

#### MILWAUKIE PLANNING

 $^{28}$   $^{2022}$  Time:  $^{10}$  AM

6101 SE Johnson Creek Blvd Milwaukie OR 97206 503.786.7600 planning@milwaukieoregon.gov

## Preapplication Request Form

☐ Contractor

Other:

Meeting Date: $\frac{4}{2}$ / $\frac{28}{2022}$ Time: $\frac{10 \text{ AM}}{2022}$ Location	: 6101 SE Johnson Creek Blvd Toda	ay's Date: $\frac{4}{100} / \frac{6}{100} / \frac{22}{100}$				
Applicants and representatives are expected to present a detailed explanation of their proposal at the conference.						
The purpose of the preapplication conference is to acquaint the applicant or applicant's representative with the requirements of the municipal code in preparation for submission of a land use application, including relevant approval criteria, development standards, and procedures. The preapplication conference is not an exhaustive review of all potential issues or requirements. Furthermore, the information provided by the City is not binding, and it does not preclude the City from raising new issues or identifying additional requirements during the land use review process. (MMC 19.1002 Preapplication Conference)						
Although the primary purpose is as stated above, preapplication conferences may also be used as part of a due diligence process to obtain a higher degree of certainty about a property development. An applicant is not required to be the property owner to request a preapplication conference.  SITE INFORMATION:						
Site Address: 11211 SE McLoughlin Blvd 97222	Map & Tax Lot(s): Various	<sub>Zone:</sub> OS				
PROPOSAL (brief description):						
Development of Milwaukie Bay Park including new restroom, interactive water feature, playground,						
picnicking areas, gathering space, Trolley Trail path, secondary pathways, and planting.						
APPLICANT:						
Project Contact Name: Jonathan Beaver	Company: 2.ink Studio					
Mailing Address: 160 NE Sixth Avenue, Ste 200	Zip:	97232				

#### REQUESTED MEETING TYPE:

# of Expected Attendees: 5

Phone(s): 503.546.4645

- ☐ Preapplication Meeting—1st meeting free; 2nd meeting \$50; Subsequent meetings \$100/mtg.
  - Optional meeting with 2 City staff. No meeting notes are provided by staff.
  - Staff will coordinate meeting date and time once Submittal Information (listed on reverse) is received.

☐ Owner

■ Representative

Email:jbeaver@2inkstudio.com

× Architect

☐ Engineer

#### □ Preapplication Conference—\$200

- Optional or required meeting with 3 or more staff. Meeting notes are provided by staff 2 weeks after the conference.
- City staff from the Planning, Building, Engineering, and Public Works departments usually attend. Other public agencies (such as the Fire District) may attend as necessary.
- Appointment times are Thursdays from 10:00 a.m.-11:00 a.m.
- Appointments are scheduled on a first-come, first-served basis. Preapplication Requests must be submitted during counter hours, and by 12:30 p.m. every Thursday for the first appointment available.
- Appointments must be made no less than three weeks before the desired meeting date for Major projects (e.g. commercial, industrial, multi-family, subdivisions) and no less than two weeks in advance of the desired meeting date for **Minor projects**\*(e.g. single family, ADUs, partitions).

#### ☐ Transportation Impact Study Review—\$100

- Mandatory second meeting if the project requires a Transportation Impact Study (TIS).
- To be scheduled after completion of a TIS by the applicant's engineer.

#### IMPORTANT INFORMATION ON REVERSE SIDE

#### PREAPPLICATION REQUEST CHECKLIST:

Once submitted, application materials and applicant information become public record as well as constitute permission for staff to access the site in preparation for the meeting/conference.

Preapp	olication Meeting:	Please submit 3 hard	copies of the required info	ormation.			
Minimu	Minimum Requirements:						
☐ Cor	mpleted Request Fo	rm and accompanying	g fee (if any)				
		d building plans, showir , just accurate and reli		atures. (Plans do not need to be			
I	etailed narrative de s, and any proposed		al that clearly identifies the lo	ocation, existing and proposed			
☐ A lis	st of all questions or i	ssues the applicant wo	uld like the City to address.				
			<u>-</u>	py of the required information. e applicable to your project.			
Minimu	m Requirements						
☐ Cor	mpleted Request Fo	rm and accompanying	g fee.				
I			osal and any specific questio including a map showing the	ns you have. Include a brief e site and surrounding properties.			
A lis	st of all questions or i	ssues the applicant wo	uld like the City to address.				
☐ Pro	posed elevations						
Site.	/Plot Plan (8½ x 11 c	r 11 x 17) that includes	(if applicable)				
	☐ Parcel and building setback dimensions						
	Existing and proposed	structures					
	Location and dimensi	on of existing and propos	ed easements, access, and driv	eways			
	Location of existing an location)	nd proposed utilities: storn	n, sanitary sewers, and water (in	cluding size of service and street			
	Width of adjacent rigl	nt-of-way					
	Existing streets abuttin	g the property					
	Vehicle and bicycle p square footage of bu		calculation of required number o	of spaces, based on use and			
	Slope map (if slope is	25% or more)					
	Significant tree location	ons (all trees with a calipe	r over 6 inches)				
	Proposed stormwater	detention system with top	ographic contours				
	Location of onsite and	d adjacent natural resour	ces				
	Circulation system for	vehicles, pedestrians, and	d bicycles				
For Offic	ce Use Only:						
*Project Type:							
	☐ Major Dev	elopments (e.g. commer	cial, industrial, multi-family, subd	ivisions): 3 weeks required for review			
Routing:	: □ File	☐ Planning (2)	☐ Engineering (2)	□ Building			
□ Deve	Jonment Manager	□ Public Works	□ Fire	□ CD Director (development)			

#### **MEMORANDUM**

TO: Vera Kolias FROM: Jonathan Beaver

COMPANY: City of Milwaukie Planning Dept. DATE: April 7, 2022

ADDRESS: 6101 SE Johnson Creek Blvd. SENT VIA: email

Milwaukie, OR 97206

PROJECT: Milwaukie Bay Park

CC: Heather Koch, NCPRD SUBJECT: Preapplication Conference

Application

Attachments:

One full-size set of drawings (50% Design Development)

One half-size set of drawings (50% Design Development)

Electronic copies of the 50% Design Development Set.

#### Narrative:

Milwaukie Bay Park is a scenic park property near downtown Milwaukie along the Willamette River. It is located just off McLoughlin Boulevard between Kellogg Creek to the south and Johnson Creek to the north. Approximately 3.5 acres of the approximately 7-acre park is planned for redevelopment.

A plan for the park was adopted in 2010 by the City of Milwaukie, serving as the foundation for many agencies, community partners, and local citizens to participate in shaping improvements over the years. Many elements of that plan were completed by the city over the past decade, including the Klein Point Overlook, new boat launch and landing, auto and boat trailer parking, restroom facilities, temporary Trolley Trail connection, a riverside path, riverbank stabilization and plantings, an improved access bridge over Kellogg Creek, and a river bank repair project with new pedestrian access. The final phase of improvements builds on the previous work but updates elements that were not completed in previous phases including saving the large coastal redwood, making the water feature interactive, and integrating nature play into the play area to name a few.

The Milwaukie Bay Park Project – as a partnership between NCPRD and the city – conducted a robust public engagement process throughout the design phase including community events, workshops, surveys, project materials, and social media engagement. In 2019 we heard directly from over 1,300 community members on key park elements, including the children's play area, water feature, art, and social gathering areas. Staff held smaller group discussions to engage the Latinx community and communities living with disabilities. Spanish-language materials and online surveys were also distributed.

The anticipated park improvements include a nature-themed children's play area, gathering/event area with an open lawn, stage, and fire pit for special events, nature-themed interactive water feature, new pathways,

picnicking areas, restroom and shade structure, improvements to the existing Trolley Trail, public art, and geese mitigation.

#### Nature Play Area

The nature play area is a play space on three separate levels of the park that incorporates natural play features, including rocks and logs as well as traditional play elements. Surfaces are anticipated to be tile safety surfacing with subdrainage. The playground will be partially fenced with a 36" informal rope fence.

#### Event Area

The event area is an approximate 20,000 square foot open lawn space for community events such as concerts, movies, and plays. The space features a platform for use as a stage or small gathering spot and securable community fire pit for special events. The lawn features subdrainage lines to extend seasonal usability. Goose mitigation measures including barrier vegetation and low fencing, a swale, and footbridges.

#### Interactive Water Feature

The interactive water feature features a drain to waste splash pad with zero depth spray deck. Push-button activation will allow users to start the spray for a set duration and the feature will be programmed to be off during set hours and seasonally. The space will feature seating and natural stone elements and operates as a lower plaza when off. Water will drain to the sanitary sewer system when in operation but will be valved to drain to the lower drainage swale during regular rain events.

#### Pathways

A series of 6' to 10' wide pathways will connect to all park features including existing features such as Klein Point, the existing lower pathway, parking lot and crosswalks at SE McLoughlin Blvd. Walkways will be non-slip surfaces (concrete or pavers) and will be ADA accessible throughout the park. The 10' walkways will be vehicular rated to allow maintenance vehicles and event related access into the park.

#### Picnicking Areas

Picnicking areas are located near the Trolley Trail and the water feature. Picnicking areas feature a variety of seating types and trash receptacles.

#### Restroom and Shade Structure

A 2-stall unisex restroom will feature ADA accessible stalls with changing benches. A central utility chase will feature storage. Materials include board-formed concrete, consistent with site retaining walls. Wood may be used as an accent material. The restroom will include a drinking fountain and bottle filler on the exterior wall.

A trellis structure will provide shade cover over portions of the adjacent picnicking area. The structure is anticipated to be painted steel with wood accents to complement the restroom.

#### **Trolley Trail**

Improvements to the Trolley Trail include widening to 14' with separate bicycle lanes (8') and pedestrian lanes (6'). Anticipated materials are asphalt with striped lanes. Bike parking will be included near the trail.

#### Public Art

Public art will include a series of three heron sculptures ("First Fish Herons") that will be placed seasonally on permanent bases during the yearly salmon run. The artwork concept comes from the Confederated Tribes of the Grand Ronde and will be reproduced yearly by different sculptors. Sculptures will be approximately 8' tall. Work on the public art is subject to an intergovernmental agreement that is being developed among the city of Milwaukie, NCPRD and the Confederated Tribes of the Grand Ronde.

#### **Vegetation**

Vegetation will include establishing increased tree canopy on the site, while preserving important viewsheds and establishing primarily native vegetation throughout the park. The large coastal redwood on the site will be preserved as well as the street trees along SE McLoughlin Blvd, pending a final arborist report.

#### Questions:

- 1. Verify and discuss the current floodplain permitting requirements, specifically as it relates to the current floodway mapping.
- 2. Verify the pervious paving requirements as they apply in this context and what the process is for applying for an exception based on the ability to manage all stormwater on the site using other means.
- 3. Describe how downtown architectural guidelines would be applied to a park building such as the one proposed.
- 4. Are there any lighting requirements, specifically related to the Willamette Greenway overlay?
- 5. Are there any bicycle parking requirements?
- **6.** How is the land use process impacted by ODOT recommendations or requirements regarding right-of-way improvements/impacts?

# MILWAUKIE BAY PARK

## 50% DESIGN DEVELOPMENT

March 25, 2022

PROPERTY ADDRESS: 11211 SE McLoughlin Blvd, Milwaukie, OR 97222



## SHEET INDEX

G0.00 COVER SHEET

G0.10 SITE INFORMATION

G0.20 KEY PLAN

V0.10 EXISTING CONDITIONS - SOUTH

V0.20 EXISTING CONDITIONS - NORTH

C1.01 UTILITY PLAN AREA 1

C1.02 UTILITY PLAN AREA 2

L1.01 DEMOLITION PLAN AREA 1

L1.02 DEMOLITION PLAN AREA 2

L1.03 DEMOLITION PLAN AREA 3

L1.04 DEMOLITION PLAN AREA 4

L2.01 MATERIALS PLAN AREA 1

L2.02 MATERIALS PLAN AREA 2

L2.03 MATERIALS PLAN AREA 3

L2.04 MATERIALS PLAN AREA 4

L2.10 PLAYGROUND AND FURNISHINGS SCHEDULE

L3.01 LAYOUT PLAN AREA 1

L3.02 LAYOUT PLAN AREA 2

L3.03 LAYOUT PLAN AREA 3

L3.04 LAYOUT PLAN AREA 4

L4.01 GRADING PLAN AREA 1

L4.02 GRADING PLAN AREA 2

L4.03 GRADING PLAN AREA 3

L4.04 GRADING PLAN AREA 4

L5.01 IRRIGATION PLAN AREA 1

L5.02 IRRIGATION PLAN AREA 2

L5.03 IRRIGATION PLAN AREA 3

L5.04 IRRIGATION PLAN AREA 4

L6.01 PLANTING PLAN AREA 1

L6.02 PLANTING PLAN AREA 2

L6.03 PLANTING PLAN AREA 3

L6.04 PLANTING PLAN AREA 4

L7.00 SITE SECTIONS

L7.20 HARDSCAPE AND PAVING DETAILS

L7.30 WALL, STAIR, AND RAILING DETAILS

L7.31 WALL, STAIR, AND RAILING DETAILS

L7.50 SITE FURNISHINGS DETAILS

L7.51 BOULDER DETAILS

L7.60 WATER FEATURE DETAILS

L7.70 PLAYGROUND DETAILS

L7.80 IRRIGATION DETAILS

L7.90 PLANTING DETAILS

A1.01 RESTROOM PAVILION FLOOR PLAN

A1.02 TRELLIS PLAN

A3.01 RESTROOM PAVILION ELEVATIONS

A3.02 TRELLIS ELEVATIONS

LEGEND AND ABBREVIATIONS

ELECTRICAL SITE PLAN - LIGHTING ELECTRICAL SITE PLAN - POWER

ELECTRICAL FLOOR PLAN - RESTROOM BUILDING

ELECTRICAL - ONE-LINE DIAGRAM

MECHANICAL FLOOR PLAN - RESTROOM BUILDING

P1.1 PLUMBING FLOOR PLAN - RESTROOM BUILDING

W0.00 SHEET INDEX AND GENERAL NOTES

W0.01 GENERAL NOTES

W0.02 OVERALL WATER FEATURE AREA PLAN

W1.00 SPRAY DECK PIPING PLAN

W2.00 EQUIPMENT ROOM LAYOUT PLAN

W3.00 SPRAY DECK SYSTEM PROFILE

REVISIONS

**COVER SHEET** 

NOT FOR CONSTRUCTION

G0.00

**PROPERTY OWNER** 

## LANDSCAPE ARCHITECT

2.ink Studio, P.C. 160 NE Sixth Ave, STE 200 Portland, OR 97232 503.546.4645 Contact: Jonathan Beaver jbeaver@2inkstudio.com Direct: 971.865.5333 Contact: Christopher Olin colin@2inkstudio.com Direct: 971.865.5337

hkoch@ncprd.com

#### **OWNER'S REPRESENTATIVE**

Shiels Obletz Johnsen (SOJ) 421 SW sixth avenue #750 Portland, OR 97204 503.242.0084 Contact: Vanessa Robinson vrobinson@sojpdx.com

## **GENERAL CONTRACTOR**

Lease Crutcher Lewis (Lewis) 550 SW 12th Avenue Portland, OR 97205 503.223.0500 Contact: Andrew Dykeman andrew.dykeman@lewisbuilds.com

## **ARBORIST**

The Pacific Resources Group 13688 SW Jenna Court Portland, OR, 97223 503.222.4320 Contact: Stephen Goetz sfgoetz@frontier.com

#### **ARCHITECT**

Material Architecture & Furniture 2410 SE 50th Avenue Portland, OR 97206 503.740.2954 Contact: Timothy Fouch tim@material-architecture.com

#### **CIVIL ENGINEER**

Zucker Engineering, LLC 4014 SE Ankeny Street Portland, OR, 97214 503.956.3473 Contact: Adam Zucker adam@zuckerengineering.com

## GEOTECHNICAL

Hart Crowser 6420 Macadam Avenue, STE 100 Portland, OR, 97239 503.620.7284 Contact: Dan Trisler dan.trisler@hartcrowser.com

## LAND USE CONSULTANT

819 SE Morrison St., Ste. 310 Portland, OR 97214 503.274-2010 Contact: John Vlastelicia jvlastelicia@esassoc.com

## **GENERAL PARK INFORMATION**

11211 SE McLoughlin Blvd, Milwaukie, OR 97222 ADDRESS: LEGAL DESCRIPTION Tax Lot: XXXXX

## BID ALTERNATE INFORMATION

OS

BID ALTERNATE #1: TRELLIS

**ZONING:** 

## **MEP ENGINEER**

R&W Engineering, Inc. 9615 SW Allen Blvd, STE 107 Beaverton, OR 97005 503.292.6000 Contact: Sam Russum srussum@rweng.com

#### STRUCTURAL ENGINEER

Grummel Engineering 920 SW Third Avenue #200 Portland, OR 97204 503.244.7014 Contact: Eric Pfau eric@grummelengineering.com

#### **SURVEYOR**

808 SW Third Avenue, STE 300 Portland, OR, 97204 503.287.6825 Contact: Jon Yamashita jon.yamashita@otak.com

## TRAFFIC SIGNAL ENGINEER

Nemariam Engineering and Associates 10976 NW Ironwood lane Portland, OR 97229 541.680.3411 Contact: Haregu Nemarium haregu.nemariam@gmail.com Contact: Sina Kahrobaei sina@nemariam-engineers.com Direct: 214.205.7712

## WATER FEATURE CONSULTANT

STO Design Group, Inc. 2500 Redhill Avenue, STE 205 Santa Ana, CA, 92705 949.476.8777 Contact: Ken McPhie ken@stodesign.com

## **GENERAL NOTES**

INFORMATION REGARDING EXISTING CONDITIONS USED TO PREPARE THESE DRAWINGS HAS BEEN PROVIDED BY OTHERS. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING CONSTRUCTION. PROVIDE WRITTEN NOTIFICATION TO THE ARCHITECT OF ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS & THE DRAWINGS. THE ARCHITECT WILL ISSUE A WRITTEN DIRECTIVE IF FURTHER CLARIFICATION IS REQUIRED.

## **UTILITY LOCATE NOTES**

PROCEDURE:

COORDINATOR.

A. CONTRACTOR IS TO NOTIFY THE OREGON ONE CALL CENTER AT 1-800-332-2344 FOR LOCATE(S).

B. LOCATE REQUESTS MUST BE PHONED IN AT LEAST 72 BUSINESS HOURS PRIOR TO SCHEDULED WORK. PLEASE GATHER ALL OF THE INFORMATION REQUIRED TO PROCESS THE LOCATE REQUEST BEFORE CALLING OREGON ONE CALL CENTER. THE FOLLOWING INFORMATION IS NEEDED FOR THE LOCATE REQUEST 1. COMPANY NAME & PHONE # 2. PARK NAME

3. TYPE OF WORK (IE: IRRIGATION REPAIR, TRENCHING, INSTALLING BIKE RACK, ETC. JUST STATING THAT YOU NEED A LOCATE IS NOT

8. EMAIL ADDRESS OF PARKS CONSTRUCTION MANAGER

**ENOUGH INFORMATION)** 

4. STREET NAME INCLUDING ITS' PROPER SUFFIX (IE: AVE., ST., ETC.) 5. NEAREST INTERSECTING STREET NAME & SUFFIX

6. DISTANCE & DIRECTION FROM INTERSECTION TO THE LOCATE SITE(S) 7. EMAIL ADDRESS FOR THE CONSTRUCTION COMPANY

C. ONCE CONTRACTOR HAS RECEIVED THE TICKET NUMBER FROM OREGON ONE CALL CENTER, CONTRACTOR WILL THEN CONTACT PARKS UTILITY LOCATE REQUEST

D. CONTRACTOR WILL MARK OUT THE LOCATE SITE IN WHITE PAINT AND ALSO MARK THE INTERSECTION SPECIFIED IN THE LOCATE REQUEST WITH THE WORD 'LOCATE' AND AN ARROW POINTING TOWARDS THE WORK SITE IN WHITE PAINT. PARKS IRRIGATION STAFF WILL THEN LOCATE ALL IRRIGATION LINES WITH WHITE PAINT, WITHIN THE WORK ZONE. CONTRACTOR SHALL NOT DIG UNTIL ALL LOCATES HAVE BEEN COMPLETED.

## **GENERAL ABBREVIATIONS**

**FOOTING** 

GALVANIZED

HOSE BIB

HORIZONTAL

MECHANICAL

MINIMUM

NUMBER

NTS

MANUFACTURER

MISCELLANEOUS

NOT TO SCALE

NOT IN CONTRACT

HEIGHT

**JOINT** 

GENERAL CONTRACTOR

ALT

AREA DRAIN OC ON CENTER OPPOSITE ALTERNATE **APPROXIMATE** PERFORATED PERIMETER AMERICAN SOCIETY FOR TESTING & MATERIALS BUILDING PERPENDICULAR CATCH BASIN PLATE **CONTROL JOINT POINT** PAINT **CENTERLINE** PREFABRICATED CLEAR CONCRETE PREFINISHED CONTRUCTION **PROJECT** COORDINATE POUNDS PER SQUARE FOOT CONSUMER PRODUCT SAFETY COMMISSION POUNDS PER SQUARE INCH PRESSURE TREATED DIAGONAL POLYVINYL CHLORIDE REFERENCE **DIMENSION** REQUIRED SANITARY SEWER EXISTING STORM SEWER **EXPANSION JOINT** SCHEDULE **ELEC** ELECTRICAL SECTION SQUARE FOOT **EQUIPMENT** SIMILAR **SPECIFICATION FINISH FLOOR** FINISH FLOOR ELEVATION SQUARE FINISH GRADE STAINLESS STEEL STANDARD **FINISH** FLOOR STEEL FACE OF BUILDING STRUCTURAL STRUCT FACE OF CURB SYMBOL FACE OF WALL FINISH SURFACE TELEPHONE FEET, FOOT

TONGUE AND GROOVE **TEMPORARY** TUBE STEEL TOP OF CURB TOP OF WALL TYPICAL UNIFORM BUILDING CODE

UNDERWRITERS LABORATORY VERTICAL

WIDE FLANGE

WITHOUT

WEIGHT

ATTENTION: OREGON LAW REQUIRES YOU TO FOLLOW RULES THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. YOU MAY OBTAIN COPIES OF THE RULES BY CALLING THE CENTER. NOTIFICATION CENTER IS (503)-232-1987).

NOTICE TO EXCAVATORS:

(NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY

Dig Safely. Call the Oregon One-Call Center

DIAL 811 or 1-800-332-2344

POTENTIAL UNDERGROUND FACILITY OWNERS

EMERGENCY TELEPHONE NUMBERS

NW NATURAL GAS M-F 7am-6pm 503-226-4211 Ext.4313 AFTER HOURS 503-226-4211 503-464-7777 1-800-573-1311

503-823-1700

503-823-4874

1-800-483-1000

CITY BUREAU OF MAINTENANCE

CITY WATER

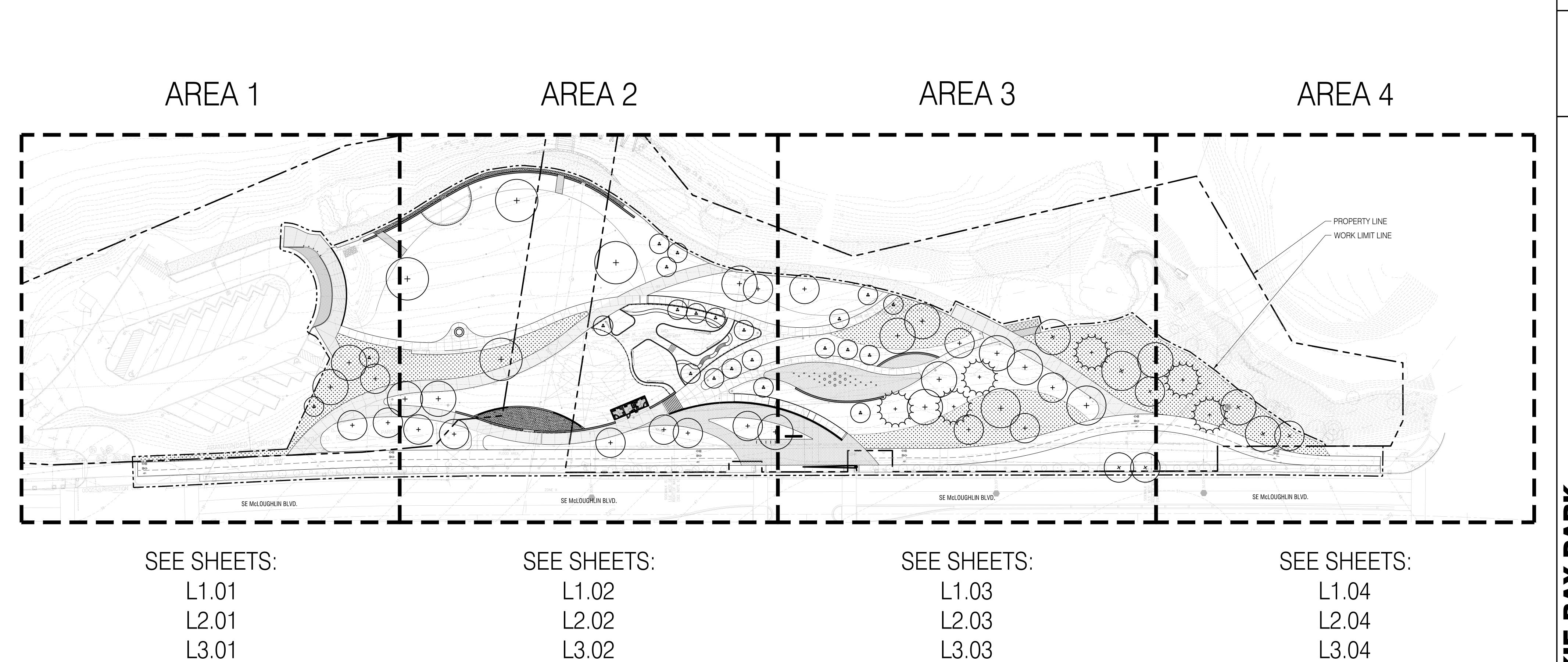
VERIZON

REVISIONS

SITE INFORMATION

NOT FOR CONSTRUCTION

G0.10



L4.02

L5.02

L6.02

L4.03

L5.03

L6.03

ILWAUKIE BAY PAF % Design Development

L4.04

L5.04

L6.04

0 15 30 60 90 SCALE 1"=30' REVISIONS

DATE DESCRIPTION

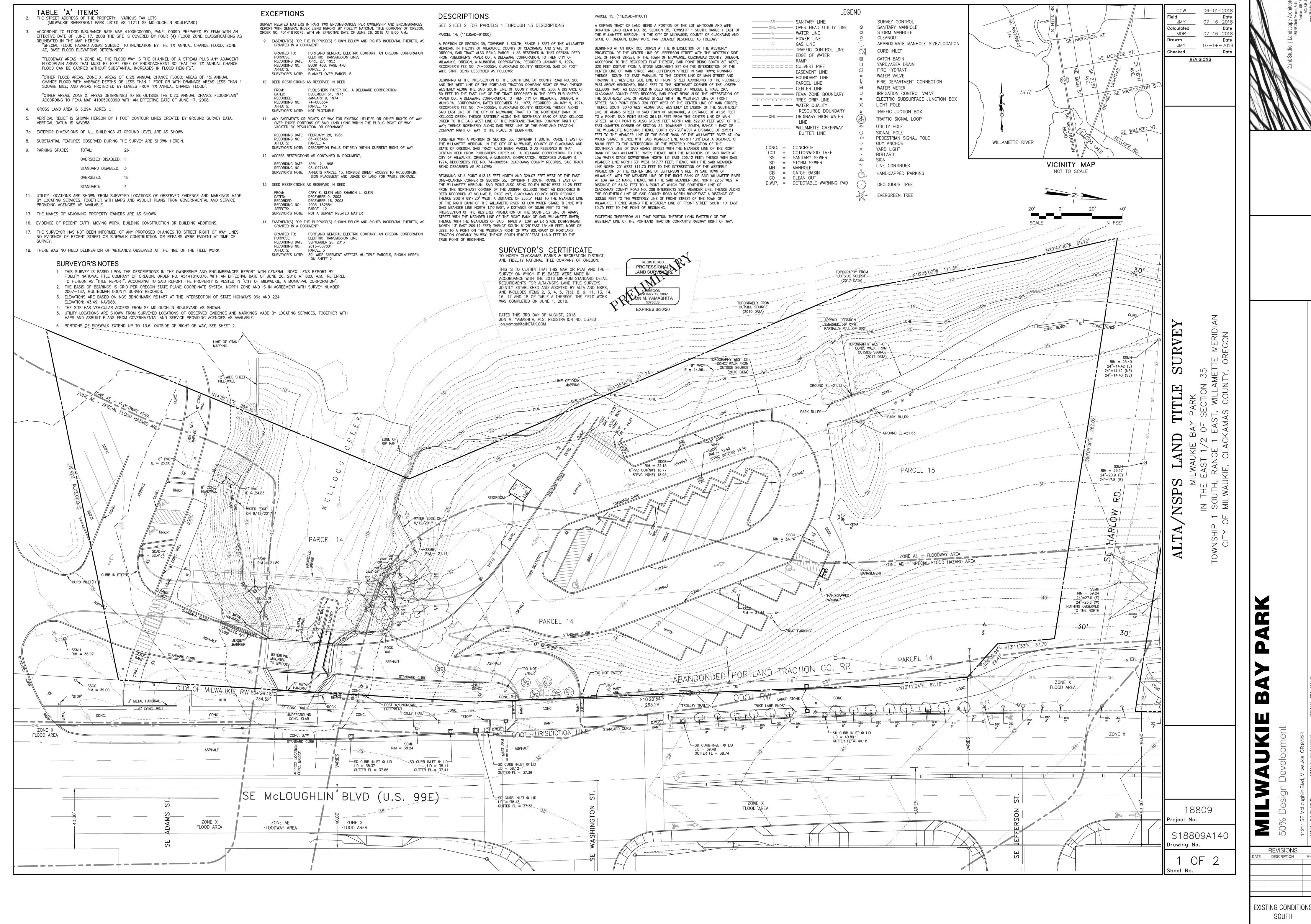
KEY PLAN

G0.20

L4.01

L5.01

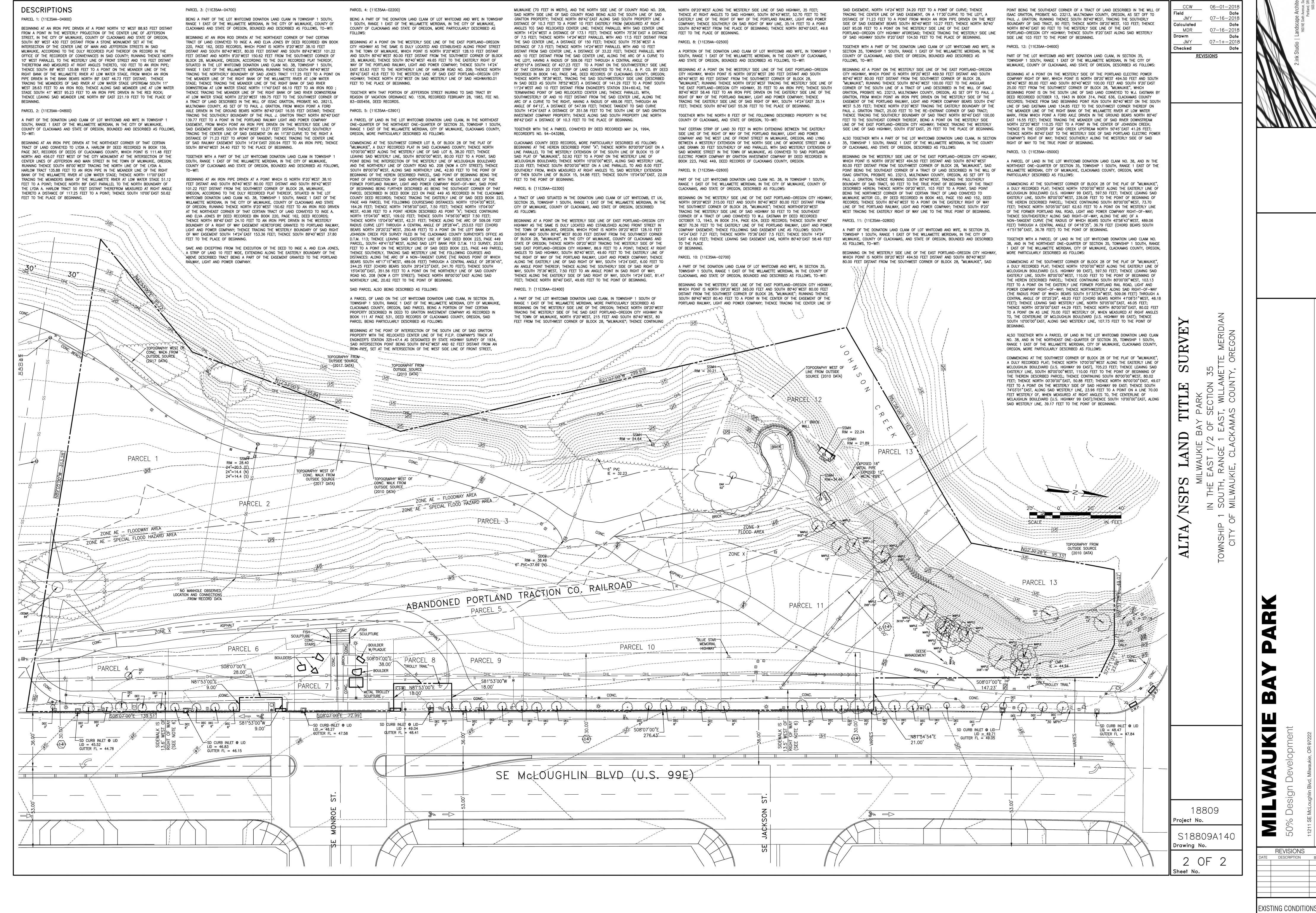
L6.01



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V1.0

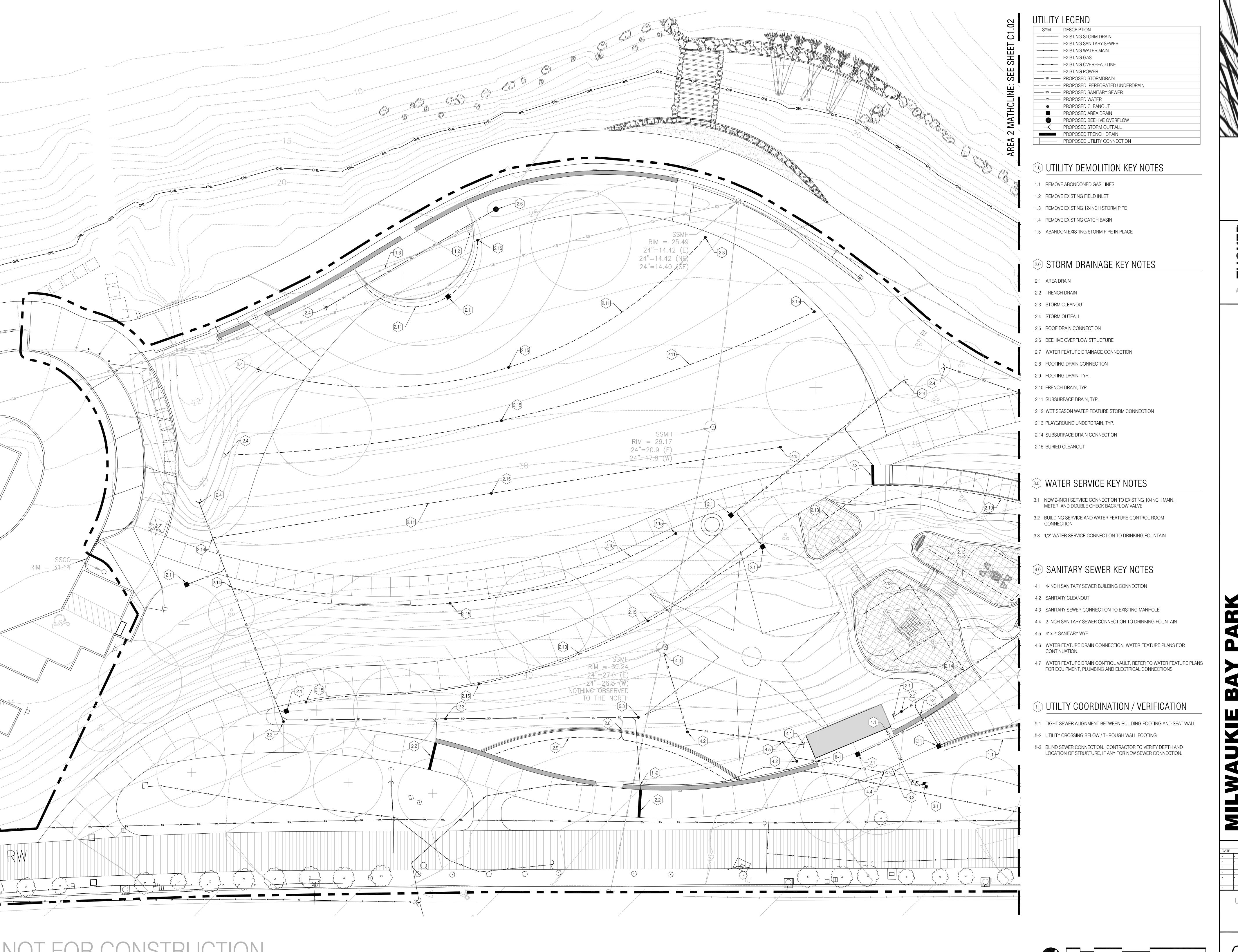
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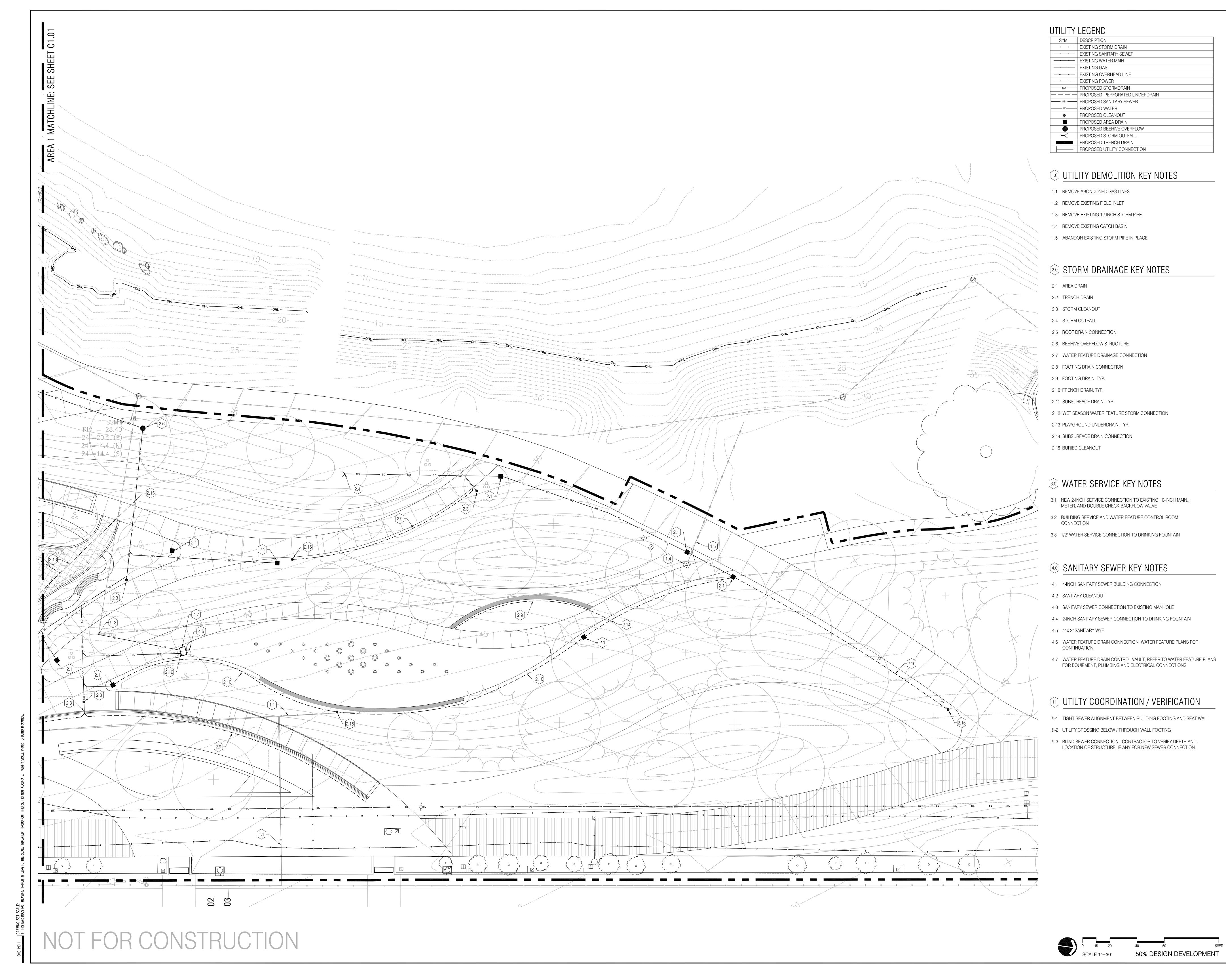
V2.0

REVISIONS



REVISIONS

UTILITY PLAN AREA 1



2. ink Studio | Landscape Archii

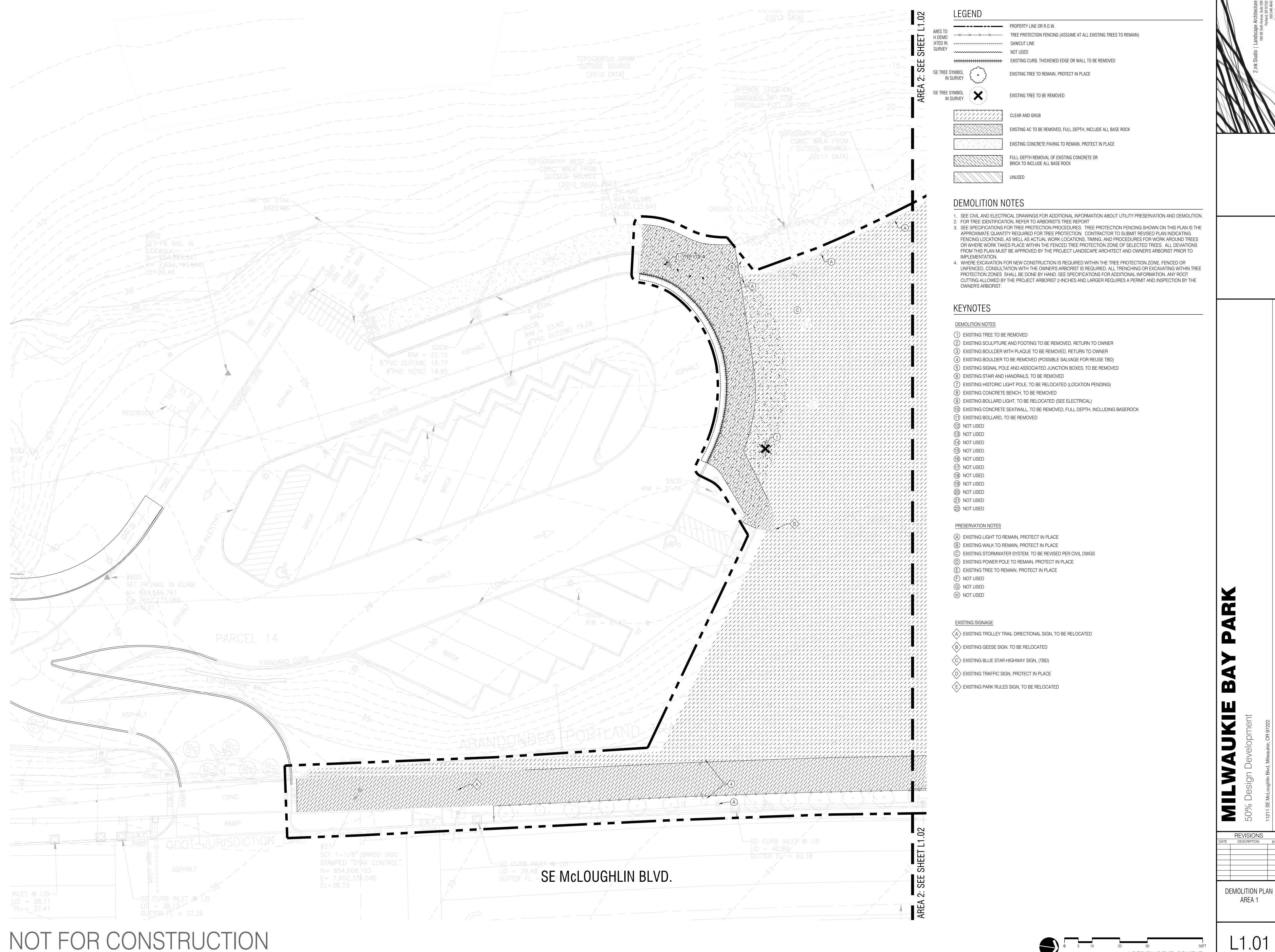
engineering & design
Ankeny Street - Portland, Oregon 97214
56-3473 - adam@zuckerengineering.com

