



CITY OF West Linn

March 5, 2015

Sara Javoronok
Associate Planner
City of West Linn

VIA EMAIL

Re: DR-15-01 Design Review Adult Community Center Responses to incomplete notice

CDC 46.090(B)(15) and 46.090(F)

The new sheet A1 submitted shows a reduction in parking to the allowed 67 spaces.

CDC 46.150(A(20)) and 55.100(B)(7)(d)

The new sheet A1 submitted shows an additional internal path for new parking spaces, next to space 'B48'.

CDC 55.070(D)(2)(e), 55.150, 54.020(E)(3)

The landscape plan sheet shows the plan for the additional parking areas consisting of low shrubs to match the existing landscape plants (pictures included as samples of existing landscaping). The landscape plan shows that the new pervious parking area is credited as 25% landscaped and the new impervious parking spaces have 21% of the interior parking area landscaped. There are two trees that are being saved in parking islands as shade trees for the new parking area. A five foot landscaped buffer exists between parking area and property line.

CDC 55.070(D)(2)(g)

Light coverage plan with photometric data is provided from the original application. No new lighting is proposed with the current application.

CDC 55.070(D)(2)(i)

Request for Waiver for tree survey and arborist report sent to John Boyd, Planning Manager

CDC 55.070(E)

Request for waiver from providing structure samples sent to John Boyd, Planning Manager

CDC 55.100(B)(6)(e)

The landscape plan sheet shows additional landscaping that will be in front of the addition to the east elevation to provide some relief from the proposed blank wall. (see pictures submitted for sample existing landscaping)

CDC 55.100(B)(7)(d)

The statement that discussed a second sidewalk to the street was in error. There are currently two existing sidewalks/pathways that lead to Rosemont Road.

CDC 55.100(I)(5) and 55.100(O)



CITY OF West Linn

55.100 I. Public facilities.

An application may only be approved if adequate public facilities will be available to provide service to the property prior to occupancy.

Streets, drainage, municipal water, sewer, solid waste was all addressed during the permitting of the original structure. No new plumbing fixtures are to be added. Appropriately sized and located solid waste and recycling storage area are already provided onsite that meet Metro standards All facilities do not need to be expanded for this project..

55.100 O. Refuse and recycling standards

1. All commercial, industrial and multi-family developments over five units requiring Class II design review shall comply with the standards set forth in these provisions. Modifications to these provisions may be permitted if the Planning Commission determines that the changes are consistent with the purpose of these provisions and the City receives written evidence from the local franchised solid waste and recycling firm that they are in agreement with the proposed modifications.

All requirements have been met previously for existing facility.

2. Compactors, containers, and drop boxes shall be located on a level Portland cement concrete pad, a minimum of four inches thick, at ground elevation or other location compatible with the local franchise collection firm's equipment at the time of construction. The pad shall be designed to discharge surface water runoff to avoid ponding. *The trash area was designed and constructed during the initial construction phase.*

3. Recycling and solid waste service areas.

The recycling and trash areas were already permitted & constructed during the original permitting process.

4. Special wastes or recyclable materials.

There are no special waste or special recyclable materials that need to be managed.

5. Screening and buffering.

All requirements for screening and buffering have been met in the initial construction of the Adult community Center.

6. Litter receptacles.

a. Location. Litter receptacles may not encroach upon the minimum required walkway widths.

b. Litter receptacles may not be located within public rights-of-way except as permitted through an agreement with the City in a manner acceptable to the City Attorney or his/her designee.

c. Number. The number and location of proposed litter receptacles shall be based on the type and size of the proposed uses. However, at a minimum, for non-residential uses, at least one external litter receptacle shall be provided for every 25 parking spaces for first 100 spaces, plus one receptacle for every additional 100 spaces. *There are a total of 67 parking spaces. Three trash receptacles should be provided. Two are onsite currently, a new trash receptacle will be provided on site to meet requirements*

CDC 55.120(F)(2)

Revised Site plan (labeled Vicinity Map) now shows existing structures and driveways on adjoining properties.

CDC 55.130

The new sheet A4 has the heights of all retaining walls.

Engineer Stamped grading plan will be submitted when received.



CITY OF West Linn

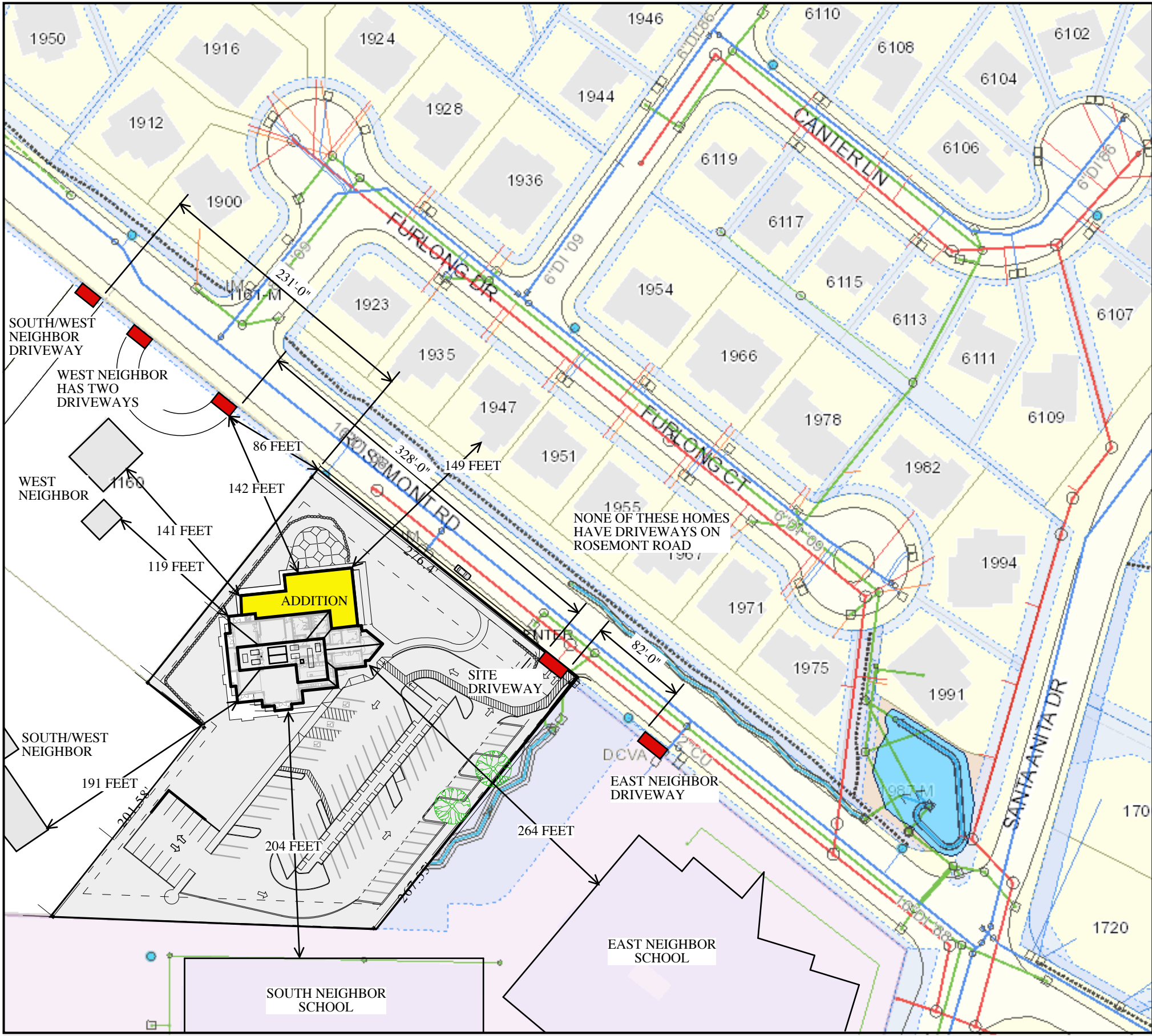
Based on the original storm water calculations done by Lewis and Van Vleet Inc., they calculated the storm water detention swale to handle 46,425 square feet of impervious surface. The total impervious area, including the addition, is only 43,805 Square feet. (Page 4)

CDC 99.038

All requirements have been followed to date and the Neighborhood Meeting is scheduled and will be held on March 19th. All documentation will be presented when available.

Sincerely,

Ken Warner, Assistant Parks & Recreation Director
Parks & Recreation
503-723-2553



VICINITY MAP

SITE SUMMARY

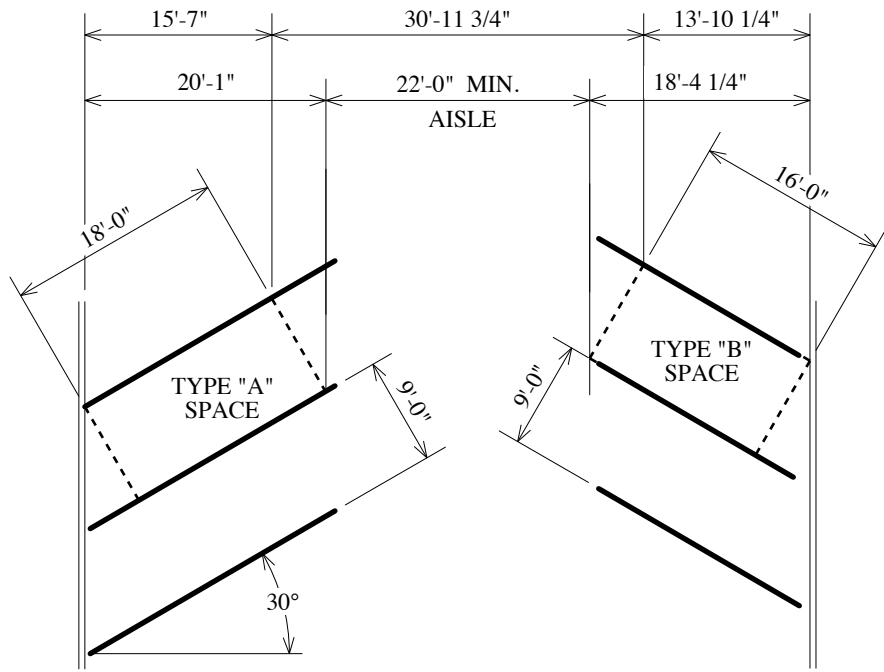
SITE AREA	86,475 sf
IMPERVIOUS SURFACES	
PARKING AND DRIVEWAY	
EXISTING + ADDITION	29,525 SQ. FT.
SIDEWALKS	4,780 SQ. FT.
BUILDING ROOF	
EXISTING + ADDITION	9,500 SQ. FT.
TOTAL IMPERVIOUS SURFACES	43,805 SQ. FT.
LANDSCAPING (N.I.C. PERVIOUS PAVING)	36,424 SQ. FT.
PERVIOUS PAVING	3,343 SQ. FT.

72 PARKING SPACES X 150 = 10,800 SQUARE FEET OF BUILDING ALLOWED
EXISTING BUILDING 6,140 SQUARE FEET
ADDITION CAN BE UP TO 4,660 SQUARE FEET

PROJECT TEAM

OWNER	CITY OF WEST LINN PARKS AND RECREATION CONTACT: KEN WORCESTER 22500 SALAMO ROAD WEST LINN, OR 97066 TEL: 503.723.2553 KWORCESTER@WESTLINNOREGON.GOV
ARCHITECT	ALLUSA ARCHITECTURE BOB SCHATZ ARCHITECT 2118 SE DIVISION ST. PORTLAND, OR 97202 TEL: 503.235.8585 FAX: 503.235.0895 BOB@ALLUSAARCHITECTURE.COM
STRUCTURAL ENGINEER	OUT TO BID
CONTRACTOR	OUT TO PUBLIC BID

SITE PLAN



PARKING LAYOUT

50% OF THE PARKING SPACES ARE REQUIRED TO BE TYPE "A"

