



Planning Department

(541) 535-2050 Fax (541) 535-5769
112 W 2nd Street/PO Box 330, Phoenix, OR 97535

Development Review/Site Design Review Application File No. **SP23-08** Fee \$1,000.00

NOTICE TO APPLICANT: Applicants are advised to review the list of submittal requirements indicated on each application form prior to submitting an application. **Incomplete applications will not be acted upon or scheduled for a public hearing until the Planning Department receives all required submittal materials and fees. Failure to provide complete and/or accurate information may result in delay or denial of your request.**

APPLICANT Danny DiFrancesco, VP of Development, Commonwealth Development Corporation of America
Mailing address 7447 University Avenue, Suite 210, Middleton, WI 53562
Phone 608-216-4535 **Fax** _____ **Email** d.difrancesco@commonwealthco.net
Applicant's interest in property Proposed buyer (offer to purchase agreement)

Signature Daniel DiFrancesco **Date** 12/11/2023

PROPERTY OWNER Justin Dale Wills, Schazie Sale Roberts, and Serena Lucinda Roberts, Co-Successor Trustees of the Wills Living Trust dated November 22, 2010

Mailing address ~~10190 Wagner Creed Road, Talent, OR 97540~~ 2346 Asher Dr Medford, OR 97504
Phone 541-840-1235 **Fax** 541-474-6284 **Email** SRoberts@hstreetbusiness.com

Signature Schazie S Roberts **Date** 12-12-23

Property Owner's Consent: I do hereby certify that I am the legal owner of record of the property described above and as such, I am requesting that the City of Phoenix process this application in accord with state and local ordinances.

Signature Schazie S Roberts **Date** 12-12-23

If same as applicant, mark SAME. If there is more than one property owner, please attach additional sheets as necessary.

SITE LOCATION AND DESCRIPTION

Address 4003 S. Pacific Hwy **Tax Map #(S)** 381W09A **Tax Lot #(s)** 1200
Address 4019 S. Pacific Hwy **Tax Map #(S)** 381W09A **Tax Lot #(s)** 1100
Adjacent property under same ownership (list tax lot ID) _____

Frontage street or address S. Pacific Hwy **Nearest cross street** Walnut Way

Site size (acres or square feet) 1.91; 1.79 **Dimensions** 83,096 square feet, 78,156 square feet

BUSINESSES Are any businesses operating on the property? If yes, please describe. No

All businesses operating within the City of Phoenix must obtain a Business License.

SPECIFIC REQUEST **New Use/Construction** **Alteration** **Change of Use**

Describe Site design review application for a proposed 72- unit multifamily new construction project located at 4003/4019 S. Pacific Highway.

OFFICE USE ONLY.

This institution is an equal opportunity provider and employer.

120 day time limit Accepted as complete _____ Final decision by _____
DLCD 45-day notice required Y/N Date mailed _____ Date of first hearing _____
Planning Commission hearing date _____ Notice mailed _____
Notice to media Publication date _____ Emailed _____
Notice of Decision Date mailed _____ Appeal deadline _____
Associated applications _____

SUBMITTAL REQUIREMENTS

The following items must be received in order to deem an application complete and schedule it for a hearing before the Planning Commission. If you need assistance completing the forms, please contact the Planning Department. If you do not have a copy of the deed to your property to verify ownership, contact the Jackson County Assessor at (541) 774-6059 or <https://jacksoncountyor.org/assessor>

1. Original, signed **Application form**. This information is public record and must be reproduced so please type or write clearly using dark ink.
2. All information required above and below, unless specifically waived by the Director.
3. The appropriate **fee**.
4. **7 copies** of all submittal materials for staff and Planning Commission distribution.

The following criteria must be satisfied in order to approve a request. See the specific language in Section 4.4.4.1 on page 3 of this form. Please tailor all responses to these criteria. All applications must also demonstrate compliance with applicable standards in Chapter 3 (Design Standards) of the LDC.

Is the proposed use listed as a Conditional Use in the underlying zone? Yes No

Describe in detail how the characteristics of the site are suitable for the proposed use considering size, shape, location, topography, existence of improvements and natural features.

Please see the attached findings report that outlines in detail the proposed project.

Describe in detail how the site and proposed development are timely, considering the adequacy of transportation systems, public facilities and services existing or planned for the area affected by the use.

Please see the attached findings report that outlines in detail the proposed project.

Describe in detail how the proposed use will not alter the character of the surrounding area in a manner that substantially limits, impairs, or precludes the use of surrounding properties for the primary uses listed in the underlying district.

Please see the attached findings report that outlines in detail the proposed project.

Describe in detail how the proposal satisfies the goals and policies of the City Comprehensive Plan that apply to the proposed use.

Please see the attached findings report that outlines in detail the proposed project.

Use this space to provide any additional information.

The Phoenix Land Development Code (LDC) accepts that certain uses, while not permitted outright, can be compatible uses in certain zones. The applicant bears the burden of proof to show that the proposed use is compatible or can be made compatible with the surrounding neighborhood and/or zone through appropriate mitigation.

Electronic submittals to accompany this application form are encouraged. All text submittals should be provided in a Microsoft Word document; plans and other images should be formatted as a PDF.

The application will not be scheduled for a hearing until deemed complete.

Use additional sheets if necessary.

City of Phoenix Land Development Code

Chapter 4.2 – Development Review and Site Design Review

4.2.1 – Purpose

The purpose of this Chapter is to:

- Provide rules, regulations, and standards for efficient and effective administration of site development review.
- Carry out the development pattern and plan of the City and its comprehensive plan policies;
- Promote the public health, safety, and general welfare;
- Lessen or avoid congestion in the streets, and secure safety from fire, flood, pollution and other dangers;
- Facilitate adequate transportation, water supply, sewage, and drainage;
- Encourage the conservation of energy resources;
- Encourage efficient use of land resources, full utilization of urban services, mixed uses, transportation options, and detailed, human-scaled design.

4.2.2 – Applicability

Development Review or Site Design Review shall be required for all new developments and modifications of existing developments, except that regular maintenance, repair, and replacement of materials (e.g., roof, siding, awnings, etc.), parking resurfacing, and similar maintenance and repair shall be exempt. Development Review or Site Design Review applications shall be processed as a Type I, II or III application pursuant to Table 4.2.2, below.

4.2.3 - Development Review.

Development Review is a non-discretionary or ministerial review conducted by the Planning Director without a public hearing. (See Chapter 4.1 – Types of Applications and Review Procedures for review procedure.) It is for less complex developments and land uses that do not require Site Design Review approval. Development Review is based on clear and objective standards and ensures compliance with the basic development standards of the land use district, such as building setbacks, lot coverage, maximum building height, and similar provisions of Chapter 2. Development Review is required for all of the types of development listed in Table 4.2.2.

Type of Use	DR	SDR	SDR
	Type I	Type II	Type III
Single Family Detached	X*		
Duplex	X		
Triplex	X		
Multifamily 4+ and Single Family Attached 5+ units		X	
Additions >50% of existing structure footprint		X	
Minor Modifications	X		
Site approval for CUPs	X		
Temporary Use (see 4.9.1)	X		
Home Occupation (see 4.9.2)	X		
Accessory Structure >50% of existing structure area			X
Mobile Food Vendors	X		
Commercial up to 14 off-street parking spaces	X		
Commercial 15 or more off-street parking spaces		X	
Clearing >2 acres			X
Change of access for Commercial or Industrial		X	
*only if required as a condition of approval			

A. Approval Criteria. Development Review shall be conducted only for the developments listed in Table 4.2.2 and shall be conducted as a Type I procedure, as described in Chapter 4.1.3 – Type I Procedure (Ministerial). Prior to issuance of building permits, the following standards shall be met:

1. The proposed land use is permitted by the underlying land use district (See Chapter 2);
2. The land use, building/yard setback, lot area, lot dimension, density, lot coverage, building height and other applicable standards of the underlying land use district and any sub-districts are met (See Chapter 2);
3. All provisions of Chapter 3 – Design Standards are met;
4. All applicable building and fire code standards are met; and
5. The approval shall lapse, and a new application shall be required, if a building permit has not been issued within one year of Site Review approval, or if development of the site is in violation of the approved plan or other applicable codes.

4.2.4 – Site Design Review.

Site Design Review is a discretionary review conducted by the Planning Director and/or the Planning Commission with or without a public hearing. (See Chapter 4.1 – Types of Applications and Review Procedures for review procedure.) It applies to all developments in the City, except those specifically listed under "A" (Development Review). Site Design Review ensures compliance with the basic development standards of the land use district (e.g., building setbacks, lot coverage, maximum building height), as well as the more detailed design standards and public improvement requirements in Chapters 2 and 3. Site Design Review requires a pre-application conference in accordance with Chapter 4.1.7 – General Provisions, Section C.

Site Design Review shall be conducted as a Type II or Type III procedure as specified in Table 4.2.2, using the procedures in Chapter 4.1 – Types of Applications and Review Procedures, and using the approval criteria contained in Chapter 4.2.6 – Site Design Approval Criteria.

4.2.5 – Site Design Review Application Submission Requirements

All of the following information is required for Site Design Review application submittal:

A. General Submission Requirements. The applicant shall submit an application containing all of the general information required by Chapter 4.1.4 – Type II Procedure (Administrative) or Chapter 4.1.5 – Type III Procedure (Quasi-Judicial), as applicable. The type of application shall be determined in accordance with subsection A of 4.2.4 – Site Design Review Application Review Procedure. Site Design Review requires a pre-application conference in accordance with Chapter 4.1.7 – General Provisions, Section C.



PO Box 330 • Phoenix, OR 97535

COMMUNITY DEVELOPMENT

(541) 535-2050 • FAX (541) 535-5769

LETTER OF AUTHORIZATION

LET IT BE KNOWN THAT Commonwealth Development Corporation
Has Been Retained to Act as Agent to Perform All Acts for Development on My Property Identified Below. These Acts Include: Pre-application Conference, Filing Applications and/or Other Required Documents Relative to All Zoning Applications, Septic System Feasibility, Sewage Disposal Permits, Assigning an Address, Road Approach Permits, Manufactured Dwelling Permits, Building Permits, and Mechanical Permits (authorization not useable for Plumbing or Electrical Permits per State regulations).

4003 and 4019 South Pacific Highway, Phoenix OR

(Address or Road)

AND DESCRIBED IN THE RECORDS OF PHOENIX AS:

TOWNSHIP 38, RANGE 1W, SECTION 09A, TAX LOT(S) 1100

TOWNSHIP 38, RANGE 1W, SECTION 09A, TAX LOT(S) 1200

THE COSTS OF THE ABOVE ACTIONS, WHICH ARE NOT SATISFIED BY THE AGENT, ARE THE RESPONSIBILITY OF THE UNDERSIGNED PROPERTY OWNER.

PROPERTY OWNER:

This authorization is valid for 1 year; 2 years; Other _____ (Must select one)

SIGNATURE: _____ DATE: _____
Justin Dale Wills, Schazie Sale Roberts, and Serena Lucinda Roberts, Co-Successor Trustees of the Wills Living Trust dated
PRINTED NAME: November 22, 2010
ADDRESS: 2346 Asher Drive PHONE: 541-840-1235
CITY/STATE/ZIP: Medford, OR 97504 FAX: 541-474-6284

CHECK ONE: APPLICANT AGENT
SIGNATURE: Daniel DiFrancesco DATE: 12/14/2023
PRINTED NAME: Daniel DiFrancesco
ADDRESS: 7447 University Ave, STE 210 PHONE: 608-216-4535
CITY/STATE/ZIP: Middleton WI 53562 FAX: _____

Additional, if necessary – CHECK ONE: APPLICANT AGENT
SIGNATURE: _____ DATE: _____
PRINTED NAME: _____
ADDRESS: _____ PHONE: _____
CITY/STATE/ZIP: _____ FAX: _____

DECEMBER 6 2023

FINDINGS OF FACT

PACIFIC FLATS

MULTI FAMILY DEVELOPMENT – PHOENIX OREGON

PREPARED BY: KERRY

KENCAIRN

KENCAIRN LANDSCAPE ARCHITECTURE

541 488-3194

FOR:

BRIAN REDIG

PROJECT MANAGER

M+A DESIGN

Office: 920.922.8170 Ext. 130

INCLUDING:

CHAPTER 2.2 RESIDENTIAL DEISTRICTS

CHAPTER 2.4 COMMERCIAL HIGHWAY

CHAPTER 2.10 OREGON 99 SETBACK OVERLAY ZONE

CHAPTER 3.2 ACCESS AND CIRCULATION

CHAPTER 3.3 LANDSCAPEING, STREET TREES, FENCES AND WALLS

CHAPTER 3.4 VEHICLE AND BICYCLE PARKING

CHAPTER 3.6 SIGNS

CHAPTER 3.8 STORM AND SURFACE WATER MANAGEMENT STANDARDS

CHAPTER 3.9 EROSION PREVENTION AND SEDIMENT CONTROL

CHAPTER 3.12 OUTDOOR LIGHTING

RESIDENTIAL DISTRICTS CHAPTER

Chapter 2.2 – Residential Districts (R-1, R-2, R-3, HO)

2.2.2 – Permitted Land Uses

This project is being developed as an R-3 Multi-Family Residential within the Commercial Highway zone. This is a permitted use in this zone and the proposed project meets the Multi-Family zone guidelines. The project contains 5 three story buildings with a total of 72 (two and three bedroom) units. There is no maximum density in this zone.

2.2.4 – Building Setbacks

Setbacks for all buildings meet the required standard:

Front Yards of 20 feet

Side Yards of 10 feet

Rear Yards 10 feet

2.2.5 – Maximum Lot Coverage

Maximum Lot Coverage in a multi-family zone is 75% this project is in the Commercial Highway zone and is still below the maximum lot coverage criteria for multi-family zones at a total of 67% lot coverage.

2.2.6 – Building Height

The buildings are all under 50 feet total height.

2.2.7 – Building and Site Orientation

The proposed project is on a driveway off of Highway 99, all building entrances are oriented to the shared parking lot and connective walkways.

Off-street parking

Off street parking is provided at a rate of 1.5 spaces per unit. There is a concrete sidewalk from 99 into the development and throughout the site connecting all uses with a paved pedestrian path; the sidewalk are 5 feet wide throughout the project.

There are 34 bicycle spots distributed throughout the site.

The shared parking lot is not in the front setback of the project.

There are 23 trees within the parking lot area to shade the paving, 22 are required for 108 parking spaces.

2.2.8 – Architectural Standards

Architectural standards apply to this project as a multi-family development

C. Standards.

All buildings incorporate offsets that occur at less than 80-foot interval. Building facades include balconies, and various other horizontal and vertical interruptions to the flat plane. The roofs are broken up by the incorporation of gables and extended eave lines.

2. Eyes on the Street. *This project does not relate to the street, but does contain the elements required for “eyes on the street” by relating the fronts of the buildings to the interior parking and access elements.*

3. Detailed Design.

The buildings have covered porches with recessed entries, extended eaves, and gables. The buildings also incorporate a mix of siding materials that are consistent across the project creating a rhythm of design elements through the site.

2.2.9 – Special Standards for Certain Zones

E. Multi-family housing

1. Building Mass Supplemental Standard.

The longest building in the project is just over 128 feet long.

2. Common open space standard.

The common open spaces area is a larger courtyard created by the community building and one of the apartment buildings. The common area contains a large lawn, a playground, bike parking and mailboxes.

3. Private. open space standard.

All units have a minimum of 48 square feet of private outdoor space. Ground floor units have outdoor patios on grade. All other units have balconies that are at least 48 square feet and over 5 feet from the ground plane.

All private open spaces face away from adjacent buildings to the greatest extent possible. The trash and recycling enclosures do not face the buildings or building private spaces and are screened with masonry walls at least 6 feet.

Chapter 2.4 – Commercial Highway (C-H)

2.4.2 – Permitted and Conditionally Permitted Land Uses

A. Permitted and Conditionally Permitted Uses.

Residential Development are a permitted use in this zone.

2.4.3 – Development Standards

A. Building Height.

All Buildings are less than 50 feet in height.

B. Yard Setbacks.

Setbacks are proposed to meet the Multi-Family Standard.

C. Lot Coverage.

Lot coverage is 67%

D. Landscaping.

33% of the site is landscaped and meets the requirements of chapter 3.3

E. Traffic.

The proposed development will produce less than 200 trips per day based on the State of Oregon Trip Generation calculator.

2.4.4 – Architectural Guidelines and Standards

A. Architectural Continuity and Quality.

1. *Building walls are designed to undulate at their entries, this follows the intent that no wall is greater in length than 50 feet without relief.*
2. *Building entrances are identified through the use of indentation and overhead protection in the form of a portico, walkways lead from the parking areas to the entries.*
3. *Prosed buildings are sided with a mixture of durable and aesthetic materials: a mixture of both vertical and horizontal engineered siding, combines with engineered trim and vinyl clad windows.*
4. *Building materials and design form are duplicated on all buildings within the project.*

B. Lighting. Project lighting shall be provided in order to create safe low-light conditions, and in accordance with Chapter 3.12 – Outdoor Lighting.

Proposed lighting meets the standards of Chapter 3.12, see lighting plan

C. Roof-mounted equipment.

N/A

D. Detailing. Architectural detailing shall be consistent on all elevations.

See building elevations (sheets A2 onward), this requirement has been met.

E. Trash Enclosures.

Trash enclosure design complies with the requirements of a 6-foot high masonry walls with solid metal gates, and the following:

The floor constructed of concrete with a 6-foot by 10-foot concrete apron placed in front of the enclosure. The masonry materials used shall match the building or buildings that it serves.

Trash enclosures shall not be located within 25 feet of a public entrance or a required pedestrian walkway.

F. Parking lot lighting.

The parking lot contains 108 spaces and has incorporated pedestrian scale lighting and bicycle parking. Lighting complies with Chapter 3.12

G. Bicycle Parking.

The bicycle parking meets the standard of 1.1 spaces per unit. Bike parking is scattered throughout the site with 25% being short term lockable parking (not covered or fenced) and 75 % long term parking (all fenced and 50% covered) the covered bike parking is within the roof lines of the buildings (see Architects site plan)

Complies

H. Pedestrian Circulation.

Concrete pedestrian walkways connect the whole site and connect to highway 99 via a sidewalk. All entries are adjacent to the circulation walkway as well as all other site amenities.

Chapter 2.10 – Oregon 99 Setback Overlay Zone

This project is set back from the highway by 100 feet.

Chapter 3.2 – Access and Circulation

3.2.2 – Vehicular Access and Circulation

E. Access Options.

*This project makes use of an existing access drive onto Highway 99.
There is only one access point to this project.*

J. Driveway Openings.

The proposed driveway is 26 feet wide.

K. Fire Access and Parking Area Turn-arounds.

The proposed parking lot incorporates the required geometry to allow for fire trucks and other vehicle needs.

L. Vertical Clearances.

There are no obstructions proposed within the vertical clearance zone.

M. Vision Clearance.

This project makes use of an existing driveway location and meets all requirements of vision clearance.

Chapter 3.3 – Pedestrian Access and Circulation

A. Pedestrian Access and Circulation.

This project has a continuous pedestrian walkway from highway 99 connecting all buildings parking, trash and access points.

B. Design and Construction. Pathways shall conform to all of the standards in below:

1. *The sidewalk along the entry drive is built six inches above drive grade and is 5.5 feet wide including the curb*

2. Housing/Pathway Separation.

There is a five-foot landscape buffer between all walkways and residences.

3. Crosswalks.

There is a crosswalk creating connectivity across the driveway entrance to the interior path system.

4. Pathway Surface

The pathways are concrete

5. Accessible routes.

All pathways comply with ADA guidelines.

Chapter 3.3 – Landscaping, Street Trees, Fences, and Walls

3.3.2 – Landscape Conservation

Two trees on the site have been identified for conservation. The trees will be protected during construction and incorporated into the final landscape plan. Please see sheet L 1.1 TREE PROTECTION AND REMOVAL PLAN for location and protection measures.

3.3.3 – New Landscaping

B. Landscaping Plan Required.

A landscape plan has been provided and meets the percentage of coverage required. Coverage exceeds the requirement of the zone.

D. Landscape Materials.

A landscape plan has been provided that includes trees, shrubs, ground cover plants, non-plant ground covers, and outdoor hardscape features:

The total landscape contains less than 20% non-plant groundcover, plants are shown on plans at mature size and shall reach appropriate coverage within two years of growth.

All proposed trees are 1.5 DBH or greater at time of planting.

Shrubs and ground covers are specified to be 1 to five gallons in size as appropriate for the individual plant selected. The stormwater facility on site is planted per the requirements of Rogue Valley Sewer Service, all plants are chosen for their ability to withstand wet feet and their general adaptability.

E. Landscape Design Standards. All yards, parking lots, and required street tree planter strips shall be landscaped in accordance with the provisions of this Chapter. Landscaping shall be installed with development to provide erosion control, visual interest, buffering, privacy, open space, shading, and wind buffering, based on the following standards:

1. Yard Setback Landscaping. Landscaping shall satisfy the following criteria:

See sheet L 2.0 PLANTING PLAN for compliance

2. Parking areas.

The parking lot area (stalls and driveway) equals 48,833 square feet and includes 8% landscape within that.

There are 23 trees within the parking lot area to shade the paving, 22 are required for 108 parking spaces.

3. Buffering and Screening Required. Buffering and screening are required under the following conditions:

All parking, maneuvering areas and mechanical equipment has been buffered or screened, see sheet L.20 PLANTING PLAN landscape plan.

3.3.4 – Street Trees

There is no street frontage associated with this project, this section is not applicable.

3.3.5 – Fences and Walls

This site shall include 6-foot-tall vinyl fence on all perimeter property lines excluding the line parallel to highway 99.

Chapter 3.4 – Vehicle and Bicycle Parking

3.4.3 – Vehicle Parking Standards

A

There are 108 parking stalls provided in this project and three trailer spaces. The total number units include 42 2 bedrooms and 30 three bedrooms. There are six ADA parking spaces. All parking is oriented at 90 degrees, the full-size spaces are 19' x 9' and the compact spaces are 19' X 7.5', there are three spaces set aside for trailers. Back up space/Drive aisle is 26 feet.

B. Parking Location and Shared Parking.

Parking is located internally to the buildings and pedestrian site circulation.

3.4.4 – Bicycle Parking Requirements

All uses that are subject to Site Design Review shall provide bicycle parking, in conformance with the following standards, which are evaluated during Site Design Review:

A. General Bicycle Parking Requirement.

1.1 Bicycle parking spaces are required per unit, there are 80 spaces being provided.

75% of this parking is long term parking and 25% is short term.

All of the long-term parking is fenced and secured with a locking gate.

The short-term parking provides rack parking.

The long-term parking provides racks along with secured fencing.

50 % of the long-term parking is covered either under building extended eaves and/ or by the covered bike structure adjacent to the community building.

B. Bicycle Parking Design Standards. Required bicycle parking shall comply with the following standards:

Bike racks have been provided that allow for locking of the front wheel and frame if the bike to a rack that is permanently installed into concrete. Bike parking spaces have adequate (5 foot) access from front and/or back and are spaces so that bikes do not have to be moved to accommodate other bikes. All bicycle parking is located on site.

Chapter 3.6 – Signs

There is one sign proposed for this project, it is shown on sheet A3.3. The sign is ground mounted with small up lights shining on it. Sign dimensions are 6'4" tall and 8'-8" wide.

Chapter 3.8 – Storm and Surface Water Management Standards**3.8.2 – Stormwater Management Plan Submittal**

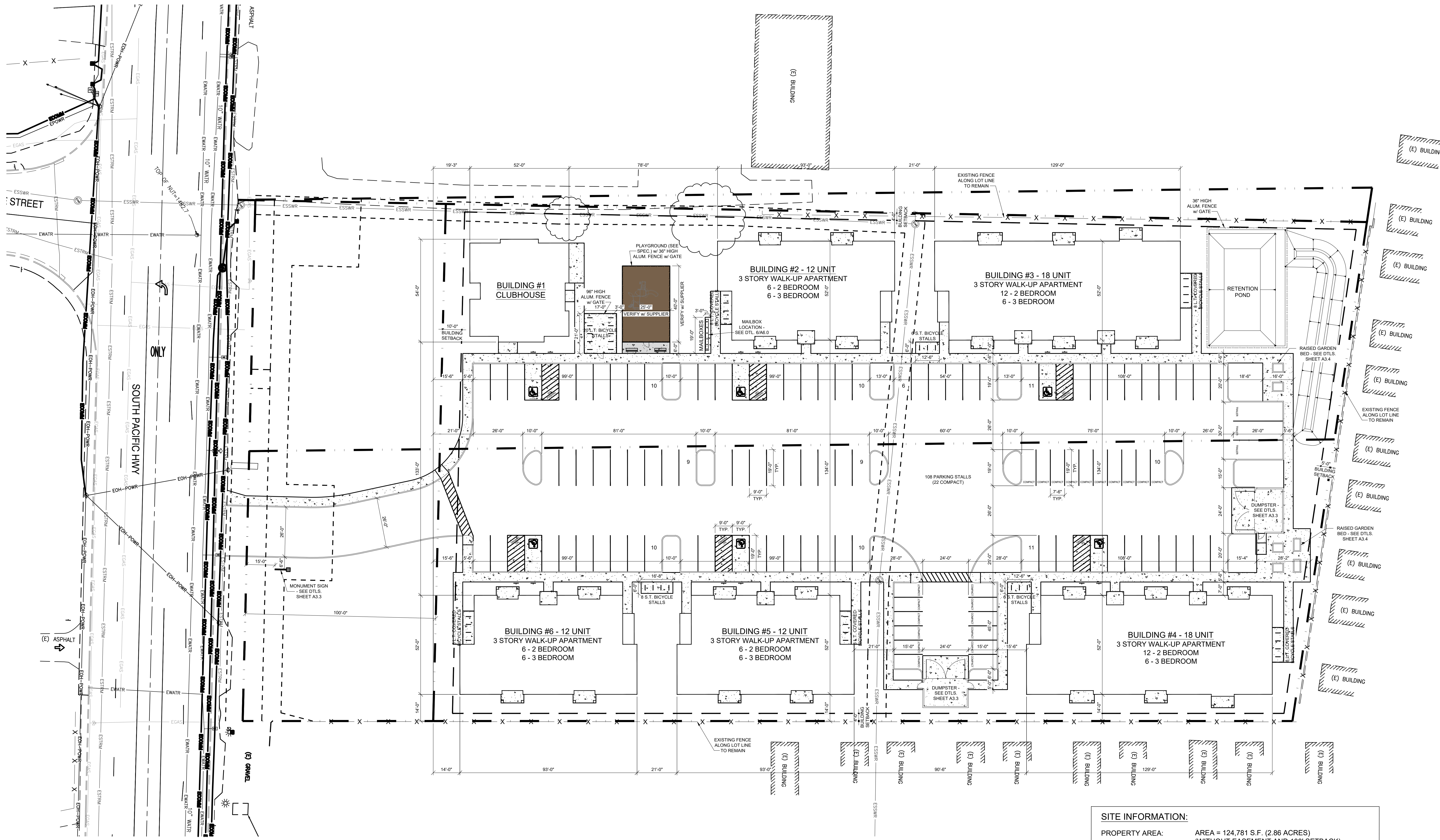
See report and plans by Civil Engineer, provided with this submittal.

Chapter 3.9 – Erosion Prevention and Sediment Control

See report and plans by Civil Engineer, provided with this submittal.

Chapter 3.12 – Outdoor Lighting

See sheet EP 1.10 for compliance specifications



SITE INFORMATION:

PROPERTY AREA:	AREA = 124,781 S.F. (2.86 ACRES) (WITHOUT EASEMENT AND 100' SETBACK)
EXISTING ZONING:	COMMERCIAL HIGHWAY - ALLOWS R-3
PROPOSED USE:	MULTI-FAMILY RESIDENTIAL
SETBACKS:	BUILDING: FRONT = 10' SIDE = 4' REAR = 5'
NUMBER OF UNITS:	72 UNITS (42 - 2 BEDROOM + 30 - 3 BEDROOM)
NUMBER OF BUILDINGS:	6
BUILDING AREA:	TOTAL GROSS 86,394 SF
BUILDING COVERAGE:	69.2%
BUILDING HEIGHT:	38'-0", 3 STORIES
VEHICLE PARKING PROVIDED:	108 EXTERIOR SPACES (6 H.C. ACCESSIBLE) 3 TRAILER SPACES
BICYCLE PARKING REQUIRED:	1.1 SPACES PER UNIT = 79.2 = 80 REQUIRED 80 SPACES x 25% SHORT-TERM = 20 S.T. REQUIRED 80 SPACES x 75% LONG-TERM = 60 L.T. REQUIRED 60 L.T. SPACES x 50% COVERED = 30 L.T. REQUIRED
BICYCLE PARKING PROVIDED:	80 SPACES PROVIDED 20 SHORT-TERM SPACES PROVIDED 60 LONG-TERM SPACES PROVIDED (40 LONG-TERM COVERED SPACES PROVIDED + 20 LONG-TERM SPACES PROVIDED)

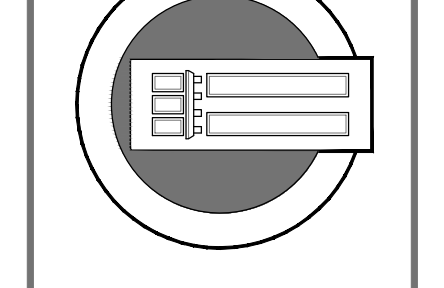
ARCHITECTURAL SITE PLAN
SCALE: 1" = 20'-0"

SHEET ISSUE:
DECEMBER 22, 2023

REVISIONS:

M+A DESIGN, INC.
24 SOUTH BROOKE STREET
FOND DU LAC, WISCONSIN 54937
bredig@madesigninc.net (920) 922-8170

COMMONWEALTH COMPANIES
24 S. BROOKE STREET
FOND DU LAC, WISCONSIN 54935
(920) 922-8170 FAX: (920) 922-8171



PACIFIC FLATS
4019 S. PACIFIC HWY
PHOENIX, OR 97501

2023 © M+A DESIGN, INC.

JOB NUMBER:	2023.07
SHEET	A0.0



MEP SITE PLAN
SCALE: 1" = 30'-0"

ELECTRICAL GENERAL NOTES

1. THE ELECTRICAL CONTRACTOR SHALL CONTACT THE LOCAL CODE ENFORCEMENT AUTHORITIES AND THE LOCAL FIRE MARSHAL. VERIFY ANY AND ALL REQUIREMENTS, EQUIPMENT ETC. AND FURNISH AND INSTALL ALL SAID ELECTRICAL ITEMS NECESSARY FOR PROPER INSTALLATION IN STRICT ACCORDANCE WITH THE GUIDELINES AND INTERPRETATIONS SET FORTH BY THE LOCAL GOVERNING AUTHORITIES, ABOVE AND BEYOND ALL OF THE FUNDAMENTAL ELECTRICAL AND FIRE ALARM REQUIREMENTS SET FORTH IN THE NEC AND NFPA.
2. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL EXCAVATION, TRENCHING AND BACKFILLING.
3. ELECTRICAL CONTRACTOR TO COORDINATE PRIMARY SERVICE REQUIREMENTS FOR POWER, TELEPHONE AND CABLE FOR ROUGH-IN REQUIRED FOR SERVICE WITH RESPECTIVE UTILITY COMPANY.
4. ELECTRICAL CONTRACTOR TO PROVIDE CONCRETE PAD AT EACH TRANSFORMER LOCATION PAD TO MEET POWER COMPANY STANDARDS. CONTRACTOR TO PROVIDE PVC CONDUIT FROM UTILITY COMPANY POINT OF SERVICE TO EACH TRANSFORMER FOR UTILITY COMPANY PRIMARY FEEDER (TO BE INSTALLED BY UTILITY COMPANY). VERIFY EACH PAD LOCATION AND SECONDARY CONDUIT ROUTING TO METER BANKS WITH SRP ELECTRIC UTILITY. INSTALL ALL SECONDARY CONDUITS FOR UTILITY TRANSFORMERS TO METER BANKS.
5. ELECTRICAL CONTRACTOR TO PROVIDE PVC RACEWAY FOR TELEPHONE AND CABLE SERVICE FROM TELEPHONE AND CABLE COMPANY POINT OF SERVICE TO EACH BUILDING.
6. ELECTRICAL CONTRACTOR TO REFER TO MANUFACTURER EQUIPMENT SPECIFICATIONS TO VERIFY ROUGH-IN REQUIREMENTS INCLUDING INSTALLATION OF ALL DEVICES, RACEWAYS, JUNCTION BOXES AND BRANCH FEEDERS NOT SHOWN IN THESE DRAWINGS.
7. REFER TO LANDSCAPE ARCHITECT'S PLANS FOR ADDITIONAL INFORMATION AND EXACT LOCATION OF EXTERIOR LIGHTING SHOWN LANDSCAPE LIGHTING IS FED FROM HOUSE PANELBOARDS.
8. PACIFIC POWER CONTACT PERSON: XXX XXXX (XXXXXXXXXXXX.com).
9. PROVIDE MARKER BALLS ALL SECONDARY RING FROM TRANSFORMER TO METER BANKS.

ELECTRICAL KEYED NOTES

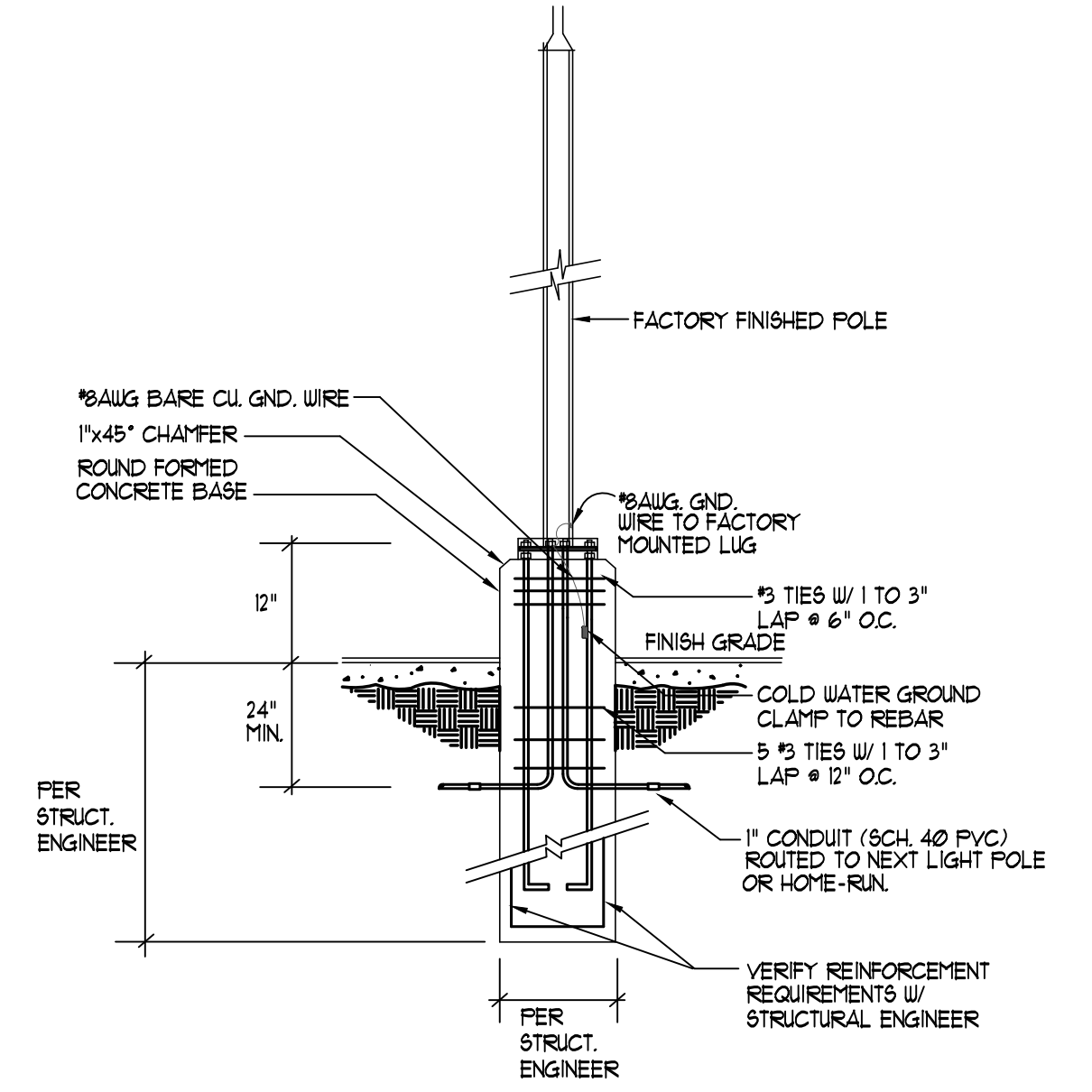
1. 2#0 #00 3/4" CONDUIT TO 200AMP CIRCUIT(S) BREAKER IN NEAREST 1HP PANELBOARD.
2. J-BOX FOR POWER TO IRRIGATION CONTROLLER(S). CONNECT TO CIRCUIT BREAKER IN PANELBOARD IN RESPECTIVE BUILDING. VERIFY LOCATION OF IRRIGATION CONTROLLERS AND PROVIDE ROUGH-IN ACCORDINGLY.
3. PROVIDE (2) SETS OF 4" EMPTY CONDUIT WITH FIBERGLASS PULL TAPE FOR BUILDING INTERCONNECT CAR BOTH ENDS. COORDINATE QUANTITY AND LOCATION WITH THE OWNER.
4. CONNECT TO 100I BREAKER FOR EXTERIOR LIGHTING CIRCUIT CP-5 FOR SIGNAGE. CONTROL WITH PHOTOCELL.
5. CONNECT TO AND CONTROL WITH EXTERIOR LIGHTING FOR BUILDING 4. PROVIDE UP/SPCI RECEPTACLE AT 24" ATG UNDER LIGHTING FIXTURE AND CONNECT TO EXTERIOR RECEPTACLE CIRCUIT FOR BUILDING 4.
6. JUNCTION BOX FOR FUTURE CAR CHARGING STATION WITH 3/4" CONDUIT ROUTED TO CLOSEST HOUSE PANELBOARD. REFER TO PANELBOARD SCHEDULE FOR PERTINENT CIRCUITS.

PLUMBING KEYED NOTES

1. 6" SANITARY SEWER LINE UTILITIES CONTRACTOR'S CONNECTIONS REFER TO CIVIL DRAWINGS FOR EXACT LOCATION OF CONNECTION POINTS.
2. 2 1/2" WATER LINE FOR UTILITIES CONTRACTOR'S CONNECTION. REFER TO CIVIL DRAWINGS FOR EXACT LOCATION OF CONNECTION POINTS.
3. 4" SANITARY SEWER LINE UTILITIES CONTRACTOR'S CONNECTIONS. REFER TO CIVIL DRAWINGS FOR EXACT LOCATION OF CONNECTION POINTS.
4. 2" WATER LINE FOR UTILITIES CONTRACTOR'S CONNECTION. REFER TO CIVIL DRAWINGS FOR EXACT LOCATION OF CONNECTION POINTS.
5. 1" WATER LINE FOR UTILITIES CONTRACTOR'S CONNECTION. REFER TO CIVIL DRAWINGS FOR EXACT LOCATION OF CONNECTION POINTS.

LEGEND

- UTILITY COMPANY PAD MOUNTED TRANSFORMER. VERIFY EXACT LOCATION WITH THE UTILITY COMPANY.
 - ELECTRIC SERVICE SECONDARY FEEDERS. REFER TO SHEET E4.10 FOR DETAILS & SHEET E1.10 FOR ROUTING.
 - METER BANK. REFER TO RISER DIAGRAM ON SHEET E4.10.
- REFER TO SYMBOL LEGEND ON SHEET E5.10 FOR MORE INFORMATION



POLE BASE DETAIL
SCALE: NONE

SITE LIGHTING SUMMARY											
PAGE	SYMBOL	MFR	CATALOG NO.	MOUNTING HEIGHT	QTY	LAMP				DESCRIPTION	
						VOLT	NO.	WATT	TYPE		LUMENS
1	□	RAB LIGHTING	ALEDPC8XN	POLE / 20'	9	240	1	52	LED 4000K	10019	SINGLE HEAD AREA LIGHT IN BRONZE FINISH. BUG RATING BI, U0, GI
	□	RAB LIGHTING	ALEDPC8XN	POLE / 20'	5	240	2	52	LED 4000K	20036	TWIN HEAD AREA LIGHT IN BRONZE FINISH. BUG RATING BI, U0, GI
2	□	RAB LIGHTING	6LHFC3N	WALL / 8'	15	00	1	31	LED 4000K	4491	DECORATIVE FULL CUT-OFF WALL PACK IN BRONZE FINISH. COORDINATE EXACT LOCATION WITH ARCHITECTURAL ELEVATIONS. BUG RATING BI, U0, G0
	□	WAC LIGHTING	UP-LED219-30-ABZ	WALL / 2' BELOW TOP OF WALL	2	00	1	19	LED 4000K	1435	DECORATIVE FULL CUT-OFF EXTERIOR WALL PACK IN BRONZE FINISH
TOTAL LUMENS										2600261	

NOTE: TOTAL LUMENS BASED ON LDC TABLE D L2-2 AT 25 LUMENS PER SF WITH TOTAL SITE ALLOWANCE OF 29,335 SF X 25 LUMENS/SF = 732,866 LUMENS. PROJECT COMPLIES.

STATISTICS FOR SITE PHOTOMETRICS					
DESCRIPTION	SYMBOL	AVERAGE	MAX	MIN	AVG/MIN
CALCULATION ZONE #1	+	13	3.9	0.1	6.5:1

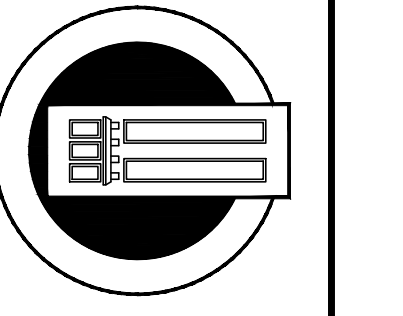
SHEET ISSUE:
12-22-2023

REVISIONS:

M+A DESIGN, INC.
24 SOUTH BROOKE STREET
FOND DU LAC, WISCONSIN 54937
b.reid@madesigninc.net (920) 922-8170

REGISTERED PROFESSIONAL ENGINEER
78841PE
OREGON
MAY 11, 2005
JOSEPH NYANSON

COMMONWEALTH COMPANIES
24 S. BROOKE STREET
FOND DU LAC, WISCONSIN 54935
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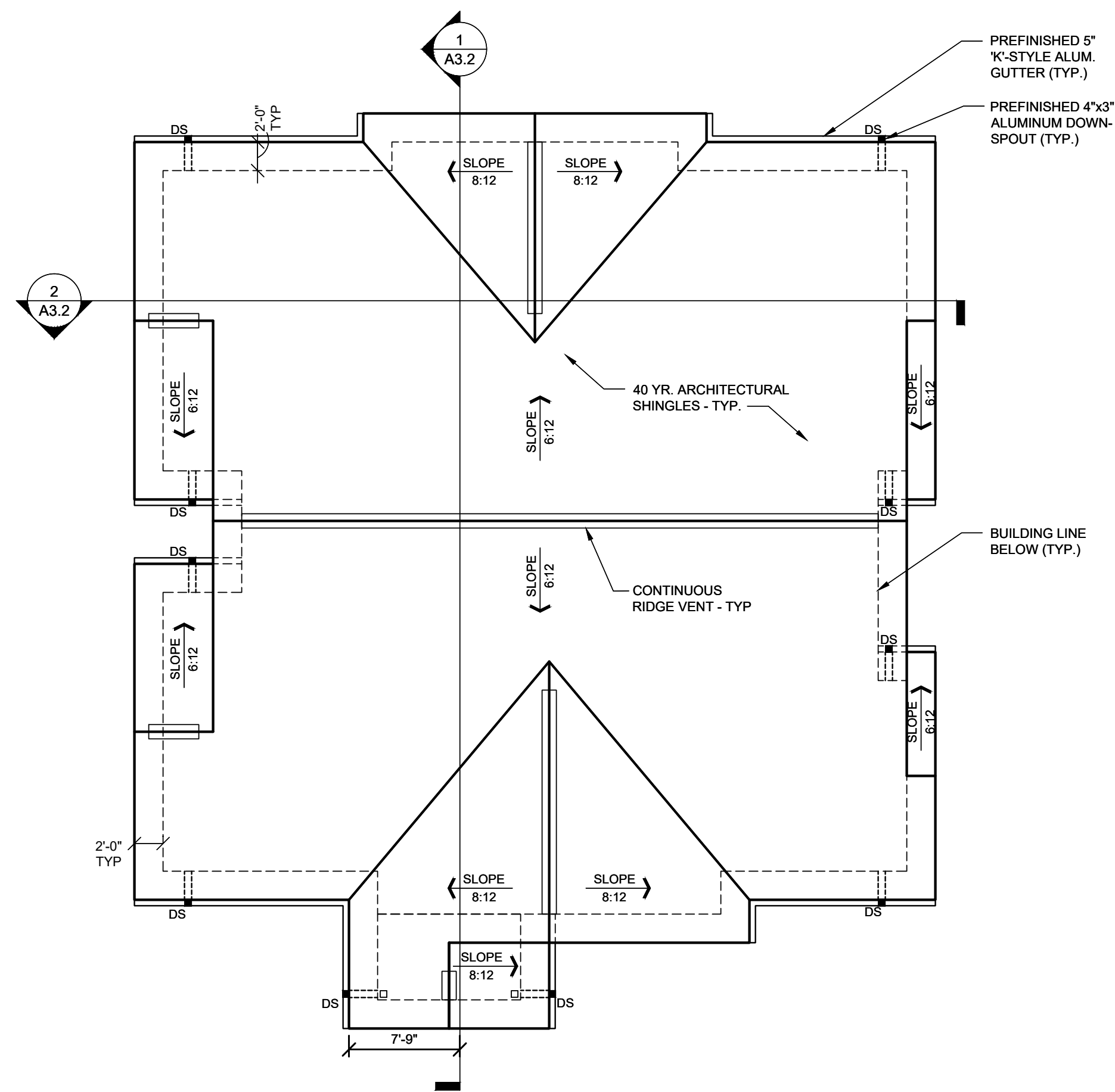
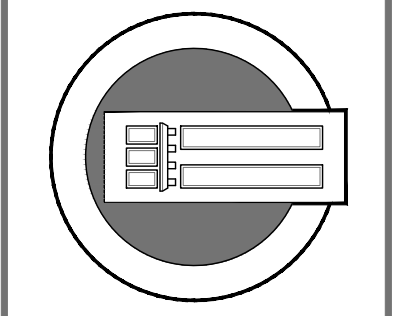


PACIFIC FLATS
4019 S. PACIFIC HWY
PHOENIX, OR 97501

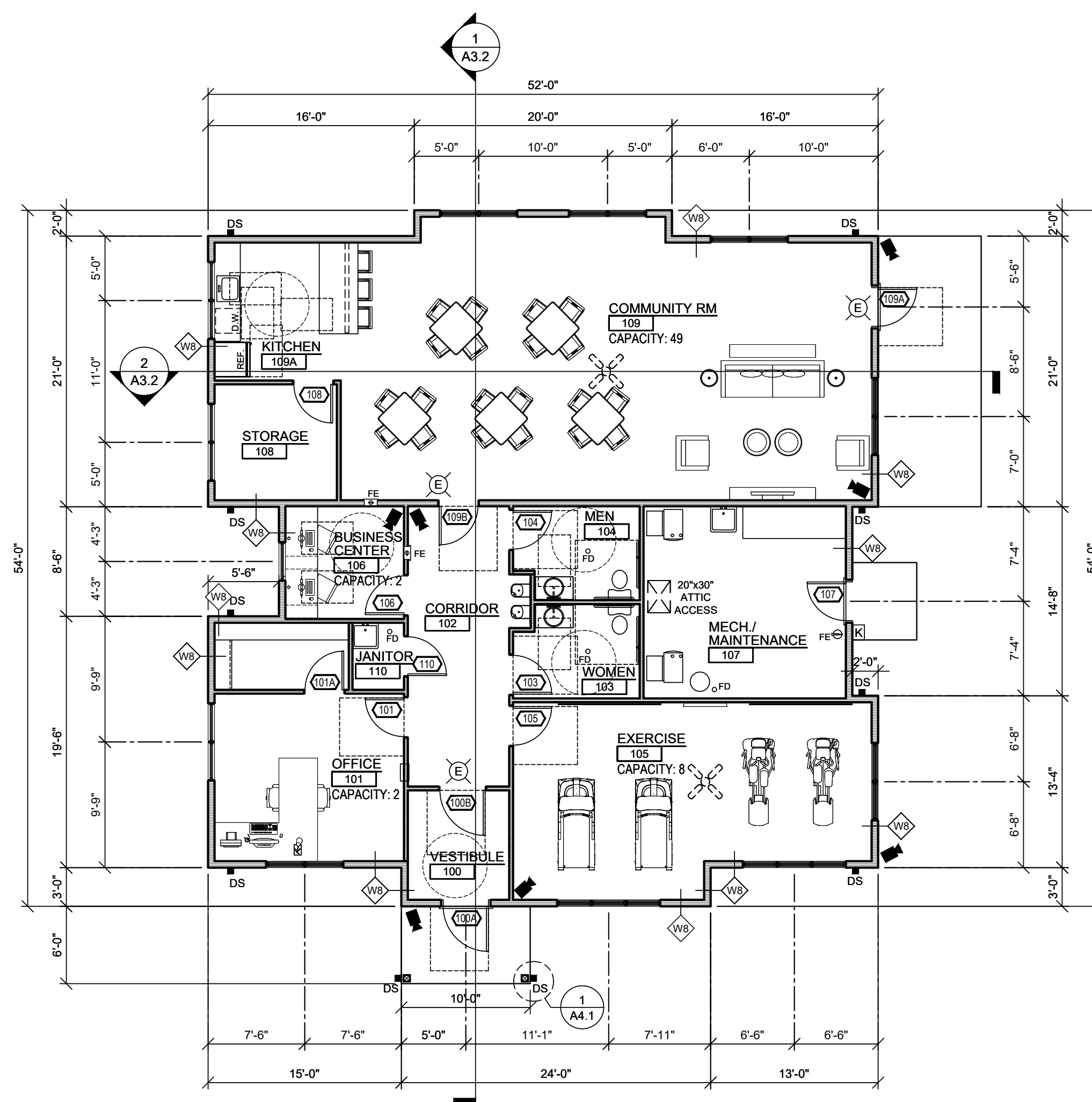
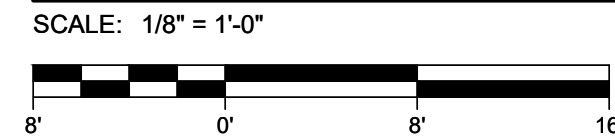
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SHEET
EP1.10

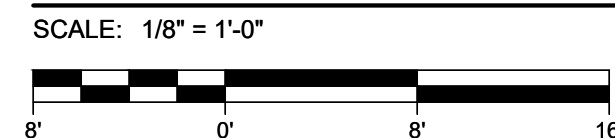
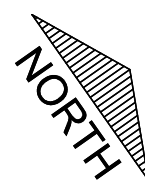
Lwanda & Company
Consulting Engineers
6136 Frisco Square Blvd.
Suite 400
Frisco, Texas 75034
Tel. 469.287.5488 Fax. 469.287.5489



ROOF PLAN
BUILDING #1 - CLUBHOUSE
 SCALE: 1/8" = 1'-0"



FIRST FLOOR PLAN
BUILDING #1 - CLUBHOUSE
 SCALE: 1/8" = 1'-0"



TYP. ROOF PLAN NOTES:

- TYP. ROOF CONSTRUCTION
- ARCHITECTURAL SHINGLES
19/32" PLYWOOD SHEATHING - SEE STRUC. PLANS
- PROVIDE AND INSTALL FLASHING FOR ALL ROOF PENETRATIONS PER ROOFING MANUFACTURER'S REQUIREMENTS AND SPECIFICATIONS.
- VERIFY WITH MECHANICAL PLANS FOR LOCATION AND SIZE OF ALL ROOF PENETRATIONS.
- ALL ROOF PENETRATIONS SHALL BE PAINTED TO MATCH ROOF SHINGLE COLOR.

TYP. ROOF PLAN SYMBOLS:

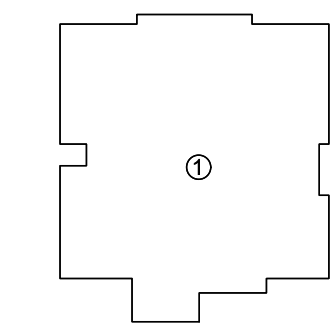
- DS DOWNSPOUT LOCATION - CONNECT TO STORM DRAIN (SEE CIVIL PLANS)
- ROOF SLOPE DIRECTION
- FACE OF WALL BELOW

CLUBHOUSE	ATTIC AREA	NET FREE VENTILATING 1500 OF ATTIC AREA	VENTING REQ'D UPPER ROOF/EAVE
1	3,138 S.F.	3,138 S.F. / 300 = 10.46 S.F.	5.23 S.F. / 5.23 S.F.

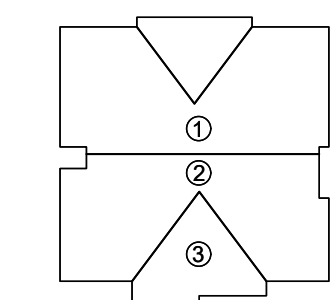
BUILDING	TYPE OF VENTING PROVIDED		VENTING PROVIDED
	RIDGE VENT	SOFFIT VENT	
CLUBHOUSE	UPPER ROOF	45 L.F. x 117	5.27 S.F.
	EAVE	59 L.F. x .09	5.31 S.F.

PORTION OF ROOF	ROOF AREA SERVED	LENGTH OF GUTTER	DOWNSPOUTS REQUIRED	DOWNSPOUTS PROVIDED
1	1,473 S.F.	67 L.F.	2 (1.29 SQ. IN EACH)	4 (12.0 SQ. IN EACH)
2	1,188 S.F.	39 L.F.	1 (2.08 SQ. IN EACH)	4 (12.0 SQ. IN EACH)
3	429 S.F.	20 L.F.	1 (0.75 SQ. IN EACH)	2 (12.0 SQ. IN EACH)

REFERENCE: 7TH EDITION OF S.M.A.C.N.A. ARCHITECTURAL SHEET METAL MANUAL
 CALCULATION BASED ON RAIN INTENSITY OF 2.1 IN/HR (10 YEAR)



ROOF VENTILATION LEGEND



GUTTER / DOWNSPOUT LEGEND

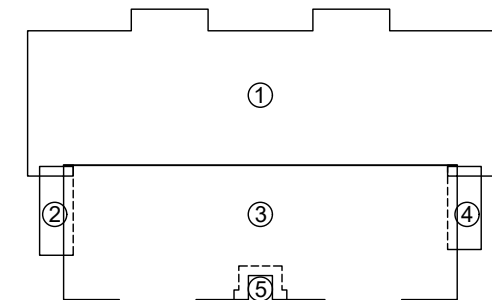
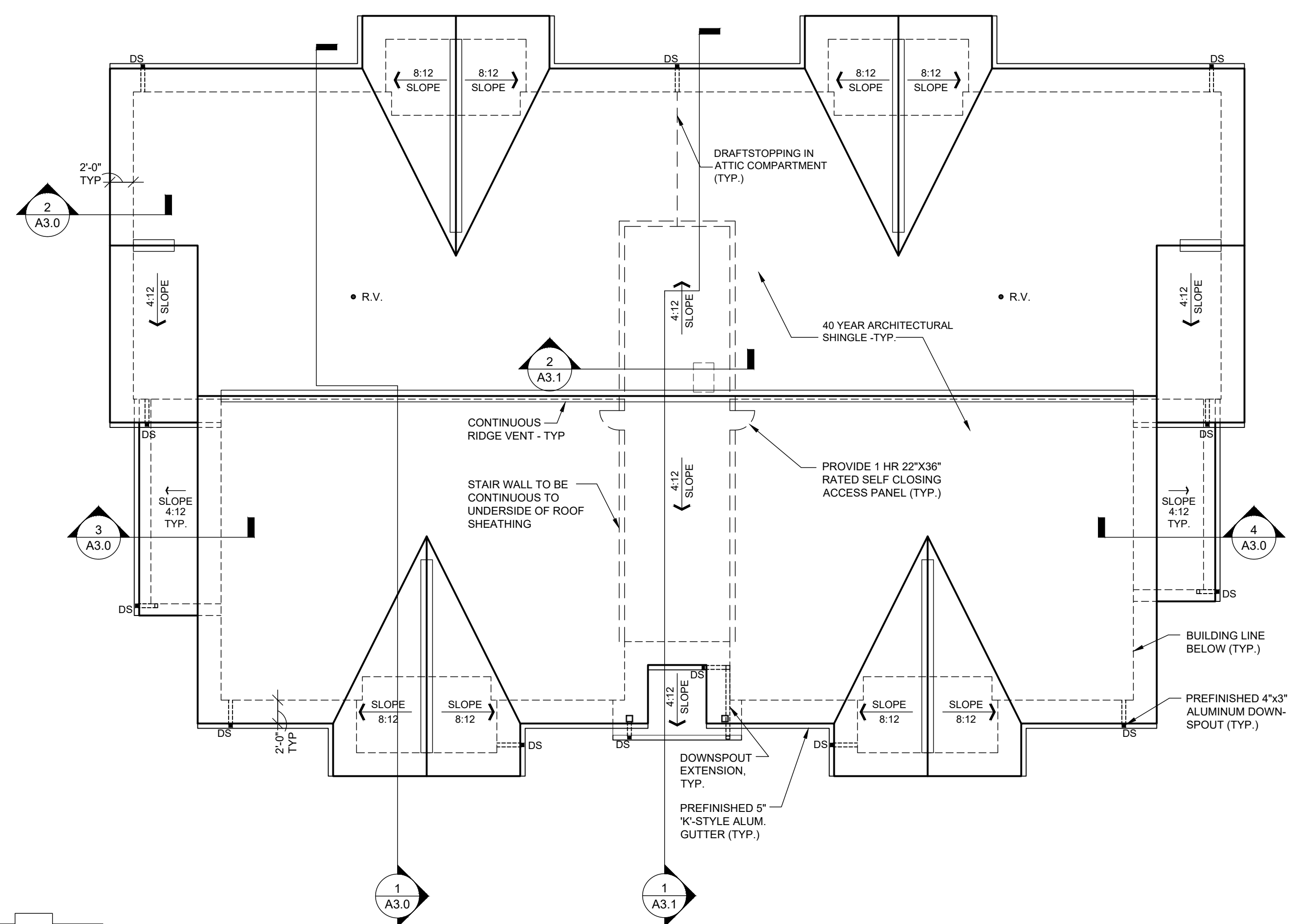
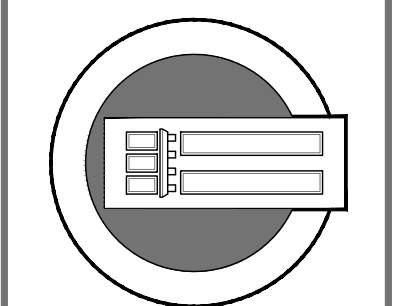
TYP. FLOOR PLAN NOTES:

- SEE AS SHEETS FOR ENLARGED UNIT PLANS
- VERIFY KEY LOCK BOX (KNOX BOX) REQUIREMENTS AND LOCATION WITH THE LOCAL FIRE DEPARTMENT
- ALL EXTERIOR DIMENSIONS ARE FROM FACE-OF-SHEATHING TO FACE-OF-SHEATHING UNLESS NOTED OTHERWISE
- ALL INTERIOR DIMENSIONS ARE FROM FACE-OF-STUD TO FACE-OF-STUD UNLESS NOTED OTHERWISE
- WHERE AN INTERIOR PARTITION WALL INTERSECTS A RATED DEMISING WALL, THE INTERIOR PARTITION WALL SHALL HAVE A DOUBLE STUD ADJACENT TO THE DEMISING WALL TO MAINTAIN THE INTEGRITY OF THE RATED DEMISING WALL
- HEARING / VISUALLY IMPAIRED UNITS TO INCLUDE THE FOLLOWING: AUDIBLE AND VISIBLE SIGNALING DEVICES PER ANS SECTION 1005, UNIT SMOKE DETECTION, UNIT CARBON MONOXIDE DETECTION, UNIT TELEPHONE, AND UNIT DOORBELL

ALL FIRE-ALARM, EXIT LIGHT AND EMERGENCY LIGHTING SHOWN ON PLAN IS SCHEMATIC AND IS PROVIDED ONLY FOR BUDGETING PURPOSES. CONTRACTOR SHALL PROVIDE CODE-COMPLIANT LAYOUT AND SHALL INCLUDE EMERGENCY LIGHTING SUBMITTAL AND ASSOCIATED COST.

TYP. FLOOR PLAN SYMBOLS:

- WALL TYPE - SEE SHEET A8.0
- FIRE EXTINGUISHER LOCATION (WALL MOUNTED) - SEE SHEET A8.0
- FIRE EXTINGUISHER LOCATION (CABINET IN WALL) - SEE SHEET A8.0
- KEY LOCK BOX (KNOX BOX) LOCATION - MOUNT AT 6'-0" ABOVE GRADE TO CENTER OF BOX - VERIFY LOCATION WITH F.D.
- HEARING / VISUALLY IMPAIRED UNIT
- FIRE DEPARTMENT CONNECTION LOCATION - PROVIDE SIGN THE STATES "FIRE SPRINKLER RISER ACCESS" WITH 1" H. RED LETTERS ON WHITE BACKGROUND AT 6" ABOVE GRADE - VERIFY LOCATION WITH F.D.
- R.V. RADON VERTICAL VENT - SEE MITIGATION PLANS FOR DETAILS
- EXIT SIGN LOCATION
- SECURITY CAMERA LOCATION
- INDICATES TYPE 'A' UNIT
- 1 HOUR RATED FIRE PARTITION, SEE SHEET A8.0

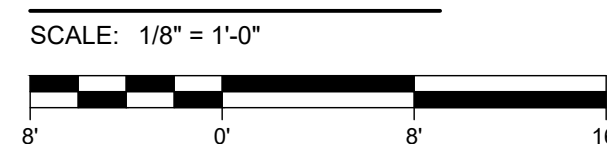


GUTTER / DOWNSPOUT LEGEND

BLDG. #2 - GUTTER / DOWNSPOUT CALCULATION				
PORTION OF ROOF	ROOF AREA SERVED	LENGTH OF GUTTER	DOWNSPOUTS REQUIRED	DOWNSPOUTS PROVIDED
1	2,903 S.F.	83 L.F.	2 (2.56 SQ. IN. EACH)	5 (12.0 SQ. IN. EACH)
2	130 S.F.	18 L.F.	1 (0.23 SQ. IN. EACH)	1 (12.0 SQ. IN. EACH)
3	2,415 S.F.	63 L.F.	2 (2.12 SQ. IN. EACH)	5 (12.0 SQ. IN. EACH)
4	121 S.F.	17 L.F.	1 (0.21 SQ. IN. EACH)	1 (12.0 SQ. IN. EACH)
5	78 S.F.	11 L.F.	1 (0.14 SQ. IN. EACH)	1 (12.0 SQ. IN. EACH)

REFERENCE: 7TH EDITION OF SMACNA ARCHITECTURAL SHEET METAL MANUAL
 CALCULATION BASED ON RAIN INTENSITY OF 2.1 INHR (10 YEAR)

ROOF PLAN BUILDING #2



ROOF VENTILATION LEGEND

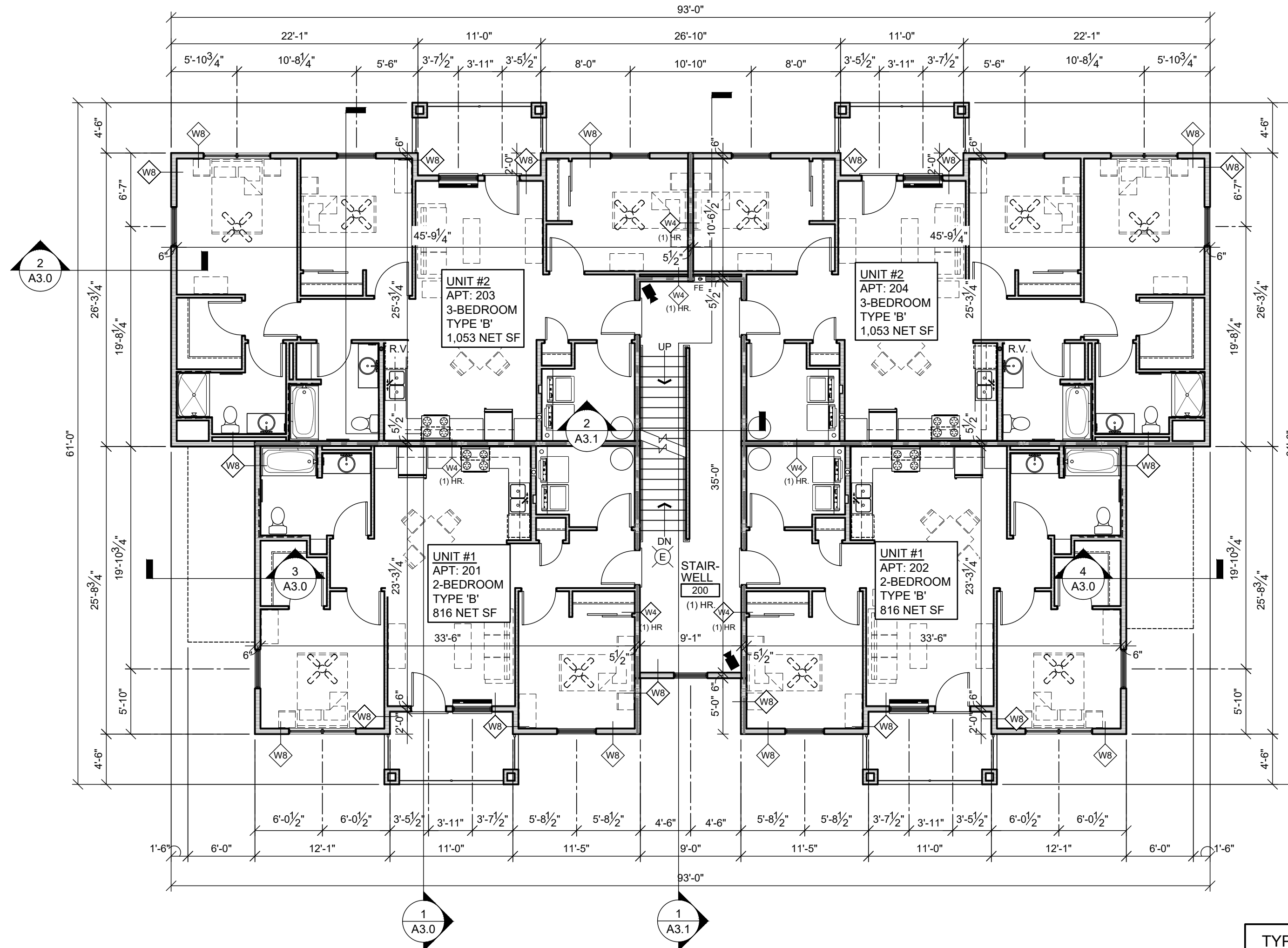
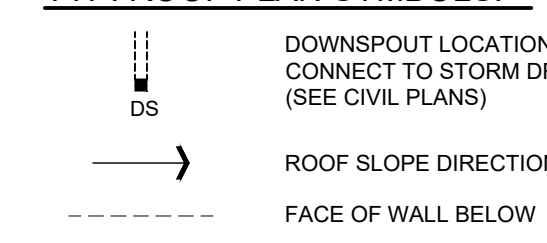
NET FREE VENTILATING AREA REQUIRED			
BUILDING #2	ATTIC AREA	NET FREE VENTILATING 1/300 OF ATTIC AREA	VENTING REQ'D UPPER ROOF/EAVE
SECTION 1	2,454 S.F.	2,454 S.F. / 300 = 8.18 S.F.	4.09 S.F. / 4.09 S.F.
SECTION 2	320 S.F.	320 S.F. / 300 = 1.07 S.F.	0.54 S.F. / 0.54 S.F.
SECTION 3	2,454 S.F.	2,454 S.F. / 300 = 8.18 S.F.	4.09 S.F. / 4.09 S.F.

