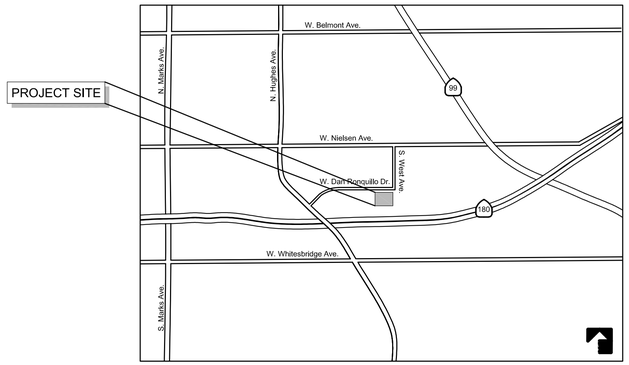

VICINITY MAP

FRESNO COUNTY ENVIRONMENTAL COMPLIANCE CENTER PHASE 3 - WAREHOUSE BUILDING

310 S. West Avenue
Fresno CA, 93706

PROJECT DATA:

PROJECT NAME:
FRESNO COUNTY ENVIRONMENTAL COMPLIANCE CENTER WAREHOUSE BUILDING

ADDRESS:
310 S. WEST AVENUE, FRESNO, CA. 93706

APN: 458-060-72

SITE AREA:2.68 ACRE
(SITE WORK IS SUBMITTED UNDER SEPARATE PERMIT)

WAREHOUSE BUILDING AREA: 2,400 S.F.
WAREHOUSE BUILDING OVERHANG AREA: 1,030 S.F.

TOTAL BUILDING AREA: 3,430 S.F.

TYPE OF CONSTRUCTION: V-B (SPRINKLERED)

OCCUPANCY GROUP: STORAGE (S1/S2)

ZONING: M-1 LIGHT MANUFACTURING DISTRICT

SCOPE OF WORK:

THE WORK CONSISTS OF CONSTRUCTION OF A NEW 2400 SQUARE FEET WAREHOUSE BUILDING, SITE WORK AND OTHER BUILDINGS ON THE SITE ARE SUBMITTED UNDER SEPARATE PERMIT.

STRUCTURES UNDER SEPARATE PERMIT:

THE FOLLOWING STRUCTURES ARE SUBMITTED TO COUNTY OF FRESNO FOR APPROVAL AND ISSUANCE OF A SEPARATE PERMIT:

1. PHASE 1: SITE AND SHADE STRUCTURE
2. PHASE 2: OFFICE / STORAGE BUILDING

DEFERRED APPROVAL:

1. PREFABRICATED METAL BUILDING: CONTRACTOR TO SUBMIT PLANS TO AND OBTAIN PERMIT FROM FRESNO COUNTY. PLANS TO INCLUDE ENGINEERING CALCULATIONS, ERECTION DRAWINGS AND ANCHOR BOLT PLACEMENT DIMENSIONS AND OTHER ITEMS REQUIRED FOR PERMIT. CONTRACTOR SHALL SUBMIT THE PLANS TO ARCHITECT FOR APPROVAL PRIOR TO SUBMITTING TO FRESNO COUNTY. SEE SPECIFICATIONS.
2. FIRE SPRINKLERS: CONTRACTOR TO SUBMIT PLANS TO AND OBTAIN PERMIT FROM FRESNO COUNTY PRIOR TO INSTALLATION OF THE FIRE SPRINKLERS. LAYOUT AND DETAIL OF THE FIRE SPRINKLER SHALL BE REVIEWED AND APPROVED BY THE ARCHITECT AND "FRESNO FIRE DEPARTMENT (FFD) PRIOR TO SUBMITTING THE PLANS TO FRESNO COUNTY. THE FIRE SPRINKLER SYSTEM SHALL BE INSTALLED BY A LICENSED FIRE SPRINKLER CONTRACTOR AND SHALL BE INSPECTED AND APPROVED BY THE APPROPRIATE FIRE MARSHALL PRIOR TO APPROVAL OF OCCUPANCY OF THE BUILDING. SEE SPECIFICATIONS.
3. FIRE ALARMS: CONTRACTOR SHALL SUBMIT PLANS TO AND OBTAIN PERMIT FROM FRESNO COUNTY AND FRESNO FIRE DEPARTMENT FOR THE INSTALLATION OF FIRE ALARM SYSTEM. SEE SPECIFICATIONS. GENERAL CONTRACTOR SHALL COORDINATE FIRE ALARM SYSTEM INTERFACES BETWEEN FIRE ALARM CONTRACTOR, SPRINKLER CONTRACTOR, MECHANICAL CONTRACTOR AND ANY OTHER PERTINENT TRACES (FIRE ALARM, SPRINKLER SYSTEM, HOOD AND VENT EXTINGUISHING SYSTEM, HVAC, FIRE SMOKE DAMPERS, ETC.) ALL WORK MUST REMAIN VISIBLE AND MAY NOT BE COVERED UNTIL REQUIRED FIRE INSPECTIONS HAVE BEEN COMPLETED BY THE FIRE DEPARTMENT.

GENERAL NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE TO STRICTLY COMPLY WITH DIMENSIONS ON THE DRAWINGS RELATING TO ACCESSIBILITY ELEMENTS. DIMENSIONS THAT DO NOT SPECIFY "MINIMUM" (MIN) OR "MAXIMUM" (MAX) TOLERANCES SHALL BE CONSIDERED AS "ABSOLUTE". MINIMUM AND MAXIMUM DIMENSIONS SHALL BE CONSIDERED THE ABSOLUTE TOLERANCE LIMITS. ACCESSIBILITY ELEMENTS INSTALLED THAT DO NOT COMPLY WITH DIMENSIONAL CONSTRAINTS SHALL BE REMOVED AND REINSTALLED WITH NO ADDITIONAL COST TO THE COUNTY OF FRESNO.
2. CHANGES FROM THE APPROVED PLANS DURING THE COURSE OF CONSTRUCTION SHALL CAUSE CONSTRUCTION SPECIFIC TO THE AREA OF CHANGE TO BE SUSPENDED UNTIL SUCH TIME AS THE PLANS CAN BE AMENDED BY THE ARCHITECT AND SUBMITTED TO THE COUNTY FOR REVIEW AND APPROVAL [CBC 107].
3. THE CONTRACTOR SHALL PROVIDE (1) ONE N.F.P.A. CLASS 2A-10BC FIRE EXTINGUISHER AT THE JOB SITE DURING CONSTRUCTION.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE WORK SITE IN A SECURED CONDITION.
5. CFC CHAPTER 33, FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION AND CBC CHAPTER 33, SAFEGUARDS DURING CONSTRUCTION SHALL BE STRICTLY FOLLOWED.
6. THE APPROVAL OF THESE PLANS AND SPECIFICATIONS DOES NOT PERMIT THE VIOLATION OF ANY SECTION OF THE BUILDING CODE, MUNICIPAL ORDINANCES, OR STATE LAWS.
7. THESE APPROVED PLANS AND RELATED DOCUMENTS MUST BE AVAILABLE AT THE JOB SITE DURING ANY INSPECTION ACTIVITY.
8. SOILS AND SPECIAL CONCRETE TESTING SHALL BE CONDUCTED BY THE FRESNO COUNTY MATERIALS AND TESTING LABORATORY.
9. STEEL FABRICATION SPECIAL INSPECTION SHALL BE CONDUCTED BY KRAZAN AND ASSOCIATES, 215 WEST DAKOTA AVENUE CLOVIS, CA 93612 (559-348 2200)
10. CONTRACTOR SHALL PROVIDE A CHEMICAL TOILET ON SITE DURING CONSTRUCTION.

FRESNO FIRE DEPARTMENT NOTES:

1. SUBMIT PLANS TO AND OBTAIN PERMIT FROM THE FIRE PREVENTION DIVISION FOR THE INSTALLATION OR MODIFICATION OF FIRE SPRINKLER SYSTEM. INSTALLATIONS MUST ALSO COMPLY WITH FFD POLICY SECTION 405. FFD POLICIES CAN BE FOUND ON THE FIRE DEPARTMENT WEBPAGE UNDER FIRE PREVENTION & INVESTIGATION, FIRE DEPARTMENT POLICIES.
2. SUBMIT PLANS TO AND OBTAIN PERMIT FROM THE FIRE PREVENTION DIVISION FOR THE INSTALLATION OR MODIFICATION OF FIRE ALARM SYSTEM. SEE FFD POLICY 401.012.
3. THE GENERAL CONTRACTOR SHALL COORDINATE THE FIRE ALARM SYSTEM INTERFACES BETWEEN THE FIRE ALARM CONTRACTOR, SPRINKLER CONTRACTOR, MECHANICAL CONTRACTOR AND ANY OTHER PERTINENT TRADES (FIRE ALARM, SPRINKLER SYSTEM, HOOD AND VENT EXTINGUISHING SYSTEM, HVAC, FIRE SMOKE DAMPERS, ETC.). ALL WORK MUST REMAIN VISIBLE AND MAY NOT BE COVERED UNTIL THE REQUIRED FIRE INSPECTIONS HAVE BEEN COMPLETED BY THE FIRE DEPARTMENT.
4. EMERGENCY ALARM SYSTEM INTERCONNECTION REQUIREMENTS: WHERE AN EMERGENCY ALARM SYSTEM IS REQUIRED BY THIS SECTION AND A BUILDING FIRE ALARM IS INSTALLED, THE EMERGENCY ALARM SYSTEM SHALL BE INTERCONNECTED WITH AND SUPERVISED BY THE BUILDING FIRE ALARM SYSTEM. FMC 10-50908.4 AND NFPA SECTIONS 10.7 AND 10.10. IF APPLICABLE.
5. ALL WEATHER ACCESS ROADS SHALL BE INSTALLED AND MAINTAINED IN A SERVICEABLE CONDITION PRIOR TO AND DURING CONSTRUCTION. (FFD DEVELOPMENT POLICY 403.002)
6. ADDRESS IDENTIFICATION. FOR NEW AND EXISTING BUILDINGS, THE FIRE CODE OFFICIAL IS AUTHORIZED TO REQUIRE APPROVED ADDRESS OR BUILDING IDENTIFICATION SIGNAGE AS NEEDED TO READILY DETERMINE THE BUILDING OR AREA OF A BUILDING PROTECTED BY FIRE DEPARTMENT CONNECTIONS. FMC SECTION 10-50912.2.3.

CODE CITATIONS:

THE LATEST ADOPTED ADDITIONS OF THE CODES, STANDARDS AND REGULATIONS REQUIRED BY THE LOCAL JURISDICTION SHALL GOVERN ALL WORK IN THESE CONSTRUCTION DOCUMENTS INDICATED BY THE FOLLOWING.

APPLICABLE STATE CODES:

TITLE 19 CCR, PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS
TITLE 24 CCR, PART 1 - 2019 BUILDING STANDARDS ADMINISTRATIVE CODE
TITLE 24 CCR, PART 2 - 2019 CALIFORNIA BUILDING CODE (CBC)
TITLE 24 CCR, PART 3 - 2019 CALIFORNIA ELECTRICAL CODE (CEC)
TITLE 24 CCR, PART 4 - 2019 CALIFORNIA MECHANICAL CODE (CMC)
TITLE 24 CCR, PART 5 - 2019 CALIFORNIA PLUMBING CODE (CPC)
TITLE 24 CCR, PART 6 - 2019 CALIFORNIA ENERGY CODE
TITLE 24 CCR, PART 9 - 2019 CALIFORNIA FIRE CODE (CFC)
TITLE 24 CCR, PART 11 - 2019 CALIFORNIA GREEN BUILDING STANDARDS
TITLE 24 CCR, PART 12- 2019 CALIFORNIA REFERENCED STANDARDS

APPLICABLE CODE OF ORDINANCE:

COUNTY OF FRESNO ORDINANCE TITLE 15

APPLICABLE REFERENCE STANDARDS:

2019 NFPA 13, AUTOMATIC SPRINKLER SYSTEMS (CA AMENDED)
2019 NFPA 72, NATIONAL FIRE ALARM CODE (CA AMENDED);
SEE UL STD. 1971 FOR "VISUAL DEVICES"

SHEET INDEX:

CONTRACT DOCUMENTS:

ARCHITECT OF RECORD:

TIANA L. PEREZ, ARCHITECT

CALIFORNIA LICENSED ARCHITECT NO. C-38000
REN. 01-31-23
FRESNO COUNTY DEPARTMENT OF
PUBLIC WORKS & PLANNING
DEVELOPMENT SERVICES AND
CAPITAL PROJECTS DIVISION
2220 TULARE STREET, EIGHTH FLOOR
FRESNO, CALIFORNIA 93721
OFFICE: (559) 600-4536
E-MAIL: TPEREZ@FRESNOCOUNTY.GOV

CONSULTANTS:

CIVIL / LANDSCAPE
ENGINEER OF RECORD:

LARS ANDERSEN & ASSOCIATES, INC.
DANIEL ZOLDAK
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4694 W. JACQUELYN AVE.
FRESNO CA, 93722
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E-MAIL: LAINFO@LARSANDERSEN.COM

STRUCTURAL
ENGINEER OF RECORD:

SSG STRUCTURAL ENGINEERS, LLP
MICHAEL PAROLINI
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8405 NORTH FRESNO STREET, SUITE 120
FRESNO CA, 93720
OFFICE: 559-434-2120
E-MAIL: MICHAEL.PAROLINI@SSGSE.COM

MECHANICAL / PLUMBING
ENGINEER OF RECORD:

LAWRENCE ENGINEERING GROUP
MICHAEL CANTELMI
LIC.# M23588
7084 NORTH MAPLE AVENUE, SUITE 101
FRESNO CA, 93720
OFFICE: 559-431-0101
E-MAIL: MIKE@LEGFRESNO.COM

ELECTRICAL
ENGINEER OF RECORD:

HARDIN DAVIDSON ENGINEERING
SCOTT DAVIDSON
LIC.# E17850
356 POLLASKY AVENUE SUITE 200
CLOVIS CA, 93612
OFFICE: 559-323-4995
E-MAIL: SD@HARDIN-DAVIDSON.COM

ARCHITECTURAL CONSULTANT:

DYSON & JANZEN ARCHITECTS
1245 N. WISHON AVE. SUITE 101
FRESNO CA, 93728
OFFICE: 559-441-6310
E-MAIL: ADYSON@DYSONJANZEN.COM

The Information on this Drawing Is acceptable and shall define the Scope of Work to develop this Project. Any significant changes to the Scope of Work shall be approved by the Client Department.

Submitted by: _____
Title: _____
Date: _____

Accepted by: _____
Title: _____
Date: _____

ARCHITECT:
Tiana L. Perez, Architect
California Licensed Architect No. C-38000
Ren. 01-31-23
Fresno County Department of
Public Works & Planning
Development Services and
Capital Projects Division
2220 Tulare Street, Eighth Floor
Fresno, California 93721

Office: (559) 600-4536
E-mail: tperez@fresnocountyca.gov

Project:
Fresno County
Environmental Compliance Center
Phase 3: Warehouse Building

Project Address: 310 S. West Avenue, Fresno CA 93706
APN: 458-060-72

Issue Date:
Project No. T90203
File Path: G:Capital \ Projects \ Building Numbers \ American Ave Landfill \ T90203 Environmental Compliance Center\ 00 2018 ECC

Sheet Content:
Cover Sheet

Fresno County Department of Public Works and Planning
Capital Projects

2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.
G0.0

RONQUILLO DRIVE

EXISTING FIRE HYDRANT

6'-0" HIGH WROUGHT IRON FENCE.. TYPICAL AT LOCATIONS FACING PUBLIC STREET

EXISTING CURB AND GUTTER WITH NEW 8'-0" WIDE SIDEWALK

NEW STREET LIGHT

DROUGHT RESISTANT LANDSCAPING AND IRRIGATION SYSTEM

12 FOOT VISIBILITY TRIANGLE AT ALL DRIVEWAY APPROACHES TO BE MEASURED FROM BACK OF WALK, TYPICAL.

MARQUEE MONUMENT SIGN

MANUAL ROLLING GATE WITH CITY OF FRESNO FIRE PADLOCK MODEL 21BT00 SERIES, TYPICAL OF 2. GATE TO REMAIN OPEN DURING BUSINESS HOURS

XERISCAPED AREA WITH BIOSWALE

ONE WAY TRAFFIC

FUTURE 10' X 60' BUS STOP

PHASE 1 Sitework

FUTURE BUS STOP SIGN

Future Education Center Parking

Future Education Center.

ASPHALT PAVING

CONCRETE PAVING

CONCRETE WALK

PHASE 3 Warehouse Construction Type: VB-S Occupancy: S1 / S2 Area: 2400 S.F.

(2) 30"x48" SPACE FOR SAFE DISPERSAL AREA PER CBC 1028.5

SAFE DISPERSAL AREA AREA REQUIRED: 40 S.F. AREA PROVIDED: 200 S.F.

EXISTING ADA CURB RAMP

EXISTING CURB AND GUTTER

PHASE 3 SCOPE OF WORK

WROUGHT IRON FENCE

DROUGHT RESISTANT LANDSCAPING AND IRRIGATION SYSTEM

EXISTING STORM DRAIN

EXISTING STREET LIGHT

SOUTH WEST AVE.

EXISTING FIRE HYDRANT

EXISTING 6'-0" HIGH MASONRY WALL

WROUGHT IRON FENCE, PRIVACY SCREEN AT DROP OFF LOCATION

6'-0" HIGH CHAIN-LINK FENCE

6'-0" HIGH CHAIN-LINK FENCE WITH PRIVACY SLATS

22' CLEAR OPENING CHAIN-LINK GATE EQUIPPED WITH CITY OF FRESNO FIRE PADLOCK, MODEL 21BT00 SERIES (TYPICAL OF 2)

1500 GALLON POLY-VINYL UNDERGROUND LIQUID RECOVERY TANK

PROPERTY LINE

Adjacent Vacant Property

City of Fresno Pump Station

Exterior Storage

Seatrain Storage Container

HMSC

PHASE 1 Shade Structure

Construction Type: VB Occupancy: U Covered Area: 3,152 S.F.

ROOF OVERHANG

One-Way Customer Entrance Drive

TRAFFIC CONTROL GATE

One-way Customer Vehicle Exit Drive

FIRE HYDRANT

Used Oil Storage

EMERGENCY EYE-WASH SHOWER

Antifreeze Tank Storage Unit

Harvest Container Reuse Center

MSB

PHASE 2 Office / Storage Construction Type VB-S Occupancy: S/ S1 Area: 612 S.F.

ACCESSIBLE PARKING SIGN

P.O.T.

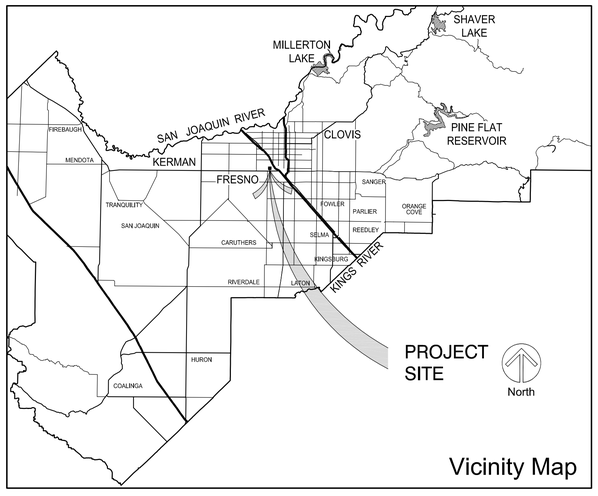
P.G.E.

EB

(SL)

LEGEND:

- (SL) SITE LIGHTING
- HMSC HAZMAT STORAGE CONTAINER
- R.O.W. RIGHT-OF-WAY
- ASPHALT PAVING
- CONCRETE PAVING
- CONCRETE SIDEWALK
- WOOD WALK ON BARK
- TIRE DERIVED RUBBER NUGGETS
- EB ELECTRICAL POWER BOLLARD
- P.O.T. PATH OF TRAVEL



Vicinity Map

THIS SITE PLAN IS FOR REFERENCE ONLY. SITE PLAN IS SUBMITTED FOR APPROVAL UNDER PHASE 1. PHASE 1 & PHASE 2 ARE SUBMITTED FOR APPROVAL UNDER SEPARATE PERMITS.

FRESNO FIRE NOTES:

- TURNS IN PRIVATE DRIVES FOR FIRE APPARATUS ACCESS SHALL HAVE MINIMUM 44'-0" CENTERLINE TURN RADIUS.
- EMERGENCY VEHICLES ACCESS SHALL BE DESIGNATED BY PAINTING THE CURB RED (TOP AND SIDE) AND STENCILING FIRE LANE NO PARKING" IN 3 INCHES WHITE LETTERS ON THE MOST VERTICAL CURB, AT LEAST EVERY 50 FEET. IF NO CURB IS PRESENT, A MINIMUM 6 INCHES WIDE RED STRIPE SHALL BE PAINTED ALONG THE EDGE OF THE ROADWAY WITH "FIRE LANE" IN 3 INCHES WHITE LETTERS AT LEAST EVERY 50 FEET. (FFD DEVELOPMENT POLICY 403.005)
- PROVIDE APPROVED POLICE/ FIRE BY PASS ("BEST" PADLOCK MODEL 21BT00 SERIES OR ELECTRIC CYLINDER SWITCH MODEL IWTB2) ON DRIVE ACCESS GATES. ALL ELECTRIFIED SHALL BE EQUIPPED WITH BEST ELECTRIC CYLINDER LOCK IWTB2. A KNOX PADLOCK MAY NOT BE USED IN PLACE OF THE BEST PADLOCK MODEL 21BT00. THESE LOCKS CAN BE PURCHASED ONLY THROUGH SIERRA LOCK AND GLASS, 1560 N. PALM AVENUE, FRESNO CA 93728.
- PROVIDE SIGN(S) 17"X22" MINIMUM AT ALL PUBLIC ENTRANCE DRIVES TO THE PROPERTY WHICH STATE "WARNING - VEHICLES STOPPED, PARKED OR LEFT STANDING IN FIRE LANES WILL BE IMMEDIATELY REMOVED AT OWNER'S EXPENSE - 22658(A) CALIFORNIA VEHICLE CODE - FRESNO POLICE DEPARTMENT 621- 2300."
- FIRE HYDRANTS AND ACCESS ROADS SHALL BE INSTALLED, TESTED AND APPROVED AND SHALL BE MOUNTED SERVICEABLE PRIOR TO AND DURING ALL PHASES OF DEVELOPMENT THE 4 1/2 INCH OUTLET SHALL FACE THE ACCESS LANE.
- THE PROPOSED ON SITE HYDRANTS SHALL BE EQUIPPED WITH AN 8 INCH MAIN AND A FIRE FLOW OF 1500 GPM.

LICENSED ARCHITECT TIANA L. PEREZ C-38000 REN: 01-31-23 STATE OF CALIFORNIA

ARCHITECT:
Tiana L. Perez, Architect
California Licensed Architect No. C-38000
Ren. 01-31-23
Fresno County Department of Public Works & Planning
Development Services and Capital Projects Division
2220 Tulare Street, Eighth Floor
Fresno, California 93721

Office: (559) 600-4536
E-mail: tperez@fresnocountyca.gov

Project:
Fresno County
Environmental Compliance Center
Phase 3: Warehouse Building

Project Address: 310 S. West Avenue, Fresno CA 93706
APN: 458-060-72

Issue Date:
Project No. T90203
File Path: G:\Capital \ Projects \ Building Numbers \ American Ave Landfill \ T90203 Environmental Compliance Center\ 00 2018 ECC

Sheet Content:

Overall Site plan

Fresno County Department of Public Works and Planning
Capital Projects

2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

A1.1

A1 Overall Site Plan
Scale: 1"=20'

Drawn by: MR (DJA)

Plotted on: 05.10.2021

THIS SITE PLAN IS FOR REFERENCE ONLY. SITE PLAN IS SUBMITTED FOR APPROVAL UNDER PHASE 1. PHASE 1 & PHASE 2 ARE SUBMITTED FOR APPROVAL UNDER SEPARATE PERMITS.

PHASE 3
Warehouse
Construction Type: VB-S
Occupancy: S-1/ S-2
Area: 2400 S.F.

PHASE 3 SCOPE OF WORK

PROPERTY LINE

PHASE 1
Site and Landscape

Seatrain Storage Container

HMSC

NOT THIS SCOPE

Shade Structure
Construction Type: VB
Occupancy: U
Covered Area: 3,152 S.F.

Emergency Eye Wash

Used Oil Storage

Antifreeze Tank Storage Unit

TIRE DERIVED RUBBER NUGGETS

WOOD WALK ON BARK

(2) 30"x48" SPACE FOR SAFE DISPERSAL AREA PER CBC 1026.5

Hazmat Container Reuse Center

M.S.B.

ACCESSIBLE PARKING SIGN

VAN

P.O.T.

PHASE 2
Office/Storage Building
Construction Type: VB-S
Occupancy: B / S1
Area: 612 S.F.
NOT THIS SCOPE

P.G.E.

STOP HERE

PROPERTY LINE

North

GENERAL NOTES:

1. SWING GATES AT BOTH ENTRY AND EXIT GATE LOCATIONS SHALL BE EQUIPPED WITH A CITY OF FRESNO FIRE DEPARTMENT LOCK.
2. THERE SHALL BE NO VERTICAL OFFSET GREATER THAN 1/2" ALONG THE ENTIRE PATH OF TRAVEL FROM THE PUBLIC WAY/ACCESSIBLE PARKING STALL INTO THE OFFICE BUILDING OR TOILET BUILDING.
3. ENTIRE SURFACE BETWEEN CONCRETE SLAB AND FENCE SHALL BE 2" MINIMUM GRAVEL (CLASS II AGGREGATE) OVER 10 MIL BLACK VISQUEEN. VISQUEEN SHALL BE LAPPED A MINIMUM OF 36" INCHES AT SEAMS. VISQUEEN SHALL BE LAID OVER MACHINE COMPACTED SOIL FOLLOWING GRADES SHOWN ON CIVIL DRAWINGS. VISQUEEN SHALL NOT BE VISIBLE ONCE GRAVEL HAS BEEN PLACED. COMPACTION TESTING WILL NOT BE REQUIRED.
5. NO HAZARDOUS MATERIALS TO BE STORED OR USED IN THE BUILDINGS.
6. THIS PERMIT DOES NOT INCLUDE ANY HIGH-STORAGE (PER CFC) OR RACK STORAGE OVER 8 FEET IN HEIGHT. ANY SUCH PROPOSED STORAGE WILL REQUIRE SUBMITTAL OF PLANS AND APPLICATION FOR PERMIT(S). 2018 CFC, CHAPTER 32.

LEGEND:

- (SL) — SITE LIGHTING
- HMSC — HAZMAT STORAGE CONTAINER
- R.O.W. — RIGHT-OF-WAY
- ASPHALT PAVING
- CONCRETE PAVING
- WOOD WALK ON BARK
- TIRE DERIVED RUBBER NUGGETS
- EB — ELECTRICAL POWER BOLLARD
- P.O.T. — PATH OF TRAVEL

LICENSED ARCHITECT TIANA L. PEREZ C-38000 REN: 01-31-23 STATE OF CALIFORNIA

ARCHITECT:
Tiana L. Perez, Architect
California Licensed Architect No. C-38000
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Sheet Content:

Enlarged Site plan

Fresno County Department of Public Works and Planning
Capital Projects

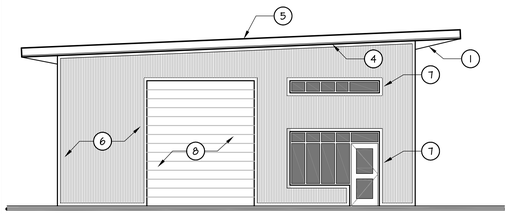
2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

A1.2

A1 Enlarged Site Plan
Scale: 1"=10'-0"

Drawn by: MR (DJA)
Plotted on: 05.10.2021



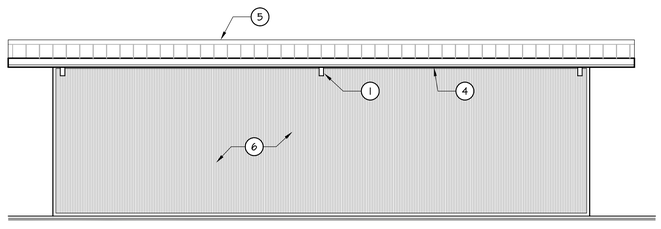
J1 North Elevation
Scale:1/8" = 1'-0"

ELEVATION KEYNOTES

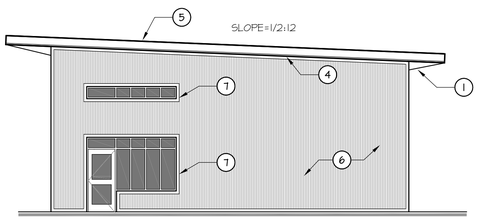
(X)

1. PREFABRICATED STEEL BUILDING RIGID FRAME.
2. ZEE PURLINS PER PREFABRICATED STEEL BUILDING.
3. EAVE STRUT PER PREFABRICATED STEEL BUILDING.
4. FASCIA PURLIN PER PREFABRICATED STEEL BUILDING.
5. 4" INSULATED METAL PANEL ROOF.
6. 2" INSULATED METAL PANEL WALL.
7. ALUMINUM WINDOW / DOOR ASSEMBLY.
8. STEEL ROLL UP DOOR.

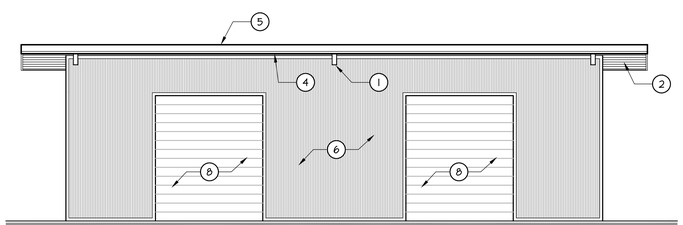
J6 KEYNOTES
Scale: 1/8"=1'-0"



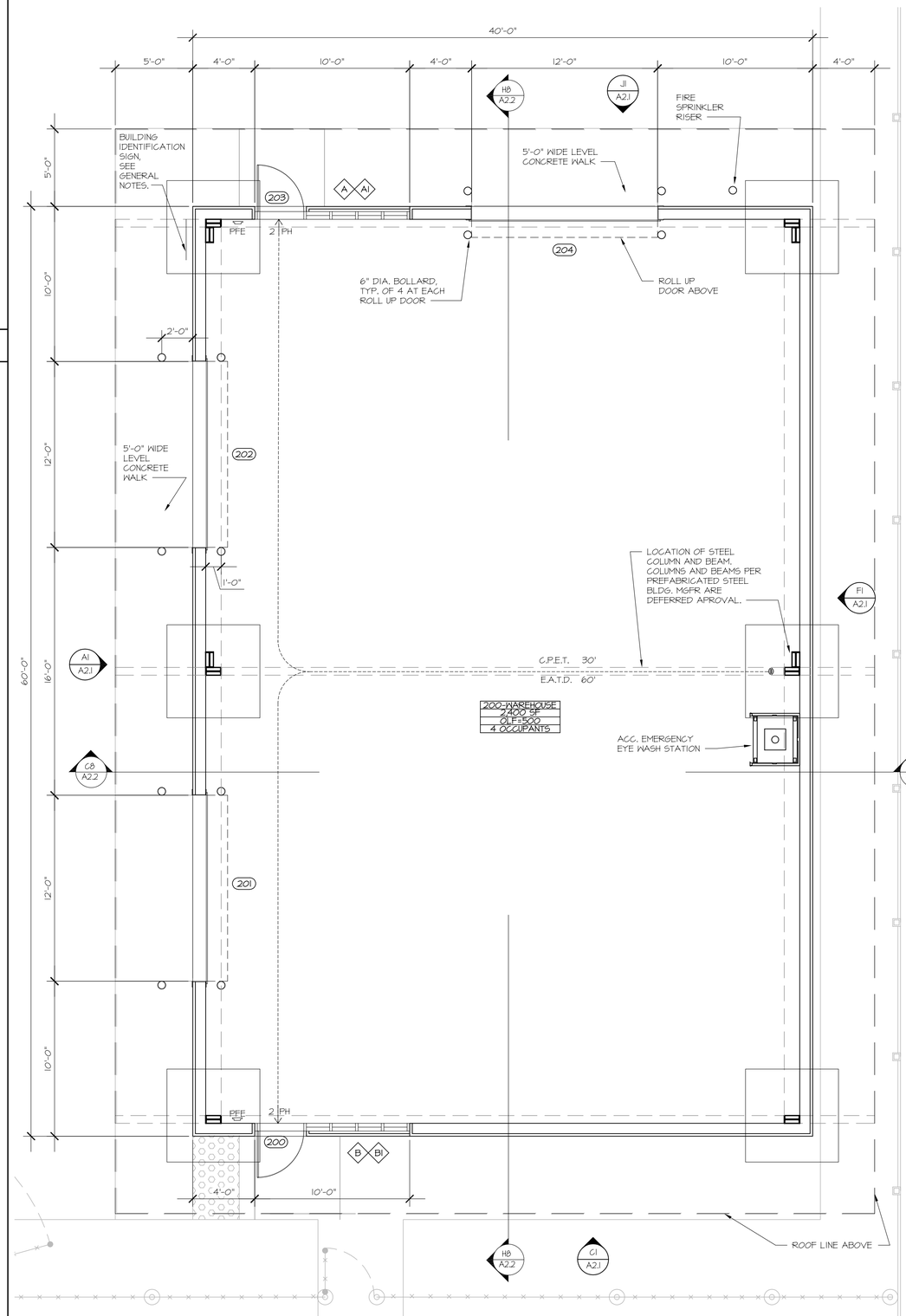
F1 East Elevation
Scale:1/8" = 1'-0"



C1 South Elevation
Scale:1/8" = 1'-0"



A1 West Elevation
Scale: 1/8"=1'-0"



A8 Warehouse - Floor Plan
Scale: 1/4" = 1'-0"

EGRESS CALCULATIONS

GROSS FLOOR AREA 2,400 S.F.
OCCUPANCY GROUP: (S1/S2) STORAGE
TYPE V-B CONSTRUCTION / SPRINKLERED

OCCUPANCY

FLOOR AREA (ENCLOSED)	2,400	S.F.
ROOF OVERHANG (UNOCCUPIED)	1,377	S.F.
BUILDING TOTALS	3,777	S.F.
OCCUPANCY	VB-S	
BUILDING PERIMETER	200'	
ACTUAL # OF STORIES (HEIGHT)	1 (22')	
AUTOMATIC FIRE SPRINKLER	YES	
ALLOWABLE TOTAL BUILDING AREA	22,000 S.F.	

AREA AND OCCUPANT LOAD TABLE

PRIMARY USE	SQ. FOOTAGE	FACTOR	OCC. LOAD
WAREHOUSE	2,400 S.F.	500 (N)	4
	TOTAL OCC. LOAD		4

EGRESS DOOR CALC'S

EXIT 1 REQUIRED OPENING	5 X 0.2 = 0.2"
PROVIDED OPENING	36"
EXIT 2 REQUIRED OPENING	5 X 0.2 = 2"
PROVIDED OPENING	36"

EGRESS LEGEND

- ←## PH — DENOTES OCCUPANT LOAD THROUGH DOOR/ EXIT OR CUMULATIVE OCCUPANT LOAD ALONG COMMON PATH OF TRAVEL. PANIC HARDWARE (PH) WHERE INDICATED
- ◊PFE — DENOTES PORTABLE FIRE EXTINGUISHER AT 48" MAX. A.F.F. TO TOP OF EXTINGUISHER (4" MAX. PROJECTION) WITH 75-FOOT MAX. TRAVEL DISTANCE
- ◊FA — FIRE ALARM
- ◊ — MOST REMOTE LOCATION
- C.P.E.T.D. — COMMON PATH OF EGRESS TRAVEL DISTANCE
- E.A.T.D. — EXIT ACCESS TRAVEL DISTANCE

FLOOR PLAN GENERAL NOTES

A. PROVIDE MINIMUM 2A:10B:C PORTABLE FIRE EXTINGUISHER WHERE NOTED.

B. BUILDING IDENTIFICATION SIGN TO BE 18"x24" 2MM THICK ALUMINUM WITH MOUNTING SCREWS FACTORY PAINTED FOR EXTERIOR USE. OWNER TO PROVIDE BUILDING IDENTIFICATION INFO PRIOR TO CONSTRUCTION.