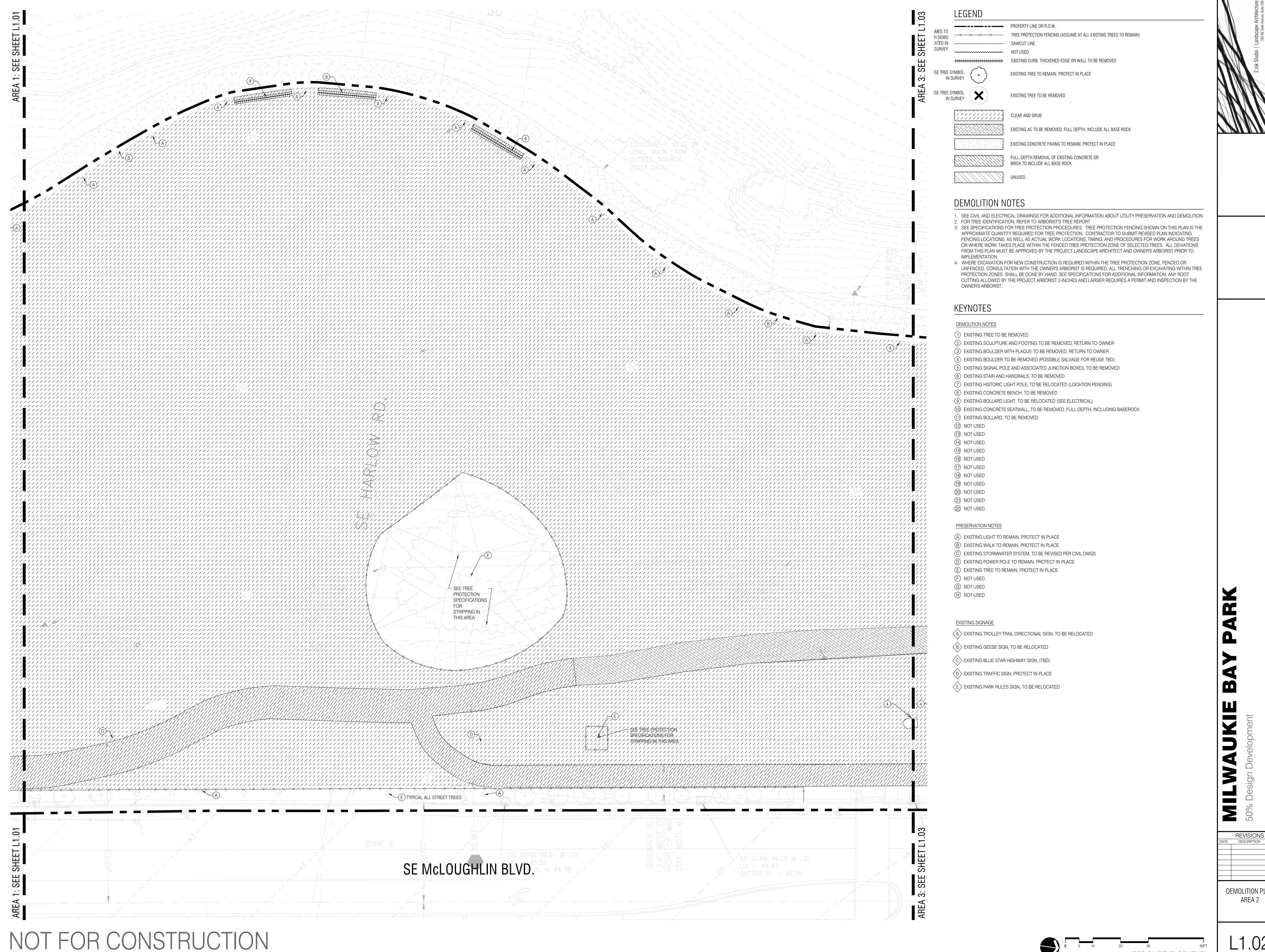
IE BAY PARK

50% Design Developme

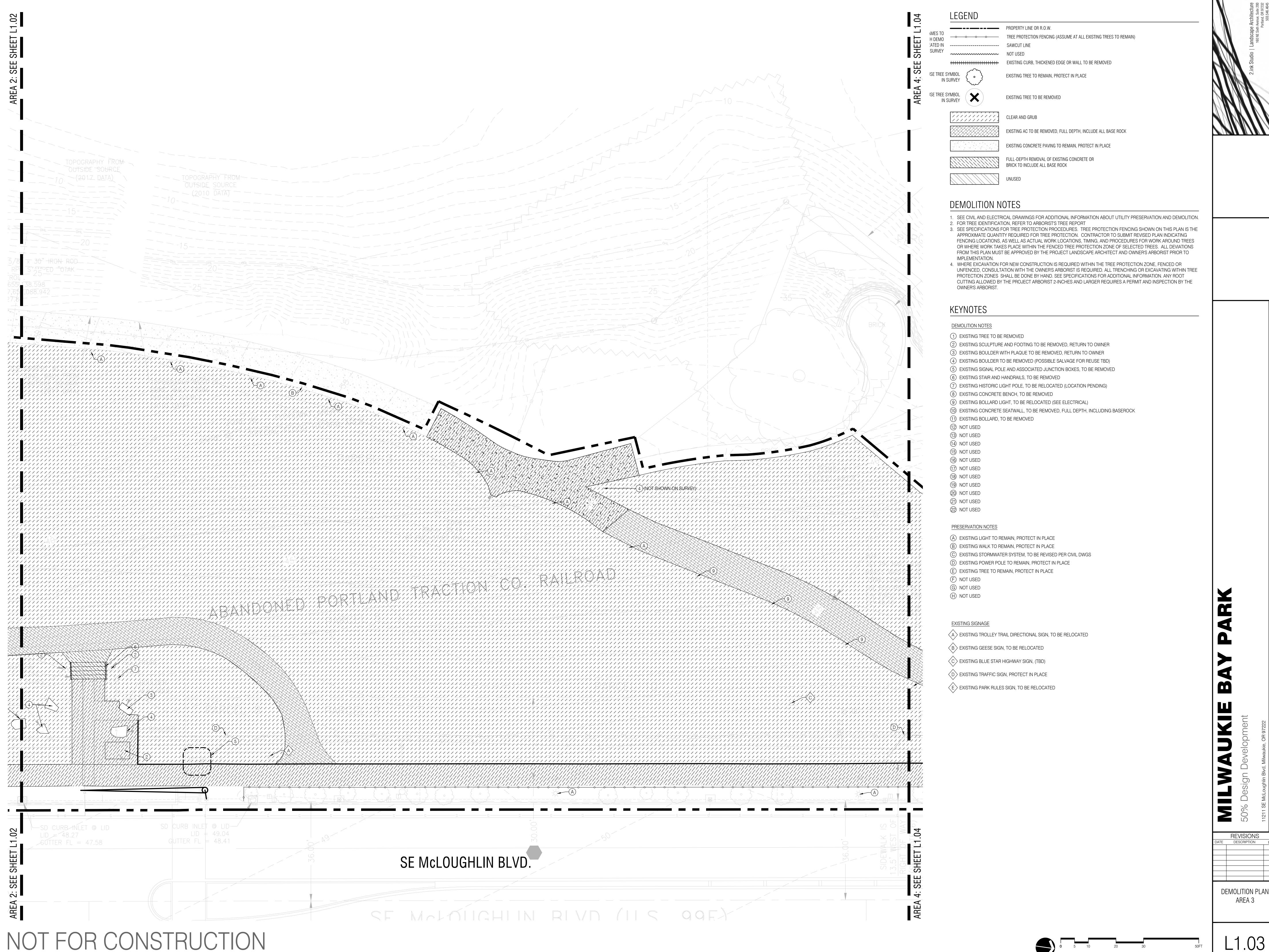
UTILITY PLAN AREA 2

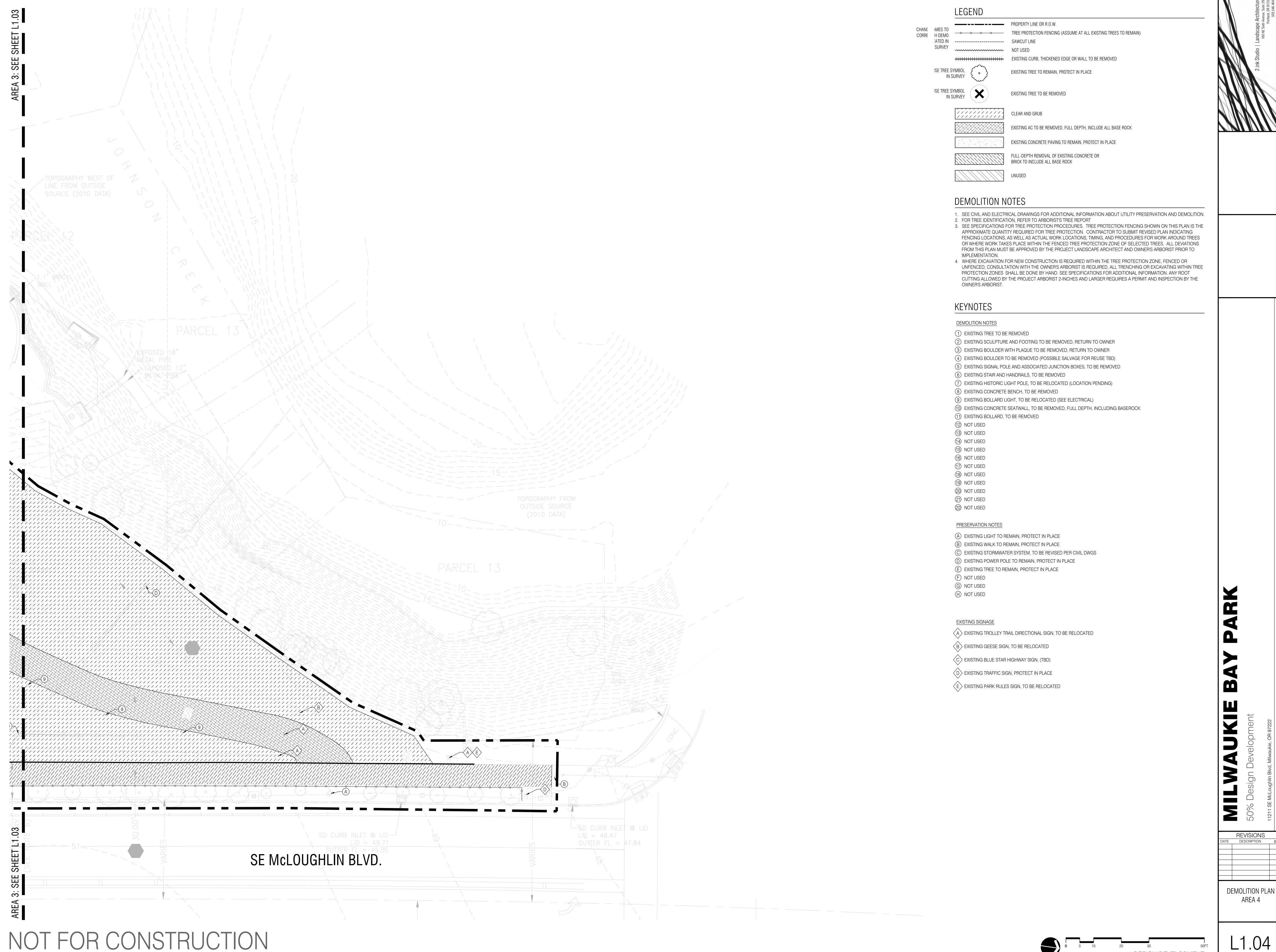
C1 02





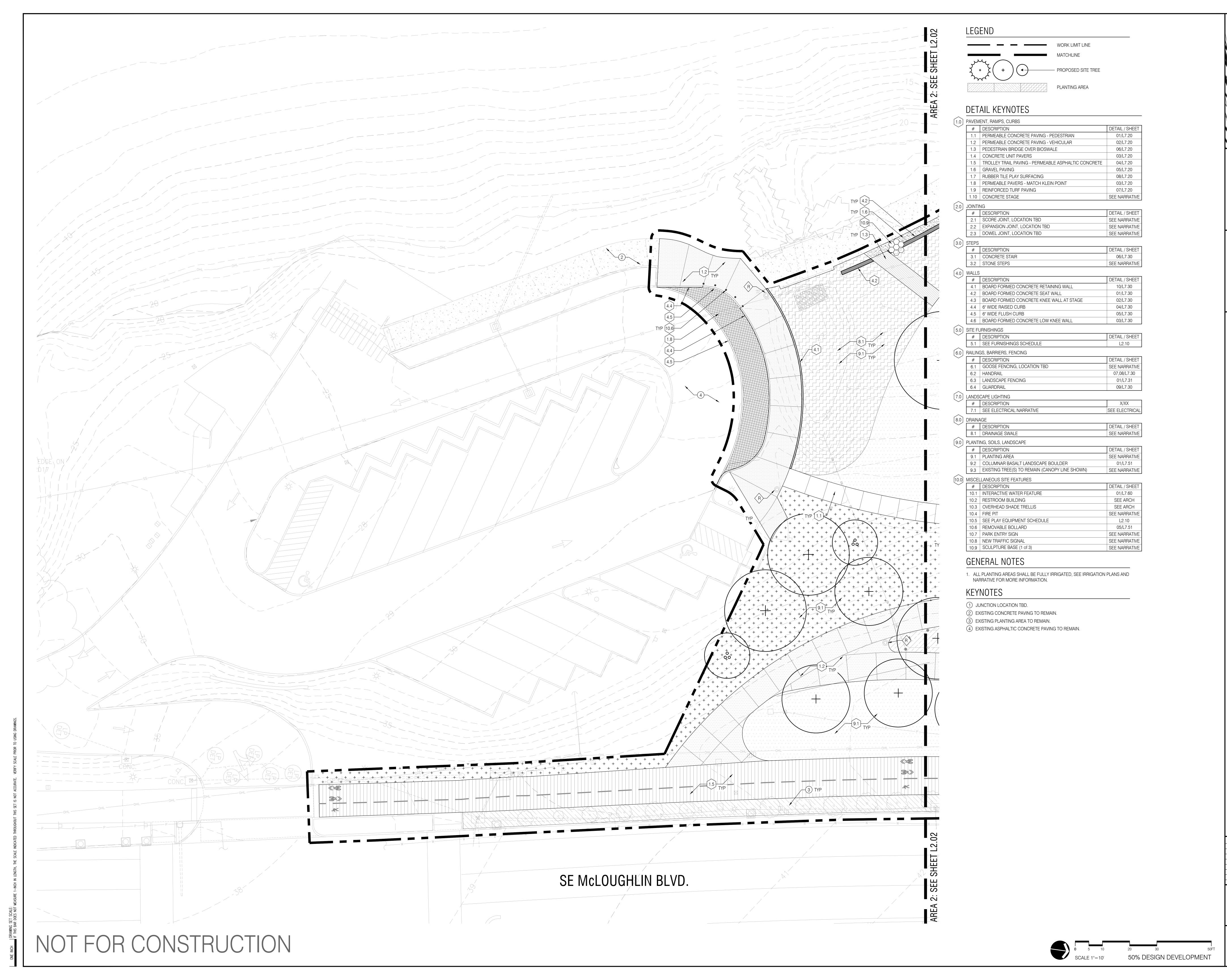
**DEMOLITION PLAN** 





L1.04

REVISIONS



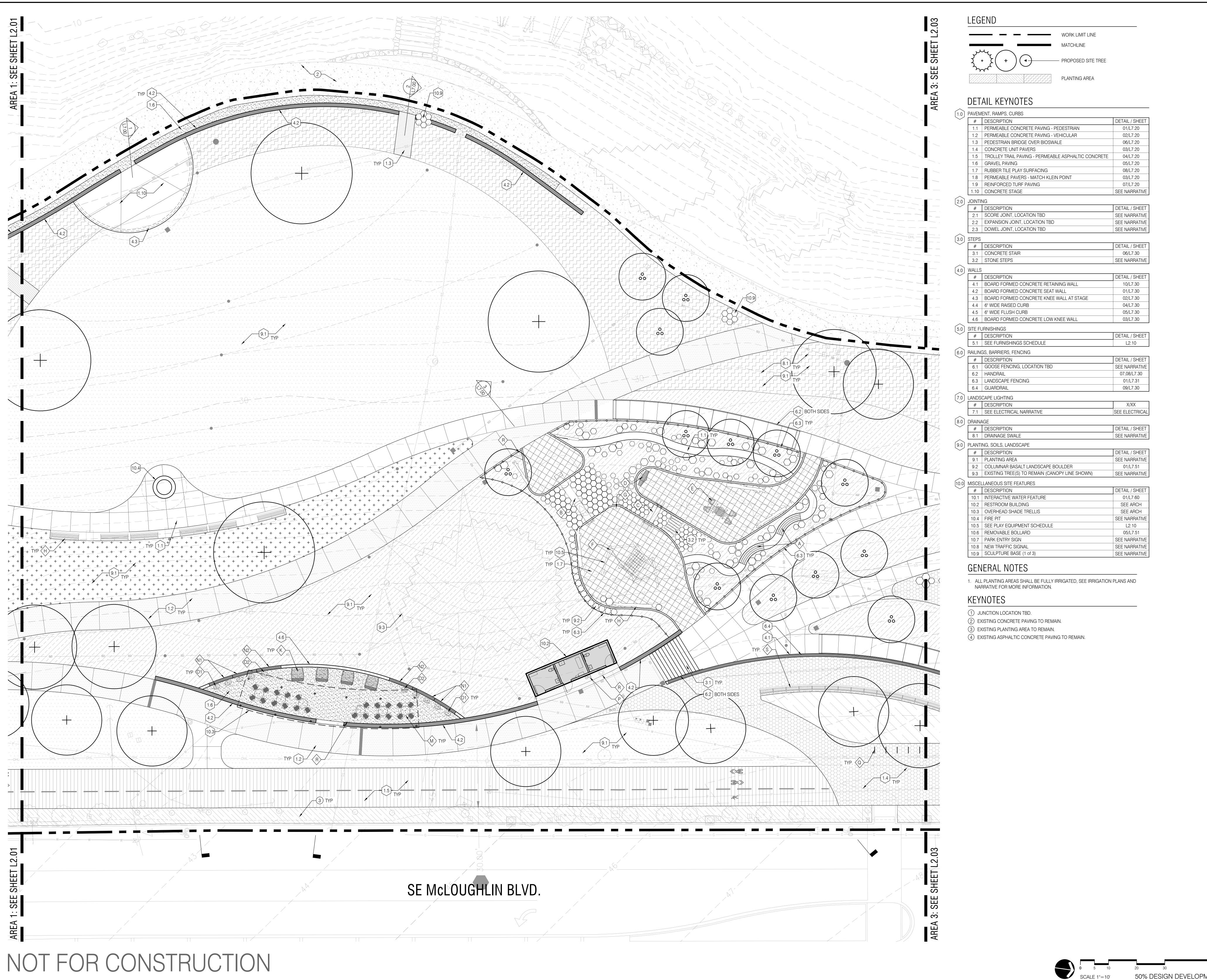
MILWAUKIE BAY P

REVISIONS

DESCRIPTION

MATERIALS PLAN AREA 1

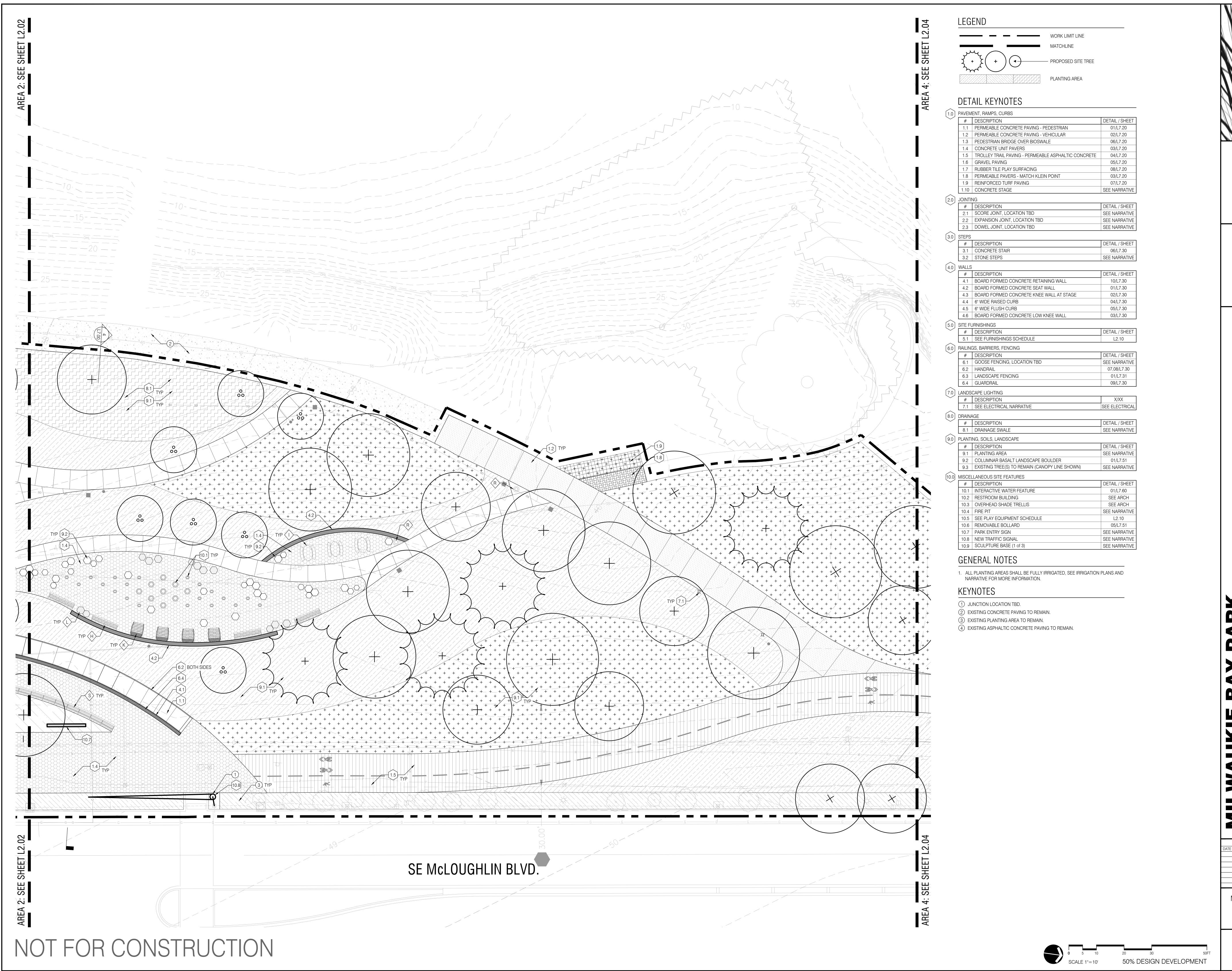
L2.01



REVISIONS DESCRIPTION

MATERIALS PLAN AREA 2

L2.02

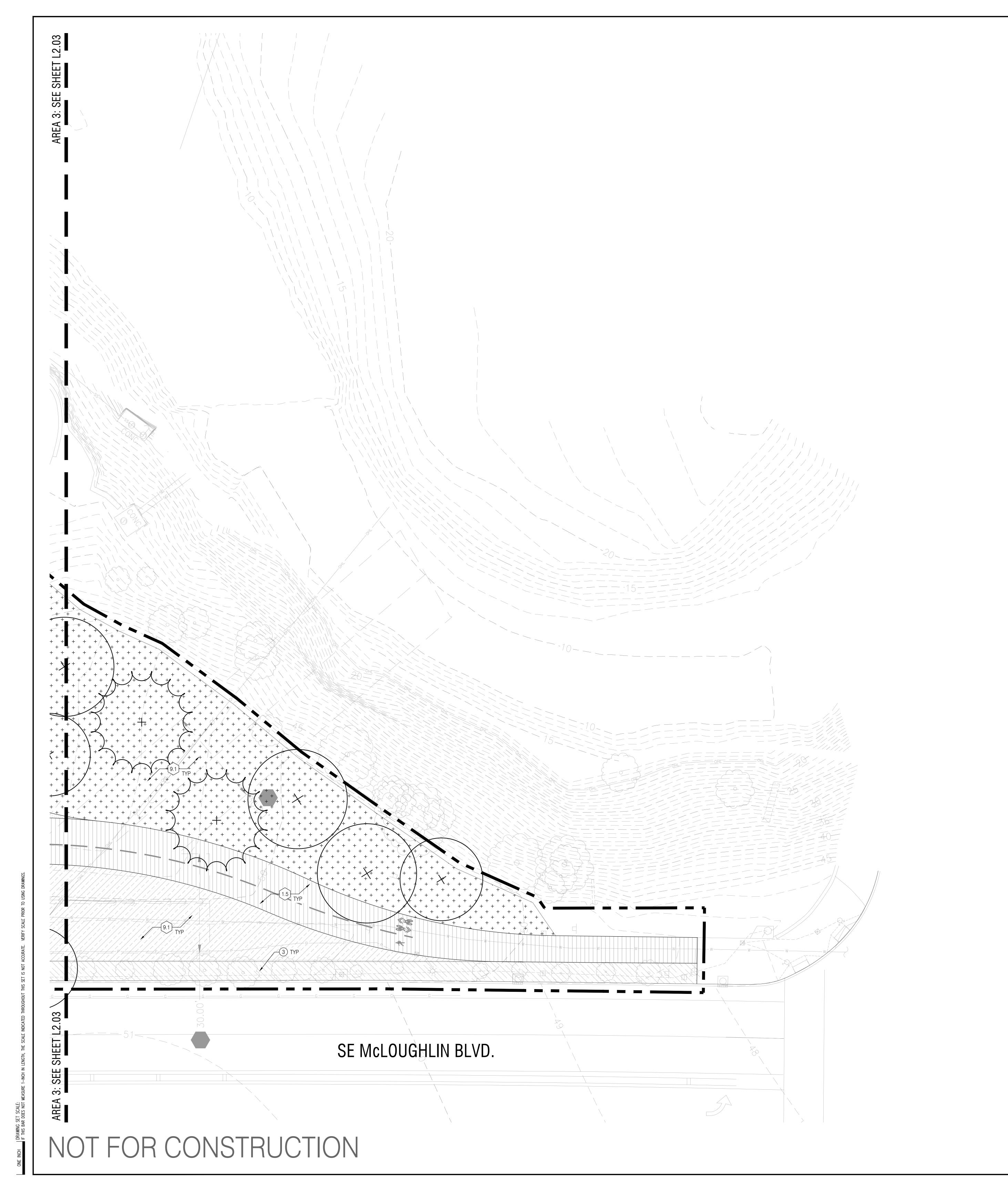


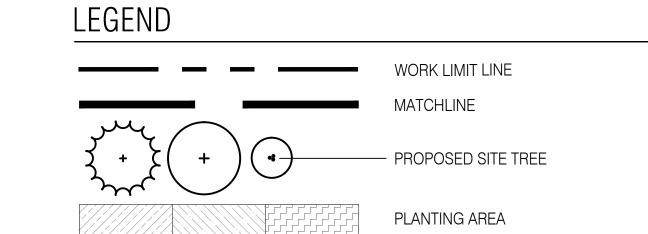
MILWAUKIE BAY PAF

REVISIONS
TE DESCRIPTION

MATERIALS PLAN AREA 3

50FT L2.0





DETAIL KEYNOTES

PAVEN	IENT, RAMPS, CURBS	
#	DESCRIPTION	DETAIL / SHEET
1.1	PERMEABLE CONCRETE PAVING - PEDESTRIAN	01/L7.20
1.2	PERMEABLE CONCRETE PAVING - VEHICULAR	02/L7.20
1.3	PEDESTRIAN BRIDGE OVER BIOSWALE	06/L7.20
1.4	CONCRETE UNIT PAVERS	03/L7.20
1.5	TROLLEY TRAIL PAVING - PERMEABLE ASPHALTIC CONCRETE	04/L7.20
1.6	GRAVEL PAVING	05/L7.20
1.7	RUBBER TILE PLAY SURFACING	08/L7.20
1.8	PERMEABLE PAVERS - MATCH KLEIN POINT	03/L7.20
1.9	REINFORCED TURF PAVING	07/L7.20
1.10	CONCRETE STAGE	SEE NARRATIVE
JOINTI	NG	
#	DESCRIPTION	DETAIL / SHEET
2.1	SCORE JOINT, LOCATION TBD	SEE NARRATIVE
2.1	EXPANSION JOINT, LOCATION TBD	SEE NARRATIVE
2.3	DOWEL JOINT, LOCATION TBD	SEE NARRATIVE
		OLL IVALUATIVE
STEPS		
#	DESCRIPTION	DETAIL / SHEET
3.1	CONCRETE STAIR	06/L7.30
3.2	STONE STEPS	SEE NARRATIVE
WALLS		
#	DESCRIPTION	DETAIL / SHEET
4.1	BOARD FORMED CONCRETE RETAINING WALL	10/L7.30
4.2	BOARD FORMED CONCRETE SEAT WALL	01/L7.30
4.3	BOARD FORMED CONCRETE KNEE WALL AT STAGE	02/L7.30
4.4	6" WIDE RAISED CURB	04/L7.30
4.5	6" WIDE FLUSH CURB	05/L7.30
4.6	BOARD FORMED CONCRETE LOW KNEE WALL	03/L7.30
SITE EI	JRNISHINGS	
#	DESCRIPTION	DETAIL / SHEET
<del></del> 5.1	SEE FURNISHINGS SCHEDULE	L2.10
		LZ.10
	GS, BARRIERS, FENCING	Tarring (access
#	DESCRIPTION	DETAIL / SHEET
6.1	GOOSE FENCING, LOCATION TBD	SEE NARRATIVE
6.2	HANDRAIL	07,08/L7.30
6.3	LANDSCAPE FENCING	01/L7.31
6.4	GUARDRAIL	09/L7.30
ANDS	CAPE LIGHTING	
#	DESCRIPTION	X/XX
7.1	SEE ELECTRICAL NARRATIVE	SEE ELECTRICA
DRAIN/	AGE	
##	DESCRIPTION	DETAIL / SHEET
<del></del> 8.1	DRAINAGE SWALE	SEE NARRATIVE
		JLE IVANNATIVE
PLANT	ING, SOILS, LANDSCAPE	_
#	DESCRIPTION	DETAIL / SHEET
9.1	PLANTING AREA	SEE NARRATIVE
	COLLINADA DA CALTI ANDCOADE DOLLI DED	04/17/54

## GENERAL NOTES

(10.0) MISCELLANEOUS SITE FEATURES

10.2 RESTROOM BUILDING

10.6 REMOVABLE BOLLARD

10.9 SCULPTURE BASE (1 of 3)

10.7 PARK ENTRY SIGN

10.8 NEW TRAFFIC SIGNAL

10.3 OVERHEAD SHADE TRELLIS

10.1 INTERACTIVE WATER FEATURE

10.5 SEE PLAY EQUIPMENT SCHEDULE

# DESCRIPTION

ALL PLANTING AREAS SHALL BE FULLY IRRIGATED, SEE IRRIGATION PLANS AND NARRATIVE FOR MORE INFORMATION.

01/L7.51

SEE NARRATIVE

DETAIL / SHEET

SEE NARRATIVE

SEE NARRATIVE

SEE NARRATIVE

SEE NARRATIVE

01/L7.60

## KEYNOTES

1) JUNCTION LOCATION TBD.

2 EXISTING CONCRETE PAVING TO REMAIN.

3 EXISTING PLANTING AREA TO REMAIN. 4 EXISTING ASPHALTIC CONCRETE PAVING TO REMAIN.

9.2 COLUMNAR BASALT LANDSCAPE BOULDER

9.3 EXISTING TREE(S) TO REMAIN (CANOPY LINE SHOWN)

REVISIONS DESCRIPTION

MATERIALS PLAN AREA 4

L2.04

(1) STAINLESS STEEL

4' DROP IN ELEVATION PRODUCT #: 1643-52-EMB

(1) PAGASUS METALLPHONE

POSTS INSTALLED AT
22"-32" HEIGHT
PRODUCT #: PEG-SM-REC

(1) WE-SAW PRODUCT #: 186490

(1) TIMBER STACKS 'SALEM'

NATURAL LOG CLIMBING

PRODUCT #: ZZXX1324

STRUCTURES OR (4) PLAYSHAPER TALK TUBE
APPROVED PRODUCT#: 115198

N/A

N/A

STRUCTURE. PRODUCT NUMBER:

| 8'-1" | N/A

STRUCTURES, OR APPROVED

**FREENOTES** 

HARMONY PARK

LANDSCAPE

FORMS OR APPROVED

EQUAL

PLAYWORLD OR

APPROVED

LANDSCAPE

EQUAL

OR APPROVED

EMBANKMENT WIDE SLIDE WITH

CENTER RAIL

B SLIDE AGE: 5-12

SLIDE AGE: 5-12

SOUND INSTRUMENT AGE: ALL

MISC AGE: 2-12

CLIMBER AGE: 5-12

AUDITORY G AGE: 2-5

#	DESCRIPTION	MANUFACTURER	(QUANT.)/MODEL	FALL HEIGHT	DETAIL DRAWING	INSTALLATION / COMMENTS	IMAGE
Α	WILLOW TUNNEL AGE: 2-9	CUSTOM	(2) CUSTOM TUNNELS	N/A	3/L7.70	TBD	

NATURAL STRUCTURES, OR APPROVED EQUAL	(1) STAINLESS STEEL TUNNEL EMBANKMENT SLIDE 8' DROP IN ELEVATION PRODUCT #: SS-P109T	N/A	N/A	EMBED FOOTING PER MANUFACTURER	

N/A N/A

N/A N/A

4'-6" N/A

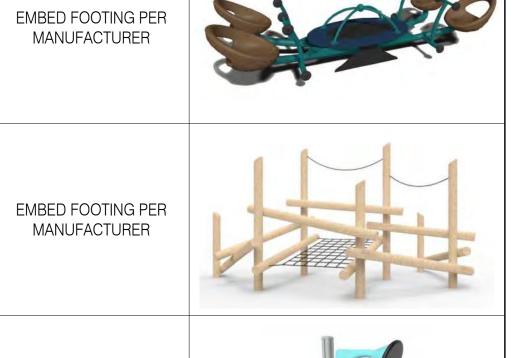
EMBED FOOTING PER

MANUFACTURER





ΞR	
PER ER	



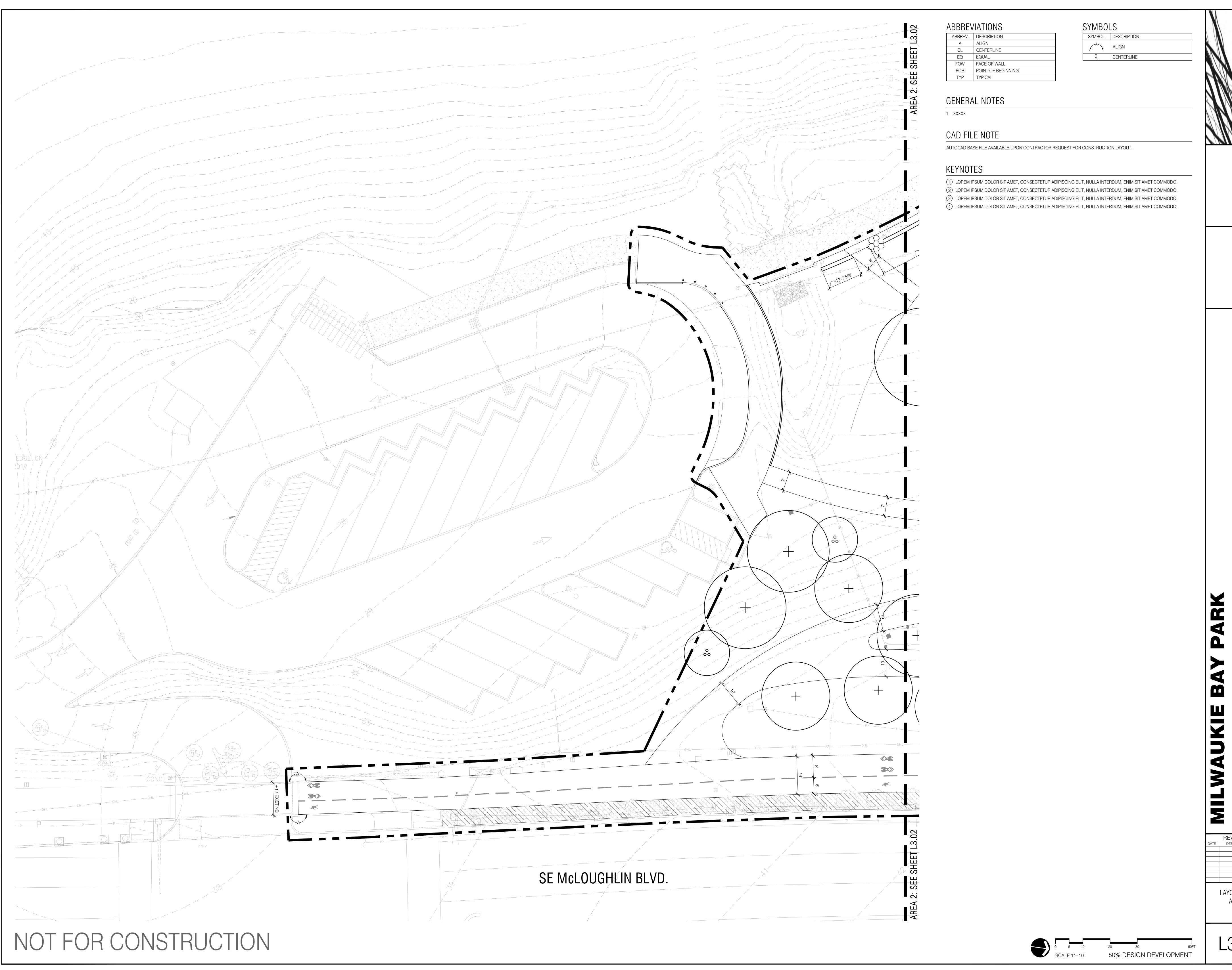
#	DESCRIPTION	MANUFACTURER	(QUANT.)/MODEL	DETAIL DRAWING	INSTALLATION / COMMENTS	IMAGE
Н	PARK BENCH	LANDSCAPE FORMS OR APPROVED EQUAL	QUANTITY: 10 EA MODEL: NEOLIVIANO 118" BACKED BENCH MTRL/FINISH: POWDERCOATED ALUMINUM COLOR: TBD	N/A	SURFACE MOUNT	
ı	PICNIC TABLE	LANDSCAPE FORMS OR APPROVED EQUAL	QUANTITY: 3 EA MODEL: CHARLIE TABLE, 67" TABLE MTRL/FINISH: POWDERCOATED STEEL COLOR: TBD	N/A	SURFACE MOUNT	
J	LOG PLAYGROUND BENCH	CUSTOM	QUANTITY: 6 EA MODEL: N/A FINISH: APPLY CLEAR PROTECTIVE COATING COLOR: N/A	N/A	TBD	
K	LOUNGE SEAT	VESTRE	QUANTITY: 8 EA MODEL: 1566 BLOC BENCH WITH CUSTOM METAL SLATS MTRL/FINISH: POWDERCOATED STEEL COLOR: TBD	N/A	SURFACE MOUNT	
L	COLUMNAR BASALT SEAT	CUSTOM	QUANTITY: 12 EA MODEL: N/A MTRL/FINISH: CUT COLUMNAR BASALT WITH ANTI-SLIP FINSIH COLOR: N/A	N/A	TBD	
М	CAFE TABLE	LANDSCAPE FORMS OR APPROVED EQUAL	QUANTITY: 6 EA MODEL: CAROUSEL DINING TABLE, 90" X 33", CATENA TABLE TOP & HOOP SEATS (3 SEAT & 4 SEAT) MTRL/FINISH: POWDERCOATED STEEL COLOR: TBD	N/A	SURFACE MOUNT	
N	(N1)BAR RAIL HIGH (N2)BAR RAIL LOW	LANDSCAPE FORMS OR APPROVED EQUAL	QUANTITY: 6 EA MODEL: RAILING SYSTEM WITH 12" WIDE BAR TOP, OPEN WITH CENTER EXPANSION UNITS. STANDARD 42" HIGH & ADA ACCESSIBLE HEIGHT. MTRL/FINISH: ALUMINUM TOP, STEEL SUPPORTS COLOR: TBD	N/A	EMBEDDED	
0	(O1)BAR SEAT HIGH (O2)BAR SEAT LOW	LANDSCAPE FORMS OR APPROVED EQUAL	QUANTITY: 10 EA MODEL: BERNIE STOOL, 41" BAR HEIGHT & 28" HEIGHT CHAIR WITH FOOTREST & RIGHT HANDED BACK MTRL/FINISH: POWDERCOATED ALUMINUM & STEEL COLOR: TBD	N/A	EMBEDDED	
Ρ	DRINKING FOUNTAIN AND BOTTLE FILLER	MOST DEPENDABLE FOUNTAIN OR APPROVED EQUAL	QUANTITY: 1 EA MODEL: BOTTLE FILLING STATION,10485 WMSS MTRL/FINISH: POWDERCOATED STEEL COLOR: TBD	N/A	MOUNT ON RESTROOM BUILDING	
Q	BIKE RACK	LANDSCAPE FORMS OR APPROVED EQUAL	QUANTITY: 2 EA OPTION A: FLO BIKE RACK, CAPACITY OF 3 OPTION B: CUSTOM RACK WITH TROLLY TRAIL LOGO MTRL/FINISH: POWDERCOATED STAINLESS STEEL COLOR: TBD	N/A	EMBEDDED	TROLLEY
R	TRASH RECEPTACLE	LANDSCAPE FORMS OR APPROVED EQUAL	QUANTITY: 10 EA MODEL: AUSTIN TRASH RECEPTACLE, 34 GALLON, SIDE OPENING WITH LOCK MTRL/FINISH: POWDERCOATED STEEL AND ALUMINUM COLOR: TBD	N/A	SURFACE MOUNTED	
S	CUSTOM CURVED BENCH	LANDSCAPE FORMS OR APPROVED EQUAL	QUANTITY: 1 EA MODEL: NEOLIVIANO, 97' LONG, 140' R, BACKED BENCH MTRL/FINISH: POWDERCOATED ALUMINUM COLOR: TBD	N/A	SURFACE MOUNTED	

SHOWN FOR DESIGN INTENT ONLY

REVISIONS
DESCRIPTION

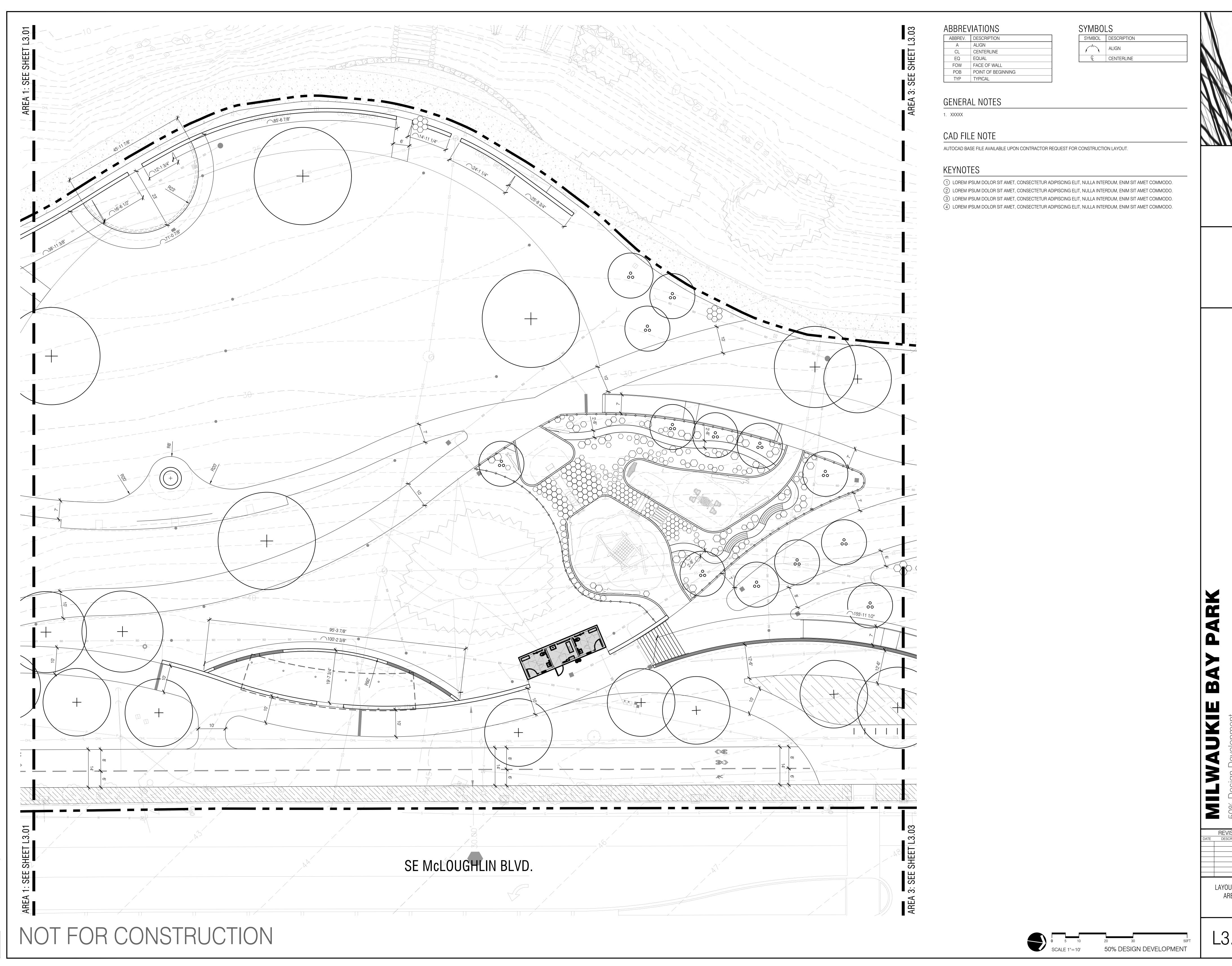
PLAYGROUND AND FURNISHINGS SCHEDULE

L2.10



LAYOUT PLAN AREA 1

L3.01

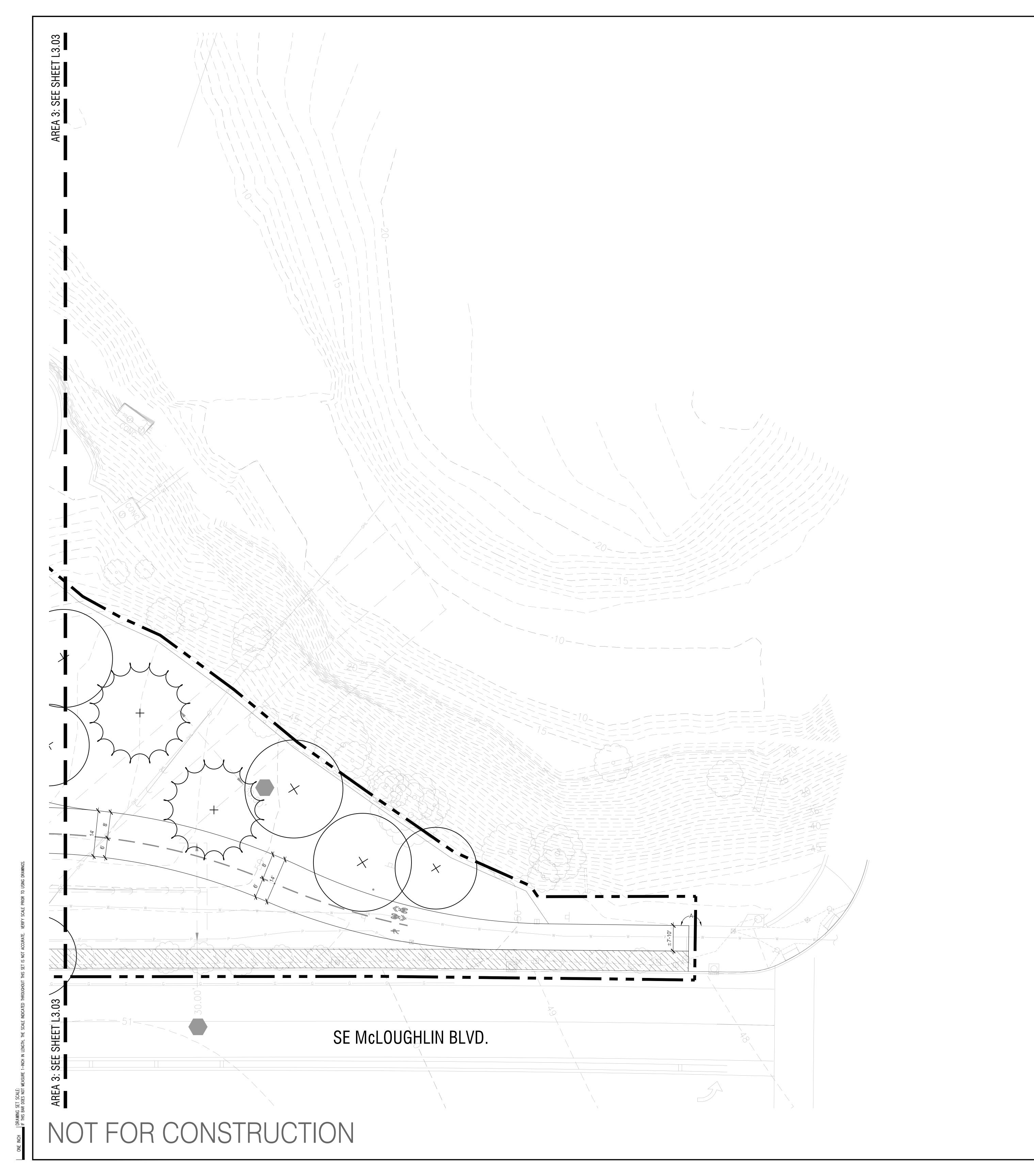


LAYOUT PLAN AREA 2

L3.02



L3.03



**ABBREVIATIONS** 

ABBREV. DESCRIPTION

A ALIGN

CL CENTERLINE

EQ EQUAL

FOW FACE OF WALL

POB POINT OF BEGINNING

TYP TYPICAL

SYMBOL DESCRIPTION

ALIGN

CENTERLINE

GENERAL NOTES

1. XXXXX

## CAD FILE NOTE

AUTOCAD BASE FILE AVAILABLE UPON CONTRACTOR REQUEST FOR CONSTRUCTION LAYOUT.

#### KEYNOTES

LOREM IPSUM DOLOR SIT AMET, CONSECTETUR ADIPISCING ELIT, NULLA INTERDUM, ENIM SIT AMET COMMODO.
 LOREM IPSUM DOLOR SIT AMET, CONSECTETUR ADIPISCING ELIT, NULLA INTERDUM, ENIM SIT AMET COMMODO.
 LOREM IPSUM DOLOR SIT AMET, CONSECTETUR ADIPISCING ELIT, NULLA INTERDUM, ENIM SIT AMET COMMODO.

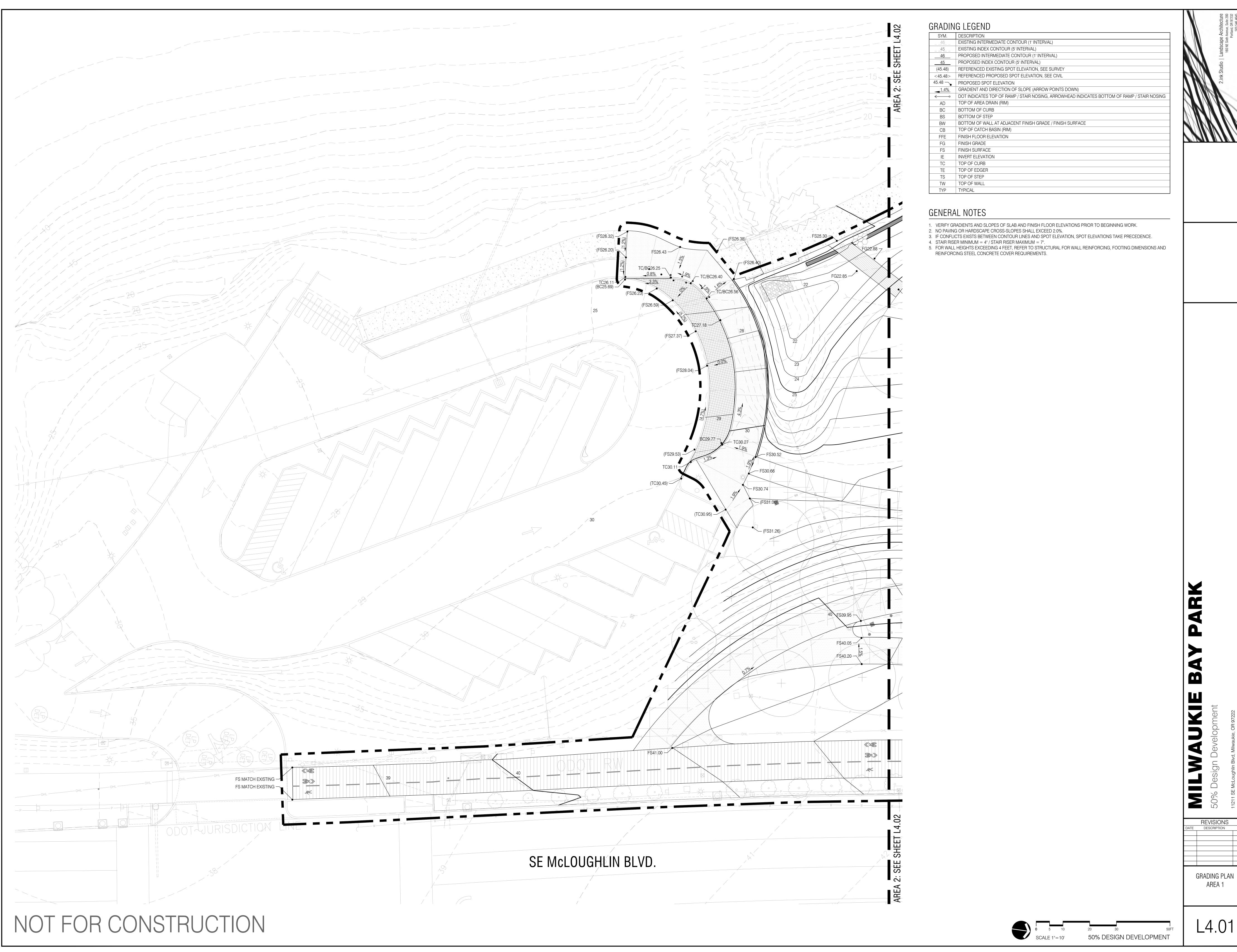
4 LOREM IPSUM DOLOR SIT AMET, CONSECTETUR ADIPISCING ELIT, NULLA INTERDUM, ENIM SIT AMET COMMODO.

