

phase II bid documents for:
THE PARK AT RISPIN MANSION
 CITY OF CAPITOLA
 WHARF ROAD AND CLARES STREET

February 22, 2023

vicinity map



project area



Clares Street and Wharf Road

project contact information

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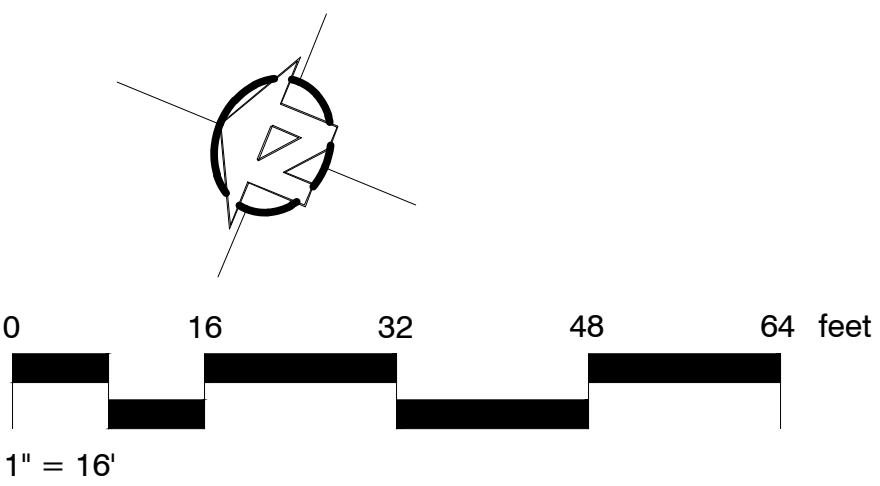
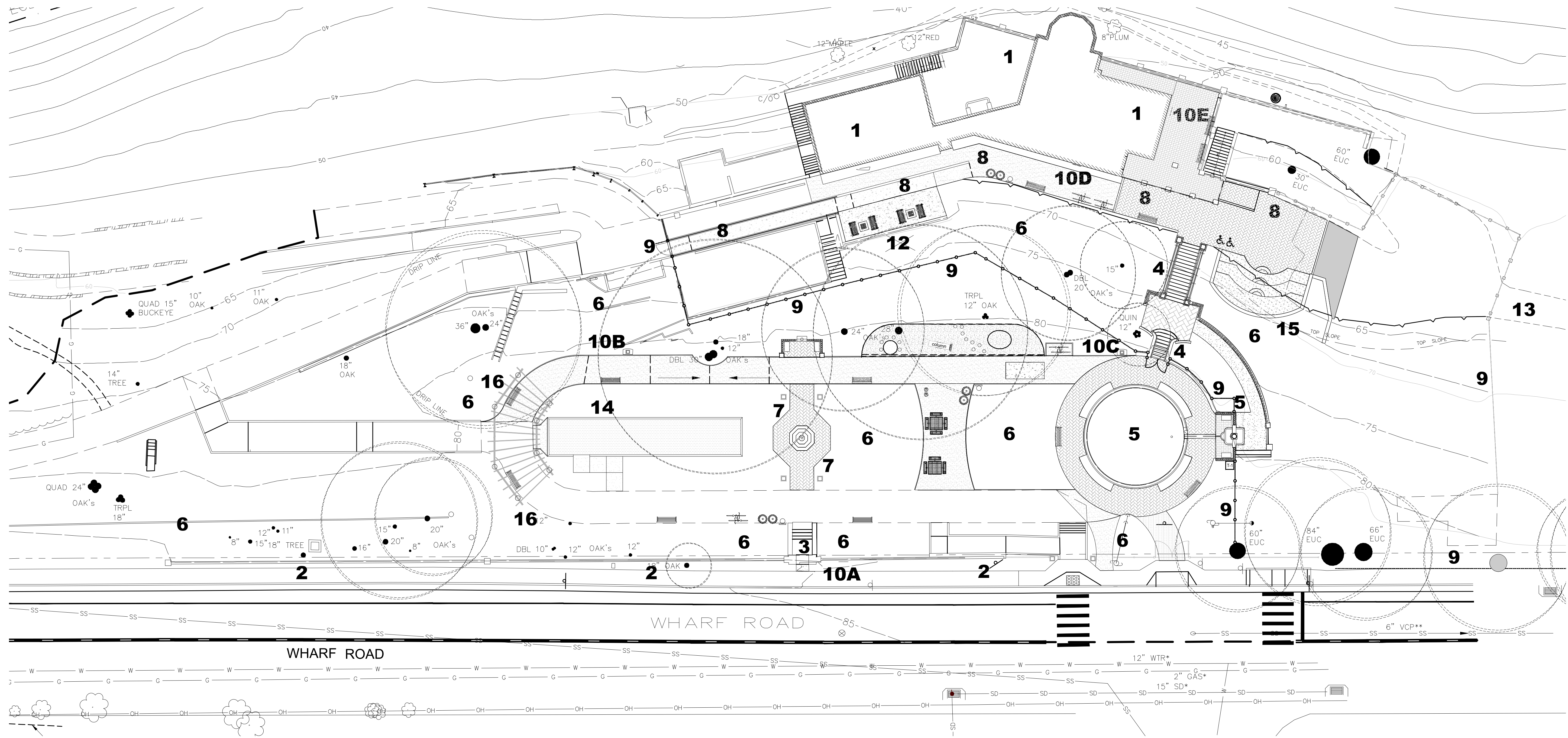
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sheet index

	CS	cover sheet
	L1.0	site plan and phasing plan
revised	L1.1	hardscape plan and site furnishings
revised	L1.2	hardscape layout south end
revised	L1.3	hardscape layout north end
	L1.4	Wharf Road wall details
	L1.5	wall fountain details
	L1.6	grand staircase and fence details
revised	L1.7	entry gate, arbor, overlook and sundial details
	L1.8	amphitheater and sculpture pedestal details
revised	L1.9	site furnishing photos and sign detail
	L1.10	lighting and fencing plan
	L1.11	nature play, bocce ball plan & details
	L2.0	tree protection plan
	L2.1	planting plan for south end
	L2.2	planting plan for north end
revised	L2.3	planting notes and details
	L3.0	irrigation plan for south end
	L3.1	irrigation plan for north end
revised	L3.2	irrigation legend, notes & details
	WF1.01	water feature notes and symbols
	WF1.02	water feature notes and symbols
	WF1.03	water feature notes and symbols
	WF2.01	water feature details
	C0.0	General Notes & Specifications
	C1.0	Site Plan
	C1.1	Details
	C1.2	City of Capitola & Caltrans Details
	C1.3	Site Sections & Profiles
	C1.4	Ramp Sections
	C2.0	Grading Plan
	C3.0	Drainage Plan
	C4.0	Stormwater Control Plan
	C5.0	Erosion & Sediment Control Plan
	C5.1	Erosion & Sediment Control Details
	S1.1	General Notes / Typical Details
	S2.1	Foundation and Framing Plans
	S3.1	Details
	S3.2	Details
	E1.0	Symbols & Abbreviations
	E1.1.	Electrical Specification
	E.1.2	Outdoor Title 24
	E2.0	Site Plan
	E2.1	Partial Site Plan
	E2.2	Partial Site Plan
	E3.0	Single Line Diagram
	E4.0	Electrical Details



THE PARK AT RISPIN MANSION
Wharf Road and Clares Street
Capitola, California



- EXISTING FEATURES AND PROPOSED AMENITIES**
(N) denotes new element
(H) denotes existing element found on site
1. RISPIN MANSION BUILDING (H)
 2. WHARF ROAD WALL(H)
 3. WHARF ROAD ENTRY STEPS(H)
 4. GRAND STAIRCASE AND BALUSTRADE (H)
 5. FOUNTAIN AND REFLECTION POOL (H)
 6. PLANTS AND LANDSCAPE (N)
 7. SUNDIAL (H) AND SCULPTURE GARDEN (N)
 8. UNIVERSAL ACCESS PATH OF TRAVEL (N)
 9. FENCING AND GATES (N)
 10. SIGNAGE (N)
 11. IMPROVE STRIPING AND CROSSWALKS AT CLARES/WHARF ROAD INTERSECTION (N)
 12. MURAL ON CONCRETE WALL OF SAINT CLARES BUILDING(N)
 13. INFORMAL SERVICE DRIVE/PEDESTRIAN PATH FROM MANSION TERRACE TO SOUTH ENTRANCE AT WHARF ROAD (H)
 14. BOCCIE BALL COURT (N)
 15. AMPHITHEATER (N)
 16. ARBOR (H)

Summary of Historic Elements found on Rispin Site and Proposed Renovations

Discussion of Intent.
The project goals for Rispin Park are to create a community park that provides passive recreation and focuses on the cultural, historical, and open space resources that are unique to the Rispin Mansion Site. The intent of the restoration is to provide examples of the architectural style of the mansion and to create a public awareness of the significance of the Mansion building and grounds as part of the history of the City of Capitola. It should be stated that the park is not intended to be an exact replication of the mansion grounds during the time it was the residence of Henry Rispin. A summary of the existing historic elements and the proposed modifications are explained below and noted on the Site Plan.

Wharf Road Wall, Entry Arch and Entry Staircase:

- Portions of the Existing wall along Wharf Road will remain unchanged, while some sections of the existing wall height will be reduced to 30' with a 30" decorative metal fence on top. One portion of the wall at the southern end of the road frontage will be removed to allow a new universally accessible entrance to the park. The section to be removed will incorporate a new column to match the existing last column at the southern terminus of the wall. Bollards and metal fencing will be added to the new park entrance.
- Steps and side walls of the staircase at the entry will be rebuilt and repaired. The Arch and side walls will be painted to match the Mansion.
- Existing wood gate to be removed and stored for display with other artifacts

Arbor:

- New columns will match historic columns found on site in height and architectural detail.
- Spacing of columns and location will be changed to accommodate new universally accessible path, and mature oaks on site.
- New vine species compatible with native oaks will be selected.

Sundial:

- Existing sundial base will remain in its present location. Pedestal will be rebuilt according to archive photographs. New, contemporary sundial/compass will be chosen, no archive photos are available that show the sundial piece.

Overlook:

- Existing overlook columns and base wall to remain. All caps and balustrades to be rebuilt according to archive photographs and existing artifacts on-site.
- New benches in same location as historical shown in archive photographs, architectural details not discernable in photos. New benches will be simple without ornamentation.

Reflecting Pool:

- Existing location and size of pool will remain unchanged. Depth of pool will be reduced to maximum of 6 inches. Repairs will be made to coping, pool sides and bottom. Plumbing and bottom of pool will be retrofitted to incorporate rainwater harvesting system.
- Brick path around pool will be installed, consistent with archive photos.
- New sculpture in center of pool will replace water feature(s) shown in archive photos. New sculpture will be distinctly different in style than those of the Rispin period.
- A tile mosaic is proposed for the bottom of the fountain. Mosaic will be commissioned by Capitola Arts Commission.

Wall Fountain and Lower Sitting Area behind Wall Fountain:

- Existing fountain will be repaired to working condition. Missing parts will be reconstructed using archive photographs and site artifacts.
- Urn will be selected to match historic using archive photographs.
- New fountain spout will be selected, historical fountain spout style not discernable in photos. New fountain spout will be simple without ornamentation.
- Lower seating area behind fountain and balustrade wall from grand staircase will be repaired according to archive photographs and existing artifacts on-site. Pathway from brick landing to seating area will be rebuilt.

Grand Staircase:

- All walls, columns, column caps, brick landings, to be repaired according to archive photographs and existing artifacts on-site. Steps to be rebuilt.
- A new metal handrail as per code will be added on each side, mounted in ground outside of cheek wall.

Miscellaneous Garden Features

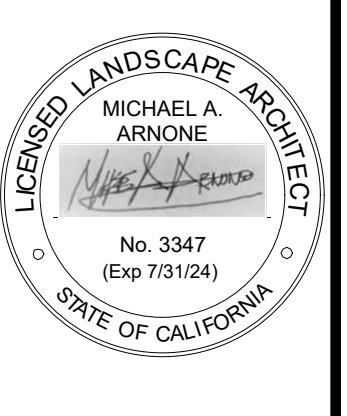
- 12" high concrete wall along old walkway at northwest corner of park to remain.
- Rock fossil walls by staircase to remain.
- Stone wall at north end of park by new ramp to remain.
- Existing 18" wide red concrete steps north of arbor to remain; add handrail as per code
- Existing 4' wide concrete steps by Game Table area to remain; add chain barricade and sign to close off

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REVISIONS



SITE PLAN & PHASING PLAN

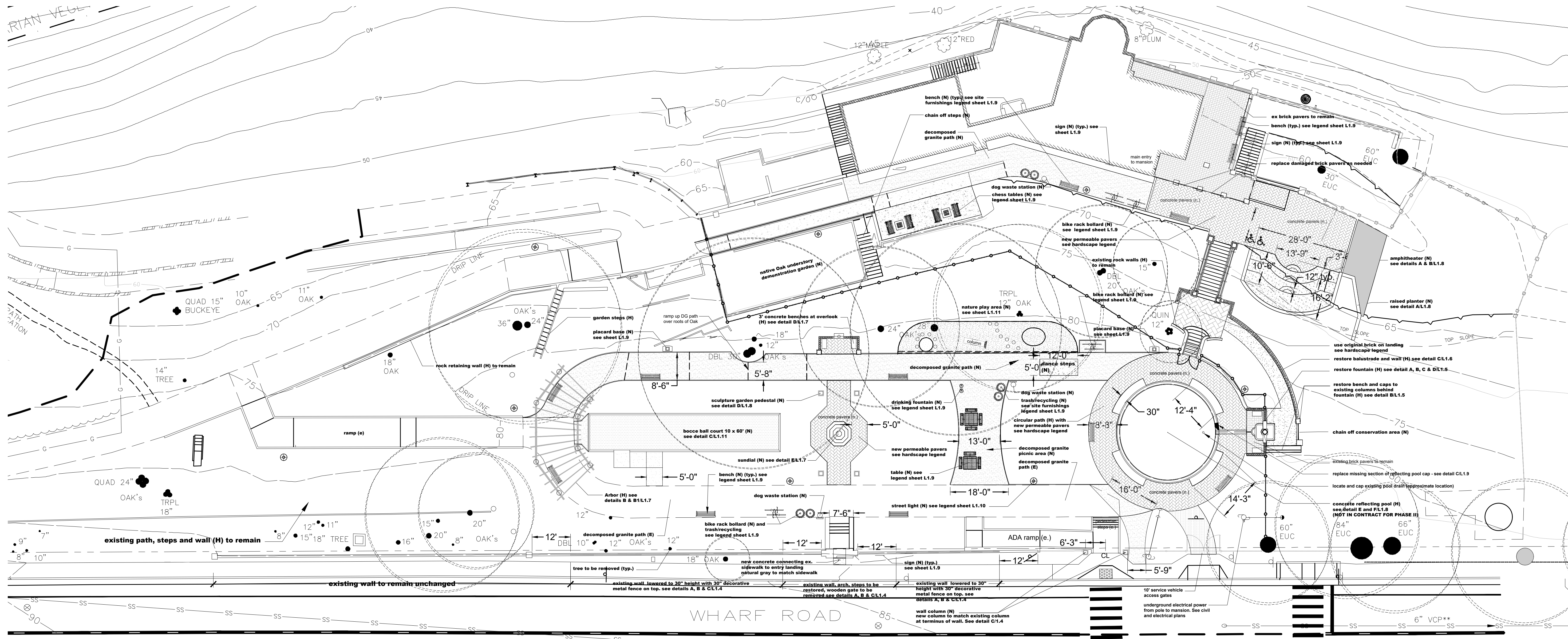
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SHEET 2 OF 20

THE PARK AT RISPIN MANSION
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Site Furnishings Legend

Key	Description	Quantity	Manufacturer/Distributor	Model #	Color/Finish
□	3' Concrete Bench for fountain and outlook	4	A. Silvestri Company asilvestri.com 415.239.5590 info@asilvestri.com	Bench 6261 18"H x 36" W x 17"D	Terre Cotta
□	Container w/ Color for grand staircase columns	6		Tapered Rolled Rim Square Pots 21"H x 25"W x 17.5" SQ Base*	Terre Cotta
○	Container w/ Color for fountain and outlook	2	Pottery Planet 831.465.9216 2600 Soquel Ave, Santa Cruz	circular urn 16" x 38"	Deep Red
see detail	Acanto Fountain Emitter	1	Black Oak Foundry 949.305.7372 www.fountainunique.com	No. M5822-ORB	10.5" diameter Oil Rubbed Bronze, 3 GPM flow
see detail	Oak Leaf Fountain Emitter	1	Black Oak Foundry 949.305.7372 www.fountainunique.com	No. M209-ORB	8" square in Oil Rubbed Bronze 2 GPM flow
☞	Accessible Chess Table with two Benches	2	Kenneth Lynch & Sons 203.264.2831 www.klynchandsons.com	6732 (chess table) 6737C (bench)	Concrete table top with metal legs Wood slats with metal legs
⊙	Pelican Sundial	1	No. 2554 Hourglass and Pelican Sundial		11 1/2" diameter Bronze
⊙	Bike Post Bollard	4	Reliance Foundry 888.735.5680 www.reliance-foundry.com	R-7530-B Cuctile Iron Bike Bollard	39" High w/ two loops; Black Textured Semi Gloss finish
⊙	Historical Series Accessible Pedestal Drinking Fountain	1	Most Dependable Fountains, Inc. www.mostdependable.com 800.552.6331	2008 SM	"Hi-Lo" barrier-free antique historic style heavy-duty aluminum alloy pedestal Textured Bergundy powder coat finish
⊙	6' Metal Bench with armrest	12	DuMor, Inc., Site Furnishings 800.598.4018 www.dumor.com	Bench 57 - 60PL - 3AR	6' long recycled plastic bench w/ armrest Deep Red color base w/ Cedar color recycled plastic top
⊙	Trash Receptacle	3		Receptacle 107 32 gal.	Steel with Deep Red Powder Coat finish
⊙	Recycling Container	3		Receptacle 107 32 gal.	Steel with Deep Red Powder Coat finish
⊙	Table/Benches	1		76 Series PL 4 with surface plate mount	Deep Red color base w/ Cedar color recycled plastic top
⊙	Accessible Table/Benches	1		76 Series PL 3 with surface plate mount	Deep Red color base w/ Cedar color recycled plastic top
⊙	Street Light fixture on Light Pole	8	SEE ELECTRICAL PLANS	SEE ELECTRICAL PLANS	SEE ELECTRICAL PLANS
⊙	DOG STATION	3	DOODY CALLS DIRECT doodycallsdirect.com	THE SENTRY STATION	GREEN ANCHOR TO CONCRETE FOOTING
⊙	WALL MOUNT SIGN	3	TO BE SELECTED	PORCELAIN ENAMEL	LIGHT CREAM FIELD WITH GOLD TITLE LETTERING SELECTION OF PHOTOGRAPHS AND TEXT TO BE AND DESIGNED FOR APPROVAL BY CITY
⊙	PEDESTAL MOUNT SIGN	2	TO BE SELECTED	PORCELAIN ENAMEL	
⊙	Post mount down light	12	RAB LIGHTING	SLIM12Y 120V, 12W, 3000K warm	Bronze Anchor mounting bracket to rail posts

HARDSCAPE AND FENCING LEGEND

SYMBOL	DESCRIPTION	MANUFACTURER	COLOR	FINISH/PATTERN	SQ FT/LN FT
[Symbol]	CONCRETE PAVERS* ON PREPARED BASE SEE CIVIL PLANS	BELGARD AQUALINE SERIES PERMEABLE PAVES AT BASE OF GRAND STAIRCASE & AROUND THE REFLECTING POOL	VICTORIAN	HERRINGBONE	SEE CIVIL PLANS
[Symbol]	ORIGINAL BRICK ON SITE STORED IN MANSION GARAGE	ORIGINAL BRICK WILL BE USED ON THE LANDING BETWEEN UPPER & LOWER SECTIONS OF THE GRAND STAIRCASE	ORIGINAL BRICK ON SITE	HERRINGBONE	160 SF
[Symbol]	BRICK PAVES ON CONCRETE	EXISTING TO BE REPAIRED OR REPLACED TO MATCH ORIGINAL	COLOR TO MATCH	MATCH PATTERN AND CUT	SEE CIVIL PLANS
[Symbol]	CONCRETE RAMPS	N/A	NATURAL GRAY	MEDIUM BROOM FINISH	SEE CIVIL PLANS
[Symbol]	CONCRETE STEPS	N/A	COLOR TO MATCH	TO MATCH ORIGINAL	SEE CIVIL PLANS
[Symbol]	CAL GOLD DECOMPOSED GRANITE	N/A	CALIFORNIA GOLD	WITH STABILIZER	SEE CIVIL PLANS
[Symbol]	CRUSHED OYSTER SHELL BOCCIE BALL COURT	N/A	GRAY	RAKED	648 SF
[Symbol]	12" DEPTH OF FIBAR ENGINEERED BARK FOR NATURE PLAY AREA	N/A	YELLOW/BROWN	N/A	525 SF

* A SAMPLE OF THE NEW PAVES SHALL BE SUBMITTED FOR APPROVAL OF STYLE, SIZE, AND COLOR BY CITY PUBLIC WORKS STAFF AND LANDSCAPE ARCHITECT

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HARDSCAPE PLAN & SITE FURNISHINGS

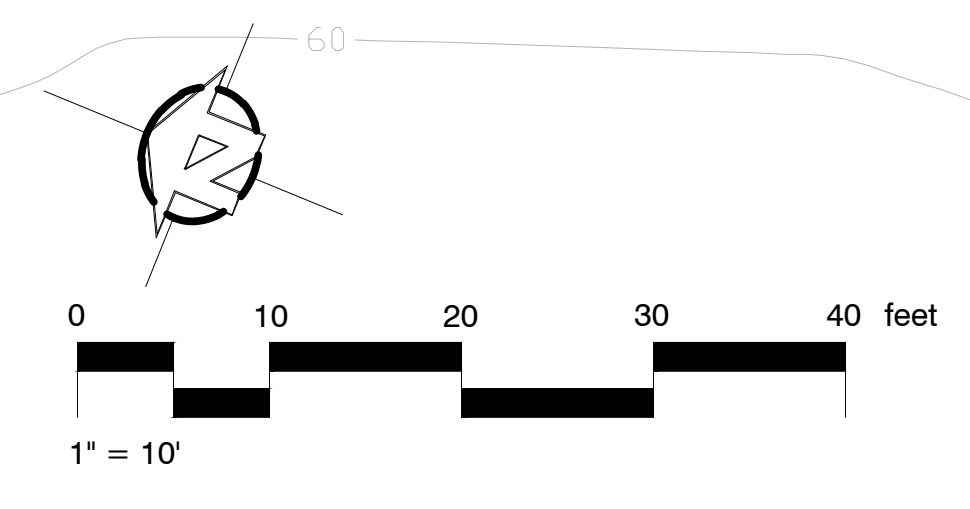
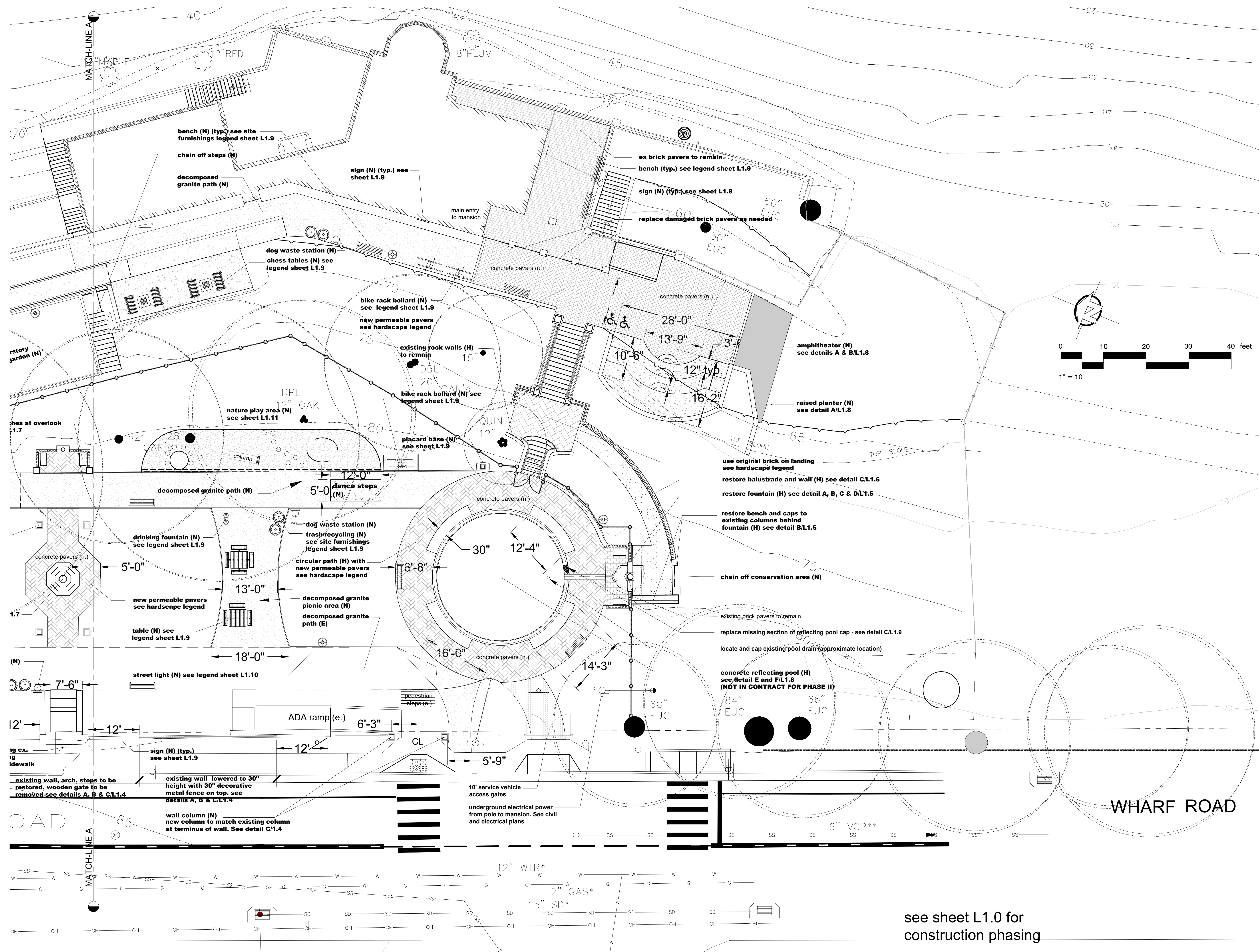
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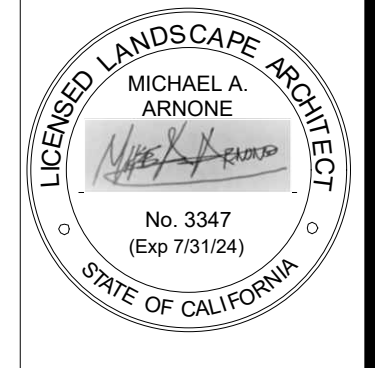
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Wharf Road and Clares Street
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HARDSCAPE LAYOUT SOUTH END

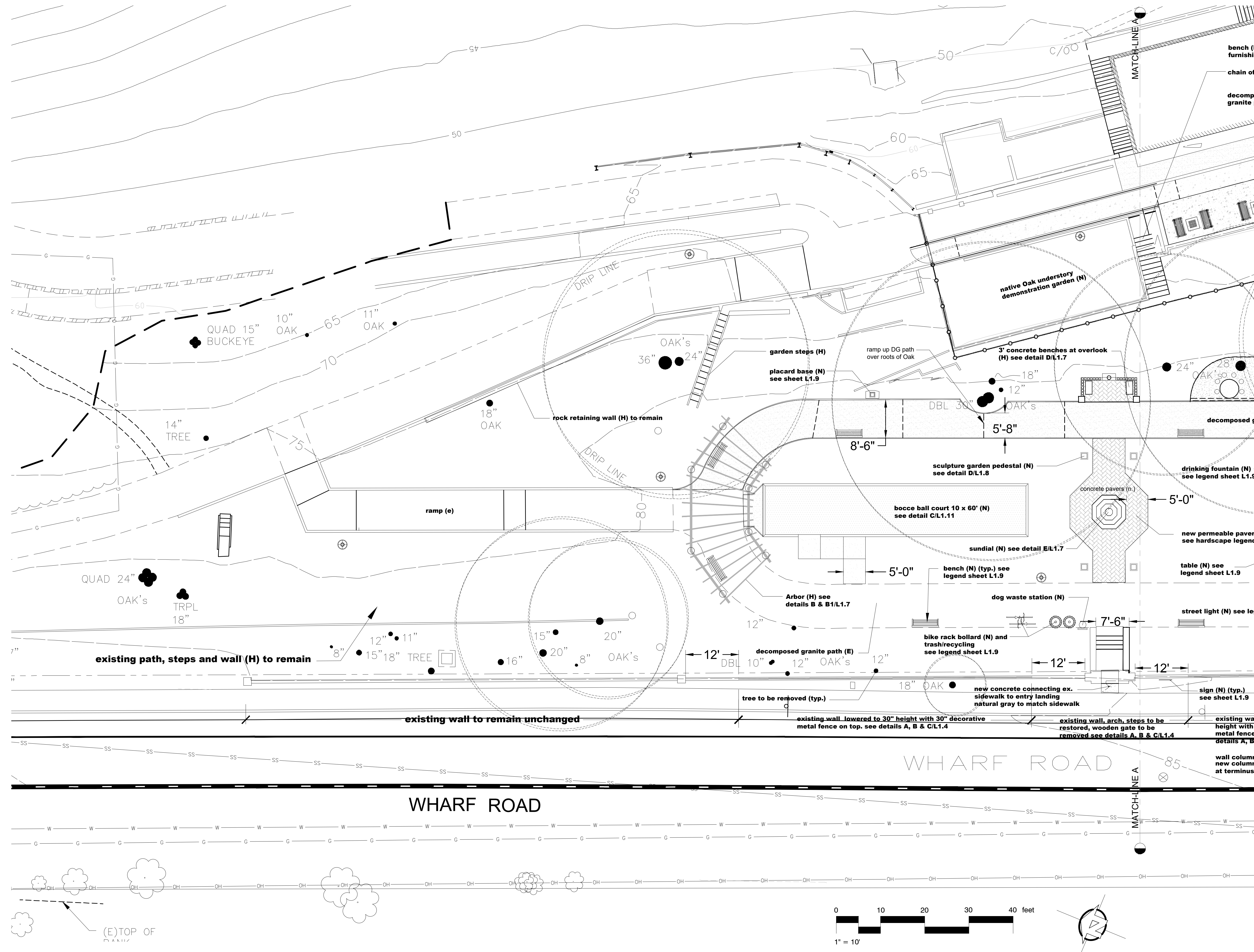
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see sheet L1.0 for construction phasing

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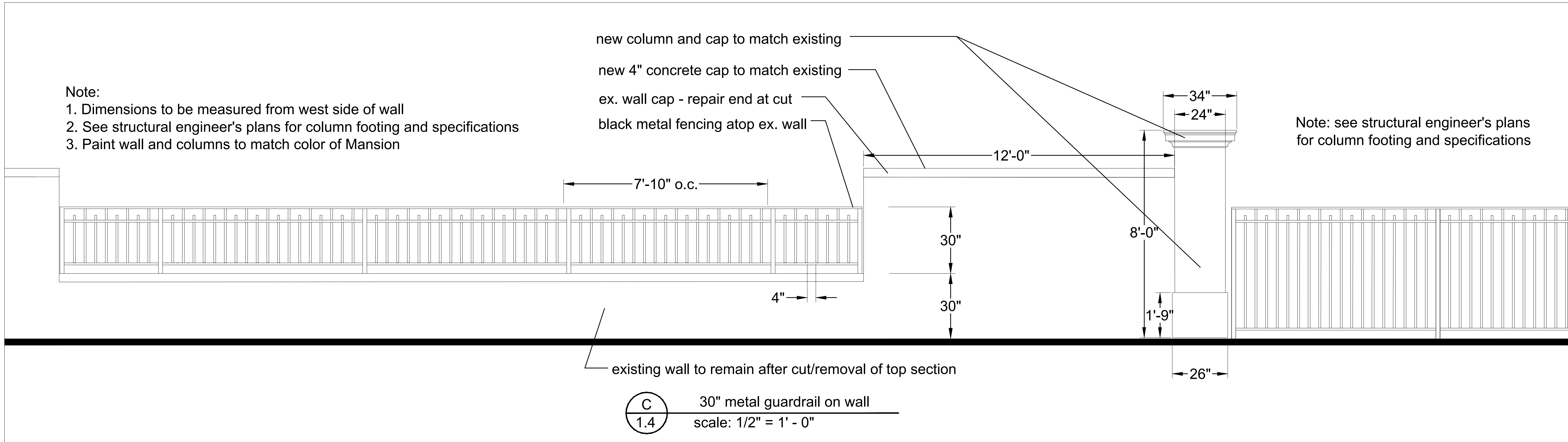
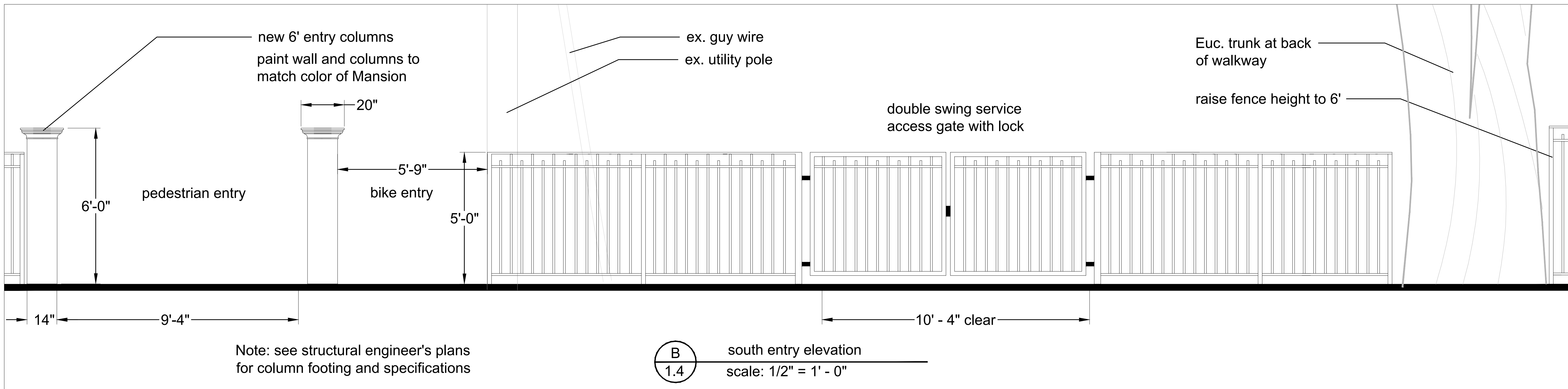
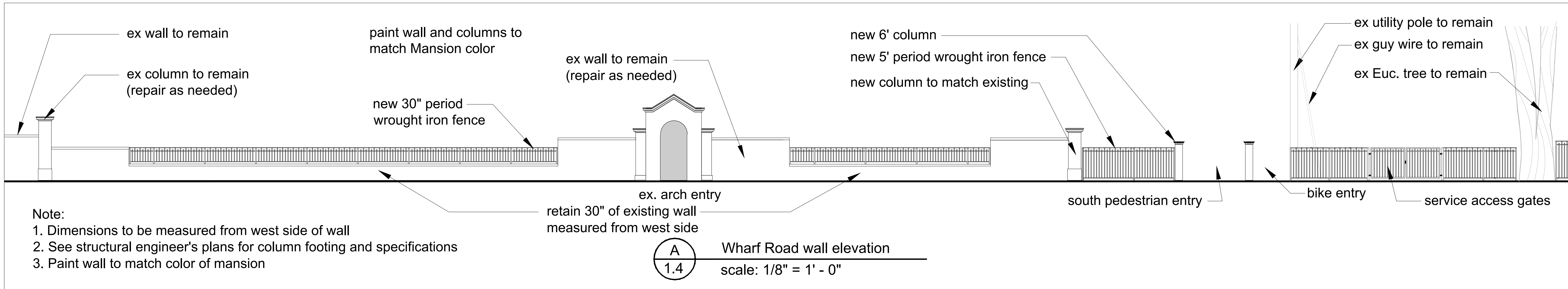
HARDSCAPE LAYOUT NORTH END

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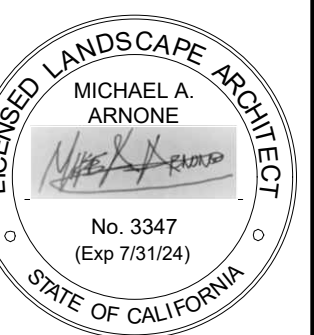
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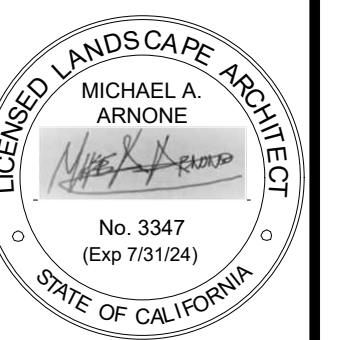
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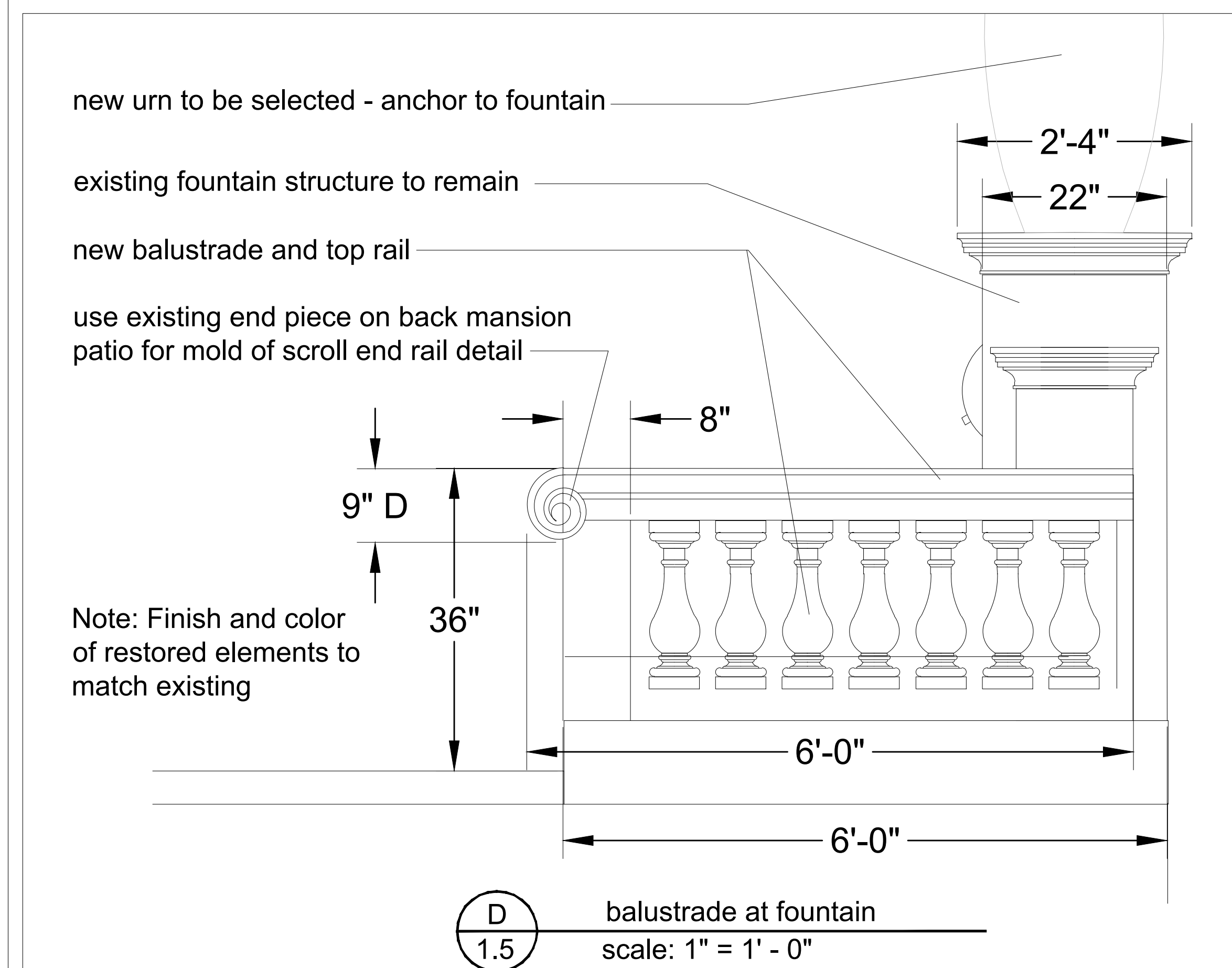
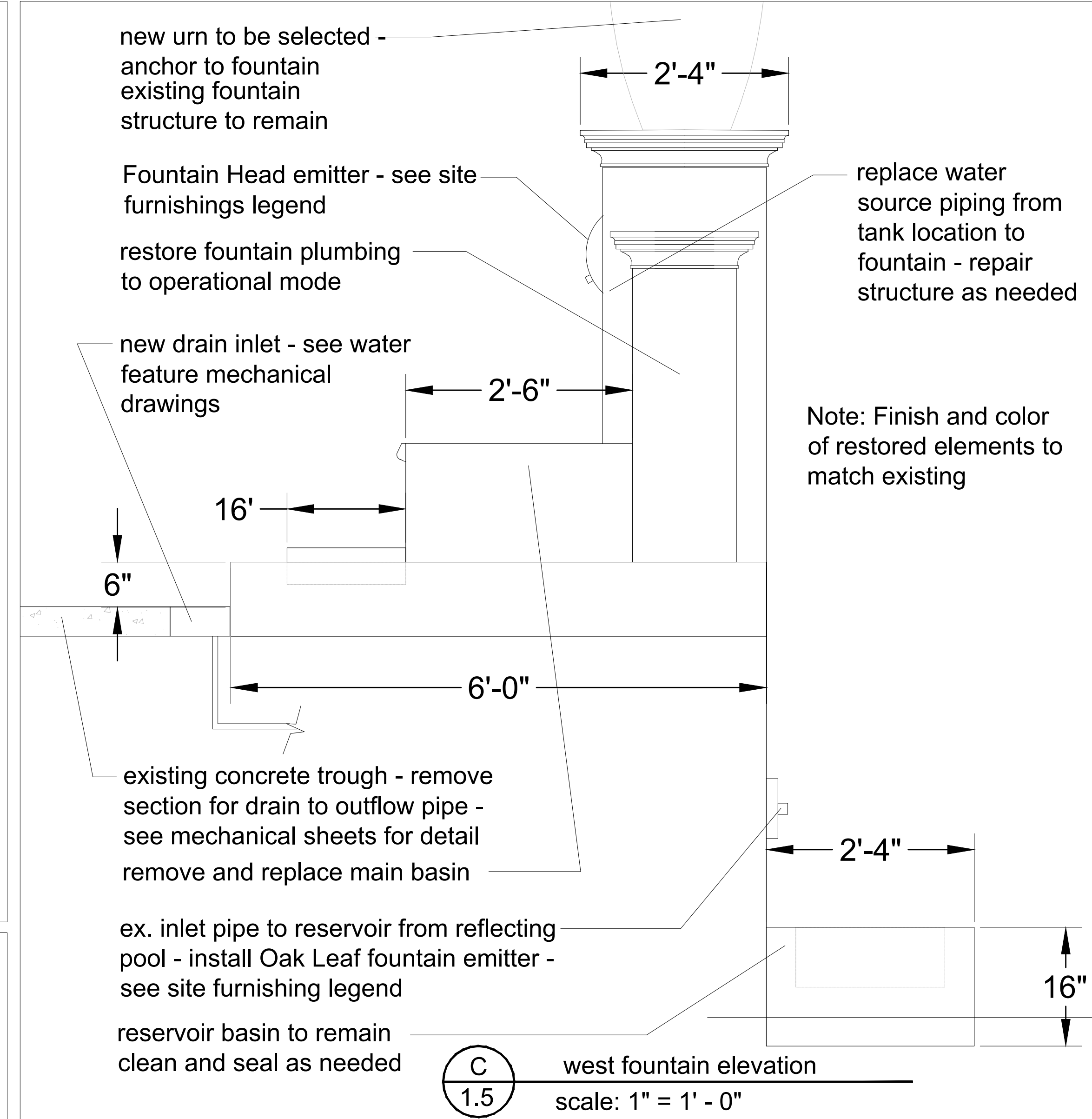
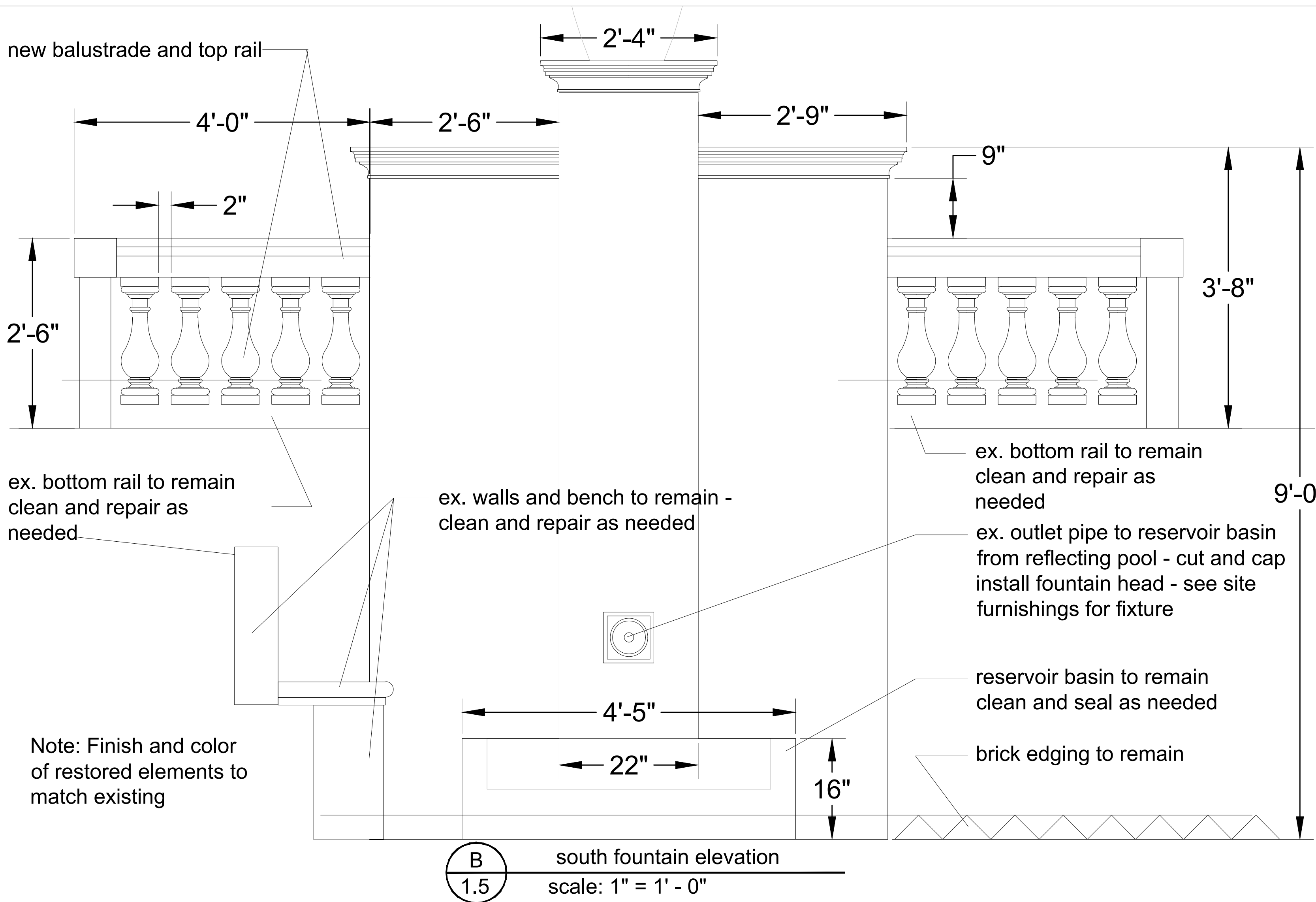
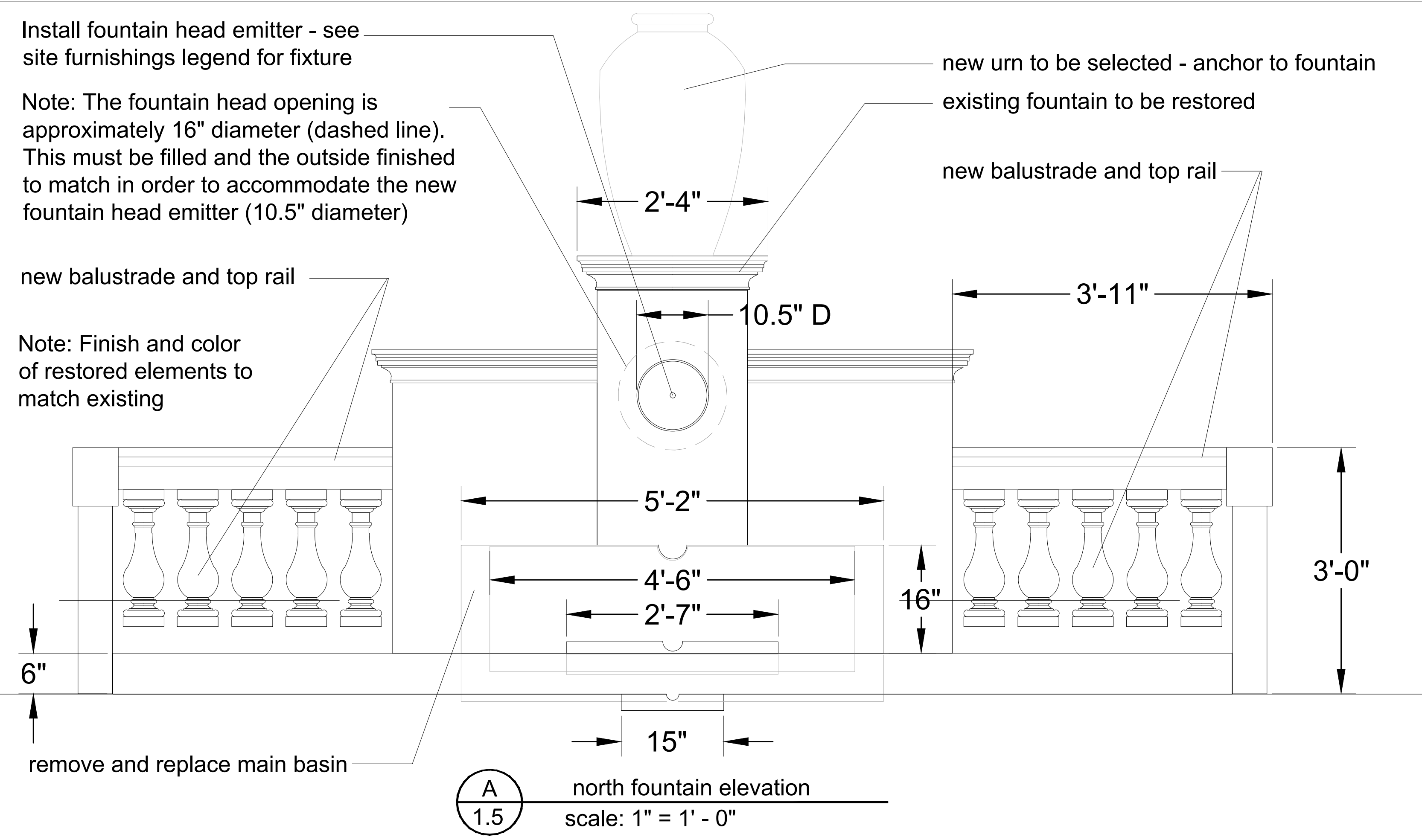
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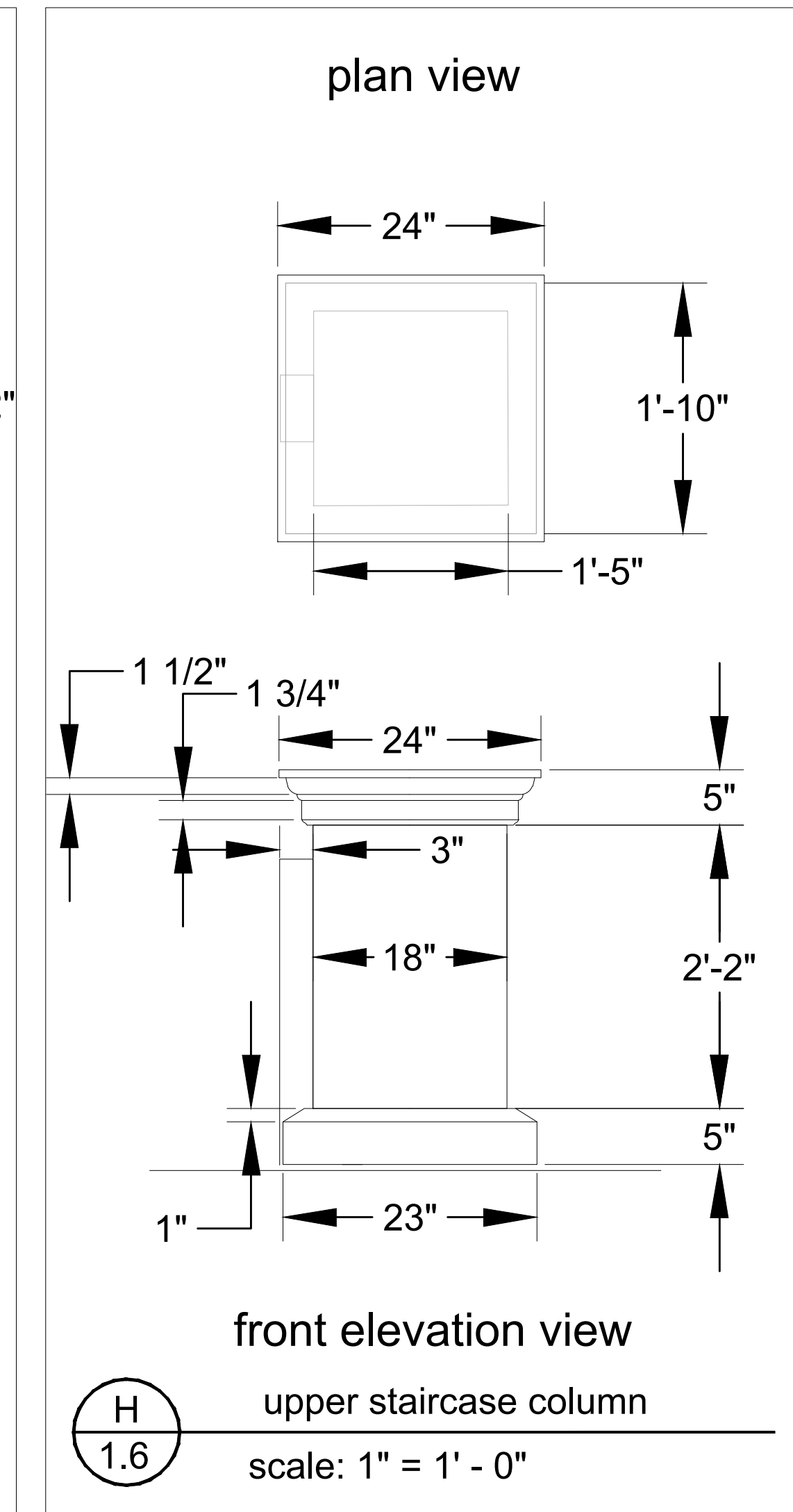
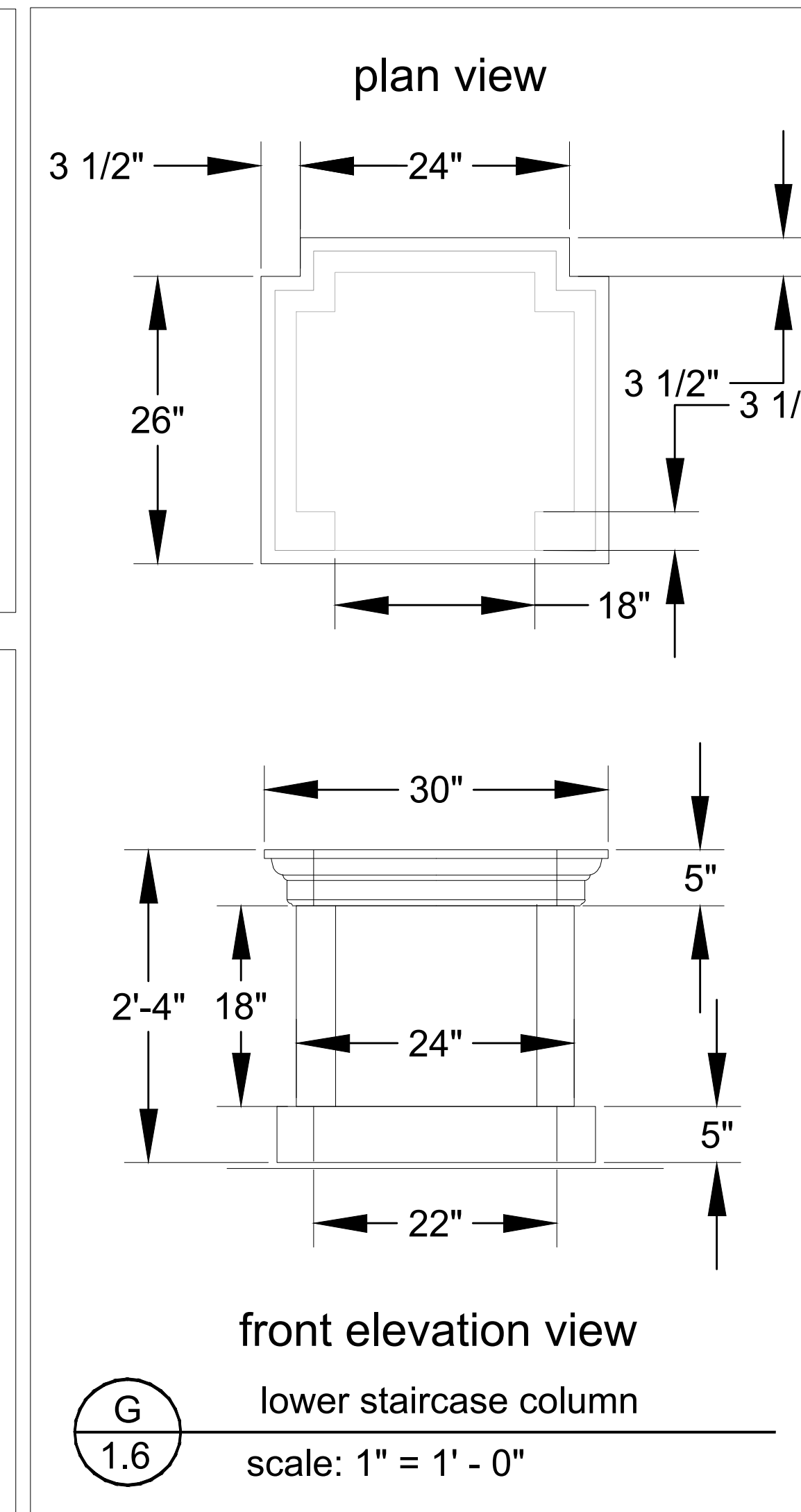
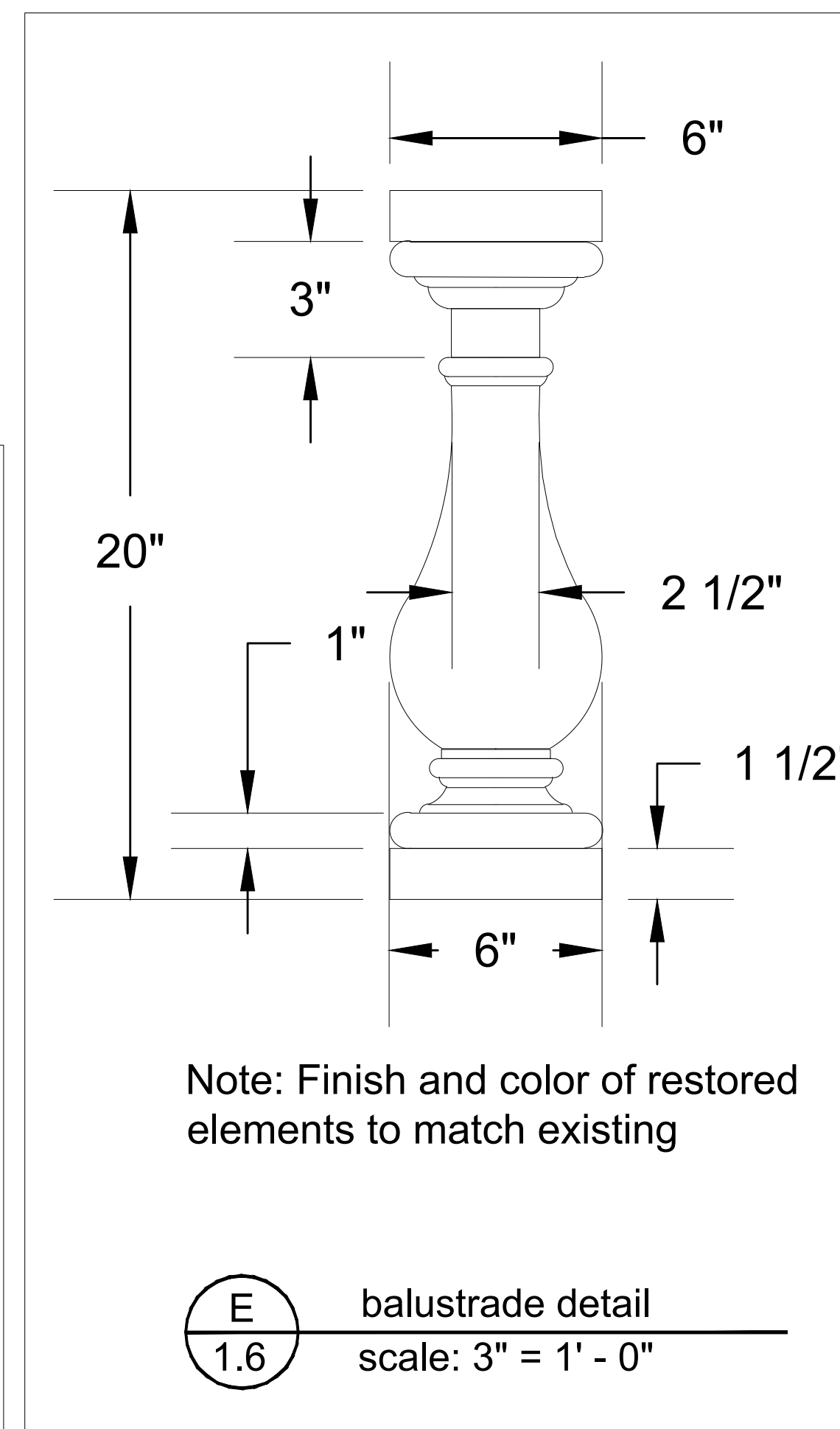
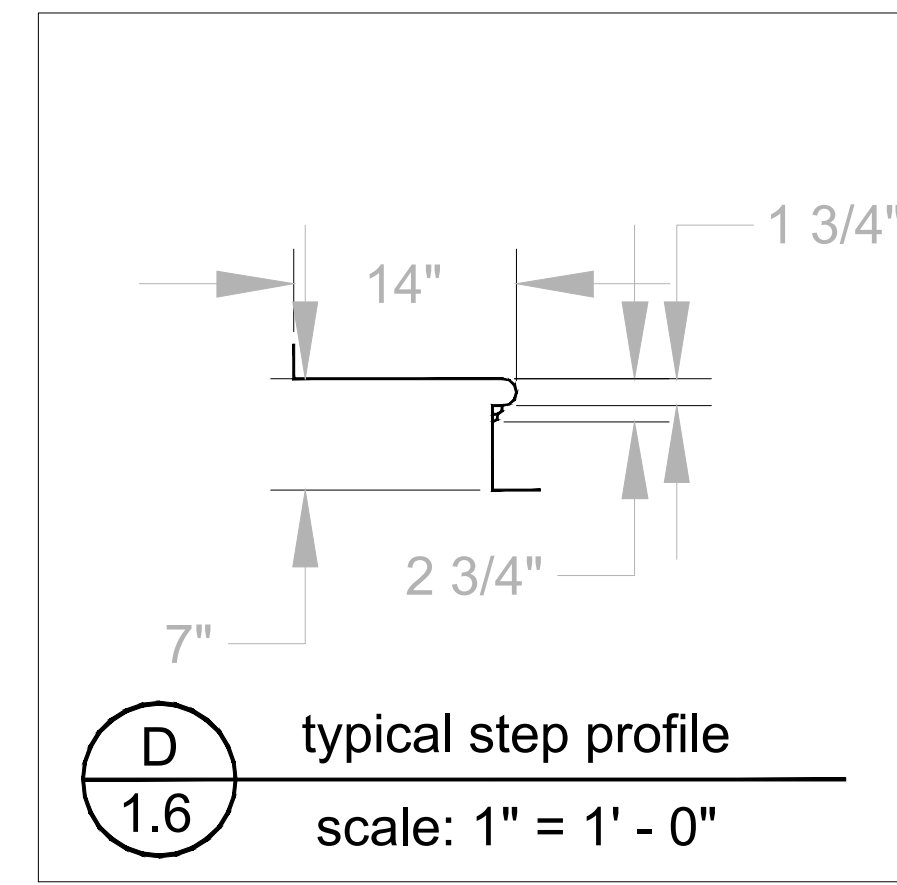
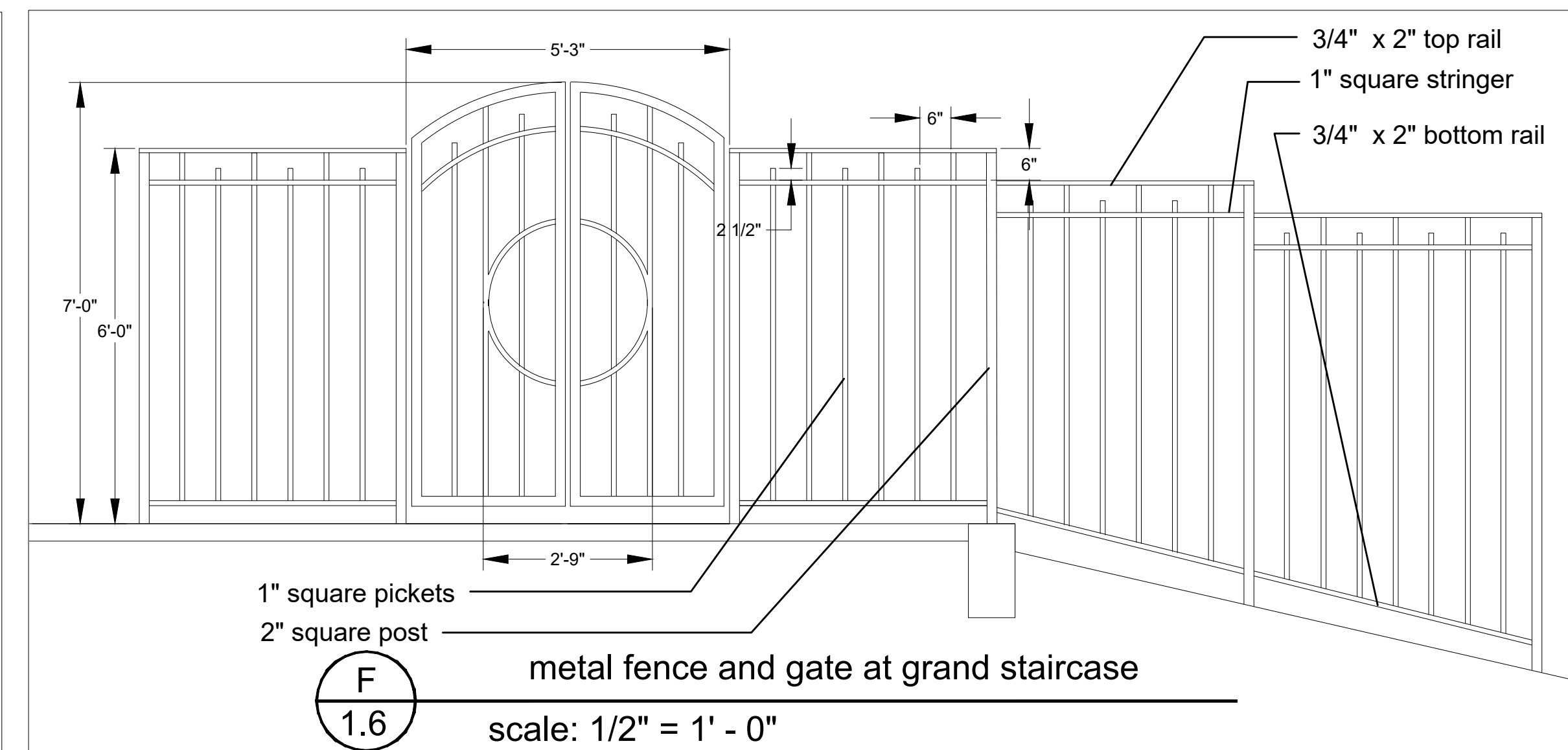
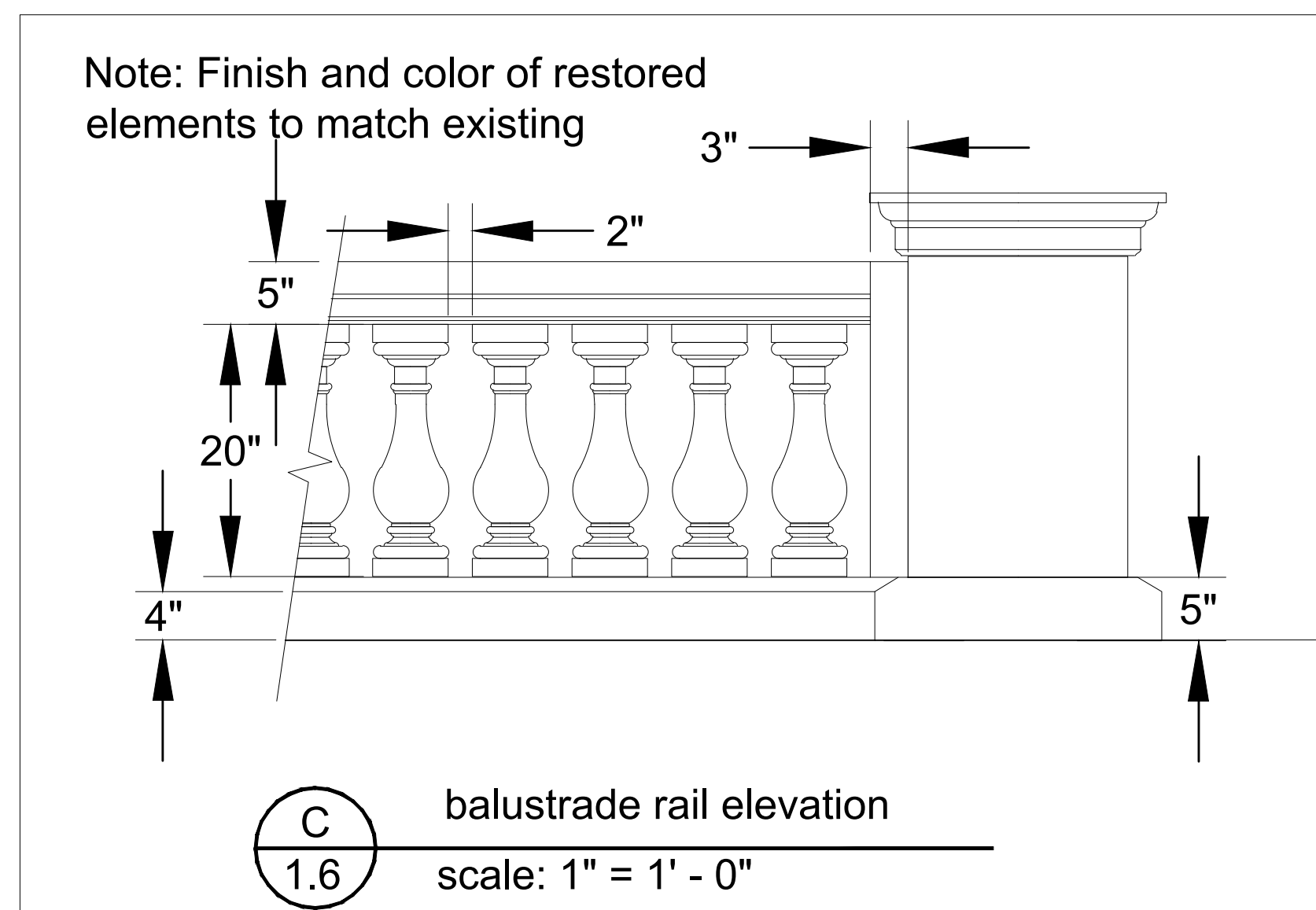
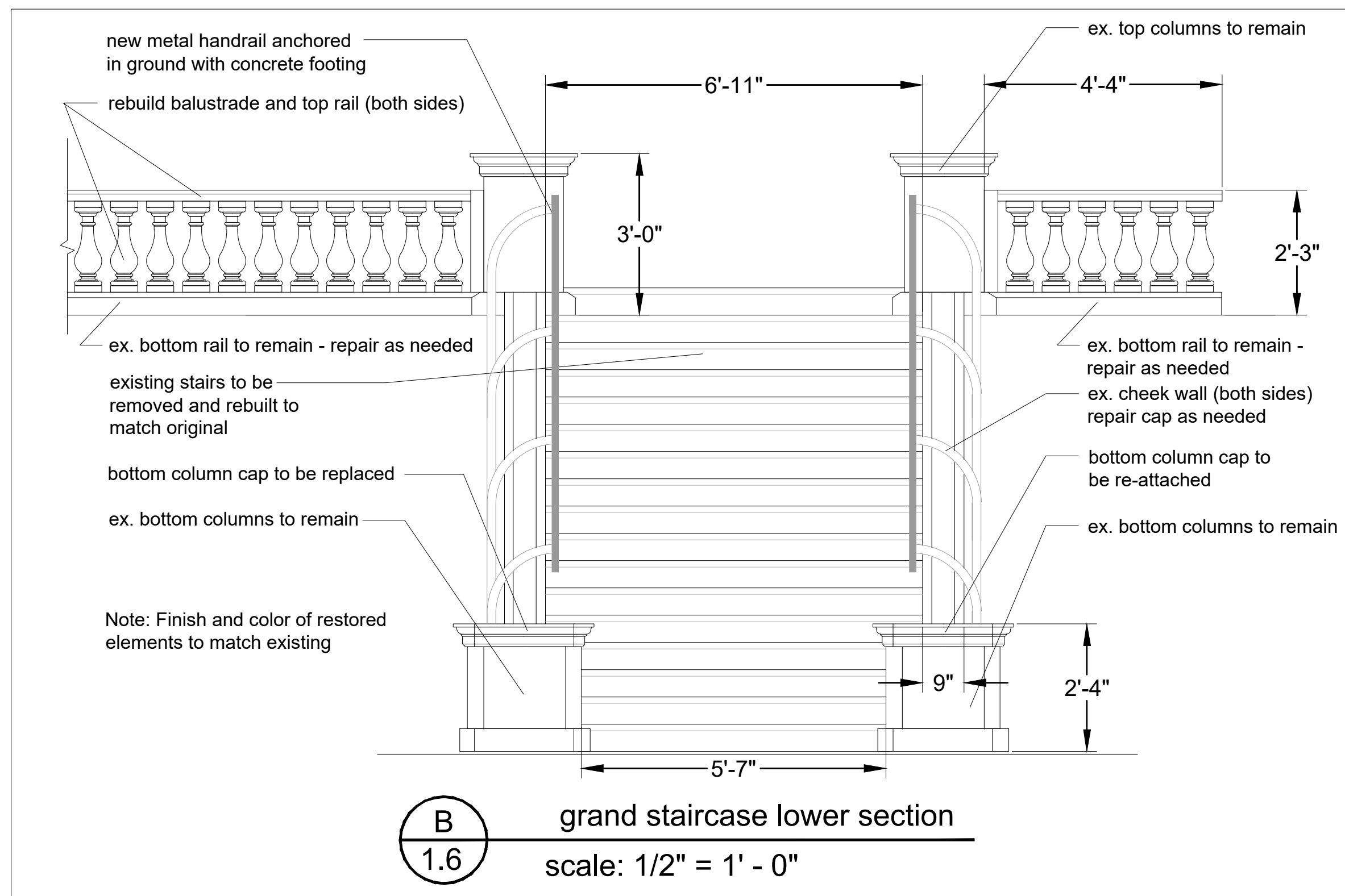
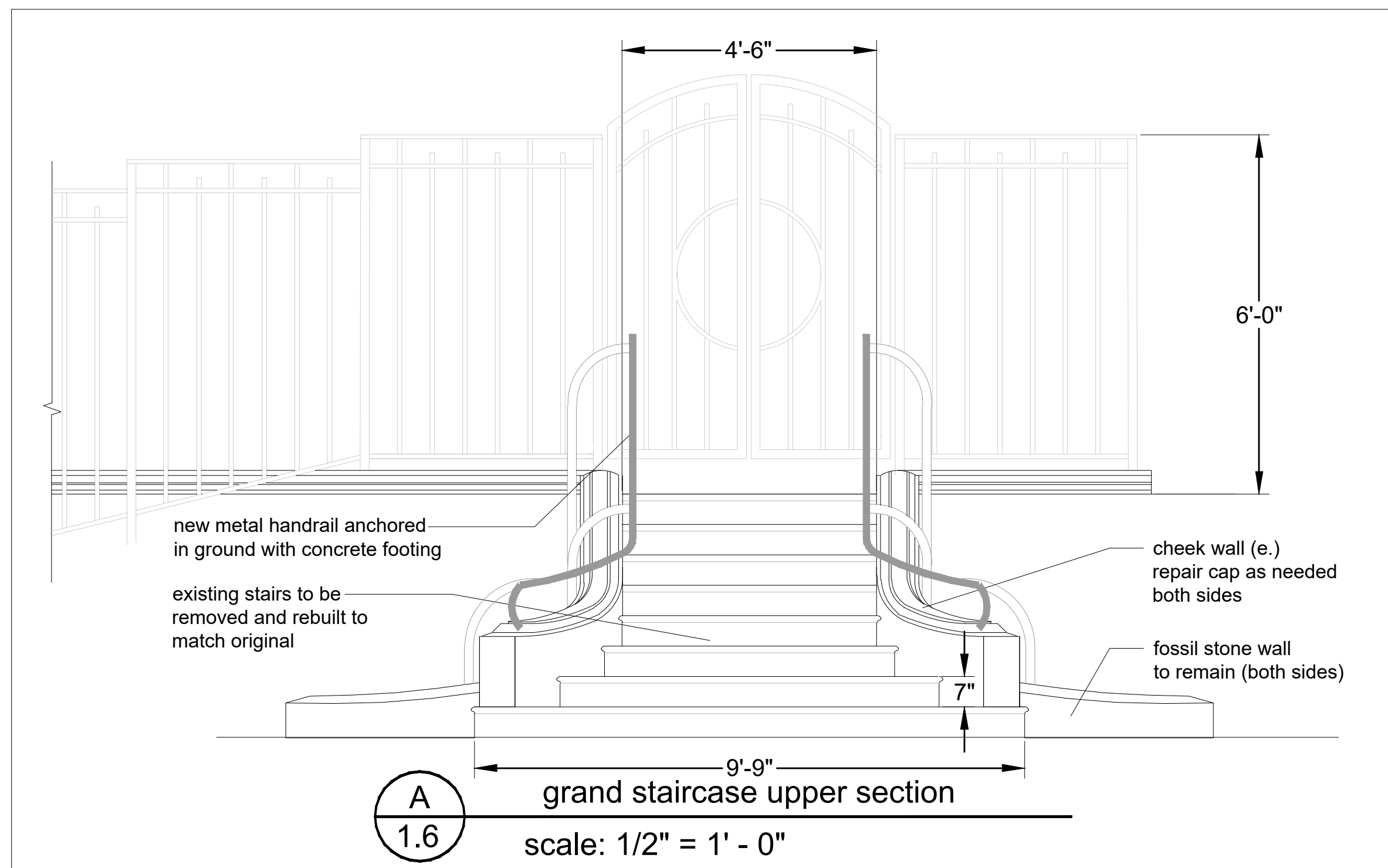
SHEET