LICENSED ARCHITECT TIANA L. PEREZ C-38000 REN: 01-31-23 STATE OF CALIFORNIA

ARCHITECT:
Tiana L. Perez, Architect
California Licensed Architect No. C-38000
Ren. 01-31-23
Fresno County Department of
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Development Services and
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E-mail: tperez@fresnocountyca.gov

Project:
Fresno County
Environmental Compliance Center
Phase 3: Warehouse Building

Project Address: 310 S. West Avenue, Fresno CA 93706
APN: 458-060-72

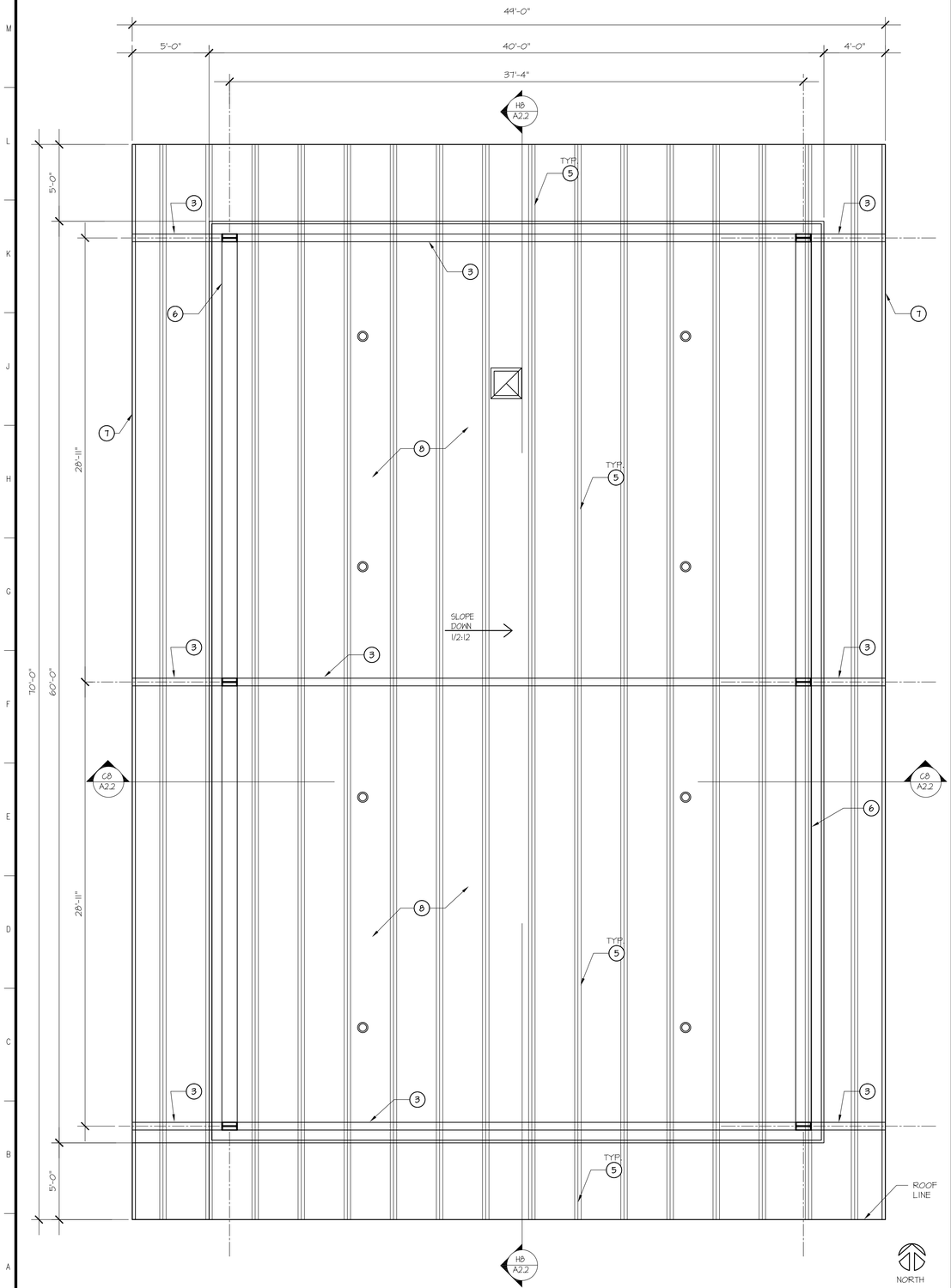
Issue Date:
Project No. T90203
File Path: G:Capital \ Projects \ Building Numbers \ American Ave Landfill \ T90203 Environmental Compliance Center\ 00 2018 ECC

Sheet Content:
Floor Plan & Elevations

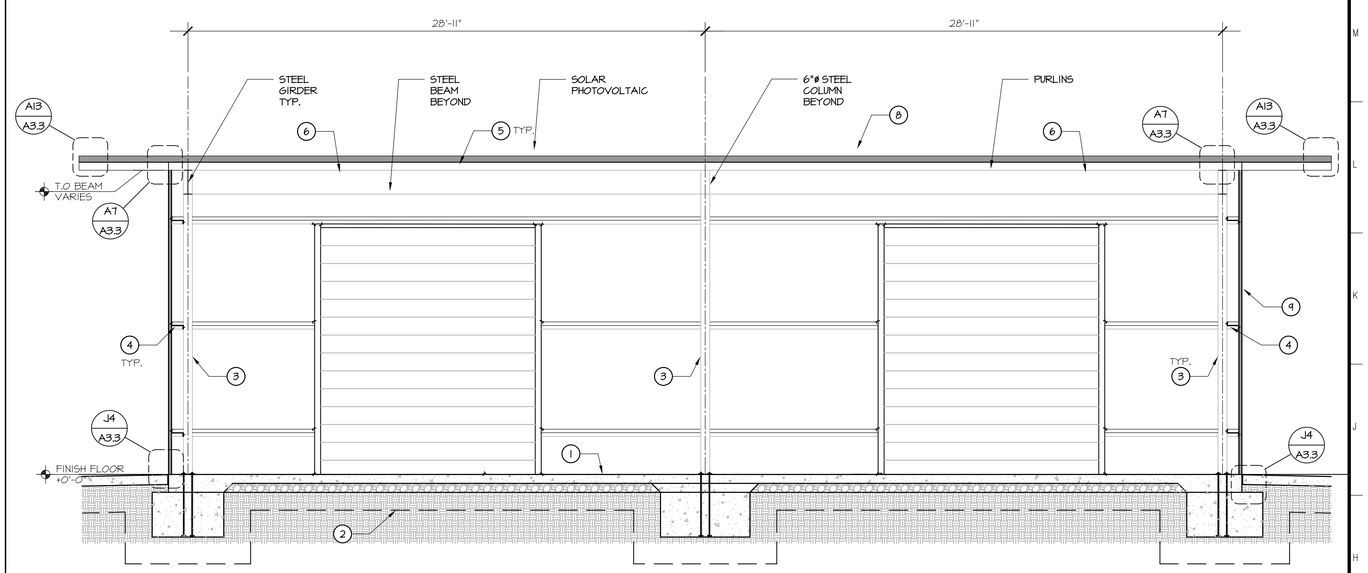
Fresno County Department of Public Works and Planning
Capital Projects

2220 Tulare Street, 8th Floor
Fresno, California 93721

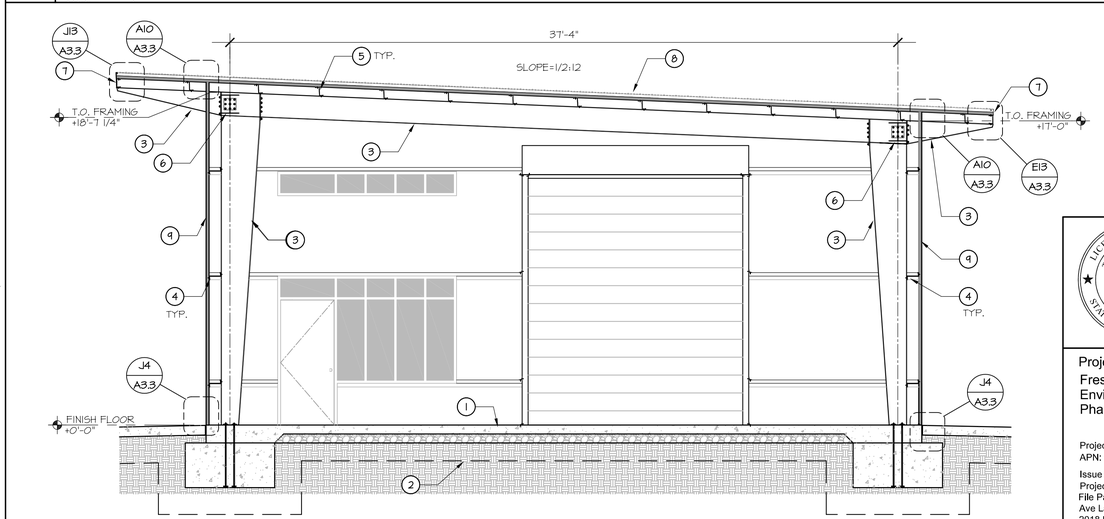
Sheet No.
A2.1



A1 Warehouse - Reflected Ceiling Plan
Scale:1/4" = 1'-0"



H8 Section A
Scale: 1/4" = 1'-0"



C8 Section B
Scale: 1/4" = 1'-0"

CEILING LEGEND

EXHAUST GRILLE,
SEE MECHANICAL DWGS.

SURFACE MOUNTED
LIGHTING FIXTURE,
SEE ELECTRICAL DWGS.

A8 Ceiling Legend

KEYNOTES (X)

1. 6" SLAB ON GRADE CONCRETE FLOOR. SEE STRUCTURAL DWGS.
2. AGGREGATE/ ENGINEERED FILL, REFER TO SOILS REPORT.
3. RIGID FRAME COLUMN, RAFTER & RAFTER EXTENSION PER PREFABRICATED STEEL BUILDING.
4. WALL GIRTS PER PREFABRICATED STEEL BUILDING.
5. ZEE PURLINS @ MAX. 3' O.C. TYP. PER PREFABRICATED STEEL BUILDING.
6. EAVE STRUT PER PREFABRICATED STEEL BUILDING.
7. FASCIA PURLIN PER PREFABRICATED STEEL BUILDING.
8. 4" INSULATED METAL PANEL ROOF, 24 GA. EXT. & 26 GA. INT.
9. 2" INSULATED METAL PANEL WALL , 26 GA. EXT. & INT., MITER CORNERS.

A11 Keynotes

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C-38000
REN: 01-31-23
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Sheet Content:
Reflected Ceiling Plan & Sections

Fresno County Department of
Public Works and Planning
Capital Projects

2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.
A2.2

ITEM	CODE	DESCRIPTION	REMARKS
FLOOR	F-1	EXPOSED CONCRETE WITH CLEAR SATIN CONCRETE SEALER	
BASE	B-1	NO BASE (EXPOSED WALL PANEL, SEE W-1)	
WALLS	W-1	EXPOSED WALL PANEL	PROTECTIVE PAINT PER MGFR
CEILING	C-1	EXPOSED ROOF PANEL	PROTECTIVE PAINT PER PANEL MGFR
MISC.	M-1	ENAMEL (ACRYLIC) PAINTED H.M. DOOR/FRAMES	PAINT H.M. DOORS AND FRAMES
	M-2	ENAMEL (ACRYLIC) PAINTED H.M. WINDOW FRAMES	PAINT H.M. WINDOW FRAMES

H10 ROOM FINISH SCHEDULE, TYP. THROUGHOUT

1. TYPES "F-1", "B-1", "W-1", "C-1" ARE STANDARD FINISHES THAT APPLY THROUGHOUT ALL AREAS EXCEPT WHERE OTHER FINISHES ARE INDICATED. MISCELLANEOUS FINISHES ARE APPLICABLE THROUGHOUT THE BUILDING AS INDICATED.
2. ALL STAIN, PAINT, SEALER AND ACCENT COLORS SHALL BE AS SELECTED BY ARCHITECT.
3. ALL INTERIOR FINISHES SHALL BE AS SELECTED BY ARCHITECT/OWNER FROM ACTUAL PRODUCT SAMPLE SUBMITTALS PROVIDED BY CONTRACTOR. ALL PAINT MATERIAL SHALL BE EPA APPROVED AND AS RECOMMENDED BY THE MANUFACTURER TO PROVIDE A SUITABLE AND DURABLE FINISH FOR ITS INTENDED APPLICATION.
4. CONTRACTOR(S) SHALL SUPPLY 5 COPIES MINIMUM OF FULL COLORS/ TEXTURES/ SAMPLE RANGES FOR ARCHITECT'S SELECTION. ALL SAMPLES SHALL BE ACTUAL MATERIALS/ COLORS AND NOT PHOTO REPRODUCTIONS.
5. ALL EXPOSED METAL SHALL BE PRIMED AND PAINTED. COLORS AS SELECTED BY ARCHITECT/OWNER.
6. PREPARE ALL FLOORS PRIOR TO COVERING, CLEAN AND FILL, LEVEL UNEVENNESS w/ FLOOR COVERING MANUFACTURER RECOMMENDED, APPROVED MATERIALS. SEAL FLOORS w/ MFGR APPROVED VAPOR EMISSIONS TREATMENT WHERE MOISTURE OR PH TESTS ARE OUTSIDE OF ACCEPTABLE RANGE.
7. MINIMUM PAINT/STAIN COAT FINISHES ARE INDICATED IN SPEC'S. CONTRACTOR(S) SHALL APPLY ADDITIONAL COATS AS REQUIRED TO ENSURE/ MAINTAIN / PROVIDE EVENNESS OF COLOR /FINISH ETC. TO THE ACCEPTANCE OF THE OWNER AND ARCHITECT.
8. FLAME SPREAD & SMOKE DEVELOPED CLASSIFICATION: ALL FINISHES SHALL HAVE A CLASS 'C' FLAME SPREAD & SMOKE DEVELOPED CLASSIFICATION OF 450 OR BETTER TO MEET CBC SECTION 803 REQUIREMENTS. ALL DECORATIVE MATERIAL MUST BE FLAME RETARDANT TREATED.

F10 FINISH SCHEDULES NOTES

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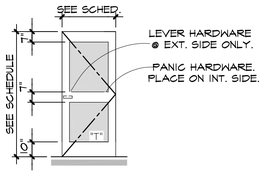
Sheet Content:
Finish Schedule

Fresno County Department of
Public Works and Planning
Capital Projects

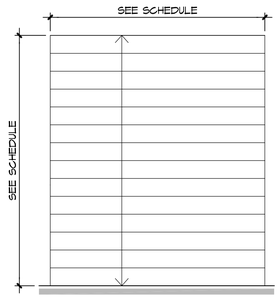
2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.
A3.1

Drawn by: MR (DJA)
Plotted on: 05.10.2021



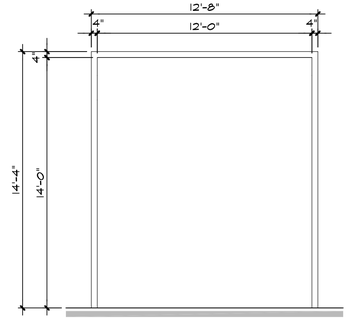
TYPE FG



TYPE RU

K1 DOOR TYPE

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



1 ALUMINUM STOREFRONT SYSTEM, SEE WINDOW ELEVATIONS.

2 STEEL ROLL UP DOOR

G1 FRAME ELEVATIONS

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

NO.	QTY.	SIZE	DOOR TYPE	DOOR MATERIAL	FRAME		RATED ASSEMBLY	DETAILS		THRSHLD	SIGNAGE TYPE	HARDWARE GROUP	REMARKS
					MAT'L.	ELEV.		HEAD	JAMB				
200	1	3'-0"X7'-0"X1 3/4"	FG	AL	AL	1	-	-	J10&E10/A3.3	E4/A3.3	S1, S2, S3	6.0	PANIC HARDWARE
201	1	12'-0"X14'-0"	RU	ST	ST.	2	-	J1/A3.3	J10&E10/A3.3	E4/A3.3	-	7.0	-
202	1	12'-0"X14'-0"	RU	ST	ST.	2	-	J1/A3.3	J10&E10/A3.3	E4/A3.3	-	7.0	-
203	1	3'-0"x7'-0"x 1 3/4"	FG	AL	AL	1	-	-	J10&E10/A3.3	E4/A3.3	S1, S2, S3	6.0	PANIC HARDWARE
204	1	12'-0"X14'-0"	RU	ST	ST.	2	-	J1/A3.3	J10&E10/A3.3	E4/A3.3	-	7.0	-

L6 DOOR SCHEDULE

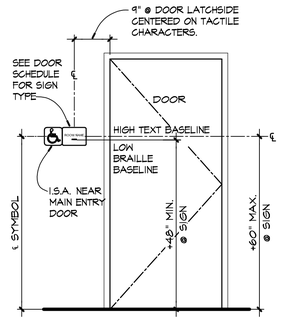
SEE (XX) SYMBOL ON FLOOR PLANS

1. VERIFY EXACT SIZES IN FIELD PRIOR TO ORDERING FOR ALL DOORS / FRAMES. MAINTAIN CBC MIN. REQUIREMENTS.
2. EXIT DOORS SHALL BE OPENABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT.
3. CONTRACTOR SHALL BE RESPONSIBLE TO COUNT AND VERIFY NUMBER AND QUANTITIES OF DOORS.
4. "T" AT GLAZING PANELS DENOTES THE PANEL TO BE TEMPERED, OR LAMINATED SAFETY GLAZING PER SPECIFICATIONS.
5. EXTERIOR DOOR LIGHTS TO HAVE U FACTOR VALUE OF NOT MORE THAN 0.55 AND SHGC OF NOT MORE THAN 0.67.
6. SEE THIS SHEET FOR SIGNAGE DETAIL, SIGNAGE TYPE DESIGNATION AND INSTALLATION CRITERIA.
7. REFER TO FLOOR PLAN FOR SIGNAGE LOCATION.
8. REFER TO SPECIFICATION SECTION 08 71 00 PART 3.8 FOR COMPLETE HARDWARE GROUP DESCRIPTIONS.
9. DOOR AND FRAME MATERIALS TO READ AS FOLLOWS:
   AL --- ALUMINUM
   ST --- STEEL
10. CARD READER FURNISHED BY OWNER, INSTALLED BY CONTRACTOR.

J6 DOOR SCHEDULE NOTES

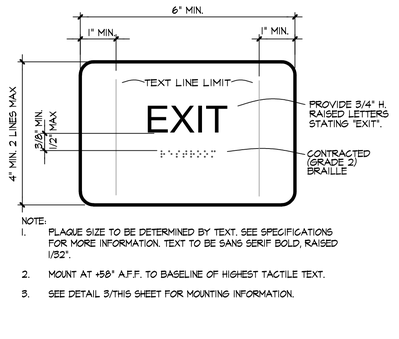
NOTE:

1. SIGNAGE SHALL BE INSTALLED ON WALL AND/OR DOOR SURFACE SEEN JUST PRIOR TO ENTRY INTO THE IDENTIFIED ROOM OR SPACE.
2. SIGNS SHALL BE INSTALLED ON WALL ADJACENT TO LATCH SIDE OF DOOR. SIGNS AT DOUBLE DOORS WITH TWO ACTIVE LEAVES SHOULD BE LOCATED RIGHT OF THE RIGHT HAND DOOR. WHERE THERE IS NO WALL SPACE ON LATCH SIDE, INCLUDING DOUBLE DOORS, SIGNS SHALL BE PLACED ON NEAREST ADJACENT WALL.
3. COORDINATE WITH FLOOR PLAN FOR LOCATIONS.



S1 TYPICAL SIGN PLACEMENT

1/2" = 1'-0"

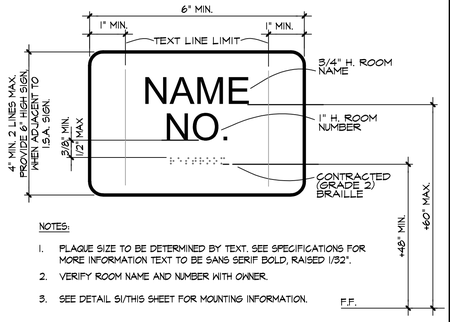


NOTE:

1. PLAQUE SIZE TO BE DETERMINED BY TEXT. SEE SPECIFICATIONS FOR MORE INFORMATION. TEXT TO BE SANS SERIF BOLD, RAISED 1/32".
2. MOUNT AT +58" A.F.F. TO BASELINE OF HIGHEST TACTILE TEXT.
3. SEE DETAIL 3/THIS SHEET FOR MOUNTING INFORMATION.

S2 EXIT SIGNAGE

6" = 1'-0" DIRECTIONAL EXIT & EXIT ROUTE SIGNAGE SIMILAR



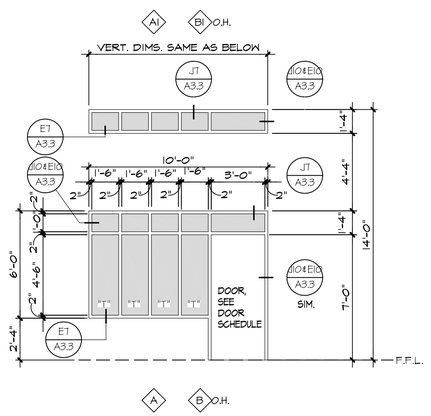
NOTES:

1. PLAQUE SIZE TO BE DETERMINED BY TEXT. SEE SPECIFICATIONS FOR MORE INFORMATION TEXT TO BE SANS SERIF BOLD, RAISED 1/32".
2. VERIFY ROOM NAME AND NUMBER WITH OWNER.
3. SEE DETAIL 5/THIS SHEET FOR MOUNTING INFORMATION.

S3 TYPICAL ROOM SIGNAGE

6" = 1'-0"

E6 SIGNAGE DETAILS



WINDOW ELEVATION GENERAL NOTES

1. ALL ROUGH OPENINGS SHALL BE FIELD VERIFIED BEFORE ORDERING MATERIALS.
2. REFER TO SPECIFICATIONS FOR COMPLETE STOREFRONT SYSTEM DESCRIPTIONS.
3. EXTERIOR WINDOW ELEVATIONS ARE VIEWED FROM THE EXTERIOR OF THE BUILDING, WITH GLAZING SHOWED HATCHED.
4. WINDOW DIMENSIONS SHOW APPROX. NOMINAL SIZES (U.N.O.). CONTRACTOR SHALL VERIFY ALL ACTUAL ROUGH OPENING DIMENSIONS & ADJUST SIZES AS REQUIRED FOR SHIM SPACE & ADJACENT FINISHES PER SECTIONS, DETAILS, SPECIFICATIONS & MANUFACTURER'S RECOMMENDATIONS, TAKING CARE TO MAINTAIN INDICATED ALIGNMENT TO TOP & BOTTOM OF FRAMES.
5. UNLESS NOTED OTHERWISE, ALUMINUM FRAME WINDOWS TO HAVE CLEAR ANODIZED FINISH.
6. PROVIDE JUSTIFICATION FROM THE WINDOW MANUFACTURER FOR THE U-FACTOR AND SOLAR HEAT GAIN COEFFICIENT (SHGC) FACTORS SPECIFIED.
7. EXCEPT AS INDICATED OTHERWISE, ALL EXTERIOR WINDOWS SHALL HAVE 1" CLEAR DUAL GLAZED UNITS. ALL UNITS SHALL HAVE A U FACTOR VALUE OF NOT MORE THAN 0.36, SHGC VALUE NOT MORE THAN 0.25 & MIN. VT VALUE OF 0.42. **(CEC 140.3(a) 5 & TABLE 140.3-B)** PROVIDE TEMPERED WHERE INDICATED WITH A "T" OR WHERE REQUIRED BY CODE & GLAZING REGULATIONS.
8. ALL STOREFRONT & WINDOW ASSEMBLIES SHALL HAVE A MINIMUM OF 2 FASTENERS EACH SIDE w/ MAX. SPACING @ 24" o.c. SEE DETAILS FOR ANCHORAGE AT FLOOR SLAB.
9. PROVIDE CLEAR SILICONE SEALANT, PER MANUFACTURER'S RECOMMENDATIONS.

A6 WINDOW ELEVATION

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

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Sheet Content:

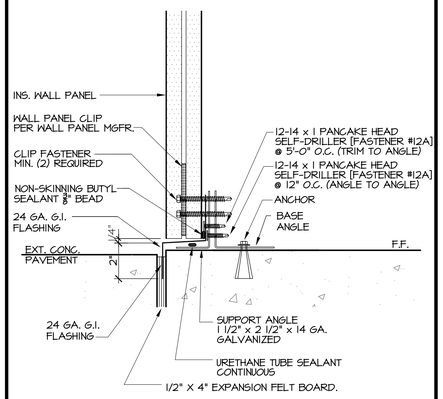
Door Schedule
& Window Elevation

Fresno County Department of Public Works and Planning
Capital Projects

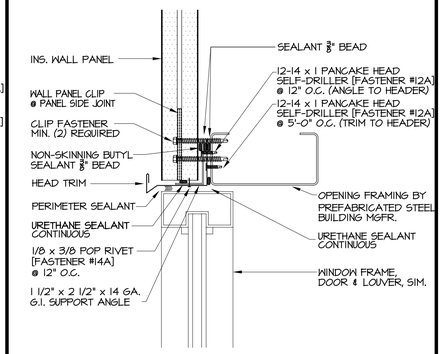
2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

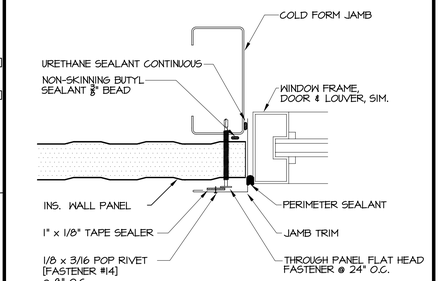
A3.2



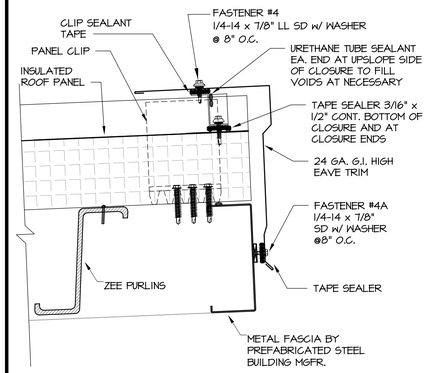
J4 WALL BASE DETAIL



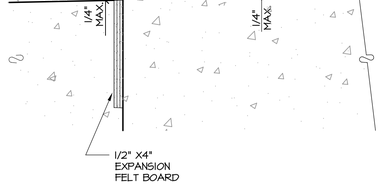
J7 WINDOW HEAD DETAIL



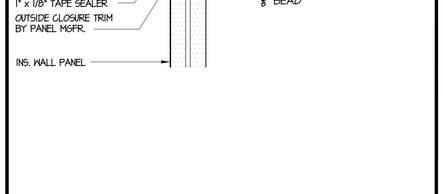
J10 JAMB DETAIL



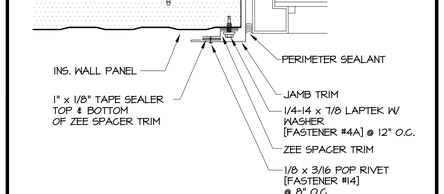
J13 HIGH EAVE DETAIL



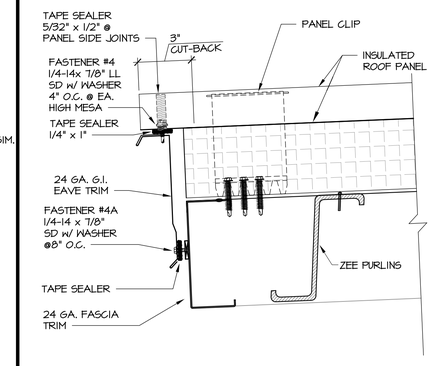
E4 TYP. THRESHOLD DETAIL



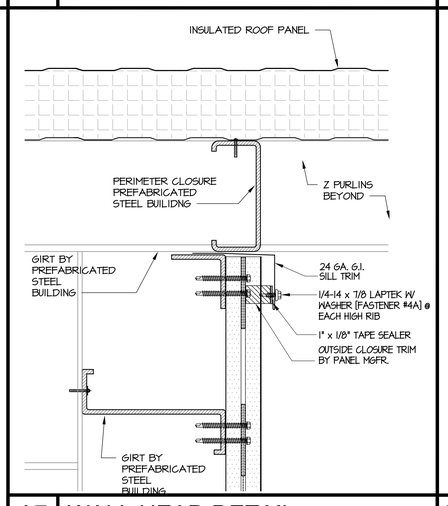
E7 WINDOW SILL DETAIL



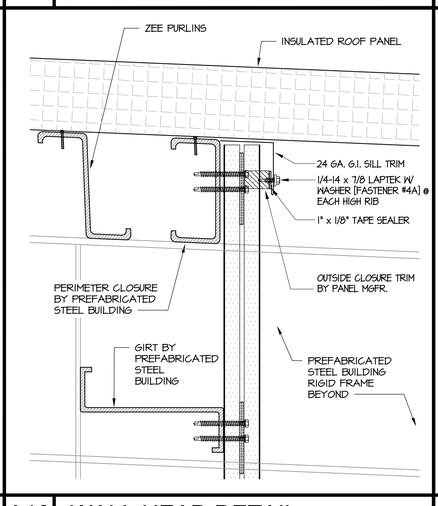
E10 JAMB DETAIL



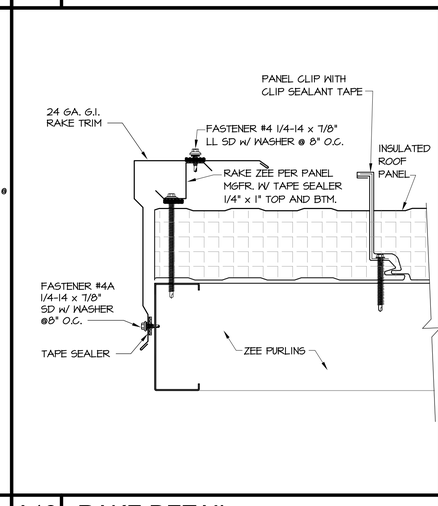
E13 LOW EAVE DETAIL



A7 WALL HEAD DETAIL



A10 WALL HEAD DETAIL



A13 RAKE DETAIL

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Sheet Content:
Details

Fresno County Department of Public Works and Planning
Capital Projects

2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

A3.3

Drawn by: MR (DJA)
Plotted on: 05.10.2021

2019 CALIFORNIA GREEN BUILDING STANDARDS CODE
NONRESIDENTIAL MANDATORY MEASURES, SHEET 1 (January 2020, Includes August 2019 Supplement)

Y = YES
N/A = NOT APPLICABLE
RESPON. PARTY = RESPONSIBLE PARTY
A — ARCHITECT
E — ENGINEER
O — OWNER
C — CONTR.
CONTRACTOR
I — INSPECTOR

Y | N/A | RESPON. PARTY

CHAPTER 3
GREEN BUILDING
SECTION 301 GENERAL

301.1 SCOPE. Buildings shall be designed to include the green building measures specified as mandatory in the application checklists contained in this code. Voluntary green building measures are also included in the application checklists and may be included in the design and construction of structures covered by this code, but are not required unless adopted by a city, county, or city and county as specified in Section 101.7.

301.3 NONRESIDENTIAL ADDITIONS AND ALTERATIONS. [BSC-CG] The provisions of individual sections of Chapter 5 apply to newly constructed buildings, building additions of 1,000 square feet or greater, and/or building alterations with a permit valuation of $200,000 or above (for occupancies within the authority of California Building Standards Commission). Code sections relevant to additions and alterations shall only apply to the portions of the building being added or altered within the scope of the permitted work.

A code section will be designated by a banner to indicate where the code section only applies to newly constructed buildings [N] or to additions and/or alterations [A]. When the code section applies to both, no banner will be used.

301.3.1 Nonresidential additions and alterations that cause updates to plumbing fixtures only:

Note: On and after January 1, 2014, certain commercial real property, as defined in Civil Code Section 1101.3, shall have its noncompliant plumbing fixtures replaced with appropriate water-conserving plumbing fixtures under specific circumstances. See Civil Code Section 1101.1 *et seq.* for definitions, types of commercial real property affected, effective dates, circumstances necessitating replacement of noncompliant plumbing fixtures, and duties and responsibilities for ensuring compliance.

301.3.2 Waste Diversion. The requirements of Section 5.408 shall be required for additions and alterations whenever a permit is required for work.

301.4 PUBLIC SCHOOLS AND COMMUNITY COLLEGES. (see GBSC)
301.5 HEALTH FACILITIES. (see GBSC)

SECTION 302 MIXED OCCUPANCY BUILDINGS

302.1 MIXED OCCUPANCY BUILDINGS. In mixed occupancy buildings, each portion of a building shall comply with the specific green building measures applicable to each specific occupancy.

SECTION 303 PHASED PROJECTS

303.1 PHASED PROJECTS. For shell buildings and others constructed for future tenant improvements, only those code measures relevant to the building components and systems considered to be new construction (or newly constructed) shall apply.

303.1.1 Initial Tenant Improvements. The provisions of this code shall apply only to the initial tenant improvements to a project. Subsequent tenant improvements shall comply with the scoping provisions in Section 303.3 non-residential additions and alterations.

ABBREVIATION DEFINITIONS:

HCD	Department of Housing and Community Development
BSC	California Building Standards Commission
DSA-SS	Division of the State Architect, Structural Safety
OSHPD	Office of Statewide Health Planning and Development
LR	Low Rise
HR	High Rise
AA	Additions and Alterations
N	New

CHAPTER 5
NONRESIDENTIAL MANDATORY MEASURES

DIVISION 5.1 PLANNING AND DESIGN

SECTION 5.101 GENERAL
5.101.1 SCOPE
The provisions of this chapter outline planning, design and development methods that include environmentally responsible site selection, building design, building siting and development to protect, restore and enhance the environmental quality of the site and respect the integrity of adjacent properties.

SECTION 5.102 DEFINITIONS
5.102.1 DEFINITIONS
The following terms are defined in Chapter 2 *(and are included here for reference)*

CUTOFF LUMINAIRES. Luminaires whose light distribution is such that the candela per 1000 lamp lumens does not numerically exceed 25 (2.5 percent) at an angle of 90 degrees above nadir, and 100 (10 percent) at a vertical angle of 80 degrees above nadir. This applies to all lateral angles around the luminaire.

LOW-EMITTING AND FUEL EFFICIENT VEHICLES.
Eligible vehicles are limited to the following:

1. Zero emission vehicle (ZEV), including neighborhood electric vehicles (NEV), partial zero emission vehicle (PZEV), advanced technology PZEV (AT ZEV) or CNG fueled (original equipment manufacturer only) regulated under Health and Safety Code section 43800 and CCR, Title 13, Sections 1961 and 1962.
2. High-efficiency vehicles, regulated by U.S. EPA, bearing High-Occupancy Vehicle (HOV) car pool lane stickers issued by the Department of Motor Vehicles.

NEIGHBORHOOD ELECTRIC VEHICLE (NEV). A motor vehicle that meets the definition of "low-speed vehicle" either in Section 385.5 of the Vehicle Code or in 49CFR571.500 (as it existed on July 1, 2000), and is certified to zero-emission vehicle standards.

TENANT-OCCUPANTS. Building occupants who inhabit a building during its normal hours of operation as permanent occupants, such as employees, as distinguished from customers and other transient visitors.

VANPOOL VEHICLE. Eligible vehicles are limited to any motor vehicle, other than a motortruck or truck tractor, designed for carrying more than 10 but not more than 15 persons including the driver, which is maintained and used primarily for the nonprofit work-related transportation of adults for the purpose of ridesharing.

Note: Source: Vehicle Code, Division 1, Section 668

ZEV. Any vehicle certified to zero-emission standards.

SECTION 5.106 SITE DEVELOPMENT
5.106.1 STORM WATER POLLUTION PREVENTION FOR PROJECTS THAT DISTURB LESS THAN ONE ACRE OF LAND. Newly constructed projects and additions which disturb less than one acre of land, and are not part of a larger common plan of development or sale, shall prevent the pollution of storm water runoff from the construction activities through one or more of the following measures:

5.106.1.1 Local ordinance. Comply with a lawfully enacted storm water management and/or erosion control ordinance.

5.106.1.2 Best Management Practices (BMPs). Prevent the loss of soil through wind or water erosion by implementing an effective combination of erosion and sediment control and good housekeeping BMPs.

1. Soil loss BMPs that should be considered for implementation as appropriate for each project include, but are not limited to, the following:
   a. Scheduling construction activity during dry weather, when possible.
   b. Preservation of natural features, vegetation, soil, and buffers around surface waters.
   c. Drainage swales or lined ditches to control stormwater flow.
   d. Mulching or hydroseeding to stabilize disturbed soils.
   e. Erosion control to protect slopes.
   f. Protection of storm drain inlets (gravel bags or catch basin inserts).
   g. Perimeter sediment control (perimeter silt fence, fiber rolls).
   h. Sediment trap or sediment basin to retain sediment on site.
   i. Stabilized construction exits.
   j. Wind erosion control.
   k. Other soil loss BMPs acceptable to the enforcing agency.
2. Good housekeeping BMPs to manage construction equipment, materials, non-stormwater discharges and wastes that should be considered for implementation as appropriate for each project include, but are not limited to, the following:
   a. Dewatering activities.
   b. Material handling and waste management.
   c. Building materials stockpile management.
   d. Management of washout areas (concrete, paints, stucco, etc.),
   e. Control of vehicle/equipment fueling to contractor's staging area.
   f. Vehicle and equipment cleaning performed off site.
   g Spill prevention and control.
   h. Other housekeeping BMPs acceptable to the enforcing agency.

Y | N/A | RESPON. PARTY

5.106.2 STORMWATER POLLUTION PREVENTION FOR PROJECTS THAT DISTURB ONE OR MORE ACRES OF LAND. Comply with all lawfully enacted stormwater discharge regulations for projects that (1) disturb one acre or more of land, or (2) disturb less than one acre of land but are part of a larger common plan of development sale.

Note: Projects that (1) disturb one acre or more of land, or (2) disturb less than one acre of land but are part of the larger common plan of development or sale must comply with the post-construction requirements detailed in the applicable National Pollutant Discharge Elimination System (NPDES) General permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities issued by the State Water Resources Control Board or the Lahontan Regional Water Quality Control Board (for projects in the Lake Tahoe Hydrologic Unit).

The NPDES permits require postconstruction runoff (post-project hydrology) to match the preconstruction runoff (pre-project hydrology) with the installation of postconstruction stormwater management measures. The NPDES permits emphasize runoff reduction through on-site stormwater use, interception, evapotranspiration, and infiltration through nonstructural controls, such as Low Impact Development (LID) practices, and conversation design measures. Stormwater volume that cannot be addressed using nonstructural practices is required to be captured in structural practices and be approved by the enforcing agency.

Refer to the current applicable permits on the State Water Resources Control Board website at: www.waterboards.ca.gov/constructionstormwater. Consideration to the stormwater runoff management measures should be given during the initial design process for appropriate integration into site development.

5.106.4 BICYCLE PARKING. For buildings within the authority of California Building Standards Commission as specified in Section 103, comply with Section 5.106.4.1. For buildings within the authority of the Division of the State Architect pursuant to Section 105, comply with Section 5.106.4.2

5.106.4.1 Bicycle parking. [BSC-CG] Comply with Sections 5.106.4.1.1 and 5.106.4.1.2; or meet the applicable local ordinance, whichever is stricter.

5.106.4.1.1 Short-term bicycle parking. If the new project or an addition or alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack.
Exception: Additions or alterations which add nine or less visitor vehicular parking spaces.

5.106.4.1.2 Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5 percent of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility.

5.106.4.1.3 For additions or alterations that add 10 or more tenant-occupant vehicular parking spaces, provide secure bicycle parking for 5 percent of the tenant vehicular parking spaces being added, with a minimum of one bicycle parking facility.

5.106.4.1.4 For new shell buildings in phased projects provide secure bicycle parking for 5 percent of the anticipated tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility.

5.106.4.1.5 Acceptable bicycle parking facility for Sections 5.106.4.1.2, 5.106.4.1.3, and 5.106.4.1.4 shall be convenient from the street and shall meet one of the following:

1. Covered, lockable enclosures with permanently anchored racks for bicycles;
2. Lockable bicycle rooms with permanently anchored racks; or
3. Lockable, permanently anchored bicycle lockers.

Note: Additional information on recommended bicycle accommodations may be obtained from Sacramento Area Bicycle Advocates.

5.106.4.2 Bicycle parking. [DSA-SS] For public schools and community colleges, comply with Sections 5.106.4.2.1 and 5.106.4.2.2

5.106.4.2.1 Student bicycle parking. Provide permanently anchored bicycle racks conveniently accessed with a minimum of four two-bike capacity racks per new building.
5.106.4.2.2 Staff bicycle parking. Provide permanent, secure bicycle parking conveniently accessed with a minimum of two staff bicycle parking spaces per new building. Acceptable bicycle parking facilities shall be convenient from the street or staff parking area and shall meet one of the following:

1. Covered, lockable enclosures with permanently anchored racks for bicycles;
2. Lockable bicycle rooms with permanently anchored racks; or
3. Lockable, permanently anchored bicycle lockers.

5.106.5.2 DESIGNATED PARKING FOR CLEAN AIR VEHICLES. In new projects or additions or alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as follows:

TABLE 5.106.5.2 - PARKING

TOTAL NUMBER OF PARKING SPACES	NUMBER OF REQUIRED SPACES
0-9	0
10-25	1
25-50	3
51-75	6
76-100	8
101-150	11
151-200	16
201 AND OVER	AT LEAST 8% OF TOTAL

5.106.5.2.1 - Parking stall marking. Paint, in the paint used for stall striping, the following characters such that the lower edge of the last word aligns with the end of the stall striping and is visible beneath a parked vehicle; CLEAN AIR / VAN POOL / EV

Note: Vehicles bearing Clean Air Vehicle stickers from expired HOV lane programs may be considered eligible for designated parking spaces.

5.106.5.3 Electric vehicle (EV) charging. [N] Construction shall comply with Section 5.106.5.3.1 or Section 5.106.5.3.2 to facilitate future installation of electric vehicle supply equipment (EVSE). When EVSE(s) is/are installed, it shall be in accordance with the *California Building Code,* the *California Electrical Code* and as follows:

5.106.5.3.1 Single charging space requirements. [N] When only a single charging space is required per Table 5.106.5.3.3, a raceway is required to be installed at the time of construction and shall be installed in accordance with the *California Electrical Code.* Construction plans and specifications shall include, but are not limited to, the following:

1. The type and location of the EVSE.
2. A listed raceway capable of accommodating a 208/240 -volt dedicated branch circuit.
3. The raceway shall not be less than trade size 1".
4. The raceway shall originate at a service panel or a subpanel serving the area, and shall terminate in close proximity to the proposed location of the charging equipment and listed suitable cabinet, box, enclosure or equivalent.
5. The service panel or subpanel shall have sufficient capacity to accommodate a minimum 40-ampere dedicated branch circuit for the future installation of the EVSE.

5.106.5.3.2 Multiple charging space requirements. [N] When multiple charging spaces are required per Table 5.106.5.3.3 raceway(s) is/are required to be installed at the time of construction and shall be installed in accordance with the *California Electrical Code.* Construction plans and specifications shall include, but are not limited to, the following:

1. The type and location of the EVSE.
2. The raceway(s) shall originate at a service panel or a subpanel(s) serving the area, and shall terminate in close proximity to the proposed location of the charging equipment and into listed suitable cabinet(s), box(es), enclosure(s) or equivalent.
3. Plan design shall be based upon 40-ampere minimum branch circuits.
4. Electrical calculations shall substantiate the design of the electrical system, to include the rating of equipment and any on-site distribution transformers and have sufficient capacity to simultaneously charge all required EVs at its full rated amperage.
5. The service panel or subpanel(s) shall have sufficient capacity to accommodate the required number of dedicated branch circuit(s) for the future installation of the EVSE.