PARKING LOT COUNT
ALL SPOTS MARKED A ARE FULL SIZE; TOTAL 41
ALL SPOTS MARKED B ARE COMPACT; TOTAL 31
TOTAL ALL SPOTS 72

CITY OF WEST LINN
PARKS AND RECREATION DEPT.
22500 SALAMO ROAD
WEST LINN, OR 97068

WEST LINN ADULT RECREATION CENTER
1180 Rosemont road West Linn, OR

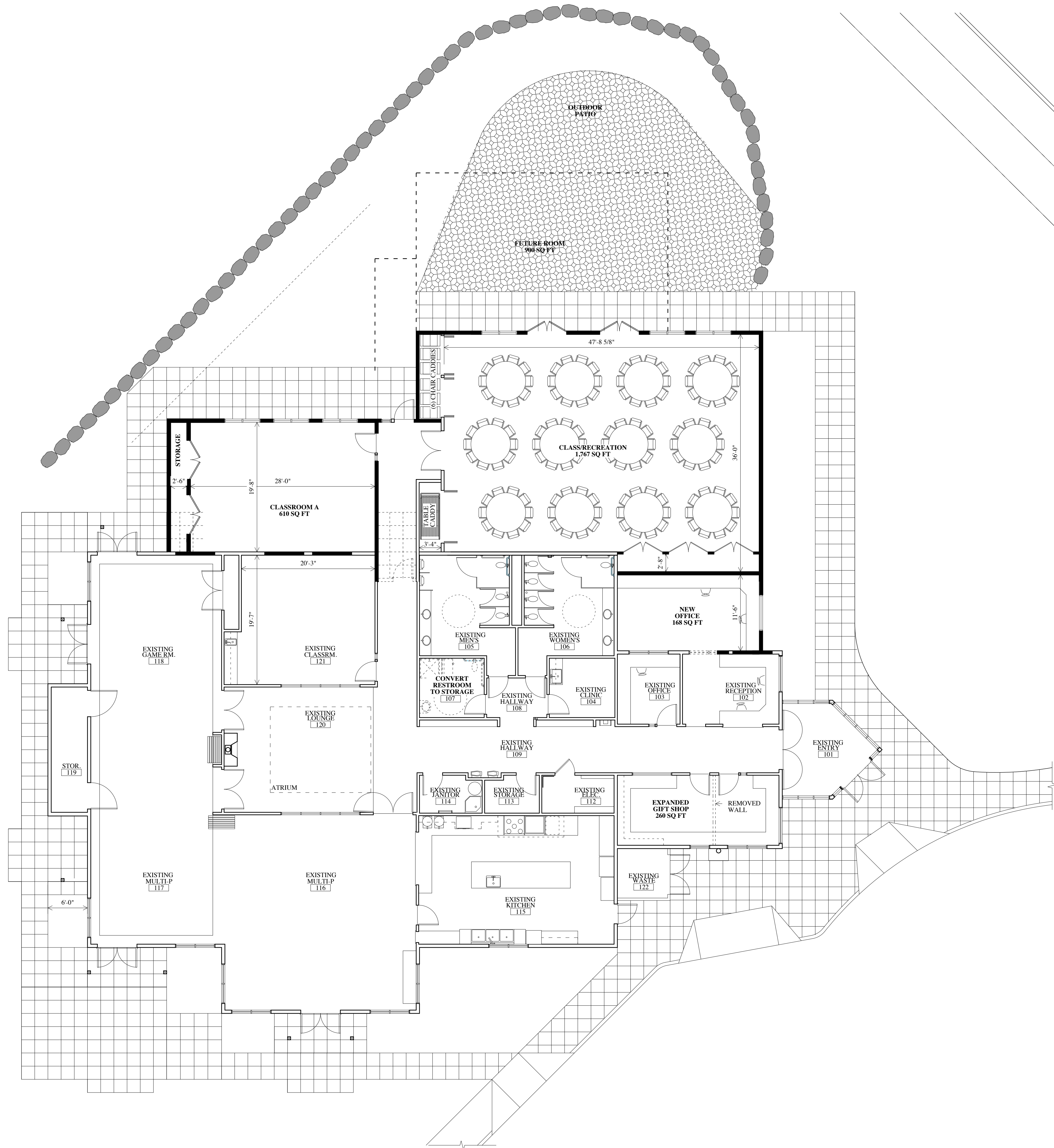


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ARCHITECTURE

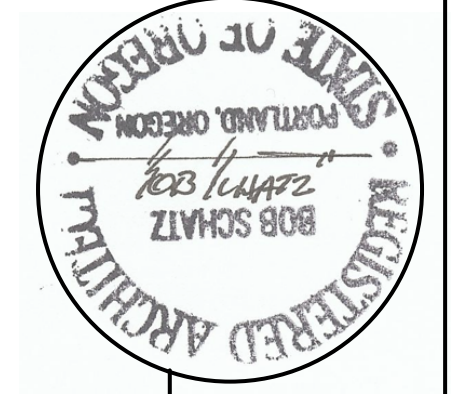
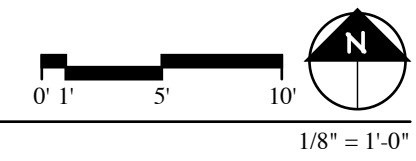
2118 SE Division street Portland, OR 97202
Phone (503) 235-8585 Fax (503) 235-0835 Allusaarchitecture.com

SHEET
A1
OF 4

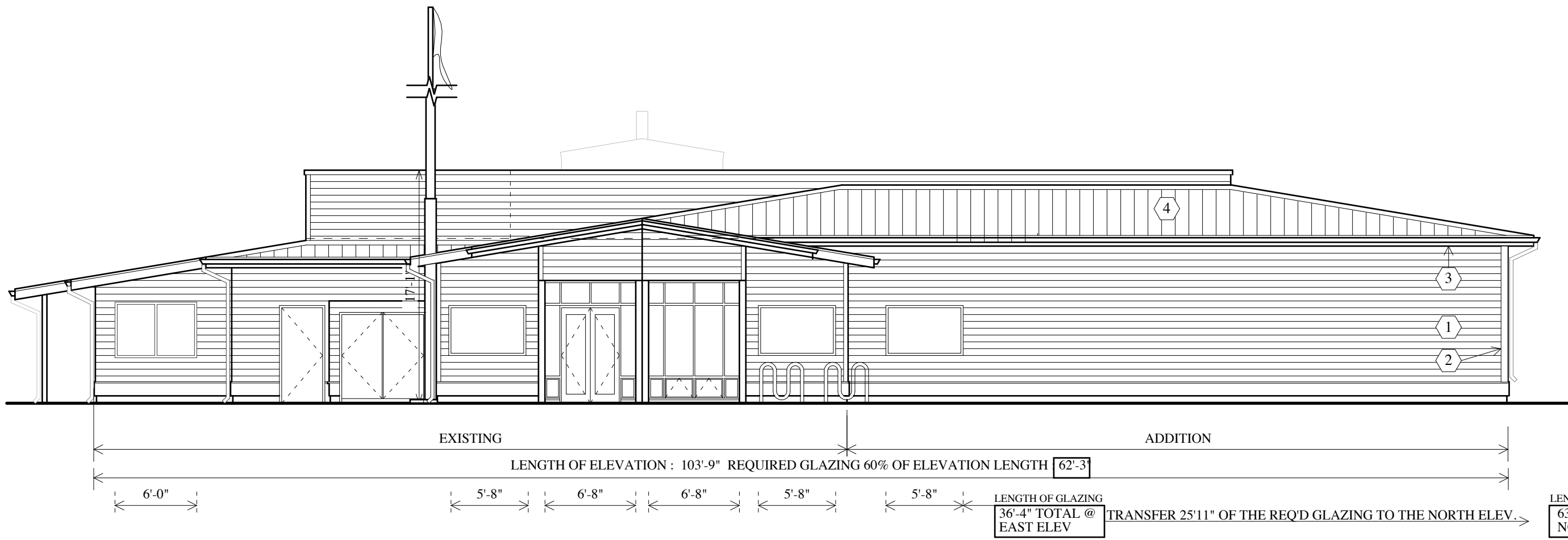
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FLOOR PLAN
2,900 SQUARE FOOT ADDITION

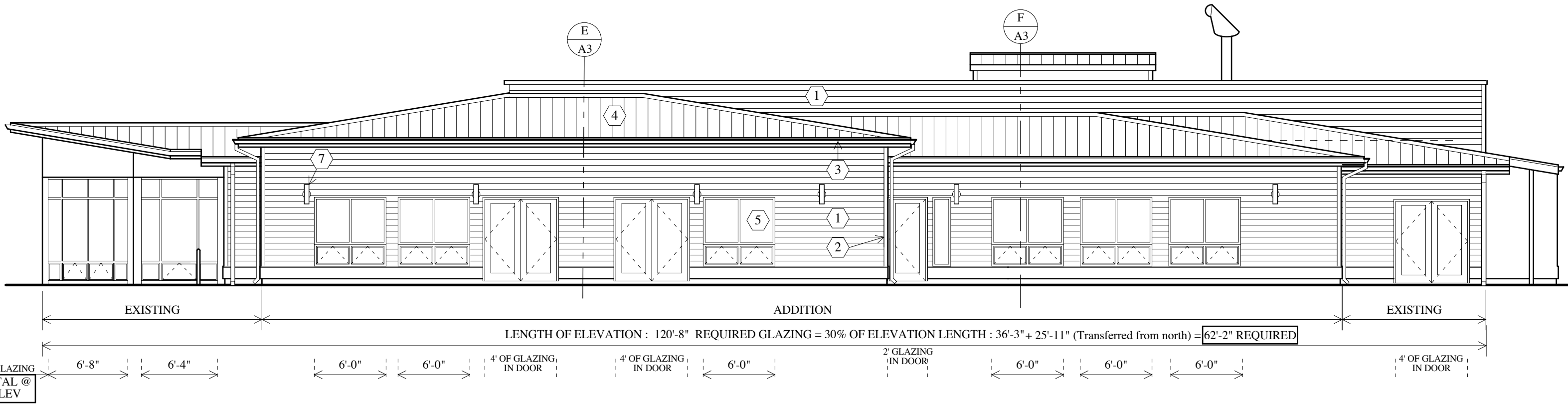


- 1 HORIZONTAL LAP SIDING PAINTED TO MATCH EXISTING STRUCTURE
- 2 1X6 CORNER BOARDS PAINTED TO MATCH EXISTING STRUCTURE
- 3 GREEN METAL GUTTER TO MATCH EXISTING STRUCTURE
- 4 GREEN STANDING SEAM METAL ROOF TO MATCH EXISTING STRUCTURE
- 5 GRAY VINYL WINDOWS TO MATCH EXITING STRUCTURE.
- 6 1X4 WINDOW TRIM PAINTED TO MATCH EXISTING
- 7 DIRECTIONAL L.E.D. WALL SCONCES, TYPICAL. NOTE THESE FIXTURES SHINE MOSTLY DOWN WITH SOME LIGHT ALSO SHINING UP ONTO THE FACADE.



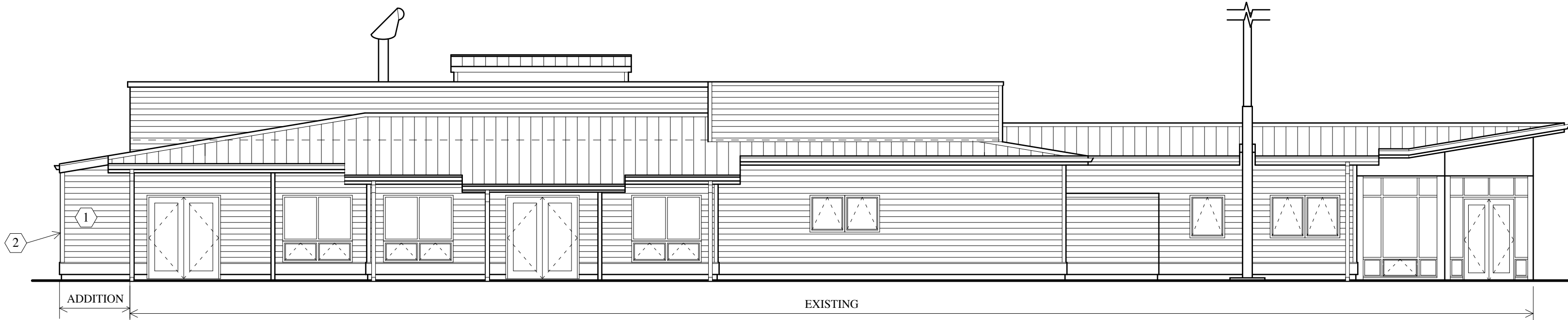
A. EAST ELEVATION

1/8" = 1'-0"



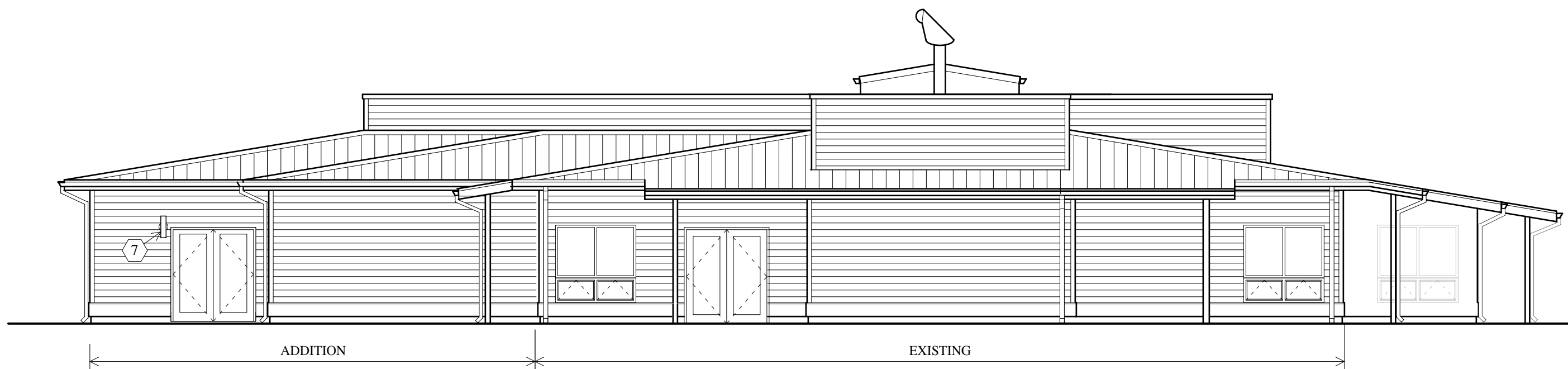
B. NORTH ELEVATION

1/8" = 1'-0"



