

RODGERS SENIOR CENTER SITE

CC-1632

1706 ORANGE AVE.

CITY GENERAL NOTES

- All work shall comply with the City of Huntington Beach Standards for Landscape Development.
- The plant material supplier and/or landscape contractor shall provide guaranteed evidence to the City Representative that all plant material is consistent with the approved plant legend considering genus, species, cultivars, and size specified. All plant material not consistent with the plant legend may be rejected.
- All revisions and change orders to the approved landscape architectural plans and specifications are subject to the review and approval of the City Representative before work may continue. Minor changes are to be transmitted by telephone facsimile to the Landscape Architect and the Landscape Inspector. Major changes are to be done with two revised plain paper copies being sent to the City Representative with notification given to the Landscape Inspector.
- Contractor shall notify Underground Service Alert (USA) before start of construction at 811. An encroachment permit is required for potholing to verify existing location of utilities.
- California Public Utilities Code mandates that the gas company is notified a minimum of **two days prior** to start of construction.
- The design of this project complies with the requirements of the current City of Huntington Beach Water Efficient Landscape Regulations.

GENERAL NOTES

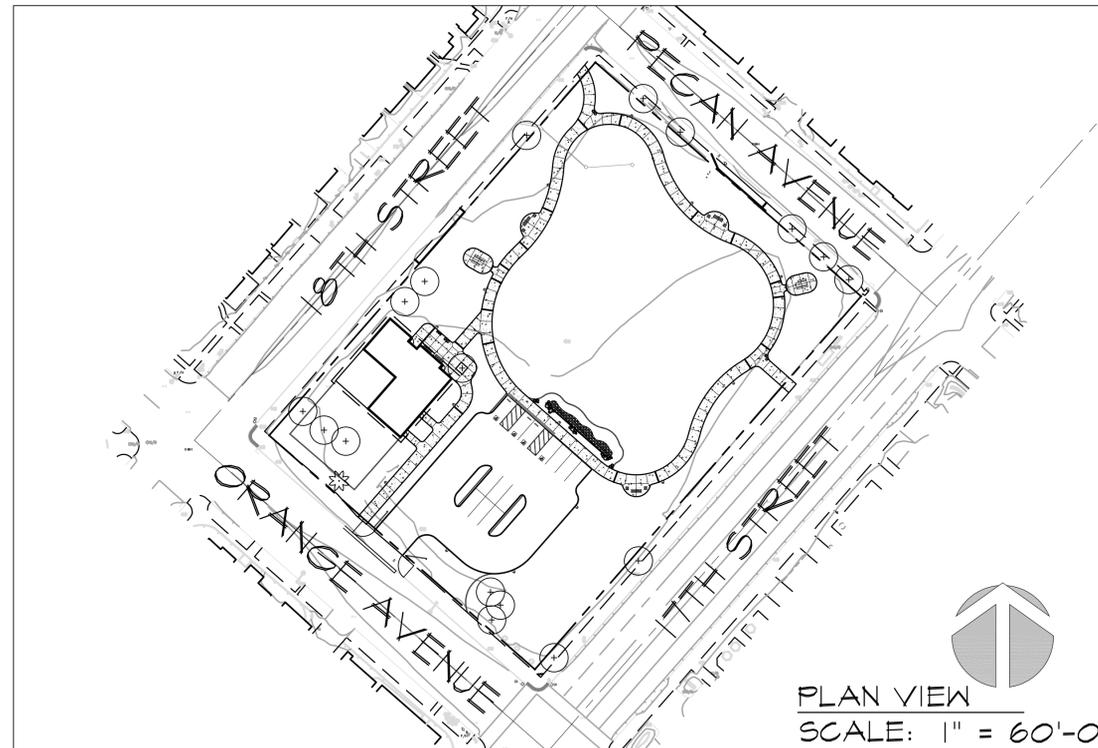
- All work shall be done in accordance with the applicable section of APWA, standard specifications for public works construction and state standard specifications.
- Do not willfully proceed with construction as designed when it is obvious that unknown and/or grade differences exist that may not have been known during design. Such conditions shall be immediately brought to the attention of the City Representative.
- The contractor shall notify the City Engineer two (2) working days prior to start of construction.
- It shall be the contractor's responsibility to conduct his operations in such a manner so as to prevent damage to existing substructures. In the event of substructure damage, the contractor shall bear full responsibility and total expense for repair and/or replacement of said substructure.
- The contractor shall provide 72-hour notice to affected utilities when relocation is required.
- The contractor shall not conduct any operations or perform any work pertaining to the project between the hours of 8:00 p.m. and 7:00 a.m. on any day nor Saturday, Sunday, or holidays at any time except as approved by the city.
- The contractor shall not block driveways or vehicular traffic during the process of construction.
- The contractor will comply to HPWH, APWA watch traffic control handbook during construction.
- Contractor shall notify underground service alert before start of construction (811).
- The contractor shall be responsible for all erosion control during construction and maintenance period.
- The contractor shall be responsible for installing a 6' construction fence with lockable gates around entire perimeter of the effected sites. The construction fence shall be installed to the satisfaction of the City Representative, and shall remain until approved for removal by the City.
- Contractor shall be responsible for securing all necessary permits.
- Contractor shall coordinate his efforts and work with other City provided contractors, i.e. electrical, irrigation and landscape contractors.
- The construction area is located within an existing improved public park. Care shall be taken to protect the existing facility. Construction activity will occur while park is open.
- Contractor will be required to protect and restore site to original condition. Any construction activity which destroys existing improvements will be promptly restored by the contractor. Ingress and egress locations shall be protected from heavy equipment damage.
- Contractor is responsible for all permits necessary to include any relative crane permits required.

CONSTRUCTION SAFETY

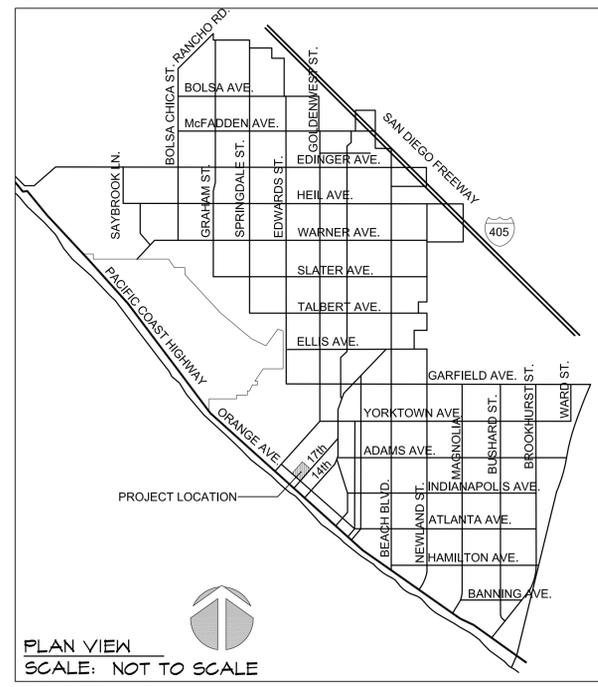
- All work shall be in conformance with all applicable codes, including (a) California Building Code, 2013 Edition, (b) the city or county planning and zoning regulation, (c) Uniform Plumbing Code, (d) National Electrical Code, (e) all safety orders of the State Industrial Commission, Title 3, (f) rules and regulations of the National Board of Fire Underwriting, (g) State of California Title 24, Section T-20-1401 through T-20-1406, and Title 20, Section 1401-1406 energy regulations.
- The design adequacy and safety of excavation, erection, bracing, shoring, temporary supports, etc. is the sole responsibility of the contractor, and has not been considered by the landscape architect or structural engineer.
- The contractor is responsible for providing the necessary safety precautions and measures necessary to execute the work.
- Observation visits to the site by the landscape architect or any of his consultants shall not include inspection of the above items.

FIRE DEPARTMENT NOTES

- All soils shall conform to the City of Huntington Beach Soil Cleanup Standard, City Specification 431-92.
- All abandoned oil wells must meet the criteria specified within the **City Specification 422**, Oil Well Abandonment Permit Process, & all requirements of the Department of Oil, Gas & Geothermal Resources, (714)816-6847.
- All debris/contaminated soil shall be removed & properly disposed of per City, County & State req.
- Soil stockpiling, remediation, mixing for re-use, &/or debris removal requires the following notification:
 - Huntington Beach Public Works Department (714)536-5431.
 - Huntington Beach Fire Department (714)536-5411.
 - California Regional Water Quality Control Board (909)320-2024.
 - Orange County Health Care Agency (714)667-3623.
- A registered, state licensed environmental auditing firm shall at all times be present with the appropriate number of site auditors.
- Any additional discovery of oilfield waste, hazardous materials, or otherwise shall be disclosed immediately to the Huntington Beach Fire Department. All grading operations shall cease until a new remediation work plan is approved.
- All structures so affected under the requirements of the City of Huntington Beach soil cleanup standard, **City Specification 431-92** & Methane District permit requirements, **City Specification #429**, shall have safety measures such as methane barriers, fugitive combustible gas collection systems, well vent collection systems, & classified electrical installation, some or all in the sub-slab area.
- The grading plans must state the specific safety measures required. The Fire Department Prevention Bureau may be contacted at (714)536-5411.
- Any & all associated underground fire service supply work shall require separate Fire Department Plan Review & Permitting. Installation can be by a C16, C36 or an "A" licensed contractor meeting the adopted NFPA 13, NFPA 24 & the Huntington Beach Municipal Fire Code.



LOCATION MAP



NOTE TO CONTRACTOR:

THIS PLAN IS BASED ON THE SURVEY MAP PREPARED BY CIVTEC AND FURNISHED TO RJM DESIGN GROUP, INC. IS NOT RESPONSIBLE FOR THE BASE INFORMATION SHOWN ON THIS PLAN. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY OR SUBSTRUCTURE SHOWN ON THESE PLANS WAS OBTAINED BY A SEARCH OF AVAILABLE RECORDS. NO CERTIFICATION IS MADE AS TO THE ACCURACY OR THOROUGHNESS OF THESE RECORDS. CONTRACTOR MUST POTHOLE AND HAND EXCAVATE WHEN COMPLETING ANY SUBSURFACE WORK, RELOCATE, LOWER, OR REALIGN ANY UTILITY ENCOUNTERED. MINIMUM DEPTH OVER NEW OR RELOCATED UTILITY IS 24". THE CONTRACTOR SHALL ASCERTAIN THE TRUE VERTICAL AND HORIZONTAL LOCATION AND SIZE OF ANY UNDERGROUND UTILITIES AND SHALL BE RESPONSIBLE FOR DAMAGE TO ANY PUBLIC OR PRIVATE UTILITIES, SHOWN OR NOT SHOWN HEREON.

CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AT THE JOB SITE AND NOTIFY THE LANDSCAPE ARCHITECT OR THE ASSOCIATION'S REPRESENTATIVE OF ANY DIMENSIONAL ERRORS, OMISSIONS, OR DISCREPANCIES BEFORE BEGINNING OR FABRICATING ANY WORK.

WARNING: ALL CONTRACTORS SHALL NOTIFY DIG ALERT (811) TO VERIFY LOCATION OF EXISTING UTILITIES PRIOR TO EXCAVATION.

TREE REPLACEMENT

Trees to be Removed from Site: 9 Trees Total

Trees to be Installed at Site: 32 Trees Total
24 (Size: 24" Box)
10 (Size: 36" Box)

APPROVED: THOMAS M. HERBEL, P.E. DATE
CITY ENGINEER

APPROVED: SEAN CRUMBY, P.E. DATE
DIRECTOR OF PUBLIC WORKS

UNDERGROUND SERVICE ALERT



CALL: 811

TWO WORKING DAYS BEFORE YOU DIG

SHEET INDEX

T-0.00	Title Sheet	P3.0	Plumbing Floor Plan
L-0.01	Site Plan	P4.0	Plumbing Specs.
L-0.02	Legend Sheet	L-2.01	Construction Plan
D-1.01	Demolition Plan	L-3.01	Construction Details
C-0.01	Civil Title Sheet	L-3.02	Construction Details
C-0.02	Civil Eng. Details	S-0	Struct. Cover Sheet
C-0.03	Civil Eng. Details	S-1	Structural Details
C-1.01	Precise Grading Plan	L-4.01	Irrigation Plan
C-2.01	Water/Sewer Plan	L-5.01	Irrigation Details
C-3.01	Erosion Control Plan	L-5.02	Irrigation Details
C-4.01	Horiz. Control Plan	L-6.01	Planting Plan
A1.0	Code Compliance	L-7.01	Planting Details
A2.0	Demolition Floor Plan	E-1.01	General Notes & Symbol List
A2.1	Revised Floor Plan	E-1.02	Light Fixture Schedule & Details
A2.2	Roof Plan	E-1.02A	Lighting Controls
A3.0	Reflected Ceiling Plan	E-1.03	Single Line Diagram, Sch. & Details
A4.0	Exterior Elevations	E-1.04	Title 24 - Outdoor
A4.1	Interior Elevations	E-1.05	Title 24 - Indoor
D1.0	Architectural Details	E-2.01	Site Elect. Plan
M0.1	Mech. Legend & Notes	E-2.01A	Lighting Photometric Calculations
M0.2	Mech. Sch. & Details	E-2.02	Electrical Demolition Plan
M0.3	Title 24 Compliance	E-2.03	Power & Signal Plan
M0.4	Title 24 Compliance	E-2.04	Lighting Plan
M2.0	Mech. Demo. Plan	E-3.01	Site Dry Utility Plan
M3.0	Mech. Remodel Plan		
M4.0	Mechanical Specs.		
P0.1	General Notes, Legend, & Dwg. Index		
P0.2	Plumb. Sch. & Details		
P2.0	Plumbing Demolition Floor Plan		

SUBJECT	CODE SECTION	REQUIRED	PROPOSED
Landscaping	232.08	Min. 8% Site = 87,478 sf 8% = 6,998 sf	75% (65,394 sf)

CONSULTANTS

Landscape Architect:
RJM Design Group
31591 Camino Capistrano
San Juan Capistrano, CA 92675
Phone: (949)493-2600
Contact: Andy Steen, LLA

Civil Engineer:
civTEC
999 Corporate Dr., Suite 100
Ladera Ranch, CA 92694
Phone: (949)463-8822
Contact: Thomas Carcelli, P.E., Q.S.D.

Irrigation Designer:
Glasir Design
424 New Jersey Lane
Placentia, CA 92670
Phone: (714)514-9930
Contact: Christopher Curry

Electrical Engineer:
FBA Engineering
150 Paularino Ave., Suite A120
Costa Mesa, CA 92626
Phone: (949)852-9995
Contact: Bill Zavrnsnick, LEED AP BD+C

Architect:
RM Architecture
780 Roosevelt
Irvine, CA 92620
Phone: (949)333-6030
Contact: Rubio Medina

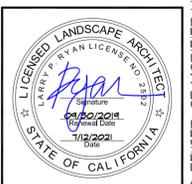
Structural Engineer:
GMU Structural Engineering
23241 Arroyo Vista
Rancho Santa Margarita, CA 92688
Phone: (949)888-6513
Contact: Nadim Sunna, P.E.



31591 Camino Capistrano
San Juan Capistrano, CA 92675
www.RJMDesignGroup.com
(949) 493-2600 fax
(949) 493-2600 phone



RODGERS SENIOR CENTER SITE
1706 ORANGE AVENUE
HUNTINGTON BEACH, CA 92647



REVISIONS	DATE

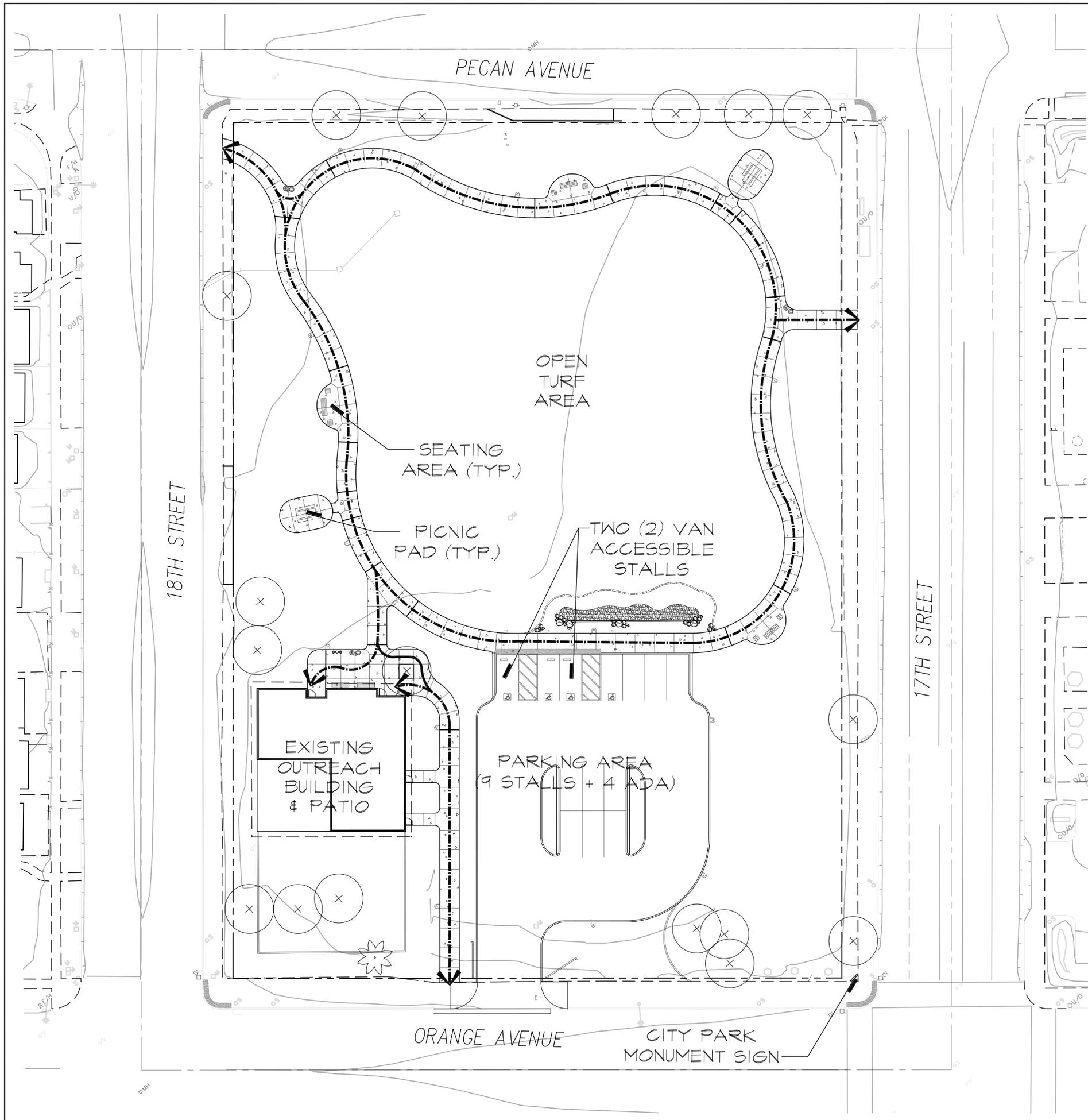
SHEET TITLE
TITLE SHEET

JOB #	BTB-10
DESIGNED	AS
DRAWN	AS
CHECKED	ZM
DATE	7/12/2021

SHEET
T-0.00

APPROVED BY:
CHRIS TANI, PRINCIPAL C.E. DATE
R.C.E. NO. C82756 EXP. DATE: 9/30/22

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← ACCESSIBLE PATH OF TRAVEL

ACCESSIBLE PATH OF TRAVEL NOTE:

- ALL PROPOSED WALKWAYS ARE ACCESSIBLE PATHS OF TRAVEL WITH A MAXIMUM SLOPE OF 5% & CROSS SLOPE OF 2%.





UNDERGROUND SERVICE ALERT
 CALL: 811
 TWO WORKING DAYS BEFORE YOU DIG

APPROVED BY:
 CHRIS TANIG, PRINCIPAL C.E. DATE
 R.C.E. NO. C82756 EXP. DATE: 9/30/22


CITY OF HUNTINGTON BEACH
 DEPARTMENT OF PUBLIC WORKS

CONSULTANT

RODGERS SENIOR CENTER SITE
 1706 ORANGE AVENUE
 HUNTINGTON BEACH, CA 92647



REVISIONS	DATE

SHEET TITLE
SITE PLAN

JOB #	878-10
DESIGNED	AS
DRAWN	AS
CHECKED	ZM
DATE	6/02/2021

SHEET
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DEMOLITION PLAN:

EXISTING CONDITIONS LEGEND:

DESCRIPTION:	COMMENTS:
1 EXISTING OUTREACH BUILDING & PATIO TO REMAIN	PROTECT IN PLACE, REFER TO ARCH. PLANS FOR IMPROVEMENT
2 EXISTING BUS SHELTER/BENCH/SIGNAGE & RELATED ITEMS TO REMAIN	PROTECT IN PLACE
3 EXISTING CONCRETE SIDEWALK TO REMAIN	PROTECT IN PLACE
4 EXISTING TREE/PALM TO REMAIN	PROTECT IN PLACE. WHERE ROOTS ARE ENCOUNTERED IN CLEAR & GRUB, HAND EXCAVATE. CLEAN CUT ONLY ROOTS LESS THAN 6" IN DIAMETER
5 EXISTING SIGNAGE TO REMAIN	PROTECT IN PLACE
6 EXISTING STREET LIGHT TO REMAIN	PROTECT IN PLACE

DEMOLITION LEGEND:

DESCRIPTION:	COMMENTS:
D1 EXISTING CONCRETE TO BE REMOVED	SAWCUT WHERE INDICATED DEMOLISH, REMOVE & DISPOSE OFFSITE
D2 EXISTING ASPHALT PAVING & CONC. WHEEL STOPS TO BE REMOVED	DEMOLISH, REMOVE & DISPOSE OFFSITE
D3 EXISTING COMMUNITY CENTER BUILDING TO BE REMOVED	DEMOLISH, REMOVE & DISPOSE OFFSITE
D4 EXISTING GARAGE TO BE REMOVED	DEMOLISH, REMOVE & DISPOSE OFFSITE
D5 EXISTING CHAIN-LINK FENCE & FOOTINGS TO BE REMOVED	DEMOLISH, REMOVE & DISPOSE OFFSITE
D6 EXISTING PLANTERS & POTS TO BE REMOVED	DEMOLISH, REMOVE & DISPOSE OFFSITE
D7 EXISTING MONUMENT SIGN TO BE REMOVED	DEMOLISH, REMOVE & DISPOSE OFFSITE
D8 EXISTING PARKING LOT LIGHT POLE TO BE REMOVED	REFER TO ELECTRICAL PLANS
D9 EXISTING TREE TO BE REMOVED (X TOTAL)	REMOVE, STUMP GRIND, & DISPOSE OF OFFSITE
D10 EXISTING SIGNAGE TO BE REMOVED	DEMOLISH, REMOVE & DISPOSE OFFSITE
D11 EXISTING CONCRETE ACCESS RAMPS & HANDRAILS TO BE REMOVED	DEMOLISH, REMOVE & DISPOSE OFFSITE
D12 EXISTING BENCHES TO BE REMOVED	SALVAGE & TURN OVER TO CITY
D13 EXISTING CONCRETE CURB TO BE REMOVED	DEMOLISH, REMOVE & DISPOSE OFFSITE
D14 EXISTING LANDSCAPE/TURF AREA TO BE REMOVED	CLEAR & GRUB LANDSCAPE/TURF AREAS & DISPOSE OFFSITE
D15 EXISTING WOOD TRELLIS TO BE REMOVED	DEMOLISH, REMOVE & DISPOSE OFFSITE
D16 EXISTING CONCRETE DRIVEWAY TO BE REMOVED	DEMOLISH, REMOVE & DISPOSE OFFSITE
D17 EXISTING CONCRETE SIDEWALK TO BE REMOVED	SAWCUT WHERE INDICATED DEMOLISH, REMOVE & DISPOSE OFFSITE
D18 EXISTING CONCRETE CURB TO BE REMOVED	SAWCUT WHERE INDICATED DEMOLISH, REMOVE & DISPOSE OFFSITE
D19 EXISTING WOODEN LODGEPOLE FENCE TO BE REMOVED	DEMOLISH, REMOVE & DISPOSE OFFSITE

CIVIL ENGINEERING PLANS:

LEGEND

	PROPERTY LINE
	GRADING LIMITS
	EXISTING CONTOUR
	EXISTING SPOT ELEVATION
	PROPOSED CONTOUR
	PROPOSED SLOPE
	EXISTING UTILITY LINE (TYPE AND SIZE AS NOTED)
	GRADE BREAK LINE
	FLOWLINE
	FLOW DIRECTION
	STORM DRAIN & GRATE
	STORM DRAIN AND CLEANOUT
	STREET LIGHT
	VALVE
	FIRE HYDRANT

B.O.W.	BACK OF WALK
BLDG.	BUILDING
C.B.	CATCH BASIN
C.L.F.	CHAIN LINK FENCE
C&G	CURB & GUTTER
C.L.	CENTERLINE
C.O.	CLEANOUT
CONC.	CONCRETE
D.S.	DECOMPOSED GRANITE
D.W.	DRIVEWAY
D.F.	DRINKING FOUNTAIN
ELEC.	ELECTRIC
E.P.	EDGE OF PAVEMENT
F.F.	FINISHED FLOOR
F.H.	FIRE HYDRANT
F.L.	FLOWLINE
F.S.	FINISHED SURFACE
G.B.	GRADE BREAK
H.C.	HANDICAP
H.P.	HIGH POINT
INV.	INVERT
IRR. OR IRRIG.	IRRIGATION
L.P.	LOW POINT
M.H.	MANHOLE
P/A	PLANTER AREA
P.P.	POWER POLE
P.O.C.	POINT OF CONNECTION
R.D.	ROOF DRAIN
R.O.W.	RIGHT OF WAY
SD	STORM DRAIN
ST.	STREET
T.C.	TOP OF CURB
T.D.	TOP OF DECK
TEL	TELEPHONE
T.G.	TOP OF GRATE
T.H.W.	TOP OF HEADWALL
T.F.	TOP OF FOOTING
T.O.S.	TOP OF SUBGRADE
T.W.	TOP OF WALL
S	SANITARY SEWER
W	WATER
W.I.F.	WROUGHT IRON FENCE
W.M.	WATER METER
W.V.	WATER VALVE

DEMOLITION NOTES

- A SAW CUT, REMOVE AND DISPOSE EXISTING CURB & GUTTER AND SIDEWALK
- B SAW CUT, REMOVE AND DISPOSE EXISTING CURB & GUTTER AND DRIVEWAY
- C SAW CUT, REMOVE AND DISPOSE EXISTING SIDEWALK

GENERAL CONSTRUCTION NOTES

- 1 CONSTRUCT 4" A.C./4" A.B. PAVEMENT FOR PARKING STALLS - CONFIRM SECTION WITH SOILS ENGINEER
- 2 CONSTRUCT 4" A.C./5" A.B. PAVEMENT FOR DRIVE AISLES - CONFIRM SECTION WITH SOILS ENGINEER
- 3 CONSTRUCT CURB PER CITY OF H.B. STD. PLAN 201, TYPE "B-2", C.F. PER PLAN
- 4 CONSTRUCT CURB & GUTTER PER CITY OF H.B. STD. PLAN 202, C.F. PER PLAN
- 5 CONSTRUCT 18" STEP-OUT CURB DETAIL 3, SHEET C-0.03
- 6 CONSTRUCT 3" V-GUTTER PER DETAIL 3, SHEET C-0.02
- 7 CONSTRUCT CURB RAMP PER CALTRANS DETAIL SHEET AB8A, CASE C
- 8 CONSTRUCT CONCRETE SURFACE PER LANDSCAPE ARCHITECT PLANS
- 9 ADJUST UTILITY BOX/VAULT TO GRADE
- 10 PROTECT IN PLACE
- 11 CONSTRUCT PARKWAY AND SIDEWALK PER CITY OF H.B. STD. PLAN 207
- 12 CONSTRUCT COMMERCIAL DRIVEWAY PER CITY OF H.B. STD. PLAN 211
- 13 CONSTRUCT FULL-DEPTH A.C. PAVING PER DETAIL 5, SHEET C-0.02
- 14 CONSTRUCT CURB FACE TRANSITION PER DETAIL 2, SHEET C-0.02

STORM DRAIN CONSTRUCTION NOTES

- 20 CONSTRUCT CATCH BASIN & GRATE PER DETAIL 1, SHEET C-0.02
- 21 CONSTRUCT 4" PVC, SDR 35, STORM DRAIN PIPE, BEDDING PER DETAIL 4, SHEET C-0.02
- 22 CONSTRUCT 4" PVC, SDR 35, STORM DRAIN PIPE, BEDDING PER DETAIL 4, SHEET C-0.02
- 23 CONSTRUCT PARKWAY CULVERT TYPE "B" PER CITY OF H.B. STD. PLAN 312, W = 18", MOD. SLOPE PER PLAN
- 24 CONSTRUCT CONCRETE HEADWALL WITH MANIFOLD DETAIL 4, SHEET C-0.03
- 25 CONSTRUCT PARKWAY CULVERT TYPE "B" PER CITY OF H.B. STD. PLAN 312, W = 18", MOD. WITH REVERSE SLOPE PER PLAN - E.G. INLET

CONSTRUCTION PLAN:

CONSTRUCTION LEGEND:

CONSTRUCT:	DETAIL REFERENCE/COMMENTS:
1 EXPANSION JOINT	DETAIL: 1 SHEET: L-3.01
2 TOOLED JOINT	DETAIL: 1 SHEET: L-3.01
3 COLD JOINT WITH SPEED DOWELS	DETAIL: 1 SHEET: L-3.01
4 4" THICK NATURAL GRAY CONCRETE PAVING WITH MEDIUM BROOM FINISH	DETAIL: 2 SHEET: L-3.01
5 6' SQUARE TREE WELL	DETAIL: 3 SHEET: L-3.01
6 INSTALL 6' BENCH WITH BACK	DETAIL: 4 SHEET: L-3.01
7 INSTALL 24" CHAIR WITH BACK	DETAIL: 4 SHEET: L-3.01
8 INSTALL CITY PARK MONUMENT SIGN	DETAIL: X SHEET: L-3.0X
9 INSTALL DRINKING FOUNTAIN WITH BOTTLE FILLER	DETAIL: 6 SHEET: L-3.01
10 INSTALL TRASH RECEPTACLE	DETAIL: 8 SHEET: L-3.01
11 INSTALL RECYCLING RECEPTACLE	DETAIL: 8 SHEET: L-3.01
12 INSTALL ADA PICNIC TABLE	DETAIL: 5 SHEET: L-3.01
13 INSTALL VEHICULAR SWING GATE	DETAIL: 1 SHEET: L-3.02
14 INSTALL HANDICAP PARKING SIGNAGE	DETAIL: 7 SHEET: L-3.01
15 INSTALL 6"x6" CONCRETE MONOCURB	DETAIL: 9 SHEET: L-3.01
16 INSTALL MORTARED COBBLE	DETAIL: 3 SHEET: L-3.02
17 INSTALL BOULDERS	DETAIL: 4 SHEET: L-3.02
18 INSTALL DRY LAID COBBLE (NO MORTAR)	

WORK BY OTHERS:

DESCRIPTION	PLAN REFERENCE:
1 INSTALL NEW PEDESTRIAN LIGHT	PER ELECTRICAL PLAN DETAIL: 2 SHEET: L-3.02
2 PARKING LOT STRIPING	PER CIVIL ENGINEERING PLAN
3 ADA PARKING	PER CIVIL ENGINEERING PLAN
4 COMMERCIAL DRIVEWAY	PER CIVIL ENGINEERING PLAN
5 ASPHALT PARKING LOT & CONCRETE CURB	PER CIVIL ENGINEERING PLAN
6 CONCRETE MAINTENANCE BAND	PER CIVIL ENGINEERING PLAN
7 CONCRETE HEADWALL WITH MANIFOLD	PER CIVIL ENGINEERING PLAN
8 SIDEWALK/CURB/GUTTER REPLACEMENT	PER CIVIL ENGINEERING PLAN
9 OUTREACH BUILDING RENOVATIONS	PER ARCHITECTURAL PLAN

LINETYPE LEGEND:

DESCRIPTION:	COMMENTS:
	LIMIT OF WORK



31591 Camino Capistrano
San Juan Capistrano, CA 92675
www.RJMdesigngroup.com
[949] 493-2690 fax
[949] 493-2600 phone

CONSULTANT

RODGERS SENIOR CENTER SITE
1706 ORANGE AVENUE
HUNTINGTON BEACH, CA 92647



REVISIONS	DATE

SHEET TITLE
LEGEND SHEET

JOB #	878-10
DESIGNED	AS
DRAWN	AS
CHECKED	ZM
DATE	6/02/2021

SHEET
L-0.02



APPROVED BY:

CHRIS TANIGUCHI, PRINCIPAL C.E. DATE 9/30/22
R.C.E. NO. CB2756 EXP. DATE 9/30/22

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REVISIONS	DATE

SHEET TITLE
DEMO. PLAN

JOB #	875-10
DESIGNED AS	AS
DRAWN AS	AS
CHECKED ZM	
DATE	6/02/2021

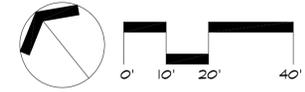
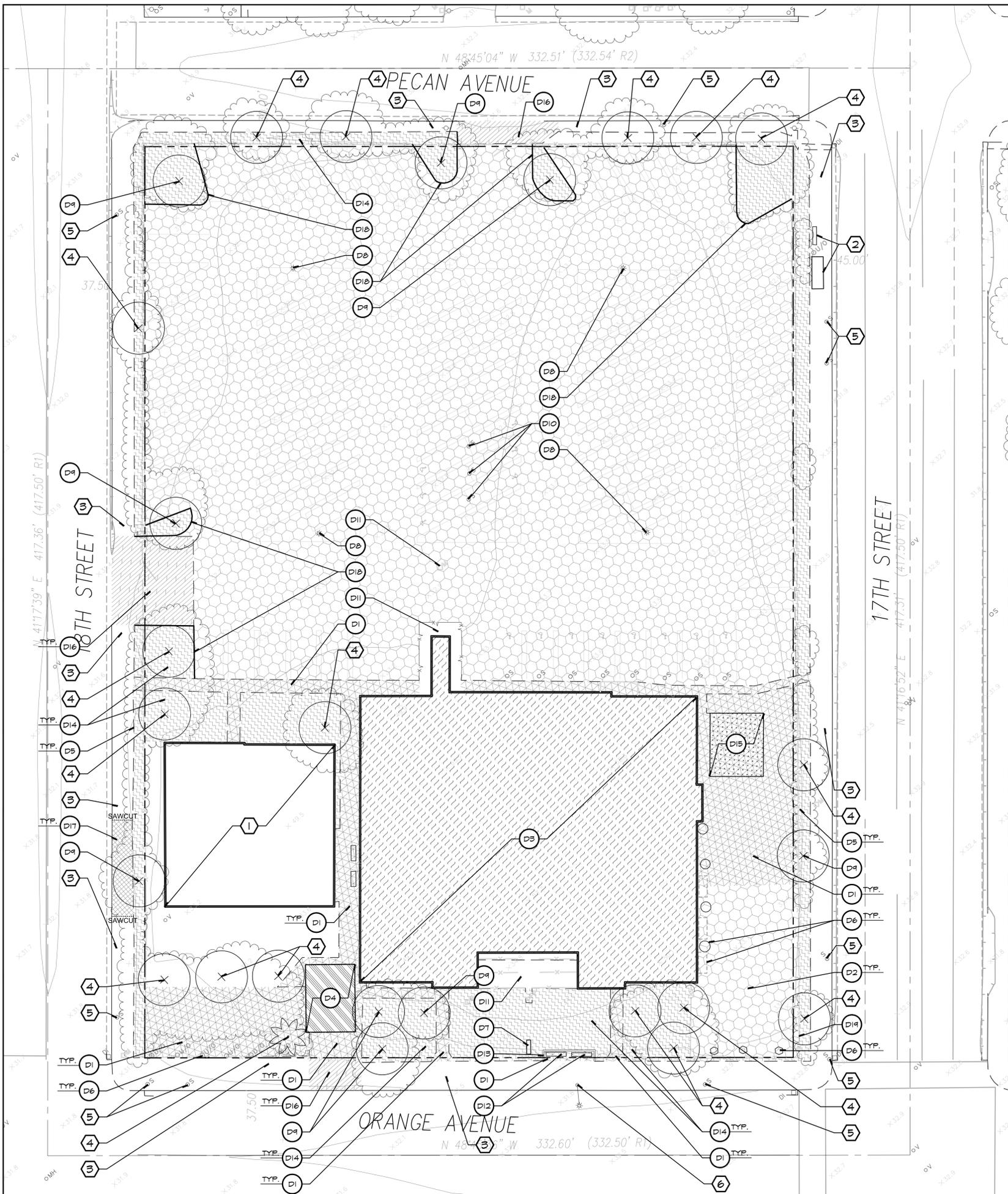
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EXISTING CONDITIONS LEGEND:

DESCRIPTION:	COMMENTS:
① EXISTING OUTREACH BUILDING & PATIO TO REMAIN	PROTECT IN PLACE, REFER TO ARCH. PLANS FOR IMPROVEMENT
② EXISTING BUS SHELTER/BENCH/SIGNAGE & RELATED ITEMS TO REMAIN	PROTECT IN PLACE
③ EXISTING CONCRETE SIDEWALK TO REMAIN	PROTECT IN PLACE
④ EXISTING TREE/PALM TO REMAIN	PROTECT IN PLACE. WHERE ROOTS ARE ENCOUNTERED IN CLEAR & GRUB, HAND EXCAVATE. CLEAN CUT ONLY ROOTS LESS THAN 6" IN DIAMETER
⑤ EXISTING SIGNAGE TO REMAIN	PROTECT IN PLACE
⑥ EXISTING STREET LIGHT TO REMAIN	PROTECT IN PLACE

DEMOLITION LEGEND:

DESCRIPTION:	COMMENTS:
D1 EXISTING CONCRETE TO BE REMOVED	SAWCUT WHERE INDICATED. DEMOLISH, REMOVE & DISPOSE OFFSITE
D2 EXISTING ASPHALT PAVING & CONC. WHEEL STOPS TO BE REMOVED	DEMOLISH, REMOVE & DISPOSE OFFSITE
D3 EXISTING COMMUNITY CENTER BUILDING TO BE REMOVED	DEMOLISH, REMOVE & DISPOSE OFFSITE
D4 EXISTING GARAGE TO BE REMOVED	DEMOLISH, REMOVE & DISPOSE OFFSITE
D5 EXISTING CHAIN-LINK FENCE & FOOTINGS TO BE REMOVED	DEMOLISH, REMOVE & DISPOSE OFFSITE
D6 EXISTING PLANTERS & POTS TO BE REMOVED	DEMOLISH, REMOVE & DISPOSE OFFSITE
D7 EXISTING MONUMENT SIGN TO BE REMOVED	DEMOLISH, REMOVE & DISPOSE OFFSITE
D8 EXISTING PARKING LOT LIGHT POLE TO BE REMOVED	REFER TO ELECTRICAL PLANS
D9 EXISTING TREE TO BE REMOVED (9 TOTAL)	REMOVE, STUMP GRIND, & DISPOSE OF OFFSITE
D10 EXISTING SIGNAGE TO BE REMOVED	DEMOLISH, REMOVE & DISPOSE OFFSITE
D11 EXISTING CONCRETE ACCESS RAMPS & HANDRAILS TO BE REMOVED	DEMOLISH, REMOVE & DISPOSE OFFSITE
D12 EXISTING BENCHES TO BE REMOVED	SALVAGE & TURN OVER TO CITY
D13 EXISTING CONCRETE CURB TO BE REMOVED	DEMOLISH, REMOVE & DISPOSE OFFSITE
D14 EXISTING LANDSCAPE/TURF AREA TO BE REMOVED	CLEAR & GRUB LANDSCAPE/TURF AREAS & DISPOSE OFFSITE
D15 EXISTING WOOD TRELLIS TO BE REMOVED	DEMOLISH, REMOVE & DISPOSE OFFSITE
D16 EXISTING CONCRETE DRIVEWAY TO BE REMOVED	DEMOLISH, REMOVE & DISPOSE OFFSITE
D17 EXISTING CONCRETE SIDEWALK TO BE REMOVED	SAWCUT WHERE INDICATED. DEMOLISH, REMOVE & DISPOSE OFFSITE
D18 EXISTING CONCRETE CURB TO BE REMOVED	SAWCUT WHERE INDICATED. DEMOLISH, REMOVE & DISPOSE OFFSITE
D19 EXISTING WOODEN LODGEPOLE FENCE TO BE REMOVED	DEMOLISH, REMOVE & DISPOSE OFFSITE



UNDERGROUND SERVICE ALERT
CALL: 811
TWO WORKING DAYS BEFORE YOU DIG

APPROVED BY:
CHRIS TANIG, PRINCIPAL C.E. DATE: 9/30/22
R.C.E. NO. C82756 EXP. DATE: 9/30/22

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GRADING GENERAL NOTES

- ALL GRADING SHALL BE DONE IN ACCORDANCE WITH THE CITY OF HUNTINGTON BEACH REQUIREMENTS.
- CITY OF HUNTINGTON BEACH GRADING INSPECTOR IS TO BE NOTIFIED 48 HOURS PRIOR TO ANY GRADING AT THE DEPARTMENT OF PUBLIC WORKS, (714) 536-5431.
- DUST SHALL BE CONTROLLED BY WATERING.
- REMOVE ALL VEGETATION AND DEBRIS PRIOR TO ANY GRADING. INSPECTION IS REQUIRED.
- ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY REQUIRES A SEPARATE ENCROACHMENT PERMIT.
- IMPORT SOIL SHALL BE A GRANULAR MATERIAL WITH LOW EXPANSION POTENTIAL AND SHALL BE COMPACTED TO AT LEAST 90%.
- THE SUBGRADE OF THE DRIVEWAY AND PARKING AREAS SHALL BE SCARIFIED, BROUGHT TO OPTIMUM MOISTURE CONTENT, AND COMPACTED TO AT LEAST 90%. CALL FOR CITY INSPECTION PRIOR TO PLACING CLASS 2 AGGREGATE BASE AND CASTING OF CONCRETE GUTTERS.
- A SOIL COMPACTION REPORT SHALL CERTIFY COMPACTION WITHIN BUILDING AND PAVING AREAS.
- A LICENSED ENGINEER, OR A LICENSED LAND SURVEYOR, SHALL CERTIFY LINE AND GRADE OF FINISH FLOOR FORMS.
- THE SOILS ENGINEER SHALL CERTIFY THAT ALL GRADING HAS BEEN COMPLETED PER THE SOILS REPORT PRIOR TO FINAL RELEASE.
- THE ENGINEER OR ARCHITECT OF RECORD SHALL CERTIFY THAT GRADES FOR ALL HARDSCAPE AND DRAINAGE DEVICES HAVE BEEN CONSTRUCTED PER APPROVED GRADING PLAN PRIOR TO FINAL RELEASE.
- ALL GRADING SHALL BE DONE IN ACCORDANCE WITH APPROVED SOILS REPORT NOTED HEREIN.
- CITY OF HUNTINGTON BEACH STANDARD PLAN 100, SHEETS 1, 2, 3 AND 4 ARE INCORPORATED BY REFERENCE - SEE [HTTPS://WWW.HUNTINGTONBEACHCA.GOV/GOVERNMENT/DEPARTMENTS/PUBLIC_WORKS/STANDARD-PLANS-INDIVIDUAL-DOCUMENTS.CFM](https://www.huntingtonbeachca.gov/government/departments/public_works/standard-plans-individual-documents.cfm)
- THE SOILS ENGINEER AND CIVIL ENGINEER SHALL NOT BE SUBSTITUTED WITHOUT PRIOR WRITTEN APPROVAL FROM THE DIRECTOR OF PUBLIC WORKS.
- USE THE AMERICAN PUBLIC WORKS ASSOCIATION SOUTHERN CALIFORNIA CHAPTER (APWA) WORK AREA TRAFFIC CONTROL HANDBOOK (WATCH MANUAL) TENTH EDITION, 2006 WHEN WORKING IN THE STREETS OR ALLEYS. THE CITY INSPECTOR SHALL APPROVE BARRICADING PRIOR TO ANY WORK.
- CITY OF HUNTINGTON BEACH STANDARD PLAN 400 GENERAL NOTES ARE INCORPORATED BY REFERENCE - SEE [HTTPS://WWW.HUNTINGTONBEACHCA.GOV/GOVERNMENT/DEPARTMENTS/PUBLIC_WORKS/STANDARD-PLANS-INDIVIDUAL-DOCUMENTS.CFM](https://www.huntingtonbeachca.gov/government/departments/public_works/standard-plans-individual-documents.cfm)
- ANY DAMAGE TO THE STREET LIGHT SYSTEM AND/OR TRAFFIC SIGNAL SYSTEM SHALL BE REPAIRED AND CONDUIT AND CONDUCTORS SHALL BE REPLACED PER CURRENT HUNTINGTON BEACH STANDARD PLANS AND STANDARD SPECIAL PROVISIONS FOR THE CONSTRUCTION OF TRAFFIC SIGNALS AND LIGHTING SYSTEMS IN THE CITY OF HUNTINGTON BEACH 2001 EDITION
- REFER TO LANDSCAPE ARCHITECT PLANS FOR ADDITIONAL INFORMATION AND SLEEVING THAT MAY BE REQUIRED.

NPDES GENERAL NOTES

- SEDIMENT FROM AREAS DISTURBED BY CONSTRUCTION SHALL BE RETAINED ON SITE USING INDUSTRY ACCEPTED BEST MANAGEMENT PRACTICES (BMPs). THESE BMPs SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITY SUCH AS GRADING THAT MAY CAUSE SOIL DISTURBANCE. THESE BMPs ARE TO BE MAINTAINED YEAR-ROUND OR UNTIL ALL LOOSE SEDIMENT HAS BEEN STABILIZED.
- STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO MINIMIZE SEDIMENT TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES AND ADJACENT PROPERTIES VIA RUNOFF, VEHICLE TRACKING, OR WIND. STOCKPILED MATERIAL SHALL BE NO MORE THAN 8 FEET IN HEIGHT AND SHALL BE COMPLETELY COVERED WITH A SECURE IMPERMEABLE COVER AT THE END OF EACH WORK DAY. ALL STOCKPILES SHALL BE LOCATED AWAY FROM ANY STORM DRAIN INLETS AND AWAY FROM ANY STORM WATER CONVEYANCE STRUCTURES. AT NO TIME SHALL ANY RAW MATERIAL BE STAGED OR STOCKPILED ON CITY STREETS, SIDEWALKS, AND/OR GUTTERS WITHOUT A VALID OBSTRUCTION PERMIT.
- APPROPRIATE BMPs FOR CONSTRUCTION-RELATED MATERIALS, WASTES, SPILLS OR RESIDUES SHALL BE IMPLEMENTED TO MINIMIZE TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES, AND ADJOINING PROPERTY BY WIND OR RUNOFF.
- RUNOFF FROM EQUIPMENT AND VEHICLE WASHING SHALL BE CONTAINED ON THE CONSTRUCTION SITE AND SHALL NOT BE DISCHARGED TO RECEIVING WATERS OR TO THE STORM DRAIN SYSTEM.
- CONCRETE WASH OUT WATER SHALL BE CONTAINED IN A WATER-TIGHT DEVICE TO PREVENT CEMENT DEPOSITION ONTO THE GROUND AND RUNOFF INTO STREETS, DRAINAGE FACILITIES, AND RECEIVING WATERS.
- ALL CONSTRUCTION CONTRACTOR AND SUBCONTRACTOR PERSONNEL ARE TO BE MADE AWARE OF THE REQUIRED BMPs AND GOOD HOUSEKEEPING MEASURES FOR THE PROJECT SITE AND ANY ASSOCIATED CONSTRUCTION STAGING AREAS.
- AT THE END OF EACH WORK DAY, ALL CONSTRUCTION DEBRIS AND WASTE MATERIALS SHALL BE COLLECTED AND PROPERLY DISPOSED IN COVERED TRASH OR RECYCLE BINS.
- CONSTRUCTION SITES SHALL BE MAINTAINED IN SUCH A CONDITION THAT STORMWATER DOES NOT CARRY WASTES OR POLLUTANTS OFF THE SITE. DISCHARGES OF MATERIALS OTHER THAN STORMWATER (NON-STORMWATER DISCHARGES) ARE PROHIBITED EXCEPT AS AUTHORIZED BY AN INDIVIDUAL NPDES PERMIT OR THE STATEWIDE GENERAL CONSTRUCTION STORMWATER PERMIT.
- ALL UNPAVED CONSTRUCTION ENTRANCES AND EXITS SHALL BE PROTECTED USING AN EFFECTIVE COMBINATION OF TRACKING CONTROL BMPs TO MINIMIZE AND/OR ELIMINATE OFF-SITE TRACKING OF SEDIMENT. THESE BMPs SHALL BE MAINTAINED AND INSPECTED DAILY.
- ALL TEMPORARY PORTABLE RESTROOMS MUST HAVE A CATCHMENT PAN AND MUST BE LOCATED AT LEAST 50 FEET AWAY FROM ANY STORM DRAIN INLETS.

POLLUTANTS ARE ANY SUBSTANCES INTRODUCED INTO THE ENVIRONMENT THAT ADVERSELY AFFECTS THE USEFULNESS OF A RESOURCE. POTENTIAL POLLUTANTS INCLUDE, BUT ARE NOT LIMITED TO: SEDIMENT; SOLID OR LIQUID CHEMICALS SUCH AS: PAINTS, STAINS, SEALANTS, SOLVENTS, DETERGENTS, GLUES, LIME, PESTICIDE, HERBICIDE, FERTILIZERS, WOOD PRESERVATIVES AND ASBESTOS FIBERS, PAINT FLAKES OR STUCCO FRAGMENTS; FUELS, OILS, LUBRICANTS, AND HYDRAULIC, RADIATOR OR BATTERY FLUIDS; CONCRETE, AND RELATED CUTTING OR CURING RESIDUES; FLOATABLE WASTES; WASTES FROM ENGINE / EQUIPMENT STEAM CLEANING OR CHEMICAL DEGREASING; WASTES FROM STREET CLEANING; AND SUPER-CHLORINATED POTABLE WATER FROM LINE FLUSHINGS AND TESTING.

DURING CONSTRUCTION, DISPOSAL OF SUCH MATERIALS SHOULD OCCUR IN A SPECIFIED AND CONTROLLED MANNER. A DESIGNATED TEMPORARY AREA ON-SITE SHALL BE PHYSICALLY SEPARATED FROM POTENTIAL STORMWATER RUNOFF, WITH ULTIMATE DISPOSAL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.

- DISCHARGING CONTAMINATED GROUNDWATER, PRODUCED BY DEWATERING GROUNDWATER THAT HAS INFILTRATED INTO THE CONSTRUCTION SITE IS PROHIBITED. DISCHARGING OF CONTAMINATED SOILS VIA SURFACE EROSION IS ALSO PROHIBITED. DISCHARGING NON-CONTAMINATED GROUNDWATER PRODUCED BY DEWATERING ACTIVITIES REQUIRES A NATIONAL POLLUTANTS DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FROM THE RESPECTIVE STATE REGIONAL WATER QUALITY CONTROL BOARD.
- DISCHARGES OF STORM WATER FROM CONSTRUCTION SITES SHALL NOT BE LADEN WITH SEDIMENT. ALL STORM WATER DISCHARGES MUST BE RELATIVELY FREE OF SEDIMENT.

NOTICE: ALL CONTRACTORS AND CONSTRUCTION PERSONNEL SHALL MEET THE REGULATORY CONSTRUCTION REQUIREMENTS ON THE PROJECT SITE IN COMPLIANCE WITH THE CITY'S GRADING AND EXCAVATION CODE (MUNI CODE 17.05).

EROSION CONTROL GENERAL NOTES

- EROSION CONTROL IS REQUIRED FOR GRADING OPERATIONS DURING "DRY SEASON" REQUIREMENTS (MAY 1 THROUGH SEPTEMBER 30) AND FOR "WET SEASON" REQUIREMENTS (OCTOBER 1 THROUGH APRIL 30). APPROVED PLANS ARE REQUIRED FOR ALL ROUGH GRADING OPERATIONS.
- IN CASE OF EMERGENCY CALL:
(RESPONSIBLE PERSON) TO BE COMPLETED BY CONTRACTOR (FIRM)
AT _____
(24 HOUR PHONE NO.)
- THE DESIGN CIVIL ENGINEER WILL SUPERVISE EROSION CONTROL WORK AND ENSURE THAT WORK IS IN ACCORDANCE WITH THE APPROVED PLANS (IF REQUIRED).
- THERE SHALL BE A "WEATHER TRIGGERED" ACTION PLAN AND THE ABILITY TO DEPLOY STANDBY SEDIMENT CONTROL BMP'S AS NEEDED TO PROTECT ALL EXPOSED PORTIONS OF THE SITE WITHIN 48 HOURS OF A PREDICTED STORM EVENT (A PREDICTED STORM EVENT IS DEFINED AS A NATIONAL WEATHER SERVICE FORECASTED, 50% CHANCE OF RAIN).
- EROSION CONTROL DEVICES SHALL NOT BE MOVED OR MODIFIED WITHOUT THE APPROVAL OF THE CITY ENGINEER.
- ALL REMOVABLE PROTECTIVE EROSION CONTROL DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY.
- AFTER A RAINSTORM, ALL SILT AND DEBRIS SHALL BE REMOVED FROM CHECK BERMS, SILT FENCES, AND DESILTING BASINS, ETC.
- GRADED AREAS AROUND THE TRACT PERIMETER MUST DRAIN AWAY FROM THE FACE OF SLOPE AT THE CONCLUSION OF EACH WORKING DAY.
- THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATER CREATES A HAZARDOUS CONDITION.
- DESILTING BASINS ARE TO BE CONSTRUCTED AS GRADING OF INDIVIDUAL GRADING AREAS ARE COMPLETE PER ROUGH GRADING PLANS.
- THE CITY ENGINEER RESERVES THE RIGHT TO MAKE CHANGES OR MODIFICATIONS TO THIS PLAN AS DEEMED NECESSARY.
- INFORMATION ON THIS PLAN IS FOR EROSION CONTROL ONLY. ALL OTHER INFORMATION IS SUBJECT TO CHANGE.
- TEMPORARY EROSION PROTECTION IS REQUIRED FOR MANUFACTURED SLOPES PRIOR TO PERMANENT PLANTING.
- AREAS SHALL BE MAINTAINED IN SUCH A STATE THAT FIRE ACCESS SHALL BE MAINTAINED AT ALL TIMES (INCLUDING ACCESS TO NEIGHBORING PROPERTIES).
- NO OBSTRUCTION OR DISTURBANCE OF NATURAL DRAINAGE COURSES OR EXISTING STORM DRAIN INLETS SHALL OCCUR DURING THE "WET SEASON" UNLESS ADEQUATE TEMPORARY / PERMANENT DRAINAGE FACILITIES HAVE BEEN APPROVED AND INSTALLED TO CARRY SURFACE WATER TO THE NEAREST PRACTICAL STREET, STORM DRAIN OR NATURAL WATER COURSE.
- THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN SUCH A MANNER THAT STORM RUNOFF WILL BE CONTAINED WITHIN THE PROJECT OR CHANNED INTO THE STORM DRAIN SYSTEM WHICH SERVES THE RUNOFF AREA. STORM RUNOFF FROM ONE AREA SHALL NOT BE ALLOWED TO DIVERT TO ANOTHER RUNOFF AREA.
- CONFORMANCE WITH THE REQUIREMENTS OF THESE PLANS SHALL IN NO WAY RELIEVE THE CONTRACTOR FROM HIS RESPONSIBILITIES TO THIS SITE AND ADJACENT PROPERTIES. TEMPORARY EROSION CONTROL SHALL CONSIST OF, BUT NOT BE LIMITED TO, CONSTRUCTING SUCH FACILITIES AND TAKING SUCH MEASURES AS ARE NECESSARY TO PREVENT, CONTROL AND ABATE WATER, MUD AND EROSION DAMAGE TO PUBLIC AND PRIVATE PROPERTY AS A RESULT OF THE CONSTRUCTION OF THIS PROJECT.
- SLOPES CONSTRUCTED PRIOR TO OCTOBER 1 SHALL BE TREATED FOR EROSION CONTROL PRIOR TO OCTOBER 15. SLOPES CONSTRUCTED AFTER OCTOBER 1 SHALL BE TREATED FOR EROSION CONTROL AS THE CONSTRUCTION OF SLOPE PROGRESSES IN INCREMENTS OF 25 FEET OR LESS MEASURED VERTICALLY.
- FILL AREAS WHILE BEING BROUGHT UP TO GRADE AND DURING PERIODS OF COMPLETION PRIOR TO FINAL GRADE, SHALL BE PROTECTED BY VARIOUS MEASURES TO ELIMINATE EROSION AND THE SILTATION OF DOWNSTREAM FACILITIES AND ADJACENT AREAS. THESE MEASURES MAY INCLUDE, BUT SHALL NOT BE LIMITED TO: TEMPORARY DOWNDRAINS, EITHER IN THE FORM OF PIPES OR PAVED DITCHES WITH PROTECTED OUTFALL AREAS; GRADED BERMS AROUND AREAS TO ELIMINATE EROSION OF FILL SLOPES BY SURFACE RUNOFF; CONFINED PONDING AREAS TO DESILT RUNOFF; TEMPORARY CHECK DAMS IN TOP OF SLOPE DITCHES TO DESILT RUNOFF; PROTECTION SUCH AS SAND BAGS AROUND INLETS WHICH HAVE NOT BEEN BROUGHT UP TO GRADE; AND EARTH BERMS AND APPROPRIATE GRADING TO DIRECT DRAINAGE AWAY FROM THE EDGE OF THE TOP OF SLOPES SHALL BE CONSTRUCTED AND MAINTAINED ON THOSE FILL AREAS WHERE EARTH-WORK OPERATIONS ARE NOT IN PROGRESS.
- TOP OF CUT BROW DITCHES, WHERE REQUIRED ON THE PLANS, SHALL BE CONSTRUCTED PRIOR TO EXCEEDING 12 FEET OF CUT MEASURED VERTICALLY.
- CLEARING AND GRUBBING SHOULD BE LIMITED TO AREAS THAT WILL RECEIVE IMMEDIATE GRADING. EROSION CONTROL MEASURES WILL BE REQUIRED TO PROTECT AREAS THAT HAVE BEEN CLEARED AND GRUBBED PRIOR TO GRADING OPERATION, AND THAT ARE SUBJECT TO RUNOFF DURING THE PERIOD FROM THE BEGINNING OF THE "WET SEASON". THESE MEASURES MAY INCLUDE BUT SHALL NOT BE LIMITED TO: GRADED DITCHES; BRUSH BARRIERS AND SILT FENCES. CARE SHALL BE EXERCISED TO PRESERVE VEGETATION BEYOND THE LIMITS OF GRADING.
- CITY APPROVAL OF PLANS DOES NOT RELIEVE THE DEVELOPER FROM RESPONSIBILITY FOR THE CORRECTION OF ERRORS AND OMISSIONS DISCOVERED DURING CONSTRUCTION. UPON REQUEST, THE REQUIRED PLAN REVISIONS SHALL BE PROMPTLY SUBMITTED TO THE CITY ENGINEER FOR APPROVAL.

NOTICE TO CONTRACTOR

CAUTION: THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO, OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING, AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

ALL CONTRACTORS AND SUBCONTRACTORS PERFORMING WORK SHOWN ON THESE PLANS AGREE THAT, IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THEY WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT. THIS INCLUDES PROVIDING FOR THE SAFETY OF ALL PERSONS AND PROPERTY AND SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTORS AND SUBCONTRACTORS FURTHER AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE OWNER AND DESIGN PROFESSIONAL FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE DESIGN PROFESSIONAL.

PRECISE GRADING PLANS FOR RODGERS SENIOR CENTER

1706 ORANGE AVENUE
HUNTINGTON BEACH, CA
COUNTY OF ORANGE
STATE OF CALIFORNIA

BASIS OF BEARINGS

THE BEARINGS SHOWN HEREON ARE BASED UPON THE CENTERLINE OF PECAN AVENUE, BEING N 48° 45' 04" W AS SHOWN ON R.S.NO. 2015-1074 FILED IN BOOK 278, PAGES 7 & 8 OF RECORD OF SURVEYS, RECORDS OF ORANGE COUNTY.

BENCHMARK

COUNTY OF ORANGE BENCHMARK DESIGNATION: 1J-76-04

DESCRIBED BY OCS 2004 - FOUND 3 3/4" OCS ALUMINUM BENCHMARK DISK STAMPED "1J-76-04", SET IN THE WESTERLY CORNER OF A 4 FT. BY 8 FT. CONCRETE CATCH BASIN. MONUMENT IS LOCATED IN THE NORTHERLY CORNER OF THE INTERSECTION OF PACIFIC COAST HIGHWAY AND SEVENTEENTH STREET, 86 FT. NORTHEASTERLY OF THE CENTERLINE OF PCH AND 34 FT. NORTHWESTERLY OF THE CENTERLINE OF SEVENTEENTH. MONUMENT IS SET LEVEL WITH THE SIDEWALK.

ELEVATION = 29.377' [NAV D88, LEVELED IN 2005]

CONSTRUCTION NOTES/ESTIMATE OF QUANTITIES

NO.	DESCRIPTION	QUANTITY
DEMOLITION NOTES		
A	SAW CUT, REMOVE AND DISPOSE EXISTING CURB / CURB & GUTTER AND SIDEWALK	LS
B	SAW CUT, REMOVE AND DISPOSE EXISTING CURB / CURB & GUTTER AND DRIVEWAY	LS
C	SAW CUT, REMOVE AND DISPOSE EXISTING SIDEWALK	LS
GENERAL CONSTRUCTION NOTES		
①	CONSTRUCT 4" A.C./4" A.B. PAVEMENT FOR PARKING STALLS - CONFIRM SECTION WITH SOILS ENGINEER	2,530 SF
②	CONSTRUCT 4" A.C./5" A.B. PAVEMENT FOR DRIVE AISLES - CONFIRM SECTION WITH SOILS ENGINEER	6,830 SF
③	CONSTRUCT CURB PER CITY OF H.B. STD. PLAN 201, TYPE "B-2", C.F. PER PLAN	345 LF
④	CONSTRUCT CURB & GUTTER PER CITY OF H.B. STD. PLAN 202, C.F. PER PLAN	340 LF
⑤	CONSTRUCT 18" STEP-OUT CURB DETAIL 3, SHEET C-0.03	110 LF
⑥	CONSTRUCT 3" V-GUTTER PER DETAIL 3, SHEET C-0.02	87 LF
⑦	CONSTRUCT CURB RAMP PER CALTRANS DETAIL SHEET A88A, CASE C	1 EA
⑧	CONSTRUCT 4" THICK CONCRETE SURFACE PER LANDSCAPE ARCHITECT PLANS	-
⑨	NOT USED	-
⑩	PROTECT IN PLACE	-
⑪	CONSTRUCT PARKWAY AND SIDEWALK PER CITY OF H.B. STD. PLAN 207	1,395 SF
⑫	CONSTRUCT COMMERCIAL DRIVEWAY PER CITY OF H.B. STD. PLAN 211	1 EA
⑬	CONSTRUCT A.C. PAVING - 4" A.C. WITH SS-1 SEALCOAT OVER 6" MIN. A.B. - 18" WIDE	225 LF
⑭	CONSTRUCT CURB FACE TRANSITION PER DETAIL 2, SHEET C-0.02	20 LF
STORM DRAIN CONSTRUCTION NOTES		
⑯	CONSTRUCT CATCH BASIN & GRATE PER DETAIL 1, SHEET C-0.02	4 EA
⑰	CONSTRUCT 4" PVC, SDR 35, STORM DRAIN PIPE, BEDDING PER DETAIL 4, SHEET C-0.02	460 LF
⑱	NOT USED	-
⑳	CONSTRUCT PARKWAY CULVERT TYPE "B" PER CITY OF H.B. STD. PLAN 312, W = 18", MOD. SLOPE PER PLAN	2 EA
㉑	CONSTRUCT CONCRETE AND COBBLE STONE 'SPREADER' PER DETAIL 3, SHEET L-3.02	1 EA
㉒	CONSTRUCT ATRIUM DRAIN PER DETAIL 5, SHEET C-0.02	7 EA
㉓	OUTLET PVC STORM DRAIN PIPE BETWEEN BOULDERS AND GROUT IN PLACE	2 EA
SEE SHEET C-2.01 FOR WATER/SEWER CONSTRUCTION NOTES		
SEE SHEET C-3.01 FOR EROSION CONTROL CONSTRUCTION NOTES		
SEE SHEET C-4.01 FOR HORIZONTAL CONTROL & STRIPING CONSTRUCTION NOTES		

NOTICE TO CONTRACTOR:

THE ESTIMATES OF IMPROVEMENT AND GRADING QUANTITIES AS SHOWN HEREON ARE PROVIDED FOR SATISFYING PLAN CHECK INFORMATION REQUIREMENTS ONLY. THE CONTRACTOR SHALL PERFORM AN INDEPENDENT ESTIMATE OF ALL IMPROVEMENT QUANTITIES, INCLUDING GRADING QUANTITIES, AND SHALL USE SAME AS A BASIS FOR THEIR BID(S) AND CONTRACT(S).

SHEET INDEX

SHEET	NUMBER
TITLE SHEET	C-0.01
ENGINEERING DETAIL SHEET	C-0.02 TO C-0.03
PRECISE GRADING PLAN	C-1.01
WATER/SEWER PLAN	C-2.01
EROSION CONTROL PLAN	C-3.01
HORIZONTAL CONTROL & STRIPING PLAN	C-4.01

LEGEND

	PROPERTY LINE	B.O.W.	BACK OF WALK
	GRADING LIMITS	BLDG.	BUILDING
	EXISTING CONTOUR	C.B.	CATCH BASIN
	EXISTING SPOT ELEVATION	C.I.F.	CHAIN LINK FENCE
	PROPOSED CONTOUR	C&G	CURB & GUTTER
	PROPOSED SLOPE	C.L.	CENTERLINE
	EXISTING UTILITY LINE (TYPE AND SIZE AS NOTED)	C.O.	CLEANOUT
	GRADE BREAK LINE	CONC.	CONCRETE
	FLOWLINE	D.G.	DECOMPOSED GRANITE
	FLOW DIRECTION	D.W.Y.	DRIVEWAY
	STORM DRAIN & GRATE	D.F.	DRINKING FOUNTAIN
	STORM DRAIN AND CLEANOUT	ELEC.	ELECTRIC
	STREET LIGHT	E.P.	EDGE OF PAVEMENT
	VALVE	F.F.	FINISHED FLOOR
	FIRE HYDRANT	F.H.	FIRE HYDRANT
		F.L.	FLOWLINE
		F.S.	FINISHED SURFACE
		G.B.	GRADE BREAK
		H.C.	HANDICAP
		H.P.	HIGH POINT
		INV.	INVERT
		IRR. OR IRRIG.	IRRIGATION
		L.P.	LOW POINT
		M.H.	MANHOLE
		P/A	PLANTER AREA
		P.P.	POWER POLE
		P.O.C.	POINT OF CONNECTION
		R.D.	ROOF DRAIN
		R.O.W.	RIGHT OF WAY
		SD	STORM DRAIN
		ST.	STREET
		T.C.	TOP OF CURB
		T.D.	TOP OF DECK
		TEL.	TELEPHONE
		T.G.	TOP OF GRATE
		T.H.W.	TOP OF HEADWALL
		T.F.	TOP OF FOOTING
		T.O.S.	TOP OF SUBGRADE
		T.W.	TOP OF WALL
		S	SANITARY SEWER
		W	WATER
		W.I.F.	WROUGHT IRON FENCE
		W.M.	WATER METER
		W.V.	WATER VALVE

LEGAL DESCRIPTION

LOT 1, BLOCK 417, HUNTINGTON BEACH 17TH SECTION OF HUNTINGTON BEACH M.M. 4/10, RECORDS OF ORANGE COUNTY, CA
APN: 023-152-01

EARTHWORK *

AREA DISTURBED:	1.8± ACRES
CUT	40 CUBIC YARDS
FILL	2,575 CUBIC YARDS
IMPORT **	2,535 CUBIC YARDS
OVER-EXCAVATION *	1,100 CUBIC YARDS
EXISTING PAVEMENT REMOVALS *	1,250 CUBIC YARDS

* THE ABOVE CUT/FILL QUANTITIES ARE FOR PERMIT PURPOSES ONLY. THIS CALCULATION DOES NOT INCLUDE SOILS FROM BUILDING OR WALL FOOTINGS, NOR ANY UTILITY TRENCHING. THIS CALCULATION DOES NOT ACCOUNT FOR SHRINKAGE NOR SUBSIDENCE (TO BE CONFIRMED BY THE SOILS ENGINEER). REMOVALS PER THE SOILS REPORT INCLUDE 1.5 FEET BELOW THE HARDSCAPE AND PAVEMENT. CONTRACTOR SHALL REFER TO THE SOILS REPORT FOR STATEMENTS CONCERNING GRADING REQUIREMENTS. THE EXISTING PARKING LOT PAVEMENT SECTION IS UNKNOWN AND ASSUMED TO BE 8-INCHES THICK FOR THIS CALCULATION. THE GROUND ELEVATION UNDER THE EXISTING SENIOR CENTER BUILDING TO BE REMOVED IS UNKNOWN AND ASSUME TO BE AT AN ELEVATION OF 33.0. ACTUAL PAVEMENT SECTIONS AND BASEMENT ELEVATION MAY DIFFER AND THEREFORE REMOVALS MAY DIFFER.

**** NOTICE TO THE CONTRACTOR**

THE ESTIMATES OF IMPROVEMENT AND GRADING QUANTITIES AS SHOWN HEREON ARE PROVIDED FOR SATISFYING PLAN CHECK INFORMATION REQUIREMENTS ONLY. THE CONTRACTOR SHALL PERFORM AN INDEPENDENT ESTIMATE OF ALL IMPROVEMENT QUANTITIES INCLUDING GRADING QUANTITIES, AND SHALL USE SAME AS A BASIS FOR HIS BID(S) AND CONTRACT(S).

THE GRADING CONTRACTOR SHALL BE RESPONSIBLE AND ACCOUNT FOR DISTRIBUTING ANY EXCESS MATERIAL OR SUPPLYING ANY DEFICIENCIES TO BRING THE SITE TO DESIGN GRADE.

NOTE TO CONTRACTOR:

ALL GRADING AND EARTHWORK IS TO BE DONE IN ACCORDANCE WITH THE EARTHWORK SPECIFICATION AND AS DIRECTED BY THE GEOTECHNICAL ENGINEER.



APPROVED BY:
CHRIS TANIQ, PRINCIPAL C.E. DATE
R.C.E. NO. C82756 EXP. DATE: 9/30/22



31591 Camino Capistrano
San Juan Capistrano, CA 92675
www.RJMDesignGroup.com
[949] 493-2690 fax
[949] 493-2600 phone

CONSULTANT
civTEC
999 CORPORATE DR.
SUITE 100
LADERA RANCH, CA 92694
p: 949.463.8822
e: tec@civtec.net

RODGERS SENIOR CENTER SITE
1706 ORANGE AVENUE
HUNTINGTON BEACH, CA 92647



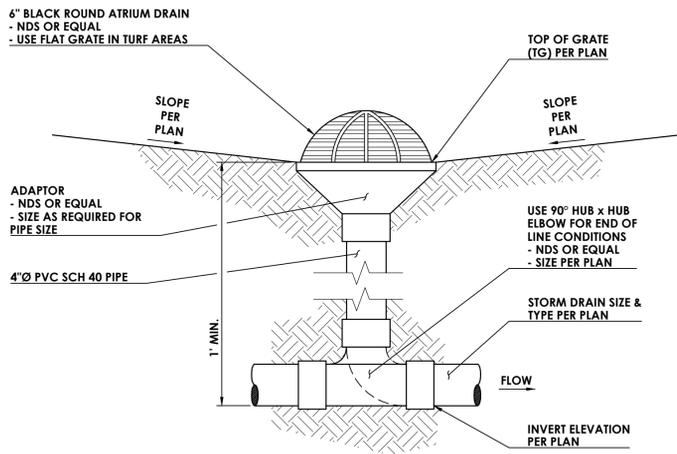
REVISIONS	DATE

SHEET TITLE
TITLE SHEET

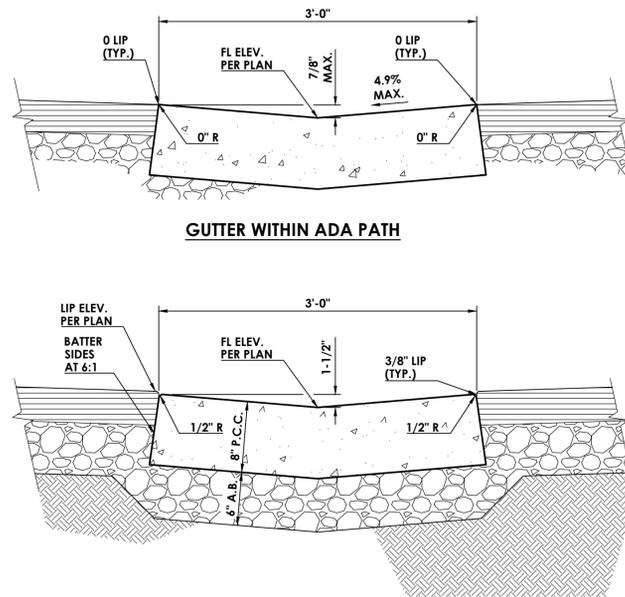
JOB #	101.175 (civTEC)
DESIGNED	TEC
DRAWN	STAFF
CHECKED	TEC
DATE	6/01/2021

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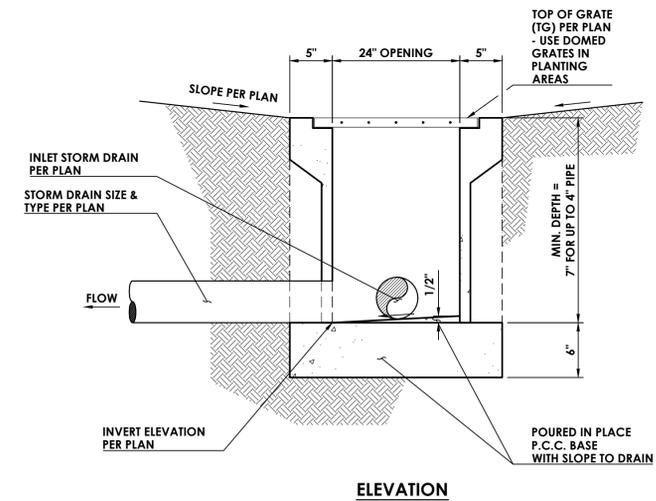
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NOTE:
USE FLAT GRATE IN TURF AREAS.



NOTE:
• USE TYPE II/V CEMENT
• LIGHT BROOM FINISH - CONFIRM FINISH W/LANDSCAPE PLAN
• ALL CONC. DRAINAGE DEVICES TO BE OF A COLOR PER LANDSCAPE ARCHITECT SPECS.

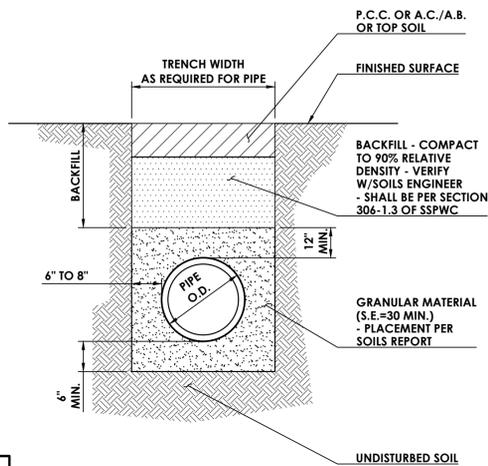


2 ROUND ATRIUM DRAIN

SCALE: N.T.S.

3 3' V-GUTTER

SCALE: N.T.S.

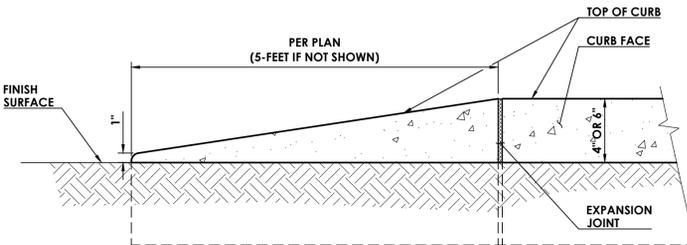


NOTE:
TRENCHES ADJACENT AND PARALLEL TO BUILDING FOUNDATIONS SHALL NOT BE BELOW A 1:1 PLANE PROJECTED DOWNWARD FROM THE BOTTOM EDGE OF THE ADJACENT FOOTING AND NOT CLOSER THAN 18" FROM THE FACE OF FOOTING. IF THIS CONDITION OCCURS THE ADJACENT FOOTING SHOULD BE DEEPENED OR THE UTILITY CONSTRUCTED AND THE TRENCH BACKFILLED AND COMPACTED PER RECOMMENDATIONS IN THE SOILS REPORT PRIOR TO FOOTING CONSTRUCTION.

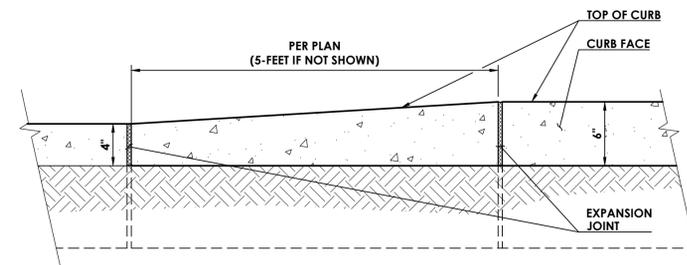
NOTE:
• SEWER AND WATER MIN. HORIZONTAL SEPARATION IS 10 FEET.
• WATER MINIMUM COVER DEPTH = 36"
• SEWER MINIMUM COVER DEPTH = 36"
- SEE PLAN
• PLACE MARKING TAPE ON ALL BURIED PIPING OUTSIDE BUILDING FOOTPRINT.

4 UTILITY BEDDING

SCALE: N.T.S.