5.106.5.3.3 EV charging space calculations. [N] Table 5.106.5.3.3 shall be used to determine if single or multiple charging space requirements apply for the future installation of EVSE.

Exceptions: On a case-by-case basis where the local enforcing agency has determined EV charging and infrastructure is not feasible based upon one or more of the following conditions:

Y | N/A | RESPON. PARTY

1. Where there is insufficient electrical supply.
2. Where there is evidence suitable to the local enforcing agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of Section 5.106.5.3, may adversely impact the construction cost of the project.

TABLE 5.106.5.3.3

TOTAL NUMBER OF PARKING SPACES	NUMBER OF REQUIRED SPACES
0-9	0
10-25	1
26-50	2
51-75	4
76-100	5
101-150	7
151-200	10
201 AND OVER	6% of total[1]

1. Calculation for spaces shall be rounded up to the nearest whole number.

5.106.5.3.4 [N] Identification. The service panel or subpanel(s) circuit directory shall identify the reserved overcurrent protective device space(s) for future EV charging as "EV CAPABLE". The raceway termination location shall be permanently and visibly marked as "EV CAPABLE".

5.106.5.3.5 [N] Future charging spaces qualify as designated parking as described in Section 5.106.5.2 Designated parking for clean air vehicles.

5.106.8 LIGHT POLLUTION REDUCTION. [N].I Outdoor lighting systems shall be designed and installed to comply with the following:

1. The minimum requirements in the California Energy Code for Lighting Zones 0-4 as defined in Chapter 10, Section 10-114 of the California Administrative Code; and
2. Backlight (B) ratings as defined in IES TM-15-11 (shown in Table A-1 in Chapter 8);
3. Uplight and Glare ratings as defined in California Energy Code (shown in Tables 130.2-A and 130.2-B In Chapter 8) and
4. Allowable BUG ratings not exceeding those shown in Table 5.106.8, [N] or Comply with a local ordinance lawfully enacted pursuant to Section 101.7, whichever is more stringent.

Exceptions: [N]

1. Luminaires that qualify as exceptions in Section 140.7 of the California Energy Code.
2. Emergency lighting.
3. Building facade meeting the requirements in Table 140,7-B of the California Energy Code, Part 6.
4. Custom lighting features as allowed by the local enforcing agency, as permitted by Section 101.8 Alternate materials, designs and methods of construction.

Note: [N]
1. See also California Building Code, Chapter 12, Section 1205.6 for college campus lighting requirements for parking facilities and walkways.
2. Refer to Chapter 8 (Compliance Forms, Worksheets and Reference Material) for IES TM-15-11 Table A-1, California Energy Code Tables 130.2-A and 130.2-B.
3. Refer to the California Building Code for requirements for additions and alterations.

TABLE 5.106.8 [N] MAXIMUM ALLOWABLE BACKLIGHT, UPLIGHT AND GLARE (BUG) RATINGS 1,2

ALLOWABLE RATING	LIGHTING ZONE LZ0	LIGHTING ZONE LZ1	LIGHTING ZONE LZ2	LIGHTING ZONE LZ3	LIGHTING ZONE LZ4
MAXIMUM ALLOWABLE BACKLIGHT RATING 3					
Luminaire greater than 2 mounting heights (MH) from property line	N/A	No Limit	No Limit	No Limit	No Limit
Luminaire back hemisphere is 1-2 MH from property line	N/A	B2	B3	B4	B4
Luminaire back hemisphere is 0.5-1 MH from property line	N/A	B1	B2	B3	B3
Luminaire back hemisphere is less than 0.5 MH from property line	N/A	B0	B0	B1	B2
MAXIMUM ALLOWABLE UPLIGHT RATING (U)					
For area lighting 4	N/A	U0	U0	U0	U0
For all other outdoor lighting,including decorative luminaires	N/A	U1	U2	U3	UR
MAXIMUM ALLOWABLE GLARE RATING 5 **(G)**					
Luminaire greater than 2 MH from property line	N/A	G1	G2	G3	G4
Luminaire front hemisphere is 1-2 MH from property line	N/A	G0	G1	G1	G2
Luminaire front hemisphere is 0.5-1 MH from property line	N/A	G0	G0	G1	G1
Luminaire back hemisphere is less than 0.5 MH from property line	N/A	G0	G0	G0	G1

1. IESNA Lighting Zones 0 and 5 are not applicable: refer to Lighting Zones as defined in the *California Energy Code* and Chapter 10 of the *California Administrative Code.*

2. For property lines that abut public walkways, bikeways, plazas and parking lots, the property line may be considered to be 5 feet beyond the actual property line for purpose of determining compliance with this section. For property lines that abut public roadways and public transit corridors, the property line may be considered to be the centerline of the public roadway or public transit corridor for the purpose of determining compliance with this section.

3. If the nearest property line is less than or equal to two mounting heights from the back hemisphere of the luminaire distribution, the applicable reduced Backlight rating shall be met.

4. General lighting luminaires in areas such as outdoor parking, sales or storage lots shall meet these reduced ratings. Decorative luminaires located in these areas shall meet *U-value* limits for "all other outdoor lighting".

5. If the nearest property line is less than or equal to two mounting heights from the front hemisphere of the luminaire distribution, the applicable reduced Glare rating shall be met.

5.106.10 GRADING AND PAVING. Construction plans shall indicate how site grading or a drainage system will manage all surface water flows to keep water from entering buildings. Examples of methods to manage surface water include, but are not limited to, the following:

1. Swales.
2. Water collection and disposal systems.
3. French drains.
4. Water retention gardens.
5. Other water measures which keep surface water away from buildings and aid in groundwater recharge.

Exception: Additions and alterations not altering the drainage path.

Y | N/A | RESPON. PARTY

5.106.12 SHADE TREES [DSA-SS]. Shade Trees shall be planted to comply with Sections 5.106.12.1, 5.106.12.2, and 5.106.12.3. Percentages shown shall be measured at noon on the summer solstice. Landscape irrigation necessary to establish and maintain tree health shall comply with Section 5.304.6.

5.106.12.1 Surface parking areas. Shade tree plantings, minimum #10 container size or equal, shall be installed to provide shade over 50 percent of the parking area within 15 years.

Exceptions: The surface parking area covered by solar photovoltaic shade structures, or shade structures, with roofing materials that comply with Table A5.106.11.2.2 in Appendix A5, are not included in the total area calculations.

5.106.12.2 Landscape areas. Shade tress plantings, minimum #10 container size or equal shall be installed to provide shade of 20% of the landscape area within 15 years.

Exceptions: Playfields for organized sport activity are not included in the total area calculation.

5.106.12.3. Hardscape areas. Shade tree plantings, minimum #10 container size or equal shall be installed to provide shade over 20 percent of the hardscape area within 15 years.

Exceptions: Walks, hardscape areas covered by solar photovoltaic shade structures, and hardscape areas covered by shade structures with roofing materials that comply with Table A5.106.11.2.2 in Appendix A5, are not included in the total area calculation.

DIVISION 5.2 ENERGY EFFICIENCY
SECTION 5.201 GENERAL
5.201.1 Scope [BSC-CG]. ***California Energy Code [DSA-SS].*** For the purposes of mandatory energy efficiency standards in this code, the California Energy Commission will continue to adopt mandatory building standards.

DIVISION 5.3 WATER EFFICIENCY AND CONSERVATION
SECTION 5.301 GENERAL
5.301.1 Scope. The provisions of this chapter shall establish the means of conserving water use indoors, outdoors and in wastewater conveyance.

SECTION 5.302 DEFINITIONS
5.302.1 Definitions. The following terms are defined in Chapter 2 *(and are included here for reference)*

EVAPOTRANSPIRATION ADJUSTMENT FACTOR (ETAF) [DSA-SS]. An adjustment factor when applied to reference evapotranspiration that adjusts for plant factors and irrigation efficiency, which ae two major influences on the amount of water that needs to be applied to the landscape.

FOOTPRINT AREA [DSA-SS]. The total area of the furthest exterior wall of the structure projected to natural grade, not including exterior areas such as stairs, covered walkways, patios and decks.

METERING FAUCET. A self-closing faucet that dispenses a specific volume of water for each actuation cycle. The volume or cycle duration can be fixed or adjustable.

GRAYWATER. Pursuant to Health and Safety Code Section 17922.12, "graywater" means untreated wastewater that has not been contaminated by any toilet discharge, has not been affected by infectious, contaminated, or unhealthy bodily wastes, and does not present a threat from contamination by unhealthful processing, manufacturing, or operating wastes. "Graywater" includes, but is not limited to wastewater from bathtubs, showers, bathroom washbasins, clothes washing machines and laundry tubs, but does not include waste water from kitchen sinks or dishwashers.

MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO). The California ordinance regulating landscape design, installation and maintenance practices that will ensure commercial, multifamily and other developer installed landscapes greater than 2500 square feet meet an irrigation water budget developed based on landscaped area and climatological parameters.

MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO). [HCD] The California model ordinance (California Code of Regulations, Title 23, Division 2, Chapter 2.7), regulating landscape design, installation and maintenance practices. Local agencies are required to adopt the updated MWELO, or adopt a local ordinance at least as effective as the MWELO.

POTABLE WATER. Water that is drinkable and meets the U.S. Environmental Protection Agency (EPA) Drinking Water Standards. See definition in the California Plumbing Code, Part 5.

POTABLE WATER. [HCD] Water that is satisfactory for drinking, culinary, and domestic puroses, and meets the U.S. Environmental Protection Agency (EPA) Drinking Water Standards and the requirements of the Health Authority Having Jurisdiction.

RECYCLED WATER. Water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur [Water Code Section 13050 (n)]. Simply put, recycled water is water treated to remove waste matter attaining a quality that is suitable to use the water again.

SUBMETER. A meter installed subordinate to a site meter. Usually used to measure water intended for one purpose, such as landscape irrigation. For the purposes of CALGreen, a dedicated meter may be considered a submeter.

WATER BUDGET. Is the estimated total landscape irrigation water use which shall not exceed the maximum applied water allowance calculated in accordance with the Department of Water Resources Model Efficient Landscape Ordinance (MWELO).

SECTION 5.303 INDOOR WATER USE
5.303.1 METERS. Separate submeters or metering devices shall be installed for the uses described in Sections 503,1.1 and 503,1.2.

5.303.1.1 Buildings in excess of 50,000 square feet. Separate submeters shall be installed as follows:

1. For each individual leased, rented or other tenant space within the building projected to consume more than 100 gal/day (380 L/day), including, but not limited to, spaces used for laundry or cleaners, restaurant or food service, medical or dental office, laboratory, or beauty salon or barber shop.
2. Where separate submeters for individual building tenants are unfeasible, for water supplied to the following subsystems:
   a. Makeup water for cooling towers where flow through is greater than 500 gpm (30 L/s).
   b. Makeup water for evaporative coolers greater than 6 gpm (0,04 L/s).
   c. Steam and hot water boilers with energy input more than 500,000 Btu/h (147 kW).

5.303.1.2 Excess consumption. A separate submeter or metering device shall be provided for any tenant within a new building or within an addition that is projected to consume more than 1,000 gal/day.

5.303.3 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:

5.303.3.1 Water Closets. The effective flush volume of all water closets shall not exceed 1,28 gallons per flush. Tank-type water closets shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Tank-Type toilets.

Note: The effective flush volume of dual flush toilets is defined as the composite, average flush volume of two reduced flushes and one full flush.

5.303.3.2 Urinals.
5.303.3.2.1 Wall-mounted Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush.

5.303.3.2.2 Floor-mounted Urinals. The effective flush volume of floor-mounted or other urinals shall not exceed 0.5 gallons per flush.

5.303.3.3 Showerheads. [BSC-CG]
5.303.3.3.1 SIngle showerhead. Showerheads shall have a maximum flow rate of not more than 1.8 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Showerheads.

5.303.3.3.2 Multiple showerheads serving one shower. When a shower is served by more than one showerhead, the combined flow rate of all the showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi, or the shower shall be designed to allow only one shower outlet to be in operation at a time.
Note: A hand-held shower shall be considered a showerhead.

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Project:
Fresno County
Environmental Compliance Center
Phase 3: Warehouse Building

Project Address: 310 S. West Avenue, Fresno CA 93706
APN: 458-060-72

Issue Date:
Project No. T90203
File Path: G:Capital \ Projects \ Building Numbers \ American Ave Landfill \ T90203 Environmental Compliance Center\ 00 2018 ECC

Sheet Content:
CAL GREEN COMPLIANCE SHEET 1

Fresno County Department of Public Works and Planning
Capital Projects
2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.
A4.1

Drawn by: MR (DJA)
Plotted on: 05.10.2021

2019 CALIFORNIA GREEN BUILDING STANDARDS CODE
NONRESIDENTIAL MANDATORY MEASURES, SHEET 2 (January 2020, Includes August 2019 Supplement)

AIA California

Y = YES
N/A = NOT APPLICABLE
RESPON. PARTY = RESPONSIBLE PARTY
A — ARCHITECT
E — ENGINEER
O — OWNER
C — CONTRACTOR
I — INSPECTOR

5.303.3.4 Faucets and fountains.

5.303.3.4.1 Nonresidential Lavatory faucets. Lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi.

5.303.3.4.2 Kitchen faucets. Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallons per minute at 60 psi.

5.303.3.4.3 Wash fountains. Wash fountains shall have a maximum flow rate of not more than1.8 gallons per minute/20 [rim space (inches) at 60 psi].

5.303.3.4.4 Metering faucets. Metering faucets shall not deliver more than 0.20 gallons per cycle.

5.303.3.4.5 Metering faucets for wash fountains. Metering faucets for wash fountains shall have a maximum flow rate of not more than 0.20 gallons per minute/20 [rim space (inches) at 60 psi].

Note: Where complying faucets are unavailable, aerators or other means may be used to achieve reduction.

5.303.4 COMMERCIAL KITCHEN EQUIPMENT.

5.303.4.1 Food Waste Disposers. Disposers shall either modulate the use of water to no more than 1 gpm when the disposer is not in use (not actively grinding food waste/no-load) or shall automatically shut off after no more than 10 minutes of inactivity. Disposers shall use no more than 8 gpm of water.
Note: This code section does not affect local jurisdiction authority to prohibit or require disposer installation.

5.303.5 AREAS OF ADDITION OR ALTERATION. For those occupancies within the authority of the California Building Standards Commission as specified in Section 103, the provisions of Section 5.303.3 and 5.303.4 shall apply to new fixtures in additions or areas of alteration to the building.

5.303.6 STANDARDS FOR PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures and fittings shall be installed in accordance with the *California Plumbing Code*, and shall meet the applicable standards referenced in Table 1701.1 of the *California Plumbing Code* and in Chapter 6 of this code.

SECTION 5.304 OUTDOOR WATER USE

5.304.1 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent.

Notes:
1. The Model Water Efficient Landscape Ordinance (MWELO) is located in the California Code of Regulations, Title 23, Chapter 2.7, Division 2.
2. MWELO and supporting documents, including a water budget calculator, are available at: https://www.water.ca.gov/.

5.304.6 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS. For public schools and community colleges, landscape projects as described in Sections 5.304.6.1 and 5.304.6.2 shall comply with the California Department of Water Resources Model Water Efficient Landscape Ordinance (MWELO) commencing with Section 490 of Chapter 2.7, Division 2, Title 23, California Code of Regulations, except that the evapotranspiration adjustment factor (ETAF) shall be 0.65 with an additional water allowance for special landscape areas (SLA) of 0.35.

Exception: Any project with an aggregate landscape area of 2,500 square feet or less may comply with the prescriptive measures contained in Appendix D of the MWELO.

5.304.6.1 Newly constructed landscapes. New construction projects with an aggregate landscape area equal to or greater than 500 square feet.

5.304.6.2 Rehabilitated landscapes. Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 1,200 square feet.

DIVISION 5.4 MATERIAL CONSERVATION AND RESOURCE EFFICIENCY

SECTION 5.401 GENERAL

5.401.1 SCOPE. The provisions of this chapter shall outline means of achieving material conservation and resource efficiency through promotion of buildings from exterior moisture, construction waste diversion, employment of techniques to reduce pollution through recycling of materials, and building commissioning or testing and adjusting.

SECTION 5.402 DEFINITIONS

5.402.1 DEFINITIONS. The following terms are defined in Chapter 2 *(and are included here for reference)*

ADJUST. To regulate fluid flow rate and air patterns at the terminal equipment, such as to reduce fan speed or adjust a damper.

BALANCE. To proportion flows within the distribution system, including sub-mains, branches and terminals, according to design quantities.

BUILDING COMMISSIONING. A systematic quality assurance process that spans the entire design and construction process, including verifying and documenting that building systems and components are planned, designed, installed, tested, operated and maintained to meet the owner's project requirements.

ORGANIC WASTE. Food waste, green waste, landscape and pruning wste, nonhazardous wood waste, and food soilled paper waste that is mixed in with food waste.

TEST. A procedure to determine quantitative performance of a system or equipment

SECTION 5.407 WATER RESISTANCE AND MOISTURE MANAGEMENT

5.407.1 WEATHER PROTECTION. Provide a weather-resistant exterior wall and foundation envelope as required by California Building Code Section 1402.2 (Weather Protection), manufacturer's installation instructions or local ordinance, whichever is more stringent.

5.407.2 MOISTURE CONTROL. Employ moisture control measures by the following methods.

5.407.2.1 Sprinklers. Design and maintain landscape irrigation systems to prevent spray on structures.

5.407.2.2 Entries and openings. Design exterior entries and/or openings subject to foot traffic or wind-driven rain to prevent water intrusion into buildings as follows:

5.407.2.2.1 Exterior door protection. Primary exterior entries shall be covered to prevent water intrusion by using nonabsorbent floor and wall finishes within at least 2 feet around and perpendicular to such openings plus at least one of the following:

1. An installed awning at least 4 feet in depth.
2. The door is protected by a roof overhang at least 4 feet in depth,
3. The door is recessed at least 4 feet.
4. Other methods which provide equivalent protection.

5.407.2.2.2 Flashing. Install flashings integrated with a drainage plane.

SECTION 5.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING

5.408.1 CONSTRUCTION WASTE MANAGEMENT. Recycle and/or salvage for reuse a minimum of 65% of the non-hazardous construction and demolition waste in accordance with Section 5.408.1.1, 5.408.1.2 or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent.

5.408.1.1 Construction waste management plan. Where a local jurisdiction does not have a construction and demolition waste management ordinance, submit a construction waste management plan that:

1. Identifies the construction and demolition waste materials to be diverted from disposal by efficient usage, recycling, reuse on the project or salvage for future use or sale.
2. Determines if construction and demolition waste materials will be sorted on-site (source-separated) or bulk mixed (single stream).
3. Identifies diversion facilities where construction and demolition waste material collected will be taken.
4. Specifies that the amount of construction and demolition waste materials diverted shall be calculated by weight or volume, but not by both.

5.408.1.2 Waste Management Company. Utilize a waste management company that can provide verifiable documentation that the percentage of construction and demolition waste material diverted from the landfill complies with this section.

Note: The owner or contractor shall make the determination if the construction and demolition waste material will be diverted by a waste management company.

Exceptions to Sections 5.408.1.1 and 5.408.1.2:

1. Excavated soil and land-clearing debris.
2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist.
3. Demolition waste meeting local ordinance or calculated in consideration of local recycling facilities and markets.

5.408.1.3 Waste stream reduction alternative. The combined weight of new construction disposal that does not exceed two pounds per square foot of building area may be deemed to meet the 65% minimum requirement as approved by the enforcing agency.

5.408.1.4 Documentation. Documentation shall be provided to the enforcing agency which demonstrates compliance with Sections 5.408.1.1, through 5.408.1.3. The waste management plan shall be updated as necessary and shall be accessible during construction for examination by the enforcing agency.

Notes:

1. Sample forms found in "A Guide to the California Green Building Standards Code (Nonresidential)" located at www.bsc.ca.gov/Home/CALGreen.aspx may be used to assist in documenting compliance with the waste management plan.
2. Mixed construction and demolition debris processors can be located at the California Department of Resources Recycling and Recovery (CalRecycle).

5.408.2 UNIVERSAL WASTE. [A] Additions and alterations to a building or tenant space that meet the scoping provisions in Section 301.3 for nonresidential additions and alterations, shall require verification that Universal Waste items such as fluorescent lamps and ballast and mercury containing thermostats as well as other California prohibited Universal Waste materials are disposed of properly and are diverted from landfills. A list of prohibited Universal Waste materials shall be included in the construction documents.

Note: Refer to the Universal Waste Rule link at:
http://www.dtsc.ca.gov/LawsRegsPolicies/Regs/upload/OEAR-A_REGS_UWR_FinalText.pdf

5.408.3 EXCAVATED SOIL AND LAND CLEARING DEBRIS. 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed.

Exception: Reuse, either on or off-site, of vegetation or soil contaminated by disease or pest infestation.

Notes:

1. If contamination by disease or pest infestation is suspected, contact the County Agricultural Commissioner and follow its direction for recycling or disposal of the material.
2. For a map of know pest and/or disease quarantine zones, consult with the California Department of Food and Agriculture. (www.cdfa.ca.gov)

SECTION 5.410 BUILDING MAINTENANCE AND OPERATIONS

5.410.1 RECYCLING BY OCCUPANTS. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive.

Exception: Rural jurisdictions that meet and apply for the exemption in Public Resources Code 42649.82 (a)(2)(A) et seq, shall also be exempt from the organic waste portion of this section.

5.410.1.1 Additions. All additions conducted within a 12-month period under single or multiple permits, resulting in an increase of 30% or more in floor area, shall provide recycling areas on site.

Exception: Additions within a tenant space resulting in less than a 30% increase in the tenant space floor area.

5.410.1.2 Sample ordinance. Space allocation for recycling areas shall comply with Chapter 18, Part 3, Division 30 of the *Public Resources Code*. Chapter 18 is known as the California Solid Waste Reuse and Recycling Access Act of 1991 (Act).

Note: A sample ordinance for use by local agencies may be found in Appendix A of the document at the CalRecycle's web site.

5.410.2 COMMISSIONING. [N] New buildings 10,000 square feet and over. For new buildings 10,000 square feet and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements. Commissioning shall be performed in accordance with this section by trained personnel with experience on projects of comparable size and complexity. For I-occupancies that are not regulated by OSHPD or for I-occupancies and L-occupancies that are not regulated y the California Energy Code Section 100.0 Scope, all requirements in Sections 5.410.2 through 5.410.2.6 shall apply.

Note: For energy-related systems under the scope (Section 100) of the California Energy Code, including heating, ventilation, air conditioning (HVAC) systems and controls, indoor lighting systems and controls, as well as water heating systems and controls, refer to California Energy Code Section 120.8 for commissioning requirements

Commissioning requirements shall include:

1. Owner's or Owner representative's project requirements.
2. Basis of design.
3. Commissioning measures shown in the construction documents.
4. Commissioning plan.
5. Functional performance testing.
6. Documentation and training.
7. Commissioning report.

Exceptions:

1. Unconditioned warehouses of any size.
2. Areas less than 10,000 square feet used for offices or other conditioned accessory spaces within unconditioned warehouses.
3. Tenant improvements less than 10,000 square feet as described in Section 303.1.1.
4. Open parking garages of any size, or open parking garage areas, of any size, within a structure.

Note: For the purposes of this section, unconditioned shall mean a building, area, or room which does not provide heating and or air conditioning.

Informational Notes:

1. IAS AC 476 is an accreditation criteria for organizations providing training and/or certification of commissioning personnel. AC 476 is available to the Authority Having Jurisdiction as a reference for qualifications of commissioning personnel. AC 476 des not certify individuals to conduct functional performance tests or to adjust and balance systems.

2. Functional performance testing for heating, ventilation, air conditioning systems and lighting controls must be performed in compliance with the *California Energy Code*.

5.410.2.1 Owner's or Owner Representative's Project Requirements (OPR). [N] The expectations and requirements of the building appropriate to its phase shall be documented before the design phase of the project begins. This documentation shall include the following:
1. Environmental and sustainability goals.
2. Building sustainable goals.
3. Indoor environmental quality requirements.
4. Project program, including facility functions and hours of operation, and need for after hours operation,
5. Equipment and systems expectations.
6. Building occupant and operation and maintenance (O&M) personnel expectations.

5.410.2.2 Basis of Design (BOD). [N] A written explanation of how the design of the building systems meets the OPR shall be completed at the design phase of the building project. The Basis of Design document shall cover the following systems:

1. Renewable energy systems.
2. Landscape irrigation systems.
3. Water reuse system.

5.410.2.3 Commissioning plan. [N] Prior to permit issuance a commissioning plan shall be completed to document how the project will be commissioned. The commissioning plan shall include the following:
1. General project information.
2. Commissioning goals.
3. Systems to be commissioned. Plans to test systems and components shall include:
   a. An explanation of the original design intent.
   b. Equipment and systems to be tested, including the extent of tests.
   c. Functions to be tested.
   d. Conditions under which the test shall be performed.
   e. Measurable criteria for acceptable performance.
4. Commissioning team information.
5. Commissioning process activities, schedules and responsibilities. Plans for the completion of commissioning shall be included.

5.410.2.4 Functional performance testing. [N] Functional performance tests shall demonstrate the correct installation and operation of each component, system and system-to-system interface in accordance with the approved plans and specifications. Functional performance testing reports shall contain Information addressing each of the building components tested, the testing methods utilized, and include any readings and adjustments made.

5.410.2.5 Documentation and training. [N] A Systems Manual and Systems Operations Training are required, including Occupational Safety and Health Act (OSHA) requirements in *California Code of Regulations* (CCR), Title 8, Section 5142, and other related regulations.

5.410.2.5.1 Systems manual. [N] Documentation of the operational aspects of the building shall be completed within the systems manual and delivered to the building owner or representative. The systems manual shall include the following:
1. Site information, including facility description, history and current requirements.
2. Site contact information.
3. Basic operations and maintenance, including general site operating procedures, basic troubleshooting, recommended maintenance requirements, site events log.
4. Major systems.
5. Site equipment inventory and maintenance notes.
6. A copy of verifications required by the enforcing agency or this code.
7. Other resources and documentation, if applicable.

5.410.2.5.2 Systems operations training. [N] A program for training of the appropriate maintenance staff for each equipment type and/or system shall be developed and documented in the commissioning report and shall include the following:
1. System/equipment overview (what it is, what it does and with what other systems and/or equipment it interfaces).
2. Review and demonstration of servicing/preventive maintenance.
3. Review of the information in the Systems Manual.
4. Review of the record drawings on the system/equipment.

5.410.2.6 Commissioning report. [N] A report of commissioning process activities undertaken through the design and construction phases of the building project shall be completed and provided to the owner or representative.

5.410.4 TESTING AND ADJUSTING. New buildings less than 10,000 square feet. Testing and adjusting of systems shall be required for new buildings less than 10,000 square feet or new systems to serve an addition or alteration subject to Section 303.1.

5.410.4.2 (Reserved)

Note: For energy-related systems under the scope (Section 100) of the California Energy Code, including heating, ventilation, air conditioning (HVAC) systems and controls, indoor lighting system and controls, as well as water heating systems and controls, refer to California Energy Code Section 120.8 for commissioning requirements and Sections 120.5, 120.6, 130.4, and 140.9(b)3 for additional testing requirements of specific systems.

5.410.4.2 Systems. Develop a written plan of procedures for testing and adjusting systems. Systems to be included for testing and adjusting shall include at a minimum, as applicable to the project:

1. Renewable energy systems.
2. Landscape irrigation systems.
3. Water reuse systems.

5.410.4.3 Procedures. Perform testing and adjusting procedures in accordance with manufacturer's specifications and applicable standards on each system.

5.410.4.3.1 HVAC balancing. In addition to testing and adjusting, before a new space-conditioning system serving a building or space is operated for normal use, the system shall be balanced in accordance with the procedures defined by the Testing Adjusting and Balancing Bureau National Standards; the National Environmental Balancing Bureau Procedural Standards; Associated Air Balance Council National Standards or as approved by the enforcing agency.

5.410.4.4 Reporting. After completion of testing, adjusting and balancing, provide a final report of testing signed by the individual responsible for performing these services.

5.410.4.5 Operation and maintenance (O & M) manual. Provide the building owner or representative with detailed operating and maintenance instructions and copies of guaranties/warranties for each system. O & M instructions shall be consistent with OSHA requirements in CCR, Title 8, Section 5142, and other related regulations.

5.410.4.5.1 Inspections and reports. Include a copy of all inspection verifications and reports required by the enforcing agency.

DIVISION 5.5 ENVIRONMENTAL QUALITY

SECTION 5.501 GENERAL

5.501.1 SCOPE. The provisions of this chapter shall outline means of reducing the quantity of air contaminants that are odorous, irritating, and/or harmful to the comfort and well-being of a building's installers, occupants and neighbors.

SECTION 5.502 DEFINITIONS

5.502.1 DEFINITIONS. The following terms are defined in Chapter 2 *(and are included here for reference)*

ARTERIAL HIGHWAY. A general term denoting a highway primarily for through traffic usually on a continuous route.

A-WEIGHTED SOUND LEVEL (dBA). The sound pressure level in decibels as measured on a sound level meter using the internationally standardized A-weighting filter or as computed from sound spectral data to which A-weighting adjustments have been made.

1 BTU/HOUR. British thermal units per hour, also referred to as Btu. The amount of heat required to raise one pound of water one degree Fahrenheit per hour, a common measure of heat transfer rate. A ton of refrigeration is 12,000 Btu, the amount of heat required to melt a ton (2,000 pounds) of ice at 32^{0} Fahrenheit.

COMMUNITY NOISE EQUIVALENT LEVEL (CNEL). A metric similar to the day-night average sound level (Ldn), except that a 5 decibel adjustment is added to the equivalent continuous sound exposure level for evening hours (7pm to 10pm) in addition to the 10 dB nighttime adjustment used in the Ldn.

COMPOSITE WOOD PRODUCTS. Composite wood products include hardwood plywood, particleboard and medium density fiberboard. "Composite wood products" does not include hardboard, structural plywood, structural panels, structural composite lumber, oriented strand board, glued laminated timber, timber, prefabricated wood I-joists or finger–jointed lumber, all as specified in California Code of Regulations (CCR), Title 17, Section 93120.1(a).

Note: See CCR, Title 17, Section 93120.1.

DAY-NIGHT AVERAGE SOUND LEVEL (Ldn). The A-weighted equivalent continuous sound exposure level for a 24-hour period with a 10 dB adjustment added to sound levels occurring during nighttime hours (10p.m. to 7 a.m.).

DECIBEL (db). A measure on a logarithmic scale of the magnitude of a particular quantity (such as sound pressure, sound power, sound intensity) with respect to a reference quantity.

ELECTRIC VEHICLE (EV). An automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles, electric motorcycles, and the like, primarily powered by an electric motor that draws current from a rechargeable storage battery, fuel cell, photovoltaic array, or other source of electric current. Plug-in hybrid electric vehicles (PHEV) are considered electric vehicles. For purposes of the *California Electrical Code*, off-road, self-propoelled electric vehicles, such as industrial trucks, hoists, lifts, transports, golf carts, airline ground support equipment, tractors, boats, and the like, are not included.

ELECTRIC VEHICLE CHARGING STATION(S) (EVCS). One or more spaces intended for charging electric vehicles.

ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE). The conductors, including the ungrounded, grounded, and equipment grounding conductors and the electric vehicle connectors, attachment plugs, and all other fittings, devices, power outlets, or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle.

ENERGY EQUIVALENT (NOISE) LEVEL (Leq). The level of a steady noise which would have the same energy as the fluctuating noise level integrated over the time of period of interest.

EXPRESSWAY. An arterial highway for through traffic which may have partial control of access, but which may or may not be divided or have grade separations at intersections.

FREEWAY. A divided arterial highway with full control of access and with grade separations at intersections.

GLOBAL WARMING POTENTIAL (GWP). The radiative forcing impact of one mass-based unit of a given greenhouse gas relative to an equivalent unit of carbon dioxide over a given period of time. Carbon dioxide is the reference compound with a GWP of one.

GLOBAL WARMING POTENTIAL VALUE (GWP VALUE). A 100-year GWP value published by the Intergovernmental Panel on Climate Change (IPCC) in either its Second Assessment Report (SAR) (IPCC, 1995); or Its Fourth Assessment A-3 Report (AR4) (IPCC, 2007). The SAR GWP values are found in column "SAR (100-yr)" of Table 2.14.; the AR4 GWP values are found in column "100 yr" of Table 2.14.

HIGH-GWP REFRIGERANT. A compound used as a heat transfer fluid or gas that is: (a) a chlorofluorocarbon, a hdrochlorofluorocarbon, a hydrofluorocarbon, a perfluorocarbon, or any compound or blend of compounds, with a GWP value equal to or greater than 150, or (B) any ozone depleting substance as defined in Title 40 of the Code of Federal Regulations, Part 82, sec.82.3 (as amended March 10, 2009)**.**

LONG RADIUS ELBOW. Pipe fitting installed between two lengths of pipe or tubing to allow a change of direction, with a radius 1.5 times the pipe diameter.

LOW-GWP REFRIGERANT. A compound used as a heat transfer fluid or gas that: (A) has a GWP value less than 150, and (B) is not an ozone depleting substance as defined in Title 40 of the Code of Federal Regulations, Part 82, sec.82.3 (as amended March 10, 2009).

MERV. Filter minimum efficiency reporting value, based on ASHRAE 52.2–1999.

MAXIMUM INCREMENTAL REACTIVITY (MIR). The maximum change in weight of ozone formed by adding a compound to the "Base REactive Organic Gas (ROG) Mixture" per weight of compound added, expressed to hundreths of a gram (g O^{3}/g ROC).

PRODUCT-WEIGHTED MIR (PWMIR). The sum of all weighted-MIR for all ingredients in a product subject to this article. The PWMIR is the total product reactivity expressed to hundredths of a gram of ozone formed per gram of product (excluding container and packaging).

PSIG. Pounds per square inch, guage.

REACTIVE ORGANIC COMPOUND (ROC). Any compound that has the potential, once emitted, to contribute to ozone formation in the troposphere.

SCHRADER ACCESS VALVES. Access fittings with a valve core installed.

SHORT RADIUS ELBOW. Pipe fitting installed between two lengths of pipe or tubing to allow a change of direction, with a radius 1.0 times the pipe diameter.

SUPERMARKET. For the purposes of Section 5.508.2, a supermarket is any retail food facility with 8,000 square feet or more conditioned area, and that utilizes either refrigerated display cases, or walk-in coolers or freezers connected to remote compressor units or condensing units.

VOC. A volatile organic compound broadly defined as a chemical compound based on carbon chains or rings with vapor pressures greater than 0.1 millimeters of mercury at room temperature. These compounds typically contain hydrogen and may contain oxygen, nitrogen and other elements. See CCR Title 17, Section 94508(a)

Note: Where specific regulations are cited from different agencies such as SCAQMD, ARB, etc., the VOC definition included in that specific regulation is the one that prevails for the specific measure In question.

SECTION 5.503 FIREPLACES

5.503.1 FIREPLACES. Install only a direct-vent sealed-combustion gas or sealed wood-burning fireplace, or a sealed woodstove or pellet stove, and refer to residential requirements in the California Energy Code, Title 24, Part 6, Subchapter 7, Section 150. Woodstoves, pellet stoves and fireplaces shall comply with applicable local ordinances.

5.503.1.1 Woodstoves. Woodstoves and pellet stoves shall comply with U.S. EPA New Source Performance Standards (NSPS) emission limits as applicable, and shall have a permanent label indicating they are certified to meet the emission limits.

SECTION 5.504 POLLUTANT CONTROL

5.504.1 TEMPORARY VENTILATION. The permanent HVAC system shall only be used during construction if necessary to condition the building or areas of addition or alteration within the required temperature range for material and equipment installation. If the HVAC system is used during construction, use return air filters with a Minimum Efficiency Reporting Value (MERV) of 8, based on ASHRAE 52.2-1999, or an average efficiency of 30% based on ASHRAE 52.1-1992 Replace all filters immediately prior to occupancy, or, if the building is occupied during alteration, at the conclusion of construction.

5.504.3 Covering of duct openings and protection of mechanical equipment during construction. At the time of rough installation and during storage on the construction site until final startup of the heating, cooling and ventilation equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheetmetal or other methods acceptable to the enforcing agency to reduce the amount of dust, water and debris which may enter the system.

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Project:
Fresno County
Environmental Compliance Center
Phase 3: Warehouse Building

Project Address: 310 S. West Avenue, Fresno CA 93706
APN: 458-060-72

Issue Date:
Project No. T90203
File Path: G:Capital \ Projects \ Building Numbers \ American Ave Landfill \ T90203 Environmental Compliance Center\ 00 2018 ECC

Sheet Content:
CAL GREEN COMPLIANCE SHEET 2

Fresno County Department of Public Works and Planning
Capital Projects
2220 Tulare Street, 8th Floor
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Sheet No.
A4.2

2019 CALIFORNIA GREEN BUILDING STANDARDS CODE
NONRESIDENTIAL MANDATORY MEASURES, SHEET 3 (January 2020, Includes August 2019 Supplement)

Y = YES
N/A = NOT APPLICABLE
RESPON. PARTY = RESPONSIBLE PARTY
A — ARCHITECT
E — ENGINEER
O — OWNER
C — CONTRACTOR
I — INSPECTOR

5.504.4 FINISH MATERIAL POLLUTANT CONTROL. Finish materials shall comply with Sections 5.504.4.1 through 5.504.4.6.

5.504.4.1 Adhesives, sealants and caulks. Adhesives, sealants, and caulks used on the project shall meet the requirements of the following standards;

1. Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers and caulks shall comply with local or regional air pollution control or air quality management district rules where applicable, or SCAQMD Rule 1168 VOC limits, as shown in Tables 5.504.4,1 and 5.504.4,2. Such products also shall comply with the Rule 1168 prohibition on the use of certain toxic compounds (chloroform, ethylene dichloride, methylene chloride, perchloroethylene and trichloroethylene), except for aerosol products as specified in subsection 2, below.

2. Aerosol adhesives, and smaller unit sizes of adhesives, and sealant or caulking compounds (in units of product, less packaging, which do not weigh more than one pound and do not consist of more than 16 fluid ounces) shall comply with statewide VOC standards and other requirements, including prohibitions on use of certain toxic compounds, of *California Code of Regulations*, Title 17, commencing with Section 94507.

TABLE 5.504.4.1 - ADHESIVE VOC LIMIT[1,2]

Less Water and Less Exempt Compounds In Grams per Liter

ARCHITECTURAL APPLICATIONS	CURRENT VOC LIMIT
INDOOR CARPET ADHESIVES	50
CARPET PAD ADHESIVES	50
OUTDOOR CARPET ADHESIVES	150
WOOD FLOORING ADHESIVES	100
RUBBER FLOOR ADHESIVES	60
SUBFLOOR ADHESIVES	50
CERAMIC TILE ADHESIVES	65
VCT & ASPHALT TILE ADHESIVES	50
DRYWALL & PANEL ADHESIVES	50
COVE BASE ADHESIVES	50
MULTIPURPOSE CONSTRUCTION ADHESIVES	70
STRUCTURAL GLAZING ADHESIVES	100
SINGLE-PLY ROOF MEMBRANE ADHESIVES	250
OTHER ADHESIVES NOT SPECIFICALLY LISTED	50
SPECIALTY APPLICATIONS	
PVC WELDING	510
CPVC WELDING	490
ABS WELDING	325
PLASTIC CEMENT WELDING	250
ADHESIVE PRIMER FOR PLASTIC	550
CONTACT ADHESIVE	80
SPECIAL PURPOSE CONTACT ADHESIVE	250
STRUCTURAL WOOD MEMBER ADHESIVE	140
TOP & TRIM ADHESIVE	250
SUBSTRATE SPECIFIC APPLICATIONS	
METAL TO METAL	30
PLASTIC FOAMS	50
POROUS MATERIAL (EXCEPT WOOD)	50
WOOD	30
FIBERGLASS	80

1. IF AN ADHESIVE IS USED TO BOND DISSIMILAR SUBSTRATES TOGETHER, THE ADHESIVE WITH THE HIGHEST VOC CONTENT SHALL BE ALLOWED.

2. FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THIS TABLE, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168, www.arb.ca.gov/DRDB/SC/CURHTML/R1168.PDF

TABLE 5.504.4.2 - SEALANT VOC LIMIT

Less Water and Less Exempt Compounds in Grams per Liter

SEALANTS	CURRENT VOC LIMIT
ARCHITECTURAL	250
MARINE DECK	760
NONMEMBRANE ROOF	300
ROADWAY	250
SINGLE-PLY ROOF MEMBRANE	450
OTHER	420
SEALANT PRIMERS	
ARCHITECTURAL	
NONPOROUS	250
POROUS	775
MODIFIED BITUMINOUS	500
MARINE DECK	760
OTHER	750

NOTE: FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THESE TABLES, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168.

5.504.4.3 Paints and coatings. Architectural paints and coatings shall comply with VOC limits in Table 1 of the ARB Architectural Coatings Suggested Control Measure, as shown in Table 5.504.4.3, unless more stringent local limits apply. The VOC content limit for coatings that do not meet the definitions for the specialty coatings categories listed in Table 5.504.4.3 shall be determined by classifying the coating as a Flat, Nonflat or Nonflat-High Gloss coating, based on its gloss, as defined in Subsections 4.21, 4.36 and 4.37 of the 2007 California Air Resources Board Suggested Control Measure, and the corresponding Flat, Nonflat or Nonflat-High Gloss VOC limit in Table 5.504.4.3 shall apply.

5.504.4.3.1 Aerosol Paints and coatings. Aerosol paints and coatings shall meet the PWMIR Limits for ROC in Section 94522(a)(3) and other requirements, including prohibitions on use of certain toxic compounds and ozone depleting substances, in Sections 94522(c)(2) and (d)(2) of *California Code of Regulations*, Title 17, commencing with Section 94520; and in areas under the jurisdiction of the Bay Area Air Quality Management District additionally comply with the percent VOC by weight of product limits of Regulation 8 Rule 49.

TABLE 5.504.4.3 - VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS[2,3]

GRAMS OF VOC PER LITER OF COATING, LESS WATER & LESS EXEMPT COMPOUNDS

COATING CATEGORY	CURRENT VOC LIMIT
FLAT COATINGS	50
NONFLAT COATINGS	100
NONFLAT HIGH GLOSS COATINGS	150
SPECIALTY COATINGS	
ALUMINUM ROOF COATINGS	400
BASEMENT SPECIALTY COATINGS	400
BITUMINOUS ROOF COATINGS	50
BITUMINOUS ROOF PRIMERS	350
BOND BREAKERS	350
CONCRETE CURING COMPOUNDS	350
CONCRETE/MASONRY SEALERS	100
DRIVEWAY SEALERS	50
DRY FOG COATINGS	150
FAUX FINISHING COATINGS	350
FIRE RESISTIVE COATINGS	350
FLOOR COATINGS	100
FORM-RELEASE COMPOUNDS	250
GRAPHIC ARTS COATINGS (SIGN PAINTS)	500
HIGH-TEMPERATURE COATINGS	420
INDUSTRIAL MAINTENANCE COATINGS	250
LOW SOLIDS COATINGS[1]	120
MAGNESITE CEMENT COATINGS	450
MASTIC TEXTURE COATINGS	100
METALLIC PIGMENTED COATINGS	500
MULTICOLOR COATINGS	250
PRETREATMENT WASH PRIMERS	420
PRIMERS, SEALERS, & UNDERCOATERS	100
REACTIVE PENETRATING SEALERS	350
RECYCLED COATINGS	250
ROOF COATINGS	50
RUST PREVENTATIVE COATINGS	250
SHELLACS:	
CLEAR	730
OPAQUE	550
SPECIALTY PRIMERS, SEALERS & UNDERCOATERS	100
STAINS	250
STONE CONSOLIDANTS	450
SWIMMING POOL COATINGS	340
TRAFFIC MARKING COATINGS	100
TUB & TILE REFINISH COATINGS	420
WATERPROOFING MEMBRANES	250
WOOD COATINGS	275
WOOD PRESERVATIVES	350
ZINC-RICH PRIMERS	340

1. GRAMS OF VOC PER LITER OF COATING, INCLUDING WATER & EXEMPT COMPOUNDS

2. THE SPECIFIED LIMITS REMAIN IN EFFECT UNLESS REVISED LIMITS ARE LISTED IN SUBSEQUENT COLUMNS IN THE TABLE.

3. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, ARCHITECTURAL COATINGS SUGGESTED CONTROL MEASURE, FEB. 1, 2008. MORE INFORMATION IS AVAILABLE FROM THE AIR RESOURCES BOARD.

5.504.4.3.2 Verification. Verification of compliance with this section shall be provided at the request of the enforcing agency. Documentation may include, but is not limited to, the following:

1. Manufacturer's product specification
2. Field verification of on-site product containers

5.504.4.4 Carpet Systems. All carpet installed in the building interior shall meet at least one of the testing and product requirements:

1. Carpet and Rug Institute's Green Label Plus Program,
2. Compliant with the VOC-emission limits and testing requirements specified in the California Department of Public Health Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, Version 1.1, February 2010 (also known as CDPH Standard Method V1.1 or Specification 01350).
3. NSF/ANSI 140 at the Gold level or higher;
4. Scientific Certifications Systems Sustainable Choice; or
5. Compliant with the Collaborative for High Performance Schools California (2014 CA-CHPS) Criteria listed in the CHPS High Performance Product Database.

5.504.4.4.1 Carpet cushion. All carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute Green Label program.

5.504.4.4.2 Carpet adhesive. All carpet adhesive shall meet the requirements of Table 5.504.4.1.

5.504.4.5 Composite wood products. Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the buildings shall meet the requirements for formaldehyde as specified in ARB's Air Toxics Control Measure (ATCM) for Composite Wood (17 CCR 93120 et seq.). Those materials not exempted under the ATCM must meet the specified emission limits, as shown in Table 5.504.4.5.

5.504.4.5.3 Documentation. Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following:

1. Product certifications and specifications.
2. Chain of custody certifications.
3. Product labeled and invoiced as meeting the Composite Wood Products regulation (see CCR, Title 17, Section 93120, et seq.),
4. Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian AS/NZS 2269 or European 636 3S standards.
5. Other methods acceptable to the enforcing agency.

TABLE 5.504.4.5 - FORMALDEHYDE LIMITS[1]

MAXIMUM FORMALDEHYDE EMISSIONS IN PARTS PER MILLION

PRODUCT	CURRENT LIMIT
HARDWOOD PLYWOOD VENEER CORE	0.05
HARDWOOD PLYWOOD COMPOSITE CORE	0.05
PARTICLE BOARD	0.09
MEDIUM DENSITY FIBERBOARD	0.11
THIN MEDIUM DENSITY FIBERBOARD[2]	0.13

1. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE WITH ASTM E 1333. FOR ADDITIONAL INFORMATION, SEE CALIFORNIA CODE OF REGULATIONS, TITLE 17, SECTIONS 93120 THROUGH 93120.12.

2. THIN MEDIUM DENSITY FIBERBOARD HAS A MAXIMUM THICKNESS OF 5/16 INCHES (8 MM).

5.504.4.6 Resilient flooring systems. For 80 percent of floor area receiving resilient flooring, installed resilient flooring shall meet at least one of the following:

1. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program;
2. Compliant with the VOC-emission limits and testing requirements specified in the California Department of Public Health's 2010 Standard Method for the Testing and Evaluation Chambers, Version 1.1, February 2010;
3. Compliant with the Collaborative for High Performance Schools California (2014 CA-CHPS) Criteria and listed in the CHPS High Performance Product Database; or
4. Products certified under UL GREENGUARD Gold (formerly the Greenguard Children's & Schools Program).

5.504.4.6.1 Verification of compliance. Documentation shall be provided verifying that resilient flooring materials meet the pollutant emission limits.

5.504.5.3 Filters. In mechanically ventilated buildings, provide regularly occupied areas of the building with air filtration media for outside and return air that provides at least a Minimum Efficiency Reporting Value (MERV) of 13. MERV 13 filters shall be installed prior to occupancy, and recommendations for maintenance with filters of the same value shall be included in the operation and maintenance manual.

Exceptions: Existing mechanical equipment.

5.504.5.3.1 Labeling. Installed filters shall be clearly labeled by the manufacturer indicating the MERV rating.

5.504.7 ENVIRONMENTAL TOBACCO SMOKE (ETS) CONTROL. Where outdoor areas are provided for smoking, prohibit smoking within 25 feet of building entries, outdoor air intakes and operable windows and within the building as already prohibited by other laws or regulations; or as enforced by ordinances, regulations or policies of any city, county, city and county, California Community College, campus of the California State University, or campus of the University of California, whichever are more stringent. When ordinances, regulations or policies are not in place, post signage to inform building occupants of the prohibitions.

SECTION 5.505 INDOOR MOISTURE CONTROL

5.505.1 INDOOR MOISTURE CONTROL. Buildings shall meet or exceed the provisions of California Building Code, CCR, Title 24, Part 2, Sections 1202 (Ventilation) and Chapter 14 (Exterior Walls). For additional measures, see Section 5.407.2 of this code.

SECTION 5.506 INDOOR AIR QUALITY

5.506.1 OUTSIDE AIR DELIVERY. For mechanically or naturally ventilated spaces in buildings, meet the minimum requirements of Section 120.1 (Requirements For Ventilation) of the *California Energy Code*, or the applicable local code, whichever is more stringent, and Division 1, Chapter 4 of CCR, Title 8.

5.506.2 CARBON DIOXIDE (CO_2) MONITORING. For buildings or additions equipped with demand control ventilation, CO_2 sensors and ventilation controls shall be specified and installed in accordance with the requirements of the California Energy Code, Section 120(c)(4).

SECTION 5.507 ENVIRONMENTAL COMFORT

5.507.4 ACOUSTICAL CONTROL. Employ building assemblies and components with Sound Transmission Class (STC) values determined in accordance with ASTM E 90 and ASTM E 413, or Outdoor-Indoor Sound Transmission Class (OITC) determined in accordance with ASTM E 1332, using either the prescriptive or performance method in Section 5.507.4.1 or 5.507.4.2.

Exception: Buildings with few or no occupants or where occupants are not likely to be affected by exterior noise, as determined by the enforcement authority, such as factories, stadiums, storage, enclosed parking structures and utility buildings.

Exception: [DSA-SS] For public schools and community colleges, the requirements of this section and all subsections apply only to new construction.

5.507.4.1 Exterior noise transmission, prescriptive method. Wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall meet a composite STC rating of at least 50 or a composite OITC rating of no less than 40, with exterior windows of a minimum STC of 40 or OITC of 30 in the following locations:

1. Within the 65 CNEL noise contour of an airport.

   Exceptions:

   1. L_{dn} or CNEL for military airports shall be determined by the facility Air Installation Compatible Land Use Zone (AICUZ) plan.
   2. L_{dn} or CNEL for other airports and heliports for which a land use plan has not been developed shall be determined by the local general plan noise element.

2. Within the 65 CNEL or L_{dn} noise contour of a freeway or expressway, railroad, industrial source or fixed-guideway source as determined by the Noise Element of the General Plan.

5.507.4.1.1. Noise exposure where noise contours are not readily available. Buildings exposed to a noise level of 65 dB L_{eq} - 1-hr during any hour of operation shall have building, addition or alteration exterior wall and roof-ceiling assemblies exposed to the noise source meeting a composite STC rating of at least 45 (or OITC 35), with exterior windows of a minimum STC of 40 (or OITC 30).

5.507.4.2 Performance Method. For buildings located as defined in Section 5.507.4,1 or 5.507.4.1.1, wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall be constructed to provide an interior noise environment attributable to exterior sources that does not exceed an hourly equivalent noise level (Leq-1Hr) of 50 dBA in occupied areas during any hour of operation.

5.507.4.2.1 Site Features. Exterior features such as sound walls or earth berms may be utilized as appropriate to the building, addition or alteration project to mitigate sound migration to the interior.

5.507.4.2.2 Documentation of Compliance. An acoustical analysis documenting complying interior soundlevels shall be prepared by personnel approved by the architect or engineer of record.

5.507.4.3 Interior sound transmission. Wall and floor-ceiling assemblies separating tenant spaces and tenant spaces and public places shall have an STC of at least 40.

Note: Examples of assemblies and their various STC ratings may be found at the California Office of Noise Control: www.toolbase.org/PDF/CaseStudies/stc_icc_ratings.pdf.

SECTION 5.508 OUTDOOR AIR QUALITY

5.508.1 Ozone depletion and greenhouse gas reductions. Installations of HVAC, refrigeration and fire suppression equipment shall comply with Sections 5.508.1.1 and 5.508.1.2.

5.508.1.1 Chlorofluorocarbons (CFCs). Install HVAC, refrigeration and fire suppression equipment that do not contain CFCs.

5.508.1.2 Halons. Install HVAC, refrigeration and fire suppression equipment that do not contain Halons.

5.508.2 Supermarket refrigerant leak reduction. New commercial refrigeration systems shall comply with the provisions of this section when installed in retail food stores 8,000 square feet or more conditioned area, and that utilize either refrigerated display cases, or walk-in coolers or freezers connected to remote compressor units or condensing units. The leak reduction measures apply to refrigeration systems containing high-global-warming potential (high-GWP) refrigerants with a GWP of 150 or greater. New refrigeration systems include both new facilities and the replacement of existing refrigeration systems in existing facilities.

Exception: Refrigeration systems containing low-global warming potential (low-GWP) refrigerant with a GWP value less than 150 are not subject to this section. Low-GWP refrigerants are nonozone-depleting refrigerants that include ammonia, carbon dioxide (CO_2), and potentially other refrigerants.

5.508.2.1 Refrigerant piping. Piping compliant with the California Mechanical Code shall be installed to be accessible for leak protection and repairs. Piping runs using threaded pipe, copper tubing with an outside diameter (OD) less than 1/4 inch, flared tubing connections and short radius elbows shall not be used in refrigerant systems except as noted below.

5.508.2.1.1 Threaded pipe. Threaded connections are permitted at the compressor rack.

5.508.2.1.2 Copper pipe. Copper tubing with an OD less than 1/4 inch may be used in systems with a refrigerant charge of 5 pounds or less.

5.508.2.1.2.1 Anchorage. One-fouth-inch OD tubing shall be securely clamped to a rigid base to keep vibration levels below 8 mils.

5.508.2.1.3 Flared tubing connectlons. Double-flared tubing connections may be used for pressure controls, valve pilot lines and oil.

Exception: Single-flared tubing connections may be used with a multiring seal coated with industrial sealant suitable for use with refrigerants and tightened in accordance with manufacturer's recommendations.

5.508.2.1.4 Elbows. Short radius elbows are only permitted where space limitations prohibit use of long radius elbows.

5.508.2.2 Valves. Valves Valves and fittings shall comply with the *California Mechanical Code* and as follows.

5.508.2.2.1 Pressure rellef valves. For vessels containing high-GWP refrigerant, a rupture disc shall be installed between the outlet of the vessel and the inlet of the pressure relief valve.

5.508.2.2.1.1 Pressure detection. A pressure gauge, pressure transducer or other device shall be installed in the space between the rupture disc and the relief valve inlet to indicate a disc rupture or discharge of the relief valve.

5.508.2.2.2 Access valves. Only Schrader access valves with a brass or steel body are permitted for use.

5.508.2.2.2.1 Valve caps. For systems with a refrigerant charge of 5 pounds or more, valve caps shall be brass or steel and not plastic.

5.508.2.2.2.2 Seal caps. If designed for it, the cap shall have a neoprene O-ring in place.

5.508.2.2.2.2.1 Chain tethers. Chain tethers to fit ovr the stem are required for valves designed to have seal caps.

Exception: Valves with seal caps that are not removed from the valve during stem operation.

5.508.2.3 Refrigerated servlce cases. Refrigerated service cases holding food products containing vinegar and salt shall have evaporator coils of corrosion-resistant material, such as stainless steel; or be coated to prevent corrosion from these substances.

5.508.2.3.1 Coil coating. Consideration shall be given to the heat transfer efficiency of coil coating to maximize energy efficiency.

5.508.2.4 Refrigerant receilvers. Refrigerant receivers with capacities greater than 200 pounds shall be fitted with a device tha indicates the level of refrigerant in the receiver.

5.508.2.5 Pressure testing. The system shall be pressure tested during installation prior to evacuation and charging.

5.508.2.5.1 Minimum pressure. The system shall be charged with regulated dry nitrogen and appropriate tracer gas to bring system pressure up to 300 psig minimum.

5.508.2.5.2 Leaks. Check the system for leaks, repair any leaks, and retest for pressure using the same gauge.

5.508.2.5.3 Allowable pressure change. The system shall stand, unaltered, for 24 hours with no more than a +/- one pound pressure change from 300 psig, measured with the same gauge.

5.508.2.6 Evacuation. The system shall be evacuated after pressure testing and prior to charging.

5.508.2.6.1 Flrst vacuum. Pull a system vacuum down to at least 1000 microns (+/- 50 microns), and hold for 30 minutes.

5.508.2.6.2 Second vacuum. Pull a second system vacuum to a minimum of 500 microns and hold for 30 minutes.

5.508.2.6.3 Thlrd vacuum. Pull a third vacuum down to a minimum of 300 mlcrons, and hold for 24 hours with a maximum drift of 100 microns over a 24-hour period.

CHAPTER 7
INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS

702 QUALIFICATIONS

702.1 INSTALLER TRAINING. HVAC system installers shall be trained and certified in the proper installation of HVAC systems including ducts and equipment by a nationally or regionally recognized training or certification program. Uncertified persons may perform HVAC installations when under the direct supervision and responsibility of a person trained and certified to install HVAC systems or contractor licensed to install HVAC systems. Examples of acceptable HVAC training and certification programs include but are not limited to the following:

1. State certified apprenticeship programs.
2. Public utility training programs.
3. Training programs sponsored by trade, labor or statewide energy consulting or verification organizations.
4. Programs sponsored by manufacturing organizations.
5. Other programs acceptable to the enforcing agency.

702.2 SPECIAL INSPECTION [HCD]. When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition to other certifications or qualifications acceptable to the enforcing agency, the following certifications or education may be considered by the enforcing agency when evaluating the qualifications of a special inspector:

1. Certification by a national or regional green building program or standard publisher.
2. Certification by a statewide energy consulting or verification organization, such as HERS raters, building performance contractors, and home energy auditors.
3. Successful completion of a third party apprentice training program in the appropriate trade.
4. Other programs acceptable to the enforcing agency.

Notes:

1. Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.
2. HERS raters are special inspectors certified by the California Energy Commission (CEC) to rate homes In California according to the Home Energy Rating System (HERS).

[BSC-CG] When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition, the special inspector shall have a certification from a recognized state, national or international association, as determined by the local agency. The area of certification shall be closely related to the primary job function, as determined by the local agency.

Note: Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.

703 VERIFICATIONS

703.1 DOCUMENTATION. Documentation used to show compliance with this code shall include but is not limited to, construction documents, plans, specifications, builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which demonstrate substantial conformance. When specific documentation or special inspection is necessary to verify compliance, that method of compliance will be specified in the appropriate section or identified applicable checklist.

LICENSED ARCHITECT TIANA L. PEREZ C-38000 REN: 01-31-23 STATE OF CALIFORNIA

ARCHITECT:
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Project:
Fresno County
Environmental Compliance Center
Phase 3: Warehouse Building

Project Address: 310 S. West Avenue, Fresno CA 93706
APN: 458-060-72

Issue Date:
Project No. T90203
File Path: G:Capital \ Projects \ Building Numbers \ American Ave Landfill \ T90203 Environmental Compliance Center\ 00 2018 ECC

Sheet Content:
CAL GREEN COMPLIANCE SHEET 3

Fresno County Department of Public Works and Planning
Capital Projects
2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.
A4.3

Drawn by: MR (DJA)

Plotted on: 05.10.2021

STRUCTURAL NOTES

GENERAL NOTES

1. The following notes, typical details and schedules shall apply to all phases of this project unless otherwise shown or noted.
2. Specific notes and details shall take precedence over general notes and typical details.
3. All materials and workmanship shall conform to the minimum standards of the 2019 edition of the California Building Code (CBC) and such other regulating agencies exercising authority over any portion of the work. The contractor shall have a current copy of the CBC (print or digital version) on the job site.
4. The Construction Documents shall consist of these notes, details, schedules, plans, drawings, and Specifications.
5. All specifications, including but not limited to materials and products, shall be those put forth in the Construction Documents. No substitutions shall be permitted to be used or assumed to be used in the bidding or construction process without written approval by the Engineer of Record.
6. The contractor shall examine the Construction Documents and shall notify the Engineer of Record of any discrepancies they may find before proceeding with the work.
7. All information on existing conditions shown on drawings are based on best present knowledge available, but without guarantee of accuracy. The Contractor shall verify and be responsible for all dimensions and conditions at the site and shall notify the Engineer of Record of any discrepancies between actual site conditions and information shown on or in the Construction Documents before proceeding with work.
8. The Contractor shall immediately notify the Engineer of Record of any condition which in their opinion might endanger the stability of the structure or cause distress of the structure.
9. The Contractor shall provide temporary bracing and shoring for all structural members as required for structural stability of the structure during all phases of construction.
10. All work shall conform to the best practice prevailing in the various trades comprising work. The Contractor shall be responsible for coordinating the work of all trades.
11. These Construction Documents represent the finished structure, and do not indicate the method of construction. The Contractor shall supervise and direct the work and shall be solely responsible for construction means, methods, techniques, sequences and procedures.
12. The Contractor shall take all steps necessary to ensure proper alignment of the structure after the installation of all structural and finish materials. This shall include any necessary preloading of the structure to determine final position of the completed work.
13. These notes, details, drawings and Specifications (Construction Documents) do not carry necessary provisions for construction safety. These documents and all phases of construction are to be governed, at all times, by applicable provisions of the current California Occupational Safety and Health Act.
14. Where any conflict occurs between the requirements of federal, state and local laws, codes, ordinances, rules and regulations, the most stringent shall govern.
15. Inspection and approval for shops used for fabrication of structural load bearing members, components, materials or assemblies shall conform to CBC Section 1704.2.5.
    A. Labeling (as required or specified) shall be provided in accordance with CBC Section 1703.5.
    B. Evaluation and follow-up inspection services (as required or specified), shall conform to CBC Section 1703.6.
16. The Contractor shall refer to the Specifications for information not covered by these drawings and General Notes.
17. Observation visits to the project site by field representatives of the Engineer of Record (support services) shall not include inspections of safety or protective measures, nor construction procedures, techniques or methods. Any support services performed by Engineer of Record during any phase of construction, shall be distinguished from continuous and detailed inspection services (as required by any regulating governmental agency, e.g. the Authority Having Jurisdiction) provided by others. These support services, whether of material or work, are performed solely for the purpose of assisting in quality control and in achieving conformance with contract documents, but do not guarantee Contractor's performance and shall not be construed as supervision of construction.
18. Provide openings and supports as required per typical details and notes for mechanical, plumbing, and electrical equipment, vents, ducts, piping, etc. All mechanical, plumbing and electrical equipment shall be properly braced against lateral forces.
19. Refer to drawings by other disciplines to coordinate with Structural Drawings. Any discrepancy between these drawings shall be referred to the Architect or Engineer of Record for clarification prior to the start of construction.
20. Written dimensions shall have precedence over scaled dimensions.
21. Drawings (notes, schedules, details and plans) shall have precedence over Structural Calculations.
22. In the event that certain features of the construction are not fully shown on the drawings or called for in the General Notes or Specifications, their construction shall be of the same character as for similar conditions that are shown or called for.
23. The Contractor shall have a copy of the Project Geotechincal Investigation on the job site.
24. ASTM designation and all standards refer to the latest amendments.
25. These structural Construction Documents shall not be modified without prior written approval of the Engineer of Record.
26. Only structural working drawings approved by the Authority Having Jurisdiction are permitted to be used for construction on this project. All other drawings or documents are obsolete and are not permitted on the job site, nor shall they be used for any construction purposes. Contractors using unapproved drawings or documents are solely responsible for all work not performed in accordance with the "approved" drawings.
27. Refer to Architectural Drawings for all fire protection requirements.

SHOP DRAWING AND CONTRACTOR SUBMITTAL REVIEW

1. Shop Drawings or Contractor Submittals should be provided for the fabrication (or proportioning) of the following (but not limited to) components or elements.
    A. Concrete mix designs
    B. Reinforcing Bar
    C. Structural Steel
    D. Substitute or alternate materials
2. The Contractor shall be responsible for the production of Shop Drawings or Contractor Submittals, the distribution of documents to the Engineer of Record for review, incorporation of any noted revisions made by the Engineer of Record into the documents, and final approval.
3. Shop drawings shall not be a reproduction of structural drawing sheets.
4. When the Contractor submits shop drawings or other submittals to the Engineer of Record for review, submittal package shall contain sufficient copies that the Engineer of Record may retain a complete copy of submittal package.
5. The Contractor shall allow sufficient time for the Engineer of Record to thoroughly review submittal package (10 working days, minimum).
6. Review of Shop Drawings or Contractor Submittal by Engineer of Record does not in any way constitute approval of submittal package. Engineer of Record's review is for general conformance with the design concept and contract documents. Review shall not be construed as relieving the Contractor from compliance with the contract documents.

GRADING

1. Prior to general site grading, existing vegetation, existing underground utilities, and any debris shall be stripped and disposed of outside the construction limits. We estimate the depth of stripping to be less than 4 inches. Stripped topsoil, less any debris, may be stockpiled and reused for landscape purposes. Organics which remain below stripping depth may be incorporated into the fill areas as long as the total amount of organics does not exceed 3 percent, by weight, of the fill material (ASTM D-2974).
2. During site demolition and prior to actual site grading, a reasonable search shall be conducted to locate any undocumented fill soils, wells, trees, or existing utilities that may exist within the area of construction. Any obstructions shall be removed from the project area. If any areas or pockets of soft or saturated soils or void spaces made by burrowing animals, undocumented fill, or other disturbed soil are encountered, they shall be over-excavated to firm native material and replaced with engineered fill constructed as recommended in the project Geotechnical Report. Excavations for removal of the above items shall be backfilled with engineered fill. Any wells not to remain shall be abandoned in accordance with the requirements of the County of Fresno Environmental Health Department.
3. After stripping the site and performing any necessary removals indicated above, the exposed surface (in areas of overexcavation or stripped surface in areas to receive fill) shall be scarified to a depth of 6 inches, uniformly moisture conditioned to at or near optimum moisture content and compacted to the requirements for engineered fill. Shall site grading be performed during or subsequent to wet weather, near-surface site soils may be significantly above optimum moisture content. These conditions could hamper equipment maneuverability and efforts to compact site soils to the recommended compaction criteria. Disking to aerate, chemical treatment, replacement with drier material, stabilization with a geotextile fabric or grid, or other methods may be required to reduce excessive soil moisture and facilitate earthwork operations. Any consideration of chemical treatment (e.g. lime) to facilitate construction would require additional soil chemistry evaluation and could affect landscape areas.
4. All engineered fill soils shall be nearly free of organic or other deleterious debris and less than 3 inches in maximum dimension. The native soil materials, exclusive of debris, may be used as Engineered Fill provided they contain less than 3 percent organics by weight (ASTM D-2974). Any imported fill materials, if any, to be used for engineered fill shall be sampled and tested by the project Geotechnical Engineer prior to being transported to the site.
5. Soils used for engineered fill shall be uniformly moisture-conditioned to at least the optimum moisture content, placed in horizontal lifts less than 8 inches in loose thickness, and compacted to at least 90 percent relative compaction. Disking and/or blending may be required to uniformly moisture-condition soils used for engineered fill.

FOUNDATION

1. Unexpected soil conditions: Allowable values and foundation design are based upon soil conditions shown by test borings as presented in the project Geotechnical Investigation. Actual soil conditions which deviate from that shown in the test borings shall be reported to the Project Geotechnical Engineer immediately.
2. See project Geotechnical Investigation for compaction, fill, backfilling, and site preparation requirements and procedures.
3. Excavate all foundations to required depths into compacted fill or natural soil.
    A. All foundation excavations shall be inspected and approved by the project Geotechnical Engineer, prior to forming and placement of reinforcing and/or concrete.
    B. Foundation excavations shall be cut square and smooth with firm level bottoms.
    C. Care shall be taken not to over-excavate foundations at lower elevations and prevent disturbing soils around higher elevations.
4. Footings shall be poured in neat excavations, without side forms whenever possible.
5. Moisten sides and bottom of excavations several times prior to concrete placement.
6. Foundations shall not be poured until all required reinforcing bar, sleeves, inserts, conduits, pipes, formwork, etc. are properly placed and inspected by the Authority Having Jurisdiction.
7. De-water footing excavations and foundation block-outs to maintain dry working conditions.

REINFORCING BAR

1. All reinforcing bar shall be deformed intermediate grade bars conforming to ASTM A615, Grade 60 (f_y = 60 ksi), unless noted otherwise.
    A. Grade 40 (f_y = 40 ksi) may be used for #3 bars and smaller.
2. Reinforcing bar shall not be welded, unless noted or detailed otherwise.
3. To hold reinforcing bars in their true position and prevent displacement, standard tie and anchorage devices shall be provided. Placing of reinforcement shall conform to ACI 318-14 Section 26.6.2.
4. Shop drawings for fabrication of any reinforcing bar shall be provided by the Contractor and submitted to the Engineer of Record for their review and approval, prior to fabrication.
5. Refer to typical details for minimum splice length and minimum radius of bend for reinforcing bar.
6. All reinforcing bar splices shall be staggered 24", unless noted or detailed otherwise.
7. All reinforcing bar bends shall be made cold.
8. Fabrication, erection and placement of reinforcing bar shall conform to Concrete Reinforcing Steel Institute Manual of Standard Practice.
10. Reinforcing bar shall be clean of rust, grease or other material likely to impair bond.

CONCRETE

1. Concrete shall have a minimum ultimate compressive strength (f'_c) as outlined below. All concrete shall be regular weight (unless noted otherwise).

Location	f'_c at 28 Days	Max. w/c Ratio	Slump	Air Content
Footing & Slab on Grade	3,000 psi	0.50		

2. Maximum Fly Ash content shall be 15%, by weight, of total cementitious materials and shall conform to ASTM C618.
3. All concrete work shall comply with CBC Chapter 19 and ACI 318-14 and latest edition of ACI Manual of Concrete Practice.
4. Special Inspection (as required or specified) shall conform to CBC Chapter 17.
5. Cement shall be Portland Cement Type II/V and shall conform to ASTM C150.
6. Aggregates shall conform to ASTM C33; provide aggregates from a single source.
7. Water shall conform to ASTM C94 and be potable.
8. All splices are to be Class B unless specifically noted otherwise.
9. Minimum concrete cover over reinforcing bar shall be:

Concrete cast against and permanently exposed to earth or weather	3"
Concrete placed against forms, but exposed to earth or weather	2"
Slabs, wall & joists, not exposed to earth or weather	¾"
Beams, girders & columns, not exposed to earth or weather	1½"

(CONT.) CONCRETE

10. Reinforcing bars larger than #8 are not permitted unless noted otherwise.
11. Location of all construction joints, other than specified, shall be approved by Architect/Engineer of Record prior to pouring. Construction joints shall be thoroughly air and water cleaned and heavily roughened so as to expose coarse aggregates. All surfaces to receive concrete shall be maintained continuously wet at least three hours in advance of pouring.
12. All reinforcing steel, anchor bolts, dowels, inserts and any other hardware to be set in concrete shall be well secured in position prior to pouring of concrete.
13. The Contractor shall obtain approval from Architect/Engineer of Record prior to placing sleeves, pipes, ducts, chases, coring and openings on or through structural concrete beams, walls, floors and roof slabs, unless specifically detailed or noted. All pipes or conduits passing through concrete members shall be sleeved with standard steel pipes. See typical detail for pipe through footing.
14. Vibrate all concrete (including slabs on grade) as it is placed, with a mechanical vibrator operated by experienced personnel. The vibrator shall be used to consolidate the concrete, not transport it. Reinforcing and forms shall not be vibrated.
15. Formwork design and removal shall conform to ACI 318-14 Section 26.11. Remove forms in accordance with the following minimum schedule:

Side forms of footings	Minimum 48 hours
Edge forms of slab on grade	Minimum 24 hours
Wall/Retaining Wall forms	72 hours & 70% of design strength
Column forms	72 hours & 70% of design strength
Elevated beams and slabs	14 days & 80% of design strength

16. Concrete shall not free fall more than six feet. Use tremie, pump or other approved methods.
17. Concrete shall be maintained in a moist condition for a minimum of 5 days after placement or concrete surfaces shall be cured with liquid membrane-forming curing compound conforming to ASTM C309, Type 1, Class A. Curing compound shall be approved by the Engineer of Record.
18. The Contractor may use concrete admixtures as a construction means and methods to execute Construction Documents. Use of admixture is solely the responsibility of the Contractor.
19. Concrete mix designs shall be prepared by the concrete supply plant. Each mix design shall be submitted with current supporting data to the Engineer of Record for review and approval. Each mix design shall be stamped and signed by a Civil or Structural Engineer licensed in the state of the project jurisdiction.
20. Only one grade of concrete shall be allowed on project site at any one time.
21. Unless noted otherwise, construction and control joints shall be provided in all concrete slabs, and shall be located such that the area within joints does not exceed 375 sq. ft., and is roughly square.
    A. For all structural slabs (suspended or on grade) where Architecturally exposed conditions are desired, the Contractor shall provide control joint layout for review by Architect and Engineer of Record.
22. Every opening exceeding 24" (in either direction) shall have a minimum of 2-#5 (U.N.O.) directly adjacent to all sides as well as top and bottom (unless at foundation). Reinforcing bars shall extend a minimum of 24" past edge of opening.
23. Dowel all concrete walls and columns to supporting concrete with bars of the same size and spacing as vertical bars in wall and columns. Do not "hickey" bars. All dowels shall be vertical.
24. Provide a minimum of 2-#5 continuous horizontally at tops of walls and vertically at ends of walls, unless noted otherwise.
25. Concrete strength shall be verified by standard cylinder tests (in accordance with CBC Section 1705.3) made by a testing laboratory approved by the Authority Having Jurisdiction.
26. Concrete placed when the air temperature has fallen to, or is expected to fall below 40° shall conform to ACI 318-14 Section 26.54 and ACI 306R-16.
27. Concrete placed during hot weather shall conform to ACI 318-14 Section 26.5.5 and ACI 305R-14.
28. Conduits and sleeves placed within structural concrete shall not be tied directly to structural reinforcement.
    A. 1" clear distance shall be maintained between conduits/sleeves and reinforcing bar.
    B. Do not run conduit in slabs or in concrete filled metal decking unless the layout has been approved by the Engineer of Record

STRUCTURAL DESIGN VALUES

All values reported are unfactored and strength level, unless noted otherwise

Gravity Design Data	Value
Dead Loads:	
Roof Dead Load	By Others
* Allowance for PV system in Roof Dead Load	By Others
Exterior Wall Dead Load	By Others
Interior Wall Dead Load	By Others
Live Loads:	
Roof Live Load (Reducible)	20 psf
Snow Loads:	
Ground Snow Load, P_s	0 psf
Deflection Criteria:	
Roof, Total Load	L/240
Roof, Live Load	L/360
Floor, Total Load	L/240
Floor, Live Load	L/360

Wind Design Data	Value
Design Wind Speed (3-sec gust), V_{ULT}	94 mph
Risk Category	II
Exposure Category	C
Applicable Internal Pressure Coefficient	± 0.18
Design Wind Pressure(s) for Components & Cladding (Not specifically designed by the Registered Design Professional, and to be modified by applicable factors per ASCE 7)	q_z = 16.4

Earthquake Design Data	Value
Risk Category	II
Importance Factor, I_e	1.0
Mapped Spectral Response Accelerations	S_s= 0.62 g S_1= 0.24 g
Site Class	D
Spectral Response Coefficients	S_{DS}= 0.55 g S_{D1}= 0.34 g
Seismic Design Category	D

Geotechnical Design Data	Value
Geotechnical Report prepared by: County of Fresno (Report No.T90203)	Dated: April 22, 2020
Allowable Soil Bearing Pressure (DL + LL), Continuous Footing:	1290B + 2290D psf
Allowable Soil Bearing Pressure (DL + LL), Square Footing:	1030B + 2290D psf
Design Active Pressure, P_a	32 pcf
Design At-Rest Pressure, P_a	75 pcf
Design Passive Pressure, P_p	500 pcf
Design Coefficient of Friction, f_f	0.49

STRUCTURAL OBSERVATION

1. Structural Observation is the visual observation of the structural system by a Registered Design Professional for general conformance to the approved construction documents at significant construction stages and at completion of the structural system. Structural Observation does not include or waive the responsibility for the inspection required by Section 110, 1704 or other Sections of the California Building Code.
2. All Structural Observation shall be provided in accordance with CBC Sections 1702 and 1704.6.
3. The owner shall employ the Engineer of Record to perform Structural Observation in accordance with CBC Section 1704.6. The Engineer of Record may designate another Engineer or Architect to perform Structural Observation.
4. The contractor shall notify this office 48-72 hours in advance of requesting a Structural Observation.
5. Structural Observation is required at significant construction stages and at completion of the structural system, as follows:
    A. Footing excavations completed, footing reinforcing bars in-place, embedded items in place, mechanical, plumbing and electrical items in place and prior to concrete placement.
        - Anchorage for Simpson Steel Strong-walls
        - Building retaining wall footing dowels
    B. Slab on grade reinforcing bars in place and embedded items in place, prior to concrete placement.
    C. Retaining wall reinforcement in place, prior to placement of concrete/grout.
    D. Wood framing completed and plywood nailing completed, but not closed in.
    E. All structural work completed including the installation of mechanical, plumbing, and electrical items.
6. The Structural Observer shall submit to the Authority Having Jurisdiction a written statement that the site visits have been made and identifying any structural deficiencies that, to the best of their knowledge, have not been resolved.