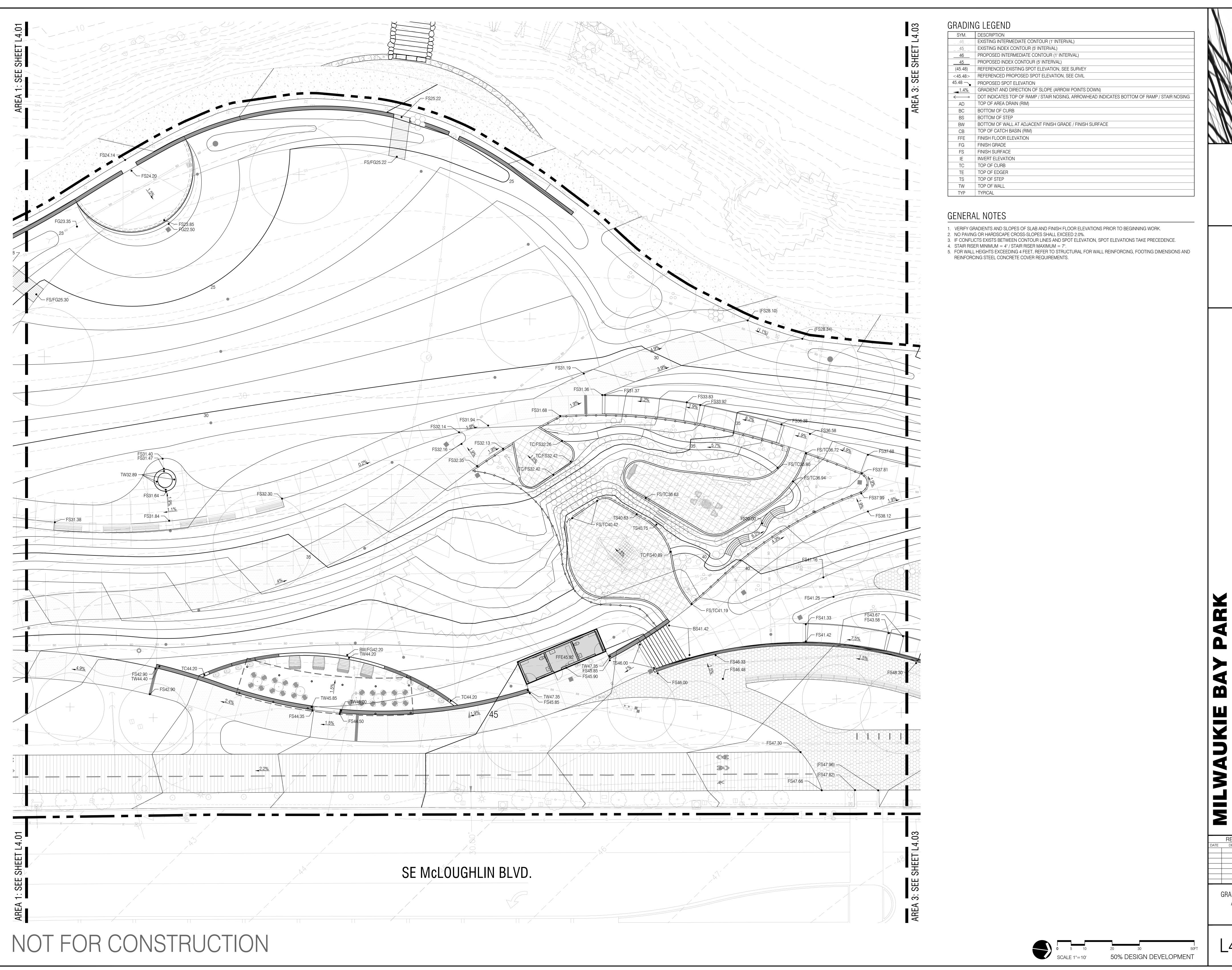
WAUKIE BAY PA

REVISIONS
DESCRIPTION

LAYOUT PLAN AREA 4

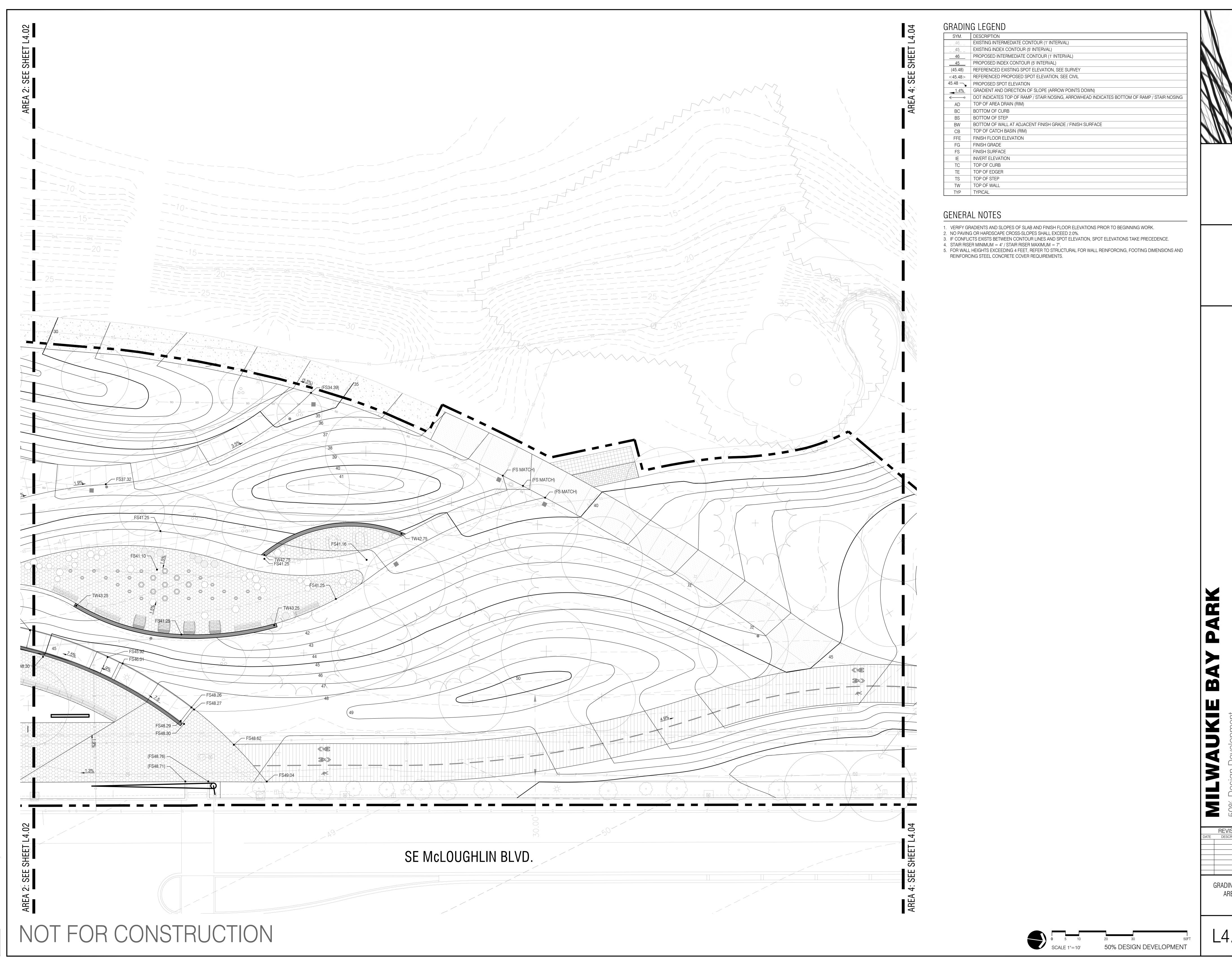
50FT L3.04





GRADING PLAN AREA 2

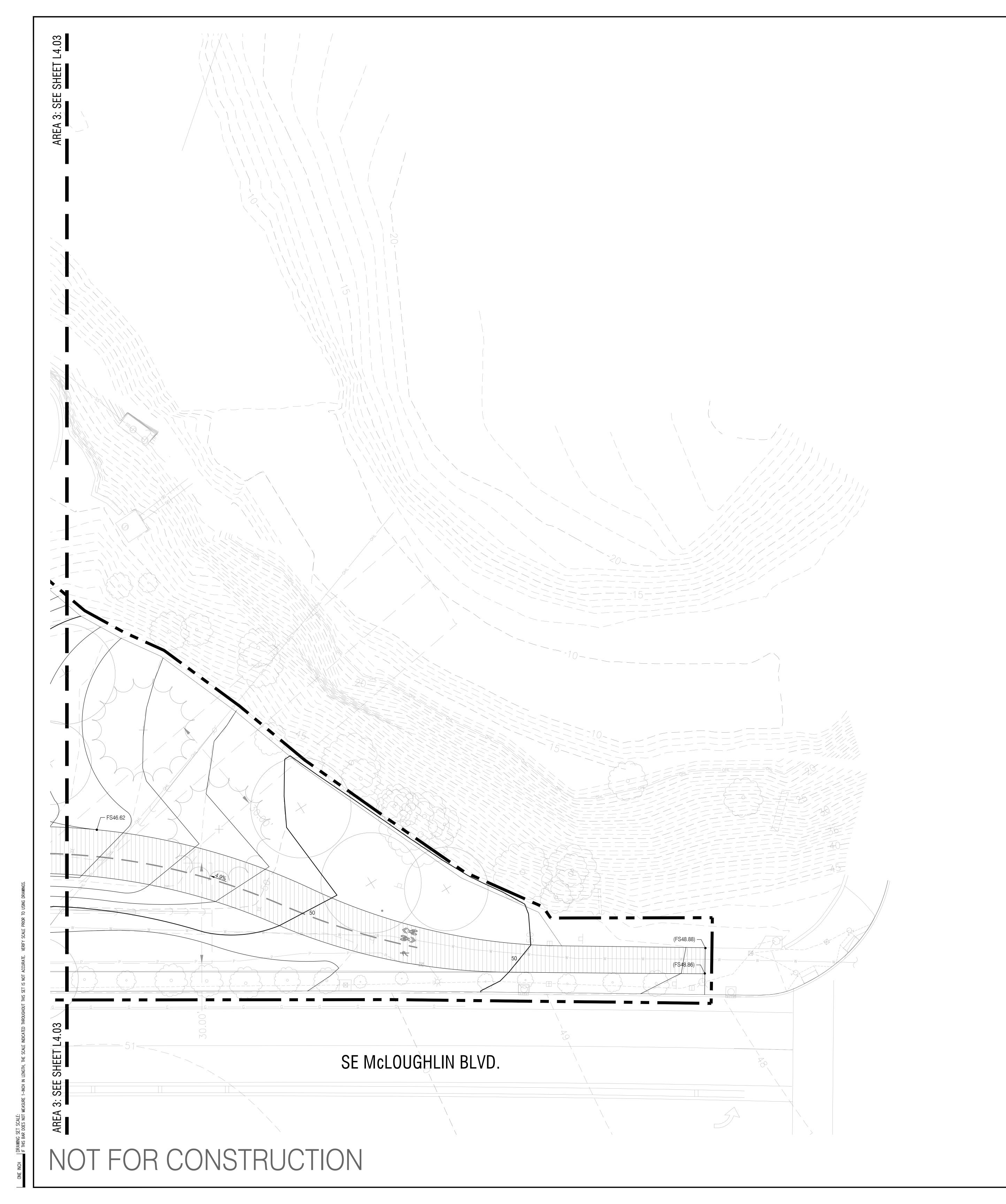
L4.02



REVISIONS DESCRIPTION

GRADING PLAN

L4.03



GRADING LEGEND

אוועאאג	G LEGEND
SYM.	DESCRIPTION
46	EXISTING INTERMEDIATE CONTOUR (1' INTERVAL)
45	EXISTING INDEX CONTOUR (5' INTERVAL)
46	PROPOSED INTERMEDIATE CONTOUR (1' INTERVAL)
<u>45</u>	PROPOSED INDEX CONTOUR (5' INTERVAL)
(45.48)	REFERENCED EXISTING SPOT ELEVATION, SEE SURVEY
<45.48>	REFERENCED PROPOSED SPOT ELEVATION, SEE CIVIL
45.48 —	PROPOSED SPOT ELEVATION
1.4%	GRADIENT AND DIRECTION OF SLOPE (ARROW POINTS DOWN)
←	DOT INDICATES TOP OF RAMP / STAIR NOSING, ARROWHEAD INDICATES BOTTOM OF RAMP / STAIR NOSING
AD	TOP OF AREA DRAIN (RIM)
ВС	BOTTOM OF CURB
BS	BOTTOM OF STEP
BW	BOTTOM OF WALL AT ADJACENT FINISH GRADE / FINISH SURFACE
CB	TOP OF CATCH BASIN (RIM)
FFE	FINISH FLOOR ELEVATION
FG	FINISH GRADE
FS	FINISH SURFACE
ΙE	INVERT ELEVATION
TC	TOP OF CURB
TE	TOP OF EDGER
TS	TOP OF STEP
TW	TOP OF WALL
TYP	TYPICAL

## GENERAL NOTES

1. VERIFY GRADIENTS AND SLOPES OF SLAB AND FINISH FLOOR ELEVATIONS PRIOR TO BEGINNING WORK.

2. NO PAVING OR HARDSCAPE CROSS-SLOPES SHALL EXCEED 2.0%.

3. IF CONFLICTS EXISTS BETWEEN CONTOUR LINES AND SPOT ELEVATION, SPOT ELEVATIONS TAKE PRECEDENCE. 4. STAIR RISER MINIMUM = 4" / STAIR RISER MAXIMUM = 7".

5. FOR WALL HEIGHTS EXCEEDING 4 FEET, REFER TO STRUCTURAL FOR WALL REINFORCING, FOOTING DIMENSIONS AND REINFORCING STEEL CONCRETE COVER REQUIREMENTS.

E BAY PARK

LWAUKIE BA Jesign Development

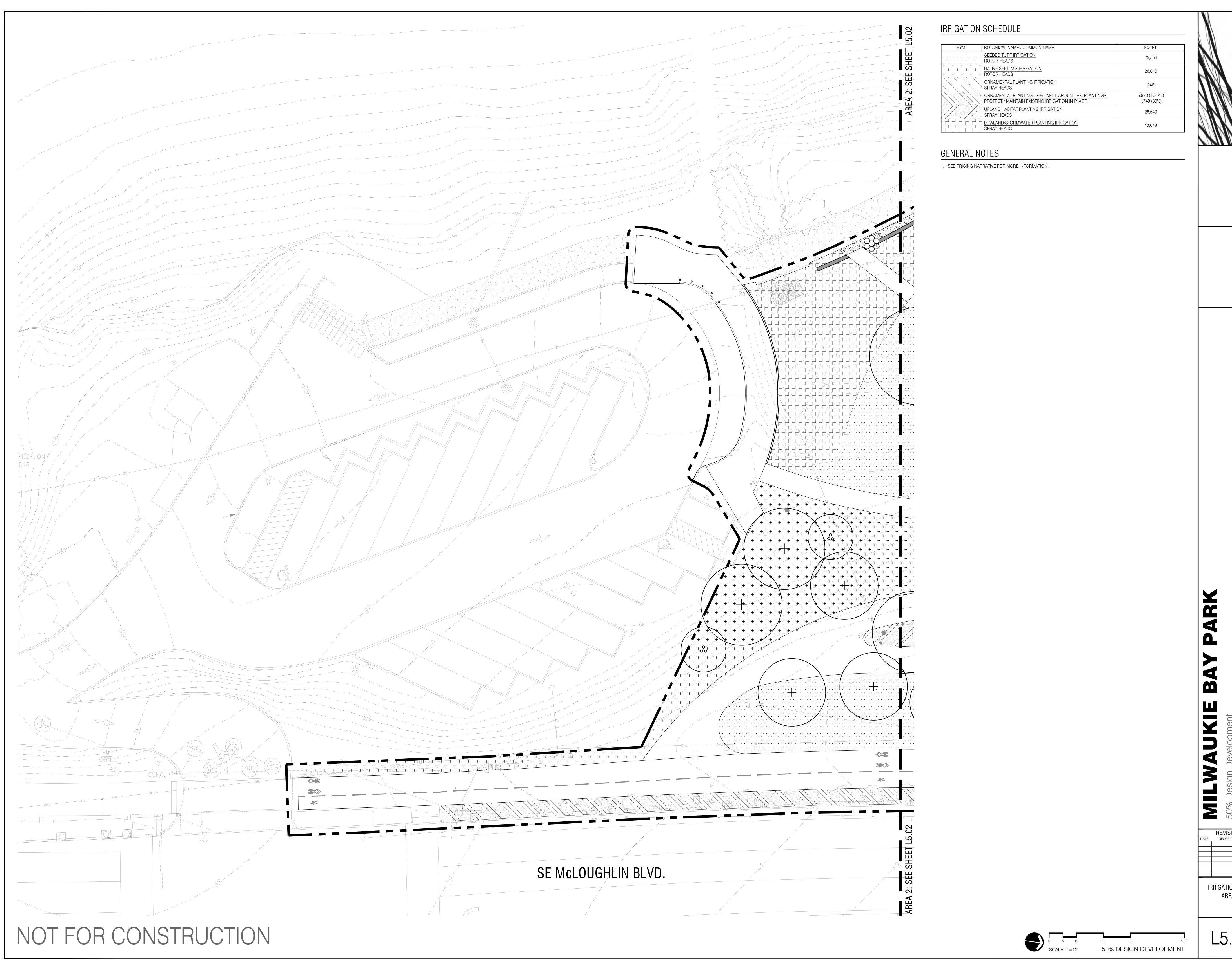
PEVISIONS

REVISIONS

E DESCRIPTION

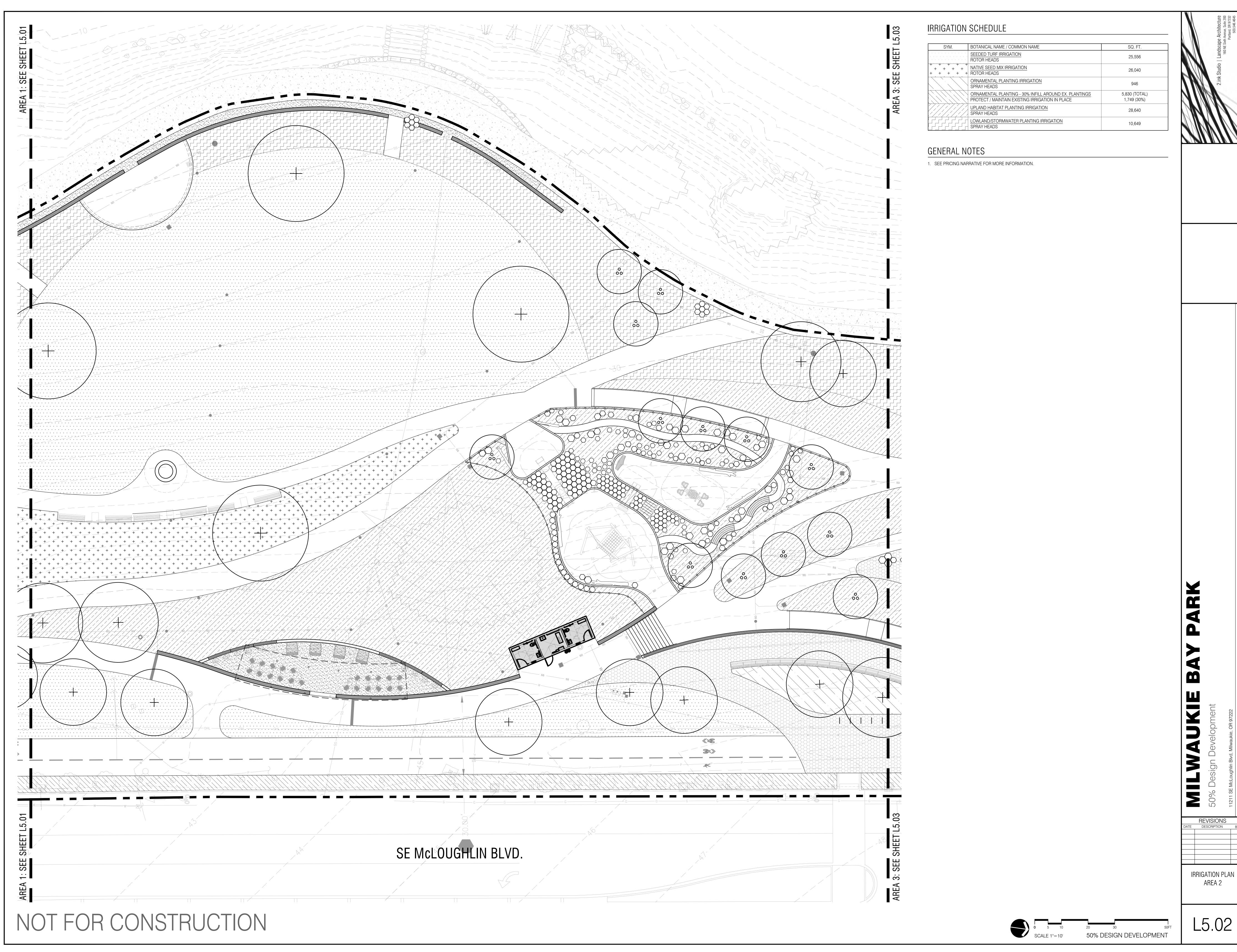
GRADING PLAN AREA 4

50FT L4.04



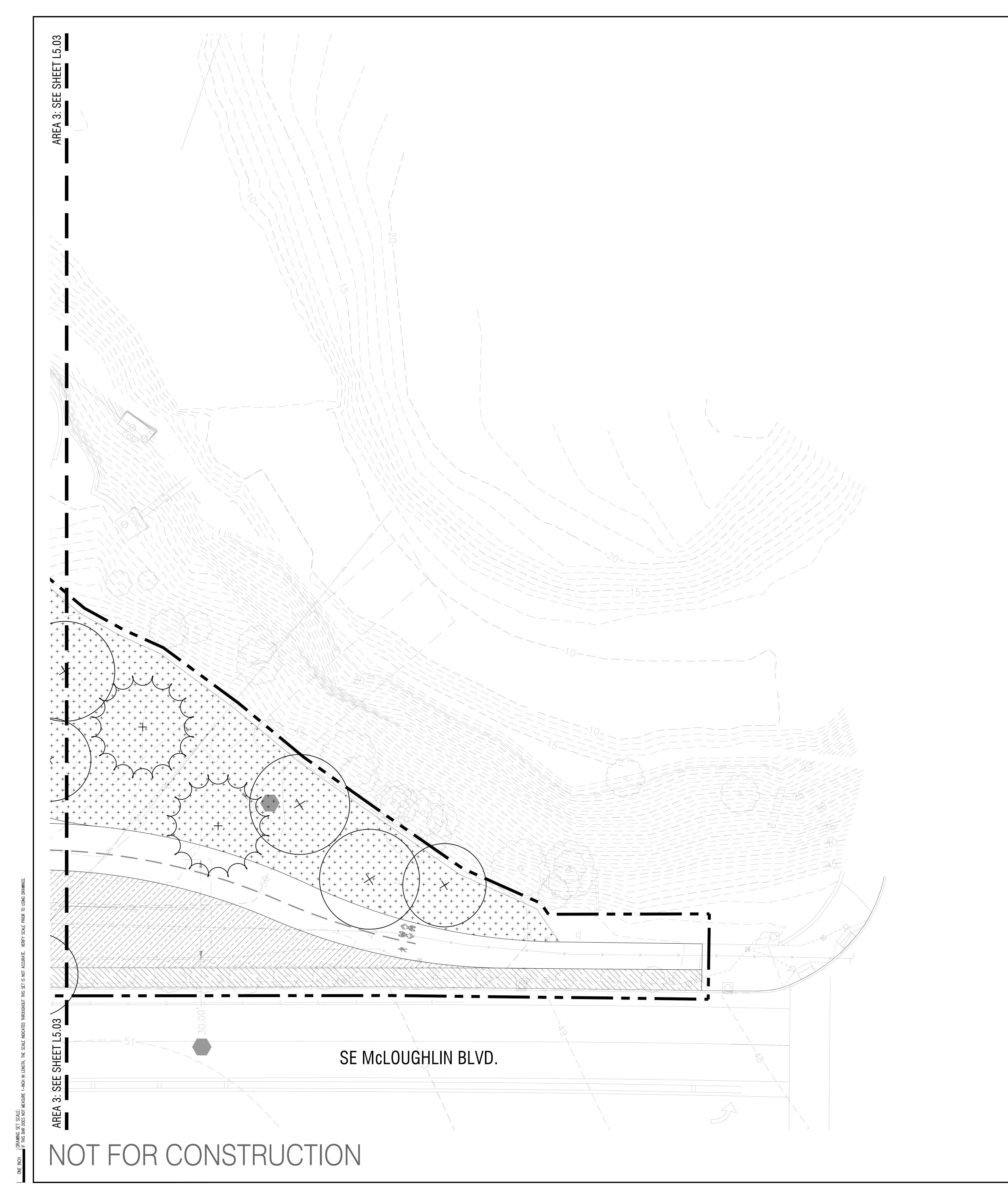
IRRIGATION PLAN

L5.01



L5.02





## IRRIGATION SCHEDULE

SYM.	BOTANICAL NAME / COMMON NAME	SQ. FT.
	SEEDED TURF IRRIGATION ROTOR HEADS	25,556
+ + + + + + + + + + + + + + + + + + + +	NATIVE SEED MIX IRRIGATION ROTOR HEADS	26,040
	ORNAMENTAL PLANTING IRRIGATION SPRAY HEADS	946
	ORNAMENTAL PLANTING - 30% INFILL AROUND EX. PLANTINGS PROTECT / MAINTAIN EXISTING IRRIGATION IN PLACE	5,830 (TOTAL) 1,749 (30%)
	UPLAND HABITAT PLANTING IRRIGATION SPRAY HEADS	28,640
	LOWLAND/STORMWATER PLANTING IRRIGATION SPRAY HEADS	10,649

**GENERAL NOTES** 

1. SEE PRICING NARRATIVE FOR MORE INFORMATION.

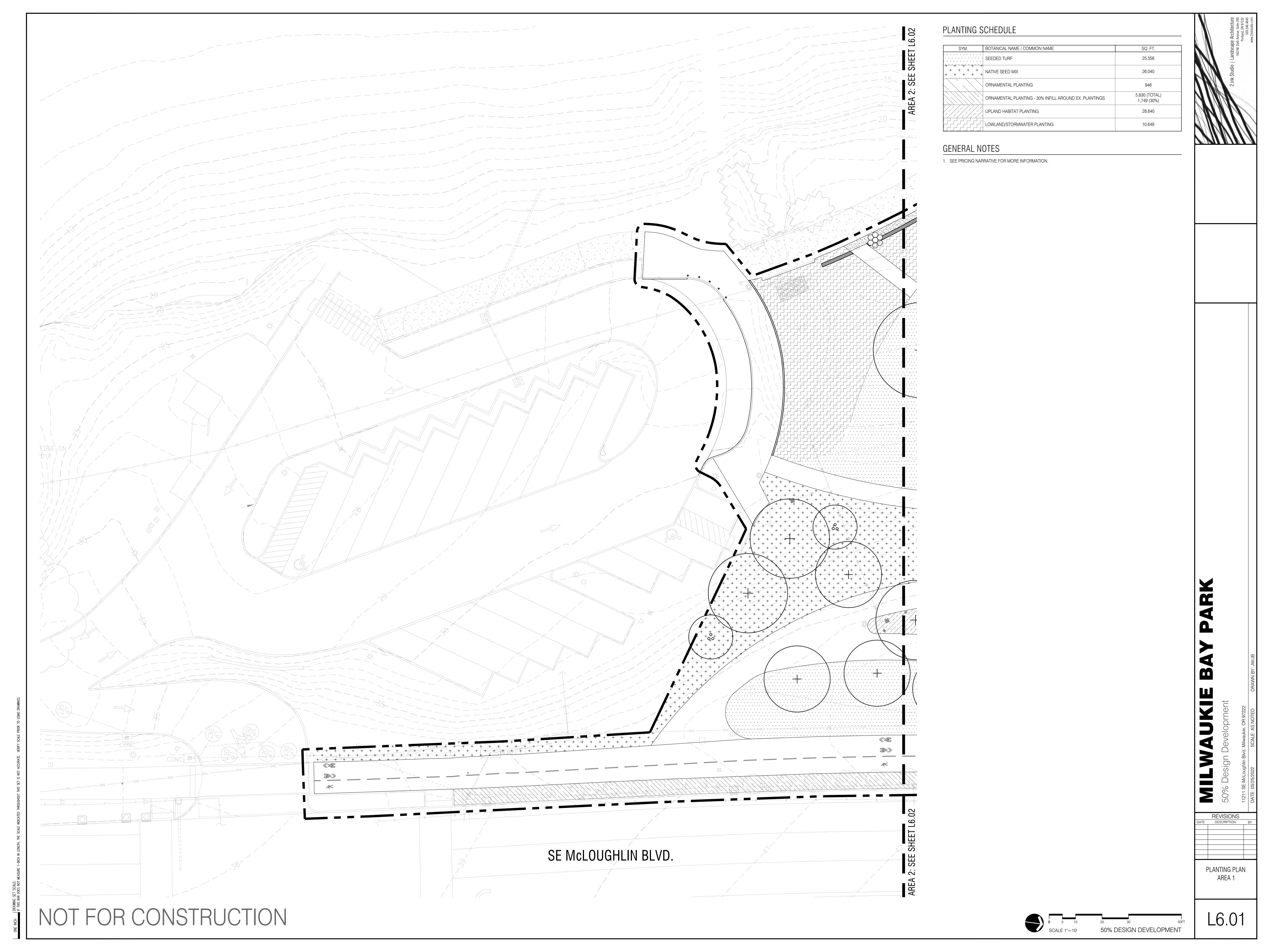
MILWAUKIE BAY PARK

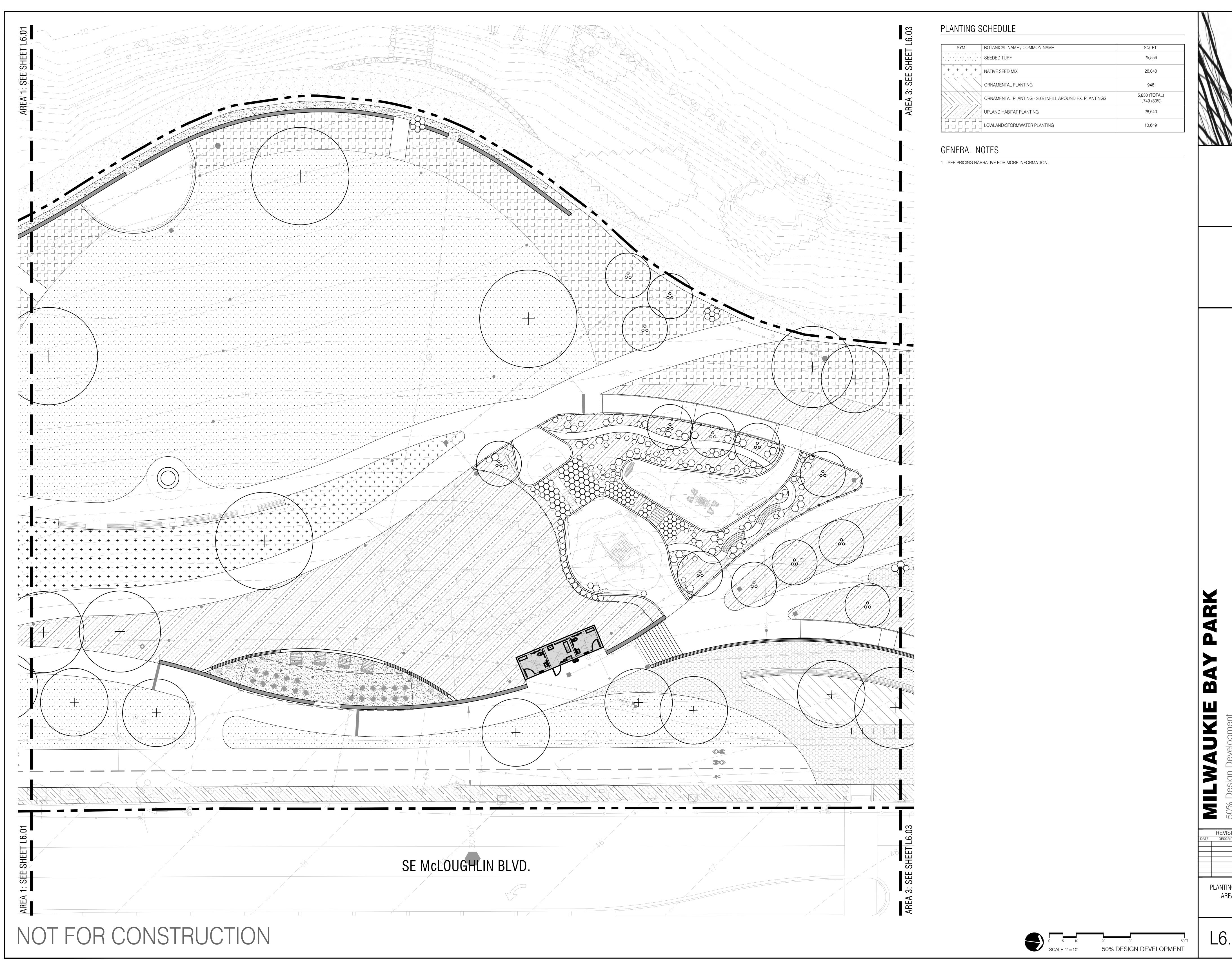
IRRIGATION PLAN

AREA 4

50FT L5.04

0 5 10 20 30 SCALE 41-101 50% DESIGN DEVELOPMEN

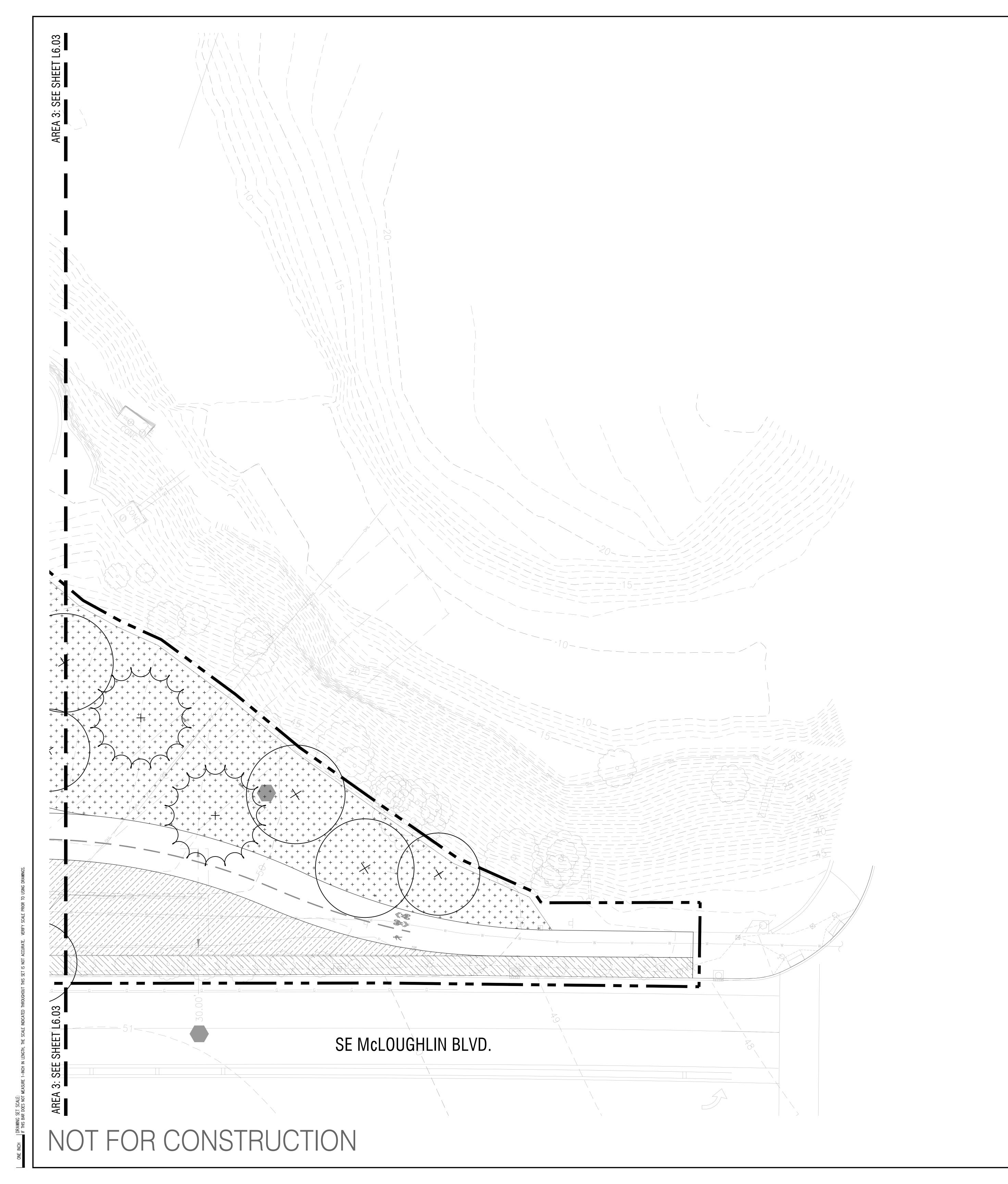




PLANTING PLAN

L6.02





# PLANTING SCHEDULE

SYM.	BOTANICAL NAME / COMMON NAME	SQ. FT.
	25,556	
+ + + + +	NATIVE SEED MIX	26,040
	ORNAMENTAL PLANTING	946
	ORNAMENTAL PLANTING - 30% INFILL AROUND EX. PLANTINGS	5,830 (TOTAL) 1,749 (30%)
	UPLAND HABITAT PLANTING	28,640
	LOWLAND/STORMWATER PLANTING	10,649