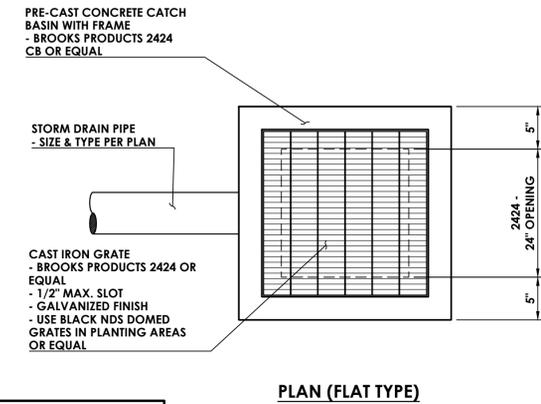
0" CURB FACE TO 4" OR 6" CURB FACE



4" CURB FACE TO 6" CURB FACE

2 C.F. TRANSITION

SCALE: N.T.S.



PLAN (FLAT TYPE)

NOTE:
• USE DOMED GRATE IN PLANTING AREAS.
• GRATES LOCATED IN ACCESSIBLE AREAS ARE TO HAVE ADA COMPLIANT OPENINGS.
• USE 3,250 p.s.i., TYPE II/V CONCRETE

1 CATCH BASIN & GRATE

SCALE: N.T.S.



APPROVED BY:
CHRIS TANIO, PRINCIPAL C.E. DATE: 9/30/22
R.C.E. NO. C82756 EXP. DATE: 9/30/22



REVISIONS	DATE

ENGINEERING
DETAIL SHEET

JOB #	101.175 (CIVITEC)
DESIGNED	TEC
DRAWN	STAFF
CHECKED	TEC
DATE	6/01/2021
SHEET	C-0.02

*** NOTE TO CONTRACTOR:**

CONTRACTOR TO VERIFY ELEVATION PRIOR TO CONSTRUCTION AND NOTIFY CIVIL ENGINEER IMMEDIATELY OF ANY DISCREPANCY.

NOTE TO CONTRACTOR:

LOCATE ALL EXISTING UTILITIES AS A FIRST ITEM OF WORK AND PROTECT THEM IN PLACE AS REQUIRED.

NOTE TO CONTRACTOR:

ALL GRADING AND EARTHWORK IS TO BE DONE IN ACCORDANCE WITH THE EARTHWORK SPECIFICATION AND AS DIRECTED BY THE GEOTECHNICAL ENGINEER.

DEMOLITION NOTES

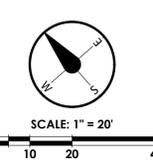
- A SAW CUT, REMOVE AND DISPOSE EXISTING CURB / CURB & GUTTER AND SIDEWALK
- B SAW CUT, REMOVE AND DISPOSE EXISTING CURB / CURB & GUTTER AND DRIVEWAY
- C SAW CUT, REMOVE AND DISPOSE EXISTING SIDEWALK

GENERAL CONSTRUCTION NOTES

- 1 CONSTRUCT 4" A.C./4" A.B. PAVEMENT FOR PARKING STALLS - CONFIRM SECTION WITH SOILS ENGINEER
- 2 CONSTRUCT 4" A.C./5" A.B. PAVEMENT FOR DRIVE AISLES - CONFIRM SECTION WITH SOILS ENGINEER
- 3 CONSTRUCT CURB PER CITY OF H.B. STD. PLAN 201, TYPE "B-2", C.F. PER PLAN
- 4 CONSTRUCT CURB & GUTTER PER CITY OF H.B. STD. PLAN 202, C.F. PER PLAN
- 5 CONSTRUCT 18" STEP-OUT CURB DETAIL 3, SHEET C-0.03
- 6 CONSTRUCT 3" V-GUTTER PER DETAIL 3, SHEET C-0.02
- 7 CONSTRUCT CURB RAMP PER CALTRANS DETAIL SHEET AB8A, CASE C
- 8 CONSTRUCT 4" THICK CONCRETE SURFACE PER LANDSCAPE ARCHITECT PLANS
- 9 NOT USED
- 10 PROTECT IN PLACE
- 11 CONSTRUCT PARKWAY AND SIDEWALK PER CITY OF H.B. STD. PLAN 207
- 12 CONSTRUCT COMMERCIAL DRIVEWAY PER CITY OF H.B. STD. PLAN 211
- 13 CONSTRUCT A.C. PAVING - 4" A.C. WITH SS-1 SEALCOAT OVER 6" MIN. A.B. - 18" WIDE
- 14 CONSTRUCT CURB FACE TRANSITION PER DETAIL 2, SHEET C-0.02

STORM DRAIN CONSTRUCTION NOTES

- 20 CONSTRUCT CATCH BASIN & GRATE PER DETAIL 1, SHEET C-0.02
- 21 CONSTRUCT 4" PVC, SDR 35, STORM DRAIN PIPE, BEDDING PER DETAIL 4, SHEET C-0.02
- 22 NOT USED
- 23 CONSTRUCT PARKWAY CULVERT TYPE "B" PER CITY OF H.B. STD. PLAN 312, W = 18", MOD. SLOPE PER PLAN
- 24 CONSTRUCT CONCRETE AND COBBLE STONE 'SPREADER' PER DETAIL 3, SHEET L-3.02
- 25 CONSTRUCT ATRIUM DRAIN PER DETAIL 5, SHEET C-0.02
- 26 OUTLET PVC STORM DRAIN PIPE BETWEEN BOULDERS AND GROUT IN PLACE



UNDERGROUND SERVICE ALERT

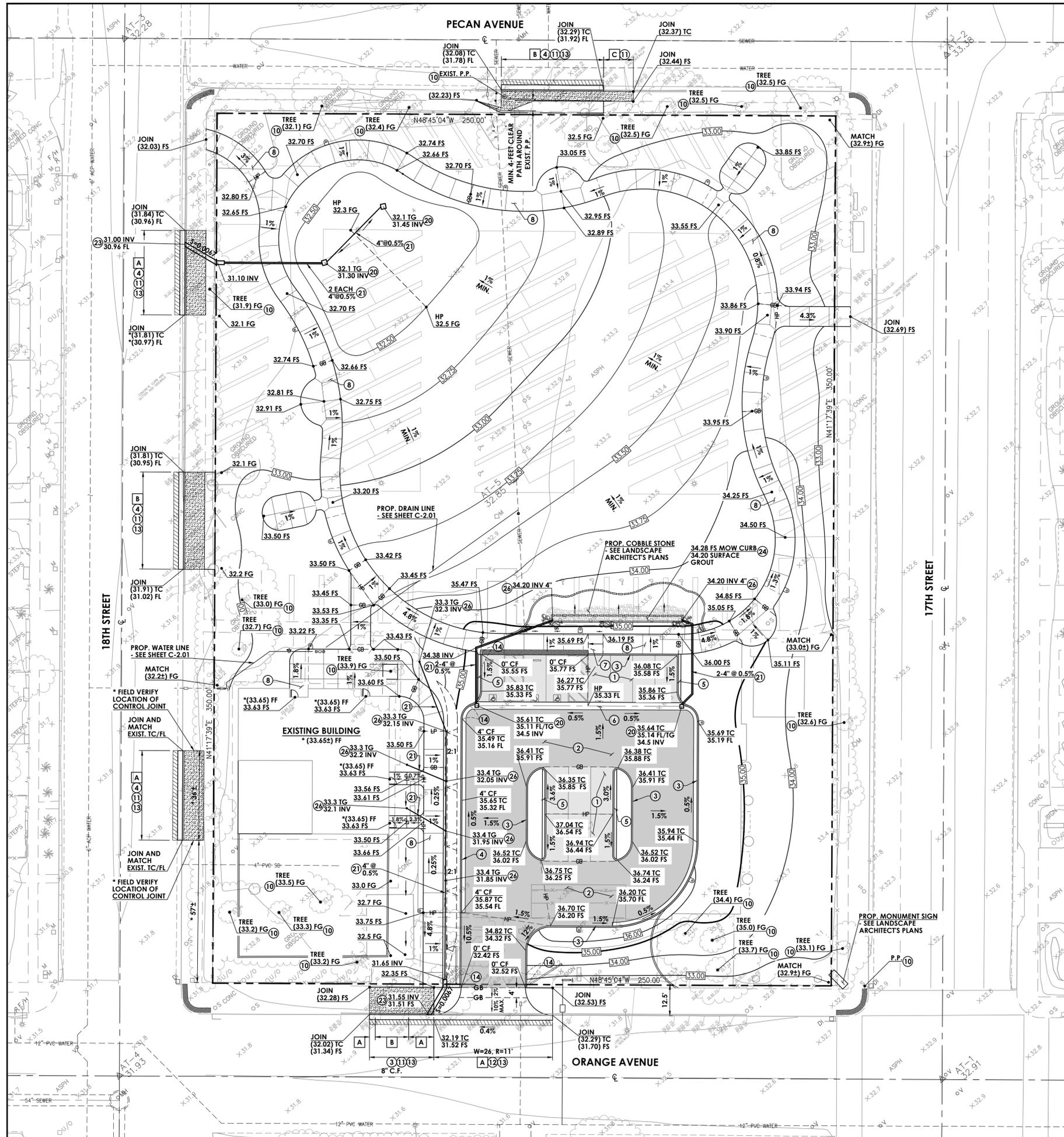
CALL: 811

TWO WORKING DAYS BEFORE YOU DIG

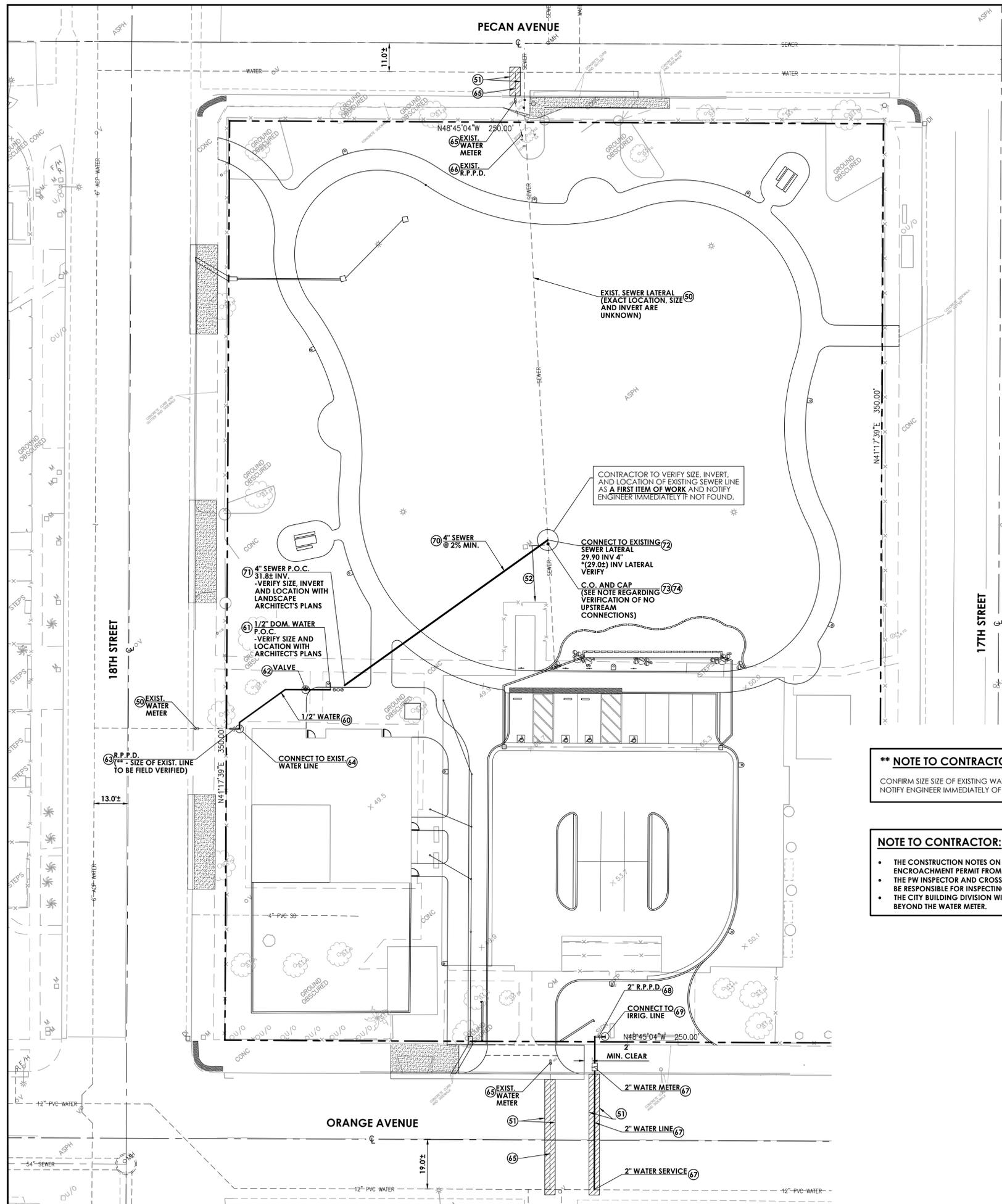
APPROVED BY:

CHRIS TANIO, PRINCIPAL C.E. DATE: 9/30/22
R.C.E. NO. C82756 EXP. DATE: 9/30/22

CITY OF HUNTINGTON BEACH
DEPARTMENT OF PUBLIC WORKS



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EXISTING UNDERGROUND STRUCTURES

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND PIPES OR CONDUITS SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE THE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNERS OF THE UTILITIES OR STRUCTURES CONCERNED BEFORE STARTING WORK. CONTRACTOR FURTHER ASSUMES ALL LIABILITY AND RESPONSIBILITY FOR THE UNDERGROUND UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN OR NOT SHOWN ON THESE PLANS. LOCATE ALL UTILITIES BEFORE CONSTRUCTION.

*** NOTE TO CONTRACTOR:**

CONTRACTOR TO VERIFY ELEVATION PRIOR TO CONSTRUCTION AND NOTIFY CITY AND CIVIL ENGINEER IMMEDIATELY OF ANY DISCREPANCY.

NOTE TO CONTRACTOR:

VERIFY EXACT SIZE, LOCATION AND INVERT OF BUILDING SEWER P.O.C. AND SIZE AND LOCATION OF BUILDING WATER P.O.C. WITH PLUMBING DRAWINGS PRIOR TO CONSTRUCTION AND COORDINATE INSTALLATION.

NOTE TO CONTRACTOR:

LOCATE ALL EXISTING UTILITIES AS A FIRST ITEM OF WORK AND PROTECT THEM IN PLACE AS REQUIRED.

WATER NOTES:

- ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE TO THE LATEST CITY OF HUNTINGTON BEACH WATER DIVISION STANDARDS.
- THE CITY OF HUNTINGTON BEACH PUBLIC WORKS WATER INSPECTOR MUST BE NOTIFIED 48 HOURS BEFORE START OF WORK AT (714) 536-5431.
- DEVELOPER IS RESPONSIBLE TO COORDINATE WITH CITY OF HUNTINGTON BEACH DEPARTMENT OF BUILDING AND SAFETY FOR THE SIZE OF WATER METER(S) AND/OR SERVICE LATERALS(S) REQUIRED. METER AND SERVICE LATERAL(S) SIZES SHOWN ON THIS PLAN WILL REQUIRE CITY BUILDING AND/OR FIRE DEPARTMENT APPROVAL. DEVELOPER IS RESPONSIBLE FOR COST OF REPLACING UNDERSIZED LATERALS & METERS DUE TO INCORRECT FIXTURE UNIT COUNTS, GALLON PER MINUTE CALCULATIONS, OR LACK OF COORDINATION WITH CITY OF HUNTINGTON BEACH DEPARTMENT OF BUILDING AND SAFETY.
- ALL UNDERGROUND PIPING BETWEEN THE METER AND BACKFLOW PROTECTION DEVICES SHALL BE SLEEVED AND BACKFILLED WITH 2-SACK SLURRY TO 12-INCHES BELOW FINISHED GRADE.
- SCREENING OF BACKFLOW PROTECTION DEVICE SHALL BE APPROVED BY THE CITY PUBLIC WORKS DEPARTMENT AND PLANNING DEPARTMENT.
- CONTRACTOR SHALL NOT TAP EXISTING MAINS WITHOUT A CERTIFIED WATER INSPECTOR PRESENT. PRESSURE TEST TAPPING SLEEVE IN CERTIFIED WATER INSPECTOR'S PRESENCE BEFORE TAPPING EXISTING MAIN.
- CITY OF HUNTINGTON BEACH WORK PRIOR TO ACCEPTANCE WILL BE LIMITED TO PLAN REVIEW AND CONSTRUCTION INSPECTION. ANY ADDITIONAL WORK BY THE CITY FORCES DEEMED NECESSARY BY CERTIFIED WATER INSPECTORS TO ENSURE COMPLIANCE WITH CITY STANDARDS WILL BE BACKCHARGED TO THE DEVELOPER OR CONTRACTOR. FINAL ACCEPTANCE WILL NOT OCCUR UNTIL REIMBURSEMENT IS RECEIVED.

NOTE: ANY WATER SERVICE WITH A FIXTURE EXCEEDING 20 FEET ABOVE THE TOP OF LOWEST CURB ELEVATION SHALL HAVE BACKFLOW PROTECTION PER CITY OF H.B. STD. PLAN 609A. COMMERCIAL AND INDUSTRIAL REQUIRE PROTECTION ALL THE TIME.

CONSTRUCTION NOTES/ESTIMATE OF QUANTITIES

NO.	DESCRIPTION	QUANTITY
GENERAL CONSTRUCTION NOTES		
50	PROTECT IN PLACE	-
51	SAWCUT AND REMOVE EXISTING PAVING. CONSTRUCT TRENCH REMOVAL AND REPLACEMENT PER CITY STD 606A.	100 LF
52	ABANDON EXIST. SEWER PER CITY STDS. AFTER CONFIRMING THERE ARE NO UPSTREAM CONNECTION	LS
PRIVATE WATER		
60	CONSTRUCT 1/2" PVC, SCH. 40 WATER LINE, BEDDING PER CITY OF H.B. STD. PLAN 606A	45 LF
61	CONNECT TO DRINKING FOUNTAIN WITH 90° SWEEP PER MANUFACTURERS SPECS.	1 EA
62	INSTALL 1/2" BALL VALVE AND VALVE BOX - 9" X 12" - TO ALLOW ROOM FOR CONNECTIONS WITH 1" CLEAR. PROVIDE 6" DEEP, 3/4" WASHED GRAVEL BELOW BALL VALVE.	1 EA
63	CUT INTO EXIST. WATER LINE AND INSTALL 2" (**) R.P.P.D. PER CITY STD. 609A	1 EA
64	CONNECT TO EXIST. WATER LINE DOWNSTREAM OF NEW R.P.P.D.	1 EA
65	ABANDON EXISTING WATER SERVICE AND AT MAIN PER CITY STD. 613. THE EXISTING WATER METER SHALL BE REMOVED AND DELIVERED TO THE UTILITIES DIVISION PER PW INSPECTOR.	2 EA
66	REMOVE EXIST. R.P.P.D.	LS
67	CONSTRUCT 2-INCH DOMESTIC WATER SERVICE AND 2-INCH METER PER CITY STD 603	1 EA
68	CONSTRUCT 2" R.P.P.D. PER CITY STD. 609A	1 EA
69	CONNECT TO IRRIG. LINE - SEE IRRIGATION PLANS	1 EA
PRIVATE SEWER		
70	CONSTRUCT PRIVATE 4" PVC SEWER (SDR 35), BEDDING PER CITY OF H.B. STD. PLAN 503	95 LF
71	CONNECT TO DRINKING FOUNTAIN PER MANUFACTURERS SPECS.	1 EA
72	CONNECT TO EXISTING SEWER LATERAL WITH SADDLE PER CITY OF H.B. STD. PLAN 511	1 EA
73	CONSTRUCT SEWER CLEAN-OUT PER CITY OF H.B. STD. PLAN 508	1 EA
74	AFTER CONFIRMING THERE ARE NO UPSTREAM CONNECTIONS, CAP END OF SEWER LATERAL	1 EA

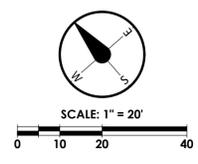
NOTICE TO THE CONTRACTOR

THE ESTIMATES OF IMPROVEMENT AND GRADING QUANTITIES AS SHOWN HEREON ARE PROVIDED FOR SATISFYING PLAN CHECK INFORMATION REQUIREMENTS ONLY. THE CONTRACTOR SHALL PERFORM AN INDEPENDENT ESTIMATE OF ALL IMPROVEMENT QUANTITIES INCLUDING GRADING QUANTITIES, AND SHALL USE SAME AS A BASIS FOR HIS BID(S) AND CONTRACT(S).

**** NOTE TO CONTRACTOR:**
CONFIRM SIZE OF EXISTING WATER LINE AS A FIRST ITEM OF WORK AND NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCY.

NOTE TO CONTRACTOR:

- THE CONSTRUCTION NOTES ON THIS SHEET (51, 45, 47) REQUIRE AN ENCROACHMENT PERMIT FROM PUBLIC WORKS
- THE PW INSPECTOR AND CROSS-CONNECTION CONTROL SPECIALIST WILL BE RESPONSIBLE FOR INSPECTING AND APPROVING THE FINAL OF THE RPPD.
- THE CITY BUILDING DIVISION WILL BE RESPONSIBLE FOR INSPECTION BEYOND THE WATER METER.



UNDERGROUND SERVICE ALERT

CALL: 811

TWO WORKING DAYS BEFORE YOU DIG

APPROVED BY:

CHRIS TANIO, PRINCIPAL C.E. DATE: 9/30/22
R.C.E. NO. C82756 EXP. DATE: 9/30/22

CITY OF HUNTINGTON BEACH
DEPARTMENT OF PUBLIC WORKS

RJM DESIGN GROUP

31591 Camino Capistrano
San Juan Capistrano, CA 92675
www.RJMDesignGroup.com
[949] 493-2690 fax
[949] 493-2600 phone

CONSULTANT

civitec

999 CORPORATE DR.
SUITE 100
LADERA RANCH, CA 92694
p: 949.463.8822
e: tec@civitec.net

RODGERS SENIOR CENTER SITE
1706 ORANGE AVENUE
HUNTINGTON BEACH, CA 92647

REVISIONS	DATE

SHEET TITLE

WATER / SEWER PLAN

JOB # 101.175 (civitec)

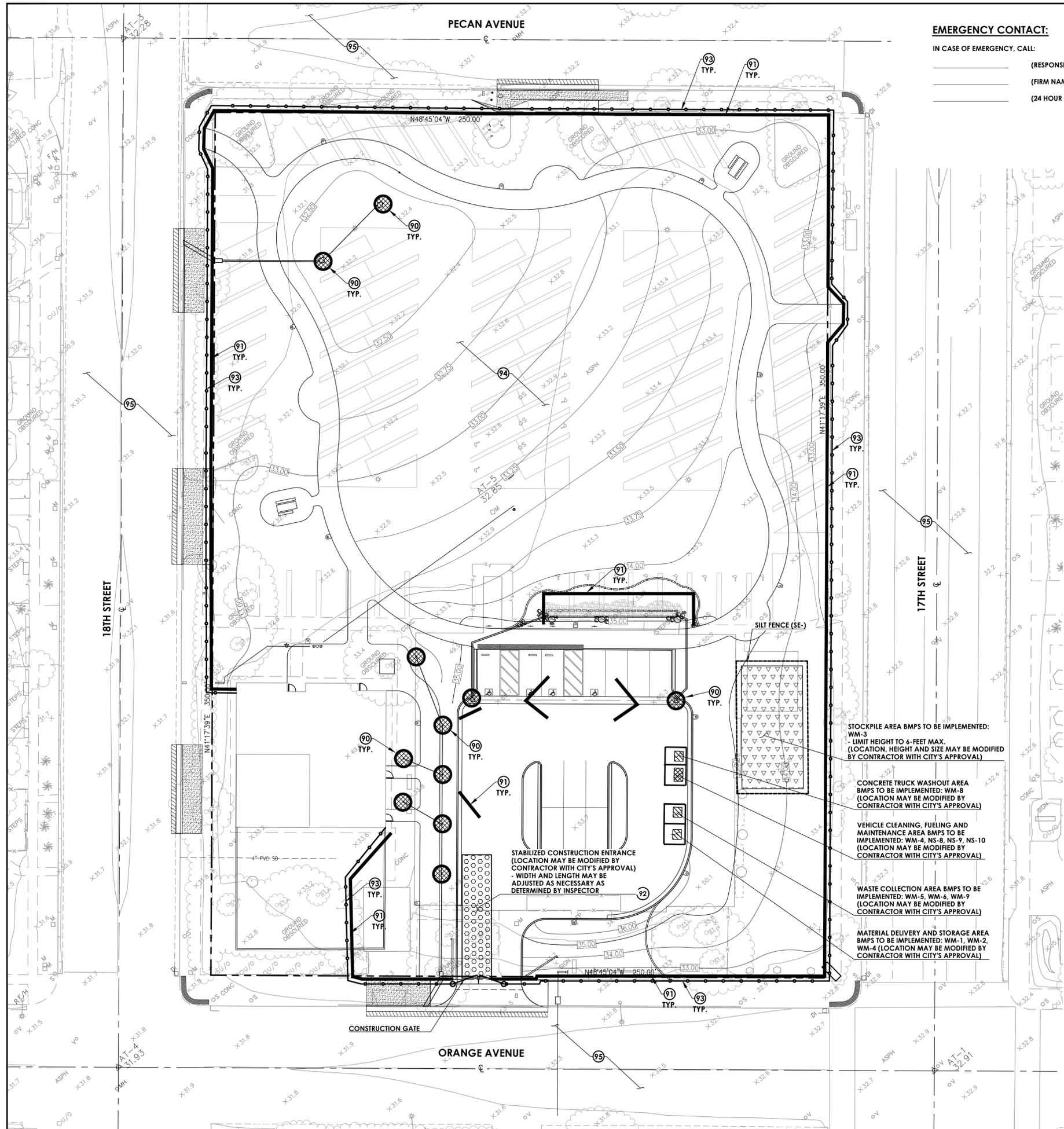
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DRAWN STAFF
CHECKED TEC
DATE 6/01/2021

SHEET

C-2.01

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EMERGENCY CONTACT:

IN CASE OF EMERGENCY, CALL:

(RESPONSIBLE PERSON)

(FIRM NAME)

(24 HOUR TELEPHONE)

TO BE FILLED IN BY CONTRACTOR

GRAVEL BAGS:

- GENERAL:** GRAVEL BAGS SHALL INCLUDE PROVIDING ALL LABOR, MATERIALS, AND EQUIPMENT TO FABRICATE AND INSTALL GRAVEL BAGS AS REQUIRED TO FACILITATE THE CONTROL OF EROSION.
- LOCATION:** GRAVEL BAGS SHALL BE PLACED PER PLAN, AND IN LOCATIONS SPECIFIED BY THE CITY, AND IN LOCATIONS DEEMED NECESSARY BY THE CONTRACTOR.
- FABRICATION:** GRAVEL BAGS SHALL BE FABRICATED USING FACTORY SEWN OR SEALED BAGS OF WOVEN POLYPROPYLENE, TREATED TO RESIST DEGRADATION BY ULTRAVIOLET LIGHT AND HAVING SUFFICIENT RESISTANCE TO TEARING TO ALLOW RELOCATION OF BAGS WITHIN SIX MONTHS OF INITIAL PLACEMENT WITH A LOSS OF NOT MORE THAN FIVE PERCENT OF THE BAGS.

THE BAGS SHALL BE FILLED WITH SUBROUNDED TO ROUNDED GRAVEL LESS THAN 3/4-INCH IN DIAMETER, WITH LESS THAN FIVE PERCENT OF MATERIAL PASSING A NO. 30 SIEVE. THE FILLED BAGS SHALL HAVE THE OPEN ENDS SECURELY FASTENED PRIOR TO DELIVERY TO THE SITE.

- INSTALLATION:** GRAVEL BAGS SHALL BE INSTALLED IN A SIDE BY SIDE MANNER TO ENTRAP SILT AND MUD, AND TO DIVERT THE FLOW OF WATER. NOTWITHSTANDING THE OTHER REQUIREMENTS OF THIS SPECIFICATION, FAILURE OF THE BAGS TO PERFORM THIS FUNCTION SHALL BE REASON TO REJECT THEIR INSTALLATION.

GRAVEL BAGS SHALL BE INSTALLED WITH THE WIDEST FACE AGAINST THE GROUND SURFACE OR THE UNDERLYING COURSE OF BAGS, AND PRESSED IN PLACE TO CONFORM TO THE UNDERLYING SURFACE. THE BAGS SHALL BE PLACED WITH THE TIED ENDS IN THE "UPHILL" OR "UPSTREAM" DIRECTION. BEGINNING AT THE LOWEST OR MOST DOWNSTREAM BAG, TIED ENDS WILL BE TUCKED UNDER BAG. SUBSEQUENT BAGS WITHIN ONE COURSE OF BAGS SHALL BE PLACED SO AS TO REST UPON THE TIED END OF THE PREVIOUSLY PLACED BAG, WITH NOT LESS THAN 10 PERCENT OF THE BAG IN CONTACT WITH THE PREVIOUS BAG, AND NOT MORE THAN 20 PERCENT IN CONTACT.

SUBSEQUENT COURSES OF BAGS SHALL BE PLACED AS DESCRIBED PREVIOUSLY, WITH THE MID-POINT OF THE BAGS STRADDLING THE JOINTS OF BAGS IN THE UNDERLYING ROW.

CONSTRUCTION OF A GRAVEL BAG BERM PERPENDICULAR TO THE DIRECTION OF FLOW SHALL INCORPORATE BAGS PLACED IN A "PYRAMID" CONFIGURATION, WITH ALL INDIVIDUAL BAGS ORIENTED PERPENDICULAR TO THE DIRECTION OF FLOW. THE BERM SHALL BE CONSTRUCTED WITH A SPECIFIED NUMBER OF ROWS AT THE BOTTOM (IN CONTACT WITH THE GROUND), WITH SUCCESSIVELY FEWER ROWS IN EACH OVERLYING COURSE. THE UPSTREAM AND DOWNSTREAM FACES OF THE BERM SHALL BE NO STEEPER THAN 1-1/2 FEET HORIZONTAL TO 1 VERTICAL.

DAMAGE WHICH COULD FORESEEABLY BE PREVENTED BY PROPER GRAVEL BAG INSTALLATION SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

CONSTRUCTION STORMWATER MITIGATION MEASURES (BMPs)

THE FOLLOWING BMP'S AS OUTLINED IN, BUT NOT LIMITED TO, THE BEST MANAGEMENT PRACTICE HANDBOOK, CALIFORNIA STORMWATER QUALITY TASK FORCE, SACRAMENTO, CALIFORNIA 2009, OR THE LATEST REVISED EDITION, APPLY DURING THE CONSTRUCTION OF THIS PROJECT. (ADDITIONAL MEASURES MAY BE REQUIRED IF DEEMED APPROPRIATE BY CITY INSPECTORS)

- | | |
|---|--|
| NS-1 WATER CONSERVATION PRACTICES * | WE-1 WIND EROSION CONTROL |
| NS-2 DEWATERING OPERATIONS * | TC-1 STABILIZED CONSTRUCTION ENTRANCE * |
| NS-3 PAVING OPERATIONS * | TC-3 ENTRANCE OUTLET TIRE WASH * |
| NS-7 POTABLE WATER/IRRIGATION * | SE-1 SILT FENCE |
| WM-1 MATERIAL DELIVERY AND STORAGE * | SE-4 CHECK DAMS |
| WM-2 MATERIAL USE * | SE-5 FIBER ROLLS |
| WM-3 STOCKPILE MANAGEMENT * | SE-6 GRAVEL BAG BERM |
| WM-4 SPILL PREVENTION AND CONTROL * | SE-7 STREET SWEEPING AND VACUUMING |
| WM-5 SOLID WASTE MANAGEMENT * | SE-9 STRAW BALE BARRIERS |
| WM-6 HAZARDOUS WASTE MANAGEMENT * | SE-10 STORM DRAIN INLET PROTECTION |
| WM-7 CONTAMINATED SOIL MANAGEMENT * | EC-1 SCHEDULING |
| WM-8 CONCRETE WASTE MANAGEMENT * | EC-2 PRESERVATION OF EXISTING VEGETATION |
| WM-9 SANITARY-SEPTIC WASTE MANAGEMENT * | EC-5 SOIL BINDERS |
| NS-8 VEHICLE AND EQUIPMENT CLEANING * | |
| NS-9 VEHICLE AND EQUIPMENT FUELING * | |
| NS-10 VEHICLE AND EQUIPMENT MAINTENANCE * | |
| NS-12 CONCRETE CURING | |
| NS-13 CONCRETE FINISHING | |

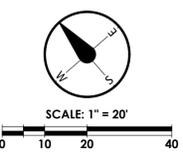
NOTE:
* LOCATIONS TO BE DETERMINED BY CONTRACTOR AND APPROVED BY CITY INSPECTOR

EROSION CONSTRUCTION NOTES:

- INSTALL INLET PROTECTION FOR CATCH BASIN (SE-10) - DRY WEATHER ONLY
- INSTALL GRAVEL BAGS (SE-8)
- INSTALL STABILIZED CONSTRUCTION ENTRANCE (TC-1)
- INSTALL CHAIN LINK CONSTRUCTION FENCE (WITH WINDSCREEN) - EXACT LOCATION TO BE APPROVED BY THE CITY
- APPLY SOIL BINDERS TO DISTURBED INACTIVE AREAS (EC-5) - APPLIES TO ENTIRE SITE
- IMPLEMENT STREET SWEEPING AND VACUUMING (SE-7)

LEGEND

- GRAVEL BAGS (SE-8)
- INLET PROTECTION (SE-10) - DRY WEATHER ONLY
- CONSTRUCTION FENCE (W/WINDSCREEN)



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APPROVED BY:
CHRIS TANIO, PRINCIPAL C.E. DATE 9/30/22
R.C.E. NO. C82756 EXP. DATE: 9/30/22

CITY OF HUNTINGTON BEACH
DEPARTMENT OF PUBLIC WORKS

CONSULTANT

civTEC

999 CORPORATE DR.
SUITE 100
LADERA RANCH, CA 92694
p: 949.463.8822
e: tec@civtec.net

RODGERS SENIOR CENTER SITE
1706 ORANGE AVENUE
HUNTINGTON BEACH, CA 92647



REVISIONS DATE

SHEET TITLE

HORIZONTAL CONTROL & STRIPING PLAN

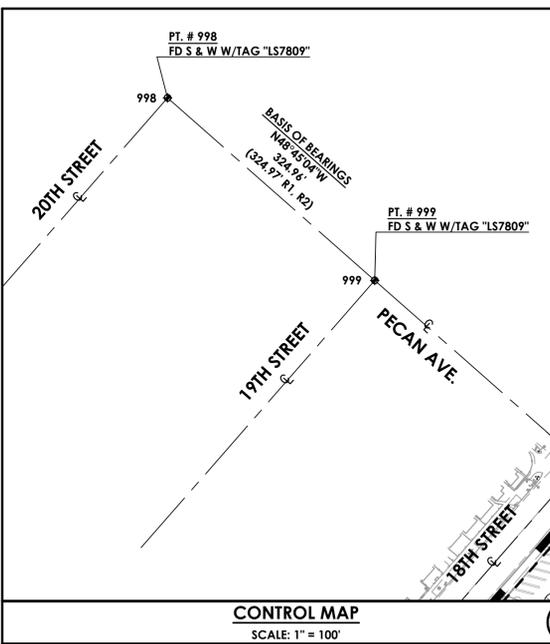
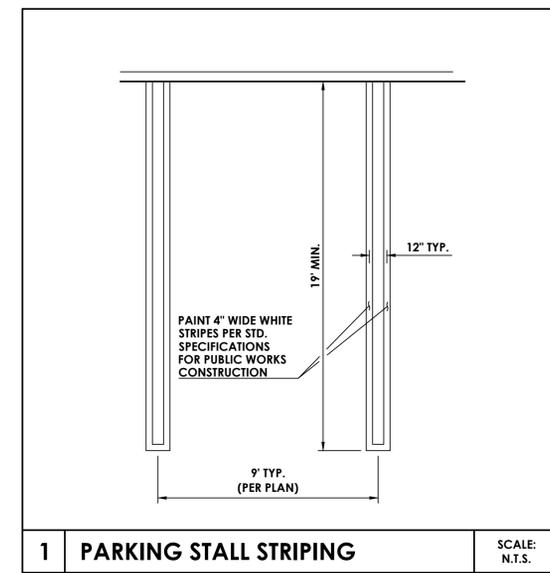
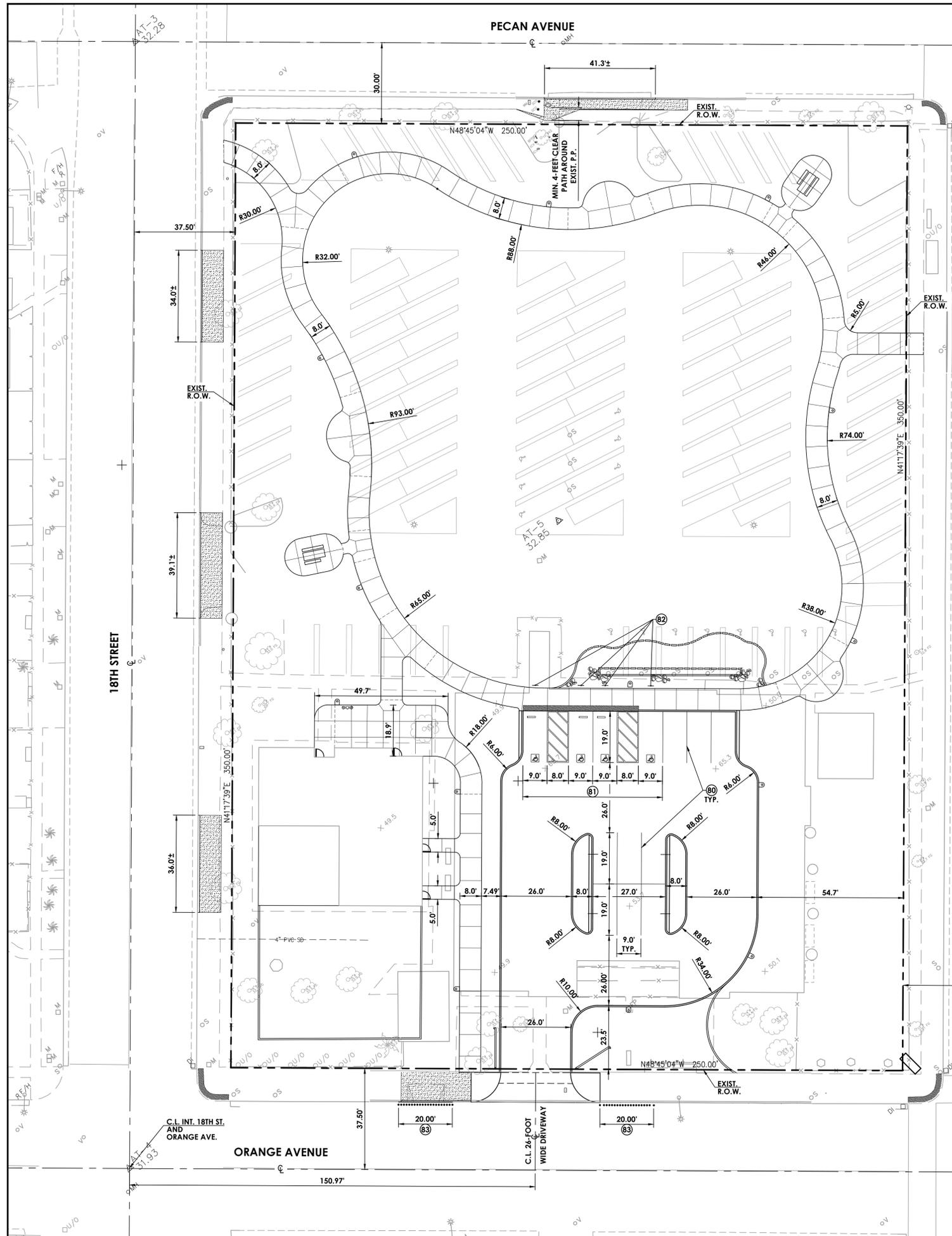
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POINT TABLE

POINT #	NORTHING	EASTING
CONTROL PT. 998	5961.44	9536.57
CONTROL PT. 999	5747.18	9780.90

SIGNING/STRIPING CONSTRUCTION NOTES & ESTIMATED QUANTITIES

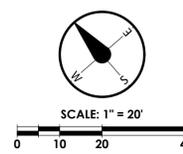
NO.	DESCRIPTION	QUANTITY
①	PAINT NEW PARKING STALL STRIPING PER DETAIL 1, SHEET C-4.01	LS
②	CONSTRUCT ADA PARKING STRIPING & WHEEL STOPS PER DETAILS 1 AND 2, SHEET C-0.03	LS
③	INSTALL ADA SIGNAGE PER DETAIL LANDSCAPE ARCHITECT'S PLANS	LS
④	PAINT CURB RED PER DETAIL 4, SHEET C-0.03	40 LF

NOTICE TO THE CONTRACTOR

THE ESTIMATES OF IMPROVEMENT AND GRADING QUANTITIES AS SHOWN HEREON ARE PROVIDED FOR SATISFYING PLAN CHECK INFORMATION REQUIREMENTS ONLY. THE CONTRACTOR SHALL PERFORM AN INDEPENDENT ESTIMATE OF ALL IMPROVEMENT QUANTITIES INCLUDING GRADING QUANTITIES, AND SHALL USE SAME AS A BASIS FOR HIS BID(S) AND CONTRACT(S).

LEGEND

- PAINT TOP AND FACE OF CURB
- OSHA SAFETY RED
- SEE DETAIL THIS SHEET



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NOTE TO CONTRACTOR:

A. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR PROVIDING COMPLETE, TIMELY AND ACCURATE FIELD LAYOUT OF THE PROPOSED SITE IMPROVEMENTS INCLUDING, BUT NOT NECESSARILY LIMITED TO, HORIZONTAL AND VERTICAL CONTROL AND DIMENSIONAL COORDINATION AS NECESSARY TO CONSTRUCT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THIS SURVEY WORK SHALL BE PERFORMED BY A LICENSED LAND SURVEYOR AND SHALL PROVIDE FOR THE SURVEY AND STAGING OF ALL CONSTRUCTION ELEMENTS INCLUDING BUT NOT LIMITED TO BUILDING LOCATIONS, PAVING EDGES/ALIGNMENT FENCINGS, WALLS, LIGHT FIXTURES, SIGNS, MOW CURBS, SEATING, SHADE STRUCTURES, PLAY FIELDS AND APPURTENANCES, CURB AND GUTTER ALIGNMENTS, CATCH BASINS, DRAINS, ETC.

B. AN AUTOCAD-COMPATIBLE .DWG FILE OF THE PROPOSED IMPROVEMENTS SHALL BE PROVIDED TO THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION FOR THEIR USE IN PREPARING THE NECESSARY FIELD SURVEYING / LAYOUT OF PROPOSED IMPROVEMENTS. THE USE OF THIS DIGITAL FILE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND IS INTENDED TO ASSIST THE SURVEYOR IN THE LAYOUT OF THE PROPOSED IMPROVEMENTS.

THESE ELECTRONIC FILES ARE NOT CONSTRUCTION DOCUMENTS. DIFFERENCES MAY EXIST BETWEEN THESE ELECTRONIC FILES AND CORRESPONDING HARD COPY CONSTRUCTION DOCUMENTS ISSUED FOR PUBLIC BID. IN THE EVENT THAT A CONFLICT ARISES BETWEEN THE SIGNED OR SEALED HARD COPY CONSTRUCTION DOCUMENTS AND THE ELECTRONIC FILES, THE SIGNED OR SEALED HARD COPY CONSTRUCTION DOCUMENTS SHALL GOVERN. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING IF ANY CONFLICT EXISTS AND SHALL BRING ANY DISCREPANCIES TO THE PROJECT LANDSCAPE ARCHITECT'S ATTENTION PRIOR TO ANY FIELD LAYOUT. BY THE CONTRACTOR'S USE OF THESE ELECTRONIC FILES, THEY ARE NOT RELIEVED OF THEIR DUTY TO FULLY COMPLY WITH THE CONTRACT DOCUMENTS, INCLUDING, AND WITHOUT LIMITATION, THE NEED TO CHECK, CONFIRM, AND COORDINATE ALL DIMENSIONS AND DETAILS, TAKE FIELD MEASUREMENTS, VERIFY FIELD CONDITIONS, AND COORDINATE THE WORK WITH THAT OF OTHER CONTRACTORS FOR THE PROJECT.

THE DIGITAL INFORMATION PROVIDED BY CIVTEC SHALL NOT BE USED FOR ANY PURPOSE OTHER THAN FOR THE PROJECT DESCRIBED ABOVE AND SHALL NOT BE RELEASED TO ANY OTHER PARTY WITHOUT THE WRITTEN CONSENT OF CIVTEC. THE INFORMATION CONTAINED ON THE ELECTRONIC MEDIA IS AN INSTRUMENT OF PROFESSIONAL SERVICES AND SHALL REMAIN THE PROPERTY OF CIVTEC.

GENERAL NOTES

1. CONTRACTOR SHALL REFERENCE ARCHITECTURAL AND/OR LANDSCAPE PLANS FOR ADDITIONAL HARDSCAPE REQUIREMENTS AND DETAILS.
2. CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING LANDSCAPE AND HARDSCAPE IMPROVEMENTS AS NECESSARY TO CONSTRUCT IMPROVEMENTS SHOWN HEREON.
3. ALL SIDEWALKS, CURB RETURNS, AND ACCESS POINTS SHALL MEET TITLE 24 AND AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS.

RECORD REFERENCE:

- R1 - R.S.No. 2015-1074 R.S.B.278/7-8
- R2 - C.R. 2019-2557

BASIS OF BEARINGS

THE BEARINGS SHOWN HEREON ARE BASED UPON THE CENTERLINE OF PECAN AVENUE, BEING N 48° 45' 04" W AS SHOWN ON R.S. NO. 2015-1074 FILED IN BOOK 278, PAGES 7 & 8 OF RECORD OF SURVEYS, RECORDS OF ORANGE COUNTY.

BENCHMARK

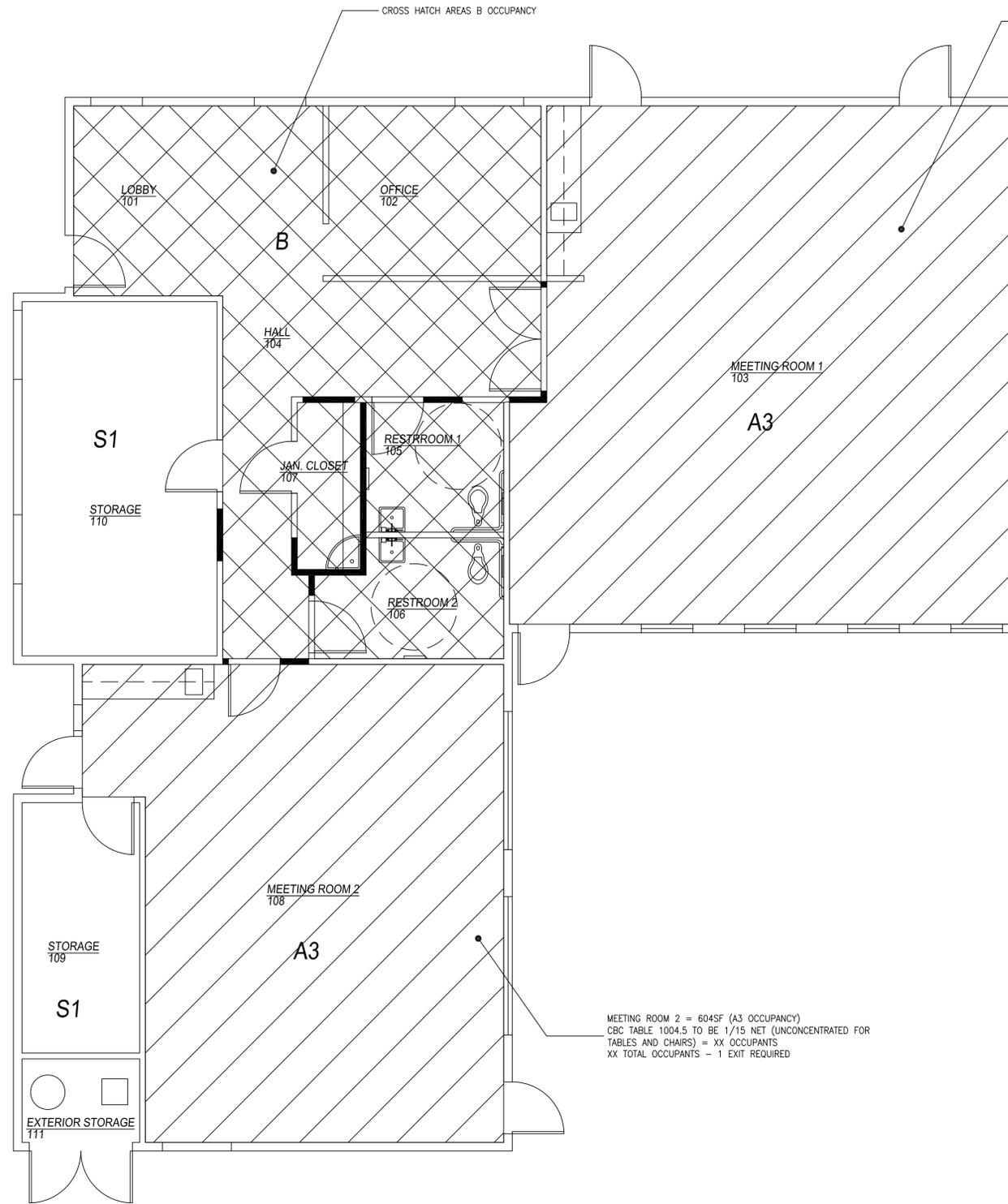
COUNTY OF ORANGE BENCHMARK DESIGNATION: 1J-76-04
DESCRIBED BY OCS 2004 - FOUND 3 3/4" OCS ALUMINUM BENCHMARK DISK STAMPED "1J-76-04", SET IN THE WESTERLY CORNER OF A 4 FT. BY 8 FT. CONCRETE CATCH BASIN. MONUMENT IS LOCATED IN THE NORTHERLY CORNER OF THE INTERSECTION OF PACIFIC COAST HIGHWAY AND SEVENTEENTH STREET, 86 FT. NORTHEASTERLY OF THE CENTERLINE OF PCH AND 34 FT. NORTHWESTERLY OF THE CENTERLINE OF SEVENTEENTH. MONUMENT IS SET LEVEL WITH THE SIDEWALK.

ELEVATION = 29.377' [NAVD88, LEVELED IN 2005]

APPROVED BY:

CHRIS TANIO, PRINCIPAL C.E. DATE: 9/30/22
R.C.E. NO. C82756 EXP. DATE: 9/30/22

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MEETING ROOM 1 = 838SF (A3 OCCUPANCY)
 CBC TABLE 1004.5 TO BE 1/15 NET (UNCONCENTRATED FOR TABLES AND CHAIRS) = XX OCCUPANTS
 XX TOTAL OCCUPANTS - 1 EXIT REQUIRED

MEETING ROOM 2 = 604SF (A3 OCCUPANCY)
 CBC TABLE 1004.5 TO BE 1/15 NET (UNCONCENTRATED FOR TABLES AND CHAIRS) = XX OCCUPANTS
 XX TOTAL OCCUPANTS - 1 EXIT REQUIRED

GENERAL NOTES

1. REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING PLANS FOR FURTHER DEMOLITION REQUIREMENTS

31591 Camino Capistrano
 San Juan Capistrano, CA 92675
 www.RJMdesigngroup.com
 (949) 493-2690 fax
 (949) 493-2600 phone

CONSULTANT
RM ARCHITECTURE
 RUBIO MEDINA, ARCHITECT
 780 ROOSEVELT
 IRVINE, CA 92620
 P: 949 333 6030
 F: 949 333 6100

RODGERS SENIOR CENTER SITE
 1706 ORANGE AVENUE
 HUNTINGTON BEACH, CA 92647

REVISIONS	DATE

SHEET TITLE
CODE COMPLIANCE

JOB #	873-10
DESIGNED	RM
DRAWN	RM
CHECKED	RM
DATE	7/09/2021

APPROVED BY:	
Michael Todd Broussard, PE	DATE
R.C.E. NO. 57144	EXP. DATE: 12/31/19

SHEET
A1.0

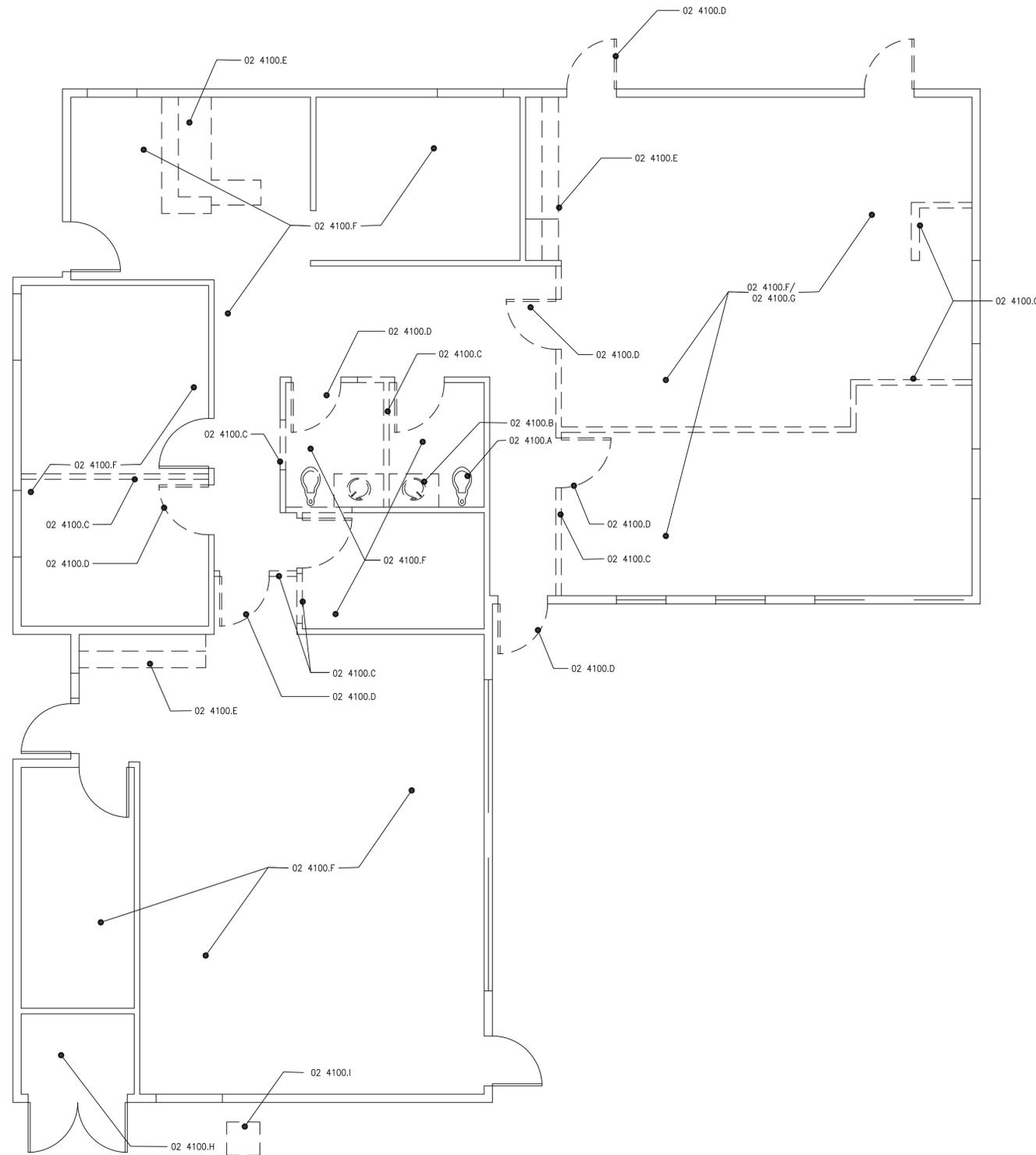
CODE COMPLIANCE PLAN

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

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DEMOLITION NOTES

1. REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING PLANS FOR FURTHER DEMOLITION REQUIREMENTS
2. REMOVE AND REPLACE EXISTING SLAB ON GRADE AS REQUIRED FOR NEW PLUMBING FIXTURES AND LINES
3. AT RESTROOMS REMOVE GYPSUM BOARD AT WALLS WHERE NEW WALL TILE IS SCHEDULE FOR INSTALLATION

CONSTRUCTION NOTES

- 02 4100 DEMOLITION
- 02 4100.A (E) WATER CLOSET TO BE REMOVED
 - 02 4100.B (E) LAVATORY AND FIXTURES TO BE REMOVED
 - 02 4100.C (E) WALL TO BE REMOVED
 - 02 4100.D (E) DOOR TO BE REMOVED
 - 02 4100.E (E) CABINETS TO BE REMOVED
 - 02 4100.F (E) FLOORING AND BASE TO BE REMOVED
 - 02 4100.G (E) CEILING GRID TO BE REMOVED AND REPLACED
 - 02 4100.H (E) WATER HEATER AND FORCED AIR UNIT TO BE REMOVED - REFER TO MECHANICAL AND PLUMBING DRAWINGS
 - 02 4100.I (E) ANTENNAE TOWER, BASE, AND WIRES TO BE REMOVED BACK TO TELECOMMUNICATIONS BACKER BOARD



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 San Juan Capistrano, CA 92675
 www.RJMDesignGroup.com
 (949) 493-2690 fax
 (949) 493-2600 phone

CONSULTANT
RM ARCHITECTURE
 RUBIO MEDINA, ARCHITECT
 780 ROOSEVELT
 IRVINE, CA 92603
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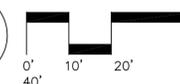
SHEET TITLE
 DEMOLITION FLOOR PLAN

JOB #	873-10
DESIGNED	RM
DRAWN	RM
CHECKED	RM
DATE	7/09/2021

SHEET
A2.0

DEMOLITION FLOOR PLAN

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



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APPROVED BY:
 Michael Todd Broussard, PE DATE
 R.C.E. NO. 57144 EXP. DATE: 12/31/19



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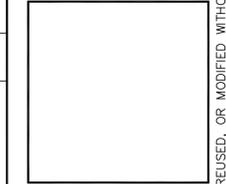


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31591 Camino Capistrano
San Juan Capistrano, CA 92675
www.RJMdesigngroup.com
[949] 493-2690 fax
[949] 493-2600 phone

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RM ARCHITECTURE
RUBIO MEDINA, ARCHITECT
780 ROOSEVELT
IRVINE, CA 92603
P: 949 333 6030
F: 949 333 6100

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REVISIONS	DATE

SHEET TITLE
REVISED FLOOR PLAN

JOB #	873-10
DESIGNED	RM
DRAWN	RM
CHECKED	RM
DATE	7/08/2021

SHEET
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GENERAL NOTES

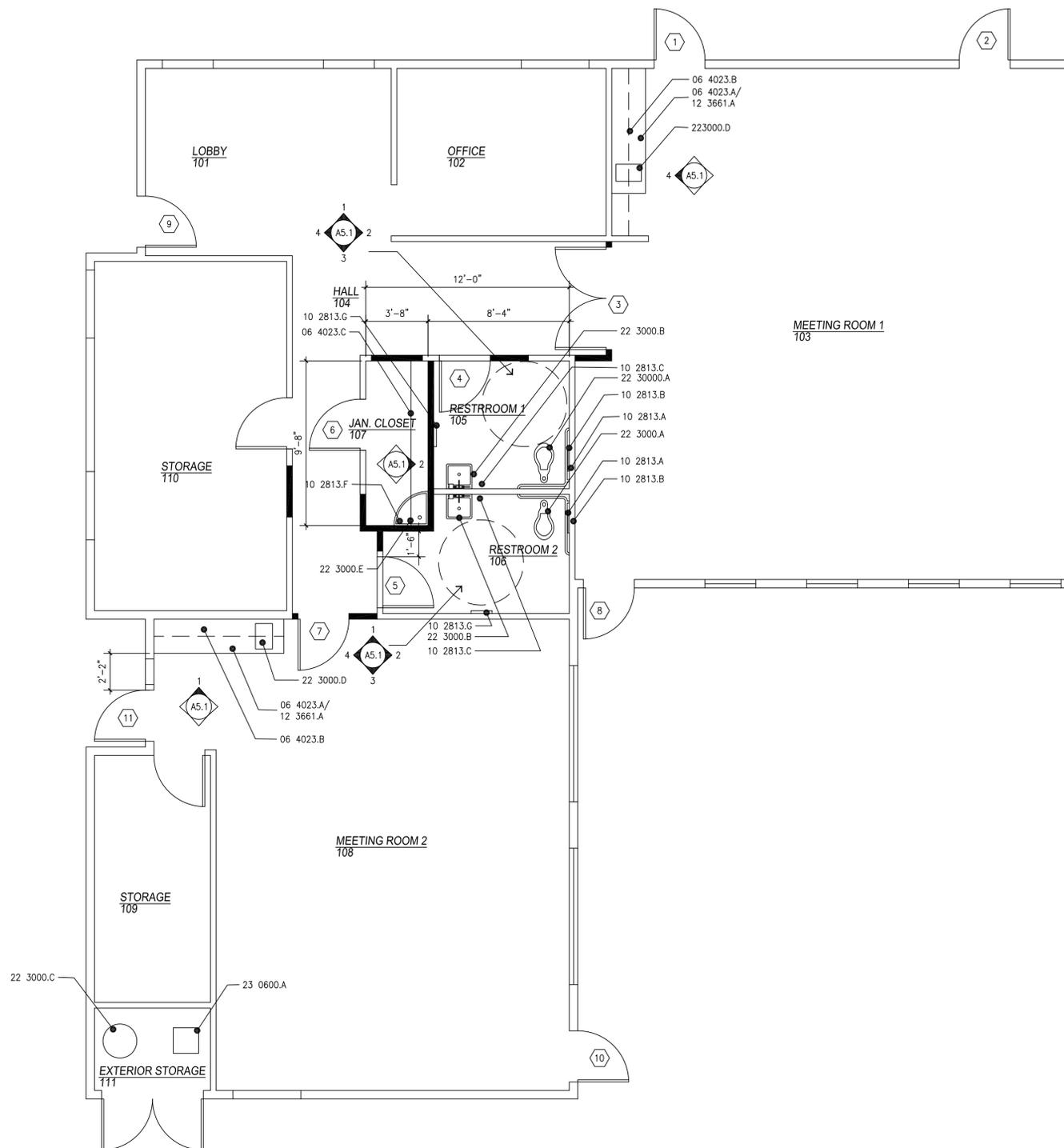
- REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING PLANS FOR FURTHER REMODEL REQUIREMENTS

CONSTRUCTION NOTES

- 06 4023 PLASTIC LAMINATE CASEWORK
- 06 4023.A BASE CABINETRY
- 06 4023.B UPPER CABINETRY
- 06 4023.C WHITE MELAMINE ADJUSTABLE SHELVING
- 10 2813 TOILET, BATH, AND LAUNDRY ACCESSORIES
- 10 2813.A RECESSED COMBINATION TOILET TISSUE DISPENSER, SEAT COVER DISPENSER, AND SANITARY NAPKIN DISPOSAL (BOBRICK B-35745)
- 10 2813.B 1 1/2" DIAMETER GRAB BAR (BOBRICK B-88137.99)
- 10 2813.C SURFACE MOUNTED SOAP DISPENSER (BOBRICK B-2012)
- 10 2813.D ANGLE FRAME MIRROR (BOBRICK B-165 1836)
- 10 2813.E SURFACE MOUNTED PAPER TOWEL DISPENSER (BOBRICK B-2621)
- 10 2813.F MOP RACK (BOBRICK B-223X24)
- 10 2813.G RECESSED PAPER TOWEL DISPENSER AND WASTE RECEPTACLE (B-3944)
- 12 3661 SIMULATED STONE COUNTERTOPS
- 12 3661.A SOLID SURFACE COUNTERTOP AND BACKSPLASH
- 22 3000 PLUMBING EQUIPMENT
- 22 3000.A WATER CLOSET - REFER TO PLUMBING DRAWINGS
- 22 3000.B WALL HUNG SINK - REFER TO PLUMBING DRAWINGS
- 22 3000.C WATER HEATER - REFER TO PLUMBING DRAWINGS
- 22 3000.D SINK - REFER TO PLUMBING DRAWINGS
- 22 3000.E MOP SINK - REFER TO PLUMBING DRAWINGS
- 23 0600 SCHEDULE FOR HVAC
- 23 0600.A FORCED AIR UNIT - REFER TO MECHANICAL DRAWINGS

WALL SYMBOLS

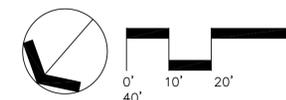
- (E) WALL TO REMAIN
- NEW METAL STUD WALL (MINIMUM 3 5/8" OR TO MATCH EXISTING) AT 16" ON CENTER - REFER TO DETAIL 14/D1.0



REVISED FLOOR PLAN

REFER TO SHEET XX FOR ACCESSIBILITY REQUIREMENTS

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



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APPROVED BY:
Michael Todd Broussard, PE DATE
R.C.E. NO. 57144 EXP. DATE: 12/31/19



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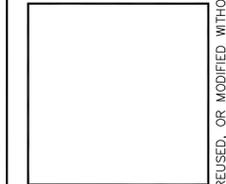


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RUBIO MEDINA, ARCHITECT
780 ROOSEVELT
IRVINE, CA 92603
P: 949 333 6030
F: 949 333 6100

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REVISIONS	DATE

SHEET TITLE
ROOF PLAN

JOB #	873-10
DESIGNED	RM
DRAWN	RM
CHECKED	RM
DATE	7/09/2021

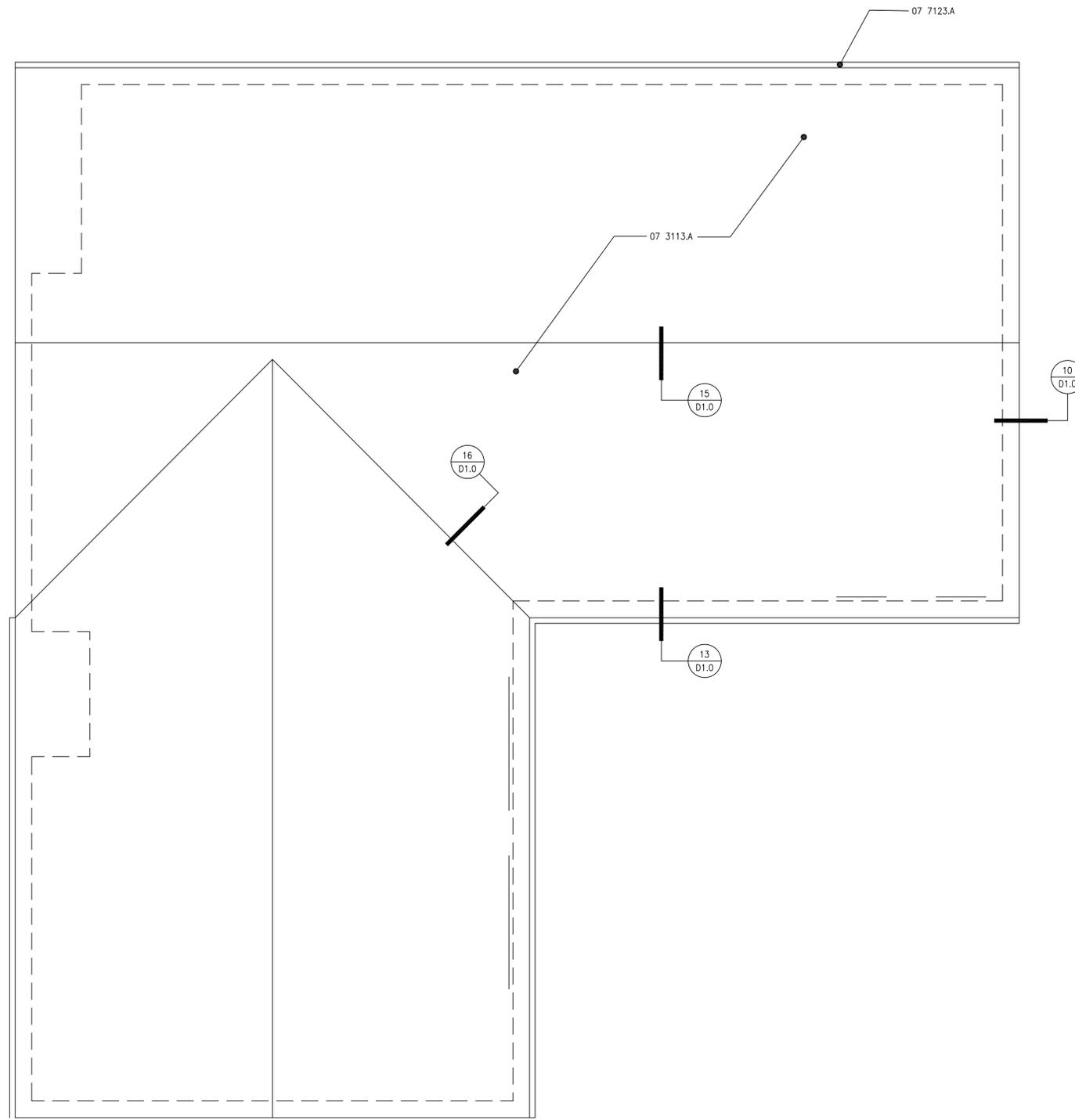
SHEET
A2.2

GENERAL NOTES

1. REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING PLANS FOR FURTHER REMODEL REQUIREMENTS
2. REMOVE EXISTING ROOFING MATERIALS TO SHEATHING AND REPLACE WITH NEW ROOFING AS SPECIFIED.
3. REMOVE EXISTING SKYLIGHTS (TOTAL OF 4) AND PROVIDE PLYWOOD SHEATHING OVER OPENINGS TO MATCH EXISTING.
4. REPLACE ALL THRU-ROOF FLASHINGS WITH xx

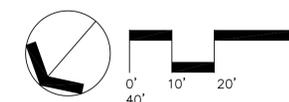
CONSTRUCTION NOTES

- 07 3113 FIBERGLASS-BASED ASPHALT SHINGLES
07 3113.A NEW SHINGLE ROOFING
- 07 7123 GUTTER AND DOWNSPOUT
07 7123.A NEW GUTTER SYSTEM
07 7123.B NEW DOWNSPOUT TO CONCRETE SPLASH BLOCK



ROOF FLOOR PLAN

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



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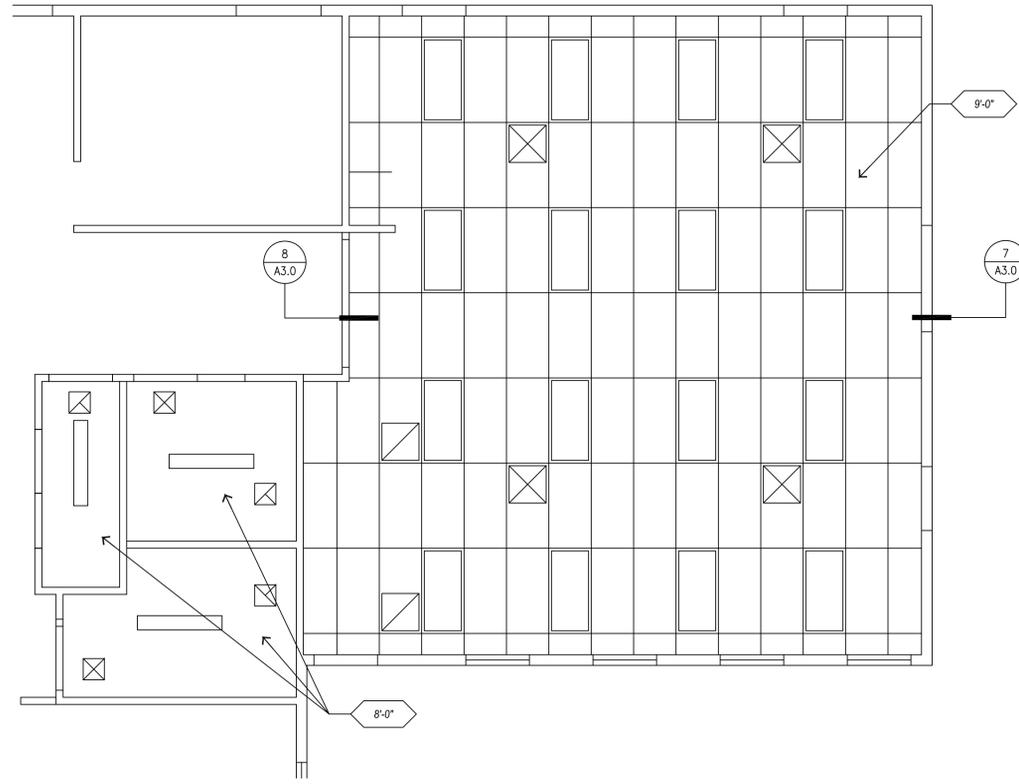
APPROVED BY:

Michael Todd Broussard, PE DATE
R.C.E. NO. 57144 EXP. DATE: 12/31/19



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REFLECTED CEILING PLAN

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

NUMBER	ROOM	FLOOR		BASE		WALLS		CEILING		REMARKS
		SHEET VINYL	CERAMIC TILE	RUBBER TOPSET	CERAMIC TILE	GYPSUM BOARD	CERAMIC TILE	ACOUSTIC GRID AND LAY IN TILE		
101	LOBBY									1
102	OFFICE									1
103	MEETING ROOM 1									1
104	HALL									1
105	RESTROOM 1									1
106	RESTROOM 2									1
107	JANITOR CLOSET									1
108	MEETING ROOM 2									1
109	STORAGE									1
110	STORAGE									1
111	EXTERIOR STORAGE									1

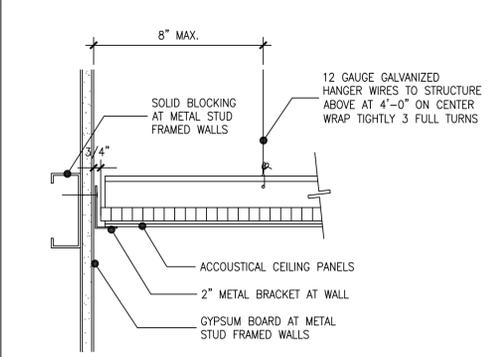
REMARKS
1. EXISTING CEILING TO REMAIN IN PLACE. AT GYPSUM BOARD LOCATIONS - PATCH, REPAIR, AND PAINT

FINISH SCHEDULE

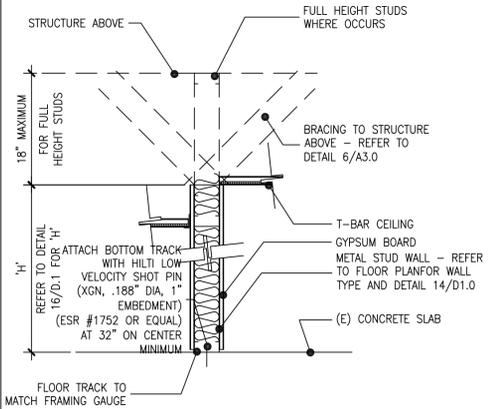
NUMBER	LOCATION (ROOM)	SIZE	TYPE	THICKNESS	CORE	FRAME	HARDWARE SET	DETAILS	
								HEAD/JAMB	THRESHOLD
1	103	3'0"X8'0"	B	1 3/4"	HM	HM	2	.	3
2	103	3'0"X8'0"	B		HM	HM	2	.	3
3	103	3'0"X7'0"	AA		WD	HM	5	6/D1.0	
4	105		A				3		
5	106						3		3/D1.0
6	107						4		5
7	108						4		
8	103	3'0"X8'0"	B		HM	HM	2		3
9	101	EXIST					1		4
10	108	EXIST					2		4
11	108	EXIST					2		4

REMARKS
1. DOOR HARDWARE TO BE LOCATED 34" MINIMUM TO 44" MAXIMUM ABOVE FINISH FLOOR PER CBC 11B-404 PER CBC 11B-404
2. MAXIMUM SLB EFFORT TO OPEN DOOR PER CBC 11B-404
3. REUSE EXISTING DOOR FRAME - INSTALL NEW DOOR AND HARDWARE AS SCHEDULED
4. INSTALL NEW HARDWARE ONLY AS SCHEDULED
5. UNDERCUT DOOR BY 1"

DOOR SCHEDULE



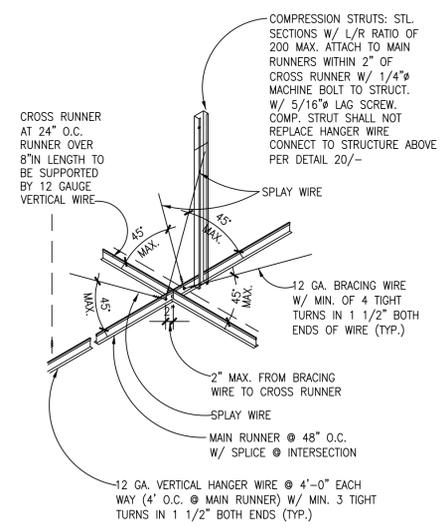
7 T-BAR CEILING TO WALL
3"=1'-0" TBAR02



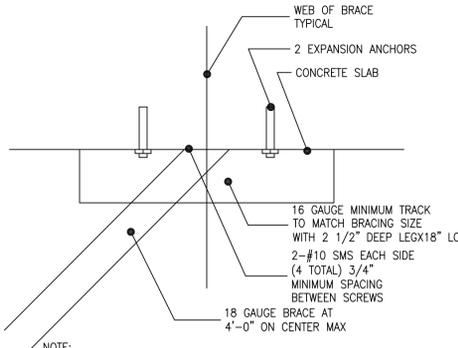
8 TYPICAL WALL DETAIL
1 1/2"=1'-0" TBAR04

ALLOWABLE STRUT HEIGHTS	
METAL STUD SIZE	MAXIMUM HEIGHT
3 5/8"x20 GA.	9'-0"
3 5/8"x18 GA.	12'-0"

- NOTES:
- PROVIDE STRUTS TO STRUCTURE ABOVE AT 12'-0" ON CENTER EACH WAY WITH A SIX FEET MAXIMUM DISTANCE FROM ANY WALL
 - SPLAY WIRES SHALL START A MAXIMUM OF SIX FEET FROM ANY WALL AND SHALL BE LOCATED AT THE SAME INTERSECTION AS THE STRUTS
 - SYSTEM TO COMPLY WITH ESR-1308 OR EQUIVALENT ICC APPROVED SYSTEM
 - GRID TO BE HEAVY DUTY TYPE



5 T-BAR BRACING
1"=1'-0" TBAR05



- NOTE:
- EXPANSION ANCHORS ARE HILTI CARBON STEEL KWIK BOLT TZ (SPECIAL INSPECTION REQUIRED)
 - 3/8" EXPANSION ANCHORS SHALL HAVE 6 3/4" MINIMUM SPACING AND 6" MINIMUM EDGE DISTANCE
 - EXPANSION ANCHORS SHALL BE 3/8" DIAMETER WITH 2" EMBEDMENT