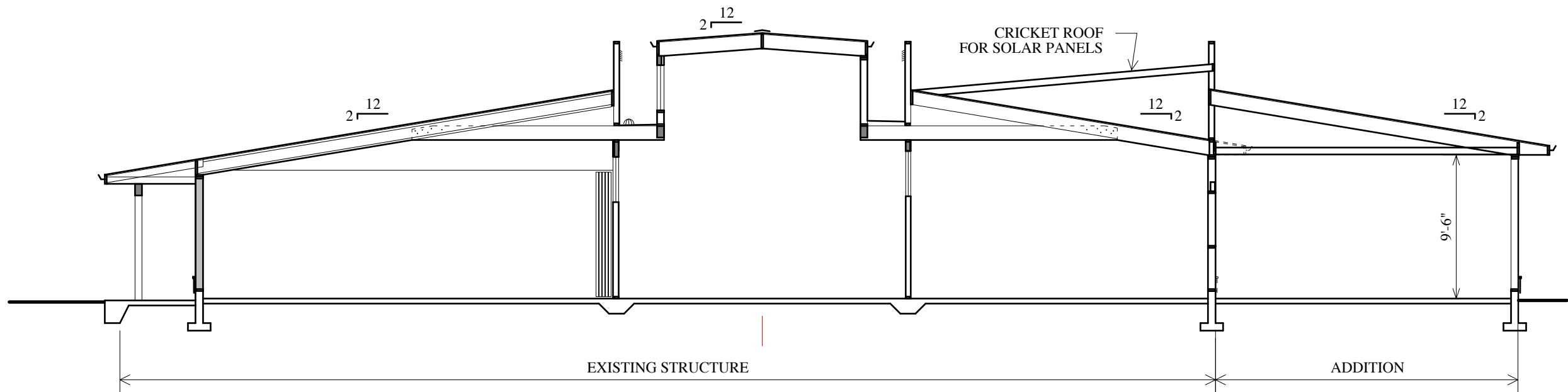
C. SOUTH ELEVATION

1/8" = 1'-0"



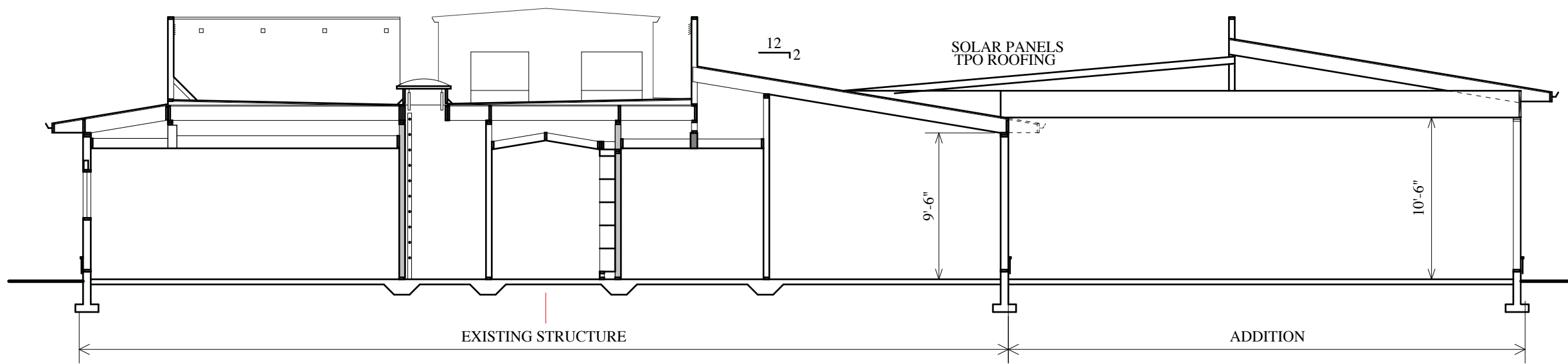
D. WEST ELEVATION

1/8" = 1'-0"



E. SECTION

1/8" = 1'-0"



F. SECTION

1/8" = 1'-0"

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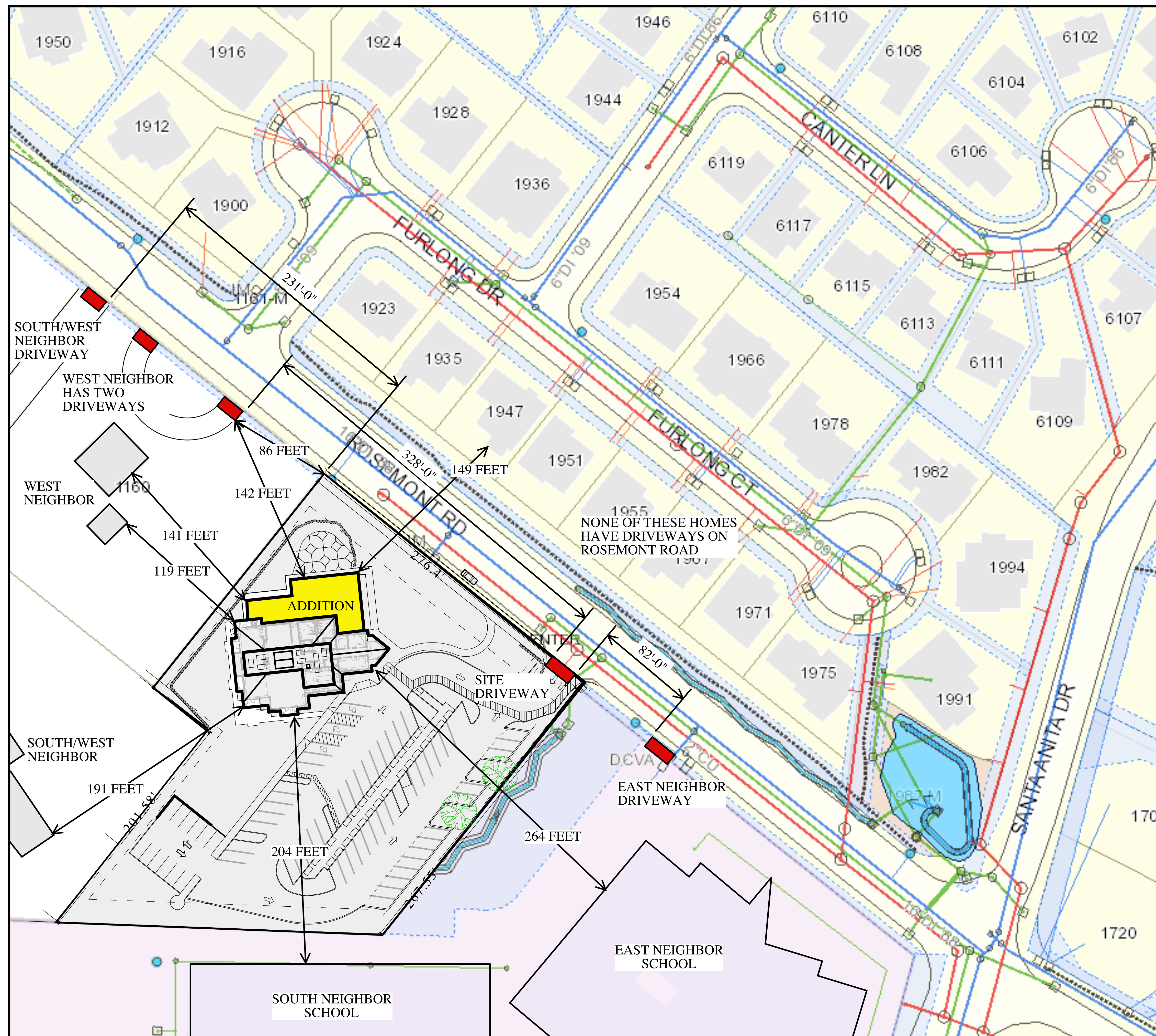


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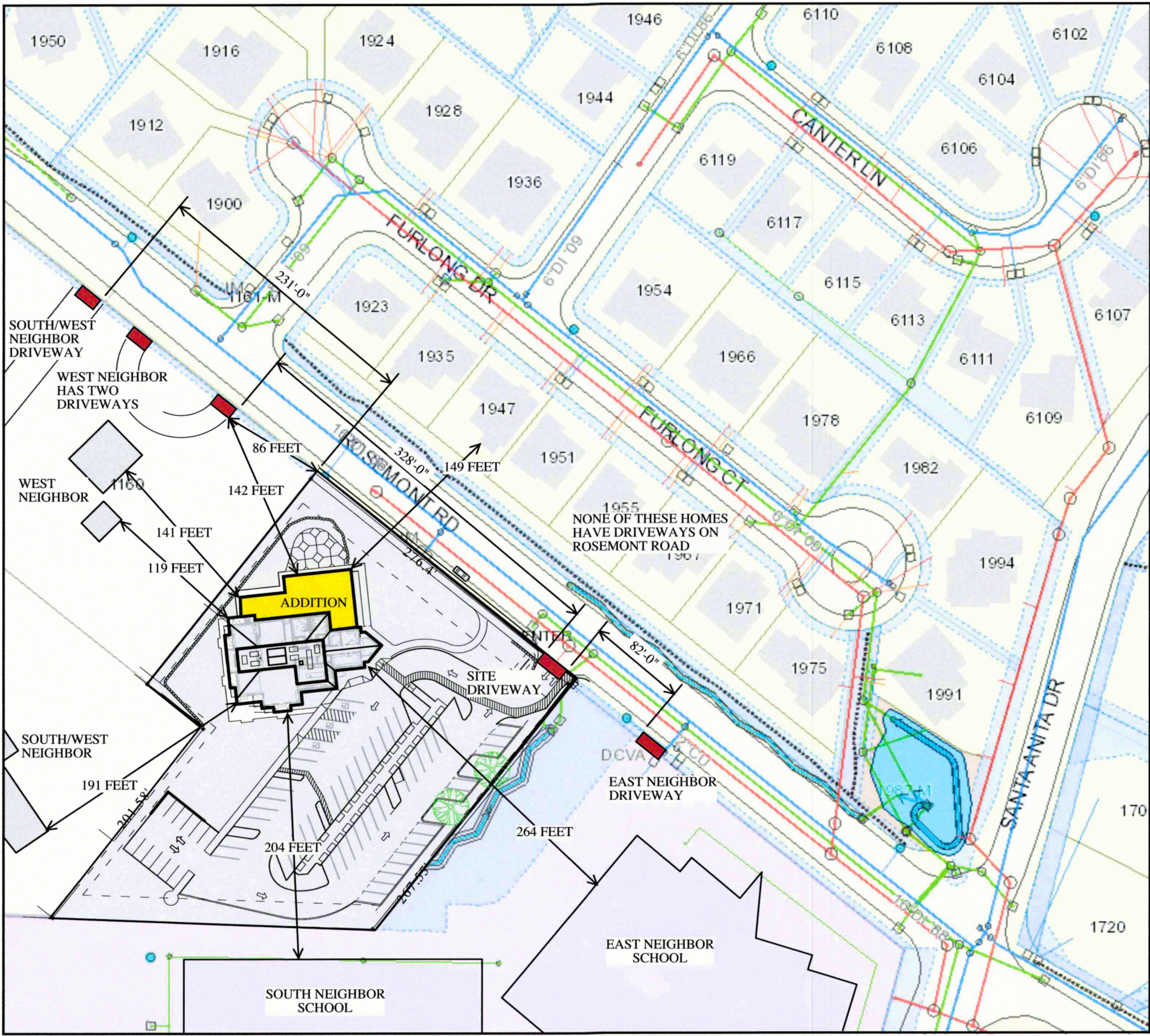
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SHEET
A3
OF 4

DATE: 3 6 15



VICINITY MAP



VICINITY MAP

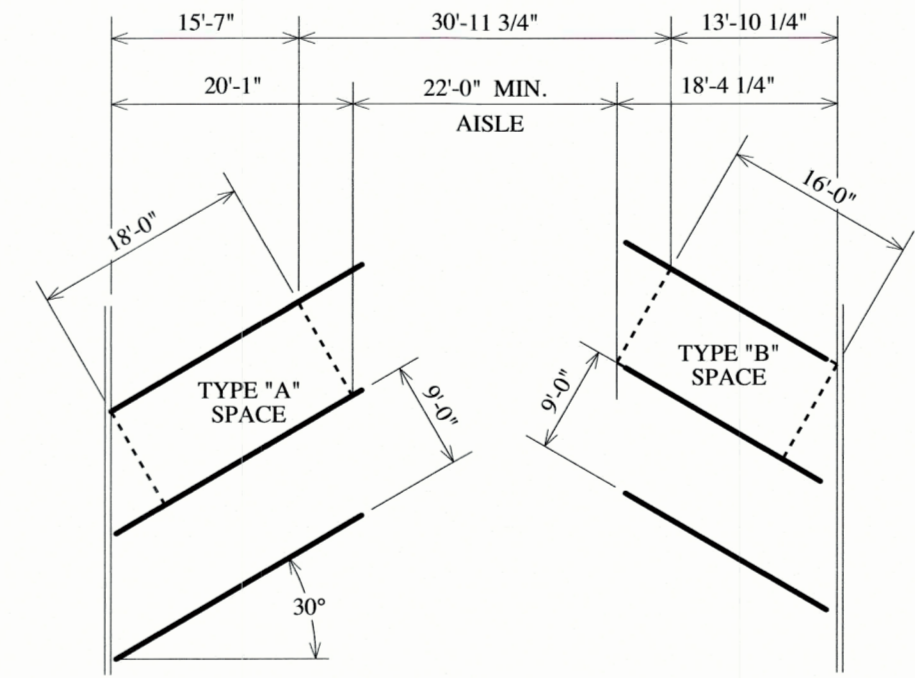
SITE SUMMARY

SITE AREA	86,475 sf
IMPERVIOUS SURFACES	
PARKING AND DRIVEWAY	
EXISTING + ADDITION	29,525 SQ. FT.
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LANDSCAPE PLAN
NOT TO SCALE



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LANDSCAPE PLAN

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Phone (503) 235-8585 Fax (503) 235-0835 Allusaarchitecture.com

DATE: 3 6 15

SHEET

LEWIS &



VAN VLEET
Incorporated

principals
chris c. van vleet, p.e.
gary j. lewis, p.e.