NET FREE VENTILATING AREA PROVIDED			
BUILDING #2	TYPE OF VENTING PROVIDED		VENTING PROVIDED
	RIDGE VENT	117 S.F. PER L.F.	UPPER ROOF
SECTION 1	UPPER ROOF	35 L.F.	35 L.F. x .117
	EAVE	46 L.F.	46 L.F. x .09
SECTION 2	UPPER ROOF	5 L.F.	5 L.F. x .117
	EAVE	7 L.F.	7 L.F. x .09
SECTION 3	UPPER ROOF	35 L.F.	35 L.F. x .117
	EAVE	46 L.F.	46 L.F. x .09

TYP. ROOF PLAN NOTES:

- TYP. ROOF CONSTRUCTION
- ARCHITECTURAL SHINGLES
 18\"/>

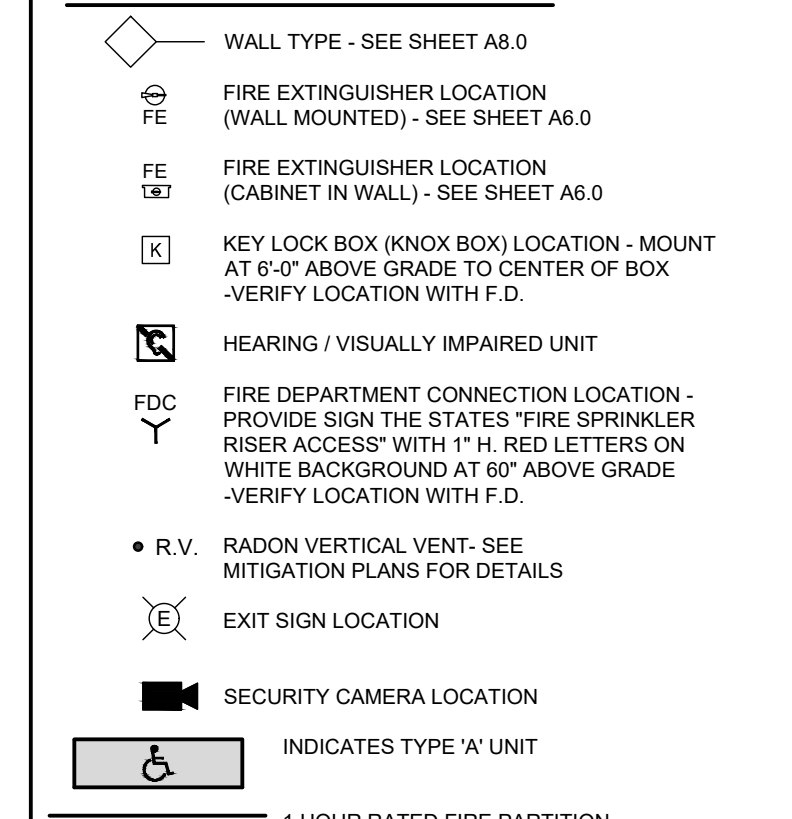
TYP. ROOF PLAN SYMBOLS:



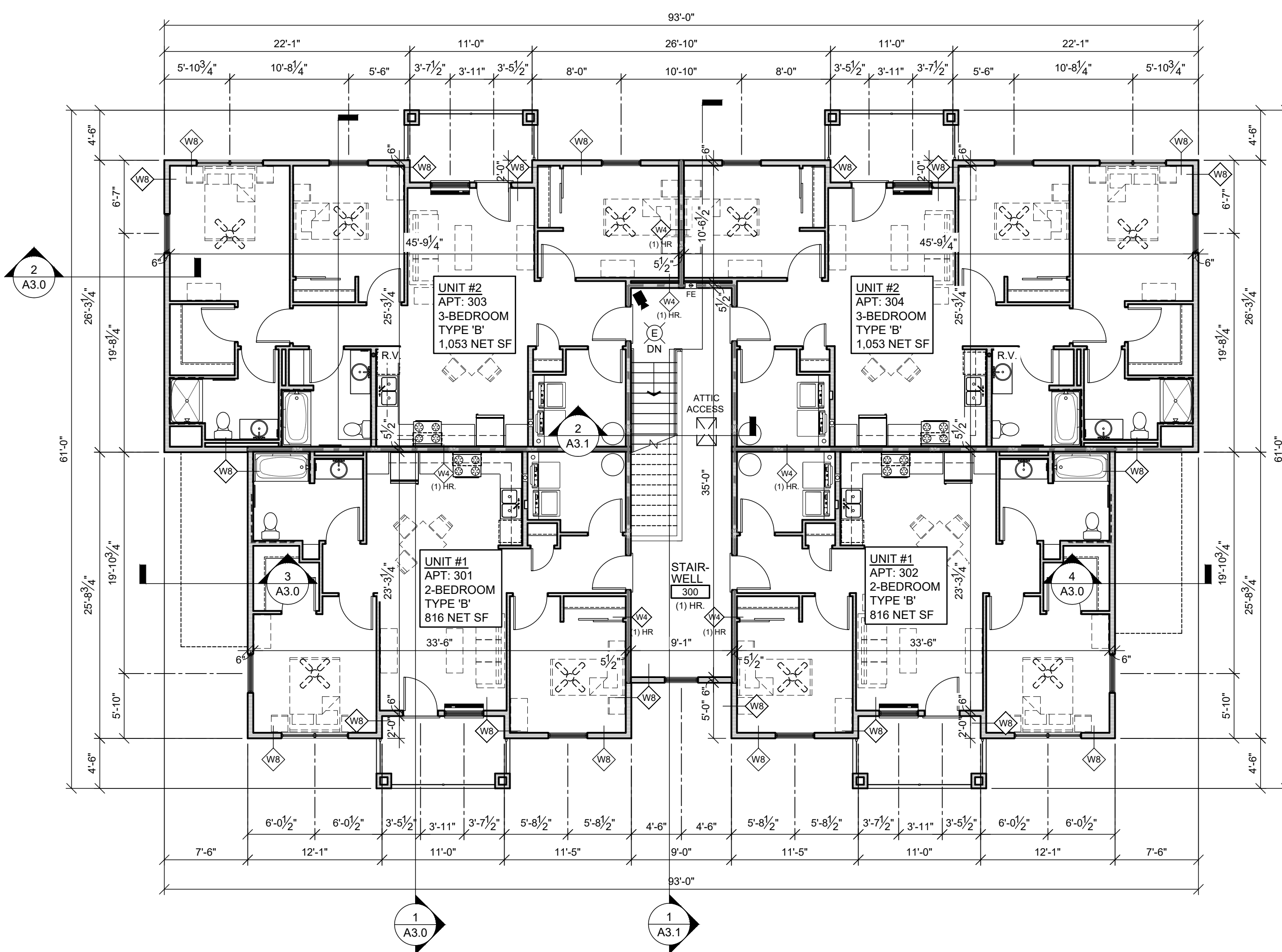
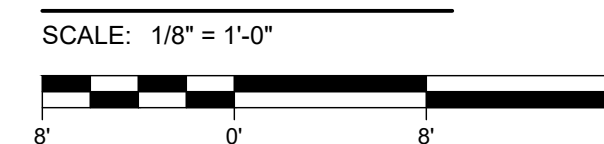
TYP. FLOOR PLAN NOTES:

- SEE AS SHEETS FOR ENLARGED UNIT PLANS
- VERIFY KEY LOCK BOX (KNOX BOX) REQUIREMENTS AND LOCATION WITH THE LOCAL FIRE DEPARTMENT
- ALL EXTERIOR DIMENSIONS ARE FROM FACE-OF-SHEATHING TO FACE-OF-SHEATHING UNLESS NOTED OTHERWISE
- ALL INTERIOR DIMENSIONS ARE FROM FACE-OF-STUD TO FACE-OF-STUD UNLESS NOTED OTHERWISE
- WHERE AN INTERIOR PARTITION WALL INTERSECTS A RATED DEMISING WALL, THE INTERIOR PARTITION WALL SHALL HAVE A DOUBLE STUD ADJACENT TO THE DEMISING WALL TO MAINTAIN THE INTEGRITY OF THE RATED DEMISING WALL
- HEARING / VISUALLY IMPAIRED UNITS TO INCLUDE THE FOLLOWING: AUDIBLE AND VISIBLE SIGNALING DEVICES PER ANSI SECTION 106; UNIT SMOKE DETECTION, UNIT CARBON MONOXIDE DETECTION, UNIT TELEPHONE, AND UNIT DOORBELL
- ALL FIRE-ALARM, EXIT LIGHT AND EMERGENCY LIGHTING SHOWN ON PLAN IS SCHEMATIC AND IS PROVIDED ONLY FOR BUDGETING PURPOSES. CONTRACTOR SHALL PROVIDE CODE-COMPLIANT LAYOUT AND SHALL INCLUDE EMERGENCY LIGHTING SUBMITTAL AND ASSOCIATED COST

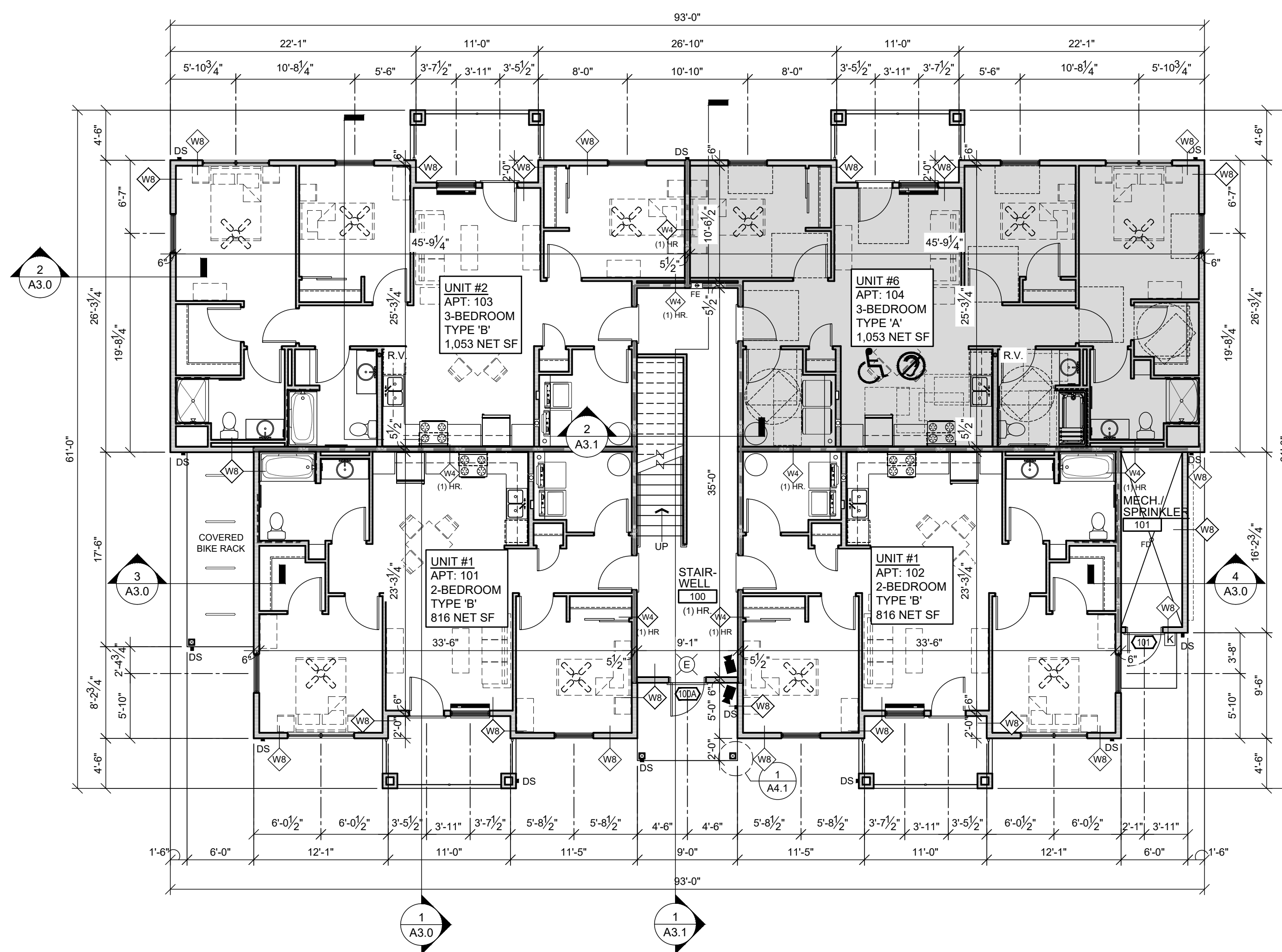
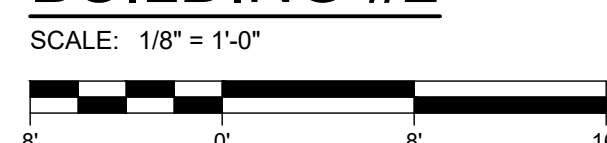
TYP. FLOOR PLAN SYMBOLS:



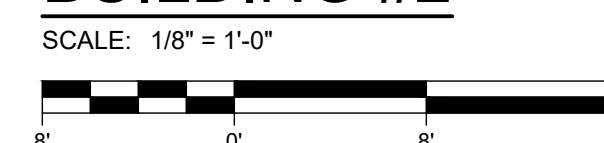
SECOND FLOOR PLAN BUILDING #2

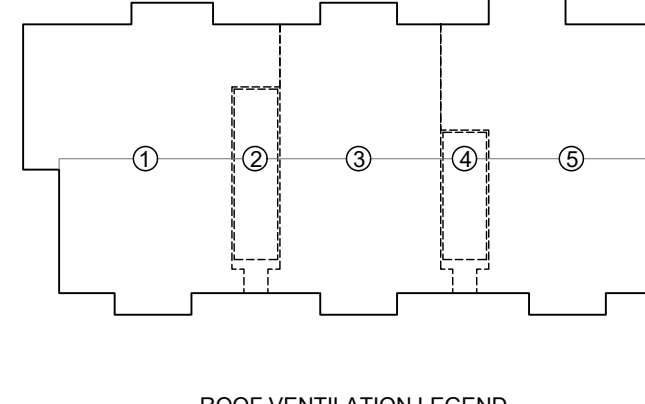
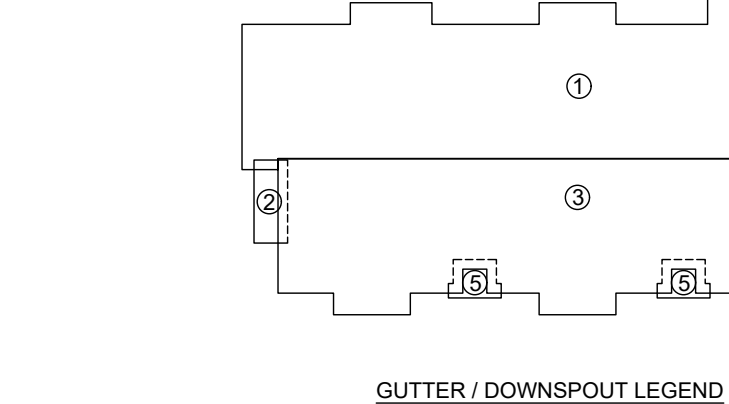
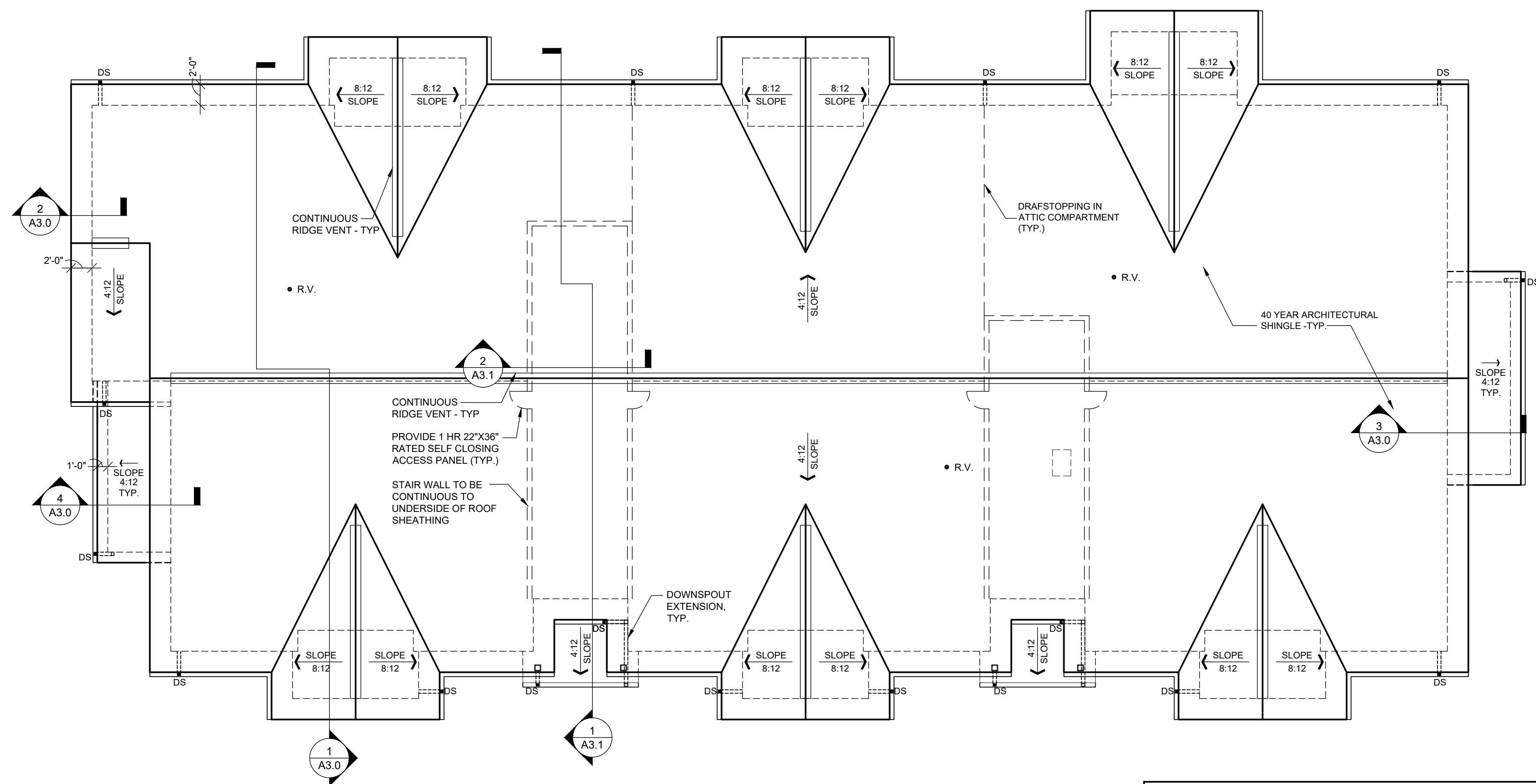


THIRD FLOOR PLAN BUILDING #2



FIRST FLOOR PLAN BUILDING #2





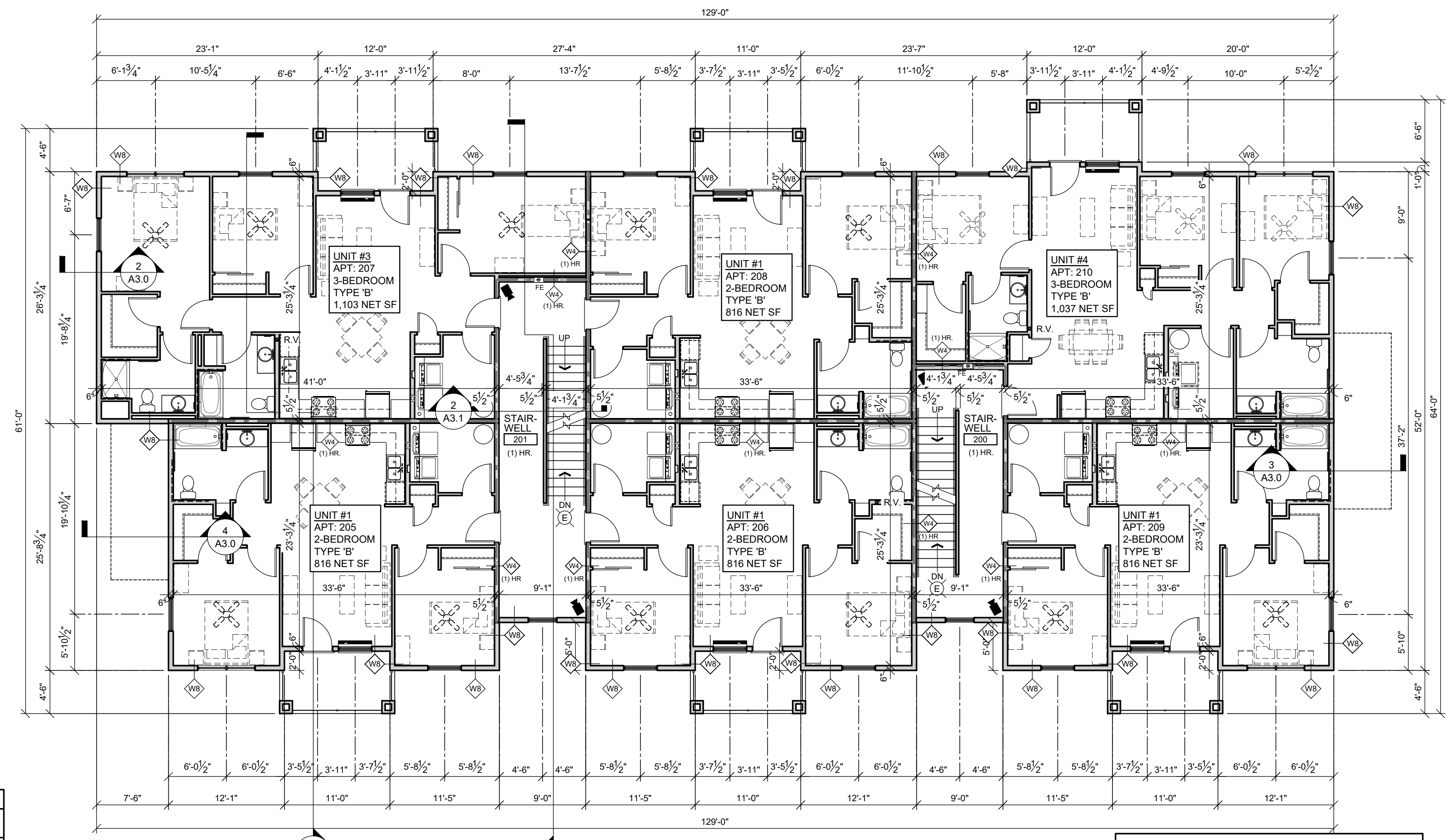
NET FREE VENTILATING AREA REQUIRED			
BUILDING #3	ATTIC AREA	NET FREE VENTILATING 1300 OF ATTIC AREA	VENTING REQ'D UPPER ROOF/LEAVE
SECTION 1	2,534 S.F.	2,534 S.F. / 300 = 8.45 S.F.	4.23 S.F. / 4.23 S.F.
SECTION 2	320 S.F.	320 S.F. / 300 = 1.07 S.F.	0.54 S.F. / 0.54 S.F.
SECTION 3	2,046 S.F.	2,046 S.F. / 300 = 6.82 S.F.	3.41 S.F. / 3.41 S.F.
SECTION 4	241 S.F.	241 S.F. / 300 = 0.80 S.F.	0.40 S.F. / 0.40 S.F.
SECTION 5	2,433 S.F.	2,433 S.F. / 300 = 8.11 S.F.	4.06 S.F. / 4.06 S.F.

NET FREE VENTILATING AREA PROVIDED			
BUILDING #3	TYPE OF VENTING PROVIDED		VENTING PROVIDED UPPER ROOF
	SOFFIT VENT	RIDGE VENT 1 1/2" S.F. PER L.F.	
SECTION 1	UPPER ROOF	37 L.F.	37 L.F. x 117 = 4,33 S.F.
	EAVE	49 L.F.	49 L.F. x 09 = 4,41 S.F.
SECTION 2	UPPER ROOF	5 L.F.	5 L.F. x 117 = 0,59 S.F.
	EAVE	7 L.F.	7 L.F. x 09 = 0,63 S.F.
SECTION 3	UPPER ROOF	30 L.F.	30 L.F. x 117 = 3,51 S.F.
	EAVE	39 L.F.	39 L.F. x 09 = 3,51 S.F.
SECTION 4	UPPER ROOF	4 L.F.	4 L.F. x 117 = 0,47 S.F.
	EAVE	6 L.F.	6 L.F. x 09 = 0,54 S.F.
SECTION 5	UPPER ROOF	35 L.F.	35 L.F. x 117 = 4,10 S.F.
	EAVE	46 L.F.	46 L.F. x 09 = 4,14 S.F.

BLDG. #3 - GUTTER / DOWNSPOUT CALCULATION			
PORTION OF ROOF	ROOF AREA SERVED	LENGTH OF GUTTER	DOWNSPOUTS PROVIDED
1	4,001 S.F.	116 L.F.	3 (2.34 SQ. IN EACH)
2	121 S.F.	17 L.F.	1 (0.21 SQ. IN EACH)
3	3,680 S.F.	104 L.F.	3 (2.15 SQ. IN EACH)
4	142 S.F.	20 L.F.	1 (0.25 SQ. IN EACH)
5	78 S.F.	11 L.F.	1 (0.14 SQ. IN EACH)

REFERENCE - 7TH EDITION OF SMACNA ARCHITECTURAL SHEET METAL MANUAL
 CALCULATION BASED ON RAIN INTENSITY OF 2.1 IN/HR (10 YEAR)

ROOF PLAN BUILDING #3
 SCALE: 1/8" = 1'-0"



TYP. ROOF PLAN NOTES:

- TYP. ROOF CONSTRUCTION
- ARCHITECTURAL SHINGLES
- 18" O.C. PLYWOOD SHEATHING - SEE STRUC. PLANS
- PROVIDE AND INSTALL FLASHING FOR ALL ROOF PENETRATIONS PER ROOFING MANUFACTURER'S REQUIREMENTS AND SPECIFICATIONS.
- VERIFY WITH MECHANICAL PLANS FOR LOCATION AND SIZE OF ALL ROOF PENETRATIONS.
- ALL ROOF PENETRATIONS SHALL BE PAINTED TO MATCH ROOF SHINGLE COLOR.

TYP. ROOF PLAN SYMBOLS:

- DOWNSPOUT LOCATION - CONNECT TO STORM DRAIN (SEE CIVIL PLANS)
- ROOF SLOPE DIRECTION
- FACE OF WALL BELOW

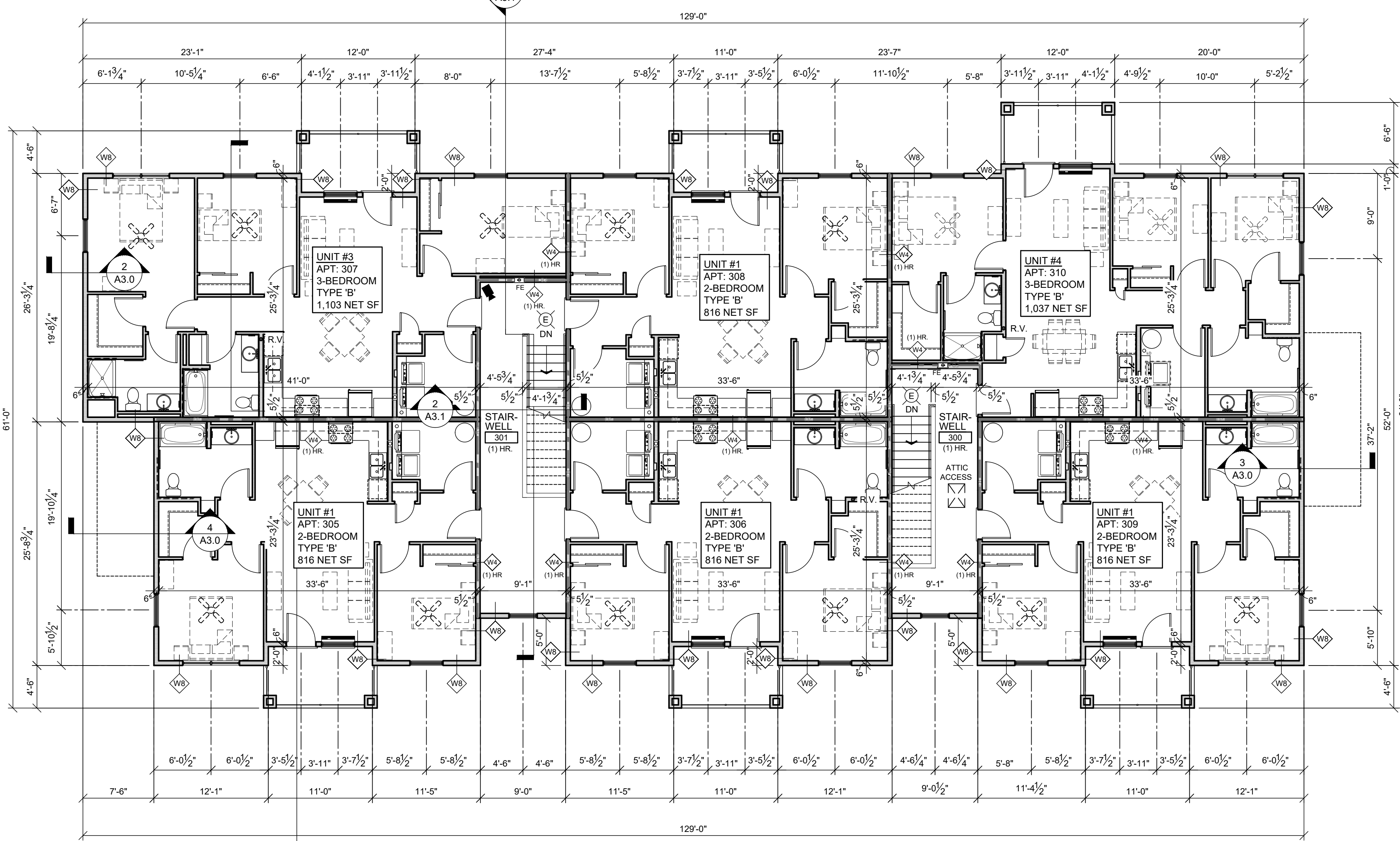
SECOND FLOOR PLAN BUILDING #3
 SCALE: 1/8" = 1'-0"

TYP. FLOOR PLAN NOTES:

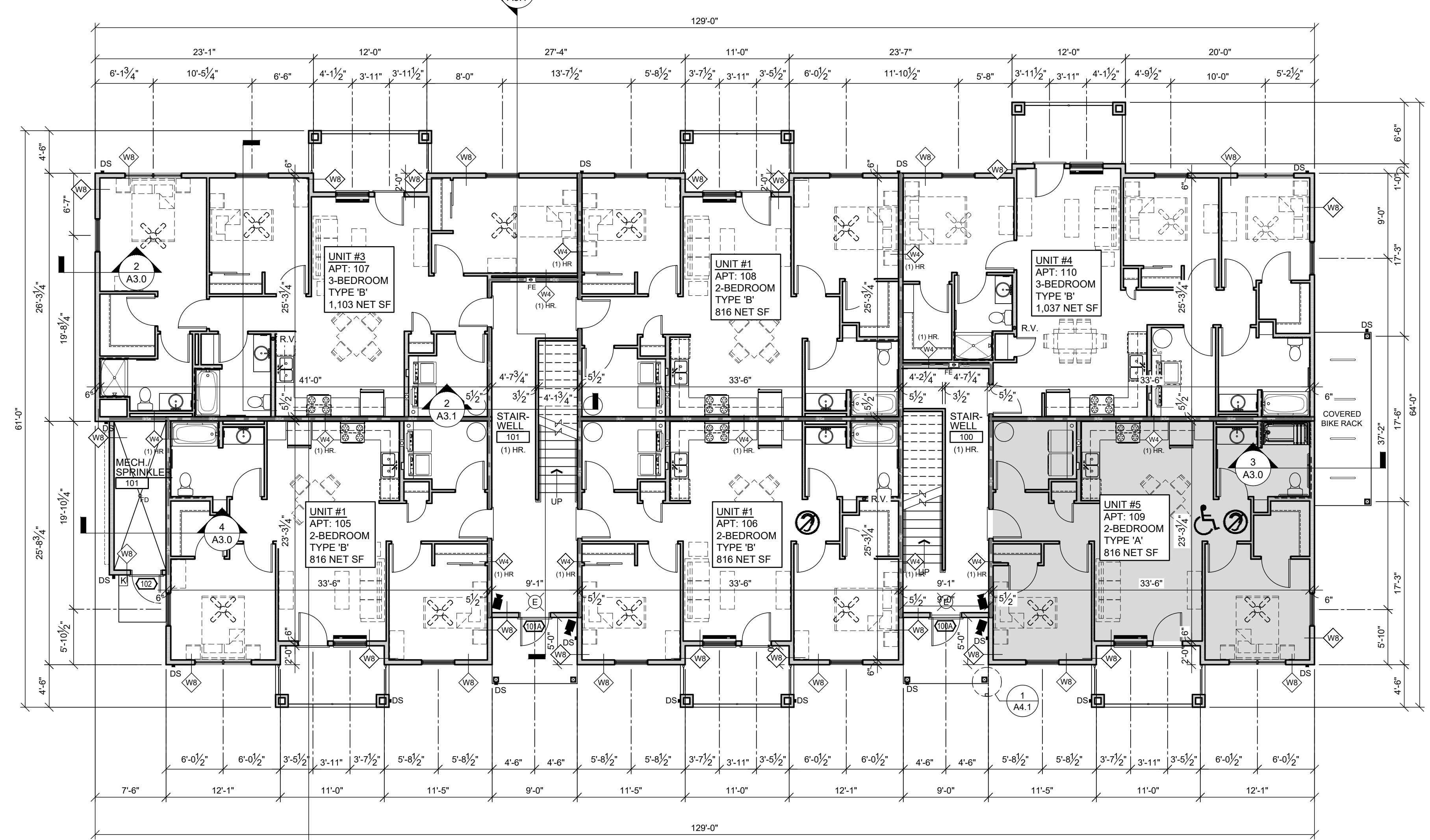
- SEE AS SHEETS FOR ENLARGED UNIT PLANS
- VERIFY KEY LOCK BOX (KNOX BOX) REQUIREMENTS AND LOCATION WITH THE LOCAL FIRE DEPARTMENT
- ALL EXTERIOR DIMENSIONS ARE FROM FACE-OF-SHEATHING TO FACE-OF-SHEATHING UNLESS NOTED OTHERWISE
- ALL INTERIOR DIMENSIONS ARE FROM FACE-OF-STUD TO FACE-OF-STUD UNLESS NOTED OTHERWISE
- WHERE AN INTERIOR PARTITION WALL INTERSECTS A RATED DEMISING WALL, THE INTERIOR PARTITION WALL SHALL HAVE A DOUBLE STUD ADJACENT TO THE DEMISING WALL TO MAINTAIN THE INTEGRITY OF THE RATED DEMISING WALL
- HEARING / VISUALLY IMPAIRED UNITS TO INCLUDE THE FOLLOWING: AUDIBLE AND VISIBLE SIGNALING DEVICES PER ANSI SECTION 1005; UNIT SMOKE DETECTION, UNIT CARBON MONOXIDE DETECTION, UNIT TELEPHONE, AND UNIT DOORBELL
- ALL FIRE-ALARM, EXIT LIGHT AND EMERGENCY LIGHTING SHOWN ON PLAN IS SCHEMATIC AND IS PROVIDED ONLY FOR BUDGETING PURPOSES. CONTRACTOR SHALL PROVIDE CODE-COMPLIANT LAYOUT AND SHALL INCLUDE EMERGENCY LIGHTING SUBMITTAL AND ASSOCIATED COST.

TYP. FLOOR PLAN SYMBOLS:

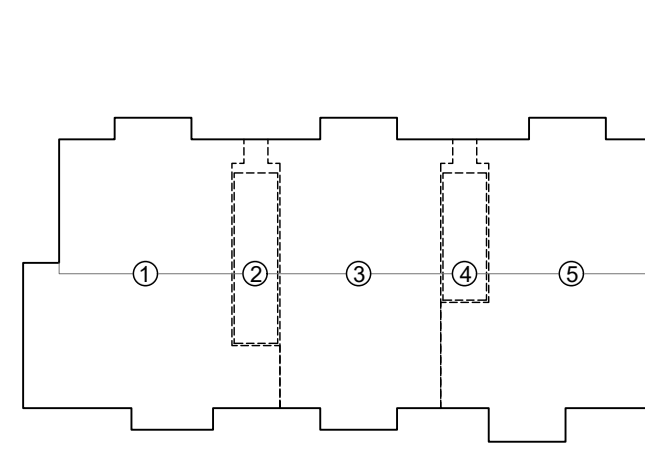
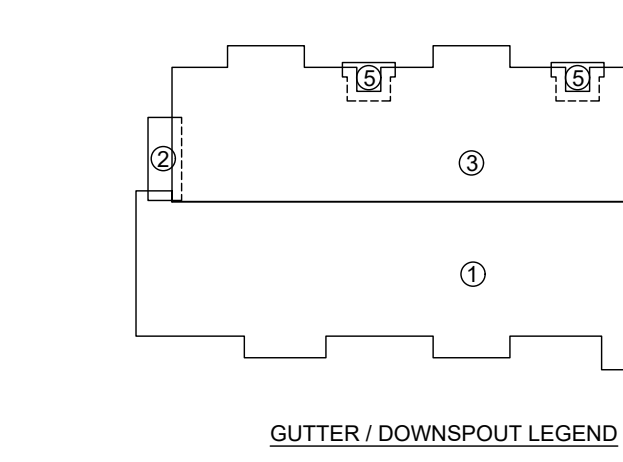
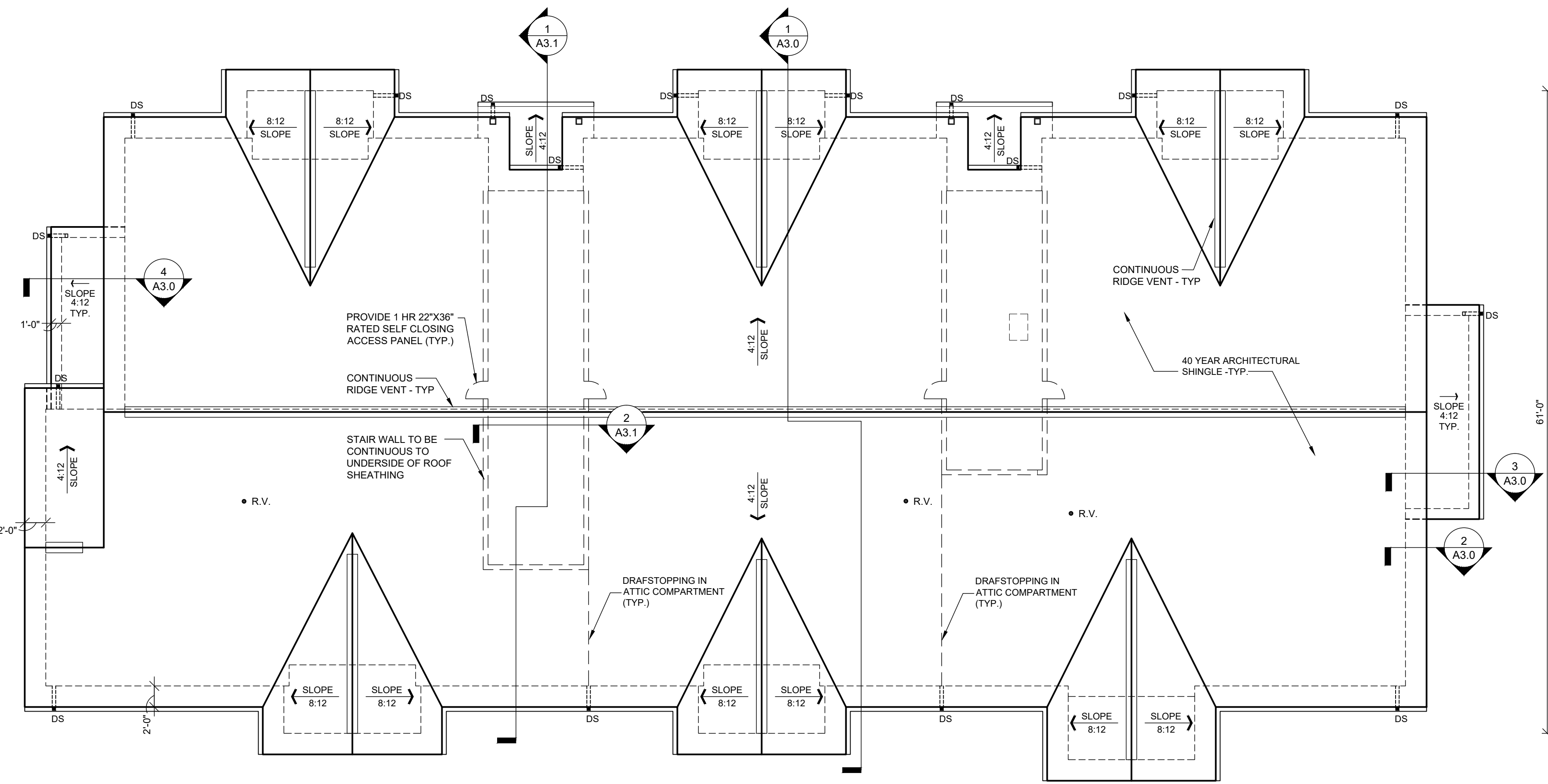
- WALL TYPE - SEE SHEET A8.0
- FIRE EXTINGUISHER LOCATION (WALL MOUNTED) - SEE SHEET A8.0
- FE FIRE EXTINGUISHER LOCATION (CABINET IN WALL) - SEE SHEET A8.0
- FB FIRE EXTINGUISHER LOCATION (CABINET IN WALL) - SEE SHEET A8.0
- KB KEY LOCK BOX (KNOX BOX) LOCATION - MOUNT AT 4'-0" ABOVE GRADE TO CENTER OF BOX - VERIFY LOCATION WITH F.D.
- H/V HEARING / VISUALLY IMPAIRED UNIT
- FDC FIRE DEPARTMENT CONNECTION LOCATION - PROVIDE SIGN THE STATES "FIRE SPRINKLER RISER ACCESS" WITH "1" IN RED LETTERS ON WHITE BACKGROUND AT 6" ABOVE GRADE - VERIFY LOCATION WITH F.D.
- R.V. RADON VERTICAL VENT - SEE MITIGATION PLANS FOR DETAILS
- ES EXIT SIGN LOCATION
- SC SECURITY CAMERA LOCATION
- INDICATES TYPE 'A' UNIT
- 1 HOUR RATED FIRE PARTITION - SEE SHEET A8.0



THIRD FLOOR PLAN BUILDING #3
 SCALE: 1/8" = 1'-0"



FIRST FLOOR PLAN BUILDING #3
 SCALE: 1/8" = 1'-0"



BLDG. #4 - GUTTER / DOWNSPOUT CALCULATION

PORTION OF ROOF	ROOF AREA SERVED	LENGTH OF GUTTER	DOWNSPOUTS REQUIRED	DOWNSPOUTS PROVIDED
1	4,001 S.F.	116 L.F.	3 (2.34 SQ. IN EACH)	5 (12.0 SQ. IN. EACH)
2	121 S.F.	17 L.F.	1 (0.21 SQ. IN. EACH)	1 (12.0 SQ. IN. EACH)
3	3,680 S.F.	104 L.F.	3 (2.15 SQ. IN. EACH)	- (12.0 SQ. IN. EACH)
4	142 S.F.	20 L.F.	1 (0.25 SQ. IN. EACH)	- (12.0 SQ. IN. EACH)
5	78 S.F.	11 L.F.	1 (0.14 SQ. IN. EACH)	- (12.0 SQ. IN. EACH)

REFERENCE - 7TH EDITION OF SMACNA ARCHITECTURAL SHEET METAL MANUAL
 CALCULATION BASED ON RAIN INTENSITY OF 2.1 IN/HR (10 YEAR)

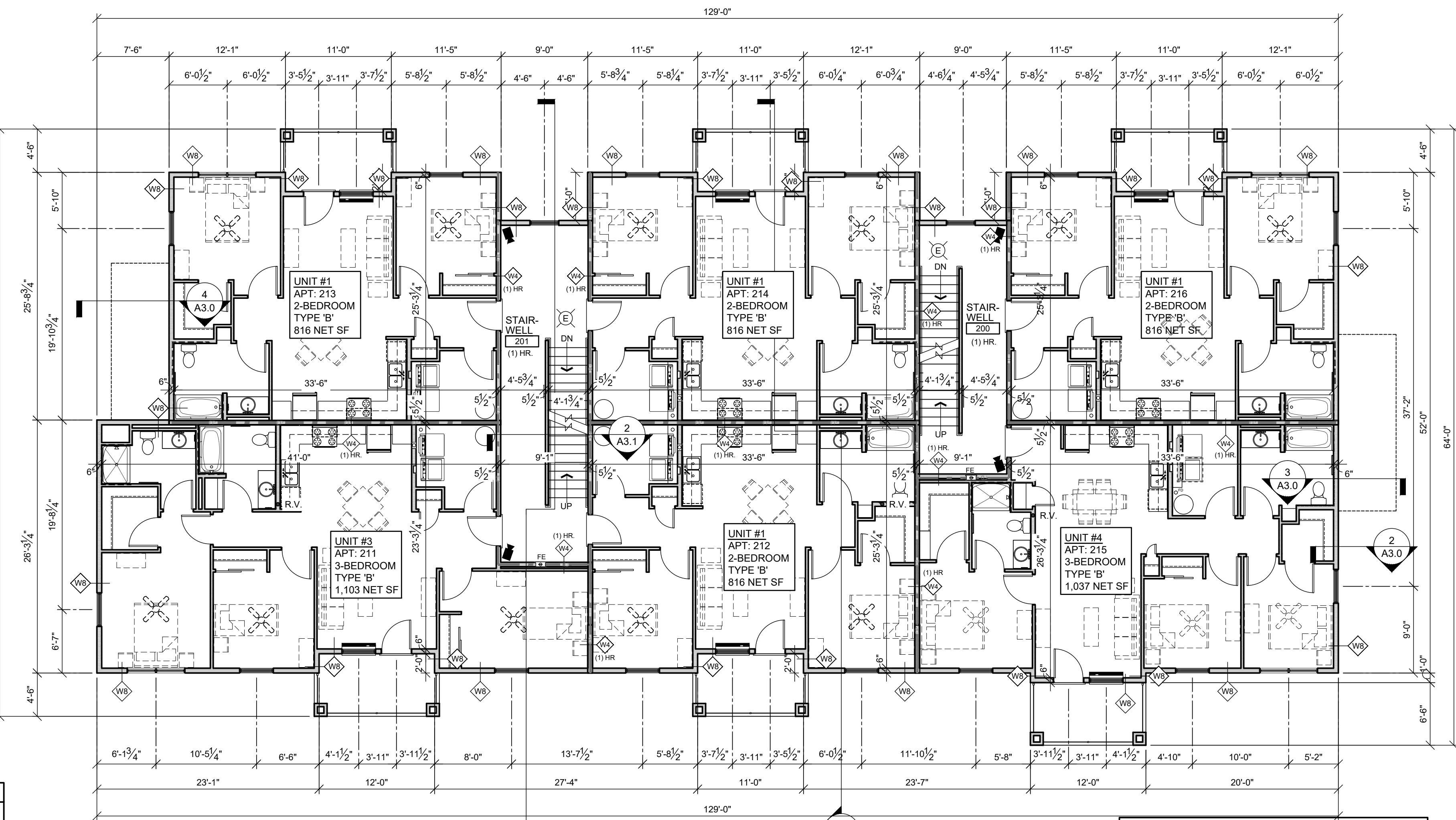
ROOF PLAN BUILDING #4
 SCALE: 1/8" = 1'-0"

NET FREE VENTILATING AREA REQUIRED

BUILDING #4	ATTIC AREA	NET FREE VENTILATING 1/300 OF ATTIC AREA	VENTING REQ'D UPPER ROOF/EAVE
SECTION 1	2,534 S.F.	2,534 S.F. / 300 = 8.45 S.F.	4.23 S.F. / 4.23 S.F.
SECTION 2	320 S.F.	320 S.F. / 300 = 1.07 S.F.	0.54 S.F. / 0.54 S.F.
SECTION 3	2,045 S.F.	2,045 S.F. / 300 = 6.82 S.F.	3.41 S.F. / 3.41 S.F.
SECTION 4	241 S.F.	241 S.F. / 300 = 0.80 S.F.	0.40 S.F. / 0.40 S.F.
SECTION 5	2,433 S.F.	2,433 S.F. / 300 = 8.11 S.F.	4.06 S.F. / 4.06 S.F.

NET FREE VENTILATING AREA PROVIDED

BUILDING #4	TYPE OF VENTING PROVIDED		VENTING PROVIDED	
	RIDGE VENT	117 S.F. PER L.F.		UPPER ROOF
SECTION 1	UPPER ROOF	37 L.F.	37 L.F. x 117	4.33 S.F.
	EAVE	49 L.F.	49 L.F. x .09	4.41 S.F.
SECTION 2	UPPER ROOF	5 L.F.	5 L.F. x 117	0.59 S.F.
	EAVE	7 L.F.	7 L.F. x .09	0.63 S.F.
SECTION 3	UPPER ROOF	30 L.F.	30 L.F. x 117	3.51 S.F.
	EAVE	39 L.F.	39 L.F. x .09	3.51 S.F.
SECTION 4	UPPER ROOF	4 L.F.	4 L.F. x 117	0.47 S.F.
	EAVE	6 L.F.	6 L.F. x .09	0.54 S.F.
SECTION 5	UPPER ROOF	35 L.F.	35 L.F. x 117	4.10 S.F.
	EAVE	46 L.F.	46 L.F. x .09	4.14 S.F.



TYP. ROOF PLAN NOTES:

- TYP. ROOF CONSTRUCTION
- ARCHITECTURAL SHINGLES
- 1802P FLYWOOD SHEATHING - SEE STRUC. PLANS
- PROVIDE AND INSTALL FLASHING FOR ALL ROOF PENETRATIONS PER ROOFING MANUFACTURER'S REQUIREMENTS AND SPECIFICATIONS.
- VERIFY WITH MECHANICAL PLANS FOR LOCATION AND SIZE OF ALL ROOF PENETRATIONS.
- ALL ROOF PENETRATIONS SHALL BE PAINTED TO MATCH ROOF SHINGLE COLOR.

TYP. ROOF PLAN SYMBOLS:

- DOWNSPOUT LOCATION - CONNECT TO STORM DRAIN (SEE CIVIL PLANS)
- ROOF SLOPE DIRECTION
- FACE OF WALL BELOW

SECOND FLOOR PLAN BUILDING #4
 SCALE: 1/8" = 1'-0"

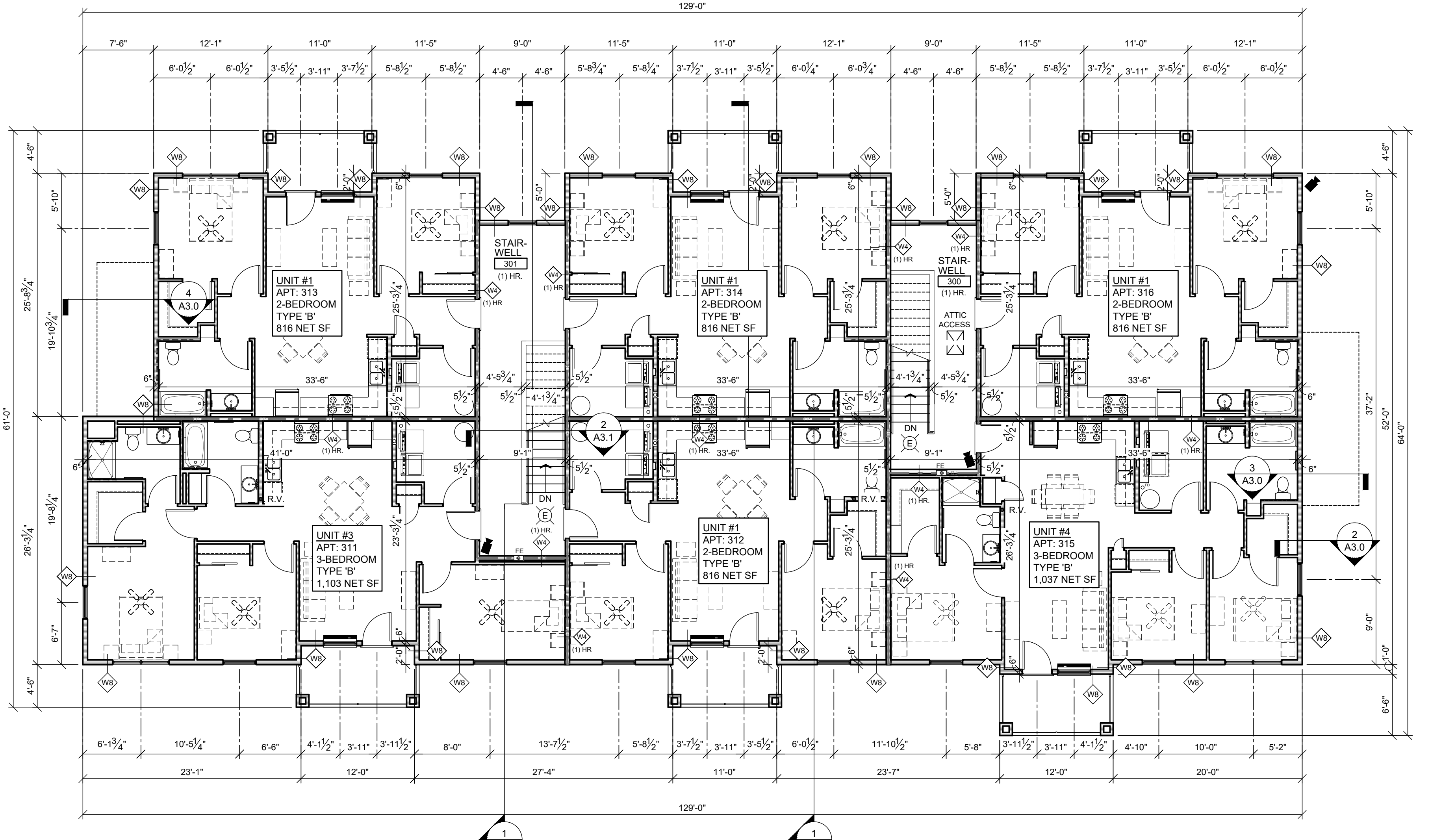
TYP. FLOOR PLAN NOTES:

- SEE AS SHEETS FOR ENLARGED UNIT PLANS
- VERIFY KEY LOCK BOX (KNOX BOX) REQUIREMENTS AND LOCATION WITH THE LOCAL FIRE DEPARTMENT
- ALL EXTERIOR DIMENSIONS ARE FROM FACE-OF-SHEATHING TO FACE-OF-SHEATHING UNLESS NOTED OTHERWISE
- ALL INTERIOR DIMENSIONS ARE FROM FACE-OF-STUD TO FACE-OF-STUD UNLESS NOTED OTHERWISE
- WHERE AN INTERIOR PARTITION WALL INTERSECTS A RATED DEMISING WALL, THE INTERIOR PARTITION WALL SHALL HAVE A DOUBLE STUD ADJACENT TO THE DEMISING WALL TO MAINTAIN THE INTEGRITY OF THE RATED DEMISING WALL
- HEARING / VISUALLY IMPAIRED UNITS TO INCLUDE THE FOLLOWING: AUDIBLE AND VISIBLE SIGNALING DEVICES PER ANSIS SECTION 1005; UNIT SMOKE DETECTION, UNIT CARBON MONOXIDE DETECTION, UNIT TELEPHONE, AND UNIT DOORBELL

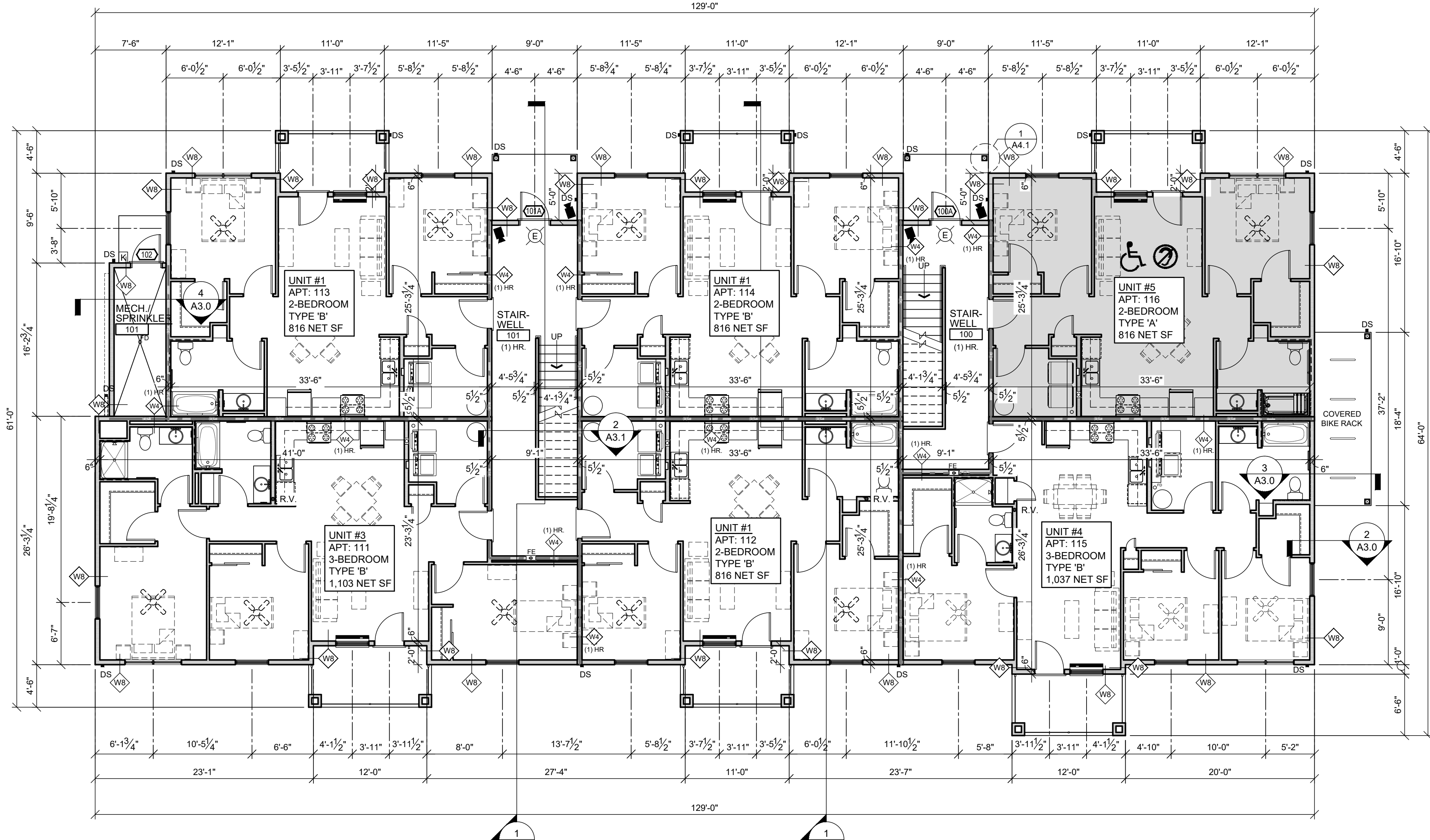
ALL FIRE-ALARM, EXIT LIGHT AND EMERGENCY LIGHTING SHOWN ON PLAN IS SCHEMATIC AND IS PROVIDED ONLY FOR BUDGETING PURPOSES. CONTRACTOR SHALL PROVIDE CODE-COMPLIANT LAYOUT AND SHALL INCLUDE EMERGENCY LIGHTING SUBMITTAL AND ASSOCIATED COST.

TYP. FLOOR PLAN SYMBOLS:

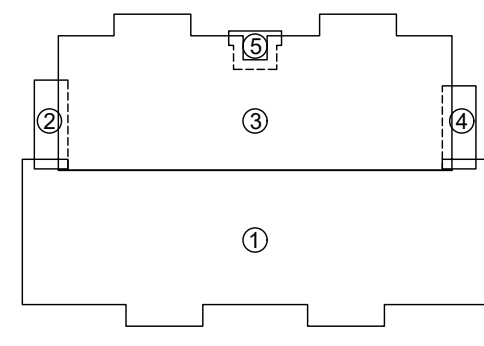
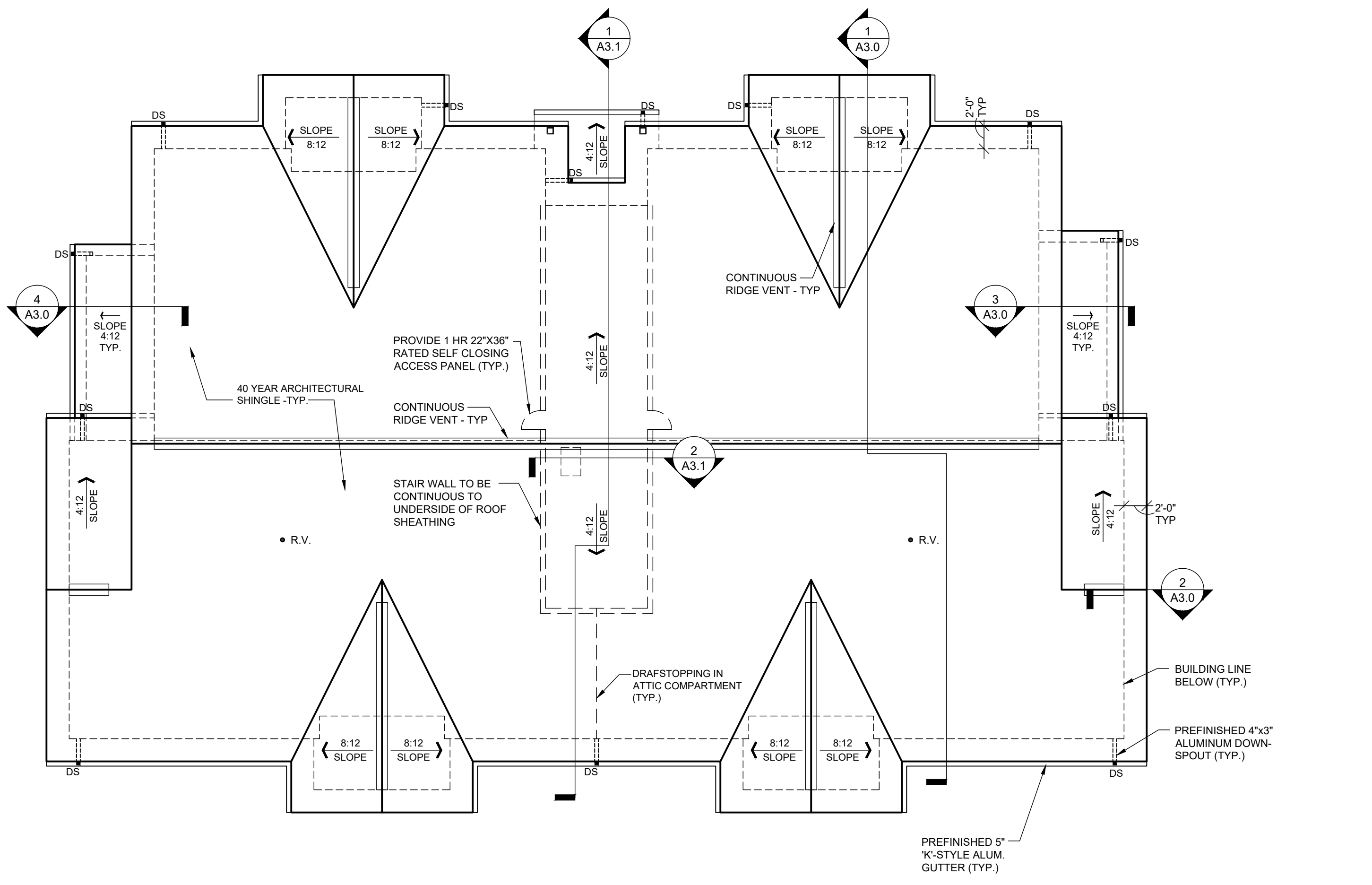
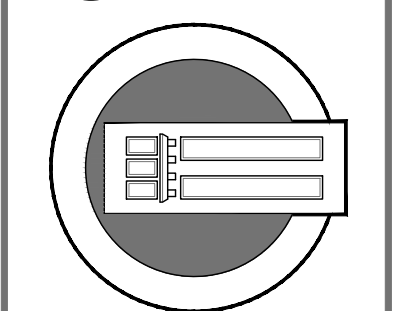
- WALL TYPE - SEE SHEET A8.0
- FIRE EXTINGUISHER LOCATION (WALL MOUNTED) - SEE SHEET A8.0
- FIRE EXTINGUISHER LOCATION (CABINET IN WALL) - SEE SHEET A6.0
- KEY LOCK BOX (KNOX BOX) LOCATION - MOUNT AT 6'-0" ABOVE GRADE TO CENTER OF BOX - VERIFY LOCATION WITH F.D.
- HEARING / VISUALLY IMPAIRED UNIT
- FIRE DEPARTMENT CONNECTION LOCATION - PROVIDE SIGN THE STATES "FIRE SPRINKLER RISER ACCESS" WITH 1" RED LETTERS ON WHITE BACKGROUND AT 6" ABOVE GRADE - VERIFY LOCATION WITH F.D.
- R.V. RADON VERTICAL VENT - SEE MITIGATION PLANS FOR DETAILS
- EXIT SIGN LOCATION
- SECURITY CAMERA LOCATION
- INDICATES TYPE 'A' UNIT
- 1 HOUR RATED FIRE PARTITION - SEE SHEET A8.0



THIRD FLOOR PLAN BUILDING #4
 SCALE: 1/8" = 1'-0"

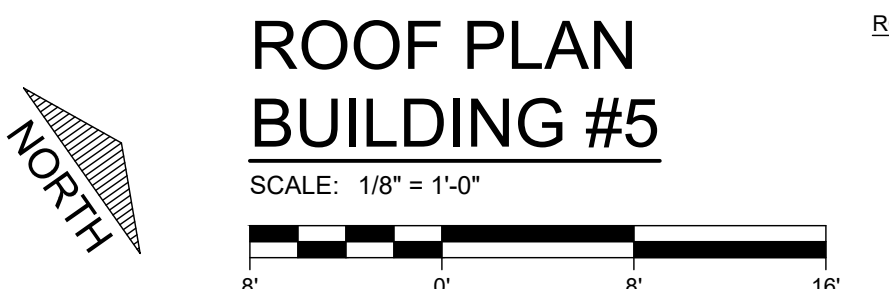


FIRST FLOOR PLAN BUILDING #4
 SCALE: 1/8" = 1'-0"



BLDG. #5 - GUTTER / DOWNSPOUT CALCULATION

PORTION OF ROOF	ROOF AREA SERVED	LENGTH OF GUTTER	DOWNSPOUTS REQUIRED	DOWNSPOUTS PROVIDED
1	2,903 S.F.	83 L.F.	2 (2.55 SQ. IN EACH)	5 (12.0 SQ. IN. EACH)
2	130 S.F.	18 L.F.	1 (0.23 SQ. IN. EACH)	1 (12.0 SQ. IN. EACH)
3	2,415 S.F.	63 L.F.	2 (2.12 SQ. IN. EACH)	5 (12.0 SQ. IN. EACH)
4	121 S.F.	17 L.F.	1 (0.21 SQ. IN. EACH)	1 (12.0 SQ. IN. EACH)
5	78 S.F.	11 L.F.	1 (0.14 SQ. IN. EACH)	1 (12.0 SQ. IN. EACH)



ROOF PLAN BUILDING #5
 SCALE: 1/8" = 1'-0"

NET FREE VENTILATING AREA REQUIRED

BUILDING #5	ATTIC AREA	NET FREE VENTILATING 1/300 OF ATTIC AREA	VENTING REQ'D UPPER ROOF/EAVE
SECTION 1	2,454 S.F.	2,454 S.F. / 300 = 8.18 S.F.	4.09 S.F. / 4.09 S.F.
SECTION 2	320 S.F.	320 S.F. / 300 = 1.07 S.F.	0.54 S.F. / 0.54 S.F.
SECTION 3	2,454 S.F.	2,454 S.F. / 300 = 8.18 S.F.	4.09 S.F. / 4.09 S.F.

NET FREE VENTILATING AREA PROVIDED

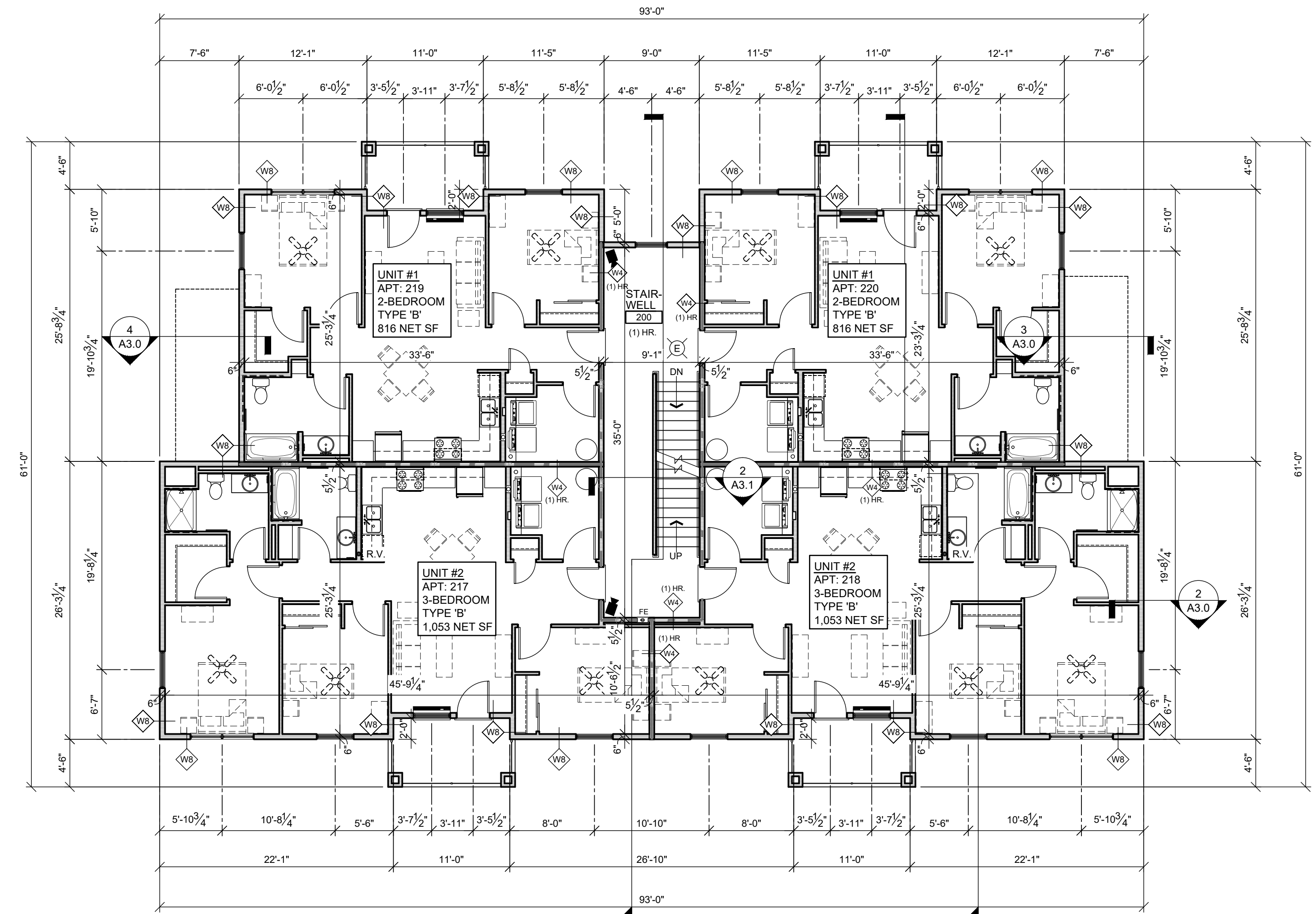
BUILDING #5	TYPE OF VENTING PROVIDED		VENTING PROVIDED
	UPPER ROOF	EAVE	
SECTION 1	35 L.F. / 35 L.F. x 117	0.9 S.F. PER L.F. / 4.10 S.F.	4.10 S.F.
SECTION 2	46 L.F. / 46 L.F. x 0.9	5 L.F. x 117	0.59 S.F.
SECTION 3	35 L.F. / 35 L.F. x 117	7 L.F. x 0.9	0.63 S.F.
	46 L.F. / 46 L.F. x 0.9	4.10 S.F.	4.10 S.F.

TYP. ROOF PLAN NOTES:

- TYP. ROOF CONSTRUCTION
- ARCHITECTURAL SHINGLES
- 19/32" PLYWOOD SHEATHING - SEE STRUC. PLANS
- PROVIDE AND INSTALL FLASHING FOR ALL ROOF PENETRATIONS PER ROOFING MANUFACTURER'S REQUIREMENTS AND SPECIFICATIONS.
- VERIFY WITH MECHANICAL PLANS FOR LOCATION AND SIZE OF ALL ROOF PENETRATIONS.
- ALL ROOF PENETRATIONS SHALL BE PAINTED TO MATCH ROOF SHINGLE COLOR.

TYP. ROOF PLAN SYMBOLS:

- DS DOWNSPOUT LOCATION - CONNECT TO STORM DRAIN (SEE CIVIL PLANS)
- ROOF SLOPE DIRECTION
- FACE OF WALL BELOW



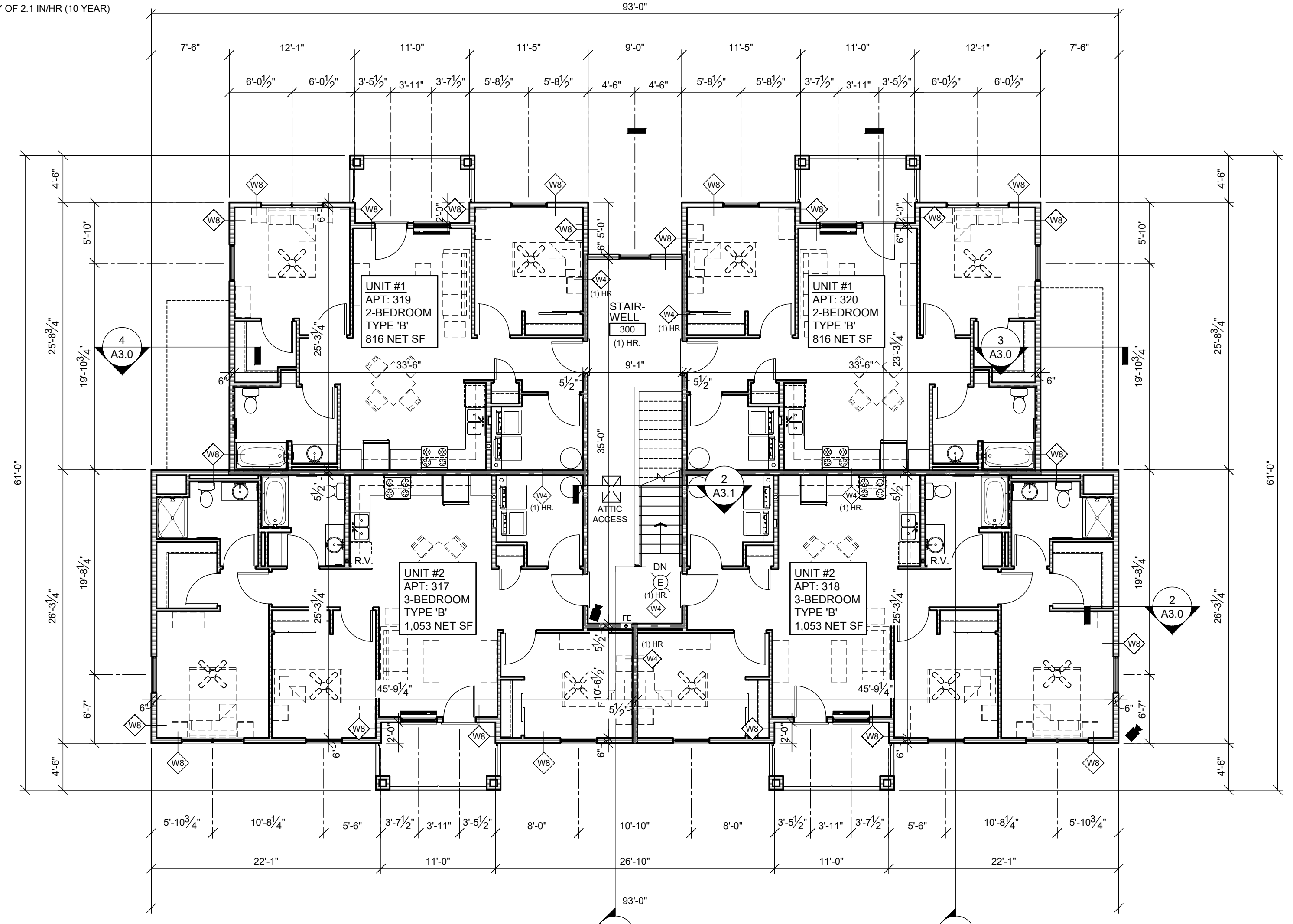
TYP. FLOOR PLAN NOTES:

- SEE AS SHEETS FOR ENLARGED UNIT PLANS
- VERIFY KEY LOCK BOX (KNOX BOX) REQUIREMENTS AND LOCATION WITH THE LOCAL FIRE DEPARTMENT
- ALL EXTERIOR DIMENSIONS ARE FROM FACE-OF-SHEATHING TO FACE-OF-SHEATHING UNLESS NOTED OTHERWISE
- ALL INTERIOR DIMENSIONS ARE FROM FACE-OF-STUD TO FACE-OF-STUD UNLESS NOTED OTHERWISE
- WHERE AN INTERIOR PARTITION WALL INTERSECTS A RATED DEMISING WALL, THE INTERIOR PARTITION WALL SHALL HAVE A DOUBLE STUD ADJACENT TO THE DEMISING WALL TO MAINTAIN THE INTEGRITY OF THE RATED DEMISING WALL
- HEARING / VISUALLY IMPAIRED UNITS TO INCLUDE THE FOLLOWING: AUDIBLE AND VISIBLE SIGNALING DEVICES PER ANSI SECTION 1005: UNIT SMOKE DETECTION, UNIT CARBON MONOXIDE DETECTION, UNIT TELEPHONE, AND UNIT DOORBELL
- ALL FIRE-ALARM, EXIT LIGHT AND EMERGENCY LIGHTING SHOWN ON PLAN IS SCHEMATIC AND IS PROVIDED ONLY FOR BUDGETING PURPOSES. CONTRACTOR SHALL PROVIDE CODE-COMPLIANT LAYOUT AND SHALL INCLUDE EMERGENCY LIGHTING SUBMITTA AND ASSOCIATED COST.