6 BRACE CONNECTION DETAIL
3"=1'-0" 04-CEILING CONNECTION

GENERAL NOTES

- REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING PLANS FOR FURTHER IMPROVEMENTS
- ALL OTHER SPACES TO REMAIN AS EXISTING - PROTECT IN PLACE

CONSTRUCTION NOTES

- 09 2116 GYPSUM BOARD ASSEMBLIES
02 2116.A PATCH, REPAIR, AND PAINT (E) GYPSUM BOARD SURFACES
- 09 5110 SUSPENDED ACOUSTICAL CEILING
09 5110.A NEW CEILING GRID AND ACOUSTICAL TILES - REFER TO DETAIL 5/A3.0
- 09 9000 PAINTS AND COATINGS
09 9000.A PAINT GYPSUM BOARD SURFACE

CEILING SYMBOLS

- DENOTES CEILING HEIGHT REFERENCED TO FINISHED FLOOR ELEVATION OF ROOM
- 2X2 GRID WITH ACOUSTICAL LAY IN TILE REFER TO DETAIL 6/D.1
- RECESSED LIGHT FIXTURE - REFER TO ELECTRICAL DRAWINGS
- SURFACE MOUNTED LIGHTS - REFER TO ELECTRICAL DRAWINGS
- PENDANT MOUNTED LIGHTS - REFER TO ELECTRICAL DRAWINGS
- ⊗ SUPPLY AIR DUCT - REFER TO MECHANICAL DRAWINGS
- ⊗ RETURN AIR DUCT - REFER TO MECHANICAL DRAWINGS
- ⊗ TRANSFER AIR DUCT - REFER TO MECHANICAL DRAWINGS
- ⊗ EXIT SIGN - REFER TO ELECTRICAL DRAWINGS

RJM DESIGN GROUP

31591 Camino Capistrano
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CONSULTANT
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780 ROOSEVELT
IRVINE, CA 92620
P: 949 333.6030
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REVISIONS	DATE

SHEET TITLE
REFLECTED CEILING PLAN

JOB #	873-10
DESIGNED	RM
DRAWN	RM
CHECKED	RM
DATE	7/09/2021

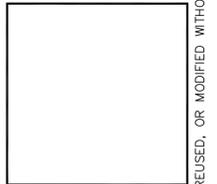
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A3.0

APPROVED BY:
Michael Todd Broussard, PE DATE
R.C.E. NO. 57144 EXP. DATE: 12/31/19

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REVISIONS	DATE

SHEET TITLE
EXTERIOR ELEVATIONS

JOB #	873-10
DESIGNED	RM
DRAWN	RM
CHECKED	RM
DATE	7/09/2021

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A5.0

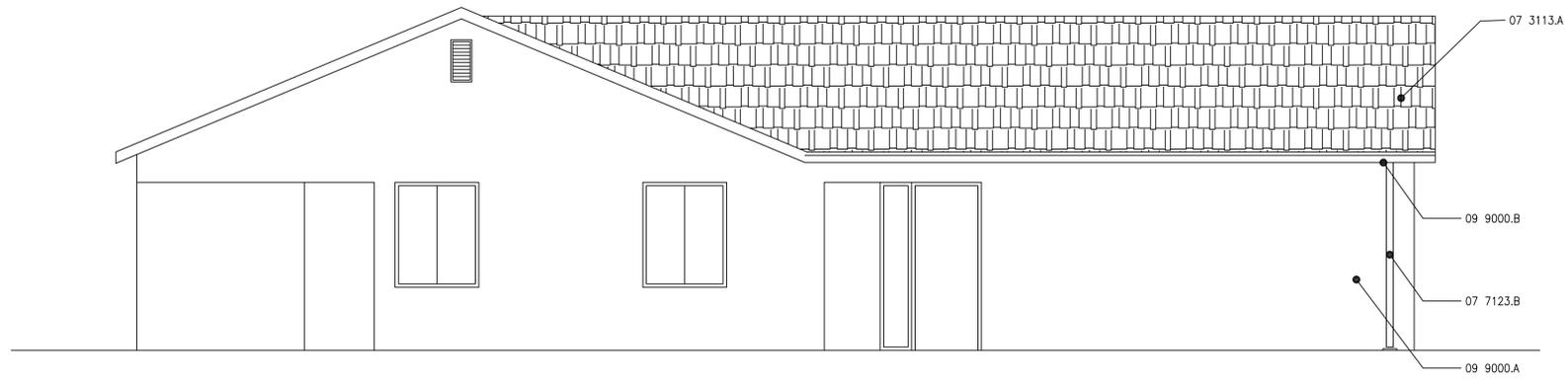
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DEMOLITION NOTES

1. REMOVE EXISTING SKYLIGHTS AND INSTALL PLYWOOD SHEATHING OVER OPENING

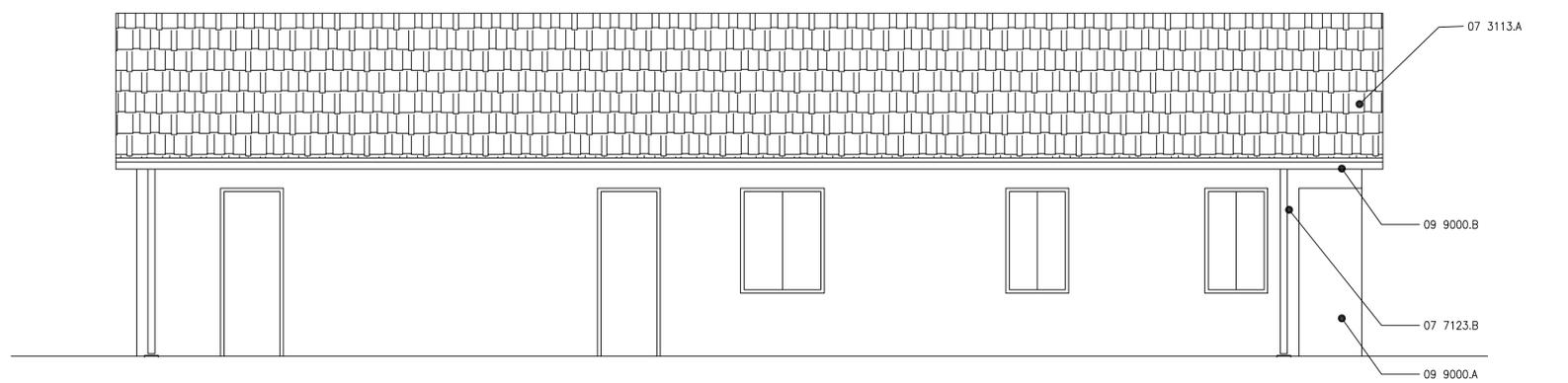
CONSTRUCTION NOTES

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- 07 3113.A NEW SHINGLE ROOFING
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- 07 7123.A NEW GUTTER SYSTEM
- 07 7123.B NEW DOWNSPOUT TO CONCRETE SPLASH BLOCK
- 09 9000 PAINTINGS AND COATINGS
- 09 9000.A EXISTING STUCCO TO BE PAINTED
- 09 9000.B EXISTING WOOD TRIM TO BE PAINTED



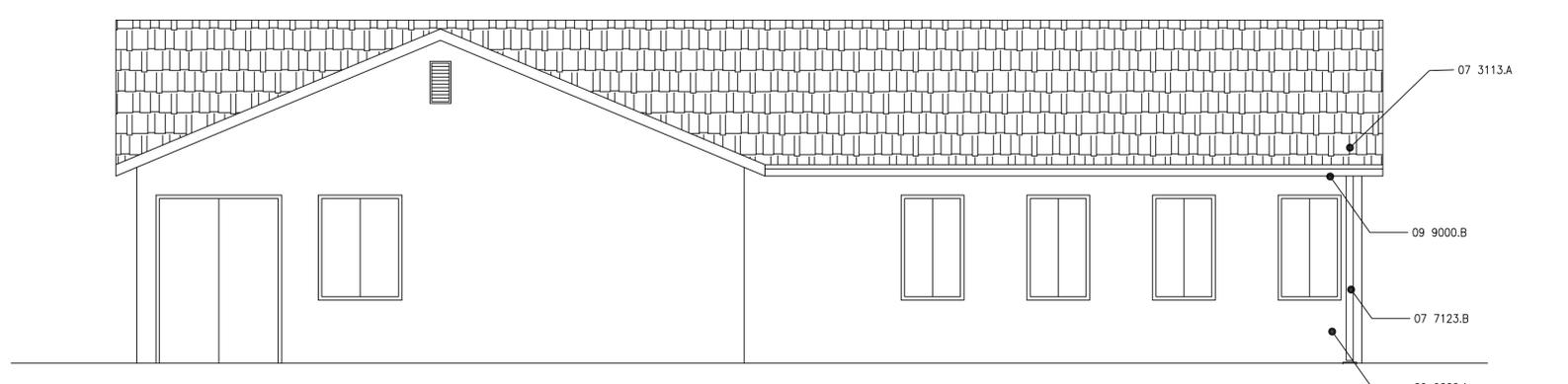
NORTH ELEVATION

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



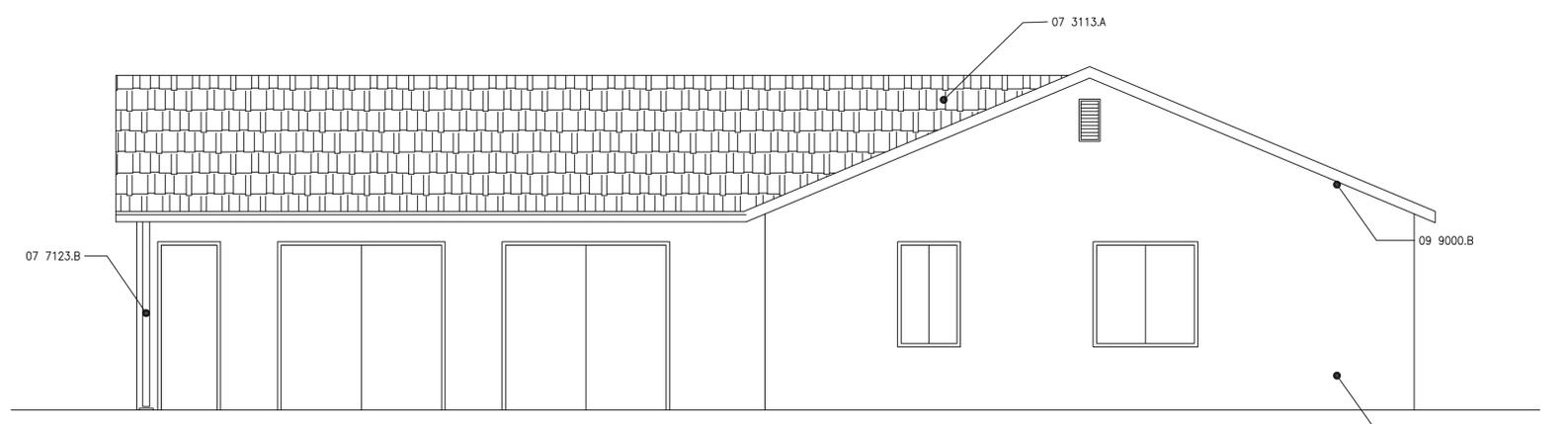
EAST ELEVATION

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



SOUTH ELEVATION

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

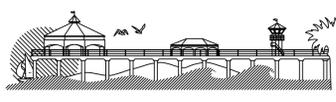


WEST ELEVATION

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

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APPROVED BY:
Michael Todd Broussard, PE DATE
R.C.E. NO. 57144 EXP. DATE: 12/31/19



CITY OF HUNTINGTON BEACH
DEPARTMENT OF PUBLIC WORKS

REVISIONS	DATE

REVISIONS	DATE

SHEET TITLE	INTERIOR ELEVATIONS
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JOB #	873-10
DESIGNED	RM
DRAWN	RM
CHECKED	RM
DATE	7/09/2021

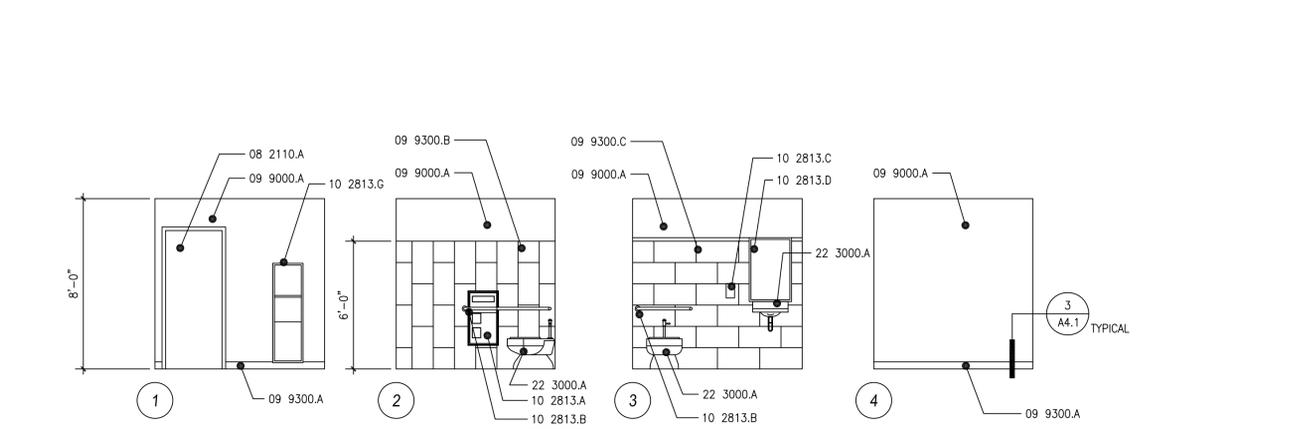
SHEET	A4.1
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GENERAL NOTES

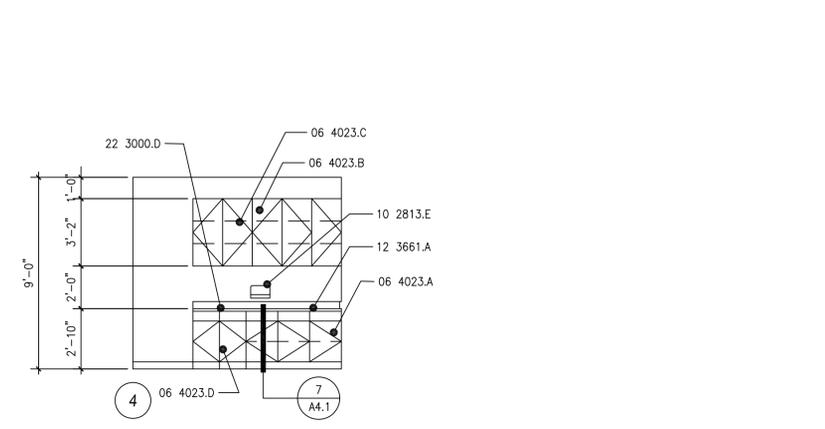
- REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING PLANS FOR FURTHER REQUIREMENTS

CONSTRUCTION NOTES

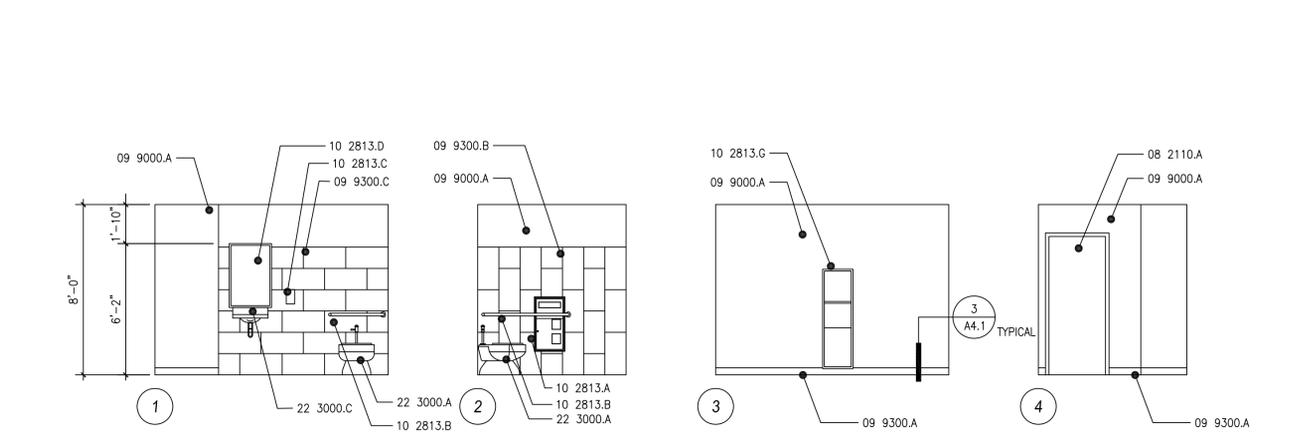
- 06 4023 PLASTIC LAMINATE CASEWORK
- 06 4023.A BASE CABINETRY
- 06 4023.B UPPER CABINETRY
- 06 4023.C WHITE MELAMINE SHELVING AND SUPPORTS
- 06 4023.D BASE AND CABINETRY DOOR TO BE ONE LEAF TO OPEN FULLY TO ALLOW FOR ACCESSIBLE ACCESS AT SINK
- 08 2110 WOOD DOORS
- 08 2110.A WOOD DOOR - REFER TO DOOR SCHEDULE
- 09 6516 RESILIENT FLOORING
- 09 6516.A COVED BASE
- 09 7720 FIBERGLASS REINFORCED PANELS
- 09 7720.A FIBERGLASS REINFORCED WAINSCOT PANELING SYSTEM
- 09 9000 PAINTINGS AND COATINGS
- 09 9000.A PAINTED GYPSUM BOARD
- 09 9300 CERAMIC TILE
- 09 9300.A CERAMIC TILE BASE
- 09 9300.B CERAMIC TILE - FIELD COLOR
- 09 9300.C CERAMIC TILE - ACCENT COLOR
- 10 2813 TOILET, BATH, AND LAUNDRY ACCESSORIES
- 10 2813.A RECESSED COMBINATION TOILET TISSUE DISPENSER, SEAT COVER DISPENSER, AND SANITARY NAPKIN DISPOSAL (BOBRICK B-35745)
- 10 2813.B 1 1/2" DIAMETER GRAB BAR (BOBRICK B-68137.99) REFER TO DETAIL 15/A4.1
- 10 2813.C SURFACE MOUNTED SOAP DISPENSER (BOBRICK B-2012)
- 10 2813.D ANGLE FRAME MIRROR (BOBRICK B-165 1836)
- 10 2813.E SURFACE MOUNTED PAPER TOWEL DISPENSER (BOBRICK B-2621)
- 10 2813.F MOP RACK (BOBRICK B-223X24)
- 10 2813.G RECESSED PAPER TOWEL DISPENSER AND WASTE RECEPTACLE (B-3944)
- 12 3661 SIMULATED STONE COUNTERTOPS
- 12 3661.A SOLID SURFACE COUNTERTOP AND BACKSPLASH
- 22 3000 PLUMBING EQUIPMENT
- 22 3000.A WATER CLOSET - REFER TO PLUMBING DRAWINGS
- 22 3000.B WALL HUNG SINK - REFER TO PLUMBING DRAWINGS
- 22 3000.C WATER HEATER - REFER TO PLUMBING DRAWINGS
- 22 3000.D SINK - REFER TO PLUMBING DRAWINGS



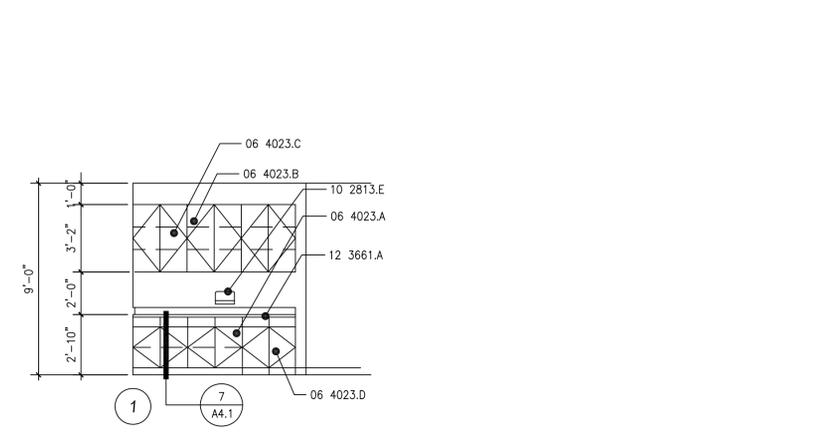
RESTROOM 1 (105) REFER TO SHEET D1.0 FOR ACCESSIBILITY REQUIREMENTS SCALE: 1/4"=1'-0"



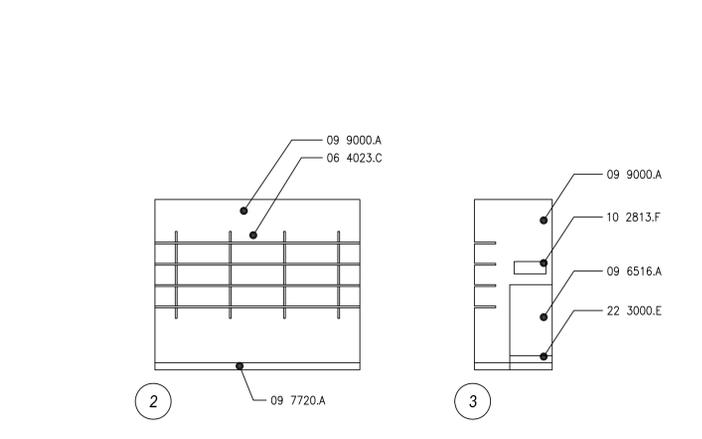
MEETING ROOM 1 (103) REFER TO SHEET D1.0 FOR ACCESSIBILITY REQUIREMENTS SCALE: 1/4"=1'-0"



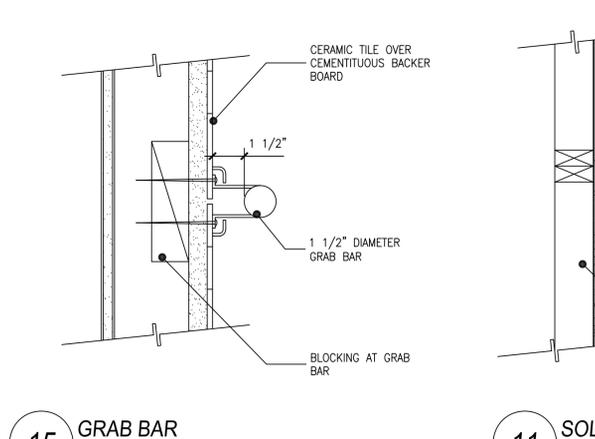
RESTROOM 2 (106) REFER TO SHEET D1.0 FOR ACCESSIBILITY REQUIREMENTS SCALE: 1/4"=1'-0"



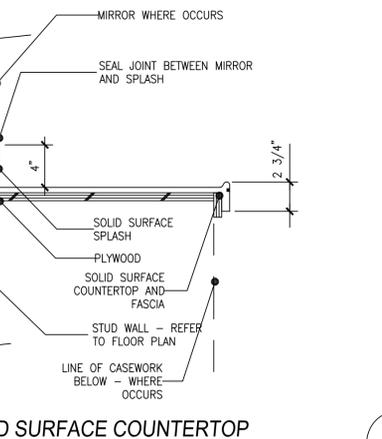
MEETING ROOM 2 (108) REFER TO SHEET D1.0 FOR ACCESSIBILITY REQUIREMENTS SCALE: 1/4"=1'-0"



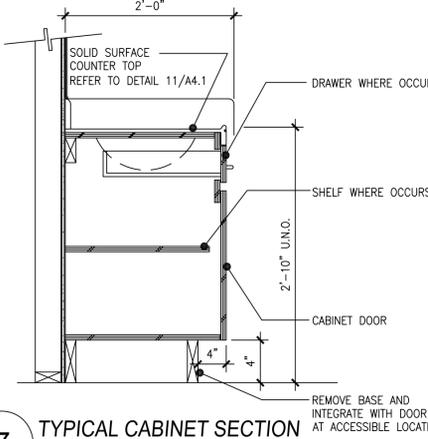
JANITOR CLOSET (107) SCALE: 1/4"=1'-0"



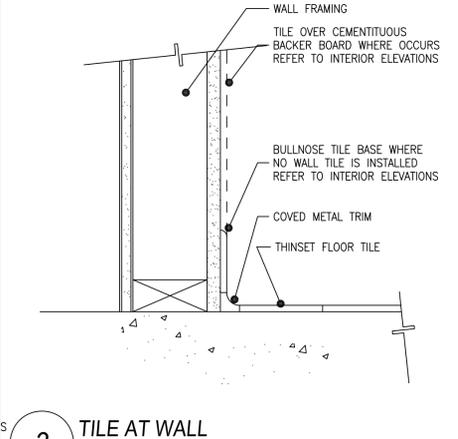
15 GRAB BAR 3"=1'-0"



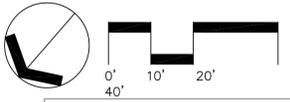
11 SOLID SURFACE COUNTERTOP 1 1/2"=1'-0"



7 TYPICAL CABINET SECTION 1"=1'-0"



3 TILE AT WALL 3"=1'-0"



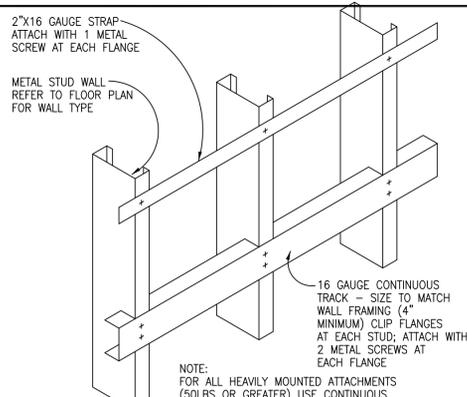
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APPROVED BY:

Michael Todd Broussard, PE	DATE
R.C.E. NO. 57144	EXP. DATE: 12/31/19



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13 BLOCKING DETAIL
NTS

STUD SIZE	FRAME SPACING (in) O.C.	MAX HEIGHT ("H" OR "H" + 18")
350S125-30	16	13' 7"
350S125-33	16	14' 3"

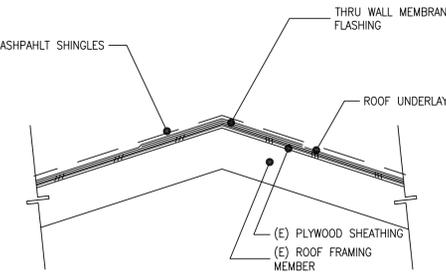
FRAMING NOTES

- ALL FRAMING COMPONENTS SHALL BE CUT SQUARELY OR AT AN ANGLE AS REQUIRED TO SQUARELY FIT AGAINST ABUTTING MEMBERS. MEMBERS SHALL BE HELD FIRMLY IN POSITION UNTIL PROPERLY FASTENED.
- STUDS AND TRACKS SHALL BE ATTACHED BY WELDING OR SELF DRILLING SCREWS AS NOTED ON THE DRAWINGS.
- RUNNER TRACKS SHALL BE THE SAME GAUGE AS STUDS SUPPORTED, UNLESS OTHERWISE NOTED. TRACKS SHALL BE FASTENED TO STRUCTURE AT 24" O.C. MAXIMUM WITH #10 WOOD SCREW UNLESS OTHERWISE NOTED.
- PROVIDE BLOCKING OF WALL STUDS AT 4'-0" O.C. MAXIMUM WHERE SHEATHING IS NOT PRESENT ON BOTH SIDES OF STUDS.
- FRAMING TO BE SECURED WITH SELF DRILLING AND SELF TAPPING PAN HEADS MINIMUM NO. 8 OR AS SHOWN ON THE DETAILS.
- MAXIMUM HEIGHT TO STRUCTURE IS 12'-0", 9'-0" TO EXISTING T-BAR CEILING GRID. NOTIFY OWNER FOR HEIGHTS EXCEEDING MAXIMUM HEIGHTS.

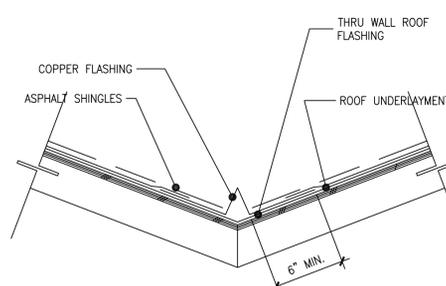
NOTES:

- BASED ON 7.5psf, L/240 DEFLECTION
- FOR 3 5/8" STUD DEPTHS (362S125-30 AND 33) USE VALUES FOR 3 1/2" STUDS (350S125-30 AND 33)

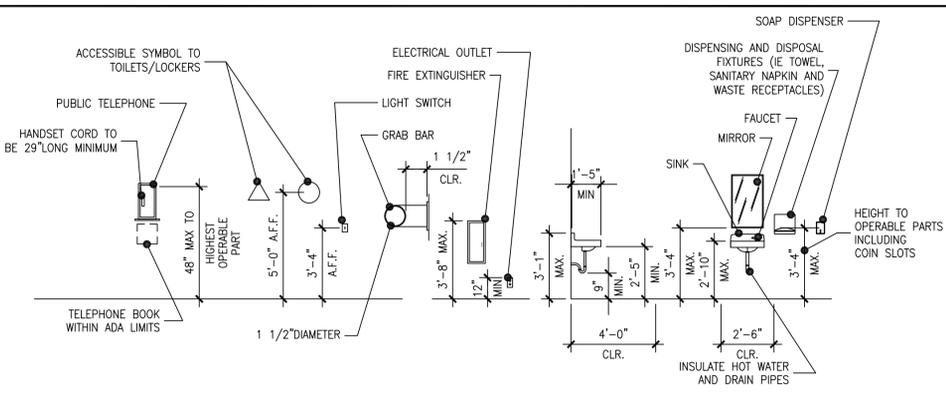
14 INTERIOR PARTITION FRAMING
NTS



15 RIDGE
1 1/2"=1'-0" 08-RIDGE

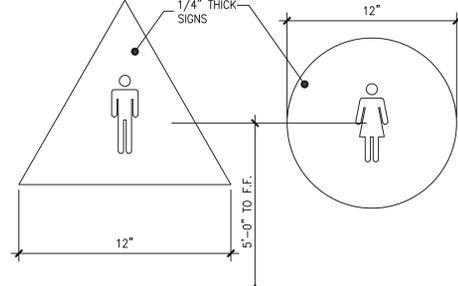


16 VALLEY
1 1/2"=1'-0" 08-VALLEY



10 TYPICAL ACCESSIBLE MOUNTING HEIGHTS
1/4"=1'-0"

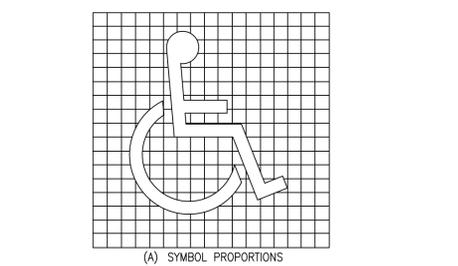
PROVIDE ADA REQUIRED BRAILLE AND RAISED LETTERS TO CONFORM WITH SECTION 11178.5.9. MOUNT BRAILLE SIGNAGE ON LATCH SIDE OF DOORS AT A MOUNTING HEIGHT



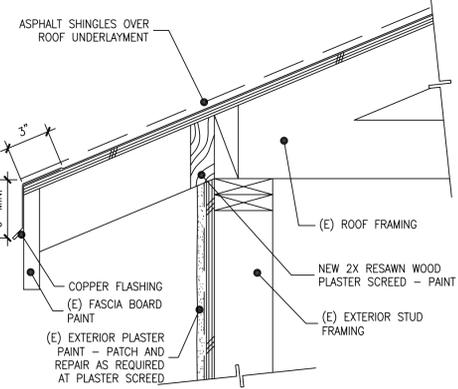
NOTES:

- SIGN TO BE CIRCLE AND TRIANGLE SUPERIMPOSED
- SIGNAGE COLOR TO BE BLUE BACKGROUND WITH WHITE FIGURES

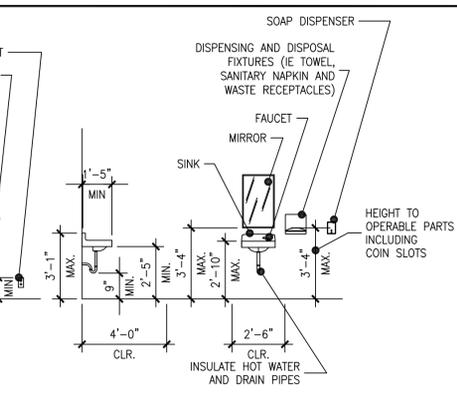
11 ACCESSIBLE SIGNAGE
NTS



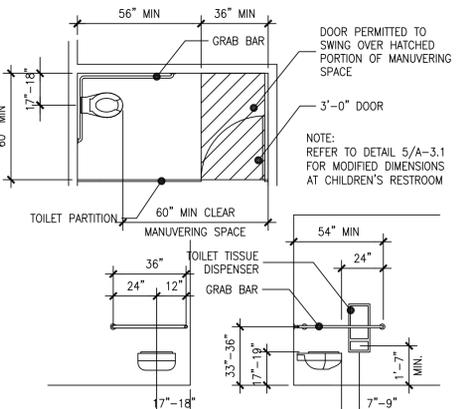
12 INTN'L SYMBOL OF ACCESS
NTS



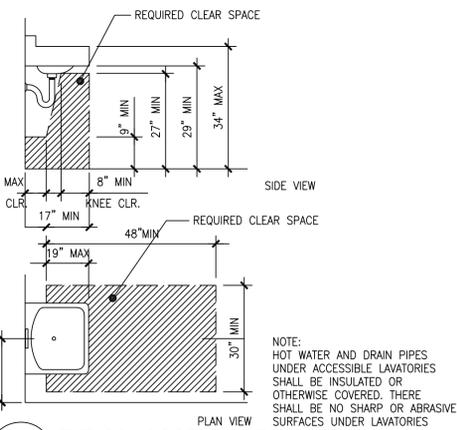
13 EAVE DETAIL
1 1/2"=1'-0" 08-EAVE



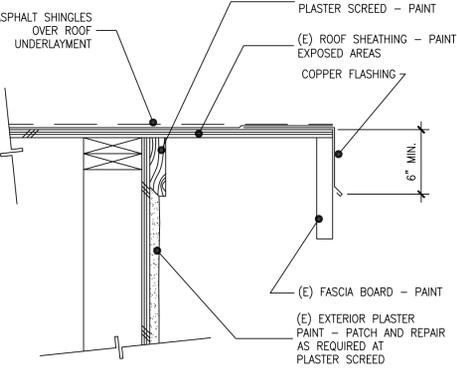
8 ACCESSIBLE TOILET STALL
NTS



9 TYPICAL ACCESSIBLE LAVATORY
NTS



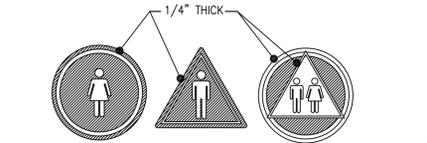
6 DOOR HEAD/JAMB
3"=1'-0" 4-DOOR01



10 RAKE DETAIL
1 1/2"=1'-0" 08-RAKE



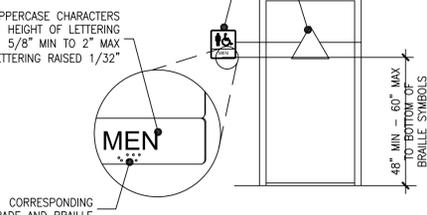
5 RESTROOM IDENTIFICATION
NTS



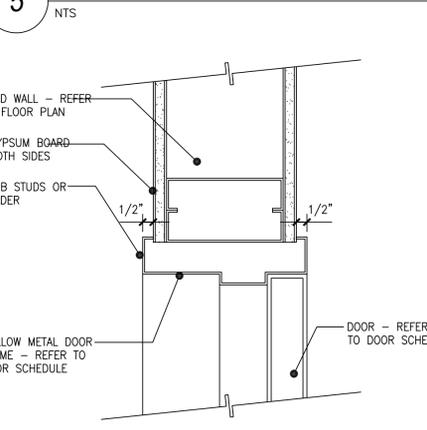
NOTE:

- PICTOGRAM AND OR LETTERING ARE NOT REQUIRED ON DOOR MOUNTED SIGNAGE.
- SIGNAGE TO BE 12" DIAMETER FOR CIRCULAR SIGNAGE AND 12" LENGTH FOR EACH LEG FOR TRIANGLE.
- THE TRIANGLE OR CIRCULAR SYMBOL SHALL CONTRAST WITH THE DOOR, EITHER LIGHT ON A DARK BACKGROUND OR DARK ON A LIGHT BACKGROUND.

WALL MOUNTED SIGNAGE TO BE LOCATED ON LATCH SIDE OF DOOR CLEAR OF DOOR SWING, MOUNT AT 60" TO CENTERLINE OF SIGN FROM FLOOR



2 CLEARANCE AT DOORS
NTS



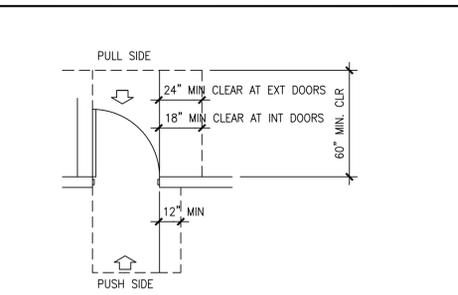
3 DOOR THRESHOLD
3"=1'-0"



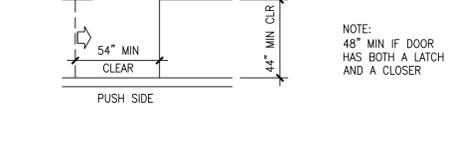
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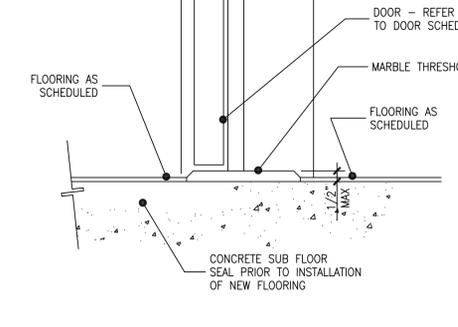
2 CLEARANCE AT DOORS
NTS



2 CLEARANCE AT DOORS
NTS



2 CLEARANCE AT DOORS
NTS



3 DOOR THRESHOLD
3"=1'-0"

APPROVED BY:

Michael Todd Broussard, PE DATE R.C.E. NO. 57144 EXP. DATE: 12/31/19

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RJM DESIGN GROUP

31591 Camino Capistrano
San Juan Capistrano, CA 92675
www.RJMDesignGroup.com
(949) 493-2690 fax
(949) 493-2600 phone

CONSULTANT

RM ARCHITECTURE
RUBIO MEDINA, ARCHITECT
780 ROOSEVELT
IRVINE, CA 92620
P: 949 333 6030
F: 949 333 6100

RODGERS SENIOR CENTER SITE
1706 ORANGE AVENUE
HUNTINGTON BEACH, CA 92647

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DESIGNED	RM
DRAWN	RM
CHECKED	RM
DATE	7/09/2021

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GENERAL NOTES

- ALL DRAWINGS ARE CONSIDERED TO BE PART OF THE CONTRACT DOCUMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL DRAWINGS PRIOR TO ANY CONSTRUCTION, INCLUDING STRUCTURAL, PLUMBING, AIR CONDITIONING AND ELECTRICAL. ANY DISCREPANCIES THAT OCCUR SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE START OF CONSTRUCTION SO THAT A CLARIFICATION CAN BE ISSUED. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY CODE REQUIREMENTS SHALL BE CORRECTED BY THE CONTRACTOR AT HIS OWN EXPENSE, AND AT NO EXPENSE TO THE OWNER.
- THESE DRAWINGS ARE DIAGRAMMATIC. THE LOCATION & ELEVATION OF ALL PIPING IS APPROXIMATE AND SHALL BE VERIFIED AND COORDINATED WITH ALL OTHER TRADES, STRUCTURAL CONDITIONS AND BUILDING CONSTRUCTION PRIOR TO START OF INSTALLATION.
- ALL SYMBOLS AND ABBREVIATIONS USED ON THE DRAWINGS ARE CONSIDERED TO BE CONSTRUCTION STANDARDS. IF CLARIFICATION IS REQUIRED, THE CONTRACTOR SHALL NOTIFY ENGINEER PRIOR TO PROCEEDING WITH THE WORK.
- DO NOT SCALE DRAWINGS. ALL DIMENSIONS AND JOB SITE CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE JOB SITE PRIOR TO BID SUBMITTAL. START OF CONSTRUCTION AND/OR FABRICATION OF MATERIALS. VERIFY ALL EXISTING DUCTWORK, PIPING, ELEVATIONS, SIZES AND POINT OF CONNECTIONS PRIOR TO START OF WORK. IF DISCREPANCIES ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED FOR CLARIFICATION.
- THE CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR, EQUIPMENT, TRANSPORTATION AND SERVICES NECESSARY FOR COMPLETION OF THE WORK. ALL MATERIALS AND WORK SHALL COMPLY WITH APPLICABLE CODES AND GOVERNING REGULATION AND MEET THE APPROVAL OF THE CITY AND STATE FIRE MARSHALL.
- CONTRACTOR SHALL PROVIDE AND BE RESPONSIBLE FOR PROTECTION AND REPAIR OF ADJACENT EXISTING SURFACES AND AREAS WHICH MAY BE DAMAGED AS A RESULT OF DEMOLITION AND/OR NEW WORK.
- VERIFY FINAL LOCATION OF THERMOSTATS WITH ARCHITECT AND/OR TENANT CONSTRUCTION COORDINATOR PRIOR TO ANY INSTALLATION WORK. MOUNT THERMOSTATS 4'-0" ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL PROVIDE RECORD/AS BUILT DOCUMENTS TO TENANT CONSTRUCTION COORDINATOR OR ARCHITECT AT COMPLETION OF CONSTRUCTION.
- ALL DUCTWORK SHALL CONFORM TO CHAPTER 6 OF 2019 CMC. ALL DUCTWORK SHALL BE CONSTRUCTED, ERECTED, AND TESTED IN ACCORDANCE WITH THE MOST RESTRICTIVE OF REGULATIONS, PROCEDURES DETAILED IN THE ASHRAE HANDBOOK OF FUNDAMENTALS, OR THE APPLICABLE STANDARDS ADOPTED BY THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION (SMACNA).
- ALL EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE EQUIPMENT MANUFACTURER'S RECOMMENDATIONS. PROVIDE ALL FITTINGS, TRANSISTIONS, DAMPERS, VALVES, AND OTHER DEVICES REQUIRED FOR A COMPLETE WORKABLE INSTALLATION.
- WRAP CONCEALED DUCTS WITH FIBERGLASS DUCT INSULATION WRAP (ALL SUPPLY DUCT TO HAVE VAPOR BARRIER). ALL NEW SUPPLY AND RETURN DUCT INSULATION WITHIN THE BUILDING TO HAVE MINIMUM 8.0 R-VALUE.
- INSTALL DOUBLE WALL DUCTS FOR ALL EXPOSED OUTDOOR SUPPLY AND RETURN DUCTS WITH AT LEAST 8.0 R-VALUE INSULATION.
- INSULATION APPLIED TO THE EXTERIOR SURFACE OF DUCTS LOCATED IN BUILDINGS SHALL HAVE A FLAME SPREAD OF NOT MORE THAN 25 AND SMOKE DEVELOPED RATING OF NOT MORE THAN 50 WHEN TESTED AS A COMPOSITE INSTALLATION INCLUDING INSULATION, FACINGS MATERIALS, TAPES AND ADHESIVES AS NORMALLY APPLIED.
- ENTIRE INSTALLATION SHALL CONFORM TO THE REQUIREMENTS OF THE 2019 CALIFORNIA MECHANICAL CODE (C.M.C.), 2019 CALIFORNIA BUILDING CODE (C.B.C.) AND ALL OTHER APPLICABLE CODES AND REGULATIONS.
- INSTALLATION SHALL BE COMPLIANT WITH 2019 CBC SECTION 425, APPLICABLE NFPA CODE SECTIONS AND SECTION 1632A AND CHAPTER 35 OF 2019 CBC.
- MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL BE MADE AVAILABLE TO THE INSPECTING AUTHORITIES.
- AIR LEAKAGE TESTING SHALL BE PERFORMED BY SMACNA HVAC DUCT LEAKAGE TEST MANUAL.
- LINE VOLTAGE WIRING, ALL CONDUIT, DISCONNECT SWITCHES AND FINAL CONNECTION BY ELECTRICAL CONTRACTOR. LOW VOLTAGE CONDUIT AND WIRING AND FINAL CONNECTION BY MECHANICAL CONTRACTOR.
- THE TOTAL SYSTEM AIR BALANCE SHALL BE PERFORMED BY AN INDEPENDENT AGENCY CERTIFIED BY THE AABC OR NEBB. THIS WORK SHALL CONFORM TO AABC OR NEBB SPECIFICATIONS AS REFERRED TO IN THE NATIONAL STANDARDS.
- ALL PIPING AND DUCT WORK SHALL BE INSULATED CONSISTENT WITH THE REQUIREMENTS OF SECTIONS 118, 123, 124, E.E.S. AND TABLE 60 OF 2019 CMC.
- PROVIDE GUIDE VANES FOR ALL RECTANGULAR DUCT ELBOWS.
- AUTOMATIC SHUTOFFS:
 - PER SEC. 608 OF 2019 CMC WHEN REQUIRED, EACH SINGLE SYSTEM PROVIDING HEATING OR COOLING AIR IN EXCESS OF 2,000 CUBIC FEET PER MINUTE SHALL BE EQUIPPED WITH AN AUTOMATIC SHUTOFF. AUTOMATIC SHUTOFF SHALL BE ACCOMPLISHED BY INTERRUPTING THE POWER SOURCE OF THE AIR MOVING EQUIPMENT DEVICES WHICH WILL DETECT PRODUCTS OF COMBUSTION OTHER THAN HEAT AND WHICH COMPLY WITH THE UBC. SHALL BE LABELED BY AN APPROVED AGENCY FOR AIR DUCT INSTALLATION AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. SUCH DEVICES SHALL BE COMPATIBLE WITH THE OPERATING VELOCITIES, PRESSURES, TEMPERATURES AND HUMIDITY OF THE SYSTEM WHERE FIRE DETECTION OR ALARM SYSTEMS ARE PROVIDED FOR THE BUILDING, SMOKE DETECTORS SHALL BE SUPERVISED BY SUCH SYSTEMS.
 - FOR THE PURPOSE OF CLEARNESS AND LEGIBILITY, THE DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND ALTHOUGH SIZES AND LOCATIONS OF EQUIPMENT IS DRAWN TO SCALE WHEREVER POSSIBLE, THE CONTRACTOR SHALL MAKE USE OF ALL DATA IN ALL OF THE CONTRACT DOCUMENTS AND VERIFY THIS INFORMATION BEFORE ORDERING, FABRICATING OR INSTALLATION OF ANY MATERIALS.
- HVAC SYSTEM AND COMPONENTS WILL BE TESTED A ADJUSTED AND BALANCED IN ACCORDANCE WITH AABC'S NATIONAL STANDARDS FOR TOTAL SYSTEM BALANCE 6TH EDITION.
- HVAC SYSTEM AND CONTROLS:**
 - NEW HVAC UNITS ARE PACKAGED ROOFTOP HEAT PUMP UNITS.
 - THERMOSTATS SHALL HAVE NUMERIC SETPOINTS IN F.
 - THERMOSTATS SHALL HAVE ADJUSTABLE SETPOINTS ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL.
 - DEMAND CONTROL VENTILATION DEVICE SHALL ALLOW THE RATE OF OUTDOOR AIR TO BE REDUCED TO 0.15 CFM PER SQUARE FOOT OF CONDITIONED AREA, IF THE DEMAND CONTROL VENTILATION DEVICE INDICATES THAT THE SPACE CONDITIONS ARE ACCEPTABLE. IF THE DEVICE IS A CARBON-DIOXIDE SENSOR, IT SHALL LIMIT THE CARBON DIOXIDE LEVEL TO NO MORE THAN 800 PPM WHILE THE SPACE IS OCCUPIED.
 - DEMAND CONTROL VENTILATION DEVICE APPROVED BY THE ENERGY COMMISSION SHALL BE PROVIDED FOR HVAC SYSTEMS SERVING "ASSEMBLY AREAS, CONCENTRATED USE (WITHOUT FIXED SEATS)" OR "AUCTION ROOMS", AS IDENTIFIED IN CHAPTER 10 OF THE UBC, IF SUCH AREAS ARE SERVED BY SYSTEMS WITH DESIGN OUTDOOR CAPACITIES EQUAL TO OR EXCEEDING 3,000 CFM. THE DEVICE SHALL INCLUDE A SENSOR LOCATED IN THE SPACE.
- MECHANICAL MATERIAL STANDARD SHALL BE LISTED AND LABELING TO COMPLY WITH TABLE 1701.1.1. CMC 306.1 AND CMC 307.1.
- ALL DIR DISTRIBUTION SYSTEM DUCTS AND PLENUMS, INCLUDING, BUT NOT LIMITED, BUILDING CAVITIES, MECHANICAL CLOSETS, AIR HANDLER BOXES AND SUPPORT PLATFORMS USED AS DUCTS AND PLENUMS, SHALL BE INSTALLED, SEALED AND INSULATED TO MEET THE REQUIREMENTS OF THE CMC SECTION 601.0, 602.0, 603.0, 604.0, AND ANSI/SMACNA-006-2006 HVAC DUCT CONSTRUCTION STANDARDS, METAL AND FLEXIBLE, 3RD EDITION.
- CONNECTIONS OF METAL DUCTS AND THE INNER CORE OF FLEXIBLE DUCTS SHALL BE MECHANICALLY FASTENED. OPENINGS SHALL BE SEALED WITH MASTIC TAPE, AEROSOL SEALANT OR OTHER DUCT CLOSURE SYSTEM THAT MEETS THE APPLICABLE REQUIREMENTS OF UL 181, UL 181A OR UL 181B. IF MASTIC OR TAPE IS USED TO SEAL OPENINGS GREATER THAN 1/4".
- PORTIONS OF SUPPLY AIR AND RETURN AIR DUCTS CONVEYING HEATED AND COOLED AIR LOCATED IN ONE OR MORE OF THE FOLLOWING SPACES SHALL BE INSULATED TO A MINIMUM INSTALLED LEVEL OR R-8:
 - OUTDOORS OR;
 - IN A SPACE BETWEEN THE ROOF AND IN INSULATED CEILING OR;
 - IN A SPACE DIRECTLY UNDER A ROOF WITH FIXED VENTS OR OPENINGS TO THE OUTSIDE OR UNCONDITIONED SPACES OR;
 - IN AN UNCONDITIONED CRAWLSPACE OR;
 - IN OTHER UNCONDITIONED SPACES

MANDATORY NONRESIDENTIAL CALGREEN REQUIREMENTS

SECTION 5.410 -- BUILDING MAINTENANCE AND OPERATION

5.410.4 TESTING AND ADJUSTING. TESTING AND ADJUSTING OF SYSTEMS SHALL BE REQUIRED FOR BUILDINGS LESS THAN 10,000 SQUARE FEET. APPLIES TO NEW SYSTEMS SERVING ADDITIONS OR ALTERATIONS.

5.410.4.2 SYSTEMS. DEVELOP A WRITTEN PLAN OF PROCEDURES FOR TESTING AND ADJUSTING SYSTEMS FOR
 A. HVAC SYSTEMS AND CONTROLS
 B. INDOOR AND OUTDOOR LIGHTING AND CONTROLS
 C. WATER HEATING SYSTEMS
 D. RENEWABLE ENERGY SYSTEMS
 E. LANDSCAPE IRRIGATION SYSTEMS
 F. WATER RESCUE SYSTEMS
 G. SYSTEMS TO BE INCLUDED FOR TESTING AND ADJUSTING SHALL INCLUDE, AS APPLICABLE TO THE PROJECT, THE SYSTEMS LISTED IN SECTION 5.410.4.2.

5.410.4.3 PROCEDURES. PERFORM TESTING AND ADJUSTING PROCEDURES IN ACCORDANCE WITH APPLICABLE STANDARDS ON HVAC SYSTEM AND CONTROLS AS DETERMINED BY THE ENFORCING AGENCY.

5.410.4.3.1 HVAC BALANCING. BEFORE A NEW SPACE-CONDITIONING SYSTEM SERVING A BUILDING OR SPACE IS OPERATED FOR NORMAL USE, BALANCE IN ACCORDANCE WITH THE PROCEDURES DEFINED BY NATIONAL STANDARDS LISTED IN SECTION 5.410.4.3.1 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 WITH DETAILED OPERATING AND MAINTENANCE INSTRUCTIONS AND COPIES OF GUARANTIES/WARRANTIES FOR EACH SYSTEM PRIOR TO FINAL INSPECTION.

5.410.4.5.1 INSPECTIONS AND REPORTS. INCLUDE A COPY OF ALL INSPECTION VERIFICATIONS AND REPORTS REQUIRED BY THE ENFORCING AGENCY.

SECTION 5.504 POLLUTANT CONTROL

5.504.1 TEMPORARY VENTILATION. IF THE HVAC SYSTEM IS USED DURING CONSTRUCTION, USE RETURN AIR FILTERS WITH A 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.

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 AND UNTIL FINAL STARTUP OF THE HEATING, COOLING AND VENTILATING EQUIPMENT, ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC, SHEET METAL OR OTHER METHODS ACCEPTABLE TO THE ENFORCING AGENCY TO REDUCE THE AMOUNT OF DUST, WATER AND DEBRIS WHICH MAY ENTER THE SYSTEM.

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 MERV OF 8. MERV 8 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.

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 OF THE CALIFORNIA ENERGY CODE AND CHAPTER 4 OF CCR, TITLE 8 OR THE APPLICABLE LOCAL CODE, WHICHEVER IS MORE STRINGENT.

5.506.2 CARBON DIOXIDE (CO2) MONITORING. FOR BUILDINGS OR ADDITIONS EQUIPPED WITH DEMAND CONTROL VENTILATION, CO2 SENSORS AND VENTILATION CONTROLS SHALL BE SPECIFIED AND INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CALIFORNIA ENERGY CODE, CCR, SECTION 120(C)(4).

SECTION 5.508 -- OUTDOOR AIR QUALITY

5.508.1 OZONE DEPLETION AND GLOBAL WARMING 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 CFCS. INSTALL HVAC AND REFRIGERATION EQUIPMENT THAT DOES NOT CONTAIN CFCS.

5.508.1.2 HALONS. INSTALL FIRE SUPPRESSION EQUIPMENT THAT DOES NOT CONTAIN HALONS.

MANDATORY NOTES

- ALL RECIRCULATED AIR OR OUTDOOR AIR SUPPLIED TO OCCUPIABLE SPACES IS FILTERED (MINIMUM MERV 13 BEFORE PASSING THROUGH ANY AIR CONDITIONING COMPONENT); THE LESSER OF THE MINIMUM RATE OF OUTDOOR AIR REQUIRED BY SEC. 120.1 (C), OR THREE COMPLETE AIR CHANGES SHALL BE SUPPLIED TO THE ENTIRE BUILDING DURING THE ONE-HOUR PERIOD IMMEDIATELY BEFORE THE BUILDING IS NORMALLY OCCUPIED. 120.1 (b) (c)
- ALL MECHANICAL VENTILATION AND SPACE-CONDITIONING SYSTEMS SHALL BE DESIGNED WITH DUCTWORK, DAMPERS, AND CONTROLS WHICH ALLOWS OUTSIDE AIR RATES TO BE OPERATED AT THE LARGER OF (1) THE MINIMUM LEVELS SPECIFIED IN SECTION 120.1(C)(3) OR (2) THE RATE REQUIRED FOR MAKE-UP OF EXHAUST SYSTEMS THAT ARE REQUIRED FOR AN EXEMPT OR COVERED PROCESS, FOR CONTROL OF ODORS, OR FOR THE REMOVAL OF CONTAMINANTS WITHIN THE SPACE. MEASURED OUTSIDE AIR RATES OF CONSTANT AND VARIABLE VOLUME MECHANICAL VENTILATION SYSTEMS SHALL BE WITHIN 10% OF OUTSIDE AIR RATE SHOWN ON TABLE 120.1-A. 120.1 (f) (1)
- THE THERMOSTATIC CONTROLS FOR HVAC SYSTEMS SHALL BE CAPABLE OF BEING SET LOCALLY OR REMOTELY BY TO CONTROL COMFORT HEATING DOWN TO 55 °F OR LOWER AND COOLING UP TO 85° F OR HIGHER. THE THERMOSTATIC CONTROLS SHALL BE CAPABLE OF PROVIDING A DEAD BAND RANGE OF AT LEAST 5 °F WITHIN WHICH HEATING AND COOLING ENERGY TO THE ZONE IS SHUT OFF OR REDUCE TO A MINIMUM. 120.2 (a) (b)
- OUTDOOR AIR SUPPLY AND EXHAUST EQUIPMENT SHALL BE INSTALLED WITH DAMPERS THAT AUTOMATICALLY CLOSE UPON FAN SHUTDOWN. 120.2 (f).
- AIR DISTRIBUTION SYSTEM DUCTS AND PLENUMS, INCLUDING, BUT NOT LIMITED TO, BUILDING CAVITIES, MECHANICAL CLOSETS, AIR-HANDLER BOXES AND SUPPORT PLATFORMS USED AS DUCTS OR PLENUMS, SHALL BE INSTALLED, SEALED AND INSULATED TO MEET THE REQUIREMENTS OF CHAPTER 6 CMC CODE AND ANSI/SMACNA-006-2006 HVAC DUCT CONSTRUCTION STANDARDS METAL AND FLEXIBLE. SUPPLY-AIR DUCTS CONVEYING HEATED OR COOLED AIR SHALL BE INSULATED TO A MINIMUM INSTALLED LEVEL OF R-4.2 (R-8 IN UNCONDITIONED SPACE), UNLESS DUCTS ARE IN CONDITIONED SPACE. 120.4 (a)
- MAXIMUM LENGTH OF FLEXIBLE DUCT AND CONNECTORS SHALL NOT BE MORE THAN 5 FEET. FLEXIBLE DUCTS SHALL NOT BE USED IN LIEU OF RIGID ELBOWS.
- EACH SPACE-CONDITIONING SYSTEM SHALL BE INSTALLED WITH CONTROLS (1) CAPABLE OF AUTOMATICALLY SHUTTING OFF THE SYSTEM DURING PERIODS OF NON-USE AND SHALL HAVE (A) 4-HR TIMER OR; (B) OCCUPANCY SENSORS OR; (C) AUTO TIME SWITCH CONTROLS AND ACCESSIBLE MANUAL OVERRIDE FOR UP TO 4-HRS. (2) AUTOMATICALLY RESTART AND TEMPORARILY OPERATE THE SYSTEM TO MAINTAIN SETBACK THERMOSTAT SETPOINTS FOR MECHANICAL HEATING AND COOLING. (3) MULTIPURPOSE, CLASSROOMS, CONFERENCE, CONVENTION, AUDITORIUM AND MEETING CENTER ROOMS OF CERTAIN SIZE WHICH DO NOT HAVE PROCESSES OR OPERATIONS THAT GENERATE DUSTS, FUMES, VAPORS OR GASSES SHALL BE EQUIPPED WITH OCCUPANT SENSOR(S) TO ACCOMPLISH THE FOLLOWING DURING UNOCCUPIED PERIODS (A) AUTOMATICALLY SETUP THE OPERATING COOLING TEMPERATURE SET POINT BY 2° F OR MORE AND SETBACK THE OPERATING HEATING TEMPERATURE SET POINT BY 2° F OR MORE AND; (B) AUTOMATICALLY RESET THE MINIMUM REQUIRED VENTILATION RATE WITH AN OCCUPANT SENSOR VENTILATION CONTROL DEVICE ACCORDING TO SECTION 120.1(C)(5). (4) HOTEL AND MOTEL GUEST ROOMS SHALL HAVE CAPTIVE CARD KEY CONTROLS, OCCUPANCY SENSING CONTROLS, OR AUTOMATIC CONTROLS SUCH THAT NO LONGER THAN 30 MINUTES AFTER THE GUEST ROOM HAS BEEN VACATED, SETPOINTS ARE SETUP AT LEAST +5° F (+3°C) IN COOLING MODE AND SET-DOWN AT LEAST -5° F (-3°C) IN HEATING MODE.
- DUCT SYSTEMS USED WITH BLOWER TYPE EQUIPMENT WHICH ARE PORTIONS OF A HEATING, COOLING, ABSORPTION, EVAPORATIVE COOLING OR OUTDOOR AIR VENTILATION SYSTEM SHALL BE SIZED IN ACCORDANCE WITH CHAPTER 17 OF THE CALIFORNIA MECHANICAL CODE.
- ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED UNTIL FINAL STARTUP OF THE HVAC EQUIPMENT. *CGBC 4.504.1

AIR DISTRIBUTION SCHEDULE

SYMBOL	MODULE SIZE	NECK SIZE	CFM RANGE	REMARKS
CD-1 TITUS "OMNI" OR APPROVED EQUAL.	24"x24"	6"	60-160	- 4-WAY THROW, UNLESS NOTED ON OTHERWISE ON PLANS.
		8"	110-210	- 4-WAY THROW, UNLESS NOTED ON OTHERWISE ON PLANS.
		10"	180-400	- 4-WAY THROW, UNLESS NOTED ON OTHERWISE ON PLANS.
CR-1 TITUS "PAR-A" OR APPROVED EQUAL.	24"x24"	DUCT SIZE	-	-
		SEE PLANS	DUCT SIZE	SEE PLANS FOR SIZES
		SEE PLANS	DUCT SIZE	SEE PLANS FOR SIZES

MECHANICAL LEGEND

SYMBOL	ABBV.	DESCRIPTION
	SWS	SIDEWALL DIFFUSER - SUPPLY
	CD	CEILING DIFFUSER - SUPPLY
	CD	CEILING DIFFUSER BELOW DUCT - SUPPLY
	SAD	RISER - SUPPLY AIR DUCT
	SAD	DROP - SUPPLY AIR DUCT
	SAD	ROUND DROP - SUPPLY AIR DUCT
	SWR	SIDEWALL REGISTER - RETURN
	CR	CEILING REGISTER - RETURN
	CR	CEILING REGISTER BELOW DUCT - RETURN
	RAD	RISER - RETURN AIR DUCT
	RAD	DROP - RETURN AIR DUCT
	SWE	SIDEWALL REGISTER - EXHAUST
	CR	CEILING REGISTER - EXHAUST
	CD	CEILING DIFFUSER BELOW DUCT - EXHAUST
	EAD	RISER - EXHAUST AIR DUCT
	EAD	DROP - EXHAUST AIR DUCT
	L	LINED DUCTWORK
	VD	VOLUME DAMPER
	FC	FLEXIBLE CONNECTION
		NEW DUCT
		EXISTING DUCT - NEW PLAN
		EXISTING DUCT - DEMOLITION PLAN
		EXISTING MECHANICAL WORK TO BE REMOVED
	CFD	CEILING FIRE DAMPER
	UC	UNDER CUT DOOR
	TSTAT	THERMOSTAT
	POC	POINT OF CONNECTION
	POD	POINT OF DEMOLITION
	OSA	OUTSIDE AIR
	UTR	UP THRU ROOF
	CSFD	COMBINATION SMOKE/FIRE DAMPER
	F	FUSIBLE LINK FIRE DAMPER
	N.T.S.	NOT TO SCALE

APPLICABLE CODES

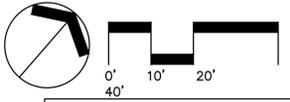
- 2019 CALIFORNIA BUILDING CODE (CBC)
- 2019 CALIFORNIA ELECTRICAL CODE (CEC)
- 2019 CALIFORNIA MECHANICAL CODE (CMC)
- 2019 CALIFORNIA PLUMBING CODE (CPC)
- 2019 CALIFORNIA ENERGY STANDARDS CODE (CESC)

SHEET INDEX

SHT.NO.	DESCRIPTION
M0.1	MECHANICAL LEGEND AND NOTES
M0.2	MECHANICAL SCHEDULES AND DETAILS
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M0.4	TITLE 24 COMPLIANCE FORMS
M2.0	MECHANICAL DEMOLITION FLOOR PLAN
M3.0	MECHANICAL REMODEL FLOOR PLAN
M4.0	MECHANICAL SPECIFICATIONS



H2S Engineers Inc.
 Consulting MEP Engineers
 Anaheim, CA 92801
 Ph: (714) 290-0718
 E-mail: mvmerma@h2sengineers.com



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811

TWO WORKING DAYS BEFORE YOU DIG

APPROVED BY:

 Michael Todd Broussard, PE DATE
 R.C.E. NO. 57144 EXP. DATE: 12/31/19



CITY OF HUNTINGTON BEACH
 DEPARTMENT OF PUBLIC WORKS

RJM DESIGN GROUP
 31591 Camino Capistrano
 San Juan Capistrano, CA 92675
 www.RJMDesignGroup.com
 [949] 493-2690 fax
 [949] 493-2600 phone

CONSULTANT
RM ARCHITECTURE
 RUBIO MEDINA, ARCHITECT
 780 ROOSEVELT
 IRVINE, CA 92618
 P: 949 333 6030
 F: 949 333 6100

RODGERS SENIOR CENTER SITE
 1706 ORANGE AVENUE
 HUNTINGTON BEACH, CA 92647

REGISTERED PROFESSIONAL ENGINEER
 MECHANICAL
 STATE OF CALIFORNIA
 No. M35789
 Exp. 12/31/2021

REVISIONS	DATE

SHEET TITLE
MECHANICAL LEGEND AND NOTES

JOB #	873-10
DESIGNED	LM
DRAWN	LM
CHECKED	HS
DATE	6/21/2021

SHEET
M0.1

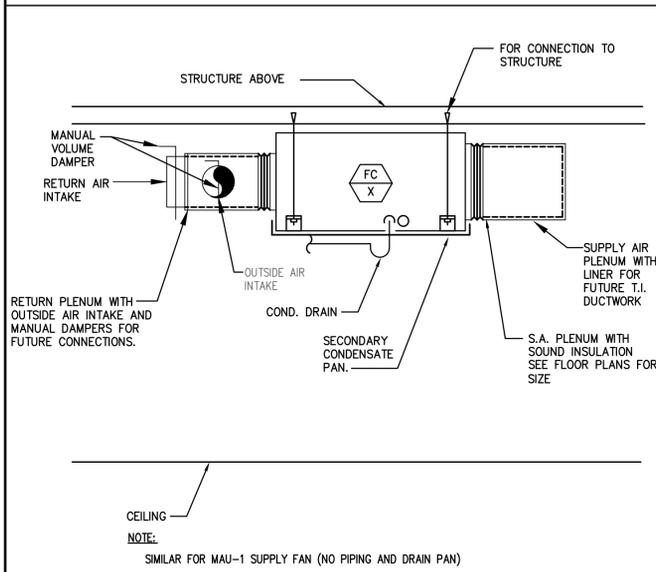
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NEW SPLIT HEAT PUMP SCHEDULE

SYMBOL	MANUFACTURER MODEL NO.	HEATING CAPACITY		COOLING CAPACITY		ELECTRICAL			OPERATING WEIGHT (LBS.)	REMARKS	SYMBOL	MANUFACTURER MODEL NO.	AREA SERVED	S.A. CFM	O.A. CFM	MOTOR HP	ELECTRICAL			OPERATING WEIGHT (LBS.)	REMARKS
		TOTAL	HSPF	TOTAL	SEER	MCA	MCOP	VOLT									MCA	MOCP	VOLT/PH/Hz		
HP 1	LG ARUN038	42,000	9.0	38,000	17.0	25.0	40	208/1 ϕ	285	-	FC 1	ARNU283	-	1,000	200	0.35	2.5	15	208-230/1/60	100	- PROVIDE COMPLETE WITH DIGITAL PROGRAMMABLE THERMOSTAT, HANGING BRACKETS, FACTORY PROVIDED FILTER BANK FOR MERV 14 FILTER. PROVIDE SECONDARY PAN WITH ESCUTCHEON, DAYLIGHT THRU CEILING AT A VISIBLE LOCATION.
HP 2	LG ARUN038	42,000	9.0	38,000	17.0	25.0	40	208/1 ϕ	285	-	FC 2	ARNU283	-	1,000	200	0.35	2.5	15	208-230/1/60	100	- PROVIDE COMPLETE WITH DIGITAL PROGRAMMABLE THERMOSTAT, HANGING BRACKETS, FACTORY PROVIDED FILTER BANK FOR MERV 14 FILTER. PROVIDE SECONDARY PAN WITH ESCUTCHEON, DAYLIGHT THRU CEILING AT A VISIBLE LOCATION.

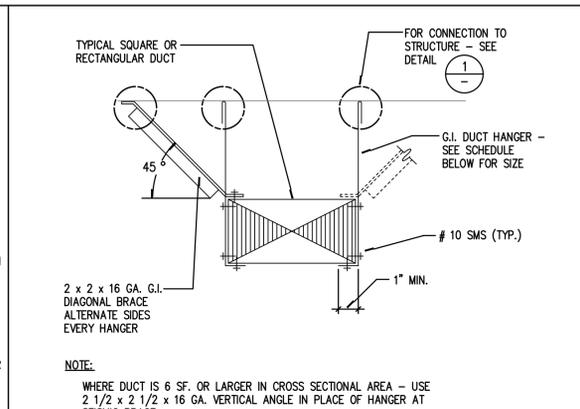
RESTROOM EXHAUST FAN SCHEDULE

SYMBOL	MANUFACTURER	CFM	SP (W.G)	FAN RPM	POWER (HP)	VOLTAGE	REMARKS
EF 1	NUTONE	150	0.2000	-	1/4	115/1/60	- CEILING MOUNTED BATHROOM EXHAUST FAN. INTERLOCK WITH THE LIGHT SWITCH. WEATHERCAP ON TERMINATION ABOVE ROOF. MAINTAIN 10' FROM ANY FRESH AIR INTAKE AND 3' AWAY FROM ANY OPERABLE WINDOW.



DUCTED FC MOUNTING DETAILS

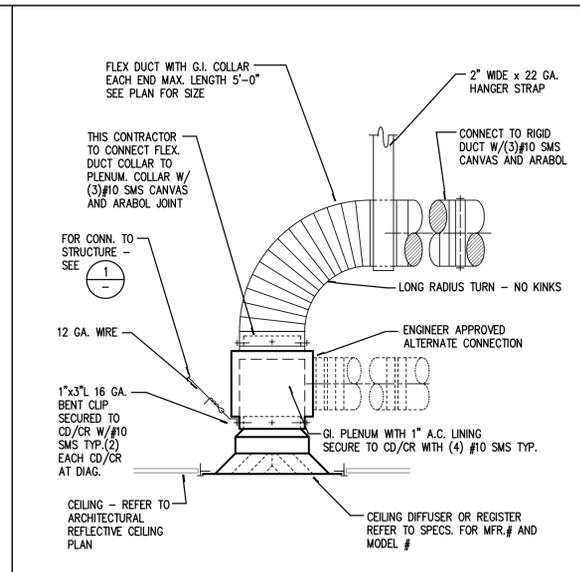
SCALE: NTS 10



MAX. HALF OF DUCT PERIMETER	MAX. LOAD EACH HANGER	HANGER SIZE	HANGER SPACING
P/2 = 30"	260 LBS	1" x 22 GA.	10'-0" O/C
P/2 = 72"	420 LBS	1" x 18 GA.	10'-0" O/C
P/2 = 96"	700 LBS	1" x 16 GA.	10'-0" O/C
P/2 = 120"	1100 LBS	1 1/2" x 16 GA.	10'-0" O/C

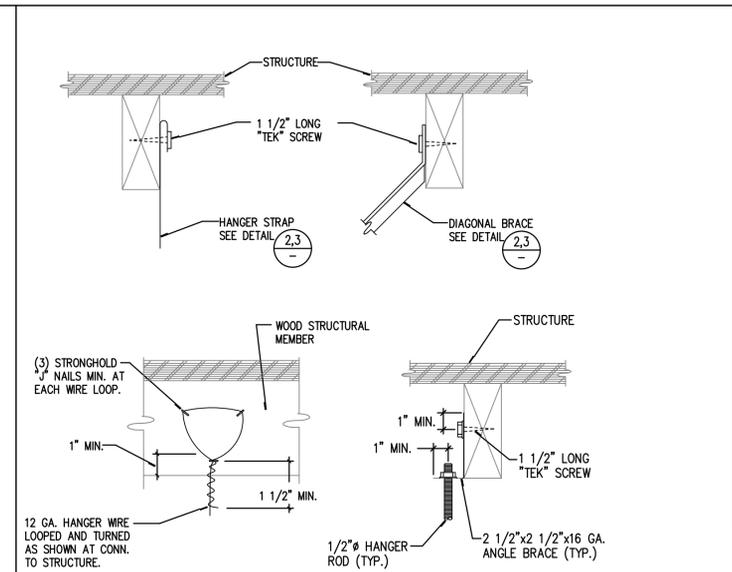
RECT. DUCT SUPPORT DETAIL

SCALE: NTS 3



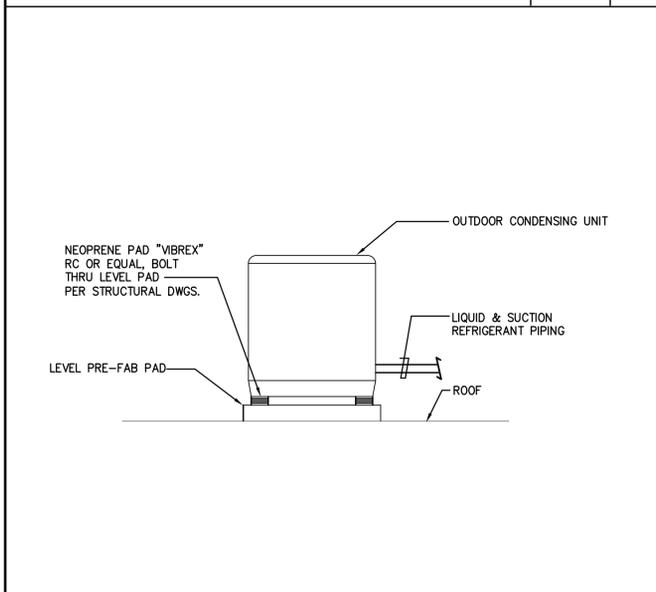
AIR DISTRIBUTION DETAIL

SCALE: NTS 2



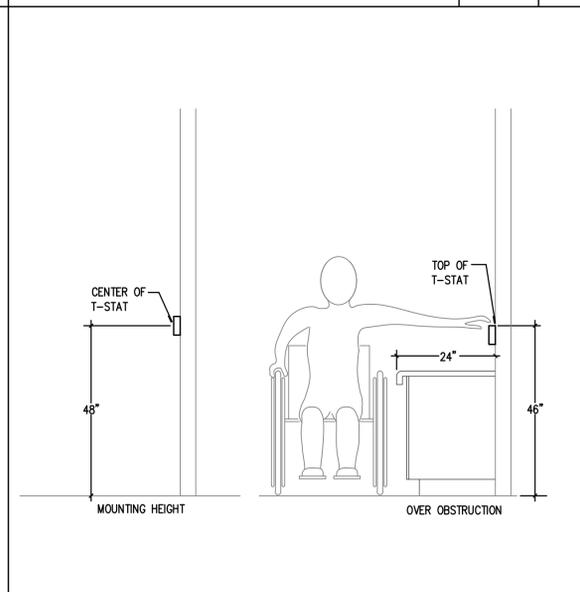
CONNECTION TO STRUCTURE

SCALE: NTS 1



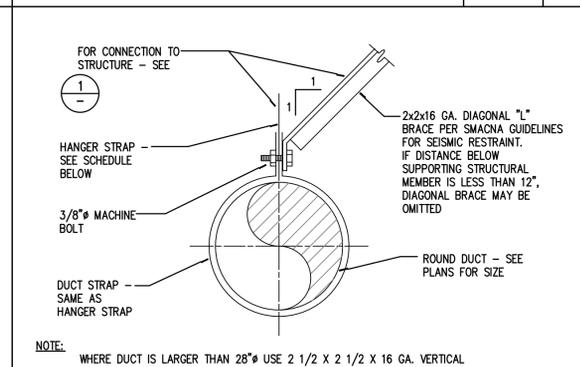
SPLIT SYSTEM OUTDOOR HEAT PUMP UNIT

SCALE: NTS 8



T-STAT MOUNTING DETAIL

SCALE: NTS 5



HANGER STRAP SCHEDULE

DUCT SIZE	HANGER SIZE	MAX. LOAD EA. HANGER	MAX. SPACING
UP THRU 10"	1" x 22 GA.	260 LBS	10'-0"
11" TO 18"	1" x 22 GA.	260 LBS	10'-0"
19" TO 24"	1" x 22 GA.	260 LBS	10'-0"
25" TO 36"	1" x 20 GA.	320 LBS	10'-0"

ROUND DUCT SUPPORT DETAIL

SCALE: NTS 3

APPROVED BY: Michael Todd Broussard, PE DATE: R.C.E. NO. 57144 EXP. DATE: 12/31/19

REVISIONS	DATE

SHEET TITLE: MECHANICAL SCHEDULES AND DETAILS

JOB # 873-10
 DESIGNED LM
 DRAWN LM
 CHECKED HS
 DATE 6/21/2021

SHEET M0.2

CONSULTANT: RM ARCHITECTURE
 RUBIO MEDINA, ARCHITECT
 780 ROOSEVELT IRVINE, CA 92620
 P: 949 333 6030 F: 949 333 6100

RODGERS SENIOR CENTER SITE
 1706 ORANGE AVENUE
 HUNTINGTON BEACH, CA 92647

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Project Name:	RODGER SENIOR CENTER	NRCC-PRF-01-E	Page 1 of 14
Project Address:	1706 ORANGE AVE. HUNTINGTON BEACH 92647	Calculation Date/Time:	05:49, Thu, Jan 21, 2021
Input File Name:	Senior Center.cbdl9x		

A. GENERAL INFORMATION			
1. Project Location (city)	HUNTINGTON BEACH	8. Standards Version	Compliance2019
2. CA Zip Code	92647	9. Compliance Software (version)	EnergyPro 8.0
3. Climate Zone	6	10. Weather File	TORRANCE_722955_CZ2010.npw
4. Total Conditioned Floor Area in Scope	2,334 ft ²	11. Building Orientation (deg)	[N] 0 deg
5. Total Unconditioned Floor Area	0 ft ²	12. Permitted Scope of Work	Existing/Alteration
6. Total # of Stories (Habitable Above Grade)	1	13. Building Type(s)	Nonresidential
7. Total # of dwelling units	0	14. Gas Type	NaturalGas

B. PROJECT SUMMARY			
Table Instructions: Table B shows which building components are included in the performance calculation. If indicated as not included, the project must show compliance prescriptively if within permit application.			
Building Components Complying via Performance		Building Components Complying Prescriptively	
Envelope	<input checked="" type="checkbox"/> Performance <input checked="" type="checkbox"/> Not Included	Covered Process: Commercial Kitchens	<input checked="" type="checkbox"/> Performance <input checked="" type="checkbox"/> Not Included
Mechanical	<input checked="" type="checkbox"/> Performance <input checked="" type="checkbox"/> Not Included	Covered Process: Computer Rooms	<input checked="" type="checkbox"/> Performance <input checked="" type="checkbox"/> Not Included
Domestic Hot Water	<input checked="" type="checkbox"/> Performance <input checked="" type="checkbox"/> Not Included	Covered Process: Laboratory Exhaust	<input checked="" type="checkbox"/> Performance <input checked="" type="checkbox"/> Not Included
Lighting (Indoor Conditioned)	<input checked="" type="checkbox"/> Performance <input checked="" type="checkbox"/> Not Included		
Solar Thermal Water Heating	<input checked="" type="checkbox"/> Performance <input checked="" type="checkbox"/> Not Included		

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance Report Version: NRCC-PRF-01-E-04172020-6104 Report Generated at: 2021-01-21 05:49:48

Project Name:	RODGER SENIOR CENTER	NRCC-PRF-01-E	Page 4 of 14
Project Address:	1706 ORANGE AVE. HUNTINGTON BEACH 92647	Calculation Date/Time:	05:49, Thu, Jan 21, 2021
Input File Name:	Senior Center.cbdl9x		

I. ENVELOPE DETAILS §120.7 & §140.3								
1. OPAQUE SURFACE ASSEMBLY SUMMARY								
1	2	3	4	5	6	7	8	9
Surface Name	Surface Type	Description of Assembly Layers	Area (ft ²)	Finishing Type	Cavity R-Value	Continuous R-Value	U-Factor / F-Factor / C-Factor	Status
R-13 Wall8	ExteriorWall	Stucco - 7/8 in. Vapor permeable felt - 1/8 in. Wood framed wall, 16in. OC, 3.5in., R-13 Gypsum Board - 1/2 in.	2272	Wood	13	NA	U-Factor: 0.102	E
R-38 Roof Attic21	Roof	Asphalt shingles - 1/4 in. Vapor permeable felt - 1/8 in. Wood framed roof, 24in. OC, 3.5in., R-38 Gypsum Board - 1/2 in.	2334	Wood	38	NA	U-Factor: 0.033	E
Slab On Grade23	Underground/Floor	Slab Type = UnheatedSlabOnGrade Insulation Orientation = None Insulation R-Value = R0	2334	NA	0	NA	F-Factor: 0.730	E

II. OVERHANG DETAILS		
This Section Does Not Apply		
III. OPAQUE DOOR SUMMARY		
This Section Does Not Apply		
1	2	3
Assembly Name	Overall U-Factor	Status ¹
Insulated Door13	0.200	E
I. CRCR ROOFING PRODUCT SUMMARY §140.3		
This Section Does Not Apply		
K. HVAC SYSTEM SUMMARY §110.1 & §110.2		
This Section Does Not Apply		

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Project Name:	RODGER SENIOR CENTER	NRCC-PRF-01-E	Page 7 of 14
Project Address:	1706 ORANGE AVE. HUNTINGTON BEACH 92647	Calculation Date/Time:	05:49, Thu, Jan 21, 2021
Input File Name:	Senior Center.cbdl9x		

K8. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY § 140.4											
1	2	3	4	5	6	7	8	9	10	11	12
System ID	Zone Name	System Type	Rated Capacity (kBtu/h)			Airflow (cfm)			Fan		
			Heating	Cooling	Design	Min.	Min. Ratio	BHP	Watts	Cycles	ECM Motor
1-Large Meeting room and RR-Trm	1-Large Meeting room and RR	Uncontrolled	NA	NA	1000	NA	0.00	NA	NA	NA	<input type="checkbox"/>
2-Undefined Zone-Trm	2-Undefined Zone	Uncontrolled	NA	NA	1000	NA	0.00	NA	NA	NA	<input type="checkbox"/>

K9. EVAPORATIVE COOLER SUMMARY										
This Section Does Not Apply										

L. DOMESTIC/SERVICE HOT WATER SYSTEM SUMMARY										
This Section Does Not Apply										

L1. DHW EQUIPMENT SUMMARY										
1	2	3	4	5	6	7	8	9	10	11
DHW Name	Heater Element Type	Tank Type	Qty	Tank Vol (gal)	Rated Input (kBtu/h)	Efficiency	Tank Insulation R-value (Int/Ext)	Standby Loss Fraction	Heat Pump Type	Tank Location or Ambient Condition
Standard Gas 50 gal or Less	Gas	Storage	1	50.00	40	UEF: 0.60	NA	SBLF: NA	NA	NA

L2. MULTI-FAMILY CENTRAL DHW SYSTEM DETAILS										
This Section Does Not Apply										

L3. SOLAR HOT WATER HEATING SUMMARY										
This Section Does Not Apply										

M. COVERED PROCESS SUMMARY §140.9										
This Section Does Not Apply										

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C1. COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual TDV Energy Use, kWh/ft ² -yr)			
COMPLIES			
Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV) ¹
Space Heating	26.68	32.91	-6.23
Space Cooling	93.99	62.39	31.60
Indoor Fans	164.28	47.17	117.11
Heat Rejection	--	--	--
Pumps & Misc.	--	--	--
Domestic Hot Water	27.67	15.10	12.57
Indoor Lighting	43.84	43.84	--
ENERGY STANDARDS COMPLIANCE TOTAL	356.46	201.41	155.05 (43.5%)

¹ Notes: The number in parenthesis following the Compliance Margin in column 4, represents the Percent Better than Standard.