L- 1.5

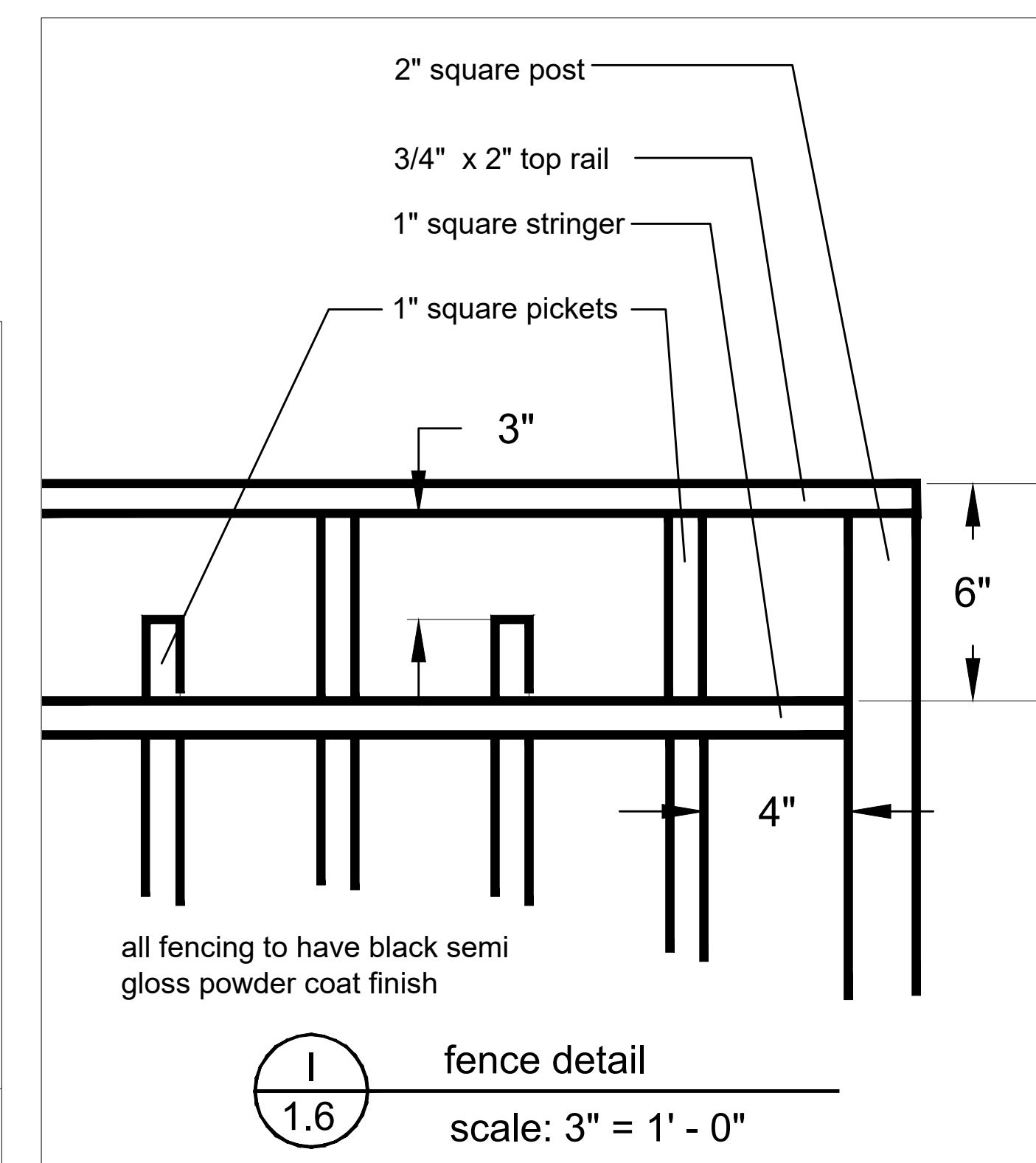
SHEET 7 OF 20



THE PARK AT RISPIN MANSION
Wharf Road and Clares Street
Capitola, California

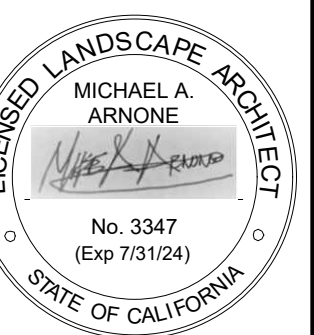


finish and color of restored elements to match existing
see structural engineer's sheets for details and specifications



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REVISIONS



GRAND STAIRCASE & FENCE DETAILS

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DATE 2.22.2023

SHEET

L- 1.6

SHEET 8 OF 20

THE PARK AT RISPIN MANSION
Wharf Road and Clares Street
Capitola, California

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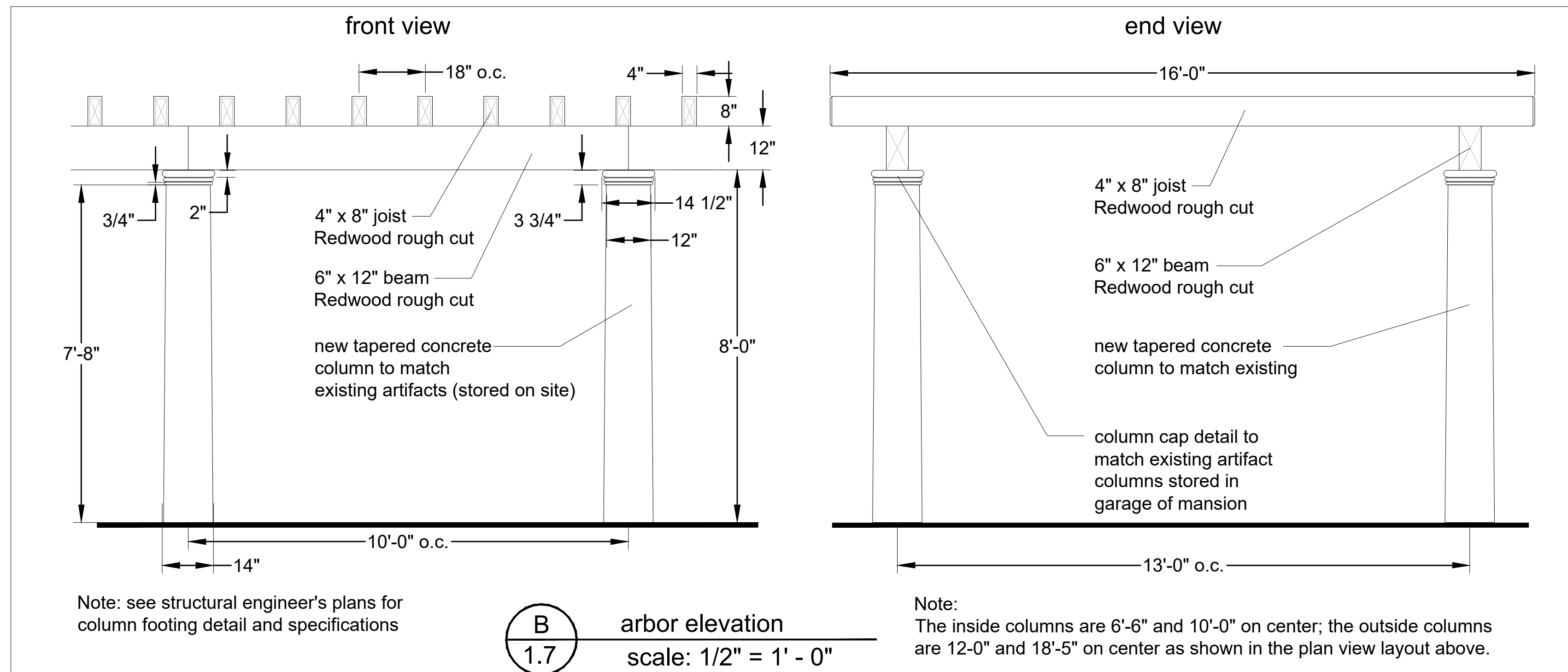
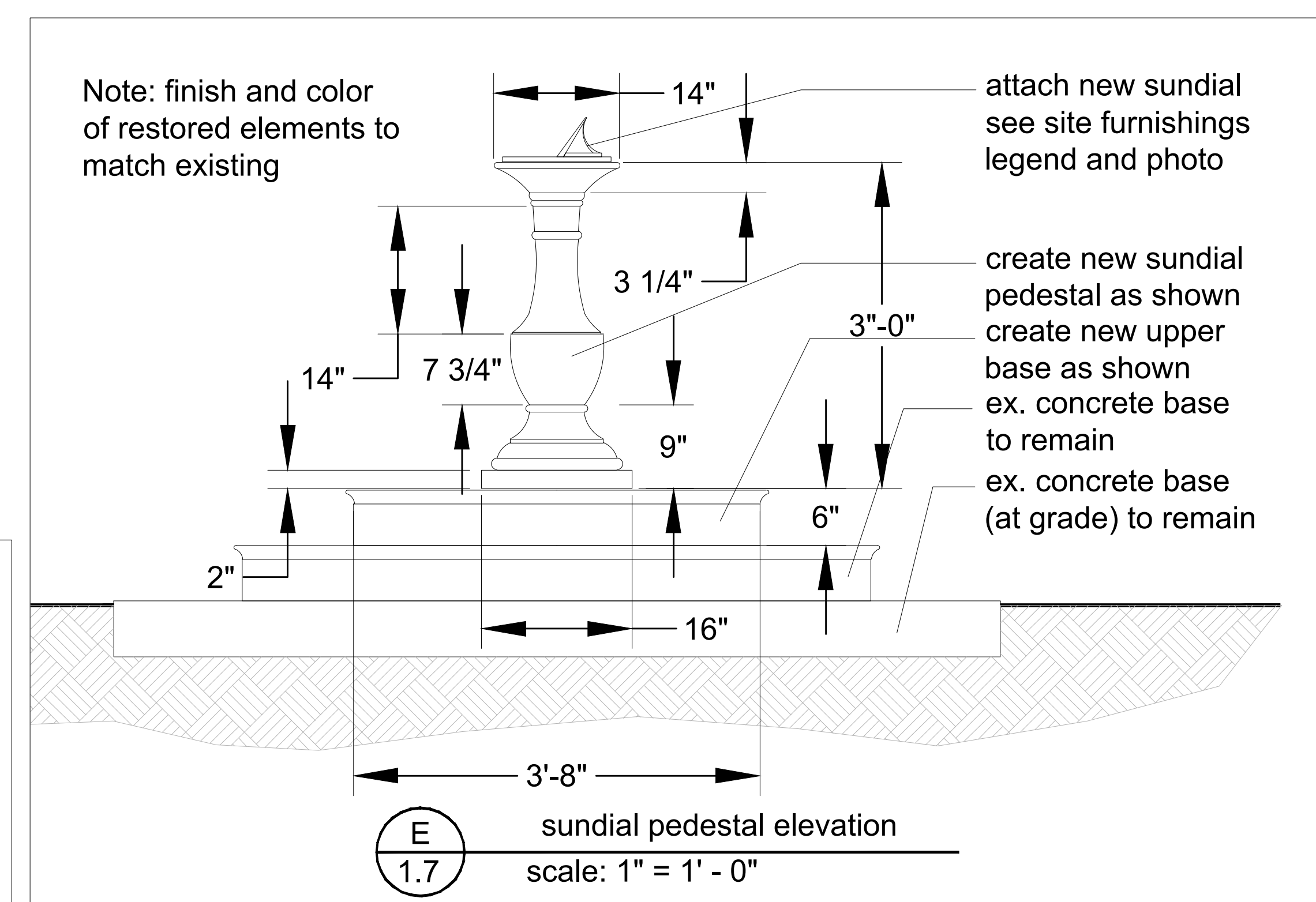
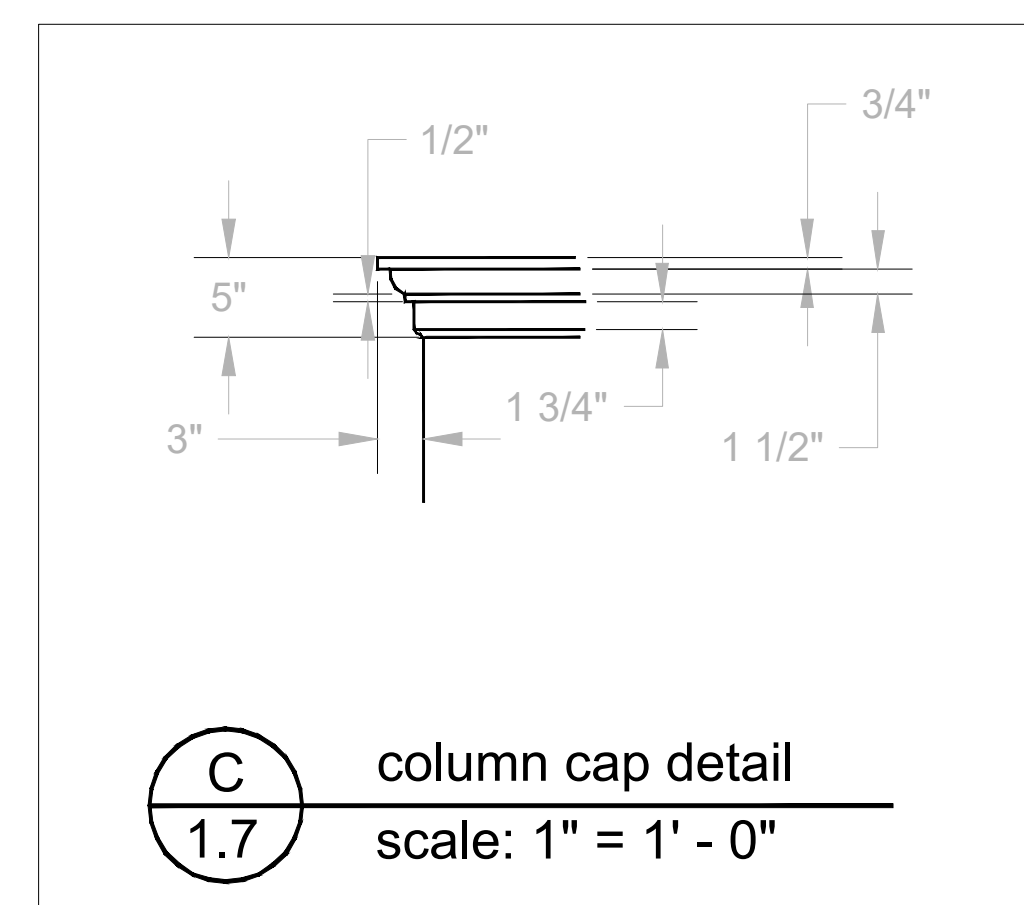
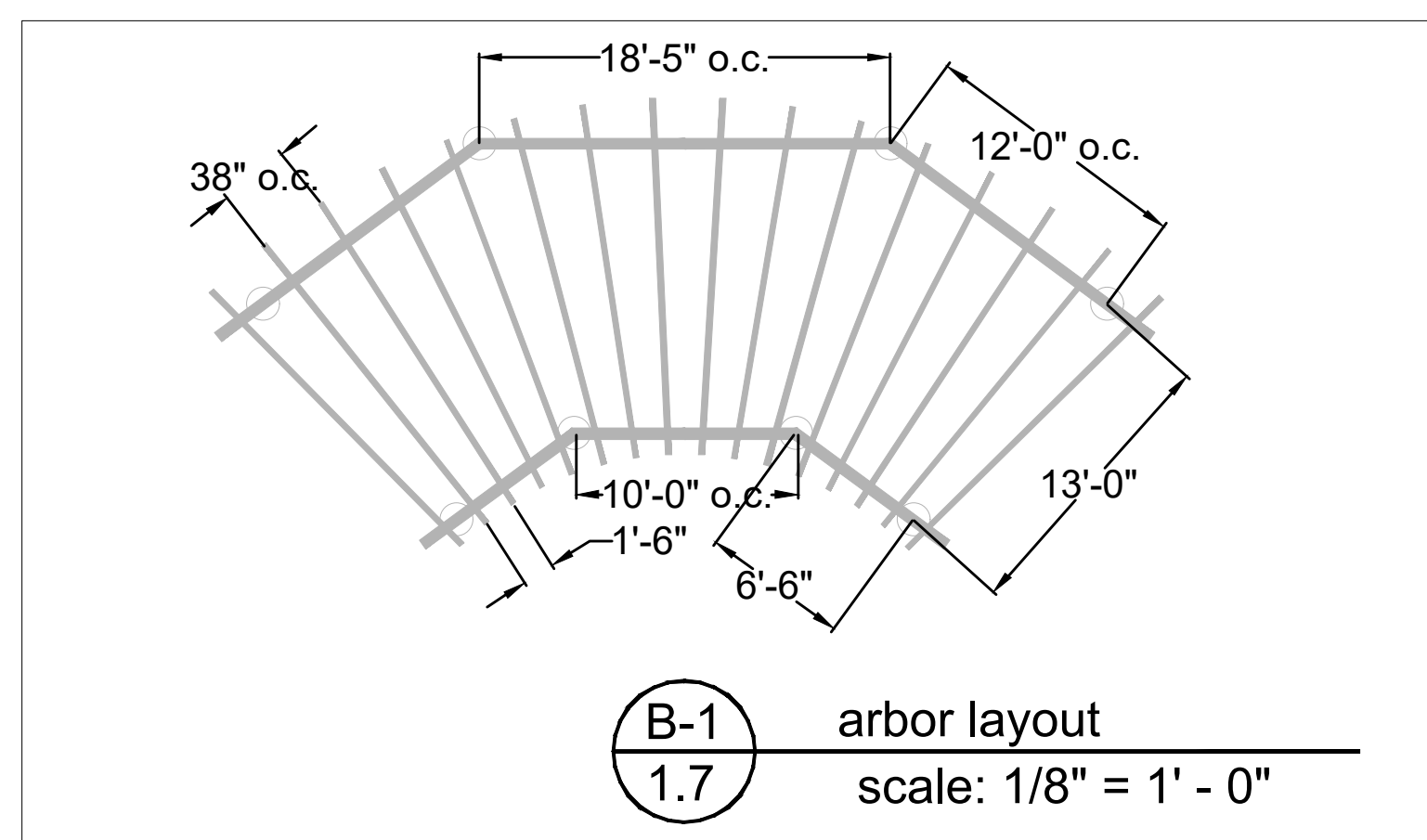
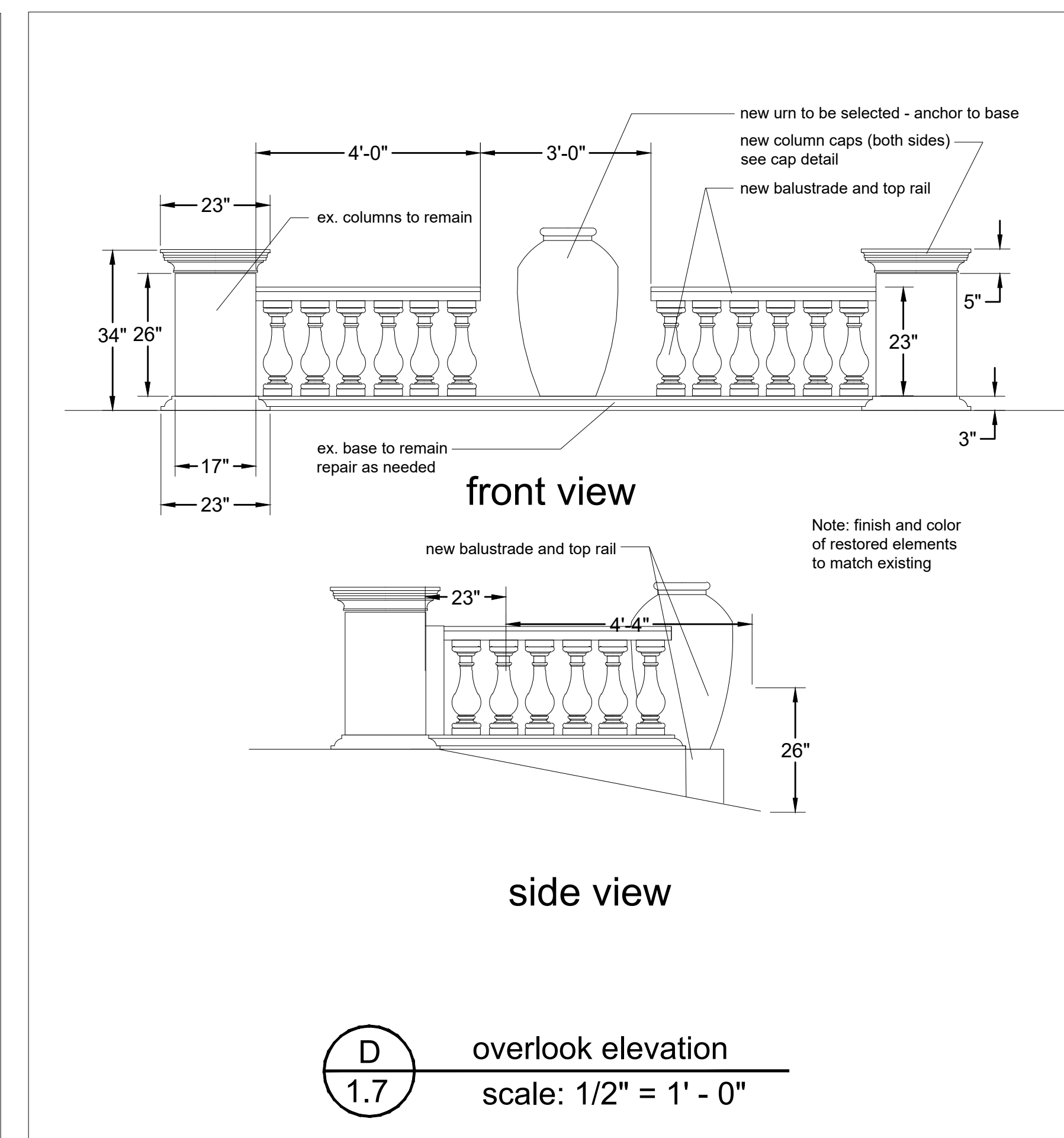
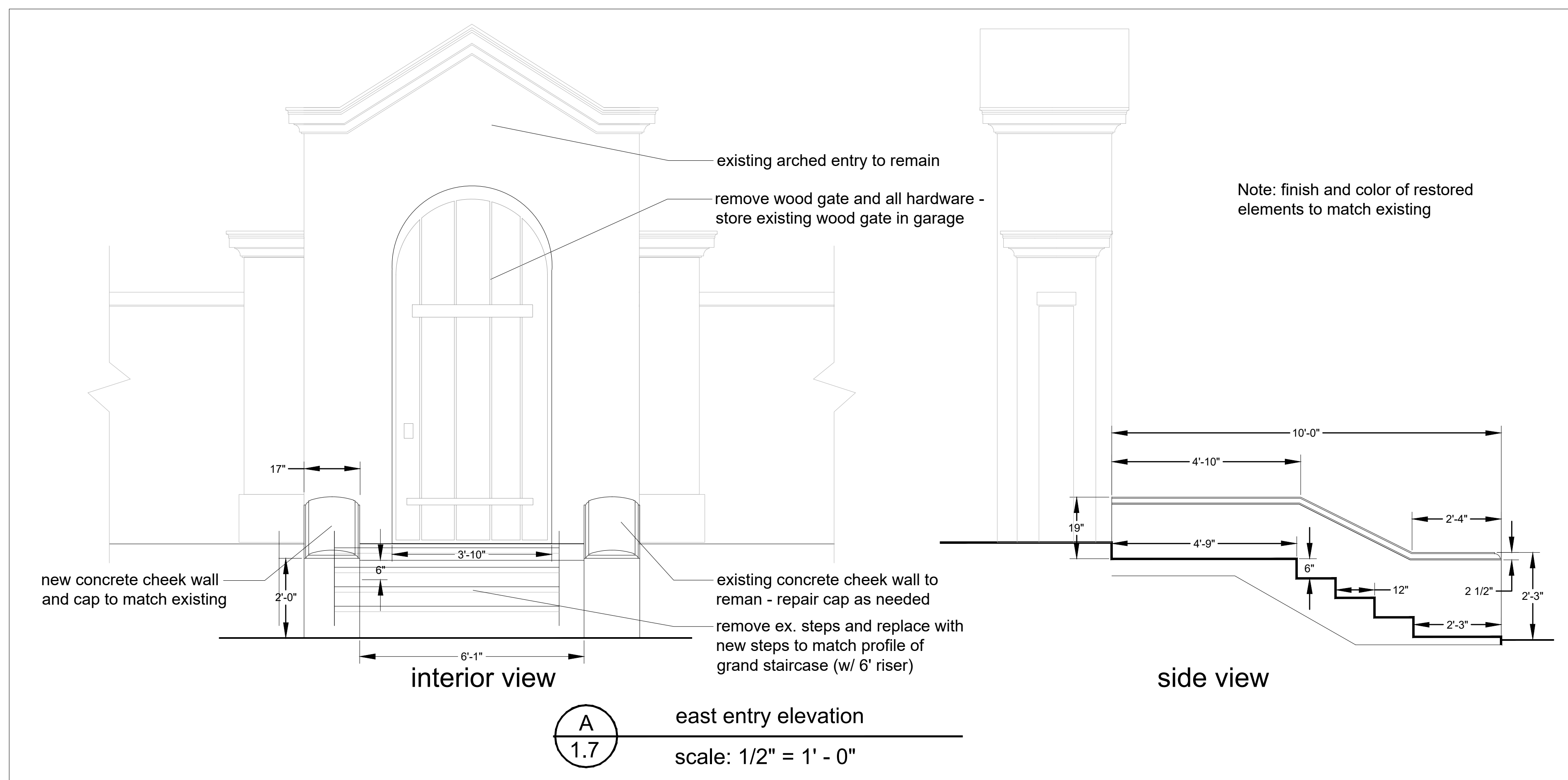
ENTRY GATE, ARBOR, OVERLOOK & SUNDIAL DETAILS

JOB NO. 201503
SCALE as noted
DRAWN MA
CHECK JC/MA
DATE 2.22.2023

SHEET

L- 1.7

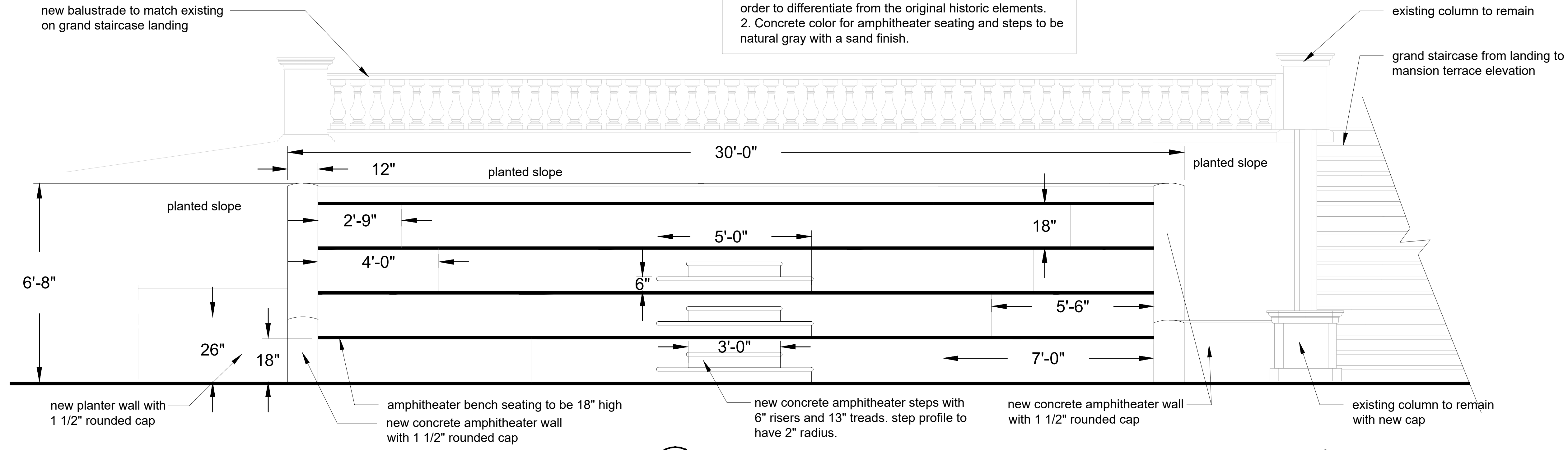
SHEET 9 OF 20



see structural engineer's sheets for details and specifications

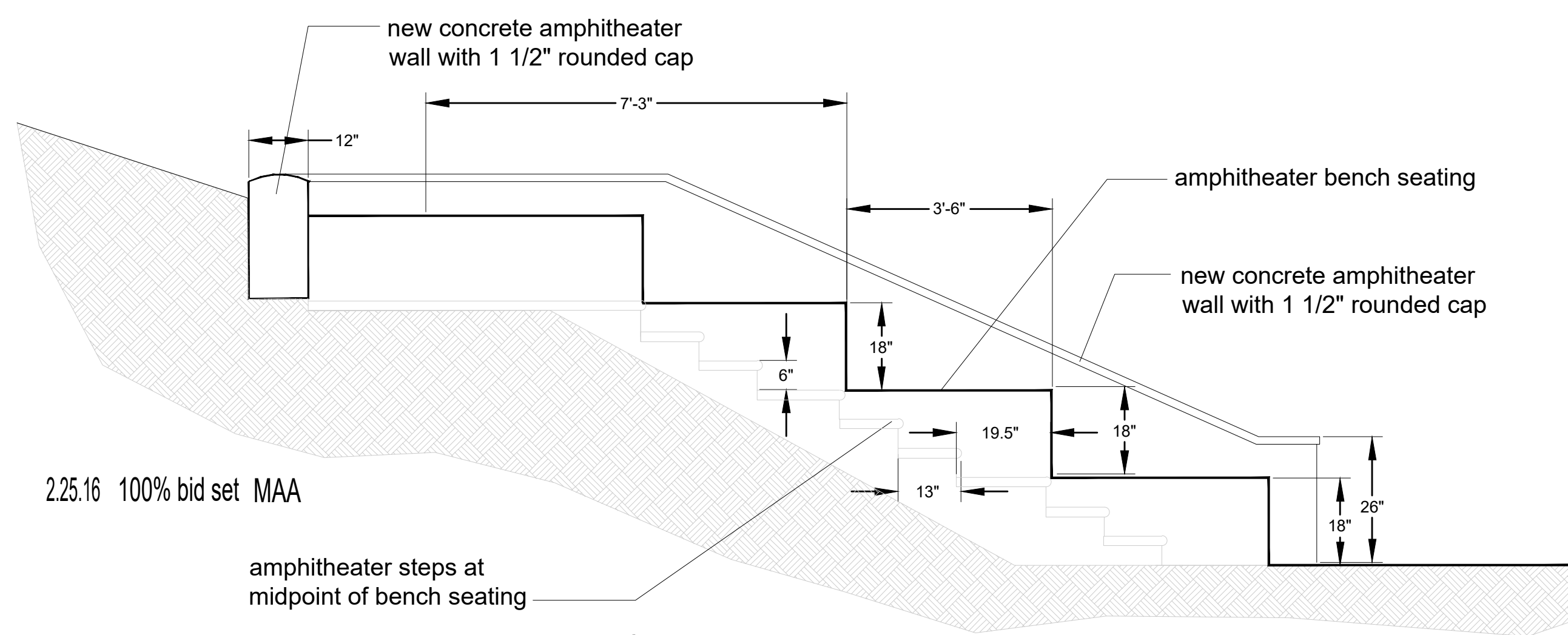
see structural engineer's sheets for details and specifications

Note:
 1. Wall cap and step profiles vary from those on site in order to differentiate from the original historic elements.
 2. Concrete color for amphitheater seating and steps to be natural gray with a sand finish.



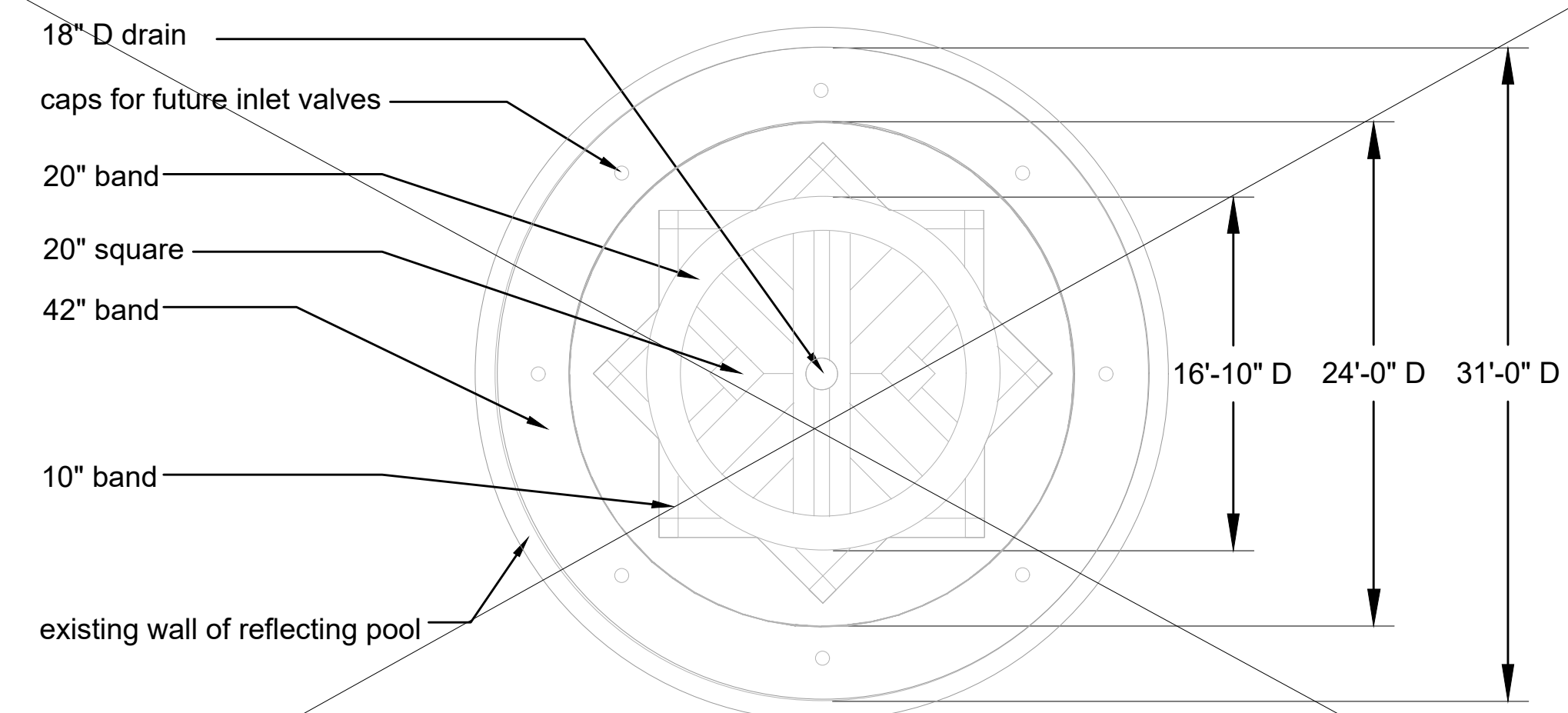
A
1.8
amphitheater front elevation
scale: 1/2" = 1' - 0"

Note: see structural engineer's plans for footing detail and specifications



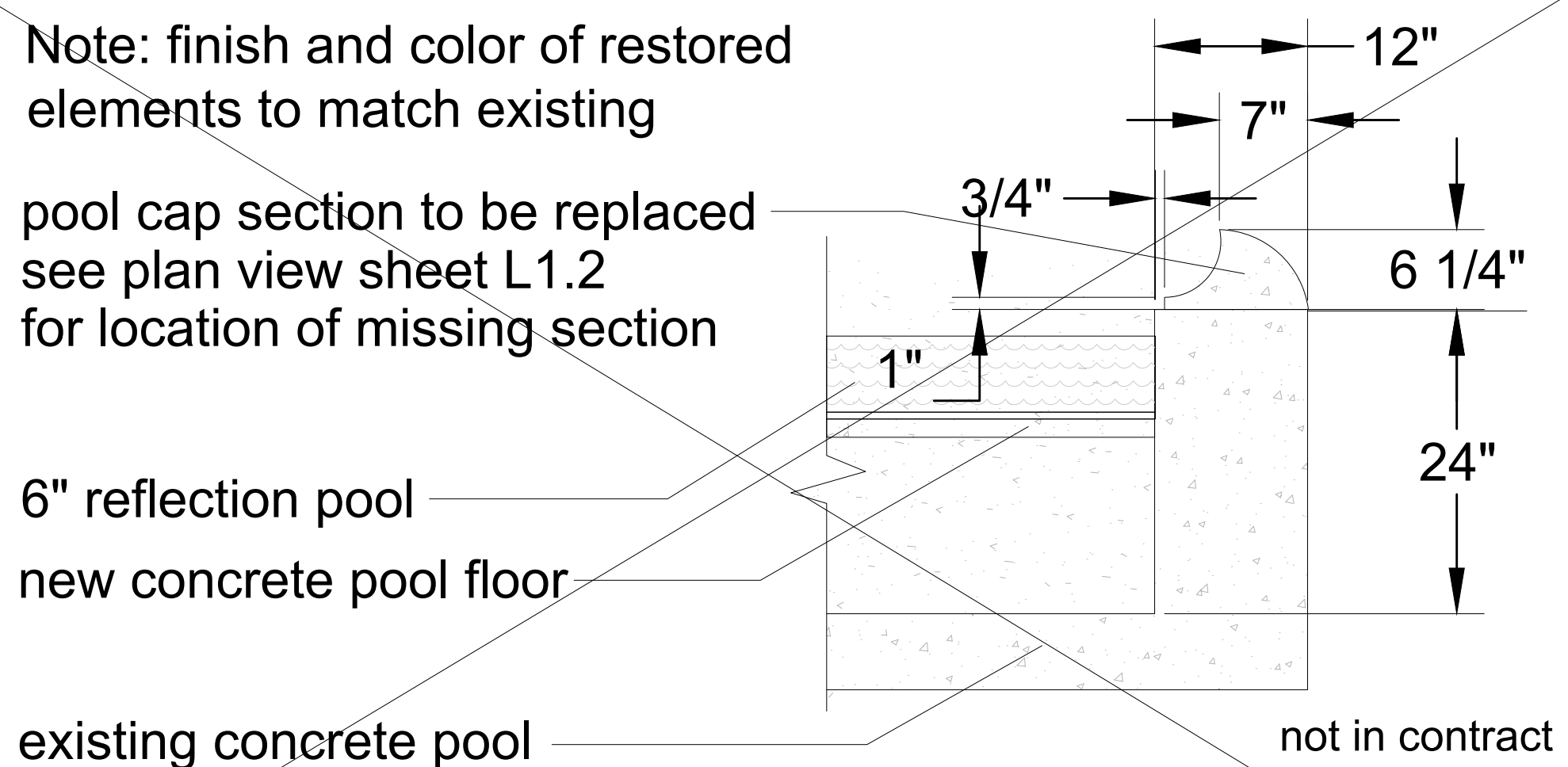
B
1.8
amphitheater side elevation
scale: 1/2" = 1' - 0"

Note: see structural engineer's plans for column footing detail and specifications



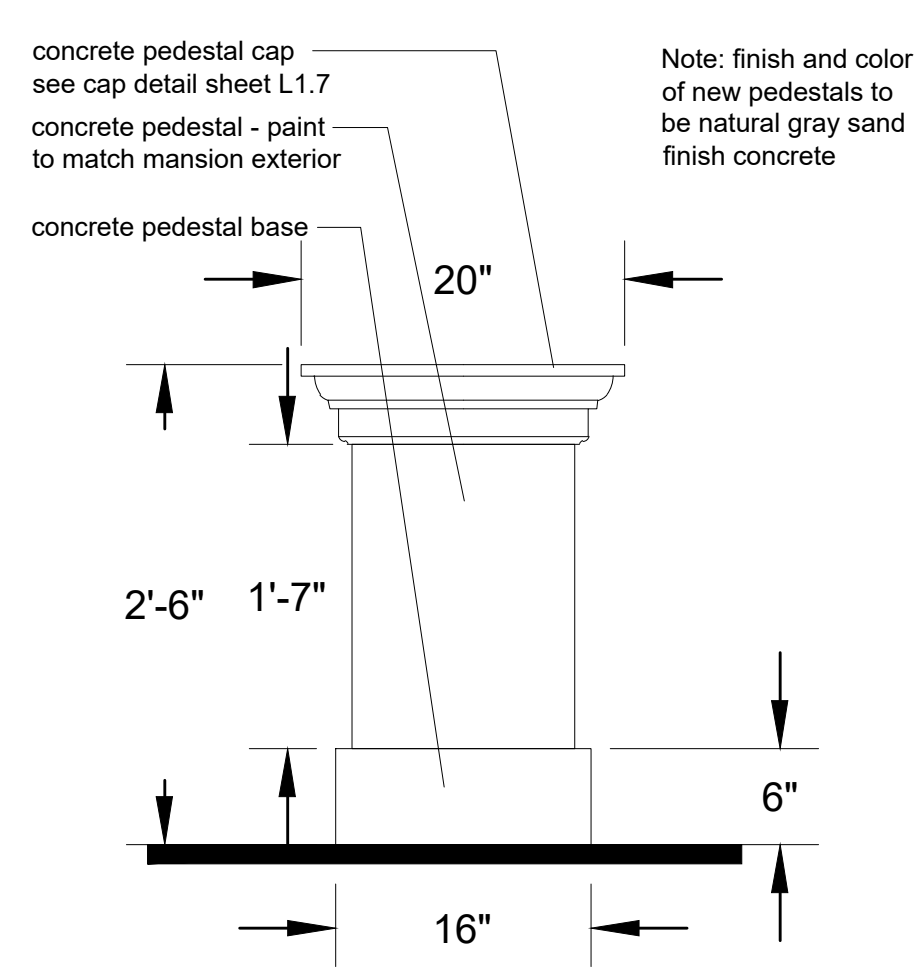
E
1.8
art deco design for reflecting pool bottom
scale: 1/8" = 1' - 0"

not in contract

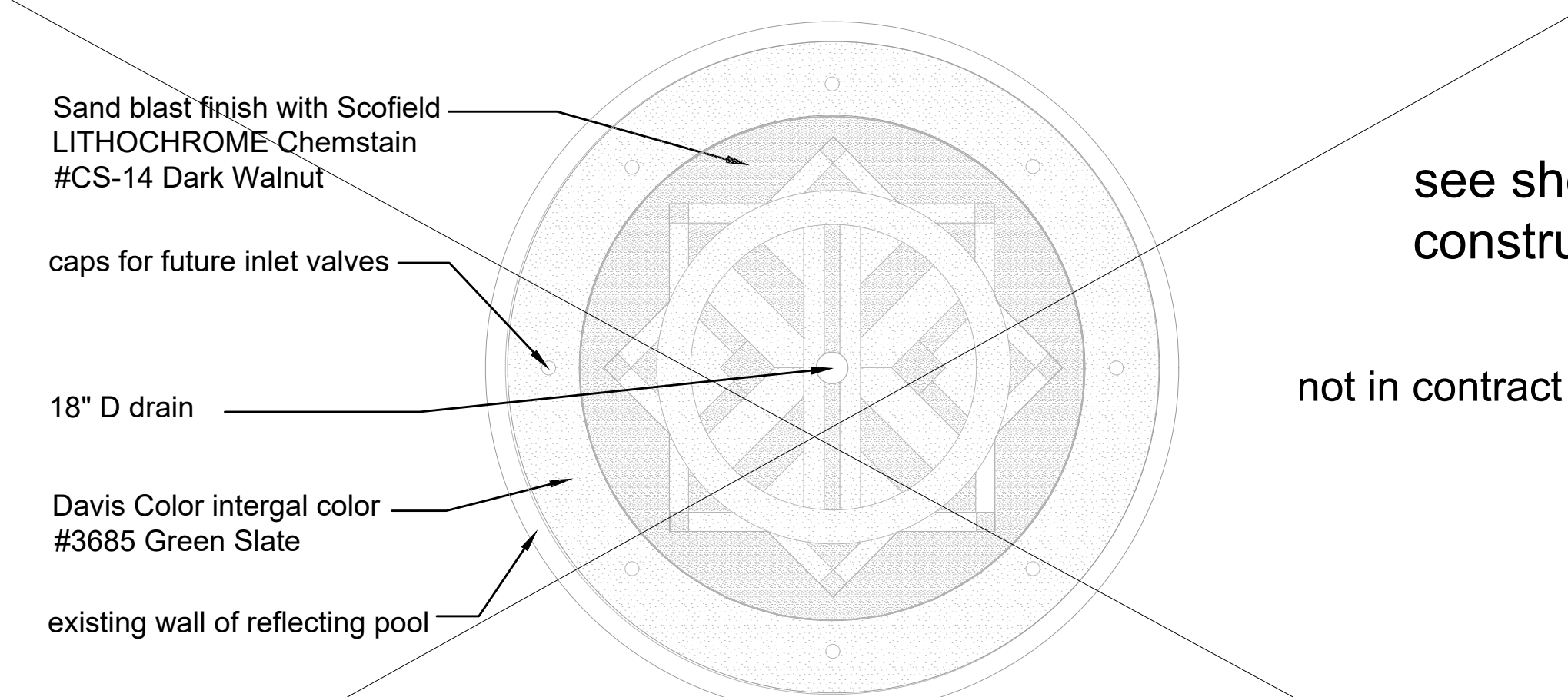


C
1.8
reflecting pool cap detail
scale: 1" = 1' - 0"

not in contract



D
1.8
sculpture pedestal elevation
scale: 1" = 1' - 0"



F
1.8
colors and finishes for reflecting pool floor
scale: 1/8" = 1' - 0"

not in contract

see sheet L1.0 for construction phasing

THE PARK AT RISPIN MANSION
Wharf Road and Clares Street
Capitola, California

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REVISIONS



AMPHITHEATER & SCULPTURE PEDESTAL DETAILS

JOB NO. 201503
 SCALE as noted
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 DATE 2.22.2023

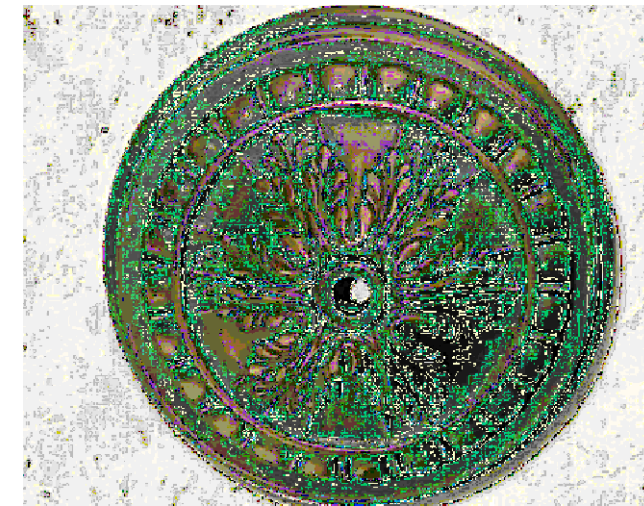
SHEET

L-1.8

SHEET 10 OF 20



Pelican sundial



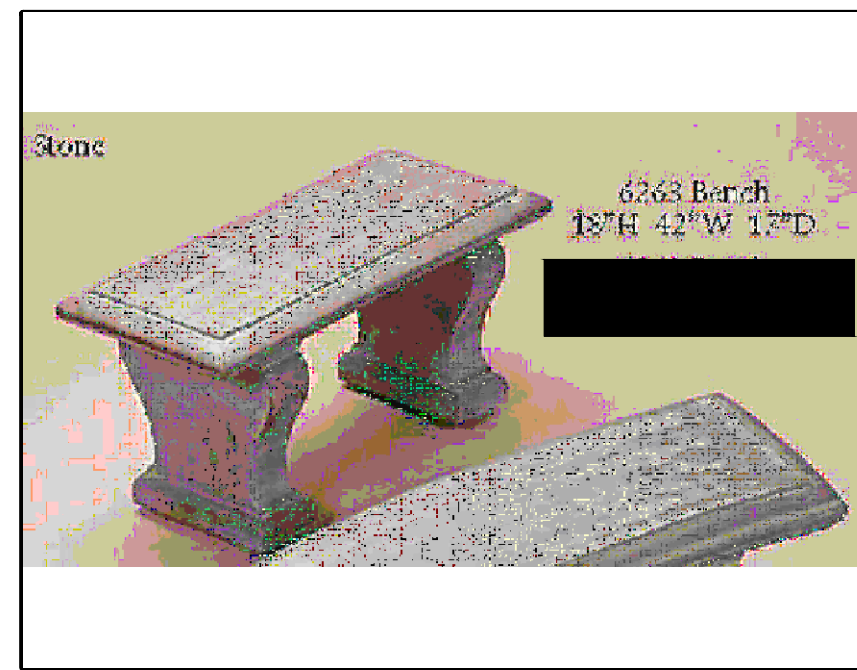
Acanto fountain head emitter



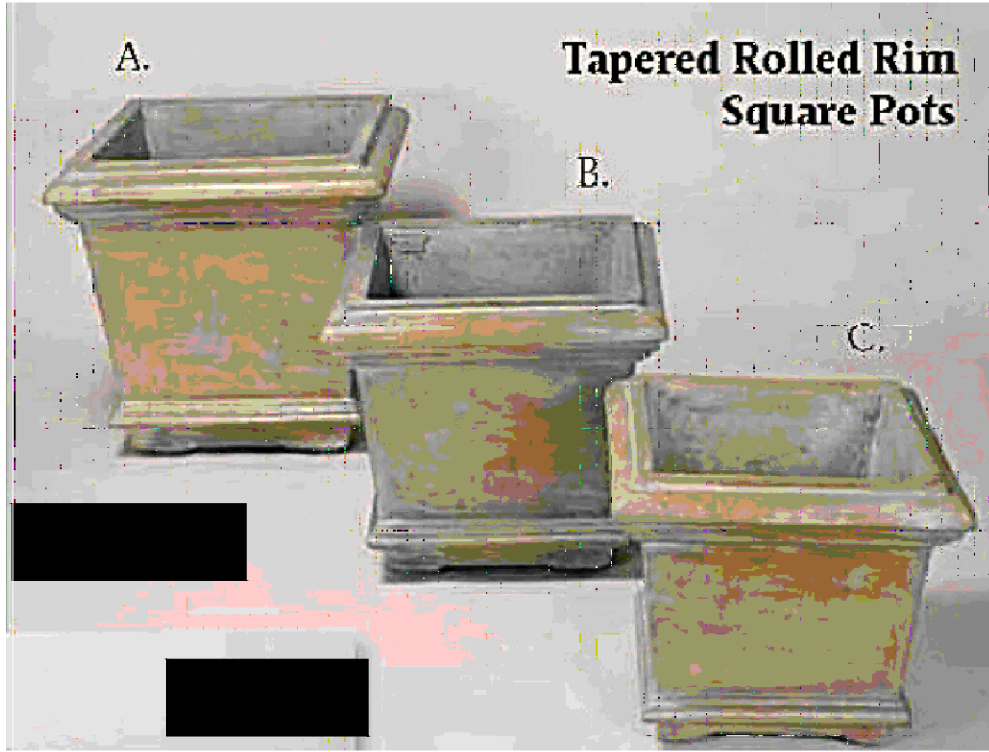
Oak Leaf fountain head emitter



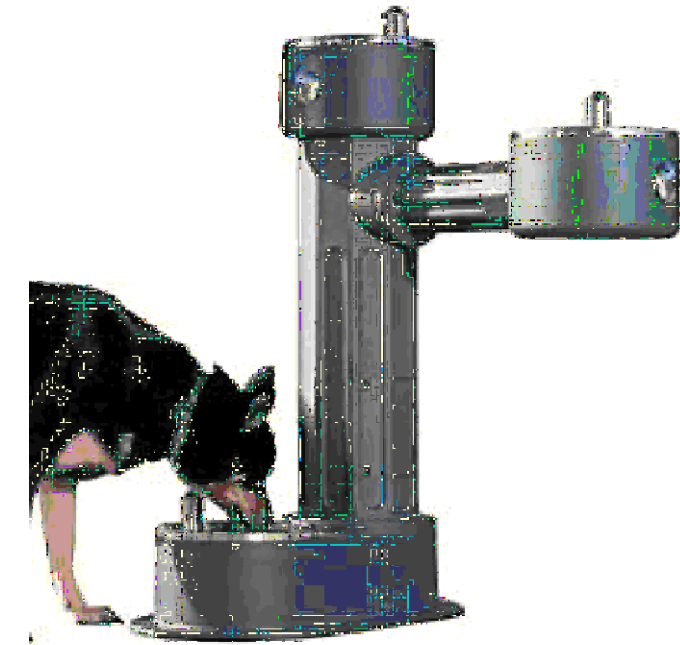
park table



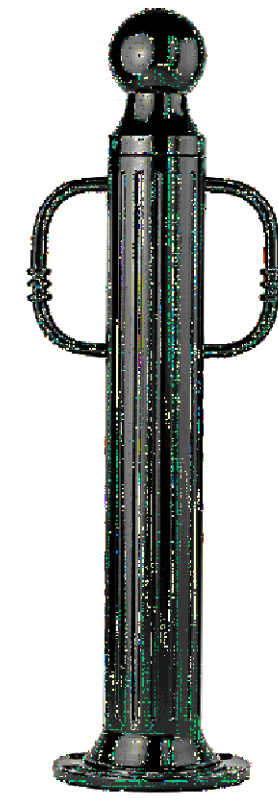
stone bench



square plant container



drinking fountain



bike bollard



park bench

Key	Description	Quantity	Manufacturer/Distributor	Model #	Color/Finish
□	3' Concrete Bench for fountain and outlook	4	A. Silvestri Company asilvestri.com 415.239.5990 info@asilvestri.com	Bench 6261 18"H x 36" W x 17"D	Terre Cotta
□	Container w/ Color for grandstaircase columns	6		Tapered Rolled Rim Square Pots 21"H x 25"W x 17.5" SQ Base"	Terre Cotta
○	Container w/ Color for fountain and outlook	2	Pottery Planet 831.465.9216 2600 Soquel Ave, Santa Cruz	circular urn 16" x 38"	Deep Red
see detail	Acanto Fountain Emitter	1	Black Oak Foundry 949.305.7372 www.fountainsunique.com	No. M5822-ORB	10.5" diameter Oil Rubbed Bronze, 3 GPM flow
see detail	Oak Leaf Fountain Emitter	1	Black Oak Foundry 949.305.7372 www.fountainsunique.com	No. M209-ORB	8" square in Oil Rubbed Bronze 2 GPM flow
■	Accessible Chess Table with two Benches	2	Kenneth Lynch & Sons 203.264.2831 www.klynchandsons.com	6732 (chess table) 6737C (bench)	Concrete table top with metal legs Wood slats with metal legs
○	Pelican Sundial	1		No. 2554 Hourglass and Pelican Sundial	11 1/2" diameter Bronze
⊕	Bike Post Bollard	4	Reliance Foundry 888.735.5680 www.reliance-foundry.com	R-7530-B Cuctile Iron Bike Bollard	39" High w/ two loops; Black Textured Semi Gloss finish
⊕	Historical Series Accessible Pedestal Drinking Fountain	1	Most Dependable Fountains, Inc. www.mostdependable.com 800.552.6331	2008 SM	"Hi-Lo" barrier-free antique historic style heavy-duty aluminum alloy pedestal Textured Bergundy powder coat finish
■	6' Metal Bench with armrest	12	DuMor, Inc., Site Furnishings 800.598.4018 www.dumor.com	Bench 57 - 60PL - 3AR	6' long recycled plastic bench w/ armrest Deep Red color base w/ Cedar color recycled plastic top
○	Trash Receptacle	3		Receptacle 107 32 gal.	Steel with Deep Red Powder Coat finish
○	Recycling Container	3		Receptacle 107 32 gal.	Steel with Deep Red Powder Coat finish
■	Table/Benches	1		76 Series PL 4 with surface plate mount	Deep Red color base w/ Cedar color recycled plastic top
■	Accessible Table/Benches	1		76 Series PL 3 with surface plate mount	Deep Red color base w/ Cedar color recycled plastic top
⊕	Street Light fixture on Light Pole	8	SEE ELECTRICAL PLANS	SEE ELECTRICAL PLANS	SEE ELECTRICAL PLANS
⊕	DOG STATION	3	DOODY CALLS DIRECT doodycallsdirect.com	THE SENTRY STATION	GREEN ANCHOR TO CONCRETE FOOTING
—	WALL MOUNT SIGN	3	TO BE SELECTED	PORCELAIN ENAMEL	LIGHT CREAM FIELD WITH GOLD TITLE LETTERING
□	PEDESTAL MOUNT SIGN	2	TO BE SELECTED	PORCELAIN ENAMEL	SELECTION OF PHOTOGRAPHS AND TEXT TO BE AND DESIGNED FOR APPROVAL BY CITY
⊕	Post mount down light	12	RAB LIGHTING	SLIM12Y 120V, 12W, 3000K warm	Bronze Anchor mounting bracket to rail posts

THE PARK AT RISPIN MANSION
Wharf Road and Clares Street
Capitola, California



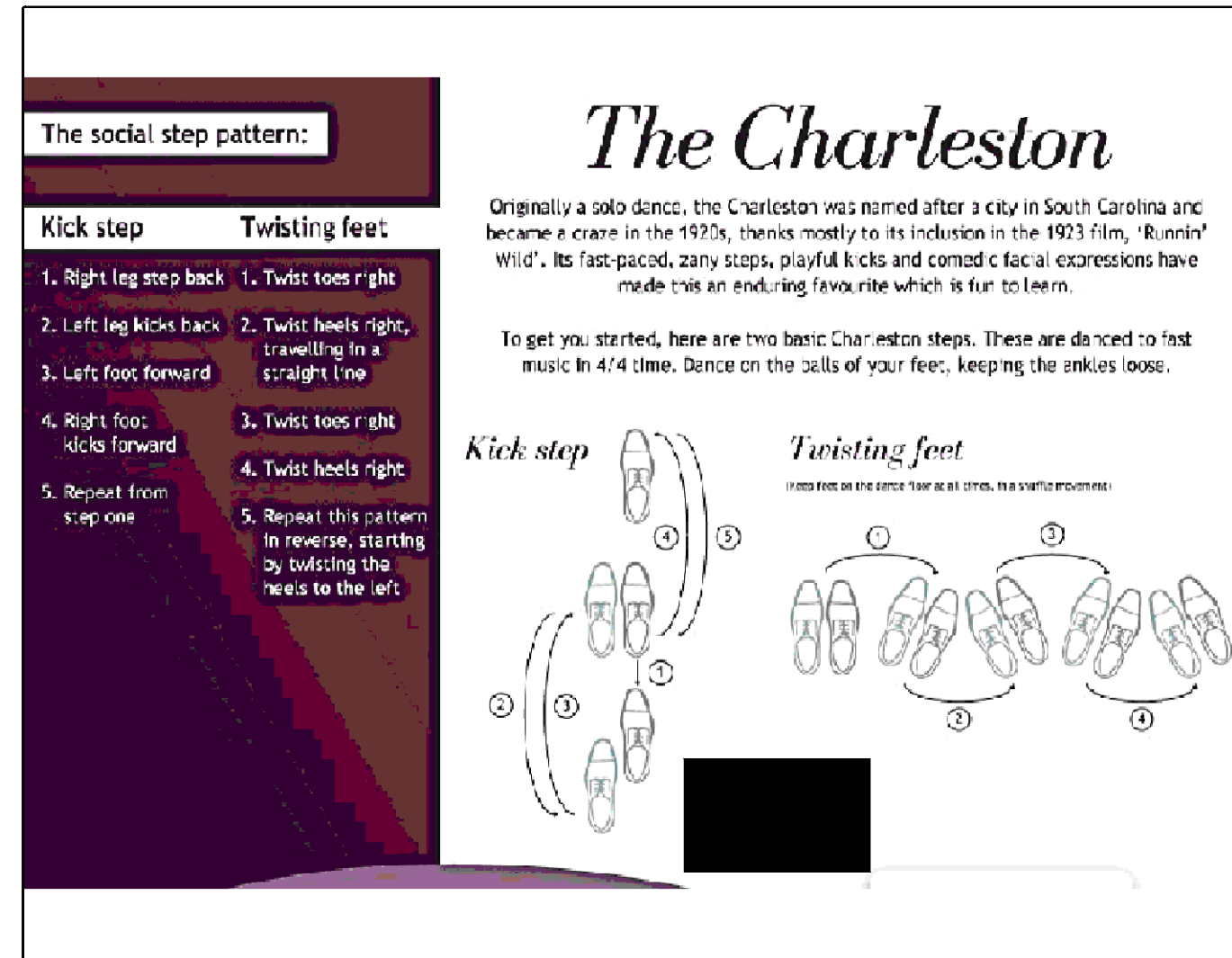
dog clean up station



Acorn style park light



trash/recycling receptacles



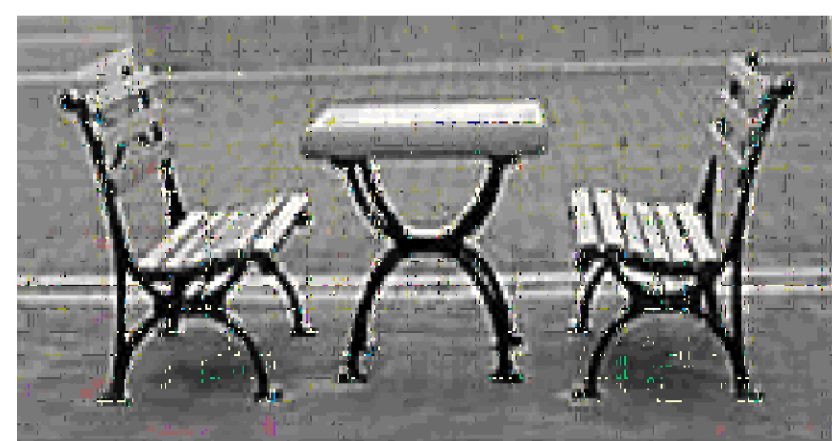
Charleston dance steps

THE CHARLESTON

- The 'kick step' and 'twisting feet' Charleston dance steps shall be created using polished 1/4" stainless steel with engraved numbers as shown.
- The footprints with numbers and directional arrows shall be placed on top of the 5' x 12' concrete pad shown on plans.
- The footprints shall be oriented facing east so the 'dancer' would be facing the mansion. The footprints can be a simplified image of the shoeprint shown above.
- The text for 'The Charleston', 'Kick Step', and 'Twisting Feet' shall be 1/4" polished stainless steel using a readable font (arial or similar).
- All stainless steel shall be securely attached to the concrete using LOCTITE Metal/Concrete Epoxy or equal product.
- The commissioned artist shall submit a final layout sketch to be approved by the Landscape Architect and City prior to start of fabrication.



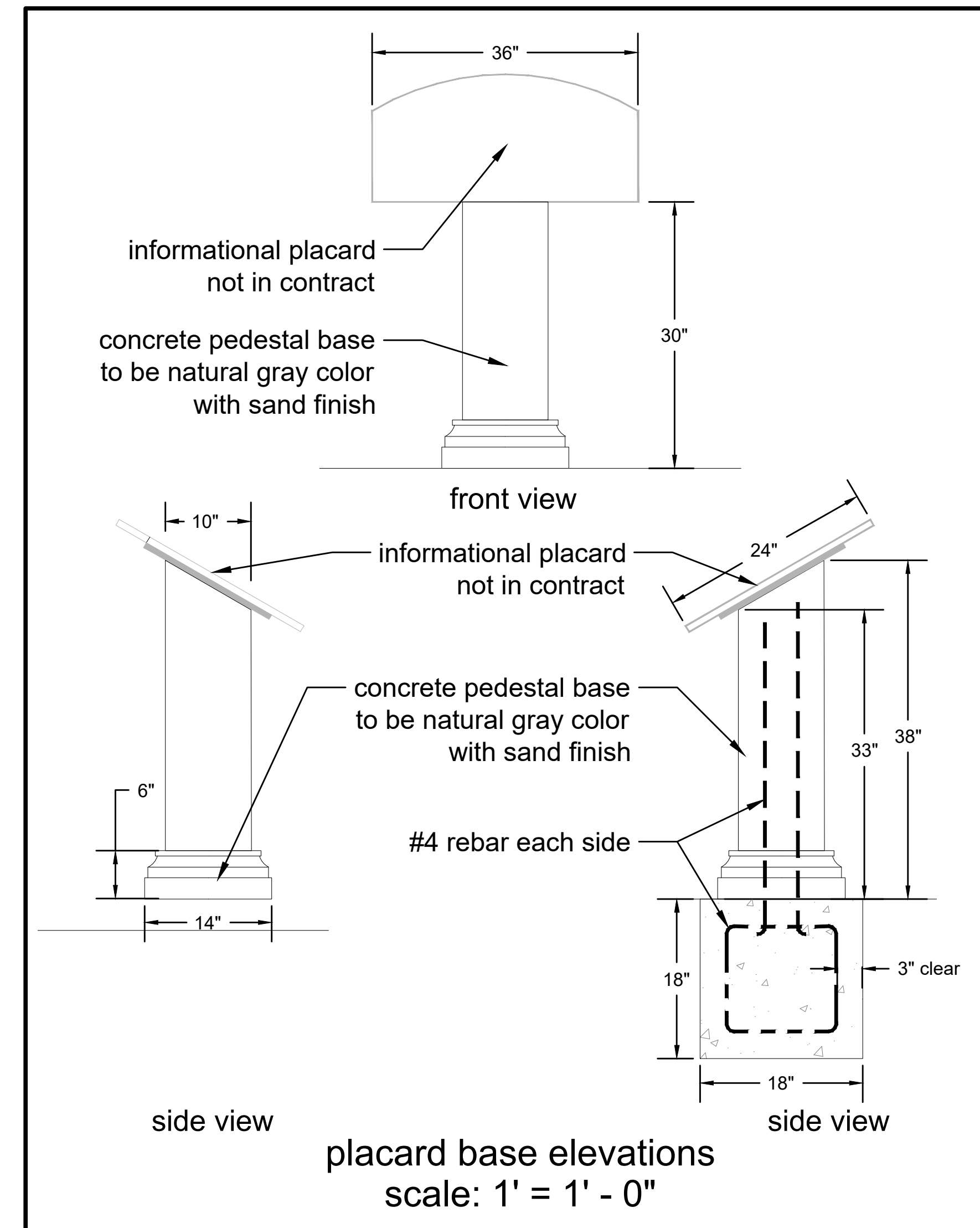
game table



game table with benches

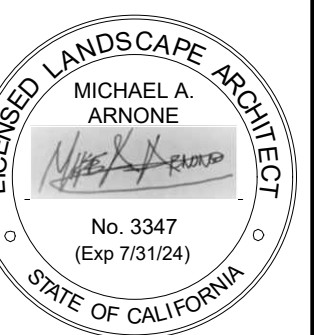


circular urn



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REVISIONS



SITE FURNISHING LEGEND, PHOTOS & SIGN DETAILS

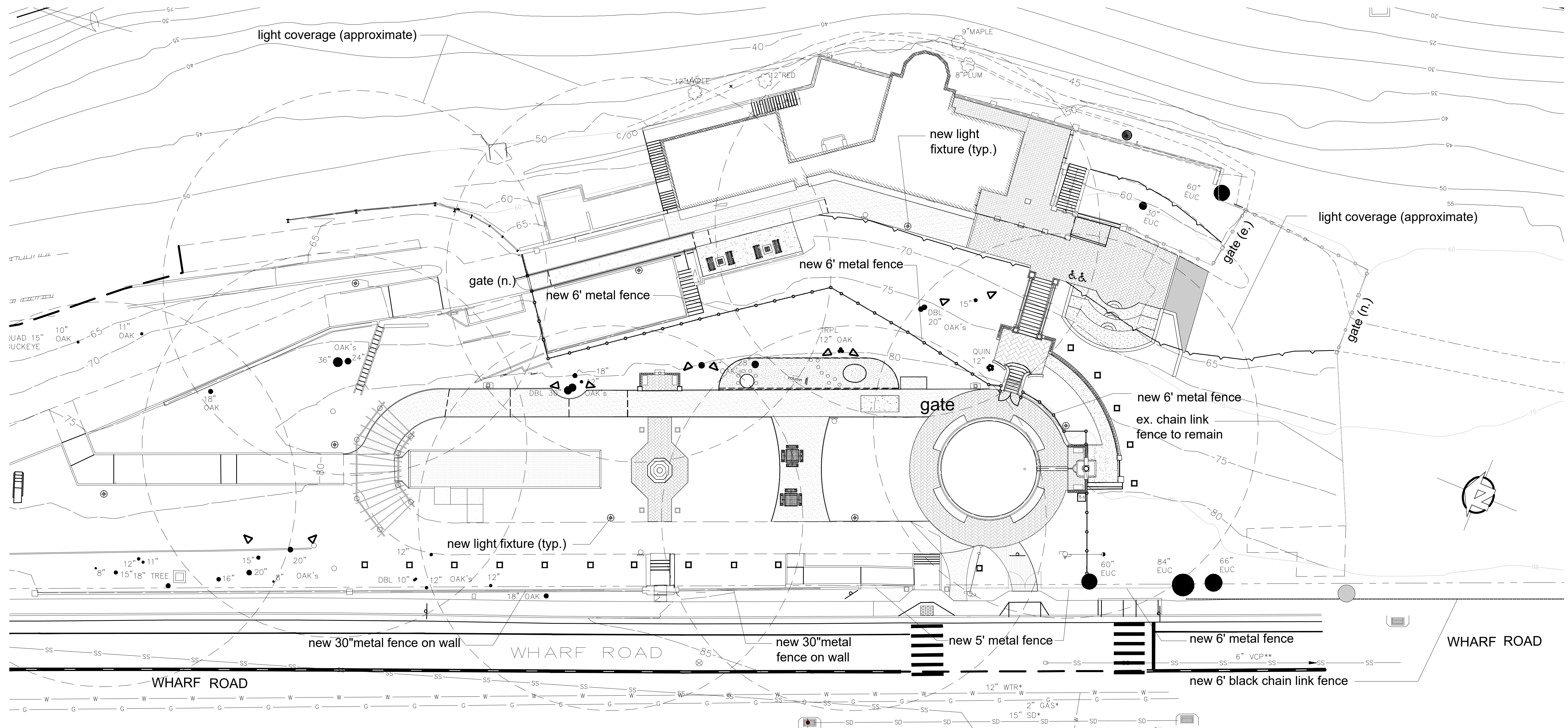
JOB NO. 201503
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SHEET

L- 1.9

SHEET 11 OF 20

THE PARK AT RISPIN MANSION
Wharf Road and Clares Street
Capitola, California



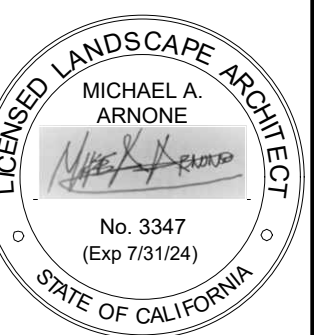
see sheet L1.0 for
construction phasing

ELEVATION VIEW	PLAN VIEW	DESCRIPTION	LOCATION	LENGTH
		5' DECORATIVE METAL FENCE w/ 6" PICKET SPACING black semi gloss powder coat finish	AT ENTRY OFF WHARF ROAD	64' LF
		6' DECORATIVE METAL FENCE w/ 6" PICKET SPACING black semi gloss powder coat finish	AT TOP OF SLOPE TO FOUNTAIN FROM FOUNTAIN TO WHARF ROAD	266 LF
		30" DECORATIVE METAL GUARDRAIL w/ 4" PICKET SPACING black semi gloss powder coat finish	ON TOP OF SECTIONS OF WALL ALONG WHARF ROAD	100 LF
		6' BLACK CHAIN LINK FENCE	PERIMETER OF PARK AREA	140 LF

Lighting Legend					
Key	Description	Quantity	Manufacturer	Model #	Color/Finish
	Street Light fixture on Light Pole	8 8	SEE ELECTRICAL PLANS	SEE ELECTRICAL PLANS	SEE ELECTRICAL PLANS
	Well light on Italian Cypress & Palms	15	Unique Lighting 209.607.3060 www.uniquelighting.com	Apollo Star APST-12-L1030 12 Volt w/ Flex Gold LED PAR 36	Standard Weathered Brass Grate
	Uplight on existing Oaks	12	Unique Lighting 209.607.3060 www.uniquelighting.com	Bishop BISH-12-L1830 12 Volt w/ Flex Gold LED PAR 36	Standard Weathered Brass Grate
	300 watt 12V transformer	1	Unique Lighting 209.607.3060 www.uniquelighting.com	300W LED Transformer	Stainless Steel Cabinet

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REVISIONS



LIGHTING & FENCING PLAN

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SCALE 1/16" = 1' - 0"
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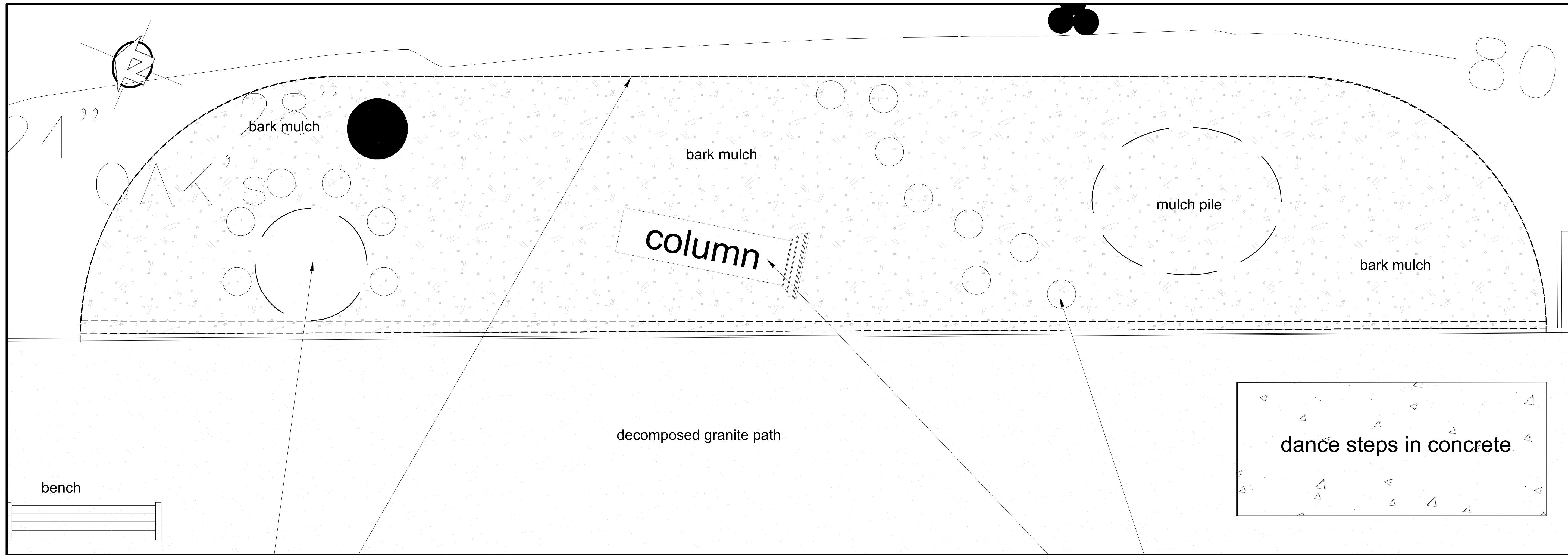
SHEET

L- 1.10

SHEET 12 OF 20

THE PARK AT RISPIN MANSION
Wharf Road and Clares Street
Capitola, California

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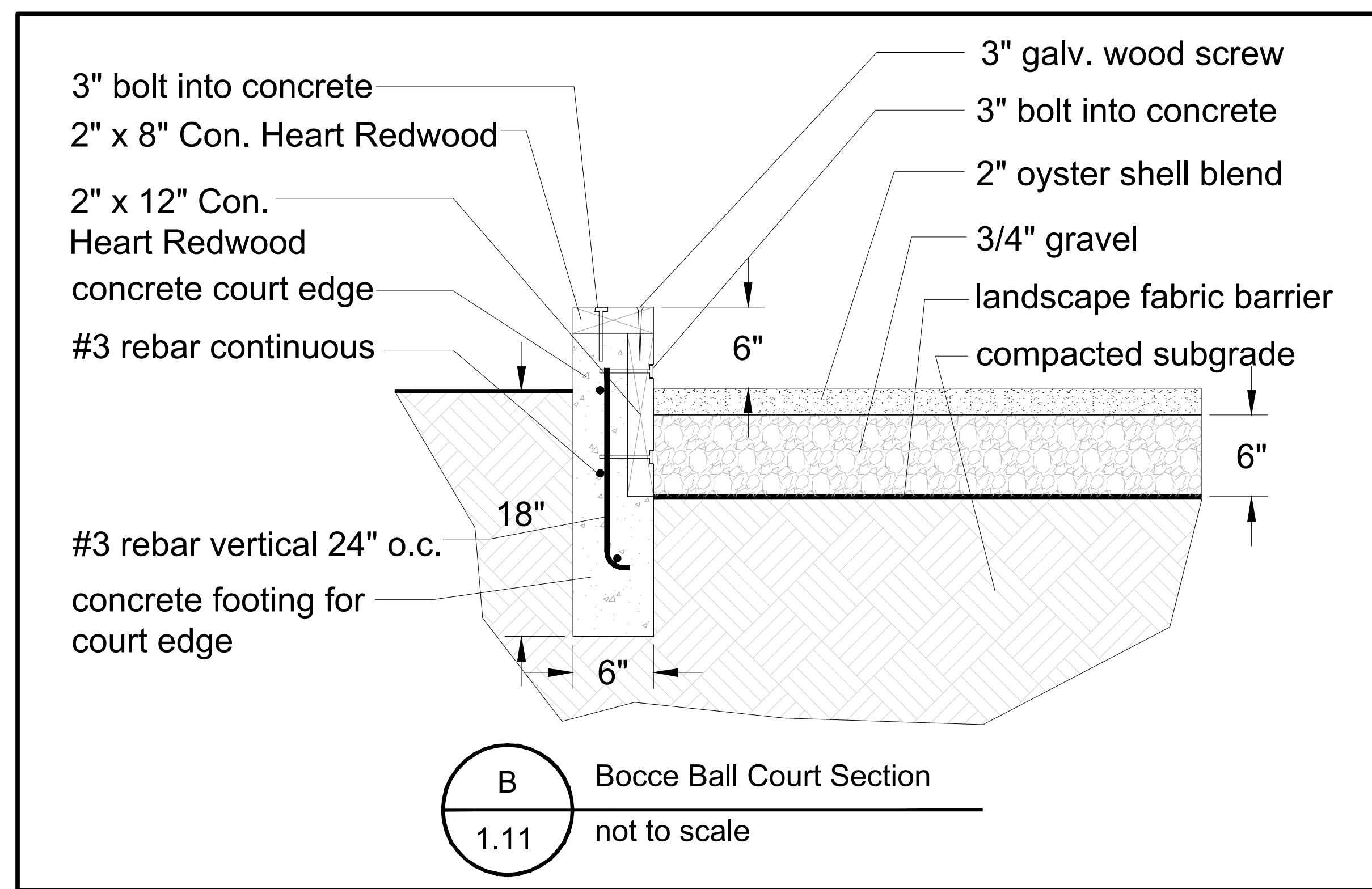


NOTE:
The artifact arbor columns and wall column are stored in mansion garage. They will be moved to nature play area by contractor and located by landscape architect in field.

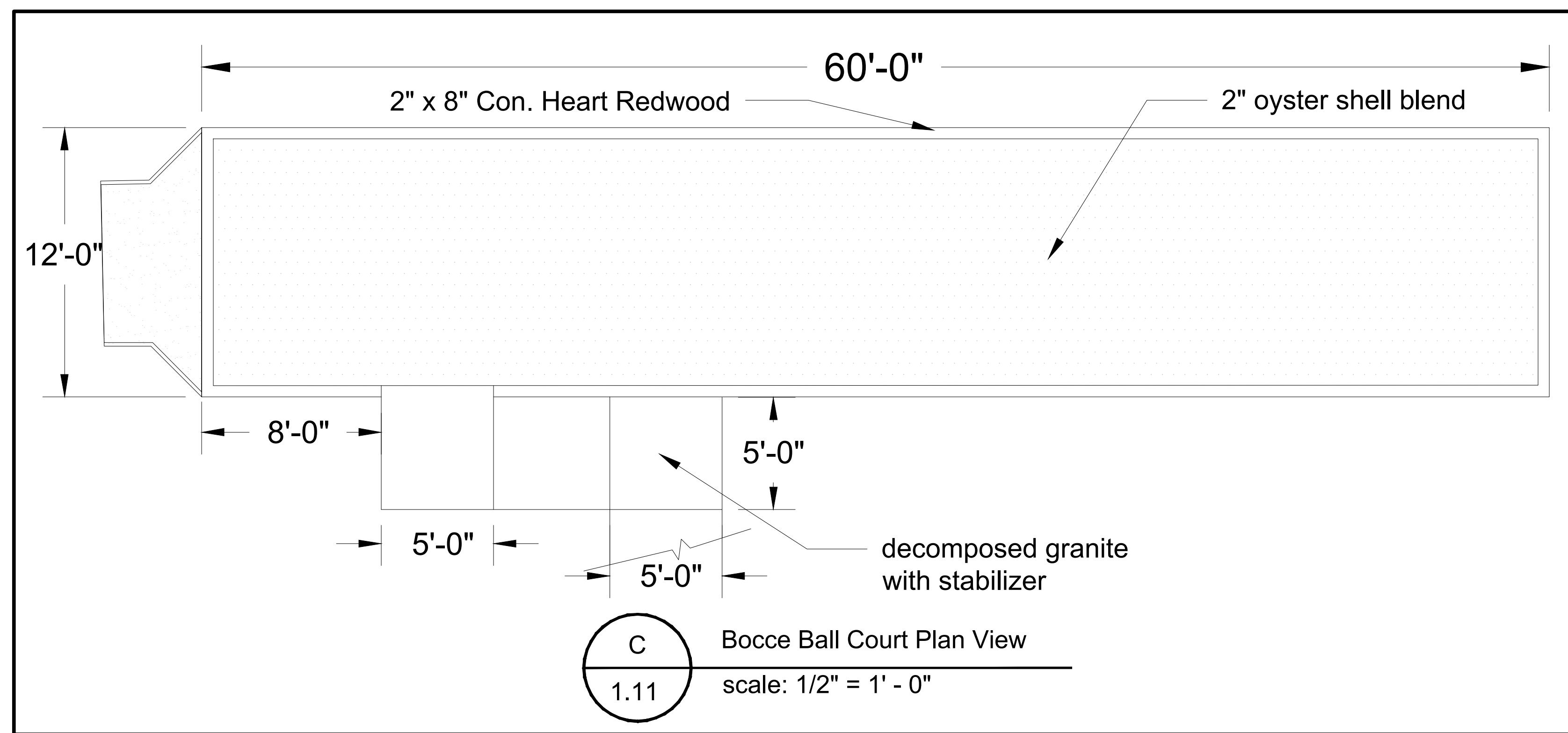
artifact arbor column for seats and climbing, vary height and partially buried
artifact wall column tables for creative play with found object: acorns, sticks, leaves

circle gathering space
Boundary of designated Nature Play Area
No edging required

A Nature Play Area Plan View
1.11 scale: 1/2" = 1' - 0"



B Bocce Ball Court Section
1.11 not to scale



C Bocce Ball Court Plan View
1.11 scale: 1/2" = 1' - 0"

REVISIONS



NATURE PLAY, BOCCE BALL PLAN & DETAILS

JOB NO. 201503
SCALE as noted
DRAWN MA
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DATE 2.22.2023

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L- 1.11

SHEET 13 OF 20



February 10, 2016

Mike Arnone + Associates
Landscape Architecture
Rknown1@hotmail.com

Project: Rispin Mansion Landscape Restoration
Phase: Tree Evaluation

As you requested I have reviewed the plans for the proposed landscape renovation for Rispin Mansion in the City of Capitola.