STORMWATER CALCULATIONS

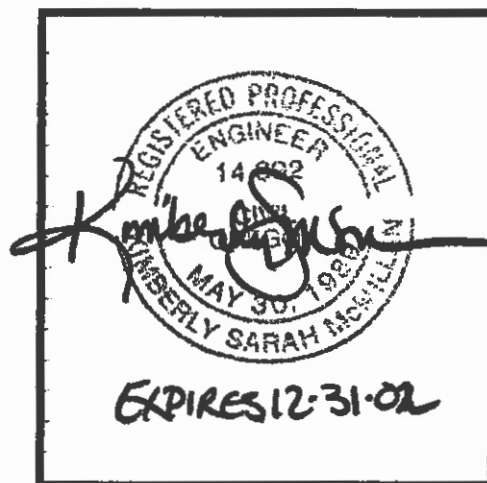
FOR

WEST LINN SENIOR CENTER

1180 S. Rosemont Road
West Linn, Oregon

FOR

Architects BBL



Lewis & Van Vleet, Inc. Job Number 99106

Revised

consulting engineers
18660 s.w. boones ferry road
tualatin, oregon 97062
(503) 885.8605 phone
(503) 885.1206 fax

A-19

Table of Contents

Drainage Statement	1
Existing Drainage Systems	
Proposed Drainage Systems	
Stormwater Calculations	2
Detention/Water Quality Calculations	
SBUH Printouts	
Orifice Calculations	
Pipe Size Calculations	

Drainage Statement

Existing Drainage Systems

The total site area is 88,030 square feet. The only existing improvements to the site consist of a house and shed (total roof area = 4,190 sf) with gravel driveways. Existing roof stormwater runoff drains to the field area downhill.

Proposed Drainage Systems

The proposed improved area for the site is 46,425 square feet. Roof drainage will be collected through downspouts and piped underground. The drainage in the pavement areas will be collected in trapped catch basins and piped underground as well.

Both roof and pavement drainage will be piped to a water quality/detention pond. After the stormwater has been treated and detained in the pond, the water will be discharged to an existing storm sewer system in Rosemont Road.

Stormwater detention is sized for a 25 year, 24 hour storm. The 25 year storm for existing conditions provides a $Q = 0.89$ cfs. A 25 year storm for proposed conditions provides a $Q = 1.48$ cfs. The required detention volume is 1,169 cf. (See calculations.)

Water quality is designed per City of Portland standards, with a design storm of 0.83 inches and a 24 hour treatment time. The required water quality volume = 2,890 cf. The release rate for the 24 hour treatment time is 0.033 cfs. (See calculations.)

The total pond volume required is equal to the required detention volume of 1,169 cf plus the required water quality volume of 2,890 cf. This total volume = 4,059 cf. The total pond volume provided = 4,150 cf. (See calculations.)

The proposed improvements for this site should cause no adverse impacts from increased intensity of runoff off site because of the detention and water quality measures provided.



consulting engineers

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tualatin, oregon 97062
(503) 885.8605 phone (503) 885.1206 fax

Job WEST LINN SR. CTR.

Client BBL

Job No. 99106 By BSD

Date 3/14/01 Sheet No. 1

STORM WATER CALCULATIONS

TOTAL SITE AREA = 88,030 sf (2.02 ac)

PROPOSED SITE CONDITIONS:

IMPERVIOUS AREA = 46,425 sf (1.066 ac)

PERVIOUS AREA = 41,605 sf (0.955 ac)

DETENTION (25YR - 25YR, SBUH METHOD)

SOIL TYPE = CORNELIUS SOIL

SCS TYPE 23 B/C SOIL

HYDROLOGIC SOIL GROUP = 'C'

} FROM CLACKAMAS CO.
SCS MANUAL

25YR STORM, CITY OF PORTLAND RAINFALL = 3.8 in

5 MINUTE, MINIMUM, T.O.C.

- EXISTING CONDITIONS: OPEN SPACE, FAIR CONDITION, CN=79

$$\underline{Q_{25} = 0.89 \text{ cfs}}$$

< SEE PRINTOUT DET 1

- PROPOSED CONDITIONS: 1.066 ac IMP. AREA, CN = 98
0.955 ac PER. AREA, CN = 79

$$\underline{Q_{25} = 1.48 \text{ cfs}}$$

< SEE PRINTOUT DET 2

- DETENTION VOLUME REQ'D = 1,169 cf < SEE PRINTOUT DET 3



consulting engineers

18660 s.w. boones ferry road
tualatin, oregon 97062
(503) 885.8605 phone (503) 885.1206 fax

Job WEST LINN SR. GTR.Client BBLJob No. 99106 By BSDDate 3/14/01 Sheet No. 2WATER QUALITY (PER CITY OF PORTLAND STANDARDS)

$$\bullet \text{ REQ'D WQ VOLUME} = \frac{(0.83 \text{ in/hr})(\text{NEW IMP. AREA})(0.9)}{12 \text{ in/ft}}$$

$$= \frac{(0.83 \text{ in/hr})(46,425 \text{ sf})(0.9)}{12 \text{ in/ft}} = \underline{\underline{2,890 \text{ cf}}}$$

• 24 HOUR TREATMENT

$$\text{RELEASE RATE} = \frac{2,890 \text{ cf}}{24 \text{ HR}(3600 \text{ sec/HR})} = \underline{\underline{0.033 \text{ cfs}}}$$

POND VOLUME (EXTENDED DRY DETENTION POND)

$$\begin{aligned} \bullet \text{ TOTAL POND VOLUME REQUIRED} &= \text{DET. VOLUME} + \text{WQ VOLUME} \\ &= 1,169 \text{ cf} + 2,890 \text{ cf} \\ &= \underline{\underline{4,059 \text{ cf}}} \end{aligned}$$

• POND VOLUME PROVIDED

<u>ELEV (ft)</u>	<u>AREA*(sf)</u>	<u>VOLUME (cf)</u>	
695	920	1,490	} WQ Vol. = <u>2,942cf</u>
696	2,060	1,452	
696.6	2,780	1,208	→ DET. Vol. = <u>1,208cf</u>
697	3,260		

$$\text{TOTAL} = 4,150 > 4,059 \therefore \text{OK}$$

* AREAS FOUND USING AUTO CAD.

KING COUNTY DEPARTMENT OF PUBLIC WORKS
Surface Water Management DivisionHYDROGRAPH PROGRAMS
Version 4.21B

SBUH/SCS METHOD FOR COMPUTING RUNOFF HYDROGRAPH

STORM OPTIONS:

- 1 - S.C.S. TYPE-1A
- 2 - 7-DAY DESIGN STORM
- 3 - STORM DATA FILE

SPECIFY STORM OPTION:

1

S.C.S. TYPE-1A RAINFALL DISTRIBUTION

ENTER: FREQ(YEAR), DURATION(HOUR), PRECIP(INCHES)

25,24,3.8

***** S.C.S. TYPE-1A DISTRIBUTION *****
***** 25-YEAR 24-HOUR STORM **** 3.80" TOTAL PRECIP. *****

ENTER: A(PERV), CN(PERV), A(IMPERV), CN(IMPERV), TC FOR BASIN NO. 1

2.02,79,0,98,5

DATA PRINT-OUT:

AREA (ACRES)	PERVIOUS	IMPERVIOUS	TC (MINUTES)
	A CN	A CN	
2.0	2.0 79.0	.0 98.0	5.0

PEAK-Q (CFS)	T-PEAK (HRS)	VOL (CU-FT)
.89	7.67	13216

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:
25EXIST

KING COUNTY DEPARTMENT OF PUBLIC WORKS
Surface Water Management Division

HYDROGRAPH PROGRAMS
Version 4.21B

SBUH/SCS METHOD FOR COMPUTING RUNOFF HYDROGRAPH

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.955, 79, 1.066, 98, 5

DATA PRINT-OUT:

AREA (ACRES)	PERVIOUS		IMPERVIOUS		TC (MINUTES)
	A	CN	A	CN	
2.0	1.0	79.0	1.1	98.0	5.0

PEAK-Q (CFS)	T-PEAK (HRS)	VOL (CU-FT)
1.48	7.67	20045

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:
25PROPOSED

KING COUNTY DEPARTMENT OF PUBLIC WORKS
Surface Water Management DivisionHYDROGRAPH PROGRAMS
Version 4.21B

R/D FACILITY DESIGN ROUTINE

SUMMARY OF INPUT ITEMS

- 1) TYPE OF FACILITY: POND (3.0:1 SIDE SLOPES)
- 2) STORAGE DEPTH(ft): 2.00
- 3) VERTICAL PERMEABILITY(min/in): .00
- 4) PRIMARY DESIGN HYDROGRAPH FILENAME: 25PROPOSED
- 5) PRIMARY RELEASE RATE(cfs): .89
- 6) NUMBER OF TEST HYDROGRAPHS: 0
- 7) NUMBER-OF-ORIFICES, RISER-HEAD(ft), RISER-DIAM(in): 1, 2.00, 12
- 8) ITERATION DISPLAY: NO

ENTER ITEM NUMBER TO BE REVISED (ENTER ZERO IF NO REVISIONS ARE REQUIRED):
0

INITIAL STORAGE VALUE FOR ITERATION PURPOSES: 6552 CU-FT

SINGLE ORIFICE RESTRICTOR: DIA= 4.82"

PERFORMANCE:	INFLOW	TARGET-OUTFLOW	ACTUAL-OUTFLOW	PK-STAGE	STORAGE
DESIGN HYD:	1.48	.89	.89	2.00	1169

WEST LINN SENIOR CENTER DETENTION

ORIFICE DIAMETER WORKSHEET

WQ ORIFICE

Project Name: WEST LINN SR. CENTER

City File Number: _____

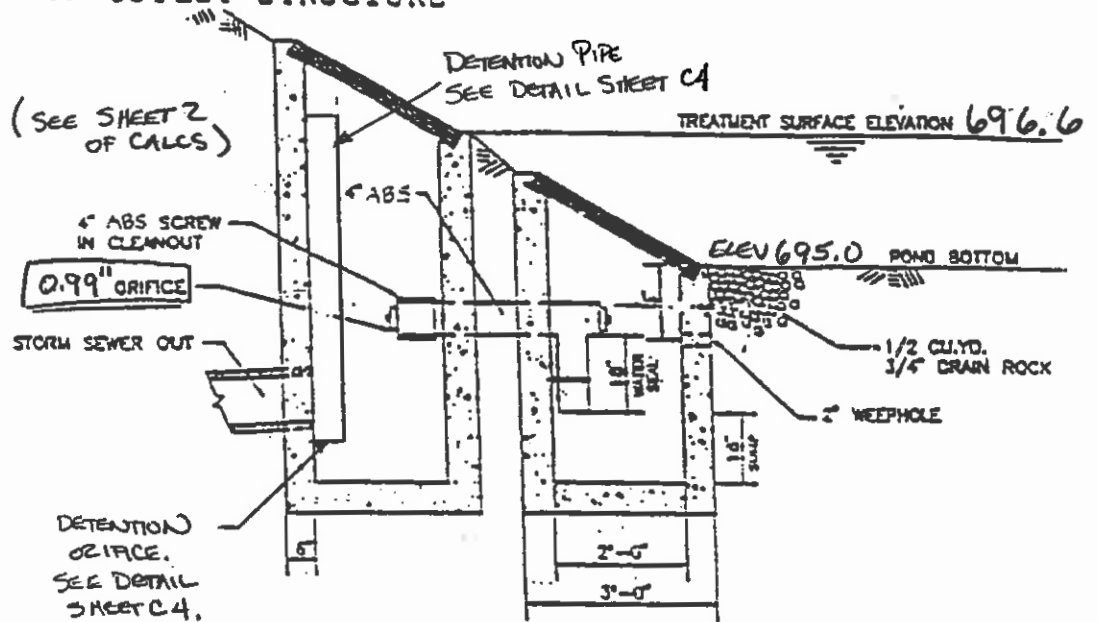
Computed By: BSD

Date: 3/14/01

PROVIDE SKETCH BELOW OF OUTLET STRUCTURE

$$Q_{WQ} = 0.033 \text{ cfs (SEE SHEET 2 OF CALCS)}$$

$$h = 696.6 - 695.0 = 1.6 \text{ ft}$$



Orifice Formula: $Q = CA (2gh)^{.5}$ WATER QUALITY EXTENDED DRY POND OUTFLOW DEVICE