C2. RESULTS FOR 'ABOVE CODE' QUALIFICATIONS ¹			
<input type="checkbox"/> This project is pursuing CalGreen Tier 1		<input type="checkbox"/> This project is pursuing CalGreen Tier 2	
Miscellaneous Energy Component			
Miscellaneous Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV) ¹
Receptacle	107.38	107.38	0.0
Process	--	--	--
Other Lig	--	--	--
Process Motors	--	--	--
COMPLIANCE TOTAL PLUS MISCELLANEOUS COMPONENTS	463.84	308.79	155.1 (33.4%)

¹ Notes: This table is used to document compliance with programs OTHER THAN Title 24 Part 6, if applicable.

D. EXCEPTIONAL CONDITIONS

E. HERS VERIFICATION
The following is a summary of the features that must be field-verified by a certified HERS Rater as a condition for meeting the modeled energy performance for this computer analysis. Additional detail is provided in the building tables below.

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K1. Dry System Equipment (furnaces, air handling units, heat pumps, VRF, etc.)									
Dry System Equipment ¹ (Fan & Economizer info included below in Table N)									
1	2	3	4	5	6	7	8	9	10
Equipment Name	Equipment Type	Qty	Total Heating Output (kBtu/h)	Supp Heat Source (V/N)	Supp Heat Output (kBtu/h)	Efficiency	Total Cooling Output (kBtu/h)	Efficiency	Status
HP-2	SZHP (Split1Phase)	1	420	No	0	HSPF-9.000	38	SEER-17.000 / EER-8.000	N
HP-1	SZHP (Split1Phase)	1	420	No	0	HSPF-9.000	38	SEER-17.000 / EER-8.000	N

K2. ECONOMIZER & FAN SYSTEMS SUMMARY §140.4 ¹												
1	2	3	4	5	6	7	8	9	10	11	12	13
Name or Item Tag	System Type	Design OA	CFM	BHP	Watts	Control	CFM	BHP	Watts	Control	Economizer Type (if present)	Status
HP-2	SZHP	1003	1000	0.350	305.2	ConstantVolume	NA	NA	NA	NA	NoEconomizer	N
HP-1	SZHP	210	1000	0.350	305.2	ConstantVolume	NA	NA	NA	NA	NoEconomizer	N

K3. EXHAUST FAN SUMMARY										
This Section Does Not Apply										

K4. Wet System Equipment (boilers, chillers, cooling towers, etc.)											
1	2	3	4	5	6	7	8	9	10	11	12
Name or Item Tag	Equipment Type	Qty	Vol (gal)	Rated Capacity (kBtu/h)	Efficiency	Standby Loss	Qty	GPM	HP	VSD (Y/N)	Status
This Section Does Not Apply											

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N. INDOOR LIGHTING SUMMARY §140.6										
This Section Does Not Apply										

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F. ADDITIONAL REMARKS			
This Section Does Not Apply			
G. ENVELOPE GENERAL INFORMATION			
1	2	3	4
Opaque Surfaces & Orientation	Total Gross Surface Area (ft ²)	Total Fenestration Area (ft ²)	Window to Wall Ratio (%)
North-Facing ¹	566 ft ²	60 ft ²	10.6%
East-Facing ²	550 ft ²	0 ft ²	00.0%
South-Facing ³	546 ft ²	0 ft ²	00.0%
West-Facing ⁴	610 ft ²	104 ft ²	17.0%
Total	2,272 ft ²	164 ft ²	07.2%
Roof	2,334 ft ²	0 ft ²	00.0%

H. FENESTRATION ASSEMBLY SUMMARY §110.6								
1.	2.	3.	4.	5.	6.	7.	8.	9.
Fenestration Assembly Name / Tag or I.D.	Fenestration Type / Product Type / Frame Type	Certification Method ¹	Assembly Method	Area ft ²	Overall U-factor	Overall SHGC	Overall VT	Status
Residential Cooling	VerticalFenestration FixedWindow	NFRC Rated	Manufactured	164	0.30	0.23	0.50	E

¹ Newly installed fenestration shall have a certified NFRC Label Certificate or use the CCC default tables found in Table 110.6-A and Table 110.6-B. Center of Glass (COG) values are for the glass-only, determined by the manufacturer, and are shown for ease of verification. Site-built fenestration values are calculated per Nonresidential Appendix NA6 and are used in the analysis.

² Status: N - New, A - Altered, E - Existing

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K5. SYSTEM FEATURES §120.2					
1	2	3	4	5	6
System Name	Optimum Start	Window Interlocks per §140.4(n)	Evaporative Cooling	Heat Recovery	Other Controls
HP-2	No Optimum Start	NA	No Evaporative Cooler	No Heat Recovery	No DCV Controls, No DDC No Economizer No Supply Air Temp. Control
HP-1	No Optimum Start	NA	No Evaporative Cooler	No Heat Recovery	No DCV Controls, No DDC No Economizer No Supply Air Temp. Control
Undefined Plant 1 - SHW	NA	NA	NA	NA	Fixed Temperature Control, No DDC

K6. MECHANICAL VENTILATION AND REHEAT §120.1								
1	2	3	4	5	6	7	8	9
Zone Name	Ventilation Function	# of hotel rooms	# of people	# of bedrooms	Supply OA CFM	Exhaust CFM	Conditioned Area (ft ²)	DCV or Occupant Sensor Controls, or Both
1-Large Meeting room and RR	Misc - All others	0	66.72	0	1003	0	934	NA
2-Undefined Zone	Office - Office space	0	7.00	0	210	0	1400	NA

K7. DISTRIBUTION SUMMARY §120.4/140.4(i)				
1	2	3	4	5
Equipment Name	Duct Leakage Verification Y/N	Ducts	Insulation R-Value	Location
HP-2	No	S	S	Unconditioned
HP-1	No	S	S	Unconditioned

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O. MULTIFAMILY CENTRAL WATER HEATING SYSTEM SUMMARY										
This Section Does Not Apply										

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RJM DESIGN GROUP
 31591 Camino Capistrano
 San Juan Capistrano, CA 92675
 www.RJMDesigngroup.com
 (949) 493-2690 fax
 (949) 493-2600 phone

CONSULTANT
RM ARCHITECTURE
 RUBIO MEDINA, ARCHITECT
 780 ROOSEVELT
 IRVINE, CA 92620
 P: 949 333 6030
 F: 949 333 6100

RODGER SENIOR CENTER SITE
1706 ORANGE AVENUE
HUNTINGTON BEACH, CA 92647

REGISTERED PROFESSIONAL ENGINEER
 JOHN S. FREYER
 No. M35789
 Exp. 12/31/2021
 CALIFORNIA

REVISIONS	DATE

SHEET TITLE
TITLE 24 COMPLIANCE FORMS

JOB #	873-10
DESIGNED	LM
DRAWN	LM
CHECKED	HS
DATE	6

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O. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Table Instructions: Selections shall be made by Documentation Author to indicate which Certificates of Installation must be submitted for the features to be recognized for compliance. These documents must be retained and 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/NRCA/

Building Component	YES	NO	Form/Title	Field Inspector	
				Pass	Fail
Envelope	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-ENV-01-E - Must be submitted for all buildings	<input type="checkbox"/>	<input type="checkbox"/>
Mechanical	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCI-MCH-01-E - Must be submitted for all buildings	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-PLB-01-E - Must be submitted for all buildings	<input type="checkbox"/>	<input type="checkbox"/>
Plumbing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCI-PLB-02-E - Must be submitted for high-rise residential and hotel/ motel central hot water distribution systems to be recognized for compliance	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-PLB-21-E - Must be submitted for all buildings	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCI-PLB-21-E - Must be HERS verified for central systems in high-rise residential hotel/ motel application	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-PLB-21-E - Must be HERS verified for single dwelling unit systems in high-rise residential, hotel/motel application	<input type="checkbox"/>	<input type="checkbox"/>
Indoor Lighting	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCI-LTI-01-E - Must be submitted for all buildings	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-LTI-03-E - Must be submitted for a line-voltage track lighting integral current limiter, or for a supplementary overcurrent protection panel used to energize only line-voltage track lighting, to be recognized for compliance	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-LTI-05-E - Must be submitted for a Power Adjustment Factor (PAF) to be recognized for compliance	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-LTI-06-E - Must be submitted for additional wattage installed in a video conferencing studio to be recognized for compliance	<input type="checkbox"/>	<input type="checkbox"/>
Outdoor Lighting	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-LTO-01-E - Must be submitted for all buildings	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-LTO-02-E - Must be submitted for EMCS Lighting Control system	<input type="checkbox"/>	<input type="checkbox"/>
Sign Lighting	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-LTS-01-E - Must be submitted for all buildings	<input type="checkbox"/>	<input type="checkbox"/>
Electrical	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-ELC-01-E - Must be submitted for all buildings	<input type="checkbox"/>	<input type="checkbox"/>
Photovoltaic	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-SPV-01-E - Must be submitted for all buildings	<input type="checkbox"/>	<input type="checkbox"/>

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P. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

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Building Component	YES	NO	Form/Title	Field Inspector	
				Pass	Fail
Indoor Lighting	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-LTI-02-A - Occupancy Sensors and Automatic Time Switch Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-LTI-03-A - Automatic Daylight Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-LTI-04-A - Demand Responsive Lighting Controls	<input type="checkbox"/>	<input type="checkbox"/>
Outdoor Lighting	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-LTI-05-A - Institutional Tuning Power Adjustment Factor (PAF)	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-LTO-01-E - Must be submitted for all buildings	<input type="checkbox"/>	<input type="checkbox"/>
Covered Process	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-PRC-01-F - Compressed Air Systems	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-PRC-02-F - Kitchen Exhaust	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-PRC-03-F - Garage Exhaust	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-PRC-04-F - Refrigerated Warehouse - Evaporator Fan Motor Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-PRC-05-F - Refrigerated Warehouse - Evaporator Condenser Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-PRC-06-F - Refrigerated Warehouse - Air Cooled Condenser Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-PRC-07-F - Refrigerated Warehouse - Variable Speed Compressor	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-PRC-08-F - Electrical Resistance Underlab Heating System	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-PRC-15-F - Fume Hood Automatic Sash Closures System	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-PRC-16-A - Adiabatic Condensers	<input type="checkbox"/>	<input type="checkbox"/>

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Building Component	YES	NO	Form/Title	Field Inspector	
				Pass	Fail
Covered Process	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-PRC-01-E - Must be submitted for all Refrigerated Warehouses	<input type="checkbox"/>	<input type="checkbox"/>

P. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Table Instructions: Selections shall be made by Documentation Author to indicate which Certificates of Acceptance must be submitted for the features to be recognized for compliance. These documents must be retained and provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCA/

Building Component	YES	NO	Form/Title	Field Inspector	
				Pass	Fail
Envelope	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-ENV-02-F - NRFC label verification for fenestration	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-ENV-03-F - Daylighting Design PAFs	<input type="checkbox"/>	<input type="checkbox"/>

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Q. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

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Building Component	YES	NO	Form/Title	Field Inspector	
				Pass	Fail
Mechanical	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-04-H Duct Leakage Test	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-24-H Enclosure Air Leakage	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-27 Indoor Air Quality & Mechanical Ventilation	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-32-H Local Mechanical Exhaust	<input type="checkbox"/>	<input type="checkbox"/>
Plumbing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-PLB-21-H - HERS verified central systems in high-rise residential, hotel/motel application	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-PLB-22-H - HERS verified single dwelling unit systems in high-rise residential, hotel/motel application	<input type="checkbox"/>	<input type="checkbox"/>

R. UNMET LOAD HOURS

This Section Does Not Apply

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Building Component	YES	NO	Form/Title	Field Inspector	
				Pass	Fail
Mechanical	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-02-A Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-03-A Constant Volume Single Zone HVAC	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-04(a)-H Air Distribution Duct Leakage - HERS Verification required	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-04(b)-A Air Distribution Duct Leakage - ATT only	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-05-A Air Economizer Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-06-A Demand Control Ventilation Systems Acceptance must be submitted for all systems required to employ demand controlled ventilation (refer to §101.10(3)) can vary outside-ventilation flow rates based on maintaining interior carbon dioxide (CO2) concentration setpoints	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-07-A Supply Fan Variable Flow Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-08-A Valve Leakage Test	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-09-A Supply Water Temperature Reset Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-10-A Hydronic System Variable Flow Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-11-A Automatic Demand Shed Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-12-A FDD for Packaged Direct Expansion Units	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-13-A Automatic FDD for Air Handling Units and Zone Terminal Units Acceptance	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-14-A Distributed Energy Storage DX AC Systems Acceptance	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-15-A Thermal Energy Storage (TES) System Acceptance	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-16-A Supply Air Temperature Reset Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-17-A Condenser Water Temperature Reset Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-18 Energy Management Control Systems	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-19 Occupancy Sensor Controls	<input type="checkbox"/>	<input type="checkbox"/>

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Input File Name:	Senior Center.cbdl3x		

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT § 10-103

Documentation Author Name: H2S Engineers Inc.
 Company: H2S Engineers Inc.
 Address: 1124 N Boatswain Circle
 City/State/Zip: Anaheim CA 92801
 Phone: 714.290.0718

Signature: *Hitzen Sheth*
 Signature Date: 2021-01-21
 CEA/ HERS Certification Identification (if applicable): 569C-6230-07DA-3122-458B-4343-76C3-58AA-CBF3-1850-458B-93EE-DF26-6894-655E-DFFF

RESPONSIBLE PERSON'S DECLARATION STATEMENT

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

- The information provided on this Certificate of Compliance is true and correct.
- 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).
- 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 2 of the California Code of Regulations.
- 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 the building permit application.
- 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.

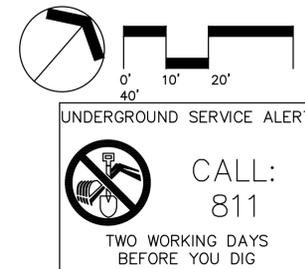
Responsible Envelope Designer Name: HITEN SHETH
 Company: H2S ENGINEERS INC.
 Address: 1124 N BOATSWAIN CIRCLE
 City/State/Zip: ANAHEIM CA 92801
 Phone: 7142900718

Signature: *Hitzen Sheth*
 Date Signed:
 Declaration Statement Type:
 Title: License #: M35789

Responsible Lighting Designer Name:
 Company:
 Address:
 City/State/Zip:
 Phone:

Signature: *Hitzen Sheth*
 Date Signed:
 Declaration Statement Type:
 Title: License #: M35789

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: NRCC-PRF-01-E-04172020-6104 Report Generated at: 2021-01-21 05:49:48



APPROVED BY:

Michael Todd Broussard, PE DATE
 R.C.E. NO. 57144 EXP. DATE: 12/31/19

CITY OF HUNTINGTON BEACH
 DEPARTMENT OF PUBLIC WORKS

REVISIONS	DATE

SHEET TITLE
 TITLE 24
 COMPLIANCE
 FORMS

JOB # 873-10

DESIGNED LM
 DRAWN LM
 CHECKED HS
 DATE 6/21/2021

SHEET
M0.4

RJM DESIGN GROUP

31591 Camino Capistrano
 San Juan Capistrano, CA 92675
 www.RJMDesignGroup.com
 (949) 493-2690 fax
 (949) 493-2600 phone

CONSULTANT
RM ARCHITECTURE
 RUBIO MEDINA, ARCHITECT
 780 ROOSEVELT
 IRVINE, CA 92602
 P: 949 333 6030
 F: 949 333 6100

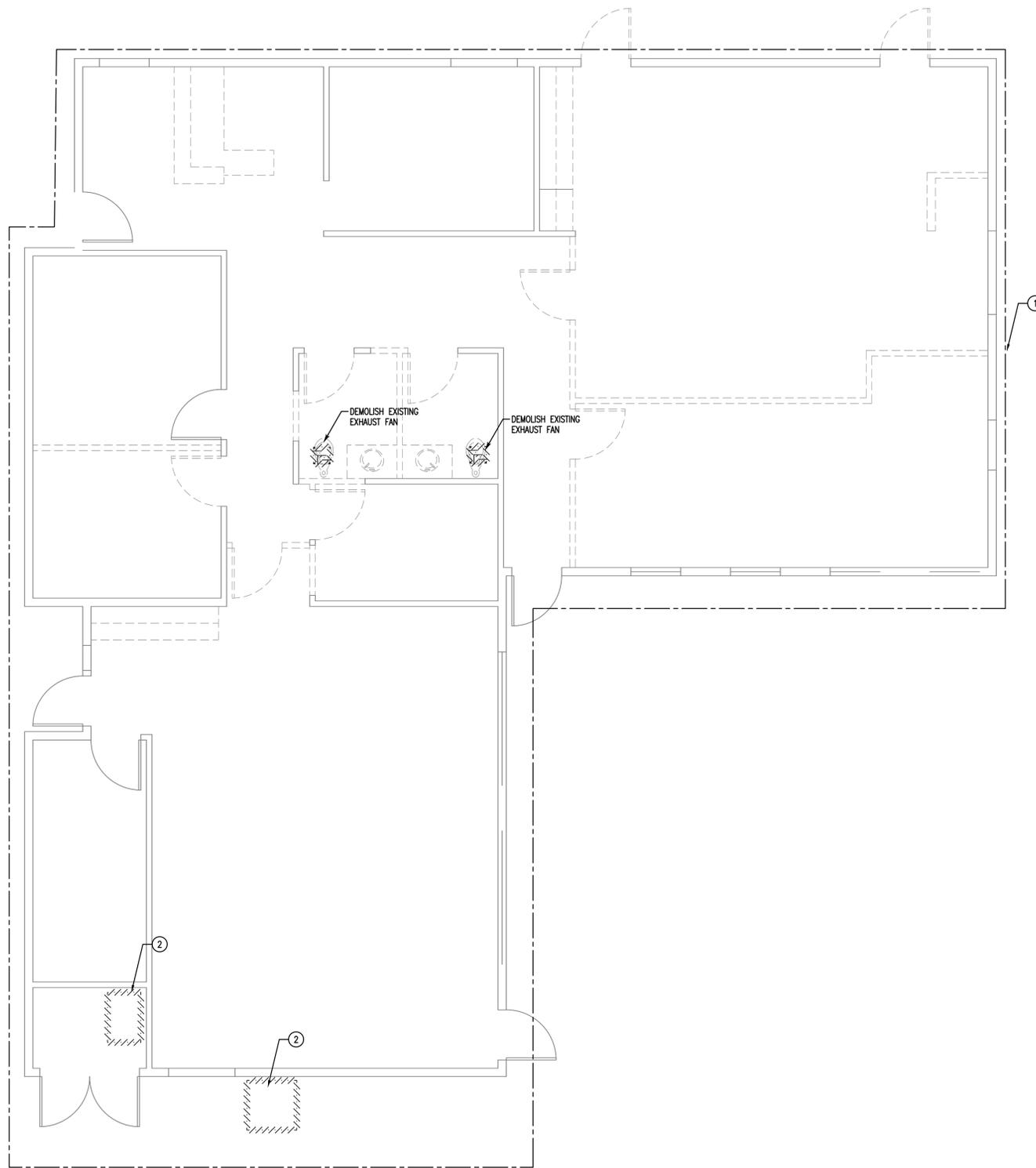
RODGERS SENIOR CENTER SITE
 1706 ORANGE AVENUE
 HUNTINGTON BEACH, CA 92647



H2S ENGINEERS INC.

H2S Engineers Inc.
 Consulting MEP Engineers
 Anaheim, CA 92801
 Ph: (714) 290-0718
 E-mail: nvmeria@h2sengineers.com

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SHEET NOTES

- ① DEMOLISH ALL EXISTING SUPPLY AND RETURN DUCTWORK IN ENTIRE SCOPE OF WORK AREA. ITEMS INCLUDE BUT ARE NOT LIMITED TO: DUCTWORK, DAMPERS AND AIR DEVICES. FIELD-VERIFY. CAP UNUSED UTILITIES.
- ② DEMOLISH EXISTING FURNACE AND ASSOCIATED CONDENSING UNIT.



31591 Camino Capistrano
San Juan Capistrano, CA 92675
www.RJMDesignGroup.com
P: 949-493-2690 fax
P: 949-493-2600 phone

CONSULTANT
RM ARCHITECTURE
RUBIO MEDINA, ARCHITECT
780 ROOSEVELT
IRVINE, CA 92603
P: 949-333-6030
F: 949-333-6100

RODGERS SENIOR CENTER SITE
1706 ORANGE AVENUE
HUNTINGTON BEACH, CA 92647

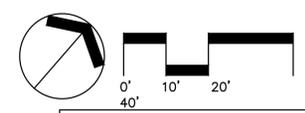


REVISIONS	DATE

SHEET TITLE
**MECHANICAL
DEMOLITION PLAN**



H2S Engineers Inc.
Consulting MEP Engineers
Anaheim, CA 92801
Ph: (714) 290-0718
E-mail: mverma@h2sengineers.com



APPROVED BY:
Michael Todd Broussard, PE DATE
R.C.E. NO. 57144 EXP. DATE: 12/31/19

UNDERGROUND SERVICE ALERT



CALL:
811

TWO WORKING DAYS
BEFORE YOU DIG



CITY OF HUNTINGTON BEACH
DEPARTMENT OF PUBLIC WORKS

JOB #	873-10
DESIGNED	LM
DRAWN	LM
CHECKED	HS
DATE	6/21/2021

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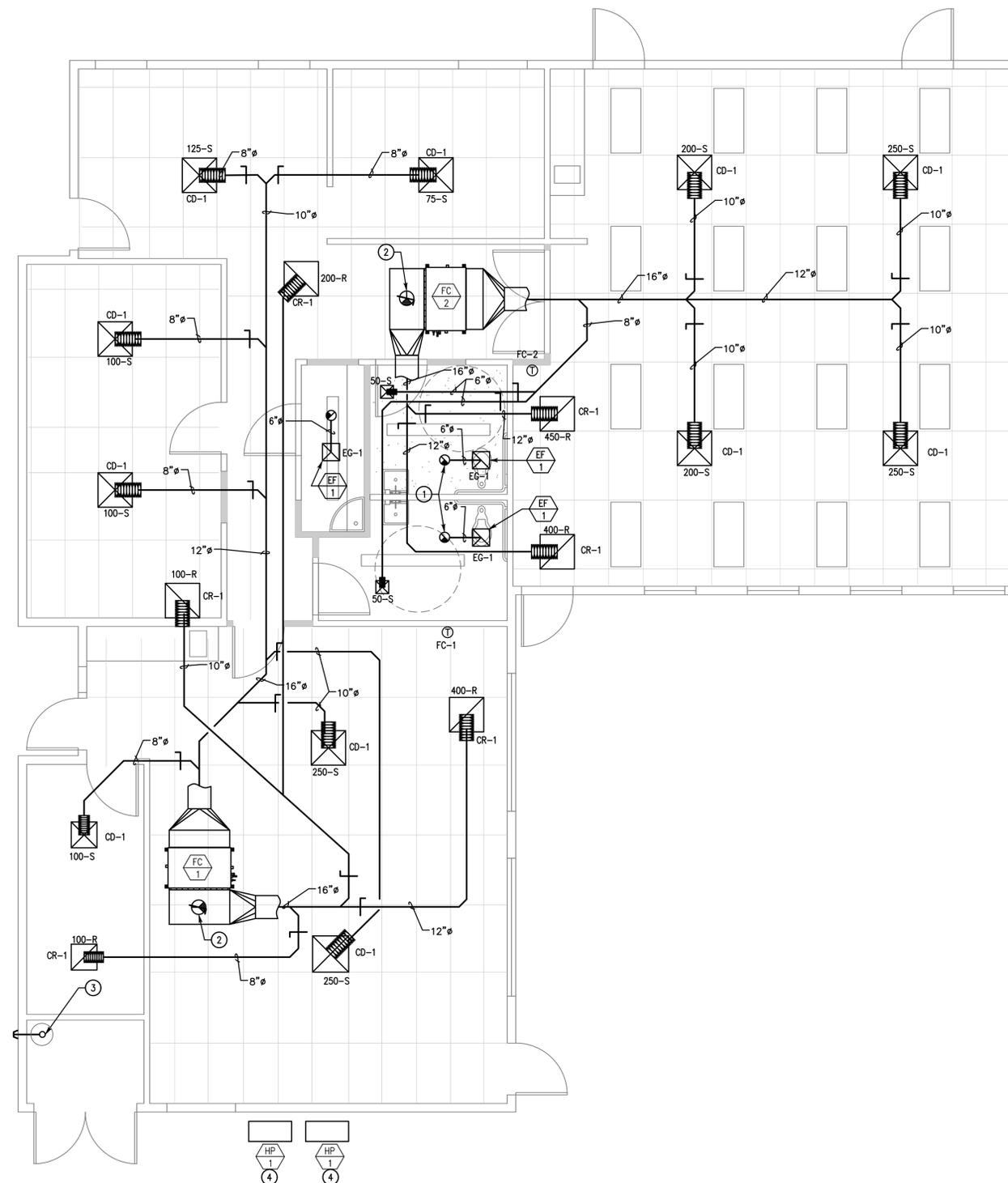
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SHEET NOTES

- 6" EXHAUST DUCT UP THRU ROOF TERMINATING ABOVE ROOF WITH A ROOF CAP AND MESH SCREEN.
- 10" OUTSIDE AIR INTAKE DUCT UP THRU ROOF TERMINATING ABOVE ROOF WITH AN AIR INTAKE CAP AND MESH SCREEN. MAINTAIN 10' CLEARANCE FROM ANY EXHAUST OR PLUMBING VENT.
- HIGH EFFICIENCY TANK LESS WATER HEATER WITH CONCENTRIC VENT KIT. TERMINATE VENT ON THE SIDE, INSTALL PER MANUFACTURER'S RECOMMENDATIONS. KEEP 10 FT. AWAY FROM ANY GSA OPENINGS.
- CONDENSING UNIT LOCATED OUTSIDE. PROVIDE 4" CONCRETE PAD OR PREFAB PAD. INSTALL LEVELED. PROVIDE CLEARANCES REQUIRED BY MANUFACTURER'S RECOMMENDATIONS. LOCATE MINIMUM 2' AWAY FROM OPENABLE WINDOWS. FULL SIZE REFRIGERANT PIPES DN AND OFFSET IN GROUND LEVEL CEILING SPACE. RUN TIGHT TO STRUCTURE AND ROUTE TO FAN COIL. SIZE REFRIGERANT PIPES PER MANUFACTURER'S RECOMMENDATION.

GENERAL INSTALLATION NOTES

- ALL DUCTWORK SHALL BE MINIMUM 26 GAGE GALVANIZED SHEET METAL.
- FLEX CONNECTOR SHALL NOT EXCEED TOTAL LENGTH OF 6'
- ALL SUPPLY AND RETURN DUCT SHALL BE INSULATED WITH R-6.2 INSULATION WITH VAPOR BARRIER.
- ALL BRANCHES SHALL BE PROVIDED WITH A MANUAL VOLUME DAMPER.
- ALL DIFFUSERS SHALL BE COORDINATED WITH ARCHITECT FOR COLOR AND FINISH.
- SUPPLY AND RETURN PLENUMS SHALL BE INSULATED WITH R-6.2 INSULATION WITH VAPOR BARRIER.
- CONDENSATE FROM FAN COIL SHALL BE SLOPED TOWARDS RECEPTOR AT MINIMUM 1" PER FOOT AND SHALL BE CONNECTED TO THE TAIL SIDE OF THE SINK IN RESTROOM.
- OUTSIDE AIR DUCT SHALL BE INSULATED WITH R-6.2 INSULATION WITH VAPOR BARRIER AND SHALL BE PROVIDED WITH MANUAL VOLUME DAMPER.



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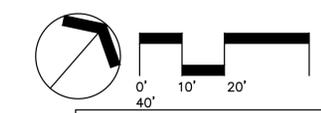


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H2S Engineers Inc.
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GENERAL NOTES – MECHANICAL

THE GENERAL CONDITIONS AND GENERAL REQUIREMENTS SECTIONS SHALL APPLY DIRECTLY TO THIS SECTION AS THOUGH PRINTED HEREIN.

1. SCOPE
 - A. WORK INCLUDED ALL LABOR, MATERIALS, EQUIPMENTS AND INCIDENTALS REQUIRED TO FURNISH AND INSTALL ALL MECHANICAL WORK AS INDICATED ON THE PLANS, SPECIFIED HEREIN, AND/OR AS NECESSARY TO COMPLETE THE WORK INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
 - a. HVAC UNITS, EQUIPMENT, AND APPURTENANCES.
 - b. DUCTWORK, FITTINGS, DAMPERS, AND INSULATION.
 - c. HYDRONIC PIPING AND INSULATION (AS APPLICABLE, REFER TO PLANS).
 - d. REFRIGERANT PIPING (AS APPLICABLE, REFER TO PLANS).
 - e. DIFFUSERS, GRILLES, AND REGISTERS.
 - f. CURBS AND STEEL FRAMING FOR SUPPORT (AS APPLICABLE, REFER TO EQUIPMENT PLANS).
 - g. TESTING, ADJUSTING, AND BALANCING.
 - h. OPERATIONS MANUALS.
 - i. TEMPERATURE CONTROLS AND RELATED DIAGRAMS.
 - j. SEQUENCES OF OPERATION.
 - k. CONNECTION TO ANY LANDLORD ENERGY MANAGEMENT SYSTEMS.
2. EXAMINATION OF THE SITE

EXAMINE THE SITE AND ALL CONDITIONS THEREON OR THEREIN. TAKE INTO CONSIDERATION ALL CONDITIONS THAT MAY AFFECT THE WORK UNDER THIS CONTRACT. LACK OF THIS INFORMATION WILL NOT BE CONSIDERED AS JUSTIFICATION FOR EXTRA COST OR ALLOWANCES TO THE CONTRACT SUM.
3. CODES AND REGULATIONS
 - A. ORDINANCES AND REGULATIONS. IN ADDITION TO COMPLYING WITH THE SPECIFIED REQUIREMENTS, COMPLY WITH PERTINENT REGULATIONS OF GOVERNMENTAL AGENCIES AS LISTED ON THESE DOCUMENTS OR IF UPDATED BY THE AGENCIES HAVING JURISDICTION.
 - B. PERMITS AND INSPECTIONS. APPLY AND PAY FOR ALL PERMITS FOR THE INSTALLATION OR CONSTRUCTION OF THE PLUMBING WORK REQUIRED BY ANY LEGALLY CONSTITUTED PUBLIC AUTHORITIES HAVING JURISDICTION AND FURNISH ALL NECESSARY DRAWINGS REQUIRED FOR SAME. ARRANGE FOR INSPECTIONS AND EXAMINATIONS AS REQUIRED, AND DELIVER CERTIFICATES OF ALL INSPECTIONS TO THE OWNER.
4. DRAWINGS AND SPECIFICATIONS
 - A. THE DRAWINGS ARE IN PART DIAGRAMMATIC AND ARE INTENDED TO CONVEY THE SCOPE OF THE WORK; THEY INDICATE THE GENERAL ARRANGEMENT AND APPROXIMATE SIZES OF EQUIPMENT, PIPING, ETC. FOLLOW THE DRAWINGS AS CLOSELY AS PRACTICAL IN LAYING OUT THE WORK, BE GUIDED BY THE CONDITIONS AT THE JOB AND CONSULT THE CONSTRUCTION DRAWINGS OF THE OTHER TRADES TO BECOME FAMILIAR WITH ALL CONDITIONS AFFECTING THE WORK.
 - B. VERIFY ALL CLEARANCES IN AREAS WHERE WORK WILL BE INSTALLED AND COORDINATE THE WORK WITH THAT OF THE OTHER TRADES AND OTHER SECTIONS OF THE SPECIFICATIONS.
 - C. WHERE JOB CONDITIONS, OR THE ARCHITECT REQUIRE REASONABLE CHANGES IN INDICATED LOCATIONS AND ARRANGEMENT, MAKE SUCH CHANGES WITHOUT ADDITIONAL CHARGE.
 - D. IT IS THE INTENT OF THE DRAWINGS AND SPECIFICATIONS TO PROVIDE COMPLETE OPERATING SYSTEMS, UNLESS SPECIFICALLY NOTED TO THE CONTRARY, THE OMISSION FROM THE DRAWINGS OR SPECIFICATIONS OF ANY MINOR DETAILS OF CONSTRUCTION, INSTALLATION, MATERIALS, OR SPECIALTIES NECESSARY FOR A SAFELY OPERABLE SYSTEM SHALL NOT RELIEVE THE CONTRACTOR FROM FURNISHING THE SUCH ITEMS IN PLACE, COMPLETE.
5. SUBSTITUTIONS
 - A. WHENEVER A PRODUCT IS SPECIFIED BY TRADE NAME OR MANUFACTURER'S NAME, EITHER IN THE SPECIFICATIONS OR ON THE DRAWINGS, SUCH DESIGNATION IS INTENDED TO ESTABLISH A STANDARD OF MERIT AND DESIGN.
 - B. SUBMIT WRITTEN REQUESTS FOR SUBSTITUTIONS IN TRIPlicate. INCLUDE CATALOG NUMBERS, CAPACITIES, RATINGS AND THE CUTS OF PRODUCTS SPECIFIED AS WELL AS PRODUCTS TO BE SUBSTITUTED. ALSO INCLUDE ACCURATE COST DATA ON THE PROPOSED SUBSTITUTION IN COMPARISON WITH THE PRODUCTS SPECIFIED AND WHETHER OR NOT MODIFICATION OF THE CONTRACT AMOUNT IS TO BE CONSIDERED.
 - C. SUBSTITUTIONS OF UNLISTED MANUFACTURERS WILL NOT BE ALLOWED AFTER THE CONTRACT IS SIGNED.
6. SUBMITTALS
 - A. PRODUCT DATA: SUBMIT MATERIAL LIST OF ITEMS PROPOSED TO BE PROVIDED UNDER THIS SECTION. INCLUDE MANUFACTURERS' SPECIFICATIONS, CATALOG CUTS, AND OTHER DATA NEEDED TO COMPLY WITH THE SPECIFIED REQUIREMENTS. SUBMIT ALL PRODUCT DATA A TONE TIME, BOUND BETWEEN COVERS. PARTIAL SUBMITTALS WILL NOT BE ACCEPTED.
 - B. SHOP DRAWINGS OR OTHER DATA AS REQUIRED TO INDICATE METHOD OF INSTALLATION AND ATTACHMENT OF DUCTWORK, PIPING, AND EQUIPMENT, EXCEPT WHERE SUCH DETAILS ARE FULLY SHOWN ON THE DRAWINGS.
 - C. RECORD DRAWINGS AND MANUALS: PROVIDE AND KEEP AT JOB SITE A COMPLETE RECORD SET OF BLUELINE PRINTS, CORRECTED DAILY TO SHOW EVERY CHANGE FROM THE ORIGINAL DRAWINGS AND SPECIFICATIONS. PRINTS FOR THIS PURPOSE MAY BE OBTAINED FROM THE ARCHITECT. DELIVER THE SET TO THE ARCHITECT. PAY FOR BLUEPRINTING PROJECT RECORD DRAWINGS.
7. OPENINGS
 - A. OPENINGS OR HOLES FOR DUCTWORK, PIPING OR EQUIPMENT WILL NOT BE ALLOWED IN ANY STRUCTURAL MEMBERS WITHOUT CONSENT OF THE ARCHITECT.
 - B. FRAMED OPENINGS HAVE BEEN INDICATED ON THE ARCHITECTURAL AND STRUCTURAL DRAWINGS. AT A TIME IN ADVANCE OF THE WORK, VERIFY THE LOCATION AND SIZE OF OPENINGS OR FURNISH NEW INSTRUCTIONS AS TO THE REQUIREMENTS FOR THESE OPENINGS. SHOULD THE FURNISHING OF THIS INFORMATION BE NEGLECTED, DELAYED OR INCORRECT, AND ADDITIONAL CUTTING, NOTCHING, OR BORING IS FOUND TO BE REQUIRED, THE WORK SHALL BE DONE AS DIRECTED BY THE ARCHITECT AT NO ADDITIONAL COST TO THE OWNER.
 - C. MAKE ABSOLUTELY WATERTIGHT ANY OPENINGS THROUGH WATERPROOFED CONSTRUCTION CAUSED BY THE PENETRATION OF DUCTS OR PIPING IN A MANNER APPROVED BY THE ARCHITECT.
8. QUALITY ASSURANCE AND PRODUCT HANDLING
 - A. USE ALL MEANS NECESSARY TO PROTECT MECHANICAL MATERIALS BEFORE, DURING AND AFTER INSTALLATION AND TO PROTECT THE INSTALLED WORK AND MATERIALS OF ALL OTHER TRADES.
 - B. IN THE EVENT OF DAMAGE, IMMEDIATELY MAKE ALL REPAIRS AND REPLACEMENTS NECESSARY TO THE SATISFACTION OF THE ARCHITECT AND AT NO ADDITIONAL COST TO THE OWNER.
9. NOISE AND VIBRATION

IT IS THE SPECIFIC INTENT OF THESE SPECIFICATIONS AND DESIGN CONDITIONS THAT THE ENTIRE SYSTEM INCLUDING EQUIPMENT, PIPING, AND ALL OTHER PARTS BE NOISELESS AND FREE OF VIBRATION TRANSMISSION. PROVIDE AND INSTALL VIBRATION DAMPERS, SOUND INSULATION PADS, FLEXIBLE CONNECTORS AND SIMILAR MATERIAL AS REQUIRED, TO PREVENT TRANSMISSION TO THE BUILDING STRUCTURE OF SOUND AND VIBRATION CAUSED BY THE FLOW OF FLUIDS, MOTORS, AND MOTOR OPERATED EQUIPMENT. IF, AS A RESULT OF THE INSTALLATION, NOISE OR VIBRATIONS OCCURS IN THE BUILDING, MAKE THE NECESSARY CORRECTIONS AT NO COST TO THE OWNER. DO NOT REDUCE THE CAPACITY OF ANY EQUIPMENT.
10. WARRANTY

BE RESPONSIBLE FOR ALL WORK UNDER THIS SECTION, ADJUST ALL VALVES, CONTROLS, VACUUM BREAKERS AND OTHER INCIDENTAL ITEMS. LEAVE THE SYSTEM IN PERFECT OPERATING CONDITION. REPAIR, REGULATE AND REPLACE ANY DEFECTIVE WORKMANSHIP, MATERIALS, AND EQUIPMENT WHICH MAY BECOME APPARENT WITHIN ONE YEAR AFTER THE DATE OF THE FINAL ACCEPTANCE OF THE WORK, AT NO ADDITIONAL COST TO THE OWNER. FURNISH THE OWNER ALL MANUFACTURER'S WRITTEN WARRANTIES OF MATERIALS AND EQUIPMENT.
11. CODE:
 - A. MOUNT WALL MOUNTED THERMOSTATS 4'-0" ABOVE FINISHED FLOOR, OR AS SHOWN ON ARCHITECTURAL INTERIOR ELEVATIONS. CONFIRM LOCATION IN THE FIELD PRIOR TO ROUGH IN ON INSTALLATION.
 - B. EACH SINGLE SYSTEM WITH ONE OR MORE AIR CONDITIONING UNITS PROVIDING HEATING OR COOLING IN EXCESS OF 2000 CFM OR AIR SERVING MORE THAN ONE OCCUPANCY, SHALL HAVE SMOKE DETECTORS (PRODUCT OF COMBUSTION) AND SHALL BE INSTALLED IN THE MAIN SUPPLY DUCT DOWNSTREAM OF THE FILTERS. ACTIVATION OF THE SMOKE SHALL CAUSE THE UNIT TO SHUT DOWN AND ACTIVATE THE FIRE ALARM SYSTEM (WHERE FIRE DETECTION & ALARM SYSTEMS ARE PROVIDED) (2007 OMC, 609). IF THERE ARE A NUMBER OF AIR CONDITIONING UNITS SERVING ONE AREA, OR THERE IS A COMMON RETURN AIR FLEXUM FOR A NUMBER OF AIR CONDITIONING UNITS, ALL SMOKE DETECTORS MUST BE INTERCONNECTED TO SHUT-OFF ALL EQUIPMENT EVEN WHEN SMOKE IS DETECTED BY ONLY ONE SMOKE DETECTOR. DUCT VELOCITY AND PRESSURE DIFFERENTIAL MAY HAVE TO BE VERIFIED FOR EACH DUCT SMOKE DETECTOR LOCATION IN ACCORDANCE WITH U.L. LISTING AND ECT10-3 (B). AUTOMATIC SHUTOFFS NEED NOT BE INSTALLED WHEN ALL ROOMS HAVE DIRECT EXIT TO THE EXTERIOR OF THE BUILDING.
 - C. ALL WORK SHALL COMPLY WITH REQUIREMENTS OF ALL APPLICABLE CODES, LAWS, ORDINANCES AND REGULATIONS OF ALL AUTHORITIES HAVING JURISDICTION. THIS CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, ADDITIONAL PLAN CHECK FEES, INSPECTIONS, ETC. AND FURNISH

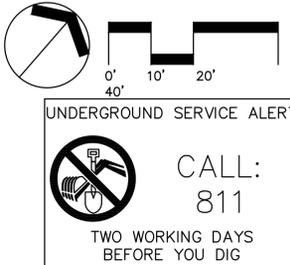
- D. SIGNED, CERTIFIED AND ACCEPTABLE COPIES TO THE OWNER FOR HIS RECORD.
- D. CONTRACTOR SHALL PROVIDE FIRE DAMPERS AT FIRE RATED PENETRATIONS.
- E. DUCTS OPENING INTO CORRIDOR SHALL HAVE INSTALLED A COMBINATION FIRE/SMOKE DAMPER CONFORMING TO CBC STANDARD SECTION 716 (J) WITH A MINIMUM LEAKAGE CLASSIFICATION OF III. CBC, 4306; FIRE DAMPER DETAIL SHOWN IS FOR REFERENCE ONLY. FIRE DAMPERS SHALL BE OSGFD FIRE MARSHAL APPROVED AND INSTALLED STRICTLY PER MANUFACTURER'S PRINTED INSTRUCTIONS. MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL BE MADE AVAILABLE TO THE INSPECTING AUTHORITIES.
12. DUCT VELOCITY AND PRESSURE DIFFERENTIAL SHALL BE VERIFIED FOR EACH DUCT SMOKE DETECTOR LOCATION IN ACCORDANCE WITH U.L. LISTING AND ECT10-3 (B). DUCT SMOKE DETECTORS SHALL BE MAGNETIC TESTED TO THE LISTED SPECIFICATIONS IN THE PRESENCE OF THE CITY BUILDING INSPECTOR PRIOR TO FINAL APPROVAL.
13. ACCESS TO INSPECT, SERVICE, REPAIR AND REPLACE WITHOUT REMOVING PERMANENT CONSTRUCTION TO ALL EQUIPMENT SHALL BE PROVIDED, UNLESS OTHERWISE SPECIFIED, NOT LESS THAN 30 INCHES OF WORKING SPACE AND PLATFORM SHALL BE PROVIDED.
14. TOILET ROOMS WITHOUT WINDOWS OR WINDOW AREA LESS THAN 5% OF TOILET FLOOR AREA, SHALL HAVE A MECHANICALLY OPERATED EXHAUST SYSTEM CAPABLE OF PROVIDING A COMPLETE CHANGE OF AIR EVERY 10 MINUTES (6 AIR CHANGE PER HOUR). TOILET EXHAUST DUCTS SHALL BE DIRECTLY CONNECTED TO THE OUTSIDE AND SHALL BE OF SMOOTH, NON-ABSORBENT AND NON-COMBUSTIBLE SURFACE MATERIAL.
15. ALL OSA INTAKES MUST BE 10 FEET MINIMUM AWAY FROM ALL PLUMBING OR APPLIANCE VENTS (OR 3'-0" MINIMUM BELOW APPLIANCE VENTS). OSA INLETS SHALL BE COVERED WITH SCREEN HAVING 1/4" OPENING.
16. ENVIRONMENTAL EXHAUST, SUCH AS BATHROOM, DRYER VENT, ETC. SHALL TERMINATE AT LEAST 3 FEET FROM PROPERTY LINE, ANY OPERABLE WINDOW, AND 10 FEET AWAY FROM ANY FRESH AIR INTAKE. PRODUCT CONVEYING EXHAUST, SUCH AS GARAGE VENTILATION, COMMERCIAL KITCHEN HOOD, ETC. SHALL TERMINATE AT LEAST 10 FEET FROM PROPERTY LINE, OPENINGS INTO THE BUILDING, FRESH AIR INTAKE OPENING, ABOVE ADJOINING GRADE, AND 3 FEET FROM EXTERIOR WALL OR ROOF.
17. ALL PENETRATIONS IN FIRE WALLS AND FLOOR AND ROOF-CEILING ASSEMBLIES REQUIRING PROTECTED OPENING SHALL BE FIRE-STOPPED. PROVIDE FIRE STOPPING SPECIFICATIONS INCLUDING MANUFACTURER AND REPORT OF APPROVED TESTING AGENCY.
18. ALL PENETRATIONS OR OPENINGS IN CONSTRUCTION ASSEMBLIES FOR PIPING, HEATING, VENTILATING OR EXHAUST DUCTS SHALL BE SEALED, LINED, INSULATED OR OTHERWISE TREATED TO MAINTAIN THE REQUIRED RATINGS.
19. ALL RIGID DUCTS, PIPES, AND APPLIANCE VENTS LOCATED IN SOUND ASSEMBLIES SHALL BE ISOLATED FROM THE BUILDING CONSTRUCTION BY MEANS OF RESILIENT SLEEVES, MOUNTS, OR MINIMUM 1/4" THICK APPROVED RESILIENT MATERIAL. (EXCEPTION: GAS PIPING NEED NOT BE LINED).
20. CLOTHES DRYER EXHAUST DUCTS MUST BE OF METAL.
21. ALL GAS FIRED HEATING EQUIPMENT SHALL BE "10" (PILOT-LESS) TYPE.
22. PROVIDE A 6" CLEARANCE ON FRONT, SIDES AND BACK OF THE FURNACE.
23. SEAL THE CEILING MOUNTED EXHAUST FAN HOUSING TO THE CEILING MEMBRANE. USE U.L. APPROVED FIRE STOPPING SEALANT.
24. THIS PROJECT SHALL COMPLY W/ THE 2007 EDITION OF THE CALIFORNIA BUILDING CODE (1-24), WHICH ADOPTS THE 2007 CBC, 2007 OMC, 2007 CPC & THE 2007 ECC.
25. WHEN MORE THAN ONE HEATING, COOLING, VENTILATING OR REFRIGERATING SYSTEM IS INSTALLED ON THE ROOF OF A BUILDING OR WITHIN A BUILDING, IT SHALL BE PERMANENTLY IDENTIFIED AS TO THE AREA OR SPACE SERVED BY THE EQUIPMENT.
26. ENERGY:
 - A. BACK-DRAFT DAMPERS FOR ALL EXHAUST AND FAN SYSTEMS SHALL BE PROVIDED.
 - B. ALL WATER HEATING AND AIR CONDITIONING EQUIPMENT, SHOWER HEADS AND FAUCETS SHALL BE C.E.C. CERTIFIED.
 - C. AUTOMATIC TEMPERATURE CONTROL DEVICE FOR REGULATION OF SPACE TEMPERATURE SHALL BE EQUIPPED WITH NIGHT SET BACK AND HAVE THE ABILITY TO OPERATE THE HEATING AND THE COOLING IN SEQUENCE. CONTROL SHALL BE ADJUSTABLE TO PROVIDE A RANGE OF UP TO 10 DEGREES F BETWEEN FULL HEATING AND FULL COOLING AND HAVE A CAPABILITY OF TERMINATING ALL HEATING AT A TEMPERATURE NO MORE THAN 70 DEGREES F AND COOLING AT A TEMPERATURE NO LESS THAN 78 DEGREES F.
 - D. AT LEAST ONE AUTOMATIC SPACE TEMPERATURE CONTROL DEVICE (THERMOSTAT) SHALL BE PROVIDED FOR EACH ZONE AND/OR EACH SEPARATE HVAC SYSTEM. (NOT MORE THAN ONE FLOOR OF BUILDING SHALL BE INCLUDED).
 - E. ALL AIR CONDITIONING UNITS TO BE FURNISHED WITH MAINTENANCE MANUALS, SCHEDULES AND TAGS.
 - F. ALL AIR CONDITIONING UNITS TO BE EQUIPPED WITH A READILY ACCESSIBLE MANUALLY ADJUSTABLE AUTOMATIC MEANS OF REDUCING THE ENERGY USED FOR HVAC DURING PERIOD OF NON-USE OR ALTERNATE USE OF THE BUILDING SPACE OR ZONES SERVED BY THE SYSTEM, SUCH AS A TIME CLOCK OR TIME SWITCH.
 - G. EACH MECHANICAL OR GRAVITY VENTILATING UNIT, EXCEPT ATTIC VENTILATORS, SHALL BE EQUIPPED WITH AN AUTOMATIC TIME NORMALLY CLOSED OUTSIDE AIR DAMPER TO SERVE AS A MEANS OF PROVIDING AIR VOLUME REDUCTION AND/OR SHUT-OFF WHEN VENTILATION IS NOT REQUIRED. (DOES NOT APPLY TO COMBUSTION AIR OPENINGS).
27. QUALITY CONTROL:
 - A. PROVIDE AS-BUILT DRAWINGS IN CAD FORMAT (DWG) AND SUBMIT BOTH DIGITAL AND PAPER COPIES TO THE ARCHITECT AND OWNER.
 - B. CONTRACTOR SHOULD SUBMIT SHOP DRAWINGS. EQUIPMENT HANGERS, ANCHOR BOLTS AND METHODS OF INSTALLATION MUST HAVE CITY APPROVAL AND MAY BE SUPPLIED BY HULTI OR EQUAL.
 - C. IT IS THE SPECIFIC INTENT OF THIS DESIGN CONDITIONS THAT THE ENTIRE SYSTEM INCLUDING EQUIPMENT, DUCTWORK, AIR OUTLETS/INLETS AND ALL OTHER PARTS BE NOISELESS AND FREE OF VIBRATION TRANSMISSION. PROVIDE AND INSTALL VIBRATION ISOLATORS OR DAMPERS, SOUND INSULATION PADS, FLEXIBLE CONNECTORS AND SIMILAR MATERIAL AS REQUIRED. INSTALL VOLUME DAMPERS ON ALL DUCTS AS FAR AS POSSIBLE FROM AIR INLET/OUTLET. MAKE THE NECESSARY NOISE OR VIBRATION CORRECTIONS BY INSTALLING THESE ITEMS AT NO COST TO THE OWNER.
 - D. THE DRAWINGS ARE IN PART DIAGRAMMATIC AND ARE INTENDED TO CONVEY THE SCOPE OF THE WORK; THEY INDICATE THE GENERAL ARRANGEMENT AND APPROXIMATE SIZES OF EQUIPMENT, DUCTWORK, PIPING, OUTLETS, ETC. FOLLOW THE DRAWINGS AS CLOSELY AS PRACTICAL IN LAYING OUT THE WORK, BE GUIDED BY THE CONDITIONS AT THE JOB AND CONSULT THE CONSTRUCTION DRAWINGS OF THE OTHER TRADES TO BECOME FAMILIAR WITH ALL CONDITIONS AFFECTING THE WORK.
 - E. UPON COMPLETION OF AND AFTER CLEANING OF SYSTEM AND EQUIPMENT, CAREFULLY ADJUST FOR NORMAL OPERATION OF THE AUTOMATIC PARTS OF HEATING, VENTILATING AND AIR CONDITIONING SYSTEMS.
 - F. EQUIPMENT AND DUCTWORK EXPOSED TO WEATHER MUST BE WEATHER-PROOFED.
 - G. ROOF-MOUNTED EQUIPMENT SHALL BE LABELED AS TO THE SPACE IT SERVES. (WHEN MORE THAN ONE HEATING OR COOLING UNIT SERVES DIFFERENT OCCUPANTS).
 - H. CONTRACTOR SHALL BALANCE AIR SYSTEM TO THE CFM CAPACITY AS SHOWN ON FLOOR.
 - I. ALL APPLIANCES DESIGNED TO BE FIXED IN POSITION SHALL BE SECURELY FASTENED IN PLACE PER 2007 OMC, 304.4 (FOR SECURED FASTENING AND SUPPORT OF APPLIANCES)
 - J. FURNISHING AND INSTALLATION OF ALL LOW VOLT. WIRING FOR MECHANICAL SYSTEMS SHALL BE BY THE MECHANICAL CONTRACTOR.
 - K. ALL NECESSARY EQUIPMENT CURBS, RUNNERS, PLATFORMS, ROOFING, PATCHING, CUTTING, RATING SHAFTS, FURRING, FLASHING AND PAINTING SHALL BE BY THE GENERAL CONTRACTOR.
 - L. ALL NECESSARY DRAINS, GAS, CONDENSATE DRAINS WITH TRAPS MAKE-UP WATER, INCLUDING FINAL CONNECTIONS SHALL BE BY THE PLUMBING CONTRACTOR.
 - M. FURNISHING AND INSTALLATION OF ALL LINE VOLT. WIRING, ALL LOW AND LINE VOLT CONDUITS AND AUXILIARIES FOR MECHANICAL SYSTEMS SHALL BE BY THE ELECTRICAL CONTRACTOR. THE CONDUIT FOR LOW VOLTAGE WIRING OF MECHANICAL SYSTEM EXPOSED TO THE WEATHER SHALL BE APPROVED FOR EXTERIOR USE AND BE BY THE ELECTRICAL CONTRACTOR.
 - N. ALL COMBINATION SMOKE/ FIRE DAMPERS SHALL INTERLOCKED FOR GLOBAL SHUTDOWN WITH ALL DUCT SMOKE DETECTORS, SMOKE AREA DETECTORS, ALL AIR HANDLING EQUIPMENT AND THE ALARM SYSTEM IF PROVIDED.
 - O. ALL DUCT DETECTORS SHALL BE MAGNETIC TESTED TO THE MANUFACTURERS SPECIFICATIONS IN THE PRESENCE OF THE CITY OF _____ BUILDING INSPECTOR PRIOR TO THE FINAL APPROVAL.
 - P. 16. ALL EXTERIOR MOUNTED DUCT DETECTORS SHALL BE RATED AT 150 DEGREES F. OR HIGHER AND BE MOUNTED IN A NEMA RATED ENCLOSURE OF 3-R OR HIGHER.
 - Q. ALL ROOFTOP EQUIPMENT REQUIRES EXTERNAL DISCONNECTS.
 - R. ALL EQUIPMENT SHALL BE LABELED OR LISTED BY A RECOGNIZED APPROVAL AGENCY.

- S. RETURN AIR PLENUMS ARE NOT PERMITTED ON THIS JOB WITHOUT PLAN CHECK APPROVAL.
- T. ALL MECHANICAL EQUIPMENT DESIGNED TO BE FIXED IN POSITION SHALL BE SECURELY FASTENED IN PLACE. OTHER EQUIPMENT THAT IS OVER 5 FEET IN HEIGHT, IT SHALL BE SECURED IF ONE OF THE FOLLOWING APPLIES: (1-16-P)
 - a. EXCEEDS HEIGHT TO WIDTH RATIO OF 1-1/2: 1.
 - b. CENTER OF GRAVITY IS LOCATED ABOVE MID-HEIGHT.
- U. ALL APPLIANCES DESIGNED TO BE FIXED IN POSITION SHALL BE SECURELY FASTENED IN PLACE PER BUILDING CODE REQUIREMENTS.
- V. ROOF MOUNTED EQUIPMENT SHALL BE LABELED AS TO THE SPACE IT SERVES.
- W. MATERIALS EXPOSED WITHIN DUCTS OR PLENUMS SHALL HAVE FLAMESPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED RATING OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH CBC SECTION 703.4.2
- X. PROVIDE APPROVED FIRE EXTINGUISHING SYSTEM WITH AUTO GAS SHUT-OFF AND MANUAL RESET.
- Y. PROVIDE AT LEAST ONE PORTABLE FIRE EXTINGUISHER WITH A RATING OF NOT LESS THAN 10BC FOR KITCHEN AREA.
- Z. AIR BALANCE REPORT REQUIRED FOR HVAC DUCT SYSTEMS PRIOR TO FINAL INSPECTION.
- AA. NO ANALYSIS HAS BEEN MADE WITH REGARD TO SOURCES OR POTENTIAL SOURCES OF INDOOR OR OUTDOOR AIR CONTAMINANTS OR LEVELS OF CONTAMINATION. ANY SUCH STUDY IS BY SEPARATE OWNER CONSULTANT.
- AB. IT IS THE RESPONSIBILITY OF THE GENERAL AND MECHANICAL CONTRACTOR TO INFORM THE TENANT'S REPRESENTATIVE, LANDLORD AND TENANT'S ARCHITECT IF ANY SOURCE OR POTENTIAL SOURCE OF INDOOR AIR CONTAMINATION IS IDENTIFIED.
- AC. PRIOR TO ENCLOSING SPACES SUCH AS PLUMBING CHASES, AIR SHAFTS AND RETURN AIR PLENUMS CLEAN ALL AREAS THOROUGHLY. THE CONTRACTOR SHALL GUARANTEE THAT THE PLENUM CHAMBER SHALL BE FREE FROM CONTAMINATION. ALL TRAPS, SOIL STACKS, DOWNSPOUTS, VENTS, EXHAUST DISCHARGES AND OTHER SOURCES SHALL BE ENCLOSED SO THAT NO CONTAMINATED AIR WILL BE INTRODUCED OR REGULARIZED BY THE SYSTEM.
- AD. PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES THE CONTRACTOR SHALL SHUT OFF THE HVAC SYSTEM, BLOCK OFF AIR GRILLS, DIFFUSERS AND OTHER OPENINGS OUTSIDE THE IMMEDIATE CONSTRUCTION AREA. OPENINGS TO ADJACENT TENANT SPACES SHALL BE COVERED WITH A DOUBLE LAYER OF FILTER MEDIA TO PREVENT DUST AND OTHER AIRBORNE CONTAMINANTS FROM PASSING TO ADJOINING OR OTHER PUBLIC SPACES.
- AE. IF REQUIRED THE CONTRACTOR SHALL INSTALL TEMPORARY EXHAUST SYSTEM TO VENTILATE CONSTRUCTION SITE AND KEEP SITE UNDER SLIGHT NEGATIVE PRESSURE DURING ALL HOURS OF CONSTRUCTION, EVEN IF AFTER NORMAL BUSINESS HOURS.
- AF. CONTRACTORS TO INSTALL TEMPORARY BARRIERS TO PROTECT ADJACENT SPACES FROM DUST, PARTICULATES, VAPORS AND NOISE. WHERE TEMPORARY BARRIERS ARE INSTALLED ALWAYS MAINTAIN REQUIRED FIRE EXITS AND CLEARANCES AT ALL EXITSWAYS.
28. DUCTWORK:
 - A. INSTALLATION OF DUCTWORK SHALL BE COORDINATED WITH OTHER TRADES. PRIOR TO ORDERING OR FABRICATION OF ANY DUCTWORK THE GC SHALL PROVIDE FOR REVIEW AND APPROVAL A SCALED DUCT LAYOUT ON THE APPROVED REFLECTED CEILING PLAN SHOWING THE DIMENSIONS AND LAYOUT OF DUCTWORK WITH STRUCTURE, PLUMBING, ELECTRICAL, LIGHTING, FIRE SPRINKLERS, AND LOW VOLTAGE SYSTEMS. WHERE CONFLICTS OCCUR THEY ARE TO BE RESOLVED BY THE MECHANICAL ENGINEER AND ARCHITECT PRIOR TO FABRICATION. ALL DUCTS INSTALLED IN LOCATIONS SUBJECT TO PHYSICAL DAMAGE SHALL BE PROTECTED BY SUITABLE GUARDS.
 - B. ALL AIR CONDITIONING DUCTS TO COMPLY WITH SMOGNA AND CHAPTER 6 OF THE CALIFORNIA MECHANICAL CODE. ALL TRANSVERSE JOINTS TO BE SUBSTANTIALLY AIRTIGHT WITH TAPE, MASTIC, CASKETING OR OTHER MEANS. ALL LOW PRESSURE DUCTWORK SIZED EQUAL TO OR LESS THAN 6" W.C./100 FT. ALL DUCTS FOR VENTILATION INCLUDING GARAGE VENTILATION SYSTEM TO COMPLY WITH CHAPTER 5 OF THE 2007 CALIFORNIA MECHANICAL CODE.
 - C. DUCT SUPPORTS AND ANCHORAGE SHALL COMPLY WITH 2007 OMC 604.0 AND TABLE 6-7 AND 6-8.
 - D. MANUAL VOLUME DAMPERS TO BE INSTALLED IN ALL BRANCH TAKE-OFFS. ALL DAMPERS TO HAVE LOCKING QUADRANTS.
 - E. DUCT SIZES SHOWN ARE NET SIZES REQUIRED. LINED DUCTS SHALL BE INCREASED IN SIZE TO ACCOMMODATE LINING WITHOUT LOSS OF AREA.
 - F. PROVIDE MASTIC OR DUCT TAPE JOINT SEALANT TO SEAL TRANSVERSE JOINTS ON AIR SUPPLY DUCTS INSTALLED IN LOCATIONS WHERE AIR LEAKAGE THROUGH THE JOINTS WOULD BE NON-BENEFICIAL TO THE OCCUPIED AREA. TEMPERATURE REQUIREMENTS AND SEAL LONGITUDINAL JOINTS ON LOW-PRESSURE SUPPLY DUCTS WHERE INTERNAL STATIC PRESSURE EXCEED 0.75" OF
 - G. FLEX DUCT SHALL BE ATTACHED TO ALL REGISTERS, GRILLES, COLLARS AND FITTINGS ACCORDING TO ITS LISTINGS. I.E. A MINIMUM OF TWO WRAPS OF UL 181 TAPE AND A PANDUIT STRAP ON THE INSIDE LINER AND A MINIMUM OF TWO WRAP OF UL 181 TAPE OR A PANDUIT STRAP OR BOTH ON THE OUTSIDE COVER.
 - H. ALL FLEX DUCT SPLICES SHALL BE SLEEVED.
 - I. ALL AFD SPLICES SHALL BE SLEEVED.
 - J. MATERIALS EXPOSED WITHIN DUCTS OR PLENUMS SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED RATING OF NOT MORE THAN 50 PER CBC 602.0.
29. AIR DEVICES:
 - A. ARROWS AT CEILING DIFFUSERS INDICATE THE AIR THROW PATTERN.
 - B. COORDINATE WITH ARCHITECTURAL DRAWINGS AND REFLECTED CEILING PLANS FOR EXACT LOCATION OF ALL DIFFUSERS AND REGISTERS AND LOUVERS.
 - C. SUPPLY DIFFUSERS AND REGISTERS TO BE KRUEGER MODEL 1240 OR SH FOR CEILING INSTALLATION AND/OR 880V FOR SIDE-WALL INSTALLATION OR APPROVED EQUAL WITH KEY OPERATED OPPOSED BLADE DAMPER UNIT.
 - D. RETURN AND EXHAUST AIR REGISTERS TO BE KRUEGER MODEL C1190 OR EOC-5 FOR CEILING INSTALLATION AND/OR 885V FOR SIDE-WALL INSTALLATION OR APPROVED EQUAL WITH KEY OPERATED OPPOSED BLADE DAMPER UNIT.
 - E. ALL REGISTERS AND GRILLES INSTALLED IN T-BAR CEILINGS SHALL BE ATTACHED AT EACH CORNER TO THE MAIN RUNNERS WITH APPROVED CLIPS OR SM SCREWS.
30. INSULATION:
 - A. MINERAL FIBER INSULATION SHALL BE INSTALLED IN JOINT SPACES WHENEVER A PLUMBING PIPE OR DUCT PENETRATES A FLOOR-CEILING ASSEMBLY OR WHERE SUCH PIPE OR DUCT PASSES THROUGH THE PLANE OF FLOOR-CEILING ASSEMBLY FROM WITHIN A WALL. THE INSULATION SHALL BE INSTALLED TO A POINT 12" BEYOND THE PIPE OR DUCT.
 - B. COMBUSTION AIR, KITCHEN AND BATHROOM EXHAUST DUCTS WITHIN SOUND SEPARATION ASSEMBLIES SHALL BE WRAPPED WITH TYPE "C" INSULATION AS SHOWN IN TABLE NO. 6-4, UNIFORM MECHANICAL CODE.
 - C. CEILING CONCEALED SUPPLY AND RETURN DUCTS TO BE COVERED ALL SIDES WITH 2" THICK 3/4 LB./CU. FT. OR WITH 1" THICK 1.5 LB./CU. FT. DENSITY FIBERGLASS INSULATION, OR 1" THICK 3 LB./CU. FT. MINERAL FIBER BOARD, OR MATERIAL WITH A CONDUCTANCE OF 0.30 OR LESS, APPLIED WITH 2" LAPPED JOINTS SECURELY AND NEATLY WIRED AND FASTENED TO DUCT; THE INSULATION TO BE CERTIFIED BY CALIFORNIA ENERGY COMMISSION; (JOHN MANSVILLE IS ACCEPTED) WHEN DUCTWORK PENETRATE INSULATED WALLS OR ROOF, THE HOLE MUST BE

- SEALED WITH AN APPROVED POLY SEAL MATERIAL.
- D. INSULATION INSTALLER SHALL POST IN A CONSPICUOUS LOCATION IN THE BUILDING A CERTIFICATE SIGNED BY THE INSTALLER AND BUILDER STATING THAT THE INSULATION CONFORMS WITH THE REQUIREMENTS OF TITLE 24, CHAPTER 2-53 AND THAT THE MATERIAL INSTALLED CONFORMS WITH THE REQUIREMENTS OF TITLE 20, CHAPTER 2, SUB-CHAPTER 4, ARTICLE 3.
- E. ALL INSULATION MATERIALS SHALL BE CERTIFIED BY THE MANUFACTURER AS COMPLYING WITH THE CALIFORNIA QUALITY STANDARD FOR INSULATION MATERIAL.
- F. INSULATION APPLIED TO THE EXTERIOR SURFACE OF DUCTS LOCATED IN THE BUILDINGS SHALL HAVE A FLAME SPREAD OF NOT MORE THAN 25 AND A SMOKE-DENSITY NOT EXCEEDING 50 PER CBC 605.0
31. PIPING:
 - A. PROVIDE A 3/4" MINIMUM CONDENSATE DRAIN FROM EACH AC UNIT TO AN APPROVED DISPOSAL AREA. CONDENSATE WATER SHALL NOT DRAIN OVER A PUBLIC WAY. THE DRAIN SHALL HAVE A SLOPE OF NOT LESS THAN 1/8 INCH PER FOOT AND SHALL BE OF APPROVED CORROSION-RESISTANT PIPE. (THIS WORK IS UNDER PLUMBING SECTION, REFER TO PLUMBING DRAWINGS).
 - B. FOR COOLING EQUIPMENT LOCATED IN AN ATTIC OR FURRED SPACE, AN ADDITIONAL WATER-TIGHT PAN OF CORROSION-RESISTANT METAL SHALL BE INSTALLED BENEATH THE COOLING COIL TO CATCH THE OVERFLOW CONDENSATE DUE TO CLOGGED PRIMARY 3/4 INCH NOMINAL PIPE SIZE, DISCHARGING AT A POINT WHICH CAN BE READILY IDENTIFIED.
32. EXISTING EQUIPMENT TO REMAIN:
 - A. PROVIDE FULL DIAGNOSTIC CHECK OF ALL EQUIPMENT AND SYSTEMS INDICATED AS TO REMAIN. REPORT ANY DEFICIENCIES. REPORT CONDITION AND ANY INDICATION OF WEAR, MISSING PARTS OR POTENTIAL FAILURE.
 - B. TEST AND RECORD ALL CURRENTS DRAWN BY MOTORS AND COMPRESSORS AND ALL OPERATING PRESSURES AND PROVIDE WRITTEN REPORT TO THE OWNER IDENTIFYING MFR, MODEL NUMBER AND LOCATION.
 - C. PRESSURE WASH INDOOR AND OUTDOOR COILS AFTER ALL DUST-PRODUCING CONSTRUCTION WORK IS COMPLETED.
 - D. FURNISH AND INSTALL NEW DRIVE BELTS ON ALL UNITS.
 - E. THOROUGHLY CLEAN AND REPAIR CONDENSATE PANS AND BLOW OUT DRAIN LINES.
 - F. INSPECT AND LUBRICATE ALL BEARINGS.
 - G. FURNISH AND INSTALL ALL NEW 2" AIR FILTERS.
 - H. PROVIDE TEST AND BALANCE REPORT PERFORMED BY CERTIFIED INDEPENDENT TEST AND BALANCE CONTRACTOR ON THE COMPLETED SYSTEM INCLUDING EXISTING EQUIPMENT WHERE REUSED.



H2S Engineers Inc.
 Consulting MEP Engineers
 Anaheim, CA 92801
 Ph: (714) 290-0718
 E-mail: mvmeraa@h2sengineers.com



APPROVED BY:

Michael Todd Broussard, PE DATE
 R.C.E. NO. 57144 EXP. DATE: 12/31/19

CITY OF HUNTINGTON BEACH
 DEPARTMENT OF PUBLIC WORKS

RJM DESIGN GROUP

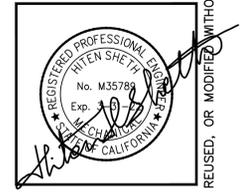
31591 Camino Capistrano
 San Juan Capistrano, CA 92675
 www.RJMDesignGroup.com
 [949] 493-2690 fax
 [949] 493-2600 phone

CONSULTANT

RM ARCHITECTURE

RUBIO MEDINA, ARCHITECT
 780 ROOSEVELT
 IRVINE, CA 92618
 P: 949.333.6030
 F: 949.333.6100

RODGERS SENIOR CENTER SITE
 1706 ORANGE AVENUE
 HUNTINGTON BEACH, CA 92647



REVISIONS	DATE

SHEET TITLE
MECHANICAL SPECIFICATIONS

JOB #	873-10
DESIGNED	LM
DRAWN	LM
CHECKED	HS
DATE	6/21/2021

SHEET
M4.0

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GREEN BUILDING CODE REQUIREMENTS
(NOT ALL NOTES MAY APPLY)

1. PROJECTS WHICH DISTURB LESS THAN ONE ACRE OF LAND SHALL PREVENT THE POLLUTION OF STORM WATER RUNOFF FROM THE CONSTRUCTION ACTIVITIES THROUGH ONE OR MORE OF THE FOLLOWING MEASURES (SECTION 5.106.1):

A) BEST MANAGEMENT PRACTICES (BMP). PREVENT THE LOSS OF SOIL THROUGH WIND OR WATER EROSION BY IMPLEMENTING AN EFFECTIVE COMBINATION OF EROSION AND SEDIMENT CONTROL AND GOOD HOUSEKEEPING BMP. SEE SECTION 5.106.1.2 FOR SPECIFICS.

B) LOCAL ORDINANCE.

5. THE SITE GRADING OR A DRAINAGE SYSTEM WILL MANAGE ALL SURFACE WATER FLOWS TO KEEP WATER FROM ENTERING BUILDINGS. CGC SECTION 5.106.10.

6. LANDSCAPE IRRIGATION SYSTEMS SHALL BE DESIGNED TO PREVENT SPRAY ON STRUCTURES. EXTERIOR ENTRIES SUBJECT TO FOOT TRAFFIC OR WIND-DRIVEN RAIN SHALL BE DESIGNED TO PREVENT WATER INTRUSION INTO THE BUILDING. CGC SECTION 5.407.2.2.1.

7. THE CONTRACTOR MUST SUBMIT TO THE ENGINEERING DEPARTMENT OR OTHER AGENCY THAT REGULATES CONSTRUCTION WASTE MANAGEMENT A WASTE MANAGEMENT PLAN THAT OUTLINES THE ITEMS LISTED IN CGC SECTION 5.408.1.1.

8. A MINIMUM OF 50% OF CONSTRUCTION WASTE IS TO BE RECYCLED. CGC 5.408.1. DOCUMENTATION SHALL BE PROVIDED TO THE ENFORCING AGENCY WHICH DEMONSTRATES COMPLIANCE. CGC SECTION 5.408.1.4.

9. 100% OF TREES, STUMPS, ROCKS, AND ASSOCIATED VEGETATION AND SOILS PRIMARILY FROM THE CONSTRUCTION WILL BE REUSED OR RECYCLED. CGC 5.408.3

10. AN IDENTIFIED, READILY ACCESSIBLE AREA SHALL BE PROVIDED THAT SERVES THE ENTIRE BUILDING FOR COLLECTING RECYCLING, SUCH AS PAPER, CARDBOARD, GLASS, PLASTICS, METALS, ETC. CGC SECTION 5.410.1.

11. A BUILDING 'SYSTEMS MANUAL' AS LISTED IN CGC SECTION 5.410.2.5 SHALL BE DELIVERED TO THE BUILDING OWNER OR REPRESENTATIVE AND THE FACILITIES OPERATOR. THE 'SYSTEMS MANUAL' SHALL CONTAIN THE REQUIRED FEATURES LISTED IN CGC SECTION 5.410.2.5.1.