The project includes restoring the historical features including pathways, fountain and other uses based on the historical plans for the property.

Observations

The property is forested with mature, semi-mature and young coast live oaks (*Quercus agrifolia*). A total of 25 oaks are growing adjacent to the proposed improvements.

In general the trees are healthy and well structured. Several mature trees display the wide and spreading canopies typical of the species.

Potential Impacts

Trees #2-#5 are mature trees adjacent to construction and impacts have been evaluated and recommendations made to protect the trees during the renovation.

Tree #2 is within a few feet of the proposed walkway that circles the site. To reduce impacts to tree roots the path will be placed on natural grade, no excavation will be required.

Trees #3-#5 are adjacent to a new use area and pathway. No detrimental impacts are anticipated; protection fencing and barricades will prevent inadvertent damage to the trees.

Tree #6 and groups #7 and #9 are adjacent to the existing stucco wall that will be partially demolished for the project. Tree #6 cannot withstand the impacts to the root zone and removal will be required. Tree groups #7 and #9 are clusters of small diameter oaks (5 to 9 inches). The trees are inconsistent with the historical design and will be removed and replaced with trees that were present in the original design.

849 Almar Ave, Suite C #319
Santa Cruz, CA 95060
email: maureenah@sbcglobal.net

Telephone: 831-763-6919
Fax: 831-763-7724
Mobile: 831-234-7735

Tree #8 is growing outside the existing stucco wall. The wall will be retained in this area but its height will be reduced. No impacts to this tree are anticipated. It will be protected with exclusionary fencing and straw bale barricades during the project construction.

Tree group #9 and #10 will also be retained and protect with exclusionary fencing and straw bale barricades. If any tree roots are exposed during excavation or site grading they will be properly pruned under the supervision of the project arborist. All damaged root tissue will be removed using appropriate tools that may include pruners, loppers or sawzall. If the area is to remain open for more than 48 hours the roots will be covered with a layer of moistened burlap. Burlap will be kept moist, not saturated until the area is backfilled.

No sealant or other material will be applied to the pruned roots; moistened burlap will prevent the roots from drying and allow for the trees natural healing process to take place.

Pruning Recommendations

Trees #1-#4 have broad and spreading canopies that extend well beyond the trunks and less than a few feet above natural grade (pictured below). Pruning to provide pedestrian clearance will be completed.



Two to three lower branches will be pruned back to the trunk from each tree. Several other branches higher in the canopy may require length reduction back to an existing lateral branch.

In addition, dead branching greater than one inch in diameter will be removed to reduce the risk of falling branches.

All pruning will be completed by a qualified professional under the supervision of the project arborist.

Tree Protection

Exclusionary fencing will be erected in the areas documented on the attached site plan. Fencing will be orange plastic supported by metal posts embedded in the ground. Posts will be placed no further than five feet apart.

Straw bales laid end to end will be installed just inside the edge of the exclusionary fencing. (Sample pictured at right)

Conclusion

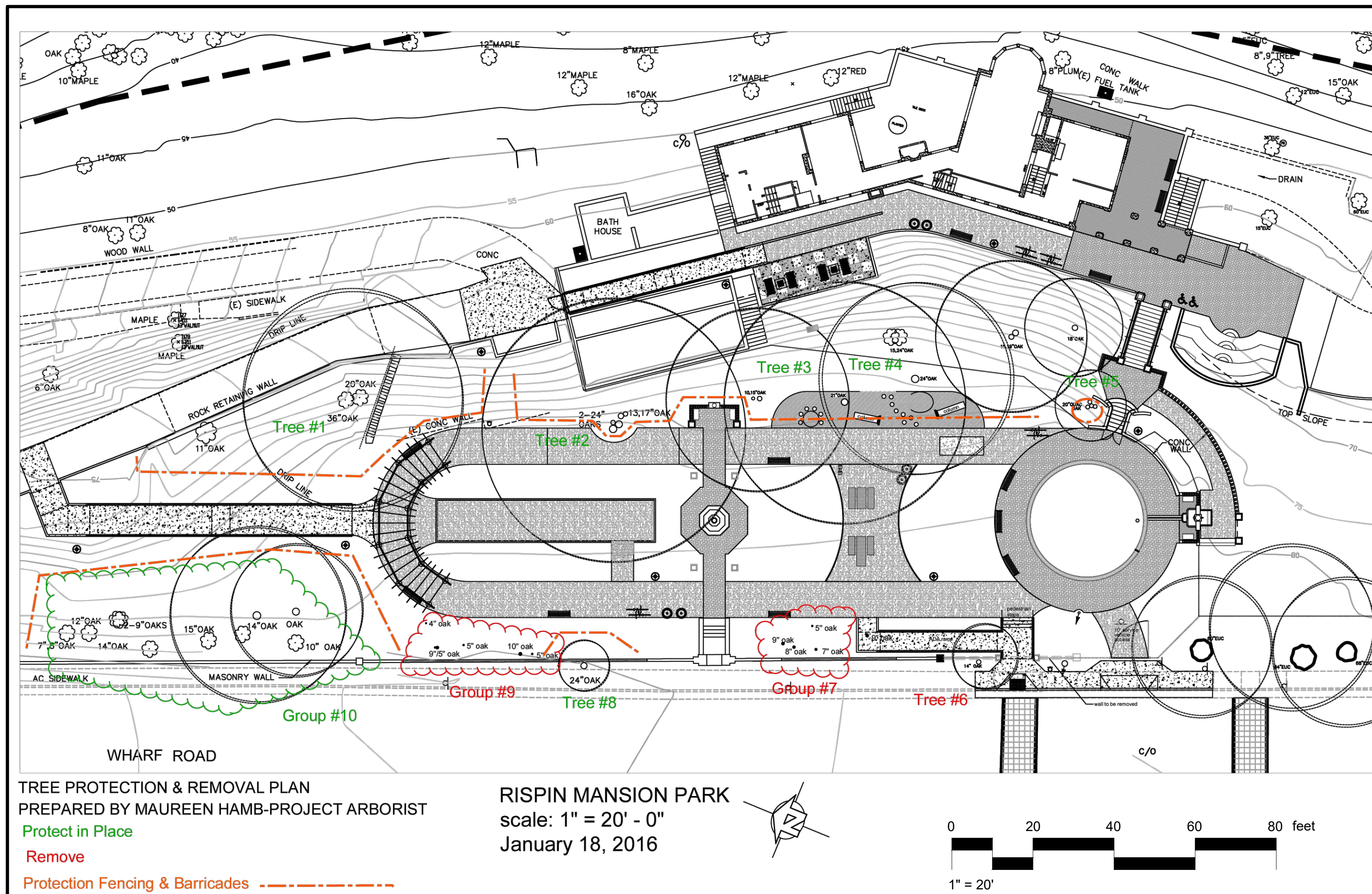
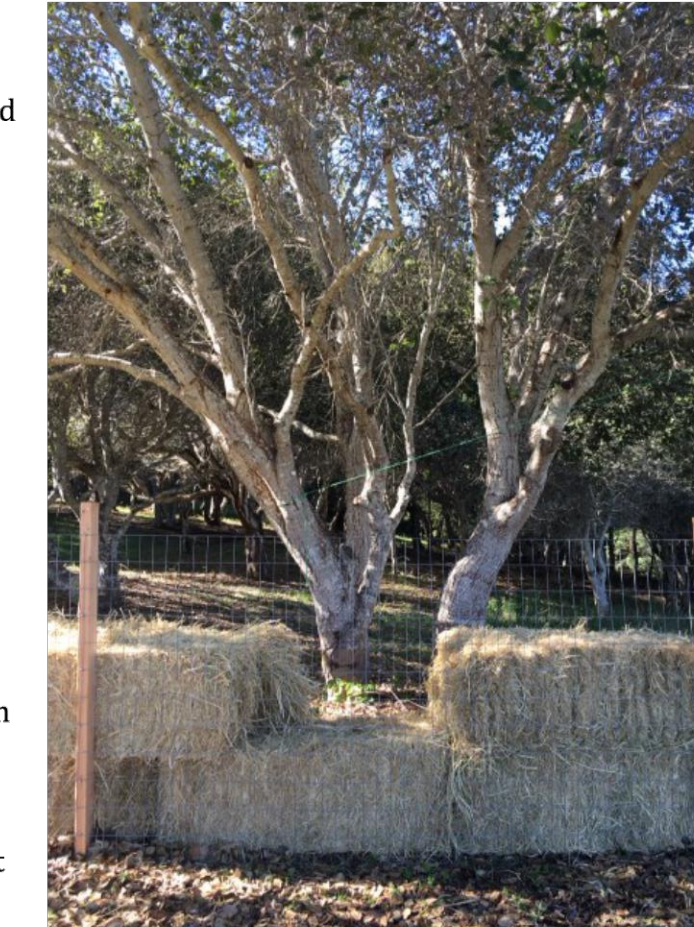
The restoration of the historical gardens at Rispin Mansion can be completed with the removal of one 14 inch coast live oak and two groups of small diameter oaks.

Pruning to provide clearance and improve tree structure will be required. The pruning as described will not adversely affect tree health or structural integrity.

The protection measures must be in place prior to the onset of the project. Exclusionary fencing and straw bale barricade locations will be inspected by the project arborist prior to the onset of site changes.

Please call my office with any questions regarding the trees on this project site.

Respectfully submitted,
Maureen Hamb-Certified Arborist WE2280



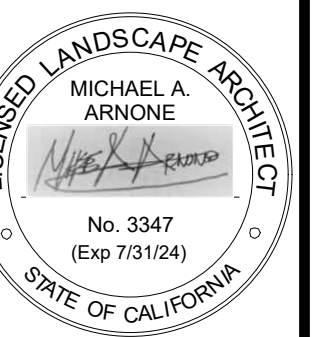
- OAK PROTECTION NOTES:
1. LANDSCAPE CONTRACTOR TO CLEAR ALL IVY ON OAK TREE TRUNKS AND CANOPY.
 2. LANDSCAPE CONTRACTOR TO REMOVE ALL IVY PLANTS AND ROOT SYSTEMS WITHIN A TEN FOOT RADIUS OF ALL OAK TREE TRUNKS.
 3. NO MECHANICAL TRENCHING OR TILLING WITHIN A TEN FOOT RADIUS OF ANY OAK TREE TRUNK.

THE PARK AT RISPIN MANSION
Wharf Road and Clares Street
Capitola, California

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REVISIONS



TREE PROTECTION PLAN

JOB NO. 201503
SCALE 1" = 20' - 0"
DRAWN MA
CHECK JC/MA
DATE 2.22.2023

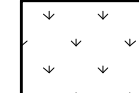
SHEET
L- 2.0

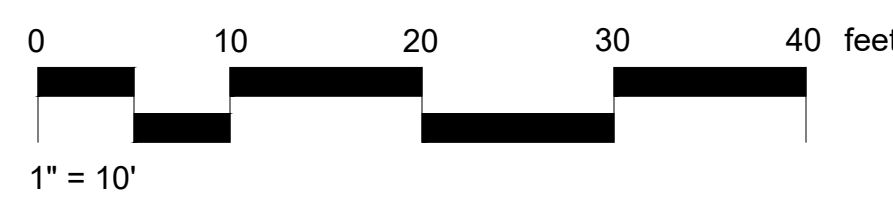
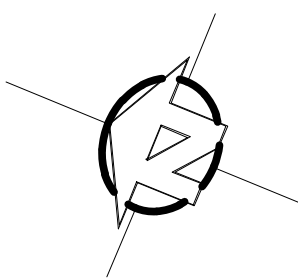
SHEET 14 OF 20

PLANT SCHEDULE

TREES	BOTANICAL / COMMON NAME	CONT	QTY
CER FOR	Cercis canadensis 'Forest Pansy' TM / Forest Pansy Redbud	24" box	4
CUP STR	Cupressus sempervirens 'Stricta' / Columnar Italian Cypress	24" box	9
SHRUBS	BOTANICAL / COMMON NAME	CONT	QTY
ACH WYM	Achillea millefolium 'La Luna' / Yarrow	1 gal	54
ACH SAL	Achillea millefolium 'Salmon Beauty' / Salmon Beauty Yarrow	1 gal	32
AGA SLI	Agapanthus orientalis 'Queen Mum' / White Lily of the Nile	5 gal	17
ARC EME	Arctostaphylos uva-ursi 'Emerald Carpet' / Emerald Carpet Manzanita	5 gal	21
ARC REY	Arctostaphylos uva-ursi 'Point Reyes' / Kinnikinnick	5 gal	11
CAL KAR	Calamagrostis x acutiflora 'Karl Foerster' / Feather Reed Grass	1 gal	38
CAR TUM	Carex tumulicola / Berkeley Sedge	1 gal	6
CAR CAL	Carpenteria californica / Bush Anemone	5 gal	12
CEA HO7	Ceanothus griseus horizontalis 'Carmel Creeper' / Carmel Creeper	5 gal	7
COR PUL	Correa pulchella / Australian Fuchsia	5 gal	48
COR WYN	Correa x 'Wyn's Wonder' / Variegated Australian Fuchsia	5 gal	13
DIE VAR	Dietes vegeta 'Variegata' / Variegated African Iris	5 gal	27
ENC CAL	Encelia californica / California Encelia	1 gal	14
ERI BEA	Erigeron glaucus / Beach Daisy	1 gal	13
GER CAN	Geranium x cantabrigiense 'Biokovo' / Biokovo Cranesbill	1 gal	18
HEL SAP	Helictotrichon sempervirens 'Sapphire' / Blue Oat Grass	1 gal	8
IRI COA	Iris douglasiana 'Pacific Coast Hybrids' / PCH Iris	1 gal	42
LAN ALB	Lantana montevidensis 'Alba' / White Trailing Lantana	5 gal	9
MAH AQU	Mahonia aquifolium / Oregon Grape	5 gal	16
MAH NER	Mahonia nervosa / Oregon Grape	1 gal	8
MAH REP	Mahonia repens / Creeping Mahonia	5 gal	15
MIM AUR	Mimulus aurantiacus / Sticky Monkey Flower	5 gal	6
MUH RIG	Muhlenbergia rigens / Deer Grass	1 gal	14
MYR VAR	Myrtus communis 'Compacta Variegata' / Variegated Dwarf Myrtle	5 gal	6
NEP SIX	Nepeta x faassenii 'Six Hills Giant' / Giant Catmint	1 gal	22
POL MUN	Polystichum munitum / Western Sword Fern	5 gal	42
RHA CAL	Rhamnus californica / California Coffee Berry	5 gal	4
RHA SE2	Rhamnus californica 'Seaview Improved' / California Coffee Berry	5 gal	11
RIB GLU	Ribes sanguineum glutinosum / Red Flowering Currant	5 gal	10
RIB VIB	Ribes viburnifolium / Evergreen Currant	1 gal	38
SAL SPA	Salvia spathacea / Hummingbird Sage	1 gal	35
VER LIL	Verbena lilacina 'De la Mina' / Lilac Verbena	1 gal	6
VIO ADU	Viola adunca / Hookedspur Violet	5 gal	50
WES WY3	Westringia fruticosa 'Wynabbie Highlight' / Variegated Australian Rosemary	5 gal	20
VINE/ESPALIER	BOTANICAL / COMMON NAME	CONT	QTY
FIC PU2	Ficus pumila / Creeping Fig	15 gal	7
JAS POL	Jasminum polyanthum / Pink Jasmine	15 gal	4
PAR TR2	Parthenocissus tricuspidata / Japanese Creeper	15 gal	4
ROS CCC	Rosa x 'Iceberg Climbing' / Iceberg Climbing Rose	15 gal	4

PLANT SCHEDULE

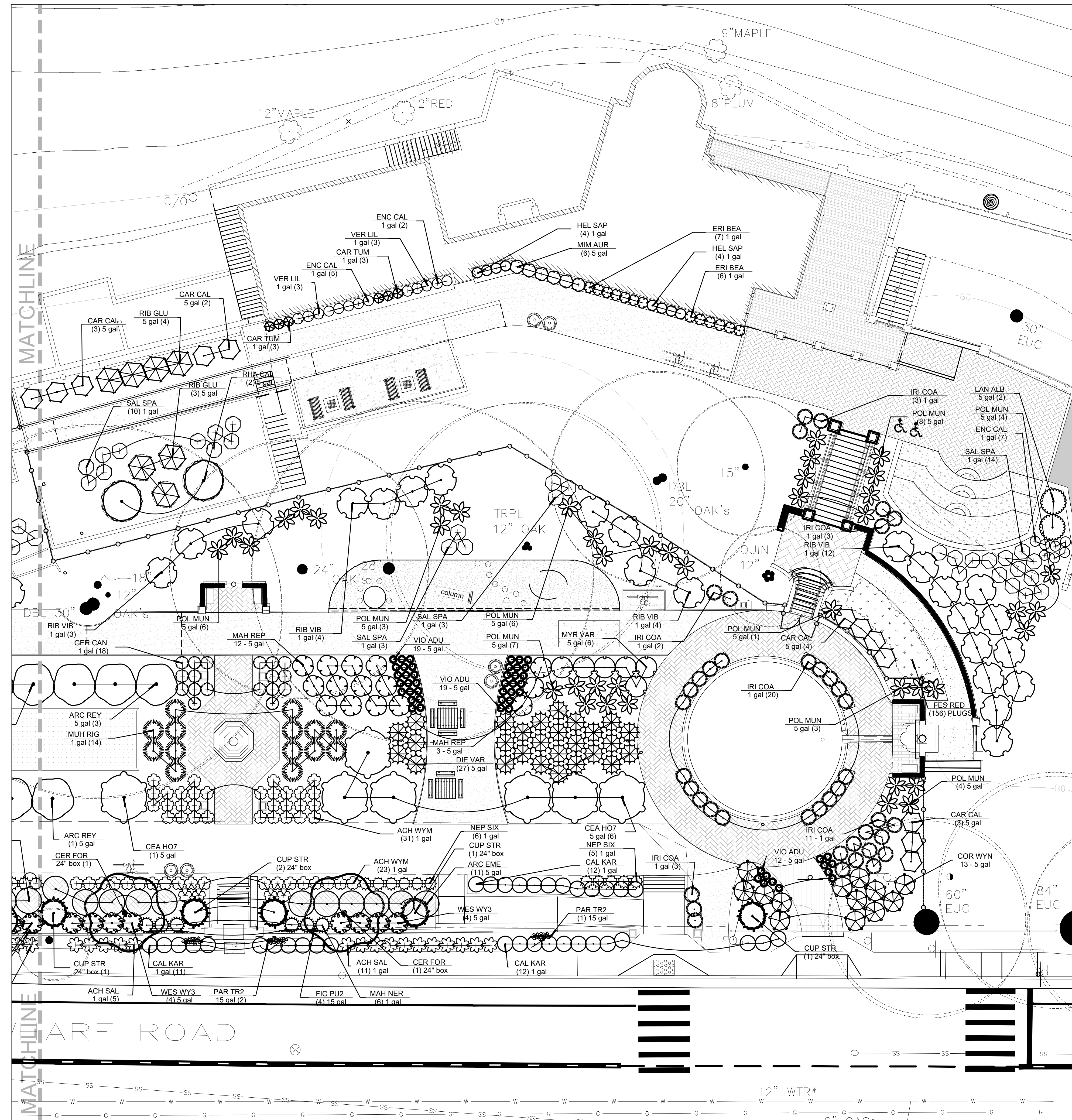
GROUND COVERS	CODE	BOTANICAL / COMMON NAME	CONT	SPACING	QTY
	FES RED	Festuca rubra / Red Fescue	PLUGS	12" o.c.	156



OAK PROTECTION NOTES:

(See Tree protection plan on sheet L2.0)

1. LANDSCAPE CONTRACTOR TO CLEAR ALL IVY ON OAK TREE TRUNKS AND CANOPY.
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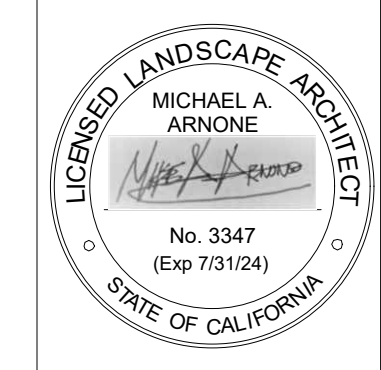
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Capitola, California

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REVISIONS



PLANTING PLAN
SOUTH END

JOB NO. 201503
SCALE 1" = 10' - 0"
DRAWN MA
CHECK JC/MA
DATE 2.22.2023

SHEET
L - 2.1

THE PARK AT RISPIN MANSION
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REVISIONS



PLANTING PLAN
NORTH END

JOB NO. 201503
SCALE 1" = 10' - 0"
DRAWN MA
CHECK JC/MA
DATE 2.22.2023

SHEET
L- 2.2

SHEET 16 OF 20

PLANT SCHEDULE

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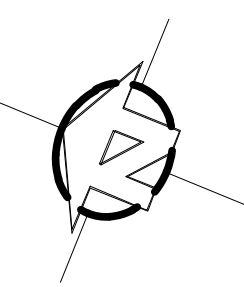
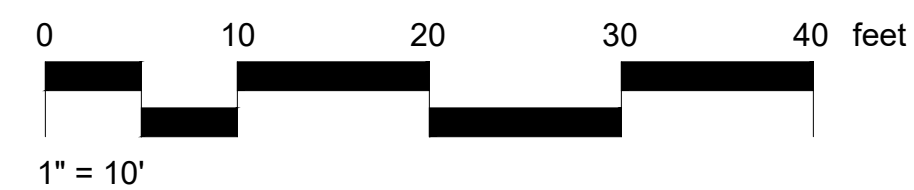
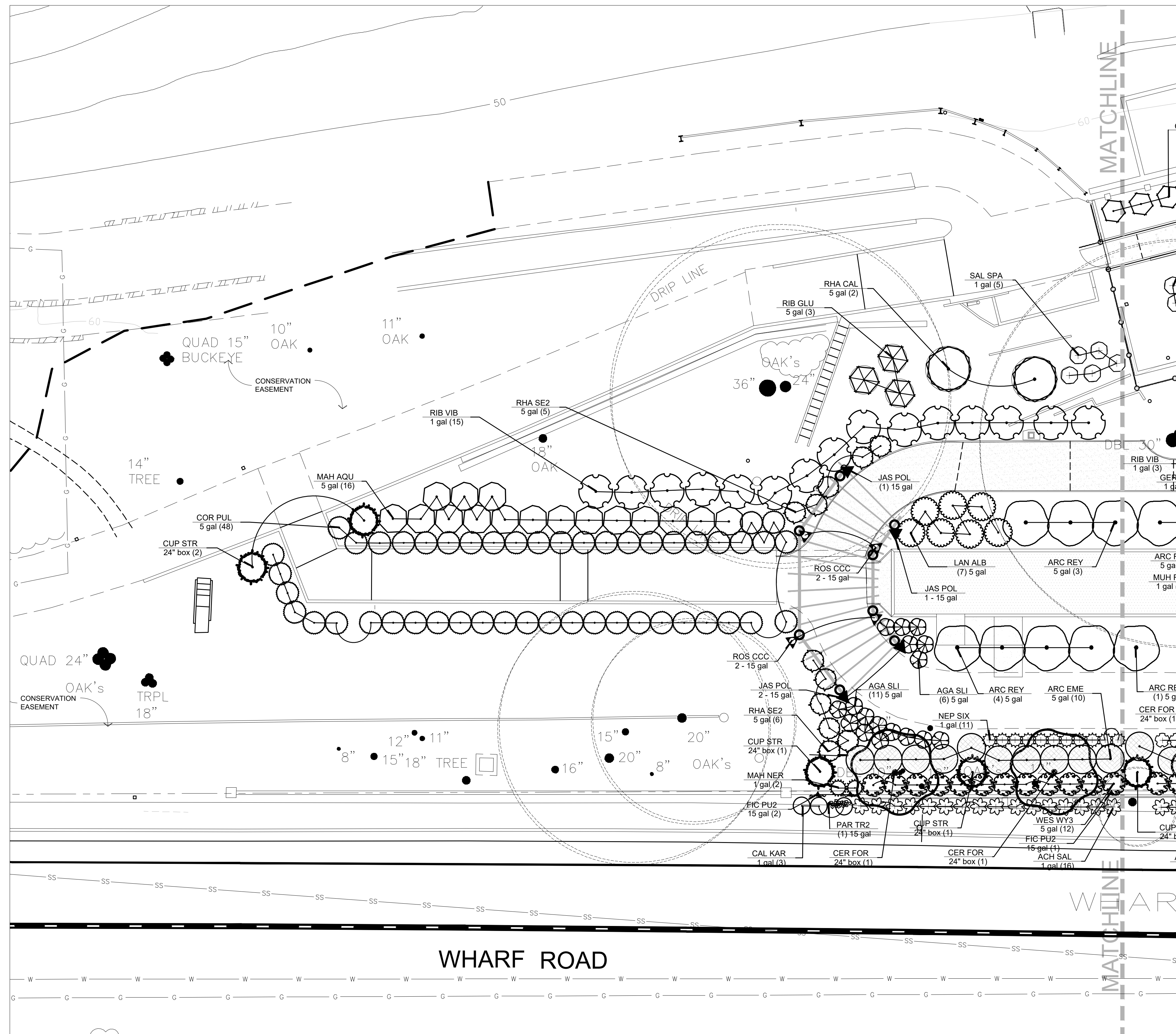
PLANT SCHEDULE

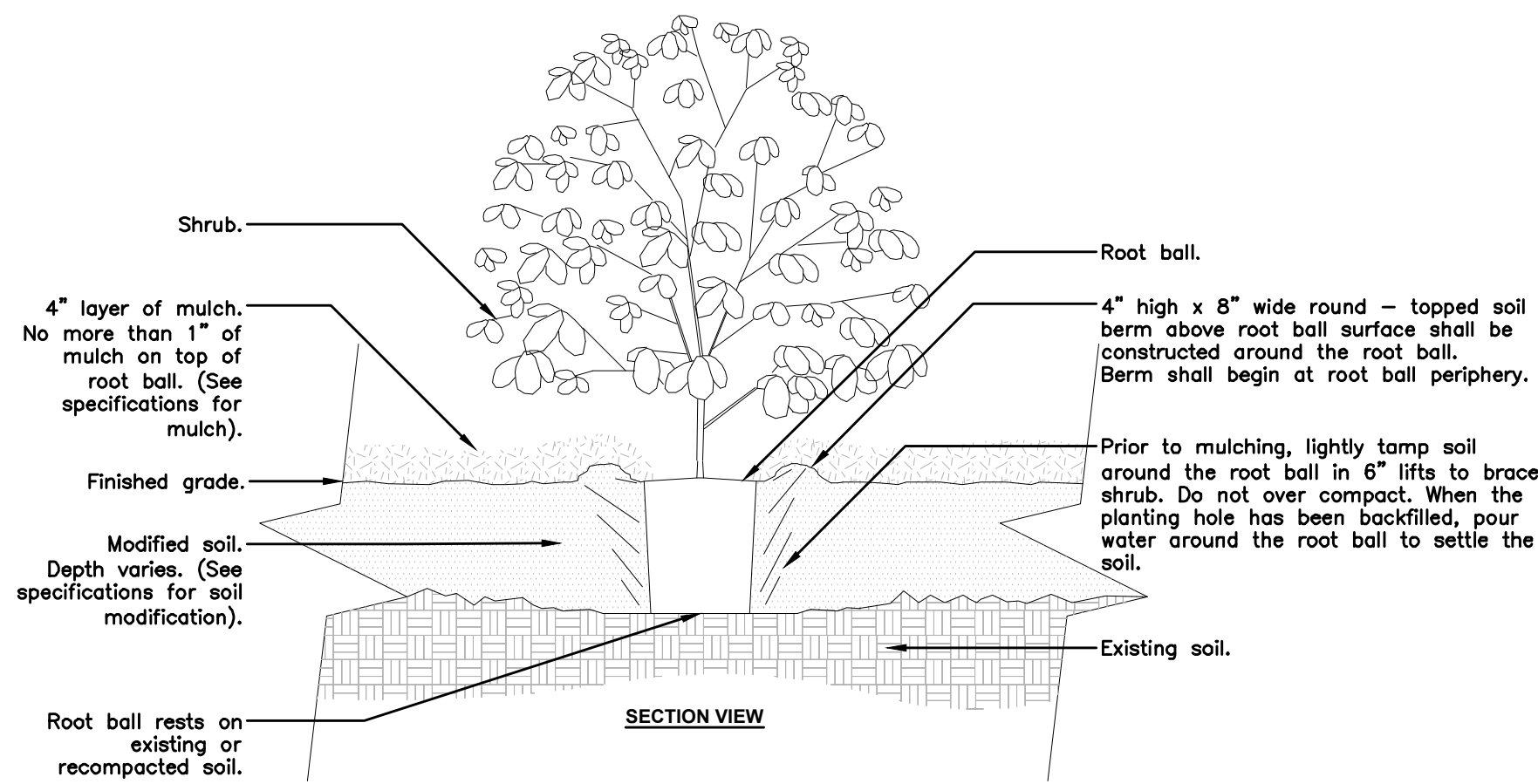
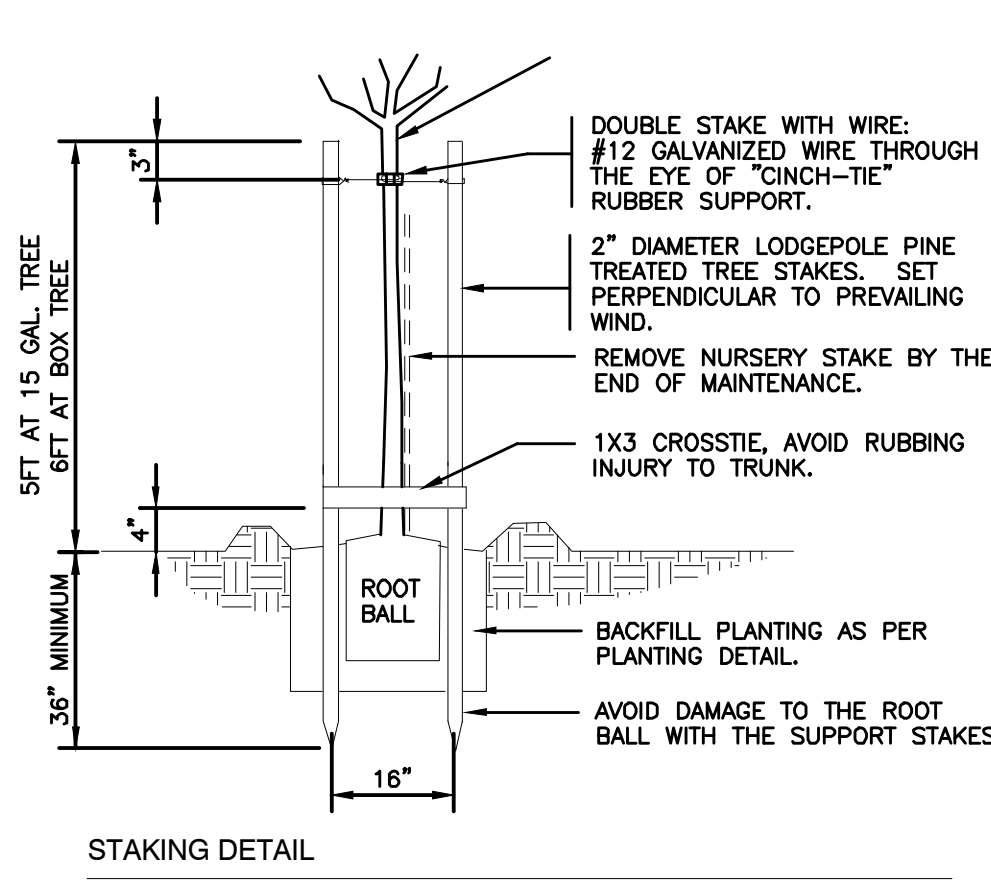
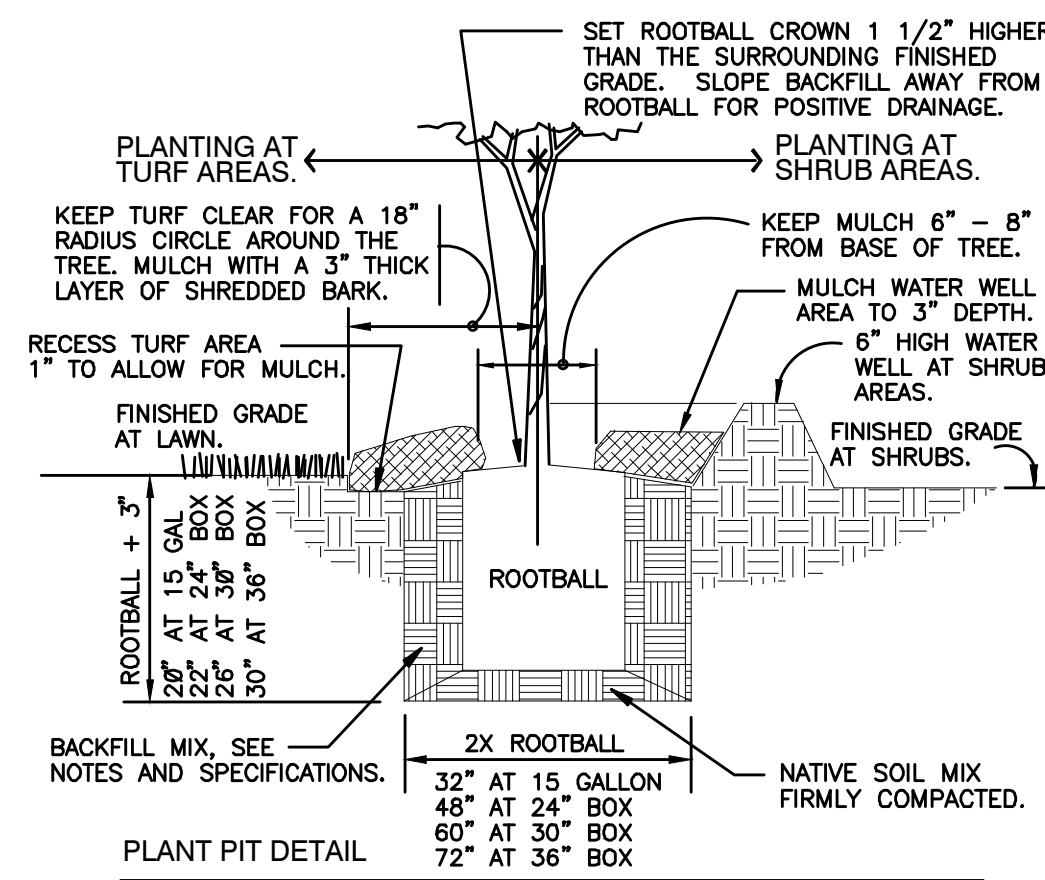
GROUND COVERS	CODE	BOTANICAL / COMMON NAME	CONT	SPACING	QTY
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OAK PROTECTION NOTES:

(See Tree protection plan on sheet L2.0)

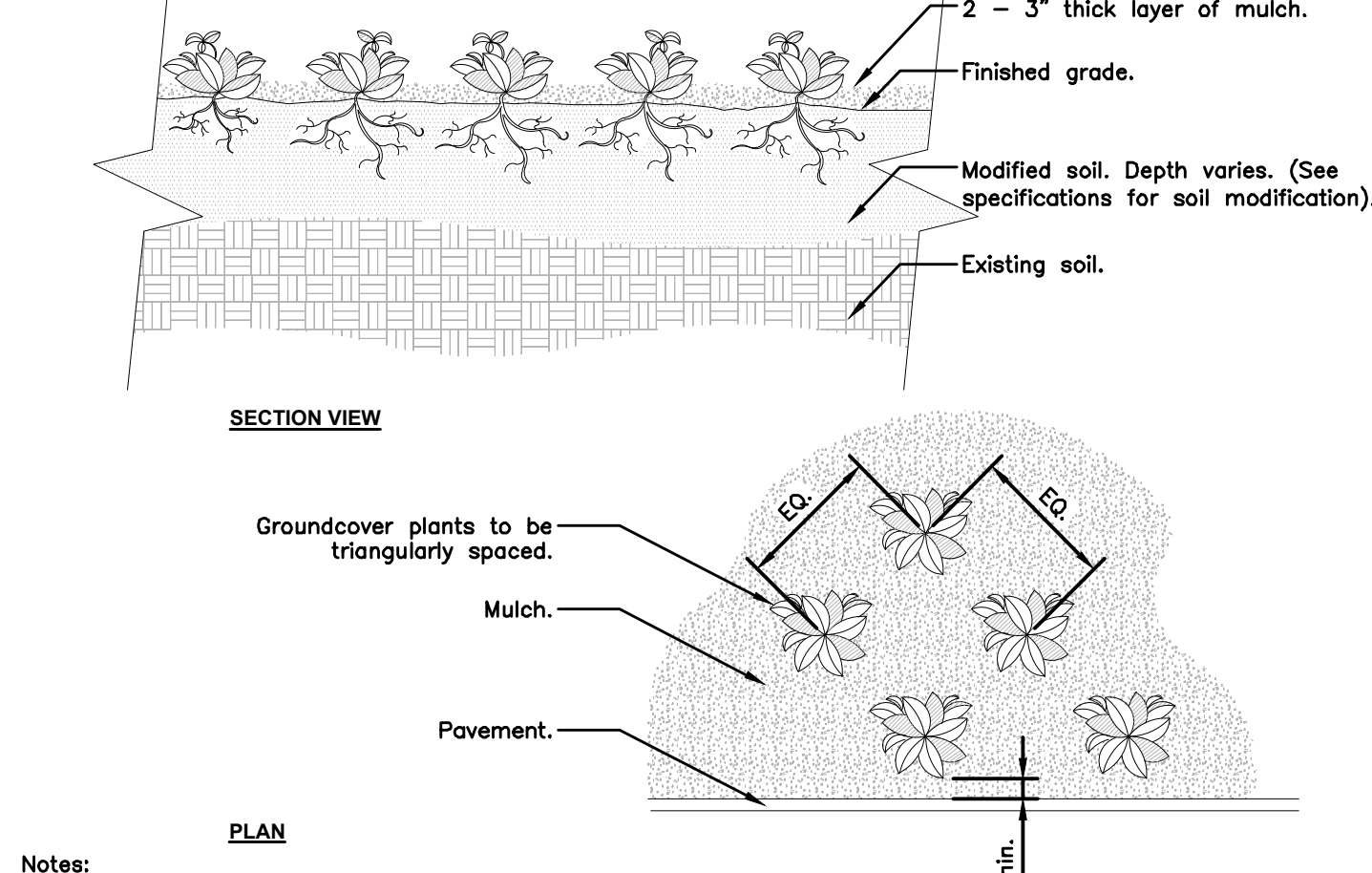
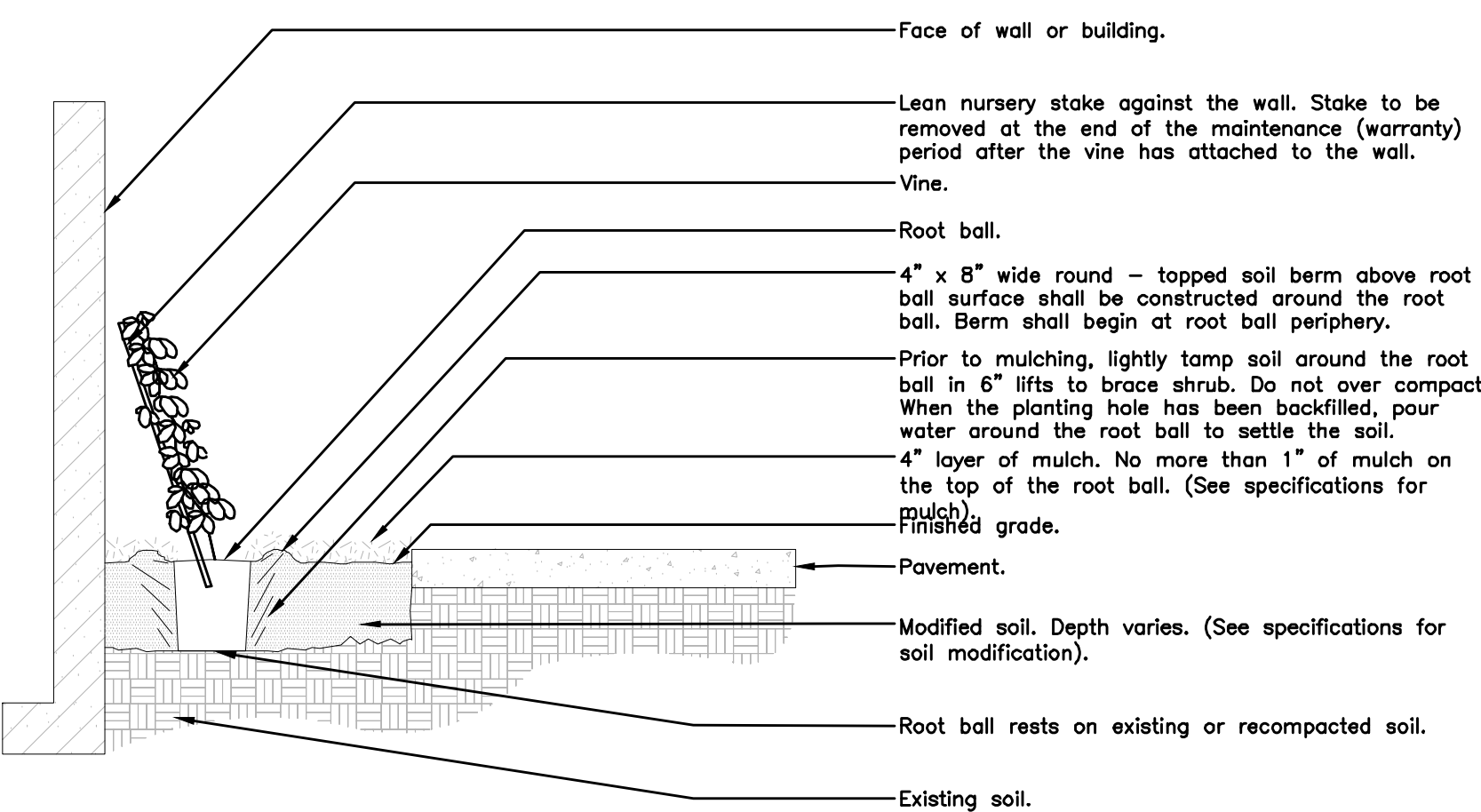
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1 TREE DOUBLE STAKE PLANTING
1\"/>

2 SHRUB - MODIFIED SOIL
3/4\"/>



3 VINE - MODIFIED SOIL
1/2\"/>

4 GROUND COVER
3/4\"/>

PERRY LABORATORY
HORTICULTURAL ADVISING AND TESTING
Michael Arnone
3370 Samuel Place
Santa Cruz, CA 95062
424 AIRPORT BOULEVARD
WATSONVILLE, CA 95076
Telephone 831/722-7606
Fax 831/722-5053
May 2, 2019

Soil Analyses

Chemical analyses on samples received: April 23, 2019

Sample Identification	pH saturated paste	Electrical Conductivity dS/m	Nitrogen (N)	Ammonium (NH4-N)	Nitrate (NO3-N)	Phosphorus (P)	Potassium (K)	Calcium (Ca)	Magnesium (Mg)	Sulfate (SO4)	Boron (B)	Zinc (Zn)	Copper (Cu)	Manganese (Mn)	Iron (Fe)	SAR	ESP			
General Guidelines-Ornamental Plants	6.5-7.2	1.0-3.0	25-75	25-75	50-100	150-300	2000-4000	150-500	25-500	0.5-1.0	2.5-5.0	1.0-3.0	10-25	25-100	>6.0	<3.0	<9.0			
Rispin Mansion	6.1	0.4	7	8	30	210	3200	385	20	0.5	23.5	1.8	27	129	44	1.8	1.3	1.2	1.4	1.6

Optimum Values	Organic Matter (% by Weight)	Lime Content % Ca CO ₃	Mechanical Analyses, % by weight, USDA Classifications				Infiltration Rate inches/hour
			Sand	Silt	Clay	Texture	
	>5.0 5.0	<3.0 1.6	46	34	20	loam	0.50

S E R V I N G A G R I C U L T U R E S I N C E 1 9 3 8

PLANTING NOTES

- All existing trees, shrubs and ground covers to remain shall be protected. Any damage caused by Contractor's work shall be repaired or replaced at the Contractor's expense and be approved by the Landscape Architect. Contractor shall refer to attached arborist report for protection of existing oaks during construction.
- Contractor to remove Ivy from all trunks and branches of Oak trees to remain.
- In areas outside of Oaks canopy (dripline), if topsoil is intact, spread 1-2 inches of STA certified compost (U.S. Composting Council's (USCC) Seal of Testing Assurance (STA) Program) over surface of soil and incorporate into top 6 inches of planting area. If topsoil has been scraped and stored, mix one cubic yard of compost to 3-5 cubic yards of topsoil before re-spreading. Refer to soil report by Pery Labs on this sheet for additional amendments.
- After amending soil, grade all areas smooth with no localized depressions exceeding .5 inch. All areas shall surface drain with 1.5 percent minimum slope away from all buildings, paving or other structures.
- Quantities are for aiding in bidding only. Contractor shall verify all quantities.
- Contractor shall lay out plant material as per plan and receive approval from Landscape Architect prior to installation.
- No plants shall be planted with root balls or new pits in a dry condition.
- Plant all plants as per planting details in square pits with sides and bottoms thoroughly scarified. Do not amend backfill mix beyond initial topsoil amending unless noted.
- All newly planted material shall be watered by deep soaking within 3 hours of planting.
- All planting areas shall receive 2 to 3 inches of fine grind bark top dressing (mulch).
- Contractor shall be responsible for irrigating all new plant material until the entire project as been approved and accepted by Owner.
- Thirty days after planting Contractor shall re-stake and straighten all trees as necessary to be approved by Landscape Architect.
- Fill square plant containers with 12" depth of Topsoil Blend, fill tall urn plant containers with 18" depth of Topsoil Blend. Available from Central Home Supply (or equal). Leave 2" clear at top. Fill remainder of containers with 3/4" drain rock.

PERRY LABORATORY
HORTICULTURAL ADVISING AND TESTING
Michael Arnone
Rispin Mansion
05/02/19
Page 2

The pH value of this soil moderately acid in reaction and is satisfactory at this time. The concentrations of soluble salt are safely low. The fertility analysis shows low nitrogen, phosphorus, and sulfate at this time. The potassium, calcium, magnesium, boron, zinc, copper, manganese and iron levels are in satisfactory to high ranges.

The sodium and chloride levels are low and will not cause toxicity problems. The low ESP value indicates that the sodium that is present will not create a hazard to the soil structure.

The organic matter content is satisfactory at this time. The free lime content is safely low. The mechanical analysis indicates this is a loam soil in texture. A loam soil generally has a satisfactory infiltration rate of 0.50 inches per hour.

- Preplanting should consist of adding the following fertilizer materials per 1000 sq ft of bed area:
- Calcium carbonate lime 50.0 lbs
 - Gypsum 25.0 lbs
 - Feather meal (12-0-0) 35.0 lbs
 - Bone Meal (3-15-0) 50.0 lbs

The above amendments should be thoroughly incorporated into the upper 6-8" of the soil profile.

If you have any questions, please give me a call.

Respectfully submitted,

Clifford B. Low, M.S.

424 AIRPORT BLVD WATSONVILLE, CA 95076 TELEPHONE 831/722-7606 FAX 831/722-5053
www.perrylaboratory.com

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REVISIONS



PLANTING NOTES & DETAILS

JOB NO. 201503
SCALE as shown
DRAWN MA
CHECK JC/MA
DATE 2.22.2023

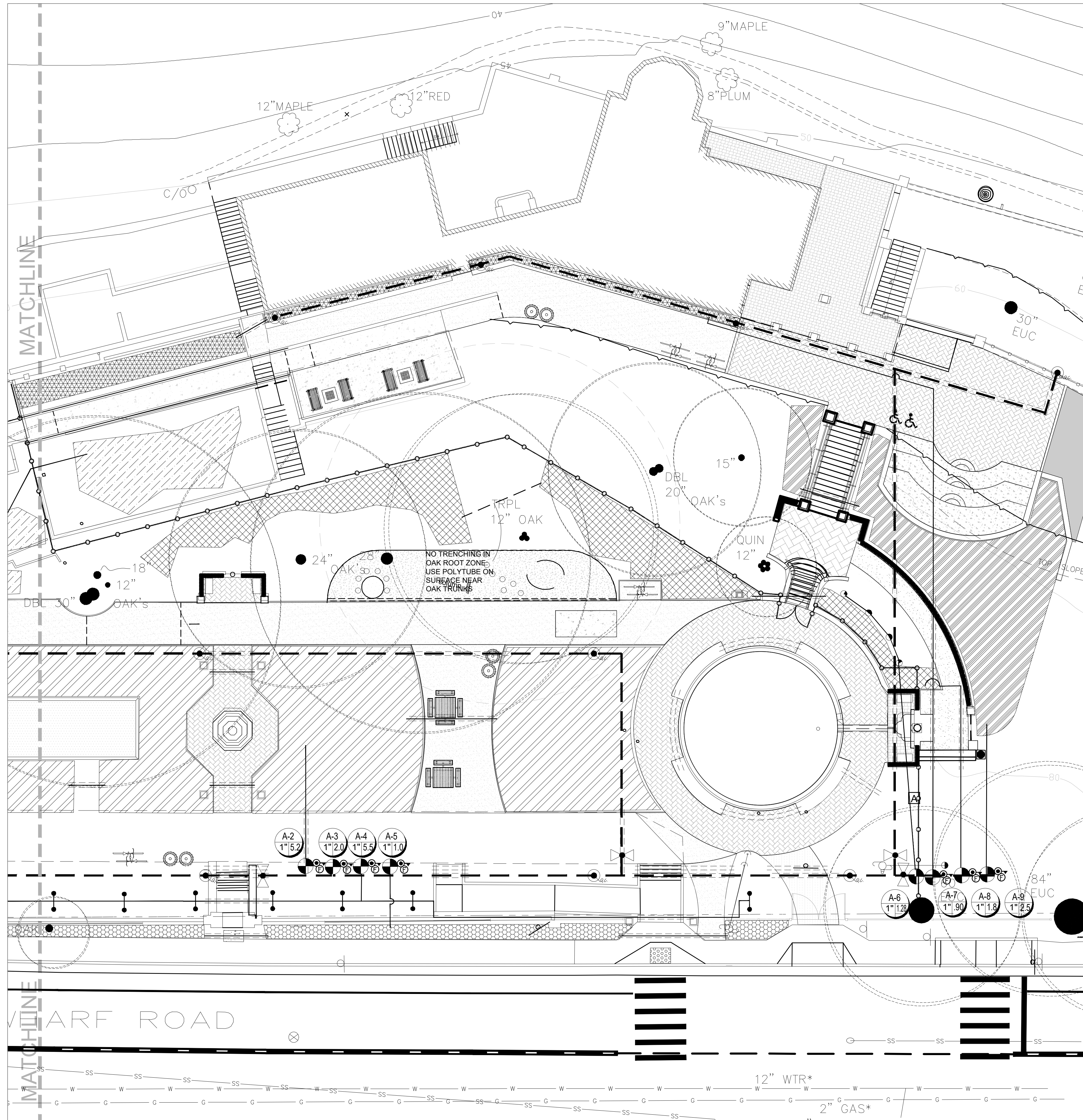
SHEET
L-2.3

IRRIGATION KEY

Symbol	Valve #	Description
	A1	drip irrigation: 3/4" drip tubing with emitters, see emitter schedule
	A2	drip irrigation: 3/4" drip tubing with emitters, see emitter schedule
	A3	drip irrigation: 3/4" drip tubing with emitters, see emitter schedule
	A4	tree bubblers: Hunter PCB on swing joint assembly
	A5	drip irrigation: 3/4" drip tubing with emitters, see emitter schedule
	A6	Pop-up Spray: Hunter MP Rotator 800 6'-16' Radius spray with adjustable Arc 90-210.
	A7	drip irrigation: 3/4" drip tubing with emitters, see emitter schedule
	A8	drip irrigation: 3/4" drip tubing with emitters, see emitter schedule
	A9	drip irrigation: 3/4" drip tubing with emitters, see emitter schedule

NOTE:
IRRIGATION VALVES SHOWN IN PATHS FOR GRAPHIC CLARITY. IRRIGATION VALVES TO BE LOCATED IN PLANTING AREAS. LATERALS THAT MUST RUN UNDER PAVING SHALL HAVE 3" DIAMETER PVC SLEEVES, SEE IRRIGATION NOTES ON SHEET L-3.2.

OAK PROTECTION NOTES:
(See Tree protection plan on sheet L2.0)
1. NO MECHANICAL TRENCHING OR TILLING WITHIN A TEN FOOT RADIUS OF ANY OAK TREE TRUNK.



SEE SHEET L3.2 FOR IRRIGATION LEGEND, NOTES, AND DETAILS

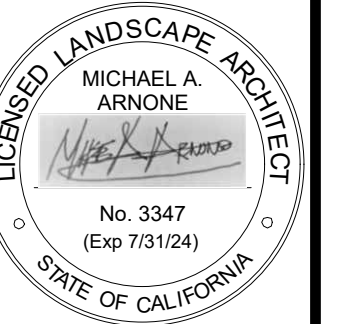
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REVISIONS



IRRIGATION PLAN
SOUTH END

JOB NO. 201503
SCALE 1" = 10' - 0"
DRAWN MA
CHECK JC/MA
DATE 2.22.2023

SHEET
L-3.0

SHEET 18 OF 20

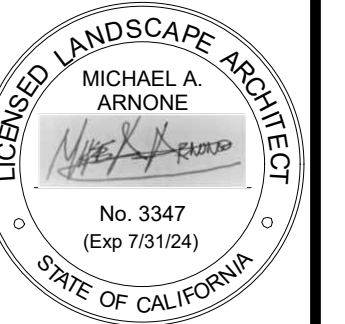
RISPIN MANSION PARK
Wharf Road and Clares Street
Capitola, California

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REVISIONS



**IRRIGATION PLAN
NORTH END**

JOB NO. 201503
SCALE 1" = 10' - 0"
DRAWN MA
CHECK JC/MA
DATE 2.22.2023

SHEET

L-3.1

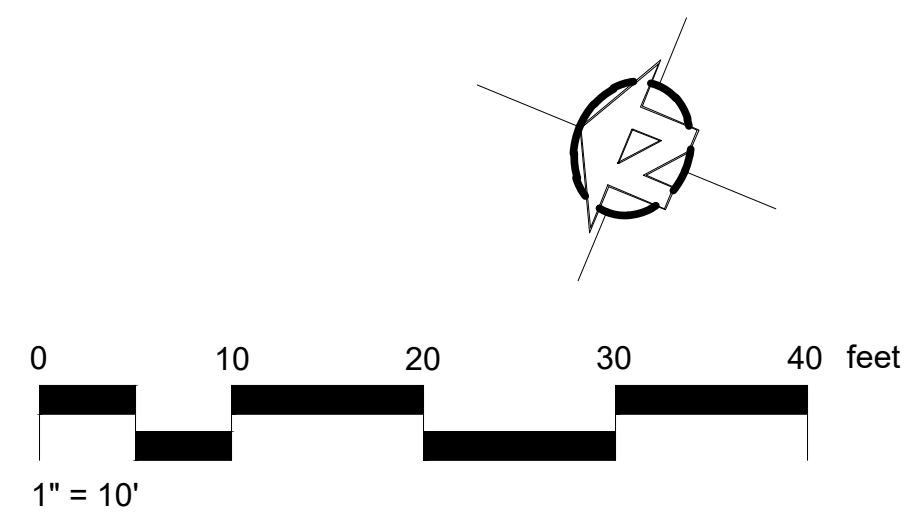
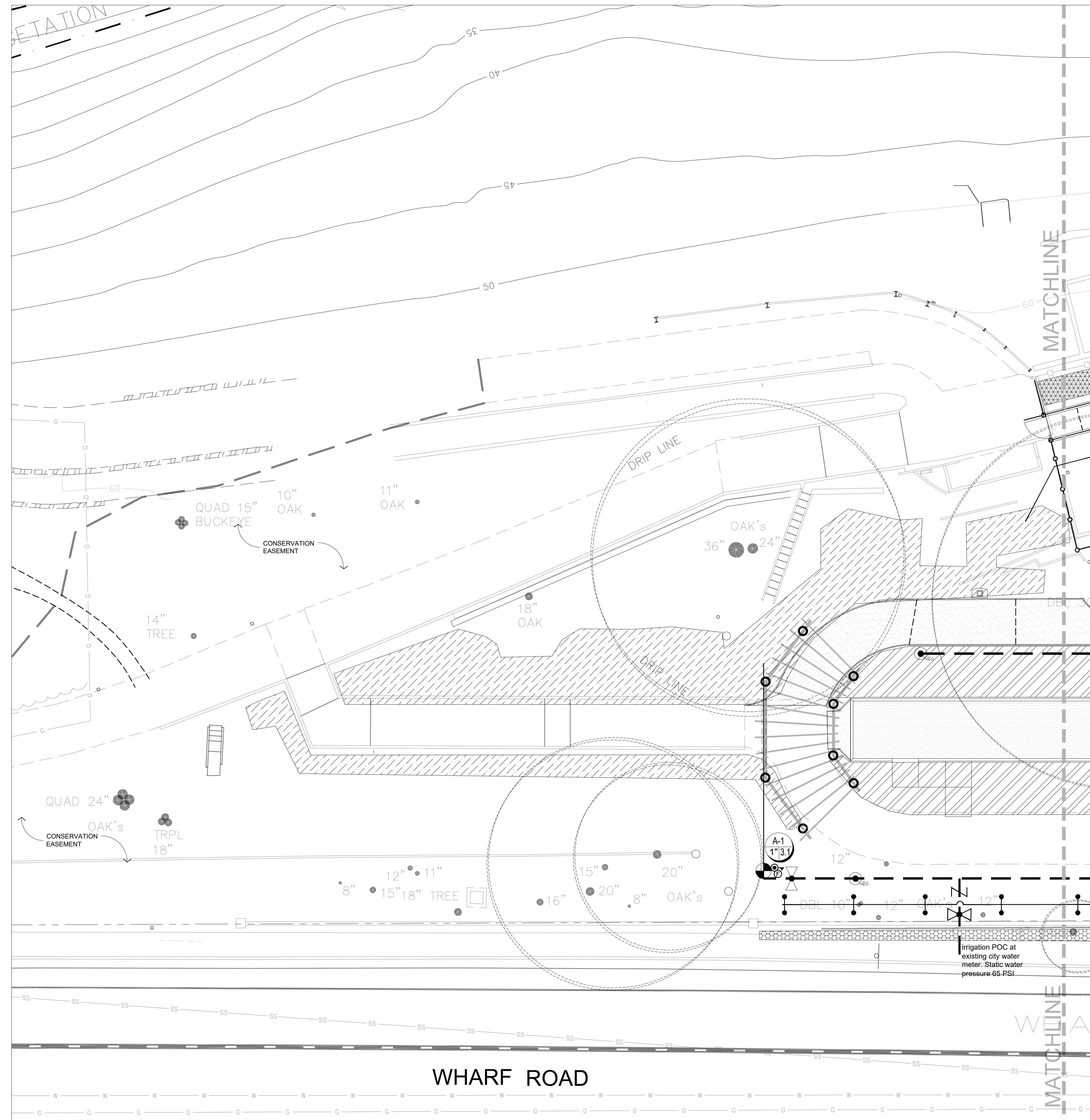
SHEET 19 OF 20

IRRIGATION KEY

Symbol	Valve #	Description
	A1	drip irrigation: 3/4" drip tubing with emitters, see emitter schedule
	A2	drip irrigation: 3/4" drip tubing with emitters, see emitter schedule
	A3	drip irrigation: 3/4" drip tubing with emitters, see emitter schedule
	A4	tree bubblers: Hunter PCB on swing joint assembly
	A5	drip irrigation: 3/4" drip tubing with emitters, see emitter schedule
	A6	Pop-up Spray: Hunter MP Rotator 800 6'-16' Radius spray with adjustable Arc 90-21
	A7	drip irrigation: 3/4" drip tubing with emitters, see emitter schedule
	A8	drip irrigation: 3/4" drip tubing with emitters, see emitter schedule
	A9	drip irrigation: 3/4" drip tubing with emitters, see emitter schedule

NOTE:
IRRIGATION VALVES SHOWN IN PATHS FOR GRAPHIC CLARITY. IRRIGATION VALVES TO BE LOCATED IN PLANTING AREAS. LATERALS THAT MUST RUN UNDER PAVING SHALL HAVE 3" DIAMETER PVC SLEEVES, SEE IRRIGATION NOTES ON SHEET L-3.2.

OAK PROTECTION NOTES:
(See Tree protection plan on sheet L1)
1. NO MECHANICAL TRENCHING OR TILLING WITHIN A TEN FOOT RADIUS OF ANY OAK TREE TRUNK.



SEE SHEET L3.2 FOR IRRIGATION LEGEND, NOTES, AND DETAILS

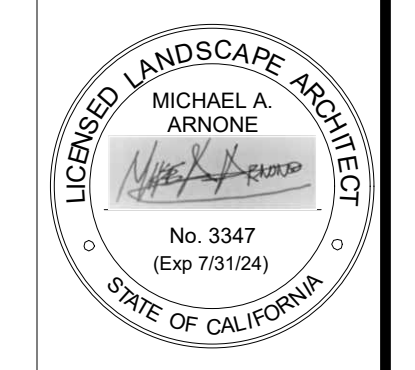
RISPIN MANSION PARK
Wharf Road and Clares Street
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REVISIONS



IRRIGATION NOTES & DETAILS

JOB NO. 201503
SCALE as noted
DRAWN MA
CHECK JC/MA
DATE 2.22.2023

SHEET
L- 3.2
SHEET 20 OF 20

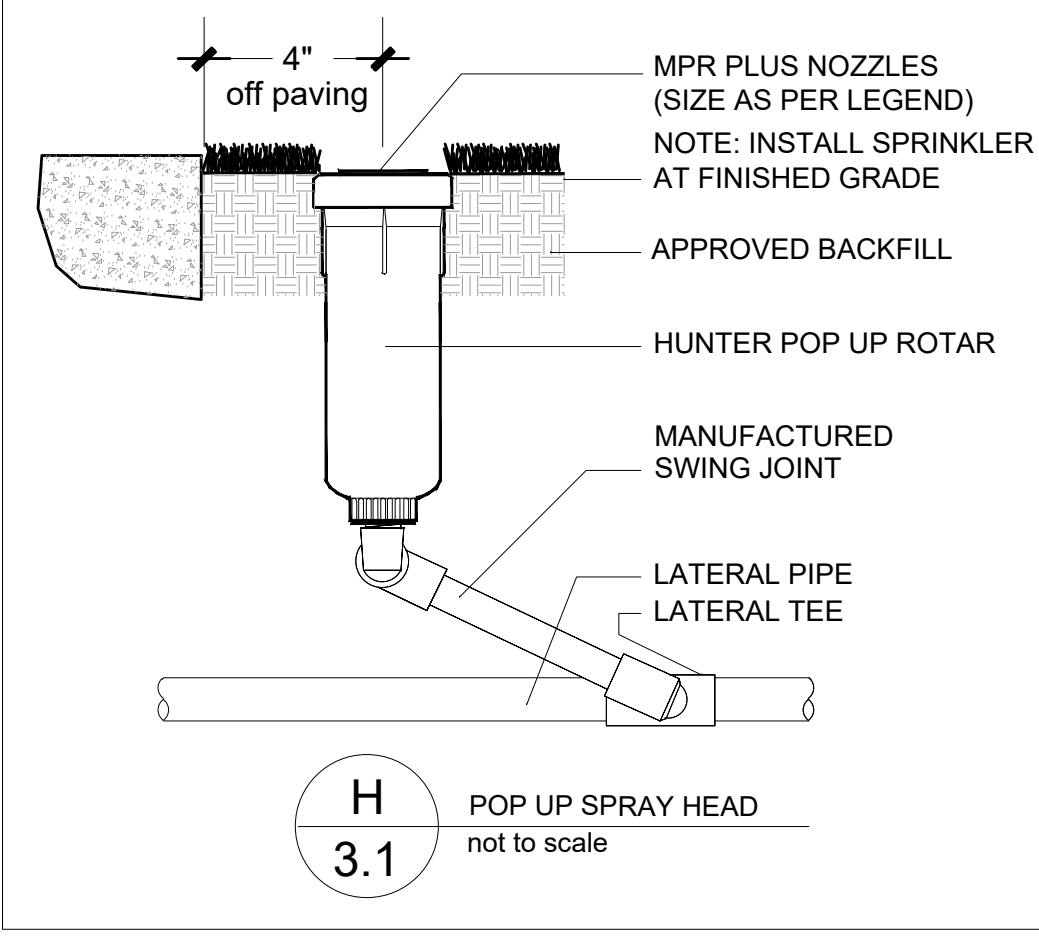
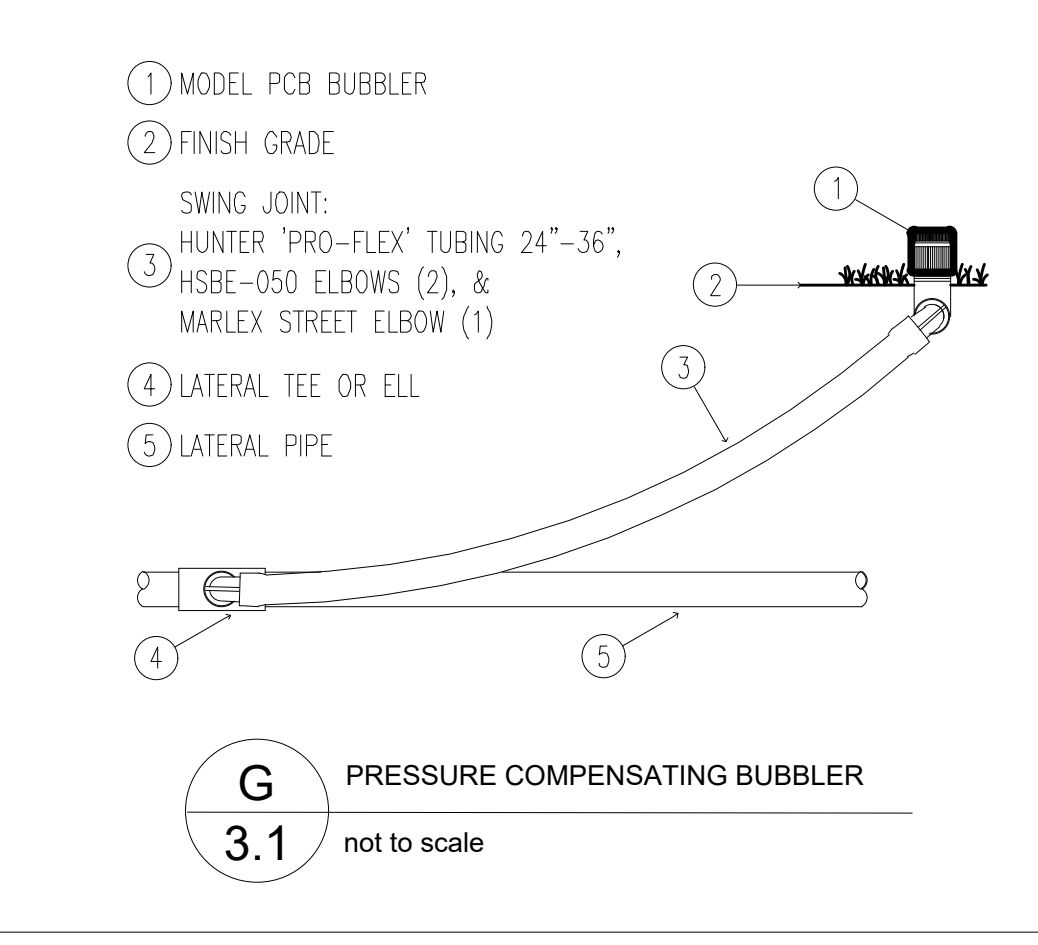
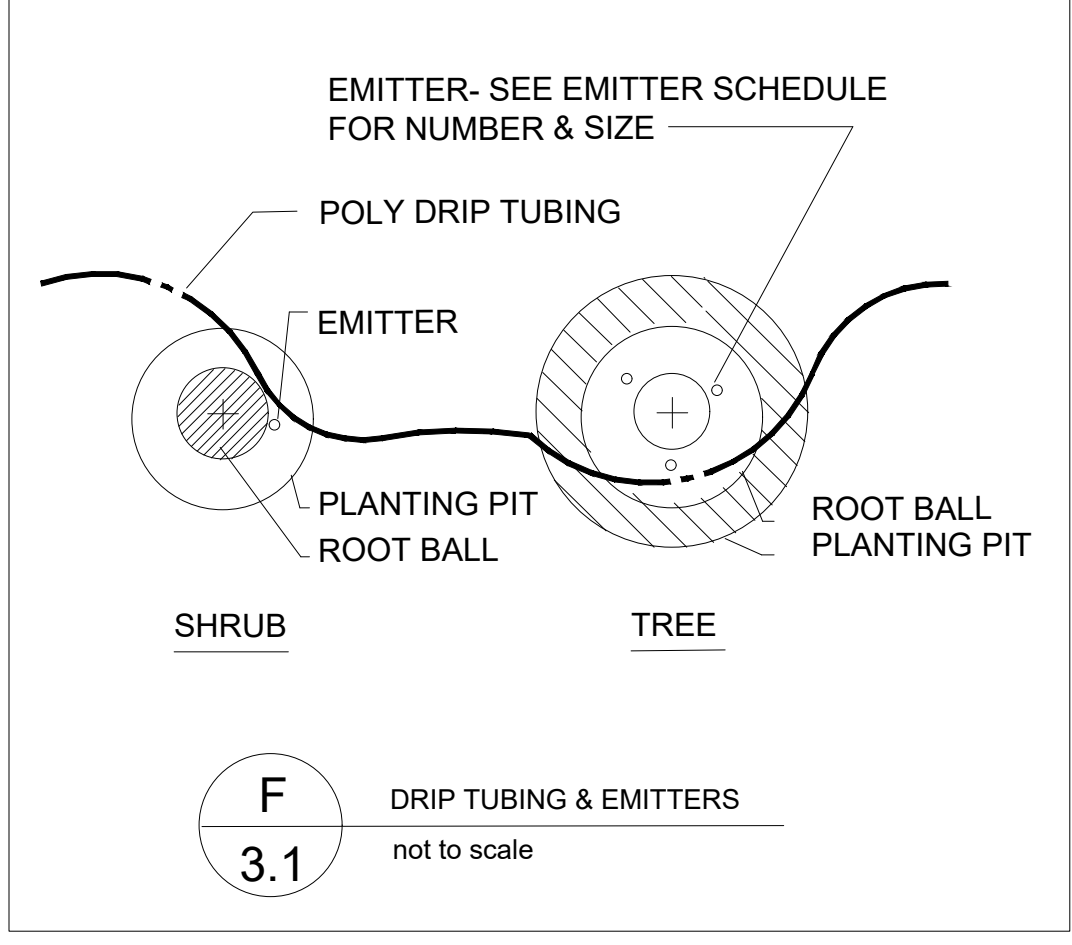
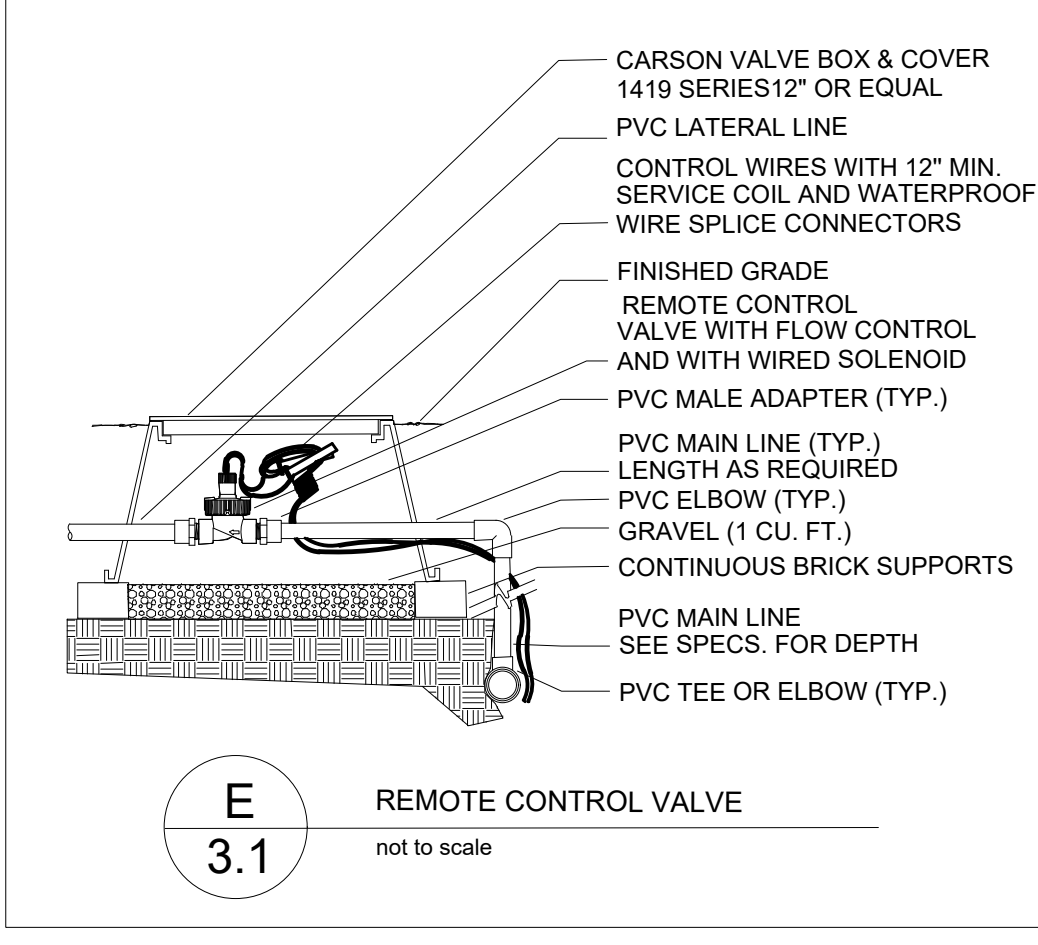
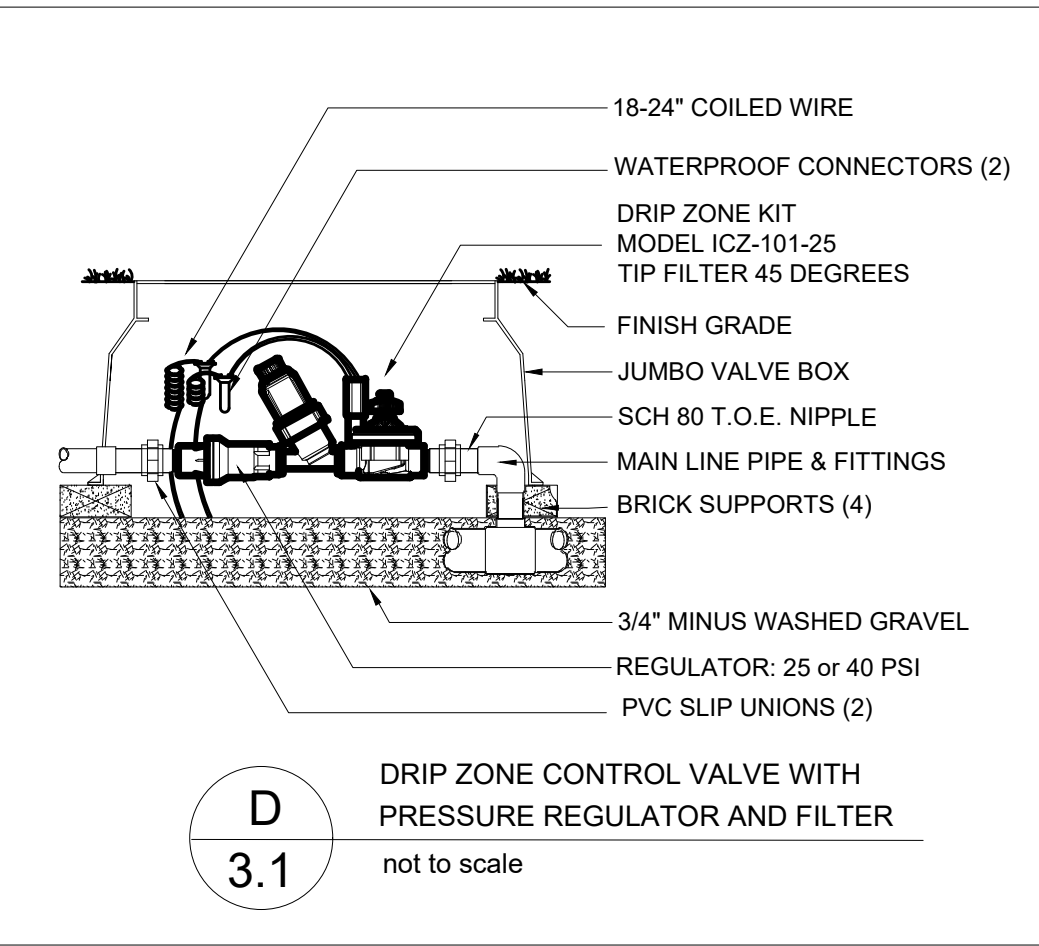
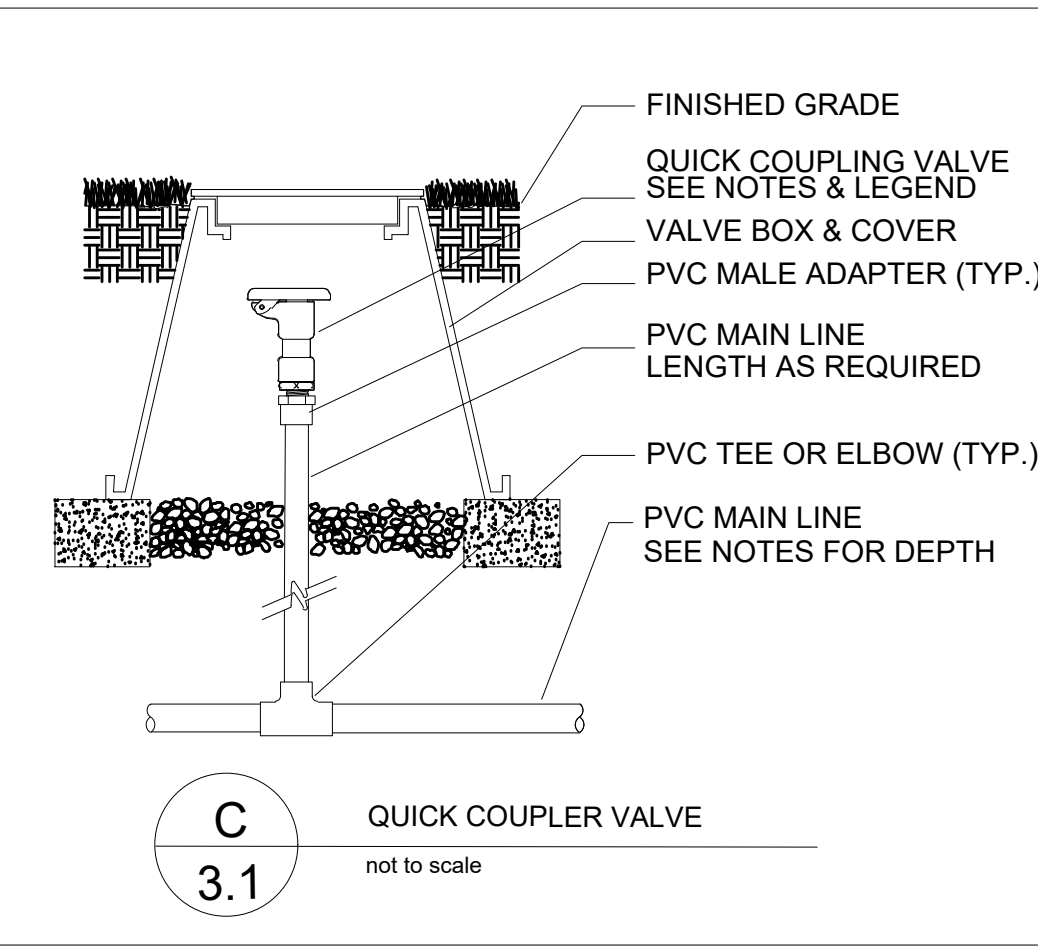
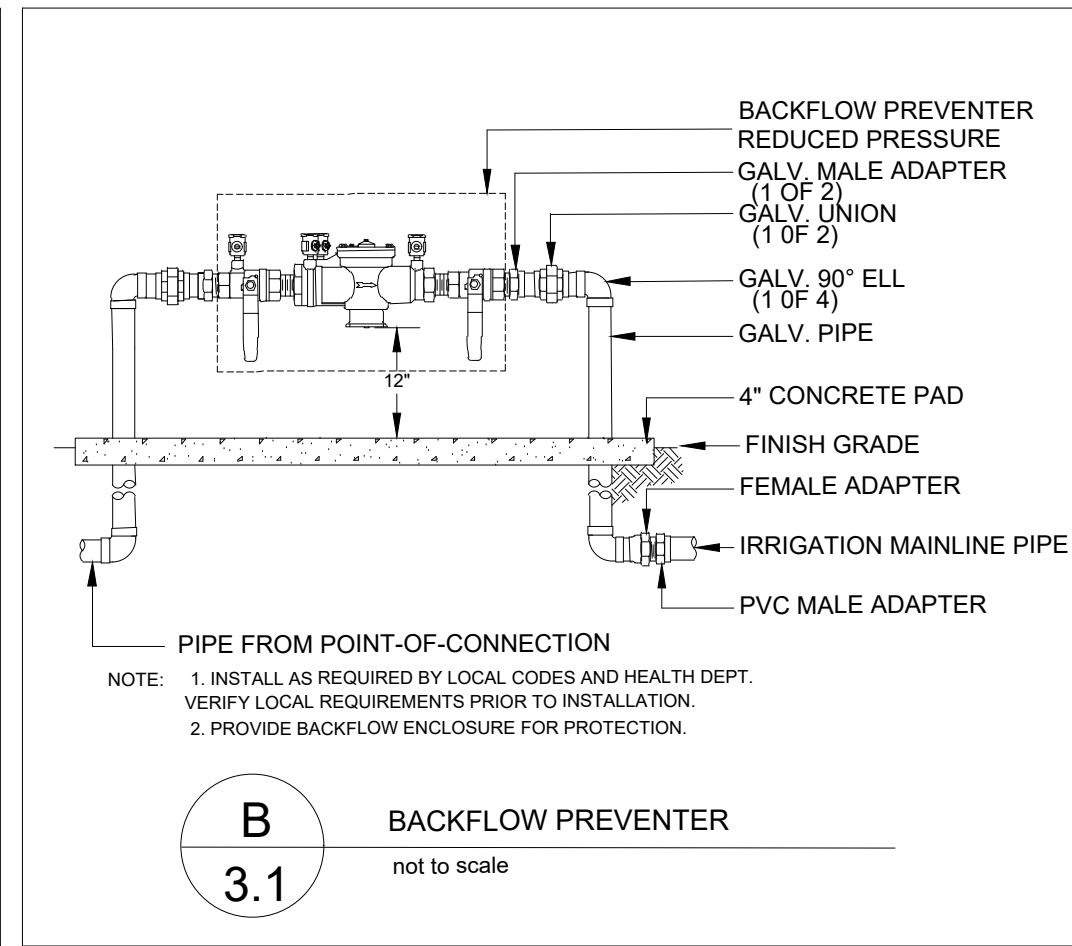
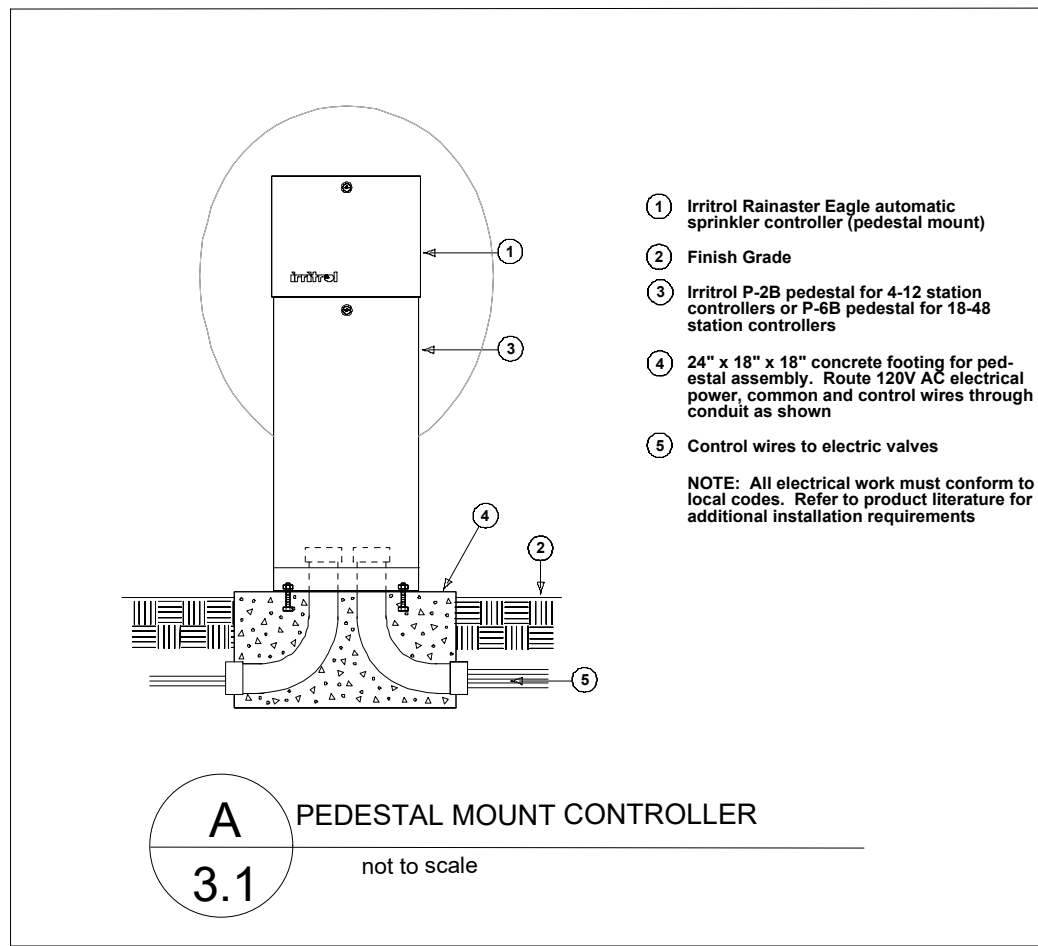
IRRIGATION NOTES

- Contractor shall notify U.S.A. (Underground Service Alert) at 811, prior to start of any excavation or trenching.
- Contractor shall review all Civil, Structural, and Mechanical plans and documents pertaining to the project prior to the start of work to coordinate work with other trades.
- Contractor shall install irrigation system in accordance with all local codes and ordinances.
- Tree bubbler valves have been designed to operate at a maximum of 11 gallons per minute at 20 PSI static pressure. Drip valves have been designed to operate at a maximum of 4 gallons per minute at 20 PSI static pressure. Irrigation contractor shall verify a static pressure of at least 55 PSI at the point of connection prior to the installation of the irrigation system. Should the PSI or the GPM be insufficient to operate either system, contractor shall notify landscape architect and request review of design.
- Point of connection shall be taken from city water service as shown on the plans. The contractor shall install new backflow device, shut-off valves, mainline, quick-coupler devices, controller and valves as noted on plan. See Irrigation Legend.
- Controller shall be mounted on pedestal along the east/west section of fence in planting area between reflecting pool and service driveway from Wharf Road. Programming of the controller shall be the responsibility of the contractor for a period of thirty days after acceptance of work. All electrical connections for the controller shall be installed by a licensed electrical contractor. All work shall comply with the most current standards and codes at the time of installation. The wireless rain sensor shall be mounted on the wall behind water feature within 40' of the controller as per manufacturer's instructions.
- Irrigation design is diagrammatic. Mainline, valves, laterals and other irrigation equipment may be shown outside of planting beds for graphic clarity. All irrigation equipment shall be located in adjacent planting beds.
- Irrigation pipe depths: Mainlines under paving shall have 24" cover over pipes. Lateral lines under paving shall have 18" cover over pipes. Sleeves shall be located as per plan. Mainlines in planting beds shall have 12" of cover over pipes. Laterals in planting beds shall have 12" cover over pipes.
- Lateral lines (non pressure lines) sizing guidelines shall be as follows: 3/4" O.D. - 0 to 10 GPM; 1" O.D. - 11 to 15 GPM; 1 1/4" O.D. - 16 to 25 GPM; 1 1/2" O.D. 26 to 30 GPM; 2" O.D. 31 to 55 GPM. Refer to Irrigation Legend and plan sheets for further data.
- Control wires shall be 14 gauge UF direct burial wire. Use red for control wire and white for common wire. Contractor shall run one spare common and one spare control wire to each of the end valves. All low voltage wire connections shall be made only at remote control boxes. All connections shall be made with a 2' coil of wire for service. Connections shall be made with RainBird 'Snap-Tite' connectors or equal.
- Contractor shall determine the number and location of drip emitters based on the plant counts, plant container size and actual plant locations in the field. Contractor shall adjust all drip distribution tubing to effectively irrigate all plant material.
- Contractor shall provide a minimum of one drip end cap assembly per drip zone for ease of flushing system.