Given: $C = 0.61$
 $g = 32.2$

Design $Q = 0.033 \text{ c.f.s.}$
 $h = 1.60 \text{ feet of head}$

Solve for A: $A = Q / [C (2gh)^{.5}]$
 $A = \frac{0.033}{(c.f.s.)} / [0.61 (2 \times 32.2 \times 1.60)^{.5}]$
 $A = 0.0053 \text{ sq. ft. (orifice area)}$

Solve for D: $A = \pi (R)^2$
 $R = (A / \pi)^{.5} = (\frac{0.0053}{(area)} / 3.14)^{.5} = 0.0412 \text{ ft.}$
 $D = 2 \times R \times 12 = 0.99 \text{ inches}$

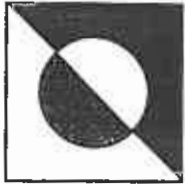
PIPE SIZE CALCULATIONS

Project No. 99106 Designed by: BSD Date: 03/14/2001 Checked by: KSM Date: .
 Project Name: WEST LINN SENIOR CENTER Page: 1 of 1

DESIGN SECTION	DESIGN CALCULATIONS								DESIGN					INVERT ELEVATIONS	
MH to MH OR ST to ST	INCR. TIME T minutes	TOTAL TIME T _t minutes	INTEN- SITY I in./hr.	INCR. AREA A acres	RUNOFF COEFF. C coeff.	EQUIV. INCR. AREA CA acres	TOTAL EQUIV. AREA ΣCA acres	RUNOFF Q cfs	SLOPE S %	DIA. d inches	CAPA- CITY Q _f cfs	VELOC. V _f fps	LENGTH L feet	UPPER	LOWER
DS1-DS2	5.0	5.0	2.86	0.033	0.9	0.030	0.030	0.08	4.00%	4	0.55	4.32	97	706.60	702.72
DS2-J1	0.4	5.4	2.75	0.033	0.9	0.030	0.059	0.16	4.00%	4	0.55	5.16	108	702.72	698.40
DS3-DS4	5.0	5.0	2.86	0.033	0.9	0.030	0.030	0.08	4.00%	4	0.55	4.32	42	706.60	704.92
DS4-DS5	0.2	5.2	2.80	0.033	0.9	0.030	0.059	0.17	4.00%	4	0.55	5.16	53	704.92	702.80
DS5-DS6	0.2	5.3	2.78	0.033	0.9	0.030	0.089	0.25	4.00%	4	0.55	5.80	34	702.80	701.44
DS6-J1	0.1	5.4	2.75	0.033	0.9	0.030	0.119	0.33	4.00%	4	0.55	6.21	81	701.44	698.20
A-28 J1-CB2	0.2	5.6	2.70	-	-	-	0.178	0.48	4.00%	4	0.55	6.84	19	698.20	697.44
CB2-J2	0.0	5.7	2.67	0.139	0.9	0.125	0.303	0.81	4.00%	6	1.62	7.83	23	697.36	696.44
CB4-CB3	5.0	5.0	2.86	0.327	0.9	0.294	0.294	0.84	1.80%	6	1.09	5.80	26	698.00	697.53
CB3-J2	0.1	5.1	2.83	0.100	0.9	0.090	0.384	1.09	1.80%	6	1.09	6.14	61	697.53	696.43
J2-POND	0.0	5.7	2.67	-	-	-	0.688	1.84	1.00%	8	1.75	5.61	72	696.35	695.63
CB1-POND	5.0	5.0	2.65	0.246	0.9	0.221	0.221	0.59	1.00%	6	0.81	6.10	25	698.00	697.75

NOTE: PIPE SIZES WERE CALCULATED USING THE RATIONAL METHOD FOR A 10 YEAR, 24 HOUR STORM USING CITY OF PORTLAND RAINFALL INTENSITIES. $i_{10} = 2.86$ cfs

LEWIS &



VAN VLEET
Incorporated

principals

chris c. van vleet, p.e.
gary j. lewis, p.e.

STORM WATER CALCULATIONS

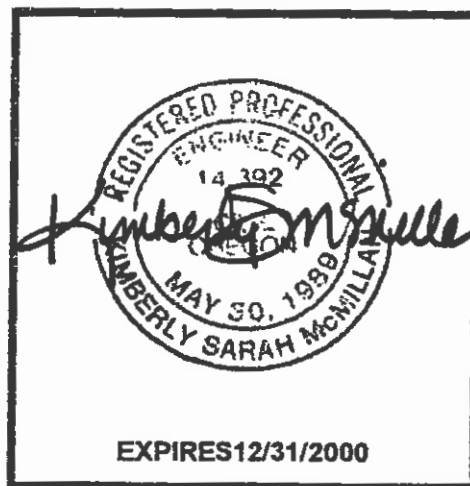
FOR

WEST LINN SENIOR CENTER

SW Rosemont Road
West Linn, Oregon

FOR

Architects BBL



Lewis & Van Vleet, Inc. Job Number 99106

A-29

consulting engineers
18660 s.w. boones ferry road
tualatin, oregon 97062
(503) 885.8605 phone
(503) 885.1206 fax

Table of Contents

Drainage Statement	1
Existing Drainage Systems	
Proposed Drainage Systems	
Stormwater Calculations	2
Detention/Water Quality Calculations	
SBUH Printouts	
Orifice Calculations	
Pipe Size Calculations	

Drainage Statement

Existing Drainage Systems

The total site area is 88,030 square feet. The only existing improvements to the site consist of a house and shed (total roof area = 4,190 sf) with gravel driveways. Existing roof stormwater runoff drains to the field area downhill.

Proposed Drainage Systems

The proposed improved area for the site is 46,425 square feet. Roof drainage will be collected through downspouts and piped underground. The drainage in the pavement areas will be collected in trapped catch basins and piped underground as well.

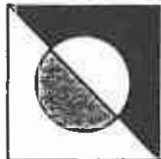
Both roof and pavement drainage will be piped to a water quality/detention pond. After the stormwater has been treated and detained in the pond, the water will be discharged to an existing storm sewer system in Rosemont Road.

Stormwater detention is sized for a 25 year, 24 hour storm. The 25 year storm for existing conditions provides a $Q = 0.41$ cfs. A 25 year storm for proposed conditions provides a $Q = 0.91$ cfs. The required detention volume is 1,105 cf. (See calculations.)

Water quality is designed per Unified Sewerage Agency (U.S.A.) standards. The design storm is for 0.36 inches / 4 hours with a 96 hour return period and a 48 hour treatment time. The required water quality volume = 1,395 cf. The release rate for the 48 hour treatment time is 0.008 cfs. (See calculations.)

The total pond volume required is equal to the required detention volume of 1,105 cf plus the required water quality volume of 1,395 cf. This total volume = 2,500 cf. The total pond volume provided = 3,055 cf. (See calculations.)

The proposed improvements for this site should cause no adverse impacts from increased intensity of runoff off site because of the detention and water quality measures provided.



consulting engineers

18660 S.W. Boones Ferry Road
Tualatin, Oregon 97062
(503) 885.8605 phone (503) 885.1206 fax

Job WEST LIND SP. CENTERClient BBLJob No. 99106 By BSDDate 7-10-00 Sheet No. 1STORM WATER CALCULATIONS

TOTAL SITE AREA = 88,030 sf (2.02 ac)

EXISTING SITE CONDITIONS:

IMPERVIOUS AREA = 46,425 sf (1.066 ac)

PERVIOUS (L.S.) AREA = 41,605 sf (0.955 ac)

STORM WATER DETENTION (25 YR. 25 YR STORM, PER USA STANDARDS)

SOIL TYPE = CORNELIUS SOIL

SCS TYPE 23 B/C SOIL

HYDROLOGIC SOIL GROUP = C

FROM CLACKAMAS COUNTY
SCS MANUAL25 YR STORM, ODOT-ZONE 8, $i_{25} = 2.65''/\text{hr}$

5 MINUTE, MINIMUM TIME OF CONCENTRATION

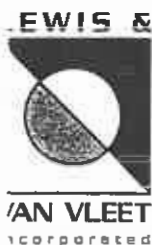
- EXISTING CONDITIONS: OPEN SPACE, FAIR CONDITION, $CN=79$

$$\underline{Q_{25} = 0.41 \text{ cfs}} < \text{SEE PRINTOUT DET 1}$$

- PROPOSED CONDITIONS: 1.066 ac IMPERVIOUS AREA, $CN=98$
0.955 ac PERVIOUS AREA, $CN=79$

$$\underline{Q_{25} = 0.91 \text{ cfs}} < \text{SEE PRINTOUT DET 2}$$

- DETENTION VOLUME REQUIRED = 1,105 cf < SEE PRINTOUT DET 3



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tualatin, oregon 97062
(503) 885.8605 phone (503) 885.1206 fax

Job WEST LINN SR. CENTER

Client BBL

Job No. 99106 By BSD

Date 7.10.00 Sheet No. 2

WATER QUALITY (PER USA STANDARDS)

$$\begin{aligned} \bullet \text{REQ'D WQ VOLUME} &= \text{NEW IMPERVIOUS AREA} \times 0.36 \text{ inches} \\ &= 46,425 \text{ sf} \times 0.36 \text{ inches} \times \frac{1 \text{ ft}}{12 \text{ inches}} \\ &= \underline{\underline{1,395 \text{ cf}}} \end{aligned}$$

- 48 HOUR TREATMENT TIME

$$\begin{aligned} Q_{\text{WQ}} &= \frac{1,395 \text{ cf}}{(48 \text{ HR})(3600 \text{ SEC/HR})} \\ &= \underline{\underline{0.008 \text{ cfs}}} \end{aligned}$$

POND VOLUME (EXTENDED DRY DETENTION POND)

$$\begin{aligned} \bullet \text{TOTAL POND VOLUME REQ'D} &= \text{DET. VOLUME} + \text{WQ VOLUME} \\ &= 1,105 \text{ cf} + 1,395 \text{ cf} \\ &= \underline{\underline{2,500 \text{ cf}}} \end{aligned}$$

- POND VOLUME PROVIDED

<u>ELEVATION (FT)</u>	<u>AREA (SF)</u>	<u>VOLUME (CF)</u>
695	370	940
696	1510	2115
697	2720	

$$\underline{\underline{\text{TOTAL} = 3,055 \text{ CF}}} > 2,500 \text{ CF} \therefore \text{OK}$$

KING COUNTY DEPARTMENT OF PUBLIC WORKS
Surface Water Management DivisionHYDROGRAPH PROGRAMS
Version 4.21B

SBUH/SCS METHOD FOR COMPUTING RUNOFF HYDROGRAPH

STORM OPTIONS:

- 1 - S.C.S. TYPE-1A
- 2 - 7-DAY DESIGN STORM
- 3 - STORM DATA FILE

SPECIFY STORM OPTION:

1

S.C.S. TYPE-1A RAINFALL DISTRIBUTION

ENTER: FREQ(YEAR), DURATION(HOUR), PRECIP(INCHES)

25,24,2.65

***** S.C.S. TYPE-1A DISTRIBUTION *****
***** 25-YEAR 24-HOUR STORM **** 2.65" TOTAL PRECIP. *****

ENTER: A(PERV), CN(PERV), A(IMPERV), CN(IMPERV), TC FOR BASIN NO. 1
2.02,79,0,98,5

DATA PRINT-OUT:

AREA (ACRES)	PERVIOUS A CN	IMPERVIOUS A CN	TC (MINUTES)
2.0	2.0 79.0	.0 98.0	5.0

PEAK-Q (CFS)	T-PEAK (HRS)	VOL (CU-FT)
.41	7.83	6888

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:
25EXIST

KING COUNTY DEPARTMENT OF PUBLIC WORKS
Surface Water Management Division

HYDROGRAPH PROGRAMS
Version 4.21B

SBUH/SCS METHOD FOR COMPUTING RUNOFF HYDROGRAPH

STORM OPTIONS:

- 1 - S.C.S. TYPE-1A
- 2 - 7-DAY DESIGN STORM
- 3 - STORM DATA FILE

SPECIFY STORM OPTION:

1

S.C.S. TYPE-1A RAINFALL DISTRIBUTION

ENTER: FREQ(YEAR), DURATION(HOUR), PRECIP(INCHES)