12. DURING CONSTRUCTION, ENDS OF DUCT OPENINGS ARE TO BE SEALED, AND MECHANICAL EQUIPMENT IS TO BE COVERED. CGC 5.504.3.

13. VOC'S MUST COMPLY WITH THE LIMITATIONS LISTED IN SECTION 5.504.4 AND TABLES 4.504.1, 5.504.4.1, 5.504.4.2, 5.504.4.3 AND 5.504.4.5 FOR: ADHESIVES, SEALANTS, PAINTS AND COATINGS, CARPET AND COMPOSITION WOOD PRODUCTS. CGC 5.504.4.

14. WHERE OUTDOOR AREAS ARE PROVIDED FOR SMOKING, SUCH AREAS ARE PROHIBITED WITHIN 25 OF BUILDING ENTRIES, WINDOWS AND OUTDOOR AIR INTAKES. SIGNAGE SHALL BE POSTED TO INFORM OCCUPANTS OF THE PROHIBITIONS. CGC SECTION 5.504.7.

15. MECHANICALLY VENTILATED BUILDINGS SHALL PROVIDE REGULARLY OCCUPIED AREAS WITH AIR FILTRATION MEDIA FOR OUTSIDE AND RETURN AIR THAT PROVIDES AT LEAST A MINIMUM EFFICIENCY REPORTING VALUE (MERV) OF 8. MERV 8 FILTERS SHALL BE INSTALLED PRIOR TO OCCUPANCY. CGC SECTION 5.504.5.3.

16. WALL AND FLOOR ASSEMBLIES SEPARATING TENANT SPACES (AND TENANT SPACES FROM PUBLIC SPACES) SHALL HAVE AN STC OF AT LEAST 40. CGC SECTION 5.507.4.3.

17. WALL AND ROOF ASSEMBLIES EXPOSED TO NOISE SOURCES SHALL HAVE AN STC RATING OF AT LEAST 50, WITH EXTERIOR WINDOWS HAVING A MINIMUM STC OF 40 IN THE FOLLOWING LOCATIONS, PER CGC SECTION 5.507.4.1:

A) WITHIN THE 65 CNEL NOISE CONTOUR OF A FREEWAY, RAILROAD OR INDUSTRIAL SOURCE, AS DETERMINED BY THE JURISDICTION'S NOISE ELEMENT OF THE GENERAL PLAN.

B) WITHIN THE 65 CNEL NOISE CONTOUR OF AN AIRPORT.

18. INSTALLATIONS OF HVAC, REFRIGERATION AND FIRE SUPPRESSION SYSTEMS WILL NOT CONTAIN CFC'S OR HALONS, PER CGC 5.508.1.

19. FOR NEW BUILDINGS, SHOW ON THE SITE UTILITY PLAN SEPARATE SUB-METERS PER CGC SECTION 5.303.1 FOR THE FOLLOWING:

(A) EACH LEASED OR OWNED SPACE THAT CONSUMES MORE THAN 100 GAL/DAY

(B) TENANT SPACES CONTAINING LAUNDRY, CLEANERS, RESTAURANT, MEDICAL/DENTAL OFFICE, LABORATORY OR BEAUTY/BARBER SHOPS.

20. THE FOLLOWING MAXIMUM FIXTURE FLOW RATES FROM TABLE 5.303.2.3 AND SECTION 5.303.3, AS SHOWN BELOW. REVISE GENERAL NOTES, PLUMBING PLANS, ETC. TO MATCH. CGC 5.303.

FIXTURE TYPE	MAXIMUM FLOW RATE
LAVATORY FAUCETS—NONRESIDENTIAL	0.5 GPM @ 60 PSI
KITCHEN FAUCETS	1.8 GPM @ 60 PSI
METERING FAUCETS	0.2 GALLONS/CYCLE
WATER CLOSETS	1.28 GALLONS/FLUSH
URINALS	0.5 GALLONS/FLUSH

21. A WATER BUDGET SHALL BE DEVELOPED FOR LANDSCAPE IRRIGATION USE THAT CONFORMS TO THE LOCAL WATER EFFICIENT LANDSCAPE ORDINANCE. WHERE NO LOCAL ORDINANCE EXISTS, SHOW COMPLIANCE WITH THE CALIFORNIA DEPARTMENT OF WATER RESOURCES MODEL WATER EFFICIENT LANDSCAPE ORDINANCE. SEE SECTIONS 492.5 THROUGH 492.9, 492.10 AND 492.11 OF THE STATE ORDINANCE AT [HTTP://WWW.WATER.CA.GOV/WATERUSEEFFICIENCY/DOCS/WATERORDSEC492.CFM](http://www.water.ca.gov/wateruseefficiency/docs/waterordsec492.cfm).

22. FOR NEW WATER SERVICE (OR ADDITIONS/ALTERATIONS WITH > 1,000 SQUARE FEET OF CUMULATIVE LANDSCAPED AREA), SEPARATE SUBMETERS OR METERING DEVICES SHALL BE INSTALLED FOR OUTDOOR POTABLE WATER USE. ALSO, IRRIGATION CONTROLLERS AND SENSORS SHALL BE INSTALLED. CGC SECTIONS 5.304.2 AND 5.304.3.

23. PRIOR TO FINAL INSPECTION THE LICENSED CONTRACTOR, ARCHITECT OR ENGINEER IN RESPONSIBLE CHARGE OF THE OVERALL CONSTRUCTION MUST PROVIDE TO THE BUILDING DEPARTMENT OFFICIAL WRITTEN VERIFICATION THAT ALL APPLICABLE PROVISIONS FROM THE GREEN BUILDING STANDARDS CODE HAVE BEEN IMPLEMENTED AS PART OF THE CONSTRUCTION. CGC 102.3.

PIPING MATERIALS

- | | |
|--|---|
| <p>1. SANITARY SEWER, VENT AND STORM DRAIN PIPING BELOW GROUND:</p> | <p>SERVICE WEIGHT NO-HUB CAST IRON PIPE & FITTINGS CONFORMING TO THE REQUIREMENTS CISPI STANDARD 301, ASTM A 888 OR ASTM A74 WITH TYPE 304 STAINLESS STEEL HEAVY DUTY NO-HUB COUPLINGS. PROVIDE PIPE WRAP ON ALL UNDERGROUND PIPING IN ACCORDANCE WITH ANSI/AWWA STANDARDS C105 /A21.5-93, BED AND BACKFILL WITH CLEAN SAND, 6" THICK ALL AROUND PIPE.</p> |
| <p>2. SOIL, WASTE, VENT, STORM DRAIN PIPING ABOVE GROUND:</p> | <p>SERVICE WEIGHT NO-HUB CAST IRON PIPE & FITTINGS CONFORMING TO THE REQUIREMENTS OF CISPI STANDARD 301, ASTM A888 OR ASTM A74 WITH TYPE 304 STAINLESS STEEL STANDARD DUTY NO-HUB COUPLINGS.</p> |
| <p>3. WATER PIPING BELOW GROUND:</p> | <p>TYPE 'K' COPPER WITH BRAZED JOINTS.</p> |
| <p>4. WATER PIPING ABOVE GROUND:</p> | <p>TYPE 'L' COPPER WITH LEAD-FREE SOLDERED JOINTS.</p> |
| <p>5. CONDENSATE DRAIN PIPING:</p> | <p>TYPE 'M' COPPER WITH SOLDERED JOINTS.</p> |
| <p>6. INSULATION OF DOMESTIC HOT WATER SUPPLY AND HOT WATER RETURN PIPING:</p> | <p>GLASS FIBER PIPE INSULATION WITH FACTORY APPLIED WHITE JACKET, J-M MICRO-LOK 650AP, 1" THICK FOR PIPE SIZES OF 1/2" TO 1", AND 1 1/2" THICK FOR PIPE SIZES TO 1 1/4" AND LARGER. INSULATE FITTINGS AND VALVES W/ PREFORMED INSULATION WITH PVC PREMOULDED ONE PIECE FITTING COVER BY J.M. ZESTON. ADHERE LONGITUDINAL LAPS AND BUTTS OF STRIPS OF JACKET W/ FACTORY APPLIED PRESSURE SENSITIVE TAPE SYSTEM, J-M AP-T. FLANGES AND UNIONS SHALL NOT BE COVERED. SURFACE BURNING CHARACTERISTICS COMPOSITE FHC 25/50.</p> |
| <p>7. INSULATION OF INTERIOR CONDENSATE DRAIN PIPING:</p> | <p>AP ARMFLX CLOSED-CELL ELASTOMERIC FOAM INSULATION. FLAME-SPREAD INDEX OF 25 OR LESS AND SMOKE-DEVELOPED INDEX OF 50 OR LESS. 1/2 INCH THICK FOR 4 INCH DIAMETER PIPE AND LESS.</p> |
| <p>8. ALL OF THE ABOVE SHALL COMPLY WITH THE SPECIFICATIONS. ALL PIPING BELOW SLAB OR GRADE SHALL BE CORROSION PROTECTED PER SPECIFICATIONS.</p> | <p>NOTE:
ALL PIPE, FITTINGS, FIXTURES, ETC. THAT CONTACT POTABLE WATER FOR HUMAN CONSUMPTION SHALL SHOW APPROVAL TO NSF 61, ANNEX "G". EFFECTIVE JANUARY 1, 2010, THE LEAD CONTENT OF THE WETTED SURFACE AREA OF THE PIPES, FITTINGS AND FIXTURES CONVEYING POTABLE WATER FOR HUMAN CONSUMPTION, OF NOT MORE THAN 0.25%, SHALL BE DETERMINED PURSUANT TO A PRESCRIBED FORMULA AS DETERMINED BY THIRD PARTY CERTIFIERS TO NSF STANDARD 61, ANNEX "G". REFERENCE SECTION 604.2, CALIFORNIA PLUMBING CODE, 2019 EDITION, AND HEALTH & SAFETY CODE SECTION 116875.</p> |

APPLICABLE CODES

- 2019 CALIFORNIA BUILDING CODE (CBC: PART 2 , TITLE 24 , CCR) (BASED ON 2018 INTERNATIONAL BUILDING CODE)
- 2019 CALIFORNIA ELECTRICAL CODE (CEC: PART 3 , TITLE 24 , CCR) (BASED ON 2017 NATIONAL ELECTRICAL CODE)
- 2019 CALIFORNIA MECHANICAL CODE (CMC: PART 4 , TITLE 24 , CCR) (BASED ON 2018 UNIFORM MECHANICAL CODE)
- 2019 CALIFORNIA PLUMBING CODE (CPC: PART 5 , TITLE 24 , CCR) (BASED ON 2018 UNIFORM PLUMBING CODE)
- 2019 CALIFORNIA FIRE CODE (CFC: PART 9, TITLE 24, CCR.) (BASED ON 2018 INTERNATIONAL FIRE CODE)
- 2019 CALIFORNIA ENERGY CODE.
- 2019 CALIFORNIA GREEN BUILDING CODE.

GENERAL NOTES

- NOTE: FOR THE PURPOSE OF CLARITY AND LEGIBILITY, THE DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND ALTHOUGH SIZES AND LOCATIONS OF EQUIPMENT ARE DRAWN TO SCALE WHEREVER POSSIBLE, THE CONTRACTOR SHALL MAKE USE OF ALL DATA IN ALL OF THE CONTRACT DOCUMENTS AND VERIFY THIS INFORMATION PRIOR TO ORDERING, FABRICATING OR INSTALLING ANY MATERIALS.
- CONTRACTOR SHALL COORDINATE ALL WORK SHOWN ON THESE DRAWINGS AND SPECIFICATIONS WITH ALL DISCIPLINES AND TRADES PRIOR TO SUBMITTAL OF BID AND INSTALLATION OF SYSTEM.
- THE PLUMBING CONTRACTOR SHALL GUARANTEE ALL MATERIALS & LABOR (INCLUDING THE COMPLETE PLUMBING SYSTEM) FOR A PERIOD OF ONE YEAR FROM WRITTEN ACCEPTANCE BY THE OWNER. ANY DEFECTS IN MATERIALS & OR LABOR FOUND WITHIN THE GUARANTEE PERIOD SHALL BE REMEDIATED OR REPAIRED BY THIS CONTRACTOR IN A TIMELY FASHION, AT NO COST TO THE OWNER.
- ALL PLUMBING FIXTURE LOCATIONS (WATER CLOSETS, LAVATORIES ETC.) ARE DIAGRAMMATIC & CONTRACTOR SHALL REFER TO ARCHITECTURAL DRAWINGS FOR ADA COMPLIANT FIXTURES, EXACT LOCATIONS, MOUNTING HEIGHTS & COLOR.
- ANY DEVIATIONS FROM THE DRAWINGS OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER PRIOR TO INSTALLATION.
- CONTRACTOR SHALL VISIT SITE PRIOR TO SUBMITTAL OF BID AND FAMILIARIZE HIMSELF WITH EXISTING CONDITIONS. SUBMITTAL OF BID WILL VERIFY THAT THE CONTRACTOR HAS VISITED THE SITE.
- PIPING SHALL BE INSTALLED PARALLEL TO BUILDING LINES AND SUPPORTED AND ANCHORED AS REQUIRED TO FACILITATE EXPANSION AND CONTRACTION. THE INSTALLATION SHALL MEET ALL CONSTRUCTION CONDITIONS AND ALLOW FOR THE INSTALLATION OF OTHER TRADES.
- TRAP PRIMERS FOR FLOOR DRAINS AND FLOOR SINKS AND WATER HAMMER ARRESTORS TO BE INSTALLED AS PER THE LISTED PLUMBING CODE AND THE LATEST EDITION OF THE AMERICAN SOCIETY OF SANITARY ENGINEERING (ASSE 1010) SIZING AND INSTALLATION REQUIREMENTS.
- ALL VALVES, TRAP PRIMERS, WATER HAMMER ARRESTORS OR OTHER EQUIPMENT SHOWN IN WALLS OR ABOVE NON-ACCESSIBLE CEILINGS SHALL BE INSTALLED BEHIND AN ACCESS PANEL.
- ALL SERVICE WATER HEATING EQUIPMENT TO BE IN COMPLIANCE WITH THE STATE ENERGY CODE AND 2019 IECC REQUIREMENTS AND LABELED AS SUCH.
- ALL ITEMS PROJECTING THROUGH THE ROOF SHALL BE FLASHED THROUGH CURBS OR PIPE SEALS A MINIMUM OF 12" ABOVE THE ROOF. THE PIPE CURBS AND SEALS SHALL BE INSTALLED BY THE ROOFING CONTRACTOR. ENSURE THAT AMPLE BOOT OPENINGS ARE PROVIDED TO ACCOMMODATE ANY ELECTRICAL CONDUIT PENETRATIONS REQUIRED FOR POWER.
- CONTRACTOR TO REFER TO PLUMBING FIXTURE SCHEDULE FOR INDIVIDUAL WASTE, VENT & WATER CONNECTION SIZES AT EACH PLUMBING FIXTURE.
- ALL CLEANOUTS SHALL BE INSTALLED WHERE READILY ACCESSIBLE AND LOCATED AS PER CODE REQUIREMENTS. THE CONTRACTOR SHALL COORDINATE ALL CLEAN OUT LOCATIONS WITH EQUIPMENT, MILLWORK, ETC., PRIOR TO INSTALLATION.
- ALL PLUMBING FIXTURE VENTS TO TERMINATE A MINIMUM OF 12 INCHES FROM ANY VERTICAL SURFACE AND 10'-0" FROM OR 3'-0" ABOVE ANY MECHANICAL EQUIPMENT OUTSIDE AIR INTAKE.
- ALL VALVES, UNIONS, ETC. TO BE SAME SIZE AS CONNECTED SUPPLY LINE UNLESS OTHERWISE NOTED ON DRAWINGS.
- UNIONS SHALL BE PROVIDED AND INSTALLED AFTER EACH SCREW-TYPE VALVE AND PRIOR TO EQUIPMENT CONNECTIONS.
- ALL UNDERGROUND METALLIC PIPE AND FITTINGS SHALL BE PROTECTED IN ACCORDANCE WITH THE SOILS ENGINEER'S RECOMMENDATIONS.
- NO PIPING SHALL BE DIRECTLY EMBEDDED IN CONCRETE, MASONRY WALLS, OR CONCRETE FOOTINGS.
- THE PLUMBING CONTRACTOR SHALL COORDINATE ALL REQUIREMENTS FOR ALL POINTS OF CONNECTION WITH THE GENERAL CONTRACTOR AND OTHER TRADES PRIOR TO START OF WORK.
- VERIFY EXACT LOCATIONS, DEPTH AND SIZE OF ALL PIPING TO WHICH CONNECTIONS ARE REQUIRED. COORDINATE ALL CONNECTIONS WITH SITE CONDITIONS AND SITE UTILITY CONTRACTOR/ REPRESENTATIVE.
- ALL HORIZONTAL PIPING LINES EXTENDED AND CONNECTED TO EQUIPMENT SHALL BE RUN AT THE HIGHEST POSSIBLE ELEVATIONS AND NOT LESS THAN 6" ABOVE THE FLOOR TO PROVIDE CLEARANCE FOR CLEANING.
- ALL CUTTING OF EXISTING PAVING, WALKS AND/OR FLOORS SHALL UTILIZE MACHINE SAW CUTTING EQUIPMENT. HOLES FOR PIPES IN CONCRETE WALLS OR FLOORS SHALL UTILIZE CORE DRILLING EQUIPMENT. COORDINATE WITH ARCHITECTURAL DETAILS FOR FLOOR CUTTING AND PATCHING.
- THE PLUMBING CONTRACTOR IS TO PROVIDE ALL ADDITIONAL STEEL, HANGER MATERIALS, RODS AND CLAMPS AS REQUIRED FOR COORDINATION WITH WORK OF OTHER TRADES.
- PIPING LAYOUT IS SCHEMATIC ONLY, EXACT ROUTING AND INSTALLATION OF PIPES TO BE COORDINATED WITH THE BUILDING STRUCTURE AND THE WORK OF OTHER CONTRACTORS.
- NO LIQUID TRANSMISSION PLUMBING PIPING SHALL BE INSTALLED ABOVE ELECTRICAL SWITCH GEAR, EQUIPMENT, OR PANELS. MAKE ADJUSTMENTS NECESSARY TO REROUTE PIPING FOR ACTUAL INSTALLATION OF ELECTRIC EQUIPMENT.
- WHENEVER FOUNDATION WALLS, EXTERIOR WALLS, ROOFS, ETC. ARE PENETRATED FOR THE INSTALLATION OF PLUMBING SYSTEMS, THEY SHALL BE PATCHED TO MATCH EXISTING CONSTRUCTION AND SEALED WEATHER TIGHT.
- PLUMBING CONTRACTOR SHALL BE ON SITE AND PRESENT AT THE DATE OF TURNOVER.
- ALL EXTERIOR EXPOSED WATER PIPING SHALL BE INSULATED AND PVC JACKETED. SEAL JACKET PER MANUFACTURER'S REQUIREMENTS.
- LABEL ALL SHUT-OFF VALVES ABOVE THE CEILING AND IN THE WALL WITH ACCESS DOORS.
- ALL PIPE, PIPE FITTINGS, TRAPS, FIXTURE MATERIAL AND DEVICES USED IN THE PLUMBING SYSTEM SHALL BE LISTED OR THIRD PARTY CERTIFIED BY AN APPROVED LISTING AGENCY AND SHALL CONFORM TO APPLICABLE RECOGNIZED STANDARDS REFERENCED IN THE 2019 CALIFORNIA PLUMBING CODE.
- THE LEAD CONTENT OF THE PIPES, PIPE OR PLUMBING FITTINGS AND FIXTURES INTENDED TO CONVEY OR DISPENSE WATER FOR HUMAN CONSUMPTION SHALL BE IN ACCORDANCE WITH SECTION 116875 OF THE HEALTH AND SAFETY CODE.
- FLOOR AND TRENCH DRAINS SHALL BE IN ACCORDANCE WITH ASME A112.6.3A. FLOOR SINKS SHALL BE IN ACCORDANCE WITH ASME A112.6.7A.

PLUMBING LEGEND

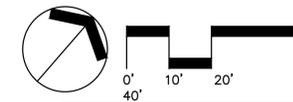
SYMBOL	ABBREVIATION	DESCRIPTION
---	S	SANITARY WASTE
----	V	SANITARY VENT
-----	CW	DOMESTIC COLD WATER
-----	HW	DOMESTIC HOT WATER
-----	HWR	DOMESTIC HOT WATER RETURN
G	G	LOW PRESSURE GAS
MPG	MPG	MEDIUM PRESSURE GAS (5 PSI)
CD	CD	CONDENSATE DRAIN
SD	SD	STORM DRAIN
OD	OD	OVERFLOW STORM DRAIN
VTR	VTR	VENT THRU ROOF
SOV	SOV	VERTICAL SHUT-OFF VALVE
SOV	SOV	SHUT-OFF VALVE
PRV	PRV	PRESSURE REDUCING VALVE
PG	PG	PRESSURE GAUGE
TM	TM	THERMOMETER
BV	BV	BALL VALVE
CV	CV	CHECK VALVE
U	U	UNION
WHA	WHA	WATER HAMMER ARRESTER WITH ACCESS PANEL
TP	TP	TRAP PRIMER WITH ACCESS PANEL
PU	PU	PIPE UP
PD	PD	PIPE DOWN
FCO OR GCO	FCO OR GCO	FLOOR OR GRADE CLEAN OUT
SCO	SCO	2-WAY SERVICE CLEAN OUT
WCO	WCO	WALL CLEAN OUT
HB	HB	HOSE BIBB
POC	POC	POINT OF CONNECTION
FD	FD	FLOOR DRAIN
AP	AP	ACCESS PANEL
FFE	FFE	FINISHED FLOOR ELEVATION
IE	IE	INVERT ELEVATION
FU	FU	FIXTURE UNIT

SHEET INDEX

SHEET NO.	DESCRIPTION
P0.1	GENERAL NOTES, LEGEND, AND DRAWING INDEX
P0.2	PLUMBING SCHEDULES AND DETAILS
P2.0	PLUMBING DEMOLITION FLOOR PLAN
P3.0	PLUMBING FLOOR PLAN
P4.0	PLUMBING SPECIFICATIONS



H2S Engineers Inc.
Consulting MEP Engineers
Anaheim, CA 92801
Ph: (714) 290-0718
E-mail: mverma@h2sengineers.com



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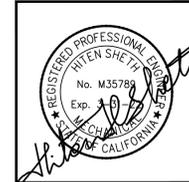
31591 Camino Capistrano
San Juan Capistrano, CA 92675
www.RJMDesignGroup.com
[949] 493-2690 fax
[949] 493-2600 phone

CONSULTANT

RM ARCHITECTURE

RUBIO MEDINA, ARCHITECT
780 ROOSEVELT
IRVINE, CA 92620
P: 949 333 6030
F: 949 333 6100

RODGERS SENIOR CENTER SITE
1706 ORANGE AVENUE
HUNTINGTON BEACH, CA 92647



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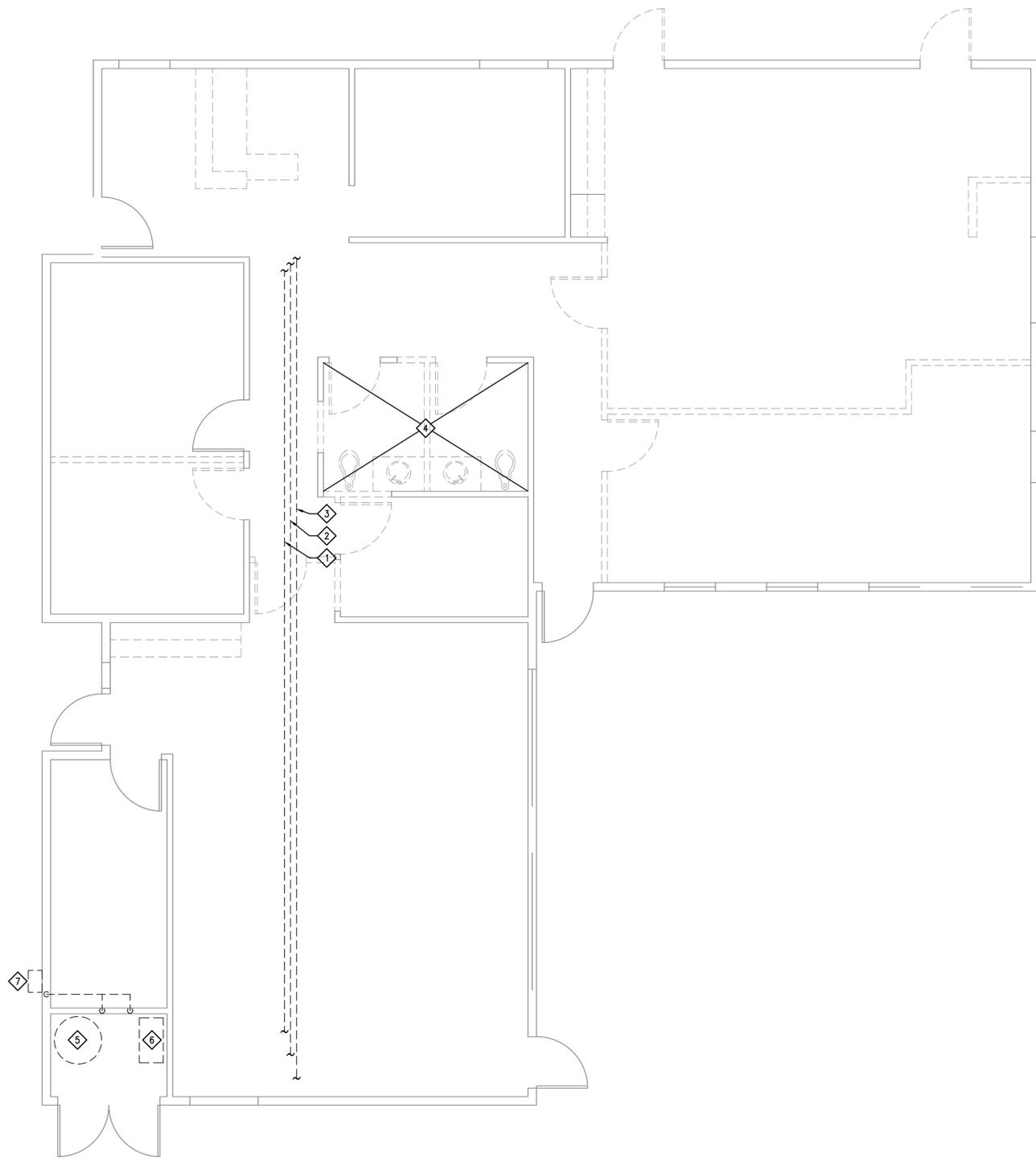
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SHEET TITLE
GENERAL NOTES, LEGEND, AND DRAWINGS INDEX

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DESIGNED LM
DRAWN LM
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DATE 6/21/2021

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P0.1

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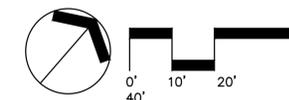
- ① EXISTING SEWER PIPE BELOW FLOOR TO REMAIN. FIELD VERIFY EXACT LOCATION.
- ② EXISTING VENT PIPE OVERHEAD TO REMAIN. FIELD VERIFY EXACT LOCATION.
- ③ EXISTING COLD WATER PIPE OVERHEAD TO REMAIN. FIELD VERIFY EXACT LOCATION. EXISTING PLUMBING FIXTURE TO REMAIN.
- ④ REMOVE EXISTING PLUMBING FIXTURE(S) AND ASSOCIATED PIPING. CAP BELOW FLOOR, IN WALL OR ABOVE CEILING.
- ⑤ REMOVE WATER HEATER AND ASSOCIATED PIPING. CAP GAS PIPING AND PREPARE FOR CONNECTION OF REPLACED UNIT.
- ⑥ EXISTING FURNACE TO BE REMOVE, REFER TO MECHANICAL PLAN FOR EXACT LOCATION. CAP GAS PIPING IN WALL AS REQUIRED.
- ⑦ EXISTING GAS METER TO REMAIN. FIELD VERIFY EXACT LOCATION.

GENERAL NOTES

1. DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND ARE NOT INTENDED TO INDICATE NECESSARY OFFSETS OF PIPING, FITTING & APPURTENANCES THAT HAVE TO BE REMOVED, CAPPED OR REROUTED.
2. FOR CLARITY, NOT ALL EXISTING WORK IS SHOWN ON PLANS. CONTRACTOR SHALL FIELD VERIFY EXISTING UTILITIES, LOCATION, SIZE, INVERT ELEVATIONS, PRESSURE AND AVAILABILITY PRIOR TO START ON ANY WORK.
3. ALL WALL, FOOTING AND FLOOR PENETRATION SHALL BE CAULKED WITH FIRE PROOF IN AND APPROVED MANNER BY CALIFORNIA BUILDING CODE.
4. DEMOLISH/ REMOVE & PATCH EXISTING MATERIALS, ITEMS, OR FINISHES AS NECESSARY TO PERFORM NEW WORK WHERE INDICATED. PATCH EXISTING WALL/FLOOR TO MATCH ADJACENT MATERIALS/FINISHES.
5. PLUMBING WORK SHOWN ON PLAN IS DIAGRAMMATIC, CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS.
6. COORDINATE EXTENT OF DEMOLITION/ REMOVAL WITH ARCHITECTURAL PROPOSED FLOOR PLAN.
7. CONTRACTOR SHALL VERIFY EXISTING UTILITIES, LOCATION, SIZE, INVERT ELEVATIONS, PRESSURE AND AVAILABILITY PRIOR TO START ON ANY WORK.



H2S Engineers Inc.
 Consulting MEP Engineers
 Anaheim, CA 92801
 Ph: (714) 290-0718
 E-mail: mverma@h2sengineers.com



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31591 Camino Capistrano
 San Juan Capistrano, CA 92675
 www.RJMdesigngroup.com
 [949] 493-2690 fax
 [949] 493-2600 phone

CONSULTANT
RM ARCHITECTURE
 RUBIO MEDINA, ARCHITECT
 780 ROOSEVELT
 IRVINE, CA 92603
 P: 949 333 6030
 F: 949 333 6100

RODGERS SENIOR CENTER SITE
1706 ORANGE AVENUE
HUNTINGTON BEACH, CA 92647

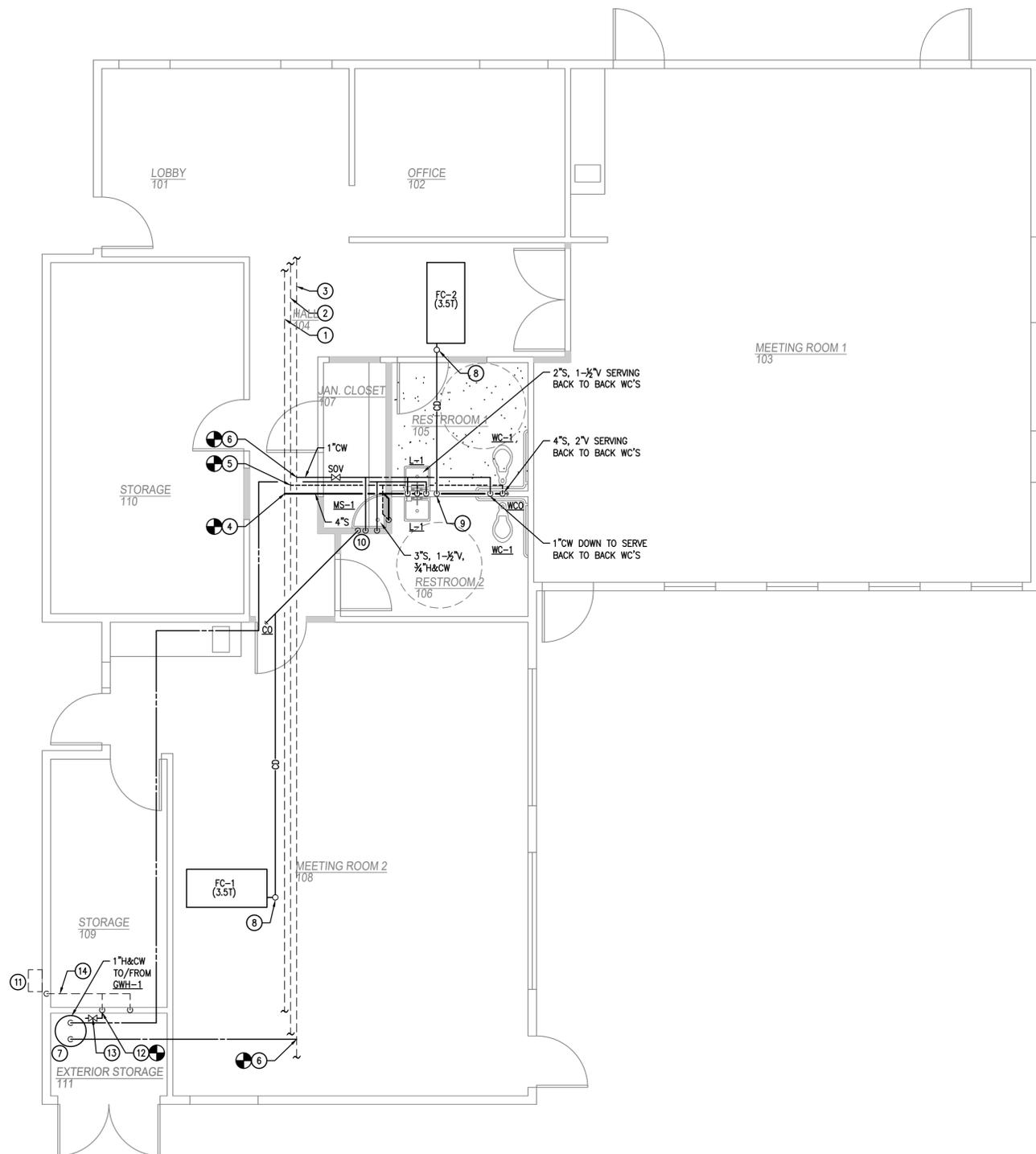


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**PLUMBING
 DEMOLITION
 FLOOR PLAN**

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P2.0



SHEET NOTES

- ① EXISTING SEWER PIPE BELOW FLOOR TO REMAIN. FIELD VERIFY EXACT LOCATION.
- ② EXISTING VENT PIPE OVERHEAD TO REMAIN. FIELD VERIFY EXACT LOCATION.
- ③ EXISTING COLD WATER PIPE OVERHEAD TO REMAIN. FIELD VERIFY EXACT LOCATION. EXISTING PLUMBING FIXTURE TO REMAIN.
- ④ POINT OF CONNECTION TO EXISTING SEWER PIPE.
- ⑤ POINT OF CONNECTION TO EXISTING VENT PIPE.
- ⑥ POINT OF CONNECTION TO EXISTING WATER PIPE.
- ⑦ DISCHARGE T&P RELIEF DRAIN AND CONDENSATE DRAIN TO OUTSIDE. TERMINATE 6" A.F.F.
- ⑧ 3/4" CD FROM FAN COIL UNIT WITH TRAP VENT.
- ⑨ 3/4" CD DOWN IN WALL CONNECT TO LAV'S TAIL-PIECE.
- ⑩ 3/4" CD DOWN IN WALL DISCHARGE INTO MOP SINK WITH LEGAL AIR GAP.
- ⑪ EXISTING GAS METER. FIELD VERIFY EXACT LOCATION.
- ⑫ POINT OF CONNECTION TO EXISTING GAS PIPE.
- ⑬ EXTEND AND CONNECT NEW 1/2" G TO REPLACED WATER HEATER. PROVIDE GAS CONNECTION WITH SOC AND SEDIMENT TRAP.
- ⑭ EXISTING 3/8" GAS PIPE TO REMAIN. FIELD VERIFY EXACT LOCATION AND SIZE.

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5. PLUMBING WORK SHOWN ON PLAN IS DIAGRAMMATIC, CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS.
6. COORDINATE EXTENT OF DEMOLITION/ REMOVAL WITH ARCHITECTURAL PROPOSED FLOOR PLAN.
7. CONTRACTOR SHALL VERIFY EXISTING UTILITIES, LOCATION, SIZE, INVERT ELEVATIONS, PRESSURE AND AVAILABILITY PRIOR TO START ON ANY WORK.



31591 Camino Capistrano
San Juan Capistrano, CA 92675
www.RJMDesignGroup.com
P: 949-493-2690 fax
P: 949-493-2600 phone

CONSULTANT
RM ARCHITECTURE
RUBIO MEDINA, ARCHITECT
780 ROOSEVELT
IRVINE, CA 92603
P: 949-333-6030
F: 949-333-6100

RODGERS SENIOR CENTER SITE
1706 ORANGE AVENUE
HUNTINGTON BEACH, CA 92647

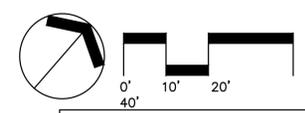


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SHEET TITLE
PLUMBING FLOOR PLAN



H2S Engineers Inc.
Consulting MEP Engineers
Anaheim, CA 92801
Ph: (714) 290-0718
E-mail: mverma@h2sengineers.com



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Michael Todd Broussard, PE DATE
R.C.E. NO. 57144 EXP. DATE: 12/31/19

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GENERAL NOTES – PLUMBING

THE GENERAL CONDITIONS AND GENERAL REQUIREMENTS SECTIONS SHALL APPLY DIRECTLY TO THIS SECTION AS THOUGH PRINTED HEREIN.

1. SCOPE
- A. WORK INCLUDED ALL LABOR, MATERIALS, EQUIPMENTS AND INCIDENTALS REQUIRED TO FURNISH AND INSTALL ALL PLUMBING WORK AS INDICATED ON THE PLANS, SPECIFIED HEREIN, AND/OR AS NECESSARY TO COMPLETE THE WORK INCLUDING BUT NOT LIMITED TO THE FOLLOWING
 1. SANITARY SOIL, WASTE AND VENT SYSTEM, COMBINATION WASTE AND VENT SYSTEM.
 2. DOMESTIC HOT AND COLD WATER SYSTEMS.
 3. CONDENSATE DRAIN SYSTEM.
 4. PLUMBING FIXTURES, EQUIPMENT, TRIM.
 5. ROUGH-IN AND FINAL CONNECTIONS OF WATER AND DRAIN NOT INCLUDED IN THIS SECTION OR AS TO EQUIPMENT, FURNISHED BY OWNER.
 6. GAS SYSTEM.
 7. EXCAVATION AND BACKFILLING.
 8. TESTING.
2. EXAMINATION OF THE SITE
 2. EXAMINATION OF THE SITE
3. CODES AND REGULATIONS
 - A. ORDINANCES AND REGULATIONS: IN ADDITION TO COMPLYING WITH THE SPECIFIED REQUIREMENTS, COMPLY WITH PERTINENT REGULATIONS OF GOVERNMENTAL AGENCIES AS LISTED ON THESE DOCUMENTS OR IF UPDATED BY THE AGENCIES HAVING JURISDICTION.
 - B. PERMITS AND INSPECTIONS: APPLY AND PAY FOR ALL PERMITS FOR THE INSTALLATION OR CONSTRUCTION OF THE PLUMBING WORK REQUIRED BY ANY LEGALLY CONSTITUTED PUBLIC AUTHORITIES HAVING JURISDICTION AND FURNISH ALL NECESSARY DRAWINGS REQUIRED FOR SAME. ARRANGE FOR INSPECTIONS AND EXAMINATIONS AS REQUIRED, AND DELIVER CERTIFICATES OF ALL INSPECTIONS TO THE OWNER.
 4. DRAWINGS AND SPECIFICATIONS
 - A. THE DRAWINGS ARE IN PART DIAGRAMMATIC AND ARE INTENDED TO CONVEY THE SCOPE OF THE WORK; THEY INDICATE THE GENERAL ARRANGEMENT AND APPROXIMATE SIZES OF EQUIPMENT, PIPING, ETC. FOLLOW THE DRAWINGS AS CLOSELY AS PRACTICAL IN LAYING OUT THE WORK, BE GUIDED BY THE CONDITIONS AT THE JOB AND CONSULT THE CONSTRUCTION DRAWINGS OF THE OTHER TRADES TO BE INSTALLED AS PART OF THIS SCOPE.
 - B. VERIFY ALL CLEARANCES IN AREAS WHERE WORK WILL BE INSTALLED AND COORDINATE THE WORK WITH THAT OF THE OTHER TRADES AND OTHER SECTIONS OF THE SPECIFICATIONS.
 - C. WHERE JOB CONDITIONS, OR THE ARCHITECT REQUIRE REASONABLE CHANGES IN INDICATED LOCATIONS AND ARRANGEMENT, MAKE SUCH CHANGES WITHOUT ADDITIONAL CHARGE.
 - D. IT IS THE INTENT OF THE DRAWINGS AND SPECIFICATIONS TO PROVIDE COMPLETE OPERATING SYSTEMS, UNLESS SPECIFICALLY NOTED TO THE CONTRARY. THE OMISSION FROM THE DRAWINGS OR SPECIFICATIONS OF ANY MINOR DETAILS OF CONSTRUCTION, INSTALLATION, MATERIALS, OR SPECIALTIES NECESSARY FOR A SAFELY OPERABLE SYSTEM SHALL NOT RELIEVE THE CONTRACTOR FROM FURNISHING THE SUCH ITEMS IN PLACE, COMPLETE.
 5. SUBSTITUTIONS
 - A. WHENEVER A PRODUCT IS SPECIFIED BY TRADE NAME OR MANUFACTURER'S NAME, EITHER IN THE SPECIFICATIONS OR ON THE DRAWINGS, SUCH DESIGNATION IS INTENDED TO ESTABLISH A STANDARD OF MERIT AND DESIGN.
 - B. SUBMIT WRITTEN REQUESTS FOR SUBSTITUTIONS IN TRIPLICATE. INCLUDE CATALOG NUMBERS, CAPACITIES, RATINGS AND THE CUTS OF PRODUCTS SPECIFIED AS WELL AS PRODUCTS TO BE SUBSTITUTED. ALSO INCLUDE ACCURATE COST DATA ON THE PROPOSED SUBSTITUTION IN COMPARISON WITH THE PRODUCTS SPECIFIED AND WHETHER OR NOT MODIFICATION OF THE CONTRACT AMOUNT IS TO BE CONSIDERED.
 - C. SUBSTITUTIONS OF UNLISTED MANUFACTURERS WILL NOT BE ALLOWED AFTER THE CONTRACT IS SIGNED.
 6. SUBMITTALS
 - A. PRODUCT DATA: SUBMIT MATERIAL LIST OF ITEMS PROPOSED TO BE PROVIDED UNDER THIS SECTION. INCLUDE MANUFACTURERS' SPECIFICATIONS, CATALOG CUTS, AND OTHER DATA NEEDED TO COMPLY WITH THE SPECIFIED REQUIREMENTS. SUBMIT ALL PRODUCT DATA A TONE TIME, BOUND BETWEEN COVERS. PARTIAL SUBMITTALS WILL NOT BE ACCEPTED.
 - B. SHOP DRAWINGS OR OTHER DATA AS REQUIRED TO INDICATE METHOD OF INSTALLATION AND ATTACHMENT OF PIPING, AND EQUIPMENT, EXCEPT WHERE SUCH DETAILS ARE FULLY SHOWN ON THE DRAWINGS.
 - C. RECORD DRAWINGS AND MANUALS: PROVIDE AND KEEP AT JOB SITE A COMPLETE RECORD SET OF BLUELINE PRINTS, CORRECTED DAILY TO SHOW EVERY CHANGE FROM THE ORIGINAL DRAWINGS AND SPECIFICATIONS. PRINTS FOR THIS PURPOSE MAY BE OBTAINED FROM THE ARCHITECT. DELIVER THE SET TO THE ARCHITECT. PAY FOR BLUEPRINTING PROJECT RECORD DRAWINGS.
 7. OPENINGS
 - A. OPENINGS OR HOLES FOR PIPING OR EQUIPMENT WILL NOT BE ALLOWED IN ANY STRUCTURAL MEMBERS WITHOUT CONSENT OF THE ARCHITECT.
 - B. FRAMED OPENINGS HAVE BEEN INDICATED ON THE ARCHITECTURAL AND STRUCTURAL DRAWINGS. AT A TIME IN ADVANCE OF THE WORK, VERIFY THE LOCATION AND SIZE OF OPENINGS OR FURNISH NEW INSTRUCTIONS AS TO THE REQUIREMENTS FOR THESE OPENINGS. SHOULD THE FURNISHING OF THIS INFORMATION BE NEGLECTED, DELAYED OR INCORRECT, AND ADDITIONAL CUTTING, NOTCHING, OR BORING IS FOUND TO BE REQUIRED, THE WORK SHALL BE DONE AS DIRECTED BY THE ARCHITECT AT NO ADDITIONAL COST TO THE OWNER.
 - C. MAKE ABSOLUTELY WATERTIGHT ANY OPENINGS THROUGH WATERPROOFED CONSTRUCTION CAUSED BY THE PENETRATION OF PIPING IN A MANNER APPROVED BY THE ARCHITECT.
 8. QUALITY ASSURANCE AND PRODUCT HANDLING
 - A. USE ALL MEANS NECESSARY TO PROTECT PLUMBING MATERIALS BEFORE, DURING AND AFTER INSTALLATION AND TO PROTECT THE INSTALLED WORK AND MATERIALS OF ALL OTHER TRADES.
 - B. IN THE EVENT OF DAMAGE, IMMEDIATELY MAKE ALL REPAIRS AND REPLACEMENTS NECESSARY TO THE SATISFACTION OF THE ARCHITECT AND AT NO ADDITIONAL COST TO THE OWNER.
 9. NOISE AND VIBRATION
 - A. IT IS THE SPECIFIC INTENT OF THESE SPECIFICATIONS AND DESIGN CONDITIONS THAT THE ENTIRE SYSTEM INCLUDING EQUIPMENT, PIPING, AND ALL OTHER PARTS BE NOISELESS AND FREE OF VIBRATION TRANSMISSION.
 - B. PROVIDE AND INSTALL VIBRATION DAMPERS, SOUND INSULATION PADS, FLEXIBLE CONNECTORS AND SIMILAR MATERIAL AS REQUIRED, TO PREVENT TRANSMISSION TO THE BUILDING STRUCTURE OF SOUND AND VIBRATION CAUSED BY THE FLOW OF FLUIDS, MOTORS, AND MOTOR OPERATED EQUIPMENT.
 - C. IF, AS A RESULT OF THE INSTALLATION, NOISE OR VIBRATIONS OCCURS IN THE BUILDING, MAKE THE NECESSARY CORRECTIONS AT NO COST TO THE OWNER. DO NOT REDUCE THE CAPACITY OF ANY EQUIPMENT.
 10. WARRANTY
 - A. CONTRACTOR SHALL PROVIDE WARRANTY OF THE WORK IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND STATE LAWS. IN ADDITION THEY SHALL:
 - A. ADJUST ALL VALVES, CONTROLS, VACUUM BREAKERS AND OTHER INCIDENTAL ITEMS. LEAVE THE SYSTEM IN PERFECT OPERATING CONDITION.
 - B. REPAIR, REGULATE, AND REPLACE ANY DEFECTIVE WORKMANSHIP, MATERIALS, AND EQUIPMENT WHICH MAY BECOME APPARENT WITHIN ONE YEAR AFTER THE DATE OF THE FINAL ACCEPTANCE OF THE WORK, AT NO ADDITIONAL COST TO THE OWNER.
 - C. FURNISH THE OWNER ALL MANUFACTURER'S WRITTEN WARRANTIES OF MATERIALS AND EQUIPMENT.
 11. MATERIALS
 - A. PROVIDE ALL NEW MATERIALS, IN PROPER CONDITION, OF THE BEST QUALITY FOR THE PURPOSE INTENDED, CLEARLY MARKED OR STAMPED WITH THE MANUFACTURER'S NAME AND/OR STAMP AND RATING AND COUNTRY OF ORIGIN.
 - B. SOIL, WASTE AND VENT: CAST IRON NO-HUB PIPE AND FITTINGS WITH STAINLESS STEEL CLAMPS.
 - C. DOMESTIC WATER (ABOVE GROUND): TYPE L HARD DRAWN COPPER ASTM B88 AND WROUGHT COPPER FITTINGS.
 - D. DOMESTIC WATER (BELOW GROUND; INSIDE BUILDING): TYPE K SOFT DRAWN COPPER.
 - E. DOMESTIC WATER (BELOW GROUND; OUTSIDE BUILDING, 3" AND SMALLER): TYPE K HARD DRAWN COPPER.

- E. DOMESTIC WATER (BELOW GROUND; OUTSIDE BUILDING, 4" AND LARGER): DUCTILE IRON CLASS 51. CONFORM TO AWWA STANDARD C-151. PIPE AND FITTINGS SHALL BE CEMENT LINED IN ACCORDANCE WITH AWWA STANDARDS C-104. FITTINGS SHALL CONFORM TO AWWA STANDARD C-110. 250 PSI PRESSURE RATING, STANDARD OUTSIDE COATING AND CEMENT MORTAR LINING. JOINT SHALL CONFORM TO AWWA STANDARD C-11, MECHANICAL OR PUSH-ON JOINTS.
- F. INDIRECT DRAIN: TYPE L HARD DRAWN COPPER TUBING ASTM B.88 WITH WROUGHT COPPER FITTINGS.
- G. GAS: 2-1/2" AND SMALLER: SCHEDULE 40 BLACK STEEL PIPE WITH 150 PSI. BLACK BANDED MALLEABLE IRON SCREWED FITTINGS. 3" AND LARGER: SCHEDULE 40 BLACK STEEL PIPE WITH 150 PSI BUTT WELDED BLACK MALLEABLE IRON FITTINGS.
- H. PIPE FITTINGS
 1. PROVIDE FITTINGS FOR CAST IRON SOIL PIPE OF THE SAME MATERIAL, WEIGHT AND QUALITY SPECIFIED FOR PIPE.
 2. PROVIDE FOR BLACK STEEL PIPES 2-1/2" AND SMALLER, BANDED, BLACK MALLEABLE IRON FITTINGS.
 3. PROVIDE FOR COPPER WATER PIPES, WROUGHT COPPER SOLDER JOINT FITTINGS. CAST FITTINGS WILL NOT BE PERMITTED.
 4. PROVIDE FOR EXPOSED FIXTURE CONNECTIONS, 85% CAST RED BRASS, POLISHED AND CHROMIUM PLATED FITTINGS.
- G. UNIONS
 1. UNION SHALL BE PROVIDED AT ALL EQUIPMENT, AT POINTS ADJACENT TO ALL VALVES, AND ELSEWHERE AS REQUIRED TO PERMIT SERVICING OF FIXTURES. UNIONS TO AS MANUFACTURED BY CRANE OR EQUAL.
 1. VALVES
 1. GENERAL: NON RISING STEM MAY BE USED ONLY WHERE THERE IS INSUFFICIENT CLEARANCE. SOLDER JOINT OR SCREWED TYPE VALVES SHALL BE USED IN COPPER PIPING. VALVES OF ONE TYPE SHALL BE OF THE SAME MANUFACTURER. NIBCO OR APPROVED EQUAL.
 - VALVES SCHEDULE
 - GATE VALVE: NIBCO NO. S-113
 - GLOBE VALVE: NIBCO S-211-Y
 - CHECK VALVE: NIBCO NO. S-413-Y
 - BALL VALVE: NIBCO NO. S-580 2.
 - PRESSURE AND TEMPERATURE RELIEF VALVE: MCDONNELL AND MILLER, MUELLER, OR WATTS.
 - GAS COCK: NORDSTORM OR EQUAL.
 - J. PIPE SUPPORTS
 - FEE MASON OR APPROVED EQUAL
 - K. SLEEVES
 - PROVIDE ELOEEN "E-Z CRETE" RUST-PROOF SLEEVES OF THE SIZE REQUIRED.
 - L. ACCESS PANELS & BOXES
 - PROVIDE ACCESS PANELS AS MANUFACTURED BY J.R.SMITH ELMODOR OR EQUAL IN QUALITY AND STYLE. PROVIDE ACCESS PANELS WITH THE SAME FIRE RATING AS THE WALL OR CEILING IN WHICH THEY ARE INSTALLED.
 3. ACOUSTICAL TILE: ELMODOR AT SERIES AKL HINGED PRIME COATED STEEL FLANGED ACCESS PANEL.
 4. FIRE RATED WALL AND CEILING: ELMODOR FR SERIES AKL WITH RECESSED TURN LATCH.
 - M. FLASHING
 - PROVIDE FOR EACH PIPE PASSING THROUGH THE ROOF 3 LBS. SEAM- LESS LEAD FLASHING ASSEMBLY. FLASHING TO HAVE STEEL REINFORCED CONICAL BOOT AND COUNTERFLASHED WITH HOODED CAST IRON COUNTER- FLASHING SHEET LEAD TURNED DOWN TO THE PIPE AND SEALED TO THE PIPE. MANUFACTURED BY STONEMAN OR EQUAL.
 - N. PRESSURE GAUGES AND THERMOMETER
 - MARSH TRERICE OR APPROVED EQUAL
 0. MOTORS AND ELECTRICAL APPARATUS
 - PROVIDE MOTORS OF PROPER POWER AND SPEED TO SUIT SPECIFIED MAKES OF EQUIPMENT, HORSEPOWER AND ELECTRICAL CHARACTERISTICS AS INDICATED ON THE DRAWINGS.
 12. TRENCHING AND BACKFILLING
 - A. THIS SCOPE INCLUDES ALL NECESSARY TRENCH EXCAVATIONS, SHORING AND BACKFILLING REQUIRED FOR THE PROPER LAYING OF ALL UNDERGROUND PIPING.
 - B. MAKE TRENCHES AT LEAST 12 INCHES WIDER THAN THE GREATEST DIAMETER OF THE PIPE.
 - C. SHOULD ROCK BE ENCOUNTERED, EXCAVATE SAME TO THE DEPTH OF ONE FOOT BELOW THE BOTTOM OF THE PIPE, AND FILL THE SPACE WITH WELL TAMPED SAND AND PEA GRAVEL.
 - D. LAY PIPE ON A BED OF SAND AT LEAST TWO INCHES DEEP. COVER PIPE WITH ANOTHER TWO INCHES OF SAND.
 13. MANUFACTURER'S RECOMMENDATIONS
 - INSTALL ALL EQUIPMENT, MATERIAL, FIXTURES, AND DEVICES IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER AND THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS. IN THE EVENT OF CONFLICT, CONSULT THE ARCHITECTS FOR A DECISION AND PERFORM THE WORK IN ACCORDANCE WITH THEIR DECISION.
 14. INSTALLATION OF PIPING
 - A. GENERAL:
 1. CLEAN ALL PIPE AND REMOVE ALL SCALE, SAND, DIRT, ETC., BEFORE INSTALLATION. USE FULL LENGTHS OF PIPE WHENEVER POSSIBLE TO MINIMIZE THE NUMBER OF COUPLINGS.
 2. CUT PIPES ACCURATELY TO MEASUREMENTS ESTABLISHED ON THE SITE. WORK PIPES INTO PLACE WITHOUT SPRINGING OR FORCING, AND PROPERLY CLEAR EQUIPMENT, DOORS AND OPENINGS OF BUILDINGS.
 3. INSTALL ALL PIPING TO RUN PARALLEL TO THE BUILDING CONSTRUCTION AND ARRANGE TO FORM NEAT AND SYMMETRICAL PATTERNS TO INSURE THE BEST APPEARANCE POSSIBLE.
 4. UNLESS OTHERWISE SPECIFIED, CONCEAL ALL PIPE IN WALLS, PARTITIONS OR FURRED SPACES.
 5. INSTALL PIPING AT THE EXTERIOR OF THE BUILDING, AT A MINIMUM DEPTH OF 18" BELOW FINISH GRADE. DO NOT EXPOSE PIPES ON THE EXTERIOR OF BUILDING.
 6. USE PROPER SHORING AND RIGGING METHODS.
 7. PROCEED WITH THE ROUGH PIPING AS RAPIDLY AS THE GENERAL CONSTRUCTION WORK WILL PERMIT AND HAVE ALL OF THE ROUGH PIPING IN AND STUBBED OUT TO THE PROPER POINT AND TESTED, IN EACH CASE, BEFORE ANY LATH, PLASTER OR FINISH WORK OF THE CEILINGS, PARTITIONS, WALLS, OR FLOORS ARE IN PLACE.
 8. INSTALL ALL PIPES WITH ALLOWANCES FOR EXPANSION AND CONTRACTION. CONSTRUCT SO THAT STRAINS WILL BE EVENLY DISTRIBUTED WITHOUT DAMAGE TO THE SYSTEM. AVOID BUILDING ERECTION STRESSES INTO THE PIPING.
 9. MAKE CONNECTION BETWEEN COPPER OR BRASS PIPING AND STEEL WITH APPROVED DIELECTRIC COUPLINGS.
 10. AVOID CONNECTIONS AND EQUIPMENT INSTALLATION THAT COULD CAUSE A CROSS CONNECTION BETWEEN WATER SUPPLY AND DRAINAGE.
 11. COVER ALL EXPOSED CONNECTIONS TO PLUMBING FIXTURES WITH POLISHED AND CHROMIUM PLATED SEAMLESS COPPER CASING.
 12. SHOW NO TOOL MARKS OR THREADS ON EXPOSED PLATED, POLISHED, OR ENAMELED CONNECTIONS FROM FIXTURES.
 - B. SOIL, WASTE, VENT AND DRAINAGE PIPING:
 1. INSTALL PIPING AS STRAIGHT AS POSSIBLE AND MAKE ALL CHANGE IN DIRECTION WITH FITTINGS. MAKE OFFSETS AT 45 DEGREES OR LESS.
 2. EXTEND ALL VENT PIPES AT LEAST 6" ABOVE FINISHED ROOF SURFACES AND HIGHER WHEREVER REQUIRED BY LOCAL PLUMBING ORDINANCES.
 - C. WATER PIPING:
 1. RUN LEVEL WITHOUT POCKETS AND AS STRAIGHT AS POSSIBLE.
 2. INSTALL HOT AND COLD WATER LINES AT LEAST 12" APART.
 3. ISOLATE ALL WATER LINES FROM ALL PARTS OF THE BUILDING STRUCTURE AND HANGERS WITH 1/2" THICK WAFFLE PATTERN, HAIR FELT STRIPS OF A 2" MINIMUM WIDTH COMPLETELY SURROUNDING THE PIPES. USE PIPE ISOLATORS TO ISOLATE ALL PIPE HANGERS AND SUPPORTS.
 4. INSTALL WATER HAMMER ARRESTORS IN AN UPRIGHT POSITION ON HOT AND COLD WATER PIPING HEADERS, AT EACH QUICK CLOSING VALVES AND WHERE INDICATED ON THE DRAWINGS.
 5. INSTALL VACUUM BREAKER ON WATER LINES WHERE REQUIRED BY CODE EVEN IF NOT SPECIFICALLY MENTIONED IN THE SPECIFICATION OR INDICATED ON THE DRAWINGS.

6. ARRANGE THERMOMETERS FOR EASY READING FROM THE FLOOR AND INSTALL ALL PRESSURE GAUGES WITH SHUT-OFF COCKS.
- D. GAS PIPING:
 1. RUN LEVEL WITHOUT POCKETS AND AS STRAIGHT AS POSSIBLE.
 2. MAKE ALL CONNECTIONS TO GAS BURNING EQUIPMENT AND APPLIANCES USING STRAIGHT-WAY EVEN HANDLE SERVICE COCK BEFORE CONNECTION TO BURNER.
15. JOINTS
 - A. SCREWED STEEL PIPE: CUT THREADS WITH NEW CLEAN DIES. CAREFULLY REAM AND INSPECT EACH PIECE OF PIPE BEFORE ERECTION. APPLY PIPE DOPE TO MALE THREADS ONLY. EXPOSE NO MORE THAN TWO THREADS.
 - B. COPPER TUBING: CUT PIPE SQUARE, USING PROPER TOOLS AND REMOVE ALL BURRS, THOROUGHLY CLEAN END OF PIPE EQUAL TO DEPTH OF FITTING, USING SAND CLOTH, SANDPAPER OR STEEL WOOL FOR CLEANING PURPOSES. APPLY A COAT OF NO. 50 STREAMLINE PASTE TO PIPE AND FITTINGS. LIQUID FLUX WILL NOT BE PERMITTED. USE 95-5 SOLDER. INSTALL ALL PIPING IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTION.
 - C. COPPER OR BRASS PIPE: CUT THREADS WITH NEW CLEAN DIES, FULL THICKNESSES OF DIES. MAKE JOINTS WITH FRICTION CLAMPS AND FRICTION WRENCHES. THOROUGHLY REAM EACH PIECE OF PIPE. APPLY TAPE TO MALE THREADS.
 - D. WELDING JOINTS: USE QUALIFIED WELDERS ONLY. MAKE WELDS WITH ELECTRIC ARC USING SUITABLE COATED RODS. PROPERLY BEVEL AND CLEAN ALL JOINTS BEFORE WELDING. WELD IN ACCORDANCE WITH AMERICAN WELDING SOCIETY STANDARDS AND GOVERNING CODES.
16. UNIONS
 - INSTALL UNIONS ON CONNECTIONS TO ALL EQUIPMENT ON THE DOWNSTREAM SIDE OF ALL THREADED OR SOLDERED VALVES AND ELSEWHERE AS INDICATED ON THE DRAWINGS.
17. VALVES
 - A. INSTALL SHUT-OFF VALVES IN ALL MAIN SERVICES, AT FIXTURES, AND WHERE REQUIRED TO PROVIDE COMPLETE ISOLATION OF ALL EQUIPMENT, DEVICES, ETC. FOR THEIR PROPER SERVICING. ARRANGE VALVES TO GIVE COMPLETE AND REGULATING CONTROL OF PIPING SYSTEMS THROUGHOUT THE BUILDING. INSTALL ALL VALVES WITH BEST OF WORKMANSHIP, WITH NEAT APPEARANCE AND GROUPING, SO THAT ALL PARTS ARE EASILY ACCESSIBLE FOR MAINTENANCE.
 - B. INSTALL TRAP PRIMER WITH SHUT-OFF VALVE AND UNION.
18. PIPE SUPPORTS
 - A. SUPPORT SUSPENDED PIPING WITH CLEVIS OR TRAPEZE HANGERS AND RODS. IN CONCRETE SLABS SUPPORT PIPING FROM INSERTS OR ANCHORS. WHERE STEEL FRAMING IS USED, ATTACH SUPPORTS WITH SUITABLE CLAMPS AND TO WOOD FRAMING USE SUITABLE BOLTS OR LAG SCREWS.
 - B. SUPPORT EACH ITEM INDEPENDENTLY FROM OTHER PIPES. DO NOT USE WIRE FOR HANGING OR STRAPPING PIPES.
 - C. SPACE HANGERS AND SUPPORTS FOR HORIZONTAL STEEL PIPES ACCORDING TO THE FOLLOWING SCHEDULE:
 - D. ALL PIPING WHICH IS NOT ISOLATED FROM CONTACT WITH THE BUILDING BY ITS INSULATION SHALL BE INSTALLED WITH A MANUFACTURED TYPE ISOLATOR. HORIZONTAL PIPING IN STUD WALLS MAY BE ISOLATED WITH HAIR FELT PADS SECURELY WIRED IN PLACE.
 - E. ISOLATOR SHALL BE SEMCO TRIANGLES. SERIES NO. 100 FOR LPS. PIPING AND SERIES NO. 500 FOR COPPERTUBING AS MANUFACTURED BY STONEMAN ENGINEERING AND MFG. CO. PIPE SIZE:
 - 1-1/4" AND SMALLER----- 8'-0"
 - 1-1/2" AND LARGER----- 10'-0"
 - OTHER LOCATIONS: VALVES, FITTINGS AND CHANGE IN DIRECTION.
 - F. SPACE HANGERS AND SUPPORTS FOR HORIZONTAL COPPER TUBING ACCORDING TO THE FOLLOWING SCHEDULE:
 - TUBE SIZE:
 - MAXIMUM SPAcing ON CENTERS:
 - 1-1/2" AND SMALLER----- 6'-0"
 - 2" AND LARGER----- 8'-0"
 - OTHER LOCATIONS: VALVES, FITTINGS AND CHANGE IN DIRECTION.
 - G. PROVIDE SWAY BRACING ON HANGERS LONGER THAN 18".
 - H. ARRANGE PIPE SUPPORTS TO PREVENT EXCESSIVE DEFLECTION, AND TO AVOID EXCESSIVE BENDING STRESS.
 - I. SUPPORT VERTICAL PIPING WITH RISER CLAMPS SECURED TO THE PIPING AND RESTING ON THE BUILDING STRUCTURE. PROVIDE AT EACH FLOOR LEVEL OTHERWISE NOTED.
 - J. SUPPORT PIPING INDEPENDENTLY AT PUMPS, TANKS AND SIMILAR LOCATIONS, SO THAT WEIGHT OF PIPE WILL NOT BE SUPPORTED BY THE EQUIPMENT.
 - K. HUBLESS PIPING: PROVIDE HANGERS ON THE PIPING AT EACH SIDE OF, AND WITHIN 6" OF, HUBLESS PIPE COUPLING SO THE COUPLING WILL BEAR NO WEIGHT. MAINTAIN ALIGNMENT AND PREVENT SAGGING OF PIPE, AND MAKE ADEQUATE PROVISION TO PREVENT SHEARING AND TWISTING OF THE PIPE AND THE JOINT. DO NOT PROVIDE HANGERS ON COUPLINGS. HORIZONTAL SPAcing: 5'-0" OTHER LOCATIONS: FITTINGS AND CHANGE IN DIRECTION.
 - L. SUPPORT PIPING ON ROOF ON 2" X 4" REDWOOD BLOCKS 12" LONG AT MAXIMUM OF 8'-0" O.C. ANCHOR PIPING TO BLOCKS.
 - M. HANGER RODS SHALL CONFORM TO THE FOLLOWING TABLE:

PIPE SIZE 2" AND SMALLER:	3/8 INCH ROD
PIPE SIZE 2-1/2" AND 3":	1/2 INCH ROD
PIPE SIZE 4" AND 5":	5/8 INCH ROD 19.
19. INSULATION
 - A. INSULATE ALL DOMESTIC HOT WATER SUPPLY AND RETURN PIPING. DO NOT COVER UNIONS. THICKNESS SHALL BE IN ACCORDANCE WITH TABLE ON P-1 (ENERGY NOTES). MATERIAL TO BE SAME AS SPECIFIED BELOW IN "B".
 - B. INSULATE ALL CONDENSATE DRAIN PIPING WITH 1/2" THICK ARMSTRONG 2000 OR ELASTOMERIC OR INCOA POLYETH FROAM PIPE INSULATION. ALL JOINTS SHALL BE SEALED WITH INCOA ADHESIVE. ALL FITTINGS TO BE INSULATED WITH MITER CUT PIECES. WATER PIPES RUN IN EXTERIOR WALL CHASES ARE TO BE COVERED WITH 3/4" INSULATION. FIBERGLASS INSULATION IS NOT ALLOWED.
 - C. PROVIDE INSULATION CONTINUOUS THROUGH HANGERS AND ROLLERS.
 - D. INSULATE THE TAIL PIECE, "P" TRAP, TRAP ARM AND HOT WATER SUPPLY PIPING AT EACH FIXTURE FOR HANDICAPPED USE. HANDI LAV-GUARD INSULATION KITS. MANUFACTURED BY TRUEBRO INC.
1. PLASTER WALL AND CEILING: ELMODOR PW SERIES AKL HINGED PRIME COATED STEEL TRIMLESS ACCESS PANEL WITH PLASTER GROUND.
2. TILE, DRYWALL AND CEILING: ELMODOR PW SERIES AKL HINGED STAINLESS STEEL FLANGED ACCESS PANEL WITH BRIGHT FINISHED FOR TILE WALLS, PRIME COATED STEEL FOR PAINTED WALLS.
20. PIPE WRAPPING
 - SPIRALLY WRAP ALL UNDERGROUND STEEL AND COPPER PIPING WITH PLASTIC TAPE ONE HALF LAPPED TO GIVE DOUBLE THICKNESS. WRAPALL FIELD JOINTS AFTER PRESSURE TEST. WHERE SOIL IS CORROSIVE ATTACH ANODES TO ALL UNDERGROUND STEEL PIPING WITH INSULATION UNIONS IN ACCORDANCE WITH RECOMMENDATIONS OF A CORROSION ENGINEER.
 - A. FOR INSULATED PIPE, PROVIDE SLEEVES OF ADEQUATE SIZE TO ACCOMMODATE THE FULL THICKNESS OF PIPE COVERING WITH CLEARANCE FOR PACKING AND CAULKING.
 - B. CAULK THE SPACE BETWEEN SLEEVE AND PIPE OR PIPE COVERING, USING A NON COMBUSTIBLE, PERMANENTLY PLASTIC, WATERPROOF, NON-STAINING COMPOUND WHICH LEAVES A SMOOTH FINISHED APPEARANCE, OR PACK WITH NON COMBUSTIBLE INSULATING ROPE TO WITHIN 1/2" OF BOTH WALL FACES, AND PROVIDE THE WATERPROOF COMPOUND DESCRIBED ABOVE.
 - C. FINISH AND ESCUTCHEONS:
 1. SMOOTH UP ROUGH EDGES AROUND SLEEVES WITH PLASTER OR SPACKLING COMPOUND.
 2. PROVIDE 1" WIDE CHROME OR NICKEL PLATED ESCUTCHEONS HELD IN PLACE WITH SET SCREW FOR ALL PIPES EXPOSED TO VIEW IN FINISHED SPACES.
 22. CLEANOUTS
 - A. THE LOCATION AND ORIENTATION OF ALL CLEANOUTS TO BE REVIEWED AND APPROVED BY THE ARCHITECTS PRIOR TO ROUGH IN OR INSTALLATION.
 - B. PROVIDE CLEANOUTS OF SAME NOMINAL SIZE AS THE PIPES THEY SERVE, EXCEPT WHERE CLEANOUTS ARE REQUIRED IN PIPES 4" AND LARGER PROVIDE 4" CLEANOUTS.
 - C. MAKE CLEANOUTS ACCESSIBLE. AFTER PRESSURE TESTS ARE MADE AND APPROVED, THOROUGHLY

GRAPHITE THE CLEANOUT THREADS.

23. TAGGING AND IDENTIFICATION
 - A. LABEL ALL VALVES WITH SECURELY ATTACHED METAL TAGS SHOWING THE SERVICE AND VALVE NUMBER. STAMP TAGS WITH BLACK FILLED NUMBERS AND LETTERS. PRIOR TO FINAL INSPECTION, SUBMIT TO ARCHITECT TWO COPIES OF CHART SHOWING VALVE NUMBER, SERVICE, VALVE LOCATION AND AREA CONTROLLED.
24. TESTING
 - A. TEST ALL WORK UNDER THE SUPERVISION OF THE REPRESENTATIVE OF THE ARCHITECT AND/OR OWNER AND INSPECTED BY ALL AUTHORITIES HAVING JURISDICTION OVER THIS WORK. DELIVER FOUR (4) SETS OF ALL TEST CHARTS AND REPORTS TO THE ARCHITECT.
 - B. PRESSURE TESTS:
 - TEST THE VARIOUS PARTS OF THE SYSTEMS BEFORE PIPING IS CONCEALED AS REQUIRED BY GOVERNING AUTHORITIES AND PAY ALL COSTS FOR SAME.
 1. ENTIRE SOIL, WASTE AND VENT PIPING SHALL BE TESTED WITH MINIMUM OF 10 FEET HEAD OF WATER FOR THREE (3) HOURS.
 2. ALL DOMESTIC WATER PIPING SHALL BE TESTED UNDER A HYDROSTATIC PRESSURE OF 150 PSI FOR THREE (3) HOURS.
 3. ALL GAS PIPING SHALL BE TESTED UNDER AIR PRESSURE OF 50 PSI HELD FOR FOUR (4) HOURS WITHOUT ANY DROP IN PRESSURE. CHECK EACH JOINT AND GAS COCK WITH SOAP SUD.
 - C. OPERATING TESTS:
 - BEFORE FINAL ACCEPTANCE, PERFORM OPERATING TESTS FOR A DURATION OF EIGHT HOURS. FURNISH ALL LABOR AND INSTRUMENTS FOR TESTS.
 2. SHOULD THE CONTRACTOR REFUSE OR NEGLECT TO MAKE ANY TESTS NECESSARY TO SATISFY THE OWNER, OR HIS REPRESENTATIVE, THAT HE HAS CARRIED OUT THE TRUE INTENT AND MEANING OF THE SPECIFICATIONS, THE OWNER MAY MAKE SUCH TESTS AND CHARGE THE EXPENSE THERE OF TO THE CONTRACTOR.
 25. CLEANING
 - A. THOROUGHLY CLEAN ALL EQUIPMENT AND PIPING TO REMOVE DUST, SCALE, PLASTER, OR ANY INTERNAL OBSTRUCTIONS BEFORE ANY COVERING IS INSTALLED OR ANY PIPING, OR EQUIPMENT IS PAINTED AND/OR PLACED IN OPERATION. CLEAN EXPOSED PARTS OF EQUIPMENT, REMOVE OIL AND GREASE, AND LEAVE THE BRIGHT METAL PARTS CLEAN AND POLISHED. RESTORE FINISHED SURFACES IF DAMAGED, AND DELIVER ENTIRE INSTALLATION IN APPROVED CONDITION.
 - B. DURING THE PROGRESS OF THE WORK, CAREFULLY CLEAN UP AFTER YOUR MEN, AND LEAVE THE PREMISES AND ALL PORTIONS OF THE BUILDING IN WHICH YOU ARE WORKING, FREE FROM DEBRIS. UPON COMPLETION OF THE WORK, REMOVE ALL RUBBISH, DEBRIS AND SURPLUS MATERIALS RESULTING THERE FROM THE PREMISES, AND LEAVE THE SITE IN, CLEAN AND ACCEPTABLE CONDITION AS APPROVED BY THE ARCHITECT.
 - C. BEFORE BEING PLACED IN OPERATION, FLUSH CLEAN INSIDE OF PIPES, ETC. CLEAN ALL STRAINERS AFTER OPERATIONAL TESTS. CLEAN PLUMBING FIXTURES OF PROTECTIVE MATERIALS AND CLEAN AND POLISHED ENTIRE ASSEMBLIES. CLEAN FLOOR DRAIN GRATES AND CHECK EACH FIXTURE TO INSURE AGAINST TRAP STOPPAGE.
 26. WATER SYSTEM STERILIZATION
 - BEFORE THE USE OF ANY PORTION OF WATER SYSTEM AND BEFORE FINAL ACCEPTANCE OF THE SYSTEM, THE PURITY OF THE SYSTEM MUST MEET THE REQUIREMENTS OF THE STATE BOARD OF HEALTH. SUBMIT A CERTIFICATE FROM AN APPROVED TESTING LABORATORY THAT THE WATER SYSTEM MEETS ALL THE PURITY REQUIREMENTS OF THE STATE BOARD OF HEALTH. OBTAIN WRITTEN APPROVAL FROM WATER TESTING LABORATORY AND SUBMIT TO GENERAL CONTRACTOR FOR APPROVAL.
 27. GROUTING
 - GROUT BEHIND ALL WALL-HUNG PLUMBING FIXTURES WITH HARD, WHITE DURABLE PLASTER MATERIALS, ELIMINATING ALL VOIDS AND CRACKS AND PROVIDING SUFFICIENT PLANE-BEARING SURFACES FOR MOUNTING.
 28. ADJUSTING
 - UPON COMPLETION OF AND AFTER CLEANING OF SYSTEM AND EQUIPMENT, CAREFULLY ADJUST FOR NORMAL OPERATION THE AUTOMATIC PARTS OF PLUMBING SYSTEMS.
 29. OPERATION AND MAINTENANCE INSTRUCTIONS
 - UPON COMPLETION OF THE WORK OF THIS SECTION AND BEFORE FINAL ACCEPTANCE, DELIVER TO THE ARCHITECT TWO COPIES OF AN OPERATION AND MAINTENANCE MANUAL CLEARANCE FOR PACKING AND CAULKING.

EXISTING EQUIPMENT TO REMAIN:

1. PROVIDE FULL DIAGNOSTIC CHECK OF ALL EQUIPMENT AND SYSTEMS TO REMAIN. REPORT CONDITION, ANY DEFICIENCIES, ANY INDICATION OF WEAR, MISSING PARTS OR POTENTIAL FAILURE.
2. TEST AND RECORD ALL CURRENTS DRAWN BY MOTORS AND COMPRESSORS AND ALL OPERATING PRESSURES. PROVIDE WRITTEN REPORT TO THE OWNER IDENTIFYING MFR, MODEL NUMBER AND LOCATION.
3. PRESSURE WASH INDOOR AND OUTDOOR COILS AFTER ALL DUST PRODUCING CONSTRUCTION WORK IS COMPLETED.
4. FURNISH AND INSTALL NEW DRIVE BELTS.
5. THOROUGHLY CLEAN AND REPAIR CONDENSATE PANS AND BLOW OUT DRAIN LINES.
6. INSPECT AND LUBRICATE ALL BEARINGS.
7. FURNISH AND INSTALL ALL NEW 2" AIR FILTERS.
8. PROVIDE INDEPENDENT TEST AND BALANCE REPORT PERFORMED BY CERTIFIED INDEPENDENT TEST AND BALANCE CONTRACTOR AS PART OF THIS CONTRACT. TESTING ENTIRE COMPLETED SYSTEM INCLUDING EXISTING EQUIPMENT WHERE REUSED.