ABBREVIATIONS

A.B.	Anchor Bolt	IBC	International Building Code
ABV.	Above	ICC	International Code Council
ACI	American Concrete Institute	ICF	Insulated Concrete Form
ADD'L	Additional	ID	Inside Diameter
ADJ.	Adjacent	IN.	Inch, Inches
AHJ	Authority Having Jurisdiction	INT.	Interior
AISC	American Institute of Steel Construction	JST.	Joist
AITC	American Institute of Timber Construction	ksi	Kips per Square Inch
AOR	Architect of Record		
APA	American Plywood Association	LL	Live Load
APPROX.	Approximate(ly)	LW	Lightweight
ASCE	American Society of Civil Engineers	LSL	Laminated Strand Lumber
		LVL	Laminated Veneer Lumber
ARCH.	Architect, Architecture		
ASTM	American Society of Testing and Materials	MAX.	Maximum
		MB	Machine Bolt
ATR	All Thread Rod	MBM	Metal Building Manufacturer
AWS	American Welding Society	MECH.	Mechanical
		MSE	Mechanically Stabilized Earth
BLDG.	Building	MFR.	Manufactured, Manufacturer
BLK.	Block	MIN.	Minimum
BLKD.	Blocked	MPH	Miles per Hour
BLK'G	Blocking	MTL.	Metal
BM.	Beam		
B.O.	Bottom of _____	(N)	New
BOT.	Bottom	NDS	National Design Specification
BRG.	Bearing	N.T.S.	Not to Scale
b/t	Between		
		o.c.	On Center
CAC	California Administrative Code	o/	Over
CANT.	Cantilever	OD	Outside Diameter
CBC	California Building Code	OSB	Oriented Strand Board
CIP	Cast-in-place	OSHPD	Office of State Health Planning and Development
CJ	Control Joint		
CJP	Complete Joint Penetration	OWSJ	Open Web Steel Joist
℄	Centerline		
CLG.	Ceiling	PEN.	Penetration
CLR.	Clear	PL.	Plate
CMU	Concrete Masonry Unit	PLYWD.	Plywood
COL.	Column	PJP	Partial Joint Penetration
CONC.	Concrete	psi	Pounds per Square Inch
CONN.	Connection	PSF	Pounds per Square Foot
CONST.	Construction	PSL	Parallel Strand Lumber (Paralam)
CONT.	Continue, Continuous		
CSK.	Countersink	PEMB	Pre-Engineered Metal Building
		PERF.	Perforated
Ø	Diameter	PTDF	Pressure Treated Douglas Fir
d	Penny	PW	Puddle Weld
DBL.	Double		
DCW	Demand Critical Weld	Q.A.	Quality Assurance
DET.	Detail	Q.C.	Quality Control
DEMO	Demolition		
DF	Douglas Fir	RBS	Reduced Beam Section
DIAG.	Diagonal	RDWD	Redwood
DL	Dead Load	REBAR	Reinforcing Bar
DSA	Division of State Architect	REINF.	Reinforcement
DWGS.	Drawings	RET.	Retaining
		REQ'D	Required
EA.	Each		
E.F.	Each Face	S.F.	Square Feet
ELEC.	Electric, Electrical	SHT.	Sheet
ELEV.	Elevation	SHT'G	Sheathing
EMBED.	Embedded, Embedment	SIM.	Similar
E.N.	Edge Nailing	SIP	Structural Insulated Panel
EOR	Engineer of Record	SJI	Steel Joist Institute
EQ.	Equal	SLRS	Seismic Load Resisting System
EQUIP.	Equipment	SMS	Sheet Metal Screw
E.S.	Each Side	SQ.	Square
E.W.	Each Way	SS	Select Structural
(E)	Existing	STAGG'D	Staggered
EXP.	Expansion	STD.	Standard
EXT.	Exterior	STL.	Steel
		SW	Shearwall
FAB.	Fabricated	SEOR	Structural Engineer of Record
FDN.	Foundation		
F.F.	Finish floor	T&B	Top and bottom
FLR.	Floor	T&G	Tongue and Groove
F.O.	Face of _____	THR'D	Threaded
FRMG.	Framing	T.O.	Top of _____
FT.	Foot,Feet	TRL.	Triple
FTG.	Footing	TYP.	Typical
GA.	Gauge	UNBLKD.	Unblocked
GALV.	Galvanized	U.N.O.	Unless Noted Otherwise
GEOR	Geotechnical Engineer of Record	URM	Unreinforced Masonry
GLB	Glued-Laminated Beam	VERT.	Vertical
GYP. BD.	Gypsum Board	VIF	Verify in Field
HDR.	Header	w/	With
HD.	Holdown	w/c	Water/Cement Ratio
HORIZ.	Horizontal	WD.	Wood
HSS	Hollow Steel Section	W.P.	Working Point
HT.	Height	W.S.M.F.	Welded Steel Moment Frame
		WSS	Welded Steel Stud
		WT.	Weight
		WWM	Welded Wire Mesh

SYMBOLS

- Concrete Footing
- Cast-in-Place Drilled Concrete Pier -Refer to Schedule
- (#) Reference Note
- (DET / SHT) Detail Number Reference / Sheet Number Reference
- Holdown Location
- Welded Steel Moment Frame
- (# / (X'-X")) Shearwall Reference - Refer to Schedule (Minimum Shearwall Length)
- (# / (XX")) Strong-Wall Reference - Refer to Schedule (Strong-Wall Length)
- New 2x Stud Bearing Wall

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REGISTERED PROFESSIONAL ENGINEER — MICHAEL E. PARRY — No. S405 — STRUCTURAL — STATE OF CALIFORNIA

DATE SIGNED: 12/01/2020

LICENSED ARCHITECT — TIANA L. PEREZ — C-38000 REN: 01-31-21 — STATE OF CALIFORNIA

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Project:

Fresno County
Environmental Compliance Center
Warehouse
Project Address: 310 S. West Avenue, Fresno CA 93706
APN: 458-060-72
Issue Date: 07/21/2020
Project No. S19406C

Sheet Content:

STRUCTURAL NOTES

Fresno County Department of Public Works and Planning
Capital Projects

2220 Tulare Street, 8th Floor
Fresno, California 93721

THE COUNTY OF FRESNO 1856

Sheet No.:

S1.1

STRUCTURAL NOTES, CONTINUED

STRUCTURAL STEEL AND WELDING

1. All structural steel construction shall conform to AISC 360-16 and AISC 341-16.
   A. All structural steel shall be fabricated in an approved fabrication shop. Inspection and approval of fabrication shops shall conform to CBC Section 1704.2.5.
2. All structural steel shall conform to the following specifications:

Steel Shape	ASTM Specificaiton	Min. Yeild Stress, F_y (ksi)
Angle, Channel	A36	36
Plates, Bars, Rounds	A36	36
Wide Flange	A992	50
Pipe	A53, Grade B	35
HSS Tube	A500, Grade B	46
HSS Round	A500, Grade B	42

3. Special Inspection shall be provided for all structural steel and welding, in accordance with CBC Chapter 17.
4. All structural steel shall be fabricated, erected and welded in accordance with AISC Specifications for Structural Steel Buildings (AISC 360-16) and Code of Standard Practice for Steel Buildings and Bridges (AISC 303-16).
5. All welding shall be performed by welders with current AWS certification for weld procedures used.
6. No field welding permitted, unless specifically noted otherwise.
7. Shop drawings for the fabrication of structural steel shall be submitted to Engineer of Record for their review, prior to fabrication.
8. No holes other than those specifically detailed shall be allowed through structural steel members. Burning of holes is not permitted.
9. All structural steel shall be painted one shop coat and field touched-up, as necessary, with approved "Zinc Rich" or other high quality exterior primer.
10. All bolts shall conform to ASTM A325, unless noted or detailed otherwise.
11. All welding shall conform to AWS D1.1 and D1.8 specifications for welding. (E-70XX Electrodes).
12. All headed studs (for concrete anchorage) shall be manufactured by Nelson or approved equal.
13. Where fillet weld size is not indicated, use AWS minimum size, as specified in AISC Specifications for Structural Steel Buildings (AISC 360-16), Section J2.2.
14. All butt welds to be complete joint penetration, unless noted otherwise.
15. Welder qualification requirements, welding procedure and welding electrodes for all structural steel (except structural sheet steel as outlined in the steel deck section) shall conform to CBC Sections 1705.2 and 2204.1.
16. Provide hot dip galvanizing or 3" minimum concrete cover around all structural steel below grade.
17. Structural steel embedded into concrete or masonry shall be unpainted.
18. ASTM A1852 bolts are an acceptable substitution for A325 bolts at concealed connections.

METAL BUILDING SYSTEM

1. The metal building system as described within these notes, plans and details shall be designed and manufactured by ----------, or equivalent as approved by the Engineer of Record.
2. Shop drawings and stamped calculations shall be submitted to the Authority Having Jurisdiction and the Engineer of Record for their review, prior to fabrication. Calculations shall be stamped and signed by a Civil or Structural Engineer licensed in the state of the project jurisdiction.
3. The metal building system shall consist of the following components (but not limited to):
   A. Structural steel rigid frames
   B. Lateral (wind/seismic bracing systems, perpendicular to steel rigid frames)
   C. Roof purlins/eaves
   D. Roof bracing systems
   E. Roof decking
   F. Wall framing systems
   G. Anchor bolts, and all other hardware required for assembly, bracing and securing.
4. The Contractor shall take care to coordinate between metal building system and other framing systems.
5. The Contractor shall notify Engineer of Record of any discrepancies between metal building system and other framing systems.
6. Prior to excavation of foundation system, contractor shall verify anchor bolt size & locations with metal building system.

SPECIAL INSPECTION

GENERAL NOTES

1. All Special Inspection shall be provided in accordance with CBC Section 1704 and 1705.
2. Where Special Inspection is required, all inspection or testing shall be provided by an "approved agency" in accordance with CBC Section 1702.1, 1703.1 and 1704.1.
3. Special Inspectors shall keep records of inspections. The Special Inspector shall furnish inspection reports to the Authority Having Jurisdiction, and to the Architect or Engineer of Record. Reports shall indicate that work inspected was done in conformance to approved construction documents. Discrepancies shall be brought to the immediate attention of the contractor for correction. If the discrepancies are not corrected, the discrepancies shall be brought to the attention of the Authority Having Jurisdiction and to the Architect or Engineer of Record prior to the completion of that phase of work. A final report documenting required Special Inspections and correction of any discrepancies noted in the inspections shall be submitted at a point in time agreed upon by the permit applicant and the Authority Having Jurisdiction prior to the start of work.
4. Special Inspectors shall be approved by local Authority Having Jurisdiction in accordance with CBC Section 1704.2.1.
5. Local Authority Having Jurisdictions may require Special Inspection for "Special Cases" in accordance with CBC Section 1705.1.1
6. Contractor's responsibility: Each contractor responsible for the construction of a Main Lateral-Force-Resisting System, listed in the Statement of Special Inspection shall submit a written statement of responsibility to the Authority Having Jurisdiction and the owner prior to the commencement of work on the system or component. The contractor's statement of responsibility shall contain the following:
   A. Acknowledgement of awareness of the special requirements contained in the statement of special inspections;
   B. Acknowledgement that control will be exercised to obtain conformance with the construction documents approved by the Authority Having Jurisdiction;
   C. Procedures for exercised control within the contractor's organization, the method and frequency of reporting and the distribution of the reports; and
   D. Identification and qualifications of the person(s) exercising such control and their position(s) in the organization.
7. Refer to Special Inspection requirements by other disciplines not included herein.

SOILS[a]

Verification and Inspection	Cont.	Periodic
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.		✓
2. Verify excavations are extended to proper depth and have reached proper material.		✓
3. Perform classification and testing of compacted fill materials.		✓
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill.	✓	b
5. Prior to placement of compacted fill, observe subgrade and verify that site has been prepared properly.		✓

Notes: Soils

a. CBC Section 1705.6 and Table 1705.6

b. With the approval of the Authority Having Jurisdiction and the recommendation of the Geotechnical Engineer of Record, Special Inspection of grading operations may be periodic per CBC Section 1704.2, Exception 1.

SPECIAL CASES

Verification and Inspection	Cont.	Periodic
Adhesive anchors (Epoxy)		
1. Inspection of anchors installed in hardened concrete. Installed in horizontally or upwardly inclined orientations to resist sustained tension loads. (Concrete shall be cured for a minimum of 21 days)	✓	
2. All other installations of adhesive anchors.		✓
Mechanical anchors		
1. Inspection of anchors installed in hardened concrete.		✓

CONCRETE CONSTRUCTION[ac]

Verification and Inspection	Cont.	Periodic	Referenced Standard	2019 CBC Reference
1. Inspection of reinforcing steel including prestressing tendons, and placement.		✓	ACI 318: Ch. 20, 25.2, 25.3, 26.6.1 - 26.6.3	1908.4
2. Reinforcing bar welding:				
a. Verify weldability of reinforcing bar other than ASTM A706		✓	AWS D1.4 ACI 318: 26.6.4	
b. Inspect single-pass fillet welds, maximum $\frac{5}{16}$"		✓		
c. Inspect all other welds.	✓			
3. Inspection of anchors cast in concrete.		✓	ACI 318: 17.8.2	
4. Inspect anchors post-installed in hardened concrete member.[bd]				
a. Adhesive anchors installed in horizontally or upward inclined orientations to resist sustained tension loads.	✓		ACI 318: 17.8.2.4	
b. Mechanical anchors and adhesive anchors not defined in 4.a.		✓	ACI 318: 17.8.2	
5. Verifying use of required design mix.		✓	ACI 318: Ch. 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3
6. Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	✓		ASTM C172 ASTM C31 ACI 318: 26.5 26.12	1908.10
7. Inspection of concrete and shotcrete placement for proper application techniques.	✓		ACI 318: 26.5	1908.6, 1908.7, 1908.8
8. Verify maintenance of specified curing temperature and techniques.		✓	ACI 318: 26.5.3 - 26.5.5	1908.9
9. Inspection of prestressed concrete:				
a. Application of prestressing forces	✓		ACI 318: 26.10	
b. Grouting of bonded prestressing tendons.	✓			
10. Inspect erection of precast concrete members.		✓	ACI 318: 26.9	
11. Verification of in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs.		✓	ACI 318: 26.11.12	
12. Inspect formwork for shape, location and dimensions of the concrete member being formed.		✓	ACI 318: 26.11.1.2 (b)	

Notes: Concrete Construction

a. Where applicable, see also CBC Section 1705.12, Special Inspections for seismic resistance

b. Specific requirements for Special Inspection shall be included in the research report for the anchor issued by an approved source in accordance with ACI 318-14 Section 17.8.2 or other requirements. Where specific requirements are not provided, Special Inspection requirements shall be specified by the Registered Design Professional and shall be approved by the Building Official prior to the commencement of the work.

c. CBC Section 1705.3 and Table 1705.3

d. See Special Cases Special Inspection for more requirements

STEEL CONSTRUCTION[ab]

Verification and Inspection	Cont.	Periodic
Required verification and inspection of steel construction		
1. Material verification of structural steel, cold-formed steel deck, high-strength bolts, nuts and washers:		
a. For structural steel, identification markings to conform to AISC 360, or ASTM Standards Specified in approved Construction Documents. Manufacturer's certificate of compliance required.		✓
2. Material verification of structural steel or cold-form steel deck:		
a. Identification markings to conform to ASTM standards specified in the approved construction documents.		✓
b. Manufacturer's certified test reports.		✓
3. Inspection of high-strength bolting:		
a. Snug-tight joints		✓
b. Pretensioned and slip-critical joints using turn-of-nut with matchmarking, twist off bolt or direct tension indicator methods of installation		✓
c. Pretensioned and slip-critical joints using turn-of-nut without matchmarking or calibrated wrench methods of installation	✓	
4. Material verification of weld filler materials:		
a. Identification markings to conform to AWS specification in the approved Construction Documents		✓
b. Manufacturer's certificate of compliance required		✓
5. Inspection of welding:		
a. Structural steel and cold formed steel deck:		
1) Complete and partial joint penetration groove welds	✓	
2) Multi-pass fillet welds	✓	
3) Single-pass fillet welds > $\frac{5}{16}$"	✓	
4) Plug and slot welds	✓	
5) Single-pass fillet welds < $\frac{5}{16}$"		✓
6) Floor and roof deck welds[c]		✓
b. Reinforcing steel:[d]		
1) Verification of weldability of reinforcing steel other than ASTM A706.		✓
2) Reinforcing steel resisting flexural and axial forces in intermediate and special moment frames, and boundary elements of special structural walls of concrete and shear reinforcement.	✓	
3) Shear reinforcement	✓	
4) Other reinforcing steel		✓
6. Inspection of steel frame joint details for compliance:		
a. Details such as bracing and stiffening		✓
b. Member locations		✓
c. Application of joint details at each connection		✓
Inspection tasks prior to welding		
1. Welder qualification records and continuity records		✓
2. Welding procedure specifications (WPSs) available	✓	
3. Manufacturer certifications for welding consumables available	✓	
4. Material identification (type/grade)		✓
5. Welder identification system[e]		✓
6. Fit-up of groove welds (including joint geometry): Joint preparation, dimensions, cleanliness, tacking, backing type and fit		✓
7. Configuration and finish of access holes		✓
8. Fit-up of fillet welds: Dimensions, cleanliness, tacking		✓
9. Check welding equipment		
Inspection tasks during welding		
1. Control and handling of welding consumables: Packaging, exposure control		✓
2. No welding over cracked tack welds		✓
3. Environmental conditions: Wind speed within limits, precipitation and temperature		✓

STEEL CONSTRUCTION, CONTINUED

Verification and Inspection	Cont.	Period.
Inspection tasks during welding (Continued)		
4. WPS followed: Settings on welding equipment, travel speed, selected welding materials, shielding gas type/flow rate, preheat applied, interpass temperature maintained min./max.),proper position (F, V, H, OH)		✓
5. Welding techniques: Interpass and final cleaning, each pass within profile limitations		✓
6. Placement and installation of steel headed stud anchors	✓	
Inspection tasks after welding		
1. Welds cleaned		✓
2. Size, length and location of welds	✓	
3. Welds meet visual acceptance criteria: Crack prohibition, weld/base-metal fusion, crater cross section, weld profiles, weld size, undercut, porosity	✓	
4. Arc strikes	✓	
5. k-Area[f]	✓	
6. Weld access holes in heavy shapes and built-up heavy shapes[h]	✓	
7. Backing removed and weld tabs removed (if required)	✓	
8. Repair activies	✓	
9. Document acceptance or rejection of welded joint or member	✓	
10. No prohibited welds have been added without the approval of the EOR		✓
Inspection tasks prior to bolting[g]		
1. Manufacturer's certifications available for fastener materials	✓	
2. Fasteners marked in accordance with ASTM requirements		✓
3. Proper fasteners selected for the joint detail (grade, type, bolt length if threads are to be excluded from shear plane)		✓
4. Proper bolting procedure selected for joint detail		✓
5. Connecting elements, including the appropriate faying surface condition and hole preparation, if specified, meet applicable requirements		✓
6. Pre-installation certification testing by installation personnel observed and documented for fastener assemblies and methods used		✓
7. Proper storage provided for bolts, nuts, washer and other fastener components		✓
Inspection tasks during bolting		
1. Fastener assemblies, of suitable condition, placed in all holes and washers (if required) are positioned as required		✓
2. Joint brought to the snug-tight condition prior to the pretensioning operation		✓
3. Fastener component not turned by the wrench prevented from rotating		✓
4. Fasteners are pretensioned in accordance with the RCSC specification, progressing systematically from the most rigid point toward the free edges, see Minimum Bolt Pretension table below		✓
Inspection tasks after bolting		
1. Document acceptance or rejection of bolted connections	✓	

Notes: Steel Construction

a. CBC Section 1705.2 and Table 1705.2.2

b. CBC Section 1707.11.1

c. AWS D1.3

d. AWS D1.4, ACI 318: Section 3.5.2

e. The fabricator or erector, as applicable, shall maintain a system by which a welder who has welded a joint or member can be identified. Stamps, if used, shall be the low-stress type.

f. When welding of doubler plates, continuity plates or stiffeners has been performed in the k-area, visually inspect the web k-area for cracks within 3 inches of the weld

g. All methods of installation for high strength bolts shall require verification of pre-tension by a Skidmore-Welhelm calibrator for each batch or source of bolts used (see minimum pre-tension chart below).

h. After rolled shapes and built-up heavy shapes are welded, visually inspect the weld access hole for cracks

Minimum Bolt Pretension (kips)

Bolt size inches	Group A (A325, etc.)	Group B. (A490, etc.)
½" Diameter	12	15
⅝" Diameter	19	24
¾" Diameter	28	35
⅞" Diameter	39	49
1" Diameter	51	64
1⅛" Diameter	56	80
1¼" Diameter	71	102
1⅜" Diameter	85	121
1½" Diameter	103	148

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DATE SIGNED: 12/01/2020

LICENSED ARCHITECT — TIANA L. PEREZ — C-38000 REN: 01-31-21 — STATE OF CALIFORNIA

ARCHITECT:
Tiana L. Perez, Architect
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Project:

Fresno County
Environmental Compliance Center
Warehouse
Project Address: 310 S. West Avenue, Fresno CA 93706
APN: 458-060-72
Issue Date: 07/21/2020
Project No. S19406C

Sheet Content:

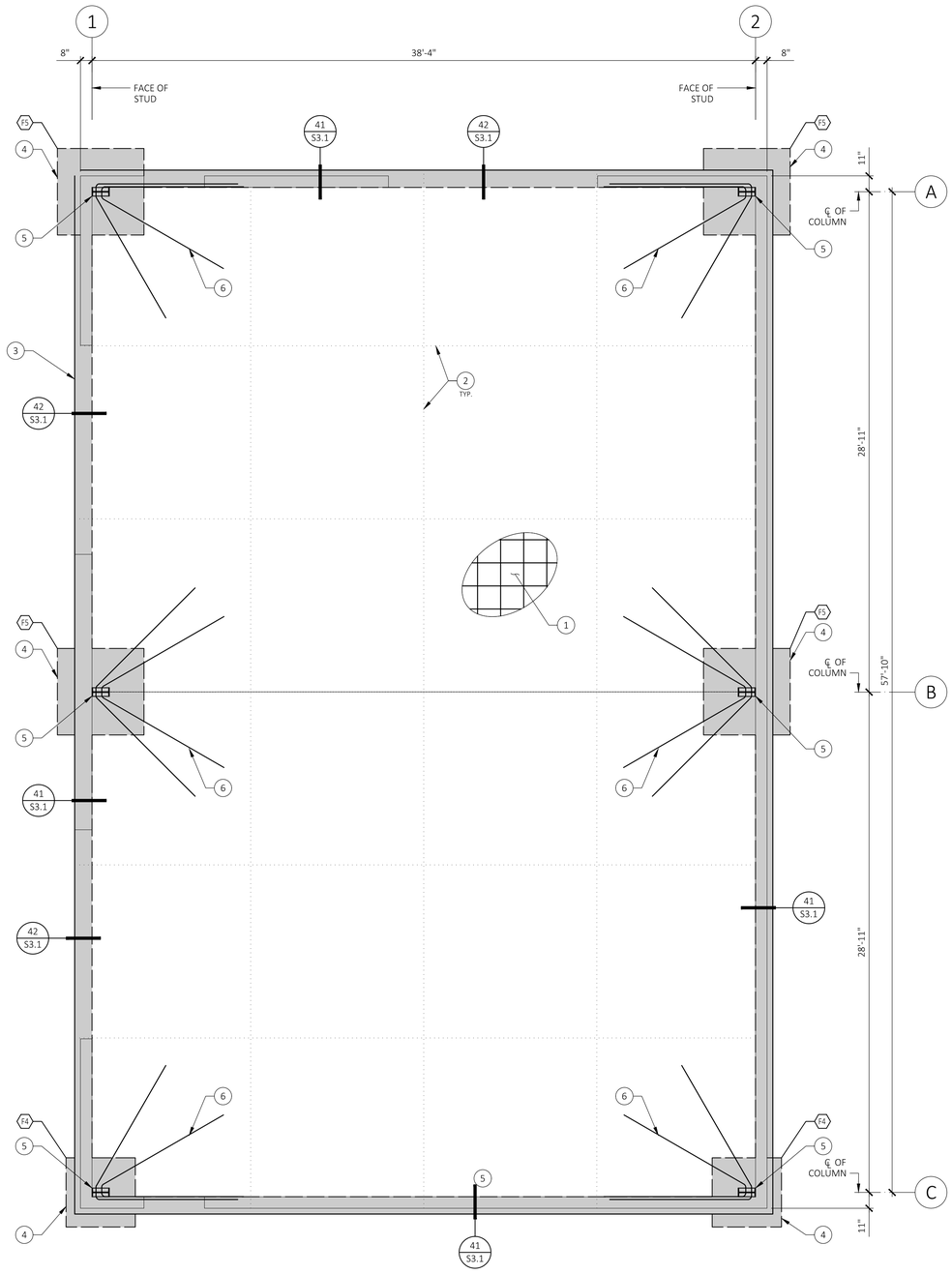
STRUCTURAL NOTES

Fresno County Department of Public Works and Planning
Capital Projects

2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.:

S1.2



FOUNDATION PLAN

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

(VERIFY ALL DIMENSIONS WITH ARCHITECTURAL PLANS AND EXISTING CONDITIONS)

GENERAL FOUNDATION NOTES:

A. See Structural Notes, Sheets S1.1 & S1.2

B. Dimensions are to face of concrete, U.N.O.

C. The foundation design is based on the minimum requirements outlined in the Project Geotechnical Report by County of Fresno, dated April 22, 2020 (Report No. T90203)

D. Prior to the Contractor requesting a Building Department Foundation Inspection, the project Geotechnical Engineer shall advise the Building Official in writing that:
   1. The building pad was prepared in accordance with the approved construction documents and project Geotechnical Engineer's recommendations
   2. The utility trenches have been properly backfilled and compacted
   3. The foundation excavations comply with the project Geotechnical Engineer's recommendations and are founded into firm competent material
   4. The soils expansion index is verified

E. For depiction of building pad preparation, see detail 44/S3.1

F. See Architectural Drawings for all embedded items and non-structural components associated with concrete work

G. For typical rebar bends and laps, see details 21, 22, & 23 on sheet S3.1

H. For typical intersecting footing configuration(s), see detail(s) 14/S3.1

I. For typical pipe through footing, see detail 11/S3.1

FOUNDATION REFERENCE NOTES: (#)

1. 6" Thick concrete slab with #4 horizontal bars @ 12" o.c. each direction at mid-depth
   A. See detail 12/S3.1

2. Concrete Control Joint
   A. Joints shall be spaced at 10'-0" o.c. max. each direction
   B. Control joint locations to be confirmed by Architect prior to concrete placement
   C. See detail 13/S3.1

3. Edge of slab on grade

4. 30" deep square pad footing w/ #5 horizontal bars @ 9" o.c. each direction, 3" up from the bottom and 3" down from the top
   A. See plan and footing schedule for minimum footing size
   B. Centered on column bolt group
   C. U.N.O. on plan, see detail 43/S3.1 for exterior footing construction and detail 52/S3.1 for interior footing construction

5. Steel frame column and bolt group per Metal Building Manufacturer (MBM)
   A. See anchor bolt plan by MBM for placement
   B. Embed anchor bolts 27" into first pour footing
   C. Anchor bolts to be ASTM F1554 Grade 55 all thread rod w/ gage plate & double nut at embedded end per detail 24/S3.1. Bolt diameters shall be as indicated on MBM Anchor Rod Plan
   D. Special inspection required, see Sheet S1.1
   E. See detail 24/S3.1 for thrust angle at typical main frame columns

6. 2 - #5 hairpins at column anchor bolt group, with 16'-0" legs
   A. See details 31/S3.1, 32/S3.1

Footing Size and Reinforcing			Allowable Reactions (Service)		
Mark	Dimensions	Reinforcing	Vertical [k]	Uplift [k]	
				Exterior	Corner
F4	4'-0" x 4'-0" x 2'-6"	#5 BARS @ 9" o.c., EACH DIRECTION, TOP & BOTT.	130.3	-	6.4
F5	5'-0" x 5'-0" x 2'-6"	#5 BARS @ 9" o.c., EACH DIRECTION, TOP & BOTT.	203.7	11.1	8.2

THE FOUNDATION DESIGN IS BASED ON ASSUMED BUILDING REACTIONS AND ARE SUBJECT TO CHANGE. THE BUILDING REACTIONS SHALL BE VERIFIED BY THE ENGINEER OF RECORD PRIOR TO PLACING FOOTINGS.

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Project:

Fresno County
Environmental Compliance Center
Warehouse

Project Address: 310 S. West Avenue, Fresno CA 93706
APN: 458-060-72
Issue Date: 07/21/2020
Project No. S19406C

Sheet Content:

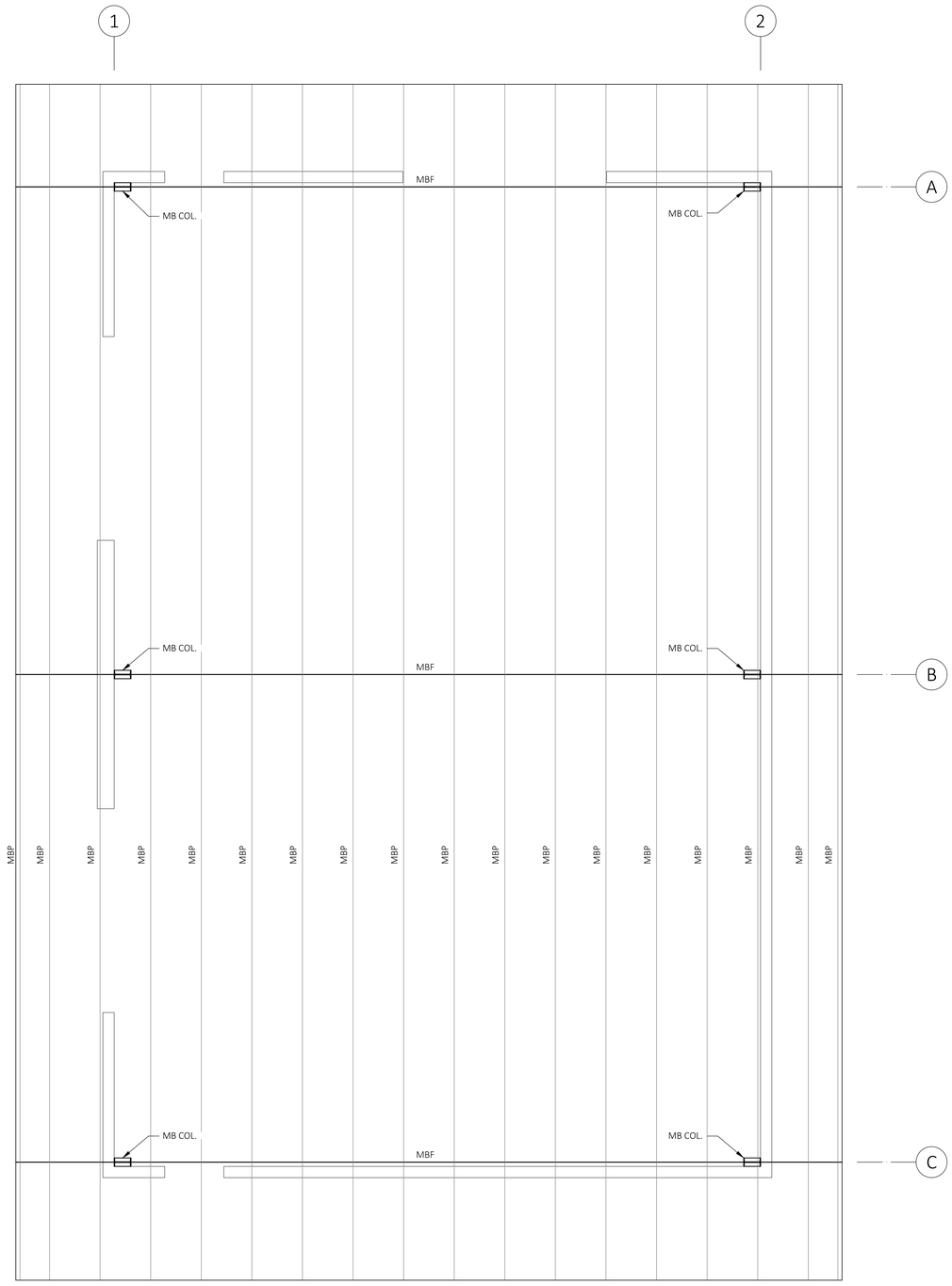
FOUNDATION PLAN

Fresno County Department of Public Works and Planning
Capital Projects

2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.:

S2.1



ROOF FRAMING PLAN

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

(VERIFY ALL DIMENSIONS WITH ARCHITECTURAL PLANS AND EXISTING CONDITIONS)

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Sheet Content:

ROOF FRAMING PLAN

Fresno County Department of
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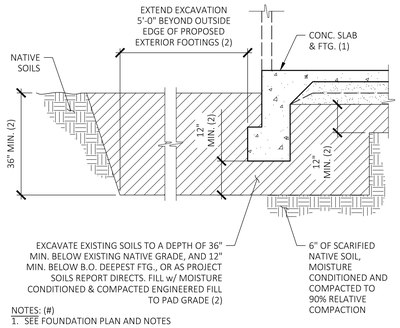
Sheet No.:

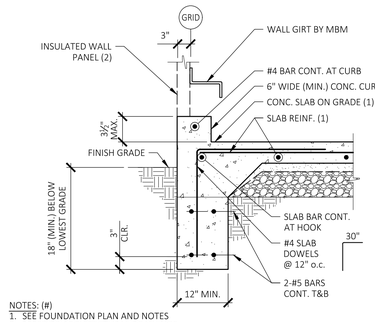
S2.2



NOTES: (#)
1. SEE FOUNDATION PLAN AND NOTES
2. REFER TO PROJECT SOILS REPORT

BLDG. PAD PREPARATION

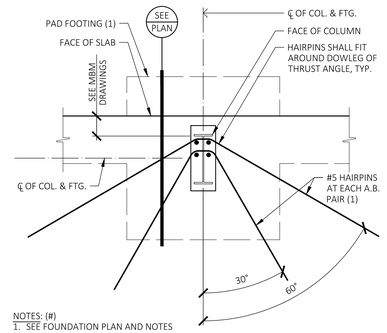
N.T.S. 51



NOTES: (#)
1. SEE FOUNDATION PLAN AND NOTES
2. REFER TO ARCHITECTURAL DRAWINGS

CONT. EXTERIOR FTG.

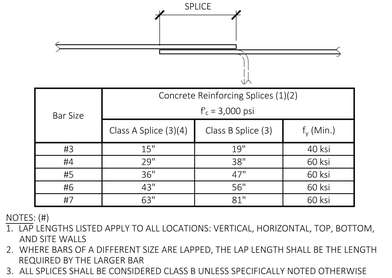
N.T.S. 41



NOTES: (#)
1. SEE FOUNDATION PLAN AND NOTES

FLARED HAIRPIN

N.T.S. 31

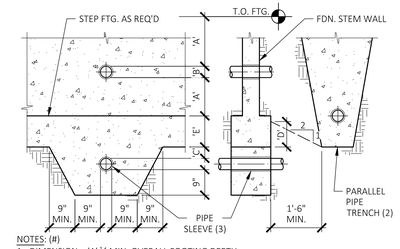


Bar Size	Concrete Reinforcing Splices (1)(2) f'c = 3,000 psi		
	Class A Splice (3)(4)	Class B Splice (3)	f_y (Min.)
#3	15"	19"	40 ksi
#4	29"	38"	60 ksi
#5	36"	47"	60 ksi
#6	43"	56"	60 ksi
#7	63"	81"	60 ksi

NOTES: (#)
1. LAP LENGTHS LISTED APPLY TO ALL LOCATIONS: VERTICAL, HORIZONTAL, TOP, BOTTOM, AND SITE WALLS
2. WHERE BARS OF A DIFFERENT SIZE ARE LAPPED, THE LAP LENGTH SHALL BE THE LENGTH REQUIRED BY THE LARGER BAR
3. ALL SPLICES SHALL BE CONSIDERED CLASS B UNLESS SPECIFICALLY NOTED OTHERWISE
4. SPLICES OF SLAB ON GRADE REINFORCEMENT MAY UTILIZE CLASS A SPLICE LENGTHS

TYPICAL LAP SPLICES

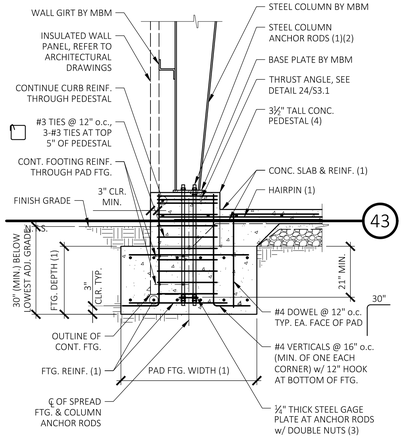
N.T.S. 21



NOTES: (#)
1. DIMENSION - 'A' ½ MIN. OVERALL FOOTING DEPTH
   'B' ½ MAX. OVERALL FOOTING DEPTH
   'C' 4" MIN.
   'D' 9" MIN.
   'E' NO PIPE TO BE PLACED IN THIS AREA
2. PIPE TRENCHES PARALLEL TO FOOTING NOT PERMITTED BETWEEN LINES ON EACH SIDE OF FOOTING
3. G.I.S.M. OR EQUIVALENT PIPE SLEEVE, WITH ½" CLEAR ALL AROUND PIPE

PIPE THROUGH FOOTING

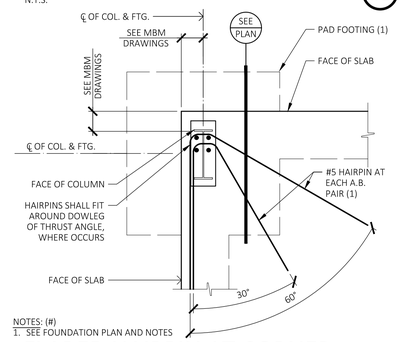
N.T.S. 11



NOTES: (#)
1. SEE FOUNDATION PLAN AND NOTES

FTG. AT OPENING

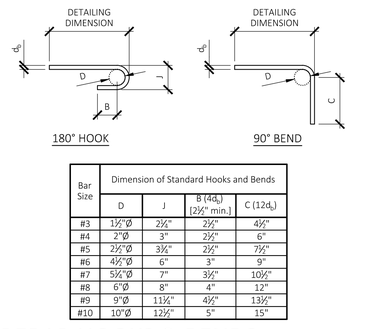
N.T.S. 42



NOTES: (#)
1. SEE FOUNDATION PLAN AND NOTES

FLARED HAIRPIN AT CORNER

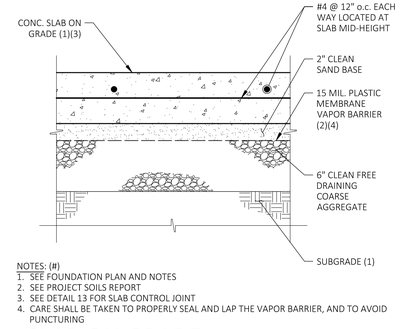
N.T.S. 32



Bar Size	Dimension of Standard Hooks and Bends			
	D	J	B ($4d_b$) [2½" min.]	C ($12d_b$)
#3	1½"Ø	2¼"	2½"	4½"
#4	2"Ø	3"	2½"	6"
#5	2½"Ø	3¾"	2½"	7½"
#6	4½"Ø	6"	3"	9"
#7	5½"Ø	7"	3½"	10½"
#8	6"Ø	8"	4"	12"
#9	9"Ø	11¼"	4½"	13½"
#10	10"Ø	12½"	5"	15"

REBAR HOOKS & BENDS

N.T.S. 22



NOTES: (#)
1. SEE FOUNDATION PLAN AND NOTES
2. SEE PROJECT SOILS REPORT
3. SEE DETAIL 13 FOR SLAB CONTROL JOINT
4. CARE SHALL BE TAKEN TO PROPERLY SEAL AND LAP THE VAPOR BARRIER, AND TO AVOID PUNCTURING

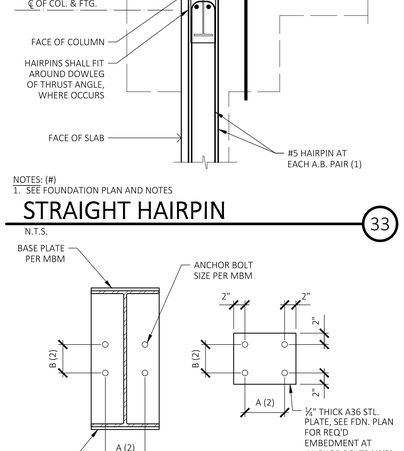
SLAB ON GRADE

N.T.S. 12

NOTES: (#)
1. SEE FOUNDATION PLAN AND NOTES
2. SEE METAL BUILDING DRAWINGS FOR ANCHOR ROD SIZES
3. MAINTAIN 1¼" EDGE DISTANCE AT GAGE PLATE, ALL EDGES
4. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS

EXTERIOR PAD FOOTING

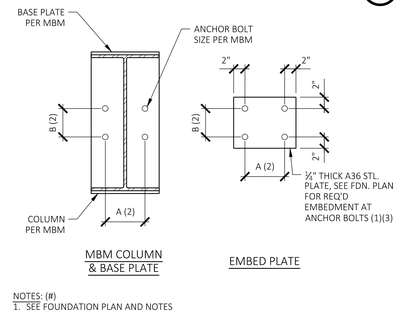
N.T.S. 44



NOTES: (#)
1. SEE FOUNDATION PLAN AND NOTES

STRAIGHT HAIRPIN

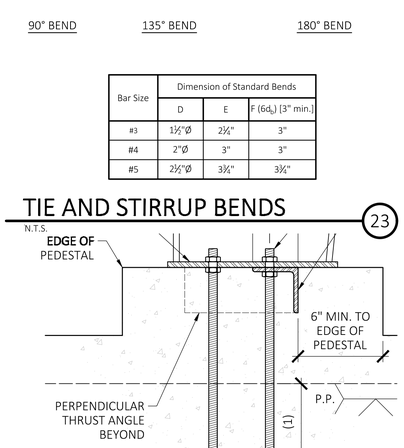
N.T.S. 33



NOTES: (#)
1. SEE FOUNDATION PLAN AND NOTES
2. DIMENSIONS 'A' AND 'B' PER METAL BUILDING MANUFACTURER
3. PROVIDE DOUBLE NUT ABOVE AND BELOW PLATE

COLUMN A.B. GAGE PLATE

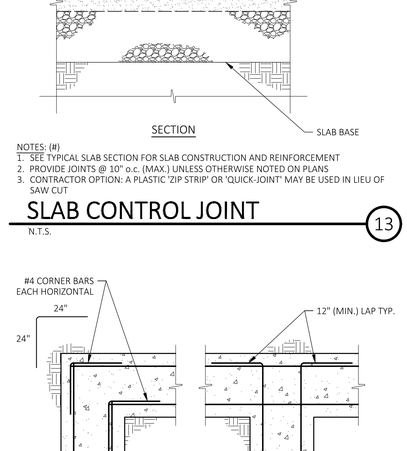
N.T.S. 34



NOTES: (#)
1. ANCHOR BOLTS SHALL BE EMBEDDED PER FOUNDATION PLAN NOTES INTO FIRST POUR
2. PROVIDE HEX NUT AT BASE OF THRUST ANGLE

THRUST ANGLE

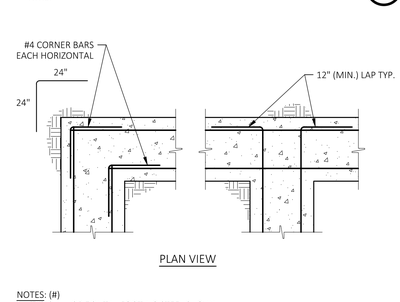
N.T.S. 24



NOTES: (#)
1. SEE TYPICAL SLAB SECTION FOR SLAB CONSTRUCTION AND REINFORCEMENT
2. PROVIDE JOINTS @ 10" o.c. (MAX.) UNLESS OTHERWISE NOTED ON PLANS
3. CONTRACTOR OPTION: A PLASTIC 'ZIP STRIP' OR 'QUICK-JOINT' MAY BE USED IN LIEU OF SAW CUT

SLAB CONTROL JOINT

N.T.S. 13



NOTES: (#)
1. TYPICAL HORIZONTAL FOOTING STEEL SHOWN
2. VERTICAL STEEL NOT SHOWN FOR CLARITY
3. SEE SPECIFIC DETAILS FOR STEEL SIZE, NUMBER, AND SPACING

TYP. FOOTING CORNER

N.T.S. 14

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Sheet Content:

WAREHOUSE
03

STRUCTURAL DETAILS

Fresno County Department of Public Works and Planning
Capital Projects

2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.:

S3.1

GENERAL PLUMBING NOTES:

1. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO CONSTRUCT THE BUILDING IN ACCORDANCE WITH THE 2019 EDITION OF TITLE 24, CALIFORNIA CODE OF REGULATIONS. SHOULD ANY CONDITIONS DEVELOP NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WOULD NOT COMPLY WITH SAID TITLE 24, CALIFORNIA CODE OF REGULATIONS, A CHANGE ORDER DETAILING AND SPECIFYING THE REQUESTED WORK SHALL BE SUBMITTED TO AND APPROVED BY ARCHITECT BEFORE PROCEEDING WITH THE WORK.