### GENERAL NOTES

1. SEE PRICING NARRATIVE FOR MORE INFORMATION.

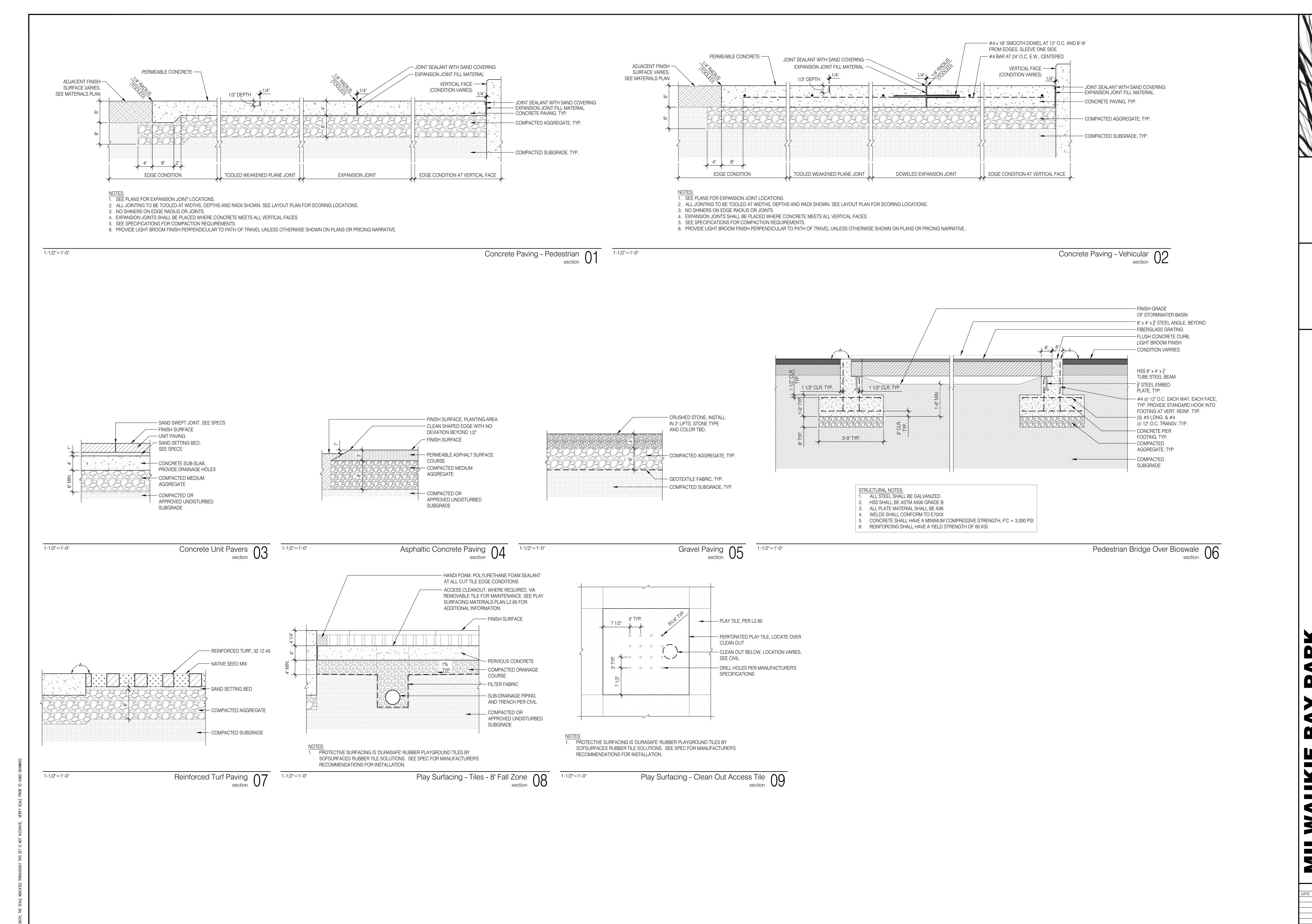
MILWAUKIE BAY PARK

0 5 10 20 30 SCALE 1"=10" 50% DESIGN DEVELOPME

L6.04

PLANTING PLAN



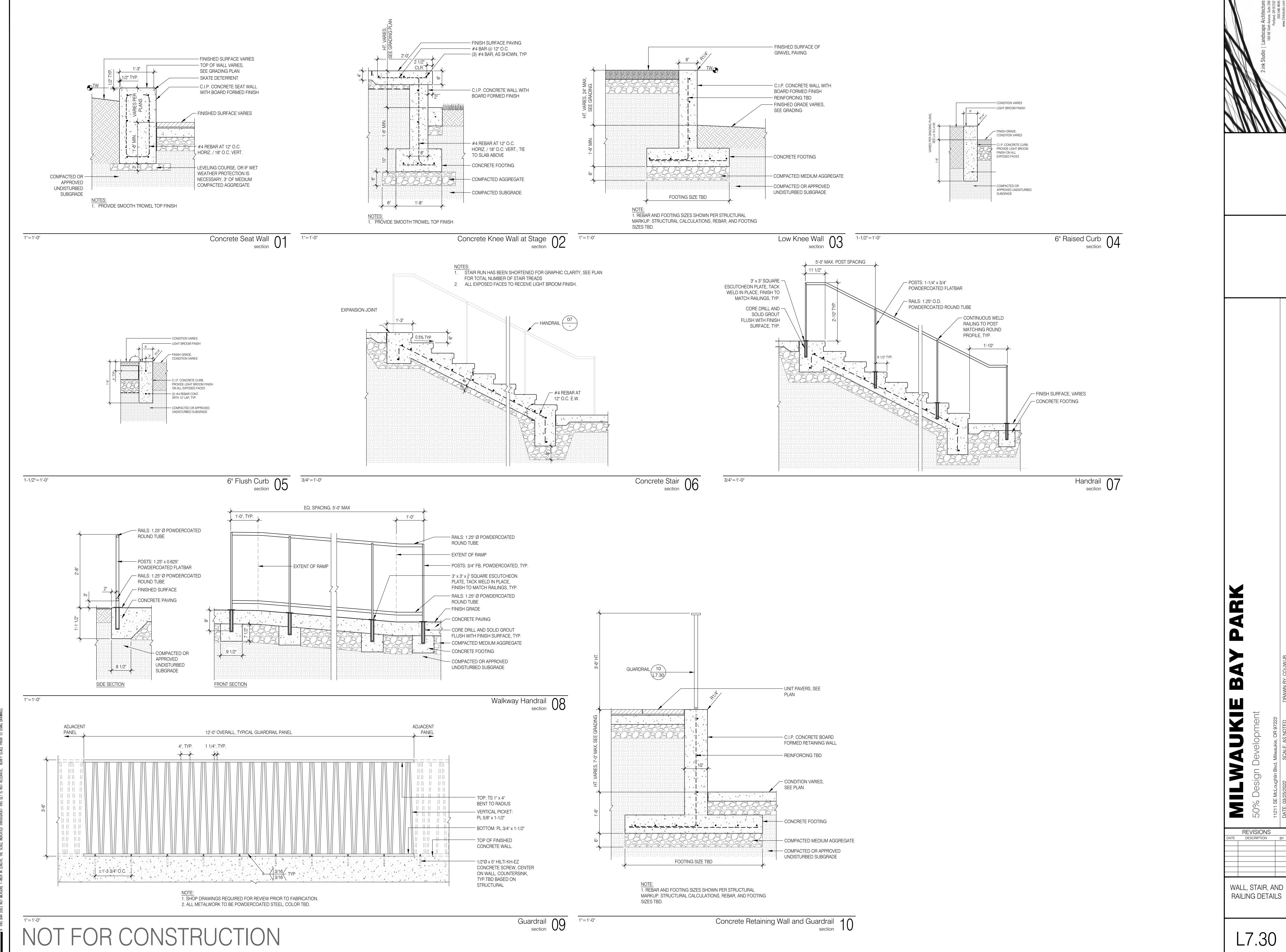


NOT FOR CONSTRUCTION

REVISIONS

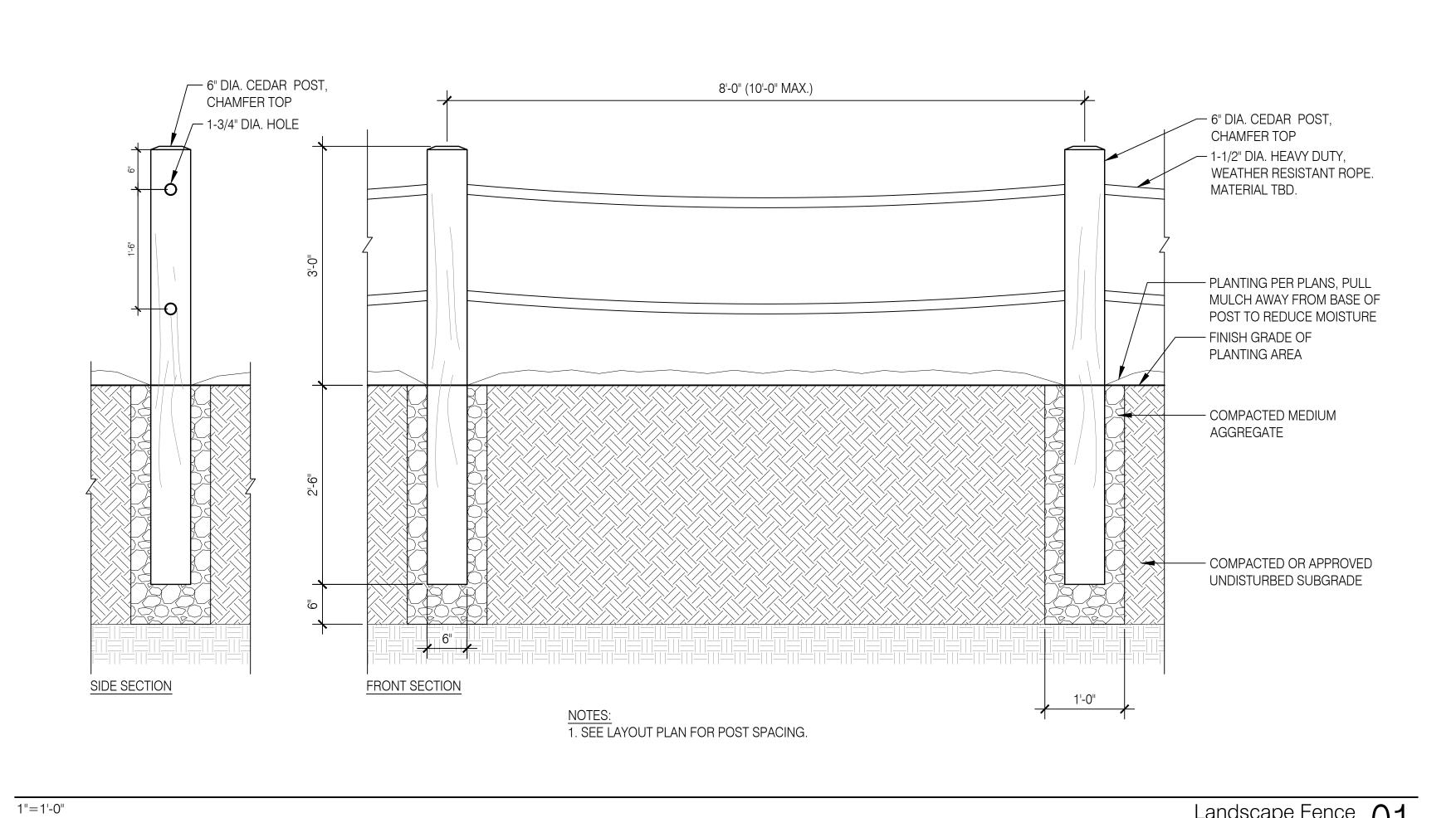
HARDSCAPE AND

PAVING DETAILS



L7.30

DESCRIPTION



Landscape Fence 01
section/elevation

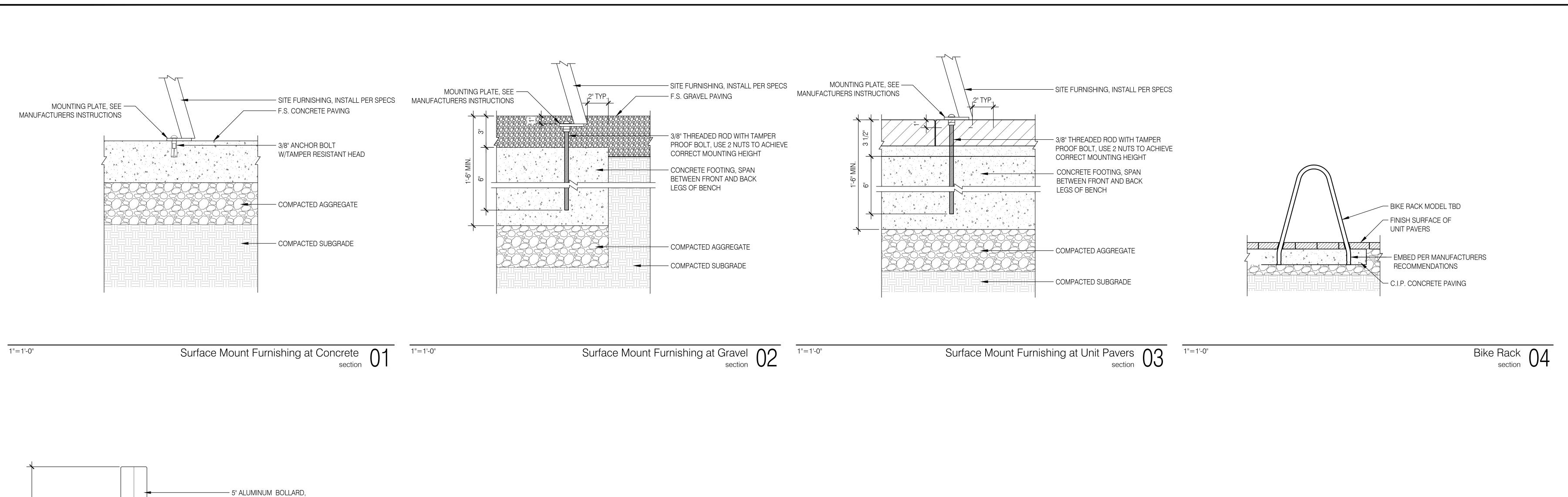
UKIE BAY PARK

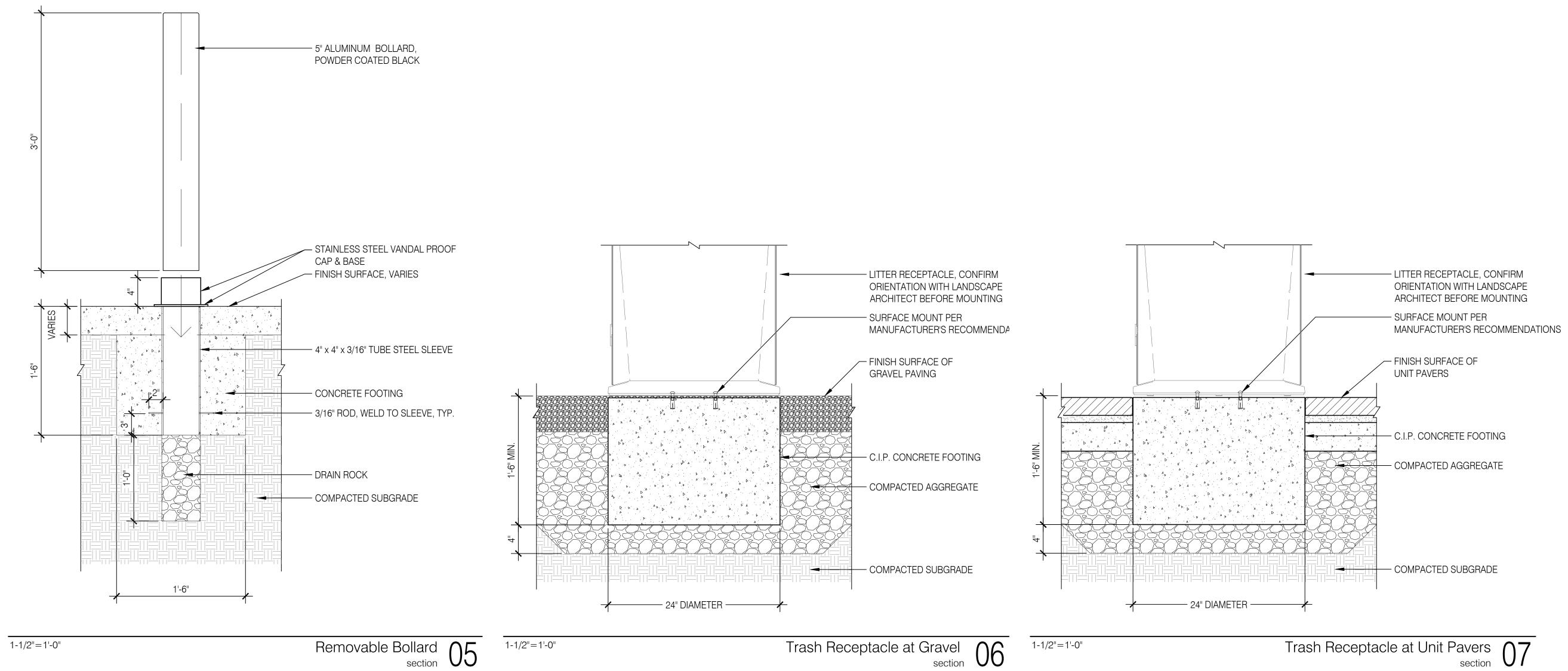
REVISIONS
TE DESCRIPTION

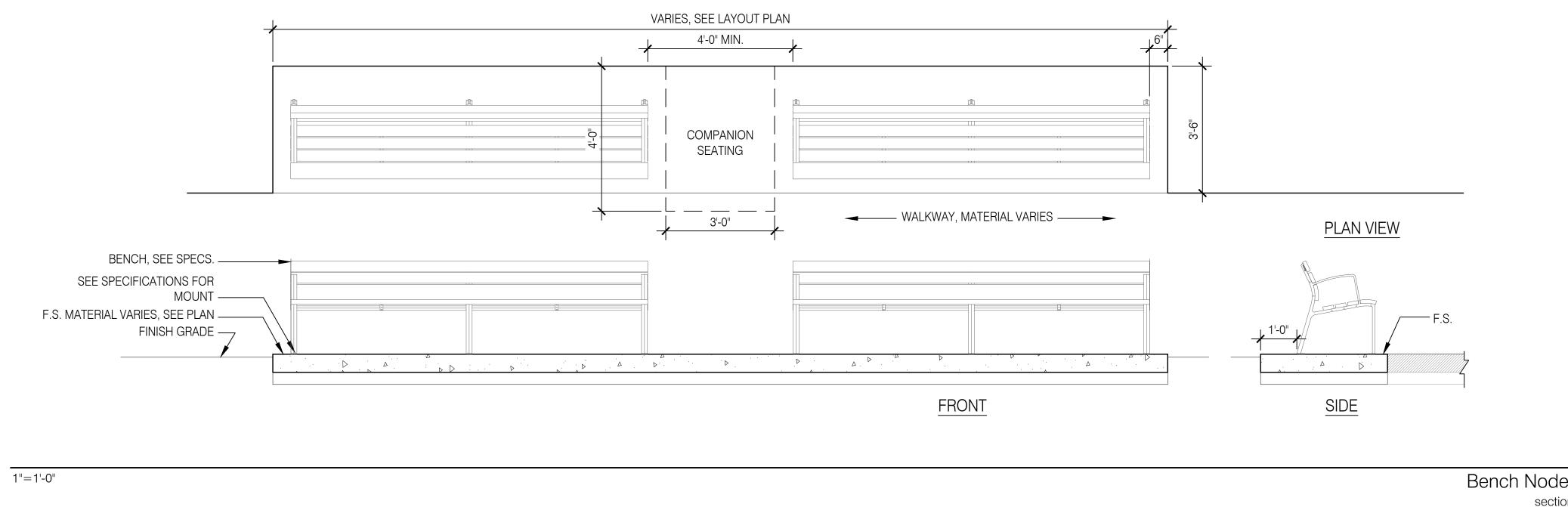
WALL, STAIR, AND RAILING DETAILS

NOT FOR CONSTRUCTION

NOT FOR CONSTRUCTION







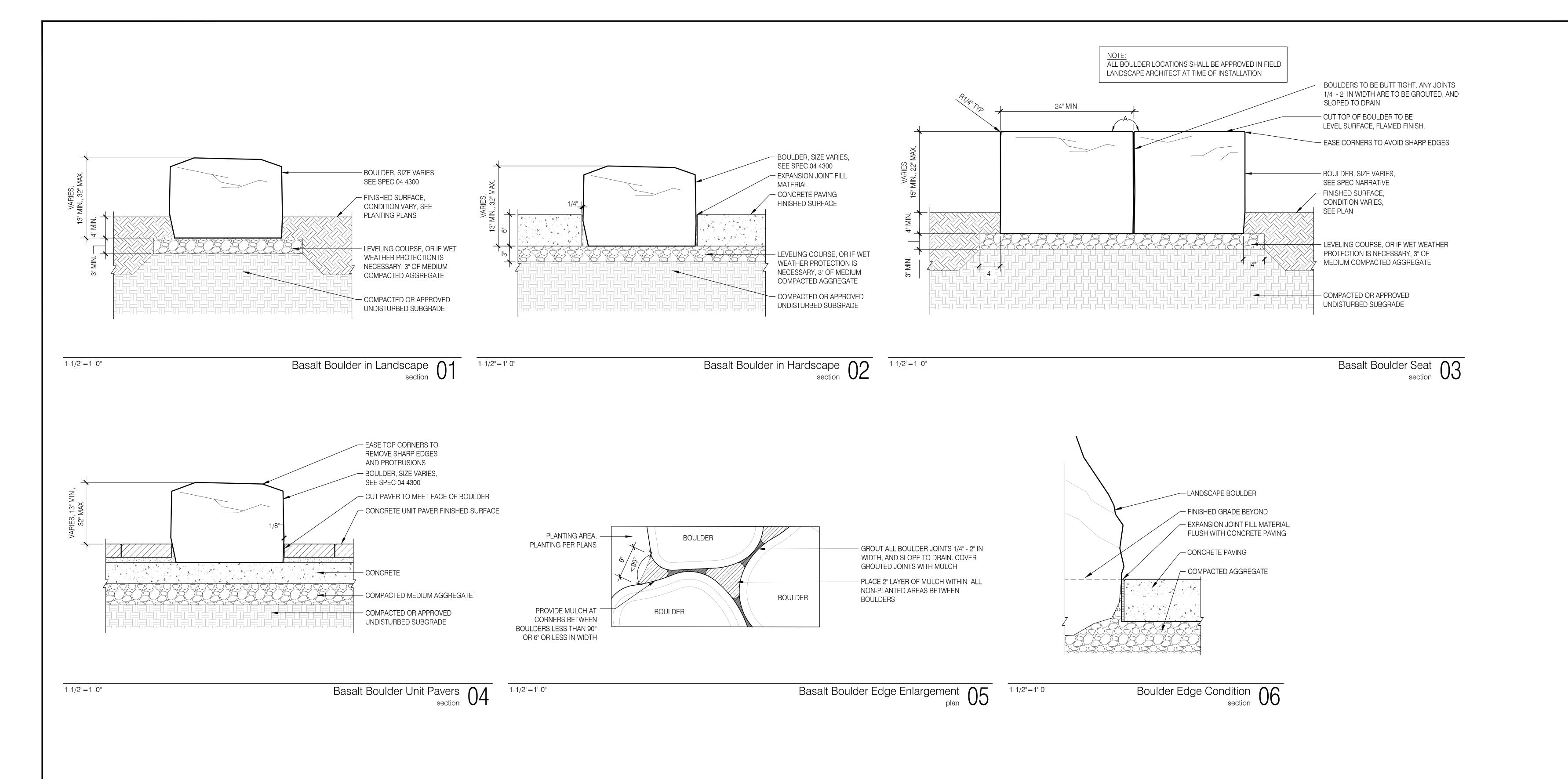
Bench Node section 08

NOT FOR CONSTRUCTION

DESCRIPTION

REVISIONS

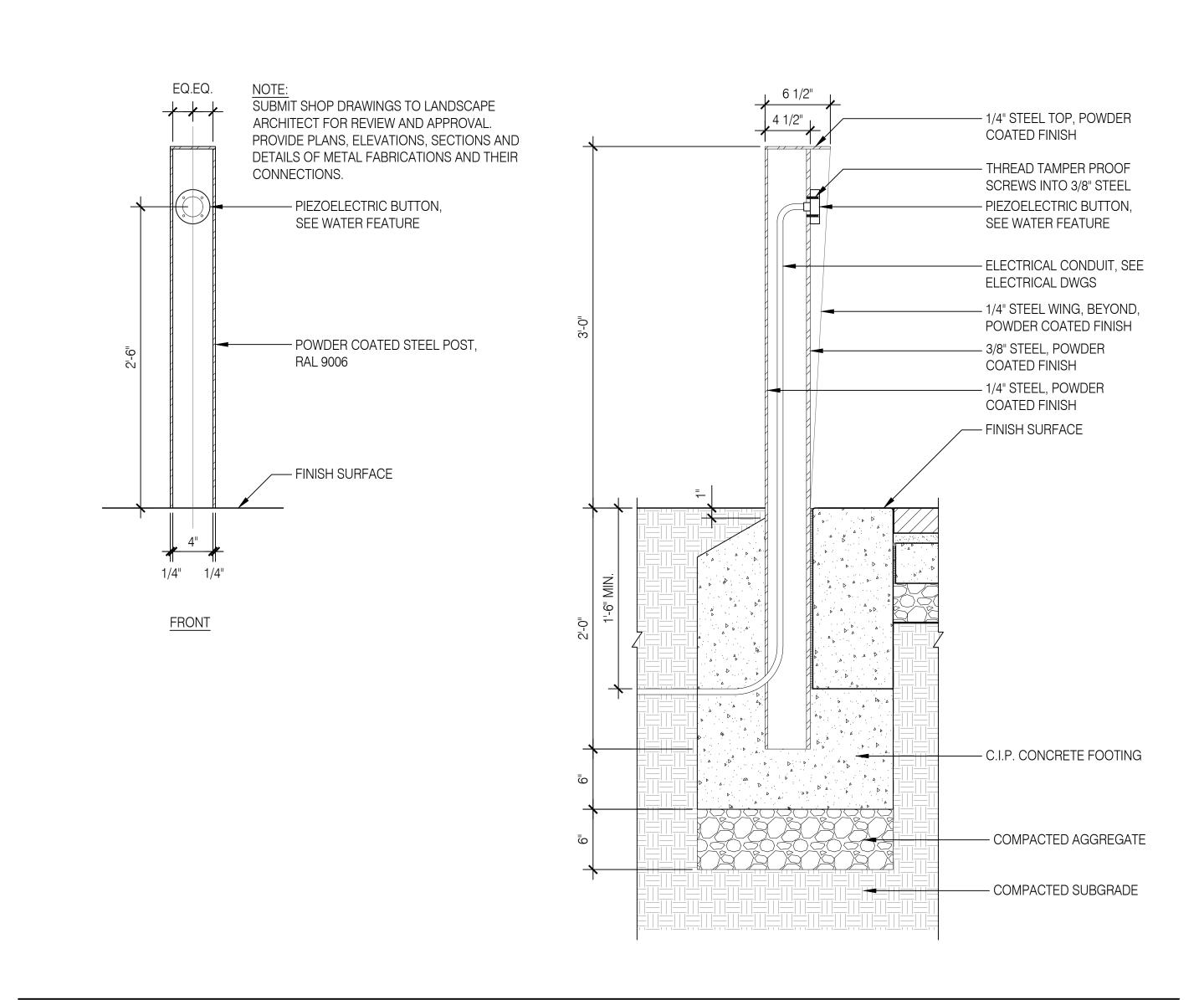
SITE FURNISHINGS DETAILS



AUKIE BAY PARK

REVISIONS
TE DESCRIPTION

BOULDER DETAILS



1"=1'-0"