H2S ENGINEERS INC

H2S Engineers Inc.
 Consulting MEP Engineers
 Anaheim, CA 92801
 Ph: (714) 290-0718
 E-mail: nvmerma@h2sengineers.com

APPROVED BY:

Michael Todd Broussard, PE DATE

R.C.E. ND. 57144 EXP. DATE: 12/31/19

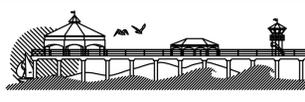


UNDERGROUND SERVICE ALERT

CALL:

811

TWO WORKING DAYS BEFORE YOU DIG



CITY OF HUNTINGTON BEACH
DEPARTMENT OF PUBLIC WORKS

JOB # 873-10

DESIGNED LM

DRAWN LM

CHECKED HS

DATE 6/21/2021

SHEET

P4.0

CONSULTANT

RM ARCHITECTURE
 RUBIO MEDINA, ARCHITECT
 780 ROOSEVELT
 IRVINE, CA 92620
 P: 949.333.6030
 F: 949.333.6100

RODGERS SENIOR CENTER SITE
1706 ORANGE AVENUE
HUNTINGTON BEACH, CA 92647

REGISTERED PROFESSIONAL ENGINEER
 CIVIL ENGINEERING
 No. M35789
 Exp. 12/31/19
 CALIFORNIA

REVISIONS DATE

SHEET TITLE
PLUMBING SPECIFICATIONS

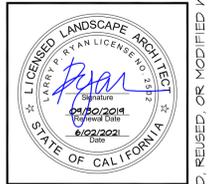
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CONSULTANT

RODGERS SENIOR CENTER SITE
1706 ORANGE AVENUE
HUNTINGTON BEACH, CA 92647



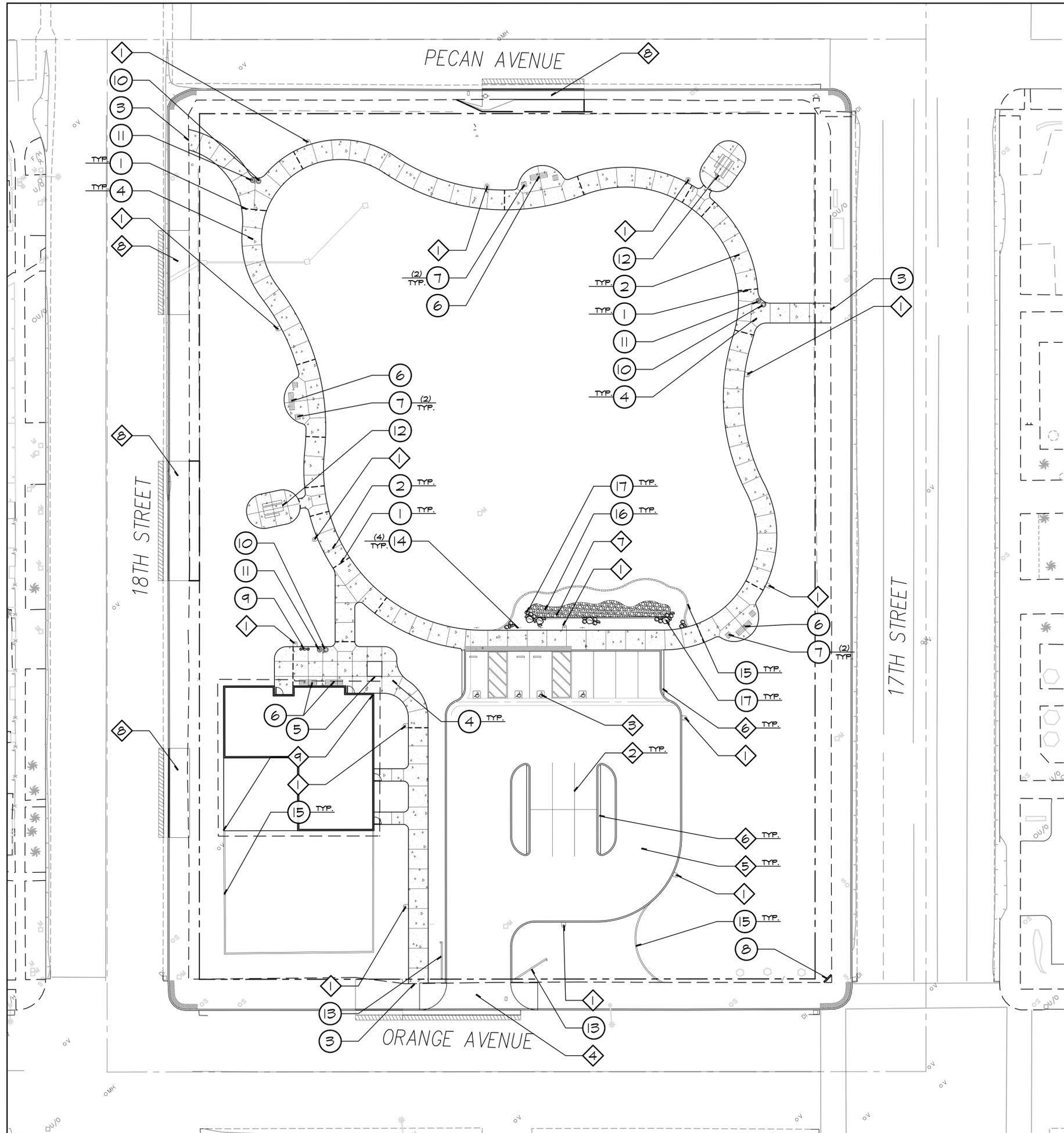
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CONST. PLAN

JOB # 873-10
DESIGNED AS
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CHECKED ZM
DATE 6/02/2021

SHEET
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CONSTRUCTION LEGEND:

CONSTRUCT:	DETAIL REFERENCE/COMMENTS:
1 EXPANSION JOINT	DETAIL: 1 SHEET: L-3.01
2 TOOLED JOINT	DETAIL: 1 SHEET: L-3.01
3 COLD JOINT WITH SPEED DOWELS	DETAIL: 1 SHEET: L-3.01
4 4" THICK NATURAL GRAY CONCRETE PAVING WITH MEDIUM BROOM FINISH	DETAIL: 2 SHEET: L-3.01
5 6' SQUARE TREE WELL	DETAIL: 3 SHEET: L-3.01
6 INSTALL 6' BENCH WITH BACK	DETAIL: 4 SHEET: L-3.01
7 INSTALL 24" CHAIR WITH BACK	DETAIL: 4 SHEET: L-3.01
8 INSTALL CITY PARK MONUMENT SIGN	DETAIL: 5 SHEET: L-3.02
9 INSTALL DRINKING FOUNTAIN WITH BOTTLE FILLER	DETAIL: 6 SHEET: L-3.01
10 INSTALL TRASH RECEPTACLE	DETAIL: 8 SHEET: L-3.01
11 INSTALL RECYCLING RECEPTACLE	DETAIL: 8 SHEET: L-3.01
12 INSTALL ADA PICNIC TABLE	DETAIL: 5 SHEET: L-3.01
13 INSTALL VEHICULAR SWING GATE	DETAIL: 1 SHEET: L-3.02
14 INSTALL HANDICAP PARKING SIGNAGE	DETAIL: 7 SHEET: L-3.01
15 INSTALL 6"x6" CONCRETE MONCURB	DETAIL: 9 SHEET: L-3.01
16 INSTALL MORTARED COBBLE	DETAIL: 8 SHEET: L-3.02
17 INSTALL BOULDERS	DETAIL: 4 SHEET: L-3.02

WORK BY OTHERS:

DESCRIPTION	PLAN REFERENCE:
1 INSTALL NEW PEDESTRIAN LIGHT	PER ELECTRICAL PLAN DETAIL: 2 SHEET: L-3.02
2 PARKING LOT STRIPING	PER CIVIL ENGINEERING PLAN
3 ADA PARKING	PER CIVIL ENGINEERING PLAN
4 COMMERCIAL DRIVEWAY	PER CIVIL ENGINEERING PLAN
5 ASPHALT PARKING LOT & CONCRETE CURB	PER CIVIL ENGINEERING PLAN
6 CONCRETE MAINTENANCE BAND	PER CIVIL ENGINEERING PLAN
7 DRAINAGE MANIFOLD	PER CIVIL ENGINEERING PLAN
8 SIDEWALK/CURB/GUTTER REPLACEMENT	PER CIVIL ENGINEERING PLAN
9 OUTREACH BUILDING RENOVATIONS	PER ARCHITECTURAL PLAN

LINETYPE LEGEND:

DESCRIPTION:	COMMENTS:
--- (dashed line)	LIMIT OF WORK

ACCESSIBLE PATH OF TRAVEL NOTE:

• ALL PROPOSED WALKWAYS ARE ACCESSIBLE PATHS OF TRAVEL WITH A MAXIMUM SLOPE OF 5% & CROSS SLOPE OF 2%.

BOULDER SCHEDULE			
SIZE	#1	#2	#3
	2'L x 1'W	3'L x 3'W	2'L x 2'W
QTY	11	4	14
SYM			

BOULDERS SHALL BE 'MALIBU', AVAILABLE FROM DECORATIVE STONE SOLUTIONS, OR APPROVED EQUAL. CONTACT: RANDY JURGENSEN 800-699-1878. SEE DETAIL 4, SHEET L-3.02
NOTE: LANDSCAPE ARCHITECT TO LAYOUT/MARK ALL COBBLE/BOULDERS IN THE FIELD.

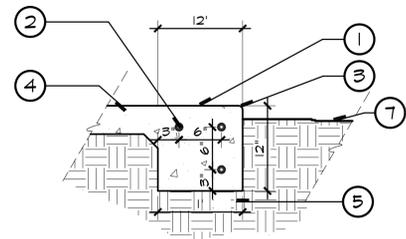


UNDERGROUND SERVICE ALERT
CALL: 811
TWO WORKING DAYS BEFORE YOU DIG

APPROVED BY:
CHRIS TANDI, PRINCIPAL C.E. DATE 9/30/22
R.C.E. NO. C82756 EXP. DATE 9/30/22



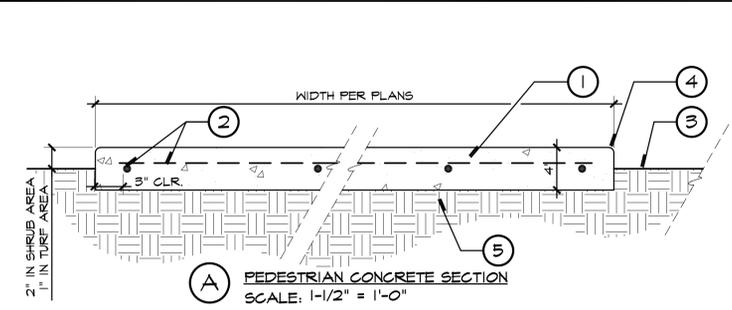
LEGEND:
 ① DUMOR BENCH II, MODEL #11-60PL, WITH CENTER ARMREST, 5-2 SURFACE MOUNT, OR APPROVED EQUAL. RECYCLED PLASTIC SLAT COLOR TO BE 'GREY'. FRAME COLOR TO BE 'FOREST GREEN'. CONTACT STEVE HUNT, COAST RECREATION, (714)619-0100. SURFACE MOUNT PER MANUFACTURER'S RECOMMENDATIONS.
 ② DUMOR CUSTOM CHAIR, MODEL #11-20PL, WITH 5-2 SURFACE MOUNT, OR APPROVED EQUAL. RECYCLED PLASTIC SLAT COLOR TO BE 'GREY'. FRAME COLOR TO BE 'FOREST GREEN'. CONTACT STEVE HUNT, COAST RECREATION, (714)619-0100. SURFACE MOUNT PER MANUFACTURER'S RECOMMENDATIONS.



TYPICAL THICKENED EDGE
 SCALE: 1" = 1'-0"

LEGEND:
 ① 12"x12" THICKENED CONCRETE EDGE
 ② #4 HORIZ. REBAR @ 6" O.C., MIN. (3) BARS, AS SHOWN
 ③ 1/2" TOOLED RADIUS
 ④ ADJACENT CONCRETE PAVING, PER PLAN.
 ⑤ COMPACTED, MOISTURE-CONDITIONED SUBGRADE PER SOILS REPORT
 ⑥ FINISHED GRADE IN TREE WELL. REFER TO GRADING PLAN FOR FINISHED GRADE, REFER TO PLANTING PLAN FOR TREE PLANTING.

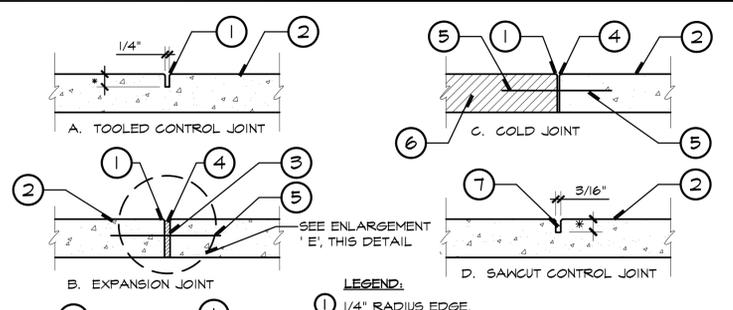
NOTES:
 (A) CONTROL JOINT SPACING PER PLAN.
 (B) ALL CONCRETE TO HAVE MINIMUM COMPRESSION STRENGTH OF 3,250 PSI, TYPE V PCC.



PEDESTRIAN CONCRETE SECTION
 SCALE: 1-1/2" = 1'-0"

LEGEND:
 ① CONCRETE PAVING - REFER TO CONSTRUCTION PLAN FOR COLOR AND FINISH.
 ② #3 REBAR AT 18" O.C. EACH WAY.
 ③ FINISH GRADE.
 ④ 1/2" TOOLED RADIUS
 ⑤ COMPACTED, MOISTURE-CONDITIONED SUBGRADE PER SOILS REPORT.

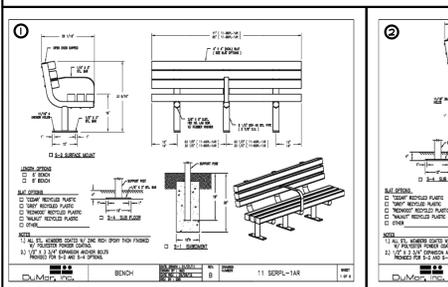
NOTES:
 (A) PROVIDE FINISH SAMPLE PER PLANS AND SPECIFICATIONS.
 (B) ALL CONCRETE TO HAVE MINIMUM COMPRESSION STRENGTH OF 3,250 PSI, TYPE V PCC.
 (C) PROVIDE 1/4" FALL PER 12" RUN ON ALL PAVING - MINIMUM. SEE CIVIL PLANS.
 (D) SEE DETAIL I, THIS SHEET FOR CONCRETE JOINTS.
 (E) REFER TO CITY STANDARD PLAN DETAIL 207, FOR PARKWAY & SIDEWALK CONSTRUCTION.



CONCRETE JOINTS

LEGEND:
 ① 1/4" RADIUS EDGE.
 ② PAVING FINISH SURFACE PER PLAN.
 ③ 1/4" DECK-O-FOAM EXPANSION MATERIAL BY MR. MEADOWS OR APPROVED EQUAL. INSTALL PER MANUFACTURER'S SPECIFICATIONS. (909) 469-2606.
 ④ 'GUN-GRADE' TWO-PART POLYURETHANE SEALER BY: PECORA CORPORATION (800) 525-6688, OR APPROVED EQUAL.
 ⑤ SPEED-DONEL AT 18" O.C. AT ALL JOINTS W/#4 REBAR, MODEL NO. PSD09/14TX SPEED DONEL SLEEVE WITH PSD/14SX BASE AS PROVIDED BY GREENTREK GROUP OR APPROVED EQUAL. (800) 325-4504.
 ⑥ EXISTING CONCRETE PAVING.
 ⑦ SAWCUT JOINT, SINGLE BLADE WITH 1/16" BEVEL AND CONTINUOUS CRACK CHASER.
 * 3/4" IF PAVING LESS THAN 4" THICK. 1" IF PAVING 4" THICK OR GREATER.

NOTES:
 (A) LOCATE JOINTS AS INDICATED ON PLAN.
 (B) SEALANT COLOR TO MATCH ADJACENT PAVING.
 (C) ALL EXPANSION JOINT SEALANT TO BE SEEDED WITH SILICA SAND.
 (D) PROVIDE DOUBLE BLADE SAWCUT JOINTS AT POSTS AND CENTERED BETWEEN POSTS, TYP. ALONG ALL FENCING. SEE PLANS.
 (E) EXPANSION JOINTS TO ONLY OCCUR WHERE PAVING MEETS VERTICAL CONSTRUCTION ELEMENT, (EX. BOCCO CURB).



4 SEATING AREA BENCH & CHAIR

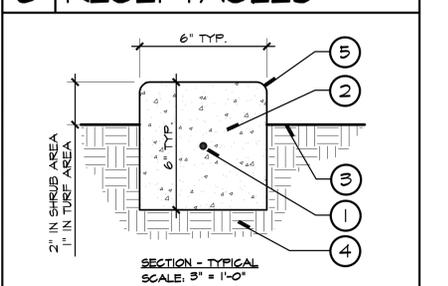
3 TREE WELL

2 CONCRETE PAVING

1 CONCRETE JOINTS



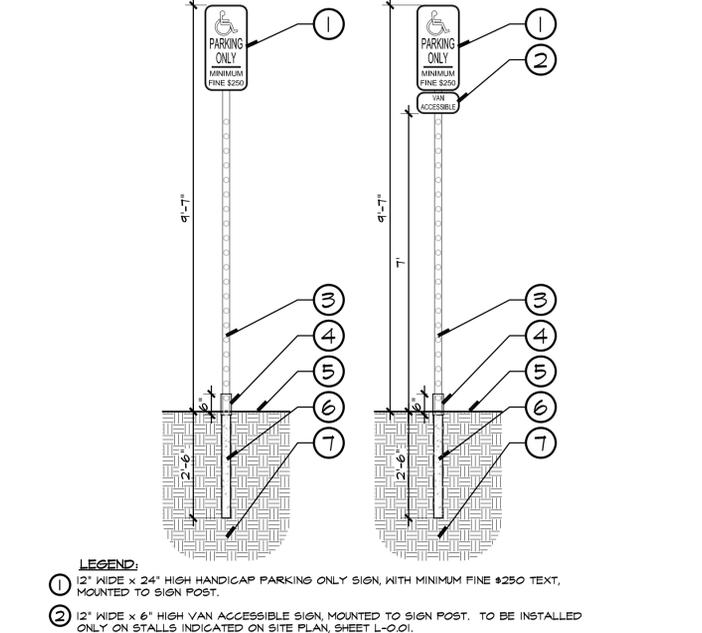
8 RECEPTACLES



LEGEND:
 ① TOTER DECORATIVE LITTER CONTAINER, 60-GALLON SIZE WITH CUSTOMIZED CITY LETTERS GRAPHIC. CONTAINER & GRAPHIC COLORS TO BE SELECTED BY CITY. INSTALL PER MANUFACTURER'S CURRENT RECOMMENDATIONS. CONTACT TOTER AT (800)424-0422.
 ② TOTER DECORATIVE RECYCLING CONTAINER, 60-GALLON SIZE, WITH CUSTOMIZED CITY LETTERS GRAPHIC & RECYCLE SYMBOL. CONTAINER & GRAPHIC COLORS TO BE SELECTED BY CITY. INSTALL PER MANUFACTURER'S CURRENT RECOMMENDATIONS. CONTACT TOTER AT (800)424-0422.

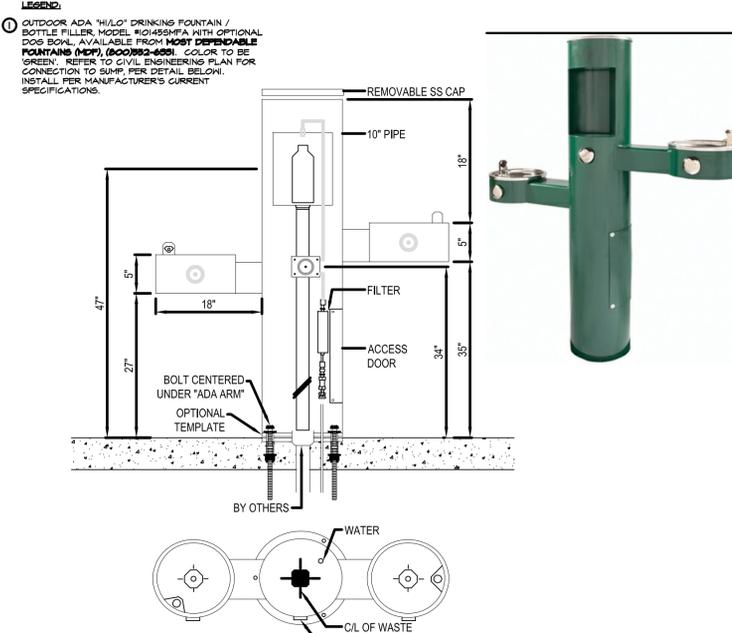
LEGEND:
 ① #4 HORIZONTAL REBAR, CONTINUOUS.
 ② POURED IN PLACE CONCRETE MON CURB WITH 1/2" TOOLED RADIUS AT ALL CORNERS & EDGES.
 ③ FINISHED GRADE.
 ④ COMPACTED, MOISTURE CONDITIONED SUBGRADE.
 ⑤ 1/2" TOOLED RADIUS.

NOTES:
 (A) PROVIDE SCORE JOINTS AT 5' O.C., UNLESS OTHERWISE INDICATED PER PLAN.
 (B) 3500 PSI (MIN) CONCRETE STRENGTH, TYPE V PCC.



LEGEND:
 ① 12" WIDE x 24" HIGH HANDICAP PARKING ONLY SIGN, WITH MINIMUM FINE #250 TEXT, MOUNTED TO SIGN POST.
 ② 12" WIDE x 6" HIGH VAN ACCESSIBLE SIGN, MOUNTED TO SIGN POST. TO BE INSTALLED ONLY ON STALLS INDICATED ON SITE PLAN, SHEET L-0-01.
 ③ 2" GALVANIZED SQUARE TUBING, 13 GAUGE, WITH 3/8" HOLES ON ALL SIDES, 1" O.C. (UNISTRUT, TELSPAR, OR APPROVED EQUAL).
 ④ 4" PVC x 6" DEEP SLEEVE.
 ⑤ FINISHED GRADE, PER CIVIL ENGINEERING PLAN.
 ⑥ 2" x 2" SOLID SQUARE ANCHOR.
 ⑦ COMPACTED, MOISTURE-CONDITIONED SUBGRADE.

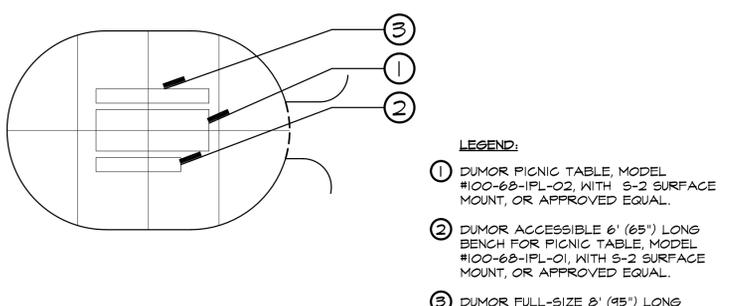
NOTES:
 (A) CONTRACTOR SHALL PROVIDE SHOP DRAWINGS TO CITY & LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO FABRICATION.
 (B) ALL STEEL POSTS SHALL CONFIRM TO THE STANDARD SPECIFICATIONS FOR HOT ROLLED CARBON SHEET STEEL, COMMERCIAL QUALITY, A574 DEG A-564-12, (IN LINE GALVANIZED ZINC COATING) & A CROSS-LINKED POLYURETHANE ACRYLIC EXTERIOR COATING.



LEGEND:
 ① OUTDOOR ADA 'H2O' DRINKING FOUNTAIN / BOTTLE FILLER, MODEL #10145SMFA WITH OPTIONAL DOG BOWL, AVAILABLE FROM **HOT DEFENDABLE FOUNTAINS (HDF)**, (800)892-6881. COLOR TO BE GREEN. REFER TO CIVIL ENGINEERING PLAN FOR CONNECTION TO SUMP, PER DETAIL BELOW. INSTALL PER MANUFACTURER'S CURRENT SPECIFICATIONS.

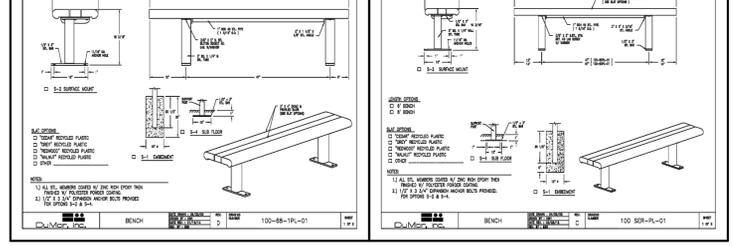
NOTES:
 1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
 2. DO NOT SCALE DRAWING.
 3. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
 4. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.
 5. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info AND ENTER REFERENCE NUMBER 3354-17.45.

MODEL 10145SMFA
 10145SM SHOWN WITH OPTIONAL 10" SS SURFACE CARRIER



LEGEND:
 ① DUMOR PICNIC TABLE, MODEL #100-68-1PL-02, WITH 5-2 SURFACE MOUNT, OR APPROVED EQUAL.
 ② DUMOR ACCESSIBLE 6' (65") LONG BENCH FOR PICNIC TABLE, MODEL #100-68-1PL-01, WITH 5-2 SURFACE MOUNT, OR APPROVED EQUAL.
 ③ DUMOR FULL-SIZE 8' (85") LONG BENCH FOR PICNIC TABLE, MODEL #100-80PL-01, WITH 5-2 SURFACE MOUNT, OR APPROVED EQUAL.

NOTES:
 • ALL RECYCLED PLASTIC SLAT TO BE 'GREY' COLOR, ALL STEEL FRAME TO BE 'FOREST GREEN' COLOR.
 • CONTACT STEVE HUNT, COAST RECREATION, (714)619-0100.
 • SURFACE MOUNT PER MANUFACTURER'S RECOMMENDATIONS.



9 CONC. MOWCURB

7 ACCESSIBLE PARKING SIGNAGE

6 DRINKING FOUNTAIN/BOTTLE FILLER

5 PICNIC TABLE

APPROVED BY:
 CHRIS TANIG, PRINCIPAL C.E. DATE
 R.C.E. NO. CB2756 EXP. DATE: 9/30/22

UNDERGROUND SERVICE ALERT
 CALL: 811
 TWO WORKING DAYS BEFORE YOU DIG

CITY OF HUNTINGTON BEACH
 DEPARTMENT OF PUBLIC WORKS

REVISIONS

REVISIONS	DATE

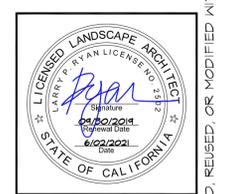
JOB # 875-10
DESIGNED AS
DRAWN AS
CHECKED ZM
DATE 6/02/2021

SHEET TITLE
 CONST. DETAILS

SHEET
 L-3.01

CONSULTANT

RODGERS SENIOR CENTER SITE
 1706 ORANGE AVENUE
 HUNTINGTON BEACH, CA 92647



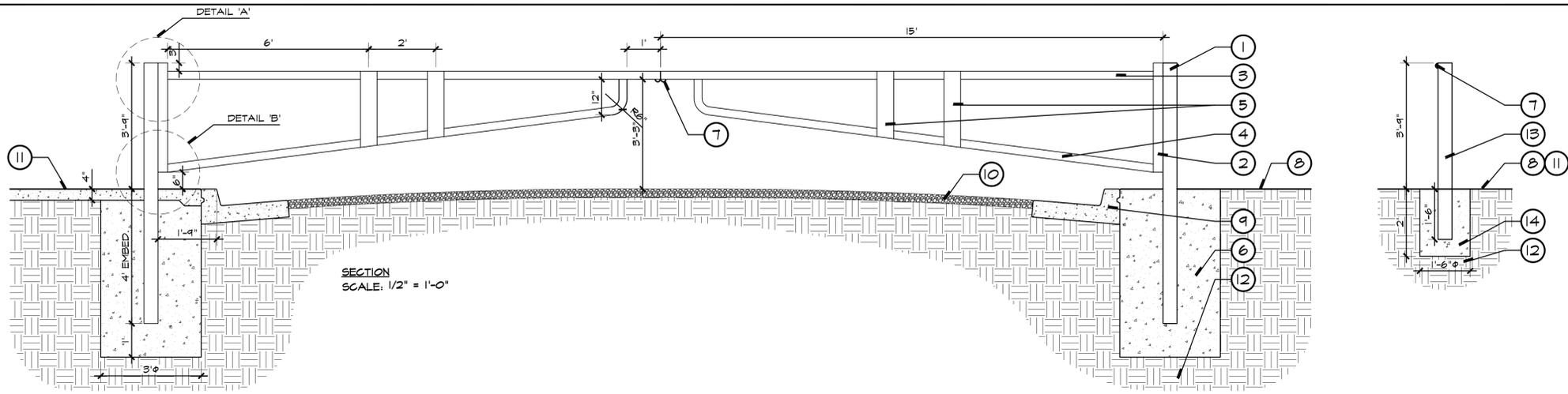
REVISIONS DATE

SHEET TITLE
 CONST. DETAILS

JOB # 875-10
 DESIGNED AS
 DRAWN AS
 CHECKED ZM
 DATE 6/02/2021

SHEET
 L-3.01

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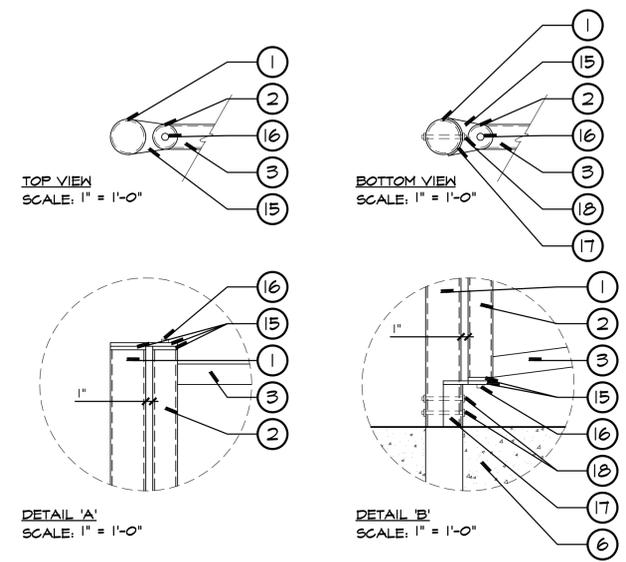


- LEGEND:**
- ① 5" O.D. GALVANIZED STEEL PIPE GATE POST.
 - ② 3/2" O.D. GALVANIZED STEEL PIPE HINGE POST.
 - ③ 2 3/8" O.D. GALVANIZED STEEL PIPE TOP RAIL.
 - ④ 2 3/8" O.D. GALVANIZED STEEL PIPE GATE FRAME.
 - ⑤ 1/2" THICK x 6" WIDE STEEL PLATES WELDED TO GATE FOR SIGNAGE, (TYP.)
 - ⑥ 5" DIAMETER x 5" DEEP CONCRETE FOOTING. GATE POST TO BE EMBEDDED 48" INTO CONCRETE FOOTING.

- ⑦ WELDED LOOP FOR CHAIN 2" DIAMETER OF #4 REBAR. TACK WELD FOR BREAKAWAY.
- ⑧ FINISHED GRADE IN LANDSCAPE AREA, PER CIVIL ENGINEERING PLAN.
- ⑨ CONCRETE CURB & GUTTER, PER CIVIL ENGINEERING PLAN, & CITY STANDARD DETAIL 202.
- ⑩ FINISHED SURFACE OF ASPHALT PAVING, PER CIVIL ENGINEERING PLAN.
- ⑪ FINISHED SURFACE OF CONCRETE PAVING, PER CIVIL ENGINEERING PLAN.
- ⑫ COMPACTED, MOISTURE-CONDITIONED SUBGRADE.

- ⑬ 5" O.D. GALVANIZED STEEL PIPE LOCK OPEN POST.
- ⑭ 18" x 24" DEEP CONCRETE FOOTING. LOCK OPEN POST TO BE EMBEDDED 18" INTO CONCRETE FOOTING.
- ⑮ 1/2" STEEL PLATE GAP, WELDED TO POSTS.
- ⑯ 1" DIAMETER STEEL PIN THROUGH STEEL PLATE FOR PIVOT.
- ⑰ HALF OF 5" O.D. STEEL PIPE WELDED TO POST.
- ⑱ 1/2" STEEL BOLT THROUGH GATE POST & HALF PIPE.

- GENERAL NOTES:**
- A ALL PIPES SHALL BE GALVANIZED STEEL PIPES, OUTSIDE DIAMETER (O.D.) & WELDED.
 - B ALL STEEL TO BE PAINTED WITH 2 COATS OF PRIMER & FEDERAL YELLOW.
 - C CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR APPROVAL BY CITY & LANDSCAPE ARCHITECT PRIOR TO FABRICATION.
 - D ALL CONCRETE CEMENT TO BE TYPE III, MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI, MAX. WATER CEMENT RATIO = 0.5, MAX. SLUMP = 4". SEE GEOTECHNICAL REPORT.

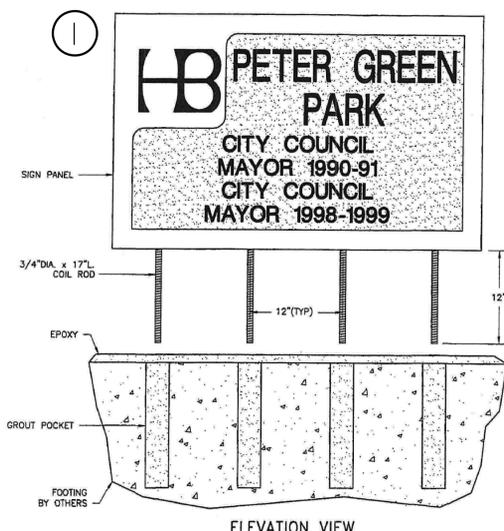


DETAIL 'A' SCALE: 1" = 1'-0"
DETAIL 'B' SCALE: 1" = 1'-0"

1 VEHICULAR SWING PIPE GATE

- INSTALLATION NOTES:**
- CAST-IN OR CORE DRILL (4) 3/4" DIA. x 16" DEEP GROUT POCKETS INTO FOOTING PER ANCHOR BOLT PATTERN. (SEE PLAN BELOW)
 - TAKE (4) 3/4" DIA. x 17" COIL RODS AND THREAD 5" INTO (4) 3/4" DIA. COIL INSERTS, LEAVING 12" OF THE COIL ROD EXPOSED.
 - FILL ALL GROUT POCKETS W/NON-SHRINK GROUT AND POUR EPOXY ON THE FOOTING WHERE SIGN WILL BE PLACED INSERT SIGN W/COIL RODS INTO GROUT POCKETS.
 - SUGGESTED ANCHORING METHOD NOT CALCULATED. PLEASE CONSULT STRUCTURAL ENGINEER.
 - FOOTING & INSTALLATION BY OTHERS.

Authorized Signature _____ Date _____
By signing above or stamping this drawing "approved" or "no exception taken" authorization is given to Quick Crete to produce this drawing as shown within a 1/4" tolerance.

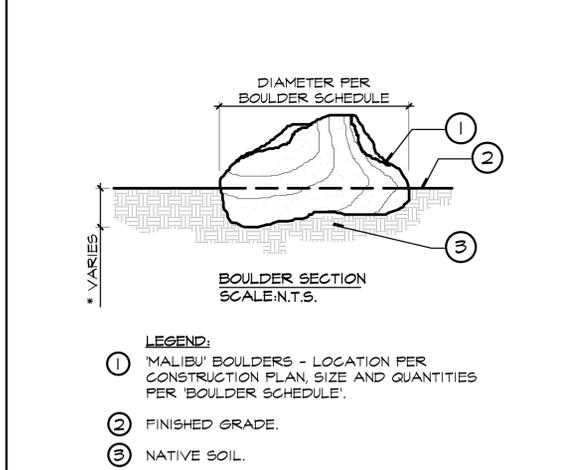


- LEGEND:**
- ① 30" HIGH x 48" WIDE x 6" THICK PRECAST CONCRETE PARK MONUMENT SIGN. SIGN AVAILABLE FROM QUICKCRETE PRECAST, CONTACT CYNTHIA CHAVEZ, (451)256-3221, PER QUOTE #0151234.
- NOTES:**
- PARK NAME & ACCOMPANYING TEXT TO BE DETERMINED BY CITY.
 - CONTRACTOR TO SUBMIT SHOP DRAWING FOR REVIEW & APPROVAL PRIOR TO ORDERING/PURCHASING/INSTALLATION.
 - FOOTING PER STRUCTURAL ENGINEERING RECOMMENDATIONS.

DATE	BY	REVISION
06/02/2021	AS	1
06/02/2021	AS	2

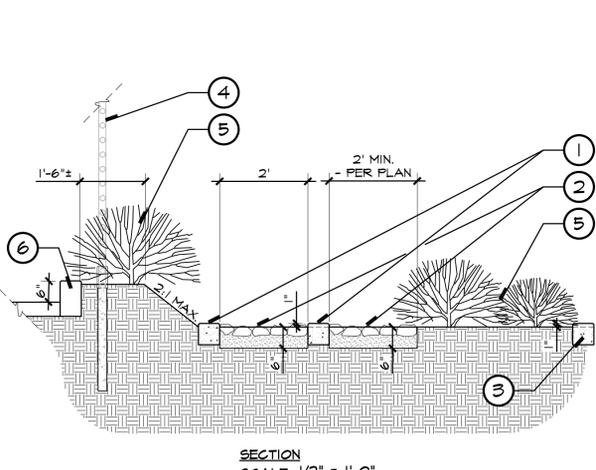
DATE	06/17/2021
TIME	11:00 AM
BY	AS
PROJECT	PETER GREEN PARK
DESCRIPTION	INSTALLATION PLAN
SCALE	48" L x 30" HT. x 6" THK. ONE SIDED SIGN
PROJECT	781 P.O. BOX 10000, HUNTINGTON BEACH, CA 92647
PHONE	(949) 493-2690
FAX	(949) 493-2600
WWW	WWW.RJMDESIGNGROUP.COM

QTY.	MARKING	TYPE	NOTES
1	QUICK CRETE	3/4" DIA. x 17" L. COIL ROD	EPOXY
1	QUICK CRETE	3/4" DIA. x 17" L. COIL ROD	EPOXY



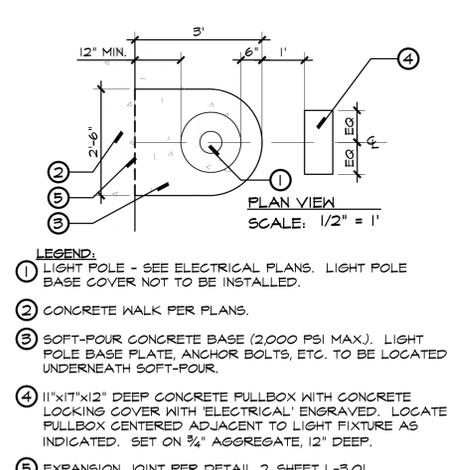
- NOTES:**
- NATURAL BOULDERS SHALL HAVE 1/3 EMBEDMENT, COBBLES SHALL HAVE 2/3 EMBEDMENT.
 - ALL ROCK PLACEMENT AND INSTALLATION SHALL BE UNDER THE DIRECTION OF THE LANDSCAPE ARCHITECT.
 - COBBLES SHALL BE NATURALLY ROUNDED OR SEMI-ROUNDED AND FREE OF EXCESSIVE IRON CONTENT. SUBMIT SAMPLES FOR REVIEW AND APPROVAL PRIOR TO ACQUISITION AND DELIVERY.
 - BID PROPOSAL SHALL INCLUDE MATERIAL DELIVERY AND INSTALLATION OF ACCENT BOULDERS.
 - CONTRACTOR SHALL SUBMIT REPRESENTATIVE SAMPLE OF EACH BOULDER TO THE SITE FOR REVIEW AND APPROVAL PRIOR TO DELIVERY OF MATERIAL.
 - BOULDERS AND COBBLE AVAILABLE FROM **DECORATIVE STONE SOLUTIONS**, OR APPROVED EQUAL. CONTACT: RANDY JURGENSEN, 800-699-1878x101.
 - ALL SUBSTITUTIONS TO BE APPROVED BY CITY REPRESENTATIVE PRIOR TO PURCHASING.

4 BOULDER INSTALLATION



- NOTES:**
- AT GRADE LIGHT POLE BASE TO BE USED AT ALL LOCATIONS WHERE LIGHT POLE IS ADJACENT TO WALKWAY.
 - CONTRACTOR SHALL USE EXTREME CAUTION WHEN INSTALLING FULL BOX TO ASSURE THAT ACCESS TO HANDHOLE IS NOT IMPEDED BY CONCRETE FOOTING. ALL HANDHOLES SHALL BE ORIENTED SO THAT THEY FACE THE SIDEWALK.
 - FOR THE INSTALLATION OF ELECTRICAL EQUIPMENT DEVICES, CONDUIT FITTINGS, FULL BOX, AND ETC., SEE ELECTRICAL ENGINEERING PLANS.
 - LIGHT POLE COLOR/FINISH TO MATCH EXISTING LIGHT POLES ON SITE.

3 MORTARED COBBLE BED



- NOTES:**
- AT GRADE LIGHT POLE BASE TO BE USED AT ALL LOCATIONS WHERE LIGHT POLE IS ADJACENT TO WALKWAY.
 - CONTRACTOR SHALL USE EXTREME CAUTION WHEN INSTALLING FULL BOX TO ASSURE THAT ACCESS TO HANDHOLE IS NOT IMPEDED BY CONCRETE FOOTING. ALL HANDHOLES SHALL BE ORIENTED SO THAT THEY FACE THE SIDEWALK.
 - FOR THE INSTALLATION OF ELECTRICAL EQUIPMENT DEVICES, CONDUIT FITTINGS, FULL BOX, AND ETC., SEE ELECTRICAL ENGINEERING PLANS.
 - LIGHT POLE COLOR/FINISH TO MATCH EXISTING LIGHT POLES ON SITE.

2 LIGHT POLE BASE

5 PRECAST CONCRETE MONUMENT SIGN

UNDERGROUND SERVICE ALERT
CALL: 811
TWO WORKING DAYS BEFORE YOU DIG

APPROVED BY:
CHRIS TANIG, PRINCIPAL C.E. DATE 9/30/22
R.C.E. NO. C82756 EXP. DATE 9/30/22

CITY OF HUNTINGTON BEACH
DEPARTMENT OF PUBLIC WORKS

LANDSCAPE STRUCTURAL DETAILS

ROGERS SENIOR CENTER

1706 ORANGE AVENUE, HUNTINGTON BEACH, CA 92647

Project Reference No. 20-304-00

GENERAL

- ALL CONSTRUCTION PLANS, CALCULATIONS, CONSTRUCTION, WORKMANSHIP, AND INSPECTIONS SHALL CONFORM TO THE CALIFORNIA BUILDING CODE, 2019 EDITION.
- THESE NOTES SHALL BE USED IN CONJUNCTION WITH THE PLANS AND ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF GMU STRUCTURAL.
- CONTRACTOR MUST CHECK DIMENSIONS AND SITE CONDITIONS BEFORE STARTING WORK. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES OR POSSIBLE DEFICIENCIES.
- CONDITIONS NOT SPECIFICALLY DETAILED SHALL BE CONSTRUCTED AS SPECIFIED IN TYPICAL DETAILS FOR THE RESPECTIVE MATERIALS.
- THE DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. ALL BRACING, TEMPORARY SUPPORTS, SHORING, ETC. IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. OBSERVATION VISITS TO THE JOB SITE BY THE ENGINEER DO NOT INCLUDE INSPECTION OF CONSTRUCTION PROCEDURES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION METHODS AND FOR SAFETY CONDITIONS AT THE WORKSITE. THESE VISITS SHALL NOT BE CONSTRUED AS CONTINUOUS AND DETAILED INSPECTIONS.
- DESIGN, MATERIALS, EQUIPMENT, AND PRODUCTS OTHER THAN THOSE DESCRIBED BELOW OR INDICATED ON THE DRAWINGS MAY BE CONSIDERED FOR USE, PROVIDED PRIOR APPROVAL IS OBTAINED FROM THE OWNER, THE ENGINEERS, AND THE APPLICABLE GOVERNING CODE AUTHORITY.
- STRUCTURAL PLANS AND PERMIT IS FOR CONSTRUCTION OF IMPROVEMENTS SHOWN HEREIN ONLY AND DO NOT INCLUDE OTHER SITE IMPROVEMENTS.

GEOTECHNICAL OBSERVATION AND TESTING

- ALL GEOTECHNICAL OBSERVATION AND TESTING SHOULD BE PERFORMED BY GMU GEOTECHNICAL IN ACCORDANCE WITH THE RECOMMENDATIONS CONTAINED IN THE REFERENCE LIMITED GEOTECHNICAL DESIGN RECOMMENDATIONS REPORT (GMU PROJ NO. 20-304-00, DATED NOVEMBER 16, 2020).

SPECIAL INSPECTION & STRUCTURAL OBSERVATION

- SPECIAL INSPECTION NOT REQUIRED FOR REINFORCED CONCRETE PER CBC SECTION 1705.3 (2.3), 2016 CBC, (IE. LESS THAN OR EQUAL 2500 PSI)
- SPECIAL INSPECTION REQUIRED FOR REINFORCED CONCRETE REINFORCEMENT.
- STRUCTURAL OBSERVATION BY ENGINEER NOT REQUIRED.

REINFORCING STEEL

- REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60.
- WELDING OF REINFORCING STEEL SHALL CONFORM TO AWS S12-1 USING PROPER LOW HYDROGEN ELECTRODES. ALL BARS TO BE WELDED SHALL CONFORM TO ASTM A706.
- ALL BARS IN CONCRETE SHALL BE LAPPED PER REBAR SCHEDULE.
- SPLICES OF HORIZONTAL REBAR IN WALLS AND FOOTINGS SHALL BE STAGGERED 4'-0" MINIMUM.
- ALL BENDING OF REINFORCING STEEL SHALL CONFORM TO THE LATEST EDITION OF THE CALIFORNIA BUILDING CODE.

CONCRETE

- $f_c = 3,500$ PSI. STRUCTURAL DESIGN IS BASED ON $f_c = 2,500$ PSI.
- AGGREGATES SHALL BE NATURAL SAND AND ROCK CONFORMING TO ASTM C33.
- CEMENT SHALL BE PORTLAND CEMENT CONFORMING TO ASTM C-150, TYPE IV, LOW ALKALI WITH A MAXIMUM W/C RATIO OF 0.50.
- THE FOLLOWING MINIMUM CLEAR DISTANCES BETWEEN REINFORCING STEEL AND FACE OF CONCRETE SHALL BE MAINTAINED UNLESS NOTED OTHERWISE:
 CONCRETE BELOW GRADE, FORMED.....2"
 CONCRETE BELOW GRADE, UNFORMED.....3"
 (POURED AGAINST EARTH).....3"
 CONCRETE EXPOSED TO WEATHER.....1-1/2"
- PIPES MAY PASS THROUGH STRUCTURAL CONCRETE IN SLEEVES, BUT SHALL NOT BE EMBEDDED THEREIN. PIPES OR DUCTS EXCEEDING ONE-THIRD THE SLAB OR WALL THICKNESS SHALL NOT BE PLACED IN THE STRUCTURAL CONCRETE UNLESS SPECIFICALLY DETAILED.

DESIGN DESIGN RECOMMENDATIONS

*LIMITED GEOTECHNICAL DESIGN RECOMMENDATIONS, ROGERS SENIOR CENTER IMPROVEMENT, 1706 ORANGE AVENUE, HUNTINGTON BEACH, CA.

THE CONTRACTOR SHALL OBTAIN AND REVIEW A COPY OF THE REPORT.

POLE FOUNDATION DESIGN

- BEARING MATERIALS:..... ENGINEERED FILL OR COMPETENT NATIVE SOIL
- MINIMUM POLE FOUNDATION DEPTH:..... 4 FEET
- MINIMUM POLE FOUNDATION DIAMETER:..... 18 INCHES
- END BEARING:..... 3,000 PSF (FOR MINIMUM POLE DEPTH OF 4 FEET) *
- LATERAL LOAD DESIGN:..... ALLOWABLE PASSIVE 250 PSF/FT (DISREGARD UPPER 6 INCHES, MAX 2,500 PSF)

MISCELLANEOUS FOUNDATION DESIGN AND CONSTRUCTION CRITERIA

FOUNDATION DESIGN PARAMETERS

- MINIMUM FOUNDATION WIDTH:..... 12 INCHES
- MINIMUM FOUNDATION DEPTH:..... DEPTH BELOW LOWEST ADJACENT GRADE TO BOTTOM OF FOOTING: 12 INCHES
- BEARING MATERIALS:..... ENGINEERED FILL
- ALLOWABLE BEARING CAPACITY:..... 2,000 PSF (FOR FOOTING ON LEVEL GROUND WITH MIN. SIZE GIVEN ABOVE) *
- ALLOWABLE COEFFICIENT OF FRICTION:..... 0.35
- ALLOWABLE PASSIVE EARTH PRESSURE:..... 250 PSF/FT (STATIC) MAXIMUM 2,500 PSF
 •• DISREGARD UPPER 6"
 •• REDUCE PASSIVE BY 1/2 WHEN COMBINED WITH FRICTION
 •• 1/2 INCREASE FOR SEISMIC LOADING

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

- IN CASE OF EMERGENCY, CALL SITE CONSTRUCTION MANAGER.
- SEDIMENT FROM AREA DISTRIBUTED BY CONSTRUCTION SHALL BE RETAINED ON SITE USING STRUCTURAL CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE.
- STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO MINIMIZE SEDIMENT TRANSPORT FROM SITE TO STREETS, DRAINAGE FACILITIES, OR ADJOINING PROPERTIES BY WIND OR RUNOFF.
- APPROPRIATE BMP'S FOR CONSTRUCTION-RELATED MATERIALS, WASTES, SPILLS SHALL BE IMPLEMENTED TO MINIMIZE TRANSPORT FROM THE SITE, TO STREETS, DRAINAGE FACILITIES, OR ADJOINING PROPERTIES BY WIND OR RUNOFF.
- RUNOFF FROM EQUIPMENT AND VEHICLE WASHING SHALL BE CONTAINED AT CONSTRUCTION SITES UNLESS TREATED TO REDUCE OR REMOVE SEDIMENT AND OTHER POLLUTANTS.
- ALL CONSTRUCTION CONTRACTOR AND SUBCONTRACTOR PERSONNEL ARE TO BE MADE AWARE OF THE REQUIRED BEST MANAGEMENT PRACTICES AND GOOD HOUSEKEEPING MEASURES FOR THE PROJECT SITE AN ANY ASSOCIATED CONSTRUCTION STAGING AREAS.
- AT THE END OF EACH DAY OF CONSTRUCTION ACTIVITY ALL CONSTRUCTION DEBRIS AND WASTE MATERIALS SHALL BE COLLECTED AND PROPERLY DISPOSED IN TRASH OR RECYCLE BINS.
- CONSTRUCTION SITES SHALL BE MAINTAINED IN SUCH A CONDITION THAT AN ANTICIPATED STORM DOES NOT CARRY WASTES OR POLLUTANTS OFF THE SITE, DISCHARGES OF MATERIAL OTHER THAN STORMWATER ONLY WHEN NECESSARY FOR PERFORMANCE AND COMPLETION OF CONSTRUCTION PRACTICES AND WHERE THEY DO NOT CAUSE OR CONTRIBUTE TO A VIOLATION OF ANY WATER QUALITY STANDARD; CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR NUISANCE; OR CONTAIN A HAZARDOUS SUBSTANCE IN A QUANTITY REPORTABLE UNDER FEDERAL REGULATIONS 40 CFR PARTS 117 AND 302.
- POTENTIAL POLLUTANTS INCLUDE BUT ARE NOT LIMITED TO: SOLID OR LIQUID CHEMICAL SPILLS; WASTES FROM PAINTS, STAINS, SEALANTS, GLUES, LIMES, PESTICIDES, HERBICIDES, WOOD PRESERVATIVES AND SOLVENTS; ASBESTOS FIBERS, PAINT FLAKES OR STUCCO FRAGMENTS; FUELS, OILS, LUBRICANTS, AND HYDRAULIC, RADIATOR OR BATTERY FLUIDS; FERTILIZERS, VEHICLE EQUIPMENT STEAM CLEANING OR CHEMICAL DEGREASING AND SUPERCHLORINATED POTABLE WATER LINE FLUSHING. DURING CONSTRUCTION, PERMITEE SHALL DISPOSE OF SUCH MATERIALS IN A SPECIFIED AND CONTROLLED TEMPORARY AREA ON-SITE, PHYSICALLY SEPARATED FROM POTENTIAL STORMWATER RUNOFF, WITH ULTIMATE DISPOSAL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.
- DEWATERING OF CONTAMINATED GROUNDWATER, OR DISCHARGING CONTAMINATED SOILS VIA SURFACE EROSION IS PROHIBITED. DEWATERING OF NON-CONTAMINATED GROUNDWATER REQUIRES A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FROM THE RESPECTIVE STATE REGIONAL WATER QUALITY CONTROL BOARD.
- GRADED AREAS ON THE PERMITTED AREA PERIMETER MUST DRAIN AWAY FROM THE FACE OF SLOPES AT THE CONCLUSION OF EACH WORKING DAY. DRAINAGE IS TO BE DIRECTED TOWARD DESILTING FACILITIES.
- THE PERMITEE AND CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREA WHERE IMPOUNDED WATER CREATES A HAZARDOUS CONDITION.
- THE PERMITEE AND CONTRACTOR SHALL INSPECT THE EROSION CONTROL WORK AND INSURE THAT THE WORK IS IN ACCORDANCE WITH THE APPROVED PLANS.
- THE PERMITEE SHALL NOTIFY ALL GENERAL CONTRACTORS, SUBCONTRACTORS, MATERIAL SUPPLIERS, LESSEES, AND PROPERTY OWNERS THAT DUMPING OF CHEMICALS INTO THE STORM DRAIN SYSTEM OR THE WATERSHED IS PROHIBITED.
- EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON. NECESSARY MATERIALS SHALL BE AVAILABLE ON SITE AND STOCKPILED AT CONVENIENT LOCATION TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.
- ALL REMOVABLE EROSION PROTECTIVE DEVICES SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN THE 5-DAY RAIN PROBABILITY FORECAST EXCEEDS 40%.
- SEDIMENTS FROM AREAS DISTURBED BY CONSTRUCTION SHALL BE RETAINED ON SITE USING AN EFFECTIVE COMBINATION OF EROSION AND SEDIMENT CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE, AND STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO MINIMIZE SEDIMENT TRANSPORT FROM SITE TO STREETS, DRAINAGE FACILITIES OF ADJACENT PROPERTIES VIA RUNOFF, VEHICLE TRACKING OR WIND.
- APPROPRIATE BMP'S FOR CONSTRUCTION-RELATED MATERIALS, WASTES, SPILLS, OR RESIDUES SHALL BE IMPLEMENTED AND RETAINED ON SITE TO MINIMIZE TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES, OR ADJOINING PROPERTY BY WIND OR RUNOFF.

ABBREVIATIONS AND SYMBOLS

%	PERCENT	FIN	FINISH
'	FEET	FL	FLOW LINE
"	INCHES	FT	FOOT OR FEET
°	DEGREES	FTG	FOOTING
Ø	DIAMETER	HORIZ	HORIZONTAL
±	PLUS OR MINUS	I.E.	FOR EXAMPLE
+	PLUS	IN	INCHES
@	AT	KSI	THOUSANDS OF POUNDS(KIPS) per SQUARE INCH
&	AND	LB(S)	POUND(S)
#	NUMBER OR POUND(S)	MIN	MINIMUM
~	CENTER LINE	MAX	MAXIMUM
<	LESS THAN	NO(S)	NUMBER(S)
≤	LESS THAN OR EQUAL TO	O.C.	ON CENTER OR ORANGE COUNTY
>	GREATER THAN	OK	OKAY
≥	GREATER THAN OR EQUAL TO	PA	PLANNING AREA
=	EQUAL	PCF	PER CUBIC FOOT
ALT	ALTERNATE	PROJ	PROJECT
ASTM	AMERICAN STANDARD TESTING METHOD	PSF	POUNDS PER SQUARE FOOT
AWS	AMERICAN WELDING SOCIETY	PSI	POUNDS PER SQUARE INCH
BMP'S	BEST MANAGEMENT PRACTICES	PVC	POLYVINYL CHLORIDE
BOTT	BOTTOM	REINF	REINFORCEMENT
CBC	CALIFORNIA BUILDING CODE	RGE	REGISTERED GEOTECHNICAL ENGINEER
CE	CIVIL ENGINEER	SEC	SECTION
CL	CENTERLINE	SQ	SQUARE
CLR	CLEAR	STD	STANDARD
CMU	CONCRETE MASONRY UNIT	TYP	TYPICAL
CONT	CONTINUOUS DIAMETER OF BAR	U.O.N.	UNLESS OTHERWISE NOTED
DEG	DEGREE(S)	VERT.	VERTICAL
ETC	ET CETRA	WI	WITH
FG	FINISH GRADE		

GEOTECHNICAL

GMU Geotechnical, Inc.
 23241 ARROYO VISTA
 RANCHO SANTA MARGARITA, CALIFORNIA 92688
 TELEPHONE: 949.888.6513

STRUCTURAL

GMU Structural Engineering
 23241 ARROYO VISTA
 RANCHO SANTA MARGARITA, CALIFORNIA 92688
 TELEPHONE: 949.888.6513

DRAWING INDEX

- 1 COVER SHEET, GENERAL NOTES, & ABBREVIATIONS
 1 LANDSCAPE DETAILS



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No.	Date	Revision

LANDSCAPE IMPROVEMENTS COVER SHEET 1706 ORANGE AVENUE HUNTINGTON BEACH, CA 92647	
Project Name:	RODGERS SENIOR CENTER
Project Number:	20-304-00

Plan	Date
ORIGINAL	June 1, 2021

23241 Arroyo Vista
 Rancho Santa Margarita
 California 92688
 Voice: 949 888 6513
 Fax: 949 888 1300
 Web: www.gmugeo.com

WALL DESIGNER

 MATTHEW T. FARRINGTON PE 90349

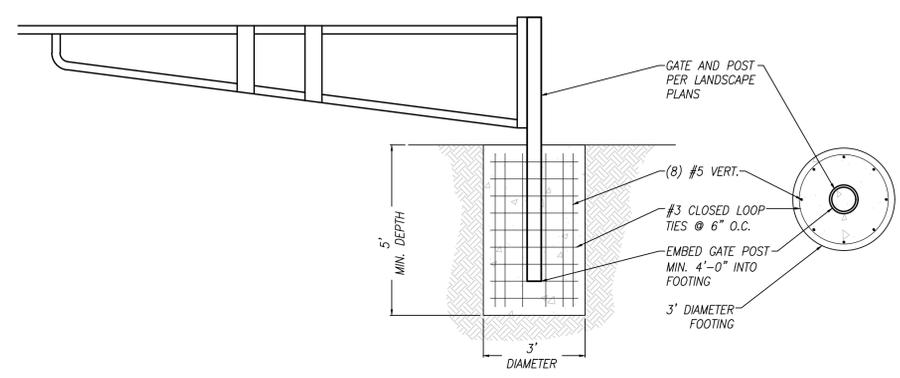
GEOTECHNICAL ENGINEER

 NADIM SUNNA PE 84197

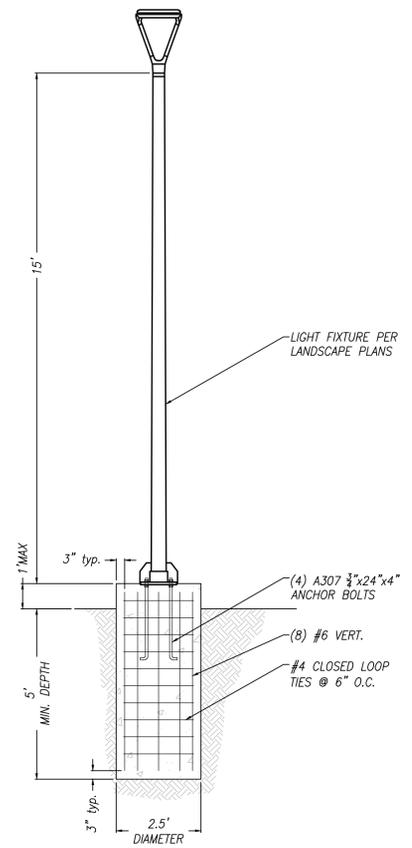
SPECIAL INSPECTIONS (Only checked items are required)	
INSPECTION ITEMS	SPECIAL INSPECTOR(S) NAME, PHONE NUMBER, REGISTRATION #
<input type="checkbox"/> Concrete (Design Mix, Form Work, Placement, etc., per table 1704.4)	RUSS PRICE (949) 289-5785 ACI - ID# 01002326
<input type="checkbox"/> Erection of Pre-Cast Concrete Members	JONATHAN BASALLA (949) 633-5638 ACI - ID# 8202644
<input type="checkbox"/> Bolts Installed in Concrete	OTHERS AVAILABLE UPON REQUEST
<input type="checkbox"/> Reinforcing Steel and Pre-Stressing Steel Tendons	
<input type="checkbox"/> Structural Welding/Rebar Welding	
<input type="checkbox"/> High-Strength Bolting/Material Verification	
<input type="checkbox"/> Steel Frame Joint Details	
<input type="checkbox"/> All Masonry Construction	
<input type="checkbox"/> Sprayed Fire-Resistive Materials	
<input type="checkbox"/> Shotcrete (Curing Temperature, Design Mix, Placement, Strength etc. per table 1704.4)	
<input type="checkbox"/> Soils (Excavation, Fill, etc. per table 1705.6)	
<input type="checkbox"/> Smoke-Control System	
<input type="checkbox"/> Piles per Table 1705.8	
<input type="checkbox"/> Piers per Table 1704.9	
<input type="checkbox"/> Mastic and Intumescent Fire-Resistant Coatings	
<input type="checkbox"/> Exterior Insulation and Finish Systems (EIFS)	
<input type="checkbox"/> Wood for High-Load Diaphragms	
<input type="checkbox"/> Others	

DECLARATION BY OWNER OR ARCHITECT/ENGINEER OF RECORD:
 I, the Owner Engineer or Architect of record, declare that the above listed Special Inspector(s) is/are hired by me.

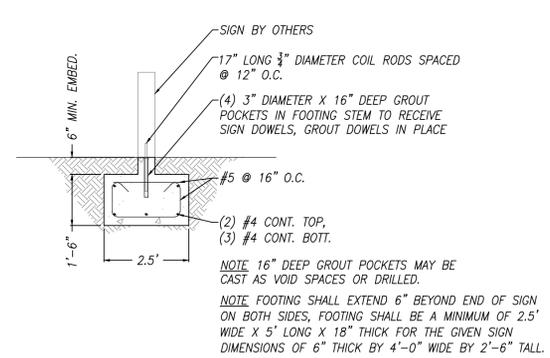
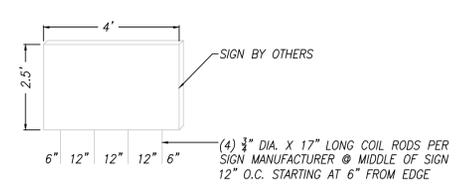
Matthew Farrington  **June 1, 2021**
 Print Name Signature Date



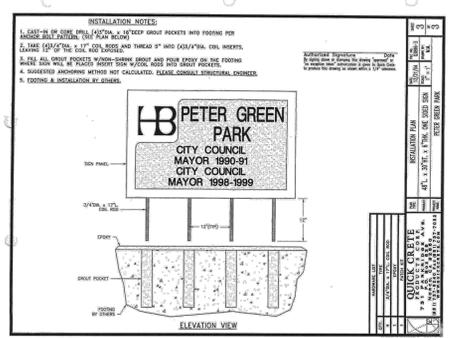
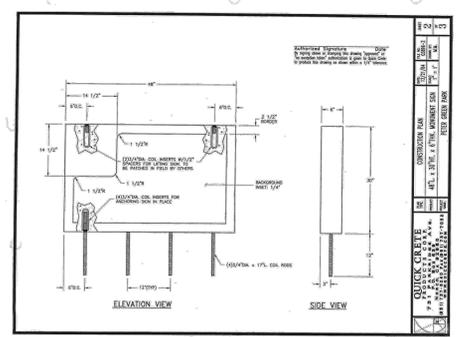
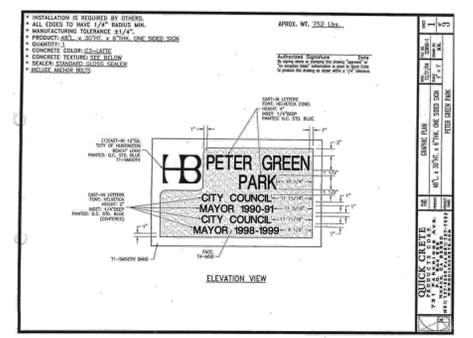
1 VEHICULAR SWING PIPE GATE
 REFER TO LANDSCAPE DETAIL 1 SHEET L-3.02 FOR MORE INFORMATION.
 1" = 2.5"



2 LIGHT POLE
 REFER TO LANDSCAPE DETAIL 2 SHEET E-1.02 FOR MORE INFORMATION.
 1" = 2.5"



3 MONUMENT SIGN
 REFER TO LANDSCAPE DETAIL BY QUICK CRETE GRAPHIC PLAN, CONSTRUCTION PLAN, AND INSTALLATION PLAN, ATTACHED.
 1" = 2.5"



No.	Date	Revision

Plan	Date
ORIGINAL	June 1, 2021

LANDSCAPE IMPROVEMENTS
STRUCTURAL DETAILS
 1706 ORANGE AVENUE HUNTINGTON BEACH, CA 92647
 Project Name: RODGERS SENIOR CENTER
 Project Number: 20-304-00

GMU STRUCTURAL ENGINEERING
 23241 Arroyo Vista
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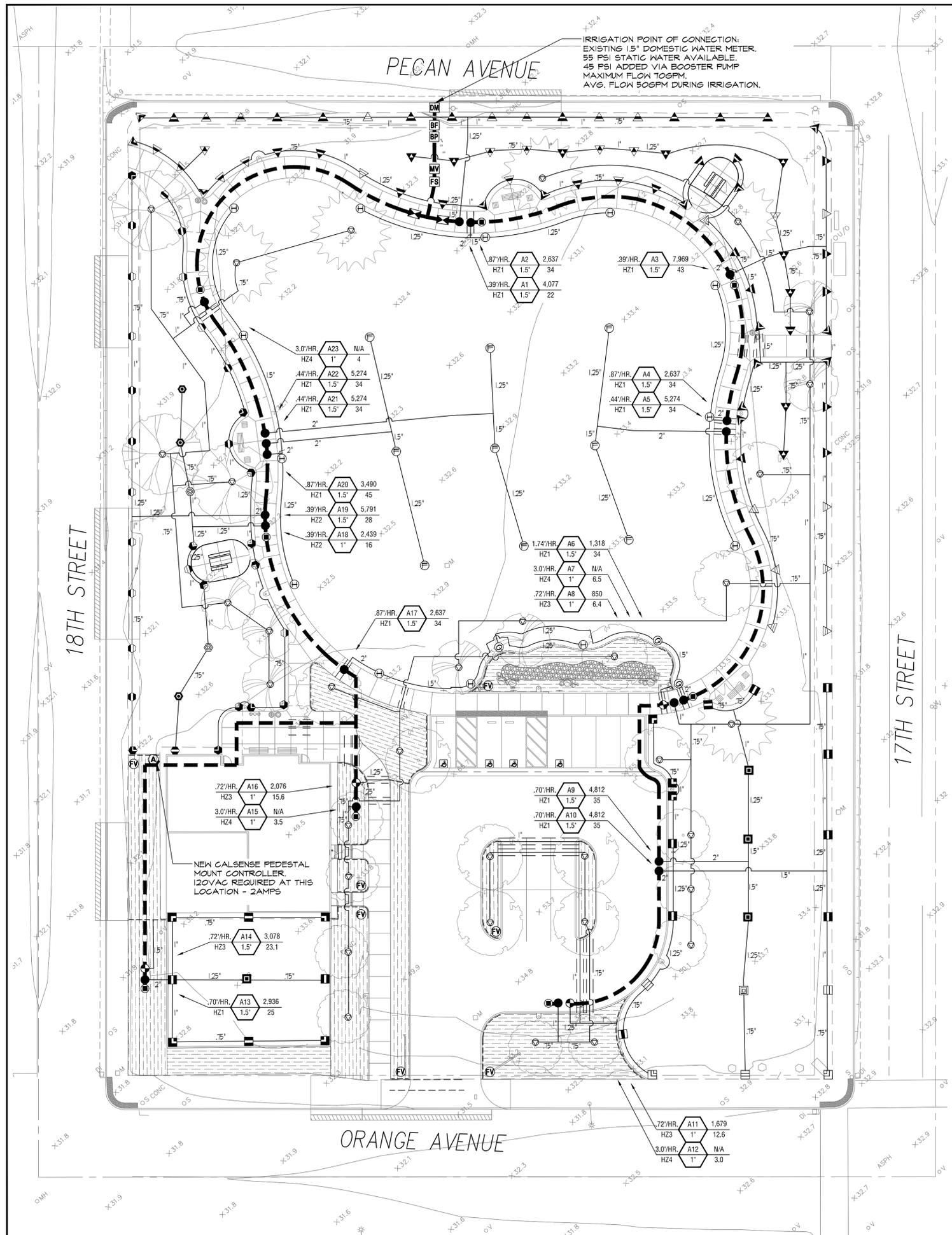
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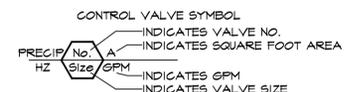
DRAWING: 20-304-00.dwg 20-304-00_rdggs senior center structural.dwg PLOTTED: 6/7/2021 3:39 PM BY: Matt Farrington



IRRIGATION POINT OF CONNECTION:
EXISTING 1.5" DOMESTIC WATER METER.
55 PSI STATIC WATER AVAILABLE.
45 PSI ADDED VIA BOOSTER PUMP
MAXIMUM FLOW 100GPM.
AVG. FLOW 50GPM DURING IRRIGATION.

IRRIGATION EQUIPMENT LEGEND

SYMBOL	MANUFACTURER	MODEL NO. / DESCRIPTION	GPM	PSI	RADIUS	PRECIP.	DETAIL
⊙	RAIN BIRD	RD-06-S-P30-F/50-B/PCS025 POP-UP BUBBLER HEAD, EACH SYMBOL REPRESENTS TWO BUBBLERS PER TREE, PLACE BUBBLERS OUTSIDE OF FOOTBALL ON OPPOSITE SIDES OF TREE, ADJUST PER FOOTBALL SIZE TYPICAL.	25 (0.5)	30	5'	3.0	A0
▽	RAINBIRD/HUNTER	RD45-06-S-P45-F, 6" POP-UP WITH CHECK VALVE, FLOW SHIELD, AND MP ROTATOR 8000R SERIES	0.23-0.42	40	8-12 FT.	0.83 IN./HR.	A
▽	RAINBIRD/HUNTER	RD45-06-S-P45-F, 6" POP-UP WITH CHECK VALVE, FLOW SHIELD, AND MP ROTATOR 1000 SERIES	0.19-0.75	40	10-14 FT.	0.39 IN./HR.	A
▽	RAINBIRD/HUNTER	RD45-06-S-P45-F, 6" POP-UP WITH CHECK VALVE, FLOW SHIELD, AND MP ROTATOR 2000 SERIES	0.4-1.47	40	14-20 FT.	0.39 IN./HR.	A
▽	RAINBIRD/HUNTER	RD45-06-S-P45-F, 6" POP-UP WITH CHECK VALVE, FLOW SHIELD, AND MP ROTATOR 3000 SERIES	0.86-3.64	40	20-30 FT.	0.39 IN./HR.	A
□	HUNTER	1-20-06-55 W/ MFR-25 NOZZLES (RED), 6" POP-UP TURF ROTOR HEAD	1.00, 1.98, 3.82	45	25 FT.	0.70 IN./HR.	A
□	HUNTER	1-20-06-55 W/ MFR-30 NOZZLES (GREEN), 6" POP-UP TURF ROTOR HEAD	1.40, 2.96, 5.78	45	30 FT.	0.70 IN./HR.	A
□	HUNTER	1-20-06-55 W/ MFR-35 NOZZLES (BEIGE), 6" POP-UP TURF ROTOR HEAD	1.92, 3.81, 7.58	45	35 FT.	0.70 IN./HR.	A
○	HUNTER	1-40-06-55-10, 6" POP-UP ROTOR WITH STAINLESS STEEL RISER, AND #10 NOZZLE SET TO 90DEG.	11.3	50	50 FT.	1.74 IN./HR.	A
○	HUNTER	1-40-06-55-10, 6" POP-UP ROTOR WITH STAINLESS STEEL RISER, AND #10 NOZZLE SET TO 180DEG.	11.3	50	50 FT.	0.81 IN./HR.	A
○	HUNTER	1-40-06-55-10, 6" POP-UP ROTOR WITH STAINLESS STEEL RISER, AND #10 NOZZLE SET TO 360DEG.	11.3	50	50 FT.	0.44 IN./HR.	A
○	RAINBIRD/HUNTER	RD45-12-S-P45-F, 12" POP-UP WITH CHECK VALVE, FLOW SHIELD, AND MP ROTATOR 1000 SERIES	0.19-0.75	40	10-14 FT.	0.39 IN./HR.	A
○	RAINBIRD/HUNTER	RD45-12-S-P45-F, 12" POP-UP WITH CHECK VALVE, FLOW SHIELD, AND MP ROTATOR 2000 SERIES	0.4-1.47	40	14-20 FT.	0.39 IN./HR.	A
○	RAINBIRD/HUNTER	RD45-12-S-P45-F, 12" POP-UP WITH CHECK VALVE, FLOW SHIELD, AND MP ROTATOR 3000 SERIES	0.86-3.64	40	20-30 FT.	0.39 IN./HR.	A
○	HUNTER	PGP-12-CV W/ MFR-25 NOZZLES (RED), 12" POP-UP SHRUB ROTOR HEAD	1.00, 1.98, 3.82	45	25 FT.	0.70 IN./HR.	A
○	HUNTER	PGP-12-CV W/ MFR-30 NOZZLES (GREEN), 12" POP-UP SHRUB ROTOR HEAD	1.40, 2.96, 5.78	45	30 FT.	0.70 IN./HR.	A
○	HUNTER	PGP-12-CV W/ MFR-35 NOZZLES (BEIGE), 12" POP-UP SHRUB ROTOR HEAD	1.92, 3.81, 7.58	45	35 FT.	0.70 IN./HR.	A
—	NETAFIM	TLGV-6-12-10 LANDSCAPE DRIP TUBING W/ 6 GPH EMITTERS 12" ON CENTER, INSTALL TUBING ROWS A MAXIMUM OF 16' APART. ALL TUBING SHALL BE INSTALLED 3" BELOW FINISHED SOIL GRADE W/ 4" PVC COATED WIRE STAKES FIVE (5) FEET ON CENTER, VERIFY THE LAYOUT AND SPACING IN THE FIELD PRIOR TO STARTING WORK. THIS DRIP TUBING IS FOR USE IN SHRUB AREAS ONLY. DRIP LINE TO BE INSTALLED OUTSIDE OF TREE TRUNK FLARE.					BC
—	NETAFIM	PVC HEADER/FOOTER, SIZE TO MATCH LATERAL (3/4" MIN), W/ TECHLINE DRIPLINE FITTINGS AND APPROPRIATE PVC FITTING FOR CONNECTION BETWEEN PVC LATERAL LINES AND DRIP TUBING. ALL CONNECTIONS BETWEEN DRIP TUBING SHALL BE MADE USING TECHLINE FITTINGS.					BC
⊙	NETAFIM	TL50V - MANUAL FLUSH VALVE AT END/MIDDLE OF DRIPLINE 3/4" PVC FLUSH MANIFOLD LINE, INSTALL FLUSH VALVE INSIDE A SEPARATE VALVE BOX, ONE AT THE END OF TUBING RUNS IN EACH DIRECTION. INSTALL MIN. ONE FLUSH VALVE PER 1000' OF TUBING IN EACH DIRECTION ON DRIPLINE FLUSH MANIFOLD. INSTALL 18" FROM PAVING. INSTALL ALL FLUSH EQUIPMENT PER DETAILS. EXISTING 1.5" DOMESTIC WATER METER WITH 2" SERVICE LINE.					D
DM	WATER METER	REMOVE AND REPLACE EXISTING BACKFLOW WITH FEBCO LF 825 YA LEAD FREE 2" BACKFLOW PREVENTER WITH SMOOTH TOUGH STAINLESS STEEL ENCLOSURE.					NA
BF	FEBCO	PA25-21282 BOOSTER PUMP, 3HP, 45PSI BOOST@50 GPM. PUMP REQUIRES 230V SINGLE PHASE POWER AND 25 FULL LOAD AMPS. PUMP STATION IS SELF CONTAINED WITHIN A MARINE GRADE ENCLOSURE AND FEATURES A VARIABLE FREQUENCY DRIVE, SURGE PROTECTION, AND PRESSURE START. REFER TO DETAILS FOR MORE INFORMATION. CONTACT JOHN ROSS (JROSS@SITEONE.COM) FOR ORDERING AND PRICING.					P
BP	SITE ONE	MASTER VALVE AND FLOW SENSOR. 2000-X-E SERIES NORMALLY OPEN 2" BRASS MASTER VALVE WITH PRESSURE REGULATOR AND CALSENSE FM-125B 1.25" BRASS FLOW SENSOR. INSTALL BOTH PER MANUFACTURER'S RECOMMENDATIONS AND WIRE DIRECTLY TO THE CONTROLLER.					F, G
MV/FS	GRISWOLD/CALSENSE	T-113 GATE VALVE, LINE SIZE, WITH BRONZE WHEEL HANDLE UP TO 2" INSTALLED IN A RECTANGULAR BOX					H
⊙	RAIN BIRD	44LRC 1" QUICK COUPLER VALVE WITH LOCKING COVER, INSTALL WITHIN 10" ROUND VALVE BOX					I
⊙	RAIN BIRD	XGZ-FRB-100-COM (1" / 1/2") DRIP VALVE CONTROL ZONE ASSEMBLY, SIZE AS SHOWN					J
⊙	GRISWOLD	2230-X-E, NEW 1.5"-3" EPOXY COATED BRASS REMOTE CONTROL VALVE W/ PRESSURE REGULATOR, SEE PLAN FOR SIZE.					K
⊙	CALSENSE	653000/653-GR/653-656 SERIES CONTROLLER. CONTACT MARK HINTZINGER WITH CALSENSE FOR ORDERING (760) 458-0525 653000 SERIES 48 STATION CONTROLLER IN AT STAINLESS STEEL TOP ENTRY ENCLOSURE W/ CELL CARD, ANTENNA. CONTRACTOR SHALL CONTACT CALSENSE TO INSURE PROPER COMMUNICATION WITH THE CITY'S CENTRAL CONTROL SYSTEM. PEDESTAL SHALL BE CONTROLLER WILL COMMUNICATE WITH THE CITY'S CENTRAL CONTROL RAIN SENSING LOCATED OFF-SITE.					L
—	AS APPROVED	PVC PIPE 3/4" - 2" SCH. 40 AS LATERAL LINES 12" BELOW GRADE.					M
—	AS APPROVED	PVC PIPE 2.5" CL. 315 SOLVENT WELD WITH SCH.80 FITTINGS AS MAINLINES-24" BELOW GRADE.					M
—	AS APPROVED	PVC PIPE SCH. 40 AS SLEEVING, 2 TIMES THE DIAMETER OF PIPE OR WIRE BUNDLE CARRIED, PLACE BELOW ALL PAVING, HARDSCAPE ETC. AND AS DIRECTED BY OWNER'S AUTHORIZED REPRESENTATIVE.					N
—	AS APPROVED	DIRECT BURIAL WATER-PROOF WIRE CONNECTORS FOR USE ON ALL WIRE CONNECTIONS (UL APPROVED).					NA
—	NO SYMBOL	PRO SERIES/PRO SERIES PLUS VALVE BOXES, SIZE PER EQUIPMENT DETAILS, LEGEND, AND SPECIFICATIONS. FOR QUICK COUPLERS AND AIR RELIEF VALVES USE MODEL 2028C, 10" ROUND SHALL BE MODEL 3128CB, 14" X 14" STANDARD RECT. SHALL BE MODEL 3148CB. VALVE BOXES SHALL HAVE GREEN BODY AND GREEN LIDS. FOR USE IN NON-VEHICULAR TRAFFIC SITUATIONS ONLY. DO NOT INSTALL IN CONCRETE OR ASPHALT.					NA



HYDROZONE	HYDROZONE DESCRIPTION
1	SLA HIGH WATER TURF WITH ROTORS
2	LOW WATER SHRUBS WITH ROTORS
3	LOW WATER SHRUBS WITH DRIP
4	MED WATER TREES WITH BUBBLERS

IRRIGATION PRESSURE CALCULATION HIGHEST FLOW AT HIGHEST ELEVATION

STATION #A20 FARTHEST SYSTEM/ HIGHEST FLOW SYSTEM	STATIC PRESSURE: 55PSI +45PSI				
	MAX. GPM DEMAND: 45 GPM				
L.F. SIZE	TYPE	DESCRIPTION	GPM	UNIT	PSI LOSS
15'	EXIST.	WATER METER	45.0		3.9
2"	BRASS	BACKFLOW/STRAINER	45.0		14.0
2"	BRASS	MASTER VALVE	45.0		2.0
1.25"	BRASS	FLOW SENSOR	45.0		2.0
1.5"	BRASS	CONTROL VALVE	45.0		3.3
510'	2.5"	CL.315 MAIN LINE	45.0		3.4
VAR.	SCH40	LATERAL LINE			2.0
MISC.	FITTINGS	ALLOWANCE			2.0
COMPONENT LOSSES:			34.6	PSI	
MIN. REQ'D BY HEAD:			50	PSI	
ELEVATION LOSS: 0'			0	PSI	
TOTAL PRESSURE REQ'D AT METER			84.6	PSI	
RESIDUAL PRESSURE			15.4	PSI	

IRRIGATION NOTES

- NOTE A:
MAINLINE AND RELATED EQUIPMENT SHOWN WITHIN PAVING FOR CLARITY ONLY, ACTUAL MAINLINE AND RELATED EQUIPMENT LOCATION TO BE WITHIN PLANTERS AND A MINIMUM OF 18" OFF ADJACENT HARDSCAPE AND OTHER OBSTACLES TYP.
- NOTE B:
BUBBLERS AND LATERAL LINES ARE SHOWN WITHIN PAVING FOR CLARITY ONLY, ACTUAL LOCATION TO BE WITHIN PLANTER. BUBBLERS SHALL BE ALIGNED WITH TREES AND AS DIRECTED BY OWNER'S AUTHORIZED REPRESENTATIVE. CONFIRM ALL LAYOUT IN FIELD WITH OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO STARTING WORK.
- NOTE C:
CONTRACTOR SHALL PROVIDE THE CITY WITH A NEATLY DRAWN LAMINATED IRRIGATION CONTROLLER CHART.
- NOTE D:
I HAVE COMPLIED WITH THE CRITERIA OF THE IRRIGATION GUIDELINES AND APPLIED THEM ACCORDINGLY FOR THE EFFICIENT USE OF WATER IN THE IRRIGATION DESIGN PLAN
- NOTE E:
REFER TO SHEETS L-5.01 AND L-5.02 FOR IRRIGATION DETAILS

UNDERGROUND SERVICE ALERT
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APPROVED BY:
CHRIS TANIO, PRINCIPAL C.E. DATE
R.C.E. NO. C82756 EXP. DATE: 9/30/22

CITY OF HUNTINGTON BEACH
DEPARTMENT OF PUBLIC WORKS

RJM DESIGN GROUP
31591 Camino Capistrano
San Juan Capistrano, CA 92675
www.RJMdesigngroup.com
(949) 493-2690 fax
(949) 493-2600 phone

GLASIR DESIGN
Irrigation Consulting
www.glasirdesign.com

RODGERS SENIOR CENTER SITE
1706 ORANGE AVENUE
HUNTINGTON BEACH, CA 92647

PEJAN
LANDSCAPE ARCHITECT
5/28/2021

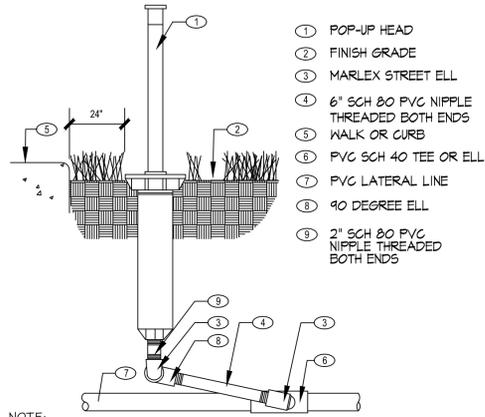
REVISIONS	DATE

SHEET TITLE
IRRIGATION PLAN

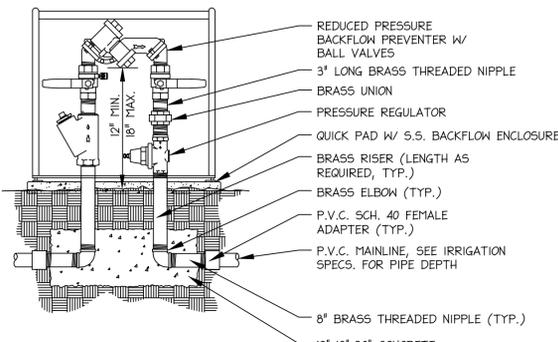
JOB #	878-10
DESIGNED	AS
DRAWN	AS
CHECKED	ZM
DATE	5/28/2021

SHEET
L-4.01

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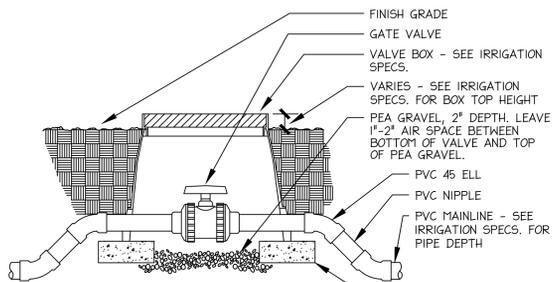


A POP UP SPRINKLER
N.T.S.



