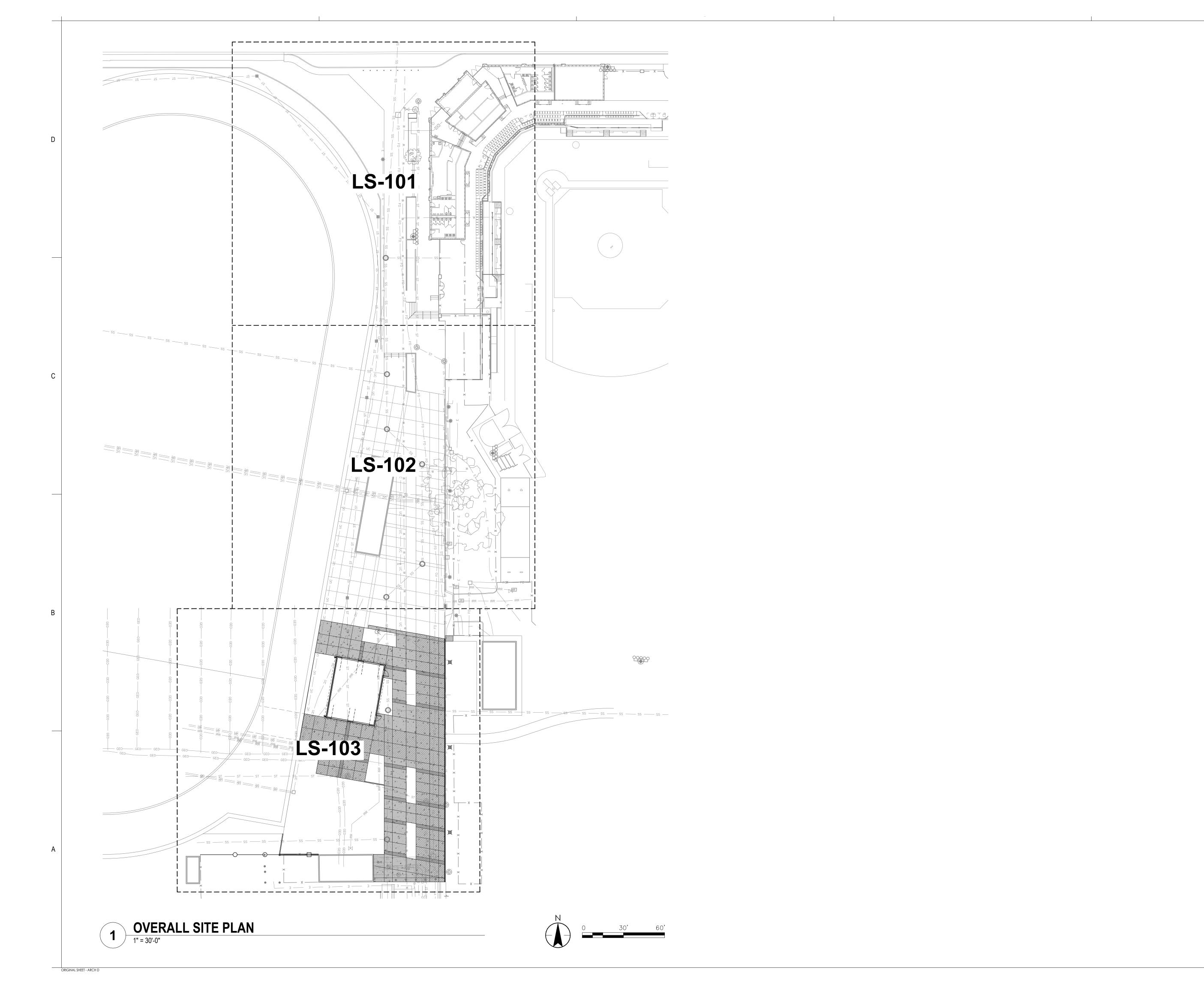


Dwn. Dsgn. Chkd. YYYY.MM.DD

Project No.:2270481701

Scale:N.T.S.

SITE NOTES 8 **SCHEDULES** 





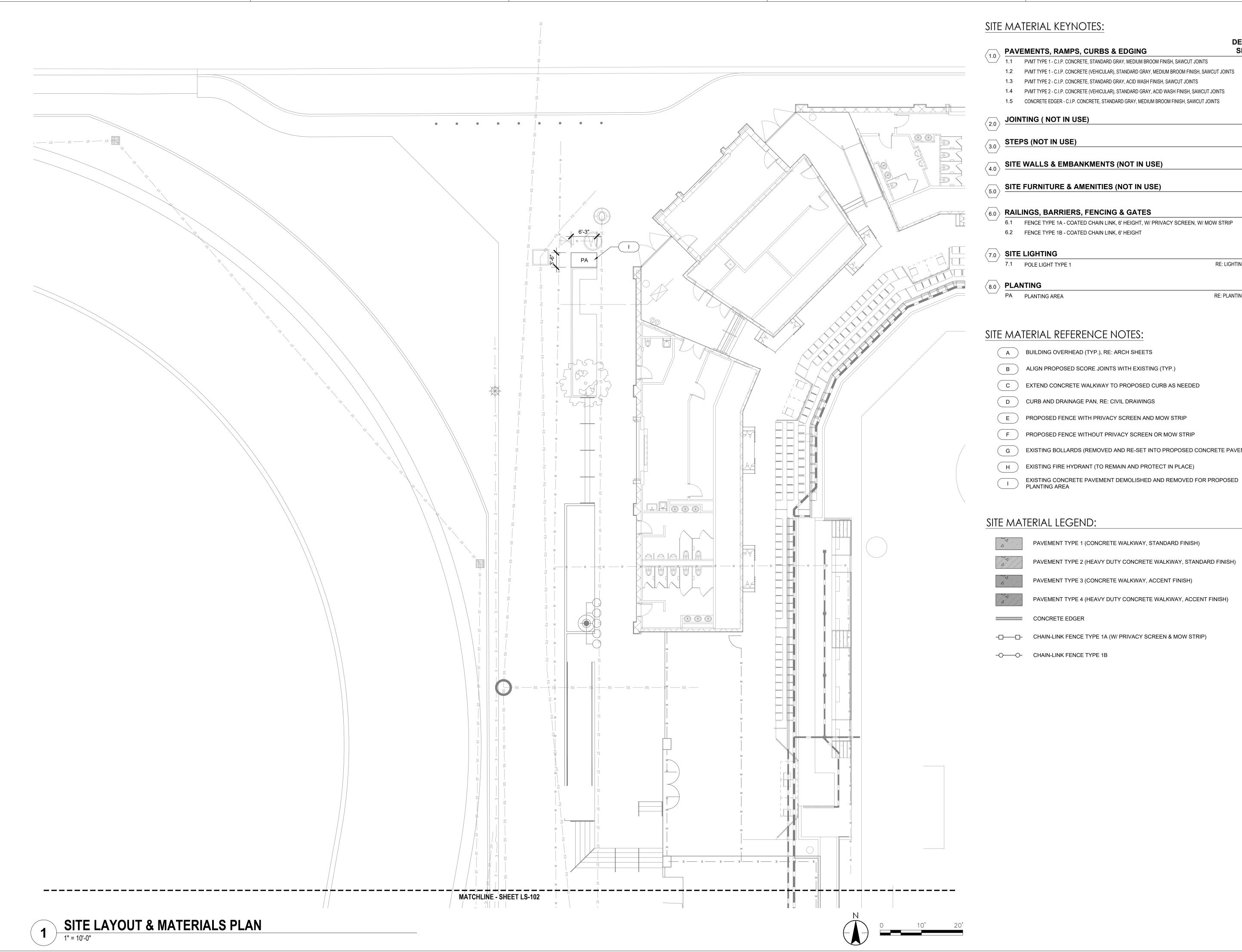


Scale:1" = 30'-0" 
 Dwn.
 Dsgn.
 Chkd.
 YYYY.MM.DD

OVERALL SITE PLAN

Revision:
Drawing No.

LS-100



| $\langle 1.0 \rangle$ | PAV | /EMENTS, RAMPS, CURBS & EDGING   | DETAIL/<br>SHEET |
|-----------------------|-----|--|------------------|
| \1.0                  | 1.1 | PVMT TYPE 1 - C.I.P. CONCRETE, STANDARD GRAY, MEDIUM BROOM FINISH, SAWCUT JOINTS             | A/LS-501         |
|                       | 1.2 | PVMT TYPE 1 - C.I.P. CONCRETE (VEHICULAR), STANDARD GRAY, MEDIUM BROOM FINISH, SAWCUT JOINTS | A/LS-501         |
|                       | 1.3 | PVMT TYPE 2 - C.I.P. CONCRETE, STANDARD GRAY, ACID WASH FINISH, SAWCUT JOINTS                | A/LS-501         |
|                       | 1.4 | PVMT TYPE 2 - C.I.P. CONCRETE (VEHICULAR), STANDARD GRAY, ACID WASH FINISH, SAWCUT JOINTS    | A/LS-501         |
|                       | 1.5 | CONCRETE EDGER - C.I.P. CONCRETE, STANDARD GRAY, MEDIUM BROOM FINISH, SAWCUT JOINTS          | B/LS-501         |

6.1 FENCE TYPE 1A - COATED CHAIN LINK, 6' HEIGHT, W/ PRIVACY SCREEN, W/ MOW STRIP C/LS-501

RE: LIGHTING PLANS

RE: PLANTING PLANS

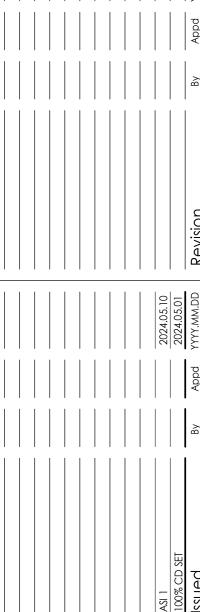
( G ) EXISTING BOLLARDS (REMOVED AND RE-SET INTO PROPOSED CONCRETE PAVEMENT)

PAVEMENT TYPE 1 (CONCRETE WALKWAY, STANDARD FINISH)

PAVEMENT TYPE 3 (CONCRETE WALKWAY, ACCENT FINISH)

-\_\_\_ CHAIN-LINK FENCE TYPE 1A (W/ PRIVACY SCREEN & MOW STRIP)





Permit/Seal

Project No.:2270481701

Scale:1" = 10'-0"

Dwn. Dsgn. Chkd. YYYY.MM.DD SITE LAYOUT &

MATERIALS PLAN

Drawing No.

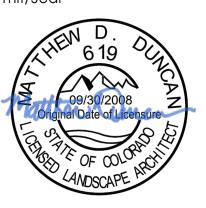
LS-101



tante

antec Architecture Inc. 0 17th Street Suite 1400 inver, CO 80202-4427 1: (303) 410-1717 • www.stantec.co

Permit/Seal



Colorado Mesa University CMU Bergman Promenade

Project No.:2270481701

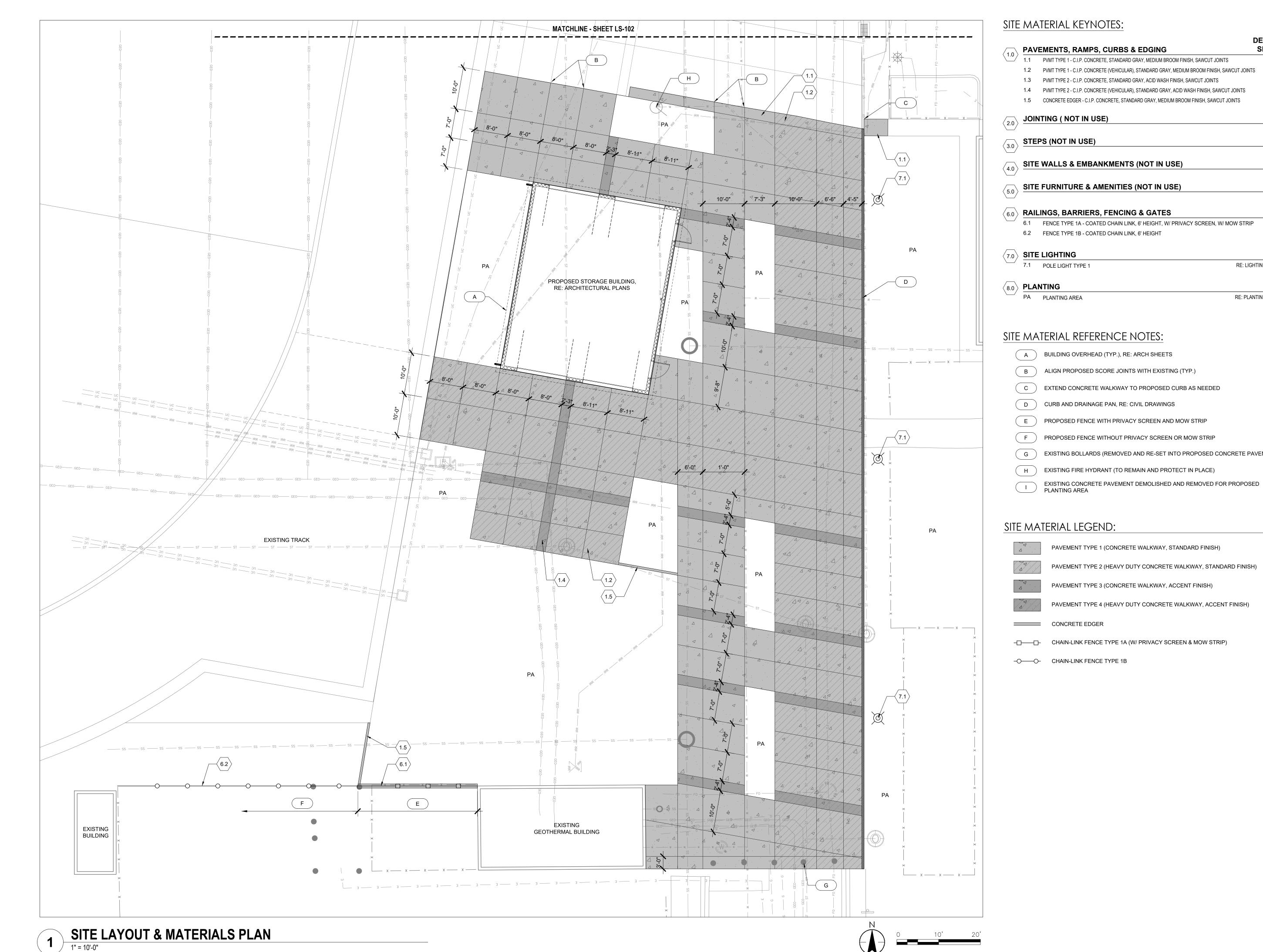
Scale:1" = 10'-0"

SITE LAYOUT &
MATERIALS PLAN

Revision:

Drawing No.

LS-102



| √1.0 > | PAV | [<br>EMENTS, RAMPS, CURBS & EDGING   | DETAIL/<br>SHEET |
|--------|-----|--|------------------|
| \1.0   | 1.1 | PVMT TYPE 1 - C.I.P. CONCRETE, STANDARD GRAY, MEDIUM BROOM FINISH, SAWCUT JOINTS             | A/LS-501         |
|        | 1.2 | PVMT TYPE 1 - C.I.P. CONCRETE (VEHICULAR), STANDARD GRAY, MEDIUM BROOM FINISH, SAWCUT JOINTS | A/LS-501         |
|        | 1.3 | PVMT TYPE 2 - C.I.P. CONCRETE, STANDARD GRAY, ACID WASH FINISH, SAWCUT JOINTS                | A/LS-501         |
|        | 1.4 | PVMT TYPE 2 - C.I.P. CONCRETE (VEHICULAR), STANDARD GRAY, ACID WASH FINISH, SAWCUT JOINTS    | A/LS-501         |
|        | 1.5 | CONCRETE EDGER - C.I.P. CONCRETE, STANDARD GRAY, MEDIUM BROOM FINISH, SAWCUT JOINTS          | B/LS-501         |

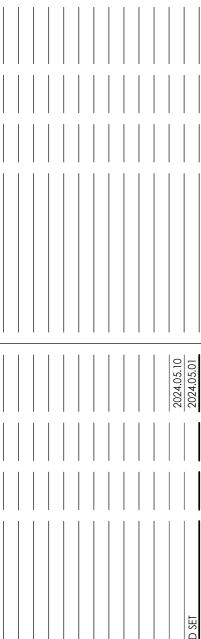
6.1 FENCE TYPE 1A - COATED CHAIN LINK, 6' HEIGHT, W/ PRIVACY SCREEN, W/ MOW STRIP C/LS-501

RE: LIGHTING PLANS

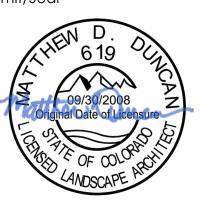
RE: PLANTING PLANS

EXISTING BOLLARDS (REMOVED AND RE-SET INTO PROPOSED CONCRETE PAVEMENT)

PAVEMENT TYPE 2 (HEAVY DUTY CONCRETE WALKWAY, STANDARD FINISH)



Permit/Seal



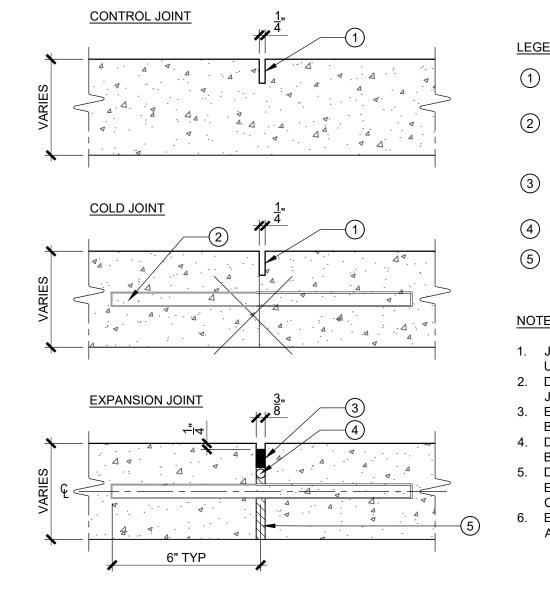
Project No.:2270481701

Scale:1" = 10'-0"

Dwn. Dsgn. Chkd. YYYY.MM.DD SITE LAYOUT & MATERIALS PLAN

Drawing No.

LS-103

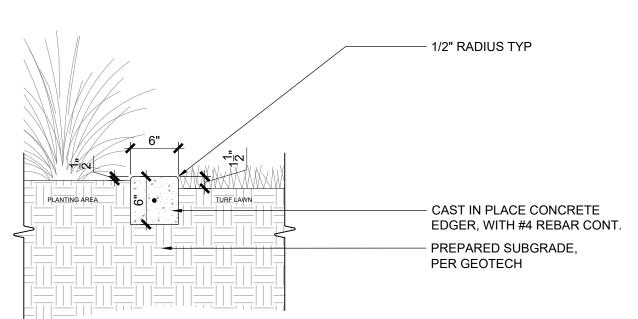


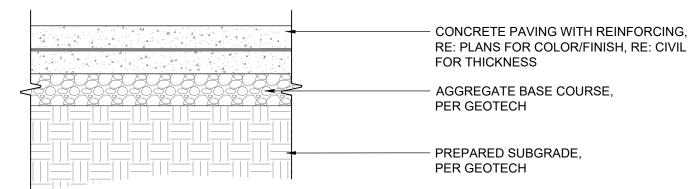
### <u>LEGEND</u>

- (1) SAWCUT CONTROL JOINT 1/3 DEPTH OF SLAB, REFER TO NOTE BELOW.
- 2) 1/2" DIA. 12" LONG SMOOTH STEEL DOWEL, CENTER BETWEEN SLABS, 24" O.C., GREASE ONE END.
- (3) SEALANT, COLOR TO MATCH CONCRETE
- (4) BACKER ROD
- 5 3/8" PRE-MOLDED EXPANSION JOINT FILLER

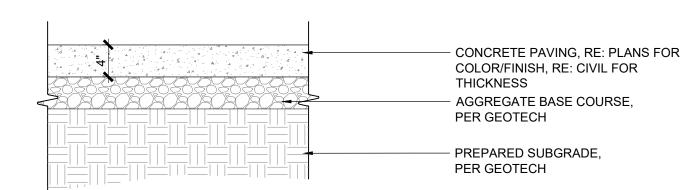
### <u>NOTES</u>

- 1. JOINT LOCATION AND SPACING PER PLAN
- UNLESS OTHERWISE NOTED. 2. DISCONTINUE REBAR AT EXPANSION
- JOINT, TYP.
- 3. EQUALLY DIVIDE SCORED AREAS BETWEEN EXPANSION JOINTS.
- 4. DO NOT EXCEED 30' OC. SPACING
- BETWEEN EXPANSION JOINTS. 5. DO NOT INSTALL DOWELS FOR EXPANSION JOINT AT WALLS OR FLUSH
- 6. EXPANSION JOINTS AT PLANTER WALLS
- AND BETWEEN PAVING AND STRUCTURE.





CONCRETE PAVEMENT (VEHICULAR LOADING)

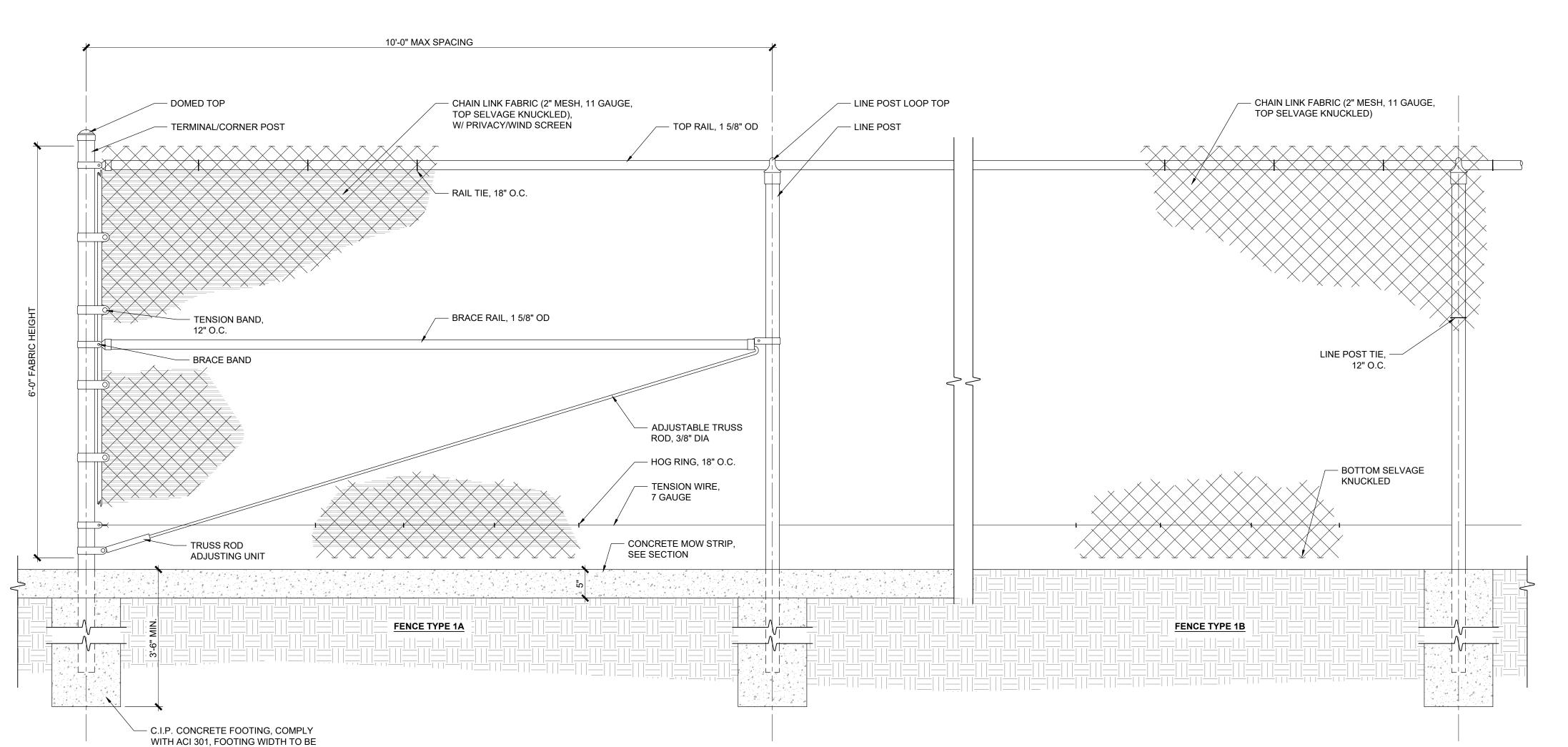


CONCRETE PAVEMENT (PEDESTRIAN LOADING)









### CHAIN LINK FENCE BASIS OF DESIGN PRODUCT:

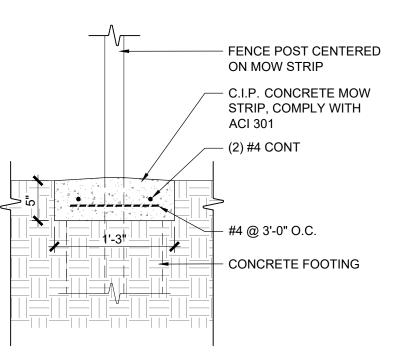
MANUFACTURER: MASTER HALCO (WWW.MASTERHALCO.COM) APPLICATION: LIGHT COMMERCIAL/INDUSTRIAL STYLE/FINISH: SPECTRA BOND (CLASS 2A) COLOR: BLACK

### PRIVACY/WIND SCREEN BASIS OF DESIGN

MANUFACTURER: DOUGLAS SPORTS GROUP (WWW.DOUGLAS-SPORTS.COM) PRODUCT: POLYPRO PLUS PRÉMIUM STYLE: OPEN MESH COLOR: BLACK

### NOTES:

1. ALL METAL FENCE MATERIAL TO BE PVC COATED, BLACK. 2. SUBMIT SHOP DRAWINGS FOR ARCHITECT'S APPROVAL, SHOWING DETAILED LAYOUTS, ELEVATIONS, SECTIONS, DETAILS AND ATTACHMENT TO OTHER WORK.



**CONCRETE MOW STRIP - SECTION** 

CHAIN LINK FENCE - 6'-0" HEIGHT

SCALE: 1" = 1'-0"

ORIGINAL SHEET - ARCH D

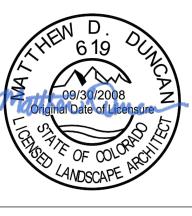
**4X POST WIDTH** 

Drawing No.

LS-501

Stante

Permit/Seal



Project No.:2270481701 File Name:

Scale: N.T.S. Dwn. Dsgn. Chkd. YYYY.MM.DD

SITE DETAILS

Revision:

### PLANTING NOTES

- 1. REFER TO GENERAL NOTES, SHEET LS-001, FOR GENERAL SITE DEVELOPMENT INFORMATION AND
- 2. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION WITH SUBCONTRACTORS AND OTHER TRADES AS REQUIRED TO ACCOMPLISH PLANTING OPERATIONS.
- 3. ALL PLANT MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED BY THE "AMERICAN STANDARDS FOR NURSERY STOCK" (ANSI Z60.1-2014) PUBLISHED BY THE AMERICAN HORTICULTURE INDUSTRY ASSOCIATION.
- 4. ALL PLANTS WILL BE BALLED AND BURLAPPED OR CONTAINER GROWN. BARE ROOT OR SPADED PLANTS WILL NOT BE ACCEPTED. ALL ROOT WRAPPING MADE OF SYNTHETIC OR PLASTIC MATERIAL SHALL BE REMOVED AT TIME OF PLANTING.
- 5. ALL PLANT MATERIAL FURNISHED SHALL BE HEALTHY SPECIMENS FREE FROM PESTS, PLANT DISEASE OR DAMAGE. PRE-SELECTED, OR "TAGGED" MATERIAL MUST BE INSPECTED BY THE CONTRACTOR AND CERTIFIED PEST AND DISEASE FREE. IT IS THE CONTRACTOR'S OBLIGATION TO WARRANTY ALL PLANT MATERIALS PER THE SPECIFICATIONS.
- 6. SUPPLY ALL PLANT MATERIAL IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTING BED AS SHOWN ON THE DRAWINGS. IF CONFLICTS ARISE BETWEEN SIZE OF AREAS AND PLANS, CONTRACTOR SHALL CONTACT LANDSCAPE ARCHITECT FOR IMMEDIATE RESOLUTION. FAILURE TO MAKE SUCH CONFLICTS KNOWN TO THE LANDSCAPE ARCHITECT WILL RESULT IN CONTRACTOR'S LIABILITY TO RELOCATE THE MATERIALS.
- 7. ALL PLANT MATERIAL SHALL BE INSPECTED AND APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO DELIVERY TO THE SITE.
- 8. NO SUBSTITUTIONS OF PLANT MATERIAL SHALL BE MADE WITHOUT THE WRITTEN CONSENT OF THE LANDSCAPE ARCHITECT PRIOR TO DELIVERY TO THE SITE.
- 9. ALL TREE AND SHRUB TAGS SHALL REMAIN ON THE PLANTS UNTIL THE TIME OF FINAL ACCEPTANCE.
- 10. ALL TREES OF THE SAME SPECIES AND SIZE SHALL HAVE MATCHING HEIGHT AND FORM UNLESS OTHERWISE NOTED ON THE PLANS.
- 11. ALL TREES AND STAKES SHALL BE SET PLUMB UNLESS OTHERWISE NOTED.
- 12. ALL DECIDUOUS TREES SHALL BE WRAPPED. REFER TO SPECIFICATIONS FOR WRAP TYPE AND TIMING.
- 13. ALL SHRUB PLANTING AREAS ARE TO BE PREPARED AS CONTINUOUS BEDS. ALL SHRUBS. ORNAMENTAL GRASSES AND GROUND COVERS SHALL BE TRIANGULARLY SPACED, UNLESS OTHERWISE NOTED.
- 14. ALL PROPOSED LANDSCAPING LOCATED IN THE RIGHT-OF-WAY SHALL COMPLY WITH LOCAL JURISDICTIONAL REQUIREMENTS FOR HEIGHT CLEARANCE, SPACING AND RELATIONSHIP TO OTHER IMPROVEMENTS TO PROVIDE ADEQUATE SIGHT DISTANCES AT ALL INTERSECTIONS AND ROADWAY CURVES.
- 15. NO TREES SHALL BE PLANTED WITHIN 10' MIN. OF ANY WATER OR SEWER MAINS, WITHIN 6' MIN. OF WATER OR SEWER SERVICE LINES, AND WITHIN 4' MIN. OF GAS LINES. STREET TREES PLANTED WITHIN THE UTILITY EASEMENT MAY CONFLICT WITH UTILITIES. ADDITIONAL CONDUIT MAY BE REQUIRED TO PROTECT UNDERGROUND ELECTRIC LINES. FOR WATER VALVES LOCATED WITHIN PLANTING AREAS, KEEP A 2' RADIUS CLEAR OF SURFACE VEGETATION AROUND THE VALVE BOX. LOCAL JURISDICTIONAL REQUIREMENTS TAKE PRECEDENT.
- 16. ALL PLANT MATERIAL AND FINAL LOCATIONS OF ALL PLANT MATERIALS SHALL BE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO ADJUST THE LOCATION OF PLANT MATERIAL DURING INSTALLATION AS APPROPRIATE TO THE PROJECT.
- 17. MINOR ADJUSTMENTS IN PLANT PLACEMENT AND SPECIES MAY BE PROPOSED BY THE CONTRACTOR FOR CONSIDERATION AND APPROVAL BY THE LANDSCAPE ARCHITECT AT THE CONSTRUCTION STAGE TO RESPOND TO FIELD CONDITIONS AND PLANT AVAILABILITY. THERE SHALL BE NO REDUCTION IN PLANT MATERIAL. FOR TREES IN THE RIGHT-OF-WAY, ADJUSTMENTS MUST HAVE PRIOR AUTHORIZATION OF LANDSCAPE ARCHITECT AND/OR CITY FORESTER AS APPLICABLE.
- 18. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT OF ANY EXISTING PLANT MATERIAL DAMAGED DURING PLANTING OPERATIONS AND PRIOR TO FINAL ACCEPTANCE.
- 19. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT 48 HOURS PRIOR TO COMMENCEMENT OF WORK TO COORDINATE PROJECT INSPECTION SCHEDULES.
- 20. OBTAIN LANDSCAPE ARCHITECT'S APPROVAL OF FINISH GRADING PRIOR TO THE COMMENCEMENT OF PLANTING OPERATIONS.
- 21. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE THROUGHOUT THE SITE WITH ACCURATELY SET FLOW LINES. NO LOW SPOTS OR PONDING OF SURFACE WATER WILL BE ACCEPTED IN TEMPORARY OR FINAL WORK.
- 22. PERFORM PERCOLATION TEST ON ALL TREE HOLES AND PLANTING BEDS PRIOR TO PLANTING. INFORM LANDSCAPE ARCHITECT OF RESULTS. REFER TO SPECIFICATIONS FOR FURTHER INFORMATION.
- 23. SEE SPECIFICATIONS FOR PLANTING REQUIREMENTS. SOIL PREPARATION TESTING. MATERIALS AND EXECUTION. ARRANGE FOR VISIT OF LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL A MINIMUM OF 48 HOURS PRIOR TO INSTALLATION.
- 24. CONTRACTOR IS TO FAMILIARIZE THEMSELVES WITH THE LAYOUT, GRADING AND CIVIL ENGINEERING DOCUMENTS TO COORDINATE ACTUAL LOCATION OF TREES AND SHRUBS
- 25. REFER TO LAYOUT DRAWINGS FOR LANDSCAPE EDGING LAYOUT. FIELD STAKE AND REVIEW LAYOUT WITH LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- 26. FIELD STAKE AND REVIEW LOCATIONS OF ALL PROPOSED TREES WITH LANDSCAPE ARCHITECT PRIOR TO THE COMMENCEMENT OF PLANTING OPERATIONS.
- 27. SEE DETAILS AND SPECIFICATIONS FOR STAKING METHOD, PLANT PIT DIMENSIONS AND BACKFILL REQUIREMENTS.
- 28. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ADEQUATE WATER TO NEWLY INSTALLED MATERIALS TO MAINTAIN PLANT HEALTH FOR THE DURATION OF THE CONSTRUCTION PERIOD UNTIL FINAL ACCEPTANCE IS GRANTED AND THE REQUIRED MAINTENANCE PERIOD TAKES EFFECT.
- 29. PLANT MATERIAL QUANTITIES ARE PROVIDED FOR THE CONTRACTOR'S CONVENIENCE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF QUANTITY TAKEOFFS FOR ALL PLANT MATERIAL AS SHOWN ON PLANS.
- 30. COORDINATE INSTALLATION OF LARGE PLANT MATERIAL WITH INSTALLATION OF WALL FOOTINGS AND ADJACENT PAVEMENTS. ANY DAMAGE TO IMPROVEMENTS IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.
- 31. DO NOT PRUNE TREES AND SHRUBS BEFORE DELIVERY. PROTECT BARK, BRANCHES, AND ROOT SYSTEMS FROM SUN SCALD, DRYING, WIND BURN, SWEATING, WHIPPING, AND OTHER HANDLING AND TYING DAMAGE. DO NOT BEND OR BIND-TIE TREES OR SHRUBS IN SUCH A MANNER AS TO DESTROY THEIR NATURAL SHAPE. PROVIDE PROTECTIVE COVERING OF PLANTS DURING SHIPPING AND DELIVERY. DO NOT DROP PLANTS DURING DELIVERY AND HANDLING.
- 32. HANDLE PLANTING STOCK BY ROOT BALL

ORIGINAL SHEET - ARCH D

- 33. STORE BULBS, CORMS, AND TUBERS IN A DRY PLACE AT 60 TO 65 DEGREES FAHRENHEIT UNTIL TIME OF PLANTING INSTALLATION.
- FILM OVER TRUNKS (BEFORE WRAPPING), BRANCHES, STEMS, TWIGS, AND FOLIAGE TO PROTECT DURING DIGGING, HANDLING, AND TRANSPORTATION.
- 35. WRAP TREES AND SHRUBS WITH BURLAP FABRIC OVER TRUNKS, BRANCHES, STEMS, TWIGS, AND FOLIAGE TO PROTECT FROM WIND AND OTHER DAMAGE DURING DIGGING, HANDLING, AND TRANSPORTATION.

34. APPLY ANTIDESICCANT TO TREES AND SHRUBS USING POWER SPRAY TO PROVIDE AN ADEQUATE

36. DELIVER PLANTS AFTER PREPARATIONS FOR PLANTING HAVE BEEN COMPLETED, AND INSTALL IMMEDIATELY. IF PLANTING IS DELAYED MORE THAN SIX HOURS AFTER DELIVERY, SET PLANTS AND TREES IN THEIR APPROPRIATE ASPECT (SUN, FILTERED SUN, SHADE), PROTECT FROM WEATHER AND MECHANICAL DAMAGE, AND KEEP ROOTS MOIST.

- 37. PLANT DURING ONE OF THE FOLLOWING PERIODS. COORDINATE PLANTING PERIODS WITH MAINTENANCE PERIODS TO PROVIDE REQUIRED MAINTENANCE FROM DATE OF SUBSTANTIAL
- 37.1. SPRING PLANTING: APRIL 1 JUNE 30. ADJUST FOR WEATHER LIMITATIONS AND FREEZING
- 37.2. FALL PLANTING: SEPTEMBER 1 NOVEMBER 30. ADJUST FOR WEATHER LIMITATIONS AND FREEZING CONDITIONS.
- 38. INSTALLER AGREES TO REPAIR OR REPLACE PLANTINGS AND ACCESSORIES THAT FAIL IN MATERIALS, WORKMANSHIP, OR GROWTH WITHIN SPECIFIED WARRANTY PERIOD. FAILURES INCLUDE, BUT ARE NOT LIMITED, TO THE FOLLOWING:
- 38.1. DEATH AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM ABUSE, LACK OF ADEQUATE MAINTENANCE OR NEGLECT BY OWNER,
- 38.2. STRUCTURAL FAILURES INCLUDING PLANTINGS FALLING OR BLOWING OVER.
- 38.3. FAULTY PERFORMANCE OF TREE STABILIZATION. 38.4. DETERIORATION OF METALS, METAL FINISHES, AND OTHER MATERIALS BEYOND NORMAL
- 39. WARRANTY PERIODS: FROM DATE OF SUBSTANTIAL COMPLETION ARE AS FOLLOWS:
- 39.1. TREES, SHRUBS, VINES, AND ORNAMENTAL GRASSES: 12 MONTHS
- 39.2. GROUND COVERS, BIENNIALS, PERENNIALS: 12 MONTHS 39.3. ANNUALS: 3 MONTHS

#### 40. REMEDIAL ACTIONS AS A MINIMUM:

- 40.1. IMMEDIATELY REMOVE DEAD PLANTS AND REPLACE UNLESS REQUIRED TO PLANT IN THE SUCCEEDING PLANTING SEASON.
- 40.2. REPLACE PLANTS THAT ARE MORE THAN 25 PERCENT DEAD OR IN AN UNHEALTHY CONDITION AT END OF WARRANTY PERIOD.
- 40.3. A LIMIT OF ONE REPLACEMENT OF EACH PLANT IS REQUIRED EXCEPT FOR LOSSES OR REPLACEMENTS DUE TO FAILURE TO COMPLY WITH REQUIREMENTS.
- 40.4. PROVIDE EXTENDED WARRANTY FOR PERIOD EQUAL TO ORIGINAL WARRANTY PERIOD, FOR REPLACED PLANT MATERIAL.
- 41. SOIL ANALYSIS: FOR EACH UNAMENDED SOIL TYPE, CONTRACTOR SHALL PERFORM TESTING ON SOIL SAMPLES AND FURNISH A SOIL ANALYSIS AND COMPLETE SOIL MANAGEMENT REPORT CONTAINING SOIL AMENDMENT AND FERTILIZER RECOMMENDATIONS BY A QUALIFIED TESTING
- 41.1. THE SOILS ANALYSIS SHALL INCLUDE THE FOLLOWING:
- 41.1.1. SOIL TEXTURE
- 41.1.2. INFILITRATION RATE.
- 41.1.3. pH.
- 41.1.4. TOTAL SOLUBLE SALTS.
- 41.1.5. SODIUM. 41.1.6. PERCENTAGE ORGANIC MATTER.
- 41.1.7. RECOMMENDATIONS.
- 41.2. SOIL AMENDMENTS SHALL BE INCORPORATED ACCORDING TO RECOMMENDATIONS OF THE SOILS REPORT AND WHAT IS APPROPRIATE FOR PLANTS SELECTED. IF NO SOILS REPORT IS PROVIDED DUE TO EXTENSIVE MASS GRADING, INCORPORATE THE FOLLOWING SOIL AMENDMENTS AT A RATE OF 4 CUBIC YARDS PER 1,000 SF:
- 41.2.1. COMPOST: WELL-COMPOSTED, STABLE, AND WEED-FREE ORGANIC MATTER PRODUCED BY COMPOSTING FEEDSTOCK, AND BEARING USCC'S :SEAL OF TESTING ASSURANCE", AND AS FOLLOWS:
- 41.2.1.1. FEEDSTOCK: LIMITED TO LIMB AND TREE WASTE, LEAVES, GRASS, FOOD AND
- BREWERY WASTE, AND BIOSOLIDS. REACTION: pH OF 5 TO 7.5.
- SOLUBLE-SALT CONCENTRATION: LESS THAN 5 dS/m.
- MOISTURE CONTENT: 35 TO 55 PERCENT BY WEIGHT.
- ORGANIC MATTER CONTENT: MINIMUM 25 PERCENT OF DRY WEIGHT. PARTICLE SIZE: MINIMUM OF 90 PERCENT PASSING THROUGH A 1/2 INCH SIEVE.