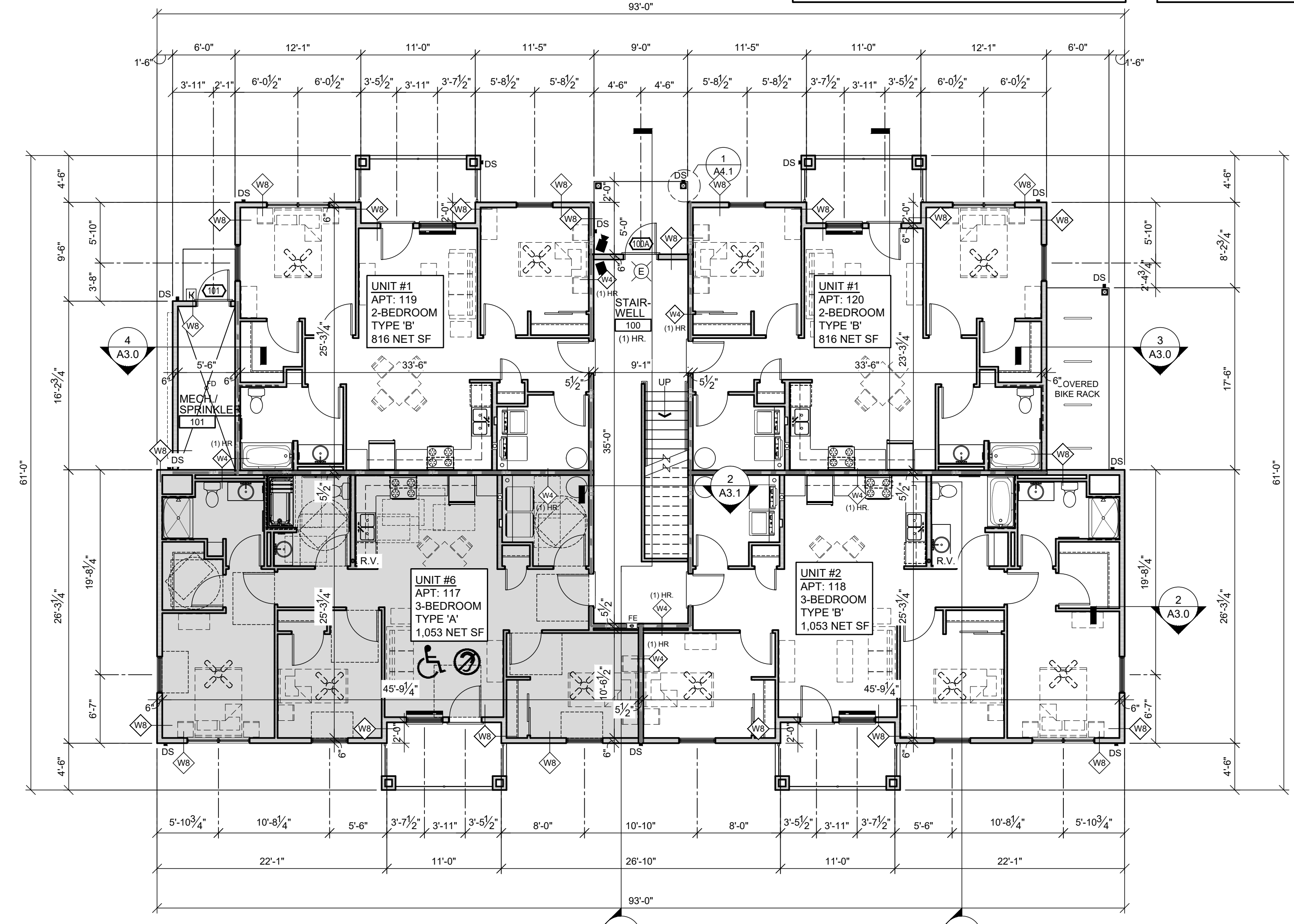
TYP. FLOOR PLAN SYMBOLS:

- WALL TYPE - SEE SHEET A8.0
- FIRE EXTINGUISHER LOCATION (WALL MOUNTED) - SEE SHEET A8.0
- FIRE EXTINGUISHER LOCATION (CABINET IN WALL) - SEE SHEET A8.0
- KEY LOCK BOX (KNOX BOX) LOCATION - MOUNT AT 6'-0" ABOVE GRADE TO CENTER OF BOX - VERIFY LOCATION WITH F.D.
- HEARING / VISUALLY IMPAIRED UNIT
- FIRE DEPARTMENT CONNECTION LOCATION - PROVIDE SIGN THE STATES "FIRE SPRINKLER RISER ACCESS" WITH 1" H. RED LETTERS ON WHITE BACKGROUND AT 6" ABOVE GRADE - VERIFY LOCATION WITH F.D.
- RADON VERTICAL VENT - SEE MITIGATION PLANS FOR DETAILS
- EXIT SIGN LOCATION
- SECURITY CAMERA LOCATION
- INDICATES TYPE 'A' UNIT
- 1 HOUR RATED FIRE PARTITION - SEE SHEET A8.0

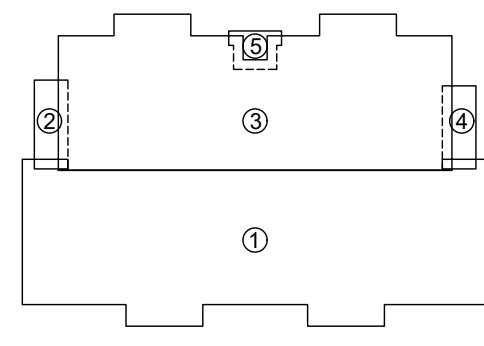
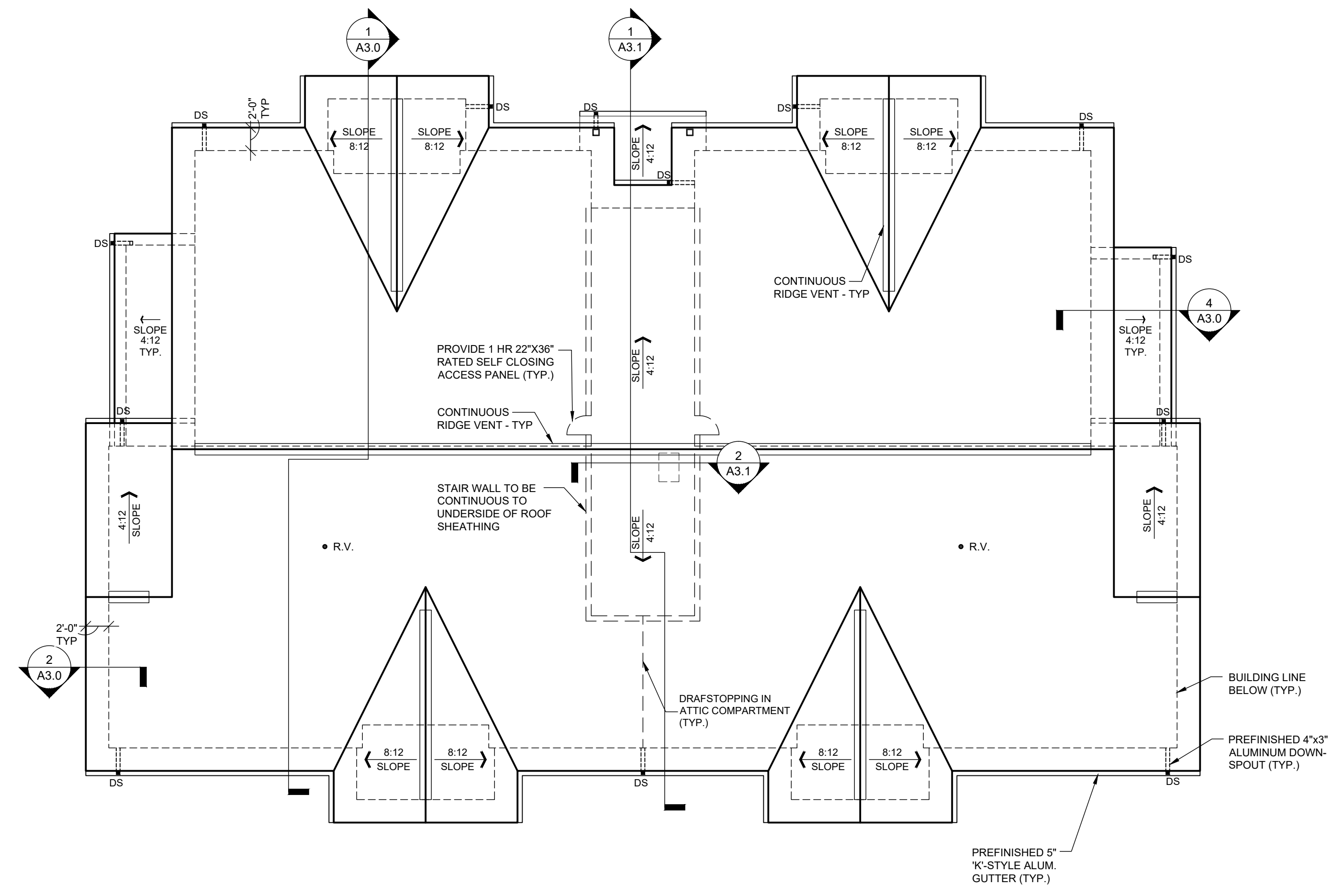
SECOND FLOOR PLAN BUILDING #5
 SCALE: 1/8" = 1'-0"



THIRD FLOOR PLAN BUILDING #5
 SCALE: 1/8" = 1'-0"



FIRST FLOOR PLAN BUILDING #5
 SCALE: 1/8" = 1'-0"



BLDG. #6 - GUTTER / DOWNSPOUT CALCULATION

PORTION OF ROOF	ROOF AREA SERVED	LENGTH OF GUTTER	DOWNSPOUTS REQUIRED	DOWNSPOUTS PROVIDED
1	2,903 S.F.	83 L.F.	2 (2.55 SQ. IN EACH)	5 (12.0 SQ. IN. EACH)
2	130 S.F.	18 L.F.	1 (0.23 SQ. IN EACH)	1 (12.0 SQ. IN. EACH)
3	2,415 S.F.	63 L.F.	2 (2.12 SQ. IN EACH)	5 (12.0 SQ. IN. EACH)
4	121 S.F.	17 L.F.	1 (0.21 SQ. IN. EACH)	1 (12.0 SQ. IN. EACH)
5	78 S.F.	11 L.F.	1 (0.14 SQ. IN. EACH)	1 (12.0 SQ. IN. EACH)

ROOF PLAN BUILDING #6
 SCALE: 1/8" = 1'-0"

NET FREE VENTILATING AREA REQUIRED

BUILDING #6	ATTIC AREA	NET FREE VENTILATING 1/300 OF ATTIC AREA	VENTING REQ'D UPPER ROOF/EAVE
SECTION 1	2,454 S.F.	2,454 S.F. / 300 = 8.18 S.F.	4.09 S.F. / 4.09 S.F.
SECTION 2	320 S.F.	320 S.F. / 300 = 1.07 S.F.	0.54 S.F. / 0.54 S.F.
SECTION 3	2,454 S.F.	2,454 S.F. / 300 = 8.18 S.F.	4.09 S.F. / 4.09 S.F.

NET FREE VENTILATING AREA PROVIDED

BUILDING #6	TYPE OF VENTING PROVIDED		VENTING PROVIDED
	RIDGE VENT	SOFFIT VENT	
SECTION 1	UPPER ROOF	35 L.F. 35 L.F. x 117	4.10 S.F.
	EAVE	46 L.F. 46 L.F. x .09	4.14 S.F.
SECTION 2	UPPER ROOF	5 L.F. 5 L.F. x 117	0.59 S.F.
	EAVE	7 L.F. 7 L.F. x .09	0.63 S.F.
SECTION 3	UPPER ROOF	35 L.F. 35 L.F. x 117	4.10 S.F.
	EAVE	46 L.F. 46 L.F. x .09	4.14 S.F.

TYP. ROOF PLAN NOTES:

- TYP. ROOF CONSTRUCTION
- ARCHITECTURAL SHINGLES
- 19/32" PLYWOOD SHEATHING - SEE STRUC. PLANS
- PROVIDE AND INSTALL FLASHING FOR ALL ROOF PENETRATIONS PER ROOFING MANUFACTURER'S REQUIREMENTS AND SPECIFICATIONS.
- VERIFY WITH MECHANICAL PLANS FOR LOCATION AND SIZE OF ALL ROOF PENETRATIONS.
- ALL ROOF PENETRATIONS SHALL BE PAINTED TO MATCH ROOF SHINGLE COLOR.

TYP. ROOF PLAN SYMBOLS:

- DS DOWNSPOUT LOCATION - CONNECT TO STORM DRAIN (SEE CIVIL PLANS)
- ROOF SLOPE DIRECTION
- FACE OF WALL BELOW

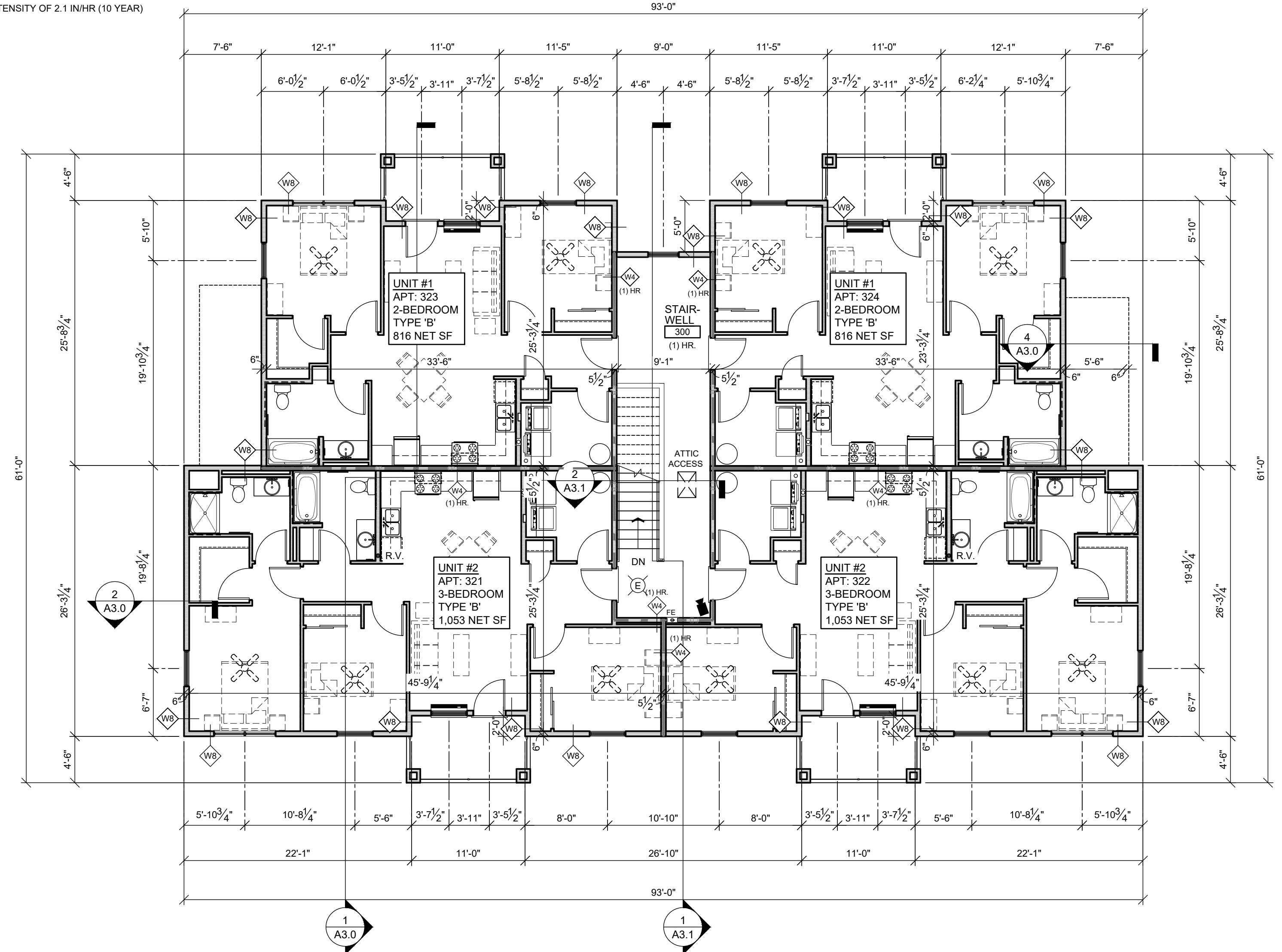
SECOND FLOOR PLAN BUILDING #6
 SCALE: 1/8" = 1'-0"

TYP. FLOOR PLAN NOTES:

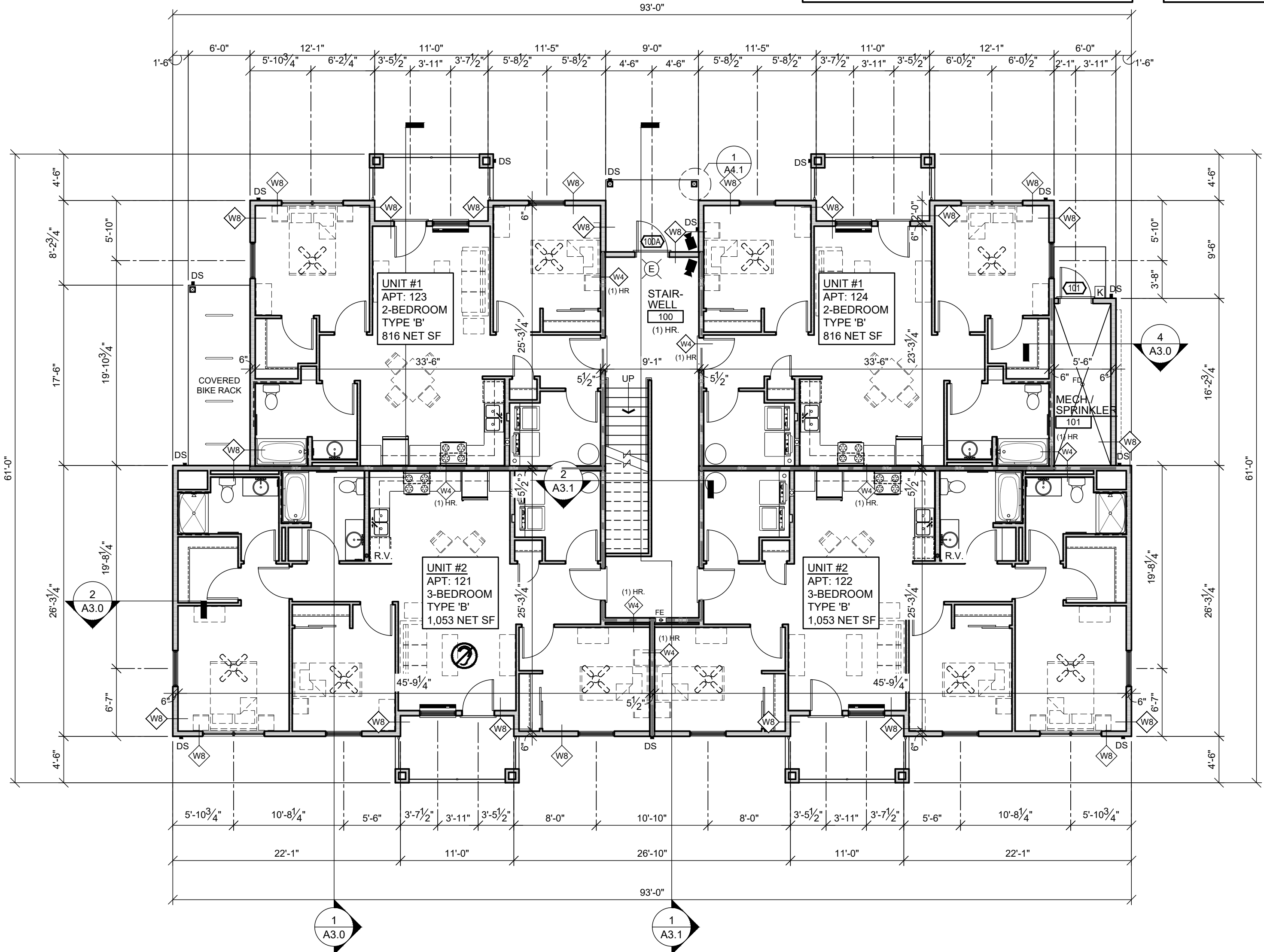
- SEE AS SHEETS FOR ENLARGED UNIT PLANS
- VERIFY KEY LOCK BOX (KNOX BOX) REQUIREMENTS AND LOCATION WITH THE LOCAL FIRE DEPARTMENT
- ALL EXTERIOR DIMENSIONS ARE FROM FACE-OF-SHEATHING TO FACE-OF-SHEATHING UNLESS NOTED OTHERWISE
- ALL INTERIOR DIMENSIONS ARE FROM FACE-OF-STUD TO FACE-OF-STUD UNLESS NOTED OTHERWISE
- WHERE AN INTERIOR PARTITION WALL INTERSECTS A RATED DEMISING WALL, THE INTERIOR PARTITION WALL SHALL HAVE A DOUBLE STUD ADJACENT TO THE DEMISING WALL TO MAINTAIN THE INTEGRITY OF THE RATED DEMISING WALL
- HEARING / VISUALLY IMPAIRED UNITS TO INCLUDE THE FOLLOWING: AUDIBLE AND VISIBLE SIGNALING DEVICES PER ANSI SECTION 1005: UNIT SMOKE DETECTION, UNIT CARBON MONOXIDE DETECTION, UNIT TELEPHONE, AND UNIT DOORBELL
- ALL FIRE-ALARM, EXIT LIGHT AND EMERGENCY LIGHTING SHOWN ON PLAN IS SCHEMATIC AND IS PROVIDED ONLY FOR BUDGETING PURPOSES. CONTRACTOR SHALL PROVIDE CODE-COMPLIANT LAYOUT AND SHALL INCLUDE EMERGENCY LIGHTING SUBMITTAL AND ASSOCIATED COST.

TYP. FLOOR PLAN SYMBOLS:

- WALL TYPE - SEE SHEET A8.0
- FIRE EXTINGUISHER LOCATION (WALL MOUNTED) - SEE SHEET A6.0
- FIRE EXTINGUISHER LOCATION (CABINET IN WALL) - SEE SHEET A6.0
- KEY LOCK BOX (KNOX BOX) LOCATION - MOUNT AT 6'-0" ABOVE GRADE TO CENTER OF BOX - VERIFY LOCATION WITH F.D.
- HEARING / VISUALLY IMPAIRED UNIT
- FIRE DEPARTMENT CONNECTION LOCATION - PROVIDE SIGN THE STATES "FIRE SPRINKLER RISER ACCESS" WITH 1" H. RED LETTERS ON WHITE BACKGROUND AT 6" ABOVE GRADE - VERIFY LOCATION WITH F.D.
- RADON VERTICAL VENT - SEE MITIGATION PLANS FOR DETAILS
- EXIT SIGN LOCATION
- SECURITY CAMERA LOCATION
- INDICATES TYPE 'A' UNIT
- 1 HOUR RATED FIRE PARTITION - SEE SHEET A8.0



THIRD FLOOR PLAN BUILDING #6
 SCALE: 1/8" = 1'-0"



FIRST FLOOR PLAN BUILDING #6
 SCALE: 1/8" = 1'-0"

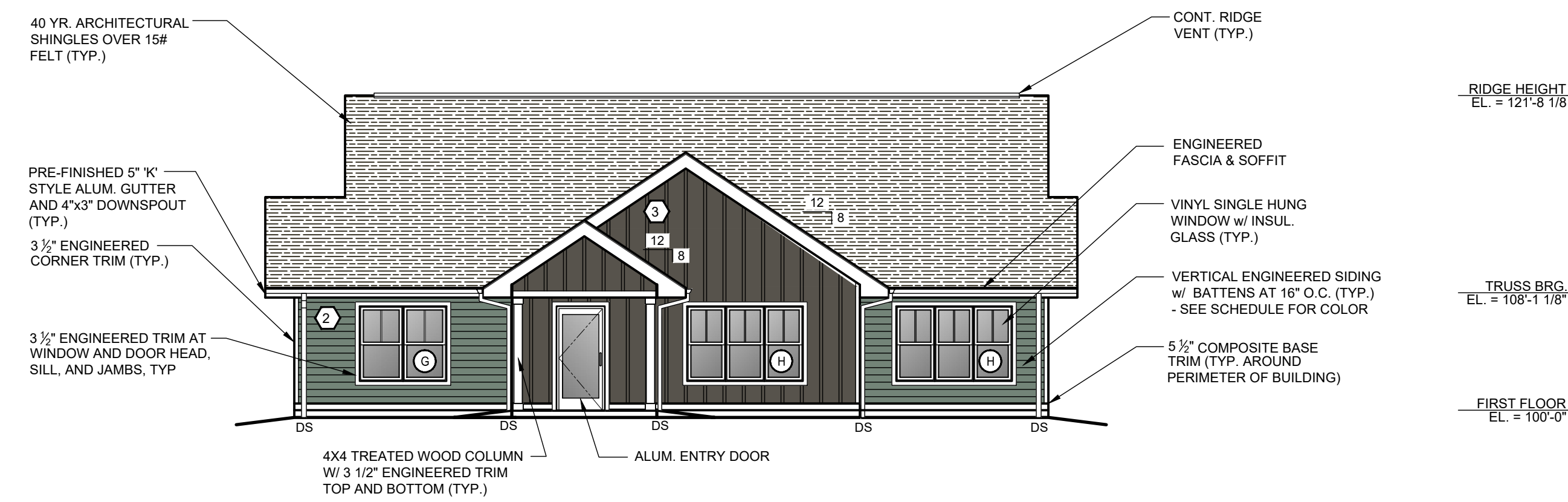
EXTERIOR COLOR SCHEDULE		
MATL	MFR.	COLOR
SCHEME #1		
PANEL SIDING w/ BATTENS	LP SMARTSIDE	SW7041 NATURAL CHOICE
HORIZONTAL LAP BOARD SIDING (FIELD)	LP SMARTSIDE	SW2811 ROOKWOOD BLUE GREEN
VERTICAL BOARD AND BATTEN SIDING (ACCENT)	LP SMARTSIDE	SW7645 THUNDER GRAY
SCHEME #2		
PANEL SIDING w/ BATTENS	LP SMARTSIDE	SW7041 NATURAL CHOICE
HORIZONTAL LAP BOARD SIDING (FIELD) - COLOR #4	LP SMARTSIDE	SW7594 CARRIAGE DOOR
VERTICAL BOARD AND BATTEN SIDING (ACCENT) - COLOR #4	LP SMARTSIDE	SW7032 WARM STONE
PATIO SWING DOORS	THERMA-TRU	WHITE
UTILITY DOORS	THERMA-TRU	WHITE
VINYL WINDOWS	MILGARD	WHITE
ALUMINUM STOREFRONT & ENTRY DOORS	KAWNEER	CLEAR ANODIZED
SOFFIT & FASCIA	LP SMARTSIDE	SNOWSCAPE WHITE
ALUMINUM RAILING	FORTRESS	DARK BRONZE
WINDOW & DOOR TRIM, BELLY BAND, FRIEZE BOARD, ENTRY COLUMNS	LP SMARTSIDE	SNOWSCAPE WHITE
GUTTER & DOWNSPOUT	WILCO	WHITE
40 YR. ARCHITECTURAL SHINGLES / RIDGE VENT	TAMKO	TBD
PVC DECORATIVE BRACKET	FYPON	WHITE

- EXTERIOR COLOR NOTES:**
- VERIFY COLORS AND MATERIALS WITH OWNER AND ARCHITECT PRIOR TO ORDERING
 - ALL SIDING, SOFFIT, FASCIA, AND TRIM BOARDS TO BE FACTORY PRE-FINISHED
 - ALL PROPOSED PENETRATIONS NOT LIMITED TO RANGE HOOD VENT, DRYER VENT, AND BATHROOM VENTS TO EXTERIOR SHALL BE PAINTED TO MATCH ADJACENT MATERIAL COLOR

APARTMENT WINDOW SCHEDULE			
SYM.	MATL.	DESCRIPTION	NOM. UNIT SIZE W.H.
(A)*	VINYL	SINGLE HUNG WINDOW	UNIT: 3'-6" X 5'-2"
(B)*	VINYL	SINGLE HUNG WINDOW	UNIT: 3'-6" X 4'-6"
(C)	VINYL	FIXED WINDOW	UNIT: (2) 3'-0" X 2'-6"
(D)*	VINYL	ADA CASEMENT WINDOW	UNIT: 3'-0" X 5'-2"
(E)	VINYL	ADA CASEMENT WINDOW	UNIT: 3'-6" X 4'-6"

- ENERGY STAR WINDOWS
- ASTERISK (*) INDICATES WINDOWS UNIT SHALL MEET MIN. EGRESS SIZE REQUIREMENTS PER IBC EMERGENCY ESCAPE AND RESCUE SECTION
- PER SPS 321.05 (3) SAFETY GLAZING ADJACENT TO A DOOR WHERE THE NEAREST EXPOSED EDGE OF THE GLAZING IS WITHIN 24"
- WINDOW MANUFACTURER SHALL REVIEW WINDOW LOCATIONS AND PROVIDE SAFETY GLAZING IN ALL LOCATIONS REQUIRED BY CHAPTER 24
- ALL PROPOSED RANGE HOOD VENT, DRYER VENT, AND BATHROOM VENTS TO EXTERIOR SHALL BE APPROVED BY ARCHITECT PRIOR TO INSTALLATION
- SEE TYP. UNIT FLOOR PLANS FOR ALL ADA WINDOW LOCATIONS
- REFER TO DETAIL 7/A4.1 FOR ADA WINDOW SASH REQUIREMENTS. (PROVIDE ADA LIFT HANDLE @ BOTTOM SASH)
- OPERABLE SECTIONS OF WINDOWS SHALL NOT PERMIT OPENINGS THAT ALLOW PASSAGE OF A 4-INCH DIAMETER SPHERE WHERE SUCH OPENINGS ARE LOCATED WITHIN 36 INCHES OF THE FINISHED FLOOR. WINDOW OPENING CONTROL DEVICES SHALL COMPLY WITH ASTM F 2090 AND SHALL NOT REDUCE THE MINIMUM NET CLEAR OPENING AREA THAT IS REQUIRED.
- PROVIDE SCREENS FOR ALL OPERABLE WINDOWS

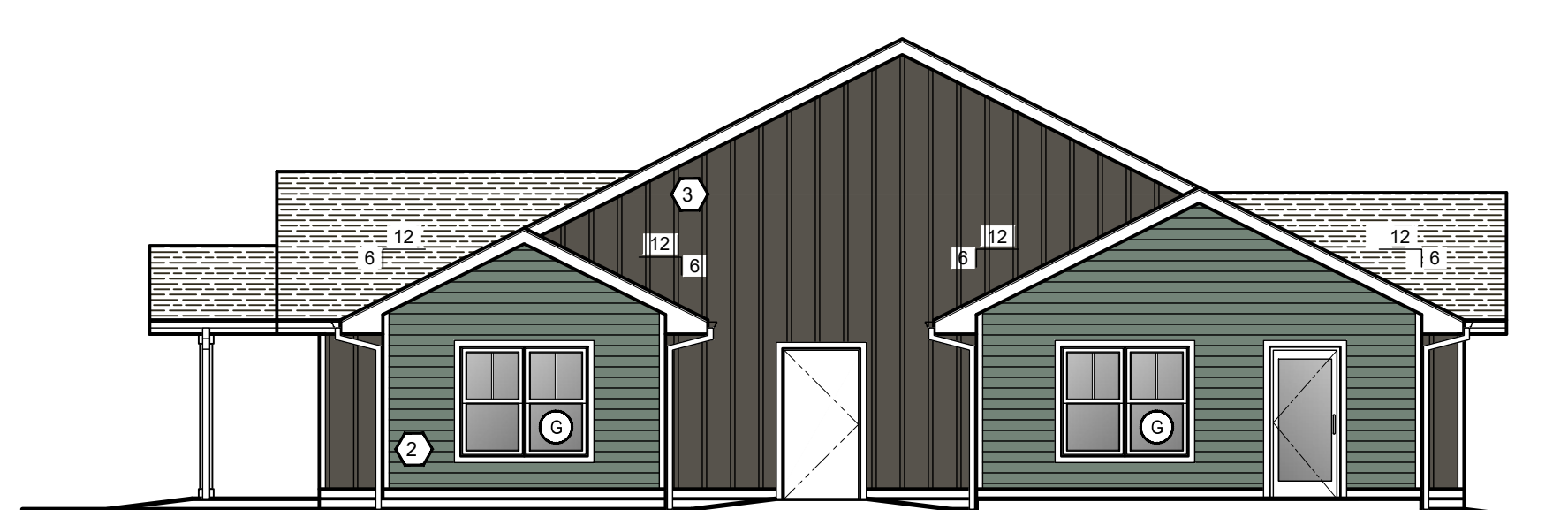
CLUBHOUSE WINDOW SCHEDULE			
SYM.	MATL.	DESCRIPTION	NOM. UNIT SIZE W.H.
(F)	VINYL	SINGLE HUNG WINDOW	UNIT: 3'-0" X 5'-2"
(G)	VINYL	SINGLE HUNG WINDOW	UNIT: (2) 3'-0" X 5'-2"
(H)	VINYL	SINGLE HUNG WINDOW	UNIT: (3) 2'-8" X 5'-2"
(I)	VINYL	FIXED WINDOW	UNIT: (2) 3'-0" X 2'-6"



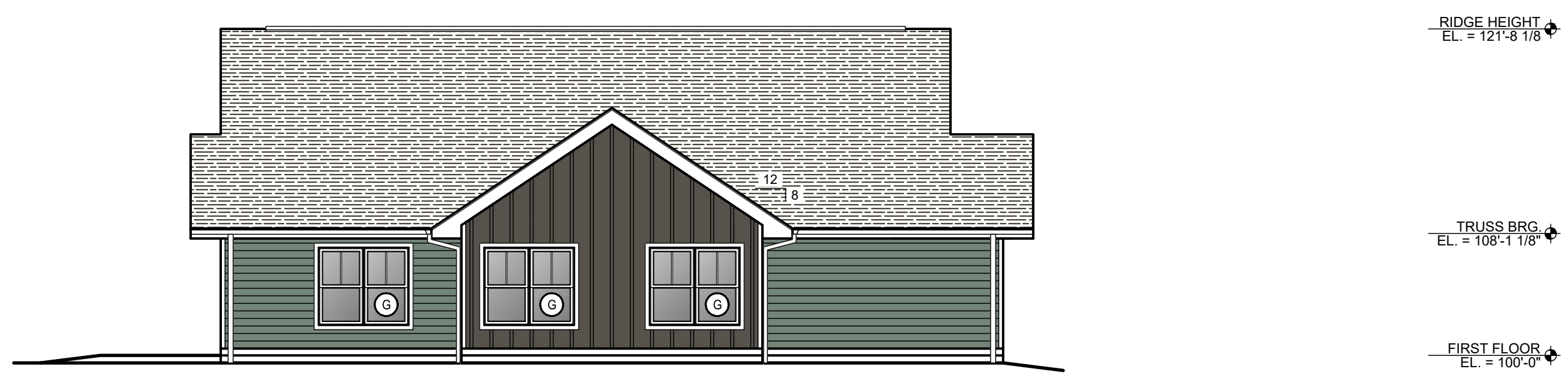
BUILDING #1 - CLUBHOUSE EAST ELEVATION
SCALE: 1/8" = 1'-0"



BUILDING #1 - CLUBHOUSE SOUTH ELEVATION
SCALE: 1/8" = 1'-0"



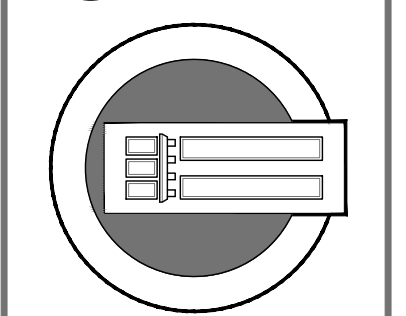
BUILDING #1 - CLUBHOUSE NORTH ELEVATION
SCALE: 1/8" = 1'-0"



BUILDING #1 - CLUBHOUSE WEST ELEVATION
SCALE: 1/8" = 1'-0"

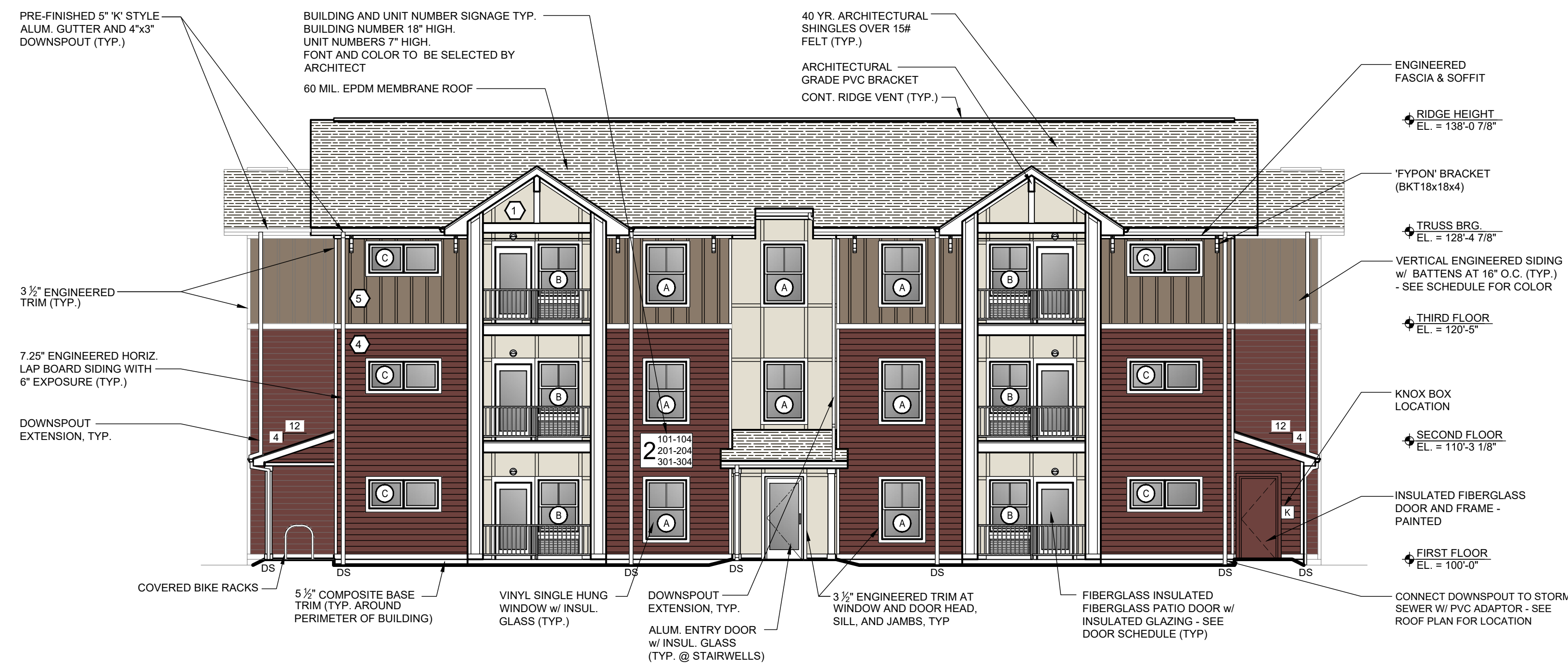
M+A DESIGN, INC.
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PACIFIC FLATS
4019 S. PACIFIC HWY
PHOENIX, OR 97501

JOB NUMBER:
2023.07
SHEET
A2.10



**BUILDING #2
EAST ELEVATION**
SCALE: 1/8" = 1'-0"

EXTERIOR COLOR SCHEDULE		
MATL	MFR.	COLOR
SCHEME #1		
PANEL SIDING w/ BATTENS	LP SMARTSIDE	SW7041 NATURAL CHOICE
HORIZONTAL LAP BOARD SIDING (FIELD)	LP SMARTSIDE	SW2811 ROOKWOOD BLUE GREEN
VERTICAL BOARD AND BATTEN SIDING (ACCENT)	LP SMARTSIDE	SW7645 THUNDER GRAY
SCHEME #2		
PANEL SIDING w/ BATTENS	LP SMARTSIDE	SW7041 NATURAL CHOICE
HORIZONTAL LAP BOARD SIDING (FIELD) - COLOR #4	LP SMARTSIDE	SW7594 CARRIAGE DOOR
VERTICAL BOARD AND BATTEN SIDING (ACCENT) - COLOR #4	LP SMARTSIDE	SW7032 WARM STONE
PATIO SWING DOORS	THERMA-TRU	WHITE
UTILITY DOORS	THERMA-TRU	WHITE
VINYL WINDOWS	MILGARD	WHITE
ALUMINUM STOREFRONT & ENTRY DOORS	KAWNEER	CLEAR ANODIZED
SOFFIT & FASCIA	LP SMARTSIDE	SNOWSCAPE WHITE
ALUMINUM RAILING	FORTRESS	DARK BRONZE
WINDOW & DOOR TRIM, BELLY BAND, FRIEZE BOARD, ENTRY COLUMNS	LP SMARTSIDE	SNOWSCAPE WHITE
GUTTER & DOWNSPOUT	WILCO	WHITE
40 YR. ARCHITECTURAL SHINGLES / RIDGE VENT	TAMKO	TBD
PVC DECORATIVE BRACKET	FYPON	WHITE

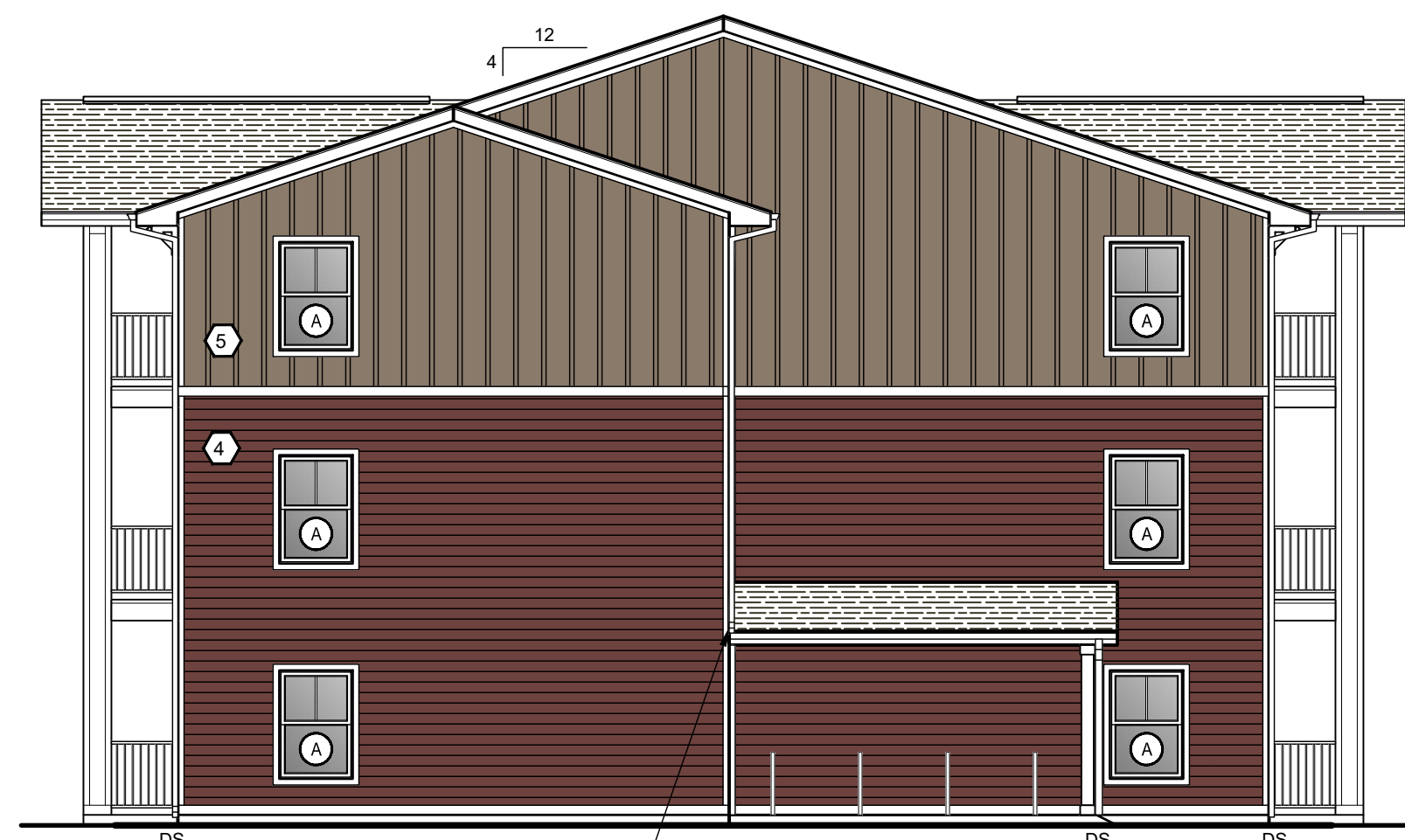
EXTERIOR COLOR NOTES:

- VERIFY COLORS AND MATERIALS WITH OWNER AND ARCHITECT PRIOR TO ORDERING
- ALL SIDING, SOFFIT, FASCIA, AND TRIM BOARDS TO BE FACTORY PRE-FINISHED
- ALL PROPOSED PENETRATIONS NOT LIMITED TO RANGE HOOD VENT, DRYER VENT, AND BATHROOM VENTS TO EXTERIOR SHALL BE PAINTED TO MATCH ADJACENT MATERIAL COLOR

APARTMENT WINDOW SCHEDULE			
SYM.	MATL.	DESCRIPTION	NOM. UNIT SIZE W.H.
A	VINYL	SINGLE HUNG WINDOW	UNIT: 3'-6" X 4'-2"
B	VINYL	SINGLE HUNG WINDOW	UNIT: 3'-6" X 4'-6"
C	VINYL	FIXED WINDOW	UNIT: (2) 3'-0" X 2'-6"
D	VINYL	ADA CASEMENT WINDOW	UNIT: 3'-0" X 5'-2"
E	VINYL	ADA CASEMENT WINDOW	UNIT: 3'-6" X 4'-6"

- ENERGY STAR WINDOWS
- ASTERISK (*) INDICATES WINDOWS UNIT SHALL MEET MIN. EGRESS SIZE REQUIREMENTS PER IBC EMERGENCY ESCAPE AND RESCUE SECTION
- PER SPS 321.05 (3) SAFETY GLAZING ADJACENT TO A DOOR WHERE THE NEAREST EXPOSED EDGE OF THE GLAZING IS WITHIN 24"
- WINDOW MANUFACTURER SHALL REVIEW WINDOW LOCATIONS AND PROVIDE SAFETY GLAZING IN ALL LOCATIONS REQUIRED BY IBC CHAPTER 24
- ALL PROPOSED RANGE HOOD VENT, DRYER VENT, AND BATHROOM VENTS TO EXTERIOR SHALL BE APPROVED BY ARCHITECT PRIOR TO INSTALLATION
- SEE TYP. UNIT FLOOR PLANS FOR ALL ADA WINDOW LOCATIONS
- REFER TO DETAIL 7/A4.1 FOR ADA WINDOW SASH REQUIREMENTS. (PROVIDE ADA LIFT HANDLE @ BOTTOM SASH)
- OPERABLE SECTIONS OF WINDOWS SHALL NOT PERMIT OPENINGS THAT ALLOW PASSAGE OF A 4-INCH-DIAMETER SPHERE WHERE SUCH OPENINGS ARE LOCATED WITHIN 36 INCHES OF THE FINISHED FLOOR. WINDOW OPENING CONTROL DEVICES SHALL COMPLY WITH ASTM F 2090 AND SHALL NOT REDUCE THE MINIMUM NET CLEAR OPENING AREA THAT IS REQUIRED.
- PROVIDE SCREENS FOR ALL OPERABLE WINDOWS

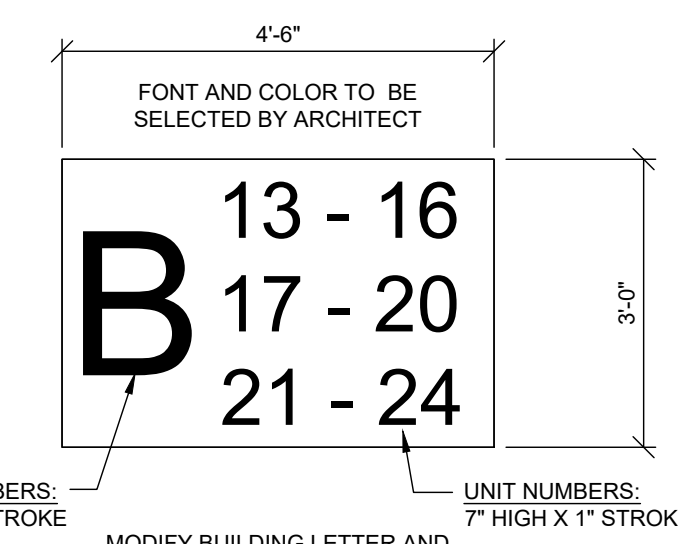
CLUBHOUSE WINDOW SCHEDULE			
SYM.	MATL.	DESCRIPTION	NOM. UNIT SIZE W.H.
F	VINYL	SINGLE HUNG WINDOW	UNIT: 3'-0" X 5'-2"
G	VINYL	SINGLE HUNG WINDOW	UNIT: (2) 3'-0" X 5'-2"
H	VINYL	SINGLE HUNG WINDOW	UNIT: (3) 2'-8" X 5'-2"
I	VINYL	FIXED WINDOW	UNIT: (2) 3'-0" X 2'-6"



**BUILDING #2
SOUTH ELEVATION**
SCALE: 1/8" = 1'-0"



**BUILDING #2
NORTH ELEVATION**
SCALE: 1/8" = 1'-0"



SIGNAGE DETAIL (TYP.)



**BUILDING #2
WEST ELEVATION**
SCALE: 1/8" = 1'-0"

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PACIFIC FLATS
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PHOENIX, OR 97501



**BUILDING #3
EAST ELEVATION**

SCALE: 1/8" = 1'-0"



**BUILDING #3
SOUTH ELEVATION**

SCALE: 1/8" = 1'-0"



**BUILDING #3
NORTH ELEVATION**

SCALE: 1/8" = 1'-0"



**BUILDING #3
WEST ELEVATION**

SCALE: 1/8" = 1'-0"

EXTERIOR COLOR SCHEDULE		
MATL	MFR.	COLOR
SCHEME #1		
PANEL SIDING w/ BATTENS	LP SMARTSIDE	SW7041 NATURAL CHOICE
HORIZONTAL LAP BOARD SIDING (FIELD)	LP SMARTSIDE	SW2811 ROOKWOOD BLUE GREEN
VERTICAL BOARD AND BATTEN SIDING (ACCENT)	LP SMARTSIDE	SW7645 THUNDER GRAY
SCHEME #2		
PANEL SIDING w/ BATTENS	LP SMARTSIDE	SW7041 NATURAL CHOICE
HORIZONTAL LAP BOARD SIDING (FIELD) - COLOR #4	LP SMARTSIDE	SW7594 CARRIAGE DOOR
VERTICAL BOARD AND BATTEN SIDING (ACCENT) - COLOR #4	LP SMARTSIDE	SW7032 WARM STONE
PATIO SWING DOORS	THERMA-TRU	WHITE
UTILITY DOORS	THERMA-TRU	WHITE
VINYL WINDOWS	MILGARD	WHITE
ALUMINUM STOREFRONT & ENTRY DOORS	KAWNEER	CLEAR ANODIZED
SOFFIT & FASCIA	LP SMARTSIDE	SNOWSCAPE WHITE
ALUMINUM RAILING	FORTRESS	DARK BRONZE
WINDOW & DOOR TRIM, BELLY BAND, FRIEZE BOARD, ENTRY COLUMNS	LP SMARTSIDE	SNOWSCAPE WHITE
GUTTER & DOWNSPOUT	WILCO	WHITE
40 YR. ARCHITECTURAL SHINGLES / RIDGE VENT	TAMKO	TBD
PVC DECORATIVE BRACKET	FYPON	WHITE

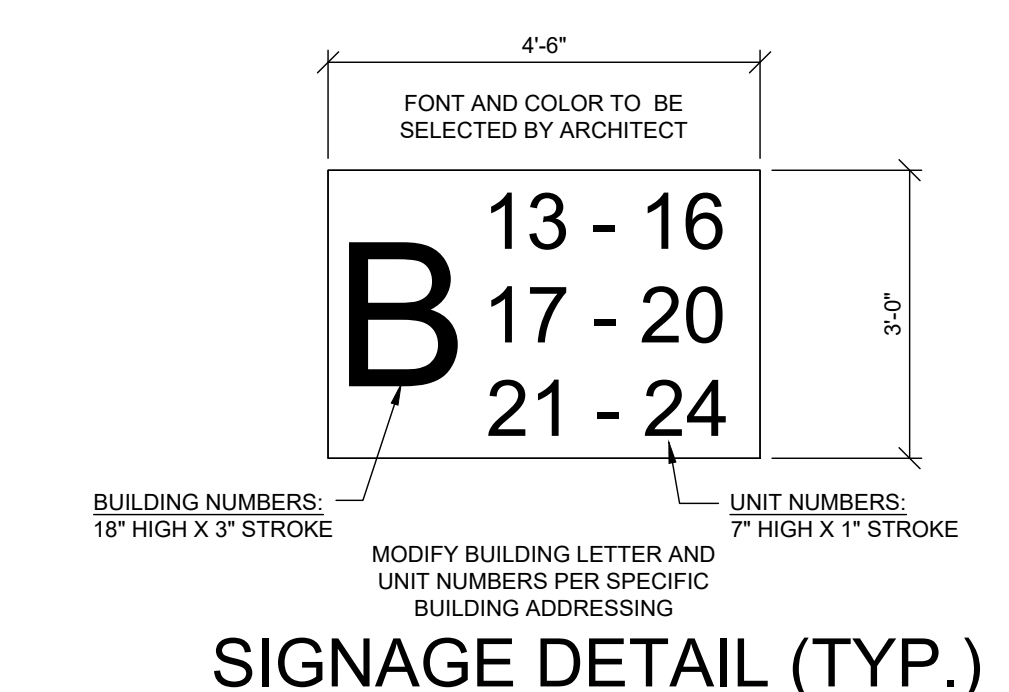
EXTERIOR COLOR NOTES:

- VERIFY COLORS AND MATERIALS WITH OWNER AND ARCHITECT PRIOR TO ORDERING
- ALL SIDING, SOFFIT, FASCIA, AND TRIM BOARDS TO BE FACTORY PRE-FINISHED
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SYM.	MATL.	DESCRIPTION	NOM. UNIT SIZE W.H.
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D*	VINYL	ADA CASEMENT WINDOW	UNIT: 3'-0" X 5'-2"
E	VINYL	ADA CASEMENT WINDOW	UNIT: 3'-6" X 4'-6"

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- PROVIDE SCREENS FOR ALL OPERABLE WINDOWS

CLUBHOUSE WINDOW SCHEDULE			
SYM.	MATL.	DESCRIPTION	NOM. UNIT SIZE W.H.
F	VINYL	SINGLE HUNG WINDOW	UNIT: 3'-0" X 5'-2"
G	VINYL	SINGLE HUNG WINDOW	UNIT: (2) 3'-0" X 5'-2"
H	VINYL	SINGLE HUNG WINDOW	UNIT: (3) 2'-8" X 5'-2"
I	VINYL	FIXED WINDOW	UNIT: (2) 3'-0" X 2'-6"

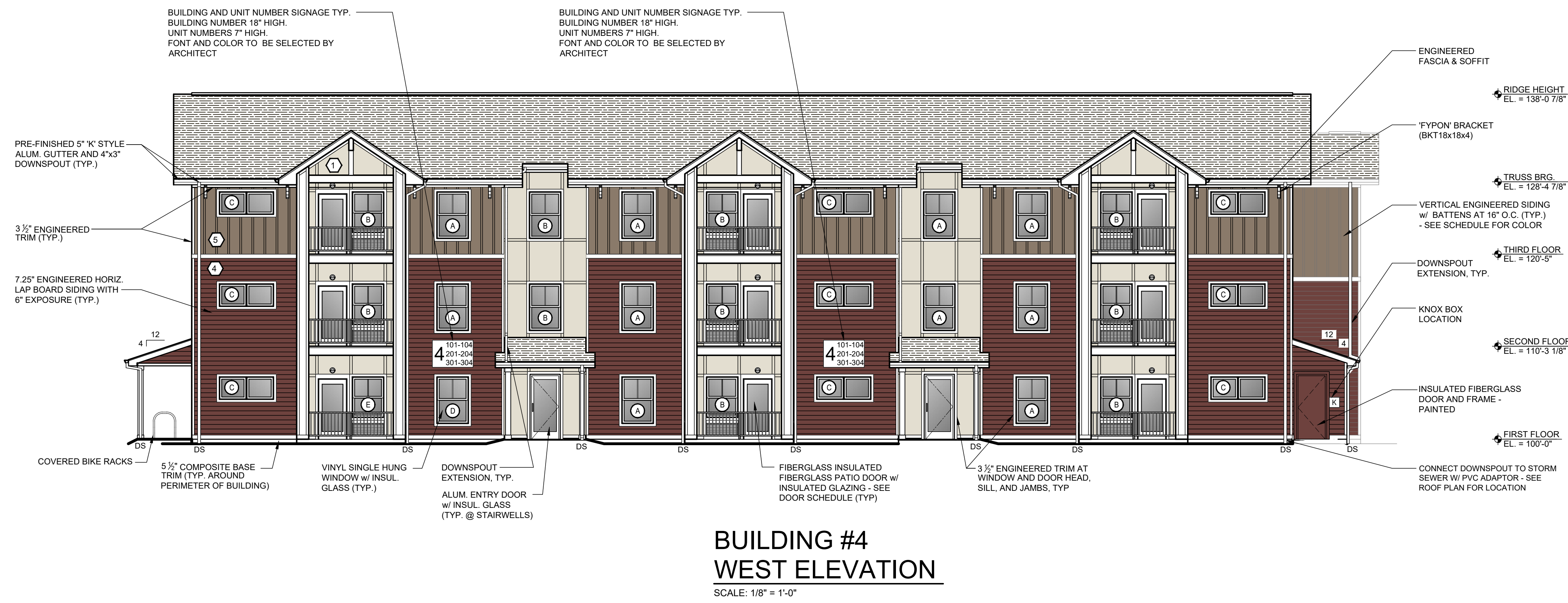


SIGNAGE DETAIL (TYP.)

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PHOENIX, OR 97501



**BUILDING #4
WEST ELEVATION**
SCALE: 1/8" = 1'-0"

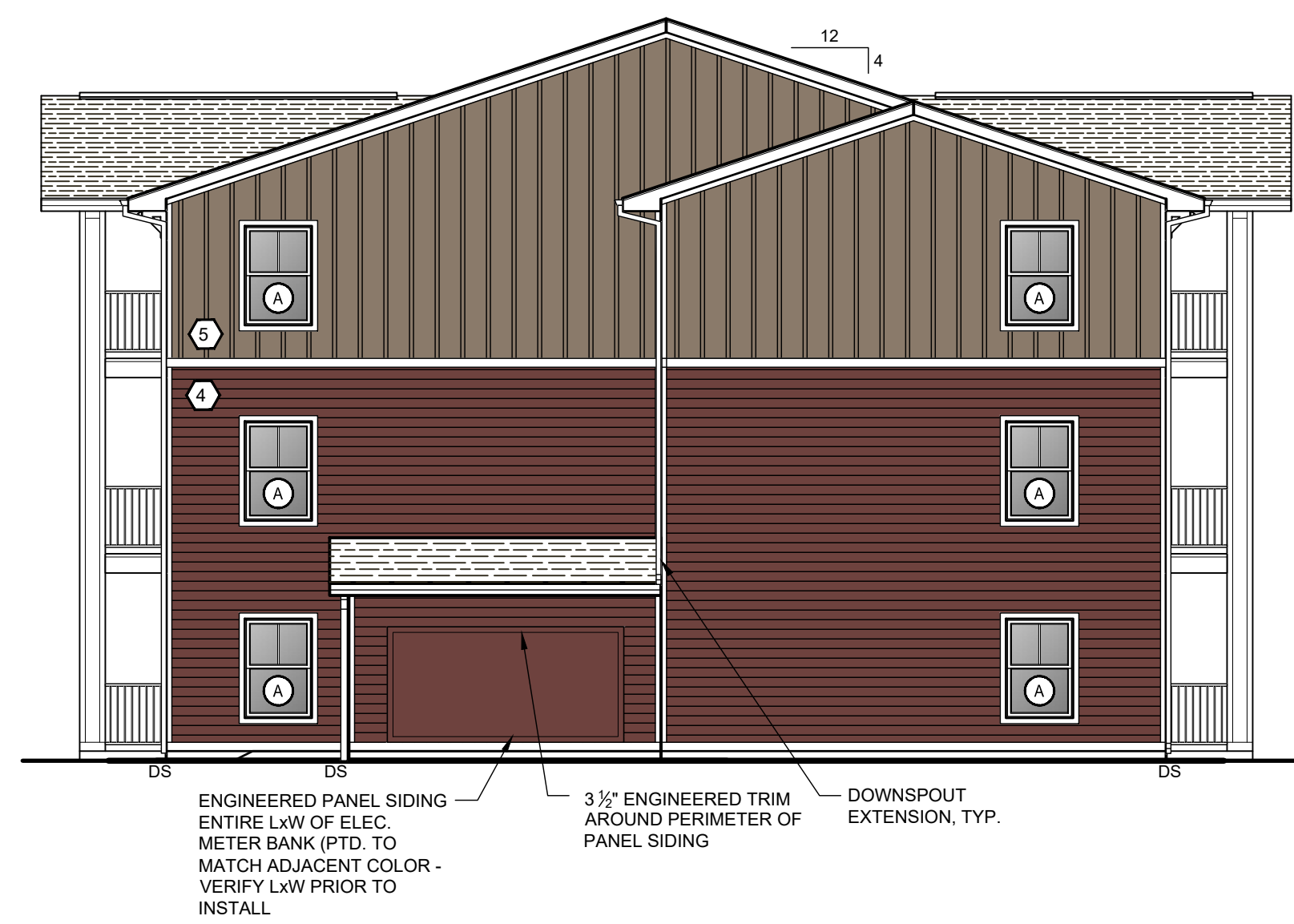
EXTERIOR COLOR SCHEDULE		
MATL	MFR.	COLOR
SCHEME #1		
PANEL SIDING w/ BATTENS	LP SMARTSIDE	SW7041 NATURAL CHOICE
HORIZONTAL LAP BOARD SIDING (FIELD)	LP SMARTSIDE	SW2811 ROOKWOOD BLUE GREEN
VERTICAL BOARD AND BATTEN SIDING (ACCENT)	LP SMARTSIDE	SW7645 THUNDER GRAY
SCHEME #2		
PANEL SIDING w/ BATTENS	LP SMARTSIDE	SW7041 NATURAL CHOICE
HORIZONTAL LAP BOARD SIDING (FIELD) - COLOR #4	LP SMARTSIDE	SW7594 CARRIAGE DOOR
VERTICAL BOARD AND BATTEN SIDING (ACCENT) - COLOR #4	LP SMARTSIDE	SW7032 WARM STONE
PATIO SWING DOORS	THERMA-TRU	WHITE
UTILITY DOORS	THERMA-TRU	WHITE
VINYL WINDOWS	MILGARD	WHITE
ALUMINUM STOREFRONT & ENTRY DOORS	KAWNEER	CLEAR ANODIZED
SOFFIT & FASCIA	LP SMARTSIDE	SNOWSCAPE WHITE
ALUMINUM RAILING	FORTRESS	DARK BRONZE
WINDOW & DOOR TRIM, BELLY BAND, FRIEZE BOARD, ENTRY COLUMNS	LP SMARTSIDE	SNOWSCAPE WHITE
GUTTER & DOWNSPOUT	WILCO	WHITE
40 YR. ARCHITECTURAL SHINGLES / RIDGE VENT	TAMKO	TBD
PVC DECORATIVE BRACKET	FYPON	WHITE

- EXTERIOR COLOR NOTES:**
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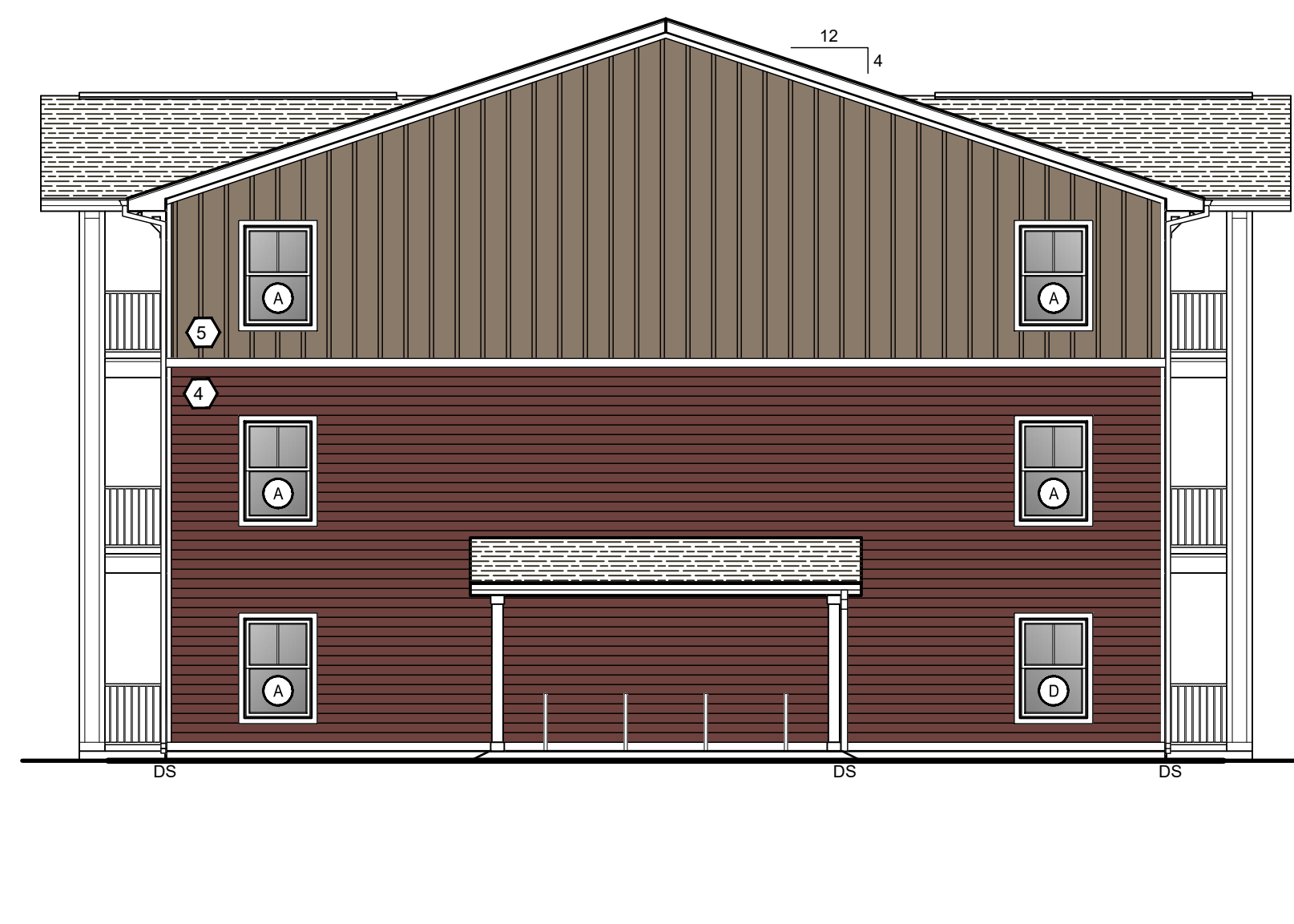
APARTMENT WINDOW SCHEDULE			
SYM.	MATL.	DESCRIPTION	NOM. UNIT SIZE W.H.
A*	VINYL	SINGLE HUNG WINDOW	UNIT: 3'-6" X 5'-2"
B*	VINYL	SINGLE HUNG WINDOW	UNIT: 3'-6" X 4'-6"
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E	VINYL	ADA CASEMENT WINDOW	UNIT: 3'-6" X 4'-6"

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- PROVIDE SCREENS FOR ALL OPERABLE WINDOWS

CLUBHOUSE WINDOW SCHEDULE			
SYM.	MATL.	DESCRIPTION	NOM. UNIT SIZE W.H.
F	VINYL	SINGLE HUNG WINDOW	UNIT: 3'-0" X 5'-2"
G	VINYL	SINGLE HUNG WINDOW	UNIT: (2) 3'-0" X 5'-2"
H	VINYL	SINGLE HUNG WINDOW	UNIT: (3) 2'-8" X 5'-2"
I	VINYL	FIXED WINDOW	UNIT: (2) 3'-0" X 2'-6"



**BUILDING #4
SOUTH ELEVATION**
SCALE: 1/8" = 1'-0"

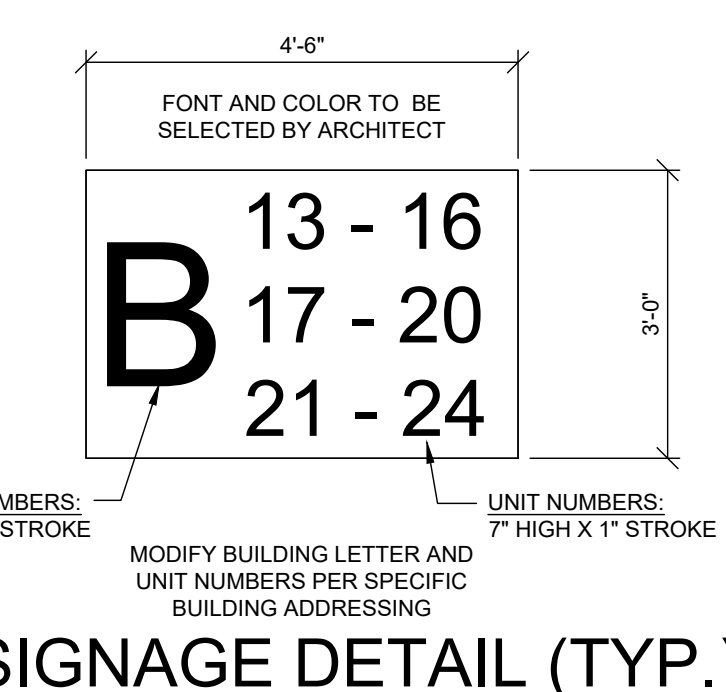


**BUILDING #4
NORTH ELEVATION**
SCALE: 1/8" = 1'-0"

- RIDGE HEIGHT EL. = 138'-0 7/8"
- TRUSS BRG. EL. = 128'-4 7/8"
- THIRD FLOOR EL. = 120'-5"
- SECOND FLOOR EL. = 110'-3 1/8"
- FIRST FLOOR EL. = 100'-0"



**BUILDING #4
EAST ELEVATION**
SCALE: 1/8" = 1'-0"



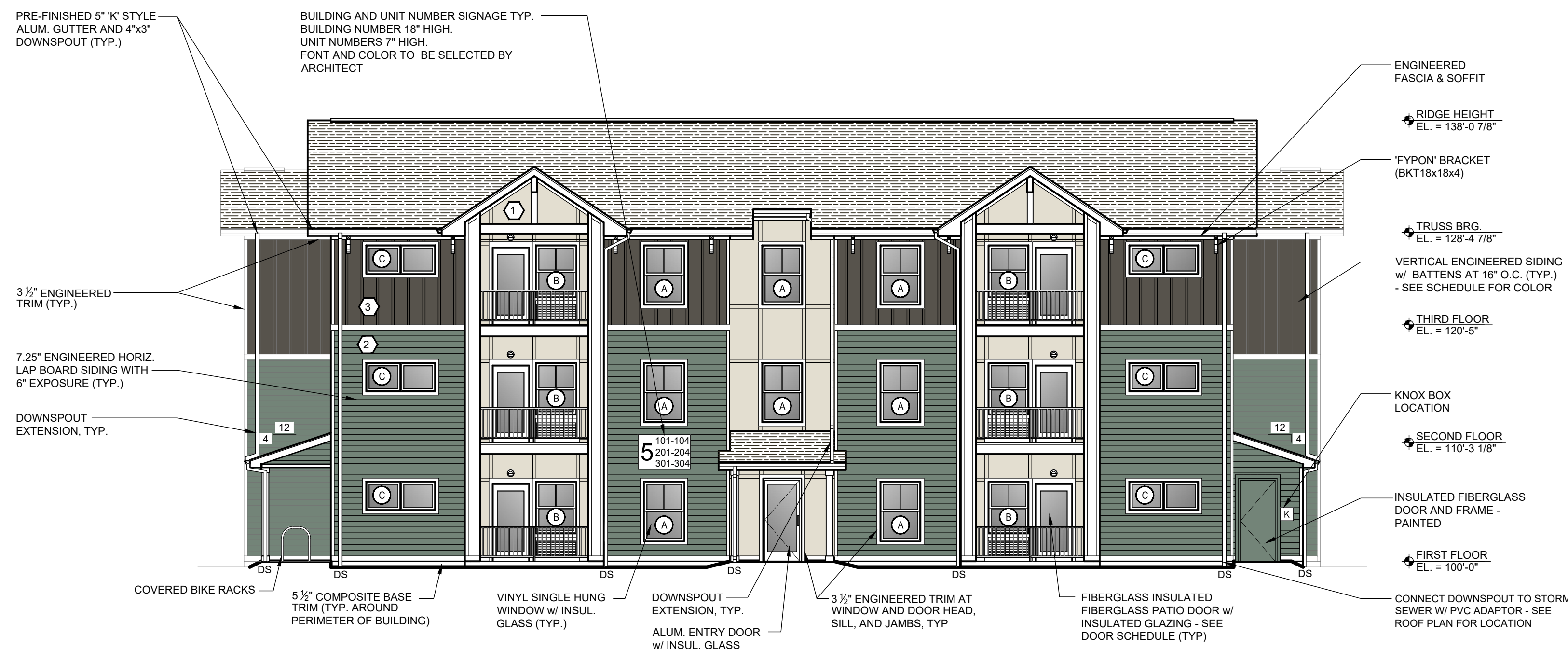
SIGNAGE DETAIL (TYP.)