2. THE APPLICABLE CODES AND REGULATIONS FOR THIS PROJECT INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

   CALIFORNIA CODE OF REGULATIONS
   TITLE 8, INDUSTRIAL RELATIONS
   TITLE 19, PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS
   TITLE 24, PART 1, ADMINISTRATIVE REGULATIONS
   2019 CALIFORNIA BUILDING CODE, PART 2, TITLE 24 CCR
   2019 CALIFORNIA ELECTRICAL CODE, PART 3, TITLE 24 CCR
   2019 CALIFORNIA MECHANICAL CODE, PART 4, TITLE 24 CCR
   2019 CALIFORNIA PLUMBING CODE, PART 5, TITLE 24 CCR
   2019 CALIFORNIA FIRE CODE, PART 9, TITLE 24 CCR

   NFPA 101 2016 EDITION
   OSHA - OCCUPATIONAL SAFETY AND HEALTH ACT

3. LAYOUT OF MATERIALS, EQUIPMENT AND SYSTEMS IS GENERALLY DIAGRAMMATIC UNLESS SPECIFICALLY DIMENSIONED. SOME WORK MAY BE SHOWN OFFSET FOR CLARITY. THE PLUMBING BUILDING PLANS HAVE BEEN PREPARED TO MATCH THE ARCHITECTURAL PLANS. IF DIFFERENCES OCCUR, THE ARCHITECTURAL PLANS ARE TO TAKE PRECEDENCE. THE ACTUAL LOCATIONS OF ALL MATERIALS, PIPING, DUCTWORK, FIXTURES, EQUIPMENT, SUPPORTS, ETC. SHALL BE CAREFULLY PLANNED, PRIOR TO INSTALLATION OF ANY WORK, TO AVOID ALL INTERFERENCE WITH EACH OTHER, OR WITH STRUCTURAL, ELECTRICAL, ARCHITECTURAL, OR OTHER ELEMENTS. ALL PIPE OFFSET ELBOWS FOR COORDINATION BETWEEN TRADES ARE NOT SHOWN. CONTRACTOR SHALL INCLUDE SUFFICIENT FUNDS FOR THE COORDINATION OFFSETS IN THE BID. VERIFY THE PROPER VOLTAGE AND PHASE OF ALL EQUIPMENT WITH THE ELECTRICAL PLANS. ALL CONFLICTS SHALL BE CALLED TO THE ATTENTION OF THE ARCHITECT AND THE ENGINEER PRIOR TO INSTALLATION OF ANY WORK OR THE ORDERING OF ANY EQUIPMENT.

4. PENETRATIONS OF PIPES, CONDUITS, ETC. IN WALLS OR FLOORS REQUIRING PROTECTED OPENINGS SHALL BE FIRE-STOPPED INCLUDING EXISTING PIPE AND CONDUIT THROUGH NEW WALLS AND FLOORS. SEE SPECS. FIRE STOP MATERIAL SHALL BE A TESTED ASSEMBLY. PENETRATIONS THROUGH FIRE-RATED FLOORS AND WALLS SHALL BE PROTECTED IN ACCORDANCE WITH CBC SECTION 714 AND SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS. MANUFACTURERS INSTALLATION INSTRUCTIONS SHALL BE PROVIDED FOR REVIEW BY INSPECTION AUTHORITIES. SUBSTITUTIONS OF OR REVISIONS OR ADDITIONS TO APPROVED SYSTEMS SHALL BE SUBMITTED TO THE INSPECTOR OF RECORD AND THE OSHPD FIRE MARSHAL FOR FIELD REVIEW AND APPROVAL.

5. ALL PIPING AND CONDUIT SHALL BE SUPPORTED PER MASON WEST, INC. "SEISMIC RESTRAINT COMPONENTS FOR SUSPENDED DISTRIBUTION SYSTEMS", 1ST EDITION, 2019; OSHPD PRE-APPROVED ANCHORAGE OPM-0043-13, OR OTHER OSHPD PRE-APPROVED SYSTEM.

6. WHEN INSTALLING DRILLED-IN ANCHORS AND/OR POWDER-DRIVEN PINS IN EXISTING NON-PRESTRESSED CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS. WHEN INSTALLING THEM INTO EXISTING PRE-STRESSED CONCRETE (PRE- OR POST-TENSIONED), LOCATE THE PRESTRESSED TENDONS BY USING A NON-DESTRUCTIVE METHOD PRIOR TO INSTALLATION. MAINTAIN A MINIMUM CLEARANCE OF ONE INCH BETWEEN THE REINFORCEMENT AND THE DRILLED-IN ANCHOR AND/OR PIN.

7. FIELD VERIFY THE EXACT LOCATION, DEPTH AND SIZE OF ALL NEW POINTS OF CONNECTION TO EXISTING UTILITIES PRIOR TO COMMENCING NEW UTILITY WORK.

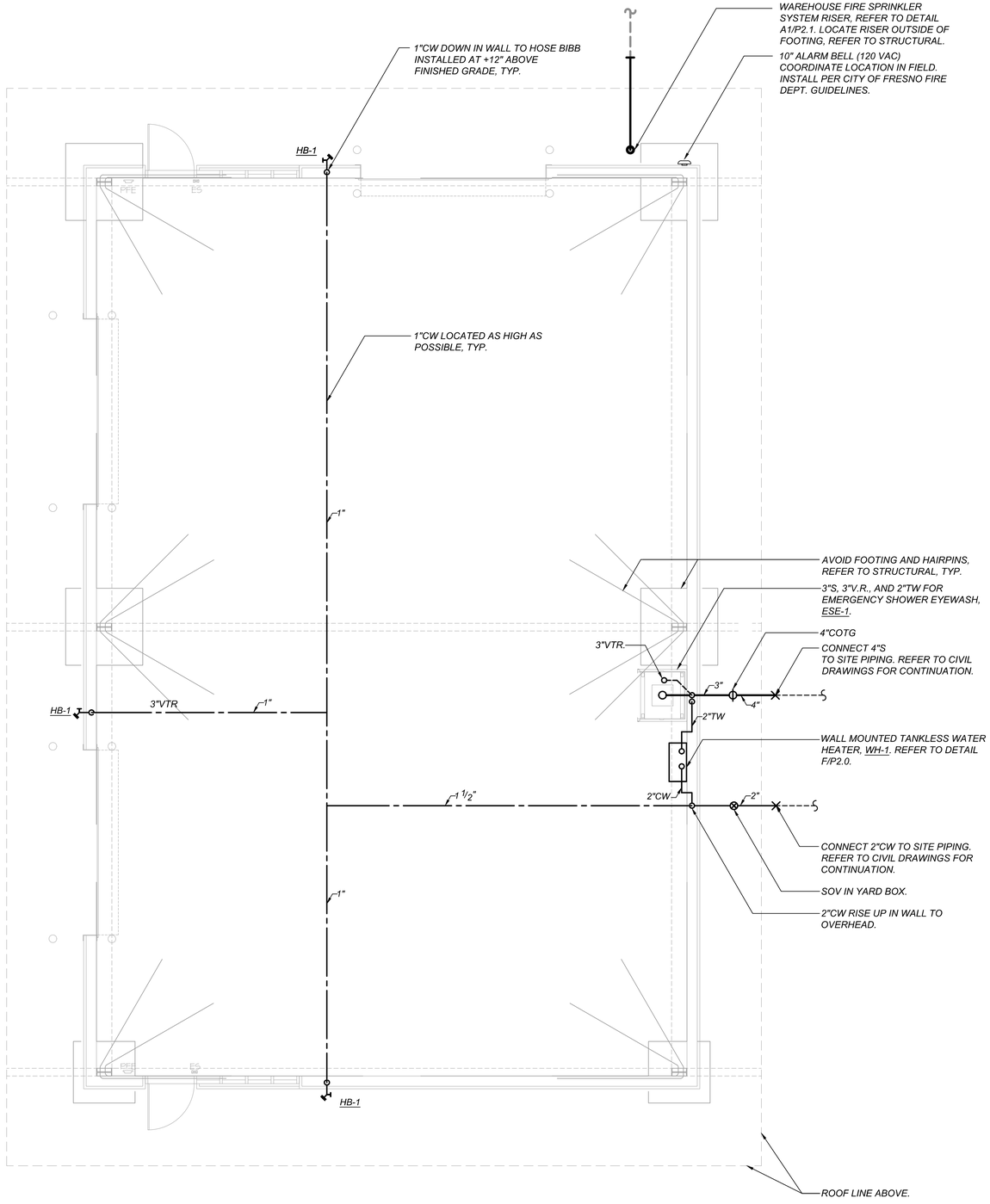
8. INSTALLATION OF NEW UTILITIES FROM EXISTING MAINS IN THE STREET SHALL BE DONE IN STRICT ACCORDANCE WITH GOVERNING AUTHORITY REQUIREMENTS.

9. INSTALLATION, TYPE AND MANUFACTURERS MODELS OF DOMESTIC WATER METERS, BACKFLOW PREVENTERS, FIRE HYDRANTS, DETECTOR CHECK VALVES, MANHOLES, DRAIN INLETS/OUTLETS AND OTHER APPURTENANCE OF SITE UTILITY SYSTEMS SHALL BE DONE IN STRICT ACCORDANCE WITH GOVERNING AUTHORITY REQUIREMENTS.

10. BACKFLOW PREVENTER SHALL BE INSTALLED AT THE MINIMUM HEIGHT ABOVE FINISH GRADE AS ALLOWED BY GOVERNING AUTHORITY.

11. CONTRACTOR SHALL EXCAVATE AND BACKFILL THE GAS SERVICE TRENCH FOR THE LOCAL GAS UTILITY. THE LOCAL GAS UTILITY SHALL INSTALL THEIR GAS SERVICE LINE TO THE GAS METER. TRENCHING SHALL BE IN ACCORDANCE WITH UTILITY STANDARDS. ALL CHARGES AND FEES INCURRED BY THE UTILITY FOR NEW GAS SERVICE SHALL BE PAID BY THE CONTRACTOR.

12. ALL DOMESTIC WATER PIPING SHALL BE A MINIMUM OF 1/2" SIZE UNLESS NOTED OTHERWISE. USE A REDUCING DROP ELL AT FIXTURE CONNECTION WHEN APPLICABLE.



North

PLUMBING LEGEND		
SYMBOL	ITEM	ABBR.
	SOIL or WASTE	S or W
	VENT	V
	VENT RISER	VR
	VENT THRU ROOF	VTR
	DOMESTIC COLD WATER	CW
	DOMESTIC HOT WATER	HW
	DOMESTIC HOT WATER RETURN	HWR
G	LOW PRESSURE NATURAL GAS	G
CD	CONDENSATE DRAIN	CD
	EXISTING PIPING	
	FLOOR CLEANOUT	FCO
	CLEANOUT TO GRADE	COTG
	WALL CLEANOUT	WCO
	PIPING TURN UP	
	PIPING TURN DOWN	
	POINT OF CONNECTION	POC
(N)	NEW	
(E)	EXISTING	
	ABOVE CEILING	ABV CLG
	BELOW FLOOR	BEL FLR
	BELOW GRADE	BEL GR
	TYPICAL	TYP
	CONTINUATION	CONT
	SHUT-OFF VALVE IN BOX	SOV
	SHUT-OFF VALVE	SOV
	CHECK VALVE	
	PLUG VALVE	
F	FIRE PROTECTION LINE	
RWL	RAIN WATER LEADER	RWL
OD	OVERFLOW DRAIN	OD
SD	STORM DRAIN	SD
	TEPID WATER	TW
	DEMOLITION	DEMO

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File Path: G:Capital \ Projects \ Building Numbers \ American Ave Landfill \ T90203 Environmental Compliance Center\ 00 2018 ECC

Sheet Content:

WAREHOUSE BUILDING PLUMBING PLAN

Fresno County Department of Public Works and Planning
Capital Projects

2220 Tulare Street, 8th Floor
Fresno, California 93721

THE COUNTY OF FRESNO 1856

Sheet No.

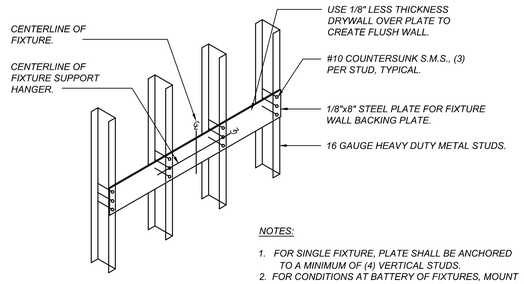
P1.3

A1 WAREHOUSE BUILDING PLUMBING PLAN
Scale: 1/4"=1'-0"

Drawn by: XX

Plotted on: XX.XX.20XX

PLUMBING FIXTURE AND EQUIPMENT SCHEDULE						
MARK	FIXTURE	CONNECTION SIZES				DESCRIPTION
		S or W	V	CW	HW	
SA-1	SHOCK ABSORBER	-	-	1"	-	JAY R. SMITH #5010, (OR ZURN EQUAL) STAINLESS STEEL CONSTRUCTION, P.D.I. SYMBOL "B" FOR UP TO 32 FIXTURE UNITS. INSTALL IN UPWARD POSITION.
ESE-1	EMERGENCY SHOWER EYEWASH	3"	3"	1"	-	HAWS #6506WC BARRIER FREE COMBINATION SHOWER AND EYE/FACE WASH BOOTH, REINFORCED MOLDED FIBERGLASS BOOTH, GALVANIZED STEEL FLOOR GRATE, CHROME PLATE BRASS STAY-OPEN SHOWER AND EYEWASH BALL VALVES, AND UNIVERSAL SIGNS. ANCHOR SHOWER BOOTH TO CONCRETE SLAB WITH (4) 1/2"Ø x 3-1/4" MIN. EMBED. PER ESR-1917. HILTI KWIK BOLT TZ CONCRETE ANCHORS.
HB-1	HOSE BIBB	-	-	3/4"	-	WOODFORD #B75 (OR MIFAB EQUAL) RECESSED WALL HOSE B0X WITH LOCKING DOOR, VACUUM BREAKER, LOOSE TEE KEY HANDLE, SCREWDRIVER STOP. SELF DRAINING CAST STAINLESS STEEL FOR NON-FREEZE AREAS.
WH-1	TANKLESS WATER HEATER (WAREHOUSE)	-	-	1-1/4"	1-1/4"	EEMAX #AP041208-EFD-N4X TANKLESS WATER HEATER WITH STAINLESS STEEL NEMA-4X ENCLOSURE, 1.0 GPM ACTIVATION FLOW, 12°F RISE AT 23 GPM FLOW. WALL-MOUNTED. PROVIDE STEEL BACKING PLATES PER DETAIL D/P-2.0 FOR MOUNTING ON WALL. ELECTRICAL REQUIRED: 41 kW, 208V / 3Ø WEIGHT: 150 LBS



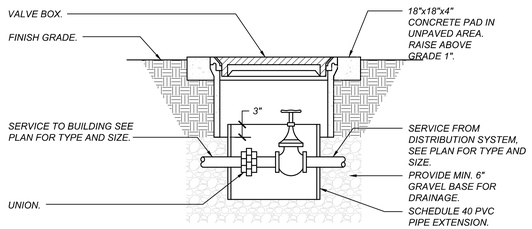
NOTES:

1. FOR SINGLE FIXTURE, PLATE SHALL BE ANCHORED TO A MINIMUM OF (4) VERTICAL STUDS.
2. FOR CONDITIONS AT BATTERY OF FIXTURES, MOUNT ON A CONTINUOUS STEEL PLATE. EXTEND PLATE (2) STUDS BEYOND CENTER OF END FIXTURE.
3. PROVIDE THREADED SELF-TAPPING HOLES IN PLATE FOR FIXTURE SUPPORT CARRIER MOUNTING.
4. PROVIDE JAY R. SMITH CONCEALED ARMS MOUNTED TO PLATE FOR LAVATORY INSTALLATION.

FIXTURE SUPPORT BACKING PLATE

SCALE: N.T.S.

D / P-2.0

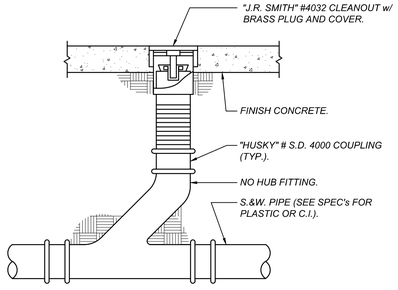


NOTE:
ALL SHUT-OFF VALVE BOXES WITHIN 10'-0" OF EACH OTHER SHALL BE LINED UP WITH EACH OTHER AND PARALLEL TO SIDEWALK OR BUILDING WALL. DO NOT LOCATE IN SIDEWALKS.

SHUT-OFF VALVE IN YARD BOX

SCALE: DIAGRAMATIC

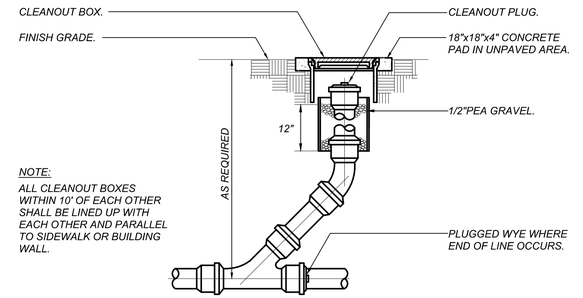
A / P-2.0



FLOOR CLEANOUT

SCALE: N.T.S.

E / P-2.0

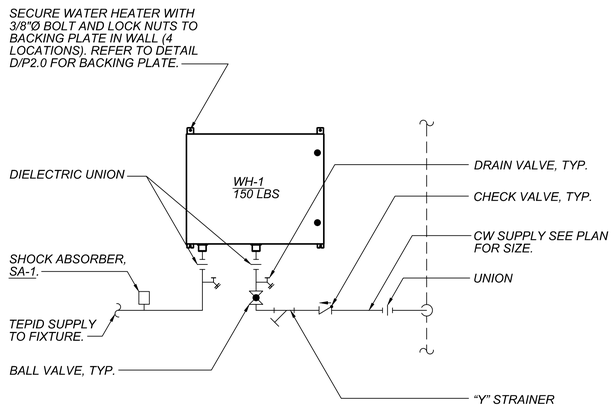


NOTE:
ALL CLEANOUT BOXES WITHIN 10' OF EACH OTHER SHALL BE LINED UP WITH EACH OTHER AND PARALLEL TO SIDEWALK OR BUILDING WALL.

CLEANOUT TO GRADE DETAIL

SCALE: NONE

B / P-2.0



WATER HEATER DETAIL (WH-1)

SCALE: NONE

F / P-2.0

NOT USED

SCALE: NONE

C / P-2.0

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Sheet Content:

WAREHOUSE BUILDING
SCHEDULES AND DETAILS

Fresno County Department of Public Works and Planning
Capital Projects
2220 Tulare Street, 8th Floor
Fresno, California 93721

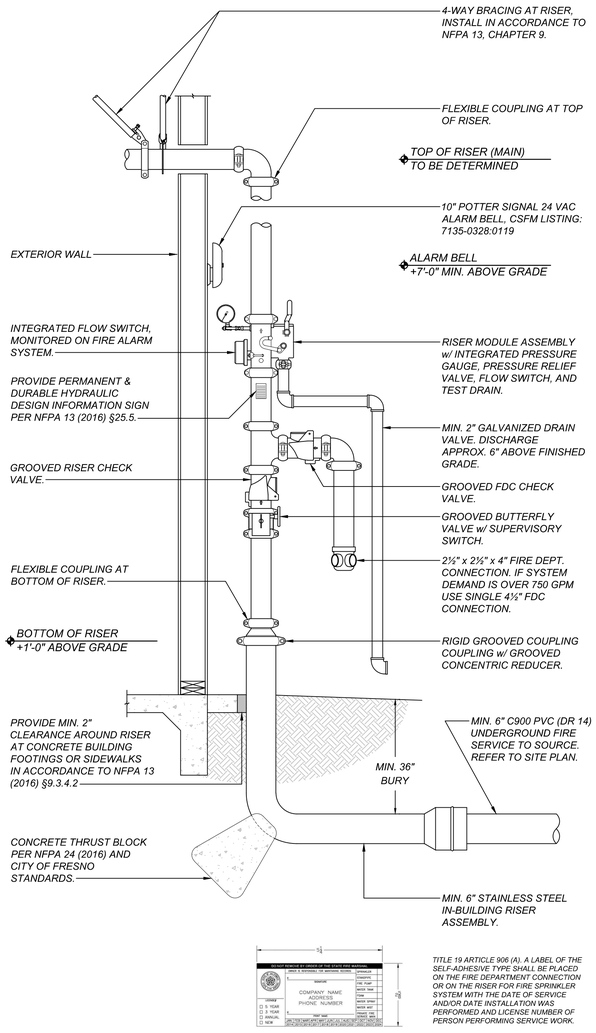
Sheet No.

P2.0

A1 | SCHEDULES AND DETAILS
Scale: NONE

Drawn by: XX

Plotted on: XX.XX.20XX



TITLE 19 ARTICLE 906 (A). A LABEL OF THE SELF-ADHESIVE TYPE SHALL BE PLACED ON THE FIRE DEPARTMENT CONNECTION OR ON THE RISER FOR FIRE SPRINKLER SYSTEM WITH THE DATE OF SERVICE AND/OR DATE INSTALLATION WAS PERFORMED AND LICENSE NUMBER OF PERSON PERFORMING SERVICE WORK.

RISER NOTES:

1. EACH RISER DETAIL IS A SCHEMATIC REPRESENTATION OF THE RISER(S). ORIENTATION OF FITTINGS, VALVES, GAUGES, AND OTHER DEVICES HAVE BEEN MODIFIED FOR ILLUSTRATION PURPOSES AND MAY VARY IN ACTUAL INSTALLATION.
2. PER NFPA 13 (2016) §9.3.2.3.1 - A FLEXIBLE COUPLING SHALL BE INSTALLED WITHIN 24" OF THE TOP AND BOTTOM OF ALL RISERS. RISERS LESS THAN 3 FT IN LENGTH MAY OMIT FLEX COUPLINGS. ONE FLEX COUPLING IS ADEQUATE FOR RISERS 3' TO 7' IN LENGTH.
3. PER NFPA 13 (2016) §9.3.5.8.3 - WHEN A FOUR-WAY BRACE AT THE TOP OF A RISER IS ATTACHED ON THE HORIZONTAL PIPING, IT SHALL BE WITHIN 24" OF THE CENTERLINE OF THE RISER AND THE LOADS FOR THAT BRACE SHALL INCLUDE BOTH THE VERTICAL AND HORIZONTAL PIPE.
4. PER NFPA 13 (2016) §25.5. - THE INSTALLING CONTRACTOR SHALL IDENTIFY A HYDRAULICALLY DESIGNED SPRINKLER SYSTEM WITH A PERMANENTLY MARKED WEATHERPROOF METAL OR RIGID PLASTIC SIGN SECURED WITH CORROSION RESISTANT WIRE, CHAIN, OR OTHER APPROVED MEANS.
5. PER NFPA 13 (2016) §25.6.1 - THE INSTALLING CONTRACTOR SHALL PROVIDE A GENERAL INFORMATION SIGN USED TO DETERMINE SYSTEM DESIGN BASIS AND INFORMATION RELEVANT TO THE INSPECTION, TESTING, AND MAINTENANCE REQUIREMENTS REQUIRED BY NFPA 25.
6. LOCATION OF 2" SYSTEM DRAIN TO BE COORDINATED WITH GENERAL CONTRACTOR. DRAIN PIPE AND FITTINGS SHALL BE GALV.
7. FIRE RISER ROOM SHALL COMPLY WITH CBC (2016) 901.3 PER CFC (2016) SECTION 509.1 FIRE EQUIPMENT ROOMS SHALL BE IDENTIFIED IN AN APPROVED MANNER. APPROVED SIGNS SHALL BE DURABLE, PERMANENT, AND VISIBLE.

A1 WAREHOUSE EXTERIOR RISER DETAIL . FOR REFERENCE ONLY
Scale: None

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Sheet Content:

WAREHOUSE BUILDING
RISER DETAIL

FOR REFERENCE ONLY

Fresno County Department of Public Works and Planning
Capital Projects

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THE COUNTY OF FRESNO 1856

Sheet No.

P2.1

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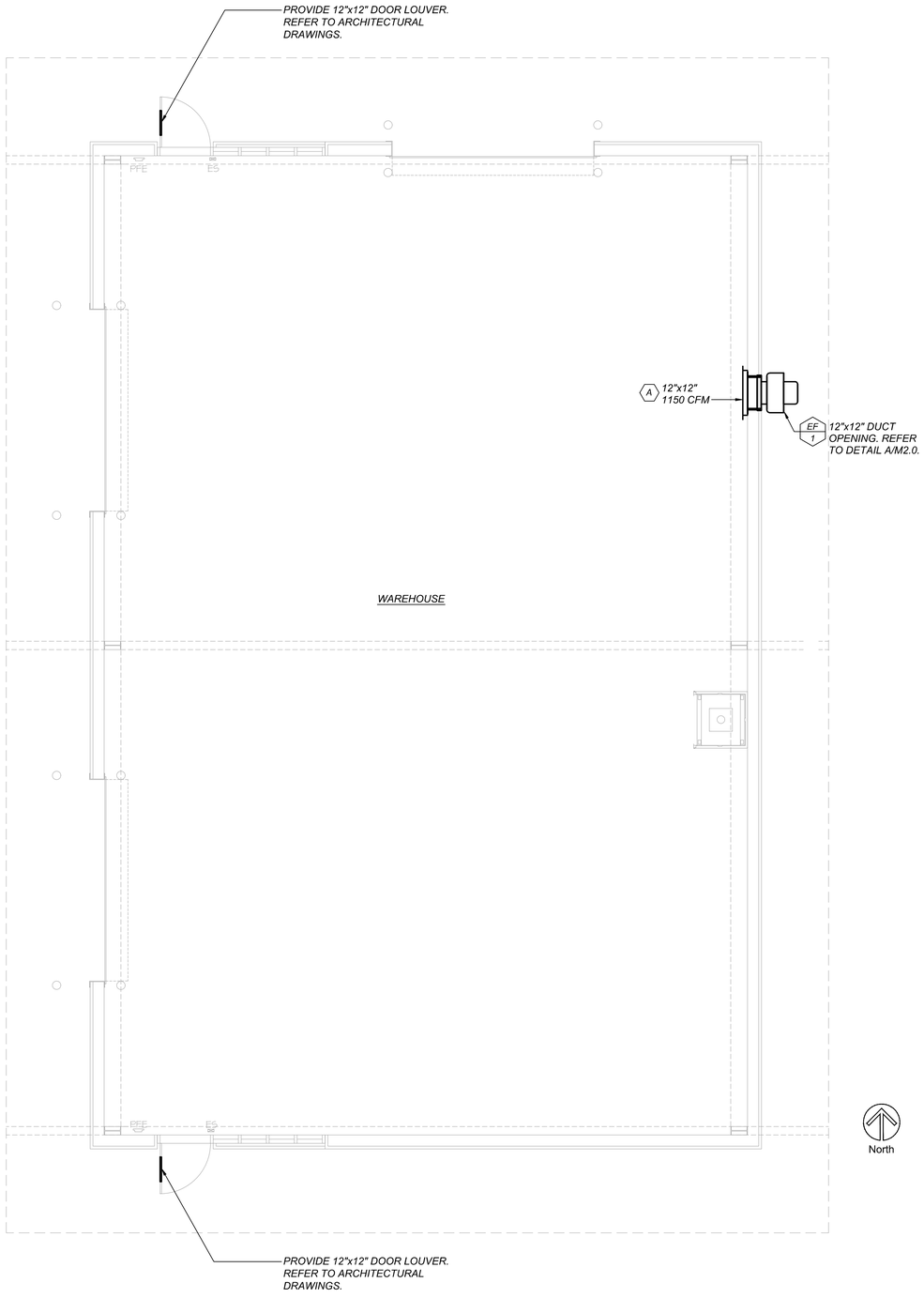
Plotted on: XX.XX.20XX



GENERAL PROJECT NOTE:

1. *COORDINATION OF WORK: LAYOUT OF MATERIALS, EQUIPMENT AND SYSTEMS IS GENERALLY DIAGRAMMATIC UNLESS SPECIFICALLY DIMENSIONED. SOME WORK MAY BE SHOWN OFFSET FOR CLARITY. THE ACTUAL LOCATION OF ALL MATERIALS, PIPING, DUCTWORK, FIXTURES, EQUIPMENT, SUPPORTS, ETC. SHALL BE CAREFULLY PLANNED, PRIOR TO INSTALLATION OF ANY WORK TO AVOID ALL INTERFERENCES WITH EACH OTHER, OR WITH STRUCTURAL, ELECTRICAL, ARCHITECTURAL OR OTHER ELEMENTS. VERIFY THE PROPER VOLTAGE AND PHASE OF ALL EQUIPMENT WITH THE ELECTRICAL PLANS. ALL CONFLICTS SHALL BE CALLED TO THE ATTENTION OF THE ARCHITECT AND THE ENGINEER PRIOR TO THE INSTALLATION OF ANY WORK OR THE ORDERING OF ANY EQUIPMENT.*

2. *AS REQUIRED BY SECTION 7-125(B)92), PART 1, TITLE 24.*

THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS TO CONSTRUCT THE BUILDING IN ACCORDANCE WITH TITLES 19 AND 24, CALIFORNIA CODE OF REGULATIONS. SHOULD ANY CONDITIONS DEVELOP NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH SAID TITLES 19 AND 24, CALIFORNIA CODE OF REGULATIONS, A CHANGE ORDER DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY ARCHITECT BEFORE PROCEEDING WITH THE WORK.

ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT APPLICABLE CODES AND STANDARDS INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING:

CBC CALIFORNIA BUILDING CODE
CPC CALIFORNIA PLUMBING CODE
CMC CALIFORNIA MECHANICAL CODE
CEC CALIFORNIA ELECTRICAL CODE
CFC CALIFORNIA FIRE CODE
C.C.R. TITLE 19, CHAPTER 1 (CSFM)
C.C.R. TITLE 24, PART 1, ADMIN. REGULATION, PART 2, CALIFORNIA BUILDING CODE, AND DSA/SS
UBCS UNIFORM BUILDING CODE STANDARDS

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Sheet Content:

WAREHOUSE BUILDING
MECHANICAL PLAN

Fresno County Department of
Public Works and Planning
Capital Projects

2220 Tulare Street, 8th Floor
Fresno, California 93721

THE COUNTY OF FRESNO 1856

Sheet No.

M1.0

A1 WAREHOUSE
Scale: 1/4"=1'-0"

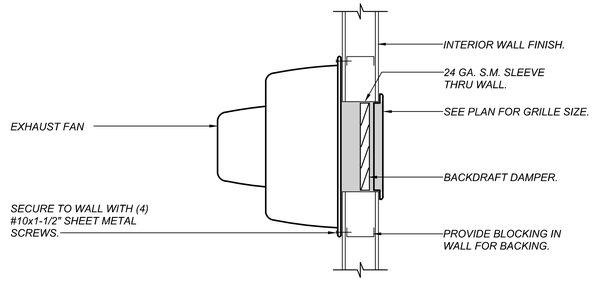
Drawn by: XX

Plotted on: XX.XX.20XX

AIR CONDITIONING LEGEND		
SYMBOL	ITEM	ABBR
	ROUND DUCT	Ø
	FLAT OVAL DUCT	⬭
	SHEET METAL DUCT	—
	ACOUSTIC LINING FOR DUCT OR GRILLES	(L)
	DUCT W/EXT INSULATION & GALV. SM SUNSHIELD	—
	SUPPLY AIR DUCT DROP	—
	RETURN AIR DUCT DROP	—
	EXHAUST DUCT AIR DROP	—
	SUPPLY AIR DUCT RISE	—
	RETURN AIR DUCT RISE	—
	EXHAUST AIR DUCT RISE	—
	TURNING VANES	TV
	EXTRACTOR	—
	VOLUME CONTROL DAMPER W/LOCKING QUADRANT	VCD
	OPPOSED BLADE DAMPER	OBD
	BACKDRAFT DAMPER	BDD
	VOLUME CONTROL DAMPER W/ REMOTE REGULATOR	VCR
& ■	FIRE/SMOKE DAMPER WITH ACCESS PANEL	F/SD
& ▲	FIRE DAMPER WITH ACCESS PANEL	FD
& ◆	SMOKE DAMPER WITH ACCESS PANEL	SD
CFM	CUBIC FEET OF AIR PER MINUTE	CFM
M	EMS MOTORIZED DUCT DAMPER/PIPE VALVE ACTUATOR	—
T	THERMOSTAT @ +4'-0" TOP OF BOX	T'STAT
H	HUMIDISTAT @ +4'-0" TOP OF BOX	H'STAT
C	CO_2SENSOR @ +4'-0" TOP OF BOX	CO_2
T	EMS TEMPERATURE SENSOR @ +4'-0" TOP OF BOX	—
H	EMS HUMIDITY SENSOR @ +4'-0" TOP OF BOX	—
C	EMS C@ SENSOR @ +4'-0" TOP OF BOX	CO_2
SP	EMS STATIC PRESSURE SENSOR	SP
DP	EMS DIFFERENTIAL PRESSURE SENSOR	DP
CS	EMS CURRENT SENSOR	CS
	DIRECTION OF FLOW	—
	SUPPLY AIR	SA
	RETURN AIR	RA
	EXHAUST AIR	EA
	OUTSIDE AIR	OSA
	PIPE/DUCT TURN DOWN	—
	PIPE/DUCT TURN UP	—
	POINT OF CONNECTION	POC
	EXISTING (DESIGNATED)	(E)
	NEW (DESIGNATED)	(N)
SD	DUCT SMOKE DETECTOR	SD
A/V	AUDIBLE/VISUAL ALARM	A/VA
	BYPASS TIMER	BPT

EXHAUST FAN SCHEDULE	
DESIGNATION	EF-1
CFM	1150
ESP (IN WC)	.8
HP/WATTS	1/2 / -
VOLTS/PHASE	115/1
RPM	1153
TIP SPEED/SONES	4,498/11.3
DRIVE	DIRECT
MOUNTING	WALL
MANUFACTURER	GREENHECK
TYPE	CENTRIFUGAL
MODEL NUMBER	CUE-171-VG
CONTROL	.
SERVICE	SEE PLANS
OPER. WT. (LBS)	100
ACCESSORIES	(1)

(1) WALL BRACKET, ELECTRICAL DISCONNECT, BACKDRAFT DAMPER, BIRD SCREEN.



WALL EXHAUST FAN MOUNTING DETAIL

A / M2.0

SCALE: NONE

GRILLE SCHEDULE		
MARK	DUTY	DESCRIPTION
A	WALL EXHAUST	TITUS MODEL 350RL STEEL RETURN GRILLE WITH 35° DEFLECTION BLADES AT 3/4" SPACING AND NO. 26 WHITE FINISH.

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Sheet Content:

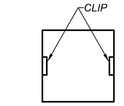
WAREHOUSE
MECHANICAL
SCHEDULES
AND DETAILS

Fresno County Department of Public Works and Planning
Capital Projects
2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

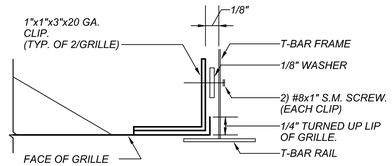
M2.0

GRILLE SCHEDULE		
MARK	DUTY	DESCRIPTION
A	CEILING SUPPLY	TITUS TDC (TYPE 3) FULL LOUVER FACE ROUND OR RECTANGULAR NECK DIFFUSER FOR STD. LAY-IN CEILING WITH NO. 26 WHITE FINISH. (18"x18" NECK, ADAPTER SIZE SHOWN)
B	CEILING RETURN	TITUS CORE 50F (TYPE 3) ALUMINUM EGG CRATE REGISTER WITH 1/2"x1/2" GRID FOR STD. LAY-IN CEILING WITH NO. 26 WHITE FINISH.
C	WALL EXHAUST	TITUS MODEL 350RL STEEL RETURN GRILLE WITH 35° DEFLECTION BLADES AT 3/4" SPACING AND NO. 26 WHITE FINISH.
D	LOUVER	RUSKIN L811 20 GAUGE GALVANIZED SHEET METAL LOUVER WITH 1/2" MESH SCREEN ON INSIDE FACE. PRIME FOR PAINT.
E	CEILING SUPPLY	TITUS TDC (TYPE 1) LOUVER FACE SQUARE OR RECTANGULAR NECK DIFFUSER FOR SURFACE MOUNTING WITH NO. 26 WHITE FINISH.



PLAN VIEW

NOTE: USE THIS DETAIL FOR SUPPLY & RETURN GRILLES IN A T-BAR CEILING.