Water Feature Push Button 01

50% Design Developmen

REVISIONS
TE DESCRIPTION

WATER FEATURE DETAILS

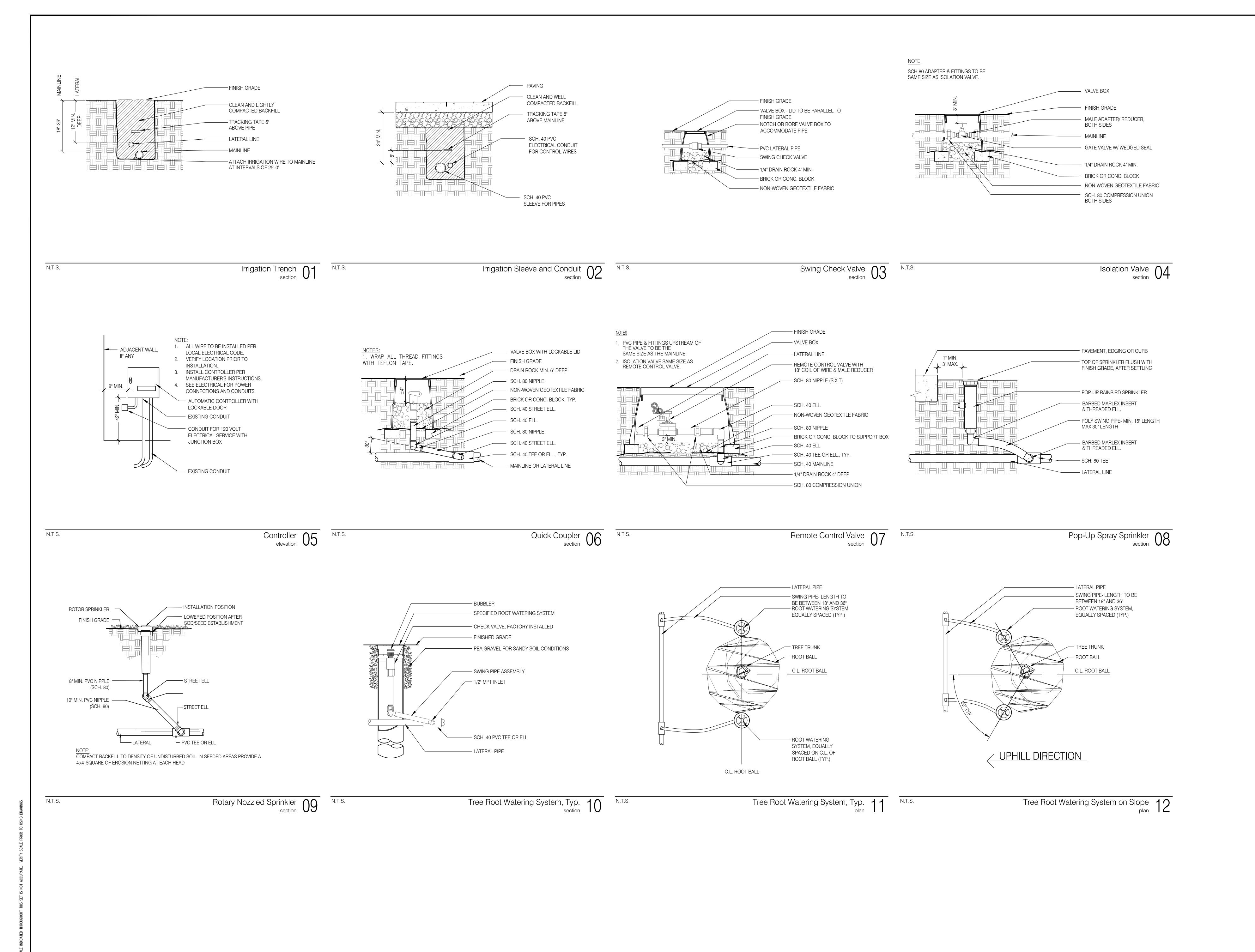
WAUKIE B/

20% Design D

DATE DESCRIPTION

DETAILS

NOT FOR CONSTRUCTION

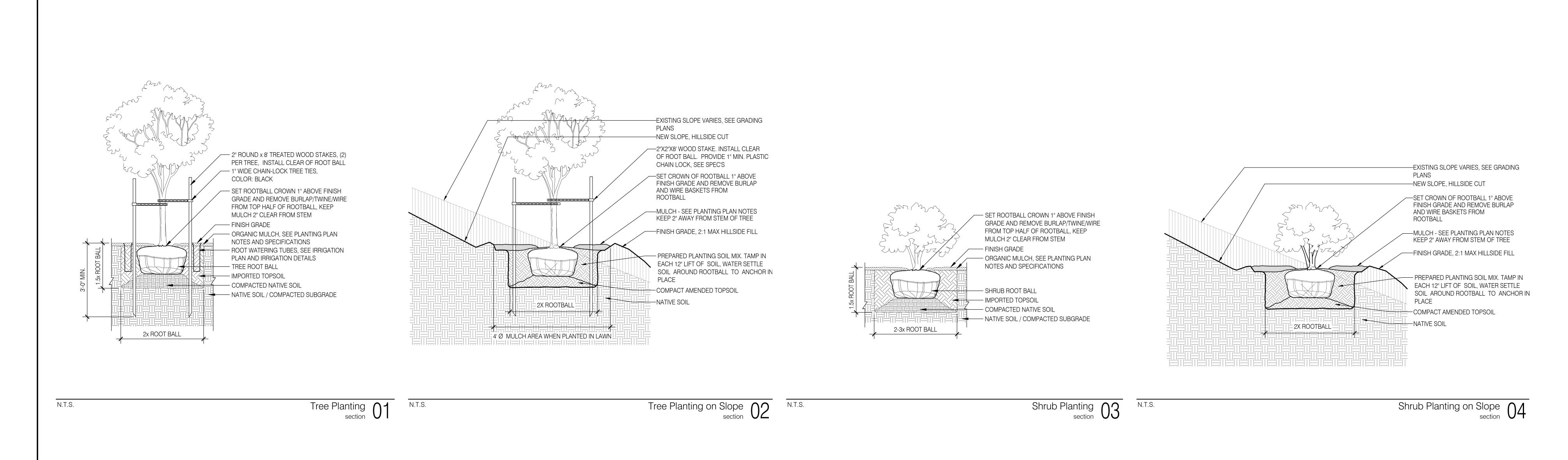


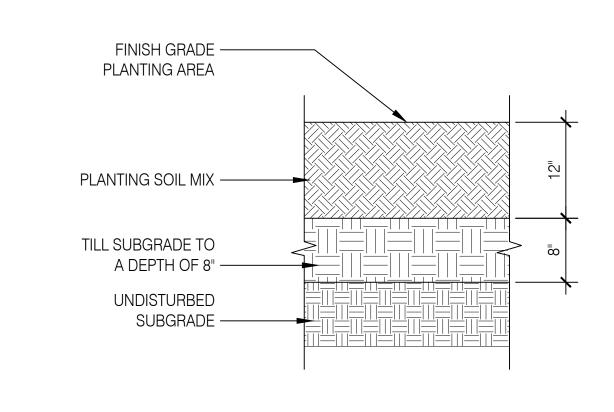
ment

Design DevelopmentSE McLoughlin Blvd, Milwaukie, OR 97222

REVISIONS
DESCRIPTION

IRRIGATION DETAILS



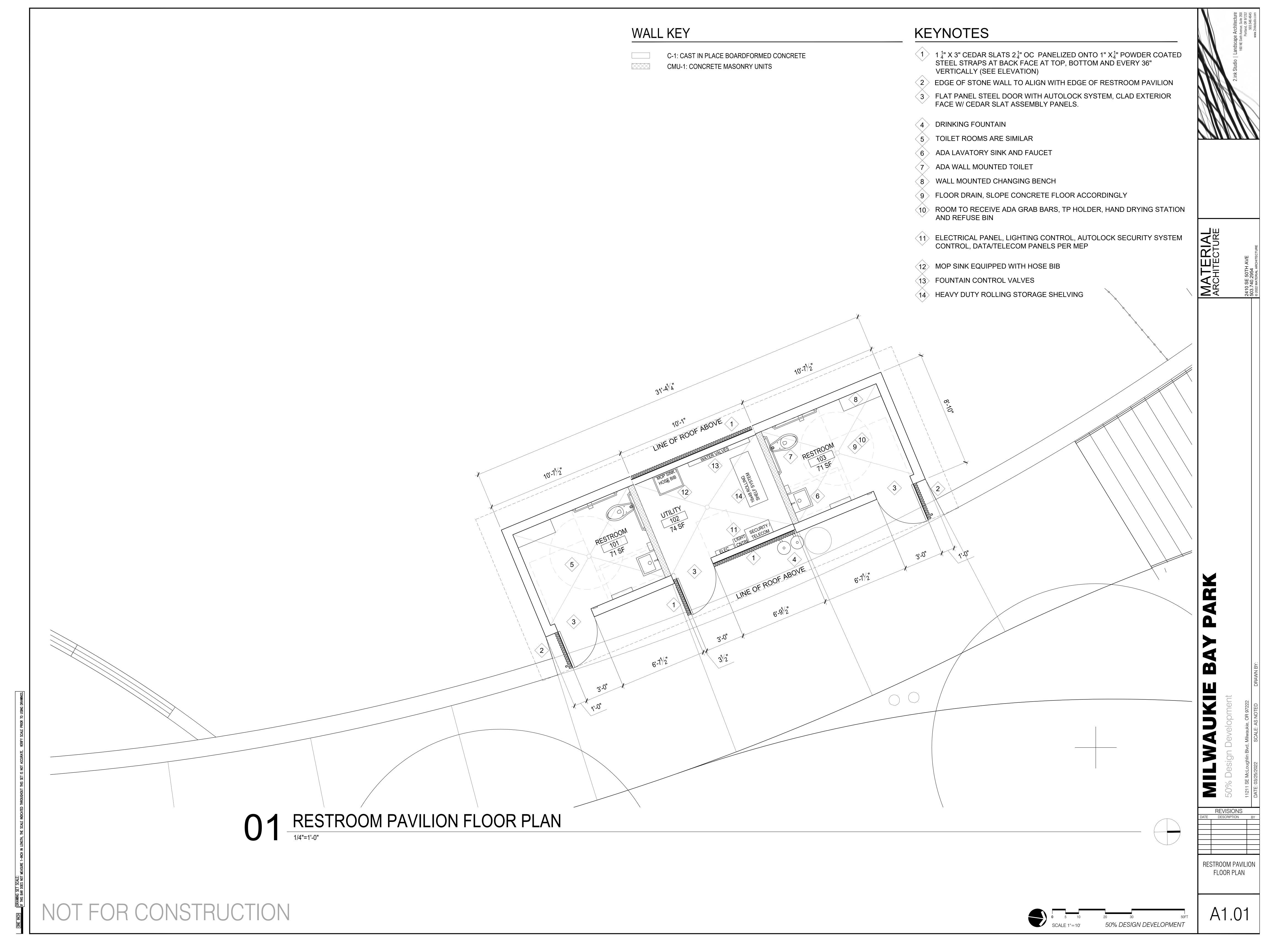


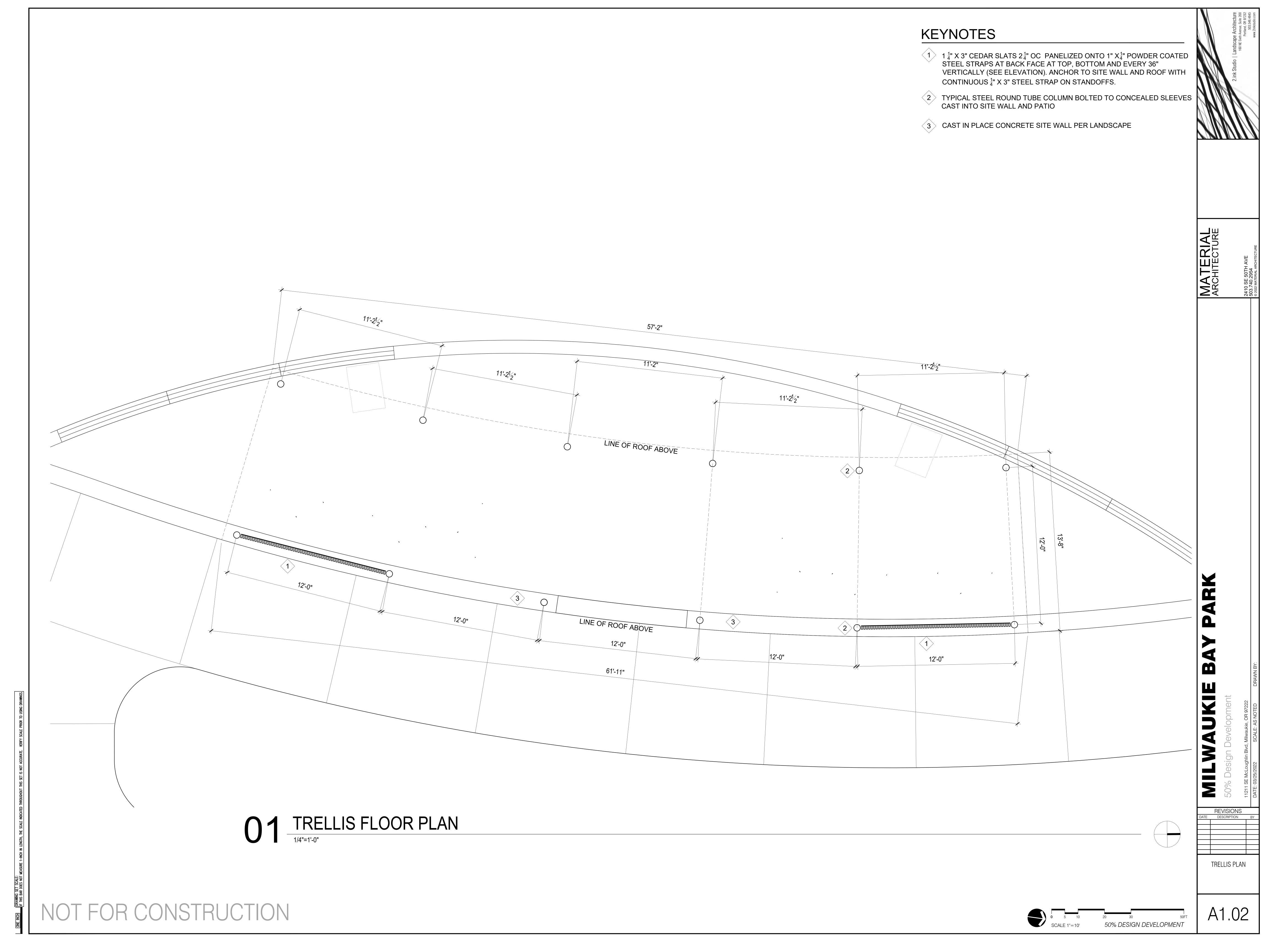
Planting Bed Soil Preparation section 05

WAUKIE BAY PARK

PLANTING DETAILS

REVISIONS

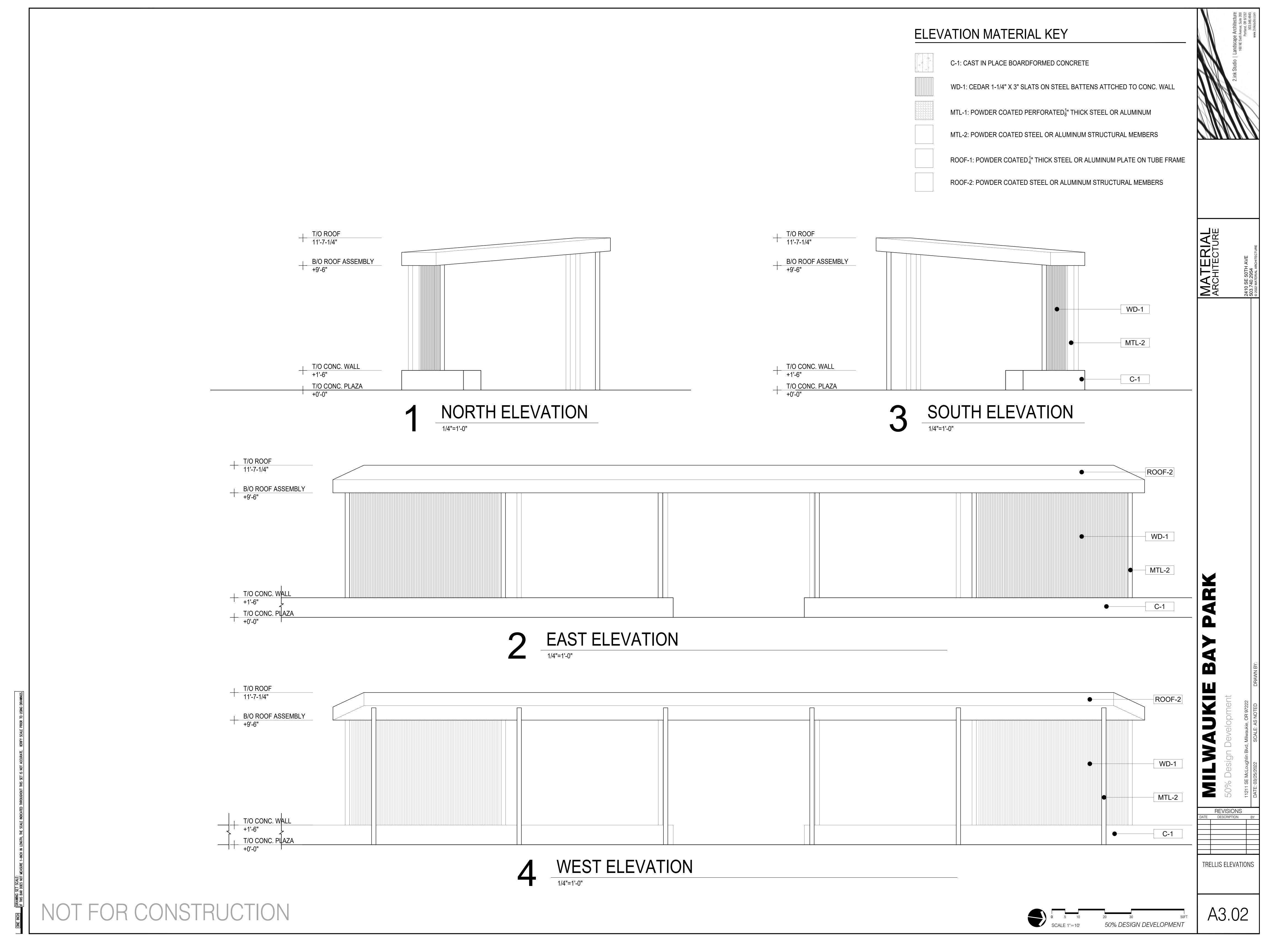






NOT FOR CONSTRUCTION

A3.01



**ABBREVIATIONS** 

AMPERE, AMP

ALUMINUM

AMP SWITCH

CATALOG

CIRCUIT

COPPER

DIRECT BURIED

D, DISC DISCONNECT

CABLE TELEVISION

CONDUIT ONLY

CURRENT TRANSFORMER

ALTERNATING CURRENT

ABOVE FINISHED FLOOR

AMERICAN WIRE GAUGE

BELOW FINISHED FLOOR

CONDUIT, CONTROL, CONTINUOUS

ARC-FAULT CIRCUIT INTERRUPTER

AMPERE INTERRUPTING CAPACITY

AUTOMATIC LIGHTING CONTROL

DIRECT CURRENT DEDICATED EXISTING, EXISTING TO REMAIN EMERGENCY, WIRED ON EMERGENCY EACH EXHAUST FAN ELEVATION, ELEVATOR ELECTRIC(AL) ELECTRIC METALLIC TUBING **EQUIPMENT EXTERIOR** FUTURE FUSE FURNISHED BY OTHERS FULL LOAD AMPS FLOOR FLEXIBLE METALLIC CONDUIT

FLEXIBLE NON-METALLIC CONDUIT

GROUND FAULT CURRENT INTERRUPTER

GROUND FAULT INTERRUPTER

GALVANIZED RIGID CONDUIT

GRS GALVANIZED RIGID STEEL (CONDUIT)

FURN FURNITURE

GEN

G, GND GROUND, GROUNDED

GENERATOR

GENERAL CONTRACTOR

HT, HGT HEIGHT HIGH VOLTAGE HERTZ (CYCLE) PER SECOND ISOLATED GROUND INTERMEDIATE METAL CONDUIT INTERMEDIATE NON-METTALIC CONDUIT J, JB JUNCTION BOX THOUSAND AMPERE INTERRUPTING KCMIL THOUSAND CIRCULAR MILS K/O KNOCK-OUT KVA KILOVOLT AMPERE KVAR KILOVOLT AMPERE REACTIVE KW KILOWATT LIGHTING CONTROL PANEL LFMC LIQUIDTIGHT FLEX METAL CONDUIT LFNC LIQUIDTIGHT FLEX NONMETAL CONDUIT LIGHTING PANEL(BOARD)

LOW VOLTAGE

METAL CLAD CABLE

HH HANDHOLE

MANUFACTURER MINIMUM MISCELLANEOUS MAIN LUGS ONLY MOUNTED MTG MOUNTING NEW N, NEUT NEUTRAL N/A NOT APPLICABLE NATIONAL ELECTRICAL CODE NON-FUSED NFPA NATIONAL FIRE PROTECTION ASSOCIATION NOT IN CONTRACT NON-METALLIC SHEATHED CABLE NOT TO SCALE NUMBER OVERHEAD POWER OVERHEAD TELCO POLE

MCB MAIN CIRCUIT BREAKER

MAIN DISTRIBUTION PANEL

PULL BOX, PUSHBUTTON

CONTRACTOR

PH, Ø PHASE

MISCELLANEOUS

SPECIAL PURPOSE CONNECTION

J- JUNCTION BOX - WALL-MOUNTED

J JUNCTION BOX - IN GROUND

EQUIPMENT SCHEDULE

\_\_\_\_\_ GROUND BAR, LENGTH TO BE NOTED

REVISION DELTA

"K" = KITCHEN, "C" = COMPUTER

XX SCALE DETAIL HEADER

SECTION IDENTIFIER

DETAIL IDENTIFIER

TRANSFORMER

PLYWOOD BACKBOARD

METER - SINGLE

GROUND-NEUTRAL BOND STRAP

PHOTOCELL

SHEET NOTE DESIGNATION

JUNCTION BOX — CEILING MOUNTED, UON

MECHANICAL EQUIPMENT TAG NUMBER, REFER TO MECHANICAL EQUIPMENT SCHEDULE

EQUIPMENT TAG NUMBER, REFER TO MECHANICAL

\*NOTE SYMBOL, REFER TO NOTE AS INDICATED

PHOTOCELL, PLUMBING SYSTEM

PNL PANEL(BOARD) PRESSURE, POUNDS PER SQUARE-INCH PV PULL VAULT PVC POLYVINYL CHLORIDE CONDUIT RCPT RECEPTACLE RIGID GALVANIZED STEEL ROOM RIGID METALLIC CONDUIT RIGID NON-METALLIC CONDUIT RSC RIGID STEEL CONDUIT SCH SCHEDULE SEC SECONDARY

SIM SIMILAR SN, S/N SOLID NEUTRAL SUSP SUSPENDED SWGR SWITCHGEAR

SWITCHES

SINGLE-POLE

\$<sub>D</sub> DIMMER

\$<sub>LV</sub> LOW VOLTAGE

INDIVIDUAL LUMINAIRES)

MOTOR STARTER SWITCH

LUMINAIRES

BOLLARD TYPE SITE LIGHTING

O CEILING MOUNTED

RECESSED

**←** FLOOD LIGHT

SWITCH CONTROL (LOWER CASE LETTER DENOTES LUMINAIRES TO BE CONTROLLED PER CORRESPONDING LETTER NEXT TO

NOTE: STANDARD SWITCH MOUNTING HEIGHT SHALL BE 48" AFF UON.

TELEPHONE TEMP TEMPORARY TV TELEVISION TRANSIENT VOLTAGE SURGE SUPPRESOR UNDERGROUND UNLESS OTHERWISE NOTED UNINTERRUPTIBLE POWER SUPPLY UTILITY VOLT VA VOLT—AMPERE WATT, WIRE WEATHERPROOF TRANSFORMER MOUNTING UNITS TO CENTERLINE

GROUND WIRE. 2. FOR UNMARKED CONDUIT RUNS, CONTRACTOR SHALL INSTALL REQUIRED NUMBER OF WIRES FOR POWER AND/OR CONTROL OF ELEMENTS IN CIRCUIT(S) SHOWN. SIZE OF WIRES SHALL BE #12 UON OR REQUIRED BY 72-INCHES ABOVE FINISHED FLOOR OR 3. SIZE CONDUIT ACCORDING TO SPECIFICATIONS AND APPLICABLE CODE.

> RACEWAYS - INDICATORS ----- CONDUIT - STUB. TERMINATE WITH BUSHING, OR PROVIDE CAP IF UNDERGROUND ──── CONDUIT - STUB-UP

**RACEWAYS** 

CONDUIT - FLEXIBLE

GROUND WIRE

-XX- CIRCUIT TYPE AS INDICATED:

"B" = BROADBAND

NOTED OTHERWISE

"P" = OVERHEAD POWER

"T" = OVERHEAD TELCO

AS INDICATED BY HASH MARKS)

GROUND CONNECTION PER NEC 250

——— CONDUIT — CONCEALED IN CONSTRUCTION IN FINISHED

— CONDUIT - CONCEALED IN, UNDER FLOOR SLAB OR BELOW

HOME RUN. HASH MARKS INDICATE (2) #12 WIRE UNLESS

CONDUCTORS IN CONDUIT, (2) #12 OR AS NOTED (QUANTITY

1. RUNS MARKED WITH CROSS-HATCHES INDICATE

OR NOTED ELSEWHERE. LONG PERPENDICULAR

LONG CROSS-HATCH WITH DOT INDICATES GREEN

QUANTITY OF #12 WIRE. LARGER GAUGES ARE SHOWN

CROSS-HATCH INDICATES NEUTRAL, REVERSE SLANT OR

AREAS, EXPOSED IN UNFINISHED AREAS

MOTOR CONTROL DISCONNECT SWITCH, UNFUSED TYPE, SIZE AS INDICATED "xxA" = RATED AMPERAGE DISCONNECT SWITCH, FUSED TYPE, SIZE AS INDICATED "xxA" = RATED AMPERAGE

"xxAT" = TRIP SIZE

MAGNETIC MOTOR STARTER STARTER SIZE AS INDICATED

COMBINATION MAGNETIC MOTOR STARTER AND DISCONNECT SWITCH, STARTER SIZE AND FUSE RATING AS INDICATED

**GENERAL NOTES** A. NOT ALL ABBREVIATIONS ARE USED. ABBREVIATIONS LISTED APPLY TO ELECTRICAL DRAWINGS AND DETAILS. B. COMMON NON-ELECTRICAL ABBREVIATIONS SUCH AS COMPASS DIRECTIONS (N, S, E, W, ETC.) AND CHEMICAL COMPOUNDS (02, CL2, ETC.) ARE NOT INCLUDED.

MOLDED CASE CIRCUIT BREAKER (THERMAL—MAGNETIC)

SIZE AS INDICATED

"xxAF" = FRAME SIZE
"xxAT" = TRID SIZE

FUSE, SIZE AS INDICATED

75680PE

EXPIRES 12/31/22

ENGINEERING, INC

9615 S.W. Allen Blvd., Suite 107

Beaverton, Oregon 97005

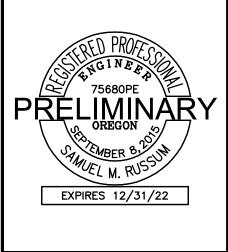
Phone: (503) 726-3317

Fax: (503) 726-3326

E-mail: rweng@rweng.com Project No.: 1170.010.001

Contact: DENNIS HALL

REVISIONS





WAUKIE BAY PARK

WAUKIII 50% Design Development

ELECTRICAL SITE PLAN - LIGHTING

REVISIONS

**GENERAL NOTES** 

NOTES THIS SHEET

 $\overline{3}$  EXISTING PARK ELECTRICAL SERVICE UTILITY POLE.

TOPOGRAPHY FROM OUTSIDE SOURCE (2010 DATA)

A. COORDINATE ALL ELECTRICAL WORK WITH OTHER DISCIPLINES.

B. FIELD COORDINATE ALL EQUIPMENT LOCATIONS SHOWN ON PLANS TO AVOID CONFLICTS. COORDINATE WITH LANDSCAPE ARCHITECT AND ENGINEER AS NEEDED.

INCLUDE:
EXTERIOR BOX COVER ASSEMBLY 5-20R #XB814C520
LOCKNUT TOOL #XBLNT
EXTERIOR GROUND BOX #XB814

4 NEW PARK RESTROOMS AND PARK ELECTRICAL AND MECHANICAL EQUIPMENT ROOM. SEE SHEET E2.1 FOR MORE INFORMATION.

SITE PLAN - POWER

NOT FOR CONSTRUCTION

TOPOGRAPHY FROM OUTSIDE SOURCE (2017 DATA)

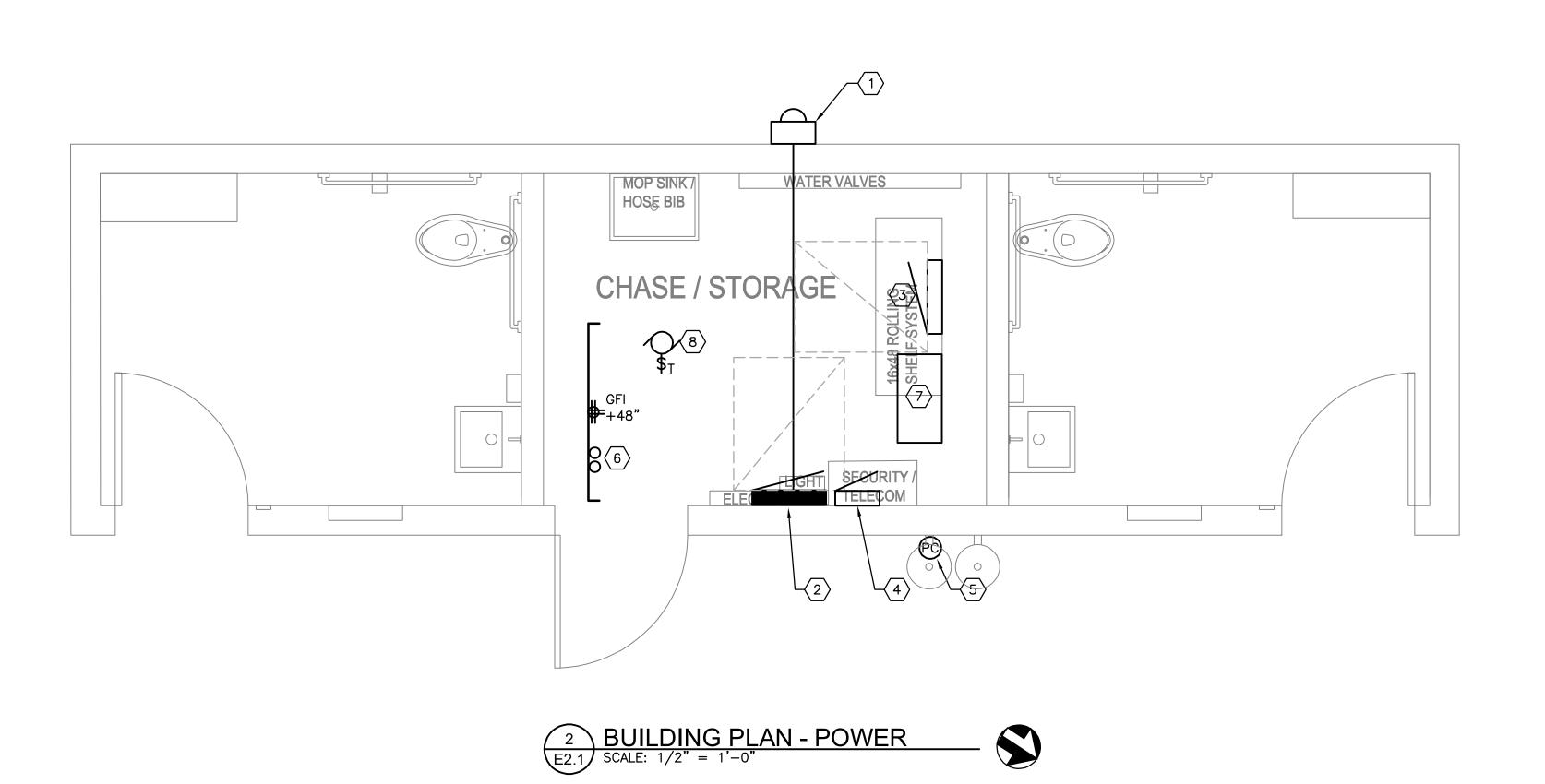
TOPOGRAPHY FROM OUTSIDE SOURCE (2010 DATA)

DWG#

50% DESIGN DEVELOPMENT

SE McLOUGHLIN BLVD (U.S. 99E)





NOTES THIS SHEET

1) NEW ELECTRICAL SERVICE METER BASE.

2 NEW PARK ELECTRICAL PANELBOARD, PLP.

3 WATER FEATURE CONTROL PANEL.

(3) WATER FEATURE CONTROL

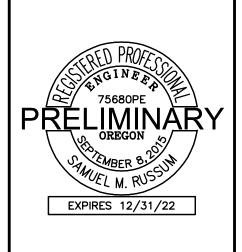
(4) LIGHTING CONTROL PANEL.

(5) LIGHTING PHOTOCELL.(6) TELCO SERVICE N.I.D.

7 AUTOMATIC DOOR LOCKS, PROGRAMMABLE.

8 EXHAUST FAN. SEE MECHANICAL SHEET M1.1.

2.ink Studio | Landscape A

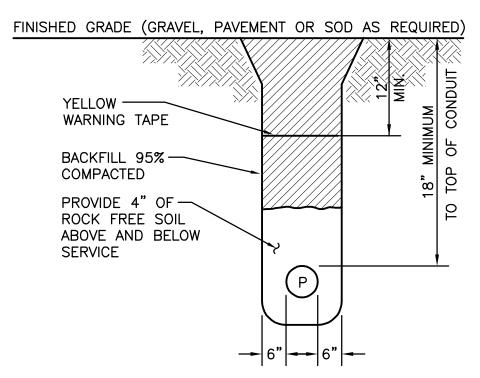




WAUKIE BAY PARK

REVISIONS
ATE DESCRIPTION

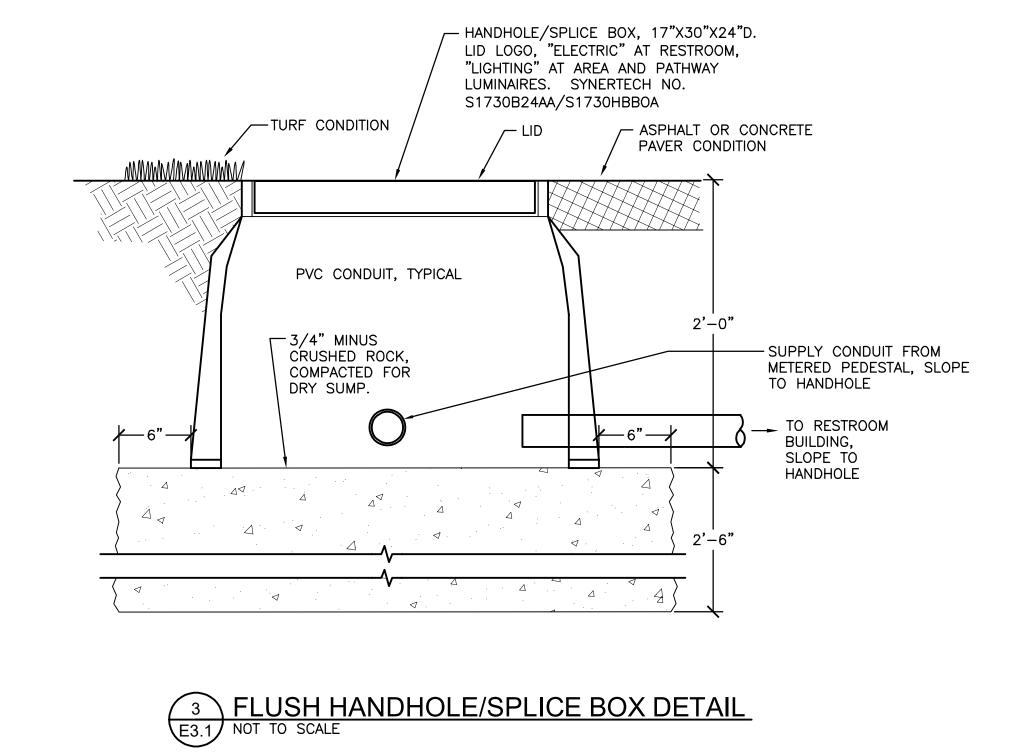
ELECTRICAL FLOOR PLAN - RESTROOM BUILDING 1 NEW RESTROOM BUILDING ONE-LINE DIAGRAM
E3.1 NOT TO SCALE

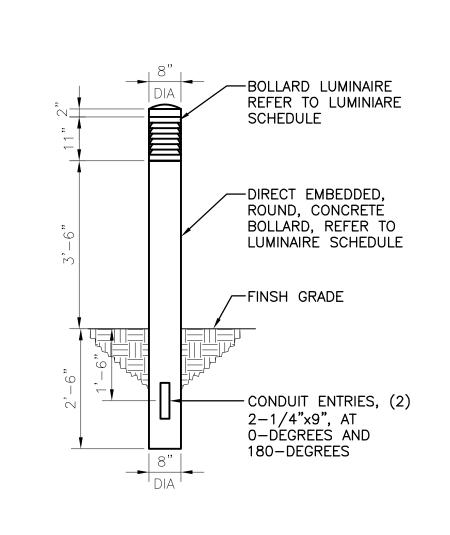


NOTE: A. MAINTAIN 12" VERTICAL AND 24" HORIZONTAL CLEARANCE BETWEEN GAS AND OTHER UTILITIES.