- 42.1. FURNISH NURSERY-GROWN PLANTS TRUE TO GENUS, SPECIES, VARIETY, CULTIVAR, STEM FORM, SHEARING, AND OTHER FEATURES INDICATED IN PLANT SCHEDULE INDICATED ON DRAWINGS AND COMPLYING WITH ANSI Z60.1; AND WITH HEALTHY ROOT SYSTEMS DEVELOPED BY TRANSPLANTING OR ROOT PRUNING. PROVIDE WELL-SHAPED, FULLY BRANCHED, HEALTHY, VIGOROUS STOCK, DENSLY FOLIATED WHEN IN LEAF AND FREE OF DISEASE, PESTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN SCALED, INJURIES, ABRASIONS, AND DISFIGUREMENT.
- 42.2. ROOT BALL DEPTH: FURNISH TREES AND SHRUBS WITH ROOT BALLS MEASURED FROM TOP OF ROOT BALL, WHICH BEGINS AT ROOT FLARE, IN ACCORDANCE WITH ANSI Z60.1.
- 43. TOPSOIL: IMPORTED TOPSOIL TO BE FRIABLE SANDY LOAM AND REASONABLY FREE OF ROOTS. ROCKS LARGER THAN 1/8", FOREIGN MATTER, AND WEEDS, AND AS FOLLOWS:
- 43.1. REACTION: pH OF 7.2 OR LESS.
- 43.2. SOLUBLE-SALT CONCENTRATION: LESS THAN 2 dS/m.
- 43.3. MANUFACTURED OR BLENDED TOPSOIL MAY BE UTILIZED TO ACHIEVE THE ABOVE TOPSOIL
- 44. PLANTING TABLETS: TIGHTLY COMPRESSED CHIP-TYPE, LONG-LASTING, SLOW-RELEASE, COMMERCIAL-GRADE PLANTING FERTILIZER IN TABLET FORM
- 44.1. 5-GRAM TABLETS

DRAWINGS:

- 44.2. NUTRIENT COMPOSITION: 20 PERCENT NITROGEN, 10 PERCENT PHOSPHOROUS, AND 5 PERCENT POTASSIUM, BY WEIGHT PLUS MICRONUTRIENTS.
- 45. ORGANIC MULCH: FREE FROM DELETERIOUS MATERIALS AND SUITABLE AS A TOP DRESSING OF TREES AND SHRUBS, CONSISTING OF THE FOLLOWING, AND IN LOCATIONS INDICATED ON
- 45.1. TYPE 1 SHREDDED REDWOOD BARK.
- 45.1.1. BASIS OF DESIGN: GORILLA HAIR MULCH, OR APPROVED EQUAL.
- 45.1.2. SIZE RANGE: 3" MAXIMUM, ½" MINIMUM. 45.1.3. COLOR: NATURAL.
- 45.2. APPLY A MINIMUM OF THREE INCH (3") LAYER OF MULCH ON ALL EXPOSED SURFACES OF PLANTING AREAS.
- 46. TREE STABILIZATION MATERIALS:
- 46.1. UPRIGHT STAKES: ROUGH SAWN, SOUND, NEW HARDWOOD, FREE OF KNOTS, HOLES, CROSS GRASS, AND OTHER DEFECTS, 2-BY-2-INCH NOMINAL BY LENGTH INDICATED, POINTED AT ONE
- 46.2. FLEXIBLE TIES: WIDE RUBBER OR ELASTIC BANDS OR STRAPS OF LENGTH REQUIRED TO
- REACH STAKES OR TURNBUCKLES. 46.3. FLAGS: STANDARD SURVEYOR'S PLASTIC FLAGGING TAPE, WHITE, 6 INCHES LONG.

### 47. SOIL PREPARATION:

- 47.1. EXCAVATE AREAS TO BE PLANTED TO A DEPTH OF 6 INCHES TO RECEIVE AMENDED TOPSOIL AND TO REMOVE BOTH UNACCEPTABLE MATERIALS (CONCRETE SLURRY, CONCRETE CHUNKS, CEMENT, PLASTER, BUILDING DEBRIS, OILS, GASOLINE, DIESEL FUEL, PAINT THINNER, TURPENTINE, TAR, ROOFING COMPOUND, ACID, AND OTHER EXTRANEOUS MATERIALS HARMFUL TO PLANT GROWTH) AND UNSUITABLE MATERIALS (LARGE STONES, ROOTS, SOD, CLAY CLUMPS, POCKETS OF COARSE SAND).
- 47.2. APPLY AND MIX TOPSOIL WITH AMENDMENTS ON-SITE TO PRODUCE REQUIRED PLANTING SOIL, DO NOT APPLY MATERIALS OR TILL IF EXISTING SOIL OR SUBGRADE IS FROZEN, MUDDY.
- 47.3. TILL SUBGRADE TO A MINIMUM DEPTH OF 12 INCHES, REMOVING STONES LARGER THAN 2" IN ANY DIMENSION AND STICKS, ROOTS, RUBBISH, AND OTHER EXTRANEOUS MATTER. 47.4. SPREAD AMENDED TOPSOIL TO A TOTAL DEPTH AS NEEDED TO RAISE GRADE PER SPECIFIC PLANTING TREATMENT, AND TILL 4 INCHES INTO SUBGRADE, MIXING THOROUGHLY TO AVOID
- 47.5. COMPACT BLENDED PLANTING SOIL TO 75-82 PERCENT OF MAXIMUM STANDARD PROCTOR
- 47.6. GRADE PLANTING SOIL TO A SMOOTH, UNIFORM SURFACE PLANE WITH LOOSE, UNIFORMLY

FINE TEXTURE. ROLL AND RAKE, REMOVE RIDGES, AND FILL DEPRESSIONS TO MEET FINISH

#### 48. PLANTING PREPARATION:

- 48.1. INSTALL EROSION-CONTROL MEASURES TO PREVENT EROSION OR DISPLACEMENT OF SOILS AND DISCHARGE OF SOIL-BEARING WATER RUN-OFF OR AIRBORNE DUST TO ADJACENT PROPERTIES AND WALKWAYS.
- 48.2. LAY OUT INDIVIDUAL TREE AND SHRUB LOCATIONS AND AREAS FOR MULTIPLE PLANTINGS. STAKE LOCATIONS, OUTLINE AREAS, ADJUST LOCATIONS WHEN REQUESTED, AND OBTAIN ARCHITECT'S ACCEPTANCE OF LAYOUT BEFORE EXCAVATING OR PLANTINGS.

#### 49. EXCAVATION FOR TREES AND SHRUBS:

- 49.1. EXCAVATE PLANTING PITS WITH SIDES SLOPING INWARD AT A 45-DEGREE ANGLE. EXCAVATIONS WITH VERTICAL SIDES ARE UNACCEPTABLE. TRIM PERIMETER OF BOTTOM LEAVING CENTER AREA OF BOTTOM RAISED SLIGHTLY TO SUPPORT ROOT BALL AND ASSIST IN DRAINAGE AWAY FROM CENTER. DO NOT FURTHER DISTURB BASE. ENSURE THAT ROOT BALL WILL SIT ON UNDISTURBED BASE SOIL TO PREVENT SETTLING. SCARIFY SIDES OF
- PLANTING PIT SMEARED / SMOOTHED DURING EXCAVATION. 49.2. BALLED AND BURLAPPED STOCK: EXCAVATE APPROXIMATELY THREE TIMES AS WIDE AS BALL
- 49.3. CONTAINER-GROWN STOCK: EXCAVATE APPROXIMATELY THREE TIMES AS WIDE AS BALL
- 49.4. DO NOT EXCAVATE DEEPER THAN DEPTH OF THE ROOT BALL, MEASURED FROM THE ROOT FLARE TO THE BOTTOM OF THE ROOT BALL

EXCAVATE SUBGRADES OF ADJACENT PAVING, STRUCTURES, OR OTHER NEW OR EXISTING

- 49.5. IF ARE UNDER THE PLANT WAS INITIALLY DUB TOO DEEP, ADD SOIL TO RAISE IT TO THE CORRECT LEVEL AND THOROUGHLY TAMP THE ADDED SOIL TO PREVENT SETTLING. 49.6. MAINTAIN ANGLES OF REPOSE OF ADJACENT MATERIALS TO ENSURE STABILITY. DO NOT
- 50. BACKFILL SOIL: SUBSOIL AND TOPSOIL REMOVED DURING EXCAVATIONS MAY BE USED AS BACKFILL
- 51. FILL EXCAVATIONS WITH WATER AND ALLOW TO PERCOLATE AWAY BEFORE POSITIONING TREES AND SHRUBS.

### 52. TREE AND SHRUB PLANTING:

- 52.1. REMOVE STEM GIRDLING ROOTS AND KINKED ROOTS. REMOVED INJURED ROOTS BY CUTTING CLEANLY; DO NOT BREAK.
- 52.2. BACKFILL: PLANTING SOIL

SOIL UNLESS OTHERWISE INDICATED.

- 52.3. AFTER PLACING SOME BACKFILL AROUND ROOT BALL TO STABILIZE PLANT, CAREFULLY CUT AND REMOVED BURLAP, ROPE, AND WIRE BASKETS FROM TOPS OF ROOT BALLS AND FROM SIDES, BUT DO NOT REMOVE FROM UNDER ROOT BALLS.
- 52.4. BACKFILL AROUND ROOT BALL IN LAYERS, TAMPING TO SETTLE SOIL AND ELIMINATE VOIDS AND AIR POCKETS. WHEN PLANTING PIT IS APPROXIMATELY ONE-HALF FILLED, WATER THOROUGHLY BEFORE PLACING REMAINDER OF BACKFILL. REPEAT WATERING UNTIL NO MORE WATER IS ABSORBED.
- 52.5. PLACE PLANTING TABLETS EQUALLY DISTRIBUTED AROUND EACH PLANTING PIT WHEN PITS APPROXIMATELY ONE-HALF FILLED. PLACE TABLETS BESIDE THE ROOT BALL ABOUT 1 INCH
- FROM ROOT TIPS; DO NOT PLACE TABLETS IN BOTTOM OF HOLE. 52.5.1. QUANTITY: THREE TABLETS FOR EACH CALIPER INCH OF PLANT.
- 52.6. SLOPES: WHEN PLANTING ON SLOPES, SET THE PLANT SO THE ROOT FLARE ON THE UPHILL SIDE IS FLUSH WITH THE SURROUNDING SOIL ON THE SLOPE; THE EDGE OF THE ROOT BALL ON THE DOWNHILL SIDE WILL BE ABOVE THE SURROUNDING SOIL. APPLY ENOUGH SOIL TO COVER THE DOWNHILL SIDE OF THE ROOT BALL.

#### 53. TREE STABILIZATION - UPRIGHT STAKING AND TYING:

- 53.1. STAKE TREES OF 2-THROUGH 5-INCH CALIPER. STAKE TREES OF LESS THAN 2-INCH CALIPER ONLY AS REQUIRED TO PREVENT WIND TIP OUT. USE A MINIMUM OF TWO STAKES OF LENGTH REQUIRED TO PENETRATE AT LEAST 18 INCHES BELOW BOTTOM OF BACKFILLED EXCAVATION AND TO EXTEND TO THE DIMENSION INDICATED ON DRAWINGS ABOVE GRADE. SET VERTICAL STAKES AND SPACE TO AVOID PENETRATING ROOT BALLS OR ROOT MASSES.
- 53.2. STAKE TREES WITH TWO STAKES FOR TREES UP TO 12 FEET HIGH AND 2-1/2 INCHES OR LESS IN CALIPER; THREE STAKES FOR TREES LESS THAN 14 FEET HIGH AND UP TO 4 -INCHES IN CALIPER. SPACES STAKED EQUALLY AROUND TREES.
- 53.3. SUPPORT TREES WITH BANDS OF FLEXIBLE TIES AT CONTACT POINTS WITH TREE TRUNK. ALLOW ENOUGH SLACK AVOID RIGID RESTRAINT OF TREE.

### 54. PERENNIAL AND ORNAMENTAL GRASS PLANTING:

54.1. SET OUT AND SPACE PLANTS OTHER THAN TREES AND SHRUBS AS INDICATED ON DRAWINGS.

54.4. WORK SOIL AROUND ROOTS TO ELIMINATE AIR POCKETS AND LEAVE A SLIGHT SAUCER

- 54.2. USE PLANTING SOIL FOR BACKFILL. 54.3. DIG HOLES LARGE ENOUGH TO ALLOW SPREADING OF ROOTS.
- INDENTATION AROUND PLANTS TO HOLD WATER. 54.5. WATER THOROUGHLY AFTER PLANTING, TAKING CARE NOT TO COVER PLANT CROWNS WITH
- 54.6. PROTECT PLANTS FROM HOT SUN AND WIND; REMOVE PROTECTION IF PLANTS SHOW EVIDENCE OF RECOVERY FROM TRANSPLANTING SHOCK.

### 55. PLANTING AREA MULCHING:

FROM DATE OF SUBSTANTIAL COMPLETION.

- 55.1. DO NOT INSTALL WEED-CONTROL BARRIERS.
- 55.2. APPLY ORGANIC MULCH TO PLANTING AREAS AS INDICATED. 55.2.1. IN PLANTING AREAS: APPLY 3 INCH AVERAGE THICKNESS OF ORGANIC MULCH OVER WHOLE SURFACE OF PLANTING AREA, AND FINISH 1/2 INCH BELOW SURFACE OF ADJACENT
- PAVEMENT. DO NOT PLACE MULCH WITHIN 3 INCHES OF TRUNKS OR STEMS. AROUND TREES IN TURF AREAS: APPLY MULCH RING OF 3 INCH AVERAGE THICKNESS, WITH 12 INCH RADIUS AROUND TRUNKS. DO NOT PLACE MULCH WITHIN 3 INCHES OF

### 56. PLANT MAINTENANCE:

- 56.1. MAINTAIN PLANTINGS BY PRUNING, CULTIVATING, WATERING, WEEDING, FERTILIZING, MULCHING, RESTORING PLANTING SAUCERS, ADJUSTING AND REPAIRING TREE-STABILIZATION DEVICES, RESETTING TO PROPER GRADES OR VERTICAL POSITION, AND PERFORMING OTHER OPERATIONS AS REQUIRED TO ESTABLISH HEALTHY, VIABLE PLANTINGS.
- FILL IN, AS NECESSARY, SOIL SUBSIDENCE THAT MAY OCCUR BECAUSE OF SETTLING OR OTHER PROCESSES. REPLACE MULCH MATERIALS DAMAGED OR LOST IN AREAS OF SUBSIDENCE.
- 56.3. APPLY TREATMENTS AS REQUIRED TO KEEP PLANT MATERIALS, PLANTED AREAS, AND SOILS FREE OF PESTS AND PATHOGENS OR DISEASE. USE INTEGRATED PEST MANAGEMENT PRACTICES WHEN POSSIBLE TO MINIMIZE USE OF PESTICIDES AND REDUCE HAZARDS.
- 56.4. MAINTENANCE SERVICE PERIOD FOR TREES AND SHRUBS: 12 MONTHS FROM DATE OF SUBSTANTIAL COMPLETION. 56.5. MAINTENANCE SERVICE PERIOD FOR PERENNIALS AND ORNAMENTAL GRASSES: 6 MONTHS

## 57. TURFGRASS SOD:

- COMPLYING WITH "SPECIFICATIONS FOR TURFGRASS SOD MATERIALS" IN TPI'S "GUIDELINE SPECIFICATIONS TO TURFGRASS SOD". FURNISH VIABLE SOD OF UNIFORM DENSITY, COLOR, AND TEXTURE THAT IS STRONGLY ROOTED AND CAPABLE OF VIGOROUS GROWTH AND DEVELOPMENT WHEN PLANTED.
- 57.2. TURFGRASS SPECIES: KENTUCKY BLUEGRASS MIXTURE CONTAINING 4 VARIETIES SUITABLE FOR LOCAL CLIMATE, EXPOSURE, DURABILITY, AND SOIL CONDITIONS.
- 57.2.1. LARGE ROLLS SHALL BE UTILIZED FOR LARGE OPEN AREAS WHEN POSSIBLE. 57.3. FERTILIZERS: SLOW-RELEASE GRANULAR OR PELLETED FERTILIZER CONSISTING OF 50 PERCENT WATER-INSOLUBLE NITROGEN, PHOSPHORUS, AND POTASSIUM IN THE FOLLOWING
- 57.3.1. 20 PERCENT NITROGEN, 10 PERCENT PHOSPHOROUS, AND 5 PERCENT POTASSIUM, BY WEIGHT PLUS MICRONUTRIENTS.

### 58. TURFGRASS AREA PREPARATION:

- 58.1. REDUCE ELEVATION OF PLANTING SOIL TO ALLOW FOR SOIL THICKNESS OF SOD, WITH FINISH GRADE OF TURF TO BE  $\frac{1}{2}$  INCH BELOW SURFACE OF ADJACENT PAVEMENT.
- MOISTEN PREPARED AREAS BEFORE PLANTING IF SOIL IS DRY. WATER THOROUGHLY AND ALLOW SURFACE TO DRY BEFORE PLANTING. DO NOT CREATE MUDDY SOIL.

58.3. BEFORE PLANTING, OBTAIN LANDSCAPE ARCHITECT'S ACCEPTANCE OF FINISH GRADING; RESTORE PLANTING AREAS IF ERODED OR OTHERWISE DISTURBED AFTER FINISH GRADING.

#### 59. SODDING:

- 59.1. LAY SOD WITHIN 24 HOURS OF HARVESTING. DO NOT LAY SOD IF DORMANT OR IF GROUND IS FROZEN OR MUDDY.
- 59.2. LAY SOD TO FORM A SOLID MASS WITH TIGHTLY FITTED JOINTS. BUTT ENDS AND SIDES OF SOD; DO NOT STRETCH OR OVERLAP. STAGGER SOD STRIPS OR PADS TO OFFSET JOINTS IN ADJACENT COURSES. AVOID DAMAGE TO SOIL OR SOD DURING INSTALLATION. TAMP AND ROLL LIGHTLY TO ENSURE CONTACT WITH SOIL, ELIMINATE AIR POCKETS, AND FORM A SMOOTH SURFACE. WORK SIFTED SOIL OR FINE SAND INTO MINOR CRACKS BETWEEN PIECES OF SOD; REMOVE EXCESS TO AVOID SMOTHERING SOD AND ADJACENT GRASS.
- 59.2.1. LAY SOD ACROSS SLOPES EXCEEDING 1:3.
- 59.3. SATURATE SOD WITH FINE WATER SPRAY WITHIN TWO HOURS OF PLANTING. DURING FIRST WEEK AFTER PLANTING, WATER DAILY OR MORE FREQUENTLY AS NECESSARY TO MAINTAIN MOIST SOIL TO A MINIMUM DEPTH OF 1-1/2 INCHES BELOW SOD.

#### 60. TURF MAINTENANCE:

- 60.1. MAINTAIN AND ESTABLISH TURF BY WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING, REPLANTING, AND PERFORMING OTHER OPERATIONS AS REQUIRED TO ESTABLISH HEALTHY, VIABLE TURF. ROLL, REGRADE, AND REPLANT BARE OR ERODED AREAS TO PRODUCE A UNIFORMLY SMOOTH TURF. PROVIDE MATERIALS AND INSTALLATION THE SAME AS THOSE USED IN THE ORIGINAL INSTALLATION.
- MAINTAIN SPECIFIED HEIGHT WITHOUT CUTTING MORE THAN ONE-THIRD OF GRASS HEIGHT. REMOVE NO MORE THAN ONE-THIRD OF GRASS-LEAF GROWTH IN INITIAL OR SUBSEQUENT

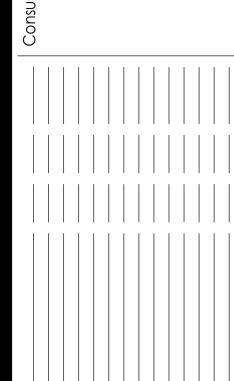
60.2. MOW TURF AS SOON AS TOP GROWTH IS TALL ENOUGH TO CUT. REPEAT MOWING TO

60.3. MAINTENANCE SERVICE PERIOD FOR TURFGRASS SOD: 30 DAYS FROM DATE OF SUBSTANTIAL COMPLETION.

### 61. SATISFACTORY TURF:

- 61.1. ENSURE AT END OF MAINTENANCE PERIOD, A HEALTHY, WELL-ROOTED, EVEN-COLORED, VIABLE TURF HAS BEEN ESTABLISHED, FREE OF WEEDS, OPEN JOINTS, BARE AREAS, AND SURFACE IRREGULARITIES.
- 61.2. USE SPECIFIED MATERIALS TO REESTABLISH TURF THAT DOES NOT COMPLY WITH REQUIREMENTS, AND CONTINUE MAINTENANCE UNTIL TURF IS SATISFACTORY.





Permit/Seal

Project No.:2270481701

Scale:N.T.S.

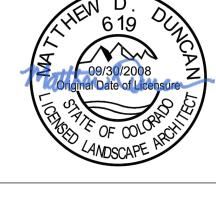
Dwn. Dsgn. Chkd. YYYY.MM.DD

PLANTING NOTES



ORIGINAL SHEET - ARCH D

Permit/Seal



Project No.:2270481701 File Name:

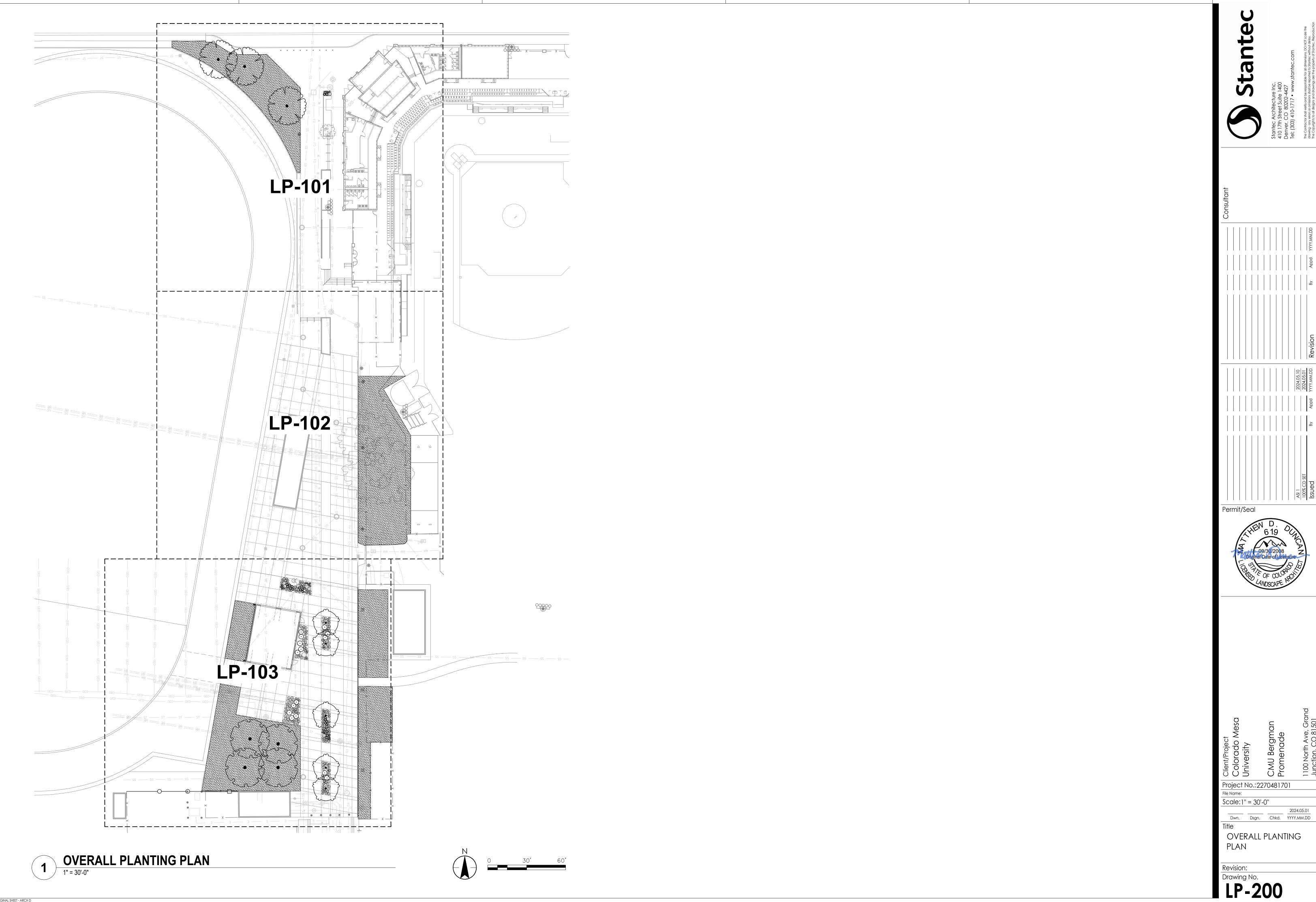
Scale:N.T.S. Dwn. Dsgn. Chkd. YYYY.MM.DD

PLANTING SCHEDULES

Revision:

Drawing No.

LP-002



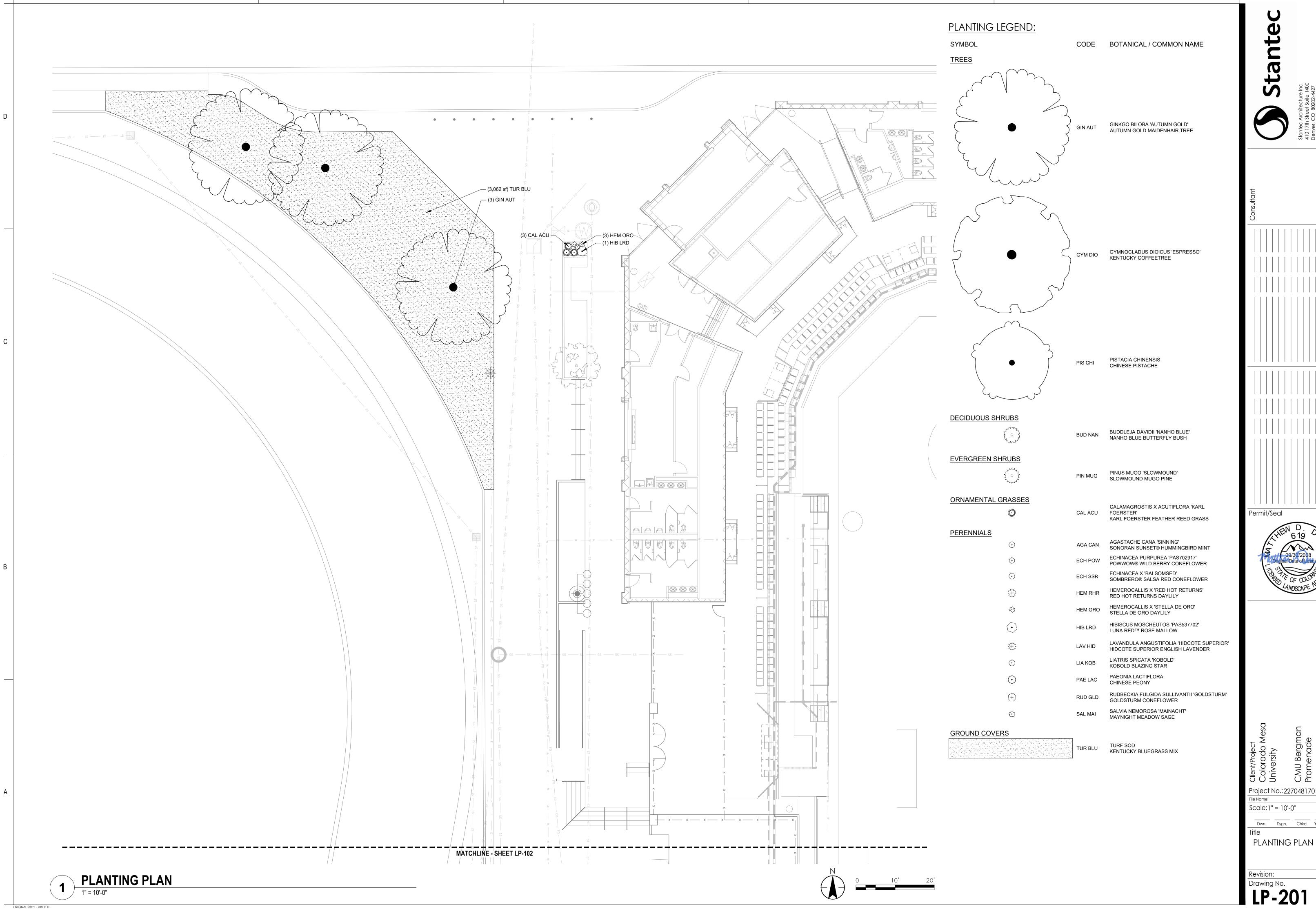
ORIGINAL SHEET - ARCH D



Project No.:2270481701

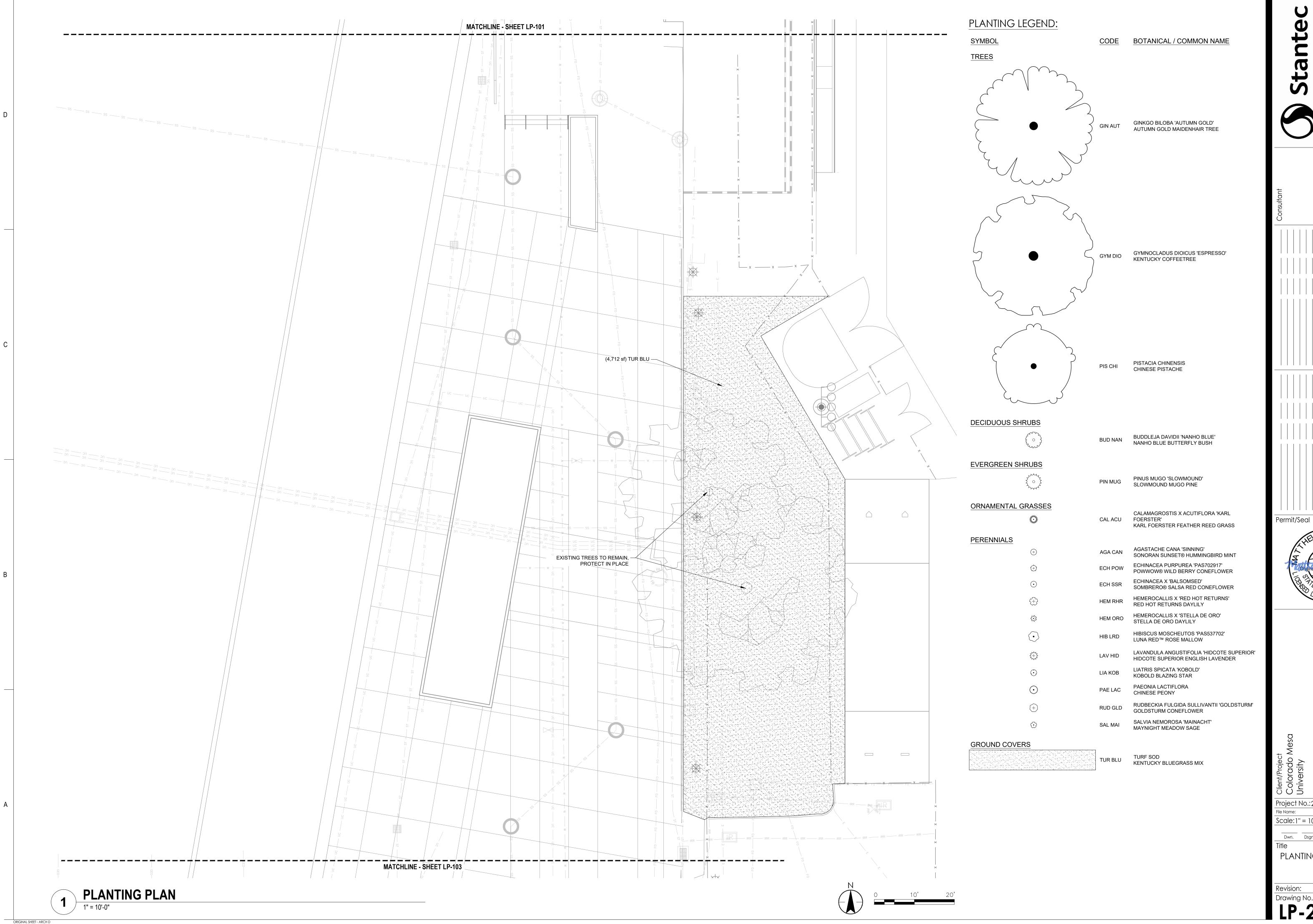
Scale:1" = 30'-0"

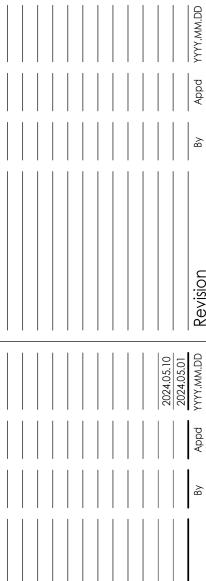
Title
OVERALL PLANTING





Dwn. Dsgn. Chkd. YYYY.MM.DD





File Name: Scale:1" = 10'-0"

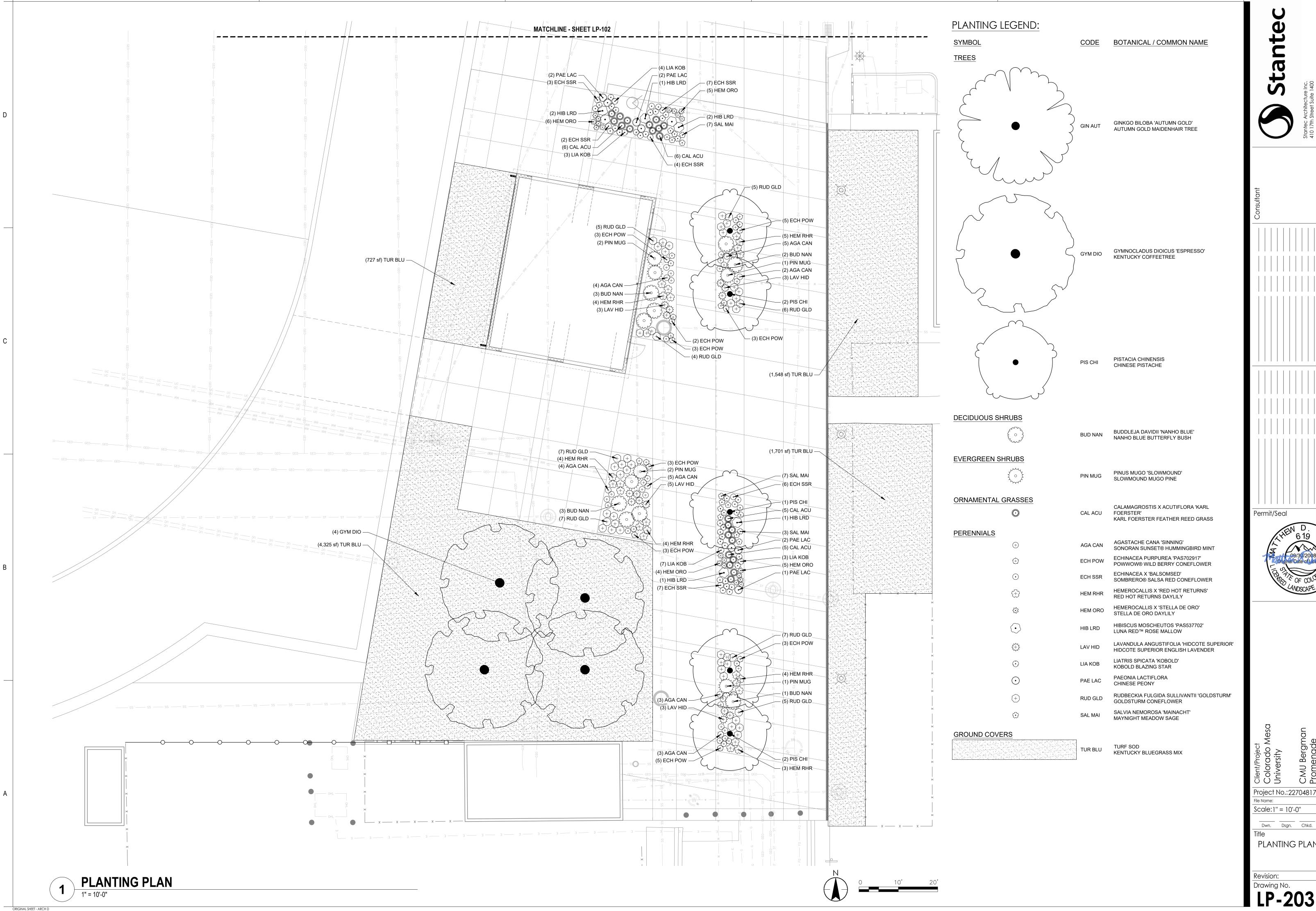
Dwn. Dsgn. Chkd. YYYY.MM.DD

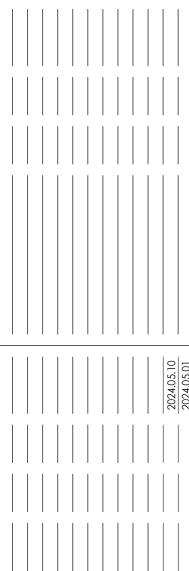
PLANTING PLAN

Revision:

Drawing No.

LP-202





Scale:1" = 10'-0"

Dwn. Dsgn. Chkd. YYYY.MM.DD

PLANTING PLAN

ALIGN STAKES PARALLEL WITH ROAD OR WALKS

- EDGE OF WALK OR CURB

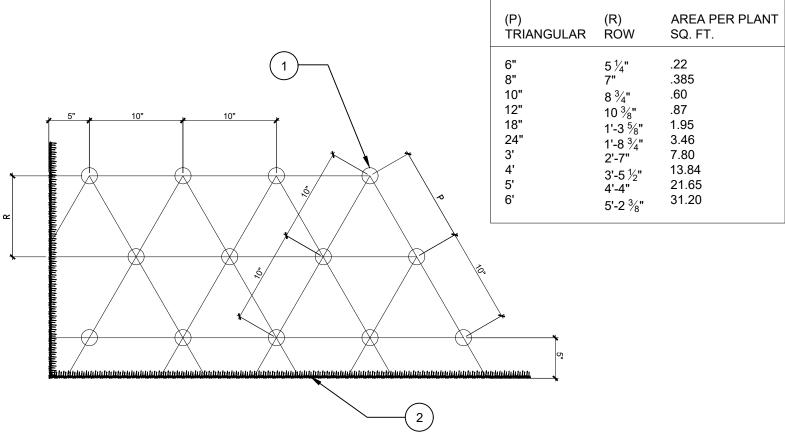
A. TREE STAKING ALONG ROADS OR WALKS

ALIGN STAKES PARALLEL WITH DIRECTION OF PREVAILING WIND. ALL STAKES TO BE CONSISTENT. - DIRECTION OF PREVAILING WIND

B. TREE STAKING IN OPEN SPACES

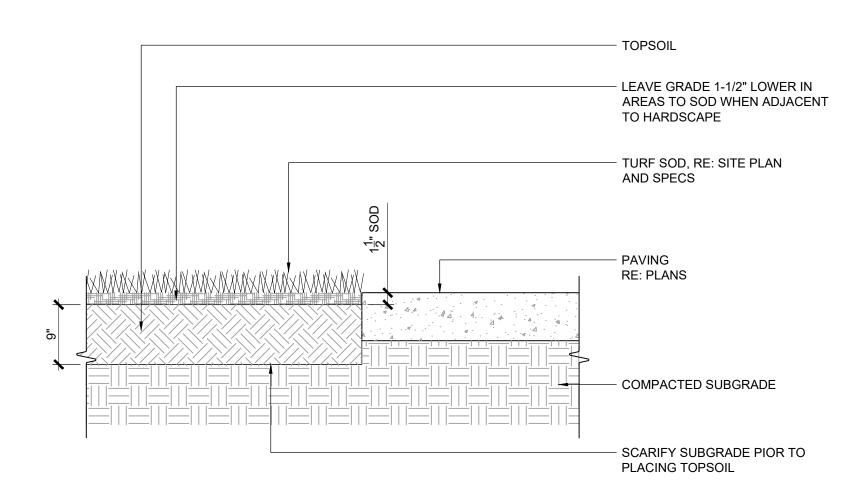
ALIGN 2 DEADMEN PARALLEL WITH ROAD OR WALKS - EDGE OF WALK OR CURB C. TREE GUYING

**TYPICAL TREE STAKING & GUYING** SCALE: 3/4" = 1'-0"



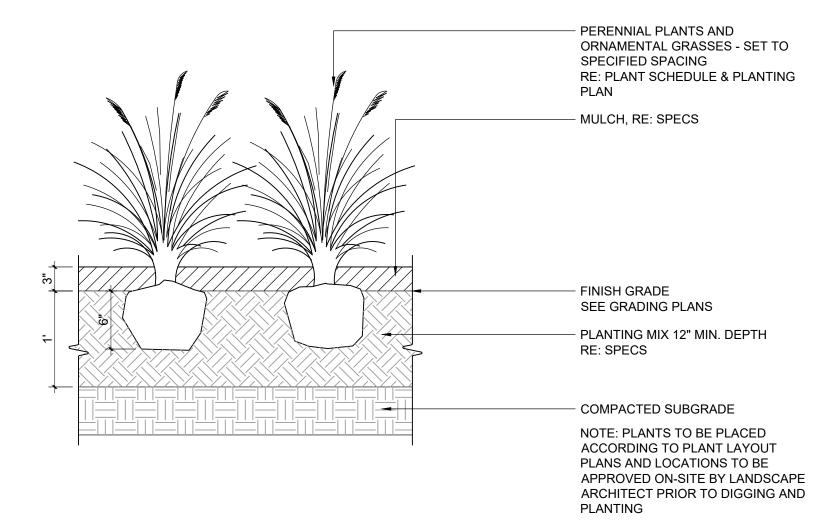
1. FOR TRIANGULAR SPACING OF SHRUBS, ORNAMENTAL GRASSES, ANNUALS, PERENNIALS AND GROUNDCOVERS, SEE PLANT SCHEDULE FOR SPACING. 2. EDGE OF PAVING, WALL, PLANTER BED, OR METAL LANDSCAPE BORDER - SEE PLAN.