25,24,2.65

***** S.C.S. TYPE-1A DISTRIBUTION *****
***** 25-YEAR 24-HOUR STORM **** 2.65" TOTAL PRECIP. *****

ENTER: A(PERV), CN(PERV), A(IMPERV), CN(IMPERV), TC FOR BASIN NO. 1
.955,79,1.066,98,5

DATA PRINT-OUT:

AREA(ACRES)	PERVIOUS	IMPERVIOUS	TC(MINUTES)
	A CN	A CN	
2.0	1.0 79.0	1.1 98.0	5.0

PEAK-Q(CFS)	T-PEAK(HRS)	VOL(CU-FT)
.91	7.67	12620

ENTER [d:][path]filename[.ext] FOR STORAGE OF COMPUTED HYDROGRAPH:
25PROPOSED

KING COUNTY DEPARTMENT OF PUBLIC WORKS
Surface Water Management Division

HYDROGRAPH PROGRAMS
Version 4.21B

R/D FACILITY DESIGN ROUTINE

SUMMARY OF INPUT ITEMS

- 1) TYPE OF FACILITY: POND (3.0:1 SIDE SLOPES)
- 2) STORAGE DEPTH(ft): 2.00
- 3) VERTICAL PERMEABILITY(min/in): .00
- 4) PRIMARY DESIGN HYDROGRAPH FILENAME: 25PROPOSED
- 5) PRIMARY RELEASE RATE(cfs): .41
- 6) NUMBER OF TEST HYDROGRAPHS: 0
- 7) NUMBER-OF-ORIFICES, RISER-HEAD(ft), RISER-DIAM(in): 1, 2.00, 12
- 8) ITERATION DISPLAY: NO

ENTER ITEM NUMBER TO BE REVISED (ENTER ZERO IF NO REVISIONS ARE REQUIRED):
0

INITIAL STORAGE VALUE FOR ITERATION PURPOSES: 4071 CU-FT

SINGLE ORIFICE RESTRICTOR: DIA= 3.27"

PERFORMANCE:	INFLOW	TARGET-OUTFLOW	ACTUAL-OUTFLOW	PK-STAGE	STORAGE
DESIGN HYD:	.91	.41	.41	2.00	1105

SPECIFY: D - DOCUMENT, R - REVISE, A - ADJUST ORIF, E - ENLARGE, S - STOP

WEST LINN SENIOR CENTER DETENTION

ORIFICE DIAMETER WORKSHEET

Project Name: WEST LINN SR CENTER

City File Number: _____

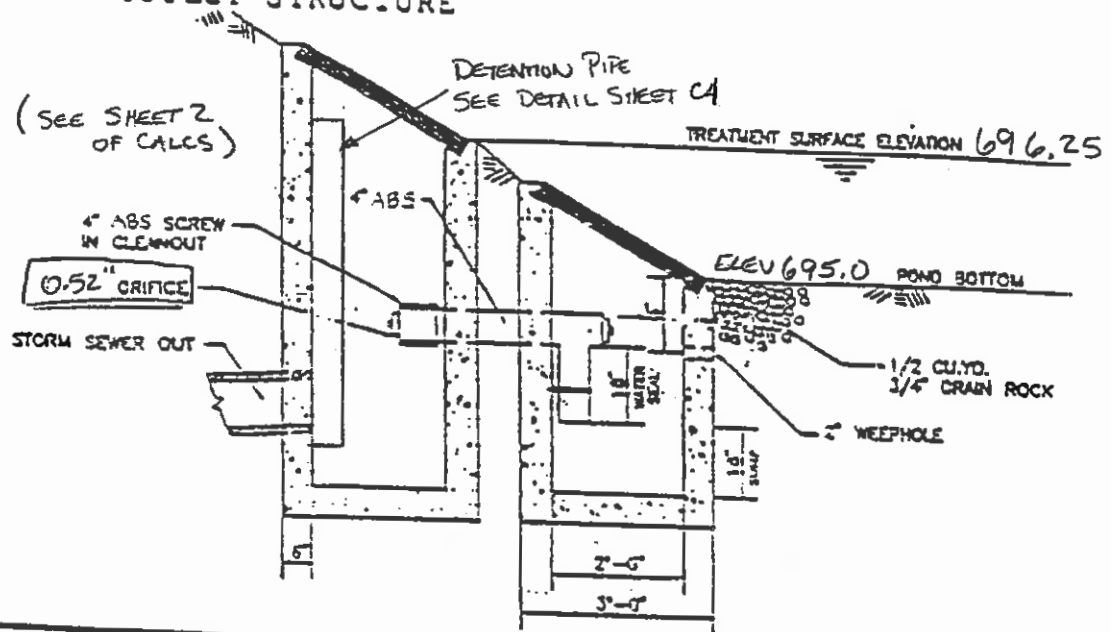
Computed By: BSD

Date: 7-11-00

PROVIDE SKETCH BELOW OF OUTLET STRUCTURE

$$Q_{\text{WQ}} = 0.008 \text{ cfs (SEE SHEET 2 OF CALCS)}$$

$$h = 696.25 - 695.0 = 1.25 \text{ ft}$$



Orifice Formula: $Q = CA (2gh)^{.5}$ WATER QUALITY EXTENDED DRY POND OUTFLOW DEVICE

Given: $C = 0.61$
 $g = 32.2$

Design $Q = 0.008 \text{ c.f.s.}$
 $h = 1.25 \text{ feet of head}$

Solve for A: $A = Q / [C (2gh)^{.5}]$
 $A = \frac{0.008}{(c.f.s.)} / [0.61 (2 \times 32.2 \times 1.25)^{.5}]$
 $A = 0.0015 \text{ sq. ft. (orifice area)}$

Solve for D: $A = \pi (R)^2$
 $R = (A / \pi)^{.5} = (\frac{0.0015}{(area)} / 3.14)^{.5} = 0.0216 \text{ ft.}$
 $D = 2 \times R \times 12 = 0.52 \text{ inches}$

PIPE SIZE CALCULATIONS

Project No. 99106 Designed by: BSD Date: 07/11/2000 Checked by: KSM Date:
 Project Name: WEST LINN SENIOR CENTER Page: 1 of 1

DESIGN SECTION	DESIGN CALCULATIONS								DESIGN					INVERT ELEVATIONS	
MH to MH OR ST to ST	INCR. TIME T	TOTAL TIME T _t	INTEN- SITY I	INCR. AREA A	RUNOFF COEFF. C	EQUIV. INCR. AREA CA	TOTAL EQUIV. AREA ΣCA	RUNOFF Q	SLOPE S	DIA. d	CAPA- CITY Q _f	VELOC. V _f	LENGTH L	UPPER	LOWER
	minutes	minutes	in./hr.	acres	coeff.	acres	acres	cfs	%	inches	cfs	fps	feet		
DS1-DS2	5.0	5.0	2.25	0.033	0.9	0.030	0.030	0.07	4.00%	4	0.55	4.32	97	706.60	702.72
DS2-J1	0.4	5.4	2.20	0.033	0.9	0.030	0.059	0.13	4.00%	4	0.55	5.16	108	702.72	698.40
DS3-DS4	5.0	5.0	2.25	0.033	0.9	0.030	0.030	0.07	4.00%	4	0.55	4.32	42	706.60	704.92
DS4-DS5	0.2	5.2	2.23	0.033	0.9	0.030	0.059	0.13	4.00%	4	0.55	5.16	53	704.92	702.80
DS5-DS6	0.2	5.3	2.21	0.033	0.9	0.030	0.089	0.20	4.00%	4	0.55	5.80	34	702.80	701.44
DS6-J1	0.1	5.4	2.20	0.033	0.9	0.030	0.119	0.26	4.00%	4	0.55	6.21	81	701.44	698.20
A-38 J1-CB2	0.2	5.6	2.18	-	-	-	0.178	0.39	4.00%	4	0.55	6.84	19	698.20	697.44
CB2-J2	0.0	5.7	2.17	0.139	0.9	0.125	0.303	0.66	4.00%	6	1.62	7.83	23	697.36	696.44
CB4-CB3	5.0	5.0	2.25	0.327	0.9	0.294	0.294	0.66	1.80%	6	1.09	5.80	26	698.00	697.53
CB3-J2	0.1	5.1	2.24	0.100	0.9	0.090	0.384	0.86	1.80%	6	1.09	6.14	61	697.53	696.43
J2-CB1	0.0	5.7	2.15	-	-	-	0.688	1.48	1.00%	8	1.75	5.61	23	696.35	696.12
CB1-POND	0.1	5.8	2.15	0.246	0.9	0.221	0.909	1.95	1.00%	10	3.16	6.10	49	696.04	695.55

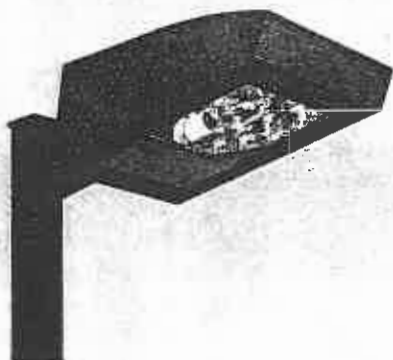
NOTE: PIPE SIZES WERE CALCULATED USING THE RATIONAL METHOD FOR A 10 YEAR, 24 HOUR STORM USING ODOT, ZONE 8 RAINFALL INTENSITIES. $i_{10} = 2.25$ cfs

OUTDOOR LIGHTING
PHOTOMETRICS

Area Lighting

BV

Boulevard™



Features

Housing: Rugged, heavy-gauge, sheet aluminum housing, continuous welded seams for weathertight integrity. Standard finish is dark bronze (DDB) polyester powder. Other architectural colors available.

Lens Frame: Extruded and welded aluminum frame secured with a tool-less, quick-release fastener. Extruded silicone gasket provides a weather-proof seal between housing and lens frame.

Lens: Impact-resistant, tempered glass with silkscreened power door shield.

Mounting: Cast, 4" aluminum arm for pole or wall mounting. Shipped in fixture carton. Optional mountings available.

Optics: Anodized segmented reflectors provide superior uniformity and control. Reflectors attach with tool-less fasteners and are rotatable and interchangeable. Three cutoff distributions available: Type II (roadway), Type III (asymmetric), Type IV (forward throw, sharp cutoff).

Electrical System: High-reactance or constant-wattage autotransformer, high-power factor ballast mounted on a unitized and removable power tray secured with tool-less latch. Positive-locking disconnect plugs (primary and secondary). Ballast is copper wound and 100% factory tested.

Socket: Porcelain, horizontally oriented, mogul-base socket with copper alloy, nickel-plated screw shell and center contact. UL listed 1500W, 600V.

Listings: Listed and labeled to comply with Canadian Standards (see options). UL listed, suitable for wet locations. IP65 rated (optional).

Arm-mounted Area Light

Use for streets, walkways, parking lots and surrounding areas.

Catalog Number

Example: BV2 150S R2 120 SPB04 SF

Designation	Distribution (select one)	Voltage	Mounting ⁷
HIGH PRESSURE SODIUM		120	SPB04 Square pole arm (4") ⁸
70W BV2 70S	R2 IES Type II	208 ⁵	RPB04 Round pole arm (4") ⁸
100W BV2 100S	roadway	240 ⁵	SPB12 Square pole arm (12")
150W BV2 150S	R3 IES Type III	277	RPB12 Round pole arm (12")
250W BV2 250S	asymmetric	347	SPBT04 Square pole arm w/10° tilt (4") ⁸
400W BV2 400S ¹	R4SC IES Type IV forward throw, sharp cutoff	480 ⁵	RPBT04 Round pole arm w/10° tilt (4") ⁸
METAL HALIDE		TB ⁶	SPBT12 Square pole arm w/10° tilt (12")
100W BV2 100M			RPBT12 Round pole arm w/10° tilt (12")
150W BV2 150M ²			WSPB04 Wall bracket arm (4")
175W BV2 175M			WSPBT04 Wall bracket arm (4") w/10° tilt
200W BV2 200M ³			
250W BV2 250M ²			
320W BV2 320M ³			
350W BV2 350M ³			
400W BV2 400M ^{2,4}			

STANDARD PACKAGING

Fixtures ship in unit cartons. Example:

(Qty 21) BV2 150S R2 SPB04 120 SF
(21 cartons of 1 housing and 1 arm)

NOTES:

- 1 Must use E-18 or ET-18 lamp.
- 2 May be ordered with SCWA or LLRPSL.
- 3 Must be ordered with SCWA or LLRPSL.
- 4 Must use ED-28 reduced jacket lamp.
- 5 Consult factory for availability in Canada.
- 6 Optional multi-tap ballast (120, 208, 240, 277V). (120, 277, 347V in Canada).
- 7 For arm mounting, refer to technical data section in the outdoor binder for drilling template.
- 8 The SPB12, RPB12, SPBT12, and RPBT12 must be used when two or more luminaires are oriented on a 90° drilling pattern.

CANADIAN SHIPMENTS: Add CSA as suffix to catalog number.