POWER CONDUIT TRENCH DETAIL

E3.1 NOT TO SCALE



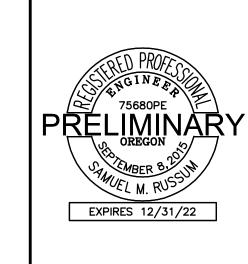


BOLLARD LUMINAIRE DETAIL

SCALE: 1/2"=1'-0"

JMINAIRE TYPE	DESCRIPTION	LAMP TYPE	INPUT WATTS	DRIVER/ BALLAST	COLOR TEMP	MANUFACTURER AND MODEL SERIES
'A'	BOLLARD STYLE PATHWAY LED LUMINAIRE. DIRECT EMBED SPUN—CAST CONCRETE, 8" DIAMETER EXPOSED AGGREGATE, LOUVERED LUMINAIRE WITH INTERNALLY FASTENED CAST CONCRETE DECORATIVE CAP. DIE—CAST ALUMINUM LUMINAIRE AND LOUVERS, 8" DIAMETER. LED LIGHT ENGINE, TYPE V DISTRIBUTION. CONCRETE BOLLARD, 72" OAL, 30" EMBED, 42" ABOVE GRADE. (2) 2-1/4"x9" CONDUIT ENTRIES AT 0-DEG AND 180-DEG, 18" BELOW GRADE. LUMINAIRE COLOR, SEMI-GLOSS BLACK. BOLLARD COLOR BLACK WITH GRAFFITI RESISTENT COATING.	LED	50W	ELECTRONIC DRIVER	4000K	AMERON LIGHTING: ROUND LOUVERED BOLLARD SERIES. CONCRETE BOLLARD: BER0842LC LUMINAIRE: L20RCC05LEPA  ** GRAFFITI RESISTENT COATING. NOTE: CONCRETE BOLLARD TO MATCH EXISTING CONCRETE BOLLARD. CONTRACTOR TO VERIFY EXACT MANUFACTURER/MODEL WITH ASBUILTS OF EXISTING PARK CONCRETE BOLLARD.
'c'	RECESSED LED LUMINAIRE.  DIE—CAST ALUMINUM MARINE GRADE HOUSING WITH  CLEAR GLASS LENS, WET LOCATION, 120V AND  BLACK FINISH.	LED 1,183 LUMENS	18.5W	STANDARD DRIVER	3000K	BEGA LIGHTING: 24061 SERIES, OR APPROVED.
'D'	24", INGROUND REGULAR OUTPUT LED FAÇADE LUMINAIRE.120V, VARIED LENGTH, ASSYMETRIC WALLWASH OPTIC, STAINLESS STEEL HARDWARE, AND ANTISLIP LENS. PROVIDE APPORPRIATE LENGTH OF JUMPER CABLE.	LED 2770 LUMENS	10W	STANDARD DRIVER	3000K	LUMENPULSE: LUMENFACADE INGROUND SERIES, OR APPROVED.
'F'	RECESSED LED BENCHLIGHT. HIGH PERFORMANCE RUBBER OCATED LED ADHESIVE TAPE. 120 DEGREES BEAM SPREAD, 1-15/16" CHANNEL WITH WHITE LENS AND 192W RATED 24V DC POWER SUPPLY	LED 330 LUMENS PER FOOT APPROX. 200'	3.2W PER FOOT	STANDARD DRIVER	3000K	KELVIX LIGHTING: PH300 OUTDOOR ADHESIVE, CH-217-N CHANNEL, ULV192 24V DC POWER SUPPLY, OR APPROVED.
'G'	RECESSED LED STEPLIGHT. BLACK FINISH, 120V, REMOTE MOUNTED 24V ELECTRONIC DRIVER, .210" THICK TEMPERED GLASS LENS, WATERPROOF.	LED 134 LUMENS	2W	STANDARD DRIVER	3000K	BEGA LIGHTING: 33831 SERIES, OR APPROVED.
'H'	4' SURFACE MOUNTED LINEAR LED LUMINAIRE. CLEAR GLASS LENS WITH OPTIMIZED INLAY, SILVER FINISH, UNIVERSAL VOLTAGE AND TAMPER RESISTANT.	LED 513 LUMENS PER FOOT	5.1W	STANDARD DRIVER	3000K	SELUX LIGHTING — M125 SERIES OR APPROVED.
'K'	4' SURFACE MOUNTED LED LINEAR LUMINAIRE. ONE CONSTANT CURRENT LED DRIVER, DUAL VOLTAGE, 20-GA CRS PAINTED HOUSING, TAMPER RESISTANT TORX, PEARLESCENT POLYCARBONATE, MOTION SENSOR AND WHITE FINISH.	LED 4,819 LUMENS	49W	STANDARD DRIVER	3500K	KENALL LIGHTING: ES8 SERIES OR APPROVED.
'KE'	SAME AS TYPE 'K' EXCEPT EQUIPPED WITH INTEGRAL BATTERY BACKUP AND TEST SWITCH.	LED 4,819 LUMENS	49W	STANDARD DRIVER	3500K	KENALL LIGHTING: ES8 SERIES OR APPROVED.
'L'	5"X18" ROUND WALL MOUNTED LED SCONCE. THREE BAR LENS FRAME MATTE PEARLESCENT HIGH IMPACT 100% DR AYCRYLIC LENS, WARM SATIN ALUMINUM FINISH AND ADA COMPLIANT.	LED 1,183 LUMENS	18W	STANDARD DRIVER	3500K	KENALL MILLENIUM FREESCALE — FS518 SERIES. OR APPROVED.

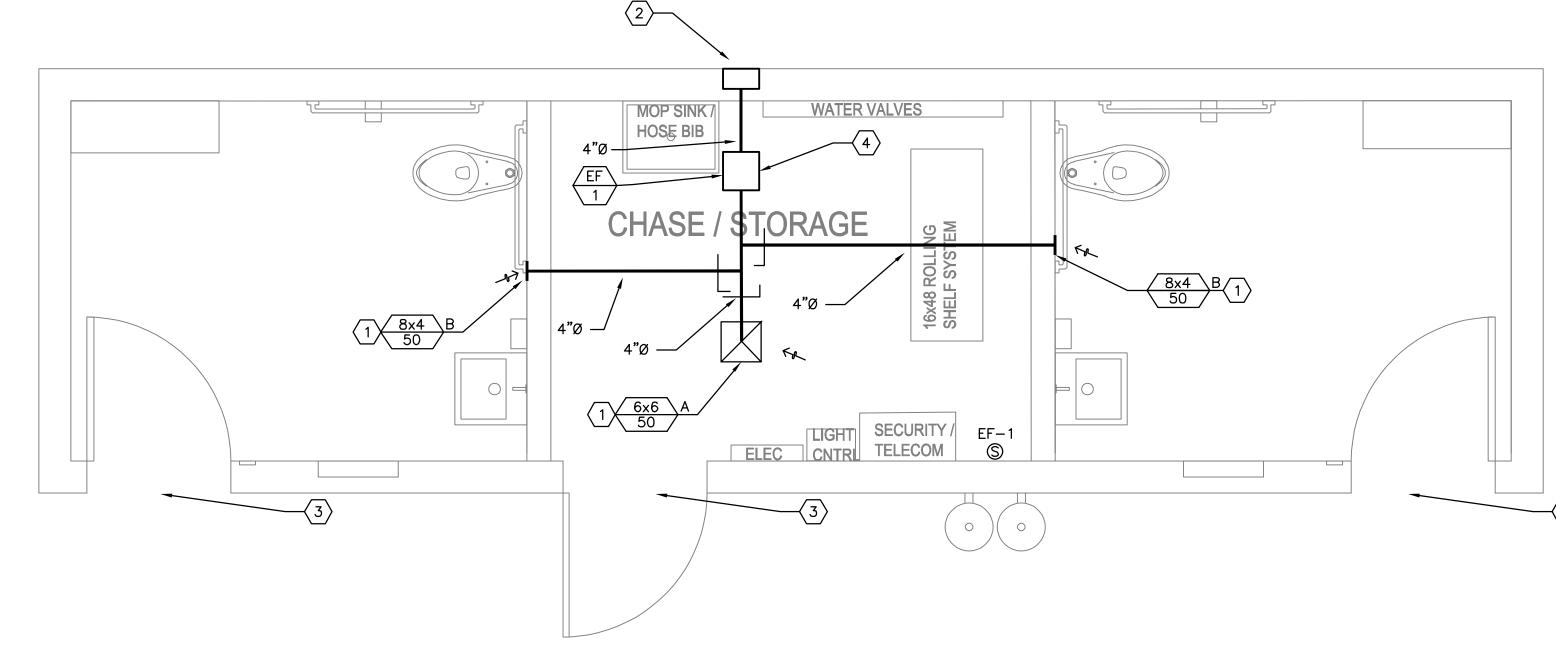
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MAUKIE BAY PARK

- A. CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY DAMAGED ITEMS AND REPAIRING ANY BUILDING DAMAGE OCCURRING DURING CONSTRUCTION AT NO ADDITIONAL COST TO PROJECT. MATCH NEW ITEMS AND REPAIRS TO EXISTING CONDITIONS.
- B. ALL WORK SHALL CONFORM TO APPLICABLE CODES, REGULATORY AGENCIES, AND STANDARDS, INCLUDING BUT NOT NECESSARILY LIMITED TO IBC, IMC, IPC, UFC, NEC, OSHA, NFPA, ETC. INFORM CONSTRUCTION MANAGER OF CONFLICTS PRIOR TO BID. WHERE TWO CODES OR STANDARDS DIFFER, THE MORE STRICT OF THE TWO SHALL BE
- C. COORDINATE AND SCHEDULE ALL WORK WITH CONSTRUCTION MANAGER PRIOR TO START OF WORK. ALL EFFECTS OF WORK MUST BE COMMUNICATED, REVIEWED, APPROVED, AND SCHEDULED WITH CONSTRUCTION MANAGER. CONTRACTOR SHALL LIMIT NOISE, DUCT, FUMES, SHUT DOWNS, WORKING HOURS, ETC. AS REQUIRED BY CONSTRUCTION MANAGER.
- D. MAINTAIN CODE REQUIRED AND MANUFACTURER RECOMMENDED CLEARANCES AROUND ALL EQUIPMENT.
- E. HVAC EQUIPMENT INSIDE THE BUILDING ENVELOPE WILL NEED A MINIMUM OF R-5 INSULATION. THIS INCLUDES, BUT IS NOT LIMITED TO, EQUIPMENT, DUCTWORK, ETC.
- F. ALL DIMENSIONS ARE APPROXIMATE AND MUST BE FIELD VERIFIED PRIOR TO INSTALLATION.

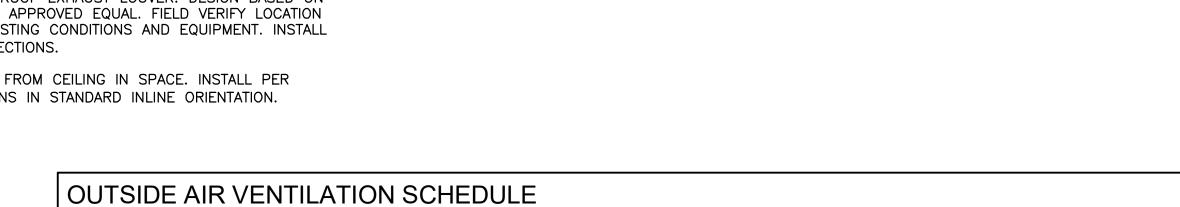




NOTES THIS SHEET

- 1) PROVIDE INDEPENDENT BACKDRAFT DAMPER FOR EACH EXHAUST DUCT RUN
- $\langle 2 \rangle$  DOOR-MOUNTED 16x6 PRICE STG INTAKE LOUVER, OR EQUIVALENT.
- 3 12" W x 10" H WEATHERPROOF EXHAUST LOUVER. DESIGN BASED ON RUSKIN MODEL ELFJ15 OR APPROVED EQUAL. FIELD VERIFY LOCATION AND COORDINATE WITH EXISTING CONDITIONS AND EQUIPMENT. INSTALL PER MANUFACTURER'S DIRECTIONS.
- 4 EXHAUST FAN SUSPENDED FROM CEILING IN SPACE. INSTALL PER MANUFACTURER'S DIRECTIONS IN STANDARD INLINE ORIENTATION.

CHASE / STORAGE  TO STORAGE  T	
BUILDING PLAN - MECHANICAL  SCALE: 1/2" = 1'-0"	



	Application	Cond. Area (SF)	Default Occ. Density # per 1000 SF	Occ. Load	Actual No.of Occ.or No. of Fixtures	CFM per Occ. or Fixture	People or Fixture Outdoor Airflow (CFM)	Area Outdoor Airflow (CFM/SF)	Area Outdoor Airflow (CFM)	Exhaust Airflow Rate (CFM/SF)	Exhaust Airflow Rate (CFM/FX)	Req'd Exhaust (CFM)	Req'd OSA (CFM)
EF-1	Restroom, Public	75	_	_	2	-	_	-	_	_	50	100	_
										1	OTAL REQ'C	OSA CFM	_
		TOTAL REQ'D OSA CFM IN BREATHING ZONE									_		
										TOTAL	. REQ'D EXI	HAUST CFM	100
										ТО	TAL PROVIDE	ED OSA CFM	-
											DCV MINIMU	M OSA CFM	-
										TOTAL F	ROVIDED EX	HAUST CFM	150

DIFFUSER, REGISTER, AND GRILLE SCHEDULE								
TYPE	DESCRIPTION	MFR/MODEL	OBD	NOTES				
Α	RETURN GRILLE	PRICE / 10		DUCT-MOUNTED				
В	RETURN GRILLE - SIDEWALL	PRICE / 90						

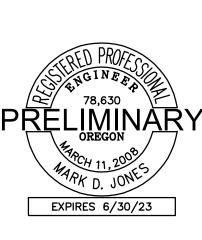
N	MECHANICAL LEGEND
	DUCTWORK SINGLE LINE
<b>─ ─</b> RI	ETURN/EXHAUST AIR ELBOW UP
	ABBREVIATIONS
(E) ESP	BRITISH THERMAL UNIT CUBIC FEET PER MINUTE EXISTING EXTERNAL STATIC PRESSURE EXHAUST AIR GALLONS PER MINUTE HORSEPOWER MAKE-UP AIR 1000 BTU PER HOUR MANUFACTURER NEW
	REFERENCE
1 VAV	CONNECT TO EXISTING AT THIS POINT. VERIFY LOCATION, SIZE, AND CONDITION SHEET NOTE  EQUIPMENT MARK NUMBER SEE SCHEDULES
$\triangle$	REVISION
20x10 500 NECH	A DIFFUSER/REGISTER MARK NUMBER  SIZE 20x10 A SCHEDULED TYPE  CFM OPPOSED BLADE DAMPER

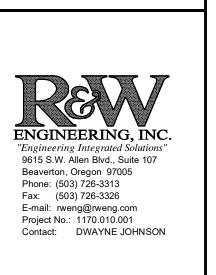
NOTE: NOT ALL SYMBOLS OR ABBREVIATIONS CONTAINED IN THIS LEGEND WILL APPEAR ON DRAWINGS.

EXHAUST FAN SC	HEDULE
MARK NUMBER	EF 12
SYSTEM	RESTROOMS
TYPE	INLINE
AIRFLOW (CFM)	150
E.S.P. ("H20)	0.25
MOTOR (A)	0.53
ELECTRICAL (V-PH)	120V, 1P
DESIGN WEIGHT (LBS)	19
MANUFACTURER/MODEL	COOK/ GN-322

(1) PROVIDE FAN SPEED CONTROLLER.

2) FAN TO OPERATE CONTINUOUSLY DURING REGULAR PARK HOURS.





REVISIONS

COLD WATER ONLY SERVICE		FIXTURE	CW	
APPLIANCES, APPURTENANCES OR FIXTURES	QTY	UNITS	UNITS	
HOSE BIBB	1	2.5	2.5	
HOSE BIBB, EACH ADDITIONAL	1	1.0	1.0	
COLD AND HOT WATER SERVICE		FIXTURE	CW	НW
APPLIANCES, APPURTENANCES OR FIXTURES	QTY	UNITS	UNITS	UNIT
LAVATORY	2	1.0	2.0	1.5
SINK, SERVICE OR MOP BASIN	1	1.5	1.5	1.1
FLUSH VALVE SERVICE			CW	
APPLIANCES, APPURTENANCES OR FIXTURES	QTY		UNITS	
URINAL, FLUSHOMETER VALVE			0.0	
WATER CLOSET, FLUSHOMETER VALVE	2		70.0	
TOTAL FLUSH TANK FIXTURE UNITS			7.0	2.6
TOTAL FLUSH VALVE FIXTURE UNITS			70.0	
FLUSH TANK FLOW, gpm			6.0	
FLUSH VALVE FLOW, gpm			58.3	
TOAL FLOW, gpm			64.3	2.8

FLOW AND PRESSURE CALCULATIO	NS		
TOAL FIXTURE FLOW		64.3	gpm
IRRIGATION FLOW		0	gpm
TOTAL FLOW REQUIRED		64.3	gpm
STREET PRESSURE		80	psig
MAXIMUM SERVICE PRESSURE AFTER PRV		70	psig
TOTAL PIPE LENGTH		200	ft
TOTAL EQUIVALENT PIPE LENGTH		250	ft
SERVICE NOMINAL PIPE SIZE		1 1/2	in
a) CALCULATED FRICTION LOSS (1)		29.14	psi
b) WATER METER PRESSURE LOSS		6	psi
c) BACKFLOW PREVENTER LOSS		7	psi
COMBINED PRESSURE LOSSES (a + b + c)		42.1	psi
STATIC (GRAVITY) HEAD REQUIRED	10.0 ft	4.35	psi
REQUIRED PRESSURE (1)		20	psig
AVAILABLE PRESSURE (2)		24	psig

(1)	то	MOST	HYDRAULICALLY	REMOTE	FIXTURE.
(2)	ΑT	MOST	HYDRAULICALLY	REMOTE	FIXTURE.

				PL	JME	ING FIXTURE CONNECTION	ON SCHEDULE
	MARK	FIXTURE	W	V	CW	MANUFACTURER	REMARKS
	WC-1	WATER CLOSET HANDICAP	4	2	1	ACORN 1680-W-1-ULF1.6-FVBO-C01-HS-SW-TG SLOAN 952-1.6-MBFW	WALL MOUNTED, 1.6 GPF VALVE, ELONGATED, ADA HEIGHT, OPEN FRONT SEAT, PROVIDE CARRIER. HINGED PLASTIC SEAT
V TS	LV-1	LAVATORY PUBLIC	1-1/2	1-1/4	1/2	ACORN 1652-1-BPH-03M-LW1-OF-PBH-SW-TG	WALL HUNG, P-TRAP, SUPPLIES & STOPS
1	HB-1	HOSE BIBB			3/4	SMITH 5609QT	NON-FREEZE, PROVIDE KEY TO OWNER
$\dashv$	DF-1	DRINKING FOUNTAIN BOTTLE FILLER	1-1/2	1-1/4	1/2	MOST DEPENDABLE MODEL 10485 WMSS	
6	SS-1	MOP SINK	3	2	1/2	FIAT MSB-2424; CHICAGO 897 FAUCET	PROVIDE HOSE & BRKT832—AA, MOP HANGER 889—CC, STAINLESS STEEL BUMPER E—85—AA AND WALL GUARD
	FD-1	FLOOR DRAIN	3	2		SMITH 2005-A	PRIME
3	BFP-1	BACKFLOW PREVENTER			1-1/2	WATTS MODEL LF009M2QT	SUPPORT WITH UNISTRUT FROM WALL
	BFP-2	BACKFLOW PREVENTER			1	WATTS MODEL LF009M2QT	SUPPORT WITH UNISTRUT FROM WALL, PROVIDE FOR FUTURE WATER FEATURE

	PLUMBING FIXTURE CONNECTION SCHEDULE								
MARK	FIXTURE	W	٧	CW	MANUFACTURER	REMARKS			
WC-1	WATER CLOSET HANDICAP	4	2	1	ACORN 1680-W-1-ULF1.6-FVBO-C01-HS-SW-TG SLOAN 952-1.6-MBFW	WALL MOUNTED, 1.6 GPF VALVE, ELONGATED, ADA HEIGHT, OPEN FRONT SEAT, PROVIDE CARRIER. HINGED PLASTIC SEAT			
LV-1	LAVATORY PUBLIC	1-1/2	1-1/4	1/2	ACORN 1652-1-BPH-03M-LW1-OF-PBH-SW-TG	WALL HUNG, P-TRAP, SUPPLIES & STOPS			
HB-1	HOSE BIBB			3/4	SMITH 5609QT	NON-FREEZE, PROVIDE KEY TO OWNER			
DF-1	DRINKING FOUNTAIN BOTTLE FILLER	1-1/2	1-1/4	1/2	MOST DEPENDABLE MODEL 10485 WMSS				
SS-1	MOP SINK	3	2	1/2	FIAT MSB-2424; CHICAGO 897 FAUCET	PROVIDE HOSE & BRKT832—AA, MOP HANGER 889—CC, STAINLESS STEEL BUMPER E—85—AA AND WALL GUARD			
FD-1	FLOOR DRAIN	3	2		SMITH 2005-A	PRIME			
BFP-1	BACKFLOW PREVENTER			1-1/2	WATTS MODEL LF009M2QT	SUPPORT WITH UNISTRUT FROM WALL			
BFP-2	BACKFLOW PREVENTER			1	WATTS MODEL LF009M2QT	SUPPORT WITH UNISTRUT FROM WALL, PROVIDE FOR FUTURE WATER FEATURE			

	PLUMBING LEGEND							
DA			CW CW	COLD WATER  COLD WATER BELOW GRADE  HOT WATER				
		·\	V V	VENT VENT BELOW GRADE				
		-RD	W RD	SANITARY WASTE (BELOW GRADE) RAIN DRAIN (ABOVE GRADE)				
		-RD	RD	RAIN DRAIN (BELOW GRADE)				
	B.G. DS	BELOW GRA DOWN SPOL						
	(N)	FLOOR DRAI	IN					
	(R)	REMOVE	DOOF					
	VTR o	VENT THRU ROOF  CO FLOOR CLEANOUT						
	0	COTG CLE	ANOUT	TO GRADE				

PLUMBING FIXTURE MARK NO. SEE PLUMBING FIXTURE CONNECTION SCHEDULE.

CONNECT TO EXISTING AT THIS POINT. VERIFY EXACT LOCATION, SIZE AND CONDITION.

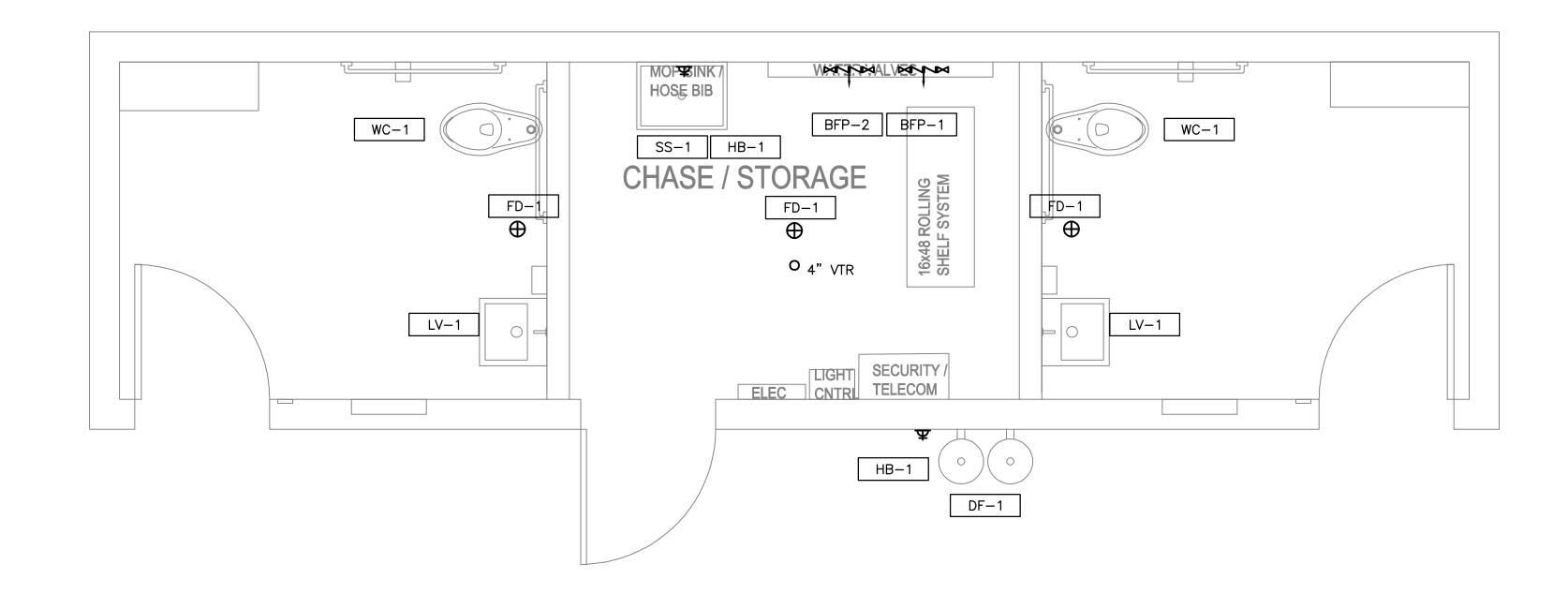
#### **GENERAL NOTES**

A. ALL WATER AND WASTE PIPING TO BE INSULATED, INCLUDING ALL WASTE TRAPS AND FLUSH VALVES. SEE SPECIFICATIONS. PROVIDE HEAT TAPE PENTAIR SELF-REGULATION BTV (OR EQUAL), 5 WATTS/FT. WRAP AT 10 INCHES ON CENTER. PROVIDE ALL INTERCONNECTION DEVICES AND EQUIPMENT FOR A COMPLETE INSTALLATION. INSTALL HEAT TRACING ON PIPING UNDER INSULATION. ALL WASTE TRAPS AND WASTE PIPING ALONG WITH ALL DOMESTIC WATER PIPING, OUTSIDE OF HEATED STORAGE AND UTILITY CHASE.

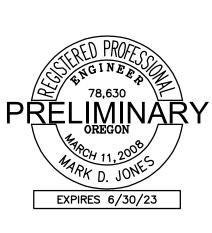
B. DRAWINGS ARE DIAGRAMMATIC. THEY DO NOT SHOW EVERY OFFSET, BEND, TEE, OR ELBOW WHICH MAY BE REQUIRED TO INSTALL WORK IN THE SPACE PROVIDED. DO NOT SCALE DRAWINGS FOR ROUGHING-IN MEASUREMENTS, NOR USE AS SHOP DRAWINGS. MAKE FIELD MEASUREMENTS AND PREPARE SHOP DRAWINGS AS REQUIRED. COORDINATE WORK WITH SHOP DRAWINGS OF OTHER TRADES. PROVIDE ANY BENDS. OFFSETS AND ELBOWS WHERE REQUIRED BY LOCAL CONDITIONS FROM MEASUREMENTS TAKEN AT THE BUILDING (SUBJECT TO APPROVAL) AND WITHOUT ADDITIONAL COST TO THE PROJECT. THE RIGHT IS RESÉRVED TO MAKE ANY REASONABLE CHANGES IN OUTLET LOCATION PRIOR TO ROUGH-IN.

C. CONTRACTOR IS TO FIRE CAULK ALL PIPING PENETRATIONS THRU FIRE RATED WALLS.

D. PROVIDE A 1" CW BACKFLOW PREVENTER FOR FUTURE WATER FEATURE.









REVISIONS FLOOR PLAN -

RESTROOM BUILDING

# GENERAL NOTES:

#### I. GENERAL CONDITIONS:

- A. THE PLANS, SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS SHALL GOVERN THE WORK. THE PLANS AND SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS ARE INTENDED TO BE COMPLEMENTARY, TO DESCRIBE AND PROVIDE FOR A COMPLETE PROJECT.
- BEFORE ENTERING INTO A CONTRACT FOR EXECUTION OF THE WORK, THE CONTRACTOR SHALL VERIFY ALL QUANTITIES, DIMENSIONS AND SHALL, UPON DISCOVERING ANY ERROR OR OMISSION OR DISCREPANCIES BETWEEN THE PLANS, SPECIFICATIONS AND ACTUAL CONDITIONS, IMMEDIATELY CALL IT TO THE ATTENTION OF THE OWNER AND POOLS, SPAS AND WATER FEATURES ENGINEER. NO WORK SHALL BE DONE WHERE THERE IS A DISCREPANCY UNTIL APPROVAL HAS BEEN GIVEN BY THE OWNER AND THE WATER FEATURES ENGINEER.
- THE OWNER SHALL, AT THE REQUEST OF THE CONTRACTOR, PROVIDE PLANS OR FIELD STAKING LOCATING EXISTING LINES AND UNDERGROUND UTILITIES. BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF CABLES, CONDUITS, PIPES SEWERS AND OTHER UNDERGROUND UTILITIES AND SHALL TAKE PROPER PRECAUTIONS TO AVOID DAMAGE TO SUCH UTILITIES. IN THE EVENT OF A CONFLICT OR DISCREPANCIES, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE OWNER AND REQUEST FOR NECESSARY RELOCATION. FAILURE TO FOLLOW THIS PROCEDURE PLACES UPON THE CONTRACTOR THE RESPONSIBILITY OF MAKING ANY AND ALL REPAIRS FOR DAMAGES OF ANY KIND AT THEIR EXPENSE.
- THE CONTRACTOR SHALL PROVIDE NECESSARY SAFEGUARDS AND EXERCISE CAUTION AGAINST DAMAGE TO EXISTING SITE IMPROVEMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE RESULTING FROM HIS OPERATIONS AND SHALL REPAIR OR REPLACE SUCH DAMAGE AT THEIR OWN EXPENSE.
- THE CONTRACTOR SHALL FURNISH AND INSTALL COMPLETE POOLS, SPAS AND WATER FEATURES AS DESCRIBED IN THE SCOPE OF WORK. ALL WORK SHALL BE IN STRICT ACCORDANCE WITH PLANS, SPECIFICATIONS AND EXISTING CODES AND REGULATIONS.
- SOILS REPORTS, ARCHITECTURAL, CIVIL, MECHANICAL AND ELECTRICAL PLANS, AND OTHER DOCUMENTS HAVE BEEN PREPARED FOR THIS PROJECT. BY REFERENCE, THESE PROJECT DOCUMENTS ARE MADE A PART OF THESE SPECIFICATIONS. COPIES OF THE PLANS AND REPORTS ARE AVAILABLE FOR INSPECTION AT THE OWNER'S OFFICE
- CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES TO AVOID CONFLICTS AND UNNECESSARY DELAYS.
- H. CONTRACTOR SHALL COORDINATE ALL INGRESS/EGRESS POINTS. STAGING/STORAGE AREAS, STOCKPILING, ETC., WITH OWNER PRIOR TO CONSTRUCTION.

ALL INFORMATION PROVIDED HEREIN RELATING TO ARCHITECTURAL STRUCTURES HAS BEEN PROVIDED FOR REFERENCE ONLY. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR BUILDING INFORMATION. ALL DISCREPANCIES BETWEEN THESE PLANS AND ARCHITECTURAL SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND WATER FEATURES ENGINEER.