TRIANGULAR SPACING FOR SHRUBS & GROUNDCOVER

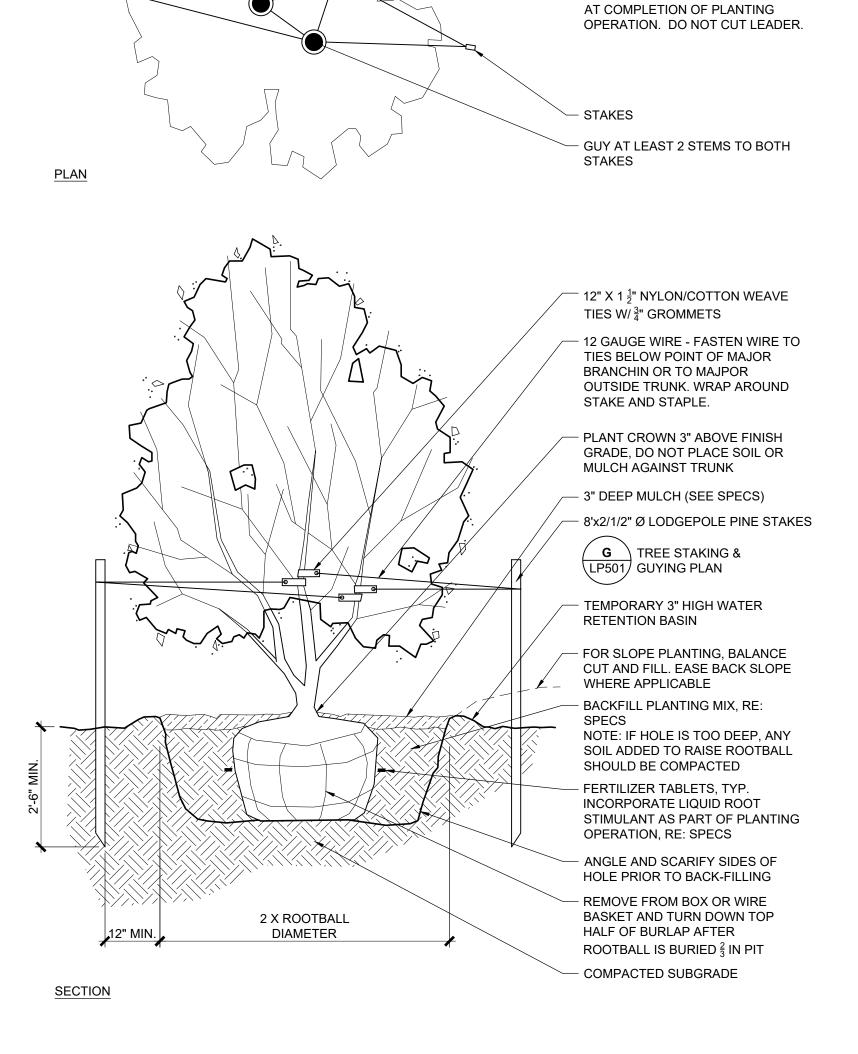


**TURFGRASS SOD** SCALE: 1" = 1'-0"

ORIGINAL SHEET - ARCH D

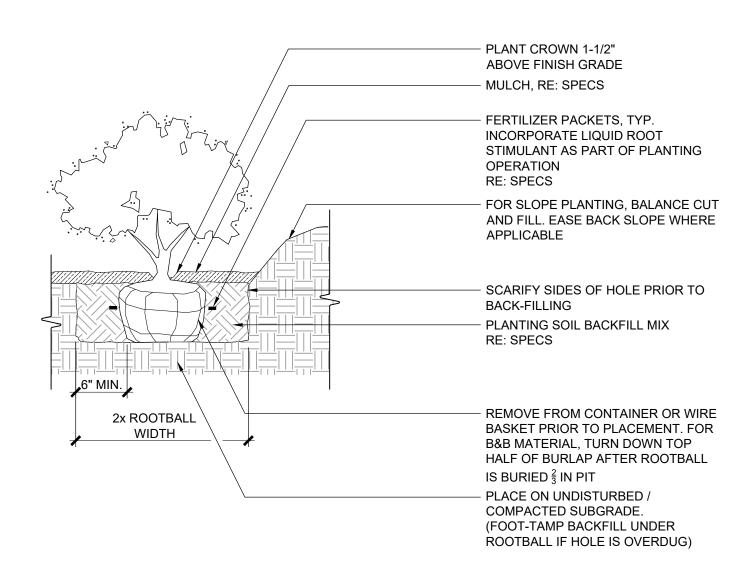


# ORNAMENTAL GRASS/PERENNIAL PLANTING

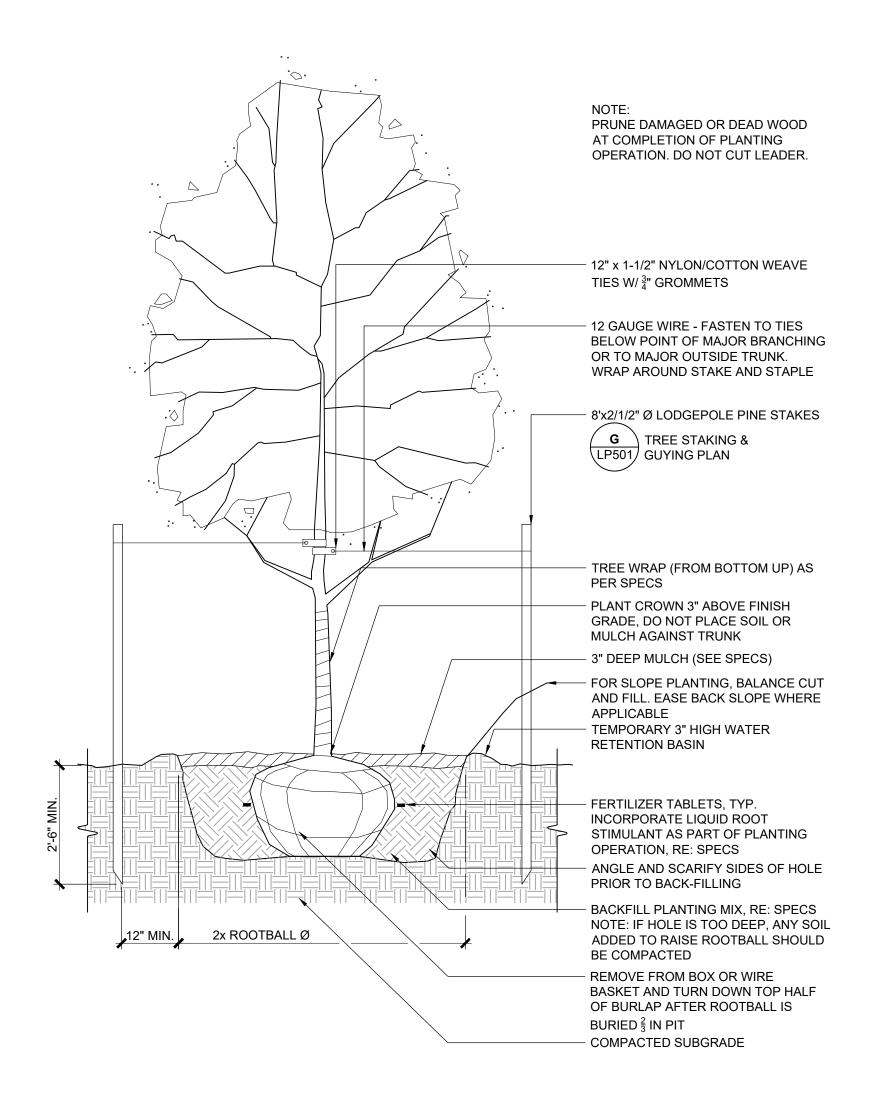


PRUNE DAMAGED OR DEAD WOOD

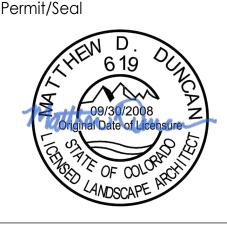




**SHRUB PLANTING** 



**DECIDUOUS TREE PLANTING** 



Project No.:2270481701 File Name:

Scale: N.T.S. Dwn. Dsgn. Chkd. YYYY.MM.DD

PLANTING DETAILS

Drawing No. LP-501

LLBB

LLH

LLV

LO

LT WT

LVL

MAX

MCJ

MECH

MEZZ

**MANUF** 

MFR.

MID

MIL

MIN

MISC

MO

LONG LEG BACK TO BACK

LONG LEG HORIZONTAL

MOMENT CONNECTION

MASONRY CONTROL JOINT

LONG LEG VERTICAL

LOW

LEVEL

LIGHTWEIGHT

MECHANICAL

MEZZANINE

MILLIMETER

MINIMUM

METAL

NORTH

**TESTING** 

MIDDLE

MANUFACTURER

**MISCELLANEOUS** 

NOT APPLICABLE

NOT IN CONTRACT

NON-DESTRUCTIVE

MASONRY OPENING

MAXIMUM

Permit/Seal

Project No.:2270481701 HG FC 2024.05.06 Dwn. Dsgn. Chkd. YYYY.MM.DD

Revision: Drawing No.

#### ANCHOR RODS SHALL BE ASTM F1554 GRADE 36 WITH CLASS 1A THREADS, UNLESS NOTED OTHERWISE FURNISH ANCHOR RODS PREFABRICATED WITH MATCHING DOUBLE HEAVY HEX NUTS JAMMED AT THE END EMBEDDED IN CONCRETE. FURNISH HARDENED PLATE WASHERS, LOCK WASHERS, AND MATCHING HEAVY HEX NUTS FOR SECURING THE BASE PLATE TO THE ANCHOR RODS. A RIGID STEEL TEMPLATE SHALL BE USED TO LOCATE ANCHOR RODS WHILE PLACING CONCRETE.

- 2. HOOKED ANCHOR RODS SHALL NOT BE USED EXCEPT WHERE NOTED.
- . ANCHOR RODS SHALL HAVE SUFFICIENT LENGTH TO PROVIDE THE MINIMUM EMBEDMENT SHOWN ON THE DRAWINGS, MEASURED FROM THE FACE OF THE CONCRETE TO THE NEAR FACE OF THE DOUBLE NUT, WITH ADEQUATE EXTENSION AS REQUIRED TO RECEIVE THE BASE PLATE WITH FULL THREAD PROJECTION FOR NUT INSTALLATION.
- 4. ANCHOR ROD INSTALLATION SHALL BE COORDINATED WITH REINFORCING AND FRAMEWORK.
- 5. LEVELING NUTS SHALL NOT BE USED EXCEPT AFTER EVALUATION BY THE CONTRACTOR'S ERECTION
- 6. AFTER BASE INSTALLATION, ANCHOR ROD NUTS SHALL BE INSTALLED TO A SNUG-TIGHT CONDITION.
- 7. NO HEATING OR BENDING OF THE ANCHOR RODS IS PERMITTED. HOLES IN THE BASE MATERIAL SHALL NOT BE ENLARGED BY BURNING.

#### IX. STEEL ROOF DECK:

- THE STEEL DECK SHALL BE OF DEPTH AND GAUGE SHOWN ON THE STRUCTURAL DRAWINGS. STEEL DECK SIZE HAS BEEN SPECIFIED BASED ON 3-SPAN DESIGN VALUES. CONTRACTOR SHALL REVIEW ACTUAL SPAN CONDITIONS FOR ALL DECK LAYOUTS WHEN DESIGNING SHORING. ALL ROOF DECK AND ACCESSORIES SHALL BE GALVANIZED CONFORMING TO ASTM A653 WITH A MINIMUM YIELD STERNGTH OF 38 ksi. GALVANIZED DECK SHALL BE ZINC COATED ASTM A653-G60. FOR DECK EXPOSED TO WEATHER USE G90. ALL WELDING SHALL BE IN ACCORDANCE WITH AWS D1.3.
- MINIMUM BEARING ON STEEL DECK ON SUPPORTS SHALL BE 2". ALL 3" STEEL DECK SHALL HAVE MINIMUM BEARING OF 3". NONCOMPOSITE UNITS SHALL BE FASTENED AS NOTED ON THE PLANS, AT MINIMUM CONNECT THE STEEL SUPPORTS AT THE ENDS OF THE UNITS AND AT INTERMEDIATE SUPPORTS BY A MINIMUM OF FOUR CONNECTIONS PER 3'-0" OF WIDTH, WHERE TWO UNITS ABUT, EACH UNIT SHALL BE SO FASTENED TO THE STEEL FRAMING. THE SIDE LAPS OF ADJACENT UNITS SHALL BE FASTENED BETWEEN SUPPORTS BY CONNECTIONS AT A MAXIMUM SPACING OF 1'-0" ON CENTER UNLESS NOTED OTHERWISE. DECK UNITS SHALL BE CONNECTED TO THE STEEL SUPPORTS AT THE SIDE BOUNDARIES AT A MAXIMUM SPACING OF 1'-0" ON CENTER. ALL WELDS ON STEEL DECK EXPOSED TO WEATHER SHALL BE DE-SLAGGED, CLEANED, AND TOUCHED-UP WITH A ZINC RICH PRIMER.
- WHERE STEEL MEMBERS ARE PARALLEL TO THE DECK FLUTES AND AT THE SAME ELEVATION OF THE BOTTOM OF THE DECK, ADJUST DECK LAYOUT AND WELD DECK TO STEEL WITH SAME WELDING AS REQUIRED FOR SIDE BOUNDARIES.
- . HANGERS SUPPORTED BY METAL DECKING ONLY OR METAL DECKING WITH INSULATED FILL SHALL BE ATTACHED TO STEEL BARS, 3/8" ROUND x 12" OR 1 1/2" SQUARE x 12" FLAT, PLACED PERPENDICULAR TO FLUTES. ONLY LIGHT DUCTWORK (12"x16" MAX), PIPING (1 1/2" ROUND PIPING MAX) OR CEILINGS MAY BE HUNG FROM SUCH INSTALLATIONS. HANGERS MUST BE TWO FLUTES APART WHERE THEY OCCUR ON THE SAME DECK SPAN.
- 5. STEEL DECK TYPES SHALL BE AS FOLLOWS: ROOF DECK VERCO TYPE HSB-36, VULCRAFT 1.5B, OR APPROVED EQUAL.
- SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL, ETC. FOR SIZES AND LOCATIONS OF OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS. SEE TYPICAL DETAILS FOR FRAMING SUPPORT AT DECK
- . THE STEEL DECK FABRICATOR SHALL FURNISH SHOP DRAWINGS OF ALL STEEL DECK FOR ARCHITECT'S REVIEW PRIOR TO FABRICATION.

### X. OPEN WEB STEEL JOISTS:

SERIES JOISTS.

- . ALL JOISTS SHALL BE DESIGNED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE LATEST EDITION OF THE STANDARD SPECIFICATIONS OF THE STEEL JOIST INSTITUTE. ALL WELDING PER AMERICAN WELDING SOCIETY (AWS) STANDARDS. COMPLIANCE WITH AWS STANDARDS MAY BE WAIVED IF ALL WELDS ARE INSPECTED BY AN INDEPENDENT TESTING LABORATORY.
- HORIZONTAL & DIAGONAL BRIDGING SHALL BE PROVIDED BY JOIST MANUFACTURER IN ACCORDANCE WITH SJI STANDARDS. LOCATION AND TYPE OF BRIDGING SHALL BE CLEARLY INDICATED ON THE SHOP DRAWING, AND SHALL NOT CONFLICT W/OPENING LOCATIONS.
- WHERE AIR DUCTS OR OTHER EQUIPMENT INTERRUPTS HORIZONTAL BRIDGING, SUPPLY DIAGONAL BRIDGING IN BAYS ADJACENT TO INTERRUPTED BAY. CONTRACTOR TO COORDINATE LOCATIONS WITH
- MECHANICAL PRIOR TO FABRICATION. 4. BOTTOM CHORDS OF JOISTS IN LINE WITH COLUMNS ARE TO BE EXTENDED AS DETAILED.
- JOIST MANUFACTURER SHALL DESIGN JOISTS FOR THE "DESIGN LOADS" IN THE GENERAL NOTES, AND FOR ANY ADDITIONAL LOADS AT LOCATIONS AS SHOWN ON THE PLANS, INCLUDING A NET UNFACTORED WIND UPLIFT LOAD NORMAL TO THE SURFACE OF THE ROOF PER THE LOAD DIAGRAMS.
- JOIST MANUFACTURER SHALL DESIGN AND SUBMIT CALCULATIONS BY A CIVIL OR STRUCTURAL ENGINEER REGISTERED IN THE STATE IN WHICH THE PROJECT IS LOCATED FOR ALL JOISTS AND JOIST GIRDERS. CALCULATIONS SHALL INCLUDE DEFLECTION AND CAMBER REQUIREMENTS. JOISTS SHALL BE DESIGNED TO RESIST THE LOAD COMBINATIONS SPECIFIED IN IBC, SECTION 1605. LIVE LOAD DEFLECTIONS SHALL BE LIMITED TO SPAN/360 AT SIMPLE SPAN FLOOR MEMBERS, 2X SPAN/360 AT CANTILEVER FLOOR MEMBERS. SPAN/240 AT SIMPLE SPAN ROOF MEMBERS AND 2X SPAN /240 AT CANTILEVER ROOF MEMBERS. ALL JOIST AND JOIST GIRDERS SHALL BE CAMBERED FOR THE DESIGN DEAD LOAD. TO ACCOUNT FOR ADDITIONAL CONTRACTED LOADS, MANUFACTURER SHALL ADD ADDITIONAL WEB MEMBERS AS REQUIRED AND ADJUST CHORD AND WEB SIZE ACCORDINGLY, BUT SHALL NOT ALTER DEPTH OF JOISTS. MANUFACTURER SHALL DESIGN AND SUBMIT CALCULATIONS FOR ALL JOIST SHOES WHERE BEARING LENGTH IS LESS THAN 4" AT LH SERIES JOISTS OR 2 1/2" FOR K
- JOISTS ADJACENT TO STRUCTURAL STEEL MEMBERS SHALL BE DESIGNED TO HAVE ZERO CAMBER
- 8. ALL CONCENTRATED LOADS TO STEEL JOISTS SHALL OCCUR WITHIN 6" OF PANEL POINT.
- 9. DO NOT PLACE LOADS ON JOISTS OR GIRDERS UNTIL BRIDGING IS INSTALLED AND BEARING
- 10. STEEL JOIST AND GIRDER SHOES SHALL BE FABRICATED IN COORDINATION WITH THE ROOF SLOPE.

#### V. CONCRETE JOINTS (CONT.):

- 2. SLAB ON GRADE CONTRACTION JOINTS SHALL BE PROVIDED TO CONTROL THE CRACKING PATTERNS AT LOCATIONS INDICATED, OR AS APPROVED BY THE ARCHITECT.
- 3. LOCATE JOINTS AT COLUMN LINES WHERE APPLICABLE, WITH SPACING NOT TO EXCEED 15-FEET AND RATIO OF LONG TO SHORT SIDE OR POUR NOT TO EXCEED 1.5. MAXIMUM RECTANGULAR SLAB AREA CONTROLLED BY JOINTING NOT TO EXCEED 225 SQUARE-FEET. CONTRACTOR OPTION TO FORM EITHER SAWCUT OR TOOLED JOINTS.
- 4. WALL CONTRACTION JOINTS SHALL BE PROVIDED TO CONTROL THE CRACKING PATTERNS AT
- LOCATIONS INDICATED, OR AS APPROVED BY THE ARCHITECT. A. LOCATE JOINTS AT COLUMN LINES WHERE APPLICABLE. WITH SPACING NOT TO EXCEED TWICE THE
- WALL HEIGHT OR 20-FEET AND PREFERABLY MATCHES LAYOUT OF SLAB JOINTING. B. FORM CONTRACTION JOINTS FOR A DEPTH EQUAL TO AT LEAST ONE-FOURTH OF CONCRETE WALL THICKNESS BY ATTACHING 1/2"- WIDE BEVELLED WOOD STRIPS TO INSIDE OF BOTH SIDES OF

#### VI. REINFORCING STEEL

- 1. REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60.
- 2. REINFORCING STEEL FOR CAST-IN-PLACE NONPRESTRESSED CONCRETE MEMBERS SHALL HAVE THE
- FOLLOWING CONCRETE COVER, SEE ACI 117 FOR TOLERANCES. A. CONCRETE EXPOSED TO EARTH OR IN CONTACT WITH GROUND
- a. CAST AGAINST AND PERMANENTLY IN CONTACT WITH EARTH b. EXPOSED TO WEATHER OR IN CONTACT WITH EARTH (#5 AND SMALLER) 1-1/2"
- c. EXPOSED TO WEATHER OR IN CONTACT WITH EARTH (#6 AND LARGER) d. DEEP FOUNDATIONS (PILES)
- B. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND: a. SLABS, JOISTS AND WALLS (#11 AND SMALLER)
- b. SLABS, JOISTS AND WALLS (#14 AND LARGER) c. BEAMS, COLUMNS AND PEDESTALS

BARS AT MID-SPAN. BOTTOM BARS OVER SUPPORTS.

- 3. BAR SPLICES MAY BE DELETED AND CONTINUOUS REINFORCING USED AT CONTRACTORS OPTION. BAR SPLICES SHALL BE MADE AT POINTS OF MINIMUM STRESS. IN FRAMED BEAMS AND SLABS SPLICE TOP
- 4. STEEL REINFORCEMENT SHOP DRAWINGS SHALL BE PREPARED BY THE CONTRACTOR IN ACCORDANCE WITH ACI 315: "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT", AND SHALL INDICATE:
- A. MATERIAL AND GRADE
- B. BAR SCHEDULES WITH BAR LENGTHS AND BENT BAR DIAGRAMS C. ARRANGEMENT, SPACING, COVER, LAP LOCATIONS AND LENGTHS
- D. SPLICE DETAILS FOR MECHANICAL SPLICES
- E. SUPPORTS FOR CONCRETE REINFORCEMENT F. SPECIAL REINFORCEMENT AT OPENINGS
- 5. ALL REINFORCING STEEL SHALL BE DETAILED AND PLACED IN CONFORMANCE WITH ACI 318 AND THE 'MANUAL OF STANDARD PRACTICE' BY CRSI AS MODIFIED BY THE CONTRACT DOCUMENTS.
- 6. FIELD BENDING OF REINFORCEMENT SHALL NOT BE PERMITTED WITHOUT SEOR APPROVAL. ALL REINFORCING BENDS SHALL BE MADE COLD.
- . WHEN MULTIPLE GRADES OF REINFORCEMENT ARE USED, MARK ALL BARS SO IDENTIFICATION CAN BE MADE DURING IN-PLACE INSPECTION.
- WELDED REINFORCING STEEL SHALL COMPLY WITH ASTM A706, GRADE 60. REINFORCEMENT SHALL ONLY BE WELDED WHERE SPECIFICALLY NOTED ON THE DRAWINGS. WELDING SHALL CONFORM TO AWS D1.4 USING E90XX ELECTRODES
- 9. WELDED WIRE REINFORCEMENT (WWR) SHALL CONFORM TO ASTM A1064 (PLAIN & DEFORMED WIRE). F<sub>V</sub> = 70 000PSI. LAP WELDED WIRE REINFORCEMENT BY 6" OR ONE AND A HALF FULL MESHES, WHICHEVER
- 10. EPOXY COATED REINFORCEMENT (ASTM A775 (STRAIGHT BARS), ASTM A934 (BENT BARS)) SHALL BE USED WHERE PERMANENTLY EXPOSED TO WATER, DEICING SALTS AND WHERE NOTED IN THE CONTRACT DOCUMENTS.
- 11. SPECIAL CONCRETE MOMENT FRAMES AND BOUNDARY ZONES IN SPECIAL CONCRETE SHEAR WALLS: ACTUAL YIELD STRENGTH BASED ON MILL TESTS SHALL NOT EXCEED SPECIFIED STRENGTH BY MORE THAN 18 ksi (RETESTS SHALL NOT EXCEED THIS VALUE BY MORE THAN 3 ksi). THE RATIO OF ACTUAL ULTIMATE TENSILE STRESS TO ACTUAL YIELD STRENGTH SHALL NOT BE LESS THAN 1.25.

### VII. STRUCTURAL STEEL:

- 1. STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH AISC 360
- 2. UNLESS OTHERWISE NOTED, ALL STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING: A. ANGLES AND CHANNELS: ASTM A36 (FY = 36 KSI) B. PLATES, BARS: ASTM A36 (FY = 36 KSI)
- C. RECTANGULAR HSS: ASTM A500 GRADE B (FY=46 KSI)
- 3. TOP OF STEEL ELEVATION SHALL BE AT BOTTOM OF DECK, UNLESS NOTED OTHERWISE.
- 4. WHERE A MEMBER IS INDICATED AS BENT, FACETTED OR CRANKED, ENSURE FULL MEMBER CAPACITY IS PROVIDED THROUGH JOINT. MEMBER SPLICES SHALL ALSO HAVE FULL MEMBER CAPACITY UNLESS OTHERWISE NOTED.
- 5. FIELD CUTTING OR DRILLING STRUCTURAL STEEL IS STRICTLY PROHIBITED WITHOUT PRIOR REVIEW AND APPROVAL BY SEOR. ALL HOLES AND CUTS SHALL BE PERFORMED IN THE SHOP AS IDENTIFIED ON STRUCTURAL DRAWINGS OR SHOP DRAWINGS.
- 6. ANCHOR STUDS, SHEAR STUDS, AND DEFORMED ANCHORS. A. WELDED STUDS (HEADED OR THREADED) SHALL BE ASTM A108, MINIMUM DIAMETER SHALL BE 3/4" UNLESS NOTED OTHERWISE.
- B. DEFORMED ANCHORS SHALL BE ASTM A496 C. STUDS AND ANCHORS SHALL BE WELDED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS
- A. ALL WELDS SHALL CONFORM TO AWS D1.1. WELDING ELECTRODES SHALL BE CLASS E70XX.
- B. MINIMUM FILLET WELD SIZE SHALL BE 1/4" UNLESS NOTED OTHERWISE. C. WELDING SHALL BE PERFORMED BY QUALIFIED WELDERS, REFER TO SPECIFICATIONS. D. WHERE FIELD WELDING IS SPECIFICALLY NOTED, THE DESIGNATION IS GIVEN AS A SUGGESTED CONSTRUCTION PROCEDURE ONLY. THE CONTRACTOR SHALL DETERMINE SUITABILITY OF SHOP OR FIELD WELDING FOR ALL CONDITIONS. ALL BOLTED CONNECTIONS MUST BE IN ADDITION TO THESE
- REQUIREMENTS. E. WELD LENGTHS SPECIFIED ON PLANS ARE THE NET EFFECTIVE LENGTH. WELD SIZE SHALL BE AISC MINIMUM UON AS LARGER WELD.
- F. ALL CJP WELDS SHALL BE MADE WITH FILLER METAL WITH A MINIMUM CVN TOUGHNESS OF 20 FT-LBS AT -20 DEGREES F. NDT AND INSPECTIONS PER THE 'STRUCTURAL TESTING AND INSPECTIONS'

G. CONTRACTOR TO PROVIDE WELDING PROCEDURE SPECIFICATION FOR REVIEW AND APPROVAL BY

- 8. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL. NO FABRICATION OF STEEL SHALL COMMENCE WITHOUT APPROVED SHOP DRAWINGS.
- 9. STEEL FINISHES SHALL BE AS FOLLOWS, UNLESS NOTED OTHERWISE IN ARCHITECTURAL SPECIFICATIONS:
- A. INTERIOR TO RECEIVE ENCASEMENT OR SPRAY-ON FIREPROOFING: NONE
- B. INTERIOR TO RECEIVE FINISH PAINT: REFER TO SPECIFICATIONS C. EXTERIOR: HOT-DIPPED GALVANIZED COATING CONFORMING TO ASTM A123 OR HIGH-PERFORMANCE COATING AT CONDITIONS AS IDENTIFIED IN SPECIFICATIONS.
- 10. FIREPROOFING: REFER TO ARCHITECTURAL PLANS FOR MINIMUM HOURLY VALUES OF STEEL FIRE PROTECTION FOR DETERMINING THE THICKNESS OF SPRAY APPLIED FIREROOFING. THE STRUCTURAL FRAME CONSISTS OF COLUMNS AND GIRDERS, BEAMS, TRUSSES, AND SPANDRELS HAVING DIRECT CONNECTIONS TO THE COLUMNS AND BRACING MEMBERS DESIGNED TO CARRY GRAVITY LOADS. FLOOR OR ROOF MEMBERS THAT HAVE NO CONNECTION TO COLUMNS SHALL BE CONSIDERED SECONDARY MEMBERS.
- 1. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS). IN GENERAL, AESS IS NOT DESIGNATED ON THE STRUCTURAL DRAWINGS.
- 12. CONTRACTOR SHALL HOLD A PRE-DETAILING CONFERENCE TO DEFINE THE FOLLOWING: A. STEEL COLUMN LENGTH ADJUSTMENT FOR ELASTIC SHORTENING EFFECTS.
- B. STEEL TRUSS CAMBERING C. ELEMENTS AFFECTED BY STEEL ERECTION PROCEDURE, SUCH AS MEMBER SIZES, CONNECTIONS,
- SPLICES, BASE PLATES, ANCHOR BOLTS, ROCK ANCHORS, ETC. D. ERECTION PROCEDURES AND SEQUENCES WITH REGARD TO TEMPERATURE EFFECTS.

### **III. FOUNDATIONS:**

- FOUNDATION DESIGN CRITERIA ARE BASED ON THE HUDDLESTON-BERRY, LLC AUGUST 20, 2019 #00569-0043. COPIES ARE AVAILABLE FOR REVIEW AT THE ARCHITECT'S OFFICE.
- 2. FOOTINGS ARE DESIGNED BASED ON AN ALLOWABLE SOIL BEARING PRESSURE OF 1,500 PSF. THE ALLOWABLE BEARING MAY BE INCREASED BY ONE THIRD FOR WIND OR SEISMIC.

EXCAVATIONS FOR NEW FOUNDATIONS & SLABS, AND BACKFILLING TO RETAINING WALLS.

- SOIL PREPARATION OF THE SITE SHALL FOLLOW THE RECOMMENDATIONS DESCRIBED IN THE GEOTECHNICAL REPORT. THIS INCLUDES REMOVAL OF EXISTING STRUCTURES/UTILITIES, REMOVAL OF EXISTING FILL WHERE DEEMED NECESSARY, PREPARATION OF THE SUBGRADE & COMPACTION,
- I. WHERE SOIL CONDITIONS ARE FOUND DURING CONSTRUCTION THAT DO NOT MEET CRITERIA DESCRIBED IN THE REPORT, SPECIAL INSPECTOR/CONTRACTOR SHALL NOTIFY ARCHITECT IMMEDIATELY.
- LOCATION OF ALL UNDERGROUND UTILITIES SHALL BE VERIFIED PRIOR TO CONSTRUCTION OF FOUNDATION TO AVOID ANY INTERFERENCE. CONTRACTOR SHALL EXPOSE EXISTING UTILITY LINES IN THE IMMEDIATE AREA TO DETERMINE THEIR EXACT INVERT ELEVATION, SIZE AND LOCATION RELATIVE TO THE FOUNDATION. NOTIFY THE ENGINEER IMMEDIATELY OF ANY INTERFERENCE WITH PILES, FOOTINGS OR FOUNDATION WALLS.
- CONTRACTOR SHALL PROVIDE FOR PROPER DEWATERING OF EXCAVATIONS FROM SURFACE WATER, GROUND WATER, AND SEEPAGE. WATER SHALL NOT BE ALLOWED TO STAND IN TRENCHES OR FORMS BEFORE OR AFTER CONCRETE IS PLACED, AND SHALL BE PUMPED OUT. IF BOTTOMS OF TRENCHES BECOME SOFTENED DUE TO RAIN OR OTHER WATER BEFORE FOUNDATIONS ARE CAST, THE CONTRACTOR SHALL, AT THEIR OWN EXPENSE, EXCAVATE THE SOFTENED MATERIAL AND REPLACE WITH CONCRETE.
- CONTRACTOR SHALL PROVIDE FOR THE DESIGN AND INSTALLATION OF ALL CRIBBING, SHEATHING AND SHORING REQUIRED TO SAFELY AND ADEQUATELY RETAIN THE EARTH BANKS AND ANY EXISTING
- . EXCAVATIONS FOR FOOTINGS SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TC PLACING OF CONCRETE AND REINFORCING. CONTRACTOR SHALL NOTIFY THE GEOTECHNICAL ENGINEER WHEN THE EXCAVATIONS ARE READY FOR INSPECTION. THE GEOTECHNICAL ENGINEER SHALL SUBMIT A LETTER OF COMPLIANCE TO THE OWNER.
- ). ALL EXCAVATIONS SHALL BE PROPERLY BACKFILLED. DO NOT PLACE BACKFILL BEHIND RETAINING WALLS BEFORE CONCRETE OR MASONRY HAS ATTAINED FULL DESIGN STRENGTH. CONTRACTOR SHALL BRACE OR PROTECT ALL BUILDING WALLS BELOW GRADE FROM LATERAL LOADS UNTIL ATTACHING FLOORS ARE COMPLETELY IN PLACE AND HAVE ATTAINED FULL DESIGN STRENGTH CONTRACTOR SHALL PROVIDE FOR DESIGNS, PERMITS AND INSTALLATION OF BRACING AND

#### IV. REINFORCED CONCRETE

1-1/2"

- . CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 318 AND ACI 301 WITH MODIFICATIONS AS NOTED ON THE CONTRACT DOCUMENTS.
- CONCRETE MIXES SHALL BE DESIGNED BY A QUALIFIED TESTING LABORATORY AND BEAR THE WET SEAL OF A CIVIL ENGINEER LICENSED IN THE STATE OF THE PROJECT AND BE PROVIDED TO THE SEOR FOR REVIEW. EACH MIX DESIGN SHALL BEAR THE NAME OF THE PROJECT AND THE SPECIFIC USE.
- 3. CONCRETE MODULUS OF ELASTICITY SHALL MEET THE MINIMUM PROVIDED IN ACI 318 SECTION 19.2.2 FOR THE 28-DAY STRENGTH SPECIFIED BELOW. TEST SHALL BE IN ACCORDANCE WITH ASTM C469.
- . CONCRETE SHALL HAVE THE FOLLOWING ULTIMATE COMPRESSIVE STRENGTH AT 28 DAYS. STRENGTH, f'c **CONCRETE TYPE LOCATION** A. SLAB ON GRADE 4,500 PSI NORMAL WEIGHT B. FOUNDATIONS 4,000 PSI NORMAL WEIGHT C. ALL LOCATIONS UON 3,000 PSI NORMAL WEIGHT
- PORTLAND CEMENT SHALL CONFORM TO ASTM C150, TYPE I OR II. CONCRETE EXPOSED TO SOILS CONTAINING CORROSIVE ELEMENTS (SULFATES) SHALL COMPLY WITH IBC 1904.1.
- $\mathsf{6.}\:\:$  FLY ASH MAY BE USED AS A SUBSTITUTE FOR PORTLAND CEMENT. WEIGHT OF FLY ASH SHALL NOT EXCEED 15% OF CEMENT WEIGHT. FLY ASH SHALL CONFORM TO ASTM C618 CLASS F AND LOSS OF IGNITION SHALL BE LIMITED TO 2%.
- 7. MIXING OPERATIONS SHALL CONFORM TO ASTM C94.
- ALL CONCRETE NOT IN CONTACT WITH EARTH TO HAVE FINISH AS SPECIFIED BY ARCHITECT OR AS COVERED IN PROJECT SPECIFICATIONS. UNLESS OTHERWISE NOTED, NON-ARCHITECTURAL CONCRETE COLUMNS AND WALLS SHALL HAVE 3/4" CHAMFERED CORNERS.
- 9. AGGREGATE FOR NORMALWEIGHT CONCRETE SHALL CONFORM TO ALL REQUIREMENTS AND TESTS OF ASTM C33 AND PROJECT SPECIFICATIONS
- 10. ALL CONCRETE SHALL BE REINFORCED. PROVIDE MINIMUM TEMPERATURE REINFORCEMENT AS REQUIRED BY ACI-318 IN ELEMENTS WHERE NO REINFORCEMENT IS INDICATED ON THE DRAWINGS.
- 11. DRY PACK OR GROUT UNDER BASE PLATES AND SILL PLATES SHALL BE 7000 PSI MIN AT 28 DAYS. 12. CONCRETE PLACEMENT SHALL CONFORM TO ACI 304 AND PROJECT SPECIFICATIONS. SANDBLAST ALL
- CONCRETE SURFACES WHICH NEW CONCRETE WILL BE PLACED AGAINST. 13. TWO HOURS MUST ELAPSE BETWEEN END OF COLUMN OR WALL POURS AND THE BEGINNING OF
- 14. MACROSYNTHETIC FIBERS SHALL CONFORM TO ASTM D7508.
- 15. ALL REINFORCEMENT, ANCHOR BOLTS AND OTHER EMBEDDED ITEMS SHALL BE SECURELY HELD IN PLACE WHILE CONCRETE IS POURED. ADDITIONAL BARS TO BE PROVIDED BY THE CONTRACTOR FOR SUPPORT AS NEEDED.
- 16. MECHANICAL, ELECTRICAL AND PLUMBING OPENINGS AND SLEEVES ARE SHOWN INDICATIVELY AND SMALL OPENINGS AND SLEEVES ARE NOT SHOWN. SEE SLAB EDGE, MECHANICAL, ELECTRICAL, PLUMBING AND OTHER TRADES FOR SIZE AND LOCATION OF ALL SLAB AND WALL OPENINGS AND SLEEVES. CONTRACTOR TO DEVELOP AND SUBMIT A SINGLE COORDINATION DRAWING COMBINING ALL TRADES INDICATING ALL SLAB OPENINGS AND SLEEVES PRIOR TO POURING CONCRETE FOR REVIEW BY STRUCTURAL ENGINEER.
- 17. ALL PIPE AND CONDUIT OPENINGS SHALL BE SLEEVED AND CAST IN PLACE UNLESS OTHERWISE NOTED. DO NOT SAWCUT, CORE OR CORE DRILL STRUCTURAL CONCRETE WITHOUT EXPLICIT DIRECTION FROM THE STRUCTURAL ENGINEER. DRILL BITS THAT CAN CUT OR DAMAGE REINFORCING ARE NOT PERMITTED TO BE USED ON STRUCTURAL CONCRETE.
- 8. CONDUITS AND PIPES SHALL NOT BE PERMITTED IN STRUCTURAL CONCRETE ELEMENTS UNLESS SPECIFICALLY REVIEWED BY THE STRUCTURAL ENGINEER. ALL CONDUITS TO BE EMBEDDED IN THE STRUCTURAL CONCRETE SHALL BE SUBMITTED FOR STRUCTURAL REVIEW ON A SINGLE COORDINATED CONDUIT DRAWING COMBINING ALL TRADES DEVELOPED AND COORDINATED BY THE CONTRACTOR. COORDINATED CONDUITS/PIPES MUST BE PLACED IN ONE LAYER AVOIDING CROSSOVER AND SPACED AT THE GREATER OF 3" OR 3 DIAMETERS. DRAWINGS SHALL SHOW STUB-UP LOCATIONS, BEND RADIUS AND DETAILS OF CONDUIT/PIPE INSTALLATION. ALL CONDUITS AND PIPES SHALL BE INSTALLED PER
- THE REQUIREMENTS OF ACI 318 SECTIONS 20.7 AND 26.8.2. A. ELECTRICAL CONDUIT SHALL BE RIGID STEEL CONDUIT OR FLEXIBLE PLASTIC CONDUIT. ALUMINUM CONDUIT IS PROHIBITED. CONDUIT OUTSIDE DIAMETER SHALL NOT EXCEED 2" OR 1/6 SLAB THICKNESS, WHICHEVER IS LESSER. CONDUIT SHALL BE FIRMLY CHAIRED AND TIED TO PREVENT
- DISPLACEMENT DURING POURING. B. FOR CONDUIT PLACED IN SLABS ON STEEL DECKING, CONDUIT SHALL RUN IN THE STEEL DECK FLUTES PER THE TYPICAL CONDUIT IN SLAB ON STEEL DECK DETAIL.

### V. CONCRETE JOINTS:

HEIGHT, UNLESS PERMITTED BY ENGINEER.