IRRIGATION SCHEDULING AND MAINTENANCE

- Irrigation will be avoided rainy weather.
- Irrigation schedule shall be reduced (frequency and duration) after plants are established (1 year).
- Irrigation schedule shall be adjusted seasonally based on plant needs.
- Irrigation schedule provided to appropriate personnel and posted near irrigation controller.
- Irrigation system to be inspected regularly and maintained in good working condition.
- Repairs to be made using identical or improved parts.
- Landscape maintenance schedule to be followed.

OAK PROTECTION NOTES:
(See Tree protection plan on sheet L2.0)
1. NO TRENCHING OR TILLING WITHIN A TEN FOOT RADIUS OF ANY OAK TREE TRUNK.



IRRIGATION LEGEND

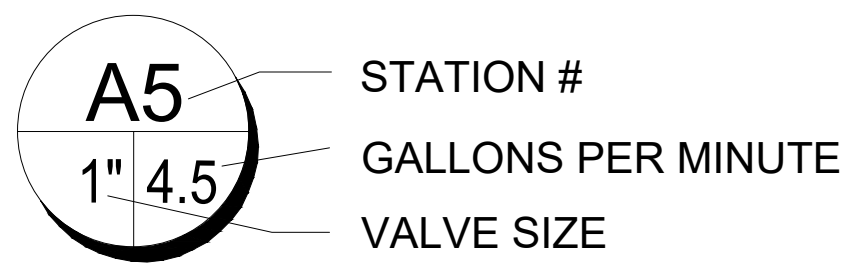
DETAIL	KEY	MANUFACTURER	MODEL #	DESCRIPTION
--	—	Sch. 40 PVC	NSF Approved	1 1/2" Irrigation Mainline
--	—	Class 315 PVC	NSF Approved	3/4" Irrigation Lateral or as required
--	—	Sch 40 PVC	NSF Approved	3" IRRIGATION SLEEVE UNDER PAVING
A	[Symbol]	IRRITROL	RME-18EG-SPED-T	RAINMASTER EAGLE 18 STATION CONTROLLER PEDESTAL MOUNT IN LARGE STAINLESS BOX
--	[Symbol]	IRRITROL	RS-1000	WIRELESS RAIN SENSOR
B	[Symbol]	Febco	825 Y BV	1" Reduced Pressure Backflow Device
--	[Symbol]	Spears Compact	1" BALL VALVE	1" PVC BALL VALVE FOR MAINLINE
C	[Symbol]	RAINBIRD	33 DLRC	3/4" Quick coupler with locking cover
D	[Symbol]	HUNTER	ICZ - 101-25	1" PGV valve with 1" HY075 filter and 3/4" outlet 25 PSI regulator
E	[Symbol]	HUNTER	PGV - 101G	1" ELECTRIC CONTROL GLOBE VALVE WITH PRESSURE REGULATOR
F	[Symbol]	RAINBIRD	3/4" Polyethylene	3/4" drip tubing
F	[Symbol]	Ewing	PRESSURE COMPENSATING	1/2 GPH (RED), 1 GPH (BLACK), 2 GPH (GREEN) ISO-FLO EMITTER
--	[Symbol]	EWING	POLY END CAP	REMOVABLE DRIP END CAP ASSEMBLY
G	[Symbol]	HUNTER	PCB-25	.25 GPM PRESSURE COMPENSATING BUBBLER ON SWING JOINT W/ PRO-FLEX HOSE
H	[Symbol]	HUNTER	MP ROTATOR 800	6" pop up spray head at 40 p.s.i. with MP 800 Rotator Nozzle adjust arc as needed, adjust radius between 6' and 16' as needed

IRRIGATION KEY


































Symbol	Valve #	Description
[Symbol]	A1	drip irrigation: 3/4" drip tubing with emitters, see emitter schedule
[Symbol]	A2	drip irrigation: 3/4" drip tubing with emitters, see emitter schedule
[Symbol]	A3	drip irrigation: 3/4" drip tubing with emitters, see emitter schedule
[Symbol]	A4	tree bubblers: Hunter PCB on swing joint assembly
[Symbol]	A5	drip irrigation: 3/4" drip tubing with emitters, see emitter schedule
[Symbol]	A6	Pop-up Spray: Hunter MP Rotator 800 6'-16' Radius spray with adjustable Arc 90-210.
[Symbol]	A7	drip irrigation: 3/4" drip tubing with emitters, see emitter schedule
[Symbol]	A8	drip irrigation: 3/4" drip tubing with emitters, see emitter schedule
[Symbol]	A9	drip irrigation: 3/4" drip tubing with emitters, see emitter schedule

EMITTER SCHEDULE

Manufacturer	Model #	Gallons per Hour	Emitters per container size
RAINBIRD XB-05PC	BLUE	One Half	1 emitter per each 4" pot
RAINBIRD XB-10PC	BLACK	One Half	2 emitters per each gallon plant
RAINBIRD XB-20PC	RED	One	2 emitter per each 5 gallon plant
RAINBIRD XB-20PC	RED	Two	3 emitters per each 15 gallon plant
RAINBIRD XB-20PC	RED	Two	6 emitters per each 24" box



SYMBOLS

-  — STANDARD CONCENTRIC REDUCER
-  — STANDARD ECCENTRIC REDUCER (TOP FLAT)
-  — STANDARD ECCENTRIC REDUCER (BOTTOM FLAT)
-  — BUTTERFLY VALVE
-  — SILENCE CHECK VALVE
-  — BALL VALVE
-  — NEEDLE VALVE.
-  — BALL CHECK VALVE
-  — SOLENOID VALVE
-  — END CAP PIPE
-  — OPEN PIPE TERMINATION
-  — ISOLATING VALVE TAG
NO = NORMALLY OPEN
NC = NORMALLY CLOSED
-  — THROTTLING VALVE TAG
-  — DRAIN VALVE TAG.
-  — WATER PROOF DOUBLE WALL OUTLET (20A)
- C.O.** — CLEANOUT
-  — GAUGE
(P) PRESSURE: 0 - 60 PSI
(V) COMPOUND: 30" 0 - 15 PSI
-  — FLOW METER
-  — FLOOR DRAIN
-  — WYE STRAINER
-  — HOSE BIB
-  — JET NOZZLE
-  — ANTI-VORTEX PLATE
-  — OVERFLOW STANDPIPE
-  — DRAIN WITH PLUG
-  — EYEWASH STATION
-  — SPA JET
-  — WALL INLET FITTING
-  — FLOOR INLET FITTING
-  — WALL EQUALIZER FITTING
-  — WALL LIGHT
-  — FLOOR JUNCTION BOX
-  — WALL JUNCTION BOX
-  — SUBMERSIBLE JUNCTION BOX
- R** — RETURN PIPING
- F** — POOL PIPING PLAN
- S** — SKIMMER PIPING
- D** — DRAIN PIPING
- PH** — PH TUBING
- CL** — CHLORINE TUBING
- A** — AIR PIPING
- J** — JET PIPING

GENERAL NOTES AND SPECIFICATIONS

- A** ALL PIPE MATERIALS SHALL CONFIRM TO THE SPECIFICATIONS AND BE INSTALLED AS PER MANUFACTURER'S PROCEDURES AND LOCAL CODES.
- B** VERIFY THE EXACT LOCATION OF THE EQUIPMENT PIT AND WATER FEATURES WITH THE LANDSCAPE AND ARCHITECTURAL DRAWINGS.
- C** CONTRACTOR SHALL BE LICENSED, HAVE AT LEAST 10 YEARS OF EXPERIENCE IN WATER FEATURES AND SUBMIT AT LEAST FIVE REFERENCES.
- D** CONTRACTOR SHALL BE RESPONSIBLE TO DETERMINE THE EXACT PIPE ROUTING BASED ON THE SITE CONDITIONS TO AVOID CONFLICT. ALSO COORDINATE WITH OTHER TRADES.
- E** CONTRACTOR SHALL CONTACT THE WATER FEATURE DESIGNER IN THE CASE OF ANY DEVIATION FROM THE DRAWINGS PRIOR TO PROCEED.
- F** ALL PIPING BETWEEN THE EQUIPMENT PIT AND THE WATER FEATURES MUST BE INSTALLED DEAD LEVEL.
- G** PROVIDE LINK SEAL, WATER STOP OR FLASHING FLANGES WHERE APPROPRIATE AND APPROVED BY THE STRUCTURAL ENGINEER.
- H** PIPING MUST MAINTAIN AT LEAST 4" CLEARANCE BETWEEN PIPES EITHER PARALLEL OR CROSSING.
- I** CONTRACTOR SHALL PROVIDE DRAIN VALVES, AIR VENTS AND AIR RELIEF VALVES WHERE APPROPRIATE AND EXTEND PIPING TO THE CLOSEST FLOOR DRAIN.
- J** CONTRACTOR SHALL PROVIDE UNIONS, FLANGES WHERE SHOWN IN THE DRAWINGS AND NECESSARY TO FACILITATE THE REMOVAL OF EQUIPMENT.
- K** CONTRACTOR SHALL PROVIDE PIPE HANGERS AND SUPPORTS AS REQUIRED.
- L** CONTRACTOR SHALL PROVIDE NAME TAGS FOR ALL EQUIPMENT AND VALVES.
- M** CONTRACTOR SHALL PROVIDE (SINGLE PACKAGE) SUBMITTAL DATA OF ALL ITEMS FOR APPROVAL BEFORE ANY EQUIPMENT PURCHASE.
- N** CONTRACTOR SHALL PROVIDE DIMENSIONAL INSTALLATION SHOP DRAWINGS (PIPE ROUTING, EQUIPMENT ROOM LAYOUT, DETAIL, ELECTRICAL DISTRIBUTION) FOR APPROVAL BEFORE COMMENCING ANY WORK.

CODES AND STANDARDS:

- A** ALL WORK SHALL COMPLY WITH LOCAL CODES AND PRACTICES.
- B** IBC, INTERNATIONAL BUILDING CODE.
- C** IPC, INTERNATIONAL PLUMBING CODE.
- D** NEC, NATIONAL ELECTRICAL CODE.
- E** NEMA ENCLOSURES.
- F** UL, UNDERWRITERS LABORATORY.
- G** ASTM FOR ALL PIPES AND FITTINGS.
- H** ANSI FOR ALL FLANGES.
- I** ASME FOR PRESSURE VESSELS.
- J** NFPA FOR GAS FUELED HEATERS.
- K** NFGC, NATIONAL FUEL GAS CODE.
- L** CEC, CALIFORNIA ENERGY COMMISSION.
- M** CBC, CALIFORNIA BUILDING CODE.

PIPING MATERIALS:

PVC PIPE AND FITTINGS: SCHEDULE 40 PIPE AND SCHEDULE 80 FITTING ASTM D1784 CELL CLASS 12454 FOR SWIMMING POOL SYSTEM.

COPPER PIPE AND FITTINGS TYPE 'L' EAMLESS TUBING ASTM B 88, LEAD FREE IN THE CITY WATER SUPPLY

VALVES:

UP TO 2.5" DIAMETER SHALL BE PVC SCHEDULE 80 TRUE UNION BALL VALVE. 3" DIAMETER AND LARGER SHALL BE SEMI-LUG PVC SCHEDULE 80 BUTTERFLY VALVE. ALL VALVES SHALL BE WITH EPDM SEAT.

VALVE STADARDS:

- A** FOR SHUT OFF: LEVEL TYPE.
- B** FOR THROTTLING: GEAR OPERATOR TYPE.

SECTION 13 12 11 FOUNTAIN ELECTRICAL

1.1 DESCRIPTION OF WORK

A. FURNISH ALL LABOR, MATERIALS, APPARATUS, TOOLS, EQUIPMENT, TRANSPORTATION, TEMPORARY CONSTRUCTION, AND SPECIAL OR OCCASIONAL SERVICES AS REQUIRED TO MAKE A COMPLETE WORKING ELECTRICAL INSTALLATION, AS SHOWN ON THE DRAWINGS AND DESCRIBED IN THESE SPECIFICATIONS.

B. CONTRACTOR'S QUALIFICATION:

- 1. CONTRACTOR SHALL HAVE AT LEAST 10 YEARS OF PROVEN EXPERIENCE IN WORKING IN SWIMMING POOL, SPA PROJECT.

C. WORK INCLUDED:

- 2. ELECTRICAL DISTRIBUTION AND CONTROL SYSTEM INCLUDING MOTOR STARTERS, TRANSFORMER, PANELBOARD, BRANCH CIRCUITS, GROUNDING SYSTEM, WATER LEVEL CONTROLLERS, TIME SWITCHES, RELAYS, AND RELATED CONDUIT AND WIRE.

- 1. ELECTRICAL SUPPORTING DEVICES FOR SUSPENSION AND SUPPORT OF CONDUIT AND EQUIPMENT.
- 2. CONCRETE HOUSEKEEPING PADS AS REQUIRED AND AS INDICATED ON THE DRAWINGS.

D. RELATED WORK SPECIFIED ELSEWHERE:

- 1. STRUCTURAL.
- 2. LANDSCAPE.
- 3. ARCHITECTURAL.
- 4. ELECTRICAL.
- 5. CIVIL.
- 6. MECHANICAL.
- 7. WATERPROOFING.
- 8. FOUNTAIN PLUMBING.

1.2 REFERENCE STANDARDS

A. THIS INSTALLATION SHALL COMPLY WITH ALL APPLICABLE PROVISIONS OF THE LATEST EDITION OF THE FOLLOWING CODES:

- NEC NATIONAL ELECTRICAL CODE.
- UBC UNIFORM BUILDING CODE.

B. MATERIALS FURNISHED HEREUNDER SHALL, WHERE APPLICABLE, COMPLY WITH THE LATEST EDITION OF APPLICABLE STANDARD SPECIFICATIONS PUBLISHED BY THE FOLLOWING ORGANIZATIONS:

- ASTM AMERICAN SOCIETY FOR TESTING AND MATERIALS.
- ANSI AMERICAN NATIONAL STANDARDS INSTITUTE.
- IEEE INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS.
- IPCEA INSULATED POWER CABLE ENGINEERS ASSOCIATION.
- NEMA NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION.

C. PROVIDE LABELED EQUIPMENT CERTIFYING APPROVAL, AS HEREINAFTER SPECIFIED, BY UNDERWRITERS LABORATORIES (UL).

1.3 SUBSTITUTIONS

A. THE USE OF MANUFACTURERS' NAMES AND CATALOG IS GENERALLY USED TO ESTABLISH A STANDARD OF QUALITY AND UTILITY FOR THE SPECIFIED ITEMS AND TO PROVIDE A DIMENSIONAL REFERENCE FOR CONSTRUCTION DOCUMENTS THAT ARE DRAWN TO SCALE.

B. BIDDING CONTRACTOR SHALL PROVIDE SUBMITTAL DATA OF ANY "ALTERNATES" WITH THEIR BID AND ITEMIZED COST ANALYSES IN THE CONTRACT SUM AT THE OWNER'S OPTION.

C. SUBMITTALS FOR "APPROVED EQUAL" ITEMS SHALL, WHERE APPLICABLE, INCLUDE THE FOLLOWING DATA WHICH ARE NOT REQUIRED FOR SPECIFIED ITEMS:

- 1. MANUFACTURER'S SHOP DRAWINGS OR CATALOG CUT SHEETS.
- 2. PERFORMANCE CHARACTERISTICS.
- 3. MATERIAL DESCRIPTIONS.
- 4. FINISH DESCRIPTIONS.
- 5. CERTIFICATION OF CONFORMANCE WITH SPECIFIED CODES AND STANDARD SPECIFICATIONS.

D. SUBMITTALS OF "APPROVED EQUAL" COMPONENTS MAY BE REJECTED BASED ON THE FOLLOWING:

- 1. MANUFACTURER'S SHOP DRAWINGS OR CATALOG CUT SHEETS ARE NOT PROVIDED.
- 2. THE COMPONENT WOULD NECESSITATE THE ALTERATION OF ANY PORTION OF THE PLUMBING, ELECTRICAL, ARCHITECTURAL, OR STRUCTURAL DESIGN.
- 3. DIMENSIONS VARY FROM THE SPECIFIED COMPONENT IN SUCH A MANNER THAT ACCESSIBILITY OR CLEARANCES ARE IMPAIRED OR THE WORK OF OTHER TRADES IS ADVERSELY AFFECTED.

1.4 SUBMITTALS

A. SUBMIT A MATERIAL LIST FOR ALL MATERIALS FURNISHED UNDER THIS SECTION.

B. SUBMITTALS MUST BE FURNISHED AS A SINGLE PACKAGE, WITH EXCEPTION MADE FOR EMBEDMENT ITEMS WHICH REQUIRE EARLY APPROVAL.

C. SUBMIT SHOP DRAWINGS AND/OR CATALOG CUTS FOR THE FOLLOWING ITEMS

- 1. MOTOR STARTERS.
- 2. PANELBOARDS.
- 3. CAST BRONZE JUNCTION BOXES AND CORD SEALS.
- 4. POTTING COMPOUND.
- 5. CONTROL PANELS, INCLUDE WIRING DIAGRAMS, DEVICES, AND LAYOUT.
- 6. WATERTIGHT CONDUIT ENTRANCE SEALS.
- 7. WATERPROOF CAULKING COMPOUND.
- 8. TIMERS.
- 9. PENETRATION DETAILED DRAWINGS.

D. INCLUDE OUTLINE DIMENSIONS, OPERATING AND MAINTENANCE CLEARANCES REQUIRED, AND SUFFICIENT ENGINEERING DATA TO INDICATE COMPLIANCE WITH THE SPECIFICATIONS.

E. ALL SUBMITTALS MUST BE NEWLY PREPARED AND NOT REPRODUCED FROM THE CONTRACT DOCUMENTS.

F. PROVIDE SUFFICIENT IDENTIFICATION ON EACH SUBMITTAL TO INDICATE THE APPLICATION. SUBMITTALS NOT SO IDENTIFIED MAY BE REJECTED.

G. SUBMITTALS MAY BE REJECTED IF THEY ARE DIFFICULT TO READ DUE TO INSUFFICIENT SCALE, POOR IMAGE QUALITY, OR POOR DRAFTING QUALITY; OR IF THE REQUIRED INFORMATION IS NOT INCLUDED.

1.3 OPERATING INSTRUCTION

A. AT COMPLETION, A PERIOD OF NOT LESS THAN EIGHT HOURS SHALL BE ALLOTTED BY THE CONTRACTOR FOR INSTRUCTION OF OPERATING AND MAINTENANCE PERSONNEL IN THE USE OF ALL SYSTEMS. ALL PERSONNEL SHALL BE INSTRUCTED AT ONE TIME, THE CONTRACTOR MAKING ALL NECESSARY ARRANGEMENTS WITH MANUFACTURER'S REPRESENTATIVES TO PROVIDE INSTRUCTION, PRODUCT LITERATURE AND APPLICATION GUIDES FOR THE USER'S REFERENCE.

1.4 THIRTY-DAY OPERATION PERIOD

A. AS SOON AS THE STRUCTURE HAS BEEN COMPLETED AND ALL PLUMBING AND ELECTRICAL EQUIPMENT HAS BEEN INSTALLED AND TESTED, THE SWIMMING POOL AND SPA MAY BE PLACED IN OPERATION.

B. PRIOR TO ACCEPTANCE OF THE INSTALLATION BY THE OWNER, THE CONTRACTOR SHALL DEMONSTRATE A CONCURRENT THIRTY DAY, FULLY AUTOMATED UNINTERRUPTED DAILY OPERATION OF NOT LESS THAN TWELVE HOURS NOR MORE THAN TWENTY HOURS FOR ALL SYSTEMS PROVIDED UNDER THIS SECTION.

C. THE CONTRACTOR SHALL SUPERVISE THE OPERATION OF THE EQUIPMENT AND BE RESPONSIBLE FOR THE PROPER OPERATION AND MAINTENANCE THEREOF AND MAKE NO CLAIM AGAINST THE OWNER FOR ANY DAMAGE TO THE EQUIPMENT DURING SUCH OPERATION. THE CONTRACTOR SHALL MAKE SUCH CHANGES, ADJUSTMENTS, OR REPLACEMENTS OF EQUIPMENT AS MAY BE REQUIRED TO MAKE THE INSTALLATION COMPLY WITH THE SPECIFICATIONS.

D. THE COST OF ELECTRICITY, WATER, AND NORMAL OPERATIONAL SUPPLIES DURING THE THIRTY-DAY OPERATION WILL BE PAID BY THE OWNER. THE CONTRACTOR SHALL PAY FOR ALL OPERATING COSTS RESULTING FROM SYSTEM DEFICIENCIES.

E. COORDINATE THE THIRTY-DAY OPERATION PERIOD WITH THE PLUMBING CONTRACTOR AND OTHER TRADES RELATED TO THE SWIMMING POOL AND SPA WORKS.

PART 2 - PRODUCTS

2 GENERAL

A. WHERE PRACTICABLE, THE PRODUCT OF A SINGLE MANUFACTURER FOR EACH TYPE OF MATERIAL OR EQUIPMENT SHALL BE USED THROUGHOUT ALL WORK SPECIFIED UNDER THIS SECTION.

B. PROVIDE ALL SPECIAL TOOLS REQUIRED FOR PROPER OPERATION AND MAINTENANCE OF EQUIPMENT PROVIDED UNDER THIS SECTION. DELIVER TO THE OWNER.

C. FURNISH THREE HARD BACK 3-RING BINDERS CONTAINING ALL BULLETINS, OPERATING AND MAINTENANCE INSTRUCTIONS, PART LISTS, AND OTHER PERTINENT INFORMATION FOR EACH AND EVERY PIECE OF EQUIPMENT FURNISHED UNDER THIS SECTION. INCLUDE SERVICE TELEPHONE NUMBERS. INDEX BINDER INTO SECTIONS AND LABEL FOR EASY REFERENCE. DELIVER TO THE ARCHITECT.

D. PRODUCTS SHOWN ON THE DRAWINGS BUT NOT SPECIFIED HEREIN SHALL BE PROVIDED IN ACCORDANCE WITH INFORMATION SHOWN ON THE DRAWINGS AND THE GENERAL PROVISIONS OF THIS PART OF THIS SPECIFICATION.

3 RACEWAYS AND BOXES

A. RIGID STEEL CONDUIT AND FITTINGS: ALSO FOR HW FLOAT SWITCHES

- 1. CONDUIT: THREADED, HOT DIP GALVANIZED, CONFORMING TO ANSI C80.1-1983.

- 2. FITTINGS: MALLEABLE IRON, ELECTROPLATED, AS MANUFACTURED BY THOMAS AND BETTS OR APPROVED EQUAL.

B. ELECTRICAL METALLIC TUBING:

- 1. CONDUIT: COLD ROLLED STEEL, HOT DIPPED GALVANIZED OR ZINC METALLIZED INSIDE AND OUTSIDE AND INSIDE PROTECTIVE ENAMEL COATING CONFORMING TO ANSI C80.3-1983.

- 2. FITTINGS: MALLEABLE IRON OR GALVANIZED STEEL, SET SCREW OR COMPRESSION TYPE.

C. RIGID NON-METALLIC CONDUIT (PVC):

- 1. CONDUIT: RIGID POLYVINYLCHLORIDE CONDUIT CONFORMING TO NEMA TC2, UL LISTED FOR EXPOSED AND DIRECT BURIAL APPLICATIONS AND FOR 90 DEGREES C CONDUCTOR INSULATION.

- 2. FITTINGS: MOLDED PVC, SLIP ON, SOLVENT WELD TYPE AS FURNISHED BY THE CONDUIT MANUFACTURER.

D. LIQUID-TIGHT FLEXIBLE CONDUIT:

- 1. CONDUIT: NON-METALLIC, PVC JACKET AND CORE, CONFORMING TO U.L. STANDARDS AND NEC ARTICLE 351B. KELLEMS "POLYTUFF I" SERIES OR APPROVED EQUAL.

- 2. FITTINGS: NON-METALLIC, NYLON, CONFORMING TO U.L. STANDARDS. KELLEMS "POLYTUFF I" SERIES OR APPROVED EQUAL.

E. BRASS CONDUIT: THREADED, SILICON BRONZE ALLOY, CAMBRIDGE LEE OR APPROVED EQUAL.

F. WATERTIGHT CONDUIT ENTRANCE SEALS: OZ GEDNEY TYPE FSK OR APPROVED EQUAL WITH GROUNDING CONNECTION. BELOW GRADE PENETRATIONS ONLY

G. SURFACE RACEWAY: SEAMLESS STEEL CONSTRUCTION, HINGED COVER, FACTORY GRAY ENAMEL FINISH, CONFORMING TO U.L. STANDARD NO. 5.

H. OUTLET BOXES:

- 1. CAST METAL OUTLET BOXES: 4" ROUND, PLATED CAST IRON ALLOY BODY WITH THREADED HUBS AND MOUNTING LUGS, CAST IRON ALLOY COVER, NEOPRENE GASKET, CROUSE-HINDS VXF SERIES OR APPROVED EQUAL.

- 2. CONDUIT OUTLET BODIES: PLATED CAST IRON ALLOY BODY WITH THREADED HUBS, NEOPRENE GASKET AND CAST IRON COVER.

- 3. CAST BRONZE JUNCTION BOXES: CAST BRONZE BODY AND COVER, NEOPRENE GASKET, STAINLESS STEEL FASTENERS AND INTERNAL GROUND SCREW, CRYSTAL EBJ SERIES OR APPROVED EQUAL. SEE JUNCTION BOX SCHEDULE FOR TYPES. IS THERE A J-BOX SCHEDULE?

- 4. POTTING COMPOUND: 3M "SCOTCHCAST 2112" RE-ENTERABLE ENCAPSULATE. UW J BOXES ONLY

- 5. WATERPROOF CAULKING COMPOUND: DOW-CORNING "SILASTIC" NO. 738 RTV OR APPROVED EQUAL. UW J BOXES ONLY

I. SUPPORTING DEVICES:

- 1. PROVIDE ALL NECESSARY INSERTS, FASTENERS, CLAMPS, RODS, CHANNELS, STRAPS, BOLTS, NUTS AND WASHERS.

- 2. SUPPORTING DEVICES SHALL BE AS MANUFACTURED BY UNISTRUT OR APPROVED EQUAL AS RECOMMENDED FOR THE APPLICATION.

- 3. FASTENERS: TOGGLE BOLTS, EXPANSION INSERTS, WOOD SCREWS OR MACHINE SCREWS AS APPROPRIATE TO THE CONSTRUCTION.

- 4. COAL TAR MASTIC: KOPPERS "BITUMASTIC" NO. 50 OR APPROVED EQUAL. UNDERGROUND CONDUIT ONLY

2.3 WIRE AND CABLE

A. NEC TYPE THWN, MOISTURE AND HEAT RESISTANT THERMOPLASTIC INSULATED WITH NYLON JACKET. 75 DEGREES C TEMPERATURE RATING.

- 1. CONDUCTOR: COPPER, SOLID FOR SIZES AWG #12 AND #10, STRANDED FOR SIZES AWG #14, AND #8 AND LARGER.

B. NEC TYPE THW, MOISTURE AND HEAT RESISTANT THERMOPLASTIC INSULATED. 75 DEGREES C TEMPERATURE RATING.

- 1. CONDUCTOR: COPPER, SOLID FOR SIZES AWG #12 AND #10, STRANDED FOR SIZES AWG #14, AND #8 AND LARGER.

C. SPLICING AND TERMINATING:

- 1. INSULATED SPRING CONNECTORS: THOMAS AND BETTS "PIGGY" WIRE JOINTS OR APPROVED EQUAL.

- 2. MECHANICAL COMPRESSION CONNECTORS: CAST BRONZE BODY, SILICON BRONZE BOLT, AS MANUFACTURED BY THOMAS AND BETTS.

- 3. BONDING CLAMPS: ALL BRONZE/BRASS BODY AND U-BOLT. THOMAS AND BETTS 3900 SERIES OR APPROVED EQUAL.

- 4. CABLE TIES: THOMAS AND BETTS "TY-RAP" OR APPROVED EQUAL.

- 5. WIRE MARKERS: THOMAS AND BETTS "E-Z CODE" OR APPROVED EQUAL.

- 6. SPLICING AND INSULATING TAPE: AS MANUFACTURED BY 3M "SCOTCH" BRAND, APPLICATION IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

SHEET INDEX

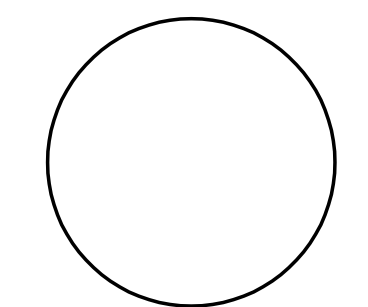
- WF 1.01 NOTES AND SYMBOLS
- WF 1.02 NOTES AND SYMBOLS
- WF 1.03 NOTES AND SYMBOLS
- WF 2.01 WATER FEATURE FLOW DIAGRAM
WATER FEATURE SITE PLAN
WATER FEATURE DETAILS



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STAMP

DATE	PURPOSE	BY
06.26.19	BID SET	BW
07.02.19	CONSTRUCTION SET	BW

scale:
NONE

sheet title:
WATER
FEATURE
NOTES AND
SYMBOLS

sheet number:

WF 1.01

SECTION 13 12 11 FOUNTAIN ELEC. CONTINUED

2.4 DISTRIBUTION EQUIPMENT

A. GENERAL

- EQUIPMENT SHALL BE AS MANUFACTURED BY SOUTH COAST CONTROLS OR APPROVED EQUAL. REFER TO THE ELECTRICAL AND PLUMBING DRAWINGS FOR EQUIPMENT SCHEDULE.
- VOLTAGE AND CHARACTERISTICS SHALL BE AS SHOWN ON THE DRAWINGS.
- ALL ENCLOSURES SHALL BE FACTORY COATED WITH GRAY ENAMEL, CONSTRUCTED TO NEMA 4 AND BE LABELED U.L. LABEL WHERE APPLICABLE.

B. MOTOR AND CONTROL CENTER EQUIPMENT:

- HOFFMAN NEMA 4 CSD SERIES OR APPROVED EQUAL.
 - HORIZONTAL BUS BARS: 100 AMPERE, TIN PLATED COPPER WITH BUS BARRIERS.
 - ARE HORIZONTAL BUS BARS LARGE ENOUGH? NO HORIZONTAL BUS REQUIRED FOR SINGLE SECTION. VERTICAL BUS BARS: 100 AMPERE, TIN PLATED COPPER WITH BUS BARRIERS
 - GROUND BUS: UNPLATED COPPER.
 - BRACING: 42,000 AMPERES RMS SYMMETRICAL. CONTRACTOR TO CONFIRM SUITABILITY FOR AVAILABLE FAULT CURRENT.
 - DIMENSIONS: AS REQUIRED BY THE MANUFACTURER.
 - DEVICES: AS SHOWN ON THE ELECTRICAL DRAWINGS
 - EVERY CONTROL CONDUCTOR SHALL BE IDENTIFIED AT BOTH ENDS WITH THE SPECIFIED WIRE MARKERS.
- ### C. EQUIPMENT:
- MAIN DISCONNECT BREAKER: CUTTLER HAMMER EGS SERIES.
 - MANUAL MOTOR STARTER: CUTTLER HAMMER QC SERIES, GFI BREAKER.
 - BREAKERS: WMZS SERIES.
 - TERMINAL BLOCK: ALLEN BRADLEY J3 AND J6 SERIES.
 - TIMER: SOUTH COAST CONTROLS 7-DAY.
 - NAMEPLATES: LAMINATED PLASTIC, 1" X 3-1/2", BLACK WITH WHITE ENGRAVED LETTERS. MINIMUM CHARACTER SIZE 1/

PART 3 - EXECUTION

3.1 GENERAL

- INSTALL ALL MATERIALS AND EQUIPMENT IN ACCORDANCE WITH NEC REQUIREMENTS AND THE MANUFACTURERS' INSTRUCTIONS AND RECOMMENDATIONS
 - PROTECT ALL CONDUITS, CONDUCTORS AND EQUIPMENT AGAINST INJURY BY EXPOSURE TO WEATHER DURING CONSTRUCTION WHILE STORED OR INSTALLED IN PLACE. TOUCH UP ANY SCRATCHES AFTER INSTALLATION
 - COORDINATE THE LOCATION OF OUTLETS SERVING EQUIPMENT FURNISHED BY OTHER TRADES TO ALLOW SPACE FOR NECESSARY ACCESS, REPAIR, REMOVAL AND REPLACEMENT.
 - MAKE ALL ADJUSTMENTS REQUIRED FOR PROPER OPERATION OF THE ELECTRICAL SYSTEM. USE MANUFACTURERS' REPRESENTATIVES OR FACTORY TECHNICIANS WHERE ADJUSTMENTS CANNOT BE ACCOMPLISHED BY THE CONTRACTOR'S PERSONNEL.
- ### 3.2 RACEWAYS, BOXES, CONDUITS
- SIZE ALL CONDUITS IN ACCORDANCE WITH THE NEC TO ACCOMMODATE QUANTITIES, SIZES AND TYPES OF CONDUCTORS SHOWN ON THE DRAWINGS.
 - MINIMUM CONDUIT SIZE SHALL BE 3/4" UNLESS INDICATED OTHERWISE ON THE DRAWINGS.
 - EXPOSED WORK MAY BE USED WITHIN THE EQUIPMENT SPACE UNLESS INDICATED OTHERWISE ON THE DRAWINGS
 - ARRANGE EXPOSED CONDUIT STRAIGHT, PARALLEL AND PERPENDICULAR TO THE WALLS OF THE STRUCTURE.
 - GROUP CONDUITS IN PARALLEL HORIZONTAL OR VERTICAL RUNS WHEREVER PRACTICAL.
 - PROTECT ALL OPENINGS IN CONDUIT DURING CONSTRUCTION TO PREVENT ENTRANCE OF FOREIGN MATTER.
 - CUT CONDUIT ENDS SQUARE. REMOVE ROUGH EDGES AND BURRS.
 - APPLICATIONS FOR RACEWAYS (EXCEPT WHERE INDICATED OTHERWISE ON THE DRAWINGS):
 - IN THE EQUIPMENT SPACE AND BUILDING: RIGID STEEL CONDUIT.
 - IN THE EQUIPMENT ROOM AND STRUCTURAL TRANSITION POINT NOT LESS THAN 12" BEYOND THE EQUIPMENT SPACE WALL OR FLOOR: RIGID STEEL CONDUIT.
 - IN THE EQUIPMENT ROOM AND BUILDING: ELECTRICAL METALLIC TUBING.
 - EMBEDDED IN CONCRETE BENEATH THE EQUIPMENT SPACE FLOOR: RIGID STEEL CONDUIT.
 - MENETRATIONS THROUGH THE SWIMMING POOL AND SPA POOL SLABS, CONNECTIONS TO UNDERWATER JUNCTION BOXES AS INDICATED ON THE DRAWINGS: BRASS CONDUIT.
 - CONNECTIONS TO MOTORS, SOLENOID AND SIMILAR DEVICES: LIQUID-TIGHT FLEXIBLE CONDUIT.
 - APPLICATIONS FOR OUTLET BOXES:
 - IN THE EQUIPMENT SPACE AND BUILDING: CAST METAL OUTLET BOXES AND CONDUIT OUTLET BODIES.
 - UNDERWATER AND AS INDICATED ON THE DRAWINGS: CAST BRONZE JUNCTION BOXES.

3.3 SUPPORTS:

- INSTALL ALL REQUIRED FASTENERS, CLAMPS, RODS, CHANNELS, STRAPS, BOLTS, NUTS AND WASHERS TO SUPPORT RACEWAY SYSTEMS IN ACCORDANCE WITH THE NEC.
 - FURNISH AND ARRANGE FOR THE INSTALLATION OF ALL REQUIRED INSERTS.
 - SUPPORT SINGLE RUNS OF CONDUIT USING ONE-HOLE PIPE CLAMPS. USE "CLAMP BACKS" TO SPACE CONDUIT FROM SURFACE.
 - SUPPORT MULTIPLE CONDUIT RUNS USING TRAPEZE HANGERS.
- ### E. TERMINATIONS AND JOINTS:
- TERMINATE CONDUITS IN THREADED HUBS OR BY MEANS OF TWO LOCKNUTS AND AN INSULATING BUSHING.
 - INSTALL EXPANSION COUPLINGS WHERE ANY CONDUIT CROSSES AN EXPANSION JOINT OR IS FASTENED TO INDEPENDENT STRUCTURES.
 - APPLY RED LEAD TO ALL EXPOSED THREADS AFTER JOINTS HAVE BEEN MADE.
- ### F. UNDERWATER JUNCTION BOXES:
- SEAL THE INTERIOR OF ALL CONDUIT ENTRIES TO UNDERWATER JUNCTION BOXES USING SPECIFIED WATERPROOF CAULKING COMPOUND.
 - POT ALL UNDERWATER JUNCTION BOXES USING SPECIFIED POTTING COMPOUND.
- ### G. PENETRATIONS:
- CORE DRILLING FOR CONDUIT PENETRATIONS SHALL BE ACCOMPLISHED ONLY AT LOCATIONS AND IN A MANNER APPROVED BY THE ARCHITECT.
 - PROVIDE A METAL SLEEVE OR CORE DRILLED HOLE FOR EACH INTERIOR CONDUIT RUN PASSING THROUGH A CONCRETE WALL OR FLOOR. SEAL, USING DRY-PACK GROUTING COMPOUND.
 - INSTALL WATERTIGHT CONDUIT ENTRANCE SEALS AT ALL BELOW GRADE WALL AND FLOOR PENETRATIONS. PROVIDE MEMBRANE CLAMPS WHERE REQUIRED.

3.4 DISTRIBUTION AND CONTROL EQUIPMENT

- INSTALL WALL MOUNTED DISTRIBUTION EQUIPMENT, CONTROL EQUIPMENT, AND INTERCONNECTING RACEWAYS ON 1 1/2" X 1 1/2" MINIMUM CHANNEL.
- INSTALL IDENTIFYING NAMEPLATES ON EACH ITEM OF DISTRIBUTION AND CONTROL EQUIPMENT AS NAMEPLATES. REFER TO THE NAMEPLATE SCHEDULES FOR CONTROL DEVICE NAMEPLATES.
- INSTALL PROTECTIVE MATTING ALONG THE ENTIRE FRONT OF THE ELECTRICAL GEAR AS INDICATED ON THE DRAWINGS.
- ADJUST WATER LEVEL CONTROL PROBES IN ACCORDANCE WITH INSTRUCTIONS UNDER THE MANUFACTURER'S MANUAL AND SWIMMING POOL AND SPA DESIGNER'S RECOMMENDATIONS.

3.5 GROUNDING AND BONDING

- PERMANENTLY GROUND AND BOND TRANSFORMERS, ELECTRICAL CABINETS, MOTORS, CONDUITS AND METAL FOR THE SUPPORT OF ELECTRICAL EQUIPMENT SUCH AS METALLIC PIPING SYSTEMS AND REINFORCING STEEL.
- FURNISH ALL GROUND RODS AS REQUIRED.
- GROUNDING AND BONDING SHALL BE IN COMPLIANCE WITH ARTICLE 250 OF THE NEC AS A MINIMUM.

END OF SECTION

SECTION 13 12 10 FOUNTAIN PLUMBING

PART 1 - GENERAL

1.1 SUMMARY:

THIS SECTION DESCRIBES GENERAL REQUIREMENTS, MATERIALS, APPARATUS, TOOLS, EQUIPMENT, TRANSPORTATION, TEMPORARY CONSTRUCTION, AND SPECIAL OR OCCASIONAL SERVICES AS REQUIRED TO MAKE A COMPLETE WORKING PLUMBING INSTALLATION, AS SHOWN ON THE DRAWINGS AND DESCRIBED IN THESE SPECIFICATIONS. WORKS INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:

- WATER FEATURE SYSTEMS INCLUDING FILTRATION, PUMPS, VALVES, MEDIA, PIPING AND SPECIALTIES AS DESCRIBED OR SHOWN ON THE DRAWINGS.
 - WATER FEATURE WATER TREATMENT SYSTEMS INCLUDING FEEDER, CHEMICALS, AND VALVES, PIPING, AND RELATED ACCESSORIES.
 - WATER FEATURE SERVICES INCLUDING WATER, STORM AND SEWER, TO DESIGNATED POINTS OF CONNECTION WITH SITE UTILITIES.
 - CONCRETE HOUSEKEEPING PADS AS REQUIRED AND AS INDICATED ON THE DRAWINGS
- ### A. RELATED WORK SPECIFIED OTHER SECTIONS:
- STRUCTURAL.
 - LANDSCAPE.
 - WATERPROOFING.
 - ELECTRICAL.
 - CIVIL.
 - MECHANICAL.

1.2 REFERENCE STANDARDS

- THIS INSTALLATION SHALL COMPLY WITH ALL APPLICABLE PROVISIONS OF THE LATEST EDITION OF THE FOLLOWING CODES:

IPC	INTERNATIONAL PLUMBING CODE.
IBC	INTERNATIONAL BUILDING CODE.
NEC	NATIONAL ELECTRICAL CODE.
	LOCAL CODES.
 - MATERIALS FURNISHED SHALL COMPLY WITH THE LATEST EDITION OF APPLICABLE STANDARD SPECIFICATIONS PUBLISHED BY THE FOLLOWING ORGANIZATIONS:

ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS.
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE.
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS.
AWWA	AMERICAN WATER WORKS ASSOCIATION
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION.
NSF	NATIONAL SANITATION FOUNDATION
- ### C. PROVIDE LABELED EQUIPMENT CERTIFYING APPROVAL BY UNDERWRITERS LABORATORIES (UL) AND/OR ETL TESTING LABORATORIES.

1.3 SUBSTITUTIONS

- THE USE OF MANUFACTURERS' NAMES AND CATALOG IS GENERALLY USED TO ESTABLISH A STANDARD OF QUALITY AND UTILITY FOR THE SPECIFIED ITEMS AND TO PROVIDE A DIMENSIONAL REFERENCE FOR CONSTRUCTION DOCUMENTS THAT ARE DRAWN TO SCALE.
 - BIDDING CONTRACTOR SHALL PROVIDE SUBMITTAL DATA OF ANY "ALTERNATES" WITH THEIR BID AND ITEMIZED COST ANALYSES IN THE CONTRACT SUM AT THE OWNER'S OPTION.
 - SUBMITTALS FOR "APPROVED EQUAL" ITEMS SHALL, WHERE APPLICABLE, INCLUDE THE FOLLOWING DATA WHICH ARE NOT REQUIRED FOR SPECIFIED ITEMS:
 - MANUFACTURER'S SHOP DRAWINGS OR CATALOG CUT SHEETS.
 - PERFORMANCE CHARACTERISTICS.
 - MATERIAL DESCRIPTIONS.
 - FINISH DESCRIPTIONS.
 - CERTIFICATION OF CONFORMANCE WITH SPECIFIED CODES AND STANDARD SPECIFICATIONS.
- ### D. SUBMITTALS OF "APPROVED EQUAL" COMPONENTS MAY BE REJECTED IF:
- MANUFACTURER'S SHOP DRAWINGS OR CATALOG CUT SHEETS ARE NOT PROVIDED.
 - THE COMPONENT WOULD NECESSITATE THE ALTERATION OF ANY PORTION OF THE PLUMBING, ELECTRICAL, ARCHITECTURAL, OR STRUCTURAL DESIGN.
 - DIMENSIONS VARY FROM THE SPECIFIED COMPONENT IN SUCH A MANNER THAT ACCESSIBILITY OR CLEARANCES ARE IMPAIRED OR THE WORK OF OTHER TRADES IS ADVERSELY AFFECTED.

1.4 SUBMITTALS

- SUBMIT A MATERIAL LIST FOR ALL MATERIALS FURNISHED UNDER THIS SECTION.
- SUBMITTALS MUST BE FURNISHED AS A SINGLE PACKAGE, WITH EXCEPTION MADE FOR EMBEDMENT ITEMS WHICH MAY REQUIRE EARLY APPROVAL.
- SUBMIT SHOP DRAWINGS, PRODUCT DATA, SAMPLES/MOCKUPS FOR THE FOLLOWING ITEMS FURNISHED UNDER THIS SECTION:
 - PUMPS.
 - WATER FEATURE FITTINGS.
 - VALVES.
 - PIPE AND PIPE FITTINGS.
 - SPECIALTIES.
 - WATER TREATMENT AND CHEMICALS.
 - WATER TREATMENT CONTRACTOR. (FURNISH BROCHURE OR OTHER RELEVANT QUALIFICATION MATERIAL).
 - CUSTOM FABRICATED FITTINGS.
 - PATCHING AND FILLING MATERIAL SAMPLES AND MOCKUPS FOR ARCHITECT'S APPROVAL BEFORE EXECUTION OF ANY WORK.
- PROVIDE INSTALLATION SHOP DRAWINGS OF THE EQUIPMENT ROOM LAYOUT AND SITE PLAN SHOWING ALL PLUMBING EQUIPMENT AND PIPING. INCLUDE PIPE ELEVATIONS AND DIMENSIONS BETWEEN PIPE CENTERLINES WHERE RELEVANT.
- INCLUDE OUTLINE DIMENSIONS, OPERATING AND MAINTENANCE CLEARANCES REQUIRED, AND SUFFICIENT ENGINEERING DATA TO INDICATE COMPLIANCE WITH THE SPECIFICATIONS.
- THE CONTRACTOR REMAINS RESPONSIBLE FOR VERIFYING DIMENSIONS AND FIELD CONDITIONS.
- PROVIDE SUFFICIENT IDENTIFICATION ON EACH SUBMITTAL TO INDICATE THE SPECIFICATION SECTION, ITEM NUMBER, MODEL, SIZE, CAPACITY AND ANY APPLICABLE NOTATION. SUBMITTALS NOT SO IDENTIFIED CORRECTLY WILL BE REJECTED.
- SUBMITTALS WILL BE REJECTED IF THEY ARE DIFFICULT TO READ DUE TO INSUFFICIENT SCALE, POOR IMAGE QUALITY, OR POOR DRAFTING QUALITY.

1.5 OPERATING INSTRUCTION

- AT THE TIME OF COMPLETION, A PERIOD OF NOT LESS THAN EIGHT HOURS SHALL BE ALLOTTED BY THE CONTRACTOR FOR INSTRUCTION OF OPERATING AND MAINTENANCE PERSONNEL IN THE USE OF ALL SYSTEMS. ALL PERSONNEL SHALL BE INSTRUCTED AT ONE TIME. THE CONTRACTOR MAKING ALL NECESSARY ARRANGEMENTS WITH MANUFACTURERS' REPRESENTATIVES TO PROVIDE INSTRUCTION, PRODUCT LITERATURE AND APPLICATION GUIDES FOR THE USER'S REFERENCE.

1.6 THIRTY-DAY OPERATION PERIOD

- PRIOR TO ACCEPTANCE OF THE INSTALLATION BY THE OWNER, THE CONTRACTOR SHALL DEMONSTRATE A CONCURRENT THIRTY-DAY, UNINTERRUPTED DAILY OPERATION OF NOT LESS THAN TWELVE HOURS NOR MORE THAN TWENTY HOURS FOR ALL SYSTEMS PROVIDED UNDER THIS SECTION.
- THE CONTRACTOR SHALL SUPERVISE THE OPERATION OF THE EQUIPMENT AND BE RESPONSIBLE FOR THE PROPER OPERATION AND MAINTENANCE THEREOF AND MAKE NO CLAIM AGAINST THE OWNER FOR ANY DAMAGE TO THE EQUIPMENT DURING SUCH OPERATION. THE CONTRACTOR SHALL MAKE SUCH CHANGES, ADJUSTMENTS, OR REPLACEMENTS OF EQUIPMENT AS MAY BE REQUIRED TO MAKE THE INSTALLATION COMPLY WITH THE SPECIFICATIONS.
- THE COSTS OF ELECTRICITY, WATER AND NORMAL OPERATIONAL SUPPLIES DURING THE THIRTY-DAY OPERATION PERIOD WILL BE PAID BY THE OWNER. WATER TREATMENT CHEMICALS ARE INCLUDED IN THE SERVICES OF THE WATER TREATMENT COMPANY RETAINED BY THE PLUMBING CONTRACTOR. THE CONTRACTOR SHALL PAY FOR ALL OPERATING COSTS RESULTING FROM SYSTEM DEFICIENCIES.
- COORDINATE THE THIRTY-DAY OPERATION PERIOD WITH THE ELECTRICAL CONTRACTOR AND OTHER TRADES RELATED TO THE SWIMMING POOL AND SPA WORK.

PART 2 - PRODUCTS

2.1 GENERAL

- THE PRODUCT OF A SINGLE MANUFACTURER FOR EACH TYPE OF MATERIAL OR EQUIPMENT (WHERE APPLICABLE) SHALL BE USED THROUGHOUT ALL WORK SPECIFIED UNDER THIS SECTION.
 - PROVIDE ALL SPECIAL TOOLS FOR PROPER OPERATION AND MAINTENANCE OF THE EQUIPMENT PROVIDED UNDER THIS SECTION. DELIVER TO THE OWNER.
 - FURNISH THREE HARD BACK 3-RING BINDERS CONTAINING ALL BULLETINS, OPERATING AND MAINTENANCE INSTRUCTIONS, LUBRICATION SCHEDULES, PARTS LISTS AND OTHER PERTINENT INFORMATION FOR EACH AND EVERY PIECE OF EQUIPMENT FURNISHED UNDER THIS SECTION. INCLUDE SERVICE TELEPHONE NUMBERS. INDEX EACH BINDER INTO SECTIONS AND LABEL FOR EASY REFERENCE. DELIVER TO THE ARCHITECT.
 - PRODUCTS SHOWN ON THE DRAWINGS BUT NOT SPECIFIED HEREIN SHALL BE PROVIDED IN ACCORDANCE WITH INFORMATION SHOWN ON THE DRAWINGS AND THE GENERAL PROVISIONS OF THIS PART OF THE SPECIFICATION.
- ### 2.2 MOTORS
- FURNISH AND INSTALL ALL REQUIRED MOTORS FOR ALL EQUIPMENT INCLUDED UNDER THIS SECTION.
 - ALL MOTORS TO BE NEMA STANDARD, RATED FOR OPERATION AT 40 DEGREES C AMBIENT, OF AMPLE SIZE TO OPERATE AT THEIR RATED LOAD AT FULL SPEED, CONTINUOUSLY, WITHOUT CAUSING EXCESSIVE NOISE, VIBRATION OR TEMPERATURE RISE.
 - ALL MOTORS SHALL BE SQUIRREL CAGE TYPE WOUND, NEMA DESIGN B, LOW CURRENT INRUSH AND NORMAL STARTING TORQUE, OPEN DRIP-PROOF TYPE, EQUIPPED WITH BALL BEARINGS. FOR VOLTAGE, PHASE AND HERTZ SEE DRAWINGS.

2.3 PUMPS

- THE PUMPS SHALL BE CAPABLE OF CONTINUOUS OPERATION IN THE ARRANGEMENT SHOWN AT ANY FLOW WITHIN 10% OF THE SPECIFIED CAPACITY WITHOUT CAVITATION RESULTING FROM THE DESIGN OF THE IMPELLER.
- EQUIPMENT SHALL BE CAPABLE OF BOTH CONTINUOUS AND INTERMITTENT OPERATION.
- THE SHALL BE SELF-PRIMING WITH INTEGRAL STRAINER MADE OF HIGH TEMPERATURE ENGINEERED THERMOPLASTIC MATERIAL.

2.4 VALVES

- BALL VALVES FOR THROTTLING AND ISOLATING APPLICATIONS UP TO 2". PVC TRUE-UNION TYPE AS MANUFACTURED BY SPEARS.
- CHECK VALVES UP TO 2"; PVC TRUE UNION, BALL CHECK TYPE AS MANUFACTURED BY SPEARS.
- IDENTIFYING TAGS: 1_1/2" ROUND BRASS, SETON OR APPROVED EQUAL WITH 1/4" MINIMUM STAMPED CHARACTERS.

2.5 PIPE AND PIPE FITTINGS

- GENERAL: ALL PIPE AND FITTINGS SHALL BE IDENTIFIED BY THE MANUFACTURER TO INDICATE MATERIAL, CLASS OR TYPE, SIZE AND PRESSURE RATING.
 - RED BRASS PIPE AND FITTINGS
 - PVC PIPE AND FITTINGS:
 - SCHEDULE 40, CONFORMING TO ASTM_D1785.
 - MATERIAL: CONFORMING TO ASTM_D1784, CELL CLASSIFICATION 12245B (TYPE 1, GRADE 1).
 - FITTINGS: SCHEDULE 80, SOCKET WELDED CONNECTIONS CONFORMING TO ASTM_D2467, THREADED CONNECTIONS CONFORMING TO ASTM_D2464.
 - SOLVENT CEMENT: WELD_ON NO. 711, CONFORMING TO ASTM_D2564.
 - DIELECTRIC FITTINGS: EPCO.
 - UNION OR FLANGE TYPE FITTINGS CONFORMING TO ANSI B16.8, SIZE AND MATERIAL AS REQUIRED.
 - GASKETS SHALL BE SUITABLE FOR THE INTENDED SERVICE.

2.6 SPECIALTIES

- CUSTOM FABRICATED FITTINGS MUST BE FABRICATED BY SPECIALIZED METAL FABRICATED WITH AT LEAST 10 YEARS OF PROVEN EXPERIENCE IN WORKING WITH WATER FEATURES. FABRICATOR SHALL SUBMIT FABRICATION SHOP DRAWINGS FOR APPROVAL PRIOR TO ANY WORK AND COORDINATE WITH ALL TRADES BEFORE ANY INSTALLATION COMMENCE.
- RESILIENT PIPE SEALS: PSI THUNDERLINE "LINK_SEAL" OR APPROVED EQUAL, MODULAR SYNTHETIC RUBBER LINK TYPE, 'C' SERVICE DESIGNATION WITH ZINC GALVANIZED PLATED LOW CARBON STEEL BOLTS AND NUTS, AND GLASS REINFORCED NYLON PLASTIC PRESSURE PLATES.

2.7 SUPPORTING DEVICES

- SUPPORTING DEVICES SHALL BE AS MANUFACTURED BY ANVIL INTERNATIONAL, INC. AND AS RECOMMENDED AND DESIGNED FOR THE APPLICATION. CONTRACTOR SHALL INCLUDE PROPOSED SUPPORTS IN HIS/HER SHOP DRAWINGS AND SUBMITTAL DATA PACKAGE.

2.8 WATER TREATMENT AND CHEMICALS

- CHEMICAL: SODIUM HYPOCHLORITE.
- PH CONTROL: SODIUM CARBONATE.
- THE EQUIPMENT SUPPLIER SHALL PROVIDE A MANUAL CONTAINING DETAILED INFORMATION ON THE CARE AND USE OF ALL WATER TREATMENT EQUIPMENT. MSD SHEETS SHALL BE FURNISHED FOR CHEMICALS APPLIED AND COPIES PLACED VISIBLE IN THE EQUIPMENT ROOM.
- CONTRACTOR SHALL PROVIDE ALL REQUIRED CHEMICALS AND TESTS PRIOR TO STARTUP BASED ON IONIZER MANUFACTURER'S INSTRUCTION MANUAL.

3.1 GENERAL

- INSTALL AND CONNECT ALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURERS' INSTRUCTIONS AND RECOMMENDATIONS. PROVIDE ALL PIPING, VALVES AND CONNECTIONS RECOMMENDED BY THE MANUFACTURER FOR PROPER OPERATION.
- PROTECT ALL PIPES, EQUIPMENT AND OTHER PARTS OF THE WORK AGAINST INJURY BY EXPOSURE TO THE WEATHER DURING CONSTRUCTION WHILE STORED OR INSTALLED IN PLACE.
- MAKE ALL ADJUSTMENTS REQUIRED FOR THE PROPER OPERATION OF THE PLUMBING SYSTEM. USE MANUFACTURER'S REPRESENTATIVES OR FACTORY TECHNICIANS WHERE ADJUSTMENTS CANNOT BE ACCOMPLISHED BY THE CONTRACTOR'S PERSONAL.

3.2 PUMP SYSTEMS

- BEFORE ANY ROTATING EQUIPMENT IS PUT IN OPERATION FOR TESTING PURPOSES MADE SURE THAT ALL ELECTRICAL CONNECTIONS HAVE BEEN TESTED. OPERATION AND MAINTENANCE BINDER.

3.3 VALVE INSTALLATION

- SUPPLY ALL PIPING SYSTEMS WITH VALVES ARRANGED TO PROVIDE NECESSARY ISOLATION AND GIVE REGULATING CONTROL THROUGHOUT THE SYSTEM.

3.4 PIPE INSTALLATION

A. GENERAL:

- PROVIDE FLANGES OR UNIONS AS INDICATED AND AS NECESSARY TO ALLOW REMOVAL AND RE-INSTALLATION OF ANY ITEM OF EQUIPMENT OR ACCESSORY WITHOUT CUTTING, WELDING OR SOLDERING.
- PROVIDE DISCHARGE PIPING OF PROPER SIZE FOR ALL AIR VENT, SOLENOID AND RELIEF VALVES. EXTEND TO NEAREST DRAIN.
- CUT PIPE TO MEASUREMENTS ESTABLISHED AT THE SITE. WORK INTO PLACE WITHOUT SPRINGING OR FORCING.
- PROTECT ALL OPENINGS IN PIPING DURING CONSTRUCTION TO PREVENT ENTRANCE OF FOREIGN MATTER.
- CUT PIPE AND TUBING ENDS SQUARE. REMOVE ROUGH EDGES AND BURRS SO THAT A SMOOTH AND UNOBSTRUCTED FLOW WILL BE OBTAINED.
- CLOSE OR SHORT NIPPLES SHOULD BE USED ONLY WHERE SHOWN ON THE DRAWINGS, OR ABSOLUTELY NECESSARY TO SATISFY DIMENSIONAL CONSTRAINTS.
- MAKE CHANGES IN PIPE SIZE USING REDUCING FITTINGS. USE BUSHINGS ONLY IF SHOWN ON THE DRAWINGS.
- UNLESS OTHERWISE NOTED, CONNECTIONS TO EQUIPMENT OR ACCESSORIES SHALL BE SCREWED FOR SIZES 2" AND SMALLER.
- ARRANGE EXPOSED PIPING STRAIGHT, PARALLEL AND PERPENDICULAR TO THE WALLS OF THE STRUCTURE UNLESS OTHERWISE SHOWN ON THE DRAWINGS.

B. THREADED PIPE:

- CUT ALL THREADS ACCURATELY, AXIS OF THREAD COINCIDING WITH AXIS OF PIPE.
- NO MORE THAN TWO THREADS SHALL SHOW BEYOND FITTINGS.
- MAKE UP JOINTS WITH TEFLON TAPE.
- REMAKE LEAKY JOINTS WITH NEW MATERIALS.
- THREADED JOINTS: WHERE SCREWED CONNECTIONS ARE USED IN COPPER SYSTEMS, ALL NIPPLES SHALL BE STANDARD WEIGHT RED BRASS.

C. PVC PIPE:

- BEVEL ALL PIPE ENDS WITH A COARSE FILE OR BEVELING TOOL.
- CLEAN SURFACES TO BE JOINED OF ALL LOOSE DIRT AND MOISTURE FROM THE I.D. AND O.D. OF THE PIPE END AND THE I.D. OF THE FITTING SOCKET.
- APPLY A COATING OF APPROPRIATE PRIMER TO THE ENTIRE I.D. SURFACE OF THE FITTING SOCKET AND TO AN EQUIVALENT AREA ON THE O.D. OF THE PIPE END.
- APPLY SOLVENT CEMENT USING AN APPROPRIATE NATURAL BRISTLE BRUSH AS FOLLOWS: APPLY A LIBERAL COATING OF CEMENT AROUND THE ENTIRE PERIMETER OF THE PIPE END TO A WIDTH SLIGHTLY MORE THAN THE EQUIVALENT SOCKET DEPTH OF THE FITTING. APPLY A LIGHT BUT COMPLETE COATING ONCE AROUND THE ENTIRE DEPTH OF THE SOCKET SURFACE, AVOIDING EXCESSIVE CEMENT APPLICATION. APPLY A SECOND LIBERAL COATING ONTO THE PIPE END.
- IMMEDIATELY AFTER CEMENTING, INSERT THE PIPE INTO THE FITTING TO THE FULL SOCKET DEPTH WHILE ROTATING THE PIPE OR FITTING ONE QUARTER TURN. HOLD JOINT TOGETHER FOR AT LEAST 15 SECONDS AFTER JOINING TO MAKE SURE PIPE DOES NOT BACK OUT OF SOCKET.
- DO NOT DISTURB OR MOVE THE JOINT FOR AT LEAST ONE HOUR AFTER JOINING.
- DO NOT SOLVENT WELD PIPE IF ATMOSPHERIC TEMPERATURE IS BELOW 40 DEGREES F. OR ABOVE 90 DEGREES F., OR IF IT IS RAINING.
- DISCARD CEMENT WHEN AN APPRECIABLE CHANGE IN VISCOSITY TAKES PLACE OR IF CEMENT IS LUMPY OR STRINGY. DO NOT THIN. CEMENT MUST BE USED BEFORE THE EXPIRATION DATE SHOWN ON THE CONTAINER.
- BACKFILL TRENCH WITH SAND OR PEA GRAVEL TO A HEIGHT OF 12" ABOVE TOP OF HIGHEST PIPE. COMPACTING OF MATERIAL SHALL BE PERFORMED ACCORDING TO LOCAL CODES.
- AT PAVED AREAS, MATERIAL MAY BE SAND, GRAVEL, OR NATIVE SOIL. AT PLANTED AREAS, SOIL SHALL BE AS SPECIFIED BY THE ARCHITECT.
- COMPACTING OF MATERIAL SHALL BE PERFORMED IN ACCORDANCE WITH LOCAL CODES.

D. PENETRATIONS:

- PIPE PENETRATIONS SHALL BE BY CAST-IN-PLACE STAINLESS-STEEL SLEEVES WITH WATER STOPS. ALL WELDING SHALL BE WATERTIGHT. SEE DRAWINGS FOR SIZES AND MODELS.
- CORE DRILLING FOR PIPE PENETRATIONS SHALL BE ACCOMPLISHED ONLY AT LOCATIONS AND IN A MANNER APPROVED BY THE ARCHITECT AND STRUCTURAL ENGINEER. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS WITH THE EXACT PROPOSED LOCATIONS AND X-RAYS FOR EXISTING REBAR LOCATIONS BEFORE CORE DRILLING.
- PROVIDE A CORE DRILLED HOLE FOR EVERY PIPE PASSING THROUGH A CONCRETE WALL OR FLOOR.

E. PIPING TESTS:

- PROVIDE ALL TEMPORARY PIPING, PUMPS, AND GAUGES NECESSARY TO CONDUCT THE SPECIFIED TESTS.
- CONDUCT ALL TESTS BEFORE CONCEALMENT OF WORK.
- USE WATER AS TEST MEDIUM. DO NOT TEST PIPING WITH AIR OR ANY OTHER COMPRESSIBLE GAS. VENT AIR FROM ALL PIPING BEING TESTED BEFORE APPLYING FULL TEST PRESSURE.
- REPLACE OR REPAIR ANY PART THAT LEAKS. REPEAT TEST UNTIL CRITERIA ARE MET.
- DO NOT SUBJECT ANY ITEM TO A TEST PRESSURE GREATER THAN THE PRESSURE RATING OF THE ITEM.
- UNDERGROUND PIPING SHALL BE TESTED AS FOLLOWS
- PRESSURIZE ALL UNDERGROUND PIPING (EXCEPT FOR DRAIN SYSTEM) TO 1.5 TIMES THE HIGHEST SYSTEM PRESSURE PRIOR TO BACKFILLING (SPOT BACKFILLING TO ANCHOR PIPING MAY BE DONE PRIOR TO PRESSURIZING). PIPING SHALL REMAIN PRESSURIZED UNTIL ALL BACKFILLING; GRADING, PLANTING AND CONCRETE WORK IN THE AREA OF THE PIPING IS COMPLETED.
- PRESSURIZE ALL UNDERGROUND DRAIN PIPING BENEATH THE EQUIPMENT SPACE TO 10 PSI PRIOR TO BACKFILLING. (SPOT BACKFILLING TO ANCHOR PIPING MAY BE DONE PRIOR TO PRESSURIZING). PIPING SHALL REMAIN PRESSURIZED UNTIL ALL BACKFILLING AND CONCRETE WORK IN THE AREA OF THE PIPING IS COMPLETED.
- THE COMPLETED PIPING SYSTEMS SHALL BE TESTED AS FOLLOWS:
 - CONDUCT EACH TEST FOR A MINIMUM CONTINUOUS DURATION OF EIGHT HOURS.
 - HYDROSTATICALLY PRESSURE TEST ALL STORM AND SANITARY DRAIN PIPING AT 10 PSI.
 - HYDROSTATICALLY PRESSURE TEST ALL OTHER PIPING AND EQUIPMENT AT 1.5 TIMES THE HIGHEST SYSTEM PRESSURE. STRIKE ALL SOLDER JOINTS WITH A SOFT-FACE HAMMER WHILE UNDER PRESSURE.
 - LOG PRESSURE READINGS FOR ALL TESTS REQUIRED ABOVE AT THE BEGINNING AND END OF EACH TEST AND ON EVERY WORKING DAY BETWEEN. NOTE THE LOCATION AND CAUSE OF ANY FAILURES AND METHOD OF REPAIR ON THE DAILY LOG. SUBMIT COPY OF THE LOG TO THE ARCHITECT WEEKLY
 - LOG PRESSURE READINGS FOR ALL TESTS REQUIRED ABOVE AT THE BEGINNING AND END OF EACH TEST. NOTE THE LOCATION AND CAUSE OF ANY FAILURES AND METHOD OF REPAIR ON THE LOG. SUBMIT COPY OF THE LOG TO THE ARCHITECT.
 - TESTING OF THE COMPLETED SYSTEMS AS SPECIFIED ABOVE SHALL BE WITNESSED BY THE ARCHITECT.
 - FLUSHING: BEFORE THE FOUNTAIN SYSTEM IS OPERATED, FLUSH ALL FOUNTAIN SYSTEM PIPING WITH WATER TO REMOVE FOREIGN MATTER.
 - COMPLETELY DRAIN ALL PIPING AND EQUIPMENT.
 - FILL THE SYSTEM TO THE REQUIRED CAPACITY.
 - CIRCULATE THE WATER THROUGHOUT THE SYSTEM FOR ONE HOUR, USING THE DISPLAY PUMP. DO NOT ALLOW CLOUDY WATER TO PASS THROUGH THE FILTER TANK
 - DRAIN, FILL AND CIRCULATE ENTIRE SYSTEM UNTIL THE WATER REMAINS CLEAR.

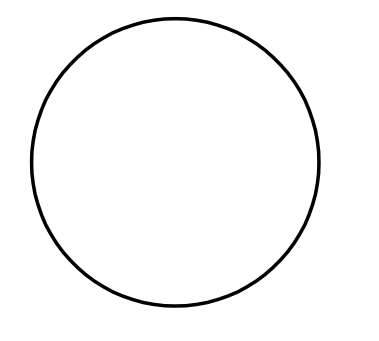


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SECTION 13 12 10 FOUNTAIN PLUMBING CONTINUED

3.6 PIPING AND EQUIPMENT SUPPORT

1. PROVIDE EQUIPMENT ANCHORAGE, PIPE SUPPORTS AND HANGERS AS NECESSARY TO MAINTAIN ALIGNMENT, PREVENT STRESS AND ALLOW REMOVAL AND MAINTENANCE OF FUNCTIONAL EQUIPMENT. PIPING SHALL NOT BE SUPPORTED BY THE EQUIPMENT. ALL EQUIPMENT ANCHORAGE, PIPE SUPPORTS AND HANGERS SHALL BE DESIGNED, INSTALLED AND SEISMICALLY BRACED IN ACCORDANCE WITH UBC REQUIREMENTS FOR SEISMIC ZONE 4. SEISMIC BRACING OF PIPING SHALL COMPLY WITH SMACNA SEISMIC RESTRAINT MANUAL, LATEST EDITION, SEISMIC HAZARD LEVEL B. FURNISH AND INSTALL ALL REQUIRED FASTENERS, RODS, HANGERS, SUPPORTS, BOLTS, NUTS, WASHERS AND STEEL PLATES AND SHAPES.
2. FURNISH AND ARRANGE FOR THE INSTALLATION OF ALL REQUIRED INSERTS AND ANCHOR BOLTS. PROVIDE TEMPLATES WHERE APPROPRIATE.
3. PROVIDE ADDITIONAL HANGERS OR SUPPORTS AT ALL VALVES, STRAINERS, AND ELSEWHERE WHERE REQUIRED TO PROPERLY SUPPORT ANY ADDITIONAL PIPE LOADING.
4. PROVIDE SUPPORTS OR BRACING TO PREVENT UNDUE MOVEMENT OF HUNG PIPING, ESPECIALLY AT CHANGES IN DIRECTION.
5. WHERE SEVERAL PIPES OCCUR AT THE SAME ELEVATION, TRAPEZE TYPE HANGERS MAY BE USED.
6. STRAP HANGERS ARE NOT PERMITTED IN ANY PIPING WORK.
7. EQUIPMENT MAY NOT SUPPORT ANY OF THE PIPE LOADING, NOR MAY EQUIPMENT EXCEPT VALVES, INLINE PUMPS, AND STRAINERS BE SUPPORTED BY ANY OF THE PIPING.
8. PIPING SHALL NOT BE SUPPORTED BY ANOTHER PIPE OR DUCT.

3.8 EQUIPMENT IDENTIFICATION

- A. PROVIDE A SECURELY ATTACHED PERMANENTLY ENGRAVED METAL NAMEPLATE FOR EACH PIECE OF EQUIPMENT, WHERE APPROPRIATE, CONTAINING ALL DATA REQUIRED TO PROPERLY IDENTIFY THE EQUIPMENT, (I.E., MANUFACTURER, TYPE, SIZE, CAPACITY, HORSEPOWER, ETC.).
- B. PROVIDE A VALVE TAG FOR EACH VALVE, AS INDICATED ON THE SCHEMATIC PIPING DIAGRAM, TO PROVIDE INFORMATION TO CORRELATE THE VALVE WITH THE OUTLET OR FITTING SERVED.
- C. PROVIDE A HALF-SIZE COPY OF THE "AS-BUILT" FLOW DIAGRAM, PERMANENTLY ENCASED IN PLASTIC OR GLASS, TO PROVIDE THE OWNER'S OPERATING PERSONNEL READY CORRELATION OF EACH VALVE IDENTIFIED WITH EACH OUTLET OR FITTING SERVED.
- D. INSTALL NAMEPLATES FOR GAUGE/CONTROL DEVICE PANELS AS SHOWN ON THE DRAWINGS. ATTACH USING STAINLESS STEEL MACHINE SCREWS.

3.9 ADJUSTMENTS

MAKE NECESSARY TEMPORARY AND FINAL ADJUSTMENTS FOR EACH SYSTEM AND PIECE OF APPARATUS INSTALLED, USING FACTORY TRAINED TECHNICIANS WHEN NECESSARY. REFER TO THE DRAWINGS FOR ADJUSTMENT DETAILS.

3.10 WATER TREATMENT PROGRAM

THE CONTRACTOR SHALL ENGAGE A WATER TREATMENT CONTRACTOR TO SUPERVISE CHEMICAL WATER TREATMENT OF THE FOUNTAIN SYSTEM.

THE WATER TREATMENT CONTRACTOR IS TO PROVIDE A SEVEN (7) MONTH SUPPLY OF ANY CHEMICALS NECESSARY FOR PROPER WATER MAINTENANCE. (INITIAL 30-DAY OPERATION PERIOD PLUS SIX MONTHS AFTER ACCEPTANCE BY OWNER).

THE WATER TREATMENT CONTRACTOR SHALL PERFORM INITIAL WATER TREATMENT SYSTEM START-UP. THE TREATMENT CONTRACTOR SHALL TEST THE INITIAL FOUNTAIN POOL WATER AND BALANCE IT BASED ON THE SATURATION INDEX. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE WATER TREATMENT SYSTEM DURING THE INITIAL THIRTY-DAY OPERATION PERIOD AS NECESSARY. THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THE TREATMENT CONTRACTOR TO BE ON SITE DURING THE START-UP PHASE.