Options/Accessories

OPTIONS (Shipped installed)

- SF Single fuse (120, 277, 347V) n/a TB
- DF Double fuse (208, 240, 480V) n/a TB
- QRS Quartz restrike system (100W maximum, 120V only, lamp not included)
- CSA Listed and labeled to comply with Canadian Standards
- EC Emergency circuit
- PER NEMA twist-lock receptacle only (no photocontrol)
- PS Perfoma-Seal™ (IP65 rated)
- CR Corrosion-resistant finish
- SCWA Super CWA pulse start ballast (TB std.)
- LLRPSL Low loss reactor pulse start ballast (277V only)

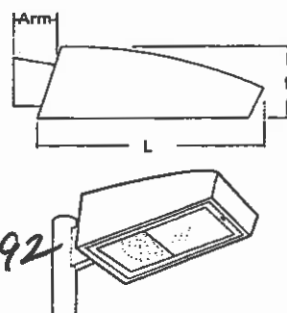
For optional Architectural Colors, see page 313.

ACCESSORIES (Shipped separately)

- PE1 NEMA twist-lock PE photocontrol for 120-240V
- PE3 NEMA twist-lock PE photocontrol for 347V
- P
- BV2VG Vandal guard
- SC Shorting cap for PER option

OPTIONAL MOUNTING (Shipped separately)

- BVKMA Mast arm adapter
- BVKMAT Mast arm adapter (10° tilt)



All dimensions are inches (centimeters) unless otherwise specified.

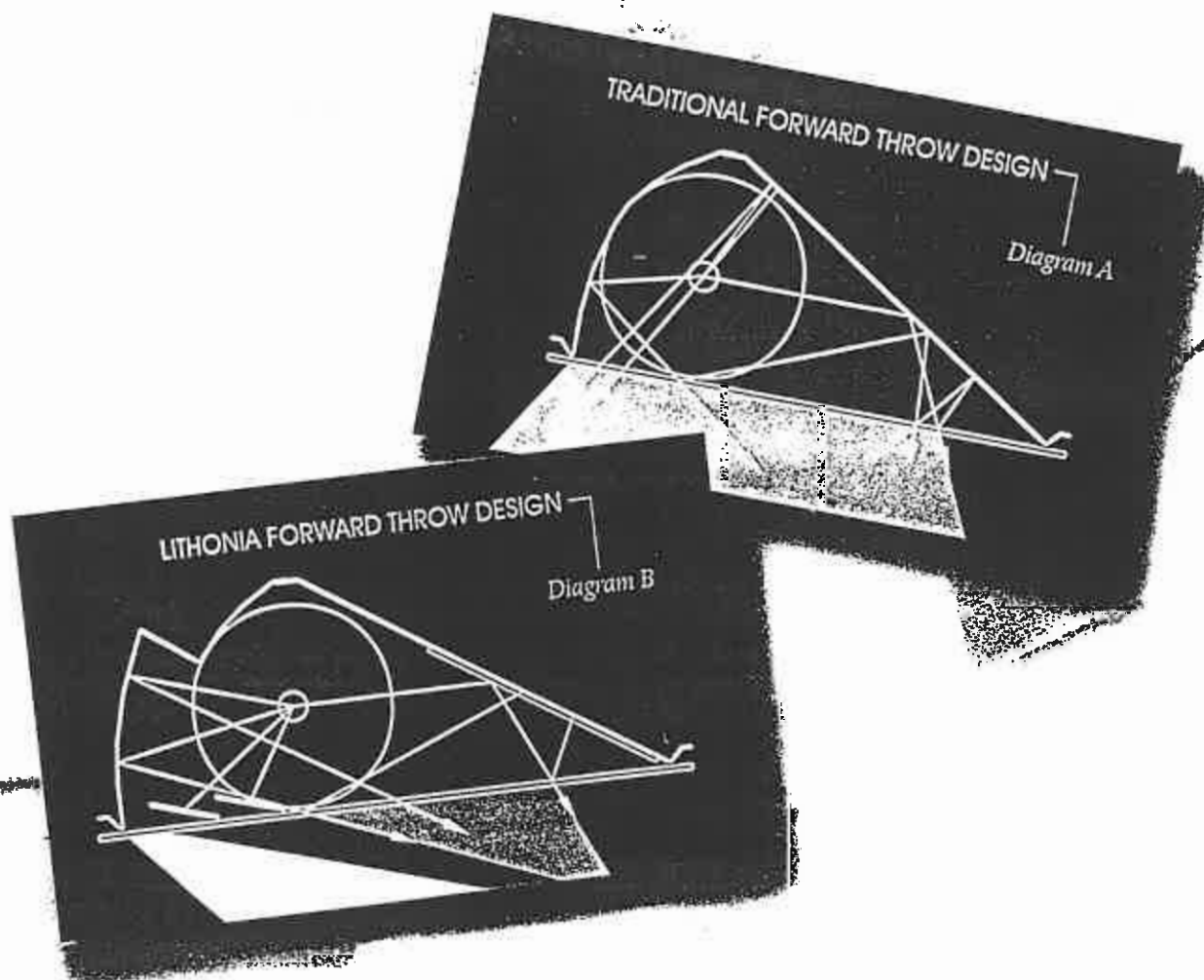
DIMENSIONS

EPA: 1.6 ft² (1.5m²) (includes arm)
Length: 27-1/2 (69.8)
Width: 18-1/2 (45.8)
Depth: 9-3/8 (24.0)
Arm length: 4 (10.2)
Max. weight: 44 lbs. (19.8kg)

THE R4 STORY

Unsurpassed Photometric Performance

The traditional forward-throw reflector has a limited ability to control light behind the pole and instead generates spill light on adjacent properties. The Lithonia R4 reflector is designed to block and absorb any luminous flux that might escape to the rear of the luminaire. This leading technology utilizes specially designed louvers and angled glass that absorb and block inner reflected light, virtually eliminating rear spill light and glare. The forward throw design also improves uniformity by capturing the light that would traditionally fall directly under the luminaire.



In a traditional forward-throw design, light trespass, or spill light is created when measurable light is reflected backward (*Diagram A*). Lithonia has addressed this challenge with a specially designed system that channels and absorbs backward reflectance, reducing both spill light and glare (*Diagram B*). *The R4 reflector is also available with Lithonia's KSF and Symmetra Series luminaires.

L I T H O N I A

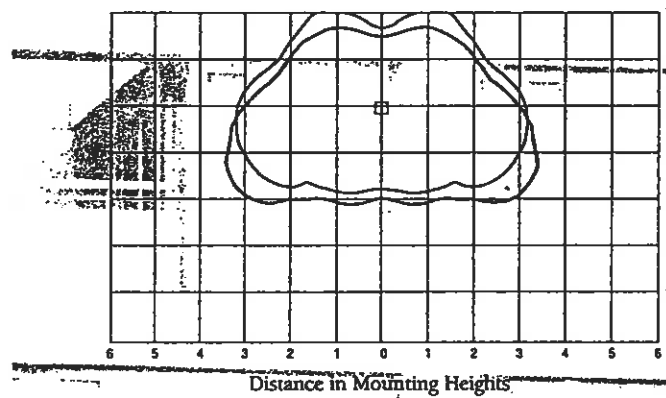


L I G H T I N G

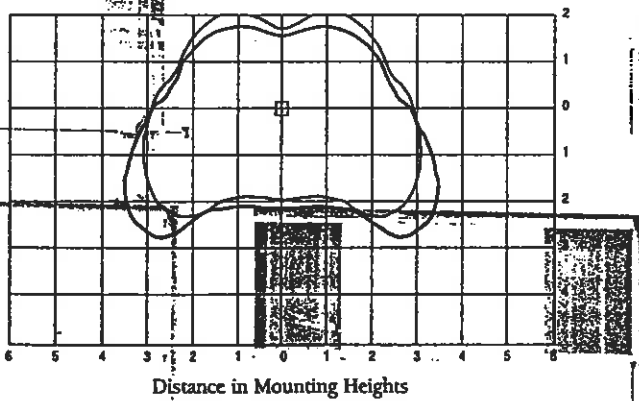
OPTIONAL 10-DEGREE TILT

By increasing the horizontal tilt of a luminaire by 10 degrees, (with optional mounting arm), it is possible to achieve several illumination effects well suited to roadway lighting applications. As expected, light is cast farther ahead while light behind the pole is reduced. In addition, the amount of lateral or side-to-side illuminance is increased. The enhanced lateral distribution can result in an increase in pole/luminaire spacing and reduced overall project cost. The following diagrams illustrate the effect of a 10-degree tilt with Boulevard's three distribution options.

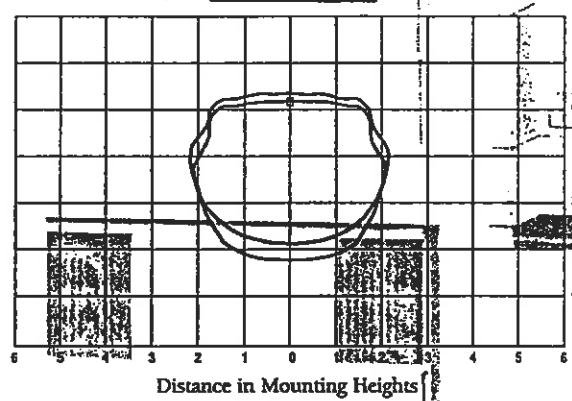
BV2 175M R2



BV2 175M R3



BV2 175M R4



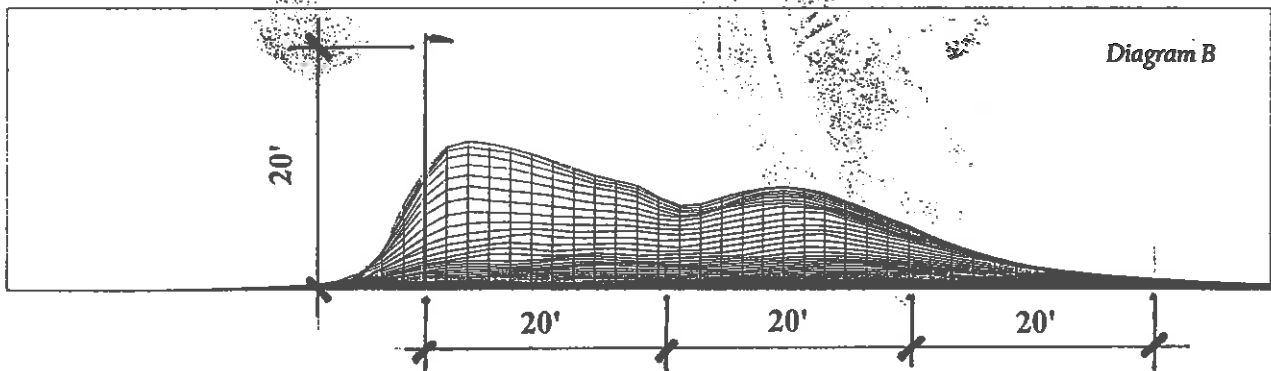
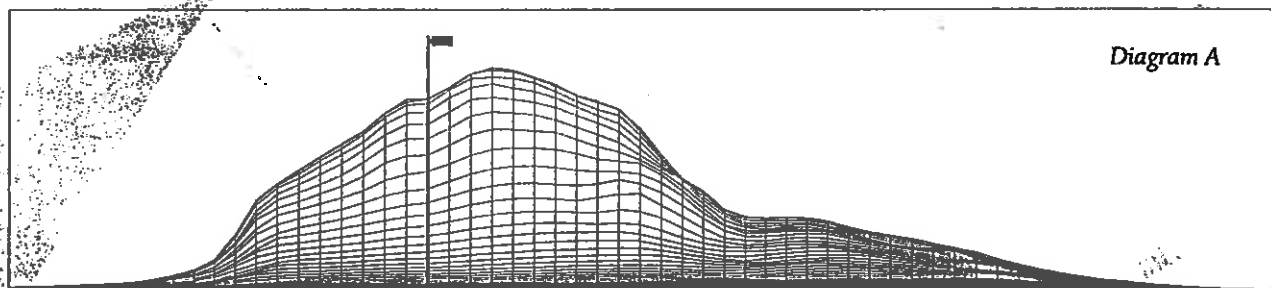
20'

WITH 10-DEGREE TILT

NO TILT

STATE-OF-THE-ART OPTICS

Boulevard achieves superior optical performance through a distinctive system of segmented and hydroformed reflectors. The result is consistent, uniform, glare-free illumination in Types II, III and IV IES distributions. Boulevard Series reflectors are field-interchangeable and rotatable without tools – for unsurpassed system flexibility.



Diagrams A and B represent illumination characteristics of two luminaire designs. The traditional forward throw reflector design (*Diagram A*) illuminates the area behind the pole (i.e., spill light), resulting in annoying light pollution for adjacent property owners. The Lithonia R4 reflector (*Diagram B*) controls illumination of the area behind the pole and achieves a greater degree of forward throw.

SPECIFICATIONS

LISTINGS AND CERTIFICATIONS – UL listed for installation in wet locations. Listed and labeled to comply with Canadian Standards. Independently tested and certified to IP 65 standards (with optional PerformaSeal™ construction).