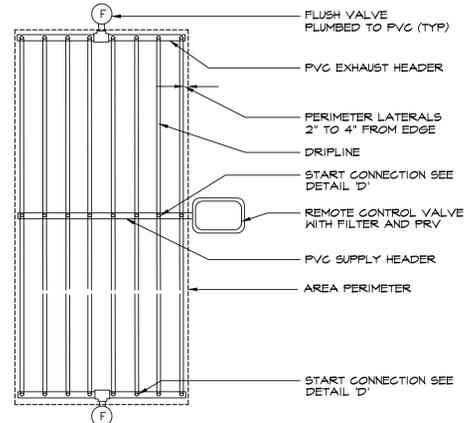
- NOTES:**
1. ALL RISER, UNIONS, ELBOWS AND NIPPLES SHALL BE RED BRASS.
 2. CLOSE NIPPLES SHALL NOT BE USED
 3. EQUIPMENT TO BE INSTALLED A MIN. OF 12" FROM WALLS, BUILDINGS, ETC.
 4. INSTALL AND TEST BACKFLOW PREVENTER AS REQUIRED BY LOCAL CODES & HEALTH DEPT. VERIFY LOCAL REQUIREMENTS PRIOR TO INSTALLATION.

E REDUCED PRESSURE BACKFLOW
N.T.S.

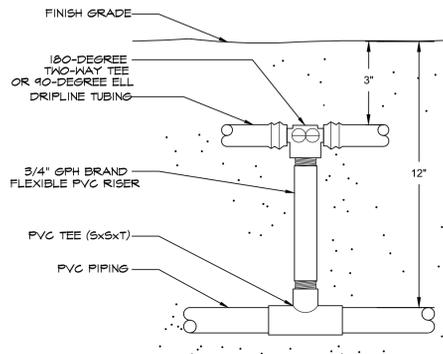


- NOTE:**
1. HEAT BRAND 'BV' ON LID. LETTERING SHALL BE 2" TALL. SUPPORTS (2 MIN.)

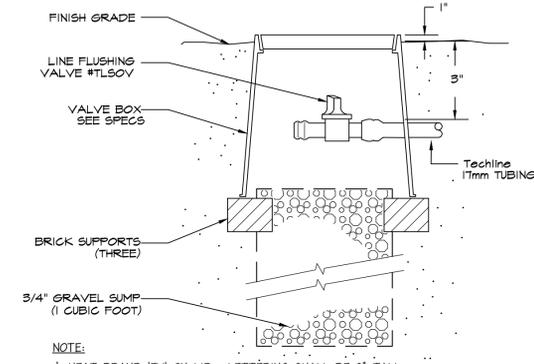
H GATE VALVE
N.T.S.



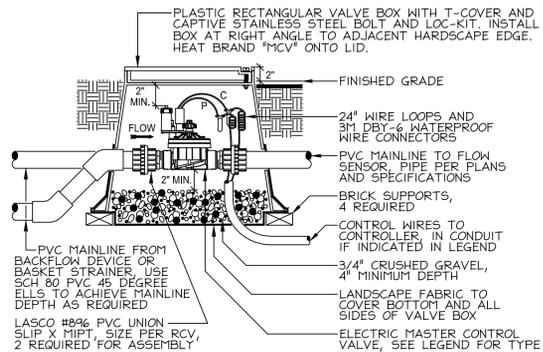
B DRIP TUBING LAYOUT
N.T.S.



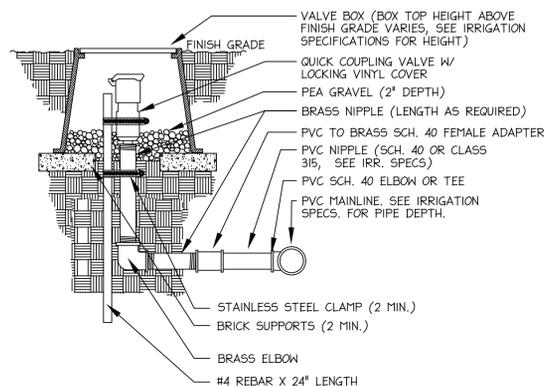
C DRIP TUBING START CONNECTION
N.T.S.



D DRIP FLUSH VALVE
N.T.S.



F MASTER VALVE
N.T.S.

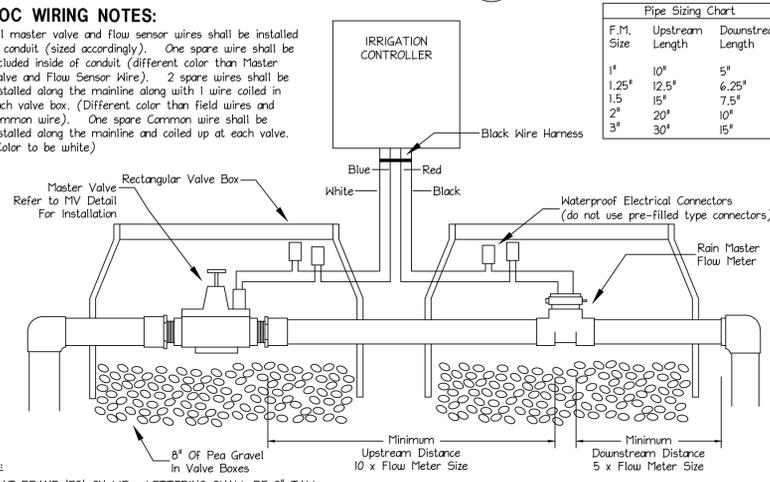


- NOTES:**
1. ALL BRASS TO BE RED BRASS
 2. TEFLON TAPE ALL THREADS (TYP.)
 3. HEAT BRAND 'QC' ON LID. LETTERING SHALL BE 2" TALL.

I QUICK COUPLER VALVE IN SHRUBS
N.T.S.

POC WIRING NOTES:

All master valve and flow sensor wires shall be installed in conduit (sized accordingly). One spare wire shall be included inside of conduit (different color than Master Valve and Flow Sensor Wire). 2 spare wires shall be installed along the mainline along with 1 wire coiled in each valve box. (Different color than field wires and common wire). One spare Common wire shall be installed along the mainline and coiled up at each valve. (Color to be white)



- NOTE:**
1. HEAT BRAND 'FS' ON LID. LETTERING SHALL BE 2" TALL.

G FLOW SENSOR INSTALLATION
N.T.S.

Pipe Sizing Chart		
F.M. Size	Upstream Length	Downstream Length
1"	10'	5'
1.25"	12.5'	6.25'
1.5"	15'	7.5'
2"	20'	10'
3"	30'	15'

2015 MWEO WATER EFFICIENT LANDSCAPE WORKSHEET - ROGERS CENTER						
Reference Evapotranspiration (ET _o):		49.6				
Hydrozone # /Planting Description ^a	Plant Factor (PF)	Irrigation Method ^b	Irrigation Efficiency (IE) ^c	ETAF (PFIE)	Landscape Area (sq. ft.)	Estimated Total Water Use (ETWU) ^d
Regular Landscape Areas						
#2 Med Low	0.3	Rotary	0.75	0.40	8,230	101,235.58
#3 Med Low	0.3	Drip	0.81	0.37	7,683	87,506.52
					Totals	188,742.11
Special Landscape Areas						
#1 Turf				0.8	53,147	1,307,501.24
					Totals	1,307,501.24
					ETWU Total	1,496,243.34
					Maximum Allowed Water Allowance (MAWA) ^e	1,756,428.77

^a Refer to legend for Hydrozone description.
^b ETWU (Annual Gallons Required) = $ET_o \times 0.62 \times ETAF \times Area$
 where 0.62 is a conversion factor that converts acre-inches per acre per year to gallons per square foot per year.
^c MAWA (Annual Gallons Allowed) = $(ET_o) \times (0.62) [(1-ETAF) \times LA] + ((1-ETAF) \times SLA)$
 where 0.62 is a conversion factor that converts acre-inches per acre per year to gallons per square foot per year. LA is the total landscape area in square feet. SLA is the total special landscape area in square feet.
 and ETAF is .55 for residential areas and 0.45 for non-residential areas.

ETAF Calculations

Regular Landscape Areas	
Total ETAF x Area	6,138
Total Area	15,913
Average ETAF	0.39

Average ETAF for Regular Landscape Areas must be 0.55 or below for residential areas, and 0.45 or below for non-residential areas.

All Landscape Areas Including SLA	
Total ETAF x Area	48,855.16
Total Area	69,060
Sitewide ETAF	0.70

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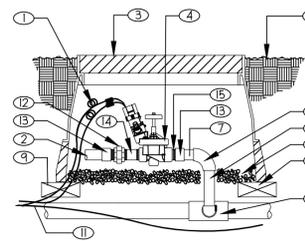
CITY OF HUNTINGTON BEACH
 DEPARTMENT OF PUBLIC WORKS

REVISIONS	DATE

SHEET TITLE
 IRRIGATION DETAILS

JOB #	878-10
DESIGNED AS	AS
DRAWN AS	AS
CHECKED ZM	
DATE	5/28/2021

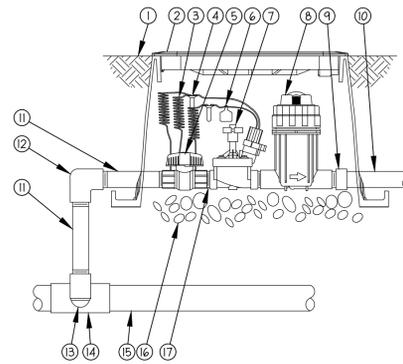
SHEET
 L-5.01



- NOTES:
1. ALL WIRE TO BE INSTALLED PER LOCAL CODES.
 2. PROVIDE EXPANSION COILS AT EACH WIRE CONNECTION IN VALVE BOX. WRAP AROUND 1/2" PIPE 15 TIMES - REMOVE PIPE.
 3. COMPACT SOIL AROUND VALVE BOX TO SAME DENSITY AS UNDISTURBED ADJACENT SOIL.
 4. INSTALL ONLY 1 VALVE PER VALVE BOX.
 5. TEFLON TAPE ALL THREADS.
 6. HEAT BRAND VALVE NUMBER ON LID. LETTERING SHALL BE 2" TALL.

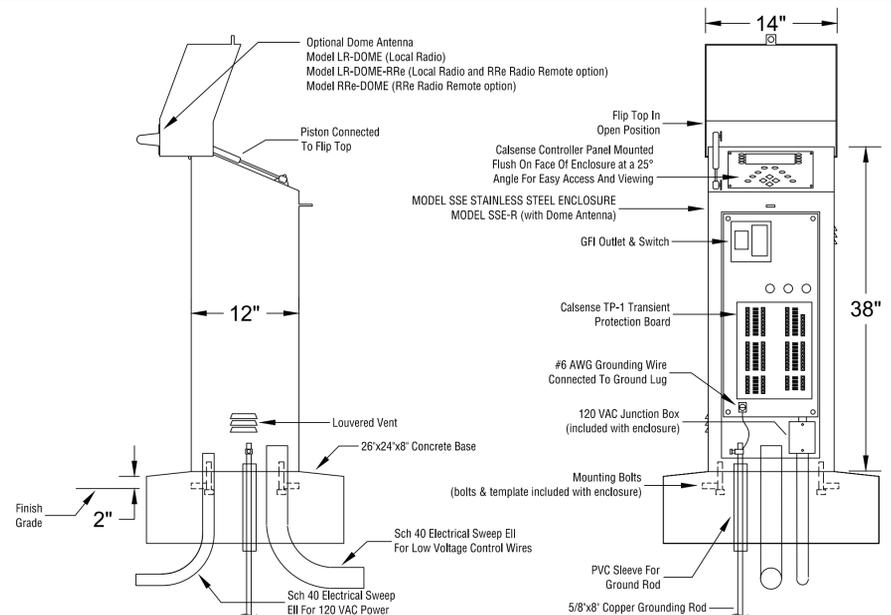
J REMOTE CONTROL VALVE
N.T.S.

- 1 EXPANSION CURLS WITH WATERPROOF WIRE CONNECTORS AT SPLICES (SEE IRRIGATION SPECS)
- 2 PVC LATERAL TO SPRINKLERS ANGLE TO SPECIFIED DEPTH W/ 45 ELLS
- 3 VALVE BOX W/ LOCKING LID BOX HEIGHT ABOVE FINISH GRADE VARIES (SEE IRRIGATION SPECS)
- 4 REMOTE CONTROL VALVE
- 5 FINISH GRADE
- 6 PVC ELL
- 7 PVC NIPPLE, LENGTH AS REQ.
- 8 2" LAYER OF PEA GRAVEL LEAVE 1"-2" AIR SPACE BETWEEN BOTTOM OF VALVE AND TOP OF PEA GRAVEL
- 9 BRICK SUPPORT (1) AT EACH CORNER
- 10 PVC MAINLINE FITTINGS
- 11 CONTROLLER WIRES
- 12 PVC SCH 80 UNION
- 13 PVC MALE ADAPTER
- 14 PVC SCH 80 THREADED NIPPLE

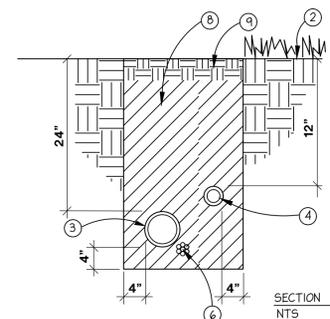


- NOTE:
1. HEAT BRAND VALVE NUMBER ON LID. LETTERING SHALL BE 2" TALL.
- 1 FINISH GRADE/TOP OF MULCH
 - 2 VALVE BOX WITH COVER
 - 3 30-INCH LINEAR LENGTH OF WIRE, COILED
 - 4 WATERPROOF CONNECTION
 - 5 1-INCH BALL VALVE
 - 6 ID TAG
 - 7 REMOTE CONTROL VALVE
 - 8 PRESSURE REGULATING QUICK CHECK BASKET FILTER
 - 9 LASCO PVC UNION
 - 10 LATERAL PIPE
 - 11 PVC SCH 80 NIPPLE
 - 12 PVC SCH 40 ELL
 - 13 PVC SCH 80 NIPPLE
 - 14 PVC SCH 40 TEE OR ELL
 - 15 MAINLINE PIPE
 - 16 3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL W/ 2" AIR GAP BETWEEN GRAVEL AND VALVE
 - 17 PVC SCH 80 NIPPLE, CLOSE

K DRIP CONTROL ZONE KIT
N.T.S.



L TOP ENTRY CALSENSE CONTROLLER
N.T.S.



M PIPE INSTALLATION
N.T.S.

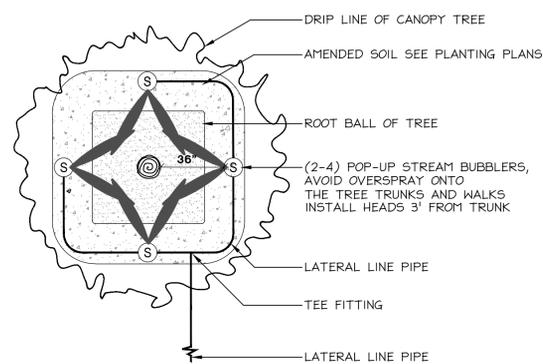
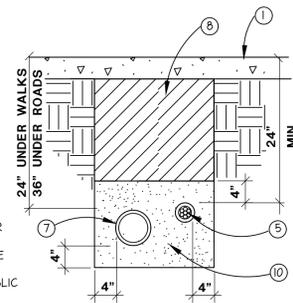
PIPE/SLEEVE LEGEND:

- 1 PAVING
- 2 FINISH GRADE
- 3 PVC MAINLINE
- 4 PVC LATERAL LINE
- 5 CONTROL WIRES OR COM. CABLE IN CONDUIT
- 6 CONTROL WIRES OR COM. CABLE
- 7 SLEEVE FOR MAINLINE AND/OR LATERAL LINE
- 8 FINE GRANULAR BACKFILL 1/2" MAX.
- 9 TOPSOIL
- 10 SAND

PIPE INSTALLATION NOTES:

1. TAPE AND BUNDLE 24 V. WIRES @ 10' INTERVALS.
2. MINIMUM DEPTH OF 24 V. WIRING SHALL BE 24" BELOW GRADE.
3. TRENCH WIDTH ALLOW 4" MIN. CLEARANCE BETWEEN PARALLEL PIPES.
4. SNAKE PIPES FROM SIDE TO SIDE WITHIN TRENCH TO ALLOW FOR MOVEMENT.
5. TIE A 20" LOOP IN ALL WIRING AT CHANGES OF DIRECTION. UNTIE PRIOR TO BACKFILLING TRENCHES.
6. PROVIDE THRUST BLOCKS PER APHA STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION DETAILS

N SLEEVE INSTALLATION
N.T.S.



O TREE BUBBLER LAYOUT
N.T.S.

P BOOSTER PUMP
N.T.S.

PUMP STATION SPECIFICATIONS:
NAME: ROGERS SENIOR CENTER
STATION MODEL: PA25-1282
STATION TOTAL PERFORMANCE: 50 GPM @ 85 PSI
DYNAMIC INLET PRESSURE: 40 PSI
BOOST PRESSURE: 45 PSI
REGULATED DISCHARGE PRESSURE: 85 PSI
PUMP HORSEPOWER:
PUMP NO. 1: 3HP (3600RPM)
CHECK VALVE SIZES:
PUMP NO. 1: 2"
ISOLATION VALVE SIZES:
DISCHARGE ISOLATION VALVE SIZE: 3"
DISCHARGE MANIFOLD SIZE: 3"

POWER REQUIREMENTS: 230V, 60HZ, 1PH, 25FLA (EST.)
EXHAUST FAN REQUIREMENTS: 240CFM

STATION COMPONENTS:
A PUMP AND MOTOR
B CHECK VALVE
C PRESSURE TRANSDUCER WITH GAUGE
D BYPASS VALVE
E FLOW SENSOR
F TEMP SENSOR
G STATION FAN HOOD MOUNTED
H PUMP INTAKE ISOLATION VALVE
I MARINE GRADE ALUMINUM ENCLOSURE (UNPAINTED)
J VFD
K STAINLESS STEEL BASE (UNPAINTED)
L PUMP DISCHARGE ISOLATION VALVE
M STATION DISCHARGE ISOLATION VALVE
N DEAD-FRONT DISCONNECT PANEL

DETAIL "A" CONCRETE ANCHOR TYPICAL (4) LOCATIONS

ENCLOSURE ISOMETRIC VIEW

BACK OF ENCLOSURE

3" FL INTAKE CONNECTION

3" FL DISCHARGE CONNECTION

POWER PENETRATION

ANCHOR POINT SEE DETAIL

HIGH VOLTAGE POWER CONDUIT

CUSTOMER APPROVAL SIGNATURE _____ DATE: 01/25/2021 SHEET 1 OF 1 SHEETS
APPROVED AS SUBMITTED
MAKE INDICATED CHANGES AND RESUBMIT

DRWN BY: PJB TITLE: ROGERS SENIOR CENTER
SiteOne
Green Tech
1.800.427.0779
DATE: 01/25/2021 SHEET 1 OF 1 SHEETS
JOB NO.: JOB-NO: DRAWING NO: PRST14313

ROGERS CENTER PARK IRRIGATION RUNTIMES (IN MINUTES)

	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
CYCLES PER WEEK - TREE	1	2	2	3	4	4	5	4	3	2	2	1
TURF CROP COEFFICIENT	.61	.64	.75	1.04	.95	.88	.94	.86	.74	.75	.69	.60
CYCLES PER WEEK-SHRUB/TURF	2	3	3	4	5	5	6	5	4	3	3	2
ETo DAILY AVERAGE	.07	.09	.12	.16	.17	.20	.21	.20	.16	.12	.09	.07

Hydrozone	PLANT TYPE	Water Usage	Kc	SPRINKLER TYPE	EXPOSURE	EXPO FACTOR	PRECIP (in/hr)	SPKLR EFFIC.	ROOT DEPTH (in)	RUN TIME MULTIPLIER	IRRIGATION RUN TIMES											
											JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	TURF	HIGH	0.70	ROTOR	FULL SUN	100%	0.70	75%	4	1.33	20	17	22	22	19	22	20	22	22	22	17	20
2	SHRUB	MED LOW	0.30	DRIP	FULL SUN	100%	0.72	81%	6	1.23	8	6	9	9	7	9	8	9	9	9	6	8
3	SHRUB	MED LOW	0.30	ROTATOR	FULL SUN	100%	0.40	75%	6	1.33	15	13	17	17	14	17	15	17	17	17	13	15
4	TREE	MEDIUM	0.50	BUBBLER	FULL SUN	100%	3.00	75%	12	1.33	3	3	4	4	3	4	3	4	4	4	3	3

NOTE: HZ1 SHOWS WATERING TIME FOR HALF ROTATORS. FOR QUARTERS RUN HALF THE MINUTES SHOWN AND FOR FULL HEADS DOUBLE THE MINUTES SHOWN.

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LICENCED LANDSCAPE ARCHITECT
Signature
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STATE OF CALIFORNIA

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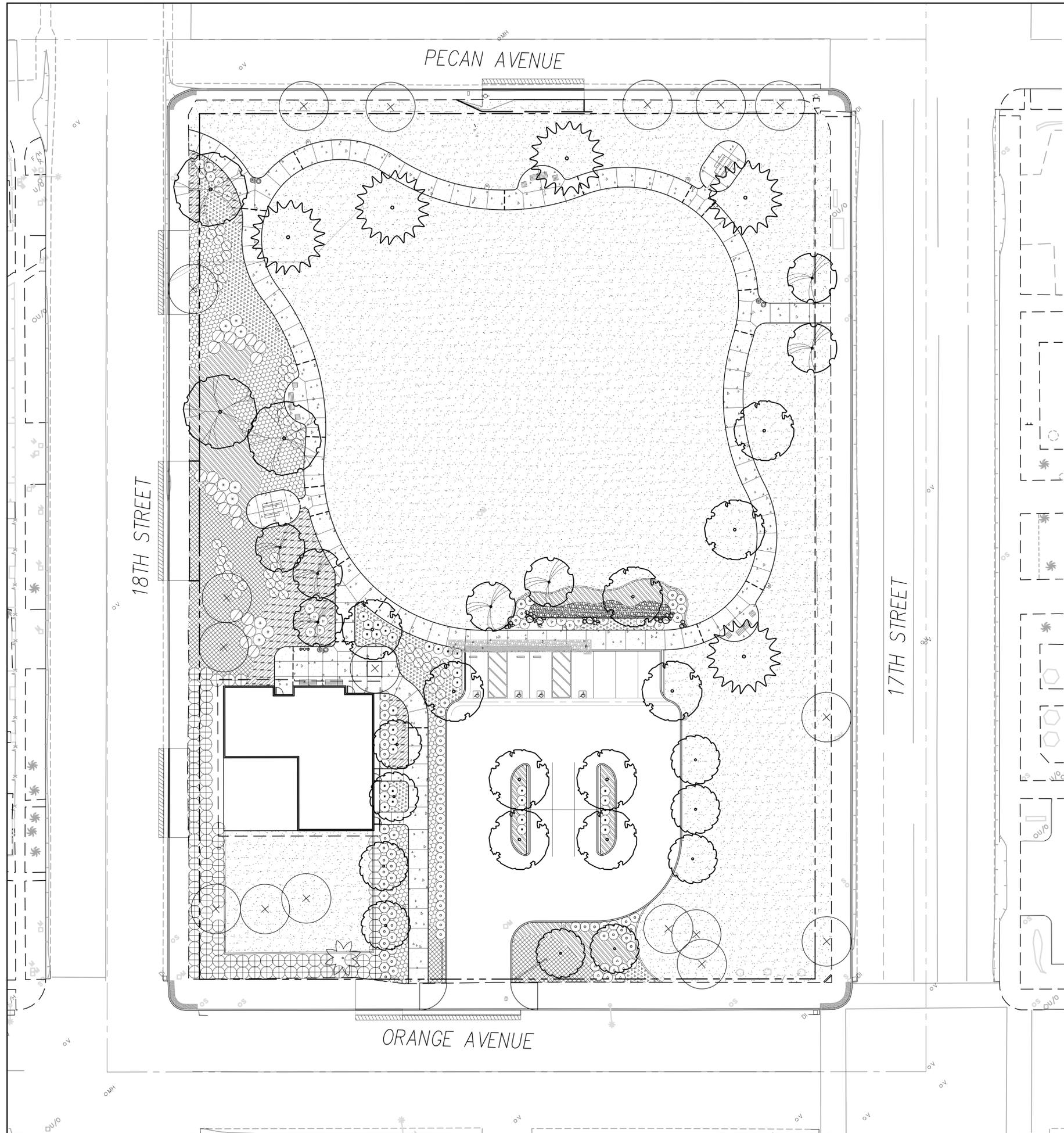
SHEET TITLE
IRRIGATION DETAILS

JOB #	878-10
DESIGNED AS	AS
DRAWN AS	AS
CHECKED ZM	
DATE	5/28/2021

SHEET
L-5.02

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TREE LEGEND - BASE BID

BOTANICAL NAME COMMON NAME	SIZE	REMARKS	QTY.
T-1 CASSIA LEPTOPHYLLA GOLD MEDALLION TREE	36" BOX	5'-7" H X 2'-4" W STD.	7
T-2 LOPHOSTEMON CONFERTUS BRISBANE BOX	24" BOX	8'-12" H X 2'-4" W STD.	9
T-3 PINUS PINEA ITALIAN STONE PINE	24" BOX	6'-10" H X 6'-10" W STD.	5
T-4 PLATANUS X MEXICANA 'COLUMBIA' LONDON PLANE TREE	24" BOX	8'-12" H X 2'-4" W STD.	10
T-5 QUERCUS AGRIFOLIA COAST LIVE OAK	36" BOX	6'-10" H X 4'-8" W STD.	3
T-6 EXISTING TREE TO REMAIN	N/A	PROTECT IN PLACE CONST. FENCE TO BE INSTALLED AT DRIPLINE OF TREE	10

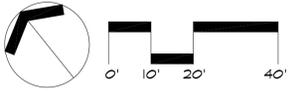
SHRUB LEGEND - BASE BID

BOTANICAL NAME COMMON NAME	SIZE	REMARKS/ W/COLS	QTY.
S-1 ACCA SELLOWIANA PINEAPPLE GUAVA	5 GAL.	LOW	102
S-2 AGAVE ATTENUATA 'BOUTIN BLUE' BLUE FOXTAIL AGAVE	5 GAL.	LOW	29
S-3 CALLISTEMON VIMINALIS 'LITTLE JOHN' DWARF BOTTLEBRUSH	5 GAL.	LOW	34
S-4 CEANOTHUS 'DARK STAR' CALIFORNIA LILAC	5 GAL.	NATIVE/ LOW	19
S-5 FREMONTODENDRON 'CALIFORNIA GLORY' FLANNEL BUSH	15 GAL.	NATIVE/ VERY LOW	9
S-6 MUELENBERGIA RIGENS DEER GRASS	5 GAL.	NATIVE/ LOW	23
S-7 SALVIA 'SANTA BARBARA' MEXICAN BUSH SAGE	5 GAL.	NATIVE/ LOW	56

GROUNDCOVER LEGEND - BASE BID

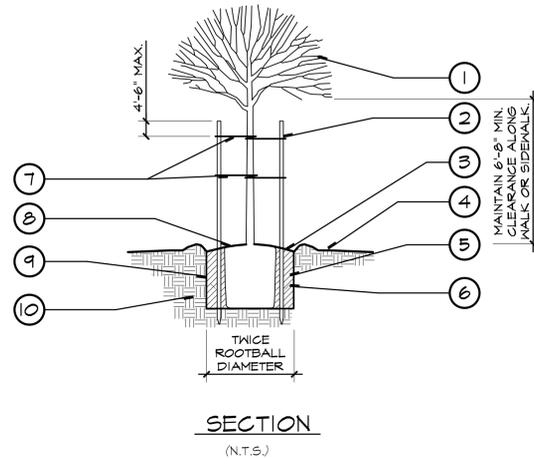
BOTANICAL NAME COMMON NAME	SIZE	REMARKS/ W/COLS	QTY.
GC-1 ALOE STRIATA CORAL ALOE	1 GAL.	2'-0" O.C./ LOW	399 (1,375 SF)
GC-2 CISTUS 'SUNSET' DWARF ROCKROSE	1 GAL.	4'-0" O.C./ LOW	157 (2,234 SF)
GC-3 FESTUCA MAIREI MAIRE'S FESCUE	1 GAL.	2'-6" O.C./ LOW	402 (2,235 SF)
GC-4 MYOPORUM PARVIFOLIUM 'PUTAH CREEK' PROSTRATE MYOPORUM	1 GAL.	5'-0" O.C./ LOW	124 (2,481 SF)
GC-5 SENECIO MANDRALISCAE BLUE CHALK STICKS	1 GAL.	3'-0" O.C./ LOW	212 (1,634 SF)
GC-6 TIFWAY II SODDED TURF	ROLLS	HIGH	33,067 SF

NOTES:
1. FOR GENERAL PLANTING NOTES AND PLANTING DETAILS SEE SHEET L-7.01

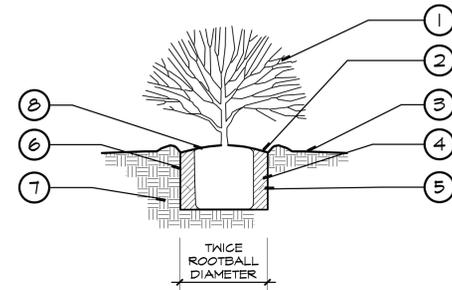


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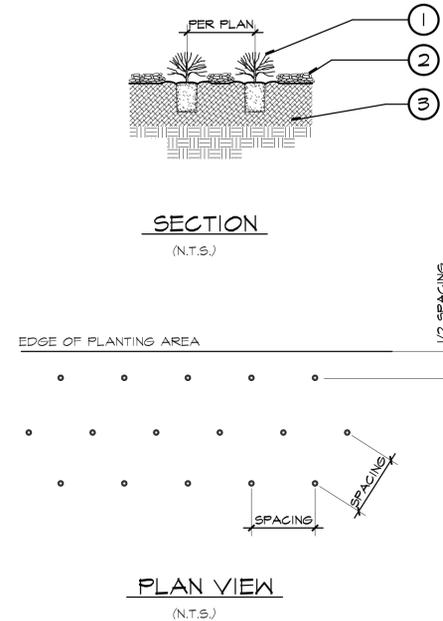
APPROVED BY:
CHRIS TANDI, PRINCIPAL C.E. DATE 9/30/22
R.C.E. NO. C82756 EXP. DATE



- LEGEND:**
- ① TREE - CENTER IN PIT.
 - ② TREE STAKES PER SPECIFICATIONS (2 PER TREE). USE (8FT) STAKES AT ALL 15 GAL. AND 24" BOX TREES, TYP. KEEP CLEAR OF ROOTBALL. REMOVE TOP OF STAKE TO 4" BELOW LOWEST BRANCH. SET STAKES PARALLEL TO PREVAILING WINDS.
 - ③ 2" WATER BASIN.
 - ④ FINISH GRADE.
 - ⑤ AMMENDED BACKFILL - REFER TO SPECIFICATIONS.
 - ⑥ PLANT TABLET - REFER TO SPECIFICATIONS FOR QUANTITY AND PLACEMENT.
 - ⑦ TREE TIES - REFER TO SPECIFICATIONS.
 - ⑧ SET TOP OF ROOTBALL 2" ABOVE SURROUNDING GRADE AND SLOPE FOR DRAINAGE.
 - ⑨ SCARIFY SIDES AND BOTTOM OF PLANTING PIT.
 - ⑩ NATIVE UNDISTURBED SOIL.



- LEGEND:**
- ① SHRUB - CENTER IN PIT.
 - ② 2" DEEP WATERING BASIN.
 - ③ FINISH GRADE.
 - ④ AMMENDED BACKFILL - REFER TO SPECIFICATIONS.
 - ⑤ PLANTING TABLETS - REFER TO SPECIFICATIONS FOR QUANTITY AND PLACEMENT.
 - ⑥ SCARIFY SIDES AND BOTTOM OF PLANTING PIT.
 - ⑦ NATIVE UNDISTURBED SOIL.
 - ⑧ SET TOP OF ROOTBALL 2" ABOVE SURROUNDING GRADE AND SLOPE FOR DRAINAGE.



- LEGEND:**
- ① GROUND COVER FROM FLAT, CUTTING, LINER, OR PLANTING CONTAINER.
 - ② 3" LAYER OF MULCH (DEPTH PER SPECIFICATIONS).
 - ③ PLANTING BED PER SPECIFICATIONS.
- NOTES**
- Ⓐ PLANTING AREA TO RECEIVE FLATS, CUTTINGS, LINERS AND PLUGS SHALL BE MULCHED **BEFORE** PLANTING OPERATION.
 - Ⓑ PLANTING AREA TO RECEIVE CONTAINER PLANTS SHALL BE MULCHED **AFTER** PLANTING OPERATION.

1 TREE PLANTING

2 SHRUB PLANTING

3 GROUND COVER / SHRUB SPACING

PLANTING NOTES

- Ⓐ ALL TREES SHALL HAVE MATCHING FORM.
- Ⓑ ALL LANDSCAPED AREAS TO RECEIVE AUTOMATED IRRIGATION.
- Ⓒ REFER TO PLANTING SPECIFICATIONS FOR SOIL PREPARATION, FERTILIZATION, MULCHING, AND OTHER ADDITIONAL PLANTING INFORMATION.
- Ⓓ ALL PLANT MATERIAL SHALL BE APPROVED BY THE CITY'S REPRESENTATIVE PRIOR TO INSTALLATION.
- Ⓔ FINAL LOCATION OF ALL PLANT MATERIALS SHALL BE SUBJECT TO THE APPROVAL OF THE CITY'S REPRESENTATIVE.
- Ⓕ CONTRACTOR SHALL NOTIFY CITY'S REPRESENTATIVE 48 HOURS PRIOR TO COMMENCEMENT OF WORK TO COORDINATE PROJECT INSPECTION SCHEDULES.
- Ⓖ SEE DETAILS AND SPECIFICATIONS FOR STAKING METHOD, PLANT PIT DIMENSIONS AND BACKFILL REQUIREMENTS.
- Ⓗ IF CONFLICTS ARISE BETWEEN SIZE OF AREAS AND PLANS, CONTRACTOR TO CONTACT CITY'S REPRESENTATIVE FOR RESOLUTION. FAILURE TO MAKE SUCH CONFLICTS KNOWN TO CITY'S REPRESENTATIVE WILL RESULT IN CONTRACTOR'S LIABILITY TO RELOCATE THE MATERIALS.
- Ⓘ CONTRACTOR SHALL SUBMIT FOR APPROVAL PHOTOS OF ALL BOXED TREES. PHOTOS SHOULD INCLUDE A PERSON FOR SCALE PURPOSES. ALL BOX TREES SHALL BE OF QUALITY AS DETERMINED BY THE CITY'S REPRESENTATIVE. MATERIAL FOUND UNSUITABLE FOR THE DESIGN OR SPECIFICATION INTENT WILL BE REJECTED.
- ⓵ IT IS THE CONTRACTOR'S RESPONSIBILITY TO FURNISH PLANT MATERIALS FREE OF PESTS OR PLANT DISEASES. PRE-SELECTED OR 'TAGGED' MATERIAL MUST BE INSPECTED BY THE CONTRACTOR AND CERTIFIED PEST AND DISEASE FREE. IT IS THE CONTRACTOR'S OBLIGATION TO WARRANTY ALL PLANT MATERIALS PER THE SPECIFICATIONS.
- Ⓚ CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING HIMSELF FAMILIAR WITH ALL UNDERGROUND UTILITIES, PIPELINES AND STRUCTURES. CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR ANY COST INCURRED DUE TO DAMAGE OF SAID UTILITIES. CONTRACTOR SHOULD CALL UNDERGROUND SERVICE ALERT (2) FULL WORKING DAYS BEFORE COMMENCING ANY DIGGING. PHONE 811 FOR U.S.A.

PLANTING NOTES (CONT.)

- Ⓛ CONTRACTOR SHALL NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGNED WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS AND/OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF CITY'S REPRESENTATIVE. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATION.
- Ⓜ CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COORDINATION WITH SUBCONTRACTORS AS REQUIRED TO ACCOMPLISH PLANTING OPERATIONS.
- Ⓝ PLANT MATERIAL QUANTITIES ARE GIVEN FOR CONVENIENCE ONLY. PLANT SYMBOLS AND SPECIFIED SPACING SHALL TAKE PRECEDENCE. CONTRACTOR SHALL VERIFY PLANT MATERIAL QUANTITIES PER PLAN.
- Ⓒ CONTRACTOR TO ASSURE POSITIVE DRAINAGE IN ALL PLANTING AREAS - 2% MINIMUM ALLOWED.
- Ⓟ AFTER ROUGH GRADES HAVE BEEN ESTABLISHED IN PLANTING AREAS, CONTRACTOR SHALL HAVE SOIL SAMPLES TAKEN AT THE LOCATIONS INDICATED BY DESIGNATION (2 TOTAL). THESE SAMPLES SHALL BE TESTED BY SOIL AND PLANT LAB, OR APPROVED EQUAL (714)558-8333 FOR SOIL FERTILITY, AGRICULTURAL SUITABILITY TEST AND SOIL PREPARATION RECOMMENDATIONS. TWO SAMPLES SHALL BE TAKEN AT EACH LOCATION: (1) GROUND LEVEL TO 10" DEEP, (2) 24" TO 36" DEEP. EACH SAMPLE SHALL CONTAIN APPROXIMATELY 1 QUART OF SOIL AND BE LABELED PER LOCATION AND DEPTH. SUBMIT SOIL REPORT TO CITY'S REPRESENTATIVE PRIOR TO PLANTING.
- Ⓓ GROUND COVERS AND SHRUBS SHALL BE TRIANGULARLY SPACED, UNLESS OTHERWISE INDICATED.
- Ⓡ ALL SOIL FOR LANDSCAPE PLANTING AREAS OR BERMS SHALL BE OBTAINED FROM ON-SITE EXCAVATIONS. SHOULD IMPORT SOIL BE NECESSARY, INDICATE SOURCE LOCATION. SOIL SHALL BE SANDY LOAM CONTAINING NO TOXIC CHEMICALS OR ELEMENTS WHICH MAY INHIBIT OR RETARD NORMAL PLANT GROWTH. SOIL TESTING RESULTS SHALL BE SUBMITTED AND APPROVED PRIOR TO SOIL IMPLEMENTATION.
- Ⓢ ALL LANDSCAPED AREAS, EXCEPT TURF AREAS, SHALL BE MULCHED WITH A 3" DEEP LAYER OF MULCH PER SPECIFICATIONS, AT THE CONCLUSION OF PLANTING OPERATIONS.

PLANTING NOTES (CONT.)

- Ⓣ AT EDGES OF PLANTING AREAS, THE CENTER LINE OF THE LAST ROW OF SHRUBS AND/OR GROUND COVER SHALL BE LOCATED NO FARTHER FROM OR CLOSER TO THE EDGE THAN ONE-HALF THE SPECIFIED ON-CENTER SPACING.
- Ⓤ REMOVE ALL NURSERY STAKES IMMEDIATELY AFTER INSTALLATION, UPON PROVIDING SUPPORT PER DETAIL 1, THIS SHEET.
- Ⓥ ROOT BARRIER NOTE: ALL TREES PLANTED WITHIN 8' OF ANY HARDSCAPE ELEMENT (SIDEWALKS, WALLS, D.G., PAVERS, CURBS, ETC.) SHALL RECEIVE ROOT BARRIER BY "DEEP ROOT CORP.", (714) 898-0863. NUMBER OF PANELS PER TREE PER MANUFACTURER'S RECOMMENDATION. ROOT BARRIERS SHALL BE INSTALLED PER CITY OF HUNTINGTON BEACH STANDARD PLAN #714-5 & #718.

UNDERGROUND SERVICE ALERT
 CALL: 811
 TWO WORKING DAYS BEFORE YOU DIG

APPROVED BY:
 CHRIS TANI, PRINCIPAL C.E. DATE
 R.C.E. NO. CB2756 EXP. DATE: 9/30/22

CITY OF HUNTINGTON BEACH
 DEPARTMENT OF PUBLIC WORKS

CONSULTANT

RODGERS SENIOR CENTER SITE
 1706 ORANGE AVENUE
 HUNTINGTON BEACH, CA 92647



REVISIONS	DATE

SHEET TITLE
 PLANTING DETAILS

JOB #	878-10
DESIGNED AS	
DRAWN AS	
CHECKED ZM	
DATE	6/02/2021

SHEET
 L-7.01

GENERAL NOTES

- THESE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO COVER A COMPLETE INSTALLATION OF SYSTEMS. THE OMISSION OR EXPRESSED REFERENCE TO ANY ITEM OF LABOR OR MATERIALS REQUIRED FOR THE PROPER EXECUTION OF THE WORK IN ACCORDANCE WITH PRESENT PRACTICE OF THE TRADE SHALL NOT RELIEVE THE CONTRACTOR FROM PROVIDING SUCH ADDITIONAL LABOR AND MATERIALS.
- THESE PLANS AND SPECIFICATIONS AND ALL WORK AND MATERIALS SHALL BE IN FULL ACCORDANCE WITH ALL LEGAL AND INDUSTRY REQUIREMENTS AND STANDARDS INCLUDING WITHOUT LIMITATION THE FOLLOWING:
 - CALIFORNIA CODE OF REGULATIONS TITLE 24, PARTS 1 AND 2 (CALIFORNIA BUILDING CODE), 2016 EDITION.
 - CALIFORNIA CODE OF REGULATIONS TITLE 24, PART 3 (CALIFORNIA ELECTRICAL CODE), 2016 EDITION.
 - CALIFORNIA CODE OF REGULATIONS TITLE 24, PART 6 (CALIFORNIA ENERGY CODE), 2016 EDITION.
 - CALIFORNIA CODE OF REGULATIONS TITLE 24, PART 9 (CALIFORNIA FIRE CODE), 2016 EDITION.
 - OTHER REGULATING AGENCIES WHICH MAY HAVE AUTHORITY OVER ANY PORTION OF THE WORK, INCLUDING THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY, AND THOSE CODES AND STANDARDS LISTED IN THESE NOTES AND SPECIFICATIONS.
 - THE ELECTRICAL SYSTEMS FUNCTIONALITY STANDARDS SET FORTH IN TITLE 7 OF THE CALIFORNIA CIVIL CODE (THE "RIGHT TO REPAIR ACT").
 - THE MANUFACTURER'S REQUIREMENTS OR RECOMMENDATIONS FOR ANY INCORPORATED PRODUCTS.
 - THE MOST CURRENT APPROVED ISSUES OF ANY NOTED SPECIFICATIONS, CODES AND STANDARDS, INCLUDING SUPPLEMENTS, UNLESS NOTED OTHERWISE.
- THE PLANS REPRESENT ONLY THE FINISHED ELECTRICAL, FIRE ALARM AND LOW VOLTAGE SYSTEMS, AND THEY ARE NOT INTENDED TO INDICATE OR REQUIRE ANY CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES.
- IN USING THE PLANS FOR BIDDING OR CONSTRUCTION PURPOSES, THE CONTRACTOR IS REQUIRED TO REVIEW ALL OF THE PROJECT'S CONSTRUCTION DOCUMENTS AS A WHOLE IN ORDER TO IDENTIFY ALL REQUIREMENTS THAT DIRECTLY OR INDIRECTLY AFFECT ITS PORTION OF THE ELECTRICAL WORK, EVEN REQUIREMENTS LOCATED IN SECTIONS DESIGNATED AS APPLICABLE TO OTHER TRADES. IN CASE OF CONFLICTS, THE CONTRACTOR SHALL EITHER OBTAIN DIRECTION FROM AN APPROPRIATE OWNER REPRESENTATIVE OR OTHERWISE APPLY THE MORE STRINGENT REQUIREMENT.
- IN INTERPRETING THE PLANS, THE FOLLOWING GENERAL RULES APPLY:
 - WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DRAWINGS.
 - SCALED DIMENSIONS AND GRAPHICALLY SHOWN LOCATIONS ARE TO BE CONSIDERED ONLY APPROXIMATE, FIELD VERIFY DIMENSIONS PRIOR TO BID.
 - BECAUSE THE PLANS ARE INTENDED TO SET FORTH THE REQUIREMENTS FOR CONSTRUCTION IN ONLY AN INDUSTRY-STANDARD LEVEL OF QUALITY AND DETAIL, AND THEREFORE ARE INTENDED TO BE SUPPLEMENTED BY APPROPRIATE REQUESTS FOR CLARIFICATION AND INFORMATION, ERRORS AND OMISSIONS AND TO BRING THESE ERRORS AND OMISSIONS TO THE ATTENTION OF AN APPROPRIATE OWNER REPRESENTATIVE IN A TIMELY MANNER AND ASSUMES THE RISK OF THE CONSEQUENCES OF FAILING TO DO SO BEFORE BIDDING OR OTHERWISE PROCEEDING.
 - THE CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION, AND NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OR INCONSISTENCIES.
- SUBMITTALS WILL BE REVIEWED BY THE ELECTRICAL ENGINEER, IF AT ALL, ONLY PURSUANT TO THE INDUSTRY-STANDARD PROTOCOL SET FORTH IN AIA DOCUMENT A201, AND IN NO EVENT WILL THE THE SUBMITTAL REVIEW PROCESS RELIEVE OR LESSEN THE SUBMITTING CONTRACTOR'S RESPONSIBILITY FOR AN INAPPROPRIATE SUBMITTAL.
- IN NO EVENT WILL ANY SITE VISITS BY THE ELECTRICAL ENGINEER CONCERN CONSTRUCTION MEANS AND METHODS OR CONSTRUCTION SAFETY, AND ALL SUCH MATTERS SHALL REMAIN THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- COPIES OF THE THE PLANS PROVIDED IN ANY ELECTRONIC FORM ARE SUBJECT TO THE SAME PROVISIONS AS THE OTHER INSTRUMENTS OF SERVICE PREPARED BY OR ON BEHALF OF ELECTRICAL ENGINEER FOR THE PROJECT, INCLUDING WITHOUT LIMITATION THE ENGINEER'S COMMON LAW, STATUTORY OR OTHER RESERVED RIGHTS, INCLUDING COPYRIGHTS. A RECIPIENT IS GRANTED AT MOST A TRANSFERABLE NONEXCLUSIVE LICENSE TO REUSE THE PLANS SOLELY FOR PROJECT PURPOSES; AND NO RECIPIENT IS AUTHORIZED TO USE OR TO ALLOW THE USE OF ALL OR ANY PORTION OF THESE PLANS FOR ANY OTHER PURPOSE, AND ANY USE FOR ANY OTHER PURPOSE WOULD CONSTITUTE ACTIONABLE PLAGIARISM. ELECTRICAL ENGINEER PROVIDES DOCUMENTS IN AN ELECTRONIC FORM ONLY IN ITS STANDARD FORMATS AND CONVENTIONS AND WITH NO GUARANTEE OF COMPATIBILITY WITH ANY RECIPIENT'S SOFTWARE OR HARDWARE AND ANY USE WITH OR CONVERSION TO OTHER FORMATS OR CONVENTIONS, OR THE USE WITH ANY PARTICULAR SOFTWARE OR HARDWARE, IS AT THE RECIPIENT'S SOLE RISK.
- ALL CONDUIT, STRUCTURES AND INSTALLATION FOR POWER AND TELEPHONE UTILITIES SHALL CONFORM WITH THE REQUIREMENTS (MINIMUM BEND RADIUS, CONCRETE ENCASUREMENT, CONDUIT, TYPE, ETC.) OF THE UTILITIES COMPANY. VERIFY ALL REQUIREMENTS WITH UTILITY COMPANY PRIOR TO BID AND INCLUDE ALL COSTS IN BID.
- CONTRACTOR SHALL OBTAIN SOUTHERN CALIFORNIA EDISON CO. (SCE CO.) CONSTRUCTION DRAWINGS PRIOR TO CONSTRUCTION AND SHALL INSTALL POWER CONDUIT AND STRUCTURES ACCORDING TO SCE CO. DRAWINGS. EXTRA PAYMENTS WILL NOT BE GRANTED FOR FAILURE TO DO SO.
- LOCATIONS OF EXISTING UTILITIES ARE NOT SHOWN AND CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN EXCAVATING AND TRENCHING ON THIS SITE TO AVOID EXISTING DUCTS, PIPING OR CONDUIT, ETC. AND TO PREVENT HAZARD TO PERSONNEL AND/OR DAMAGE TO EXISTING UNDERGROUND UTILITIES OR STRUCTURES WHETHER OR NOT SHOWN AND INSTALLED BY ANY OTHER CONTRACTS. THE ENGINEER IS NOT RESPONSIBLE FOR THE LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES WHETHER OR NOT SHOWN OR DETAILED BY ANY OTHER CONTRACTS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER SHOULD SUCH UNIDENTIFIED CONDITIONS BE DISCOVERED. THESE DRAWINGS AND SPECIFICATIONS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY.
- REFER TO THE DRAWINGS AND SHOP DRAWINGS OF OTHER TRADES FOR ADDITIONAL DETAILS WHICH AFFECT THE PROPER INSTALLATION OF THIS WORK.
- THE DRAWINGS INDICATE, IN A DIAGRAMMATIC MANNER, THE DESIRED LOCATIONS AND ARRANGEMENT OF THE COMPONENTS OF ELECTRICAL WORK. DETERMINE EXACT CONDUIT ROUTING, CONDUIT BENDS, AUXILIARY JUNCTION BOXES, SUPPORTS AND UNDEFINED CONSTRUCTION DETAILS AS A JOB CONDITION TO BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE CODE REQUIREMENTS. PROPER JUDGEMENT MUST BE EXERCISED IN EXECUTING THE WORK SO AS TO SECURE THE BEST POSSIBLE INSTALLATION IN THE AVAILABLE SPACE AND TO OVERCOME LOCAL DIFFICULTIES DUE TO SPACE LIMITATIONS OR INTERFERENCE OF CONDITIONS ENCOUNTERED.
- IN THE EVENT CHANGES IN THE INDICATED LOCATIONS OR ARRANGEMENTS ARE NECESSARY, DUE TO DEVELOPED CONDITIONS IN THE BUILDING CONSTRUCTION OR REARRANGEMENT OF EQUIPMENT, SUCH CHANGES SHALL BE MADE WITHOUT COST PROVIDING THE CHANGE IS ORDERED BEFORE THE CONDUIT RUNS, ETC., AND WORK DIRECTLY CONNECTED TO SAME IS INSTALLED AND NO EXTRA MATERIALS ARE REQUIRED.
- ELECTRICAL PLANS DO NOT SHOW ELECTRICAL REQUIREMENTS FOR MECHANICAL AND PLUMBING EQUIPMENT CONTROL. REFER TO MECHANICAL AND PLUMBING PLANS AND SPECIFICATIONS. WHERE EQUIPMENT IS INDICATED TO BE BY ELECTRICAL CONTRACTOR PROVIDE ALL CONDUIT, WIRE, J-BOX, OUTLET BOXES, RELAY SWITCHES, TIME SWITCHES, CONTROL CIRCUITS, ETC. REQUIRED FOR A COMPLETE AND OPERABLE MECHANICAL AND PLUMBING INSTALLATION. ALL WIRE SHALL BE INSTALLED IN CODE SIZED CONDUIT.
- LOCATIONS OF DISCONNECT SWITCHES AND CONNECTIONS FOR MECHANICAL AND PLUMBING EQUIPMENT ARE SHOWN DIAGRAMMATICALLY. VERIFY ACTUAL CONNECTION LOCATIONS WITH EQUIPMENT SHOP DRAWINGS AND LOCATE DISCONNECT SWITCHES TO PROVIDE CODE REQUIRED CLEARANCES AND ACCESS. DISCONNECT SWITCHES ON ROOF SHALL BE 30" MINIMUM ABOVE ROOF. MOUNTING OF DISCONNECTS DIRECTLY ON MECHANICAL EQUIPMENT IS NOT ACCEPTABLE. PROVIDE ANGLE IRON SUPPORT BRACKETS BOLTED TO ROOF FRAMING. FIELD GALVANIZE ALL FIELD CUT ENDS OF SUPPORTS. PROVIDE ROOF FLASHING AS REQUIRED.
- PROVIDE ALL EQUIPMENT WITH ENCLOSURES LISTED OR LABELED FOR USE AND LOCATION WHERE SUCH EQUIPMENT IS INSTALLED.
- PROVIDE UL LISTED FIRE STOP FOR ALL PENETRATIONS THROUGH FIRE RATED FLOORS, WALLS AND CEILINGS TO MAINTAIN ALL FIRE RATINGS. THE FIRE STOP MATERIALS SHALL BE RE-ENTERABLE AND REUSABLE.
- GROUNDING SHALL BE EXECUTED IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS, BOTH OF THE STATE OF CALIFORNIA AND LOCAL AUTHORITIES HAVING JURISDICTION.
- PROVIDE GROUND WIRE IN EACH CONDUIT CONTAINING CIRCUITS FEEDING RECEPTACLES. THE CONDUIT SHALL NOT BE PERMITTED TO SERVE AS THE ONLY ELECTRICAL GROUND RETURN PATH.
- PROVIDE HANDLE TIES AT CIRCUIT BREAKERS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS OF MULTI-WIRE BRANCH CIRCUITS WITH A SHARED NEUTRAL.
- UNLESS NOTED OTHERWISE ALL 120 VOLT HOMERUNS OVER 100 FEET SHALL BE #10 AWG MINIMUM, OVER 175 FEET SHALL BE #8 AWG MINIMUM. ADJUST CONDUIT SIZE ACCORDINGLY.
- NOTIFY THE ARCHITECT IN WRITING WHEN INSTALLATION IS COMPLETE AND THAT A FINAL INSPECTION OF THIS WORK CAN BE PERFORMED. IN THE EVENT DEFECTS OR DEFICIENCIES ARE FOUND DURING THIS FINAL INSPECTION, THEY SHALL BE CORRECTED TO THE SATISFACTION OF THE ARCHITECT BEFORE FINAL ACCEPTANCE CAN BE ISSUED.
- PROVIDE NEUTRAL FAULT TEST BEFORE ENERGIZING NEW CIRCUITS PER (250.24 (A)(5)).

SHEET INDEX

- E-1.01 GENERAL NOTES & SYMBOL LIST
- E-1.02 LIGHTING FIXTURE SCHEDULE & DETAILS
- E-1.02A LIGHTING CONTROLS
- E-1.03 SINGLE LINE DIAGRAM, SCHEDULES & DETAILS
- E-1.04 TITLE-24 - OUTDOOR
- E-1.05 TITLE-24 - INDOOR
- E-2.01 SITE ELECTRICAL PLAN
- E-2.01A LIGHTING PHOTOMETRIC CALCULATION
- E-2.02 ELECTRICAL DEMOLITION PLAN
- E-2.03 POWER & SIGNAL PLAN
- E-2.04 LIGHTING PLAN
- E-3.01 SITE DRY UTILITY PLAN

CITY OF HUNTINGTON BEACH NOTES

- ALL WORK SHALL COMPLY WITH THE CURRENT PROJECT SPECIAL PROVISIONS, THE STANDARD PLANS (SPPVC) AND STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, THE CITY OF HUNTINGTON BEACH STANDARD DRAWINGS, THE CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS), STANDARD PLANS AND STANDARD SPECIFICATIONS, LATEST EDITION, CITY OF HUNTINGTON BEACH STANDARD SPECIAL PROVISIONS FOR TRAFFIC SIGNAL AND STREET LIGHTING CONSTRUCTION, THE NATIONAL ELECTRICAL CODE (NEC), THE CALIFORNIA STATE SAFETY ORDER, AND ALL OTHER CODES, ORDINANCES, RULES AND REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.
- THE CONTRACTOR SHALL PAY ALL FEES AND OBTAIN ALL NECESSARY PERMITS AS REQUIRED FROM THE CITY OF HUNTINGTON BEACH AND PER UTILITY COMPANY REQUIREMENTS.
- MATERIALS SHALL BE RECOGNIZED BY THE UNDERWRITER'S LABORATORY, INC. AS HAVING SUITABLE CHARACTERISTICS WHEN PROPERLY FORMED AND TREATED, INCLUDING RIGID, POLYVINYL CHLORIDE (PVC) CONDUIT
- ALL WORK RELATED TO ELECTRICAL SERVICE SHALL BE PERFORMED IN CONFORMANCE WITH SOUTHERN CALIFORNIA EDISON COMPANY REQUIREMENTS AND THE CITY OF HUNTINGTON BEACH.
- THE CONTRACTOR SHALL BE FAMILIAR WITH THE WORK SITE AND SHALL BE SOLELY RESPONSIBLE FOR ANY DAMAGE TO EXISTING FACILITIES RESULTING DIRECTLY OR INDIRECTLY FROM HIS OPERATIONS, WHETHER OR NOT SUCH FACILITIES ARE SHOWN ON THE PLANS.
- TWENTY-FOUR (24) HOUR PERIOD NOTICES SHALL BE GIVEN FOR ALL CITY INSPECTIONS.
- THE CONTRACTOR SHALL LOCATE ALL SUBSTRUCTURES PRIOR TO CONSTRUCTION. HAND DIG ELECTRODER FOUNDATIONS UNTIL CLEAR OF OBSTRUCTIONS. PHONE UNDERGROUND SERVICES ALERT AT 811 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION. THE RESPONSIBILITIES OF THE CONTRACTOR SHALL BE TO AS CERTAIN TRUE VERTICAL AND HORIZONTAL LOCATION AND SIZE OF UNDERGROUND UTILITIES AND SHALL BE RESPONSIBLE FOR DAMAGE TO ANY PUBLIC OR PRIVATE UTILITIES SHOWN OR NOT SHOWN HEREIN.
- THE CONTRACTOR SHALL CONTACT SOUTHERN CALIFORNIA EDISON (SCE) TEN (10) WORKING DAYS IN ADVANCE TO SCHEDULE SERVICE CONNECTION.
- ALL NEW STREET LIGHTS (ELECTROLIERS AND LUMINAIRES) SHALL BE OWNED, OPERATED AND MAINTAINED BY THE CITY OF HUNTINGTON BEACH EXCEPT AS OTHERWISE INDICATED.
- ALL NEW PULL BOXES SHALL BE NO. 5 (CHRISTY CONCRETE PRODUCTS, MODEL NUMBERS FL30 AND FL30D) PER CITY STANDARD PLAN NO. 422, CALTRANS STD. PLAN ES-8 AND THE CITY'S TRAFFIC SIGNAL AND LIGHTING SYSTEM STANDARD SPECIAL PROVISIONS. ALL NEW AND DISTURBED PULL BOXES SHALL HAVE A NEW 6" CONCRETE MOW STRIP PLACED AROUND THE PULL BOXES. NO NEW PULL BOXES SHALL BE INSTALLED WITHIN 1 FOOT OF ANY ACCESS RAMP.

SYMBOL LIST

ALL SYMBOL DESCRIPTIONS ARE SUBJECT TO MODIFICATION AS NOTED ON THESE DRAWINGS. VERIFY EXACT LOCATIONS AND HEIGHTS OF OUTLETS WITH ARCHITECTURAL INTERIOR ELEVATIONS PRIOR TO ROUGH-IN.

	DUPLEX CONVENIENCE RECEPTACLE VERTICAL ON FLUSH WALL MOUNTED OUTLET BOX, +18".																
	DUPLEX CONVENIENCE RECEPTACLE WITH INTERNAL GROUND FAULT INTERRUPTER, VERTICAL ON FLUSH WALL MOUNTED OUTLET BOX +18", U.N.O.																
	DUPLEX CONVENIENCE RECEPTACLE WITH INTERNAL GROUND FAULT INTERRUPTER, HORIZONTAL ON FLUSH WALL MOUNTED OUTLET BOX, +6" ABOVE COUNTER SPLASH.																
	DUPLEX CONVENIENCE RECEPTACLE IN DAMP LOCATION, WITH INTERNAL GROUND FAULT INTERRUPTER, IN FLUSH WALL MOUNTED OUTLET BOX WITH HINGED DOOR, LOCK AND KEY, +18".																
	DUPLEX CONVENIENCE RECEPTACLE IN DAMP LOCATION, WITH INTERNAL GROUND FAULT INTERRUPTER, ON FLUSH WALL MOUNTED OUTLET BOX WITH SPRING DOOR COVER, +18".																
	LOW VOLTAGE LIGHTING SWITCH, ON FLUSH WALL MOUNTED OUTLET BOX, +45".																
	LOW VOLTAGE VACANCY SENSOR SWITCH, ON FLUSH WALL MOUNTED OUTLET BOX, +45".																
	OCCUPANCY MOTION SENSOR SWITCH, ON FLUSH WALL MOUNTED OUTLET BOX, +45".																
	FUSED SAFETY SWITCH (DISCONNECT), HORSE POWER RATED. MOUNT ON WALL +45", OR ON EQUIPMENT +36". PROVIDE SWITCH AND FUSES SIZED PER EQUIPMENT MANUFACTURER REQUIREMENTS.																
	JUNCTION BOX, FLUSH WALL MOUNTED, +18".																
	JUNCTION BOX CONCEALED ABOVE ACCESSIBLE CEILING.																
	JUNCTION BOX INDICATES CONNECTION TO EQUIPMENT AS REQUIRED, TYPICAL.																
	PANELBOARD, ADJACENT LINE INDICATES PANEL FRONT. ADJACENT BALLOON INDICATES PANEL DESIGNATION 'A', SEE DRAWING E-1 FOR PANEL SCHEDULE.																
	CIRCUIT BREAKER STATIONARY (NON-DRAWOUT), SECONDARY VOLTAGE.																
	CONDUIT, INSTALLED CONCEALED IN WALL OR IN CEILING SPACE. <table border="0"> <tr> <td>----</td> <td>1/2" C - 2 #12</td> <td>-----</td> <td>3/4" C - 6 #12</td> </tr> <tr> <td>-----</td> <td>1/2" C - 3 #12</td> <td>-----</td> <td>1" C - 7 #12</td> </tr> <tr> <td>-----</td> <td>3/4" C - 4 #12</td> <td>-----</td> <td>1" C - 8 #12</td> </tr> <tr> <td>-----</td> <td>3/4" C - 5 #12</td> <td>-----</td> <td>1 1/4" C - 9 #12</td> </tr> </table>	----	1/2" C - 2 #12	-----	3/4" C - 6 #12	-----	1/2" C - 3 #12	-----	1" C - 7 #12	-----	3/4" C - 4 #12	-----	1" C - 8 #12	-----	3/4" C - 5 #12	-----	1 1/4" C - 9 #12
----	1/2" C - 2 #12	-----	3/4" C - 6 #12														
-----	1/2" C - 3 #12	-----	1" C - 7 #12														
-----	3/4" C - 4 #12	-----	1" C - 8 #12														
-----	3/4" C - 5 #12	-----	1 1/4" C - 9 #12														
	CONDUIT, INSTALLED CONCEALED IN OR UNDER FLOOR OR BELOW GRADE, 3/4" CONDUIT MINIMUM.																
	HOMERUN TO PANEL 'B' FOR CIRCUITS 5, 7, 9 WITH SEPARATE NEUTRALS.																
	MOUNTING HEIGHT TO CENTER LINE OF DEVICE FROM FINISH FLOOR OR EXTERIOR GRADE																
	KEY NOTE CALLOUT. REFER TO CORRESPONDING NOTE ON DRAWING WHERE CALLOUT OCCURS.																
	ABOVE FINISH FLOOR																
	ABOVE FINISH GRADE																
	AMERICAN WIRE GAUGE																
	AMPERE																
	AMPERES INTERRUPTING CAPACITY (SYMMETRICAL)																
	CIRCUIT																
	CIRCUIT BREAKER																
	CONDUIT																
	CURRENT LIMITING CIRCUIT BREAKER																
	CONDUIT ONLY.																
	DIAMETER																
	EXISTING EQUIPMENT TO BE DEMOLISHED.																
	ELECTRICAL METALLIC TUBING																
	EXHAUST FAN																
	EXISTING EQUIPMENT TO REMAIN																
	EXISTING EQUIPMENT TO BE REMOVED AND REINSTALLED.																
	EXISTING EQUIPMENT TO BE REPLACED WITH NEW EQUIPMENT.																
	FULL LOAD AMPS																
	GROUND FAULT CIRCUIT INTERRUPTER.																
	GROUND																
	SINGLE POLE																
	DOUBLE POLE																
	TRIPLE POLE																
	ISOLATED GROUND AND ISOLATED NEUTRAL																
	JUNCTION BOX																
	KILOVOLT AMPERES																
	KILOWATT																
	LONG CONTINUOUS LOAD																
	LIGHTING																
	MAIN CIRCUIT BREAKER																
	MAIN LUGS ONLY																
	NATIONAL ELECTRICAL CODE																
	NOT IN CONTRACT																
	OVERHEAD ELECTRICAL																
	OVERHEAD TELECOMM																
	PHASE																
	FURNISH, INSTALL AND CONNECT.																
	RECEPTACLE																
	RIGID GALVANIZED STEEL																
	600 VOLTS AND LESS																
	TYPICAL																
	UNLESS NOTED OTHERWISE																
	VOLTS																
	VOLT AMPERES																
	WEATHERPROOF																
	WIRE																

NOTE:
REFER TO E-1.02 FOR LIGHTING SYMBOLS.
REFER TO E-1.02A FOR LIGHTING CONTROLS SYMBOLS.

APPROVED BY:

CHRIS TANIG, PRINCIPAL C.E. DATE 9/30/22
R.C.E. NO. CB2756 EXP. DATE:

CITY OF HUNTINGTON BEACH
DEPARTMENT OF PUBLIC WORKS

31591 Camino Capistrano
San Juan Capistrano, CA 92675
www.RJMDesignGroup.com
(949) 493-2690 fax
(949) 493-2600 phone

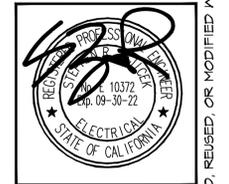
CONSULTANT

FBA Engineering

Consulting Electrical Engineers

150 Palatino Avenue Suite A120
Costa Mesa, CA 92626
(949) 852-9995 • (949) 852-1657 (fax)
fbaeng.com FBA Job Number: 535040

RODGERS SENIOR CENTER SITE
1706 ORANGE AVENUE
HUNTINGTON BEACH, CA 92647



REVISIONS	DATE

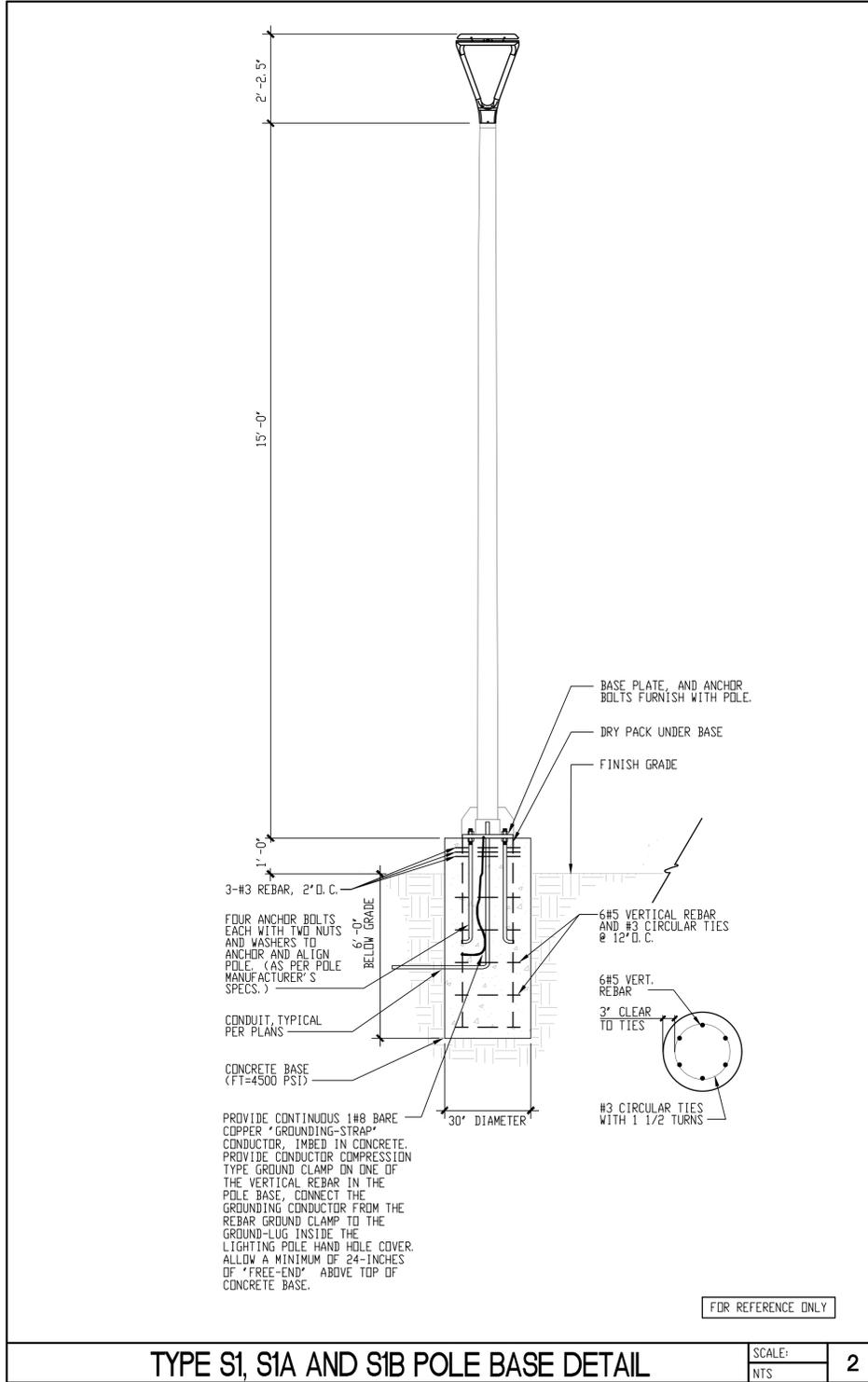
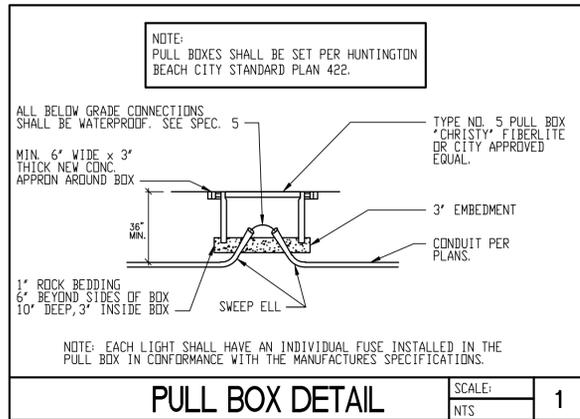
SHEET TITLE

GENERAL NOTES,
& SYMBOLS LIST

JOB #	079-10
DESIGNED	AS
DRAWN	AS
CHECKED	ZM
DATE	4/20/2021

SHEET

E-1.01



LIGHT FIXTURE SCHEDULE										FBA # 535.021	
LIGHT FIXTURE SYMBOL	TYPE	LIGHT FIXTURE DESCRIPTION	FIXTURE MAXIMUM TOTAL INPUT WATTS	FIXTURE MINIMUM LUMEN OUTPUT EFFICIENCY	FIXTURE MOUNTING	LAMP TYPE	LAMP COLOR TEMPERATURE K	LAMP CRI, NOT LESS THAN	EACH LAMP INITIAL MINIMUM LUMEN OUTPUT	TOTAL ALL LAMPS INITIAL MINIMUM LUMEN OUTPUT	
□	S1	SINGLE HEAD LED FIXTURE, POLE MOUNTED AT +20'-0" ABOVE GROUND, TYPE III DISTRIBUTION. PROVIDE SINGLE POLE ARM MOUNT WITH 2-3/8" TENDON MOUNT. COMPOSITE POLE ROUND TAPERED 15'-0" HEIGHT WITH ANTI-GRAFFITI COATING.	51	127	POLE MOUNT. SEE POLE BASE DETAIL 2	LED	3000	80	-	6449	
		GARDCO SLENDER FORM #SFP 32L-500-T2-2-UNV-DD-XX-XXX-BZ OR APPROVED EQUAL.									
		SHAKESPEAR AD SERIES# AD20-02S5									
□	S1A	SINGLE HEAD LED FIXTURE, POLE MOUNTED AT +20'-0" ABOVE GROUND, TYPE III DISTRIBUTION. PROVIDE SINGLE POLE ARM MOUNT WITH 2-3/8" TENDON MOUNT. COMPOSITE POLE ROUND TAPERED 20'-0" HEIGHT WITH ANTI-GRAFFITI COATING.	51	127	POLE MOUNT. SEE POLE BASE DETAIL 2	LED	3000	80	-	6449	
		GARDCO SLENDER FORM #SFP 32L-500-T2-3-UNV-DD-XX-XXX-BZ OR APPROVED EQUAL.									
		SHAKESPEAR AD SERIES# AD20-02S5									
□	S1B	SINGLE HEAD LED FIXTURE, POLE MOUNTED AT +20'-0" ABOVE GROUND, TYPE V DISTRIBUTION. PROVIDE SINGLE POLE ARM MOUNT WITH 2-3/8" TENDON MOUNT. COMPOSITE POLE ROUND TAPERED 20'-0" HEIGHT WITH ANTI-GRAFFITI COATING.	51	127	POLE MOUNT. SEE POLE BASE DETAIL 2	LED	3000	80	-	6449	
		GARDCO SLENDER FORM #SFP 32L-500-T2-5-UNV-DD-XX-XXX-BZ OR APPROVED EQUAL.									
		SHAKESPEAR AD SERIES# AD20-02S5									
□	F1	2X4 TROFFER WITH PRISMATIC ACRYLIC LENS. 4000K, WHITE FINISH.	36	139	RECESSED	LED	4000	80	-	4968	
		LITHONIA# 2GL4-48L-FW-A19-EZ1-LP840 OR APPROVED EQUAL.									
⌊	F2	48" LINEAR STRIP FIXTURE. SNAP ON FROSTED DIFFUSE LENS. 4000K, WHITE FINISH.	42	116	CEILING, SURFACE	LED	4000	80	-	4853	
		LITHONIA# ZLIN-L48-5000LM-FST-MVOLT -40K-80CRI-WH OR APPROVED EQUAL.									
⌊	F3	48" LINEAR WRAP FIXTURE. WHITE POLYCARBONATE DIFFUSER. 4000K, WHITE FINISH.	53	94	CEILING, SURFACE	LED	4000	80	-	5000	
		LITHONIA# FML4W 48 5000LM 840 ZT MVOLT OR APPROVED EQUAL.									