THE WATER TREATMENT CONTRACTOR SHALL PROVIDE ASSISTANCE TO MAINTENANCE PERSONNEL IN THE OPERATION AND MAINTENANCE OF THE SYSTEM, AND SHALL PROVIDE FOR THE VISIT OF A SERVICE TECHNICIAN NO LESS THAN FOUR (4) TIMES PER MONTH FOR SIX (6) MONTHS SUBSEQUENT TO FINAL ACCEPTANCE OF THE FOUNTAIN SYSTEM BY THE OWNER. A WATER ANALYSIS SHALL BE PROVIDED TO MAINTENANCE PERSONNEL NO LESS THAN ONCE PER MONTH. THE VISITING TECHNICIAN WILL SEE THAT AN ADEQUATE WATER MAINTENANCE PROGRAM IS BEING MAINTAINED AND WILL PROVIDE ANY CORRECTIVE MEASURES NECESSARY. (THE OWNER WILL MAKE ARRANGEMENTS WITH THE WATER TREATMENT CONTRACTOR, OR A CONTRACTOR OF THE OWNER'S CHOICE, BEFORE THE EXPIRATION OF THIS PERIOD FOR THE CONTINUATION OF SERVICE AFTER THE INITIAL SIX-MONTH SERVICE PERIOD).

END OF SECTION

GENERAL ELECTRICAL NOTES:

GENERAL ELECTRICAL NOTE:

ALL ELECTRICAL EQUIPMENT, METAL FITTINGS AND STEEL STRUCTURES SHALL BONDED AND GROUNDED ACCORDING TO ARTICLES 250 AND 680 OF THE LATEST EDITION OF THE NEC CODES.

CP-1 PANEL:

1. ESTIMATED ELECTRICAL LOAD: 500 WATTS
2. CONTROL LOGICS:
 - A. PUMPS SP-1 SHALL BE CONTROLLED BY TIME.

CURRENT PLUMBING REMOVAL

1. THE WATER FEATURE HAS AN HISTORIC VALUE AND IT MUST BE MAINTAINED AS IT IS AS MUCH AS POSSIBLE.
2. PRIOR TO REMOVING ANY CURRENT PLUMBING, CONTRACTOR SHALL FURNISH IN WRITING THEIR DISASSEMBLY PLANS.
3. CONTRACTOR SHALL AVOID ANY DEMOLITION OF THE CURRENT WATER FEATURE STRUCTURE.
4. CONTRACT SHALL CONSULT THE WATER FEATURE CONSULTANT AND THE LANDSCAPE ARCHITECT FOR ANY QUESTIONS REGARDING THE REMOVAL OF CURRENT PLUMBING AND COMPLETION OF THE NEW DESIGN.

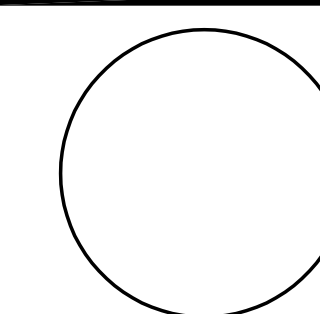


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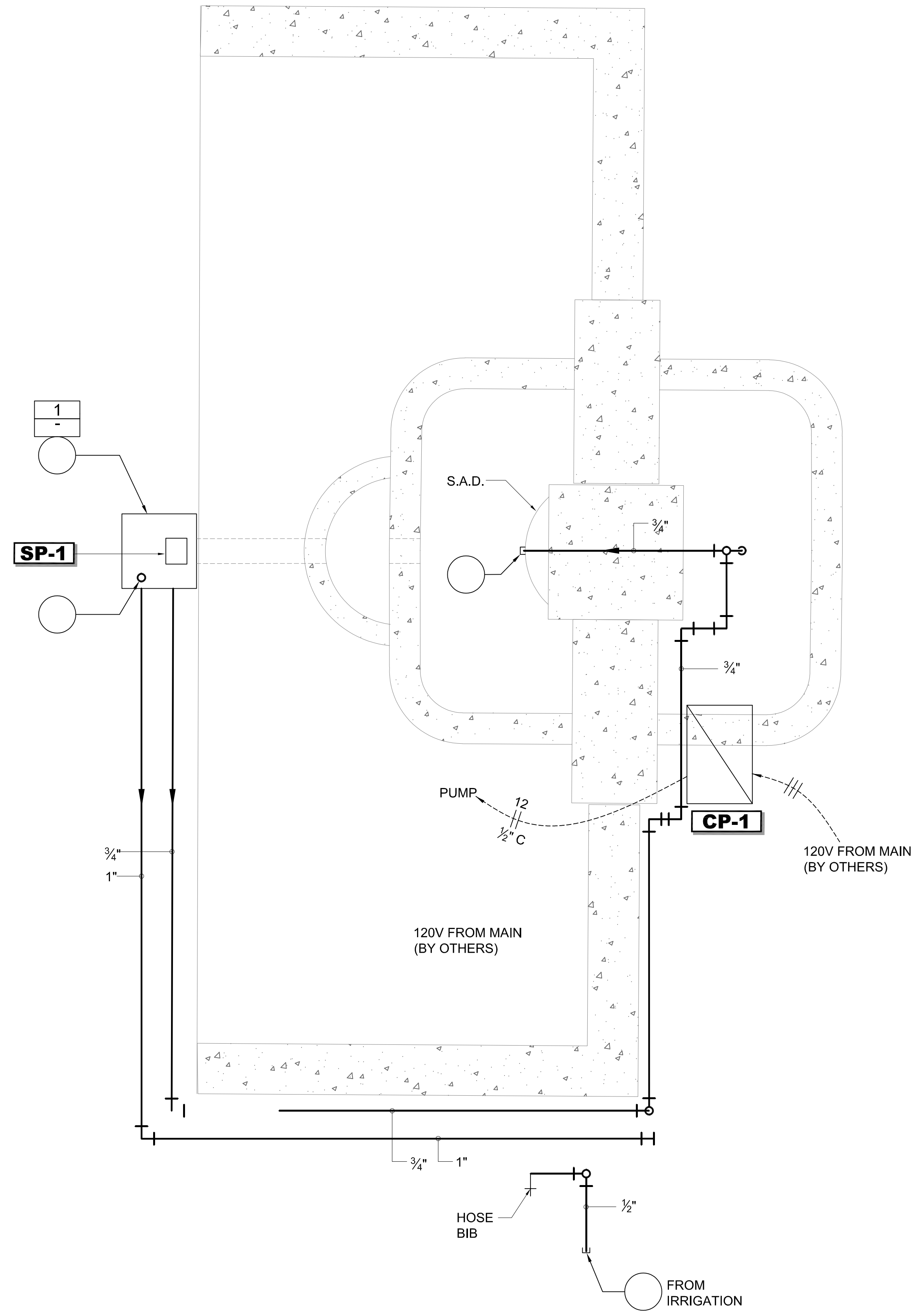
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EQUIPMENT SCHEDULE

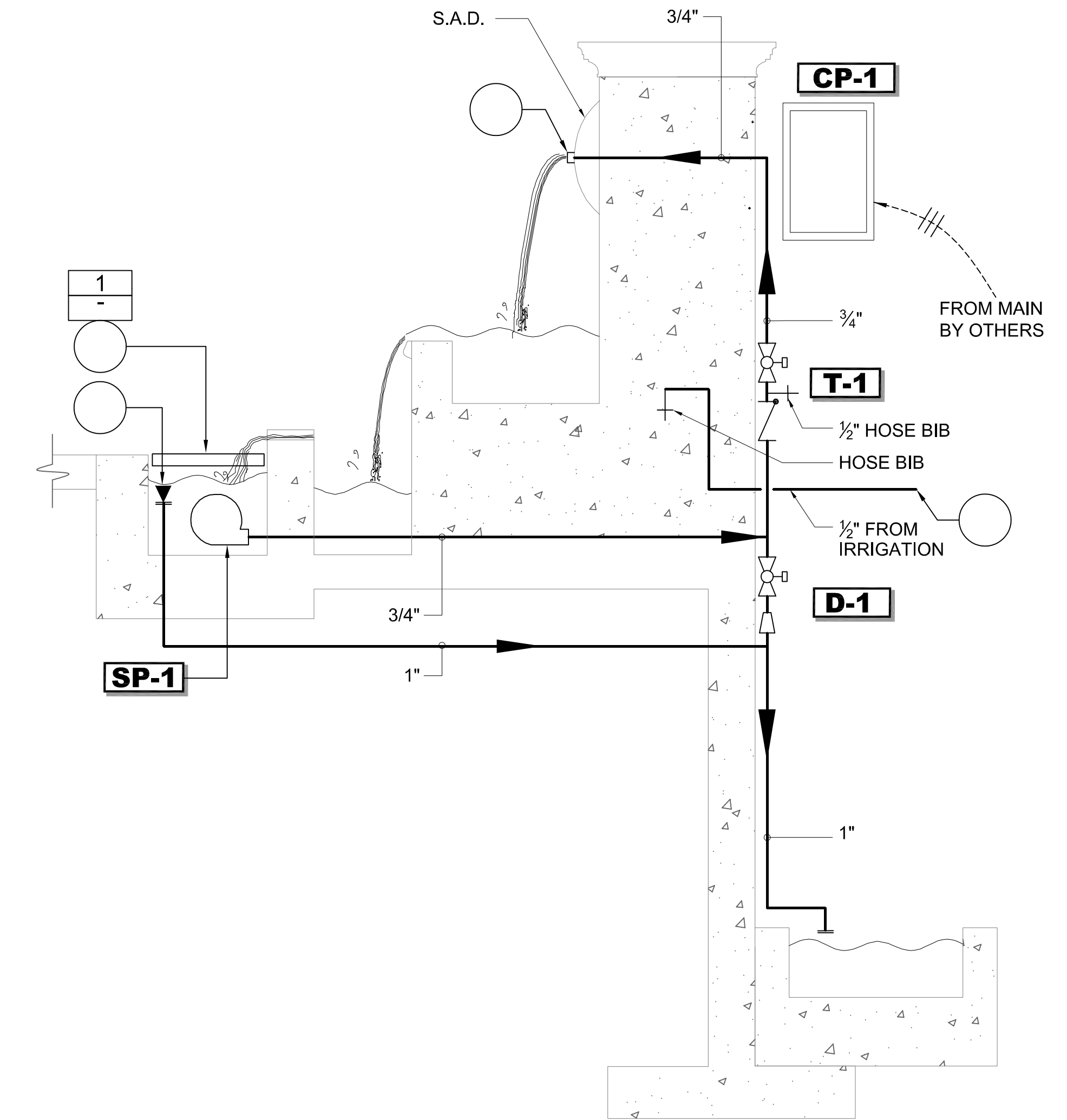
- 1 3/8" SCH. 40 304 STAINLESS STEEL CUSTOM SPOUT.
- 2 14"x14"x16" DEEP CONCRETE SUMP WITH COVER.
- 3 1" PVC SCH. 40 OVERFLOW PIPE.
- 4 3/8" HOSE BIB FOR COLD WATER SUPPLY PIPE CONNECTED TO IRRIGATION SYSTEM.

SP-1 LITTLE GIANT WA345LVP SUBMERSIBLE PUMP 12 VOLT AC.
 CP-1 CUSTOM ELECTRICAL PANEL, 120 VOLT, 2 WIRE PLUS GROUND.

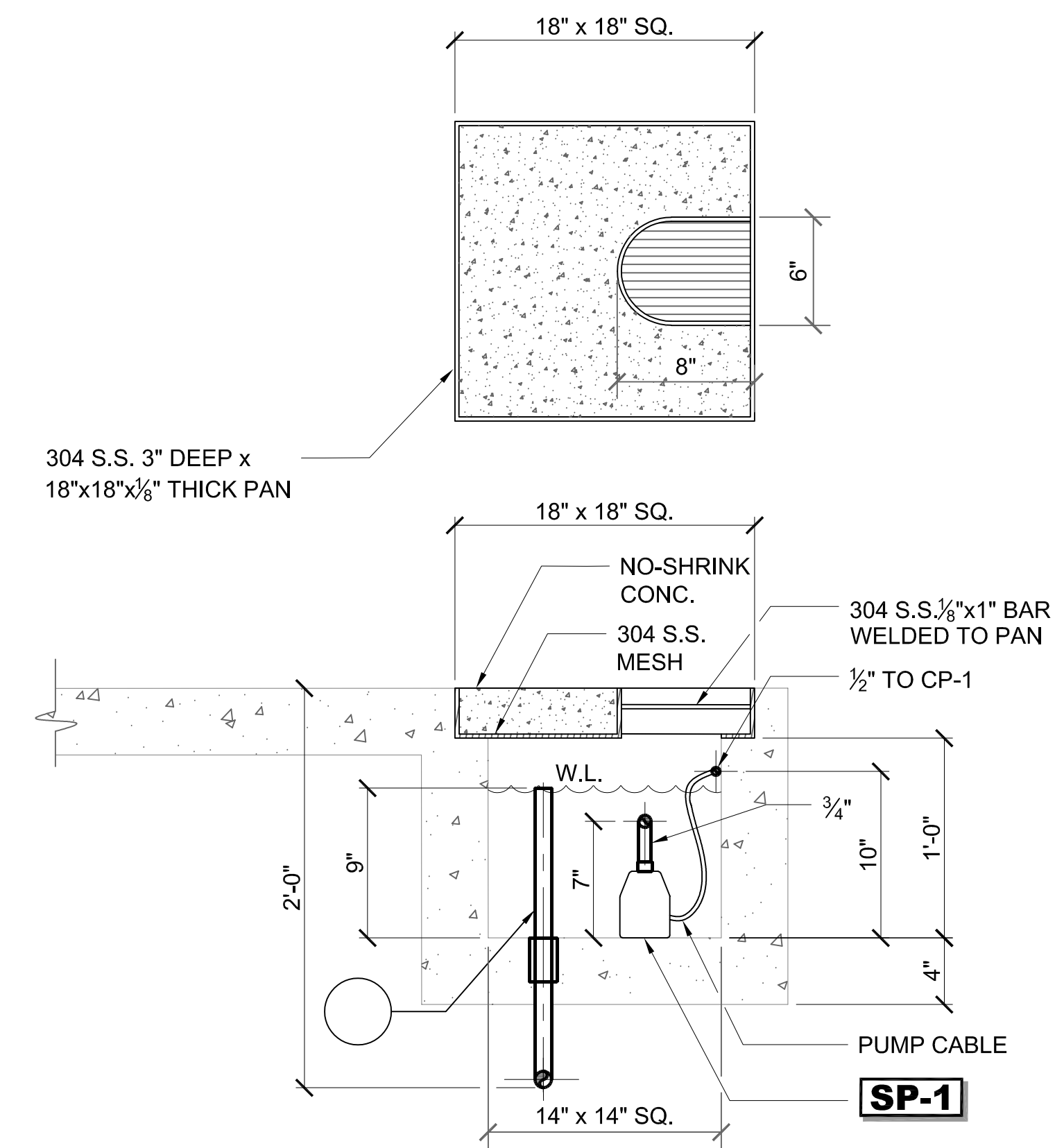


FOUNTAIN SITE PLAN

SCALE: 1" = 1'-0"



FOUNTAIN FLOW DIAGRAM



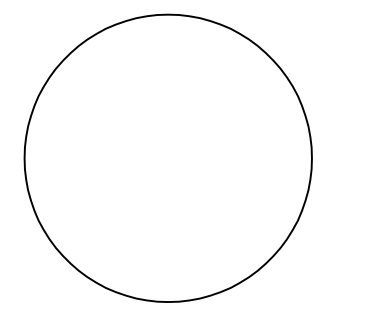
1 DETAIL SUMP PUMP

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GENERAL NOTES

- THE CONTRACTOR SHALL MAKE A DETAILED AND THOROUGH STUDY OF THESE PLANS IN THEIR ENTIRETY PRIOR TO ANY WORK ON THE JOBSITE. THEY ARE TO VERIFY ALL EXISTING CONSTRUCTION CONDITIONS AND IS TO COORDINATE THESE DRAWINGS WITH ALL OTHER TRADE DISCIPLINES FOR THE COMPLETED WORK. THEY ARE ALSO TO UNDERSTAND THAT ANY FEATURE OF CONSTRUCTION NOT FULLY SHOWN OR DETAILED SHALL BE OF THE SAME TYPE AS SHOWN FOR SIMILAR CONDITIONS.
- THE CONTRACTOR SHALL IMMEDIATELY REPORT TO THE ENGINEER ANY DISCREPANCY OCCURRING ON THE DRAWINGS OR FOUND IN THEIR COORDINATION WORK. NO CHANGES IN APPROVED PLANS SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL OF THE ENGINEER.
- ANY REQUEST FOR ALTERATIONS OR SUBSTITUTIONS MUST BE PRESENTED DIRECTLY TO THE ENGINEER, ACCOMPANIED BY A DETAILED SKETCH, FOR REVIEW, BEFORE ANY APPROVAL WILL BE GIVEN AND BEFORE PROCEEDING WITH THE WORK. ABSOLUTELY NO ALTERATIONS OF THESE DOCUMENTS OF ANY KIND WILL BE APPROVED ON ANY SHOP DRAWINGS.
- ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE PROVISIONS OF THE STATE OF CALIFORNIA STANDARD SPECIFICATIONS (CALTRANS), LATEST EDITION, THE LATEST EDITION OF THE COUNTY OF SANTA CRUZ DESIGN CRITERIA MANUAL, SOQUEL CREEK WATER DISTRICT STANDARDS, THE CITY OF CAPITOLA STANDARD DETAILS, THE UNIFORM BUILDING CODE AND ALL OTHER APPLICABLE FEDERAL AND STATE LAWS.
- THE LOCATIONS OF EXISTING UTILITIES AS SHOWN ON THE PLANS WERE OBTAINED FROM UTILITY COMPANIES AND MAY NOT REPRESENT TRUE LOCATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION AND DEPTH OF THESE UTILITIES PRIOR TO CONSTRUCTION, AND TO NOTIFY THE PROJECT ENGINEER IN CASE OF CONFLICT.
- THE CONTRACTOR SHALL SECURE ALL REQUIRED CONSTRUCTION PERMITS FROM THE DEPARTMENT OF PUBLIC WORKS PRIOR TO THE START OF WORK.
- NO CHANGES IN THESE IMPROVEMENT PLANS SHALL BE MADE WITHOUT PRIOR APPROVAL OF THE CITY OF CAPITOLA DEPARTMENT OF PUBLIC WORKS AND THE WRITTEN APPROVAL OF THE ENGINEER.
- THE CONTRACTOR SHALL NOTIFY THE GEOTECHNICAL ENGINEER AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
- ALL PERMITS, COUNTY AND STATE, SHALL BE OBTAINED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
- THE DIRECTOR OF PUBLIC WORKS OR HIS AUTHORIZED REPRESENTATIVE SHALL HAVE THE AUTHORITY TO "STOP WORK" IF THE WORK IS NOT BEING DONE IN ACCORDANCE WITH THESE IMPROVEMENT PLANS.
- ALL CONSTRUCTION SHALL COMPLY WITH THE AMERICAN'S WITH DISABILITIES ACT.

CONSTRUCTION NOTES

- TO MINIMIZE NOISE, DUST AND NUISANCE IMPACTS ON SURROUNDING PROPERTIES TO INSIGNIFICANT LEVELS DURING CONSTRUCTION, THE OWNER/APPLICANT SHALL, OR SHALL HAVE THE PROJECT CONTRACTOR, COMPLY WITH THE FOLLOWING MEASURES DURING ALL CONSTRUCTION WORK:
 - A. GRADING ACTIVITIES ARE PROHIBITED DURING PERIODS OF WIND EXCEEDING 15 MPH.
 - B. EACH DAY IT DOES NOT RAIN, WET ALL EXPOSED SOILS FREQUENTLY ENOUGH TO PREVENT SIGNIFICANT AMOUNTS OF DUST FROM LEAVING THE SITE. THE MINIMUM WATERING SCHEDULE FOR GRADED/EXCAVATED AREAS SHALL BE AT LEAST TWICE DAILY. STREET SWEEPING ON ADJACENT OR NEARBY STREETS MAY BE REQUIRED TO CONTROL THE EXPORT TO EXCESS DUST AND DIRT.
 - C. THE TEMPORARY ACCESS DRIVEWAY(S) AND ROAD(S) SHALL BE SURFACED WITH ROCK AND WHEEL WASHERS SHALL BE INSTALLED AT THE ENTRANCE FOR ALL TRUCKS LEAVING THE SITE TO AVOID DIRT AND DUST LEAVING THE SITE.
 - D. CHEMICAL SOIL STABILIZERS SHALL BE APPLIED ON INACTIVE CONSTRUCTION AREAS (DISTURBED LANDS WITHIN THE CONSTRUCTION PROJECT THAT ARE UNUSED FOR AT LEAST FOUR CONSECUTIVE DAYS.)
 - E. NON-TOXIC BINDERS SHALL BE APPLIED TO EXPOSED CUT AND FILL AREAS OR EXPOSED SLOPES AFTER CONSTRUCTION AND SHALL BE HYDROSEEDED.
 - F. ALL INACTIVE STOCKPILES SHALL BE COVERED AT ALL TIMES.
 - G. DURING GRADING AND CONSTRUCTION, A TEMPORARY BARRIER SHALL BE PLACED ALONG THE PERIMETER WESTERN AND NORTHERN PROPERTY LINES TO MINIMIZE DUST, NOISE, AND TRESPASS ISSUES ONTO THE ADJACENT DEVELOPED PROPERTIES.

ACCESSIBILITY NOTES

- ACCESSIBLE ROUTES SHALL COMPLY WITH CALIFORNIA BUILDING CODE AND AMERICANS WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN.
- WIDTHS SHALL PER PLAN AND 48" MINIMUM.
- SURFACE SHALL BE SLIP RESISTANT AND STABLE. REPAIR EXISTING SURFACES AS REQUIRED.
- VERTICAL CHANGE CANNOT EXCEED 1/4". LEVEL CHANGE BETWEEN 1/4" AND 1/2" MUST BE BEVELED AT 2H:1V MAX SLOPE.
- VERTICAL DROPS ADJACENT TO PEDESTRIAN AREAS CANNOT EXCEED 4" WITHOUT A 6" HIGH WARNING CURB. VERTICAL DROPS CANNOT EXCEED 30" WITHIN 36" HORIZONTAL WITHOUT A 42" HIGH GUARDRAIL.
- GRATE OPENINGS CANNOT EXCEED 1/2" IN DIRECTION OF TRAVEL. ALL GRATES SHALL BE BOLT DOWN STYLE.
- PATH OF TRAVEL CROSS SLOPE CANNOT EXCEED 1.5% AND LONGITUDINAL SLOPE CANNOT EXCEED 4.5% WITHOUT A RAMP. CURB AND WHEELCHAIR RAMPS CANNOT EXCEED 7.5% LONGITUDINAL SLOPE.

SUBMITTALS

- SUBMIT ALL MATERIALS TO ENGINEER FOR APPROVAL.
- SUBMIT CONTROL JOINT PLAN TO ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION.
- SUBMIT STEEL HANDRAIL/GUARDRAIL SHOP DRAWINGS TO ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION.
- SUBMIT CAST-IN-PLACE CONCRETE RAMP/STAIR SHOP DRAWINGS TO ENGINEER PRIOR TO CONSTRUCTION.

UNDERGROUND NOTES

- ALL KNOWN EXISTING UTILITY LINES ARE SHOWN FOR INFORMATION ONLY. CONTRACTOR SHALL EXERCISE ALL NECESSARY CAUTION TO AVOID DAMAGE TO ANY EXISTING UTILITIES OR FACILITIES TO REMAIN IN PLACE, WHETHER OR NOT SUCH LINES OR FACILITIES ARE SHOWN ON THESE PLANS, AND SHALL BEAR FULL RESPONSIBILITY FOR ANY DAMAGE THERE TO. CONTRACTOR IS ADVISED TO CONTACT AN UNDERGROUND SERVICE LOCATOR FOR MARKING UNDERGROUND LINES PRIOR TO BEGINNING WORK.
- CONTRACTOR SHALL EXPOSE AND VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES, INCLUDING BUT NOT LIMITED TO SANITARY AND STORM SEWERS, AND WATER LINES BEFORE CONSTRUCTING NEW FACILITIES.
- MATERIALS FOR PIPE, STORM WATER INLETS, AND CLEANOUTS AND INSTALLATION PROCEDURES SHALL BE IN ACCORDANCE WITH APPLICABLE UBC AND UPC SECTIONS, AND THESE PLANS AND DETAILS SHOWN HEREON. STORM SEWER PIPE DESIGNATED "SD" SHALL BE PVC SDR 26 BELL AND SPIGOT GASKET, SMOOTH INTERIOR HOPE OR APPROVED EQUIVALENT. PERFORATED SD SHALL BE ADS N12 OR APPROVED EQUAL.
- ALL DRAINAGE PIPE SHALL BE SHIPPED, STORED AND INSTALLED PER THE PIPE MANUFACTURERS RECOMMENDATIONS.
- ALL CONCRETE DRAINAGE INLETS CALLED OUT ON THE PLANS SHALL BE CHRISTY BRAND PRECAST CONCRETE OR THE EQUIVALENT. ALL STRUCTURES SHALL BE STORED, HANDLED AND INSTALLED PER THE MANUFACTURERS RECOMMENDATIONS. STORM DRAIN CATCH BASINS IN TRAFFIC AREAS SHALL HAVE A HEAVY RATED FRAME & GRATE. THE GRATE SHALL BE ADA COMPLIANT. STORM DRAIN CATCH BASINS IN LANDSCAPE AREAS SHALL HAVE A STANDARD RATED FRAME & GRATE.
- ALL TRENCHES AND EXCAVATIONS SHALL BE CONSTRUCTED IN STRICT COMPLIANCE WITH THE APPLICABLE SECTIONS OF CALIFORNIA AND FEDERAL O.S.H.A. REQUIREMENTS AND OTHER APPLICABLE SAFETY ORDINANCES. CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR TRENCH SHORING DESIGN AND INSTALLATION.
- UTILITY TRENCHES THAT ARE PARALLEL TO THE SIDES OF STRUCTURES SHOULD BE PLACED SO THAT THEY DO NOT EXTEND BELOW A LINE SLOPING DOWN AND AWAY AT A 2:1 (HORIZONTAL TO VERTICAL) SLOPE FROM THE BOTTOM OUTSIDE EDGE OF ALL FOOTINGS AND GRADE BEAMS.
- UNLESS CONCRETE BEDDING IS REQUIRED AROUND UTILITY PIPES, FREE-DRAINING CLEAN SAND SHOULD BE USED AS BEDDING. SAND BEDDING SHOULD BE COMPACTED TO AT LEAST 95 PERCENT RELATIVE COMPACTION.
- APPROVED IMPORTED CLEAN SAND OR NATIVE SOIL SHOULD BE USED AS UTILITY TRENCH BACKFILL. BACKFILL IN TRENCHES LOCATED UNDER AND ADJACENT TO STRUCTURAL FILL, FOUNDATIONS, CONCRETE SLABS AND PAVEMENTS SHOULD BE PLACED IN HORIZONTAL LAYERS NO MORE THAN 8 INCHES THICK. THIS INCLUDES AREAS SUCH AS SIDEWALKS, PATIOS, AND OTHER HARDSCAPE AREAS. EACH LAYER OF TRENCH BACKFILL SHOULD BE WATER CONDITIONED AND COMPACTED TO AT LEAST 95 PERCENT RELATIVE COMPACTION. CLEAN SAND IS DEFINED AS 100 PERCENT PASSING THE #4 SIEVE, AND LESS THAN 5 PERCENT PASSING THE #200 SIEVE.
- THE PROJECT GEOTECHNICAL ENGINEER SHOULD BE PRESENT TO OBSERVE THE BOTTOM OF ALL TRENCH EXCAVATIONS, PRIOR TO PLACEMENT OF UTILITY PIPES AND CONDUITS. IN ADDITION, WE SHOULD OBSERVE THE CONDITION OF THE TRENCH PRIOR TO PLACEMENT OF SAND BEDDING, AND TO OBSERVE COMPACTION OF THE SAND BEDDING, IN ADDITION TO ANY BACKFILL PLANNED ABOVE THE BEDDING ZONE.
- JETTING OF THE TRENCH BACKFILL IS NOT RECOMMENDED AS IT MAY RESULT IN AN UNSATISFACTORY DEGREE OF COMPACTION.
- TRENCHES MUST BE SHORED AS REQUIRED BY THE LOCAL AGENCY AND THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY CONSTRUCTION SAFETY ORDERS.

PERVIOUS PAVER NOTES

- THE CONTRACTOR SHALL PROOF ROLL SUBGRADE SURFACE TO CHECK FOR UNSTABLE AREAS AND NOTIFY THE PROJECT GEOTECHNICAL ENGINEER FOR ANY UNSATISFACTORY CONDITIONS.
- FILL GAP BETWEEN PAVERS WITH NO. 8, 89, OR 9, STONE JOINTING MATERIAL BETWEEN THE PAVERS.
- SUBBASE AND BASE DRAIN ROCK SECTIONS CAN BE SPREAD AND COMPACTED IN 4" LIFT WITH PLATE OR STATIC ROLLER COMPACTORS. AT LEAST 4 PASSES; INITIAL PASSES SHALL BE WITH VIBRATION, FINAL PASSES SHALL BE WITHOUT VIBRATION.
- BEDDING MATERIAL SHALL BE ASTM NO. 8 STONE, MOISTEN, SCREED, COMPACT AND LEVEL OVER ASTM NO. 57 STONE BASE. VEHICULAR AREAS SHALL BE UNDERLAIN BY ASTM NO. 2, 3, OR 4 STONE SUB-BASE.
- FOLLOW MANUFACTURER INSTALLATION RECOMMENDATIONS FOR PAVER INSTALLATION.
- PAVER PRODUCT SHALL BE AQUA-ROQ BELGARD PERMEABLE PAVERS, OR APPROVED EQUAL, COLOR AND TYPE TO BE SELECTED BY LANDSCAPE ARCHITECT. VEHICULAR PAVERS SHALL BE 3/8"-THICK, MIN.
- GEOTEXTILE SEPARATION FABRIC ON BOTTOM AND SIDES OF OPEN GRADED BASE SHALL BE MIRAFI 500X.
- LINER SHALL BE 30 MIL PVC.
- DISCHARGE PIPE SHALL BE 4" PERFORATED PVC SURROUNDED WITH 3" OF NO. 57 ROCK, CONNECTED TO SOLID 4" PVC DISCHARGE PIPE.

DECOMPOSED GRANITE NOTES

- 4" MIN THICK DECOMPOSED GRANITE WITH SOIL BINDER (GRANITCRETE OR APPROVED EQUAL) COMPACTED TO 95% R.C. OVER 8" COMPACTED NATIVE SOIL TO 90% R.C.
- 2"x6" TREX HEADER OR REDWOOD BOARD TO BE CONSTRUCTED AT ALL WALKWAY/SOIL INTERFACES AND HELD IN PLACE WITH 1"x3"x12" STAKES AT 3 FT O.C. FASTENED WITH 2 8-D GALVANIZED NAILS.
- 2.5" MINIMUM THICKNESS OF 1/2" MAXIMUM TYPE A MEDIUM ASPHALT CONCRETE.
- 8" MINIMUM THICK CLASS 2 AGGREGATE BASE COMPACTED TO 95% R.C. BELOW THE ASPHALT CONCRETE. AGGREGATE SHALL BE 3/4" MAX SIZE.
- 18" MINIMUM THICK SCARIFY AND RECOMPACT NATIVE MATERIAL TO 95% R.C. BELOW THE AGGREGATE BASE. BASE SHALL BE 1%-3% OVER OPTIMUM MOISTURE CONTENT.

ASPHALT PAVEMENT NOTES

- 2.5" MINIMUM THICKNESS OF 1/2" MAXIMUM TYPE A MEDIUM ASPHALT CONCRETE.
- 8" MINIMUM THICK CLASS 2 AGGREGATE BASE COMPACTED TO 95% R.C. BELOW THE ASPHALT CONCRETE. AGGREGATE SHALL BE 3/4" MAX SIZE.
- 18" MINIMUM THICK SCARIFY AND RECOMPACT NATIVE MATERIAL TO 95% R.C. BELOW THE AGGREGATE BASE. BASE SHALL BE 1%-3% OVER OPTIMUM MOISTURE CONTENT.

CONCRETE STAIRWAY/RAMP/FLATWORK NOTES

- CONCRETE SHALL BE 3,000 PSI MINIMUM, SEE STRUCTURAL FOR CONCRETE REQUIREMENTS.
- REBAR SHALL BE ASTM A615.
- TOP EDGE OF STEPS WILL HAVE A 1/2" RADIUS WITH NON-SLIP DETECTABLE WARNING WET SET INTO CONCRETE OR APPROVED EQUAL.
- #4 BARS @ 18" O.C. EACH WAY, MID DEPTH AND AT EACH NOSE TREAD, UNLESS SHOWN OTHERWISE.
- MATERIALS AND CONSTRUCTION PER CALTRANS STANDARD SPECIFICATIONS SECTIONS 73 & 90.
- PROVIDE 3/64" WIDE 1" DEEP CONTROL JOINTS AT 4' ON CENTER MAX EACH WAY, TOOL FRESH CONCRETE AND SAWCUT LATER.

HANDRAIL NOTES

- 1 1/2" DIA SCH 40 GALV STEEL PIPE HANDRAILING.
- ALL PIPES SHALL CONFORM TO ASTM A53, GRADE B, AND SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION.
- EDGES SHALL HAVE A MINIMUM RADIUS OF 1/8" INCH.
- ALL FIELD WELDS AS REQUIRED SHALL BE GROUND SMOOTH. GALVANIZED COATING SHALL BE REPAIRED AFTER FIELD WELDING.
- 90 DEGREE BEND RADIUS TO THE CENTER OF PIPE SHALL BE TWO TIMES OF THE NOMINAL DIAMETER OF THE PIPE.
- 3" I.D. X 8" DEEP CORE DRILL, SET SCH 80 HANDRAIL POSTS WITH QUICK SET-NON SHRINK MORTAR.

EARTHWORK AND GRADING NOTES

- EARTHWORK SHALL BE IN CONFORMANCE WITH THE GEOTECHNICAL INVESTIGATION PREPARED BY PACIFIC CREST ENGINEERING, DATED FEBRUARY 2016, JOB NUMBER 15119-S269-B14.
- WORK SHALL CONSIST OF ALL CLEARING, GRUBBING, STRIPPING, PREPARATION OF LAND TO BE FILLED, EXCAVATION, SPREADING, COMPACTION AND CONTROL OF FILL, AND ALL SUBSIDIARY WORK NECESSARY TO COMPLETE THE GRADING TO CONFORM TO THE LINES, GRADES, AND SLOPES, AS SHOWN ON THE APPROVED PLANS AND AS SPECIFIED IN THE GEOTECHNICAL INVESTIGATION REPORT.
- ALL GRADING SHALL CONFORM TO SECTION 19 OF THE CALTRANS STANDARD SPECIFICATIONS, LATEST APPLICABLE EDITION. ALL EARTHWORK SHALL BE DONE IN ACCORDANCE TO THE GEOTECHNICAL INVESTIGATION PREPARED BY PACIFIC CREST ENGINEERING.
- THE CONTRACTOR SHALL NOTIFY THE PROJECT GEOTECHNICAL ENGINEER AT LEAST 4 WORKING DAYS PRIOR TO THE COMMENCEMENT OF ANY GRADING OPERATIONS.
- ALL EXISTING TRASH, DEBRIS, ROOTS, TREE REMAINS AND OTHER RUBBISH SHALL BE REMOVED FROM THE SITE SO AS TO LEAVE THE AREAS THAT HAVE BEEN DISTURBED WITH A NEAT AND FINISHED APPEARANCE FREE FROM UNSIGHTLY DEBRIS. NO BURNING SHALL BE PERMITTED.
- ALL EXISTING TRASH, DEBRIS, ROOTS, TREE REMAINS AND OTHER RUBBISH SHALL BE REMOVED FROM THE SITE SO AS TO LEAVE THE AREAS THAT HAVE BEEN DISTURBED WITH A NEAT AND FINISHED APPEARANCE FREE FROM UNSIGHTLY DEBRIS. NO BURNING SHALL BE PERMITTED.
- FILL SHALL BE PLACED IN 8" LIFTS, PLASTICITY INDEX 4-12, R-VALUE 30, AND NON-EXPANSIVE PER GEOTECHNICAL INVESTIGATION. GEOTECHNICAL TESTING SHALL BE PERFORMED PER GEOTECHNICAL INVESTIGATION.

APPROVED FOR CONSTRUCTION BY THE CITY OF CAPITOLA

STEVEN JESBERG, PUBLIC WORKS DIRECTOR

CIVIL SHEET INDEX

C0.0	GENERAL NOTES & SPECIFICATIONS
C1.0	SITE PLAN
C1.1	DETAILS
C1.2	CITY OF CAPITOLA & CALTRANS DETAILS
C1.3	SITE SECTIONS & PROFILES
C1.4	RAMP SECTIONS
C2.0	GRADING PLAN
C3.0	DRAINAGE PLAN
C4.0	STORMWATER CONTROL PLAN
C5.0	EROSION & SEDIMENT CONTROL PLAN
C5.1	EROSION & SEDIMENT CONTROL DETAILS

DISCLAIMER

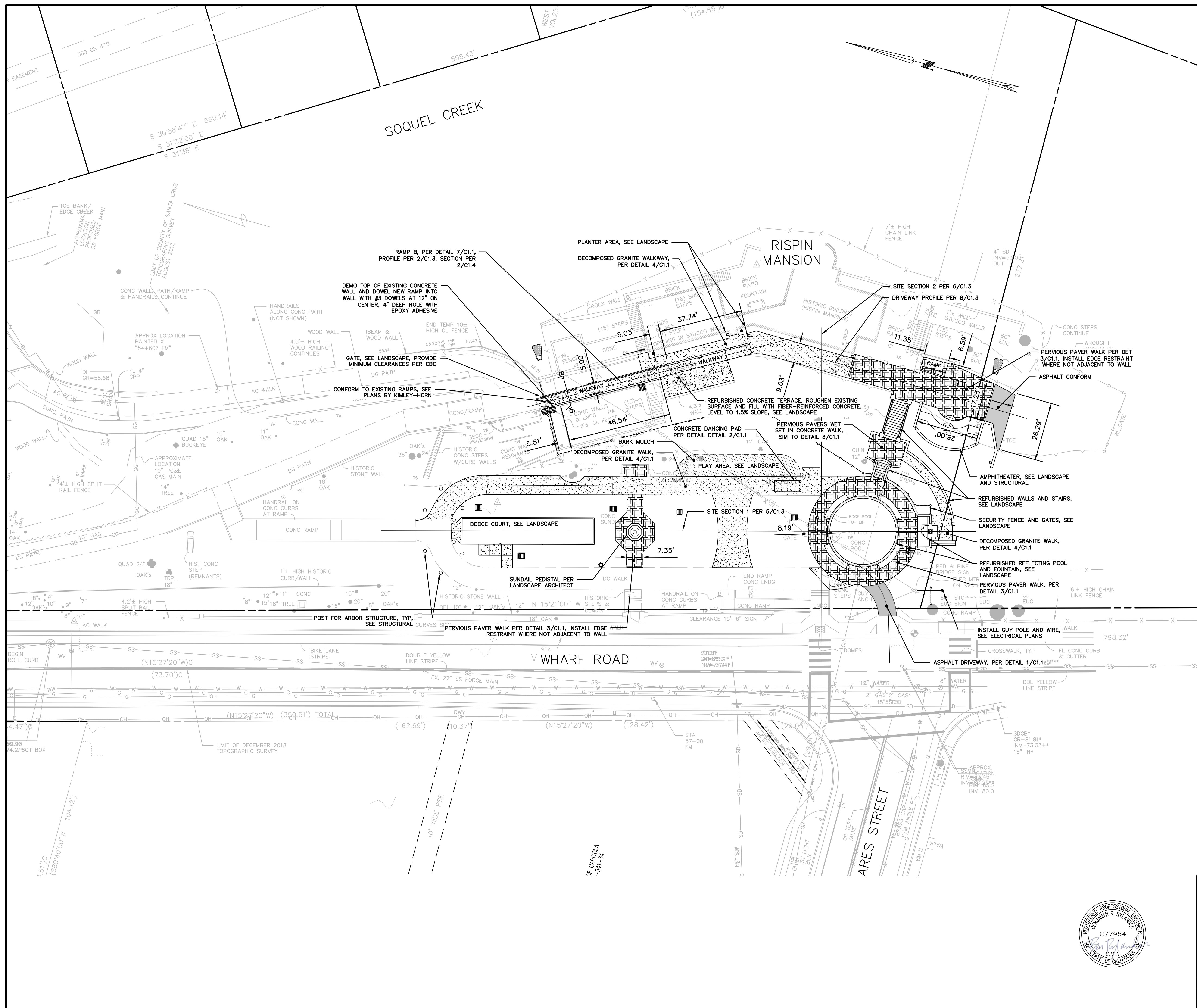
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APN: 035-371-01 & -02

REVISED			BOWMAN & WILLIAMS CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS 3949 RESEARCH PARK COURT, SUITE 100 SOQUEL, CA 95073-2094 (831) 426-3560	GENERAL NOTES & SPECIFICATIONS RISPIN MANSION PARK CAPITOLA, CALIFORNIA
	SCALE 1"=20'	DRAWN CMM		
DATE AUGUST 12, 2022	CHECKED BRR	INDEX CAPITOLA	FILE NO. 25803.01	C0.0
DESIGN BRR	DWG NAME 25803_CO.0			OF 11



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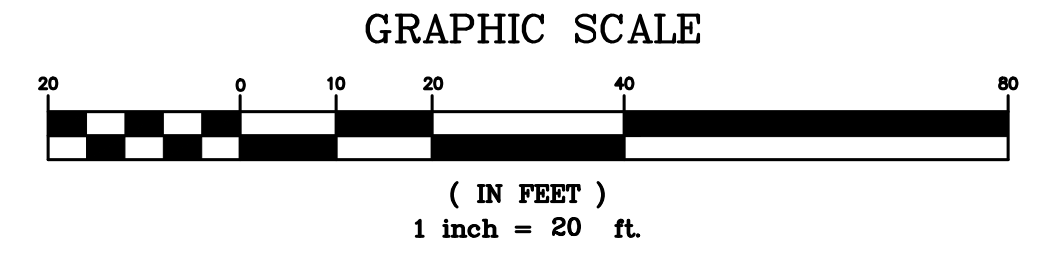


LEGEND

CATCH BASIN	
ATRIUM DRAIN	
CLEANOUT	
PERVIOUS PAVER	
ASPHALT	
DG WALKWAY	
CONCRETE	

ABBREVIATIONS

AC	ASPHALT CONCRETE
AP	ANGLE POINT
BC	BEGIN CURVE
BW	BACK OF WALK
BS	BOTTOM OF STEP
CB	CATCH BASIN
CL	CENTERLINE
CONST	CONSTRUCT
DG	DECOMPOSE GRANITE
DTL	DETAIL
DS	DOWNSPOUT
EC	END CURVE
ELEV	ELEVATION
(E), EX	EXISTING
FD	FIRE DEPARTMENT
FG	FINISHED GRADE
FL	FLOWLINE
FT	FEET
FW	FACE OF WALL
H	HIGH POINT
HP	HIGH POINT
INV	INVERT
LF	LINEAR FEET
LT	LEFT
MAX	MAXIMUM
MIN	MINIMUM
(P), P	PROPOSED
PERF	PERFORATED
PVMT	PAVEMENT
R	RADIUS
RIM	RIM ELEVATION
RT	RIGHT
S	SLOPE
SD	STORM DRAIN
SDDC	STORM DRAIN CLEANOUT
SSCO	SANITARY SEWER CLEANOUT
STA	STATION
TC	TOP OF CURB
TG	TOP OF GRAVEL
TP	TOP OF PAVEMENT
TS	TOP OF STEP
TW	TOP OF WALL
TYP	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE

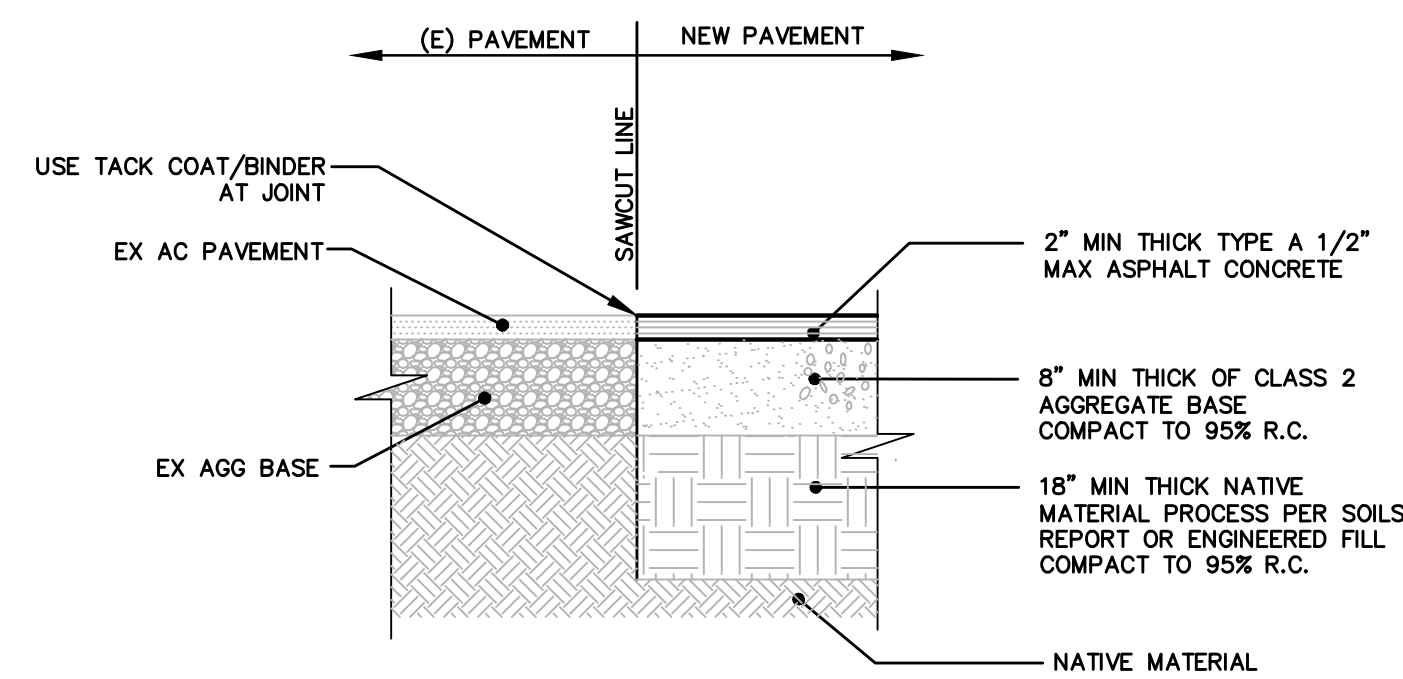


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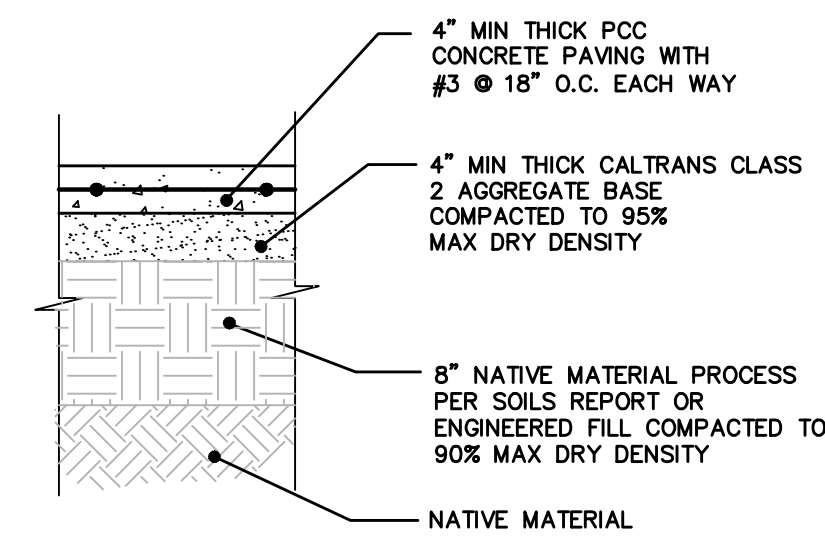
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BOWMAN & WILLIAMS CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS 3949 RESEARCH PARK COURT, SUITE 100 SOQUEL, CA 95073-2094 (831) 426-3560		SITE PLAN RISPIN MANSION PARK CAPITOLA, CALIFORNIA	
SCALE 1"=20'	DRAWN CMM	JOB NO. 25803.01	SHEET
DATE AUGUST 12, 2022	CHECKED BRR	INDEX CAPITOLA	C1.0
DESIGN BRR	DWG NAME 25803_C1.0	FILE NO. 25803.01	OF 11





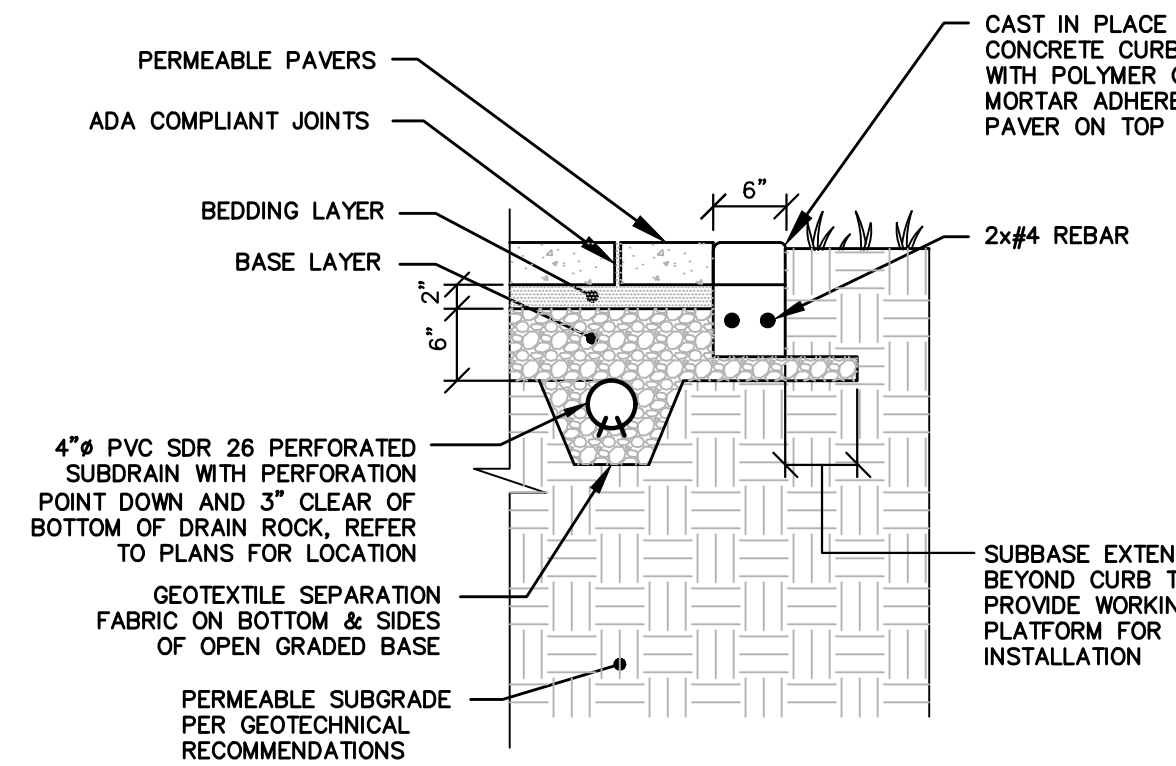
1 ASPHALT PAVEMENT SECTION

C1.1 SCALE: 3/4"=1'-0"

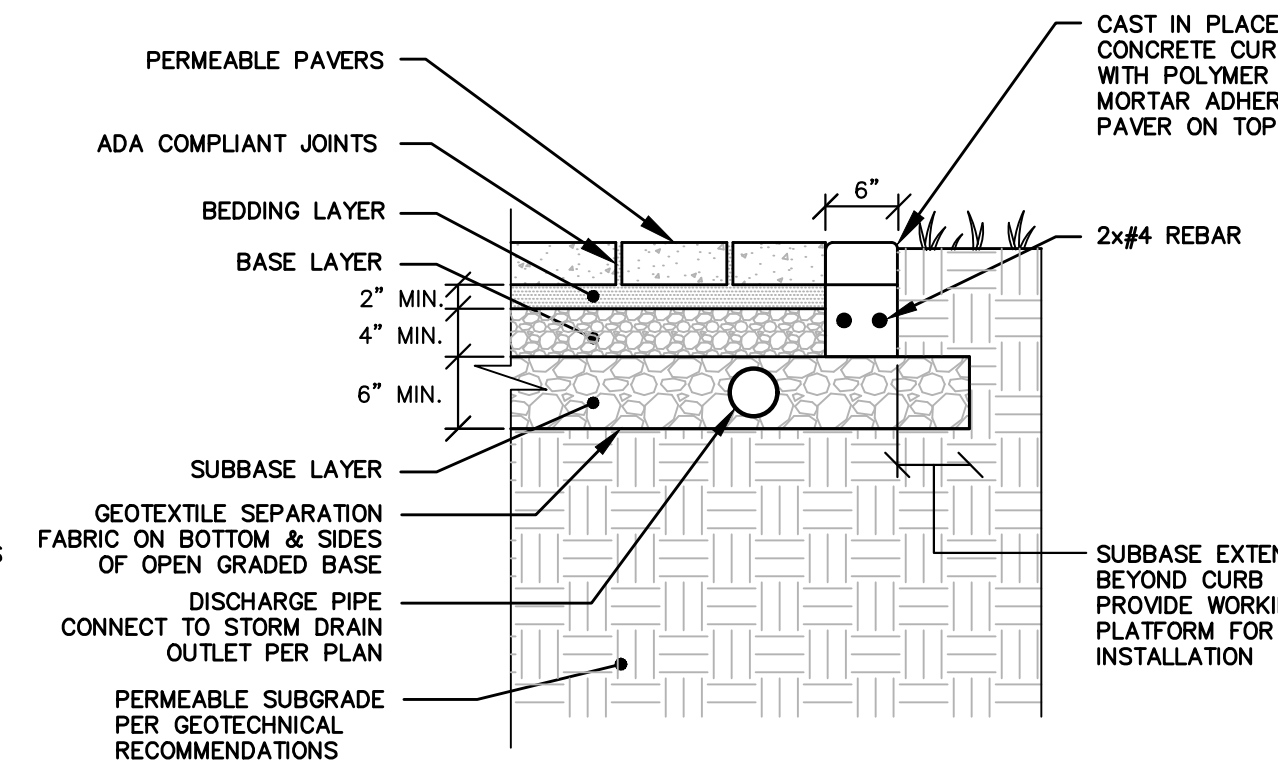


2 TYPICAL CONCRETE SECTION

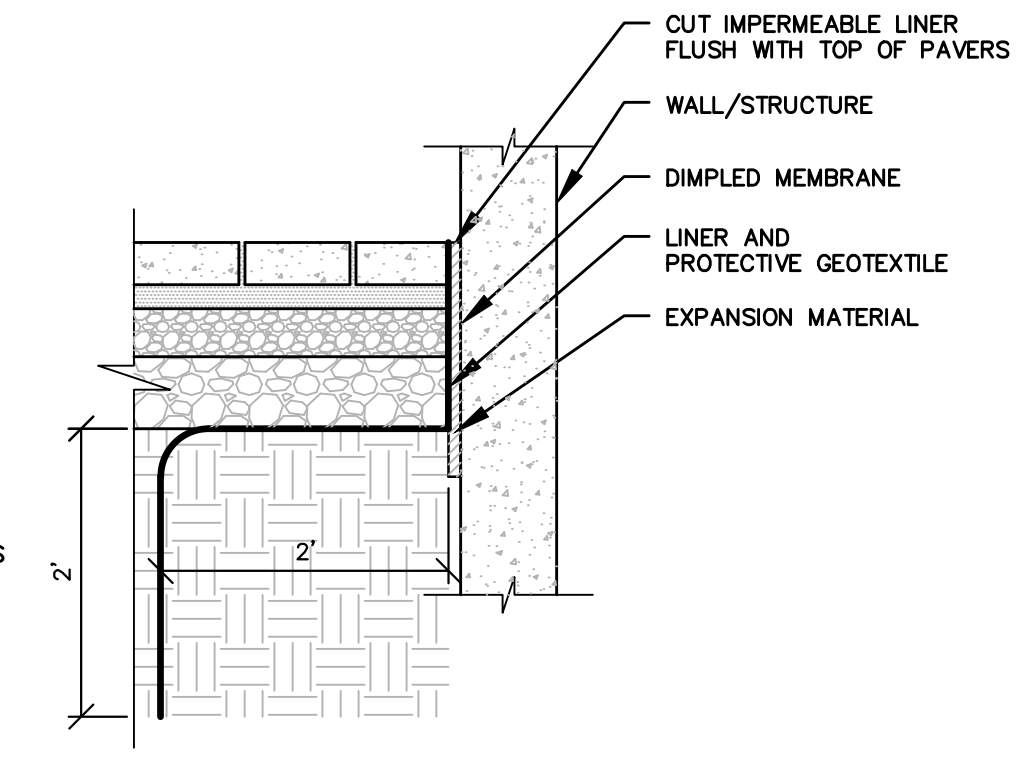
C1.1 SCALE: 3/4"=1'-0"



POOL



SUNDIAL & AMPITHEATER



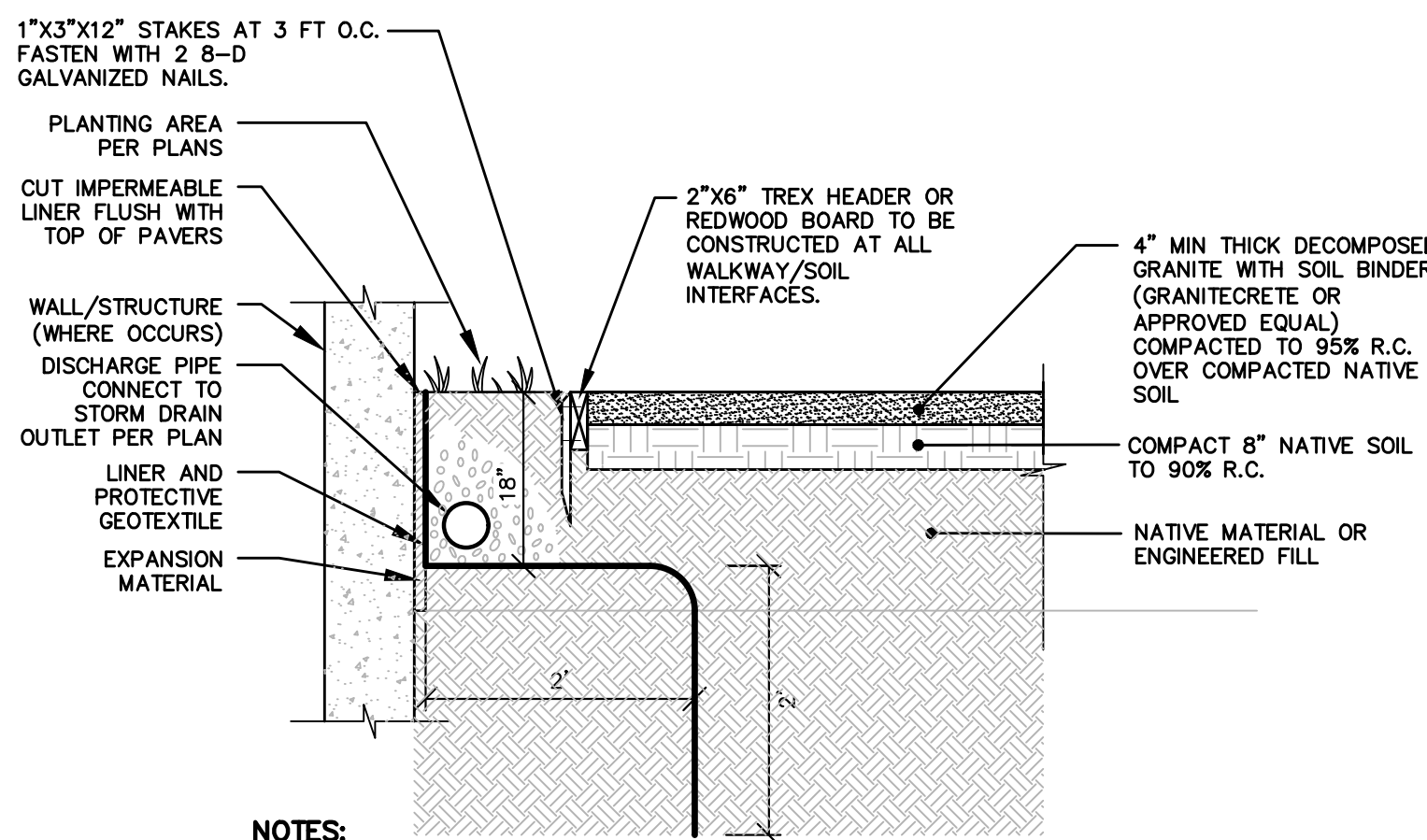
WALL/STRUCTURE

NOTES:

1. THE CONTRACTOR SHALL PROOF ROLL SUBGRADE SURFACE TO CHECK FOR UNSTABLE AREAS AND NOTIFY THE PROJECT GEOTECHNICAL ENGINEER FOR ANY UNSATISFACTORY CONDITIONS.
2. ROCK CAN BE SPREAD AND COMPACTED AS ONE 4 IN LIFT WITH PLATE OR STATIC ROLLER COMPACTORS. AT LEAST 4 PASSES; INITIAL PASSES SHALL BE WITH VIBRATION, FINAL PASSES SHALL BE WITHOUT VIBRATION.
3. FOLLOW MANUFACTURER INSTALLATION RECOMMENDATIONS FOR PAVER INSTALLATION.
4. PEDESTRIAN AREAS: SCARIFY 8" OF NATIVE MATERIAL AND RECOMPACT TO 90%.
5. VEHICULAR AREAS: SCARIFY 18" OF NATIVE MATERIAL AND RECOMPACT TO 95%.

3 PERMEABLE PAVERS

C1.1 SCALE: 3/4"=1'-0"

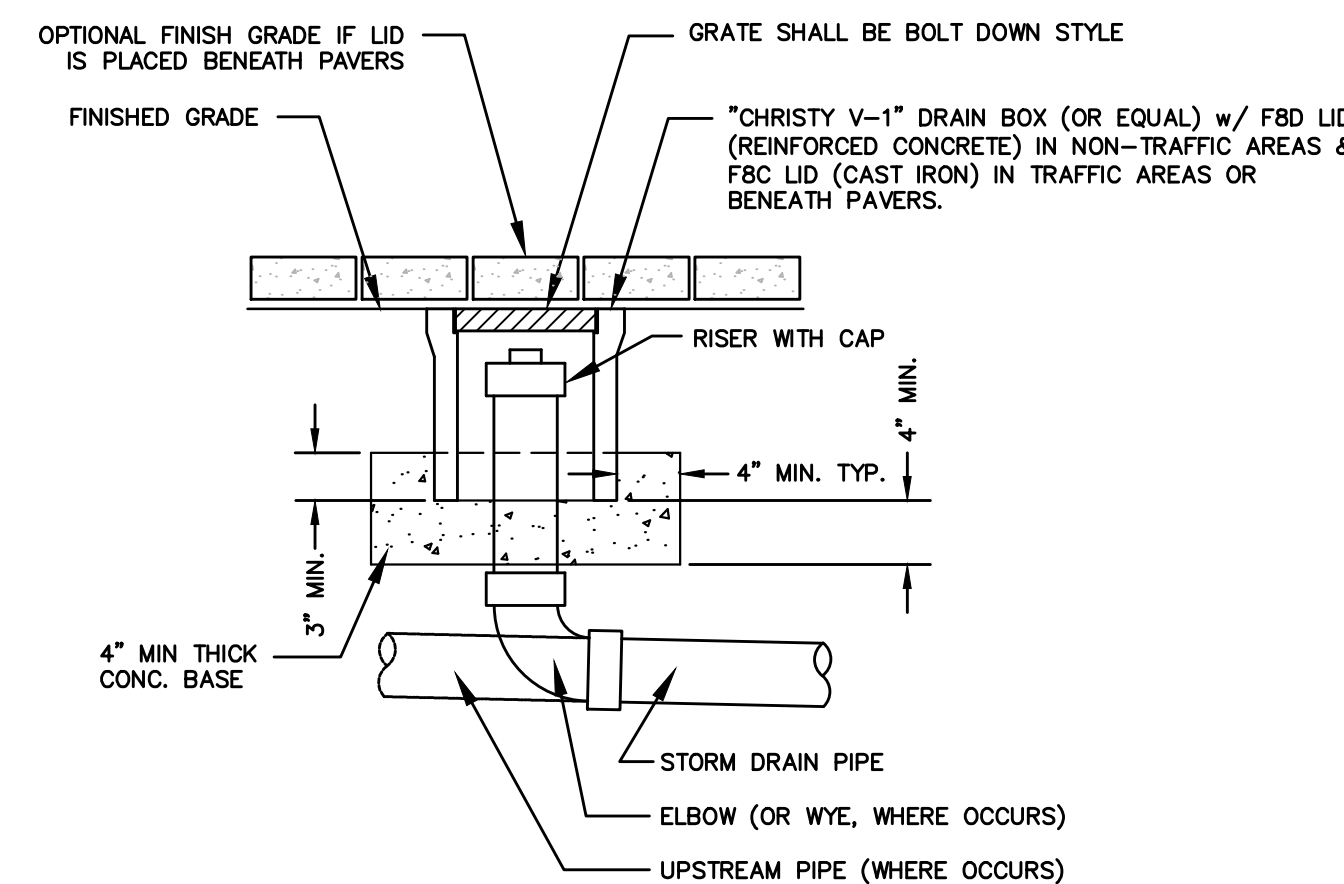


NOTES:

1. DECOMPOSED GRANITE SHALL THEN BE CONSTRUCTED OVER EXISTING COMPACTED NATIVE MATERIAL WITHOUT ADDITIONAL GRADING.
2. DRAIN MATERIAL SHALL BE CLASS 1 TYPE A, COMPACTED TO 90%.

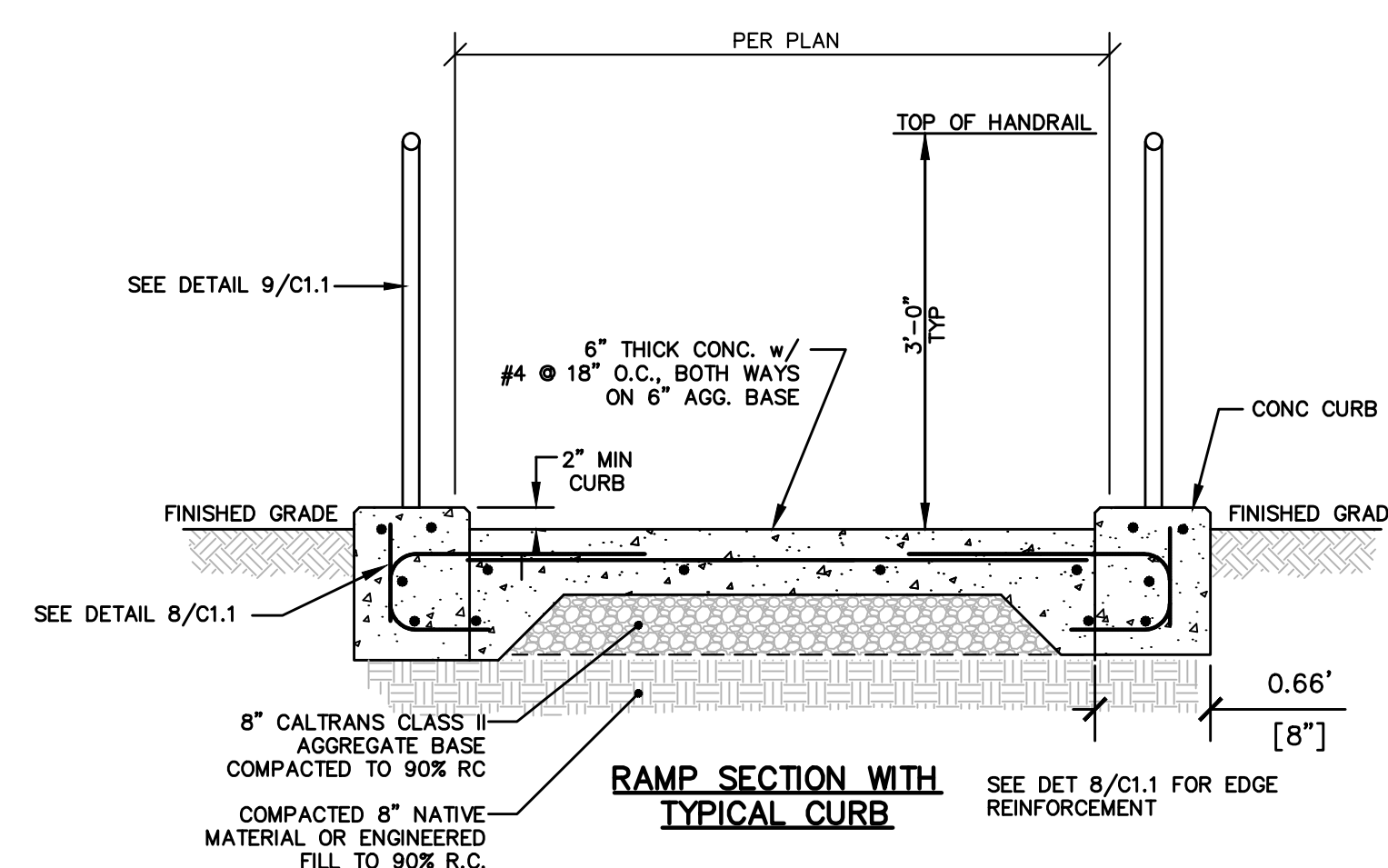
4 DECOMPOSED GRANITE WALKWAY

C1.1 SCALE: 3/4"=1'-0" SCALE:



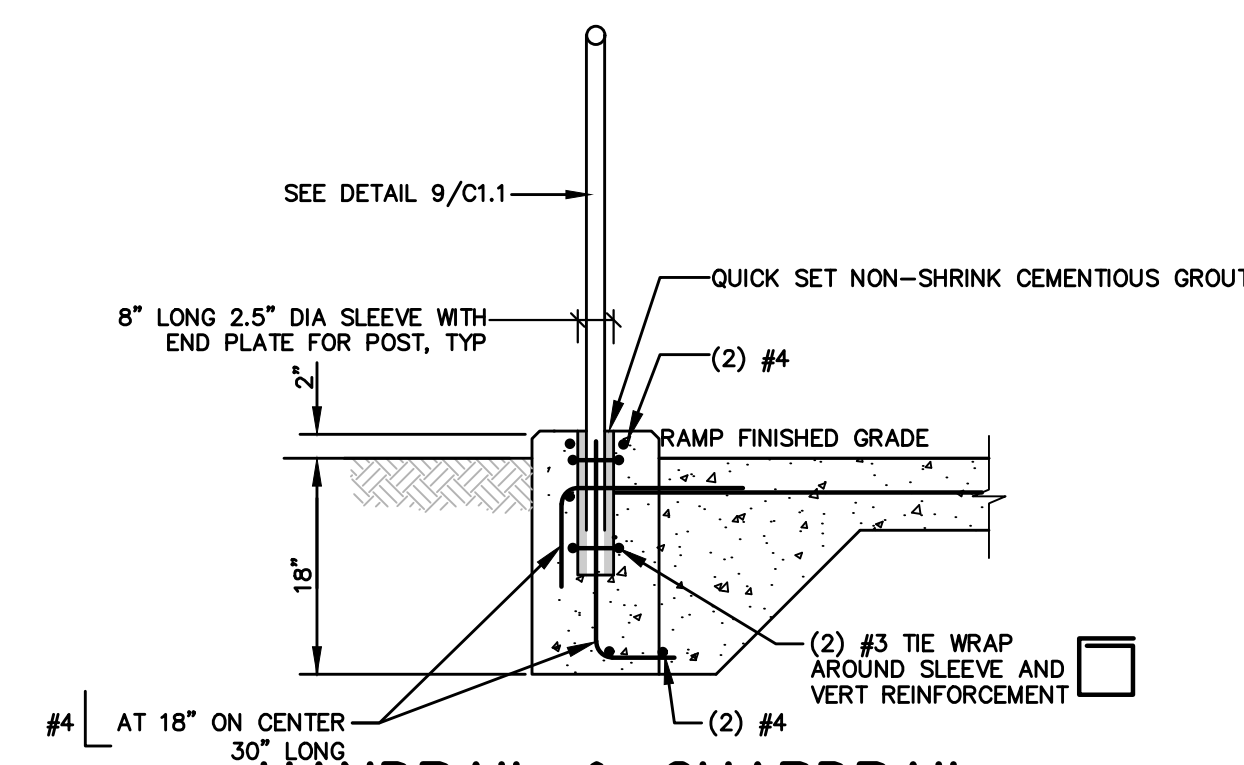
5 STORM DRAIN CLEANOUT

C1.1 SCALE: NTS



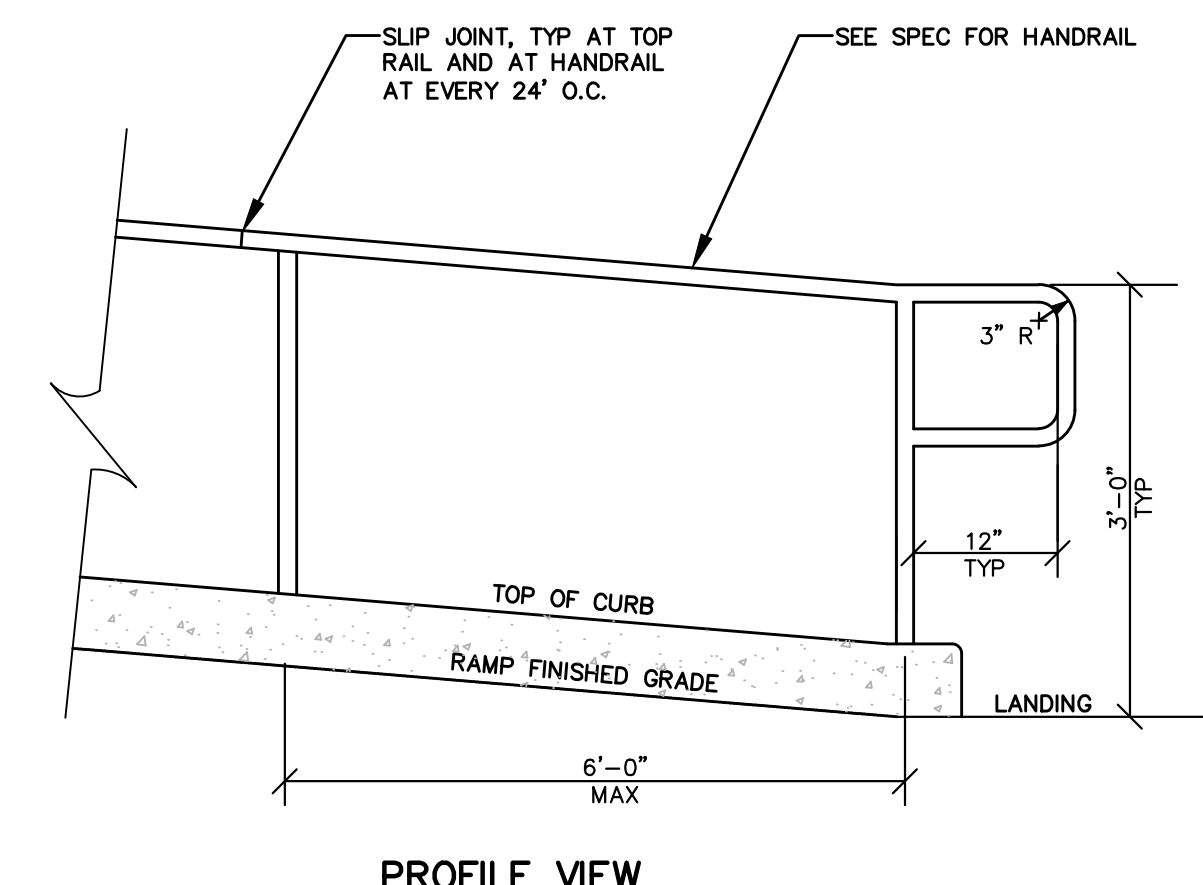
7 ADA RAMP

C1.1 SCALE: NTS



8 HANDRAIL & GUARDRAIL POST POCKET

C1.1 SCALE: 3/4"=1'-0"



9 TYPICAL HANDRAIL DETAIL

C1.1 SCALE: 3/4"=1'-0"

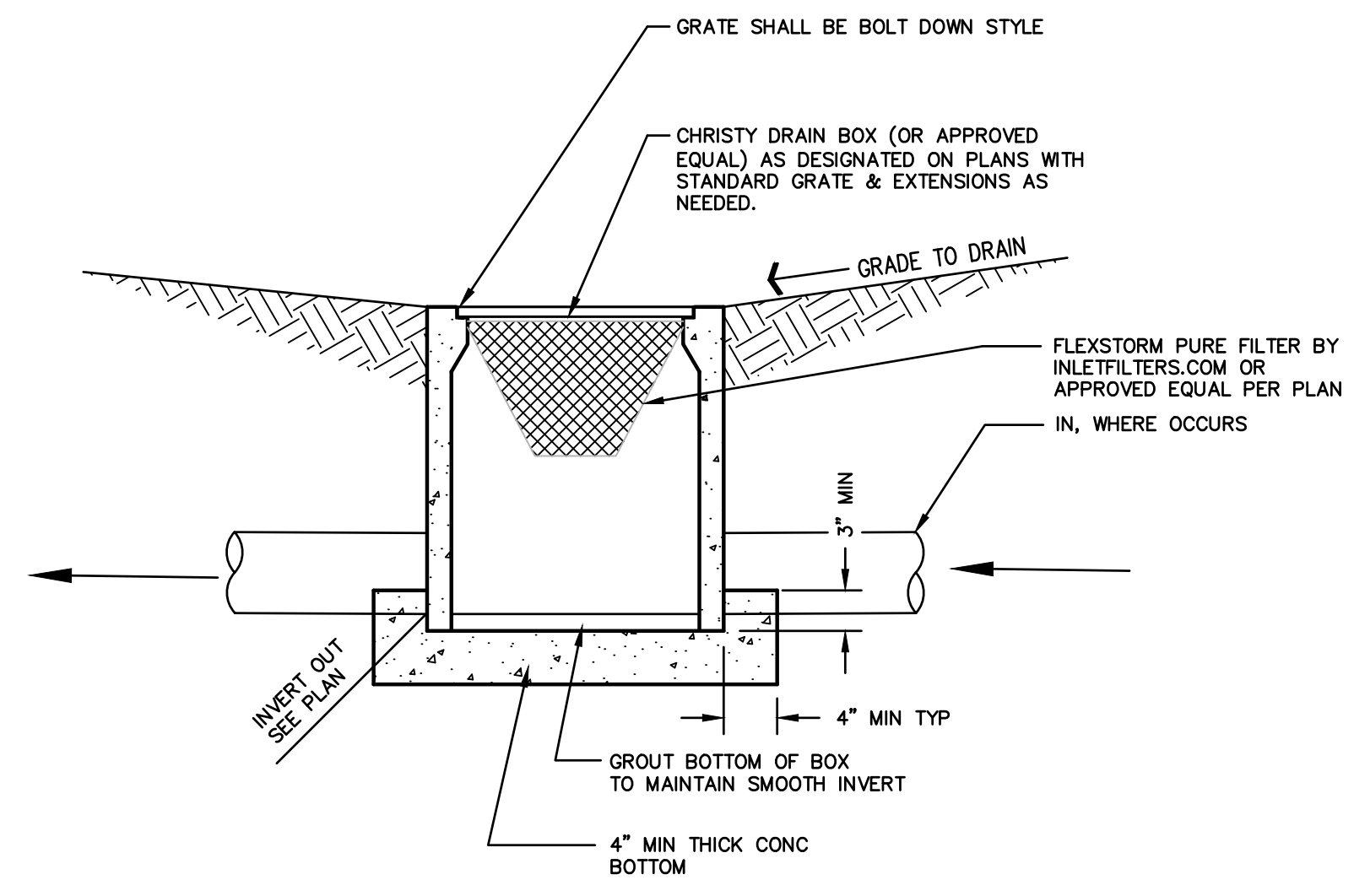
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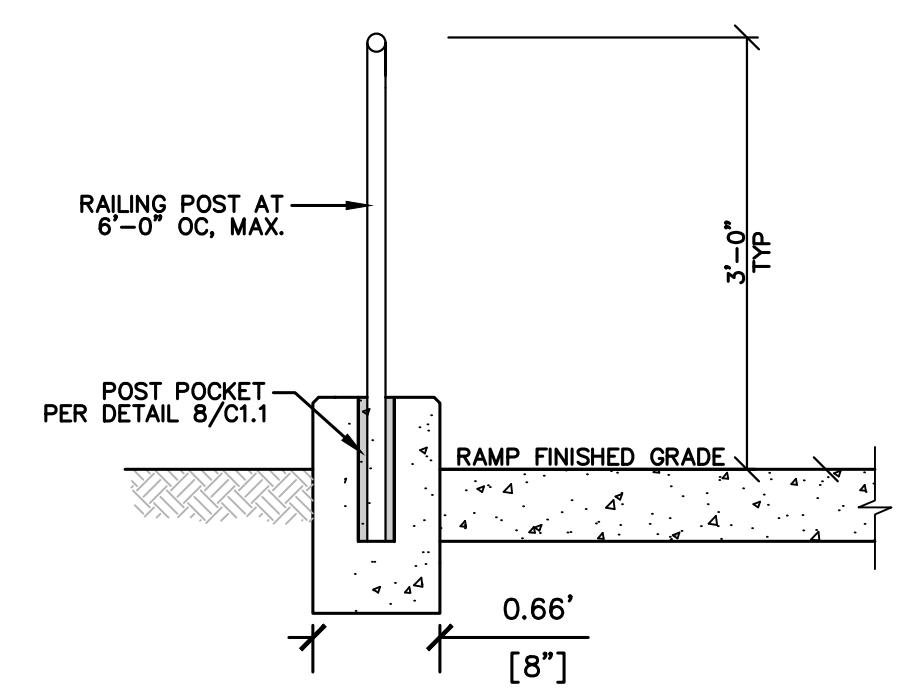
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REVISED			
BOWMAN & WILLIAMS CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS 3949 RESEARCH PARK COURT, SUITE 100 SOQUEL, CA 95073-2094 (831) 426-3560		DETAILS RISPIN MANSION PARK CAPITOLA, CALIFORNIA	
SCALE AS SHOWN	DRAWN CMM	JOB NO. 25803.01	SHEET
DATE AUGUST 12, 2022	CHECKED BRR	INDEX CAPITOLA	C1.1
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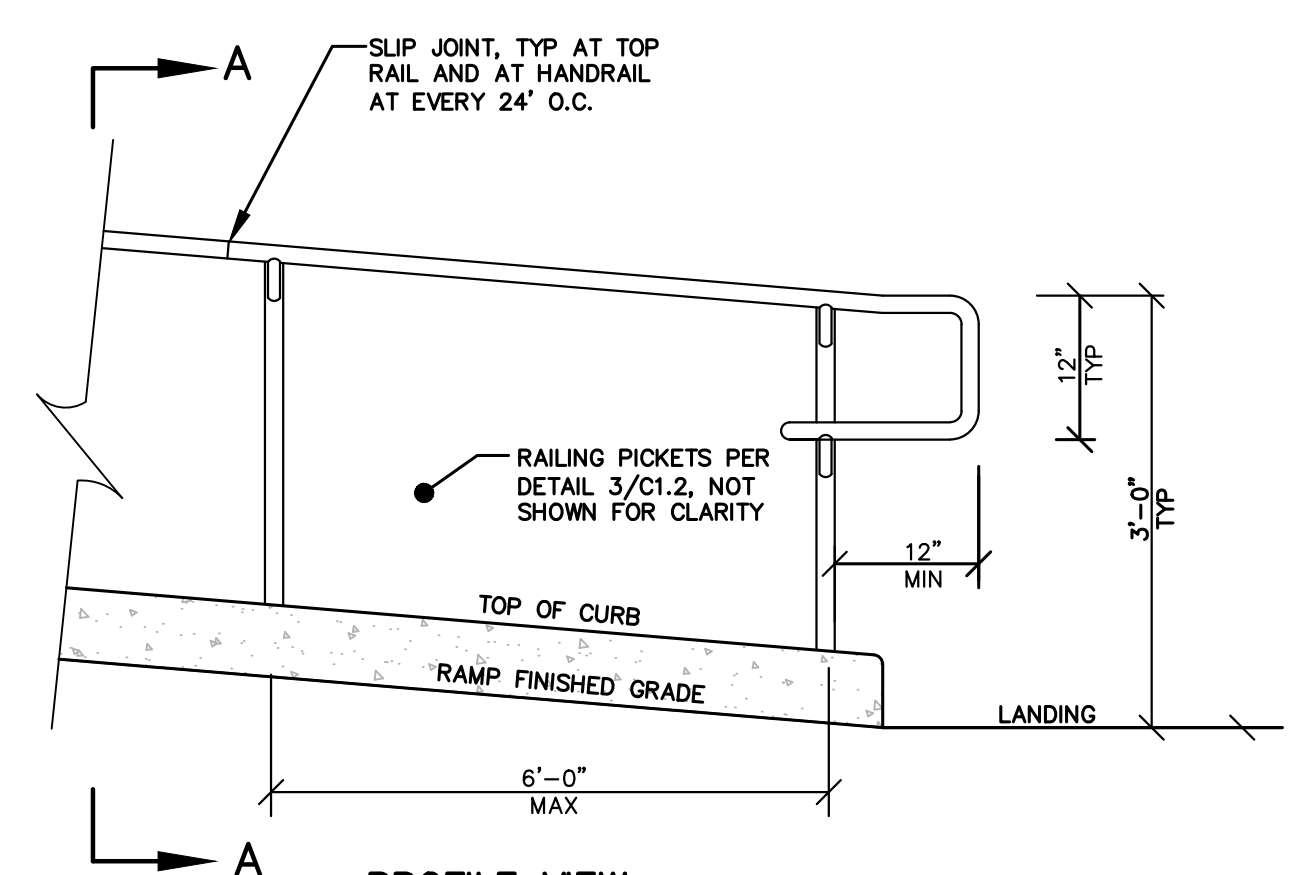