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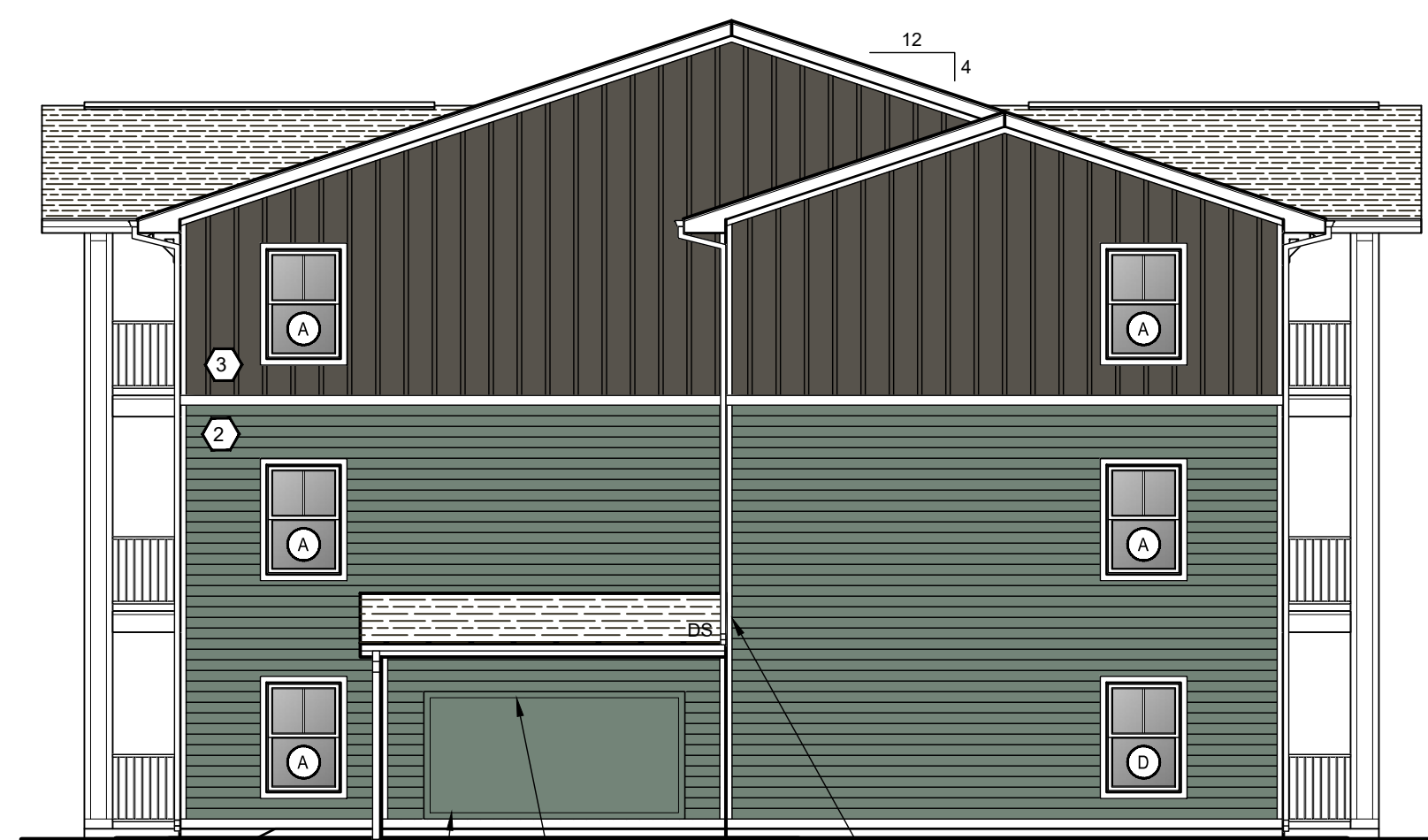


**BUILDING #5
WEST ELEVATION**
SCALE: 1/8" = 1'-0"

EXTERIOR COLOR SCHEDULE		
MATL	MFR.	COLOR
SCHEME #1		
PANEL SIDING w/ BATTENS	LP SMARTSIDE	SW7041 NATURAL CHOICE
HORIZONTAL LAP BOARD SIDING (FIELD)	LP SMARTSIDE	SW2811 ROOKWOOD BLUE GREEN
VERTICAL BOARD AND BATTEN SIDING (ACCENT)	LP SMARTSIDE	SW7645 THUNDER GRAY
SCHEME #2		
PANEL SIDING w/ BATTENS	LP SMARTSIDE	SW7041 NATURAL CHOICE
HORIZONTAL LAP BOARD SIDING (FIELD) - COLOR #4	LP SMARTSIDE	SW7594 CARRIAGE DOOR
VERTICAL BOARD AND BATTEN SIDING (ACCENT) - COLOR #4	LP SMARTSIDE	SW7032 WARM STONE
PATIO SWING DOORS	THERMA-TRU	WHITE
UTILITY DOORS	THERMA-TRU	WHITE
VINYL WINDOWS	MILGARD	WHITE
ALUMINUM STOREFRONT & ENTRY DOORS	KAWNEER	CLEAR ANODIZED
SOFFIT & FASCIA	LP SMARTSIDE	SNOWSCAPE WHITE
ALUMINUM RAILING	FORTRESS	DARK BRONZE
WINDOW & DOOR TRIM, BELLY BAND, FRIEZE BOARD, ENTRY COLUMNS	LP SMARTSIDE	SNOWSCAPE WHITE
GUTTER & DOWNSPOUT	WILCO	WHITE
40 YR. ARCHITECTURAL SHINGLES / RIDGE VENT	TAMKO	TBD
PVC DECORATIVE BRACKET	FYPON	WHITE

EXTERIOR COLOR NOTES:

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**BUILDING #5
SOUTH ELEVATION**
SCALE: 1/8" = 1'-0"

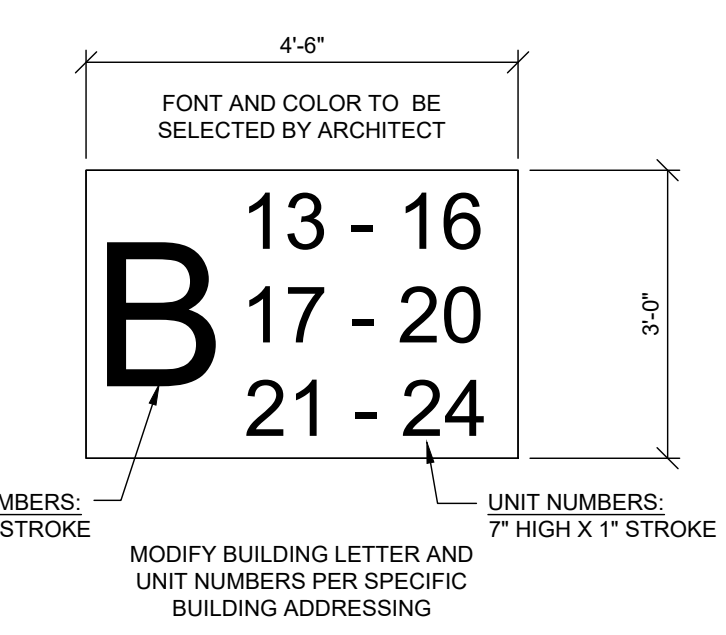


**BUILDING #5
NORTH ELEVATION**
SCALE: 1/8" = 1'-0"

APARTMENT WINDOW SCHEDULE			
SYM.	MATL.	DESCRIPTION	NOM. UNIT SIZE W.H.
A*	VINYL	SINGLE HUNG WINDOW	UNIT: 3'-6" X 4'-2"
B*	VINYL	SINGLE HUNG WINDOW	UNIT: 3'-6" X 4'-6"
C	VINYL	FIXED WINDOW	UNIT: (2) 3'-0" X 2'-6"
D*	VINYL	ADA CASEMENT WINDOW	UNIT: 3'-0" X 5'-2"
E	VINYL	ADA CASEMENT WINDOW	UNIT: 3'-6" X 4'-6"

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CLUBHOUSE WINDOW SCHEDULE			
SYM.	MATL.	DESCRIPTION	NOM. UNIT SIZE W.H.
F	VINYL	SINGLE HUNG WINDOW	UNIT: 3'-0" X 5'-2"
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SIGNAGE DETAIL (TYP.)

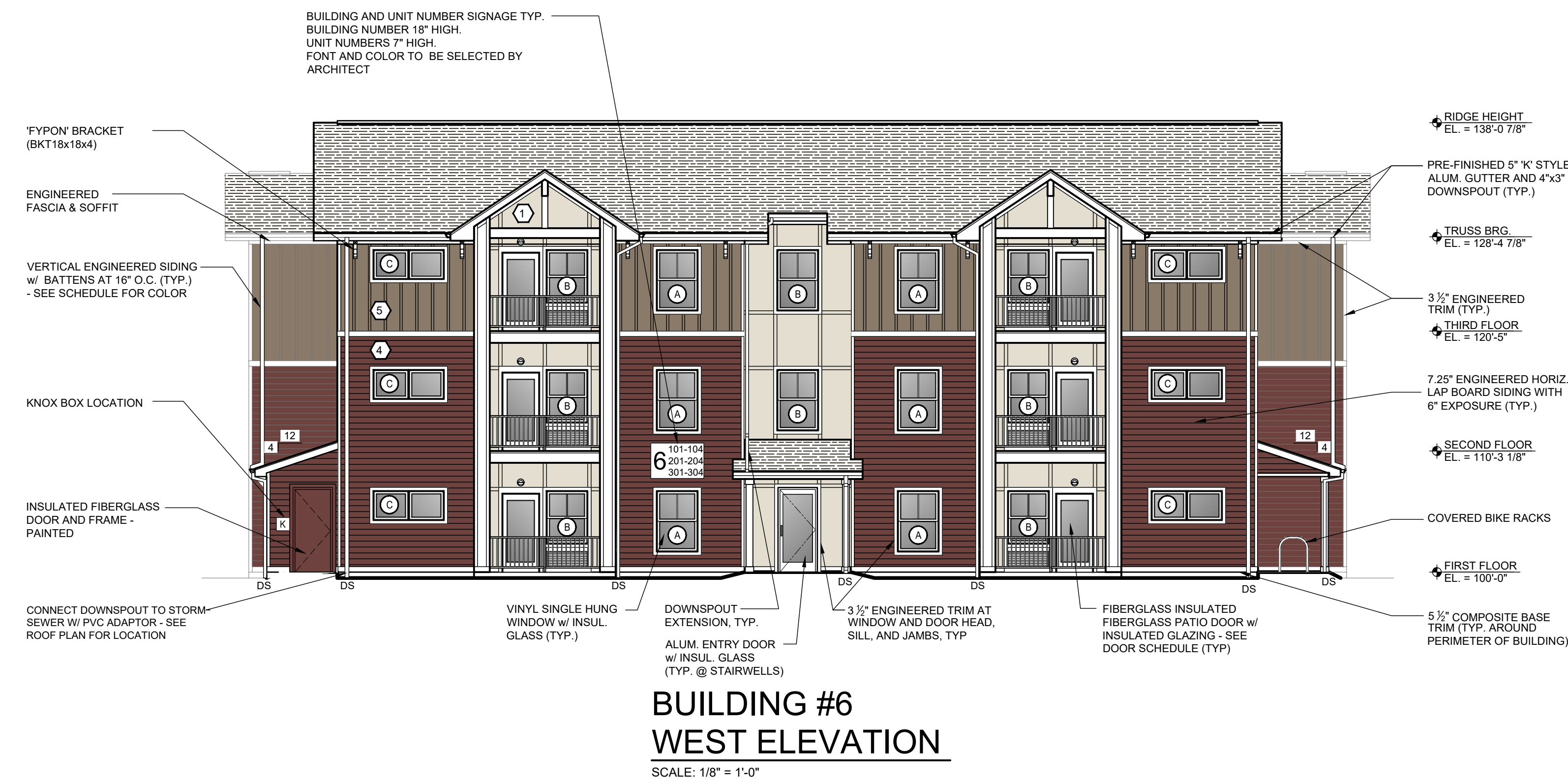


**BUILDING #5
EAST ELEVATION**
SCALE: 1/8" = 1'-0"

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PHOENIX, OR 97501



BUILDING #6
WEST ELEVATION
SCALE: 1/8" = 1'-0"

EXTERIOR COLOR SCHEDULE		
MATL	MFR.	COLOR
SCHEME #1		
PANEL SIDING w/ BATTENS	LP SMARTSIDE	SW7041 NATURAL CHOICE
HORIZONTAL LAP BOARD SIDING (FIELD)	LP SMARTSIDE	SW2811 ROOKWOOD BLUE GREEN
VERTICAL BOARD AND BATTEN SIDING (ACCENT)	LP SMARTSIDE	SW7645 THUNDER GRAY
SCHEME #2		
PANEL SIDING w/ BATTENS	LP SMARTSIDE	SW7041 NATURAL CHOICE
HORIZONTAL LAP BOARD SIDING (FIELD) - COLOR #4	LP SMARTSIDE	SW7594 CARRIAGE DOOR
VERTICAL BOARD AND BATTEN SIDING (ACCENT) - COLOR #4	LP SMARTSIDE	SW7032 WARM STONE
PATIO SWING DOORS	THERMA-TRU	WHITE
UTILITY DOORS	THERMA-TRU	WHITE
VINYL WINDOWS	MILGARD	WHITE
ALUMINUM STOREFRONT & ENTRY DOORS	KAWNEER	CLEAR ANODIZED
SOFFIT & FASCIA	LP SMARTSIDE	SNOWSCAPE WHITE
ALUMINUM RAILING	FORTRESS	DARK BRONZE
WINDOW & DOOR TRIM, BELLY BAND, FRIEZE BOARD, ENTRY COLUMNS	LP SMARTSIDE	SNOWSCAPE WHITE
GUTTER & DOWNSPOUT	WILCO	WHITE
40 YR. ARCHITECTURAL SHINGLES / RIDGE VENT	TAMKO	TBD
PVC DECORATIVE BRACKET	FYPON	WHITE

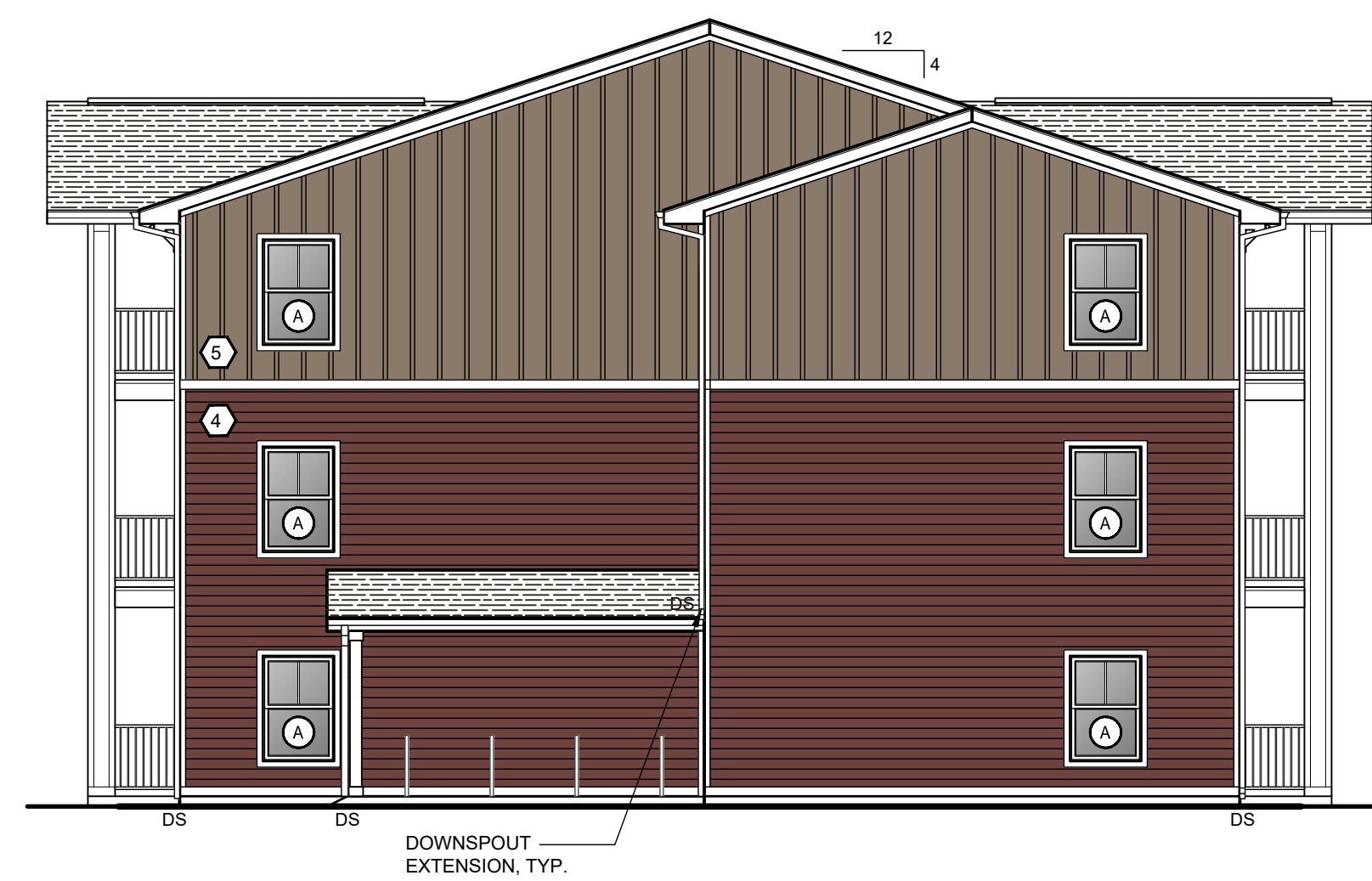
EXTERIOR COLOR NOTES:

- VERIFY COLORS AND MATERIALS WITH OWNER AND ARCHITECT PRIOR TO ORDERING
- ALL SIDING, SOFFIT, FASCIA, AND TRIM BOARDS TO BE FACTORY PRE-FINISHED
- ALL PROPOSED PENETRATIONS NOT LIMITED TO RANGE HOOD VENT, DRYER VENT, AND BATHROOM VENTS TO EXTERIOR SHALL BE PAINTED TO MATCH ADJACENT MATERIAL COLOR

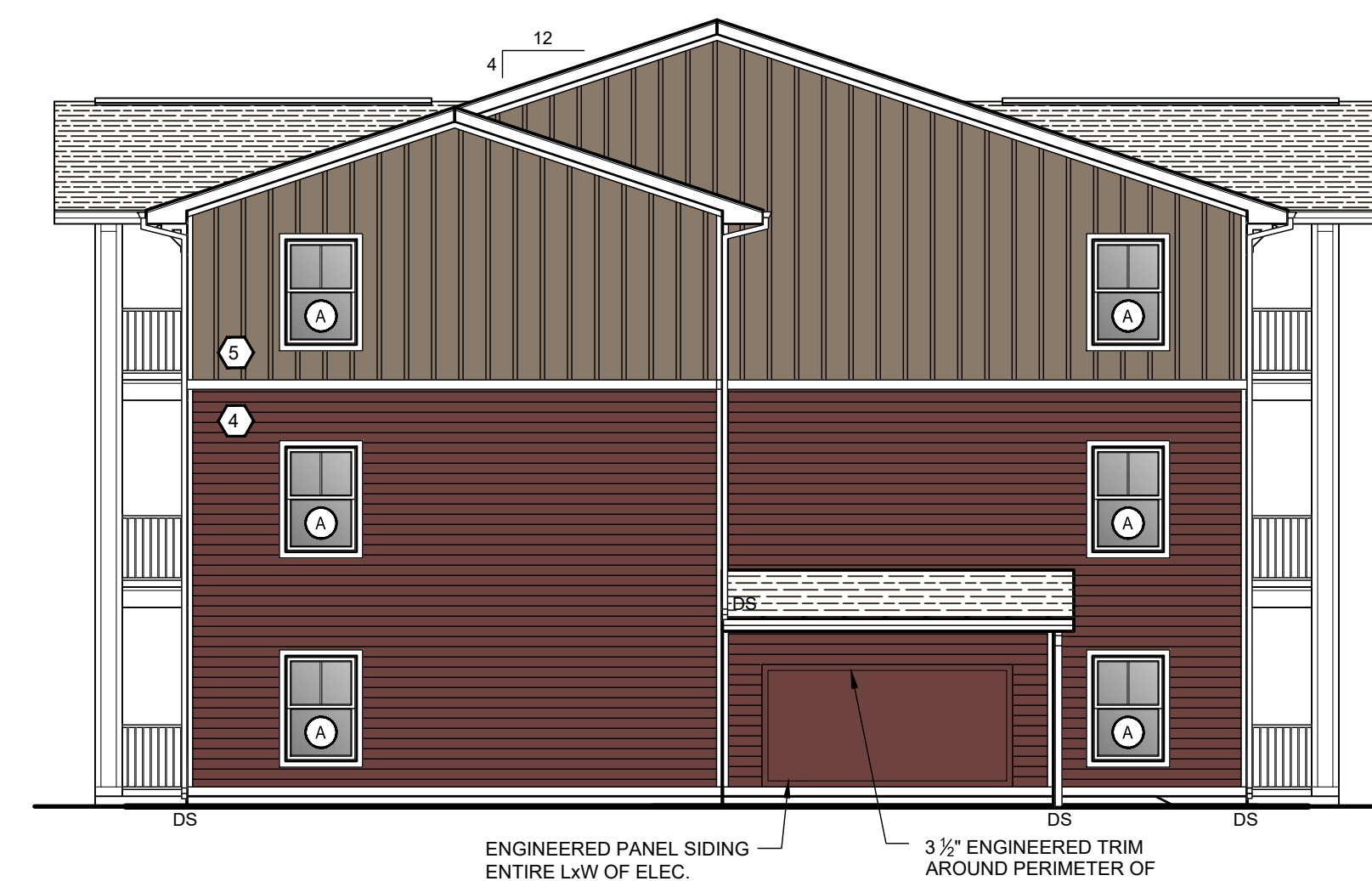
APARTMENT WINDOW SCHEDULE			
SYM.	MATL.	DESCRIPTION	NOM. UNIT SIZE W.H.
A	VINYL	SINGLE HUNG WINDOW	UNIT: 3'-6" X 5'-2"
B	VINYL	SINGLE HUNG WINDOW	UNIT: 3'-6" X 4'-6"
C	VINYL	FIXED WINDOW	UNIT: (2) 3'-0" X 2'-6"
D	VINYL	ADA CASEMENT WINDOW	UNIT: 3'-0" X 5'-2"
E	VINYL	ADA CASEMENT WINDOW	UNIT: 3'-6" X 4'-6"

- ENERGY STAR WINDOWS
- ASTERISK (*) INDICATES WINDOW SHALL MEET MIN. EGRESS SIZE REQUIREMENTS PER IBC EMERGENCY ESCAPE AND RESCUE SECTION
- PER SPS 321.05 (3) SAFETY GLAZING ADJACENT TO A DOOR WHERE THE NEAREST EXPOSED EDGE OF THE GLAZING IS WITHIN 24"
- WINDOW MANUFACTURER SHALL REVIEW WINDOW LOCATIONS AND PROVIDE SAFETY GLAZING IN ALL LOCATIONS REQUIRED BY IBC CHAPTER 24
- ALL PROPOSED RANGE HOOD VENT, DRYER VENT, AND BATHROOM VENTS TO EXTERIOR SHALL BE APPROVED BY ARCHITECT PRIOR TO INSTALLATION
- SEE TYP. UNIT FLOOR PLANS FOR ALL ADA WINDOW LOCATIONS
- REFER TO DETAIL 7/A4.1 FOR ADA WINDOW SASH REQUIREMENTS. (PROVIDE ADA LIFT HANDLE @ BOTTOM SASH)
- OPERABLE SECTIONS OF WINDOWS SHALL NOT PERMIT OPENINGS THAT ALLOW PASSAGE OF A 4-INCH-DIAMETER SPHERE WHERE SUCH OPENINGS ARE LOCATED WITHIN 36 INCHES OF THE FINISHED FLOOR. WINDOW OPENING CONTROL DEVICES SHALL COMPLY WITH ASTM F 2090 AND SHALL NOT REDUCE THE MINIMUM NET CLEAR OPENING AREA THAT IS REQUIRED.
- PROVIDE SCREENS FOR ALL OPERABLE WINDOWS

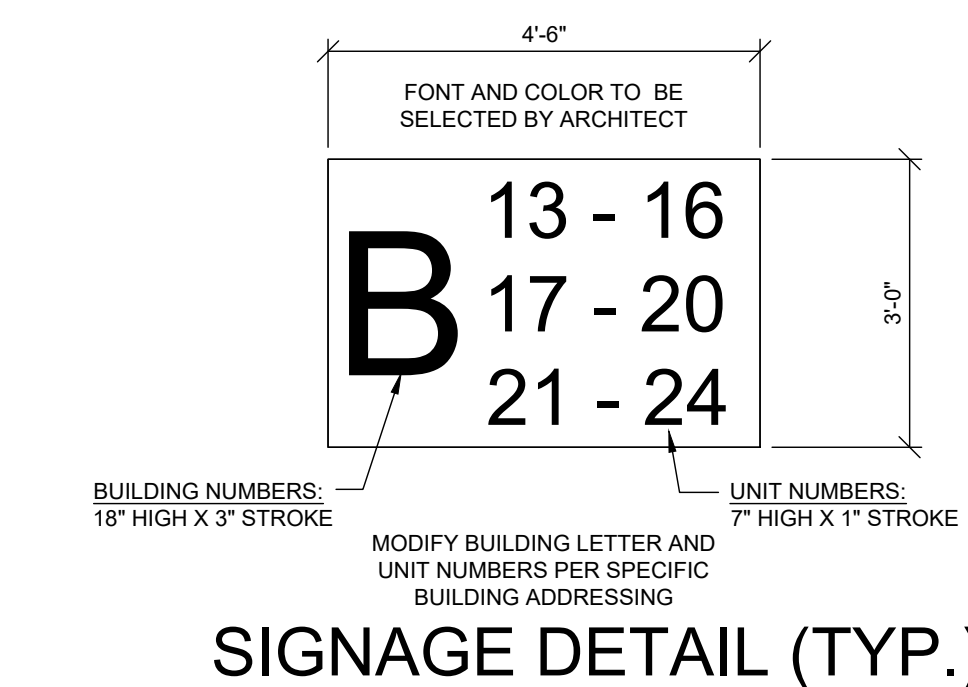
CLUBHOUSE WINDOW SCHEDULE			
SYM.	MATL.	DESCRIPTION	NOM. UNIT SIZE W.H.
F	VINYL	SINGLE HUNG WINDOW	UNIT: 3'-0" X 5'-2"
G	VINYL	SINGLE HUNG WINDOW	UNIT: (2) 3'-0" X 5'-2"
H	VINYL	SINGLE HUNG WINDOW	UNIT: (3) 2'-8" X 5'-2"
I	VINYL	FIXED WINDOW	UNIT: (2) 3'-0" X 2'-6"



BUILDING #6
SOUTH ELEVATION
SCALE: 1/8" = 1'-0"



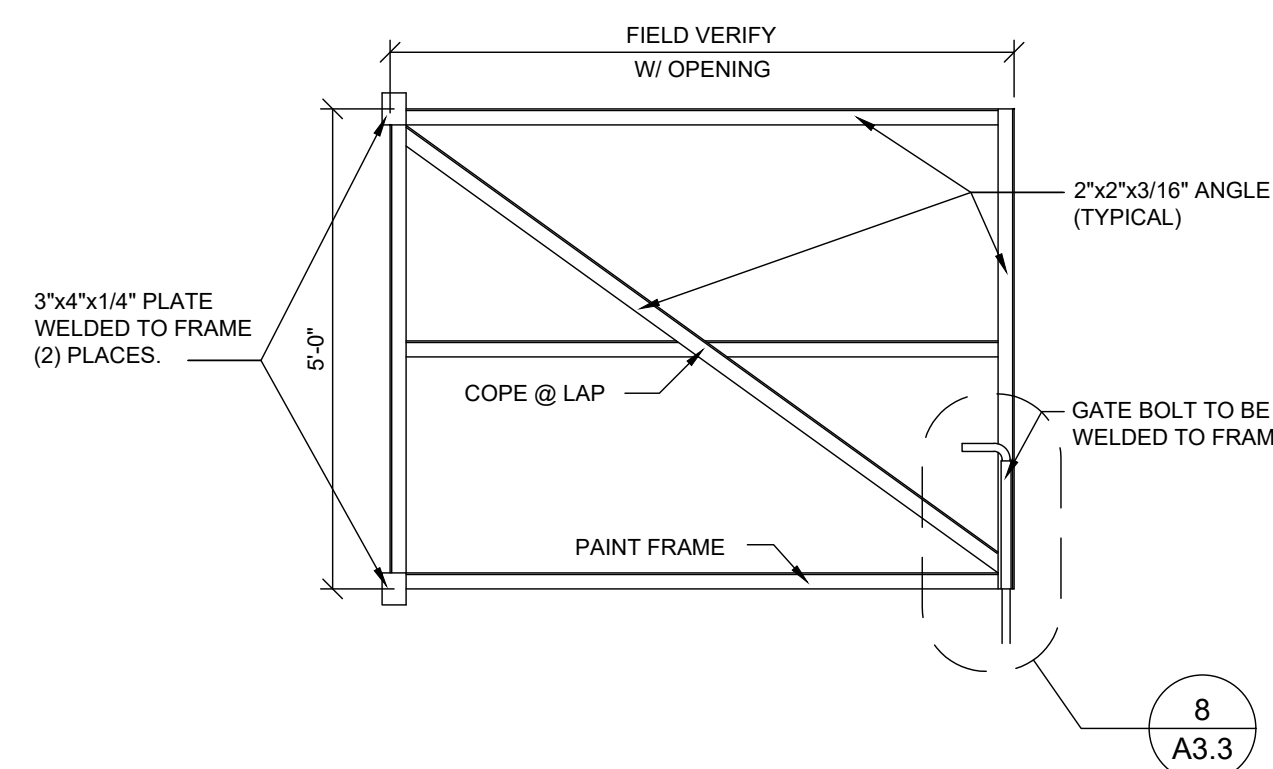
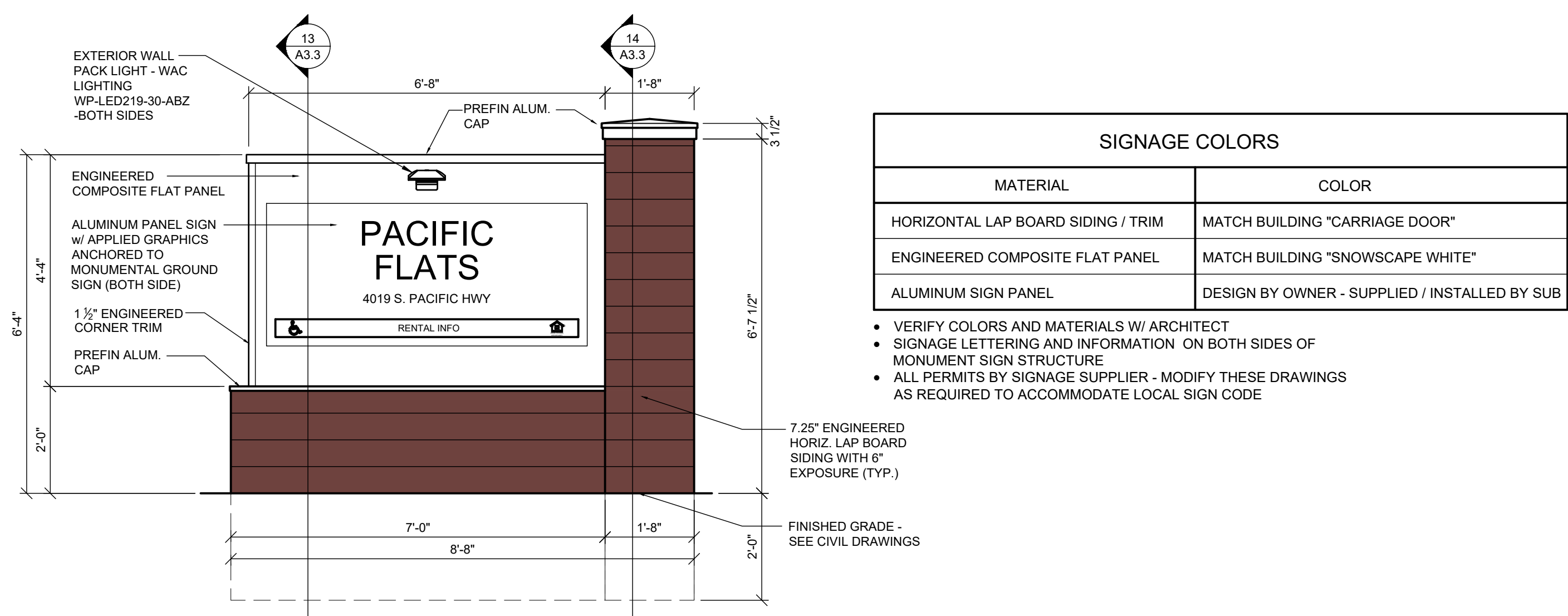
BUILDING #6
NORTH ELEVATION
SCALE: 1/8" = 1'-0"



SIGNAGE DETAIL (TYP.)



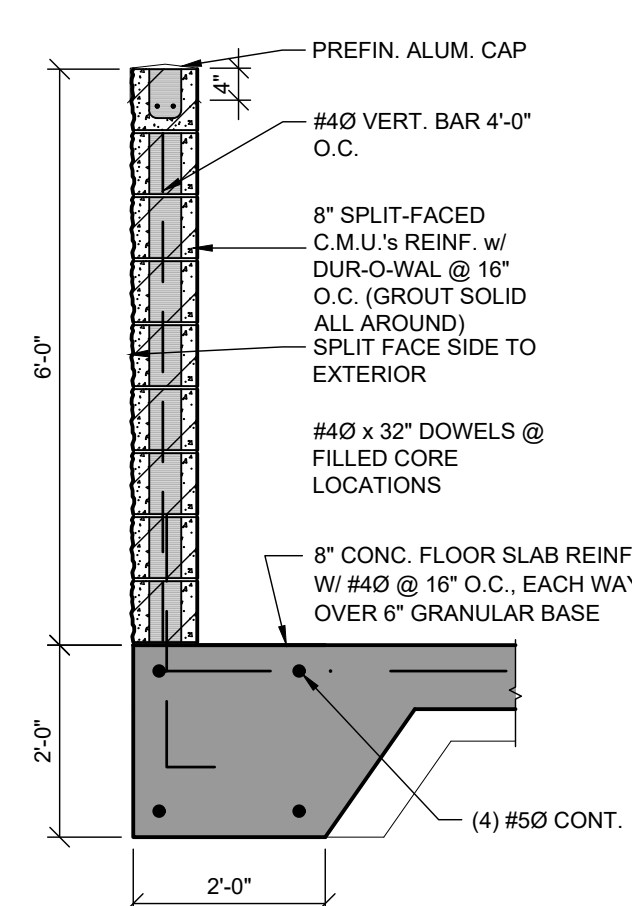
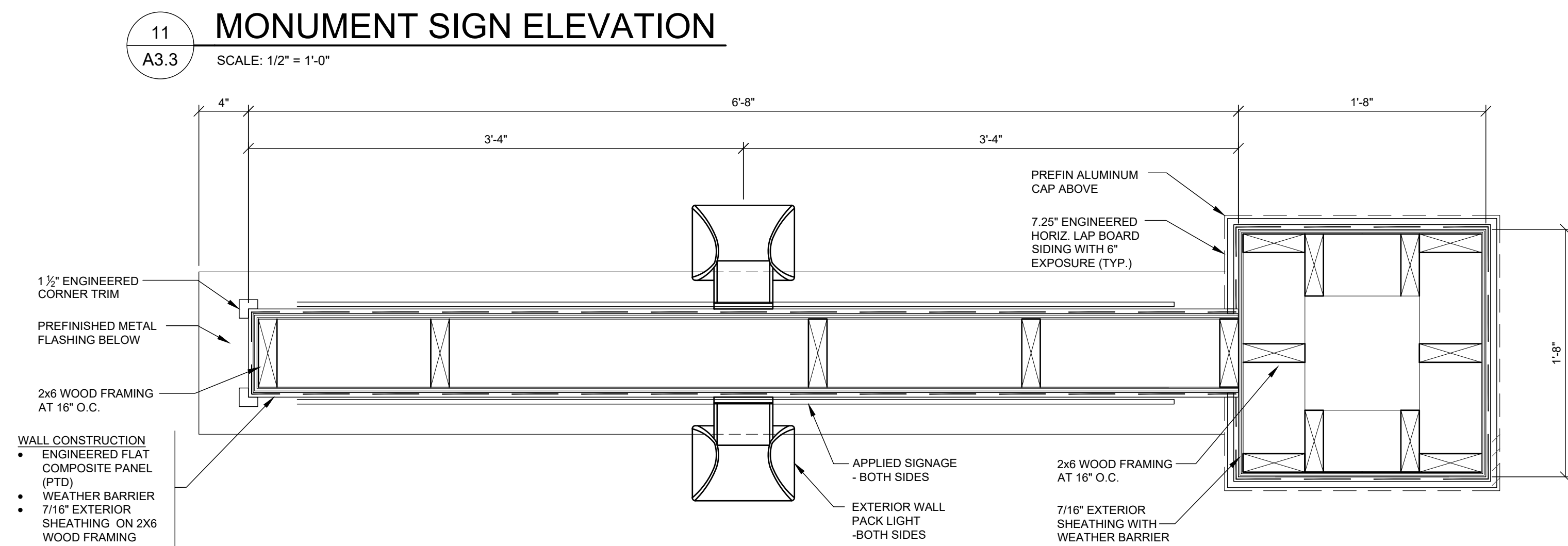
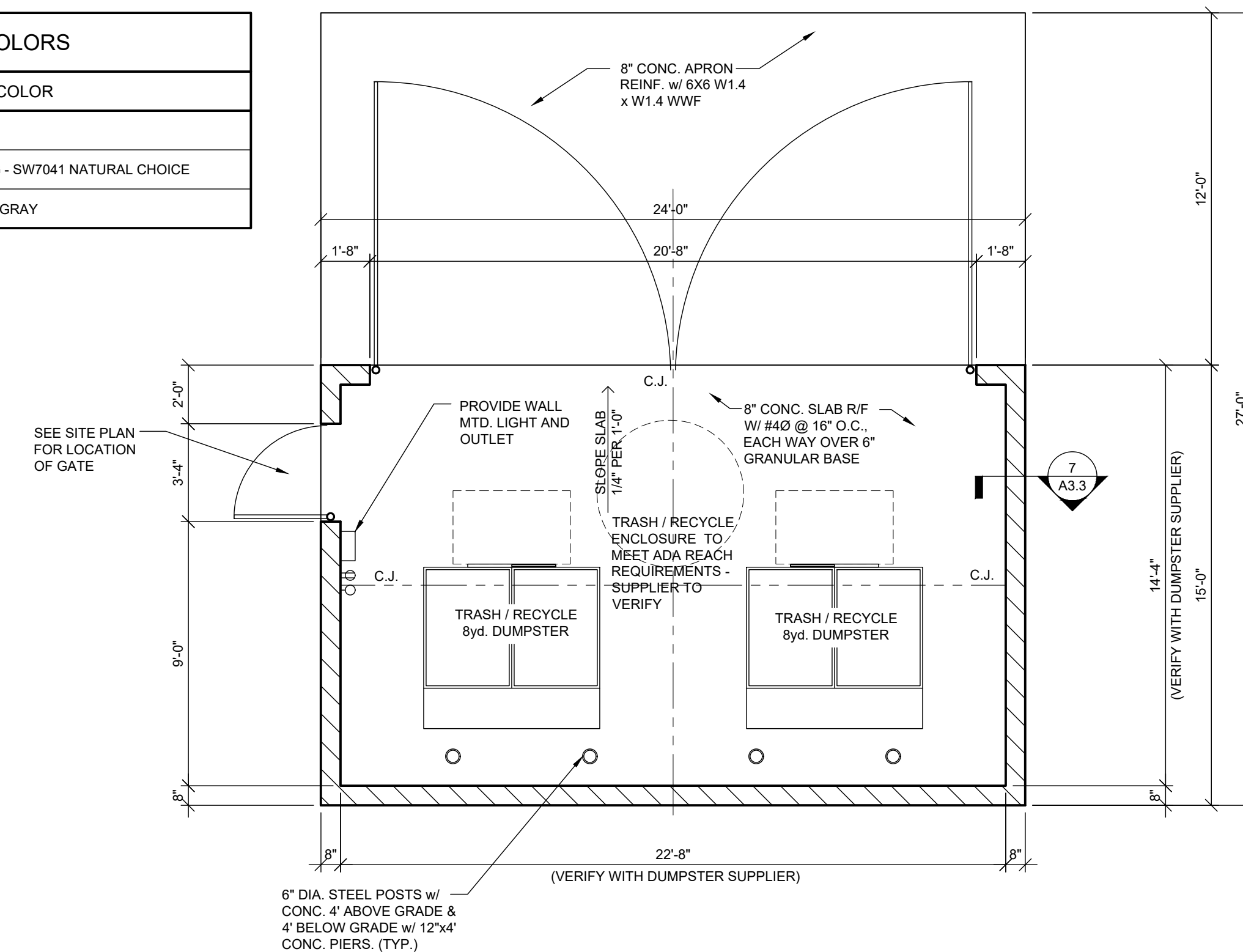
BUILDING #6
EAST ELEVATION
SCALE: 1/8" = 1'-0"



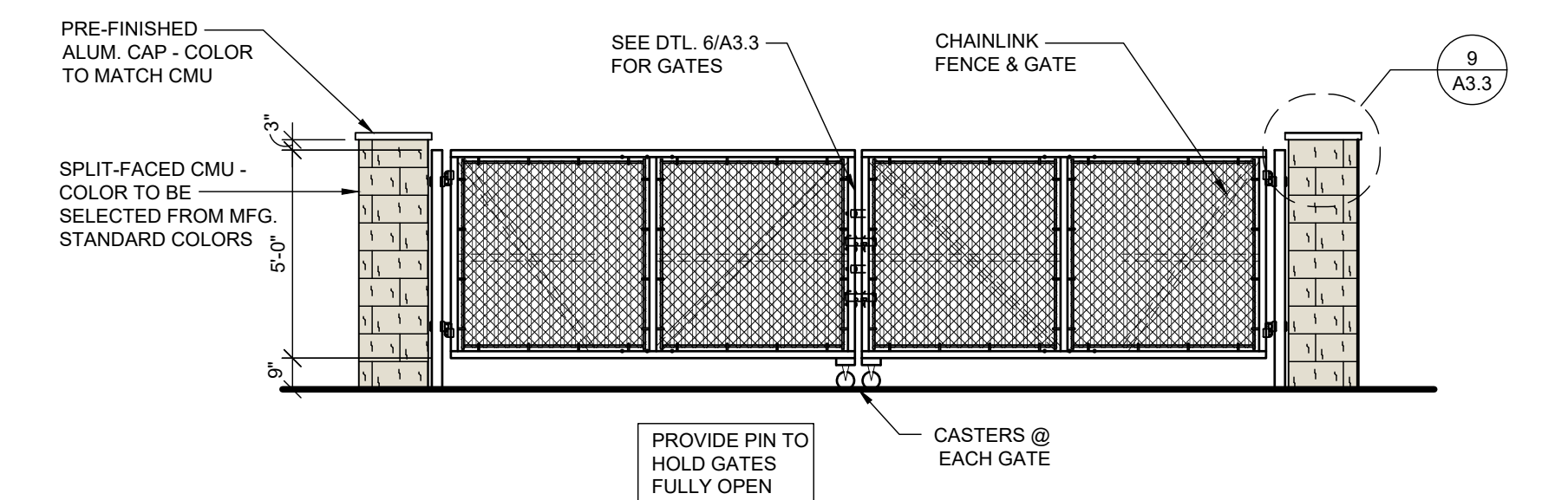
DUMPSTER ENCLOSURE COLORS

MATERIAL	COLOR
ALUM. COPING	TO MATCH BLOCK
DUMPSTER SPLIT FACE C.M.U.	TO MATCH LP SMARTSIDING - SW7041 NATURAL CHOICE
DUMPSTER GATE FENCE	VINYL SLATED CHAIN LINK - GRAY

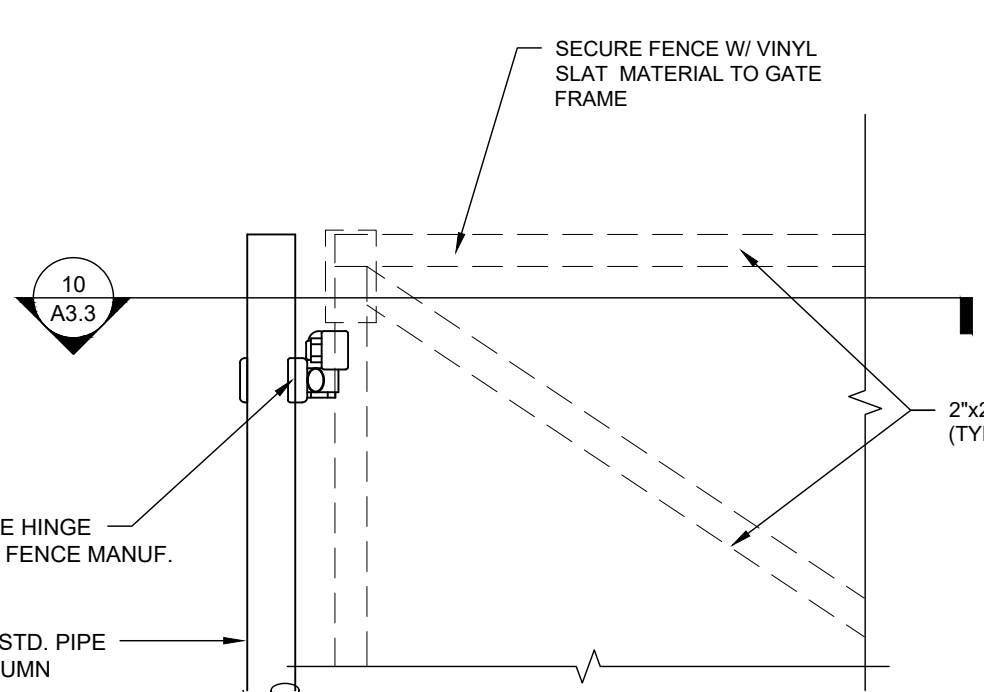
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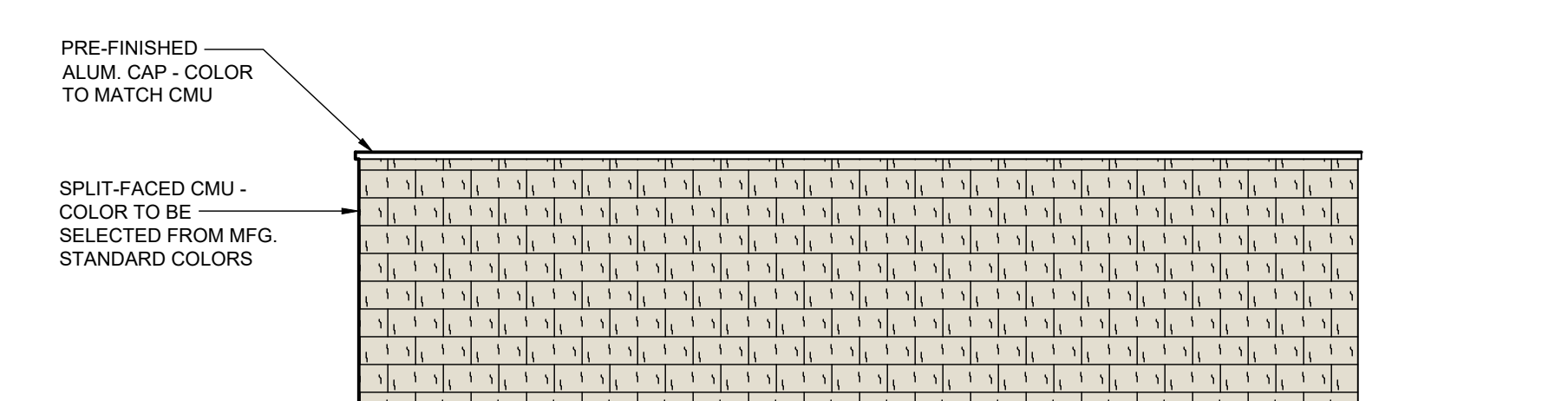
7 DUMPSTER WALL SECTION
 SCALE: 1/2" = 1'-0"



8 TYP. GATE BOLT
 SCALE: NONE

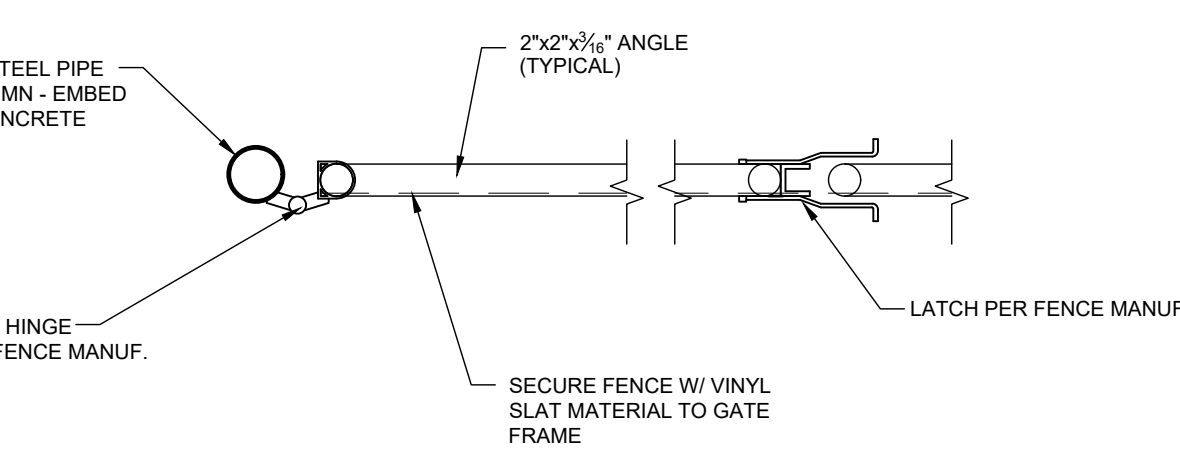
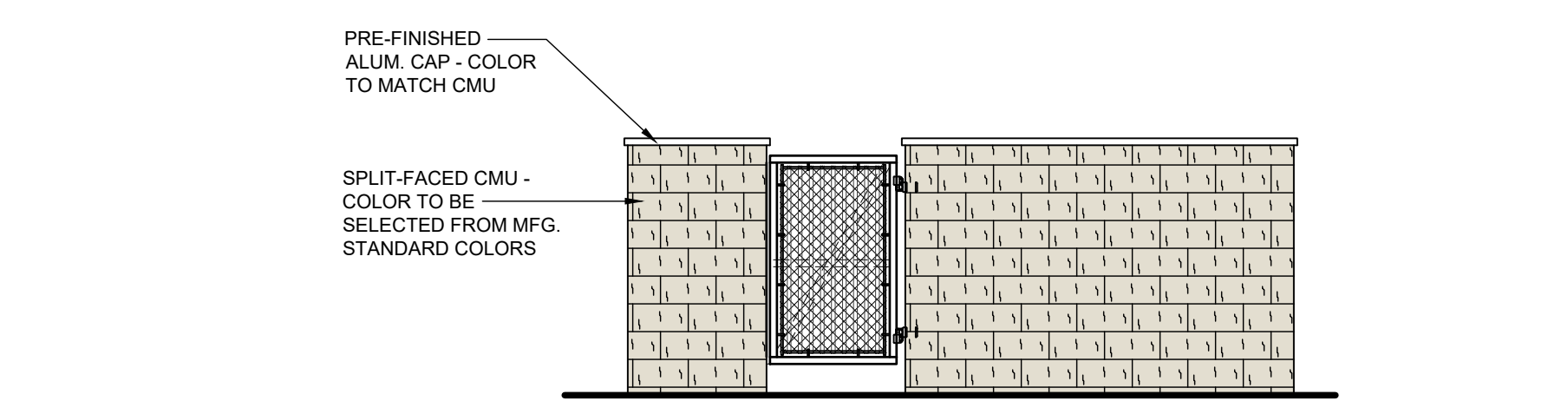


2 DUMPSTER ENCLOSURE FRONT ELEVATION
 SCALE: 1/4" = 1'-0"

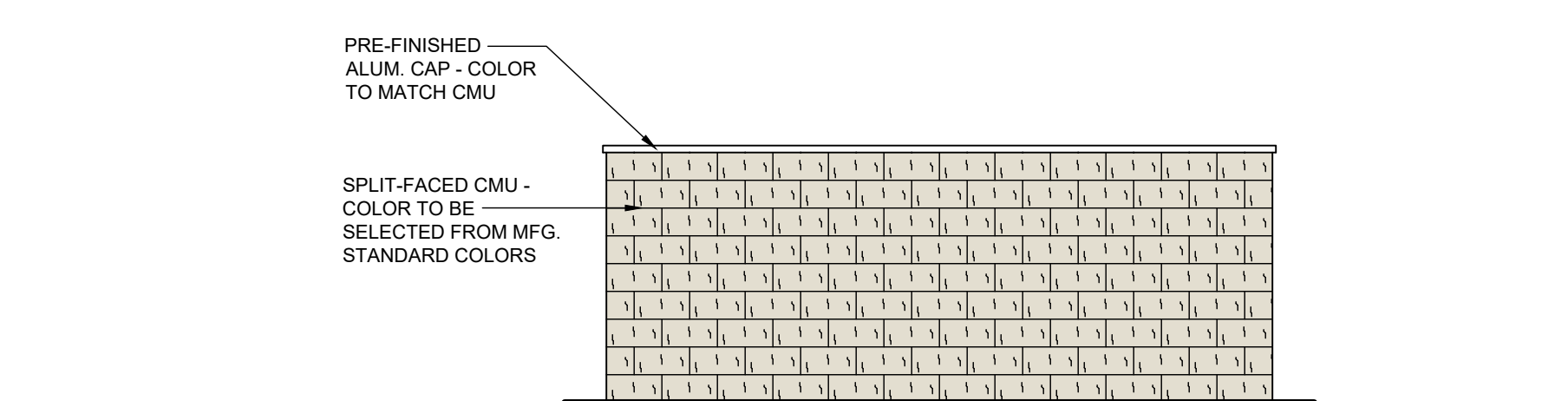


9 GATE HINGE ELEVATION
 SCALE: 1" = 1'-0"

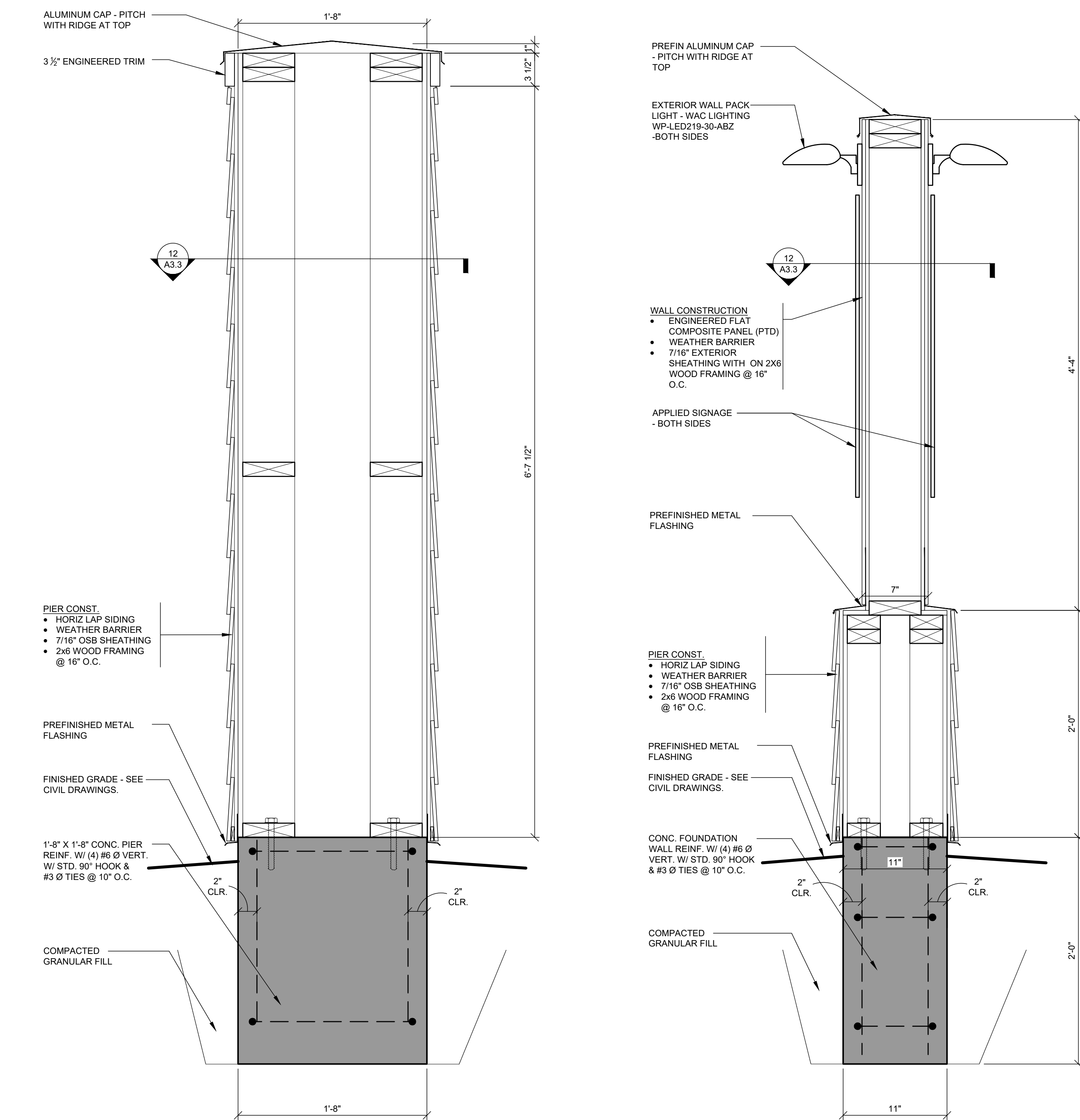
3 DUMPSTER ENCLOSURE REAR ELEVATION
 SCALE: 1/4" = 1'-0"



4 DUMPSTER ENCLOSURE SIDE ELEVATION
 SCALE: 1/4" = 1'-0"



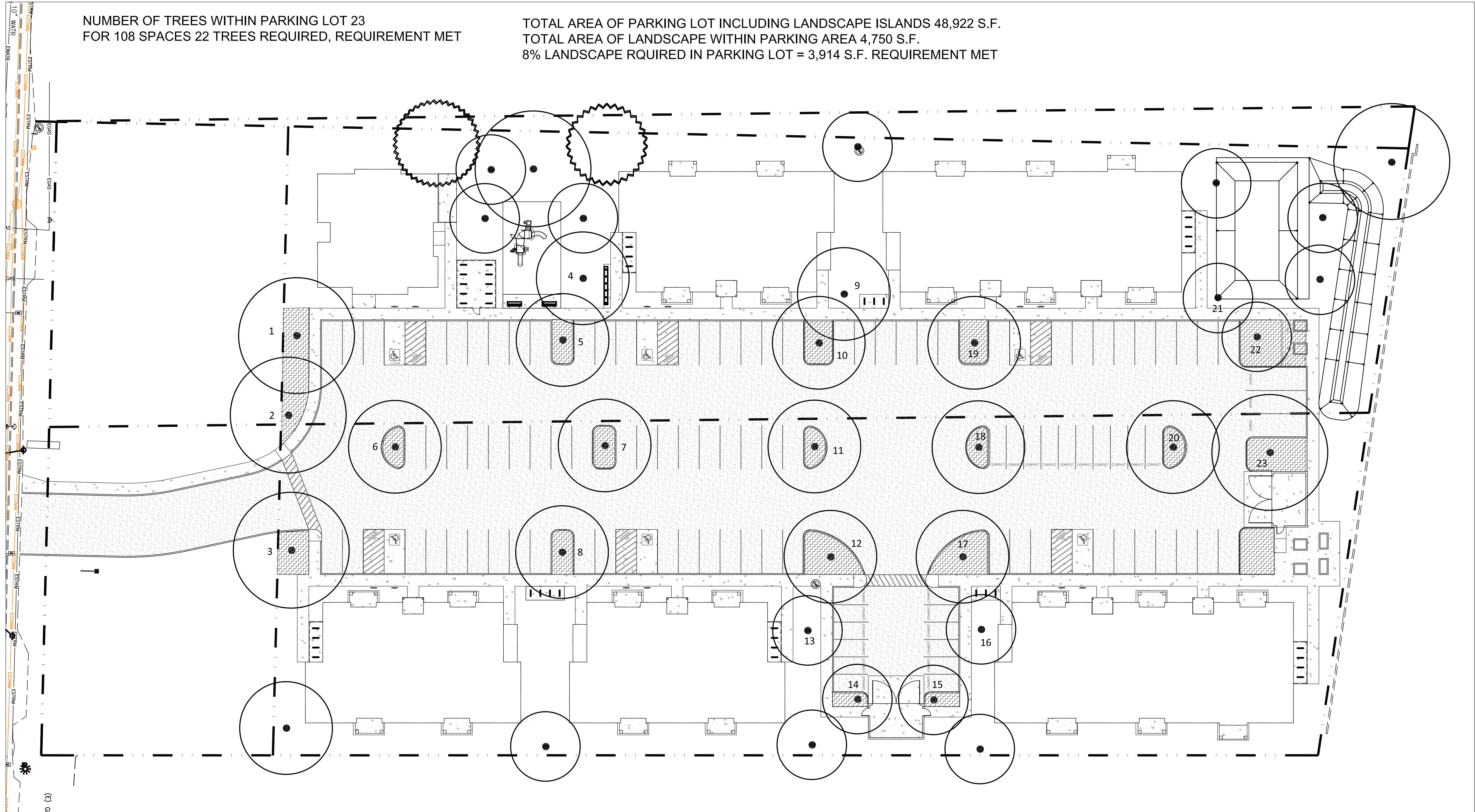
5 DUMPSTER ENCLOSURE SIDE ELEVATION
 SCALE: 1/4" = 1'-0"



10 TRASH ENCLOSURE GATE
 SCALE: 1" = 1'-0"

NUMBER OF TREES WITHIN PARKING LOT 23
 FOR 108 SPACES 22 TREES REQUIRED, REQUIREMENT MET

TOTAL AREA OF PARKING LOT INCLUDING LANDSCAPE ISLANDS 48,922 S.F.
 TOTAL AREA OF LANDSCAPE WITHIN PARKING AREA 4,750 S.F.
 8% LANDSCAPE REQUIRED IN PARKING LOT = 3,914 S.F. REQUIREMENT MET



DRAWN BY:

SCALE
 1"=20'-0"

M+A DESIGN, INC.