- CONSTRUCTION JOINTS SHALL BE INSTALLED SUCH THAT STRENGTH AND APPEARANCE OF CONCRETE ARE NOT IMPAIRED, AT LOCATIONS INDICATED OR AS APPROVED BY THE ARCHITECT. SEE PROJECT SPECIFICATIONS FOR LIMITS ON LOCATION AND SPACING. A. LOCATE JOINTS FOR BEAMS, SUSPENDED SLABS, JOISTS AND GIRDERS IN THE MIDDLE THIRD OF
- SPANS. OFFSET JOINTS IN GIRDERS A MINIMUM DISTANCE OF TWICE THE BEAM WIDTH FROM A BEAM-GIRDER INTERSECTION. B. LOCATE HORIZONTAL JOINTS IN WALLS AND COLUMNS AT THE UNDERSIDE OF FLOORS, SLABS, BEAMS, AND GIRDERS AND AT THE TOP OF FOOTINGS OR FLOOR SLABS, OR AT 40-FEET MAXIMUM
- NEAR REENTRANT CORNERS, AND IN CONCEALED LOCATIONS WHERE POSSIBLE. PREFERRED JOINT INTERVALS SHALL BE 15-25 FEET AS APPROPRIATE. WITH A MAXIMUM SPACING OF 30-FEET. AVOID LOCATING VERTICAL JOINTS WITHIN 15-FEET OF A BUILDING CORNER. D. LAYOUT OF CONSTRUCTION JOINTS IN SLABS ON GRADE MAY CORRESPOND WITH CONTRACTION

C. LOCATE VERTICAL JOINTS IN WALLS AT DISCONTINUITIES, BESIDES PILES INTEGRAL WITH WALLS,

E. LEAVE 7 DAYS, MINIMUM, BETWEEN ADJACENT POURS IN WALLS, UNLESS APPROVED BY ENGINEER.

### I. GENERAL NOTES:

- ALL STRUCTURAL WORK SHALL CONFORM TO THE DRAWINGS, THE PROJECT SPECIFICATIONS, ALL DRAWING NOTES, AND THE 2021 INTERNATIONAL BUILDING CODE (IBC) WITH MESA COUNTY AMENDMENTS.
- ALL APPLICABLE REFERENCE STANDARDS, AS MODIFIED BY THE BUILDING CODE, INCLUDE: A. ASCE/SEI 7-16: MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
- B. ACI 318-14: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
- C. AISC 360-16: SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS D. AISC 341-16: SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS E. AWS D1.1: STRUCTURAL WELDING CODE - STEEL
- F. ACI 117-10: STANDARD SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIAL G. TMS 402-16: BUILDING CODE FOR MASONRY STRUCTURES
- H. TMS 602-16: SPECIFICATION FOR MASONRY STRUCTURES I. AISI SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS, 2016
- 3. THE SCOPE OF WORK IS NOT SOLELY DEFINED BY THESE DOCUMENTS
- . TYPICAL DETAILS APPLY THROUGHOUT THE PROJECT, EVEN IF NOT SPECIFICALLY REFERENCED IN PLANS OR DETAILS. DETAILS OF CONSTRUCTION NOT FULLY SHOWN OR NOTED ON THE DRAWINGS NOR CALLED OUT IN THE SPECIFICATIONS SHALL BE OF THE SAME SIZE AND CHARACTER AS FOR SIMILAR CONDITIONS WHICH ARE SHOWN AND NOTED.
- 5. ALL FORCES INDICATED IN THE STRUCTURAL DRAWINGS ARE SERVICE LOADS AS DEFINED BY ASCE-7, UNLESS NOTED OTHERWISE.
- i. DO NOT USE SCALED DIMENSIONS; USE ONLY WRITTEN DIMENSIONS. WHERE NO DIMENSION IS PROVIDED, CONSULT THE ARCHITECT FOR CLARIFICATIONS BEFORE PROCEEDING WITH WORK.
- SEE ARCHITECTURAL DRAWINGS FOR SITE POSITIONING AND PROJECT DATUM, REFERENCE IS (0'-0") AS SHOWN ON ARCHITECTURAL DRAWINGS.
- 8. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONDITIONS OF THE JOB SITE INCLUDING SAFETY OF PERSONS AND PROPERTY AND THE MEANS AND METHODS OF CONSTRUCTION.
- I. STRUCTURAL ELEMENTS SHALL BE CENTERED ABOUT GRIDLINES OR DIMENSION LINES, UNLESS OTHERWISE NOTED. 10. THE CONTRACTOR SHALL PROVIDE ENGINEERED DESIGNS OF TEMPORARY SHORING AND BRACING

AND MAKE SAFE ALL FLOORS, ROOFS, WALLS, EXCAVATIONS AND ADJACENT PROPERTY AS PROJECT

- CONDITIONS AND LOCAL BUILDING CODE REQUIRE. 1. ALL STRUCTURAL WORK SHALL BE COORDINATED WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, ETC. REQUIREMENTS. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN ON PLAN. DISCREPANCIES AND/OR INTERFERENCES SHALL BE REPORTED TO THE ARCHITECT
- 12. OPENINGS SHALL NOT BE MADE IN ANY STRUCTURAL MEMBER UNLESS SPECIFICALLY SHOWN ON THE STRUCTURAL DRAWINGS OR APPROVED BY THE STRUCTURAL ENGINEER.
- 13. DEFICIENT WORK AND WORK NOT IN CONFORMANCE WITH THE CONTRACT DOCUMENTS AS IDENTIFIED BY THE ARCHITECT OR INSPECTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL COMPENSATE OWNER FOR SERVICES ARISING FROM DEFICIENT WORK.
- 14. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ANY REQUIRED DEWATERING OF THE SITE DURING CONSTRUCTION.
- 15. THE CONTRACTOR SHALL PREPARE ENGINEERED DESIGN AND SHALL BE RESPONSIBLE FOR CONFIRMING ADEQUACY OF AS BUILT STRUCTURE FOR ALL SURCHARGE LOADS RESULTING FROM COMPACTION AS WELL AS CRANES TRUCKS, BULLDOZERS OR ANY OTHER CONSTRUCTION EQUIPMENT. ENGINEERED DESIGNS SHALL BE PREPARED, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE JURISDICTION AND SUBMITTED TO ENGINEER OF RECORD FOR REVIEW
- 16. THE STRUCTURAL COMPONENTS BY THEMSELVES ARE A NON-SELF-SUPPORTING STRUCTURE. LATERAL FORCES DUE TO WIND, EARTHQUAKE, OR SOIL ARE CARRIED BY THE ROOF AND FLOOR DIAPHRAGMS TO THE LATERAL SYSTEM. CERTAIN ELEMENTS SHOWN ON THE STRUCTURAL DRAWINGS (SUCH AS BRACING, ROOF AND FLOOR SLABS, AND CONCRETE IN COMPOSITE COLUMNS) ARE REQUIRED FOR OVERALL OR LOCAL STABILITY OF OTHER ELEMENTS (SUCH AS BEAMS, COLUMNS, AND WALLS). IF DUE TO SEQUENCING OF CONSTRUCTION, THESE STABILITY ELEMENTS ARE NOT IN PLACE, THE CONTRACTOR SHALL RETAIN A STRUCTURAL ENGINEER LICENSED TO PERFORM THE WORK IN THE JURISDICTION WHERE THE PROJECT IS LOCATED. WHO SHALL INVESTIGATE WHERE TEMPORARY SHORING/BRACING IS REQUIRED AND SHALL DESIGN THIS TEMPORARY SHORING/BRACING. THE CONTRACTOR SHALL PROVIDE THIS SHORING/BRACING UNTIL THE REQUIRED STRUCTURAL ELEMENTS
- 7. CONSTRUCTION MATERIALS SHALL BE SPREAD OUT WHEN PLACED ON FRAMED FLOORS OR ROOFS. THE CONSTRUCTION MATERIAL LOAD SHALL NOT EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT. CONTRACTOR SHALL BE RESPONSIBLE FOR SHORING WHERE STRUCTURE IS NOT COMPLETE OR HAS
- 8. BUILDING TOLERANCES: STANDARD TOLERANCES SHALL BE BASED ON THE REQUIREMENTS OF THE AISC CODE OF STANDARD PRACTICE AND ACI 117, STANDARD SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS.

40 PSF

40 PSF

125 PSF

50 PSF

15 PSF

100 PSF

30 PSF

EXPOSED

30 PSF

104 MPH

FNCLOSED

+/- 0.18

SEE PLAN

0.85

16.5 PSF, 3'-9"

### II. DESIGN LOADS:

- 2. SUPERIMPOSED DEAD LOAD:
- a. ROOFING b. MEP . LIVE LOAD: A. ROOFS: B. ROOF TERRACES C. PUBLIC AREAS, STAIRS, CORRIDORS 1ST FLOOR: 100 PSF 80 PSF
- G. LIGHT STORAGE: H. OFFICES: I. PARTITIONS
- SNOW LOAD: A. GROUND SNOW LOAD (Pg) = B. SNOW IMPORTANCE FACTOR (I): C. ROOF EXPOSURE CONDITION:
- E. DRIFT LOAD AND WIDTH: F. FLAT-ROOF SNOW LOAD (Pf) =
  - C. WIND EXPOSURE CATEGORY = D. ENCLOSURE CATEGORY: E. INTERNAL PRESSURE COEFFICIENT (GCPi): F. GUST EFFECT FACTOR (G):
  - A. SITE CLASS = B. RISK CATEGORY = C. SEISMIC IMPORTANCE FACTOR = D. MAPPED SPECTRAL RESPONSE
- . RESPONSE MODIFICATION FACTOR R = J. ANALYSIS PROCEDURE:
  - K. REDUNDANCY FACTOR (p): 1.3 L. DESIGN BASE SHEAR = 10.54 k

- ARCHITECTURALLY EXPOSED STRUCTURAL STEEI ALT ALTERNATE ARCHITECT ARCH'I ARCHITECTURAL **BRICKLEDGE** BUIL DING BLKG BLOCKING BEAM **BOUNDARY NAILING** BOTTOM OF **BOTTOM OF BEAM**
- BM ВО BOB BOD BOS BOT, BOTTOM BOT

POUND

ANCHOR BOLT

**ADDITIONAL** 

ALL COMMON SIDES

AND

AB

ACS

- BP BASE PLATE BRACED FRAME BEARING
- BTWN BETWEEN **CHANNEL CONCRETE BEAM**
- CFMF FRAMING CAST IN PLACE CONTROL JOINT
- CENTERLINE CLR CLEAR CMU COL COLUMN
- CONTINUOUS CTR CENTERED CERTIFIED WELDING INSPECTOR
- DBA DBL DOUBLE DEF
- DEFL DET. DETAIL DTL DIAG DIAGONAL
- EΑ EF
- AND THEIR CONNECTIONS HAVE BEEN INSTALLED AND REACH THEIR FINAL DESIGN STRENGTHS.
- NOT ATTAINED DESIGN STRENGTH.

- DEAD LOAD: THE SELF WEIGHT OF THE STRUCTURE.
- A. ROOF LEVEL 5 PSF 20 PSF 100 PSF
- D. CORRIDORS 2ND FLOOR AND ABOVE: F. RESIDENTIAL: F. PARKING:
- J. STAIRS:
- D. THERMAL FACTOR (Ct) =
  - A. ULTIMATE DESIGN BASIC WIND SPEED V(ult) = B. RISK CATEGORY =
- G. COMPONENT AND CLADDING LOADS 6. SEISMIC LOAD
- E. DESIGN SPECTRAL RESPONSE (5% DAMPED) a. SHORT PERIOD S<sub>DS</sub> = b. 1-SECOND PERIOD S<sub>D1</sub> = F. SEISMIC DESIGN CATEGORY:

a. SHORT PERIOD S<sub>S</sub> =

b. 1-SECOND PERIOD S<sub>1</sub> =

- 1.0 0.20 g
- G. SEISMIC FORCE RESISTING SYSTEM: H. BASE SHEAR COEFFICIENT Cs =
  - FORCE PROCEDURE
- 0.074 a ORDINARY REINFORCED MASONRY SHEAR WALLS
- **ELEVATION** DETAIL MARK

- MTL
  - CONCRETE OC ON CENTER ОН OPNG OPENING OPP OPPOSITE OWSJ PERP PJPPLATE PLF
  - PLYWD PLYWOOD PSF RADIUS
  - REINF REINFORCED. REMAINDER REQ'D REQUIRED **REQMTS** REV REVISION
- DRAWINGS SLIP CRITICAL SCHED SCHEDULE SCJ SECT SECTION
- SHEET SHTG SHEATHING SIM SIMILAR
- STD EACH SIDE STL EACH WAY
- **EXTERIOR** FLOOR DRAIN FOUNDATION FINISH FLOOR ELEVATION
- FIELD NAILING FACE OF ANGLE FACE OF CONCRETE FACE OF MASONRY **FEET**
- FTG FOOTING YIELD STRESS GAGE, GUAGE GALVANIZED
- GRADE BEAM GLUED-LAMINATED BEAM GT **GIRDER TRUSS** H, HORIZ HORIZONTAL **HOLLOW CORE** HIGH
- STEEL **INCHES** INFORMATION **INTERIOR** JST **JOIST**
- JOINT **KIPS** KΒ KNEE BRACE ANGLE
  - **SYMBOLS** SLAB STEP/ DEPRESSION **GRID BUBBLE ELEVATION MARK** SLOPE UF

- SECTION MARK
- **REVISION NUMBER**

- BOTTOM OF DECK **BOTTOM OF STEEL** CARRIED COLUMN CENTER
- CC CEN COLD-FORMED METAL CJP COMPLETE JOINT PENETRATION
- CONCRETE MASONRY UNIT CONC CONCRETE CONN CONNECT, CONNECTION
  - DIAMETER DEFORMED BAR ANCHOR DEFORMED, DEFINITION DEFLECTION
- DN DOWN DRAWING EACH EACH FACE **EXPANSION JOINT ELEVATION** ELEVATOR ELEV ΕN
- EOS EDGE OF SLAB EQ EQUAL EQ SPA EQUAL SPACE ES EW
- EXIST, EXISTING EXT
- FD FDN, FNDN FF EL
- FΝ
- HK HOOK
- - POUND LINEAR FOOT
- **EQUIVALENT LATERAL**

- BUCKLING RESTRAINED
- NEW. (N) NEW NTS
- - POUNDS PER LINEAR FOOT POUNDS PER SQUARE POUNDS PER SQUARE
  - REINFORCEMENT REQ'MT REQUIREMENTS
- EDGE NAILING ENGINEER OF RECORD
- STANDARD STEEL
- T&B TEMP

- NOT TO SCALE NORMAL WEIGHT OPPOSITE HAND OPEN WEB STEEL JOIST PERPENDICULAR PARTIAL JOINT PENETRATION
- REFER, REFERENCE
  - SEE ARCHITECTURAL SAWN CONTROL JOINT SQUARE FEET
- SLAB ON GRADE SPA SPACES, SPACING SQ SQUARE SHORT SLOTTED HOLE

NOTED

WELDED HEADED STEEL

WORKING POINT, WORK

WITH RESPECT TO

WELDED-WIRE

REINFORCEMENT

WEIGHT

YARD

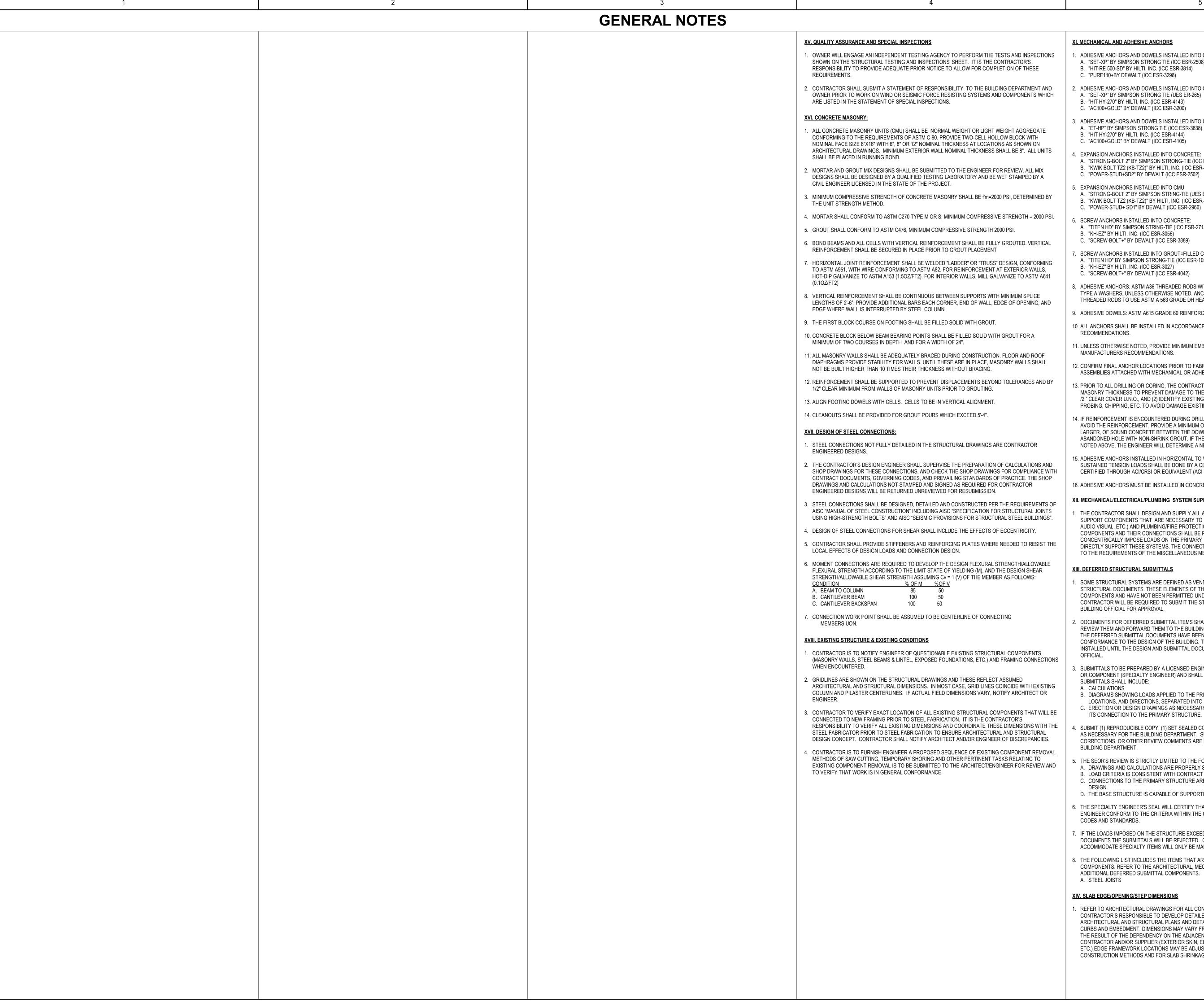
WHSS

- STRUCT STRUCTURE, STRUCTURAL SUPP SUPPORT TOP AND BOTTOM TEMPORARY THK THICK
- TOP OF TO TOC TOP OF CONCRETE TOP OF FOUNDATION TOF TOM TOP OF MASONRY TOS TOP OF STEEL
- TOSC TOP OF STRUCTURAL CONCRETE TOP OF SLAB TOSL TOT TOTAL TOW TOP OF WALL TYP TYPICAL UON UNLESS OTHERWISE
- V, VERT VERTICAL VERIFY IN FIELD WIDE FLANGE WITH WITHOUT WIND BRACE HOLLOW STRUCTURAL WIND BRACE BASEPLATE WBBP



VALLEY SLAB THICKNESS CHANGE

Scale: As indicated GENERAL NOTES



#### XI. MECHANICAL AND ADHESIVE ANCHORS

- 1. ADHESIVE ANCHORS AND DOWELS INSTALLED INTO CONCRETE:
- A. "SET-XP" BY SIMPSON STRONG TIE (ICC ESR-2508) B. "HIT-RE 500-SD" BY HILTI, INC. (ICC ESR-3814)
- C. "PURE110+BY DEWALT (ICC ESR-3298) 2. ADHESIVE ANCHORS AND DOWELS INSTALLED INTO GROUT-FILLED CMU:
- A. "SET-XP" BY SIMPSON STRONG TIE (UES ER-265) B. "HIT HY-270" BY HILTI, INC. (ICC ESR-4143)
- C. "AC100+GOLD" BY DEWALT (ICC ESR-3200)
- 3. ADHESIVE ANCHORS AND DOWELS INSTALLED INTO UNREINFORCED BRICK MASONRY (URM): A. "ET-HP" BY SIMPSON STRONG TIE (ICC ESR-3638)
- B. "HIT HY-270" BY HILTI, INC. (ICC ESR-4144) C. "AC100+GOLD" BY DEWALT (ICC ESR-4105)
- EXPANSION ANCHORS INSTALLED INTO CONCRETE:
- A. "STRONG-BOLT 2" BY SIMPSON STRONG-TIE (ICC ESR-3037)
- B. "KWIK BOLT TZ2 (KB-TZ2)" BY HILTI, INC. (ICC ESR-4266) C. "POWER-STUD+SD2" BY DEWALT (ICC ESR-2502)
- 5. EXPANSION ANCHORS INSTALLED INTO CMU A. "STRONG-BOLT 2" BY SIMPSON STRING-TIE (UES ER-240) B. "KWIK BOLT TZ2 (KB-TZ2)" BY HILTI, INC. (ICC ESR-4561)
- 6. SCREW ANCHORS INSTALLED INTO CONCRETE:
- A. "TITEN HD" BY SIMPSON STRING-TIE (ICC ESR-2713)
- B. "KH-EZ" BY HILTI, INC. (ICC ESR-3056)
- C. "SCREW-BOLT+" BY DEWALT (ICC ESR-3889)
- . SCREW ANCHORS INSTALLED INTO GROUT=FILLED CMU: A. "TITEN HD" BY SIMPSON STRONG-TIE (ICC ESR-1056)
- B. "KH-EZ" BY HILTI, INC. (ICC ESR-3027)
- C. "SCREW-BOLT+" BY DEWALT (ICC ESR-4042)
- 8. ADHESIVE ANCHORS: ASTM A36 THREADED RODS WITH ASTM A 563 GRADE A NUTS AND ANSI B18.22.1 TYPE A WASHERS, UNLESS OTHERWISE NOTED, ANCHORS DESIGNATED AS ASTM A193 GRADE B7 THREADED RODS TO USE ASTM A 563 GRADE DH HEAVY HEX NUTS AND ASTM F 436 WASHERS.
- 9. ADHESIVE DOWELS: ASTM A615 GRADE 60 REINFORCING STEEL.

PROBING, CHIPPING, ETC. TO AVOID DAMAGE EXISTING REINFORCING.

- 10. ALL ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ICC-ES REPORT AND MANUFACTURERS
- 11. UNLESS OTHERWISE NOTED, PROVIDE MINIMUM EMBEDMENT OF ANCHORS PER ICC-ES REPORT & MANUFACTURERS RECOMMENDATIONS.
- 12. CONFIRM FINAL ANCHOR LOCATIONS PRIOR TO FABRICATING PLATES, MEMBERS, OR OTHER STEEL ASSEMBLIES ATTACHED WITH MECHANICAL OR ADHESIVE ANCHORS.
- 13. PRIOR TO ALL DRILLING OR CORING, THE CONTRACTOR SHALL (1) VERIFY THE EXISTING CONCRETE OR MASONRY THICKNESS TO PREVENT DAMAGE TO THE OPPOSITE FACE OF CONCRETE AND MAINTAIN 1 -1 /2 " CLEAR COVER U.N.O., AND (2) IDENTIFY EXISTING REINFORCING LOCATIONS BY PACHOMETER,
- 14. IF REINFORCEMENT IS ENCOUNTERED DURING DRILLING, ABANDON AND SHIFT THE HOLE LOCATION TO AVOID THE REINFORCEMENT. PROVIDE A MINIMUM OF 2 ANCHOR DIAMETERS OR 1 INCH, WHICHEVER IS LARGER, OF SOUND CONCRETE BETWEEN THE DOWEL AND THE ABANDONED HOLE. FILL THE ABANDONED HOLE WITH NON-SHRINK GROUT. IF THE ANCHOR OR DOWEL MAY NOT BE SHIFTED AS NOTED ABOVE, THE ENGINEER WILL DETERMINE A NEW LOCATION.
- 15. ADHESIVE ANCHORS INSTALLED IN HORIZONTAL TO VERTICALLY OVERHEAD ORIENTATION TO SUPPORT SUSTAINED TENSION LOADS SHALL BE DONE BY A CERTIFIED ADHESIVE ANCHOR INSTALLER (AAI) CERTIFIED THROUGH ACI/CRSI OR EQUIVALENT (ACI 318-14 17.8.2.2)
- 16. ADHESIVE ANCHORS MUST BE INSTALLED IN CONCRETE AGED A MINIMUM OF 21 DAYS (ACI 318-14 17.1.2)

### XII. MECHANICAL/ELECTRICAL/PLUMBING SYSTEM SUPPORTS

1. THE CONTRACTOR SHALL DESIGN AND SUPPLY ALL ADDITIONAL MISCELLANEOUS METALS AND SYSTEM SUPPORT COMPONENTS THAT ARE NECESSARY TO SUPPORT ALL MECHANICAL, ELECTRICAL (TELECOM, AUDIO VISUAL. ETC.) AND PLUMBING/FIRE PROTECTION SYSTEMS. SUCH METALS AND SUPPORT COMPONENTS AND THEIR CONNECTIONS SHALL BE PROVIDED AS NECESSARY TO DIRECTLY AND CONCENTRICALLY IMPOSE LOADS ON THE PRIMARY STRUCTURE. STEEL ROOF DECK SHALL NOT DIRECTLY SUPPORT THESE SYSTEMS. THE CONNECTIONS TO THE PRIMARY STRUCTURE ARE SUBJECT TO THE REQUIREMENTS OF THE MISCELLANEOUS METALS SECTION ABOVE.

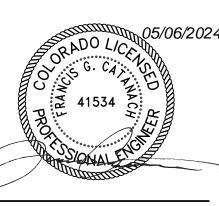
### XIII. DEFERRED STRUCTURAL SUBMITTALS

- I. SOME STRUCTURAL SYSTEMS ARE DEFINED AS VENDOR-DESIGNED COMPONENTS PER THE STRUCTURAL DOCUMENTS. THESE ELEMENTS OF THE DESIGN ARE DEFERRED SUBMITTAL COMPONENTS AND HAVE NOT BEEN PERMITTED UNDER THE BASE BUILDING APPLICATION. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT THE STAMPED COMPONENT SYSTEM DOCUMENTS TO THE
- 2. DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE ARCHITECT, WHO SHALL REVIEW THEM AND FORWARD THEM TO THE BUILDING OFFICIAL WITH A NOTATION INDICATION THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED AND BEEN FOUND TO BE IN GENERAL CONFORMANCE TO THE DESIGN OF THE BUILDING. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING
- 3. SUBMITTALS TO BE PREPARED BY A LICENSED ENGINEER LAWFULLY ELIGIBLE TO DESIGN THE ELEMENT OR COMPONENT (SPECIALTY ENGINEER) AND SHALL BE SEALED IN ACCORDANCE WITH STATE LAW. SUBMITTALS SHALL INCLUDE:
- A. CALCULATIONS B. DIAGRAMS SHOWING LOADS APPLIED TO THE PRIMARY STRUCTURE INCLUDING MAGNITUDES, LOCATIONS, AND DIRECTIONS, SEPARATED INTO DEAD, LIVE, WIND AND/OR SEISMIC COMPONENTS. C. ERECTION OR DESIGN DRAWINGS AS NECESSARY TO DESCRIBE THE SYSTEM OR COMPONENT AND ITS CONNECTION TO THE PRIMARY STRUCTURE.
- 4. SUBMIT (1) REPRODUCIBLE COPY, (1) SET SEALED COPY FOR THE SEOR'S FILE, AND ADDITIONAL COPIES AS NECESSARY FOR THE BUILDING DEPARTMENT. SUBMITTALS CONTAINING EXCEPTIONS, CORRECTIONS, OR OTHER REVIEW COMMENTS ARE NOT ACCEPTABLE FOR SUBMITTAL TO THE BUILDING DEPARTMENT.
- 5. THE SEOR'S REVIEW IS STRICTLY LIMITED TO THE FOLLOWING:
- A. DRAWINGS AND CALCULATIONS ARE PROPERLY SEALED. B. LOAD CRITERIA IS CONSISTENT WITH CONTRACT DOCUMENTS.
- C. CONNECTIONS TO THE PRIMARY STRUCTURE ARE CONSISTENT WITH THE PRIMARY STRUCTURE
- D. THE BASE STRUCTURE IS CAPABLE OF SUPPORTING IMPOSED LOADS.
- 6. THE SPECIALTY ENGINEER'S SEAL WILL CERTIFY THAT THE ITEMS DESIGNED BY THE SPECIALTY ENGINEER CONFORM TO THE CRITERIA WITHIN THE CONTRACT DOCUMENTS AND ALL APPLICABLE CODES AND STANDARDS.
- 7. IF THE LOADS IMPOSED ON THE STRUCTURE EXCEED THE CRITERIA WITHIN THE CONTRACT DOCUMENTS THE SUBMITTALS WILL BE REJECTED. CHANGES TO THE PRIMARY STRUCTURE TO ACCOMMODATE SPECIALTY ITEMS WILL ONLY BE MADE AT COST AFTER
- 8. THE FOLLOWING LIST INCLUDES THE ITEMS THAT ARE DEFINED AS DEFERRED STRUCTURAL SUBMITTAL COMPONENTS. REFER TO THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND CIVIL DRAWINGS FOR ADDITIONAL DEFERRED SUBMITTAL COMPONENTS. A. STEEL JOISTS

### XIV. SLAB EDGE/OPENING/STEP DIMENSIONS

. REFER TO ARCHITECTURAL DRAWINGS FOR ALL CONCRETE DIMENSIONS NOT SHOWN. IT IS THE CONTRACTOR'S RESPONSIBLE TO DEVELOP DETAILED SLAB EDGE PLANS BASED ON THE ARCHITECTURAL AND STRUCTURAL PLANS AND DETAILS. SUBMITTED DRAWINGS SHALL CONTAIN ALL CURBS AND EMBEDMENT. DIMENSIONS MAY VARY FROM THE ARCHITECTURAL PLANS AND DETAILS AS THE RESULT OF THE DEPENDENCY ON THE ADJACENT MATERIALS THAT ARE DETERMINED BY THE CONTRACTOR AND/OR SUPPLIER (EXTERIOR SKIN, ELEVATOR EQUIPMENT, FINAL MEP SHAFT SIZES, ETC.) EDGE FRAMEWORK LOCATIONS MAY BE ADJUSTED AS NECESSARY TO ACCOUNT FOR CONSTRUCTION METHODS AND FOR SLAB SHRINKAGE.

Permit/Seal



Project No.:2270481701

Scale: 12" = 1'-0" 
 DK
 HG
 FC
 2024.05.06

 Dwn.
 Dsgn.
 Chkd.
 YYYY.MM.DD

GENERAL NOTES

ORIGINAL SHEET - ARCH D

|   |    | SPECIAL      | INSPECTION AND TEST REQUIREMENTS   |   |  |  |
|---|----|--------------|--|---|--|--|
| TYPE  |    | FREQUENCY    | REQUIRED INSPECTIONS AND/OR TESTS  | REFERENCES<br>CODES/STANDARDS                         |  |  |
| COLD-FORMED STEEL DECK  |    |              |  |   |  |  |
| 1. PRIOR TO DECK PLACEMENT                                    |    | PERFORM      | VERIFY COMPLIANCE OF MATERIALS (DECK AND ALL DECK ACCESSORIES) WITH CONSTRUCTION DOCUMENTS, INCLUDING PROFILES, MATERIAL PROPERTIES, AND BASE METAL THICKNESS                              | ANSI/SDI STANDARD<br>FOR QA/QC FOR<br>INSTALLATION OF |  |  |
|   | Z  | PERFORM      | DOCUMENT ACCEPTANCE OR REJECTION OF DECK AND DECK ACCESSORIES  | STEEL DECK  |  |  |
| 2. AFTER DECK PLACEMENT                                       | Z  | PERFORM      | VERIFY COMPLIANCE OF DECK AND ALL DECK ACCESSORIES INSTALLATION WITH CONSTRUCTION DOCUMENTS.   | CONSTRUCTION DOCUMENTS                                |  |  |
|   | Z  | PERFORM      | VERIFY DECK MATERIALS ARE REPRESENTED BY THE MILL CERTIFICATIONS THAT COMPLY WITH THE CONSTRUCITON DOCUMENTS.  | -   |  |  |
|   | Z  | PERFORM      | DOCUMENT ACCEPTANCE OR REJECTION OF INSTALLATION OF DECK AND DECK ACCESSORIES.   | -   |  |  |
| 3. PRIOR TO WELDING   | V  | OBSERVE      | WELDING PROCEDURE SPECIFICATIONS (WPS) AVAILABLE   | -   |  |  |
|   | V  | OBSERVE      | MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE  | _   |  |  |
|   | Z  | OBSERVE      | MATERIAL INDENTIFICATION (TYPE/GRADE)  | _   |  |  |
|   |    | OBSERVE      | CHECK WELDING EQUIPMENT  | -   |  |  |
| 4. DURING WELDING   | Z  | OBSERVE      | USE OF QUALIFIED WELDERS   | -   |  |  |
|   | Z  | OBSERVE      | CONTROL AND HANDLING OF WELDING CONSUMABLES  | _   |  |  |
|   |    | OBSERVE      | ENVIRONMENTAL CONDITIONS (WIND SPEED, MOISTURE, TEMPERATURE)   | _   |  |  |
|   |    | OBSERVE      | WPS FOLLOWED   | _   |  |  |
| 5. AFTER WELDING  | Z  | PERFORM      | VERIFY SIZE AND LOCATION OF WELDS, INCLUDING SUPPORT, SIDELAP, AND   | -   |  |  |
| O. A. TERRALEDING   |    | PERFORM      | PERIMETER WELDS.  WELDS MEET VISUAL ACCEPTANCE CRITERIA  | _   |  |  |
|   |    | PERFORM      | VERIFY REPAIR ACTIVITIES   | _   |  |  |
|   |    | PERFORM      | DOCUMENT ACCEPTANCE OR REJECTION OF WELDS  |   |  |  |
| a prior to Mediumian  |    |              | MANUFACTURER INSTALLATION INSTRUCTIONS AVAILABLE FOR MECHANICAL  | _   |  |  |
| 6. PRIOR TO MECHANICAL<br>FASTENING                           |    | OBSERVE      | FASTENERS  | _   |  |  |
|   |    | OBSERVE      | PROPER TOOLS AVAILABLE FOR FASTENER INSTALLATION   | _   |  |  |
|   |    | OBSERVE      | PROPER STORAGE FOR MECHANICAL FASTENERS  | _   |  |  |
| 7. DURING MECHANICAL FASTENING                                |    | OBSERVE      | FASTENERS ARE POSITIONED AS REQUIRED   | _   |  |  |
|   |    | OBSERVE      | FASTENERS ARE INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS  | _   |  |  |
| 8. AFTER MECHANICAL FASTENING                                 | V  | PERFORM      | CHECK SPACING, TYPE, AND INSTALLATION OF SUPPORT FASTENERS   | _   |  |  |
|   | V  | PERFORM      | CHECK SPACING, TYPE, AND INSTALLATION OF SIDELAP FASTENERS   | -   |  |  |
|   |    | PERFORM      | CHECK SPACING, TYPE, AND INSTALLATION OF PERIMETER FASTENERS   |   |  |  |
|   |    | PERFORM      | VERIFY REPAIR ACTIVITIES   |   |  |  |
|   |    | PERFORM      | DOCUMENT ACCEPTANCE OR REJECTION OF MECHANICAL FASTENERS   |   |  |  |
|   | OI | PEN-WEB STEE | EL JOISTS AND JOIST GIRDERS  | IBC 1705.2.3  |  |  |
| 1. INSTALLATION OF OPEN-WEB<br>STEEL JOISTS AND JOIST GIRDERS | V  | PERIODIC     | END CONNECTIONS - WELDING OR BOLTED  | SJI CJ; SJI 100                                       |  |  |
|   | V  | PERIODIC     | BRIDGING - HORIZONTAL OR DIAGONAL  | CONSTRUCTION DOCUMENTS                                |  |  |
|   |    | COLD-FOI     | RMED STEEL TRUSSES   | IBC 1705.2.4  |  |  |
| 1. COLD-FORMED STEEL TRUSSES<br>SPANNING 60 FEET OR GREATER   | V  | PERIODIC     | VERIFY THAT THE TEMPORARY INSTALLATION RESTRAINT/BRACING AND THE PERMANENT INDIVIDUAL TRUSS MEMBER RESTRAINT/BRACING ARE INSTALLED IN ACCORDANCE WITH THE APPROVED TRUSS SUBMITTAL PACKAGE | CONSTRUCTION<br>DOCUMENTS                             |  |  |
|   |    | COLD FORM    | MED STEEL LIGHT-FRAME  | IBC 1705.11.2, 1705.12.3                              |  |  |
| 1. WIND RESISTANCE/ SEISMIC                                   | V  | PERIODIC     | WELDING OPERATIONS OF ELEMENTS OF THE MAIN WINDFORCE RESISTING SYSTEM.   |   |  |  |
| RESISTANCE  | Z  | PERIODIC     | SCREW ATTACHMENT, BOLTING, ANCHORING AND OTHER FASTENING OF ELEMENTS OF THE MAIN WINDFORCE-RESISTING SYSTEM, INCLUDING SHEAR WALLS, BRACES, DIAPHRAGMS, DRAG STRUTS AND HOLD-DOWNS.        | -   |  |  |

INSTALLATION OF COLD-FORMED STEEL SPECIAL BOLTED MOMENT FRAMES (SDC D,E,F)

| TYPE                              |          | FREQUENCY     | REQUIRED INSPECTIONS AND/OR TESTS  | REFERENCES<br>CODES/STANDARDS  |
|-----------------------------------|----------|---------------|--|--|
|                                   |          | MA            | SONRY - LEVEL 2  | IBC 1705.4   |
| 1. VERIFICATION                   | <b>V</b> | PERIODIC      | PRIOR TO CONSTRUCTION, VERIFICATION OF COMPLIANCE OF SUBMITTALS.   | TMS 602: 1.5   |
|                                   | V        | PERIODIC      | PRIOR TO CONSTRUCTION, VERIFICATION OF f'm AND f'AAC   | TMS 602: 1.4 B   |
|                                   | <b>V</b> | CONTINUOUS    | DURING CONSTRUCTION, WHEN SELF-CONSOLIDATING GROUT IS DELIVERED TO THE PROJECT SITE - VERIFICATION OF SLUMP FLOW AND VISUAL STABILITY INDEX (VSI)  | TMS 602: 1.5, 1.6.3  |
| 2. AS MASONRY CONSTRUCTION BEGINS | V        | PERIODIC      | PROPORTIONS OF SITE PREPARED MORTAR  | TMS 602: 2.1, 2.6 A, 2.6 C   |
| DEGINO                            | V        | PERIODIC      | GRADE AND SIZE OF PRESTRESSING TENDONS AND ANCHORAGES  | TMS 602: 2.4 B, 2.4 H  |
|                                   | V        | PERIODIC      | GRADE, TYPE AND SIZE OF REINFORCEMENT CONNECTORS, ANCHOR BOLTS AND PRESTRESSING TENDONS AND ANCHORAGES   | TMS 602: 3.4, 3.6 A  |
|                                   | V        | PERIODIC      | PRESTRESSING TECHNIQUE   | TMS 602: 3.6 B   |
|                                   | V        | CONTINUOUS    | PROPERTIES OF THIN-BED MORTAR FOR AAC MASONRY  | TMS 602: 2.1 C.1   |
|                                   | Z        | PERIODIC      | SAMPLE PANEL CONSTRUCTION  | TMS 602: 1.6 D   |
| 3. PRIOR TO GROUTING              | Z        | PERIODIC      | GROUT SPACE  | TMS 602: 3.2 D, 3.2 F  |
|                                   | Z        | PERIODIC      | PLACEMENT OF PRESTRESSING TENDONS AND ANCHORAGES   | TMS 602: 2.4, 3.6  |
|                                   | Z        | PERIODIC      | PLACEMENT OF REINFORCING, CONNECTORS AND ANCHOR BOLTS  | TMS 602: 3.2 E, 3.4  |
|                                   | Z        | PERIODIC      | PROPORTIONS OF SITE-PREPARED GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS   | TMS 602: 2.6 B, 2.4 G.1  |
| 4. DURING CONSTRUCTION            | Z        | PERIODIC      | MATERIALS AND PROCEDURES WITH THE APPROVED SUBMITTALS  | TMS 602: 1.5   |
|                                   | Z        | PERIODIC      | PLACEMENT OF MASONRY UNITS AND MORTAR JOINT CONSTRUCTION   | TMS 602: 3.3 B   |
|                                   | Z        | PERIODIC      | SIZE AND LOCATION OF STRUCTURAL MEMBERS  | TMS 602: 3.3 F   |
|                                   | V        | PERIODIC      | TYPE, SIZE AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES OR OTHER CONSTRUCTION  | TMS 402: 1.2.1(e), 6.2.1<br>6.3.1                                      |
|                                   | V        | CONTINUOUS    | WELDING OF REINFORCEMENT   | TMS 402: 6.1.6.1.2   |
|                                   | V        | PERIODIC      | PREPARATION, CONSTRUCTION, AND PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°F (4.4°C)) OR HOT WEATHER (TEMPERATURE ABOVE 90°F (32.2°C)  | TMS 602: 1.8 C, 1.8 D  |
|                                   | V        | CONTINUOUS    | APPLICATION AND MEASUREMENT OF PRESTRESSING FORCE  | TMS 602: 3.6 B   |
|                                   | V        | CONTINUOUS    | PLACEMENT OF GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS IS IN COMPLIANCE  | TMS 602: 3.5, 3.6 C  |
|                                   | V        | CONTINUOUS    | PLACEMENT OF AAC MASONRY UNITS AND CONSTRUCTION OF THIN-BED MORTAR JOINTS  | TMS 602: 3.3 B.9,<br>3.3 F.1.b   |
| 5. PREPARATION OF SPECIMENS       | V        | PERIODIC      | OBSERVE PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS, AND/OR PRISMS  | TMS 602: 1.4 B.2.a.3,<br>1.4 B.2.b.3, 1.4 B.2.c.3,<br>1.4 B.3, 1.4 B.4 |
|                                   | CA       | ST-IN-PLACE [ | DEEP FOUNDATION ELEMENTS   | IBC 1705.8   |
| 1. DRILLING OPERATIONS            | V        | CONTINUOUS    | INSPECT DRILLING OPERATIONS AND MAINTAIN COMPLETE AND ACCURATE RECORDS FOR EACH ELEMENT.   | GEOTECHNICAL<br>REPORT   |
| 2. VERIFICATION                   | V        | CONTINUOUS    | VERIFY PLACEMENT LOCATIONS AND PLUMBNESS, CONFIRM ELEMENT DIAMETERS, BELL DIAMETERS (IF APPLICABLE), LENGTHS, EMBEDMENT INTO BEDROCK (IF APPLICABLE) AND ADEQUATE END-BEARING STRATA CAPACITY. RECORD CONCRETE OR GROUT VOLUMES. | CONSTRUCTION<br>DOCUMENTS  |
|                                   |          | WIND RE       | SISTING COMPONENTS   | IBC 1705.11.3  |
| 1. FASTENING OF COMPONENTS        | V        | PERIODIC      | ROOF COVERING, ROOD DECK, AND ROOF FRAMING CONNECTIONS   |  |
|                                   | Z        | PERIODIC      | EXTERIOR WALL COVERING AND WALL CONNECTIONS TO ROOF AND FLOOR DIAPHRAGM  |  |
|                                   | 1 1      | SEISMIC R     | ESISTING COMPONENTS  | -  |
| 1. SEISMIC ISOLATION SYSTEMS      | V        | PERIODIC      | SEISMIC ISOLATION SYSTEMS IN SEISMICALLY ISOLATED STRUCTURES DURING THE FABRICATION AND INSTALLATION OF ISOLATOR UNITS AND ENERGY DISSIPATION DEVICES  | IBC 1705.12.8  |
|                                   | Z        | PERIODIC      | SEISMIC ISOLATION SYSTEMS IN SEISMICALLY ISOLATED STRUCTURES SHALL   |  |

#### STATEMENT OF SPECIAL INSPECTIONS

INSPECTION AND TESTING REQUIREMENTS ON THIS SHEET ARE IN ACCORDANCE WITH SECTION 1705 OF THE CALIFORNIA BUILDING CODE (IBC) AND HAVE BEEN IDENTIFIED AS A STATEMENT OF SPECIAL INSPECTIONS AS REQUIRED BY IBC SECTION 1704.3. THE OWNER OR THE OWNER'S AUTHORIZED AGENT, OTHER THAN THE CONTRACTOR, SHALL EMPLOY ONE OR MORE APPROVED AGENCIES TO PROVIDE THE SPECIAL INSPECTIONS AND TESTS DURING CONSTRUCTION AS REQUIRED BY IBC SECTION 1705 AND IDENTIFY THE APPROVED AGENCIES TO THE BUILDING OFFICIAL. THESE SPECIAL INSPECTIONS AND TESTS ARE IN ADDITION TO THE INSPECTIONS BY THE BUILDING OFFICIAL THAT ARE IDENTIFIED IN IBC SECTION 110. SPECIAL INSPECTORS SHALL BE QUALIFIED IN ACCORDANCE WITH IBC SECTION 1704.2.1, AND ALL OTHER APPLICABLE SECTIONS AND STANDARDS.