1
C1.2 TYPICAL CATCH BASIN DETAIL
 SCALE: NTS



SECTION A-A



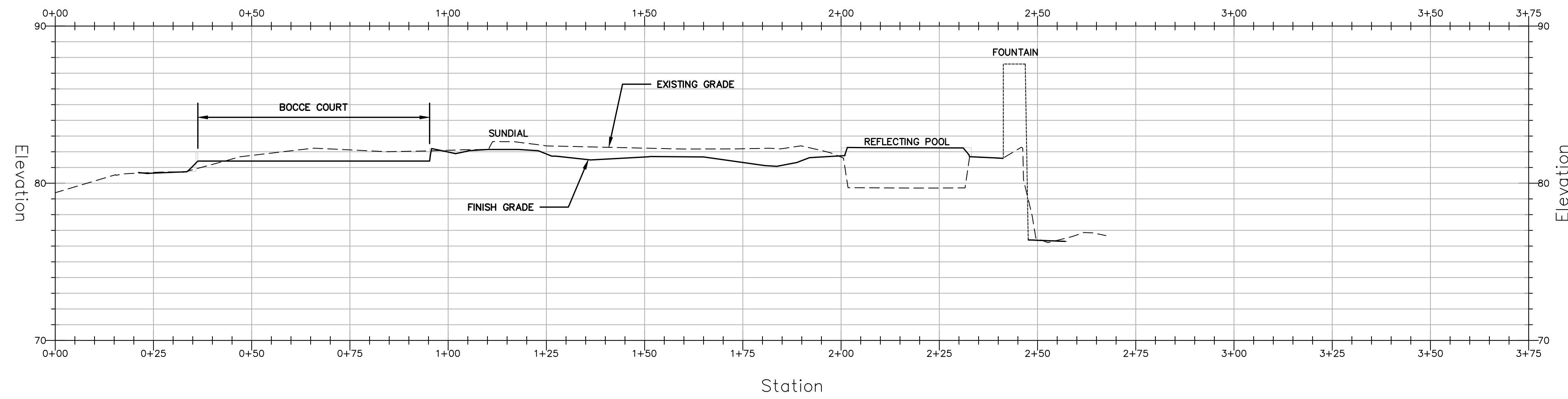
PROFILE VIEW
2
C1.2 TYPICAL GUARDRAIL WITH HANDRAIL DETAIL
 SCALE: 3/4" = 1'-0"



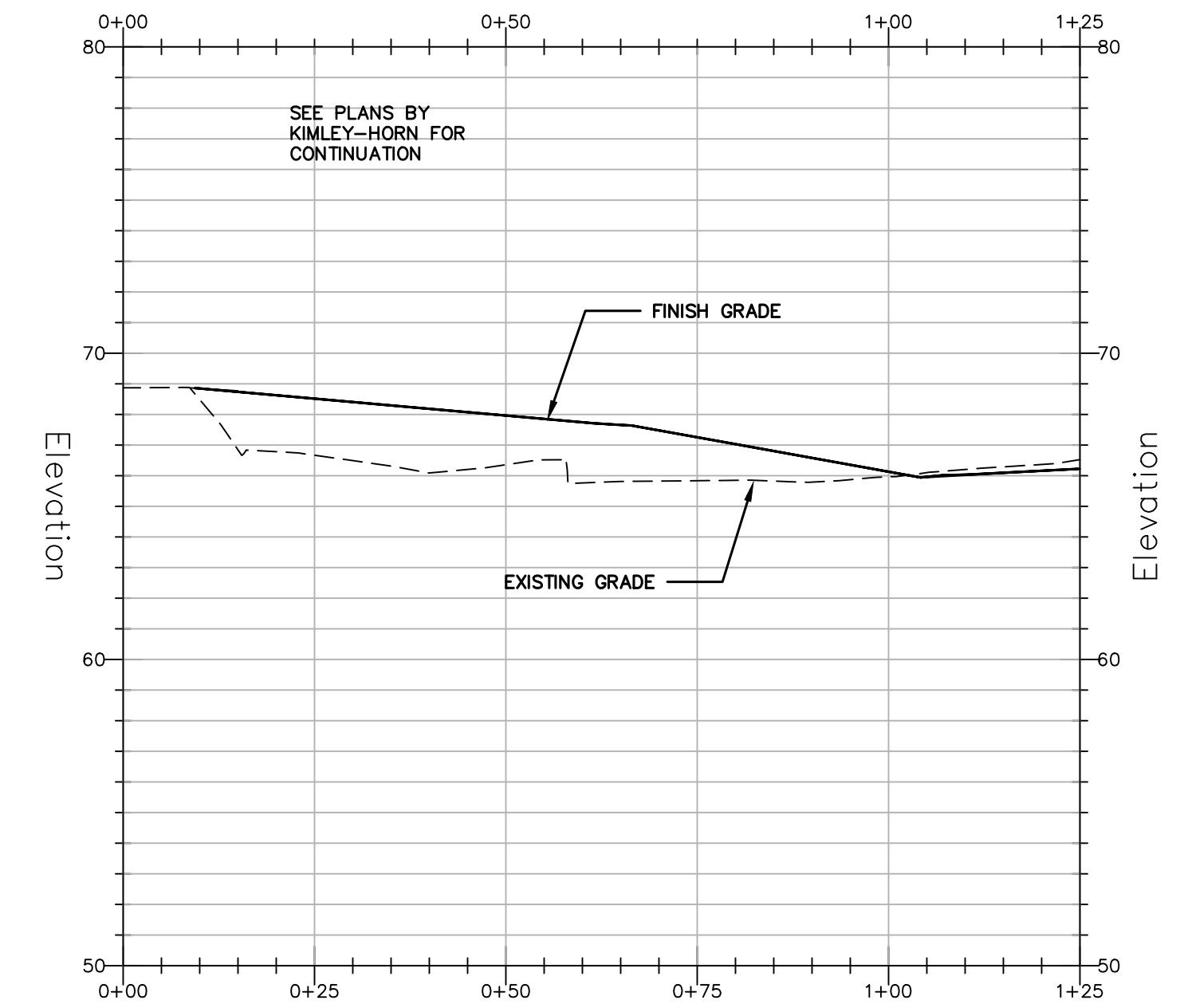
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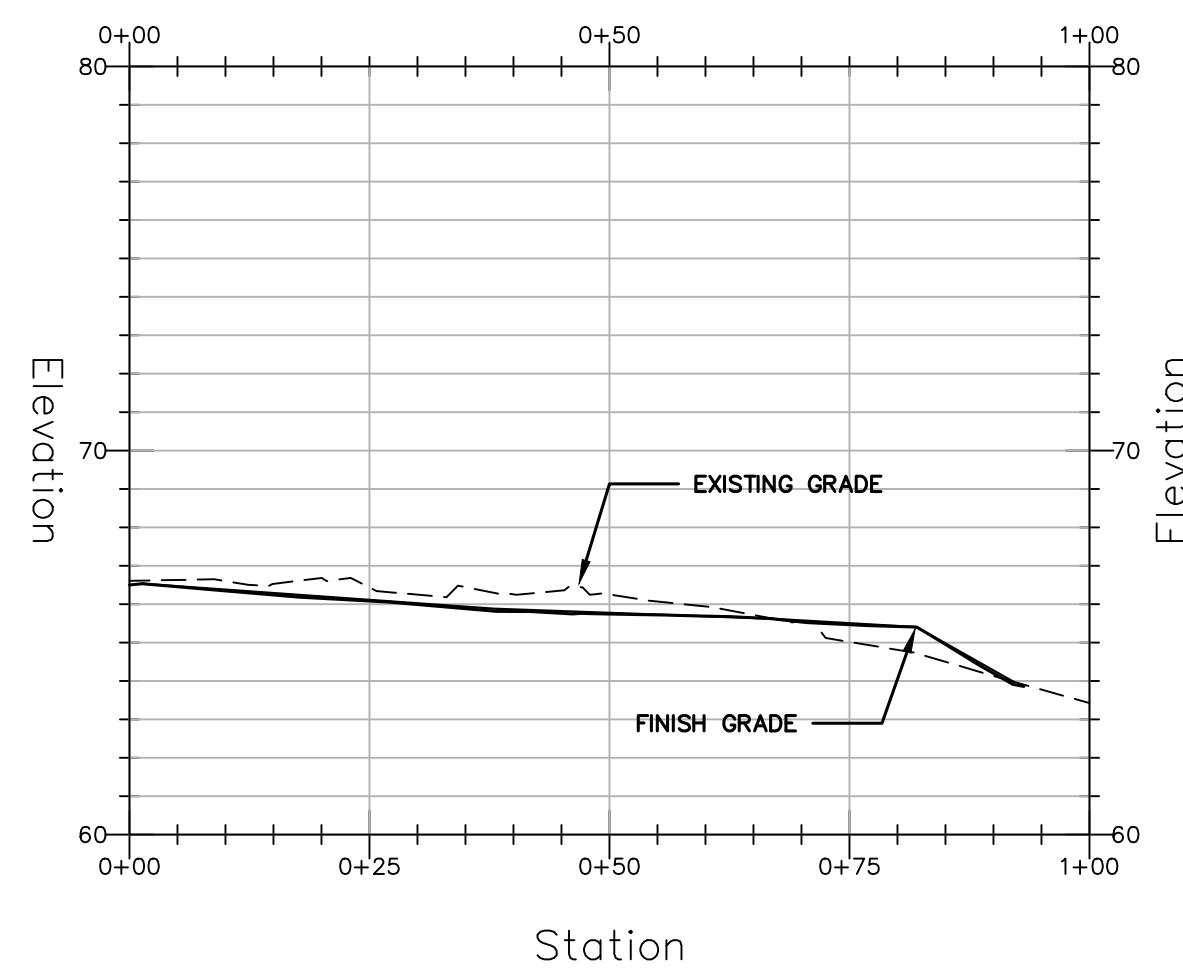
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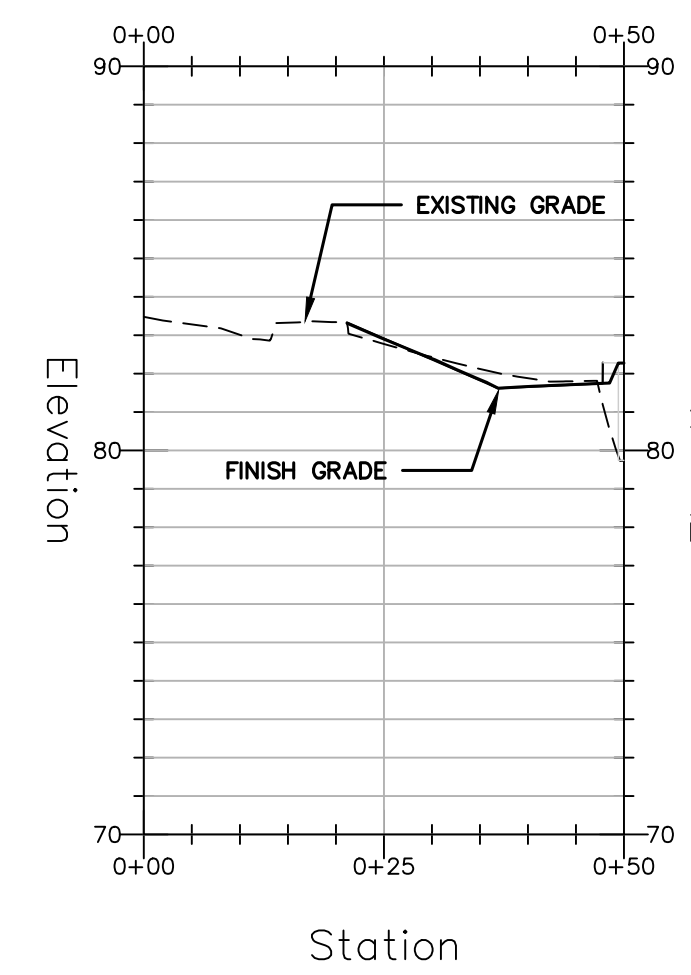
5 SITE SECTION 1
 C1.3 SCALE H: 1"=20' V: 1"=5'



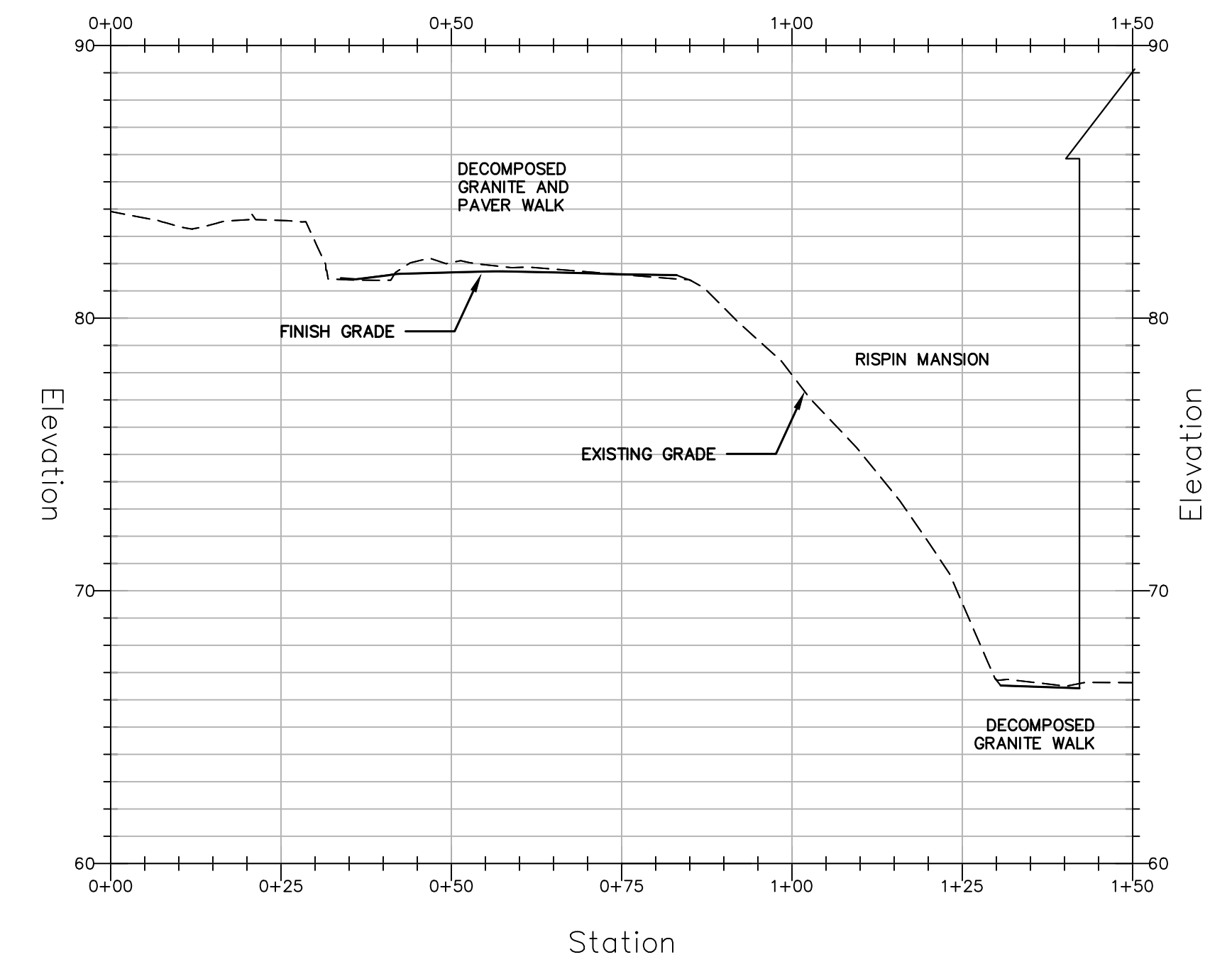
2 RAMP B PROFILE
 C1.3 SCALE H: 1"=20' V: 1"=5'



8 DRIVEWAY PROFILE 2
 C1.3 SCALE H: 1"=20' V: 1"=5'



7 DRIVEWAY PROFILE 1
 C1.3 SCALE H: 1"=20' V: 1"=5'



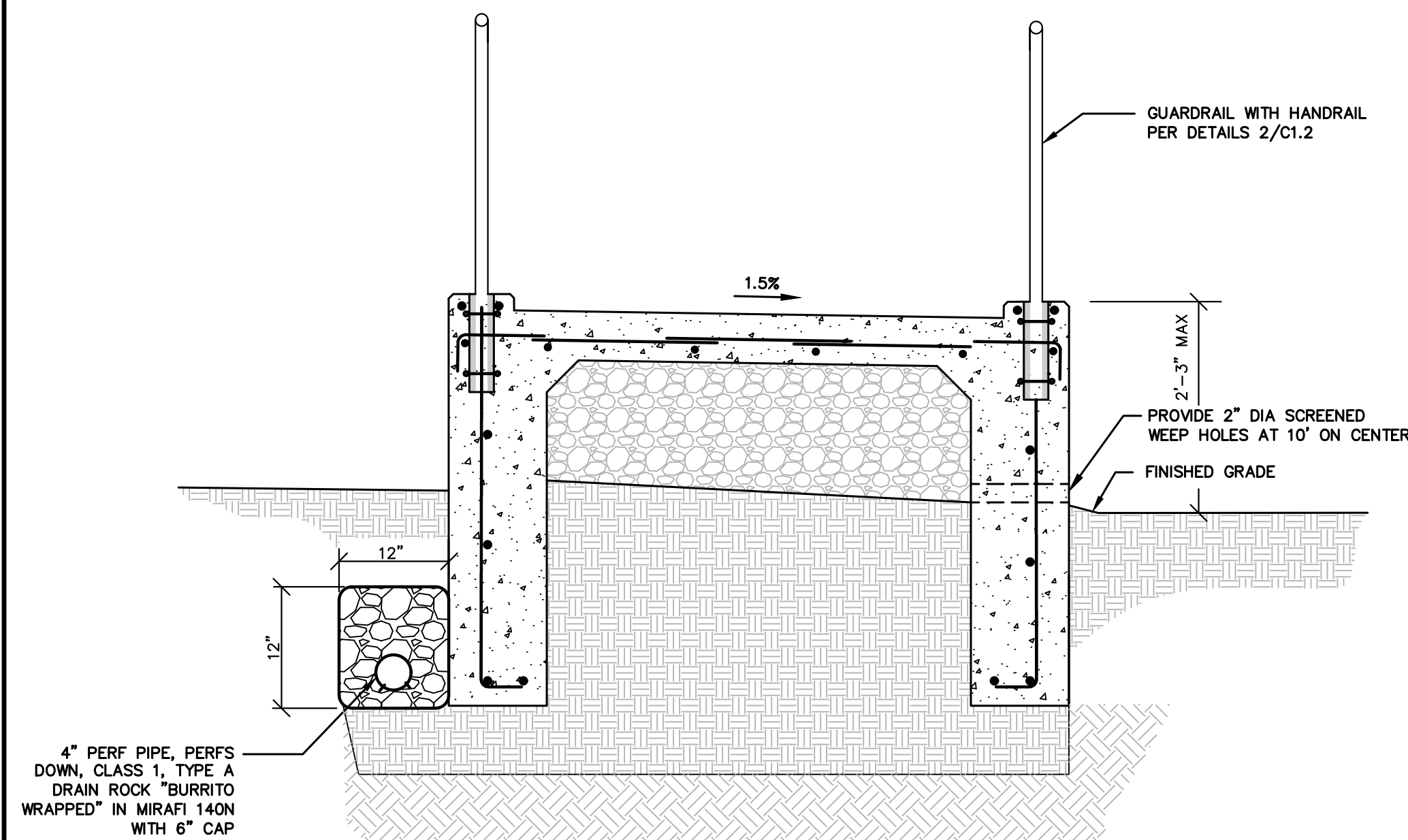
6 SITE SECTION 2
 C1.3 SCALE H: 1"=20' V: 1"=5'

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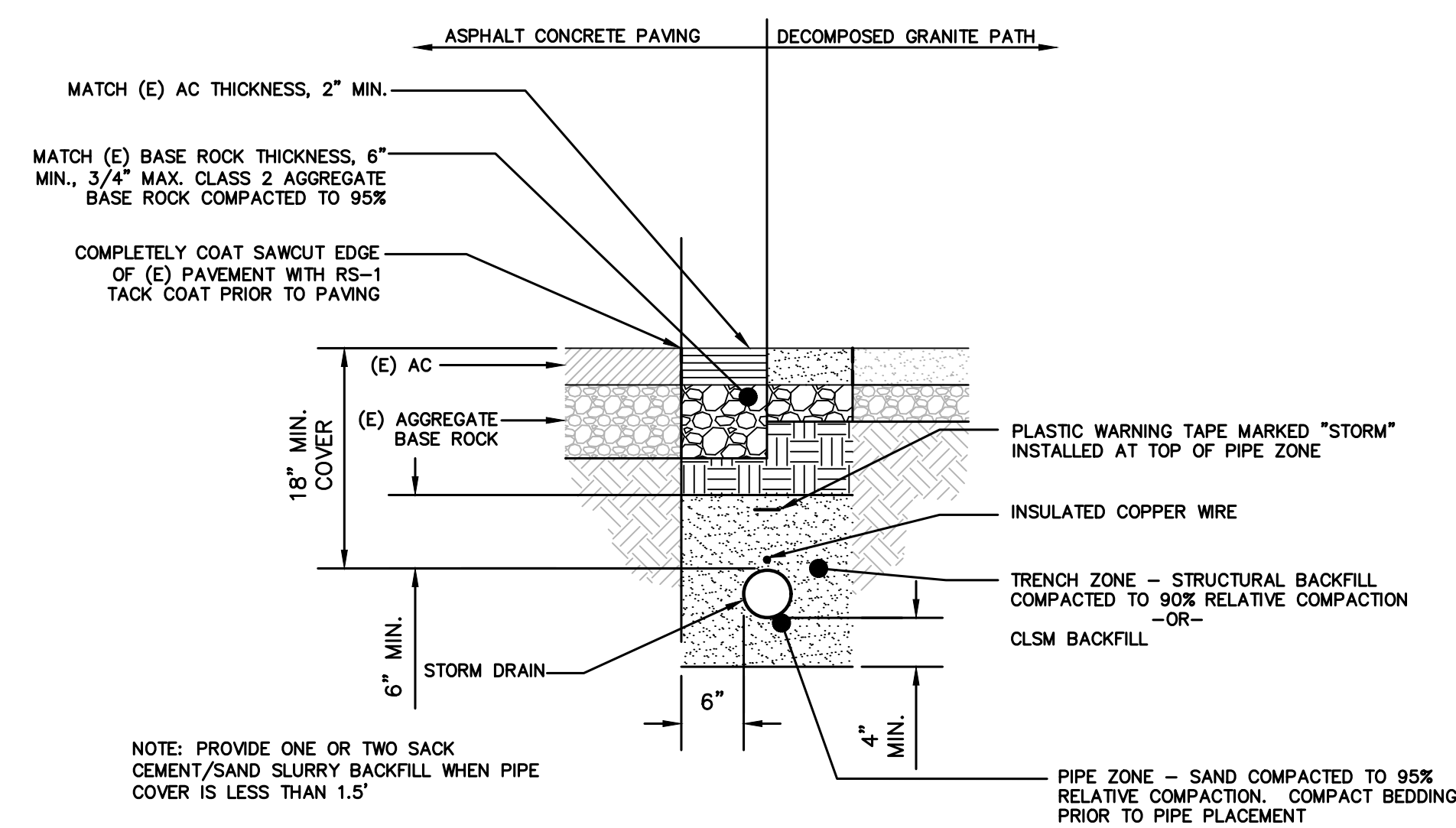


BOWMAN & WILLIAMS CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS 3949 RESEARCH PARK COURT, SUITE 100 SOQUEL, CA 95073-2094 (831) 426-3560		SITE SECTIONS & PROFILES RISPIN MANSION PARK CAPITOLA, CALIFORNIA	
SCALE 1" = 20'	DRAWN CMM	JOB NO. 25803.01	SHEET
DATE AUGUST 12, 2022	CHECKED BRR	INDEX CAPITOLA	C1.3
DESIGN BRR	DWG NAME 25803-C1.3	FILE NO. 25803.01	OF 11

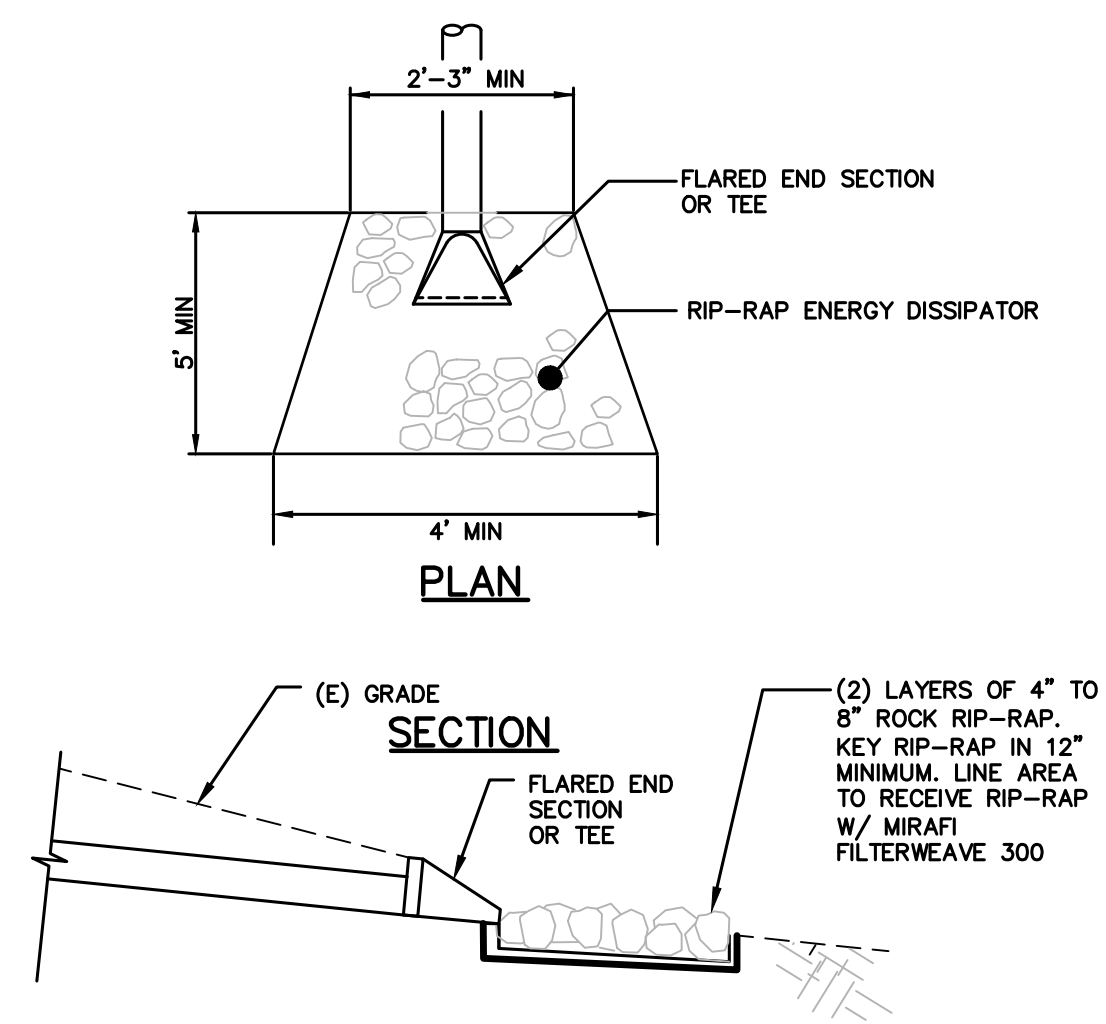
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2
C1.4 WHEELCHAIR RAMP SECTION B-B
SCALE: 3/4" = 1'-0"



5
C1.4 STORM DRAIN TRENCH
SCALE: 3/4" = 1'-0"



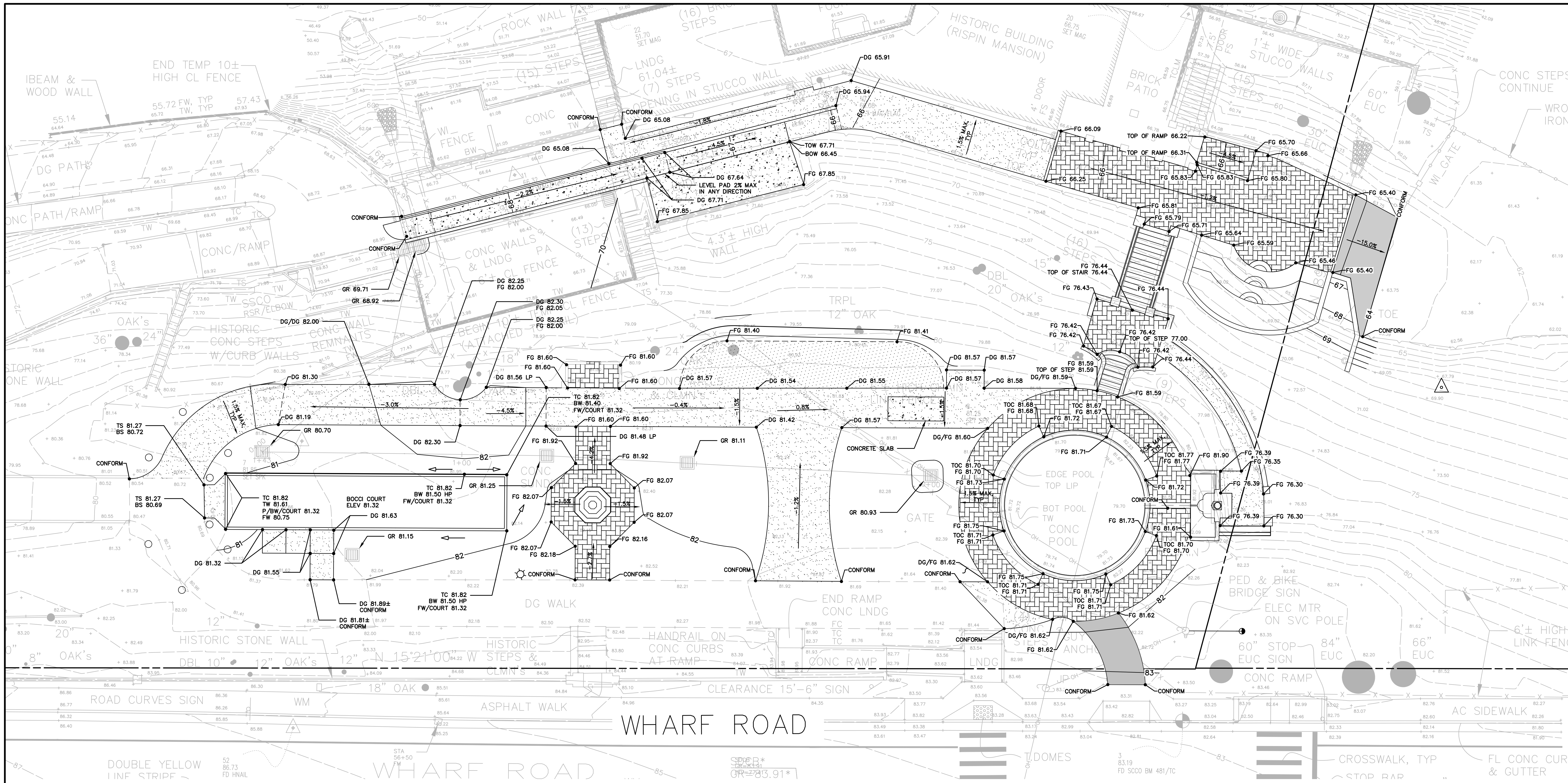
6
C1.4 STORM DRAIN OUTFALL
SCALE: NTS

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SCALE AS SHOWN	DRAWN CMM	JOB NO. 25803.01	SHEET
DATE AUGUST 12, 2022	CHECKED BRR	INDEX CAPITOLA	C1.4
DESIGN BRR	DWG NAME 25803-C1.4	FILE NO. 25803.01	OF 11



LEGEND

- PROPOSED MAJOR CONTOUR — 290 —
- PROPOSED MINOR CONTOUR — 287 —
- EXISTING MAJOR CONTOUR — 190 —
- EXISTING MINOR CONTOUR — 189 —
- PROPOSED ROCK SLOPE PROTECTION

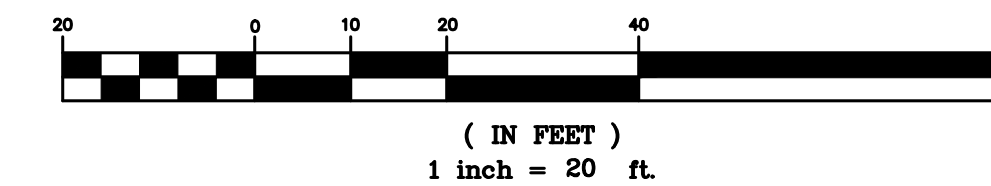
GRADING QUANTITIES

- CUT 540 YDS
- FILL 250 YDS
- NET 290 YDS EXPORT

NOTES

1. EARTHWORK VOLUMES SHOWN ARE FOR PERMITTING PURPOSES. EARTHWORK VOLUMES ARE TAKEN AS THE DIFFERENCE BETWEEN EXISTING GRADE AS SHOWN ON THE TOPOGRAPHIC SURVEY AND THE FINISH GRADES SHOWN HEREON, AND DO NOT INCLUDE FOUNDATION SPOILS, OR REMOVAL OF EXISTING SITE PAVEMENT.
2. ACTUAL EARTHWORK VOLUMES MAY VARY. CONTRACTOR SHALL VERIFY THE EARTHWORK VOLUMES TO HIS SATISFACTION PRIOR TO CONSTRUCTION.
3. ALL EXCESS EXCAVATION (CUT) SHALL BE OFF-HAULED FROM SITE AND DISPOSED AT AN APPROPRIATE LEGAL DISPOSAL SITE.

GRAPHIC SCALE



DISCLAIMER

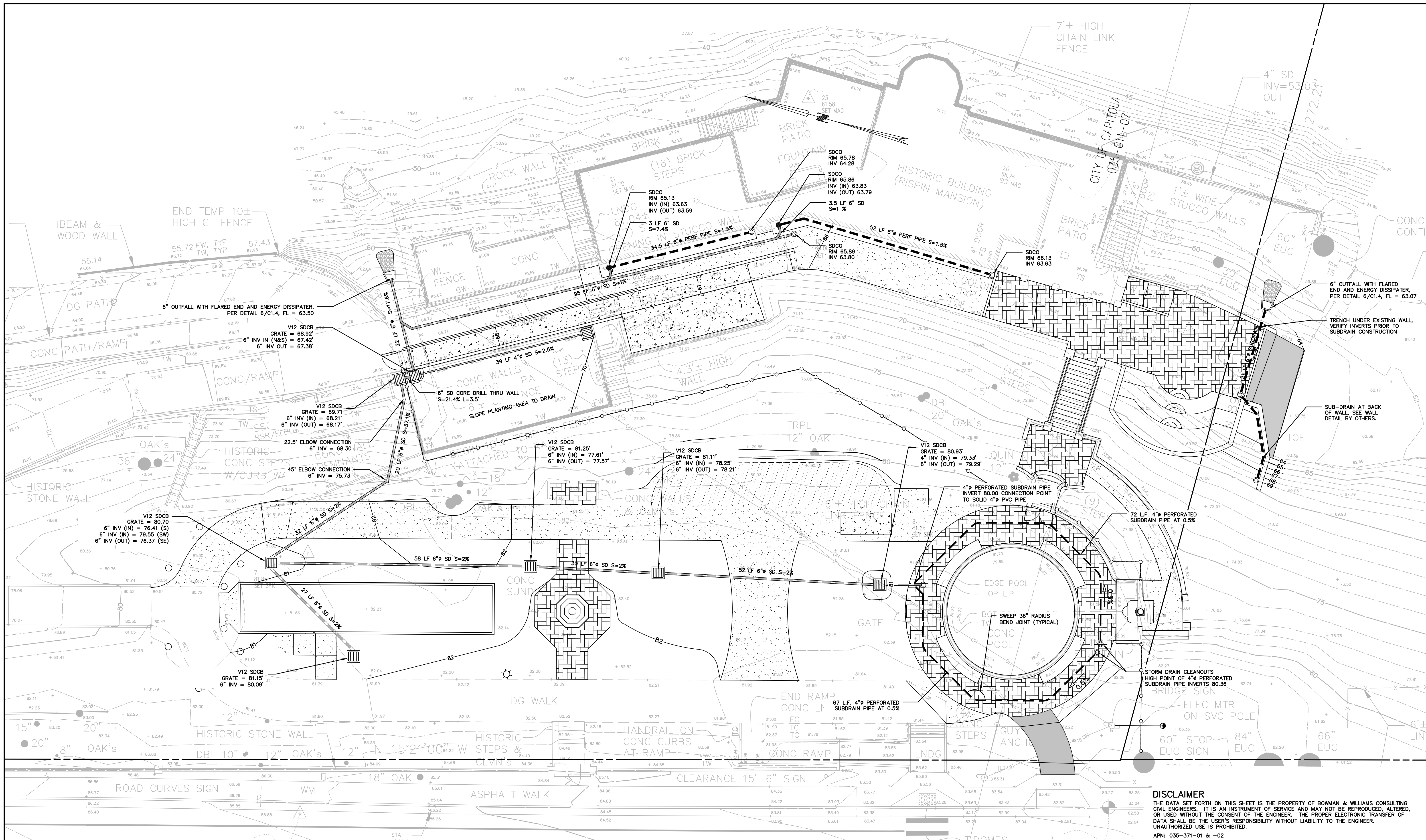
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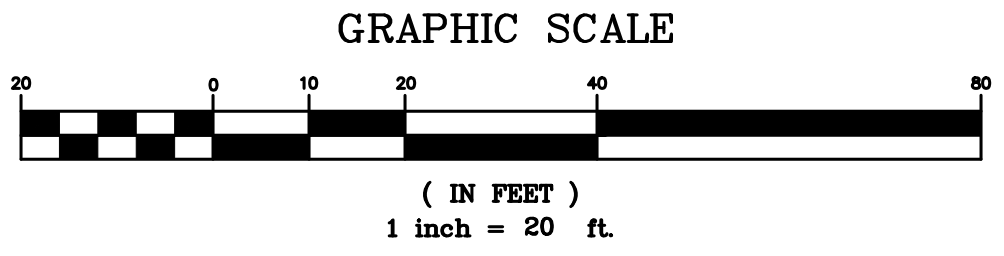
BOWMAN & WILLIAMS CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS 3949 RESEARCH PARK COURT, SUITE 100 SOQUEL, CA 95073-2094 (831) 426-3560		GRADING PLAN RISPIN MANSION PARK CAPITOLA, CALIFORNIA	
SCALE 1" = 20' DATE AUGUST 12, 2022 DESIGN BRR	DRAWN CHM CHECKED BRR DWG NAME 25803-C2.0	JOB NO. 25803.01 INDEX CAPITOLA FILE NO. 25803.01	SHEET C2.0 OF 11

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LEGEND

CATCH BASIN	
ATRIUM DRAIN	
CLEANOUT	
STORM DRAIN	
UNDERDRAIN / BACKDRAIN	
SANITARY SEWER (FUTURE)	

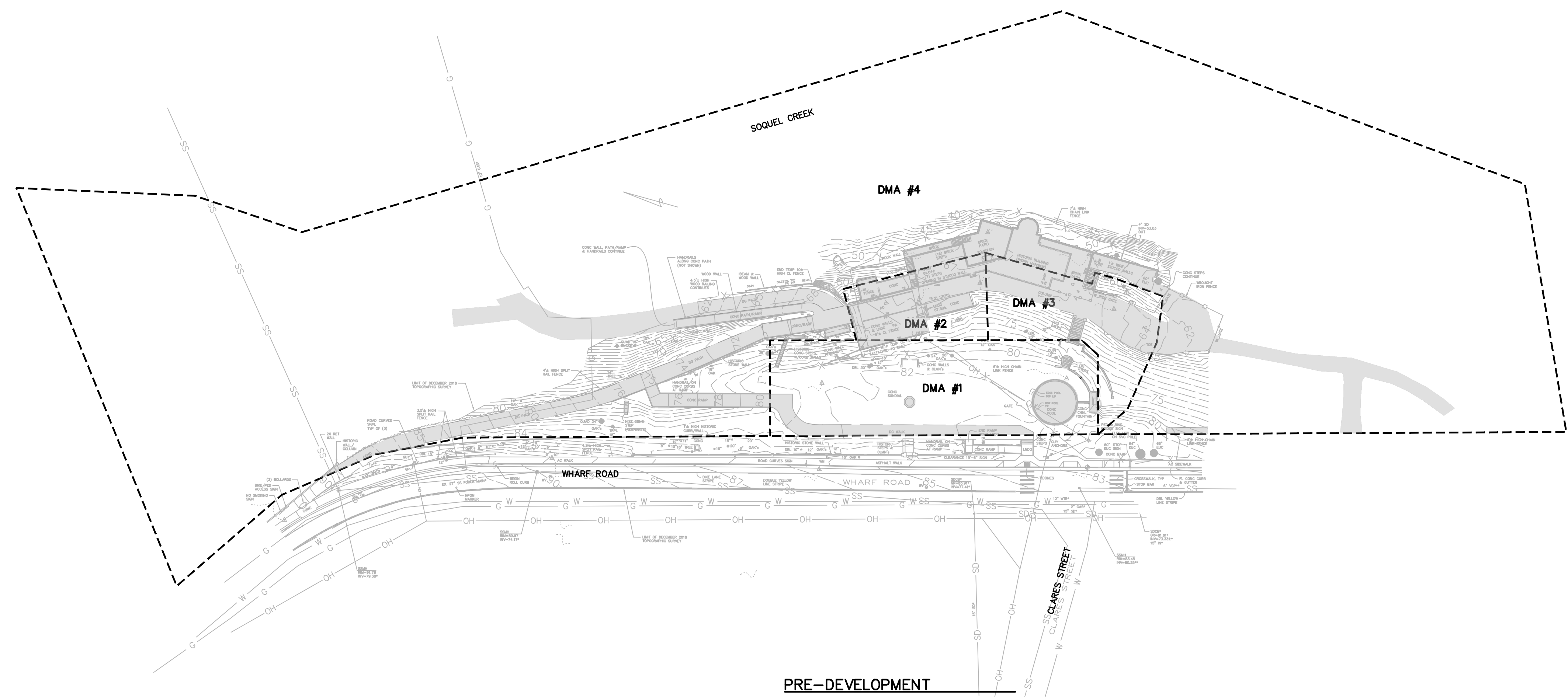
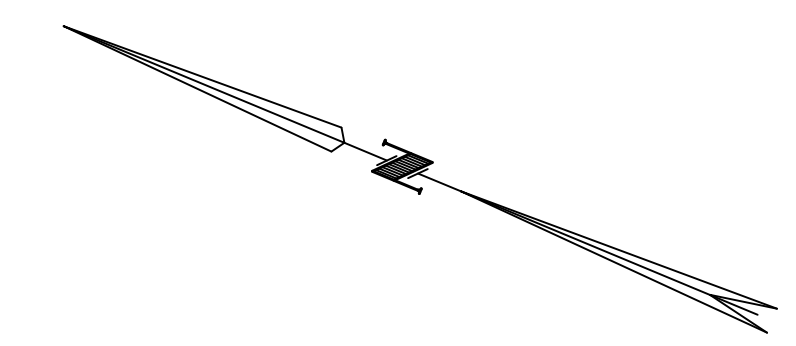


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SCALE 1" = 20' DATE AUGUST 12, 2022 DESIGN BRR	DRAWN CMM CHECKED BRR DWG NAME 25803-C3.0	JOB NO. 25803.01 INDEX CAPITOLA FILE NO. 25803.01	SHEET C3.0 OF 11

NOTES

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PRE-DEVELOPMENT

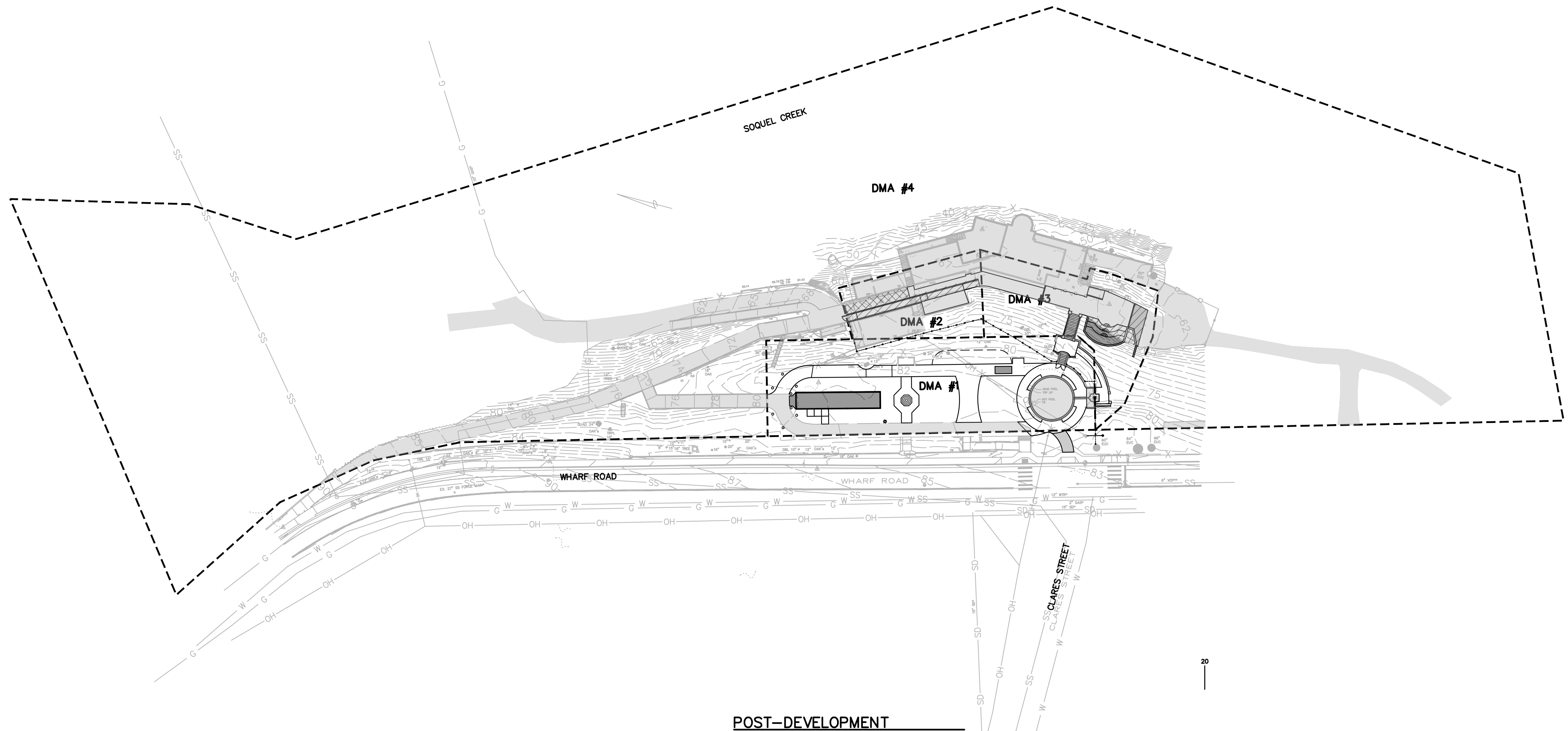
LEGEND

- EXISTING IMPERVIOUS AREA
- REMOVED IMPERVIOUS AREA
- NEW IMPERVIOUS AREA
- REPLACED IMPERVIOUS AREA

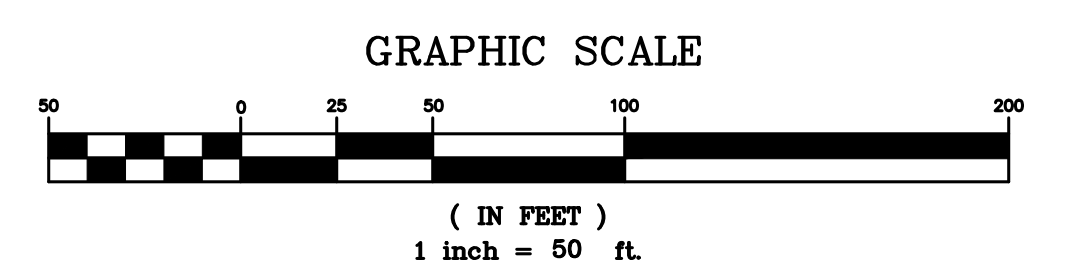
PHASE 2 IMPERVIOUS AREAS

DMA	EXISTING	REMOVED	NEW	REPLACED
1	2,840	0	817	0
2	3,826	261	0	584
3	3,224	56	282	380
4	16,600	0	0	0
TOTAL	26,290	317	1,099	964

NEW + REPLACED = 1,099 + 964 = 2,063 (LESS THAN 15000, TIER 1)
 NET (NEW - REMOVED) = 782 REMOVED (LESS THAN 5000, TIER 1)



POST-DEVELOPMENT

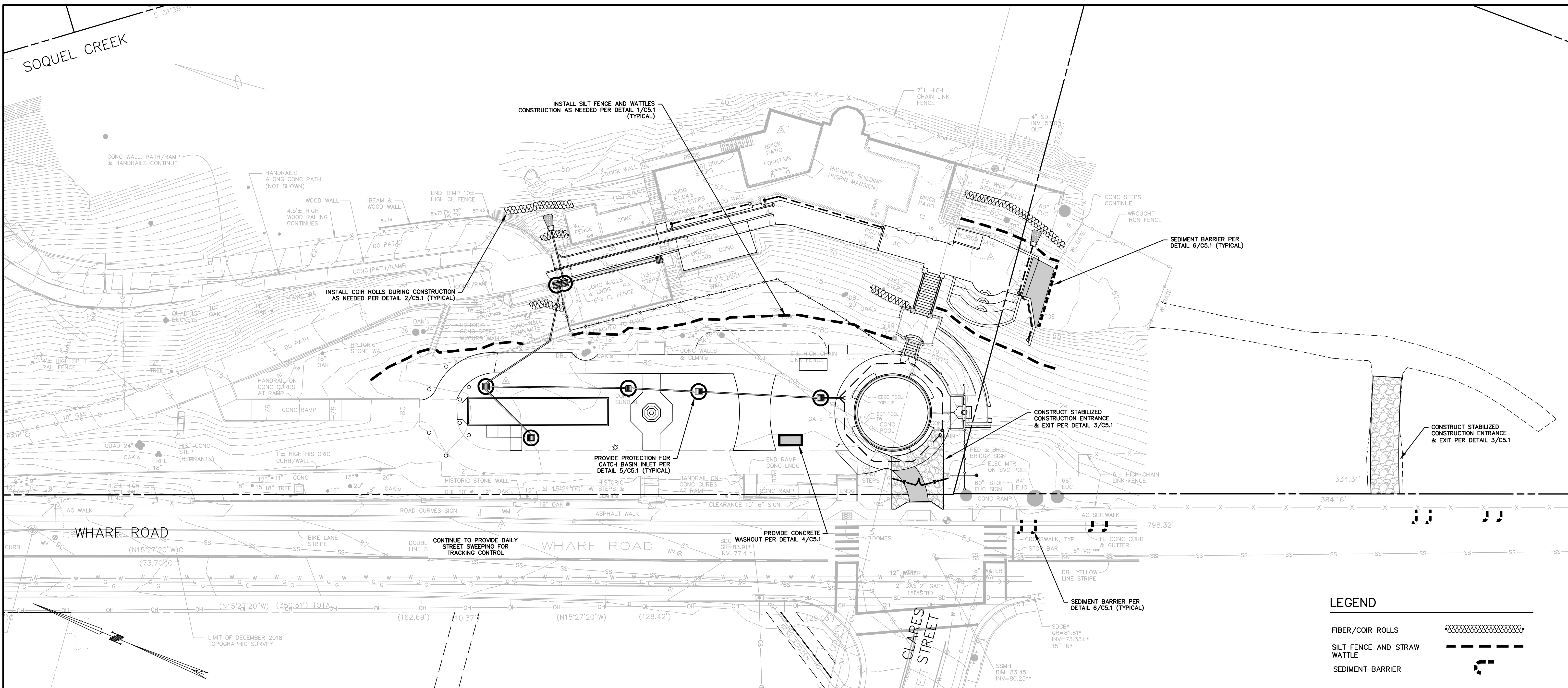


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BOWMAN & WILLIAMS CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS 3949 RESEARCH PARK COURT, SUITE 100 SOQUEL, CA 95073-2094 (831) 426-3560		STORMWATER CONTROL PLAN RISPIN MANSION PARK CAPITOLA, CALIFORNIA	
SCALE 1" = 50'	DRAWN CMM	JOB NO. 25803.01	SHEET
DATE AUGUST 12, 2022	CHECKED BRR	INDEX CAPITOLA	C4.0
DESIGN BRR	DWG NAME 25803.01 C4.0	FILE NO. 25803.01	OF 11

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TEMPORARY EROSION CONTROL MEASURES

1. THE DEVELOPER SHALL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING SITE EROSION CONTROL AT ALL TIMES.
2. EROSION IS TO BE CONTROLLED AT ALL TIMES ALTHOUGH SPECIFIC MEASURES SHOWN ARE TO BE IMPLEMENTED AT A MINIMUM BETWEEN OCTOBER 15TH AND APRIL 15TH, BETWEEN OCTOBER 15TH AND APRIL 15TH MAY BALES, FILTER BERMS, SILT FENCES OR OTHER MEANS SHALL BE EMPLOYED TO PREVENT SEDIMENT FROM LEAVING THE SITE OR ENTERING ANY WATERCOURSE.
3. RUNOFF FROM THE CONSTRUCTION SITE MUST NOT BE ALLOWED TO FLOW OVER ANY FILL SLOPES.
4. RUNOFF SHALL BE DIRECTED TOWARDS THE NEAREST CATCH BASIN WITH TEMPORARY EARTHEN BERMS.
5. SILT BARRIERS SHALL BE CONSTRUCTED ALONG THE BOTTOM OF ALL GRADED SLOPES.
6. CATCH BASINS SHALL BE ENCLOSED BY A SILT BARRIER ON ALL FOUR SIDES. USE GRAVEL FILLED SANDBAGS OR STRAW BALE INLET BARRIER.
7. ON ALL FINISH GRADED SLOPES, ON- AND OFF-SITE, EXPOSED DURING CONSTRUCTION ACTIVITIES, IF NOT PERMANENTLY LANDSCAPED PER PLAN, SHALL BE PROTECTED BY MULCHING AND/OR PLANTING OF ANNUAL WINTER BARLEY MIX AT A RATE OF 35 LBS PER ACRE.
8. ONCE SLOPES ARE SEEDED AND RAKED, COVER THEM WITH TWO INCHES (2") OF STRAW PUNCHED INTO THE GROUND BY SHEEP ROLLER. IF AVAILABLE, USE NATIVE BUNCH GRASS STRAW (PREFERABLY BROMUS CARINATUS), IF NOT AVAILABLE, USE COMMERCIALY AVAILABLE TYPES (E.G. WHEAT, OAT, BARLEY, ETC.) EXPOSED SOIL ON SLOPES GREATER THAN 20% SHALL BE SEEDED, COVERED WITH 2 INCHES OF STRAW, AND A NORTH AMERICAN GREEN SC150 EROSION CONTROL BLANKET, OR APPROVED EQUAL. THE EROSION CONTROL BLANKET SHALL BE STAKED IN PLACE.
9. FERTILIZER REQUIRED FOR THIS SEED MIX IS AMMONIUM PHOSPHATE AT AN APPLICATION RATE OF 250 LB PER ACRE.
10. SEEDING MAY BE OMITTED FOR AREAS THAT ARE TO RECEIVE PERMANENT LANDSCAPING PROVIDED SAID LANDSCAPING IS IN PLACE PRIOR TO OCTOBER 15TH.
11. UNNECESSARY GRADING AND DISTURBING OF SOIL SHALL BE AVOIDED.
12. DURING CONSTRUCTION, NO TURBID WATER SHALL BE PERMITTED TO ENTER THE CHANNEL OR STORM DRAIN SYSTEM. USE OF SILT AND GREASE TRAPS, FILTER BERMS, HAY BALES OR SILT FENCES SHALL BE USED TO PREVENT SUCH DISCHARGE.
13. ALL EXCAVATED MATERIAL NOT SUITABLE FOR FILL OR REUSE SHALL BE REMOVED TO AN APPROVED DISPOSAL SITE OR DISPOSED OF ON-SITE IN A MANNER THAT WILL NOT CAUSE EROSION.
14. ANY MATERIAL STOCKPILED ON-SITE SHALL BE COVERED WITH PLASTIC, ESPECIALLY DURING THE WINTER MONTHS OR DURING PERIODS OF RAIN.
15. IT IS THE DEVELOPER'S RESPONSIBILITY TO SEE THAT ADDITIONAL MEASURES, NECESSARY TO CONTROL SITE EROSION AND PREVENT SEDIMENT TRANSPORT OFF-SITE ARE IMPLEMENTED.
16. 48 HOUR NOTICE SHALL BE GIVEN TO ENVIRONMENTAL PLANNING AT 454-3168 PRIOR TO COMMENCING WORK, AND UPON COMPLETION OF GRADING AND EROSION CONTROL. FAILURE TO COMPLY WILL RESULT IN ISSUANCE OF A STOP WORK ORDER.

GENERAL OPERATION NOTES:

1. PERIMETER SITE FENCING SHALL BE INSTALLED SO AS NOT TO OBSTRUCT DRAINAGE/RUNOFF PATH OF TRAVEL.
2. STOCKPILE MANAGEMENT SHALL BE IMPLEMENTED YEAR ROUND.
 - A. PROVIDE SEDIMENT BARRIER AROUND STOCKPILES FOR REGULAR USAGE DURING THE DRY SEASON. IMPLEMENT WIND EROSION PRACTICES SUCH AS WATERING AS NECESSARY TO KEEP DUST LEVEL DOWN.
 - B. STOCKPILES NOT TO BE USED WITHIN 14 DAYS SHALL BE PROTECTED AND COVERED IMMEDIATELY WITH 10 MIL PVC PLASTIC SHEETING.
 - C. ALL ACTIVE STOCKPILES SHALL BE COVERED WITH 10 MIL PVC PLASTIC SHEETING PRIOR TO THE ONSET OF PRECIPITATION.
 - D. DURING WINTER SEASON, PROTECT ALL STOCKPILES FROM STORMWATER RUN-OFF USING SEDIMENT BARRIER AND PLASTIC SHEETING.
3. IMMEDIATELY REVEGETATE OR COVER DISTURBED AREAS. APPLY WEED-FREE MULCH OR REVEGETATE ALL SOIL EXPOSED BEFORE OCTOBER 15TH OF EACH YEAR.
4. DISCONTINUE THE APPLICATION OF ANY ERODIBLE LANDSCAPE MATERIAL WITHIN 2 DAYS BEFORE A FORECASTED RAIN EVENT OR DURING PERIODS OF PRECIPITATION.
5. GRAVEL BAG & COIR/FIBER ROLL PRODUCTS MAY BE SUBSTITUTED WITH OTHER APPROVED SEDIMENT BARRIER/CONTROL MANUFACTURED DEVICES.
6. DO NOT WASH DOWN PAVEMENT OR SURFACES WHERE SILT HAS BEEN DEPOSITED OR MATERIALS HAVE SPILLED. USE DRY CLEAN METHODS.
7. AVOID CONTAMINATING CLEAN RUN-OFF FROM AREAS ADJACENT TO YOUR SITE BY USING BERMS AND/OR TEMPORARY OR PERMANENT DRAINAGE DITCHES TO DIVERT WATER FLOW AROUND SITE.
8. PLACE TRASH CANS AROUND THE SITE TO REDUCE POTENTIAL LITTER. DISPOSE OF NON-HAZARDOUS CONSTRUCTION WASTE IN COVERED DUMPSTERS OR RECYCLING RECEPTACLES. RECYCLE LEFTOVER MATERIALS WHENEVER POSSIBLE.
9. DISPOSE OF ALL WASTE PROPERLY. MATERIALS THAT CAN NOT BE REUSED OR RECYCLED MUST BE TAKEN TO AN APPROPRIATE LANDFILL OR DISPOSED OF AS HAZARDOUS WASTE, AS APPROPRIATE.
10. TRAIN YOUR EMPLOYEES AND INFORM CONTRACTORS AND SUBCONTRACTORS ABOUT STORM WATER MANAGEMENT REQUIREMENTS AND THEIR RESPONSIBILITIES FOR COMPLIANCE.

INSPECTION & MAINTENANCE NOTES:

1. THE CONTRACTOR SHALL PERFORM AND MAKE WRITTEN RECORD OF ALL SITE INSPECTIONS TO ENSURE ADEQUATE DEPLOYMENT OF BMP'S.
2. DURING INSPECTIONS IDENTIFY AND RECORD BMP'S THAT NEED MAINTENANCE TO OPERATE EFFECTIVELY, THAT HAVE FAILED, OR THAT COULD FAIL TO OPERATE AS INTENDED.
3. REPAIR TO BMP'S SHALL BEGIN WITHIN 72 HOURS OF IDENTIFICATION AND THE CHANGES COMPLETED AS SOON AS POSSIBLE.
4. CONDUCT INSPECTIONS DURING BUSINESS HOURS ONLY.
5. AT MINIMUM, INSPECTIONS WILL BE CONDUCTED AS FOLLOWS:
 - WEEKLY
 - PRE STORM EVENT
 - DURING STORM EVENT
 - POST STORM EVENT
6. VISUALLY INSPECT FOR ANY SPILLS, LEAKS, STORMWATER RUN-OFF, EROSION, SHEEN ON THE SURFACE, TURBIDITY, ODORS, AND SOURCE OF ANY OBSERVED POLLUTANTS.
7. AT THE END OF EACH WORK DAY, 4 VISUAL INSPECTIONS SHALL BE CONDUCTED:
 - A. COVER ALL TRASH AND TRASH CONTAINERS.
 - B. COVER CONCRETE WASHOUT FACILITY
 - C. COVER ALL OTHER CHEMICAL/WASTE CONTAINERS
 - D. LOCK ACCESS GATE TO PREVENT UNAUTHORIZED ACCESS

RAIN EVENT MEASURES

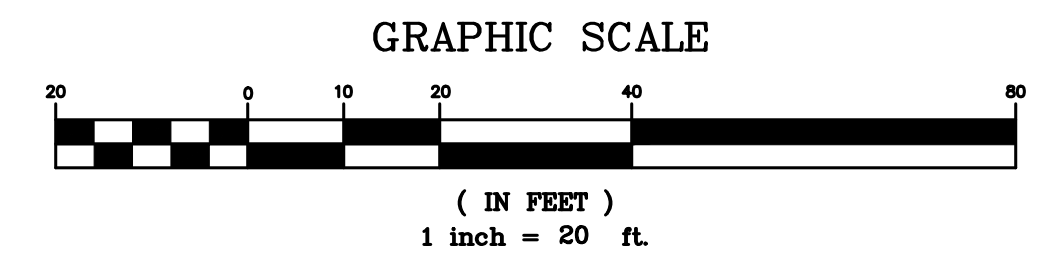
1. 48 HOURS PRIOR TO A PREDICTED RAIN EVENT, IN ADDITION TO THE INSTALLED BMP'S, THE CONTRACTOR SHALL COVER ANY DISTURBED BARE SOILS WITH MULCH OR EROSION CONTROL BLANKETS.
2. A PREDICTED RAIN EVENT IS A FORECAST TO HAVE A 50% OR GREATER PROBABILITY OF PRODUCING PRECIPITATION IN THE PROJECT AREA PER THE NATIONAL WEATHER SERVICE (NOAA) AT WWW.NOAA.GOV.
3. COVER ALL TRASH CONTAINERS, CONCRETE WASHOUT FACILITY, AND OTHER CHEMICAL/WASTE CONTAINERS FROM PRECIPITATION.

CAPITOLA STORMWATER BMP'S

1. CONDUCT ASPHALT AND CONCRETE REMOVAL ACTIVITIES DURING DRY WEATHER WHENEVER POSSIBLE.
2. PROTECT NEARBY STORM DRAIN INLETS AND ADJACENT WATER BODIES PRIOR TO BREAKING UP ASPHALT OR CONCRETE. IF RAIN IS FORECAST, THEN PLACE SANDBAGS AROUND INLETS OR WORK AREAS.
3. DRY CUT WHENEVER POSSIBLE. SWEEP BY HAND OR USING STREET SWEEPING EQUIPMENT AS APPROPRIATE. DURING SAW CUTTING AND GRADING OPERATIONS, USE AS LITTLE WATER AS POSSIBLE. PROTECT NEARBY CATCH BASINS OR GUTTERS, AND USE MATERIALS TO CONTAIN THE SLURRY. IF SLURRY ENTERS THE STORM DRAIN SYSTEM, REMOVE MATERIAL IMMEDIATELY. REMOVE SAW-CUT SLURRY FROM THE WORK AREA WITH A SHOVEL, VACUUM OR BY SWEEPING AS SOON AS IT IS DRY.
4. WHEN THE JOB IS COMPLETED, BE SURE THAT ALL PARTICLES AND DEBRIS ARE COLLECTED AND REMOVED FROM THE SITE. SWEEP THE AREA BY HAND OR WITH THE CITY'S STREET SWEEPING EQUIPMENT. BE SURE THAT NOTHING HAS DRIFTED TOWARDS THE STREET, GUTTER, OR CATCH BASIN.
5. SCHEDULE PATCHING, RESURFACING AND SURFACE SEALING DURING DRY WEATHER.
6. PREHEAT, TRANSFER, OR LOAD HOT BITUMINOUS MATERIAL AWAY FROM DRAINAGE SYSTEMS OR WATERCOURSES.
7. COVER AND SEAL NEARBY STORM DRAIN INLETS AND MANHOLES BEFORE APPLYING SEAL COAT, SLURRY SEAL, ETC. LEAVE COVERS IN PLACE UNTIL JOB IS COMPLETE AND UNTIL ALL WATER FROM EMULSIFIED OIL SEALANT HAS DRAINED OR EVAPORATED. COLLECT WASTE MATERIALS FOR PROPER DISPOSAL.
8. USE ONLY AS MUCH WATER AS NECESSARY FOR DUST CONTROL TO AVOID RUNOFF. IF IT RAINS UNEXPECTEDLY, TAKE APPROPRIATE ACTION TO PREVENT POLLUTION OF STORM WATER RUNOFF. DIVERT RUNOFF AROUND WORK AREAS AND COVER MATERIALS, STOCKPILE MATERIALS AWAY FROM STREET, GUTTER AREAS, STORM DRAIN INLETS OR WATERCOURSES. DURING WET WEATHER, COVER STOCKPILES WITH TARPS OR USE BERMS TO PREVENT RUNOFF.
9. REMOVE STOCKPILES, SWEEP UP EXCESS MATERIAL, AND DISPOSE OF PROPERLY BY THE END OF EACH WEEK OR, IF DURING THE RAINY SEASON, THE END OF EACH DAY. SWEEP UP AS MUCH EXCESS MATERIAL AS POSSIBLE AND DISPOSE OF PROPERLY. ONLY WASH DOWN STREETS IF RUNOFF CAN BE CONTROLLED OR CONTAINED. STOCKPILES MUST BE REMOVED BY THE END OF EACH DAY IF THEY ARE LOCATED IN THE PUBLIC RIGHT-OF-WAY.
10. RECYCLE AS MUCH OLD PAVEMENT MATERIAL AS POSSIBLE. PROPERLY DISPOSE OF NON-RECYCLABLE MATERIALS.
11. PARK PAVING MACHINES OVER DRIP PANS OR ABSORBENT MATERIALS.
12. NEVER WASH SWEEPINGS FROM EXPOSED AGGREGATE CONCRETE INTO A STREET OR A STORM DRAIN INLET. COLLECT AND RETURN TO AGGREGATE BASE STOCKPILE OR DISPOSE OF IN THE TRASH.

LEGEND

- FIBER/COIR ROLLS
- SILT FENCE AND STRAW WATTLE
- SEDIMENT BARRIER
- CONSTRUCTION ENTRANCE
- INLET PROTECTION
- HYDROSEED



**AREA OF DISTURBANCE
PHASE 2 = 16,972 SF**



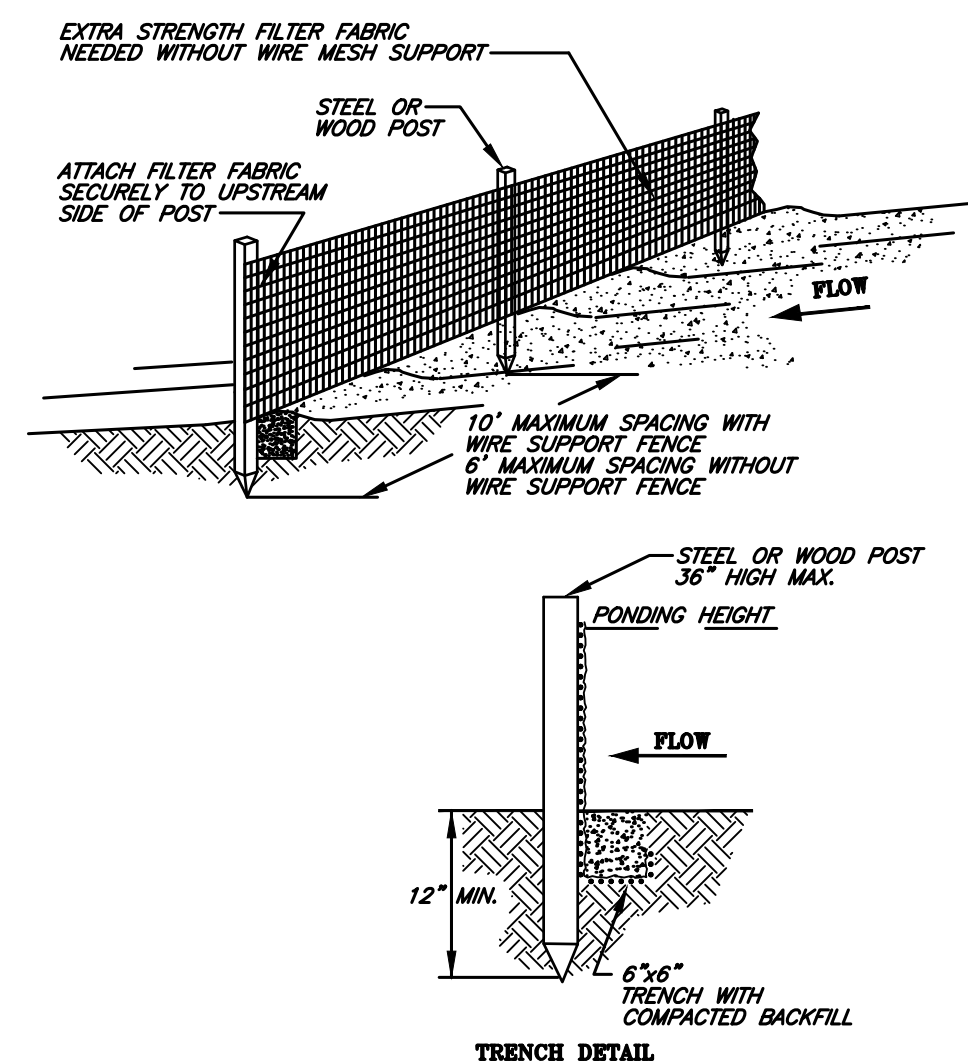
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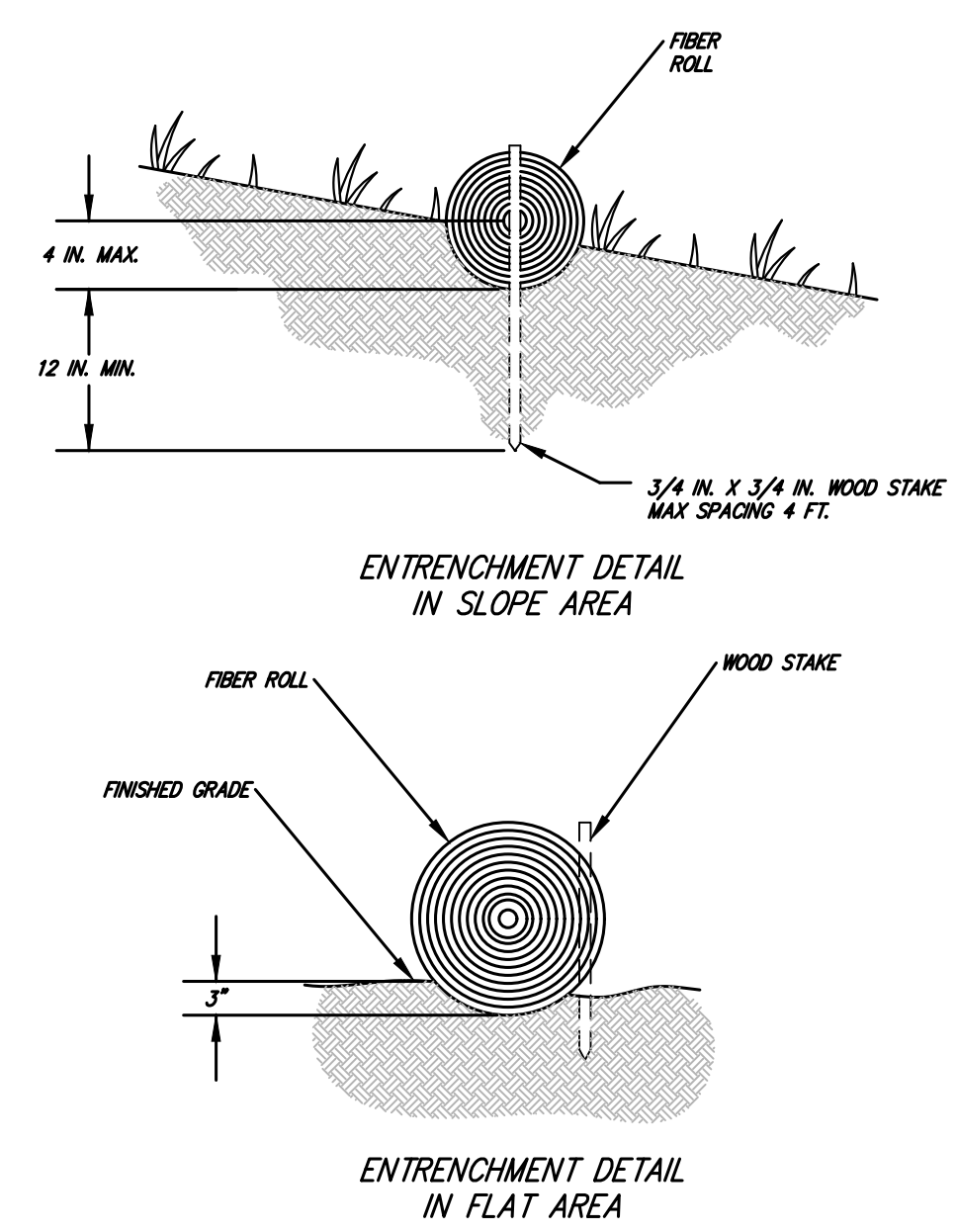
APN: 035-371-01 & -02

BOWMAN & WILLIAMS CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS 3949 RESEARCH PARK COURT, SUITE 100 SOQUEL, CA 95073-2094 (831) 426-3560		EROSION & SEDIMENT CONTROL PLAN RISPIN MANSION PARK CAPITOLA, CALIFORNIA	
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SCALE 1" = 20'	DRAWN CMM	JOB NO. 25803.01	SHEET
DATE AUGUST 12, 2022	CHECKED BRR	INDEX CAPITOLA	C5.0
DESIGN BRR	DWG NAME 25803-C5.0	FILE NO. 25803.01	OF 11

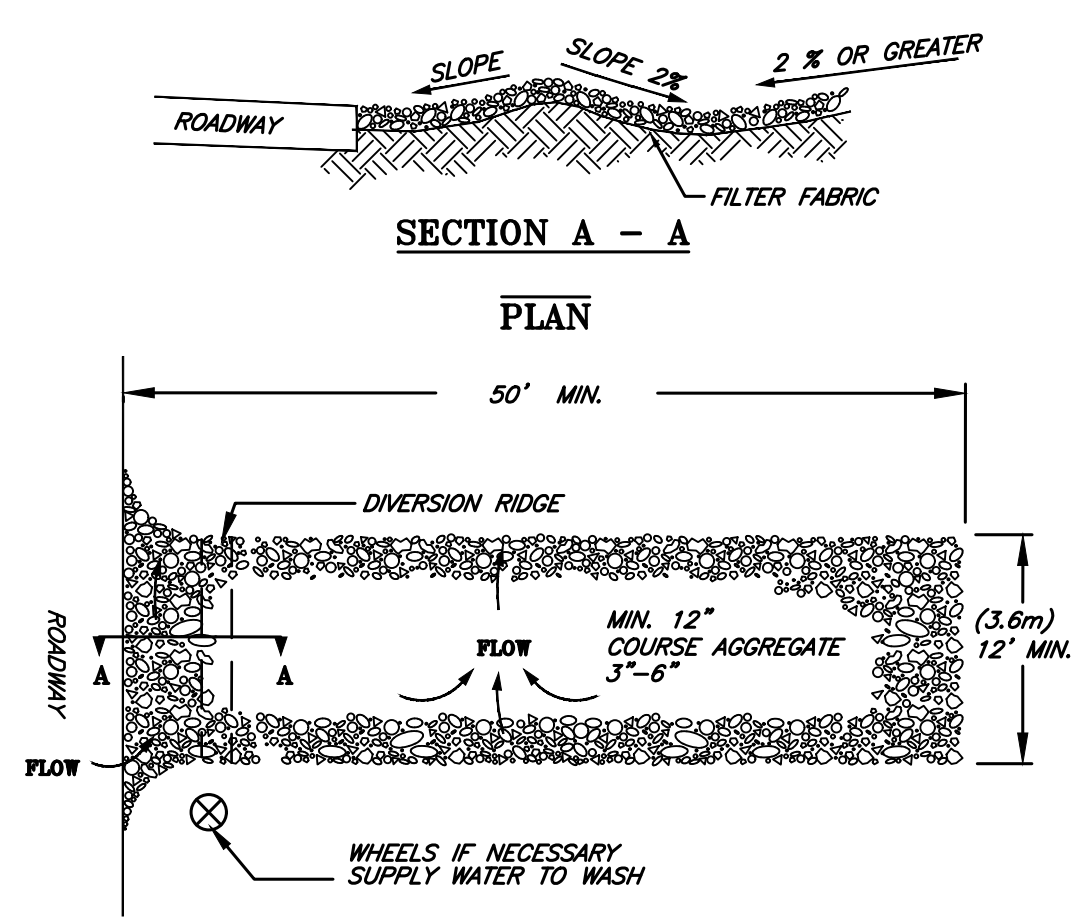


NOTES:
 1. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
 2. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY. 9" MAXIMUM RECOMMENDED STORAGE HEIGHT.
 3. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.