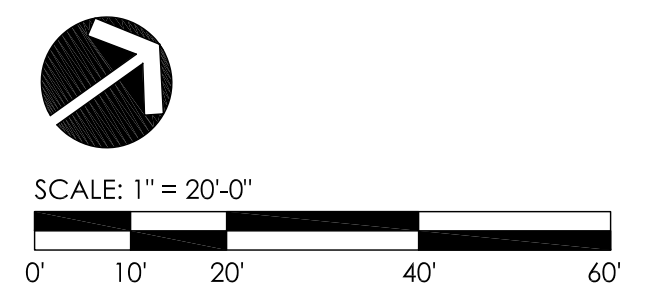
PACIFIC FLATS
 4019 S. PACIFIC HWY
 PHOENIX, OR 97501

JOB NO. 9249
 REVISION DATE

LANDSCAPE
 SITE
 PLAN

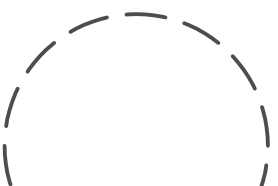
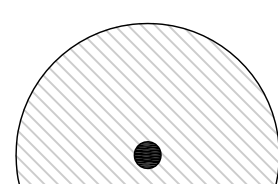
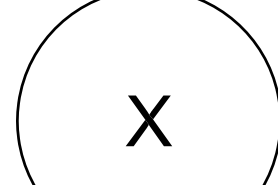
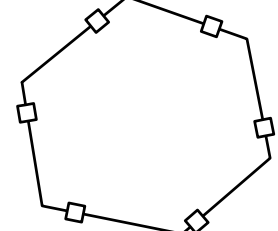
ISSUE DATE:
 12.6.23

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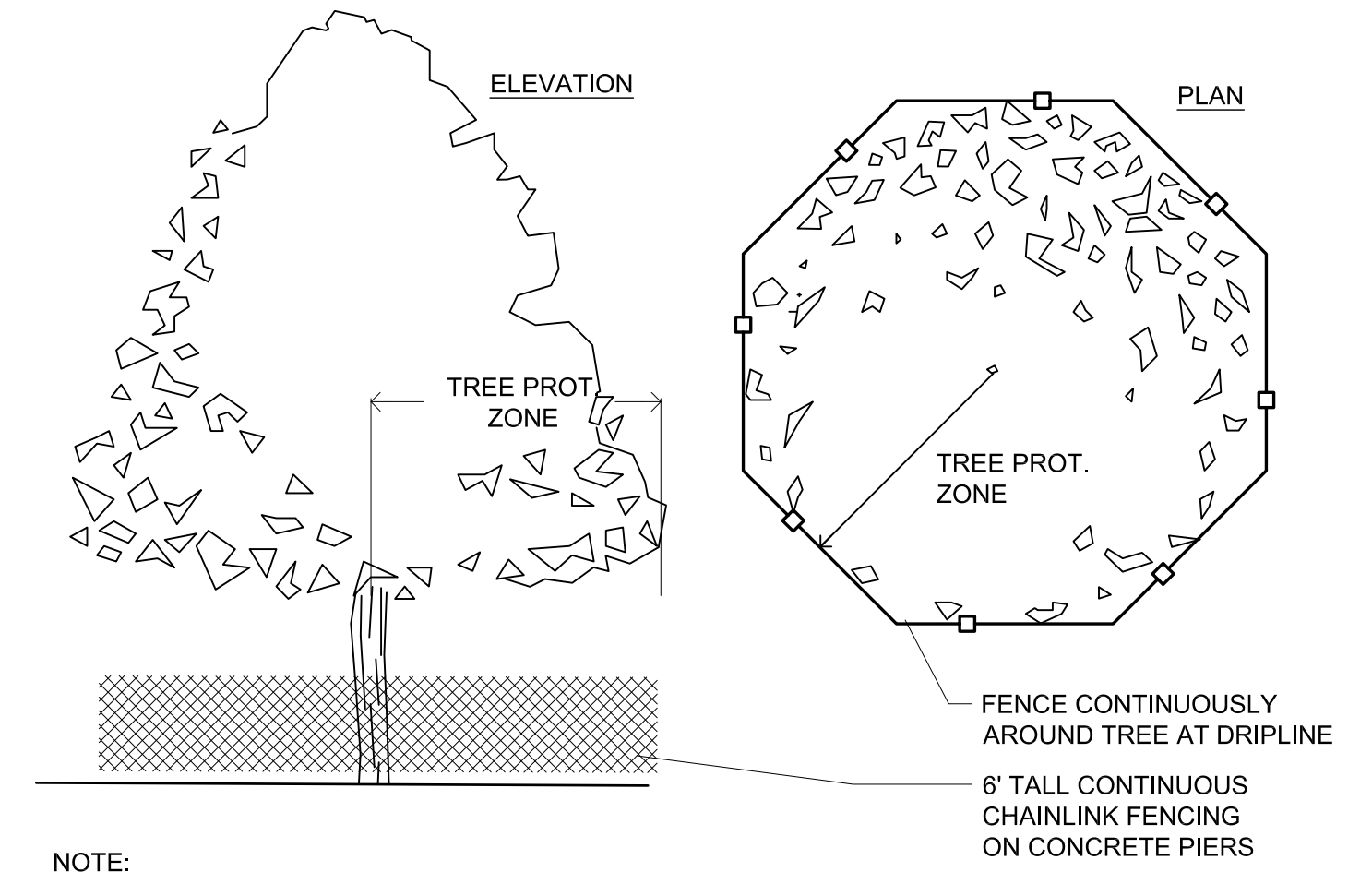
- PRIOR TO DELIVERING EXCAVATION EQUIPMENT OR COMMENCING ANY CONSTRUCTION ACTIVITIES ON THE SITE, THE GENERAL CONTRACTOR SHALL CONTACT THE LANDSCAPE ARCHITECT FOR A PRE-CONSTRUCTION MEETING WITH THE LANDSCAPE ARCHITECT AND EXCAVATION SUPERVISOR PRIOR TO COMMENCING ANY WORK ON THE SITE. THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED BY THE CONTRACTOR 48 HRS. IN ADVANCE FOR ALL SITE VISITS REQUESTED. CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM THE OWNER'S REPRESENTATIVE THAT CONSTRUCTION MAY BEGIN AFTER ALL OF THE DESCRIBED FENCING IS IN PLACE. FENCING SHALL REMAIN IN PLACE UNTIL THE PROJECT IS COMPLETED.
- FENCES MUST BE ERRECTED TO PROTECT TREES TO BE PRESERVED AS SHOWN IN DIAGRAM. FENCING SHALL BE 6' TALL TEMPORARY CHAIN LINK PANELS INSTALLED WITH METAL CONNECTIONS TO ALL PANELS AREA INTEGRATED. THESE FENCES SHALL BE INSTALLED SO THAT IT DOES NOT ALLOW PASSAGE OF PEDESTRIANS AND/OR VEHICLES THROUGH IT. FENCES DEFINE A SPECIFIC PROTECTION ZONE FOR EACH TREE OR GROUP OF TREES. FENCES ARE TO REMAIN UNTIL ALL SITE WORK HAS BEEN COMPLETED. FENCES MAY NOT BE RELOCATED OR REMOVED WITHOUT THE PERMISSION OF THE LANDSCAPE ARCHITECT.
- CONSTRUCTION TRAILERS, TRAFFIC AND STORAGE AREAS MUST REMAIN OUTSIDE FENCED TREE PROTECTION ZONES AT ALL TIMES.
- ALL PROPOSED UNDERGROUND UTILITIES AND DRAIN OR IRRIGATION LINES SHALL BE ROUTED OUTSIDE THE TREE PROTECTION ZONE. IF LINES MUST TRANSVERSE THE PROTECTION AREA, THEY SHALL BE TUNNELED OR BORED UNDER THE TREE ROOTS. NOTIFY THE LANDSCAPE ARCHITECT IMMEDIATELY IF ANY PROJECT PLANS CONFLICT WITH THIS REQUIREMENT.
- NO MATERIALS, EQUIPMENT, SPOIL, OR WASTE OR WASHOUT WATER MAY BE DEPOSITED, STORED, OR PARKED WITHIN THE TREE PROTECTION ZONE (FENCED AREA).
- NOTIFY THE LANDSCAPE ARCHITECT IF TREE PRUNING IS REQUIRED CONSTRUCTION CLEARANCE.
- ANY HERBICIDES PLACED UNDER PAVING MATERIALS MUST BE SAFE FOR USE AROUND TREES AND LABELED FOR THAT USE.
- IF INJURY SHOULD OCCUR TO ANY TREE DURING CONSTRUCTION, NOTIFY THE LANDSCAPE ARCHITECT IMMEDIATELY. ALL DAMAGE CAUSED BY CONSTRUCTION TO EXISTING TREES SHALL BE COMPENSATED FOR BY THE OFFENDING PARTY, BEFORE THE PROJECT WILL BE CONSIDERED COMPLETE.
- WATERING SCHEDULE: WATERING PROTECTED TREES SHALL FOLLOW THESE STANDARDS, HOWEVER PERIODS OF EXTREME HEAT, WIND, RAINFALL OR DROUGHT MAY REQUIRE MORE OR LESS WATER THAN RECOMMENDED IN THESE NOTES.
 - MOST SPECIES: 1 TIME PER MONTH DURING IRRIGATION SEASON (USUALLY MARCH THROUGH SEPTEMBER)
 - QUERCUS/OAK: DEEP WATER IN MAY AND SEPTEMBER. DO NOT WATER DURING OTHER MONTHS. FOR OAKS ALREADY IN THE VICINITY OF IRRIGATED CONDITIONS, AUTOMATIC SPRINKLERS OR REGULAR WATERING SHALL NOT BE ALLOWED TO SPRAY ON OR WITHIN 3 FEET OF THE TRUNK. THE WATER SHALL NOT BE ALLOWED TO POOL OR DRAIN TOWARDS THE TRUNK.
 - WATERING METHOD: HAND WATERING SYSTEMS, RECOMMENDED FOR TREES THAT ARE PART OF A DEVELOPMENT PROJECT THAT MUST BE WATERED TO INSURE TREE SURVIVAL DURING THE COURSE OF CONSTRUCTION UNTIL AUTOMATIC IRRIGATION IS INSTALLED.
- EROSION CONTROL DEVICES SUCH AS SILT FENCING, DEBRIS BASINS, AND WATER DIVERSION STRUCTURES SHALL BE INSTALLED ON THE UPHILL SIDE OF THE TREE PROTECTION ZONE TO PREVENT SILTATION AND/OR EROSION WITHIN THE TREE PROTECTION ZONE.
- BEFORE GRADING, PAD PREPARATION, OR EXCAVATION FOR THE FOUNDATIONS, FOOTINGS, WALLS, OR TRENCING, ANY TREES WITHIN THE SPECIFIC CONSTRUCTION ZONE SHALL BE ROOT PRUNED 1 FOOT OUTSIDE THE TREE PROTECTION ZONE BY CUTTING ALL ROOTS CLEANLY AT A 90 DEGREE ANGLE TO A DEPTH OF 24 INCHES. ROOTS SHALL BE CUT BY MANUALLY DIGGING A TRENCH AND CUTTING EXPOSED ROOTS WITH A SAW, VIBRATING KNIFE, ROCK SAW, NARROW TRENCHER WITH SHARP BLADES, OR OTHER APPROVED ROOT-PRUNING EQUIPMENT.
- ANY ROOTS DAMAGED DURING GRADING OR CONSTRUCTION SHALL BE EXPOSED TO SOUND TISSUE AND CUT CLEANLY AT A 90 DEGREE ANGLE TO THE ROOT WITH A SAW. PLACE DAMP SOIL AROUND ALL CUT ROOTS TO A DEPTH EQUALING THE EXISTING FINISH GRADE WITHIN 4 HOURS OF CUTS BEING MADE.
- IF TEMPORARY HAUL OR ACCESS ROADS MUST PASS OVER THE ROOT AREA OF TREES TO BE RETAINED, A ROAD BED OF 6 INCHES OF MULCH OR GRAVEL SHALL BE CREATED TO PROTECT THE SOIL. THE ROAD BED MATERIAL SHALL BE REPLENISHED AS NECESSARY TO MAINTAIN A 6 INCH DEPTH.
- SPOIL FROM TRENCHES, BASEMENTS, OR OTHER EXCAVATIONS SHALL NOT BE PLACED WITHIN THE TREE PROTECTION ZONE, EITHER TEMPORARILY OR PERMANENTLY.
- NO BURN PILES OR DEBRIS PILES SHALL BE PLACED WITHIN THE TREE PROTECTION ZONE. NO ASHES, DEBRIS, OR GARBAGE MAY BE DUMPED OR BURIED WITHIN THE TREE PROTECTION ZONE.
- MAINTAIN FIRE-SAFE AREAS AROUND FENCED AREA. ALSO, NO HEAT SOURCES, FLAMES, IGNITION SOURCES, OR SMOKING IS ALLOWED NEAR MULCH OR TREES.
- DO NOT RAISE THE SOIL LEVEL WITHIN THE DRIP LINES TO ACHIEVE POSITIVE DRAINAGE, EXCEPT TO MATCH GRADES WITH SIDEWALKS AND CURBS, AND IN THOSE AREAS, FEATHER THE ADDED TOPSOIL BACK TO EXISTING GRADE AT APPROXIMATELY 3:1 SLOPE.
- REMOVE THE ROOT WAD FOR EACH TREE THAT IS INDICATED ON THE PLAN AS BEING REMOVED.
- EXCEPTIONS TO THE TREE PROTECTION SPECIFICATIONS MAY ONLY BE GRANTED IN EXTRAORDINARY CIRCUMSTANCES WITH WRITTEN APPROVAL FROM THE LANDSCAPE ARCHITECT PRIOR TO ANY WORK COMMENCING.
- AS A PROTECTIVE MEASURE TO COMPENSATE FOR CONSTRUCTION IMPACTS, TWO TO SIX WEEKS PRIOR TO CONSTRUCTION, ALL RETAINED TREES SHOWN ON THIS PLAN SHALL RECEIVE AN APPLICATION OF MYCOAPPLY ALL PURPOSE SOLUBLE PER MANUFACTURERS INSTRUCTIONS. THIS MYCORRHIZAE PRODUCT IS A SPECIALLY FORMULATED NATURAL ROOT BIOSTIMULANT WHICH ENHANCES THE ABSORPTIVE SURFACE AREA OF THE TREES' ROOT SYSTEMS. THIS PROMOTES AND IMPROVES NUTRIENT AND WATER UPTAKE CAPABILITIES OF THE REMAINING ROOT STRUCTURE. DISTRIBUTE MYCOAPPLY EVENLY WITHIN THE ACTIVE ROOT ZONE OF RETAINED TREES. APPLY 30 GALS. OF SOLUTION PER TREE 6" DBH AND GREATER, A MINIMUM OF 4" BELOW SOIL SURFACE IN QUANTITIES OF 1/2 GALLON AT EACH POINT OF APPLICATION. LOCATE THE ACTIVE ROOT ZONES WITH LANDSCAPE ARCHITECT PRESENT. MYCOAPPLY IS AVAILABLE FROM MYCORRHIZAL APPLICATION, INC., PHONE (541) 476-3985.

SYMBOL LEGEND

	TREE PROTECTION ZONE
	CANOPY OF TREES TO REMAIN
	TREES TO BE REMOVED
	TREE PROTECTION FENCING

TREE PROTECTION PLAN LEGEND

#	SPECIES	DBH	HEIGHT	PROT ZONE	HEALTH	ACTION
1	Quercus kelloggii	7"	7'-0"	Moderate	GOOD	PROTECT
2	Evergreen	16"	16'	Good	GOOD	PROTECT
3	Evergreen		N/A			REMOVE
4	Evergreen	22"	N/A			REMOVE
5	Quercus alba	16"	N/A			REMOVE
6	Pinus ponderosa	26"	N/A			REMOVE
7	Douglas fir	(2) 4"	N/A			REMOVE



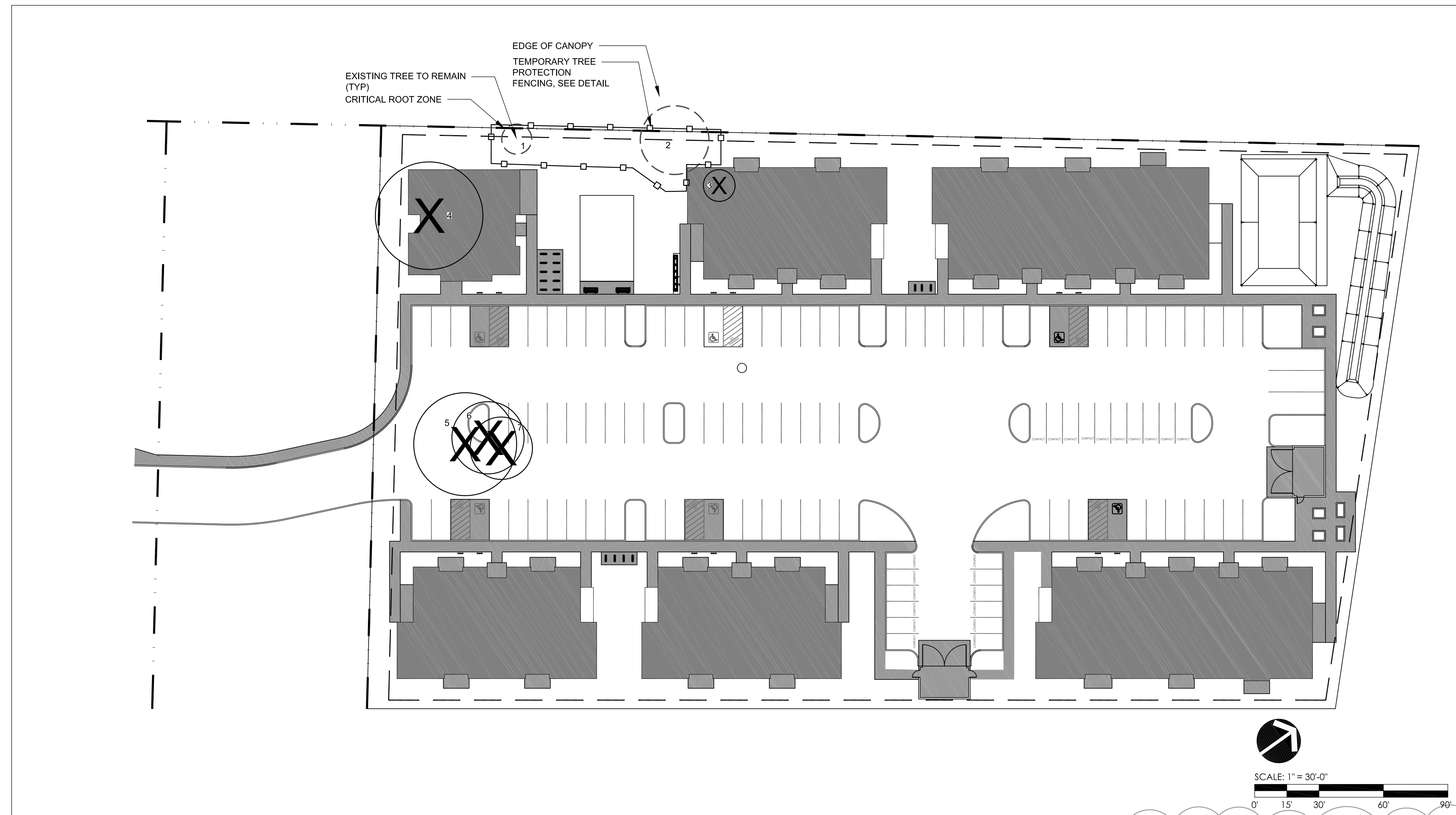
NOTE:

- TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO START OF CONSTRUCTION AND SHALL REMAIN IN PLACE THROUGH COMPLETION OF PROJECT.
- ALL EXCAVATION WITHIN DRIPLINE OF TREES SHALL BE DONE BY HAND. IF ROOTS OVER 2" IN DIAMETER ARE ENCOUNTERED, CONTRACTOR SHALL CONSULT WITH LANDSCAPE ARCHITECT OR ARBORIST BEFORE PROCEEDING.
- TREE ROOTS ENCOUNTERED DURING CONSTRUCTION, SHALL BE CUT CLEANLY AT A 90 DEGREE ANGLE AND PACKED WITH DAMP SOIL IMMEDIATELY.
- DURING CONSTRUCTION ALL TREES TO REMAIN SHALL BE IRRIGATED ON A WEEKLY BASIS OR AS NECESSARY WITH LEAKY PIPE ENCIRCLING THE TREE FROM TRUNK OUT TO DRIP LINE.

2 DETAIL: TREE PROTECTION FENCING

Scale: NTS

X-DETAIL.G1.DWG



DRAWN BY:

SCALE
1"=30'-0"

JOB NO. 9249
REVISION DATE

TREE PROTECTION PLAN

ISSUE DATE:
12.6.23

PRELIMINARY PLANT LEGEND

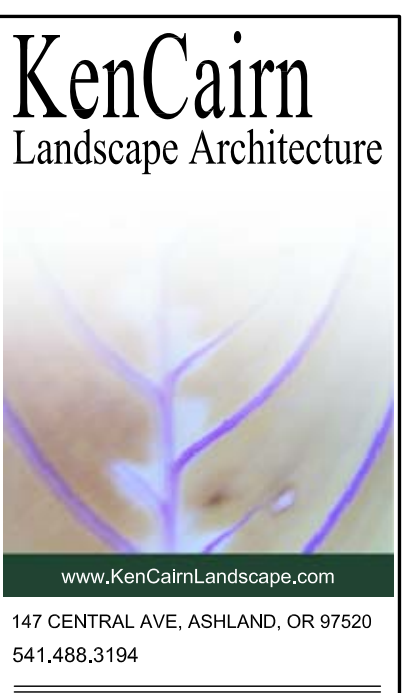
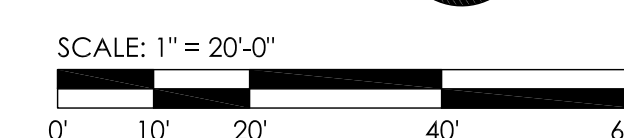
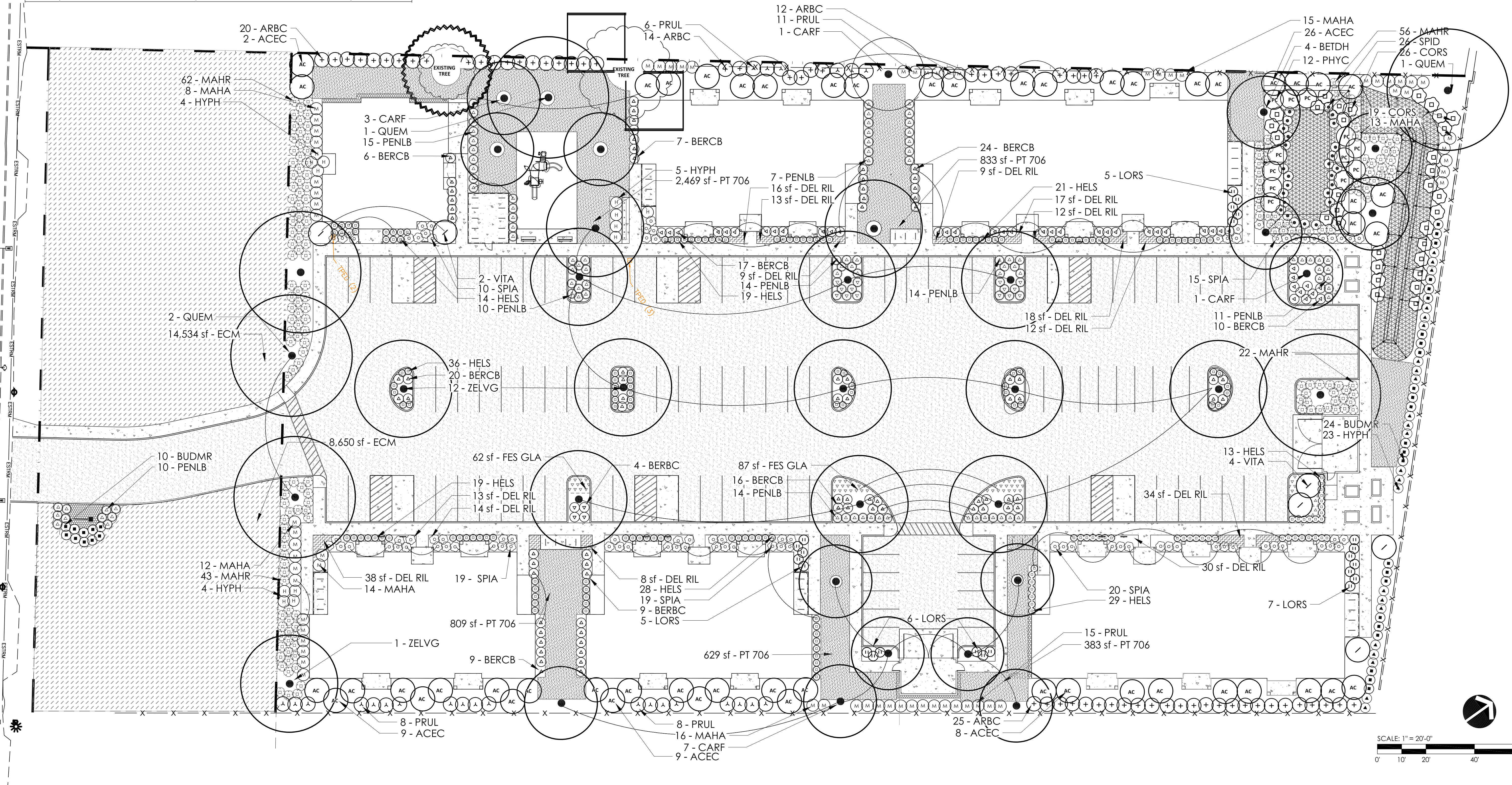
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
TREES			
BETH	Betula nigra 'Dura Heat'	Dura Heat River Birch	multi 8 - 10
CARF	Carpinus betulus 'Fastigiata'	Fastigiata European Hornbeam	1.75 cal
QUEM	Quercus macrocarpa	Burr Oak	1.75 cal
ZELVG	Zelkova serrata 'Village Green'	Village Green Zelkova	1.75 cal
SHRUBS			
ACEC	Acer Circinatum	Vine Maple	5 gal
ARBC	Arbutus unedo Compacta	Dwarf Strawberry Tree	5 gal
BERCB	Berberis 'Cherry Bomb'	Cherry Bomb Barberry	3 gal
BUDMR	Buddleia 'Miss Ruby'	Miss Ruby Dwarf Butterflybush	3 gal
HELMS	Helictotrichon sempervirens	Blue Oat Grass	1 gal
HYPH	Hypericum 'Hidcote'	Hidcote St Johns Wort	3 gal
LORS	Loropetalum Chinensis 'Suzanne'	Suzanne Chinese Fringeflower	3 gal
MAHA	Mahonia aquifolium	Oregon Grape	3 gal
PENLB	Pennisetum 'Little Bunny'	Little Bunny Fountaingrass	1 gal
PRUL	Prunus lusitanica	Portuguese Laurel	5 gal
SPIA	Spiraea japonica 'Alpina'	Daphne Spiraea	2 gal
SPID	Spiraea douglasii	Douglas Spiraea	5 gal
VITA	Vitex agnus-castus	Chaste Tree	10 gal

GROUND COVER

	Mixed Delosperma	Mixed Hardy Iceplant	4" pot
	Festuca Glauca	Blue Fescue	4" pot
		Erosion Control Mix	SEED
	PT Lawn Seed	PT 706 Herb de Lawn	SEED

RVSS PLANT LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
SHRUBS			
Cork	Cornus kelsii	Kelsi Red Twig Dogwood	1 GAL
Cors	Cornus sericea	Red Twig Dogwood	3 GAL
Mahr	Mahonia repens	Creeping Oregon Grape	1 GAL
Phyc	Physocarpus capitatus	Pacific Ninebark	3 GAL
Rubp	Rubus parviflorus	Thimbleberry	1 GAL
GROUND COVER			
	WETLAND SEED MIX	Blue Wildrye	16.66% OF EACH, PLUGS OR HYDROSEED
	Elymus glaucus	Native Red Fescue	
	Festuca rubra rubra	Meadow Barley	
	Hordeum brachyantherum	Northwestern Mannagrass	
	Glyceria occidentalis	American Sloughgrass	
	Beckmannia syztagchne	Tufted Hairgrass	



DRAWN BY:

SCALE 1" = 20'

PACIFIC FLATS
4019 S. PACIFIC HWY
PHOENIX, OR 97501




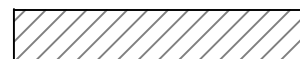

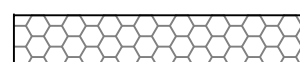
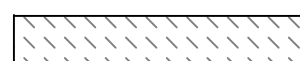
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REVISION DATE

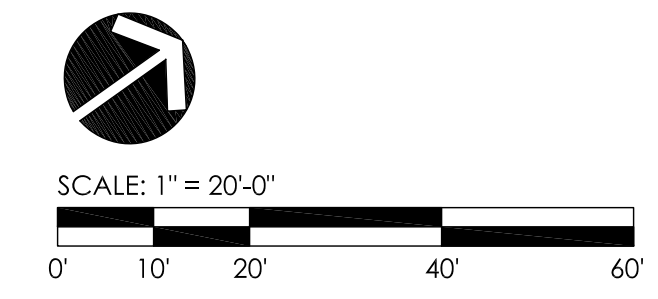
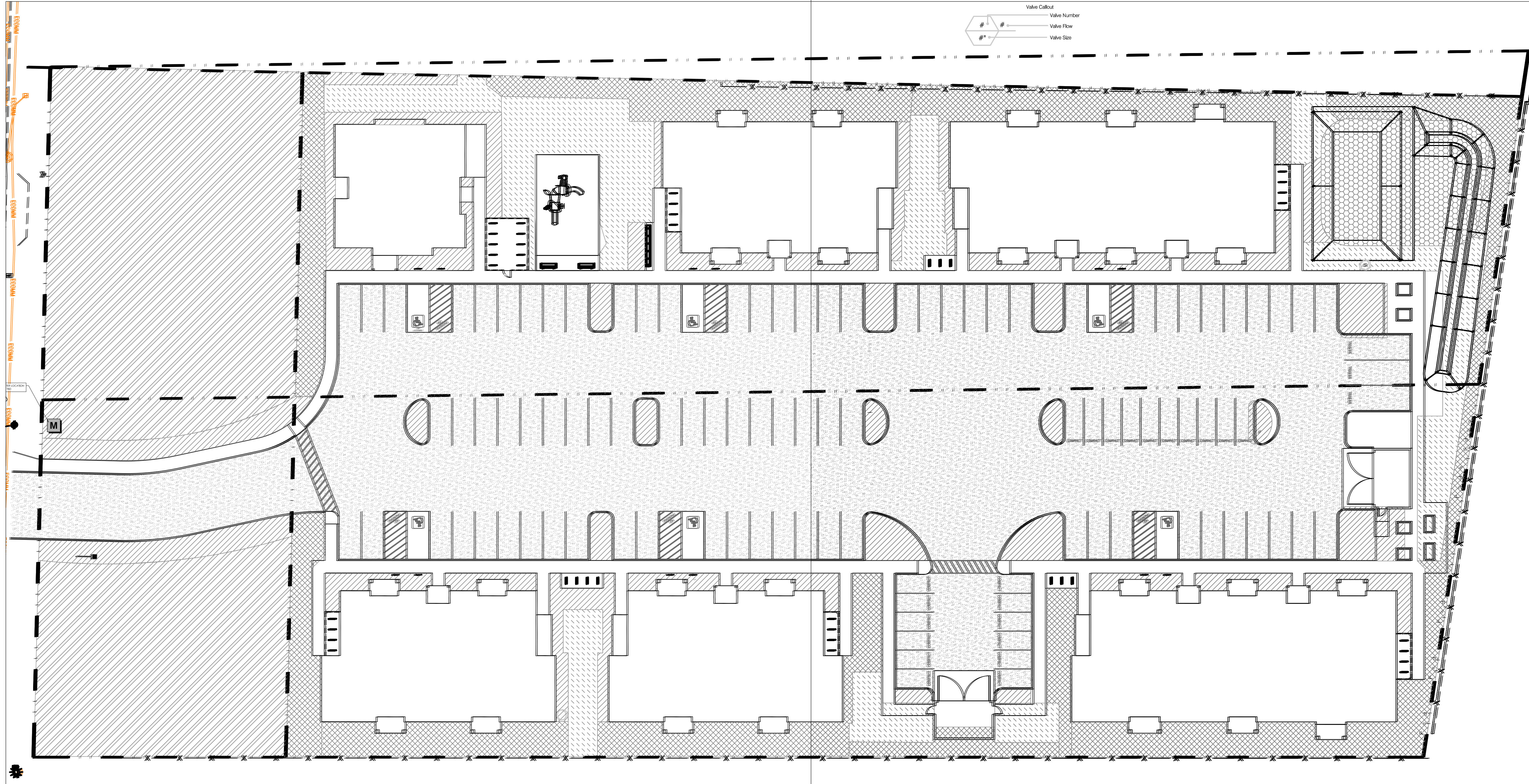
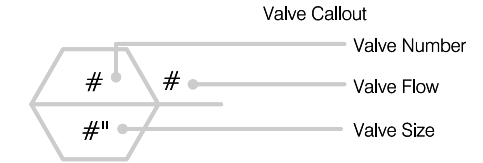
PLANTING PLAN

ISSUE DATE:
12.6.23

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IRRIGATION SCHEDULE

SYMBOL	DESCRIPTION	QTY	PRECIP	PSI	GPM	COST	TOTAL
	FIELD ROTORS ROTORS FOR FIELD IRRIGATION	22,242 S.F.	0.62 in/h	40	143		
	IN-LINE DRIP IRRIGATION IN-LINE DRIP IRRIGATION FOR SHRUBS	11,211 S.F.	0.4 in/h	40	47		
	SHRUB ROTARY SPRAY ROTARY SPRAY HEADS FOR ORNAMENTAL SHRUBS	15,016 S.F.	0.44 in/h	40	69		
	STORMWATER ROTARY SPRAY ROTARY SPRAY FOR STORMWATER PLANTING	3,125 S.F.	0.44 in/h	40	14		
	TURF ROTARY SPRAY ROTARY SPRAY FOR TURF	8,537 S.F.	0.44 in/h	40	39		



DRAWN BY:

SCALE
1"=30'-0"

M+A DESIGN, INC.

PACIFIC FLATS
4019 S. PACIFIC HWY
PHOENIX, OR 97501

JOB NO. 9249
REVISION DATE

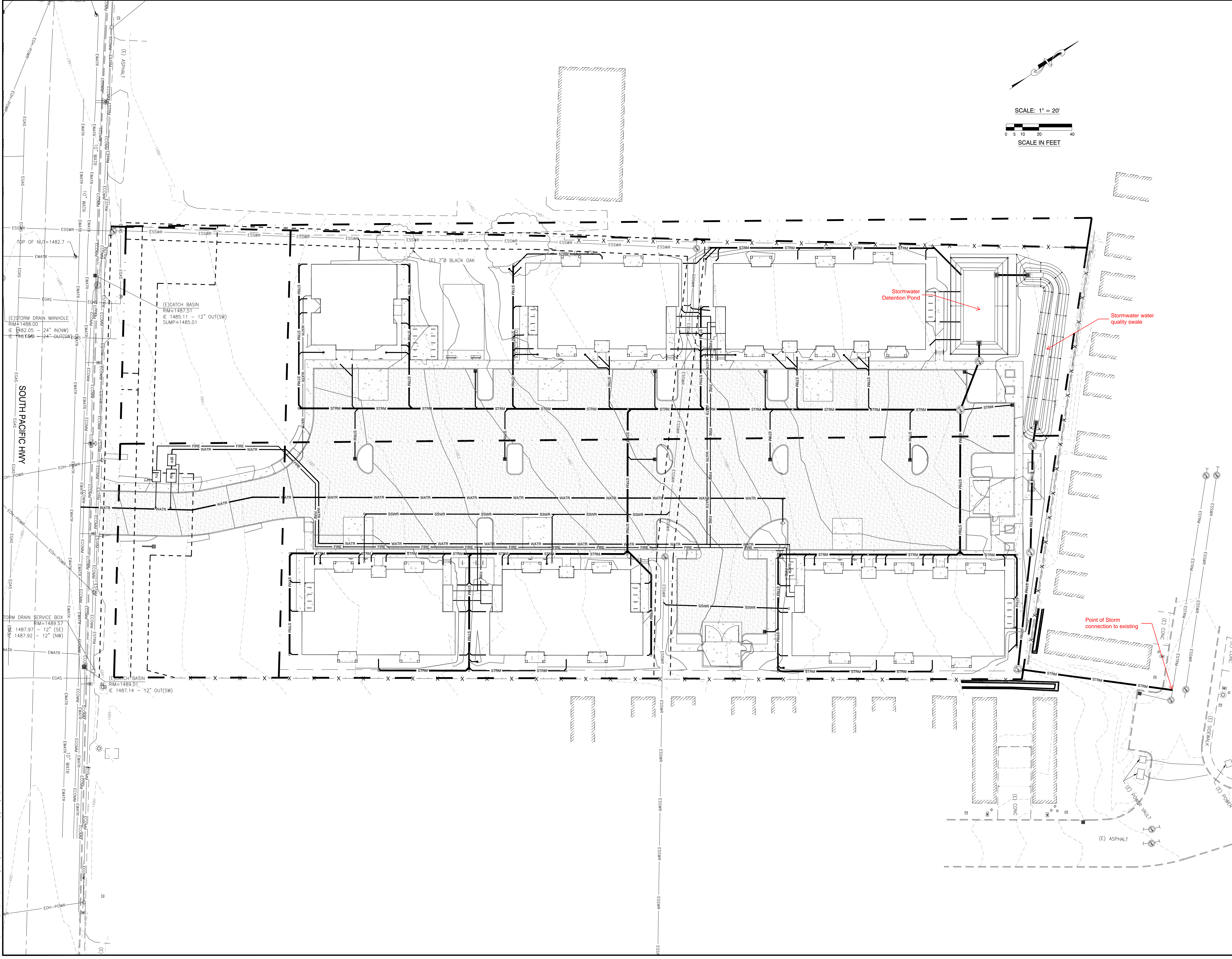
IRRIGATION
PLAN

ISSUE DATE:
12.6.23

L 3.0

PRELIMINARY

SCALE: 1" = 20'
SCALE IN FEET
0 5 10 20 40



DRAWING STATUS:	DATE:	No. REVISION:
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<input type="checkbox"/> SUBMITTED		
<input type="checkbox"/> BID SET		
<input type="checkbox"/> PERMIT SET		
<input type="checkbox"/> CONST. SET		

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Corvallis
Engineering, Inc.
246 NE CONFER BLDG. BOX 1201
CORVALLIS, OR 97330
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PROJECT: PACIFIC FLATS APARTMENTS
PROJECT LOCATION: PHOENIX, OREGON
CLIENT: M+A DESIGN, INC

SHEET TITLE: PRELIMINARY GRADING AND UTILITIES PLAN

JOB NO. 23439
DRAWN BY: DEVCO
DRAWING: C200

FILE: I:\CON\3D Projects\23439\Ver Drawings\Design\23439\UTIL_UTIL.dwg [3/24/23] 12/13/2023 4:51 PM - Sheet



EXPIRES: 06/30/2025

Stormwater Calculations for

**Pacific Flats
For
M+A Design**

Devco Job No. 23439

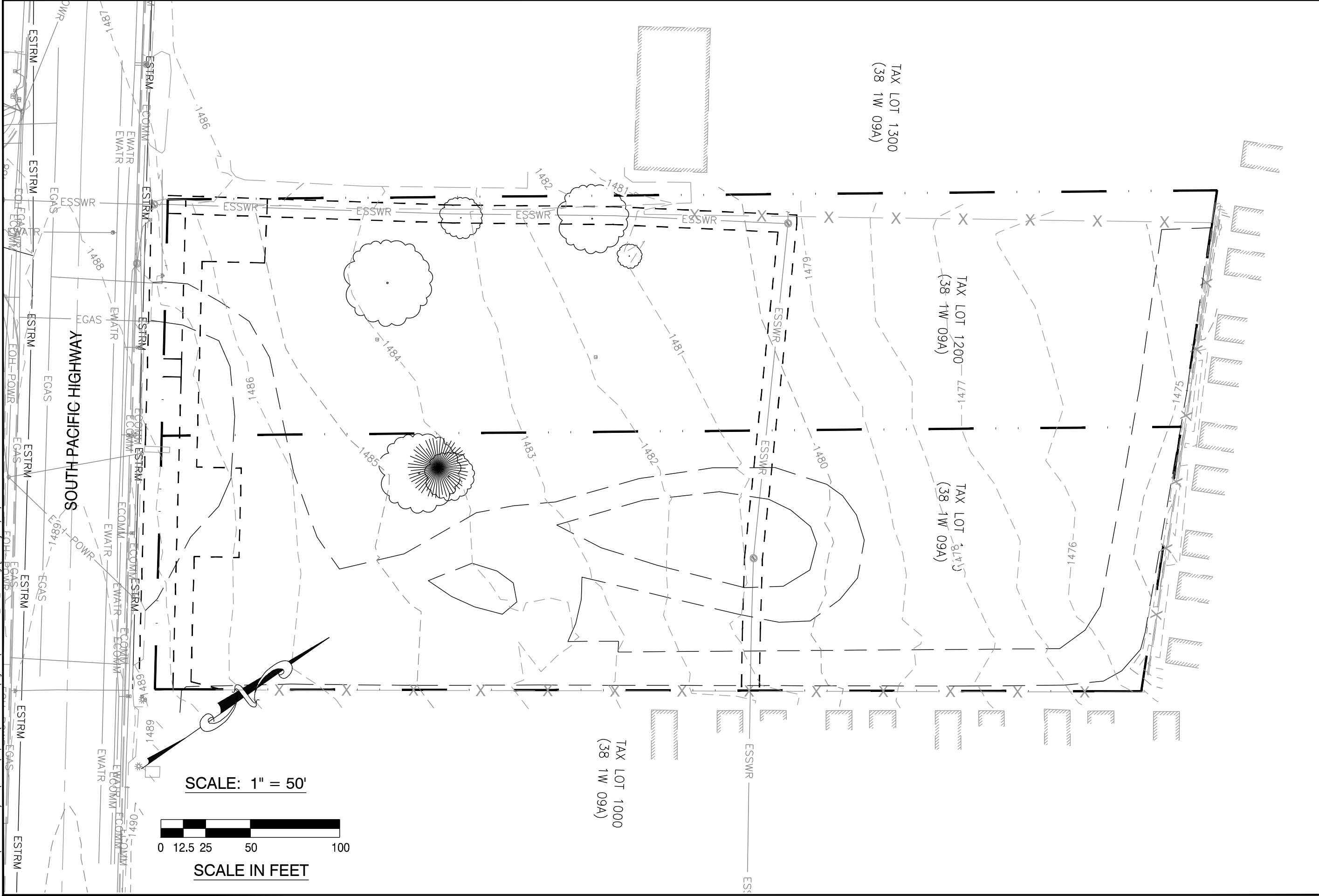
December 2023

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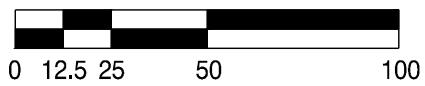
Subject	Pages
❖ Narrative	1
❖ Existing Basin Sketch	2
❖ Developed Basin Sketch	3
❖ Water Quality Swale Calculations	4
❖ HydroCAD Calculations	
• Existing Conditions	5-6
• Water Quality	7-17
• Detention	18-35
❖ Appendix	36
• Rogue Valley Design Storms	37-38
• Rogue Valley Water Quality Swale Information	39-40
• Soil Survey	41-42

Stormwater Narrative – Pacific Flats Private Improvements

- Description
 - The existing site is a grassy field with some trees and a looped gravel driveway through half of the area. The field is sloped gradually away from the highway it fronts, with no existing storm infrastructure on site. There is an existing sanitary sewer pipe and easement that bisects the property.
 - The proposed site is located in Phoenix, Oregon, off of S Pacific Highway across from Rose Street. The private improvements consist of new apartment buildings, asphalt parking and access, concrete walks, a detention pond, and water quality swale. The total site area is 3.49 acres. A 0.62 acre portion of the property which fronts the highway will remain undeveloped, meaning 2.87 acres are to be developed with this project.
- Design Premise
 - The manual used for these calculations is the Rogue Valley Stormwater Quality Design Manual 2023.
 - Water quantity is treated using a detention pond. The flow control structure is designed to detain the difference between the pre and post developed 10-year frequency storm. As per the Rogue Valley Stormwater Quality Design Manual, a 3.0" 24-hour design storm is used for the 10-year storm, and a 3.25" 24-hour design storm is used for the 25-year storm. The pond overflow is designed to convey the post developed 25-year storm discharge.
 - Water quality is treated using a water quality swale. The sizing of the swale is based on a 9-minute residence time according to Section 4.5.2 of the Stormwater Quality Design Manual. Calculations are included in this report. The swale treats the treatment storm and is located downstream of the detention facility.



SCALE: 1" = 50'



SCALE IN FEET

DATE:	

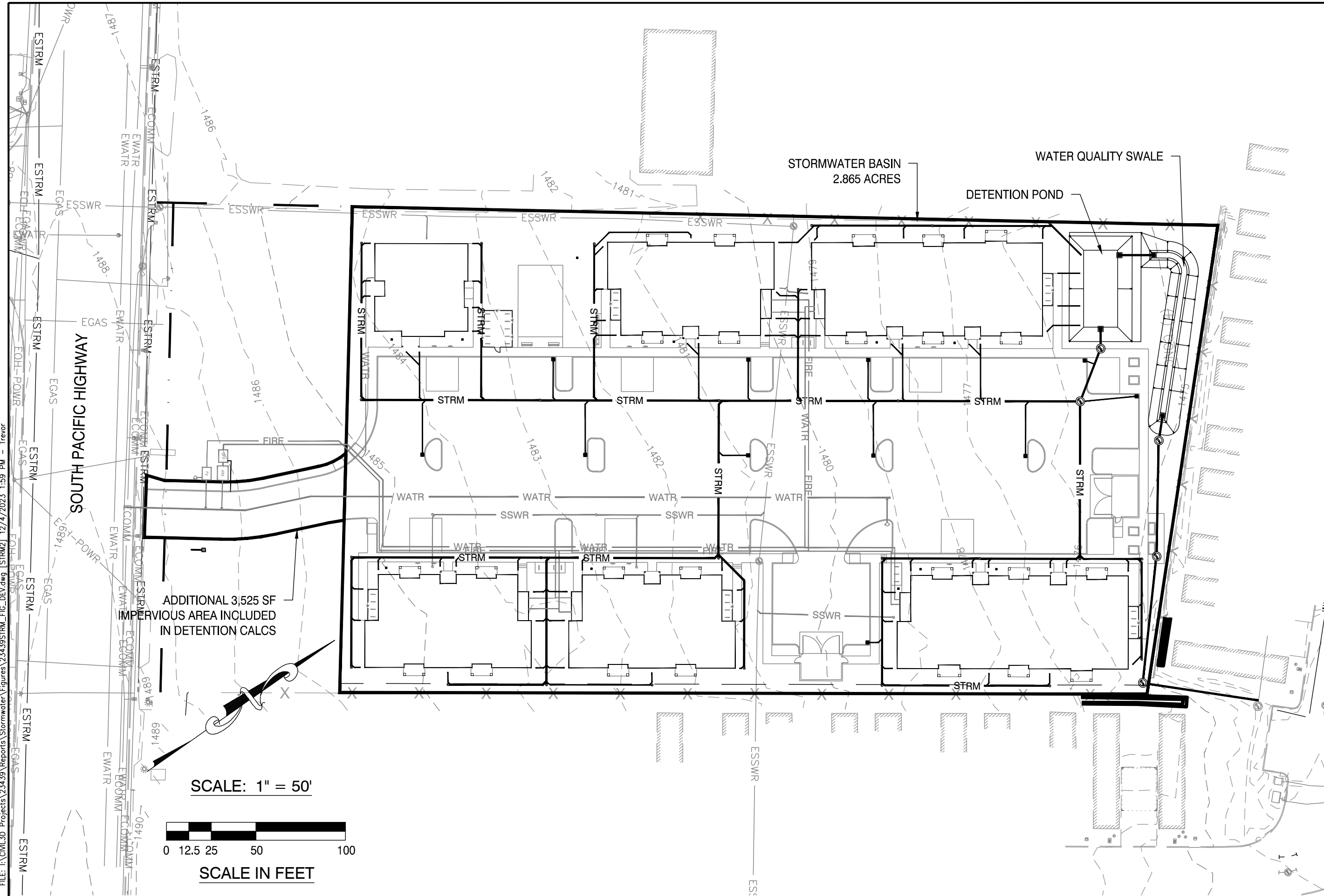
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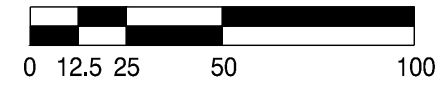
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 PROJECT LOCATION: PHOENIX, OR
 CLIENT: M+A DESIGN

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SHEET TITLE:	EXISTING
DRAWING:	STRM1



ADDITIONAL 3,525 SF IMPERVIOUS AREA INCLUDED IN DETENTION CALCS

SCALE: 1" = 50'



SCALE IN FEET

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<input type="checkbox"/>	SUBMITTED
<input type="checkbox"/>	BID SET
<input type="checkbox"/>	PERMIT SET
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DATE:	
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PROJECT:
PACIFIC FLATS

PROJECT LOCATION:
PHOENIX, OR

CLIENT:
M+A DESIGN

JOB NO.	23439
DRAWN BY:	DEVCO
SHEET TITLE:	DEVELOPED
DRAWING:	STRM2

Water Quality Swale

→ Use City of Corvallis Stormwater Design Standards

Step 1 Calculate Design Flows

Post-detention treatment storm rate

$$Q_{WQ} = 0.24 \text{ cfs}$$

Step 2 Calculate Swale Bottom Width

A bottom width of 3' is proposed

Step 3 Calculate Water Quality Depth

$$y = \left(\frac{Q_{WQ} n_{WQ}}{1.49(s)^{0.5}(b)} \right)^{0.6} \quad \begin{array}{l} Q_{WQ} = 0.24 \text{ cfs} \\ n_{WQ} = 0.24 \end{array}$$

$$y = \left(\frac{0.24 * 0.24}{1.49(0.01)^{0.5}(3)} \right)^{0.6} \quad \begin{array}{l} s = 0.01 \text{ ft/ft} \\ b = 3 \text{ ft} \end{array}$$

$$y = 0.292 \text{ ft}$$

Step 4 Determine Design Flow Velocity

$$A_{WQ} = by + Zy^2 = 3(0.292) + 4(0.292)^2 = 1.217 \text{ ft}^2$$

$$V_{WQ} = Q_{WQ}/A_{WQ} = 0.24/1.217 = 0.197 \text{ ft/s}$$

Step 5 Determine Swale Length

$$L_{\min} = 540V_{WQ} = 540(0.197) = 106.38 \text{ ft} \rightarrow \text{Good, 107 ft provided}$$

Summary for Subcatchment 1S: (E)Basin

Runoff = 0.590 cfs @ 8.28 hrs, Volume= 0.284 af, Depth> 1.19"

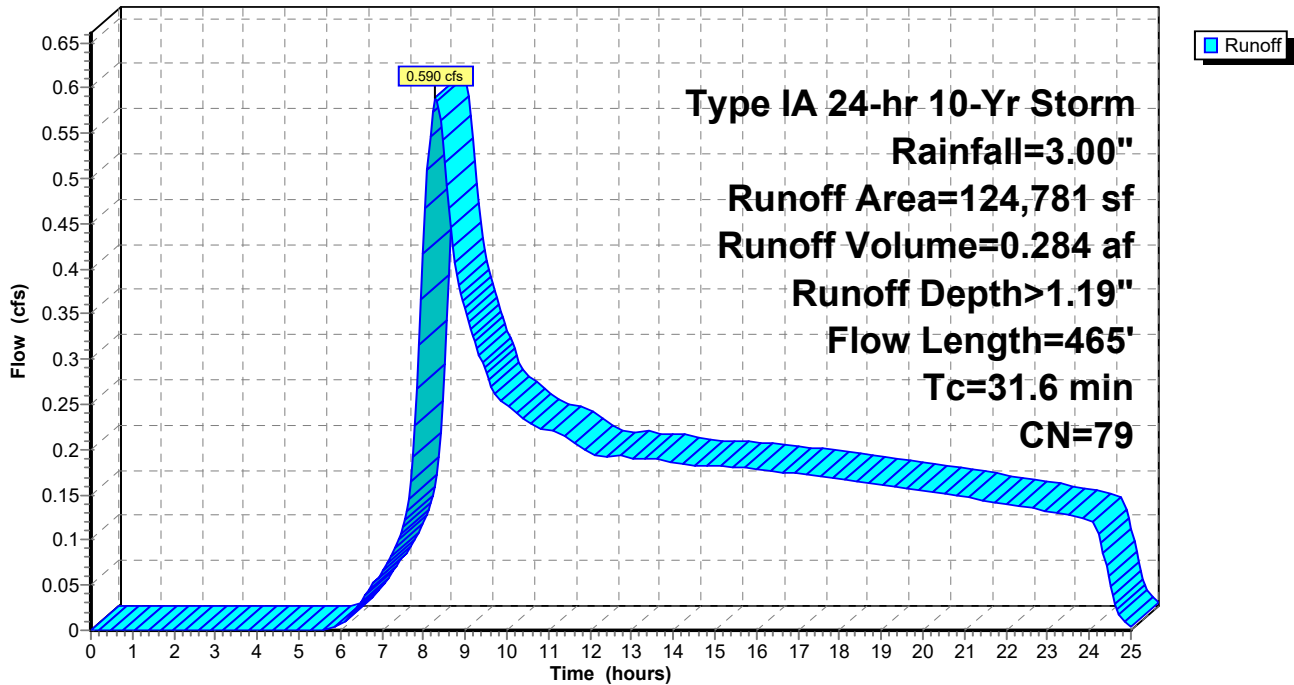
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-25.00 hrs, dt= 0.05 hrs
 Type IA 24-hr 10-Yr Storm Rainfall=3.00"

Area (sf)	CN	Description
124,781	79	50-75% Grass cover, Fair, HSG C
124,781		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
28.9	300	0.0217	0.17		Sheet Flow, Grass: Short n= 0.150 P2= 2.00"
2.7	165	0.0212	1.02		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
31.6	465	Total			

Subcatchment 1S: (E)Basin

Hydrograph



EXISTING CONDITIONS

Summary for Subcatchment 1S: (E)Basin

Runoff = 0.709 cfs @ 8.28 hrs, Volume= 0.328 af, Depth> 1.37"

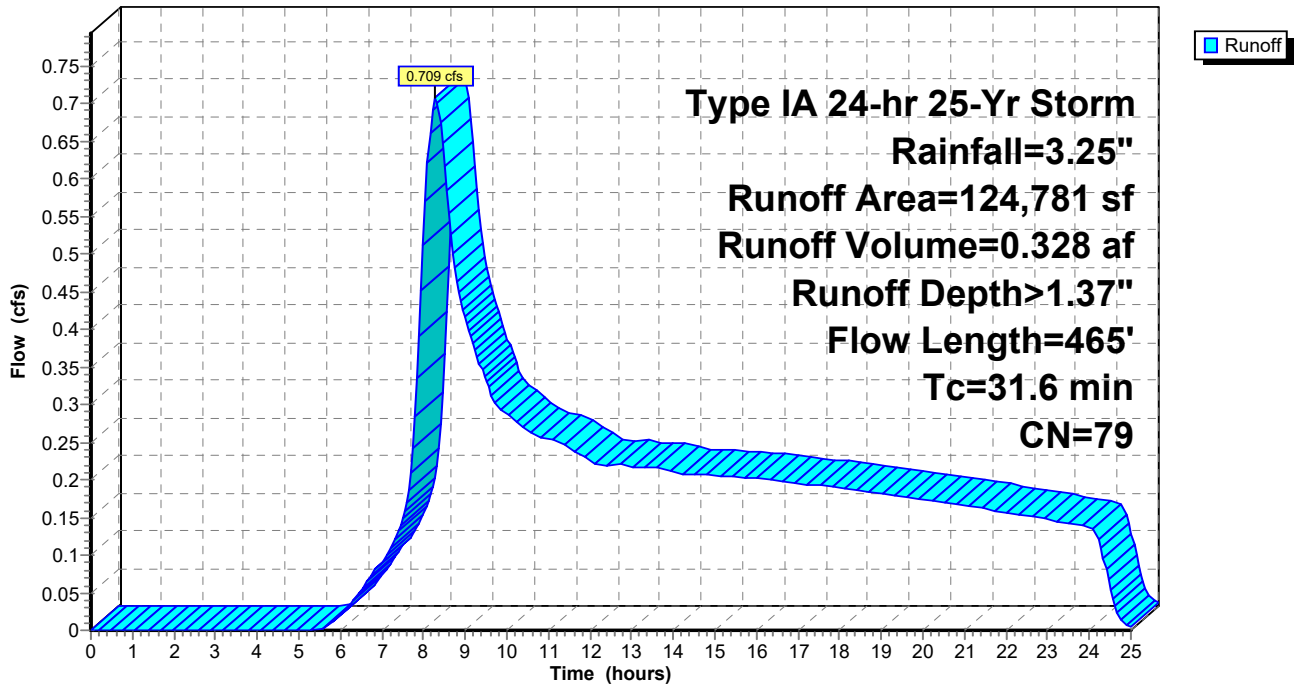
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 Type IA 24-hr 25-Yr Storm Rainfall=3.25"

Area (sf)	CN	Description
124,781	79	50-75% Grass cover, Fair, HSG C
124,781		100.00% Pervious Area

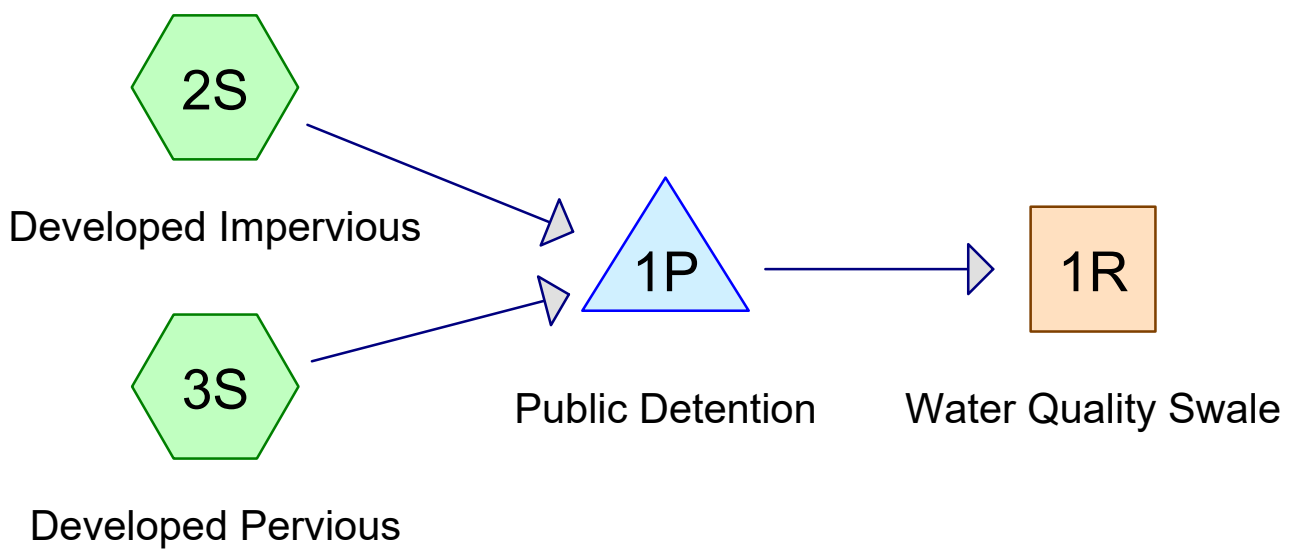
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
28.9	300	0.0217	0.17		Sheet Flow, Grass: Short n= 0.150 P2= 2.00"
2.7	165	0.0212	1.02		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
31.6	465	Total			

Subcatchment 1S: (E)Basin

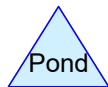
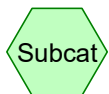
Hydrograph



EXISTING CONDITIONS



WATER QUALITY TREATMENT



Drainage Diagram for 23439 HydroCAD Design
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23439 HydroCAD Design

Prepared by Devco Engineering

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Page 2

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.020	74	>75% Grass cover, Good, HSG C (3S)
1.925	98	Impervious Area (2S)
2.946		TOTAL AREA

23439 HydroCAD Design

Prepared by Devco Engineering

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Page 3

Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
1.020	HSG C	3S
0.000	HSG D	
1.925	Other	2S
2.946		TOTAL AREA

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Pipe Listing (selected nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Fill (inches)
1	1P	1,472.00	1,471.00	50.0	0.0200	0.013	12.0	0.0	0.0

23439 HydroCAD Design

Type IA 24-hr Treatment Storm Rainfall=0.84"

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Page 5

Time span=0.00-25.00 hrs, dt=0.05 hrs, 501 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment2S: Developed Impervious Runoff Area=83,863 sf 100.00% Impervious Runoff Depth=0.64"
Tc=5.0 min CN=98 Runoff=0.321 cfs 0.102 af

Subcatchment3S: Developed Pervious Runoff Area=44,443 sf 0.00% Impervious Runoff Depth=0.01"
Tc=5.0 min CN=74 Runoff=0.001 cfs 0.000 af

Reach 1R: Water Quality Swale Avg. Flow Depth=0.27' Max Vel=0.22 fps Inflow=0.240 cfs 0.102 af
n=0.240 L=106.0' S=0.0100 '/' Capacity=16.920 cfs Outflow=0.236 cfs 0.101 af

Pond 1P: Public Detention Peak Elev=1,472.36' Storage=326 cf Inflow=0.321 cfs 0.103 af
Outflow=0.240 cfs 0.102 af

Total Runoff Area = 2.946 ac Runoff Volume = 0.103 af Average Runoff Depth = 0.42"
34.64% Pervious = 1.020 ac 65.36% Impervious = 1.925 ac

Summary for Subcatchment 2S: Developed Impervious

[49] Hint: $T_c < 2dt$ may require smaller dt

Runoff = 0.321 cfs @ 7.89 hrs, Volume= 0.102 af, Depth= 0.64"

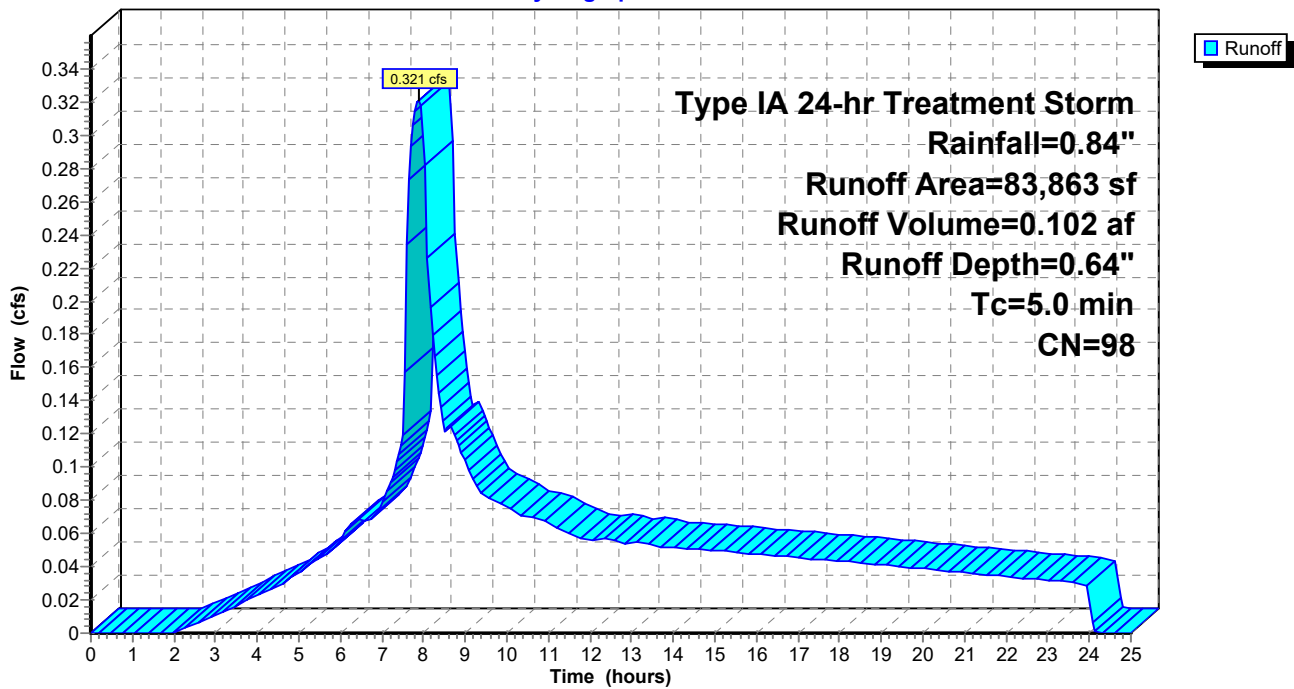
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-25.00 hrs, dt= 0.05 hrs
 Type IA 24-hr Treatment Storm Rainfall=0.84"

Area (sf)	CN	Description
* 83,863	98	Impervious Area
83,863		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 2S: Developed Impervious

Hydrograph



Summary for Subcatchment 3S: Developed Pervious

[49] Hint: $T_c < 2dt$ may require smaller dt
[73] Warning: Peak may fall outside time span

Runoff = 0.001 cfs @ 23.95 hrs, Volume= 0.000 af, Depth= 0.01"

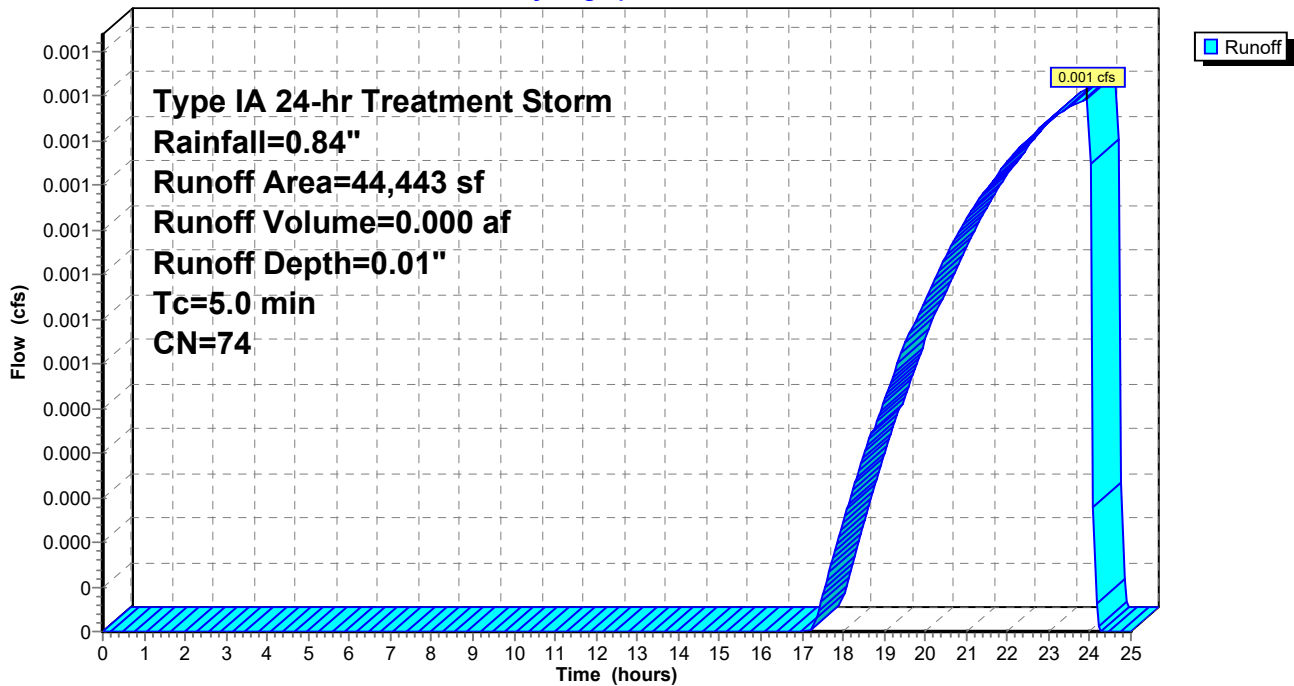
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-25.00 hrs, $dt= 0.05$ hrs
Type IA 24-hr Treatment Storm Rainfall=0.84"

Area (sf)	CN	Description
44,443	74	>75% Grass cover, Good, HSG C
44,443		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 3S: Developed Pervious

Hydrograph



Summary for Reach 1R: Water Quality Swale

[81] Warning: Exceeded Pond 1P by 0.11' @ 8.70 hrs

Inflow Area = 2.946 ac, 65.36% Impervious, Inflow Depth > 0.41" for Treatment Storm event
 Inflow = 0.240 cfs @ 8.09 hrs, Volume= 0.102 af
 Outflow = 0.236 cfs @ 8.33 hrs, Volume= 0.101 af, Atten= 2%, Lag= 14.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-25.00 hrs, dt= 0.05 hrs
 Max. Velocity= 0.22 fps, Min. Travel Time= 8.1 min
 Avg. Velocity = 0.13 fps, Avg. Travel Time= 14.0 min

Peak Storage= 115 cf @ 8.19 hrs
 Average Depth at Peak Storage= 0.27'
 Bank-Full Depth= 2.40', Capacity at Bank-Full= 16.920 cfs

Custom cross-section, Length= 106.0' Slope= 0.0100 '/' (101 Elevation Intervals)
 Constant n= 0.240
 Inlet Invert= 1,472.10', Outlet Invert= 1,471.04'

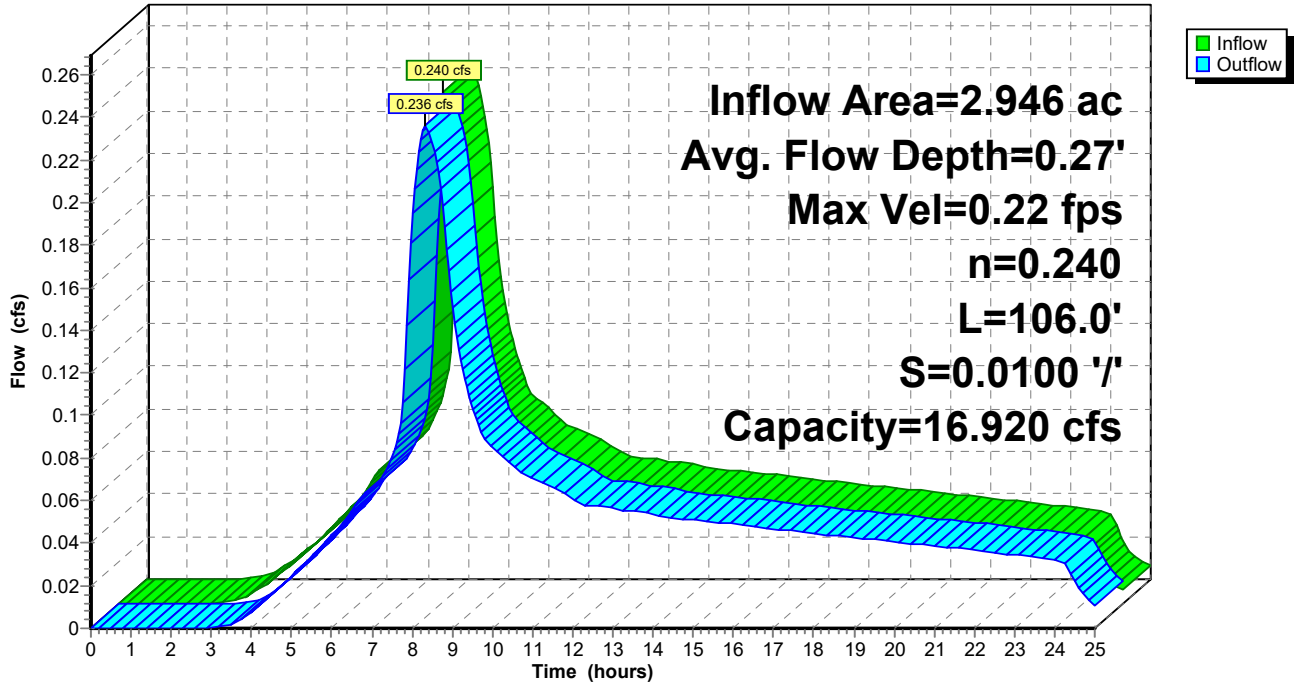


Offset (feet)	Elevation (feet)	Chan.Depth (feet)
0.00	1,474.50	0.00
4.20	1,472.40	2.10
5.40	1,472.10	2.40
8.40	1,472.10	2.40
9.60	1,472.40	2.10
13.80	1,474.50	0.00

Depth (feet)	End Area (sq-ft)	Perim. (feet)	Storage (cubic-feet)	Discharge (cfs)
0.00	0.0	3.0	0	0.000
0.30	1.3	5.5	134	0.293
2.40	21.4	14.9	2,271	16.920

Reach 1R: Water Quality Swale

Hydrograph



Summary for Pond 1P: Public Detention

Inflow Area = 2.946 ac, 65.36% Impervious, Inflow Depth = 0.42" for Treatment Storm event
 Inflow = 0.321 cfs @ 7.89 hrs, Volume= 0.103 af
 Outflow = 0.240 cfs @ 8.09 hrs, Volume= 0.102 af, Atten= 25%, Lag= 12.0 min
 Primary = 0.240 cfs @ 8.09 hrs, Volume= 0.102 af

Routing by Stor-Ind method, Time Span= 0.00-25.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,472.36' @ 8.09 hrs Surf.Area= 986 sf Storage= 326 cf

Plug-Flow detention time= 30.6 min calculated for 0.102 af (99% of inflow)
 Center-of-Mass det. time= 25.4 min (750.1 - 724.7)

Volume	Invert	Avail.Storage	Storage Description
#1	1,472.00'	3,850 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,472.00	817	0	0
1,474.67	2,067	3,850	3,850

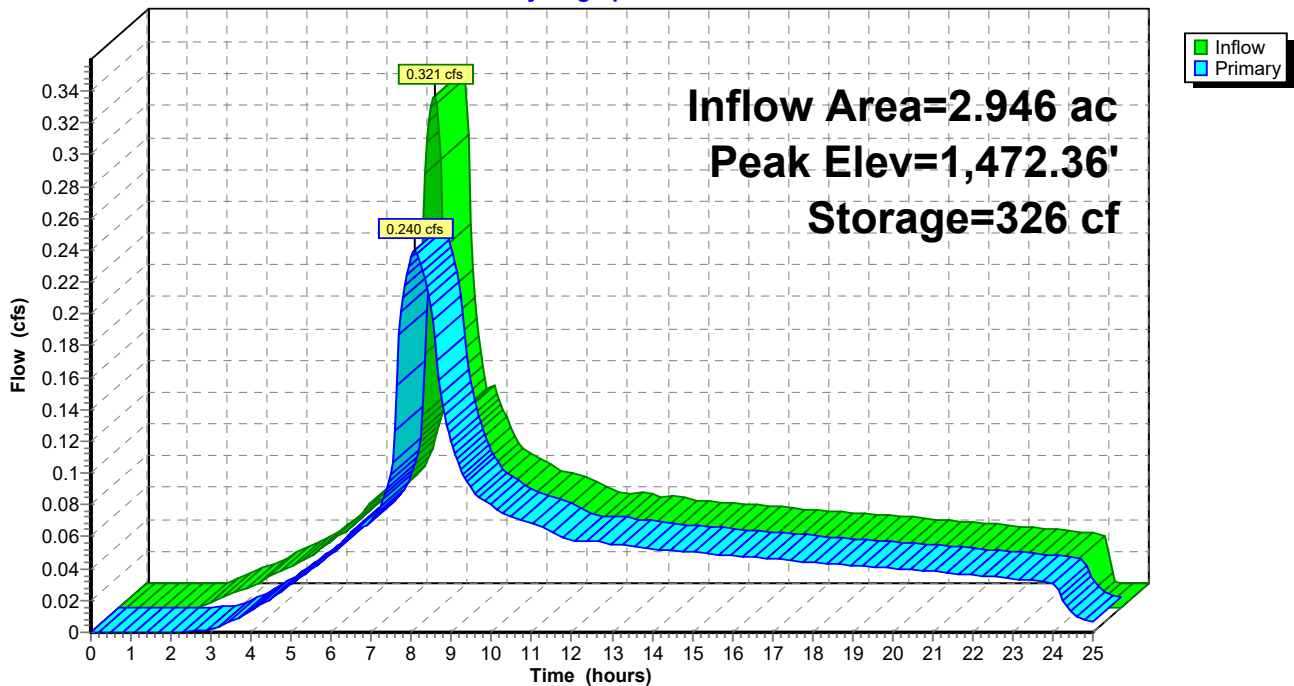
Device	Routing	Invert	Outlet Devices
#1	Primary	1,472.00'	12.0" Round Culvert L= 50.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,472.00' / 1,471.00' S= 0.0200 '/ Cc= 0.900 n= 0.013
#2	Device 1	1,470.00'	3.9" Vert. Orifice - 10-Year C= 0.600
#3	Device 1	1,474.17'	12.0" Horiz. Orifice - Overflow C= 0.600 Limited to weir flow at low heads

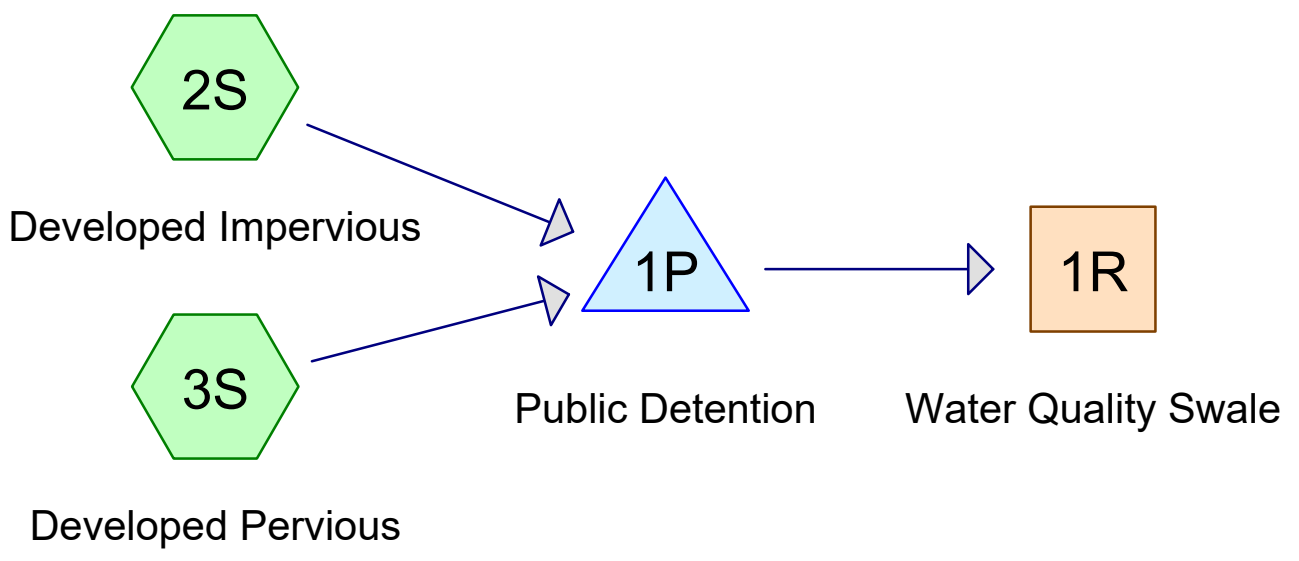
Primary OutFlow Max=0.240 cfs @ 8.09 hrs HW=1,472.36' (Free Discharge)

- ↑ **1=Culvert** (Passes 0.240 cfs of 0.413 cfs potential flow)
- ↑ **2=Orifice - 10-Year** (Orifice Controls 0.240 cfs @ 2.89 fps)
- ↑ **3=Orifice - Overflow** (Controls 0.000 cfs)