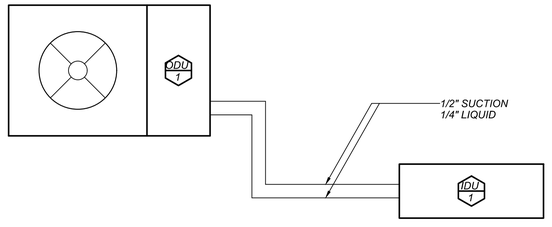


GRILLE RESTRAINT DETAIL

A M2.1

SCALE: NONE

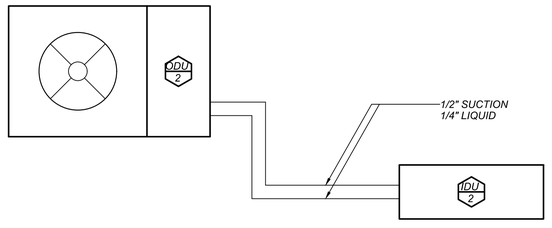
MD090



REFRIGERANT PIPING DETAIL FOR ODU-1

B M2.1

SCALE: NONE



REFRIGERANT PIPING DETAIL FOR ODU-2

C M2.1

SCALE: NONE

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Project:

Fresno County
Environmental Compliance Center
Phase 3 - Warehouse Building
Project Address: 310 S. West Avenue, Fresno CA 93706
APN: 458-060-72
Issue Date:
Project No. T90203
File Path: G:\Capital \ Projects \ Building Numbers \ American Ave Landfill \ T90203 Environmental Compliance Center\ 00 2018 ECC

Sheet Content:

MECHANICAL
SCHEDULES
AND DETAILS

Fresno County Department of
Public Works and Planning
Capital Projects

2220 Tulare Street, 8th Floor
Fresno, California 93721

THE COUNTY OF FRESNO 1856

Sheet No.

M2.1

Drawn by: XX

Plotted on: XX.XX.20XX

Electrical General Notes

1. ALL WORK SHALL MEET THE LATEST ADOPTED ADDITIONS OF THE CALIFORNIA CODE OF REGULATIONS, TITLE 24 AND ALL OTHER APPLICABLE REGULATIONS, WHICH INCLUDE:

CALIFORNIA BUILDING CODE	2019
CALIFORNIA ELECTRICAL CODE	2019
NON RESIDENTIAL CEC ENERGY STANDARDS	2019

2. NOTHING IN THE PLANS OR SPECIFICATIONS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.
3. IT IS THE INTENTION OF THESE PLANS AND SPECIFICATIONS TO COVER EVERYTHING REQUIRED TO PROVIDE FOR COMPLETE AND OPERATIVE SYSTEMS. THE CONTRACTOR IS TO FURNISH LABOR, MATERIAL, TRANSPORTATION, EQUIPMENT, MISCELLANEOUS SERVICES, ETC. REQUIRED TO ACCOMPLISH THIS RESULT. ANYTHING WHICH MAY BE REASONABLY CONSTRUED AS A NECESSARY PART OF THE INSTALLATION IS TO BE INCLUDED, WHETHER OR NOT SPECIFICALLY SHOWN OR MENTIONED.
4. THE CONTRACTOR SHALL EXAMINE THE SITE AND EXISTING CONDITIONS AND MAKE ALLOWANCES IN THE BID FOR ANY CONDITIONS NOT SHOWN ON THE ELECTRICAL DOCUMENTS.
5. THE PLANS AND SPECIFICATIONS ARE INTENDED TO BE USED AS CONSTRUCTION GUIDELINES AND ARE NOT THE TOTAL INSTRUMENT OF CONTRACT DOCUMENTS. IT IS NOT THE INTENTION OF ANY CONSTRUCTION PLANS TO DIVIDE WORK AMONG DIFFERENT TRADES. VERIFY THE SCOPE OF WORK WITH THE ARCHITECT AND THE GENERAL CONTRACTOR.
6. ELECTRICAL ROUTING IS DIAGRAMMATIC ONLY. ACTUAL ROUTING & PHYSICAL CONDITIONS MAY VARY. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE ACTUAL ROUTING, CONNECTIONS, & PROVISION OF ALL APPURTENANCES NECESSARY FOR A COMPLETE & OPERATING SYSTEM.
7. ELECTRICAL EQUIPMENT SHALL HAVE AN APPROVED TESTING LABORATORY LABEL ATTACHED (UL, CSA ETC.) PER CEC 110.2.
8. ELECTRICAL EQUIPMENT SHALL HAVE A SHORT CIRCUIT CURRENT RATING CAPABLE OF WITHSTANDING THE AVAILABLE SHORT CIRCUIT CURRENT PER CEC 110.9. WHERE SERIES COMBINATION RATINGS ARE USED FOR NEW PANELS, PROVIDE A CAUTIONARY LABEL TO THE SERIES RATED DEVICE COVER STATING "CAUTION - SERIES RATED SYSTEM AMPACITY AVAILABLE" AND IDENTIFY THE COMPONENTS, PER CEC 110.3, 110.22(C), 240.86, AND THE UL RECOGNITION DIRECTORY.
9. PROVIDE MINIMUM 30" WIDE x 78" HIGH x 36" DEEP WORK CLEARANCES IN FRONT OF PANELS, SERVICE OR EQUIPMENT RATED AT 120/208V 3Φ 4W PER CEC 110.26.
10. PROVIDE MINIMUM 30" WIDE x 78" HIGH x 42" DEEP WORK CLEARANCES IN FRONT OF PANELS, SERVICE OR EQUIPMENT RATED AT 277/480V 3Φ 4W PER CEC 110.26.
11. PROVIDE A PLACARD ON EACH PANELBOARD INDICATING THE LOCATION AND IDENTIFICATION OF THE FEEDER SERVING THE PANEL PER CEC 408.4(B).
12. PROVIDE ILLUMINATED EMERGENCY POWER PER 2016 CFC, SECTION 1006.3. EMERGENCY EGRESS LIGHTING SHALL PROVIDE A MINIMUM LUMINANCE OF 1 FOOTCANDLE AT THE WALKING SURFACE FOR A MINIMUM OF 90 MINUTES.
13. FIRE ALARM EQUIPMENT SHALL BE SERVED BY DEDICATED FIRE ALARM BRANCH CIRCUITS PER NFPA 72 10.6.5.1.2. THE CIRCUIT NUMBER SHALL BE PERMANENTLY IDENTIFIED AT THE FIRE ALARM EQUIPMENT PER NFPA 10.6.5.2.1. THE CIRCUIT BREAKER SHALL BE EQUIPPED WITH RED HANDLE AND LOCK-ON DEVICE, AND PERMANENTLY IDENTIFIED AS "FIRE ALARM CIRCUIT" PER NFPA 72 10.6.5.2.2, 10.6.5.2.3, 10.6.5.2.4, AND 10.6.5.4.
14. WIRING FOR 120/208V AND 277/480V SYSTEMS SHALL BE MIN. #12 AWG THHN/THWN-2 COPPER.
15. 120V AND 277V BRANCH CIRCUITS SHALL HAVE DEDICATED NEUTRALS. SHARING NEUTRALS IS NOT ACCEPTABLE.
16. FEEDERS SIZE #4 AND LARGER SHALL BE MEGGER TESTED. TEST RESULTS SHALL BE SUBMITTED TO THE ENGINEER.
17. ALL UNDERGROUND CONDUITS SHALL HAVE MINIMUM 24" COVER. INSTALL GALVANIZED RIGID STEEL RISERS & ELBOWS WHERE RISERS OCCUR. WRAP GRS BELOW GRADE OR PROVIDE PVC COATED GRS. EXPOSED CONDUIT SHALL BE GRS TO 8'-0", THEN EMT ABOVE AS APPROPRIATE. UNDER NO CIRCUMSTANCE SHALL PVC CONDUIT BE INSTALLED ABOVE GRADE.
18. CONDUIT INSTALLED ABOVE GRADE SHALL BE MIN. 3/4" TRADE SIZE. CONDUIT BELOW GRADE SHALL BE MIN. 1" TRADE SIZE.
19. PROVIDE (4) 1" CONDUIT STUBS FROM EACH NEW ELECTRICAL PANEL TO ACCESSIBLE ATTIC SPACE FOR FUTURE USE.
20. COLORS/FINISHES/MATERIALS FOR ALL ELECTRICAL DEVICES, PLATES, LIGHT FIXTURES, ETC. SHALL BE CHOSEN BY THE ARCHITECT.
21. PROVIDE PERMANENT LOCK-OPEN DEVICES ON CIRCUIT BREAKERS SERVING ELECTRIC WATER HEATERS TO MEET THE REQUIREMENTS OF CEC 422.31.
22. BEFORE AN OCCUPANCY PERMIT IS GRANTED FOR A NEWLY CONSTRUCTED BUILDING OR AREA, OR NEW LIGHTING SERVING A BUILDING, AREA OR SITE IS OPERATED FOR NORMAL USE, ALL INDOOR AND OUTDOOR LIGHTING CONTROLS SERVING THE BUILDING, AREA OR SITE SHALL BE CERTIFIED AS MEETING THE "ACCEPTANCE REQUIREMENTS" FOR CODE COMPLIANCE IN ACCORDANCE WITH SECTION 130.4. A "CERTIFICATE OF ACCEPTANCE" SHALL BE SUBMITTED TO THE ENFORCEMENT AGENCY UNDER SECTION 10-103(a) OF PART 1 THRU 7(c).
23. AT TIME OF "FINAL INSPECTION", ALL CODE REQUIRED SIGN CONTROLS WILL BE REQUIRED TO HAVE BEEN INSTALLED. REFERENCE SECTION 130.4 OF THE 2016 CALIFORNIA ENERGY CODE.
24. THE CALIFORNIA STATE LICENSE BOARD (CSLB) "ZERO TOLERANCE POLICY" IN EFFECT FOR NON-COMPLIANT LABOR CODE SECTIONS 3099 AND 2099.2 , SECTIONS 209.0 AND THE AB 931, AS OF JANUARY 2006, ENFORCEMENT OF LEGAL ACTION WILL BE ISSUED TO ANY C-10 CONTRACTOR WHO WILLFULLY EMPLOYS AN "UNCERTIFIED ELECTRICIAN" TO PERFORM ELECTRICAL WORK IN THE STATE OF CALIFORNIA.
25. THE GENERAL CONTRACTOR SHALL COORDINATE THE FIRE ALARM SYSTEM INTERFACES BETWEEN THE FIRE ALARM CONTRACTOR, SPRINKLER CONTRACTOR, MECHANICAL CONTRACTOR, AND ANY OTHER PERTINENT TRADES (FIRE ALARM, SPRINKLER SYSTEM, HOOD AND VENT EXTINGUISHING SYSTEM, HVAC, FIRE SMOKE DAMPERS, ETC.).
26. WHEN A FIRE ALARM SYSTEM IS PRESENT AND THE TOTAL COMBINED CFM FOR ALL HVAC UNITS IN A FIRE COMPARTMENT IS IN EXCESS OF 2000, DETECTION OF SMOKE IN ANY ONE OF THE DUCT DETECTORS SHALL SHUT OFF THE POWER SOURCES TO ALL THE UNITS PER FRESNO FIRE POLICY 407.4.
27. PROVIDE START-UP, TESTING, ADJUSTMENT, AND REPORTING OF BUILDING LIGHTING SYSTEM PER CGBSC 5.410.4.
28. ARC-FLASH WARNING SIGNS SHALL BE PROVIDED PER CEC SECTION 110.16.
29. FAULT CURRENT SHALL BE CALCULATED AND POSTED PRIOR TO FINAL INSPECTION PER CEC 110.24.

Electrical Symbols

	SYMBOL	DESCRIPTION	NOTES
LIGHTING		POLE WITH SINGLE AREA LUMINAIRE	
		POLE WITH DOUBLE AREA LUMINAIRES	
		POLE WITH POST TOP AREA LUMINAIRE	
	(A)	FIXTURE TYPE "A"	REFER TO FIXTURE SCHEDULE
		SURFACE CEILING LIGHT	
		RECESSED DOWN LIGHT	
		WALL LIGHT	
		FIXTURE ON EMERGENCY POWER	PROVIDE UNSWITCHED HOT TO BATT PACKS
		EXIT SIGN, CEILING (ARROWS INDICATE CHEVRONS)	PROVIDE UNSWITCHED HOT TO BATT PACKS
		EXIT SIGN, WALL (ARROWS INDICATE CHEVRONS)	PROVIDE UNSWITCHED HOT TO BATT PACKS
		DEDICATED EMERGENCY LIGHT	PROVIDE UNSWITCHED HOT TO BATT PACKS
	INV	INVERTER	
	$	SWITCH AT +48" AFF TO TOP OF BOX	20A 277V QUIET TOGGLE
	$3	3-WAY SWITCH AT +48" AFF TO TOP OF BOX	20A 277V QUIET TOGGLE
		DIMMER SWITCH, TO BE COMPATIBLE WITH CONTROLLED FIXTURES, AT +48" AFF TO TOP OF BOX	ROUGH IN WITH IG BOX PER SWITCH W/ RING, 1"C. TO ACCESSIBLE ATTIC SPACE
		WALL MOUNTED DUAL TECH OCCUPANCY SENSOR SWITCH, 0-10V DIMMING, AT +48" AFF TO TOP OF BOX	ROUGH IN WITH IG BOX PER SWITCH W/ RING, 1"C. TO ACCESSIBLE ATTIC SPACE
	EF	WALL MOUNTED ULTRASONIC OCCUPANCY SENSOR SWITCH, W/ SEPARATE EXHAUST FAN RELAY AT +48" AFF TO TOP OF BOX	ROUGH IN WITH IG BOX PER SWITCH W/ RING, 1"C. TO ACCESSIBLE ATTIC SPACE
		DIGITAL DIMMER SWITCH, AT +48" AFF TO TOP OF BOX	nLIGHT SYSTEM, ROUGH IN WITH IG BOX & RING, 1"C. TO ACCESSIBLE ATTIC
	W	DIGITAL DIMMER SWITCH, WIRELESS, LINE VOLTAGE AT +48" AFF TO TOP OF BOX	nLIGHT AIR SYSTEM, ROUGH IN WITH IG BOX & RING, 120-277V POWERED
	OS	DIGITAL DIMMER SWITCH W/ INTEGRAL OCCUPANCY SENSOR AND PHOTOSENSOR AT +48" AFF TO TOP OF BOX	nLIGHT SYSTEM, ROUGH IN WITH IG BOX & RING, 1"C. TO ACCESSIBLE ATTIC
		DIGITAL "FRESCO" GRAPHICAL TOUCHSCREEN DIMMING, CONTROLLER AT +48" AFF TO TOP OF BOX	nLIGHT SYSTEM, ROUGH IN WITH IG BOX & RING, 1"C. TO ACCESSIBLE ATTIC
	OS	DIGITAL OCCUPANCY SENSOR W/ PHOTOSENSOR DUAL-TECHNOLOGY CEILING MOUNT	nLIGHT SYSTEM #nCM PDT 10
	WOS	DIGITAL OCCUPANCY SENSOR W/ PHOTOSENSOR DUAL-TECHNOLOGY WALL MOUNT	nLIGHT SYSTEM, ROUGH IN WITH IG BOX & RING, 1"C. TO ACCESSIBLE ATTIC
	XS	WIRELESS DIGITAL OCCUPANCY SENSOR W/ PHOTOSENSOR. DUAL-TECHNOLOGY CEILING MOUNT	PROVIDE XPOINT SBOR SENSOR INTERFACE
	GW	DIGITAL GATEWAY	nLIGHT SYSTEM, PROVIDE (1) GATEWAY AT EACH BUILDING AND CONNECT TO LAN. PROVIDE BOX/OUTLET AT GATEWAY LOCATION FOR GATEWAY POWER SUPPLY.
	BR	DIGITAL BRIDGE	nLIGHT SYSTEM, PROVIDE (1) BRIDGE FOR EACH (6) nLIGHT ZONES. CONNECT BRIDGE POWER SUPPLY TO LOCAL LIGHTING CIRCUIT.
	BX	DIGITAL XPOINT WIRELESS BRIDGE	INTERFACE WITH nLIGHT SYSTEM GATEWAY
	PP	DIMMING POWER PACK VERIFY 0-10V, 2- OR 3-WIRE, MLV, OR ELV BY FIXTURE	nLIGHT SYSTEM, MOUNT IN ACCESSIBLE ATTIC OR INCONSPICUOUS, HIGH ON WALL, WHEN NO CEILING
	PPE	DIMMING POWER PACK W/ EMERGENCY CONTROL RELAY VERIFY 0-10V, 2- OR 3-WIRE, MLV, OR ELV BY FIXTURE	nLIGHT SYSTEM, MOUNT IN ACCESSIBLE ATTIC OR INCONSPICUOUS, HIGH ON WALL, WHEN NO CEILING
	XP	DMX CONTROLLER PACK	nLIGHT SYSTEM, MOUNT IN ACCESSIBLE ATTIC OR INCONSPICUOUS, HIGH ON WALL, WHEN NO CEILING
	RR	RECEPTACLE RELAY CONTROLLED BY OCCUPANCY SENSOR	nLIGHT SYSTEM, MOUNT IN ACCESSIBLE ATTIC OR INCONSPICUOUS, HIGH ON WALL, WHEN NO CEILING. (1) RELAY PER CIRCUIT IN EACH CONTROLLED AREA.
DATACOM		TERMINAL CABINET	
		DATA OUTLET (RJ-45 CAT6) WITH 2 JACK AT +18" AFF, U.O.N. BLUE JACKS & CABLE QTY. OF JACKS AS NOTED WHEN > 2	4-11/16 SQ. BOX, IG RING, MODULAR PLATE, & 1 1/2"C. TO ACCESSIBLE ATTIC SPACE. PULL CABLING TO RESPECTIVE PATCH PANEL AND TERMINATE JACKS AT EACH END. REFER TO SPECIFICATIONS.
	WAP-C	(2) WAP DATA JACKS (RJ-45 CAT6A) MOUNTED IN ATTIC SPACE	4-11/16 SQ. BOX, IG RING, MODULAR PLATE. PULL CABLING TO RESPECTIVE PATCH PANEL AND TERMINATE JACKS AT EACH END.
	WAP-W	(2) WAP DATA JACKS (RJ-45 CAT6A) AT +108" AFF, U.O.N.	4-11/16 SQ. BOX, IG RING, MODULAR PLATE, & 1 1/2"C. TO ACCESSIBLE ATTIC SPACE. PULL CABLING TO RESPECTIVE PATCH PANEL AND TERMINATE JACKS AT EACH END. REFER TO SPECIFICATIONS.
		WALL MOUNT VoIP OUTLET (RJ-45 CAT6) AT +45" AFF, U.O.N.	4-11/16 SQ. BOX, IG RING, MODULAR PLATE, & 1 1/2"C. TO ACCESSIBLE ATTIC SPACE. PULL CABLING TO RESPECTIVE PATCH PANEL AND TERMINATE JACKS AT EACH END. REFER TO SPECIFICATIONS.
		WALL MOUNT DATA/COMM OUTLET AT +45" AFF, U.O.N.	4-11/16 SQ. BOX, IG RING, MODULAR PLATE, & 1 1/2"C. TO ACCESSIBLE ATTIC SPACE. PULL CABLING TO RESPECTIVE PATCH PANEL AND TERMINATE JACKS AT EACH END. REFER TO SPECIFICATIONS.
	MDF	"MAIN DISTRIBUTION FRAME"	
	IDF	"INTERMEDIATE DISTRIBUTION FRAME"	

	SYMBOL	DESCRIPTION	NOTES
POWER		SWITCHBOARD	REFER TO POWER SINGLE LINE DIAGRAM
		POWER PANEL	REFER TO PANEL SCHEDULE
		JUNCTION BOX	4-11/16" SQUARE BOX & COVER PLATE MIN.
		DISCONNECT SWITCH, FUSIBLE	REFER TO MECH. PLANS & SPECS.
		MOTOR CONTROLLER/DISCONNECT SWITCH	REFER TO MECH. PLANS & SPECS.
		MOTOR	REFER TO MECH. PLANS & SPECS.
		EXHAUST FAN, CEILING MOUNTED	REFER TO MECH. PLANS & SPECS.
		SINGLE CONVENIENCE OUTLET AT +15" AFF TO BOTTOM OF BOX, U.O.N.	20A SPEC. GRADE, TAMPER-RESISTANT, NEMA GROUNDED
		DUPLEX CONVENIENCE OUTLET AT +15" AFF TO BOTTOM OF BOX, U.O.N.	20A SPEC. GRADE, TAMPER-RESISTANT, NEMA GROUNDED
		QUADPLEX CONVENIENCE OUTLET AT +15" AFF TO BOTTOM OF BOX, U.O.N.	20A SPEC. GRADE, TAMPER-RESISTANT, NEMA GROUNDED
		DUPLEX GFI CONVENIENCE OUTLET AT +15" AFF TO BOTTOM OF BOX, U.O.N.	20A SPEC. GRADE, TAMPER-RESISTANT, NEMA GROUNDED LEVITON #X7899-W
		QUADPLEX GFI CONVENIENCE OUTLET AT +15" AFF TO BOTTOM OF BOX, U.O.N.	20A SPEC. GRADE, TAMPER-RESISTANT, NEMA GROUNDED LEVITON #X7899-W
		WEATHERPROOF, GFI OUTLET AT +15" AFF TO BOTTOM OF BOX, U.O.N. W/ WEATHERPROOF IN-USE TYPE COVER	20A SPEC. GRADE, TAMPER-RESISTANT, NEMA GROUNDED LEVITON #X7899-W
		DUPLEX CONVENIENCE OUTLET AT +15" AFF TO BOTTOM OF BOX, U.O.N. SPLIT-WIRED WITH UNSWITCHED AND SWITCHED BY OCCUPANCY SENSOR	20A SPEC. GRADE, TAMPER-RESISTANT, NEMA GROUNDED, LEVITON #TDR20-SIW CODE COMPLIANT MARKING REQUIRED
		QUADPLEX CONVENIENCE OUTLET, CONTROLLED AT +15" AFF TO BOTTOM OF BOX, U.O.N. ONE UNSWITCHED AND ONE SWITCHED BY OCCUPANCY SENSOR	20A SPEC. GRADE, TAMPER-RESISTANT, NEMA GROUNDED, LEVITON #TDR20-W AND LEVITON #TDR20-52W CODE COMPLIANT MARKING REQUIRED
		HEAVY DUTY POWER PEDESTAL	SEE DETAIL
		SPECIAL EQUIPMENT OUTLET AT +15" AFF TO BOTTOM OF BOX, U.O.N.	VERIFY REQ'TS W/ EQUIPMENT VENDOR
		2G FLOOR BOX WITH POWER FEED COVER	MAKE CONNECTION TO MODULAR FURNITURE SYSTEM
		12" CU GROUND BUS BAR	WITH #6 GREEN GROUND WIRE TO G.E.C.
		FIRE/SMOKE DAMPER	PROVIDE 120V F.A. CIRCUIT TO DAMPER VIA F.A. RELAY.
PA		PUBLIC ADDRESS SPEAKER, CEILING MOUNTED	HOMERUN SPEAKER CABLE TO PA TERMINAL BLOCK
		PUBLIC ADDRESS SPEAKER WALL MOUNTED, +120" U.O.N.	RUN 1"C. TO ACCESSIBLE ATTIC SPACE AND HOMERUN SPEAKER CABLE TO PA TERMINAL BLOCK
	WP	WP OUTDOOR PUBLIC ADDRESS SPEAKER, WALL MOUNTED, +120" U.O.N.	RUN 1"C. TO ACCESSIBLE ATTIC SPACE AND HOMERUN SPEAKER CABLE TO PA TERMINAL BLOCK
CAMERAS		SURVEILLANCE (CCTV) CAMERA PROVISION, WALL MOUNTED. VERIFY HEIGHTS AT EACH LOCATION. C=CEILING MOUNTED.	INTERIOR: IG J-BOX, IG RING, MODULAR PLATE, 3/4"C. TO ACCESSIBLE ATTIC SPACE. EXTERIOR: IG FLUSH BELL BOX, MODULAR PLATE, 3/4"C. TO ACCESSIBLE ATTIC SPACE. PROVIDE (1) CAT6 CABLE AND DATA JACK TO EACH CAMERA PROVISION. VERIFY EXACT REQUIREMENTS PRIOR TO ROUGH-IN.
A/V	TV	RECESSED TV BOX WITH POWER OUTLET, (2) DATA JACKS, HDMI AND CATV JACKS. VERIFY HEIGHT/LOCATION PRIOR TO ROUGH-IN.	MAKE POWER CONNECTION AND PROVIDE 1 1/2"C. STUB TO EXPOSED CABLE SPACE NEAR ROOF. VERIFY HEIGHTS W/ ARCH.
	AV	A/V INPUT HDMI/VGA/3.5MM AUDIO/USB JACK WALL PLATE AT +18" AFF	2G BOX, IG RING, (2) 1 1/4"C. TO ATTIC SPACE. INSTALL CABLES FROM STATION TO TV.
GENERAL		DEVICES TO BE REMOVED	
		EXISTING CONDUIT/WIRING TO BE DEMOLISHED	
		EXISTING DEVICES	
		EXISTING CONDUIT/WIRING	
		WIRING IN CONDUIT, BELOW GRADE	3/4" CONDUIT MIN.
		WIRING IN CONDUIT, IN WALL OR CEILING	3/4" CONDUIT MIN.
	LV	LOW VOLTAGE WIRING IN ATTIC SPACE	TYPE PER EQUIPMENT MANUFACTURER
		CONDUIT RISER	3/4" CONDUIT MIN.
		FLEXIBLE CONDUIT	3/4" CONDUIT MIN.
		CONDUIT STUB AND CAP	3/4" CONDUIT MIN.
		CROSS HATCHES INDICATE NUMBER OF #12 AWG. CONDUCTORS IN CONDUIT, WHEN MORE THAN TWO. WIRE SIZE INDICATED ON PLANS WHEN OTHER #12 AWG. PROVIDE GROUND PER CEC 250. PROVIDE DEDICATED NEUTRAL FOR EACH CIRCUIT.	3/4" CONDUIT MIN.
		CURVED CROSS HATCHES INDICATE #14 AWG PURPLE & GRAY CONDUCTORS FOR DIMMING CONTROL.	3/4" CONDUIT MIN.
	A-15	HOME RUN (TO PANEL "A", CIRCUIT "15")	3/4" CONDUIT MIN.
	(E)	"EXISTING"	
	U.O.N.	"UNLESS OTHERWISE NOTED"	
	WP	"WEATHERPROOF" / NEMA 3R	
	GFI	"GROUND FAULT INTERRUPTER"	

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Project:

Fresno County
Environmental Compliance Center
Warehouse Building
Project Address: 310 S. West Avenue, Fresno CA 93706
APN: 458-060-72
Issue Date:
Project No. T90203
File Path: G:\Capital \ Projects \ Building Numbers \ American Ave Landfill \ T90203 Environmental Compliance Center\ 00 2018 ECC

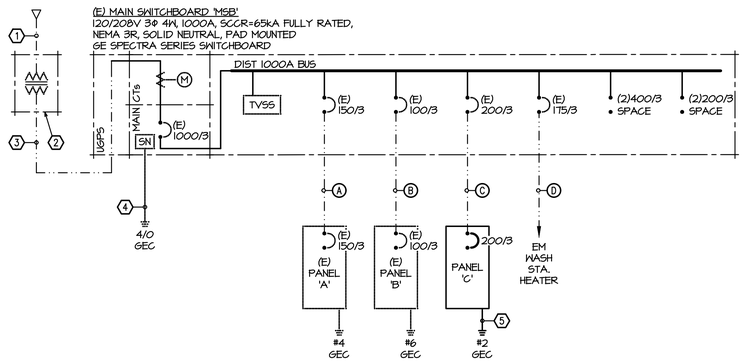
Sheet Content:

Electrical Notes and Symbols

Fresno County Department of Public Works and Planning
Capital Projects
2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

E1.1



LINE DIAGRAM KEY NOTES

1. (E) 4°C. UTILITY PRIMARY PER RULE 16 DOCS.
2. (E) UTILITY TRANSFORMER & CONCRETE PAD PER RULE 16 DOCS.
3. (3) 5°C. UTILITY SECONDARY PER PG&E PER RULE 16 DOCS.
4. (E) SERVICE GROUNDING ELECTRODE CONDUCTOR.
5. GROUNDING ELECTRODE CONDUCTOR TO UFER, STRUCTURAL STEEL, METAL WATER PIPE, AND FIRE SPRINKLER RISER.

FEEDERS

A. (E) 2-1/2°C. 4#1/0, 1#6G.

B. (E) 2°C. 4#1, 1#6G.

C. (E) 3°C. 4#4/0, 1#4G.

D. (E) 2°C. 3#2/0, 1#6G.

J1 Power Single Line Diagram

Scale: None

No.	Feeder Origin	Feeder Destination	Potential at Origin (P_i) (Volts)	System	Design Current (Amps)	Raceway Type	Sets of Cond.	Conductor Trade Size	Conductor Cross-Sectional Area (CM)	Conductor Material	DC Conductor Material Constant (K)	Q	Distance (ft)	Voltage Drop (VD) (Volts)	Potential at Load (P_f) (Volts)	Percent Voltage Drop (%VD)
1	MSB	Panel 'A'	208	AC 3-Phase	150	PVC	1	1/0	105600	CU	12.9	0.9836	35	1.09	206.91	0.53
2	MSB	Panel 'B'	208	AC 3-Phase	100	PVC	1	1	83690	CU	12.9	0.9740	125	3.25	204.75	1.56
3	MSB	Panel 'C'	208	AC 3-Phase	200	PVC	1	4/0	211600	CU	12.9	1.0197	135	2.91	205.09	1.40
4	Panel 'A'	Farthest #12 outlet	120	AC 1-Phase	16	Steel	1	12	6530	CU	12.9	1.0101	75	4.79	115.21	3.99
5	Panel 'A'	Farthest #10 outlet	120	AC 1-Phase	16	Steel	1	10	10380	CU	12.9	0.9677	125	4.81	115.19	4.01
6	Panel 'B'	Farthest A/C Unit	208	AC 3-Phase	30	Steel	1	6	26240	CU	12.9	0.9980	45	1.15	206.85	0.55

Definitions

VD = Voltage Drop (Volts)
K = DC Conductor Material Constant (12.9 for Copper, 21.2 for Aluminum)
Q = AC Adjustment Factor for conductors sized #2/0 AWG and larger (R_{ac}/ R_{dc})
I = Current (Amps)
D = Distance to Load (ft)
CM = Conductor Cross-Sectional Area (Circular Mils)
P = Potential (Volts)

Formulae

VD (single phase or DC) = 2 x K x Q x I x D / CM

VD (three phase) = √3 x K x Q x I x D / CM

%VD = VD / P_i x 100

E1 Voltage Drop Calculations

Scale: None

TYPE	MANUFACTURER	CATALOG NO.	LAMPING	WATTS	VOLTS	MOUNTING	REMARK
F	LITHONIA	IBG 24000LM HEF PFL GND MVOLT GZ10 40K 80CRI NLTAIR2 RMS0D45 DNA	LED	132.0	120	CHAIN	MOUNT BOTTOM AT +15'-0" AFF
P	LUMINAIRE	SWP1212 MIN10 25W 40K MVOLT OP GRY	LED	25.0	120	WALL	

A1 Light Fixture Schedule

Scale: None

PANEL "A" SCHEDULE

120/208V 3Φ 4W 50kAIC — INDOOR / SURFACE

CKT. NO.	DESCRIPTION	BREAKER AMPS	BREAKER POLE(S)	VA	Φ	VA	BREAKER AMPS	BREAKER POLE(S)	DESCRIPTION	CKT. NO.
1	LIGHTING CONTROL PANEL	15	1	150	A	1000	20	1	OUTLETS - BACKBOARD	2
3	LIGHTS - INTERIOR	15	1	319	B	1000	20	1	OUTLETS - BACKBOARD	4
5	LIGHTS - EXTERIOR	15	2	125	C	1000	20	1	* FIRE SPRINKLER SYSTEM	6
7	LIGHTS - SITE POLES (208V)	15	2	229	A	1000	20	1	OUTLETS - BACKBOARD	8
9	-----	--	--	229	B	540	20	1	OUTLETS - OFFICE	10
11	SPARE	15	1		C	720	20	1	OUTLETS - OFFICE	12
13	SPARE	20	1		A	540	20	1	OUTLETS - OFFICE	14
15	SPARE	20	1		B	720	20	1	OUTLETS - STORAGE	16
17	SPARE	20	1		C	540	20	1	OUTLETS - EXTERIOR, NE RESTROOM	18
19	AIR CONDITIONER ODU-1 / IDU-1	50	2	3120	A	360	20	1	OUTLETS - EXTERIOR, NW RESTROOM	20
21	-----	--	--	3120	B	2000	20	1	HAND DRYER - NE RESTROOM	22
23	AIR CONDITIONER ODU-2 / IDU-2	15	2	936	C	3000	30	1	** WATER HEATER - NE RESTROOM	24
25	-----	--	--	936	A	2000	20	1	HAND DRYER - NW RESTROOM	26
27	EXHAUST FAN EF-2	15	1	696	B	3000	30	1	** WATER HEATER - NW RESTROOM	28
29	SPACE ONLY				C	360	20	1	OUTLETS - HAZMAT CONTAINER	30
31	SPACE ONLY				A		20	1	SPARE	32
33	SPACE ONLY				B		20	1	SPARE	34
35	SPACE ONLY				C		20	1	SPARE	36
37	SPACE ONLY				A		20	1	SPARE	38
39	SPACE ONLY				B		20	1	SPARE	40
41	SPACE ONLY				C		20	1	SPARE	42

LOAD SUMMARY:	Φ A	9335 VA	BUSING:	200A
	Φ B	11624 VA	MAIN:	150A
	Φ C	6681 VA	NOTES:	* PROVIDE RED LOCK-ON DEVICE FOR F.A. CKTS.
CONNECTED LOAD:		27.6 kVA		** PROVIDE LOCK-OUT DEVICE FOR SERVICE
MAX CURRENT:		97 A		

PANEL "A" SCHEDULE FOR REFERENCE ONLY. NOT INCLUDED IN BID.

PANEL "B" SCHEDULE

120/208V 3Φ 4W 50kAIC — INDOOR / SURFACE

CKT. NO.	DESCRIPTION	BREAKER AMPS	BREAKER POLE(S)	VA	Φ	VA	BREAKER AMPS	BREAKER POLE(S)	DESCRIPTION	CKT. NO.
1	CANOPY LIGHTS	15	1	736	A	1176	20	1	LIQUID RECOVERY TANK	2
3	SPARE	15	1		B	500	20	1	NORTH SEA TRAIN	4
5	SPARE	20	1		C	500	20	1	SOUTH SEA TRAIN	6
7	OUTLETS - CANOPY	20	1	360	A	500	15	1	N. LIFT GATE	8
9	OUTLETS - CANOPY	20	1	360	B	500	15	1	S. LIFT GATE	10
11	OUTLETS - CANOPY	20	1	360	C		20	1	SPARE	12
13	OUTLETS - TERMINAL CABINET	15	1	360	A		20	1	SPARE	14
15	SPARE	20	1		B		20	1	SPARE	16
17	SPARE	20	1		C		20	1	SPARE	18
19	SPACE ONLY				A				SPACE ONLY	20
21	SPACE ONLY				B				SPACE ONLY	22
23	SPACE ONLY				C				SPACE ONLY	24
25	SPACE ONLY				A				SPACE ONLY	26
27	SPACE ONLY				B				SPACE ONLY	28
29	SPACE ONLY				C				SPACE ONLY	30

LOAD SUMMARY:	Φ A	3132 VA	BUSING:	100A
	Φ B	1360 VA	MAIN:	100A
	Φ C	860 VA		
CONNECTED LOAD:		5.4 kVA		
MAX CURRENT:		26 A		

PANEL "B" SCHEDULE FOR REFERENCE ONLY. NOT INCLUDED IN BID.

PANEL "C" SCHEDULE

120/208V 3Φ 4W 50kAIC — INDOOR / SURFACE

CKT. NO.	DESCRIPTION	BREAKER AMPS	BREAKER POLE(S)	VA	Φ	VA	BREAKER AMPS	BREAKER POLE(S)	DESCRIPTION	CKT. NO.
1	LIGHTING CONTROL PANEL	15	1	150	A	500	20	1	OUTLETS - BACKBOARD	2
3	LIGHTS - INTERIOR	20	1		B	500	20	1	OUTLETS - BACKBOARD	4
5	LIGHTS - EXTERIOR	15	1		C	1000	20	1	OUTLETS - BACKBOARD	6
7	MARQUEE SIGN	15	1		A	360	20	1	OUTLETS - INTERIOR	8
9	SPACE ONLY				B	360	20	1	OUTLETS - INTERIOR	10
11	SPACE ONLY				C	360	20	1	OUTLETS - INTERIOR	12
13	ROLL-UP DOOR MOTOR	15	3	444	A	360	20	1	OUTLETS - INTERIOR	14
15	-----	--	--	444	B	500	20	1	* FIRE SPRINKLER SYSTEM	16
17	-----	--	--	444	C		20	1	SPARE	18
19	ROLL-UP DOOR MOTOR	15	3	444	A		20	1	SPARE	20
21	-----	--	--	444	B		20	1	SPARE	22
23	-----	--	--	444	C		20	1	SPARE	24
25	ROLL-UP DOOR MOTOR	15	3	444	A	4800	50	3	OUTLET - FORKLIFT CHARGER	26
27	-----	--	--	444	B	4800	--	--	-----	28
29	-----	--	--	444	C	4800	--	--	-----	30
31	EXHAUST FAN EF-1	20	1	1176	A				SPACE ONLY	32
33	SPACE ONLY				B				SPACE ONLY	34
35	SPACE ONLY				C				SPACE ONLY	36
37	SPACE ONLY				A				SPACE ONLY	38
39	SPACE ONLY				B				SPACE ONLY	40
41	SPACE ONLY				C				SPACE ONLY	42

LOAD SUMMARY:	Φ A	8678 VA	BUSING:	200A
	Φ B	7492 VA	MAIN:	200A
	Φ C	7492 VA	NOTES:	* PROVIDE RED LOCK-ON DEVICE FOR F.A. CKTS.
CONNECTED LOAD:		23.7 kVA		
MAX CURRENT:		72 A		

A10 Panel Schedules

Scale: None

REGISTERED PROFESSIONAL ENGINEER — C. SCOTT DAVIDSON — E17850 — ELECTRICAL — STATE OF CALIFORNIA

Hardin-Davidson Engineering
356 Pollasky Ave.
Suite 200
Clovis, CA 93612
559.323.4995 tel
www.hardin-davidson.com

LICENSED ARCHITECT — TIANA L. PEREZ — C-38000 REN: 01-31-21 — STATE OF CALIFORNIA

ARCHITECT:
Tiana L. Perez, Architect
California Licensed Architect No. C-38000
Ren. 01-31-21
Fresno County Department of
Public Works & Planning
Development Services and
Capital Projects Division
2220 Tulare Street, Eighth Floor
Fresno, California 93721

Office: (559) 600-4536
E-mail: tperez@fresnocountyca.gov

Project:

Fresno County
Environmental Compliance Center
Warehouse Building
Project Address: 310 S. West Avenue, Fresno CA 93706
APN: 458-060-72
Issue Date:
Project No. T90203
File Path: G:Capital \ Projects \ Building Numbers \ American Ave Landfill \ T90203 Environmental Compliance Center\ 00 2018 ECC

Sheet Content:

Power Details and Schedules

Fresno County Department of Public Works and Planning
Capital Projects

2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

E1.2

STATE OF CALIFORNIA
Electrical Power Distribution
NRCC-ELC-E | CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-ELC-E**

This document is used to demonstrate compliance with mandatory requirements in §130.5, for electrical systems in newly constructed nonresidential, high-rise residential and hotel/motel occupancies. Additions and alterations to electrical service systems in these occupancies will also use this document to demonstrate compliance per §141.0(a) or §141.0(b)2F for alterations..

Project Name:	Environmental Compliance Center Warehouse Building	**Report Page:**	**(Page 1 of 5)**
Project Address:	310 S. West Ave.	**Date Prepared:**	7/20/2020

A. GENERAL INFORMATION

01	Project Location (city)	Fresno		02	Occupancy Types Within Project:		
☐	Office	☐	Retail	☒	Warehouse	☐	Hotel/Motel	☐	School	☐	Support Areas
☐	Parking Garage	☐	High-Rise Residential	☐	Relocatable	☐	Healthcare Facilities	☐	Other (write in)		See Table I

B. PROJECT SCOPE

This table includes electrical systems that are within the scope of the permit application.