SPECIAL INSPECTIONS AND TESTS INDICATED ON THIS SHEET ARE FOR THE STRUCTURAL WORK, SEE OTHER DISCIPLINES DRAWINGS AND SPECIFICATIONS FOR REQUIRED NONSTRUCTURAL SPECIAL INSPECTIONS AND TESTS.

#### DEFINITIONS

|  | SPECIAL<br>INSPECTION | INSPECTION OF CONSTRUCTION REQUIRING THE EXPERTISE OF AN APPROVED SPECIAL INSPECTOR IN ORDER TO ENSURE COMPLIANCE WITH THE BUILDING CODE AND THE APPROVED CONSTRUCTION DOCUMENTS.                                 |
|--|-----------------------|---|
|  | SPECIAL<br>INSPECTOR  | A QUALIFIED PERSON EMPLOYED OR RETAINED BY AN APPROVED AGENCY AND APPROVED BY THE BUILDING OFFICIAL AS HAVING THE COMPETENCE NECESSARY TO INSPECT A PARTICULAR TYPE OF CONSTRUCTION REQUIRING SPECIAL INSPECTION. |
|  | PERIODIC              | SPECIAL INSPECTION BY THE SPECIAL INSPECTOR WHO IS INTERMITTENTLY PRESENT WHERE THE WORK HAS BEEN OR IS BEING PERFORMED AND AT THE COMPLETION OF WORK.  |
|  | CONTINUOUS            | SPECIAL INSPECTION BY THE SPECIAL INSPECTOR WHO IS PRESENT CONTINUOUSLY WHEN AND WHERE THE WORK TO BE INSPECTED IS BEING PERFORMED  |
|  | OBSERVE               | THE INSPECTOR SHALL OBSERVE THESE FUNCTIONS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING OBSERVATIONS.   |

FINAL ACCEPTANCE OF THE ITEM.

FOR THIS PROJECT.

PERFORM

THESE INSPECTIONS SHALL BE PERFORMED FOR EACH

CONNECTION OR MEMBER, AND COMPLETED PRIOR TO THE

INDICATES SPECIAL INSPECTION OF ITEM IS REQUIRED FOR THE WORK DEFINED IN THE CONSTRUCTION DOCUMENTS

7



Project No.:2270481701 Scale: 3/4" = 1'-0" DK HG FC 2024.05.06

Dwn. Dsgn. Chkd. YYYY.MM.DD

STRUCTURAL SPECIAL INSPECTIONS AND TESTS

Revision:
Drawing No. **S-003** 

ORIGINAL SHEET - ARCH D

|  |          | SPECIAL   | INSPECTION AND TEST REQUIREMENTS   |                               |  |
|--|----------|-----------|--|-------------------------------|--|
| TYPE   |          | FREQUENCY | REQUIRED INSPECTIONS AND/OR TESTS  | REFERENCES<br>CODES/STANDARDS |  |
| STRUCTURAL STEEL                                 |          |           |  |                               |  |
| 3. AFTER WELDING                                 | V        | OBSERVE   | WELDS CLEANED  | AISC 360                      |  |
|  | V        | PERFORM   | SIZE, LENGTH AND LOCATION OF WELDS   | AISC 341                      |  |
|  | <b>✓</b> | PERFORM   | WELDS MEET VISUAL ACCEPTANCE CRITERIA  CRACK PROHIBITION  WELD/ BASE-METAL FUSION  CRATER CROSS SECTION  WELD PROFILES  WELD SIZE  UNDERCUT  POROSITY  | CONSTRUCTION<br>DOCUMENTS     |  |
|  |          | PERFORM   | ARC STRIKES  |                               |  |
|  | V        | PERFORM   | K-AREA; WHEN WELDING OF DOUBLER PLATES, CONTINUITY PLATES OR STIFFENERS HAS BEEN PERFORMED IN THE K-AREA, VISUALLY INPSECT THE WEB K-AREA FOR CRACKS WITHIN 3-INCHES OF THE WELD.  |                               |  |
|  | V        | PERFORM   | WELD ACCESS HOLES IN ROLLED HEAVY SHAPES AND BUILT-UP HEAVY SHAPES   |                               |  |
|  | Z        | PERFORM   | PLACEMENT OF REINFORCING OR CONTOURING FILLET WELDS (IF REQUIRED)  |                               |  |
|  | Z        | PERFORM   | BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)  |                               |  |
|  | V        | PERFORM   | REPAIR ACTIVITIES  |                               |  |
|  | V        | PERFORM   | DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER   |                               |  |
|  | Z        | PERFORM   | NO PROHIBITED WELDS HAVE BEEN ADDED WITHOUT THE APPROVAL OF EOR  |                               |  |
| 4. NONDESTRUCTIVE TESTING (NDT) OF WELDED JOINTS | V        | PERFORM   | NDT SHALL BE PERFORMED AND DOCUMENTED IN ACCORDANCE WITH AISC 360 SECTION N5.5. SEE GENERAL NOTES FOR RISK CATEGORY.   |                               |  |
| 5. PRIOR TO BOLTING                              | V        | PEFORM    | MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS   |                               |  |
|  | V        | OBSERVE   | FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS  |                               |  |
|  | V        | OBSERVE   | CORRECT FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE)  |                               |  |
|  | V        | OBSERVE   | CORRECT BOLTING PROCEDURE SELECTED FOR JOINT DETAIL  |                               |  |
|  | V        | OBSERVE   | CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS.  |                               |  |
|  | Z        | OBSERVE   | PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIUES AND METHODS USED. NOT APPLICABLE FOR SNUG-TIGHT JOINTS.   |                               |  |
|  | V        | OBSERVE   | PROTECTED STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS  |                               |  |
| 6. DURING BOLTING                                | V        | OBSERVE   | FASTENER ASSEMBLIES PLACED IN ALL HOLES AND WASHERS AND NUTS ARE POSITIONED AS REQUIRED  |                               |  |
|  | Z        | OBSERVE   | JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION.  |                               |  |
|  | Z        | OBSERVE   | FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING  |                               |  |
|  | V        | OBSERVE   | FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES   |                               |  |
| 7. AFTER BOLTING                                 | V        | PEFORM    | DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS   |                               |  |
| 8. ANCHOR RODS AND EMBEDMENTS                    | V        | PEFORM    | VERIFY PLACEMENT OF ANCHOR RODS AND OTHER EMBEDMENTS SUPPORTING STRUCTURAL STEEL FOR COMPLIANCE WITH THE CONSTRUCTION DRAWINGS. VERIFY DIAMETER, GRADE, TYPE, AND LENGTH OF ANCHOR ROD OR EMBEDDED ITEM, AND EXTENT OR DEPTH OF EMBEDMENT INTO THE CONCRETE. |                               |  |
| 9. VERIFICATION                                  | Z        | PEFORM    | VERIFY FABRICATED STEEL OR ERECTED STEEL FRAME FOR COMPLIANCE WITH THE DETAILS SHOWN ON THE CONSTRUCTION DOCUMENTS.  |                               |  |
| 10. SEISMIC RESISTANCE                           | Z        | PEFORM    | RBS CONNECTION REQUIREMENTS, IF APPLICABLE  CONTOUR AND FINSH  DIMENSIONAL TOLERANCES  | IBC 1705.12.1.2               |  |
|  | Z        | PEFORM    | PROTECTED ZONE - NO HOLES AND UNAPPROVED ATTACHMENTS MADE BY FABRICATOR OR ERECTOR, AS APPLICABLE  |                               |  |
|  | V        | PEFORM    | NONDESTRUCTIVE TESTING OR STRUCTURAL STEEL IN THE SEISMIC FORCE RESISTING SYSTEM INCLUDING STRUTS COLLECTORS, CHORDS AND FOUNDATION ELEMENTS SHALL BE PERFORMED IN ACCORDANCE WITH AISC 341 SECTION J6.2.  | IBC 1705.13.1                 |  |

|   |  |          | SPECIAL    | INSPECTION AND TEST REQUIREMENTS   |  |
|---|--|----------|------------|--|--|
| 3 | TYPE   |          | FREQUENCY  | REQUIRED INSPECTIONS AND/OR TESTS  | REFERENCES<br>CODES/STANDARDS                      |
|   |  |          |            | CONCRETE   | IBC 1705.3   |
|   | 1. REINFORCEMENT                                       |          | PERIODIC   | INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT  | ACI 318: 20, 25.2, 25.3, 26.6.1-26.6.3  IBC 1908.4 |
|   | 2. REINFORCING BAR WELDING                             | V        | PERIODIC   | VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706  | AWS D1.4   |
|   |  | V        | PERIODIC   | INSPECT SINGLE-PASS FILLET WELDS LESS THAN OR EQUAL TO 5/16"   | ACI 318: 26.6.4                                    |
|   |  | V        | CONTINUOUS | INSPECT ALL OTHER WELDS  |  |
|   | 3. ANCHORS   | Z        | PERIODIC   | INSPECT ANCHORS CAST IN CONCRETE   | ACI 318: 17.8.2                                    |
|   | 4. ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS |          | CONTINUOUS | INSPECT ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.  | ACI 318: 17.8.2.4                                  |
|   |  | <b>✓</b> | PERIODIC   | INSPECT ALL OTHER MECHANICAL OR ADHESIVE ANCHORS - SPECIFIC REQUIREMENTS FOR SPECIAL INSPECTION SHALL BE INCLUDED IN THE RESEARCH REPORT FOR THE ANCHOR ISSUED BY AN APPROVED SOURCE IN ACCORDANCE WITH ACI318: 17.8.2 OR OTHER QUALIFICATION PROCEDURES.                  | ACI 318: 17.8.2                                    |
|   | 5. DESIGN MIX  | <b>✓</b> | PERIODIC   | VERIFY USE OF REQUIRED DESIGN MIX  | ACI 318:19, 26.4.3, 26.4.  IBC 1904.1, 1904.2,     |
|   | 6. PRIOR TO CONCRETE PLACEMENT                         | <b>✓</b> | CONTINUOUS | FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.  | 1908.2, 1908.3<br>ASTM C172, C31<br>IBC 1908.10    |
|   | 7. DURING PLACEMENT                                    | V        | CONTINUOUS | INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES   | ACI318: 26.5<br>IBC: 1908.6,1908.7,1908.8          |
|   |  | Z        | PERIODIC   | VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES  | ACI318: 26.5.3-26.5.5<br>IBC: 1908.9               |
|   | 8. PRESTRESSED CONCRETE                                | Z        | CONTINUOUS | APPLICATION OF PRESTRESSING FORCES   | ACI318: 26.10                                      |
|   |  | Z        | CONTINUOUS | GROUTING OF BONDED PRESTRESSING TENDONS  |  |
|   | 9. PRECAST CONCRETE                                    | V        | PERIODIC   | INSPECT ERECTION OF PRECAST CONCRETE MEMBERS.  | ACI 318: 26.9                                      |
|   | 10. IN-SITU CONCRETE STRENGTH                          |          | PERIODIC   | VERIFY IN-SITU CONCRETE STRENGTH:  • PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE  • PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTRUAL SLABS  | ACI 318: 26.11.2                                   |
|   | 11. FORMWORK   | <b>✓</b> | PERIODIC   | INSPECT FORMWORK FOR SHAPE, LOCATION, ABD DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.  | ACI 318: 26.11.1.2(b)                              |
|   |  |          | STF        | RUCTURAL STEEL   | IBC 1705.2.1                                       |
|   | 1. QUALITY ASSURANCE                                   |          | OBSERVE    | REVIEW MATERIAL TEST REPORTS AND CERTIFICATIONS AS LISTED IN AISC 360 SECTION N3.2 FOR COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS.   | AISC 360<br>AISC 341                               |
|   | 2. PRIOR TO WELDING                                    |          | OBSERVE    | INSPECT WELDER QUALIFICATION RECORDS AND CONTINUITY RECORDS.   | CONSTRUCTION DOCUMENTS                             |
|   |  |          | PERFORM    | WPS AVAILABLE.   |  |
|   |  |          | PERFORM    | MANUFACTURER CERTIFICATES FOR WELDING AVAILABLE.   |  |
|   |  |          | OBSERVE    | MATERIAL IDENTIFICATION (TYPE/GRADE).  |  |
|   |  |          | OBSERVE    | WELDER IDENTIFICATION SYSTEM.  FIT UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY)   |  |
|   |  |          | OBSERVE    | JOINT PREPARATIONS     DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL)     CLEANLINESS (CONDITION OF STEEL SURFACES)     TACKING (TACK WELD QUALITY AND LOCATION)     BACKING TYPE AND FIT (IF APPLICABLE)  |  |
|   |  |          | OBSERVE    | FIT UP OF CJP GROOVE WELDS OF HSS T-, Y- AND K- JOINTS WITHOUT BACKING (INCLUDING JOINT GEOMETRY)  • JOINT PREPARATIONS  • DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL)  • CLEANLINESS (CONDITION OF STEEL SURFACES)  • TACKING (TACK WELD QUALITY AND LOCATION) |  |
|   |  | Z        | OBSERVE    | CONFIGURATION AND FINISH OF ACCESS HOLES   |  |
|   |  | <b>✓</b> | OBSERVE    | FIT-UP OF FILLET WELDS  DIMENSIONS (ALIGNMENT, GAPS AT ROOT) CLEANLINESS (CONDITION OF STEEL SURFACES) TACKING (TACK WELD QUALITY AND LOCATION)  |  |
|   | 2. DURING WELDING                                      | <b>✓</b> | OBSERVE    | CONTROL AND HANDLING OF WELDING CONSUMABLES  • PACKAGING  • EXPOSURE CONTROL   |  |
|   |  | Z        | OBSERVE    | USE OF QUALIFIED WELDERS   |  |
|   |  | Z        | OBSERVE    | NO WELDING OVER CRACKED TACK WELDS   |  |
|   |  | <b>✓</b> | OBSERVE    | ENVIRONMENTAL CONDITIONS  • WIND SPEED WITHIN LIMITS  • PRECIPITATION AND TEMPERATURE  |  |
|   |  |          | OBSERVE    | WPS FOLLOWED  SETTINGS ON WELDING EQUIPMENT  TRAVEL SPEED  SELECTED WELDING MATERIALS SHIELDING GAS TYPE/ FLOW RATE PREHEAT APPLIED  INTERPASS TEMPERATURE MAINTENED (MIN/MAX) PROPER POSITION (F, V, H, OH) INTERMIX OF FILLER METALS AVOIDED UNLESS APPROVED             |  |
|   |  | <b>✓</b> | OBSERVE    | WELDING TECHNIQUES  INTERPASS AND FINAL CLEANING EACH PASS WITHIN PROFILE LIMITATIONS  |  |
|   |  | <b>✓</b> | PERFORM    | EACH PASS MEETS QUALITY REQUIREMENTS  PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS  |  |

### STATEMENT OF SPECIAL INSPECTIONS

INSPECTION AND TESTING REQUIREMENTS ON THIS SHEET ARE IN ACCORDANCE WITH SECTION 1705 OF THE CALIFORNIA BUILDING CODE (IBC) AND HAVE BEEN IDENTIFIED AS A STATEMENT OF SPECIAL INSPECTIONS AS REQUIRED BY IBC SECTION 1704.3. THE OWNER OR THE OWNER'S AUTHORIZED AGENT, OTHER THAN THE CONTRACTOR, SHALL EMPLOY ONE OR MORE APPROVED AGENCIES TO PROVIDE THE SPECIAL INSPECTIONS AND TESTS DURING CONSTRUCTION AS REQUIRED BY IBC SECTION 1705 AND IDENTIFY THE APPROVED AGENCIES TO THE BUILDING OFFICIAL. THESE SPECIAL INSPECTIONS AND TESTS ARE IN ADDITION TO THE INSPECTIONS BY THE BUILDING OFFICIAL THAT ARE IDENTIFIED IN IBC SECTION 110. SPECIAL INSPECTORS SHALL BE QUALIFIED IN ACCORDANCE WITH IBC SECTION 1704.2.1, AND ALL OTHER APPLICABLE SECTIONS AND STANDARDS.

SPECIAL INSPECTIONS AND TESTS INDICATED ON THIS SHEET ARE FOR THE STRUCTURAL WORK, SEE OTHER DISCIPLINES DRAWINGS AND SPECIFICATIONS FOR REQUIRED NONSTRUCTURAL SPECIAL INSPECTIONS AND TESTS.

DESIGNATED SEISMIC FORCE RESISTING SYSTEM:

PERFORM

THE LATERAL FORCE RESISTING SYSTEM CONSISTS OF A STEEL DECK CONNECTED TO REINFORCED MASONRY WALLS.

| SPECIAL<br>INSPECTION | INSPECTION OF CONSTRUCTION REQUIRING THE EXPERTISE OF AN APPROVED SPECIAL INSPECTOR IN ORDER TO ENSURE COMPLIANCE WITH THE BUILDING CODE AND THE APPROVED CONSTRUCTION DOCUMENTS.                                 |
|-----------------------|---|
| SPECIAL<br>INSPECTOR  | A QUALIFIED PERSON EMPLOYED OR RETAINED BY AN APPROVED AGENCY AND APPROVED BY THE BUILDING OFFICIAL AS HAVING THE COMPETENCE NECESSARY TO INSPECT A PARTICULAR TYPE OF CONSTRUCTION REQUIRING SPECIAL INSPECTION. |
| PERIODIC              | SPECIAL INSPECTION BY THE SPECIAL INSPECTOR WHO IS INTERMITTENTLY PRESENT WHERE THE WORK HAS BEEN OR IS BEING PERFORMED AND AT THE COMPLETION OF WORK.  |
| CONTINUOUS            | SPECIAL INSPECTION BY THE SPECIAL INSPECTOR WHO IS PRESENT CONTINUOUSLY WHEN AND WHERE THE WORK TO BE INSPECTED IS BEING PERFORMED  |
| OBSERVE               | THE INSPECTOR SHALL OBSERVE THESE FUNCTIONS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING OBSERVATIONS.   |

FINAL ACCEPTANCE OF THE ITEM.

FOR THIS PROJECT.

THESE INSPECTIONS SHALL BE PERFORMED FOR EACH

CONNECTION OR MEMBER, AND COMPLETED PRIOR TO THE

INDICATES SPECIAL INSPECTION OF ITEM IS REQUIRED FOR THE WORK DEFINED IN THE CONSTRUCTION DOCUMENTS

ta

Project No.:2270481701 Scale: 3/4" = 1'-0"

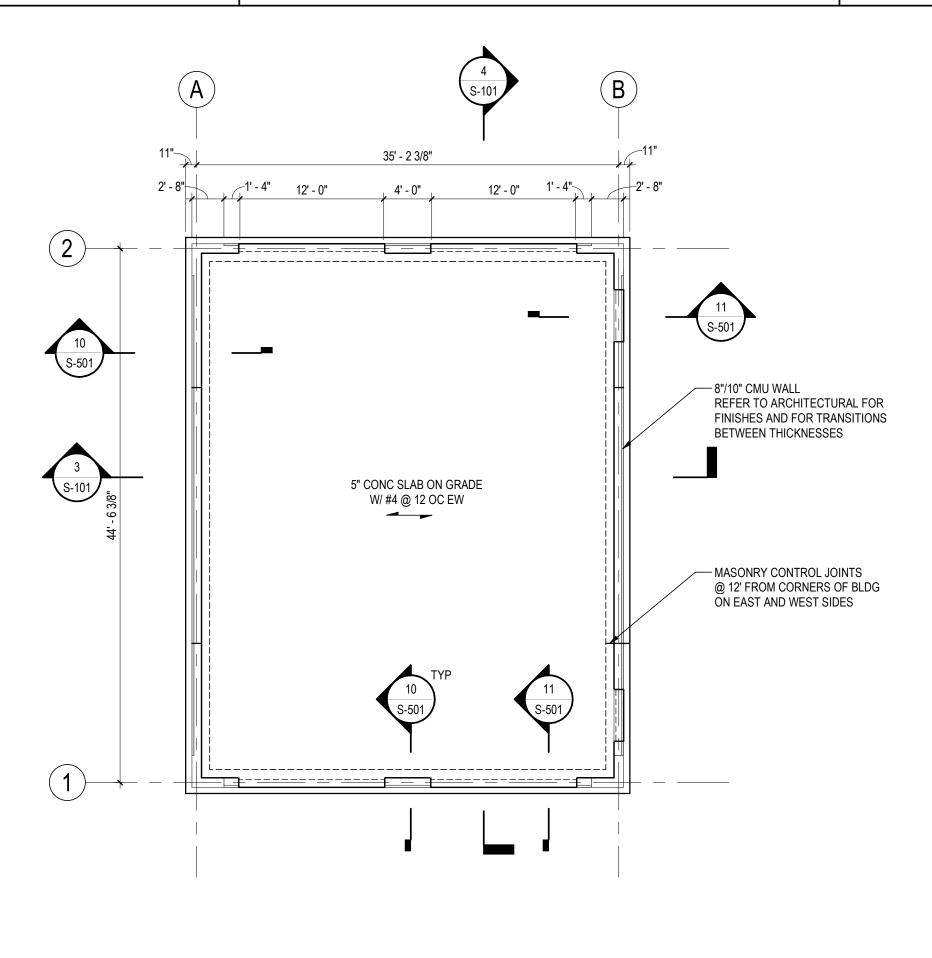
DK HG FC 2024.05.06
Dwn. Dsgn. Chkd. YYYY.MM.DD STRUCTURAL SPECIAL

INSPECTIONS AND TESTS Copy 1

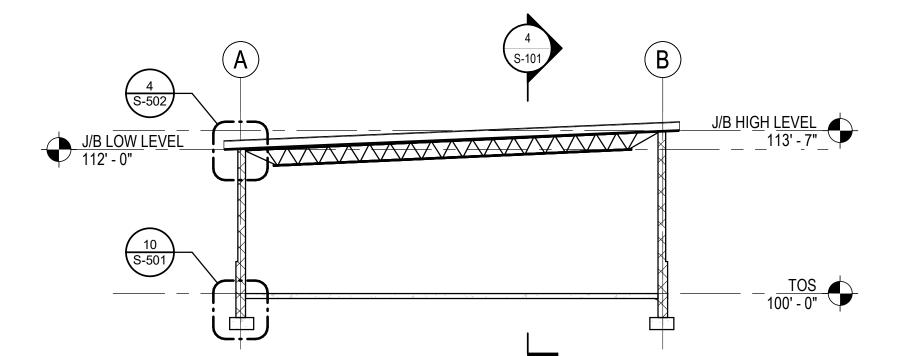
Revision:

Drawing No.

S-004



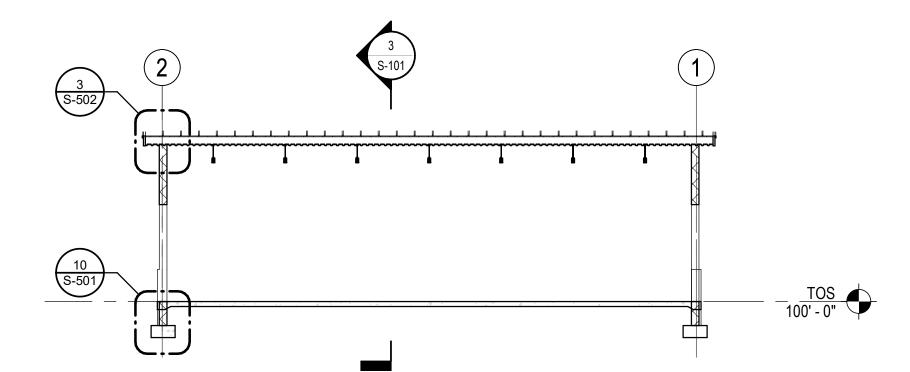




# **TRANSVERSE SECTION**

|           |                 |        |      |         |            |             | (           | STEEL DECK SCHE                                  | DULE                                     |  |  |                       |
|-----------|-----------------|--------|------|---------|------------|-------------|-------------|--|--|--|--|-----------------------|
|           |                 |        |      |         | MINIM      | IUM SE      | CTION       |  | DECK ATTA                                | CHMENT   |  |                       |
| DECK DECK |                 | ~k     |      | FACTORY | PROPERTIES |             | IES         | TO PERIMETER SUPPORT                             |  | TO INTERMEDIATE SUPPORT                          |  | SIDE LAP              |
| DECK      | TYPE            | HEIGHT | GAGE | VENTED  |            | S+<br>(IN³) | S-<br>(IN³) | PERPENDICULAR<br>TO DECK                         | PARALLEL TO<br>DECK                      | PERPENDICULAR<br>TO DECK                         | PARALLEL TO<br>DECK                      | ATTACHMENT            |
| D1        | VERCO<br>PLB-36 | 1 1/2" | 22   | NO      | 0.192      | 0.176       | 0.188       | 4-1/2" DIA PUDDLE WELD<br>@ DOWN FLUTES          | 1/2" DIA PUDDLE<br>WELD @ 12" OC         | 4-1/2" DIA PUDDLE WELD<br>@ DOWN FLUTES          | 1/2" DIA PUDDLE<br>WELD @ 12" OC         | VSC2 @ 24" OC         |
| D1A       | VERCO<br>PLB-36 | 1 1/2" | 22   | NO      | 0.192      | 0.176       | 0.188       | HILTI X-ENP-19<br>L15 FASTENERS<br>@ DOWN FLUTES | HILTI X-ENP-19 L15<br>FASTENERS @ 24" OC | HILTI X-ENP-19<br>L15 FASTENERS<br>@ DOWN FLUTES | HILTI X-ENP-19 L15<br>FASTENERS @ 24" OC | HILTI SLC<br>@ 36" OC |

2 ROOF PLAN
S-101 1/8" = 1'-0"



ROOF SLOPE DOWN

18K10 @ 6' - 0" OC

MASONRY LINTEL SEE 4/ S-501 TYP

T/O STEEL 

EL= 113' - 7"

# LONGITUDINAL SECTION 1/8" = 1'-0"

NOTES

1. ALL STL DECK SHALL CONFORM TO IAPMO REPORT NO. ER-0217.

- 2. WHENEVER POSSIBLE, DECK LAYOUTS SHALL PROVIDE SHEETS OF SUFFICIENT LENGTH TO SPAN CONTINUOUSLY ACROSS AT LEAST THREE SPANS. ENDS SHALL TERMINATE OVER A SUPPORT PERPENDICULAR TO THE DECK SPAN, EXCEPT AT OPNGS OR BUILDING EDGES WHERE DECKS MAY BE CANTIL EVERED.
- 3. PROVIDE A MINIMUM OF 2" BEARING AT SUPPORTING MEMBERS PERPENDICULAR TO DECK SPAN AND 1 1/2" AT MEMBERS PARALLEL TO DECK SPAN.
- 4. DIAMETER OF PUDDLE WELD SHOWN REPRESENTS EFFECTIVE FUSION AREA.
- 5. EACH PUDDLE WELD SHOWN MAY BE REPLACED WITH A SHEAR STUD WELDED THROUGH DECK.
- 6. SLAB TYPES DESIGNATED WITH "A" ARE AN OPTION TO THE BASIC TYPE. FOR EXAMPLE, SLAB TYPE 'D1A' MAY BE USED IN LIEU OF 'D1'.

5 STEEL DECK SCHEDULE

S-101 NTS

Project No.:2270481701 Scale: As indicated 
 DK
 HG
 FC
 2024.05.06

 Dwn.
 Dsgn.
 Chkd.
 YYYY.MM.DD

ORIGINAL SHEET - ARCH D

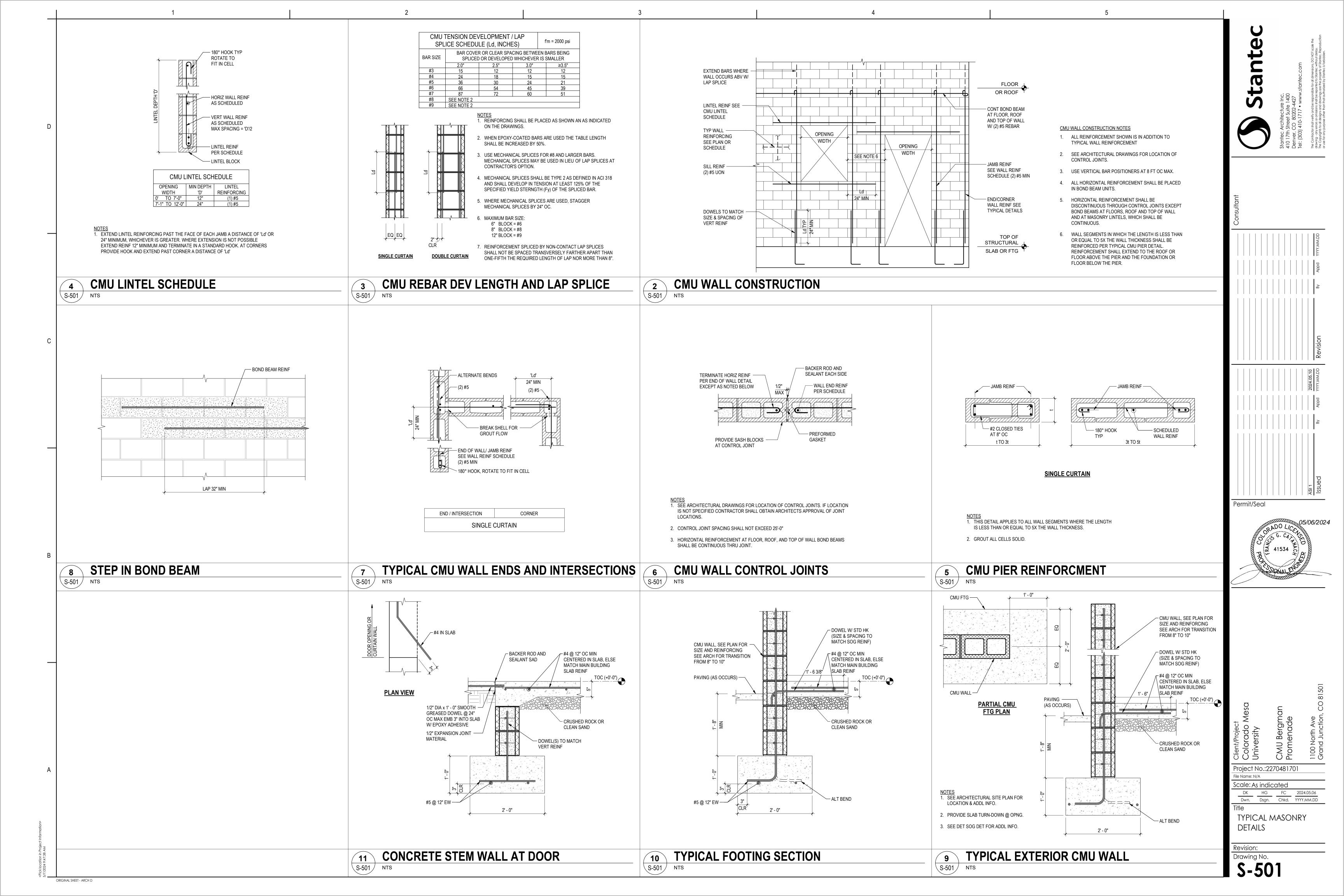
Drawing No.

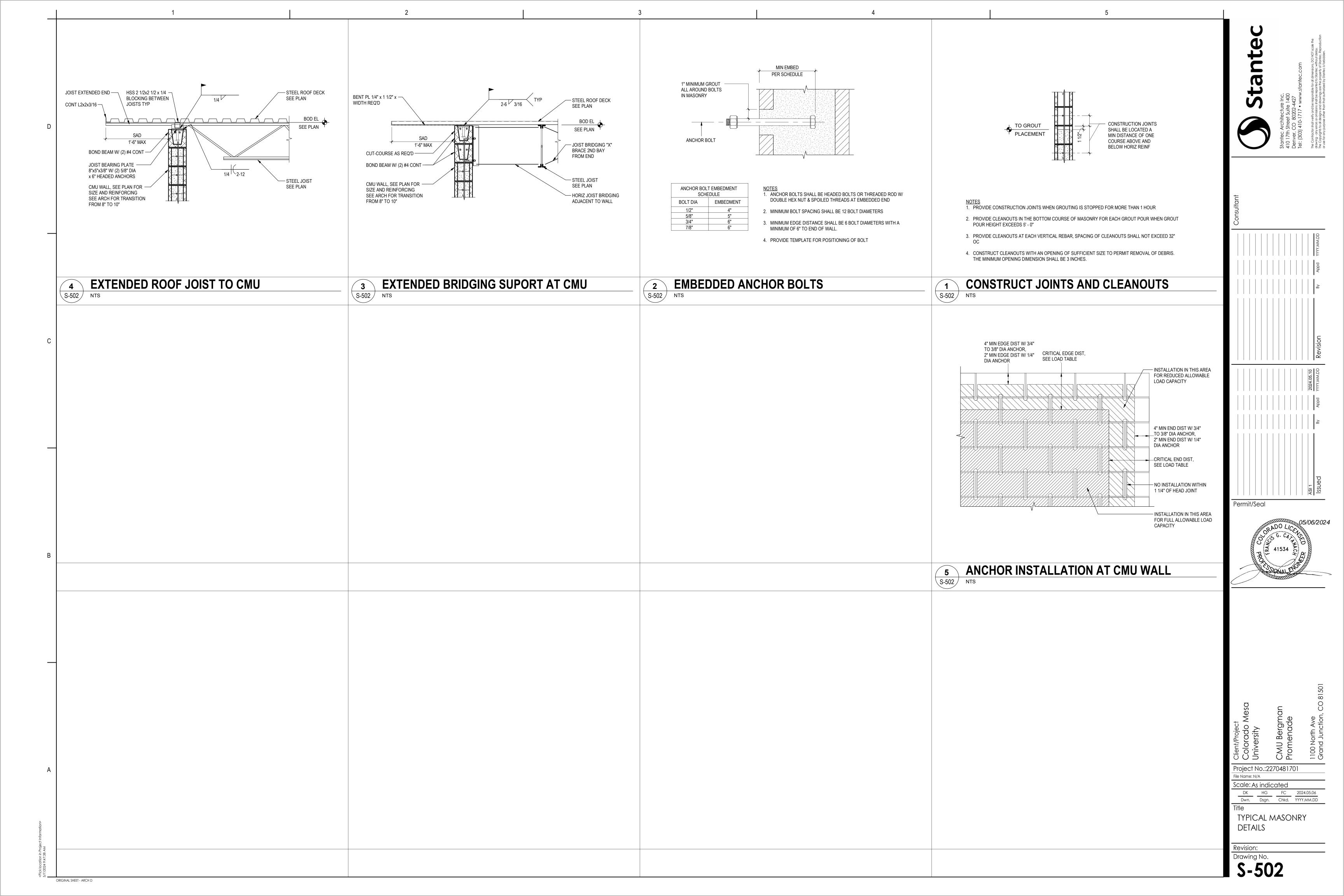
S-101

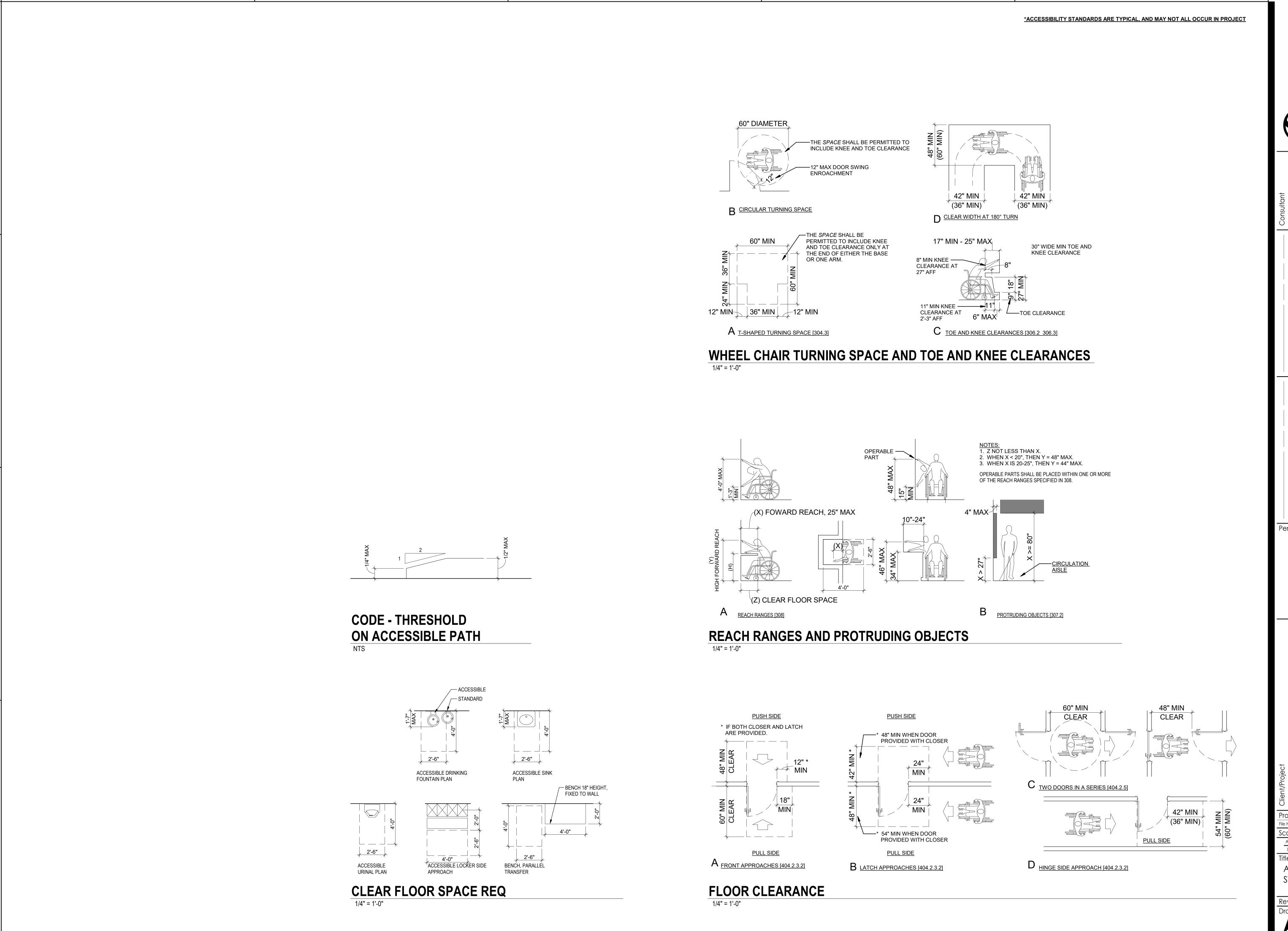
Revision:

STRUCTURAL FLOOR

PLAN & ROOF PLAN







ORIGINAL SHEET - ARCH D

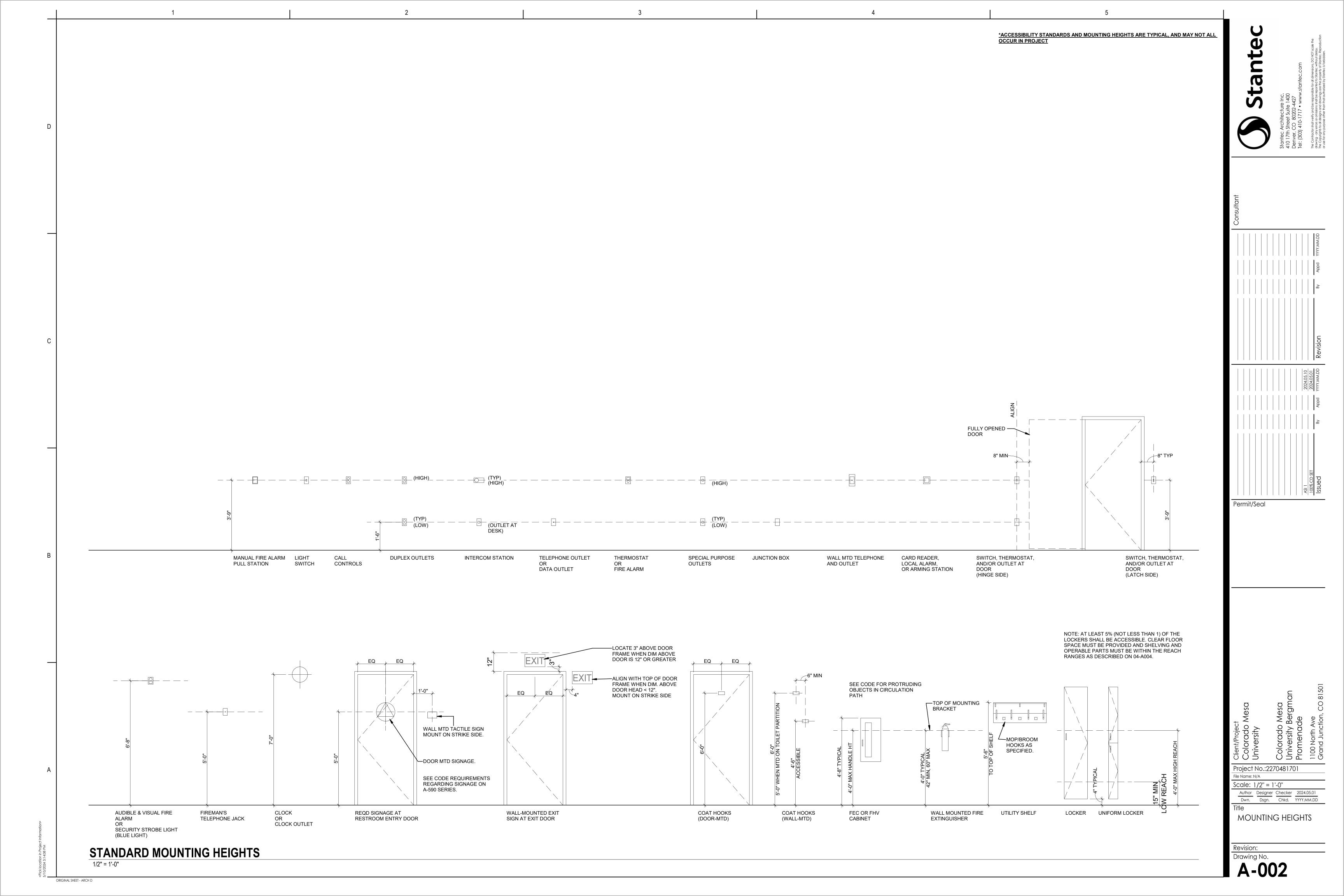
Project No.:2270481701 Scale: As indicated

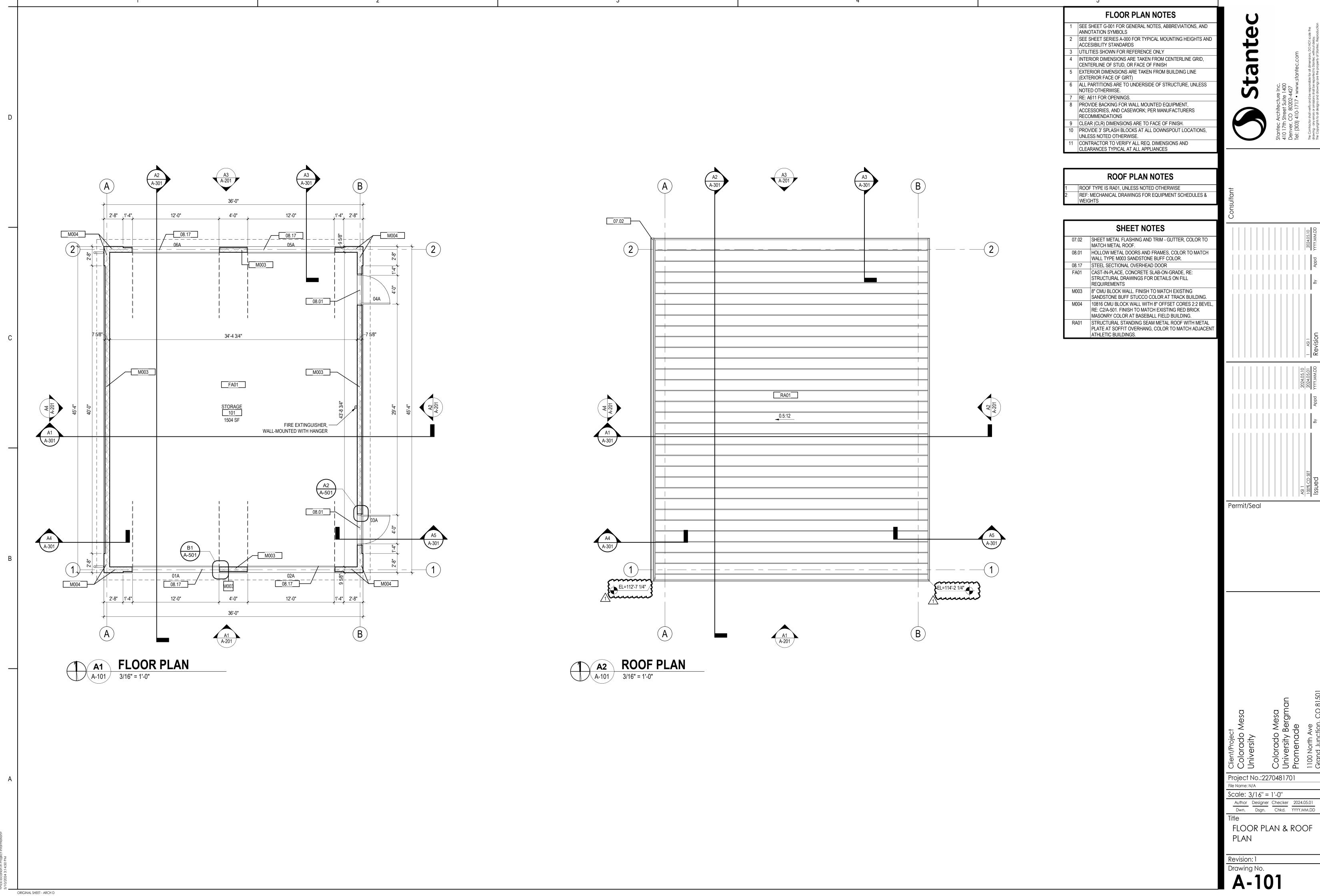
Author Designer Checker 2024.05.01

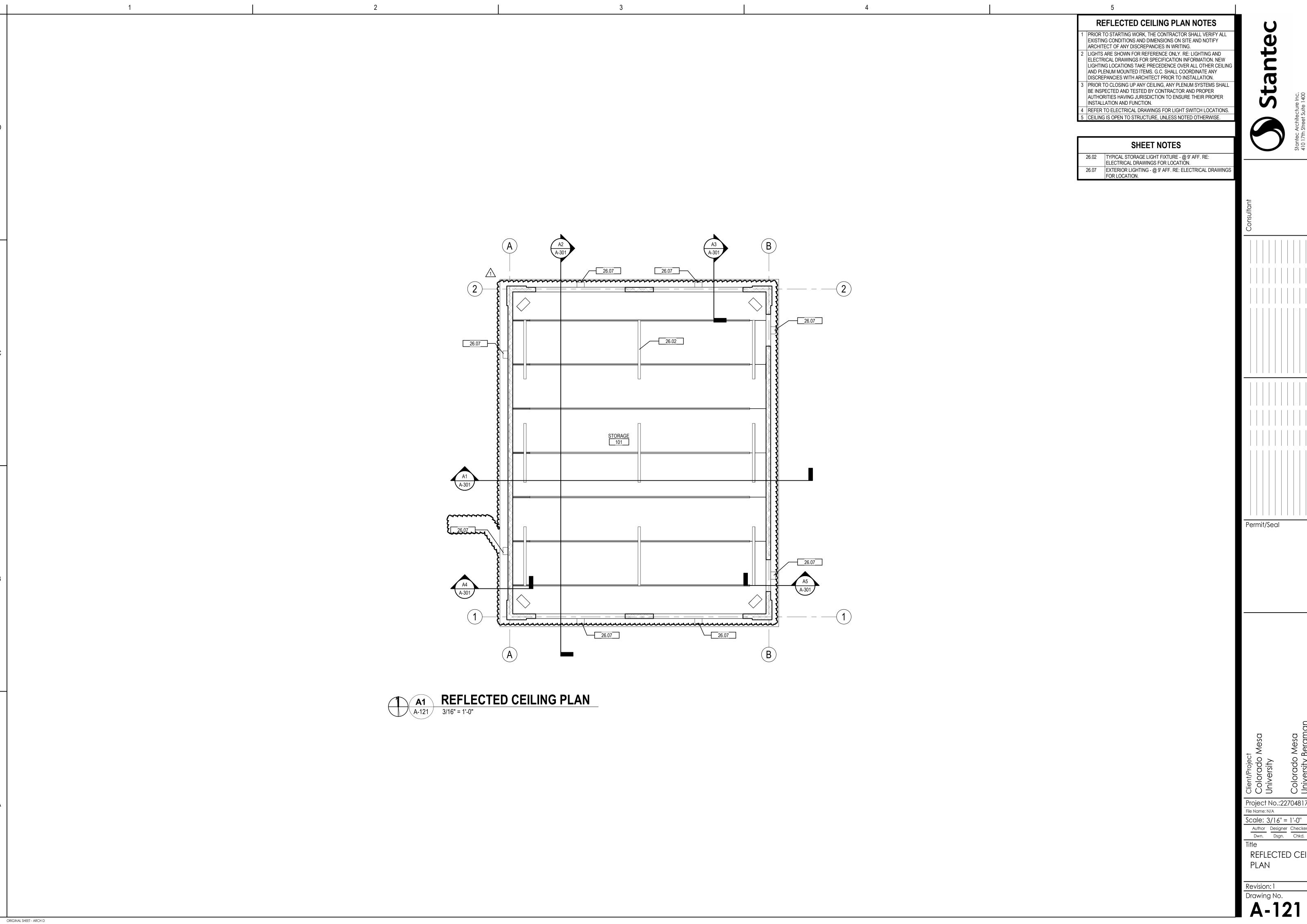
Dwn. Dsgn. Chkd. YYYY.MM.DD **ACCESSIBILITY** STANDARDS

Revision:
Drawing No.

A-001



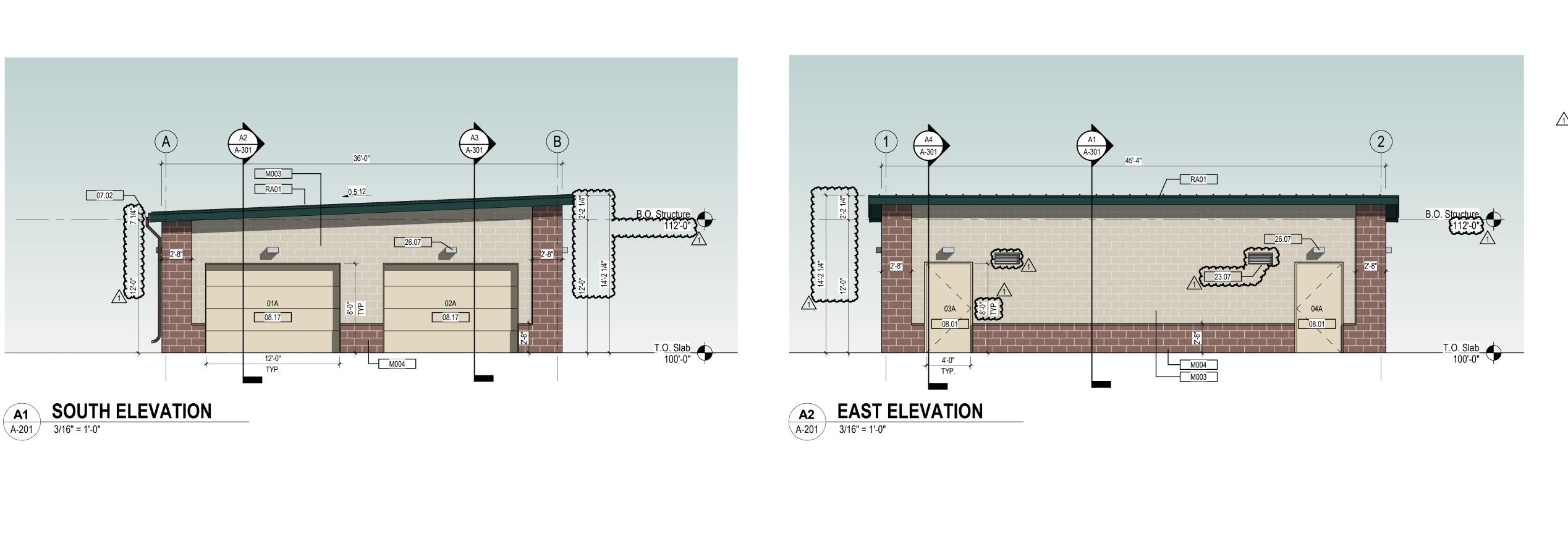




Scale: 3/16" = 1'-0" Author Designer Checker 2024.05.01

Dwn. Dsgn. Chkd. YYYY.MM.DD

REFLECTED CEILING



(B) 45'-4" 36'-0" RA01 0.5:12 08.17 T.O. Slab 100'-0" T.O. Slab 100'-0" 12'-0" TYP. 07.04 M004 M003 **NORTH ELEVATION WEST ELEVATION A4**A-201 **A3**A-201

Stante

**BUILDING ELEVATION NOTES** 

PROVIDE WALL PACK LIGHTING COMPLYING WITH CENTERED

4 ALIGN LOUVERS TO CENTER OF PANEL OR CENTER OF OPENINGS

SHEET NOTES

07.02 SHEET METAL FLASHING AND TRIM - GUTTER, COLOR TO

07.04 SHEET METAL FLASHING AND TRIM - DOWNSPOUT; REF: CIVIL, COLOR TO MATCH WALL TYPE M004. 08.01 HOLLOW METAL DOORS AND FRAMES, COLOR TO MATCH WALL TYPE M003 SANDSTONE BUFF COLOR.

08-17 STEEL SECTIONAL OVERHEAD DOOR
23.07 MECHANICAL LOUVER - REF: MECHANICAL, COLOR TO MATCH WALL TYPE M003 SANDSTONE BUFF COLOR.

M003 8" CMU BLOCK WALL. FINISH TO MATCH EXISTING

SANDSTONE BUFF STUCCO COLOR AT TRACK BUILDING.

RE: C2/A-501. FINISH TO MATCH EXISTING RED BRICK MASONRY COLOR AT BASEBALL FIELD BUILDING.

RA01 STRUCTURAL STANDING SEAM METAL ROOF WITH METAL PLATE AT SOFFIT OVERHANG, COLOR TO MATCH ADJACENT

M004 10816 CMU BLOCK WALL WITH 8" OFFSET CORES 2:2 BEVEL

1 REFERENCE A-611 FOR DOOR TYPES AND SCHEDULE.

3 REF: SPECIFICATIONS FOR ADDITIONAL INFORMATION

ABOVE EACH EXTERIOR DOOR AND OHD'S.

REGARDING FINISHES.

WHERE APPLICABLE.

MATCH METAL ROOF.

FOR LOCATION.

ATHLETIC BUILDINGS.

Project No.:2270481701

Scale: 3/16" = 1'-0" Author Designer Checker 2024.05.01

Dwn. Dsgn. Chkd. YYYY.MM.DD

EXTERIOR ELEVATIONS

Revision: 1
Drawing No.

A-201

ORIGINAL SHEET - ARCH D

WALL SECTION - HM DOOR

**WALL SECTION - WEST** 

**BUILDING SECTION NOTES** 

CONTRACTOR TO COORDINATE ALL COILING DOOR BOXES AND OPERATORS WITH ALL DUCTS, CONDUITS, AND PIPING. PEMB METAL BUILDING FRAMES SHOWN FOR REFERENCE ONLY.

SHEET NOTES

07.02 SHEET METAL FLASHING AND TRIM - GUTTER, COLOR TO MATCH METAL ROOF. 07.04 SHEET METAL FLASHING AND TRIM - DOWNSPOUT; REF: CIVIL, COLOR TO MATCH WALL TYPE M004. 08.01 HOLLOW METAL DOORS AND FRAMES, COLOR TO MATCH WALL TYPE M003 SANDSTONE BUFF COLOR. 08.17 STEEL SECTIONAL OVERHEAD DOOR FA01 CAST-IN-PLACE, CONCRETE SLAB-ON-GRADE, RE: STRUCTURAL DRAWINGS FOR DETAILS ON FILL M003 8" CMU BLOCK WALL. FINISH TO MATCH EXISTING SANDSTONE BUFF STUCCO COLOR AT TRACK BUILDING. M004 10816 CMU BLOCK WALL WITH 8" OFFSET CORES 2:2 BEVEL

tante

Project No.:2270481701

Scale: As indicated Author Designer Checker 2024.05.01

Dwn. Dsgn. Chkd. YYYY.MM.DD

SECTIONS

Revision: 1
Drawing No.

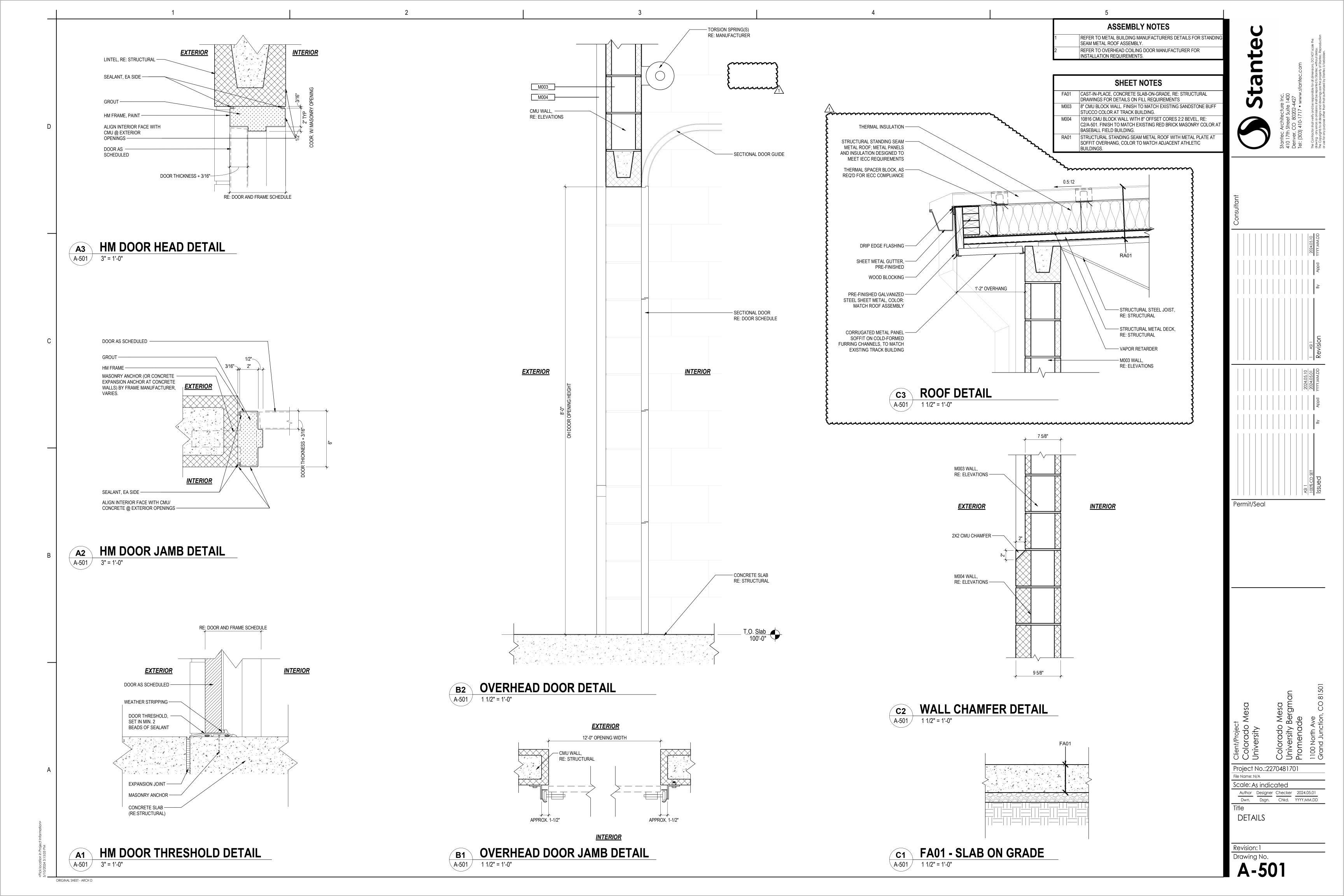
A-301

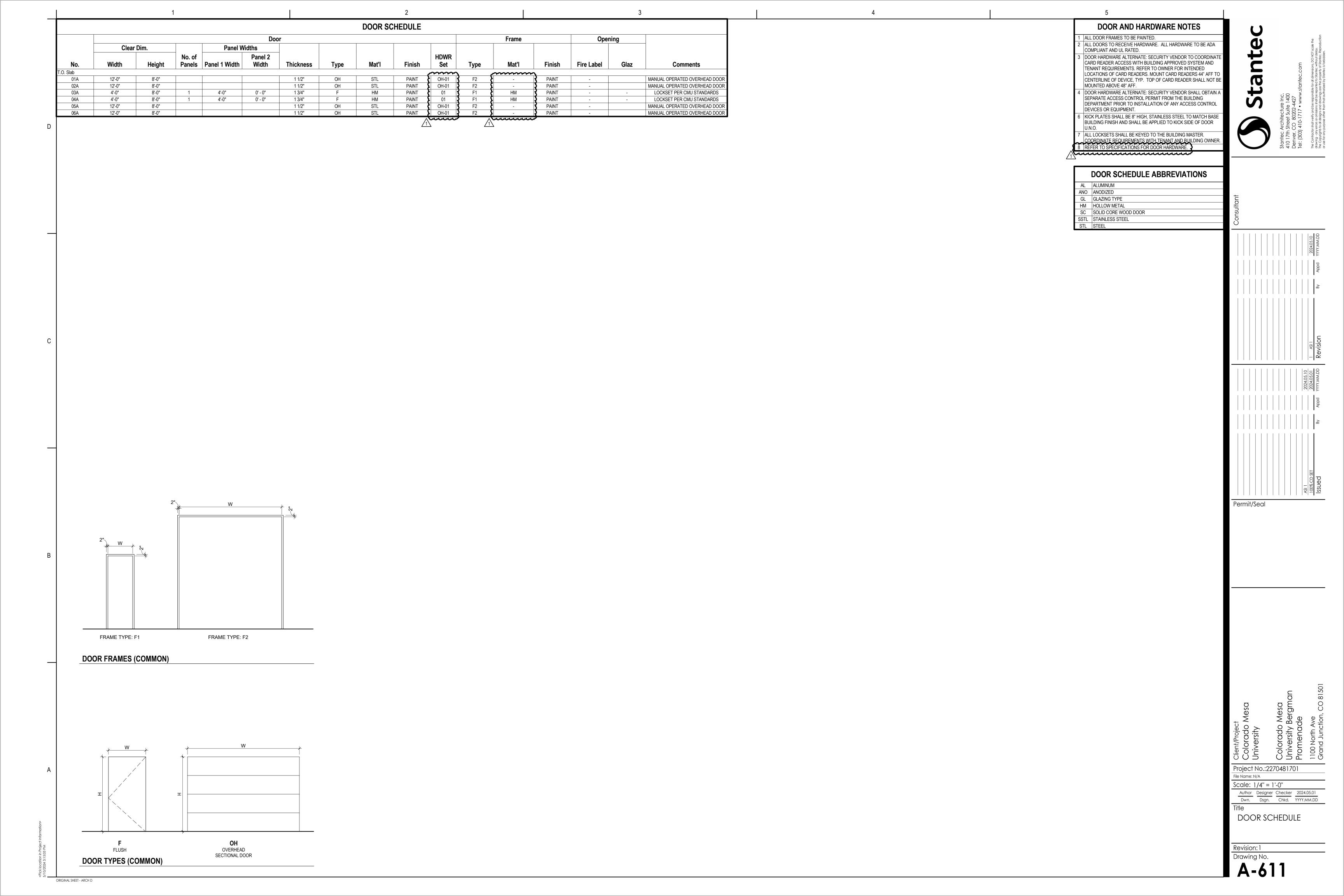
ORIGINAL SHEET - ARCH D

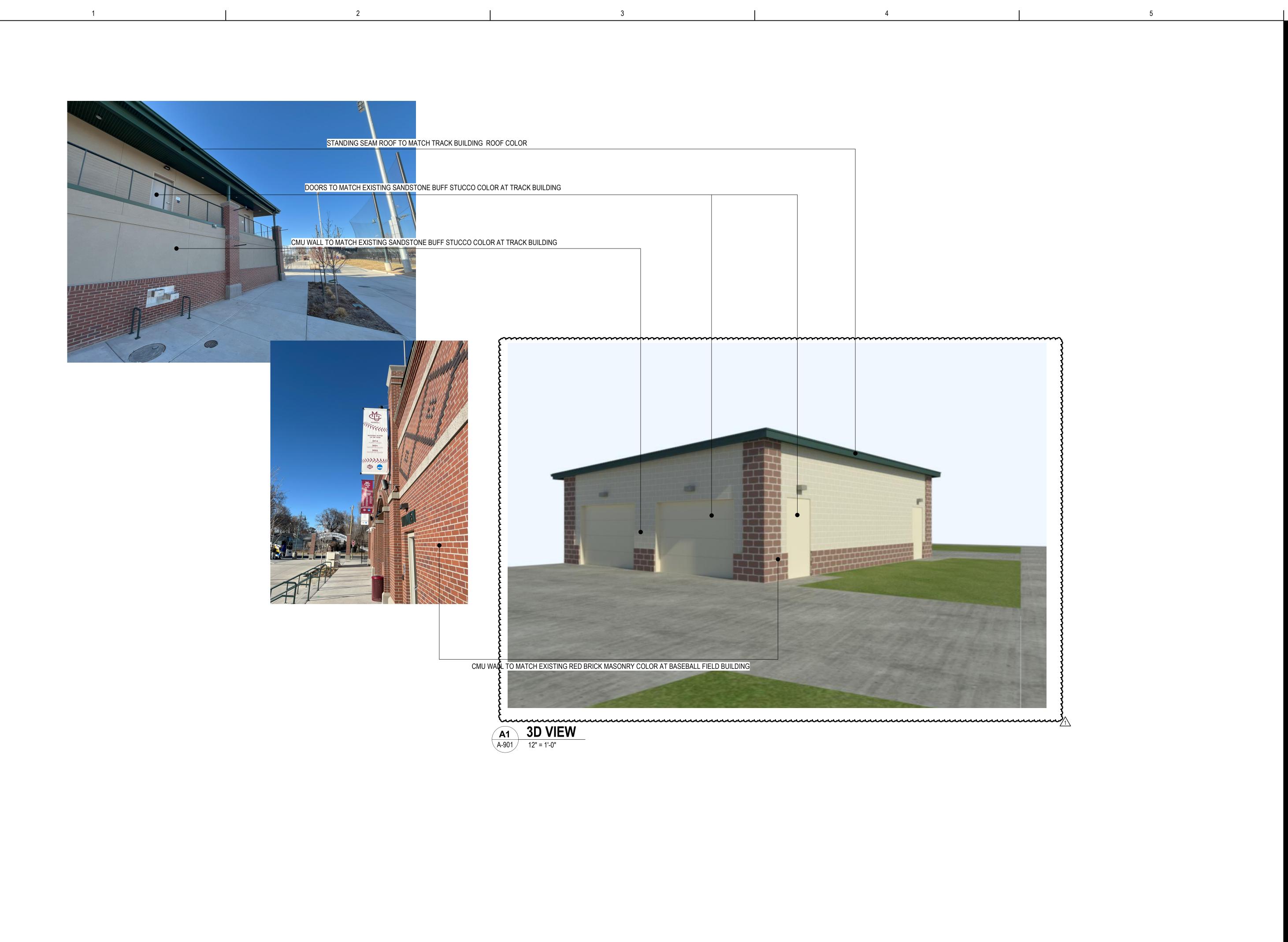
RA01

FA01

WALL SECTION - OVERHEAD DOOR







ORIGINAL SHEET - ARCH D

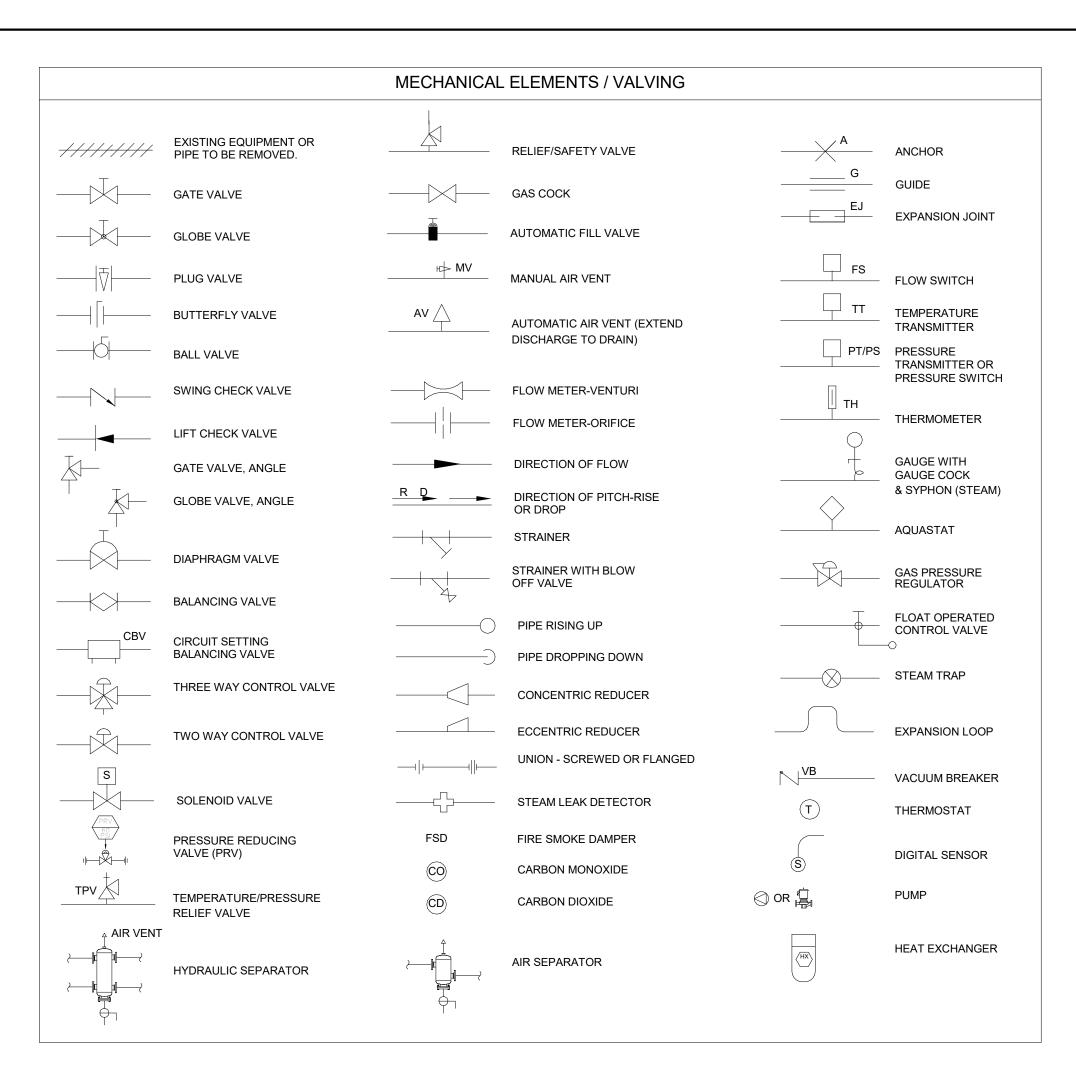
Revision: 1
Drawing No.
A-901

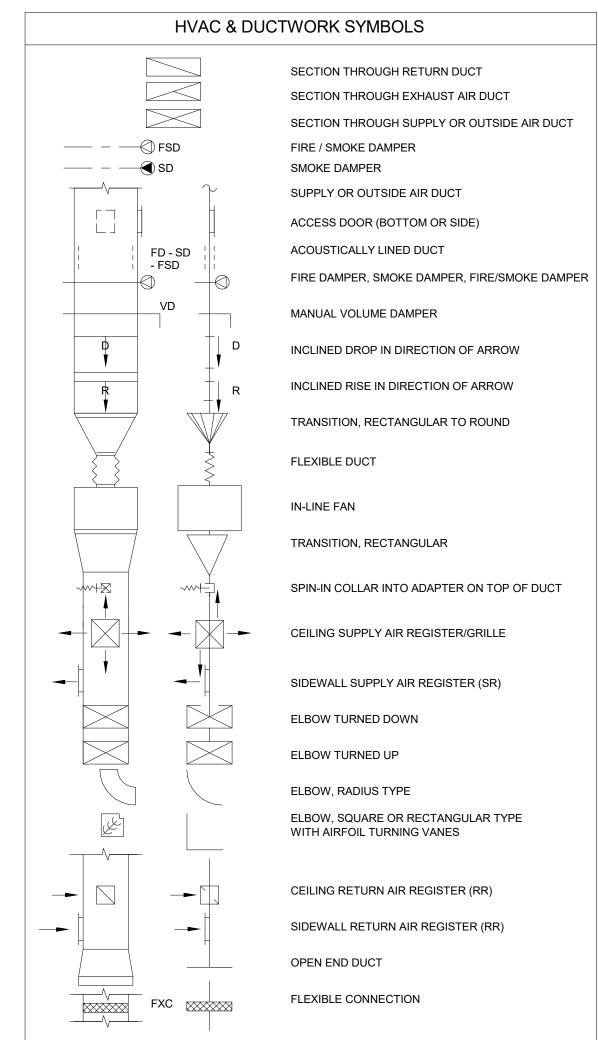
Project No.:2270481701

 Author
 Designer
 Checker
 2024.05.01

 Dwn.
 Dsgn.
 Chkd.
 YYYY.MM.DD

AXONOMETRIC VIEW





| L                                      | INE DESIGNATION SYMBOLS           |
|--|-----------------------------------|
| CHWR                                   | — CHILLED WATER RETURN            |
| CHWS                                   | — CHILLED WATER SUPPLY            |
| CA                                     | COMPRESSED AIR                    |
| CR                                     | CONDENSER WATER RETURN            |
| cs                                     | CONDENSER WATER SUPPLY            |
| D                                      | — DRAIN                           |
| HPR                                    | HEAT PUMP RETURN                  |
| —————————————————————————————————————— | HEAT PUMP SUPPLY                  |
| HWR                                    | HOT WATER RETURN                  |
| HWS                                    | HOT WATER SUPPLY                  |
| G                                      | — NATURAL GAS                     |
| RH                                     | REFRIGERANT HIGH PRESSURE VAPOR   |
| R                                      | REFRIGERANT LIQUID AND VAPOR LINE |
| RS                                     | REFRIGERANT SUCTION / VAPOR       |
| SMR-                                   | — SNOWMELT RETURN                 |
| SMS                                    | — SNOWMELT SUPPLY                 |
| v                                      | VENT PIPING                       |

| MECHANICAL SHEET LIST |                         |  |  |  |
|-----------------------|-------------------------|--|--|--|
| Sheet Number          | Sheet Name              |  |  |  |
| M0-1                  | MECHANICAL COVER SHEET  |  |  |  |
| M1-1                  | MECHANICAL - FLOOR PLAN |  |  |  |

#### **RESPONSIBLE DIVISION:**

UNLESS OTHERWISE INDICATED ALL HEATING, VENTILATING, AIR CONDITIONING, PLUMBING, AND OTHER MECHANICAL EQUIPMENT, MOTORS, AND CONTROLS SHALL BE FURNISHED, SET IN PLACE AND WIRED AS FOLLOWS:

| ITEM  | FURNISHED | SET   | POWER<br>WIRED | CONTROL<br>WIRED |
|---|-----------|-------|----------------|------------------|
| EQUIPMENT   | 23        | 23    | 26             |                  |
| COMBINATION MAGNETIC<br>MOTOR STARTERS, MAGNETIC<br>MOTOR STARTERS, VFD'S AND<br>CONTACTORS         | 23(1)     | 26    | 26(2)          | 23               |
| FUSED AND UNFUSED DISCONNECT SWITCHES, THERMAL OVERLOAD SWITCHES AND HEATERS, MANUAL MOTOR STARTERS | 26        | 26    | 26             |                  |
| MANUAL-OPERATING AND<br>MULTI-SPEED SWITCHES  | 23        | 26    | 26             | 26               |
| CONTROLS, RELAYS,<br>TRANSFORMERS   | 23        | 23    | 26             | 23               |
| THERMOSTATS (LOW VOLTAGE)<br>AND TIME SWITCHES  | 23        | 23    | 26             | 23               |
| THERMOSTATS (LINE VOLTAGE)  | 23        | 23    | 26             | 26               |
| TEMPERATURE CONTROL PANELS  | 23        | 23    | 26             | 23               |
| MOTOR AND SOLENOID VALVES,<br>DAMPER MOTORS, PE & EP<br>SWITCHES                                    | 23        | 23(2) |                | 23(2)            |
| PUSH-BUTTON STATIONS<br>AND PILOT LIGHTS  | 23        | 23(2) |                | 23(2)            |
| HEATING, COOLING,<br>VENTILATION AND AIR<br>CONDITIONING CONTROLS                                   | 23        | 23    | 26             | 23               |
| EXHAUST FAN SWITCHES  | 23        | 26    | 26             | 23(2)            |

### SUBSCRIPT FOOTNOTES:

 MOTOR STARTER TO INCLUDE CONTROL TRANSFORMER, HOA SWITCH, (1) NO AND (1)NC AUXILIARY CONTACT, AND "ON" AND "OFF" PILOT LIGHTS.

DF DRINKING FOUNTAIN

2. IF ITEM IS FOR LINE VOLTAGE, SET IN PLACE AND CONNECT UNDER DIVISION 26. WHERE FACTORY MOUNTED ON EQUIPMENT OR ATTACHED TO PIPING OR DUCTS AND USING LINE VOLTAGE FURNISH AND SET UNDER DIVISION 23, CONNECT UNDER DIVISION 26.