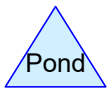
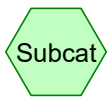
Pond 1P: Public Detention

Hydrograph





DETENTION CALCULATIONS



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23439 HydroCAD Design

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Page 2

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.020	74	>75% Grass cover, Good, HSG C (3S)
1.925	98	Impervious Area (2S)
2.946		TOTAL AREA

23439 HydroCAD Design

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Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
1.020	HSG C	3S
0.000	HSG D	
1.925	Other	2S
2.946		TOTAL AREA

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Pipe Listing (selected nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Fill (inches)
1	1P	1,472.00	1,471.00	50.0	0.0200	0.013	12.0	0.0	0.0

23439 HydroCAD Design

Type IA 24-hr 10-Yr Storm Rainfall=3.00"

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Page 5

Time span=0.00-25.00 hrs, dt=0.05 hrs, 501 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment2S: Developed Impervious Runoff Area=83,863 sf 100.00% Impervious Runoff Depth=2.77"
Tc=5.0 min CN=98 Runoff=1.366 cfs 0.444 af

Subcatchment3S: Developed Pervious Runoff Area=44,443 sf 0.00% Impervious Runoff Depth=0.91"
Tc=5.0 min CN=74 Runoff=0.170 cfs 0.077 af

Reach 1R: Water Quality Swale Avg. Flow Depth=0.43' Max Vel=0.30 fps Inflow=0.587 cfs 0.520 af
n=0.240 L=106.0' S=0.0100 '/' Capacity=16.920 cfs Outflow=0.587 cfs 0.520 af

Pond 1P: Public Detention Peak Elev=1,474.16' Storage=2,859 cf Inflow=1.519 cfs 0.521 af
Outflow=0.587 cfs 0.520 af

Total Runoff Area = 2.946 ac Runoff Volume = 0.521 af Average Runoff Depth = 2.12"
34.64% Pervious = 1.020 ac 65.36% Impervious = 1.925 ac

Summary for Subcatchment 2S: Developed Impervious

[49] Hint: $T_c < 2dt$ may require smaller dt

Runoff = 1.366 cfs @ 7.86 hrs, Volume= 0.444 af, Depth= 2.77"

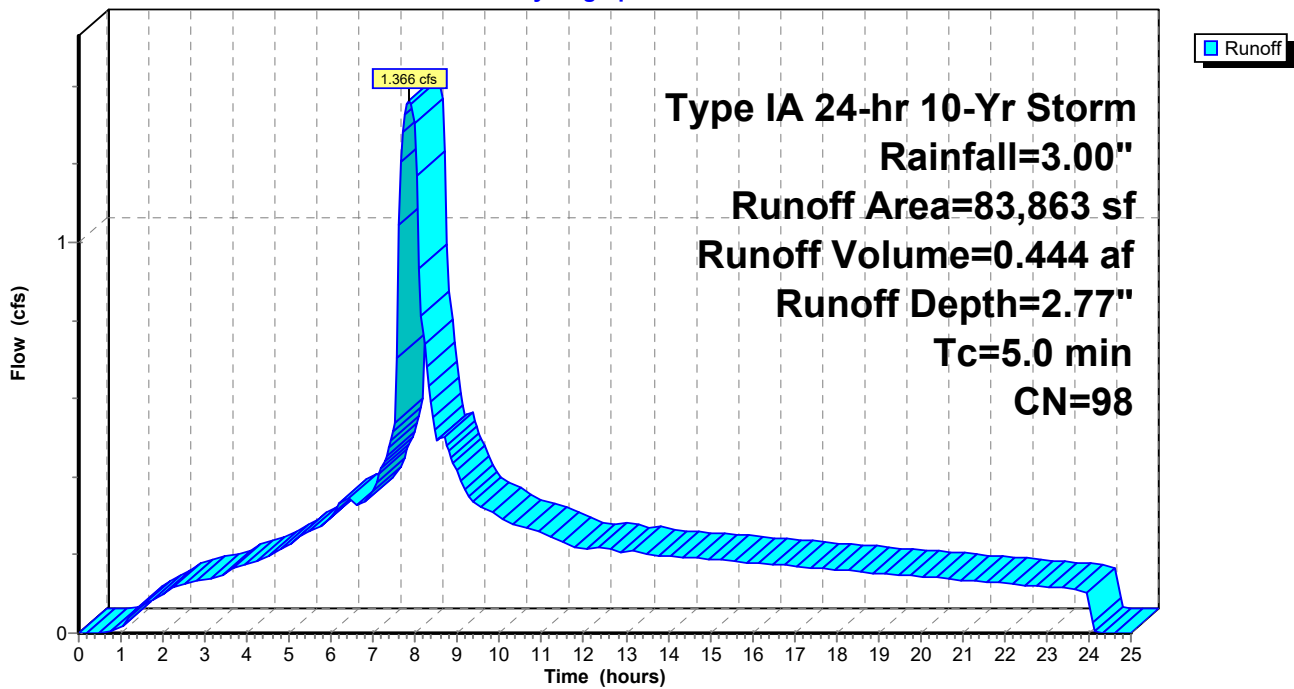
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-25.00 hrs, dt= 0.05 hrs
 Type IA 24-hr 10-Yr Storm Rainfall=3.00"

Area (sf)	CN	Description
* 83,863	98	Impervious Area
83,863		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 2S: Developed Impervious

Hydrograph



Summary for Subcatchment 3S: Developed Pervious

[49] Hint: $T_c < 2dt$ may require smaller dt

Runoff = 0.170 cfs @ 7.99 hrs, Volume= 0.077 af, Depth= 0.91"

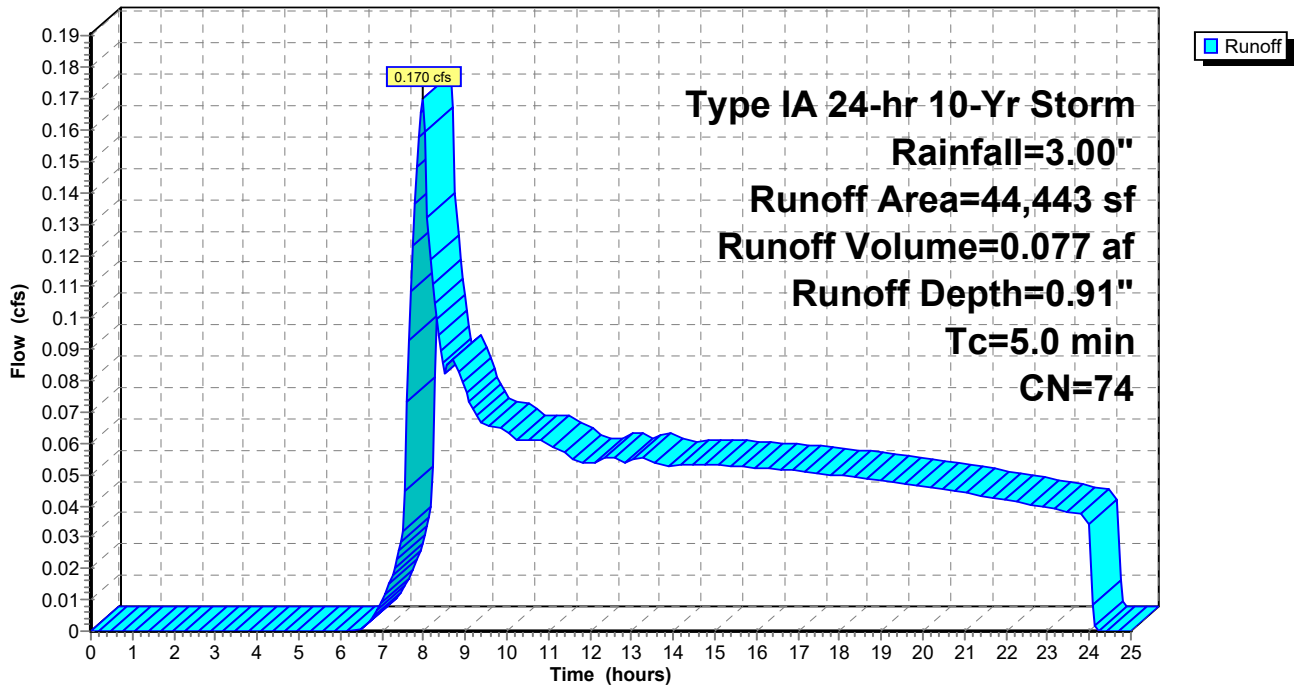
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-25.00 hrs, dt= 0.05 hrs
 Type IA 24-hr 10-Yr Storm Rainfall=3.00"

Area (sf)	CN	Description
44,443	74	>75% Grass cover, Good, HSG C
44,443		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 3S: Developed Pervious

Hydrograph



Summary for Reach 1R: Water Quality Swale

[81] Warning: Exceeded Pond 1P by 0.13' @ 24.25 hrs

Inflow Area = 2.946 ac, 65.36% Impervious, Inflow Depth > 2.12" for 10-Yr Storm event
 Inflow = 0.587 cfs @ 8.48 hrs, Volume= 0.520 af
 Outflow = 0.587 cfs @ 8.81 hrs, Volume= 0.520 af, Atten= 0%, Lag= 19.7 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-25.00 hrs, dt= 0.05 hrs
 Max. Velocity= 0.30 fps, Min. Travel Time= 6.0 min
 Avg. Velocity = 0.22 fps, Avg. Travel Time= 8.2 min

Peak Storage= 211 cf @ 8.71 hrs
 Average Depth at Peak Storage= 0.43'
 Bank-Full Depth= 2.40', Capacity at Bank-Full= 16.920 cfs

Custom cross-section, Length= 106.0' Slope= 0.0100 '/' (101 Elevation Intervals)
 Constant n= 0.240
 Inlet Invert= 1,472.10', Outlet Invert= 1,471.04'

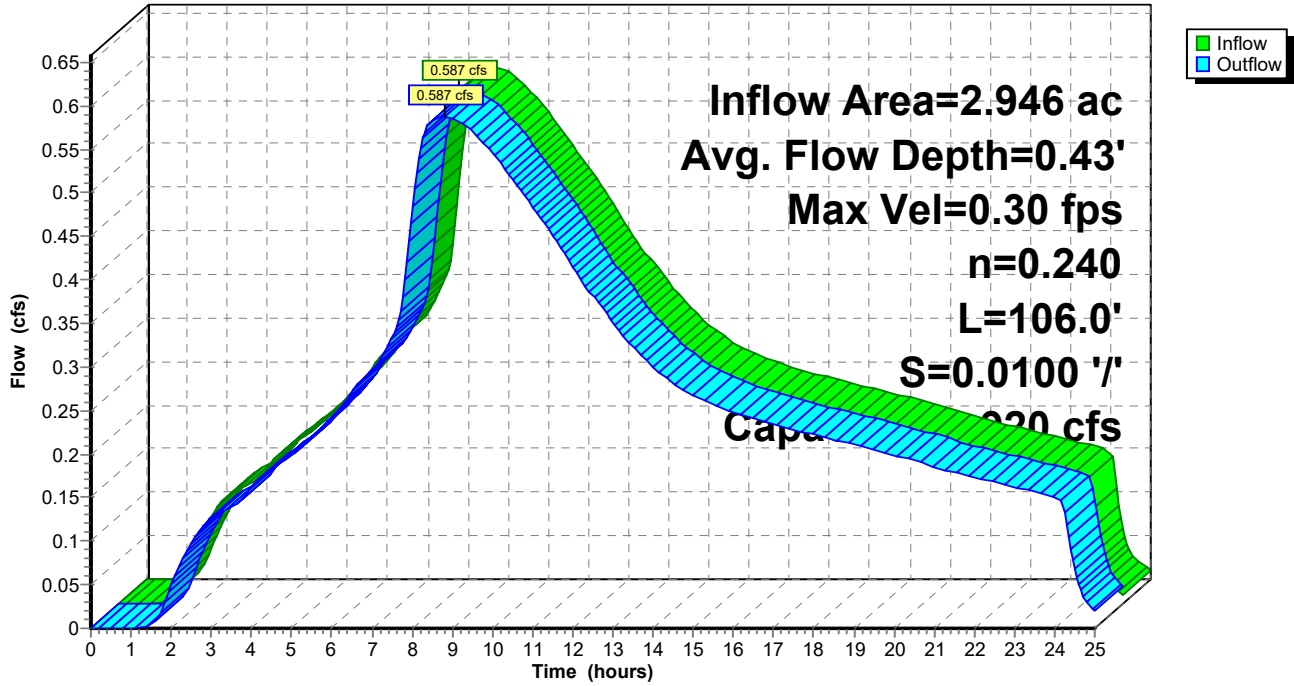


Offset (feet)	Elevation (feet)	Chan.Depth (feet)
0.00	1,474.50	0.00
4.20	1,472.40	2.10
5.40	1,472.10	2.40
8.40	1,472.10	2.40
9.60	1,472.40	2.10
13.80	1,474.50	0.00

Depth (feet)	End Area (sq-ft)	Perim. (feet)	Storage (cubic-feet)	Discharge (cfs)
0.00	0.0	3.0	0	0.000
0.30	1.3	5.5	134	0.293
2.40	21.4	14.9	2,271	16.920

Reach 1R: Water Quality Swale

Hydrograph



Summary for Pond 1P: Public Detention

Inflow Area = 2.946 ac, 65.36% Impervious, Inflow Depth = 2.12" for 10-Yr Storm event
 Inflow = 1.519 cfs @ 7.89 hrs, Volume= 0.521 af
 Outflow = 0.587 cfs @ 8.48 hrs, Volume= 0.520 af, Atten= 61%, Lag= 35.8 min
 Primary = 0.587 cfs @ 8.48 hrs, Volume= 0.520 af

Routing by Stor-Ind method, Time Span= 0.00-25.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,474.16' @ 8.48 hrs Surf.Area= 1,829 sf Storage= 2,859 cf

Plug-Flow detention time= 40.3 min calculated for 0.520 af (100% of inflow)
 Center-of-Mass det. time= 38.9 min (735.7 - 696.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,472.00'	3,850 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,472.00	817	0	0
1,474.67	2,067	3,850	3,850

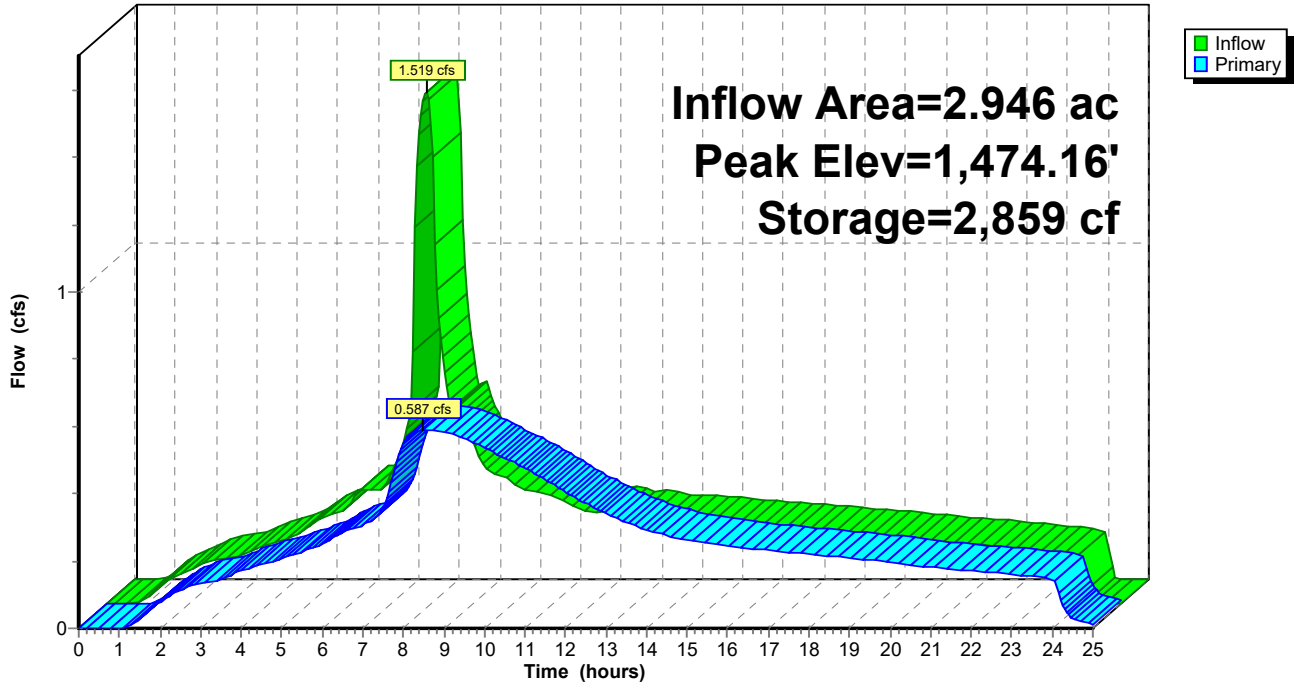
Device	Routing	Invert	Outlet Devices
#1	Primary	1,472.00'	12.0" Round Culvert L= 50.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,472.00' / 1,471.00' S= 0.0200 '/ Cc= 0.900 n= 0.013
#2	Device 1	1,470.00'	3.9" Vert. Orifice - 10-Year C= 0.600
#3	Device 1	1,474.17'	12.0" Horiz. Orifice - Overflow C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.587 cfs @ 8.48 hrs HW=1,474.16' (Free Discharge)

- ↑ **1=Culvert** (Passes 0.587 cfs of 3.848 cfs potential flow)
- ↑ **2=Orifice - 10-Year** (Orifice Controls 0.587 cfs @ 7.08 fps)
- ↑ **3=Orifice - Overflow** (Controls 0.000 cfs)

Pond 1P: Public Detention

Hydrograph



23439 HydroCAD Design

Prepared by Devco Engineering

HydroCAD® 9.10 s/n 03944 © 2009 HydroCAD Software Solutions LLC

Type IA 24-hr 25-Yr Storm Rainfall=3.25"

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Page 12

Time span=0.00-25.00 hrs, dt=0.05 hrs, 501 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment2S: Developed Impervious Runoff Area=83,863 sf 100.00% Impervious Runoff Depth=3.02"
Tc=5.0 min CN=98 Runoff=1.484 cfs 0.484 af

Subcatchment3S: Developed Pervious Runoff Area=44,443 sf 0.00% Impervious Runoff Depth=1.07"
Tc=5.0 min CN=74 Runoff=0.213 cfs 0.091 af

Reach 1R: Water Quality Swale Avg. Flow Depth=0.53' Max Vel=0.34 fps Inflow=0.916 cfs 0.574 af
n=0.240 L=106.0' S=0.0100 '/' Capacity=16.920 cfs Outflow=0.885 cfs 0.573 af

Pond 1P: Public Detention Peak Elev=1,474.27' Storage=3,057 cf Inflow=1.679 cfs 0.575 af
Outflow=0.916 cfs 0.574 af

Total Runoff Area = 2.946 ac Runoff Volume = 0.575 af Average Runoff Depth = 2.34"
34.64% Pervious = 1.020 ac 65.36% Impervious = 1.925 ac

Summary for Subcatchment 2S: Developed Impervious

[49] Hint: $T_c < 2dt$ may require smaller dt

Runoff = 1.484 cfs @ 7.86 hrs, Volume= 0.484 af, Depth= 3.02"

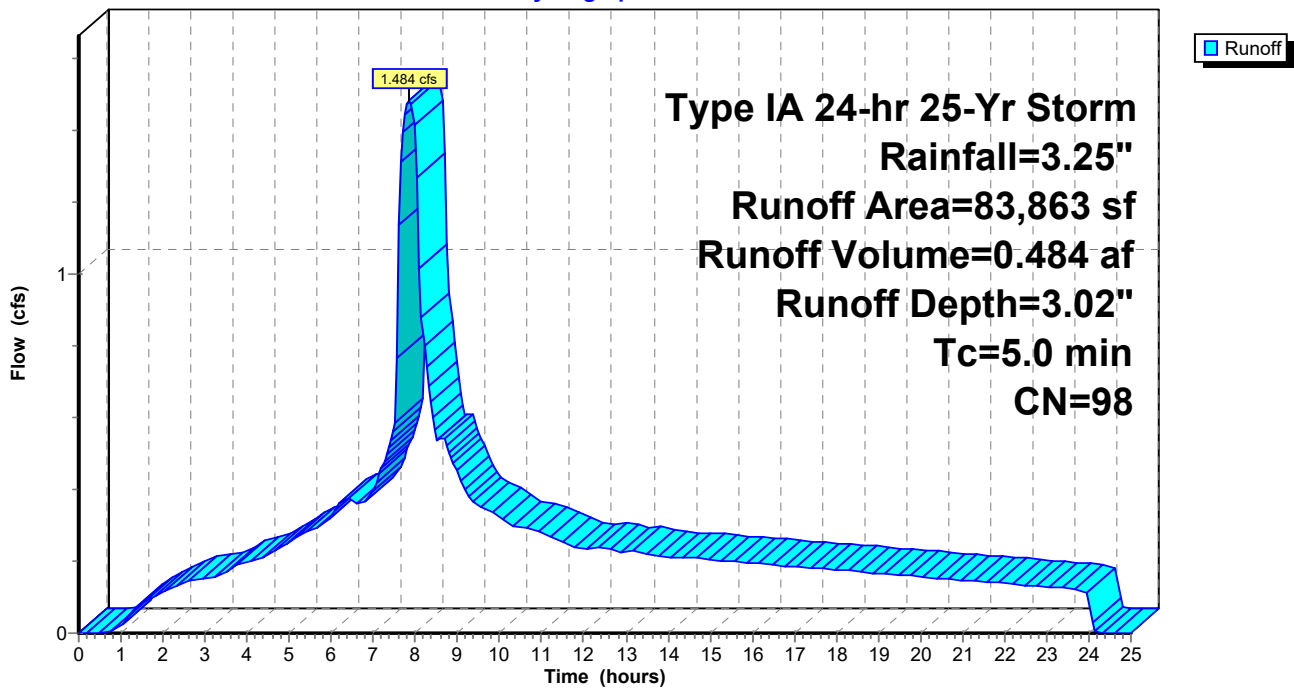
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-25.00 hrs, dt= 0.05 hrs
 Type IA 24-hr 25-Yr Storm Rainfall=3.25"

Area (sf)	CN	Description
* 83,863	98	Impervious Area
83,863		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 2S: Developed Impervious

Hydrograph



Summary for Subcatchment 3S: Developed Pervious

[49] Hint: $T_c < 2dt$ may require smaller dt

Runoff = 0.213 cfs @ 7.99 hrs, Volume= 0.091 af, Depth= 1.07"

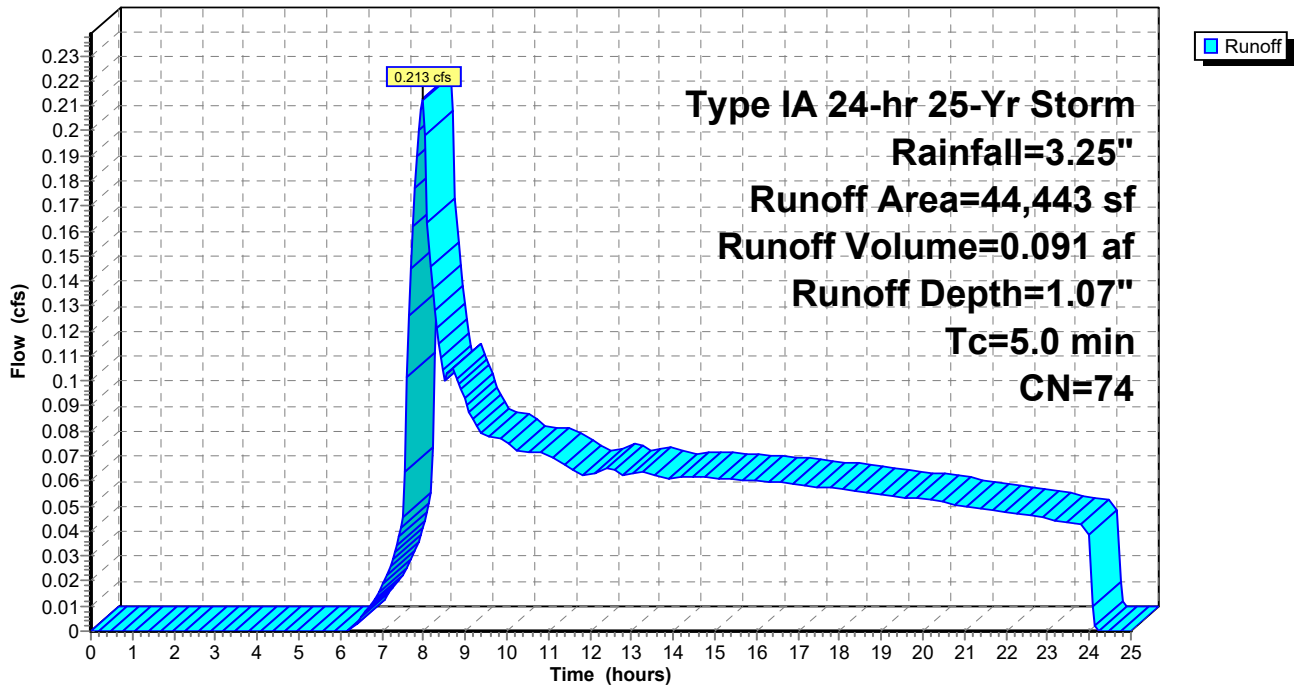
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-25.00 hrs, $dt= 0.05$ hrs
 Type IA 24-hr 25-Yr Storm Rainfall=3.25"

Area (sf)	CN	Description
44,443	74	>75% Grass cover, Good, HSG C
44,443		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 3S: Developed Pervious

Hydrograph



Summary for Reach 1R: Water Quality Swale

[81] Warning: Exceeded Pond 1P by 0.13' @ 24.25 hrs

Inflow Area = 2.946 ac, 65.36% Impervious, Inflow Depth > 2.34" for 25-Yr Storm event
 Inflow = 0.916 cfs @ 8.22 hrs, Volume= 0.574 af
 Outflow = 0.885 cfs @ 8.39 hrs, Volume= 0.573 af, Atten= 3%, Lag= 10.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-25.00 hrs, dt= 0.05 hrs
 Max. Velocity= 0.34 fps, Min. Travel Time= 5.2 min
 Avg. Velocity = 0.22 fps, Avg. Travel Time= 8.0 min

Peak Storage= 278 cf @ 8.30 hrs
 Average Depth at Peak Storage= 0.53'
 Bank-Full Depth= 2.40', Capacity at Bank-Full= 16.920 cfs

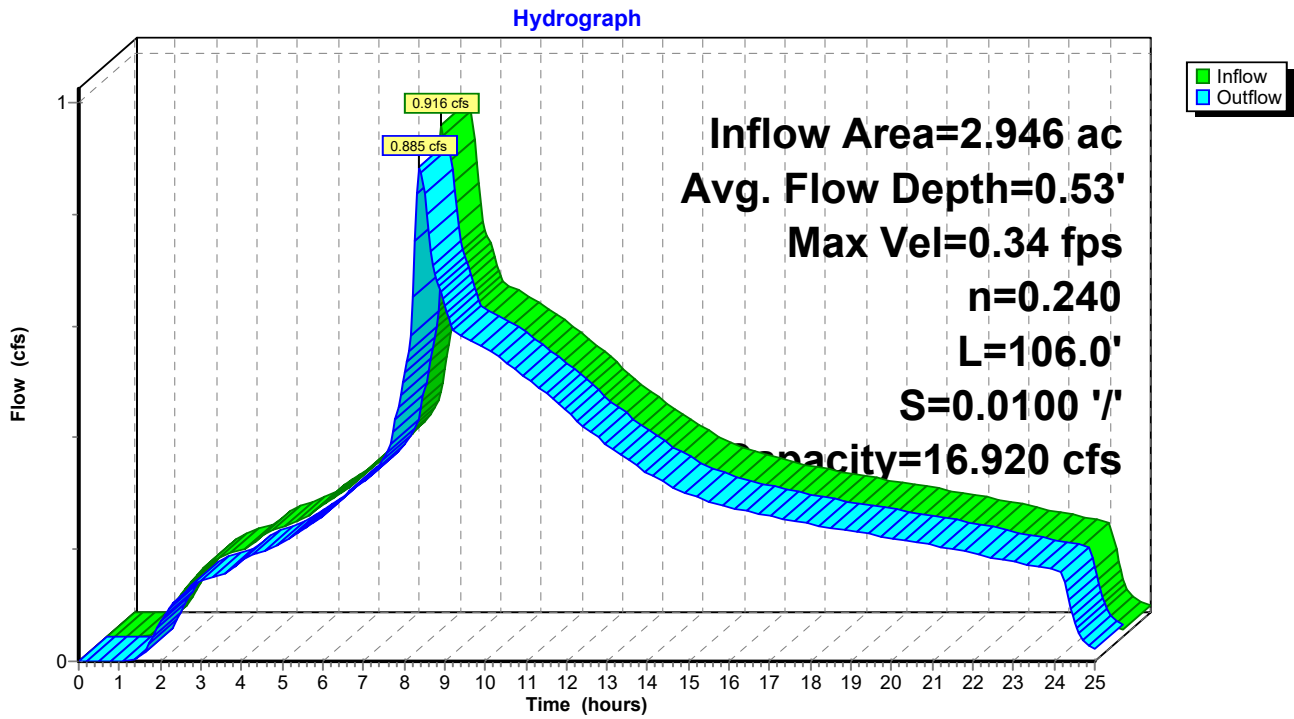
Custom cross-section, Length= 106.0' Slope= 0.0100 '/' (101 Elevation Intervals)
 Constant n= 0.240
 Inlet Invert= 1,472.10', Outlet Invert= 1,471.04'



Offset (feet)	Elevation (feet)	Chan.Depth (feet)
0.00	1,474.50	0.00
4.20	1,472.40	2.10
5.40	1,472.10	2.40
8.40	1,472.10	2.40
9.60	1,472.40	2.10
13.80	1,474.50	0.00

Depth (feet)	End Area (sq-ft)	Perim. (feet)	Storage (cubic-feet)	Discharge (cfs)
0.00	0.0	3.0	0	0.000
0.30	1.3	5.5	134	0.293
2.40	21.4	14.9	2,271	16.920

Reach 1R: Water Quality Swale



Summary for Pond 1P: Public Detention

Inflow Area = 2.946 ac, 65.36% Impervious, Inflow Depth = 2.34" for 25-Yr Storm event
 Inflow = 1.679 cfs @ 7.89 hrs, Volume= 0.575 af
 Outflow = 0.916 cfs @ 8.22 hrs, Volume= 0.574 af, Atten= 45%, Lag= 20.0 min
 Primary = 0.916 cfs @ 8.22 hrs, Volume= 0.574 af

Routing by Stor-Ind method, Time Span= 0.00-25.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,474.27' @ 8.22 hrs Surf.Area= 1,879 sf Storage= 3,057 cf

Plug-Flow detention time= 41.8 min calculated for 0.573 af (100% of inflow)
 Center-of-Mass det. time= 40.4 min (735.6 - 695.2)

Volume	Invert	Avail.Storage	Storage Description
#1	1,472.00'	3,850 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,472.00	817	0	0
1,474.67	2,067	3,850	3,850

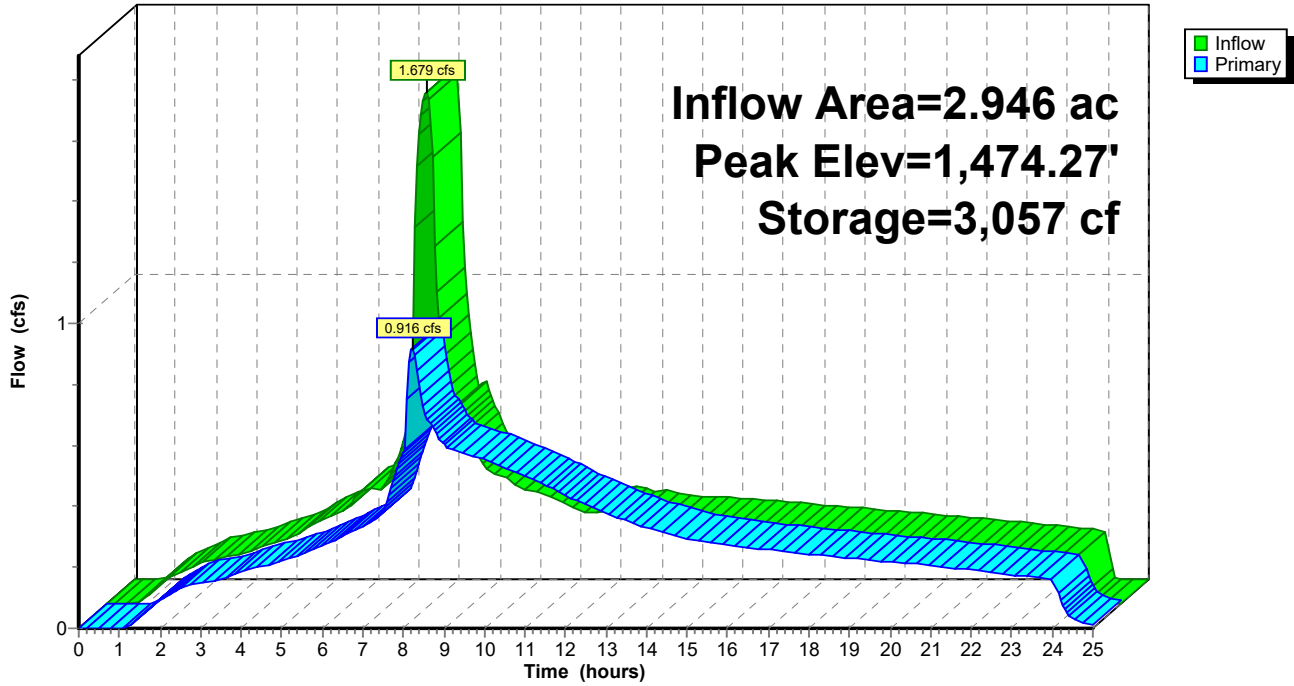
Device	Routing	Invert	Outlet Devices
#1	Primary	1,472.00'	12.0" Round Culvert L= 50.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,472.00' / 1,471.00' S= 0.0200 '/ Cc= 0.900 n= 0.013
#2	Device 1	1,470.00'	3.9" Vert. Orifice - 10-Year C= 0.600
#3	Device 1	1,474.17'	12.0" Horiz. Orifice - Overflow C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.910 cfs @ 8.22 hrs HW=1,474.27' (Free Discharge)

- ↑ **1=Culvert** (Passes 0.910 cfs of 3.968 cfs potential flow)
- ↑ **2=Orifice - 10-Year** (Orifice Controls 0.601 cfs @ 7.25 fps)
- ↑ **3=Orifice - Overflow** (Weir Controls 0.309 cfs @ 1.02 fps)

Pond 1P: Public Detention

Hydrograph



Appendix

2.4 WATER QUALITY REQUIREMENTS: RETENTION AND TREATMENT

Retention and Treatment requirements have been established for this Design Manual and can be met by satisfying either Option 1 or 2 below. The options are provided to allow flexibility on project sites. Option 1 has two parts; Retention and Treatment, while Option 2 only has Retention, but applies it to the entire runoff volume from newly developed and redeveloped areas. Detention requirements are covered in **Section 2.5** of this Design Manual.

2.4.1 Design Storms

- **Retention Storm: 0.46 inches in 24 hours** (80th percentile storm event)
- **Treatment Storm: 0.84 inches in 24 hours** (95th percentile storm event)

Choose Option 1 or Option 2

Option 1.

- a) Target natural surface or predevelopment hydrologic function by retaining all additional runoff volume generated by the Retention storm from post-developed site conditions when compared to pre-developed conditions. Refer to **Section 2.4.3** for a discussion of Technical Infeasibility Factors. If the approving jurisdiction concurs that the site is technically infeasible for Retention, only part 1.b. is required.

And,

- b) Treat all runoff generated by the Treatment storm from new and redeveloped impervious surfaces. Green Infrastructure must be prioritized as the treatment mechanism.

Or,

Option 2.

Retain 100% of the runoff volume generated by the Retention storm from newly developed and redeveloped areas. The Treatment requirement is considered satisfied with this option. Option 2 may not be used if claiming technical infeasibility for a project site.

2.4.2 Mitigation Alternatives

If both Options 1 & 2 noted in **Section 2.4.1** are proven to be technically infeasible for the project site, designers may propose alternatives to the reviewing jurisdiction to satisfy the Retention and Treatment standards.

drinking water well, with the exception of lined facilities. At the time of publication of this Design Manual, the separation distance required by DEQ between UICs and drinking water wells was 500 feet; however, designers should verify with DEQ that this is still the standard.

Land Use Planning

Jurisdictional planning requirements that make infiltration stormwater facilities infeasible are considered to make Retention infeasible. If intending to use this infeasibility criteria, the designer shall seek prior approval from the local jurisdiction.

Transportation

The following public and private transportation related projects are considered infeasible for Retention:

- Any project that would require the purchase of right-of-way for a Retention Facility.

Infiltration Rate

Sites with a Measured Infiltration Rate of 1.5 inches per hour or less are exempt from Retention requirements. However, retention may be used on sites with a measured infiltration less than 1.5 inches per hour if the proposed facility is designed to meet the design standards in Chapter 4. Infiltration measurement shall follow the protocol outlined in **Appendix A**, or a protocol recommended by an Oregon registered PE or CEG.

Contaminated Soils

If DEQ has deemed that the project site has any contaminated soils, the project site will be infeasible for Retention.

Other Requirements

If other requirements are applied to the site, such as SLOPES (Standard Local Operating Procedures for Endangered Species), that may impact the ability to incorporate Retention, discuss these with the local jurisdiction prior to design.

2.5 PEAK FLOW CONTROL: DETENTION STANDARDS

Detention standards are intended to prevent an increase in peak flow runoff from a developing site in order to preserve the capacity in downstream storm drains and to prevent downstream erosion. Detention Facilities are required to be installed at the time of Development and must be sized so that the post-development peak flow is less than or equal to the pre-development peak flow for the 10-year event. Detention Facilities may be required to be designed to a different standard if the local jurisdiction is aware of reduced capacity downstream.

2.5.1 Detention Design Storms

- Peak Flow: 10-year event, 24-hour rainfall depth of 3.0 inches
- Auxiliary Overflow: 25-year event, 24-hour rainfall depth of 3.25 inches, if required

4.5.2 Water Quality Swale BMP

Water quality swales treat stormwater by conveying it through the substrate and vegetation. Treatment is achieved by filtration and settlement as the water slowly flows through the facility. Swales must be planted with dense vegetation in the Treatment zone to filter the stormwater.



Figure 4.6. A Water Quality Swale with dense mature vegetation that provides filtering of stormwater runoff.

Performance Design Approach and Specific Design Standards:

- 1) Water Quality Swale BMP design must comply with the Treatment and Water Quality Requirements in [Chapter 2](#) and the General Design Standards in this chapter.
- 2) Facility must be constructed per the applicable Standard Drawings provided in **Appendix F**.
- 3) Vegetation - All ground within the treatment area of the Water Quality Swale BMP must be vegetated per the Vegetation standards in **Section 4.3.2.19** of this Chapter.
- 4) Swale Length - Water Quality Swale length shall be calculated based on a minimum residence time of 9 minutes. Residence time of less than 9 min may be allowed for up to 25% of the total runoff that enters the swale via sheet flow or curb cuts along the swale length. Check dams must be installed downstream of these locations per the requirements of this section.
- 5) Roughness Coefficient - Manning's n value must be a value between 0.22 and 0.24.
- 6) Flow Depth - Maximum depth of the water quality flow is 4 inches.
- 7) Bottom Width
 - a) Bottom width = 1 foot minimum and 10 foot maximum

- b) If the bottom width is wider than 4 feet, flow spreaders or check dams are required every 50 feet.
- 8) Longitudinal Slope
 - a) Minimum slope = 0.5%
 - b) Check dams must be installed on longitudinal slopes greater than 6%.
- 9) Check Dams - Must be constructed of non-biodegradable material such as concrete or rock. Check dams must have a flat top and be installed per the standard drawings in **Appendix F**.
- 10) Flow Spreaders – Must be constructed of non-biodegradable materials per the Standard Detail in **Appendix F**.

4.5.3 Dispersion BMP (Vegetated Filter Strips & Disconnected Downspouts)

Dispersion is a BMP that spreads runoff over a landscape area specifically to reduce pollution and runoff velocity. Dispersion is suitable for various applications that generate relatively small amounts of runoff and/or for runoff that enters the facility in the form of sheet flow.

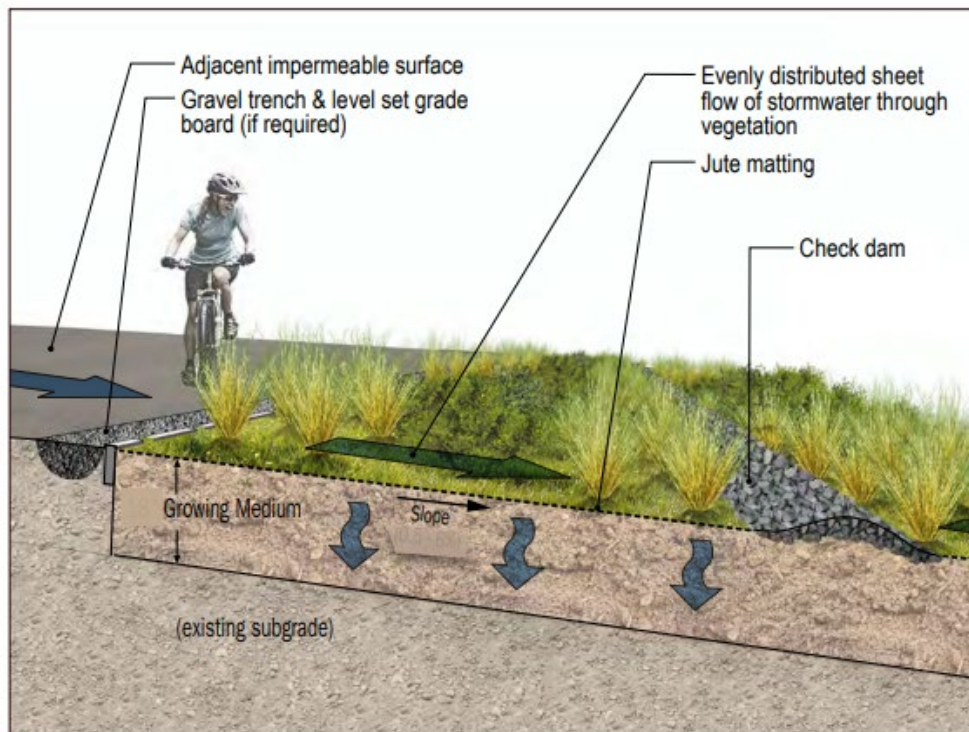
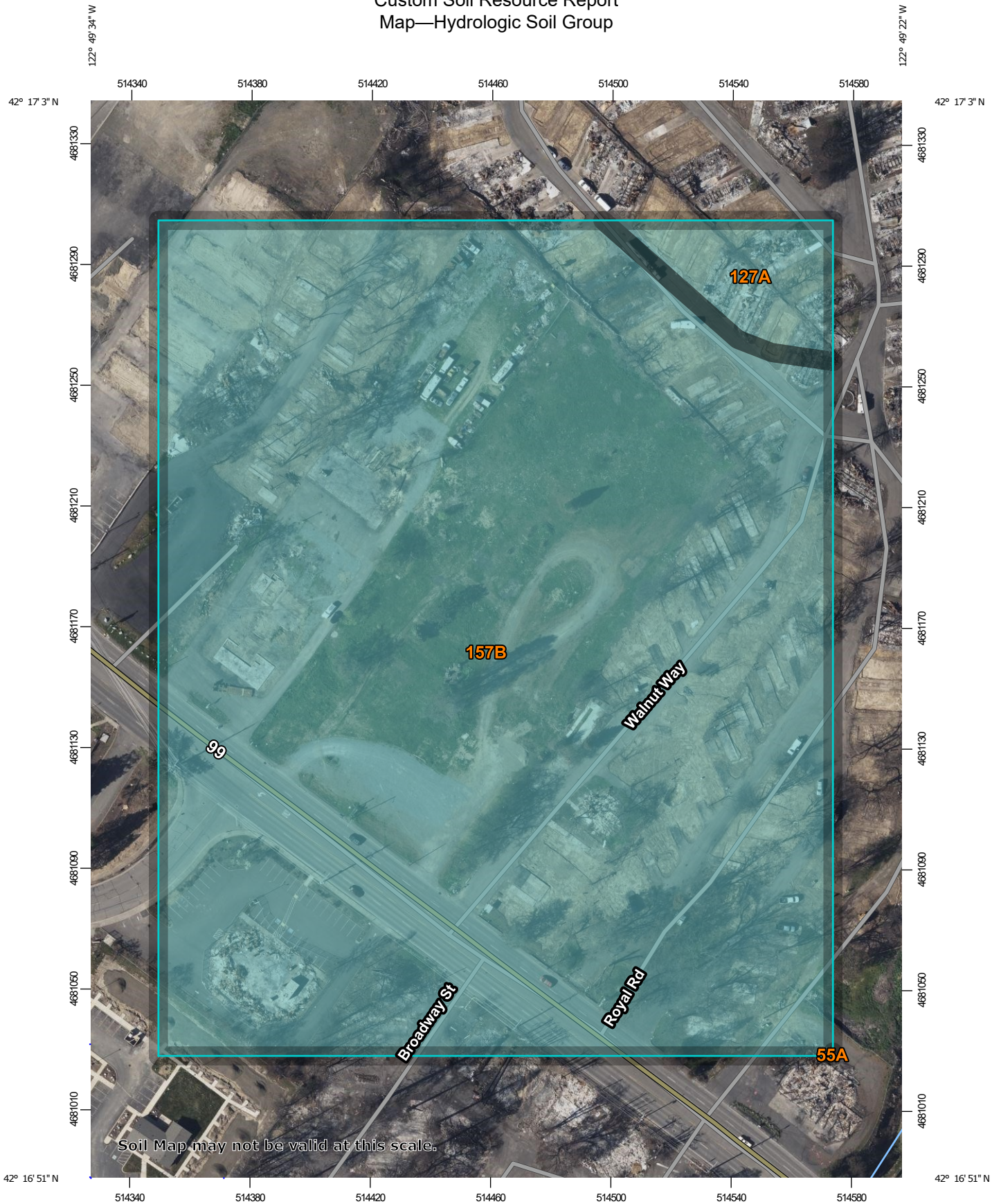


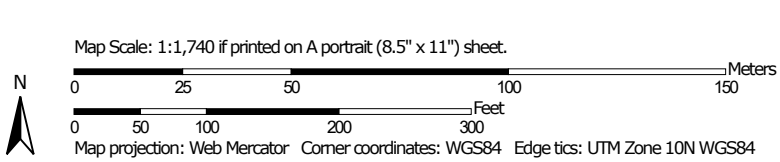
Figure 4.7. Schematic of a Vegetated Filter Strip courtesy of Clean Water Services [LIDA Handbook](#).

Vegetated Filter Strips can be installed along linear features such as roadways, walkways, and patios. Vegetated filter strips typically run parallel to an impervious surface, are gently sloped away from the impervious surface, and must be completely vegetated to filter and reduce velocity as runoff flows through the facility.

Custom Soil Resource Report Map—Hydrologic Soil Group



Soil Map may not be valid at this scale.



Table—Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
55A	Evans loam, 0 to 3 percent slopes	B	0.0	0.0%
127A	Medford silty clay loam, 0 to 3 percent slopes	C	0.6	3.7%
157B	Ruch silt loam, 2 to 7 percent slopes	C	14.8	96.3%
Totals for Area of Interest			15.4	100.0%

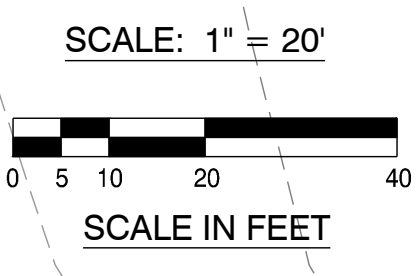
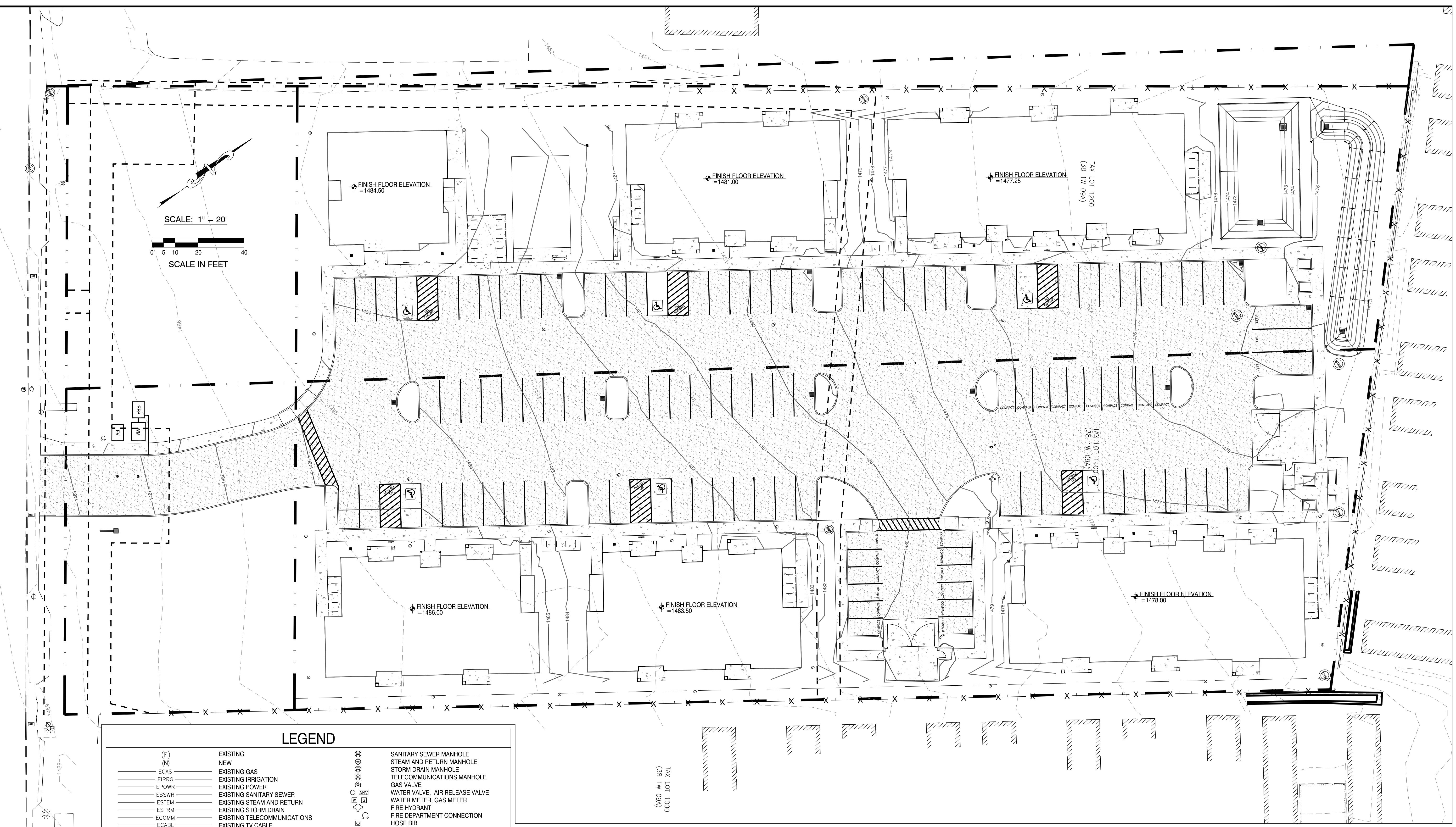
Rating Options—Hydrologic Soil Group

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

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LEGEND	
(E)	EXISTING
(N)	NEW
EGAS	EXISTING GAS
EIRR	EXISTING IRRIGATION
EPOWR	EXISTING POWER
ESSWR	EXISTING SANITARY SEWER
ESTEM	EXISTING STEAM AND RETURN
ESTRM	EXISTING STORM DRAIN
ECOMM	EXISTING TELECOMMUNICATIONS
ECABL	EXISTING TV CABLE
EWATR	EXISTING WATER
GAS	NEW GAS
IRR	NEW IRRIGATION
POWR	NEW POWER
SSWR	NEW SANITARY SEWER
STRM	NEW STORM DRAIN
COMM	NEW TELECOMMUNICATIONS
CABL	NEW TV CABLE
WATR	NEW WATER
---	EXISTING IMPROVEMENTS
---	NEW IMPROVEMENTS
---	FUTURE IMPROVEMENTS
---	EXISTING PROPERTY LINE
---	EXISTING IRON PIPE OR ROD
---	EXISTING EASEMENT
---	EXISTING RIGHT-OF-WAY
---	EXISTING BUILDINGS
---	EXISTING BUILDING OVERHANG
---	CENTERLINE
---	SAWCUT LINE
---	APPROXIMATE CLEARING LIMITS
○	EXISTING DECIDUOUS TREE
●	EXISTING EVERGREEN TREE
○	EXISTING SHRUB
---	FENCE
---	DITCH FLOW LINE
○	SANITARY SEWER MANHOLE
○	STEAM AND RETURN MANHOLE
○	STORM DRAIN MANHOLE
○	TELECOMMUNICATIONS MANHOLE
○	GAS VALVE
○	WATER VALVE, AIR RELEASE VALVE
○	WATER METER, GAS METER
○	FIRE HYDRANT
○	FIRE DEPARTMENT CONNECTION
○	HOSE BIB
○	IRRIGATION SPRINKLER HEAD
○	CATCH BASIN
○	CURB INLET
○	CLEAN OUT
○	RAIN DRAIN
○	THRUST BLOCK
○	STREET LIGHT, PARKING LOT LIGHT
○	LANDSCAPE LIGHT
○	UTILITY POLE
○	UTILITY VAULT
○	ELECTRICAL PEDESTAL
○	TRANSFORMER
○	CABLE PEDESTAL
○	TELECOMMUNICATIONS PEDESTAL
○	SIGN
○	MAILBOX
---	EXISTING CONTOUR
---	NEW CONTOUR
•	BENCH MARK
•	EXISTING SPOT ELEVATION
---	EXISTING TOP OF STRUCTURE OR CURB (TOG=TOP OF STRUCTURE)
---	EXISTING FINISH ELEV. (IE=FLOW LINE)
---	DESIGN TOP OF STRUCTURE OR CURB (TOG=TOP OF STRUCTURE)
---	DESIGN FINISH (IE=FLOW LINE)

HATCH LEGEND	
[Hatched Pattern]	ASPHALT CONCRETE PAVEMENT SECTION
[Hatched Pattern]	PORTLAND CEMENT CONCRETE PAVEMENT SECTION

FOR LAND USE PURPOSES ONLY

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<input type="checkbox"/> PERMIT SET			
<input type="checkbox"/> CONST. SET			

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Corvallis Oregon
engineering inc. (541) 757-8891
245 NE CONFER. PO. BOX 1211
CORVALLIS, OR 97339
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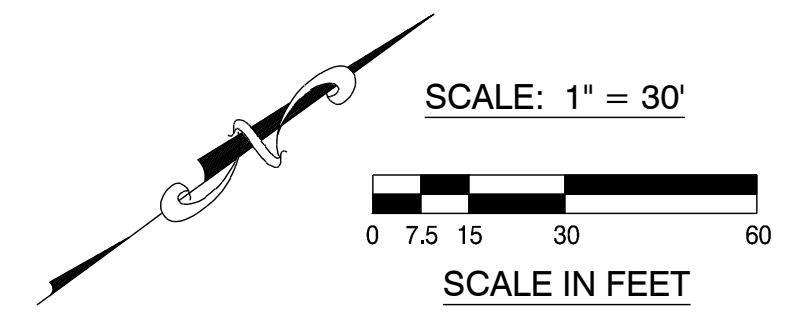
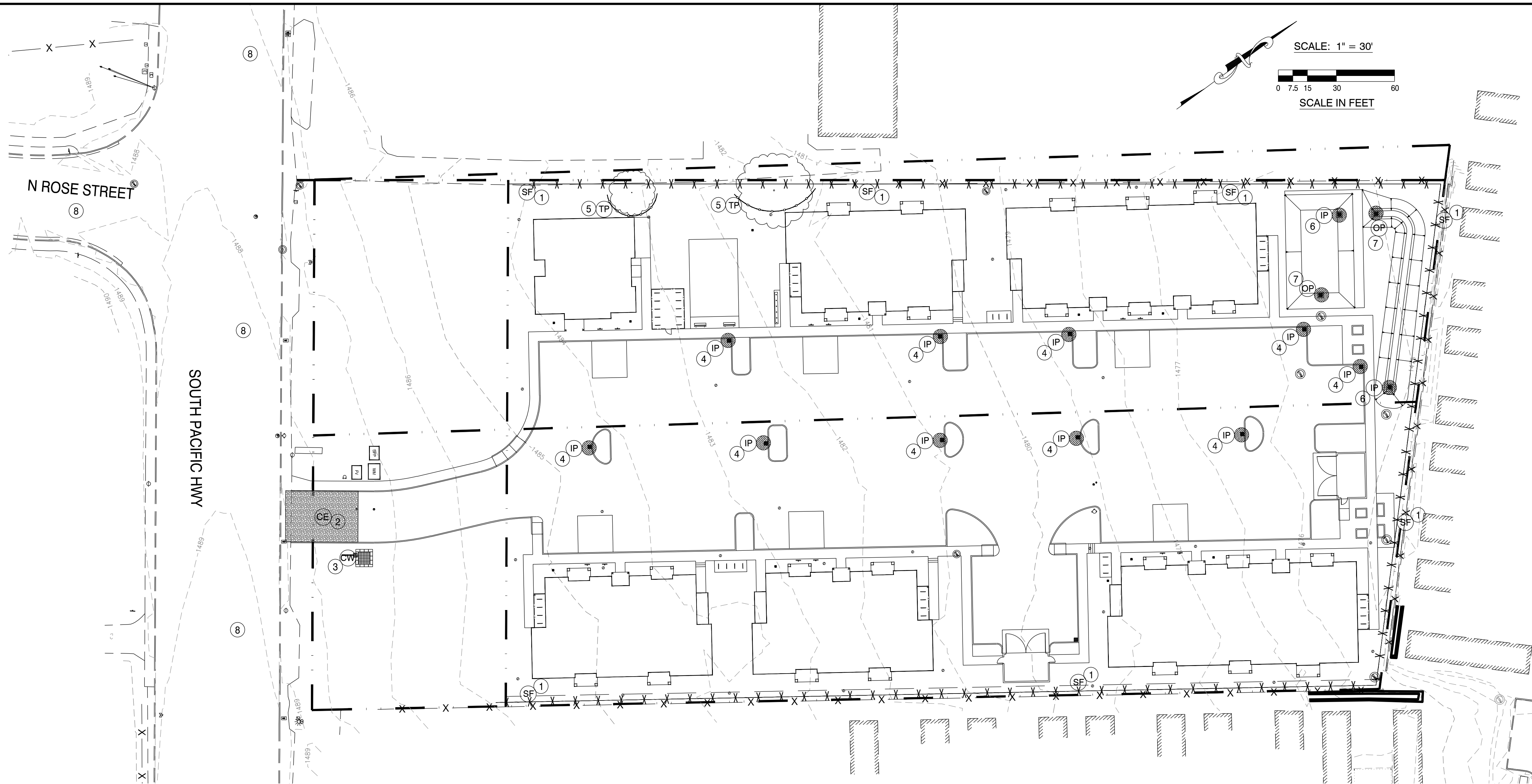
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ALL RIGHTS RESERVED.

PROJECT: PACIFIC FLATS
PROJECT LOCATION: PHOENIX, OR
CLIENT: M+A DESIGN

SHEET TITLE:
PRELIMINARY LAYOUT AND GRADING PLAN

JOB NO. 23439
DRAWN BY: DEVCO
DRAWING: C100

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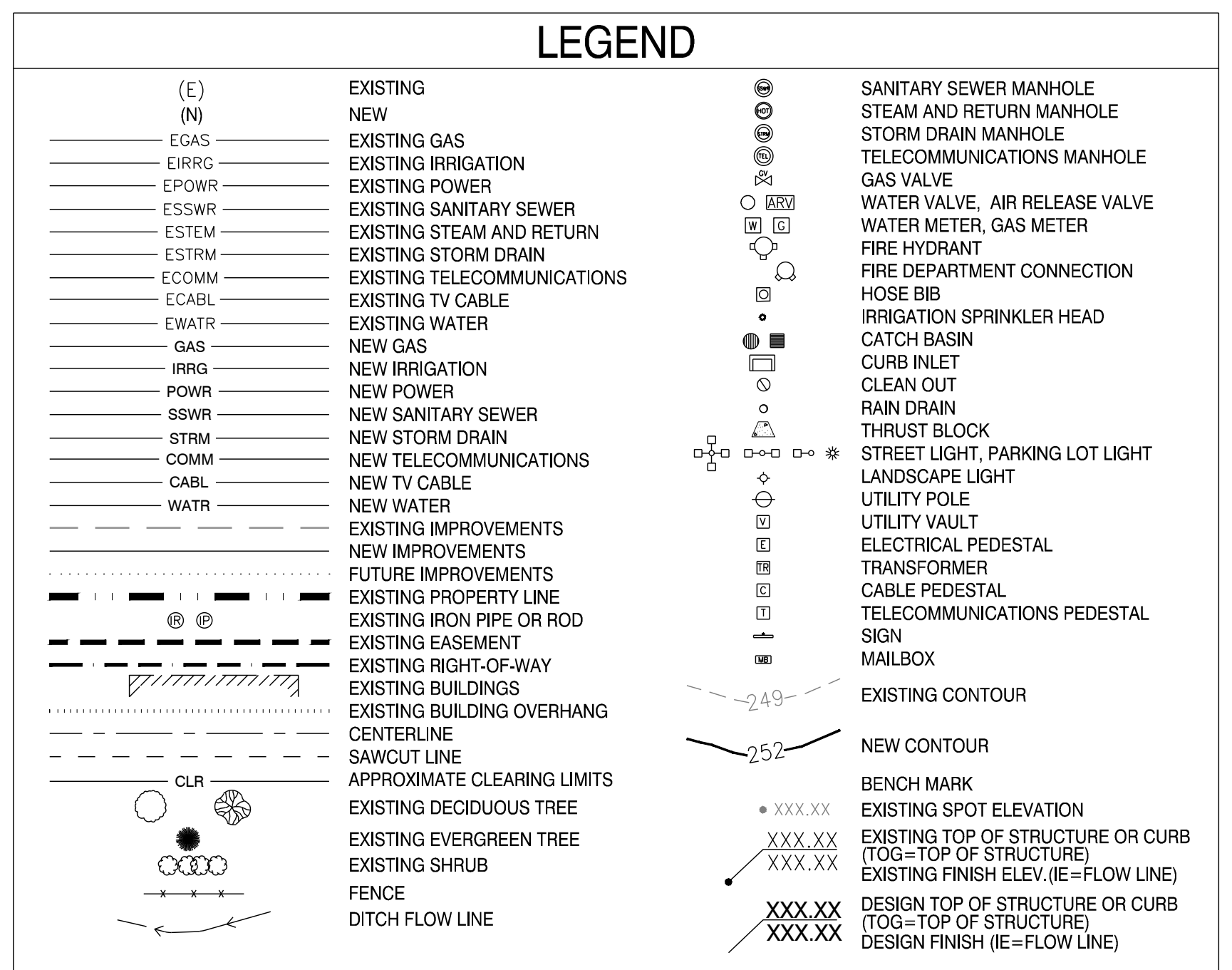
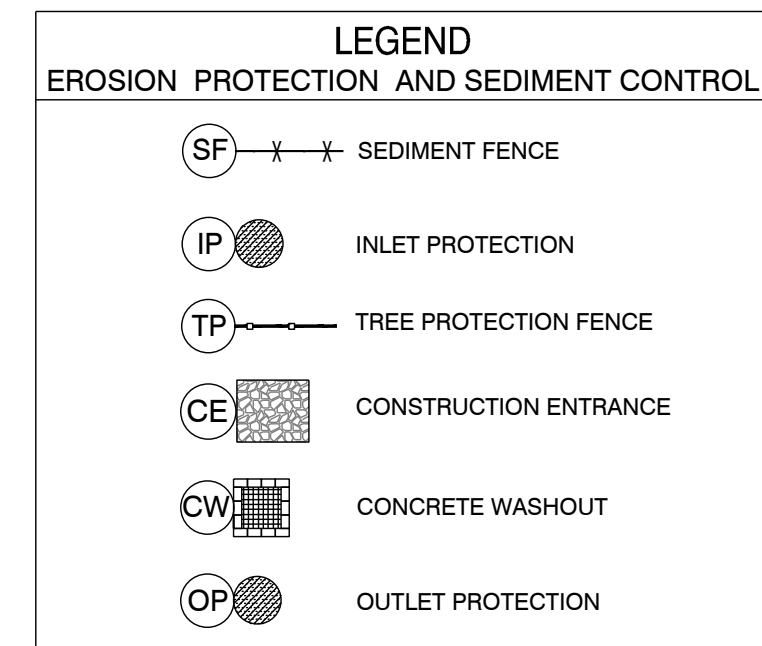


GENERAL NOTES:

1. LOCATION AND PROTECTION OF EXISTING UTILITIES EXISTING UTILITIES:
 - A. EXISTING UTILITIES LOCATED WITHIN THE PROJECT AREA ARE SHOWN AS ACCURATELY AND COMPLETELY AS POSSIBLE. HOWEVER, THE CONTRACTOR SHALL EXPECT THAT THE RECORDS FROM WHICH THE EXISTING UTILITY DRAWINGS WERE PREPARED ARE NOT COMPLETE.
 - B. VERIFY THE LOCATIONS OF ALL UTILITIES AND PROTECT THESE UTILITIES. ANY UTILITIES SHOWN ON THE DRAWINGS OR LOCATED IN THE FIELD THAT THE CONTRACTOR DISRUPTS OR DAMAGES SHALL BE PROMPTLY REPAIRED TO NEW CONDITION. IF REQUIRED, INSTALL SUITABLE TEMPORARY SERVICE UNTIL REPAIR CAN BE EFFECTED. THE COST OF THE REPAIR OR TEMPORARY SERVICE SHALL BE BORNE BY THE CONTRACTOR.
 - C. NOTIFY THE OWNER OF ALL UTILITIES EXPOSED. UNIDENTIFIED UTILITIES SHALL NOT BE DISRUPTED OR CUT UNTIL THE OWNER HAS APPROVED THE CUT.
 - D. ATTENTION: OREGON LAW REQUIRES CONTRACTORS TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES SET FORTH IN OAR 952-001-0010 THROUGH 952-001-0090, CONTRACTORS MAY OBTAIN COPIES OF THE RULES BY CALLING THE CENTER (NOTE: THE TELEPHONE NUMBER FOR OREGON UTILITY NOTIFICATION CENTER IS (503) 323-1987). THE ONE CALL NUMBER IS 1-(800)-332-2344.

EROSION CONTROL NOTES:

- ① CONSTRUCT SEDIMENT/SILT FENCE PER DETAIL 1040/EPSC200.
- ② CONSTRUCT CONSTRUCTION ENTRANCE TYPE 3 PER DETAIL RD1000/EPSC200.
- ③ CONSTRUCT CONCRETE WASHOUT PER DETAIL RD1070/EPSC200.
- ④ CONSTRUCT INLET PROTECTION, TYPE 10, PER DETAIL RD1010/EPSC200.
- ⑤ CONSTRUCT TEMPORARY TREE PROTECTION FENCING LOCATED 5' OUTSIDE DRIP LINE OF TREE, TYPICAL FENCE SHALL BE 5' HIGH, ORANGE CONSTRUCTION FENCE ON "T" POSTS.
- ⑥ CONSTRUCT INLET PROTECTION, TYPE 4, PER DETAIL RD1015/EPSC201.
- ⑦ CONSTRUCT OUTFALL PROTECTION PER DETAIL 2/EPSC201.
- ⑧ ANY SEDIMENT TRACK OUT ON THE STREET SHALL BE REMOVED IMMEDIATELY BY SWEEPING; NO FLUSHING ALLOWED.



FOR LAND USE PURPOSES ONLY

DRAWING STATUS:	DATE:	No.	REVISION:
<input type="checkbox"/> PRELIMINARY			
<input checked="" type="checkbox"/> SUBMITTED	12/04/23		
<input type="checkbox"/> BID SET			
<input type="checkbox"/> PERMIT SET			
<input type="checkbox"/> CONST. SET			

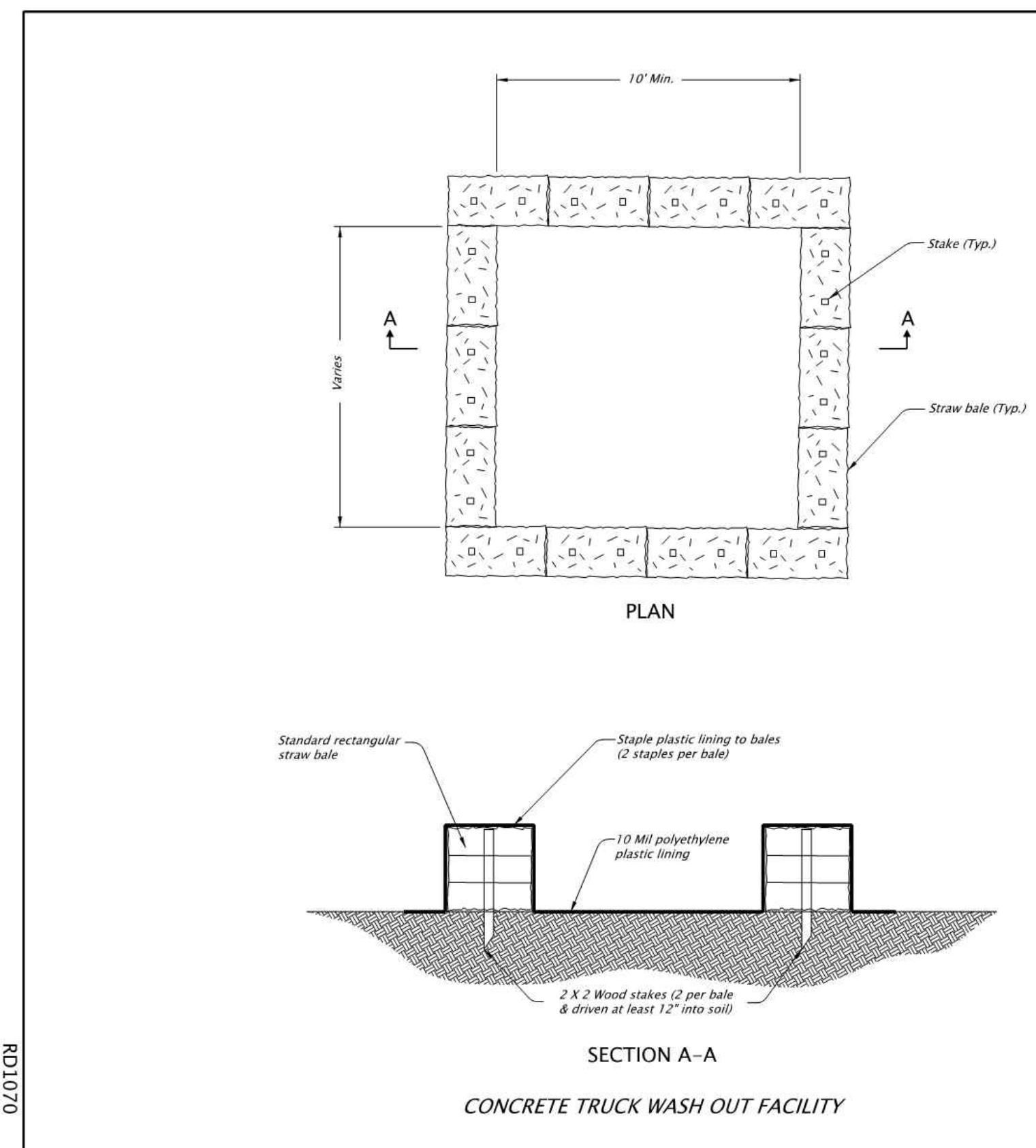
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engineering inc. (541) 757-8891
245 NE CONFER. PO. BOX 1211
CORVALLIS, OR 97339
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PROJECT: PACIFIC FLATS
PROJECT LOCATION: PHOENIX, OR
CLIENT: M+A DESIGN

SHEET TITLE:
EROSION PREVENTION AND SEDIMENT CONTROL PLAN

JOB NO. 23439
DRAWN BY: DEVCO
DRAWING:
EPSC100



CALC. BOOK NO. 6403, 6404, 6405

BASELINE REPORT DATE: July 2014

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications.