MECHANICAL HOUSING – Formed aluminum sheet panels with continuously seam-welded corners. Reinforced back panel for mounting arm attachment. Pressed insert bushings provide smooth operation of lens door hinges.

LENS DOOR – Heavy-duty, extruded aluminum door frame, miter cut and continuously seam-welded. Replaceable 0.188" thick, clear and impact-resistant, tempered glass lens. One-piece, extruded silicone door gasket. Silk screen pattern over back-portion of lens conceals ballast access door. Hand-operated, dual-action latch draws door frame to housing after engaging without the use of tools. Spring-loaded release allows lens door to be removed and replaced without.

REFLECTOR ASSEMBLY – Specular, anodized aluminum segments permanently mounted to a metal subframe. Type IV reflector includes patented black glass element for superior back light control. Porcelain sockets are factory wired to quick-connect plug. Reflector may be removed and rotated in 90° increments without the use of tools. All reflectors are field interchangeable.

BALLAST ASSEMBLY – High power factor (high reactance or constant wattage autotransformer), copper wound ballast is 100% factory tested. Positive locking disconnect plugs (primary and secondary) on hinged removable (tool-less) power tray.

MOUNTING ARM – One-piece cast-aluminum construction. Mating surfaces with fixture and with pole are both gasketed. Versions available for attachment to square pole, round pole or wall mounting. No exposed mounting hardware.

PERFORMA-SEAL™ (optional) – Entire housing is sealed to meet IP 65 criteria. Wiring connection from arm into housing is sealed with cast-aluminum fitting, containing an epoxy encapsulated electrical connector. Pulling wiring conductors from either direction will not break seal.

FINISH – Five-stage cleaning and electro-coating polyester finish. Environmentally friendly, chromate-free preparation process. Total of 58 colors available (see Lithonia colors brochure).

ELECTRICAL AVAILABLE INPUT VOLTAGES – 120, 208, 240, 277, 347, 480, multi-tap input (U.S., 120/208/240/277), (Canada, 120/277/347), all 60 Hz.

BALLAST CIRCUITRY – 70/100/150-watt HPS, 100-watt metal halide all-use high-reactance autotransformer type ballasts. All others use constant-wattage autotransformer (CWA) designs. Consult factory for availability of CWI ballasts for Canadian application.

L I T H O N I A

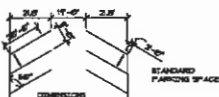


L I G H T I N G

A-96

PARKING

CURRENT DEVELOPMENT ASPH P - REQUIRED	42	PROPOSED STANDARD	41
FUTURE DEVELOPMENT USE IF - REQUIRED	0	FUTURE STANDARD	1
TOTAL REQUIRED	42	TOTAL PROPOSED	42



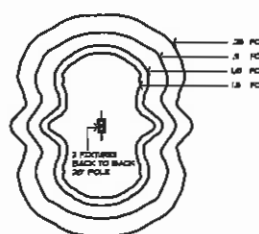
ONE WAY

PAVED DRIVE

TRAFFIC

LIGHTING

HORIZONTAL ILLUMINANCE
12- LIGHT FIXTURE
2500 HPS



LEGEND

[Symbol]	CURRENT DEVELOPMENT	[Symbol]	PLAYERS
[Symbol]	FUTURE DEVELOPMENT	[Symbol]	WALK PATH
[Symbol]	EXISTING BUILDINGS	[Symbol]	CONCRETE SIDEWALK
[Symbol]	NS-1 DECIDUOUS TREES	[Symbol]	EXISTING DECIDUOUS TREES TO REMAIN
[Symbol]	NS-1 CONIFEROUS TREES	[Symbol]	EXISTING CONIFEROUS TREES TO REMAIN



ARCHITECT
WEST LINN, OREGON

CITY OF WEST LINN
WEST LINN SENIOR CENTER
1800 S. ROSEMONT ROAD
WEST LINN, OREGON

PROJECT NO. 1800
DATE 15 MAR 2021
SHEET 1 OF 1

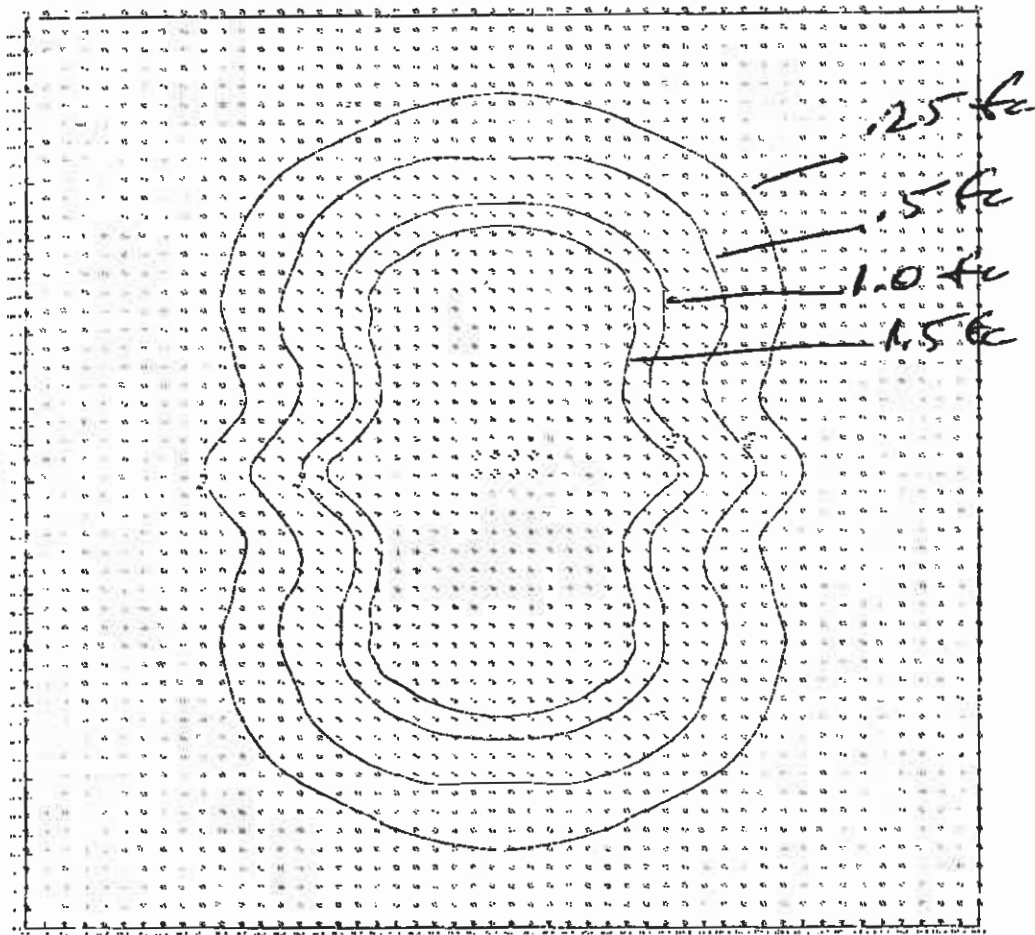


SITE PLAN
LIGHT COVERAGE



A-97

□ 2 Fixtures back to back
□ 20' Pole



Site, Arbitrary Grid, Horizontal Illuminance

Scale: 1"=30'



2/23/01

System Design Consultants, Inc

Portland, OR

Prepared for:



FEATURES & SPECIFICATIONS

HOUSING - Rugged, .064" minimum thickness, sheet aluminum housing, continuous welded seam for weathertight integrity. Standard finish is dark bronze (DDB) polyester powder. Other architectural colors available.

DOOR FRAME - Extruded and welded aluminum frame secured with a tool-less, quick-release fastener. Integrally-designed, extruded silicone gasket snaps into door frame, providing a weatherproof seal between housing and frame.

OPTICAL SYSTEMS - Anodized segmented reflectors for superior uniformity and control, which allows the flexibility to mix distributions without compromising the overall lighting job. Reflectors attach with tool-less fasteners and are rotatable and interchangeable. Three cutoff distributions available: Type II (roadway), Type III (asymmetric), Type IV (forward throw, sharp cutoff).

LENS - Impact-resistant, tempered glass with silkscreened power door shield.

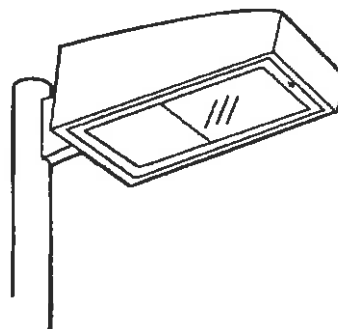
ELECTRICAL SYSTEM - High-reactance, high power factor ballast mounted on a unitized and removable power tray secured with tool-less latch for the 70/100/150W. Constant wattage autotransformer, high power factor ballast mounted on a unitized and removable power tray secured with tool-less latch for the 250/400W. Positive locking disconnect plugs (primary and secondary). Ballast is copper wound and 100% factory tested.

SOCKET - Porcelain, horizontally-oriented, mogul-base socket with copper alloy, nickel-plated screw shell and center contact. UL listed 1500W, 600V, 4KV pulse rated.

INSTALLATION - Cast, 4" aluminum arm for pole or wall mounting. Shipped in fixture carton. Optional mountings available.

LISTING - UL listed for wet locations. Listed and labeled to comply with Canadian Standards (see Options). IP65 rated (see Options).

Catalog Number	Type



Area Lighting

BV2

HIGH PRESSURE SODIUM
70W, 100W, 150W, 250W, 400W
20' to 40' Mounting

Specifications

EPA: 1.6 ft² (.15m²) (includes arm)

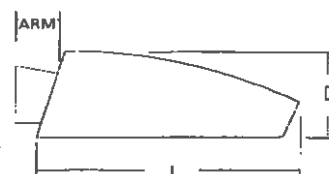
Length: 27-1/2 (69.8)

Width: 18 1/20 (45.8)

Depth: 9-3/8 (24.0)

Arm Length: 4 (10.2)

Weight: 41 lbs (18.5kg)



All dimensions are inches (centimeters) unless otherwise specified.

Mounting Option Drilling Template³

SPBxx, RPBxx	5
SPBTxx, RPBTxx	5
WSPB04	6
WSPBT04	6

ORDERING INFORMATION

Choose the boldface catalog nomenclature that best suits your needs and write it on the appropriate line. Order accessories as separate catalog numbers (shipped separately).

Example: BV2 400S R2 120 SPB04 SF DWH

Series	Voltage	Mounting ³	Options
BV2 70S	120	SPB04 ⁴ Square pole (4" arm) (standard)	Shipped installed in fixture
BV2 100S	208	RPB04 ⁴ Round pole (4" arm)	SF Single fuse (120, 277, 347V, n/a TB)
BV2 150S	240	SPB12 Square pole (12" arm)	DF Double fuse (208, 240, 480V, n/a TB)
BV2 250S	277	RPB12 Round pole (12" arm)	CSA Listed and labeled to comply with Canadian Standards
BV2 400S ¹	347	SPBT04 ⁴ Square pole w/10° tilt (4" arm) ²	QRS Quartz restrike system (100W max., 120V only, lamp not included)
	480	RPBT04 ⁴ Round pole w/10° tilt (4" arm)	EC Emergency circuit
	TB ²	SPBT12 Square pole w/10° tilt (12" arm)	PER NEMA twist-lock receptacle only (no photocontrol)
		RPBT12 Round pole w/10° tilt (12" arm)	PS Performa-Seal™ (IP65 rated)
		WSPB04 Wall bracket (4" arm)	CR Corrosion-resistant finish
		WSPBT04 Wall bracket (w/10° tilt, 4" arm)	Shipped Separately ⁵
		L/ARM When ordering BVKMA or BVKMAT	PE1 NEMA twist-lock PE (120, 208, 240V)
			PE3 NEMA twist-lock PE (347V)
			PE4 NEMA twist-lock PE (480V)
			PE7 NEMA twist-lock PE (277V)
			BVZHS House side shield (R2, R3 only)
			BVZVG Vandal guard
			SC Shorting cap for PER option

NOTES:

- Must use ED-18 lamp.
- Optional multi-tap ballast (120, 208, 240, 277V). (120, 277, 347V in Canada).
- For arm mounting, refer to technical data section in the Outdoor binder for drilling template.
- The SPB12, RPB12, SPBT12, and RPBT12 must be used when two or more luminaires are oriented on a 90° drilling pattern.
- May be ordered as an accessory.
- Other architectural colors available; see Architectural Colors brochure form no. 794.3.

OPTIONAL MOUNTING

(shipped separately)

BVKMA Mast arm adapter
BVKMAT Mast arm adapter (10° tilt)

Accessories: Tenon Mounting Slipfitter (Order separately)

Tenon O.D.	One	Two@180°	Two@90° ³	Three@120°	Three@90° ³	Four@90° ³
2-3/8"	T20-190	T20-280	T20-290	T20-320	T20-390	T20-490
2-7/8"	T25-190	T25-280	T25-290	T25-320	T25-390	T25-490
4"	T35-190	T35-280	T35-290	T35-320	T35-390	T35-490

OUTDOOR

A-99

105-BV2