COIR/FIBER ROLLS (STRAW WATTLES)

SCALE: NTS

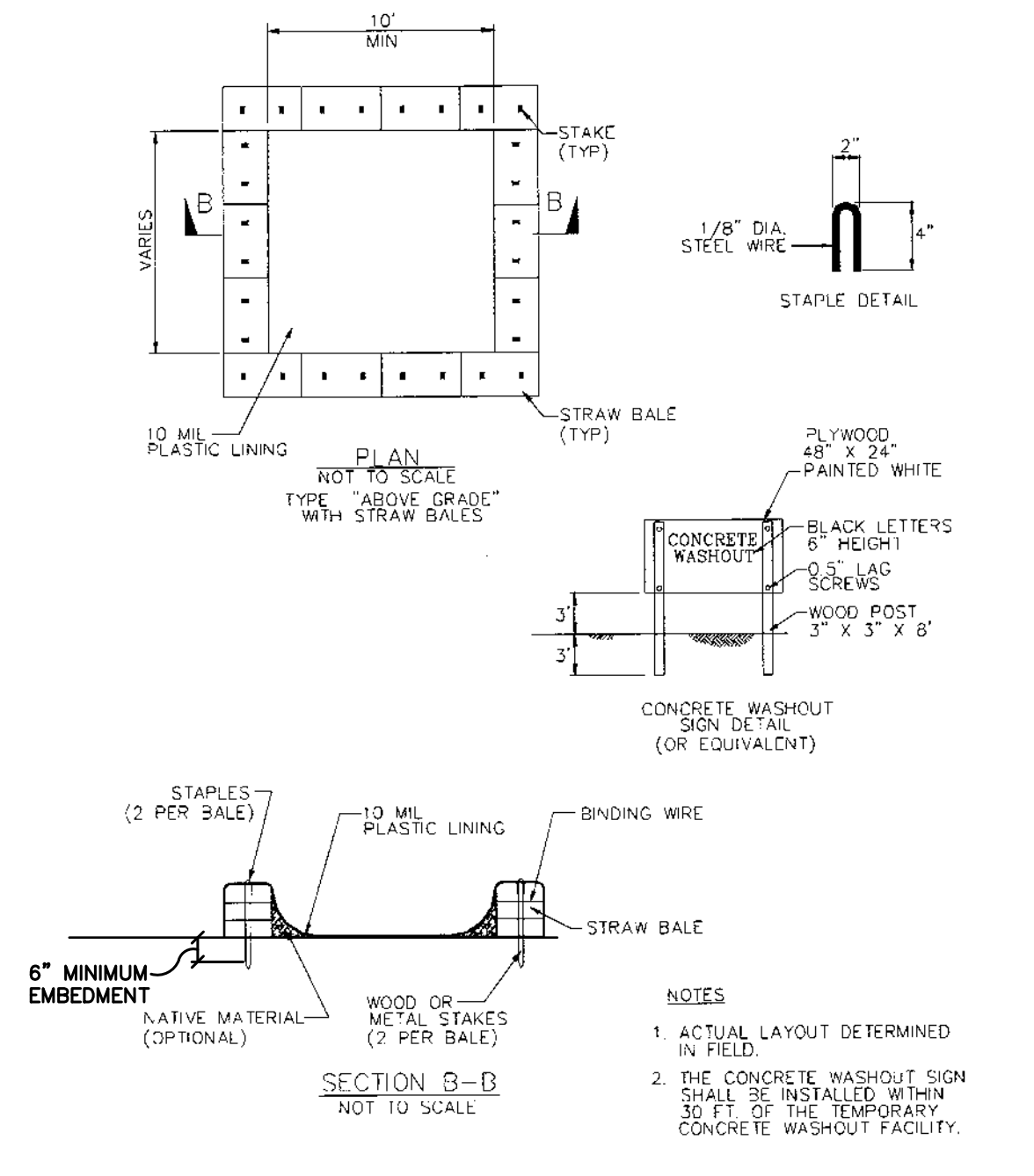


NOTES:
 1. Properly grade entrance to prevent runoff from construction site. Entrance elevation should be lower than street.
 2. Inspect routinely for damage and repair as needed.
 3. Require that all employees, subcontractors and suppliers utilize the stabilized construction entrance.
 4. Service sediment trapping devices regularly.

CONSTRUCTION ENTRANCE

SCALE: NTS

Concrete Waste Management WM-8



July 2012 California Stormwater BMP Handbook Construction www.cesca.org 7 of 7

CONCRETE WASHOUT FACILITY

SCALE: NTS

1 SILT FENCE

SCALE: NTS

2

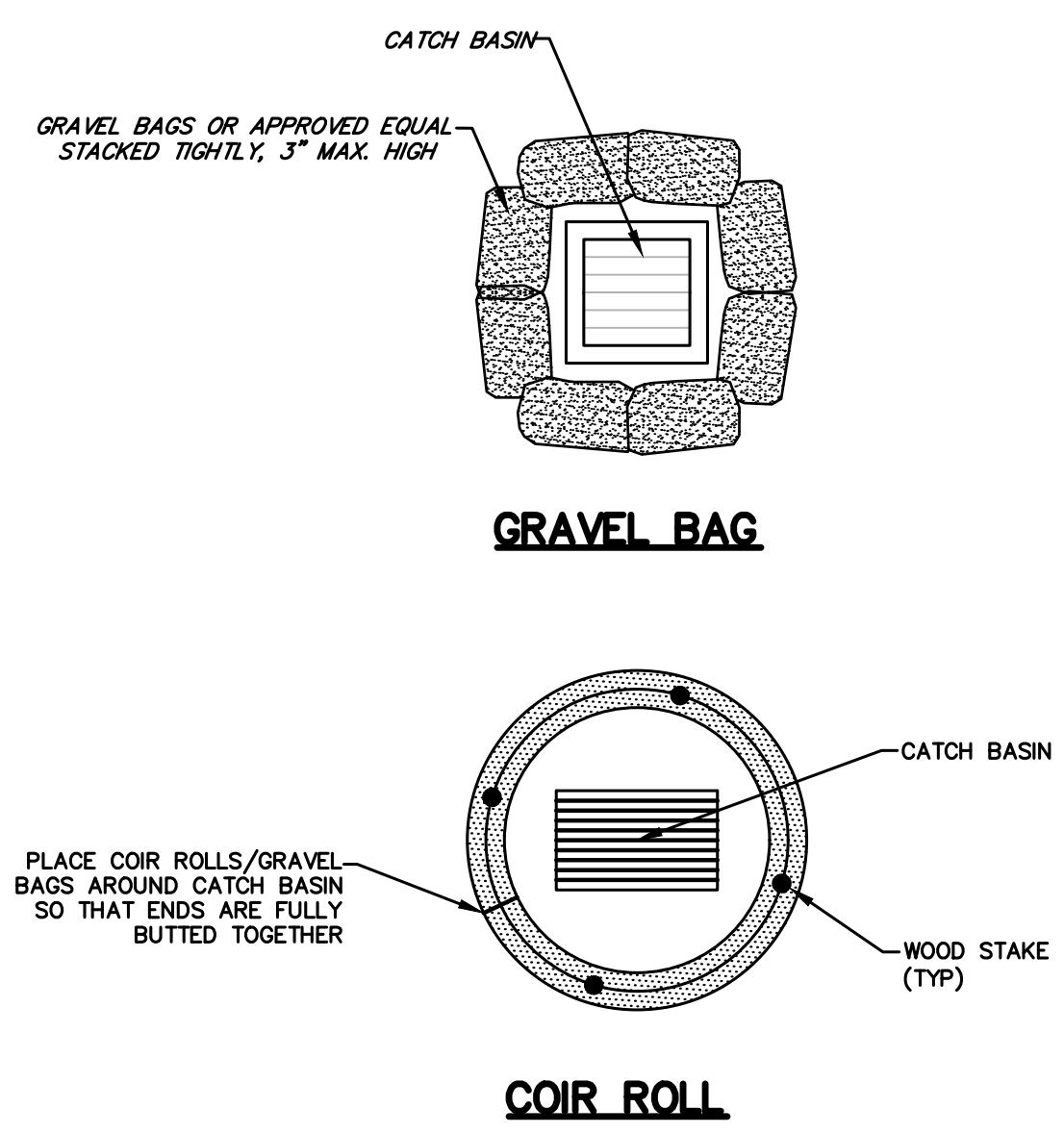
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3

SCALE: NTS

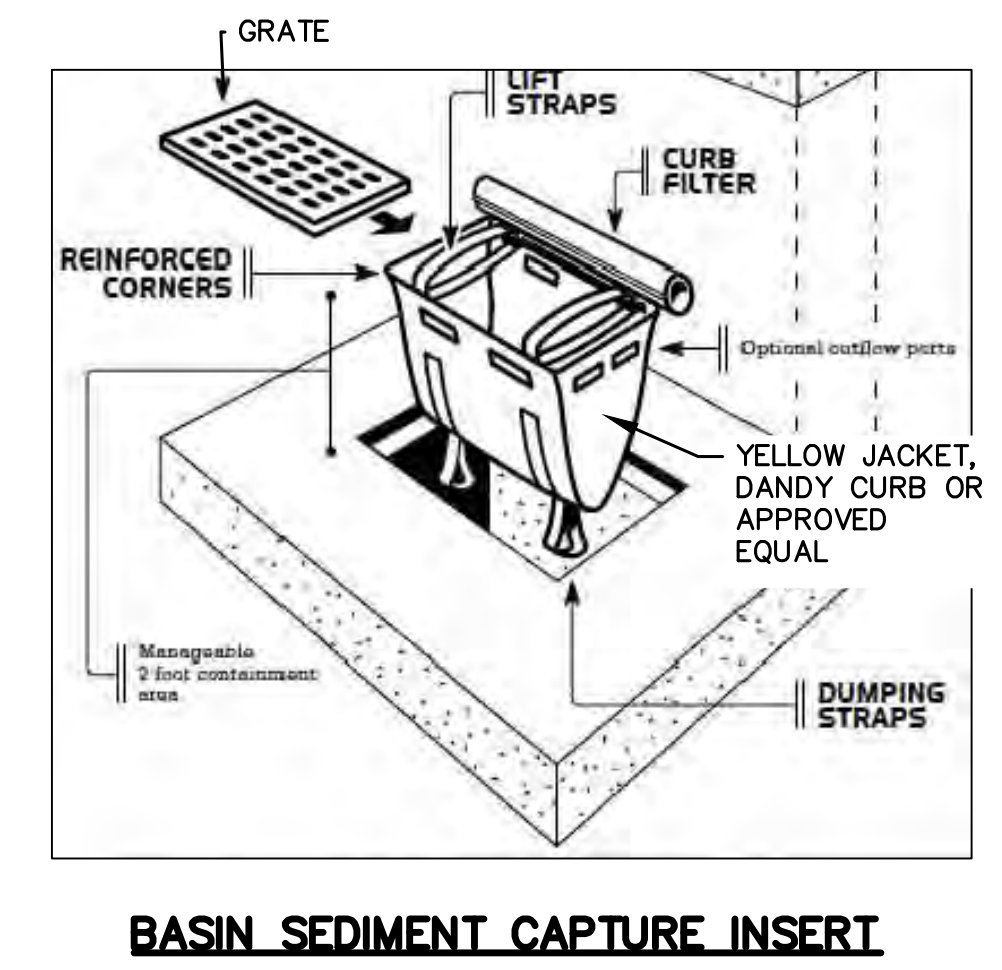
4

SCALE: NTS

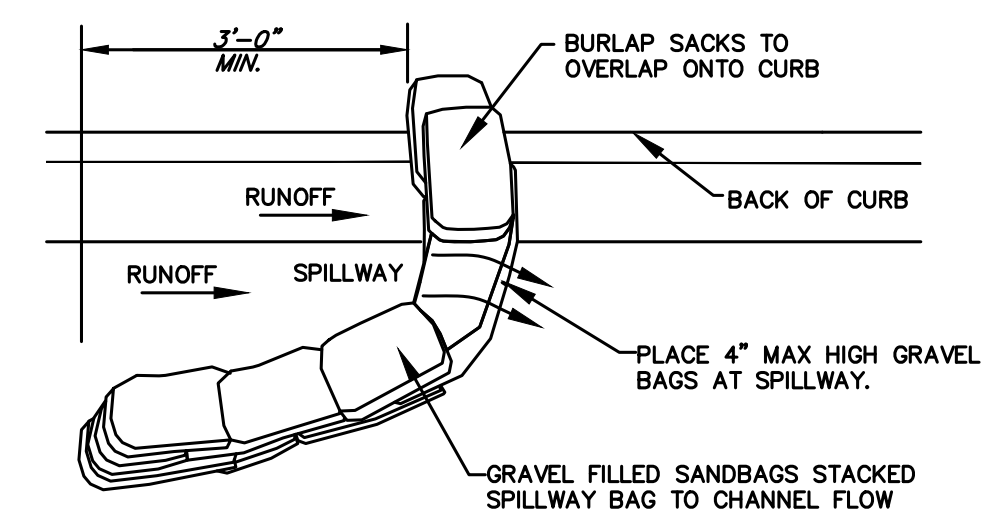


5 STORM DRAIN PROTECTION

SCALE: NTS



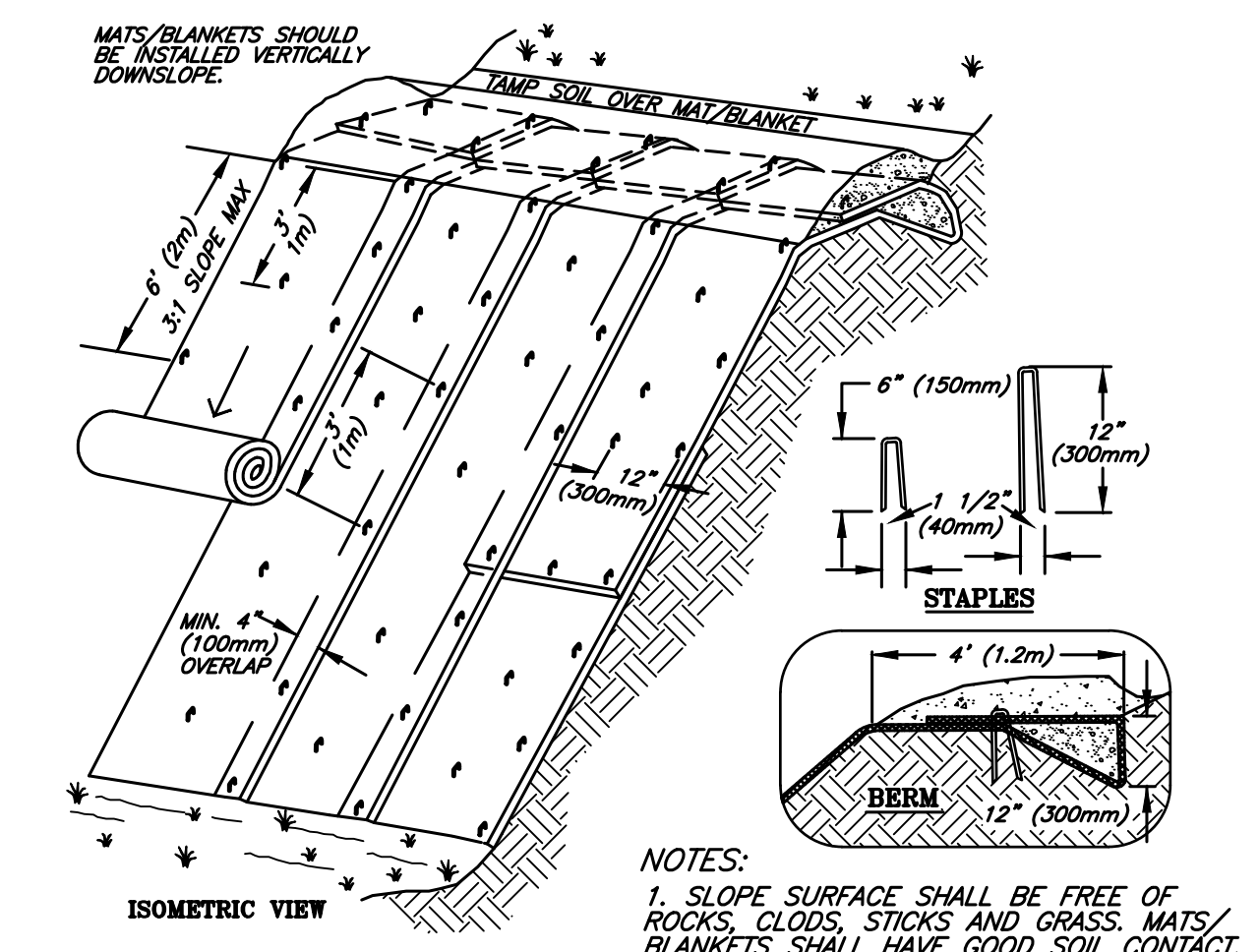
Basin Sediment Capture Insert



NOTES:
 1. PLACE CURB TYPE SEDIMENT BARRIERS ON GENTLY SLOPING STREET SEGMENTS, WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.
 2. GRAVEL/SANDBAGS OF EITHER BURLAP OR WOVEN 'GEOTEXTILE' FABRIC, ARE FILLED WITH GRAVEL, LAYERED AND PACKED TIGHTLY.
 3. LEAVE ONE SANDBAG GAP IN THE TOP ROW TO PROVIDE A SPILLWAY FOR OVERFLOW.
 4. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.

6 SEDIMENT BARRIER

SCALE: NTS



NOTES:
 1. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. MATS/BLANKETS SHALL HAVE GOOD SOIL CONTACT.
 2. APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS.
 3. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.

7 EROSION CONTROL BLANKET

SCALE: NTS

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BOWMAN & WILLIAMS CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS 3949 RESEARCH PARK COURT, SUITE 100 SOQUEL, CA 95073-2094 (831) 426-3560			
EROSION & SEDIMENT CONTROL DETAILS		RISPIN MANSION PARK CAPITOLA, CALIFORNIA	
SCALE AS SHOWN	DRAWN CMM	JOB NO. 25803.01	SHEET
DATE AUGUST 12, 2022	CHECKED BRR	INDEX CAPITOLA	C5.1
DESIGN BRR	DWG NAME 25803-C5.1	FILE NO. 25803.01	OF 11



J:\B&W\25803\25803.01 Rispin Peery Park\dwg\25803.01 - C5.0-C5.1 - Erosion Control.dwg, 8/14/2022 5:10:22 PM

GENERAL NOTES

Site Condition: The Contractor shall examine and check all existing conditions, dimensions, levels and material and notify the Architect of discrepancies.

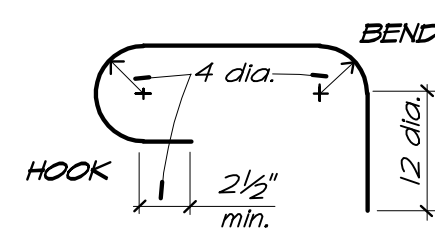
Footings: Footings shall extend a minimum of 18" below finished grade. Footings are proportioned for an allowable soil pressure of 2000 psf for dead plus live loads with a one third increase for wind or seismic. Pier footing are proportioned for an allowable passive pressure of 250 pcf. See Pacific Crest Engineering, Inc, geotechnical investigation dated January 4, 2015, project No. 1514-5264-B14.

Concrete: Concrete shall be proportioned to give a 28 day compressive strength of at least 2500 psi for slabs-on-grade and foundations and 3000 psi for piers, columns and deck fill. The slump shall be the minimum consistent with the condition of placing but in general shall not exceed 4 inches. Water-cement ratio shall not exceed 0.50. All concrete construction shall be in accordance with Chapter 19 of the California Building Code, 2019 Edition.

Reinforcing bars: Reinforcing bars shall be deformed bars conforming to ASTM Standard Specification A615 Grade 40 for #4 bars and smaller and Grade 60 for #5 bars and larger. Reinforcing shall be placed in as long lengths as possible. Bars shall lap 60 dia. at splices unless otherwise shown or noted on the plans, using the diameter of the larger bar in case of difference in size. Splices shall be staggered and bars may be wired together at splices. Bend steel around corners 12" minimum. All reinforcing steel shall be in accordance with Chapter 19 of the California Building Code, 2019 Edition. Bar coverage (face of bar to face of concrete) shall be as follows unless noted otherwise.

Concrete slab on grade 1 1/2" min.
Concrete surface against earth 3" min.
When poured against forms exposed to weather or earth 2" min.
All others See details

Bars shall have bends and hooks as follows except as otherwise shown or noted:



Structural and Miscellaneous Steel: Structural and miscellaneous steel shall conform to ASTM A-36. Structural steel tubes shall conform to ASTM A500, Grade B. Fabrication, erection, welding and painting shall be in accordance with the latest edition of the American Institute of Steel Construction Specifications. All steel shall be galvanized.

Lumber: Lumber shall be Douglas Fir No. 2 S4S or better for 4x and smaller and Douglas Fir No.1 for 6x and larger unless otherwise shown. All lumber shall be pressure treated lumber and shall comply with the requirement of CBC Section 2301.1.B. All cut ends on pressure preservative treated lumber shall be treated to meet ANPA U1. Pieces with serious defects shall be discarded. All joists and beams shall be yard seasoned and the maximum moisture content at time of installation shall be 18% or less.

Epoxy Adhesive: Reinforcing dowels and threaded rods set in epoxy adhesive shall have 100 percent of the dowels/ rods proof tested in tension to twice the allowable tension load. Epoxy adhesive to be Simpson SET-XP adhesive per ICC ESR 2508, reissued July 2021 or approved equal.

Minimum Proof Load Tests Values and Embedments

Bar Size	Concrete		MASONRY	
	Direct Pull-Out Tension	Embedments	Direct Pull-Out Tension	Embedments
#3 bar	4200#	6" min.*	2000#	6" min.*
#4 bar	7500#	6" min.*	2300#	6" min.*
1/2" dia. thrd rod	4100#	6" min.*	2300#	6" min.*
5/8" dia. thrd rod	9400#	6" min.*	2400#	6" min.*

* Unless noted otherwise

Existing Structures: These drawings detail certain additions and revisions to existing site structures. The Engineer was not engaged to and therefore has not made a structural analysis of the existing site structures and assumes no responsibility for the structural integrity of the site structures. Whenever new work is shown to join and be attached to the existing structures, such attachment has been designed on the basis of information obtained from field observation where possible. If during construction it becomes evident that existing construction is not as indicated on these plans, the Engineer should be notified prior to any further work.

Special Inspections: The following special inspections, as required by Section 1705 of the California Building Code, 2019 Edition, shall be provided during construction on the following types of work. The Contractor shall make arrangements for such tests, inspections and approvals with an independent testing laboratory or entity acceptable to the Owner. The Owner shall bear costs of the test and/or inspections.

- A. Structural Welding per Section 1705.2.2 and Table 1705.2.1;
- B. Concrete (piers, columns and deck fill only) per Section 1705.3 and Table 1705.3
- C. Reinforcing steel (piers and columns only) per Section 1705.3 and Table 1705.3
- D. Post Installed Anchors as noted above.
- E. Piers per 1705.8 and Table 1705.8

General Design Criteria:

Seismic:

Occupancy Category = II; I = 1.0
Seismic Design Category = "D"; Site Class "D"
Ss = 1.821g; S1 = 0.70g
Fa = 1.2; Fv = 1.5
Sms = FaSs = 2.185g
Sm1 = FvS1 = null
Sds = 2/3 Sms = 1.457g
Sd1 = 2/3 Sm1 = null

Longitude & Latitude

Long: -121.95802
Lat: 36.97866

Wind:

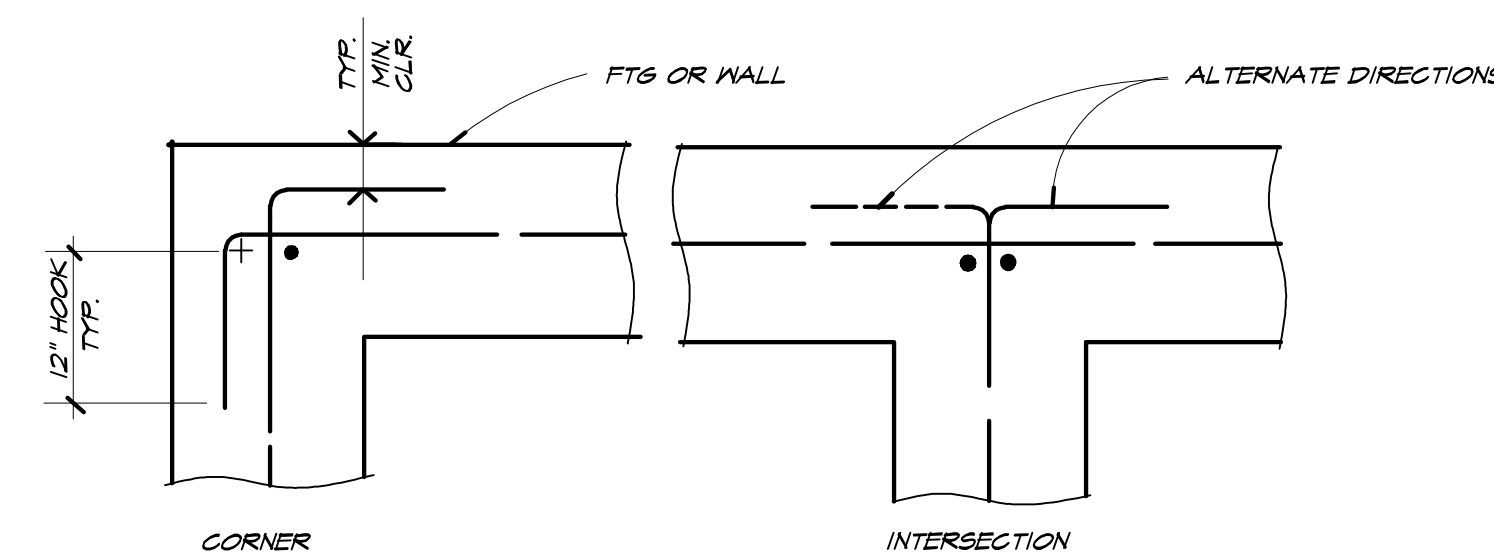
Wind Exposure "C"
42 mph wind speed

Structural Observation: During the construction the owner shall employ the structural engineer responsible for the structural design to make visits to the site to observe general compliance with the approved structural plans, specifications and change orders. The engineer shall submit a statement in writing to the building official stating the site visits have been made and that any deficiencies noted have been corrected.

Note: All construction not specifically detailed shall be built to conform with similar construction shown and the requirements of the California Building Code, 2019 Edition.

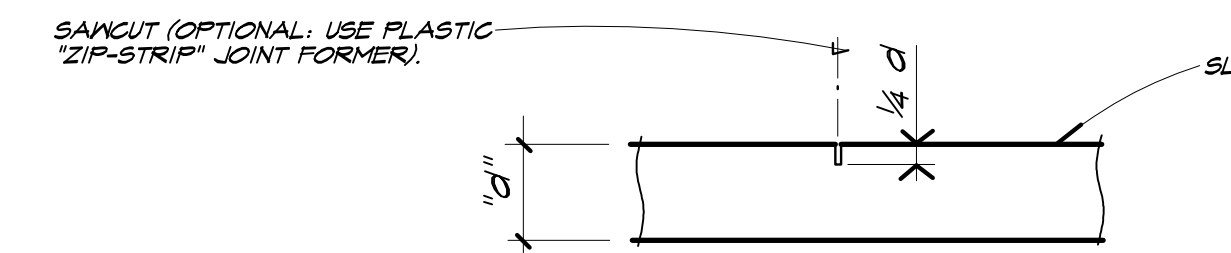
ABBREVIATIONS

A.B. = Anchor Bolt	Frmg. = Framing	Perf. = Performed
Arch. Dwg. = Architectural Drawings	Ft. = Foot, Feet	Ply. = Plywood
Blk. = Block	Ftg. = Footing	Pl. = Plate
Blkg. = Blocking	Gd. = Gauge	Reinf. = Reinforcing
Bm. = Beam	Galv. = Galvanized	Ret. = Retaining
Bot. = Bottom	GL = Glulam beam	Req. = Requirements
Cant. = Cantilever	GSM = Galvanized Sheet Metal	Rf. = Roof
CL = Center Line	Hdr. = Header	Rm. = Room
Clr. = Clear	Ht. = Height	Redwd = Redwood
Col. = Column	Horiz. = Horizontal	S.B. = Splice Blocking
Compl. Pen. = Complete Penetration	Jst. = Joist	SHG. = Sheathing
Conc. = Concrete	Max. = Maximum	Sim. = Similar
Cont. = Continuous	M.B. = Machine Bolt	Sq. = Square
Dbl. = Double	M.B.M. = Metal Bldg Manufacturer Std.	Std. = Standard
D.F. = Douglas Fir	Mech. = Mechanical	T.E.N. = Typical Edge Nailing
Dia. = Diameter	Min. = Minimum	T&G = Tongue and Groove
(E) = Existing	(N) = New	TS = Structural Steel Tube
Ea. = Each	N.T.S. = Not to Scale	Typ. = Typical
Flr. = Floor	O.C. = On Center	U.N. = Unless Noted
Fnd. = Foundation	O.H. = Opposite Hand	Vert. = Vertical
F.O.C. = Face of Concrete	P.M.P. = Pressure Treated Metal Pipe	W.W.F. = Welded Wire Fabric
F.O.S. = Face of Stud	P.T.D.F. = Pressure Treated Douglas Fir	W. = Steel Beam
		W.A. = Wedge Anchor



TYP. WALL & FTG. REINF. @ CORNERS and INTERSECTIONS

1 S.I.

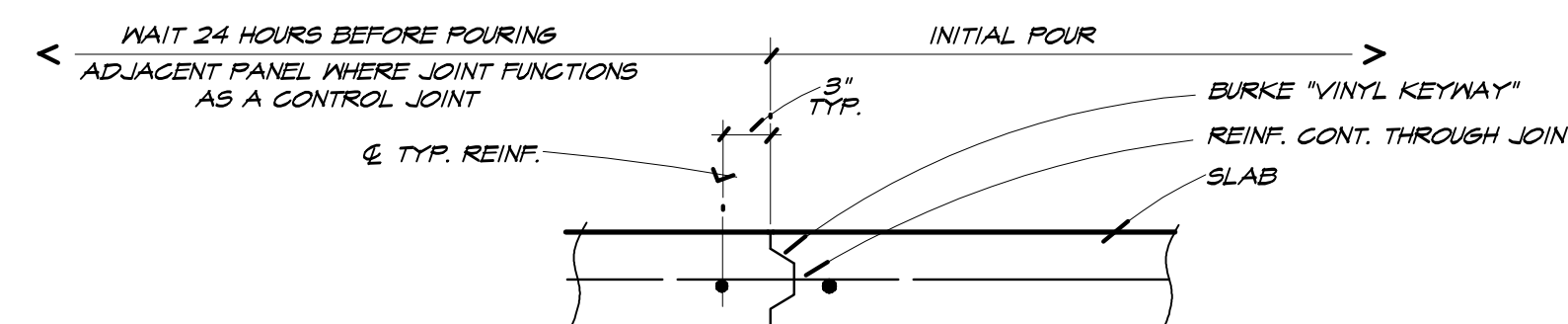


NOTES:

1. AREA BTWN. SAWCUTS TO BE EQUAL TO OR LESS THAN 225 SQ.FT. COORDINATE LOCATIONS W/ ARCHITECT. SUBMIT SLAB LAYOUT PATTERN FOR REVIEW (SPACING BTWN SAWCUTS AT EXTERIOR SLABS SHALL BE LESS THAN OR EQUAL TO 10').
2. SAWCUT WITHIN 15 HOURS AFTER POUR.
3. JOINTS TO BE LOCATED AT 15'-0" o.c. MAX. THE PANEL LENGTH TO WIDTH RATIO SHALL NOT EXCEED 1/4 TO 1 FOR UNJOINTED SLAB AREA.

TYPICAL SAWCUT

2 S.I.

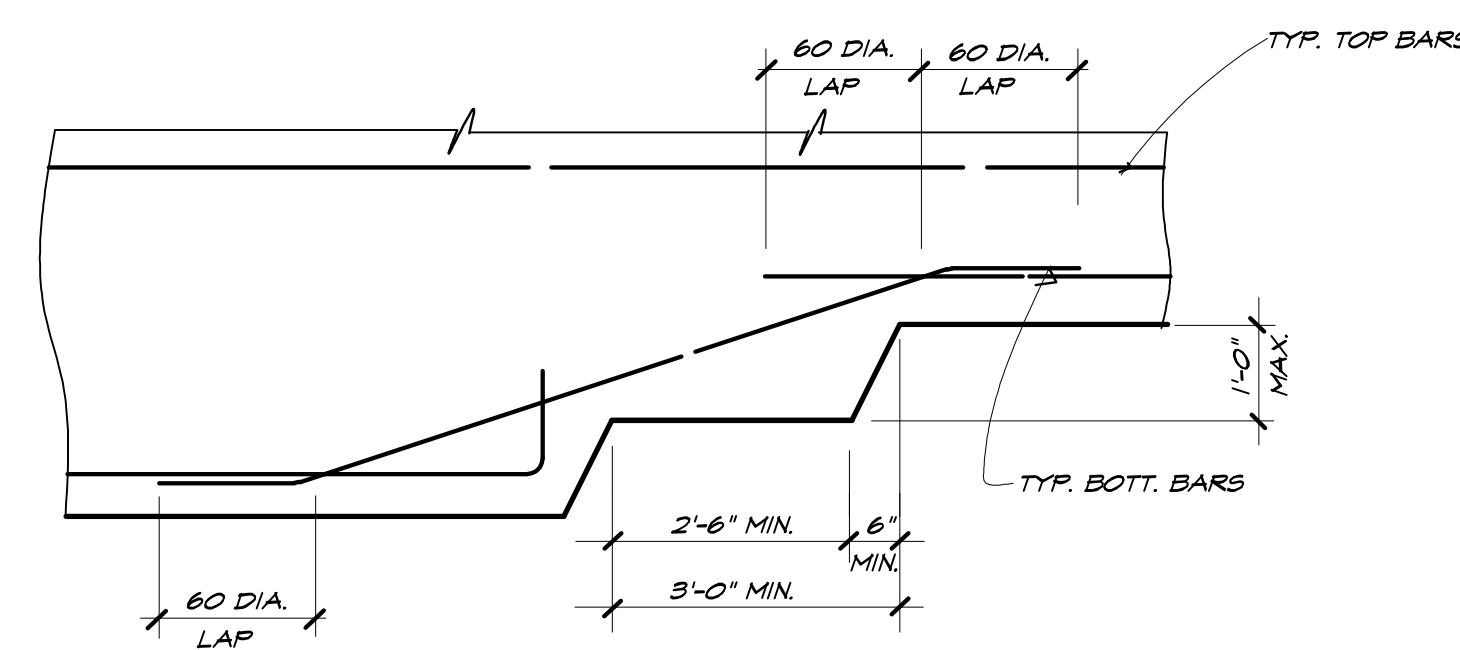


NOTES:

1. CONSTRUCTION JOINT LOCATION SHALL COINCIDE W/ THE CONTROL JOINT PATTERN.
2. CONSTRUCTION JOINTS SHALL BE USED TO FORM THE EDGE OF EA. DAYS WORK AND WHERE POURING OPERATIONS ARE SUSPENDED FOR 30 MINS OR MORE.

TYP. CONSTRUCTION JOINT

3 S.I.



TYPICAL STEP FOOTING

4 S.I.

REVISIONS

DATE

DONALD C. URFER AND ASSOC., INC.
CIVIL AND STRUCTURAL ENGINEERS
2716 PORTER STREET, SOQUEL, CA 95073
831.476.3681

GENERAL NOTES / TYPICAL DETAILS

RISPIN MANSION PARK
WHARF ROAD AND CLARES STREET
CAPITOLA, CALIFORNIA



DATE 8/12/22

SCALE

DRAWN

JOB

SHEET

S1.1

REVISIONS	
DATE	

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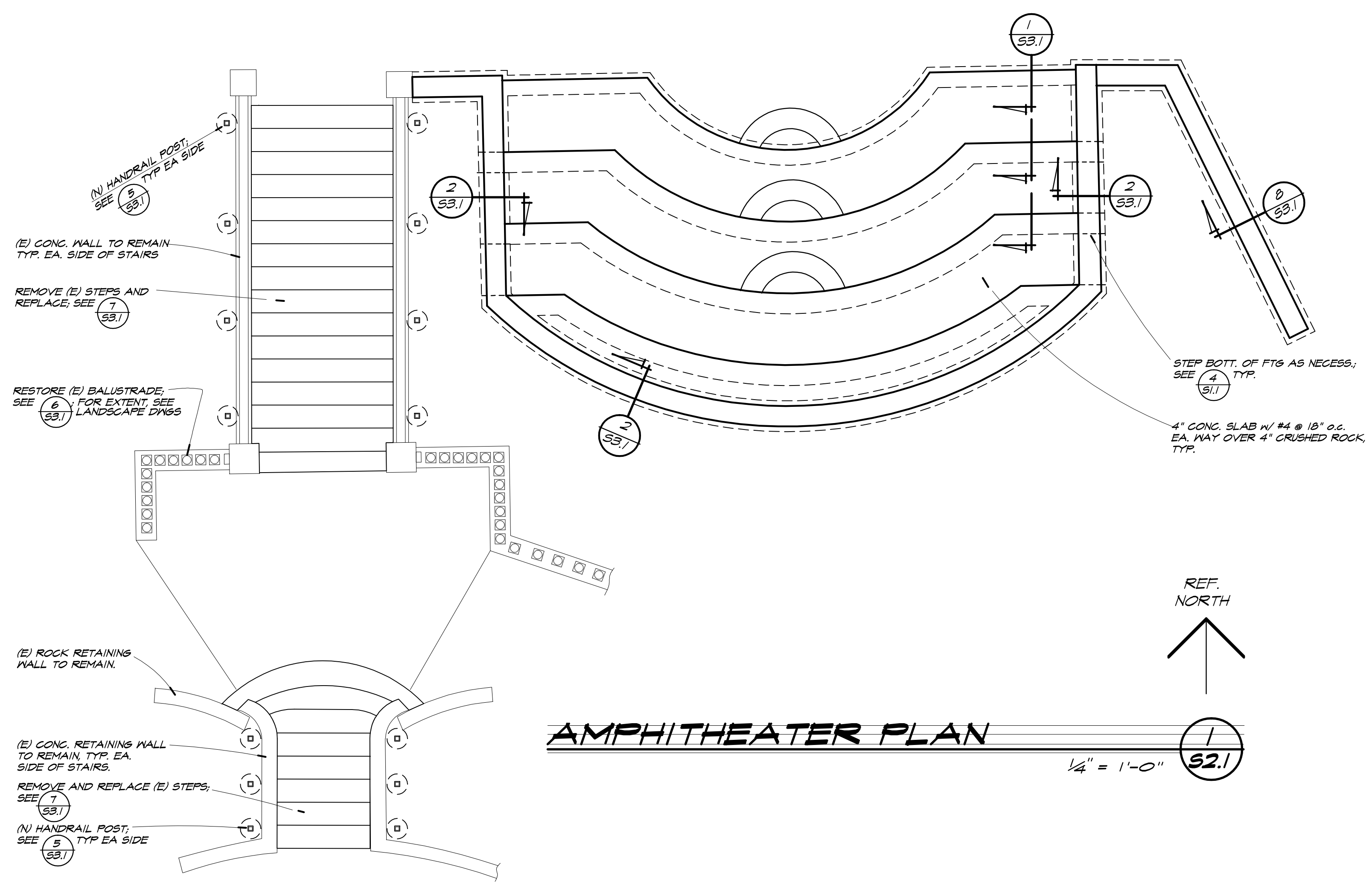
FOUNDATION AND FRAMING PLANS

RISPIN MANSION PARK
 WHARF ROAD AND CLAIRE STREET
 CAPITOLA, CALIFORNIA

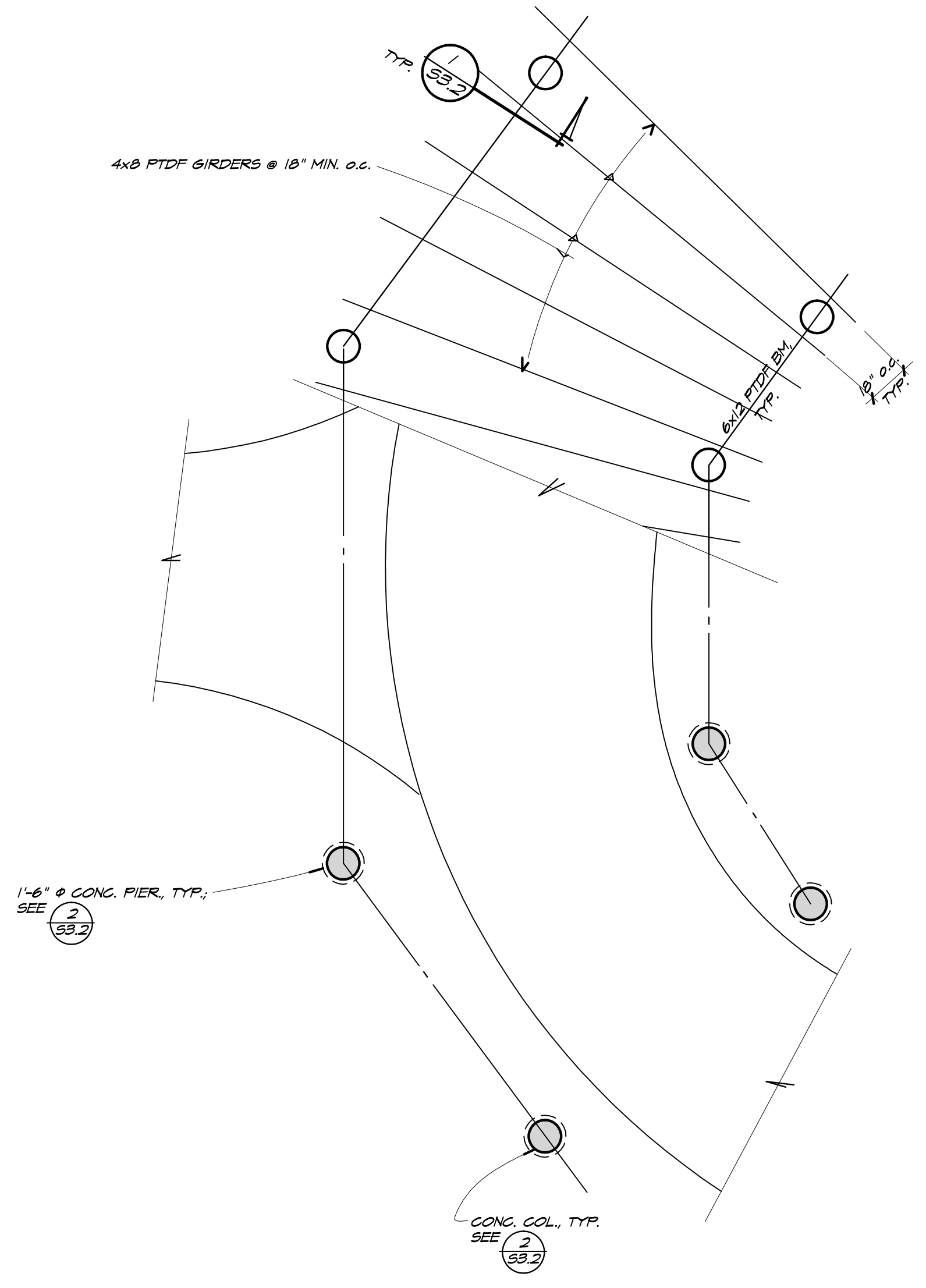
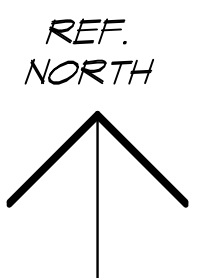


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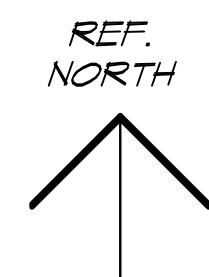
S2.1



AMPHITHEATER PLAN
 1/4" = 1'-0" S2.1

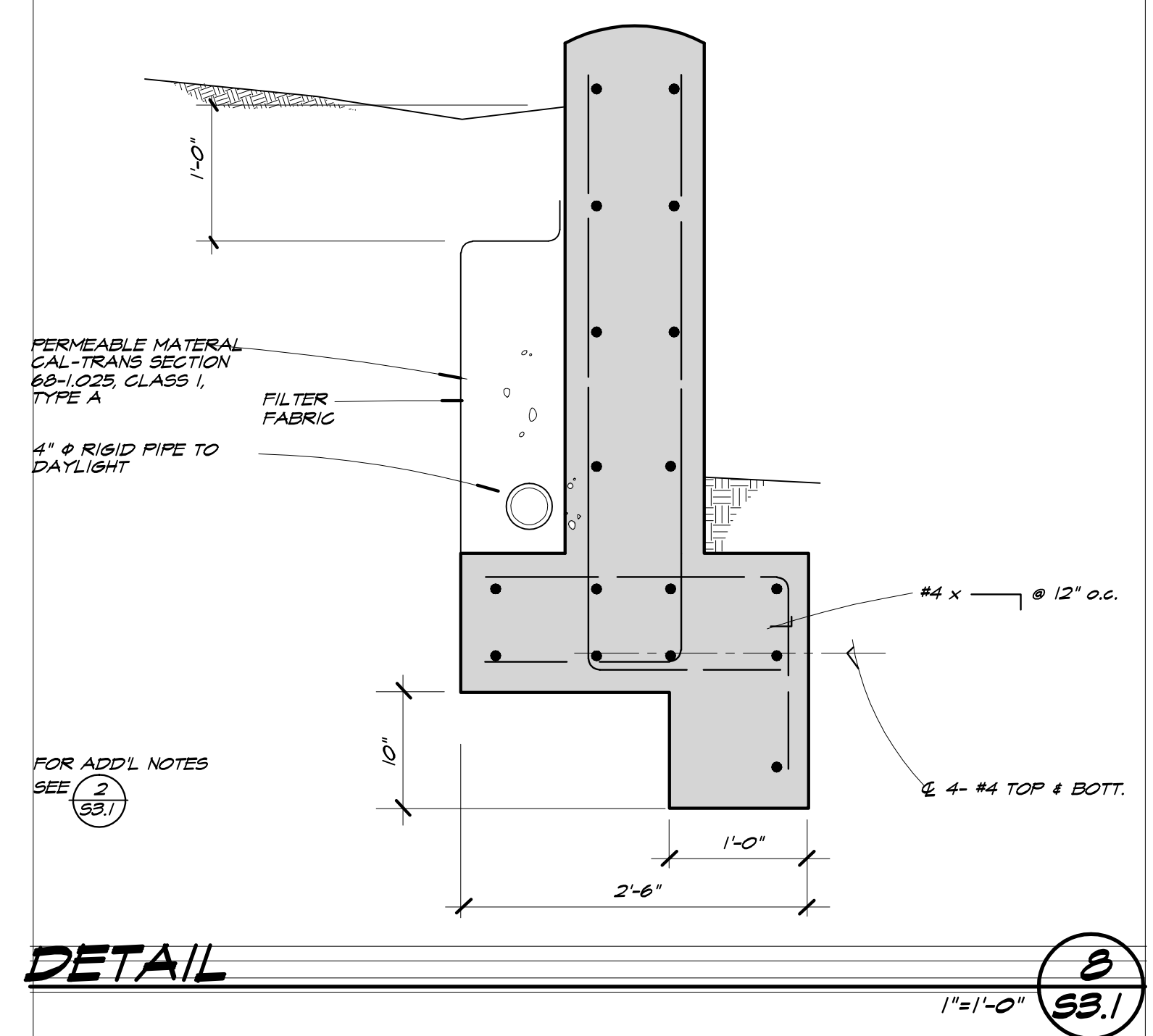


ARBOR FND/FRMG PLAN
 1/4" = 1'-0" S2.1

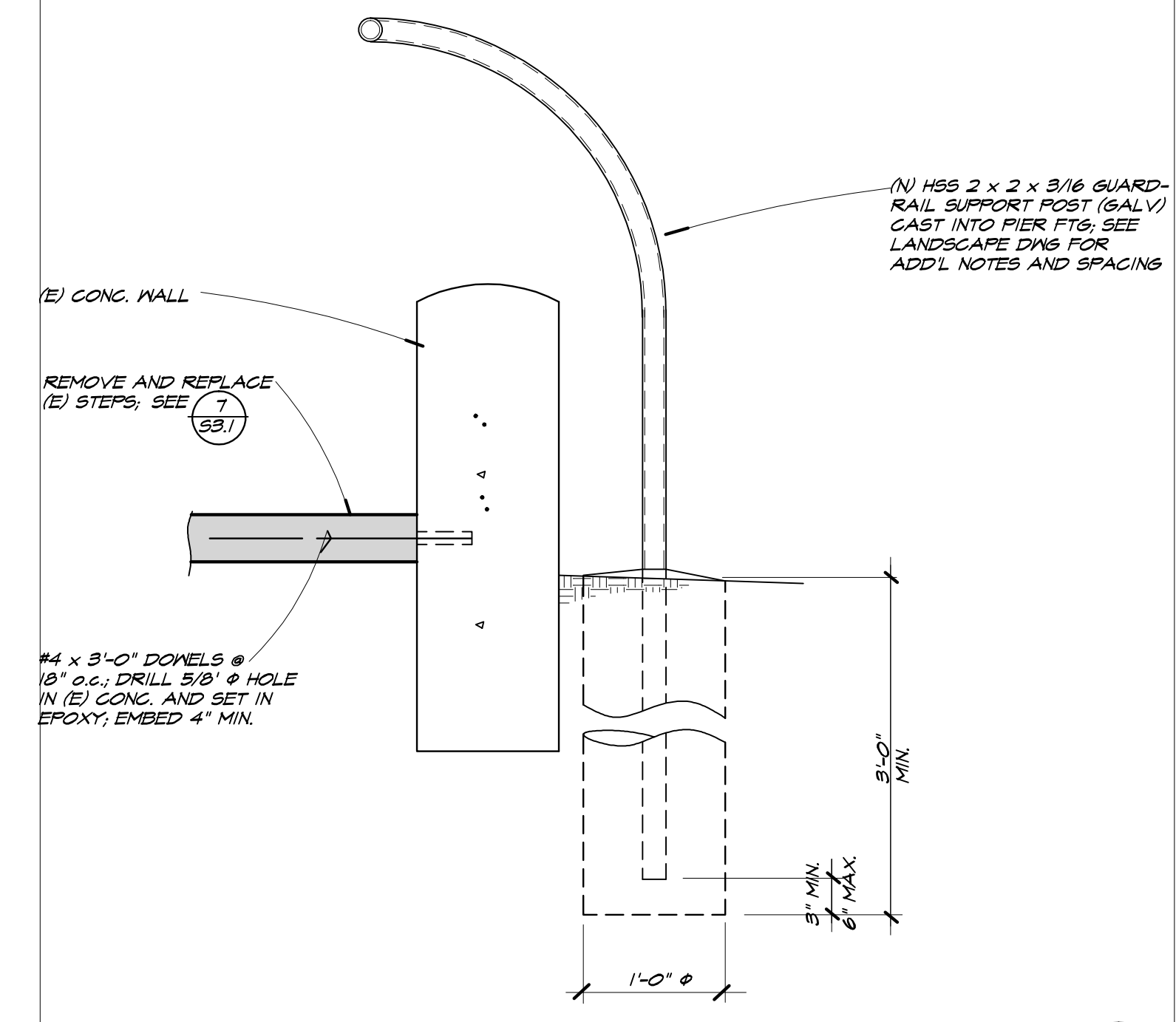


NOTE: SEE LANDSCAPE DRAWINGS FOR DIMENSIONS

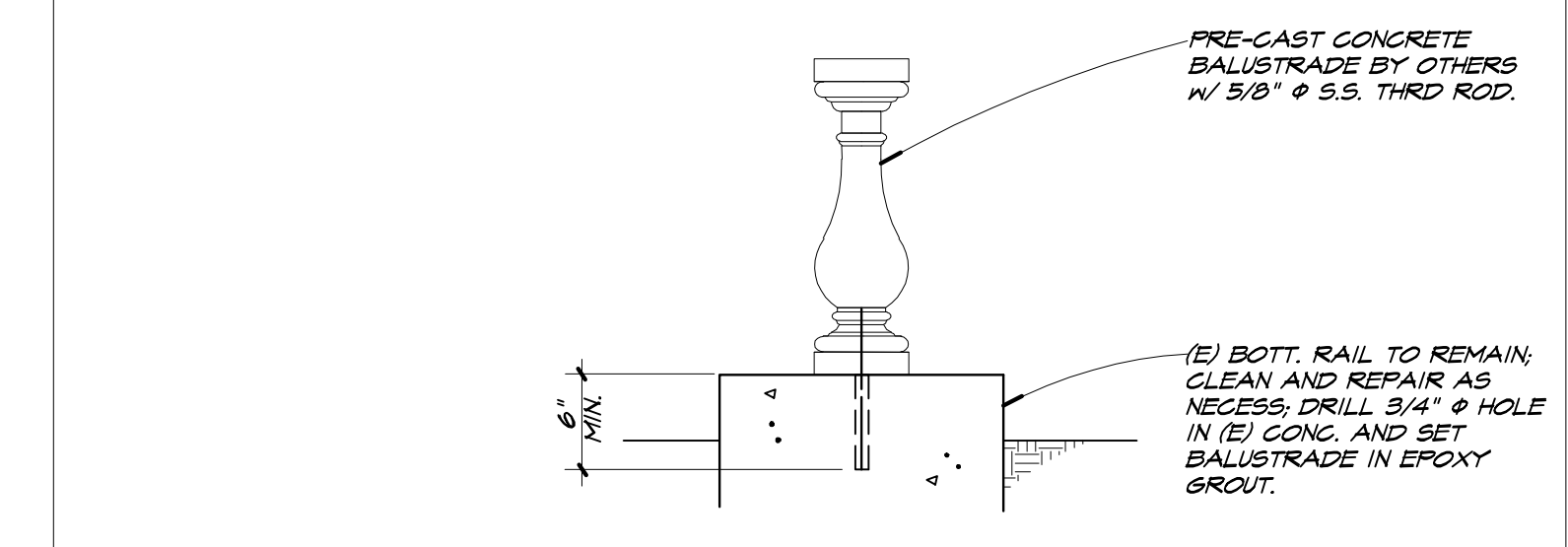
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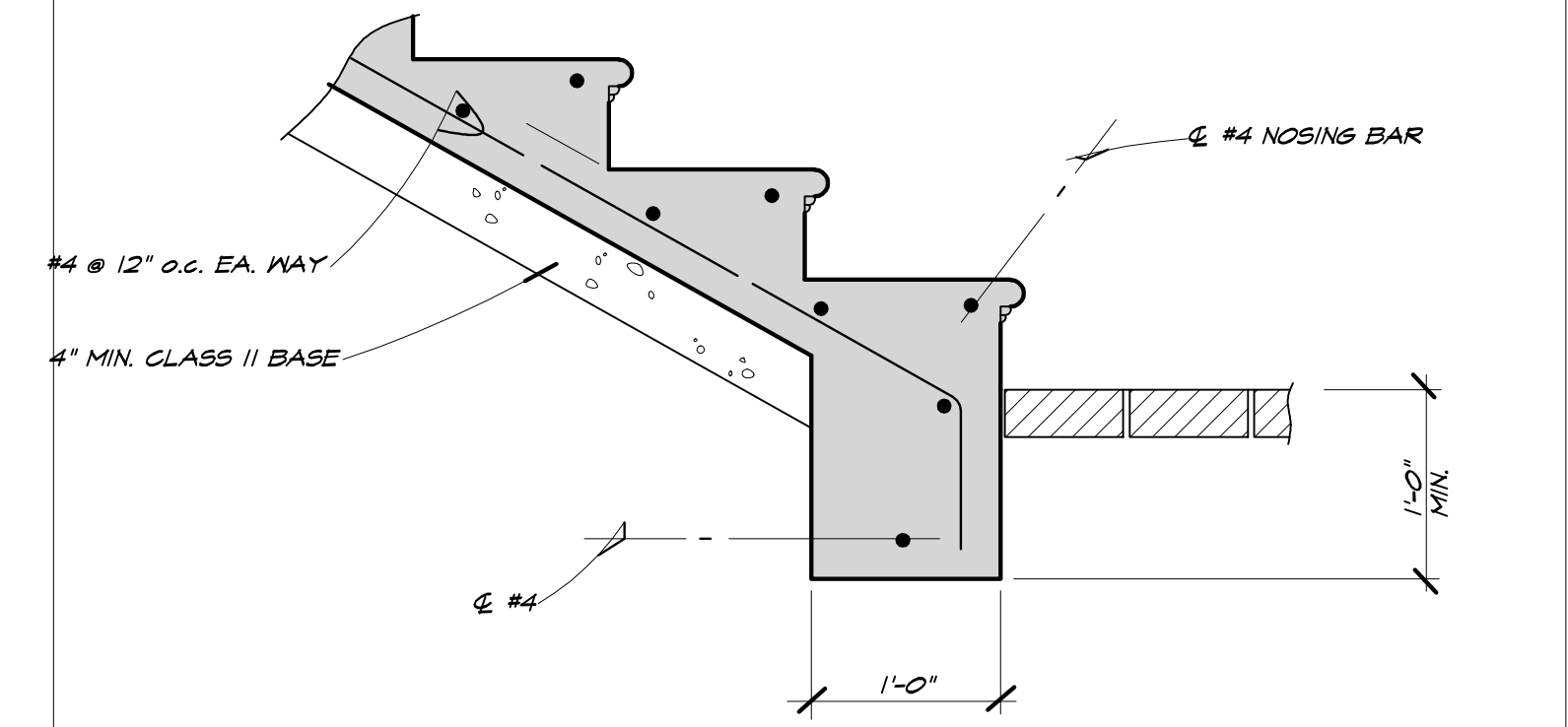
DETAIL 8
1"=1'-0" (S3.1)



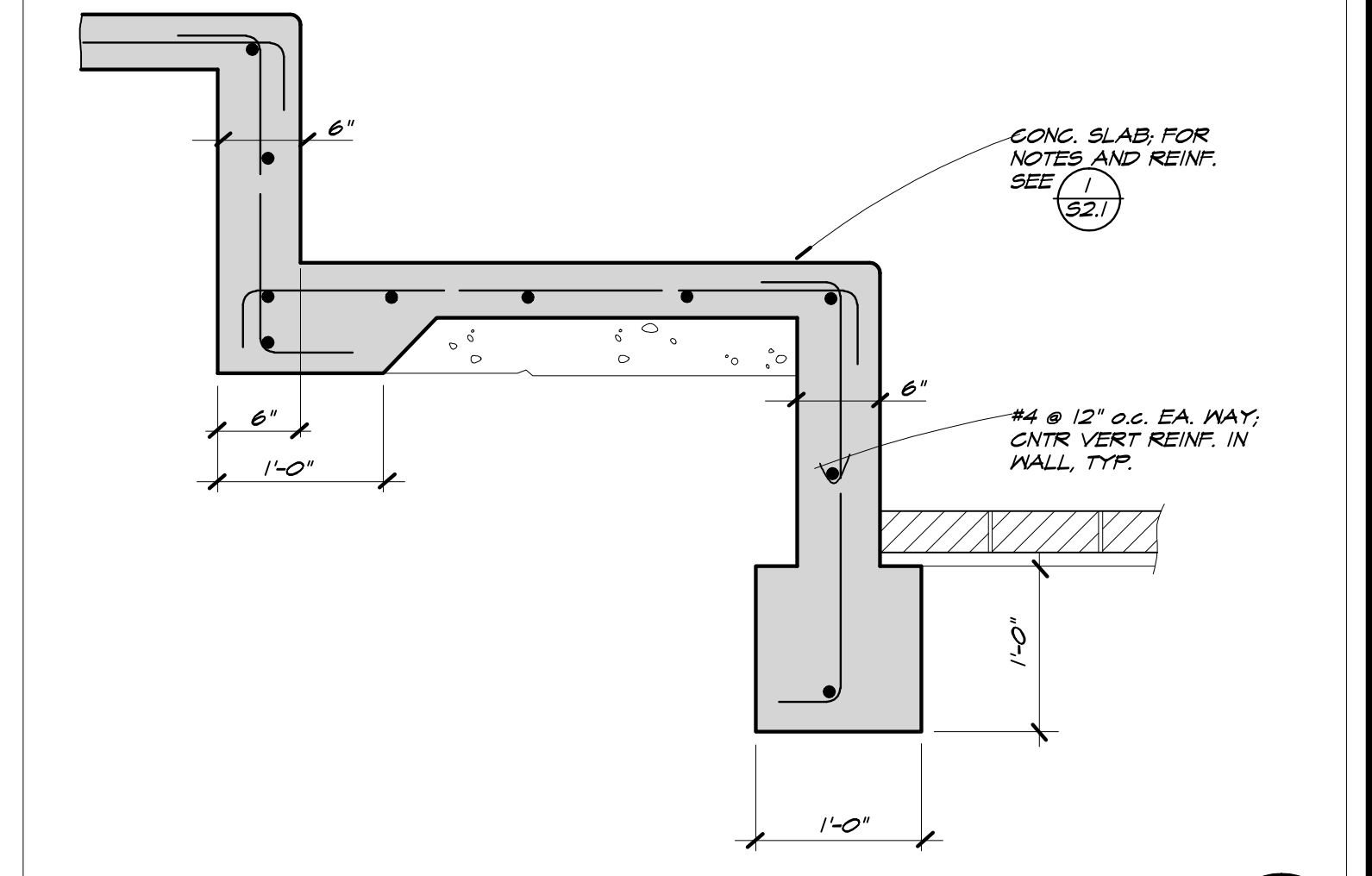
DETAIL 5
1"=1'-0" (S3.1)



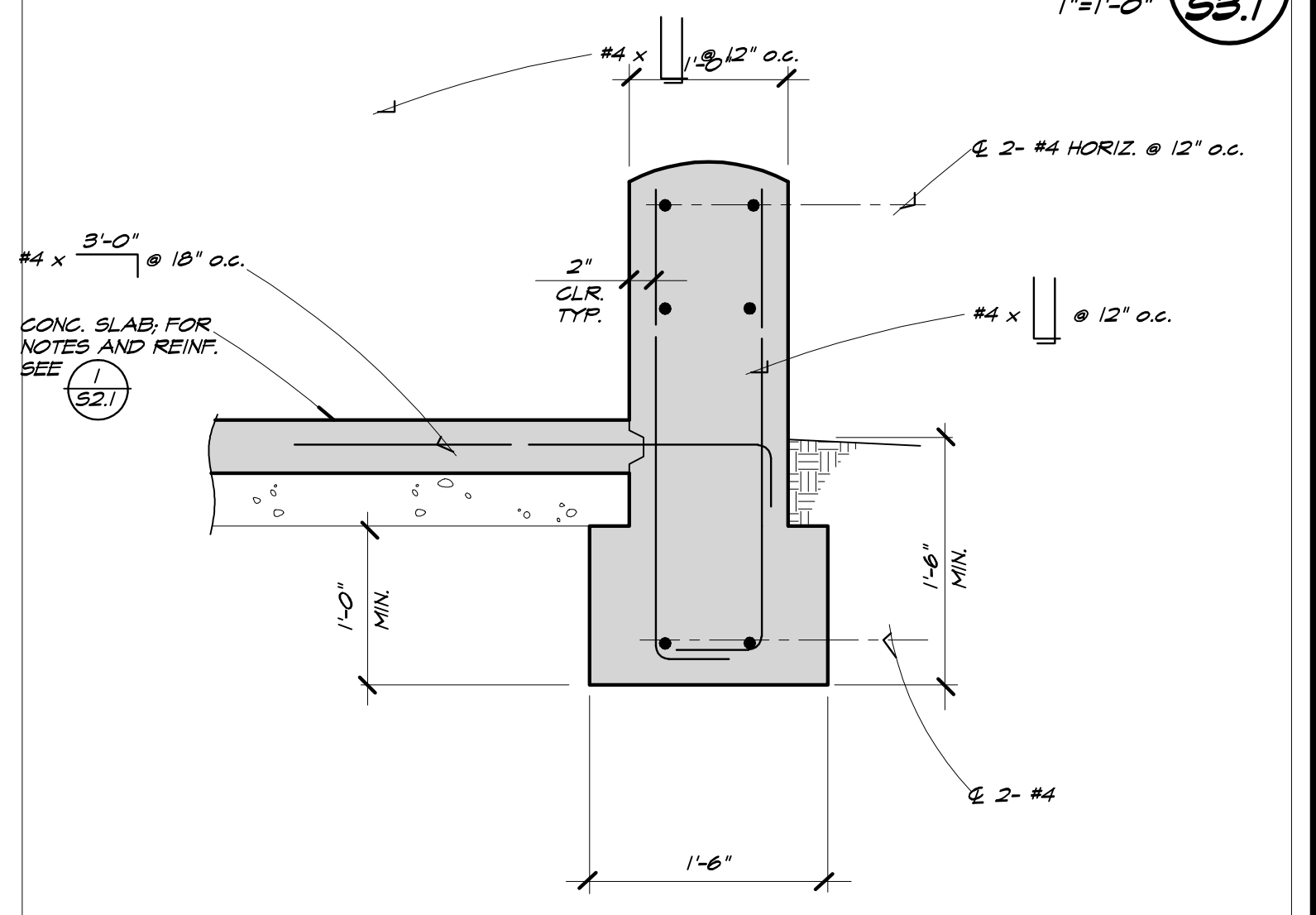
DETAIL 6
1"=1'-0" (S3.1)



DETAIL 7
1"=1'-0" (S3.1)



DETAIL 1
1"=1'-0" (S3.1)



DETAIL 2
1"=1'-0" (S3.1)

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DATE	

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DETAILS

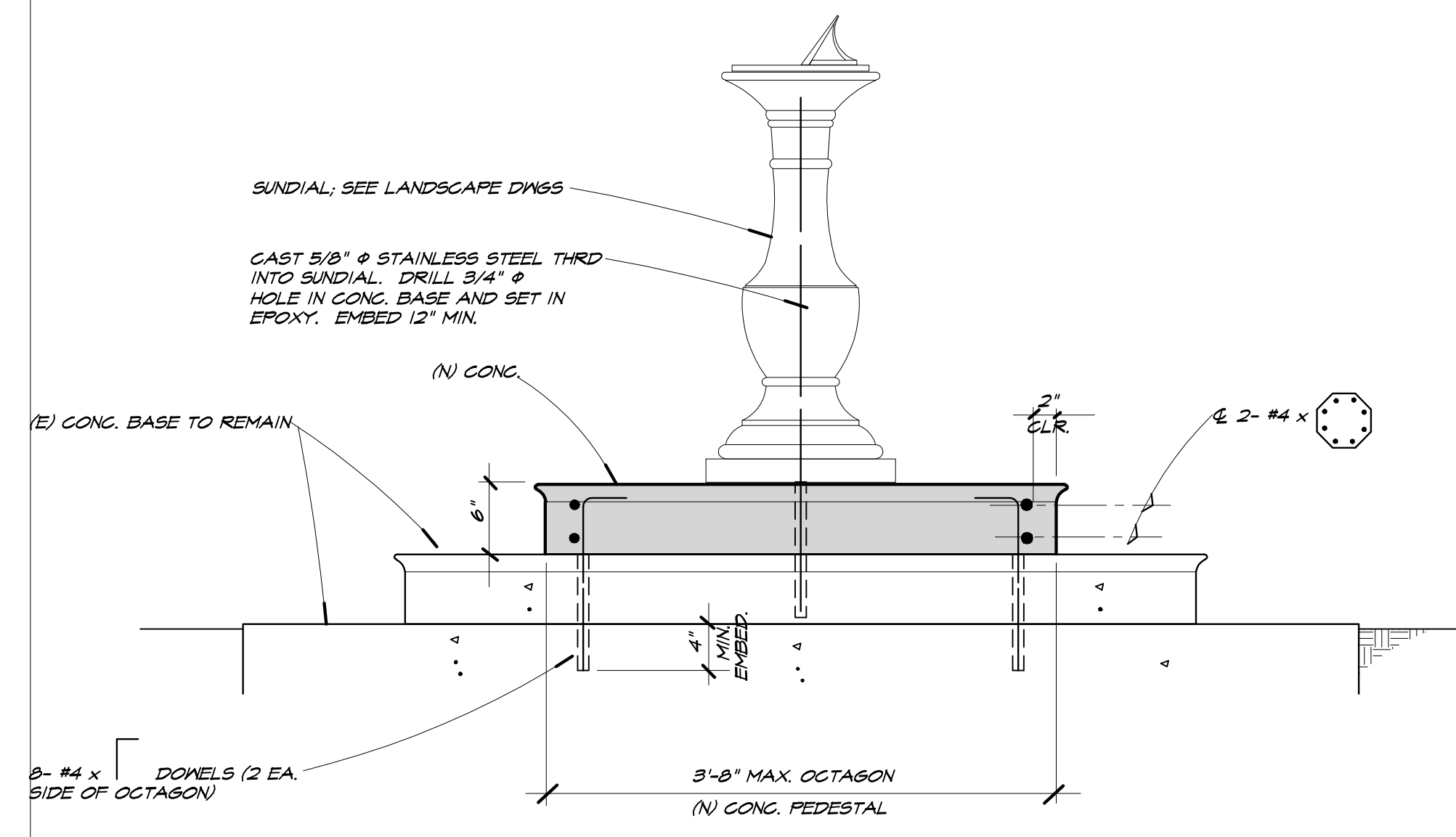
RISPIN MANSION PARK
WHARF ROAD AND CLARES STREET
CAPITOLA, CALIFORNIA



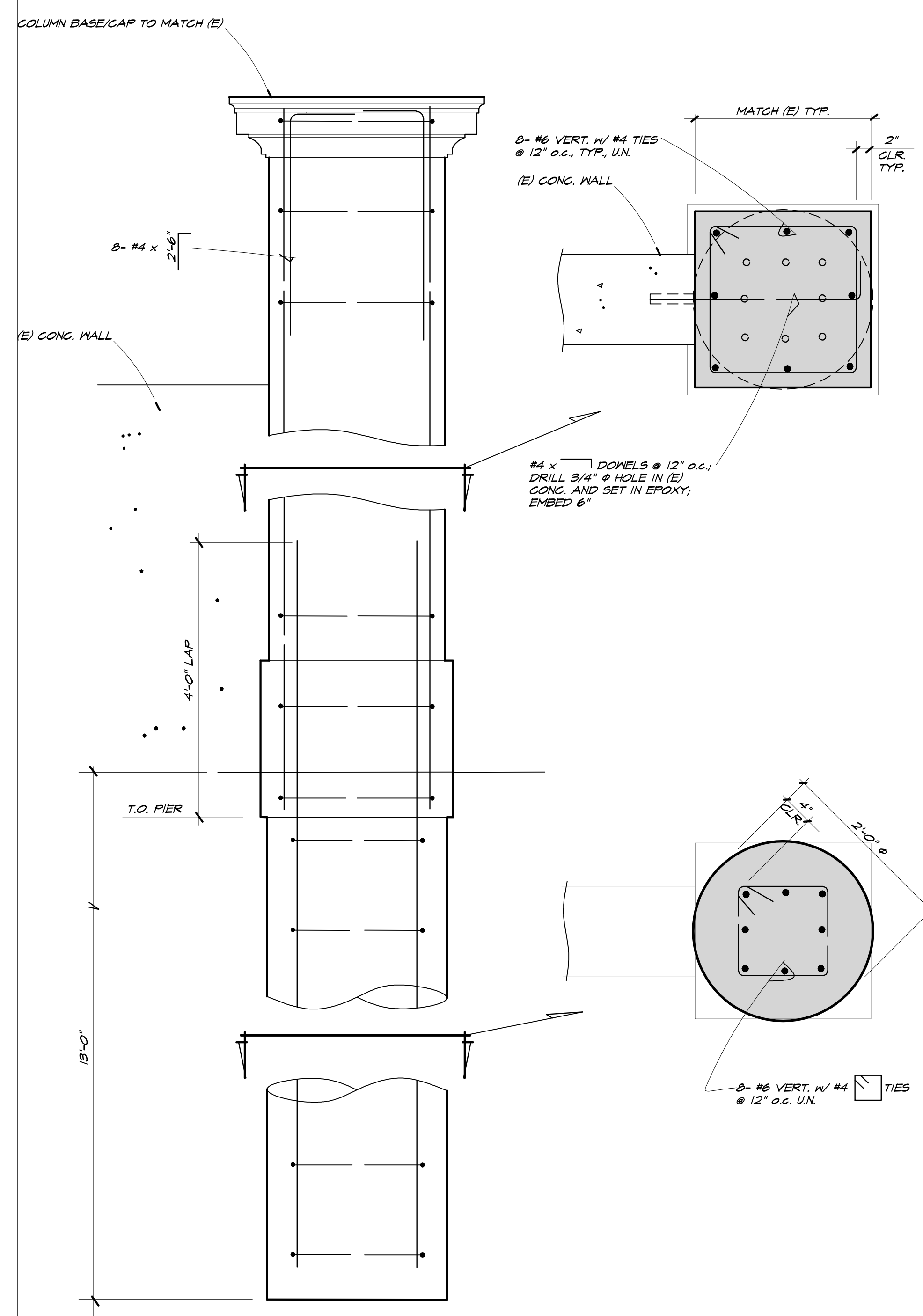
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S3.1

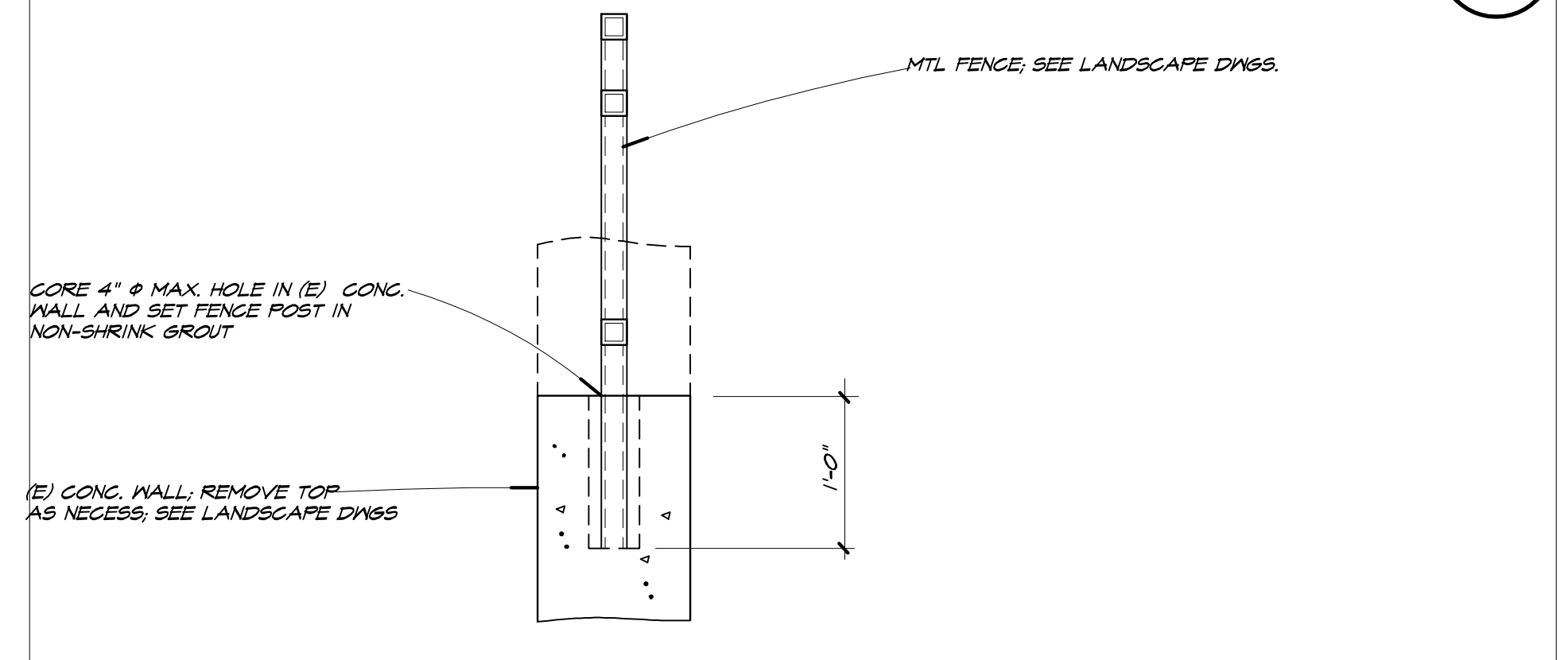
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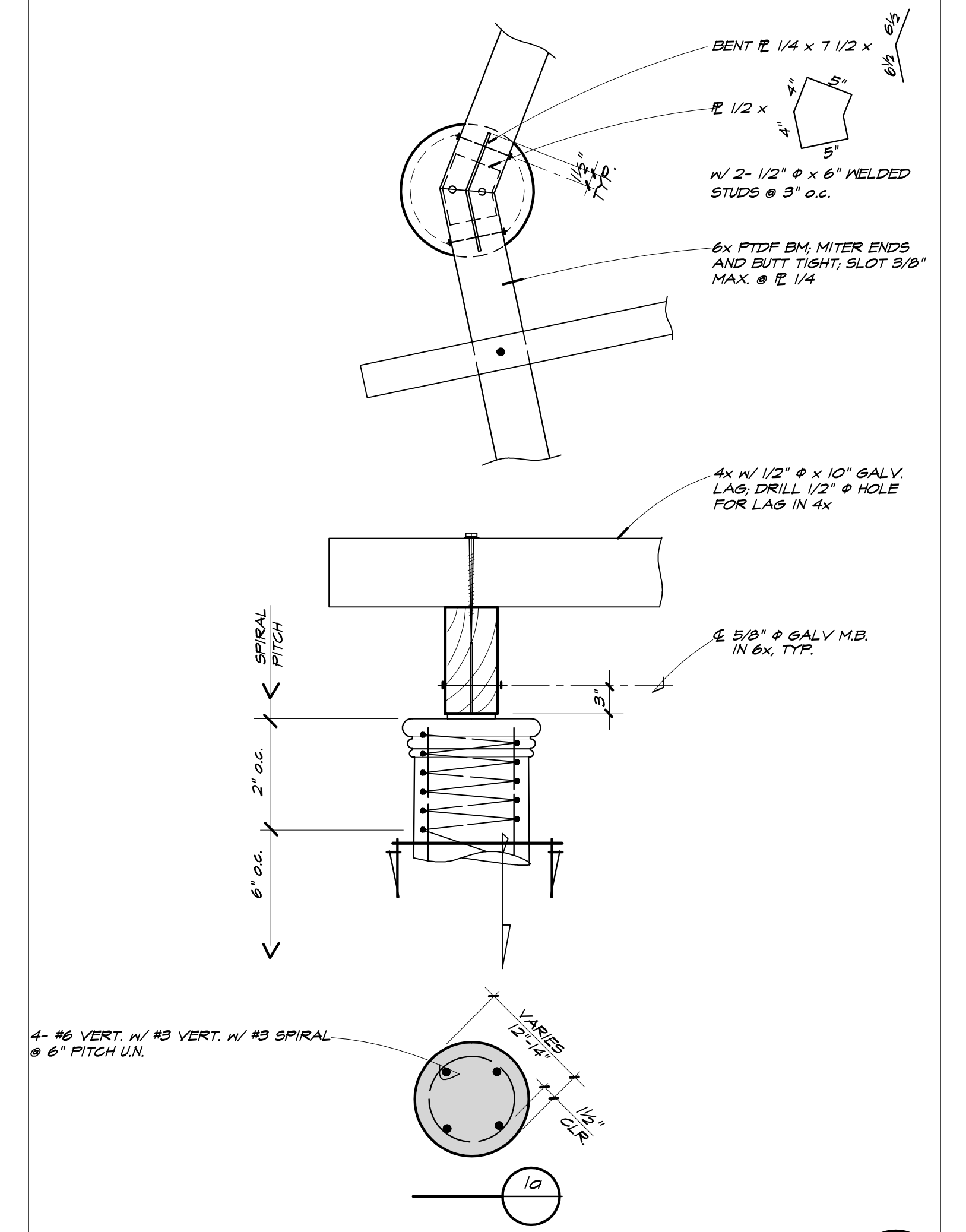
DETAIL 5
1"=1'-0" S3.2



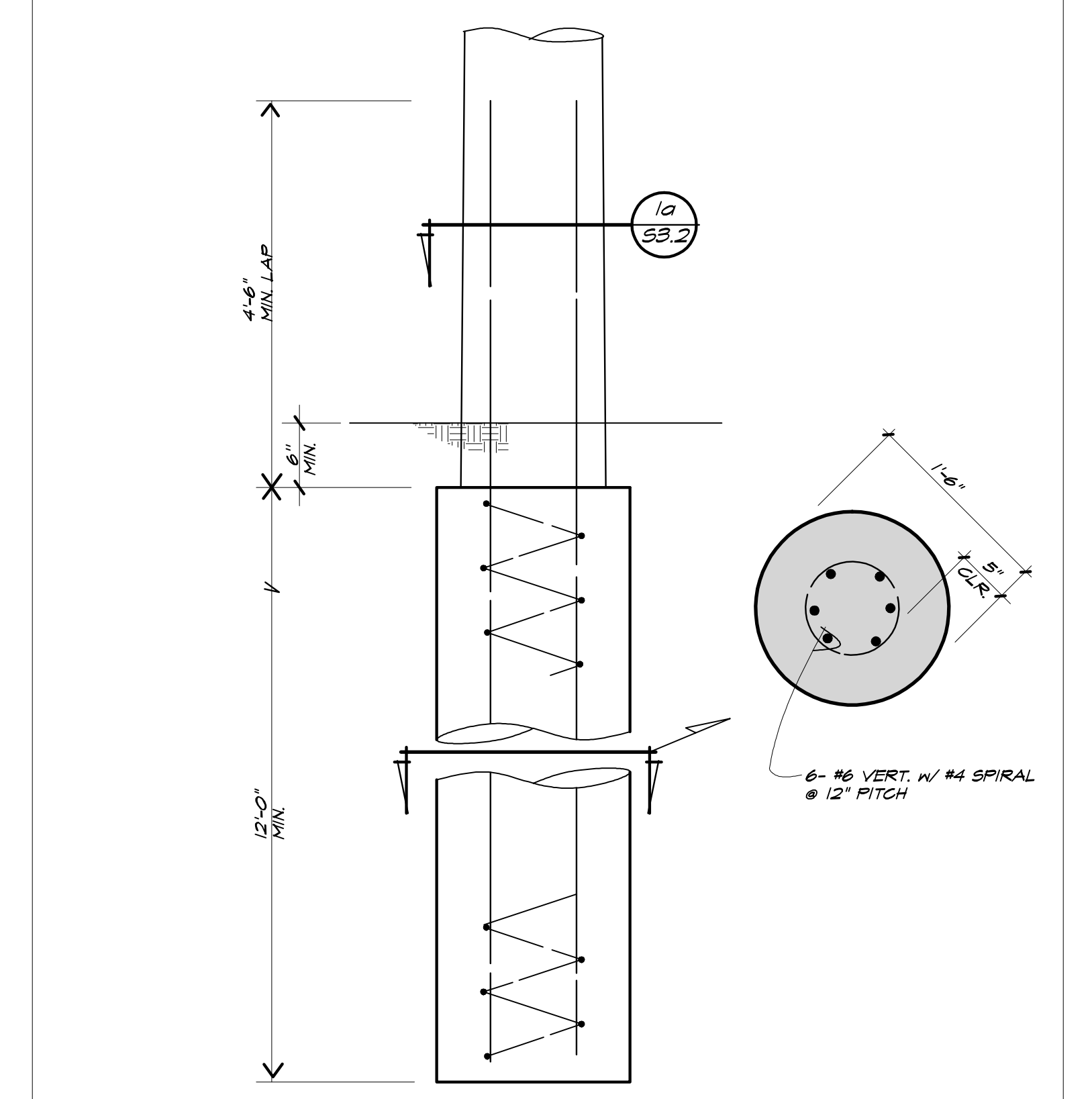
COLUMN DETAIL 3
1"=1'-0" S3.2



DETAIL 4
1"=1'-0" S3.2



DETAIL @ ARBOR 1
1"=1'-0" S3.2



DETAIL @ ARBOR 2
1"=1'-0" S3.2

8 AUG 22 6:25 54

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DETAILS

RISPIN MANSION PARK
WHARF ROAD AND CLAIRE STREET
CAPITOLA, CALIFORNIA



DATE 8/12/22
SCALE
DRAWN
JOB
SHEET

S3.2

LIGHT FIXTURE SCHEDULE				
LOAD	TYPE	DESCRIPTION	LAMPS	MANUFACTURER
65W	A	POST TOP MOUNTED LED ACORN STYLE 16" DIAMETER FIXTURE; INTEGRATED PHOTOCELL; WHITE POLYCARBONATE ACORN GLOBE WITH 5P FITTER; CUSTOM "OLD IRON" FINISH; 4ARC45T LED; 120V-277V DRIVER; 6,500 LUMENS. POLE- 16' HEIGHT; 12 POINT FLAT FLUTE; TAPERED SHAFT; BARRINGTON SS BASE; "OLD IRON" FINISH TO MATCH FIXTURE; GFIC POLE MOUNTED RECEPTACLE. PROVIDE COMPLETE FIXTURE AND POLE SUBMITTAL FOR APPROVAL.	LED SUPPLIED WITH FIXTURE	STERNBERG LIGHTING B750 SR LED SERIES

SYMBOLS AND ABBREVIATIONS

9 OCT 09

SYMBOLS & ABBREVIATIONS SHOWN ARE FOR GENERAL USE
DISREGARD THOSE WHICH DO NOT APPEAR ON THE PLANS

LIGHT FIXTURES

- FLUORESCENT - ANY MOUNT
- FLUORESCENT STRIP - ANY MOUNT
- INCAND. OR HID - CEILING RECESSED
- INCAND. OR HID - SURF. OR SUSP.
- INCAND. OR HID - WALL MOUNT
- SITE LIGHT - ARM MOUNTED ON POLE
- SITE LIGHT - GROUND, POST OR POLE MOUNTED
- EXIT LIGHT - ANY MOUNT SEE PLANS FOR MTG.
- EMERGENCY LIGHTING SET

SWITCHES

ALL SWITCHES 20A - 120/277V - U.O.N.
SWITCH MOUNTING = +48" TO TOP OF ELECTRICAL BOX U.O.N.