NOTES:
1. ALL POLES SHALL BE COATED WITH ANTI-GRAFFITI/SEALER.
2. ALL FIXTURES SHALL BE FUSED IN ADJACENT PULL BOX.

31591 Camino Capistrano
San Juan Capistrano, CA 92675
www.RJMDesignGroup.com
[949] 493-2690 fax
[949] 493-2600 phone

CONSULTANT
FBA Engineering
Consulting Electrical Engineers
150 Palatino Avenue Suite A120
Costa Mesa, CA 92626
949.852.9995 • 949.852.1657 (fax)
fbaeng.com FBA Job Number: 535040

RODGERS SENIOR CENTER SITE
1706 ORANGE AVENUE
HUNTINGTON BEACH, CA 92647



REVISIONS	DATE

SHEET TITLE
LIGHTING FIXTURE SCHEDULE & DETAILS

JOB #	079-10
DESIGNED	AS
DRAWN	AS
CHECKED	ZM
DATE	4/20/2021

APPROVED BY:
CHRIS TANIG, PRINCIPAL C.E. DATE
R.C.E. NO. CB2756 EXP. DATE: 9/30/22

CITY OF HUNTINGTON BEACH
DEPARTMENT OF PUBLIC WORKS

SHEET
E-1.02



RJM DESIGN GROUP

31591 Camino Capistrano
San Juan Capistrano, CA 92675
www.RJMdesigngroup.com
[949] 493-2690 fax
[949] 493-2600 phone

CONSULTANT

FBA Engineering

Consulting Electrical Engineers

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fbaeng.com FBA Job Number: 535040

RODGERS SENIOR CENTER SITE
1706 ORANGE AVENUE
HUNTINGTON BEACH, CA 92647



REVISIONS	DATE

SHEET TITLE

LIGHTING CONTROLS

JOB #	878-10
DESIGNED AS	AS
DRAWN AS	AS
CHECKED ZM	
DATE	4/20/2021

SHEET

E-1.02A

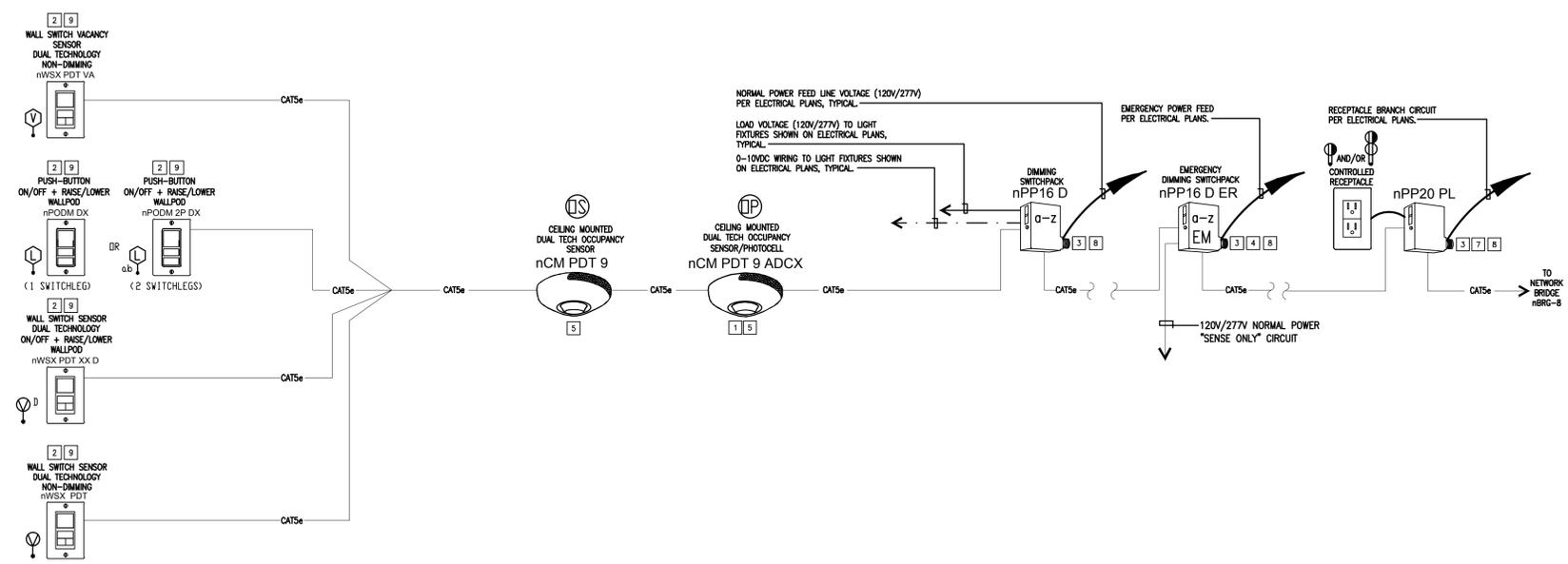
APPROVED BY:

CHRIS TANIGUCHI, PRINCIPAL C.E. DATE: 9/30/22
R.C.E. NO. C82756 EXP. DATE: 9/30/22

CITY OF HUNTINGTON BEACH
DEPARTMENT OF PUBLIC WORKS

- ### LIGHTING CONTROL GENERAL NOTES
- THE TYPICAL CONTROL DIAGRAM IS AN EXAMPLE ONLY AND DEPICTS ONLY THE INTENT OF THE LIGHTING CONTROLS. LIGHTING CONTROL SYSTEM BASIS OF DESIGN IS AN AC LIGHT SYSTEM BY ACUITY CONTROLS.
 - PROVIDE MANUFACTURER SPECIFIC INSTALLATION SHOP DRAWINGS. SHOP DRAWINGS SHALL INCLUDE 1/8 SCALE FLOOR PLANS INDICATING ALL REQUIRED CONTROL DEVICE LOCATIONS AND POINT-TO-POINT WIRING. SHOP DRAWINGS SHALL INCLUDE PRODUCT DATA CUT SHEETS AND SINGLE LINE SCHEMATIC DIAGRAM.
 - WHETHER OR NOT DETAILED ON ELECTRICAL DRAWINGS, PROVIDE ALL CONTROL DEVICES AS REQUIRED FOR A COMPLETE, FULLY OPERABLE AND CODE COMPLIANT SYSTEM.
 - PROVIDE UL924 DEVICES IN ANY AREA THAT REQUIRES EMERGENCY EGRESS LIGHTING WHETHER OR NOT SPECIFICALLY HEREIN DETAILED. REFER TO LIGHTING PLANS FOR ALL EMERGENCY EGRESS "EM" LIGHTING FIXTURES.
 - PROVIDE CONTROL DEVICES AS REQUIRED FOR LIGHTING ZONES AS SHOWN ON LIGHTING PLANS. SCHEMATIC DIAGRAM EXAMPLES SHOWN HEREIN ARE NOT SPECIFIC FOR EACH LIGHTING CONTROL CONDITION DEPICTED ON LIGHTING PLANS.
 - ALL 0-10VDC DIMMING CONDUCTORS SHALL BE INSTALLED IN CONDUIT.
 - VERIFY CORRECT LIGHTING CONTROL CONFIGURATIONS AND OPERATION IN EACH ROOM. REFER TO LIGHTING PLANS.
 - SIMULATE NORMAL SOURCE POWER FAILURE BY "OPENING" (TURN OFF) BUILDING MAIN SERVICE DISCONNECT AND VERIFY CONNECTIONS AND OPERATION OF UL 924 DEVICES FOR EMERGENCY LIGHTING FIXTURES.
 - SETUP, PROGRAM, AND FUNCTION TEST LIGHTING CONTROL SYSTEMS TO PERFORM EACH OF THE INDICATED CONTROL FUNCTIONS.

- ### CONTROL DIAGRAM NOTES
- PROVIDE WHERE DAYLIGHT (PHOTOCELL) CONTROLS ARE INDICATED ON ELECTRICAL PLANS.
 - PROVIDE 3-WAY AND/OR 4-WAY SWITCHING WHERE INDICATED ON ELECTRICAL PLANS.
 - LOCATE IN ACCESSIBLE CEILING SPACE, WHERE POSSIBLE. WHERE NO ACCESSIBLE CEILING, LOCATE SWITCHPACK DEVICE AT CENTRAL LOCATION WITH OTHER SWITCHPACK DEVICES AND PROVIDE ACCESS PANEL IN CEILING. COORDINATE ACCESS PANEL LOCATION WITH ARCHITECT PRIOR TO INSTALLATION.
 - PROVIDE WHERE EMERGENCY LIGHTING ("EM") IS SHOWN ON PLANS. PROVIDE NON-SWITCHED HOT CONNECTION FROM NORMAL POWER LIGHTING CIRCUIT FOR "SENSE" CONNECTION.
 - PROVIDE QUANTITY AS REQUIRED FOR COMPLETE OCCUPANCY AND/OR DAYLIGHT ZONE COVERAGE, BUT IN NO CASE LESS THAN SHOWN ON PLANS.
 - COORDINATE DIMMING REQUIREMENTS WITH FIXTURE SPECIFICATIONS TO ENSURE PROPER DIMMING FUNCTION.
 - PROVIDE WHERE CONTROLLED RECEPTACLES ARE SHOWN ON POWER PLANS.
 - PROVIDE QUANTITY OF POWER RELAY PACK DEVICES AS NEEDED TO SUPPORT SWITCHLEGS (LIGHTING ZONES) AS INDICATED ON ELECTRICAL PLANS FOR A PARTICULAR SPACE.
 - PROVIDE QUANTITY OF CONTROL DEVICES AS REQUIRED, BUT IN NO CASE LESS THAN SHOWN ON ELECTRICAL PLANS.



2 TYPICAL LIGHTING CONTROL SYSTEM DIAGRAM AND NOTES

FBA Engineering / Plot Date: 4/20/2021 8:41 AM / Plotted by: Steve Roth / Drawing Location: I:\535040\IE-1.02_535040.dwg

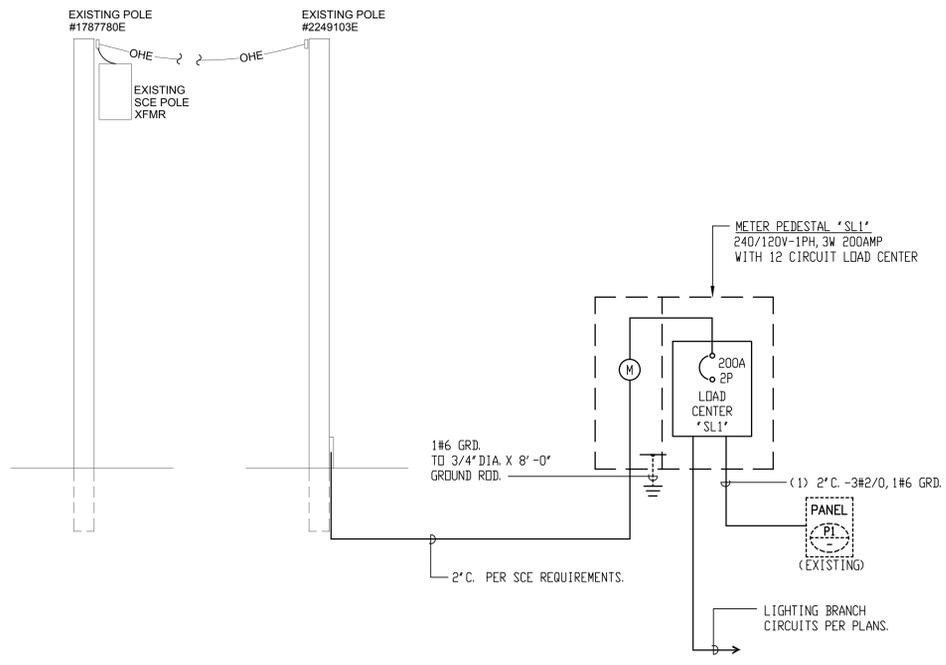
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REVISIONS	DATE

SHEET TITLE
SINGLE LINE DIAGRAM,
SCHEDULES &
DETAILS

JOB # 078-10
DESIGNED AS
DRAWN AS
CHECKED ZM
DATE 4/20/2021

SHEET
E-1.03



RODGERS SENIOR CENTER						PROJECT NO. 535040					
VOLTS 120/240 PHASE 1PH, 3W MTG PEDIestal						PANELBOARD SL1 LOCATION METER PEDIestal "SL1"					
MAIN 200A-2P BUS 200A											
(-) LOAD (VA) (-)			LOAD TYPE	OUTLET BKR	DESCRIPTION	(-) LOAD (VA) (-)			LOAD TYPE	OUTLET BKR	DESCRIPTION
R1	1	357	L	20/1	7	PEDESTRIAN POLE LTS.	A	2	20/1		
R2	3	357	L	20/1	7	PEDESTRIAN POLE LTS.	B	4	20/1		
	5			20/1		SPARE	A	6	20/1		
	7			20/1		SPARE	B	8	20/1		
	9	3128	L	40/2		EY CHARGER	A	10	15000	G	125/2
	11	3128	L				B	12	15000	G	
	13						A	14			
	15						B	16			
	17						A	18			
	19						B	20			
	21						A	22			
	23						B	24			
	25						A	26			
	27						B	28			
	29						A	30			
	31						B	32			
	33						A	34			
	35						B	36			
	37						A	38			
	39						B	40			
	41						A	42			

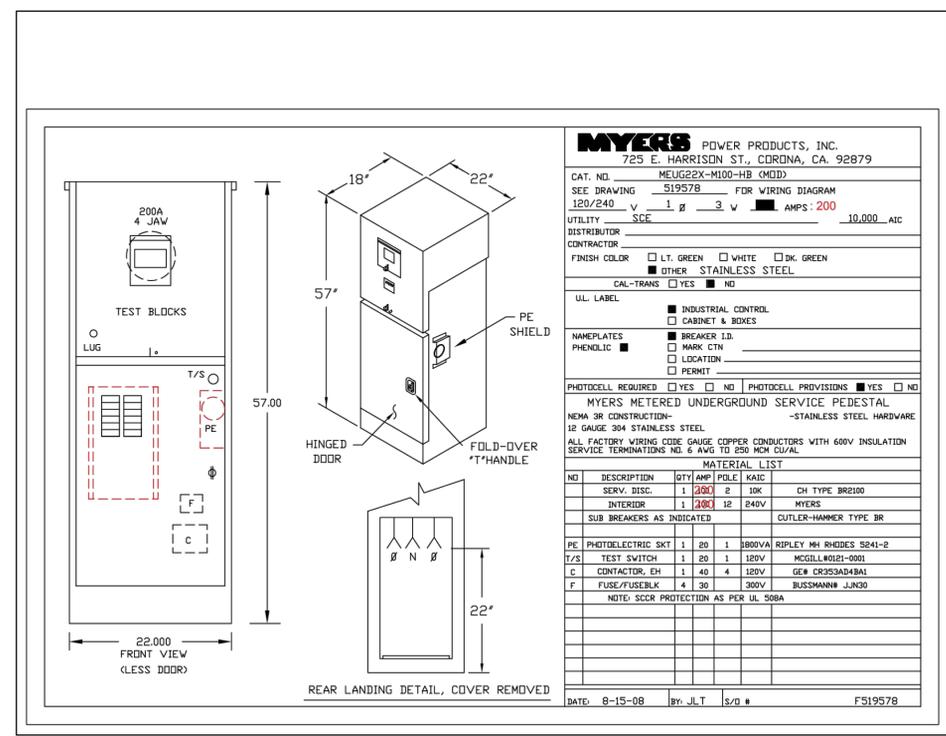
CONNECTED:	VA	AMPS	RECEPT. (> 10 KVA @ 502) =	8713	LOAD TYPE:	G - GENERAL (<1000	M - MOTOR (<1000)
PHASE A = 18485	154		KITCHEN @ 65Z =	154	L - L.C.L. (<1250	MI - MOTOR (<1250)	
PHASE B = 18485	154		OTHER LOAD @ 100Z =	30000	R - RECEPTACLE (<500	X - X-RAY (<1000)	
			TOTAL VA =	38713	(10 KVA @ 1000	XI - X-RAY (<500)	
			TOTAL AMPS =	161	K - KITCHEN (<650		

R1 - CIRCUIT CONTROLLED BY 2-POLE RELAY, PHOTOCELL ON/TIMELOCK OFF
R2 - CIRCUIT CONTROLLED BY 2-POLE RELAY, PHOTOCELL ON/TIMELOCK OFF
R3 - CIRCUIT CONTROLLED BY 2-POLE RELAY, PHOTOCELL ON/TIMELOCK OFF
R4 - CIRCUIT CONTROLLED BY 2-POLE RELAY, PHOTOCELL ON/TIMELOCK OFF
R5 - CIRCUIT CONTROLLED BY 2-POLE RELAY, PHOTOCELL ON/TIMELOCK OFF
R6 - CIRCUIT CONTROLLED BY 2-POLE RELAY, PHOTOCELL ON/TIMELOCK OFF
PROVIDE ASTRONIMICAL TIMELOCK WITH MINIMUM OF 8 SEPERATE ZONES FOR CONTROL OF RELAYS.

METERED PEDIestal SINGLE LINE DIAGRAM

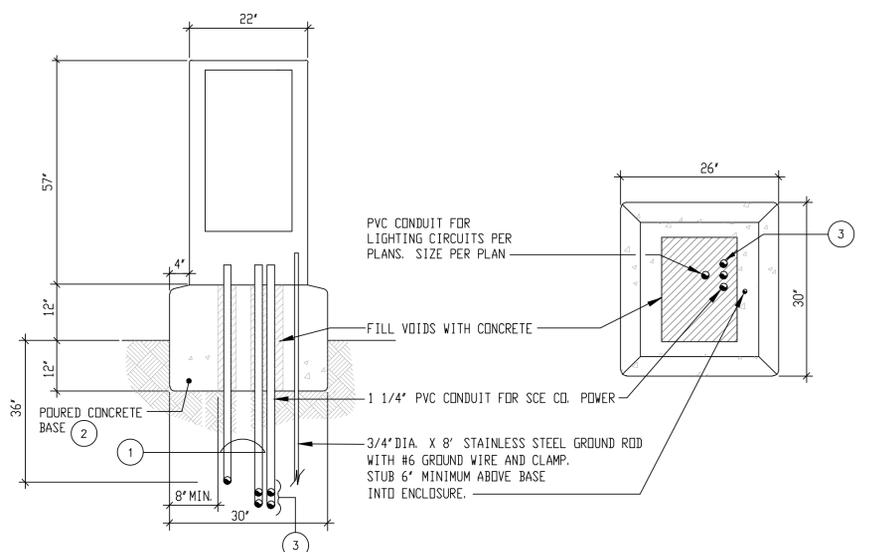
METERED PEDIestal SINGLE LINE DIAGRAM AND PANEL SCHEDULE

SCALE:
NTS 2



METERED PEDIestal DETAIL

SCALE:
NTS 1



METERED PEDIestal ENCLOSURE (REAR VIEW)

METERED PEDIestal ENCLOSURE (SIDE VIEW)

NOTE: SUBMIT SHOP DRAWINGS FOR REVIEW. APPROVED SHOP DRAWINGS SHALL BE SUBMITTED TO UTILITY COMPANY FOR REVIEW AND APPROVAL PRIOR TO PURCHASE.

- DETAIL NOTES:
- FOR CONNECTION TO LIGHTING EQUIPMENT.
 - LEVEL CONCRETE BASE WITH SMOOTH FINISH ON TOP AND EXPOSED SIDES. 1" RADIUS TOP EDGE, TYPICAL ALL SIDES.
 - (2) 1 1/2" CONDUITS TO ADJACENT CHRISTY FIBERLYTE FL30 (#5) PULLBOX.

APPROVED BY:
CHRIS TANIG, PRINCIPAL C.E. DATE
R.C.E. NO. CB2756 EXP. DATE: 9/30/22



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

CERTIFICATE OF COMPLIANCE
 Project Name: Rodgers Senior Center Site Report Page: (Page 6 of 7)
 Project Address: 1706 Orange Ave Date Prepared: 1/14/2021

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
 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/NRCC/

Yes	No	Form/Title	Field Inspector
			Pass Fail
<input checked="" type="radio"/>	<input type="radio"/>	NRCC-LTI-01-E - Must be submitted for all buildings	<input type="checkbox"/> <input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCC-LTI-02-E - Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS), to be recognized for compliance.	<input type="checkbox"/> <input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCC-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.	<input type="checkbox"/> <input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCC-LTI-05-E - Must be submitted for a Power Adjustment Factor (PAF) to be recognized for compliance.	<input type="checkbox"/> <input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCC-LTI-06-E - Must be submitted for additional wattage installed in a video conferencing studio to be recognized for compliance.	<input type="checkbox"/> <input type="checkbox"/>

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
<input checked="" type="radio"/>	<input type="radio"/>	NRCC-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	<input type="checkbox"/> <input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCC-LTI-03-A - Must be submitted for automatic daylight controls.	<input type="checkbox"/> <input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCC-LTI-04-A - Must be submitted for demand responsive lighting controls.	<input type="checkbox"/> <input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCC-LTI-05-A - Must be submitted for institutional tuning power adjustment factor (PAF)	<input type="checkbox"/> <input type="checkbox"/>

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003
 Registration Provider: Energysoft
 Report Generated: 2021-01-14 13:31:56

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

CERTIFICATE OF COMPLIANCE
 Project Name: Rodgers Senior Center Site Report Page: (Page 7 of 7)
 Project Address: 1706 Orange Ave Date Prepared: 1/14/2021

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
 I certify that this Certificate of Compliance documentation is accurate and complete.
 Documentation Author Name: Steve R. Zajicek
 Signature Date: 2021-01-14
 Address: 150 Paularino Avenue Suite A120
 City/State/Zip: Costa Mesa California 92626
 Phone: 9498529995

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 building provides to the building owner at occupancy.

Responsible Designer Name: Steve R. Zajicek
 Signature Date: 2021-01-14
 Address: 150 Paularino Avenue Suite A120
 City/State/Zip: Costa Mesa California 92626
 Phone: 9498529995

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003
 Registration Provider: Energysoft
 Report Generated: 2021-01-14 13:31:56

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

CERTIFICATE OF COMPLIANCE
 Project Name: Rodgers Senior Center Site Report Page: (Page 3 of 7)
 Project Address: 1706 Orange Ave Date Prepared: 1/14/2021

F. INDOOR LIGHTING FIXTURE SCHEDULE

F3	F3 - 48" Linear Wrap 4000K	No	No	53	Mfr. Spec	2	No	106		
Total Designed Watts: CONDITIONED SPACES										724

FOOTNOTE: Design Watts for small aperture and color changing luminaires which qualify per §140.6(a)(4) 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.
**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
	Mandatory Demand Response §110.12(c)	Shut-off controls §130.1(c)	Field Inspector
			Pass Fail
	Not Required <= 10,000 SF	See Area/Space Level Controls	<input type="checkbox"/> <input type="checkbox"/>

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003
 Registration Provider: Energysoft
 Report Generated: 2021-01-14 13:31:56

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

CERTIFICATE OF COMPLIANCE
 Project Name: Rodgers Senior Center Site Report Page: (Page 2 of 7)
 Project Address: 1706 Orange Ave Date Prepared: 1/14/2021

H. INDOOR LIGHTING CONTROLS (Not including PAFs)
 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 Light Daylighting §130.1(d)	Secondary Daylighting §140.6(d)	Interlocked Systems §140.6(a)(1)	Field Inspector
								Pass Fail
Meeting Room	Convention, Conference, Multipurpose and Meeting Center Areas	Manual ON/OFF	Dimmer	Occupancy Sensor	Included	Included	No	<input type="checkbox"/> <input type="checkbox"/>
Restroom	Restrooms	Manual ON/OFF	Exempt*	Occupancy Sensor	N/A	N/A	No	<input type="checkbox"/> <input type="checkbox"/>
Janitor Closet	All Other Space Types	Manual ON/OFF	Exempt*	Occupancy Sensor	N/A	N/A	No	<input type="checkbox"/> <input type="checkbox"/>

*NOTES: Controls with 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)

Plan Sheet Showing Daylit Zones:

Restroom Restrooms are exempt from multi-level controls.
 Janitor Closet Janitor closet has a single luminaire, making it exempt from multi-level controls.

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.

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
Meeting Room	Multipurpose Room	0.95	840	798	No No

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003
 Registration Provider: Energysoft
 Report Generated: 2021-01-14 13:31:56

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

CERTIFICATE OF COMPLIANCE
 Project Name: Rodgers Senior Center Site Report Page: (Page 5 of 7)
 Project Address: 1706 Orange Ave Date Prepared: 1/14/2021

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

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
Restroom	Restroom	0.8	134	107.2	No No
Janitor Closet	All Other Space Types	0.4	36	14.4	No No
TOTALS:			1,010	919.6	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.

Q. RATED POWER REDUCTION COMPLIANCE FOR ALTERATIONS
 This section does not apply to this project.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003
 Registration Provider: Energysoft
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STATE OF CALIFORNIA
Indoor Lighting
 NRCC-LTI-E CALIFORNIA ENERGY COMMISSION
 NRCC-LTI-E

CERTIFICATE OF COMPLIANCE
 Project Name: Rodgers Senior Center Site Report Page: (Page 1 of 7)
 Project Address: 1706 Orange Ave Date Prepared: 1/14/2021

A. GENERAL INFORMATION

01 Project Location (city)	Huntington Beach	04 Total Conditioned Floor Area (ft²)	1,010
02 Climate Zone	6	05 Total Unconditioned Floor Area (ft²)	0
03 Occupancy Types Within Project (select all that apply):		06 # of Stories (Habitable Above Grade)	1
<input type="checkbox"/> Office	<input type="checkbox"/> Retail	<input type="checkbox"/> Warehouse	<input type="checkbox"/> Hotel/Motel
<input type="checkbox"/> Parking Garage	<input type="checkbox"/> High-Rise Residential	<input type="checkbox"/> Relocatable	<input type="checkbox"/> Healthcare
		<input checked="" type="checkbox"/> 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), for alterations.

Scope of Work	02	03	04	05
My Project Consists of (check all that apply):	Calculation Method	Area (ft²)	Calculation Method	Area (ft²)
<input type="checkbox"/> New Lighting System				
<input type="checkbox"/> New Lighting System - Parking Garage				
<input checked="" type="checkbox"/> Altered Lighting System	Area Category Method	1010	Area Category Method	0
Total Area of Work (ft²)		1010		0

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
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STATE OF CALIFORNIA
Indoor Lighting
 NRCC-LTI-E CALIFORNIA ENERGY COMMISSION
 NRCC-LTI-E

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	
Complete Building §140.6(c)(1)	Area Category §140.6(c)(2)	Area Category Additional §140.6(c)(2)(1)	Tailored §140.6(c)(3) (+)	Total Allowed (Watts)	Total Designed (Watts)	Adjustments PAF Lighting Control Credits §140.6(a)(2) (-)	Total Adjusted (Watts) *Includes Adjustments	05 must be >= 08	
(See Table I)	(See Table I)	(See Table J)	(See Table K)	= 920	>= 724	= 0	= 724	COMPLIES	
Conditioned	919.6	0	(+)	=	>=	=	=	COMPLIES	
Unconditioned								COMPLIES	

Controls Compliance (See Table H for Details)
 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.

01	02	03	04	05	06	07	08	09	10
Name or Item Tag	Complete Luminaire Description	Modular (Track) Fixture	Small Aperture & Color Change	Watts per luminaire²	How is Wattage determined	Total Number of Luminaires	Excluded per §140.6(a)(3)	Design Watts	Field Inspector
F1	F1 - 2x4 Troffer 3500K	No	No	36	Mfr. Spec	16	No	576	<input type="checkbox"/> <input type="checkbox"/>
F2	F2 - 48" Linear Strip 4000K	No	No	42	Mfr. Spec	1	No	42	<input type="checkbox"/> <input type="checkbox"/>

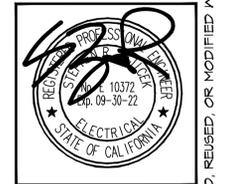
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31591 Camino Capistrano
 San Juan Capistrano, CA 92675
 www.RJMDesignGroup.com
 [949] 493-2690 fax
 [949] 493-2600 phone

CONSULTANT
FBA Engineering
 Consulting Electrical Engineers
 150 Paularino Avenue Suite A120
 Costa Mesa, CA 92626
 949.852.9995 • 949.852.1657 (fax)
 fbaeng.com FBA Job Number: 53040

RODGERS SENIOR CENTER SITE
1706 ORANGE AVENUE
HUNTINGTON BEACH, CA 92647



REVISIONS	DATE

SHEET TITLE
TITLE-24 OUTDOOR

JOB # 079-10
 DESIGNED AS
 DRAWN AS
 CHECKED ZM
 DATE 4/20/2021

SHEET
E-1.04

APPROVED BY:

CHRIS TANID, PRINCIPAL C.E. DATE
 R.C.E. NO. C82756 EXP. DATE: 9/30/22

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

CERTIFICATE OF COMPLIANCE NRCC-LTO-E
 Project Name: Rodgers Senior Center Site Report Page: (Page 6 of 7)
 Project Address: 1706 Orange Ave Date Prepared: 1/14/2021

N. EXISTING CONDITIONS POWER ALLOWANCE (alterations only)
 This section does not apply to this project.

O. 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/NRCC/

Yes	No	Form/Title	Field Inspector
			Pass Fail
<input checked="" type="radio"/>	<input type="radio"/>	NRCC-LTO-01-E - Must be submitted for all buildings	<input type="checkbox"/> <input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCC-LTO-02-E - Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS), to be recognized for compliance.	<input type="checkbox"/> <input type="checkbox"/>

P. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE
 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 must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: <http://www.energy.ca.gov/title24/atspp/providers.html>

Yes	No	Form/Title	Field Inspector
			Pass Fail
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-LTO-02-A - Must be submitted for all outdoor lighting controls except for alterations where controls are added to <= 20 luminaires.	<input type="checkbox"/> <input type="checkbox"/>

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Outdoor Lighting
 NRCC-LTO-E CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRCC-LTO-E
 Project Name: Rodgers Senior Center Site Report Page: (Page 7 of 7)
 Project Address: 1706 Orange Ave Date Prepared: 1/14/2021

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
 I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Steve R. Zajicek
 Signature Date: [Signature]
 Address: 150 Paularino Avenue Suite A120
 City/State/Zip: Costa Mesa California 92626
 Phone: 9498523995

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: Steve R. Zajicek
 Signature Date: 2021-01-14
 Address: 150 Paularino Avenue Suite A120
 City/State/Zip: Costa Mesa California 92626
 Phone: 9498523995

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
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STATE OF CALIFORNIA
Outdoor Lighting
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CERTIFICATE OF COMPLIANCE NRCC-LTO-E
 Project Name: Rodgers Senior Center Site Report Page: (Page 5 of 7)
 Project Address: 1706 Orange Ave Date Prepared: 1/14/2021

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.

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

Area Description	Surface Type	Area Wattage Allowance (AWA)		Area Wattage Allowance (AWA)		Total General AWA + LWA (Watts)
		Illuminated Area (ft²)	Allowed Density (W/ft²)	Perimeter Length (ft)	Allowed Density (W/ft)	
Automotive Hardscape	Asphalt	10620	0.03	265.5	413	368.75
Pedestrian Hardscape	Asphalt	41380	0.03	1034.5	1386	1381
		Initial Wattage Allowance for Entire Site (Watts):				350
						Total General Hardscape Allowance (Watts): 2099.75

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.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003 Schema Version: rev 20200601
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STATE OF CALIFORNIA
Outdoor Lighting
 NRCC-LTO-E CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRCC-LTO-E
 Project Name: Rodgers Senior Center Site Report Page: (Page 6 of 7)
 Project Address: 1706 Orange Ave Date Prepared: 1/14/2021

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)(2), only new luminaires being installed and replacement luminaires being installed as part of the project scope are included (i.e. existing luminaires remaining or existing luminaires being moved are not included).

Designated 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 ¹	Excluded per §140.7(a)	Design Watts	Cutoff Req. > 6,200 initial lumen output §130.2(b) 4	Field Inspector Pass Fail
S1	S1 - Single Head Pole Fixture Type 2	51	Mfr. Spec	7	New	<input type="checkbox"/>	357	NA: < 6200 lumens	<input type="checkbox"/> <input type="checkbox"/>
S1A	S1A - Single Head Pole Fixture Type 3	51	Mfr. Spec	6	New	<input type="checkbox"/>	306	NA: < 6200 lumens	<input type="checkbox"/> <input type="checkbox"/>
S1B	S1B - Single Head Pole Fixture Type 5	51	Mfr. Spec	1	New	<input type="checkbox"/>	51	NA: < 6200 lumens	<input type="checkbox"/> <input type="checkbox"/>
							Total Design Watts: 714		

* 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)
 FOOTNOTES: Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per §130.0(c)
 1 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.
 2 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 Reinstated" for existing luminaires which are being removed and reinstalled as part of the project scope.
 3 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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STATE OF CALIFORNIA
Outdoor Lighting
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CERTIFICATE OF COMPLIANCE NRCC-LTO-E
 Project Name: Rodgers Senior Center Site Report Page: (Page 4 of 7)
 Project Address: 1706 Orange Ave Date Prepared: 1/14/2021

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 unaltered) 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
Pedestrian Path	Astronomical Timer	Yes	Yes	<input type="checkbox"/> <input type="checkbox"/>
Automotive Path	Astronomical Timer	Yes	Yes	<input type="checkbox"/> <input type="checkbox"/>

* 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)

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
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STATE OF CALIFORNIA
Outdoor Lighting
 NRCC-LTO-E CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRCC-LTO-E
 Project Name: Rodgers Senior Center Site Report Page: (Page 5 of 7)
 Project Address: 1706 Orange Ave Date Prepared: 1/14/2021

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.

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

Area Description	Surface Type	Area Wattage Allowance (AWA)		Area Wattage Allowance (AWA)		Total General AWA + LWA (Watts)
		Illuminated Area (ft²)	Allowed Density (W/ft²)	Perimeter Length (ft)	Allowed Density (W/ft)	
Automotive Hardscape	Asphalt	10620	0.03	265.5	413	368.75
Pedestrian Hardscape	Asphalt	41380	0.03	1034.5	1386	1381
		Initial Wattage Allowance for Entire Site (Watts):				350
						Total General Hardscape Allowance (Watts): 2099.75

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.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
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STATE OF CALIFORNIA
Outdoor Lighting
 NRCC-LTO-E CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRCC-LTO-E
 Project Name: Rodgers Senior Center Site Report Page: (Page 1 of 7)
 Project Address: 1706 Orange Ave Date Prepared: 1/14/2021

A. GENERAL INFORMATION

01 Project Location (city)	Huntington Beach	04 Total Illuminated Hardscape Area (ft²)	52000
02 Climate Zone	6		
03 Outdoor Lighting Zone per Title 24 Part 1 §10.114 or as designated by Authority Having Jurisdiction (AHJ):			
<input type="checkbox"/> LZ-0: Very Low - Undeveloped Parkland	<input type="checkbox"/> LZ-2: Moderate - Rural Areas	<input type="checkbox"/> LZ-4: High - Must be reviewed by CA Energy Commission for Approval	
<input type="checkbox"/> LZ-1: Low - Developed Parkland	<input checked="" type="checkbox"/> 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)(2), for alterations.

My Project Consists of:

01	02
<input type="checkbox"/> New Lighting System	Must Comply with Allowances from §140.7
<input checked="" type="checkbox"/> Altered Lighting System	Is your alteration increasing the connected lighting load (Watts)?
	<input checked="" type="radio"/> Yes <input type="radio"/> No
03 % of Existing Luminaires Being Altered ¹	04 Sum Total of Luminaires Being Added or Altered
<input type="checkbox"/> < 10% <input type="checkbox"/> >= 10% and < 50% <input type="checkbox"/> >= 50%	05 Calculation Method

Please proceed to Table F, Outdoor Lighting Fixture Schedule to define the project's luminaires.
 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
Outdoor Lighting
 NRCC-LTO-E CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRCC-LTO-E
 Project Name: Rodgers Senior Center Site Report Page: (Page 2 of 7)
 Project Address: 1706 Orange Ave Date Prepared: 1/14/2021

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)(2)						Compliance Results		
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)(3) (See Table K)	Ornamental §140.7(d)(2) (See Table L)	Per Specific Area §140.7(d)(2) (See Table M)	Existing Power Allowance §141.0(b)(2) (See Table N)	Total Allowed (Watts)	Total Actual (Watts)	07 must be >= 08
2,099.75	---	---	---	---	---	2,099.75	714	COMPLIES
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.
 Photocell On / Timeclock Off

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003 Schema Version: rev 20200601
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STATE OF CALIFORNIA
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CERTIFICATE OF COMPLIANCE NRCC-LTO-E
 Project Name: Rodgers Senior Center Site Report Page: (Page 5 of 7)
 Project Address: 1706 Orange Ave Date Prepared: 1/14/2021

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.

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

Area Description	Surface Type	Area Wattage Allowance (AWA)		Area Wattage Allowance (AWA)		Total General AWA + LWA (Watts)
		Illuminated Area (ft²)	Allowed Density (W/ft²)	Perimeter Length (ft)	Allowed Density (W/ft)	
Automotive Hardscape	Asphalt	10620	0.03	265.5	413	368.75
Pedestrian Hardscape	Asphalt	41380	0.03	1034.5	1386	1381
		Initial Wattage Allowance for Entire Site (Watts):				350
						Total General Hardscape Allowance (Watts): 2099.75

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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RJM DESIGN GROUP
 31591 Camino Capistrano
 San Juan Capistrano, CA 92675
 www.RJMdesigngroup.com
 (949) 493-2690 fax
 (949) 493-2600 phone

CONSULTANT
FBA Engineering
 Consulting Electrical Engineers
 150 Paularino Avenue Suite A120
 Costa Mesa, CA 92626
 949.852.3995 • 949.852.1657 (fax)
 fbaeng.com FBA Job Number: 53040

RODGERS SENIOR CENTER SITE
 1706 ORANGE AVENUE
 HUNTINGTON BEACH, CA 92647



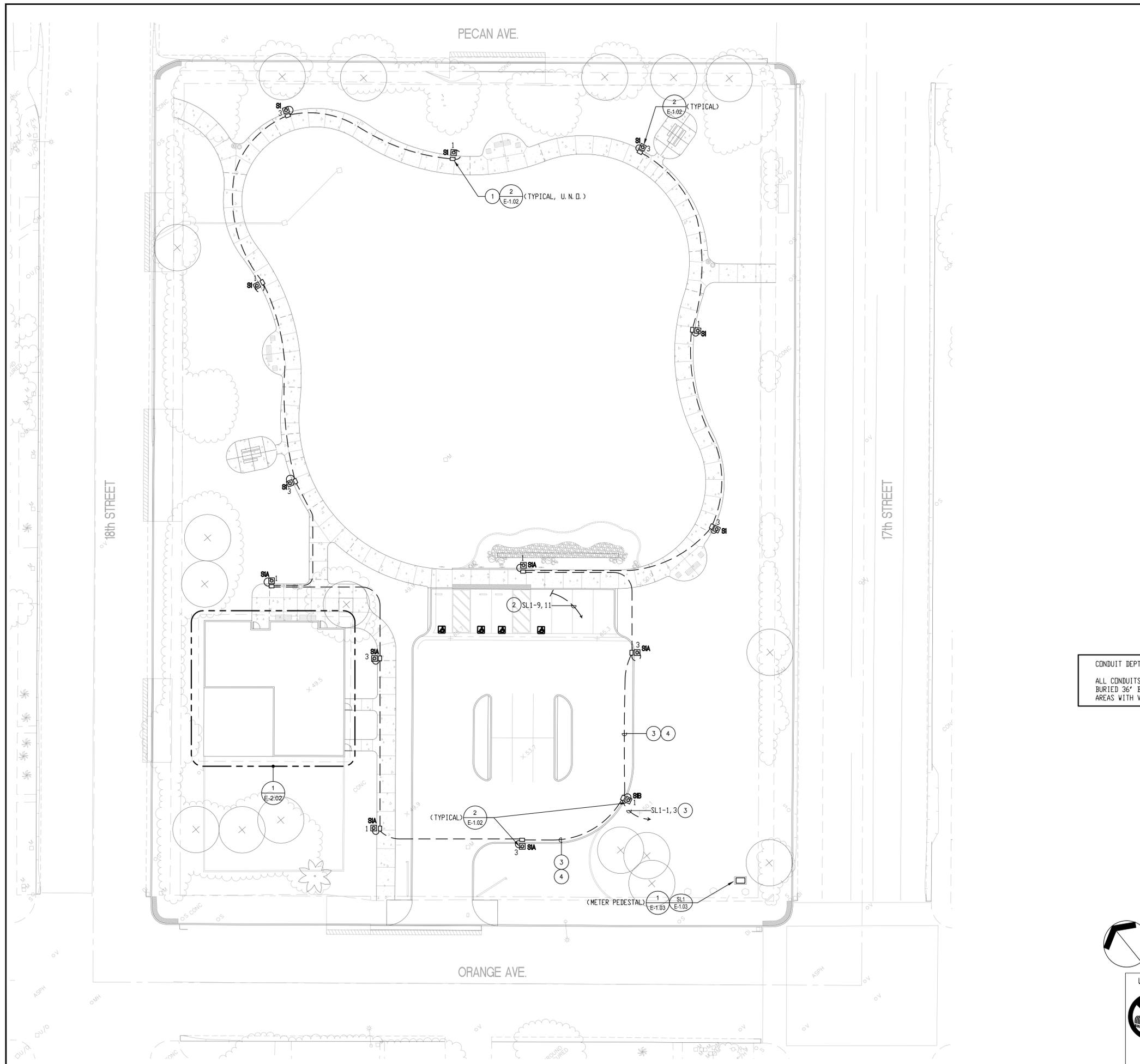
REVISIONS	DATE

SHEET TITLE
 TITLE-24
 INDOOR

JOB #	079-10
DESIGNED	AS
DRAWN	AS
CHECKED	ZM
DATE	4/20/2021

CITY OF HUNTINGTON BEACH
 DEPARTMENT OF PUBLIC WORKS

SHEET
 E-1.05



PLAN NOTES

- 1 PULL BOX LOCATED IN HARDSCAPE. LABEL LID "LIGHTING". COORDINATE LOCATION IN HARDSCAPE WITH LANDSCAPE ARCHITECT.
- 2 1" C.-2#8, 1#8 GRD. IN ADDITION TO POWER CONDUIT, PROVIDE (1) 3/4" C.O. FROM EV LOCATION TO TELEPHONE BACKBOARD IN MPOE CABINET "TC1". CAP & MARK CONDUITS FOR FUTURE EXTENSION TO EV CHARGER.
- 3 3/4" C.-4#12, 1#12 GRD.
- 4 CONTINUE CONDUIT AND CONDUCTORS THROUGH REST OF BRANCH CIRCUIT RUN UNLESS NOTED OTHERWISE.

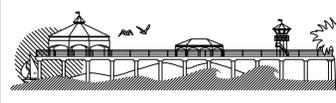
GENERAL NOTES

1. PULL BOXES SET IN UNIMPROVED AREAS SHALL HAVE A 10' MDW STRIP PLACED AROUND THEM.
2. ALL NEW ELECTRICAL PULL BOXES AND LIDS SHALL BE CHRISTY FIBERLYTE OR CITY APPROVED EQUAL.
3. ALL CONDUIT RUNS SHALL BE ROUTED UNDER SIDEWALK WHERE POSSIBLE.
4. CONTRACTOR TO POTHOLE AND VERIFY LOCATIONS OF ALL EXISTING UTILITIES AND RELOCATE TO AVOID PROPOSED IMPROVEMENT AS NEEDED.

CONDUIT DEPTH NOTE:
 ALL CONDUITS INSTALLED IN NON-VEHICULAR TRAFFIC AREAS SHALL BE BURIED 36" BELOW FINISH GRADE AND 36" BELOW FINISH GRADE IN AREAS WITH VEHICULAR TRAFFIC.

UNDERGROUND SERVICE ALERT
 CALL: 811
 TWO WORKING DAYS BEFORE YOU DIG

APPROVED BY:
 CHRIS TANIO, PRINCIPAL C.E. DATE
 R.C.E. NO. C82756 EXP. DATE: 9/30/22



CITY OF HUNTINGTON BEACH
 DEPARTMENT OF PUBLIC WORKS



31591 Camino Capistrano
 San Juan Capistrano, CA 92675
 www.RJMdesigngroup.com
 (949) 493-2690 fax
 (949) 493-2600 phone

CONSULTANT
FBA Engineering
 Consulting Electrical Engineers
 150 Plurifino Avenue Suite A120
 Costa Mesa, CA 92626
 (949) 832-9950 • (949) 832-1857 (fax)
 fbaengr.com
 FBA Job Number: 535040

RODGERS SENIOR CENTER SITE
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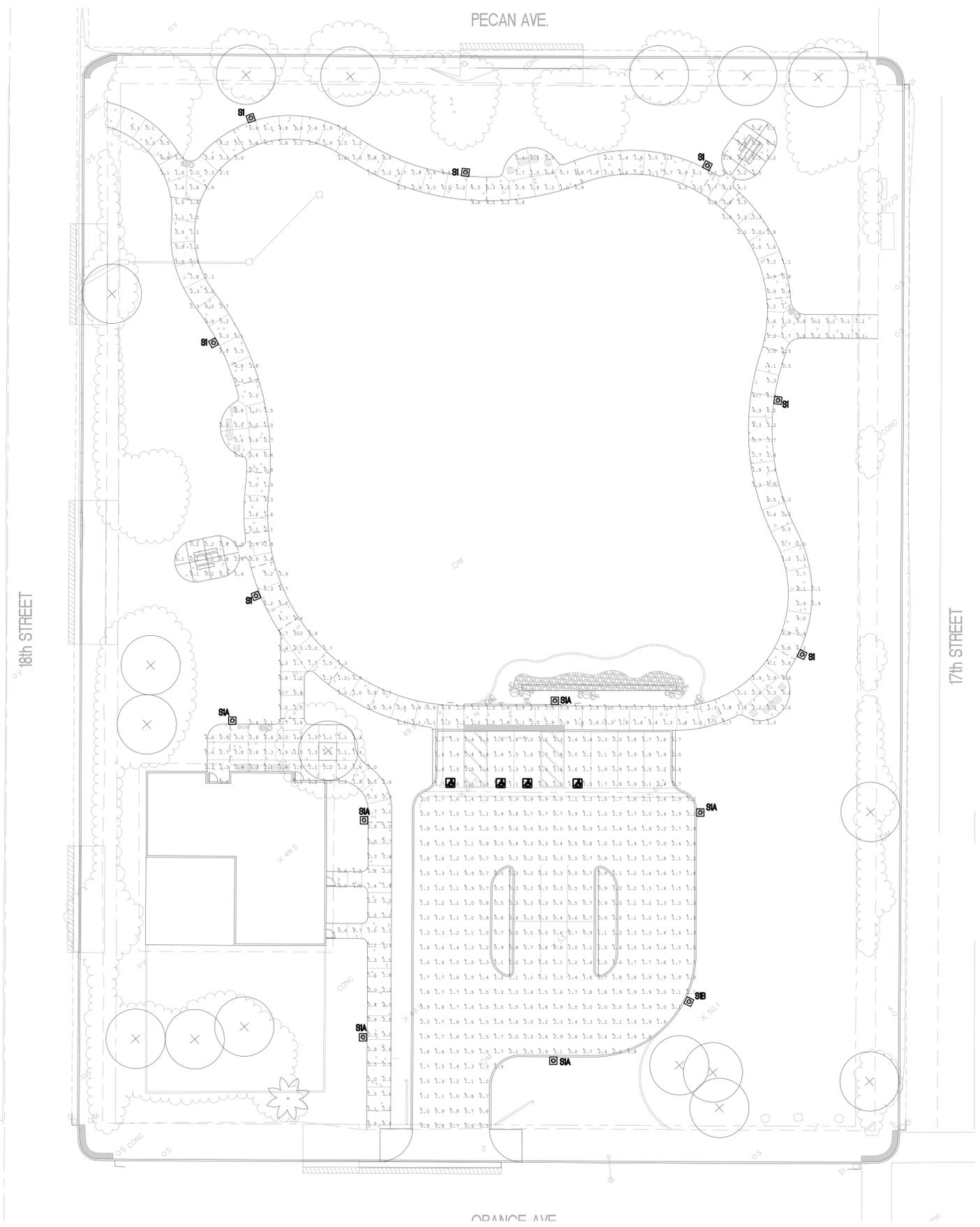


REVISIONS	DATE

SHEET TITLE
SITE ELECTRICAL PLAN

JOB #	878-10
DESIGNED AS	AS
DRAWN AS	AS
CHECKED ZM	
DATE	5/25/2021

SHEET
E-2.01



Calculation Summary						
Label	CalcType	Units	Avg	Max	Min	Avg/Min
PARKING LOT	Illuminance	Fc	1.41	3.2	0.2	7.05
WALKWAY	Illuminance	Fc	2.11	6.4	0.1	21.10

UNDERGROUND SERVICE ALERT
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 TWO WORKING DAYS BEFORE YOU DIG

APPROVED BY:
 CHRIS TANIO, PRINCIPAL C.E. DATE: 9/30/22
 R.C.E. NO. C82756 EXP. DATE: 9/30/22



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31591 Camino Capistrano
 San Juan Capistrano, CA 92675
 www.RJMdesigngroup.com
 (949) 493-2690 fax
 (949) 493-2600 phone

CONSULTANT
FBA Engineering
 Consulting Electrical Engineers
 150 Placentino Avenue Suite A120
 Costa Mesa, CA 92626
 (949) 832-9950 • (949) 832-1857 fax
 fbaengr.com
 FBA Job Number: 535040

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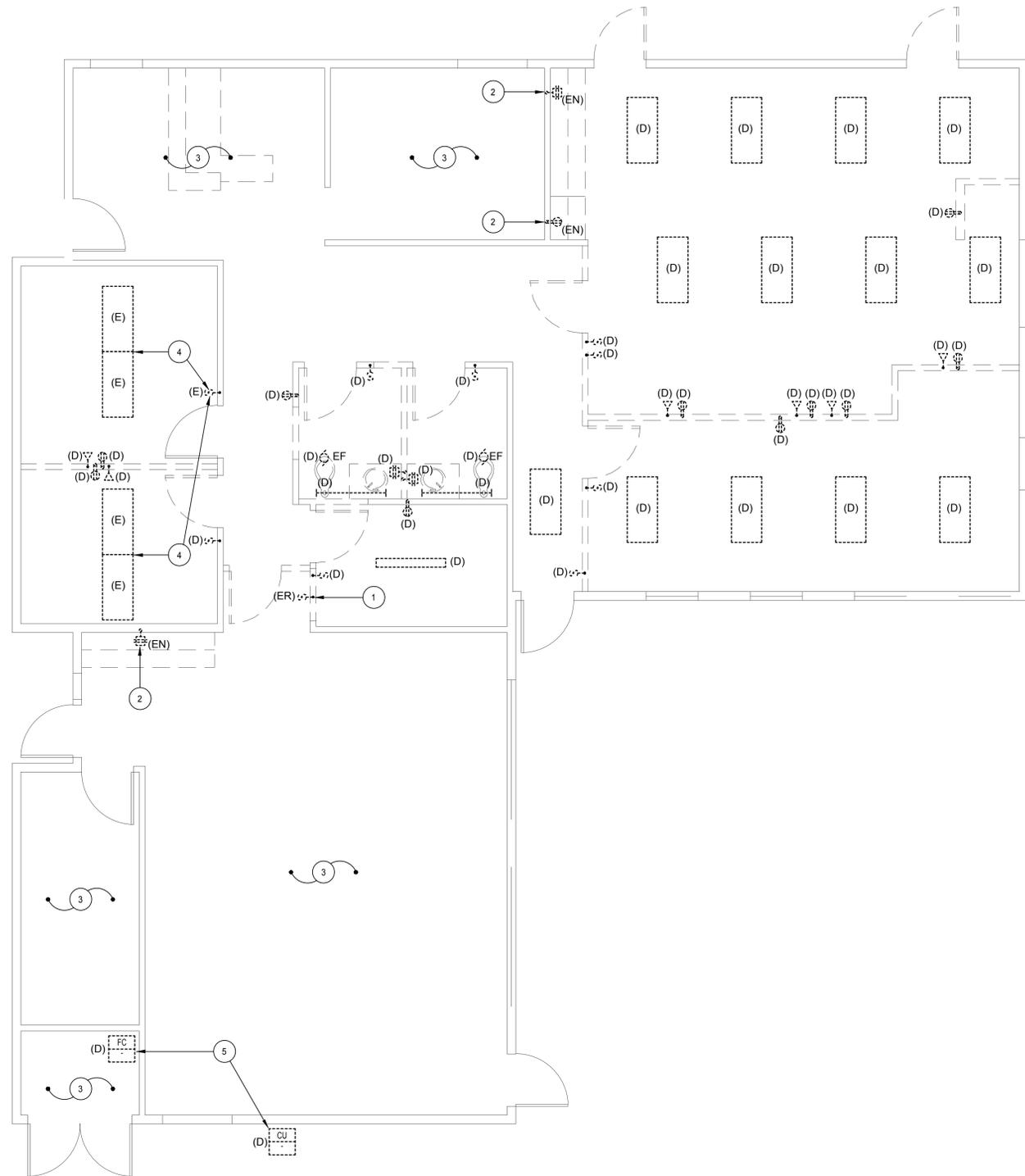


REVISIONS	DATE

SHEET TITLE
LIGHTING PHOTO-METRIC CALC.

JOB #	878-10
DESIGNED AS	AS
DRAWN AS	AS
CHECKED ZM	
DATE	5/25/2021

SHEET
E-2.01A



PLAN NOTES:

- 1 RELOCATE EXISTING DEVICE TO NEW WALL. REFER TO E-2.04 FOR NEW LOCATION.
- 2 EXISTING DEVICE TO BE REPLACED WITH NEW DEVICE. REFER TO E-2.03.
- 3 EXISTING ELECTRICAL TO REMAIN, UNLESS NOTED OTHERWISE.
- 4 EXISTING LIGHTS TO REMAIN AND BE CONNECTED TO SINGLE EXISTING SWITCH.
- 5 DEMOLISH EXISTING ELECTRICAL CONNECTIONS TO EXISTING MECHANICAL UNITS. FIELD VERIFY REQUIREMENTS.

DEMOLITION NOTES:

1. REFER TO ARCHITECTURAL WALL DEMOLITION DRAWINGS INCLUDED FOR DEMOLITION AREAS, AND EXISTING WALLS. THE SCOPE OF THE DEMOLITION WORK SHALL INCLUDE ALL LABOR, MATERIALS, SERVICES AND EQUIPMENT REQUIRED FOR THE REMOVAL OF ALL EXISTING ELECTRICAL REQUIRED TO CLEAR WALLS AND CEILINGS TO BE REMOVED. THIS WORK INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING:
 - A. ALL EXISTING WIRE SHALL BE REMOVED FROM CONDUIT.
 - B. ALL EXISTING CONDUIT, THAT INTERFERES WITH ANY NEW CONSTRUCTION SHALL BE CUT BACK AS REQUIRED TO CLEAR NEW CONSTRUCTION.
 - C. FOR EXISTING CONSTRUCTION THAT IS TO BE REMOVED REMOVE ALL EXISTING EXPOSED, SURFACE, AND CONCEALED CONDUIT AND RACEWAYS. RECONNECT OUTLETS AND LIGHTING FIXTURES THAT REMAIN AND WHICH ARE NOW FED THROUGH THE OUTLETS TO BE REMOVED.
 - D. FOR MECHANICAL AND PLUMBING EQUIPMENT BEING REMOVED REMOVE ALL EXPOSED CONDUIT WIRE, OUTLETS, DISCONNECT SWITCHES AND ELECTRICAL MOUNTING HARDWARE. PROVIDE WEATHERPROOF CAPS ON ALL CONDUIT PENETRATING ROOF AND ABANDON CONDUIT. REPAIR ROOFING DAMAGED BY REMOVAL OF EXISTING ELECTRICAL.
 - E. LIGHT FIXTURES AND ELECTRICAL DEVICES INDICATED TO BE REMOVED AND REINSTALLED SHALL BE REMOVED AND PROPERLY STORED TO PROTECT FROM DAMAGE UNTIL SUCH TIME THAT IT IS REINSTALLED. ALL FIXTURES TO BE REINSTALLED SHALL BE FULLY OPERABLE AND SHALL FIRST BE CLEANED, RELAMPED, DEFECTIVE BALLASTS REPLACED AND CRACKED OR BROKEN DIFFUSERS/LENSES REPLACED.
 - F. ALL REMOVED MATERIALS AND EQUIPMENT WHICH IN THE OPINION OF THE OWNER'S REPRESENTATIVE ARE SALVAGEABLE, SHALL REMAIN THE PROPERTY OF OWNER. DELIVER SUCH SALVAGED MATERIALS AND EQUIPMENT ON PREMISES AS DIRECTED, AND NEATLY PILE OR STORE THEM AND PROTECT FROM DAMAGE.
 - G. DO NOT REUSE SALVAGED MATERIALS AND EQUIPMENT, UNLESS SPECIFICALLY INDICATED ON PLANS OR SPECIFIED. REMOVE FROM PREMISES AND DISPOSE OF ALL MATERIALS CONSIDERED BY ARCHITECT TO BE SCRAP.



ELECTRICAL DEMOLITION PLAN

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

APPROVED BY:	
CHRIS TANIG, PRINCIPAL C.E.	DATE
R.C.E. NO. C82756	EXP. DATE: 9/30/22
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 San Juan Capistrano, CA 92675
 www.RJMdesigngroup.com
 [949] 493-2690 fax
 [949] 493-2600 phone

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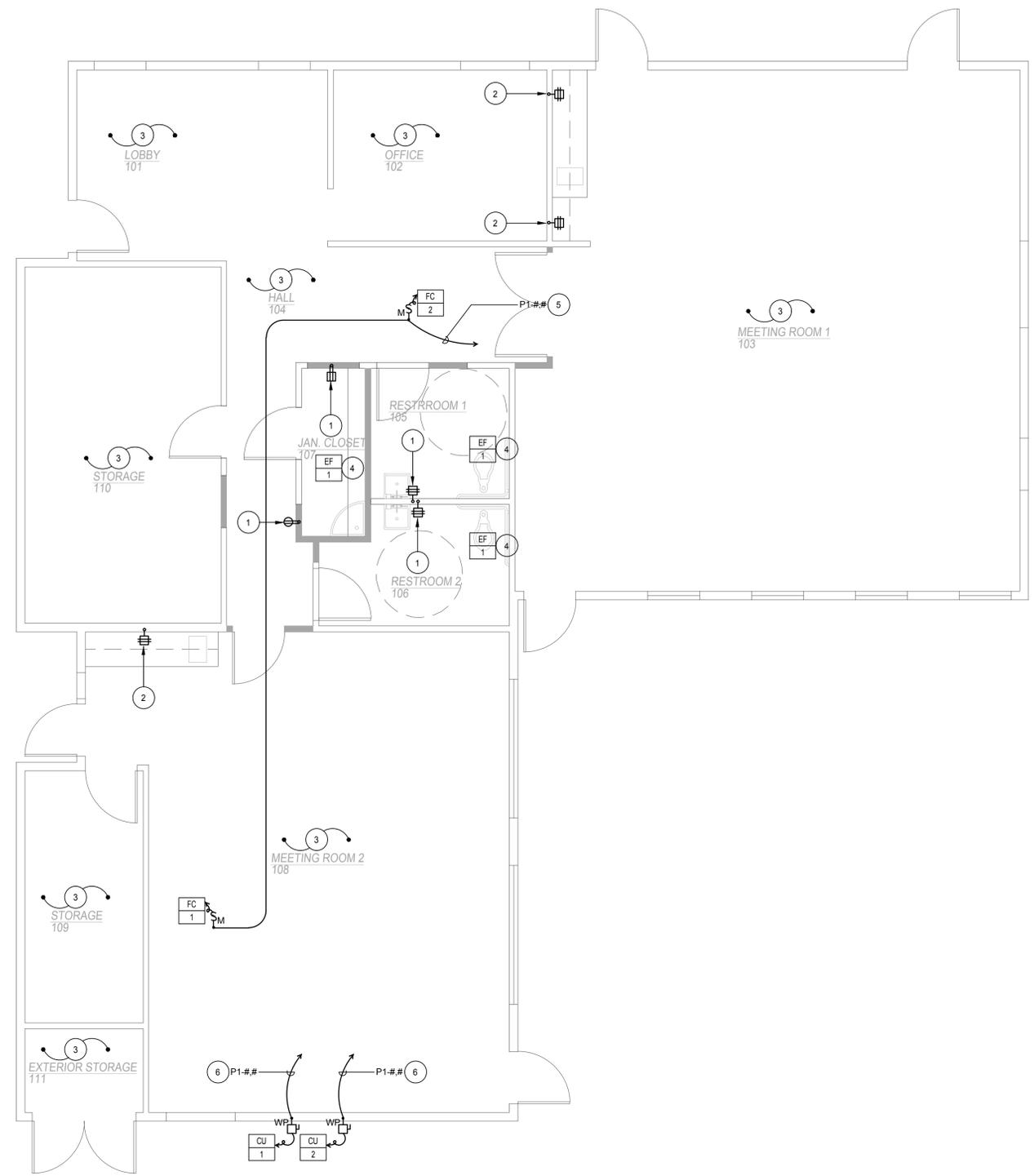
ELECTRICAL
DEMOLITION
PLAN

JOB #	878-10
DESIGNED AS	AS
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DATE	4/20/2021

SHEET

E-2.02

FBA Engineering / Plot Date: 4/20/2021 8:41 AM / Plotted by: Steve Roth / Drawing Location: I:\535040\E-2.03-E-2.04_535040.dwg



PLAN NOTES:

- 1 CONNECT NEW DEVICE TO EXISTING CIRCUIT.
- 2 NEW DEVICE TO REPLACE EXISTING DEVICE AT EXISTING LOCATION.
- 3 EXISTING ELECTRICAL TO REMAIN, UNLESS NOTED OTHERWISE ON DEMOLITION PLAN E-2.02.
- 4 CONNECT TO ROOM LIGHTING CIRCUIT AND INTERLOCK WITH LIGHTING CONTROLS.
- 5 3/4"C.-2#12, 1#12 GRD. PROVIDE NEW 20/2P BREAKER IN EXISTING PANEL AND LABEL CIRCUIT " FANCOIL 1 & 2". NEW BREAKER TO MATCH EXISTING TYPE AND A.I.C. RATING.
- 6 3/4"C.-2#8, 1#8 GRD. PROVIDE NEW 40/2P BREAKER IN EXISTING PANEL AND LABEL CIRCUIT " CONDENSOR UNIT". NEW BREAKER TO MATCH EXISTING TYPE AND A.I.C. RATING.

GENERAL NOTES:

1. FOR CLARITY, BRANCH CIRCUIT CONDUIT & CONDUCTOR REQUIREMENTS HAVE NOT BEEN SHOWN ON PLANS FOR POWER BRANCH CIRCUITS. FOR POWER THROUGHOUT ALL SPACES, PROVIDE CONDUIT AND CONDUCTORS IN ACCORDANCE WITH SPECIFICATIONS. MINIMUM CONDUCTOR SIZE SHALL BE #12 Cu.



POWER AND SIGNAL PLAN

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



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San Juan Capistrano, CA 92675
www.RJMdesigngroup.com
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[949] 493-2600 phone

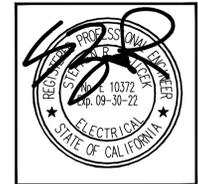
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150 Pavilano Avenue Suite A120
Costa Mesa, CA 92626
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POWER & SIGNAL PLAN

JOB #	878-10
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APPROVED BY:

CHRIS TANIG, PRINCIPAL C.E. DATE
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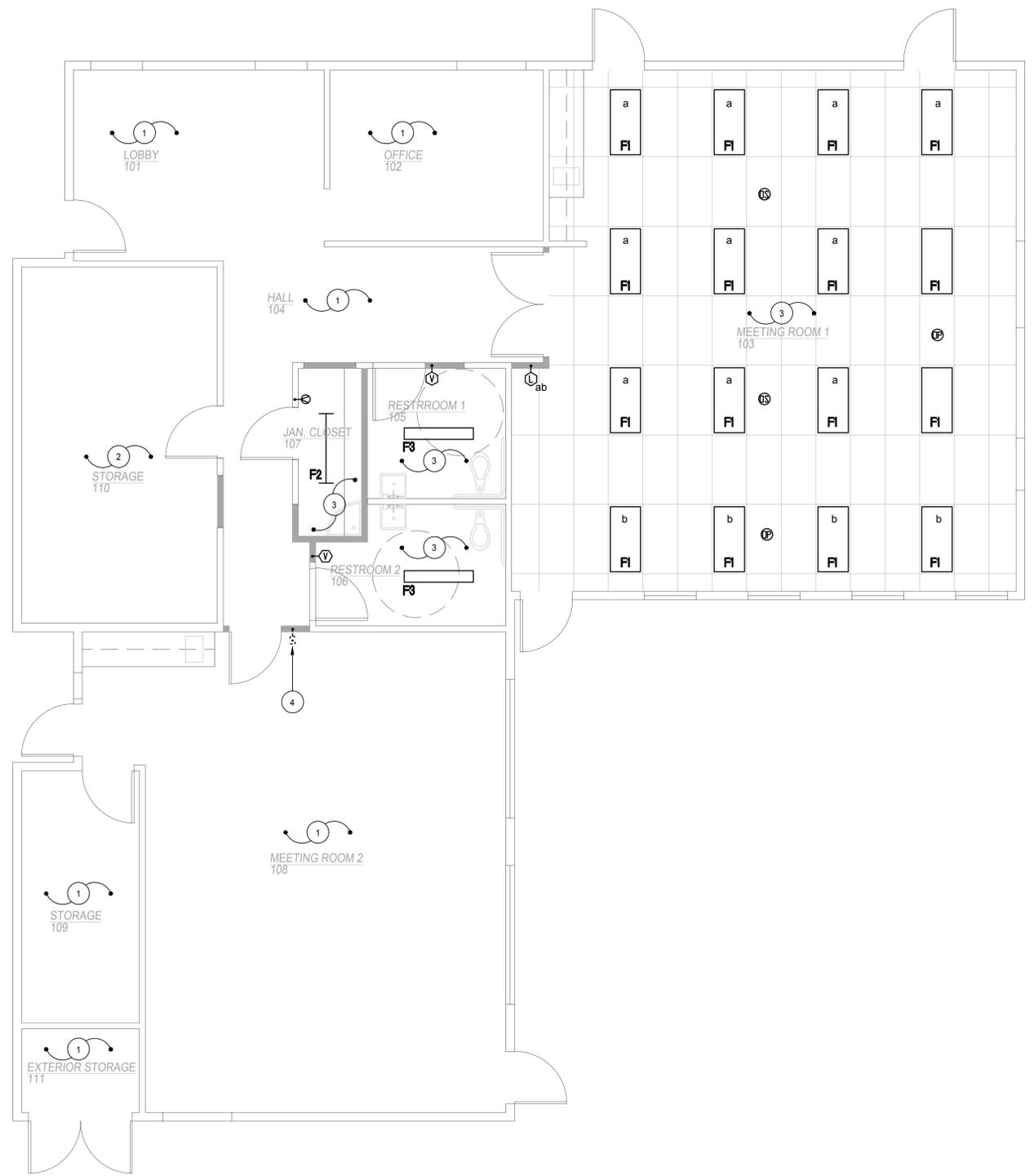
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SHEET

E-2.03

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FBA Engineering / Plot Date: 4/20/2021 8:41 AM / Plotted by: Steve Roth / Drawing Location: I:\535040\E-2.02-E-2.04_535040.dwg



PLAN NOTES:

- 1 EXISTING LIGHTING AND CONTROLS TO REMAIN.
- 2 EXISTING LIGHTS TO REMAIN AND BE SHALL BE CONNECTED TO A SINGLE EXISTING CONTROL DEVICE AT REMAINING DOOR.
- 3 CONNECT NEW LIGHT FIXTURES TO EXISTING LIGHTING CIRCUIT.
- 4 NEW LOCATION OF EXISTING LIGHT SWITCH. SEE E-2.02 FOR ADDITIONAL INFORMATION.

GENERAL NOTES:

- REFER TO LIGHTING CONTROL DIAGRAM(S) ON E-1.02A FOR ADDITIONAL INFORMATION.
- FOR CLARITY, BRANCH CIRCUIT CONDUIT & CONDUCTOR REQUIREMENTS HAVE NOT BEEN SHOWN ON PLANS FOR LIGHTING BRANCH CIRCUITS. FOR LIGHTING THROUGHOUT ALL SPACES, PROVIDE CONDUIT AND CONDUCTORS IN ACCORDANCE WITH SPECIFICATIONS. MINIMUM CONDUCTOR SIZE SHALL BE #12 Cu.

APPROVED BY:
 CHRIS TANIG, PRINCIPAL C.E. DATE 9/30/22
 R.C.E. NO. C82756 EXP. DATE: 9/30/22



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 San Juan Capistrano, CA 92675
 www.RJMDesignGroup.com
 (949) 493-2690 fax
 (949) 493-2600 phone

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SHEET TITLE
LIGHTING PLAN

JOB #	878-10
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E-2.04

LIGHTING PLAN

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

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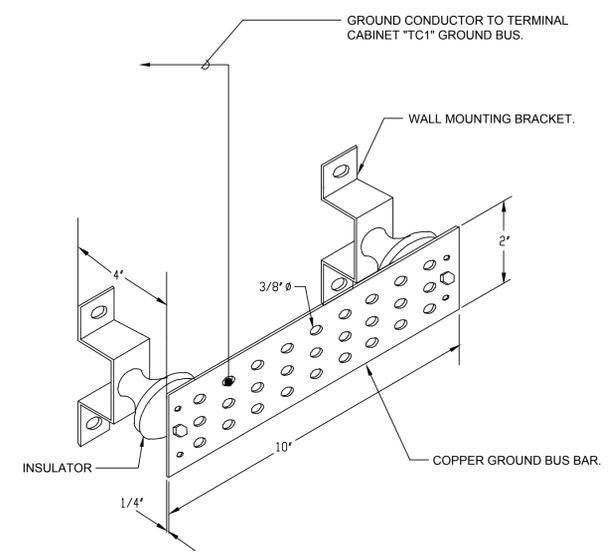
SHEET TITLE
SITE DRY UTILITY PLAN

JOB #	878-10
DESIGNED AS	AS
DRAWN AS	AS
CHECKED ZM	
DATE	4/20/2022

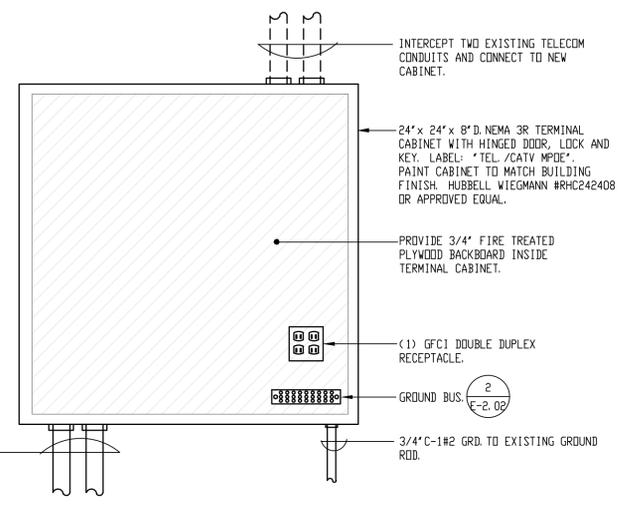
SHEET
E-3.01

- ### GENERAL NOTES
- PULL BOXES SET IN UNIMPROVED AREAS SHALL HAVE A 10' MDW STRIP PLACED AROUND THEM.
 - ALL NEW ELECTRICAL PULL BOXES AND LIDS SHALL BE CHRISTY FIBERLYTE OR CITY APPROVED EQUAL.
 - CONTRACTOR TO POthOLE AND VERIFY LOCATIONS OF ALL EXISTING UTILITIES AND RELOCATE TO AVOID PROPOSED IMPROVEMENT AS NEEDED.

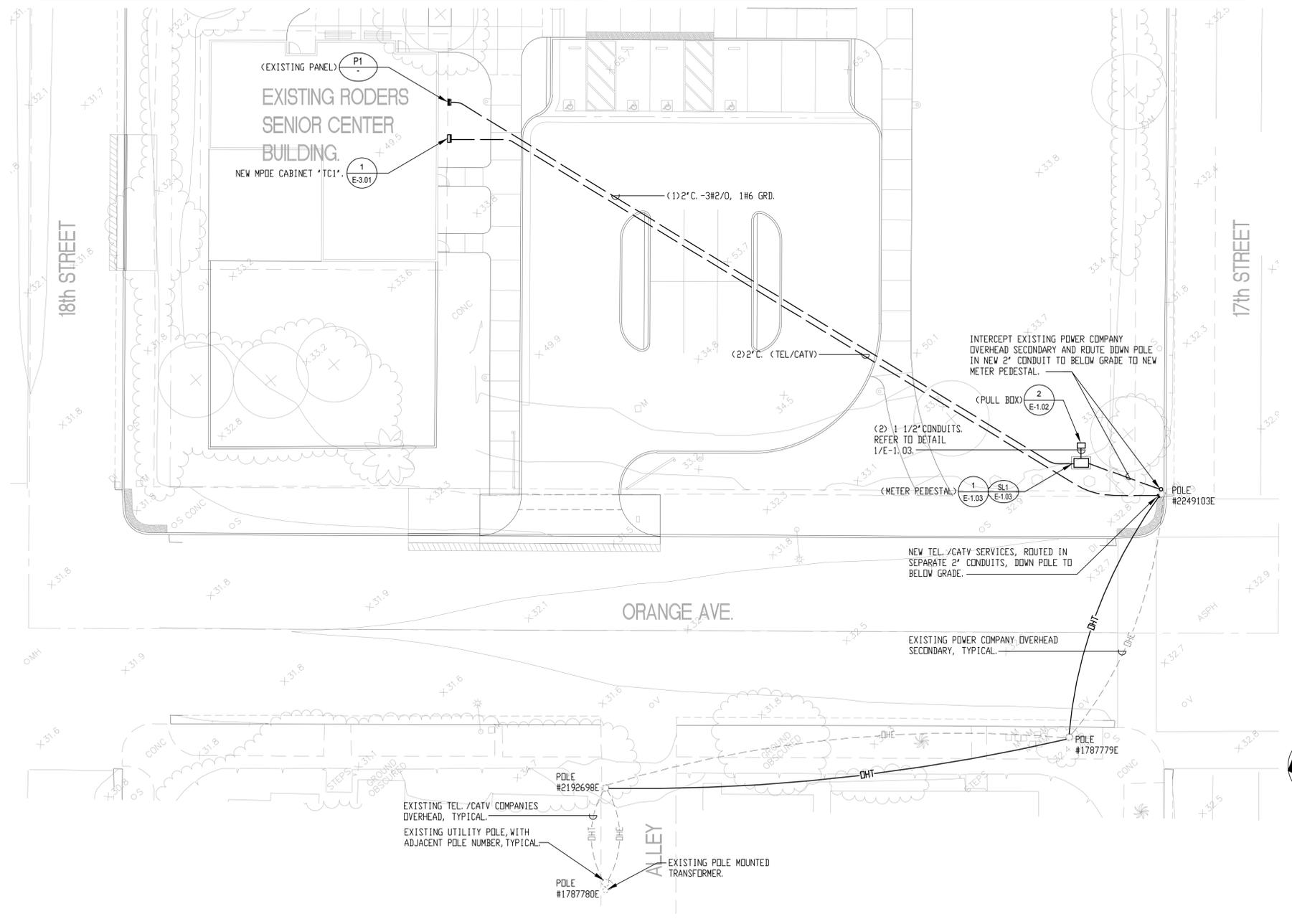
CONDUIT DEPTH NOTE:
ALL CONDUITS INSTALLED IN NON-VEHICULAR TRAFFIC AREAS SHALL BE BURIED 36" BELOW FINISH GRADE AND 36" BELOW FINISH GRADE IN AREAS WITH VEHICULAR TRAFFIC.



TEL./CATV BACKBOARD GROUND BUS DETAIL 2



TEL./CATV MPOE CABINET "TC1" 1



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