#### **ABBREVIATIONS:**

44" MOUNTING HEIGHT ABOVE

CVB CONSTANT VOLUME BOX

DB DRY BULB

DEPT DEPARTMENT

CWR CONDENSER WATER RETURN

CWS CONDENSER WATER SUPPLY

| 4"   | MOUNTING HEIGHT ABOVE              | DF          | DRINKING FOUNTAIN           | HP   | HEAT PUMP                   | PT   | PRESSURE TRANSMITTER         |
|------|------------------------------------|-------------|-----------------------------|------|-----------------------------|------|------------------------------|
|      | FINISHED FLOOR TO CENTER OF DEVICE | DIA         | DIAMETER                    | HP   | HORSEPOWER                  | PTAC | PACKAGED TERMINAL AIR        |
|      |                                    | DIAG        | DIAGRAM                     | HR   | HOUR                        |      | CONDITIONER                  |
|      | AMPS                               | DIFF        | DIFFERENTIAL                | HT   | HEIGHT                      | PV   | PLUG VALVE                   |
| D.   | ACCESS DOOR                        | DISCH       | DISCHARGE                   | HTR  | HEATER                      | PVC  | POLYVINYL CHLORIDE           |
| AV   | ADMITTANCE VALVE                   | DIV         | DIVISION                    | HWR  | HEATING WATER RETURN        | QTY  | QUANTITY                     |
| .BV  | ABOVE                              | DN          | DOWN                        | HWS  | HEATING WATER SUPPLY        | RA   | RETURN AIR GRILLE / REGISTER |
| C    | AIR CONDITIONING UNIT              | DS          | DUCT SILENCER               | HX   | HEAT EXCHANGER              | RCP  | REFLECTED CEILING PLAN       |
| C    | ABOVE COUNTER                      |             |                             |      | HERTZ                       | RD   | ROOF DRAIN                   |
| .D   | AREA DRAIN (SEE SYMBOLS)           | DWG         | DRAWING                     | HZ   |                             | REL  | RELIEF                       |
| FC   | ABOVE FINISHED CEILING             | DX          | DIRECT EXPANSION            | ID   | INSIDE DIAMETER             | REQD | REQUIRED                     |
| FG   | ABOVE FINISHED GRADE               | (E)         | EXISTING                    | IG   | ISOLATED GROUND             | RF   | RETURN FAN                   |
| IC   | AMPERE INTERRUPTING                | EA          | EXHAUST AIR GRILLE/REGISTER | IN   | INCHES                      |      |                              |
|      | CAPACITY                           | EAT         | ENTERING AIR TEMPERATURE    | INV  | INVERT                      | RH   | RELATIVE HUMIDITY            |
| FCI  | ARC FAULT CIRCUIT                  | EC          | ELECTRICAL CONTRACTOR       | JBOX | JUNCTION BOX                | RHC  | REHEAT COIL                  |
|      | INTERRUPTERS                       | ECC         | ECCENTRIC                   | K    | KELVIN                      | RLA  | RATED LOAD AMPS              |
| FF   | ABOVE FINISHED FLOOR               | EF          | EXHAUST FAN                 | KW   | KILOWATT                    | RM   | ROOM                         |
| HU   | AIR HANDLING UNIT                  | EFF         | EFFICIENCY                  | KVA  | KILO VOLT - AMPS            | RPM  | REVOLUTIONS PER MINUTE       |
| LUM  | ALUMINUM                           | EL          | ELEVATION                   | L    | LENGTH                      | SA   | SUPPLY AIR GRILLE / REGISTER |
| P    | ACCESS PANEL OR DOOR               | ELEC        | ELECTRIC                    | LAT  | LEAVING AIR TEMPERATURE     | SC   | SHORT CIRCUIT                |
| .TS  | AUTOMATIC TRANSFER SWITCH          |             |                             |      |                             | SCA  | SHORT CIRCUIT AVAILABLE      |
|      |                                    | ELEV        | ELEVATOR                    | LV   | LAVATORY                    | SCCR | SHORT CIRCUIT CURRENT        |
| V    | AUDIO / VIDEO                      | EM          | EMERGENCY FUNCTION          | LB   | POUND                       | OOOK | RATING                       |
| VG   | AVERAGE                            | ENT         | ENTERING                    | LD   | LINEAR DIFFUSER             | SCH  | SCHEDULE                     |
| WG   | AMERICAN WIRE GAGE                 | EMT         | ELECTRIC METALLIC TUBE      | LF   | LINEAR FEET                 | SD   | SMOKE DAMPER                 |
| AS   | BUILDING AUTOMATION                | EQ          | EQUAL                       | LIN  | LINEAR                      | SEF  | SMOKE EXHAUST FAN            |
|      | SYSTEM                             | EQUIP       | EQUIPMENT                   | LIQ  | LIQUID                      |      |                              |
| В    | BASEBOARD                          | EQUIV       | EQUIVALENT                  | LM   | LUMEN                       | SF   | SUPPLY FAN                   |
| D    | BACK DRAFT DAMPER                  | ES          | END SWITCH                  | LRA  | LOCKED ROTOR AMPS           | SH   | SENSIBLE HEAT                |
| FP   | BACK FLOW PREVENTOR                | ESP         | EXTERNAL STATIC PRESSURE    | LV   | LOUVER                      | SH   | SHOWER                       |
| L    | BOILER                             | ET          | EXPANSION TANK              | LVG  | LEAVING                     | SP   | STATIC PRESSURE              |
| LDG  | BUILDING                           |             |                             |      |                             | SPD  | SURGE PROTECTION DEVICE      |
| LW   | BELOW                              | EWC         | ELECTRIC WATER COOLER       | LWT  | LEAVING WATER TEMPERATURE   | SPEC | SPECIFICATION                |
| OB   | BOTTOM OF BEAM                     | EWT         | ENTERING WATER TEMPERATURE  | MBH  | THOUSANDS OF BTU PER HOUR   | SQ   | SQUARE                       |
| OD   | BOTTOM OF DUCT                     | <b>5</b> 1/ |                             | MC   | MECHANICAL CONTRACTOR       | SS   | STAINLESS STEEL              |
|      |                                    | EX          | EXHAUST                     | MCA  | MINIMUM CIRCUIT AMPACITY    | SS   | SAFETY SHOWER                |
| OP   | BOTTOM OF PIPE                     |             | EXPANSION                   | MCB  | MAIN CIRCUIT BREAKER        |      |                              |
| SMT  | BASEMENT                           | EXT         | EXTERNAL                    | MD   | MOTORIZED DAMPER            | STD  | STANDARD                     |
| TU   | BRITISH THERMAL UNIT               | F           | DEGREES FAHRENHEIT          | MDP  | MAIN DISTRIBUTION PANEL     | STL  | STEEL                        |
|      | CHILLER                            | FA          | FREE AREA                   | MED  | MEDIUM                      | SYS  | SYSTEM                       |
| AFCI | COMBINATION ARC FAULT              | FC          | FAN COIL UNIT               | MFR  | MANUFACTURER                | TEMP | TEMPERATURE                  |
|      | CIRCUIT INTERRUPTERS               | FC          | FOOTCANDLE                  | MIN  | MINIMUM                     | TR   | TRANSFER GRILLE / REGISTER   |
| AP   | CAPACITY                           | FCV         | FLOW CONTROL VALVE          |      |                             | TR   | TAMPER RESISTANT             |
| В    | CIRCUIT BREAKER                    | FD          | FIRE DAMPER                 | MISC | MISCELLANEOUS               | TT   | TEMPERATURE TRANSMITTER      |
| BV   | CIRCUIT BALANCING VALVE            |             |                             | MLO  | MAIN LUG ONLY               | TTB  | TELECOMMUNICATIONS           |
| СТ   | CORRELATED COLOR                   | FD          | FLOOR DRAIN                 | MOCP | MAXIMUM OVERCURRENT         |      | TERMINAL BACKBOARD           |
| •    | TEMPERATURE                        | FIN         | FINISHED                    |      | PROTECTION                  | TYP  | TYPICAL                      |
| KT   | CIRCUIT                            | FLA         | FULL LOAD AMPS              | MTD  | MOUNTED                     | TX   | TRANSFORMER                  |
| FH   | CUBIC FEET PER HOUR                | FLEX        | FLEXIBLE                    | MUA  | MAKE-UP AIR UNIT            | UC   | UNDERCUT DOOR                |
| FM   | CUBIC FEET PER MINUTE              | FLR         | FLOOR                       | N    | NEUTRAL                     | UH   | UNIT HEATER                  |
| HWR  | CHILLED WATER RETURN               | FOB         | FLAT ON BOTTOM              | NC   | NORMALLY CLOSED             |      |                              |
|      |                                    | FOT         | FLAT ON TOP                 | NEG  | NEGATIVE                    | UNO  | UNLESS NOTED OTHERWISE       |
| HWS  | CHILLED WATER SUPPLY               | FP          | FIRE PROTECTION             | NIC  | NOT IN CONTRACT             |      | UNOCCUPIED                   |
| I    | CAST IRON                          | FP          | FIRE PUMP                   | NL   | NIGHT / SECURITY LIGHT - DO | UR   | URINAL                       |
| L    | CENTER LINE                        | FPM         | FEET PER MINUTE             |      | NOT SWITCH                  | V    | VOLTS                        |
| LG   | CEILING                            |             |                             | NO   | NORMALLY OPEN               | VA   | VOLT AMPERE                  |
| MU   | CONCRETE MASONRY UNIT              | FPS         | FEET PER SECOND             | NOM  | NOMINAL                     | VA   | VALVE                        |
| 0    | CLEAN OUT                          | FS          | FLOW SWITCH                 | NTS  | NOT TO SCALE                | VAV  | VARIABLE AIR VOLUME UNIT     |
| OL   | COLUMN                             | FSD         | FIRE/SMOKE DAMPER           |      |                             | VFD  | VARIABLE FREQUENCY DRIVE     |
| OMP  | COMPRESSOR                         | FT          | FEET                        | OA   | OUTSIDE AIR                 | VRF  | VARIABLE REFRIGERANT FLOW    |
| ONC  | CONCRETE                           | FXC         | FLEXIBLE CONNECTION         | OBD  | OPPOSED BLADE DAMPER        | VOLT | VOLTAGE                      |
| OND  | CONDENSATE                         | GND         | GROUND                      | OC   | ON CENTER                   |      |                              |
|      |                                    | GA          | GAUGE                       | OCC  | OCCUPIED                    | VTR  | VENT THROUGH ROOF            |
| ONN  | CONNECTION                         | GAL         | GALLON                      | OCP  | OVER CURRENT PROTECTION     | W    | WIDTH                        |
| ONT  | CONTINUATION                       | GALV        | GALVANIZED                  | OD   | OUTSIDE DIAMETER            | W    | WATTS                        |
| ONTR | CONTRACTOR                         |             |                             | OL   | OVERLOAD                    | W/   | WITH                         |
| RI   | COLOR RENDERING INDEX              | GEC         | GROUND ELECTRODE CONDUCTOR  | ORD  | OVERFLOW ROOF DRAIN         | W/O  | WITHOUT                      |
| Т    | COOLING TOWER                      | GF          | GROUND FAULT CIRCUIT        | OZ   | OUNCE                       | WB   | WET BULB                     |
| Т    | CURRENT TRANSFORMER                | GI-         | INTERRUPTER                 |      |                             | WC   | WATER COLUMN                 |
| U    | CONDENSING UNIT                    | GC          | GENERAL CONTRACTOR          | PBD  | PARALLEL BLADE DAMPER       | WC   | WATER CLOSET                 |
| U    | COPPER                             | GPH         | GALLONS PER HOUR            | PD   | PRESSURE DROP               |      | WATER GAUGE                  |
|      |                                    |             |                             | PH   | PHASE                       | WG   |                              |
| UH   | CABINET UNIT HEATER                | GPM         | GALLONS PER MINUTE          | POS  | POSITIVE PRESSURE           | WP   | WEATHERPROOF                 |

POS POINT OF SALES

PRV PRESSURE REDUCING VALVE

PRESSURE SWITCH

PSI POUNDS PER SQUARE INCH

GRS/LB GRS/LB GRAINS PER POUND

HEAD (SEE SCHEDULES)

HOSE BIBB

**HEAT PUMP** 

SUBSTITUTIONS:

A. SUBSTITUTIONS: SUBSTITUTION OF SPECIFIED EQUIPMENT WILL BE ALLOWED THROUGH A PRIOR APPROVAL PROCESS INITIATED BY THE CONTRACTOR. CONTRACTOR SHALL SUBMIT INTENDED SUBSTITUTION AT LEAST FIVE DAYS PRIOR TO BID FOR APPROVAL FROM ENGINEER. SUBMITTAL SHALL INCLUDE CAPACITIES, DIMENSIONS AND OPERATING INSTRUCTIONS FOR EACH PIECE OF EQUIPMENT. SUBSTITUTION SHALL OCCUR AT NO COST TO THE OWNER. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF APPROVED SUBSTITUTION AND SHALL INCUR ALL COSTS ASSOCIATED WITH THE SUBSTITUTION INCLUDING STRUCTURAL MODIFICATIONS, SPACE LAYOUT AND REDESIGN COSTS. SEE ALSO DIVISION I GENERAL REQUIREMENTS.

EXAMINATION OF SITE, DRAWINGS, SPECIFICATIONS:

A. EXAMINE CAREFULLY THE SITE AND CONDITIONS OF THE SITE. PROVIDE ALL NECESSARY EQUIPMENT AND LABOR TO INSTALL A COMPLETE WORKING SYSTEM WITHIN THE SITE CONDITIONS.

B. EXAMINE THE DRAWINGS AND SPECIFICATIONS AND 5 DAYS PRIOR TO BIDDING REPORT ANY ERRORS, OMISSIONS, INCONSISTENCIES, AND CONFLICTS TO THE ENGINEER TO BE REMEDIED IN AN ADDENDUM TO THE PROJECT PRIOR TO BID TIME.

C. DRAWINGS ARE DIAGRAMMATIC AND CATALOG NUMBERS GIVEN ARE FOR REFERENCE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE CAPACITY OF THE EQUIPMENT MEETS THE DRAWING REQUIREMENTS AND SHALL NOT DIMENSION FROM THE MECHANICAL, PLUMBING, OR PIPING DRAWINGS.

D. THE LATEST ADOPTED VERSIONS OF THE INTERNATIONAL BUILDING CODES SHALL BE USED AS REQUIRED. THIS WILL ALSO INCLUDE THE LATEST ADOPTED VERSIONS OF THE MECHANICAL, PLUMBING, AND ENERGY CONSERVATION CODES. ALL METHODS AND MATERIALS REQUIRED BY THESE CODES SHALL BE REQUIRED BY THESE SPECIFICATIONS UNLESS INDICATED OTHERWISE. OTHER APPLICABLE LOCAL CODES AND ORDINANCES SHALL BE AS REQUIRED AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO BE KNOWLEDGEABLE OF THESE REQUIREMENTS.

E. WHERE INSTALLATION PROCEDURES OR ANY PART THEREOF ARE REQUIRED TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER OF THE MATERIAL BEING INSTALLED, PRINTED COPIES OF THESE RECOMMENDATIONS SHALL BE FURNISHED TO THE ENGINEER PRIOR TO INSTALLATION. INSTALLATION OF THE ITEM WILL NOT BE ALLOWED TO PROCEED UNTIL THE RECOMMENDATIONS ARE RECEIVED. FAILURE TO FURNISH THESE RECOMMENDATIONS CAN BE CAUSE FOR REJECTION OF THE MATERIAL.

PT PRESSURE TRANSMITTER

WPIU WEATHERPROOF IN-USE

WSR WITHSTAND RATING

XFMR TRANSFORMER

Consultant
Bighorn Consulting
Engineers, Inc.
Mechanical & Electrical
Engineers

386 Indian Road
Grand Junction, CO 81501
Phone (970) 241-8709

Parmit/Saal

man Je

Colorado Mesa Iniversity CMU Bergman

Project No.:2270481701
File Name: N/A
Scale: 12" = 1'-0"

MECHANICAL COVER

 Designer
 SB
 YYYY.MM.DD

 WG/GC
 RL/DB
 10/16/19

Revision:

Drawing No.





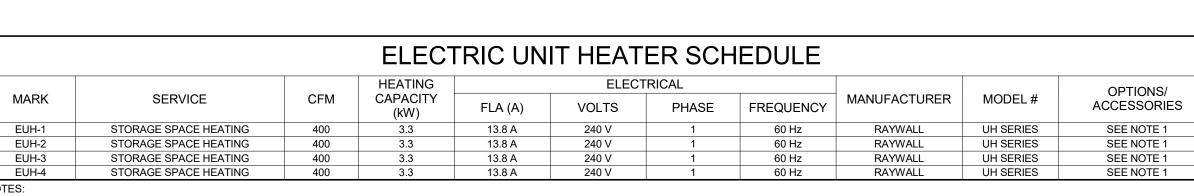
Scale: 3/16" = 1'-0" 
 Designer
 Checker
 YYYY.MM.DD

 WG/GC
 RL/DB
 2024.05.01

MECHANICAL - FLOOR PLAN

Revision:
Drawing No.

1 - 1

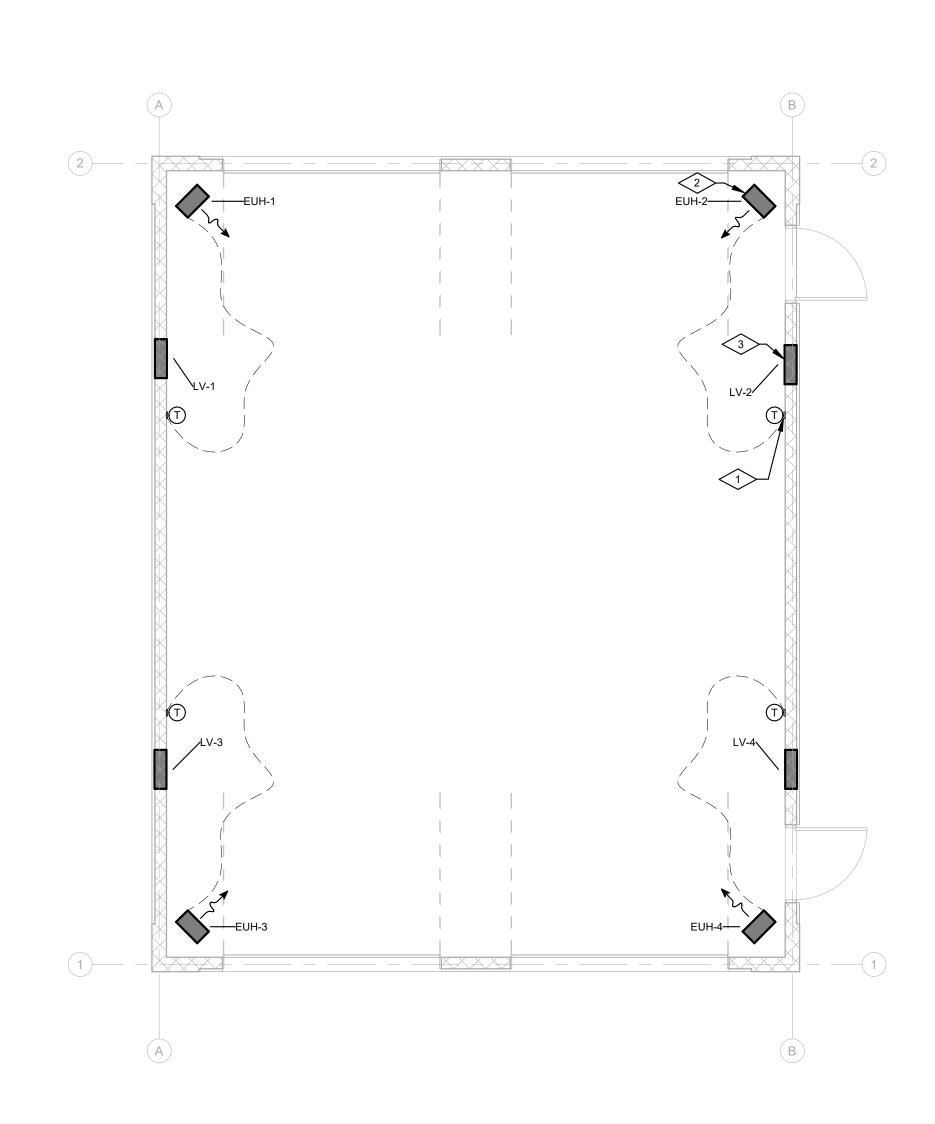


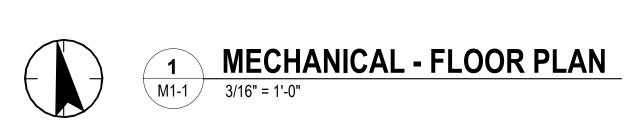
| LOTT   | OTOTOTOE OF MOETILE MINO            | +00         | 0.0             | 10.071            | Z-10 V          |                  | 00112          | TOTTVV                 | OTTOLITIES       |                      |
|--------|-------------------------------------|-------------|-----------------|-------------------|-----------------|------------------|----------------|------------------------|------------------|----------------------|
| NOTES: |                                     |             |                 |                   |                 |                  |                |                        |                  |                      |
|        | IDE WITH 24 VOLT TRANSFORMER FOR TH | HERMOSTAT O | PERATION, SUMMI | ER FAN SWITCH, F. | AN DELAY SWITCH | I, CEILING BRACK | ET, POWDER COA | TED EPOXY FINISH, THEF | RMOSTAT, AND ELE | ECTRICAL DISCONNECT. |

| LOUVER SCHEDULE |             |         |         |           |          |             |              |                |                         |
|-----------------|-------------|---------|---------|-----------|----------|-------------|--------------|----------------|-------------------------|
| MARK            | SERVICE     | WIDTH   | HEIGHT  | THICKNESS | MATERIAL | SCREEN TYPE | MANUFACTURER | MODEL#         | OPTIONS/<br>ACCESSORIES |
| LV-1            | VENTILATION | 2' - 2" | 1' - 0" | VERIFY    | ALUMINUM | BIRD        | GREENHECK    | EAD-635 SERIES | SEE NOTE 1              |
| LV-2            | VENTILATION | 2' - 2" | 1' - 0" | VERIFY    | ALUMINUM | BIRD        | GREENHECK    | EAD-635 SERIES | SEE NOTE 1              |
| LV-3            | VENTILATION | 2' - 2" | 1' - 0" | VERIFY    | ALUMINUM | BIRD        | GREENHECK    | EAD-635 SERIES | SEE NOTE 1              |
| LV-4            | VENTILATION | 2' - 2" | 1' - 0" | VERIFY    | ALUMINUM | BIRD        | GREENHECK    | EAD-635 SERIES | SEE NOTE 1              |

1. PROVIDE WITH MOTORIZED ACTUATOR, HOUSING, AND BIRD SCREEN. LOUVER TO BE INTERLOCKED WITH A MANUAL WALL SWITCH. COORDINATE ACTIVATION SWITCH LOCATION WTH ARCHITECT PRIOR TO INSTALLATION.

|                | SHEET M1-1 KEYNOTES   |
|----------------|---|
| NOTE<br>NUMBER |   |
| 1              | COORDINATE FINAL LOCATION OF THERMOSTAT WITH ARCHITECT PRIOR TO INSTALLATION. THERMOSTATS LOCATED ON EXTERIOR WALLS TO BE PROVIDED WITH INSULATED BACKING.              |
| 2              | COORDINATE ELECTRIC UNIT HEATER MOUNTING/INSTALLATIONS WITH STRUCTURE.  |
| 3              | COORDINATE MOTORIZED LOUVER INSTALLTION WITH WALL STRUCTURE. LOUVERS TO BE OPERATED VIA MANUAL SWITCH. COORDINATE SWITCH LOCATION WITH ARCHITECT PRIOR TO INSTALLATION. |





| COMMUNICATION LEGEND             |  |  |  |  |  |  |  |
|----------------------------------|--|--|--|--|--|--|--|
| 9                                | CLOCK ONLY                                 |  |  |  |  |  |  |
|                                  | CLOCK / PA SPEAKER WALL MOUNTED            |  |  |  |  |  |  |
| S                                | ROUND CEILING MOUNTED SPEAKER              |  |  |  |  |  |  |
| S                                | SQUARE SPEAKER                             |  |  |  |  |  |  |
| HC.                              | INTERCOM PUSH TO CALL SWITCH               |  |  |  |  |  |  |
| WAP<br>A                         | WIRELESS ACCESS POINT ABOVE THE CEILING    |  |  |  |  |  |  |
| PROJECTOR                        | ABOVE THE CEILING PROJECTOR CONNECTION     |  |  |  |  |  |  |
| □ НОМІ                           | WALL MOUNTED HDMI                          |  |  |  |  |  |  |
| abla                             | PLAIN DATA OUTLET                          |  |  |  |  |  |  |
| <b>∇</b> 80"                     | PLAIN DATA OUTLET WITH MOUNTING HEIGHT     |  |  |  |  |  |  |
| $\blacksquare$                   | COMBINATION DATA/TELEPHONE                 |  |  |  |  |  |  |
| <b>T</b>                         | FLOOR MOUNTED COMBINATION DATA/TELEPHONE   |  |  |  |  |  |  |
| $\bigcirc$                       | CEILING MOUNTED COMBINATION DATA/TELEPHONE |  |  |  |  |  |  |
| $\stackrel{\bullet}{\leftarrow}$ | TELEVISION OUTLET                          |  |  |  |  |  |  |

### SECURITY SYSTEM LEGEND SECURITY CAMERA ADA DOOR OPERATOR PUSH BUTTON ELECTRIC DOOR STRIKE CARD READER FOR DOOR OPERATOR

### **GENERAL ELECTRICAL NOTES:**

- 1. ALL ELECTRICAL WORK TO COMPLY WITH LATEST EDITION OF NEC, IECC AND ALL APPLICABLE GOVERNING CODES.
- FIELD COORDINATION DURING CONSTRUCTION IS IMPERATIVE. CONTRACTORS BIDDING THIS WORK MUST MAKE REASONABLE ALLOWANCES FOR UNFORESEEN CONTINGENCIES.
- 3. ELECTRIC UTILITY TO ADVISE OWNER AND/OR THE ELECTRICAL ENGINEER PRIOR TO SERVICE MODIFICATION REQUIRING COST TO THE OWNER.

- 1. ALL WIRING IS SHOWN DIAGRAMMATICALLY ON DRAWING, FIELD VERIFY ALL CONDITIONS PRIOR TO ROUGH-IN.
- 2. ALL CONDUITS AND CONVEYANCES SHALL BE CONCEALED. IN THE EVENT THAT A NEW DEVICE IS BEING INSTALLED IN AN EXISTING DRYWALL PARTITION, PROVIDE A CUT IN TYPE BOX AND FISH FLEXIBLE CONDUIT DOWN INSIDE THE WALL FROM ABOVE THE CEILING AND REPAIR THE DRYWALL AROUND THE CONDUIT. TRANSITION TO EMT ONCE ABOVE THE CEILING.
- 3. SIZES OF WIRE AND CABLES ARE BASED UPON COPPER CONDUCTORS, UNLESS OTHERWISE INDICATED. ALL CIRCUITS SHALL CONTAIN (2) #12 AWG WITH (1) #12 GND IN 1/2" CONDUIT UNLESS NOTED OTHERWISE.
- 4. ALL BRANCH CIRCUITS WITH HOME RUNS OVER 50 FEET, WILL BE SIZED ONE
- 5. ALL PENETRATIONS IN OR THROUGH FIRE RATED PARTITIONS SHALL BE FIRE STOPPED IN SUCH A WAY THAT THE PENETRATION MATCHES THE FIRE RATING OF THE WALL.
- 6. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION
- BETWEEN THE APPROPRIATE DISCIPLINES AND CONTRACTORS. 7. COORDINATE ALL DEVICE, FIXTURE AND HARDWARE COLOR SELECTIONS WITH
- THE ARCHITECT PRIOR TO MAKING SHOP DRAWING SUBMITTALS. 8. COORDINATE THE MOUNTING HEIGHTS OF ALL RECEPTACLES MOUNTED ABOVE COUNTERS, CASEWORK AND APPLIANCE RECEPTACLES WITH ARCHITECTURAL
- 9. BRANCH CIRCUIT AND SPECIAL SYSTEMS WIRING FOR DEVICES ON WALLS IN FINISHED AREAS WHICH CANNOT BE CONCEALED SHALL BE INSTALLED IN
- 10. ALL EXPOSED CONDUITS, BOXES, ETC. IN ROOMS TO BE PAINTED SHALL BE PAINTED TO MATCH THE SURROUNDING SURFACE. EXPOSED CONDUITS, BOXES, ETC. IN ROOMS WHICH ARE NOT PAINTED MAY BE LEFT UN-PAINTED. EXPOSED CONDUIT, BOXES, ETC. ON THE EXTERIOR OF BUILDINGS SHALL BE PAINTED TO MATCH THE SURROUNDING SURFACE AS CLOSELY AS POSSIBLE.
- 11. THE CONTRACTOR IS RESPONSIBLE FOR PATCHING, PAINTING, REPAIRING OR REPLACEMENT OF ALL WALLS, CEILING OR OTHER BUILDING ELEMENTS WHICH ARE DISTURBED AS PART OF THE DEMOLITION AND/OR INSTALLATION OF ELECTRICAL WORK.
- 12. PROVIDE ELECTRICAL CONNECTION TO ALL FIRE, SMOKE, AND FIRE / SMOKE DAMPERS INCLUDING POWER AND FIRE ALARM. VERIFY EXACT SIZE AND FINAL LOCATION OF ALL DAMPERS WITH THE MECHANICAL CONTRACTOR. ALL ROOFTOP UNITS RATED AT MORE THAN 2000 CFM WILL BE OUTFITTED WITH A DUCT DETECTOR IN THE RETURN DUCT. ALL ROOFTOP UNITS RATED AT MORE THAN 15000 CFM WILL BE OUTFITTED WITH A DUCT DETECTOR IN BOTH THE SUPPLY AND RETURN DUCT AT ROOFTOP LEVEL AND IN THE RETURN DUCT AT EVERY LEVEL THAT IS SERVED. ELECTRICAL CONTRACTOR WILL PROVIDE A REMOTE TEST STATION AND ALL WIRING NECESSARY TO COMPLETE
- 13. REFER TO THE MECHANICAL EQUIPMENT SCHEDULE FOR ADDITIONAL REQUIREMENTS ASSOCIATED WITH PLUMBING AND HVAC EQUIPMENT AND OWNER/GENERAL CONTRACTOR FURNISHED EQUIPMENT.

### LIGHTING LEGEND

NOTES:

SYMBOLS SHOWN ARE STANDARD. VARIATION AND/OR COMBINATIONS MAY BE USED ON THE PLANS. THIS LIST SHOWS STANDARD SYMBOLS AND ALL MAY NOT APPEAR ON THE PROJECT DRAWINGS; HOWEVER, WHEREVER THE SYMBOL ON THE PROJECT DRAWINGS OCCUR, THE ITEM SHALL BE PROVIDED AND INSTALLED.

VARIATION AND/OR COMBINATION MAY BE USED ON THE PLANS.

A NUMBER NEXT TO A RECEPTACLE OR DEVICE INDICATES A CIRCUIT NUMBER. AN UPPER CASE LETTER NEXT TO A SWITCH INDICATES THE FUNCTION OF THE SWITCH. A LOWER CASE LETTER INDICATES THE SWITCH CIRCUIT

AN UPPER CASE LETTER NEXT TO A LIGHT FIXTURE INDICATES THE TYPE OF FIXTURE. REFER TO THE LUMINAIRE SCHEDULE FOR FIXTURE SPECIFICATIONS. A LOWER CASE LETTER NEXT TO A LIGHT CORRESPONDS TO THE SWITCH DESIGNATION.

**SWITCHES** 

#### \$ SINGLE POLE SWITCH TWO POLE SWITCH THREE-WAY SWITCH FOUR-WAY SWITCH DIMMER SWITCH \$3D 3 WAY DIMMER SWITCH - (4D INDICATES A 4WAY DIMMER) \$DR DOOR ACTIVATED SWITCH WALL MOUNTED DUAL TECHNOLOGY MANUAL ON / AUTO OFF VACANCY SENSOR \$<sub>LV</sub> LOW VOLTAGE LIGHT SWITCH \$<sub>TO</sub> MANUAL MOTOR STARTER \$ PILOT LIGHT SWITCH \$<sub>OS</sub> AUTO ON / AUTO OFF LIGHT SWITCH \$MO DUAL TECHNOLOGY MOTION / OCCUPANCY SENSOR LIGHT SWITCH \$MA MANUAL ON / AUTO OFF DIMMING LIGHT SWITCH \$<sub>K</sub> KEY OPERATED LIGHT SWITCH \$<sub>T</sub> MANUAL ON - TIMED OFF LIGHT SWITCH D CEILING MOUNTED DAYLIGHT SENSOR (MA) (MA) CEILING MOUNTED DUAL TECHNOLOGY MANUAL ON / AUTO OFF VACANCY SENSOR

\$SC SCENE CONTROL STATION

\$<sub>MS</sub> UNIT LIGHTING MANAGEMENT CONTROL STATION,

LIGHT FIXTURES

| A 1'x4' LED TROFFER OR DIRECT/INDIRECT TYPE FIXTURE GRID, FLANGE OR SURFACE MOUNTED |
|---|
| 2'x4' LED TROFFER OR DIRECT/INDIRECT TYPE FIXTURE GRID, FLANGE OR SURFACE MOUNTED   |
| A 2'x2' LED TROFFER OR DIRECT/INDIRECT TYPE FIXTURE GRID, FLANGE OR SURFACE MOUNTED |
| ├──�── OPEN STRIP FIXTURE   |
| WALL BRACKET LINEAR FIXTURE   |
| A — WALL MOUNTED SCONCE LIGHT FIXTURE   |
| A -□ RECESSED DOWNLIGHT CAN FIXTURE   |
| A - O- SURFACE CEILING OR PENDANT MOUNTED FIXTURE                                   |
| EX2 DOUBLE FACE EXIT SIGN, WALL AND CEILING MOUNTED                                 |
| EX1 SINGLE FACE EXIT SIGN, WALL AND CEILING MOUNTED                                 |
| EM () WALL MOUNTED EMERGENCY LIGHT  |
| _   |

1. COORDINATE THE LOCATION OF ALL LIGHTING EQUIPMENT INCLUDING BUT NOT LIMITED TO THE LUMINAIRES, SWITCHES WITH THE ARCHITECTURAL, STRUCTURAL AND MECHANICAL DRAWINGS AND ALL OTHER TRADES AS REQUIRED. REFER TO THE ARCHITECTURAL REFLECTED CEILING PLANS FOR DIMENSIONAL LOCATION OF LIGHT FIXTURES.

EMR 🗎 EMERGENCY EXTERIOR EGRESS FIXTURE

- 2. LIGHTING FIXTURES SHALL BE SUPPORTED FROM THE STRUCTURE ABOVE AND SHALL NOT BE SUPPORTED FROM THE T-BAR CEILING GRID.
- 3. THE ELECTRICAL CONTRACTOR IS TO CONFIRM THE LIGHT FIXTURES ORDERED WILL BE COMPATIBLE WITH THE CEILING TYPES AS SHOWN ON THE ARCHITECTURAL REFLECTED CEILING PLANS. NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING THE FIXTURES.
- 4. VERIFY LUMINAIRE MOUNTING REQUIREMENTS AND OVERALL HEIGHT OF ALL PENDANT MOUNTED FIXTURES PRIOR TO ORDERING.
- 5. ALL LIGHT FIXTURES NEED TO BE COMPATIBLE WITH THE SWITCHES AND
- CONTROLS BEING PROVIDED. 6. THE LIGHTING PACKAGE SHALL BE APPROVED BY BOTH THE ARCHITECT AND ENGINEER AS APPROVED EQUAL BEFORE BID. NO LIGHT FIXTURE SHALL BE ORDERED UNTIL THE LIGHT FIXTURE SUBMITTAL PACKAGE HAS BEEN APPROVED IN WRITING BY THE ARCHITECT, GENERAL CONTRACTOR AND ELECTRICAL ENGINEER.
- 7. COORDINATE LUMINAIRE MOUNTING REQUIREMENTS PRIOR TO PLACING

### EMERGENCY AND EXIT LIGHTS:

- 1. PROVIDE EMERGENCY AND EXIT SIGNS AS PER ALL GOVERNING CODES. 2. EXIT SIGNS CONNECTED TO A REMOTE EMERGENCY HEAD REQUIRE EXTRA BATTERY CAPACITY TO OPERATE THE REMOTELY LOCATED EMERGENCY HEAD FOR EGRESS AWAY FROM THE BUILDING.
- 3. REFER TO THE PLANS FOR THE NUMBER OF FACES REQUIRED AT EACH EXIT. FIELD ADJUST THE LOCATION OF THE EXIT SIGNS AND NUMBER OF FACES FOR
- THE BEST VISIBILITY POSSIBLE. 4. ALL LIGHTING FIXTURES DENOTED WITH "EM" SHALL BE PROVIDED WITH AN ENGINEER APPROVED EMERGENCY LED DRIVER OR INVERTER TO OPERATE THE FIXTURE IN AN EMERGENCY MODE TO MEET ALL CURRENT GOVERNING CODES AND WILL BE CIRCUITED TO THE UNSWITCHED SIDE OF THE LIGHTING CIRCUIT.
- 5. ALL LIGHT FIXTURES DESIGNATED WITH "EM" OR SPECIFIED WITH AN EMERGENCY FUNCTION SHALL BE PROVIDE WITH ONE OF THE FOLLOWING.
- a. INTEGRAL TEST SWITCH b. REMOTE INFRARED HANDHELD DEVICE
- INTEGRAL ELECTRONIC DEVICE THAT AUTOMATICALLY PERFORMS CODE
- REQUIRED TESTS. 6. ALL STAIRWELLS AND PATHS OF EGRESS TO THE EXTERIOR DOORS AND THE EXTERIOR PATH OF EGRESS AWAY FROM THE BUILDING SHALL RECEIVE EMERGENCY LIGHTING PER CODE.

| [          | ELECTRICAL EQUIPMENT LEGEND  |
|------------|--|
|            | BRANCH CIRCUIT PANELBOARD  |
|            | TELEPHONE TERMINAL BOARD   |
| $\bigcirc$ | ELECTRIC MOTOR   |
| F          | FUSED SAFETY SWITCH / DISCONNECT COMBINATION   |
| 4          | MOTOR STARTER  |
|            | CONTACTOR  |
| LA-7       | CIRCUITRY HOMERUN: PANEL LA - CIR. #7  |
|            | CONDUIT OR WIRE CONCEALED IN WALL/CLG. (SOLID LINE TYPE)   |
|            | CONDUIT OR WIRE UNDERFLOOR/UNDERGND. (CENTER LINE TYPE)  |
|            |  |
|            | CONTACTOR  CIRCUITRY HOMERUN: PANEL LA - CIR. #7  CONDUIT OR WIRE CONCEALED IN WALL/CLG. (SOLID LINE TYPE) |

| MAIN DIST  | RIBUTION GEAR  CIRCUIT BREAKER IN A PANEL BOARD  |
|--|--|
|  | PAD MOUNTED UTILITY TRANSFORMER  |
| 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                      | FUSED DISCONNECT<br>100A = AMP RATING<br>2P = NUMBER OF POLES  |
| FUSED DISCON   | NECT   |
| M  | ELECTRICAL METER SHOWN ON ONE-LINE DIAGRAMS  |
|  | ELECTRICAL POWER PANEL WITH MAIN LUG OR MAIN BREAKER PP1= PANEL NAME 225A MLO = MAIN LUG OR BREAKER SIZE 120/208V = PANEL VOLTAGE 3PH, 4 WIRE = PANEL PHASE, DISTRIBUTION TYPE |
| PP1 PP1<br>225A MCB 225A<br>120/208V 120/2<br>3PH, 4W 3PH, | <del></del> -  |

ELECTRICAL DEVICE LEGEND

|     | -011110  | TE DEVICE EESEND   |
|-----|--|--|
|     | <u> </u>   | CEILING JUNCTION BOX - SURFACE/FLUSH   |
|     | $\bigcirc\!$ | WALL JUNCTION BOX - SURFACE/FLUSH  |
|     | $\Leftrightarrow$  | DUPLEX RECEPTACLE  |
|     |  | FLOOR MOUNTED RECEPTACLE   |
|     | $\ominus$  | SPLIT WIRED DUPLEX RECEPTACLE  |
|     |  | CEILING MOUNTED DUPLEX RECEPTACLE  |
|     | $\bigoplus$  | FLOOR MOUNTED FOURPLEX RECEPTACLE  |
|     | $\rightleftharpoons$   | APPLIANCE RECEPTACLE - 3 WIRE  |
|     | $\ominus$  | DUPLEX RECEPTACLE  |
|     | $\bigoplus$  | FOURPLEX RECEPTACLE  |
| ⊕ ⊕ | ABBREVIA AC AC GF AC USB AF AF USB AF GF D D USB EM                                | ATIONS PERTAIN TO ALL DUPLEX AND FOURPLEX RECEPTACLES: ATIONS MAY APPEAR IN DIFFERENT COMBINATIONS.  ABOVE COUNTER  ABOVE COUNTER - GROUND FAULT CIRCUIT INTERRUPTER  ABOVE COUNTER WITH USB PORT  ARC FAULT PROTECTED  ARC FAULT PROTECTED WITH USB PORT  ARC FAULT WITH GROUND FAULT CIRCUIT INTERRUPTER  DEDICATED RECEPTACLE  DEDICATED RECEPTACLE WITH USB PORT  RECEPTACLE CIRCUITED TO THE EMERGENCY PANEL WITH  D COVER PLATE  GROUND FAULT CIRCUIT INTERRUPTER  WEATHER PROOF GROUND FAULT CIRCUIT INTERRUPTER  PLUG LOAD  GENERAL PURPOSE WITH MOUNTING HEIGHT.  SWITCHED CONTROLLED |
|     | T  | THERMOSTAT   |
|     | •  | OPEN/CLOSE/STOP PUSH BUTTON  |
|     | $\langle 1 \rangle$  | DRAWING KEY NOTES  |
|     | ROOM<br>100  | ROOM NAME AND NUMBER DESIGNATION   |

|                 | ELECTRICAL SHEET LIST               |
|-----------------|-------------------------------------|
| Sheet<br>Number | Sheet Name                          |
| E0-1            | ELECTRICAL COVER SHEET              |
| ES1-1           | LIGHTING - SITE PLAN                |
| E2-1            | ELECTRICAL / LIGHTING - FLOOR PLANS |
| E3-2            | ELECTRICAL DETAILS                  |
|                 |                                     |

### **RESPONSIBLE DIVISION:**

| UNLESS OTHERWISE INDICATED ALL F<br>AND OTHER MECHANICAL EQUIPMENT<br>IN PLACE AND WIRED AS FOLLOWS: |           |       |                |                  |  |
|--|-----------|-------|----------------|------------------|--|
| ITEM   | FURNISHED | SET   | POWER<br>WIRED | CONTROL<br>WIRED |  |
| EQUIPMENT  | 23        | 23    | 26             |                  |  |
| COMBINATION MAGNETIC<br>MOTOR STARTERS, MAGNETIC<br>MOTOR STARTERS, VFD'S AND<br>CONTACTORS          | 23(1)     | 26    | 26(2)          | 23               |  |
| FUSED AND UNFUSED DISCONNECT SWITCHES, THERMAL OVERLOAD SWITCHES AND HEATERS, MANUAL MOTOR STARTERS  | 26        | 26    | 26             |                  |  |
| MANUAL-OPERATING AND<br>MULTI-SPEED SWITCHES   | 23        | 26    | 26             | 26               |  |
| CONTROLS, RELAYS,<br>TRANSFORMERS  | 23        | 23    | 26             | 23               |  |
| THERMOSTATS (LOW VOLTAGE) AND TIME SWITCHES  | 23        | 23    | 26             | 23               |  |
| THERMOSTATS (LINE VOLTAGE)   | 23        | 23    | 26             | 26               |  |
| TEMPERATURE CONTROL PANELS   | 23        | 23    | 26             | 23               |  |
| MOTOR AND SOLENOID VALVES,<br>DAMPER MOTORS, PE & EP<br>SWITCHES                                     | 23        | 23(2) |                | 23(2)            |  |
| PUSH-BUTTON STATIONS<br>AND PILOT LIGHTS   | 23        | 23(2) |                | 23(2)            |  |
| HEATING, COOLING,<br>VENTILATION AND AIR<br>CONDITIONING CONTROLS                                    | 23        | 23    | 26             | 23               |  |
| EXHAUST FAN SWITCHES   | 23        | 26    | 26             | 23(2)            |  |
|  |           |       |                |                  |  |

SUBSCRIPT FOOTNOTES: 1. MOTOR STARTER TO INCLUDE CONTROL TRANSFORMER, HOA SWITCH, (1) NO AND (1)NC

AUXILIARY CONTACT, AND "ON" AND "OFF" PILOT LIGHTS. 2. IF ITEM IS FOR LINE VOLTAGE, SET IN PLACE AND CONNECT UNDER DIVISION 26. WHERE FACTORY MOUNTED ON EQUIPMENT OR ATTACHED TO PIPING OR DUCTS AND USING LINE VOLTAGE FURNISH AND SET UNDER DIVISION 23, CONNECT UNDER DIVISION 26.