- S.P.S.T.
- SINGLE LOAD MOTION SENSOR SWITCH
- DOUBLE LOAD MOTION SENSOR SWITCH
- 3 - WAY
- 4 - WAY
- S.P.S.T. WITH PILOT LIGHT
- S.P.S.T. KEY OPERATED
- COMBINATION SWITCH/MOTION DETECTOR WHERE "X" INDICATES THE NUMBER OF CIRCUITS CONTROLLED.
- WALL MOUNTED OCCUPANCY SWITCH
- PUSHBUTTON - SEE DWGS FOR TYPES
- OCCUPANCY SENSOR - CEILING MOUNTED
- OCCUPANCY SENSOR - WALL MOUNTED
- EMERGENCY DISCONNECT PUSHBUTTON

OUTLETS

ALL RECEPTACLE OUTLETS 20A - 125V. - U.O.N.
OUTLET MOUNTING = +18" TO BOTTOM OF ELECTRICAL BOX U.O.N.

- SINGLE RECEPTACLE - WALL MOUNT
- DUPLEX RECEPTACLE - WALL MOUNT
- 4-PLEX RECEPTACLE - WALL MOUNT
- DUPLEX RECEPTACLE - MOUNTED ABOVE COUNTER (VERIFY HEIGHT)
- SINGLE ISO. GND. RECEPT. - WALL MOUNT
- DUPLEX ISO. GND. RECEPT. - WALL MOUNT
- DUPLEX RECEPTACLE - WITH GROUND FAULT INTERRUPTER
- POWER OUTLET - SEE DWGS FOR THIS TYPES
- CLOCK OUTLET - 15A-125V @ +90" U.O.N.
- COMPUTER DATA OUTLET-WALL MOUNT
- TELE/DATA COMBO. OUTLET-WALL MOUNT
- TELEPHONE OUTLET-WALL MOUNT
- TV OUTLET - WALL MOUNT
- FLOOR RECEPTACLE - 20A
- FLOOR COMPUTER DATA OUTLET
- FLOOR TELEPHONE OUTLET
- FLOOR TV OUTLET
- THERMOSTAT OUTLET BOX @ +48" U.O.N.
- JUNCTION BOX - WALL MOUNT
- JUNCTION BOX - CEILING MOUNT
- SPEAKER - WALL MOUNT
- SPEAKER - CEILING MOUNT

FIRE ALARM

- HEAT DETECTOR
- TAMPER SWITCH
- SMOKE DETECTOR
- SPRINKLER RISER FLOW SWITCH
- FIRE SMOKE DAMPER
- *VOICE ANNUNCIATOR/STROBE-WALL MOUNT
- *HORN/STROBE-ANY MOUNT-ANY TYPE
- *STROBE ONLY - ANY MOUNT
- *HORN-ANY MOUNT-ANY TYPE
- MANUAL PULL STATION @ +48" U.O.N.
- ALARM BELL
- *+80"A.F.F. TO BOTTOM OF DEVICE OR 6" BELOW CEILING WHICHEVER IS LOWER

CONDUIT/WIRING

- CONCEALED IN WALLS OR CEILING; OR EXPOSED WHEN SPECIFICALLY NOTED
- UNDER FLOOR SLABS OR UNDERGROUND
- HOMERUN TO PANEL, TERMINAL OR EQUIPMENT INDICATED
- DENOTES NEUT. WIRE
- DENOTES PHASE WIRES
- BRANCH CIRCUIT WIRING ID.
- CONDUIT STUB-OUT
- CONDUIT UP OR DOWN-AS NOTED

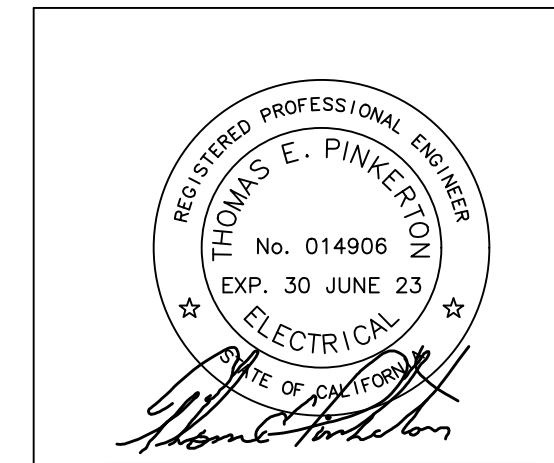
- TELEPHONE SYSTEM
- TELEVISION SYSTEM
- FIRE ALARM SYSTEM
- EMERGENCY SYSTEM
- GROUND SYSTEM
- COMPUTER SYSTEM
- EXISTING CONDUIT/WIRING
- INDICATES (E) TO BE REMOVED

MISCELLANEOUS

- MOTOR CONNECTION
- FUSED DISCONNECT SWITCH-FUSED WITH DUAL-ELEMENT TIME DELAY FUSES, SIZED PER EQUIP. MFGR'S NAME PLATE DATA
- DISCONNECT SWITCH-NONFUSED U.O.N.
- MAGNETIC MOTOR STARTER
- COMBINATION MAG STARTER & FUSED DISCONNECT SWITCH
- GROUND ROD-DIRECT BURIED
- GROUND ROD-WITH ACCESSIBLE BOX
- FEEDER TAG
- EQUIP. ID TAG-SEE SHEET NOTES ON SAME SHEET WHERE SYMBOL APPEARS U.O.N.
- SHEET NOTE TAG
- TRANSFORMER PAD MOUNT OR DRY TYPE
- SWITCHGEAR OR MCC
- PANELBOARD - FLUSH MOUNTED
- PANELBOARD - SURFACE MOUNTED
- SPECIAL PURPOSE EQUIP., DEVICE, PANEL OR TERMINAL CABINET (F.A., LIGHTING CONTROL, ETC.) EQUIPMENT PARAMETERS INDICATED ON PLANS
- CONCRETE PULLBOX SIZE INDICATED ON PLANS
- +48" INDICATES MOUNTING HEIGHT TO CENTER OF DEVICE OR EQUIP. ABOVE FINISHED FLOOR.
- O_b \$_b SUBSCRIPT LETTER INDICATES CONTROL
- 3 O₂ FIGURE INDICATES BRANCH CIRCUIT NUMBER

ABBREVIATIONS

- | | | | |
|----------|-------------------------|--------|--|
| A.F.G. | ABOVE FINISHED GRADE | (N) | NEW |
| ARCH. | ARCHITECT | NIC | NOT IN CONTRACT |
| B.C. | BARE COPPER | NL | NIGHT LIGHT |
| C. | CONDUIT | OFCI | OWNER FURNISHED CONTRACTOR INSTALLED EQUIPMENT |
| CKT | CIRCUIT | PH. | PHASE |
| C.O. | CONDUIT ONLY | P.O.C. | POINT OF CONNECTION |
| CONC. | CONCRETE | P/O | PART OF |
| CONTR. | CONTRACTOR | SW | SWITCH |
| DISC. | DISCONNECT | SWBD | SWITCHBOARD |
| (E) | EXISTING | T. | TELEPHONE |
| ELEC. | ELECTRICAL | TERM. | TERMINAL |
| EM | EMERGENCY | TSP | TWISTED |
| (F) | FUTURE | | SHIELDED PAIR |
| F.A. | FIRE ALARM | TV | TELEVISION |
| G. | GROUND (ELEC) | UG | UNDERGROUND |
| GND. | GROUNDING | U.O.N. | UNLESS OTHERWISE NOTED |
| GEC | ELECTRODE CONDUCTOR | WP | WEATHERPROOF |
| GFI | GROUND FAULT INTERRUPT | XFMR | TRANSFORMER |
| ISO GND. | ISOLATED GND. | | |
| MECH. | MECHANICAL | | |
| MCP | MOTOR CIRCUIT PROTECTOR | | |



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CONSULTING ELECTRICAL ENGINEERS
FE JOB No. 19039.00

APN 095-371-01 & -02

BOWMAN & WILLIAMS CONSULTING CIVIL ENGINEERS 4444 RESEARCH PARK CT, STE 100, SOQUEL, CA 95073		SYMBOLS & ABBREVIATIONS RISPIN MANSION PARK CAPITOLA, CALIFORNIA	
SCALE: AS SHOWN	DRAWN: C.L.	JOB NO. B4W 25803.01	SHEET
DATE: 8/12/22	CHECKED: T.P.	INDEX	E 1.0
DESIGN: T.P.	DWG NAME	FILE NO. B4W 25803.01	OF 8

ELECTRICAL SPECIFICATIONS

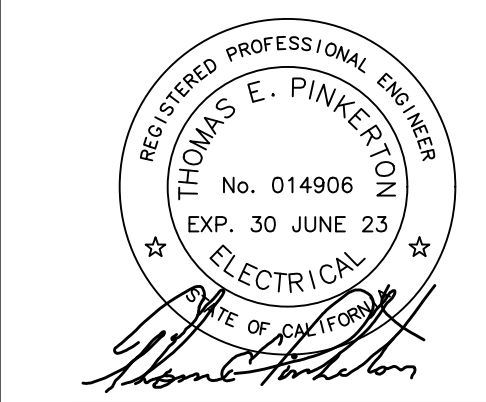
2 APRIL 04

1. ALL WORK AND MATERIALS SHALL BE IN COMPLETE ACCORDANCE WITH THE 2019 CALIFORNIA ELECTRICAL CODE (C.E.C.) THE LATEST EDITION OF CAL/OSHA, AND ALL APPLICABLE LOCAL RULES AND REGULATIONS.
2. FURNISH LABOR AND MATERIAL AND INSTALL ELECTRICAL WORK COMPLETE AS SHOWN ON THE DRAWINGS. WORK SHALL INCLUDE ALL MATERIALS ON THE PLANS AND THAT WHICH IS NECESSARY TO MAKE A COMPLETE WORKING INSTALLATION OF THE ELECTRICAL SYSTEMS SHOWN OR DESCRIBED HEREIN.
3. DO ALL CUTTING, PATCHING, REPAIRING NECESSARY FOR THE PROPER INSTALLATION OF WORK AND REPAIR ANY DAMAGE DONE, COORDINATING THIS WORK WITH THAT OF OTHER CRAFTS.
4. CONTRACTOR SHALL BE HELD TO HAVE EXAMINED THE SITE AND COMPARED IT WITH THE SPECIFICATIONS AND PLANS AND TO HAVE SATISFIED HIMSELF AS TO THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED. HE SHALL BE HELD RESPONSIBLE FOR KNOWLEDGE OF ALL EXISTING CONDITIONS WHETHER OR NOT ACCURATELY DESCRIBED. NO SUBSEQUENT ALLOWANCE SHALL BE MADE FOR ANY EXTRA EXPENSE DUE TO FAILURE TO MAKE SUCH EXAMINATION.
5. ALL EQUIPMENT AND MATERIALS SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. ALL MATERIALS SHALL BE NEW AND U.L. LISTED.
6. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY FACILITIES FOR TEMPORARY CONSTRUCTION POWER. ENERGY COSTS SHALL BE PAID BY OWNER.
7. PAY ALL INSPECTION AND OTHER APPLICABLE FEES; PROCURE ALL LICENSES AND PERMITS NECESSARY TO THE PROSECUTION AND COMPLETION OF ELECTRICAL WORK.
8. ELECTRICAL CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS INSTALLED UNDER THIS CONTRACT FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE BY OWNER. CONTRACTOR IS NOT REQUIRED TO GUARANTEE LAMPS AFTER ACCEPTANCE.
9. VERIFY EXISTING CONDITIONS IN FIELD AND MAKE ADJUSTMENTS AS REQUIRED TO SUIT SUCH CONDITIONS.
10. ALL WORK REQUIRING INTERRUPTION OF EXISTING CIRCUITS, USE OF OWNER'S FACILITIES, OR DISRUPTION OR INTERRUPTION OF ONGOING OWNER ACTIVITIES SHALL BE COORDINATED WITH THE OWNER.
11. AS-BUILTS: SUBMIT TO THE OWNER ONE (1) MARKED UP PRINT OF "AS-BUILT" CONDITIONS OF ALL WORK UNDER THIS SECTION.
12. SAFETY PRECAUTIONS: PROVIDE AND MAINTAIN THROUGHOUT THE WORK ADEQUATE SAFEGUARDS INCLUDING BARRIERS, WARNING SIGNS, ENCLOSURES AND LIGHTS, TO PREVENT ACCIDENTAL INJURY TO PERSON OR DAMAGE TO PROPERTY.
13. PROTECTION: PROTECT ALL WORK, MATERIALS AND EQUIPMENT FROM DAMAGE FROM ANY CAUSE WHATSOEVER AND PROVIDE ADEQUATE AND PROPER STORAGE FACILITIES DURING THE PROGRESS OF THE WORK. PROVIDE FOR THE SAFETY AND GOOD CONDITION OF ALL WORK UNTIL FINAL ACCEPTANCE OF WORK BY THE OWNER, AND REPLACE ALL DAMAGED OR DEFECTIVE WORK, MATERIALS, AND EQUIPMENT BEFORE REQUESTING FINAL ACCEPTANCE.
14. DRAWINGS: THE GENERAL ARRANGEMENT OF OUTLETS, AND EQUIPMENT, AS SHOWN ON THE PLANS, IS DIAGRAMMATIC AND APPROXIMATELY CORRECT AS TO THE LOCATIONS, WHERE MINOR CHANGES ARE REQUIRED BECAUSE OF STRUCTURAL CONDITIONS OR FOR THE CONVENIENCE OF THE OWNER. SUCH CHANGES SHALL BE MADE WITHOUT ADDITIONAL EXPENSE TO THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURATE LOCATIONS OF ALL OUTLETS, ETC., WITH RESPECT TO THE WORK OF OTHERS. NO EXTRAS WILL BE ALLOWED ON ACCOUNT OF MOVING WORK UNDER THIS SECTION TO AVOID INTERFERENCE WITH WORK OF OTHER CONTRACTORS.
15. SUBMITTALS: CONTRACTOR SHALL SUBMIT A COMPLETE LIST OF ALL PROPOSED MATERIALS AND EQUIPMENT WITHIN 15 DAYS OF AWARD OF CONTRACT. CONTRACTOR SHALL MAKE NO SUBSTITUTIONS OF MATERIALS OR EQUIPMENT WITHOUT WRITTEN APPROVAL OF THE OWNER. ALL DIMENSIONAL OR ELECTRICAL CHANGES, OR CHANGES TO OTHER WORK WHICH ARE REQUIRED BY, OR ARE A RESULT OF, AN ACCEPTABLE ELECTRICAL SUBSTITUTION SHALL BE THE SOLE AND COMPLETE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR AND SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.
16. INSPECTION: ALL WORK AND MATERIALS COVERED BY THIS SPECIFICATION SHALL BE SUBJECT TO INSPECTION AT ANY AND ALL TIMES BY REPRESENTATIVES OF THE OWNER. WORK SHALL NOT BE CLOSED IN OR COVERED BEFORE INSPECTION AND APPROVAL BY THE OWNER OR HIS REPRESENTATIVE. ANY MATERIAL FOUND NOT CONFORMING WITH THESE SPECIFICATIONS SHALL, WITHIN 3 DAYS AFTER BEING NOTIFIED BY THE OWNER, BE REMOVED FROM PREMISES; IF SAID MATERIAL HAS BEEN INSTALLED, ENTIRE EXPENSE OF REMOVING AND REPLACING SAME, INCLUDING ANY CUTTING AND PATCHING THAT MAY BE NECESSARY, SHALL BE BORNE BY THIS CONTRACTOR.
17. TESTS: UPON COMPLETION OF WORK AND ADJUSTMENT OF ALL EQUIPMENT, ALL SYSTEMS SHALL BE TESTED UNDER THE DIRECTION OF THE OWNER TO DEMONSTRATE THAT ALL EQUIPMENT FUNCTIONS ELECTRICALLY IN THE MANNER REQUIRED. ALL SYSTEMS SHALL TEST FREE FROM SHORT CIRCUITS AND GROUNDS AND SHALL BE FREE FROM MECHANICAL AND ELECTRICAL DEFECTS. ALL CIRCUITS SHALL BE TESTED FOR PROPER NEUTRAL CONNECTIONS. CONTRACTOR SHALL REMOVE AND REPLACE ALL DEFECTIVE WORKMANSHIP AND/OR MATERIALS AT NO EXPENSE TO OWNER.
18. CLEANUP: AT COMPLETION OF WORK, THIS CONTRACTOR SHALL CLEAN UP AND REMOVE ALL DEBRIS AND MATERIALS NOT INSTALLED IN WORK, LEAVING PREMISES CLEAN.

19. CONDUCTORS;
20. CONDUCTORS SHALL BE INSULATED COPPER, NO. 12 AWG MINIMUM SIZE, THHN/THWN, 600 VOLT, SOLID OR STRANDED (EXCEPT FOR LOW VOLTAGE WIRING AND WHERE SPECIFICALLY NOTED OTHERWISE ON THE PLAN)
21. ALL CONDUCTORS NO. 8 AND LARGER SHALL BE STRANDED.
22. WIRE COLOR CODE SHALL BE AS FOLLOWS:

120/240V	
A PHASE -	BLACK
B PHASE -	RED
C PHASE -	-
NEUTRAL -	WHITE
GROUND -	GREEN
23. FOR CONDUCTORS NO. 6 AND LARGER, INSULATION COLOR MAY BE BLACK WITH TAPE BANDS (COLORED PER ABOVE) LOCATED AT EACH END OF THE CONDUCTOR RUN AND AT ALL OTHER LOCATIONS REQUIRED BY THE C.E.C.
24. ALL CONDUCTORS SHALL BE RUN IN APPROVED RACEWAY U.O.N.
25. CONDUCTOR SPLICES: JOIN THE CONDUCTORS SECURELY, BOTH MECHANICALLY AND ELECTRICALLY USING SCREW-ON TYPE CONNECTORS FOR WIRE SIZES AWG#6 AND SMALLER. THE PREFERRED PRODUCT IS WIRE-NUT® TWIST ON CONNECTOR BY IDEAL.
26. USE HIGH COMPRESSION BARREL SPLICES FOR CONDUCTORS LARGER THAN AWG#6. THE PREFERRED BARREL SPLICE IS BURNDY HYLINK™ SPLICE. THE SPLICED AREA SHALL BE COVERED TO PROVIDE EQUAL OR GREATER INSULATION THAN THAT OF THE ADJOINING CONDUCTORS. INSULATION OVER THE ORIGINAL INSULATION SHALL EXTEND 3 TO 5 OVERALL DIAMETERS OF THE INSULATED WIRE. THE PREFERRED INSULATION PRODUCT IS COLD SHRINK™ BY 3-M COMPANY.
27. CONDUIT AND WIREWAYS:
28. ALL CONDUITS SHALL BE U.L. LISTED AND BEAR THE LABEL OF THE NATIONAL BOARD OF FIRE UNDERWRITERS.
29. RIGID NONMETALLIC CONDUIT: SCHEDULE 40 PVC PLASTIC FOR UNDERGROUND OR UNDER SLAB INSTALLATIONS, RATED 90 DEGREES C. WITH GLUE-ON PVC COUPLINGS AND FACTORY MADE ELBOWS AND SWEEPS; CARLON "PLUS 40".
30. RIGID STEEL CONDUIT (GRS): HOT-DIPPED GALVANIZED WITH THREADED ONE-PIECE COUPLINGS AND FACTORY MADE ELBOWS. NIPPLES THROUGH 12" IN LENGTH SHALL BE FACTORY MADE. CONNECTORS THREADED TYPE WITH BONDING LOCKNUT, INSULATED THROAT AND NEOPRENE O-RING. PROVIDE GRS FOR OUTDOOR INSTALLATIONS EXPOSED TO WEATHER.
31. GENERAL PURPOSE WIREWAYS AND AUXILIARY GUTTERS: GALVANIZED SHEET STEEL WITH SCREW COVERS AND ANSI-44 GRAY EPOXY PAINT FINISH OVER A CORROSION RESISTANT PHOSPHATE PRIMER. NEMA-1 FOR INDOOR USE, NEMA-3R (RAINTIGHT) FOR OUTDOOR USE.
32. NO ELECTRICAL CONDUITS SHALL BE COVERED BEFORE INSPECTION AND APPROVAL BY THE OWNER. CONTRACTOR SHALL NOTIFY OWNER THAT CONDUITS ARE READY FOR INSPECTION PRIOR TO INSTALLATION OF CONDUCTORS.
33. CONDUITS SHALL BE INSTALLED IN A RIGID AND SATISFACTORY MANNER WITH SUPPORT SPACED NOT MORE THAN 8 FEET APART. U.O.N. CONDUITS SHALL BE INSTALLED TO OUTLET BOXES WITH LOCKNUTS AND BY BUSHING OR OTHER APPROVED DEVICES. CONDUITS SHALL BE JOINED BY APPROVED CONDUIT COUPLINGS AND SHALL HAVE ENDS BUTTED IN ALL CASES WHERE COUPLINGS ARE USED. CONDUITS SHALL BE TIGHTLY CORKED AND OTHERWISE WELL PROTECTED DURING CONSTRUCTION AND BLOWN OUT AND SWABBED BEFORE WIRES ARE PULLED. REAM ALL CONDUITS ENDS AFTER CUTTING. BENDS SHALL BE MADE WITH STANDARD CONDUIT ELBOWS OR CONDUIT BENT TO NOT LESS THAN SAME RADIUS. ALL BENDS SHALL BE FREE FROM DENTS OR FLATTENING.
34. PVC CONDUITS: MAKE COUPLINGS AND CONNECTORS WATERTIGHT IN ALL RUNS. UTILIZE SOLVENT CEMENT OF TYPE APPROVED BY CONDUIT MANUFACTURER. PROVIDE ADAPTERS AND LOCKNUTS WHERE CONDUIT IS ATTACHED TO METAL BOXES AND PANELS.
35. RACEWAY RUNS SHOWN ON DRAWINGS ARE DIAGRAMMATIC UNLESS SPECIFICALLY DIMENSIONED. DETERMINE EXACT LOCATIONS OF ALL UNDIMENSIONED RACEWAY RUNS IN FIELD.
36. LOCATIONS AND ROUTES OF EXPOSED RACEWAYS REQUIRE OWNER APPROVAL PRIOR TO INSTALLATION. PREPARE LAYOUTS OF PROPOSED EXPOSED RACEWAY LOCATIONS/ROUTES AND COORDINATE WITH THE OWNER.
37. COORDINATE PLANNED ROUTES WITH WORK OF OTHER TRADES, INCLUDING MECHANICAL, PLUMBING AND FIRE SPRINKLER.
38. LIGHTING FIXTURES: LIGHT FIXTURES SHALL BE FURNISHED AND INSTALLED COMPLETE WITH LAMPS, DRIVERS, ETC., AND READY FOR SERVICE IN ACCORDANCE WITH THE DRAWINGS. TYPES SHALL BE AS SHOWN ON THE DRAWINGS. FIXTURE SUPPORTS SHALL BE OF DESIGN TO RESIST EARTHQUAKE FORCES OF SEISMIC ZONE 4.
39. WIRING DEVICES:
40. SWITCHES: 20 AMP, 120/277 V_{ac} PASS # SEYMOUR #20ACI (SPST) OR EQUAL; RECEPTACLES: DUPLEX, 20A, 125V, 3-WIRE GROUNDING, PASS # SEYMOUR #5352 OR EQUAL. ALL OTHER DEVICES SHALL BE AS NOTED ON DRAWINGS. ALL DEVICES SHALL BE COLORED IVORY. DEVICE PLATES: SMOOTH FINISH PLASTIC, COLORED TO MATCH DEVICE.

41. GROUNDING: ALL DEVICES, FIXTURES, RACEWAY, EQUIPMENT ETC. SHALL BE GROUNDED VIA A GROUNDING CONDUCTOR RUN THROUGH THE RACEWAY OR CABLE. WIRING DEVICES SHALL BE GROUNDED THROUGH A COPPER WIRE, SIZED TO COMPLY WITH CODES. A GROUNDING CONDUCTOR SIZED TO COMPLY WITH CODES SHALL BE INSTALLED IN ALL CONDUITS AND CABLES.
42. GROUND RODS: COPPER OR COPPER-GLAD STEEL, MINIMUM 3/4" DIAMETER. PROVIDE MINIMUM 8 FOOT LONG RODS WHERE DIRECT BURIED (NON-ACCESSIBLE) AND MINIMUM 10 FOOT LONG RODS WHERE INSTALLED IN GROUND WELLS OR OTHER ACCESSIBLE LOCATIONS.
43. JUNCTION, PULL, DEVICE, AND FIXTURE OUTLET BOXES SHALL BE GALVANIZED SHEET STEEL FOR CONCEALED WORK CAST METAL FOR EXPOSED WORK, AND SHALL HAVE VOLUMES AS REQUIRED BY C.E.C. NO BOXES SMALLER THAN 4" SQUARE (OR OCTAGON FOR LIGHTING OUTLETS) SHALL BE INSTALLED, EXCEPT WHERE SPECIFICALLY CALLED FOR ON PLANS. PLASTIC BOXES ARE NOT PERMITTED.
44. CONCRETE PULL BOXES: PRE-CAST, REINFORCED CONCRETE CONSTRUCTION WITH END AND SIDE KNOCKOUTS, NONSETTLING SHOULDERS, EXTENSIONS AS REQUIRED, AND CONCRETE BASES WITH DRAIN HOLE. UNLESS OTHERWISE INDICATED, PROVIDE REINFORCED CONCRETE LIDS WITH HOLD-DOWN BOLTS AND LIFTING PROVISIONS. LIDS SHALL BE LABELED AS NOTED ON THE DRAWINGS. BOXES LOCATED IN VEHICULAR TRAFFIC AREAS SHALL HAVE H/20 LOADING RATING AND CHECKER PLATE STEEL COVERS WITH HOLD-DOWN BOLTS. BOXES SHALL BE OF SIZES INDICATED ON THE DRAWINGS AND SHALL BE MANUFACTURED BY CHRISTY, BROOKS, UTILITY VAULT CO., OR APPROVED EQUAL.
45. DISCONNECT AND SAFETY SWITCHES: DISCONNECTS SHALL BE EXTERNALLY OPERABLE SAFETY SWITCHES WITH QUICK-MAKE, QUICK-BREAK MECHANISM CAPABLE OF SWITCHING TEN (10) TIMES SWITCH RATING, AND WITH COVER INTERLOCK WITH DEFEAT MECHANISM FOR MAINTENANCE. PROVIDE SWITCHES WITH NUMBER OF POLES, AMPERAGE, VOLTAGE, (HP RATINGS), TYPES OF ENCLOSURES AND FUSIBLE OR NON-FUSIBLE AS INDICATED AND AS REQUIRED FOR THE PARTICULAR APPLICATION. SWITCHES SHALL BE GENERAL (HEAVY) DUTY TYPE UNLESS OTHERWISE INDICATED. PROVIDE NEMA-1 ENCLOSURES FOR INDOOR (NEMA 3R FOR OUTDOORS) LOCATIONS UNLESS OTHERWISE INDICATED. ALL DISCONNECT SWITCHES SHALL BE EQUIPPED WITH DEVICES ENABLING THE SWITCH TO BE EXTERNALLY LOCKED IN THE OPEN POSITION.
46. BRANCH CIRCUIT BREAKERS SHALL BE OF THE SAME TYPE AND SAME A.I.C. RATING TO MATCH EXISTING PANEL, U.O.N. SEE PANEL BOARD SCHEDULES.
47. IDENTIFICATION OF SWITCHES AND APPARATUS: ALL PANELBOARDS, CONTROL DEVICES, DISCONNECT SWITCHES, FEEDER BREAKERS AND MAIN BREAKER ON ELECTRIC SWITCHBOARDS, AND ALL OTHER APPARATUS USED FOR CONTROL OR OPERATION OF CIRCUITS, APPLIANCES AND EQUIPMENT, SHALL BE IDENTIFIED WITH ENGRAVED LAMINOID NAMEPLATES SECURELY FASTENED IN PLACE WITH CADMIUM PLATED SELF-TAPPING SCREWS. NAMEPLATE 1/4" LETTERING (BLACK LETTERS-WHITE FIELD).



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 FE JOB No. 19039.00

APN 035-371-01 # -02

REVISED	
BOWMAN & WILLIAMS CONSULTING CIVIL ENGINEERS 4444 RESEARCH PARK CT, STE 100, SOQUEL, CA 95073	ELECTRICAL SPECIFICATION RISPIN MANSION PARK CAPITOLA, CALIFORNIA
SCALE: AS SHOWN	DRAWN: C.L.
DATE: 8/12/22	CHECKED: T.P.
DESIGN: T.P.	DWG NAME
JOB NO. B4W 25803.01	INDEX
FILE NO. B4W 25803.01	SHEET
	E.1
	OF 8

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

CERTIFICATE OF COMPLIANCE NRCC-LTO-E
 Project Name: Rispin Mansion Park Report Page: (Page 1 of 6)
 Project Address: Warf Road Date Prepared: 6/28/2022

A. GENERAL INFORMATION

01 Project Location (city)	Capitola	04 Total Illuminated Hardscape Area (ft ²)	47850
02 Climate Zone	3		
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	04
% of Existing Luminaires Being Altered ¹	Sum Total of Luminaires Being Added or Altered
<input type="checkbox"/> < 10% <input type="checkbox"/> >= 10% and < 50% <input type="checkbox"/> >= 50%	Calculation Method

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

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

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003
 Registration Provider: Energysoft Schema Version: rev 20200601
 Report Generated: 2022-06-28 08:01:31

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

CERTIFICATE OF COMPLIANCE NRCC-LTO-E
 Project Name: Rispin Mansion Park Report Page: (Page 2 of 6)
 Project Address: Warf Road Date Prepared: 6/28/2022

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)2 (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
1,783.75	---	---	---	---	---	1,783.75	455	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.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003
 Registration Provider: Energysoft Schema Version: rev 20200601
 Report Generated: 2022-06-28 08:01:31

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

CERTIFICATE OF COMPLIANCE NRCC-LTO-E
 Project Name: Rispin Mansion Park Report Page: (Page 3 of 6)
 Project Address: Warf Road Date Prepared: 6/28/2022

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 (ie, existing luminaires remaining or existing luminaires being moved are not included).

Designed Wattage:

01	02	03	04	05	06	07	08	09	10
Name or Item Tag	Complete Luminaire Description	Watts per luminaire ^{1,2}	How is Wattage determined	Total number luminaires ²	Luminaire Status ³	Excluded per §140.7(a)	Design Watts	Cutoff Req. > 6,200 Initial lumen output §130.2(b)4	Field Inspector
A	65 Watt Pole <input type="checkbox"/> Linear	65	Mfr. Spec	7	New	<input type="checkbox"/>	455	NA < 6200 lumens	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
Total Design Watts:								455	

¹ 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)
² FOOTNOTES: Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per §130.0(c)
³ 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.
⁴ Select "New" for new luminaires in a new outdoor lighting project, or for added luminaires in an alteration. Select "Altered" for replacement luminaires in an alteration. Select "Existing to Remain" for existing luminaires within the project scope that are not being altered and are remaining. Select "Existing Reinstalled" for existing luminaires which are being removed and reinstalled as part of the project scope.
⁵ 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.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003
 Registration Provider: Energysoft Schema Version: rev 20200601
 Report Generated: 2022-06-28 08:01:31

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

CERTIFICATE OF COMPLIANCE NRCC-LTO-E
 Project Name: Rispin Mansion Park Report Page: (Page 4 of 6)
 Project Address: Warf Road Date Prepared: 6/28/2022

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

Mandatory Controls

01	02	03	04	05
Area Description	Shut-Off §130.2(c)1	Auto-Schedule §130.2(c)2	Motion Sensor §130.2(c)3	Field Inspector
				Pass Fail

^{*} 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(b)

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

		01							
		"Use it or lose it" Allowance (select all that apply) (select all that apply)							
		<input type="checkbox"/> Per Application Table J	<input type="checkbox"/> Sales Frontage Table K						
		<input type="checkbox"/> Ornamental Table L	<input type="checkbox"/> Per Specific Area Table M						
Calculated General Hardscape Lighting Power Allowance per Table 140.7-A (LZ 0, 1 & 4)									
Calculated General Hardscape Lighting Power Allowance per Table 140.7-A (LZ 2 & 3)									
02	03	04	05	06	07	08	9	10	
Area Description	Surface Type	Area Wattage Allowance (AWA)		Area Wattage Allowance (AWA)		Perimeter Length (ft)	Allowed Density (W/ft)	Linear Allowance (Watts)	Total General AWA + LWA (Watts)
		Illuminated Area (ft ²)	Allowed Density (W/ft ²)	Area Allowance (Watts)	Area Allowance (Watts)				
Park Lighting	Asphalt	47850	0.025	1196.2	950	0.2	237.5	1434	
Initial Wattage Allowance for Entire Site (Watts):									350
Total General Hardscape Allowance (Watts):									1784

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003
 Registration Provider: Energysoft Schema Version: rev 20200601
 Report Generated: 2022-06-28 08:01:31

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

CERTIFICATE OF COMPLIANCE NRCC-LTO-E
 Project Name: Rispin Mansion Park Report Page: (Page 5 of 6)
 Project Address: Warf Road Date Prepared: 6/28/2022

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.

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/NRCL

Form/Title	Field Inspector	
	Pass	Fail
NRCC-LTO-E - Must be submitted for all buildings	<input type="checkbox"/>	<input type="checkbox"/>

P. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE
 There are no NRCA forms required for this project.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003
 Registration Provider: Energysoft Schema Version: rev 20200601
 Report Generated: 2022-06-28 08:01:31

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

CERTIFICATE OF COMPLIANCE NRCC-LTO-E
 Project Name: Rispin Mansion Park Report Page: (Page 6 of 6)
 Project Address: Warf Road Date Prepared: 6/28/2022

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

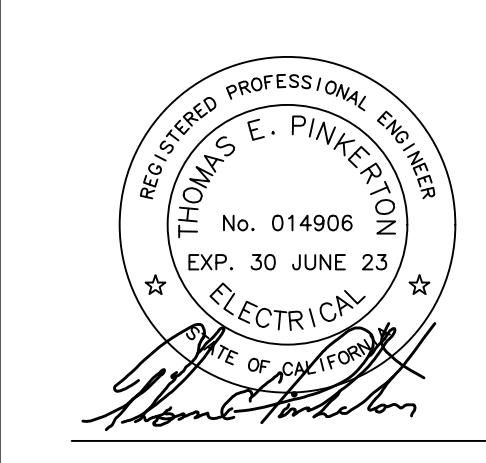
Documentation Author Name: James G Blomquist	Documentation Author Signature:
Company: A Plus Green Energy Services	Signature Date: 6/28/2022
Address: 757 Freedom Blvd.	CEA/HERS Certification Identification (if applicable):
City/State/Zip: Watsonville CA 95076	Phone: 408-310-0081

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 5 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 this 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 Designer Name: FEHR Engineering Inc.	Responsible Designer Signature:
Company: FEHR Engineering Inc.	Date Signed: 2022-06-28
Address: 9057 Soquel Drive.	License: 014906
City/State/Zip: Aptos CA 95003	Phone: 831-786-0373

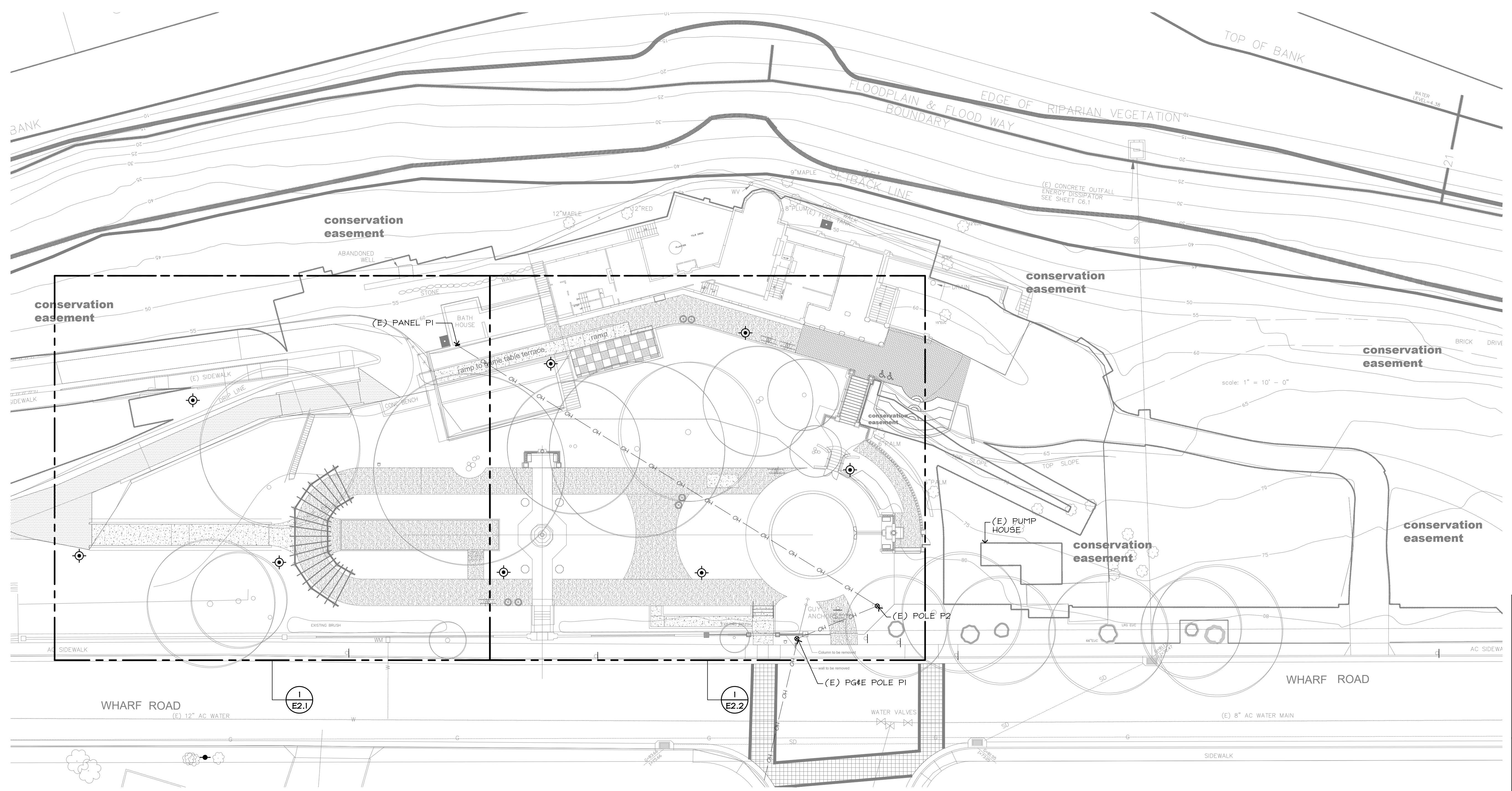
Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003
 Registration Provider: Energysoft Schema Version: rev 20200601
 Report Generated: 2022-06-28 08:01:31



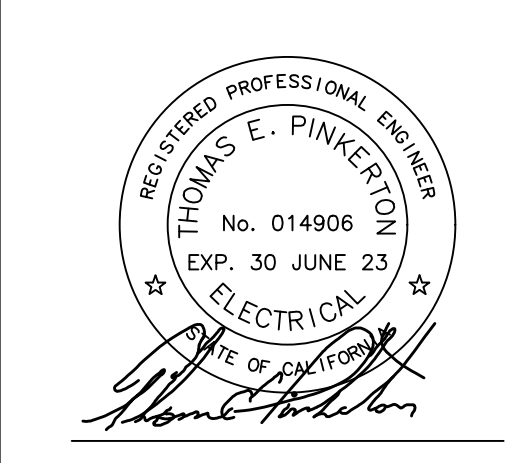
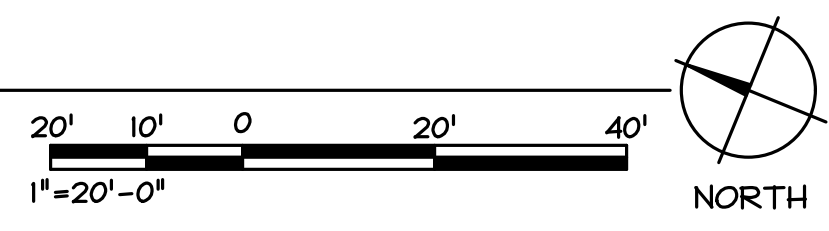
FEHR ENGINEERING COMPANY, INC.
 9057 SOQUEL DRIVE,
 BLDG. B, SUITE G
 APTOS, CALIFORNIA, 95003
 PHONE: (831) 786-0373
 FAX: (831) 786-8523
 EMAIL: tpinkerton@fehrengineering.com
 CONSULTING ELECTRICAL ENGINEERS
 FE JOB NO. 19039.00

APN 095-371-01 # -02

BOWMAN & WILLIAMS CONSULTING CIVIL ENGINEERS 4949 RESEARCH PARK CT, STE 100, SOQUEL, CA 95073		OUTDOOR TITLE 24 RISPIN MANSION PARK CAPITOLA, CALIFORNIA	
SCALE: AS SHOWN	DRAWN: C.L.	JOB NO. B4W 25803.01	SHEET
DATE: 8/12/22	CHECKED: T.P.	INDEX	E.1.2
DESIGN: T.P.	DWG NAME	FILE NO. B4W 25803.01	OF 8



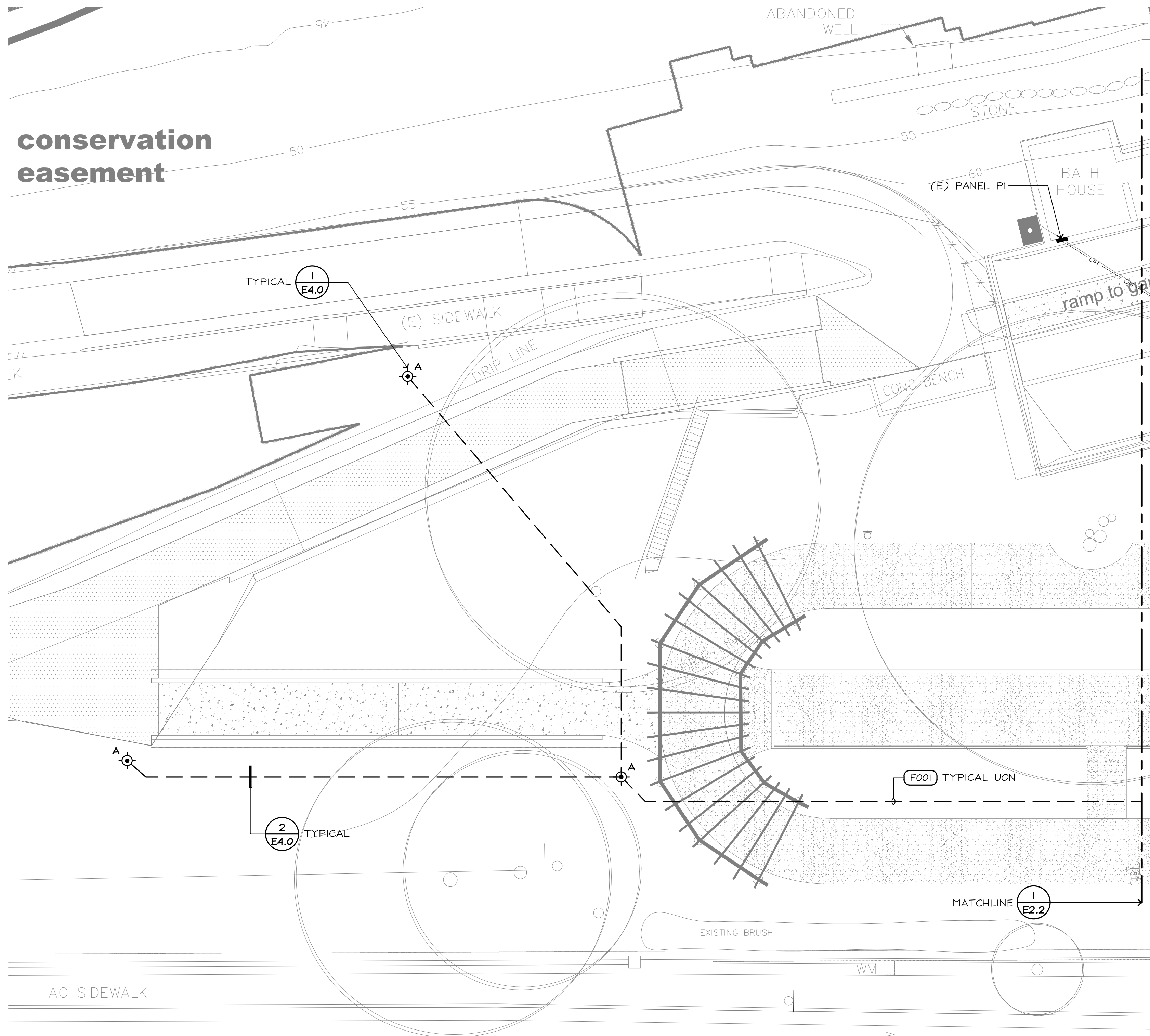
1 SITE PLAN
1"=20'-0"



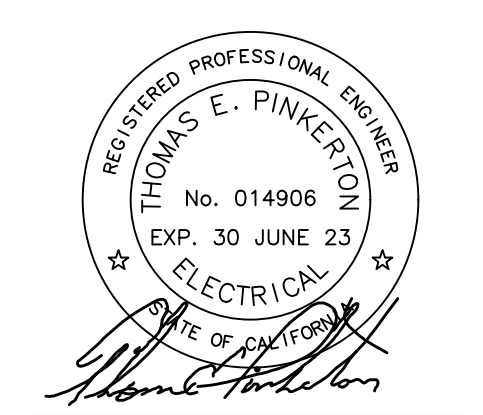
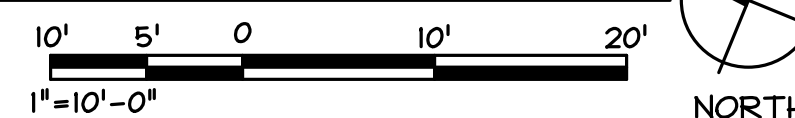
FEHR ENGINEERING COMPANY, INC.
9057 SOQUEL DRIVE,
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Aptos, California, 95003
PHONE: (831) 786-0373
FAX: (831) 786-8523
EMAIL: tpinkerton@fehrengineering.com
CONSULTING ELECTRICAL ENGINEERS
FE JOB No. 19039.00

APN 035-371-01 # -02

BOWMAN & WILLIAMS CONSULTING CIVIL ENGINEERS 4449 RESEARCH PARK CT, STE 100, SOQUEL, CA 95073		SITE PLAN RISPIN MANSION PARK CAPITOLA, CALIFORNIA	
SCALE: AS SHOWN DATE: 8/12/22 DESIGN: T.P.	DRAWN: C.L. CHECKED: T.P. DWG NAME:	JOB NO. B4W 25803.01 INDEX FILE NO. B4W 25803.01	SHEET E2.0 OF 8



1 PARTIAL SITE PLAN
1"=10'-0"



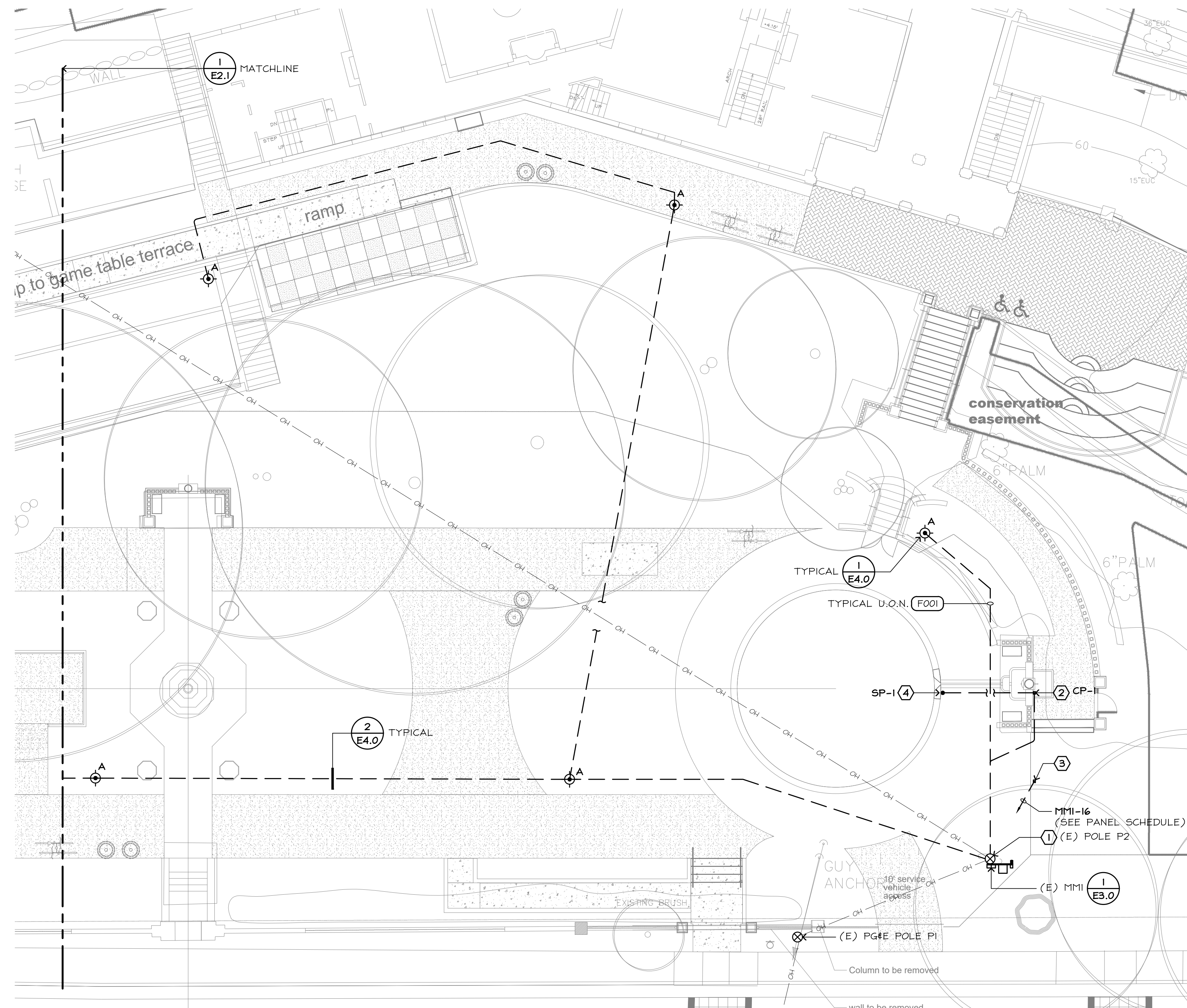
FEHR ENGINEERING COMPANY, INC.
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CONSULTING ELECTRICAL ENGINEERS
FE JOB No. 19039.00

APN 035-371-01 # -02

BOWMAN & WILLIAMS CONSULTING CIVIL ENGINEERS 4949 RESEARCH PARK CT, STE 100, SOQUEL, CA 95073		PARTIAL SITE PLAN RISPIN MANSION PARK CAPITOLA, CALIFORNIA	
SCALE: AS SHOWN	DRAWN: C.L.	JOB NO. B4W 25803.01	SHEET
DATE: 8/12/22	CHECKED: T.P.	INDEX	E.2.1
DESIGN: T.P.	DWG NAME	FILE NO. B4W 25803.01	OF 8

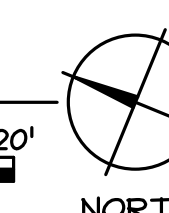
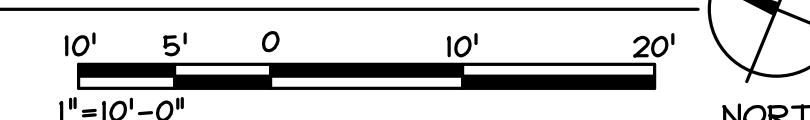
SHEET NOTES

- (E) 25' CITY SERVICE POLE; STRAIGHTEN POLE TO VERTICAL ORIENTATION; SEE DETAIL 1/E3.0.
- CUSTOM PUMP PANEL SPECIFIED UNDER LANDSCAPE PLAN; COORDINATE.
- IRRIGATION CONTROLLER 2; SEE PANEL SCHEDULE; SHEET E3.0.
- POWER & CONTROL FROM CP-1; PROVIDE & INSTALL POWER CIRCUIT & CONNECTION.



1 PARTIAL SITE PLAN

1"=10'-0"



REG. ELECTRICAL PROFESSIONAL ENGINEER
 THOMAS E. PINKERTON
 No. 014906
 EXP. 30 JUNE 23
 ELECTRICAL
 DATE OF EXPIRATION: 06/30/23
Thomas E. Pinkerton

FEHR ENGINEERING COMPANY, INC.
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 FE JOB No. 19039.00

APN 035-371-01 & -02

REVISIONS			
BOWMAN & WILLIAMS CONSULTING CIVIL ENGINEERS 4449 RESEARCH PARK CT, STE 100, SOQUEL, CA 95073		PARTIAL SITE PLAN	
RISPIN MANSION PARK CAPITOLA, CALIFORNIA			
SCALE: AS SHOWN	DRAWN: C.L.	JOB NO. B4W 25803.01	SHEET
DATE: 8/12/22	CHECKED: T.P.	INDEX	E2.2
DESIGN: T.P.	DWG NAME	FILE NO. B4W 25803.01	OF 8

GENERAL SINGLE LINE NOTES

- A. ALL ELECTRICAL SHOWN IS NEW, U.O.N.
- B. ALL CIRCUIT BREAKERS ARE 3-POLE, U.O.N.
- C. VOLTAGE DESIGNATIONS: (U.O.N.)
 240-1 = 240/120V-1PH-3WIRE
 480-1 = 480V-1PH-2WIRE
 208Y = 208/120V-3PH-4 WIRE
 480Y = 480/277V-3PH-4WIRE
 480Δ = 480V-3PH-3 WIRE
- D. "KA" AT CIRCUIT BREAKERS DENOTES MINIMUM REQUIRED INTERRUPTING CAPACITY IN AMPS (x 1000).
- E. SPO AT BREAKER DENOTES: PROVIDE MOUNTING SPACE & HARDWARE FOR FUTURE 3-POLE BREAKER OF RATINGS INDICATED.
- F. I_{sc} = AVAILABLE SHORT CIRCUIT (RMS SYM. AMPS) BASED ON 500MVA SHORT-CIRCUIT DUTY AT SERVICE XFMR PRIMARY AND 7.5% BELOW NOMINAL XFMR IMPEDANCES; VALUES ON LOAD-SIDE OF MAIN SWITCHBOARD INCLUDE MOTOR CONTRIBUTION.

FEEDER SCHEDULE

FDR No.	CONDUIT AND CONDUCTORS	REMARK
F001	3/4" C., 2#12, 1#12 GND.	

PANELBOARD SCHEDULE

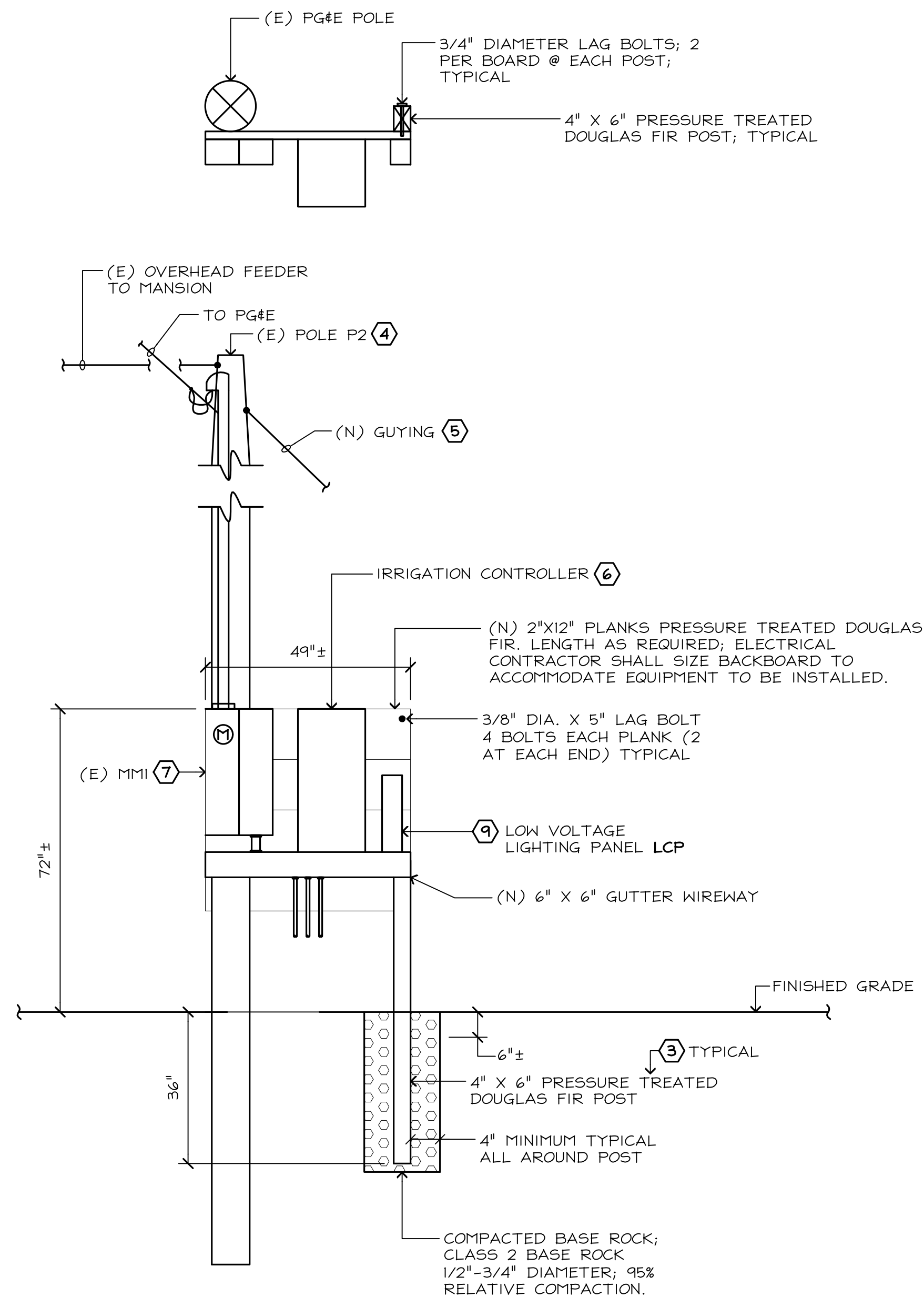
TYPE	NEMA 3R	BUS	100A, 1φ, 3W	VOLT	120/240V
(E)MM1					
A.I.C.	10,000	FEED	BOTTOM	KVA	7.2 A 30

USE	VOLT-AMPS		TRIP	T	F
	A	B			
SPACE ONLY			IPSP		1
					2
					3
					4
					5
(E) LOAD			20/1		6
			30		7
(E) MAIN C.B.			100		8
					9
(E) PANEL PI			50		10
					11
(N) SITE LIGHTS			20/1		12
(N) GP-1 PUMP					14
(N) IRRIGATION CONTR.					15
(N) IRRIGATION CONTR. 2					16
SPACE ONLY			IPSP		17
					18
CONNECTED LOADS					

(ESTIMATED)

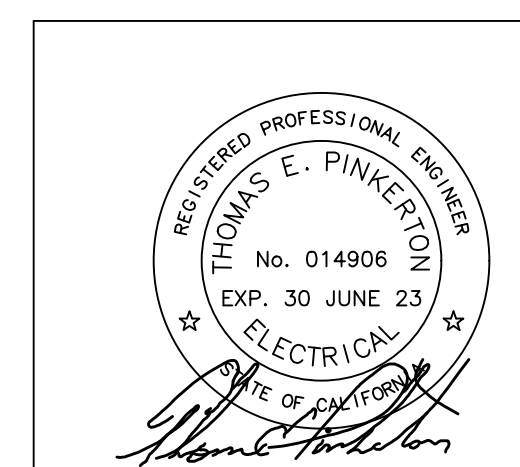
SHEET NOTES

- ABANDON (E) LOADS.
- (E) CIRCUIT BREAKERS TO REMAIN.
- PRESSURE TREATED WOOD SHALL USE A CALIFORNIA ACCEPTED ENVIRONMENTALLY SAFE WOOD PRESERVATIVE (COPPER NAPHTHENATE OR EQUAL); PROVIDE SUBMITTAL FOR APPROVAL PRIOR TO PURCHASE.
- STRAIGHTEN (E) POLE TO VERTICAL ORIENTATION.
- PROVIDE & INSTALL GUYING TO OFFSET OVERHEAD FEEDER LOAD; 5/16" DIAMETER GALVANIZED STEEL GUYING CABLE; ANCHOR USING 8" DIAMETER EXPANSION ANCHOR INTO EARTH 72"±.
- PROVIDED & INSTALLED UNDER LANDSCAPE PLAN; PROVIDE POWER CONNECTION; COORDINATE WITH LANDSCAPE PLANS.
- RE-USE (E) MM1 IN (N) WORK; MOUNT TO (N) BACKBOARD AS INDICATED.
- PROVIDE & INSTALL (N) CIRCUIT BREAKER INDICATED.
- LCP PROVIDED & INSTALLED UNDER LANDSCAPE PLANS; PROVIDE & INSTALL POWER CIRCUIT; COORDINATE WITH LANDSCAPE PLANS.



1 PANEL MOUNTING

NO SCALE

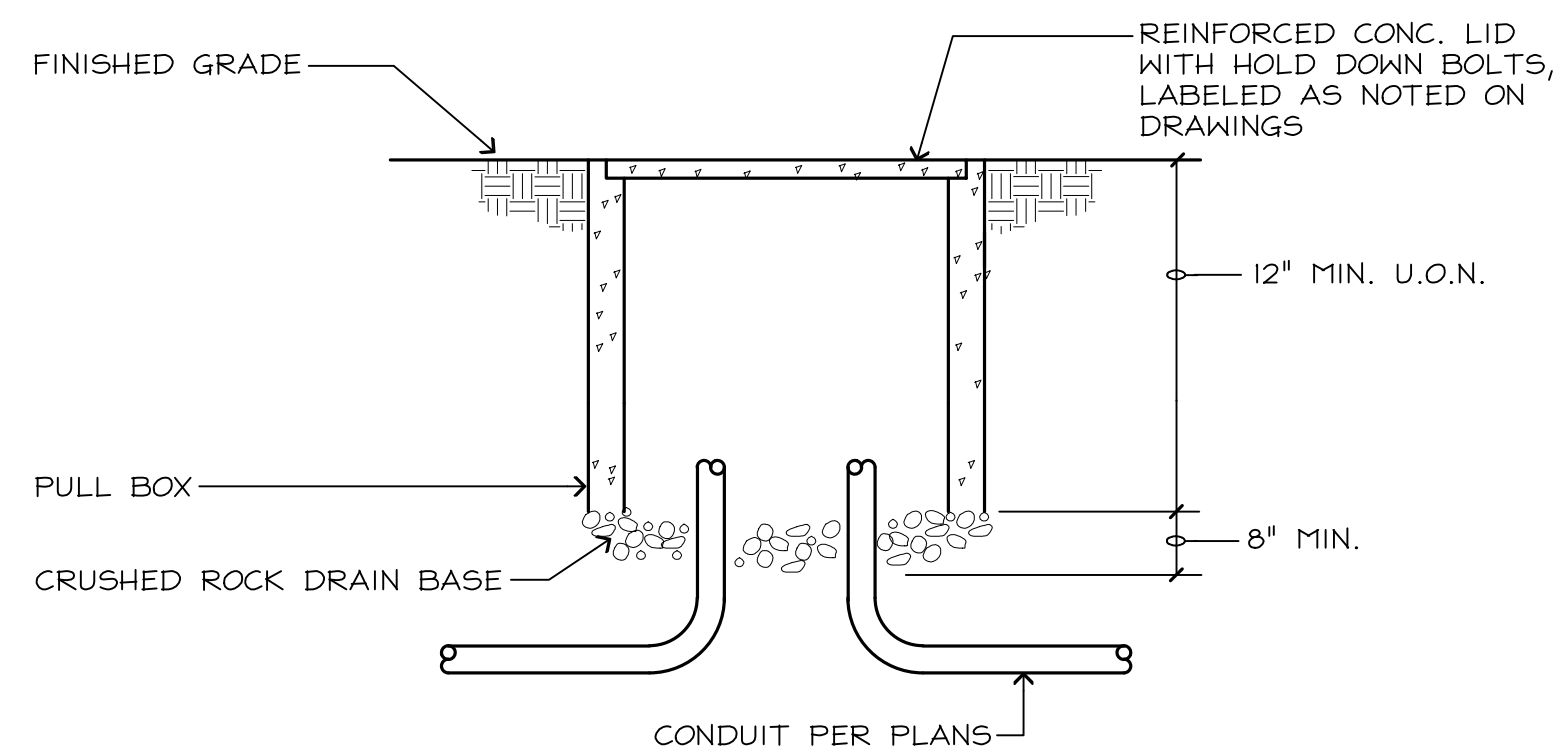


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 EMAIL: Tpinkerton@fehrengineering.com
 CONSULTING ELECTRICAL ENGINEERS
 FE JOB No. 19039.00

APN 035-371-01 & -02

REVISIONS			
BOWMAN & WILLIAMS CONSULTING CIVIL ENGINEERS 4949 RESEARCH PARK CT, STE 100, SOQUEL, CA 95073		SINGLE LINE DIAGRAM	
RISPIN MANSION PARK CAPITOLA, CALIFORNIA			
SCALE: AS SHOWN	DRAWN: C.L.	JOB NO. B4W 25803.01	SHEET
DATE: 8/12/22	CHECKED: T.P.	INDEX	E.3.0
DESIGN: T.P.	DWG NAME	FILE NO. B4W 25803.01	OF 8

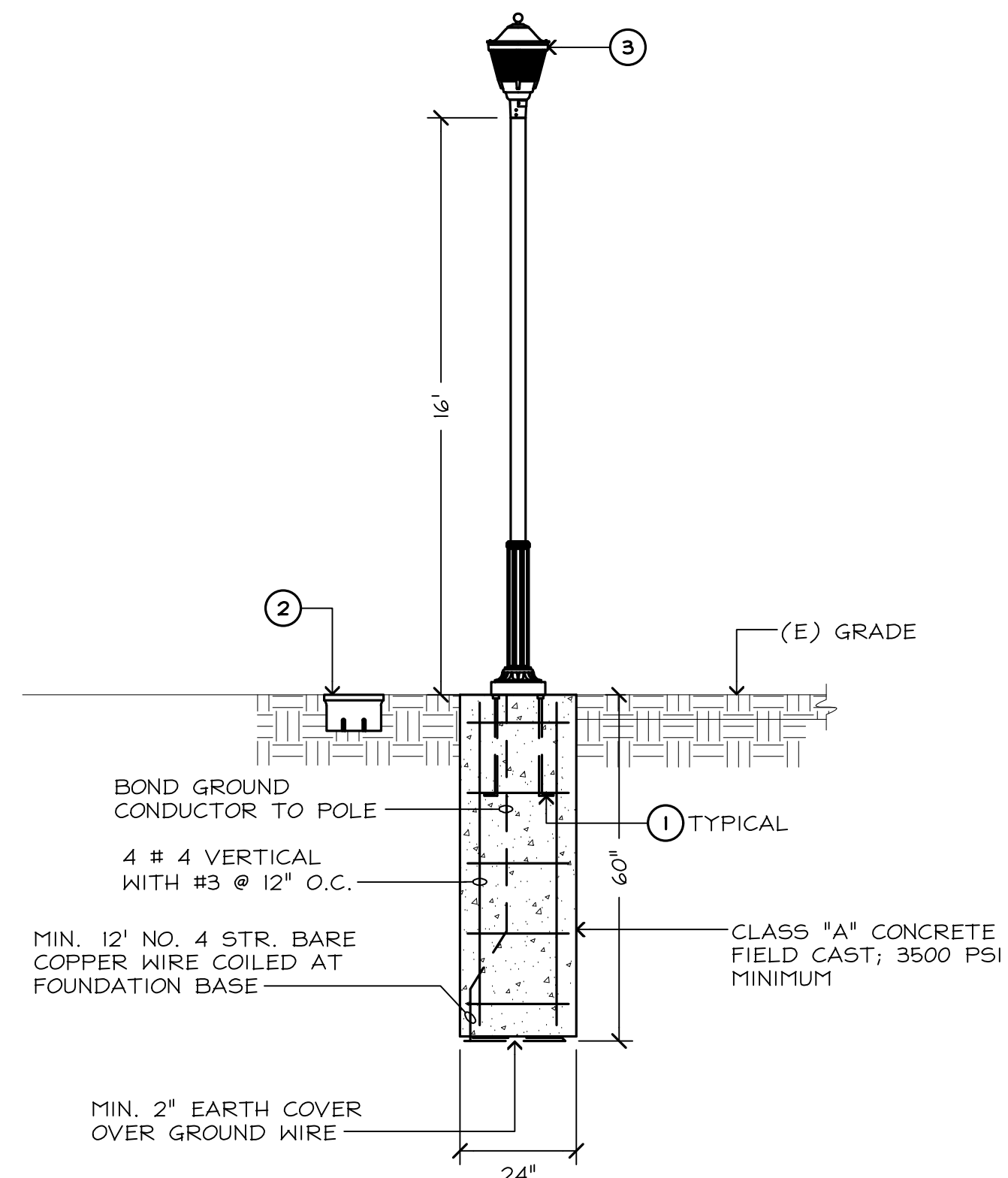
NOTE:
PULL BOX TO BE REINFORCED CONC.
WITH EXTENSION RINGS AS REQ'D.
SIZE(S) & MFGR. AS NOTED ON
DRAWINGS.



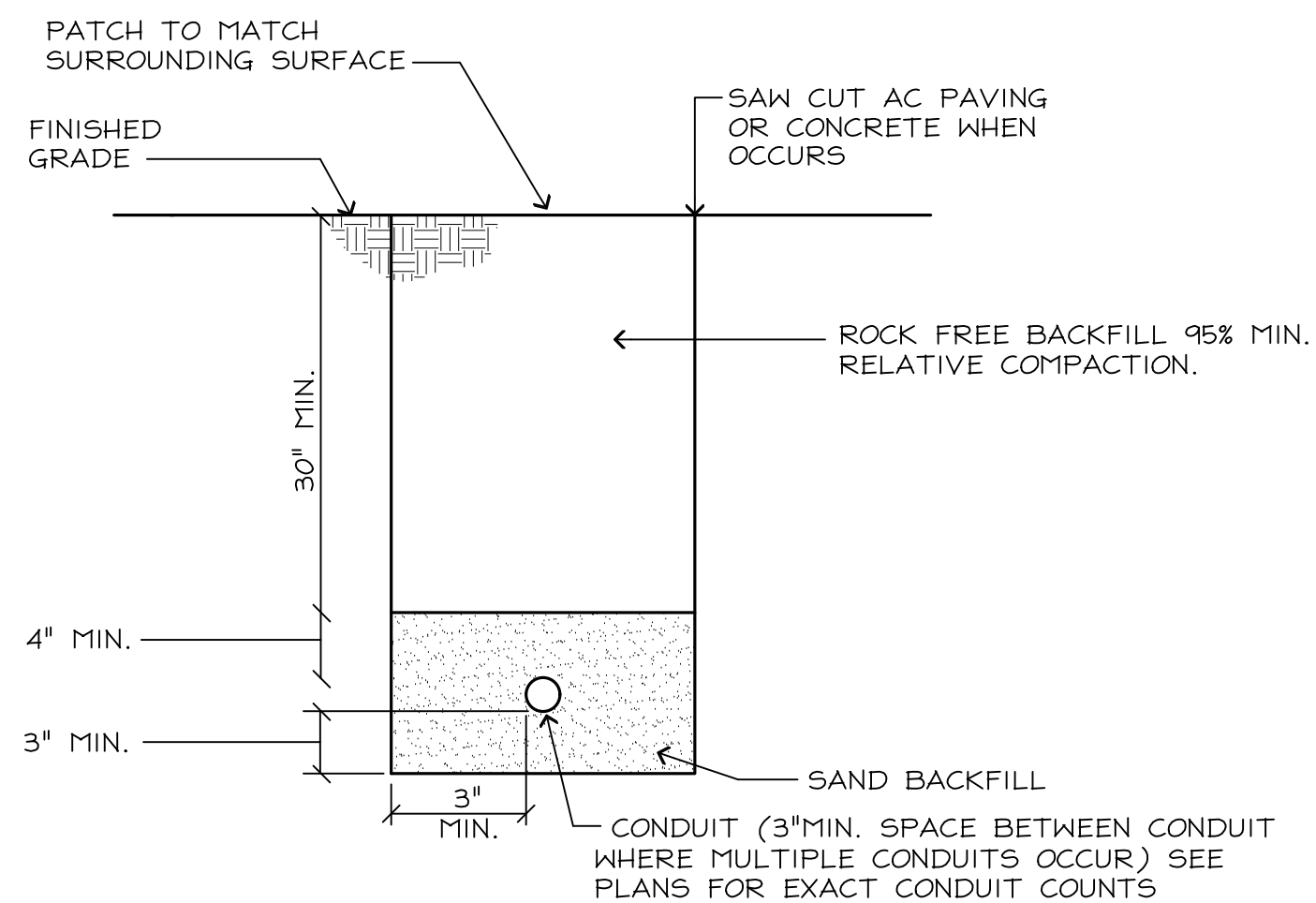
3 CONCRETE PULL BOX
NO SCALE

DETAIL NOTES:

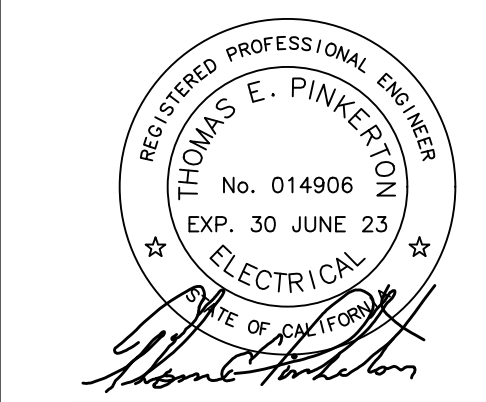
1. 1/2" X 18" X 3" HOT DIPPED GALVANIZED L-TYPE ANCHOR BOLTS (4 PER POST).
2. CONCRETE PULLBOX 11" X 17" I.D.; LABEL LID LIGHTING; 3/4"C., 2#12, 1#12 GND. UNDERGROUND INTO BASE OF POLE TO FIXTURE CONNECTION; WATERPROOF SPLICE IN PULLBOX; SEE DETAIL 3/E4.0.
3. FIXTURE TYPE "A"; SEE LIGHT FIXTURE SCHEDULE FOR FIXTURE AND POLE TYPE.



1 FIXTURE MOUNTING
NO SCALE



2 TRENCH SECTION
NO SCALE



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APN 035-371-01 & -02

BOWMAN & WILLIAMS CONSULTING CIVIL ENGINEERS 4949 RESEARCH PARK CT, STE 100, SOQUEL, CA 95073		ELECTRICAL DETAILS RISPIN MANSION PARK CAPITOLA, CALIFORNIA	
SCALE: AS SHOWN DATE: 8/12/22 DESIGN: T.P.	DRAWN: C.L. CHECKED: T.P. DWG NAME	JOB NO. B4W 25803.01 INDEX FILE NO. B4W 25803.01	SHEET E4.0 OF 8