01		02	03	04	05
Electrical Service Designation/Description		Scope of Work[1]	Rating (kVA)	Utility Provided Metering System Exception to §130.5(a) [2]	System subject to CA Elec Code Article 517 Exception to §130.5(a)and (b)
Panel A		New electrical service equipment and meter	72	☒	☐
06	Demand Response Controls	Where required, demand response controls must be specified which are capable of receiving and automatically responding to at least one standards based messaging protocol which enables demand response after receiving a demand response signal. Sections §120.2, §130.1 and §130.3 and compliance documents NRCC-MCH, NRCC-LTI and NRCC-LTS will indicate when demand response controls are required.			

[1] FOOTNOTES: Adding only new feeders and branch circuits triggers Voltage Drop 130.5(c), no other requirements from 130.5 are required.
[2] Applicable if the utility company is providing a metering system that indicates instantaneous kW demand and kWh for a utility-defined period.

C. COMPLIANCE RESULTS

Results in this table are automatically calculated from data input and calculations in Tables F through I. Note: If any cell on this table says "COMPLIES with Exceptional Conditions" refer to Table D. Exceptional Conditions for guidance or see applicable Table referenced below.

01		02		03		04	05
Service Electrical Metering §130.5(a) (See Table F)	AND	Separation for Monitoring §130.5(b) (See Table G)	AND	Voltage Drop §130.5(c) (See Table H)	AND	Controlled Receptacles §130.5(d) (See Table I)	COMPLIES
Yes	AND	Yes	AND	Yes	AND	Yes	

Registration Number: | Registration Date/Time: | Registration Provider: Energysoft
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STATE OF CALIFORNIA
Electrical Power Distribution
NRCC-ELC-E | CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-ELC-E**

Project Name:	Environmental Compliance Center Warehouse Building	**Report Page:**	**(Page 2 of 5)**
Project Address:	310 S. West Ave.	**Date Prepared:**	7/20/2020

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table is includes remarks made by the permit applicant to the Authority Having Jurisdiction.

F. SERVICE ELECTRICAL METERING

This section does not apply to this project.

G. SEPARATION OF ELECTRICAL CIRCUITS FOR ENERGY MONITORING

This table includes entirely new or complete replacement electrical power distribution systems to demonstrate compliance with §130.5(b). Any load types that are not included in the service do not need to be shown.

01	02	03	04	05	
Load Type per Table 130.5-B [1]	Minimum Required Separation of Load per Table 130.5-B	Compliance Method[2]	Location of Requirements in Construction Documents	Field Inspector Pass	Fail
Panel A					
Lighting including exit, egress and exterior	All lighting in aggregate	Method 1	E1.3	☐	☐
Plug Loads and appliances less than 25kVA	All plug loads in aggregate Groups of plug loads exceeding 25 kVA connected load in an area less than 5000 sf	Method 1	E1.3	☐	☐
HVAC systems and components	All HVAC in aggregate	Method 1	E1.3	☐	☐

** NOTES: If "Other*" is selected under Compliance Method above, please indicate how compliance has been achieved in the space provided below.*

[1] FOOTNOTES: For each separate load type, up to 10% of the connected load may be of any type.
[2] Method 1: Switchboards/ motor control centers/ panelboard loads disaggregated for each load type.
Method 2: Switchboards/ motor control centers/ panelboard supply other distribution equipment with loads disaggregated for each load type.
Method 3: Branch circuits serve load types individually and provisions for adding future branch circuit monitoring.
Method 4: Complete metering system measures and reports loads by type.
See Chapter 8 of the Nonresidential Compliance Manual for more detail on Compliance Methods.

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STATE OF CALIFORNIA
Electrical Power Distribution
NRCC-ELC-E | CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-ELC-E**

Project Name:	Environmental Compliance Center Warehouse Building	**Report Page:**	**(Page 3 of 5)**
Project Address:	310 S. West Ave.	**Date Prepared:**	7/20/2020

H. VOLTAGE DROP

This table includes entirely new or complete replacement electrical power distribution systems, or alterations that add, modify or replace both feeders and branch circuits to demonstrate compliance with §130.5(c). For alterations, only the altered circuits must demonstrate compliance per §141.0(b)2FIII

01	02			03	04	05	
Electrical Service Designation/Description	Combined Voltage Drop on Installed Feeder/Branch Circuit Conductors Compliance Method			Location of Voltage Drop Calculations[1]	Sheet Number for Voltage Drop Calculations in Construction Documents	Field Inspector Pass	Fail
Panel A	☒	Voltage drop less than 5%	☐	Permitted by CA Elec Code (Exception to 130.5(c))*	Attached	E1.3	☐	☐

** NOTES: If "Permitted by CA Elec Code **" is selected under Compliance Method above, please indicate where the exception applies in the space provided below.*

[1] FOOTNOTES: Voltage drop calculations may be attached to the permit application outside the construction documents if allowed by the Authority Having Jurisdiction. Select "attached" if applicable. If calculations will be the responsibility of the installing contractor, select "Contractor Responsible".

I. CIRCUIT CONTROLS FOR 120-VOLT RECEPTACLES AND CONTROLLED RECEPTACLES

This table includes entirely new or complete replacement electrical power distribution systems to demonstrate compliance with §130.5(d). Both controlled and uncontrolled receptacles must be provided in office areas, lobbies, conference rooms, kitchen areas in office spaces, copy rooms and hotel/motel guest rooms.

01	02	03	04	05	06	
Room name or Description	Location/ Type of Controlled Receptacles	Shut-Off Controls	Permanent Durable Marking Will be Used	Location of Requirements in Construction Documents	Field Inspector Pass	Fail
Panel A	NA: No applicable space types on this service	Occupancy Sensor	☒		☐	☐

** NOTES: If "Other*" is selected under Shut-Off Controls above, please indicate how compliance has been achieved in the space provided below.*

J. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in this document. If any selection have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/

Yes	No	Form/Title	Field Inspector Pass	Fail
●	○	NRCI-ELC-01-E - Must be submitted for all buildings	☐	☐

Registration Number: | Registration Date/Time: | Registration Provider: Energysoft
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STATE OF CALIFORNIA
Electrical Power Distribution
NRCC-ELC-E | CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-ELC-E**

Project Name:	Environmental Compliance Center Warehouse Building	**Report Page:**	**(Page 4 of 5)**
Project Address:	310 S. West Ave.	**Date Prepared:**	7/20/2020

K. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

There are no Certificates of Acceptance applicable to electrical power distribution requirements.

Registration Number: | Registration Date/Time: | Registration Provider: Energysoft
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Electrical Power Distribution
NRCC-ELC-E | CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-ELC-E**

Project Name:	Environmental Compliance Center Warehouse Building	**Report Page:**	**(Page 5 of 5)**
Project Address:	310 S. West Ave.	**Date Prepared:**	7/20/2020

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: C. Scott Davidson	Documentation Author Signature:
Company: Hardin-Davidson Engineering	Signature Date:
Address: 356 Pollasky Ave., Suite 200	CEA/ HERS Certification Identification (if applicable): E17850
City/State/Zip: Clovis CA 93612	Phone: 559-323-4995

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: C. Scott Davidson	Responsible Designer Signature:
Company: Hardin-Davidson Engineering	Date Signed: 2020-07-20
Address: 356 Pollasky Ave., Suite 200	License: E17850
City/State/Zip: Clovis CA 93612	Phone: (559) 323-4995

Registration Number: | Registration Date/Time: | Registration Provider: Energysoft
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STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E | CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-LTI-E**

This document is used to demonstrate compliance with requirements in §110.9, §110.12(c), §130.0, §130.1, §140.6 and §141.0(b)2 for indoor lighting scopes using the prescriptive path.

Project Name:	Environmental Compliance Center Warehouse Building	**Report Page:**	**(Page 1 of 7)**
Project Address:	310 S. West Ave.	**Date Prepared:**	7/20/2020

A. GENERAL INFORMATION

01	Project Location (city)	Fresno		04	Total Conditioned Floor Area (ft²)	2,367	
02	Climate Zone	13		05	Total Unconditioned Floor Area (ft²)	0	
03	Occupancy Types Within Project (select all that apply):			06	# of Stories (Habitable Above Grade)	1	
☐	Office	☐	Retail	☒	Warehouse	☐	Hotel/Motel	☐	School	☐	Support Areas
☐	Parking Garage	☐	High-Rise Residential	☐	Relocatable	☐	Healthcare	☐	Other (Write in)		See Table I

B. PROJECT SCOPE

This table includes any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.6 or §141.0(b)2 for alterations.

Scope of Work	Conditioned Spaces		Unconditioned Spaces	
01	02	03	04	05
My Project Consists of (check all that apply):	Calculation Method	Area (ft²)	Calculation Method	Area (ft²)
☒ New Lighting System	Area Category Method	2367	Area Category Method	0
☐ New Lighting System - Parking Garage				
Total Area of Work (ft²)	2367		0	

Registration Number: | Registration Date/Time: | Registration Provider: Energysoft
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STATE OF CALIFORNIA
Indoor Lighting
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CERTIFICATE OF COMPLIANCE — **NRCC-LTI-E**

Project Name:	Environmental Compliance Center Warehouse Building	**Report Page:**	**(Page 2 of 7)**
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C. COMPLIANCE RESULTS

If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

Lighting in conditioned and unconditioned spaces must not be combined for compliance per §140.6(b)1	Allowed Lighting Power per §140.6(b) (Watts)					Adjusted Lighting Power per §140.6(a) (Watts)				Compliance Results
	01	02	03	04	05	06	07		08	09
	Complete Building §140.6(c)1 (See Table I)	Area Category §140.6(c)2 (See Table I)	Area Category Additional §140.6(c)2(C) (+) (See Table J)	Tailored §140.6(c)3 (+) (See Table K)	**Total Allowed** (Watts)	Total Designed (Watts)	Adjustments PAF Lighting Control Credits §140.6(a)2 (-) (See Table P)		**Total Adjusted** (Watts) *Includes Adjustments (See Table P)	**05 must be >= 08 §140.6**
Conditioned		1,065.15	0		1,065.15	1,056	0	=	1056	COMPLIES
Unconditioned										
						Controls Compliance (See Table H for Details)				COMPLIES
						Rated Power Reduction Compliance (See Table Q for Details)				

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

F. INDOOR LIGHTING FIXTURE SCHEDULE

This table includes all permanent designed lighting and all portable lighting in offices.

Designed Wattage: Conditioned Spaces

01	02	03	04	05	06	07	08	09	10	
Name or Item Tag	Complete Luminaire Description	Modular (Track) Fixture	Small Aperture & Color Change[1]	Watts per luminaire[2]	How is Wattage determined	Total Number of Luminaires	Excluded per §140.6(a)3	Design Watts	Field Inspector Pass	Fail
F	132.0w LED Low Bay	No	No	132	CEC Default	8	No	1,056	☐	☐
						Total Designed Watts: CONDITIONED SPACES		1,056		

Registration Number: | Registration Date/Time: | Registration Provider: Energysoft
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STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E | CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-LTI-E**

Project Name:	Environmental Compliance Center Warehouse Building	**Report Page:**	**(Page 3 of 7)**
Project Address:	310 S. West Ave.	**Date Prepared:**	7/20/2020

F. INDOOR LIGHTING FIXTURE SCHEDULE

[1]FOOTNOTE: Design Watts for small aperture and color changing luminaires which qualify per §140.6(a)4B is adjusted to be 75% of their rated wattage. Table F automatically makes this adjustment, the permit applicant should enter full rated wattage in column 05.
[2]Authority Having Jurisdiction may ask for luminaire cut sheets to confirm wattage used for compliance per §130.0(c) Wattage used must be the maximum rated for the luminaire, not the lamp.

G. MODULAR LIGHTING SYSTEMS

This section does not apply to this project.

H. INDOOR LIGHTING CONTROLS (Not including PAFs)

*This table includes lighting controls for conditioned and unconditioned spaces. When a control having a * is shown, the notes section of this table provides more detail on how compliance is achieved. The lighting controls section of the Compliance Summary Table on the first page will show "DOES NOT COMPLY" if the notes are left blank.*

Building Level Controls

01	02	03		
		Field Inspector		
Mandatory Demand Response §110.12(c)	Shut-off controls §130.1(c)	Pass	Fail	
Not Required <= 10,000 SF	Whole Building Other	☐	☐	

Area Level Controls

04	05	06	07	08	09	10	11	12	
Area Description	Complete Building or Area Category Primary Function Area	Area Controls §130.1(a)	Multi-Level Controls §130.1(b)	Shut-Off Controls §130.1(c)	Primary/Sky lit Daylighting §130.1(d)	Secondary Daylighting §140.6(a)1	Interlocked Systems §140.6(a)1	Field Inspector Pass	Fail
Warehouse	Warehouse	Manual ON/OFF	Dimmer	Occupancy Sensor	N/A	N/A	No	☐	☐

*NOTES: Controls with a * require a note in the space below explaining how compliance is achieved.*
EX: Conference 1: Primary/Skylight Daylighting: Exempt because less than 120 watts of general lighting; EXCEPTION 1 to §130.1(d)2

13
Plan Sheet Showing Daylit Zones:
E1.4

Registration Number: | Registration Date/Time: | Registration Provider: Energysoft
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STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E | CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-LTI-E**

Project Name:	Environmental Compliance Center Warehouse Building	**Report Page:**	**(Page 4 of 7)**
Project Address:	310 S. West Ave.	**Date Prepared:**	7/20/2020

I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS

Each area complying using the Complete Building or Area Category Methods per §140.6(b) are included in this table. Column 06 indicates if additional lighting power allowances per §140.6(c) or adjustments per §140.6(a) are being used .

Conditioned Spaces

01	02	03	04	05	06	
Area Description	Complete Building or Area Category Primary Function Area	Allowed Density (W/ft²)	Area (ft²)	Allowed Wattage (Watts)	Additional Allowance / Adjustment Area Category	PAF
Warehouse	Commercial Industrial Storage Area	0.45	2,367	1,065.15	No	No
	TOTALS:		2,367	1,065.15	See Tables J, or P for detail	

J. ADDITIONAL ALLOWANCE: AREA CATEGORY METHOD QUALIFYING LIGHTING SYSTEM

This section does not apply to this project.

K. TAILORED METHOD GENERAL LIGHTING POWER ALLOWANCE

This section does not apply to this project.

L. ADDITIONAL LIGHTING ALLOWANCE: TAILORED WALL DISPLAY

This section does not apply to this project.

M. ADDITIONAL LIGHTING ALLOWANCE: TAILORED FLOOR AND TASK LIGHTING

This section does not apply to this project.

N. ADDITIONAL LIGHTING ALLOWANCE: TAILORED ORNAMENTAL/SPECIAL EFFECTS

This section does not apply to this project.

O. ADDITIONAL LIGHTING ALLOWANCE: TAILORED VERY VALUABLE MERCHANDISE

This section does not apply to this project.

P. POWER ADJUSTMENT: LIGHTING CONTROL CREDIT (POWER ADJUSTMENT FACTOR (PAF))

This section does not apply to this project.

Registration Number: | Registration Date/Time: | Registration Provider: Energysoft
CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance | Report Version: 2019.1.003 Schema Version: rev 20190401 | Report Generated: 2020-07-20 12:09:16

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E | CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-LTI-E**

Project Name:	Environmental Compliance Center Warehouse Building	**Report Page:**	**(Page 5 of 7)**
Project Address:	310 S. West Ave.	**Date Prepared:**	7/20/2020

Q. RATED POWER REDUCTION COMPLIANCE FOR ALTERATIONS

This section does not apply to this project.

R. 80% LIGHTING POWER FOR ALL ALTERATIONS - CONTROLS EXCEPTIONS

This section does not apply to this project.

S. DAYLIGHT DESIGN POWER ADJUSTMENT FACTOR (PAF)

This section does not apply to this project.

T. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

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Yes	No	Form/Title	Field Inspector Pass	Fail
●	○	NRCI-LTI-01-E - Must be submitted for all buildings	☐	☐
○	●	NRCI-LTI-02-E- Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS), to be recognized for compliance.	☐	☐
○	●	NRCI-LTI-04-E - Must be submitted for two interlocked systems serving an auditorium, a convention center, a conference room, a multipurpose room or a theater to be recognized for compliance.	☐	☐
○	●	NRCI-LTI-05-E- Must be submitted for a Power Adjustment Factor (PAF) to be recognized for compliance.	☐	☐
○	●	NRCI-LTI-06-E- Must be submitted for additional wattage installed in a video conferencing studio to be recognized for compliance.	☐	☐

Registration Number: | Registration Date/Time: | Registration Provider: Energysoft
CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance | Report Version: 2019.1.003 Schema Version: rev 20190401 | Report Generated: 2020-07-20 12:09:16

STATE OF CALIFORNIA
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CERTIFICATE OF COMPLIANCE — **NRCC-LTI-E**

Project Name:	Environmental Compliance Center Warehouse Building	**Report Page:**	**(Page 6 of 7)**
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U. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections have been made based on information provided in this document. If any selection have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and any with "-A" in the form name must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html

Yes	No	Form/Title	Field Inspector Pass	Fail
●	○	NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	☐	☐
○	●	NRCA-LTI-03-A - Must be submitted for automatic daylight controls.	☐	☐
○	●	NRCA-LTI-04-A - Must be submitted for demand responsive lighting controls.	☐	☐
○	●	NRCA-LTI-05-A. - Must be submitted for institutional tuning power adjustment factor (PAF)	☐	☐

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STATE OF CALIFORNIA
Indoor Lighting
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CERTIFICATE OF COMPLIANCE — **NRCC-LTI-E**

Project Name:	Environmental Compliance Center Warehouse Building	**Report Page:**	**(Page 7 of 7)**
Project Address:	310 S. West Ave.	**Date Prepared:**	7/20/2020

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: C. Scott Davidson	Documentation Author Signature:
Company: Hardin-Davidson Engineering	Signature Date: 2020-07-20
Address: 356 Pollasky Ave., Suite 200	CEA/ HERS Certification Identification (if applicable): E17850
City/State/Zip: Clovis CA 93612	Phone: (559) 323-4995

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: C. Scott Davidson	Responsible Designer Signature:
Company: Hardin-Davidson Engineering	Date Signed: 2020-07-20
Address: 356 Pollasky Ave., Suite 200	License: E17850
City/State/Zip: Clovis CA 93612	Phone: (559) 323-4995

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CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance | Report Version: 2019.1.003 Schema Version: rev 20190401 | Report Generated: 2020-07-20 12:09:16

REGISTERED PROFESSIONAL ENGINEER — C. SCOTT DAVIDSON — E17850 — ELECTRICAL — STATE OF CALIFORNIA

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LICENSED ARCHITECT — TIANA L. PEREZ — C-38000 REN: 01-31-21 — STATE OF CALIFORNIA

ARCHITECT:
Tiana L. Perez, Architect
California Licensed Architect No. C-38000
Ren. 01-31-21
Fresno County Department of Public Works & Planning
Development Services and Capital Projects Division
2220 Tulare Street, Eighth Floor
Fresno, California 93721

Office: (559) 600-4536
E-mail: tperez@fresnocountyca.gov

Project:

Fresno County
Environmental Compliance Center
Warehouse Building
Project Address: 310 S. West Avenue, Fresno CA 93706
APN: 458-060-72
Issue Date:
Project No. T90203
File Path: G:Capital \ Projects \ Building Numbers \ American Ave Landfill \ T90203 Environmental Compliance Center\ 00 2018 ECC

Sheet Content:

Title 24 Compliance Documents

Fresno County Department of Public Works and Planning
Capital Projects

2220 Tulare Street, 8th Floor
Fresno, California 93721

THE COUNTY OF FRESNO 1856

Sheet No.

E1.3

> File: 20055 - Elec Ph3 Warehouse.dwg > Plotted: 5/13/2021 2:44 PM

Drawn by: GWE | Plotted on: 13.05.2021

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			**NRCC-LTO-E**
Project Name:	Environmental Compliance Center Warehouse Building	**Report Page:**	**(Page 1 of 7)**
Project Address:	310 S. West Ave.	**Date Prepared:**	7/20/2020

A. GENERAL INFORMATION

01	Project Location (city)	Fresno		
02	Climate Zone	13		
03	Outdoor Lighting Zone per Title 24 Part 1 §10-114 or as designated by Authority Having Jurisdiction (AHJ):		04	Total Illuminated Hardscape Area (ft²) 2386

☐ LZ-0: Very Low - Undeveloped Parkland ☐ LZ-2: Moderate - Rural Areas ☐ LZ-4: High - Must be reviewed by CA Energy Commission for Approval
☐ LZ-1: Low - Developed Parkland ☒ LZ-3: Moderately High - Urban Areas

B. PROJECT SCOPE

This table includes outdoor lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.7 or §141.0(b)2i for alterations.

My Project Consists of:

01	02
☒ New Lighting System	Must Comply with Allowances from §140.7
☐ Altered Lighting System	Is your alteration increasing the connected lighting load (Watts)? ○ Yes ○ No

03	04	05
% of Existing Luminaires Being Altered[1]	Sum Total of Luminaires Being Added or Altered	Calculation Method
☐ < 10% ☐ >= 10% and < 50% ☐ >= 50%		

Please proceed to Table F. Outdoor Lighting Fixture Schedule to define the project's luminaires.

[1] *FOOTNOTES: % of Existing Luminaires Being Altered = (Sum Total of Luminaires Being Added or Altered / Existing Luminaires within the Scope of the Permit Application) x 100.*

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STATE OF CALIFORNIA
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CERTIFICATE OF COMPLIANCE			**NRCC-LTO-E**
Project Name:	Environmental Compliance Center Warehouse Building	**Report Page:**	**(Page 2 of 7)**
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C. COMPLIANCE RESULTS

Results in this table are automatically calculated from data input and calculations in Tables F through I. Note: If any cell on this table says "COMPLIES with Exceptional Conditions" refer to Table D. Exceptional Conditions for guidance or see applicable Table referenced below.

Calculations of Total Allowed Lighting Power (Watts) §140.7 or §141.0(b)2i.

01		02		03		04		05		06		07		08		09
General Hardscape Allowance §140.7(d)1 (See Table I)	+	Per Application §140.7(d)2 (See Table J)	+	Sales Frontage §140.7(d)2 (See Table K)	+	Ornamental §140.7(d)2 (See Table L)	+	Per Specific Area §140.7(d)2 (See Table M)	OR	Existing Power Allowance §141.0(b)2i (See Table N)	=	**Total Allowed** (Watts)	≥	**Total Actual** (Watts)		**07 must be >= 08**
479.4	+	---	+	---	+	---	+	---	OR	---	=	479.4	≥	125		COMPLIES

Compliance Results

Cutoff Compliance (See Table G for Details)	N/A
Controls Compliance (See Table H for Details)	COMPLIES

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
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STATE OF CALIFORNIA
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CERTIFICATE OF COMPLIANCE			**NRCC-LTO-E**
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F. OUTDOOR LIGHTING FIXTURE SCHEDULE

For new or altered lighting systems demonstrating compliance with §140.7 all new luminaires being installed and any existing luminaires remaining or being moved within the spaces covered by the permit application are included in the Table below. For altered lighting systems using the Existing Power method per §141.0(b)2i, only new luminaires being installed and replacement luminaires being installed as part of the project scope are included (ie, existing luminaires remaining or existing luminaires being moved are not included).

Designed Wattage:

01	02	03	04	05	06	07	08	09	10	
Name or Item Tag	Complete Luminaire Description	Watts per luminaire[1, 2]	How is Wattage determined	Total number luminaires [2]	Luminaire Status[3]	Excluded per §140.7(a)	Design Watts	Cutoff Req. > 6,200 initial lumen output §130.2(b) [4]	Field Inspector Pass	Field Inspector Fail
P	25.0w LED Wall Light ☐ Linear	25	CEC Default	5	New	☐	125	NA; < 6200 lumens	☐	☐
					Total Design Watts:		125			

* NOTES: Selections with a * require a note in the space below explaining how compliance is achieved.
EX: Luminaire is lighting a statue; EXCEPTION 2 to §130.2(b)

[1] *FOOTNOTES: Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per §130.0(c)*
[2] *For linear luminaires, wattage should be indicated as W/ft instead of Watts/luminaire. Total linear feet should be indicated in column 05 instead of number of luminaires.*
[3] *Select "New" for new luminaires in a new outdoor lighting project, or for added luminaires in an alteration. Select "Altered" for replacement luminaires in an alteration. Select "Existing to Remain" for existing luminaires within the project scope that are not being altered and are remaining. Select "Existing Reinstalled" for existing luminaires which are being removed and reinstalled as part of the project scope.*
[4] *Compliance with mandatory cutoff requirements is required for luminaires with initial lumen output >= 6,200 unless exempted by §130.2(b)*

G. CUTOFF REQUIREMENTS (BUG)

This section does not apply to this project.

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CERTIFICATE OF COMPLIANCE			**NRCC-LTO-E**
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H. OUTDOOR LIGHTING CONTROLS

This table demonstrates compliance with controls requirements for all new or altered luminaires installed as part of the permit application. For alteration projects, luminaires which are existing to remain (ie untouched) and luminaires which are removed and reinstalled (wiring only) do not need to be included in this table even if they are within the spaces covered by the permit application.
*When an option having a * is selected, the notes section of this table must be completed. The lighting controls section of the Compliance Summary Table on the first page will show "DOES NOT COMPLY" if the notes are left blank.*

Mandatory Controls

01	02	03	04	05	
Area Description	Shut-Off §130.2(c)1	Auto-Schedule §130.2(c)2	Motion Sensor §130.2(c)3	Field Inspector Pass	Field Inspector Fail
Bldg. Exterior	Astronomical Timer	Yes	NA: Facade, etc. <=24 ft	☐	☐

* *NOTES: Controls with a * require a note in the space below explaining how compliance is achieved.*
EX: Not permitted by health & safety to be turned off; EXCEPTION 1 to §130.2(c)

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CERTIFICATE OF COMPLIANCE			**NRCC-LTO-E**
Project Name:	Environmental Compliance Center Warehouse Building	**Report Page:**	**(Page 5 of 7)**
Project Address:	310 S. West Ave.	**Date Prepared:**	7/20/2020

I. LIGHTING POWER ALLOWANCE (per §140.7)

This table includes areas using allowance calculations per §140.7. General Hardscape Allowance is per Table 140.7-A while "Use it or lose it" Allowances are per Table 140.7-B - indicate which allowances are being used to expand sections for user input. Luminaires that qualify for one of the "Use it or lose it" allowances shall not qualify for another "Use it or lose it" allowance.

	01				
	☒ General Hardscape Allowance Table I (below)	"Use it or lose it" Allowance (select all that apply) (select all that apply)			
		☐ Per Application Table J	☐ Sales Frontage Table K	☐ Ornamental Table L	☐ Per Specific Area Table M

Calculated General Hardscape Lighting Power Allowance per Table 140.7-A (L2 0, 1 & 4)
This section does not apply to this project.
Calculated General Hardscape Lighting Power Allowance per Table 140.7-A (L2 2 & 3)

02	03	04	05	06	07	08	09	10
Area Description	Surface Type	Area Wattage Allowance (AWA) Illuminated Area (ft²)	Allowed Density (W/ft²)	Area Allowance (Watts)	Area Wattage Allowance (AWA) Perimeter Length (lf)	Allowed Density (W/lf)	Linear Allowance (Watts)	Total General AWA + LWA (Watts)
Walkway	Asphalt	2386	0.03	59.65	279	0.4	69.75	129.4
						Initial Wattage Allowance for Entire Site (Watts):		350
						Total General Hardscape Allowance (Watts):		479.4

J. LIGHTING ALLOWANCE: PER APPLICATION

This section does not apply to this project.

K. LIGHTING ALLOWANCE: SALES FRONTAGE

This section does not apply to this project.

L. LIGHTING ALLOWANCE: ORNAMENTAL

This section does not apply to this project.

M. LIGHTING ALLOWANCE: PER SPECIFIC AREA

This section does not apply to this project.

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N. EXISTING CONDITIONS POWER ALLOWANCE (alterations only)

This section does not apply to this project.

O. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

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Yes	No	Form/Title	Field Inspector Pass	Field Inspector Fail
●	○	NRCI-LTO-01-E - Must be submitted for all buildings	☐	☐
●	○	NRCI-LTO-02-E- Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS), to be recognized for compliance.	☐	☐

P. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

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Yes	No	Form/Title	Field Inspector Pass	Field Inspector Fail
●	○	NRCA-LTO-02-A - Must be submitted for all outdoor lighting controls except for alterations where controls are added to <= 20 luminaires.	☐	☐

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DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: C. Scott Davidson	Documentation Author Signature:
Company: Hardin-Davidson Engineering	Signature Date: 2020-07-20
Address: 356 Pollasky Ave., Suite 200	CEA / HERS Certification Identification (if applicable): E17850
City/State/Zip: Clovis CA 93612	Phone: (559) 323-4995

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
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Responsible Designer Name: C. Scott Davidson	Responsible Designer Signature:
Company: Hardin-Davidson Engineering	Date Signed: 2020-07-20
Address: 356 Pollasky Ave., Suite 200	License: E17850
City/State/Zip: Clovis CA 93612	Phone: (559) 323-4995

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REGISTERED PROFESSIONAL ENGINEER C. SCOTT DAVIDSON E17850 ELECTRICAL STATE OF CALIFORNIA

Hardin-Davidson Engineering
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Suite 200
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559.323.4995 tel
www.hardin-davidson.com

LICENSED ARCHITECT TIANA L. PEREZ C-38000 REN: 01-31-21 STATE OF CALIFORNIA

ARCHITECT:
Tiana L. Perez, Architect
California Licensed Architect No. C-38000
Ren. 01-31-21
Fresno County Department of
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Office: (559) 600-4536
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Project:

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File Path: G:Capital \ Projects \ Building Numbers \ American Ave Landfill \ T90203 Environmental Compliance Center\ 00 2018 ECC

Sheet Content:

Title 24 Compliance Documents

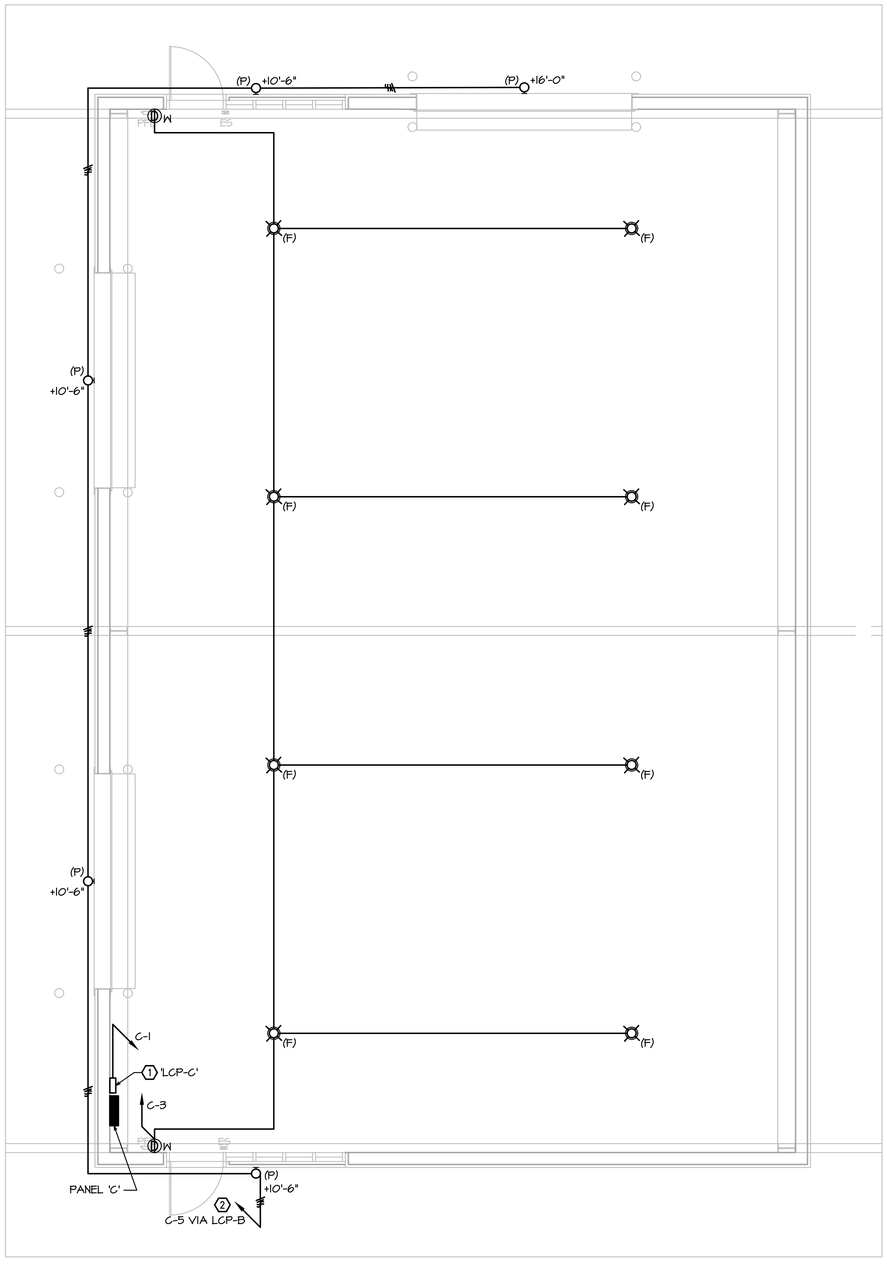
Fresno County Department of
Public Works and Planning
Capital Projects

2220 Tulare Street, 8th Floor
Fresno, California 93721

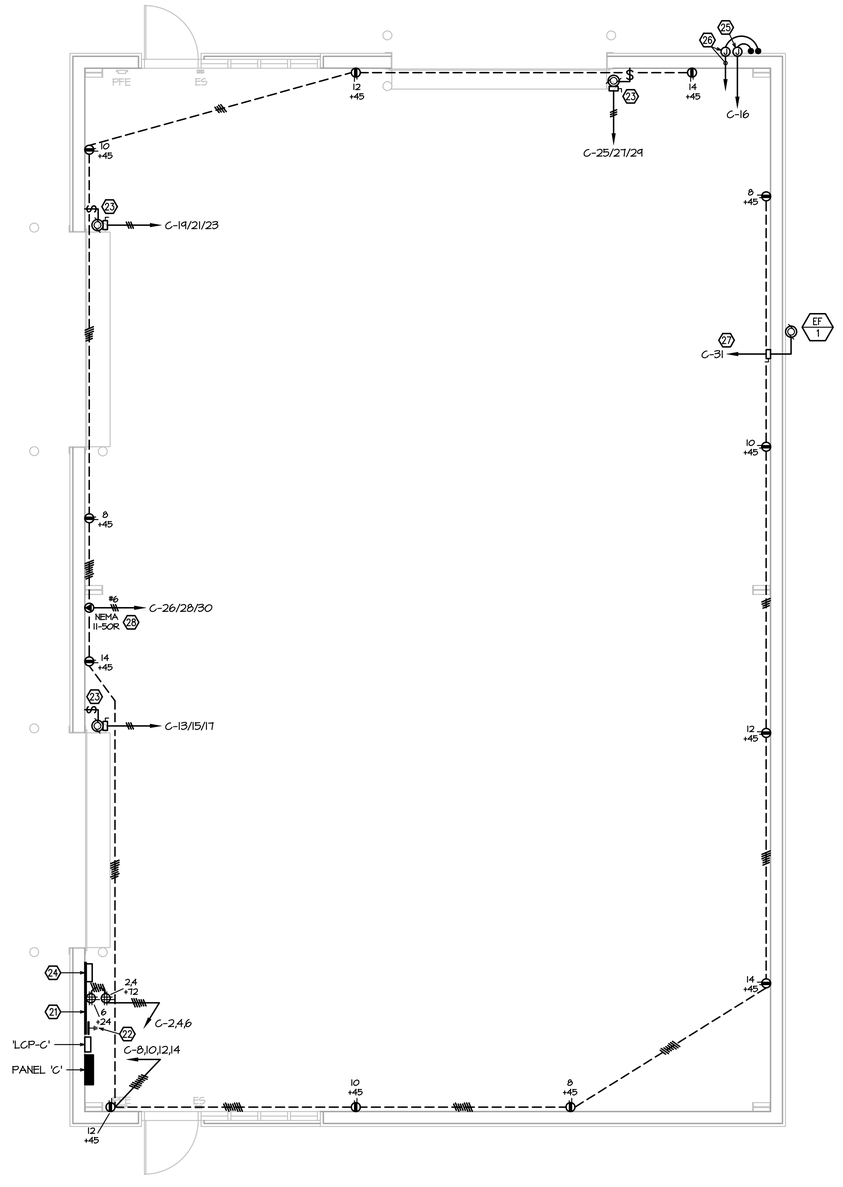
THE COUNTY OF FRESNO 1856

Sheet No.

E1.4



A1 Lighting Plan
Scale:1/4" = 1'-0"



A8 Power and Low Voltage Plan
Scale:1/4" = 1'-0"

KEYNOTES

1. LIGHTING CONTROL PANEL, LITHONIA #LIGHT ARP PANEL MOUNT ADJACENT TO POWER PANEL. CONNECT EXTERIOR LIGHTING POWER AND DIMMING CONDUCTORS.
2. PROVIDE VIOLET & GRAY 0-10V DIMMING CONDUCTORS ALONG WITH POWER CONDUCTORS.
21. 3/4" x 8 FT. HIGH FIRE RESISTANT PLYWOOD BACKBOARD. INSTALL OUTLETS AT 24" AFF AND 72" AFF WHERE SHOWN. MOUNT UTILITY MPOE, DATA, VOICE, INTRUSION, SPRINKLER MONITOR, AND LEAK DETECTION PANELS AT THIS BOARD.
22. PROVIDE 12" COPPER COMMUNICATION BUS BAR ON STAND-OFFS. RUN #6 GREEN GROUND WIRE TO MAIN PANEL ETC.
23. CONNECT ROLL-UP OPERATOR, RAISE/LOWER CONTROLS, AND LIMIT SWICHES.
24. SPRINKLER MONITOR PANEL AND LTE DIALER. PROVIDE 120V DEDICATED CIRCUIT AND INSTALL RED LOCK-ON DEVICE ON CIRCUIT BREAKER. CONNECT FIV TAMPER, RISER TAMPER, AND RISER FLOW SWITCHES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRODUCING DRAWINGS, CALCULATIONS, AND CUT SHEETS, AND SUBMITTING THOSE TO THE AHJ TO OBTAIN PERMITS FOR THE SPRINKLER MONITOR SYSTEM. THE CONTRACTOR SHALL INCLUDE IN BID ALL WORK REQUIRED FOR THIS SYSTEM.
25. MP J-BOX FOR FIRE SPRINKLER RISER BELL. CONNECT TO FLOW SWITCH AND RISER BELL ON NOTED POWER.
26. MP J-BOX FOR FIRE SPRINKLER RISER TAMPER AND FLOW SWITCHES. RUN 3/4"C. TO SPRINKLER RISER PANEL.
27. HOMERUN VIA CONTROLS PER MECHANICAL DRAWINGS.
28. PROVIDE OUTLET FOR FORKLIFT CHARGER. VERIFY LOCATION WITH OWNER PRIOR TO ROUGH-IN.

REGISTERED PROFESSIONAL ENGINEER
C. SCOTT DAVIDSON
E17850
ELECTRICAL
STATE OF CALIFORNIA

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File Path: G:Capital \ Projects \ Building Numbers \ American Ave Landfill \ T90203 Environmental Compliance Center\ 00 2018 ECC

Sheet Content:

Warehouse Building
Electrical Plans

Fresno County Department of Public Works and Planning
Capital Projects

2220 Tulare Street, 8th Floor
Fresno, California 93721

Sheet No.

E2.1

Drawn By: CMV
Plotted on: 13.05.2021

> File: 20055 - Elec Ph3 Warehouse.dwg > Plotted: 5/13/2021 2:44 PM