#### 2. CODES/STANDARDS:

- ALL WORK SHALL BE DONE IN COMPLIANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES, ORDINANCES AND REGULATIONS. UNIFORM OR INTERNATIONAL BUILDING CODE, CURRENT EDITION AND AS DEFINED BY PROJECT ARCHITECT
- MANUAL OF STEEL CONSTRUCTION, AMERICAN INSTITUTE OF STEEL CONSTRUCTION, CURRENT EDITION
- NATIONAL ELECTRICAL CODE, CURRENT EDITION MANUAL OF STANDARD PRACTICE, CONCRETE REINFORCING INSTITUTE
- "STRUCTURAL CONCRETE FOR BUILDINGS", PUBLICATION ACI 301-96 OF THE AMERICAN CONCRETE INSTITUTE AND PUBLICATIONS ACI 302 AND ACI 318.
- ACI STANDARD 506 "SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" OF THE AMERICAN INSTITUTE OF
- "CODE FOR WELDING IN BUILDING CONSTRUCTION" OF THE AMERICAN WELDING SOCIETY. "SPECIFICATIONS FOR ARCHITECTURALLY EXPOSED STRUCTURAL STEEL" OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION. "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES", PUBLICATION ACI 315-92 OF THE AMERICAN
- CONCRETE INSTITUTE. OSHA CODES
- APPLICABLE FEDERAL, STATE AND LOCAL SAFETY CODES, ORDINANCES AND ORDERS ASTM A 312 - SPECIFICATION FOR SEAMLESS AND WELDED AUSTENITIC STAINLESS STEEL PIPE
- ASTM B 88 SPECIFICATION FOR SEAMLESS COPPER WATER TUBE
- "SA-312 SEAMLESS & WELDED AUSTENITIC STAINLESS STEEL PIPE" AMERICAN SOCIETY OF MECHANICAL ENGINEERS PIPING MANUAL FOR STAINLESS STEEL PIPES FOR BUILDINGS" - NO. 12 008 - STAINLESS STEEL ASSOCIATION & NICKEL DEVELOPMENT
- "ANSI A108/A118/A136.1-1999 SPECIFICATION" TILE COUNCIL OF AMERICA
- "A137.1-1988 SPECIFICATIONS FOR CERAMIC TILE" TILE COUNCIL OF AMERICA "HANDBOOK FOR CERAMIC TILE INSTALLATION" - TILE COUNCIL OF AMERICA
- "DIRECT ADHERED CERAMIC TILE, STONE AND THIN BRICK FACADES TECHNICAL DESIGN MANUAL " BY RICHARD P. GOLDBERG ASTM A587 OR A53 GR.B SCH.40 ERW FOR 1"-4" CARBON STEEL PIPING
- A53 GR.B SCH.40 ERW FOR 6"-8" CARBON STEEL PIPING ASTM A 105 CARBON STEEL FOR 1"-8" CARBON STEEL FLANGES
- ASTM D4894 & D4895 FOR PTFE LINED PIPING
- AA. ASTM F1545 STANDARD SPECIFICATION FOR PLASTIC LINED PIPING BB. UNI-BELL PVC PIPE ASSOCIATION RECOMMENDED PRACTICES
- CC. NSF INTERNATIONAL "NSF 50" DD. OREGON ADMINISTRATIVE RULES - CHAPTER 333

### 3. PLAN INFORMATION:

- WRITTEN DIMENSIONS SHALL PREVAIL OVER SCALED DIMENSIONS.
- PIPING PLANS ARE SCHEMATIC UNLESS OTHERWISE NOTED AND SHALL NOT BE USED FOR STAKING THE WATER FEATURES. ABBREVIATIONS:

A.F.F.	ABOVE FINISH FLOOR	FLR.	FLOOR	PSI	POUNDS PER SQUARE INCH
A.F.S.	ABOVE FINISH SLAB	F.M.	FLOW METER	PVC	POLYVINYL CHLORIDE
A.P.	ACCESS PANEL	FTN.	FOUNTAIN	REQ'D	REQUIRED
ARCH.	ARCHITECT	GA.	GAUGE	S.D.	STORM DRAIN
AUTO	AUTOMATIC	GAL.	GALLONS	SHT	SHEET
A.V.	AIR VENT	GALV.	GALVANIZED	SL	SLOPE
&	AND	GD	GRADE	SPEC	SPECIFICATION
BTU/HR	BRITISH THERMAL UNITS PER HOUR	G.F.I.	GROUND FAULT INTERRUPTER	SQ.	SQUARE
C.F.M.	CUBIC FEET PER MINUTE	GPM	GALLONS PER MINUTE	SQ.FT.	SQUARE FOOT
C.I.	CAST IRON	H.B.	HOSE BIBB	SQ.IN.	SQUARE INCH
C.J.	CONSTRUCTION JOINT	H.C.	HANDICAP CHAIR	S.S.	STAINLESS STEEL
CNTL	CONTROL	H.E.	HEAT EXCHANGER	STRUCT.	STRUCTURAL
C.O.	CLEAN OUT	HORIZ	HORIZONTAL	S.W.S.	STATIC WATER SURFACE
CONT.	CONTINUOUS	HP	HORSEPOWER	T.O.C.	TOP OF CURB/COPING/CONCRETE
CU.FT.	CUBIC FEET	HT	HEIGHT	T.O.S.	TOP OF STAIR
DET.	DETAIL	INV.	INVERT	T.O.W.	TOP OF WALL
DIA.	DIAMETER	L.F.	LINEAR FEET	TYP.	TYPICAL
DN.	DOWN	MAX.	MAXIMUM	U.O.N.	UNLESS OTHERWISE NOTED
DWG	DRAWING	MECH	MECHANICAL	VENT.	VENTILATION
E.J.	EXPANSION JOINT	MEP	MECH/ELEC/PLUMBING	VERT.	VERTICAL
EL./ELEV.	ELEVATION	MIN.	MINIMUM	W/	WITH
ELEC.ELECTRIC OR ELECTRICAL		N.T.S.	NOT TO SCALE	W.L.	WATER LEVEL
EQ.	EQUAL	O.A.E.	OR APPROVED EQUAL	W.S.	WATER SURFACE
EQUIP	EQUIPMENT	O.C.	ON CENTER	WTRPFG	WATERPROOFING
F.F.E.	FINISH FLOOR ELEVATION	O.D.	OUTSIDE DIAMETER	W.W.M.	WELDED WIRE MESH

O.W.S. OPERATING WATER SURFACE

#### 4. GRADING/TRENCHING:

- A. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATIONS AND PROPER SHORING OF TRENCHES, ETC., IN COMPLIANCE WITH OSHA AND ALL OTHER APPLICABLE CODES.
- B. CONTRACTOR SHALL IMMEDIATELY NOTIFY OWNER OF ANY HAZARDOUS MATERIAL UNCOVERED DURING EXCAVATION.
- C. WATER FEATURE SUBGRADE TO BE SCARIFIED TO MINIMUM 6" DEPTH AND RECOMPACTED TO 90% MINIMUM RELATIVE DENSITY PER ASTM D 1557-70.
- D. CONTRACTOR SHALL REVIEW PROJECT GEOTECHNICAL ENGINEER'S REPORT PRIOR TO CONSTRUCTION. WATER FEATURE BASINS, ETC., SHALL BE PLACED ON SOIL PREPARED PER THE RECOMMENDATIONS OF THE GEOTECH ENGINEER AND INCLUDING BUT NOT LIMITED TO BORINGS, DEWATERING, OVEREXCAVATION TO DEPTHS REQUIRED BY GEOTECH ENGINEER, SCARIFICATION, REMOVAL OF UNSUITABLE SOIL, REPLACEMENT WITH APPROVED SOILS, BACKFILL, MOISTURE CONDITIONING, DRAINAGE REQUIREMENTS, COMPACTION AND TESTING.
- E. CONTRACTOR SHALL COORDINATE PIPE ROUTING WITH OTHER TRANDS TO AVOID UNDERGROUND UTILITIES, FOOTINGS, TREE ROOT BALLS AND OTHER OBSTRUCTIONS. SUBMIT ROUTING FOR REVIEW AND APPROVAL IF DIFFERENT THAN SHOWN ON
- F. CONTRACTOR SHALL NOTIFY ENGINEER ONE (1) WEEK PRIOR TO BACKFILLING TRENCHES.

#### 5. CONCRETE:

- A. ALL CONCRETE FOR WATER FEATURE BASINS SHALL CONFORM TO ACI STANDARDS FOR HYDRAULIC STRUCTURES.
- B. CONTRACTOR SHALL RECEIVE WRITTEN AUTHORIZATION FROM STRUCTURAL ENGINEER PRIOR TO PENETRATING ANY
- C. WATERSTOPS SHALL BE INSTALLED AT ALL CONCRETE COLD JOINTS, EXPANSION JOINTS AND PIPE PENETRATIONS UNLESS OTHERWISE NOTED. WATERSTOPS SHALL BE INSTALLED WITH MINIMUM CONCRETE COVERAGE AS REQUIRED BY MANUFACTURER'S SPECIFICATIONS.
- D. CONTRACTOR SHALL NOTIFY WATER FEATURE ENGINEER MINIMUM OF ONE (1) WEEK PRIOR TO INSTALLATION OF ANY WATER FEATURE CONCRETE BASIN.
- E. CONTRACTOR TO PROVIDE OWNER AND DESIGN TEAM A LIST OF SAMPLES & MOCK-UPS PRIOR TO INSTALLATION.

# 6. WATERPROOFING:

UNLESS OTHERWISE NOTED.

EXISTING STRUCTURAL WALL OR SLAB.

- A. ALL WATERPROOFING SYSTEMS SHALL BE FLOOD TESTED PER MANUFACTURER'S SPECIFICATIONS.
- B. ALL PENETRATIONS THROUGH WATERPROOFING SYSTEMS SHALL BE SEALED WITH PIPE BOOTS, PIPE SEALS, OR OTHER APPROVED METHOD. ALL WORK SHALL COMPLY WITH MANUFACTURER'S SPECIFICATIONS.
- C. ALL WATERPROOFING SYSTEMS SHALL BE PROTECTED FROM MECHANICAL IMPACT AND ULTRA VIOLET LIGHT EXPOSURE TO

PROVIDE DAMAGE PROTECTION AS SHOWN ON THE DRAWINGS AND AS REQUIRED BY MANUFACTURER'S SPECIFICATIONS.

- D. ALL SEALANTS AND WATERSTOPS SHALL BE RATED FOR IMMERSION IN CHEMICALLY TREATED WATER FOR ALL SYSTEMS
- E. SLAB WATERPROOFING SHALL BE INSTALLED ON SOUND STRUCTURAL SUBSTRATES, PREPARED AND CURED IN
- F. WATERPROOFING SYSTEMS SHALL BE INSTALLED WITH ALL COMPONENTS REQUIRED BY MANUFACTURER AND CURED PER MANUFACTURER'S SPECIFICATIONS TO MAINTAIN WARRANTIES.

A. ALL PIPING MATERIALS ARE SUBJECT TO APPROVAL BY PERMITTING AGENCY.

ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

- B. PIPING SHALL BE INSTALLED WITHOUT AIR ENTRAPPING HIGH POINTS OR REVERSE SLOPES, i.e. NO INVERTED "U" SHAPE CONFIGURATIONS.
- C. PIPE LAYOUTS SHOWN ON PLANS REPRESENT DESIGNATED PIPE ROUTING, ALLOWING FOR MINOR REALIGNMENT NECESSITATED BY FIELD CONDITIONS. APPROVAL BY THE WATER FEATURE ENGINEER IS REQUIRED FOR MAJOR REROUTING OF PIPING. PIPE RUNS SHALL BE INSTALLED WITH THE LEAST NUMBER OF FITTINGS. UNLESS SHOWN ON PLANS, THERE SHALL BE NO PIPE INSTALLATION UNDERNEATH THE WATER FEATURES.
- D. TRENCHES SHALL BE EXCAVATED TO THE FULL WIDTH AND DEPTH REQUIRED FOR PROPER INSTALLATION OF PIPE AND IN ACCORDANCE WITH THE REQUIREMENTS OF PIPE MANUFACTURER AND APPLICABLE CODES. TRENCH FLOORS SHALL PROVIDE UNIFORM BEARING AND SUPPORT FOR THE ENTIRE LENGTH OF PIPE RUNS.
- HORIZONTAL SEPARATION BETWEEN PIPES SHALL BE 4" MINIMUM; VERTICAL SEPARATION BETWEEN PIPES SHALL BE 6" MINIMUM. CONSIDERATION FOR TIGHTER SPACING WITH JETTED SAND OR SLURRY BACKFILL MAY BE GIVEN BY WATER FEATURE ENGINEER - CONTRACTOR SHALL SUBMIT SPACING AND BACKFILL METHOD PRIOR TO INSTALLATION.
- F. PROVIDE MINIMUM 24" COVER OVER ALL PIPING USING APPROVED MATERIAL COMPACTED TO 90% MIN.RELATIVE DENSITY PER ASTM D1557.
- G. PIPE MATERIAL:
  - i. ALL METALLIC PIPING SHALL BE TYPE K COPPER OR SCH.10 GR 316L S.S. U.O.N.
  - ii. ALL PIPING INSIDE UTILITY ROOM SHALL BE COPPER U.O.N.
  - iii. ALL CONNECTIONS BETWEEN STEEL AND PVC SHALL BE FLANGED OR WITH SPECIAL TRANSITION FITTINGS U.O.N.
  - iv. ALL PVC PIPING SHALL BE SCH.80 U.O.N.
- v. ALL BURIED PIPING SHALL BE INSTALLED BELOW FROST LINE.
- H. HYDROSTATIC TESTING IS REQUIRED FOR ALL PIPING. DO NOT USE COMPRESSED AIR IN PVC PIPES. ALL PIPING SHALL BE PRESSURE TESTED TO 50PSI FOR A MINIMUM OF 4 HOURS.
- I. PIPE WRAP REQUIRED ON ALL UNDERGROUND METALLIC PIPING.
- J. ALL PIPE SHALL BE SUPPORTED TO ELIMINATE VISIBLE MOVEMENT DURING NORMAL OPERATION.
- K. PROVIDE DILECTRIC SEPARATORS BETWEEN ALL DISSIMILAR METALS.
- L. CONTRACTOR SHALL PROVIDE DRAIN LINES AND VALVES ON EACH SYSTEM TO FACILITATE COMPLETE DRAINAGE FOR MAINTENANCE AND WINTERIZING.

SHEET INDEX & GENERAL NOTES

NOT FOR CONSTRUCTION

REVISIONS

GENERAL NOTES

SHEET INDEX &

# 8. EQUIPMENT:

- A. CONTRACTOR SHALL VERIFY ELECTRICAL FEED VOLTAGE AND PHASE PRIOR TO ORDERING ANY ELECTRICAL EQUIPMENT.
- B. ALL EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S REQUIREMENTS.

#### 9. ELECTRICAL:

- A. ALL ELECTRICAL EQUIPMENT WHERE APPLICABLE SHALL BEAR PROPER UL AND OTHER TESTING AGENCY LABELS.
- B. BONDING IS REQUIRED ON ALL INTERACTIVE WATER FEATURES TO ELIMINATE VOLTAGE GRADIENT
  IN THE WATER FEATURE AREA. BOND ALL COMPONENTS WITH #8 WIRE AND APPROVED CONNECTORS PER NEC.
- C. CONTRACTOR SHALL FIELD LOCATE ALL ELECTRICAL JUNCTION BOXES, GFCI's, LED POWER SUPPLIES, CONDUIT RUNS AND ALL ASSOCIATED PENETRATIONS. SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO INSTALLATION.
- D. ELECTRICAL PANELS SHALL BE SIZED TO ACCOMMODATE AVAILABLE SPACE & ACCESS INSIDE EQUIPMENT ROOM.

#### 10. MISCELLANEOUS

- A. ALL FINISH GRADES AND SURFACES SHALL BE INSTALLED PER GRADING PLAN.
- B. ALL WET DECK FINISHES INCLUDING STONES, COLOR, & TEXTURE PER LANDSCAPE ARCHITECT.
- C. WET DECK SURFACE SHALL BE SLIP RESISTANT WITH A MINIMUM DYNAMIC COEFFICIENT OF FRICTION OF 0.42
- D. COORDINATE SEWER LATERALS AND RECEPTACLES WITH ALL P TRAPS, VENTS, ETC. FROM SEWER MAIN TO POINT OF CONNECTION SUPPORTING WATER FEATURE WITH OTHER TRADES AS REQUIRED.
- E. COORDINATE PRESSURE REDUCED BACKFLOW PROTECTED WATER SUPPLY WITH OTHER TRADES.
- F. CONTRACTOR TO PROVIDE ONE (1) WEEK MINIMUM NOTIFICATION ITO ENGINEER FOR FIELD REVIEW.
- G. CONTRACTOR SHALL SUBMIT DIGITAL PHOTOS OF INSTALLED PIPES & COMPONENTS TO BE BURIED PRIOR TO BACKFILL.
- H. CONTRACTOR SHALL PROVIDE OPERATION & MAINTENANCE MANUAL COMPLETE "AS-BUILT" DRAWINGS, EQUIPMENT LIST, EQUIPMENT MODEL NUMBERS, EQUIPMENT UT SHEETS, MFR CONTACT INFO, FULL DESCRIPTION OF WATER FEATURE START-UP, SHUT DOWN, CLEANING, WINTERIZING, AND MAINTENANCE OF EQUIPMENT AND WATER FEATURE BASIN FOR REVIEW AND APPROVAL BY LANDSCAPE ARCHITECT AND WATER FEATURE ENGINEER PRIOR TO COMPLETION OF PROJECT.
- I. CONTRACTOR TO PROVIDE ALL NECESSARY PROVISIONS TO FACILITATE WINTERIZING FEATURE BASIN, PIPING, JET CANISTERS, ETC.

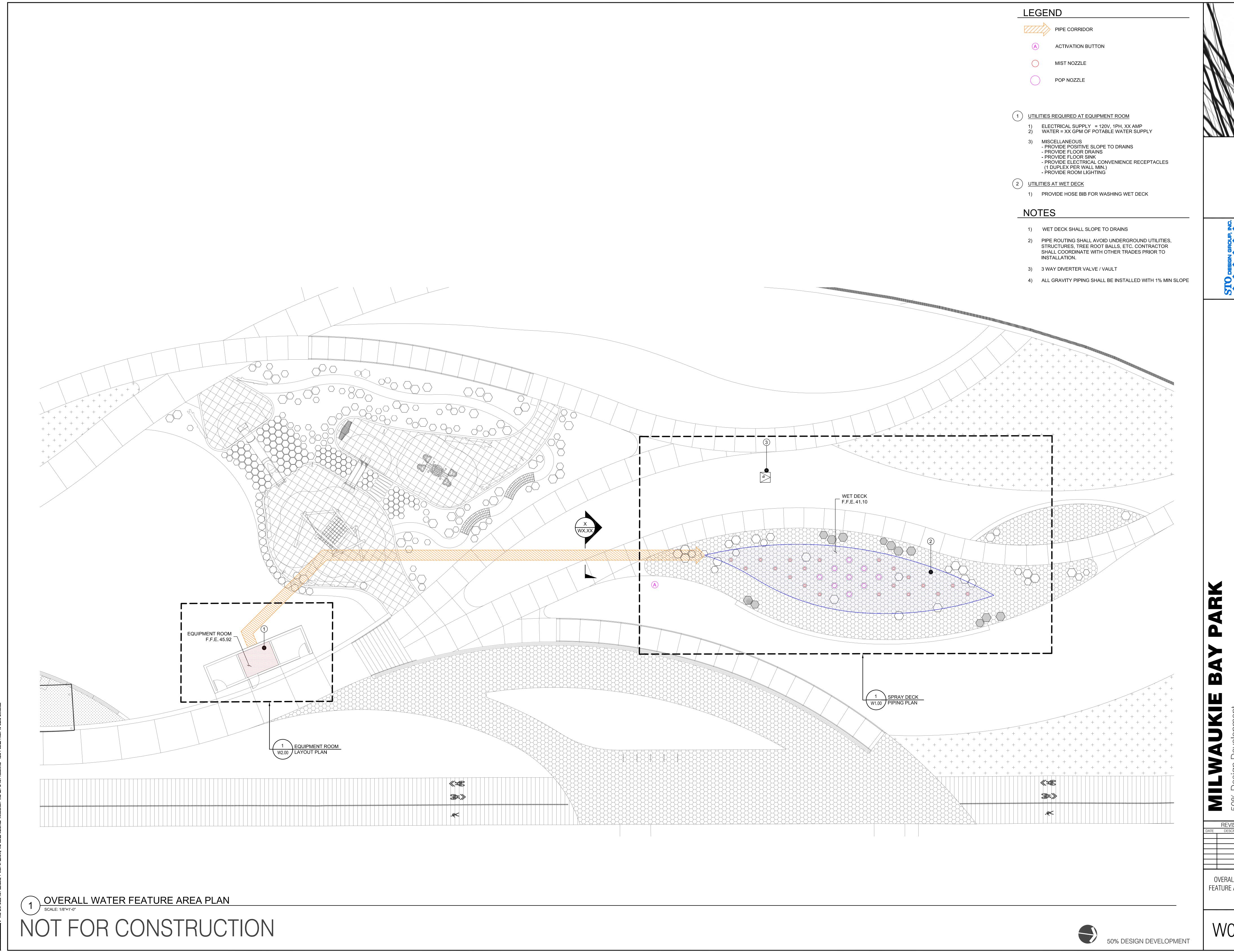
1 GENERAL NOTES
SCALE: NONE

NOT FOR CONSTRUCTION

LWAUKIE BAY PARK

REVISIONS
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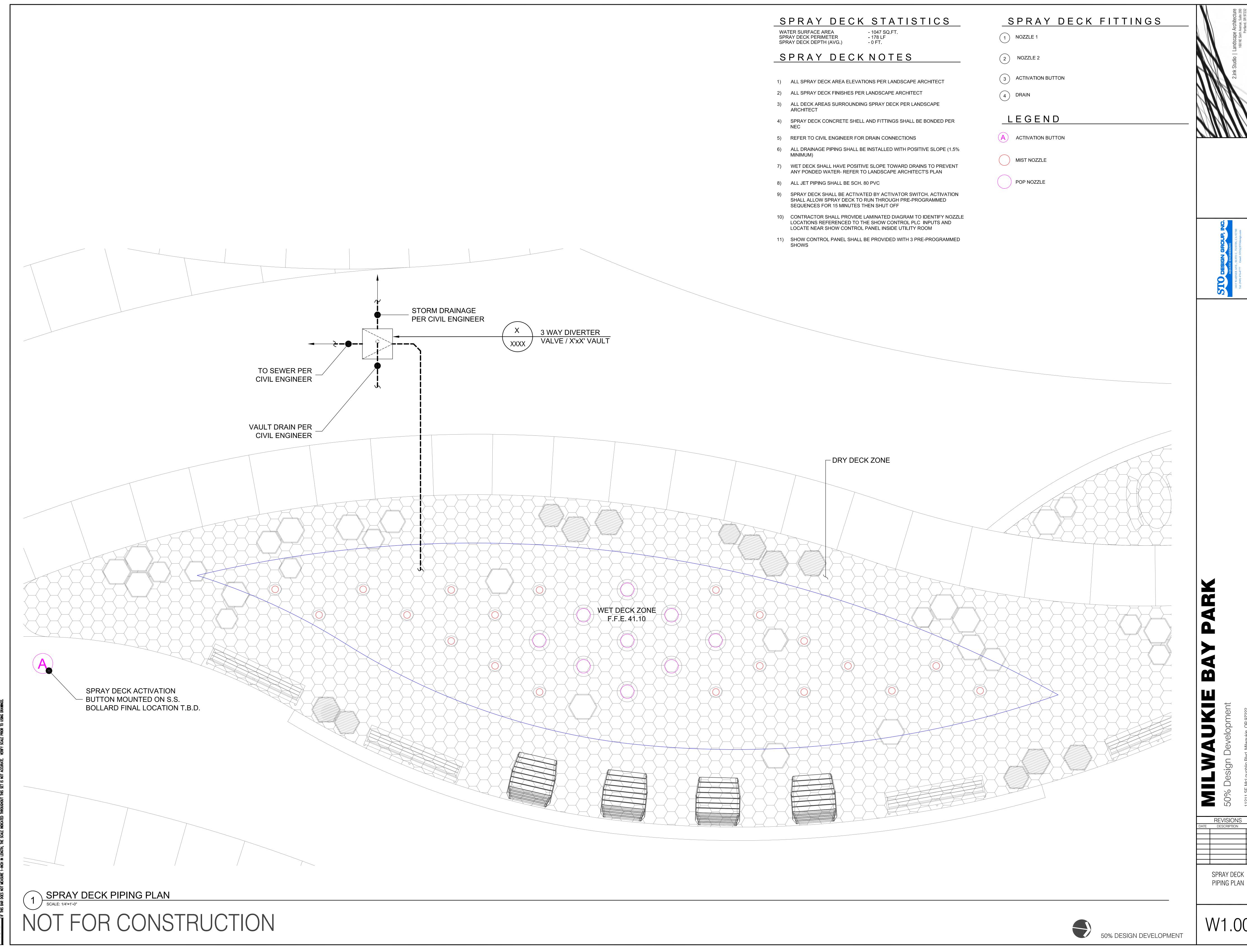
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REVISIONS

OVERALL WATER FEATURE AREA PLAN

W0.02



pe Architecture xth Avenue, Suite 200 Portland, OR 97232 503.546.4645 www.2inksturlio com

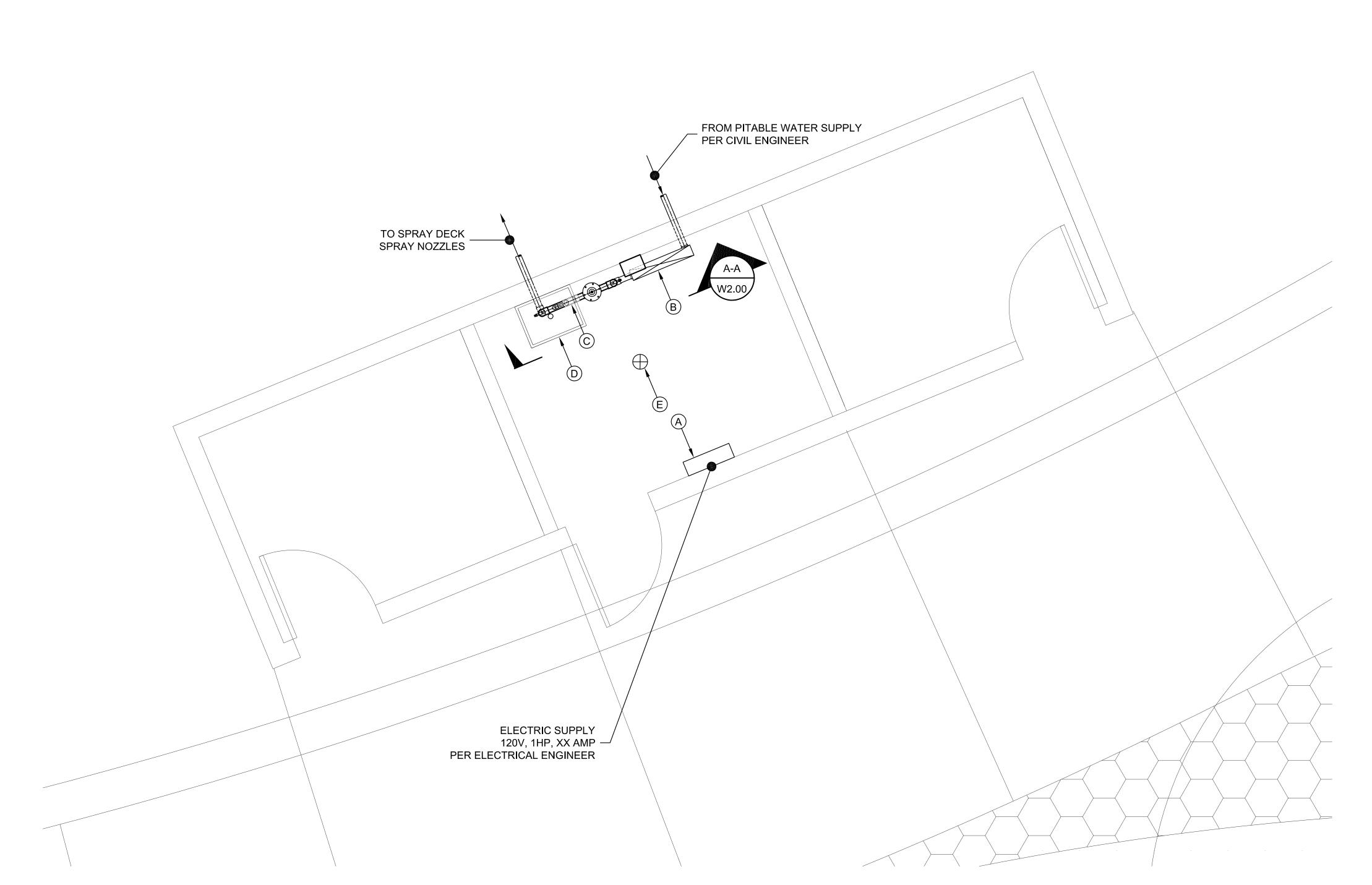
REVISIONS

SPRAY DECK

W1.00

**EQUIPMENT ROOM** LAYOUT PLAN

W2.00



# MISCELLANEOUS EQUIPMENT LIST

- CONTROL PANEL- (PER CONTRACTOR SHOP DRAWINGS)
- APPROVED PRESSURE REDUCING BACKFLOW PREVENTER PER MEP
- WATER SUPPLY SOLENOID CONTROL VALVE (TYP. 1 PLC.)
- MOP SINK / HOSE BIB
- FLOOR DRAINS PER MEP

# ROOM / EQUIPMENT NOTES

- 1) SUPPORT ALL PIPE TO ELIMINATE VISIBLE MOVEMENT DURING SYSTEM OPERATION.
- VERIFY VOLTAGE AND PHASE PRIOR TO CONSTRUCTION, INSTALLATION AND PURCHASE OF EQUIPMENT.
- REFER TO ELECTRICAL ENGINEER'S PLANS FOR EQUIPMENT ROOM LIGHTING.
- 4) DIELECTRIC SEPARATORS SHALL BE MADE TO MITIGATE CORROSION BETWEEN DISSIMILAR METALS.
- 5) INSTALL SYSTEM FLOW METERS IN A READILY VISIBLE LOCATION ON A RUN OF STRAIGHT PIPE IN EQUIPMENT ROOM
  (I.E. UNINTERRUPTED BY ANY FITTINGS), MINIMUM FIFTEEN (15)
  PIPE DIAMETERS, WITH 10 PIPE DIAMETERS CLEAR UPSTREAM
  AND 5 PIPE DIAMETERS DOWNSTREAM.
- 6) FLOW METER TO HAVE A 4-20 mA SIGNAL INTERFACED TO PLC
- ALL PIPING WITHIN BUILDING STRUCTURE SHALL MEET ALL APPLICABLE CODES.
- 8) EQUIPMENT ROOM DESIGN BY OTHERS

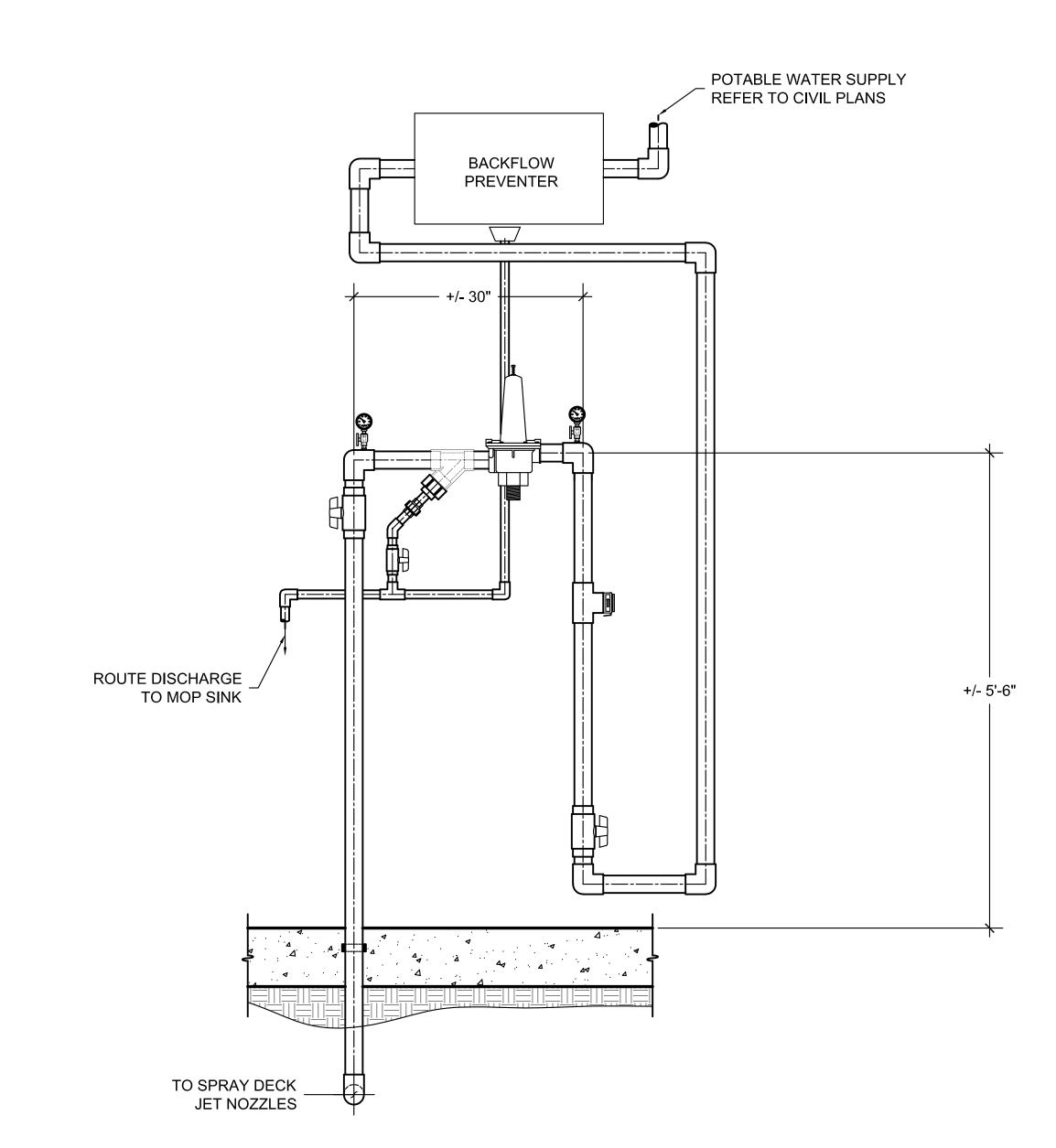
### **EQUIPMENT ROOM DEMANDS**

- ELECTRICAL SUPPLY = 120V, 1PH, XX AMP
   WATER = XX GPM OF POTABLE WATER SUPPLY
- **MISCELLANEOUS** - PROVIDE POSITIVE SLOPE TO DRAINS
  - PROVIDE FLOOR DRAINS
  - PROVIDE FLOOR SINK
  - PROVIDE ELECTRICAL CONVENIENCE RECEPTACLES
  (1 DUPLEX PER WALL MIN.)
  - PROVIDE ROOM LIGHTING

# SPRAY DECK WATER USE

WET DECK SURFACE AREA ANNUAL MEAN EVAPORATION ANNUAL MEAN SEEPAGE/SPLASH ANNUAL BACKWASH VOLUME TOTAL ANNUAL WATER USE

- XXXX SQ.FT. - XXXX CU.FT. - XXXX CU.FT. - XXXX CU.FT. - XXXX CU.FT. (XXXX GALLONS)



SECTION A-A

**EQUIPMENT ROOM LAYOUT PLAN** 

NOT FOR CONSTRUCTION



SPRAY DECK SYSTEM PROFILE

NOT FOR CONSTRUCTION

50% DESIGN DEVELOPMENT

MILWAUKIE BAY

% Design Development

REVISIONS
DESCRIPTION

SPRAY DECK SYSTEM PROFILE

W3.00