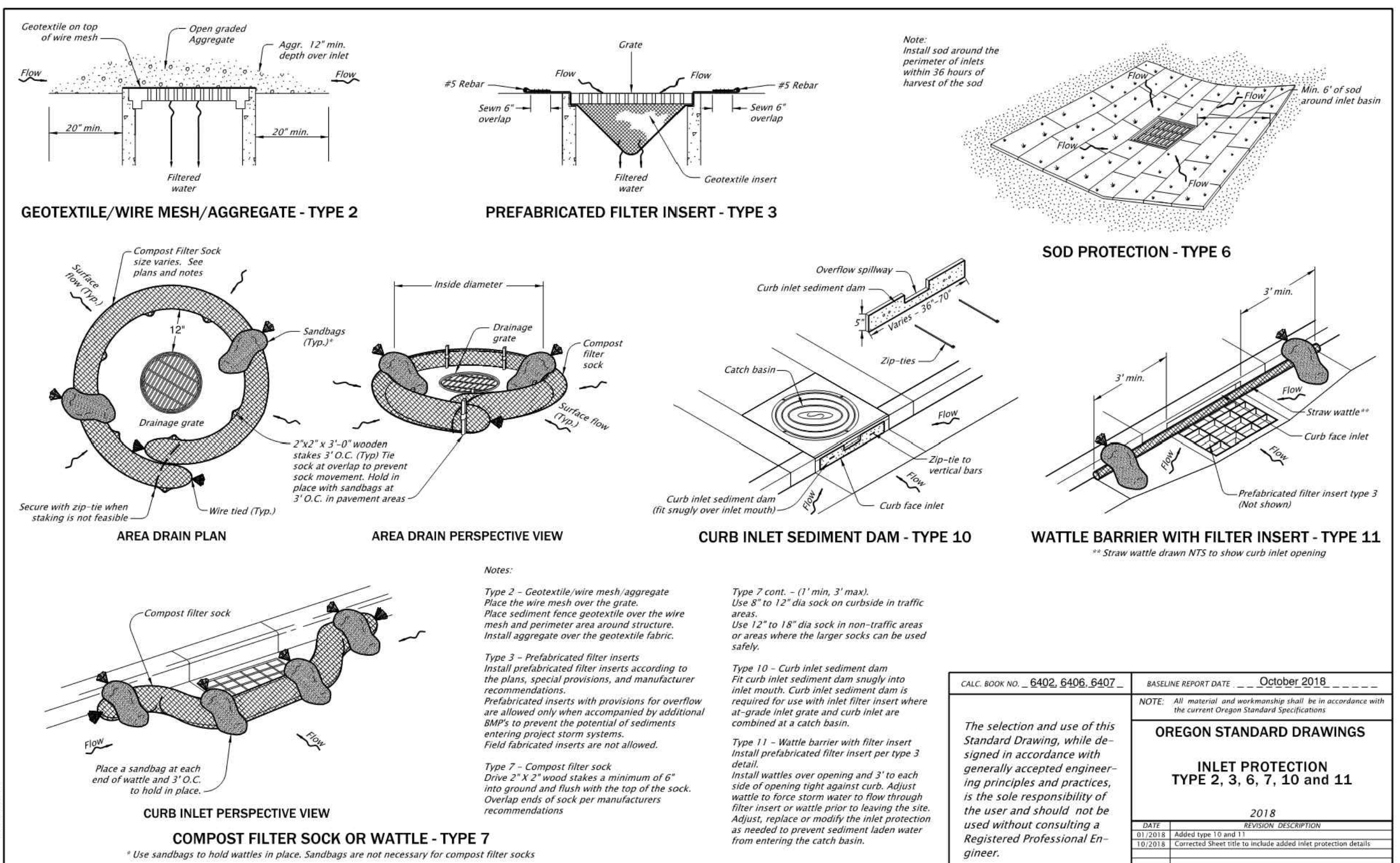
OREGON STANDARD DRAWINGS

CONCRETE TRUCK WASH OUT

DATE: 2018

REVISION DESCRIPTION:

RD1070



CALC. BOOK NO. 6402, 6406, 6407

BASELINE REPORT DATE: October 2018

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

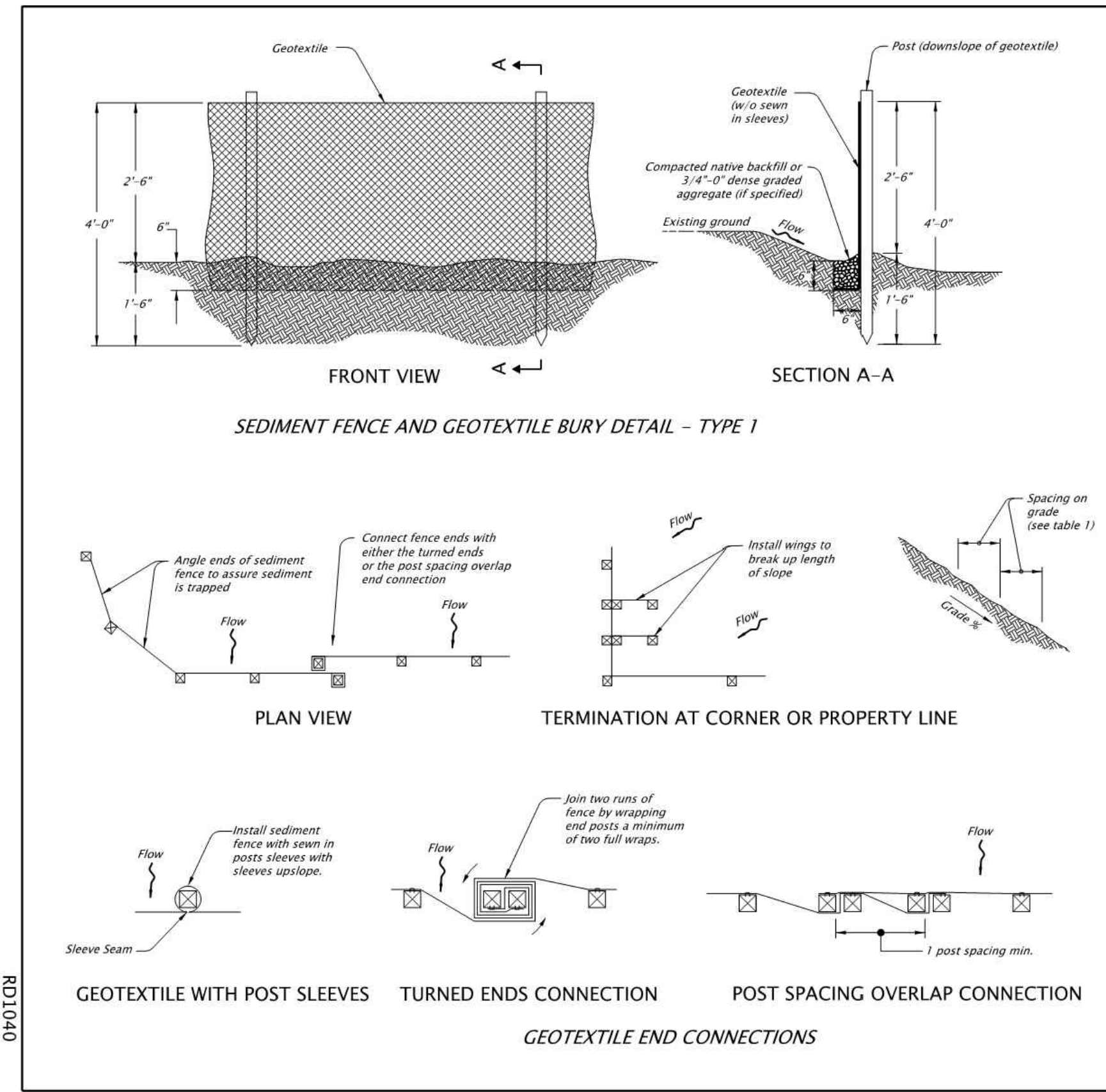
INLET PROTECTION

TYPE 2, 3, 6, 7, 10 and 11

DATE: 2018

REVISION DESCRIPTION:

RD1010



NOTE: 1. Use must be approved by the engineer. 2. Not approved for use with sediment fencing with seam-in post sleeves.

ALTERNATE SEDIMENT FENCE W/O TRENCHING - TYPE 2

NOTE: 1. Use 2" x 2" wood fence posts. 2. Posts to be installed on downhill side of sediment fence geotextile. Position posts to prevent separation from geotextile. 3. Compact filter fabric trench backfill and soil on uphill side of fence. 4. Locate fence no closer than three feet to the toe of a slope. 5. Wing spacing shall comply with table 1.

GRADE	MAXIMUM SPACING ON GRADE
Grade < 10%	300'
10% ≤ Grade < 15%	150'
15% ≤ Grade < 20%	100'
20% ≤ Grade < 30%	50'
30% ≤ Grade	25'

POST SPACING	SEDIMENT FENCE WITH GEOTEXTILE ELONGATION LESS THAN 50%	SEDIMENT FENCE WITH GEOTEXTILE ELONGATION 50% OR MORE
6"		
4"		

CALC. BOOK NO. 6403, 6404, 6405

BASELINE REPORT DATE: November 2017

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications.

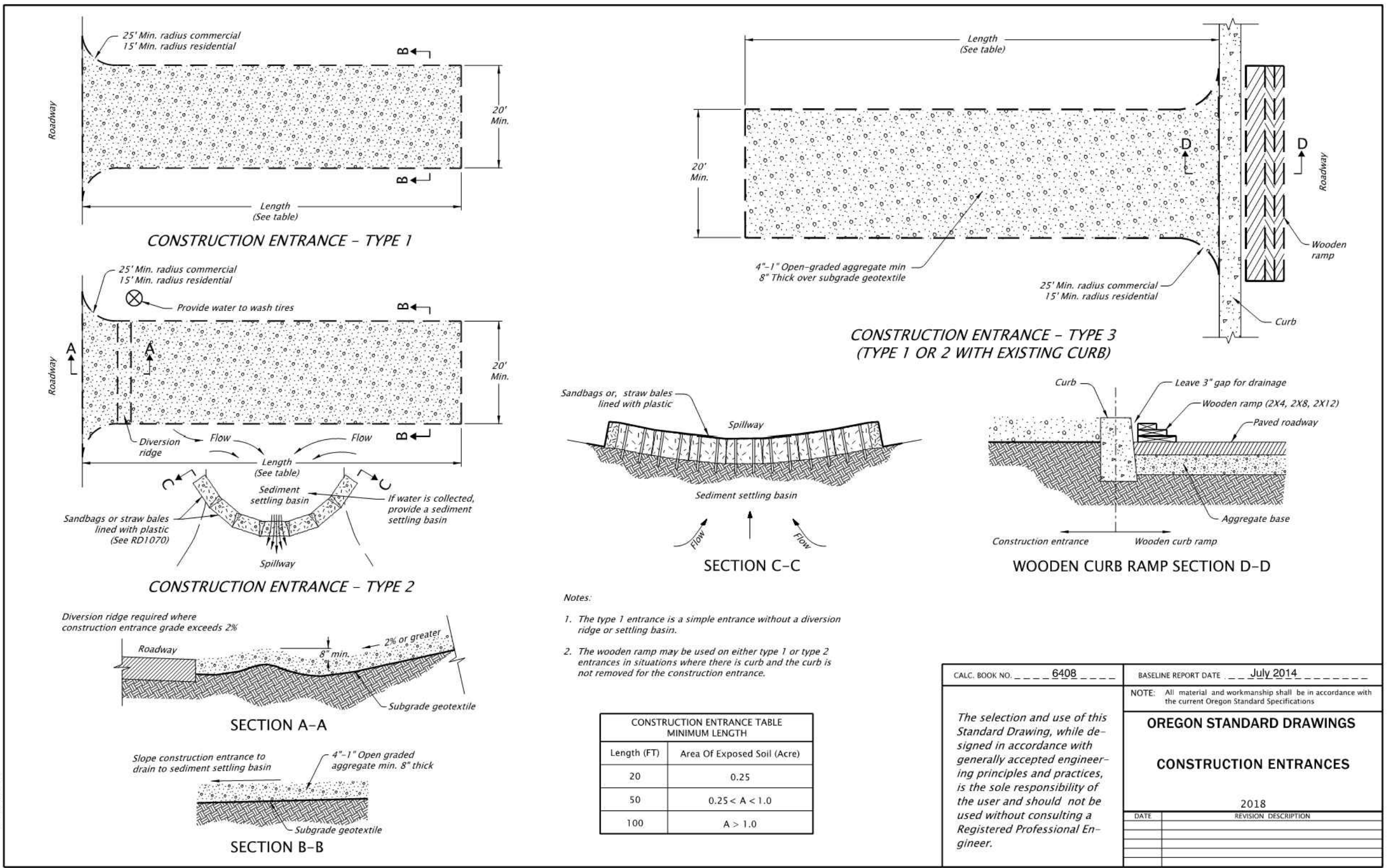
OREGON STANDARD DRAWINGS

SEDIMENT FENCE

DATE: 2018

REVISION DESCRIPTION:

RD1040



MINIMUM LENGTH	Area Of Exposed Soil (Acres)
20	0.25
50	0.25 < A < 1.0
100	A > 1.0

CALC. BOOK NO. 6408

BASELINE REPORT DATE: July 2014

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

CONSTRUCTION ENTRANCES

DATE: 2018

REVISION DESCRIPTION:

RD1000

RD1040

RD1000

DATE:

REVISION:

NO. DATE:

12/04/23

PRELIMINARY

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PROJECT: RENAISSANCE FLATS

PROJECT LOCATION: 292 TALENT AVENUE TALENT, OR 97540

CLIENT: M+A DESIGN

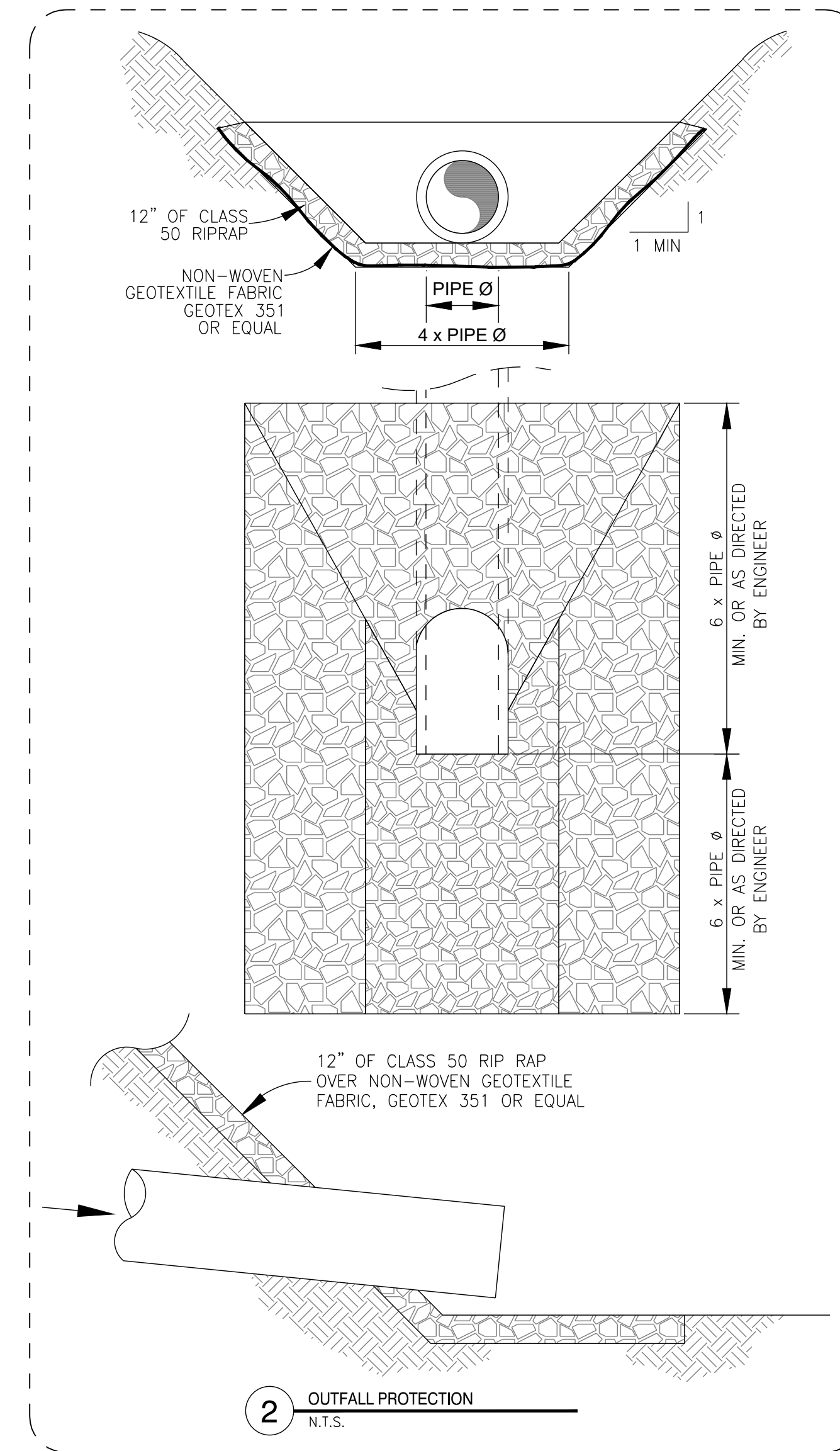
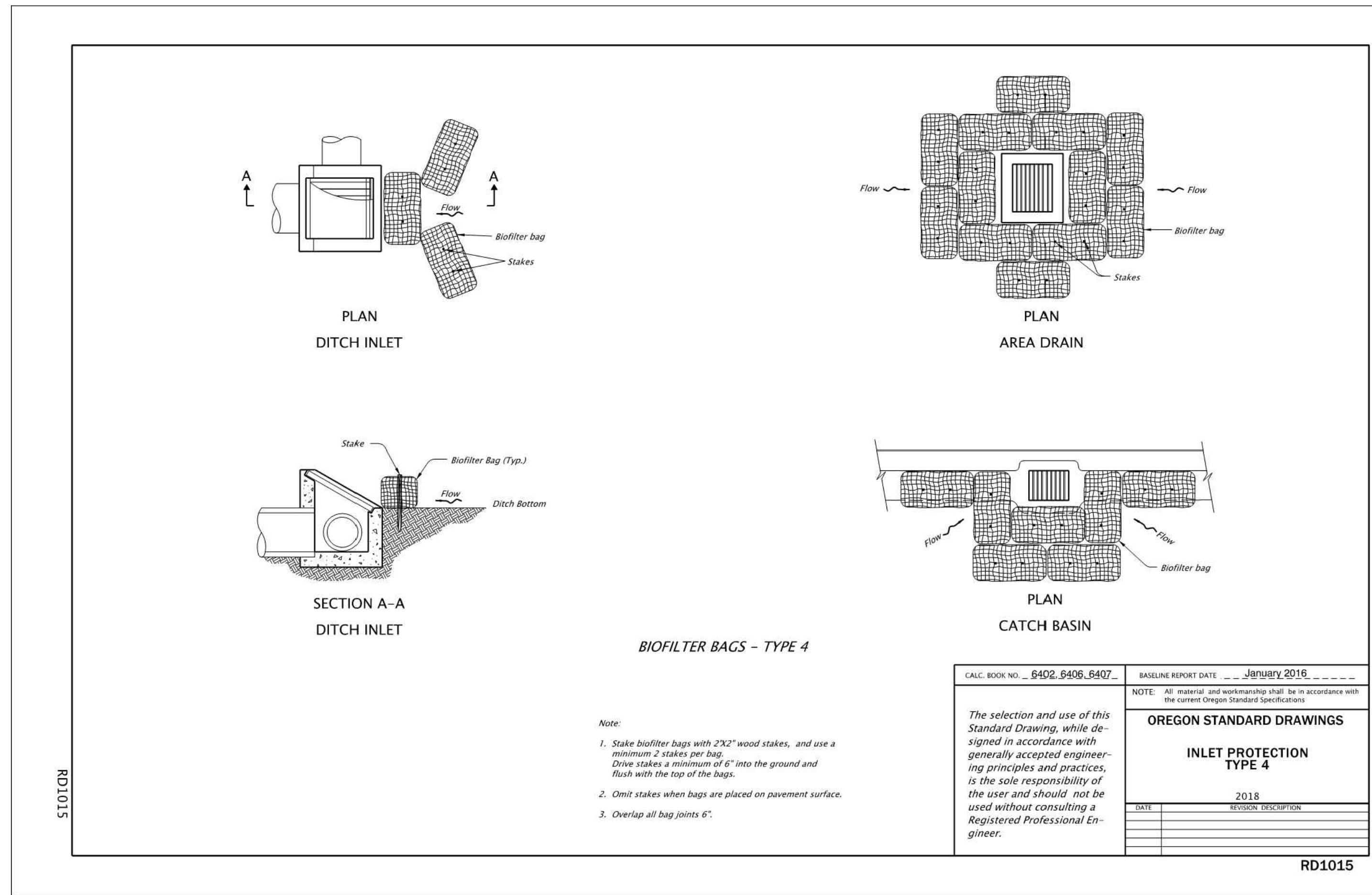
SHEET TITLE: EROSION PREVENTION AND SEDIMENT CONTROL DETAILS

JOB NO. 21410

DRAWN BY: DEVCO

DRAWING: EPSC400

FILE: I:\CADD\3D Projects\234349 Production Drawings\Drawings\DETAILS_EPSC401.dwg [EPSC401] 12/14/2023 1:25 PM - Trevor



Seed Purity

All seed applied should be those specified herein and should be measured by Pure Live Seed (PLS) weight. Pure live seed refers to the portion of a seed lot that is live seed of the desired kind.

The seed lots should be tested and meet the minimum seed standards. Lots showing Oregon prohibited weeds are not approved. Seed must meet minimum viability standards. Oregon State University Extension Service keeps a listing of seed varieties that are certified in the OSU Extension Certified Seed Handbook. The seed variety must be approved by the OSU Seed Certification Board to be eligible for certification or meet the standards for certification.

- Temporary grass cover measures must be fully established by October 1st or other ground cover measures will have to be implemented. In order to establish an 80% healthy stand of grass, all seeding applications must be completed prior to September 1st.
- Apply seeding when no further disturbances are planned.
- Seed should be applied immediately after seedbed preparation while the soil is loose and moist.
- Apply seed before applying straw mulch.
- Dry, loose, weed-free straw used as mulch shall be applied at 4,000 lb./acre. Anchor straw by working in by hand or with equipment (rollers, cleat tracks, etc.)
- Permanent or temporary irrigation shall be supplied especially in abnormally hot or dry weather or on adverse sites. Water application rates should be controlled to provide adequate moisture without causing runoff.

Site Preparation

- Bring the seedbed area to final grade, remove all rocks and debris, and smooth surface undulations larger than 2 inches.
- Divert concentrated flows away from the seeded area.
- For optimum seeding conditions preserve topsoil and stockpile material until final grades are established. Spread topsoil over new grades.
- Roughen the soil by harrowing, tracking, grooving or furrowing.
- Apply amendments as needed to adjust pH to 6.0-7.5. Incorporate these amendments into the soil.

Page 1 of 4

- The seedbed should be firm but not compact. The top 4-6 inches of soil should be loose, moist and free of large clods and stones.
- If the seedbed has been idle long enough for the soil to become compact, the top soil should be harrowed with a disk, spring tooth drag, spike tooth drag, or other equipment designed to condition the soil for seeding.
- Harrowing, tracking or furrowing should be done horizontally across the face of the slope, so ridges are along the slope contour.

Seeding

- Seed to soil contact is the key to good germination.
- Apply seed at the rates specified using calibrated seed spreaders, cyclone seeders, mechanical drills, or hydro seeder so the seed is applied uniformly on the site.
- Broadcast seed should be incorporated into the soil by raking or chain dragging, and then lightly compacted to provide good seed-soil contact.
- Apply mulch over the seeded areas.
- To prevent seed from being washed away, confirm installation of all required surface water control measures.
- Double the rate of seed application when mulch and seed is applied in a single application.
- Recommended erosion control grass seed mixes are as follows. Similar mixes designed to achieve erosion control may be substituted with approval.
 1. Dwarf Grass mix (low height, low maintenance)
Dwarf Perennial Ryegrass, 80% by weight
Creeping Red Fescue, 20% by weight
Application rate: 100 pounds minimum per acre
 2. Standard Height Grass Mix
Annual Ryegrass, 40% by weight
Turf-type Fescue, 60% by weight
Application rate: 100 pounds minimum per acre

Page 2 of 4

Fertilizer

- Slow-release fertilizers are more efficient and have fewer environmental impacts.
- Areas being seeded may require soil tests to determine the exact type and quantity of fertilizer needed to prevent the over-application of fertilizer. Use non-phosphorous fertilizer on disturbed areas within 50 feet of water bodies and wetlands.
- The use of stockpiled topsoil or compost reduces the need for fertilizer and improves the overall soil quality.
- Application rate per manufacturer's recommendation.

Mulch

- The straw mulch shall not be moldy, caked, decayed or of otherwise low quality.
- Can be applied on top of the seed or applied with the seed during hydro seeding.
- The application rate of seed per acre should be increased if seed and mulch are applied in a single application.

Mulch Material	Quality Standards	Application Rate Per Acre	Depth of Material	Considerations
Straw	Air dried, free from unwanted seeds and coarse materials	3 tons or 120 bales	4 inches min. uniform spread	Use where the mulching effects is to be maintained < 3 months. When chopped straw is applied use a tackifier.

Inspection & Maintenance

- Inspect once per week in active sites, once every two weeks on in-active sites, and within 24 hours following a 0.5-inch rain event.
- Newly seeded areas need to be inspected frequently to ensure the grass is growing.
- If the seeded area is damaged due to runoff. Re-seed and mulch damaged areas.
- Spot seeding can be done on small areas to fill in bare spots where grass did not grow properly.

Page 3 of 4

- If spot seeding is ineffective, use an alternate method, such as sod or matting.
- Re-seed and protect with mulch any areas affected by erosion. If the erosion is caused by concentrated runoff, fix the runoff problem and then re-seed and mat the area.

Page 4 of 4

1 SEEDING DETAIL
SCALE: N.T.S.

DATE:	
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DRAWING STATUS:	DATE:	No.	REVISION:
<input type="checkbox"/> PRELIMINARY			
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PROJECT:
RENAISSANCE FLATS

PROJECT LOCATION:
232 TALENT AVENUE TALENT, OR
97540

CLIENT:
M+A DESIGN

SHEET TITLE:
EROSION PREVENTION AND
SEDIMENT CONTROL
DETAILS

JOB NO. 21410

DRAWN BY: DEVCO

DRAWING:
EPSC401



Step 1: Select Payments

Step 2: Review and Submit

Step 3: Confirmation and Receipt

Step 3: Confirmation and Receipt

Result: Payment Authorized

Confirmation Number: 148003068

Your payment has been authorized successfully and payment will be processed.

The City of Phoenix Thanks You for your payment. Thank you for using our bill payment services.

Please save or print a copy of this receipt for record keeping purposes.

My Bills

Description	Amount Due
Building/Planning payment of \$1,498.00 on Account Number SP23-08	\$1,498.00

Customer Information

First Name: Daniel
 Last Name: DiFrancesco
 Address Line 1: 24 S. Brooke Street
 Address Line 2:
 City: Fond du Lac
 State: Wisconsin
 Zip Code: 54935
 Phone Number: 6082164535
 Email Address: d.difrancesco@commonwealthco.net

Subtotal:	\$1,498.00
Convenience Fee:	\$0.00
Total Payment:	\$1,498.00

Payment Information

Payment Date: 12/18/2023
 Card Type: MasterCard
 Card Number: *****0136

Print

Finished

Jeff Wilcox

From: Brian Redig <b.redig@maesigninc.net>
Sent: Wednesday, January 17, 2024 1:54 PM
To: Zac Moody; Daniel DiFrancesco; 'Jeff Wilcox'
Subject: RE: Property Tax Exemption - Pacific Flat
Attachments: image001.png; image003.jpg; image004.png; image006.png; image008.png; image009.png; image011.png; image010.png; image013.png; image014.png; image015.png; PLANNING SUBMITTAL PACIFIC FLATS.pdf; TrafficImpactAnalysis_PacificFlats_Final.pdf

Zac,

Here is an updated findings report which addresses items 2, 3, 4, 5, & 7. Attached is the traffic analysis which addresses item 1. Our landscape architect is out of town and won't be able to address item 6 until next week but the street trees will be added. Item 8, in regards to the signage, we will defer the sign permit at this time.

Thanks,

BRIAN REDIG

PROJECT MANAGER | M+A DESIGN, INC.



DESIGN, INC.

24 S. BROOKE ST., FOND DU LAC, WI 54935
OFFICE: 920.922.8170 EXT. 130 | CELL: 920.979.7670
B.REDIG@MADESIGNINC.NET
WWW.MADESIGNINC.NET

Please consider the environment before printing this email. Thank you.

From: Zac Moody <zac.moody@phoenixoregon.gov>
Sent: Tuesday, January 16, 2024 9:51 AM
To: Brian Redig <b.redig@maesigninc.net>; Daniel DiFrancesco <d.difrancesco@commonwealthco.net>; 'Jeff Wilcox' <jeff.wilcox@phoenixoregon.gov>
Subject: RE: Property Tax Exemption - Pacific Flat

You don't often get email from zac.moody@phoenixoregon.gov. [Learn why this is important](#)

Brian,

In the cases where residential is being built in a commercial zone, a deed declaration tied to the property prohibiting owners of the residential properties from pursuing a claim for relief from the commercial activity must be signed. This development is the first approved under this provision, so I will need to find the appropriate deed declaration and send it your way.

Thanks,

Zac

Zac Moody, CFM

Community Development Manager
City of Phoenix

220 N. Main St. (P.O. Box 330)
Phoenix, OR 97535
541-535-2050 Ext: 313
zac.moody@phoenixoregon.gov



From: Brian Redig <b.redig@maesigninc.net>
Sent: Monday, January 15, 2024 1:53 PM
To: Daniel DiFrancesco <d.difrancesco@commonwealthco.net>; Jeff Wilcox <jeff.wilcox@phoenixoregon.gov>
Cc: Zac Moody <zac.moody@phoenixoregon.gov>
Subject: RE: Property Tax Exemption - Pacific Flat

Jeff,

Can you explain what is needed to comply with item 2.4.5 (L)(7)?

7. The property owner (and additional owners in the case of condominium, pad lot, partition or subdivision) shall record a deed declaration acknowledging the existing and potential for additional commercial activity on and around the property. The declaration shall also prohibit the owners from pursuing a claim for relief or cause for action alleging injury from commercial practices.

Thanks,

BRIAN REDIG
PROJECT MANAGER | M+A DESIGN, INC.



DESIGN, INC.

24 S. BROOKE ST., FOND DU LAC, WI 54935
OFFICE: 920.922.8170 EXT. 130 | CELL: 920.979.7670
B.REDIG@MADESIGNINC.NET
WWW.MADESIGNINC.NET

Please consider the environment before printing this email. Thank you.

From: Daniel DiFrancesco <d.difrancesco@commonwealthco.net>
Sent: Friday, January 5, 2024 6:33 PM
To: Jeff Wilcox <jeff.wilcox@phoenixoregon.gov>
Cc: Zac Moody <Zac.Moody@phoenixoregon.gov>; Brian Redig <b.redig@maesigninc.net>
Subject: Re: Property Tax Exemption - Pacific Flat

Thanks, Zac and Jeff. We'll take a look at these items and get back to you with any questions or comments next week.

Enjoy the weekend!

Get [Outlook for iOS](#)

From: Jeff Wilcox <jeff.wilcox@phoenixoregon.gov>
Sent: Friday, January 5, 2024 5:49:28 PM
To: Daniel DiFrancesco <d.difrancesco@commonwealthco.net>
Cc: Zac Moody <Zac.Moody@phoenixoregon.gov>
Subject: RE: Property Tax Exemption - Pacific Flat

You don't often get email from jeff.wilcox@phoenixoregon.gov. [Learn why this is important](#)

Hello Sir,

Zac and I took a look at the application, there's a few things that need to be addressed. It may LOOK like a lot, but this is pretty common for a development of this size.

If you or your team has any questions on these items, please don't hesitate to reach out to either of us.

Kind regards,
Jeff

Jeff Wilcox
Associate Planner
City of Phoenix
541-535-2050 Ext 318
220 N Main St
Phoenix, OR 97535

From: Daniel DiFrancesco <d.difrancesco@commonwealthco.net>
Sent: Friday, January 5, 2024 1:18 PM
To: Zac Moody <zac.moody@phoenixoregon.gov>; 'Jeff Wilcox' <jeff.wilcox@phoenixoregon.gov>
Cc: 'Kathy Keesee' <kathy@uneteoregon.org>; dago@uneteoregon.org
Subject: RE: Property Tax Exemption - Pacific Flat

Thanks, Zac!

DANNY DIFRANCESCO
VICE PRESIDENT OF DEVELOPMENT | THE COMMONWEALTH COMPANIES



7447 University Ave, Suite 210 Middleton, WI 53562
OFFICE 608-709-5676 EXT. 204 | CELL 608-216-4535
D.DIFRANCESCO@COMMONWEALTHCO.NET
WWW.COMMONWEALTHCO.NET

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From: Zac Moody <zac.moody@phoenixoregon.gov>
Sent: Friday, January 5, 2024 1:27 PM
To: Daniel DiFrancesco <d.difrancesco@commonwealthco.net>; 'Jeff Wilcox' <jeff.wilcox@phoenixoregon.gov>

Cc: 'Kathy Keesee' <kathy@uneteoregon.org>; dago@uneteoregon.org

Subject: RE: Property Tax Exemption - Pacific Flat

Hi Danny,

I will look into this for you and get back with you early next week.

Thanks,

Zac

Zac Moody, CFM

Community Development Manager

City of Phoenix

220 N. Main St. (P.O. Box 330)

Phoenix, OR 97535

541-535-2050 Ext: 313

zac.moody@phoenixoregon.gov



From: Daniel DiFrancesco <d.difrancesco@commonwealthco.net>

Sent: Friday, January 5, 2024 11:25 AM

To: Jeff Wilcox <jeff.wilcox@phoenixoregon.gov>

Cc: Zac Moody <zac.moody@phoenixoregon.gov>; Kathy Keesee <kathy@uneteoregon.org>; dago@uneteoregon.org

Subject: Property Tax Exemption - Pacific Flat

Hey Jeff,

Great talking with you. Sending a follow up email to our discussion regarding potential property tax exemption for Pacific Flats as Unete (a non-profit) is a part of the ownership group that will be developing and owning the project.

Attached is the snippet from Jackson County regarding potential tax exemption. As discussed, I called the number listed in the snippet and they directed me to speak with the City.

Taking a quick look at OR statutes, it appears that the most applicable exemption is [Or. Stat. 307.541](#) (link) providing property tax exemption for low-income housing owned by non-profit corporation. We believe we qualify for this exemption but curious to know what the process is with the City in order to receive this exemption.

Let me know your thoughts once you've had a chance to review and speak with your colleagues.

As always, appreciate your help and enjoy the weekend!

DANNY DIFRANCESCO

VICE PRESIDENT OF DEVELOPMENT | THE COMMONWEALTH COMPANIES



7447 University Ave, Suite 210 Middleton, WI 53562

OFFICE 608-709-5676 EXT. 204 | CELL 608-216-4535

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Not associated with Common Wealth Development, Inc., a not-for-profit affordable housing development company located in Madison, Wisconsin.

Not associated with Common Wealth Development, Inc., a not-for-profit affordable housing development company located in Madison, Wisconsin.

DECEMBER 6 2023

FINDINGS OF FACT

PACIFIC FLATS

MULTI FAMILY DEVELOPMENT – PHOENIX OREGON

PREPARED BY: KERRY

KENCAIRN

KENCAIRN LANDSCAPE ARCHITECTURE

541 488-3194

FOR:

BRIAN REDIG

PROJECT MANAGER

M+A DESIGN

Office: 920.922.8170 Ext. 130

INCLUDING:

CHAPTER 2.2 RESIDENTIAL DISTRICTS

CHAPTER 2.4 COMMERCIAL HIGHWAY

CHAPTER 2.10 OREGON 99 SETBACK OVERLAY ZONE

CHAPTER 3.2 ACCESS AND CIRCULATION

CHAPTER 3.3 LANDSCAPING, STREET TREES, FENCES AND WALLS

CHAPTER 3.4 VEHICLE AND BICYCLE PARKING

CHAPTER 3.6 SIGNS

CHAPTER 3.8 STORM AND SURFACE WATER MANAGEMENT STANDARDS

CHAPTER 3.9 EROSION PREVENTION AND SEDIMENT CONTROL

CHAPTER 3.12 OUTDOOR LIGHTING

RESIDENTIAL DISTRICTS CHAPTER

Chapter 2.2 – Residential Districts (R-1, R-2, R-3, HO)

2.2.2 – Permitted Land Uses

This project is being developed as an R-3 Multi-Family Residential within the Commercial Highway zone. This is a permitted use in this zone and the proposed project meets the Multi-Family zone guidelines. The project contains 5 three story buildings with a total of 72 (two and three bedroom) units. There is no maximum density in this zone.

2.2.4 – Building Setbacks

Setbacks for all buildings meet the required standard:

Front Yards of 20 feet

Side Yards of 10 feet

Rear Yards 10 feet

2.2.5 – Maximum Lot Coverage

Maximum Lot Coverage in a multi-family zone is 75% this project is in the Commercial Highway zone and is still below the maximum lot coverage criteria for multi-family zones at a total of 67% lot coverage.

2.2.6 – Building Height

The buildings are all under 50 feet total height.

2.2.7 – Building and Site Orientation

The proposed project is on a driveway off of Highway 99, all building entrances are oriented to the shared parking lot and connective walkways.

Off-street parking

Off street parking is provided at a rate of 1.5 spaces per unit. There is a concrete sidewalk from 99 into the development and throughout the site connecting all uses with a paved pedestrian path; the sidewalk are 5 feet wide throughout the project.

There are 34 bicycle spots distributed throughout the site.

The shared parking lot is not in the front setback of the project.

There are 23 trees within the parking lot area to shade the paving, 22 are required for 108 parking spaces.

2.2.8 – Architectural Standards

Architectural standards apply to this project as a multi-family development

C. Standards.

All buildings incorporate offsets that occur at less than 80-foot interval. Building facades include balconies, and various other horizontal and vertical interruptions to the flat plane. The roofs are broken up by the incorporation of gables and extended eave lines.

2. Eyes on the Street. *This project does not relate to the street, but does contain the elements required for “eyes on the street” by relating the fronts of the buildings to the interior parking and access elements.*

3. Detailed Design.

The buildings have covered porches with recessed entries, extended eaves, and gables. The buildings also incorporate a mix of siding materials that are consistent across the project creating a rhythm of design elements through the site.

2.2.9 – Special Standards for Certain Zones

E. Multi-family housing

1. Building Mass Supplemental Standard.

The longest building in the project is just over 128 feet long.

2. Common open space standard.

The common open spaces area is a larger courtyard created by the community building and one of the apartment buildings. The common area contains a large lawn, a playground, bike parking and mailboxes.

3. Private. open space standard.

All units have a minimum of 48 square feet of private outdoor space. Ground floor units have outdoor patios on grade. All other units have balconies that are at least 48 square feet and over 5 feet from the ground plane.

All private open spaces face away from adjacent buildings to the greatest extent possible. The trash and recycling enclosures do not face the buildings or building private spaces and are screened with masonry walls at least 6 feet.

Chapter 2.4 – Commercial Highway (C-H)

2.4.2 – Permitted and Conditionally Permitted Land Uses

A. Permitted and Conditionally Permitted Uses.

Residential Development are a permitted use in this zone.

2.4.3 – Development Standards

A. Building Height.

All Buildings are less than 50 feet in height.

B. Yard Setbacks.

Setbacks are proposed to meet the Multi-Family Standard.

C. Lot Coverage.

Lot coverage is 67%

D. Landscaping.

33% of the site is landscaped and meets the requirements of chapter 3.3

E. Traffic.

The proposed development will produce less than 200 trips per day based on the State of Oregon Trip Generation calculator.

2.4.4 – Architectural Guidelines and Standards

A. Architectural Continuity and Quality.

1. *Building walls are designed to undulate at their entries, this follows the intent that no wall is greater in length than 50 feet without relief.*
2. *Building entrances are identified through the use of indentation and overhead protection in the form of a portico, walkways lead from the parking areas to the entries.*
3. *Prosed buildings are sided with a mixture of durable and aesthetic materials: a mixture of both vertical and horizontal engineered siding, combines with engineered trim and vinyl clad windows.*
4. *Building materials and design form are duplicated on all buildings within the project.*

B. Lighting. Project lighting shall be provided in order to create safe low-light conditions, and in accordance with Chapter 3.12 – Outdoor Lighting.

Proposed lighting meets the standards of Chapter 3.12, see lighting plan

C. Roof-mounted equipment.

N/A

D. Detailing. Architectural detailing shall be consistent on all elevations.

See building elevations (sheets A2 onward), this requirement has been met.

E. Trash Enclosures.

Trash enclosure design complies with the requirements of a 6-foot high masonry walls with solid metal gates, and the following:

The floor constructed of concrete with a 6-foot by 10-foot concrete apron placed in front of the enclosure. The masonry materials used shall match the building or buildings that it serves.

Trash enclosures shall not be located within 25 feet of a public entrance or a required pedestrian walkway.

F. Parking lot lighting.

The parking lot contains 108 spaces and has incorporated pedestrian scale lighting and bicycle parking. Lighting complies with Chapter 3.12

G. Bicycle Parking.

The bicycle parking meets the standard of 1.1 spaces per unit. Bike parking is scattered throughout the site with 25% being short term lockable parking (not covered or fenced) and 75 % long term parking (all fenced and 50% covered) the covered bike parking is within the roof lines of the buildings (see Architects site plan)

Complies

H. Pedestrian Circulation.

Concrete pedestrian walkways connect the whole site and connect to highway 99 via a sidewalk. All entries are adjacent to the circulation walkway as well as all other site amenities.

2.4.5 (L) – Special Standards for Certain Uses (Residential Development)

1. *The property is located on the west side of I-5.*
2. *The residential development is located more than 100 feet from the adjacent street.*
3. *The residential development meets the standards for the R-3 zone.*
4. *N/A*
5. *Building area 86,394 sf / property area 124,781 x 100 = 69%*
6. *N/A*

7. *This will be provided.*
8. *Understood*
9. *Understood*

Chapter 2.10 – Oregon 99 Setback Overlay Zone

This project is set back from the highway by 100 feet.

Chapter 3.2 – Access and Circulation

3.2.2 – Vehicular Access and Circulation

E. Access Options.

This project locates the drive ODOT has allocated for an access drive onto Highway 99. There is only one access point to this project.

F. Access Spacing.

The driveway spacing is 98' to the south and 160' to the north.

H. Shared Driveways.

A shared driveway is not feasible based on existing conditions of neighboring properties.

J. Driveway Openings.

The proposed driveway is 26 feet wide.

K. Fire Access and Parking Area Turn-arounds.

The proposed parking lot incorporates the required geometry to allow for fire trucks and other vehicle needs.

L. Vertical Clearances.

There are no obstructions proposed within the vertical clearance zone.

M. Vision Clearance.

This project makes use of an existing driveway location and meets all requirements of vision clearance.

N. Construction.

1. *Driveway is paved per ODOT standards.*
2. *A detention pond and biofiltration swale is provided for surface water management.*
3. *A concrete driveway apron will be provided.*

Chapter 3.3 –Pedestrian Access and Circulation

A. Pedestrian Access and Circulation.

This project has a continuous pedestrian walkway from highway 99 connecting all buildings parking, trash and access points.

B. Design and Construction. Pathways shall conform to all of the standards in below:

1. *The sidewalk along the entry drive is built six inches above drive grade and is 5.5 feet wide including the curb*

2. Housing/Pathway Separation.

There is a five-foot landscape buffer between all walkways and residences.

3. Crosswalks.

There is a crosswalk creating connectivity across the driveway entrance to the interior path system.

4. Pathway Surface

The pathways are concrete

5. Accessible routes.

All pathways comply with ADA guidelines.

Chapter 3.3 – Landscaping, Street Trees, Fences, and Walls

3.3.2 – Landscape Conservation

Two trees on the site have been identified for conservation. The trees will be protected during construction and incorporated into the final landscape plan. Please see sheet L 1.1 TREE PROTECTION AND REMOVAL PLAN for location and protection measures.

3.3.3 – New Landscaping

C. Landscaping Plan Required.

A landscape plan has been provided and meets the percentage of coverage required. Coverage exceeds the requirement of the zone.

D. Landscape Materials.

A landscape plan has been provided that includes trees, shrubs, ground cover plants, non-plant ground covers, and outdoor hardscape features:

The total landscape contains less than 20% non-plant groundcover, plants are shown on plans at mature size and shall reach appropriate coverage within two years of growth.

All proposed trees are 1.5 DBH or greater at time of planting.

Shrubs and ground covers are specified to be 1 to five gallons in size as appropriate for the individual plant selected. The stormwater facility on site is planted per the requirements of Rogue Valley Sewer Service, all plants are chosen for their ability to withstand wet feet and their general adaptability.

E. Landscape Design Standards. All yards, parking lots, and required street tree planter strips shall be landscaped in accordance with the provisions of this Chapter. Landscaping shall be installed with development to provide erosion control, visual interest, buffering, privacy, open space, shading, and wind buffering, based on the following standards:

1. Yard Setback Landscaping. Landscaping shall satisfy the following criteria:

See sheet L 2.0 PLANTING PLAN for compliance

2. Parking areas.

The parking lot area (stalls and driveway) equals 48,833 square feet and includes 8% landscape within that.

There are 23 trees within the parking lot area to shade the paving, 22 are required for 108 parking spaces.

3. Buffering and Screening Required. Buffering and screening are required under the following conditions:

All parking, maneuvering areas and mechanical equipment has been buffered or screened, see sheet L.20 PLANTING PLAN landscape plan.

3.3.4 – Street Trees

There is no street frontage associated with this project, this section is not applicable.

3.3.5 – Fences and Walls

This site shall include 6-foot-tall vinyl fence on all perimeter property lines excluding the line parallel to highway 99.

Chapter 3.4 – Vehicle and Bicycle Parking

3.4.3 – Vehicle Parking Standards

A

There are 108 parking stalls provided in this project and three trailer spaces. The total number units include 42 2 bedrooms and 30 three bedrooms. There are six ADA parking spaces. All parking is oriented at 90 degrees, the full-size spaces are 19' x 9' and the compact spaces are 19' X 7.5', there are three spaces set aside for trailers. Back up space/Drive aisle is 26 feet.

B. Parking Location and Shared Parking.

Parking is located internally to the buildings and pedestrian site circulation.

3.4.4 – Bicycle Parking Requirements

All uses that are subject to Site Design Review shall provide bicycle parking, in conformance with the following standards, which are evaluated during Site Design Review:

A. General Bicycle Parking Requirement.

1.1 Bicycle parking spaces are required per unit, there are 80 spaces being provided.

75% of this parking is long term parking and 25% is short term.

All of the long-term parking is fenced and secured with a locking gate.

The short-term parking provides rack parking.

The long-term parking provides racks along with secured fencing.

50 % of the long-term parking is covered either under building extended eaves and/ or by the covered bike structure adjacent to the community building.

B. Bicycle Parking Design Standards. Required bicycle parking shall comply with the following standards:

Bike racks have been provided that allow for locking of the front wheel and frame of the bike to a rack that is permanently installed into concrete. Bike parking spaces have adequate (5 foot) access from front and/or back and are spaced so that bikes do not have to be moved to accommodate other bikes. All bicycle parking is located on site.

Additional standards for long-term bicycle parking have been met by providing on site racks that are enclosed with an 8' high fence. More than half of stalls (40) have been covered by a permanent roof.

Chapter 3.6 – Signs

There is one sign proposed for this project, it is shown on sheet A3.3. The sign is ground mounted with small up lights shining on it. Sign dimensions are 6'4" tall and 8'-8" wide.

Chapter 3.8 – Storm and Surface Water Management Standards

3.8.2 – Stormwater Management Plan Submittal

See report and plans by Civil Engineer, provided with this submittal.

Chapter 3.9 – Erosion Prevention and Sediment Control

See report and plans by Civil Engineer, provided with this submittal.

Chapter 3.12 – Outdoor Lighting

See sheet EP 1.10 for compliance specifications



TRAFFIC IMPACT STUDY

To
City of Phoenix

For
The Commonwealth Companies
Pacific Flats

Prepared
September 26, 2023

C&A Project Number
20230803.00

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2. Intersection Volumes – AM and PM Peak Hour
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I. INTRODUCTION

Property Description and Proposed Land Use Actions

The subject property is addressed 4019 S Pacific Highway, Phoenix, Oregon. The property is described as tax lots 1100 and 1200 on Jackson County Assessor's Map 381W9A and totals approximately 2.96 acres (129,133 square feet) and is undeveloped. Tax lot 1100 has dedicated access to S Pacific Highway located approximately mid-property frontage and tax lot 1200 has dedicated access that is shared with tax lot 1300 to the north. The property location is illustrated in attached Figure 1 in Appendix A.

The proposed development includes 72 multi-family residential (apartment) dwelling units in three-story buildings on the northwest portion of both tax lots. The southeast portion of both lots that have frontage on S Pacific Highway will remain undeveloped. The development is proposed to access S Pacific Highway via the access to tax lot 1100. A copy of the proposed site plan is attached in Appendix A.

Transportation Analysis Description

The proposed development is an allowed use in the existing Commercial Highway (C-H) zone designation.

Based on discussions with the City Phoenix and Oregon Department of Transportation (ODOT) staff it was determined that a traffic impact Study (TIS) is necessary to specifically address:

- 1) Specific transportation analysis is not necessary to address ODOT requirements because the proposed development is an allowed use in the existing C-H zone designation and the development impacts have generally been contemplated as part of the planned ODOT roadway corridor improvements.
- 2) Because the proposed development is anticipated to generate more than 200 average daily motor vehicle trips (ADTs), a traffic impact study (TIS) is necessary to demonstrate the level of impact on the roadway system will not exceed a volume-to-capacity (v/c) ratio of 0.85 – further noting that the impacts evaluated in this TIS are on facilities under ODOT jurisdiction.
- 3) The transportation analysis needs to address proposed development consistency with the ODOT roadway improvement plans.
- 4) The transportation analysis needs to discuss the proposed development use of the two ODOT-provided access locations.
- 5) The transportation analysis needs to support the City land use process and address any necessary deviation from the arterial roadway access spacing standards.

Based on the development trip generation and distribution presented in this analysis, and discussions with City staff, the following project area intersections are evaluated:

- S Pacific Highway / N Rose Street
- S Pacific Highway / Site Access

Analysis Scenarios

The proposed development is anticipated to be constructed in one phase and is anticipated to be occupied by 2025. As such, the following analysis scenarios include:

- 2025 30 HV Pre-Development Conditions
- 2025 30 HV Post-Development Conditions

II. EXISTING CONDITIONS

Existing Site Conditions

The subject property totals approximately 2.96 acres (129,133 square feet) and is undeveloped.

Roadway Facilities

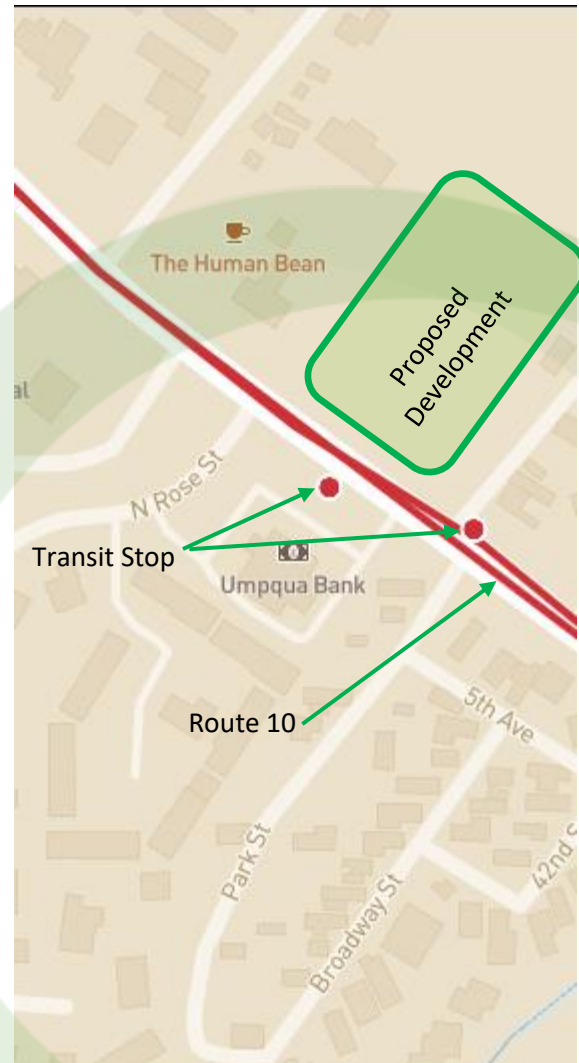
The following table summarizes existing roadway classifications and characteristics within the study area.

TABLE 1 – EXISTING ROADWAY CHARACTERISTICS						
Roadway	Functional Classification	Lanes	Speed Limit (MPH)	Sidewalks	Bicycle Lanes	On-Street Parking
S Pacific Highway	Principal Arterial (Regional Highway)	5	35	Yes	No	No
N Rose Street	Collector	2	35	Yes	No	No

Transit Facilities

The Rogue Valley Transit District currently operates one bus route in the study area, Route 10, which is illustrated on the graphic to the right and is described as follows:

- Route 10 – Ashland – In the project area the loop route operates both north and southbound on S Pacific Highway from Medford to Ashland. The route operates with 30-minute headways on weekdays and Saturdays. There is no service on Sundays or holidays.



Safety Analysis

When evaluating roadway and intersection safety, consideration is given to the total number and types of crashes occurring, and the number of vehicles traveling on a roadway segment or entering the intersection. This leads to the concept known as the “crash rate.” Specific to intersections it is typically expressed in terms of the number of crashes occurring per one million vehicles entering the intersection (crashes/mev). A critical crash rate analysis is then performed by comparing the subject intersection to the published statewide 90th percentile intersection crash rates at comparable/reference intersections. Crash rates close to or exceeding 1.0 crashes/mev or the 90th percentile rates require further analysis.

Study area crash data were obtained from the Oregon Department of Transportation (ODOT) for five years from January 1, 2018 through December 31, 2021. The following table presents intersection crash rates and critical crash analysis. Crash data and crash rate calculations are included in Appendix B.

TABLE 2 – INTERSECTION CRASH RATES										
Intersection	2018	2019	2020	2021	2022	Total	Crash Rate (crashes/mev)	Reference Population	90 th ile Crash Rate	Over or under Crash Rate?
S Pacific Highway / N Rose Street	0	2	0	0	1	0	0.117	Urban 3ST ¹	0.293	Under

¹ 3ST is defined as a three-leg minor stop-control intersection.

The observed crash rate at the study intersection is less than the 1.0 crashes/mev threshold and the 90th percentile crash rate of the reference population. As such, the intersection is considered relatively safe, and further safety analysis is not warranted.

It is additionally noted there are no documented crashes along the section of S Pacific Highway between N Rose Street and Walnut Street.

Existing Traffic Counts

Existing traffic counts were obtained on September 14, 2023 during the AM and PM peak periods when Phoenix area schools were in session. Traffic counts are included in Appendix C.

Seasonal Adjustment and 30th Highest Hour Volumes

Seasonal adjustments account for the variation in traffic volumes during the year. As required for intersections under ODOT jurisdiction, the September 2023 traffic counts were adjusted to the 30th highest hour volume (30HV) consistent with procedures identified in the ODOT Analysis Procedures Manual (APM) Version 2, Chapter 5.5.1 – On-Site Automatic Traffic Recorder (ATR) Method. This method is used when an ATR is within or near the project area.

In the study area, ATR 15-014 – Talent is located on OR99 (Rogue Valley Highway No. 63); 0.33 miles NW of Talent Avenue. Using this ATR data, a seasonal adjustment of 1.07 was applied to the September 2023 Base traffic counts to obtain 2023 30HV volumes. Seasonal adjustment assumptions are included in Appendix C.

Background Growth

A 2.0% annual compounded traffic growth rate was assumed to determine future year traffic volumes.

As a result, the 2023 30HV volumes were adjusted to the 2025 development year using a 2.0% annual compounded growth rate.

Pre-Development Volumes

2025 30HV Pre-Development volumes for the AM and PM peak hours are illustrated in Figure 2 in Appendix A. Detailed background growth rate calculations are included in Appendix C.

III. SITE DEVELOPMENT

Development Trip Generation

The proposed development includes 72 multi-family residential (apartment) dwelling units in three-story buildings. Development trip generation was estimated using the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition, and practices from the ITE *Trip Generation Handbook*, 3rd Edition, and is presented in the following table.

TABLE 3 – DEVELOPMENT TRIP GENERATION									
Land Use	ITE Code	Size	Daily	AM Peak Hour			PM Peak Hour		
				Enter	Exit	Total	Enter	Exit	Total
Multifamily Housing (Low-Rise) ¹	220	72 DU	485	7	22	29	23	14	37

¹ Trip generation estimated using the *Average Rate* for Land Use 220 per the ITE *Trip Generation Handbook*, 3rd Edition recommended practice.

As identified in the table above, the proposed development generates 485 daily total trips, and 29 AM and 37 PM peak hour trips.

Trip Distribution and Traffic Assignment

Development trip distribution is based on existing traffic volumes, surrounding land uses, and engineering judgment. Trip distribution and traffic assignment for the AM and PM peak hours are illustrated in the attached Figure 2 in Appendix A.

Post-Development Volumes

The 2025 30HV Post-Development traffic volumes for the AM and PM peak hours are the sum of the 2025 30HV Pre-Development volumes and the development volumes and are illustrated in the attached Figure 2 in Appendix A.

IV. OPERATIONS ANALYSIS

Intersection Analysis Scope

The following intersections are analyzed:

- S Pacific Highway / N Rose Street
- S Pacific Highway / Site Access

Intersection Operations Analysis Description

Current and future year intersection peak hour factors (PHFs) are based on the existing individual intersection PHFs.

Intersection operation characteristics are typically defined by two mobility standards: volume-to-capacity (v/c) ratio and level-of-service (LOS). At signalized intersections, the v/c ratio is a measurement of an intersection's ability to accommodate the critical movements, while LOS is based on the average control delay per vehicle for the entire intersection. At unsignalized intersections, the v/c ratio and LOS are calculated for intersection approach movements yielding the right-of-way.

For facilities under ODOT jurisdiction – The Oregon Highway Plan (OHP) OHP Policy 1F Table 6, the ODOT mobility target for S Pacific Highway intersections in the study area is a v/c ratio ≤ 0.85 .

Intersection Operations Analysis

Unsignalized intersection operations analyses were performed using the Transportation Research Board's *Highway Capacity Manual* 6th Edition methodologies using Trafficware's *Synchro* software (Version 11).

The proposed development is an allowed use in the current zone designation. As such, the TIA evaluates operating conditions for the following AM and PM peak hour analysis scenarios:

- 2025 30 HV Pre-Development Conditions
- 2025 30 HV Post-Development Conditions

The following table summarizes weekday peak hour operation analysis results. Data output sheets from all operations calculations are contained in Appendix D.

TABLE 4 – INTERSECTION OPERATIONS ANALYSIS						
Intersection	Mobility Target	Critical Movement Lane Group	AM Peak Hour		PM Peak Hour	
			2025 Pre-Development	2025 Post-Development	2025 Pre-Development	2025 Post-Development
S Pacific Highway / N Rose Street	$v/c \leq 0.85$	NB L	0.02	0.02	0.03	0.03
		EB L	0.10	0.11	0.15	0.15
		EB R	—	—	—	—
S Pacific Highway / Site Access	$v/c \leq 0.85$	SB L	—	0.00	—	0.01
		WB L/R	—	0.07	—	0.05

As identified in the table above, both study intersections operate well within agency mobility targets in all analysis scenarios.

Intersection Queuing Analysis

Queuing analysis was performed to evaluate queue storage adequacy. 95th percentile queues were estimated using Trafficware’s *SimTraffic* software (Version 11) and ODOT *Analysis Procedure Manual* methodologies. Available storage is rounded to the nearest five feet, and queue demand is rounded to the nearest 25 feet, the average length of a queued vehicle.

The following table summarizes weekday queuing analysis results and data output sheets from all queuing calculations are contained in Appendix D.

TABLE 5 – INTERSECTION QUEUING ANALYSIS						
Intersection	Critical Movement Lane Group	Queue Storage Available (Feet) ¹	AM Peak Hour		PM Peak Hour	
			2025 Pre-Development	2025 Post-Development	2025 Pre-Development	2025 Post-Development
S Pacific Highway / N Rose Street	NB L	50	50	25	50	50
N Rose Street	EB L/R	200+	75	75	75	75
S Pacific Highway / N Rose Street	SB L	50	—	25	—	25
N Rose Street	WB L/R	100	—	50	—	50

¹ Available queue storage is measured to the nearest upstream intersection for continuous lanes between intersections and to the end of full-width storage for turn lanes.

As identified in the table above, there is adequate storage available on all study intersection approach movements to accommodate the 95th percentile vehicle queues with the following notes:

The distance between the N Rose Street and Site Access intersections with S Pacific Highway is approximately 175 feet, measured from centerline to centerline. The queuing analysis finds the intersections operate in the near term without overlapping queue conflicts; however, long-term operations will need to be monitored to ensure continued safe operations as traffic volumes increase.

V. SITE ACCESS CONSIDERATIONS

The subject property includes both tax lots 1100 and 1200. As identified in preliminary corridor improvement materials provided by ODOT, tax lot 1100 has dedicated access to S Pacific Highway which is located mid-property (approximately) frontage. Tax lot 1200 has dedicated access to S Pacific Highway that is shared with tax lot 1300 to the north and is located directly across (approximately) from the N Rose Street intersection. The distance between the dedicated accesses is approximately 175 feet, measured from centerline to centerline. The ODOT-provided materials are illustrated in the attached Figure 3 in Appendix A.

The shared tax lot 1200 and 1300 access to S Pacific Highway requires that a portion of the access (approximately ½) be located on each property. Because tax lot 1300 is under separate private ownership and is not part of this land use application, creating a shared access easement on this property is not currently practical/possible. Therefore, the applicant is proposing that the development use the tax lot 1100 access in the ODOT-identified location.

Based on the operations and queuing analyses contained in this TIS, the N Rose Street and Site Access intersections are anticipated to operate well within agency mobility targets and there is adequate storage available on all approach movements to accommodate the 95th percentile vehicle queues. Noting the distance between the intersections is only approximately 175 feet, it is further recommended that long-term operations be monitored to ensure continued safe operations as traffic volumes increase.

The southeast portion of both tax lots 1100 and 1200 lots fronting S Pacific Highway will remain undeveloped as part of this land use application, but they are anticipated to be developed in the future. It is recommended that the use of the shared tax lot 1300 access be considered at that time.

As identified in Phoenix Land Development Code Section 3.2.2.F – *Access Spacing*, driveway access to S Pacific Highway is subject to the applicable standards and policies contained in the Oregon Highway Plan, Oregon’s Access Management Standards (Oregon Administrative Rule, OAR 734-051), and/or other applicable state access laws and regulations. Based on discussions with ODOT staff, tax lots 1100 and 1200 have dedicated highway access at the locations illustrated in the Attached Figure 3. Noting that the applicant is proposing the development use the tax lot 1100 access in the ODOT-identified location, ODOT spacing requirements are met.

VI. CONCLUSION

The following summary and recommendations are based on the materials contained in this analysis.

1. The subject property is addressed 4019 S Pacific Highway, Phoenix, Oregon. The property is described as tax lots 1100 and 1200 on Jackson County Assessor's Map 381W9A and totals approximately 2.96 acres (129,133 square feet) and is undeveloped. Tax lot 1100 has dedicated access to S Pacific Highway located approximately mid-property frontage and tax lot 1200 has dedicated access that is shared with tax lot 1300 to the north.
2. The proposed development includes 72 multi-family residential (apartment) dwelling units in three-story buildings on the northwest portion of both tax lots. The southeast portion of both lots that front S Pacific Highway will remain undeveloped. The development is proposed to access S Pacific Highway via the ODOT-identified access to tax lot 1100.
3. Specific transportation analysis is not necessary to address ODOT requirements because the proposed development is an allowed use in the existing C-H zone designation and the development impacts have generally been contemplated as part of the planned ODOT roadway corridor improvements. A traffic impact study (TIS) is only necessary to address Phoenix land use requirements.
4. The Rogue Valley Transit District currently operates one bus route in the study area, Route 10 – Ashland, which is a loop route operating both north and southbound on S Pacific Highway from Medford to Ashland.
5. The observed crash rate at the S Pacific Highway / N Rose Street intersection is less than the 1.0 crashes/mev threshold and the 90th percentile crash rate of the reference population. As such, the intersection is considered relatively safe, and further safety analysis is not warranted. It is additionally noted there are no documented crashes along the section of S Pacific Highway between N Rose Street and Walnut Street.
6. The proposed development is anticipated to be constructed in one phase and is anticipated to be occupied by 2026. The proposed development generates 485 daily total trips, and 29 AM and 37 PM peak hour trips.
7. The shared tax lot 1200 and 1300 access to S Pacific Highway requires that a portion of the access (approximately ½) be located on each property. Because tax lot 1300 is under separate private ownership and is not part of this land use application, creating a shared access easement on this property is not currently practical/possible. Therefore, the applicant is proposing that the development use the tax lot 1100 access in the ODOT-identified location.
8. Based on the operations and queuing analyses contained in this TIS, the N Rose Street and Site Access intersections are anticipated to operate well within agency mobility targets and there is adequate storage available on all approach movements to accommodate the 95th percentile vehicle queues. Noting the distance between the intersections is only approximately 175 feet, it is further recommended that long-term operations be monitored to ensure continued safe operations as traffic volumes increase.

9. The southeast portion of both tax lots 1100 and 1200 lots fronting S Pacific Highway will remain undeveloped as part of this land use application, but they are anticipated to be developed in the future. It is recommended that the use of the shared tax lot 1300 access be considered at that time.
10. The applicant is proposing the development use the tax lot 1100 access in the ODOT-identified location; therefore, ODOT spacing requirements are met.