### **SUBSTITUTIONS:**

A. SUBSTITUTIONS: SUBSTITUTION OF SPECIFIED EQUIPMENT WILL BE ALLOWED THROUGH A PRIOR APPROVAL PROCESS INITIATED BY THE CONTRACTOR. CONTRACTOR SHALL SUBMIT INTENDED SUBSTITUTION AT LEAST FIVE DAYS PRIOR TO BID FOR APPROVAL FROM ENGINEER SUBMITTAL SHALL INCLUDE CAPACITIES, DIMENSIONS AND OPERATING INSTRUCTIONS FOR EACH PIECE OF EQUIPMENT. SUBSTITUTION SHALL OCCUR AT NO COST TO THE OWNER. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF APPROVED SUBSTITUTION AND SHALL INCUR ALL COSTS ASSOCIATED WITH THE SUBSTITUTION INCLUDING STRUCTURAL MODIFICATIONS, SPACE LAYOUT AND REDESIGN COSTS. SEE ALSO DIVISION I GENERAL REQUIREMENTS.

#### **EXAMINATION OF SITE, DRAWINGS, SPECIFICATIONS:**

A. EXAMINE CAREFULLY THE SITE AND CONDITIONS OF THE SITE. PROVIDE ALL NECESSARY EQUIPMENT AND LABOR TO INSTALL A COMPLETE WORKING SYSTEM WITHIN THE SITE CONDITIONS.

B. EXAMINE THE DRAWINGS AND SPECIFICATIONS AND 5 DAYS PRIOR TO BIDDING REPORT ANY ERRORS, OMISSIONS, INCONSISTENCIES, AND CONFLICTS TO THE ENGINEER TO BE REMEDIED IN AN ADDENDUM TO THE PROJECT PRIOR TO

C. DRAWINGS ARE DIAGRAMMATIC AND CATALOG NUMBERS GIVEN ARE FOR REFERENCE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE CAPACITY OF THE EQUIPMENT MEETS THE DRAWING REQUIREMENTS AND SHALL NOT DIMENSION FROM THE MECHANICAL, PLUMBING, OR PIPING

D. THE LATEST ADOPTED VERSIONS OF THE INTERNATIONAL BUILDING CODES SHALL BE USED AS REQUIRED. THIS WILL ALSO INCLUDE THE LATEST ADOPTED VERSIONS OF THE MECHANICAL, PLUMBING, AND ENERGY CONSERVATION CODES. ALL METHODS AND MATERIALS REQUIRED BY THESE CODES SHALL BE REQUIRED BY THESE SPECIFICATIONS UNLESS INDICATED OTHERWISE. OTHER APPLICABLE LOCAL CODES AND ORDINANCES SHALL BE AS REQUIRED AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO BE KNOWLEDGEABLE OF THESE REQUIREMENTS.

WHERE INSTALLATION PROCEDURES OR ANY PART THEREOF ARE REQUIRED TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER OF THE MATERIAL BEING INSTALLED, PRINTED COPIES OF THESE RECOMMENDATIONS SHALL BE FURNISHED TO THE ENGINEER PRIOR TO INSTALLATION. INSTALLATION OF THE ITEM WILL NOT BE ALLOWED TO PROCEED UNTIL THE RECOMMENDATIONS ARE RECEIVED. FAILURE TO FURNISH THESE RECOMMENDATIONS CAN BE CAUSE FOR REJECTION OF THE MATERIAL.

### ABBREVIATIONS:

DEPT DEPARTMENT

| 44"   | MOUNTING HEIGHT ABOVE              | DF    | DRINKING FOUNTAIN           | HP       | HEAT PUMP                   | PT          | PRESSURE TRANSMITTER         |
|-------|------------------------------------|-------|-----------------------------|----------|-----------------------------|-------------|------------------------------|
|       | FINISHED FLOOR TO CENTER OF DEVICE | DIA   | DIAMETER                    | HP       | HORSEPOWER                  | PTAC        | PACKAGED TERMINAL AIR        |
| Α     | AMPS                               | DIAG  | DIAGRAM                     | HR       | HOUR                        | <b>5</b> 1. | CONDITIONER                  |
| A.D.  | ACCESS DOOR                        | DIFF  | DIFFERENTIAL                | HT       | HEIGHT                      | PV          | PLUG VALVE                   |
|       |                                    | DISCH | DISCHARGE                   | HTR      | HEATER                      | PVC         | POLYVINYL CHLORIDE           |
| AAV   | ADMITTANCE VALVE                   | DIV   | DIVISION                    | HWR      | HEATING WATER RETURN        | QTY         | QUANTITY                     |
| ABV   | ABOVE                              | DN    | DOWN                        | HWS      | HEATING WATER SUPPLY        | RA          | RETURN AIR GRILLE / REGISTER |
| AC    | AIR CONDITIONING UNIT              | DS    | DUCT SILENCER               | HX       | HEAT EXCHANGER              | RCP         | REFLECTED CEILING PLAN       |
| AC    | ABOVE COUNTER                      | DWG   | DRAWING                     | HZ       | HERTZ                       | RD          | ROOF DRAIN                   |
| AD    | AREA DRAIN (SEE SYMBOLS)           |       |                             |          |                             | REL         | RELIEF                       |
| AFC   | ABOVE FINISHED CEILING             | DX    | DIRECT EXPANSION            | ID       | INSIDE DIAMETER             |             | REQUIRED                     |
| AFG   | ABOVE FINISHED GRADE               | (E)   | EXISTING                    | IG       | ISOLATED GROUND             | RF          | RETURN FAN                   |
| AIC   | AMPERE INTERRUPTING                | EA    | EXHAUST AIR GRILLE/REGISTER | IN       | INCHES                      |             |                              |
|       | CAPACITY                           | EAT   | ENTERING AIR TEMPERATURE    | INV      | INVERT                      | RH          | RELATIVE HUMIDITY            |
| AFCI  | ARC FAULT CIRCUIT                  | EC    | ELECTRICAL CONTRACTOR       | JBOX     | JUNCTION BOX                | RHC         | REHEAT COIL                  |
|       | INTERRUPTERS                       | ECC   | ECCENTRIC                   | K        | KELVIN                      | RLA         | RATED LOAD AMPS              |
| AFF   | ABOVE FINISHED FLOOR               | EF    | EXHAUST FAN                 | KW       | KILOWATT                    | RM          | ROOM                         |
| AHU   | AIR HANDLING UNIT                  | EFF   | EFFICIENCY                  | KVA      | KILO VOLT - AMPS            | RPM         | REVOLUTIONS PER MINUTE       |
| ALUM  | ALUMINUM                           | EL    | ELEVATION                   | L        | LENGTH                      | SA          | SUPPLY AIR GRILLE / REGISTER |
| AP    | ACCESS PANEL OR DOOR               | ELEC  | ELECTRIC                    | -<br>LAT | LEAVING AIR TEMPERATURE     | SC          | SHORT CIRCUIT                |
| ATS   | AUTOMATIC TRANSFER SWITCH          |       |                             | LV       |                             | SCA         | SHORT CIRCUIT AVAILABLE      |
|       |                                    | ELEV  | ELEVATOR                    |          | LAVATORY                    |             | SHORT CIRCUIT CURRENT        |
| AV    | AUDIO / VIDEO                      | EM    | EMERGENCY FUNCTION          | LB       | POUND                       | 00011       | RATING                       |
| AVG   | AVERAGE                            | ENT   | ENTERING                    | LD       | LINEAR DIFFUSER             | SCH         | SCHEDULE                     |
| AWG   | AMERICAN WIRE GAGE                 | EMT   | ELECTRIC METALLIC TUBE      | LF       | LINEAR FEET                 | SD          | SMOKE DAMPER                 |
| BAS   | BUILDING AUTOMATION                | EQ    | EQUAL                       | LIN      | LINEAR                      | SEF         | SMOKE EXHAUST FAN            |
|       | SYSTEM                             | EQUIP | EQUIPMENT                   | LIQ      | LIQUID                      | SF          |                              |
| BB    | BASEBOARD                          | EQUIV | EQUIVALENT                  | LM       | LUMEN                       |             | SUPPLY FAN                   |
| BD    | BACK DRAFT DAMPER                  | ES    | END SWITCH                  | LRA      | LOCKED ROTOR AMPS           | SH          | SENSIBLE HEAT                |
| BFP   | BACK FLOW PREVENTOR                | ESP   | EXTERNAL STATIC PRESSURE    | LV       | LOUVER                      | SH          | SHOWER                       |
| BL    | BOILER                             |       |                             | LVG      | LEAVING                     | SP          | STATIC PRESSURE              |
| BLDG  | BUILDING                           | ET    | EXPANSION TANK              |          |                             | SPD         | SURGE PROTECTION DEVICE      |
| BLW   | BELOW                              | EWC   | ELECTRIC WATER COOLER       | LWT      | LEAVING WATER TEMPERATURE   | SPEC        | SPECIFICATION                |
| вов   | BOTTOM OF BEAM                     | EWT   | ENTERING WATER TEMPERATURE  | MBH      | THOUSANDS OF BTU PER HOUR   | SQ          | SQUARE                       |
| BOD   | BOTTOM OF DUCT                     | ΓV    |                             | MC       | MECHANICAL CONTRACTOR       | SS          | STAINLESS STEEL              |
|       |                                    | EX    | EXHAUST                     | MCA      | MINIMUM CIRCUIT AMPACITY    | SS          | SAFETY SHOWER                |
| BOP   | BOTTOM OF PIPE                     | EXPAN | EXPANSION                   | MCB      | MAIN CIRCUIT BREAKER        | STD         | STANDARD                     |
| BSMT  | BASEMENT                           | EXT   | EXTERNAL                    | MD       | MOTORIZED DAMPER            |             |                              |
| BTU   | BRITISH THERMAL UNIT               | F     | DEGREES FAHRENHEIT          | MDP      | MAIN DISTRIBUTION PANEL     | STL         | STEEL                        |
| С     | CHILLER                            | FA    | FREE AREA                   | MED      | MEDIUM                      | SYS         | SYSTEM                       |
| CAFCI | COMBINATION ARC FAULT              | FC    | FAN COIL UNIT               | MFR      | MANUFACTURER                | TEMP        | TEMPERATURE                  |
|       | CIRCUIT INTERRUPTERS               | FC    | FOOTCANDLE                  | MIN      | MINIMUM                     | TR          | TRANSFER GRILLE / REGISTER   |
| CAP   | CAPACITY                           | FCV   | FLOW CONTROL VALVE          |          |                             | TR          | TAMPER RESISTANT             |
| CB    | CIRCUIT BREAKER                    | FD    | FIRE DAMPER                 | MISC     | MISCELLANEOUS               | TT          | TEMPERATURE TRANSMITTER      |
| CBV   | CIRCUIT BALANCING VALVE            | FD    | FLOOR DRAIN                 | MLO      | MAIN LUG ONLY               | TTB         | TELECOMMUNICATIONS           |
| CCT   | CORRELATED COLOR                   |       |                             | MOCP     | MAXIMUM OVERCURRENT         |             | TERMINAL BACKBOARD           |
|       | TEMPERATURE                        | FIN   | FINISHED                    |          | PROTECTION                  | TYP         | TYPICAL                      |
| CKT   | CIRCUIT                            | FLA   | FULL LOAD AMPS              | MTD      | MOUNTED                     | TX          | TRANSFORMER                  |
| CFH   | CUBIC FEET PER HOUR                | FLEX  | FLEXIBLE                    | MUA      | MAKE-UP AIR UNIT            | UC          | UNDERCUT DOOR                |
| CFM   | CUBIC FEET PER MINUTE              | FLR   | FLOOR                       | N        | NEUTRAL                     | UH          | UNIT HEATER                  |
| CHWR  | CHILLED WATER RETURN               | FOB   | FLAT ON BOTTOM              | NC       | NORMALLY CLOSED             | UNO         | UNLESS NOTED OTHERWISE       |
| CHWS  | CHILLED WATER SUPPLY               | FOT   | FLAT ON TOP                 | NEG      | NEGATIVE                    |             |                              |
|       |                                    | FP    | FIRE PROTECTION             | NIC      | NOT IN CONTRACT             |             | UNOCCUPIED                   |
| CI    | CAST IRON                          | FP    | FIRE PUMP                   | NL       | NIGHT / SECURITY LIGHT - DO | UR          | URINAL                       |
| CL    | CENTER LINE                        | FPM   | FEET PER MINUTE             |          | NOT SWITCH                  | V           | VOLTS                        |
| CLG   | CEILING                            | FPS   | FEET PER SECOND             | NO       | NORMALLY OPEN               | VA          | VOLT AMPERE                  |
| CMU   | CONCRETE MASONRY UNIT              |       |                             | NOM      | NOMINAL                     | VA          | VALVE                        |
| CO    | CLEAN OUT                          | FS    | FLOW SWITCH                 | NTS      | NOT TO SCALE                | VAV         | VARIABLE AIR VOLUME UNIT     |
| COL   | COLUMN                             | FSD   | FIRE/SMOKE DAMPER           |          |                             | VFD         | VARIABLE FREQUENCY DRIVE     |
| COMP  | COMPRESSOR                         | FT    | FEET                        | OA       | OUTSIDE AIR                 | VRF         | VARIABLE REFRIGERANT FLOW    |
| CONC  | CONCRETE                           | FXC   | FLEXIBLE CONNECTION         | OBD      | OPPOSED BLADE DAMPER        | VOLT        | VOLTAGE                      |
| COND  | CONDENSATE                         | GND   | GROUND                      | OC       | ON CENTER                   |             |                              |
|       |                                    | GA    | GAUGE                       | OCC      | OCCUPIED                    | VTR         | VENT THROUGH ROOF            |
| CONN  | CONNECTION                         | GAL   | GALLON                      | OCP      | OVER CURRENT PROTECTION     | W           | WIDTH                        |
| CONT  | CONTINUATION                       | GALV  | GALVANIZED                  | OD       | OUTSIDE DIAMETER            | W           | WATTS                        |
| CONTR | CONTRACTOR                         | GEC   | GROUND ELECTRODE            | OL       | OVERLOAD                    | W/          | WITH                         |
| CRI   | COLOR RENDERING INDEX              | GLC   | CONDUCTOR                   | ORD      | OVERFLOW ROOF DRAIN         | W/O         | WITHOUT                      |
| CT    | COOLING TOWER                      | GF    | GROUND FAULT CIRCUIT        | OZ       | OUNCE                       | WB          | WET BULB                     |
| CT    | CURRENT TRANSFORMER                | ٥.    | INTERRUPTER                 | PBD      | PARALLEL BLADE DAMPER       | WC          | WATER COLUMN                 |
| CU    | CONDENSING UNIT                    | GC    | GENERAL CONTRACTOR          |          |                             | WC          | WATER CLOSET                 |
| CU    | COPPER                             | GPH   | GALLONS PER HOUR            | PD       | PRESSURE DROP               | WG          | WATER GAUGE                  |
| CUH   | CABINET UNIT HEATER                | GPM   | GALLONS PER MINUTE          | PH       | PHASE                       | WP          | WEATHERPROOF                 |
| CVB   |                                    |       |                             | POS      | POSITIVE PRESSURE           |             |                              |
|       | CONSTANT VOLUME BOX                |       | GRS/LB GRAINS PER POUND     | POS      | POINT OF SALES              |             | WEATHERPROOF IN-USE          |
| CWR   | CONDENSER WATER RETURN             | H2O   | WATER                       | PRV      | PRESSURE REDUCING VALVE     | WSR         | WITHSTAND RATING             |
| CWS   | CONDENSER WATER SUPPLY             | HB    | HOSE BIBB                   | PS       | PRESSURE SWITCH             | XFMR        | TRANSFORMER                  |
| DB    | DRY BULB                           | HD    | HEAD (SEE SCHEDULES)        | PSI      | POUNDS PER SQUARE INCH      |             |                              |
| DEPT  | DEPARTMENT                         |       |                             |          |                             |             |                              |

Drawing No.

Project No.:2270481701

 Designer
 SB
 YYYY.MM.DD

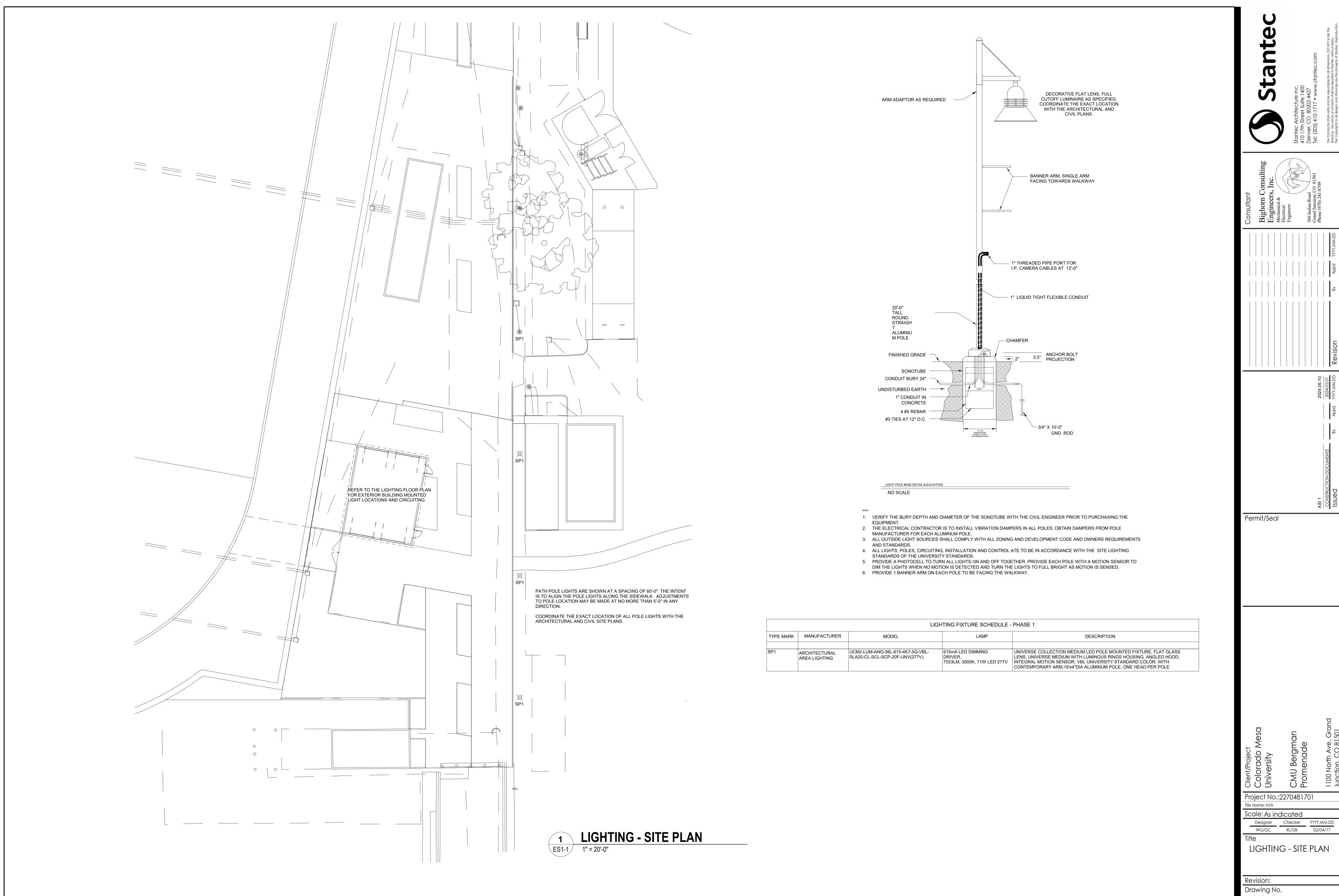
 WG/GC
 RL/DB
 04/29/20

ELECTRICAL COVER

Scale: 12" = 1'-0"

Permit/Seal

P



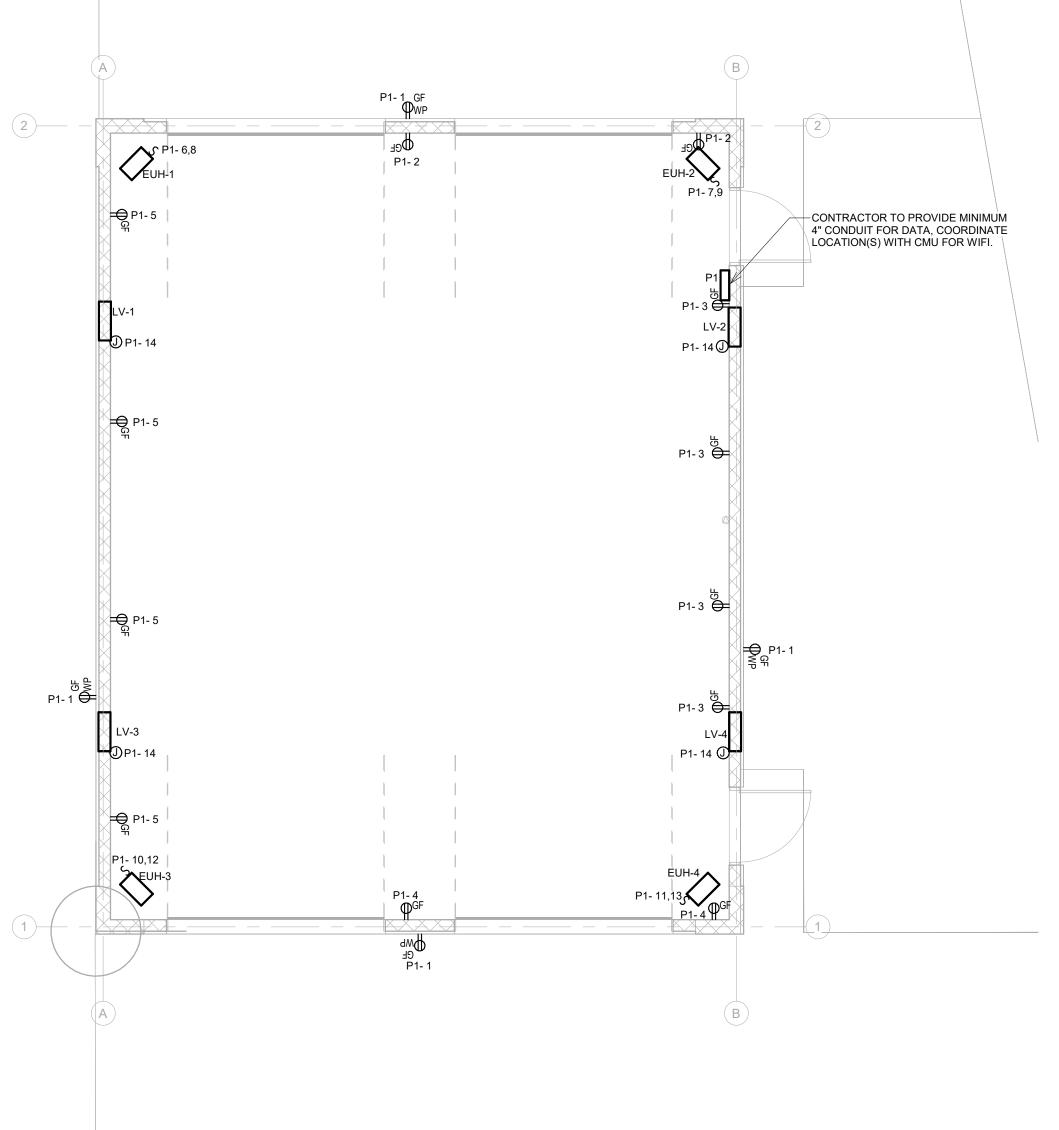
Permit/Seal Project No.:2270481701 Scale: As indicated

ORIGINAL SHEET - ARCH D

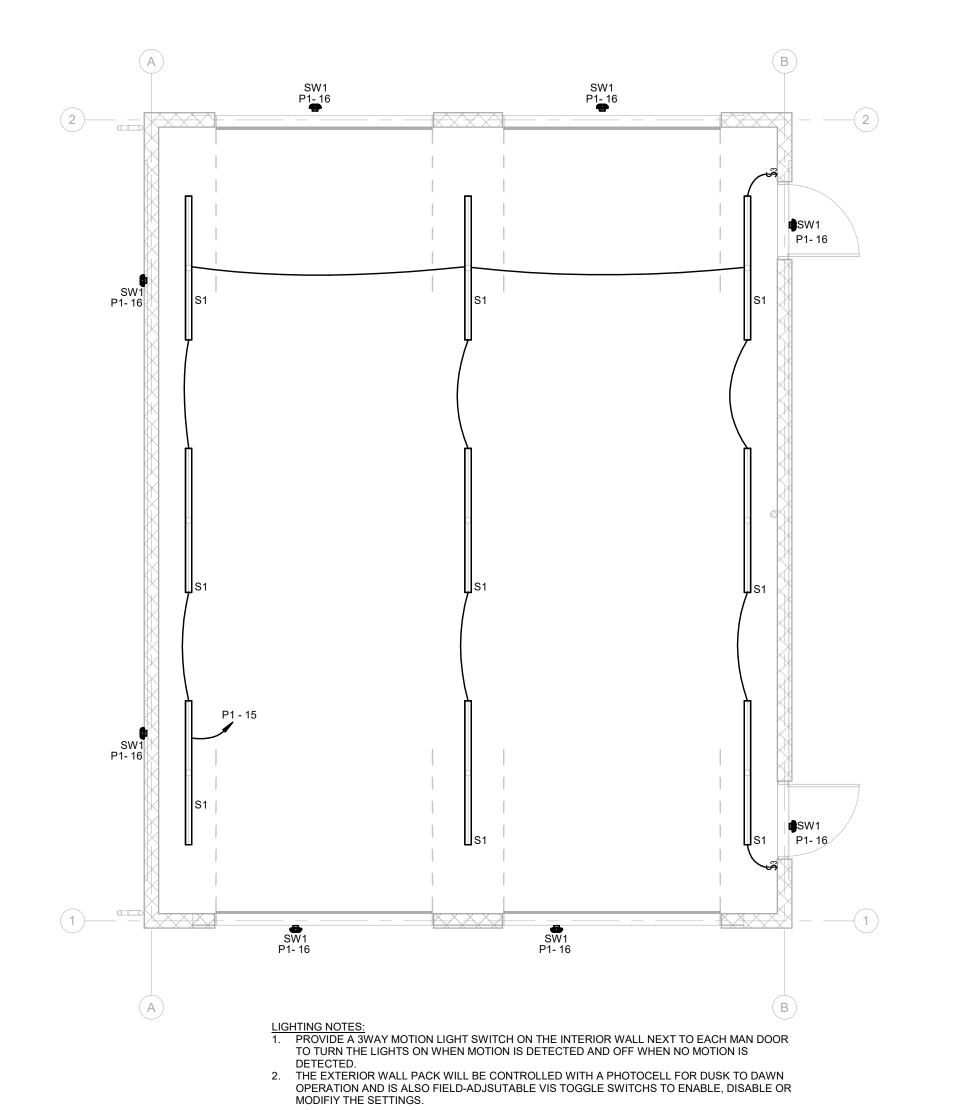
Scale: 3/16" = 1'-0" Designer Checker YYYY.MM.DD
WG/GC RL/DB 04/04/18

ELECTRICAL / LIGHTING - FLOOR PLANS

Drawing No. **E2-1** 

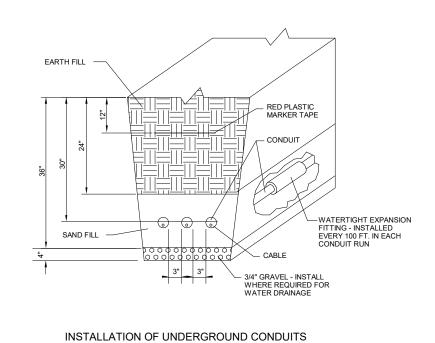


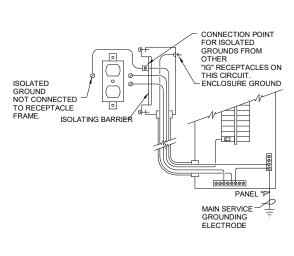
1 ELECTRICAL - FLOOR PLAN
E2-1 3/16" = 1'-0"



4 LIGHTING - PLAN
E2-1 3/16" = 1'-0"

ORIGINAL SHEET - ARCH D



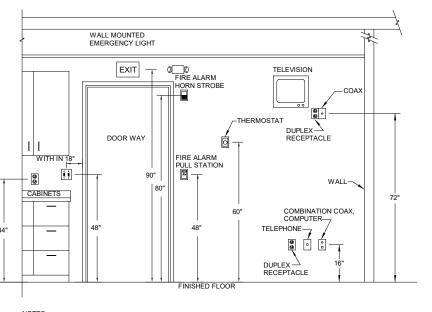


ISOLATED GROUND RECEPTACLE NOT TO SCALE:

NOTES:

1. SEE ONE LINE DIAGRAM FOR GROUNDING CONDUCTOR SIZES REQUIRED.

2. PROVIDE A MINIMUM OF TWO SEPARATE GROUND SOURCES, U.O.N. ON ONE LINE DIAGRAM.

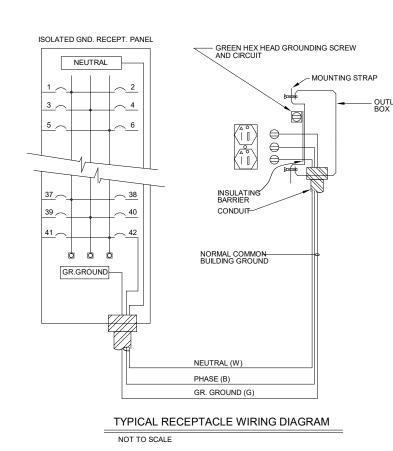


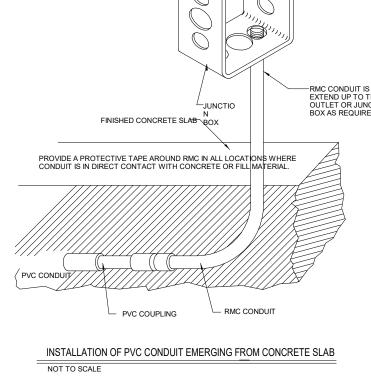
NOTES:

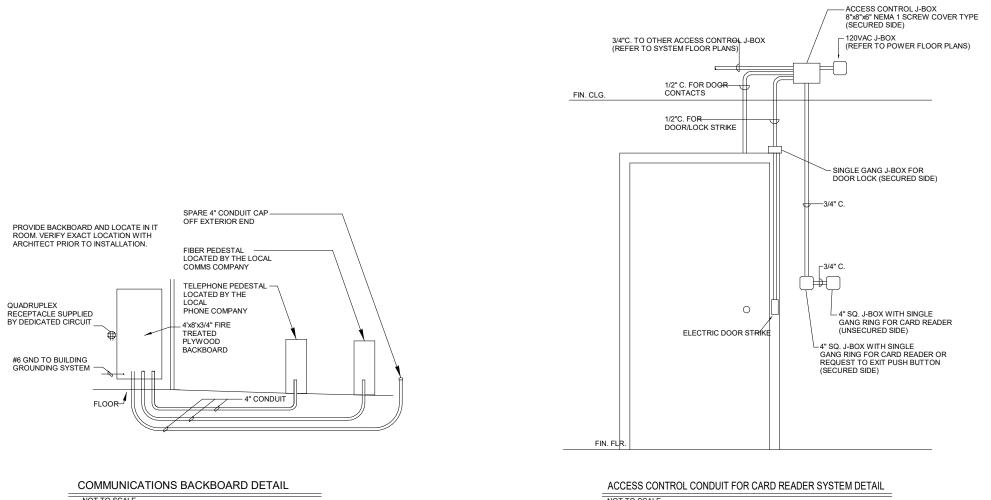
1. THE ELECTRICAL CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL TELEVISION OUTLETS WITH THE ARCHITECT PRIOR TO INSTALLATION.

2. ALL DEVICES SHOWN ON THIS DETAIL ARE FOR REFERENCES OF MOUNTING HEIGHTS ONLY. THE ELECTRICAL CONTRACTOR SHALL FIELD ADJUST THE HEIGHTS OF THE DEVICES AS REQUIRED FOR PROPER MOUNTING OF THE DEVICES.

3. ALL DEVICES REQUIRED FOR THIS PROJECT MAY NOT APPEAR ON THIS DETAIL. ALL ITEMS SHOWN ON THIS DETAIL MAY NOT BE REQUIRED FOR THIS PROJECT. DEVICE MOUNTING HEIGHT







NOTES:

1. PROVIDE A #6 AWG GROUND WIRE AT THE BACKBOARD TIED TO THE COMMON POWER GROUND PER NEC ART. #250

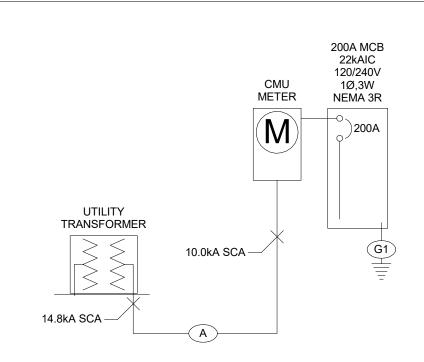
1. PROVIDE A #6 AWG GROUND WIRE AT THE BACKBOARD TIED TO THE COMMON POWER GROUND PER NEC ART. #250

1. COMMON POWER GROUND WIRE AT THE BACKBOARD TIED TO THE COMMON POWER GROUND PER NEC ART. #250

2. PROVIDE SWEEPS OR FIELD BENDS FOR ALL UNDERGROUND CONDUIT DIRECTIONAL CHANGES.

|              |                  |            | LIGHTING FIXTURE S  | CHEDULE  |
|--------------|------------------|------------|---|--|
| TYPE<br>MARK | MANUFACTURER     | MODEL      | LAMP  | DESCRIPTION  |
| S1           | METALUX LIGHTING | 8ST2L80SC3 | SELECTABLE LED, 8679, 9255, 8912LM, 3500, 4000, 5000K, 0-10V DIMMING, 76W MAX       | 8' LONG SURFACE MOUNTED LED STRIP LIGHT, MOUNT TO THE BOTTOM OF THE STRUCTURE WITH THE BOTTOM OF THE FIXTURE PARALLEL TO THE FLOOR |
| SW1          | LUMARK           | ASWPLED1S  | 2000-4000LM,3000K- 4000K-5000K, 15-20-24-30W, 80CRI, 120V, SELECTABLE LUMEN AND CCT | LED EXTERIOR SURFACE WALL MOUNTED FIXTURE, DARK BRONZE FINISH  |

|                   | Branch Panel: P1  |                     |                 |          |                             |         |                     |           |      |  |    |
|-------------------|---|---------------------|-----------------|----------|-----------------------------|---------|---------------------|-----------|------|--|----|
|                   | Location: STORAGE 101 Supply From: Mounting: Surface Enclosure: |                     |                 |          | Volts:<br>Phases:<br>Wires: |         | Single              |           |      | A.I.C. Rating: Mains Type: Mains Rating: 225 A MCB Rating: |    |
| Notes:            |   |                     |                 |          |                             |         |                     |           |      |  |    |
| СКТ               | Circuit Description   | Trip                | Poles           |          | <b>A</b>                    |         | 3                   | Poles     | Trip | Circuit Description  | CH |
| 1                 | Outdoor Receptacle  | 20 A                | 1               | 720 VA   | T                           |         |                     | 1         | 20 A | Receptacle   | 2  |
| 3                 | Receptacle  | 20 A                | 1               | 0 .,.    | 000 171                     | 720 VA  | 360 VA              | 1         | 20 A | Receptacle   |    |
| 5                 | Receptacle  | 20 A                | 1               | 720 VA   | 1650 VA                     |         | 000 171             | 2         | 20 A | EUH-1  | (  |
| 7                 | EUH-2   | 20 A                | 2               | 720 171  | 1000 171                    |         | 1650 VA             |           |      |  | 8  |
| 9                 |   |                     |                 | 1650 VA  | 1650 VA                     |         | .555 771            | 2         | 20 A | EUH-3  | 1  |
| 11                | EUH-4   | 20 A                | 2               | 1000 171 | 1000 VA                     |         | 1650 VA             |           |      |  | 1  |
| 13                |   |                     |                 | 1650 VA  | 200 \/4                     | 1000 VA | 1000 VA             | 1         | 20 A | LOUVERS  | 1  |
| 15                | Interior Lighting   | 20 A                | 1               | 1000 VA  | 200 VA                      | 360 VA  | 240 \/ Δ            | 1         | 20 A | Exterior Lighting  | 1  |
| 17                |   | 2071                | •               |          |                             | 330 V/1 | 2.0 7/1             | '         |      |  | 1  |
| 19                |   |                     |                 |          |                             |         |                     |           |      |  | 2  |
| 21                |   |                     |                 |          |                             |         |                     |           |      |  | 2  |
| 23                |   |                     |                 |          |                             |         |                     |           |      |  | 2  |
| 25                |   |                     |                 |          |                             |         |                     |           |      |  | 2  |
| 27                |   |                     |                 |          |                             |         |                     |           |      |  | 2  |
| 29                |   |                     |                 |          |                             |         |                     |           |      |  | 3  |
| 31                |   |                     |                 |          |                             |         |                     |           |      |  | 3  |
| 33                |   |                     |                 |          |                             |         |                     |           |      |  | 3  |
| 35                |   |                     |                 |          |                             |         |                     |           |      |  | 3  |
| 37                |   |                     |                 |          |                             |         |                     |           |      |  | 3  |
| 39                |   |                     |                 |          |                             |         |                     |           |      |  | 4  |
| 41                |   |                     |                 |          |                             |         |                     |           |      |  | 4  |
|                   |   | To                  | ⊥<br>otal Load: | 8600     | L<br>O VA                   | 8263    | 3 VA                |           |      |  |    |
|                   |   |                     | tal Amps:       |          | 67 A                        |         | 36 A                | J         |      |  |    |
| ₋egend:           | :   |                     |                 |          |                             |         |                     |           |      |  |    |
|                   | assification  |                     | ted Load        | De       | emand Fa                    |         |                     | ed Demand | t    | Panel Totals   |    |
| HVAC<br>Heating   |   |                     | 0 VA            |          | 100.00%                     |         |                     | 00 VA     |      | Total Conn. Load: 16862 VA                                 |    |
| neaung<br>Recepta |   | 13200 VA<br>2880 VA |                 |          | 100.00%<br>100.00%          |         | 13200 VA<br>2880 VA |           |      | Total Est. Demand: 17008 VA                                |    |
| LIGHITN           |   |                     | 3 VA            |          | 125.00%                     |         |                     | 11 VA     |      | Total Conn.: 70.26 A                                       |    |
|                   |   |                     |                 |          |                             |         |                     |           |      | Total Est. Demand: 70.87 A                                 |    |
|                   |   |                     |                 |          |                             |         |                     |           |      |  |    |
| Notes:            |   |                     |                 | •        |                             |         |                     |           |      | <u>'</u>   |    |



# ONE-LINE DIAGRAM

### NOT TO SCALE

- 1. PROVIDE GROUNDING AND BONDING TO MEET THE 2023 NEC ARTICLE 250 REQUIREMENTS.
- 2. FAULT CURRENT CALCULATIONS BASED UPON AN ANTICIPATED 50kVA TRANSFORMER AT AN ESTIMATED DISTANCE OF 50FT FROM THE TRANSFORMER TO THE SERVICE DISTRIBUTION PANEL.
- PROVIDE LABELING TO MEET THE REQUIREMENTS OF NEC 110.21.
   ELECTRIC METER TO BE APPROVED BY CMU, SUGGESTED PRODUCT IS EGAUGE CORE. PROVIDE NETWORK CONNECTION FOR METER.

### WIRE SCHEDULE:

A 2 1/2"C - (3#250kCMIL(AL,XHHW))

(G1) #4AWG CU TO METAL WATER PIPES AND STRUCTURAL STEEL #4AWG CU TO 20' UNCOATED CONCRETE ENCASED ELECTRODE

FAULT CURRENT CALCULATIONS: F = LxIx2 NxCxE

L - LENGTH OF CABLE IN FEET I - AVAILABLE FAULT CURRENT N - NUMBER OF CONDUCTORS PER PHASE C - CONDUCTANCE CONSTANT - 250kCMIL ALUMINUM: 12,862

E - VOLTAGE LINE TO LINE F - INTERMEDIARY VALUE FOR COMPUTATION M = 1/(1+F)M - MULTIPLIER TO ACHIEVE AVAILABLE FAULT I(SC) = I(SC)\*M

RUN #1: SERVICE DISCONNECT TO HOUSE PANEL F = Lxlx2 = 50FT x 11,600 A x 2 = 0.376 NxCxE 1 x 12,862 x 240 V M = 1 = 1 = 0.7271+F 1+0.376

 $I(SC) = IxM = 11,600A \times 0.727 = 8,440 A$ 

Revision: Drawing No.

Permit/Seal

ORIGINAL SHEET - ARCH D

Project No.:2270481701

Designer Checker YYYY.MM.DD

WG/GC RL/DB 05/10/2024

ELECTRICAL DETAILS

Scale: As indicated