VII. APPENDICES

- A. Figures**
- B. Crash Data**
- C. Traffic Counts**
- D. Operations Analysis**

Appendix A





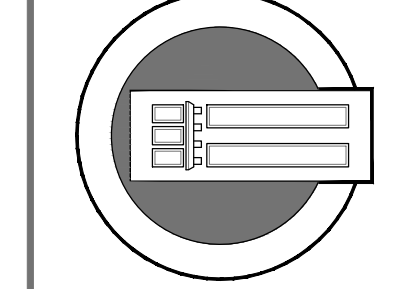
**PRELIMINARY
SITE PLAN**
SCALE: 1" = 30'-0"

SITE INFORMATION:	
PROPERTY AREA:	AREA = 129,133 S.F. (2.96 ACRES) (WITHOUT EASEMENT AND 100' SETBACK)
EXISTING ZONING:	COMMERCIAL HIGHWAY - ALLOWS R-3
PROPOSED USE:	MULTI-FAMILY RESIDENTIAL
NUMBER OF UNITS:	42 - 2 BED 30 - 3 BED 72 UNITS TOTAL
SETBACKS:	BUILDING: FRONT = 20' SIDE = 10' REAR = 10'
BUILDING AREA:	TOTAL GROSS 79,540 SF (APPROX)
COMMON OPEN AREA:	86,245 S.F. IMPERVIOUS / 129,133 S.F. SITE = 67% TOTAL 100% - 67% = 33% COMMON SPACE PROVIDED > 20% REQ.
PARKING REQUIRED:	1.5 STALLS PER UNIT (108 SPACES REQ.)
PARKING PROVIDED:	111 EXTERIOR SPACES (6 H.C. ACCESSIBLE)

PRELIMINARY
SHEET DATES:

M+A DESIGN, INC.
24 SOUTH BROOKE STREET
FOND DU LAC, WISCONSIN 54937
I.petrie@madeesigninc.net (920) 922-8170

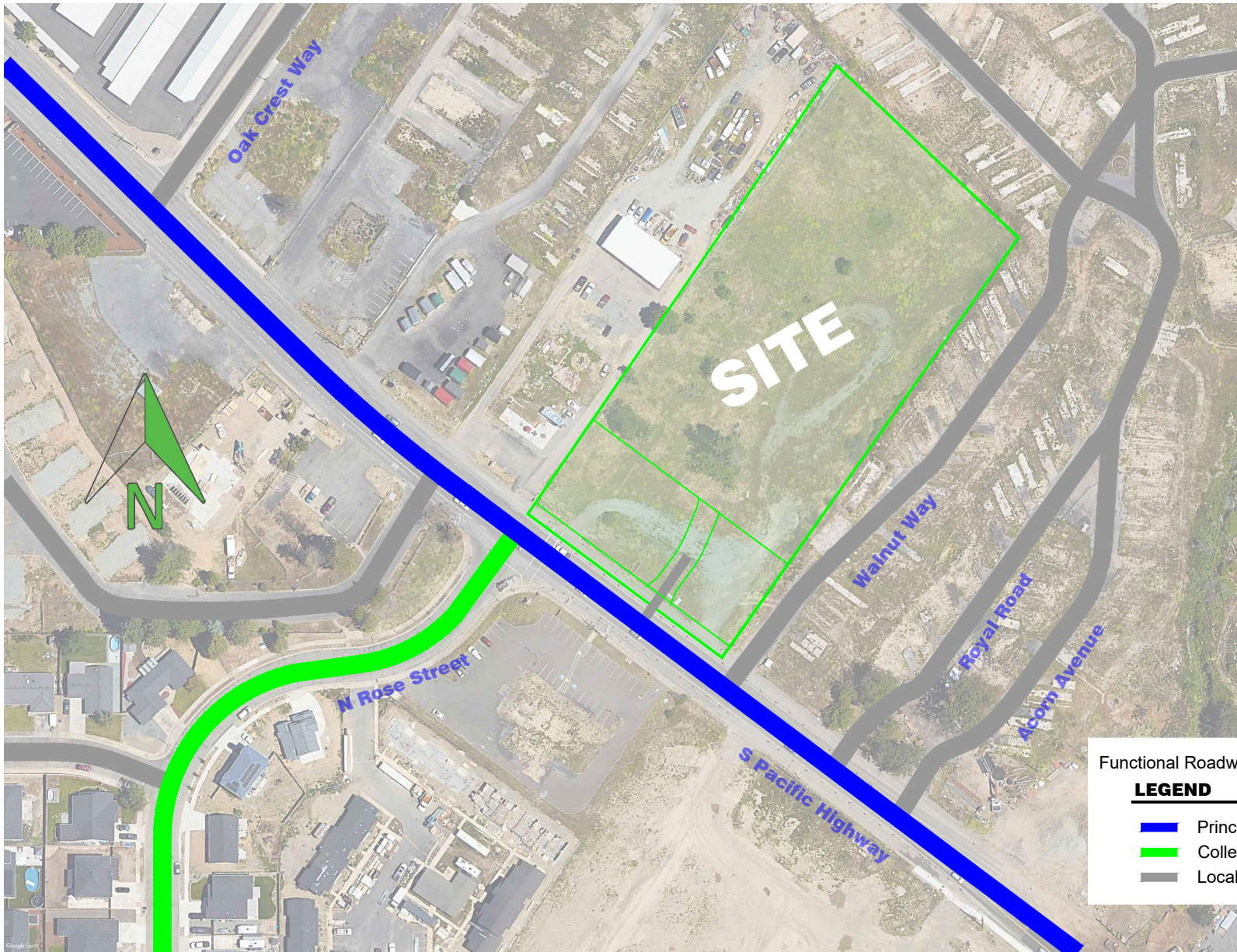
**COMMONWEALTH
COMPANIES**
24 S. BROOKE STREET
FOND DU LAC, WISCONSIN 54935
(920) 922-8170 FAX: (920) 922-8171



PROPOSED APARTMENTS
S. PACIFIC HWY
PHOENIX, OR

2023 © M+A DESIGN, INC.
JOB NUMBER:
2023.07
SHEET
C1.0

PRELIMINARY DRAWING - NOT FOR CONSTRUCTION



Functional Roadway Classifications

LEGEND

- █ Principal Arterial
- █ Collector
- █ Local



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 Bend, Oregon 97703
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 cclemow@clemow-associates.com

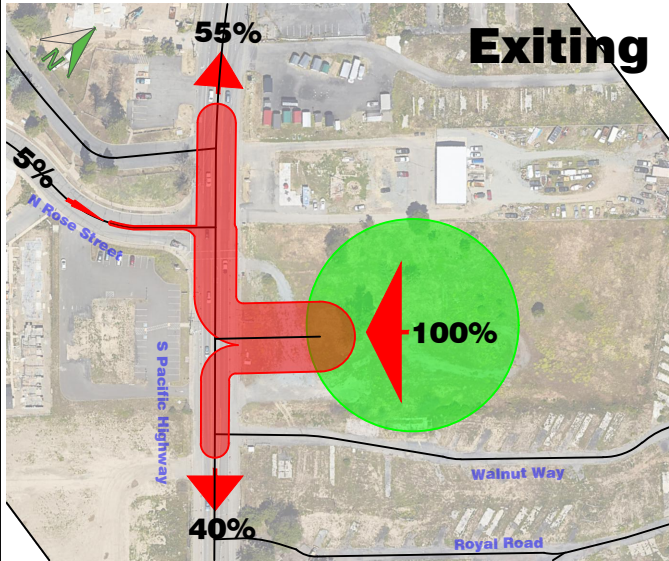
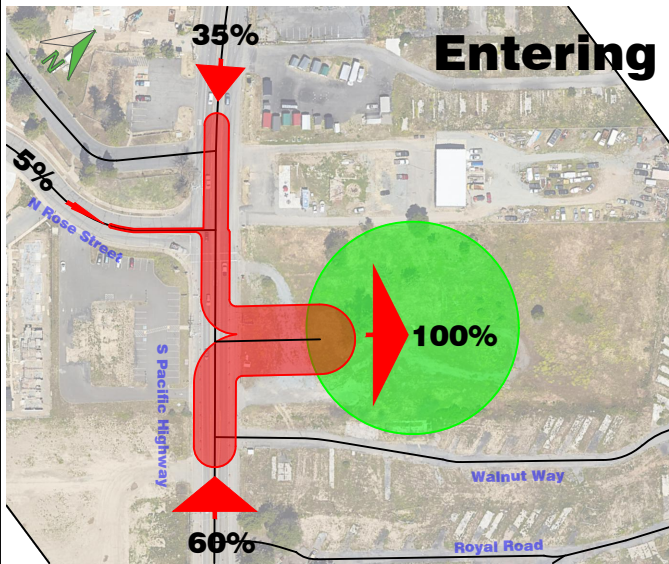
SITE AREA

Commonwealth Pacific Flats Residential Development - Phoenix, Oregon

C&A Project No. 20230803.00

FIGURE

1

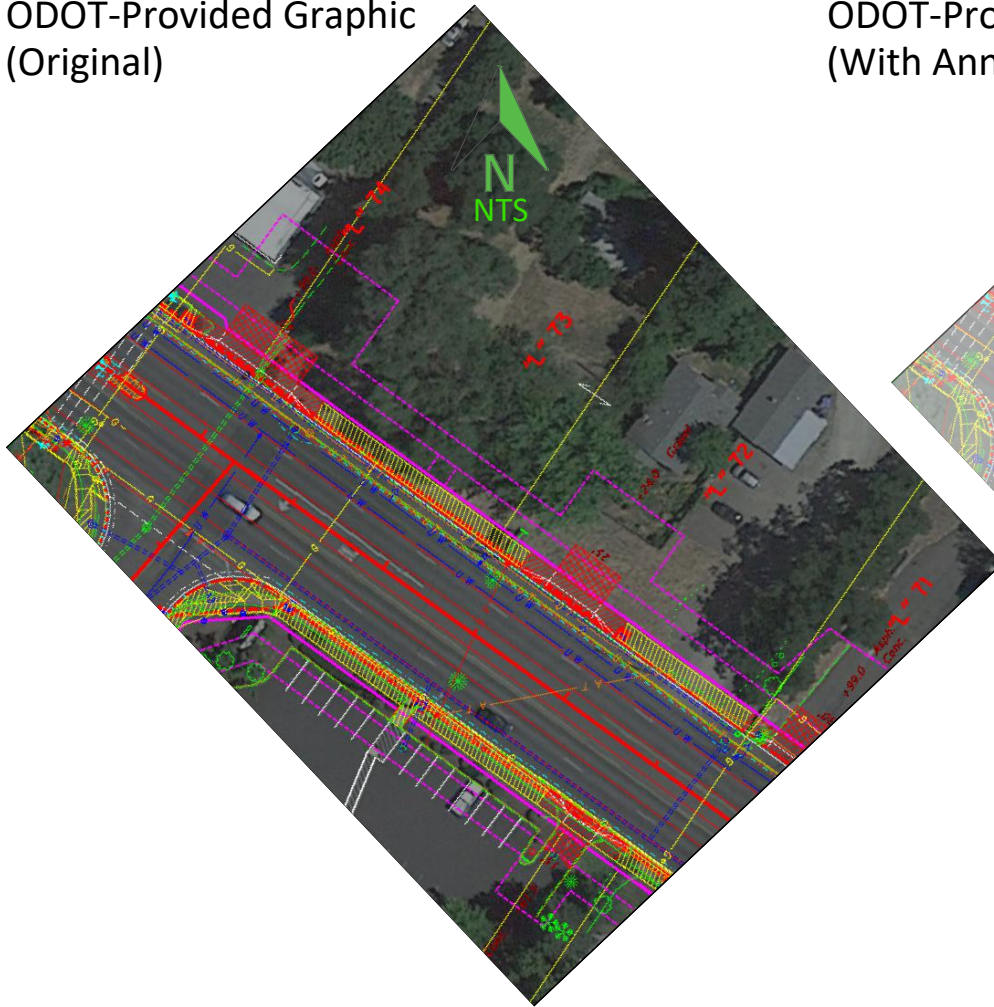


	2025 30HV Pre-Development	Development	2025 30HV Post-Development																																																																														
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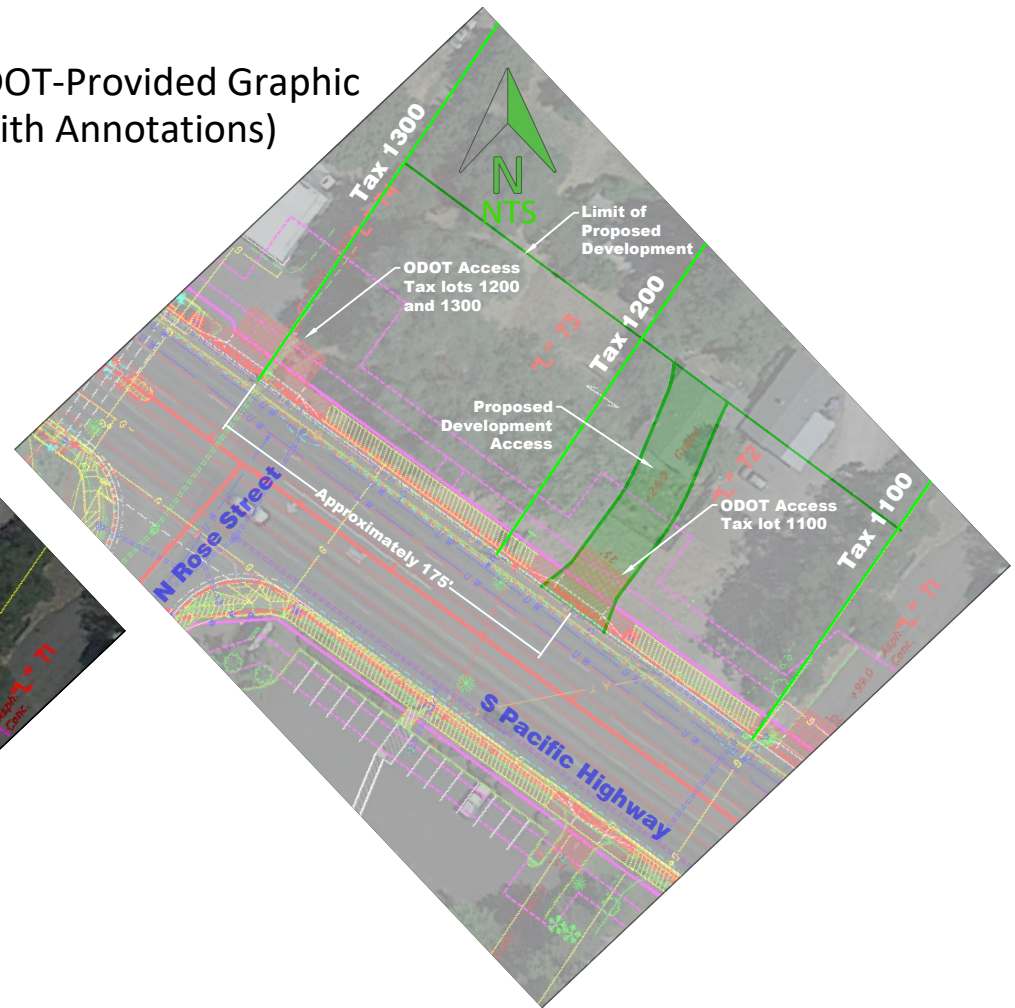
AM Peak Hour

PM Peak Hour

ODOT-Provided Graphic
(Original)



ODOT-Provided Graphic
(With Annotations)



2237 NW Torrey Pines Drive
Bend, Oregon 97703
541-579-8315
cclemow@clemow-associates.com

ACCESS LOCATIONS

Commonwealth Pacific Flats Residential Development - Phoenix, Oregon

C&A Project No. 20230803.00

FIGURE

3

Appendix B



January 1, 2018 through December 31, 2022

INTERSECTION CRASH RATES

Intersection	Crashes						PM Entering Volume	ADT (10xPM)	AADT (365xADT)	Annual Crashes	Crash Rate (crashes/MEV)	Reference Population	90th%ile Crash Rate	Over or Under Crash
	2018	2019	2020	2021	2022	Total								
S Pacific Highway / N Rose Street	2	0	0	1	3		1,400	14,000	5,110,000	0.60	0.117	Urban 3ST	0.293	Under

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CONTINUOUS SYSTEM CRASH LISTING

063: ROGUE VALLEY

Highway 063 ALL ROAD TYPES, MP 10.85 to 10.93 01/01/2018 to 12/31/2022, Both Add and Non-Add mileage

1 - 5 of 5 Crash records shown.

SER#	P	R	J	S	W	DATE	COUNTY	RD#	FC	CONN#	RD CHAR	INT-TYPE	SPCL USE	MOVE	A	S	ACT	EVENT	CAUSE														
INVEST	E	A	U	I	C	O	CITY	COMPNT	FIRST STREET	DIRECT	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR QTY																	
RD DPT	E	L	G	N	H	R	URBAN AREA	MLG TYP	SECOND STREET	LOCTN	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E	LICNS	PED										
UNLOC?	D	C	S	V	L	K	LONG	MILEPNT	LRS		(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V#	TYPE	TO	P#	TYPE	SVRTY	E	X	RES	LOC	ERROR	ACT	EVENT	CAUSE				
00857	N	N	N	N	N	04/27/2018	JACKSON	1	14		STRGHT	N	N	CLR	S-STRGHT	01	NONE	9	STRGHT											27,13			
STATE	FR							MN	0		UN	(NONE)	UNKNOWN	N	DRY	SS-O	N/A	N-S										000	00				
N		7P					MEDFORD UA	10.85		03			N	DUSK	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000	000	00				
N		42 16 56.19					-122 49 32.95		006300100S00			(04)																					
																				<div style="border: 1px solid red; padding: 5px; color: red;"> North of Rose Street intersection and not associated with the intersection. </div>													
02093	N	N	N	N	N	09/12/2019	JACKSON	1	14		INTER	3-LEG	N	N	CLR	ANGL-OTH	01	NONE	9	STRGHT										02			
NO RPT	TH						PHOENIX	MN	0	ROGUE VALLEY HY	CN		STOP SIGN	N	DRY	TURN	PRVTE	N-S										000	00				
N		6P					MEDFORD UA	10.86	ROSE ST	03	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJB	21	M	OR-Y		000	000	000	00				
N		42 16 55.82					-122 49 32.32		006300100S00																								
																				<div style="border: 1px solid red; padding: 5px; color: red;"> North of Rose Street intersection and not associated with the intersection. </div>													
00271	N	N	N	N	N	02/05/2019	JACKSON	1	14		INTER	3-LEG	N	N	CLR	ANGL-OTH	01	NONE	9	STRGHT										02			
NO RPT	TU							MN	0		CN		STOP SIGN	N	DRY	TURN	N/A	N-S										000	00				
N		6A					MEDFORD UA	10.86		03	0		N	DARK	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000	000	00				
N		42 16 55.82					-122 49 32.32		006300100S00																								
																				<div style="border: 1px solid red; padding: 5px; color: red;"> North of Rose Street intersection and not associated with the intersection. </div>													
00237	N	N	N	N	N	02/09/2022	JACKSON	1	14		INTER	3-LEG	N	N	CLR	ANGL-OTH	01	NONE	0	TURN-L										02			
CITY	WE							MN	0		CN		STOP SIGN	N	DRY	TURN	PRVTE	S-W										015	00				
N		1P					MEDFORD UA	10.86		04	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	59	F	OR-Y		028	000	000	02				
N		42 16 55.82					-122 49 32.32		006300100S00																								
																				<div style="border: 1px solid red; padding: 5px; color: red;"> North of Rose Street intersection and not associated with the intersection. </div>													
01423	N	N	N	N	N	07/02/2018	JACKSON	1	14		ALLEY	N		N	CLR	BIKE	01	NONE	0	TURN-L										18,19			
COUNTY	MO							MN	0		UN	(NONE)	STOP SIGN	N	DRY	TURN	PRVTE	S-W										018	00				
N		9P					MEDFORD UA	10.93		03			N	DARK	INJ		PSNGR CAR		01	DRVR	NONE	69	M	OR-Y		000	000	000	00				
N		42 16 53.9					-122 49 28.73		006300100S00			(04)																					
																				<div style="border: 1px solid red; padding: 5px; color: red;"> Located at the Park Street intersection to the south of the project area. </div>													
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Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

ACTION CODE TRANSLATION LIST

ACTION CODE	SHORT DESCRIPTION	LONG DESCRIPTION
000	NONE	NO ACTION OR NON-WARRANTED
001	SKIDDED	SKIDDED
002	ON/OFF V	GETTING ON OR OFF STOPPED OR PARKED VEHICLE
003	LOAD OVR	OVERHANGING LOAD STRUCK ANOTHER VEHICLE, ETC.
006	SLOW DN	SLOWED DOWN
007	AVOIDING	AVOIDING MANEUVER
008	PAR PARK	PARALLEL PARKING
009	ANG PARK	ANGLE PARKING
010	INTERFERE	PASSENGER INTERFERING WITH DRIVER
011	STOPPED	STOPPED IN TRAFFIC NOT WAITING TO MAKE A LEFT TURN
012	STP/L TRN	STOPPED BECAUSE OF LEFT TURN SIGNAL OR WAITING, ETC.
013	STP TURN	STOPPED WHILE EXECUTING A TURN
014	EMR V PKD	EMERGENCY VEHICLE LEGALLY PARKED IN THE ROADWAY
015	GO A/STOP	PROCEED AFTER STOPPING FOR A STOP SIGN/FLASHING RED.
016	TRN A/RED	TURNE D ON RED AFTER STOPPING
017	LOSTCTRL	LOST CONTROL OF VEHICLE
018	EXIT DWY	ENTERING STREET OR HIGHWAY FROM ALLEY OR DRIVEWAY
019	ENTR DWY	ENTERING ALLEY OR DRIVEWAY FROM STREET OR HIGHWAY
020	STR ENTR	BEFORE ENTERING ROADWAY, STRUCK PEDESTRIAN, ETC. ON SIDEWALK OR SHOULDER
021	NO DRVR	CAR RAN AWAY - NO DRIVER
022	PREV COL	STRUCK, OR WAS STRUCK BY, VEHICLE OR PEDESTRIAN IN PRIOR COLLISION BEFORE ACC. STABILIZED
023	STALLED	VEHICLE STALLED OR DISABLED
024	DRVR DEAD	DEAD BY UNASSOCIATED CAUSE
025	FATIGUE	FATIGUED, SLEEPY, ASLEEP
026	SUN	DRIVER BLINDED BY SUN
027	HDLGHTS	DRIVER BLINDED BY HEADLIGHTS
028	ILLNESS	PHYSICALLY ILL
029	THRU MED	VEHICLE CROSSED, PLUNGED OVER, OR THROUGH MEDIAN BARRIER
030	PURSUIT	PURSUIING OR ATTEMPTING TO STOP A VEHICLE
031	PASSING	PASSING SITUATION
032	PRKOFFRD	VEHICLE PARKED BEYOND CURB OR SHOULDER
033	CROS MED	VEHICLE CROSSED EARTH OR GRASS MEDIAN
034	X N/SGNL	CROSSING AT INTERSECTION - NO TRAFFIC SIGNAL PRESENT
035	X W/ SGNL	CROSSING AT INTERSECTION - TRAFFIC SIGNAL PRESENT
036	DIAGONAL	CROSSING AT INTERSECTION - DIAGONALLY
037	BTWN INT	CROSSING BETWEEN INTERSECTIONS
038	DISTRACT	DRIVER'S ATTENTION DISTRACTED
039	W/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER WITH TRAFFIC
040	A/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER FACING TRAFFIC
041	W/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT WITH TRAFFIC
042	A/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT FACING TRAFFIC
043	PLAYINRD	PLAYING IN STREET OR ROAD
044	PUSH MV	PUSHING OR WORKING ON VEHICLE IN ROAD OR ON SHOULDER
045	WORK ON	WORKING IN ROADWAY OR ALONG SHOULDER
046	W/ TRAFIC	NON-MOTORIST WALKING, RUNNING, RIDING, ETC. WITH TRAFFIC
047	A/ TRAFIC	NON-MOTORIST WALKING, RUNNING, RIDING, ETC. FACING TRAFFIC
050	LAY ON RD	STANDING OR LYING IN ROADWAY
051	ENT OFFRD	ENTERING / STARTING IN TRAFFIC LANE FROM OFF ROAD
052	MERGING	MERGING
055	SPRAY	BLINDED BY WATER SPRAY

ACTION CODE TRANSLATION LIST

ACTION CODE	SHORT DESCRIPTION	LONG DESCRIPTION
088	OTHER	OTHER ACTION
099	UNK	UNKNOWN ACTION

CAUSE CODE TRANSLATION LIST

CAUSE CODE	SHORT DESCRIPTION	LONG DESCRIPTION
00	NO CODE	NO CAUSE ASSOCIATED AT THIS LEVEL
01	TOO-FAST	TOO FAST FOR CONDITIONS (NOT EXCEED POSTED SPEED)
02	NO-YIELD	DID NOT YIELD RIGHT-OF-WAY
03	PAS-STOP	PASSED STOP SIGN OR RED FLASHER
04	DIS SIG	DISREGARDED TRAFFIC SIGNAL
05	LEFT-CTR	DROVE LEFT OF CENTER ON TWO-WAY ROAD; STRADDLING
06	IMP-OVER	IMPROPER OVERTAKING
07	TOO-CLOS	FOLLOWED TOO CLOSELY
08	IMP-TURN	MADE IMPROPER TURN
09	DRINKING	ALCOHOL OR DRUG INVOLVED
10	OTHR-IMP	OTHER IMPROPER DRIVING
11	MECH-DEF	MECHANICAL DEFECT
12	OTHER	OTHER (NOT IMPROPER DRIVING)
13	IMP LN C	IMPROPER CHANGE OF TRAFFIC LANES
14	DIS TCD	DISREGARDED OTHER TRAFFIC CONTROL DEVICE
15	WRNG WAY	WRONG WAY ON ONE-WAY ROAD; WRONG SIDE DIVIDED ROAD
16	FATIGUE	DRIVER DROWSY/FATIGUED/SLEEPY
17	ILLNESS	PHYSICAL ILLNESS
18	IN RDWY	NON-MOTORIST ILLEGALLY IN ROADWAY
19	NT VISBL	NON-MOTORIST NOT VISIBLE; NON-REFLECTIVE CLOTHING
20	IMP PKNG	VEHICLE IMPROPERLY PARKED
21	DEF STER	DEFECTIVE STEERING MECHANISM
22	DEF BRKE	INADEQUATE OR NO BRAKES
24	LOADSHFT	VEHICLE LOST LOAD OR LOAD SHIFTED
25	TIREFAIL	TIRE FAILURE
26	PHANTOM	PHANTOM / NON-CONTACT VEHICLE
27	INATTENT	INATTENTION
28	NM INATT	NON-MOTORIST INATTENTION
29	F AVOID	FAILED TO AVOID VEHICLE AHEAD
30	SPEED	DRIVING IN EXCESS OF POSTED SPEED
31	RACING	SPEED RACING (PER PAR)
32	CARELESS	CARELESS DRIVING (PER PAR)
33	RECKLESS	RECKLESS DRIVING (PER PAR)
34	AGGRESV	AGGRESSIVE DRIVING (PER PAR)
35	RD RAGE	ROAD RAGE (PER PAR)
40	VIEW OBS	VIEW OBSCURED
50	USED MDN	IMPROPER USE OF MEDIAN OR SHOULDER
51	FAIL LN	FAILED TO MAINTAIN LANE
52	OFF RD	RAN OFF ROAD

COLLISION TYPE CODE TRANSLATION LIST

COLL CODE	SHORT DESCRIPTION	LONG DESCRIPTION
&	OTH	MISCELLANEOUS
-	BACK	BACKING
0	PED	PEDESTRIAN
1	ANGL	ANGLE
2	HEAD	HEAD-ON
3	REAR	REAR-END
4	SS-M	SIDESWIPE - MEETING
5	SS-O	SIDESWIPE - OVERTAKING
6	TURN	TURNING MOVEMENT
7	PARK	PARKING MANEUVER
8	NCOL	NON-COLLISION
9	FIX	FIXED OBJECT OR OTHER OBJECT

CRASH TYPE CODE TRANSLATION LIST

CRASH TYPE	SHORT DESCRIPTION	LONG DESCRIPTION
&	OVERTURN	OVERTURNED
0	NON-COLL	OTHER NON-COLLISION
1	OTH RDWY	MOTOR VEHICLE ON OTHER ROADWAY
2	PRKD MV	PARKED MOTOR VEHICLE
3	PED	PEDESTRIAN
4	TRAIN	RAILWAY TRAIN
6	BIKE	PEDALCYCLIST
7	ANIMAL	ANIMAL
8	FIX OBJ	FIXED OBJECT
9	OTH OBJ	OTHER OBJECT
A	ANGL-STP	ENTERING AT ANGLE - ONE VEHICLE STOPPED
B	ANGL-OTH	ENTERING AT ANGLE - ALL OTHERS
C	S-STRGHT	FROM SAME DIRECTION - BOTH GOING STRAIGHT
D	S-1TURN	FROM SAME DIRECTION - ONE TURN, ONE STRAIGHT
E	S-1STOP	FROM SAME DIRECTION - ONE STOPPED
F	S-OTHER	FROM SAME DIRECTION-ALL OTHERS, INCLUDING PARKING
G	O-STRGHT	FROM OPPOSITE DIRECTION - BOTH GOING STRAIGHT
H	O-1 L-TURN	FROM OPPOSITE DIRECTION-ONE LEFT TURN, ONE STRAIGHT
I	O-1STOP	FROM OPPOSITE DIRECTION - ONE STOPPED
J	O-OTHER	FROM OPPOSITE DIRECTION-ALL OTHERS INCL. PARKING

DRIVER LICENSE CODE TRANSLATION LIST

LIC CODE	SHORT DESC	LONG DESCRIPTION
0	NONE	NOT LICENSED (HAD NEVER BEEN LICENSED)
1	OR-Y	VALID OREGON LICENSE
2	OTH-Y	VALID LICENSE, OTHER STATE OR COUNTRY
3	SUSP	SUSPENDED/REVOKED
4	EXP	EXPIRED
8	N-VAL	OTHER NON-VALID LICENSE
9	UNK	UNKNOWN IF DRIVER WAS LICENSED AT TIME OF CRASH

DRIVER RESIDENCE CODE TRANSLATION LIST

RES CODE	SHORT DESC	LONG DESCRIPTION
1	OR<25	OREGON RESIDENT WITHIN 25 MILE OF HOME
2	OR>25	OREGON RESIDENT 25 OR MORE MILES FROM HOME
3	OR-?	OREGON RESIDENT - UNKNOWN DISTANCE FROM HOME
4	N-RES	NON-RESIDENT
9	UNK	UNKNOWN IF OREGON RESIDENT

ERROR CODE TRANSLATION LIST

ERROR CODE	SHORT DESCRIPTION	FULL DESCRIPTION
000	NONE	NO ERROR
001	WIDE TRN	WIDE TURN
002	CUT CORN	CUT CORNER ON TURN
003	FAIL TRN	FAILED TO OBEY MANDATORY TRAFFIC TURN SIGNAL, SIGN OR LANE MARKINGS
004	L IN TRF	LEFT TURN IN FRONT OF ONCOMING TRAFFIC
005	L PROHIB	LEFT TURN WHERE PROHIBITED
006	FRM WRNG	TURNED FROM WRONG LANE
007	TO WRONG	TURNED INTO WRONG LANE
008	ILLEG U	U-TURNED ILLEGALLY
009	IMP STOP	IMPROPERLY STOPPED IN TRAFFIC LANE
010	IMP SIG	IMPROPER SIGNAL OR FAILURE TO SIGNAL
011	IMP BACK	BACKING IMPROPERLY (NOT PARKING)
012	IMP PARK	IMPROPERLY PARKED
013	UNPARK	IMPROPER START LEAVING PARKED POSITION
014	IMP STRT	IMPROPER START FROM STOPPED POSITION
015	IMP LGHT	IMPROPER OR NO LIGHTS (VEHICLE IN TRAFFIC)
016	INATTENT	INATTENTION (FAILURE TO DIM LIGHTS PRIOR TO 4/1/97)
017	UNSF VEH	DRIVING UNSAFE VEHICLE (NO OTHER ERROR APPARENT)
018	OTH PARK	ENTERING/EXITING PARKED POSITION W/ INSUFFICIENT CLEARANCE; OTHER IMPROPER PARKING MANEUVER
019	DIS DRIV	DISREGARDED OTHER DRIVER'S SIGNAL
020	DIS SGNL	DISREGARDED TRAFFIC SIGNAL
021	RAN STOP	DISREGARDED STOP SIGN OR FLASHING RED
022	DIS SIGN	DISREGARDED WARNING SIGN, FLARES OR FLASHING AMBER
023	DIS OFCR	DISREGARDED POLICE OFFICER OR FLAGMAN
024	DIS EMER	DISREGARDED SIREN OR WARNING OF EMERGENCY VEHICLE
025	DIS RR	DISREGARDED RR SIGNAL, RR SIGN, OR RR FLAGMAN
026	REAR-END	FAILED TO AVOID STOPPED OR PARKED VEHICLE AHEAD OTHER THAN SCHOOL BUS
027	BIKE ROW	DID NOT HAVE RIGHT-OF-WAY OVER PEDALCYCLIST
028	NO ROW	DID NOT HAVE RIGHT-OF-WAY
029	PED ROW	FAILED TO YIELD RIGHT-OF-WAY TO PEDESTRIAN
030	PAS CURV	PASSING ON A CURVE
031	PAS WRNG	PASSING ON THE WRONG SIDE
032	PAS TANG	PASSING ON STRAIGHT ROAD UNDER UNSAFE CONDITIONS
033	PAS X-WK	PASSED VEHICLE STOPPED AT CROSSWALK FOR PEDESTRIAN
034	PAS INTR	PASSING AT INTERSECTION
035	PAS HILL	PASSING ON CREST OF HILL
036	N/PAS ZN	PASSING IN "NO PASSING" ZONE
037	PAS TRAF	PASSING IN FRONT OF ONCOMING TRAFFIC
038	CUT-IN	CUTTING IN (TWO LANES - TWO WAY ONLY)
039	WRNGSIDE	DRIVING ON WRONG SIDE OF THE ROAD (2-WAY UNDIVIDED ROADWAYS)
040	THRU MED	DRIVING THROUGH SAFETY ZONE OR OVER ISLAND
041	F/ST BUS	FAILED TO STOP FOR SCHOOL BUS

ERROR CODE TRANSLATION LIST

ERROR CODE	SHORT DESCRIPTION	FULL DESCRIPTION
042	F/SLO MV	FAILED TO DECREASE SPEED FOR SLOWER MOVING VEHICLE
043	TOO CLOSE	FOLLOWING TOO CLOSELY (MUST BE ON OFFICER'S REPORT)
044	STRDL LN	STRADDLING OR DRIVING ON WRONG LANES
045	IMP CHG	IMPROPER CHANGE OF TRAFFIC LANES
046	WRNG WAY	WRONG WAY ON ONE-WAY ROADWAY; WRONG SIDE DIVIDED ROAD
047	BASCRULE	DRIVING TOO FAST FOR CONDITIONS (NOT EXCEEDING POSTED SPEED)
048	OPN DOOR	OPENED DOOR INTO ADJACENT TRAFFIC LANE
049	IMPEDING	IMPEDING TRAFFIC
050	SPEED	DRIVING IN EXCESS OF POSTED SPEED
051	RECKLESS	RECKLESS DRIVING (PER PAR)
052	CARELESS	CARELESS DRIVING (PER PAR)
053	RACING	SPEED RACING (PER PAR)
054	X N/SGNL	CROSSING AT INTERSECTION, NO TRAFFIC SIGNAL PRESENT
055	X W/SGNL	CROSSING AT INTERSECTION, TRAFFIC SIGNAL PRESENT
056	DIAGONAL	CROSSING AT INTERSECTION - DIAGONALLY
057	BTWN INT	CROSSING BETWEEN INTERSECTIONS
059	W/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER WITH TRAFFIC
060	A/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER FACING TRAFFIC
061	W/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT WITH TRAFFIC
062	A/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT FACING TRAFFIC
063	PLAYINRD	PLAYING IN STREET OR ROAD
064	PUSH MV	PUSHING OR WORKING ON VEHICLE IN ROAD OR ON SHOULDER
065	WORK IN RD	WORKING IN ROADWAY OR ALONG SHOULDER
070	LAY ON RD	STANDING OR LYING IN ROADWAY
071	NM IMP USE	IMPROPER USE OF TRAFFIC LANE BY NON-MOTORIST
073	ELUDING	ELUDING / ATTEMPT TO ELUDE
079	F NEG CURV	FAILED TO NEGOTIATE A CURVE
080	FAIL LN	FAILED TO MAINTAIN LANE
081	OFF RD	RAN OFF ROAD
082	NO CLEAR	DRIVER MISJUDGED CLEARANCE
083	OVRSTEER	OVER-CORRECTING
084	NOT USED	CODE NOT IN USE
085	OVRLOAD	OVERLOADING OR IMPROPER LOADING OF VEHICLE WITH CARGO OR PASSENGERS
097	UNA DIS TC	UNABLE TO DETERMINE WHICH DRIVER DISREGARDED TRAFFIC CONTROL DEVICE

EVENT CODE TRANSLATION LIST

EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
001	FEL/JUMP	OCCUPANT FELL, JUMPED OR WAS EJECTED FROM MOVING VEHICLE
002	INTERFER	PASSENGER INTERFERED WITH DRIVER
003	BUG INTF	ANIMAL OR INSECT IN VEHICLE INTERFERED WITH DRIVER
004	INDRCT PED	PEDESTRIAN INDIRECTLY INVOLVED (NOT STRUCK)
005	SUB-PED	"SUB-PED": PEDESTRIAN INJURED SUBSEQUENT TO COLLISION, ETC.
006	INDRCT BIK	PEDALCYCLIST INDIRECTLY INVOLVED (NOT STRUCK)
007	HITCHIKR	HITCHHIKER (SOLICITING A RIDE)
008	PSNGR TOW	PASSENGER OR NON-MOTORIST BEING TOWED OR PUSHED ON CONVEYANCE
009	ON/OFF V	GETTING ON/OFF STOPPED/PARKED VEHICLE (OCCUPANTS ONLY; MUST HAVE PHYSICAL CONTACT W/ VEHIC
010	SUB OTRN	OVERTURNED AFTER FIRST HARMFUL EVENT
011	MV PUSHD	VEHICLE BEING PUSHED
012	MV TOWED	VEHICLE TOWED OR HAD BEEN TOWING ANOTHER VEHICLE
013	FORCED	VEHICLE FORCED BY IMPACT INTO ANOTHER VEHICLE, PEDALCYCLIST OR PEDESTRIAN
014	SET MOTN	VEHICLE SET IN MOTION BY NON-DRIVER (CHILD RELEASED BRAKES, ETC.)
015	RR ROW	AT OR ON RAILROAD RIGHT-OF-WAY (NOT LIGHT RAIL)
016	LT RL ROW	AT OR ON LIGHT-RAIL RIGHT-OF-WAY
017	RR HIT V	TRAIN STRUCK VEHICLE
018	V HIT RR	VEHICLE STRUCK TRAIN
019	HIT RR CAR	VEHICLE STRUCK RAILROAD CAR ON ROADWAY
020	JACKKNIFE	JACKKNIFE; TRAILER OR TOWED VEHICLE STRUCK TOWING VEHICLE
021	TRL OTRN	TRAILER OR TOWED VEHICLE OVERTURNED
022	CN BROKE	TRAILER CONNECTION BROKE
023	DETACH TRL	DETACHED TRAILING OBJECT STRUCK OTHER VEHICLE, NON-MOTORIST, OR OBJECT
024	V DOOR OPN	VEHICLE DOOR OPENED INTO ADJACENT TRAFFIC LANE
025	WHEELOFF	WHEEL CAME OFF
026	HOOD UP	HOOD FLEW UP
028	LOAD SHIFT	LOST LOAD, LOAD MOVED OR SHIFTED
029	TIREFAIL	TIRE FAILURE
030	PET	PET: CAT, DOG AND SIMILAR
031	LVSTOCK	STOCK: COW, CALF, BULL, STEER, SHEEP, ETC.
032	HORSE	HORSE, MULE, OR DONKEY
033	HRSE&RID	HORSE AND RIDER
034	GAME	WILD ANIMAL, GAME (INCLUDES BIRDS; NOT DEER OR ELK)
035	DEER ELK	DEER OR ELK, WAPITI
036	ANML VEH	ANIMAL-DRAWN VEHICLE
037	CULVERT	CULVERT, OPEN LOW OR HIGH MANHOLE
038	ATENUATN	IMPACT ATTENUATOR
039	PK METER	PARKING METER
040	CURB	CURB (ALSO NARROW SIDEWALKS ON BRIDGES)
041	JIGGLE	JIGGLE BAR OR TRAFFIC SNAKE FOR CHANNELIZATION
042	GDRL END	LEADING EDGE OF GUARDRAIL
043	GARDRAIL	GUARD RAIL (NOT METAL MEDIAN BARRIER)
044	BARRIER	MEDIAN BARRIER (RAISED OR METAL)
045	WALL	RETAINING WALL OR TUNNEL WALL
046	BR RAIL	BRIDGE RAILING OR PARAPET (ON BRIDGE OR APPROACH)
047	BR ABUTMNT	BRIDGE ABUTMENT (INCLUDED "APPROACH END" THRU 2013)
048	BR COLMN	BRIDGE PILLAR OR COLUMN
049	BR GIRDR	BRIDGE GIRDER (HORIZONTAL BRIDGE STRUCTURE OVERHEAD)
050	ISLAND	TRAFFIC RAISED ISLAND
051	GORE	GORE
052	POLE UNK	POLE - TYPE UNKNOWN
053	POLE UTL	POLE - POWER OR TELEPHONE
054	ST LIGHT	POLE - STREET LIGHT ONLY
055	TRF SGNL	POLE - TRAFFIC SIGNAL AND PED SIGNAL ONLY
056	SGN BRDG	POLE - SIGN BRIDGE
057	STOPSIGN	STOP OR YIELD SIGN
058	OTH SIGN	OTHER SIGN, INCLUDING STREET SIGNS
059	HYDRANT	HYDRANT

EVENT CODE TRANSLATION LIST

EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
060	MARKER	DELINEATOR OR MARKER (REFLECTOR POSTS)
061	MAILBOX	MAILBOX
062	TREE	TREE, STUMP OR SHRUBS
063	VEG OHED	TREE BRANCH OR OTHER VEGETATION OVERHEAD, ETC.
064	WIRE/CBL	WIRE OR CABLE ACROSS OR OVER THE ROAD
065	TEMP SGN	TEMPORARY SIGN OR BARRICADE IN ROAD, ETC.
066	PERM SGN	PERMANENT SIGN OR BARRICADE IN/OFF ROAD
067	SLIDE	SLIDES, FALLEN OR FALLING ROCKS
068	FRGN OBJ	FOREIGN OBSTRUCTION/DEBRIS IN ROAD (NOT GRAVEL)
069	EQP WORK	EQUIPMENT WORKING IN/OFF ROAD
070	OTH EQP	OTHER EQUIPMENT IN OR OFF ROAD (INCLUDES PARKED TRAILER, BOAT)
071	MAIN EQP	WRECKER, STREET SWEEPER, SNOW PLOW OR SANDING EQUIPMENT
072	OTHER WALL	ROCK, BRICK OR OTHER SOLID WALL
073	IRRGL PVMT	OTHER BUMP (NOT SPEED BUMP), POTHOLE OR PAVEMENT IRREGULARITY (PER PAR)
074	OVERHD OBJ	OTHER OVERHEAD OBJECT (HIGHWAY SIGN, SIGNAL HEAD, ETC.); NOT BRIDGE
075	CAVE IN	BRIDGE OR ROAD CAVE IN
076	HI WATER	HIGH WATER
077	SNO BANK	SNOW BANK
078	LO-HI EDGE	LOW OR HIGH SHOULDER AT PAVEMENT EDGE
079	DITCH	CUT SLOPE OR DITCH EMBANKMENT
080	OBJ FRM MV	STRUCK BY ROCK OR OTHER OBJECT SET IN MOTION BY OTHER VEHICLE (INCL. LOST LOADS)
081	FLY-OBJ	STRUCK BY ROCK OR OTHER MOVING OR FLYING OBJECT (NOT SET IN MOTION BY VEHICLE)
082	VEH HID	VEHICLE OBSCURED VIEW
083	VEG HID	VEGETATION OBSCURED VIEW
084	BLDG HID	VIEW OBSCURED BY FENCE, SIGN, PHONE BOOTH, ETC.
085	WIND GUST	WIND GUST
086	IMMERSED	VEHICLE IMMERSED IN BODY OF WATER
087	FIRE/EXP	FIRE OR EXPLOSION
088	FENC/BLD	FENCE OR BUILDING, ETC.
089	OTHR CRASH	CRASH RELATED TO ANOTHER SEPARATE CRASH
090	TO 1 SIDE	TWO-WAY TRAFFIC ON DIVIDED ROADWAY ALL ROUTED TO ONE SIDE
091	BUILDING	BUILDING OR OTHER STRUCTURE
092	PHANTOM	OTHER (PHANTOM) NON-CONTACT VEHICLE
093	CELL PHONE	CELL PHONE (ON PAR OR DRIVER IN USE)
094	VIOL GDL	TEENAGE DRIVER IN VIOLATION OF GRADUATED LICENSE PGM
095	GUY WIRE	GUY WIRE
096	BERM	BERM (EARTHEN OR GRAVEL MOUND)
097	GRAVEL	GRAVEL IN ROADWAY
098	ABR EDGE	ABRUPT EDGE
099	CELL WTNSD	CELL PHONE USE WITNESSED BY OTHER PARTICIPANT
100	UNK FIXD	FIXED OBJECT, UNKNOWN TYPE.
101	OTHER OBJ	NON-FIXED OBJECT, OTHER OR UNKNOWN TYPE
102	TEXTING	TEXTING
103	WZ WORKER	WORK ZONE WORKER
104	ON VEHICLE	PASSENGER RIDING ON VEHICLE EXTERIOR
105	PEDAL PSGR	PASSENGER RIDING ON PEDALCYCLE
106	MAN WHLCHR	PEDESTRIAN IN NON-MOTORIZED WHEELCHAIR
107	MTR WHLCHR	PEDESTRIAN IN MOTORIZED WHEELCHAIR
108	OFFICER	LAW ENFORCEMENT / POLICE OFFICER
109	SUB-BIKE	"SUB-BIKE": PEDALCYCLIST INJURED SUBSEQUENT TO COLLISION, ETC.
110	N-MTR	NON-MOTORIST STRUCK VEHICLE
111	S CAR VS V	STREET CAR/TROLLEY (ON RAILS OR OVERHEAD WIRE SYSTEM) STRUCK VEHICLE
112	V VS S CAR	VEHICLE STRUCK STREET CAR/TROLLEY (ON RAILS OR OVERHEAD WIRE SYSTEM)
113	S CAR ROW	AT OR ON STREET CAR OR TROLLEY RIGHT-OF-WAY
114	RR EQUIP	VEHICLE STRUCK RAILROAD EQUIPMENT (NOT TRAIN) ON TRACKS
115	DSTRCT GPS	DISTRACTED BY NAVIGATION SYSTEM OR GPS DEVICE
116	DSTRCT OTH	DISTRACTED BY OTHER ELECTRONIC DEVICE
117	RR GATE	RAIL CROSSING DROP-ARM GATE

EVENT CODE TRANSLATION LIST

EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
118	EXPNSN JNT	EXPANSION JOINT
119	JERSEY BAR	JERSEY BARRIER
120	WIRE BAR	WIRE OR CABLE MEDIAN BARRIER
121	FENCE	FENCE
123	OBJ IN VEH	LOOSE OBJECT IN VEHICLE STRUCK OCCUPANT
124	SLIPPERY	SLIDING OR SWERVING DUE TO WET, ICY, SLIPPERY OR LOOSE SURFACE (NOT GRAVEL)
125	SHLDR	SHOULDER GAVE WAY
126	BOULDER	ROCK(S), BOULDER (NOT GRAVEL; NOT ROCK SLIDE)
127	LAND SLIDE	ROCK SLIDE OR LAND SLIDE
128	CURVE INV	CURVE PRESENT AT CRASH LOCATION
129	HILL INV	VERTICAL GRADE / HILL PRESENT AT CRASH LOCATION
130	CURVE HID	VIEW OBSCURED BY CURVE
131	HILL HID	VIEW OBSCURED BY VERTICAL GRADE / HILL
132	WINDOW HID	VIEW OBSCURED BY VEHICLE WINDOW CONDITIONS
133	SPRAY HID	VIEW OBSCURED BY WATER SPRAY
134	TORRENTIAL	TORRENTIAL RAIN (EXCEPTIONALLY HEAVY RAIN)

FUNCTIONAL CLASSIFICATION TRANSLATION LIST

FUNC CLASS	DESCRIPTION
01	RURAL PRINCIPAL ARTERIAL - INTERSTATE
02	RURAL PRINCIPAL ARTERIAL - OTHER
06	RURAL MINOR ARTERIAL
07	RURAL MAJOR COLLECTOR
08	RURAL MINOR COLLECTOR
09	RURAL LOCAL
11	URBAN PRINCIPAL ARTERIAL - INTERSTATE
12	URBAN PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXP
14	URBAN PRINCIPAL ARTERIAL - OTHER
16	URBAN MINOR ARTERIAL
17	URBAN MAJOR COLLECTOR
18	URBAN MINOR COLLECTOR
19	URBAN LOCAL
78	UNKNOWN RURAL SYSTEM
79	UNKNOWN RURAL NON-SYSTEM
98	UNKNOWN URBAN SYSTEM
99	UNKNOWN URBAN NON-SYSTEM

HIGHWAY COMPONENT TRANSLATION LIST

CODE	DESCRIPTION
0	MAINLINE STATE HIGHWAY
1	COUPLET
3	FRONTAGE ROAD
6	CONNECTION
8	HIGHWAY - OTHER

INJURY SEVERITY CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
1	KILL	FATAL INJURY
2	INJA	INCAPACITATING INJURY - BLEEDING, BROKEN BONES
3	INJB	NON-INCAPACITATING INJURY
4	INJC	POSSIBLE INJURY - COMPLAINT OF PAIN
5	PRI	DIED PRIOR TO CRASH
7	NO<5	NO INJURY - 0 TO 4 YEARS OF AGE
9	NONE	PARTICIPANT UNINJURED, OVER THE AGE OF 4

LIGHT CONDITION CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	DAY	DAYLIGHT
2	DLIT	DARKNESS - WITH STREET LIGHTS
3	DARK	DARKNESS - NO STREET LIGHTS
4	DAWN	DAWN (TWILIGHT)
5	DUSK	DUSK (TWILIGHT)

MEDIAN TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	NONE	NO MEDIAN
1	RSDMD	SOLID MEDIAN BARRIER
2	DIVMD	EARTH, GRASS OR PAVED MEDIAN

MILEAGE TYPE CODE TRANSLATION LIST

CODE	LONG DESCRIPTION
0	REGULAR MILEAGE
T	TEMPORARY
Y	SPUR
Z	OVERLAPPING

MOVEMENT TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	STRGHT	STRAIGHT AHEAD
2	TURN-R	TURNING RIGHT
3	TURN-L	TURNING LEFT
4	U-TURN	MAKING A U-TURN
5	BACK	BACKING
6	STOP	STOPPED IN TRAFFIC
7	PRKD-P	PARKED - PROPERLY
8	PRKD-I	PARKED - IMPROPERLY
9	PARKNG	PARKING MANEUVER

NON-MOTORIST LOCATION CODE TRANSLATION LIST

CODE	LONG DESCRIPTION
00	AT INTERSECTION - NOT IN ROADWAY
01	AT INTERSECTION - INSIDE CROSSWALK
02	AT INTERSECTION - IN ROADWAY, OUTSIDE CROSSWALK
03	AT INTERSECTION - IN ROADWAY, XWALK AVAIL UNKNWN
04	NOT AT INTERSECTION - IN ROADWAY
05	NOT AT INTERSECTION - ON SHOULDER
06	NOT AT INTERSECTION - ON MEDIAN
07	NOT AT INTERSECTION - WITHIN TRAFFIC RIGHT-OF-WAY
08	NOT AT INTERSECTION - IN BIKE PATH OR PARKING LANE
09	NOT-AT INTERSECTION - ON SIDEWALK
10	OUTSIDE TRAFFICWAY BOUNDARIES
13	AT INTERSECTION - IN BIKE LANE
14	NOT AT INTERSECTION - IN BIKE LANE
15	NOT AT INTERSECTION - INSIDE MID-BLOCK CROSSWALK
16	NOT AT INTERSECTION - IN PARKING LANE
18	OTHER, NOT IN ROADWAY
99	UNKNOWN LOCATION

ROAD CHARACTER CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	INTER	INTERSECTION
2	ALLEY	DRIVEWAY OR ALLEY
3	STRGHT	STRAIGHT ROADWAY
4	TRANS	TRANSITION
5	CURVE	CURVE (HORIZONTAL CURVE)
6	OPENAC	OPEN ACCESS OR TURNOUT
7	GRADE	GRADE (VERTICAL CURVE)
8	BRIDGE	BRIDGE STRUCTURE
9	TUNNEL	TUNNEL

PARTICIPANT TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	OCC	UNKNOWN OCCUPANT TYPE
1	DRVR	DRIVER
2	PSNG	PASSENGER
3	PED	PEDESTRIAN
4	CONV	PEDESTRIAN USING A PEDESTRIAN CONVEYANCE
5	PTOW	PEDESTRIAN TOWING OR TRAILERING AN OBJECT
6	BIKE	PEDALCYCLIST
7	BTOW	PEDALCYCLIST TOWING OR TRAILERING AN OBJECT
8	PRKD	OCCUPANT OF A PARKED MOTOR VEHICLE
9	UNK	UNKNOWN TYPE OF NON-MOTORIST

TRAFFIC CONTROL DEVICE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
000	NONE	NO CONTROL
001	TRF SIGNAL	TRAFFIC SIGNALS
002	FLASHBCN-R	FLASHING BEACON - RED (STOP)
003	FLASHBCN-A	FLASHING BEACON - AMBER (SLOW)
004	STOP SIGN	STOP SIGN
005	SLOW SIGN	SLOW SIGN
006	REG-SIGN	REGULATORY SIGN
007	YIELD	YIELD SIGN
008	WARNING	WARNING SIGN
009	CURVE	CURVE SIGN
010	SCHL X-ING	SCHOOL CROSSING SIGN OR SPECIAL SIGNAL
011	OFCCR/FLAG	POLICE OFFICER, FLAGMAN - SCHOOL PATROL
012	BRDG-GATE	BRIDGE GATE - BARRIER
013	TEMP-BARR	TEMPORARY BARRIER
014	NO-PASS-ZN	NO PASSING ZONE
015	ONE-WAY	ONE-WAY STREET
016	CHANNEL	CHANNELIZATION
017	MEDIAN BAR	MEDIAN BARRIER
018	PILOT CAR	PILOT CAR
019	SP PED SIG	SPECIAL PEDESTRIAN SIGNAL
020	X-BUCK	CROSSBUCK
021	THR-GN-SIG	THROUGH GREEN ARROW OR SIGNAL
022	L-GRN-SIG	LEFT TURN GREEN ARROW, LANE MARKINGS, OR SIGNAL
023	R-GRN-SIG	RIGHT TURN GREEN ARROW, LANE MARKINGS, OR SIGNAL
024	WIGWAG	WIGWAG OR FLASHING LIGHTS W/O DROP-ARM GATE
025	X-BUCK WRN	CROSSBUCK AND ADVANCE WARNING
026	WW W/ GATE	FLASHING LIGHTS WITH DROP-ARM GATES
027	OVRHD SGNL	SUPPLEMENTAL OVERHEAD SIGNAL (RR XING ONLY)
028	SP RR STOP	SPECIAL RR STOP SIGN
029	ILUM GRD X	ILLUMINATED GRADE CROSSING
037	RAMP METER	METERED RAMPS
038	RUMBLE STR	RUMBLE STRIP
090	L-TURN REF	LEFT TURN REFUGE (WHEN REFUGE IS INVOLVED)
091	R-TURN ALL	RIGHT TURN AT ALL TIMES SIGN, ETC.
092	EMR SGN/FL	EMERGENCY SIGNS OR FLARES
093	ACCEL LANE	ACCELERATION OR DECELERATION LANES
094	R-TURN PRO	RIGHT TURN PROHIBITED ON RED AFTER STOPPING
095	BUS STPSGN	BUS STOP SIGN AND RED LIGHTS
099	UNKNOWN	UNKNOWN OR NOT DEFINITE

VEHICLE TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
00	PDO	NOT COLLECTED FOR PDO CRASHES
01	PSNGR CAR	PASSENGER CAR, PICKUP, LIGHT DELIVERY, ETC.
02	BOBTAIL	TRUCK TRACTOR WITH NO TRAILERS (BOBTAIL)
03	FARM TRCTR	FARM TRACTOR OR SELF-PROPELLED FARM EQUIPMENT
04	SEMI TOW	TRUCK TRACTOR WITH TRAILER/MOBILE HOME IN TOW
05	TRUCK	TRUCK WITH NON-DETACHABLE BED, PANEL, ETC.
06	MOPED	MOPED, MINIBIKE, SEATED MOTOR SCOOTER, MOTOR BIKE
07	SCHL BUS	SCHOOL BUS (INCLUDES VAN)
08	OTH BUS	OTHER BUS
09	MTRCYCLE	MOTORCYCLE, DIRT BIKE
10	OTHER	OTHER: FORKLIFT, BACKHOE, ETC.
11	MOTRHOME	MOTORHOME
12	TROLLEY	MOTORIZED STREET CAR/TROLLEY (NO RAILS/WIRES)
13	ATV	ATV
14	MTRSCTR	MOTORIZED SCOOTER (STANDING)
15	SNOWMOBILE	SNOWMOBILE
99	UNKNOWN	UNKNOWN VEHICLE TYPE

WEATHER CONDITION CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	CLR	CLEAR
2	CLD	CLOUDY
3	RAIN	RAIN
4	SLT	SLEET
5	FOG	FOG
6	SNOW	SNOW
7	DUST	DUST
8	SMOK	SMOKE
9	ASH	ASH

Appendix C



30 HV Using On-Site ATR Method (APM V2 5.5.1)

Talent
ATR 15-014

OR99; ROGUE VALLEY HIGHWAY NO. 63; 0.33 miles nw of Talent Avenue

Year	June (Peak Month) AWDT				September (Count Month) AWDT				Notes:
	Average Weekday Traffic	% of AADT	Annual Change Previous Year	Annual Change 2018 to 2022	Average Weekday Traffic	% of AADT	Annual Change Previous Year	Annual Change 2018 to 2022	
2018	9,050	108	—		8,650	103	—		2018 - Construction Zone. 2020 - Wildfires and construction activity lowered % AADT Sept-Dec.
2019	9,537	113.6981	5.38%		9,141	108.9771	5.68%		
2020	8,368	120	-12.26%	-1.90%	7,336	105	-19.75%	-1.71%	
2021	8,327	116.1691	-0.49%		7,756	108.2031	5.73%		
2022	8,382	114.8062	0.66%		8,073	110.5739	4.09%		

Average % of AADT 114.8911

Seasonal Adjustment = June / September

107.3934 High and low %s eliminated. The average % is the

1.07 remaining 3 years.

Intersection 1	S Pacific Highway	N Rose Street
Intersection 2	S Pacific Highway	Site Access
Intersection 3		
Intersection 4		
Intersection 5		
Intersection 6		
Intersection 7		
Intersection 8		
Intersection 9		
Intersection 10		
Intersection 11		
Intersection 12		
Intersection 13		
Intersection 14		
Intersection 15		
	Roadway 1	Roadway 2

Master Intersection List

Intersection 1		S Pacific Highway			N Rose Street			System AM peak hour 7:15-8:15AM							Hourly	All
ALL-VEHICLE VOLUMES		PHF = 0.80											Totals	Ints		
Time Period	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Total			
2023 Base Volumes	7:00 AM	3	48	1	0	64	5	5	0	2	3	0	0	131		
	7:15 AM	1	71	0	0	68	4	5	0	4	0	0	0	153		
	7:30 AM	5	109	0	0	113	5	5	0	3	0	0	0	240		
	7:45 AM	2	150	0	1	113	7	8	0	6	0	0	0	287	811	
	8:00 AM	7	105	1	0	106	8	11	0	4	0	0	0	242	922	
	8:15 AM	3	97	0	0	98	5	6	0	4	0	0	0	213	982	
	8:30 AM	5	103	0	0	91	2	7	0	4	0	0	0	213	955	
8:45 AM	3	89	0	0	78	4	8	0	1	0	0	0	183	851		
2023 30HV AM Vs	16	465	1	1	428	26	31	0	18	0	0	0			1.07 30HV Seasonal Adjustment	
Background Growth	1	19	0	0	17	1	1	0	1	0	0	0			2023 Traffic Count Base Year	
2025 Pre-Dev AM Vs	17	484	1	1	445	27	32	0	19	0	0	0			2.0% Background Growth Rate	
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR			2025 Pre-Development Year	
Total Dev Vs	1	12		2			1								2030 Future Year	
% of Dev	5%	55%		35%			5%								1026 Entering Intersection Volume	
2025 Post-Dev AM Vs	18	496	1	1	447	27	32	0	20	0	0	0			16 Development Trips	
2030 Post-Dev AM Vs	19	546	1	1	494	30	36	0	22	0	0	0			2% Trip Volume Increase	

Intersection 2		S Pacific Highway			Site Access			System AM peak hour 7:15-8:15AM							Hourly	All
ALL-VEHICLE VOLUMES		PHF = 0.80											Totals	Ints		
Time Period	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Total			
2023 Base Volumes	7:00 AM		52			69							121			
	7:15 AM		72			72							144			
	7:30 AM		114			116							230			
	7:45 AM		152			119							271			
	8:00 AM		113			110							223			
	8:15 AM		100			102							202			
	8:30 AM		108			95							203			
8:45 AM		92			79							171				
2023 30HV AM Vs	0	483	0	0	446	0	0	0	0	0	0	0			1.07 30HV Seasonal Adjustment	
Background Growth	0	20	0	0	18	0	0	0	0	0	0	0			2023 Traffic Count Base Year	
2025 Pre-Dev AM Vs	0	503	0	0	464	0	0	0	0	0	0	0			2.0% Background Growth Rate	
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR			2025 Pre-Development Year	
Total Dev Vs		4		3			9			13					2030 Future Year	
% of Dev		60%		40%			40%			60%					967 Entering Intersection Volume	
2025 Post-Dev AM Vs	0	503	4	3	464	0	0	0	0	9	0	13			29 Development Trips	
2030 Post-Dev AM Vs	0	555	4	3	512	0	0	0	0	9	0	13			3% Trip Volume Increase	

Intersection 1		S Pacific Highway			N Rose Street			System PM peak hour 3:30-4:30								
ALL-VEHICLE VOLUMES		PHF = 0.90											Hourly	All		
Time Period		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Total	Totals	Ints
2023 Base Volumes	3:30 PM	8	155	0	0	143	10	6	0	5	0	0	1	328	1133	Cells shaded this color have manual inp
	3:45 PM	4	151	2	0	160	12	19	0	6	1	0	0	355	1210	
	4:00 PM	2	164	0	2	118	5	9	0	4	0	0	0	304	1242	
	4:15 PM	4	153	0	1	119	6	4	0	2	0	0	0	289	1276	
	4:30 PM	6	149	0	0	146	4	13	0	6	0	1	0	325	1273	
	4:45 PM	1	130	0	0	122	3	7	0	1	0	0	0	264	1182	
	5:00 PM	3	143	0	0	130	13	6	0	1	0	0	0	296	1174	
5:15 PM	3	124	0	0	140	12	2	0	0	0	0	1	282	1167		
2023 30HV PM Vs		19	667	2	3	578	35	41	0	18	1	0	1			1.07 30HV Seasonal Adjustment
Background Growth		1	27	0	0	23	1	2	0	1	0	0	0			2023 Traffic Count Base Year
2025 Pre-Dev PM Vs		20	694	2	3	601	36	43	0	19	1	0	1			2.0% Background Growth Rate
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR			2025 Pre-Development Year
Total Dev Vs		1	7			9				1						2030 Future Year
% of Dev		5%	55%			35%				5%						1420 Entering Intersection Volume
2025 Post-Dev PM Vs		21	701	2	3	610	36	43	0	20	1	0	1			18 Development Trips
2030 Post-Dev PM Vs		23	773	2	3	673	40	47	0	22	1	0	1			1% Trip Volume Increase
Intersection 2		S Pacific Highway			Site Access			System PM peak hour 3:30-4:30								
ALL-VEHICLE VOLUMES		PHF = 0.93											Hourly	All		
Time Period		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Total	Totals	Ints
2023 Base Volumes	3:30 PM		163			148								311		Cells shaded this color have manual inp
	3:45 PM		157			167								324		
	4:00 PM		166			122								288		
	4:15 PM		157			121								278		
	4:30 PM		155			152								307		
	4:45 PM		131			123								254		
	5:00 PM		146			131								277		
5:15 PM		127			140								267			
2023 30HV PM Vs		0	688	0	0	597	0	0	0	0	0	0	0			1.07 30HV Seasonal Adjustment
Background Growth		0	28	0	0	24	0	0	0	0	0	0	0			2023 Traffic Count Base Year
2025 Pre-Dev PM Vs		0	716	0	0	621	0	0	0	0	0	0	0			2.0% Background Growth Rate
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR			2025 Pre-Development Year
Total Dev Vs			14		10						6		8			2030 Future Year
% of Dev			60%		40%						40%		60%			1337 Entering Intersection Volume
2025 Post-Dev PM Vs		0	716	14	10	621	0	0	0	0	6	0	8			38 Development Trips
2030 Post-Dev PM Vs		0	790	14	10	686	0	0	0	0	6	0	8			3% Trip Volume Increase

Appendix D



HCM 6th TWSC
1: S Pacific Highway & N Rose Street

09/25/2023

Intersection

Int Delay, s/veh 0.7

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations						
Traffic Vol, veh/h	32	19	17	484	445	27
Future Vol, veh/h	32	19	17	484	445	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	40	24	21	605	556	34

Major/Minor Minor2 Major1 Major2

Conflicting Flow All	918	295	590	0	-	0
Stage 1	573	-	-	-	-	-
Stage 2	345	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	271	701	982	-	-	-
Stage 1	527	-	-	-	-	-
Stage 2	688	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	265	701	982	-	-	-
Mov Cap-2 Maneuver	386	-	-	-	-	-
Stage 1	516	-	-	-	-	-
Stage 2	688	-	-	-	-	-

Approach EB NB SB

HCM Control Delay, s 11.5 0.3 0
HCM LOS B

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h)	982	-	615	-	-
HCM Lane V/C Ratio	0.022	-	0.104	-	-
HCM Control Delay (s)	8.7	-	11.5	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

HCM 6th TWSC
1: S Pacific Highway & N Rose Street

09/25/2023

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	32	20	18	496	447	27
Future Vol, veh/h	32	20	18	496	447	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	40	25	23	620	559	34

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	932	297	593	0	-	0
Stage 1	576	-	-	-	-	-
Stage 2	356	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	265	699	979	-	-	-
Stage 1	525	-	-	-	-	-
Stage 2	680	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	259	699	979	-	-	-
Mov Cap-2 Maneuver	381	-	-	-	-	-
Stage 1	513	-	-	-	-	-
Stage 2	680	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.5	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	979	-	619	-	-
HCM Lane V/C Ratio	0.023	-	0.105	-	-
HCM Control Delay (s)	8.8	-	11.5	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

HCM 6th TWSC
2: S Pacific Highway & Site Access

09/25/2023

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘↗		↑↑		↘	↑↑
Traffic Vol, veh/h	9	13	503	4	3	464
Future Vol, veh/h	9	13	503	4	3	464
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	16	629	5	4	580

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	930	317	0	0	634
Stage 1	632	-	-	-	-
Stage 2	298	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	266	679	-	-	945
Stage 1	492	-	-	-	-
Stage 2	727	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	265	679	-	-	945
Mov Cap-2 Maneuver	265	-	-	-	-
Stage 1	492	-	-	-	-
Stage 2	724	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.3	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	414	945
HCM Lane V/C Ratio	-	-	0.066	0.004
HCM Control Delay (s)	-	-	14.3	8.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.2	0

HCM 6th TWSC
1: S Pacific Highway & N Rose Street

09/25/2023

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔		↔	↑↑	↑↑	
Traffic Vol, veh/h	43	19	20	694	601	36
Future Vol, veh/h	43	19	20	694	601	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	48	21	22	771	668	40

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1118	354	708	0	-	0
Stage 1	688	-	-	-	-	-
Stage 2	430	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	201	642	887	-	-	-
Stage 1	460	-	-	-	-	-
Stage 2	624	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	196	642	887	-	-	-
Mov Cap-2 Maneuver	324	-	-	-	-	-
Stage 1	449	-	-	-	-	-
Stage 2	624	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	887	-	467	-	-
HCM Lane V/C Ratio	0.025	-	0.148	-	-
HCM Control Delay (s)	9.2	-	14	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	-	-

HCM 6th TWSC
 1: S Pacific Highway & N Rose Street

09/25/2023

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔		↔	↑↑	↑↑	
Traffic Vol, veh/h	43	20	21	701	610	36
Future Vol, veh/h	43	20	21	701	610	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	48	22	23	779	678	40

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1134	359	718	0	-	0
Stage 1	698	-	-	-	-	-
Stage 2	436	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	196	638	879	-	-	-
Stage 1	455	-	-	-	-	-
Stage 2	619	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	191	638	879	-	-	-
Mov Cap-2 Maneuver	319	-	-	-	-	-
Stage 1	443	-	-	-	-	-
Stage 2	619	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.1	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	879	-	467	-	-
HCM Lane V/C Ratio	0.027	-	0.15	-	-
HCM Control Delay (s)	9.2	-	14.1	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	-	-

HCM 6th TWSC
 2: S Pacific Highway & Site Access

09/25/2023

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑↓		↔	↑↑
Traffic Vol, veh/h	6	8	716	14	10	621
Future Vol, veh/h	6	8	716	14	10	621
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	9	770	15	11	668

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1134	393	0	0	785
Stage 1	778	-	-	-	-
Stage 2	356	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	196	606	-	-	829
Stage 1	413	-	-	-	-
Stage 2	680	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	193	606	-	-	829
Mov Cap-2 Maneuver	193	-	-	-	-
Stage 1	413	-	-	-	-
Stage 2	671	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	316	829
HCM Lane V/C Ratio	-	-	0.048	0.013
HCM Control Delay (s)	-	-	17	9.4
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	3	3	3	3	3	3
# of Recorded Intervals	2	2	2	2	2	2
Vehs Entered	1400	1417	1413	1392	1410	1407
Vehs Exited	1410	1420	1427	1395	1403	1412
Starting Vehs	18	16	17	15	7	14
Ending Vehs	8	13	3	12	14	10
Travel Distance (mi)	424	428	428	419	424	424
Travel Time (hr)	13.2	13.0	13.3	12.9	13.0	13.0
Total Delay (hr)	0.8	0.5	0.8	0.6	0.6	0.7
Total Stops	77	58	78	74	71	71
Fuel Used (gal)	12.5	12.5	12.6	12.3	12.5	12.5

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10
Volumes adjusted by PHF, Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording1

Start Time	7:07
End Time	7:22
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	390	359	394	398	372	383
Vehs Exited	396	358	398	400	361	382
Starting Vehs	18	16	17	15	7	14
Ending Vehs	12	17	13	13	18	15
Travel Distance (mi)	119	108	118	120	110	115
Travel Time (hr)	3.8	3.3	3.7	3.7	3.3	3.6
Total Delay (hr)	0.3	0.1	0.3	0.1	0.2	0.2
Total Stops	22	11	21	11	17	16
Fuel Used (gal)	3.6	3.1	3.5	3.5	3.3	3.4

Interval #2 Information Recording2

Start Time	7:22
End Time	8:07
Total Time (min)	45

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	1010	1058	1019	994	1038	1024
Vehs Exited	1014	1062	1029	995	1042	1029
Starting Vehs	12	17	13	13	18	15
Ending Vehs	8	13	3	12	14	10
Travel Distance (mi)	305	320	310	299	314	309
Travel Time (hr)	9.4	9.7	9.5	9.2	9.6	9.5
Total Delay (hr)	0.4	0.4	0.5	0.5	0.4	0.4
Total Stops	55	47	57	63	54	54
Fuel Used (gal)	8.9	9.4	9.0	8.8	9.2	9.1

Intersection: 1: S Pacific Highway & N Rose Street

Movement	EB	NB	SB
Directions Served	LR	L	TR
Maximum Queue (ft)	88	35	5
Average Queue (ft)	31	11	0
95th Queue (ft)	71	37	4
Link Distance (ft)	617		762
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		50	
Storage Blk Time (%)		0	
Queuing Penalty (veh)		1	

Zone Summary

Zone wide Queuing Penalty: 1

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	3	3	3	3	3	3
# of Recorded Intervals	2	2	2	2	2	2
Vehs Entered	1052	1046	1056	1019	1105	1056
Vehs Exited	1058	1045	1054	1031	1118	1062
Starting Vehs	18	8	9	16	17	13
Ending Vehs	12	9	11	4	4	7
Travel Distance (mi)	319	315	318	309	335	319
Travel Time (hr)	9.8	9.7	9.9	9.5	10.4	9.8
Total Delay (hr)	0.4	0.4	0.5	0.4	0.5	0.4
Total Stops	74	83	80	80	82	81
Fuel Used (gal)	9.3	9.2	9.2	9.0	9.9	9.3

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10
Volumes adjusted by PHF, Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording1

Start Time	7:07
End Time	7:22
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	338	314	358	309	356	335
Vehs Exited	339	306	355	311	357	334
Starting Vehs	18	8	9	16	17	13
Ending Vehs	17	16	12	14	16	14
Travel Distance (mi)	103	94	107	94	108	101
Travel Time (hr)	3.2	2.9	3.4	2.9	3.3	3.1
Total Delay (hr)	0.2	0.1	0.2	0.1	0.2	0.2
Total Stops	20	18	27	29	23	24
Fuel Used (gal)	3.0	2.8	3.2	2.7	3.2	3.0

Interval #2 Information Recording2

Start Time	7:22
End Time	8:07
Total Time (min)	45

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	714	732	698	710	749	720
Vehs Exited	719	739	699	720	761	727
Starting Vehs	17	16	12	14	16	14
Ending Vehs	12	9	11	4	4	7
Travel Distance (mi)	216	222	211	215	227	218
Travel Time (hr)	6.6	6.8	6.5	6.6	7.0	6.7
Total Delay (hr)	0.3	0.3	0.3	0.2	0.3	0.3
Total Stops	54	65	53	51	59	55
Fuel Used (gal)	6.3	6.4	6.0	6.3	6.7	6.4

Intersection: 1: S Pacific Highway & N Rose Street

Movement	EB	NB
Directions Served	LR	L
Maximum Queue (ft)	82	35
Average Queue (ft)	27	5
95th Queue (ft)	66	24
Link Distance (ft)	617	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	50	
Storage Blk Time (%)	0	
Queuing Penalty (veh)	0	

Intersection: 2: S Pacific Highway & Site Access

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	40	28
Average Queue (ft)	16	2
95th Queue (ft)	45	15
Link Distance (ft)	256	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	50	
Storage Blk Time (%)	0	
Queuing Penalty (veh)	0	

Network Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	3	3	3	3	3	3
# of Recorded Intervals	2	2	2	2	2	2
Vehs Entered	1440	1409	1445	1486	1409	1436
Vehs Exited	1439	1408	1452	1489	1398	1436
Starting Vehs	13	14	15	14	11	13
Ending Vehs	14	15	8	11	22	13
Travel Distance (mi)	435	425	437	449	424	434
Travel Time (hr)	13.4	13.0	13.7	14.0	13.1	13.4
Total Delay (hr)	0.7	0.6	0.8	0.8	0.7	0.7
Total Stops	69	63	84	80	83	75
Fuel Used (gal)	12.8	12.7	13.0	13.3	12.4	12.9

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10
Volumes adjusted by PHF, Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording1

Start Time	7:07
End Time	7:22
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	381	411	397	385	391	393
Vehs Exited	381	409	396	386	392	393
Starting Vehs	13	14	15	14	11	13
Ending Vehs	13	16	16	13	10	12
Travel Distance (mi)	115	123	119	115	118	118
Travel Time (hr)	3.5	3.7	3.7	3.6	3.7	3.7
Total Delay (hr)	0.2	0.1	0.2	0.2	0.3	0.2
Total Stops	20	10	26	21	26	20
Fuel Used (gal)	3.4	3.7	3.6	3.5	3.6	3.6

Interval #2 Information Recording2

Start Time	7:22
End Time	8:07
Total Time (min)	45

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	1059	998	1048	1101	1018	1045
Vehs Exited	1058	999	1056	1103	1006	1044
Starting Vehs	13	16	16	13	10	12
Ending Vehs	14	15	8	11	22	13
Travel Distance (mi)	320	301	318	333	306	316
Travel Time (hr)	9.8	9.2	9.9	10.4	9.4	9.8
Total Delay (hr)	0.5	0.5	0.6	0.6	0.4	0.5
Total Stops	49	53	58	59	57	55
Fuel Used (gal)	9.4	9.0	9.4	9.9	8.8	9.3

Intersection: 1: S Pacific Highway & N Rose Street

Movement	EB	NB	SB
Directions Served	LR	L	TR
Maximum Queue (ft)	105	39	5
Average Queue (ft)	35	11	0
95th Queue (ft)	73	38	4
Link Distance (ft)	617		762
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		50	
Storage Blk Time (%)		0	
Queuing Penalty (veh)		1	

Zone Summary

Zone wide Queuing Penalty: 1

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	3	3	3	3	3	3
# of Recorded Intervals	2	2	2	2	2	2
Vehs Entered	1474	1509	1458	1459	1496	1480
Vehs Exited	1474	1515	1467	1456	1503	1483
Starting Vehs	17	22	20	9	14	16
Ending Vehs	17	16	11	12	7	13
Travel Distance (mi)	441	452	436	436	450	443
Travel Time (hr)	13.6	14.0	13.6	13.5	14.0	13.7
Total Delay (hr)	0.6	0.8	0.7	0.7	0.8	0.7
Total Stops	85	88	97	88	104	91
Fuel Used (gal)	13.1	13.5	13.0	12.9	13.5	13.2

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10
Volumes adjusted by PHF, Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording1

Start Time	7:07
End Time	7:22
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	402	424	415	397	418	412
Vehs Exited	407	427	417	390	421	412
Starting Vehs	17	22	20	9	14	16
Ending Vehs	12	19	18	16	11	15
Travel Distance (mi)	120	127	124	117	126	123
Travel Time (hr)	3.7	4.0	3.9	3.6	3.9	3.8
Total Delay (hr)	0.1	0.2	0.3	0.2	0.2	0.2
Total Stops	18	24	30	15	27	22
Fuel Used (gal)	3.5	3.8	3.8	3.4	3.8	3.7

Interval #2 Information Recording2

Start Time	7:22
End Time	8:07
Total Time (min)	45

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	1072	1085	1043	1062	1078	1068
Vehs Exited	1067	1088	1050	1066	1082	1070
Starting Vehs	12	19	18	16	11	15
Ending Vehs	17	16	11	12	7	13
Travel Distance (mi)	321	325	312	319	324	320
Travel Time (hr)	9.9	10.0	9.7	9.9	10.1	9.9
Total Delay (hr)	0.5	0.5	0.5	0.5	0.6	0.5
Total Stops	67	64	67	73	77	68
Fuel Used (gal)	9.5	9.6	9.3	9.5	9.7	9.5

Intersection: 1: S Pacific Highway & N Rose Street

Movement	EB	NB	NB
Directions Served	LR	L	T
Maximum Queue (ft)	83	40	7
Average Queue (ft)	32	10	0
95th Queue (ft)	66	37	5
Link Distance (ft)	617		128
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		50	
Storage Blk Time (%)		0	0
Queuing Penalty (veh)		1	0

Intersection: 2: S Pacific Highway & Site Access

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	60	35
Average Queue (ft)	15	6
95th Queue (ft)	46	26
Link Distance (ft)	256	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		50
Storage Blk Time (%)		0
Queuing Penalty (veh)		0

Network Summary

Network wide Queuing Penalty: 1